

## **PTS Spectrum Orientation Plan**

This Specture in Orientation Plan describes the current and planned use of different frequency bands in Sweden. The Plan also describes anticipated changes and licensing methods.

The plan should be seen as an orientation and an overview, rather than an exhaustive list. It is non-binding and can and will change over time without notice.

The technical conditions for license exempt spectrum is contained in the current version of the PTS regulations on exemptions from license obligation for certain radio transmitters.

Comments on the Spectrum Orientation Plan may be sent to pts@pts.se

This translation of the Spectrum Orientation Plan is for information only; please note that in the event of any discrepancy between the English version and the Swedish original, the latter will take priority.

| From frequency     | To<br>frequency    | Amount | Popular name           | duplex Band | Usage today                                                                         | Licensing method                                                           | Planned changes |
|--------------------|--------------------|--------|------------------------|-------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------|-----------------|
| 0 kHz              | 26000 kHz          | 26     | Shortwave /            |             | Maritime radio, Aeronautical radio, Land                                            | License exempt: SRD, amateur radio                                         |                 |
|                    |                    |        | Inductive              |             | mobile radio, Fixed radio, Radionavigation,                                         | (up to 200 W), private radio etc.                                          |                 |
|                    |                    |        | transmissions          |             | Radiolocation, Radio astronomy,                                                     | Individual radio transmitters: Amateur                                     |                 |
|                    |                    |        | İ                      |             | Broadcasting, Amateur radio, Private radio SRD, MIL                                 | radio with higher power and other use                                      |                 |
| 26000 kHz          | 30 MHz             | 4      |                        |             | Land mobile radio, paging - simplex, SRD                                            | Individual radio transmitters.                                             |                 |
|                    |                    |        |                        |             | (private radio, RC radio, telemetry, baby                                           | License exempt: SRD and amateur                                            |                 |
|                    |                    |        |                        |             | monitoring etc.), amateur radio, MIL                                                | radio (up to 200 W).                                                       |                 |
| 30 MHz             | 47 MHz             | 17     |                        |             | Land mobile radio, SRD (RC radio,                                                   | Individual radio transmitters.                                             |                 |
|                    |                    |        |                        |             | telemetry, medical implants, etc.), Wireless microphones, Radio astronomy, MIL      | License exempt: Wireless microphones and SRD.                              |                 |
|                    |                    |        |                        |             | ,,                                                                                  | ,                                                                          |                 |
| 47 MHz             | 68 MHz             | 21     | TV band I              |             | Only 50-52 MHz is used for Amateur radio.                                           | License exempt: SRD and Amateur                                            |                 |
| 00 1411            | 07.5.1411          | 10.5   | 1140 00 1411           |             | MIL                                                                                 | radio.                                                                     |                 |
| 68 MHz             | 87.5 MHz           | 19.5   | LMR 80 MHz<br>band     |             | Land mobile radio - simplex and duplex (PMR, police, rescue service), Aeronautical  | Individual radio transmitters                                              |                 |
|                    |                    |        | band                   |             | radio, Radio astronomy                                                              |                                                                            |                 |
| 87.5 MHz           | 108 MHz            | 20.5   | FM                     |             | Broadcast audio transmissions in FM band                                            | Individual radio transmitters: P1-P5 on                                    |                 |
|                    |                    |        |                        |             | P1-P6, Local audio broadcasting (FM),                                               | national basis, local audio                                                |                 |
|                    |                    |        |                        |             | Commercial audio broadcasting (FM), SRD                                             | broadcasting transmitters on municipal                                     |                 |
|                    |                    |        |                        |             | (low power FM transmitter)                                                          | basis, commercial FM audio<br>broadcasting transmitters according to       |                 |
|                    |                    |        |                        |             |                                                                                     | MRTV's concession area. License                                            |                 |
|                    |                    |        |                        |             |                                                                                     | exempt: SRD                                                                |                 |
| 108 MHz            | 117,975            | 9.98   |                        |             | Aeronautical radionavigation                                                        | Individual radio transmitters                                              |                 |
| 447.075            | MHz                | 0.46   | V// IE                 |             | Assessable Leville EDIDO DI D. ELT.                                                 | Lasticidade and a second                                                   |                 |
| 117,975<br>MHz     | 137 MHz            | 2.19   | VHF                    |             | Aeronautical radio, EPIRB, PLB, ELT                                                 | Individual radio transmitters                                              |                 |
| 137 MHz            | 138 MHz            | 1      | 1                      |             | Satellite (TT&C, MSS downlink), Paragliding                                         | Usage governed by satellite                                                |                 |
|                    |                    |        | 1                      |             | - 137.1 MHz                                                                         | coordination                                                               |                 |
| 138 MHz            | 144 MHz            | 6      |                        |             | Land mobile radio, MIL                                                              | Individual radio transmitters for                                          |                 |
|                    |                    |        | 1                      |             |                                                                                     | telemetry (electricity, water and sewer                                    |                 |
|                    |                    |        |                        |             |                                                                                     | administration)                                                            |                 |
| 144 MHz            | 146 MHz            | 2      |                        |             | Amateur radio                                                                       | License exempt: Amateur radio (up to 200 W) Individual radio transmitters: |                 |
|                    |                    |        |                        |             |                                                                                     | Amateur radio (> 200W).                                                    |                 |
|                    |                    |        |                        |             |                                                                                     | / III atour radio (* 20011).                                               |                 |
| 146 MHz            | 162 MHz            | 16     | VHF boats              |             | Maritime radio (also via satellite) RR AP 18,                                       | Individual radio transmitters.                                             |                 |
|                    |                    |        |                        |             | land mobile radio (PMR, bearing, africulture                                        | License exempt: Bearing, agriculture                                       |                 |
|                    |                    |        |                        |             | and forestry and hunting), Radio astronomy, TT&C (short duration missions 148-148.9 | and forestry and hunting.                                                  |                 |
|                    |                    |        |                        |             | MHz), MIL                                                                           |                                                                            |                 |
| 162 MHz            | 174 MHz            | 12     | LMR 160 MHz            |             | Land mobile radio - simplex and duplex,                                             | Individual radio transmitters.                                             |                 |
|                    |                    |        | band                   |             | Maritime radio RR AP 18, SRD part of the                                            | License exempt: SRD in part of the                                         |                 |
|                    |                    |        |                        |             | band (unspec. use, hearing aids, safety                                             | band.                                                                      |                 |
| 174 MHz            | 230 MHz            | 56     | VHF, Band III          |             | alarm etc.), MIL Digital TV (DVB-T, DVB-T2), Digital radio (T-                      | Individual radio transmitters.                                             |                 |
| 174 WII 12         | 230 WI 12          | 30     | VIIII, Ballu III       |             | DAB, T-DAB +) channel 12B in metropolitan                                           |                                                                            |                 |
|                    |                    |        |                        |             | areas, Low power wireless microphones,                                              | 173,965-216 MHz.                                                           |                 |
|                    |                    |        |                        |             | Sound transmission.                                                                 |                                                                            |                 |
| 230 MHz            | 240 MHz            | 10     | Broadcast              |             | The frequency band is part of                                                       | Individual radio transmitters                                              |                 |
|                    |                    |        | radio T-DAB            |             | Wi95revCO07 digital radio plan (T-DAB, T-<br>DAB +). EISCAT jonosfärforskning,      |                                                                            |                 |
|                    |                    |        |                        |             | Wireless microphones, MIL                                                           |                                                                            |                 |
| 240 MHz            | 328.6 MHz          | 88.6   | UHF                    |             | Land mobile radio, SAR, MIL                                                         | Individual radio transmitters                                              |                 |
| 328.6 MHz          | 335.4 MHz          | 6.8    | UHF                    |             | Aeronautical radionavigation                                                        | Individual radio transmitters                                              |                 |
| 335.4 MHz          | 370 MHz            | 34.6   | UHF                    |             | Land mobile radio (News gathering), MIL                                             | Individual radio transmitters                                              |                 |
| 370 MHz            | 371 MHz            | 1      | 370 MHz band           | 386-387     | Fixed radio (narrow band simplex and                                                | Individual radio transmitters                                              |                 |
| 371 MHz            | 374 MHz            | 3      | UHF                    |             | MIL                                                                                 |                                                                            |                 |
| 374 MHz            | 376 MHz            | 2      | 370 MHz band           | 387-389     | MIL                                                                                 |                                                                            |                 |
| 376 MHz            | 380 MHz            | 4      | UHF                    |             | MIL                                                                                 |                                                                            |                 |
| 380 MHz            | 385 MHz            | 5      | Rakel                  | 390-395     | Mobile Radio (TETRA) Rakel                                                          | Individual radio transmitters                                              |                 |
| 385 MHz            | 386 MHz            | 1      | UHF                    |             | MIL                                                                                 | National block license: Rakel                                              |                 |
| 385 MHz<br>386 MHz | 386 MHz<br>387 MHz | 1      | 370 MHz band           | 370-371     | Fixed radio (narrow band simplex and                                                | Individual radio transmitters                                              |                 |
| 387 MHz            | 387 MHz            | 2      | 370 MHz band           | 374-376     | MIL                                                                                 | muividuai iadio transfilitters                                             |                 |
| 389 MHz            | 390 MHz            | 1      | UHF                    | 517 510     | MIL                                                                                 |                                                                            |                 |
| 390 MHz            | 395 MHz            | 5      | Rakel                  | 380-385     | Mobile Radio (TETRA) Rakel                                                          | Individual radio transmitters                                              |                 |
|                    |                    | 1      | 1                      |             |                                                                                     | National block license: Rakel                                              |                 |
| 395 MHz            | 399.9 MHz          | 4.9    | UHF                    |             | Land mobile radio Aeronautical radio MIL                                            |                                                                            |                 |
| 399.9 MHz          | 403 MHz            | 3.1    | 1                      |             | Satellite (MSS, TT&C, Meterorology),                                                | Usage governed by satellite                                                |                 |
|                    |                    |        | 1                      |             | Balloon-borne radiosondes, Meteorology,                                             | coordination.                                                              |                 |
| 403 MHz            | 406.2 MHz          | 3.2    | 1                      |             | Medical implants  Meteorology (balloon-borne radiosondes),                          | License exempt: SRD Individual radio transmitters                          |                 |
| FOO IVII IZ        | TOOLE IVII IZ      | 5.2    | 1                      |             | Medical implants, Land mobile radio (405-                                           | License exempt: SRD                                                        |                 |
|                    |                    |        | 1                      |             | 405.9 MHz), Emergency frequency (405.9-                                             |                                                                            |                 |
|                    | ļ                  |        | ļ                      |             | 406.2 MHz) ELT, EPIRB, PLB.                                                         |                                                                            |                 |
| 406.2 MHz          | 430 MHz            | 23.8   | LMR 400 MHz            |             | Land mobile radio - simplex and duplex.                                             | Individual radio transmitters.                                             |                 |
|                    | 432 MHz            | 2      | band (low part)<br>430 | 440-442     | Fixed Radio (Telemetry), SRD                                                        | License exempt: Alarm transmitters. Individual radio transmitters          |                 |
| 130 MH-            | TOZ IVITIZ         | _      | 730                    | <del></del> | I IAGU NAUIO (Teleffielly), SKD                                                     | License exempt: SRD                                                        |                 |
| 430 MHz            |                    |        | •                      | 1           | <u> </u>                                                                            |                                                                            |                 |
|                    | 438 MHz            | 6      |                        |             | Amateur Radio, SRD                                                                  | Individual radio transmitters: Amateur                                     |                 |
| 430 MHz<br>432 MHz | 438 MHz            | 6      |                        |             | Amateur Radio, SRD                                                                  | Individual radio transmitters: Amateur radio (>200W)                       |                 |
|                    | 438 MHz            | 6      |                        |             | Amateur Radio, SRD                                                                  |                                                                            |                 |

| 400 MU-              | 1440 MUI-            | lo.  | T-1                        | 1                 | I and making and in Adams Are. CDD                                                                          | It at the second                                                                |                                                                     |
|----------------------|----------------------|------|----------------------------|-------------------|-------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------------|
| 438 MHz              | 440 MHz              | 2    | Telemetry band             |                   | Land mobile radio, telemetry, SRD                                                                           | Individual radio transmitters.<br>License exempt: SRD, Telemetry in             |                                                                     |
|                      |                      |      |                            |                   |                                                                                                             | certain sub-bands                                                               |                                                                     |
| 440 MHz              | 442 MHz              | 2    | 430                        | 430-432           | Fixed Radio (Telemetry)                                                                                     | Individual radio transmitters                                                   |                                                                     |
| 442 MHz              | 450 MHz              | 8    | LMR 400 MHz<br>band (high  |                   | Land mobile radio, Telemetry simplex and duplex, PMR 446.                                                   | Individual radio transmitters.<br>License exempt: PMR 446 etc.                  |                                                                     |
|                      |                      |      | part)                      |                   | duplex, PINK 446.                                                                                           | License exempt. PMR 446 etc.                                                    |                                                                     |
| 450 MHz              | 452.5 MHz            | 2.5  | LMR 450 MHz                | 460 to 462.5      | Land mobile radio - simplex and duplex                                                                      | Individual radio transmitters                                                   |                                                                     |
|                      |                      |      | band                       |                   |                                                                                                             |                                                                                 |                                                                     |
| 452.5 MHz            | 457.5 MHz            | 5    | 450 MHz band               | 462.5 to<br>467.5 | Electronic communications services<br>(MFCN). Land mobile radio on NIB                                      | National block licenses                                                         |                                                                     |
| 457.5 MHz            | 462.5 MHz            | 5    | LMR 450 MHz                | 467.5-470         | Land mobile radio - simplex and duplex,                                                                     | Individual radio transmitters                                                   |                                                                     |
|                      |                      |      | band                       | 450-452.5         | Maritime Radio (onboard communication)                                                                      |                                                                                 |                                                                     |
| 462.5 MHz            | 467.5 MHz            | 5    | 450 MHz band               | 452.5 to          | Electronic communications services                                                                          | National block licenses                                                         |                                                                     |
| 467.5 MHz            | 470 MHz              | 2.5  | LMR 450 MHz                | 457.5 to 460      | (MFCN). Land mobile radio on NIB  Land mobile radio - simplex and duplex,                                   | Individual radio transmitters                                                   |                                                                     |
| 407.0 WII 12         | 470 101112           | 2.0  | band                       | 107.0 10 100      | Maritime radio (onboard communication)                                                                      | marriada radio transmitters                                                     |                                                                     |
| 470 MHz              | 694 MHz              | 224  | UHF band IV/V              |                   | Digital TV (DVB-T), Wireless microphones                                                                    | Individual radio transmitters                                                   |                                                                     |
| 694 MHz              | 703 MHz              | 9    | 700 MHz band               |                   | EMPTY                                                                                                       | Individual radio transmitters                                                   |                                                                     |
| 703 MHz              | 713 MHz              | 10   | 700 MHz band               |                   | EMPTY                                                                                                       |                                                                                 | Electronic communications services (MFCN)                           |
| 713 MHz              | 733 MHz              | 20   | 700 MHz band               |                   | Electronic communications services (MFCN)                                                                   | Block licenses                                                                  | (WI CIV)                                                            |
|                      |                      |      | / FDD up                   |                   |                                                                                                             |                                                                                 |                                                                     |
| 733 MHz              | 738 MHz              | 5    | 700 MHz band               |                   | EMPTY                                                                                                       | Individual radio transmitters                                                   |                                                                     |
| 738 MHz              | 758 MHz              | 20   | 700 MHz band<br>/ SDL      |                   | EMPTY                                                                                                       |                                                                                 |                                                                     |
| 758 MHz              | 768 MHz              | 10   | 700 MHz band               |                   | EMPTY                                                                                                       |                                                                                 | Electronic communications services                                  |
|                      |                      |      |                            |                   |                                                                                                             |                                                                                 | (MFCN)                                                              |
| 768 MHz              | 788 MHz              | 20   | 700 MHz band               |                   | Electronic communications services (MFCN)                                                                   | Block licenses                                                                  |                                                                     |
| 788 MHz              | 790 MHz              | 2    | / FDD down<br>700 MHz band |                   | EMPTY                                                                                                       | Individual radio transmitters                                                   |                                                                     |
| 788 MHz<br>790 MHz   | 790 MHz<br>791 MHz   | 1    | 100 MHZ band               |                   | EMPTY EMPTY                                                                                                 | Individual radio transmitters                                                   |                                                                     |
| 791 MHz              | 821 MHz              | 30   | 800 MHz band               | 832-862           | Electronic communications services (MFCN)                                                                   | National block licenses                                                         |                                                                     |
| 821 MHz              | 832 MHz              | 11   | 800 MHz band               |                   | Wireless microphones and hearing aids                                                                       | License exempt                                                                  |                                                                     |
|                      |                      |      | middle cover               |                   |                                                                                                             |                                                                                 |                                                                     |
| 832 MHz<br>862 MHz   | 862 MHz<br>863 MHz   | 30   | 800 MHz band               | 791-823           | Electronic communications services (MFCN) SRD                                                               | National block licenses License exempt                                          |                                                                     |
| 863 MHz              | 870 MHz              | 7    | SRD-800                    |                   | SRD (Wireless microphones, RFID data                                                                        | License exempt                                                                  |                                                                     |
| 000 1111 12          | 070111112            | ľ    | 0.15 000                   |                   | networks etc.)                                                                                              | License exempt                                                                  |                                                                     |
| 870 MHz              | 874.4 MHz            | 4.4  | 870 MHz band               |                   | Licensed and licens exempted SRD, data                                                                      | License exempt: Telemetry and RC                                                |                                                                     |
|                      |                      |      |                            |                   | transmission                                                                                                | radio for 870,5375-870,6625 MHz<br>Block licenses: National, regional or        |                                                                     |
|                      |                      |      |                            |                   |                                                                                                             | local with conditions according to ERC                                          |                                                                     |
|                      |                      |      |                            |                   |                                                                                                             | / REC 70-03. Individual radio                                                   |                                                                     |
| 874.4 MHz            | 876 MHz              | 1.6  | Ext GSM-R /                | 919.4 to 921      | EMPTY                                                                                                       | transmitters: Other use                                                         | Future Rail Mobile Communications                                   |
| 07 4.4 1011 12       | 07 0 WII 12          | 1.0  | RMR                        | 313.4 10 321      | LIVII 11                                                                                                    |                                                                                 | System (FRMCS)                                                      |
| 876 MHz              | 880 MHz              | 4    | GSM-R                      | 921-925           | Mobile communication (GSM-R). Used only                                                                     | Block licenses                                                                  | Migration from GSM-R to FRMCS                                       |
| 880 MHz              | 915 MHz              | 35   | 900 MHz band               | 925-960           | along railway tracks                                                                                        | National block licenses.                                                        | New licenses were distributed through                               |
| 00U IVITIZ           | 915 IVITZ            | 33   | 900 MHZ Dariu              | 925-960           | Electronic communications services (MFCN)                                                                   | License exempt: Mobile                                                          | auction in 2023. The new licenses will                              |
|                      |                      |      |                            |                   |                                                                                                             | communication (GSM) on Swedish-                                                 | enter into force 2026-01-01.                                        |
| 915 MHz              | 919.4 MHz            | 4.4  | 915 MHz band               |                   | Licensed SRD, data transmission, RFID                                                                       | Individual radio transmitters                                                   |                                                                     |
|                      |                      |      |                            |                   |                                                                                                             | Block licenses: National, regional or<br>local with conditions according to ERC |                                                                     |
|                      |                      |      |                            |                   |                                                                                                             | / REC 70-03                                                                     |                                                                     |
| 919.4 MHz            | 921 MHz              | 1.6  | Ext GSM-R /<br>RMR         | 874.4 to 876      | EMPTY                                                                                                       |                                                                                 | Future Rail Mobile Communications<br>System (FRMCS)                 |
| 921 MHz              | 925 MHz              | 4    | GSM-R                      | 876-880           | Mobile communication (GSM-R). Used only                                                                     | Block licenses                                                                  | Migration from GSM-R to FRMCS                                       |
|                      |                      |      |                            |                   | along railway tracks                                                                                        |                                                                                 |                                                                     |
| 925 MHz              | 960 MHz              | 35   | 900 MHz band               | 880-915           | Electronic communications services (MFCN)                                                                   | National block licenses                                                         | New licenses were distributed through                               |
|                      |                      |      |                            |                   |                                                                                                             |                                                                                 | auction in 2023. The new licenses will enter into force 2026-01-01. |
| 960 MHz              | 1164 MHz             | 204  |                            |                   | Aeronautical radionavigation, Aeronautical                                                                  | Individual radio transmitters                                                   | CITED INTO IOIGE ZUZU-U1-U1.                                        |
| JOO IVII IZ          | . TO-T IVITIZ        | 207  |                            |                   | Radio (SSR, DME), GFT (ADS-B), MIL                                                                          |                                                                                 |                                                                     |
| 1164 MHz             | 1215 MHz             | 51   | GALILEO /                  |                   | Aeronautical radionavigation, Satellite                                                                     | Individual radio transmitters.                                                  |                                                                     |
|                      |                      |      | GPS /<br>GLONASS           |                   | navigation (Galileo), MIL                                                                                   | Usage governed by satellite coordination                                        |                                                                     |
| 1215 MHz             | 1240 MHz             | 25   | GPS                        |                   | Radiolocation, Satellite navigation (GPS)                                                                   | Usage governed by satellite                                                     |                                                                     |
|                      |                      |      |                            |                   | -                                                                                                           | coordination                                                                    |                                                                     |
| 1240 MHz             | 1300 MHz             | 60   | GLONASS /<br>GALILEO       |                   | Radiolocation, Satellite navigation (Galileo),<br>Amateur radio                                             | Usage governed by satellite coordination.                                       |                                                                     |
|                      |                      |      | J, LLLLO                   |                   | ,atour radio                                                                                                | License exempt: Amateur radio (up to                                            |                                                                     |
|                      |                      |      |                            |                   |                                                                                                             | 200 W). Individual radio transmitters:                                          |                                                                     |
| 1300 MHz             | 1350 MHz             | 50   | L-band                     |                   | Radiolocation, Radio astronomy, Video-<br>PMSE. MIL                                                         | Individual radio transmitters                                                   |                                                                     |
| 1350 MHz             | 1375 MHz             | 25   | L-band                     |                   | Radio astronomy, Video-PMSE, MIL                                                                            | Individual radio transmitters                                                   |                                                                     |
| 1375 MHz             | 1400 MHz             | 25   | 1.4 GHz                    |                   | Radio astronomy, MIL                                                                                        | Individual radio transmitters                                                   |                                                                     |
| 1400 MHz             | 1427 MHz             | 27   |                            |                   | Radio astronomy, Earth exploration via satellite                                                            | All radioemissions are prohibited                                               |                                                                     |
| 1427 MHz             | 1452 MHz             | 25   | Extended 1.5               |                   | EMPTY EMPTY                                                                                                 | Individual radio transmitters                                                   | Planned date for new assignment (block                              |
|                      |                      |      | GHz band                   |                   |                                                                                                             |                                                                                 | license) 2027 or later.                                             |
|                      |                      |      |                            |                   |                                                                                                             |                                                                                 |                                                                     |
| 1452 MHz             | 1492 MHz             | 40   | 1.5 GHz band               |                   | EMPTY (occasionally used for balloon data                                                                   |                                                                                 | Planned date for new assignment (block                              |
|                      |                      |      |                            |                   | collection)                                                                                                 |                                                                                 | license) 2027 or later.                                             |
|                      | I                    |      |                            |                   |                                                                                                             |                                                                                 |                                                                     |
|                      |                      | 1    | F. 4 4 - 4 4 5             |                   | MIL                                                                                                         |                                                                                 | Planned date for new assignment (block                              |
| 1492 MI              | 1518 MH-             | 26   |                            |                   | 1411F                                                                                                       | İ                                                                               |                                                                     |
| 1492 MHz             | 1518 MHz             | 26   | Extended 1.5<br>GHz band   |                   |                                                                                                             |                                                                                 | license) 2027 or later.                                             |
| 1492 MHz             | 1518 MHz             | 26   |                            |                   |                                                                                                             |                                                                                 | license) 2027 or later.                                             |
|                      |                      | 26   | GHz band                   |                   | Cotallita (MCC davislini) MII                                                                               | Head donored by estable                                                         | license) 2027 or later.                                             |
| 1492 MHz<br>1518 MHz | 1518 MHz<br>1525 MHz | 7    |                            |                   | Satellite (MSS downlink) MIL                                                                                | Usage governed by satellite coordination                                        | license) 2027 or later.                                             |
|                      |                      | 7 34 | GHz band                   |                   | Satellite (MSS downlink) MIL Satellite (MSS downlink), Maritime radio (Emergency and security traffic), MIL |                                                                                 | license) 2027 or later.                                             |

| Fig. 56.5 Feb.   18.5   Laboral   Part   P   |            |            |      |              |           |                                                                                             |                                                        |                                                                   |
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| 200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200   200    | 1559 MHz   | 1610 MHz   | 51   | GPS /        |           | Satellite navigation (GPS, Galileo), GNSS repeaters                                         |                                                        |                                                                   |
| March 2007   March 1975   March 2007   Mar   | 1610 MHz   | 1626.5 MHz | 16.5 | L-band       |           | and security traffic) 1621.35-1626.5 MHz,                                                   | License exempt (1610-1621.35 MHz)                      |                                                                   |
| Fig. 1696   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157   157    |            |            | 34   | L-band       |           |                                                                                             | License exempt                                         |                                                                   |
| Section   1715 Med   1915   1.5 and   1805 Med   1805 1973   1805 Med   1805 Med   1805 1973   1805 Med   1805    |            |            |      |              |           | · -                                                                                         |                                                        |                                                                   |
| 157.0 MeV   10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1668 MHz   | 1675 MHz   | 7    | L-band       |           |                                                                                             |                                                        |                                                                   |
| Fig. 1975 Mile   1705 Mile   7105 Mile     | 1675 MHz   | 1710 MHz   | 35   | L-band       |           |                                                                                             | Usage governed by satellite                            |                                                                   |
| See   180 MHz    |            |            |      |              |           |                                                                                             | coordination                                           |                                                                   |
| 1985 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1710 MHz   | 1780 MHz   | 70   |              | 1805-1875 | Electronic communications services (MFCN)                                                   | License exempt: Mobile communication (GSM) on Swedish- |                                                                   |
| Number   1800 MHz   1875 MHz   70   1800 MHz   1710-1780   Electronic communications services (MFCN)   National block fearness   Reseasingment for part of the frequency   1875 MHz   1870 MHz   1770-1785   Selectronic communications services (MFCN)   Loners exempt   1875 MHz   1870 MHz   1870 MHz   1770-1785   Selectronic communications services (MFCN)   Loners exempt   1870 MHz   1870 MHz   20    | 1780 MHz   | 1785 MHz   | 5    | band,        | 1875-1880 | Electronic communications services (MFCN)                                                   | License exempt                                         |                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1785 MHz   | 1805 MHz   | 20   |              |           | Wireless microphones                                                                        | Individual radio transmitters                          |                                                                   |
| 1800 MHz   1900 MHz   1900 MHz   20   DECT   Coddess Phones (DECT)   Lorente exempt   Floridation communications services (MECN)   National block licenses   Future Rail Mobile Communications   Floridation communications   Floridation communications   Floridation communications   Floridation communications   Floridation communications   Floridation communications   Floridation   | 1805 MHz   | 1875 MHz   | 70   |              | 1710-1780 | Electronic communications services (MFCN)                                                   | License exempt: Mobile communication (GSM) on Swedish- |                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |            |            |      | band         | 1780-1785 |                                                                                             | ·                                                      |                                                                   |
| 1900 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |            |      |              |           |                                                                                             |                                                        | Fishing Dail Mal 2 C                                              |
| 1960 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |            |            |      | (TDD)        |           |                                                                                             |                                                        | System (FRMCS) in 1900-1910 MHz                                   |
| Vision PMSE   Mile   15   2010 MHz   2010    | 1920 MHz   | 1980 MHz   | 60   | 2.1 GHz band | 2110-2170 | Electronic communications services (MFCN)                                                   | National block licenses                                | auction in 2023. The new licenses will                            |
| 2010 MHz   2025 MHz   15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 1980 MHz   | 2010 MHz   | 30   | 2 GHz MSS    | 2170-2200 |                                                                                             |                                                        |                                                                   |
| 2110 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2010 MHz   | 2025 MHz   | 15   |              |           |                                                                                             |                                                        |                                                                   |
| 2170 MHz   2170 MHz   2200 MHz   2200 MHz   30   2 GHz MSS   1980-2010   Mobile Satellite Communications services (MFCN)   National block licenses were distributed through suction in 2023. The new licenses will exteri into force 2026-01-01.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2025 MHz   | 2110 MHz   | 85   |              | 2200-2290 |                                                                                             | Individual radio transmitters                          |                                                                   |
| 270 MHz   2200 MHz   2300 MHz   230 MHz   230 MHz   30   2 GHz MSS   1980-2010   Nobile Satellite Communications (MSS)   Opponents   Opp   | 2110 MHz   | 2170 MHz   | 60   | 2.1 GHz band | 1920-1980 |                                                                                             | National block licenses                                | auction in 2023. The new licenses will                            |
| 2200 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2170 MHz   | 2200 MHz   | 30   | 2 GHz MSS    | 1980-2010 | Mobile Satellite Communications (MSS)                                                       |                                                        | enter into force 2026-01-01.                                      |
| 2300 MHz   2300 MHz   2300 MHz   240 MHz   250 MHz   250 MHz   250 MHz   250 MHz   250 MHz   260 MHz   2   | 2200 MHz   | 2290 MHz   | 90   | TT & C       | 2025-2110 |                                                                                             | Usage governed by satellite                            |                                                                   |
| 2300 MHz   280 MHz   20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |            |            |      |              |           |                                                                                             | coordination                                           |                                                                   |
| Mill                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |            |            |      | 2.2 CHz bond |           |                                                                                             | National block licenses                                |                                                                   |
| 2400 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2300 MHZ   | 2380 MHZ   | 80   | 2.3 GHZ band |           | (MFCN), Sounding rockets, Balloons, Radio astronomy, Telemetry, Space Research,             |                                                        |                                                                   |
| etc.), Amateur radio, Mil.  2483.5 MHz 2500 MHz 16.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2380 MHz   | 2400 MHz   | 20   | 2.3 GHz band |           | astronomy, Telemetry, Space Research,                                                       | Individual radio transmitters.                         |                                                                   |
| 2500 MHz 2690 MHz 190 2.6 GHz band Electronic communications services (MFCN) National block licenses were distributed through auction in 2023. The new licenses well enter into force 2026-01-01.  Radio astronomy All radioemissions prohibited enter into force 2026-01-01.  Radio astronomy All radioemissions prohibited enter into force 2026-01-01.  Radiolocation Radar Radioavigation, Radar Radioavigation, MIL Individual radio transmitters. License exempt Maritime (vessels).  Radiolocation Radio astronomy MIL Individual radio transmitters Individual radio transmitters (MFCN) National block licenses (MFCN) National licenses (MFCN) National block licenses (MFCN) National block lic | 2400 MHz   | 2483.5 MHz | 83.5 | 2.4 GHz band |           |                                                                                             | License exempt                                         |                                                                   |
| Electronic communications services (MFCN)   National block licenses   New licenses were distributed through auction in 2023. The new licenses will enter into force 2026-01-01.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 2483.5 MHz | 2500 MHz   | 16.5 |              |           |                                                                                             |                                                        |                                                                   |
| 2700 MHz         2900 MHz         200         2.8 GHz band         Aeronautical radionavigation, Radar         Individual radio transmitters. License exempt.Maritime (vessels).           3100 MHz         3100 MHz         200         Radiolocation Radio astronomy MIL. Radiolocation Radio astronomy MIL. Individual radio transmitters. License exempt.Maritime (vessels).           3100 MHz         3.72 GHz         320 MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2500 MHz   | 2690 MHz   | 190  | 2.6 GHz band |           | . , ,                                                                                       |                                                        | auction in 2023. The new licenses will                            |
| Maritime radionavigation, MIL   Individual radio transmitters   License exempt.Maritime (vessels),   License exempt.Mari   |            | 2700 MHz   | 10   |              |           | Radio astronomy                                                                             | All radioemissions prohibited                          |                                                                   |
| License exempt:Maritime (vessels).   License exempt:Maritime (vessels).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 2700 MHz   |            |      | 2.8 GHz band |           |                                                                                             |                                                        |                                                                   |
| 3300 MHz   3300 MHz   200   Radiolocation Radio astronomy MIL   Individual radio transmitters   1300 MHz   3.4 GHz   100   Radiolocation Radio astronomy MIL   Individual radio transmitters   1372 GHz   3.72 GHz   320   3.5 GHz band   Electronic communications services (MFCN)   National block licenses   13.72 GHz   3.8 GHz   30   3.8 GHz band   Electronic communications services (MFCN)   National block licenses   13.72 GHz   3.8 GHz   4.2 GHz   400   C band   Satellite (FSS downlink), Earth exploration, Video-PMSE, MIL, Temporary licenses for testing   Satellite use is governed by conditionally testing   C band   Satellite (FSS downlink), Earth exploration, Walc, Altimeter, Earth exploration, MIL   Individual radio transmitters   13.8-4.2 GHz.   4.4 GHz   4.4 GHz   4.5 GHz   100   Aeronautical radionavigation   MIL   4.5 GHz   4.9 GHz   190   Radio astronomy MIL   Altimeter, Earth exploration, MIL   MIL   4.9 GHz   4.9 GHz   190   Radio astronomy   MIL   Altimeter   Satellite use is governed by conditionally decisions enabling local 5G authorizations (low and medium power) in 3.8-4.2 GHz.   GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4.5 GHz   4   | 2900 MHz   | 3100 MHz   | 200  |              |           | Maritime radionavigation, MIL                                                               |                                                        |                                                                   |
| 3300 MHz 3.4 GHz 100 Radiolocation Radio astronomy MIL Individual radio transmitters   3.6 GHz 3.72 GHz 320 3.5 GHz band Electronic communications services (MFCN) National block licenses   3.72 GHz 3.8 GHz 80 3.8 GHz band Electronic communications services (MFCN) Individual local radio transmitters   3.8 GHz 4.2 GHz 400 C band Satellite (FSS downlink), Earth exploration, Video-PMSE, MIL, Temporary licenses for testing submitters   3.8 GHz 4.4 GHz 200 Aeronautical radionavigation, WAIC, Altimeter, Earth exploration, MIL Individual radio transmitters   4.2 GHz 4.5 GHz 100 Aeronautical radion MIL Altimeter, Earth exploration, MIL Individual radio transmitters   4.8 GHz 4.99 GHz 190 Radio astronomy MIL Radio astronomy MIL Radio astronomy   5 GHz 5.15 GHz 10 Radio astronomy   5 GHz 5.25 GHz 100 S GHz band Aeronautical radio, Wireless networks, MIL SRD license exempt   5.25 GHz 5.46 GHz 110 Aeronautical radionavigation, Aeronautical radionavigation, Aeronautical radio, Earth exploration was attellite (active), MIL Aeronautical radionavigation, Earth exploration was attellite (active), MIL                                                                                                                                                                                                                                                                                                                                                                                                                                | 3100 MU-   | 3300 ML1~  | 200  | 1            |           | Padiologation Padio astronomy MIII                                                          |                                                        |                                                                   |
| 3.7 GHz 3.7 GHz 320 3.5 GHz band Electronic communications services (MFCN) National block licenses 3.7 GHz 3.8 GHz 80 3.8 GHz band Electronic communications services (MFCN) Individual local radio transmitters 3.8 GHz 4.2 GHz 400 C band Satellite (FSS downlink), Earth exploration, Video-PMSE, MIL, Temporary licenses for testing coordination, temporary licenses for testing coordination, temporary licenses for testing local 5G authorizations (low and medium power) in 3.8-4.2 GHz.  4.4 GHz 4.5 GHz 100 Acronautical radionavigation, WAIC, Altimeter, Earth exploration, MIL 4.5 GHz 4.8 GHz 300 AP30B C-band F725-7025 MIL 4.8 GHz 4.9 GHz 190 Radio astronomy 4.9 GHz 5 GHz 10 Radio astronomy 5 GHz 5.15 GHz 150 MLS band Aeronautical radio MIL Individual radio transmitters 5.15 GHz 5.25 GHz 100 5 GHz band Aeronautical radio Wireless networks, MIL 5.25 GHz 5.35 GHz 100 5 GHz band Wireless networks, MIL SRD license exempt 5.46 GHz 5.47 GHz 10 Aeronautical radionavigation, Aeronautical radio, Earth exploration via satellite (active), MIL 5.46 GHz 5.47 GHz 10 Aeronautical radionavigation, Earth exploration via satellite (active), MIL 5.47 GHz 5.47 GHz 10 Aeronautical radionavigation, Earth exploration via satellite (active), MIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |            |            |      | 1            |           | ,                                                                                           |                                                        | 1                                                                 |
| 3.8 GHz  4.2 GHz  4.0 C band                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 3.4 GHz    |            |      | 3.5 GHz band |           | -                                                                                           |                                                        |                                                                   |
| Video-PMSE, MIL, Temporary licenses for testing coordination, temporary licenses for testing decisions enabling local 5G authorizations (low and medium power) in 3.8-4.2 GHz.  Aeronautical radionavigation , WAIC, Altimeter, Earth exploration, MIL.  Aeronautical radionavigation , WAIC, Altimeter, Earth exploration, MIL.  MIL  A.5 GHz  A.8 GHz  A.99 GHz  A.99 GHz  5 GHz  5 GHz  5 GHz  5.15 GHz  5.25 GHz  5.25 GHz  5.35 GHz  5.46 GHz  5.47 GHz  10  Aeronautical radionavigation, WAIC, Altimeter, Earth exploration, MIL  MIL  Radio astronomy MIL  Aeronautical radio MIL  Individual radio transmitters  SRD license exempt  Aeronautical radio, Wireless networks, MIL  SRD license exempt  Aeronautical radio, Earth exploration via satellite (active), MIL  Aeronautical radionavigation, Aeronautical radio  Aeronautical radionavigation, Aeronautical  radio, Earth exploration via satellite (active), MIL  Aeronautical radionavigation, Earth exploration via satellite (active), MIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 3.72 GHz   | 3.8 GHz    | 80   | 3.8 GHz band |           | Electronic communications services (MFCN)                                                   | Individual local radio transmitters                    |                                                                   |
| 4.2 GHz       4.4 GHz       200       Aeronautical radionavigation , WAIC, Altimeter, Earth exploration, MIL       Individual radio transmitters         4.4 GHz       4.5 GHz       100       MIL         4.5 GHz       4.8 GHz       300       AP30B C-band       MIL         4.8 GHz       4.99 GHz       190       Radio astronomy MIL         4.99 GHz       5 GHz       10       Radio astronomy         5 GHz       5.15 GHz       150       MLS band       Aeronautical radio MIL       Individual radio transmitters         5.15 GHz       5.25 GHz       100       5 GHz band       Aeronautical radio, Wireless networks, MIL       SRD license exempt         5.25 GHz       5.35 GHz       100       5 GHz band       Wireless networks, MIL       SRD license exempt         5.35 GHz       5.46 GHz       110       Aeronautical radionavigation, Aeronautical radio, Earth exploration via satellite (active), MIL         5.46 GHz       5.47 GHz       10       Aeronautical radionavigation, Earth exploration via satellite (active), MIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 3.8 GHz    | 4.2 GHz    | 400  | C band       |           | Video-PMSE, MIL, Temporary licenses for                                                     | coordination, temporary licenses for                   | decisions enabling local 5G authorizations (low and medium power) |
| 4.5 GHz       4.8 GHz       300       AP30B C-band       6725-7025       MIL         4.8 GHz       4.99 GHz       190       Radio astronomy MIL         4.99 GHz       5 GHz       10       Radio astronomy         5 GHz       5.15 GHz       150       MLS band       Aeronautical radio MIL       Individual radio transmitters         5.15 GHz       5.25 GHz       100       5 GHz band       Aeronautical radio, Wireless networks, MIL       SRD license exempt         5.25 GHz       5.35 GHz       100       5 GHz band       Wireless networks, MIL       SRD license exempt         5.35 GHz       5.46 GHz       110       Aeronautical radionavigation, Aeronautical radionavigation, Aeronautical radio, Earth exploration via satellite (active), MIL         5.46 GHz       5.47 GHz       10       Aeronautical radionavigation, Earth exploration via satellite (active), MIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 4.2 GHz    | 4.4 GHz    | 200  |              |           |                                                                                             | Individual radio transmitters                          |                                                                   |
| 4.5 GHz       4.8 GHz       300       AP30B C-band       6725-7025       MIL         4.8 GHz       4.99 GHz       190       Radio astronomy MIL         4.99 GHz       5 GHz       10       Radio astronomy         5 GHz       5.15 GHz       150       MLS band       Aeronautical radio MIL       Individual radio transmitters         5.15 GHz       5.25 GHz       100       5 GHz band       Aeronautical radio, Wireless networks, MIL       SRD license exempt         5.25 GHz       5.35 GHz       100       5 GHz band       Wireless networks, MIL       SRD license exempt         5.35 GHz       5.46 GHz       110       Aeronautical radionavigation, Aeronautical radionavigation, Aeronautical radio, Earth exploration via satellite (active), MIL         5.46 GHz       5.47 GHz       10       Aeronautical radionavigation, Earth exploration via satellite (active), MIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 4.4 GHz    | 4.5 GHz    | 100  |              |           | MIL                                                                                         |                                                        |                                                                   |
| 4.8 GHz 4.99 GHz 190 Radio astronomy MIL 4.99 GHz 5 GHz 10 Radio astronomy MIL 5 GHz 5.15 GHz 150 MLS band Aeronautical radio MIL Individual radio transmitters 5.15 GHz 5.25 GHz 100 5 GHz band Aeronautical radio, Wireless networks, MIL SRD license exempt 5.25 GHz 5.35 GHz 100 5 GHz band Wireless networks, MIL SRD license exempt 5.35 GHz 5.46 GHz 110 Aeronautical radionavigation, Aeronautical radio, Earth exploration via satellite (active), MIL 5.46 GHz 5.47 GHz 10 Aeronautical radionavigation, Earth exploration via satellite (active), MIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 4.5 GHz    | 4.8 GHz    | 300  |              | 6725-7025 | MIL                                                                                         |                                                        |                                                                   |
| 4.99 GHz     5 GHz     10     Radio astronomy       5 GHz     5.15 GHz     150     MLS band     Aeronautical radio MIL     Individual radio transmitters       5.15 GHz     5.25 GHz     100     5 GHz band     Aeronautical radio, Wireless networks, MIL     SRD license exempt       5.25 GHz     5.35 GHz     100     5 GHz band     Wireless networks, MIL     SRD license exempt       5.35 GHz     5.46 GHz     110     Aeronautical radionavigation, Aeronautical radio, Earth exploration via satellite (active), MIL       5.46 GHz     5.47 GHz     10     Aeronautical radionavigation, Earth exploration via satellite (active), MIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 4.8 GHz    | 4.99 GHz   | 190  | o band       |           | Radio astronomy MIL                                                                         |                                                        |                                                                   |
| 5 GHz 5.15 GHz 150 MLS band Aeronautical radio MIL Individual radio transmitters 5.15 GHz 5.25 GHz 100 5 GHz band Aeronautical radio, Wireless networks, MIL SRD license exempt 5.25 GHz 5.35 GHz 100 5 GHz band Wireless networks, MIL SRD license exempt 5.35 GHz 5.46 GHz 110 Aeronautical radionavigation, Aeronautical radio, Earth exploration via satellite (active), MIL 5.46 GHz 5.47 GHz 10 Aeronautical radionavigation, Earth exploration via satellite (active), MIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |            |            |      |              |           | -                                                                                           |                                                        |                                                                   |
| 5.25 GHz 5.35 GHz 100 5 GHz band Wireless networks, MIL SRD license exempt 5.35 GHz 5.46 GHz 110 Aeronautical radionavigation, Aeronautical radio, Earth exploration via satellite (active), MIL 5.46 GHz 5.47 GHz 10 Aeronautical radionavigation, Earth exploration via satellite (active), MIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 5 GHz      |            |      | MLS band     |           | -                                                                                           | Individual radio transmitters                          |                                                                   |
| 5.35 GHz 5.46 GHz 110 Aeronautical radionavigation, Aeronautical radio, Earth exploration via satellite (active), MIL  5.46 GHz 5.47 GHz 10 Aeronautical radionavigation, Earth exploration via satellite (active), MIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 5.15 GHz   | 5.25 GHz   | 100  | 5 GHz band   |           | Aeronautical radio, Wireless networks, MIL                                                  | SRD license exempt                                     |                                                                   |
| 5.35 GHz 5.46 GHz 110 Aeronautical radionavigation, Aeronautical radio, Earth exploration via satellite (active), MIL  5.46 GHz 5.47 GHz 10 Aeronautical radionavigation, Earth exploration via satellite (active), MIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 5.25 GHz   | 5.35 GHz   | 100  | 5 GHz band   |           | Wireless networks, MIL                                                                      | SRD license exempt                                     |                                                                   |
| 5.46 GHz 5.47 GHz 10 Aeronautical radionavigation, Earth exploration via satellite (active), MIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 5.35 GHz   |            |      |              |           | Aeronautical radionavigation, Aeronautical radio, Earth exploration via satellite (active), |                                                        |                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 5.46 GHz   | 5.47 GHz   | 10   |              |           | Aeronautical radionavigation, Earth                                                         |                                                        |                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 5.47 GHz   | 5.57 GHz   | 100  | 5 GHz band   |           |                                                                                             | SRD license exempt                                     |                                                                   |

| 7.588 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581 GHz 7.581  |                                                                                                                                               |
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| S. 18 GHz   S. 19 GHz   SSM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                               |
| SSS GHz   SS PS GHz   25   SSM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                               |
| Social Circle   1.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                               |
| C   Sed 642   14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                               |
| C   C   C   C   C   C   C   C   C   C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                               |
| 6.182 GHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                               |
| 6.45 GHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                               |
| 5.46 GHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                               |
| C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand   C   Dand    |                                                                                                                                               |
| AF308 C Dand C Dand C C Dand C C Dand C C Dand C C Dand C C Dand C C Dand C C Dand C C Dand C C Dand C C Dand C C Dand C C Dand C C Dand C C Dand C C Dand C C Dand C C Dand C C Dand C C Dand C C Dand C C Dand C C Dand C C Dand C C Dand C C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C Dand C  |                                                                                                                                               |
| AP30B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                               |
| Mil.   Mil.   August   Augus   |                                                                                                                                               |
| 7.25 GHz 7.427 GHz 177 X band                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                               |
| X band   (FSS downlink)   To GHz   To   |                                                                                                                                               |
| Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test   Test      | will continue to be used for                                                                                                                  |
| 7.722 GHz 7.72 GHz 141 7 GHz X band 7427-7568 Fixed radio, Satellite (FSS downlink) Individual radio transmitters No change, PTS's curre from the band will continue fixed radio for at least te state that the band will continue fixed radio for at least te state from the band will continue fixed radio for at least te state from the band will continue fixed radio for at least te state from the band will continue fixed radio for at least te state from the band will continue fixed radio for at least te state from the band will continue fixed radio for at least te state from the band will continue fixed radio for at least te state from the band will continue fixed radio for at least te state from the band will continue fixed radio for at least te state from the band will continue fixed radio for at least te state from the band will continue fixed radio for at least te state from the band will continue fixed radio for at least te state from the band will continue fixed radio for at least te state from the band will continue fixed radio for at least te state from the band will continue fixed radio for at least te state from the band will continue fixed radio for at least te state from the band will continue fixed radio for at least te state from the band will continue fixed radio for at least te state from the band will continue fixed radio for at least te state from the band will continue fixed radio for at least te state from the band will continue fixed radio for at least te state from the band will continue fixed radio for at least te state from the band will continue fixed radio for at least te state from the band will continue fixed radio for at least te state from the band will continue fixed radio for at least te state from the band will be stated to transmitters.  10.6 GHz 10.6 GHz 10.6 GHz 10.0 9800-9900 Band free from the particular from the particular from the particular from the particular from the particular from the particular from the particular from the particular from the particular from the particula |                                                                                                                                               |
| Type   2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | TS's current-direction is will continue to be used for                                                                                        |
| 7.75 GHz 7.9 GHz 150 Satellite meteorology (s-e) Fixed radio, Earth septoration yia satellite (Satellite meteorology (s-e) Fixed radio, Earth septoration in Individual radio transmitters what the band will continued radio for at least te septoration in satellite (Satellite and Proposition of the band will continued radio for at least te septoration in the band will continued radio for at least te septoration in the band will continued radio for at least te septoration in the band will continued radio for at least te septoration in the band will continued radio for at least te septoration in the band will continued radio for at least te septoration in the band will continued radio for at least te septoration in the band will continued radio for at least te septoration in the band will continued radio for at least te septoration in the band will continued radio for at least te septoration in the band will continued radio for at least te septoration in the band will continued radio for at least te septoration in the band will continued radio for at least te septoration in the band will continued radio for at least te septoration in the band will continued radio for at least te septoration in the band will continued radio for at least te septoration in the band will continued radio for at least te septoration in the band will continued radio for at least te septoration in the band will continued radio for at least te septoration in the band will continued radio for at least te septoration in the band will continued radio for at least te septoration in the band will continued radio for at least te septoration in the band will continued radio for at least te septoration in the band will continued radio for at least te septoration in the band will continued radio for at least te septoration in the band will a continued radio for at least te septoration in the band will a continued radio for at least te septoration in the band will a continued radio for its will be septorated with a validity period of the part of the p | at least terr years.                                                                                                                          |
| Stand                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                               |
| S.21 GHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | will continue to be used for                                                                                                                  |
| Radiolocation, Radionavigation for aeronautical and maritime, Earth exploration (active), SRD, MIL     9.8 GHz   9.9 GHz   100   9900-10000   Earth exploration (active), SRD, MIL     9.9 GHz   10 GHz   10.21 GHz   10.21 GHz     10.21 GHz   10.322 GHz   112   10.5 GHz band   10560-10672   Electronic communications services (MFCN), Fixed radio, SRD, Radio determination, Earth exploration (active), Amateur radio, MIL     10.322 GHz   10.56 GHz   238   Guard band, SRD, Radio determination, Earth exploration (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active), Amateur radio, (active),    |                                                                                                                                               |
| aeronautical and maritime, Earth exploration (active), SRD, MIL Individual radio transmitters  9.9 GHz 100 9900-10000 Earth exploration (active), SRD, MIL Individual radio transmitters  10 GHz 10.21 GHz 10.21 GHz 210 Radiolocation Earth exploration (active), SRD, MIL Individual radio transmitters  10.21 GHz 10.322 GHz 112 10.5 GHz band 10560-10672 Electronic communications services (MFCN), Fixed radio, SRD, Radio determination, Harth exploration (active), Amateur radio, MIL 200W), SRD and radio determination. Individual radio transmitters: Amateur radio (up to 200W), SRD and radio determination. Individual radio transmitters: Amateur radio (up to 200W), SRD and radio determination. Individual radio transmitters: Amateur radio (up to 200W), SRD and radio determination. Individual radio transmitters: Amateur radio (up to 200W), SRD and radio determination. Individual radio transmitters: Amateur radio (up to 200W), SRD and radio determination. Individual radio transmitters: Amateur radio (up to 200W), SRD and radio determination. Individual radio transmitters: Amateur radio (up to 200W), SRD and radio determination. Individual radio transmitters: Amateur radio (up to 200W), SRD and radio determination. Individual radio transmitters: Amateur radio (up to 200W), SRD and radio determination. Individual radio transmitters: Amateur radio (up to 200W), SRD and radio determination. Individual radio transmitters: Amateur radio (up to 200W), SRD and radio determination. Individual radio transmitters: Amateur radio (up to 200W), SRD and radio determination. Individual radio transmitters: Amateur radio (up to 200W), SRD and radio determination. Individual radio transmitters: Amateur radio (up to 200W), SRD and radio determination. Individual radio transmitters: Amateur radio (up to 200W), SRD and radio determination. Individual radio transmitters: Amateur radio (up to 200W), SRD and radio determination. Individual radio transmitters: Amateur radio (up to 200W), SRD and radio determination. Individual radio transmitters: Fixe | TS's current direction is will continue to be used for at least ten years.                                                                    |
| 9.9 GHz 9.9 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz 10 GHz  |                                                                                                                                               |
| 10 GHz   10.21 GHz   210   Radiolocation Earth exploration (active), SRD, Amateur Radio, MIL   SRD, Amateur Radio, MIL   SRD, Amateur Radio, MIL   SRD, Amateur Radio, MIL   SRD, Amateur Radio, MIL   SRD, Amateur Radio, MIL   SRD, Amateur Radio (up to 200 W) and SRD.   Used nationwide for fixe within existing block lice determination, Low and radio determination. Individual radio transmitters: Amateur radio (vertically period of extensions of five years of the properties of    |                                                                                                                                               |
| SRD, Amateur Radio, MilL  10.21 GHz  10.322 GHz  112  10.5 GHz band 10560-10672 Electronic communications services (MFCN), Fixed radio, SRD, Radio determination, Earth exploration (active), Amateur radio (>200 W) and SRD.  10.322 GHz  10.56 GHz  10.56 GHz  10.56 GHz  10.56 GHz  10.56 GHz  10.56 GHz  10.56 GHz  10.57 GHz band 10560-10672 Electronic communications services (MFCN), Fixed radio, SRD, Radio determination, Larth exploration (active), Amateur radio (>200W), SRD and radio determination, Individual radio transmitters: Amateur radio (>200W), SRD and radio determination, Individual radio transmitters: Amateur radio (>200W), SRD and radio determination, Individual radio transmitters: Amateur radio (>200W), SRD and radio determination, Individual radio transmitters: Amateur radio (>200W), SRD and radio determination, Individual radio transmitters: Amateur radio (>200W), SRD and radio determination, Individual radio transmitters: Amateur radio (>200W), SRD and radio determination, Individual radio transmitters: Amateur radio (>200W), SRD and radio determination, Individual radio transmitters: Fixed radio.  10.672 GHz  10.672 GHz  10.68 GHz  10.68 GHz  10.67 GHz  10.68 GHz  10.67 GHz  10.68 GHz  10.68 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.69 GHz  10.6 |                                                                                                                                               |
| (MFCN), Fixed radio, SRD, Radio determination. Larth exploration (active), Amateur radio (200W), SRD and radio determination. Individual radio transmitters: Amateur radio (200W) and fixed radio.  10.322 GHz 10.56 GHz 238 Guard band, SRD, Radio determination, Earth exploration (active), Amateur radio (200W), SRD and radio determination. Individual radio transmitters: Amateur radio (up to 200W), SRD and radio determination. Individual radio transmitters: Amateur radio (200W), SRD and radio determination. Individual radio transmitters: Amateur radio (200W) and fixed radio.  10.56 GHz 10.672 GHz 112 10.5 GHz band 10210-10322 Electronic communications services (MFCN), Fixed radio, SRD, Radio determination, Radio astronomy, Earth exploration via satellite  10.672 GHz 10.68 GHz 36 Radio astronomy, Earth exploration via satellite  10.68 GHz 10.7 GHz 20 Radio astronomy, Earth exploration via satellite Space Research  License exempt: Amateur radio (up to 200W), SRD and radio determination. Individual radio transmitters: Fixed radio (200W), SRD and radio determination. Individual radio transmitters: Amateur radio (200W), SRD and radio determination. Individual radio transmitters: Fixed radio (200W), SRD and radio determination. Individual radio transmitters: Amateur radio (200W), SRD and radio determination. Individual radio transmitters: Fixed radio (200W), SRD and radio determination. Individual radio transmitters: Fixed radio (200W), SRD and radio determination. Individual radio transmitters: Fixed radio (200W), SRD and radio determination. Individual radio transmitters: Fixed radio (200W), SRD and radio determination. Individual radio transmitters: Fixed radio (200W), SRD and radio determination. Individual radio transmitters: Fixed radio (200W), SRD and radio determination. Individual radio transmitters: Fixed radio (200W), SRD and radio determination. Individual radio transmitters: Fixed radio (200W), SRD and radio determination. Individual radio transmitters: Fixed radio (200W), SRD and radio determination. Individ |                                                                                                                                               |
| Earth exploration (active), Amateur radio, MIL  10.56 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672 GHz  10.672  | ide for fixed radio, partly<br>block licenses, partly for<br>I licensed radio transmitter<br>period of ten years and<br>five years at a time. |
| MFCN), Fixed radio, SRD, Radio determination, Radio astronomy, Earth exploration via satellite   10.672 GHz   10.68 GHz   36   Radio astronomy, Earth exploration via satellite   Radio astronomy, Earth exploration via satellite   Individual radio transmitters: Fixed radio. License exempt: SRD. with a validity period of extensions of five years   10.68 GHz   10.7 GHz   20   Radio astronomy, Earth exploration via satellite, Space Research   All radioemissions prohibited   All radioemissions prohibited   National Research    |                                                                                                                                               |
| satellite (Radiolocation)  10.68 GHz 10.7 GHz 20 Radio astronomy, Earth exploration via satellite, Space Research All radioemissions prohibited                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ide for fixed radio, partly<br>block licenses, partly for<br>I licensed radio transmitter<br>period of ten years and<br>five years at a time. |
| satellite, Space Research                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                               |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                               |
| 10.7 GHz 10.95 GHz 250 AP30B 12750-13250 Satellite (FSS downlink, AP30B) Usage governed by satellite coordination                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                               |
| 10.95 GHz 11.2 GHz 250 Ku-band Satellite (FSS downlink) Usage governed by satellite coordination                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                               |
| 11.2 GHz 11.45 GHz 250 AP30B 12750-13250 Satellite (FSS downlink, AP30B) Usage governed by satellite coordination                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                               |
| 11.45 GHz 11.7 GHz 250 Ku-band Satellite (FSS downlink) Usage governed by satellite coordination                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                               |
| 11.7 GHz 12.5 GHz 800 AP30B 17300-18100 Satellite (BSS downlink, AP30, Satellite TV) Usage governed by satellite                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                               |
| Ku-band   coordination     12.5 GHz   12.75 GHz   250   Ku-band   Satellite (FSS downlink)   Usage governed by satellite   coordination                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                               |

| 12.75 GHz                | 12,863 GHz | 113        | 13 GHz<br>AP30B              | FS: 13017-<br>13130                                                 | Fixed radio, Earth stations (FSS uplink)                                                                                                     | Individual radio transmitters                                                                                          | No change. PTS's current direction is that the band will continue to be used for                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------|------------|------------|------------------------------|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                          |            |            | Ku band                      | FSS: 10700-<br>10950<br>FSS: 11200-<br>11450                        |                                                                                                                                              |                                                                                                                        | fixed radio for at least ten years.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 12,863 GHz               | 13,017 GHz | 154        | 13 GHz<br>AP30B<br>Ku band   | FSS: 10700-<br>10950<br>FSS: 11200-<br>11450                        | Guard band (Fixed radio), Earth stations<br>(FSS uplink) MIL                                                                                 | Individual radio transmitters                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 13,017 GHz               | 13.129 GHz | 112        | 13 GHz<br>AP30B<br>Ku band   | FS: 12751-<br>12863<br>FSS: 10700-<br>10950<br>FSS: 11200-<br>11450 | Fixed radio, Earth stations (FSS uplink), MIL                                                                                                | Individual radio transmitters                                                                                          | No change. PTS's current direction is that the band will continue to be used for fixed radio for at least ten years.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 13.129 GHz               | 13.25 GHz  | 121        | 13 GHz<br>AP30B<br>Ku band   | FSS: 10700-<br>10950<br>FSS: 11200-<br>11450                        | Earth stations (FSS uplink), MIL                                                                                                             | Individual radio transmitters                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 13.25 GHz                | 13.75 GHz  | 500        |                              |                                                                     | Aeronautical radionavigation, Radiolocation, SRD, Radio determination, Satellite (FSS                                                        | License exempt: SRD                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 13.75 GHz                | 14 GHz     | 250        | Ku-band                      |                                                                     | Earth stations (FSS uplink), Radiolocation,<br>Radio determination, MIL                                                                      | Individual radio transmitters.<br>License exempt: SRD                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 14 GHz                   | 14.5 GHz   | 500        | Ku-band                      |                                                                     | Earth stations (FSS / MSS uplink)                                                                                                            | License exempt                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 14.5 GHz                 | 14.781 GHz | 281        | 15 GHz                       | 14921-15201                                                         | Fixed radio, Space Research                                                                                                                  | Individual radio transmitters                                                                                          | No change. PTS's current direction is that the band will continue to be used for fixed radio for at least ten years.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 14.781 GHz<br>14.921 GHz |            | 140<br>280 | 15 GHz<br>15 GHz             | 14500-14781                                                         | Guard band (Fixed radio), MIL Fixed radio                                                                                                    | Individual radio transmitters                                                                                          | No change. PTS's current direction is that the band will continue to be used for fixed radio for at least ten years.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 15,201 GHz               |            | 149        | 15 GHz                       |                                                                     | Guard band (Fixed radio), MIL                                                                                                                | All diii                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 15.35 GHz                | 15.4 GHz   | 50         |                              |                                                                     | Radio astronomy, Earth exploration via<br>satellite (passive sensors for weather                                                             | All radioemissions prohibited                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 15.4 GHz                 | 17.1 GHz   | 1700       |                              |                                                                     | Aeronautical radionavigation, MIL                                                                                                            | Individual transmitters                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 17.1 GHz                 | 17.3 GHz   | 200        |                              |                                                                     | GBSAR, Radio determination, SRD, MIL                                                                                                         | Individual transmitters.<br>License exempt: SRD and                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 17.3 GHz                 | 17.7 GHz   | 400        | AP30A<br>Ka band             | 11700-12500                                                         | Earth stations (FSS uplink)                                                                                                                  | Individual radio transmitters                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 17.7 GHz                 | 18.69 GHz  | 990        | 18 GHz<br>AP30A<br>Ka band   | 11700-12500<br>18710-19700                                          | Fixed radio, Earth stations (FSS uplink),<br>Satellite (FSS downlink), Earth exploration<br>(18.6-18.8), MIL                                 | Individual radio transmitters. Usage governed by satellite coordination.                                               | No change. PTS's current direction is<br>that the band will continue to be used for<br>fixed radio for at least ten years.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 18.69 GHz                | 18.71 GHz  | 20         | 18 GHz                       |                                                                     | Guard band (Fixed radio), Earth exploration                                                                                                  | coordination.                                                                                                          | incertadio for at least on years.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 18.71 GHz                | 19.7 GHz   | 990        | Ka band<br>18 GHz<br>Ka band | 17700-18690                                                         | (18.6-18.8) MIL Fixed radio, Earth exploration (18.6-18.8), Satellite (FSS downlink) MIL                                                     | Individual radio transmitters. Satellite usage governed by satellite                                                   | No change. PTS's current direction is that the band will continue to be used for                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 19.7 GHz                 | 21.2 GHz   | 1500       | Ka band                      |                                                                     | Satellite (FSS downlink)                                                                                                                     | coordination. Usage governed by satellite                                                                              | fixed radio for at least ten years.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 21.2 GHz                 | 21.4 GHz   | 200        |                              |                                                                     | Earth exploration via satellite                                                                                                              | coordination                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 21.4 GHz                 | 22 GHz     | 600        | Ka band                      |                                                                     | Satellite (BSS downlink)                                                                                                                     | Usage governed by satellite coordination.                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 22 GHz                   | 22.6 GHz   | 600        | 23 GHz                       | 23000-23600                                                         | Fixed radio, Radio astronomy, MIL                                                                                                            | Individual radio transmitters.                                                                                         | No change. PTS's current direction is that the band will continue to be used for fixed radio for at least ten years.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 22.6 GHz                 | 23 GHz     | 400        | 23 GHz                       |                                                                     | Radio astronomy, MIL                                                                                                                         |                                                                                                                        | , , , , , , , , , , , , , , , , , , , ,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 23 GHz                   | 23.6 GHz   | 600        | 23 GHz                       | 22000-22600                                                         | Fixed radio, Radio astronomy, MIL                                                                                                            | Individual radio transmitters.                                                                                         | No change. PTS's current direction is that the band will continue to be used for fixed radio for at least ten years.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 23.6 GHz                 | 24 GHz     | 400        |                              |                                                                     | Earth exploration via satellite, Radio astronomy, Space Research (Passive)                                                                   | All radioemissions prohibited                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 24 GHz                   | 24.25 GHz  | 250        |                              |                                                                     | SRD, Amateur Radio, Vehicular radar<br>(SRR)                                                                                                 | License exempt: Amateur radio (up to 200 W), SRD and SRR. Individual radio transmitters: Amateur radio (>200W)         | The use of vehicular radar will be phased out.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 24.25 GHz                | 25.1 GHz   | 850        | 26 GHz band                  |                                                                     | Electronic communications services (MFCN), Fixed radio 24,549-25,445 GHz / 25,557-26,453 GHz, SRD (level measurement), Vehicular radar (SRR) | Individual local radio transmitters (indoor). Individual radio transmitters: Fixed radio. License exempt: SRD and SRR. | Local licenses for Electronic communications services (MFCN) will be limited to indoor use until the end of 2025. Updated analysis for possible expansion of local licenses outdoor is planned for 2024.  Licenses for fixed radio with a validity period of ten years and extensions of five years at a time, with the condition that the fixed radio use must accept harmful interference from, and not cause harmful interference to, the use of MFCN in the band.  PTS recommends that those interested /applicants make an assessment of the risk of interference from MFCN in the band before submitting an application for permission to establish a fixed radio in the 26 GHz band to PTS.  The use of vehicular radar will be phased out. |

| 25,1 GHz               | 26,5 GHz                 | 1400        | 26 GHz band      |                       | Fixed radio 24,549-25,445 GHz / 25,557-26,453 GHz, Vehicular radar (SRR) | Individual radio transmitters: Fixed radio. License exempt: SRR | 25.1-27.5 GHz is planned for block licensing, for Electronic communications services (MFCN), when market demand is sufficiently large. According to PTS market consultation 2025, demand in this frequency band is not greater than supply, therefore allocation through an auction is not relevant in the near future. A new demand analysis should be carried out within 2-4 years.  Licenses for fixed radio with a validity period of ten years and extensions of five years at a time, with the condition that the fixed radio use must accept harmful interference from, and not cause harmful interference to, the use of MFCN in the band. PTS recommends that those interested /applicants make an assessment of the risk of interference from MFCN in the band before |
|------------------------|--------------------------|-------------|------------------|-----------------------|--------------------------------------------------------------------------|-----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                        |                          |             |                  |                       |                                                                          |                                                                 | submitting an application for permission to establish a fixed radio in the 26 GHz band to PTS.  The use of vehicular radar will be phased                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 26.5 GHz               | 27.5 GHz                 | 1000        | 26 GHz band      |                       | Vehicular radar (SRR), Temporary licenses for Testing                    | License exempt: SRR Temporary licenses for testing              | 5.1-27.5 GHz is planned for block licensing, for Electronic communications services (MFCN), when market demand is sufficiently large. According to PTS market consultation 2025, demand in this frequency band is not greater than supply, therefore allocation through an auction is not relevant in the near future. A new demand analysis should be carried out within 2-4 years.                                                                                                                                                                                                                                                                                                                                                                                            |
|                        |                          |             |                  |                       |                                                                          |                                                                 | The use of vehicular radar will be phased<br>out.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 27.5 GHz               | 27.9405<br>GHz           | 440,5       | Ka band          |                       | Earth station (FSS uplink), Inter-satellite                              | Individual radio transmitters                                   | Licenses for earth stations with a validity period of ten years and extensions of five years at a time.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 27.9405<br>GHz         | 28.4445<br>GHz           | 504         | 28 GHz band      | 28948.50-<br>29452.50 | Fixed radio, Coordinated earth station (FSS uplink), Inter-satellite     | Individual radio transmitters                                   | For fixed service at 28 GHz, a limited protection in relation to MFCN in 26 GHz applies after 2025.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 00.4445                | 20.0425                  | 504         | Ka h             |                       | Fash shakes (FCO ) II I I I I                                            | In all debug land divine                                        | After co-planning with fixed radio, licenses for coordinated earth stations can be issued in the form of individual                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 28.4445<br>GHz         | 28.9485<br>GHz           | 504         | Ka band          |                       | Earth station (FSS uplink), Inter-satellite                              | Individual radio transmitters                                   | Licenses for earth stations with a validity period of ten years and extensions of five years at a time.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 28.9485<br>GHz         | 29.4525<br>GHz           | 504         | 28 GHz band      | 27940.50-<br>28444.50 | Fixed radio, Coordinated earth station (FSS uplink), Inter-satellite     | Individual radio transmitters                                   | For fixed service at 28 GHz, a limited protection in relation to MFCN in 26 GHz applies after 2025.  After co-planning with fixed radio, licenses for coordinated earth stations can be iscured in the form of individual.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 29.4525<br>GHz         | 29.5 GHz                 | 47.5        | Ka band          |                       | Earth station (FSS uplink), Inter-satellite                              | Individual radio transmitters                                   | can be issued in the form of individual  Licenses for earth stations with a validity period of ten years and extensions of five years at a time.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 29.5 GHz               | 30 GHz                   | 500         | Ka band          |                       |                                                                          | License exempt                                                  | . ,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 30 GHz                 | 31 GHz                   | 1000        | Ka band          |                       | satellite Receiving satellites MIL                                       |                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 31 GHz                 | 31.3 GHz                 | 300         | 31 GHz           |                       | Radio astronomy                                                          | All and discounting                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 31.3 GHz               | 31.8 GHz                 | 500         |                  |                       | Radio astronomy Earth exploration via satellite                          | All radioemissions prohibited in the band 31300-31500 MHz       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 31.8 GHz<br>31,815 GHz | 31,815 GHz<br>32.571 GHz | 15<br>756   | 32 GHz           | 32627-33383           | Guard band (Fixed radio) Fixed radio                                     | Individual radio transmitters                                   | No change. PTS's current direction is                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| ·                      |                          |             | 32 OHZ           | 02021-0000            |                                                                          | maridual radio transmitters                                     | that the band will continue to be used for fixed radio for at least ten years.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                        |                          | 56<br>756   | 32 GHz           | 31815-32571           | Guard band (Fixed radio) Fixed radio                                     | Individual radio transmitters                                   | No change. PTS's current direction is that the band will continue to be used for fixed radio for at least ten years.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                        |                          | 17          |                  |                       | Guard band (Fixed radio)                                                 |                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 33.4 GHz<br>34 GHz     | 34 GHz<br>35.2 GHz       | 600<br>1200 | -                |                       | EMPTY<br>MIL                                                             |                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 35.2 GHz               | 37 GHz                   | 1800        |                  |                       | Earth exploration via satellite, Radio astronomy MIL                     |                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 37 GHz                 | 37.058 GHz               |             |                  |                       | Guard band (Fixed radio)                                                 |                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 37.058 GHz             |                          |             | 38 GHz<br>V band | 38318-39438           | Fixed Radio, Earth Exploration                                           | Individual radio transmitters                                   | No change. PTS's current direction is that the band will continue to be used for fixed radio for at least ten years.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 38.178 GHz             | 38,318 GHz               | 140         | 38 GHz<br>V band |                       | Guard band (Fixed Radio), Earth<br>Exploration                           |                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 38,318 GHz             | 39.438 GHz               | 1120        | 38 GHz<br>V band | 37058-38178           | Fixed Radio, Earth Exploration                                           | Individual radio transmitters                                   | No change. PTS's current direction is that the band will continue to be used for fixed radio for at least ten years.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 39.438 GHz             | 39.5 GHz                 | 62          |                  |                       | Guard band (Fixed Radio), Earth<br>Exploration                           |                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 39.5 GHz               | 40.5 GHz                 | 1000        | V band           |                       | Earth exploration                                                        |                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 40.5 GHz               | 42.5 GHz                 | 2000        | V band           |                       | Temporary licenses for testing                                           | Temporary licenses for testing                                  | Electronic communications services (MFCN). According to PTS market consultation 2025, demand in this frequency band is not greater than supply, therefore allocation through an auction is not relevant in the near future. A new demand analysis should be carried out within 2-4 years.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

| 42.5 GHz  | 43.5 GHz  | 1000    |                    |             | Radio astronomy, Temporary licenses for                                                                           | Temporary licenses for testing                                                                                                           | Electronic communications services                                                                                                                                                                                                                     |
|-----------|-----------|---------|--------------------|-------------|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           |           |         |                    |             | Testing                                                                                                           |                                                                                                                                          | (MFCN). According to PTS market consultation 2025, demand in this frequency band is not greater than supply, therefore allocation through an auction is not relevant in the near future. A new demand analysis should be carried out within 2-4 years. |
| 43.5 GHz  | 45.5 GHz  | 2000    |                    |             | EMPTY                                                                                                             |                                                                                                                                          |                                                                                                                                                                                                                                                        |
| 45.5 GHz  | 47 GHz    | 1500    |                    |             | Temporary licenses for testing                                                                                    | Temporary licenses for testing                                                                                                           |                                                                                                                                                                                                                                                        |
| 47 GHz    | 47.2 GHz  | 200     |                    |             | Amateur radio                                                                                                     | License exempt: Amateur radio (up to 200 W). Individual radio transmitters: Amateur radio (>200W)                                        |                                                                                                                                                                                                                                                        |
| 47.2 GHz  | 48.2 GHz  | 1000    | V band             |             | Temporary licenses for testing                                                                                    | Temporary licenses for testing                                                                                                           |                                                                                                                                                                                                                                                        |
| 48.2 GHz  | 50.2 GHz  | 2000    | V band             |             | EMPTY                                                                                                             | All radioemissions prohibited from<br>airborne stations in the band 48940-<br>49040 MHz                                                  |                                                                                                                                                                                                                                                        |
| 50.2 GHz  | 50.4 GHz  | 200     |                    |             | Radio astronomy, Space research, Earth exploration via satellite                                                  | All radioemissions prohibited                                                                                                            |                                                                                                                                                                                                                                                        |
| 50.4 GHz  | 51.4 GHz  | 1000    | V band             |             | EMPTY                                                                                                             |                                                                                                                                          |                                                                                                                                                                                                                                                        |
| 51.4 GHz  | 52.4 GHz  | 1000    |                    |             | EMPTY                                                                                                             |                                                                                                                                          |                                                                                                                                                                                                                                                        |
| 52.4 GHz  | 52.6 GHz  | 200     |                    |             | EMPTY                                                                                                             |                                                                                                                                          |                                                                                                                                                                                                                                                        |
| 52.6 GHz  | 55.78 GHz | 3180    |                    |             | Space research, Earth exploration via satellite                                                                   | All radioemissions prohibited in the band 52600-54250 MHz                                                                                |                                                                                                                                                                                                                                                        |
| 55.78 GHz | 57 GHz    | 1220    |                    |             | Earth exploration via satellite                                                                                   |                                                                                                                                          |                                                                                                                                                                                                                                                        |
| 57 GHz    | 59 GHz    | 2000    | 58 GHz band        |             | Fixed radio (channel plan), SRD<br>(unspecified, data transmission and level<br>measurement in closed containers) | License exempt: Fixed radio and SRD                                                                                                      |                                                                                                                                                                                                                                                        |
| 59 GHz    | 64 GHz    | 5000    | 60 GHz band        |             | Fixed radio (channel plan), SRD (unspecified, data transmission, vehicles and level measurement in closed         | License exempt: Fixed radio and SRD                                                                                                      |                                                                                                                                                                                                                                                        |
| 64 GHz    | 66 GHz    | 2000    |                    |             | SRD (data transmission, vehicle)                                                                                  | License exempt: SRD                                                                                                                      |                                                                                                                                                                                                                                                        |
| 66 GHz    | 71 GHz    | 5000    |                    |             | Radionavigation, Temporary licenses for testing, SRD (data transmission)                                          | Temporary licenses for testing<br>Licence exempt: SRD                                                                                    |                                                                                                                                                                                                                                                        |
| 71 GHz    | 76 GHz    | 5000    | 70/80 GHz<br>bands | 81000-86000 | Fixed radio, Amateur radio, SRD (level measurement)                                                               | Individual radio transmitters.<br>License exempt: SRD                                                                                    |                                                                                                                                                                                                                                                        |
| 76 GHz    | 81 GHz    | 5000    |                    |             | Radio astronomy, Vehicular radar (SRR),<br>SRD (Level Measurement), Radiolocation,<br>Amateur Radio               | License exempt: Vehicular radar, SRD and amateur radio up to 200 W) Individual radio transmitters: Amateru radio (>200W) and other uses. |                                                                                                                                                                                                                                                        |
| 81 GHz    | 86 GHz    | 5000    | 70/80 GHz<br>bands | 71000-76000 | Fixed radio, Radio astronomy, SRD (level measurement)                                                             | Individual radio transmitters.<br>License exempt: SRD                                                                                    |                                                                                                                                                                                                                                                        |
| 86 GHz    | 92 GHz    | 6000    |                    |             | Earth exploration via satellite, Radio astronomy                                                                  | All radioemissions prohibited                                                                                                            |                                                                                                                                                                                                                                                        |
| 92 GHz    | 100 GHz   | 8000    | 90 GHz band        |             | Cloud radar, Earth exploration, Radio                                                                             |                                                                                                                                          |                                                                                                                                                                                                                                                        |
| 100 GHz   | 116 GHz   | 16000   |                    |             | astronomy Radio astronomy, Earth exploration via satellite                                                        | All radioemissions prohibited in various sub-bands                                                                                       |                                                                                                                                                                                                                                                        |
| 116 GHz   | 122 GHz   | 6000    | İ                  |             | Earth exploration via satellite                                                                                   | Sub Burius                                                                                                                               |                                                                                                                                                                                                                                                        |
| 122 GHz   | 123 GHz   | 1000    |                    |             | SRD (unspecified) Amateur Radio                                                                                   | License exempt: SRD and amateur radio (up to 200 W) Individual radio transmitters: Amateur radio (>200W)                                 |                                                                                                                                                                                                                                                        |
| 123 GHz   | 134 GHz   | 11000   |                    |             | EMPTY                                                                                                             |                                                                                                                                          |                                                                                                                                                                                                                                                        |
| 134 GHz   | 141 GHz   | 7000    |                    |             | Amateur radio                                                                                                     | License exempt: SRD and amateur radio (up to 200 W) Individual radio transmitters: Amateur radio (>200W)                                 |                                                                                                                                                                                                                                                        |
| 141 GHz   | 241 GHz   | 100000  |                    |             | Earth exploration in some sub-bands                                                                               | All radioemissions prohibited in various sub-bands                                                                                       |                                                                                                                                                                                                                                                        |
| 241 GHz   | 246 GHz   | 5000    |                    |             | SRD (unspecified), Amateur Radio                                                                                  | License exempt: SRD and amateur radio (up to 200 W) Individual radio transmitters: Amateru radion (>200W)                                |                                                                                                                                                                                                                                                        |
| 246 GHz   | 250 GHz   | 4000    |                    |             | Amateur radio                                                                                                     | License exempt: Amateur radio (up to 200 W) Individual radio transmitters: Amateur radio (>200W)                                         |                                                                                                                                                                                                                                                        |
| 250 GHz   | 3000 GHz  | 2750000 |                    |             | Earth exploration in some sub-bands                                                                               | All radioemissions prohibited in various sub-bands                                                                                       |                                                                                                                                                                                                                                                        |