Variation to the Low Interference Potential Devices Class Licence

Consultation paper

September 2020

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Executive summary

The ACMA is proposing updates to class licensing arrangements to support 5G and other technology innovations, enabled by varying the Radiocommunications (Low Interference Potential Devices) Class Licence 2015 *(*the LIPD Class Licence). The purpose of the updates is to support new technology applications and bring Australia into line with international arrangements which support standardised and efficient equipment supply arrangements.

In brief, the proposed updates consider new arrangements for:

* wireless broadband in the 24.25–25.1 GHz band
* Internet of Things (IoT) devices in the 928–935 MHz and VHF high bands

radiodetermination devices in the 10.5-10.55 GHz band.

Other minor updates are included for consideration.

The proposed updates are contained in the draft Radiocommunications (Low Interference Potential Devices) Class Licence Variation 2020 (No.1), available in the key documents section of this consultation.

The ACMA invites comment from interested parties on the proposed updates and draft variation by **COB, Monday 26 October 2020**. Information about making a submission is in the [Invitation to comment](#_Invitation_to_comment) section of this consultation paper.

In addition to the proposed variation, the ACMA invites suggestions from industry and individuals on devices and technologies for possible inclusion in the list of transmitters authorised under the LIPD Class Licence in future updates.

# Issues for comment

The ACMA welcomes comments on the issues raised in this consultation paper, or any other issues relevant to the update of the LIPD Class Licence. In particular, the ACMA seeks comment on the draft Radiocommunications (Low Interference Potential Devices) Class Licence Variation 2020 (No.1).

# Introduction

The ACMA is proposing updates to class licensing arrangements supporting 5G and other technology innovations to be implemented by varying the LIPD Class Licence.[[1]](#footnote-2)

Under subsection 136(1) of the *Radiocommunications Act 1992* (the Act), before varying a class licence the ACMA must invite interested persons to make representations about the proposed variations.

Under section 137 of the Act, the ACMA must not issue a class licence that is inconsistent with the spectrum plan (as made under section 30 of the Act). The proposed variations are consistent with the Australian Radiofrequency Spectrum Plan 2017[[2]](#footnote-3) (the Spectrum Plan).

This consultation paper provides the context for the proposed variations to assist interested parties in preparing written comments.

The paper provides:

* an overview of class licensing and the LIPD Class Licence
* a description of the proposed variations
* an invitation to comment on the proposed variations

an invitation for suggestions from industry and individuals on possible devices and technologies for inclusion in future updates.

A copy of the proposed Radiocommunications (Low Interference Potential Devices) Class Licence Variation 2020 (No.1) is available in the key documents section of this consultation.

A reference to an item of the LIPD Class Licence should be taken as a reference to an item of Schedule 1 to the LIPD Class Licence.

## Class licensing and the LIPD Class Licence

It is a general requirement under section 46 of the Act that the operation of all radiocommunications devices within Australia be authorised by a licence.

A class licence is one type of licence available to authorise the operation of radiocommunications devices. It is an effective and efficient means of spectrum management for services where a limited set of common frequencies is employed, and where equipment is operated under a common set of conditions.

A class licence sets out the conditions under which any person is permitted to operate any device to which the class licence is applicable. It is not issued to an individual user and does not involve the payment of licence fees. A class licence is made by the ACMA under section 132 of the Act by making a legislative instrument that is registered, and accessible free of charge, on the Federal Register of Legislation (see [legislation.gov.au](https://www.legislation.gov.au/)).

The LIPD Class Licenceauthorises the operation of a wide range of radiocommunications devices in various segments of the radiofrequency spectrum. These devices are considered to have a low potential to cause interference to other devices due to their technical and operational characteristics. Example characteristics that contribute to a low potential for interference include:

* low power
* low duty cycle of transmissions
* low spectral density
* use that is limited to indoors, mitigating the potential to cause interference to other devices

interference that can be self-managed by users.

It is a condition of the LIPD Class Licence that the operation of a radiocommunications device does not cause interference to other radiocommunications services (see paragraph 4(1)(b) of the LIPD Class Licence). A device operated under the LIPD Class Licence will also not be afforded protection from interference caused by other radiocommunications devices operated under the LIPD Class Licence. If interference does occur, it is the responsibility of the user of the radiocommunications device authorised by the LIPD Class Licence to take measures to resolve that interference.

Transmitters authorised by the LIPD Class Licence do not require individual frequency coordination for interference management purposes. Examples of equipment covered by the LIPD Class Licence include wireless microphones, electronic road tolling systems, industrial sensors, underground transmitters, wi-fi and Bluetooth devices.

In addition to the proposed updates detailed in this paper, the ACMA invites suggestions from industry and individuals on devices and technologies for possible inclusion in the list of transmitters authorised under the LIPD Class Licence in future updates.

## LIPD Class Licence and standards

The LIPD Class Licence operates, in part, in concert with the Radiocommunications (Short Range Devices) Standard 2014(the Short Range Devices Standard) made by the ACMA under section 162 of the Act.

The LIPD Class Licence authorises the operation of specified devices, while the Short Range Devices Standard regulates the technical performance of devices supplied to the Australian market.

The Short Range Devices Standard specifies that the applicable standard for devices is either the standard listed in the LIPD Class Licence or, if no standard is listed, the Standards Australia standard ‘AS/NZS 4268:2017 Radio equipment and systems—Short range devices—Limits and methods of measurement (AS/NZS 4268)’.

There is a 12-month transition period whenever arrangements change before compliance with the new requirements of the Short Range Devices Standard becomes mandatory.

Under these arrangements, the ACMA is able to regulate both the operation of the devices (via the LIPD Class Licence itself) and their supply to market (via the Short Range Devices Standard, augmented by labelling and record-keeping requirements).

If the variations to the LIPD Class Licence proposed in this consultation paper are made, the applicable standards for devices subject to the variation will, in all cases, be those standards listed in the LIPD Class Licence.

# Proposed updates

The proposed updates to the LIPD class licence are contained in the draft Radiocommunications (Low Interference Potential Devices) Class Licence Variation 2020 (No.1). These proposed updates are outlined in more detail below and include:

New arrangements for wireless broadband in the frequency range 24.25–25.1 GHz as announced in the [Future use of the 26 GHz band—Planning decisions and preliminary views decision paper](https://www.acma.gov.au/consultations/2019-08/options-wireless-broadband-26-ghz-band-consultation-322018) (the 26 GHz decision paper).

Incorporating arrangements for IoT devices in the 900 MHz band from the 2015 paper [The ACMA’s long-term strategy for the 803–960 MHz band](https://www.acma.gov.au/publications/2015-12/report/acmas-long-term-strategy-803-960-mhz-band-decision-paper) (the   
803–960 MHz decision paper).

New arrangements for IoT in the VHF High Band as discussed in the [Internet of Things applications in the VHF high band consultation paper](https://www.acma.gov.au/consultations/2020-07/internet-things-applications-vhf-high-band-consultation-202020) released in July 2020.

New arrangements to facilitate radiodetermination devices in the   
10.5–10.55 GHz band.

Minor updates to existing items.

## Wireless broadband in the 26 GHz band

The 26 GHz band, being 24.25–27.5 GHz, is one of the bands at the forefront of the delivery of millimetre wave (mmWave[[3]](#footnote-4)) fifth generation (5G) wireless broadband services globally.

The ACMA completed a review of the 26 GHz band in April 2019, and the outcomes were outlined in the [26 GHz decision paper](https://www.acma.gov.au/consultations/2019-08/options-wireless-broadband-26-ghz-band-consultation-322018). These include the identification of class licensing measures to facilitate a broad range of wireless broadband use cases in the 24.25–25.1 GHz band. These arrangements are intended to support uncoordinated deployments of private/enterprise 5G use cases servicing factories, mine sites, hospitals and educational institutions, for example.

We are proposing to implement these decisions in this update of the LIPD Class Licence.

### Technical conditions

In the 26 GHz decision paper the ACMA outlined preliminary views on a range of provisions and conditions that might apply to class licensing of wireless broadband devices in this band. It was noted at the time that further consultation would be undertaken on relevant licence conditions and legislative instruments. As such, the proposed provisions outlined at the time were not to be considered as definitive views of the ACMA and were all subject to change.

The following conditions are proposed for the use of wireless broadband services under class licence in the 24.25-25.1 GHz band which are identical to those described in the 26 GHz decision paper:

* Deployments may be fixed point-to-multipoint or mobile (base station with service area) in nature.
* Operation is permitted on an Australia-wide basis.
* Service areas will be limited to private (including domestic, industrial, business, commercial and government) property. This can be outdoors or indoors, depending on frequency range (see below).
* In the range 24.25–24.7 GHz, operation is limited to indoor use only.
* In the range 24.7–25.1 GHz, operation can be either indoors or outdoors.
* Devices are to comply with the unwanted and spurious emission limits as described in the 38 series of 3GPP[[4]](#footnote-5) specifications. That is, 3GPP TS 38.104[[5]](#footnote-6) for base stations and 3GPP TS 38.101-2[[6]](#footnote-7) for user equipment.[[7]](#footnote-8)
* Services must not cause interference to, or claim protection from, other licensed services (including co-frequency apparatus-licensed services in the   
  24.7–25.1 GHz range).
* Proposed conditions for indoor use:
* Base station total radiated power (TRP) is not to exceed 20 dBm/200 MHz.
* User equipment TRP is not to exceed 22 dBm per occupied bandwidth.
* Proposed conditions for outdoor use (24.7–25.1 GHz range only):
* Base station TRP is not to exceed 25 dBm/200 MHz.
* User equipment TRP is not to exceed 22 dBm per occupied bandwidth.

The aggregate power flux-density (PFD) is not to exceed ‑105.4 dBW/MHz/m2 at the property boundary (measured outside in the case of indoor use to allow through-wall attenuation to be taken into account).[[8]](#footnote-9) The class licence boundary condition is more restrictive than the proposed apparatus licence boundary limits. This is to account for the uncoordinated and/or unsynchronised (in the time division duplex (TDD) context) nature of class licenced deployments. If the class licence limit is too restrictive for some prospective applications, there is the option for the operator to take out an apparatus licence for that application.

It is proposed that for outdoor transmitters in the 24.7–25.1 GHz band, the TRP is not to exceed -33 dBW/200 MHz for base stations and ‑29 dBW/200 MHz for user equipment, measured anywhere in the range 23.6–24 GHz.

These limits are different to those suggested in the 26 GHz decision paper and instead align with outcomes of the World Radiocommunication Conference 2019 (WRC-19) and resultant changes to ITU Resolution 750 (Rev. WRC-19).[[9]](#footnote-10) In some cases, a combination of additional filtering and/or reduced transmit powers may need to be applied to meet these limits.

In line with Resolution 750 (Rev. WRC-19), a TRP limit of −39 dBW/200 MHz for base stations and −35 dBW/200 MHz for user equipment will apply to devices brought into use after 1 September 2027.

The class of transmitter proposed for these devices is data communications transmitters in controlled premises. In the case of the 24.25–24.7 GHz band it is also proposed that the devices only be used indoors.

The proposed definition of ‘controlled premises’ is ‘premises that are owned by or under the control of a person who is providing a radiocommunications service under this class licence’. This is intended to limit service areas to private (including domestic, industrial, business, commercial and government) property. It is expected that the property owner will take responsibility in managing any interference that may occur with other radiocommunications devices operating within the controlled premises, in particular apparatus licensed devices in the range 24.7–25.1 GHz.

## IoT devices in the 900 MHz band

The ACMA [completed a review of arrangements in the 803–960 MHz band](https://www.acma.gov.au/publications/2015-12/report/acmas-long-term-strategy-803-960-mhz-band-decision-paper) in November 2015. The 803–960 MHz decision paper contains a range of decisions on reforms to the structure of the 803–960 MHz band, as well as a detailed plan for the implementation of these reforms which extends to 2024.

We are proposing to implement decisions relating to the introduction of arrangements for IoT devices in the 928–935 MHz band in this update to the LIPD Class Licence. These arrangements will support low-power wide-area network (LPWAN) rollouts, which include a range of emerging monitoring and control technologies.

The 803–960 MHz decision paper also proposed to facilitate use of the 933–935 MHz band for research, development and testing of cognitive radio devices in high and medium-density areas. However, interest in this application appears to have diminished since the release of the decision paper. It is therefore proposed that these measures are not implemented and that potential users instead rely on the provisions proposed for fixed telecommand or telemetry transmitters (including mesh devices) and other existing arrangements.

### Technical conditions

The 803–960 MHz decision paper included proposed technical conditions for devices in the 928-935 MHz band.

The following conditions are proposed for the use of fixed telecommand or telemetry transmitters in the 928–935 MHz band, which are identical to those described in the 803–960 MHz decision paper:

* Authorised on a non-exclusive basis. (As noted in note 1 of Section 4 of the LIPD Class Licence, a transmitter operated under the LIPD Class Licence can be expected to be operating in parts of the radiofrequency spectrum used by other radiocommunications devices. A receiver tuned to the transmitter will not be afforded protection from interference caused by other radiocommunications devices.)
* EIRP not to exceed 25 mW (14 dBm).
* Radiated power spectral density (PSD) not to exceed -14.5 dBm/kHz.

It is proposed that a maximum duty cycle of 0.1 per cent be applied to transmitters operating under these provisions averaged over one hour on any given frequency. This is lower than the 1 per cent duty cycle suggested in the 803–960 MHz decision paper. The proposed change follows discussion in the IoT Alliance Australia (IoTAA) spectrum working group.[[10]](#footnote-11)

It was also proposed that operation in the 933–935 MHz band be limited to low and remote-density areas. However, as the previously proposed arrangements for research, development and testing of cognitive radio devices in the 933–935 MHz band are not being pursued, this limitation is not proposed to be included in the LIPD Class Licence for operations in the 928–935 MHz band.

It was proposed in the 803–960 MHz decision paper that installations be limited to devices intended for long-term operation in a fixed installation (operating for a period of not less than six months). That minimum time period is not proposed to be included in the LIPD Class Licence for operations in the 928–935 MHz band. However, the class of transmitter proposed for these devices is fixed telecommand or telemetry transmitters, which reflects the likely applications and the restriction to fixed devices.

Should these arrangements be adopted, [Radiocommunications Assignment and Licensing Instruction MS 41](https://www.acma.gov.au/publications/2019-11/guide/rali-ms-41-900-mhz-band-plan) (RALI MS 41), which contains the frequency plan for services in the 900 MHz Band (890–960 MHz), would need to be amended to remove the allocation to cognitive radio system research and the limitations on low power/duty-cycle fixed links/mesh nodes to low and remote-density areas in the 933–935 MHz band.

Also note that, in accordance with the 803–960 MHz decision paper, some fixed links may continue to operate in this segment up until 30 June 2021. As with all LIPD Class Licence-authorised services, IoT devices operating in this segment must afford protection to licenced services that are recorded in the Register of Radiocommunications Licences.

## IoT devices in VHF High Band

The ACMA released the discussion paper [Internet of Things Applications in the VHF High Band](https://www.acma.gov.au/consultations/2020-07/internet-things-applications-vhf-high-band-consultation-202020) (the VHF IoT discussion paper) in July 2020. In this paper, it was proposed to establish arrangements similar to those in place in Europe for the   
169.4–169.4875 MHz, 169.4875–169.5875 MHz and 169.5875–169.8125 MHz frequency segments, noting the proposed power and duty cycle constraints are below those of devices already operating harmoniously in the band.

Two responses were received to the VHF IoT discussion paper from IoTAA and Suez Water Australia. The IoTAA response supported the ACMA’s proposed approaches, citing the value in supporting an open-platform approach. The Suez Water response also supported the ACMA’s approach to class licensing but argued that a class licensing solution should be used for all elements of a system, i.e. including the higher-power, moderate-duty cycle components that had been flagged as most likely to be suited to apparatus licensing in the VHF IoT discussion paper.

While low-power, low-duty cycle arrangements could be appropriately authorised in Australia by a class licence, the ACMA believes that the higher-power, moderate-duty cycle devices would also typically be located at high sites and therefore have an increased potential to cause interference (noting the use of the band by emergency services). Accordingly, an apparatus licence approach that permits coordination of devices is more appropriate for accommodating these types of services.

The ACMA intends to develop appropriate administrative guidance to support such apparatus licensing. The ACMA remains open to further exploration and discussions on possible operating conditions appropriate for class licensing support of these devices in the future.

Therefore, it is now proposed to implement arrangements in the LIPD class licence as originally proposed in the VHF IoT discussion paper.

### Technical conditions

The proposed technical conditions are outlined in Table 1 below. These are identical to those included in the VHF IoT discussion paper and mirror those in European Research Council (ERC) Recommendation 70-03, which sets out the frequency bands and parameters recommended primarily for telemetry, telecommand, alarms and data in general and other similar applications.[[11]](#footnote-12) These technical conditions were supported in submissions to the VHF IoT discussion paper.

The class of transmitter proposed for these devices is telecommand or telemetry transmitters which reflects the likely applications and use in Europe.

Proposed technical conditions for the 169.4–169.8125 MHz frequency band

|  |  |  |
| --- | --- | --- |
| **Band** | **Power (EIRP)** | **Spectrum access and mitigation requirements** |
| 169.4–169.4875 | 16.4 mW | ≤ 0.1 % duty cycle |
| 169.4875–169.5875 | 16.4 mW | ≤ 0.001% duty cycle except for 00:00 h to 06:00 h local time where the duty cycle limit is ≤ 0.1% |
| 169.5875–169.8125 | 16.4 mW | ≤ 0.1 % duty cycle |

## Radiodetermination devices in the 10.5–10.55 GHz band

The ACMA has received a request to implement new arrangements in the   
10.5-10.55 GHz band to facilitate portable launch monitors intended to measure the path and trajectory of golf clubs and balls.

There is currently an entry in the LIPD class licence for all transmitters in the   
10.5–10.55 GHz band with a maximum EIRP of 100 mW.

Table 2 details arrangements in the Australian Radiofrequency Spectrum Plan 2017[[12]](#footnote-13) (the Spectrum Plan) for the 10.5–10.55 GHz band and immediately adjacent frequencies and lists the current apparatus and class licence usage of the band.

The proposed devices currently operate in the United States in line with Federal Communications Commission (FCC) Code of Federal Regulation Title 47 Part 15 Section 245: Operation within the bands 902–928 MHz, 2435–2465 MHz, 5785–5815 MHz, 10500–10550 MHz, and 24075–24175 MHz**[[13]](#footnote-14)**.

Given the relatively low use of the 10.5–10.55 GHz band, the expected low proliferation of these portable launch monitors and the existence of FCC rules to govern the use of these devices, it is proposed that a new item be added to the LIPD Class Licence for radiodetermination transmitters in the 10.5–10.55 GHz band with a maximum EIRP of 2 W. It is also proposed a limitation be included that the transmitter must comply with FCC Rules Title 47 Part 15 Section 245.

Current arrangements in the 10.45–10.6 GHz band

|  |  |  |  |
| --- | --- | --- | --- |
| **Frequency range (GHz)** | **10.45–10.5** | **10.5–10.55** | **10.55–10.6** |
| Spectrum plan | RADIOLOCATION AUS101A  Amateur  Amateur-satellite | FIXED  MOBILE  RADIOLOCATION | FIXED  MOBILE (except aeronautical mobile)  Radiolocation |
| Radiocommunications Assignment and Licensing instructions (RALIs) |  |  | RALI FX3- Microwave Fixed Services Frequency Coordination |
| Current apparatus licences | 2 x Defence-type licences | 9 licences to Department of Defence for radiodetermination  1 x point-to-point link (Queensland Alumina Ltd at Gladstone) | Point-to-point |
| 2 x Radiodetermination licences (Leica Geosystems Pty Ltd in remote North-West WA) | | |
| Current class licences |  | LIPD: All transmitters (100 mW) |  |
| LIPD: Radiodetermination transmitters operated in radiofrequency-shielded enclosures (75 nW) | | |
| Radiocommunications (Overseas Amateurs Visiting Australia) Class Licence 2015 | | |

## Minor updates

### Item 30: Wireless audio transmitter

Currently, item 30 for wireless audio transmitters includes a restriction that transmitters must comply with ETSI Standard EN 300 422. The current version of AS/NZS 4268 also provides the option of compliance with ETSI Standard EN 301 840. Therefore, it is proposed to add this standard to item 30in the LIPD.

### Item 45: Radiofrequency identification transmitters

Currently, item 45 for radiofrequency identification (RFID) transmitters in the   
920–926 MHz band includes a limitation that transmitters must comply with the instrument known as ISO/IEC 18000-6c. This standard has been renamed and will now be referenced under its current name.

In addition, the LIPD Class Licence previously limited RFID in the 920–926 MHz band to what are known as ‘Type C’ devices. While devices of different types do not interoperate, there is no technical reason to suggest they cannot coexist. Further, there is anecdotal evidence to suggest that RFID transmitters of other types (Types A, B and D) are already in use.

Therefore, it is proposed to replace the reference to ISO/IEC 18000-6c to the full family of ISO/IEC standards for RFID being ISO/IEC 18000-6, 18000-61, 18000-62, 18000-63 and 18000-64.

# Invitation to comment

## Making a submission

The ACMA invites comments on the proposed changes contained in the draft Radiocommunications (Low Interference Potential Devices) Class Licence Variation 2020 (No.1)**,** as outlined in this paper. We also welcome feedback on any other relevant issues.

[Online submissions](https://www.acma.gov.au/have-your-say) can be made by uploading a document. Submissions in PDF, Microsoft Word or Rich Text Format are preferred.

Submissions by post can be sent to:

The Manager

Spectrum Planning Section

Australian Communications and Media Authority

PO Box 78

Belconnen ACT 2616

The closing date for submissions is **COB, Monday 26 October 2020**.

Consultation enquiries can be emailed to [freqplan@acma.gov.au](mailto:freqplan@acma.gov.au).

#### Publication of submissions

The ACMA publishes submissions on our website, including personal information (such as names and contact details), except for information that you have claimed (and we have accepted) is confidential.

Confidential information will not be published or otherwise released unless required or authorised by law.

#### Privacy

View information about our policy on the [publication of submissions](https://www.acma.gov.au/publication-submissions), including collection of personal information during consultation and how we handle that information.

Information on the *Privacy Act 1988,* how to access or correct personal information, how to make a privacy complaint and how we will deal with the complaint, is available in our [privacy policy](https://www.acma.gov.au/privacy-policy).

1. The current version of the LIPD Class Licence is available on the [Federal Register of Legislation website](https://www.legislation.gov.au/Details/F2019C00681). [↑](#footnote-ref-2)
2. The current version of the Spectrum Plan is available on the [Federal Register of Legislation website](https://www.legislation.gov.au/Details/F2016L02001). [↑](#footnote-ref-3)
3. mmWave spans 30–300 GHz (i.e. a wavelength of 1 cm to 1 mm), however, in the current 5G context, mmWave bands in consideration span from around 24 GHz up to 86 GHz. [↑](#footnote-ref-4)
4. The 3rd Generation Partnership Project (3GPP) is a standards organization which develops protocols for mobile telephony, including specifications for specific frequency bands. [↑](#footnote-ref-5)
5. [3GPP TS 38.104](https://portal.3gpp.org/desktopmodules/Specifications/SpecificationDetails.aspx?specificationId=3202): 3rd Generation Partnership Project; Technical Specification Group Radio Access Network; NR; Base Station (BS) radio transmission and reception. [↑](#footnote-ref-6)
6. [3GPP TS 38.101-2](https://portal.3gpp.org/desktopmodules/Specifications/SpecificationDetails.aspx?specificationId=3284): 3rd Generation Partnership Project; Technical Specification Group Radio Access Network; NR; User Equipment (UE) radio transmission and reception; Part 2: Range 2 Standalone. [↑](#footnote-ref-7)
7. Building penetration loss (calculated using Recommendation ITU-R P.2109) is considered adequate to protect passive Earth-Exploration Satellite Service (EESS) from aggregate unwanted emissions from indoor wireless broadband services within the EESS footprint. [↑](#footnote-ref-8)
8. This aggregate PFD limit is based on providing a co-frequency apparatus-licensed service providing coverage up to the (other side of the) property boundary with an expectation of at least a 99% probability that the I/N from the class licensed device(s) into their service will not exceed -6 dB. It was derived via a statistical simulation using parameters from ITU-R Working Group TG 5/1 and no TDD-synchronisation between class and apparatus licensed services. Worst-case orientation of both class-licensed and adjacent area apparatus-licensed base station antenna arrays relative to one another was assumed. [↑](#footnote-ref-9)
9. These decisions are outlines in the [Final Acts WRC-19](https://www.itu.int/pub/R-ACT-WRC.14-2019). [↑](#footnote-ref-10)
10. More information is available on the [IoT Alliance Australia website](https://iot.org.au/). [↑](#footnote-ref-11)
11. ERC Recommendation 70-03 is available at <https://www.cept.org/ecc/topics/srd-regulations-and-indicative-list-of-equipment-sub-classes>. [↑](#footnote-ref-12)
12. The current version of the Spectrum Plan is available on the [Federal Register of Legislation website](https://www.legislation.gov.au/Details/F2016L02001). The Spectrum Plan is proposed to be remade in the consultation process [IFC 27/2020](https://www.acma.gov.au/consultations/2020-08/proposed-update-australian-radiofrequency-spectrum-plan-consultation-272020). If remade, the arrangements in the 10.45-10.6 GHz will be unchanged. [↑](#footnote-ref-13)
13. A copy of the code is available from the [Electronic Code of Federal Regulations](https://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=5ffd66a40038ec2a9b6c4bc3c4a95bb2&mc=true&n=pt47.1.15&r=PART&ty=HTML#se47.1.15_1245). [↑](#footnote-ref-14)