

EXPLANATORY STATEMENT

Approved by the Australian Communications and Media Authority

Radiocommunications Act 1992

Radiocommunications (Low Interference Potential Devices) Class Licence Variation 2020 (No. 1)

Authority

The Australian Communications and Media Authority (the **ACMA**) has made the *Radiocommunications (Low Interference Potential Devices) Class Licence Variation 2020 (No. 1)* (the **instrument**) under section 132 of the *Radiocommunications Act 1992* (the **Act**) and subsection 33(3) of the *Acts Interpretation Act 1901* (the **AIA**).

Section 132 of the Act allows the ACMA, by legislative instrument, to issue class licences to authorise any person to operate a radiocommunications device of a specified kind or for a specified purpose.

Subsection 33(3) of the AIA relevantly provides that, where an Act confers a power to make, grant or issue an instrument of a legislative character, the power shall be construed as including a power exercisable in the like manner and subject to the like conditions (if any) to repeal, rescind, revoke, amend or vary any such instrument.

Section 134 of the Act provides that, to avoid doubt, the power to vary a class licence in accordance with subsection 33(3) of the AIA includes the power to vary the class licence by including one or more further conditions or revoking any conditions of the class licence.

Section 136 of the Act requires the ACMA, before varying a class licence, to invite persons to make representations about the proposed variation and provide those persons with at least one month from the date of publication in which to make those representations. Details about the consultation undertaken are set out below.

Section 137 provides that the ACMA must not issue a class licence that is inconsistent with the spectrum plan or any relevant frequency band plans. The ACMA has made the instrument in accordance with sections 132, 136 and 137 of the Act, and subsection 33(3) of the AIA.

Purpose and operation of the instrument

It is a general requirement of the Act that the operation of all radiocommunications devices within Australia be authorised by a radiocommunications 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 are employed, and equipment is operated under a common set of conditions. A class licence is not issued to an individual user and does not involve the payment of licence fees.

The *Radiocommunications (Low Interference Potential Devices) Class Licence 2015* (the **LIPD Class Licence**) authorises the operation of a wide range of low interference radiocommunications transmitters in various segments of the radiofrequency spectrum. The LIPD Class Licence sets out the conditions under which these transmitters may be operated. These transmitters do not require individual frequency coordination because of their low interference potential characteristics. Examples of transmitters covered by the LIPD Class Licence include WiFi equipment, radio-frequency identification transmitters, personal alarms, and ground and wall penetrating radar devices.

The instrument varies the LIPD Class Licence to:

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- remove the provisional location for radio astronomy in Western Australia from the definition of nominated distance of a specified Australian radio-astronomy site;
- update the standards referenced for wireless audio transmitters in the 1785–1800 MHz band;
- include new arrangements for telecommand or telemetry transmitters in the 169.4–169.4875 MHz, 169.5875–169.8125 MHz and 169.4875–169.5875 MHz bands;
- include new arrangements for fixed telecommand or telemetry transmitters in the 928–935 MHz band;
- update the standards referenced for radiofrequency identification transmitters in the 920–926 MHz band;
- include new arrangements for data communications transmitters in the 24.25–25.1 GHz band;
- include new arrangements for radiodetermination transmitters in the 10-10.55 GHz band.

A provision-by-provision description of the instrument is set out in the notes at **Attachment A**.

The instrument is a disallowable legislative instrument for the purposes of the *Legislation Act 2003* (the **LA**).

Documents incorporated by reference

The instrument inserts references into the LIPD Class Licence to documents and writing as in force from time to time, as permitted by section 314A of the Act. The documents being incorporated into the LIPD Class Licence for the first time are:

- ETSI Standard EN 301 840 *Electromagnetic Compatibility and Radio Spectrum Matters (ERM); Digital Radio Microphones Operating in the CEPT Harmonized Band 1 785 MHz to 1 800 MHz; Part 2: Harmonized EN under Article 3.2 of the R&TTE Directive*
- International Organization for Standardisation (ISO) Standard ISO/IEC 18000-6:2013 *Information technology – Radio frequency identification for item management – Part 6: Parameters for air interface communications at 860 MHz to 960 MHz General*
- ISO Standard ISO/IEC 18000-61:2012 *Information technology – Radio frequency identification for item management – Part 61: Parameters for air interface communications at 860 MHz to 960 MHz Type A*
- ISO Standard ISO/IEC 18000-62:2012 *Information technology – Radio frequency identification for item management – Part 62: Parameters for air interface communications at 860 MHz to 960 MHz Type B*
- ISO Standard ISO/IEC 18000-63:2012 *Information technology – Radio frequency identification for item management – Part 63: Parameters for air interface communications at 860 MHz to 960 MHz Type C*
- ISO Standard ISO/IEC 18000-64:2012 *Information technology – Radio frequency identification for item management – Part 64: Parameters for air interface communications at 860 MHz to 960 MHz Type D*
- 3rd Generation Partnership Project (3GPP) Standard 3GPP TS 38.101-2 NR; *User Equipment (UE) radio transmission and reception; Part 2: Range 2 Standalone*
- 3GPP Standard 3GPP TS 38.104 NR; *Base Station (BS) radio transmission and reception*
- International Telecommunication Union (ITU) Resolution 750 (Rev. WRC-19) *Compatibility between the Earth exploration-satellite service (passive) and relevant active services*
- Federal Communications Commission (FCC) Code of Federal Regulations Title 47 §15.245 *Part 15 Section 245: Operation within the bands 902-928 MHz, 2435-2465 MHz, 5785-5815 MHz, 10500-10550 MHz, and 24075-24175 MHz.*

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At the date of making the instrument:

- the European Telecommunications Standards Institute (ETSI) standards and guides are available free of charge from the ETSI website: www.etsi.org.
- the Code of Federal Regulations is available free of charge from the e-CFR website: www.ecfr.gov.
- copies of instruments produced by the International Organization for Standardisation are available from the following website: www.iso.org.
- copies of instruments produced by the 3rd Generation Partnership Project are available free of charge from the following website: www.3gpp.org.
- copies of Resolutions of the International Telecommunication Union are available free of charge from the following website: www.itu.int.

Consultation

Before making the instrument, the ACMA was satisfied that consultation was undertaken to the extent appropriate and reasonably practicable, in accordance with section 17 of the LA.

Section 136 of the Act requires that a notice setting out particular details of the variation be published on the ACMA's website, and in one or more other forms that are readily accessible by the public. The notice must allow for a period of at least one month to be provided for public comment. Paragraph 136 (1A)(b) also requires consultation with spectrum licensees if their licences would be affected by the instrument.

On 15 September 2020, the ACMA published a notice on its website, which was also published in the Government Gazette on 16 September 2020, inviting public comment on the draft variation instrument until 26 October 2020.

Six submissions were received in response to the invitation for public comment. All submissions and a response to submissions paper are published on the ACMA's website.

As a result of feedback received in the consultation period, the following changes were made to the draft instrument:

- the definition of a nominated distance of a specified Australian radio-astronomy site was modified to remove what was a provisional location for radio astronomy in Western Australia which has since been replaced by the Murchison Radioastronomy Observatory mentioned in paragraph 4(1)(c) of the LIPD Class Licence. This change was requested by the Commonwealth Scientific and Industrial Research Organisation (CSIRO).
- a limitation was added to clarify the indoor operation of data communications transmitters for the purposes of new items 63A and 63B.

Regulatory impact assessment

A preliminary assessment of the proposal to make the instrument was conducted by the Office of Best Practice Regulation (OBPR), based on information provided by the ACMA, for the purposes of determining whether a Regulation Impact Statement (RIS) would be required. OBPR advised that a RIS would not be required because the proposed regulatory change is minor or machinery in nature – OBPR reference number 42671.

Statement of compatibility with human rights

Subsection 9(1) of the *Human Rights (Parliamentary Scrutiny) Act 2011* requires the rule-maker in relation to a legislative instrument to which section 42 (disallowance) of the LA applies to cause a statement of compatibility with human rights to be prepared in respect of that legislative instrument.

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The statement of compatibility set out below has been prepared to meet that requirement.

Overview of the instrument

The instrument varies the LIPD Class Licence to:

- remove the provisional location for radio astronomy in Western Australia from the definition of nominated distance of a specified Australian radio-astronomy site;
- update the standards referenced for wireless audio transmitters in the 1785–1800 MHz band;
- include new arrangements for telecommand or telemetry transmitters in the 169.4–169.4875 MHz, 169.5875–169.8125 MHz and 169.4875–169.5875 MHz bands;
- include new arrangements for fixed telecommand or telemetry transmitters in the 928–935 MHz band;
- update the standards referenced for radiofrequency identification transmitters in the 920–926 MHz band;
- include new arrangements for data communications transmitters in the 24.25–25.1 GHz band;
- include new arrangements for radiodetermination transmitters in the 10–10.55 GHz band.

Human rights implications

The ACMA has assessed whether the instrument is compatible with human rights, being the rights and freedoms recognised or declared by the international instruments listed in subsection 3(1) of the *Human Rights (Parliamentary Scrutiny) Act 2011* as they apply to Australia.

Having considered the likely impact of the instrument and the nature of the applicable rights and freedoms, the ACMA has formed the view that the instrument does not engage any of those rights or freedoms.

Conclusion

The instrument is compatible with human rights as it does not raise any human rights issues.

Notes to the Radiocommunications (Low Interference Potential Devices) Class Licence Variation 2020 (No. 1)

Section 1 Name of instrument

This section provides for the instrument to be cited as the *Radiocommunications (Low Interference Potential Devices) Class Licence Variation 2020 (No.1)*.

Section 2 Commencement

This section provides that the instrument commences at the start of the day after the day it is registered on the Federal Register of Legislation.

Section 3 Authority

This section identifies the provision that authorises the making of the instrument, namely section 132 of the *Radiocommunications Act 1992* (the **Act**).

Section 4 Variations

This section provides that the legislative instrument specified in Schedule 1, the *Radiocommunications (Low Interference Potential Devices) Class Licence 2015* (the **LIPD Class Licence**), is varied as set out in that Schedule.

Schedule 1 Variations

Item 1 Subsection 3A(1), after the definition of *community television broadcasting service*

A new definition has been inserted to define *controlled premises* as meaning premises that are owned by or under the control of a person who is providing a radiocommunications service under the LIPD Class Licence.

Item 2 Subsection 3A(1), definition of *nominated distance of a specified Australian radio-astronomy site*

The definition has been modified to remove what was a provisional location for radio astronomy in Western Australia which has since been replaced by the Murchison Radioastronomy Observatory mentioned in paragraph 4(1)(c) of the LIPD Class Licence.

Item 3 Subsection 3A(1), after the definition of *temporary community broadcasting licence*

A new definition has been inserted to define *total radiated power* or *TRP* as meaning the integral of the power transmitted in different directions over the entire radiation sphere. It is measured considering the combination of all radiating elements on an antenna panel or individual device.

Item 4 Schedule 1 (table item 30, column 4, paragraph (a))

This item enables devices operating under item 30 of Schedule 1 to be authorised if they are compliant with either ETSI Standard EN 300 422 or ETSI Standard EN 301 840. This has the effect of adding ETSI Standard EN 301 840 as an option for compliance which captures digital wireless audio transmitters.

Item 5 Schedule 1 (after table item 39)

New items 39A and 39B have been inserted in Schedule 1 to the LIPD Class Licence to authorise the use of telecommand or telemetry transmitters in the 169.4-169.8125 MHz band. These will be used

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for Internet of Things (IoT) or similar applications. Column 4 describes technical limitations related to the maximum duty cycle of these devices.

New item 39C is inserted in Schedule 1 to the LIPD Class Licence to authorise the use of fixed telecommand or telemetry transmitters in the 928-935 MHz band. These arrangements will support low-power wide-area network (LPWAN) rollouts, which include a range of emerging monitoring and control technologies. Column 4 describes technical limitations related to the maximum duty cycle and maximum radiated spectral density of these devices.

Item 6 Schedule 1 (table item 45, column 4, paragraph (a))

This item updates the applicable standards for use of radiofrequency identification (RFID) transmitters in the 920–926 MHz band. These transmitters must comply with ISO/IEC 18000-6:2013 and one of the following instruments: ISO/IEC 18000-61:2012; ISO/IEC 18000-62:2012; ISO/IEC 18000-63:2012; ISO/IEC 18000-64:2012. This update follows a change in the name of these standards and broadens these arrangements to apply to other types of RFID transmitters not previously authorised.

Item 7 Schedule 1 (after table item 63)

Two new items 63A and 63B have been inserted in Schedule 1 to the LIPD Class Licence.

Item 63A has been inserted in Schedule 1 to the LIPD Class Licence to authorise the use of data communications transmitters used indoors in or on controlled premises in the 24250–24700 MHz band. Column 4 provides for limitations on the operation of a transmitter. Paragraph (a) requires that base station transmitters must not exceed a total radiated power of 20 dBm/200 MHz. Paragraph (b) requires that user equipment transmitters must not exceed a total radiated power of 22 dBm per occupied bandwidth. Paragraph (c) requires that base station transmitters must comply with the unwanted and spurious emission limits described in 3GPP TS 38.104. Paragraph (d) requires that user equipment transmitters must comply with the unwanted and spurious emission limits described in 3GPP TS 38.101-2. Paragraph (e) requires that a transmitter’s total radiated power must not exceed the emission limits set out in Table 1 of ITU Resolution 750 (Rev. WRC-19) measured anywhere in the range 23.6–24 GHz. Paragraph (f) requires that the aggregate power flux-density must not exceed -105.4 dBW/MHz/m² at the external boundary walls of the controlled premises. Paragraph (g) requires that indoor use is limited to an area enclosed by permanent walls on all sides and having a permanent roof.

Item 63B has been inserted in Schedule 1 to the LIPD Class Licence to authorise the use of data communications transmitters used indoors or outdoors in or on controlled premises in the 24700–25100 MHz band. Column 4 provides for limitations on the operation of a transmitter. Paragraph (a) requires that base station transmitters must not exceed a total radiated power of 25 dBm/200 MHz. Paragraph (b) requires that user equipment transmitters must not exceed a total radiated power of 22 dBm per occupied bandwidth. Paragraph (c) requires that base station transmitters must comply with the unwanted and spurious emission limits described in 3GPP TS 38.104. Paragraph (d) requires that user equipment transmitters must comply with the unwanted and spurious emission limits described in 3GPP TS 38.101-2. Paragraph (e) requires that a transmitter’s total radiated power must not exceed the emission limits set out in Table 1 of ITU Resolution 750 (Rev. WRC-19) measured anywhere in the range 23.6–24 GHz. Paragraph (f) requires that the aggregate power flux-density must not exceed -105.4 dBW/MHz/m² at the external boundary walls of the controlled premises. Paragraph (g) requires that indoor use is limited to an area enclosed by permanent walls on all sides and having a permanent roof.

Item 7 flows from a review of the 26 GHz band completed by the ACMA in April 2019. The outcomes were outlined in the *Future use of the 26 GHz band—Planning decisions and preliminary views decision paper* (the 26 GHz decision paper) available on the ACMA website. These outcomes included 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, for example, factories, mine sites, hospitals and educational institutions.

Item 8 Schedule 1 (after table item 66)

A new item 66A has been inserted in Schedule 1 to the LIPD Class Licence to authorise the use of radiodetermination transmitters in the 10500-10550 MHz band. This will enable the use of portable launch monitors intended to measure path and trajectory in various sporting applications. In column 4 it is specified that these transmitters must comply with FCC Rules Title 47 Part 15 Section 245.

Item 9 Schedule 2 (after table item 1)

This item inserts a new entry in the table titled 'Instruments that apply to a transmitter' in Schedule 2 to the LIPD Class Licence, in relation to wireless audio transmitters in the 1785-1800 MHz band.

The new entry lists the ETSI Standard EN 301 840: *Short Range Devices; Electromagnetic Compatibility and Radio Spectrum Matters (ERM); Digital Radio Microphones Operating in the CEPT Harmonized Band 1 785 MHz to 1 800 MHz; Part 2: Harmonized EN under Article 3.2 of the R&TTE Directive.*

Item 10 Schedule 2 (table item 14)

This item updates one entry and inserts four new entries in the table titled 'Instruments that apply to a transmitter' in Schedule 2 to the LIPD Class Licence, in relation to radiodetermination transmitters in the 920–926 MHz band.

The updated entry corrects the name of the standard referred to in item 45 of Schedule 1 to its current title of International Organization for Standardisation (ISO) Standard ISO/IEC 18000-6:2013 *Information technology – Radio frequency identification for item management – Part 6: Parameters for air interface communications at 860 MHz to 960 MHz General.*

The first new entry lists the ISO Standard ISO/IEC 18000-61:2012 *Information technology – Radio frequency identification for item management – Part 61: Parameters for air interface communications at 860 MHz to 960 MHz Type A.*

The second new entry lists the ISO Standard ISO/IEC 18000-62:2012 *Information technology – Radio frequency identification for item management – Part 62: Parameters for air interface communications at 860 MHz to 960 MHz Type B.*

The third new entry lists ISO Standard ISO/IEC 18000-63:2012 *Information technology – Radio frequency identification for item management – Part 63: Parameters for air interface communications at 860 MHz to 960 MHz Type C.*

The fourth new entry lists ISO Standard ISO/IEC 18000-64:2012 *Information technology – Radio frequency identification for item management – Part 64: Parameters for air interface communications at 860 MHz to 960 MHz Type D.*

This update follows a change in the name of these standards and broadens these arrangements to apply to other types of RFID transmitters not previously authorised.

Item 11 Schedule 2 (after table item 19)

This item inserts four new entries in the table titled 'Instruments that apply to a transmitter' in Schedule 2 to the LIPD Class Licence, in relation to data communications transmitters used indoors in or on controlled premises in the 24250–24700 MHz band and data communications transmitters used indoors or outdoors in or on controlled premises in the 24700–25100 MHz band.

The first new entry lists the 3rd Generation Partnership Project (3GPP) Standard 3GPP TS 38.101-2 *NR; User Equipment (UE) radio transmission and reception; Part 2: Range 2 Standalone.*

The second new entry lists the 3GPP Standard 3GPP TS 38.104 *NR; Base Station (BS) radio transmission and reception.*

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The third new entry lists International Telecommunication Union (ITU) Resolution 750 (Rev. WRC-19) *Compatibility between the Earth exploration-satellite service (passive) and relevant active services*.

The fourth new entry lists the Federal Communications Commission (FCC) Code of Federal Regulations Title 47 §15.245 *Part 15 Section 245: Operation within the bands 902-928 MHz, 2435-2465 MHz, 5785-5815 MHz, 10500-10550 MHz, and 24075-24175 MHz*.

Item 12 Schedule 2 (after Note 5)

This item inserts Note 6 and Note 7 into Schedule 2.

Note 6 states that copies of instruments produced by the 3rd Generation Partnership Project are available from the following website: <https://www.3gpp.org>.

Note 7 states that copies of Resolutions of the International Telecommunication Union are available from the following website: <https://www.itu.int>.