



An Coimisiún um
Rialáil Cumarsáide
Commission for
Communications Regulation

Proposed amendment of MBSA2 technical conditions for the 2.3 GHz Band

Update to ECC Decision (14)02

Consultation

Reference: ComReg 23/54

Date: 20/06/2023

An Coimisiún um Rialáil Cumarsáide
Commission for Communications Regulation

1 Lárcheantar na nDugaí, Sráid na nGildeanna, BÁC 1, Éire, D01 E4X0.
One Dockland Central, Guild Street, Dublin 1, Ireland, D01 E4X0.
Teil | Tel +353 1 804 9600 Suíomh | Web www.comreg.ie

Legal Disclaimer

This Consultation is not a binding legal document and also does not contain legal, commercial, financial, technical or other advice. The Commission for Communications Regulation is not bound by it, nor does it necessarily set out the Commission's final or definitive position on particular matters. To the extent that there might be any inconsistency between the contents of this document and the due exercise by it of its functions and powers, and the carrying out by it of its duties and the achievement of relevant objectives under law, such contents are without prejudice to the legal position of the Commission for Communications Regulation. Inappropriate reliance ought not therefore to be placed on the contents of this document.

Content

Section	Page
1 Introduction.....	5
2 Background Information	7
2.1 Existing MBSA2 technical conditions for the 2.3 GHz band	7
2.2 Decision of 2023 – additional technical conditions defined for deploying AAS base stations in the 2.3 GHz Band.....	7
3 Proposed amendments to implement the Decision of 2023	9
3.2 In-Block Power Limits – AAS base stations	10
3.3 Out of Block Power Limits – AAS Base Stations.....	10
3.4 Proposed amendments to MBSA2 Licences and MBSA2 Regulations	12
4 Submitting comments and next steps	13
4.2 Submitting Comments.....	13
4.3 Next Steps.....	14

Annex

Section	Page
Annex 1: Draft MBSA2 Licence showing the proposed amendments	15
Annex 2: Draft amending regulations.....	18

Chapter 1

1 Introduction

1.1 This document sets out the Commission for Communications Regulation's (ComReg's) proposals to amend the technical conditions for the 2.3 GHz Band¹, as currently set out in:

- Schedule 1 of the Multi-Band Spectrum Award ("MBSA2") Regulations²; and
- the MBSA2 Liberalised Use Licences ("MBSA2 Licences") issued to Imagine Communications Ltd. ("Imagine"), Meteor Mobile Communications Ltd. ("Eir"), Three Ireland Hutchison Ltd. ("Three") and Vodafone Ireland Ltd. ("Vodafone").

1.2 While all MBSA2 Licences contain the same licence conditions, only Eir and Imagine hold rights in the 2.3 GHz Band.

1.3 The proposals arise from the update of 10 March 2023 to ECC Decision (14)02³ ("Decision of 2023") and caters for recent developments at a technical and regulatory level by:

- setting out the least-restrictive technical conditions ("LRTC") for deploying 5G New Radio ("NR") and Active Antenna Systems (AAS)⁴ base stations, and for deploying AAS base stations with 4G/Long-Term Evolution ("LTE") technology⁵; and
- retaining the same technical conditions in the previous version of this decision, i.e., ECC Decision 14(02) approved on 27 June 2014 ("Decision of 2014"). These relate to the band plan for the 2.3 GHz band, the LRTC for deploying

¹ "2.3 GHz Band" refers to the frequency range 2300 to 2400 MHz.

² The Wireless Telegraphy (Liberalised Use and Related Licences in the 700 MHz Duplex, 2.1 GHz, 2.3 GHz and 2.6 GHz Bands) Regulations 2021 ([S.I. 264 of 2021](#)) as amended by the Wireless Telegraphy (Liberalised Use and Related Licences in the 700 MHz Duplex, 2.1 GHz, 2.3 GHz and 2.6 GHz Bands) (Amendment) Regulations 2022. ([S.I. 483 of 2022](#)), available at <https://www.irishstatutebook.ie/>

³ [ECC Decision \(14\)02](#), "Harmonised technical and regulatory conditions for the use of the band 2300-2400 MHz for Mobile/Fixed Communications Networks (MFCN)" approved 27 June 2014, amended 10 March 2023, available at <https://docdb.cept.org/>

⁴ An AAS (active antenna systems) MFCN system refers to MFCN base stations and antenna systems where the amplitude and/or phase of the signals from the various antenna elements is continually adjusted resulting in an antenna pattern that varies in response to short term changes in the radio environment. This is intended to exclude long-term beam shaping such as fixed electrical down tilt.

⁵ The deployment of AAS MFCN systems compared to non-AAS MFCN systems enhances the capacity and throughput bit rates of a base station and improves the efficient usage of spectrum

non-AAS⁶ base stations and the technical conditions for user terminals (together “the Proposed Amendments”).

Structure of this document

1.4 This consultation is structured as follows.

- Chapter 2 sets out background information on the existing MBSA2 technical conditions for the 2.3 GHz band and updated technical conditions in the Decision of 2023;
- Chapter 3 discusses the Proposed Amendments arising from the Decision of 2023. The Proposed Amendments are then set out in draft form in:
 - a draft MBSA2 Licence showing the amended technical conditions for the 2.3 GHz Band (see Annex 1); and
 - draft amending regulations (see Annex 2); and
- Chapter 4 discusses next steps.

⁶ A non-AAS (non-active antenna systems) MFCN system refers to MFCN base stations that provide one or more antenna connectors, which are connected to one or more separately designed passive antenna elements to radiate radio waves.

Chapter 2

2 Background Information

2.1 Existing MBSA2 technical conditions for the 2.3 GHz band

- 2.1 In January 2023, ComReg announced the results of the MBSA2 radio spectrum award⁷ and shortly thereafter issued a MBSA2 Licence to each of the four winning bidders (the “MBSA2 Licensees”). The MBSA2 Licences all commenced on 20 January 2023 and among other things set out the spectrum rights of use licensed to each MBSA2 Licensee and their respective licence conditions.
- 2.2 In relation to the 2.3 GHz Band, Eir was issued a MBSA2 Licence with spectrum rights in the 2300 to 2360 MHz frequency range and Imagine was issued a MBSA2 Licence with spectrum rights in the 2360 to 2400 MHz frequency range (see Figure 1 below).

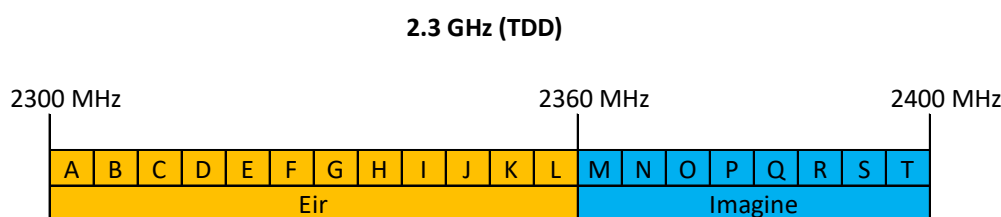


Figure 1: MBSA2 spectrum rights in the 2.3 GHz band

- 2.3 The MBSA2 Licences and the MBSA2 Regulations contain technical conditions for the 2.3 GHz Band based on the Decision of 2014, which was the current decision at the relevant time.
- 2.4 In the MBSA2 Licences, the technical conditions are set out in Part 4, Section 2: “Technical Conditions” and Part 4, Section 3: “Inter-Licensee Synchronisation Procedure”. These conditions define the band plan for the 2.3 GHz Band, the LTRC for deploying non-AAS base stations and the technical conditions for user terminals.
- ## 2.2 Decision of 2023 – additional technical conditions defined for deploying AAS base stations in the 2.3 GHz Band

- 2.5 In 2022, the ECC commenced a review of the Decision of 2014 and subsequently

⁷ See below ComReg Documents all available at www.comreg.ie:

- [23/06](#), “Multi Band Spectrum Award– Final Assignment Plan”, published 12 January 2023;
- [22/112](#), “Multi Band Spectrum Award– Completion of Assignment Round determining the Provisional Assignment Plan and start of Negotiation Phase”, published 19 December 2022, and
- [22/105](#), “Multi Band Spectrum Award – Results of the Main Stage”, published 14 December 2022.

developed harmonised LRTC suitable for 5G (NR) and AAS base stations to complement the existing technical conditions for the 2.3 GHz Band.

- 2.6 On 10 March 2023, the ECC adopted its Decision of 2023 which amended its Decision of 2014 and set out the LRTC for the deployment of AAS base stations. Section 3 of this document sets out ComReg’s proposals to implement these AAS technical conditions.
- 2.7 In relation to the (i) band plan for the 2.3 GHz Band; (ii) the LRTC for non-AAS base stations; and (iii) the technical conditions for user equipment, the Decision of 2023 retains the same technical conditions as set out in the Decision of 2014. This consultation therefore does not entail any amendments to these technical conditions aside from proposed editorial changes to align with the Decision of 2023. For example, amending the definitions of the Restrictive Block Edge Mask (“BEM”) and Unrestrictive BEM for the 2.3 GHz Band to clarify how the BEM is obtained with reference to the table referencing in the Decision of 2023.

Chapter 3

3 Proposed amendments to implement the Decision of 2023

3.1 By way of background, any implementation of the Decision of 2023 to permit the deployment of AAS base stations in the 2.3 GHz Band would require amendments to the relevant technical conditions set out in the MBSA2 Licences (and the MBSA2 Regulations) in accordance with Regulation 14 of the European Union (Electronic Communications Code) Regulations⁸. Regulation 14 relevantly provides:

14. (1) The Regulator may amend the rights, conditions and procedures concerning the general authorisation, rights of use for radio spectrum or rights of use for numbering resources provided that any such amendment may only be made in objectively justified cases and in a proportionate manner, taking into consideration, where appropriate, the specific conditions applicable to transferable rights of use for radio spectrum or for numbering resources. The Regulator shall notify the holder of the authorisation or the rights of use of any decision to make the amendment.

...

(4) Except where the proposed amendments are minor in nature and have been agreed with the holder of a general authorisation, a right of use for radio spectrum, a right of use for numbering resources, a consent referred to in paragraph (2) or a licence referred to in paragraph (3), before making any amendment under this Regulation, the Regulator, the NRA, a road authority or a local authority, as the case may be, shall —

(a) give notice, in such manner as it considers appropriate, of its intention to make the amendment and invite interested parties, including users and consumers, to make representations on the proposed amendment within such period as may be specified in the notice but not being, except in exceptional circumstances, less than 28 days from the date of the notice, and

(b) have regard to any representations made to it under subparagraph (a).

(5) Amendments made in accordance with this Regulation shall be published by the Regulator, the NRA, a road authority or a local authority as

⁸ S.I. No. 444/2022 - European Union (Electronic Communications Code) Regulations 2022.

appropriate, together with the reasons therefor.”

3.2 In the Decision of 2023, the LRTC applicable for AAS base stations is set out in the form of a BEM comprising of:

- In-block power limits (see Table 2 of Decision of 2023); and
- Out-of-block power limits for the baseline (see Tables 3 and 5 of Decision of 2023) and the transitional region (see Table 6 of Decision of 2023).

3.2 In-Block Power Limits – AAS base stations

3.3 From Table 2 of the Decision of 2023, ComReg notes that:

- an in-block power limit for AAS base stations is not obligatory for spectrum blocks in the 2300 – 2390 MHz frequency range; and
- a total radiated power (TRP)⁹ limit of 31 dBm / 5 MHz per cell is set for spectrum blocks in the 2390 – 2400 MHz frequency range.

3.4 In relation to spectrum in the 2300-2390 MHz frequency range, and noting that an in-block power limit for AAS base stations is set out in the MBSA2 Licences for both the 2.1 GHz and 2.6 GHz bands, ComReg proposes to set an in-block power limit for AAS base stations.

3.5 Regarding the level of this in-block power limit for AAS Base Stations, ComReg proposes to set this at 60 dBm / 5 MHz given that this limit is considered to be of a magnitude sufficient for the provision of likely services in the band. Further this is, the same limit in respect of the 2.6 GHz Band, which shares similar technical characteristics to the 2.3 GHz Band.

3.6 In relation to the spectrum in the 2390 - 2400 MHz frequency range, ComReg proposes to adopt the limit set in the Decision of 2023, namely to set an in-block power limit for AAS base stations of not more than 31 dBm / 5 MHz.

3.3 Out of Block Power Limits – AAS Base Stations

Baseline power limits

3.7 Table 3 of the Decision of 2023 sets out the baseline power limits for AAS base stations as follows:

⁹ TRP is a measure of the total power that an antenna radiates. The TRP is defined as the integral of the power transmitted in different directions over the entire radiation sphere. For an isotropic antenna radiation pattern, e.i.r.p. and TRP are equivalent. For a directional antenna radiation pattern, e.i.r.p. in the direction of the main beam is (by definition) greater than the TRP.

- for **synchronised** TDD blocks - a TRP limit per cell of $\text{Min}(P_{\text{max}}'^{10} - 43, 1)$ dBm / 5 MHz TRP¹¹; and
- for **unsynchronised** TDD blocks - a TRP limit per cell of -45 dBm / 5 MHz.

3.8 Table 5 of the Decision of 2023 sets out the additional baseline power limits above 2403 MHz for unsynchronised and synchronised MFCN base stations as follows:

- for an AAS base station maximum mean carrier power of $P_{\text{max}}' > 47$ dBm, an AAS TRP limit per cell of -13 dBm / 5 MHz applies;
- for an AAS base station maximum mean carrier power of $33 \text{ dBm} < P_{\text{max}}' \leq 47$ dBm, an AAS TRP limit per cell of $(P_{\text{max}}' - 60)$ dBm / 5 MHz applies; and
- for an AAS base station maximum mean carrier power of $P_{\text{max}}' \leq 33$ dBm, an AAS TRP limit per cell of -27 dBm / 5 MHz applies.

3.9 Noting that the Decision of 2023 sets harmonised baseline and additional baseline power limits for AAS base stations, ComReg proposes to adopt same.

Transitional region requirements for MFCN base stations

3.10 ComReg notes that Table 6 of the Decision of 2023 explains that the transitional region does not apply below 2300 MHz or above 2400 MHz, and that:

- for **synchronised** networks, the transitional region applies to adjacent spectrum blocks; and
- for **unsynchronised** networks, the transitional region applies in-between adjacent TDD blocks that are separated by 5 or 10 MHz.

3.11 Table 6 of the Decision of 2023 sets out the transitional power limits for AAS base stations as follows:

- for -5 to 0 MHz offset from lower block edge or 0 to 5 MHz offset from upper block edge, an AAS TRP limit per cell of $\text{Min}(P_{\text{max}}' - 40, 16)$ dBm / 5 MHz TRP applies;¹² and
- for -10 to -5 MHz offset from lower block edge or 5 to 10 MHz offset from upper block edge an AAS TRP limit per cell of $\text{Min}(P_{\text{max}}' - 43, 12)$ dBm / 5 MHz TRP applies.

3.12 Noting that the Decision of 2023 sets harmonised transitional region power limits for AAS base stations, ComReg proposes to adopt same.

¹⁰ Where P_{max}' is the maximum mean power of the base station in question, measured as EIRP per carrier

¹¹ In a multi-sector base station, the radiated power limit applies to each one of the individual sectors.

¹² In a multi-sector base station, the radiated power limit applies to each one of the individual sectors.

3.4 Proposed amendments to MBSA2 Licences and MBSA2 Regulations

3.13 In light of the above, and in accordance with Regulation 14 of the European Union (Electronic Communications Code) Regulations, ComReg particularly refers interested parties to the following:

- Annex 1 – which sets out the draft MBSA2 technical conditions for the 2.3 GHz Band that are proposed to be included by way of an amendment to the MBSA2 Licences; and
- Annex 2 – which sets out the draft amending regulations that are proposed to be made (which are subject to the consent of the Minister of the Environment, Climate and Communications).

Chapter 4

4 Submitting comments and next steps

4.1 The consultation period will run until **17:00 on 18 July 2023** during which time ComReg welcomes written comments on the matters raised in this paper.

4.2 Submitting Comments

4.2 All input and comments are welcome, including reasoning and all supporting information for any views expressed.

4.3 It would ease the analysis of same if comments were referenced to the relevant parts of this document (e.g. section / paragraph number in each chapter, annex etc).

4.4 Submissions must be provided in written form (e-mail) to the following recipient, clearly marked - **Submissions to ComReg 23/54**:

- Mr. Martin O Donoghue
- Email: marketframeworkconsult@comreg.ie

4.5 Electronic submissions should be submitted in an unprotected format so that they may be readily included in the submissions received document for electronic publication.

4.6 ComReg appreciates that respondents may wish to provide confidential information if their comments are to be meaningful. In order to promote openness and transparency, ComReg will publish all respondents' submissions to this notice, as well as all substantive correspondence on matters relating to this document, subject to the provisions of ComReg's guidelines on the treatment of confidential information (Document 05/24)¹³.

4.7 In this regard, respondents should submit views in accordance with the instructions set out below. When submitting a response to this notification that contains confidential information, respondents must choose one of the following options:

- A. Preferably, submit both a non-confidential version and a confidential version of the response. The confidential version must have all confidential information clearly marked and highlighted in accordance with the instruction set out below and include the reasons as to why any particular material is considered to be confidential. The separate non-confidential version must have actually redacted

¹³ Response to Consultation - Guidelines on the treatment of confidential information – ComReg Document 05/24: https://www.comreg.ie/media/dlm_uploads/2015/12/ComReg0524.pdf

all items that were marked and highlighted in the confidential version.

OR

B. Submit only a confidential version including the reasons as to why any particular material is considered to be confidential and ComReg will perform the required redaction to create a non-confidential version for publication. With this option, respondents must ensure that confidential information has been marked and highlighted in accordance with the instructions set out below. Where confidential information have not been marked as per our instructions below, then ComReg will not create the nonconfidential redacted version and the respondent will have to provide the redacted non-confidential version in accordance with option A above.

4.8 For ComReg to perform the redactions under Option B, respondents must mark and highlight all confidential information in their submission as follows:

- A. Confidential information contained within a paragraph must be highlighted with a chosen particular colour;
- B. Square brackets must be included around the confidential text (one at the start and one at the end of the relevant highlighted confidential information); and
- C. A Scissors symbol (Symbol code: Wingdings 2:38) must be included after the first square bracket.

For example, “Redtelecom has a market share of [✂ 25% ✂].”

4.3 Next Steps

4.9 After concluding its review of all submissions received and other relevant material, ComReg intends to publish a response to consultation and final decision on this matter.

Annex 1: Draft MBSA2 Licence showing the proposed amendments

A 1.1 The proposed amendments to the MBSA2 technical conditions for the 2.3 GHz Band in the MBSA2 Licences are shown below. The proposed additions are in underlined text, and the proposed deletions are in strikethrough text.

Part 4

Licence Conditions

Section 2: Technical Conditions

1. Definitions

[...]

2. Technical Conditions

[...]

(3) The 2.3 GHz Band

(a) Only terrestrial systems compatible with the Decision of 2014 can be worked and used in the 2.3 GHz Band.

(b) The TDD mode of operation shall be used in the 2.3 GHz Band.

(c) The Licensee shall comply with the Inter-Licensee Synchronisation Procedure set out in Section 3 of this Licence.

(d) The Licensee shall comply with all MoU¹⁴ between the Commission and its neighbouring national regulatory authorities responsible for communications matters, in particular Ofcom in the UK, or its successor, in relation to the 2.3 GHz Band.

(e) If the Licence includes Spectrum Blocks in the range 2305 to 2330 MHz and the Licensee intends to deploy Base Stations in the coordination area¹⁵, the Licensee shall coordinate with the operator of the RurTel system to ensure coexistence with the RurTel system currently operating in the frequency range 2307-2327 MHz.

¹⁴ Current Memorandum of Understanding on frequency coordination between Ireland and the United Kingdom in the frequency bands 2300 -2400 MHz to be applied in the area including the Republic of Ireland and the United Kingdom and the Isle of Man, available at www.comreg.ie

¹⁵ The relevant coordination area is as defined in the Information Memorandum.

Base Stations

(f) Within the 2.3 GHz Band Generic Frequency Blocks assigned to the Licensee, the in-block radiated power from a Base Station must not exceed an upper limit of (i) 68 dBm/5 MHz EIRP per antenna for non-AAS and (ii) 60 dBm/5 MHz TRP per cell for AAS.

(g) Within the 2.3 GHz Band Fixed Frequency Block, if assigned to the Licensee, the in-block radiated power from a Base Station must not exceed an upper limit of (i) 45 dBm/5 MHz EIRP for non-AAS and (ii) 31 dBm/5 MHz TRP for AAS.

(h) Outside of the 2.3 GHz Band Generic Frequency Blocks and the 2.3 GHz Band Fixed Frequency Block, if assigned to the Licensee, the Licensee shall comply with the out-of-block BEM requirements as specified in Section A2.1 *“Technical Conditions for MFCN Base Stations (TDD)”* of Annex 2 to the Decision of 2014.

Terminal Stations

(i) The maximum mean in-block power limit of 25 dBm⁸ for Terminal Stations shall apply.

Section 3: Inter-Licensee Synchronisation Procedure

This Section 3 applies only to Licensees assigned 2.3 GHz Band Blocks or 2.6 GHz Band TDD Blocks, or both 2.3 GHz Band Blocks and 2.6 GHz Band TDD Blocks.

1. Definitions

[...]

“Restrictive BEM” means, for Licensees utilising the Other Frame Structure (or failing to synchronise with adjacent channel networks for any other reason):

(a)[...]

(b) for any 2.3 GHz Band Blocks assigned to a Licensee, ~~section A2.1.1, “In-block requirements for MFCN base stations” and Table 2 and Table 4~~ a Restrictive BEM is given by combining the relevant maximum permitted in-block radiated power appropriate to the Licensee and the out-of-block limits from Table 3 and Table 6 (relating to unsynchronised TDD blocks) of Annex 2 to the Decision of 2014 ~~applies;~~

“Unrestrictive BEM” means, for Licensees utilising the Default Frame Structure on their network (and having a common reference phase clock with adjacent channel operators²⁰):

(a)[...]; and

(b) for any 2.3 GHz Band Blocks assigned to a Licensee, ~~Table 2 and Table 4~~ Table 3 and Table 6 of Annex 2 of the Decision of 2014 relating to synchronised TDD blocks applies.

2. Introduction

[...]

3. Conditions for using the Unrestrictive BEM

[...]

4. Conditions for using the Restrictive BEM

[...]

5. Indoor Small Cells

[...]

DRAFT

Annex 2: Draft amending regulations

- A 2.1 **Any final version of these regulations, which would be made by ComReg under section 6 of the Wireless Telegraphy Act 1926, is expressly subject to the consent of the Minister for the Environment, Climate and Communications under section 37 of the Communications Regulation Act 2002, as amended**
- A 2.2 ComReg may make such editorial changes to the text of any final regulations as it considers necessary and without further consultation, where such changes would not affect the substance of the regulations



STATUTORY INSTRUMENTS.

S.I. No. _____ of 2023

WIRELESS TELEGRAPHY (LIBERALISED USE AND RELATED LICENCES IN THE
700 MHz DUPLEX, 2.1 GHz, 2.3 GHz AND 2.6 GHz BANDS) (AMENDMENT No. 2)
REGULATIONS 2022

S.I. No. of 2023

WIRELESS TELEGRAPHY (LIBERALISED USE AND RELATED LICENCES IN THE
700 MHz DUPLEX, 2.1 GHz, 2.3 GHz AND 2.6 GHz BANDS) (AMENDMENT No. 2)
REGULATIONS 2023

The Commission for Communications Regulation, in exercise of the powers conferred on it by section 6(1) of the Wireless Telegraphy Act 1926 (No. 45 of 1926) as substituted by section 182 of the Broadcasting Act 2009 (No. 18 of 2009), as amended, and with the consent of the Minister for the Environment, Climate and Communications (as adapted by the Communications, Climate Action and Environment (Alteration of Name of Department and Title of Minister) Order 2020 (S.I. No. 373 of 2020)) in accordance with section 37 of the Communications Regulation Act 2002 (No. 20 of 2002), hereby makes the following Regulations:

Citation

1. These Regulations may be cited as the Wireless Telegraphy (Liberalised Use and Related Licences in the 700 MHz Duplex, 2.1 GHz, 2.3 GHz and 2.6 GHz Bands) (Amendment No. 2) Regulations 2023.

Interpretation

2. (1) In these Regulations:

“Principal Regulations” means the Wireless Telegraphy (Liberalised use and related Licences in the 700 MHz duplex, 2.1 GHz, 2.3 GHz and 2.6 GHz bands) Regulations 2021 (S.I. No 264 of 2021) as amended by the Wireless Telegraphy (Liberalised Use and Related Licences in the 700 MHz Duplex, 2.1 GHz, 2.3 GHz and 2.6 GHz Bands) (Amendment) Regulations 2022 (S.I. 483 of 2022).

(2) A word or expression that is used in these Regulations and that is also used in the Principal Regulations has, unless the context otherwise requires, the same meaning in these Regulations that it has in those Regulations.

Licences to which these Regulations apply

3. These Regulations apply to MBSA2 Liberalised Use Licences.

Amendment of Regulation 2 of the Principal Regulations

4. Regulation 2(1) of the Principal Regulations is amended by the substitution of the following definition for the definition of “Decision of 2014”:

“Decision of 2014” means Electronic Communications Committee Decision (14)02 entitled *“Harmonised technical and regulatory conditions for the use of the band 2300-2400 MHz for Mobile/Fixed Communications Networks (MFCN), approved 27 June 2014, amended 10 March 2023,”*.

Amendment of Part 4 of the Principal Regulations

5. Paragraph 3 of sub-section 2 of Section 2 of Part 4 of Schedule 1 to the Principal Regulations (entitled “The 2.3 GHz Band”) is amended -

- (a) by the substitution of the following sub-paragraph for sub-paragraph (f):
- “(f) Within the 2.3 GHz Band Generic Frequency Blocks assigned to the Licensee, the in-block radiated power from a Base Station must not exceed an upper limit of:*
- (i) 68 dBm/5 MHz EIRP per antenna for non-AAS; and*
 - (ii) 60 dBm/5 MHz TRP per cell for AAS.”*
- (b) by the substitution of the following sub-paragraph for sub-paragraph (g):
- “(g) Within the 2.3 GHz Band Fixed Frequency Block, if assigned to the Licensee, the in-block radiated power from a Base Station must not exceed an upper limit of:*
- (i) 45 dBm/5 MHz EIRP for non-AAS, and*
 - (ii) 31 dBm/5MHz TRP for Non-AAS.”, and*
- (c) by the substitution of the following sub-paragraph for sub-paragraph (h):
- “(h) Outside of the 2.3 GHz Band Generic Frequency Blocks and the 2.3 GHz Band Fixed Frequency Block, if assigned to the Licensee, the Licensee shall comply with the out-of-block BEM requirements as specified in Section A2.1 “Technical Conditions for MFCN Base Stations (TDD)” of Annex 2 to the Decision of 2014”*

6. Sub-section 1 of Section 3 of Part 4 of Schedule 1 to the Principal Regulations is amended –

- (a) by the substitution of the following sub-paragraph for sub-paragraph (b) under the definition of “Restrictive BEM”:
- “(b) for any 2.3 GHz Band Blocks assigned to a Licensee, a Restrictive BEM is given by combining the relevant maximum permitted in-block*

radiated power appropriate to the licensee and the out of block limits from Table 3 and Table 6 (relating to unsynchronised TDD blocks) of Annex 2 to the Decision of 2014.”, and

- (b) by the substitution of the following sub-paragraph for sub-paragraph (b) under the definition of “Unrestrictive BEM”:

“(b) for any 2.3 GHz Band Blocks assigned to a Licensee, Table 3 and Table 6 of Annex 2 of the Decision of 2014 relating to synchronised TDD blocks applies.”

GIVEN under the Official Seal of the Commission for Communications Regulation,

day of 2023

Chairperson

On behalf of the Commission of Communications Regulation

The Minister for the Environment, Climate and Communications (as adapted by the Communications, Climate Action and Environment (Alteration of Name of Department and Title of Minister) Order 2020 (S.I. No. 373 of 2020)), in accordance with section 37 of the Communications Regulation Act, 2002, consents to the making of the foregoing Regulations

GIVEN under the Official Seal of the Minister for Environment, Climate and Communications

day of 2023

Minister for the Environment, Climate and Communications.

EXPLANATORY NOTE

(This note is not part of the Instrument and does not purport to be a legal interpretation.)

These Regulations prescribe matters in relation to the amendment of certain technical conditions relating to the 2.3 GHz Band applying to MBSA2 Liberalised Use Licences granted under the Wireless Telegraphy (Liberalised Use and Related Licences in the 700 MHz Duplex, 2.1 GHz, 2.3 GHz and 2.6 GHz Bands) Regulation 2021.

DRAFT