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| **Public Consultation** |
| **TDRA Regulations– Ultra Wide Band and Short Range Devices v4.0** |
|  |
| **Commencement Date: 22 June 2023**  **Response Date: 07 July 2023** |

Telecommunications and Digital Government Regulatory Authority (TDRA)   
P O Box 26662, Abu Dhabi, United Arab Emirates (UAE)  
[www.tdra.gov.ae](http://www.tdra.gov.ae)

**Preface and Notes to Potential Respondents**

In keeping with its values of Transparency and sector engagement, the TDRA wishes to review and study the impact of regulatory instruments issued by it to keep abreast of developments to better involve all stakeholders. The TDRA strives to meet the needs of the sector and seeks the views and feedback from the sector for the revision of the regulations. The purpose of this document is to invite comments from stakeholders regarding the TDRA’s intention to revise TDRA Regulations- Ultra-Wide Band and Short Range Devices Version 4.0 in accordance with the Telecom Law.

Stakeholders who wish to respond to this consultation should do so in writing to the TDRA on or before the response date stated on the front cover of this document.

The comments which are contained in any response to this consultation should be clearly identified with respect to the specific question in this consultation to which such comments refer. Any comments which are of a general nature and not in response to a particular question should be clearly identified as such.

Responses to this consultation should be made in writing and provided electronically in MS Word format and Adobe PDF format, on or before the response date stated on the front cover of this document. Responses must be accompanied by the full contacts details (contact name, e-mail address and phone and fax numbers) of the respondent to:

[**spectrumconsultation@TDRA.gov.ae**](mailto:spectrumconsultation@tra.gov.ae);

Executive Director Spectrum Affairs

Telecommunications and Digital Government Regulatory Authority

P.O. Box 26662

Abu Dhabi, UAE

Respondents are advised that it will be the general intention of the TDRA to publish in full the responses received to this consultation. Additionally, the TDRA may, at its discretion generate and publish a “Summary of Responses” document at the conclusion of this consultation. Accordingly, the Summary of Responses may include references to and citations (in whole or in part) of comments which have been received. The TDRA recognizes that certain responses may include commercially sensitive and confidential information which the respondent may not wish to be published. In the event that a response contains confidential information, it shall be the responsibility of the respondent to clearly mark any information which is considered to be of a confidential nature.

In any event the respondent shall be required to submit two versions of its response to the TDRA as follows:

* A full copy of its response in MS Word format with any confidential information clearly marked. The TDRA will not publish the Word document and will only use it for internal purposes.
* A publishable copy of its response in Adobe PDF format. The TDRA will publish the PDF version in its entirety. Thus, the respondent should take care to redact any commercially sensitive and confidential information in the PDF version of its response.

By participating in this consultation and by providing a PDF version of its response the respondent expressly authorizes the TDRA to publish the submitted PDF version of its response in full.

It should be noted that none of the ideas expressed or comments made in this consultation document will necessarily result in formal decisions by the TDRA and nothing contained herein shall limit or otherwise restrict the TDRA’s powers to regulate the telecommunications sector at any time.

If any Person or entity seeks to clarify or discuss any part of this Regulations can request for a meeting in writing again to the above E-mail and then TDRA will set the meetings in the period from **29 May to 08 June 2023** so that formal comments can still be received by **12.00pm on 07 July 2023.**

**Consultation Schedule**

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| **Milestone** | **Due Date** | **Notes** |
| |  | | --- | | Closing Date for Initial Responses | | 07 July 2023 | |  | | --- | | All responses to this consultation should be properly received by no later than 12.00 noon on the closing date. Responses are to be submitted in electronic format as set out in this consultation document. | |
| |  | | --- | | Latest date for requests for extension to the due date for Initial Responses. | | 21 June 2023 | |  | | --- | | Stakeholders wishing to secure an extension to the Closing Date for Initial Responses may apply in writing to the TDRA for such an extension. The request should set out the rationale for the request.  Requests for extension should be submitted by e-mail to the e-mail address shown above.  The TDRA will not consider any requests for extension which the TDRA receives after XX.00 noon on the date stated here.  The TDRA will consider requests to extend the Closing Date for Initial Responses and will take into account such factors as:  the number of such requests received; the rationale for such requests; and the effect on the overall time-scale of the particular project in question. In the event that the TDRA extends the Closing Date for Initial Responses, the TDRA will publish the revised closing date on its website. | |

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1. **Introduction**

1.1 The TDRA intend to revise its Regulations on Ultra-Wide Band and Short Range Devices 4.0. As such, all readers are informed that this document outlines the draft version of this Regulations in order to give this document context and to enable the TDRA to ask pertinent questions. All text in this consultation document should be read and interpreted as text and not as recording decisions of the TDRA.

1.2 The TDRA notes that there were recent updates in ITU-R recommendations related to these devices and with the anticipated increase in the use of Ultra-Wide Band and Short Range Devices for Telecommunication Networks across the UAE and there is a need to update relevant parts of these Regulations to provide more clarity on the frequencies and associated attributes under which they can operate.

1.3 As such, the TDRA seeks to consider inputs of all industry stakeholders regarding these changes, which are increasingly relevant and valuable in the TDRA’s exercise of its duties and legal mandates.

1.4 Additionally, the TDRA strives to follow the principles of Transparency, fairness and openness in dealings with customers, partners and other stakeholders and, therefore considers that it is important to take into account the views of those who have a legitimate interest in the outcomes of the TDRA’s regulation.

1.5 In the ensuing text, significant changes are marked as follows:

* Additions are highlighted in yellow
* Deletions are ~~struck-through and highlighted in grey~~

**Matters for Discussion and Consultation**

Article (1)

~~Scope of Document~~ Legal Reference

1.1 These regulations are issued in accordance with the provisions of the UAE Federal Law by Decree No 3 of 2003 ~~(Telecom Law)~~ on Regulation of the Telecommunications Sector, as amended and its Executive Order.

1.2 These regulations ~~comprises~~ describe the regulatory provisions and technical conditions for the authorization and use of Ultra-Wide Band and Short Range Devices under Class Authorization for various applications.

1.3 These regulations shall be read in conjunction with the following ~~regulatory instruments issued by the TDRA and~~ documents available on TDRA’s website:

1.1.1 Spectrum Allocation and Assignment Regulations

1.1.2 Spectrum Fees Regulations

1.1.3 ~~Interference Management~~ Spectrum Monitoring, Interference Management and Enforcement Regulations

1.1.4 National Frequency Plan including National Table of Frequency Allocation

1.1.5 Services Ancillary to Broadcast Production, Program Making & Special Events (PMSE) Regulations

1.1.6 Unmanned Aircraft Radio Systems (UAS) Regulations

Question 1: Do you agree with the proposed changes in the article above?

Article (2)

Definitions

2.1 The terms, words and phrases used in these Regulations shall have the same meaning as is ascribed to them in the UAE Federal Law by Decree No 3 of 2003 ~~(Telecom Law)~~ on Regulation of the Telecommunications Sector, as amended and its Executive Order; unless these Regulations expressly provide otherwise for, or the context in which those terms, words and phrases are used in these Regulations indicates otherwise. The following terms and words shall be interpreted, as follows:

2.1.1 "**3GPP**" means the 3rd Generation Partnership Project (3GPP) which consists of telecommunications standard development organizations worldwide to develop Specifications of relevant 3GPP cellular telecommunications technologies including radio access, core network, service capabilities and interworking with non-3GPP networks.

2.1.2 "**AFA**" means Adaptive Frequency Agility.

2.1.3 "**APC**" means Automatic or Adaptive Power Control.

2.1.4 "**Authority**"or"**TDRA**" means the General Authority for Regulating the Digital Government and Telecommunication Sector known as Telecommunications and Digital Government Regulatory Authority (TDRA) established pursuant to the provisions of ~~Article 6 of~~ the Federal Law by Decree No. 3 of 2003 on Regulation of the Telecommunications Sector, as amended.

2.1.5 "**Authorization**"or"**Frequency Spectrum Authorization**" means a valid frequency spectrum authorization issued by the Authority and permits the use of radio frequency subject to terms and conditions as stipulated by the Authority.

2.1.6 "**Class Authorization**" means the Authorization which permits the operation of wireless equipment by any Person within designated frequency bands subject to the terms and conditions stipulated by the Authority.

2.1.7 "**Cordless Telephony**" includes cordless telephones; cordless telecommunication systems and the cordless systems providing communications within the Curtilage of any premises.

2.1.8 "**Curtilage**" means a partially or entirely enclosed area such as a courtyard, atrium, close, compound, court, enclosure, quadrangle, square, patio or yard.

2.1.9 "**DAA**" means Detect And Avoid.

2.1.10 "**DFS**" means Dynamic Frequency Selection.

2.1.11 "**DECT**" means Digital Enhanced Cordless Telecommunications in accordance with applicable European Telecommunications Standards Institute (ETSI) standards.

2.1.12"**ETSI**" means the European Telecommunications Standards Institute that produces globally-applicable standards for Information and Communications Technologies (ICT), including fixed, mobile, radio, converged, broadcast and Internet technologies.

2.1.13 "**FHSS**" means Frequency Hopping Spread Spectrum which is a spread spectrum technique in which the transmitter signal occupies a number of frequencies in time, each for some period of time.

2.1.14 "**IEEE**" means the Institute of Electrical and Electronics Engineers.

2.1.XX **“Inductive Applications”**: Inductive loop systems are communication systems based on magnetic fields generally at low RF frequencies

2.1.15 "**ITS**" or "**Intelligent Transport Systems**" means the integration of information and communication technologies (ICTs) and applications that aim to provide services relating to different modes of transport and traffic management, enable users to be better informed and make safer, more coordinated and 'smarter' use of transport networks. They include advanced telematics and hybrid communications including IP based communications as well as Ad-Hoc direct communication between vehicles and between vehicles and infrastructure.

2.1.16 "**ITU**" means the International Telecommunication Union, a leading United Nations agency for information and communication technologies (ICTs).

2.1.17 "**LBT**" means Listen Before Talk which is a mechanism by which an equipment applies clear channel assessment before using the channel.

2.1.18 "**Person**" will include ‘juridical entities’ as well as ‘natural persons’.

2.1.19 "**PMR 446**" means Private Mobile Radio 446 which is a land mobile radio (i.e. walkie talkie) that operate in the 446 MHz frequency range with technical characteristics as specified in the regulation on Ultra-Wide Band and Short Range Devices for this frequency range.

2.1.20 "**PMR over WAS**" means Private Mobile Radio over Wireless Access Systems which is a land mobile radio (i.e. walkie talkie) and base stations (access points) operating in the 2.4 GHz and 5 GHz frequency range based on IEEE 802.11 family of standards.

2.1.21 "**PMSE**" means Programme Making and Special Events, i.e. those uses of the radio spectrum which support the production of content and for certain special events.

2.1.22 "**RFID**" means Radio Frequency Identification which is a system that enables data to be transmitted by a transponder (tag) via radio signals which are received by an RFID interrogator and processed according to the needs of a particular application.

2.1.23 "**Short Range Device**"or"**SRD**" means fixed, mobile or portable devices for various radio applications operating with technical conditions as defined in Article 4.

2.1.x **“Telecom Law”** means the Federal Law by Decree No 3 of 2003 on Regulation of the Telecommunications Sector, as amended.

2.1.24 "**TPC**" means Transmit Power Control which is a technique in which the transmitter output power is controlled resulting in reduced interference to other systems.

2.1.25 "**UAE**" or "**State**" means the United Arab Emirates including its territorial waters and the airspace above.

2.1.26 **“Ultra-Wide Band”** or **“UWB”** means devices that employ spreading of the radio energy over a very wide frequency band, with a very low power spectral density operating with technical conditions as defined in Article 4.

2.1.27 "**Wireless Access Systems**" or "**WAS**" means connected wireless equipment complying with technical specifications as set out in ITU-R Recommendations, ETSI standards, IEEE 802.11 family of standards, or related 3GPP standards. This includes networks such as (Radio Local Area Network (RLAN), Wireless Local Area Network (WLAN), Wideband Data Transmission, Multiple Gigabit Wireless Systems (MGWS), Broadband Radio Access Networks (BRAN) etc) in different frequency ranges.

Question 2: Do you have any proposed modifications/additions/suppressions to Definitions.

Article (3)

Uses related to UWB and SRD

3.1 The following Wireless Equipment are covered by this regulation:

3.1.1 Ultra-Wide Band (UWB)

3.1.2 Short Range Devices (SRD)

3.2 For the usage of Ultra-Wide Band and Short Range Devices the following conditions apply

3.2.1 The usage is allowed under Class Authorization.

3.2.2 The usage is allowed on a non-interference and non-protection basis.

3.3 If the usage of wireless networks exceeding the permitted technical conditions (i.e. transmit power/magnetic field) in (Article 4), the application can be submitted as part of other related UAE Spectrum Regulations (e.g. Fixed Radio Systems, Private Mobile Radio (PMR) Service, and Unmanned Aircraft Radio Systems (UAS) etc.) as appropriate.

Article (4)

Question 3: Do you have any comments on the uses indicated above?

Technical Conditions

4.1. The technical conditions as given in these regulations shall apply on the use of SRD. The ~~following~~table below gives guidance on available frequency ranges and major usage conditions.

| **Frequency range** | **Usage** | **~~Transmit power / Magnetic field~~**Maximum effective radiated power, e.r.p. | Channel access and occupation rules **~~Duty cycle~~[[1]](#footnote-1)** | **Channel spacing** | **Reference** |
| --- | --- | --- | --- | --- | --- |
| **Inductive applications** | | | | | |
| 9 kHz - 90 kHz | Inductive applications | 72 dBµA/m at 10m [[2]](#footnote-2) |  |  | EN 300 330 |
| 90 kHz - 119 kHz | Inductive applications | 42 dBµA/m at 10m |  |  | EN 300 330 |
| 119 kHz - ~~140~~135kHz | Inductive applications | 66 ~~42~~dBµA/m at 10m |  |  | EN 300 330 |
| 135 – 140 kHz | Inductive applications | 42 dBµA/m at 10m |  |  | EN 300 330 |
| 140 kHz - 148.5 kHz | Inductive applications | 37.7 dBµA/m at 10m |  |  | EN 300 330 |
| 148.5 kHz – 30 MHz | Inductive applications | -5 dBµA/m at 10 m |  |  | EN 300 330 |
| 315 kHz – 600 kHz | Inductive applications | -5 dBµA/m at 10 m |  |  | EN 300 330 |
| 3155 kHz - 3400 kHz | Inductive applications | 13.5 dBµA/m at 10m |  |  | EN 300 330 |
| 4232 kHz | Inductive applications | 9 dBµA/m at 10m |  |  | EN 300 330 |
| 4516 kHz | Inductive applications | 7 dBµA/m at 10m |  |  | EN 300 330 |
| 7400 kHz - 8800 kHz | Inductive applications | 9 dBµA/m at 10m |  |  | EN 300 330 |
| 10200 kHz - 11000 kHz | Inductive applications | 9 dBµA/m at 10m |  |  | EN 300 330 |
| 12500 kHz - 20000 kHz | Inductive applications | -7 dBµA/m at 10m |  |  | EN 300 330 |
| 6765 kHz - 6795 kHz[[3]](#footnote-3) | Inductive applications | 42 dBµA/m at 10m |  |  | EN 300 330 |
| 26957 kHz - 27283 kHz | Inductive applications | 42 dBµA/m at 10m |  |  | EN 300 330 |
| 13553 kHz - 13567 kHz | Inductive applications | 42 dBµA/m at 10m |  |  | EN 300 330 |
| 148.5 kHz - 5000 kHz | Inductive applications | -15 dBµA/m at 10 m |  |  | EN 300 330 |
| 5000 kHz - 30000 kHz | Inductive applications | -5 dBµA/m at 10 m in total –  -20 dBµA/m at 10 m |  |  | EN 300 330 |
| 984 kHz - 7484 kHz | Inductive applications | -5 dBµA/m at 10m |  |  | EN 300 330  DECISION (EU) 2017/1483 |
| 11810 kHz - 12660 kHz | Inductive applications | -16 dBµA/m at 10m |  |  | EN 300 330 |
| 27090 kHz - 27100 kHz | Inductive applications | 42 dBµA/m at 10m |  |  | EN 300 330 |
| 49 MHz | EN?? | -31.9dBm  (0.000645mW) |  |  | ETSI EN??  IEC 60601-1-11  ERC REC 74-01 |
|  | | | | | |
| **Non-specific short range devices** | | | | | |
| 13.553 MHz – 13.567 MHz | Non-specific short range  devices | 42 dBµA/m at 10m or 10 mW e.r.p |  |  | EN 300 330 |
| 26.957 MHz – 27.283 MHz | Non-specific short range  devices | 42 dBµA/m at 10m  or 10 mW e.r.p |  |  | EN 300 220-2  EN 300 330 |
| 26990-27000 kHz 27040-27050 kHz 27090-27100 kHz 27140-27150 kHz 27190-27200 kHz ~~26.995 MHz,~~  ~~27.045 MHz,~~  ~~27.095 MHz,~~  ~~27.145 MHz,~~  ~~27.195 MHz~~ | Non-specific short range  devices | 100 mW e.r.p | ≤ 0.1 % | ≤ 10 kHz | EN 300 220-2 |
| 40.66 MHz - 40.7 MHz | Non-specific short range  devices | 10 mW e.r.p |  |  | EN 300 220-2 |
| 138.2 MHz - 138.45 MHz | Non-specific short range  devices | 10 mW e.r.p | ≤ 0.1 % |  | EN 300 220-2 |
| 169.4 MHz - 169.475 MHz | Non-specific short range  devices | 500 mW e.r.p | 1,0 % duty cycle For metering devices duty cycle limit is 10 % | 50 kHz | EN 300 220-2 |
| 169.4 MHz - 169.4875 MHz | Non-specific short range  devices | 10 mW e.r.p | ≤ 0.1 % |  | EN 300 220-2 |
| 169.4875 MHz - 169.5875 MHz | Non-specific short range  devices | 10 mW e.r.p | ≤ 0.001% (06h00 - 24h00)  ≤ 0.1% (00h00 - 06h00) |  | EN 300 220-2 |
| 169.5875 MHz - 169.8125 MHz | Non-specific short range  devices | 10 mW e.r.p | ≤ 0.1 % |  | EN 300 220-2 |
| 433.05 MHz - 434.79 MHz | Non-specific short range  devices | 10 mW e.r.p | ≤ 10 % |  | EN 300 220-2 |
| 433.05 MHz - 434.79 MHz | Non-specific short range  devices | 1 mW e.r.p  -13 dBm/10 kHz  power spectral  density for  bandwidth  modulation larger  than 250 kHz |  |  | EN 300 220-2 |
| 434.04-434.79 MHz | Non-specific short range  devices | 10 mW e.r.p |  | 25 kHz | EN 300 220-2 |
| 862 MHz - 863 MHz | Non-specific short range  devices | 25 mW e.r.p | ≤ 0.1 % | ≤ 350 kHz | Restriction in certain countries of annex 3 of erc 70-03 |
| 863 MHz - 870 MHz | Non-specific short range  devices | 25 mW e.r.p | ≤ 0.1 % or LBT + AFA |  | EN 300 220-2 |
| 865 MHz - 868 MHz | Non-specific short range  devices | 25 mW e.r.p | ≤ 1 % or LBT  +AFA | ≤ 300 kHz | EN 300 220-2 |
|  |  |  |  |  |  |
| 863-865 MHz | Non-specific short range  devices | 25 mW e.r.p. | ≤ 0.1% duty cycle or LBT+AFA | the whole band  except for audio  & video  applications  limited to  300 kHz | EN 300 220-2 |
| 868 MHz-868.6 MHz | Non-specific short range  devices | 25 mW e.r.p | ≤ 1% or LBT  +AFA |  | EN 300 220-2 |
| 868.7-869.2 MHz. | Non-specific short range  devices | 25 mW e.r.p | ≤ 0.1% duty cycle or LBT+AFA |  | EN 300 220-2 |
| 869.4 MHz - 869.65 MHz | Non-specific short range  devices | 500 mW e.r.p | ≤ 10% or LBT +AFA |  | EN 300 220-2 |
| 869.7-870 MHz | Non-specific short range  devices | 5 mW e.r.p |  |  | EN 300 220-2 |
| 869.7-870 MHz | Non-specific short range  devices | 25 mW e.r.p. | ≤ 1% duty cycle or LBT  +AFA |  | EN 300 220-2 |
| 870 MHz - 875.8 MHz | Non-specific short range  devices | 25 mW e.r.p | ≤ 1 % | ≤ 600 kHz | EN 300 220-2 |
| 875.8 MHz - 876 MHz | Non-specific short range  devices | 25 mW e.r.p | ≤ 0.1 % | ≤ 200 kHz | EN 300 220-2 |
| 915 MHz - 915.2 MHz | Non-specific short range  devices | 25 mW e.r.p | ≤ 0.1 % | ≤ 200 kHz | EN 300 220-2 |
| 915.2 MHz– 920.8 MHz | Non-specific short range  devices | 25 mW e.r.p. except for the 4 channels identified in note where 100 mW e.r.p. applies [[4]](#footnote-4) | ≤ 1% | ≤ 600 kHz except  for the 4 channels  identified in note where # 400 kHz  applies | EN 300 220-2 |
| 920.8 MHz – 921 MHz | Non-specific short range  devices | 25 mW e.r.p | ≤ 0.1 % | ≤ 200 kHz | EN 300 220-2 |
| 2400 MHz – 2483.5 MHz | Non-specific short range  devices | 10 mW e.i.r.p |  |  | EN 300 440 |
| 5725 MHz - 5875 MHz | Non-specific short range  devices | 25 mW e.i.r.p |  |  | EN 300 440 |
| 24 GHz - 24.25 GHz | Non-specific short range  devices | 100 mW e.i.r.p |  |  | EN 300 440 |
| 57 GHz - 64 GHz | Non-specific short range  devices | 100 mW e.i.r.p |  |  | EN 305 550 |
| 122 GHz - 123 GHz | Non-specific short range  devices | 100 mW e.i.r.p |  |  | EN 305 550 |
| 244 GHz - 246 GHz | Non-specific short range  devices | 100 mW e.i.r.p |  |  | EN 305 550 |
|  | | | | | |
| **Model control** | | | | | |
| 26990-27000 kHz~~26.995 MHz,~~  27040-27050 kH~~27.045 MHz,~~  27090-27100 kHz~~27.095 MHz,~~  27140-27150 kHz~~27.145 MHz,~~  27190-27200 kHz27.195 MHz | Model Control | 100 mW e.r.p |  | ≤ 10 kHz | EN 300 220-2 |
| 34.995 MHz - 35.225 MHz | Model control | 100 mW e.r.p |  | ≤ 10 kHz | EN 300 220-2 |
| 40.665 MHz,  40.66-40.67 MHz  ~~40.675 MHz,~~  40.67-40.68 MHz  ~~40.685 MHz,~~  40.68-40.69 MHz  ~~40.695 MHz~~  40.69-40.7 MHz | Model control | 100 mW e.r.p |  | ≤ 10 kHz | EN 300 220-2 |
| 72 MHz - 72.25 MHz [[5]](#footnote-5) | Model control | 10 mW e.r.p |  | ≤ 10 kHz | EN?? |
|  | | | | | |
| **Tracking, tracing and data acquisition** | | | | | |
| 456.9 kHz - 457.1 kHz | Tracking, tracing and data acquisition | 7 dBµA/m at 10 m |  | ≥ 150 Hz  No modulation allowed | EN 300 718 |
| 169.4 MHz - 169.475 MHz | Tracking, tracing and data acquisition | 500 mW e.r.p | ≤ 1 %  or ≤10 % for metering devices | ≤ 50 kHz | EN 300 220-2 |
| 865 MHz – 868 MHz | Tracking, tracing & data acquisition | 500 mW e.r.p.  Transmissions only permitted within the bands:  865,6- 865,8 MHz, 866,2-866,4 MHz, 866,8-867,0 MHz and 867,4- 867,6 MHz.  and APC | ≤ 10 % for network access points  ≤ 2,5 % otherwise | ≤ 200 kHz | DECISION (EU) 2017/1483  EN?? |
| 870 MHz - 875.6 MHz | Tracking, tracing and data acquisition | 500 mW e.r.p  APC is required. | ≤ 10 % for network relay points  ≤ 2.5 % otherwise | ≤ 200 kHz | EN 303 204 |
| 5725 MHz - 5875 MHz | Tracking, tracing and data acquisition | 400 mW e.i.r.p  APC is required.  DFS or DAA shall be implemented as adequate sharing mechanism |  | ≥ 1 MHz and ≤ 20 MHz | EN 303 258 |
|  | | | | | |
| **Radio Frequency Identification (RFID)** | | | | | |
| 400 kHz – 600 kHz | RFID | -5 dBµA/m at 10m  with transmitter modulation. |  |  | EN 300 330 |
| 11.810 MHz – 12.660 MHz | RFID | -16 dBµA/m at 10m |  |  | EN 300 330 |
| 13.553 MHz – 13.567 MHz | RFID (including NFC) and EAS | 60 dBµA/m at 10m |  |  | EN 300 330  EN 302 291 |
| 865 MHz - 868 MHz | RFID | 2 W e.r.p [[6]](#footnote-6) |  | ≤ 200 kHz | EN 302 208 |
| 915 MHz - 921 MHz [[7]](#footnote-7) | RFID | 4 W e.r.p [[8]](#footnote-8) |  | ≤ 400 kHz | EN 302 208 |
| 2446 MHz - 2454 MHz | RFID | 500 mW e.i.r.p  FHSS or unmodulated carrier (CW) only |  |  | EN 300 440 |
| RFID (in-Building only) | 4 W e.i.r.p [[9]](#footnote-9)  FHSS only | ≤ 15% + |  | EN 300 440 |
|  | | | | | |
| **Active Medical Implants** | | | | | |
| 9 kHz - 315 kHz | Active Medical Implants and their associated peripherals | 30 dBµA/m at 10m | ≤ 10 % |  | EN 302 195 |
| 315 kHz - 600 kHz | Active Medical Implants and their associated peripherals | -5 dBµA/m at 10m | ≤ 10 % |  | EN 302 536 |
| 12500 kHz - 20000 kHz | Active Medical Implants and their associated peripherals | -7 dBµA/m at 10m | ≤ 10 % |  | EN 300 330 |
| 30 MHz - 37.5 MHz | Active Medical Implants and their associated peripherals | 1 mW e.r.p | ≤ 10 % |  | EN 302 510 |
| 401 MHz - 402 MHz | Active Medical Implants and their associated peripherals | 25 µW e.r.p  Using LBT + AFA for spectrum access |  | ≤ 25 kHz.  Individual transmitters may combine adjacent channels for increased bandwidth up to 100 kHz. | EN 302 537 |
| 402 MHz – 405 MHz | Active Medical Implants and their associated peripherals | 25 µW e.r.p |  | ≤ 300 kHz | EN 301 839 |
| 405 MHz - 406 MHz | Active Medical Implants and their associated peripherals | 25 µW e.r.p  Using LBT + AFA for spectrum access |  | ≤ 25 kHz.  Individual transmitters may combine adjacent channels for increased bandwidth up to 100 kHz. | EN 302 537 |
| 2483.5 MHz – 2500 MHz | Active Medical Implants | 10 ~~mW e.i.r.p~~ dBm e.i.r.p |  |  | EN 301 559 |
|  | | | | | |
| **Aids for the hearing impaired** | | | | | |
| 169.4 MHz - 174 MHz | Aids for the hearing impaired | 10 mW e.r.p |  | ≤ 50 kHz | EN 300 422-4 |
| 169.4 MHz - 169.475 MHz | Aids for the hearing impaired | 500 mW e.r.p |  | ≤ 50 kHz | EN 300 422-4 |
| 169.4875 MHz - 169.5875 MHz | Aids for the hearing impaired | 500 mW e.r.p |  | ≤ 50 kHz | EN 300 422-4 |
|  | | | | | |
| **Radiodetermination applications** | | | | | |
| 30 MHz-12.4 GHz | Radiodetermination applications |  |  |  |  |
| 2400 MHz – 2483.5 MHz | Radiodetermination applications | 25 mW e.i.r.p |  |  | EN 300 440 |
| 9200 MHz - 9975 MHz | Radiodetermination applications | 25 mW e.i.r.p |  |  | EN 300 440 |
| 10.5 GHz - 10.6 GHz | Radiodetermination applications | 500 mW e.i.r.p |  |  | EN 300 440 |
| 13.4 GHz - 14 GHz | Radiodetermination applications | 25 mW e.i.r.p |  |  | EN 300 440 |
| 17.1 GHz - 17.3 GHz | Radiodetermination applications | 400 mW (26 dBm) e.i.r.p |  |  | EN 300 440 |
| 24.05-24.25 GHz | Radiodetermination applications | 100 mW e.i.r.p |  |  | EN 300 440 |
|  | | | | | |
| **Level Probing Radar (LPR) / Tank Level Probing Radar (TLPR)** | | | | | |
| 6 GHz – 8.5 GHz | Level probing radar | 5mW (7 dBm/50 MHz peak e.i.r.p.)  (- 33 dBm/MHz mean e.i.r.p. within the  LPR operating  Bandwidths - within main beam) |  |  | EN 302 729  ECC Decision (11)02 |
| 24.05 GHz - 26.5 GHz | Level probing radar | 400mW (26 dBm/50 MHz peak e.i.r.p)  (- 14 dBm/MHz mean e.i.r.p. within the  LPR operating  Bandwidths - within main beam) |  |  | EN 302 729  ECC Decision (11)02 |
| 57 GHz - 64 GHz | Level probing radar | 3200 mW (35 dBm/50 MHz peak e.i.r.p)  (- 2 dBm/MHz mean e.i.r.p. within the  LPR operating  Bandwidths - within main beam) |  |  | EN 302 729  ECC Decision (11)02 |
| 75 GHz - 85 GHz | Level probing radar | 42500 mW (34 dBm/50 MHz peak e.i.r.p)  (-3 dBm/MHz mean e.i.r.p. within the  LPR operating  Bandwidths - within main beam) |  |  | EN 302 729  ECC Decision (11)02 |
| 4.5 GHz– 7 GHz | Tank level probing radar[[10]](#footnote-10) | 250 mW (24 dBm) maximum peak power, measured in 50 MHz,  (within main beam). |  |  | EN 302 372 |
| 8.5 GHz - 10.6 GHz | Tank level probing radar | 1W (30 dBm) maximum peak power, measured in 50 MHz,  (within main beam) |  |  | EN 302 372 |
| 24.05 GHz - 27 GHz | Tank level probing radar | 20W (43 dBm) maximum peak power, measured in 50 MHz,  (within main beam) |  |  | EN 302 372 |
| 57 GHz - 64 GHz | Tank level probing radar | 20W (43 dBm) maximum peak power, measured in 50 MHz,  (within main beam) |  |  | EN 302 372 |
| 75 GHz - 85 GHz | Tank level probing radar | 20W (43 dBm) maximum peak power, measured in 50 MHz,  (within main beam) |  |  | EN 302 372 |
|  | | | | | |
| **Wireless Access Systems** | | | | | |
| 2400 MHz – 2483.5 MHz | WAS | 100 mW e.i.r.p. |  |  | EN 300 328 |
| 5150 MHz - 5350 MHz | WAS | 100 mW e.i.r.p without TPC  200 mW e.i.r.p with TPC |  |  | EN 301 893 |
| 5470 MHz - 5725 MHz | WAS | 500 mW e.i.r.p without TPC  1 W e.i.r.p with TPC and DFS[[11]](#footnote-11) |  |  | EN 301 893 |
| 5725 MHz –  5875 MHz | WAS | 2W e.i.r.p (10 MHz channel)  4W e.i.r.p (20 MHz channel) |  |  | EN 302 502 |
| 5925 MHz – 6425 MHz | WAS (in-Building only) | 200250mW e.i.r.p[[12]](#footnote-12) |  |  | ECC/DEC/(20)01  DECISION (EU) 2021/1067 |
| 57 GHz - 66 GHz | WAS | 10 W (40 dBm) e.i.r.p  Spectrum sharing mechanism (e.g. Listen Before Talk (LBT), DAA) |  |  | EN 302 567 |
|  | | | | | |
| **ITS, TTT and Railway applications and equipment** | | | | | |
| 984 kHz - 7484 kHz [[13]](#footnote-13) | Railway applications | 9 dBµA/m at 10m | ≤ 1.0 % |  | EN 300 330  EN 302 608 |
| 7300 kHz - 23000 kHz [[14]](#footnote-14) | Railway applications | -7 dBµA/m at 10m |  |  | EN 302 609 |
| 870 MHz - 873 MHz | Transport and traffic telematics | 500 mW e.r.p (vehicle to vehicle)  100 mW e.r.p. (in vehicle application)  Adaptive Power Control (APC) is required. | ≤ 0.1 % | ≤ 500 kHz | EN 300 220 |
| 873 MHz - 875.8 MHz | Transport and traffic telematics | 500 mW e.r.p (vehicle to vehicle)  100 mW e.r.p. (in vehicle application)  Adaptive Power Control (APC) is required. | ≤ 0.01 % | ≤ 500 kHz | EN 300 220 |
| 5795 MHz - 5805 MHz | Transport and traffic telematics | 2W e.i.r.p |  |  | EN 300 674  ES 200 674 |
| 5805 MHz - 5815 MHz | Transport and traffic telematics | 2W e.i.r.p |  |  | EN 300 674  EN 300 440  ES 200 674 |
| 5855 MHz - 5925 MHz | Intelligent Transport Systems (ITS) | 33 dBm (2W e.i.r.p.) |  |  | ITU-R M.2121  EN 302 571  EN 302 663 |
| 24 GHz - 24.25 GHz | Automotive radars.[[15]](#footnote-15) | 100 mW e.i.r.p |  |  | EN 302 858 |
| 76 GHz - 77 GHz | Short-range radar for ground-based applications, including automotive radars | 55 dBm e.i.r.p peak |  |  | EN 301 091  ITU-R M.2057 |
| 77 GHz – 81 GHz | Short-range radar for ground-based applications, including automotive radars. | 55 dBm e.i.r.p peak |  |  | EN 302 264 |
|  | | | | | |
| **Other SRD uses** | | | | | |
| 29.7 MHz - 47.0 MHz | Wireless audio applications | 10 mW e.r.p |  | ≤ 50 kHz | EN 300 422-2 |
| 87.5 MHz - 108 MHz | Wireless audio applications | 50 nW e.r.p |  | ≤ 200 kHz | EN 301 357 |
| 312 MHz - 315 MHz | Keyless car entry | 50 mW e.r.p |  |  | EN 300 220 |
| 433.05 MHz - 434.79 MHz | LPD 433 | 10 mW e.r.p |  | 25 kHz | EN 300 220 |
| 446 MHz - 446.2 MHz[[16]](#footnote-16) | PMR 446 | 500 mW |  |  | EN 303 405  ~~TS 102 490~~  ~~ECC/DEC/(15)05~~ |
| 863 MHz – 865 MHz | Wireless audio applications | 10 mW e.r.p. |  |  | EN 300 422  EN 301 357 |
| ~~863 MHz - 870 MHz~~~~[[17]](#footnote-17)~~ | ~~SRD860~~ | ~~10 mW e.r.p~~ |  | ~~25 kHz~~ | ~~TS 102 490~~  ~~ECC/DEC/(15)05~~ |
| 869.7 MHz - 870 MHz | SRD860 | 5 mW e.r.p |  | 25 kHz | EC/DEC/(11)829 |
| 1880 MHz - 1900 MHz | DECT applications including Cordless Telephony | nominal transmit power of up to 250 mW  400 mW e.i.r.p for omni-directional antennas  1 W e.i.r.p for directional antennas |  | ` | ITU-R M.1033-1 EN 300 175  ERC/DEC/(94)03  ERC/DEC/(98)22 |

Question 4: Do you agree with the above frequency bands? Do you have any proposed modifications/additions/suppressions to these frequency bands?

Question 5: Kindly propose any addition technical details (reference EN standard) if required for the above table. Please specify if any.

Question 6: Do you believe that the current regulations covers all regulatory framework in the UAE?

Question 7: Any proposal to add more references or standard to the regulations?

Question 8: Do you agree to include 49 MHz under inductive applications or it should be under Nonspecific SRD or under medical implants?

4.2 Generic UWB devices shall comply with EN 302 065 -1.

4.2.1 The maximum value of mean power spectral density shall not exceed the values as given in the following table:

|  |  |  |
| --- | --- | --- |
| **Frequency range (GHz)** | **Without mitigation techniques EIRP (dBm/MHz)** | **With mitigation techniques EIRP (dBm/MHz)** |
| f ≤ 1.6 | -90 | -90 |
| 1.6 < f ≤ 2.7 | -85 | -85 |
| 2.7 < f ≤ 3.1 | -70 | -70 |
| 3.1 < f ≤ 3.4 | -70 | -41.3 (notes 1+2) |
| 3.4 < f ≤ 3.8 | -80 | -41.3 (notes 1+2) |
| 3.8 < f ≤ 4.2 | -70 | -41.3 (notes 1+2) |
| 4.2 < f ≤ 4.8 | -70 | -41.3 (notes 1+2) |
| 4.8 < f ≤ 6.0 | -70 | -70 |
| 6.0 < f ≤ 8.5 | -41.3 | -41.3 |
| 8.5 < f ≤ 9.0 | -65 | -41.3 (note 2) |
| 9.0 < f ≤ 10.6 | -65 | -65 |
| f > 10.6 | -85 | -85 |

*NOTE 1: Within the band 3.1 GHz to 4.8 GHz, devices implementing Low Duty Cycle (LDC) mitigation technique Annex 2 (LDC) and Annex 3 (DAA) of ECC Decision (06)04 are permitted to operate with a maximum mean e.i.r.p. spectral density of -41.3 dBm/MHz and a maximum peak e.i.r.p. of 0 dBm defined in 50 MHz.*

*NOTE 2: Within the bands 3.1 GHz to 4.8 GHz and 8.5 GHz to 9.0 GHz, devices implementing Detect And Avoid (DAA) mitigation technique Annex 2 (LDC) and Annex 3 (DAA) of ECC Decision (06)04are permitted to operate with a maximum mean e.i.r.p. spectral density of -41.3 dBm/MHz and a maximum peak e.i.r.p. of 0 dBm defined in 50 MHz.*

Question 9: Do you have any proposal to update the format and the information related to UWB in the above table?

4.2.2 Generic UWB devices shall not exceed the maximum peak power limits as given in the table below:

|  |  |  |
| --- | --- | --- |
| **Frequency Range (GHz)** | **Without mitigation techniques defined in 50 MHz EIRP (dBm)** | **With mitigation techniques defined in 50 MHz EIRP (dBm)** |
| *f ≤ 1.6* | *-50* | *-50* |
| *1.6 < f ≤ 2.7* | *-45* | *-45* |
| *2.7 < f ≤ 3.1* | *-36~~-45~~* | *-36~~-45~~* |
| *3.1 < f ≤ 3.4* | *-36* | *0 (notes 1+2)* |
| *3.4 < f ≤ 3.8* | *-40* | *0 (notes 1+2)* |
| *3.8 < f ≤ 4.2* | *-30* | *0 (notes 1+2)* |
| *4.2 < f ≤ 4.8* | *-30* | *0 (notes 1+2)* |
| *4.8 < f ≤ 6.0* | *-30* | *-30* |
| *6.0 < f ≤ 8.5* | *0* | *0* |
| *8.5 < f ≤ 9.0* | *-25* | *0 (notes 2)* |
| *9.0 < f ≤ 10.6* | *-25* | *-25* |
| *f > 10.6* | *-45* | *-45* |

*NOTE 1: Within the band 3.1 GHz to 4.8 GHz, devices implementing Low Duty Cycle (LDC) mitigation technique Annex 2 (LDC) and Annex 3 (DAA) of ECC Decision (06)04are permitted to operate with a maximum mean e.i.r.p. spectral density of -41.3 dBm/MHz and a maximum peak e.i.r.p. of 0 dBm defined in 50 MHz.*

*NOTE 2: Within the bands 3.1 GHz to 4.8 GHz and 8.5 GHz to 9.0 GHz, devices implementing Detect And Avoid (DAA) mitigation technique Annex 2 (LDC) and Annex 3 (DAA) of ECC Decision (06)04are permitted to operate with a maximum mean e.i.r.p. spectral density of -41.3 dBm/MHz and a maximum peak e.i.r.p. of 0 dBm defined in 50 MHz*

Question 10: Do you have any proposal to update the format and the information related to UWB in the above table?

4.3 UWB devices for location tracking shall comply with EN 302 500-1.

4.3.1 The maximum mean EIRP spectral density shall not exceed the values as given in the following table:

|  |  |
| --- | --- |
| **Frequency range (GHz)** | **Maximum mean EIRP spectral density (dBm/MHz)** |
| *f ≤ 1.6* | *-90* |
| *1.6 < f ≤ 2.7* | *-85* |
| *2.7 < f ≤ 3.4* | *-70* |
| *3.4 < f ≤ 3.8* | *-80* |
| *3.8 < f ≤ 4.8* | *-70* |
| *4.8 < f ≤ 6.0* | *-70* |
| *6.0 < f ≤ 8.5* | *-41.3* |
| *8.5 < f ≤ 9.0* | *-41.3 (see note)* |
| *9.0 < f ≤ 10.6* | *-65* |
| *f > 10.6* | *-85* |

*NOTE: Operation is subject to the implementation of DAA. If DAA is not implemented, the following applies: 8.5 GHz to 9.0 GHz ≤-65 dBm/MHz.*

Question 11: Do you have any proposal to update the format and the information related to UWB in the above table?

4.3.2 The maximum peak EIRP shall not exceed the values as given in the following table:

|  |  |
| --- | --- |
| **Frequency Range (GHz)** | **Maximum peak EIRP (dBm, measured in 50 MHz bandwidth)** |
| *f ≤ 1.6* | *-50* |
| *1.6 < f ≤ 2.7* | *-45* |
| *2.7 < f ≤ 3.4* | *-36* |
| *3.4 < f ≤ 3.8* | *-40* |
| *3.8 < f ≤ 4.8* | *-30* |
| *4.8 < f ≤ 6.0* | *-30* |
| *6.0 < f ≤ 8.5* | *-0* |
| *8.5 < f ≤ 9.0* | *-0 (see note)* |
| *9.0 < f ≤ 10.6* | *-25* |
| *f > 10.6* | *-45* |

*NOTE: Operation is subject to the implementation of DAA. If DAA is not implemented, the  
 following applies: 8.5 GHz to 9.0 GHz ≤-25 dBm (measured in 50 MHz bandwidth).*

4.3.3 In order to protect Radio Astronomy Services; in the frequency range 2.69 GHz to 2.70 GHz and in the frequency range 4.8 to 5 GHz; the total radiated power density has to be below -65 dBm/MHz.

Question 12: Do you have any proposal to update the format and the information related to UWB in the above table?

4.4 UWB devices for Building Material Analysis shall comply with EN 302 435-1.

4.4.1 The values of undesired emissions shall not exceed the values as given in the following table:

|  |  |  |
| --- | --- | --- |
| **Frequency Range (GHz)** | **Limit values of undesired emissions (dBm/MHz)** | |
| **without LBT** | **with LBT** |
| *f ≤ 1.215 (notes 1 and 2)* | *-85* | *-85* |
| *1.215 ≤ f <1.73 (notes 1 and 2)* | *-85* | *-70* |
| *1.73 ≤ f <2.2 (note1)* | *-65* | *-65* |
| *2.2 ≤ f <2.5* | *-50* | *-50* |
| *2.5 ≤ f <2.69* | *-65* | *-50* |
| *2.69 ≤ f <2.7* | *-55* | *-55* |
| *2.7 ≤ f <3.4 (notes 1 and 2)* | *-70* | *-50* |
| *3.4 ≤ f <4.8* | *-50* | *-50* |
| *4.8 ≤ f <5.0* | *-55* | *-55* |
| *5.0 ≤ f <8.5* | *-50* | *-50* |
| *f ≥ 8.5(note 2)* | *-85* | *-85* |

*NOTE 1: In some frequency ranges the UWB emissions limits are very low power radio signals,  
 comparable with the power limits of emissions from digital and analogue circuitry  
 (other emissions, see clause 8.3.2.3 of EN 302 435-1.). If it can be clearly  
 demonstrated that an emission from the ultra-wideband device is not the ultra-  
 wideband emission identified in this table (e.g. by disabling the device's UWB   
 transmitter) or it can clearly be demonstrated that it is impossible to differentiate  
 between other emissions (OE) and the UWB transmitter emissions (UE) within the  
 measurement uncertainty, then emission shall be considered as other emissions (OE)  
 (see clause 8.3.2 of EN 302 435-1.).*

*NOTE 2: If, after optimization of the measurement set-up as described in clauses 6.1,7.1 and 8.2.2 of EN 302 435-1, it is still not possible to identify any OE or UE emission above the noise floor, than it is considered that the UE limit is fulfilled.*

Question 13: Do you have any proposal to update the format and the information related to UWB in the above table?

4.5 UWB devices for Ground Penetration Radars (GPR) / Wall Penetration Radars (WPR) imaging systems shall comply with EN 302 066.

4.5.1 The values of mean power density of undesired emissions shall not exceed the values as given in the following table:

|  |  |
| --- | --- |
| **Frequency range (MHz)** | **Maximum mean e.i.r.p. density (dBm/MHz)** |
| *<230* | *-65* |
| *230-1000* | *-60* |
| *1000-1600* | *-65 (note 1)* |
| *1600-3400* | *-51.3* |
| *3400-5000* | *-41.3* |
| *5000-6000* | *-51.3* |
| *>6000* | *-65* |

*Note 1: In addition to the maximum mean e.i.r.p. density given in the table above, a maximum mean e.i.r.p. density of -75 dBm/kHz applies in the RNSS bands 1164-1215 MHz and 1559-1610 MHz in case of spectral lines in these bands*

4.5.2 The values of measure peak power density of undesired emissions shall not exceed the values as given in the following table:

|  |  |
| --- | --- |
| **Frequency range(MHz)** | **Maximum peak power** |
| *30 to 230* | *-44.5dBm/120kHz (e.r.p.)* |
| *> 230 to 1000* | *-37.5dBm/120kHz (e.r.p.)* |
| *> 1000 to 18000* | *-30dBm/MHz (e.i.r.p.)* |

\*The method of measurements is given by EN 302 066.

Question 14: Do you have any proposal to update the format and the information related to UWB in the above table?

4.6 UWB Devices in Motor and Railway Vehicles shall comply with EN 302 065

|  |  |  |
| --- | --- | --- |
| **Frequency range** | **Maximum mean e.i.r.p. spectral density** | **Maximum peak e.i.r.p. (defined in 50 MHz)** |
| *Below 1.6 GHz* | *-90 dBm/MHz* | *-50 dBm* |
| *1.6 to 2.7 GHz* | *-85 dBm/MHz* | *-45 dBm* |
| *2.7 to 3.4 GHz (Notes 1 and 2)* | *-70 dBm/MHz* | *-36 dBm* |
| *3.4 to 3.8 GHz (Notes 1 and 2)* | *-80 dBm/MHz* | *-40 dBm* |
| *3.8 to 4.2 GHz (Notes 1 and 2)* | *-70 dBm/MHz* | *-30 dBm* |
| *4.2 to 4.8 GHz (Notes 1 and 2)* | *-70 dBm/MHz* | *-30 dBm* |
| *4.8 to 6.0 GHz* | *-70 dBm/MHz* | *-30 dBm* |
| *6.0 to 8.5 GHz (Notes 1 and 3)* | *-41.3dBm/MHz* | *0 dBm* |
| *8.5 to 10.6 GHz (Note 2)* | *-65 dBm/MHz* | *-25 dBm* |
| *Above 10.6 GHz* | *-85 dBm/MHz* | *-45 dBm* |

*Note 1: within the band 3.1-4.8 GHz and 6.0-8.5 GHz, devices implementing Low Duty Cycle (LDC) mitigation technique (see ECC/DEC/(06)04, Annex 2) are permitted to operate with a maximum mean e.i.r.p. spectral density of -41.3 dBm/MHz and a maximum peak e.i.r.p. of 0 dBm defined in 50MHz. Operation is in addition subject to the implementation of an exterior limit (see Annex 5) of -53.3 dBm/MHz.*

*Note 2: within the bands 3.1-4.8 GHz and 8.5-9.0 GHz, devices implementing Detect And Avoid (DAA) mitigation technique (see ECC/DEC/(06)04, Annex 3) are permitted to operate with a maximum mean e.i.r.p. spectral density of -41.3 dBm/MHz and a maximum peak e.i.r.p. of 0 dBm defined in 50MHz. Operation is in addition subject to the implementation of Transmit Power Control (TPC) mitigation technique (see ECC/DEC/(06)04, Annex 4) and an exterior limit (see ECC/DEC/(06)04, Annex 5) of -53.3 dBm/MHz.*

*Note 3: within the band 6.0-8.5 GHz devices implementing Transmit Power Control (TPC) mitigation technique (see ECC/DEC/(06)04, Annex 4) and an exterior limit (see ECC/DEC/(06)04,Annex 5) of -53.3 dBm/MHz are permitted to operate with a maximum mean e.i.r.p. spectral density of -41.3 dBm/MHz and a maximum peak e.i.r.p. of 0 dBm defined in 50 MHz.*

Question 15: Do you have any proposal to update the format and the information related to UWB in the above table?

4.7 Trigger-before-transmit mitigation technique for vehicular access systems shall comply with EN 302 065.

|  |  |  |
| --- | --- | --- |
| **Frequency range** | **Maximum mean e.i.r.p. spectral density** | **Maximum peak e.i.r.p**  **(defined in 50 MHz)** |
| *3.8 < f ≤ 4.2 GHz* | *-41.3 dBm/MHz*  *with trigger-before-transmit operation*  *and LDC ≤ 0.5% (in 1h)* | *0 dBm* |
| *6.0 < f ≤ 8.5 GHz* | *-41.3 dBm/MHz*  *with trigger-before-transmit operation*  *and LDC ≤ 0.5% (in 1h) or TPC* | *0 dBm* |

Question 16: Do you have any proposal to update the format and the information related to UWB in the above table?

Question 17: Do you believe that the current regulations covers all regulatory framework in the UAE?

Question 18: Any proposal to add more references or standard to the regulations?

Article (5)

Validation and Publication

5.1 These regulations should be published in the official gazette and shall be effective as of the date of their publication.

**3. General comments**

3.1 Further to the specific matters discussed, and questions asked above, please identify any additional issues which you feel are relevant for consideration in this consultation. Please provide specific support and/or explanation of your viewpoints as well as recommendations regarding how such issues might be resolved.

1. (e.g. Duty cycle or LBT + AFA), related~~Duty Cycle~~ technical details should be taken from the mentioned reference documents in the table. [↑](#footnote-ref-1)
2. Limit is 42 dBμA/m for the following spot frequencies: 60 kHz ± 250 Hz, 66.6 kHz ± 750 Hz, 75 kHz ± 250 Hz, and 77.5 kHz ± 250 Hz. [↑](#footnote-ref-2)
3. The frequency range 6.765 MHz – 6.795 MHz is not a harmonised ISM frequency band according article 5.138 of the ITU Radio Regulations [↑](#footnote-ref-3)
4. The available channel centre frequencies are 916.3 MHz, 917.5 MHz, 918.7 MHz and 919.9 MHz, the channel bandwidth is 400 kHz [↑](#footnote-ref-4)
5. New approvals for model control applications using 72 MHz – 72.25 MHz will not be granted from 1 January 2021, existing class authorizations for model control applications using 72 MHz – 72.25 MHz can be renewed. [↑](#footnote-ref-5)
6. Interrogator transmissions in sub-band a) at 2 W e.r.p. are only permitted within the four channels centred at 865.7 MHz, 866.3 MHz, 866.9 MHz and 867.5 MHz; each with a maximum bandwidth of 200 kHz. RFID tags respond at a very low power level (-20 dBm e.r.p.) in a frequency range around the RFID interrogator channels. [↑](#footnote-ref-6)
7. Passive RFID tags responding to RFID interrogators may operate in the band 915.3-920.9 MHz. Detect And Avoid (DAA) mechanism is required for these passive tags. [↑](#footnote-ref-7)
8. Interrogator transmissions at 4 W e.r.p. only permitted at the centre frequencies: 916.3 MHz; 917.5 MHz; and 918.7 MHz. [↑](#footnote-ref-8)
9. Any emission shall not exceed 500 mW when measured 10 metres from either the installed building or boundary of the user’s premises. [↑](#footnote-ref-9)
10. Equipment must be within a closed tank, which is intended to contain substances [↑](#footnote-ref-10)
11. Slave devices without a Radar Interference Detection, shall comply with the limits for the band 5250 MHz-5350 MHz [↑](#footnote-ref-11)
12. Any emission shall not exceed 250 mW e.i.r.p when measured 10 metres from either the installed building or boundary of the user’s premises. [↑](#footnote-ref-12)
13. Center frequency is 4 234 kHz [↑](#footnote-ref-13)
14. Center Frequency 13547 kHz [↑](#footnote-ref-14)
15. New approvals for automotive radars using 24 GHz – 24.25 GHz will not be granted from 1 January 2021, existing class authorizations for automotive radars using 24 GHz – 24.25 GHz can be renewed. [↑](#footnote-ref-15)
16. digital PMR 446 with a channel plan based on 6.25 kHz and 12.5 kHz spacing where the lowest carrier frequencies are 446.003125 MHz and 446.00625 MHz. [↑](#footnote-ref-16)
17. ~~New approvals for SRD860 applications using 863 MHz - 870 MHz will not be granted from 1 January 2021, existing class authorizations for SRD860 applications using 863 MHz - 870 MHz can be renewed .~~ [↑](#footnote-ref-17)