

**Consultation on Class License for Short Range  
Devices- Version no. 4**

**SUMMARY OF COMMENTS AND  
RESPONSES OF CRA**

## Background

On 16<sup>th</sup> February 2020, CRA published Version no. (4) of the Class License for Short Range Devices – A Consultation Document, that updates the current version of the Class License to include additional applications of radio-communication devices.

The Communications Regulatory Authority “CRA” is the responsible authority for establishing an effective approval regime for telecommunications equipment in the State of Qatar in accordance with Decree-Law No. (34) of 2006 on the promulgation of the Telecommunications Law as amended by Law No. (17) of 2017, the Executive By-Law for the Telecommunications Law.

Class License for Short Range Devices- V.4 Consultation Document set out CRA’s overview to provide an opportunity for interested parties/stakeholders to present their views and comments on this document “Class License for Short Range Devices – Version No. (4)”. CRA presents in this document the updates to the annexures to cope with the rapid developments in the telecom standardizations. This new version of the document will be updated and published after the approval from competent authorities and reflect consideration of submissions from interested parties/stakeholders.

Class License for Short Range Devices- V.4 Consultation Document is available on CRA’s website at [www.cra.gov.qa](http://www.cra.gov.qa).

This document captures the main responses submitted by interested parties and provides CRA’s answers and views. The views, comments, or opinions herein are not legally binding on any party.

## Comments Submitted

CRA requested written comments about Version no. (4) of the Class License for Short Range Devices Consultation Document from interested parties. CRA considers “interested parties” to be an individual, company, or organization with an interest in the subject at hand and the development of Qatar’s telecommunications sector.

Comments were received from:

1. Ooredoo Qatar (Q.S.C)
2. Vodafone Qatar
3. Dunel Europe
4. WoWi Approval Services, Inc.
5. D-Link Middle East & Africa
6. VOGO S.A.
7. Sennheiser Middle East
8. Cisco Systems International FZ-LLC (Middle East and Pakistan)
9. Boeing Netherlands BV
10. Wi-SUN Alliance
11. Itron
12. Afaq Al Khaleej Engineering Resources W.L.L
13. LUMNEX France
14. Low Power Radio Association (LPRA)

15. Panasonic Avionics Corporation
16. SITA for Aircraft
17. Intel Corporation
18. Hewlett Packard Enterprise (HPE)
19. Facebook, Inc.
20. Apple Middle East
21. LoRa Alliance
22. Wasion Group Limited
23. Eleos Compliance
24. Qbee Lab
25. Dell technologies
26. Modern Home
27. Qatar International First for Electro-Mechanical W.L.L
28. Waseela Integrated Telecom Solutions
29. Techno Blue

CRA wishes to thank all the above parties for their comments. We view participation and comments to be a valuable part of the consultation process.

CRA allows contributors to seek confidentiality when submitting information, but publication shall be entirely at the discretion of CRA. Non-confidential versions of submissions and those deemed by CRA to be lacking commercially sensitive information will be made available on CRA's website.

CRA will publish this summary of the major issues that were raised in response to Version no. (4) of the Class License for Short Range Devices Consultation Document. Included in this is a precis of CRA's views concerning the comments.

## Summary of Comments and Response of CRA

### Section 1 General Comments

This section includes a summary of the general comments received from the Industry on the consultation document along with the CRA feedback.

<b>General Comments</b>
Proposes to introduce the use of U-NII-5, U-NII-6, U-NII-7 and U-NII-8 band for Wi-Fi use & use ECC Decision (20)01 as harmonized standard reference to support this band for all Wi-Fi 6E devices to ensure interoperability.
<b>CRA Response:</b>
CRA has published a separate public consultation regarding this matter. CRA will consider inputs from all relevant stakeholders during the evaluation for any type of application that benefits the country as well as the consumers. CRA will continue engaging stakeholders in any activities related to spectrum management to ensure transparency.

<b>General Comments</b>
There is a need to modify the CRA's WAS/RLANs authorized frequency bands list and allocate 5.925-6.425 GHz for Wi-Fi to support the new technology Wi-Fi 6E.
<b>CRA Response:</b>
CRA has published a separate public consultation regarding this matter. CRA will consider inputs from all relevant stakeholders during the evaluation for any type of application that benefits the country as well as the consumers.

<b>General Comments</b>
Recommends that the CRA allow indoor and outdoor use for all bands except for the U-NII-2A and U-NII-5 bands, which should be for indoor use only. These recommended applications of indoor and outdoor use are consistent with international best practices.
<b>CRA Response:</b>
The operation of Wireless Access Systems (including RLANS) is restricted within indoor residential and business premises.

**General Comments**

Suggests adding Wireless Power Transfer as an example in the definition of an inductive application.

**CRA Response:**

Thanks for the comment. Noted.

**General Comments**

Recommends that CRA implement a Spectrum Strategy that include three core goals:

- 1) to encourage a range of innovative business and engineering approaches so market forces can determine the best use of each frequency band,
- 2) to avoid restrictive regulations or Government predictions about future uses of the bands that could dictate outcomes and limit innovation, and
- 3) to continually bring new bands into use while working to achieve greater efficiency and intensity of use of existing government, commercial, and shared bands.

**CRA Response:**

Thanks for the comment. Noted.

**General Comments**

Encourage CRA to pursue a balanced spectrum policy that brings more licensed and license-exempt spectrum into use to serve businesses and citizens, and support for band plans and technical rules in current and future spectrum proceedings that encourage investment and innovation rather than requiring particular channelization approaches and/or channel bandwidths geared to any one standard, or otherwise favoring a subset of today's technologies over innovations to come.

**CRA Response:**

Thanks for the comment. CRA considers balanced spectrum policy to serve all sectors as well as to encourage investment and innovation.

**General Comments**

Asks CRA to include the below definitions in the final class license document.

**Indoor Coverage** is any radio frequency (RF) signal transmitted within privately owned land, regardless this signal is transmitted inside buildings or in the area surrounding those buildings. Landlord will be responsible for any interference caused by the deployed Wireless Access System with any other system outside the land.

**Outdoor Coverage** is any radio frequency (RF) signal transmitted through publicly / government owned land, regardless this signal is transmitted inside buildings or in the area surrounding those buildings. Operator of the system will be responsible for any interference caused by the deployed Wireless Access System with any indoor coverage or other outdoor coverage systems.

**Wideband data transmission** devices cover radio devices that use wideband modulation techniques to access the spectrum. Typical uses include wireless access systems such as radio local area networks (WAS/RLANs) or wideband SRDs in data networks.

**CRA Response:**

Thanks for the comment. CRA will ensure adding clear definitions to all terms and expressions in the final document.

**General Comments**

Proposes to include below acronyms in the final regulation document.

DFS: Dynamic Frequency Selection

EIRP: Effective Isotropic Radiated Power

ETSI: European Telecommunications Standards Institute

FCC: Federal Communications Commission

IEEE: Institute of Electrical and Electronics Engineers

LAA: License Assisted Access

LBT: Listen Before Talk

TPC: Transmit Power Control

U-NII: Unlicensed National Information Infrastructure

**CRA Response:**

Thanks for the comment. Noted.

**General Comments**

Proposes to include below Abbreviations in the final regulation document.

dBm: Decibel milliwatts

GHz: Giga Hertz

MHz: Mega Hertz

mW: milliwatts

**CRA Response:**

Thanks for the comment. Noted.

**General Comments**

Asks CRA to provide better clarification regarding the use of the word “interference” in this clause. For example, is the CRA referring to “harmful interference”, i.e. as per its Guidelines on Managing Spectrum Interference?

**CRA Response:**

CRA will take into consideration this comment while updating the Class License.

**General Comments**

Clause 7.6. This clause allows private persons to import Short Range Devices without having to officially get permission from the CRA to import the devices where the devices are used for private purposes.

Respondent asks CRA to revise this clause to make clear to these persons that any SRD imported to Qatar must be Type Approved by an authority approved by CRA. The CRA should give specific names of these authorities so that these persons still understand that radio equipment must be type approved before it can be brought into the country even if the person does not need to follow the CRA type approval process. Also asks for this modification to text as a means to help ensure that radio devices brought into the country by individual persons does not degrade or otherwise harm the public networks.

**CRA Response:**

Thanks for the comment. This clause is also covered under the ‘Type Approval Policy’ and ‘Type Approval Guidelines’ for Radio Equipment and Telecommunications Terminal Equipment (RTTE) now in force.

**General Comments**

To review the definition of “indoor use” in Annexure 2, Section 2.4 to include the term “onboard aircraft” in addition to “residential and business premises” for purposes of operating WLANs in the 5 GHz band under a Class License.

**CRA Response:**

The indoor use in the Class License for SRDs does not cover the “Onboard Aircraft”, while the same is covered under the “Class License for the Provision of Public Telecommunications Services On-board Aircraft”.

**General Comments**

Supports the new changes for the Class License for Short Range Devices, the proposed update is definitely a step in the right direction. The changes made are on par with the European standard (CE) which is recognized worldwide. The new proposal has the potential for business growth in the country and elevate the quality of wireless through the new technological advancements of radio-communications and their products fully complies with the new updated Class License (Version No.4) to all applicable application types.

**CRA Response:**

Thanks for the comment. Noted.

**General Comments**

It is a very positive move in respect of opening of 57 - 64 GHz band for non-specific Short Range Devices and all the other changes that have been made.

**CRA Response:**

Thanks for the comment. Noted.

**General Comments**

Supports the CRA decision to allow the WAS/RLAN bands for the vehicles' only use. Many manufacturers are asking about this and what time the CRA will open the 5GHz for the vehicle products (Car Audio). It will be perfect if the CRA keeps all bands and output power as mentioned in the table.

**CRA Response:**

Thanks for the comment. Noted.



## Section 2

### Annexure (2) – Technical Requirements for Short Range Devices (SRD)

This section includes a summary of the comments received from the Industry on the Class License for Short Range Devices- Version No. (4) along with the CRA feedback.

<b>870 – 876 MHz (M2M Applications)</b>
Askes that the conditions in the band 870 - 876 MHz to be augmented to allow 500 mW - 1 W power and duty cycle of up to 10% to allow the technology to operate.
<b>CRA Response:</b>
CRA will re-evaluate the conditions of the band in question to adopt proper decision.

<b>M2M Applications</b>
<ol style="list-style-type: none"><li>1) 863 - 870, 870 - 876 MHz as well as 915 - 919.4 MHz from the section 1 of the Annexure (2) are three very important bands for IoT / M2M LPWAN applications and these bands well suit particularly well for LoRaWAN deployments.</li><li>2) The clarification on the use of harmonized standards EN 300 220 and EN 302 208 in all these frequency bands under 1GHz as listed in this regulation is very useful for the harmonization of the equipment and for the roaming of the devices with Europe for example.</li></ol>
<b>CRA Response:</b>
<ol style="list-style-type: none"><li>1) Thanks for the comment. Noted.</li><li>2) The standard EN 302 208 is not considered for Machine-to-Machine applications operating on these bands (863 - 870, 870 - 876 and 915 - 919.4 MHz).</li></ol>

<b>865 – 868 MHz</b>
The bands listed in section 2.2 of the Annexure (2) “Additional Applications of Radiocommunications Equipment” between 865 and 868 MHz could also be used by LoRaWAN equipment. In addition, RFID transmissions are “only permitted within the frequency ranges 865.6-865.8 MHz, 866.2-866.4 MHz, 866.8-867.0 MHz and 867.4-867.6 MHz” as described in Annex 11 Note 1 of the ERC Recommendations 70-03. Respondent suggests adding the same list of frequencies where RFID systems are permitted as they suggest that these bands are also available for non-RFID applications in Europe limited to 500 mW, including LoRaWAN equipment (see Note 4 in Annex 2 to ERC Recommendations 70-03).
<b>CRA Response:</b>
This frequency range (parts of) is considered only for RFID applications and not applicable to M2M.

### 823 – 832 MHz (Wireless Microphone Systems)

The frequency band 823 - 832 still have a 200 kHz bandwidth restriction. ERC/Rec 70-03 Annex 10 removed the bandwidth limits, because of WMAS defined by the System Reference Document in ETSI TR 103 450.

#### **CRA Response:**

The WMAS applications are not included under the scope of “Wireless Microphone Systems” in the Class License for Short Range Devices. Such applications are covered under the PMSE Licensing which is subject to frequency licenses.

### 870 – 876 MHz (M2M Applications)

Notes that the 870 - 876 MHz band has been made available in Qatar per CEPT Recommendation 70-03 but only at 25mW and at very low Duty Cycles (DCs). Such powers levels may be acceptable for indoor applications, but outdoors lighting/IoT networks need higher powers – at least 500mW – in order to connect hard to reach locations. Furthermore, Access Points need higher DCs in order to be able to work effectively.

#### **CRA Response:**

CRA will re-evaluate the conditions of the band in question to adopt proper decision.

### 915 – 919.4 MHz (M2M Applications)

In the 915 - 919.4 MHz, the ranges 917.3 - 917.7 MHz and 918.5 - 918.9 MHz are also available for tracking, tracing and data acquisition equipment limited to 500 mW, including LoRaWAN equipment (see Note 6 in Annex 2 to ERC Recommendations 70-03).

#### **CRA Response:**

The restrictive e.r.p limit of 25 mW with duty cycle up to 1% (for the range 915 – 919.4 MHz) will ensure protection of incumbent services.

### 915 – 919.4 MHz (M2M Applications)

Urges the CRA to allow RFID applications in the mentioned range 915 - 921 MHz with 4 W e.r.p and standard EN 302 208.

#### **CRA Response:**

This band is not considered for RFID applications in our Class License. 915 – 919.4 MHz is covered under M2M applications.

### 1880 – 1900 MHz (DECT)

The harmonization of EN 301 406 to not be restricted to telephony, as per the ETSI standards and the same as in most of ITU Region 1. DECT applications serve telephony, data, audio, IoT... like any IMT standard. DECT is currently IMT-2000.

#### **CRA Response:**

The use of DECT is restricted for telephony only and for indoor residential areas. It is not considered for IMT applications, while it may be covered under "Fixed or Mobile PMSE" frequency licensing framework.

### 2400 – 2483.5 MHz (WAS/RLAN)

Agrees with the proposed power level for this band and proposes to enforce the use of DFS in this band, also to enforce support of this band for all wi-fi devices to ensure basic interconnectivity and to open the use of this band for indoor and outdoor use.

#### **CRA Response:**

The operation of Wireless Access Systems (including RLANs) is restricted within indoor residential and business premises. The applicable standard EN 300 328 does not support the application of DFS.

### 5150 – 5250 MHz (WAS/RLAN)

Proposes the additions/improvements below regarding 5150 - 5250 MHz and to be aligned with WRC-19 Resolution

- Onboard vehicles with a maximum mean e.i.r.p. of 40 mW,
- Onboard trains with a maximum mean e.i.r.p. of 200 mW.

#### **CRA Response:**

Only WAS/RLANs are permitted onboard vehicles and trains with maximum e.i.r.p of 40 mW. They are not allowed for outdoor use.

### 5150 - 5250 MHz (WAS/RLAN)

Respondent encourages CRA to allow RLANs operating outdoors to use the 5150 - 5250 MHz frequency band at 200 mW without a fixed installation and to include inside aircraft, trains and vehicles as indoor usage.

#### **CRA Response:**

The indoor use in the Class License for SRDs does not cover the 'onboard aircrafts, for the aircrafts it is covered under the "Class License for the Provision of Public Telecommunications Services On-board Aircraft".

#### 5150 – 5250 MHz (WAS/RLAN)

Agrees with the proposed power level for this band and proposes to enforce the use of DFS in this band, also to open the use of this band for indoor and outdoor use.

#### **CRA Response:**

The operation of Wireless Access Systems (including RLANs) is restricted within indoor residential and business premises. DFS is not required for this band as it is restricted for indoor use. While TPC is considered.

#### 5150 – 5350 MHz (WAS/RLAN)

Requests CRA to consider the operations of 5150 - 5350 MHz WLANs within the cabin of large commercial aircraft to be an "indoor" use or otherwise permit their operation at indoor power levels for the purpose of SRD class licenses in Qatar.

#### **CRA Response:**

The indoor use in the Class License for SRDs does not cover the "Onboard Aircraft", while it is covered under the "Class License for the Provision of Public Telecommunications Services On-board Aircraft".

#### 5250 – 5350 MHz (WAS/RLAN)

Agrees with the proposed power level for this band & proposes to enforce the use of DFS and TPC on this band.

#### **CRA Response:**

DFS is not required for this band as it is restricted for indoor use. While TPC is considered.

#### 5470 – 5725 MHz (WAS/RLAN)

Agrees with the proposed power level for this band and proposes to enforce the use of DFS and TPC on this band, also proposes to open the use of this band for indoor and outdoor use.

#### **CRA Response:**

The Class License for Short Range Devices covers the indoor use of this frequency band, while the outdoor use is subject to the Applicable Regulatory Framework (see 'Guidelines for the Use of ISM Band' & 'Guidelines for Fixed Radio Spectrum Licensing' available on CRA website for more details).

#### 5725 – 5875 MHz (WAS/RLAN)

Notes that the consultation document provides a maximum EIRP of 25mW to 1000 mW for short range devices/indoor wireless LAN application.

#### **CRA Response:**

The maximum e.i.r.p limit of 25 mW is applicable on the frequency range 5725 – 5875 MHz with different applications including WAS/RLAN. While the e.i.r.p of 1000 mW is applicable on the range 5470 – 5725 MHz and for WAS/RLAN Applications only (indoor).

#### 5725 – 5875 MHz (WAS/RLAN)

Asks CRA to consider increasing the limit for RF output power to at least 200 mW e.i.r.p.

#### **CRA Response:**

The maximum e.i.r.p limit of 25 mW is applicable on the frequency range 5725 – 5875 MHz with different applications including WAS/RLAN, following the standard EN 300 440.

#### 5725 – 5875 MHz (WAS/RLAN)

It is expected that this limit will not cause any issues in the future for the light licensed 5.8 GHz band, and this band should continue on a non-exclusive use for multiple applications including PTP and PMP links.

#### **CRA Response:**

The range 5725 – 5875 MHz mentioned in section 2.4 of the proposed update to the Class License is only for indoor RAS/WLAN applications, while the light-license is for outdoor applications (please refer to the "Guidelines for the Use of ISM Band & Guidelines for Fixed Radio Spectrum Licensing" available on CRA website for more details).

#### 5725 – 5875 MHz (WAS/RLAN)

The reference ETSI Standard in the draft (EN 300 440) should be replaced with the standard EN 302 502 that allows up to 4W of transmitted power.

#### **CRA Response:**

The outdoor applications using this band are subject to “Light License” regime with maximum e.i.r.p. of 2 W, and with equipment following specifications of EN 302 502.

### 5725 - 5875MHz (WAS/RLAN)

Proposes to use ETSI Standard EN 302 502 V2.1.1 (2017-03) “5.8 GHz fixed broadband data transmitting systems” as harmonized standard reference and proposes to adopt power level of 2W EIRP for this band, also proposes to enforce the use of DFS and TPC on this band, proposes to open the use of this band for indoor and outdoor use.

#### **CRA Response:**

The outdoor applications using this band are subject to “Light Licensing” regime with maximum e.i.r.p. of 2 W, and with equipment following specifications of EN 302 502.

### Ultra-Wide bands (UWB)

Since CRA will allow the 5GHz bands for onboard vehicles use, then will CRA consider allowing the Ultra-Wide bands (UWB) for vehicular applications too?

#### **CRA Response:**

The UWB applications are excluded from vehicular use (onboard vehicles).

### 57 – 71 GHz (Multiple-Gigabit WAS/RLAN)

Notes that the CRA’s plans to use the 57 – 71GHz bands for short range device use with very low power and for indoor applications. Theoretically this should not cause any issue for outdoor applications sharing the same band.

#### **CRA Response:**

Thanks for the comment. Noted.

### 57 – 71 GHz (Multiple-Gigabit WAS/RLAN)

Agrees with the proposed power level for this band and proposes to enforce the use of LBT on this band and remove DAA from the standard.

#### **CRA Response:**

Thanks for the comment. Noted.

### 57 – 71 GHz (Multiple-Gigabit WAS/RLAN)

Authorizing Multiple-Gigabit WAS/RLAN in the full 57 - 71 GHz band increases the number of available channels from 4 to 6, significantly increasing the overall system capacity and Quality of Service delivered by such devices. This decision is also consistent with the recent ECC confirmation (CEPT Report 78) that the band is expected to remain dedicated to equipment deployed on a license-exempt basis in Europe.

#### **CRA Response:**

CRA restricts the use of this band and this application to indoor only. Fixed outdoor installations are not allowed.

### 57 – 71 GHz (Multiple-Gigabit WAS/RLAN)

Suggests adopting the EN 303 722 & EN 303 753 to the 57 - 71 GHz range.

#### **CRA Response:**

These standards might be relevant to the outdoor installations and not applicable in this Class License for SRDs, you may refer to the "Guidelines for Fixed Radio Spectrum licensing" on CRA website for more details.

### 57 – 71 GHz (Multiple-Gigabit WAS/RLAN)

Invites CRA to consider authorizing license-exempt outdoor use of the 57-71 GHz band as Regulators in Europe and United States now allow outdoor installations as well.

#### **CRA Response:**

For this band and this application (WAS/RLAN) the use is restricted to indoor only. Fixed outdoor installations are not allowed.

### 75 – 85 GHz (Radio-determination applications)

As there is an extensive use of E-band links in the 75 - 76 GHz and 81 - 86 GHz bands. Therefore, CRA is kindly requested to confirm whether short range applications use of this band will be outdoor or indoor. It is assumed that it should be for indoor. In the event that it is for outdoor as well, a low power specification should be adopted. In any case, the power specifications need to be mentioned.

#### **CRA Response:**

CRA notes the concern and ensures that the relevant applicable maximum field strength/ RF output power for outdoor applications will not interfere with the other services/ applications sharing the same frequency band.