Communications Regulatory Authority
State of Qatar

هيئة تنظيم الاتصالات
دولة قطر

Class License for
Wireless Home Area Networks (WHANs)

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Version Control

Version	Date	Changes
	4/4/2019	Draft for Public Consultation
	5/9/2019	Second Round of Consultation
00	7/5/2020	Issuance of the Class License

Class License for Wireless Home Area Networks (WHANs)

1 Legal Basis

1.1 Article (10) of the Telecommunications Law No. (34) of 2006 (hereafter referred to as the "**Telecommunications Law**") states that the Communications Regulatory Authority (hereafter referred to as the "**CRA**") shall define the conditions under which Individual and Class licenses shall be issued.

1.2 Article (15) of the Telecommunications Law states that no person shall operate any radio-communications equipment or make any use of radio frequencies, without a Radio Spectrum License or a Radio Frequency Authorization from the CRA.

1.3 Articles (9), (10), (11), (12) and (14) of the Executive By-Law No. (1) of 2009 for the Telecommunications Law (hereafter referred to as the "**Executive By-Law**"), establishes the framework to be followed by the CRA when defining the terms and conditions of a Class License.

1.4 In accordance with Article (31) of the Executive By-Law, the CRA shall establish the terms and conditions of all Licenses and shall monitor compliance by Licensees with the terms and conditions of their Licenses, and the CRA may take any measure and procedure in this regard. The CRA may establish the criteria through Radio Spectrum Regulations in order to determine what radio spectrum should be available for common use and this may be awarded by means of a Class License.

1.5 Under the Emiri Decree No. (42) of 2014, and specifically Article (4.4) and Article (14), the CRA is mandated to manage and regulate spectrum usage.

2 Grant of License

2.1 The CRA hereby grants this Class License for Wireless Home Area Networks (hereafter referred to as the "License") to any person who possesses, uses, operates, and installs Wireless Home Area Networks WHAN(s) (hereinafter referred to as "WHAN(s)") without that person (hereinafter referred to as the "Licensee") having to apply for the License.

2.2 The Licensee is hereby authorized to: (i) import and operate WHAN(s) within the State of Qatar, and (ii) use on a non-exclusive basis the frequency(ies) or the frequency band(s) assigned in Annex (2).

2.3 The License sets the minimum technical and regulatory requirements and operating specifications of WHAN(s) across different types of applications. Annex (2) contains the list of

various types of applications for WHAN(s), the applicable frequencies, Field Strength/ RF Output Power, standard and other related information which the Licensee must comply with in order to import and/or use WHAN(s).

3 Legal Nature of the License

3.1 The License is a unilateral administrative grant by the State of Qatar acting in the public interest through the CRA.

3.2 The License does not grant the Licensee any ownership interest or property rights in the Assigned Radio Spectrum, nor shall any such rights be created or implied by virtue of the Licensee's use of the Assigned Radio Spectrum.

4 Definitions

4.1 The words and expressions in this License shall have the meanings ascribed to them in the Telecommunications Law, the Executive By-Law, the terms and conditions of the License, including the definitions set out in Annex (1), and any regulations, decisions, orders, rules, instructions and notices issued by CRA (hereinafter, collectively referred to as the ("**Applicable Regulatory Framework**").

5 Operation of WHAN(s)

5.1 The Licensee is hereby authorized to use and operate WHAN(s) provided that the Licensee operates the authorized devices within the authorized frequency bands or frequencies, and within the corresponding output power levels stipulated in Annex (2).

5.2 For the WHANs authorized frequencies listed in Annex (2), which are already covered under the Class License for Short Range Devices (SRDs) issued by the CRA on April 30, 2018, the applications listed in Annex (2) shall be strictly limited to a private use in an individual's private home.

5.3 If a Licensee intends to use WHAN(s) exceeding the corresponding output power levels set in Annex (2), the Licensee shall follow the license application procedure and apply for a dedicated spectrum license pursuant to CRA's Applicable Regulatory Framework.

5.4 For WHAN(s) operate in unprotected and shared frequency bands, the Licensee shall ensure that its operation does not not cause Harmful Interference with other authorized radio-communications services and shall tolerate interference caused by other radio-communication services, electrical or electronic equipment.

5.5 The WHAN(s) shall not be constructed with any external or readily accessible control that permits the adjustment of its operation in a manner inconsistent with the License.

5.6 The CRA may amend or update the License from time to time in order to address developments in the market or technology changes. Amendments are enforceable upon publication on CRA website.

5.7 The Licensee shall ensure at all times to comply with the Applicable Regulatory Framework, including terms and conditions of the License, and any amendment thereto, and it is the responsibility of the Licensee to check CRA website for any amendment, especially to Annex 2.

6 Radio Spectrum

6.1 The Licensee is hereby authorized to use the specified radio frequencies set out in Annex (2) in accordance with Article (17) of the Telecommunications Law, and subject to the terms and conditions of the License.

6.2 The CRA may amend or cancel spectrum allocations or assignments, in accordance with the Applicable Regulatory Framework.

7 Type Approval

7.1 Prior to being manufactured, imported, sold, marketed or distributed in the State of Qatar, WHAN(s) shall be Type Approved in accordance with the Type Approval Policy for Radio Equipment and Telecommunications Terminal Equipment (hereafter referred to as the "**Type Approval Policy**") and the Type Approval Guidelines for Radio Equipment and Telecommunications Terminal Equipmen(hereafter referred to as the "**Type Approval Guidelines**") t published on CRA website.

7.2 Authorized Importer/Dealer shall ensure that WHAN(s) are type approved in accordance with the list of approved telecoms equipment published on the CRA website.

7.3 If WHAN(s) are not listed as approved, the Authorized Importer/Dealer shall apply, request and obtain Type Approval certificates from the CRA.

7.4 Importers/Dealers planning to import WHAN(s) for marketing or commercial purposes, sell or have a public use of WHAN(s) must obtain an Import Authorization for Radio Equipment and Telecommunications Terminal Equipment (hereafter referred to as the "**Import Authorization**") or must renew their import Authorization in accordance with the procedures published on CRA website.

7.5 After obtaining the Type Approval and the Import Authorization, the Importers/Dealers may import and/or sell and/or have a public use of WHAN(s) in the State of Qatar.

7.6 WHAN(s) may be imported or used without seeking Type Approval if WHAN(s) are for private use only, and provided that WHAN(s) comply with the standards adopted by CRA.

8 License Term

8.1 The License shall remain in force for an indefinite period of time. The CRA may terminate the License within one (1) month notice published on the CRA website.

9 License Fees

9.1 There are no fees associated with the License.

9.2 The Licensee shall remain responsible for all costs, expenses or any other financial commitments arising out of the License and/ or the use of WHAN(s).

10 Other Compliance Obligations of the Licensee

10.1 The Licensee shall comply with any requirements stipulated under the laws of the State of Qatar including the regulations and decisions issued by the relevant authorities. In this context, the Licensee shall comply, amongst others, with: (i) the requirements of the authorized agencies of the State of Qatar relating to national security and with the directions of governmental bodies in cases of public emergencies, and (ii) any safety measures regarding the installation, operation and usage of WHAN(s) as stipulated in the Type Approval Policy and the Type Approval Guidelines, and it shall implement the orders and instructions issued by the CRA pertaining to the same.

10.2 The Licensee shall obtain any other necessary approvals as may be required by other competent authorities in the State of Qatar.

11 Breach of License

11.1 The Licensee may lose its right to own, import and operate WHAN(s) if the Licensee does not comply with the terms and conditions of this License, or with the Applicable Regulatory Framework, as well as any relevant legislation and/or regulation.

11.2 The Licensee shall be subject to penalties as provided for in the Applicable Regulatory Framework where the Licensee fails to comply with the terms and conditions set out herein. Any failure will result in CRA taking enforcement action against the Licensee in accordance with the Applicable Regulatory Framework including initiating criminal proceedings in accordance with Articles (66), (67), (68) and (70) of the Telecommunications Law.

12 Access to Premises

12.1 The employees of the CRA who are vested with powers of judicial seizure in accordance with Article (63) of the Telecommunications Law may seize and prove violation of the Applicable Regulatory Framework.

12.2 In this respect, the Licensee shall allow employees of the CRA who are legally authorized to enter and inspect, in accordance with the law, the related premises, have access to records and documents and inspect equipment and WHAN(s) or any other related matters, and request data or clarifications, as they deem necessary.

13 Request for Information

13.1 In accordance with Chapter (13) of the Executive By-Law, the CRA may require the Licensee to provide the information necessary for the CRA to exercise its powers, and the Licensee shall provide the information to the CRA in the form, manner and time specified by CRA.

14 Language

14.1 The License is rendered in the Arabic and English languages. In case of conflict, the Arabic Language shall prevail.

Annex I Definitions

The following terms and expressions shall have the meanings assigned to each of them:

Frequency Band	:	A portion of the radio spectrum which starts at a particular frequency and ends at another particular frequency.
Harmful Interference	:	Interference which impairs the functioning of a radio communications or which materially degrades or obstructs or repeatedly interrupts radio communication.
Industrial, Scientific and Medical (ISM) applications (of radio frequency energy)	:	Operation of equipment or appliances designed to generate and use locally radio frequency energy for industrial, scientific, medical, domestic or similar purposes, excluding applications in the field of telecommunications.
KNX	:	A standard for home control automation through bus devices (sensors and actuators) that are connected via RF for the exchange of information.
National Spectrum Plan	:	The plan established for allocation and use of radio spectrum by the concerned entities.
Person	:	A natural or juridical person of any type or form.
Radio Spectrum	:	Radio frequencies capable of being used in radio communications in accordance with the publications of the International Telecommunications Union.
ULE	:	Ultra-Low Energy DECT standard used to design wireless sensor and actuator networks for smart home applications such as home automation, home security and climate control.
Ultra-Wideband	:	A radio technology that can use a very low energy level for short-range, high-bandwidth communications over a large portion of the radio spectrum, like sending or collecting sensor data.
Wireless Home Area Networks (WHANs)	:	Are wireless communication networks interconnecting devices centered around an individual person's home. These cover radio transmitters which provide either uni-directional or bi-directional communications and have low capability of causing Harmful Interference to other radio equipment. WHANs are used with either integral, dedicated or external antennas, and all modes of modulation are permitted subject to relevant standards.

		Applications include, but not exhaustively, lighting systems, security alarm systems, energy management systems, health monitoring and alert systems.
ZigBee	:	A technology that uses the globally available 2.4 GHz frequency band. It enables wireless applications using a standardized set of high level communication protocols sitting atop low-power digital radios.
Z-wave	:	A wireless, RF-based communications technology standard that defines a protocol designed for short range, two-way mesh topology automation networks. It addresses specifically the control, monitoring and status reading applications in residential environments.

Annex II Technical Requirements for Wireless Home Area Networks (WHANs)

The use of Wireless Home Area Networks (WHANs) is intended for Smart Home services to enable energy management, home automation systems (remote controller for home electrical appliances), lighting automation, wireless sensor systems, heating systems and alert systems.

Application Type	IEEE Standard	ETSI EN/ CENELEC Standard	Frequency Range	RF Output Power (e.r.p / e.i.r.p)	Spreading	Technology
Non-Specific Short Range Devices Applications	802.15.4	ETSI EN 300 440 & EN 300 328	2.4 - 2.4835 GHz	10 mW (e.r.p)	DSSS	Zigbee
	802.15.4	EN 300 220	868.3 MHz (1 CH)	25 mW (e.r.p)	DSSS	Zigbee
	-	CENELEC EN 50090 & CEN EN 13321-1	868.3 MHz (1 CH)	25 mW (e.r.p)	No spreading technique (FSK modulation)	KNX
	-	EN 300 220	868.4 MHz & 869.85 MHz	25 mW (e.r.p)	No spreading technique (FSK & GFSK modulation)	Z-wave (Zensys Corp.)
	-	EN 300 440	5725 - 5875 MHz	25mW (e.i.r.p)	-	-
Inductive Applications	-	EN 300 330	3155 - 3400 kHz	13.5 dBµA/m at 10m	-	-
	-	EN 300 330	6765 - 6795 kHz	42 dBµA/m at 10m	-	-
	-	EN 300 330	7400 - 8800 kHz	9 dBµA/m at 10m	-	-
ISM Applications	802.15.1	ETSI EN 300 440	2.4 - 2.4835 GHz	10 mW (e.r.p)	FHSS	Bluetooth
Non-Specific Short Range Devices Applications	-	ETSI TS 102 939-1 & ETSI TS 102 939-2	1880 - 1900 MHz	Maximum Transmit Power 10mW	GFSK modulation	ULE

Application Type	IEEE Standard	ETSI EN/ CENELEC Standard	Frequency Range	RF Output Power (e.r.p / e.i.r.p)	Spreading	Technology
WAS/RLAN Applications	802.11a/b/g/n/ac	EN 300 328	2.4 - 2.4835 GHz	100mW (e.i.r.p)	DSSS & OFDM	Wi-Fi
	802.11a/b/g/n/ac	EN 301 893	5.150 - 5.250 GHz	200mW (e.i.r.p)	DSSS & OFDM	Wi-Fi
	802.11a/b/g/n/ac	EN 301 893	5.250 - 5.350 GHz	200mW (e.i.r.p)	DSSS & OFDM	Wi-Fi
	802.11a/b/g/n/ac	EN 301 893	5.470 - 5.725 GHz	100mW (e.i.r.p)	DSSS & OFDM	Wi-Fi
	802.11a/b/g/n/ac	EN 302 502	5725 - 5875 MHz	100mW (e.i.r.p)	DSSS & OFDM	Wi-Fi
Ultra-Wide Band Systems Applications	802.15.3a	EN 302 065	3.1 - 4.8 GHz	maximum mean e.i.r.p. spectral density of -41.3 dBm/MHz	DS-UWB & MB-OFDM	Ultra-Wideband
	802.15.3a	EN 302 065	4.8 - 6 GHz	maximum mean e.i.r.p. spectral density of -70 dBm/MHz	DS-UWB & MB-OFDM	Ultra-Wideband
	802.15.3a	EN 302 065	6 - 8.5 GHz	maximum mean e.i.r.p. spectral density of -41.3 dBm/MHz	DS-UWB & MB-OFDM	Ultra-Wideband
	802.15.3a	EN 302 065	8.5 - 10.6 GHz	maximum mean e.i.r.p. spectral density of -65 dBm/MHz	DS-UWB & MB-OFDM	Ultra-Wideband