

**Modification of Annexure (2)-
Class License for Short Range Devices (SRD)**

(Date: 21/09/2014)
(V1)

Modification of Annexure (2)- Technical Requirements for Short Range Devices

1. Scope

- 1.1 The terms and conditions of the original Class License for Short Range Devices published on ictQATAR's website on May 30, 2010 apply to this document in addition to the conditions referred to herein.
- 1.2 This document is an update to Annexure (2)-Technical requirements for Short Range Devices SRD- of the Class License for Short Range Devices. The modifications include updates to the previous Annexure (2) along with additional applications of Radio-communications equipment namely Radio Microphone Applications, Radio Frequency Identification Applications, and Ultra Wide Band Technology Applications.
- 1.3 The operation of any SRDs as well as any additional applications of Radio-communications equipment are only allowed within the conditions referred to herein, any value higher than the maximum output power is not allowed.
- 1.4 An output power higher than the maximum allowed for each corresponding application is not covered within this document, the use of higher output power is subject to a separate Radio Spectrum Licensing procedure as per the "Radio Spectrum Policy" and the "Radio Spectrum Licensing Framework" published on ictQATAR's official website.
- 1.5 The use of Short Range Devices in this document are intended to operate in unprotected and shared frequency bands. The user shall ensure that its operation shall not cause interference with other authorized radio-communications services and must tolerate any interference caused by other radio-communication services, electrical or electronic equipment.
- 1.6 The specific Short Range Device shall not be constructed with any external or readily accessible control that permits the adjustment of its operation in a manner inconsistent with the conditions stipulated in the Class License.
- 1.7 Prior to importing or selling SRDs and/or Additional Applications of Radio-communications equipment in the State of Qatar, devices should be type approved in accordance with the "Type Approval Policy-for Radio Equipment and Telecommunication Terminal Equipment" and the "Type Approval Guidelines- for Radio Equipment and Telecommunication Terminal Equipment" published on ictQATAR's official website.

2. Short Range Devices (SRDs)

SHORT RANGE DEVICES					
Typical Application Type	Applicable Sub-section of Framework	Authorised Frequency Bands/Frequencies (Channel Spacing)	Maximum Strength/ RF Output Power	Harmonised Standard Reference	Remarks (Emission Type, Duty Cycle, other restrictions)
ISM	Non-specific Short Range Devices	6765 kHz-6795 kHz	42 dBμA/m at 10m	EN 301 489-1, FCC PART 15, EN 300 220, EN 300 330	
		13.553 MHz-13.567 MHz			
		26.957 MHz-27.283 MHz	42 dBμA/m at 10m, e.r.p 10mW		
		40.66 MHz-40.7 MHz	e.r.p 10mW		
	Non-specific Short Range Devices	868 MHz-868.6 MHz	e.r.p 25mW	EN 301 489-1, EN 300 220	
		868.7 MHz-869.2 MHz			
		869.4 MHz-869.65 MHz	e.r.p 100mW		
		869.7 MHz-870 MHz	e.r.p 25mW		
		433.05 MHz-434.79 MHz	e.r.p 10mW		
	ISM & BLUETOOTH	Non-specific Short Range Devices	2400 MHz-2483.5 MHz	e.i.r.p 10mW	EN 301 489-1, EN 300 440, EN 300 328
ISM & WLAN		5725-5875 MHz	e.i.r.p 25mW	EN 300 440	Indoor use only
ISM	Non-specific Short Range Devices	61 GHz-61.5 GHz	e.i.r.p 100mW	EN 301 489-1, EN 300 440, FCC PART 15	
		122 GHz-123 GHz			
		244 GHz-246 GHz			
ISM	DECT	1880 MHz-1900 MHz	e.i.r.p 10mW	EN 300 175	
	Cordless Phones	2.4-2.4835 GHz	e.i.r.p 10mW	EN 300 440	
Movement Detection & alert Systems	Radio-determination & Detection applications	10.5 GHz-10.6 GHz	e.i.r.p 500mW	EN 301 489-1, EN 300 440, EN 302 288, EN 302 372	
		24.05 GHz-24.25 GHz	e.i.r.p 100mW		
		57 GHz-64 GHz	e.i.r.p - 41.3dBm/MHz		
		75 GHz-85 GHz			
Vehicle Radar systems	Road transport and traffic telematics	76 GHz-77 GHz	55 dBm peak e.i.r.p -50 dBm average power -23.5 dBm	EN 301 489-1, EN 301 091	Either 50 dBm average power or an average power of 23.5 dBm for pulse radar only. Conditions apply to vehicle and

					infrastructure radar systems only.
		24.150-24.250 GHz	e.i.r.p 100mW	EN 301 489-1, EN 302 858 & ETSI EN 302 288-1	
		5795 MHz-5805 MHz	e.i.r.p 2W	EN 301 489-1, EN 300 674, EN 200 674	
		5805 MHz-5815 MHz			
Car Immobilisers, alarm systems, data transfer to handhelds and animal identification devices.	Inductive Applications	9 kHz-148.5 kHz	72 dBμA/m at 10m	EN 301 489-1, EN 302 291, EN 300 330	
		3155 kHz-3400 kHz	13.5 dBμA/m at 10m		Security Device
		6765 kHz-6795 kHz	42 dBμA/m at 10m		
		7400 kHz- 8800 kHz	9 dBμA/m at 10m		
		13.553 MHz-13.567 MHz	60 dBμA/m at 10m		
		26.957 MHz-27.283 MHz	42 dBμA/m at 10m		Wireless Microphone/Remote Control
		433.05-434.79	e.i.r.p 10mW		EN 300 220
Purpose of Controlling movement of a model	Model Control	26.995 MHz, 27.045 MHz, 27.095 MHz	e.r.p 100mW	EN 301 489-1, EN 300 220	
		34.995 MHz-35.225 MHz	e.r.p 100mW		Only for flying models
Active Medical Implant, Hearing Aids	Wireless applications in Healthcare and Listening Devices	401 MHz-406 MHz	e.r.p 25μW	EN 301 489-1, EN 301 839, EN 302 537	
		9 kHz-315 kHz	30 dBμA/m at 10m	EN 301 489-1, EN 302 195	Duty Cycle <10%
		30 MHz-37.5 MHz	e.r.p 1mW	EN 301 489-1, EN 302 510	Duty Cycle <10%
		173.965 MHz-174.015 MHz	e.r.p 2mW	EN 301 489-1, EN 300 422	
Cordless loudspeakers, headphones	Wireless audio applications	863 MHz-865 MHz	e.r.p 10mW	EN 301 489-1, EN 300 422, EN 301 357-1	Wireless Audio & Multimedia Streaming
		1795 MHz-1800 MHz	e.i.r.p 20mW		
		87.5 MHz-108 MHz	e.r.p 50nW		
Vehicle Immobilizer, anti-theft system, navigation device	Vehicle fitted radio product	133 kHz	60 dBμA/m at 10m	EN 301 489-1, EN 300 220	Modulation type ASK & FSK
		134 kHz	70 dBμA/m at 10m, e.r.p 10mW (10 dBm)		Modulation type FSK & Emission class F1D
		433.05 MHz-434.79 MHz	e.r.p 10mW		Modulation type ASK or FSK

		458.95 MHz	70 dBμA/m at 10m, e.i.r.p 10mW (10 dBm)		Modulation Type FSK & Emission class F1D
		24-24.25 GHz	e.i.r.p 100mW	EN 301 489-1, EN 300 440 & EN 302 288-1	
		24.15 GHz	e.i.r.p 100mW	EN 301 489-1, EN 300 440 & EN 302 288-1	SPOT frequency
		76 GHz-77 GHz	10W to 15W Peak e.i.r.p, 316.22W Peak e.i.r.p	EN 301 489-1, EN 301 091	
		1575.42 MHz	N/A	EN 301 489-1	GPS receivers
		315 MHz	e.i.r.p 10mW	EN 301 489-1, EN 300 220	Modulation type ASK
		13.553 MHz-13.567 MHz	60 dBμA/m at 10m	EN 301 489-1, EN 302 291, EN 300 330	

3. Additional Applications of Radio communications Equipment

In the context of this document, additional applications of Radio-communications Equipment include the following:

- 1 Radio Microphone Applications
- 2 Radio Frequency Identification Applications.
- 3 Ultra Wide Band Technology Applications.

3.1.1 Radio Microphone Applications

- Radio microphone applications include small, low power transmitters designed to be worn on the body, or hand held, for the transmission of sound.
- The frequency ranges of operation and corresponding output power levels of radio microphone applications are as follows:

Typical Application Type	Applicable Sub-section of Framework	Authorised Frequency Bands/Frequencies (Channel Spacing)	Maximum Strength/ RF Output Power	Harmonised Standard Reference	Remarks (Emission Type, Duty Cycle, other restrictions)
Wireless Microphone Systems	Wireless audio applications	470 -786 MHz	50 mW e.r.p	ETSI EN 301 489-9, ETSI EN 300 422-2, ETSI EN 300 422-1, ETSI EN 300 454-1, ETSI EN 300 454-2, & ETSI TR 102 546	On a tuning range basis
		786 -789MHz	12 mW e.r.p		Channel spacing of 200 kHz
		823-826 MHz	20 mW e.i.r.p		Restricted to body worn microphones/Channel spacing of 200 kHz
			100mw e.i.r.p		Channel spacing of 200 kHz
		826- 832 MHz	100mw e.i.r.p		On a tuning range basis
786-862 MHz	50 mW e.r.p				

3.1.2 Radio Frequency Identification Applications

- Radio frequency Identification (RFID) Applications include but are not limited to automatic article identification, asset tracking, anti-theft systems, alarm systems and wireless control systems.
- The frequency ranges of operation and corresponding output power levels of RFID applications are as follows:

Typical Application Type	Applicable Sub-section of Framework	Authorised Frequency Bands/Frequencies (Channel Spacing)	Maximum Strength/ RF Output Power	Harmonised Standard Reference	Remarks (Emission Type, Duty Cycle, other restrictions)
Radio Frequency Identification (RFID) Application	Asset Tracking Systems	13.553 MHz-13.567 MHz	60 dBμA/m at 10m	EN 300 330 & EN 302 290	
		865.6-867.6 MHz	2W e.r.p	EN 302 208	Channel spacing of 200 kHz
		2446 MHz-2454 MHz	e.i.r.p 500mW	EN 300 440	

3.1.3 Ultra Wide Band Technology Applications

- Ultra Wide Band (UWB) Technology Applications include but are not limited to equipment used for communications, measurement, location, imaging, surveillance and medical systems.
- The technical requirements for the operation of UWB applications are not applicable to:
 - Devices and infrastructure used at a fixed outdoor location or connected to a fixed outdoor antenna;
 - Devices installed in flying models, aircraft and other aviation;
 - Devices installed in road and rail vehicles.
- The frequency ranges of operation and corresponding output power levels of UWB technology applications are as follows:

Typical Application Type	Applicable Sub-section of Framework	Authorised Frequency Bands/Frequencies (Channel Spacing)	Maximum Strength/ RF Output Power	Harmonised Standard Reference	Remarks (Emission Type, Duty Cycle, other restrictions)
Ultra Wide Band Technology	Wide Band Data Transmission Systems	Below 1.6 GHz	maximum mean e.i.r.p. spectral density of -90 dBm/MHz,	ETSI EN 302 500-1, ETSI TR 101 994-1, ETSI TR 102 495-5, & ETSI TR 102 495-7	
		1.6 - 2.7 GHz	maximum mean e.i.r.p. spectral density of -85 dBm/MHz		
		2.7 - 3.4 GHz	maximum mean e.i.r.p. spectral density of -70 dBm/MHz		
		3.1-4.8 GHz	maximum mean e.i.r.p. spectral density of -41.3		Low Duty Cycle/ Detect and Avoid

			dBm/MHz		
		4.8 - 6 GHz	maximum mean e.i.r.p. spectral density of -70 dBm/MHz		Detect And Avoid
		6 - 8.5 GHz	maximum mean e.i.r.p. spectral density of -41.3 dBm/MHz		Detect And Avoid
		8.5 - 10.6 GHz	maximum mean e.i.r.p. spectral density of -65 dBm/MHz		For 8.5 - 9 GHz range, devices using Detect And Avoid are allowed to operate with a maximum mean e.i.r.p. spectral density of -41.3 dBm/MHz
		Above 10.6 GHz	maximum mean e.i.r.p. spectral density of -85 dBm/MHz		