المملكة الأردنية الهاشمية

The Hashimite Kingdom of Jordan

Telecommunications Regulatory Commission
Radio Spectrum Management Directorate

Conditions and Compliance List (Requierments & Specifications) necessary for obtaining Type Approval for Cordless Telephone working on Spread Spectrum Technology

For use within the confined area of a building
In the Frequency Bands:
902/928 , 2400 / 2483.5 MHz

Telecommunications Regulatory Commission (TRC)

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هيئة تنظيم قطاع الاتصالات

هاتف : **٨٦٢٠٢٠**
فاكس : **٨٦٣٦٤١ – ٨٦٣٦٤٢**
ص.ب : **٨٥٠٩٦٧**
عمان ١١١٨٥ الأردن
الدوار السابع، شارع إبراهيم الباجوري، ثالث دخلة – طريق المطار
إنترنت :http://www.trc.gov.jo
بريد الكتروني : trc@trc.gov.jo
spectrum@trc.gov.jo

General Conditions:

1. The type approval for utilizing Cordless Telephone working on **(Spread Spectrum –SS)** technology in Jordan is restricted within a confined area building.
2. The Equivalent Isotropic Radiated Power **(EIRP)** out of the antenna should not exceed 10mw for these equipment.
3. Because the frequencies assigned for equipment using **(Spread Spectrum-SS)** technology are lying within the same band that is assigned for **(ISM)** applications, the user of these equipment must take all necessary precautions to not cause any harmful interference for the other users of the same band, and not to demand any interference protection for their equipment.
4. Frequencies of equipment utilizes the **(Spread Spectrum)** technology are not assigned on individual basis (it will be shared with other users).
5. Using of any repeaters for the purpose of increasing the coverage area is prohibited.
6. The antenna for the handportable part (CPP) shall be permanently attached. It shall not be possible to easily detach, substitute or adapt the antenna provided by the manufacturer.or attach to any out source transmission facility
7. The maximum permissible transmmission distance (Range) from the base to portable is limited to :
   Outdoor : 300 m
   InDoor : 50 m.
8. In case of connection with licensed public telecommunications networks (PSTN, ISDN, GSM, …etc) or any telecommunications technology aside from the (SS System), the Cordless Telephone standards must comply with the Public networks or other telecommunications standards accredited by the TRC.

Note:
The radio wave propagation of this equipment was restricted within a building or a confined area to grant maximum possible frequency sharing and to minimize interference.

Signature _____

Company Stamp _____

Requirements:

For any party that is willing to obtain a type approval for Cordless Telephone utilizing the Spread Spectrum submit the following:

1. A certificate confirms that the Telephone utilizing **(Spread Spectrum)** technology is successfully tested according to the European Telecommunications Standards Institute **(ETSI)**, specialized in this technology, especially requirement for standards numbers prETS (300 328), EN 300 440 or EN 300 836 and any requirements Accredited by the **(ETSI)** or according to the Federal Communication Commission (FCC) of USA especially the standards No.s .FCC Rules Part 15.247 or 15.247(g) or 15.407 (USA) and any requirements Accredited by the **(FCC).**

2. Submit a test report that complies with all TRC accredited standards and must at least include the following:
   - Test procedure.
   - The equipment that are used in the test.
   - Documents, certify that the test was conducted in a laboratories recognized by the telecommunications administration in the country where the test was conducted.

Attached Documents:

The following documents must be attached with the application form.

1. colored pictures for the Telephone from all sides, showing the brand, model and type.
2. A complete test report includes the equipment that are used to conduct the test.
3. A compliance list filled as appropriate.
4. A written commitment by the laboratory where the test was conducted, confirming that the equipment is working according to the European safety requirements, specially that is concerned with the radial power emitted from the equipment.

Note:
- All documents must be submitted in either Arabic or English Languages.
- The TRC reserves it's right at any time to modify or to add, as it finds suitable, to the conditions, requirements and standards mentioned above.

All items in this section must be completed

Compliance List
for
Spread Spectrum System
For use within the confined area of a building
in the frequency Bands 902/928 MHz or 2.400/ 2.4835 GHz

Specification	Comply		ACTUAL VALUE	Official Use Only
	YES	NO		
1- Modulation				
1-1) Frequency hopping spread spectrum (FHSS modulation) Frequency hopping shall use at least 20 well defined, non a) overlapping channels or hopping positions separated by the channel bandwidth as measured at -20 dB below peak power. Dwell time per channel shall not exceed 0.4 seconds b) Each channel of the hopping sequence shall be occupied at least c) once during a period not exceeding four times the product of the dwell time per hop and the number of channels. 1-2) Direct sequence spread spectrum (DSSS modulation)				
2- Frequency Range				
902-928, ٢400 – 24835 MHz Frequency Range is determined by the lowest and highest frequencies occupied by the power envelope.				
3- Effective Radiated Power				
10 mW eirp				

TRC- Cordless-SS

Signature _____

Company Stamp _____

Specification	Comply		ACTUAL VALUE	Official Use Only
4- Peak Power Density	YES	NO		
FHSS modulation 20 dBm/100 kHz (= 100 mW/100kHz) eirp Other modulation 10 dBm / 1 MHz (= 10 mW/MHz) eirp				
5- Transmitter Spurious Emissions				

Shall not exceed the following values in the indicated bands :

	Operating		Standby	
Frequency Range	in 120 kHz	in 1 MHz	in 120 kHz	in 1 MHz
30MHz - 1GHz	-36dBm (250 nW)	n.a.	-57dBm (2 nW)	n.a.
41.0 - 68MHz 87.5 - 118 MHz 162.0 - 230 MHz 470.0 - 862MHz	-54 dBm (4 nW)	n.a.	-57dBm (2nW)	n.a.
1 - 12.75 GHz	n.a.	-30 dBm (1μW)	n.a.	-47 dBm (20nW)
890 - 960 MHz 1.8 - 1.9 GHz 5.15 - 5.3 GHz See Note	-56 dBm (3 nW)	n.a.	as above	as above

In these bands, the measurement of any spurious product found shall be repeated with a measurement bandwidth of 30 kHz. If the level observed remains within 2 dB of the previous measurement, the spurious product shall be considered a narrow band signal. For narrow band signals the limit value of -36 dBm (250 nW) shall apply at frequencies below 1 GHz and the limit value of -30 dBm (1μW) shall apply at frequencies above 1 GHz.

Specification	Comply		ACTUAL VALUE	Official Use Only
6- Receiver Spurious Emissions	YES	NO		

Shall be limited to the following values :

Frequency Range	in 120 kHz	in 1 MHz
30 MHz - 1GHz	-57 dBm (2 nW)	n.a.
1 - 12.75 GHz	n.a.	-47 dBm (20nW)

The bandwidths given above are the noise-equivalent bandwidth of the measuring methods.