

Annexure B**Apparatus exempt from radio frequency spectrum licences**

The use or possession of the Radio Apparatus listed in Column B below, in accordance with all specifications listed in Columns, A, C, D and E of the Table below shall not require a radio frequency spectrum licence:

Column A	Column B	Column C	Column D	Column E
Frequency Bands K=kHz M=MHz G=GHz	Type of Device	Maximum Radiated Power or Field Strength Limits & Channel spacing	Relevant Standard	Additional Requirements
9-59.75K	Inductive loop system	72 dB μ A/m @ 10 m. No duty cycle restriction. No channel spacing.	EN 300 330 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03
9 – 315K	Ultra low power medical implants	30 dB μ A/m at 10 m	EN 302 195	CEPT/ERC/REC 70-03
59.75-60.25K	Inductive loop system, including RFID	42 dB μ A/m @ 10 m. No restrictions on duty cycle No channel spacing.	EN 300 330 EN 301 489-1,3 EN 60950 ISO/ IEC 18047-2	CEPT/ERC/REC 70-03 ASK, FSK, & PSK
60.25-70K	Inductive loop system	72 dB μ A/m @ 10 m. No restrictions on duty cycle No channel spacing.	EN 300 330 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03
70-119K	Inductive loop system, including RFID	42 dB μ A/m @ 10 m. No restrictions on duty cycle No channel spacing.	N 300 330 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03 ASK, FSK, & PSK

			ISO/ IEC 18047-2	
119-135K	Inductive loop system, including RFID	72 dB μ A/m @ 10 m. No restrictions on duty cycle No channel spacing.	EN 300 330 EN 301 489-1,3 EN 60950 ISO/ IEC 18047-2	CEPT/ERC/REC 70-03 ASK, FSK, & PSK
315 -600K	Active medical implants	-5 dB μ A/m at 10 m	EN 302 536	CEPT/ERC/REC 70-03
7400-8800K	Inductive loop system	9 dB μ A/m @ 10 m. No restrictions on duty cycle No channel spacing.	EN 300 330 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03
6.765-6.795M	Inductive loop system	42 dB μ A/m @ 10 m. No restrictions on duty cycle No channel spacing.	EN 300 330 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03
13.553-13.567M	Inductive loop system, including RFID	42 dB μ A/m @ 10 m. No restrictions on duty cycle No channel spacing.	EN 300 330 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03 ASK, FSK, & PSK
13.553-13.567M	RFID and EAS systems only	60 dB μ A/m @ 10 m.	EN 300 330 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03
26.957-27.283M	Inductive loop system	42 dB μ A/m @ 10 m. No restrictions on duty cycle No channel spacing.	EN 300 330 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03
26.957-27.283M	Non-specific SRDs	10 mW ERP	EN 300 220	CEPT/ERC/REC 70-03

		No restrictions on duty cycle. No channel spacing.	EN 301 489-1,3 EN 60950	
26.995; 27.045; 27.095; 27,145; 27.195M	Surface model control	100 mW ERP No restrictions on duty cycle. 10 kHz channel spacing.	EN 300 220 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03
35.00 – 35.25M	Aircraft model control	100 mW ERP No restrictions on duty cycle. 10 kHz channel spacing.	EN 300 220 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03
36.65 – 36.75M	Wireless microphones	100 mW ERP 100% duty cycle No channel spacing.	EN 300 422 EN 301 489-9 EN 60950	CEPT/ERC/REC 70-03
40.65 – 40.70M	Wireless microphones	100 mW ERP 100% duty cycle No channel spacing.	EN 300 422 EN 301 489-9 EN 60950	CEPT/ERC/REC 70-03
40.665M 40.675M 40.685M 40.695M	Surface model control	100mW ERP No restriction on duty cycle. 10 kHz channel spacing.	EN 300 220 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03
40.66 – 40.7M	Non-specific SRDs	10 mW ERP No duty cycle restriction. No channel spacing.	EN 300 220 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03

46.61 – 46.97M 49.67 – 49.97M	CTO cordless phones.	10 mW e.i.r.p.	The Authority TE-013	Government Gazette 22443 of 4 July 2001
53 – 54M	Wireless microphones	50 mW ERP for class 1 equipment 100 mW ERP 100% duty cycle No channel spacing	EN 300 422 EN 301 489-1,9 EN 60950	CEPT/ERC/REC 70-03
54.4500; 54.4625; 54.4750; 54.4875; 54.500; 54.5125; 54.5250; 54.5375; 54.5500M	Model control	5W ERP 12.5 kHz channel spacing	EN 300 220 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03
141 – 142M	Remote control industrial apparatus	100 mW ERP	EN 300 220 EN 301 489-1,3 EN 60950	
148 – 152M	Wildlife telemetry tracking	25 mW ERP	EN 300 220 EN 301 489-1,3 EN 60950	The use of this band is restricted to national game parks.
169.4 – 169.475M	Meter reading	500 mW ERP 50 kHz channel spacing < 10% duty cycle	EN 300 220 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03 ECC/DEC (05)02
173.2125 – 173.2375M	Non-specific SRDs –	10 mW ERP	EN 300 220	

	telecommand only	25 kHz channel spacing	EN 301 489-1,3 EN 60950	
173.2375 – 173.2875M	Non-specific SRDs	10 mW ERP 25 kHz channel spacing.	EN 300 220 EN 301 489-1,3 EN 60950	
173.965 – 174.015M	Wireless microphones and assistive listening devices	2 mW e.i.r.p. 100% duty cycle. No channel spacing.	EN 300 220 EN 301 489-9 EN 60950	CEPT/ERC/REC 70-03
401 – 406M	Medical implants	25 μ W ERP No duty cycle restriction for devices with LBT $\leq 1\%$. duty cycle for all other devices 25 kHz channel spacing.	EN 300 839 EN 301 489-1,3 EN 60950	ITU-R RS.1346 CEPT/ERC/DEC (01)17
402 – 406M	Doppler shift movement detectors, wireless microphones, garage door openers and motor car alarm systems	10 mW ERP No channel spacing. 100% duty cycle.	EN 300 422 EN 300 220 EN 301 489-1,3 EN 60950	
433.04 – 434.79M	Non-specific SRDs, including RFID	1 mW ERP No channel spacing. 100% duty cycle	EN 300 220 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03 ASK, FSK, PSK, & FHSS
433.04 –	Non-specific	10 mW ERP	EN 300 220	CEPT/ERC/REC 70-03

434.79M	SRDs, including RFID	duty cycle < 10% No channel spacing	EN 301 489-1,3 EN 60950	ASK, FSK, PSK, & FHSS
433.04 – 434.79M	Non-specific SRDs	10 mW ERP 100% duty cycle Up to 25 kHz channel spacing.	EN 300 220 EN 301 489-3 EN 60950	CEPT/ERC/REC 70-03
433.04 – 434.79M	Non-specific SRDs	100 mW ERP No duty cycle restriction No channel spacing	EN 300 220 EN 301 489-3 EN 60950	CEPT/ERC/REC 70-03
446 - 446.1 M Includes the following eight channels. 446.00625M; 446.01875M; 446.03125M; 446.04375M; 446.05625M; 446.06875M; 446.08125M; 446.09375M;	Public mobile radio (PMR)	500 mW 12,5 kHz channel spacing	EN 300 296 EN 301 489-5 EN 60950	
464.5375M	Security systems	1 W 25 kHz channel spacing.	EN 300 296 EN 301 489-5 EN 60950	

464.500 – 464.5875	Non-specific SRDs	100 mW No channel spacing	EN 300 220 EN 301 489-3 EN 60950	
463.975M; 464.125M; 464.175M; 464.325M; 464.375M;	Low power radio	500 mW. 12.5 kHz channel spacing	EN 300 296 EN 301 489-5 EN 60950	
863 – 865M	Wireless audio systems	10 mW ERP 100 % duty cycle. No channel spacing.	EN 300 357 EN 301 489-9 EN 60950	CEPT/ERC/REC 70-03 CEPT/ERC/DEC (01)18
863 – 865M	Wireless microphones	10 mW ERP 100 % duty cycle. No channel spacing.	EN 300 422 EN 301 489-9 EN 60950	CEPT/ERC/REC 70-03
865 -868 M	RFID	Channels 1, 2 and 3 100 mW ERP 200 kHz channel spacing	EN 302 208-2 EN 301 489-1,3 EN60950 ISO/IEC 18047-6	CEPT/ERC/REC 70-03 Listen Before Talk (LBT) is mandatory FHSS or other spread spectrum techniques shall not be used
865 – 868 M	RFID	Channels 4,7,10 and 13 2 W ERP 200 kHz channel spacing	EN 302 208-2 EN 301 489-1,3 EN60950 ISO/IEC 18047-6	CEPT/ERC/REC 70-03 Listen Before Talk (LBT) is mandatory FHSS or other spread spectrum techniques shall not be used

865 – 868 M	RFID	Channels 5,6,8,9,11,12,14 and 15 500 mW ERP 200 kHz channel spacing	EN 302 208-2 EN 301 489-1,3 EN60950 ISO/IEC 18047-6	CEPT/ERC/REC 70-03 Listen Before Talk (LBT) is mandatory FHSS or other spread spectrum techniques shall not be used
864.1 – 868.1M	CT2 cordless phones	10 mW e.i.r.p.	EN 301 797 EN 301 489-1,10 The Authority TE - 012	CEPT/ERC/REC 70-03
868 – 868.6M	Non-specific SRDs	25 mW ERP < 1% duty cycle or LBT.	EN 300 220 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03 CEPT/ERC/DEC (01) 04
868.6 – 868.7M	Alarms	10 mW ERP < 1 % duty cycle. 25 kHz channel spacing.	EN 300 220 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03 CEPT/ERC/REC (01) 09
868.7 – 869.2M	Non-specific SRDs	25 mW ERP < 0.1 % duty cycle or LBT. No channel spacing.	EN 300 220 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03 CEPT/ERC/REC (01) 04
869.25 – 869.3M	Alarms	10 mW ERP < 0.1 % duty cycle. 25 kHz channel spacing.	EN 300 220 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03
869.4 – 869.65M	Non-specific SRDs,	500 mW ERP	EN 300 220	CEPT/ERC/REC 70-03

	including RFID	< 10% duty cycle or LBT. 25 kHz channel spacing.	EN 301 489-1,3 EN 60950	
869.65 – 869.7M	Alarms	25 mW ERP 10 % duty cycle. 25 kHz channel spacing.	EN 300 220 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03
869.7 – 870 M	Non-specific SRDs	5 mW ERP 100% duty cycle. No channel spacing.	EN 300 220 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03
915.1 -915.2 M	Real time location systems (RTLS)	25 mW ERP	EN 300 086 EN 301 489-1,3 EN 60950	
915.2 – 915.4 M	Passive tags	100 mW ERP 10 x 20 kHz wide channels		
915.4-919 M	Modulating RFID systems (FHSS)	4 W e.i.r.p.	FCC CFR 47 Part 15.247 CISPR 16 EN 60950	200 kHz channel spacing
919 -919.2 M	Tag backscatter systems Guard band			
919.2 – 921	Non-	4 W e.i.r.p.; CW only	Spectral masks as in	

M	modulating backscatter RFID systems	@ 920 MHz (\pm 1.5 kHz frequency stability)	EN 302 208 – 2 EN 301 489 -1,3 EN 60950	
1880 – 1900M	DECT cordless phones	250 mW e.i.r.p. (peak). 1.728 MHz channel spacing.	EN 300 406 EN 301 489-1,6 EN 60950 The Authority TE 001	
2400 – 2483.5M	Non-specific SRDs	10 mW e.i.r.p. No duty cycle. No channel spacing.	EN 300 440 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03
2400 - 2483.5M	Wideband wireless systems WLAN Wideband data transmission applications (WBDTS) Model control	100 mW e.i.r.p. No duty cycle. No channel spacing. For wide band modulations other than FHSS, the maximum e.i.r.p. density is limited to 10 mW/MHz. Adequate spectrum sharing mechanisms shall be implemented by the equipment (e.g. Listen-before-Talk, Detect-and-Avoid)	EN 300 328 EN 301 489 -1,3 EN 60950	CEPT/ERC/REC 70-03 For wide band modulations other than FHSS, the maximum e.i.r.p. density is limited to 10 mW/MHz
2400 – 2483.5M	FDMA	25 mW e.i.r.p. No duty cycle. No channel spacing.	EN 300 440 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03

2400 – 2483.5M	Low power video surveillance	100 mW e.i.r.p. No duty cycle. No channel spacing.	EN 300 440 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03
2446-2454 MHz	RFID	500 mW e.i.r.p. No duty cycle 4 W e.i.r.p. < 15% duty cycle FHSS should be used	EN 300 440 EN 301 489 – 1,3 EN 60950	CEPT/ERC/REC 70-03
5150 – 5350M	Wireless access systems & radio local access networks (WAS & RLAN) – indoor use only	200 mW e.i.r.p. Dynamic frequency selection (DFS) & transmitter power control (TPC) obligatory.	EN 301 893 EN 301 489-1,17 EN 60950	ITU-R M.1625
5470 – 5725M	Wireless access systems & radio local access networks (WAS & RLAN)	1 W e.i.r.p.	EN 301 893 EN 301 489-1,17 EN 60950	ITU-R M.1625
5725 - 5875 M	Wireless access systems and radio local access networks (WAS & RLAN)	<ul style="list-style-type: none"> • A maximum of 4 watts e.i.r.p. • A maximum of 1 watt transmitter output power • A maximum transmitter output spectral density of 8 dBmW in any 3 kHz band • Digital modulation only 	FCC 15.247 FCC 15.249	<ul style="list-style-type: none"> • Fixed point-to-multipoint systems and point-to-point links. <p>In any 100 kHz outside the band, the e.i.r.p. shall be at least 30 dB below the 100 kHz within the band that contains the highest level of desired power.</p> <p><i>Note 1</i> Transmission towards the</p>

		<ul style="list-style-type: none"> Nominal bandwidth of transmissions must not be less than 1 MHz 		common node of a point-to-multipoint is regarded as point-to-point node
5725 – 5875 M	BFWA	<ul style="list-style-type: none"> A maximum of 200 watts e.i.r.p. A maximum of 1 watt transmitter output power A maximum transmitter output spectral density of 8 dBmW in any 3 kHz band Digital modulation only Nominal bandwidth of transmissions must not be less than 1 MHz 	FCC 15.247 FCC 15.249	<ul style="list-style-type: none"> Fixed point-to-point links only Point-to-multipoint systems, omnidirectional applications, and multiple co-located transmitters transmitting the same information are not permitted. (see note 1) In any 100 kHz outside the band, the e.i.r.p. shall be at least 30 dB below the 100 kHz within the band that contains the highest level of desired power. <p><i>Note 1: Transmission towards the common node of a point-to-multipoint system is regarded as point-to-point mode.</i></p>
5795 – 5805M	RTTT data	2 W e.i.r.p. No duty cycle restriction. No channel spacing.	EN 300 674 EN 301 489-1,3 EN 60950	ITU-R M.1453 CEPT/ERC/DEC (92)02
5805 – 5815M	RTTT data	2 W e.i.r.p. No duty cycle restriction.	EN 300 674 EN 301 489-1,3	ITU-R M.1453 CEPT/ERC/DEC (92)02 CEPT/ERC/REC 70-03

		No channel spacing.	EN 60950	
9200 – 9500M	FDDA	25 mW e.i.r.p. No duty cycle restriction. No channel spacing.	EN 300 440 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03
9500 – 9975M	FDDA	25 mW e.i.r.p. No duty cycle restriction. No channel spacing.	EN 300 440 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03
10.025 – 10.145 G	Low power video surveillance	1W e.i.r.p. 8 MHz channel spacing, with first channel on 10.029 GHz.	ETS 300 440	
10.5 – 10.6G	FDDA	500 mW e.i.r.p. No duty cycle restriction. No channel spacing.	EN 300 440 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03
13.4 – 14G	FDDA	25 mW e.i.r.p. No duty cycle restriction. No channel spacing.	EN 300 440 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03
17.1 – 17.3G	HiperLAN	100 mW e.i.r.p.	EN 301 489-1,3 EN 60950	
24.00 – 24.25G	Non-specific SRDs	100 mW e.i.r.p.	EN 300 440	CEPT/ERC/REC 70-03

		No duty cycle restriction. No channel spacing.	EN 301 489-1,3 EN 60950	
24.05 – 24.25G	FDDA	100 mW e.i.r.p. No duty cycle restriction. No channel spacing.	EN 300 440 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03
57 – 64G	Point-to-point links	55 dBm e.i.r.p.	EN 305 550	The maximum transmitter output power is 10 dBm. The minimum antenna gain is 30 dBi
57 -66G	Multi-gigabit wireless systems (MGWS)	40 dBm e.i.r.p.	EN 302 567	The use of these systems is as described in ITU-R Report ITU-R M.2227 and Recommendation ITU-R M.2003. Fixed outdoor installations are not allowed.
76-77G	RTTT radar	55 dBm peak No duty cycle restriction No channel spacing	EN 300 091 EN 301 489-1,3 EN 60950	CEPT/ERC/REC 70-03

Use and possession of all radio apparatus exempt in terms of the above table must comply with the following:

- (a) All radio apparatus must be type-approved by the Authority in accordance with section 35 of the Act;

- (b) The frequencies, transmitting power and external, high-gain antenna of the radio apparatus must not be altered without a new type-approval certificate being issued by the Authority;
- (c) The Radio Apparatus must be operated within, and not exceed, the technical parameters set out in each of the applicable columns C and D of the Table with respect to the frequency band; maximum radiated power or field strength limits and channel spacing; relevant standard; and duty cycles and antennas to be used as contained in Column E.
- (d) The antenna of the Radio Apparatus must not be higher or above average ground level than the lowest point of the place where the Radio Apparatus operates effectively.
- (e) The Radio Apparatus must not cause interference with any licensed radio frequency spectrum.
- (f) The user of the Radio Apparatus in the licence-exempt frequency spectrum operates on non-interference and zero protection basis from interference.