

LIST of radio equipment using frequency bands harmonised throughout the EU and electronic communications terminal equipment

I. Electronic communications terminal equipment intended for connection to the interfaces of public fixed networks, and non-transmitting radio equipment1. Integrated Services Digital Networks (ISDN) – ISDN Basic Rate, ISDN Primary rate, ISDN U, Broadband ISDN ATM (sub-class 1) 2. Receive-only radio equipment (sub-class 7)

II. Radio equipment which transmits only under the control of electronic communications networks

1. Global System for Mobile Communications (GSM) (sub-class 9)

1.1. Global System for Mobile Communications (GSM900)

Parameter	Description	Comments
Frequency band	890-915 MHz/935-960 MHz 880-890 MHz/925-935 MHz 876-880 MHz/921-925 MHz	P-GSM (transmit/receive) E-GSM (transmit/receive) R-GSM (transmit/receive)
Radio service according to the ITU Radio Regulations	MOBILE Service	
Application	GSM GSM-R	end user terminals end user terminals
Channel Spacing	200 kHz	
Radio frequency (RF) power	8 W (39 dBm) 5 W (37 dBm) 2 W (33 dBm) 0.8 W (29 dBm)	Power class 2 Power class 3 Power class 4 Power class 5
Radiated radio frequency (RF) power	not defined	
Transmit/Receive spacing (Duplex spacing)	45 MHz	
Type of modulation	Gaussian Minimum Shift Keying (GMSK)	
Transmission Capacity / Duty cycle/ Channel access protocol	not defined	
Harmonised Standard	BNS EN 301 419-1 BNS EN 301 419-2 BNS EN 301 419-3 BNS EN 301 419-7	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

1.2. Global System for Mobile Communications (GSM1800)

Parameter	Description	Comments
Frequency band	1710-1785 MHz 1805-1880 MHz	Transmit receive
Radio service according to the ITU Radio Regulations	MOBILE Service	
Application	GSM	end user terminals
Channel Spacing	200 kHz	
Radio frequency (RF) power	1 W (30dBm) 0.25 W (24 dBm) 4 W (36 dBm)	Power class 1 Power class 2 Power class 3
Radiated radio frequency (RF) power	not defined	
Transmit/receive spacing (Duplex spacing)	95 MHz	
Type of modulation	200KG7WDT Gaussian Minimum Shift Keying (GMSK)	
Transmission Capacity / Duty cycle/ Channel access protocol	not defined	
Harmonised Standard	BNS EN 301 419-1 BNS EN 301 419-2 BNS EN 301 419-3 BNS EN 301 419-7	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

2. Land Mobile Earth Stations (sub-class 11)

Parameter	Description	Comments
Frequency band	1525.0-1544.0 MHz 1555.0-1559.0 MHz 1631.5-1634.5 MHz 1656.5-1660.5 MHz	receive 1 (space-to-Earth) receive 2 (space-to-Earth) transmit 1 (Earth-to -space) transmit 2 (Earth-to -space)
Radio service according to the ITU Radio Regulations	Land Mobile-Satellite Service	
Application	Land Mobile Earth Stations	providing voice and/or data communications

Channel Spacing	to be defined by the satellite operator	
Radio frequency (RF) power	not defined	
Density of the equivalent isotropically radiated power (e.i.r.p.)	148 dBpW 177 - 25 log f dBpW 130 dBpW	for $\varphi < 40^\circ$; for $40^\circ < \varphi < 75^\circ$; for $\varphi > 75^\circ$; (φ is the angle, in degrees, between the main beam axis and the direction considered)
Transmit/Receive spacing (Duplex spacing)	to be defined by the satellite operator	
Type of modulation	to be defined by the satellite operator	
Transmission capacity	to be defined by the satellite operator	
Harmonised Standard	BNS EN 301 444	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

3. Land Mobile Earth Stations operating in the Ku-Band (sub-class 12)

Parameter	Description	Comments
Frequency band	10,70-11,70 GHz 12.50-12.75 GHz 14.00-14.25 GHz	(space-to-Earth) (space-to-Earth) (Earth -to-space)
Radio service according to ITU Radio Regulation	Land Mobile -Satellite Service	
Application	Land Mobile Earth Stations applications	
Channel Spacing	to be defined by the satellite operator	
Radio frequency (RF) power	to be defined by the satellite operator	
Density of the equivalent isotropically radiated power (e.i.r.p.)	33 - 25 log ($\varphi + \delta\varphi$) - 10 log (K) dBW/40kHz, where $2,5^\circ \leq \varphi + \delta\varphi \leq 7,0^\circ$; +12 - 10 log (K) dBW/40 kHz, where $7,0^\circ < \varphi + \delta\varphi \leq 9,2^\circ$; 36 - 25 log ($\varphi + \delta\varphi$) - 10 log (K) dBW/40 kHz, where $9.2^\circ < \varphi + \delta\varphi \leq 48^\circ$; -6 - 10 log (K) dBW/40 kHz, where	φ is the angle, in degrees, between the main beam axis and the direction considered. K is the power density ratio between the fully loaded system and a single Land Mobile Earth Station measured in a 40 kHz bandwidth.

	$48^\circ < \varphi + \delta\varphi \leq 180^\circ$.	$\delta\varphi$ is equal to either: - the root mean square antenna tracking accuracy, or - twice the static root mean square antenna pointing accuracy, whichever is the larger.
Transmit/receive spacing (Duplex spacing)	to be defined by the satellite operator	
Type of modulation	to be defined by the satellite operator	
Transmission capacity	to be defined by the satellite operator	
Harmonised Standard	BNS EN 301 427	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

4. TETRA end-user equipment (sub-class 13)

Parameter	Description	Comments
Frequency band	380-385 MHz 390-395 MHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	TETRA	Emergency access end user terminals. Network stations without Direct Mode Operation (DMO)
Channel Spacing	25 kHz	
Radio frequency (RF) power	45 dBm (30W) 40 dBm (10W) 35 dBm (3W) 30 dBm (1W)	Power class 1 Power class 2 Power class 3 Power class 4
Radiated radio frequency (RF) power	not defined	
Transmit/Receive spacing (Duplex spacing)	not defined	
Type of modulation	$\pi/4$ shifted Differential Quaternary Phase Shift Keying ($\pi/4$ DQPSK)	
Transmission capacity / Duty cycle /	36 kbit/s	

Channel access protocol		
Harmonised Standard	BNS EN 303 035-1	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

5. Satellite Personal Communication Earth Station (S-PCES) (sub-class 14)

Parameter	Description	Comments
Frequency band	1610.0-1626.5 MHz 1613.8-1626.5 MHz 2483.5-2500.0 MHz	transmit (Earth-to-space) receive (space-to-Earth) receive (space-to-Earth)
Radio service according to the ITU Radio Regulations	Land Mobile-Satellite Service	
Application	Satellite Personal Communications Earth stations applications	
Channel Spacing	to be defined by the satellite operator	
Radio frequency (RF) power	not defined	
Density of the equivalent isotropically radiated power (e.i.r.p.)	-3 dBW/4 kHz (mean limit) -15 dBW/4 kHz (peak limit)	In this context, the mean e.i.r.p. density is the mean density over the time for which the MES is in the carrier-on mode.
Transmit/Receive spacing (Duplex spacing)	to be defined by the satellite operator	
Type of modulation	to be defined by the satellite operator	
Transmission capacity	to be defined by the satellite operator	
Harmonised Standard	BNS EN 301 441	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

6. Satellite Personal Communication Earth Station (S-PCES) (sub-class 15)

Parameter	Description	Comments
Frequency band	1980-2010 MHz 2170-2200 MHz	transmit (Earth-to-space); receive (space-to-Earth);
Radio service according to the ITU Radio Regulations	Land Mobile-Satellite Service	
Application	Satellite Personal Communications Earth Stations applications	
Channel Spacing	to be defined by the satellite operator	
Radio frequency (RF) power	to be defined by the satellite operator	
Density of the equivalent isotropically radiated power (e.i.r.p.)	to be defined by the satellite operator	
Transmit/receive spacing (Duplex spacing)	to be defined by the satellite operator	
Type of modulation	to be defined by the satellite operator	
Transmission capacity	to be defined by the satellite operator	
Harmonised Standard	BNS EN 301 442	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

7. Low data rate Land Mobile Earth Stations (LMES) (sub-class 16)

Parameter	Description	Comments
Frequency band	1525.0-1544.0 MHz 1555.0-1559.0 MHz 1626.5-1645.5 MHz 1656.5-1660.5 MHz	receive 1 (space-to-Earth); receive 2 (space-to-Earth); transmit 1 (Earth-to-space); transmit 2 (Earth-to-space);
Radio service according to the ITU Radio Regulations	Land Mobile-Satellite Service	
Application	Low data rate LMES applications	
Channel Spacing	to be defined by the satellite operator	

Radio frequency (RF) power	to be defined by the satellite operator	
Density of the equivalent isotropically radiated power (e.i.r.p.)	to be defined by the satellite operator	
Transmit/receive spacing (Duplex spacing)	to be defined by the satellite operator	
Type of modulation	to be defined by the satellite operator	
Transmission capacity	to be defined by the satellite operator	
Harmonised Standard	BNS EN 301 426	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

8. DECT radio equipment (sub-class 18)

Parameter	Description	Comments
Frequency band	1880-1900 MHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	DECT	user terminals equipment
Channel Spacing	1728 kHz	
Radio frequency (RF) power	not defined	
Radiated radio frequency (RF) power	250 mW peak e.r.p. (peak power over time-slot)	Type of Antenna: integral or dedicated
Transmit/Receive spacing (Duplex spacing)	See BNS EN 301 406	TDD (Time Division Duplex)
Type of modulation	See BNS EN 301 406	
Transmission Capacity / Duty cycle / Channel access protocol	See BNS EN 301 406	
Harmonised Standard	BNS EN 301 406	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

III. Other radio equipment, technically harmonised within the European Community for which Member

States do not constrain their putting into service

1. Non-Specific Short Range Devices (sub-class 19)

Parameter	Description	Comments
Frequency band	40.660-40.700 MHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Non-Specific Short Range Devices (Video applications are excluded)	This category is available for any type of application which fulfils the technical conditions (typical uses are telemetry , telecommand, alarms, data in general and other similar applications).
Channel Spacing	not defined	
Radio frequency (RF) power	not defined	
Radiated radio frequency (RF) power	10 mW effective radiated power (e.r.p.)	
Transmit/Receive spacing (Duplex spacing)	not defined	
Type of modulation	not defined	
Duty cycle	not restricted	
Harmonised Standard	BNS EN 300 220-2	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

2. Non-Specific Short Range Devices (sub-class 20)

Parameter	Description	Comments
Frequency band	433.05-434.79 MHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Non-Specific Short Range Devices (Audio and voice signals, and video applications are excluded.)	This category is available for any type of application which fulfils the technical conditions (typical uses are telemetry, telecommand, alarms, data in general and other

		similar applications).
Channel Spacing	not defined	
Radio frequency (RF) power	not defined	
Radiated radio frequency (RF) power	10 mW effective radiated power (e.r.p.)	
Transmit/Receive spacing (Duplex spacing)	not defined	
Type of modulation	not defined	
Duty cycle	< 10 %	
Harmonised Standard	BNS EN 300 220-2	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

3. Non-Specific Short Range Devices (sub-class 21)

Parameter	Description	Comments
Frequency band	2400-2483.5 MHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Non-Specific Short Range Devices	This category is available for any type of application which fulfils the technical conditions (typical uses are telemetry, telecommand, alarms, data in general and other similar applications).
Channel Spacing	not defined	
Radio frequency (RF) power	not defined	
Radiated radio frequency (RF) power	10 mW equivalent isotropically radiated power (e.i.r.p.)	
Transmit/Receive spacing (Duplex spacing)	not defined	
Type of modulation	not defined	
Duty cycle	not restricted	

Harmonised Standard	BNS EN 300 440-2	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

4. Wideband Data Transmission Systems (WDTS), including Radio Local Area Networks (RLANs) (sub-class 22) (*)

Parameter	Description	Comments
Frequency band	2400-2454 MHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Wideband Data Transmission Systems	Wireless networking devices (including ad-hoc networking) for the transmission of Data (including digitized audio and video), e.g. technologies such as WiFi, Bluetooth™, HomeRF™, Zigbee™, etc.
Channel Spacing	not defined	
Radio frequency (RF) power	not defined	
Radiated radio frequency (RF) power	100 mW equivalent isotropically radiated power (e.i.r.p.)	For wide band modulations other than FHSS (e.g. DSSS, OFDM etc.), the maximum e.i.r.p. density is limited to 10 mW/1 MHz.
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	not defined	
Duty cycle	≤ 100 %	Devices use a MAC protocol designed to facilitate spectrum sharing
Harmonised Standard	BNS EN 300 328	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

Parameter	Description	Comments
Frequency band	2400-2483.5 MHz	

Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Wideband Data Transmission Systems	Wireless networking devices (including ad-hoc networking) for the transmission of Data (including digitized audio and video). Eg, technologies such as WiFi, Bluetooth™, HomeRF™, Zigbee™, etc.
Channel Spacing	not defined	
Radio frequency (RF) power	not defined	
Radiated radio frequency (RF) power	10 mW equivalent isotropically radiated power (e.i.r.p.)	For wide band modulations other than FHSS (e.g. DSSS, OFDM etc.), the maximum e.i.r.p. density is limited to 1 mW/1 MHz.
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	not defined	
Duty cycle	≤ 100 %	Devices use a MAC protocol designed to facilitate spectrum sharing
Harmonised Standard	BNS EN 300 328	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

(*)Equipment within the scope of sub-class 22 and intended to operate at 100 mW e.i.r.p. across the whole of the frequency band is not to be considered a class 1 device. They can be operated in the European Union, except France, without restrictions indoor use (within a residential or public building or onboard of an aircraft). Outdoor operation is not allowed in the whole of the frequency band in France. Such equipment shall be with a specific marking affixed pursuant to article 268 of the Electronic Communications Act. A person placing on the market such equipment shall not notify the Communications Regulation Commission prior to placing it on the market.

5. Inductive Applications (sub-class 24)

Parameter	Description	Comments
Frequency band	13.553-13.567 MHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Inductive applications	This category covers, for example, devices for car

		immobilisation, animal identification, alarm systems, cable detection, waste management, personal identification, wireless voice links, access control, proximity sensors, anti-theft systems including RF anti-theft induction systems, data transfer to handheld devices, automatic article identification, wireless control systems and automatic road tolling.
Channel Spacing	not defined	
Radio frequency (RF) power	not defined	
Radio frequency (RF) field strength	42 dB μ A/m at 10 m	
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	not defined	
Duty cycle	not restricted	
Harmonised Standard	BNS EN 300 330-2	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

6. Non-Specific Short Range Devices (sub-class 25)

Parameter	Description	Comments
Frequency band	26.957-27.283 MHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Non-Specific Short Range Devices (Video applications are excluded)	This category covers, for example, devices for car immobilisation, animal identification, alarm systems, cable detection, waste management, personal identification, wireless voice links, access control, proximity sensors, anti-theft systems including RF anti-theft induction systems, data transfer to handheld devices, automatic article identification, wireless control

		systems and automatic road tolling.
Channel Spacing	10 kHz	
Radio frequency (RF) power	not defined	
Radiated radio frequency (RF) power	10 mW effective radiated power (e.r.p.) which corresponds to 42 dB μ A/m at 10 m	
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	not defined	
Duty cycle	not restricted	
Harmonised Standard	BNS EN 300 220-2	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

7. Movement Detection (sub-class 26)

Parameter	Description	Comments
Frequency band	2446-2454 MHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Movement Detection	Equipment for Detection of movement and equipment for alert.
Channel Spacing	not defined	
Radio frequency (RF) power	not defined	
Radiated radio frequency (RF) power	25 mW equivalent isotropically radiated power (e.i.r.p.)	
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	not defined	
Duty cycle	$\leq 100\%$	
Harmonised Standard	BNS EN 300 440-2	

Equipment class according to Commission Decision 2000/299/EC	Class 1	
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8. Movement Detection (sub-class 27)

Parameter	Description	Comments
Frequency band	24.15-24.175 GHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Movement Detection	Equipment for Detection of movement and equipment for alert.
Channel Spacing	not defined	
Radio frequency (RF) power	not defined	
Radiated radio frequency (RF) power	100 mW equivalent isotropically radiated power (e.i.r.p.)	
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	not defined	
Duty cycle	≤ 100 %	
Harmonised Standard	BNS EN 300 440-2	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

9. Non-Specific Short Range Devices (sub-class 28)

Parameter	Description	Comments
Frequency band	868.0-868.6 MHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Non-Specific Short Range Devices (Video applications are excluded)	This category is available for any type of application which fulfils the technical conditions (typical

		uses are telemetry, telecommand, alarms, data in general and other similar applications).
Channel Spacing	not defined	
Radio frequency (RF) power	not defined	
Radiated radio frequency (RF) power	25 mW effective radiated power (e.r.p.)	
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	Not defined	
Duty cycle	≤ 1 %	
Harmonised Standard	BNS EN 300 220-2	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

10. Non-Specific Short Range Devices (sub-class 29)

Parameter	Description	Comments
Frequency band	868.7-869.2 MHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Non-Specific Short Range Devices (Video applications are excluded)	This category is available for any type of application which fulfils the technical conditions (typical uses are telemetry, telecommand, alarms, data in general and other similar applications).
Channel Spacing	not defined	
Radio frequency (RF) power	not defined	
Radiated radio frequency (RF) power	25 mW effective radiated power (e.r.p.)	
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	Not defined	

Duty cycle	≤ 0,1 %	
Harmonised Standard	BNS EN 300 220-2	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

11. Non-Specific Short Range Devices (sub-class 30)

Parameter	Description	Comments
Frequency band	869.4-869.65 MHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Non-Specific Short Range Devices (Video applications are excluded.)	This category is available for any type of application which fulfils the technical conditions (typical uses are telemetry, telecommand, alarms, data in general and other similar applications).
Channel Spacing	Must be 25 kHz, except that the whole band may also be used as one single channel for high-speed data transmission	
Radio frequency (RF) power	not defined	
Radiated radio frequency (RF) power	500 mW effective radiated power (e.r.p.)	
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	not defined	
Duty cycle	≤ 10 %	
Harmonised Standard	BNS EN 300 220-2	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

12. Non-Specific Short Range Devices (sub-class 31)

Parameter	Description	Comments
Radio frequency band	869.7-870.0 MHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Non-Specific Short Range Devices (Audio and video applications are excluded)	This category is available for any type of application which fulfils the technical conditions (typical uses are telemetry, telecommand, alarms, data in general and other similar applications).
Channel Spacing	not defined	
Radio frequency (RF) power	not defined	
Radiated radio frequency (RF) power	5 mW effective radiated power (e.r.p.)	
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	Voice applications allowed with advanced mitigation techniques	
Duty cycle	not restricted	
Harmonised Standard	BNS EN 300 220-2	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

13. Alarm systems (sub-class 32)

Parameter	Description	Comments
Frequency band	868,6 - 868,7 MHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Alarm systems	
Channel Spacing	25 kHz The whole frequency band may also be used as one single channel for high-speed data	

	transmission	
Radio frequency (RF) power	not defined	
Radiated radio frequency (RF) power	10 mW effective radiated power (e.r.p.)	
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	not defined	
Duty cycle	≤ 0,1 %	
Harmonised Standard	BNS EN 300 220-2	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

14. Alarm systems (sub-class 33)

Parameter	Description	Comments
Frequency band	869.25-869.30 MHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Alarm systems	
Channel Spacing	25 kHz	
Radio frequency (RF) power	not defined	
Radiated radio frequency (RF) power	10 mW effective radiated power (e.r.p.)	
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	not defined	
Duty cycle	≤ 0,1 %	
Harmonised Standard	BNS EN 300 220-2	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

15. Short Range Device alarm systems (sub-class 34)

Parameter	Description	Comments
Frequency band	869.65-869.70 MHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Alarm systems	
Channel Spacing	25 kHz	
Radio frequency (RF) power	not defined	
Radiated radio frequency (RF) power	25 mW effective radiated power (e.r.p.)	
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	not defined	
Duty cycle	≤ 10 %	
Harmonised Standard	BNS EN 300 220-2	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

16. Social Alarms (sub-class 35)

Parameter	Description	Comments
Frequency band	869.20-869.25 MHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Social Alarms	Social alarm devices are used to assist elderly or disabled people living at home when they are in distress.
Channel Spacing	25 kHz	
Radio frequency (RF) - power	not defined	
Radiated radio frequency (RF) power	10 mW effective radiated	

	power (e.r.p.)	
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	Not defined	
Duty cycle	< 0,1 %	
Harmonised Standard	BNS EN 300 220-2	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

17. Inductive applications (sub-class 36)

Parameter	Description	Comments
Frequency band	20,05-59,75 kHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Inductive applications	This category covers, for example, devices for car immobilisation, animal identification, alarm systems, cable detection, waste management, personal identification, wireless voice links, access control, proximity sensors, anti-theft systems including RF anti-theft induction systems, data transfer to handheld devices, automatic article identification, wireless control systems and automatic road tolling.
Channel Spacing	not defined	
Radio frequency (RF) power	not defined	
Radio frequency (RF) field strength	72 dB μ A/m at 10 m	
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	not defined	
Duty cycle	not restricted	

Harmonised Standard	BNS EN 300 330-2	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

18. Inductive applications (sub-class 37)

Parameter	Description	Comments
Frequency band	59.750-60.250 kHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Inductive applications	This category covers , for example, devices for car immobilisation, animal identification, alarm systems, cable detection, waste management, personal identification, wireless voice links, access control, proximity sensors, anti-theft systems including RF anti-theft induction systems, data transfer to handheld devices, automatic article identification, wireless control systems and automatic road tolling.
Channel Spacing	not defined	
Radio frequency (RF) power	not defined	
Radio frequency (RF) field strength	42 dB μ A/m at 10 m	
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	not defined	
Duty cycle	not restricted	
Harmonised Standard	BNS EN 300 330-2	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

19. Inductive applications (sub-class 39)

Parameter	Description	Comments
Frequency band	60.25-70.00 kHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Inductive applications	This category covers, for example, devices for car immobilisation, animal identification, alarm systems, cable detection, waste management, personal identification, wireless voice links, access control, proximity sensors, anti-theft systems including RF anti-theft induction systems, data transfer to handheld devices, automatic article identification, wireless control systems and automatic road tolling.
Channel Spacing	not defined	
Radio frequency (RF) power	not defined	
Radio frequency (RF) field strength	69 dB μ A/m at 10 m	
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	not defined	
Duty cycle	not restricted	
Harmonised Standard	BNS EN 300 330-2	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

20. Inductive applications (sub-class 40)

Parameter	Description	Comments
Frequency band	70-119 kHz	
Radio service according to the ITU Radio Regulations	Mobile Service	

Application	Inductive applications	This category covers, for example, devices for car immobilisation, animal identification, alarm systems, cable detection, waste management, personal identification, wireless voice links, access control, proximity sensors, anti-theft systems including RF anti-theft induction systems, data transfer to handheld devices, automatic article identification, wireless control systems and automatic road tolling.
Channel Spacing	not defined	
Radio frequency (RF) power	not defined	
Radio frequency (RF) field strength	42 dB μ A/m at 10 m	
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	not defined	
Duty cycle	not restricted	
Harmonised Standard	BNS EN 300 330-2	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

21. Inductive applications (sub-class 41)

Parameter	Description	Comments
Radio frequency band	119-127 kHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Inductive applications	This category covers, for example, devices for car immobilisation, animal identification, alarm systems, cable detection, waste management, personal identification, wireless voice links, access control, proximity sensors, anti-theft systems including RF anti-theft induction systems, automatic article

		identification, wireless control systems and automatic road tolling.
Channel Spacing	not defined	
Radio frequency (RF) power	not defined	
Radio frequency (RF) field strength	66 dB μ A/m at 10 m	
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	not defined	
Duty cycle	not restricted	
Harmonised Standard	BNS EN 300 330-2	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

22. Inductive applications (sub-class 42)

Parameter	Description	Comments
Frequency band	127-135 kHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Inductive applications	This category covers, for example, devices for car immobilisation, animal identification, alarm systems, cable detection, waste management, personal identification, wireless voice links, access control, proximity sensors, anti-theft systems including RF anti-theft induction systems, data transfer to handheld devices, automatic article identification, wireless control systems and automatic road tolling.
Channel Spacing	not defined	
Radio frequency (RF) power	not defined	
Radio frequency (RF) field strength	42 dB μ A/m at 10 m	

Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	not defined	
Duty cycle	not restricted	
Harmonised Standard	BNS EN 300 330-2	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

23. Non-Specific Short Range Devices (sub-class 43)

Parameter	Description	Comments
Frequency band	5725-5875 MHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Non-Specific Short Range Devices	This category is available for any type of application which fulfils the technical conditions (typical uses are telemetry, telecommand, alarms, data in general and other similar applications).
Channel Spacing	not defined	
Radio frequency (RF) power	not defined	
Radiated radio frequency (RF) power	25 mW equivalent isotropically radiated power (e.i.r.p.)	
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	not defined	
Duty cycle	not restricted	
Harmonised Standard	BNS EN 300 440-2	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

24. Inductive applications (sub-class 44)

Parameter	Description	Comments
Frequency band	6765—6795 kHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Inductive applications	This category covers, for example, devices for car immobilisation, animal identification, alarm systems, cable detection, waste management, personal identification, wireless voice links, access control, proximity sensors, anti-theft systems including RF anti-theft induction systems, data transfer to handheld devices, automatic article identification, wireless control systems and automatic road tolling.
Channel Spacing	not defined	
Radio frequency (RF) power	not defined	
Radio frequency (RF) field strength	42 dB μ A/m at 10 m	
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	Not defined	
Duty cycle	not restricted	
Harmonised Standard	BNS EN 300 330-2	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

25. Inductive applications (sub-class 45)

Parameter	Description	Comments
Frequency band	7400-8800 kHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Inductive applications	This category covers, for

		example, devices for car immobilisation, animal identification, alarm systems, cable detection, waste management, personal identification, wireless voice links, access control, proximity sensors, anti-theft systems including RF anti-theft induction systems, data transfer to handheld devices, automatic article identification, wireless control systems and automatic road tolling.
Channel Spacing	not defined	
Radio frequency (RF) power	not defined	
Radio frequency (RF) field strength	9 dB μ A/m at 10 m	
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	not defined	
Duty cycle	$\leq 100\%$	
Harmonised Standard	BNS EN 300 330-2	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

26. Medical implants (sub-class 47)

Parameter	Description	Comments
Frequency band	402-405 MHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Active medical implants	This category covers the radio part of active implantable medical devices, as defined in Council Directive 90/385/EEC of 20 June 1990 on the approximation of the laws of the Member States relating to active implantable medical devices and their peripherals.
Channel Spacing	25 kHz individual transmitters may	

	combine adjacent channels for increased bandwidth with advanced mitigation techniques	
Radio frequency (RF) power	not defined	
Radiated radio frequency (RF) power	25 μ W effective radiated power (e.r.p.)	
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	not defined	
Duty cycle	not restricted	
Harmonised Standard	BNS EN 301 839-2	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

27. Wireless Audio Applications (sub-class 48)

Parameter	Description	Comments
Frequency band	863-865 MHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Wireless Audio Applications	Applications for wireless audio systems, including cordless loudspeakers; cordless headphones; cordless headphones for portable use, for example portable CD, cassette or radio devices carried on a person; cordless headphones for use in a vehicle for example for use with a radio or mobile telephone, etc.; in-ear monitoring, for use with concert or other stage productions.
Channel Spacing	not defined	
Radio frequency (RF) power	Not defined	
Radiated radio frequency (RF) power	10 mW effective radiated power (e.r.p.)	
Transmit/receive spacing (Duplex spacing)	not defined	

Type of modulation	not defined	
Duty cycle	not restricted	
Harmonised Standard	BNS EN 301 357-2	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

28. Equipment for detecting avalanche victims (sub-class 49)

Parameter	Description	Comments
Frequency band	457 kHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Detecting of avalanche victims	
Channel Spacing	Continuous wave (CW) – no modulation	
Radio frequency (RF) power	not defined	
Radio frequency (RF) field strength	7 dB μ A/m at 10 m	
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	not defined	
Duty cycle	≤ 100 %	
Harmonised Standard	BNS EN 300 718-3	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

29. Road Transport and Traffic Telematics (RTTT) (sub-class 50)

Parameter	Description	Comments
Radio frequency band	76-77 GHz	
Radio service according to the ITU Radio Regulations	Radiolocation	
Application	RTTT	Equipment for Road

		Transport and Traffic Telematics, scope limited to vehicular or infrastructure radar systems.
Channel Spacing	not defined	
Radio frequency (RF) power	not defined	
Radiated radio frequency (RF) power	55 dBm equivalent isotropically radiated power (e.i.r.p.)	50 dBm average power 23,5 dBm average power for pulse radars only
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	not defined	
Duty cycle	≤ 100 %	
Harmonised Standard	BNS EN 301 091-2	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

30. Private (Professional) Mobile Radio (sub-class 51)

Parameter	Description	Comments
Frequency band	446.0-446.1 MHz	
Radio service according to the ITU Radio Regulations	Mobile Service	
Application	PMR446	End user terminals for voice only.
Channel Spacing	12.5 kHz	
Radio frequency (RF) power	not defined	
Radiated radio frequency (RF) power	500 mW effective radiated power (e.r.p.)	Integral antenna only.
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	Angle modulation	
Transmission capacity / Duty cycle / Channel access protocol	not defined	

Harmonised Standard	BNS EN 300 296-2	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

31. Automotive Short Range Radars (SRR) in the 21,65 – 26,65 GHz band (sub-class 52), Commission Decision 2005/50/EC of 17 January 2005 on the harmonisation of the 24 GHz range radio spectrum band for the time-limited use by automotive short-range radar equipment in the Community.

Parameter	Description	Comments
Frequency band	21.65-26.65 GHz	Radio frequency band 24,15 GHz \pm 2,5 GHz is designated for the ultra wideband component, while the 24,05-24,25 GHz radio frequency band is for the narrow-band emission mode/component, which may consist of an unmodulated carrier.
Radio service according to the ITU Radio Regulations	Radiolocation	
Application	SRR	Automotive short-range radar equipment providing road vehicle-based radar functions for collision mitigation and traffic safety applications.
Channel Spacing	not defined	
Radio frequency (RF) power	not defined	
Radiated radio frequency (RF) power	20 dBm maximum peak equivalent isotropically radiated power (e.i.r.p.) for the narrow-band component	
The maximum mean equivalent isotropically radiated power (e.i.r.p.) density.	For the ultra wideband component: - 41,3 dBm/MHz (mean) for frequencies above 22 GHz - 61.3 dBm/MHz (mean) for frequencies below 22GHz 0 dBm/50 MHz (peak)	
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	not defined	
Duty cycle	\leq 10 % for narrow-band peak emissions > -10 dBm e.i.r.p.	

Harmonised Standard	BNS EN 302 288-2	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

32. Automotive Short Range Radars (SRR) in the 77 – 81 GHz band (sub-class 53), Commission Decision 2004/545/EC of 8 July 2004 on the harmonisation of radio spectrum in the 79 GHz range for the use of automotive short-range radar equipment in the Community.

Parameter	Description	Comments
Frequency band	77-81 GHz	
Radio service according to the ITU Radio Regulations	Radiolocation	
Application	SRR	Automotive short-range radar equipment providing road vehicle-based radar functions for collision mitigation and traffic safety applications
Channel Spacing	not defined	
Radio frequency (RF) power	not defined	
Radiated radio frequency (RF) power	55 dBm peak equivalent isotropically radiated power (e.i.r.p.)	
The maximum mean equivalent isotropically radiated power (e.i.r.p.) density	- 3 dBm/MHz (mean) - 9 dBm/MHz (mean) outside a vehicle	
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	not defined	
Duty cycle	not defined	
Harmonised Standard	-	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

33. Wideband Data Transmission Systems (WDTS) operating in the 5470 - 5725 MHz band (sub-class 54)
(**)

Parameter	Description	Comments
Frequency band	5470 - 5725 MHz	

Radio service according to the ITU Radio Regulations	Mobile Service	
Application	Wideband Data Transmission Systems	
Channel Spacing	not defined	
Radio frequency (RF) power	not defined	
Radiated radio frequency (RF) power	1 W maximum mean equivalent isotropically radiated power (e.i.r.p.)	Transmitter power control(TCP) shall be employed, providing, on average, a mitigation factor of at least 3 dB on the maximum permitted output power of the system. If TCP is not in use, the maximum permitted mean e.i.r.p. and the corresponding mean e.i.r.p. density limits shall be reduced by 3 dB.
The maximum mean equivalent isotropically radiated power (e.i.r.p.) density	50 mW/MHz maximum mean e.i.r.p. density in any 1 MHz band.	Methods for limiting radio interference should also be applied in order to ensure the shared work with systems for radio identification. These methods should ensure equal possibility of selection of any channel from all free channels.
Transmit/receive spacing (Duplex spacing)	not defined	
Type of modulation	not defined	
Duty cycle	not restricted	
Harmonised Standard	BNS EN 301 893	
Equipment class according to Commission Decision 2000/299/EC	Class 1	

(**) Radio equipment meant for use in the frequency bands 5150-5350 MHz and 5470-5725 MHz and for indoor use in residential or public buildings, or onboard of aircraft, are included in class 2. Pursuant to Decision of the Commission 2005/513/EC dd. 11 July 2005 for harmonized use of the radio frequencies in the 5 GHz band for introduction of wireless access systems, including radio local area networks (WAS/RLAN), as amended by Decision of the Commission 2007/90/EC dd. 12 February 2007, such radio equipment should operate in EU harmonized radio

frequency bands. Any person offering such a radio appliance on the market must inform the Communications Regulation Commission prior to the product's market release.

34. 34. Radio frequency identification (RFID) appliances for the frequency band 865-868 MHz (sub-class 56), Commission Decision 2006/804/EC dd. 23 November 2006 for harmonization of the radio frequency spectrum for devices for radio frequency identification (RFID) in the ultra high frequency (UHF) range.

Parameter	Description	Note
Radio frequency band	Sub-band A: 865-865.6 MHz Sub-band B: 865.6-867.6 MHz Sub-band C: 867.6-868 MHz	The carrier frequencies are defined as follows: 864,9 MHz + (0,2 MHz ? channel number). Each sub-band provides the following channels: sub-band A: channels 1 to 3; sub-band B: channels 4 to 13; sub-band C: channels 14 to 15. One radio facility may operate in several sub-bands.
Radio service as per the Radio Regulations (the Radio Regulations) of the International Telecommunications Union	Land mobile	
Appliance	RFID	This category includes various applications for radio frequency identification, including automatic identification of objects, tracking of things, alarm systems, management of waste, personal identification, access control, sensors for distance, security systems, localization systems, transfer of data to portable and wireless control systems.
Channel spacing	200 kHz	

Radio frequency (RF) power	Not defined	
Radiated radio frequency (RF) power	100 mW effective radiated power (e.r.p.) for sub-band A 2 W e.r.p. for sub-band B 500 mW e.r.p. for sub-band C	
Transmission/reception spacing (Duplex spacing)	not defined	
Modulation type	Not defined	
Duty cycle	not defined	For the purpose of ensuring sufficient level of mitigation of radio interference and protection of other users of the frequency band from harmful interference, such devices should apply the method of listening before transmission (LBT) as described in BNS EN 302 208-2.
Harmonized standard	BNS EN 302,208-2	
Class of radio equipment according to Resolution of the Commission 2000/299/EC	Class 1	

35. Ultra-wideband devices (sub-class 57), Commission Decision 2007/131/EC dated 21 February 2007 for authorization of use of the radio frequency spectrum by devices utilizing the ultra-wideband technology, in a harmonized manner for the Community.

Radio frequency band (GH)	Maximum spectral density of the equivalent isotropically radiated power (i.e.r.p.) without application of radio interference mitigation methods	Methods for radio interference mitigation

	maximum spectral density of the mean e.i.r.p. (dBm/MHz)	maximum spectral density of the peak e.i.r.p. (dBm/50 MHz)	
under 1,6	- 90,0	- 50,0	<p>In the radio frequency band 3,4-4,8 GHz a maximum spectral density of -41,3 dBm/MHz is allowed for the mean e.i.r.p. with the condition that low compression factor is applied, where all transmitted signals occupy, as a sum, less than 5% of each second and less than 5% of each hour, provided that the duration of transmission of each signal is not more than 5 milliseconds.</p> <p>Use of the radio frequency spectrum is also allowed within e.i.r.p. different from the limits shown in the table, in case appropriate methods are applied for suppression of radio interference different from those described above and ensuring level of protection which is equivalent to at least the level within the limits indicated in the table.</p>
1,6-3,4	- 85,0	- 45,0	
3,4-3,8	- 85,0	- 45,0	
3,8-4,2	- 70,0	- 30,0	
4,2-4,8	- 41,3 (until 31.12.2010) - 70,0 after 31.12.2010)	0,0 (until 31.12.2010) - 30,0 after 31.12.2010)	
4,8-6,0	- 70,0	- 30,0	
6,0-8,5	- 41,3	0,0	
8,5-10,6	- 65,0	- 25,0	
over 10,6	- 85,0	- 45,0	

Notes:

1. Release on the market and putting into operation of the listed terminal devices for electronic communications and radio appliances operating within harmonized EU radio frequency bands and with assessed conformity with the provisions of the Technical Requirements to Products shall be unlimited.

2. The terminal electronic communication devices and radio equipment listed herein are of class 1 pursuant to Decision 2000/299/EC of the Commission dd. 6 April 2000 on the establishment of a primary classification of radio equipment and terminal telecommunication equipment and of the related identifications.

3. Any person offering such an terminal electronic communications device or radio appliance, listed herein, on the market must inform the Communications Regulation Commission prior to the product's market release.

4. Sub-classes are shown in parenthesis as per the list for class 1 radio equipment and terminal telecommunications devices, approved with Commission Decision 2000/299/EC. For further information please visit: <http://ec.europa.eu/enterprise/rtte/equip.htm> and <http://www.ero.dk/rtte>.

This list is approved with Decision # 1472 dd. 20.12.2007 of the Communications

Regulation Commission.