ERC RECOMMENDATION 70-03 (Tromsø 1997 and subsequent amendments)

RELATING TO THE USE OF SHORT RANGE DEVICES (SRD)

Recommendation adopted by the Frequency Management, Regulatory Affairs and Spectrum Engineering Working Groups

Version of 18 February 2009.
Please see the Document History at the end of this document for the revision status of individual annexes and appendices.

PLEASE NOTE
IMPLEMENTATION STATUS
page 24

FOREWORD

This Recommendation sets out the general position on common spectrum allocations for Short Range Devices (SRDs) for countries within the CEPT. It is also intended that it can be used as a reference document by the CEPT member countries when preparing their national regulations in order to keep in line with the provisions of the R&TTE Directive.

In using this Recommendation it should be remembered that it represents the most widely accepted position within the CEPT but it should not be assumed that all allocations are available in all countries. An indication of where allocations are not available or where deviations from the CEPT position occur is to be found in Appendix 3.

It should also be remembered that the pattern of radio use is not static. It is continuously evolving to reflect the many changes that are taking place in the radio environment; particularly in the field of technology. Spectrum allocations must reflect these changes and the position set out in this Recommendation is therefore subject to continuous review.

Moreover, many administrations have designated additional frequencies or frequency bands for SRD applications on a national basis that do not conform to the CEPT position set out in this Recommendation.

For these reasons, those wishing to develop or market SRDs based on this Recommendation are advised to contact the relevant national administration to verify that the position set out herein still applies. Any inconsistencies between the national position stated in the implementation table in Appendix 1 of this Recommendation and those national positions stated elsewhere should be brought to the attention of the ERO (yurdal@ero.dk) in order that these differences may be resolved.

When selecting parameters for new SRDs, which may have inherent safety of human life implications, manufacturers and users should pay particular attention to the potential for interference from other systems operating in the same or adjacent bands. Manufacturers should advice users on the risks of potential interference and its consequences.

INDEX TABLE

INTRODUCTION

CEPT has adopted this Recommendation to deal with Short Range Devices and the European Telecommunications Standards Institute (ETSI) has now developed harmonised standards for the majority of these devices. Other standards or technical specifications will be applicable within the framework of the R&TTE Directive for placing on the market.

The term "Short Range Device" (SRD) is intended to cover the radio transmitters which provide either uni-directional or bi-directional communication and which have low capability of causing interference to other radio equipment. SRDs use either integral, dedicated or external antennas and all modes of modulation can be permitted subject to relevant standards. SRDs are not considered a "Radio Service" under the ITU Radio Regulations (Article 1).

This Recommendation describes the spectrum management requirements for SRDs relating to allocated frequency bands, maximum power levels, channel spacing and duty cycle.

For CEPT countries that have implemented the R&TTE Directive, Article 12 (CE-marking) and Article 7.2 on putting into service of radio equipment apply. Article 12 states that "any other marking may be affixed to the equipment provided that the visibility and legibility of the CE-marking is not hereby reduced" and Article. 7.2 states that "member states may restrict the putting into service of radio equipment only for reasons related to the effective and appropriate use of the radio spectrum, avoidance of harmful interference or matters relating to public health."

"The CEPT has considered the use of SRD devices on board aircraft and it has concluded that, from the CEPT regulatory perspective, such use is allowed under the same conditions provided in the relevant Annex of Recommendation 70-03. For aviation safety aspects, the CEPT is not the right body to address this matter which remains the responsibility of aircraft manufacturers or aircraft owners who should consult with the relevant national or regional aviation bodies before the installation and use of such devices on board aircraft."

For Short Range Devices individual licenses are normally not required. Where licenses are required this is stated in the relevant Annex.

The following annexes define the regulatory parameters as well as additional information about harmonised standards, frequency issues and important technical parameters. Other technical parameters are indicated in the relevant standard.

Appendix 2 covers the relevant ERC Decisions and ETSI standards.

For countries having implemented the R&TTE Directive further details can be found on the relevant EC (http://europa.eu.int/comm/enterprise/rtte/index_en.htm) and the ERO web sites (www.ero.dk).

Applications for certain short range devices within this recommendation are subject to EC Decisions including Decision 2006/771/EC and EU/EEA-EFTA Member States are obliged to implement the EC Decision in all these cases. (EEA-EFTA refers to those Member States of EFTA who participate in the EEA Agreement). These applications are identified by a footnote under "Additional Information" in the relevant Annex which also mentions any derogations that have been agreed. A list of relevant EC Decisions can be found in Appendix 2.

Member States of EU/EEA-EFTA may allow, at national level, equipment to operate under more permissive conditions than specified in the EC Decision if permitted by that EC Decision. However, in this case such equipment could not operate throughout the European Community without restrictions and would therefore be considered as 'Class 2' equipment under the classification in the 1999/5/EC (R&TTE) Directive.

"The European Conference of Postal and Telecommunications Administrations,

considering

a) that SRDs in general operate in shared bands and are not permitted to cause harmful interference to radio services;

b) that in general SRDs cannot claim protection from radio services;

c) that due to the increasing interest in the use of SRDs for a growing number of applications it is necessary to harmonise frequencies and regulations for these devices;

d) that there is a need to distinguish between different applications;

e) that additional applications and associated annexes will be added as necessary;

f) that for CEPT countries that have implemented the R&TTE Directive article 12 (CE marking) and article 7.2 on putting into service of radio equipment apply,

g) that equipment marketed before the adoption of this Recommendation marked with the abbreviation CEPT LPD Y according to the abrogated CEPT Recommendation T/R 01-04 should be allowed continuation of free circulation and use

h) that maintenance of Appendices 2 and 3 and also the related cross-references in the Annexes may be undertaken by the ERO based on information from Administrations,

i) that information about placing SRD equipment on the market and its use can be obtained by contacting individual administrations, especially with regard to equipment operating in frequencies or frequency bands that may be designated for SRDs by administrations in addition to those covered in this Recommendation;

j) that SRD equipment normally use either integral or dedicated antennas. In exceptional cases external antennas could be used which will be mentioned in the appropriate annex to this Recommendation;

k) that for those countries implementing the provisions of this Recommendation, national restrictions in respect of the annexes can be found in Appendix 3;

recommends

1) that CEPT administrations implement the parameters in accordance with the indications mentioned in the annexes;

2) that technical parameter limits should not be exceeded by any function of the equipment;

3) that CEPT administrations should allow visitors from other countries to carry and use their equipment temporarily without any further formalities unless there are national restrictions as shown in Appendix 3."

Note:
Please check the Office web site (www.ero.dk) for the up to date position on the implementation of this and other ECC/ERC recommendations.

Annex 1 Non-specific Short Range Devices

Scope of Annex

This annex covers frequency bands and regulatory as well as informative parameters recommended primarily for Telemetry, Telecommand,
Alarms and Data in general and other similar applications. Video applications should only be used above 2.4 GHz.

Regulatory parameters related to Annex 1

	Frequency Band	Power / Magnetic Field	Duty cycle	Channel spacing	ECC/ERC Decision	Notes
a	6765-6795 kHz	42 dBµA/m at 10m	No Restriction	No spacing		
b	13.553-13.567 MHz	42 dBµA/m at 10m	No Restriction	No spacing		
c	26.957-27.283 MHz	42 dBµA/m at 10m 10 mW e.r.p	No Restriction	No spacing	ERC/DEC/(01)02	
d	40.660-40.700 MHz	10 mW e.r.p.	No Restriction	No spacing	ERC/DEC/(01)03	
e	138.20-138.45 MHz	10 mW e.r.p.	< 1.0 %	No spacing		
f	433.050-434.790 MHz (note 4)	10 mW e.r.p.	< 10 %	No spacing	ECC/DEC/(04)02	
f1	433.050-434.790 MHz (note 4bis)	1 mW e.r.p. -13 dBm/10 kHz	up to 100%	No spacing	ECC/DEC/(04)02	Power density limited to -13 dBm/10 kHz for wideband modulation with a bandwidth greater than 250 kHz
f2	434.040-434.790 MHz (note 4bis)	10 mW e.r.p.	up to 100%	Up to 25 kHz	ECC/DEC/(04)02	
g	863-870 MHz (note 3, 4 and 6)	≤ 25 mW e.r.p.	≤ 0.1% or LBT (note 1 and 5)	≤ 100 kHz for 47 or more channels (note 2)		FHSS modulation
		≤ 25 mW e.r.p. (note 6) Power density : - 4.5 dBm/100 kHz (note 8)	≤ 0.1% or LBT (note 1, 5 and 6)	No spacing		DSSS and other wideband modulation other than FHSS
		≤ 25 mW e.r.p.	≤ 0.1% or LBT (note 1 and 5)	≤ 100 kHz, for 1 or more channels (note 2 and 7)		Narrow /wide-band modulation
g1	868.000-868.600 MHz (note 4)	≤ 25 mW e.r.p.	≤ 1% or LBT (note 1)	No spacing, for 1 or more channels (note 2)		Narrow / wide-band modulation No channel spacing, however the whole stated frequency band may be used
g2	868.700-869.200 MHz (note 4)	≤ 25 mW e.r.p.	≤ 0.1% or LBT (note 1)	No spacing, for 1 or more channels (note 2)		Narrow / wide-band modulation No channel spacing, however the whole stated frequency band may be used
g3	869.400-869.650 MHz (note 4)	≤ 500 mW e.r.p.	≤ 10% or LBT. (note 1)	25 kHz (for 1 or more channels)		Narrow / wide-band modulation The whole stated frequency band may be used as 1 channel for high speed data transmission
g4	869.700-870.000 MHz (note 4bis)	≤ 5 mW e.r.p.	up to 100%	No spacing (for 1 or more channels)		Narrow / wide-band modulation No channel spacing, however the whole stated frequency band may be used
h	2400.0-2483.5 MHz	10 mW e.i.r.p.	No Restriction	No spacing		
i	5725-5875 MHz	25 mW e.i.r.p.	No Restriction	No spacing	ERC/DEC/(01)06	
j	24.00-24.25 GHz	100 mW e.i.r.p.	No Restriction	No spacing		
k	61.0-61.5 GHz	100 mW e.i.r.p.	No Restriction	No spacing		
l	122-123 GHz	100 mW e.i.r.p.	No Restriction	No spacing		
m	244-246 GHz	100 mW e.i.r.p.	No Restriction	No spacing		

Note 1: For frequency agile devices the duty cycle limit applies to the total transmission unless LBT is used. For LBT devices without frequency agility, the duty cycle limit applies.

Note 2: The preferred channel spacing is 100 kHz allowing for a subdivision into 50 kHz or 25 kHz.

Note 3: Sub-bands for alarms are excluded (see ERC/REC 70-03 Annex 7).

Note 4: The duty cycle, LBT or equivalent technique shall not be user dependent and shall therefore be guaranteed by appropriate technical means.

Note 4bis: Audio applications should be excluded. Voice applications allowed with spectrum access technique such as LBT or equivalent technique, the transmitter shall include a power output sensor controlling the transmitter to a maximum transmit period of 1 minute.

Note 5: Duty cycle may be increased to 1% if the band is limited to 865-868 MHz.

Note 6: For other wide-band modulation than FHSS and DSSS with a bandwidth of 200 kHz to 3 MHz, duty cycle can be increased to 1% if the band is limited to 865-868 MHz and power to ≤10 mW e.r.p.

Note 7: For other narrow-band modulation with a bandwidth of 50 kHz to 200 kHz, the band is limited to 865.5-867.5 MHz.

Note 8: The power density can be increased to +6.2 dBm/100 kHz and +0.8 dBm/100 kHz, if the band of operation is limited to 865-868 MHz and 865-870 MHz respectively.

Additional Information

Harmonised Standards

EN 300 220 sub-bands c) to g4)
EN 300 330 sub-bands a) to c)
EN 300 440 sub-bands h) i) and j)

Technical parameters also referred to in the harmonised standard

Listen before talk (LBT) with a preferred option of adaptive frequency agility (AFA) feature may be used instead of duty cycle. LBT is defined in EN 300 220.

Frequency issues

The bands in Annex 1 a - b - c - d f - f1 - f2 - h - i - j - k - l and m are also designated for industrial, scientific and medical (ISM) applications as defined in ITU Radio Regulations.

Sub-band g)
Certain channels may be occupied by RFID operating at higher powers (See Annex 11 for further details). To minimise the risk of interference from RFID, SRDs should use LBT with AFA or observe suitable separation distances. (In the high power RFID channels typically these may vary from 918 m (indoor) to 3.6 km (rural outdoor). In the remaining 2.2 MHz, where tags at -20 dBm e.r.p. occupy the spectrum, this may vary from 24 m (indoor) to 58 m (rural outdoor)).

The adjacent frequency band above 870 MHz has been designated for use by the high powered TETRA and other digital land mobile PMR/PAMR systems. Manufacturers should take this into account in the design of equipment and choice of power levels.

Annex 2 Tracking, Tracing and Data Acquisition

Scope of Annex

This annex covers frequency bands and regulatory as well as informative parameters recommended for a number of specific devices including –

- Detecting avalanche victims,
- Meter Reading
- Asset Tracking and Tracing

Regulatory parameters related to Annex 2

	Frequency Band	Power / Magnetic field	Duty cycle	Channel Spacing	ECC/ERC Decision	Notes
a	457 kHz	7 dBµA/m at 10 m	< 100%	Continuous wave (CW) – no modulation.	ECC/DEC/(04)01	Detection of avalanche victims
b	169.4-169.475 MHz	500 mW e.r.p.	< 10%	Max 50 kHz	ECC/DEC/(05)02	Meter Reading
c	169.4-169.475 MHz	500 mW e.r.p.	< 1%	Max 50 kHz	ECC/DEC/(05)02	Asset Tracking and Tracing

Additional Information

Harmonised Standards

EN 300 718 Sub-band a)
EN 300 220 Sub-band b) & c)

Frequency issues

No information

Technical parameters also referred to in the harmonised standard

No information

Annex 3 Wideband Data Transmission systems

Scope of Annex

This annex covers frequency bands and regulatory as well as informative parameters recommended for Wideband Data Transmission Systems and Wireless Access Systems including Radio Local Area Networks (WAS/RLANs) (formerly known as Radio Local Area Networks (RLANs)) within the band 2400-2483.5 MHz, for Wireless Access Systems including Radio Local Area Networks (WAS/RLANs) within the bands 5150-5350 MHz, 5470-5725 MHz and 17.1-17.3 GHz and for Multiple-Gigabit WAS/RLAN Systems within the band 57-66 GHz.

Regulatory parameters related to Annex 3

	Frequency Band	Power	Duty cycle	Channel spacing	ECC/ERC Decision	Notes
a	2400.0–2483.5 MHz	100 mW e.i.r.p.	No Restriction	No spacing	ERC/DEC/(01)07	For wide band modulations other than FHSS , the maximum e.i.r.p. density is limited to 10 mW/MHz
b	5150–5350 MHz	200 mW mean e.i.r.p.	No Restriction		ECC/DEC/(04)08	Restricted to indoor use. The maximum mean e.i.r.p. density shall be limited to 10 mW/MHz in any 1 MHz band. See Note 1
c	5470–5725 MHz	1 W mean e.i.r.p.	No Restriction		ECC/DEC/(04)08	Indoor as well as outdoor use allowed. The maximum mean e.i.r.p. density shall be limited to 50 mW/MHz in any 1 MHz band. See Note 1
d	17.1–17.3 GHz	100 mW e.i.r.p.	No Restriction	No spacing		
e	57–66 GHz	25 dBm mean e.i.r.p	No Restriction			Fixed outdoor installations are not allowed. The maximum mean e.i.r.p density is limited to -2 dBm/MHz
f	57–66 GHz	40 dBm mean e.i.r.p	No Restriction			Restricted to indoor use. The maximum mean e.i.r.p density is limited to 13 dBm/MHz

Note 1: WAS/RLANs operating in the bands 5 250-5 350 MHz and 5 470-5 725 MHz shall use mitigation techniques that give at least the same protection as the detection, operational and response requirements described in EN 301 893 to ensure compatible operation with radiodetermination systems (radars). Specific information about the applicability of EN 301 893 can be found at http://europa.eu.int/comm/enterprise/rtte/harstand.htm.

Additional Information

Harmonised Standards

EN 300 328 sub-band a)
EN 301 893 sub-bands b), and c) sub-band d): t.b.d.
EN 302 567 sub-bands e) and f).

Frequency issues

Wireless Access Systems including Radio Local Area Networks (WAS/RLANs) within the bands 5250-5350 MHz and 5470-5725 MHz shall only be allowed to operate when the mandatory features required in the ECC Decision (04)08 are implemented. See also note 1 above.

In the band 57-66 GHz, point-to-point links of the Fixed Service are regulated by ECC/REC/(05)02 and ECC/REC/(09)01.

Technical parameters also referred to in the harmonised standard

The power levels for band b), c), e) and f) refer to mean e.i.r.p.. The mean e.i.r.p. refers to the highest power level of the transmitter power control range during the transmission burst if transmitter power control is implemented.

Annex 4 Railway applications

Scope of Annex

This annex covers frequency bands and regulatory as well as informative parameters recommended for applications specifically intended for use on railways.

The sub-bands below are intended for the following applications:

- band a) Automatic vehicle identification systems for railways including Automatic Vehicle Identification for Railways (AVI)
- band b) Balise tele-powering and down-link (train to ground) systems including Eurobalise and activation of the Loop / Euroloop
- band c) Balise up-link (ground to train) systems including Eurobalise
- band d1) and d2) Loop up-link (ground to train) systems including Euroloop

Regulatory parameters related to Annex 4

Frequency Band		Power	Duty cycle	Channel spacing	ECC/ERC Decision	Notes
a	2446-2454 MHz	500 mW e.i.r.p.	No Restriction			Transmitting only in presence of trains. 5 channels, each 1.5 MHz wide within the band 2446-2454 MHz
b	27.095 MHz	42 dBµA/m at 10 m		No spacing		Tele-powering and Down-link signal for Balise / Eurobalise. May also be optionally used for the activation of the Loop / Euroloop.
c	4234 kHz	9 dBµA/m at 10m	<1%	No spacing		Transmitting only on receipt of a Balise / Eurobalise tele-powering signal from a train.
d1	4516 kHz	7 dBµA/m at 10 m	No Restriction	No spacing		Not intended for new applications, existing applications to be phased out by 2010.
d2	11.1-16.0 MHz	-7 dBµA/m at 10m	No Restriction	No spacing		Maximum field strength specified in a bandwidth of 10 kHz, spatially averaged over any 200m length of the loop. Transmitting only in presence of trains. Spread Spectrum Signal, Code Length: 472 Chips

Additional Information

Harmonised Standards

EN 300 761 sub-band a)
EN 302 608 sub-bands b) and c)
EN 300 330 sub-bands b), c), d1)
EN 302 609 sub-band d2)

Frequency issues

No information

Technical parameters also referred to in the harmonised standard

Spectrum masks for Eurobalise and Euroloop are defined in ETSI standards EN 302 608 and EN 302 609, in accordance with the elements given in ECC Report 98.

Spectrum mask relating to Eurobalise Tele-powering and Down-link

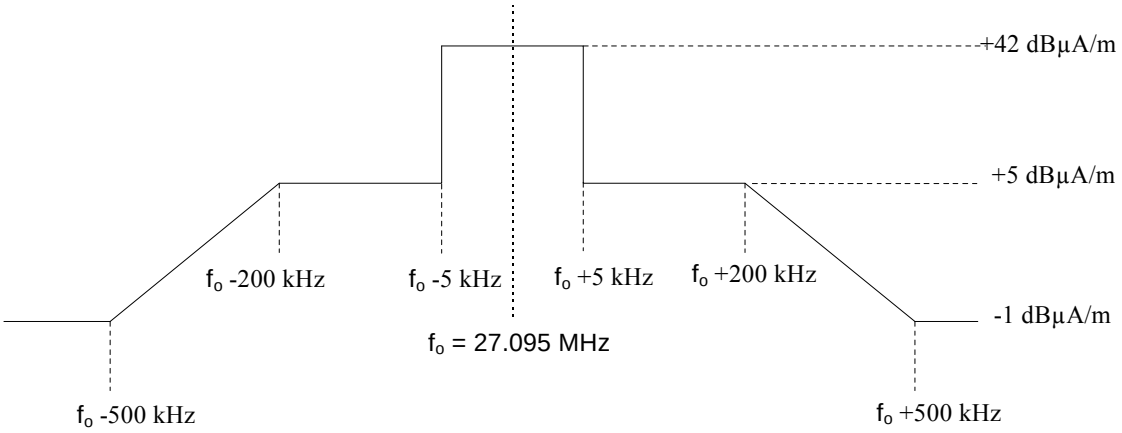

Figure 1
Magnetic field limits at 10 metre measurement distance for the Balise / Eurobalise Tele-powering and Down-link signals

Spectrum mask relating Eurobalise Up-link

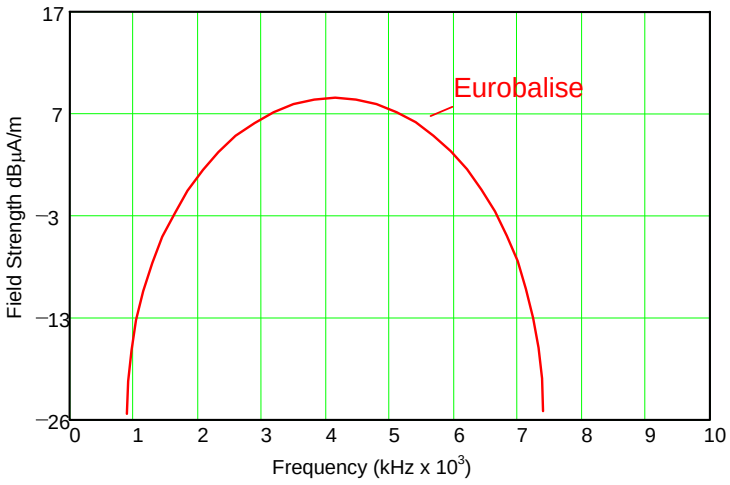

Figure 2
Magnetic field limits at 10 metre measurement distance in 10 kHz measurement bandwidth for the Balise / Eurobalise Up-link transmission

Spectrum Mask relating to Euroloop Up-link

Frequency	Relative attenuation for the magnetic field strength
≤ 1 MHz	37 dB
7.3 MHz	23 dB
11.1 MHz	0 dB
16.0 MHz	0 dB
23.0 MHz	23 dB
≥ 30 MHz	35 dB

Table 1
Figures defining the transmission mask of Loop / Euroloop Up-link signal

Annex 5 Road Transport and Traffic Telematics (RTTT)

Scope of Annex

This annex covers frequency bands and regulatory as well as informative parameters recommended for Road Transport and Traffic Telematics (RTTT).

Regulatory parameters related to Annex 5

	Frequency Band	Power	Duty cycle	Channel spacing	ECC/ERC Decision	Notes
a	5795-5805 MHz	2 W e.i.r.p. 8 We.i.r.p.	No Restriction		ECC/DEC/(02)01	
b	5805-5815 MHz	2 W e.i.r.p. 8 We.i.r.p.	No Restriction		ECC/DEC/(02)01	Individual license required
c	63-64 GHz			No spacing	ECC/DEC/(02)01	Vehicle to vehicle and road to vehicle systems Power level to be determined
d	76-77 GHz	55 dBm peak e.i.r.p.	No Restriction	No spacing	ECC/DEC/(02)01	Power level 55 dBm peak power e.i.r.p. 50 dBm average power - 23.5 dBm average power for pulse radar only Vehicle and infrastructure radar systems
e	21.65-26.65 GHz	*	*	*	ECC/DEC/(04)10	For automotive Short Range Radars (SRR) * See detailed requirements in related ECC Decision New SRR equipment may only be placed onto the market until 1 July 2013
f	77-81 GHz	*	*	*	ECC/DEC/(04)03	For automotive Short Range Radars (SRR) * See detailed requirements in related ECC Decision

Additional Information

Harmonised Standards

EN 300 674 sub-bands a) and b)
EN 301 091 sub-band d)
ES 200 674 sub-bands a) and b)
EN 302 288 sub-band e)
EN 302 264 sub-band f)

Frequency issues

The frequency band a) is intended for road to vehicle systems, particularly (but not exclusively) road toll systems.

The frequency band a) and b) are recommended for 5 MHz channel spacing systems with the frequencies: 5797.5 MHz, 5802.5 MHz, 5807.5 MHz and 5812.5 MHz. For 10 MHz channel spacing systems 5800 MHz and 5810 MHz.

5805 - 5815 MHz on a national basis for multi-lane road junctions, particularly, but not exclusively road toll systems.

The use of 8 W e.i.r.p. allows for 1 Mbit/s in accordance with ETSI standard ES 200 674-1.
2W e.i.r.p. allows for 500 kbit/s downlink and 250 kbit/s uplink in accordance with EN 300 674-1 and for low data rates (31 kbit/s) in accordance with
EN 300 674-2.

Technical parameters also referred to in the harmonised standard

No information

Annex 6 Radiodetermination applications

Scope of Annex

This annex covers frequency bands and regulatory as well as informative parameters recommended for SRD radiodetermination applications including SRD radar systems, Equipment for Detecting Movement and Alert. Radiodetermination is defined as the determination of the position, velocity and/or other characteristics of an object, or the obtaining of information relating to these parameters, by means of the propagation properties of radio waves.

Regulatory parameters related to Annex 6

	Frequency Band	Power	Duty cycle	Channel spacing	ECC/ERC Decision	Notes
a	2400.0-2483.5 MHz	25 mW e.i.r.p.	No Restriction	No spacing	ERC/DEC/(01)08	
b	9200-9500 MHz	25 mW e.i.r.p.	No Restriction	No spacing		
c	9500-9975 MHz	25 mW e.i.r.p.	No Restriction	No spacing		
d	10.5-10.6 GHz	500 mW e.i.r.p.	No Restriction	No spacing		
e	13.4-14.0 GHz	25 mW e.i.r.p.	No Restriction	No spacing		
f	24.05-24.25 GHz	100 mW e.i.r.p.	No Restriction	No spacing		
g	4.5-7.0 GHz	-41.3 dBm/MHz e.i.r.p.	No Restriction	No spacing		Tank Level Probing Radar (TLPR)
h	8.5-10.6 GHz	-41.3 dBm/MHz e.i.r.p.	No Restriction	No spacing		Tank Level Probing Radar (TLPR)
i	24.05-27.00 GHz	-41.3 dBm/MHz e.i.r.p.	No Restriction	No spacing		Tank Level Probing Radar (TLPR)
j	57-64 GHz	-41.3 dBm/MHz e.i.r.p.	No Restriction	No spacing		Tank Level Probing Radar (TLPR)
k	75-85 GHz	-41.3 dBm/MHz e.i.r.p.	No Restriction	No spacing		Tank Level Probing Radar (TLPR)
l	17.1-17.3 GHz	+26 dBm e.i.r.p.	DAA	No spacing		Ground Based Synthetic Aperture Radar (GBSAR) (note 1)
m	30 MHz – 12.4 GHz	*	*	*	ECC/DEC/(06)08	For Ground- and Wall- Probing Radar (GPR/WPR) imaging systems, subject to an appropriate licensing regime * See detailed requirements in related ECC Decision
n	2.2-8 GHz	*	*	*	ECC/DEC/(07)01	For Building Material Analysis (BMA) devices. * See detailed requirements in related ECC Decision.

Note 1: Specific requirements for the radar antenna pattern and for the implementation of Detect And Avoid (DAA) technique apply as described in EN 300 440 for Ground Based Synthetic Aperture Radar (GBSAR) systems

Additional Information

Harmonised Standards

EN 300 440 sub-bands a), b), c), d), e), f), l)
EN 302 372 (for TLPR) sub-bands g), h), i), j), k)
EN 302 066 sub-band m)
EN 302 435-2 sub-band n)

Frequency issues

Bands a), b), c), d), e) and f)
Some countries may allow equipment with transmitter powers between 25 mW and 500 mW in which case an individual licence or a general licence may be required.

Technical parameters also referred to in the harmonised standard

Bands g), h), i), j) and k) are to be used by TLPR equipment only.
The power limit is the radiated emission outside an enclosed tank structure.
The maximum emission inside an enclosed tank structure is given in EN 302 372.
Band h)
For the frequency range 10.6 GHz to 10.7 GHz, the radiated unwanted radiated emissions outside the tank enclosure shall be less than -60 dBm/MHz e.i.r.p.

Annex 7 Alarms

Scope of Annex

This annex covers frequency bands and regulatory as well as informative parameters recommended exclusively for alarm systems including social alarms and alarms for security and safety.

The sub-bands below are intended for the following applications:

- Alarms in general band a), b) ,c) and e)
- Social Alarms band d), f) and g)

Regulatory parameters related to Annex 7

	Frequency Band	Power		Duty cycle	Channel spacing	ECC/ERC Decision	Notes
a	868.6-868.7 MHz	10 mW	e.r.p.	< 1.0 %	25 kHz		The whole frequency band may also be used as 1 channel for high speed data transmissions
b	869.250-869.300 MHz	10 mW	e.r.p.	< 0.1 %	25 kHz		
c	869.650-869.700 MHz	25 mW	e.r.p.	< 10 %	25 kHz		
d	869.200-869.250 MHz	10 mW	e.r.p.	< 0.1 %	25 kHz		Social Alarms
e	869.300-869.400 MHz	10 mW	e.r.p.	< 1.0 %	25 kHz		
f	169.4750-169.4875 MHz	10 mW	e.r.p.	< 0.1 %	12.5 kHz	ECC/DEC/(05)02	Social Alarms (exclusive use)
g	169.5875-169.6000 MHz	10 mW	e.r.p.	< 0.1 %	12.5 kHz	ECC/DEC/(05)02	Social Alarms (exclusive use)

Additional Information

Harmonised Standards

EN 300 220

Frequency issues

No information

Technical parameters also referred to in the harmonised standard

No information

Annex 8 Model Control

Scope of Annex

This annex covers frequency bands and regulatory as well as informative parameters recommended for the application of model control equipment, which is solely for the purpose of controlling the movement of the model, in the air, on land or over or under the water surface. Although the bands are not harmonised, the parameters given in the table are common in a majority of CEPT countries. It should be noted that the bands are not exclusive for this type of application.

Regulatory parameters related to Annex 8

	Frequency Band	Power	Duty cycle	Channel spacing	ECC/ERC Decision	Notes
a	26.995, 27.045, 27.095, 27.145, 27.195 MHz	100 mW e.r.p.	No Restriction	10 kHz	ERC/DEC/(01)10	
b	34.995-35.225 MHz	100 mW e.r.p.	No Restriction	10 kHz	ERC/DEC/(01)11	Only for flying models
c	40.665, 40.675, 40.685, 40.695 MHz	100 mW e.r.p.	No Restriction	10 kHz	ERC/DEC/(01)12	

Additional Information

Harmonised Standards

EN 300 220

Frequency issues

No information

Technical parameters also referred to in the harmonised standard

No information

Annex 9 Inductive applications

Scope of Annex

This annex covers frequency bands and regulatory as well as informative parameters recommended for inductive applications include for example car immobilisers, animal identification, alarm systems, cable detection, waste management, personal identification, wireless voice links, access control, proximity sensors, antitheft systems including RF anti-theft induction systems, data transfer to handheld devices, automatic article identification, wireless control systems and automatic road tolling. It should be noted that other types of anti-theft systems can be operated in accordance with other relevant annexes.

Regulatory parameters related to Annex 9

	Frequency Band	Power	Duty cycle	Channel spacing	ECC/ERC Decision	Notes
aa	9 -59.750 kHz	72 dBµA/m at 10m	No Restriction	No spacing		In case of external antennas only loop coil antennas may be employed. Field strength level descending 3 dB/oct at 30 kHz
ab	59.750-60.250 kHz	42 dBµA/m at 10m	No Restriction	No spacing		In case of external antennas only loop coil antennas may be employed
ac	60.250-70.000 kHz	69 dBµA/m at 10m	No Restriction	No spacing		In case of external antennas only loop coil antennas may be employed. Field strength level descending 3 dB/oct at 30 kHz
b	70-119 kHz	42 dBµA/m at 10m	No Restriction	No spacing		In case of external antennas only loop coil antennas may be employed
c	119-135 kHz	66 dBµA/m at 10m	No Restriction	No spacing		In case of external antennas only loop coil antennas may be employed. Field strength level descending 3 dB/oct at 30 kHz
c1	135-140 kHz	42 dBµA/m at 10m	No Restriction	No spacing		In case of external antennas only loop coil antennas may be employed
c2	140-148.5 kHz	37.7 dBµA/m at 10m	No Restriction	No spacing		In case of external antennas only loop coil antennas may be employed
d	6765-6795 kHz	42 dBµA/m at 10m	No Restriction	No spacing		
e	7400-8800 kHz	9 dBµA/m at 10m	No Restriction	No spacing		
f	13.553-13.567 MHz	42 dBµA/m at 10m	No Restriction	No spacing		
f1	13.553-13.567 MHz	60 dBµA/m at 10m	No Restriction	No spacing		For RFID and EAS only
g	26.957-27.283 MHz	42 dBµA/m at 10m	No Restriction	No spacing	ERC/DEC/(01)16	
h	10.200-11.000 MHz	9 dBµA/m at 10m	No Restriction	No spacing		
k	3155-3400 kHz	13.5 dBµA/m at 10m	No Restriction	No spacing		In case of external antennas only loop coil antennas may be employed
l1	148.5 kHz - 5 MHz	-15 dBµA/m at 10 m	No Restriction	No spacing		In case of external antennas only loop coil antennas may be employed. *The maximum field strength is specified in a bandwidth of 10 kHz.The maximum allowed total field strength is -5 dBµA/m at 10 m for systems operating at bandwidths larger than 10 kHz whilst keeping the density limit (-15 dBµA/m in a bandwidth of 10 kHz).*
l2	5 - 30 MHz	-20 dBµA/m at 10 m	No Restriction	No spacing		In case of external antennas only loop coil antennas may be employed. ***The maximum field strength is specified in a bandwidth of 10 kHz.The maximum allowed total field strength is -5 dBµA/m at 10 m for systems operating at bandwidths larger than 10 kHz whilst keeping the density limit (-20 dBµA/m in a bandwidth of 10 kHz).***
l3	400 - 600 kHz	-8 dBµA/m at 10 m	No Restriction	No spacing		For RFID only In case of external antennas only loop coil antennas may be employed.

The maximum field strength is specified in a bandwidth of 10 kHz.
The maximum allowed total field strength is -5dBµA/m at 10 m for systems operating at bandwidths larger than 10 kHz measured at the center frequency whilst keeping the density limit (-8dBµA/m in a bandwidth of 10 kHz).

These systems should operate with a minimum operating bandwidth of 30 kHz.

Additional Information

Harmonised Standards

EN 300 330 for all sub-bands
EN 302 291 sub-band f)

Frequency issues

Users should be aware that emissions from inductive applications could cause interference to nearby receivers of other radio services.

In case of loop antennas used within bands aa) and ac) integral or dedicated within an area between 0.05 m2 and 0.16 m2, the field strength is reduced by
10 * log (area/0.16 m2); for an antenna area less than 0.05 m2 the field strength is reduced by 10 dB

Particular attention should also be paid to the more stringent protection requirements identified by the ITU for global distress and safety communications frequencies in the same or adjacent bands.

Technical parameters also referred to in the harmonised standard

The maximum allowed H-field for bands aa), ab), ac), b) and c) is illustrated in Figure 1;
The maximum allowed H-field limits for bands c, c1) and c2) are illustrated in Figure 2;
The maximum allowed H-field limits for bands d), f) and f1) are illustrated in Figure 3 on the next pages.

The maximum allowed H-field limits for bands a, b and c are illustrated in Figure 1

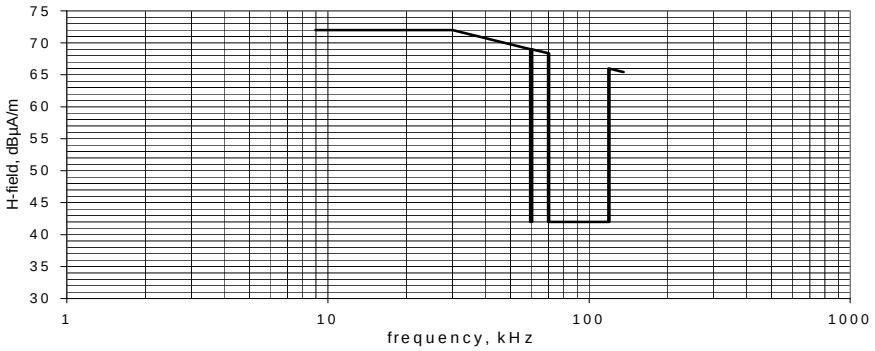

Figure 1
9-135 kHz magnetic field strength limits overview at 10-metre measurement distance

The maximum allowed H-field limits for band c1 and c2 are illustrated in Figure 2

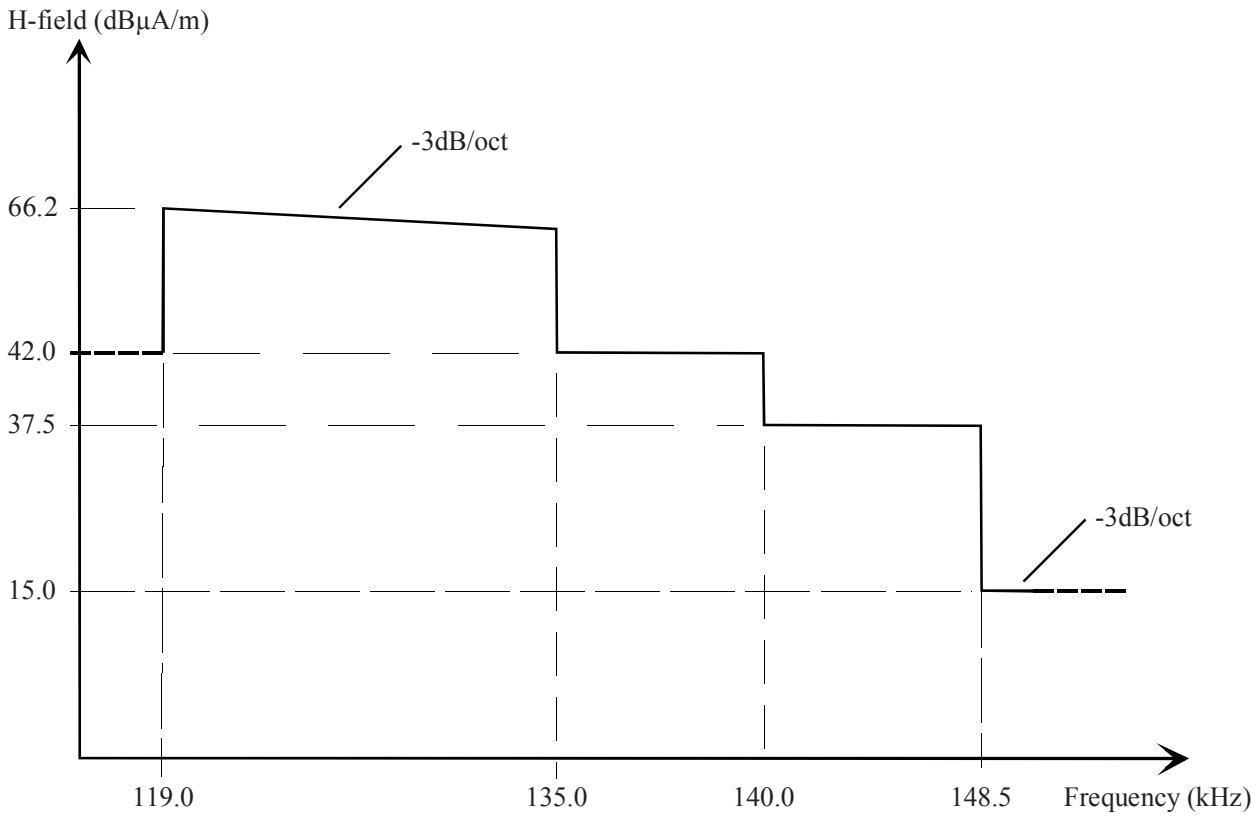

Figure 2
135 – 148.5 kHz magnetic field strength limit at 10 metres measurement distance

The maximum allowed H-field limits for band d, f and f1 are illustrated in Figure 3

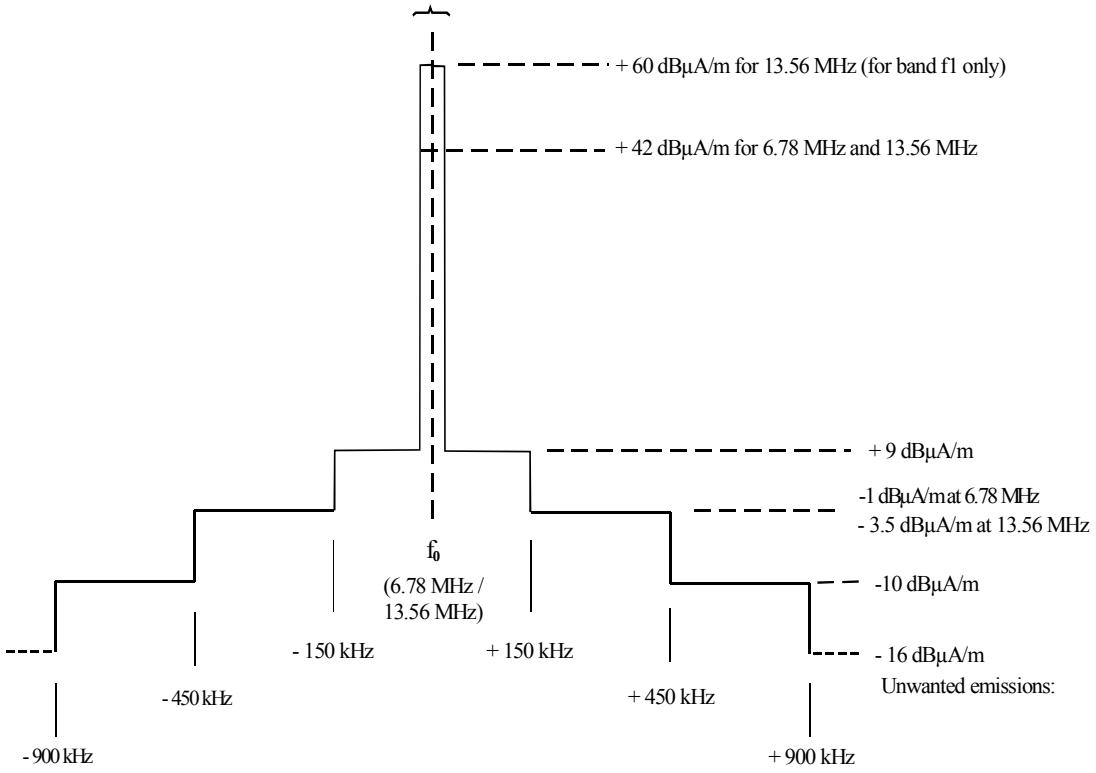

Figure 3
6.78 MHz and 13.56 MHz magnetic field strength limit at 10 metres measurement distance

Annex 10 Radio microphones and Assistive Listening Devices

Scope of Annex

This annex covers frequency bands and regulatory as well as informative parameters recommended for radio microphones (also referred to as wireless microphones or cordless microphones) and assistive listening devices including aids for the hearing impaired. Radio microphones are small, low power (50 mW or less) transmitters designed to be worn on the body, or hand held, for the transmission of close, personal sound. The receivers are more tailored to specific uses and may range from small and portable to rack mounted modules as part of a multichannel system. This annex covers professional and consumer radio microphones, both hand-held and body-worn, and aids for the handicapped.

Because of the difficulty in determining harmonised frequency bands for radio microphones, frequency band limits should be regarded as tuning ranges within which a device can be designated to operate. In most cases, Appendix 3 indicates those parts of the range that are not available in individual countries but this does not apply to the broadcasting bands at 174-216 MHz and 470-862 MHz where national geographical restrictions are likely to exist and the national administration should be contacted.

The sub bands below are intended for the following applications:
- Narrow band audio band a)
- Aids for the hearing impaired bands b), h1), h2), i)
- Radio microphones bands c) - g)

Regulatory parameters related to Annex 10

Frequency Band	Power	Duty cycle	Channel spacing	ECC/ERC Decision	Notes
a 29.7-47.0 MHz	10 mW e.r.p.	up to 100%	50 kHz		On a tuning range basis The frequency bands 30.3-30.5 MHz, 32.15-32.45 MHz and 41.015-47.00 MHz are harmonised military bands
b 173.965-174.015 MHz	2 mW e.r.p.	up to 100%	50 kHz		Aids for the hearing impaired
c 863-865 MHz	10 mW e.r.p.	up to 100%	No spacing		
d 174-216 MHz	50 mW e.r.p.	up to 100%	No spacing		On a tuning range basis Individual license required
e 470-862 MHz	50 mW e.r.p. .	up to 100%	No spacing		On a tuning range basis Individual license required
f 1785-1795 MHz	20 mW e.i.r.p. 50 mW e.i.r.p.	up to 100%	No spacing		Individual license required 50 mW restricted to body worn microphones
g 1795-1800 MHz	20 mW e.i.r.p. 50 mW e.i.r.p.	up to 100%	No spacing		50 mW restricted to body worn equipment
h1 169.4000-169.4750 MHz	10 mW e.r.p.	up to 100%	Max 50 kHz	ECC/DEC/(05)02	Aids for the hearing impaired
h2 169.4875-169.5875 MHz	10 mW e.r.p.	up to 100%	Max 50 kHz	ECC/DEC/(05)02	Aids for the hearing impaired
i 169.4-174.0 MHz	10 mW e.r.p.	up to 100%	Max 50 kHz		Aids for the hearing impaired On a tuning range basis Administrations should consider channel plan for band 169.4 – 169.8125 MHz detailed in ECC/DEC/(05)02 and the risk of interference towards systems operated in the band 169.6 – 169.8125 band when developing their national frequency table

Additional Information

Harmonised Standards

EN 300 422 sub bands a) - g), h1), h2), i)
EN 301 840 sub band f) - g)
EN 301 357 sub band c)

Frequency Issues

Band h1 is in shared spectrum, band h2 is in exclusive spectrum.

Technical parameters also referred to in the harmonised standard

No information

Annex 11 Radio frequency identification applications

Scope of Annex

This annex covers frequency bands and regulatory as well as informative parameters recommended for radio frequency identification (RFID) applications including for example automatic article identification, asset tracking, alarm systems, waste management, personal identification, access control, proximity sensors, anti-theft systems, location systems, data transfer to handheld devices and wireless control systems. It should be noted that other types of RFID systems can be operated in accordance with other relevant annexes.

Regulatory parameters related to Annex 11

Frequency Band	Power	Duty cycle	Channel spacing	ECC/ERC Decision	Notes
a 2446-2454 MHz	500 mW e.i.r.p. 4 W e.i.r.p.	up to 100% ≤ 15%	No spacing		Power levels above 500 mW are restricted to use inside the boundaries of a building and the duty cycle of all transmissions shall in this case be ≤15 % in any 200 ms period (30 ms on /170 ms off)
b1 865.0-865.6 MHz	100 mW e.r.p.		200 kHz		
b2 865.6-867.6 MHz	2 W e.r.p.		200 kHz		
b3 867.6-868.0 MHz	500 mW e.r.p.		200 kHz		

Additional Information

Harmonised Standards

EN 300 440 Sub-band a)
EN 302 208 Sub-bands b1), b2) and b3).

Frequency issues

Sub-band a)

To assist enforcement authorities any emissions due to the RFID device when measured outside of the building at a distance of 10 metres shall not exceed the equivalent field strength for a 500 mW RFID device mounted outside the building when measured at the same distance. Where a building consists of a number of premises, such as shops within a shopping arcade or Mall then the measurements shall be referenced to the boundary of the user's premises within the building.

Frequency Hopping Spread Spectrum (FHSS) techniques should be used as means of mitigation when more than 500 mW e.i.r.p. is used.

Sub-bands b1), b2) and b3)
Channel centre frequencies are 864.9 MHz + (0.2 MHz * channel number).
The available channel numbers for each sub-band are:

- b1: channel numbers 1 to 3
- b2: channel numbers 4 to 13
- b3: channel numbers 14 to 15.

Note: The same equipment is allowed to operate in several sub-bands.

Frequency hopping or other spread spectrum techniques shall not be used.

Technical parameters also referred to in the harmonised standard

Sub-band a)
In addition, antenna beamwidth limits shall be observed as described in the standard EN 300 440.

In addition, for an RFID device which can exceed 500 mW, the device should be fitted with an automatic power control to reduce the radiated power below 500 mW; this automatic power control shall guarantee the reduction of the power to a maximum of 500 mW in cases where the device is moved and used outside the boundary of the user's building or premises as described above.

Sub-bands b1), b2) and b3)

ETSI EN 302 208-2 V1.1.1 specifies a mandatory requirement for a Listen Before Talk (LBT) mechanism.
ETSI EN 302 208-2 V1.2.1 removes the mandatory requirement for LBT but restricts the transmission of RFID interrogators to channel numbers 4, 7, 10 and 13.

Note: ETSI EN 302 208 -2 V1.1.1 shall be-superseded on 31 December 2009.

Annex 12 Wireless applications in Healthcare

Scope of Annex

This annex covers frequency bands and regulatory as well as informative parameters recommended for wireless applications in healthcare.

Regulatory parameters related to Annex 12

	Frequency Band	Power/Magnetic Field	Duty cycle	Channel spacing	ECC/ERC Decision	Notes
a	402-405 MHz	25 µW e.r.p.	No Restriction	25 kHz	ERC/DEC/(01)17	For Ultra Low Power Active Medical Implants covered by the applicable harmonised standard. Individual transmitters may combine adjacent channels for increased bandwidth up to 300 kHz.
a1	401-402 MHz	25 µW e.r.p.	No Restriction for devices with LBT, otherwise ≤0.1% (see note 2)	25 kHz		For Ultra Low Power Active Medical Implants and accessories covered by the applicable harmonised standard and not covered by band a. Individual transmitters may combine adjacent 25 kHz channels for increased bandwidth up to 100 kHz (see note 1).
a2	405-406 MHz	25 µW e.r.p.	No Restriction for devices with LBT, otherwise ≤0.1% (see note 2)	25 kHz		For Ultra Low Power Active Medical Implants and accessories covered by the applicable harmonised standard and not covered by band a. Individual transmitters may combine adjacent 25 kHz channels for increased bandwidth up to 100 kHz (see note 1).
b	9-315 kHz	30 dBµA/m at 10m	< 10%	No spacing		The application is for Ultra Low Power Active Medical Implant systems using inductive loop techniques for telemetry purposes
c	315-600 kHz	-5 dBµA/m at 10m	< 10%	No spacing		The application is for animal implantable devices.
d	30.0-37.5 MHz	1 mW e.r.p.	< 10%	No spacing		The application is for Ultra Low Power medical membrane implants for blood pressure measurements.
e	12.5-20.0 MHz	-7 dBµA/m at 10m	< 10%	No spacing		The application is for ULP active animal implantable devices (ULP-AID), limited to indoor only applications. The maximum field strength is specified in a bandwidth of 10 kHz. The transmission mask of ULP-AID is defined as follows: 3dB bandwidth 300 kHz 10dB bandwidth 800 kHz 20dB bandwidth 2 MHz.

Note 1: Due to the limited available spectrum of 1 MHz, a maximum bandwidth of 100 kHz is proposed for these bands to ensure that several users could access the band concurrently.

Note 2: Systems not providing frequency agility based on ambient RF field sensing, be limited to a maximum permitted e.r.p. of 250 nanowatts with a duty cycle of ≤ 0.1%.

Additional Information

Harmonised Standards

EN 301 839 Sub-band a)
EN 302 537 Sub-bands a1) and a2)
EN 302 195 Sub-band b)
EN 302 536 Sub-band c)
EN 302 510 Sub-band d)
EN 300 330 Sub-band e)

Frequency issues

Technical parameters also referred to in the harmonised standard

No information

Annex 13 Wireless Audio Applications

Scope of Annex

This annex covers frequency bands and regulatory as well as informative parameters recommended for applications for wireless audio systems including the following, 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 concerts or other stage productions.

Regulatory parameters related to Annex 13

Frequency Band		Power	Duty cycle	Channel spacing	ECC/ERC Decision	Notes
a	863-865 MHz	10 mW e.r.p.	Up to 100%	No spacing		
b	864.8-865.0 MHz	10 mW e.r.p.	Up to 100%	50 kHz		Narrow band analogue voice devices
c	1795-1800 MHz	20 mW e.i.r.p.	Up to 100%	No spacing		
d	87.5-108.0 MHz	50 nW e.r.p.	Up to 100%	200 kHz		

Additional Information

Harmonised Standards

EN 301 357 sub-band a) c) and d)
EN 300 220 sub-band b)

Frequency issues

Sub-band b)

Narrow band analogue voice devices, such as baby voice monitors, door entry systems etc should only use the band b) 864.8-865 MHz.

Technical parameters also referred to in the harmonised standard

Systems should be designed so that when not in use there should be no transmission of an RF carrier.

Sub-band d)
The user interface of SRD shall permit as a minimum the selection of any and all possible frequencies within the 88.1 MHz to 107.9 MHz and as a maximum 87.6 MHz to 107.9 MHz.

When audio signals are not present, apparatus must employ a transmission time out facility. Pilot tones that ensure continuity of transmission are not permitted.

Annexes to ERC REC 70-03		AUT	BEL	BUL	CZE	CYP	DNK	EST	FIN	F	D	GRC	HNG	ISL	IRL	I	LVA	LIE	LTU	LUX	MLT	HOL	NOR	POL	POR	ROU	SVK	SVN	E	SUI	S	G
Annex 1 - Non-Specific SRDs		**EU member states and EFTA countries**																														
Annex 1A 6765-6795 kHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 1B 13.553-13.567 MHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 1C 26.957-27.283 MHz	ERC/DEC(01)02	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 1D 40.660-40.700 MHz	ERC/DEC(01)03	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 1E 138.20-138.45 MHz		Y	N	Y	Y	Y	Y	Y	Y	N	N	Y	N	Y	P	N	N	N	Y	Y	Y	N	Y	N	Y	Y	N	N	N	N	N	U
Annex 1F 433.050-434.790 MHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y
Annex 1F1 433.050-434.790 MHz	ECC/DEC(04)02	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y
Annex 1F2 434.040-434.790 MHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y
Annex 1G 863-870 MHz		P	N	Y	Y	Y	Y	Y	Y	N	Y	L	L	Y	Y	Y	N	Y	N	Y	Y	U	N	Y	Y	Y	U	Y	N	Y	N	Y
Annex 1G1 868.000-868.600 MHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 1G2 868.700-869.200 MHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 1G3 869.400-869.650 MHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 1G4 869.700-870.000 MHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 1H 2400.0-2483.5 MHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 1I 5725-5875 MHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 1J 24.00–24.25 GHz		Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	L
Annex 1K 61.0-61.5 GHz		Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	N	Y
Annex 1L 122-123 GHz		Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	P	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	N	U
Annex 1M 244-246 GHz		Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	P	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	N	U
Annex 2 - Tracking, Tracing and Data Acquisition																																
Annex 2A 457 kHz	ECC/DEC(04)01	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 2B 169.4-169.475 MHz	ECC/DEC/(05)02	P	N	P	Y	N	N	Y	Y	P	Y	N	Y	Y	P	Y	N	U	Y	Y	Y	Y	L	Y	Y	N	Y	Y	Y	U	Y	Y
Annex 2C 169.4-169.475 MHz		P	N	P	Y	N	N	Y	Y	P	Y	N	Y	Y	P	Y	N	U	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	U	Y	Y
Annex 3 - Wideband Data Transmission Systems																																
Annex 3A 2400.0-2483.5 MHz	ERC/DEC(01)07	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 3B 5150-5250 MHz	ECC/DEC/(04)08	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 3C 5250-5350 MHz		Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 3D 5470-5725 MHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 3E 17.1–17.3 GHz		Y	N	Y	U	N	Y	Y	Y	N	N	Y	P	Y	Y	Y	Y	Y	Y	N	Y	Y	N	Y	Y	N	N	N	N	Y	N	N
Annex 4 - Railway Applications																																
Annex 4A 2446-2454 MHz		Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	N	Y	L	Y	Y	Y	U	Y	N	Y	N	Y
Annex 4B 27.095 MHz		Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
Annex 4C 4234 kHz		P	N	P	U	N	Y	U	Y	N	Y	N	P	U	P	N	N	Y	N	Y	N	U	N	Y	Y	N	N	N	N	Y	N	Y
Annex 4D1 4516 kHz		P	N	P	Y	N	Y	U	Y	N	Y	N	N	U	Y	Y	N	Y	N	Y	N	L	N	Y	Y	N	N	P	N	Y	Y	Y
Annex 4D2 11.1 - 16.0 MHz		P	N	P	U	N	Y	U	Y	N	Y	N	P	U	P	N	N	U	N	Y	N	U	N	Y	Y	N	N	N	N	Y	N	Y

Bright highlighted = new bands
Highlighted yellow = not implemented

Y=impleme implemented L=limited implementation P=planned U=under study

Countries for Class 1 equipment

Implementation Status		AUT	BEL	BUL	CZE	CYP	DNK	EST	FIN	F	D	GRC	HNG	ISL	IRL	I	LVA	LIE	LTU	LUX	MLT	HOL	NOR	POL	POR	ROU	SVK	SVN	E	SUI	S	G
Annex 5 - Road Transport and Traffic Telematics - RTTT																																
Annex 5A 5795–5805 MHz	ECC/DEC(02)01	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	L	Y	Y	L	Y	Y	L	Y	L	Y	Y	N	Y	Y	Y	L	Y	L
Annex 5B 5805-5815 MHz		Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	L	Y	Y	L	Y	Y	L	Y	L	Y	Y	N	Y	Y	Y	L	Y	L
Annex 5C 63-64 GHz		Y	Y	Y	Y	Y	Y	L	Y	N	N	Y	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	Y	N	Y	N	N	Y	Y	U	P	P
Annex 5D 76-77 GHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 6 - Radiodetermination applications																																
Annex 6A 2400.0-2483.5 MHz	ERC/DEC(01)08	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
Annex 6B 9200-9500 MHz		Y	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	L
Annex 6C 9500-9975 MHz		Y	Y	Y	Y	Y	Y	Y	Y	L	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y	N	L
Annex 6D 10.5-10.6 GHz		N	Y	Y	N	Y	Y	N	N	L	N	Y	L	Y	L	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	Y	N	Y	N	Y	N	L
Annex 6E 13.4-14.0 GHz		Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y
Annex 6F 24.05-24.25 GHz		Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	L
Annex 6G 4.5 - 7.0 GHz		U	N	P	P	Y	Y	U	Y	P	Y	N	P	U	P	N	N	Y	N	Y	N	U	N	Y	Y	N	P	Y	N	Y	Y	P
Annex 6H 8.5 - 10.6 GHz		U	N	P	P	Y	Y	U	Y	P	Y	N	P	U	P	N	N	Y	N	Y	N	U	N	Y	Y	N	P	Y	N	Y	Y	P
Annex 6I 24.05 - 27.0 GHz		U	N	P	P	Y	Y	U	Y	P	Y	N	P	U	P	N	N	Y	N	Y	N	U	N	Y	Y	N	P	P	N	Y	Y	P
Annex 6J 57 - 64 GHz		U	N	P	P	Y	Y	U	Y	P	Y	N	P	U	P	N	N	Y	N	Y	N	U	N	Y	Y	N	P	P	N	Y	Y	P
Annex 6K 75 - 85 GHz		U	N	P	P	Y	Y	U	Y	P	Y	N	P	U	P	N	N	Y	N	Y	N	U	N	Y	Y	N	P	P	N	Y	Y	P
Annex 6L 17.1 - 17.3 GHz		N	N	P	U	N	Y	U	Y	N	Y	N	P	N	N	U	N	Y	N	N	N	U	N	N	U	N	N	P	N	L	N	P
Annex 7 - Alarms																																
Annex 7A 868.6-868.7 MHz		Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 7B 869.250-869.300 MHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 7C 869.650-869.700 MHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 7D 869.200-869.250 MHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 7E 869.300-869.400 MHz		Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y	Y	Y	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	P	Y	Y	N	Y
Annex 7F 169.4750-169.4875 MHz	ECC/DEC(05)02	P	Y	N	Y	N	N	Y	Y	P	Y	N	Y	Y	Y	Y	N	L	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	Y	L	Y	Y
Annex 7G 169.5875-169.6000 MHz		P	Y	N	Y	N	N	Y	Y	P	Y	N	Y	P	Y	Y	N	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	Y	L	Y	Y
Annex 8 - Model Control																																
Annex 8A 26.995,27.045,27.095, 27.145,27.195 MHz	ERC/DEC(01)10-12	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 8B 34.995-35.225 MHz		Y	Y	Y	Y	Y	Y	Y	Y	U	L	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y	Y
Annex 8C 40.665,40.675 40.685, 40.695 MHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 9 - Inductive Applications																																
Annex 9AA 9-59.750 kHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 9AB 59.750-60.250 kHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 9AC 60.250-70.000 kHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 9B 70-119 kHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 9C 119-135 kHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 9C1 135-140 kHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 9C2 140.0-148.5 kHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y
Annex 9D 6765-6795 kHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 9E 7400-8800 kHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 9F 13.553-13.567 MHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 9F1 13.553-13.567 MHz		Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	U	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 9G 26.957-27.283 MHz	ERC/DEC(01)16	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Implementation Status		AUT	BEL	BUL	CZE	CYP	DNK	EST	FIN	F	D	GRC	HNG	ISL	IRL	I	LVA	LIE	LTU	LUX	MLT	HOL	NOR	POL	POR	ROU	SVK	SVN	E	SUI	S	G
Annex 9 - Inductive Applications - continued																																
Annex 9H 10.200-11.000 MHz		P	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	U	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 9K 3155-3400 kHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	Y	Y	Y
Annex 9L1 148.5 kHz - 5 MHz		L	N	L	Y	Y	Y	Y	Y	P	Y	N	L	Y	P	Y	N	Y	N	Y	Y	Y	Y	L	Y	N	N	Y	Y	Y	Y	Y
Annex 9L2 5 - 30 MHz		P	N	P	Y	Y	Y	Y	Y	P	Y	N	P	Y	P	Y	N	Y	N	Y	Y	Y	Y	N	Y	N	N	Y	N	Y	Y	Y
Annex 9L3 400-600 kHz		P	N	Y	Y	Y	Y	Y	Y	P	Y	N	P	Y	P	Y	N	Y	N	Y	Y	Y	N	N	Y	N	N	Y	N	Y	Y	Y
Annex 10 – Radio Microphones and Assistive Listening Devices																																
Annex 10A 29.7-47.0 MHz		L	Y	Y	L	Y	Y	L	L	L	L	L	L	Y	P	L	N	Y	Y	Y	L	Y	L	Y	N	N	L	Y	L	L	L	L
Annex 10B 173.965-174.015 MHz		P	N	L	Y	Y	N	Y	L	N	Y	N	Y	Y	P	Y	Y	N	Y	Y	Y	Y	L	N	Y	Y	Y	Y	N	N	N	Y
Annex 10C 863-865 MHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 10D 174-216 MHz		P	Y	Y	Y	Y	L	Y	L	L	Y	Y	Y	Y	N	Y	N	Y	Y	Y	N	Y	N	Y	Y	N	Y	Y	L	Y	Y	Y
Annex 10E 470-862 MHz		Y	Y	Y	Y	Y	L	Y	L	L	L	L	Y	Y	N	L	N	Y	Y	Y	L	Y	L	Y	Y	N	Y	Y	N	Y	Y	Y
Annex 10F 1785-1795 MHz		L	N	Y	L	Y	Y	Y	Y	L	Y	Y	Y	Y	N	N	N	Y	N	Y	P	Y	Y	Y	Y	N	N	Y	Y	Y	N	L
Annex 10G 1795-1800 MHz		L	N	Y	L	Y	Y	Y	N	L	Y	Y	Y	Y	N	N	N	Y	N	Y	P	Y	Y	Y	Y	N	N	Y	Y	Y	N	L
Annex 10H1 169.4000-169.4750 MHz	ECC/DEC(05)02	P	N	N	Y	N	N	Y	Y	P	N	N	Y	Y	P	Y	N	L	N	Y	Y	Y	Y	Y	Y	N	N	Y	Y	L	Y	Y
Annex 10H2 169.4875-169.5875 MHz		U	N	N	Y	N	N	Y	Y	P	Y	N	Y	P	P	Y	N	L	Y	Y	Y	Y	Y	Y	Y	N	N	Y	Y	L	Y	Y
Annex 10I 169.4-174.0 MHz		N	N	N	L	N	Y	Y	N	N	N	N	N	N	N	L	N	N	N	N	N	P	N	N	N	N	N	P	L	N	N	L
Annex 11 - Radio Frequency Identification Applications																																
Annex 11A 2446-2454 MHz		Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	U	Y	Y	Y	N	Y
Annex 11B1 865.0-865.6 MHz	ECC/DEC(05)02	Y	N	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y
Annex 11B2 865.6-867.6 MHz		Y	N	Y	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y
Annex 11B3 867.6-868.0 MHz		Y	N	Y	Y	Y	Y	Y	Y	N	Y	y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y
Annex 12 - Wireless Applications in Healthcare																																
Annex 12A 402-405 MHz	ERC/DEC(01)17	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 12A1 401-402 MHz		U	N	P	P	Y	Y	Y	Y	P	Y	P	P	Y	P	N	N	P	Y	Y	P	U	N	Y	Y	N	U	Y	N	Y	Y	Y
Annex 12A2 405-406 MHz		U	N	P	P	Y	Y	Y	Y	P	Y	P	P	Y	P	N	N	P	Y	Y	P	U	N	Y	Y	N	U	Y	N	Y	Y	Y
Annex 12B 9-315 kHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y	Y
Annex 12C 315-600 kHz		Y	Y	Y	Y	Y	Y	Y	Y	P	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 12D 30.0-37.5 MHz		P	Y	Y	U	Y	Y	Y	Y	P	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	N	Y	Y	Y	U	Y	N	N	N	Y
Annex 12E 12.5-20.0 MHz		P	N	P	Y	Y	Y	Y	Y	P	Y	N	P	Y	P	N	N	Y	N	Y	P	Y	N	Y	Y	N	N	Y	N	Y	Y	Y
Annex 13 - Wireless Audio Applications																																
Annex 13A 863-865 MHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 13B 864.8-865.0 MHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 13C 1795-1800 MHz		N	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	N	N	N	Y	Y	Y	Y	N	Y	Y	Y	Y	N	Y	N	Y	Y	L
Annex 13D 87.5-108.0 MHz		Y	Y	Y	Y	N	Y	Y	Y	N	Y	P	P	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	U	L	Y	Y	Y	Y

Bright highlighted = new bands
Highlighted yellow = not implemented

Y=impleme implemented

L=limited implementation

P=planned

U=under study

Annexes to ERC REC 70-03		BIH	HRV	MKD	RUS	SRB	TUR
Annex 1 - Non-Specific SRDs							
Annex 1A 6765-6795 kHz		Y	Y	Y	N	Y	Y
Annex 1B 13.553-13.567 MHz		Y	Y	Y	Y	Y	Y
Annex 1C 26.957-27.283 MHz	ERC/DEC/(01)02	Y	Y	Y	Y	Y	Y
Annex 1D 40.660-40.700 MHz	ERC/DEC/(01)03	Y	Y	Y	Y	Y	Y
Annex 1E 138.20-138.45 MHz		Y	N	Y	N	Y	N
Annex 1F 433.050-434.790 MHz	ECC/DEC/(04)02	Y	Y	Y	L	Y	Y
Annex 1F1 433.050-434.790 MHz		Y	Y	Y	N	Y	Y
Annex 1F2 434.040-434.790 MHz		Y	Y	Y	N	Y	Y
Annex 1G 863-870 MHz		Y	Y	Y	L	N	Y
Annex 1G1 868.000-868.600 MHz		Y	Y	Y	N	Y	Y
Annex 1G2 868.700-869.200 MHz		Y	Y	Y	Y	Y	Y
Annex 1G3 869.400-869.650 MHz		Y	Y	Y	N	Y	Y
Annex 1G4 869.700-870.000 MHz		Y	Y	Y	N	Y	Y
Annex 1H 2400.0-2483.5 MHz		Y	Y	Y	Y	Y	Y
Annex 1I 5725-5875 MHz		Y	Y	Y	L	Y	Y
Annex 1J 24.00–24.25 GHz		Y	Y	Y	N	Y	Y
Annex 1K 61.0-61.5 GHz		Y	N	Y	N	Y	Y
Annex 1L 122-123 GHz		Y	N	Y	N	N	Y
Annex 1M 244-246 GHz		Y	N	Y	N	N	Y
Annex 2 - Tracking, Tracing and Data Acquisition							
Annex 2A 457 kHz	ECC/DEC/(04)01	Y	Y	Y	Y	N	Y
Annex 2B 169.4-169.475 MHz	ECC/DEC/(05)02	Y	N	Y	N	N	Y
Annex 2C 169.4-169.475 MHz		Y	N	Y	N	N	Y
Annex 3 - Wideband Data Transmission Systems							
Annex 3A 2400.0-2483.5 MHz	ERC/DEC/(01)07	Y	Y	Y	Y	Y	Y
Annex 3B 5150-5250 MHz	ECC/DEC/(04)08	Y	Y	Y	L	Y	Y
Annex 3C 5250-5350 MHz		Y	Y	Y	L	Y	Y
Annex 3D 5470-5725 MHz		Y	Y	Y	L	Y	N
Annex 3E 17.1–17.3 GHz		Y	N	Y	N	Y	N
Annex 4 - Railway Applications							
Annex 4A 2446-2454 MHz		Y	Y	Y	N	Y	Y
Annex 4B 27.095 MHz		Y	Y	Y	N	Y	Y
Annex 4C 4234 kHz		Y	N	N	N	N	U
Annex 4D1 4516 kHz		Y	N	N	N	N	Y
Annex 4D2 11.1 - 16.0 MHz		Y	N	N	N	N	U
Annex 5 - Road Transport and Traffic Telematics - RTTT							
Annex 5A 5795–5805 MHz	ECC/DEC/(02)01	Y	Y	Y	N	Y	Y
Annex 5B 5805-5815 MHz		Y	N	Y	N	Y	Y
Annex 5C 63-64 GHz		Y	N	Y	N	Y	U
Annex 5D 76-77 GHz		Y	N	Y	N	Y	Y
Annex 6 - Radiodetermination applications							
Annex 6A 2400.0-2483.5 MHz	ERC/DEC/(01)08	Y	Y	Y	L	Y	Y
Annex 6B 9200-9500 MHz		Y	Y	Y	L	N	Y
Annex 6C 9500-9975 MHz		Y	Y	Y	N	N	Y
Annex 6D 10.5-10.6 GHz		Y	Y	Y	U	Y	N
Annex 6E 13.4-14.0 GHz		Y	Y	Y	N	Y	Y
Annex 6F 24.05-24.25 GHz		Y	Y	Y	Y	Y	Y
Annex 6G 4.5 - 7.0 GHz		Y	N	N	N	N	U
Annex 6H 8.5 - 10.6 GHz		Y	N	N	N	N	U
Annex 6I 24.05 - 27.0 GHz		Y	N	N	N	N	U
Annex 6J 57 - 64 GHz		Y	N	N	N	N	U
Annex 6K 75 - 85 GHz		Y	N	N	N	N	U
Annex 6L 17.1 - 17.3 GHz		Y	N				N
Annex 7 - Alarms							
Annex 7A 868.6-868.7 MHz		Y	Y	Y	L	Y	Y
Annex 7B 869.250-869.300 MHz		Y	Y	Y	N	Y	Y
Annex 7C 869.650-869.700 MHz		Y	Y	Y	N	Y	Y

 Y=implemented / N=not implemented / L=limited implementation / P=planned / U= under study

Implementation Status		BIH	HRV	MKD	RUS	SRB	TUR
Annex 7 - Alarms - continued							
Annex 7D 869.200-869.250 MHz		Y	Y	Y	N	Y	Y
Annex 7E 869.300-869.400 MHz		Y	Y	Y	N	N	Y
Annex 7F 169.4750-169.4875 MHz	ECC/DEC/(05)02	Y	N	Y	N	N	Y
Annex 7G 169.5875-169.6000 MHz		Y	N	Y	N	N	Y
Annex 8 - Model Control							
Annex 8A 26.995,27.045,27.095, 27.145,27.195 MHz		Y	Y	Y	L	Y	Y
Annex 8B 34.995-35.225 MHz	ERC/DEC/(01)10-12	Y	Y	Y	N	Y	Y
Annex 8C 40.665,40.675 40.685, 40.695 MHz		Y	Y	Y	Y	Y	Y
Annex 9 - Inductive Applications							
Annex 9AA 9-59.750 kHz		Y	Y	Y	Y	Y	Y
Annex 9AB 59.750-60.250 kHz		Y	Y	Y	Y	Y	Y
Annex 9AC 60.250-70.000 kHz		Y	Y	Y	Y	Y	Y
Annex 9B 70-119 kHz		Y	Y	Y	Y	Y	Y
Annex 9C 119-135 kHz		Y	Y	Y	Y	Y	Y
Annex 9C1 135-140 kHz		Y	Y	Y	N	Y	Y
Annex 9C2 140.0-148.5 kHz		Y	Y	Y	N	Y	Y
Annex 9D 6765-6795 kHz		Y	Y	Y	Y	Y	Y
Annex 9E 7400-8800 kHz		Y	Y	Y	Y	Y	Y
Annex 9F 13.553-13.567 MHz		Y	Y	Y	Y	Y	Y
Annex 9F1 13.553-13.567 MHz		Y	Y	Y	Y	Y	Y
Annex 9G 26.957-27.283 MHz	ERC/DEC/(01)16	Y	Y	Y	Y	Y	Y
Annex 9H 10.200-11.000 MHz		Y	Y	Y	N	N	Y
Annex 9K 3155-3400 kHz		Y	Y	Y	N	N	Y
Annex 9L1 148.5 kHz - 5 MHz		Y	Y	Y	N	N	Y
Annex 9L2 5 - 30 MHz		Y	Y	Y	N	N	Y
Annex 9L3 400-600 kHz		Y	Y	Y	N	N	Y
Annex 10 – Radio Microphones and Assistive Listening Devices							
Annex 10A 29.7-47.0 MHz		Y	N	Y	L	Y	Y
Annex 10B 173.965-174.015 MHz		Y	N	Y	N	Y	Y
Annex 10C 863-865 MHz		Y	N	Y	N	Y	Y
Annex 10D 174-216 MHz		Y	N	Y	L	Y	Y
Annex 10E 470-862 MHz		Y	Y	Y	L	Y	Y
Annex 10F 1785-1795 MHz		Y	Y	Y	N	N	Y
Annex 10G 1795-1800 MHz		Y	N	Y	N	N	Y
Annex 10H1 169.4000-169.4750 MHz	ECC/DEC/(05)02	Y	N	Y	N	N	Y
Annex 10H2 169.4875-169.5875 MHz		Y	N	Y	N	N	Y
Annex 10I 169.4-174.0 MHz		Y	N	Y	N	N	N
Annex 11 - Radio Frequency Identification Applications							
Annex 11A 2446-2454 MHz		Y	N	Y	N	Y	Y
Annex 11B1 865.0-865.6 MHz		Y	Y	N	N	N	Y
Annex 11B2 865.6-867.6 MHz		Y	Y	N	L	N	Y
Annex 11B3 867.6-868.0 MHz		Y	Y	N	L	N	Y
Annex 12 - Wireless Applications in Healthcare							
Annex 12A 402-405 MHz	ERC/DEC/(01)17	Y	Y	Y	N	Y	Y
Annex 12A1 401-402 MHz		Y	N	Y	N	N	U
Annex 12A2 405-406 MHz		Y	N	Y	N	N	U
Annex 12B 9-315 kHz		Y	Y	Y	N	N	Y
Annex 12C 315-600 kHz		Y	Y	Y	N	N	Y
Annex 12D 30.0-37.5 MHz		Y	Y	Y	N	Y	Y
Annex 12E 12.5-20.0 MHz		Y	Y	Y	N	N	Y
Annex 13 - Wireless Audio Applications							
Annex 13A 863-865 MHz		Y	Y	Y	Y	Y	Y
Annex 13B 864.8-865.0 MHz		Y	N	Y	N	Y	Y
Annex 13C 1795-1800 MHz		Y	N	Y	N	Y	Y
Annex 13D 87.5-108.0 MHz		Y	Y	Y	N	N	Y

Bright highlighted = new bands
Highlighted yellow = not implemented

APPENDIX 2

List of relevant ECC/ERC Decisions, Reports, EC Decisions and ETSI Standards

ECC/ERC Decisions

ECC/DEC/(07)01	Building Material Analysis (BMA) devices using UWB technology
ECC/DEC/(06)12	Supplementary regulatory provisions to decision ECC/DEC/(06)04 for UWB devices using mitigation techniques
ECC/DEC/(06)08	The conditions for use of the radio spectrum by Ground- and Wall- probing radar (GPR/WPR) imaging systems
ECC/DEC/(06)04	The harmonised conditions for devices using Ultra-wideband (UWB) technology in bands below 10.6 GHz
ECC/DEC/(05)02	The use of the frequency band 169.4-169.8125 MHz
ECC/DEC(04)10	The frequency bands to be designated for the temporary introduction of Automotive Short Range Radars
ECC/DEC(04)08	The harmonised use of the 5 GHz frequency bands for the implementation of Wireless Access Systems including Radio Local Area Networks (WAS/RLANs)
ECC/DEC/(04)03	The frequency band 77 – 81 GHz to be designated for the use of Automotive Short Range Radars
ECC/DEC/(04)02	Non-specific Short Range Devices in the band 433.05-434.79 MHz
ECC/DEC/(04)01	Short Range Devices for detection of Avalanche Victims
ECC/DEC/(02)01	The frequency bands to be designated for the coordinated introduction of Road Transport and Traffic Telematic Systems.
ERC/DEC(01)02	Non-specific Short Range Devices in 26.957-27.283 MHz
ERC/DEC(01)03	Non-specific Short Range Devices in 40.660-40.700 MHz
ERC/DEC(01)07	Radio-LAN Short Range Devices in 2400-2483.5 MHz
ERC/DEC(01)08	Short Range Devices for Movement Detection and Alert in 2400-2483.5 MHz
ERC/DEC(01)10	Short Range Devices for Model control in 26.995, 27.045, 27.095, 27.145 and 27.195 MHz
ERC/DEC(01)11	Short Range Devices for Flying Model Control in 34.995-35.225 MHz
ERC/DEC(01)12	Short Range Devices for Model Control in 40.665, 40.675, 40.685 and 40.695 MHz
ERC/DEC(01)16	Short Range Devices for Inductive applications in 26.957-27.283 MHz
ERC/DEC(01)17	Short Range Devices for Medical Implants in 402-405 MHz

ECC/ERC Reports

ECC Report 001	Compatibility between inductive LF and HF RFID transponder and other radio communications systems in the frequency ranges 135-148.5 kHz, 4.78-8.78 MHz and 11.56-15.56 MHz
ECC Report 002	SAP/SAB (Incl. ENG/OB) spectrum use and future requirements
ECC Report 007	Compatibility between inductive LF RFID systems and radio communications systems in the frequency range 135 - 148.5 kHz
ECC Report 011	Strategic Plans for the future use of the frequency bands 862-870 MHz and 2400-2483.5 MHz for Short Range Devices
ECC Report 012	Ultra Low Power Active Medical Implant systems (ULP-AMI)
ECC Report 013	Adjacent band compatibility between Short Range Devices and TETRA TAPS mobile services at 870 MHz
ECC report 23	Compatibility of automotive collision warning short range radar operating at 24 GHz with FS, EESS and Radio Astronomy
ECC Report 024	PLT, DSL, CABLE communications (Including CABLE TV), LANS and their effect on radio services
ECC Report 037	Compatibility of planned SRD applications in 863-870 MHz
ECC Report 040	Adjacent band compatibility between CDMA-PAMR mobile services and Short Range Devices below 870 MHz
ECC Report 056	Compatibility of automotive collision warning short range radar operating at 79 GHz with radiocommunication services
ECC report 064	The protection requirements of radiocommunication systems below 10.6 GHz from generic UWB applications
ECC Report 055	Compatibility between existing and proposed SRDs and other radiocommunication applications in the 169.4-169.8 MHz frequency band. See supplementary excel spreadsheets in download
ECC Report 067	Compatibility study for generic limits for the emission levels of inductive SRDs below 30 MHz
ECC Report 068	Compatibility studies in the band 5725-5875 MHz between Fixed Wireless Access (FWA) systems and other systems
ECC Report 073	Compatibility of SRD in the FM radio broadcasting band
ECC Report 081	The coexistence between Ultra Low Power - Animal Implant Devices (ULP-AID) operating in the frequency band 12.5-20 MHz and existing radiocommunication systems
ECC Report 092	Coexistence between Ultra Low Power Active Medical Implants devices (ULP-AMI) and existing radiocommunication systems and services in the frequency bands 401–402 MHz and 405–406 MHz
ECC Report 094	Technical requirements for UWB LDC devices to ensure the protection of FWA systems
ECC Report 098	Studying the compatibility issues of the UIC EUROLOOP system with other systems in the frequency band 9.5 to 17.5 MHz

ECC Report 100	Compatibility studies in the band 3400- 3800 MHz between broadband wireless access (BWA) systems and other services
ECC Report 111	Compatibility studies between Ground Based Synthetic Aperture Radar (GBSAR) and existing services in the range 17.1 GHz to 17.3 GHz
ECC Report 113	Compatibility studies around 63 GHz between Intelligent Transport Systems (ITS) and other systems
ECC Report 114	Compatibility studies between multiple GIGABIT wireless systems in frequency range 57-66 GHz and other services and systems (except its in 63-64 GHz)
ECC Report 120	Technical requirements for UWB DAA (Detect And Avoid) devices to ensure the protection of radiolocation in the bands 3.1-3.4 GHz and 8.5-9 GHz and BWA terminals in the band 3.4-4.2 GHz
ERC Report 001	Harmonisation of frequency bands to be designated for Radio Local Area Networks (RLANs)
ERC Report 003	Harmonisation of frequency bands to be designated for road transport information systems (RTTT)
ERC Report 005	ERC Report on frequency bands for Low Power Devices
ERC Report 008	General methodology for assessing compatibility between Radio Local Area Networks (RLANs) and the fixed Service
ERC Report 014	Co-existence of radio local area networks with the microwave landing system
ERC Report 015	Compatibility study between radar and RLANs operating at frequencies around 5.5 GHz
ERC Report 042	Handbook on radio equipment and systems radio microphones and simple wide band audio links
ERC Report 044	ERC Report on sharing inductive systems and radiocommunication systems in the band 9-135 kHz
ERC Report 047	ERC Report on compatibility fixed services and motion sensors at 10.5 GHz
ERC Report 062	Compatibility analysis regarding possible sharing between the UIC system and radio microphones in the frequency ranges 876 - 880 MHz and 921 - 925 MHz
ERC Report 063	ERC Report on radio microphone applications in the frequency range 1785-1800 MHz
ERC Report 067	Study of the Frequency sharing between HIPERLANs and MSS feeder links in the 5 GHz band
ERC Report 069	ERC Report on propagation model and interference range calculation for inductive systems in 10 kHz – 30 MHz
ERC Report 072	Compatibility studies related to the possible extension band for HIPERLANs at 5 GHz
ERC Report 074	ERC Report on RFID and the radioastronomy services at 13 MHz
ERC Report 088	Compatibility and sharing analysis between DVB-T and radio microphones in bands IV and V
ERC Report 092	ERC Report on sharing inductive Short Range Devices and radio communication systems in 10.2-11 MHz
ERC Report 095	ERC Report on the use of 3155-3400 kHz for general inductive applications
ERC Report 096	ERC Report on the use of 290-300 kHz and 500-510 kHz for general inductive applications

ERC Report 098	ERC Report on compatibility of Short Range Devices at 900 MHz with adjacent services
ERC Report 109	Compatibility of Bluetooth with other existing and proposed radiocommunication systems in the 2.45 GHz frequency band

ETSI Standards including harmonised standards

ETSI standards consist of at least two parts, the last part will normally be harmonised under the R&TTE Directive. Further information can be found at http://europa.eu.int/comm/enterprise/rtte/harstand.htm

Generic standards

EN 300 220	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment to be used in the 25 MHz to 1000 MHz frequency range with power levels ranging up to 500 mW; Part 3: Harmonised EN covering essential requirements under article 3.2 of the R&TTE Directive
EN 300 330	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment in the frequency range 9 kHz to 25 MHz and inductive loop systems in the frequency range 9 kHz to 30 MHz; Part 2: Harmonised EN under article 3.2 of the R&TTE Directive
EN 300 440	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short range devices; Radio equipment to be used in the 1 GHz to 40 GHz frequency range; Part 2: Harmonised EN under article 3.2 of the R&TTE Directive

Specific standards

EN 300 328	Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband Transmission systems; Data transmission equipment operating in the 2.4 GHz ISM band and using spread spectrum modulation techniques; Part 2: Harmonised EN covering essential requirements under article 3.2 of the R&TTE Directive .
EN 300 422	Electromagnetic compatibility and Radio spectrum Matters (ERM); Wireless microphones in the 25 MHz to 3 GHz frequency range; Part 2: Harmonised EN under article 3.2 of the R&TTE Directive
EN 300 674	Electromagnetic Compatibility and Radio Spectrum Matters (ERM); Road Transport and Traffic Telematics (RTTT); Technical characteristics and test methods for Dedicated Short Range Communication (DSRC) transmission equipment (500 kbit/s / 250 kbit/s) operating in the 5.8 GHz Industrial, Scientific and Medical (ISM) band
EN 300 718	Electromagnetic compatibility and Radio spectrum matters (ERM); Avalanche Beacons; Transmitter-receiver systems; Part 3: Harmonised EN covering essential requirements of article 3.3e of the R&TTE Directive
EN 300 761	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Automatic Vehicle Identification (AVI) for railways operating in the 2.45 GHz frequency range; Part 2: Harmonised standard covering essential requirements under article 3.2 of the R&TTE Directive
EN 301 091	Electromagnetic Compatibility and Radio Spectrum Matters (ERM); Road Transport and Traffic Telematics (RTTT); Technical characteristics and test methods for radar equipment operating in the 76 GHz to 77 GHz band
EN 301 357	Electromagnetic compatibility and Radio spectrum Matters (ERM); Analogue cordless wideband audio devices using integral antennas operating in the CEPT recommended 863 MHz to 865 MHz frequency range; Part 2: Harmonised EN under article 3.2 of the R&TTE Directive
EN 301 839	Electromagnetic compatibility and Radio spectrum Matters (ERM); Radio equipment in the frequency range 402 MHz to 405 MHz for Ultra Low Power Active Medical Implants and Accessories; Part 2: Harmonised EN covering essential requirements of article 3.2 of the R&TTE Directive
EN 301 840	Electromagnetic compatibility and Radio Spectrum Matters (ERM); Digital radio microphones operating in the CEPT Harmonised band 1 785 MHz to 1 800 MHz; Part 2: Harmonised EN under article 3.2 of the R&TTE Directive
EN 301 893	Broadband Radio Access Networks (BRAN); 5 GHz high performance RLAN; Harmonised EN covering essential requirements of article 3.2 of the R&TTE Directive
EN 302 195	Electromagnetic compatibility and Radio spectrum Matters (ERM); Radio equipment in the frequency range 9 kHz to 315 kHz for Ultra Low Power Active Medical Implants (ULP-AMI) and accessories; Part 1: Technical characteristics and test methods
EN 302 208	Electromagnetic compatibility and Radio spectrum Matters (ERM); Radio Frequency Identification Equipment operating in the band 865 MHz to 868 MHz with power levels up to 2 W; Part 2: Harmonised EN under article 3.2 of the R&TTE Directive

EN 302 291	Close Range Inductive Data Communication equipment operating at 13.56 MHz; Part 2: Harmonised EN under article 3.2 of the R&TTE Directive
EN 302 372	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Equipment for Detection and Movement; Tanks Level Probing Radar (TLPR) operating in the frequency bands 5.8 GHz, 10 GHz, 25 GHz, 61 GHz and 77 GHz
EN 302 537	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Ultra Low Power Medical Data Service Systems operating in the frequency range 401 MHz to 402 MHz and 405 MHz to 406 MHz
EN 302 567	60 GHz Multiple-Gigabit WAS/RLAN Systems
ES 200 674	Electromagnetic compatibility and Radio spectrum Matters (ERM); Road Transport and Traffic Telematics (RTTT); Part 1: Technical characteristics and test methods for High Data Rate (HDR) data transmission equipment operating in the 5.8 GHz Industrial, Scientific and Medical (ISM) band

EC Decisions

Decision	Title
2008/673/EC	Amending Decision 2005/928/EC on the harmonisation of the 169,4-169,8125 MHz frequency band in the Community
2008/432/EC	Amending Decision 2006/771/EC on harmonisation of the radio spectrum for use by short-range devices
2007/346/EC	Granting a derogation requested by France pursuant to Decision 2006/804/EC on harmonisation of the radio spectrum for radio frequency identification (RFID) devices operating in the ultra high frequency (UHF) band
2007/131/EC	Allowing the use of the radio spectrum for equipment using Ultra-wideband technology in a harmonised manner in the community
2007/90/EC	Amending Decision 2005/513/EC on the harmonised use of radio spectrum in the 5 GHz frequency band for the implementation of Wireless Access Systems including Radio Local Area Networks (WAS/RLANs)
2006/804/EC	Harmonisation of the radio spectrum for radio frequency identification (RFID) devices operating in the ultra high frequency (UHF) band
2006/771/EC	Harmonisation of the radio spectrum for use by short-range devices
2005/928/EC	Harmonisation of the 169,4-169,8125 MHz frequency band in the Community
2005/513/EC	Harmonised use of radio spectrum in the 5 GHz frequency band for the implementation of wireless access systems including radio local area networks (WAS/RLANs)
2005/50/EC	The harmonisation of the 24 GHz range radio spectrum band for the time-limited use by Automotive Short-Range Radar equipment in the community
2004/545/EC	The harmonisation of radio spectrum in the 79 GHz range for the use of Automotive Short-Range Radar equipment in the community

Annex	Country	Restriction	Reason/remark
All Annexes			
	France	France does not recognise the former marking CEPT SRD Aa Y and CEPT RLAN Y recommended by T/R 01-04 and T/R 10-01 respectively. The free circulation and use of products bearing these old markings must then be confined to existing equipments and to countries which have already adopted these markings. The marking CEPT SRD Aa Y proposed by ERC/REC 70-03 will not be recognised in France. In any case in France marking issues are in line with the R&TTE Directive.	
	Germany		Clarification of the terms contained in the table reference to the German Telecommunications Act of 22 June 2004: The use of frequencies or frequency bands for the operation of transmitting equipment requires "frequency assignment". There are two types of frequency assignments: individual frequency assignments are granted upon application and correspond to "individual license required" within the meaning of CEPT/ERC/REC 70-03; general frequency assignments are granted ex officio by administrative act, published in the Federal Network Agency's Official Gazette and correspond to "individual license not required" within the meaning of CEPT/ERC/REC 70-03.
	Lithuania		The radio frequencies may be used without an individual authorisation in case the relevant radio frequency or radio frequencies band is included in the List of Radio Frequencies/Channels, which may be used without an Individual Authorisation, approved by Order No. 1V-27 of the Director of the Communications Regulatory Authority of 13 March 2003 (Official Gazette Valstybes zinios, Nr.30-1277, 2003). Radio equipment must conform to the requirements of the List.
	Moldova	Telecommunication equipment and cables are imported commercialized only on basis of conformity certificates issued by the Telecommunication Products Certification Body of Moldova and must be marked in Moldova. It is not permitted to utilise non-certificated and non-marked telecommunication equipment and cables. Subject to the above all SRD frequency bands with technical parameters indicated in ERC REC 70-03 are permitted on secondary basis.	In accordance with Law of Telecommunications of Republic of Moldova.
	Russian Federation	In accordance with the current National Frequency Allocation Table, different communication services, including special applications operate in frequency bands designated for SRD applications. All radiocommunication systems require individual license and authorisation for using certain radio frequencies, which is granted after conformity assessment procedures. All types of radio equipment requires national approval based on the national standard system (GOST) and issue of conformity certificate. Only equipment with national mark can be placed on the market in Russia.	
	Turkey		The short range and low powered devices under the scope of SRD Ordinance (enter into force 17 March 2007) can be used without any need to get the certificate, use permit and frequency registers on condition that they shall meet the determined conditions and be in accordance with the technical regulations specifications accepted by The Authority

Annex	Country	Restriction	Reason/remark
Annex 1 Band A			
Non Specific Short Range Devices 6765-6795 kHz			
	Russian Federation	No info	
Annex 1 Band E			
Non Specific Short Range Devices 138.20-138.45 MHz			
	Belgium	Not implemented	
	Croatia	Not implemented	
	Finland	Audio and voice not allowed	
	France	Not implemented	Exclusive defence systems
	Germany	Not implemented	Defence systems
	Hungary	Not implemented	Aeronautical mobile applications operate in the band
	Ireland	Not implemented	Planned; Notification in progress
	Italy	Not implemented	Military application
	Latvia	Not implemented	
	Liechtenstein	Not implemented	
	Poland	Not implemented	Defence systems
	Russian Federation	No info	
	Slovak Republic	Not implemented	Defence systems
	Slovenia	Not implemented	Not available
	Spain	Not implemented	Not implemented due to lack of demand
	Sweden	Not implemented	
	Switzerland	Not implemented	Exclusive defence systems
	The Netherlands	Not implemented	Exclusive defence systems
	Turkey	Not implemented	Defence systems
	United Kingdom	Not implemented	Not implemented due to lack of demand. Implementation under consideration
Annex 1 Band F			
Non Specific Short Range Devices 433.050-434.790 MHz			
	Finland	Audio and voice not allowed	
	France	No duty cycle limits Voice applications allowed	Conformity with ERC REC 70-03 in progress
	Hungary	Voice and audio applications are excluded	
	Italy	Audio applications are limited in the range 433.05-433.575 MHz with 12.5 or 25 kHz channel spacing	
	Liechtenstein	Audio and voice applications not allowed	
	Luxembourg	No audio and no voice	
	Russian Federation	Limited implementation	433.075-434.790 MHz. Possible use of low power stations and devices for processing of bar-codes
	Switzerland	Audio and voice applications not allowed	
Annex 1 Band F1			
Non Specific Short Range Devices 433.050-434.790 MHz			
	Finland	Audio and voice not allowed	
	France	No duty cycle limits voice applications	Conformity with ERC REC 70-03 in progress allowed
	Hungary	Voice and audio applications are excluded	
	Italy	Audio applications are limited in the range 433.050-433.575 MHz with 12.5 or 25 kHz channel spacing	
	Liechtenstein	Audio and voice applications not allowed	
	Luxembourg	No audio and no voice	
	Russian Federation	No info	
	Switzerland	Audio and voice applications not allowed	

Annex	Country	Restriction	Reason/remark
Annex 1 Band F2			
Non Specific Short Range Devices 434.040-434.790 MHz			
	Finland	Audio and voice signals not allowed	
	France	No duty cycle limits Voice applications	Conformity with ERC REC 70-03 in progress allowed
	Hungary	Voice and audio applications are excluded	
	Liechtenstein	Audio and voice applications not allowed	
	Luxembourg	No audio and no voice	
	Russian Federation	No info	
	Switzerland	Audio and voice applications not allowed	
Annex 1 Band G			
Non Specific Short Range Devices 863-870 MHz			
	Austria	Not implemented	Planned
	Belgium	Not implemented	
	France	Not implemented	
	Greece	Limited implementation	to 863-865 MHz
	Hungary	Voice and audio applications are excluded	
	Latvia	Not implemented	
	Lithuania	Not implemented	
	Norway	Not implemented	
	Russian Federation	Limited implementation	864-865 MHz with max e.r.p 25 mW, duty cycle 0.1% or LBT. Forbidden to use at the airports (aerodromes)
	Serbia & Montenegro	Not implemented	
	Slovak Republic	Not implemented	Under study
	Spain	Not implemented	Fixed Service
	Sweden	Not implemented	
	The Netherlands	Not implemented	Under study
Annex 1 Band G1			
Non Specific Short Range Devices 868.000-868.600 MHz			
	Russian Federation	No info	
Annex 1 Band G3			
Non Specific Short Range Devices 869.400-869.650 MHz			
	Italy	Max 25 mW e.r.p.	Defence systems
	Russian Federation	No info	
Annex 1 Band G4			
Non Specific Short Range Devices 869.700-870.000 MHz			
	Finland	Audio not allowed	
	Hungary	Audio applications are excluded	
	Russian Federation	No info	
Annex 1 Band H			
Non Specific Short Range Devices 2400.0-2483.5 MHz			
	Norway	Implemented	This subsection does not apply for the geographical area within a radius of 20 km from the centre of Ny-Ålesund
	Russian Federation		Bluetooth
Annex 1 Band I			
Non Specific Short Range Devices 5725-5875 MHz			
	Russian Federation	Limited	Antenna height should not exceed 5 m

Annex	Country	Restriction	Reason/remark
Annex 1 Band J			
Non Specific Short Range Devices 24.00-24.25 GHz			
	France	Power limited to 0.1 mW e.i.r.p.in frequency band 24.10 - 24.15 GHz	Military Radiolocation use. Operation by police forces of Radar Speed Meters
	Russian Federation	No info	
	United Kingdom	Only 24.150-24.250 GHz	To protect police speedmeters
Annex 1 Band K			
Non Specific Short Range Devices 61.0-61.5 GHz			
	Croatia	Not implemented	
	France	Not implemented	
	Russian Federation	No info	
	Slovak Republic	Not implemented	Standard not yet available
	Sweden	Not implemented	
Annex 1 Band L			
Non Specific Short Range Devices 122-123 GHz			
	Croatia	Not implemented	
	France	Not implemented	
	Ireland	Not implemented	Planned; Notification in progress
	Russian Federation	No info	
	Serbia & Montenegro	Not implemented	
	Slovak Republic	Not implemented	Standard not yet available
	Sweden	Not implemented	Under study
	United Kingdom	Not implemented	Not implementation due to lack of demand. Implementation under consideration
Annex 1 Band M			
Non Specific Short Range Devices 244-246 GHz			
	Croatia	Not implemented	
	France	Not implemented	
	Ireland	Not implemented	Planned; Notification in progress
	Russian Federation	No info	
	Serbia & Montenegro	Not implemented	
	Slovak Republic	Not implemented	Standard not yet available
	Sweden	Not implemented	Under study
	United Kingdom	Not implemented	Not implementation due to lack of demand. Implementation under consideration
Annex 2 Band A			
Tracking, Tracing and Data Acquisition 457 kHz			
	Latvia	Not implemented	
	Serbia & Montenegro	Not implemented	
Annex 2 Band B			
Tracking, Tracing and Data Acquisition 169.4-169.475 MHz			
	Austria	Not implemented	Planned
	Belgium	No info	
	Bulgaria	Not implemented	
	Croatia	Not implemented	
	Cyprus	Not implemented	Cyprus has implemented Decision 2005/928/EC
	Denmark	Not implemented	PMR band
	France	Not implemented	Planned
	Greece	Not implemented	
	Ireland	Not implemented	Planned; Notification in progress
	Latvia	No info	
	Liechtenstein	Not implemented	Under study
	Norway	Limited	Maximum radiated power = 10 mW
	Poland	Implemented	Implemented 169.4-169.425 MHz for meter reading

Annex	Country	Restriction	Reason/remark
	Romania	Not implemented	
	Russian Federation	No info	
	Serbia & Montenegro	No info	
	Switzerland	Not implemented	Under study
	The Netherlands	Implemented	channel spacing 12.5 kHz
Annex 2 Band C			
Tracking, Tracing and Data Acquisition 169.4-169.475 MHz			
	Austria	Not implemented	Planned
	Belgium	No info	
	Bulgaria	Not implemented	
	Croatia	Not implemented	
	Cyprus	Not implemented	Cyprus has implemented Decision 2005/928/EC
	Denmark	Not implemented	PMR band
	France	Not implemented	Planned
	Greece	Not implemented	
	Ireland	Not implemented	Planned; Notification in progress
	Latvia	No info	
	Liechtenstein	Not implemented	Under study
	Poland	Implemented	Implemented 169.425-169.475 MHz for asset tracking and tracing
	Romania	No info	
	Russian Federation	No info	
	Serbia & Montenegro	No info	
	Switzerland	Not implemented	Under study
	The Netherlands	Implemented	channel spacing 12.5 kHz
Annex 3 Band A			
Wideband Data Transmission systems 2400.0-2483.5 MHz			
	France	Outdoor use limited to 10 mW e.i.r.p. within the band 2454-2483.5 MHz	Military Radiolocation use. Refarming of the 2.4 GHz band has been ongoing in recent years to allow current relaxed regulation. Full implementation planned 2012
	Italy		For private use, a general authorisation is required if WAS/RLAN's are used outside own premises. For public use, a general authorisation is required
	Luxembourg	Implemented	General authorisation required for network and service supply
	Norway	Implemented	This subsection does not apply for the geographical area within a radius of 20 km from the centre of Ny-Ålesund
	Russian Federation		Only for indoor applications
Annex 3 Band B			
Wideband Data Transmission systems 5150-5250 MHz			
	Italy		For private use, a general authorisation is required if WAS/RLAN's are used outside own premises. For public use, a general authorisation is required
	Luxembourg	Implemented	General authorisation required for network and service supply
	Russian Federation	Limited	e.i.r.p 100 mW. Permitted to use only for indoor applications, closed industrial and warehouse areas, and on board aircraft
Annex 3 Band C			
Wideband Data Transmission systems 5250-5350 MHz			
	Italy		For private use, a general authorisation is required if WAS/RLAN's are used outside own premises. For public use, a general authorisation is required
	Luxembourg	Implemented	General authorisation required for network and service supply
	Russian Federation	Limited	e.i.r.p 100 mW. 1. Permitted to use for local networks of aircraft crew service communications on board aircraft in area of the airport and at all stages of flight. 2. Permitted to use for public wireless access local networks on board aircraft during a flight at the altitude not less than 3000 m
Annex 3 Band D			
Wideband Data Transmission systems			

Annex	Country	Restriction	Reason/remark
5470-5725 MHz			
	France		Relevant+ provisions for the implementation of DFS mechanism described in ETSI standard EN 301 893 V1.3.1 and subsequent versions
	Italy		For private use, a general authorisation is required if WAS/RLAN's are used outside own premises. For public use, a general authorisation is required
	Luxembourg	Implemented	General authorisation required for network and service supply
	Russian Federation	Limited implementation	5650-5825 MHz with e.i.r.p. 100 mW. Permitted to use on board aircraft during a flight at the altitude not less than 3000 m
	Turkey	Not implemented	Defence systems
Annex 3 Band E			
Wideband Data Transmission systems **17.1-17.3 GHz**			
	Belgium	Not implemented	
	Croatia	Not implemented	
	Czech Republic	Not implemented	Under study, other services in the band
	Cyprus	Not implemented	
	France	Not implemented	
	Germany	Not implemented	Equipment/Standard not yet developed
	Hungary	Planned	No equipment and standards are available
	Italy		A general authorisation is required if WAS/RLAN's are used outside own premises
	Luxembourg	Not implemented	
	Norway	Not implemented	
	Romania	Not implemented	
	Russian Federation	No info	
	Slovak Republic	Not implemented	Standard not yet available
	Slovenia	Not implemented	Not available
	Spain	Not implemented	Defence systems
	Sweden	Not implemented	
	Turkey	Not implemented	
	United Kingdom	Not implemented	
Annex 4 Band A			
Railway applications **2446-2454 MHz**			
	Cyprus	Not applicable	No railways
	Italy	Not implemented	
	Malta	Not implemented	Service not applicable to Malta
	Norway	Limited implementation	Given center frequencies 2447.0, 2448.5, 2450.0, 2451.5 and 2453.0 MHz
	Russian Federation	No info	
	Slovak Republic	Not implemented	Under study
	Spain	Not implemented	Not implemented due to lack of demand
	Sweden	Not implemented	License required – Defence systems
Annex 4 Band B			
Railway applications **27.095 MHz**			
	Cyprus	Not applicable	No railways
	Ireland	Limited implementation	Max mean e.i.r.p. density is limited to 10mW/MHz in any 1 MHz band, as per Commission Decision 2007/90/EC
	Malta	Not implemented	Service not applicable to Malta
	Russian Federation	No info	
	Sweden	Not implemented	27.115 MHz used as provided in EU legislation

Annex	Country	Restriction	Reason/remark
Annex 4 Band C			
Railway applications			
4234 kHz			
	Austria	Not implemented	Planned
	Belgium	No info	
	Bulgaria	Not implemented	Planned
	Croatia	Not implemented	
	Cyprus	Not applicable	
	Czech Republic	Not implemented	Under study
	Estonia	Not implemented	Under study
	France	Not implemented	
	Greece	Not implemented	
	Hungary	Not implemented	Planned
	Iceland	Not implemented	Under study
	Ireland	Not implemented	Planned; Notification in progress
	Italy	Not implemented	
	Latvia	No info	
	Lithuania	No info	
	Luxembourg	No info	
	Malta	Not implemented	Service not applicable to Malta
	Norway	Not implemented	
	Romania	Not implemented	
	Russian Federation	No info	
	Slovak Republic	No info	
	Slovenia	Not implemented	Not available
	Spain	Not implemented	Not implemented due to lack of demand
	Sweden	No info	
	The Netherlands	Not implemented	Under study
	Turkey	Under study	Planned 2009
Annex 4 Band D1			
Railway applications			
4516 kHz			
	Austria	Not implemented	Planned
	Belgium	No info	
	Bulgaria	Not implemented	Planned
	Croatia	Not implemented	
	Cyprus	Not applicable	
	Estonia	Not implemented	Under study
	France	Not implemented	
	Greece	Not implemented	
	Hungary	Not implemented	4515 kHz is allocated
	Iceland	Not implemented	Under study
	Latvia	No info	
	Lithuania	No info	
	Luxembourg	No info	
	Malta	Not implemented	Service not applicable to Malta
	Norway	Not implemented	4515 kHz is allocated
	Romania	Not implemented	
	Russian Federation	No info	
	Slovak Republic	No info	
	Slovenia	Not implemented	Planned: 4515 is allocated
	Spain	Not implemented	Not implemented due to lack of demand
	The Netherlands	Not implemented	4515 kHz implemented

Annex	Country	Restriction	Reason/remark
Annex 4 Band D2			
Railway applications			
11.1-16.0 MHz			
	Austria	Not implemented	Planned
	Belgium	No info	
	Bulgaria	Not implemented	Planned
	Croatia	Not implemented	
	Cyprus	Not applicable	
	Czech Republic	Not implemented	Under study
	Estonia	Not implemented	Under study
	France	Not implemented	
	Greece	Not implemented	
	Hungary	Not implemented	Planned
	Iceland	Not implemented	Under study
	Ireland	Not implemented	Planned; Notification in progress
	Italy	Not implemented	
	Latvia	No info	
	Liechtenstein	Not implemented	Under study
	Lithuania	No info	
	Luxembourg	No info	
	Malta	Not implemented	Service not applicable to Malta
	Norway	Not implemented	
	Romania	Not implemented	
	Russian Federation	No info	
	Slovak Republic	No info	
	Slovenia	Not implemented	Not available
	Spain	Not implemented	Not implemented due to lack of demand
	Sweden	No info	
	The Netherlands	Not implemented	Under study
	Turkey	Under study	Planned 2009
Annex 5 Band A			
RTTT			
5795-5805 MHz			
	France	Limited to automatic toll collection. Power limited to 2 W e.i.r.p.	Military Radiolocation and Meteorological use
	Ireland	Limited implementation	8W system not implemented
	Liechtenstein	Power limited to 2 W e.i.r.p.	Annex has two levels. Lower level is implemented
	Malta	Limited implementation	Power limited to 2 W e.i.r.p. as per the lower limit of the Annex
	Norway	Limited implementation	Individual license required
	Romania	Not implemented	Under study
	Russian Federation	No info	
	Switzerland	Power limited to 2 W e.i.r.p.	Annex has two levels. Lower level is implemented to protect defence systems
	United Kingdom	Only 2 W permitted	Annex has two levels– the UK has only implemented the lower level to protect programme making video links
Annex 5 Band B			
RTTT			
5805-5815 MHz			
	Croatia	Not implemented	Individual license required
	France	Not implemented	
	Ireland	Limited implementation	8W system not implemented
	Liechtenstein	Power limited to 2 W e.i.r.p. For road toll systems only	Annex has two levels. Lower level is implemented
	Malta	Limited implementation	Power limited to 2 W e.i.r.p. as per the lower limit of the Annex
	Norway	Limited implementation	Individual license required
	Romania	Not implemented	Under study
	Russian Federation	No info	

Annex	Country	Restriction	Reason/remark
	Switzerland	Power limited to 2 W e.i.r.p. For road toll systems only	Annex has two levels. Lower level is implemented
	United Kingdom	Only 2 W permitted	Annex has two levels – the UK has only implemented the lower level to protect programme making video links
Annex 5 Band C **RTTT** **63-64 GHz**			
	Croatia	Not implemented	License required
	Estonia	Power limited to 2 W e.i.r.p	
	Germany	Not implemented	Equipment/standard not yet developed
	France	Not implemented	
	Liechtenstein	Not implemented	Under study. No standard available
	Poland	Not implemented	Equipment/standard not yet developed
	Romania	Not implemented	
	Russian Federation	No info	
	Slovak Republic	Not implemented	Standard not yet available
	Sweden	Not implemented	Equipment/standard not available
	Switzerland	Not implemented	Under study. No standard available
	Turkey	Under study	Planned 2009
	United Kingdom	Planned	Planned to be permitted as part of the ITS Decision
Annex 5 Band D **RTTT** **76-77 GHz**			
	Croatia	Not implemented	
	Russian Federation	No info	
Annex 6 Band A **Radiodetermination applications** **2400.0-2483.5 MHz**			
	France	Outdoor use limited to 10 mW e.i.r.p. within the band 2454-2483.5 MHz.	Military Radiolocation use. Refarming of the 2.4 GHz band has been ongoing in recent years to allow current relaxed regulation. Full implementation planned 2012
	Russian Federation	Limited implementation	5795-5815 MHz with e.r.p. 200 mW. An authorisation for using radio frequencies or channels should too be obtained in established order
	Spain	Not implemented	Not implemented due to lack of demand
Annex 6 Band B **Radiodetermination applications** **9200-9500 MHz**			
	Finland	Not implemented	
	France	Not implemented	
	Italy	Not implemented	
	Russian Federation	Limited implementation	5795-5815 MHz with e.r.p. 200 mW. An authorisation for using radio frequencies or channels should too be obtained in established order
	Serbia & Montenegro	Not implemented	
	Spain	Not implemented	Defence systems
	Sweden	Not implemented	
	United Kingdom	Limited implementation - may be used for Radar Level Gauges only	
Annex 6 Band C **Radiodetermination applications** **9500-9975 MHz**			
	France	Limited to 9.88-9.92 with max e.i.r.p. 50 mW	
	Germany	Not implemented	Defence systems
	Latvia	Not implemented	Under study
	Russian Federation	No info	
	Serbia & Montenegro	Not implemented	
	Slovak Republic	Not implemented	Defence systems
	Spain	Not implemented	Defence systems
	Sweden	Not implemented	

Annex	Country	Restriction	Reason/remark
	United Kingdom	Limited implementation - may be used for Radar Level Gauges only	
Annex 6 Band D			
Radiodetermination applications 10.5-10.6 GHz			
	Austria	Not implemented	Fixed Service
	Czech Republic	Not implemented	Other service in the band
	Estonia	Not implemented	FWA
	Finland	Not implemented	10.45-10.50 GHz available
	France	Limited to 10.57-10.61 with max e.i.r.p. 20 mW	
	Germany	Not implemented	ENG/OB video links equipment
	Hungary	e.i.r.p. 25 mW. ENG/OB systems are protected	
	Ireland	Limited implementation	Max power limitation of 25 mW to protect Fixed Wireless Access Local Area Service operating in the 10.5 GHz band
	Luxembourg	Limited to 25 mW	Reason: To avoid interference with other services
	Russian Federation	Not implemented	Under study
	Slovak Republic	Not implemented	Fixed Service
	Spain	Not implemented	Not implemented due to lack of demand
	Sweden	Limited to 10.51-10.58 GHz	
	Turkey	Not implemented	Fixed Service and radiolocation
	United Kingdom	Limited implementation to 10.577-10.597 GHz. May also be used for Radar Level Gauges	The UK is developing Point to Point and Point to Area services in the band below 10.575 GHz
Annex 6 Band E			
Radiodetermination applications 13.4-14.0 GHz			
	France	Not implemented	
	Russian Federation	No info	
	Spain	Not implemented	Not implemented due to lack of demand
	Sweden	Not implemented	
Annex 6 Band F			
Radiodetermination applications 24.05-24.25 GHz			
	France	No restriction for fixed applications. Power limited otherwise to 0.1 mW e.i.r.p. in frequency band 24.10 - 24.15 GHz. Alternatively for FMCW modulation, the following conditions are also allowed: power limited to 20 mW (+13 dBm) mean e.i.r.p. and 50 mW (+17 dBm) peak e.i.r.p. with a minimum frequency sweep speed of 5 MHz per millisecond.	forces of Radar Speed Meters.
	Russian Federation		1. The equipment for detecting movement should be installed along roads at 4 m distance from controlled part of road. 2. The installation of equipment for detecting movement should be performed perpendicularly to movement direction of one- or multilane road with permissible deviation ±15 degrees. 3. The installation height of equipment for detecting movement should not exceed 5m above a road. 4. The tilt angle of the main beam should be minus 20 degrees or less
	Spain	Not implemented	Not implemented due to lack of demand
	United Kingdom	Limited implementation	To protect police speedmeters devices operating in 24.05-24.15 GHz must employ a 2 MHz/mS minimum sweep rate
Annex 6 Band G			
Radiodetermination applications 4.5-7.0 GHz			
	Austria	Not implemented	Under study
	Belgium	No info	
	Bulgaria	Not implemented	Planned
	Croatia	Not implemented	
	Czech Republic	Not implemented	Planned 2008
	Estonia	Not implemented	Under study
	France	Not implemented	Planned

Annex	Country	Restriction	Reason/remark
	Greece	Not implemented	
	Hungary	Not implemented	Planned
	Iceland	Not implemented	Under study
	Ireland	Not implemented	Planned; Notification in progress
	Italy	Not implemented	
	Latvia	No info	
	Lithuania	No info	
	Malta	Not implemented	
	Norway	Not implemented	
	Romania	Not implemented	
	Russian Federation	No info	
	Slovak Republic	No info	
	Spain	Not implemented	Defence systems
	The Netherlands	Not implemented	Under study
	Turkey	Under study	Planned 2009
	United Kingdom	Planned	Planned implementation as part of the revision of the EC SRD Decision in 2009

Annex 6 Band H

Radiodetermination applications
8.5-10.6 GHz

	Austria	Not implemented	Under study
	Belgium	No info	
	Bulgaria	Not implemented	Planned
	Croatia	Not implemented	
	Czech Republic	Not implemented	Planned 2008
	Estonia	Not implemented	Under study
	France	Not implemented	Planned
	Greece	Not implemented	
	Hungary	Not implemented	Planned
	Iceland	Not implemented	Under study
	Ireland	Not implemented	Planned; Notification in progress
	Italy	Not implemented	
	Latvia	No info	
	Lithuania	No info	
	Malta	Not implemented	
	Norway	Not implemented	
	Romania	Not implemented	
	Russian Federation	No info	
	Slovak Republic	No info	
	Spain	Not implemented	Not implemented due to lack of demand
	The Netherlands	Not implemented	Under study
	Turkey	Under study	Planned 2009
	United Kingdom	Planned	Planned implementation as part of the revision of the EC SRD Decision in 2009

Annex 6 Band I

Radiodetermination applications
24.05-27.0 GHz

	Austria	Not implemented	Under study
	Belgium	No info	
	Bulgaria	Not implemented	Planned
	Croatia	Not implemented	
	Czech Republic	Not implemented	Planned 2008
	Estonia	Not implemented	Under study
	France	Not implemented	Planned
	Greece	Not implemented	
	Hungary	Not implemented	Planned
	Iceland	Not implemented	Under study
	Ireland	Not implemented	Planned; Notification in progress
	Italy	Not implemented	
	Latvia	No info	
	Lithuania	No info	
	Malta	Not implemented	
	Norway	Not implemented	
	Romania	Not implemented	
	Russian Federation	No info	

Annex	Country	Restriction	Reason/remark
	Slovak Republic	No info	
	Slovenia	Not implemented	Planned
	Spain	Not implemented	Not implemented due to lack of demand
	The Netherlands	Not implemented	Under study
	Turkey	Under study	Planned 2009
	United Kingdom	Planned	Planned implementation as part of the revision of the EC SRD Decision in 2009

Annex 6 Band J

Radiodetermination applications
57-64 GHz

	Austria	Not implemented	Under study
	Belgium	No info	
	Bulgaria	Not implemented	Planned
	Croatia	Not implemented	
	Czech Republic	Not implemented	Planned 2008
	Estonia	Not implemented	Under study
	France	Not implemented	Planned
	Greece	Not implemented	
	Hungary	Not implemented	Planned
	Iceland	Not implemented	Under study
	Ireland	Not implemented	Planned; Notification in progress
	Italy	Not implemented	
	Latvia	No info	
	Lithuania	No info	
	Malta	Not implemented	
	Norway	Not implemented	
	Romania	Not implemented	
	Russian Federation	No info	
	Slovak Republic	No info	
	Slovenia	Not implemented	Planned
	Spain	Not implemented	Not implemented due to lack of demand
	The Netherlands	Not implemented	Under study
	Turkey	Under study	Planned 2009
	United Kingdom	Planned	Planned implementation as part of the revision of the EC SRD Decision in 2009

Annex 6 Band K

Radiodetermination applications
75-85 GHz

	Austria	Not implemented	Under study
	Belgium	No info	
	Bulgaria	Not implemented	Planned
	Croatia	Not implemented	
	Czech Republic	Not implemented	Planned 2008
	Estonia	Not implemented	Under study
	France	Not implemented	Planned
	Greece	Not implemented	
	Hungary	Not implemented	Planned
	Iceland	No info	
	Ireland	Not implemented	Planned; Notification in progress
	Italy	Not implemented	
	Latvia	No info	
	Lithuania	No info	
	Malta	Not implemented	
	Norway	Not implemented	
	Romania	Not implemented	
	Russian Federation	No info	
	Slovak Republic	No info	
	Slovenia	Not implemented	Planned
	Spain	Not implemented	Not implemented due to lack of demand
	The Netherlands	Not implemented	Under study
	Turkey	Under study	Planned 2009
	United Kingdom	Planned	Planned implementation as part of the revision of the EC SRD Decision in 2009

Annex 6 Band L

Annex	Country	Restriction	Reason/remark
Radiodetermination applications 17.1-17.3 GHz			
	Austria	Not implemented	
	Belgium	No info	
	Bulgaria	Not implemented	Planned
	Croatia	Not implemented	
	Cyprus	Not implemented	
	Czech Republic	Not implemented	Under study
	Estonia	Not implemented	Under study
	France	No info	
	Greece	Not implemented	
	Hungary	Not implemented	Planned
	Iceland	No info	
	Ireland	Not implemented	
	Italy	Not implemented	Under study
	Latvia	No info	
	Lithuania	No info	
	Luxembourg	Not implemented	
	Malta	Not implemented	
	Norway	No info	
	Poland	Not implemented	
	Portugal	Not implemented	Under study
	Romania	No info	
	Russian Federation	No info	
	Serbia & Montenegro	No info	
	Slovak Republic	No info	
	Slovenia	Not implemented	Planned
	Spain	Not implemented	Defence systems
	Switzerland	License required and location coordination	Other service with primary status in this band
	The Netherlands	Not implemented	Under study
	Turkey	Not implemented	Not available
	United Kingdom	Planned	Planned implementation as part of the revision of the EC SRD Decision in 2009
Annex 7 Band A			
Alarms 868.600-868.700 MHz			
	France	Duty cycle limited to 0.1%	
	Russian Federation	Limited implementation	868-868.2 MHz
Annex 7 Band B			
Alarms 869.250-869.300 MHz			
	Russian Federation	No info	
Annex 7 Band C			
Alarms 869.650-869.700 MHz			
	Russian Federation	No info	
	Slovak Republic	Max 10 mW e.r.p.	Defence systems
Annex 7 Band D			
Alarms 869.200-869.250 MHz			
	Russian Federation	No info	

Annex	Country	Restriction	Reason/remark
Annex 7 Band E			
Alarms			
869.300-869.400 MHz			
(Technical parameters have been changed)			
	Czech Republic		Intended for all non-specific SRD
	France	Not implemented	
	Greece	Not implemented	
	Latvia	Not implemented	
	Lithuania	Not implemented	
	Russian Federation	No info	
	Serbia & Montenegro	Not implemented	
	Slovenia	Not implemented	Planned
	Sweden	Not implemented	
Annex 7 Band F			
Alarms			
169.4750-169.4875 MHz			
	Austria	Not implemented	Planned
	Bulgaria	Not implemented	
	Croatia	Not implemented	
	Cyprus	Not implemented	Cyprus has implemented Decision 2005/928/EC
	Denmark	Not implemented	PMR band
	France	Not implemented	Planned
	Greece	Not implemented	
	Latvia	Not implemented	
	Liechtenstein	Limited implementation	A paging system is active in the adjacent channel
	Norway	Limited implementation	Restriction 169.481250 MHz. Given center frequency
	Poland	Implemented	Social alarms
	Russian Federation	No info	
	Serbia & Montenegro	Not implemented	
	Switzerland	Geographical restriction	A paging system is active in the adjacent channel in a part of Switzerland
Annex 7 Band G			
Alarms			
169.5875-169.6000 MHz			
	Austria	Not implemented	Planned
	Bulgaria	Not implemented	
	Croatia	Not implemented	
	Cyprus	Not implemented	Cyprus has implemented Decision 2005/928/EC
	Denmark	Not implemented	PMR band
	France	Not implemented	Planned
	Greece	Not implemented	
	Iceland	Not Implemented	Planned
	Latvia	Not implemented	
	Norway	Limited implementation	Restriction 169.593750 MHz. Given center frequency
	Poland	Implemented	Social alarms
	Russian Federation	No info	
	Serbia & Montenegro	Not implemented	
	Switzerland	Geographical restriction	Another system is active in a part of Switzerland
Annex 8 Band A			
Model Control			
26.995, 27.045, 27.095, 27.145, 27.195 MHz			
	Russian Federation	Limited implementation	26.957-27.283 MHz Power limited to 10 mW, channel spacing 50 kHz

Annex	Country	Restriction	Reason/remark
Annex 8 Band B			
Model Control 34.995-35.225 MHz			
	France	Under study	Dedicated networks for Ministry of transport.
	Germany	Limited to 35.005-35.205 MHz	Emergency services
	Norway	Limited implementation	Given center frequencies (35.000-35.010-35.020 MHz etc.)
	Russian Federation	No info	
	Spain	Limited implementation	to 35.030-35.200 MHz
Annex 9 Band AB			
Inductive applications 59.750-60.250 kHz			
	Spain	No restriction	Magnetic field 72 dBµA/m at 10 m
Annex 9 Band AC			
Inductive applications 60.250-70.000 kHz			
	Spain	No restriction	Magnetic field 72 dBµA/m at 10 m
Annex 9 Band C			
Inductive applications 119-135 kHz			
	Germany	Within 119-127 kHz max field strength of 66 dBµA/m at 10 metres, within 127-135 kHz max field strength is 42 dBµA/m at 10 metres. Reason for this restriction is the protection of the application "radio ripple control" in the primary Fixed Service. The length of any antenna loop element shall be <30 m	Applications within the Fixed Service
Annex 9 Band C1			
Inductive applications 135-140 kHz			
	Greece	Not implemented	
	Latvia	Not implemented	
	Russian Federation	No info	
Annex 9 Band C2			
Inductive applications 140.0-148.5 kHz			
	Greece	Not implemented	
	Latvia	Not implemented	
	Russian Federation	No info	
	Spain	Not implemented	Not implemented due to lack of demand
Annex 9 Band E			
Inductive applications 7400-8800 kHz			
	Spain	No restriction	Frequency band 7350-8800 kHz
Annex 9 Band F1			
Inductive applications 13.553-13.567 MHz			
	Belgium	Not implemented	
	Latvia	Not implemented	
	Lithuania	Not implemented	Under study
	Norway	Not implemented	

Annex	Country	Restriction	Reason/remark
Annex 9 Band H			
Inductive applications			
10.200-11.000 MHz			
	Austria	Not implemented	Planned
	Belgium	Not implemented	
	Latvia	Not implemented	
	Lithuania	Not implemented	Under study
	Norway	Not implemented	
	Russian Federation	No info	
	Serbia & Montenegro	Not implemented	
Annex 9 Band K			
Inductive applications			
3155-3400 kHz			
	Latvia	Not implemented	
	Norway	Not implemented	
	Russian Federation	No info	
	Serbia & Montenegro	Not implemented	
	Spain	Not implemented	Not implemented due to lack of demand
Annex 9 Band L1			
Inductive applications			
148.5 kHz-5 MHz			
	Austria	Limited implementation	to the band 148.5 – 1600 kHz. Extension to 5 MHz planned
	Belgium	No info	
	Bulgaria	Limited implementation	148.5-1600 kHz band is allocated 1600-5000 kHz band is planned
	France	Not implemented	Planned
	Greece	Not implemented	
	Ireland	Not implemented	Planned; Notification in progress
	Hungary	Limited implementation	148.5-1600 kHz band is open / 1600-5000 kHz band is planned
	Latvia	No info	
	Lithuania	No info	
	Poland	Limited implementation	Implemented 148.5 kHz – 1.6. MHz
	Romania	Not implemented	
	Russian Federation	No info	
	Serbia & Montenegro	No info	
	Slovak Republic	No info	
Annex 9 Band L2			
Inductive applications			
5-30 MHz			
	Austria	Not implemented	Planned
	Belgium	No info	
	Bulgaria	Not implemented	Planned
	France	Not implemented	Planned
	Greece	Not implemented	
	Hungary	Not implemented	5000-30000 kHz band is planned
	Ireland	Not implemented	Planned; Notification in progress
	Latvia	No info	
	Lithuania	No info	
	Poland	Not implemented	
	Romania	Not implemented	
	Russian Federation	No info	
	Serbia & Montenegro	No info	
	Slovak Republic	No info	
	Spain	Not implemented	Not implemented due to lack of demand

Annex	Country	Restriction	Reason/remark
Annex 9 Band L3			
Inductive applications			
400-600 kHz			
	Austria	Not implemented	Planned
	Belgium	No info	
	France	Not implemented	Planned
	Greece	Not implemented	
	Hungary	Not implemented	Planned
	Ireland	Not implemented	Planned; Notification in progress
	Latvia	No info	
	Lithuania	No info	
	Norway	Not implemented	
	Poland	Not implemented	
	Romania	Not implemented	
	Russian Federation	No info	
	Serbia & Montenegro	No info	
	Slovak Republic	No info	
	Spain	Not implemented	Not implemented due to lack of demand
Annex 10 Band A			
Radio Microphones and Assistive Listening Devices			
29.7-47.0 MHz			
	Austria	Limited implementation	only the frequencies 36.8, 36.85, 37.45, 37.50-37.55 MHz for narrow band and 36.7-37.1-44.55-45.0 MHz for broadband radio microphones are available
	Croatia	Not implemented	
	Czech Republic	Four sub-bands allowed	27.415-27.915 MHz 10 mW e.r.p. max 50 kHz 36.4-36.65 MHz 10 mW e.r.p. max 50 kHz 36.65-38 MHz 2 mW e.r.p. channel max 50 kHz 38-38.5 MHz 10 mW e.r.p. channel max 200 kHz
	Estonia	Limited to 37.6-38.6 MHz	Land mobile
	Finland	Limited implementation	only 31.1, 32.1, 32.9, 33.5, 36.7, 37.1 and 42.4-43.6 MHz with max 200 kHz channels
	France	Limited implementation	to 32.8, 36.4, 39.2 MHz 1 mW e.r.p. and 200 kHz
	Germany	Limited implementation	to 32.4-38.2 MHz. Permitted channel spacing 10 kHz below 36 MHz and 40 kHz above 36 MHz
	Greece	Limited implementation	to 30.00 MHz, 30.50 MHz, 31.00 MHz, 35.00 MHz, 36.50 MHz, 36.70 MHz, 37.00 MHz, 37.10 MHz, 37.50 MHz
	Hungary	Limited implementation	34.9-38.5 MHz band is allocated
	Ireland	Not implemented	Planned; Notification in progress
	Italy	Limited to 41-43.6 MHz	Military application
	Latvia	Not implemented	
	Liechtenstein	Limited implementation	to 31.4-39.6 MHz
	Luxembourg	Limited implementation	excluding the use of the band 34.995-35.225 MHz
	Malta	Limited implementation	to 29.7-34.9 and 37.5-40.98 MHz
	Norway	Limited implementation	to 41.0-43.6 MHz max channel spacing 10 kHz. Max 100 mW e.r.p. AM not allowed
	Portugal	Not implemented	Defence systems
	Romania	Not implemented	
	Russian Federation	Limited implementation	Hearing and speech training radio devices for persons with speech defects. Power limited to 10 mW.
		Fixed frequencies in the bands 33.175-40MHz and 40.025-48.5 MHz: 33.2, 33.35, 33.45, 33.55, 33.575, 33.6, 33.75, 33.85, 33.875, 33.9, 34.05, 34.15, 34.175, 34.2, 34.3, 34.375, 34.4, 34.975, 35.025, 35.15, 35.225, 35.375, 35.55, 35.65, 35.95, 35.975, 36.025, 36.075, 36.125, 36.175, 36.225, 36.275, 36.325, 36.375, 36.425, 36.475, 36.525, 36.575, 36.625, 36.675, 36.725, 36.775, 36.825, 36.875, 36.925, 36.975, 37.025, 37.075, 37.125, 37.175, 37.225, 37.275, 37.325, 37.375, 37.425, 37.475, 37.525, 37.575, 37.625, 37.675, 37.725, 37.775, 37.825, 37.875, 37.925, 37.975, 38.025, 38.075, 38.125, 38.175, 38.225, 38.275, 38.325, 38.375, 38.425, 38.475, 38.525, 38.575, 38.625, 38.675, 38.725, 38.775, 39.025, 39.225, 39.400, 39.6, 39.75, 39.85, 39.925, 39.975, 40.05, 40.15, 40.25, 40.325, 40.425, 40.65, 40.825, 41.3, 41.325, 41.35, 41.375, 41.4, 41.5, 41.6, 41.625, 41.65, 41.675, 41.7, 41.75, 41.8, 41.9, 41.95, 42.1, 42.15, 42.2, 42.25, 42.35, 42.45, 42.475, 42.5, 42.525, 42.55, 42.575, 42.6, 42.625, 42.65, 42.675, 42.7, 42.725, 42.75, 42.8, 42.85, 42.95, 42.975, 43, 43.15, 43.175, 43.2, 43.225, 43.25, 43.4, 43.5, 43.7, 43.725, 43.75, 43.8, 44, 44.25, 44.4, 44.475, 44.5, 44.65, 44.75, 44.975, 45, 45.25, 45.45, 45.475, 45.5, 45.65, 45.75, 45.8, 45.95, 45.975, 46, 46.125. 46.175, 46.225, 46.425, 46.45, 46.475, 46.55, 46.575, 46.6, 46.65, 46.675, 46.7, 46.775, 46.8, 46.825, 46.85, 46.875, 46.925, 46.95, 46.975, 47, 47.075, 47.125, 47.25 MHz	
	Slovak Republic	Limited to 27.75-27.9 and 36.4-38.5 MHz	Defence systems in the rest of the band

Annex	Country	Restriction	Reason/remark
	Spain	Limited implementation	to 31.500, 31.750, 37.850, 38.300 and 38.550 MHz
	Sweden	Limited to 41.0-43.6 MHz	Land Mobile
	Switzerland	Limited to 31.4-39.6 MHz	Main use by defence systems
	United Kingdom	Not implemented	26 countries have restrictions here. Many could be removed if licensing was specified in the Annex

Annex 10 Band B

Radio Microphones and Assistive Listening Devices
173.965-174.015 MHz

Austria	Not implemented	Planned
Belgium	Not implemented	
Bulgaria	Limited implementation	Limited to 174.000-174.015 MHz
Croatia	Not implemented	
Denmark	Not implemented	PMR band
Finland	Individual license require Regional restrictions	PMR and broadcasting usage
France	Not implemented	Governmental band
Greece	Not implemented	
Ireland	Not implemented	Planned; Notification in progress
Liechtenstein	Not implemented	Occupied with mobile services
Norway	Limited implementation	to 173.8125, 173.8375, 173.8625, 173.8875, 173.9125, 173.9375, 173.9625, 173.9875 MHz
Poland	Not implemented	Government band
Russian Federation	No info	
Spain	Not implemented	Not implemented due to lack of demand
Sweden	Not implemented	Land Mobile
Switzerland	Not implemented	Closely occupied with mobile services

Annex 10 Band C

Radio Microphones and Assistive Listening Devices
863-865 MHz

Croatia	Not implemented	
Ireland	Implemented	Channel spacing of 200 kHz
Russian Federation	No info	

Annex 10 Band D

Radio Microphones and Assistive Listening Devices
174-216 MHz

Austria	Not implemented	Planned
Croatia	Not implemented	
Denmark	Limited implementation	
Finland	Regional restrictions	
France	175.5-178.5 and 183.5-186.5 MHz with 10 mW e.r.p. and 200 kHz channel spacing	
Ireland	Not implemented	
Latvia	Not implemented	Under study
Malta	Not implemented	
Norway	Not implemented	
Romania	Not implemented	
Russian Federation	Limited implementation	174-230 MHz. Power limited to 5 mW
Spain	Limited to 174.100, 174.300, 175.500, 176.300, 179.300, 188.100, 188.500, 189.100, 191.900 and 194.500 MHz	
The Netherlands	Implemented	License exempted

Annex	Country	Restriction	Reason/remark
Annex 10 Band E			
Radio Microphones and Assistive Listening Devices 470-862 MHz			
	Denmark	Limited	to 800.100-819.900 MHz
	Finland	Only 790.100-821.900 and 854-862 MHz Individual licence required	
	France	Limited implementation	to 470-830 MHz
	Germany	Sub-bands 608-614 MHz (TV ch 38) and 814-838 MHz (TV ch 64-66) excluded	Radio Astronomy, defence systems
	Greece	10 mW e.r.p.	Partly implemented 470-838 MHz Not implemented 838-862 MHz
	Ireland	Not implemented	
	Italy	Limited to 854 MHz	Military application
	Latvia	Not implemented	Under study
	Malta	Limited implementation	to 854-862 MHz
	Norway	Limited implementation	to 800-820 MHz max 20 mW e.r.p.
	Romania	Not implemented	
	Russian Federation	Limited implementation	470-638 and 710-726 MHz. Power limited to 5 mW
	Spain	Not implemented	Only broadcasting TV in this band
	The Netherlands	Implemented	License exempted
	Ukraine	Individual license required	
Annex 10 Band F			
Radio Microphones and Assistive Listening Devices 1785-1795 MHz			
	Austria	Limited implementation	to the band 1785.7 - 1795 MHz
	Belgium	No info	
	Czech Republic	See remark	Individual license required
	France	Limited implementation	Body worn equipment permitted with max 50 mW e.r.p. Power otherwise limited to 10 mW e.r.p.
	Italy	Not implemented	Military application
	Ireland	Not implemented	All island WAPECS licence in operation
	Latvia	No info	
	Lithuania	No info	
	Malta	Not implemented	Planned
	Romania	Not implemented	
	Russian Federation	No info	
	Serbia & Montenegro	No info	
	Slovak Republic	No info	
	Sweden	No info	
	The Netherlands	Implemented	max 50 mW e.r.p. Channel spacing 600 kHz
	United Kingdom	Limited implementation	
Annex 10 Band G			
Radio Microphones and Assistive Listening Devices 1795-1800 MHz			
	Austria	Limited implementation	to the band 1795 - 1799.4 MHz
	Belgium	No info	
	Croatia	Not implemented	
	Czech Republic	See remark	Individual license required
	Finland	Not implemented	
	France	Limited	Body worn equipment permitted with max 50 mW e.r.p. Power otherwise limited to 10 mW e.r.p.
	Italy	Not implemented	Military application
	Ireland	Not implemented	All island WAPECS licence in operation
	Latvia	No info	
	Lithuania	No info	
	Malta	Not implemented	Planned
	Romania	Not implemented	
	Russian Federation	No info	
	Serbia & Montenegro	No info	
	Slovak Republic	No info	
	Sweden	No info	
	The Netherlands	Implemented	max 50 mW e.r.p. Channel spacing 600 kHz

Annex	Country	Restriction	Reason/remark
	United Kingdom	Limited implementation	

Annex 10 Band H1

Radio Microphones and Assistive Listening Devices
169.4000-169.4750 MHz

Austria	Not implemented	Planned
Belgium	No info	
Bulgaria	Not implemented	
Croatia	Not implemented	
Cyprus	Not implemented	Cyprus has implemented Decision 2005/928/EC
Denmark	Not implemented	PMR band
France	Not implemented	Planned
Germany	Not implemented	Planned
Greece	Not implemented	
Ireland	Not implemented	Planned; Notification in progress
Latvia	No info	
Liechtenstein	Shared with paging services	Interference from paging services possible
Lithuania	No info	
Romania	Not implemented	
Russian Federation	No info	
Serbia & Montenegro	No info	
Slovak Republic	No info	
Switzerland	Shared with paging services	Interference from paging services possible

Annex 10 Band H2

Radio Microphones and Assistive Listening Devices
169.4875-169.5875 MHz

Austria	Not implemented	Under study not available / PMR use
Belgium	No info	
Bulgaria	Not implemented	
Croatia	Not implemented	
Cyprus	Not implemented	Cyprus has implemented Decision 2005/928/EC
Denmark	Not implemented	PMR band
France	Not implemented	Planned
Greece	Not implemented	
Iceland	Not implemented	Planned
Ireland	Not implemented	Planned; Notification in progress
Latvia	No info	
Liechtenstein	Shared with paging services	Interference from paging services possible
Romania	Not implemented	
Russian Federation	No info	
Serbia & Montenegro	No info	
Slovak Republic	No info	
Switzerland	Shared with paging services/ Geographical restriction	Interference from paging services possible

Annex 10 Band I

Radio Microphones and Assistive Listening Devices
169.4-174.0 MHz

Austria	Not implemented	implementation depends on market demand
Belgium	Not implemented	
Bulgaria	Not implemented	
Croatia	Not implemented	
Cyprus	Not implemented	
Czech Republic	Two parts of the band allowed above 169.5875 MHz	173.3 MHz 50 mW e.r.p. max 75 kHz 173.99 MHz 2 mW e.r.p. max 50 kHz. Other services in the rest of the band
Finland	Not implemented	
France	Not implemented	
Germany	No info	
Greece	Not implemented	
Hungary	Not planned	Governmental use in the band
Iceland	No info	
Ireland	Not implemented	
Italy	Limited to 169.815 MHz	

Annex	Country	Restriction	Reason/remark
	Latvia	No info	
	Liechtenstein	Not implemented	Occupied with mobile services
	Lithuania	No info	
	Luxembourg	Not implemented	
	Malta	Not implemented	
	Norway	Not implemented	
	Poland	Not implemented	
	Portugal	Not implemented	Land Mobile
	Romania	Not implemented	
	Russian Federation	No info	
	Serbia & Montenegro	No info	
	Slovak Republic	No info	
	Slovenia	Not implemented	Planned
	Spain	Limited implementation	Channel plan for 169.4-169.8 MHz according ECC/DEC/(05)02
	Sweden	No info	
	Switzerland	Not implemented	Occupied with mobile services
	The Netherlands	Not implemented	Planned for end 2008
	Turkey	Not implemented	169.8-174.0 MHz band is used by PMR/PAMR
	United Kingdom	Limited implementation	Implemented in 173.325-174.000 MHz and at 2 mW only
Annex 11 Band A			
RFID			
2446-2454 MHz			
	Croatia	Not implemented	
	France	Max e.i.r.p. 500 mW	
	Italy	Not implemented	
	Latvia	Not implemented	
	Russian Federation	No info	
	Slovak Republic	Not implemented	Under study
	Sweden	Limited to 25 mW e.i.r.p.	Defence systems
Annex 11 Band B1			
RFID			
865.0-865.6 MHz			
	Belgium	No info	
	France	No info	
	Latvia	No info	
	Romania	Not implemented	
	Russian Federation	No info	
	Slovak Republic	No info	
Annex 11 Band B2			
RFID			
865.6-867.6 MHz			
	Belgium	No info	
	France	YES / Derogation	Power limited to 500 mW e.r.p. within defined zones around certain military camps in France (see list of military camps with geographical coordinates in national radio interface specification)
	Latvia	No info	
	Russian Federation	Limited implementation	866.6-867.4 MHz with e.r.p 100 mW. The assignment of radio frequencies or channels is not required in when: a) LBT is applied and b) equipment is used at the airport 866.0-867.6 MHz with e.r.p 2 W The assignment of radio frequencies or channels should too be performed in established order
	Slovak Republic	No info	

Annex	Country	Restriction		Reason/remark
Annex 11 Band B3				
RFID				
867.6-868.0 MHz				
	Belgium	No info		
	France	No info		
	Latvia	No info		
	Romania	Not implemented		
	Russian Federation	Limited implementation		866-868 MHz. The assignment of radio frequencies or channels should too be performed in established order
	Slovak Republic	No info		
Annex 12 Band A				
Wireless applications in Healthcare				
402-405 MHz				
	Russian Federation	No info		
Annex 12 Band A1				
Wireless applications in Healthcare				
401-402 MHz				
	Austria	Not implemented		Under study
	Belgium	No info		
	Bulgaria	Not implemented		
	Croatia	Not implemented		
	Czech Republic	Not implemented	Planned 2008	
	France	Not implemented		Planned
	Greece	Not implemented		About to be implemented (info of June 2008)
	Hungary	Not implemented		Planned
	Ireland	Not implemented		Planned; Notification in progress
	Italy	Not implemented		Military application
	Latvia	No info		
	Liechtenstein	Not implemented		Planned to be implemented by 01.01.09
	Malta	Not implemented		Planned
	Norway	Not implemented		
	Romania	Not implemented		
	Russian Federation	No info		
	Serbia & Montenegro	No info		
	Slovak Republic	Not implemented		Under study
	Spain	Not implemented		Not implemented due to lack of demand
	The Netherlands	Not implemented		Under study
	Turkey	Under study		Planned 2009
Annex 12 Band A2				
Wireless applications in Healthcare				
405-406 MHz				
	Austria	Not implemented		Under study
	Belgium	No info		
	Bulgaria	Not implemented		Planned
	Croatia	Not implemented		
	Czech Republic	Not implemented		Planned 2008
	France	Not implemented		Planned
	Greece	Not implemented		About to be implemented (info of June 2008)
	Hungary	Not implemented		Planned
	Ireland	Not implemented		Planned; Notification in progress
	Italy	Not implemented		Military application
	Latvia	No info		
	Liechtenstein	Not implemented		Planned to be implemented by 01.01.09
	Malta	Not implemented		Planned
	Norway	Not implemented		
	Romania	Not implemented		
	Russian Federation	No info		
	Serbia & Montenegro	No info		
	Slovak Republic	Not implemented		Under study
	Spain	Not implemented		Not implemented due to lack of demand

Annex	Country	Restriction	Reason/remark
	The Netherlands	Not implemented	Under study
	Turkey	Under study	Planned 2009
Annex 12 Band B			
Wireless applications in Healthcare 9-315 kHz			
	Latvia	Not implemented	
	Russian Federation	No info	
	Serbia & Montenegro	Not implemented	
	Spain	Limited implementation	to 9-140 kHz
Annex 12 Band C			
Wireless applications in Healthcare 315-600 kHz			
	France	Not implemented	Planned
	Italy	Not implemented	
	Latvia	Not implemented	
	Norway	Not implemented	
	Russian Federation	No info	
	Serbia & Montenegro	Not implemented	
Annex 12 Band D			
Wireless applications in Healthcare 30.0-37.5 MHz			
	Austria	Not implemented	Planned
	Czech Republic	Not implemented	Under study
	France	Not implemented	Planned
	Italy	Not implemented	Military application
	Latvia	Not implemented	
	Liechtenstein	Not implemented	
	Norway	Not implemented	
	Russian Federation	No info	
	Slovak Republic	Not implemented	Under study
	Spain	Not implemented	
	Sweden	Not implemented	Planned
	Switzerland	Not implemented	Defence systems
Annex 12 Band E			
Wireless applications in Healthcare 12.5-20.0 MHz			
	Austria	Not implemented	Planned
	Belgium	No info	
	Bulgaria	Not implemented	Planned
	France	Not implemented	Planned
	Greece	Not implemented	
	Hungary	Not implemented	Planned
	Ireland	Not implemented	Planned; Notification in progress
	Italy	Not implemented	
	Latvia	No info	
	Lithuania	No info	
	Malta	Not implemented	Planned
	Norway	Not implemented	
	Poland	Implemented	12.5 – 20 MHz
	Romania	Not implemented	
	Russian Federation	No info	
	Serbia & Montenegro	No info	
	Slovak Republic	No info	
	Spain	Not implemented	

Annex	Country	Restriction	Reason/remark
Annex 13 Band B			
Wireless Audio Applications 864.8-865 MHz			
	Croatia	Not implemented	
	Latvia	Not implemented	
	Russian Federation	No info	
Annex 13 Band C			
Wireless Audio Applications 1795-1800 MHz			
	Austria	Not implemented	
	Croatia	Not implemented	
	Finland	Not implemented	
	France	Not implemented	
	Ireland	Not implemented	All island WAPECS licence in operation
	Italy	Not implemented	Military application
	Latvia	Not implemented	
	Russian Federation	No info	
	Slovak Republic	Not implemented	Fixed service
	Spain	Not implemented	
	The Netherlands	Not implemented	
	Turkey	Planned	Implemented after SRD Ordinance is revised
	United Kingdom	Limited implementation	
Annex 13 Band D			
Wireless Audio Applications 87.5-108.0 MHz			
	France	Not implemented	
	Greece	Not implemented	About to be implemented (info of June 2008)
	Hungary	Not implemented	Planned
	Latvia	Not implemented	
	Russian Federation	No info	
	Serbia & Montenegro	Not implemented	
	Slovak Republic	Under study	
	Slovenia	Limited	max 50nW e.r.p. (RTTE SC55)
	Turkey	Planned	Implemented after SRD Ordinance is revised

List of abbreviations as used in this document

AFA	Adaptive Frequency Agility
AVI	Automatic Vehicle Identification for Railways
CEPT	European Conference of Postal and Telecommunications Administrations
CB	Citizen Band (27 MHz)
CT2	Cordless Telephones
DAA	Detect and Avoid
DFS	Dynamic Frequency Selection
EAS	Electronic Article Surveillance
ECC	Electronic Communications Committee
EFIS	ERO Frequency Information System
ENG/OB	Electronic News Gathering / Outside Broadcasting
ERC	European Radiocommunications Committee
ERM	Electromagnetic Compatibility and Radio Spectrum Matters
ERO	European Radiocommunications Office
ETSI	European Telecommunications Standard Institute
GBSAR	Ground Based Synthetic Aperture Radar
FHSS	Frequency Hopping Spread Spectrum
ISM	Industrial, Scientific and Medical applications
LAN	Local Area Network
LBT	Listen Before Talk
(O)RLAN	Outdoor Radio Local Area Network
PMR	Professional Mobile Radio / Private Mobile Radio
R&TTE	Directive 1999/5/EC of the European Parliament and of the Council of 9 March 1999 on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity
RFID	Radio Frequency Identification
RTTT	Road Transport & Traffic Telematics
SRD	Short Range Devices
TETRA	Terrestrial Trunked Radio
TLPR	Tank Level Probing Radar
ULP-AID	Ultra Low Power Animal Implant Devices
ULP-AIP	Ultra Low Power Animal Implantable
WAS	Wireless Access Systems
WLL	Wireless Local Loop

Duty cycle categories

For the purposes of this Recommendation the duty cycle is defined as the ratio, expressed as a percentage, of the maximum transmitter "on" time on one carrier frequency, relative to a one hour period unless otherwise mentioned in the relevant Annex.

For pre-programmed devices the maximum transmitter "on" time and minimum "off" time are given in the following table.[1]
These limits are advisory with a view to facilitating sharing between systems in the same frequency band

	Name	Transmitting time/Full cycle[1]	Maximum transmitter "on" time (seconds)	Minimum transmitter "off" time (seconds)	Explanation
1	Very Low	<0.1%	0.72	0.72	For example, 5 transmissions of 0.72 seconds within one hour.
2	Low	<1.0%	3.6	1.8	For example, 10 transmissions of 3.6 seconds within one hour.
3	High	<10%	36	3.6	For example, 10 transmissions of 36 seconds within one hour
4	Very High	Up to 100%	-	-	Typically continuous transmissions but also those with a duty cycle greater than 10%

Document History

	Text	Page	Edition
Text of the ERC Recommendation changed to align with the R&TTE Directive		4	October 2005
Rearranged text of Recommendation 18 October 2005			
Annex 1	Non-specific Short Range Devices	6	October 2007
Annex 2	Tracking, Tracing and Data Acquisition	8	February 2007
Annex 3	Wideband Data Transmission systems	9	February 2009
Annex 4	Railway applications	10	February 2009
Annex 5	Road Transport & Traffic Telematics (RTTT)	12	February 2009
Annex 6	Radiodetermination applications	13	February 2009
Annex 7	Alarms	14	October 2006
Annex 8	Model Control	15	May 2003
Annex 9	Inductive applications	16	February 2009
Annex 10	Radio microphones and Assistive Listening Devices	19	October 2006
Annex 11	Radio frequency identification applications	19	February 2009
Annex 12	Wireless applications in healthcare	22	October 2007
Annex 13	Wireless Audio applications	23	May 2008
Appendix 1	Implementation Status	24	February 2009
Appendix 2	List of relevant ECC/ERC Decisions, Reports, EC Decisions and ETSI Standards	29	February 2009
Appendix 3	National restrictions	35	February 2009