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 17 November 2005

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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.

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.

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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.

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."

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).

"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 other radio services;

b) that in general SRDs cannot claim protection from other 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 dBuA/m at 10 m	No Restriction	No spacing	ERC DEC (01)01	
b	13.553 - 13.567 MHz	42 dBuA/m at 10 m	No Restriction	No spacing	ERC DEC (01)01	
c	26.957 - 27.283 MHz	42 dBuA/m at 10 m 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	138.2 - 138.45 MHz.	10 mW e.r.p.	< 1.0 %	No spacing		
f	433.050 - 434.790 MHz	10 mW e.r.p.	< 10 %	No spacing	ECC DEC (04)02	Audio and voice signals should be avoided in the band 433.05-434.79 MHz
f1	433.050 - 434.790 MHz	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 Audio and voice signals should be avoided in the band 433.05-434.79 MHz
f2	434.040-434.790 MHz	10 mW e.r.p.	up to 100%	Up to 25 kHz	ECC DEC (04)02	Audio and voice signals should be avoided in the band 433.05-434.79 MHz
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)	ERC DEC (01)04	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)	ERC DEC (01)04	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)	ERC DEC (01)04	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	≤ 5 mW e.r.p.	up to 100%	No spacing (for 1 or more channels)	ERC DEC (01)04	Narrow / wide-band modulation No channel spacing, however the whole stated frequency band may be used Audio applications excluded Voice applications allowed with LBT together with 1 minute carrier time-out timer
h	2400 - 2483.5 MHz	10 mW e.i.r.p.	No Restriction	No spacing	ERC DEC (01)05	
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 single frequency devices the duty cycle limit applies, unless LBT is used.
For FHSS, DSSS or AFA devices, the duty cycle applies to the total transmission unless LBT is used.

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: Audio and voice applications are excluded.

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 subbands c) to g4)
EN 300 330 subbands a) to c)
EN 300 440 subbands 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.

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 Devices for Detecting Avalanche Victims

Scope of Annex

This annex covers frequency bands and regulatory as well as informative parameters recommended for devices for detecting avalanche victims.

Regulatory parameters related to Annex 2

Frequency Band	Magnetic field	Duty cycle	Channel spacing	ECC/ERC Decs	Notes
b 457 kHz	7 dBuA/m at 10 m	up to 100%	Continuous wave (CW) - no modulation	ECC DEC (04)01	

Additional Information

Harmonised Standards

EN 300 718

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 and for
Wireless Access Systems including Radio Local Area Networks (WAS/RLANs) within the bands 5150-5250 MHz, 5250-5350 MHz, 5470-5725 MHz and 17.1-17.3 GHz.

Regulatory parameters related to Annex 3

	Frequency Band	Power	Duty cycle	Channel spacing	ECC/ERC Decs	Notes
a	2400 - 2483.5 MHz	100 mW e.i.r.p.	No Restriction	No spacing	ERC/DEC/(01)07	For wide band modulations other then FHSS (e.g. DSSS, OFDM, ..), the maximum e.i.r.p. density is limited to 10 mW/1 MHz
b	5150 -5250 MHz	200 mW Max mean	No Restriction		ECC/DEC/(04)08	Restricted to indoor use. The maximum mean e.i.r.p. density shall be limited to 0.25 mW/25 kHz in any 25 kHz band.
c	5250 – 5350 MHz	200 mW Max mean	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.
d	5470 – 5725 MHz	1 W Max mean	No Restriction		ECC/DEC/(04)08	Indoor as well as outdoor use allowed. The maximum mean e.i.r.p. density shall be restricted to 50 mW/MHz in any 1 MHz band.
e	17.1 - 17.3 GHz	100 mW e.i.r.p.	No Restriction	No spacing		

Additional Information

Harmonised Standards

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

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.

Technical parameters also referred to in the harmonised standard

The power level for band b, c and d refers to Maximum 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 including automatic vehicle identification and balise (train control systems).

The subbands below are intended for the following applications:

- Automatic Vehicle Identification for Railways (AVI) band a)
- Eurobalise band b)
- Euroloop band c).

Regulatory parameters related to Annex 4

	Frequency Band	Power / Magnetic field	Duty cycle	Channel spacing	ECC/ERC Decs	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 dBuA/m at 10 m		No spacing		
c	4515 kHz	7 dBuA/m at 10 m	No Restriction	No spacing		Transmitting only on receipt of a Eurobalise telepowering signal from a train

Additional Information

Harmonised Standards

EN 300 761 subband a)
EN 300 330 subbands b) and c)

Frequency issues

No information

Technical parameters also referred to in the harmonised standard

The maximum allowed H-field for the Eurobalise system is illustrated in Figure 1 and for Euroloop in Figure 2 on the next page.

Spectrum mask relating to Eurobalise

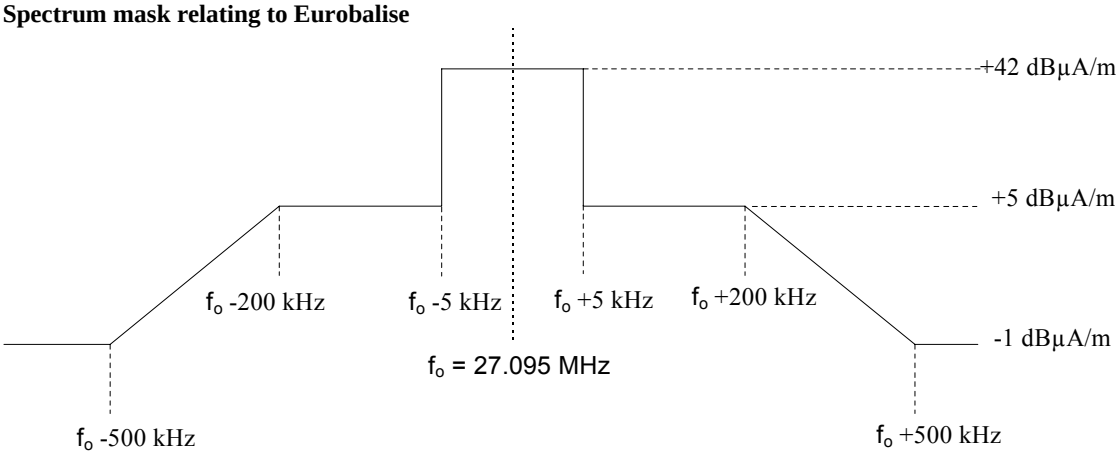

Figure 1
Magnetic fiels limits at 10 metre measurement distance for the Eurobalise system

Spectrum mask relating to Euroloop

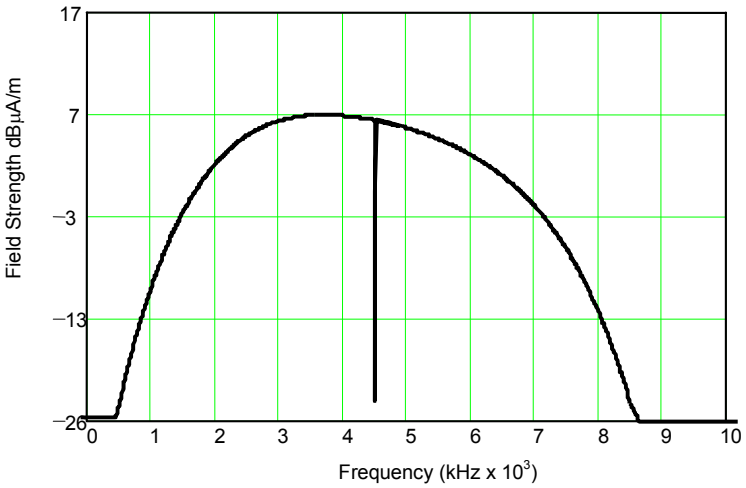

Figure 2
Magnetic field limits at 10 metres measurement distance in 10 kHz measurement bandwidth for the Euroloop up-link transmission

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 Decs	Notes
a	5795 - 5805 MHz	2 W e.i.r.p. 8 W e.i.r.p.	No Restriction		ECC DEC (02)01	
b	5805 - 5815 MHz	2 W e.i.r.p. 8 W e.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	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 puls radar only. Vehicle and infrastructure radar systems

Additional Information

Harmonised Standards

EN 300 674	subbands a) and b)
EN 301 091	subband d)
ES 200 674	subbands a) and b)

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 Equipment for Detecting Movement and Alert

Scope of Annex

This annex covers frequency bands and regulatory as well as informative parameters recommended for Equipment for Detecting Movement and Equipment for Alert.

Regulatory parameters related to Annex 6

	Frequency Band	Power		Duty cycle	Channel spacing	ECC/ERC Decs	Notes
a	2400 - 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		

Additional Information

Harmonised Standards

EN 300 440

Frequency issues

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

No information

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 subbands 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 Decs	Notes
a	868.6 - 868.7 MHz	10 mW	e.r.p.	< 1.0 %	25 kHz	ERC DEC (01)09	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	ERC DEC (01)09	
c	869.650 - 869.700 MHz	25 mW	e.r.p.	< 10 %	25 kHz	ERC DEC (01)09	
d	869.200 - 869.250 MHz	10 mW	e.r.p.	< 0.1 %	25 kHz	ERC DEC (97)06	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 – 169.600 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 Decs	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	Magnetic field	Duty cycle	Channel spacing	ECC/ERC Decs	Notes
aa 9 - 59.750 kHz	72 dBuA/m at 10 m	No Restriction	No spacing	ERC DEC (01)13	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 dBuA/m at 10 m	No Restriction	No spacing	ERC DEC (01)13	In case of external antennas only loop coil antennas may be employed
ac 60.250 - 70 kHz	69 dBuA/m at 10 m	No Restriction	No spacing	ERC DEC (01)13	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 dBuA/m at 10 m	No Restriction	No spacing	ERC DEC (01)13	In case of external antennas only loop coil antennas may be employed
c 119 - 135 kHz	66 dBuA/m at 10 m	No Restriction	No spacing	ERC DEC (01)13	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 dBuA/m at 10 m	No Restriction	No spacing		In case of external antennas only loop coil antennas could be employed
c2 140 - 148.5 kHz	37.7 dBuA/m at 10	No Restriction	No spacing		In case of external antennas only loop coil antennas could be employed
d 6765 - 6795 kHz	42 dBuA/m at 10 m	No Restriction	No spacing	ERC DEC (01)14	
e 7400 - 8800 kHz	9 dBuA/m at 10 m	No Restriction	No spacing	ERC DEC (01)15	
f 13.553 - 13.567 MHz	42 dBuA/m at 10 m	No Restriction	No spacing	ERC DEC (01)14	
f1 13.553 - 13.567 MHz	60 dBuA/m at 10 m	No Restriction	No spacing		For RFID and EAS only
g 26.957 - 27.283 MHz	42 dBuA/m at 10 m	No Restriction	No spacing	ERC DEC (01)16	
h 10.2 - 11 MHz	9 dBuA/m at 10 m	No Restriction	No spacing		
k 3155 - 3400 kHz	13.5 dBuA/m at 10	No Restriction	No spacing		In case of external antennas only loop coil antennas may be employed
l 148.5 - 1600 kHz	-5 dBuA/m at 10 m	No Restriction	No spacing		In case of external antennas only loop coil antennas may be employed

Additional Information

Harmonised Standards

EN 300 330

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

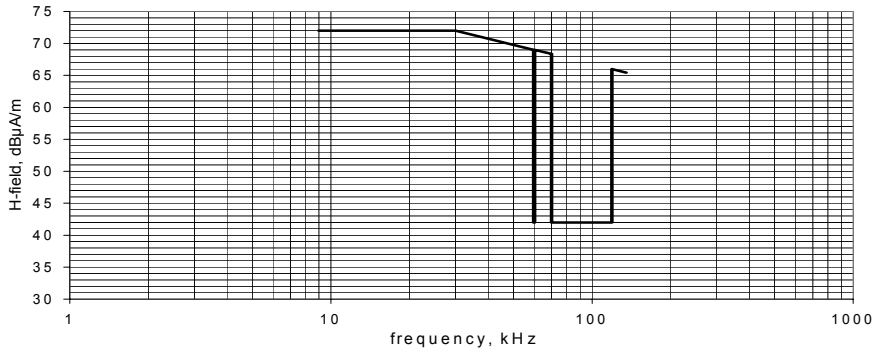

Figure 1
9-135 kHz magnetic field strength limits overview at 10-metre measurement distance

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

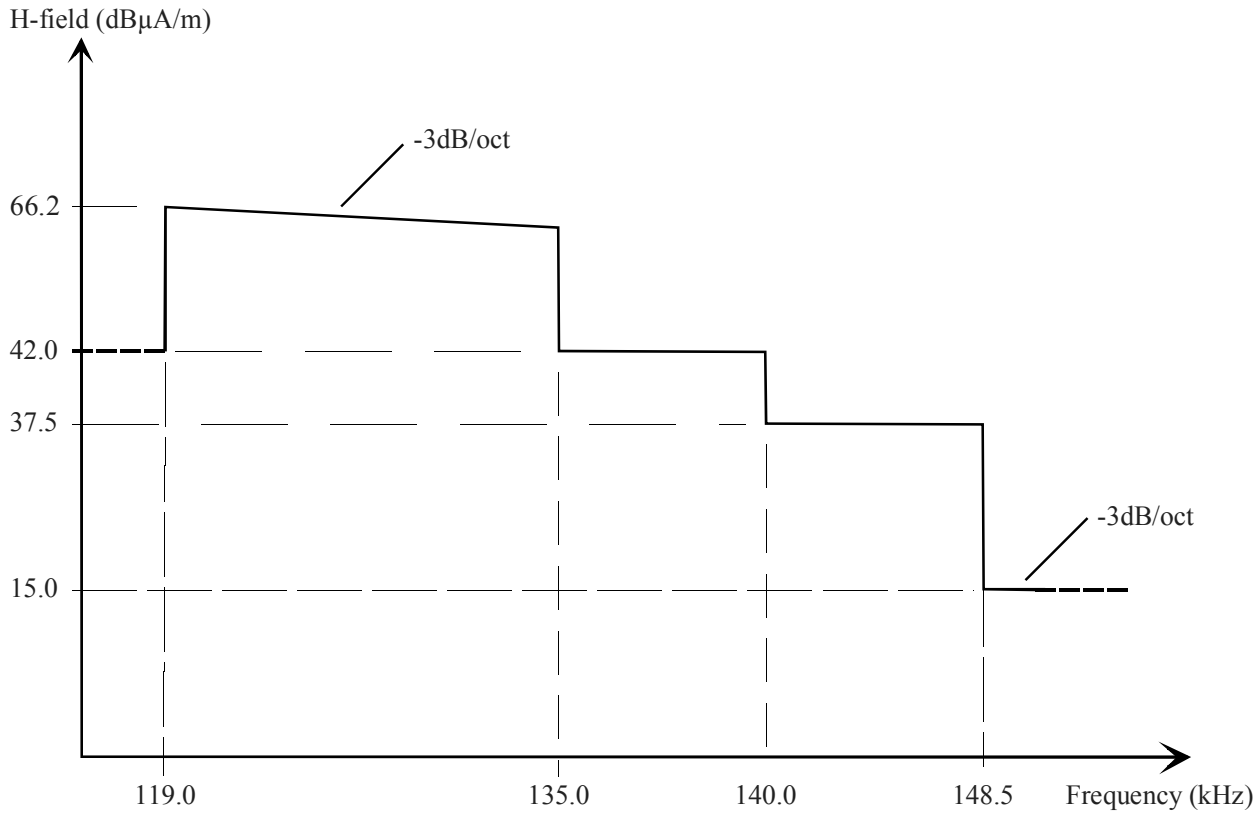

Figure 2
135 – 148.5 kHz magnetic field strength limit at 10 metres measurement distance

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

ISM bands d), f) and f1)

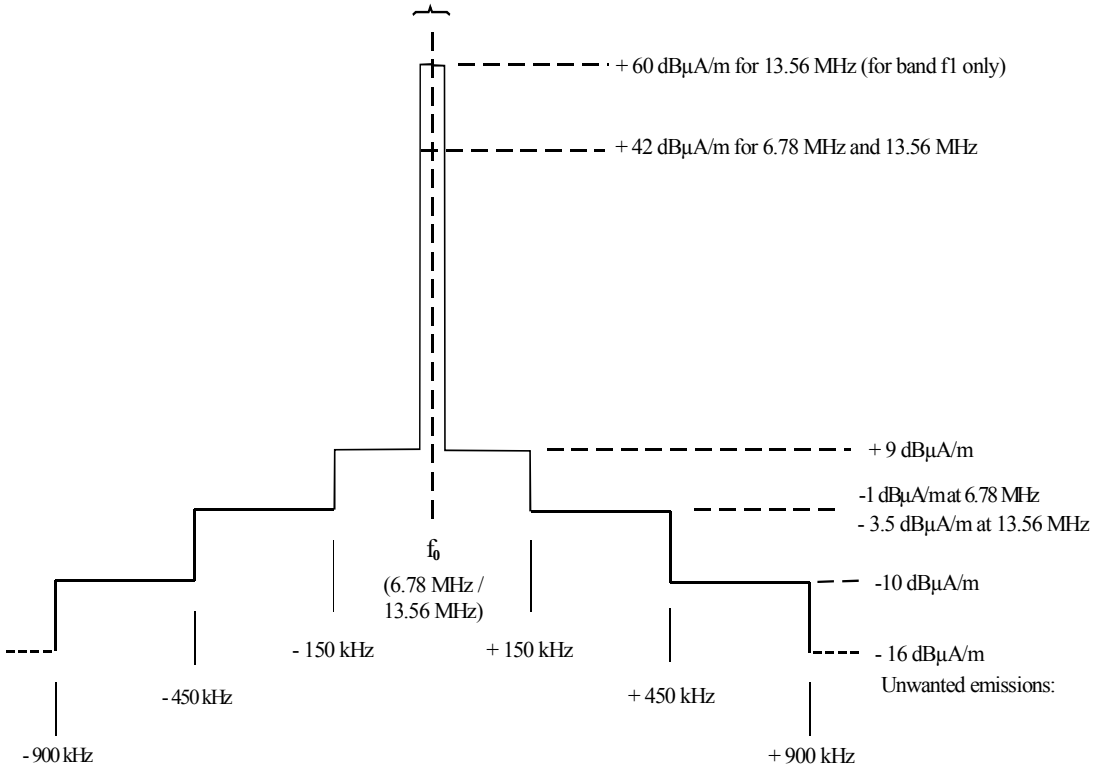

Figure 3

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

Annex 10 Radio microphones

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). 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 multi channel 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 subbands below are intended for the following applications:

- Narrow band audio band a)
- Aids for the handicapped band b)
- Radio microphones bands c) d) e) f).

Regulatory parameters related to Annex 10

Frequency Band	Power	Duty cycle	Channel spacing	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		
c 863-865 MHz	10 mW e.r.p.	up to 100%	200 kHz		
d 174-216 MHz	10 mW e.r.p. 50 mW e.r.p.	up to 100%	200 kHz		On a tuning range basis Professional use only -Individual license required. 50 mW restricted to body worn microphones
e 470 - 862 MHz	10 mW e.r.p. 50 mW e.r.p.	up to 100%	200 kHz		On a tuning range basis. Professional use only -Individual license required. 50 mW restricted to body-worn microphones
f 1785 - 1800 MHz	10 mW e.i.r.p. 50 mW e.i.r.p.	up to 100%	200 kHz		Professional use only -Individual license required 50 mW restricted to for body-worn microphones

Additional Information

Harmonised Standards

EN 300 422	subbands a) - e)
EN 301 840	subband f)
EN 301 357	subband c)

Frequency issues

Guard bands at 1785.0-1785.7 and 1799.4-1800 MHz may be required to protect services in adjacent bands

In case of analogue systems the maximum occupied bandwidth should not exceed 300 kHz in subband c)

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	ERC/ECC 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 - 868 MHz	100 mW e.r.p.	LBT	200 kHz		Listen before talk (LBT) shall be used, preferably with the option of frequency agility
b2 865.6 - 867.6 MHz	2 W e.r.p.	LBT	200 kHz		Listen before talk (LBT) shall be used, preferably with the option of frequency agility
b3 865.6 - 868 MHz	500 mW e.r.p.	LBT	200 kHz		Listen before talk (LBT) shall be used, preferably with the option of frequency agility

Additional Information

Harmonised Standards

EN 300 440 Subband a)
EN 302 208 Subbands b1), b2) and b3)

Frequency issues

Subband 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.

Subbands 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 15
- b2: channel numbers 4 to 13
- b3: channel numbers 4 to 15.

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

Technical parameters also referred to in the harmonised standard

Subband a)

As mentioned in the standard EN 300 440 the antenna shall have <= +/- 45 degrees horizontal beamwidth and >=15 dB sidelobe attenuation

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.

Subbands b1), b2) and b3)

As mentioned in the standard EN 302 208 the antenna shall have <= +/- 45 and +/- 35 degrees horizontal beamwidth for a radiated power of 100-500 mW and 500 mW - 2 W respectively.

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	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	The application is for ultra low power active medical implants (for convenient definitions see EC Directive 90/385/ECC) Individual transmitters may combine adjacent channels for increased bandwidth up to 300 kHz
b 9 - 315 kHz	30 dBµA/m at 10 m	< 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 10 m	< 10 %	No spacing		The application is intended for animal implantable devices
d 30 – 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

Additional Information

Harmonised Standards

EN 301 839 Subband a)
EN 300 330 Subband b) and c)
EN 300 220 Subband d)

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	ERC DEC (01)18	
b	864.8 - 865 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 MHz	50 nW e.r.p.	Up to 100%	200 kHz		

Additional Information

Harmonised Standards

EN 301 357 subband a) c) and d)
EN 300 220 subband b)

Frequency issues

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.

Annexes to ERC REC 70-03		AUT	BEL	DNK	E	FIN	F	D	GRC	ICE	I	IRL	LIE	LUX	HOL	NOR	POR	SUI	S	UK	CZ	CYP	EST	HNG	LTU	LVA	MLT	POL	SVN	SVK	BIH	BUL	HRV	MKD	ROU	SCG	TUR	*) Class 1	ECC Dec
Annex 1 - Non Specific SRD		EU member states and EFTA countries																			New EU memberstates 2004																		
Annex 1A 6765-6795 kHz	ERC/DEC(01)01	Y	Y	Y	Y	Y	Y	Y	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		x
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	L	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y		x
Annex 1C 26.957-27.283 MHz	ERC/DEC(01)02	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	x	x
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	Y	Y	Y	Y	Y	x	x
Annex 1E 138.20-138.45 MHz		Y	N	Y	N	Y	N	N	N	Y	N	N	N	Y	N	Y	N	N	N	U	Y	U	P	N	Y	N	Y	N	N	N	Y	P	N	Y	N	Y	U		
Annex 1F 433.050-434.790 MHz	ECC/DEC(04)02	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	x	x
Annex 1F1 433.050-434.790 MHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	N	Y	Y		
Annex 1F2 434.040-434.790 MHz		Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	N	Y	Y		
Annex 1G 863-870 MHz		N	N	N	N	Y	N	Y	N	Y	N	P	N	N	N	N	N	N	N	N	N	N	N	P	N	N	Y	U	N	N	Y	N	N	N	N	N	N		
Annex 1G1 868.000-868.600 MHz	ERC/DEC(01)04	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	N	Y	Y	L	Y	N	Y	Y	x	x
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	N	Y	Y	L	Y	N	Y	Y	x	x
Annex 1G3 869.400-869.650 MHz	ERC/DEC(01)04	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	N	Y	Y	L	Y	N	Y	Y	x	x
Annex 1G4 869.700-870.000 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	L	Y	N	Y	Y	x	x
Annex 1H 2400.0-2483.5 MHz	ERC/DEC(01)05	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	Y	Y	N	Y	Y	x	x
Annex 1I 5725-5875 MHz	ERC/DEC(01)06	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	Y	Y	Y	Y	Y		x
Annex 1J 24.00–24.25 GHz		Y	Y	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	U	Y	Y	Y	Y	Y	Y	Y	Y	Y	P	Y	Y	N	Y	Y		**x**
Annex 1K 61.0-61.5 GHz		Y	Y	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	U	Y	U	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	L	Y	N	Y	Y		
Annex 1L 122-123 GHz		Y	Y	Y	N	Y	N	Y	Y	Y	Y	P	Y	Y	Y	Y	Y	Y	N	U	N	U	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	L	Y	N	N	Y		
Annex 1M 244-246 GHz	ERC/DEC(01)03	Y	Y	Y	N	Y	N	Y	Y	Y	Y	P	Y	Y	Y	Y	Y	Y	N	U	N	U	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	L	Y	N	N	Y		
Annex 2 - Devices for Detecting Avalanche Victims																																							
Annex 2B 457 kHz	ECC/DEC(04)01	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	U	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y		x
Annex 3 - Wideband Data Transmission Systems																																							
Annex 3A 2400.0-2483.5 MHz	ERC/DEC(01)07	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	Y	Y	L	Y	Y	N	Y	Y	x	x
Annex 3B 5150-5250 MHz	ECC/DEC4)08	Y	N	Y	N	Y	L	Y	N	Y	Y	Y	N	L	Y	Y	N	Y	Y	Y	Y	U	Y	Y	Y	Y	Y	Y	Y	N	Y	P	N	Y	N	Y	Y		x
Annex 3C 5250-5350 MHz		Y	N	Y	N	Y	L	Y	N	Y	Y	Y	N	L	Y	Y	N	Y	Y	Y	Y	U	Y	Y	Y	Y	Y	Y	Y	N	Y	P	N	Y	N	Y	Y		
Annex 3D 5470-5725 MHz		Y	N	Y	N	Y	N	Y	N	Y	Y	Y	N	N	Y	Y	N	Y	Y	Y	Y	U	Y	Y	Y	Y	Y	Y	Y	N	Y	P	Y	N	N	Y	N		x
Annex 3E 17.1–17.3 GHz		Y	N	Y	P	Y	N	N	Y	Y	Y	Y	Y	N	Y	N	Y	Y	N	Y	N	U	Y	N	Y	Y	Y	Y	Y	N	Y	N	L	N	N	Y	N		
Annex 4 - Railway Applications																																							
Annex 4A 2446-2454 MHz		Y	Y	Y	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	L	N	Y	N	Y	Y	N	Y	Y	Y	Y	N	Y	Y	N	Y	P	Y	Y	L	Y	Y		
Annex 4B 27.095 MHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	N	Y	Y	N	Y	Y	Y	Y	N	Y	Y	Y	Y	P	L	Y	N	Y	Y		
Annex 4C 4515 kHz		Y	Y	Y	N	Y	Y	Y	U	Y	Y	N	Y	Y	Y	Y	N	Y	N	Y	Y	N	Y	Y	Y	Y	N	Y	Y	Y	Y	P	N	Y	N	Y	Y		

Highlighted yellow = not implemented

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

Implementation Status		AUT	BEL	DNK	E	FIN	F	D	GRC	ICE	I	IRL	LIE	LUX	HOL	NOR	POR	SUI	S	UK	CZ	CYP	EST	HNG	LTU	LVA	MLT	POL	SVN	SVK	BIH	BUL	HRV	MKD	ROU	SCG	TUR		
Annex 5 - Road Transport and Traffic Telematics - RTTT																																							
Annex 5A 5795–5805 MHz	ECC/DEC(02)01	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	L	Y	L	Y	U	P	Y	Y	Y	L	Y	Y	Y	Y	P	Y	Y	N	Y	Y		x
Annex 5B 5805-5815 MHz		Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y	L	Y	U	Y	Y	Y	Y	L	Y	Y	Y	Y	P	L	N	N	Y	Y		x
Annex 5C 63-64 GHz		Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	N	Y	U	P	Y	Y	U	Y	Y	Y	Y	Y	N	Y	Y	Y	N	L	Y	N	Y	Y		x
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	U	Y	Y	Y	Y	Y	Y	Y	Y	Y	P	L	Y	N	Y	Y		x
Annex 6 - Equipment for Detecting Movement and Alert																																							
Annex 6A 2400.0-2483.5 MHz	ERC/DEC(01)08	Y	Y	Y	Y	Y	L	Y	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	N	Y	Y	x	
Annex 6B 9200-9500 MHz		Y	Y	Y	N	N	N	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	N	L	Y	U	P	Y	Y	Y	Y	Y	Y	Y	Y	P	Y	Y	N	N	Y		
Annex 6C 9500-9975 MHz		Y	Y	Y	N	Y	L	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	L	Y	U	P	Y	Y	N	Y	Y	Y	N	Y	P	Y	Y	N	N	Y		
Annex 6D 10.5-10.6 GHz		N	Y	Y	L	N	L	N	Y	Y	Y	L	Y	N	Y	Y	N	Y	N	L	N	U	N	L	Y	Y	Y	Y	N	Y	P	L	Y	N	Y	N		
Annex 6E 13.4-14.0 GHz		Y	Y	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	U	P	Y	Y	Y	Y	Y	Y	Y	Y	P	Y	Y	N	Y	N		
Annex 6F 24.05-24.25 GHz		Y	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	U	Y	Y	Y	Y	Y	Y	Y	Y	Y	P	Y	Y	N	Y	Y	x	x
Annex 7 - Alarms																																							
Annex 7A 868.6-868.7 MHz	ERC/DEC(01)09	Y	Y	Y	Y	Y	Y	Y	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	N	Y	Y	x	
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	Y	N	Y	Y	x	
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	N	Y	Y	Y	Y	N	Y	Y	x	
Annex 7D 869.200-869.250 MHz	ERC/DEC (97)06	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	x	
Annex 7E 869.300-869.400 MHz						Y						P				N		P		Y			P	P			Y	N			Y			N				
Annex 7F 169.4750-169.4875 MHz	ECC/DEC(05)02	N	N	N	N	Y	N	N	N	Y	N	U	N	N	N	N	N	N	N	P	N	N	P	P	N	N	Y	P	N	N	Y	N	N	N	N	N	N	
Annex 7G 169.5875-169.6000 MHz		N	N	N	N	Y	N	N	N	N	N	U	N	N	N	N	N	N	N	P	N	N	P	P	N	N	Y	P	N	N	Y	N	N	N	N	N	N	
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	P	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		x
Annex 8B 34.995-35.225 MHz		Y	Y	Y	L	Y	N	L	Y	Y	Y	Y	N	Y	Y	L	Y	L	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y		x
Annex 8C 40.665,40.675 40.685, 40.695 MHz		Y	Y	Y	Y	Y	P	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		x
Annex 9 - Inductive Applications																																							
Annex 9AA 9-59.750 kHz	ERC/DEC(01)13	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	Y	Y	Y	Y	Y	N	Y	N	Y	Y	x	x
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	N	Y	N	Y	Y	x	x
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	N	Y	N	Y	Y	x	x
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	N	Y	N	Y	Y	x	x
Annex 9C 119-135 kHz		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	Y	Y	N	Y	N	Y	Y	x	x
Annex 9C1 135-140 kHz		Y	Y	Y	N	Y	Y	Y	N	Y	P	P	Y	Y	Y	N	N	Y	Y	Y	Y	U	Y	Y	Y	N	Y	Y	Y	Y	Y	P	Y	Y	N	Y	U		
Annex 9C2 140.0-148.5 kHz		Y	Y	Y	N	Y	Y	Y	N	Y	P	P	Y	Y	Y	N	N	Y	Y	Y	Y	U	Y	Y	Y	N	Y	Y	Y	Y	Y	P	Y	Y	N	Y	U		
Annex 9D 6765-6795 kHz	ERC/DEC(01)14	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	L	Y	Y	Y	Y		x
Annex 9E 7400-8800 kHz	ERC/DEC(01)15	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	N	Y	N	Y	Y		x
Annex 9F 13.553-13.567 MHz	ERC/DEC(01)14	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	L	Y	Y	Y	Y	x	x
Annex 9F1 13.553-13.567 MHz		Y	N	Y	N	Y	N	Y	N	Y	Y	P	N	N	Y	N	N	U	Y	Y	Y	U	P	Y	U	N	Y	Y	Y	N	Y	P	N	Y	N	Y	U		
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	L	Y	Y	Y	Y		x
Annex 9H 10.2-11.0 MHz		N	N	Y	N	Y	N	Y	N	Y	P	U	N	N	Y	N	N	Y	N	Y	Y	U	P	Y	U	N	Y	Y	Y	N	Y	P	N	Y	N	N	U		
Annex 9K 3155-3400 kHz		Y	Y	Y	N	Y	Y	Y	Y	Y	P	P	Y	Y	Y	N	N	Y	Y	L	Y	U	Y	Y	Y	N	Y	Y	Y	Y	Y	P	N	Y	N	N	U		
Annex 9L 148.5-1600 kHz		N	N	Y	N	Y	N	Y	N	Y	P	P	N	N	U	N	N	Y	N	Y	Y	U	P	P	P	N	Y	Y	Y	N	Y	N	N	N	N	N	U		

Highlighted yellow = not implemented

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

Implementation Status		AUT	BEL	DNK	E	FIN	F	D	GRC	ICE	I	IRL	LIE	LUX	HOL	NOR	POR	SUI	S	UK	CZ	CYP	EST	HNG	LTU	LVA	MLT	POL	SVN	SVK	BIH	BUL	HRV	MKD	ROU	SCG	TUR		
Annex 10 – Radio Microphones																																							
Annex 10A 29.7-47.0 MHz		L	Y	Y	L	L	L	L	Y	Y	L	P	L	L	Y	L	N	L	L	L	L	U	L	L	Y	N	L	Y	Y	N	Y	L	N	Y	N	Y	Y		
Annex 10B 173.965-174.015 MHz		N	N	N	N	L	N	Y	U	Y	Y	Y	Y	Y	Y	L	N	N	N	Y	Y	U	Y	Y	Y	Y	Y	N	Y	Y	Y	P	N	Y	N	Y	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	U	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y	Y		
Annex 10D 174-216 MHz		N	Y	Y	L	L	L	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	U	Y	Y	Y	N	N	Y	Y	Y	Y	P	N	Y	N	Y	Y		
Annex 10E 470-862 MHz		Y	Y	Y	N	L	L	L	Y	Y	L	Y	Y	Y	Y	L	N	Y	Y	Y	Y	U	Y	Y	Y	N	L	Y	Y	Y	Y	P	N	N	N	Y	Y		
Annex 10F 1785-1800 MHz		L	Y	Y	Y	L	Y	Y	Y	Y	N	L	L	Y	Y	Y	N	Y	Y	Y	L	U	Y	Y	Y	Y	Y	L	Y	N	Y	P	N	N	N	Y	Y		
Annex 11 - Radio Frequency Identification Applications																																							
Annex 11A 2446-2454 MHz		Y	Y	Y	N	Y	L	Y	Y	Y	N	Y	Y	Y	Y	Y	N	Y	N	Y	Y	N	Y	Y	Y	N	Y	Y	Y	N	Y	P	N	Y	N	Y	Y		
Annex 11B1 865-868 MHz		Y	N	Y	N	Y	N	Y	N	Y	N	P	N	N	P	N	N	Y	Y	Y	Y	N	P	P	U	N	Y	Y	P	N	Y	N	N	Y	N	Y	N		
Annex 11B2 865.6-867.6 MHz		Y	N	Y	N	Y	N	Y	N	Y	N	P	N	N	P	N	N	Y	Y	Y	Y	N	P	P	U	N	Y	Y	P	N	Y	N	N	Y	N	Y	N		
Annex 11B3 865.6-868.0 MHz		Y	N	Y	N	Y	N	Y	N	Y	N	P	N	N	P	N	N	Y	Y	Y	Y	N	P	P	U	N	Y	Y	P	N	Y	N	N	Y	N	Y	N		
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	N	Y	N	Y	Y		x
Annex 12B 9-315 kHz		Y	Y	Y	N	Y	Y	Y	Y	Y	P	Y	Y	Y	Y	Y	Y	Y	N	L	Y	U	Y	Y	Y	N	Y	Y	Y	Y	Y	P	N	Y	N	N	U		
Annex 12C 315-600 kHz		N	N	Y	N	Y	N	Y	N	Y	N	U	N	N	U	N	N	Y	Y	Y	Y	U	P	P	U	N	Y	Y	P	N	Y	N	N	Y	N	N	U		
Annex 12D 30.0-37.5 MHz		N	N	Y	N	Y	N	Y	N	N	N	U	N	N	N	N	N	N	N	Y	N	U	P	P	U	N	Y	Y	P	N	Y	N	N	Y	N	Y	U		
Annex 13 - Wireless Audio Applications																																							
Annex 13A 863-865 MHz	ERC/DEC(01)18	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	N	Y	Y		x
Annex 13B 864.8-865.0 MHz		Y	Y	Y	Y	Y	Y	Y	N	Y	P	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	U	Y	Y	Y	N	Y	Y	Y	Y	Y	P	L	Y	N	Y	Y		
Annex 13C 1795-1800 MHz		N	N	Y	N	N	N	Y	N	Y	N	U	N	N	Y	N	N	Y	Y	Y	Y	U	P	Y	U	N	Y	Y	Y	N	Y	N	N	Y	N	Y	Y		
Annex 13D 87.5-108 MHz		N	N	N	N	N	N	Y	N	Y	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
Please note abrogated Decision																																							
Annex 3B 5150-5350 MHz	ERC/DEC(99)23	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y	Y	Y		L	L		N		Y		
Annex 3C 5470-5725 MHz		Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P	Y	Y	Y	Y	Y	Y	Y	Y	Y	N		U	N		N		Y		

*)*Please note: Where class 1 is indicated, the parameters of the annex to Recommendation 70-03 may differ from the parameters of the specific sub-class (Class 1 parameters) relating to that annex. Please refer to www.ero.dk for full details of Class 1 sub-classes.*

Highlighted yellow = not implemented

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APPENDIX 2

List of relevant ECC/ERC Decisions, Recommendations and ETSI Standards

ECC/ERC Decisions

ECC/DEC/(05)02	On the use of the frequency band 169.4-169.8125 MHz
ECC/DEC/(04)01	Short Range Devices for detection of Avalanche Victims
ECC/DEC/(04)02	Non-specific Short Range Devices in the band 433.05-434.79 MHz
ECC/DEC(04)08	On the harmonised use of the 5 GHz frequency bands for the implementation of Wireless Access Systems including Radio Local Area Networks (WAS/RLANs)
ERC/DEC/(02)01	On the frequency bands to be designated for the coordinated introduction of Road Transport and Traffic Telematic Systems.
ERC/DEC/(95)01	On the free circulation of radio equipment in CEPT member countries.
ERC/DEC(97)06	On the harmonised frequency band to be designated for Social Alarm Systems.
ERC/DEC(01)01	Non-specific Short Range Devices in 6765-6795 kHz and 13.552-13.567 MHz
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)04	Non-specific Short Range Devices in 868.0-868.6 MHz, 868.7-869.2 MHz, 869.4-869.65 MHz, 869.7-870.0 MHz
ERC/DEC(01)05	Non-specific Short Range Devices in 2400-2483.5 MHz
ERC/DEC(01)06	Non-specific Short Range Devices in 5725-5875 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)09	Short Range Devices for Alarms in 868.6-868.7 MHz, 869.25-869.3 MHz, 869.65-869.7 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)13	Short Range Devices for Inductive applications in 9-59.750 kHz, 59.750 – 60.250 kHz, 60.250-70 kHz, 70-119 kHz and 119-135 kHz
ERC/DEC(01)14	Short Range Devices for Inductive applications in 6765-6795 kHz, 13.553-13.567 MHz
ERC/DEC(01)15	Short Range Devices for Inductive applications in 7400-8800 kHz
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
ERC/DEC(01)18	Short Range Devices for Wireless Audio in 863-865 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
ERC Report 005	ERC Report on frequency bands for Low Power Devices
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 037	Compatibility of planned SRD applications in 863-870 MHz
[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]
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 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 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: Harmonized 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: Harmonized 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: Harmonized 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: Harmonized 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: Harmonized EN under article 3.2 of the R&TTE Directive
EN 300 454	Electromagnetic compatibility and Radio spectrum Matters (ERM);Wide band audio links; Part 2: Harmonized 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: Harmonized 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: Harmonized 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: Harmonized 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: Harmonized 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 Harmonized band 1 785 MHz to 1 800 MHz; Part 2: Harmonized EN under article 3.2 of the R&TTE Directive
EN 301 893	Broadband Radio Access Networks (BRAN); 5 GHz high performance RLAN; Harmonized EN covering essential requirements of article 3.2 of the R&TTE Directive
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: Harmonized EN under article 3.2 of the R&TTE Directive

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 authorization 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.
	Russia	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 authorization 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.	
Annex 1 Band A			
Non Specific Short Range Devices 6765-6795 kHz			
	Romania	Secondary basis - individual license	
	United Kingdom	Only inductive devices permitted - see annex 9	The UK has some concern about the antennas used and the distance transmissions could go. The bands are also in Annex 9 where it is clear that they are for inductive systems. We are reviewing this position

Annex	Country	Restriction	Reason/remark
Annex 1 Band B			
Non Specific Short Range Devices 13.553-13.567 MHz			
	Romania	Secondary basis - individual license	
	United Kingdom	Only inductive devices permitted - see annex 9	The UK has some concern about the antennas used and the distance transmissions could go. The bands are also in Annex 9 where it is clear that they are for inductive systems. We are reviewing this position
Annex 1 Band C			
Non Specific Short Range Devices 26.957-27.283 MHz			
	Luxembourg	Only 26.995, 27.045, 27.095, 27.145 MHz and 27.195 MHz	Not on CB Channels
	Romania	Secondary basis - individual license	
	United Kingdom	Only 26.995, 27.045, 27.095, 27.145, 27.195 MHz @10 kHz, e.r.p. 1mW	Restriction to protect CB. The UK is reviewing its position on this
Annex 1 Band D			
Non Specific Short Range Devices 40.660-40.700 MHz			
	Finland	Audio and voice allowed	
	Romania	Secondary basis - individual license	
Annex 1 Band E			
Non Specific Short Range Devices 138.2-138.45 MHz			
	Belgium	Not implemented	
	Bulgaria	Not implemented	Planned
	Croatia	Not implemented	
	Cyprus	Not implemented	Under study
	Estonia	Individual license required	Planned full implementation beginning of 2006
	Finland	Audio and voice not allowed	
	France	Not implemented	Exclusive military band
	Germany	Not implemented	Military band
	Greece	Not implemented	Land Mobile service
	Hungary	Not implemented	Aeronautical mobile applications operate in the band
	Ireland	Not implemented	Allocated to Land Mobile
	Italy	Not implemented	Military applications
	Latvia	Not implemented	
	Liechtenstein	Not implemented	
	Poland	Not implemented	Military band
	Portugal	Not implemented	Governmental band
	Romania	Not implemented	Not available
	Slovak Republic	Not implemented	
	Slovenia	Not implemented	Not available
	Spain	Not implemented	
	Sweden	Not implemented	
	Switzerland	Not implemented	Exclusive Military band
	The Netherlands	Not implemented	Exclusive Military band
	Turkey	Not implemented	Under study
	United Kingdom	Not implemented	Not implemented due to lack of demand. Implementation under consideration

Annex	Country	Restriction	Reason/remark
Annex 1 Band F			
Non Specific Short Range Devices			
433.050-434.790 MHz			
	Cyprus	Not implemented	Under study
	Finland	Audio and voice not allowed	
	France	No duty cycle limits Voice applications allowed	Conformity with ERC REC 70-03 in progress
	Italy	Limited to 433.05-433.575 MHz for audio signals with 12.5 or 25 kHz channel spacing. Audio and voice signals not allowed	Military bands
	Luxembourg	Audio and voice not allowed	
Annex 1 Band F1			
Non Specific Short Range Devices			
433.050-434.790 MHz			
	Croatia	Individual license required	
	Cyprus	Not implemented	Under study
	Finland	Audio and voice not allowed	
	France	No duty cycle limits voice applications	Conformity with ERC REC 70-03 in progress allowed
	Luxembourg	Audio and voice not allowed	
	Norway	Not implemented	
	Romania	Not implemented	
Annex 1 Band F2			
Non Specific Short Range Devices			
434.040-434.790 MHz			
	Croatia	Individual license required	
	Cyprus	Not implemented	Under study
	Finland	Audio and voice signals not allowed	
	France	No duty cycle limits Voice applications	Conformity with ERC REC 70-03 in progress allowed
	Greece	Not implemented	
	Romania	Not implemented	
Annex 1 Band G			
Non Specific Short Range Devices			
863-870 MHz			
	Austria	Not implemented	
	Belgium	Not implemented	
	Bulgaria	Not implemented	
	Croatia	Not implemented	
	Cyprus	Not implemented	
	Czech Republic	Not implemented	
	Denmark	Not implemented	
	Estonia	Not implemented	
	Finland	Not implemented	
	France	Not implemented	
	Greece	Not implemented	
	Hungary	Not implemented	Implementation is in progress
	Ireland	Not implemented	Planned
	Italy	Not implemented	
	Latvia	Not implemented	
	Liechtenstein	Not implemented	
	Lithuania	Not implemented	
	Luxembourg	Not implemented	
	Macedonia (Rep of)	Not implemented	
	Norway	Not implemented	
	Poland	Not implemented	Under study
	Portugal	Not implemented	
	Romania	Not implemented	
	Serbia & Montenegro	Not implemented	
	Slovak Republic	Not implemented	

Annex	Country	Restriction	Reason/remark
	Slovenia	Not implemented	
	Spain	Not implemented	
	Sweden	Not implemented	
	Switzerland	Not implemented	Planned 2006
	The Netherlands	Not implemented	
	Turkey	Not implemented	
Annex 1 Band G1			
Non Specific Short Range Devices 868.000-868.600 MHz			
	Finland	Audio and voice not allowed	
	Slovak Republic	Max 10 mW e.r.p.	Military band
	Romania	Not implemented	
Annex 1 Band G2			
Non Specific Short Range Devices 868.700-869.200 MHz			
	Finland	Audio and voice not allowed	
	Slovak Republic	Max 10 mW e.r.p.	Military band
	Romania	Not implemented	
Annex 1 Band G3			
Non Specific Short Range Devices 869.400-869.650 MHz			
	Finland	Audio and voice not allowed	
	Italy	Max 25 mW e.r.p.	Military band
	Romania	Not implemented	
	Slovak Republic	Max 10 mW e.r.p.	Military band
Annex 1 Band G4			
Non Specific Short Range Devices 869.700-870.000 MHz			
	Croatia	Channel spacing 25 kHz or 50 kHz	
	Finland	Audio and voice not allowed	
	Romania	Not implemented	
Annex 1 Band H			
Non Specific Short Range Devices 2400-2483.5 MHz			
	Norway	Implemented	This subsection does not apply for the geographical area within a radius of 20 km from the centre of Ny-Ålesund
	Romania	Scondary basis - individual license	
Annex 1 Band I			
Non Specific Short Range Devices 5725-5875 MHz			
	Romania	Secondary basis - individual license	
Annex 1 Band J			
Non Specific Short Range Devices 24.0-24.25 GHz			
	Bulgaria	Not implemented	Planned
	Cyprus	Not implemented	Under study
	France	Not implemented	
	Luxembourg	Limited to 24.05-24.25 GHz	24.0-24.05 for Amateur use only
	Romania	Not implemented	
	Spain	Not implemented	
	United Kingdom	Only 24.150-24.250 GHz	Restriction to protect police speedmeters. UK reviewing its position

Annex	Country	Restriction	Reason/remark
Annex 1 Band K			
Non Specific Short Range Devices 61.0-61.5 GHz			
	Bulgaria	Not implemented	Equipment/standards not yet developed
	Cyprus	Not implemented	Under study
	France	Not implemented	
	Romania	Not implemented	
	Spain	Not implemented	
	Sweden	Not implemented	
	United Kingdom	Not implemented	Not implementation due to lack of demand. Implementation under consideration
Annex 1 Band L			
Non Specific Short Range Devices 122-123 GHz			
	Bulgaria	Not implemented	Equipment/standards not yet developed
	Cyprus	Not implemented	Under study
	Czech Republic	Not implemented	Other services in the band
	France	Not implemented	
	Ireland	Not implemented	Ready to implement. No specification/equipment available
	Romania	Not implemented	
	Serbia & Montenegro	Not implemented	
	Spain	Not implemented	
	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			
	Bulgaria	Not implemented	Equipment/standards not yet developed
	Czech Republic	Not implemented	Military applications
	Cyprus	Not implemented	Under study
	France	Not implemented	
	Ireland	Not implemented	Ready to implement. No specification/equipment available
	Romania	Not implemented	
	Serbia & Montenegro	Not implemented	
	Spain	Not implemented	
	Sweden	Not implemented	Under study
	United Kingdom	Not implemented	Not implementation due to lack of demand. Implementation under consideration
Annex 2 Band B			
Avalanche Victims 457 kHz			
	Cyprus	Not implemented	Under study
	Latvia	Not implemented	
Annex 3 Band A			
Wideband Data Transmission systems 2400-2483.5 MHz			
	Bulgaria		General authorization required for outdoor use and public service
	France	Outdoor use limited to 10 mW e.i.r.p. within the band 2454-2483.5 MHz	
	Italy		If used outside of own premises, general authorization is required
	Luxembourg	None	General authorization required for public service
	Norway	Implemented	This subsection does not apply for the geographical area within a radius of 20 km from the centre of Ny-Ålesund
	Romania	On a secondary basis. Individual license required. T/R 22-06 not implemented	

Annex	Country	Restriction	Reason/remark
Annex 3 Band B			
Wideband Data Transmission systems 5150-5250 MHz			
	Belgium	Not implemented	
	Bulgaria	Not implemented	Planned
	Croatia	License required	
	Cyprus	Not implemented	Under study
	Greece	Not implemented	
	Italy		General authorization required if used outside own premises
	Liechtenstein	Not implemented	
	Luxembourg	None	General authorization required for public service
	Portugal	Not implemented	
	Romania	Not implemented	
	Slovak Republic	Not implemented	
	Spain	Not implemented	
Annex 3 Band C			
Wideband Data Transmission systems 5250-5350 MHz			
	Belgium	Not implemented	
	Bulgaria	Not implemented	Planned
	Croatia	License required	
	Cyprus	Not implemented	Under study
	Greece	Not implemented	
	Italy		General authorization required if used outside own premises
	Liechtenstein	Not implemented	
	Luxembourg	None	General authorization required for public service
	Portugal	Not implemented	
	Romania	Not implemented	
	Slovak Republic	Not implemented	
	Spain	Not implemented	
Annex 3 Band D			
Wideband Data Transmission systems 5470-5725 MHz			
	Belgium	Not implemented	
	Bulgaria	Not implemented	Planned
	Cyprus	Not implemented	Under study
	France	Not implemented	France will implement this band identified by the ERC/DEC(99)23 when the efficiency of the mitigation techniques made mandatory by this Decision is ensured
	Greece	Not implemented	
	Italy		General authorization required if used outside own premises
	Liechtenstein	Not implemented	
	Luxembourg	None	General authorization required for public service
	Macedonia (Rep of)	Not implemented	Will be implemented soon
	Portugal	Not implemented	
	Romania	Not implemented	
	Slovak Republic	Not implemented	Military services
	Spain	Not implemented	
	Turkey	Not implemented	Military services

Annex	Country	Restriction	Reason/remark
Annex 3 Band E			
Wideband Data Transmission systems 17.1-17.3 GHz			
	Belgium	Not implemented	
	Bulgaria	Not implemented	Equipment/Standards not yet developed
	Croatia	License required	
	Cyprus	Not implemented	Under study
	Czech Republic	Not implemented	Military applications
	France	Not implemented	
	Germany	Not implemented	Equipment/Standard not yet developed
	Hungary	Not implemented	No equipment and standards are available
	Italy		General authorization required if used outside own premises
	Luxembourg	Not implemented	
	Macedonia (Rep of)	Not implemented	Will be implemented soon
	Norway	Not implemented	
	Romania	Not implemented	
	Slovak Republic	Not implemented	
	Spain	Not implemented	Planned
	Sweden	Not implemented	
	Turkey	Not implemented	
Annex 4 Band A			
Railway applications 2446-2454 MHz			
	Bulgaria	Not implemented	Planned
	Cyprus	Not applicable	No railways
	Italy	Not implemented	
	Malta	Not implemented	Service not applicable to Malta
	Norway	Limited	Given center frequencies 2447.0, 2448.5, 2450.0, 2451.5 and 2453.0 MHz
	Portugal	Not implemented	
	Romania	Secondary basis. Individual license required	
	Slovak Republic	Not implemented	Military – more info end 2004
	Spain	Not implemented	
	Sweden	Not implemented	License required – Military band
Annex 4 Band B			
Railway applications 27.095 MHz			
	Bulgaria	Not implemented	Planned
	Croatia	Individual license required	
	Cyprus	Not applicable	No railways
	Ireland	Not implemented	
	Malta	Not implemented	Service not applicable to Malta
	Romania	Not implemented	
	Sweden	Not implemented	27.115 MHz used as provided in EU legislation
Annex 4 Band C			
Railway applications 4515 kHz			
	Bulgaria	Not implemented	Planned
	Croatia	Not implemented	
	Cyprus	Not applicable	No railways
	Greece	Not implemented	Under study
	Ireland	Not implemented	
	Malta	Not implemented	Service not applicable to Malta
	Portugal	Not implemented	Governmental band
	Romania	Not implemented	
	Spain	Not implemented	
	Sweden	Not implemented	

Annex	Country	Restriction	Reason/remark
Annex 5 Band A			
RTTT			
5795-5805 MHz			
	Bulgaria	Not implemented	Planned
	Cyprus	Not implemented	Under study
	Estonia	Power limited to 2 W e.i.r.p.	Planned full implementation beginning 2006
	France	Power limited to 2 W e.i.r.p.	
	Malta	Limited implementation	Power limited to 2 W e.i.r.p.
	Norway	Not implemented	
	Romania	Not implemented	Under study
	Switzerland	Power limited to 2 W e.i.r.p.	Exclusive Military band
	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			
	Bulgaria	Not implemented	Planned
	Croatia	Individual license required	
	Cyprus	Not implemented	Under study
	France	Not implemented	
	Luxembourg	None	General authorization required for public service
	Malta	Limited implementation	Power limited to 2 W e.i.r.p.
	Macedonia (Rep of)	Not implemented	
	Norway	Not implemented	
	Romania	Not implemented	Under study
	Switzerland	Not implemented	Exclusive Military band
	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			
	Austria	Not implemented	Equipment/standard not yet developed
	Bulgaria	Not implemented	Equipment/standards not yet developed
	Croatia	License required	
	Cyprus	Not implemented	Under study
	Estonia	Power limited to 2 W e.i.r.p	
	Germany	Not implemented	Equipment/standard not yet developed
	France	Not implemented	
	Norway	Not implemented	
	Poland	Not implemented	Equipment/standard not developed
	Romania	Not implemented	
	Sweden	Not implemented	Equipment/standard not available
	Switzerland	Not implemented	Under study. No standard available
Annex 5 Band D			
RTTT			
76-77 GHz			
	Bulgaria	Not implemented	Planned
	Cyprus	Not implemented	Under study
	Romania	Not implemented	
Annex 6 Band A			
Movement Detection			
2400-2483.5 MHz			
	France	Indoor use without restrictions. Outdoor use limited to 10 mW e.i.r.p. within the band 2454-2483.5 MHz	
	Romania	Not implemented	Under study
	Slovak Republic	Max 10 mW e.r.p.	Military – more info end 04
	United Kingdom	Limited implementation – only to 2445-2455 MHz permitted	Full implementation planned

Annex	Country	Restriction	Reason/remark
Annex 6 Band B			
Movement Detection 9200-9500 MHz			
	Bulgaria	Not implemented	Planned
	Cyprus	Not implemented	Under study
	Estonia	Individual license required	Planned full implementation beginning of 2006
	Finland	Not implemented	
	France	Not implemented	
	Greece	Not implemented	
	Italy	Not implemented	Military applications
	Romania	Not implemented	
	Serbia & Montenegro	Not implemented	
	Spain	Not implemented	
	Sweden	Not implemented	
	United Kingdom	Limited implementation – may be used for Radar Level Gauges on a licence per site basis only	European use of 10 GHz for movement sensing and alert is fragmented. The UK has an allocation at 10.577-10.597 GHz for these devices
Annex 6 Band C			
Movement Detection 9500-9975 MHz			
	Bulgaria	Not implemented	Planned
	Cyprus	Not implemented	Under study
	Estonia	Individual license required	Planned full implementation beginning of 2006
	France	Limited to 9.88-9.92 with max e.i.r.p. 50 mW	
	Germany	Not implemented	Military band
	Latvia	Not implemented	Under study
	Romania	Not implemented	
	Serbia & Montenegro	Not implemented	
	Slovak Republic	Not implemented	Military – more info end 2004
	Spain	Not implemented	
	Sweden	Not implemented	
	United Kingdom	Limited implementation - may be used for Radar Level Gauges on a license per site basis only	
Annex 6 Band D			
Movement Detection 10.5-10.6 GHz			
	Austria	Not implemented	Fixed Service
	Bulgaria	Not implemented	Planned
	Croatia	Limited	
	Cyprus	Not implemented	Under study
	Czech Republic	Not implemented	Other services 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	Limited	e.i.r.p. 25 mW. SNG systems are protected
	Ireland	25 mW e.i.r.p. power limit	
	Luxembourg	In the band 10.5-10.6 GHz the e.i.r.p. is limited to 25 mW	To avoid interference with ENG/OB and Fixed Service (ERC Report 47)
	Portugal	Not implemented	SAP/SAB applications
	Romania	Not implemented	
	Slovak Republic	Not implemented	Fixed Service
	Spain	Limited to 10517.5-10537.5 MHz	
	Sweden	Limited to 10.51-10.58 GHz	
	Turkey	Not implemented	
	United Kingdom	Limited to 10.577-10.597 GHz. May be used for Radar Level Gauges on a license per site basis only	The UK is developing Fixed Wireless Access in the band below 10.575 GHz

Annex	Country	Restriction	Reason/remark
Annex 6 Band E			
Movement Detection 13.4-14.0 GHz			
	Bulgaria	Not implemented	Planned
	Cyprus	Not implemented	Under study
	Estonia	Individual license required	Planned full implementation beginning of 2006
	France	Not implemented	
	Romania	Not implemented	
	Spain	Not implemented	
	Sweden	Not implemented	
	Turkey	Not implemented	
Annex 6 Band F			
Movement Detection 24.05-24.25 GHz			
	Bulgaria	Not implemented	Planned
	Cyprus	Not implemented	Under study
	France	Limited to 24.075-24.175 GHz	
	Romania	Not implemented	
	United Kingdom	Only 24.150-24.250 GHz	Restriction to protect police speedmeters. UK reviewing its position
Annex 7 Band A			
Alarms 868.600-868.700 MHz			
	Romania	Not implemented	
	United Kingdom	Duty cycle limit 0.1%	UK will be altering its regulations to align with new 70-03 level of 1%
Annex 7 Band B			
Alarms 869.250-869.300 MHz			
	Romania	Not implemented	
Annex 7 Band C			
Alarms 869.650-869.700 MHz			
	Romania	Not implemented	
	Slovak Republic	Max 10 mW e.r.p.	Military applications
Annex 7 Band D			
Alarms 869.200-869.250 MHz			
	Cyprus	Not implemented	Under study
Annex 7 Band E			
Alarms 869.300-869.400 MHz *(Technical parameters have been changed)*			
	Austria	Not implemented	
	Belgium	Not implemented	
	Bulgaria	Not implemented	
	Croatia	Not implemented	
	Cyprus	Not implemented	
	Czech Republic	Not implemented	
	Denmark	Not implemented	
	Estonia	Not implemented	Planned
	France	Not implemented	
	Germany	Not implemented	
	Greece	Not implemented	
	Hungary	Not implemented	Implementation is in progress
	Iceland	Not Implemented	

Annex	Country	Restriction	Reason/remark
	Ireland	Not implemented	Planned
	Italy	Not implemented	
	Latvia	Not implemented	
	Liechtenstein	Not implemented	
	Lithuania	Not implemented	
	Luxembourg	Not implemented	
	Macedonia (Rep of)	Not implemented	
	Norway	Not implemented	
	Poland	Not implemented	
	Portugal	Not implemented	
	Romania	Not implemented	
	Serbia & Montenegro	Not implemented	
	Slovak Republic	Not implemented	
	Slovenia	Not implemented	
	Spain	Not implemented	
	Sweden	Not implemented	
	Switzerland	Not implemented	Planned 2006
	The Netherlands	Not implemented	
	Turkey	Not implemented	
Annex 7 Band F			
Alarms 169.4750-169.4875 MHz			
	Austria	Not implemented	
	Belgium	Not implemented	
	Bulgaria	Not implemented	
	Croatia	Not implemented	
	Cyprus	Not implemented	
	Czech Republic	Not implemented	
	Denmark	Not implemented	
	Estonia	Not implemented	Planned full implementation beginning of 2006
	France	Not implemented	
	Germany	Not implemented	
	Greece	Not implemented	
	Hungary	Not implemented	Implementation is in progress
	Ireland	Not implemented	Under study
	Italy	Not implemented	
	Latvia	Not implemented	
	Liechtenstein	Not implemented	
	Lithuania	Not implemented	
	Luxembourg	Not implemented	
	Macedonia (Rep of)	Not implemented	
	Norway	Not implemented	
	Poland	Not implemented	Planned from 01.01.2006
	Portugal	Not implemented	
	Romania	Not implemented	
	Serbia & Montenegro	Not implemented	
	Slovak Republic	Not implemented	
	Slovenia	Not implemented	
	Spain	Not implemented	
	Sweden	Not implemented	
	Switzerland	Not implemented	Paging
	The Netherlands	Not implemented	
	Turkey	Not implemented	
	United Kingdom	Not implemented	Planned

Annex	Country	Restriction	Reason/remark
Annex 7 Band G			
Alarms			
169.5875-169.600 MHz			
	Austria	Not implemented	
	Belgium	Not implemented	
	Bulgaria	Not implemented	
	Croatia	Not implemented	
	Cyprus	Not implemented	
	Czech Republic	Not implemented	
	Denmark	Not implemented	
	Estonia	Not implemented	Planned
	France	Not implemented	
	Germany	Not implemented	
	Greece	Not implemented	
	Hungary	Not implemented	Implementation is in progress
	Iceland	Not Implemented	
	Ireland	Not implemented	Under study
	Italy	Not implemented	
	Latvia	Not implemented	
	Liechtenstein	Not implemented	
	Lithuania	Not implemented	
	Luxembourg	Not implemented	
	Macedonia (Rep of)	Not implemented	
	Norway	Not implemented	
	Poland	Not implemented	Planned from 01.01.2006
	Portugal	Not implemented	
	Romania	Not implemented	
	Serbia & Montenegro	Not implemented	
	Slovak Republic	Not implemented	
	Slovenia	Not implemented	
	Spain	Not implemented	
	Sweden	Not implemented	
	Switzerland	Not implemented	PMR
	The Netherlands	Not implemented	
	Turkey	Not implemented	
	United Kingdom	Not implemented	Planned
Annex 8 Band A			
Model Control			
26.995, 27.045, 27.095, 27.145,			
27.195 MHz			
	France	Not implemented	Citizen band
Annex 8 Band B			
Model Control			
34.995-35.225 MHz			
	France	Not implemented	Military use
	Germany	Limited to 35.005-35.205 MHz	Emergency services
	Liechtenstein	As of 01.01.08 band will be exclusively available for flying models	
	Norway	Limited	Given center frequencies (35.000 – 35.010 – 35.020 – etc.)
	Romania	Limited to 34.995-35.005 and 35.195-35.225 MHz. Individual license required if e.r.p. >100 mW	
	Spain	Limited to 35.030-35.200 MHz	
	Switzerland	Until 31.12.07 shared with the previous users (armed forces), interference-free cannot be guaranteed. From 01.01.08 exclusively for flying models	Until 31.12.07 18 exclusive frequencies are available at 40.715-40.985 MHz band for flying models

Annex	Country	Restriction	Reason/remark	
Annex 8 Band C				
Model Control 40.665, 40.675, 40.685, 40.695 MHz				
	France	Not implemented	Planned	
Annex 9 Band AA				
Inductive applications 9-59.750 kHz				
	Croatia	Not implemented		
	Romania	Not implemented		
	Spain	Limited to 20.05-70 kHz		
Annex 9 Band AB				
Inductive applications 59.750-60.250 kHz				
	Croatia	Not implemented		
	Romania	Not implemented		
Annex 9 Band AC				
Inductive applications 60.250-70 kHz				
	Croatia	Not implemented		
	Romania	Not implemented		
Annex 9 Band B				
Inductive applications 70-119 kHz				
	Croatia	Not implemented		
	Romania	Not implemented		
Annex 9 Band C				
Inductive applications 119-135 kHz				
	Croatia	Not implemented		
	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
	Romania	Not implemented		
Annex 9 Band C1				
Inductive applications 135-140 kHz				
	Bulgaria	Not implemented	Planned	
	Cyprus	Not implemented	Under study	
	Greece	Not implemented		
	Ireland	Not implemented	Planned	
	Italy	Not implemented	Planned	
	Latvia	Not implemented		
	Norway	Not implemented		
	Portugal	Not implemented	Planned end 04	
	Romania	Not implemented		
	Spain	Not implemented		
	Turkey	Not implemented	Under study	

Annex	Country	Restriction	Reason/remark
Annex 9 Band C2			
Inductive applications 140-148.5 kHz			
	Bulgaria	Not implemented	Planned
	Cyprus	Not implemented	Under study
	Greece	Not implemented	
	Ireland	Not implemented	Planned
	Italy	Not implemented	Planned
	Latvia	Not implemented	
	Norway	Not implemented	
	Portugal	Not implemented	Planned end 04
	Romania	Not implemented	
	Spain	Not implemented	
	Turkey	Not implemented	Under study
Annex 9 Band D			
Inductive applications 6765-6795 kHz			
	Croatia	Individual license required	
	The Netherlands	Implemented according to ERC/DEC(01)14	
Annex 9 Band E			
Inductive applications 7400-8800 kHz			
	Croatia	Not implemented	
	Romania	Not implemented	
Annex 9 Band F			
Inductive applications 13.553-13.567 MHz			
	Croatia	Individual license required	
	The Netherlands	Implemented according to ERC/DEC(01)14	
Annex 9 Band F1			
Inductive applications 13.553-13.567 MHz			
	Belgium	Not implemented	
	Bulgaria	Not implemented	Planned
	Croatia	Not implemented	
	Cyprus	Not implemented	Under study
	Estonia	Not implemented	Planned full implementation beginning of 2006
	France	Not implemented	
	Greece	Not implemented	
	Ireland	Not implemented	Planned
	Latvia	Not implemented	
	Liechtenstein	Not implemented	
	Lithuania	Not implemented	Under study
	Luxembourg	Not implemented	
	Norway	Not implemented	
	Portugal	Not implemented	
	Romania	Not implemented	
	Slovak Republic	Not implemented	
	Spain	Not implemented	
	Switzerland	Not implemented	Under study
	The Netherlands	Implemented according to ERC/REC 70-03 edition Jan 04	
	Turkey	Not implemented	Under study

Annex	Country	Restriction	Reason/remark
Annex 9 Band G			
Inductive applications 26.957-27.283 MHz			
	Croatia	Individual license required	
Annex 9 Band H			
Inductive applications 10.2-11 MHz			
	Austria	Not implemented	
	Belgium	Not implemented	
	Bulgaria	Not implemented	Planned
	Croatia	Not implemented	
	Cyprus	Not implemented	Under study
	Estonia	Not implemented	Planned full implementation beginning of 2006
	France	Not implemented	
	Greece	Not implemented	
	Ireland	Not implemented	Under study
	Italy	Not implemented	Planned
	Latvia	Not implemented	
	Liechtenstein	Not implemented	
	Lithuania	Not implemented	Under study
	Luxembourg	Not implemented	
	Norway	Not implemented	
	Portugal	Not implemented	
	Romania	Not implemented	
	Serbia & Montenegro	Not implemented	
	Slovak Republic	Not implemented	
	Spain	Not implemented	
	Sweden	Not implemented	
	Turkey	Not implemented	Under study
Annex 9 Band K			
Inductive applications 3155-3400 kHz			
	Bulgaria	Not implemented	Planned
	Croatia	Not implemented	
	Cyprus	Not implemented	Under study
	Ireland	Not implemented	Planned
	Italy	Not implemented	Planned
	Latvia	Not implemented	
	Norway	Not implemented	
	Portugal	Not implemented	Planned end 04
	Romania	Not implemented	
	Serbia & Montenegro	Not implemented	
	Spain	Not implemented	
	Turkey	Not implemented	Under study
	United Kingdom	Not implemented	This Annex permits 13.3dBμA/m while the UK only permits 9dBμA/m. Full implementation planned
Annex 9 Band L			
Inductive applications 148.5-1600 kHz			
	Austria	Not implemented	
	Belgium	Not implemented	
	Bulgaria	Not implemented	Planned
	Croatia	Not implemented	
	Cyprus	Not implemented	Under study
	Estonia	Not implemented	Planned full implementation beginning of 2006
	France	Not implemented	
	Greece	Not implemented	
	Hungary	Not implemented	Implementation is in progress
	Ireland	Not implemented	Planned
	Italy	Not implemented	Planned

Annex	Country	Restriction	Reason/remark
	Latvia	Not implemented	
	Liechtenstein	Not implemented	
	Lithuania	Not implemented	Planned
	Luxembourg	Not implemented	
	Macedonia (Rep of)	Not implemented	Will be implemented soon
	Norway	Not implemented	
	Portugal	Not implemented	
	Romania	Not implemented	
	Serbia & Montenegro	Not implemented	
	Slovak Republic	Not implemented	
	Spain	Not implemented	
	Sweden	Not implemented	
	The Netherlands	Not implemented	Under study
	Turkey	Not implemented	Under study
Annex 10 Band A			
Radio microphones			
29.7-47.0 MHz			
	Austria	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	
	Bulgaria	Limited to 36.3, 36.5, 36.7, 36.9, 37.1 and 46.0-46.2 MHz	
	Croatia	License required	
	Czech Republic	Limited to 36.4-36.65 and 36.65-38 MHz, 2 mW e.r.p. (handicapped only) 38-38.5 MHz	Military applications
	Estonia	Limited to 37.6-38.6 MHz	Land mobile
	Finland	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 to 32.8, 36.4, 39.2 MHz 1 mW e.r.p. and 200 kHz	
	Germany	Limited to 32.4-38.2 MHz. Permitted channel spacing 10 kHz below 36 MHz and 40 kHz above 36 MHz	
	Greece	Limited to 30, 30.5, 31, 35, 36.5, 36.7, 37, 37.1 and 37.5 MHz	38.25-47 MHz Governmental use
	Hungary	Limited 34.9-38.5 MHz band is allocated	34.9-38.5 MHz band is allocated
	Ireland	Not implemented	Planned
	Italy	Limited to 41-43.6 MHz	Military applications
	Latvia	Not implemented	
	Liechtenstein	Limited to 31.4-39.6 MHz	
	Luxembourg	Limited to 29.7-38 MHz, excluding the use of the band 34.995-35.225 MHz	
	Malta	Limited to 29.7-34.9 and 37.5-40.98 MHz	
	Norway	Limited to 41.0-43.6 MHz max channel spacing 10 kHz. Max 100 mW e.r.p. AM not allowed	
	Portugal	Not implemented	
	Romania	Not implemented	
	Slovak Republic	Limited to 27.75-27.9 and 36.4-38.5 MHz	Occupied by military
	Spain	Limited to 31.5, 31.75, 37.85, 38.3 and 38.55 MHz	
	Sweden	Limited to 41.0-43.6 MHz	Land Mobile
	Switzerland	Limited to 31.4-39.6 MHz	Main use by military services
	United Kingdom	Individual license required	26 countries have restrictions here. Many could be removed if licensing was specified in the Annex
Annex 10 Band B			
Radio microphones			
173.965-174.015 MHz			
	Austria	Not implemented	
	Belgium	Not implemented	
	Bulgaria	Not implemented	Planned
	Croatia	Not implemented	
	Cyprus	Not implemented	Under study
	Denmark	Not implemented	PMR band
	Finland	Individual license required. Regional restrictions	PMR and broadcasting usage
	France	Not implemented	Governmental band
	Greece	Not implemented	Under study
	Norway	Limited to 173.8125, 173.8375, 173. 8625, 173.8875, 173.9125, 173.9375, 173.9625, 173.9875 MHz	

Annex	Country	Restriction	Reason/remark
	Poland	Not implemented	Military band
	Portugal	Not implemented	Under study
	Romania	Not implemented	
	Spain	Not implemented	
	Sweden	Not implemented	Land Mobile
	Switzerland	Not implemented	Closely occupied with mobile services
Annex 10 Band C			
Radio microphones 863-865 MHz			
	Croatia	License required	
	Cyprus	Not implemented	Under study
	Romania	Limited to 845-862 MHz	
Annex 10 Band D			
Radio microphones 174-216 MHz			
	Austria	Not implemented	
	Bulgaria	Not implemented	Planned
	Croatia	Not implemented	
	Cyprus	Not implemented	Under study
	Finland	Regional restrictions	Broadcasting usage
	France	175.5-178.5 and 183.5-186.5 MHz with 10 mW e.r.p. and 200 kHz channel spacing	
	Ireland	Individual license required	
	Latvia	Not implemented	Under study
	Malta	Not implemented	Band allocated to broadcasting services
	Norway	Not implemented	
	Portugal	Not implemented	Under study
	Romania	Not implemented	
	Spain	Limited to 174.1, 174.3, 175.5, 176.3, 179.3, 188.1, 188.5, 189.1, 191.9 and 194.5 MHz	
	The Netherlands		License exempted
Annex 10 Band E			
Radio microphones 470-862 MHz			
	Austria	Individual license required	
	Bulgaria	Not implemented	Planned
	Croatia	License required	
	Cyprus	Not implemented	Under study
	Denmark	Limited to 800.100-819.900 MHz	
	Finland	Only 790.100-821.900 and 854-862 MHz Individual licence required	
	France	Limited to 470-830 MHz	
	Germany	Sub-bands 608-614 MHz (TV ch 38) and 814-838 MHz (TV ch 64-66) excluded	Radio Astronomy, military applications
	Ireland	Individual license required	
	Italy	Limited to 470-854 MHz	854-862 MHz is exclusive military band
	Latvia	Not implemented	Under study
	Malta	Limited to 854-862 MHz	
	Norway	Limited to 800-820 MHz max 20 mW e.r.p.	
	Macedonia (Rep of)	Not implemented	Will be implemented soon
	Portugal	Not implemented	Under study
	Romania	Not implemented	
	Spain	Not implemented	
	The Netherlands		License exempted
	Ukraine	Individual license required	

Annex	Country	Restriction	Reason/remark
Annex 10 Band F			
Radio microphones 1785-1800 MHz			
	Austria	Limited to 1785.7-1799.4 MHz	Guard bands to be respected
	Bulgaria	Not implemented	Planned
	Croatia	Not implemented	
	Cyprus	Not implemented	Under study
	Czech Republic	Limited to 1785.7-1799.4 MHz	Guard bands to be respected
	Ireland	Limited to 1785.7-1799.4 MHz	Band subject to review
	Italy	Not implemented	Military applications
	Liechtenstein	Limited to 1785.7-1799.4 MHz	
	Macedonia (Rep of)	Not implemented	Will be implemented soon
	Poland	Limited to 1785.7-1799.4 MHz	Guard bands to be respected
	Portugal	Not implemented	Under study
	Romania	Not implemented	
	Slovak Republic	Not implemented	
	The Netherlands		License exempted
Annex 11 Band A			
RFID 2446-2454 MHz			
	Bulgaria	Not implemented	Planned
	Croatia	Not implemented	
	Cyprus	Not implemented	
	France	Max e.i.r.p. 500 mW	
	Italy	Not implemented	
	Latvia	Not implemented	
	Portugal	Not implemented	
	Romania	Not implemented	
	Slovak Republic	Not implemented	Military - more info end 2004
	Spain	Not implemented	
	Sweden	Limited to 25 mW e.i.r.p.	Military band
Annex 11 Band B1			
RFID 865-868 MHz			
	Belgium	Not implemented	
	Bulgaria	Not implemented	
	Croatia	Not implemented	
	Cyprus	Not implemented	Under study
	Estonia	Individual license required	Planned full implementation beginning of 2006
	France	Not implemented	
	Greece	Not implemented	
	Hungary	Not implemented	Implementation is in progress
	Ireland	Not implemented	Planned
	Italy	Not implemented	Planned
	Latvia	Not implemented	
	Liechtenstein	Not implemented	
	Lithuania	Not implemented	Under study
	Luxembourg	Not implemented	
	Norway	Not implemented	
	Portugal	Not implemented	
	Romania	Not implemented	
	Slovak Republic	Not implemented	
	Slovenia	Not implemented	Planned
	Spain	Not implemented	
	The Netherlands	Not implemented	Planned 05
	Turkey	Not implemented	

Annex	Country	Restriction	Reason/remark
Annex 11 Band B2			
RFID 865.6-867.6 MHz			
	Belgium	Not implemented	
	Bulgaria	Not implemented	
	Croatia	Not implemented	
	Cyprus	Not implemented	Under study
	Estonia	Individual license required	Planned full implementation beginning of 2006
	France	Not implemented	
	Greece	Not implemented	
	Hungary	Not implemented	Implementation is in progress
	Ireland	Not implemented	Planned
	Italy	Not implemented	Planned
	Latvia	Not implemented	
	Liechtenstein	Not implemented	
	Lithuania	Not implemented	Under study
	Luxembourg	Not implemented	
	Norway	Not implemented	
	Portugal	Not implemented	
	Romania	Not implemented	
	Slovak Republic	Not implemented	
	Slovenia	Not implemented	Planned
	Spain	Not implemented	
	The Netherlands	Not implemented	Planned 2005
	Turkey	Not implemented	
Annex 11 Band B3			
RFID 865.6-868 MHz			
	Belgium	Not implemented	
	Bulgaria	Not implemented	
	Croatia	Not implemented	
	Cyprus	Not implemented	Under study
	Estonia	Individual license required	Planned full implementation beginning of 2006
	France	Not implemented	
	Greece	Not implemented	
	Hungary	Not implemented	Implementation is in progress
	Ireland	Not implemented	Planned
	Italy	Not implemented	Planned
	Latvia	Not implemented	
	Liechtenstein	Not implemented	
	Lithuania	Not implemented	Under study
	Luxembourg	Not implemented	
	Norway	Not implemented	
	Portugal	Not implemented	
	Romania	Not implemented	
	Slovak Republic	Not implemented	
	Slovenia	Not implemented	Planned
	Spain	Not implemented	
	The Netherlands	Not implemented	Planned 2005
	Turkey	Not implemented	
Annex 12 Band A			
Wireless applications in Healthcare 402-405 MHz			
	Croatia	Not implemented	
	Romania	Not implemented	

Annex	Country	Restriction	Reason/remark
Annex 12 Band B			
Wireless applications in Healthcare 9-315 kHz			
	Bulgaria	Not implemented	Planned
	Croatia	Not implemented	
	Cyprus	Not implemented	Under study
	Italy	Not implemented	Planned
	Latvia	Not implemented	
	Romania	Not implemented	
	Serbia & Montenegro	Not implemented	
	Spain	Not implemented	
	Sweden	Not implemented	
	Turkey	Not implemented	Under study
	United Kingdom	Limited to 9-185 kHz	Full implementation planned
Annex 12 Band C			
Wireless applications in Healthcare 315-600 kHz			
	Austria	Not implemented	
	Belgium	Not implemented	
	Bulgaria	Not implemented	
	Croatia	Not implemented	
	Cyprus	Not implemented	Under study
	Estonia	Individual license required	Planned full implementation beginning of 2006
	France	Not implemented	
	Greece	Not implemented	
	Hungary	Not implemented	Implementation is in progress
	Ireland	Not implemented	Under study
	Italy	Not implemented	Planned
	Latvia	Not implemented	
	Liechtenstein	Not implemented	
	Lithuania	Not implemented	Under study
	Luxembourg	Not implemented	
	Norway	Not implemented	
	Portugal	Not implemented	
	Romania	Not implemented	
	Serbia & Montenegro	Not implemented	
	Slovak Republic	Not implemented	
	Slovenia	Not implemented	Planned
	Spain	Not implemented	
	The Netherlands	Not implemented	Under study
	Turkey	Not implemented	Under study
Annex 12 Band D			
Wireless applications in Healthcare 30-37.5 MHz			
	Austria	Not implemented	
	Belgium	Not implemented	
	Bulgaria	Not implemented	
	Croatia	Not implemented	
	Czech Republic	Not implemented	Other services in the band
	Cyprus	Not implemented	Under study
	Estonia	Individual license required	Planned full implementation beginning of 2006
	France	Not implemented	
	Greece	Not implemented	
	Hungary	Not implemented	Implementation is in progress
	Iceland	Not implemented	
	Ireland	Not implemented	Under study
	Italy	Not implemented	Planned
	Latvia	Not implemented	
	Liechtenstein	Not implemented	
	Lithuania	Not implemented	Under study
	Luxembourg	Not implemented	
	Norway	Not implemented	
	Portugal	Not implemented	
	Romania	Not implemented	

Annex	Country	Restriction	Reason/remark
	Slovak Republic	Not implemented	
	Slovenia	Not implemented	Planned
	Spain	Not implemented	
	Sweden	Not implemented	Planned
	Switzerland	Not implemented	Military band
	The Netherlands	Not implemented	
	Turkey	Not implemented	Under study
Annex 13 Band A			
Wireless Audio 863-865 MHz			
	Croatia	Individual license required	
	Romania	Not implemented	
	United Kingdom	Channel bandwidths ≤300 kHz	UK will be altering its regulations to align with new 70-03 which no longer has this restriction
Annex 13 Band B			
Wireless Audio 864.8-865 MHz			
	Bulgaria	Not implemented	Planned
	Croatia	Individual license required	
	Cyprus	Not implemented	Under study
	Greece	Not implemented	
	Italy	Not implemented	Planned
	Latvia	Not implemented	
	Romania	Not implemented	
Annex 13 Band C			
Wireless Audio 1795-1800 MHz			
	Austria	Not implemented	
	Belgium	Not implemented	
	Bulgaria	Not implemented	
	Croatia	Not implemented	
	Cyprus	Not implemented	Under study
	Estonia	Individual license required	Planned full implementation beginning of 2006
	Finland	Not implemented	
	France	Not implemented	
	Greece	Not implemented	
	Ireland	Not implemented	Under study
	Italy	Not implemented	Planned
	Latvia	Not implemented	
	Liechtenstein	Not implemented	
	Lithuania	Not implemented	Under study
	Luxembourg	Not implemented	
	Norway	Not implemented	
	Portugal	Not implemented	
	Romania	Not implemented	
	Slovak Republic	Not implemented	
	Spain	Not implemented	
	Switzerland	Not implemented	
	The Netherlands	Channel spacing 600 kHz	max 50 mW e.r.p.
Annex 13 Band D			
Wireless Audio 87.5-108 MHz			
	Austria	Not implemented	
	Belgium	Not implemented	
	Bulgaria	Not implemented	
	Croatia	Not implemented	
	Cyprus	Not implemented	
	Czech Republic	Not implemented	
	Germany	Not implemented	
	Estonia	Not implemented	
	France	Not implemented	
	Finland	Not implemented	
	Greece	Not implemented	
	Hungary	Not implemented	

Appendix 3 – National Restrictions

Annex	Country	Restriction	Reason/remark
	Ireland	Not implemented	
	Italy	Not implemented	
	Latvia	Not implemented	
	Liechtenstein	Not implemented	
	Lithuania	Not implemented	
	Luxembourg	Not implemented	
	Malta	Not implemented	
	Norway	Not implemented	
	Poland	Not implemented	
	Portugal	Not implemented	
	Romania	Not implemented	
	Serbia & Montenegro	Not implemented	
	Slovak Republic	Not implemented	
	Slovenia	Not implemented	
	Spain	Not implemented	
	Sweden	Not implemented	
	The Netherlands	Not implemented	
	Turkey	Not implemented	
	United Kingdom	Not implemented	

List of abbreviations as used in this document

AVI	Automatic Vehicle Identification for Railways
CEPT	European Conference of Postal and Telecommunications Administrations
CB	Citizen Band (27 MHz)
CT2	Cordless Telephones
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
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
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 2005
Annex 2	Devices for Detecting Avalanche Victims	8	April 2004
Annex 3	Wideband Data Transmission systems	9	August 2005
Annex 4	Railway applications	10	February 2002
Annex 5	Road Transport & Traffic Telematics (RTTT)	12	February 2004
Annex 6	Equipment for Detecting Movement and Equipment for Alert	13	April 2004
Annex 7	Alarms	14	October 2005
Annex 8	Model Control	15	May 2003
Annex 9	Inductive applications	16	January 2005
Annex 10	Radio microphones	19	February 2002
Annex 11	Radio frequency identification applications	20	October 2004
Annex 12	Wireless applications in Healthcare	21	October 2005
Annex 13	Wireless Audio Applications	22	November 2005
Appendix 1	Implementation Status	23	February 2006
Appendix 2	List of relevant ECC/ERC Decisions, Recommendations and ETSI Standards	26	October 2005
Appendix 3	National restrictions	29	February 2006