

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 7 May 2012

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

PLEASE NOTE
IMPLEMENTATION STATUS
page 24

FOREWORD

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

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

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

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

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

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

INDEX TABLE

FOREWORD	2
INTRODUCTION	4
ANNEX 1 NON-SPECIFIC SHORT RANGE DEVICES	6
ANNEX 2 TRACKING, TRACING AND DATA ACQUISITION	8
ANNEX 3 WIDEBAND DATA TRANSMISSION SYSTEMS	9
ANNEX 4 RAILWAY APPLICATIONS	10
ANNEX 5 ROAD TRANSPORT AND TRAFFIC TELEMATICS (RTTT)	11
ANNEX 6 RADIODETERMINATION APPLICATIONS	13
ANNEX 7 ALARMS	15
ANNEX 8 MODEL CONTROL	16
ANNEX 9 INDUCTIVE APPLICATIONS	17
ANNEX 10 RADIO MICROPHONE APPLICATIONS INCLUDING AIDS FOR THE HEARING IMPAIRED	19
ANNEX 11 RADIO FREQUENCY IDENTIFICATION APPLICATIONS	21
ANNEX 12 ACTIVE MEDICAL IMPLANTS AND THEIR ASSOCIATED PERIPHERALS	22
ANNEX 13 WIRELESS AUDIO APPLICATIONS	24
APPENDIX 1 Implementation status	24
APPENDIX 2 List of relevant ECC/ERC Decisions, Reports EC Decisions and ETSI Standards	31
ECC/ERC DECISIONS	31
ECC/ERC REPORTS	32
ETSI STANDARDS INCLUDING HARMONISED STANDARDS	35
GENERIC STANDARDS	35
SPECIFIC STANDARDS	35
EC DECISIONS	36
APPENDIX 3 National restrictions	36
LIST OF ABBREVIATIONS AS USED IN THIS DOCUMENT	58
DUTY CYCLE CATEGORIES	59
DOCUMENT HISTORY	60

INTRODUCTION

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

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

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

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

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

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

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

Appendix 2 covers the relevant ECC/ERC Decisions and ETSI standards.

For countries having implemented the R&TTE Directive further details can be found on the relevant EC http://ec.europa.eu/enterprise/sectors/rtte/index_en.htm and the ECO web sites (www.cept.org/ecc).

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

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

“The European Conference of Postal and Telecommunications Administrations,

considering

- a) that SRDs in general operate in shared bands and are not permitted to cause harmful interference to radio services;
- b) that in general SRDs cannot claim protection from radio services;
- c) that due to the increasing interest in the use of SRDs for a growing number of applications it is necessary to harmonise frequencies and regulations for these devices;
- d) that there is a need to distinguish between different applications;
- e) that additional applications and associated annexes will be added as necessary;
- f) that for CEPT countries that have implemented the R&TTE Directive article 12 (CE marking) and article 7.2 on putting into service of radio equipment apply,
- g) that equipment marketed before the adoption of this Recommendation marked with the abbreviation CEPT LPD Y according to the abrogated CEPT Recommendation T/R 01-04 should be allowed continuation of free circulation and use
- h) that maintenance of Appendices 2 and 3 and also the related cross-references in the Annexes may be undertaken by the ECO 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;
- l) that EU/ EFTA Member States are required to implement the EC Decisions listed in Appendix 2 of this recommendation and that for those countries a "Y" indication in the implementation table means that the least restrictive regulatory parameters of any of the respective EC Decisions listed in Appendix 2 applies. The parameters in the EC Decisions listed in Appendix 2 may be subject to a derogation for an individual country and this should be detailed 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.cept.org/eco/deliverables) for the up to date position on the implementation of this and other ECC/ERC deliverables.

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 be preferably used above 2.4 GHz.

This annex also includes references to the generic UWB regulation which was primarily developed to allow communication applications using UWB technology in bands below 10.6 GHz; but enables also other types of radio applications.

Regulatory parameters related to Annex 1

Frequency Band	Power / Magnetic Field	Spectrum access and mitigation requirement	Channel spacing	ECC/ERC Decision	Notes
a 6765-6795 kHz	42 dBμA/m at 10m	No requirement	No spacing		
b 13.553-13.567 MHz	42 dBμA/m at 10m	No requirement	No spacing		
c 26.957-27.283 MHz	42 dBμA/m at 10m 10 mW e.r.p	No requirement	No spacing		
d 40.660-40.700 MHz	10 mW e.r.p.	No requirement	No spacing		
e 138.20-138.45 MHz	10 mW e.r.p.	< 1.0 % duty cycle (note 1)	No spacing		
f 433.050-434.790 MHz (note 4)	10 mW e.r.p.	< 10 % duty cycle (note 1)	No spacing		
f1 433.050-434.790 MHz (note 4bis)	1 mW e.r.p. -13 dBm/10 kHz	No requirement	No spacing		Power density limited to -13 dBm/10 kHz for wideband modulation with a bandwidth greater than 250 kHz
f2 434.040-434.790 MHz (note 4bis)	10 mW e.r.p.	No requirement	Up to 25 kHz		
g 863-870 MHz (note 3, 4 and 6)	≤ 25 mW e.r.p.	≤ 0.1% duty cycle 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 7)	≤ 0.1% duty cycle or LBT+AFA (note 1, 5 and 6)	No spacing		DSSS and other wideband modulation other than FHSS
	≤ 25 mW e.r.p.	≤ 0.1% duty cycle or LBT+AFA (note 1 and 5)	≤ 100 kHz, for 1 or more channels modulation bandwidth ≤ 300 kHz (note 2)		Narrow /wide-band modulation
g1 868.000-868.600 MHz (note 4)	≤ 25 mW e.r.p.	≤ 1% duty cycle or LBT+AFA (note 1)	No spacing, for 1 or more channels (note 2)		Narrow / wide-band modulation. No channel spacing, however the whole stated frequency band may be used
g2 868.700-869.200 MHz (note 4)	≤ 25 mW e.r.p.	≤ 0.1% duty cycle or LBT+AFA (note 1)	No spacing, for 1 or more channels (note 2)		Narrow / wide-band modulation. No channel spacing, however the whole stated frequency band may be used
g3 869.400-869.650 MHz	≤ 500 mW e.r.p.	≤ 10% duty cycle or LBT+AFA (note 1)	25 kHz (for 1 or more channels)		Narrow / wide-band modulation The whole stated frequency band may be used as 1 channel for high speed data transmission
g4 869.700-870.000 MHz (note 4bis)	≤ 5 mW e.r.p.	No requirement	No spacing (for 1 or more channels)		Narrow / wide-band modulation. No channel spacing, however the whole stated frequency band may be used
	≤ 25 mW e.r.p.	up to 1% duty cycle or LBT+AFA (note 1)			
h 2400.0-2483.5 MHz	10 mW e.i.r.p.	No requirement	No spacing		
i 5725-5875 MHz	25 mW e.i.r.p.	No requirement	No spacing		
j 24.00-24.25 GHz	100 mW e.i.r.p.	No requirement	No spacing		
k 61.0-61.5 GHz	100 mW e.i.r.p.	No requirement	No spacing		
l 122-123 GHz	100 mW e.i.r.p.	No requirement	No spacing		
m 244-246 GHz	100 mW e.i.r.p.	No requirement	No spacing		
n 3.1-4.8 GHz 6 - 9 GHz	*	*	*	ECC/DEC/(06)04	Generic UWB regulation * See detailed requirements in related ECC Decisions

- Note 1: When either a duty cycle, Listen Before Talk (LBT) or equivalent technique applies then it shall not be user dependent/adjustable and shall be guaranteed by appropriate technical means.
For LBT devices without Adaptive Frequency Agility (AFA), or equivalent techniques, the duty cycle limit applies.
For any type of frequency agile device the duty cycle limit applies to the total transmission unless LBT or equivalent technique 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 video applications are allowed provided that a digital modulation method is used with a max. bandwidth of 300 kHz.
Analogue and digital voice applications are allowed with a max. bandwidth ≤ 25 kHz.
In sub-band 863-865 MHz voice and audio conditions of Annexes 10 and 13 of ERC/REC 70-03 apply respectively.
- Note 4bis: Audio and video applications are excluded. Analogue or digital voice applications are allowed with a max. bandwidth ≤ 25 kHz and with spectrum access technique such as LBT or equivalent. The transmitter shall include a power output sensor controlling the transmitter to a maximum transmit period of 1 minute for each transmission
- 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: The power density can be increased to +6.2 dBm/100 kHz and -0.8 dBm/100 kHz, if the band of operation is limited to 865-868 MHz and 865-870 MHz respectively.

Additional Information

Harmonised Standards

EN 300 220	sub-bands c) to g4)
EN 300 330	sub-bands a) to c)
EN 300 440	sub-bands h), i) and j)
EN 305 550	sub-band k), l) and m)
EN 302 065	subband n)
EN 302 500	subband n) (only 6-9 GHz)

Technical parameters also referred to in the harmonised standard

Listen before talk (LBT) with Adaptive Frequency Agility (AFA) technique feature may be used instead of duty cycle.

LBT is defined in EN 300 220.

Audio and voice are defined in EN 300 220.

Frequency issues

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

Sub-band g)

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

The adjacent frequency bands below 862 MHz and above 870 MHz may be used by high power systems. Manufacturers should take this into account in the design of equipment and choice of power levels.

Annex 2 Tracking, Tracing and Data Acquisition

Scope of Annex

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

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

Regulatory parameters related to Annex 2

Frequency Band	Power / Magnetic field	Spectrum access and mitigation requirement	Channel Spacing	ECC/ERC Decision	Notes
a 456.9-457.1 kHz	7 dBµA/m at 10 m	No requirement	Continuous wave (CW) – no modulation.	ECC/DEC/(04)01	Detection of avalanche victims. Note: Centre frequency is 457 kHz
b 169.4-169.475 MHz	500 mW e.r.p.	< 10% duty cycle	Max 50 kHz	ECC/DEC/(05)02	Meter Reading
c 169.4-169.475 MHz	500 mW e.r.p.	< 1% duty cycle	Max 50 kHz	ECC/DEC/(05)02	Asset Tracking and Tracing

Additional Information

Harmonised Standards

EN 300 718 Sub-band a)
EN 300 220 Sub-bands b) and c)

Frequency issues

No information

Technical parameters also referred to in the harmonised standard

No information

Annex 3 Wideband Data Transmission systems

Scope of Annex

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

Regulatory parameters related to Annex 3

Frequency Band	Power	Spectrum access and mitigation requirement	Channel spacing	ECC/ERC Decision	Notes
a 2400.0–2483.5 MHz	100 mW e.i.r.p.	Adequate spectrum sharing mechanism (e.g. Listen-before-Talk, Detect-And-Avoid) shall be implemented by the equipment	No spacing	ERC/DEC/(01)07	For wide band modulations other than FHSS, the maximum e.i.r.p. density is limited to 10 mW/MHz
b 17.1–17.3 GHz	100 mW e.i.r.p.	No requirement	No spacing		
c 57–66 GHz	40 dBm mean e.i.r.p. This refers to the highest power level of the transmitter power control range during the transmission burst if transmitter power control is implemented	Adequate spectrum sharing mechanism (e.g. Listen-before-Talk, Detect-And-Avoid) shall be implemented by the equipment.	No spacing		Fixed outdoor installations are not allowed. The maximum mean e.i.r.p density is limited to 13 dBm/MHz. Point-to-point links of the Fixed Service are regulated by ECC/REC/(05)02 and ECC/REC/(09)01

Additional Information

Harmonised Standards

EN 300 328 sub-band a)
t.b.d sub-band b)
EN 302 567 sub-band c)

Annex 4 Railway applications

Scope of Annex

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

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

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

Regulatory parameters related to Annex 4

Frequency Band	Power	Spectrum access and mitigation requirement	Channel spacing	ECC/ERC Decision	Notes
a 2446-2454 MHz	500 mW e.i.r.p.	No requirement			Transmitting only in presence of trains. 5 channels, each 1.5 MHz wide within the band 2446-2454 MHz
b 27.090-27.100 MHz	42 dBμA/m at 10 m	No requirement	No spacing		Tele-powering and Down-link signal for Balise / Eurobalise. May also be optionally used for the activation of the Loop / Euroloop. Note: Center frequency is 27.095 MHz
c 984-7484 kHz	9 dBμA/m at 10m	<1% duty cycle	No spacing		Transmitting only on receipt of a Balise / Eurobalise tele-powering signal from a train. Note: Center frequency is 4234 kHz
d 7.3-23.0 MHz	-7 dBμA/m at 10m	No requirement	No spacing		Maximum field strength specified in a bandwidth of 10 kHz, spatially averaged over any 200m length of the loop. Transmitting only in presence of trains. Spread Spectrum Signal, Code Length: 472 Chips. Note: Center frequency is 13.547 MHz

Additional Information

Harmonised Standards

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

Frequency issues

No information

Technical parameters also referred to in the harmonised standard

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

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) including all types of communications between vehicles (e.g. car-to-car), and between vehicles and fixed locations (e.g. car-to-infrastructure) as well as radar system installations to be used in ground based vehicles.

Regulatory parameters related to Annex 5

Frequency Band	Power	Spectrum access and mitigation requirement	Channel spacing	ECC/ERC Decision	Notes
a 5795-5805 MHz	2 W e.i.r.p. 8 W e.i.r.p.	No requirement		ECC/DEC/(02)01	Individual license may be required for the higher power of 8 W systems
b 5805-5815 MHz	2 W e.i.r.p. 8 W e.i.r.p.	No requirement		ECC/DEC/(02)01	Individual license required. Individual license may be required for the higher power of 8 W systems
c 76-77 GHz	55 dBm peak e.i.r.p.	No requirement	No spacing	ECC/DEC/(02)01	50 dBm average power or 23.5 dBm average power for pulse radar only. For vehicle radars
d1 21.65-26.65 GHz	*	*	*	ECC/DEC/(04)10	For automotive Short Range Radars (SRR) * See detailed requirements in related ECC Decision. New SRR equipment may only be placed onto the market until 1 July 2013
d2 24.25 -26.65 GHz	*	*	*	ECC/DEC/(04)10	For automotive Short Range Radars (SRR) See detailed requirements in related ECC Decision. SRR equipment may only be placed onto the market until 1 January 2018. This date is extended by 4 years for SRR equipment mounted on motor vehicles for which vehicle conformity compliance has been granted before 1 January 2018
e 77-81 GHz	*	*	*	ECC/DEC/(04)03	For automotive Short Range Radars (SRR) * See detailed requirements in related ECC Decision
f1 24.050-24.075 GHz	100 mW e.i.r.p.	No requirement			For vehicle radars
f2 24.075-24.150 GHz	0.1mW e.i.r.p.	No requirement			For vehicle radars
	100 mW e.i.r.p.	$\leq 4\mu\text{s}/40\text{ kHz}$ dwell time every 3ms			For automotive radars The spectrum access and mitigation requirement is given for devices mounted behind a bumper. If mounted without a bumper, the requirement should be $3\mu\text{s}/40\text{kHz}$ maximum dwell time every 3ms. A requirement for minimum frequency modulation range (applicable to FMCW or step frequency signals) or minimum instantaneous bandwidth (applicable to pulsed signal) of 250 kHz applies in addition to the requirement on maximum dwell time
		$\leq 1\text{ms}/40\text{ kHz}$ dwell time every 40ms			For automotive radars The spectrum access and mitigation requirement is given for devices mounted either behind a bumper or mounted without a bumper. A requirement for minimum frequency modulation range (applicable to FMCW or step frequency signals) or minimum instantaneous bandwidth (applicable to pulsed signal) of 250 kHz applies in addition to the requirement on maximum dwell time
f3 24.150-24.250 GHz	100mW e.i.r.p.	No requirement			For vehicle radars
g1 24.250-24.495 GHz	-11 dBm e.i.r.p.	$\leq 0.25\%/s/25\text{ MHz}$ duty cycle			For automotive radars The activity of the Wideband Low Activity Mode (WLAM) is limited to avoid the risk of interference and this mode is only activated in specific configurations as a complementary to designation f1 to f3 as described in ECC Report 164
g2 24.495-24.500 GHz	-8 dBm e.i.r.p.	$\leq 1.5\%/s/5\text{ MHz}$ duty cycle			
g3 24.250-24.500 GHz	+20 dBm e.i.r.p.	$\leq 5.6\%/s/25\text{ MHz}$ duty cycle			
	+16 dBm e.i.r.p.	$\leq 2.3\%/s/25\text{ MHz}$ duty cycle			

Additional Information

Harmonised Standards

EN 300 674	sub-bands a) and b)
EN 301 091	sub-band c)
EN 302 288	sub-band d1) and d2)
EN 302 264	sub-band e)
EN 302 858	sub-bands f1) to f3) and g1) to g3) (under revision)

Annex 6 Radiodetermination applications

Scope of Annex

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

Regulatory parameters related to Annex 6

Frequency Band	Power	Spectrum access and mitigation requirement	Channel spacing	ECC/ERC Decision	Notes
a 2400.0-2483.5 MHz	25 mW e.i.r.p.	No requirement	No spacing	ERC/DEC/(01)08	
b 9200-9500 MHz	25 mW e.i.r.p.	No requirement	No spacing		
c 9500-9975 MHz	25 mW e.i.r.p.	No requirement	No spacing		
d 10.5-10.6 GHz	500 mW e.i.r.p.	No requirement	No spacing		
e 13.4-14.0 GHz	25 mW e.i.r.p.	No requirement	No spacing		
f 24.05-24.25 GHz	100 mW e.i.r.p.	No requirement	No spacing		The frequency band 24.0–24.25 GHz is identified with the same emission parameters in Annex 1 band j
g 4.5-7.0 GHz	-41.3 dBm/MHz e.i.r.p. outside the enclosed test tank structure	No requirement	No spacing		For Tank Level Probing Radar (TLPR)
h 8.5-10.6 GHz	-41.3 dBm/MHz e.i.r.p. outside the enclosed test tank structure	No requirement	No spacing		For Tank Level Probing Radar (TLPR) The radiated unwanted emissions within the frequency band 10.6-10.7 GHz outside the test tank enclosure shall be less than -60 dBm/MHz e.i.r.p.
i 24.05-27.00 GHz	-41.3 dBm/MHz e.i.r.p. outside the enclosed test tank structure	No requirement	No spacing		For Tank Level Probing Radar (TLPR)
j 57-64 GHz	-41.3 dBm/MHz e.i.r.p. outside the enclosed test tank structure	No requirement	No spacing		For Tank Level Probing Radar (TLPR)
k 75-85 GHz	-41.3 dBm/MHz e.i.r.p. outside the enclosed test tank structure	No requirement	No spacing		For Tank Level Probing Radar (TLPR)
l 6.0-8.5 GHz	*	*	*	ECC/DEC/(11)02	For Industrial Level Probing Radar (LPR) *See detailed requirements in related ECC Decision
m 24.05-26.5 GHz	*	*	*	ECC/DEC/(11)02	For Industrial Level Probing Radar (LPR) *See detailed requirements in related ECC Decision
n 57-64 GHz	*	*	*	ECC/DEC/(11)02	For Industrial Level Probing Radar (LPR) *See detailed requirements in related ECC Decision
o 75-85 GHz	*	*	*	ECC/DEC/(11)02	For Industrial Level Probing Radar (LPR) *See detailed requirements in related ECC Decision
p 17.1-17.3 GHz	+26 dBm e.i.r.p.	DAA	No spacing		For Ground Based Synthetic Aperture Radar (GBSAR) Specific requirements for the radar antenna pattern and for the implementation of Detect And Avoid (DAA) technique apply as described in EN 300 440
q 30 MHz-12.4 GHz	*	*	*	ECC/DEC/(06)08	For Ground- and Wall- Probing Radar (GPR/WPR) imaging systems, subject to an appropriate licensing regime * See detailed requirements in related ECC Decision
r 2.2-8 GHz	*	*	*	ECC/DEC/(07)01	For Material Sensing Devices. * See detailed requirements in related ECC Decision

Additional Information

Harmonised Standards

EN 300 440	sub-bands a), b), c), d), e), f), p)
EN 302 372	sub-bands g), h), i), j), k)
EN 302 729	sub-bands l), m), n), and o)
EN 302 066	sub-band q)
EN 302 435	sub-band r)

Annex 7 Alarms

Scope of Annex

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

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

- Alarms in sub-bands a), b), c) and e)
- Social Alarms sub-bands d), f) and g)

Regulatory parameters related to Annex 7

Frequency Band	Power	Spectrum access and mitigation requirement	Channel spacing	ECC/ERC Decision	Notes
a 868.6-868.7 MHz	10 mW e.r.p.	< 1.0 % duty cycle	25 kHz		The whole frequency band may also be used as 1 channel for high speed data transmissions
b 869.250-869.300 MHz	10 mW e.r.p.	< 0.1 % duty cycle	25 kHz		
c 869.650-869.700 MHz	25 mW e.r.p.	< 10 % duty cycle	25 kHz		
d 869.200-869.250 MHz	10 mW e.r.p.	< 0.1 % duty cycle	25 kHz		Social Alarms
e 869.300-869.400 MHz	10 mW e.r.p.	< 1.0 % duty cycle	25 kHz		
f 169.4750-169.4875 MHz	10 mW e.r.p.	< 0.1 % duty cycle	12.5 kHz	ECC/DEC/(05)02	Social Alarms (exclusive use)
g 169.5875-169.6000 MHz	10 mW e.r.p.	< 0.1 % duty cycle	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	Spectrum access and mitigation requirement	Channel spacing	ECC/ERC Decision	Notes
a 26.995, 27.045, 27.095, 27.145, 27.195 MHz	100 mW e.r.p	No requirement	10 kHz		
b 34.995-35.225 MHz	100 mW e.r.p	No requirement	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 requirement	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, data transfer to handheld devices, automatic article identification, wireless control systems, automatic road tolling and anti-theft systems including RF anti-theft induction systems. 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 strength	Spectrum access and mitigation requirement	Channel spacing	ECC/ERC Decision	Notes
a1 9 - 90 kHz	72 dB μ A/m at 10m (note 1)	No requirement	No spacing		In case of external antennas only loop coil antennas may be employed. Field strength level descending 3 dB/oct at 30 kHz
a2 90-119 kHz	42 dB μ A/m at 10m	No requirement	No spacing		In case of external antennas only loop coil antennas may be employed
a3 119-135 kHz	66 dB μ A/m at 10m (note 1)	No requirement	No spacing		In case of external antennas only loop coil antennas may be employed. Field strength level descending 3 dB/oct at 119 kHz
b 135-140 kHz	42 dB μ A/m at 10m	No requirement	No spacing		In case of external antennas only loop coil antennas may be employed
c 140-148.5 kHz	37.7 dB μ A/m at 10m	No requirement	No spacing		In case of external antennas only loop coil antennas may be employed
d 6765-6795 kHz	42 dB μ A/m at 10m	No requirement	No spacing		
e 7400-8800 kHz	9 dB μ A/m at 10m	No requirement	No spacing		
f 13.553-13.567 MHz	42 dB μ A/m at 10m	No requirement	No spacing		
f1 13.553-13.567 MHz	60 dB μ A/m at 10m	No requirement	No spacing		For RFID and EAS only
g 26.957-27.283 MHz	42 dB μ A/m at 10m	No requirement	No spacing		
h 10.200-11.000 MHz	9 dB μ A/m at 10m	No requirement	No spacing		
k 3155-3400 kHz	13.5 dB μ A/m at 10m	No requirement	No spacing		In case of external antennas only loop coil antennas may be employed
11 148.5 kHz - 5 MHz	-15 dB μ A/m at 10 m	No requirement	No spacing		In case of external antennas only loop coil antennas may be employed. <i>The maximum field strength is specified in a bandwidth of 10 kHz. The maximum allowed total field strength is -5 dBμA/m at 10 m for systems operating at bandwidths larger than 10 kHz whilst keeping the density limit (-15 dBμA/m in a bandwidth of 10 kHz)</i>
12 5-30 MHz	-20 dB μ A/m at 10 m	No requirement	No spacing		In case of external antennas only loop coil antennas may be employed. <i>The maximum field strength is specified in a bandwidth of 10 kHz. The maximum allowed total field strength is -5 dBμA/m at 10 m for systems operating at bandwidths larger than 10 kHz whilst keeping the density limit (-20 dBμA/m in a bandwidth of 10 kHz)</i>
13 400-600 kHz	-8 dB μ A/m at 10 m	No requirement	No spacing		For RFID only. In case of external antennas only loop coil antennas may be employed. <i>The maximum field strength is specified in a bandwidth of 10 kHz. The maximum allowed total field strength is -5dBμA/m at 10 m for systems operating at bandwidths larger than 10 kHz measured at the center frequency whilst keeping the density limit (-8dBμA/m in a bandwidth of 10 kHz.)</i> These systems should operate with a minimum operating bandwidth of 30 kHz

Note 1: Limit is reduced to 42 dB μ A/m at 10 m according to Table 1.

Station	Frequency	Protection bandwidth	Maximum Field strength at 10 m	Location
MSF	60 kHz	+/-250Hz	42 dB μ A/m	United Kingdom
RBU	66.6 kHz	+/-750Hz	42 dB μ A/m	Russian Federation
HBG	75 kHz	+/-250Hz	42 dB μ A/m	Switzerland
DCF77	77.5 kHz	+/-250Hz	42 dB μ A/m	Germany
DCF49	129.1 kHz	+/-500Hz	42 dB μ A/m	Germany

Table 1: Standard frequency and time signals to be protected within 9 - 90 kHz and 119 - 135 kHz

Additional Information

Harmonised Standards

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

Frequency issues

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

In case of loop antennas used within bands a1) and a3) integral or dedicated within an area between 0.05 m² and 0.16 m², the field strength is reduced by $10 \cdot \log(\text{area}/0.16 \text{ m}^2)$; 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

Sub-band a3)

RFIDs operating in the frequency sub-band 119-135 kHz shall meet the spectrum mask given in EN 300 330. This will permit a simultaneous use of the various sub-bands within the range 90 – 148.5 kHz.

Annex 10 Radio microphone applications including aids for the hearing impaired

Scope of Annex

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

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 and licensing restrictions are likely to exist and the national administration should be contacted.

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

- Aids for the hearing impaired: sub-bands b), c), d), h1), h2), i)
- Radio microphones: sub-bands a), c), d), e1), e2), e3), e4), f), g)

Aids for the hearing impaired are specific radio microphone applications which capture an acoustic signal that is transmitted by radio to the hearing aid receivers.

Regulatory parameters related to Annex 10

Frequency Band	Power	Spectrum access and mitigation requirement	Channel spacing	ECC/ERC Decision	Notes
a 29.7-47.0 MHz	10 mW e.r.p.	No requirement	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.	No requirement	50 kHz		Aids for the hearing impaired
c 863-865 MHz	10 mW e.r.p.	No requirement	No spacing		
d 174-216 MHz	50 mW e.r.p.	No requirement	No spacing		On a tuning range basis. Individual licence required
e1 470-786 MHz	50 mW e.r.p.	No requirement	No spacing		On a tuning range basis. Individual licence required
e2 786-789 MHz	12 mW e.r.p.	No requirement	No spacing		On a tuning range basis. Individual licence required. See technical conditions for PMSE (including radio microphones) in Annex 3 of Decision ECC/DEC/(09)03 section 3.1.
e3 823-826 MHz	20 mW e.i.r.p. 100 mW e.i.r.p.	No requirement	200 kHz		Individual licence required. 100 mW restricted to body worn microphones. See technical conditions for PMSE (including radio microphones) in Annex 3 of Decision ECC/DEC/(09)03 section 3.1.
e4 826-832 MHz	100 mW e.i.r.p.	No requirement	200 kHz		Individual licence required. See technical conditions for PMSE (including radio microphones) in Annex 3 of Decision ECC/DEC/(09)03 section 3.1.
f 1785-1795 MHz	20 mW e.i.r.p. 50 mW e.i.r.p.	No requirement	No spacing		Individual licence required. 50 mW restricted to body worn microphones
g 1795-1800 MHz	20 mW e.i.r.p. 50 mW e.i.r.p.	No requirement	No spacing		50 mW restricted to body worn equipment
h1 169.4000-169.4750 MHz	10 mW e.r.p.	No requirement	Max 50 kHz	ECC/DEC/(05)02	Aids for the hearing impaired (Personal Hearing Aid System)
	500 mW e.r.p.	No requirement	Max 50 kHz	ECC/DEC/(05)02	Aids for the hearing impaired (Public Hearing Aid System) Individual licence may be required.

h2 169.4875-169.5875 MHz	10 mW e.r.p.	No requirement	Max 50 kHz	ECC/DEC/(05)02	Aids for the hearing impaired (Personal Hearing Aid System)
	500 mW e.r.p.	No requirement	Max 50 kHz	ECC/DEC/(05)02	Aids for the hearing impaired (Public Hearing Aid System) Individual licence may be required.
i 169.4-174.0 MHz	10 mW e.r.p.	No requirement	Max 50 kHz		Aids for the hearing impaired On a tuning range basis Administrations should consider channel plan for band 169.4-169.8125 MHz detailed in ECC/DEC/(05)02 and the risk of interference towards systems operated in the band 169.6-169.8125 MHz when developing their national frequency table

Additional Information

Harmonised Standards

EN 300 422 all sub-bands
EN 301 357 sub-band c)

Frequency Issues

Sub-band d)

Some countries may allow radio microphones and aids for the hearing impaired to operate in parts of this band with maximum transmitter power of 10 mW e.r.p. and without individual licence. Detailed information can be obtained from national administrations.

Sub-bands e2), e3), e4):

Some national administrations which have not introduced mobile/fixed communication networks (MFCN) in accordance with Decision ECC/DEC/(09)03 may authorise larger parts or the whole of the band 786-862 MHz to be used by radio microphones.

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	Spectrum access and mitigation requirement	Channel spacing	ECC/ERC Decision	Notes
a1 2446-2454 MHz	≤500 mW e.i.r.p.	No requirement	No spacing		
a2 2446-2454 MHz	>500 mW-4 W e.i.r.p	≤ 15% duty cycle FHSS techniques should be used	No spacing		Power levels above 500 mW are restricted to be used inside the boundaries of a building and the duty cycle of all transmissions shall in this case be ≤15 % in any 200 ms period (30 ms on /170 ms off).
b1 865.0-865.6 MHz	100 mW e.r.p.	No requirement	200 kHz		
b2 865.6-867.6 MHz	2 W e.r.p.	No requirement	200 kHz		
b3 867.6-868.0 MHz	500 mW e.r.p.	No requirement	200 kHz		

Additional Information

Harmonised Standards

EN 300 440 Sub-band a1) and a2)
EN 300 761 Sub-band a1)
EN 302 208 Sub-bands b1), b2) and b3)

Frequency issues

Sub-band a2)

To assist enforcement authorities any emissions from an RFID device when measured outside of the building at a distance of 10 metres shall not exceed the field strength from 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.

Sub-bands b1), b2) and b3)

Channel centre frequencies are 864.9 MHz + (0.2 MHz * channel number).

The available channel numbers for each sub-band are:

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

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

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

Technical parameters also referred to in the harmonised standard

Sub-band a2)

In addition, antenna beamwidth limits shall be observed as described in the standard EN 300 440.

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

Annex 12 Active Medical Implants and their associated peripherals

Scope of Annex

This annex covers frequency bands and regulatory as well as informative parameters recommended for Active Medical Implants and their associated peripherals.

Regulatory parameters related to Annex 12

Frequency Band	Power/Magnetic Field	Spectrum access and mitigation requirement	Channel spacing	ECC/ERC Decision	Notes
a 402-405 MHz	25 μ W e.r.p.	See Note 3	25 kHz	ERC/DEC/(01)17	For Ultra Low Power Active Medical Implants covered by the applicable harmonised standard. Individual transmitters may combine adjacent channels for increased bandwidth up to 300 kHz.
a1 401-402 MHz	25 μ W e.r.p.	LBT or duty cycle $\leq 0.1\%$ (see note 2)	25 kHz	ERC/DEC/(01)17	For Ultra Low Power Active Medical Implants and accessories covered by the applicable harmonised standard and not covered by band a. Individual transmitters may combine adjacent 25 kHz channels for increased bandwidth up to 100 kHz (see note 1).
a2 405-406 MHz	25 μ W e.r.p.	LBT or duty cycle $\leq 0.1\%$ (see note 2)	25 kHz	ERC/DEC/(01)17	For Ultra Low Power Active Medical Implants and accessories covered by the applicable harmonised standard and not covered by band a. Individual transmitters may combine adjacent 25 kHz channels for increased bandwidth up to 100 kHz (see note 1).
b 9-315 kHz	30 dB μ A/m at 10m	< 10% duty cycle	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 dB μ A/m at 10m	< 10% duty cycle	No spacing		The application is for animal implantable devices.
d 30.0-37.5 MHz	1 mW e.r.p.	< 10% duty cycle	No spacing		The application is for Ultra Low Power medical membrane implants for blood pressure measurements.
e 12.5-20.0 MHz	-7 dB μ A/m at 10m	< 10% duty cycle	No spacing		The application is for ULP active animal implantable devices (ULP-AID), limited to indoor only applications. The maximum field strength is specified in a bandwidth of 10 kHz. The transmission mask of ULP-AID is defined as follows: 3dB bandwidth 300 kHz 10dB bandwidth 800 kHz 20dB bandwidth 2 MHz.
f 2483.5-2500 MHz	10 dBm e.i.r.p	LBT+AFA and < 10% duty cycle. See Note 3	1 MHz		For Low Power Active Medical Implants and associated peripherals, covered by the applicable harmonised standard. Individual transmitters may combine adjacent channels on a dynamic basis for increased bandwidth higher than 1 MHz. Peripheral units are for indoor use only.

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

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

Note 3: The equipment shall implement a spectrum access mechanism as described in the applicable harmonized standard or an equivalent spectrum access mechanism

Additional Information

Harmonised Standards

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

Frequency issues

Technical parameters also referred to in the harmonised standard

No information

Annex 13 Wireless Audio Applications

Scope of Annex

This annex covers frequency bands and regulatory as well as informative parameters recommended for applications for wireless audio systems including the following, cordless loudspeakers; cordless headphones; cordless headphones for portable use, for example portable CD, cassette or radio devices carried on a person; cordless headphones for use in a vehicle, for example for use with a radio or mobile telephone etc; in-ear monitoring, for use with concerts or other stage productions.

Regulatory parameters related to Annex 13

Frequency Band	Power	Spectrum access and mitigation requirement	Channel spacing	ECC/ERC Decision	Notes
a 863-865 MHz	10 mW e.r.p.	No requirement	No spacing		
b 864.8-865.0 MHz	10 mW e.r.p.	No requirement	50 kHz		Narrow band analogue voice devices
c 1795-1800 MHz	20 mW e.i.r.p.	No requirement	No spacing		
d 87.5-108.0 MHz	50 nW e.r.p.	No requirement	200 kHz		

Additional Information

Harmonised Standards

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

Frequency issues

Sub-band b)

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

Technical parameters also referred to in the harmonised standard

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

Sub-band d)

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

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

Annexes to ERC REC 70-03	AUT	BEL	BUL	CZE	CYP	DNK	EST	FIN	F	D	GRC	HNG	ISL	IRL	I	LVA	LIE	LTU	LUX	MLT	HOL	NOR	POL	POR	ROU	SVK	SVN	E	SUI	S	G	
Annex 1 - Non-Specific SRDs																																
Annex 1A 6765-6795 kHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 1B 13.553-13.567 MHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 1C 26.957-27.283 MHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 1D 40.660-40.700 MHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 1E 138.20-138.45 MHz	Y	N	Y	Y	Y	Y	Y	Y	N	N	Y	N	Y	Y	N	N	N	Y	Y	Y	N	Y	N	Y	Y	N	N	N	N	N	Y	
Annex 1F 433.050-434.790 MHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 1F1 433.050-434.790 MHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 1F2 434.040-434.790 MHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 1G 863-870 MHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	Y	Y	Y	Y	U	L	Y	Y	Y	Y	Y	Y	L	Y	N	Y
Annex 1G1 868.000-868.600 MHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 1G2 868.700-869.200 MHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 1G3 869.400-869.650 MHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 1G4 869.700-870.000 MHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 1H 2400.0-2483.5 MHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 1I 5725-5875 MHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 1J 24.00–24.25 GHz	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	L	
Annex 1K 61.0-61.5 GHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 1L 122-123 GHz	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 1M 244-246 GHz	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 1N 3.1-4.8 GHz	DEC/(06)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	Y	Y	
Annex 1N 6 - 9 GHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex2 - Tracking, Tracing and Data Acquisition																																
Annex 2A (*457 kHz) 456.9-457.1 kHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 2B 169.4-169.475 MHz	DEC/(05)02	Y	Y	N	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 2C 169.4-169.475 MHz		Y	Y	N	Y	Y	N	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 3 - Wideband Data Transmission Systems																																
Annex 3A 2400.0-2483.5 MHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 3B 17.1-17.3 GHz	Y	Y	Y	Y	N	Y	Y	Y	N	N	Y	P	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	N	
Annex 3C 57–66 GHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 4 - Railway Applications																																
Annex 4A 2446-2454 MHz	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	N	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	U	Y	Y	Y	L	Y	
Annex 4B (*27.095 MHz) 27.090-27.100 MHz	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	
Annex 4C (*4234 kHz) 984-7484 kHz	Y	P	Y	P	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	N	P	Y	Y	Y	Y	U	Y	Y	Y	N	Y	
Annex 4D (*13.547 MHz) 7.3-23.0 MHz	Y	P	Y	N	N	Y	Y	Y	Y	Y	N	Y	N	Y	N	P	Y	Y	Y	N	P	N	Y	Y	Y	U	Y	N	Y	N	Y	
Annex 5 - Road Transport and Traffic Telematics - RTTT																																
Annex 5A 5795–5805 MHz	DEC(02)01	Y	Y	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	L	Y	Y	L	Y	Y	L	Y	L	Y	Y	Y	Y	Y	Y	L	Y	L	
Annex 5B 5805-5815 MHz		Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	L	Y	Y	L	Y	L	Y	L	Y	Y	Y	Y	Y	Y	Y	L	Y	L
Annex 5C 76-77 GHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Annex 5D1 21.65-26.65 GHz	DEC(04)10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 5D2 24.25-26.65 GHz		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	P	N	N	N	N	N	N	N	N	N	N	N	N	P	N	N
Annex 5E 77 - 81 GHz	DEC(04)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	
Annex 5F1: 24.050-24.075 GHz		Y	P	N	P	N	Y	U	Y	N	Y	P	Y	Y	N	Y	Y	N	Y	N	Y	N	Y	N	U	N	Y	N	Y	N	Y	
*)Center frequency for the band																																
Highlighted yellow = not implemented																																
Y=implemented																																
L=limited implementation																																
P=planned																																
U=under study																																

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

Annex 9 - Inductive Applications -continued																																
Annexes to ERC REC 70-03	AUT	BEL	BUL	CZE	CYP	DNK	EST	FIN	F	D	GRC	HNG	ISL	IRL	I	LVA	LIE	LTU	LUX	MLT	HOL	NOR	POL	POR	ROU	SVK	SVN	E	SUI	S	G	
Annex 9F 13.553-13.567 MHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 9F1 13.553-13.567 MHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 9G 26.957-27.283 MHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 9H 10.200-11.000 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	
Annex 9K 3155-3400 kHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 9L1 148.5 kHz - 5 MHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 9L2 5 - 30 MHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 9L3 400-600 kHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 10 – Radio microphone applications including aids for the hearing impaired																																
Annex 10A 29.7-47.0 MHz	L	Y	Y	L	Y	Y	L	L	L	L	L	L	Y	Y	L	Y	L	L	L	L	Y	L	Y	N	Y	L	Y	L	L	L	N	
Annex 10B 173.965-174.015 MHz	Y	N	L	Y	Y	N	Y	Y	N	Y	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	Y	
Annex 10C 863-865 MHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 10D 174-216 MHz	Y	Y	Y	Y	Y	L	Y	L	L	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	Y	N	Y	Y	Y	Y	Y	L	Y	Y	Y	
Annex 10E1 470-786 MHz	Y	Y	Y	L	Y	Y	Y	L	L	L	L	Y	Y	Y	L	Y	Y	L	Y	L	Y	L	L	Y	Y	Y	Y	N	Y	Y	Y	
Annex 10E2 786-789 MHz	L	P	N	L	N	Y	Y	L	L	Y	N	N	Y	Y	N	N	L	L	Y	N	N	N	L	N	N	N	N	Y	N	L	N	Y
Annex 10E3 823-826 MHz	L	P	N	L	N	Y	U	Y	L	Y	N	N	Y	Y	N	N	L	L	Y	N	N	N	L	N	N	N	N	Y	N	L	N	Y
Annex 10E4 826-832 MHz	L	P	N	L	N	Y	U	Y	L	Y	N	N	Y	Y	N	N	L	L	Y	N	N	N	L	N	N	N	N	Y	N	L	N	Y
Annex 10F 1785-1795 MHz	L	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	P	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	
Annex 10G 1795-1800 MHz	L	Y	Y	L	Y	Y	Y	L	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	L	
Annex 10H1 169.4000-169.4750 MHz	Y	Y	N	Y	Y	L	Y	Y	Y	Y	N	Y	Y	L	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 10H2 169.4875-169.5875 MHz	Y	Y	N	Y	Y	L	Y	Y	Y	Y	N	Y	Y	L	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 10I 169.4-174.0 MHz	N	N	N	L	N	Y	Y	N	N	Y	N	N	N	N	L	Y	N	Y	Y	N	P	Y	N	N	Y	U	Y	L	N	Y	L	
Annex 11 - Radio Frequency Identification Applications																																
Annex 11A 2446-2454 MHz	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	
Annex 11B1 865.0-865.6 MHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 11B2 865.6-867.6 MHz	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 11B3 867.6-868.0 MHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 12 - Active Medical Implants and their associated peripherals																																
Annex 12A 402-405 MHz	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	
Annex 12A1 401-402 MHz		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P	P	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 12A2 405-406 MHz		Y	Y	Y	Y	Y	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	
Annex 12B 9-315 kHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 12C 315-600 kHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 12D 30.0-37.5 MHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	L	Y	Y	Y	Y	Y	
Annex 12E 12.5-20.0 MHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	P	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	Y	
Annex 12F 2483.5-2500 MHz	P	P	N	P	N	N	U	P	N	Y	N	N	N	Y	N	N	Y	N	Y	N	N	N	U	N	N	N	P	N	Y	N	N	
Annex 13 - Wireless Audio Applications																																
Annex 13A 863-865 MHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 13B 864.8-865.0 MHz	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Annex 13C 1795-1800 MHz	U	Y	Y	Y	Y	Y	Y	L	N	Y	Y	Y	N	N	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	L	
Annex 13D 87.5-108.0 MHz	Y	Y	Y	Y	Y	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	
Highlighted yellow = not implemented Y=implemented L=limited implementation P=planned U=under study																																

Highlighted yellow = not implemented

Y=implemented

L=limited implementation

P=planned

U=under study

Appendix 1, Page 20

Annexes to ERC REC 70-03		ALB	AZE	BIH	BLR	GEO	HRV	MDA	MKD	MNE	RUS	SRB	TUR	UKR
Annex 1 - Non-Specific SRDs														
Annex 1A 6765-6795 kHz		Y		Y		N	Y	Y	Y	Y	N	Y	Y	L
Annex 1B 13.553-13.567 MHz		Y		Y		N	Y	Y	Y	Y	Y	Y	Y	N
Annex 1C 26.957-27.283 MHz		Y		Y		N	Y	Y	Y	Y	Y	Y	Y	N
Annex 1D 40.660-40.700 MHz		Y		Y		N	Y	Y	Y	Y	Y	Y	Y	N
Annex 1E 138.20-138.45 MHz		Y		Y		N	P	Y	Y	Y	N	Y	N	N
Annex 1F 433.050-434.790 MHz		Y		Y		L	Y	Y	Y	Y	L	Y	Y	L
Annex 1F1 433.050-434.790 MHz		Y		Y		L	Y	Y	Y	Y	N	Y	Y	L
Annex 1F2 434.040-434.790 MHz		Y		Y		L	Y	Y	Y	Y	N	Y	Y	L
Annex 1G 863-870 MHz		Y		Y		N	Y	Y	Y	Y	L	Y	Y	L
Annex 1G1 868.000-868.600 MHz		Y		Y		N	Y	Y	Y	Y	N	Y	Y	L
Annex 1G2 868.700-869.200 MHz		Y		Y		N	Y	Y	Y	Y	Y	Y	Y	N
Annex 1G3 869.400-869.650 MHz		Y		Y		N	Y	Y	Y	Y	N	Y	Y	N
Annex 1G4 869.700-870.000 MHz		Y		Y		N	Y	Y	Y	Y	N	Y	Y	N
Annex 1H 2400.0-2483.5 MHz		Y		Y		Y	Y	Y	Y	Y	Y	Y	Y	L
Annex 1I 5725-5875 MHz		Y		Y		Y	Y	Y	Y	Y	L	Y	Y	Y
Annex 1J 24.00–24.25 GHz		Y		Y		Y	Y	Y	Y	Y	N	Y	Y	Y
Annex 1K 61.0-61.5 GHz		Y		Y		N	P	Y	Y	Y	N	Y	Y	Y
Annex 1L 122-123 GHz		Y		Y		N	P	Y	Y	Y	N	Y	Y	Y
Annex 1M 244-246 GHz		Y		Y		N	P	Y	Y	Y	N	Y	Y	Y
Annex 1N 3.1-4.8 GHz	ECC/DEC/(06)04	Y		L		N	Y	Y	N	Y	L	N	N	U
Annex 1N 6 - 9 GHz		Y		L		N	Y	Y	N	Y	L	N	N	N
Annex 2 - Tracking, Tracing and Data Acquisition														
Annex 2A (*457 kHz) 456.9-457.1 kHz		Y		Y		N	Y	Y	Y	Y	Y	Y	Y	L
Annex 2B 169.4-169.475 MHz	ECC/DEC/(05)02	Y		Y		N	L	Y	Y	Y	N	Y	Y	U
Annex 2C 169.4-169.475 MHz		Y		Y		N	L	Y	Y	Y	N	Y	Y	U
Annex 3 - Wideband Data Transmission Systems														
Annex 3A 2400.0-2483.5 MHz		Y		Y		Y	Y	Y	Y	Y	L	Y	Y	L
Annex 3B 17.1-17.3 GHz		Y		Y		L	Y	Y	Y	Y	N	Y	N	N
Annex 3C 57-66 GHz		Y		L		N	Y	Y	Y	Y	N	L	N	N
Annex 4 - Railway Applications														
Annex 4A 2446-2454 MHz		Y		Y		L	Y	Y	Y	Y	N	Y	Y	N
Annex 4B (*27.095 MHz) 27.090-27.100 MHz		Y		Y		N	Y	Y	Y	Y	N	Y	Y	N
Annex 4C (*4234 kHz) 984-7484 kHz		Y		Y		N	P	Y	P	Y	N	N	U	N
Annex 4D (*13.547 MHz) 7.3-23.0 MHz		Y		Y		N	P	Y	P	Y	N	L	U	N
Annex 5 - Road Transport and Traffic Telematics - RTTT														
Annex 5A 5795–5805 MHz	ECC/DEC/(02)01	Y		Y		L	Y	Y	Y	Y	L	Y	Y	N
Annex 5B 5805-5815 MHz		Y		Y		L	P	Y	Y	Y	L	Y	Y	N
Annex 5C 76-77 GHz		Y		Y		N	Y	Y	Y	Y	N	Y	Y	Y
Annex 5D1 21.65-26.65 GHz	ECC/DEC(04)10	Y		L		N	Y	Y	N	Y	N	N	N	N
Annex 5D2 24.25-26.65 GHz		Y	N	N	N	N	N	Y	N	N	N	N	N	N
Annex 5E 77 - 81 GHz	ECC/DEC(04)03	Y		L		N	Y	Y	Y	Y	N	N	Y	U
Annex 5F1 24.050-24.075 GHz		Y		L		N	U	Y	N	Y	N	N	N	N

	ALB	AZE	BIH	BLR	GEO	HRV	MDA	MKD	MNE	RUS	SRB	TUR	UKR
Annex 5 - Road Transport and Traffic Telematics - RTTT continue													
Annex 5F2 24.075-24.150 GHz	Y		L		N	U	Y	N	Y	N	N	N	N
Annex 5F3 24.150-24.250 GHz	Y		L		N	U	Y	N	Y	N	N	N	N
Annex 5G1 24.250-24.495 GHz	Y	N	N	N	N	N	Y	N	N	N	N	N	N
Annex 5G2 24.495-24.500 GHz	Y	N	N	N	N	N	Y	N	N	N	N	N	N
Annex 5G3 24.250-24.500 GHz	Y	N	N	N	N	N	Y	N	N	N	N	N	N
Annex 6 - Radiodetermination applications													
Annex 6A 2400.0-2483.5 MHz ERC/DEC/(01)08	Y		Y		L	Y	Y	Y	Y	N	Y	Y	L
Annex 6B 9200-9500 MHz	Y		Y		L	Y	Y	Y	Y	N	Y	Y	U
Annex 6C 9500-9975 MHz	Y		Y		L	Y	Y	Y	Y	N	Y	Y	U
Annex 6D 10.5 - 10.6 GHz	Y		Y		L	Y	Y	Y	Y	U	Y	N	L
Annex 6E 13.4 - 14.0 GHz	Y		Y		L	Y	Y	Y	Y	N	Y	Y	U
Annex 6F 24.05 - 24.25 GHz	Y		Y		L	Y	Y	Y	Y	L	Y	Y	L
Annex 6G 4.5 - 7.0 GHz	Y		Y		N	Y	Y	P	Y	N	L	U	U
Annex 6H 8.5 - 10.6 GHz	Y		Y		N	Y	Y	P	Y	N	L	U	U
Annex 6I 24.05 - 27.0 GHz	Y		Y		N	Y	Y	P	Y	N	L	U	L
Annex 6J 57 - 64 GHz	Y		Y		N	Y	Y	P	Y	N	L	U	U
Annex 6K 75 - 85 GHz	Y		Y		N	Y	Y	P	Y	N	L	U	L
Annex 6L 6.0 - 8.5 GHz	Y	N	N	N	N	N	Y	N	N	N	N	N	N
Annex 6M 24.05 - 26.05 GHz	Y	N	N	N	N	N	Y	N	N	N	N	N	N
Annex 6N 57 - 64 GHz	Y	N	N	N	N	N	Y	N	N	N	N	N	N
Annex 6O 75 - 85 GHz	Y	N	N	N	N	N	Y	N	N	N	N	N	N
Annex 6P 17.1 - 17.3 GHz	Y		Y		N	N	Y	P	Y	N	L	N	N
Annex 6Q 30 MHz - 12.4 GHz ECC/DEC/(06)08	Y		L		N	Y	Y	N	U	N	N	N	U
Annex 6R 2.2 - 8.0 GHz ECC/DEC/(07)01	Y		L		N	Y	Y	N	Y	N	N	N	N
Annex 7 - Alarms													
Annex 7A 868.6-868.7 MHz	Y		Y		N	Y	Y	Y	Y	N	Y	Y	L
Annex 7B 869.250-869.300 MHz	Y		Y		N	Y	Y	Y	Y	N	Y	Y	N
Annex 7C 869.650-869.700 MHz	Y		Y		N	Y	Y	Y	Y	N	Y	Y	U
Annex 7D 869.200-869.250 MHz	Y		Y		N	Y	Y	Y	Y	N	Y	Y	L
Annex 7E 869.300-869.400 MHz	Y		Y		N	Y	Y	Y	Y	N	Y	Y	N
Annex 7F 169.4750-169.4875 MHz	Y		Y		N	Y	Y	Y	Y	N	Y	Y	U
Annex 7G 169.5875-169.6000 MHz													
Annex 8 - Model Control													
Annex 8A 26.995,27.045,27.095, 27.145,27.195 MHz	Y		Y		N	Y	Y	Y	Y	L	Y	Y	L
Annex 8B 34.995-35.225 MHz													
Annex 8C 40.665,40.675 40.685, 40.695 MHz													
Annex 9 - Inductive Applications													
Annex 9A1 9 - 90 kHz	Y		Y		N	Y	Y	N	Y	L	N	N	L
Annex 9A2 90-119 kHz	Y		Y		L	Y	Y	N	Y	Y	N	N	L
Annex 9A3 119-135 kHz	Y		Y		N	Y	Y	Y	Y	Y	Y	Y	L
Annex 9B 135-140 kHz	Y		Y		N	Y	Y	Y	Y	N	Y	Y	L
Annex 9C 140.0-148.5 kHz	Y		Y		N	Y	Y	Y	Y	N	Y	Y	L
Annex 9D 6765-6795 kHz	Y		Y		N	Y	Y	Y	Y	Y	Y	Y	N

	ALB	AZE	BIH	BLR	GEO	HRV	MDA	MKD	MNE	RUS	SRB	TUR	UKR
Annex 9 - Inductive Applications													
Annex 9E 7400-8800 kHz	Y		Y		N	Y	Y	Y	Y	Y	Y	Y	N
Annex 9F 13.553-13.567 MHz	Y		Y		N	Y	Y	Y	Y	Y	Y	Y	N
Annex 9F1 13.553-13.567 MHz	Y		Y		N	Y	Y	Y	Y	Y	Y	Y	L
Annex 9G 26.957-27.283 MHz	Y		Y		N	Y	Y	Y	Y	Y	Y	Y	L
Annex 9H 10.200-11.000 MHz	Y		Y		N	Y	Y	Y	Y	L	Y	Y	L
Annex 9K 3155-3400 kHz	Y		Y		N	Y	Y	Y	Y	N	Y	Y	L
Annex 9L1 148.5 kHz - 5 MHz	Y		Y		N	Y	Y	Y	Y	N	Y	Y	U
Annex 9L2 5 - 30 MHz	Y		Y		N	Y	Y	Y	Y	N	Y	Y	N
Annex 9L3 400-600 kHz	Y		Y		N	Y	Y	Y	Y	N	Y	Y	U
Annex 10 – Radio microphone applications including aids for the hearing impaired													
Annex 10A 29.7-47.0 MHz	Y		Y		N	N	Y	Y	Y	L	Y	Y	L
Annex 10B 173.965-174.015 MHz	Y		Y		N	Y	Y	Y	Y	N	Y	Y	N
Annex 10C 863-865 MHz	Y		Y		N	L	Y	Y	Y	N	Y	Y	L
Annex 10D 174-216 MHz	Y		Y		N	Y	Y	Y	Y	L	Y	Y	L
Annex 10E1 470-786 MHz	Y		Y		N	Y	Y	Y	Y	L	Y	Y	L
Annex 10E2 786-789 MHz	Y		N		N	N	Y	N	N	N	N	N	N
Annex 10E3 823-826 MHz	Y		N		N	N	Y	N	N	N	N	N	N
Annex 10E4 826-832 MHz	Y		N		N	N	Y	N	N	N	N	N	N
Annex 10F 1785-1795 MHz	Y		Y		N	Y	Y	Y	Y	N	Y	Y	U
Annex 10G 1795-1800 MHz	Y		Y		N	L	Y	Y	Y	N	Y	Y	U
Annex 10H1 169.4000-169.4750 MHz	Y		Y		N	Y	Y	Y	Y	N	Y	Y	U
Annex 10H2 169.4875-169.5875 MHz	Y		Y		N	Y	Y	Y	Y	N	Y	Y	U
Annex 10I 169.4-174.0 MHz	Y		Y		N	Y	Y	Y	Y	N	N	N	N
Annex 11 - Radio Frequency Identification Applications													
Annex 11A 2446-2454 MHz	Y		Y		Y	Y	Y	Y	Y	N	Y	Y	U
Annex 11B1 865.0-865.6 MHz	Y		Y		N	Y	Y	N	Y	N	Y	Y	U
Annex 11B2 865.6-867.6 MHz	Y		Y		N	Y	Y	N	Y	L	Y	Y	U
Annex 11B3 867.6-868.0 MHz	Y		Y		N	Y	Y	N	Y	L	Y	Y	U
Annex 12 - Active Medical Implants and their associated peripherals													
Annex 12A 402-405 MHz	Y		Y		N	Y	Y	Y	Y	N	Y	Y	L
Annex 12A1 401-402 MHz	Y		Y		N	Y	Y	Y	Y	N	N	U	Y
Annex 12A2 405-406 MHz	Y		Y		N	Y	Y	Y	Y	N	N	U	Y
Annex 12B 9-315 kHz	Y		Y		N	Y	Y	Y	Y	N	Y	Y	L
Annex 12C 315-600 kHz	Y		Y		N	Y	Y	Y	Y	N	Y	Y	L
Annex 12D 30.0-37.5 MHz	Y		Y		N	Y	Y	Y	Y	N	N	Y	L
Annex 12E 12.5-20.0 MHz	Y		Y		N	Y	Y	Y	Y	N	L	Y	U
Annex 12F 2483.5-2500 MHz	Y		N		N	P	Y	N	N	N	N	N	N
Annex 13 - Wireless Audio Applications													
Annex 13A 863-865 MHz	Y		Y		N	Y	Y	Y	Y	Y	Y	Y	N
Annex 13B 864.8-865.0 MHz	Y		Y		Y	Y	Y	Y	Y	N	Y	Y	L
Annex 13C 1795-1800 MHz	Y		Y		L	N	Y	Y	Y	N	Y	Y	U
Annex 13D 87.5-108.0 MHz	Y		Y		Y	Y	Y	Y	Y	L	Y	Y	L

APPENDIX 2

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

ECC/ERC Decisions

ECC/DEC/(11)02	Industrial Level Probing Radars (LPR) operating in frequency bands 6-8.5 GHz, 24.05-26.5 GHz, 57-64 GHz and 75-85 GHz
ECC/DEC/(09)03	Harmonised conditions for Mobile/Fixed Communications Networks (MFCN) operating in the band 790-862 MHz
ECC/DEC/(07)01	Building Material Analysis (BMA) devices using UWB technology
ECC/DEC/(06)08	The conditions for use of the radio spectrum by Ground- and Wall- probing radar (GPR/WPR) imaging systems
ECC/DEC/(06)04	The harmonised conditions for devices using Ultra-wideband (UWB) technology in bands below 10.6 GHz
ECC/DEC/(05)02	The use of the frequency band 169.4-169.8125 MHz
ECC/DEC(04)10	The frequency bands to be designated for the temporary introduction of Automotive Short Range Radars
ECC/DEC(04)08	The harmonised use of the 5 GHz frequency bands for the implementation of Wireless Access Systems including Radio Local Area Networks (WAS/RLANs)
ECC/DEC/(04)03	The frequency band 77-81 GHz to be designated for the use of Automotive Short Range Radars
ECC/DEC/(04)01	Short Range Devices for detection of Avalanche Victims
ECC/DEC/(02)01	The frequency bands to be designated for the coordinated introduction of Road Transport and Traffic Telematic Systems.
ERC/DEC(01)08	Short Range Devices for Movement Detection and Alert in 2400-2483.5 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)17	Short Range Devices for Medical Implants in 402-405 MHz

ECC/ERC Reports

ECC Report 001	Compatibility between inductive LF and HF RFID transponder and other radio communications systems in the frequency ranges 135-148.5 kHz, 4.78-8.78 MHz and 11.56-15.56 MHz
ECC Report 002	SAP/SAB (Incl. ENG/OB) spectrum use and future requirements
ECC Report 007	Compatibility between inductive LF RFID systems and radio communications systems in the frequency range 135 - 148.5 kHz
ECC Report 011	Strategic Plans for the future use of the frequency bands 862-870 MHz and 2400-2483.5 MHz for Short Range Devices
ECC Report 012	Ultra Low Power Active Medical Implant systems (ULP-AMI)
ECC Report 013	Adjacent band compatibility between Short Range Devices and TETRA TAPS mobile services at 870 MHz
ECC Report 023	Compatibility of automotive collision warning short range radar operating at 24 GHz with FS, EESS and Radio Astronomy
ECC Report 024	PLT, DSL, CABLE communications (Including CABLE TV), LANS and their effect on radio services
ECC Report 037	Compatibility of planned SRD applications in 863-870 MHz
ECC Report 040	Adjacent band compatibility between CDMA-PAMR mobile services and Short Range Devices below 870 MHz
ECC Report 056	Compatibility of automotive collision warning short range radar operating at 79 GHz with radiocommunication services
ECC Report 064	The protection requirements of radiocommunication systems below 10.6 GHz from generic UWB applications
ECC Report 055	Compatibility between existing and proposed SRDs and other radiocommunication applications in the 169.4-169.8 MHz frequency band. See supplementary excel spreadsheets in download
ECC Report 067	Compatibility study for generic limits for the emission levels of inductive SRDs below 30 MHz
ECC Report 068	Compatibility studies in the band 5725-5875 MHz between Fixed Wireless Access (FWA) systems and other systems
ECC Report 073	Compatibility of SRD in the FM radio broadcasting band
ECC Report 081	The coexistence between Ultra Low Power - Animal Implant Devices (ULP-AID) operating in the frequency band 12.5-20 MHz and existing radiocommunication systems
ECC Report 092	Coexistence between Ultra Low Power Active Medical Implants devices (ULP-AMI) and existing radiocommunication systems and services in the frequency bands 401-402 MHz and 405-406 MHz
ECC Report 094	Technical requirements for UWB LDC devices to ensure the protection of FWA systems
ECC Report 098	Studying the compatibility issues of the UIC EUROLOOP system with other systems in the frequency band 9.5 to 17.5 MHz
ECC Report 100	Compatibility studies in the band 3400- 3800 MHz between broadband wireless access (BWA) systems and other services

ECC Report 111	Compatibility studies between Ground Based Synthetic Aperture Radar (GBSAR) and existing services in the range 17.1 GHz to 17.3 GHz
ECC Report 113	Compatibility studies around 63 GHz between Intelligent Transport Systems (ITS) and other systems
ECC Report 114	Compatibility studies between multiple GIGABIT wireless systems in frequency range 57-66 GHz and other services and systems (except its in 63-64 GHz)
ECC Report 120	Technical requirements for UWB DAA (Detect And Avoid) devices to ensure the protection of radiolocation in the bands 3.1-3.4 GHz and 8.5-9 GHz and BWA terminals in the band 3.4-4.2 GHz
ECC Report 134	Analysis of potential impact of mobile Vehicle Radars (VR) on Radar Speed Meters (RSM) operating at 24 GHz
ECC Report 135	Inductive limits in the frequency range 9 kHz to 148.5 kHz
ECC Report 139	Impact of Level Probing Radars (LPR), using Ultra-Wideband Technology on Radiocommunications Services
ECC Report 149	Compatibility of LP-AMI applications within 2360-3400 MHz, in particular for the band 2483.5-2500 MHz, with incumbent services
ECC Report 164	Compatibility between Wide Band Low Activity Mode (WLAM) automotive radars in the frequency range 24.25 GHz to 24.5 GHz, and other radiocommunication systems/services
ERC Report 001	Harmonisation of frequency bands to be designated for Radio Local Area Networks (RLANs)
ERC Report 003	Harmonisation of frequency bands to be designated for road transport information systems (RTTT)
ERC Report 005	ERC Report on frequency bands for Low Power Devices
ERC Report 008	General methodology for assessing compatibility between Radio Local Area Networks (RLANs) and the fixed Service
ERC Report 014	Co-existence of radio local area networks with the microwave landing system
ERC Report 015	Compatibility study between radar and RLANs operating at frequencies around 5.5 GHz
ERC Report 042	Handbook on radio equipment and systems radio microphones and simple wide band audio links
ERC Report 044	ERC Report on sharing inductive systems and radiocommunication systems in the band 9-135 kHz
ERC Report 047	ERC Report on compatibility fixed services and motion sensors at 10.5 GHz
ERC Report 062	Compatibility analysis regarding possible sharing between the UIC system and radio microphones in the frequency ranges 876 - 880 MHz and 921 - 925 MHz
ERC Report 063	ERC Report on radio microphone applications in the frequency range 1785-1800 MHz
ERC Report 067	Study of the Frequency sharing between HIPERLANs and MSS feeder links in the 5 GHz band
ERC Report 069	ERC Report on propagation model and interference range calculation for inductive systems in 10 kHz – 30 MHz
ERC Report 072	Compatibility studies related to the possible extension band for HIPERLANs at 5 GHz

ERC Report 074	ERC Report on RFID and the radioastronomy services at 13 MHz
ERC Report 088	Compatibility and sharing analysis between DVB-T and radio microphones in bands IV and V
ERC Report 092	ERC Report on sharing inductive Short Range Devices and radio communication systems in 10.2-11 MHz
ERC Report 095	ERC Report on the use of 3155-3400 kHz for general inductive applications
ERC Report 096	ERC Report on the use of 290-300 kHz and 500-510 kHz for general inductive applications
ERC Report 098	ERC Report on compatibility of Short Range Devices at 900 MHz with adjacent services
ERC Report 109	Compatibility of Bluetooth with other existing and proposed radiocommunication systems in the 2.45 GHz frequency band

ETSI Standards including harmonised standards

Further information can be found at http://ec.europa.eu/enterprise/policies/european-standards/documents/harmonised-standards-legislation/list-references/rtte/index_en.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.
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.
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.
EN 302 065	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD) using Ultra Wide Band technology (UWB) for communications purposes.
EN 305 550	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment to be used in the 40 GHz to 246 GHz frequency range.

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.
EN 300 422	Electromagnetic compatibility and Radio spectrum Matters (ERM); Wireless microphones in the 25 MHz to 3 GHz frequency range.
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.
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.
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.
EN 301 839	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Ultra Low Power Active Medical Implants (ULP-AMI) and Peripherals (ULP-AMI-P) operating in the frequency range 402 MHz to 405 MHz.
EN 301 893	Broadband Radio Access Networks (BRAN); 5 GHz high performance RLAN; Harmonised EN covering essential requirements of article 3.2 of the R&TTE Directive.
EN 302 066	Electromagnetic compatibility and Radio spectrum Matters (ERM); Ground- and Wall- Probing Radar applications (GPR/WPR) imaging systems.
EN 302 195	Electromagnetic compatibility and Radio spectrum Matters (ERM); Radio equipment in the frequency range 9 kHz to 315 kHz for Ultra Low Power Active Medical Implants (ULP-AMI) and accessories.
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.
EN 302 291	Close Range Inductive Data Communication equipment operating at 13.56 MHz.
EN 302 372	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Equipment for Detection and Movement; Tanks Level Probing Radar (TLPR) operating in the frequency bands 5.8 GHz, 10 GHz, 25 GHz, 61 GHz and 77 GHz.
EN 302 264	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices; Road Transport and Traffic Telematics (RTTT); Short Range Radar equipment operating in the 77 GHz to 81 GHz band.

EN 302 288	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices; Road Transport and Traffic Telematics (RTTT); Short range radar equipment operating in the 24 GHz range.
EN 302 435	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Technical characteristics for SRD equipment using Ultra WideBand technology (UWB); Building Material Analysis and Classification equipment applications operating in the frequency band from 2.2 GHz to 8.5 GHz.
EN 302 500	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD) using Ultra WideBand (UWB) technology; Location Tracking equipment operating in the frequency range from 6 GHz to 8.5 GHz.
EN 302 510	Electromagnetic compatibility and Radio spectrum Matters (ERM); Radio equipment in the frequency range 30 MHz to 37.5 MHz for Ultra Low Power Active Medical Membrane Implants and Accessories.
EN 302 536	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment in the frequency range 315 kHz to 600 kHz.
EN 302 537	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Ultra Low Power Medical Data Service Systems operating in the frequency range 401 MHz to 402 MHz and 405 MHz to 406 MHz.
EN 302 567	Broadband Radio Access Networks (BRAN); 60 GHz Multiple-Gigabit WAS/RLAN Systems.
EN 302 608	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment for Eurobalise railway systems.
EN 302 609	Electromagnetic compatibility and Radio spectrum Matters (ERM); Short Range Devices (SRD); Radio equipment for Euroloop railway systems.
EN 302 858	Electromagnetic compatibility and Radio spectrum Matters (ERM); Road Transport and Traffic Telematics (RTTT); Short range radar equipment operating in the 24.05 GHz to 24.25 GHz frequency range for automotive applications
ES 200 674	Electromagnetic compatibility and Radio spectrum Matters (ERM); Road Transport and Traffic Telematics (RTTT).

EC Decisions

Decision	Title
2011/485/EU	Harmonisation of the 24 GHz range radio spectrum band for the time-limited use by automotive SRR equipment in the Community
2010/368/EU	Amending the Decision 2006/771/EC on harmonisation of the radio spectrum for use by SRDs
2009/381/EC	Amending Decision 2006/771/EC on harmonisation of the radio spectrum for use by SRDs
2009/343/EC	Amending the Decision 2007/131/EC on the harmonised use of the radio spectrum for equipment using UWB technology
2008/673/EC	Amending Decision 2005/928/EC on the harmonisation of the 169.4-169.8125 MHz frequency band in the Community
2008/432/EC	Amending Decision 2006/771/EC on harmonisation of the radio spectrum for use by short-range devices
2007/346/EC	Granting a derogation requested by France pursuant to Decision 2006/804/EC on harmonisation of the radio spectrum for radio frequency identification (RFID) devices operating in the ultra high frequency (UHF) band
2007/131/EC	Allowing the use of the radio spectrum for equipment using Ultra-wideband technology in a harmonised manner in the community
2007/90/EC	Amending Decision 2005/513/EC on the harmonised use of radio spectrum in the 5 GHz frequency band for the implementation of Wireless Access Systems including Radio Local Area Networks (WAS/RLANs)
2006/804/EC	Harmonisation of the radio spectrum for radio frequency identification (RFID) devices operating in the ultra high frequency (UHF) band
2006/771/EC	Harmonisation of the radio spectrum for use by short-range devices
2005/928/EC	Harmonisation of the 169.4-169.8125 MHz frequency band in the Community
2005/513/EC	Harmonised use of radio spectrum in the 5 GHz frequency band for the implementation of wireless access systems including radio local area networks (WAS/RLANs)
2005/50/EC	The harmonisation of the 24 GHz range radio spectrum band for the time-limited use by Automotive Short-Range Radar equipment in the community
2004/545/EC	The harmonisation of radio spectrum in the 79 GHz range for the use of Automotive Short-Range Radar equipment in the community

“Appendix 3 lists national restrictions. The first section contains general comments from administrations and these apply to all annexes in this Recommendation. The second section contains comments from administrations and these are on specific frequency bands contained within this Recommendation. These indicate where administrations are not able to implement frequency allocations or where implementation is incomplete. For consistency, one of the following four standard positions should be used:

- *Implemented:* If the Appendix entry is blank then Recommendation 70-03 has been fully implemented.
- *Limited implementation:* A short explanation can be provided. If under study or planned, then a date should be given.
- *Not implemented:* A short explanation can be provided. If under study or planned, then a date should be given.
- *No information:* No information has yet been provided by the administration.”

Frequency band	Country	Implementation	Reason/remark
All Annexes	Albania		Frequencies covered by ERC/REC 70-03 are implemented through the notes of the National Frequency Table, for each band mentioned in 70-03
	France	France does not recognise the former marking CEPT SRD Aa Y and CEPT RLAN Y recommended by T/R 01-04 and T/R 10-01 respectively. The free circulation and use of products bearing these old markings must then be confined to existing equipments and to countries which have already adopted these markings. The marking CEPT SRD Aa Y proposed by ERC/REC 70-03 will not be recognised in France. In any case in France marking issues are in line with the R&TTE Directive	
	Germany		Clarification of the terms contained in the table reference to the German Telecommunications Act of 22 June 2004: The use of frequencies or frequency bands for the operation of transmitting equipment requires "frequency assignment". There are two types of frequency assignments: individual frequency assignments are granted upon application and correspond to "individual license required" within the meaning of CEPT/ERC/REC 70-03; general frequency assignments are granted ex officio by administrative act, published in the Federal Network Agency's Official Gazette and correspond to "individual license not required" within the meaning of CEPT/ERC/REC 70-03
	Lithuania		The radio frequencies may be used without an individual authorisation in case the relevant radio frequency or radio frequencies band is included in the List of Radio Frequencies, which may be used without an Individual Authorisation, approved by Order No. 1V-893 of 9 September 2010 of the Director of the Communications Regulatory Authority (Official Gazette Valstybes žinios, Nr. 108-5577, 2010). 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. Decision Nr. 126 dated 02.06.2009 of the Administrative Council of the National Regulatory Agency for electronic Communications and Information Technology of the Republic of Moldova, owners of short range radiocommunication devices have the right to use several categories of frequencies in compliance with the ERC/REC 70-03 without obtaining a license for the use of radio frequencies/channels or a technical permit
	Russian Federation	In accordance with the current National Frequency Allocation Table, different communication services, including special applications operate in frequency bands designated for SRD applications. All radiocommunication systems require individual license and authorisation for using certain radio frequencies, which is granted after conformity	

Appendix 3 – National Restrictions

Frequency band	Country	Implementation	Reason/remark
		assessment procedures. All types of radio equipment require national approval based on the national standard system (GOST) and issue of conformity certificate. Only equipment with national mark can be placed on the market in Russia	
	Turkey		The short range and low powered devices under the scope of SRD Ordinance (enter into force 17 March 2007) can be used without any need to get the certificate, use permit and frequency registers on condition that they shall meet the determined conditions and be in accordance with the technical regulations specifications accepted by The Authority
Annex 1 Band A (Non- Specific SRDs) 6765-6795 kHz	Georgia	No info	
	Russian Federation	Not implemented	
	Ukraine	Limited implementation	The maximal strength of a magnetic field on distance of 10 m from the station is 42 dBµA/m
Annex 1 Band E (Non- Specific SRDs) 138.20-138.45 MHz	Belgium	Not implemented	
	Croatia	Not implemented	Implementation planned for 2012
	France	Not implemented	Military use. The use of this band by SRDs is not planned in France
	Georgia	Not implemented	
	Germany	Not implemented	Defence systems
	Hungary	Not implemented	Aeronautical mobile applications operate in the band
	Italy	Not implemented	Military application
	Latvia	Not implemented	Exclusive defence systems
	Liechtenstein	Not implemented	
	Poland	Not implemented	Military application
	Russian Federation	Not implemented	
	Slovenia	Not implemented	Not available
	Spain	Not implemented	Military application
	Sweden	Not implemented	
	Switzerland	Not implemented	Exclusive defence systems
	The Netherlands	Not implemented	Exclusive defence systems
	Turkey	Not implemented	Defence systems
	Ukraine	Not implemented	
Annex 1 Band F (Non- Specific SRDs) 433.050-434.790 MHz	Georgia	Limited implementation	
	Italy	Limited implementation	Audio applications are limited in the range 433.05-433.575 MHz with 12.5 or 25 kHz channel spacing
	Russian Federation	Limited implementation	433.075-434.790 MHz. Possible use of low power stations and devices for processing of bar-codes
	Ukraine	Limited implementation	The maximal transmitter power 10 mW
Annex 1 Band F1 (Non- Specific SRDs) 433.050-434.790 MHz	Georgia	Limited implementation	
	Italy	Limited implementation	Audio applications are limited in the range 433.05-433.575 MHz with 12.5 or 25 kHz channel spacing
	Russian Federation	Not implemented	
	Ukraine	Limited implementation	The maximal transmitter power 10 mW
Annex 1 Band F2 (Non- Specific SRDs) 434.040-434.790 MHz	Georgia	Limited implementation	
	Russian Federation	Not implemented	
	Ukraine	Limited implementation	The maximal transmitter power 10 mW

Annex 1 Band G (Non- Specific SRDs) 863-870 MHz	Austria	Not implemented	Planned
	Georgia	Not implemented	
	Greece	Limited implementation	to 863-865 MHz
	Norway	Limited implementation	
	Russian Federation	Limited implementation	864-865 MHz with max e.r.p 25 mW, duty cycle 0.1% or LBT. Forbidden to use at the airports (aerodromes)
	Spain	Limited implemented	to the band 863-868 MHz
	Sweden	Not implemented	
	The Netherlands	Not implemented	Under study
	Ukraine	Limited implementation	863-865 / 868-868.6 / 868.6-868.7 / 869.2-869.25 MHz
Annex 1 Band G1 (Non- Specific SRDs) 868.000-868.600 MHz	Georgia	Not implemented	
	Russian Federation	Not implemented	
	Ukraine	Limited implementation	e.i.r.p. ≤25 mW
Annex 1 Band G3 (Non- Specific SRDs) 869.400-869.650 MHz	Georgia	Not implemented	
	Russian Federation	Not implemented	
	Ukraine	Not implemented	
Annex 1 Band G4 (Non- Specific SRDs) 869.700-870.000 MHz	Georgia	Not implemented	
	Russian Federation	Not implemented	
	Ukraine	Not implemented	
Annex 1 Band H (Non- Specific SRDs) 2400.0-2483.5 MHz	Norway	Implemented	This subsection does not apply for the geographical area within a radius of 20 km from the centre of Ny-Ålesund
	Russian Federation		Bluetooth
	Ukraine	Limited implementation	e.i.r.p. ≤100 mW
Annex 1 Band I (Non- Specific SRDs) 5725-5875 MHz	Russian Federation	Limited implementation	Duty cycle 0.1% or LBT. Antenna height should not exceed 5 m
Annex 1 Band J (Non- Specific SRDs) 24.00-24.25 GHz	France	Power limited to 0.1 mW e.i.r.p.in frequency band 24.10 – 24.15 GHz	Military Radiolocation use. Operation by police forces of Radar Speed Meters
	Russian Federation	Not implemented	
	United Kingdom	Limited implementation	Only 24.150-24.250 GHz to protect police speedmeters
Annex 1 Band K (Non- Specific SRDs) 61.0-61.5 GHz	Croatia	Not implemented	Implementation planned for 2012
	Georgia	No info	
	Russian Federation	Not implemented	
Annex 1 Band L (Non- Specific SRDs) 122-123 GHz	Croatia	Not implemented	Implementation planned for 2012
	France	Not implemented	
	Georgia	No info	
	Russian Federation	Not implemented	
Annex 1 Band M (Non- Specific SRDs) 244-246 GHz	Croatia	Not implemented	Implementation planned for 2012
	France	Not implemented	
	Georgia	No info	
	Russian Federation	Not implemented	

Appendix 3 – National Restrictions

Annex 1 Band N (Non- Specific SRDs) 3.1-4.8 GHz/6-9 GHz	Bosnia and Herzegovina	Not implemented	Committed
	Macedonia (FYROM)	No info	
	Russian Federation	Limited	In accordance with National restrictions For Indoor applications: 1. Prohibited to use outside buildings 2. Prohibited to use onboard aircraft while arriving and departure 3. Prohibited to use in freight terminals in airports. <i>Power spectral density limits:</i> 2850-3375 MHz: -57 dBm/MHz 3375-3950 MHz: -61.5 dBm/MHz 3950-4425 MHz: -54.5 dB/MHz 4425-5470 MHz: -50 dB/MHz 5470-6000 MHz: -62.5 dBm/MHz 6000-8100 MHz: -47 dBm/MHz 8100-8625 MHz: -65 dBm/MHz 8625-9150 MHz: -47 dB/MHz 9150-10600 MHz: -45 dBm/MHz For Outdoor applications: <i>Power spectral density limits:</i> 2850-3375 MHz: -57 dBm/MHz 3375-4800 MHz: -76 dBm/MHz 4800-5475 MHz: -50 dBm/MHz 5475-6000 MHz: -62.5 dBm/MHz 6000-7250 MHz: -47 dBm/MHz 7250-7750 MHz: -73 dBm/MHz 7750-8625 MHz: -69 dBm/MHz 8625-9150 MHz: -47 dBm/MHz 9150-10600 MHz: -45 dBm/MHz
	Serbia	No info	
	Turkey	No info	
	Ukraine	Not implemented	Under study for 3.1-4.8 GHz
Annex 2 Band A Tracking, Tracing and Data Acquisition 456.9-457.1 kHz	Bulgaria	Implemented	457 kHz center frequency is allocated 456.9-457.1 kHz band is not allocated
	France	Implemented	National regulation specifies only the carrier frequency 457 kHz
	Georgia	Not implemented	
	Ukraine	Limited implementation	The maximal strength of magnetic field is 7 dBm μ A/m on distance of 10 m from a construction where the radiator is placed
Annex 2 Band B Tracking, Tracing and Data Acquisition 169.4-169.475 MHz	Bulgaria	Not implemented	The band is used for national security needs
	Croatia	Limited implementation	Individual licence required
	Cyprus	Implemented	Cyprus has implemented Decision 2005/928/EC
	Georgia	Not implemented	
	Greece	Not implemented	
	Norway	Limited	Maximum radiated power = 10 mW
	Russian Federation	Not implemented	
	The Netherlands	Implemented	Channel spacing 12.5 kHz
Annex 2 Band C Tracking, Tracing and Data Acquisition 169.4-169.475 MHz	Ukraine	Not implemented	Under study
	Austria	Not implemented	Planned
	Bulgaria	Not implemented	The band is used for national security needs
	Croatia	Limited implementation	Individual licence required
	Cyprus	Implemented	Cyprus has implemented Decision 2005/928/EC
	Denmark	Not implemented	PMR band
	Georgia	Not implemented	
	Greece	Not implemented	
	Russian Federation	Not implemented	
	The Netherlands	Implemented	Channel spacing 12.5 kHz
	Ukraine	Not implemented	Under study

Annex 3 Band A Wideband Data Transmission systems 2400.0-2483.5 MHz	Russian Federation	Limited implementation	1. SRD with FHSS modulation 1.1. Maximum 2.5 mW e.i.r.p. 1.2. Maximum 100 mW e.i.r.p. Permitted for use SRD for outdoor applications without restriction on installation height only for purposes of gathering telemetry information for automated monitoring and resources accounting systems. Permitted to use SRD for other purposes for outdoor applications only when the installation height is not exceeding 10 m above the ground surface. 1.3. Maximum 100 mW e.i.r.p. Indoor applications 2. SRD with DSSS and other than FHSS wideband modulation 2.1. Maximum mean e.i.r.p. density is 2 mW/MHz. Maximum 100 mW e.i.r.p. 2.2. Maximum mean e.i.r.p. density is 20 mW/MHz. Maximum 100 mW e.i.r.p. It is permitted to use SRD for outdoor applications only for purposes of gathering telemetry information for automated monitoring and resources accounting systems or security systems. 2.3. Maximum mean e.i.r.p. density is 10 mW/MHz. Maximum 100 mW e.i.r.p. Indoor applications
	Norway	Limited implementation	This subsection does not apply for the geographical area within a radius of 20 km from the centre of Ny-Ålesund on Svalbard
	Ukraine	Limited implementation	e.i.r.p. ≤100 mW with built-in antenna with amplification factor up to 6 dBi
Annex 3 Band B Wideband Data Transmission systems 17.1-17.3 GHz	Cyprus	Not implemented	
	France	Not implemented	Military Radiolocation use. Equipment/Standard not yet developed
	Georgia	Limited implementation	
	Germany	Not implemented	Equipment/Standard not yet developed
	Hungary	Planned	No equipment and standards are available
	Italy		A general authorisation is required if WAS/RLAN's are used outside own premises
	Russian Federation	Not implemented	
	Slovak Republic	Not implemented	Planned service, currently not in use
	Slovenia	Not implemented	Not available
	Spain	Not implemented	Military application
	Turkey	Not implemented	
	Ukraine	Not implemented	
	United Kingdom	Not implemented	No requirement
Annex 3 Band C Wideband Data Transmission systems 57-66 GHz	Georgia	No info	
	Russian Federation	Not implemented	
	Serbia	Available in the range: 61.0-61.5 GHz	According to the Frequency Plan, only this part of the spectrum is aimed for the SRD applications
	Turkey	Not implemented	Defence systems
	Ukraine	No info	
Annex 4 Band A Railway applications 2446-2454 MHz	Cyprus	Not applicable	No railways
	Georgia	Limited implementation	
	Iceland	Not implemented	Service not applicable to Iceland
	Italy	Not implemented	
	Malta	Not implemented	Service not applicable to Malta
	Russian Federation	Not implemented	
	Slovak Republic	Not implemented	Under study
	Sweden	Limited implementation	License required – Defence systems
	Ukraine	Not implemented	
Annex 4 Band B Railway applications 27.090-27.100 MHz (Center frequency 27.095 MHz)	Bulgaria	Implemented	27.095 MHz center frequency is allocated. 27.090-27.100 MHz band is not allocated
	Cyprus	Not implemented	Service not applicable to Cyprus
	France	Implemented	National regulation specifies only the carrier frequency 27.095 MHz
	Georgia	No info	
	Iceland	Not implemented	Service not applicable to Iceland
	Malta	Not implemented	Service not applicable to Malta

Appendix 3 – National Restrictions

	Russian Federation	Not implemented	
	Sweden	Not implemented	27.115 MHz used as provided in EU legislation
	Ukraine	Not implemented	
Annex 4 Band C Railway applications 984-7484 kHz (Centre frequency 4234 kHz)	Belgium	Not implemented	Planned
	Bulgaria	Implemented	4234 kHz center frequency is allocated 984-7484 kHz band is not allocated
	Croatia	Not implemented	Implementation planned for 2012
	Cyprus	Not implemented	Service not applicable to Cyprus
	Czech Republic	Not implemented	Planned 2012
	Georgia	No info	
	Iceland	Not implemented	Service not applicable to Iceland
	Latvia	Implemented	National regulation specifies only the carrier frequency 4234 kHz. The 984-7484 kHz band is not allocated
	Macedonia (FYROM)	Not implemented	Planned
	Malta	Not implemented	Service not applicable to Malta
	Russian Federation	Not implemented	
	Serbia	Not implemented	According to the Frequency Plan, this part of the spectrum is aimed for the mobile maritime applications (4063-4438 kHz)
	Slovak Republic	Not implemented	Under study
	Slovenia	Not implemented	
	Sweden	Not implemented	
	The Netherlands	Not implemented	Planned
	Turkey	Under study	Planned 2009
	Ukraine	No info	
Annex 4 Band D Railway applications 7.3-23.0 MHz (Centre frequency 13.547 MHz)	Belgium	Not implemented	Planned
	Bulgaria	Implemented	11.1-16.0 MHz is allocated 7.3-23.0 MHz band is not allocated
	Croatia	Not implemented	Implementation planned for 2012
	Cyprus	Not implemented	Service not applicable to Cyprus
	Czech Republic	No info	
	Georgia	No info	
	Greece	Not implemented	
	Iceland	Not implemented	Service not applicable to Iceland
	Italy	Not implemented	
	Latvia	Not implemented	Planned
	Macedonia (FYROM)	Not implemented	Planned
	Malta	Not implemented	Service not applicable to Malta
	Norway	Not implemented	
	Russian Federation	Not implemented	
	Serbia	Available in the range: 13.553-13.567 MHz	According to the Frequency Plan, this part of the spectrum is available for the SRD applications
	Slovak Republic	Not implemented	Under study
	Slovenia	Not implemented	
	Spain	Not implemented	Due to lack of demands
	Sweden	Not implemented	
	The Netherlands	Not implemented	Planned
	Turkey	Under study	Planned 2009
	Ukraine	No info	
Annex 5 Band A RTTT 5795-5805 MHz	France	Limited implementation	Limited to automatic toll collection. Power limited to 2 W e.i.r.p. Military Radiolocation and Meteorological use
	Georgia	Limited implementation	
	Ireland	Limited implementation	8W system not implemented
	Liechtenstein	Limited implementation	Annex has two levels. Lower level with 2 W e.i.r.p. is implemented
	Malta	Limited implementation	Power limited to 2 W e.i.r.p. as per the lower limit of the Annex
	Norway	Limited implementation	Individual license required
	Russian Federation	Limited implementation	200 mW e.r.p. An authorisation for using radio frequencies or channels should too be obtained in established order

	Switzerland	Limited implementation	Annex has two levels. Lower level with 2 W e.i.r.p. is implemented to protect defence systems
	Ukraine	Not implemented	
	United Kingdom	Limited implementation	2 Watts only permitted
Annex 5 Band B RTTT 5805-5815 MHz	Croatia	Not implemented	Planned until 01.03.2012
	France	Not implemented	
	Georgia	Limited implementation	
	Ireland	Limited implementation	8W system not implemented
	Liechtenstein	Limited implementation	Annex has two levels. Lower level with 2 W e.i.r.p. is implemented. For road toll systems only
	Malta	Limited implementation	Power limited to 2 W e.i.r.p. as per the lower limit of the Annex
	Norway	Limited implementation	Individual license required
	Russian Federation	Limited implementation	200 mW e.r.p. An authorisation for using radio frequencies or channels should too be obtained in established order
	Switzerland	Limited implementation	Annex has two levels. Lower level with 2 W e.i.r.p. is implemented. For road toll systems only
	Ukraine	Not implemented	
	United Kingdom	Limited implementation	2 Watts only permitted
Annex 5 Band C RTTT 76-77 GHz	Georgia	Not implemented	
	Russian Federation	Not implemented	
Annex 5 Band D1 RTTT 21.65-26.65 GHz	Georgia	Not implemented	
	Turkey	No info	
	Ukraine	Not implemented	
Annex 5 Band D2 RTTT 24.25-26.65 GHz			
	Liechtenstein	Not implemented	Planned
	Switzerland	Not implemented	Planned
Annex 5 Band E RTTT 77-81 GHz	Georgia	Not implemented	
	Russian Federation	Not implemented	
	Serbia	Not implemented	
	Turkey	No info	
	Ukraine	Not implemented	Under study
Annex 5 Band F1 RTTT 24.050-24.075 GHz	Bosnia and Herzegovina	Not implemented	Committed
	Croatia	Not implemented	Under study until 2015
	Georgia	Not implemented	
	Macedonia (FYROM)	No info	
	Norway	No info	
	Russian Federation	No info	
	Serbia	No info	
	Turkey	No info	
	Ukraine	No info	

Appendix 3 – National Restrictions

Annex 5 Band F2 RTTT 24.075-24.150 GHz	Bosnia and Herzegovina	Not implemented	Committed
	Croatia	Not implemented	Under study until 2015
	Georgia	Not implemented	
	Macedonia (FYROM)	No info	
	Norway	No info	
	Russian Federation	No info	
	Serbia	No info	
	Turkey	No info	
	Ukraine	No info	
Annex 5 Band F3 RTTT 24.150-24.250 GHz	Bosnia and Herzegovina	Not implemented	Committed
	Croatia	Not implemented	Under study until 2015
	Georgia	Not implemented	
	Macedonia (FYROM)	No info	
	Norway	No info	
	Russian Federation	No info	
	Serbia	No info	
	Turkey	No info	
	Ukraine	No info	
Annex 5 Band G1 RTTT 24.250-24.495 GHz			
	Liechtenstein	Not implemented	Planned
	Switzerland	Not implemented	Planned
	United Kingdom	Not implemented	
Annex 5 Band G2 RTTT 24.495-24.500 GHz			
	Liechtenstein	Not implemented	Planned
	Switzerland	Not implemented	Planned
	United Kingdom	Not implemented	
Annex 5 Band G3 RTTT 24.250-24.500 GHz			
	Liechtenstein	Not implemented	Planned
	Switzerland	Not implemented	Planned
	United Kingdom	Not implemented	
Annex 6 Band A Radiodetermination applications 2400.0-2483.5 MHz	France	Limited implementation	Military Radiolocation use. Refarming of the 2.4 GHz band has been ongoing in recent years to allow current relaxed regulation. Full implementation planned 2012
	Georgia	Limited implementation	
	Russian Federation	Not implemented	
	Ukraine	Limited implementation	e.i.r.p. <100 mW
Annex 6 Band B Radiodetermination applications 9200-9500 MHz	Finland	Not implemented	
	France	Not implemented	
	Georgia	Limited implementation	
	Italy	Not implemented	
	Russian Federation	Not implemented	

	Spain	Not implemented	Military application
	Sweden	Not implemented	
	Ukraine	Not implemented	Under study
	United Kingdom	Limited implementation	May be used for Radar Level Gauges only
Annex 6 Band C Radiodetermination applications 9500-9975 MHz	France	Limited implementation	Limited to 9.88-9.92 with max e.i.r.p. 50 mW
	Georgia	Limited implementation	
	Germany	Not implemented	Defence systems
	Russian Federation	Not implemented	
	Slovak Republic	Not implemented	Defence systems
	Spain	Not implemented	Military application
	Sweden	Not implemented	
	Ukraine	Not implemented	Under study
	United Kingdom	Limited implementation	May be used for Radar Level Gauges only
Annex 6 Band D Radiodetermination applications 10.5-10.6 GHz	Austria	Not implemented	Fixed Service
	Czech Republic	Not implemented	Other service in the band
	Estonia	Not implemented	FWA
	Finland	Not implemented	10.45-10.50 GHz available
	France	Limited implementation	Limited to 10.57-10.61 with max e.i.r.p. 20 mW
	Georgia	Limited implementation	
	Germany	Not implemented	ENG/OB video links equipment
	Hungary	Limited implementation	e.i.r.p. 25 mW. ENG/OB systems are protected
	Ireland	Limited implementation	Max power limitation of 25 mW to protect Fixed Wireless Access Local Area Service operating in the 10.5 GHz band
	Luxembourg	Limited to 25 mW	Reason: To avoid interference with other services
	Russian Federation	Not implemented	Under study
	Slovak Republic	Not implemented	Fixed Service
	Sweden	Limited implementation	Limited to 10.51-10.58 GHz
	Turkey	Not implemented	Fixed Service and radiolocation
	United Kingdom	Limited implementation	Limited to 10.577-10.597 GHz. May be used for Radar Level Gauges
	Ukraine	Limited implementation	10.51-10.54 GHz
Annex 6 Band E Radiodetermination applications 13.4-14.0 GHz	France	Not implemented	
	Georgia	Limited implementation	
	Russian Federation	Not implemented	
	Sweden	Not implemented	
	Ukraine	Not implemented	Under study
Annex 6 Band F Radiodetermination applications 24.05-24.25 GHz	France	Limited implementation	No restriction for fixed applications. Power limited otherwise to 0.1 mW e.i.r.p. in frequency band 24.10 – 24.15 GHz. Alternatively for FMCW modulation, the following conditions are also allowed: power limited to 20 mW (+13 dBm) mean e.i.r.p. and 50 mW (+17 dBm) peak e.i.r.p. with a minimum frequency sweep speed of 5 MHz per millisecond. Military Radiolocation use. Operation by police forces of Radar Speed Meters
	Georgia	Limited implementation	
	Russian Federation	Limited implementation	Vehicle radars : Maximum 100 mW e.i.r.p. No restrictions if emission bandwidth is not less than 9 MHz. If emission bandwidth is less than 9 MHz then the requirement should be 0.14 µs/60 kHz maximum dwell time every 3ms Fixed radars: Maximum 100 mW e.i.r.p. 1. The equipment for detecting movement should be installed along roads at 4 m distance from controlled part of road. 2. The installation of equipment for detecting movement should be performed perpendicularly to movement direction of one- or multilane road with permissible deviation ±15 degrees. 3. The installation height of equipment for detecting movement should not exceed 5m above a road. 4. The tilt angle of the main beam to horizon should be minus 20 degrees or less
	Ukraine	Limited implementation	e.i.r.p. ≤100 mW
	United Kingdom	Limited implementation	To protect police speedmeters devices operating in 24.05-24.15 GHz must employ a minimum sweep rate

Appendix 3 – National Restrictions

Annex 6 Band G Radiodetermination applications 4.5-7.0 GHz	Georgia	Not implemented	Under study
	Macedonia (FYROM)	Not implemented	Planned
	Russian Federation	Not implemented	
	Serbia	Available in the range: 5.725-5.875 GHz 5.15-5.25 GHz / 5.250-5.255 GHz and 5.255-5.350 GHz	According to the Frequency Plan, 5.725-5.875 GHz is available for the SRD applications. According to the Frequency Plan, 5.15-5.25 GHz, 5.250-5.255 GHz and 5.255-5.350 GHz is available for the WAS and RLANS applications
	Turkey	Under study	Planned 2009
	Ukraine	Not implemented	Under study
Annex 6 Band H Radiodetermination applications 8.5-10.6 GHz	Georgia	Not implemented	
	Macedonia (FYROM)	Not implemented	Planned
	Russian Federation	Not implemented	
	Serbia	Available in the range: 10.50-10.55 GHz and 10.55-10.60 GHz	According to the Frequency Plan, this part of the spectrum is available for the SRD applications
	Turkey	Under study	Planned 2009
	Ukraine	Not implemented	Under study
Annex 6 Band I Radiodetermination applications 24.05-27.0 GHz	Georgia	Not implemented	Under study
	Macedonia (FYROM)	Not implemented	Planned
	Russian Federation	Not implemented	
	Serbia	Available in the range: 24.05-24.25 GHz	According to the Frequency Plan, this part of the spectrum is available for the SRD applications
	Turkey	Under study	Planned 2009
	Ukraine	Limited implementation	24.05-24.25 GHz
Annex 6 Band J Radiodetermination applications 57-64 GHz	Georgia	No info	
	Macedonia (FYROM)	Not implemented	Planned
	Russian Federation	Not implemented	
	Serbia	Available in the range: 61.0-61.5 GHz	According to the Frequency Plan, only this part of the spectrum is aimed for the SRD applications
	Turkey	Under study	Planned 2009
	Ukraine	Not implemented	Under study
Annex 6 Band K Radiodetermination applications 75-85 GHz	Georgia	No info	
	Macedonia (FYROM)	Not implemented	Planned
	Russian Federation	Not implemented	
	Serbia	Available in the range: 76.0-77.5 GHz	According to the Frequency Plan, only this part of the spectrum is aimed for the SRD applications (traffic radiolocation)
	Turkey	Under study	Planned 2009
	Ukraine	Limited implementation	In the band 76-77 GHz average e.i.r.p. ≤ 23.5 dBm
Annex 6 Band L Radiodetermination applications 6.0-8.5 GHz			
	Liechtenstein	Not implemented	Planned
	Switzerland	Not implemented	Planned
	United Kingdom	Limited implementation	6.0-7.1 GHz for Radar Level Gauge only 0.1 mW Average Power
Annex 6 Band M Radiodetermination applications 24.5-26.5 GHz			
	Liechtenstein	Not implemented	Planned
	Switzerland	Not implemented	Planned

	United Kingdom	Limited implementation	For Radar Level Gauge only 0.1 mW Average Power
Annex 6 Band N Radiodetermination applications 57-64 GHz			
	Liechtenstein	Not implemented	Planned
	Switzerland	Not implemented	Planned
	United Kingdom	Not implemented	
Annex 6 Band O Radiodetermination applications 75-85 GHz			
	Liechtenstein	Not implemented	Planned
	Switzerland	Not implemented	Planned
	United Kingdom	Not implemented	
Annex 6 Band P Radiodetermination applications 17.1-17.3 GHz	Croatia	Not implemented	Lack of demand
	Georgia	Not implemented	
	Greece	Not implemented	
	Italy	Not implemented	Under study
	Luxembourg	Not implemented	
	Macedonia (FYROM)	Not implemented	Planned
	Malta	Not implemented	Malta implemented the provision of 2006/771/EC, as amended
	Portugal	Not implemented	Under study
	Russian Federation	Not implemented	
	Serbia	Not implemented	According to the Frequency Plan this part of the spectrum is aimed for WLL and RLANs
	Sweden	Not implemented	
	The Netherlands	Not implemented	Planned
	Ukraine	Not implemented	
Annex 6 Band Q Radiodetermination applications 30 MHz-12.4 GHz	Austria	Not implemented	Planned
	Belgium	Not implemented	Planned
	Cyprus	Not implemented	Under study
	France	Not implemented	Planned 2012
	Georgia	Not implemented	
	Greece	No info	
	Hungary	Not implemented	Planned
	Ireland	Not implemented	Planned before end of 2012
	Italy	No info	
	Lithuania	Not implemented	Under study
	Macedonia (FYROM)	Not implemented	
	Montenegro	Not implemented	Under study
	Russian Federation	Not implemented	
	Serbia	Not implemented	
	Slovak Republic	No info	
	Spain	Not implemented	Planned but not before third quarter of 2012
	Sweden	No	
	Turkey	Not implemented	
	Ukraine	Not implemented	Under study
	United Kingdom	Limited implementation	Devices are limited to GPR only. Full implementation planned for 2013

Appendix 3 – National Restrictions

Annex 6 Band R Radiodetermination applications 2.2 – 8.0 GHz	Austria	Limited implementation	According to Commission Decision 2009/343/EC
	Bosnia and Herzegovina	Limited implementation	
	Cyprus	Not implemented	Under study
	Georgia	Not implemented	
	Greece	No info	
	Hungary	Not implemented	Planned
	Italy	No info	
	Lithuania	Limited implementation	only parameters set in 2009/343/EC are allowed
	Malta	No info	
	Macedonia (FYROM)	Not implemented	
	Poland	Not implemented	Under study
	Portugal	Not implemented	Planned
	Russian Federation	Not implemented	
	Serbia	Not implemented	
	Slovak Republic	No info	
	Spain	Not implemented	
	Sweden	Not implemented	Planned
	Ukraine	Not implemented	
	United Kingdom	Not implemented	Planned for 2013
Annex 7 Band A Alarms 868.600-868.700 MHz	Georgia	No info	
	Russian Federation	Not implemented	
	Ukraine	Limited implementation	The maximal transmitter power 10 mW
Annex 7 Band B Alarms 869.250-869.300 MHz	Georgia	No info	
	Russian Federation	Not implemented	
	Ukraine	No info	
Annex 7 Band C Alarms 869.650-869.700 MHz	Georgia	No info	
	Russian Federation	Not implemented	
	Ukraine	Not implemented	Under study
Annex 7 Band D Alarms 869.200-869.250 MHz	Georgia	No info	
	Russian Federation	Not implemented	
	Ukraine	Limited implementation	The maximal transmitter power 10 mW
Annex 7 Band E Alarms 869.300-869.400 MHz <i>(Technical parameters have been changed)</i>	Georgia	No info	
	Greece	Not implemented	
	Macedonia (FYROM)	Not implemented	Planned
	Russian Federation	Not implemented	
	Ukraine	Not implemented	
Annex 7 Band F Alarms 169.4750-169.4875 MHz	Bulgaria	Not implemented	The band is used for national security needs
	Cyprus	Implemented	Cyprus has implemented Decision 2005/928/EC
	Denmark	Limited implementation	PMR band
	Georgia	Not implemented	
	Greece	Not implemented	
	Russian Federation	Not implemented	
	Ukraine	Not implemented	Under study
Annex 7 Band G Alarms 169.5875-169.6000 MHz	Austria	Not implemented	Planned
	Bulgaria	Not implemented	The band is used for national security needs
	Cyprus	Implemented	Cyprus has implemented Decision 2005/928/EC
	Denmark	Limited implementation	PMR band
	Georgia	Not implemented	
	Greece	Not implemented	
	Russian Federation	Not implemented	
	Ukraine	Not implemented	Under study

Annex 8 Band A Model Control 26.995, 27.045, 27.095, 27.145, 27.195 MHz	Georgia	No info	
	Russian Federation	Limited implementation	Power limited to 10 mW. Maximum antenna gain is 3 dB, channel spacing 50 kHz
	Ukraine	Limited implementation	The maximal transmitter power 10 mW
Annex 8 Band B Model Control 34.995-35.225 MHz	France	Limited implementation	Limited to 34.995-35.055 MHz. Dedicated networks for Ministry of transport.
	Georgia	Not implemented	
	Germany	Limited to 35.005-35.205 MHz	Emergency services
	Russian Federation	Not implemented	
	Ukraine	Limited implementation	The maximal transmitter power 10 mW
Annex 9 Band A1 Inductive applications 9 – 90 kHz	Austria	Not implemented	
	Belgium	Not implemented	Planned
	Bulgaria	Partly implemented	Implemented in the band 9-59.75 kHz. The bands 59.75-60.25 kHz and 70-90 kHz are allowed with a maximum magnetic field strength of 42 dBμA/m at 10 m. The band 60.25-70.0 kHz is allowed with a maximum magnetic field strength of 69 dBμA/m at 10 m
	Denmark	Limited implementation	Implemented according to the EC SRD Decision 2006/771/EC
	France	Limited implementation	Limited to +42 dBμA/m in the frequency band 70-90 kHz
	Georgia	Not implemented	
	Latvia	Limited implementation	9-59.750 kHz maximum field strength 72 dBμA/m at 10m; 59.750-60.250 kHz maximum field strength 42 dBμA/m at 10m; 60.250-70 kHz maximum field strength 69 dBμA/m at 10m; 70-119 kHz maximum field strength 42 dBμA/m at 10m
	Lithuania	Limited implementation	Implemented according to the EC SRD Decision 2006/771/EC
	Macedonia (FYROM)	No info	
	Norway	No info	
	Russian Federation	Limited implementation	9-59.75 kHz: Maximum magnetic field strength is +72 dBμA/m at 10 m. In case of external antennas only loop coil antennas may be employed. Field strength level descending 3 dB/oct at 30 kHz. 59.75-60.25 kHz: Maximum magnetic field strength is +42 dBμA/m at 10 m. In case of external antennas only loop coil antennas may be employed. 60.25-70 kHz: Maximum magnetic field strength is +69 dBμA/m at 10 m. In case of external antennas only loop coil antennas may be employed. Field strength level descending 3dB/oct at 30 kHz. 70-90 kHz: Maximum magnetic field strength is +42 dBμA/m at 10 m. In case of external antennas only loop coil antennas may be employed
	Serbia	No info	
	Spain	Limited implementation	to 9-70 kHz
	The Netherlands	Not implemented	Planned (Pending)
	Turkey	No info	
	Ukraine	Limited implementation	The maximal strength of magnetic field on the distance of 10 m from a construction where the radiator is placed in the band 9-59.75 kHz is 72 dBμA/m, in the band 59.75-60.25 kHz is 42 dBμA/m, in the band 60.250-70 kHz is 69 dBμA/m, in the band 70-119 kHz is 42 dBμA/m
Annex 9 Band A2 Inductive applications 90-119 kHz	Denmark	Limited implementation	Implemented according to the EC SRD Decision 2006/771/EC
	Georgia	Limited implementation	
	Latvia	Partly implemented	
	Lithuania	Limited implementation	Implemented according to the EC SRD Decision 2006/771/EC
	Macedonia (FYROM)	No info	
	Norway	No info	
	Serbia	No info	
	The Netherlands	Not implemented	Planned (Pending)
	Turkey	No info	
	Ukraine	Limited implementation	The maximal strength of magnetic field on the distance of 10 m from a construction where the radiator is placed in the band 70-119 kHz is 42 dBμA/m
Annex 9 Band A3 Inductive applications	Georgia	Not implemented	
	Lithuania	Limited implementation	Implemented according to the EC SRD Decision 2006/771/EC
	The Netherlands	Not implemented	Planned (Pending)
	Ukraine	Limited implementation	The maximal strength of magnetic field on the distance of 10 m from

Appendix 3 – National Restrictions

119-135 kHz			a construction where the radiator is placed in the band 119-135 kHz is 66 dBµA/m
Annex 9 Band B Inductive applications 135-140 kHz	Georgia	Not implemented	
	Hungary	Not implemented	Not allocated. Planned
	Russian Federation	Not implemented	
	The Netherlands	Not implemented	Planned (Pending)
	Ukraine	Limited implementation	The maximal strength of magnetic field on the distance of 10 m from a construction where the radiator is placed in the band 135-140 kHz is 42 dBµA/m
Annex 9 Band C Inductive applications 140.0-148.5 kHz	Georgia	Not implemented	
	Russian Federation	Not implemented	
	The Netherlands	Not implemented	Planned (Pending)
	Ukraine	Limited implementation	The maximal strength of magnetic field on the distance of 10 m from a construction where the radiator is placed in the band 140-148.5 kHz is 37.7 dBµA/m
Annex 9 Band D Inductive applications 6765-6795 kHz	Georgia	Not implemented	
	Ukraine	No info	
Annex 9 Band E Inductive applications 7400-8800 kHz	Spain	No restriction	Frequency band 7350-8800 kHz
Annex 9 Band F1 Inductive applications 13.553-13.567 MHz	Georgia	Not implemented	
	Ukraine	Limited implementation	The maximal strength of magnetic field on the distance of 10 m from a construction where the radiator is placed is 42 dBµA/m
Annex 9 Band G Inductive applications 26.957-27.283 MHz	Georgia	Not implemented	
	Ukraine	Limited implementation	The maximal strength of magnetic field on the distance of 10 m from a construction where the radiator is placed is 42 dBµA/m
Annex 9 Band H Inductive applications 10.200-11.000 MHz	Georgia	Not implemented	
	Russian Federation	Limited implementation	Maximum magnetic field strength is -4 dBµA/m at 10 m
	Ukraine	Limited implementation	The maximal strength of magnetic field on the distance of 10 m from a construction where the radiator is placed is 9 dBµA/m
Annex 9 Band K Inductive applications 3155-3400 kHz	Georgia	Not implemented	
	Russian Federation	Not implemented	
	Ukraine	Limited implementation	The maximal strength of magnetic field on the distance of 10 m from a construction where the radiator is placed is 13.5 dBµA/m

Annex 9 Band L1 Inductive applications 148.5 kHz-5 MHz	Georgia	Not implemented	
	Greece	Not implemented	
	Poland	Limited implementation	Implemented 148.5 kHz – 1.6. MHz
	Russian Federation	Not implemented	
	Ukraine	Not implemented	Under study
Annex 9 Band L2 Inductive applications 5-30 MHz	Georgia	Not implemented	
	Greece	Not implemented	
	Russian Federation	No info	
	Ukraine	No info	
Annex 9 Band L3 Inductive applications 400-600 kHz	Georgia	Not implemented	
	Greece	Not implemented	
	Russian Federation	Not implemented	
	Ukraine	Not implemented	Under study
Annex 10 Band A Radio Microphone applications including aids for the hearing impaired 29.7-47.0 MHz	Austria	Limited implementation	only the frequencies 36.8, 36.85, 37.45, 37.50-37.55 MHz for narrow band and 36.7-37.1-44.55-45.0 MHz for broadband radio microphones are available
	Croatia	Not implemented	Defence systems
	Czech Republic	Limited implementation	Only four sub-bands allowed: 27.415-27.915 MHz 10 mW e.r.p. channel max 50 kHz 36.4-36.65 MHz 10 mW e.r.p. channel max 50 kHz 36.65-38.0 MHz 2 mW e.r.p. channel max 50 kHz 38.0-38.5 MHz 10 mW e.r.p. channel max 200 kHz
	Estonia	Limited to 37.6-38.6 MHz	Land mobile
	Finland	Limited implementation	only 31.1, 32.1, 32.9, 33.5, 36.7, 37.1 and 42.4-43.6 MHz with max 200 kHz channels
	France	Limited implementation	to 32.8, 36.4, 39.2 MHz 1 mW e.r.p. and 200 kHz
	Georgia	Not implemented	
	Germany	Limited implementation	to 32.4-38.2 MHz. Permitted channel spacing 10 kHz below 36 MHz and 40 kHz above 36 MHz
	Greece	Limited implementation	to 30.00 MHz, 30.50 MHz, 31.00 MHz, 35.00 MHz, 36.50 MHz, 36.70 MHz, 37.00 MHz, 37.10 MHz, 37.50 MHz
	Hungary	Limited implementation	34.9-38.5 MHz band is allocated
	Italy	Limited to 41.0-43.6 MHz	Military application
	Liechtenstein	Limited implementation	Limited to 31.4-39.6 MHz
	Lithuania	Limited implementation	only 30.01-30.3 MHz, 30.5-32.15 MHz, and 32.45-37.5 MHz are allowed
	Luxembourg	Limited implementation	excluding the use of the band 34.995-35.225 MHz
	Malta	Limited implementation	to 29.7-34.9 and 37.5-40.98 MHz
	Norway	Limited implementation	to 41.0-43.6 MHz max channel spacing 10 kHz. Max 100 mW e.r.p. AM not allowed
	Portugal	Not implemented	Defence systems
	Romania	Limited implementation	Only sub-bands: 29.7-30.3 MHz; 30.5-32.15 MHz; 32.45- 33.1 MHz; 33.6-34.975 MHz; 37.5- 40.02 MHz; 40.66- 41.015 MHz; 44.5- 45.2 MHz are allowed
	Russian Federation	Limited implementation	Hearing and speech training radio devices for persons with speech defects. Power limited to 10 mW Fixed frequencies in the bands 33.175-40MHz and 40.025-48.5 MHz: 33.2, 33.35, 33.45, 33.55, 33.575, 33.6, 33.75, 33.85, 33.875, 33.9, 34.05, 34.15, 34.175, 34.2, 34.3, 34.375, 34.4, 34.975, 35.025, 35.15, 35.225, 35.375, 35.55, 35.65, 35.95, 35.975, 36.025, 36.075, 36.125, 36.175, 36.225, 36.275, 36.325, 36.375, 36.425, 36.475, 36.525, 36.575, 36.625, 36.675, 36.725, 36.775, 36.825, 36.875, 36.925, 36.975, 37.025, 37.075, 37.125, 37.175, 37.225, 37.275, 37.325, 37.375, 37.425, 37.475, 37.525, 37.575, 37.625, 37.675, 37.725, 37.775, 37.825, 37.875, 37.925, 37.975, 38.025, 38.075, 38.125, 38.175, 38.225, 38.275, 38.325, 38.375, 38.425, 38.475, 38.525, 38.575, 38.625, 38.675, 38.725, 38.775, 39.025, 39.225, 39.400, 39.6, 39.75, 39.85, 39.925, 39.975, 40.05, 40.15, 40.25, 40.325, 40.425, 40.65, 40.825, 41.3, 41.325, 41.35, 41.375, 41.4, 41.5, 41.6, 41.625, 41.65, 41.675, 41.7, 41.75, 41.8, 41.9, 41.95, 42.1, 42.15, 42.2, 42.25, 42.35, 42.45, 42.475, 42.5, 42.525, 42.55, 42.575, 42.6, 42.625, 42.65, 42.675, 42.7, 42.725, 42.75, 42.8, 42.85, 42.95, 42.975, 43, 43.15, 43.175, 43.2, 43.225, 43.25, 43.4, 43.5, 43.7, 43.725, 43.75, 43.8, 44, 44.25, 44.4, 44.475, 44.5, 44.65, 44.75,

Appendix 3 – National Restrictions

			44.975, 45, 45.25, 45.45, 45.475, 45.5, 45.65, 45.75, 45.8, 45.95, 45.975, 46, 46.125, 46.175, 46.225, 46.425, 46.45, 46.475, 46.55, 46.575, 46.6, 46.65, 46.675, 46.7, 46.775, 46.8, 46.825, 46.85, 46.875, 46.925, 46.95, 46.975, 47, 47.075, 47.125, 47.25 MHz
	Slovak Republic	Limited to 27.75-27.9 and 36.4-38.5 MHz	Defence systems in the rest of the band
	Spain	Limited implementation	to 31.500, 31.750, 37.850, 38.300 and 38.550 MHz
	Sweden	Limited implementation	Limited to 41.0-43.6 MHz - Land Mobile
	Switzerland	Limited implementation	Limited to 31.4-39.6 MHz. Main use by defence systems
	Ukraine	Limited implementation	In the band 30.01-47 MHz maximal transmitter power is 10 mW
	United Kingdom	Not implemented	
Annex 10 Band B Radio Microphone applications including aids for the hearing impaired 173.965-174.015 MHz	Belgium	Not implemented	
	Bulgaria	Limited implementation	Limited to 174.000-174.015 MHz
	Denmark	Not implemented	PMR band
	France	Not implemented	Governmental band
	Georgia	Not implemented	
	Greece	Not implemented	
	Liechtenstein	Not implemented	Occupied with mobile services
	Russian Federation	Not implemented	
	Spain	Not implemented	Due to lack of demand
	Sweden	Not implemented	Land Mobile
	Switzerland	Not implemented	Closely occupied with mobile services
	Ukraine	Not implemented	
Annex 10 Band C Radio Microphone applications including aids for the hearing impaired 863-865 MHz	Croatia	Limited implementation	Individual license required
	Georgia	Not implemented	
	Russian Federation	Not implemented	
	Ukraine	Limited implementation	The maximal transmitter power is 10 mW
Annex 10 Band D Radio Microphone applications including aids for the hearing impaired 174-216 MHz	Denmark	Limited implementation	Tuning range
	Finland	Limited implementation	Regional restrictions
	France	Limited implementation	For professional users. 175.5-178.5 and 183.5-186.5 MHz also authorised for consumer products with 10 mW e.r.p. and 200 kHz channel spacing
	Georgia	Not implemented	
	Ireland	Not implemented	
	Malta	Not implemented	
	Norway	Not implemented	
	Russian Federation	Limited implementation	174-230 MHz. Power limited to 5 mW. Maximum antenna gain is 3 dB. Channel spacing is 200 kHz
	Spain	Limited implementation	174.100, 174.300, 175.500, 176.300, 179.300, 188.100, 188.500, 189.100, 191.900 and 194.500 MHz
	Ukraine	Limited implementation	Under condition of not causing interference to other stations working in this band. In bands of 174.4-174.6 MHz and 174.9-175.1 MHz the maximal transmitter power is 10 mW
Annex 10 Band E1 Radio Microphone applications including aids for the hearing impaired 470-786 MHz	Czech Republic	Partly implemented under conditions of former band E	This band will replace previous band 470–862 MHz arrangement before 2013
	Finland	Limited implementation	Regional restrictions. Radiomicrophones in the frequency band 694-786 MHz allowed until the end of year 2020
	France	Limited implementation	For professional users
	Germany	Limited implementation	
	Greece	Limited implementation	
	Lithuania	Limited implementation	In all 470–862 MHz band 50 mW e.r.p. Only for radio microphones. Individual registrations required
	Malta	Limited implementation	
	Norway	Limited implementation	
	Poland	Limited implementation	Radio Microphones and Assistive Listening Devices are allowed in the whole band 470 – 862 MHz until introduction of MFCN networks in Poland. After that frequency band will be limited to the band 470-786 MHz. Individual licensing under study
	Spain	Not implemented	Only broadcasting TV in this band

Annex 10 Band E2 Radio Microphone applications including aids for the hearing impaired 786-789 MHz	Austria	Limited implementation	Currently old regulation (470-862 MHz; 50 mW e.r.p.; 200 kHz channel spacing) is in force
	Belgium	Not implemented	Planned
	Croatia	Implemented	Individual license required
	Czech Republic	Partly implemented under conditions of former band E	This band will replace previous band 470–862 MHz arrangement before 2013
	Cyprus	No info	
	Finland	Limited implementation	Regional restrictions. Radiomicrophones in the frequency band 694-786 MHz allowed until the end of year 2020
	France	Limited implementation	For professional users
	Greece	No info	
	Hungary	No info	
	Latvia	No info	
	Liechtenstein	Limited implementation	50 mW e.r.p. until 31.12.2012
	Lithuania	Limited implementation	In all 470–862 MHz band 50 mW e.r.p. Only for radio microphones. Individual registrations required
	Malta	Not implemented	
	The Netherlands	Not implemented	
	Norway	Not implemented	
	Poland	Limited implementation	With technical parameters for the “old” band E. Full implementation and individual licensing under study
	Portugal	Not implemented	
	Romania	Not implemented	
	Slovak Republic	Not implemented	
	Spain	Not implemented	Only broadcasting TV in this band
	Sweden	Not implemented	
Annex 10 Band E3 Radio Microphone applications including aids for the hearing impaired 823-826 MHz	Switzerland	Limited implementation	50 mW e.r.p. until 31.12.2012
	Turkey	No info	
	Austria	Limited implementation	Currently old regulation (470-862 MHz; 50 mW e.r.p.; 200 kHz channel spacing) is in force
	Belgium	Not implemented	Planned
	Croatia	Not implemented	
	Czech Republic	Partly implemented under conditions of former band E	This band will replace previous band 470–862 MHz arrangement before 2013
	Cyprus	No info	
	Estonia	Not implemented	Under study
	France	Limited implementation	For professional users. Limited to 50 mW e.r.p.
	Greece	No info	
	Hungary	No info	
	Latvia	No info	
	Liechtenstein	Limited implementation	50 mW e.r.p. until 31.12.2012
	Lithuania	Limited implementation	In all 470–862 MHz band 50 mW e.r.p. Only for radio microphones. Individual registrations required
	Malta	Not implemented	
	Norway	Not implemented	
	Poland	Limited implementation	With technical parameters for the “old” band E. Full implementation and individual licensing under study
	Portugal	Not implemented	
	Romania	Not implemented	
	Slovak Republic	Not implemented	
	Spain	Not implemented	Only broadcasting TV in this band
	Sweden	Not implemented	
	Switzerland	Limited implementation	50 mW e.r.p. until 31.12.2012
	The Netherlands	Not implemented	
	Turkey	No info	

Appendix 3 – National Restrictions

Annex 10 Band E4 Radio Microphone applications including aids for the hearing impaired 826-832 MHz	Austria	Limited implementation	Currently old regulation (470-862 MHz; 50 mW e.r.p.; 200 kHz channel spacing) is in force
	Belgium	Not implemented	Planned
	Croatia	Not implemented	
	Czech Republic	Partly implemented under conditions of former band E	This band will replace previous band 470–862 MHz arrangement before 2013
	Cyprus	No info	
	Estonia	Not implemented	Under study
	France	Limited implementation	For professional users. Limited to 826-830 MHz with 50 mW max e.r.p.
	Greece	No info	
	Hungary	No info	
	Latvia	No info	
	Liechtenstein	Limited implementation	50 mW e.r.p. until 31.12.2012
	Lithuania	Limited implementation	In all 470–862 MHz band 50 mW e.r.p. Only for radio microphones. Individual registrations required
	Malta	Not implemented	
	Norway	Not implemented	
	Poland	Limited implementation	With technical parameters for the “old” band E. Full implementation and individual licensing under study
	Portugal	Not implemented	
	Romania	Not implemented	
	Slovak Republic	Not implemented	
	Spain	Not implemented	Only broadcasting TV in this band
	Sweden	Not implemented	
	Switzerland	Limited implementation	50 mW e.r.p. until 31.12.2012
	The Netherlands	Not implemented	
	Turkey	No info	
Annex 10 Band F Radio Microphone applications including aids for the hearing impaired 1785-1795 MHz	Austria	Limited implementation	to 1785.7-1795 MHz
	Georgia	Not implemented	
	Italy	Not implemented	Military application
	Ireland	Not implemented	All-island WAPECS in Operation
	Malta	Not implemented	Planned
	Russian Federation	Not implemented	
	Slovak Republic	Not implemented	Fixed Service
	Sweden	Not implemented	
	The Netherlands	Implemented	max 50 mW e.r.p. Channel spacing 600 kHz
	Ukraine	Not implemented	Under study
	United Kingdom	Implemented	Individual licence required
Annex 10 Band G Radio Microphone applications including aids for the hearing impaired 1795-1800 MHz	Austria	Limited implementation	to the band 1795 – 1799.4 MHz
	Croatia	Limited implementation	Individual licence required
	Czech Republic	Limited implementation	Individual license required, General licence planned 2012
	Finland	Limited implementation	Individual license required
	Georgia	Not implemented	
	Italy	Not implemented	Military application
	Ireland	Not implemented	All-island WAPECS in Operation
	Russian Federation	Not implemented	
	Slovak Republic	Not implemented	Fixed Service
	Sweden	Not implemented	
	The Netherlands	Implemented	max 50 mW e.r.p. Channel spacing 600 kHz
	Ukraine	Not implemented	Under study
	United Kingdom	Limited implementation	Individual licence required
Annex 10 Band H1 Radio Microphone applications including aids for the hearing impaired 169.4000-169.4750 MHz	Bulgaria	Not implemented	The band is used for national security needs
	Cyprus	Implemented	Cyprus has implemented Decision 2005/928/EC
	Denmark	Limited implementation	PMR band
	Georgia	Not implemented	
	Greece	Not implemented	
	Ireland	Limited implementation	Max. e.r.p. is currently limited to 10mW
	Russian Federation	Not implemented	
	Ukraine	Not implemented	Under study

Annex 10 Band H2 Radio Microphone applications including aids for the hearing impaired 169.4875-169.5875 MHz	Austria	Not implemented	Planned
	Bulgaria	Not implemented	The band is used for national security needs
	Cyprus	Implemented	Cyprus has implemented Decision 2005/928/EC
	Denmark	Limited implementation	PMR band
	Georgia	Not implemented	
	Greece	Not implemented	
	Ireland	Limited implementation	Max. e.r.p. is currently limited to 10mW
	Russian Federation	Not implemented	
	Ukraine	Not implemented	Under study
Annex 10 Band I Radio Microphone applications including aids for the hearing impaired 169.4-174.0 MHz	Austria	Not implemented	Implementation depends on market demand
	Belgium	Not implemented	
	Bulgaria	Not implemented	The band is used for national security needs
	Cyprus	Not implemented	
	Czech Republic	Limited implementation	Only two parts of the band allowed above 169.5875 MHz 173.3 MHz: 50 mW e.r.p. max 75 kHz 173.965-174.015 MHz: 2 mW e.r.p. channel spacing max 50 kHz. Other services in the rest of the band
	Finland	Not implemented	
	France	Not implemented	
	Georgia	Not implemented	
	Greece	Not implemented	
	Hungary	Not planned	Governmental use in the band
	Iceland	No info	
	Ireland	Not implemented	
	Italy	Limited to 169.815 MHz	
	Liechtenstein	Not implemented	Occupied with mobile services
	Malta	Not implemented	
	Poland	Not implemented	
	Portugal	Not implemented	Land Mobile
	Russian Federation	Not implemented	
	Serbia	Not implemented	In the Frequency Plan in this part of the spectrum there are not available frequency slots for the radio microphones
	Slovak Republic	Not implemented	Under study
	Spain	Limited implementation	Channel plan for 169.4-169.8 MHz according ECC/DEC/(05)02
	Sweden	Not implemented	
	Switzerland	Not implemented	Occupied with mobile services
	The Netherlands	Not implemented	Planned
	Turkey	No info	
	Ukraine	Not implemented	
	United Kingdom	Limited implementation	Implemented in 173.325-174.000 MHz and at 2 mW only
Annex 11 Band A RFID 2446-2454 MHz	France	Limited implementation	Power limited to 500 mW e.i.r.p. Military Radiolocation and Fixed Service use
	Russian Federation	Not implemented	
	Sweden	Limited implementation	Limited to 100 mW e.i.r.p. Defence systems
	Ukraine	Not implemented	Under study
Annex 11 Band B1 RFID 865.0-865.6 MHz	Georgia	No info	
	Russian Federation	Not implemented	
	Ukraine	Not implemented	Under study
Annex 11 Band B2 RFID 865.6-867.6 MHz	France	Limited implementation	Power limited to 500 mW e.r.p. within defined zones around certain military camps in France (see list of military camps with geographical coordinates in national radio interface specification). Tactical Radio Relay
	Georgia	No info	
	Russian Federation	Limited implementation	866.6-867.4 MHz with e.r.p 100 mW. The assignment of radio frequencies or channels is not required in when: a) LBT is applied b) equipment is used at the airport 866.0-867.6 MHz with e.r.p 2 W. The assignment of radio frequencies or channels should too be performed in established order
	Ukraine	Not implemented	Under study

Appendix 3 – National Restrictions

Annex 11 Band B3 RFID 867.6-868.0 MHz	Georgia	No info	
	Russian Federation	Limited implementation	866-868 MHz. The assignment of radio frequencies or channels should too be performed in established order
	Ukraine	Not implemented	Under study
Annex 12 Band A Active Medical Implants and their associated peripherals 402-405 MHz	Georgia	No info	
	Russian Federation	Not implemented	
	Ukraine	Limited implementation	The maximal transmitter power is 25 mW
Annex 12 Band A1 Active Medical Implants and their associated peripherals 401-402 MHz	Georgia	No info	
	Greece	Not implemented	About to be implemented (info of June 2008)
	Hungary	Not implemented	Planned 2011
	Russian Federation	Not implemented	
	Serbia	Not implemented	In the Frequency Plan in this part of the spectrum there are not available frequency slots for this applications
	Turkey	Under study	Planned 2009
Annex 12 Band A2 Active Medical Implants and their associated peripherals 405-406 MHz	Georgia	No info	
	Greece	Not implemented	About to be implemented (info of June 2008)
	Italy	Not implemented	Military application
	Russian Federation	Not implemented	
	Serbia	Not implemented	In the Frequency Plan in this part of the spectrum there are not available frequency slots for this applications
	Turkey	Under study	Planned 2009
Annex 12 Band B Active Medical Implants and their associated peripherals 9-315 kHz	Georgia	No info	
	Russian Federation	Not implemented	
	Ukraine	Limited implementation	The maximal strength of magnetic field on the distance of 10 m from a construction where the radiator is placed is 30 dBmµA/m
Annex 12 Band C Active Medical Implants and their associated peripherals 315-600 kHz	Georgia	No info	
	Italy	Not implemented	
	Russian Federation	Not implemented	
	Ukraine	Limited implementation	The maximal strength of magnetic field on the distance of 10 m from a construction where the radiator is placed is 30 dBmµA/m
Annex 12 Band D Active Medical Implants and their associated peripherals 30.0-37.5 MHz	Georgia	No info	
	Italy	Not implemented	Military application
	Russian Federation	Not implemented	
	Serbia	Not implemented	In the Frequency Plan in this part of the spectrum there are not available frequency slots for this applications
	Slovak Republic	Limited to 33 – 37.5 MHz	Defence systems and other services in the rest of the band
	Ukraine	Limited implementation	The maximal transmitter power is 1 mW
Annex 12 Band E Active Medical Implants and their associated peripherals 12.5-20.0 MHz	Georgia	No info	
	Greece	Not implemented	Planned
	Italy	Not implemented	
	Russian Federation	Not implemented	
	Serbia	Available in the range: 13.553-13.567 MHz	According to the Frequency Plan, this part of the spectrum is available for the SRD applications
	Slovak Republic	Not implemented	Under study
	Ukraine	Not implemented	Under study

Annex 12 Band F Active Medical Implants and their associated peripherals 2483.5-2500 MHz	Austria	Not implemented	Planned
	Belgium	Not implemented	Planned
	Bulgaria	No info	
	Croatia	Not implemented	Implementation planned for 2012
	Czech Republic	Not implemented	Planned 2012
	Cyprus	No info	
	Denmark	No info	
	Estonia	Not implemented	Under study
	Finland	Not implemented	Planned 2012
	France	Not implemented	
	Georgia	No info	
	Greece	No info	
	Hungary	No info	
	Iceland	No info	
	Italy	No info	
	Lithuania	Not implemented	
	Malta	Not implemented	
	Norway	Not implemented	
	Poland	Not implemented	Under study
	Portugal	Not implemented	
	Romania	Not implemented	
	Slovak Republic	Not implemented	
	Slovenia	Not implemented	Planned
	Spain	Not implemented	
	Sweden	Not implemented	
	The Netherlands	Not implemented	
	Turkey	No info	
	United Kingdom	Not implemented	
Annex 13 Band B Wireless Audio Applications 864.8-865 MHz	Russian Federation	Not implemented	
	Ukraine	Limited implementation	e.i.r.p. ≤ 10 mB _T
Annex 13 Band C Wireless Audio Applications 1795-1800 MHz	Austria	Not implemented	Under study
	Croatia	Not implemented	Lack of demand
	Finland	Limited implementation	Individual license required
	France	Not implemented	
	Georgia	Limited implementation	
	Ireland	Not implemented	All-island WAPECS in Operation
	Italy	Not implemented	Military application
	Russian Federation	Not implemented	
	Slovak Republic	Not implemented	Fixed service
	The Netherlands	Not implemented	
	Ukraine	Not implemented	Under study
	United Kingdom	Limited implementation	Individual licence required
Annex 13 Band D Wireless Audio Applications 87.5-108.0 MHz	Greece	Not implemented	About to be implemented (info of June 2008)
	Russian Federation	Limited implementation	Maximum e.i.r.p. -43 dBm (50 nW). No spacing. Omnidirectional antenna. Permitted to use inside cars and other vehicles, and also inside of the closed premises
	Ukraine	Limited implementation	87.5-92 MHz; 100-108 MHz; (e.i.r.p. $\leq 50 \cdot 10^{-9}$ W); 89.9-90.2 MHz (the maximal transmitter power is 10 mW)

List of abbreviations as used in this document

AFA	Adaptive Frequency Agility
AVI	Automatic Vehicle Identification for Railways
BMA	Building Material Analysis
CEPT	European Conference of Postal and Telecommunications Administrations
DAA	Detect and Avoid
EAS	Electronic Article Surveillance
ECC	Electronic Communications Committee
ECO	European Communications Office
EFIS	ECO Frequency Information System
ENG/OB	Electronic News Gathering / Outside Broadcasting
ERC	European Radiocommunications Committee
ERM	Electromagnetic Compatibility and Radio Spectrum Matters
ETSI	European Telecommunications Standard Institute
FHSS	Frequency Hopping Spread Spectrum
FMCW	Frequency Modulated Continuous Wave
GBSAR	Ground Based Synthetic Aperture Radar
FHSS	Frequency Hopping Spread Spectrum
GPR/WPR	Ground- and Wall Probing Radars
ISM	Industrial, Scientific and Medical applications
LAN	Local Area Network
LBT	Listen Before Talk
LPR	Level Probing Radar
PMR	Professional Mobile Radio / Private Mobile Radio
PMSE	Programme Making Special Events
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
SRR	Short Range Radar
TETRA	Terrestrial Trunked Radio
TLPR	Tank Level Probing Radar
ULP-AID	Ultra Low Power Animal Implant Devices
ULP-AIP	Ultra Low Power Animal Implantable
UWB	Ultra WideBand
WLAM	Wideband Low Activity Mode
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 2010
Rearranged text of Recommendation 18 October 2005			
Annex 1	Non-specific Short Range Devices	6	January 2010
Annex 2	Tracking, Tracing and Data Acquisition	8	June 2009
Annex 3	Wideband Data Transmission systems	9	May 2012
Annex 4	Railway applications	10	August 2011
Annex 5	Road Transport & Traffic Telematics (RTTT)	11	May 2012
Annex 6	Radiodetermination applications	13	May 2012
Annex 7	Alarms	14	October 2006
Annex 8	Model Control	15	May 2003
Annex 9	Inductive applications	16	October 2009
Annex 10	Radio microphones and Assistive Listening Devices	18	February 2011
Annex 11	Radio frequency identification applications	20	January 2010
Annex 12	Active Medical Implants and their associated peripherals	21	February 2011
Annex 13	Wireless Audio applications	23	May 2008
Appendix 1	Implementation Status	24	August 2012
Appendix 2	List of relevant ECC/ERC Decisions, Reports, EC Decisions and ETSI Standards	30	October 2010
Appendix 3	National restrictions	36	August 2012