

Commission Decision of 30 June 2010 amending Decision 2006/771/EC on harmonisation of the radio spectrum for use by short-range devices (notified under document C(2010) 4313) (Text with EEA relevance) (2010/368/EU)

COMMISSION DECISION

of 30 June 2010

amending Decision 2006/771/EC on harmonisation
of the radio spectrum for use by short-range devices

(notified under document C(2010) 4313)

(Text with EEA relevance)

(2010/368/EU)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Decision No 676/2002/EC of the European Parliament and of the Council of 7 March 2002 on a regulatory framework for radio spectrum policy in the European Community (Radio Spectrum Decision)⁽¹⁾, and in particular Article 4(3) thereof,

Whereas:

- (1) Commission Decision 2006/771/EC⁽²⁾ harmonises the technical conditions for use of spectrum for a wide variety of short-range devices, including applications such as alarms, local communications equipment, door openers and medical implants. Short-range devices are typically mass-market and/or portable products which can easily be taken and used across borders; differences in spectrum access conditions therefore prevent their free movement, increase their production costs and create risks of harmful interference with other radio applications and services.
- (2) However, due to rapid changes in technology and societal demands, new applications for short-range devices can emerge which require regular updates of spectrum harmonisation conditions.
- (3) On 5 July 2006, the Commission issued a permanent mandate to the European Conference of Postal and Telecommunications Administrations (CEPT), pursuant to Article 4(2) of Decision No 676/2002/EC, to update the Annex to Decision 2006/771/EC in response to the technological and market developments in the area of short-range devices.
- (4) Commission Decisions 2008/432/EC⁽³⁾ and 2009/381/EC⁽⁴⁾ already amended the harmonised technical conditions for short-range devices contained in Decision 2006/771/EC by replacing its Annex.

- (5) In its November 2009 report⁽⁵⁾ submitted in response to the abovementioned mandate, the CEPT advised the Commission to amend a number of technical aspects in the Annex to Decision 2006/771/EC.
- (6) The Annex to Decision 2006/771/EC should therefore be amended accordingly.
- (7) Equipment operating within the conditions set in this Decision must also comply with 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⁽⁶⁾ in order to use the spectrum effectively so as to avoid harmful interference, demonstrated either by meeting harmonised standards or by fulfilling alternative conformity assessment procedures.
- (8) The measures provided for in this Decision are in accordance with the opinion of the Radio Spectrum Committee,

HAS ADOPTED THIS DECISION:

Article 1

The Annex to Decision 2006/771/EC is replaced by the Annex to this Decision.

Article 2

This Decision is addressed to the Member States.

Done at Brussels, 30 June 2010.

For the Commission

Neelie KROES

Vice-President

ANNEX

‘ANNEX Harmonised frequency bands and technical parameters for short-range devices Member States must allow the usage of adjacent frequency bands within this table as a single frequency band provided the specific conditions of each of these adjacent frequency bands are met. Member States must allow the usage of spectrum up to the transmit power, field strength or power density given in this table. In conformity with Article 3(3) of Decision 2006/771/EC, they may impose less restrictive conditions, i.e. allow the use of spectrum with higher transmit power, field strength or power density. Member States may only impose these “additional parameters (channelling and/or channel access and occupation rules)”, and may not add other parameters or spectrum access and mitigation requirements. Less restrictive conditions within the meaning of Article 3(3) of Decision 2006/771/EC mean that Member States may completely omit the ‘additional parameters (channelling and/or channel access and occupation rules)’ in a given cell or allow higher values. Member States may only impose these “other usage restrictions”, and may not add additional usage restrictions. As less restrictive conditions may be introduced within the meaning of Article 3(3) of Decision 2006/771/EC, Member States may omit one or all of these restrictions. This category is available for any type of application which fulfils the technical conditions (typical uses are telemetry, telecommand, alarms, data in general and other similar applications). For this frequency band Member States must make all the alternative sets of usage conditions possible. “Duty cycle” means the ratio of time during any 1-hour period when equipment is actively transmitting. Less restrictive conditions within the meaning of Article 3(3) of Decision 2006/771/EC mean that Member States may allow a higher value for “Duty cycle”. Social alarm devices are used to assist elderly or disabled people when they are in distress. This category covers, for example, devices for car immobilisation, animal identification, alarm systems, cable detection, waste management, personal identification, wireless voice links, access control, proximity sensors, anti-theft systems, including RF anti-theft induction systems, data transfer to handheld devices, automatic article identification, wireless control systems and automatic road tolling. This category covers inductive applications used for Radio Frequency Identification (RFID). This category covers inductive applications used for Electronic Article Surveillance (EAS). This category covers the radio part of active implantable medical devices, as defined in Council Directive 90/385/EEC of 20 June 1990 on the approximation of the laws of the Member States relating to active implantable medical devices (OJ L 189, 20.7.1990, p. 17). This category covers systems specifically designed for the purpose of providing non-voice digital communications between active medical implants, as defined in footnote 12, and/or body-worn devices and other devices external to the human body used for transferring non-time critical individual patient-related physiological information. This category covers transmitting devices which are placed inside the body of an animal for the purpose of performing diagnostic functions and/or delivery of therapeutic treatment. This category includes applications which connect personal audio devices, including mobile phones, and the automotive or home entertainment system. Applications for wireless audio systems, including: wireless microphones, cordless loudspeakers; cordless headphones; cordless headphones for portable use, e.g. 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 and wireless microphones for use at concerts or other stage productions. This category covers applications used for determining the position, velocity and/or other characteristics of an object, or for obtaining information relating to these parameters. Tank Level Probing Radars (TLPR) are a specific type of radiodetermination application, which are used for

tank level measurements and are installed in metallic or reinforced concrete tanks, or similar structures made of material with comparable attenuation characteristics. The purpose of the tank is to contain a substance. The power limit applies inside a closed tank and corresponds to a spectral density of $-41,3$ dBm/MHz e.i.r.p. outside a 500 litre test tank. This category covers applications used to control the movement of models (principally miniature representations of vehicles) in the air, on land or over or under the water surface.

Type of short-range device: Frequency band, Transmit power limit/field strength limit/power density limit, Additional parameters (channelling and/or channel access and occupation rules), Other usage restrictions, Implementation deadline.

Non-specific short-range devices

Frequency band (MHz)	Power density limit (dBμA/m at 10 metres)	Effective radiated power (e.r.p.) (mW)	Implementation deadline
6 765-6 795 kHz	42 dBμA/m	10 mW	1 October 2008
13,553-13,567 MHz	42 dBμA/m	10 mW	1 October 2008
26,957-27,283 MHz	10 mW e.r.p.	10 mW	1 October 2008
40,660-40,700 MHz	10 mW e.r.p.	10 mW	1 June 2007
433,050-434,040 MHz	10 mW e.r.p. and -13 dBm/10 kHz power density for bandwidth modulation larger than 250 kHz	10 mW	1 November 2010
434,040-434,790 MHz	10 mW e.r.p. and -13 dBm/10 kHz power density for bandwidth modulation larger than 250 kHz	10 mW	1 November 2010
434,790-434,790 MHz	10 mW e.r.p. and -13 dBm/10 kHz power density for bandwidth modulation larger than 250 kHz	10 mW	1 November 2010
863,000-865,000 MHz	25 mW e.r.p.	25 mW	1 November 2010
865,000-868,000 MHz	25 mW e.r.p.	25 mW	1 November 2010
868,000-868,600 MHz	25 mW e.r.p.	25 mW	1 November 2010
868,600-868,600 MHz	25 mW e.r.p.	25 mW	1 November 2010
868,700-869,200 MHz	25 mW e.r.p.	25 mW	1 November 2010
869,200-869,200 MHz	25 mW e.r.p.	25 mW	1 November 2010
869,400-869,650 MHz	500 mW e.r.p.	500 mW	1 November 2010

Techniques to access spectrum and mitigate interference that provide at least equivalent performance to the techniques described in harmonised standards adopted under Directive 1999/5/EC must be used. Alternatively a duty cycle limit of 0,1 % may also be used. Analogue audio applications other than voice are excluded. Analogue video applications are excluded.

Techniques to access spectrum and mitigate interference that provide at least equivalent performance to the techniques described in harmonised standards adopted under Directive 1999/5/EC must be used. Alternatively a duty cycle limit of 1 % may also be used. Analogue audio applications other than voice are excluded. Analogue video applications are excluded.

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Techniques to access spectrum and mitigate interference that provide at least equivalent performance to the techniques described in harmonised standards adopted under Directive 1999/5/EC must be used. Alternatively a duty cycle limit of 10 % may also be used. Channel spacing must be 25 kHz, except that the whole band may also be used as a single channel for high-speed data transmission. Analogue video applications are excluded.

interference that provide at least equivalent performance to the techniques described in harmonised standards adopted under Directive 1999/5/EC must be used. Alternatively a duty cycle limit of 0,1 % may also be used. Analogue audio applications other than voice are excluded. Analogue video applications are excluded. 1 November 2010 869,700-870,000 MHz 5 mW e.i.r.p. Voice applications allowed with advanced mitigation techniques. Audio and video applications are excluded. 1 June 2007 25 mW e.i.r.p. Techniques to access spectrum and mitigate interference that provide at least equivalent performance to the techniques described in harmonised standards adopted under Directive 1999/5/EC must be used. Alternatively a duty cycle limit of 1 % may also be used. Analogue audio applications other than voice are excluded. Analogue video applications are excluded. 1 November 2010 Non-specific short-range devices (cont.) 2 400-2 483,5 MHz 10 mW equivalent isotropic radiated power (e.i.r.p.) 1 June 2007 75 725-5 875 MHz 25 mW e.i.r.p. 1 June 2007 24,150-24,250 GHz 100 mW e.i.r.p. 1 October 2008 61,0-61,5 GHz 100 mW e.i.r.p. 1 October 2008 Wideband data transmission systems 2 400-2 483,5 MHz 100 mW e.i.r.p. and 100 mW/100 kHz e.i.r.p. density applies when frequency hopping modulation is used, 10 mW/MHz e.i.r.p. density applies when other types of modulation are used. Techniques to access spectrum and mitigate interference that provide at least equivalent performance to the techniques described in harmonised standards adopted under Directive 1999/5/EC must be used. 1 November 2009 57,0-66,0 GHz 40 dBm e.i.r.p. and 13 dBm/MHz e.i.r.p. density. Techniques to access spectrum and mitigate interference that provide at least equivalent performance to the techniques described in harmonised standards adopted under Directive 1999/5/EC must be used. Fixed outdoor installations are excluded. 1 November 2010 Alarm systems 868,600-868,700 MHz 10 mW e.i.r.p. Channel spacing: 25 kHz. The whole frequency band may also be used as a single channel for high-speed data transmission. Duty cycle limit: 1,0 % 1 October 2008 869,250-869,300 MHz 10 mW e.i.r.p. Channel spacing: 25 kHz. Duty cycle limit: 0,1 % 1 June 2007 869,300-869,400 MHz 10 mW e.i.r.p. Channel spacing: 25 kHz. Duty cycle limit: 1,0 % 1 October 2008 869,650-869,700 MHz 25 mW e.i.r.p. Channel spacing: 25 kHz. Duty cycle limit: 10 % 1 June 2007 Social alarms 869,200-869,250 MHz 10 mW e.i.r.p. Channel spacing: 25 kHz. Duty cycle limit: 0,1 % 1 June 2007 Inductive applications 9,000-59,750 kHz 72 dB μ A/m at 10 metres 1 November 2010 59,750-60,250 kHz 42 dB μ A/m at 10 metres 1 June 2007 60,250-70,000 kHz 69 dB μ A/m at 10 metres 1 June 2007 70-119 kHz 42 dB μ A/m at 10 metres 1 June 2007 119-127 kHz 66 dB μ A/m at 10 metres 1 June 2007 127-140 kHz 42 dB μ A/m at 10 metres 1 October 2008 140-148,5 kHz 37,7 dB μ A/m at 10 metres 1 October 2008 148,5-5 000 kHz. In the specific bands mentioned below, higher field strengths and additional usage restrictions apply: - 15 dB μ A/m at 10 metres in any bandwidth of 10 kHz. Furthermore the total field strength is - 5 dB μ A/m at 10 m for systems operating at bandwidths larger than 10 kHz 1 October 2008 Inductive applications (cont.) 400-600 kHz - 8 dB μ A/m at 10 metres. This set of usage conditions applies to RFID only 1 October 2008 3 155-3 400 kHz 13,5 dB μ A/m at 10 metres 1 October 2008 5 000-30 000 kHz. In the specific bands mentioned below, higher field strengths and additional usage restrictions apply: - 20 dB μ A/m at 10 metres in any bandwidth of 10 kHz. Furthermore the total field strength is -5 dB μ A/m at 10 m for systems operating at bandwidths larger than 10 kHz 1 October 2008 6 765-6 795 kHz 42 dB μ A/m at 10 metres 1 June 2007 7 400-8 800 kHz 9 dB μ A/m at 10 metres 1 October 2008 10 200-11 000 kHz 9 dB μ A/m at 10 metres 1 October 2008 Inductive applications (cont.) 13 553-13 567 kHz 42 dB μ A/m at 10 metres 1 June 2007 60 dB μ A/m at 10 metres. This set of usage conditions applies to RFID and EAS only 1 October 2008 26 957-27 283 kHz 42 dB μ A/m at 10 metres 1 October 2008 Active medical implants 9-315 kHz 30 dB μ A/m at 10 metres. Duty cycle limit: 10 % 1 October 2008 30,0-37,5 MHz 1 mW e.i.r.p. Duty cycle limit: 10 % This set of usage

conditions applies to ultra low power medical membrane implants for blood pressure measurements only 1 November 2010 402-405 MHz 25 μ W e.r.p. Channel spacing: 25 kHz Individual transmitters may combine adjacent channels for increased bandwidth up to 300 kHz. Other techniques to access spectrum or mitigate interference, including bandwidths greater than 300 kHz, can be used provided they result at least in an equivalent performance to the techniques described in harmonised standards adopted under Directive 1999/5/EC to ensure compatible operation with the other users and in particular with meteorological radiosondes 1 November 2009 Active medical implants and associated peripherals 401-402 MHz 25 μ W e.r.p. Channel spacing: 25 kHz Individual transmitters may combine adjacent channels for increased bandwidth up to 100 kHz. Techniques to access spectrum and mitigate interference that provide at least equivalent performance to the techniques described in harmonised standards adopted under Directive 1999/5/EC must be used. Alternatively a duty cycle limit of 0,1 % may also be used 1 November 2010 405-406 MHz 25 μ W e.r.p. Channel spacing: 25 kHz Individual transmitters may combine adjacent channels for increased bandwidth up to 100 kHz. Techniques to access spectrum and mitigate interference that provide at least equivalent performance to the techniques described in harmonised standards adopted under Directive 1999/5/EC must be used. Alternatively a duty cycle limit of 0,1 % may also be used 1 November 2010 Animal implantable devices 315-600 kHz - 5 dB μ A/m at 10 m Duty cycle limit : 10 % 1 November 2010 12,5-20,0 MHz - 7 dB μ A/m at 10 m in a bandwidth of 10 kHz Duty cycle limit: 10 % This set of usage conditions applies to indoor applications only 1 November 2010 Low power FM transmitters 87,5-108,0 MHz 50 nW e.r.p. Channel spacing up to 200 kHz 1 November 2010 Wireless audio applications 863-865 MHz 10 mW e.r.p. 1 November 2010 Radio determination applications 2 400-2 483,5 MHz 25 mW e.i.r.p. 1 November 2009 17,1-17,3 GHz 26 dBm e.i.r.p. Techniques to access spectrum and mitigate interference that provide at least equivalent performance to the techniques described in harmonised standards adopted under Directive 1999/5/EC must be used This set of usage conditions applies to ground-based systems only 1 November 2009 Tank Level Probing Radar 4,5-7,0 GHz 24 dBm e.i.r.p. 1 November 2009 8,5-10,6 GHz 30 dBm e.i.r.p. 1 November 2009 24,05-27,0 GHz 43 dBm e.i.r.p. 1 November 2009 57,0-64,0 GHz 43 dBm e.i.r.p. 1 November 2009 75,0-85,0 GHz 43 dBm e.i.r.p. 1 November 2009 Model Control 26 990-27 000 kHz 100 mW e.r.p. 1 November 2009 27 040-27 050 kHz 100 mW e.r.p. 1 November 2009 27 090-27 100 kHz 100 mW e.r.p. 1 November 2009 27 140-27 150 kHz 100 mW e.r.p. 1 November 2009 27 190-27 200 kHz 100 mW e.r.p. 1 November 2009 Radio Frequency Identification (RFID) 2 446-2 454 MHz 100 mW e.i.r.p. 1 November 2009 Road Transport and Traffic Telematics 76,0-77,0 GHz 55 dBm peak e.i.r.p. and 50 dBm mean e.i.r.p. and 23,5 dBm mean e.i.r.p. for pulse radars This set of usage conditions applies to terrestrial vehicle and infrastructure systems only 1 November 2010

- (1) OJ L 108, 24.4.2002, p. 1.
- (2) OJ L 312, 11.11.2006, p. 66.
- (3) OJ L 151, 11.6.2008, p. 49.
- (4) OJ L 119, 14.5.2009, p. 32.
- (5) CEPT Report 35, RSCOM 09-68.
- (6) OJ L 91, 7.4.1999, p. 10.