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COMMISSION OF THE EUROPEAN COMMUNITIES

Brussels,
C(2007)

Draft

COMMISSION DECISION

of [...]

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

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Draft

COMMISSION DECISION

of [...]

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

(Text with EEA relevance)

THE COMMISSION OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Community,

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/EC² harmonises the technical conditions for short-range devices.
- (2) However, due to rapid changes in technology and societal demands, new applications for short-range devices could emerge which would require regular updates of spectrum harmonisation conditions.
- (3) On 5 July 2006, the Commission issued a permanent mandate³ to the European Conference of Postal and Telecommunications Administrations (CEPT), pursuant to Article 4(2) of Decision 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) In its report⁴ of July 2007 submitted in response to that mandate, the CEPT advised the Commission to amend a number of technical aspects in the Annex to Decision 2006/771/EC.
- (5) Decision 2006/771/EC should therefore be amended accordingly.

¹ OJ L 108, 24.4.2002, p.1.

² OJ L 312, 11.11.2006, p. 66.

³ Permanent Mandate to CEPT regarding the annual update of the technical annex of the Commission Decision on the technical harmonisation of radio spectrum for use by Short Range Devices. (5 July 2006).

⁴ RSCOM (07)58.

- (6) 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 conformity⁵ in order to use the spectrum effectively so as to avoid harmful interference, demonstrated either by meeting harmonised standard or by fulfilling alternative conformity assessment procedures.
- (7) 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, [...]

For the Commission

[...]

Member of the Commission

⁵ OJ L 91, 7.4.1999, p. 10. Directive as amended by Regulation (EC) No 1882/2003 of the European Parliament and of the Council (OJ L 284, 31.10.2003, p. 1).

ANNEX

Harmonised frequency bands and technical parameters for short-range devices

Type of short-range device	Frequency band	Power limit / field strength limit / power density limit ⁶	Additional parameters / spectrum access and mitigation requirements ⁷	Other usage restrictions ⁸	Implementation deadline
Non-specific short-range devices ⁹	6765 - 6795 kHz	42 dB μ A/m at 10 metres			1 October 2008
	13.553 - 13.567 MHz	42 dB μ A/m at 10 metres			1 October 2008
	26.957 - 27.283 MHz	10 mW effective radiated power (e.r.p.), which corresponds to 42 dB μ A/m at 10 metres		Video applications are excluded	1 June 2007
	40.660 - 40.700 MHz	10 mW e.r.p.		Video applications are excluded	1 June 2007

⁶ Member States must allow the usage of spectrum up to the 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 power, field strength or power density.

⁷ Member States may only impose these 'additional parameters / spectrum access and mitigation requirements', 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 parameters / spectrum access and mitigation requirements in a given cell or allow higher values.

⁸ 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.

⁹ 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).

Non-specific short-range devices (cont.)	433.050 – 434.040 ¹⁰ MHz	1 mW e.r.p. -13dBm/10 kHz power density for bandwidth modulation larger than 250 kHz		Audio and voice signals, and video applications, are excluded	1 October 2008
		10 mW e.r.p.	Duty cycle ¹¹ : 10%	Audio and voice signals, and video applications, are excluded	1 June 2007
	434.040 – 434.790 ¹⁰ MHz	1 mW e.r.p. -13dBm/10 kHz power density for bandwidth modulation larger than 250 kHz		Audio and voice signals, and video applications, are excluded	1 October 2008
		10 mW e.r.p.	Duty cycle ¹¹ : 10%	Audio and voice signals, and video applications, are excluded	1 June 2007
			Duty cycle ¹¹ : 100% subject to channel spacing up to 25 kHz	Audio and voice signals, and video applications, are excluded	1 October 2008
	863.000 – 868.000 MHz	25 mW e.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 ¹¹ of 0.1% may also be used	Audio and voice signals, and video applications, are excluded	1 October 2008

¹⁰ For this frequency band Member States must make all the alternative sets of usage conditions possible.

¹¹ Duty cycle' means the ratio of time during any one-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'.

Non-specific short-range devices (cont.)	868.000 – 868.600 ¹⁰ MHz	25 mW e.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 ¹¹ of 1% may also be used	Video applications are excluded	1 October 2008
		25 mW e.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 ¹¹ of 0.1% may also be used	Audio and voice signals, and video applications, are excluded	1 October 2008
	868.700 – 869.200 ¹⁰ MHz	25 mW e.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 ¹¹ of 0.1% may also be used	Video applications are excluded	1 October 2008
		25 mW e.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 shall be used. Alternatively a duty cycle ¹¹ of 0.1% may also be used	Audio and voice signals, and video applications, are excluded	1 October 2008

Non-specific short-range devices (cont.)	869.400 – 869.650 ¹⁰ MHz	500 mW e.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 ¹¹ 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	Video applications are excluded	1 October 2008
		25 mW e.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 ¹¹ of 0.1% may also be used	Audio and voice signals, and video applications, are excluded	1 October 2008
	869.700 – 870.000 ¹⁰ MHz	5 mW e.r.p.	Voice applications allowed with advanced mitigation techniques	Audio and video applications are excluded	1 June 2007
		25 mW e.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 ¹¹ of 0.1% may also be used	Audio and voice signals, and video applications, are excluded	1 October 2008

Non-specific short-range devices (cont.)	2400-2483.5 MHz	10 mW equivalent isotropic radiated power (e.i.r.p.)			1 June 2007
	5725-5875 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
Alarm systems	868.600-868.700 MHz	10 mW e.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 ¹¹ : 1.0%		1 October 2008
	869.250-869.300 MHz	10 mW e.r.p.	Channel spacing: 25 kHz Duty cycle ¹¹ : 0.1%		1 June 2007
	869.300-869.400 MHz	10 mW e.r.p.	Channel spacing: 25 kHz Duty cycle ¹¹ : 1.0%		1 October 2008
	869.650-869.700 MHz	25 mW e.r.p.	Channel spacing: 25 kHz Duty cycle ¹¹ : 10%		1 June 2007
Social alarms ¹²	869.200-869.250 MHz	10 mW e.r.p.	Channel spacing: 25 kHz Duty cycle ¹¹ : 0.1%		1 June 2007

¹² Social alarm devices are used to assist elderly or disabled people when they are in distress.

Inductive applications ¹³	20.050 - 59.750 kHz	72 dB μ A/m at 10 metres			1 June 2007
	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 – 5000 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
	• 400 – 600 kHz	• -8 dB μ A/m at 10 metres		No other application than RFID ¹⁴ allowed	1 October 2008
	• 3155 – 3400 kHz	• 13.5 dB μ A/m at 10 metres			1 October 2008

¹³ 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.

¹⁴ This category covers inductive applications used for Radio Frequency Identification (RFID).

Inductive applications (cont.)	5000 – 30000 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
	• 6765-6795 kHz	• 42 dB μ A/m at 10 metres			1 June 2007
	• 7400 – 8800 kHz	• 9 dB μ A/m at 10 metres			1 October 2008
	• 10200 – 11000 kHz	• 9 dB μ A/m at 10 metres			1 October 2008
	• 13553 – 13567 kHz	• 42 dB μ A/m at 10 metres			1 June 2007
		• 60 dB μ A/m at 10 metres		No other applications than RFID ¹⁴ and EAS ¹⁵ allowed	1 October 2008
• 26957 - 27283 kHz	• 42 dB μ A/m at 10 metres			1 October 2008	

¹⁵

This category covers inductive applications used for Electronic Article Surveillance (EAS).

Active medical implants ¹⁶	9 – 315 kHz	30 dB μ A/m at 10m	Duty cycle ¹¹ : 10%		1 October 2008
	402-405 MHz	25 μ W e.r.p.	Channel spacing: 25 kHz Other channelling restriction: individual transmitters may combine adjacent channels for increased bandwidth with advanced mitigation techniques that provide at least equivalent performance to the techniques described in harmonised standards adopted under Directive 1999/5/EC		1 October 2008
Wireless audio applications ¹⁷	87.5 – 108.0 MHz	50 nW e.r.p.	Channel spacing up to 200 kHz		1 October 2008
	863-865 MHz	10 mW e.r.p.			1 June 2007

¹⁶ This category covers the radio part of active implantable medical devices, as defined in Council Directive 90/385/EEC of 20 June 1990 on the approximation of the laws of the Member States relating to active implantable medical devices and their peripherals (OJ L 189, 20.7.1990, p. 17).

¹⁷ Applications for wireless audio systems, including: 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, for use at concerts or other stage productions.