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COMMISSION DECISION

of 17 January 2005

on the harmonisation of the 24 GHz range radio spectrum band for the time-limited use by automotive short-range radar equipment in the Community

(notified under document number C(2005) 34)

(Text with EEA relevance)

(2005/50/EC)

(OJ L 21, 25.1.2005, p. 15)

Amended by:

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		No	page	date
► <u>M1</u>	Commission Implementing Decision 2011/485/EU of 29 July 2011	L 198	71	30.7.2011
<u>M2</u>	Commission Implementing Decision (EU) 2017/2077 of 10 November 2017	L 295	75	14.11.2017

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Article 1

The purpose of this Decision is to harmonise the conditions for the availability and efficient use of the 24 GHz range radio spectrum band for automotive short-range radar equipment.

Article 2

For the purposes of this Decision, the following definitions shall apply:

- 1. '24 GHz range radio spectrum band' means the 24,15 +/- 2,50 GHz frequency band;
- 'automotive short-range radar equipment' means equipment providing road vehicle-based radar functions for collision mitigation and traffic safety applications;
- 'automotive short-range radar equipment put into service in the Community' means automotive short-range radar equipment originally installed or replacing one so installed in a vehicle which will be or which has been registered, placed on the market or put into service in the Community;
- 4. 'on non-interference and non-protected basis' means that no harmful interference may be caused to other users of the band and that no claim may be made for protection from harmful interference received from other systems or services operating in that band;

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5. 'reference dates' means 30 June 2013 for the frequency between 21,65 and 24,25 GHz and 1 January 2018 for the frequency between 24,25 and 26,65 GHz;

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- 6. 'transition date' means 30 June 2007;
- 'vehicle' means any vehicle as defined by Article 2 of Directive 70/156/EEC;
- 8. 'deactivation' means the termination of emissions by automotive short-range radar equipment;
- 'exclusion zone' means the area around a radio astronomy station defined by a radius equivalent to a specific distance from the station;

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'duty cycle' means the ratio of time during any one-hour period when equipment is actively transmitting.

Article 3

The 24 GHz range radio spectrum band shall be designated and made available as soon as possible and no later than 1 July 2005, on a non-interference and non-protected basis, for automotive short-range radar equipment put into service in the Community which complies with the conditions laid down in Articles 4 and 6.

The 24 GHz range radio spectrum band shall remain so available until the $\blacktriangleright M1$ reference dates \blacktriangleleft , subject to the provisions of Article 5.

After $ightharpoonup \underline{M1}$ those dates \P , the 24 GHz range radio spectrum band shall cease to be available for automotive short-range radar equipment mounted on any vehicle except where that equipment was originally installed, or is replacing equipment so installed, in a vehicle registered, placed on the market or put into service before $ightharpoonup \underline{M1}$ those dates \P in the Community.

▼M1

However, the date of 1 January 2018 shall be extended by 4 years for automotive short-range radar equipment mounted on motor vehicles for which a type-approval application has been submitted pursuant to Article 6(6) of Directive 2007/46/EC of the European Parliament and of the Council (1) and has been granted before 1 January 2018.

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Article 4

The 24 GHz range radio spectrum band shall be available for the ultrawide band part of automotive short-range radar equipment with a maximum mean power density of – 41,3 dBm/MHz effective isotropic radiated power (e.i.r.p.) and peak power density of 0 dBm/50MHz e.i.r.p., except for frequencies below 22 GHz, where the maximum mean power density shall be limited to -61,3 dBm/MHz e.i.r.p.

The 24,05 to 24,25 GHz radio spectrum band is designated for the narrow-band emission mode/component, which may consist of an unmodulated carrier, with a maximum peak power of 20 dBm e.i.r.p. and a duty cycle limited to 10 % for peak emissions higher than - 10 dBm e.i.r.p.

Emissions within the 23,6-24,0 GHz band that appear 30° or greater above the horizontal plane shall be attenuated by at least 25 dB for automotive short-range radar equipment placed on the market before 2010 and thereafter by at least 30 dB.

⁽¹⁾ OJ L 263, 9.10.2007, p. 1.

Article 5

- 1. The continued availability of the 24 GHz range radio spectrum band for automotive short-range radar applications shall be kept under active scrutiny to ensure that the main premise of opening this band to such systems remains valid, which is that no harmful interference is caused to other users of the band, in particular through the timely verification of:
- (a) the total number of vehicles registered, placed on the market or put into service equipped with 24 GHz automotive short-range radar in each Member State, to verify that this number does not exceed the level of 7 % of the total number of vehicles in circulation in each Member State;
- (b) whether adequate information has been made available by Member States or by manufacturers and importers regarding the number of 24 GHz short-range radar-equipped vehicles for the purpose of monitoring effectively the use of the 24 GHz band by automotive short-range radar equipment;
- (c) whether the individual or cumulative use of 24 GHz automotive short-range radar is causing or is likely to cause within a short period of time harmful interference to other users in the 24 GHz band or in adjacent bands in at least one Member State, whether or not the threshold referred to in (a) has been reached;
- (d) the continuing appropriateness of $\blacktriangleright \underline{\mathbf{M1}}$ the reference dates \blacktriangleleft .

▼<u>M1</u>

4. The Member States shall assist the Commission to carry out the scrutiny referred to in paragraph 1 by ensuring that the necessary information is collected and provided to the Commission in a timely manner, in particular the information set out in the Annex.

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Article 6

- 1. Automotive short-range radar equipment mounted on vehicles shall only operate when the vehicle is active.
- 2. Automotive short-range radar equipment put into service in the Community shall ensure protection of the radio astronomy stations operating in the radio spectrum band 22,21 to 24,00 GHz defined in Article 7 through automatic deactivation in a defined exclusion zone or via another method providing equivalent protection for these stations without driver intervention.
- 3. By way of derogation to paragraph 2, manual deactivation will be accepted for automotive short-range radar equipment put into service in the Community operating in the 24 GHz range radio spectrum band before the transition date.

Article 7

Each Member State shall determine the relevant national radio astronomy stations to be protected pursuant to Article 6(2) in its territory and the characteristics of the exclusion zones pertaining to each station. This information, supported by appropriate justification, shall be notified to the Commission within six months of adoption of this Decision, and published in the *Official Journal of the European Union*.

Article 8

This Decision is addressed to the Member States.

ANNEX

Information required for monitoring the use of the 24 GHz range radio spectrum band by automotive short-range radar

This Annex establishes the data required to verify the penetration rate of automotive vehicles equipped with short-range radar in each Member State of the European Union in accordance with Article 5. This data shall be used to calculate the proportion of vehicles equipped with short-range radar using the 24 GHz range radio spectrum compared to the total number of vehicles in circulation in each Member State.

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The following data shall be collected upon request by the Commission:

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- (1) the number of vehicles equipped with short-range radar using the 24 GHz range radio spectrum band produced and/or placed on the market and/or registered for the first time during the reference year in the Community;
- (2) the number of vehicles equipped with short-range radar using the 24 GHz range radio spectrum band imported from outside the Community during the reference year;
- (3) the total number of vehicles in circulation during the reference year.

All data shall be accompanied by an evaluation of the uncertainty related to the information.

In addition to the above data, any other relevant information which would assist the Commission in maintaining an adequate overview on the continued use of the 24 GHz range radio spectrum band by automotive short-range radar devices shall be made available in a timely fashion, including information on:

- current and future market trends, both within and outside the Community,
- after-market sales and retrofitting of equipment,
- the state of progress of alternative technologies and applications, notably automotive short-range radar operating in the 79 GHz range radio spectrum band according to Decision 2004/545/EC.