EUROPEAN
COMMISSION

Brussels, XXX
[…](2025) XXX draft

COMMISSION IMPLEMENTING DECISION

of XXX

on the harmonisation of radio spectrum for use by radiodetermination applications in the 116-260 GHz frequency band

(Text with EEA relevance)

COMMISSION IMPLEMENTING DECISION

of XXX

on the harmonisation of radio spectrum for use by radiodetermination applications in the 116-260 GHz frequency band

(Text with EEA relevance)

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) Radiodetermination devices using the sub-terahertz 116-260 GHz frequency band, such as sensors and radars, are short-range devices. They are suitable for a range of uses fulfilling various measurement and detection tasks in industrial automation, such as measuring and determining physical characteristics like presence, distance, velocity or material properties of a target object, in order to support digitisation of industrial production. For instance, vehicular radars can be used for driving assistance, contactless gesture control, presence detection, and vital sign monitoring. New semiconductor technologies are available that can make use of spectrum above 100 GHz and thus enable further development of radiodetermination devices.

(2) The European Conference of Postal and Telecommunications Administrations ('CEPT') has conducted coexistence studies concerning radiodetermination devices using the 116-260 GHz frequency band and radiocommunication services (Radio Astronomy Service, Fixed Service, Earth Exploration Satellite Service passive and Amateur Service) operating in the same frequency band and in adjacent bands. Radiodetermination devices using the 116-260 GHz frequency band should be installed and used outside defined exclusion zones and, where appropriate, exterior vehicular radars should reduce their power in defined restriction zones in order to protect radio astronomy service sites according to harmonised technical conditions.

(3) The permanent mandate issued to the CEPT, pursuant to Article 4(2) of Decision No 676/2002/EC, includes updating the Annex to Commission Decision 2006/771/EC[2] on short-range devices, in order to reflect technological and market developments. The

[1] OJ L 108, 24.4.2002, p. 1, ELI: http://data.europa.eu/eli/dec/2002/676(1)/oj.

[2] Commission Decision 2006/771/EC of 9 November 2006 on harmonisation of the radio spectrum for use by short-range devices (OJ L 312, 11.11.2006, p. 66, ELI: http://data.europa.eu/eli/dec/2006/771(2)/oj).

CEPT response to that mandate also included a report of 8 March 2024[3]. In that report, the Commission was invited to consider a separate Decision on radiodetermination applications in the 116-260 GHz frequency band, considering that technical requirements for radiodetermination applications in that band should not be part of the Annex to Decision 2006/771/EC, as the format of these requirements is not compatible with that of the harmonised technical conditions for short-range devices referred to in the Annex to that Decision.

(4) The CEPT report proposes to harmonise technical conditions for the use of radio spectrum by the following eight categories of radiodetermination applications: (i) generic indoor surveillance radars; (ii) radiodetermination systems for industry automation; (iii) level probing radars; (iv) contour determination and acquisition radars; (v) tank level probing radars; (vi) radiodetermination systems for industry automation in shielded environments; (vii) exterior vehicular radars; and (viii) in-cabin vehicular radars.

(5) As radiodetermination applications use spectrum with low emission power and short-range emission capability, their potential to cause interference to other spectrum users is limited. They can share frequency bands with other services without causing harmful interference and can coexist with other short-range devices. Their use of spectrum should therefore not be subject to any individual right to use parts of the 116-260 GHz frequency band, if specific technical requirements set out in this Decision are met. As a result, radiodetermination applications that satisfy those technical requirements should be subject to no more than a general authorisation under national law.

(6) The notion of 'designating and making available' in the context of this Decision refers to the following steps: (i) adapting the national frequency allocation/utilisation plan or table, to include the intended use of the band under the harmonised technical conditions of this Decision; and (ii) taking all necessary steps to ensure that the use of the band by the radiodetermination applications is allowed, thereby letting potential users know that such applications could be used under the harmonised technical parameters. The latter includes preparing the band for its intended use by: (i) adopting the appropriate legal framework in order to allow the use of the spectrum in accordance with the harmonised technical conditions; and (ii) if that spectrum use is subject to general authorisation in a Member State, adopting the national legal measure that subjects the radiodetermination applications to a general authorisation, setting out the harmonised technical conditions of use.

(7) The measures provided for in this Decision are in accordance with the opinion of the Radio Spectrum Committee,

[3] CEPT Report 86 – report from the CEPT to the European Commission in response to the Permanent Mandate on short-range devices: 'Harmonised technical parameters for SRD radiodetermination applications in the frequency range 116-260 GHz', approved on 8 March 2024 by the Electronic Communications Committee, link: https://docdb.cept.org/document/28605.

HAS ADOPTED THIS DECISION:

Article 1

This Decision harmonises the technical conditions for the availability and efficient use of radio spectrum in the 116-260 GHz frequency band in the Union by radiodetermination applications.

Article 2

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

(1) 'non-interference and non-protected basis' means that no harmful interference may be caused to any radiocommunication service and that no claim may be made for protection of these devices against interference originating from radiocommunication services;

(2) 'equivalent isotropically radiated power' or 'e.i.r.p.' means the product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna (absolute or isotropic gain).

Article 3

Within six months after this Decision takes effect, Member States shall designate and make available radio spectrum in the 116-260 GHz frequency band for radiodetermination applications, on a non-interference and non-protected basis, as laid down in the Annex.

Article 4

Article 3 shall not affect the right of Member States to allow the use of the 116-260 GHz frequency band for radiodetermination applications under less restrictive conditions than those specified in the Annex.

Article 5

Member States shall monitor the use of the 116-260 GHz frequency band and report their findings to the Commission upon request or at their own initiative to allow a timely review of this Decision.

Article 6

This Decision is addressed to the Member States.

Done at Brussels,

For the Commission
Henna Virkkunen
Executive Vice-President