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COMMISSION IMPLEMENTING DECISION (EU) 2025/913

of 20 May 2025

amending Implementing Decision (EU) 2021/1067 as regards an update of technical conditions for the harmonised use of radio spectrum in the 5 945–6 425 MHz frequency band for the implementation of wireless access systems including radio local area networks (WAS/RLANs)

(notified under document C(2025) 3032)

(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) On 21 April 2021, pursuant to Article 4(2) of Decision No 676/2002/EC of the European Parliament and of the Council, the Commission issued a mandate to the European Conference of Postal and Telecommunications Administrations ('CEPT') to review by July 2024 the limit of out-of-band ('OOB') emissions below 5 935 MHz applicable to Very Low Power ('VLP') WAS/RLAN devices using the 5 945–6 425 MHz band, based on, in particular, the study of possible mitigation techniques for the protection of urban rail intelligent transport systems (ITS), with the view to relaxing the limit to – 37 dBm/MHz. This was justified by the need to ensure transport safety and the coexistence of such devices with the ITS, including communication based train control (CBTC), which use spectrum in parts of the 5 905–5 935 MHz frequency band.

(2) Commission Implementing Decision (EU) 2021/1067 ([2]) harmonises the 5 945–6 425 MHz band for wireless access systems including radio local area networks. Table 2 of the Annex to that Decision sets, for VLP WAS/RLAN devices, the limit of maximum mean equivalent isotropically radiated power (e.i.r.p.) density for OOB emissions below 5 935 MHz at – 45 dBm/MHz until 31 December 2025. Moreover, Note 3 of that Table provides that the replacement of that limit with the limit – 37 dBm/MHz is to be decided by 31 December 2025.

(3) In response to the mandate referred to in recital 1, on 20 November 2024, the CEPT submitted Report 087 regarding the review of the limit of OOB emissions below 5 935 MHz applicable to VLP WAS/RLAN devices. The proposals in the report include the relaxation of this limit to – 37 dBm/MHz, under certain technical conditions.

(4) VLP WAS/RLAN devices using the frequency band below 6 105 MHz may use a Transmit Power Control ('TPC') mechanism.

(5) Implementing Decision (EU) 2021/1067 should be amended, because the report effectively completed the review by the CEPT of technical conditions for VLP WAS/RLAN devices with regard to the limit – 45 dBm/MHz of maximum mean e.i.r.p. density for OOB emissions below 5 935 MHz, pursuant to the mandate referred to in recital 1. The changes in the Annex include the relaxation of this limit to – 37 dBm/MHz under technical conditions described therein.

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

([2]) Commission Implementing Decision (EU) 2021/1067 of 17 June 2021 on the harmonised use of radio spectrum in the 5 945-6 425 MHz frequency band for the implementation of wireless access systems including radio local area networks (WAS/RLANs) (OJ L 232, 30.6.2021, p. 1, ELI: http://data.europa.eu/eli/dec_impl/2021/1067/oj).

(6) Because Low Power Indoor ('LPI') WAS/RLAN devices for broadband connection onboard trains and aircraft typically use distributed antenna systems to provide good and evenly spread coverage in the passenger carriage, the report is proposing to update the regulatory framework in order to clarify the use of distributed antenna system in these use cases.

(7) Because the specific review pursuant to the mandate referred to in recital 1 is now completed, Article 4 should be replaced by a standard review clause.

(8) Implementing Decision (EU) 2021/1067 should therefore be amended accordingly.

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

HAS ADOPTED THIS DECISION:

Article 1

Implementing Decision (EU) 2021/1067 is amended as follows:

(1) Article 4 is replaced by the following:

'*Article 4*

Member States shall monitor the evolution of standards and technology in relation to the use of the 5 945–6 425 MHz frequency band for WAS/RLANs and report their findings to the Commission at the latter's request or on their own initiative in order to allow for a timely review of this Decision.';

(2) the Annex is replaced by the text set out in the Annex to this Decision.

Article 2

This Decision is addressed to the Member States.

Done at Brussels, 20 May 2025.

For the Commission
Henna VIRKKUNEN
Executive Vice-President

ANNEX

'*ANNEX*

Harmonised technical conditions for WAS/RLANs in the 5 945–6 425 MHz frequency band

Table 1

Low power indoor ('LPI') WAS/RLAN devices

Parameter	Technical conditions
Permissible operation	Restricted to indoor use, including in trains with metal-coated windows (note 1) and aircraft. Outdoor use, including in road vehicles, is not permitted.
Category of device	An LPI access point or bridge that is supplied with power from a wired connection has an integrated antenna (note 2) and is not battery powered. An LPI client device that is connected to an LPI access point or another LPI client device and may or may not be battery powered.
Frequency band	5 945–6 425 MHz
Maximum mean equivalent isotropically radiated power ('e.i.r.p.') for in-band emissions (note 3)	23 dBm
Maximum mean e.i.r.p. density for in-band emissions (note 3)	10 dBm/MHz
Maximum mean e.i.r.p. density for out-of-band emissions below 5 935 MHz (note 3)	– 22 dBm/MHz

Note 1: Or similar structures made of material with comparable attenuation characteristics.
Note 2: Or a distributed antenna system installed inside a train or an aircraft.
Note 3: The mean e.i.r.p. refers to the e.i.r.p. during the transmission burst which corresponds to the highest power, if power control is implemented.

Techniques to access spectrum and mitigate interference that provide an appropriate level of performance to comply with the essential requirements of Directive 2014/53/EU of the European Parliament and of the Council [1] shall be used. Where relevant techniques are described in harmonised standards or parts thereof the references of which have been published in the *Official Journal of the European Union* in accordance with Directive 2014/53/EU, performance at least equivalent to the performance level associated with those techniques shall be ensured.

Table 2

Very Low Power (VLP) WAS/RLAN devices

Parameter	Technical conditions
Permissible operation	Indoors and outdoors. Use on Unmanned Aircraft Systems (UAS) is not permitted.

[1] Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC *(OJ L 153, 22.5.2014, p. 62, ELI: http://data.europa.eu/eli/dir/2014/53/oj).*

Parameter	Technical conditions
Category of device	The VLP device is a portable device.
Frequency band	5 945–6 425 MHz
Maximum mean e.i.r.p. for in-band emissions (note 1)	14 dBm
Maximum mean e.i.r.p. density for in-band emissions (note 1)	1 dBm/MHz
Narrowband usage maximum mean e.i.r.p. density for in-band emissions (note 1) (note 2)	10 dBm/MHz
Maximum mean e.i.r.p. density for out-of-band emissions below 5 935 MHz (note 1)	– 37 dBm/MHz (note 3)

Note 1: The mean e.i.r.p. refers to the e.i.r.p. during the transmission burst which corresponds to the highest power, if power control is implemented.

Note 2: Narrowband ('NB') devices are devices that operate in channel bandwidths below 20 MHz. NB devices also require a frequency hopping mechanism based on at least 15 hop channels to operate at a value of in-band power spectral density ('PSD') above 1 dBm/MHz.

Note 3: VLP devices shall first attempt to select a frequency block above 6 105 MHz when initiating a communication session. Alternatively, where no such frequency selection mechanism is implemented, a maximum mean e.i.r.p. density for out-of-band emissions of – 45 dBm/MHz below 5 935 MHz applies.

Techniques to access spectrum and mitigate interference that provide an appropriate level of performance to comply with the essential requirements of Directive 2014/53/EU shall be used. Where relevant techniques are described in harmonised standards or parts thereof the references of which have been published in the *Official Journal of the European Union* in accordance with Directive 2014/53/EU, performance at least equivalent to the performance level associated with those techniques shall be ensured.'