

Brussels, 17.6.2021 C(2021) 4240 final

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to the

Commission Implementing Decision

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)

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

Table 1: Low power indoor ('LPI') WAS/RLANs 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 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 2)	23 dBm
Maximum mean e.i.r.p. density for in-band emissions (note 2)	10 dBm/MHz
Maximum mean e.i.r.p. density for out-of-band emissions below 5 935 MHz (note 2)	-22 dBm/MHz

Note 1: Or similar structures made of material with comparable attenuation characteristics.

Note 2: 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 Council¹ 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

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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.*).

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.
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)	- 45 dBm/MHz until 31 December 2024 (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.

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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: The appropriateness of this limit shall be subject to review by 31 December 2024. In the absence of justified evidence, value of -37 dBm/MHz shall apply from 1 January 2025.

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.

CERTIFIED COPY For the Secretary-General

Martine DEPREZ
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EUROPEAN COMMISSION

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