

Mobile and Innovation Department
Regulatory Authority for Electronic Communications, Posts and Press Distribution
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Dear respected officers,

IEEE 802 LAN/MAN Standards Committee (LMSC) thanks Autorité de Régulation des Communications Électroniques, des Postes et de la Distribution de la Presse (Arcep) for the opportunity to comment on the consultation “Draft decision amending Arcep decision no. 2021-2184 dated October 14, 2021 designating frequencies in the 5945 - 6425 MHz band for wireless access systems”.

IEEE 802 LMSC is a leading consensus-based open standards development committee for networking standards that are used by industry globally. It produces standards for networking devices, including wired and wireless local area networks (“LANs” and “WLANs”), wireless specialty networks (“WSNs”), wireless metropolitan area networks (“Wireless MANs”), and wireless regional area networks (“WRANs”). Technologies produced by implementers of our standards are a critical element for all networked applications today.

IEEE 802 LMSC is a committee of the IEEE Standards Association and of Technical Activities, two of the Major Organizational Units of the IEEE. IEEE has over 460,000 members in more than 190 countries and its core purpose is to foster technological innovation and excellence for the benefit of humanity. IEEE is also a major accredited standards development organization whose standards are recognized worldwide. In submitting this document, IEEE 802 LMSC acknowledges that other components of IEEE Organizational Units may have perspectives that differ from, or compete with, those of IEEE 802 LMSC¹.

Please find below the IEEE 802 LMSC’s comments on this public consultation.

General and Summary Comments

IEEE 802 LMSC closely follows the European Union’s regulatory activities regarding radio local area network (RLAN), at CEPT and at the national level of various Member States including France. We support the relaxation of the out-of-band (OOB) emissions of -45 dBm/MHz to -37 dBm/MHz if the Very Lower Power (VLP) WAS/RLAN devices preferentially select a frequency block above 6105 MHz when initiating a communication session, and maintain by default, when no such frequency selection mechanism is implemented by the VLP WAS/RLAN devices, a maximum average EIRP density for out-of-band emissions of -45 dBm/MHz below 5935 MHz.

IEEE 802 LMSC recognizes that both the CEPT Report 087 and the ECC Report 355 provide the required technical basis for the relaxation of OOB emissions without harmfully interfering with Communication Based Train Control (CBTC) systems based on the available information to date.

¹ This document solely represents the views of IEEE 802 LMSC and does not necessarily represent a position of either the IEEE or the IEEE Standards Association.

Potential optimization for the CBTC systems

To further improve the robustness of the CBTC systems, several system improvements could be performed to reduce any potential adjacent channel interference, thus reducing the probability of a degraded mode of operation, and effectively improve the signal reliability.

At critical positions in the Urban Rail network, such as train platforms, the access point density can be increased and thus the received signal strength can be improved. In addition, redundant access points could be installed at these critical positions to take over the operation in case of an access point failure.

The antennas of a train unit as depicted in the ECC Report could be shielded or installed outside of the passenger wagon, which increases the coupling loss between any potential interference inside the wagon and the TU receiver.

Conclusion

IEEE 802 LMSC thanks Arcep for the opportunity to provide this submission and supports its proposal on the draft decision amending Arcep decision no. 2021-2184 dated October 14, 2021 designating frequencies in the 5945 MHz to 6425 MHz band for wireless access systems.

Respectfully submitted

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