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IEEE P802.18
Radio Regulatory Technical Advisory Group (RR-TAG)

Proposed Response to Canada ISED's consultation
re: draft RSS-210 issue 11

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This document is a proposed response to the Innovation, Science and Economic Development (ISED) consultation on the draft Radio Standard Specification RSS-210 Issue 11: Licence-Exempt Radio Apparatus: Category I Equipment.

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5 Electronic filing

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7 Re: Consultation on the draft RSS-210 Issue 11: Licence-Exempt Radio Apparatus: Category I
8 Equipment”

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10 Attention: Regulatory Standards Directorate, Planning and Standards Branch, Innovation, Science
11 and Economic Development Canada Engineering,

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13 IEEE 802 LAN/MAN Standards Committee (LMSC) thanks the Radio Advisory Board of Canada
14 (RABC) for providing an opportunity to comment on the Innovation, Science and Economic
15 Development (ISED)’s consultation “Draft RSS-210 Issue 11: Licence-Exempt Radio Apparatus:
16 Category I Equipment”.

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18 IEEE 802 LMSC is a leading consensus-based industry standards body, producing standards for
19 wireless networking devices, including wireless local area networks (“WLANs”), wireless
20 specialty networks (“WSNs”), wireless metropolitan area networks (“Wireless MANs”), and
21 wireless regional area networks (“WRANs”). We also produce standards for wired Ethernet
22 networks, and technologies produced by implementers of our standards are critical for all
23 networked applications today.

24
25 IEEE 802 LMSC is a committee of the IEEE Standards Association and Technical Activities, two
26 of the Major Organizational Units of the Institute of Electrical and Electronics Engineers (IEEE).
27 IEEE has about 400,000 members in over 160 countries. IEEE’s core purpose is to foster
28 technological innovation and excellence for the benefit of humanity. In submitting this document,
29 IEEE 802 LMSC acknowledges and respects that other components of IEEE Organizational Units
30 may have perspectives that differ from, or compete with, those of IEEE 802 LMSC. Therefore,
31 this submission should not be construed as representing the views of IEEE as a whole¹.

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33 Please find below the responses of IEEE 802 LMSC to this consultation.

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35 ***IEEE 802 devices operating in the 57 GHz to 71 GHz bands***

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37 Today, devices based on IEEE 802.11 family of standards are found in residential, office, and
38 commercial environments in public and private settings, and devices based on IEEE 802.15 family
39 of standards serves uses in many sectors, including consumer, industrial, utility and government
40 systems. Users in an array of industries rely on technologies defined by the standards in the 802.11
41 and 802.15 family rely on these cost-effective, energy efficient technologies.

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43 Each new generation of IEEE 802.11 and IEEE 802.15 technologies continues to improve
44 efficiency, reliability, latency, and throughput with significant global deployments^{2,3}. Specifically,
45 the draft IEEE Std 802.11-2024⁴ (which incorporates both IEEE Std 802.11ad-2012 and IEEE Std

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.

² See Wi-Fi Alliance: Value of Wi-Fi, <https://www.wi-fi.org/discover-wi-fi/value-wi-fi> [accessed: 25 April 2024]. Wi-Fi technology, based on the IEEE 802.11 standard, has an estimated 19.5 billion devices in use world-wide, with over 4 billion devices added annually.

³ See FiRA Consortium: Unleashing the Potential of UWB: Regulatory Considerations, <https://www.firaconsortium.org/sites/default/files/2022-08/Unleashing-the-Potential-of-UWB-Regulatory-Considerations.pdf> [accessed: 25 April 2024]. The introduction of IEEE 802.15 UWB-enabled devices in smartphones and laptops puts forecasts at more than 1 billion devices shipped annually worldwide by 2025.

⁴ “IEEE Draft Standard for Information Technology -- Telecommunications and Information Exchange Between Systems Local and Metropolitan Area Networks -- Specific Requirements - Part 11: Wireless Local Area Network (LAN) Medium Access Control (MAC) and Physical Layer (PHY) Specifications,” in IEEE P802.11-REVme/D5.0, February 2024, vol., no., pp.1-6203, 18 March 2024.

46 802.11ay-2021) and IEEE Std 802.15.3-2023⁵ (which incorporates IEEE Std 802.15.3c-2009 and
47 IEEE Std 802.15.3e-2017) standards enable multi-gigabit communication both indoor and outdoor
48 in the band 57 GHz to 71 GHz.

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50 The 57 GHz to 71 GHz bands are of continued relevance for the WLAN ecosystem. In November
51 2023, IEEE 802.11 established a Study Group⁶ with goals that include an expansion of the multi-
52 link operation framework specified in IEEE P802.11be⁷ for sub-7 GHz by extending the frequency
53 band to include 42 GHz to 71 GHz bands.

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56 ***IEEE 802 LMSC fully supports the updated requirements for licence-exempt radio apparatus***
57 ***operating in 57 GHz to 71 GHz bands.***

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59 Radio Standards Specification (RSS) 210 sets out the certification requirements for several types
60 of licence-exempt radio apparatus. The draft Issue 11 Annex J further expands on the requirements
61 for operation in the 57 GHz to 71 GHz band. Specifically draft Issue 11 clarified the use restrictions
62 for devices operating in-flight, operation of devices in the 59.3 GHz to 71.0 GHz band, and the
63 use of Field Disturbance Sensors (FDS) in 60 GHz to 64 GHz band. Further, draft Issue 11 outlines
64 the operational requirements including the limits on power, emissions, and spurious emissions
65 limits for FDS, Point-to-Point, and other devices within the 57 GHz to 71 GHz band.

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67 IEEE 802 LMSC welcomes ISED to have expanded on these requirements to make rules clearer
68 and consistent with the FCC 15.255 of Part 15⁸.

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70 Respectfully, we would like to point to a possible erratum in the draft Issue 11 where a reference
71 was made to section J.3.3(d), which is not in the document. Perhaps the reference should be J.2(d).

72

73 **Conclusion**

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75 IEEE 802 LMSC thanks the RABC for the opportunity to provide this submission and kindly
76 requests ISED to consider our response.

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78 Respectfully submitted

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80 By: /ss/.

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⁵ “IEEE Standard for Wireless Multimedia Networks,” in IEEE Std 802.15.3-2023 (Revision of IEEE Std 802.15.3-2016), vol., no., pp.1-684, 22 Feb. 2024, doi: 10.1109/IEEESTD.2024.10443750.

⁶ See IEEE 802.11 Integrated Millimeter Wave (IMMW) Study Group, https://www.ieee802.org/11/Reports/immw_update.htm [accessed: 25 April 2024]. IMMW is a new Study Group within the IEEE 802.11 working group that will define a Project Authorization Request to address the problem of WLAN non-standalone operation in unlicensed bands between 42 GHz and 71 GHz using single-user OFDM based transmissions. An 802.11 device should also support 2.4 GHz to 7.250 GHz unlicensed band operation.

⁷ “IEEE Draft Standard for Information technology--Telecommunications and information exchange between systems Local and metropolitan area networks--Specific requirements - Part 11: Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications Amendment: Enhancements for Extremely High Throughput (EHT),” in IEEE P802.11be/D5.0, November 2023, vol., no., pp.1-1045, 3 Jan. 2024.

⁸ See Code of Federal Regulations: §15.255 Operation within the band 57-71 GHz, <https://www.ecfr.gov/current/title-47/chapter-1/subchapter-A/part-15/subpart-C/subject-group-ECFR2f2e5828339709e/section-15.255> [accessed: 25 April 2024].