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3 Re: Notification of updated radio management regulations on UWB
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5 Dear Radio Administration Bureau,
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7 IEEE 802 LAN/MAN Standards Committee (IEEE 802 LMSC) thanks the Ministry of Industry
8 and Information Technology (MIIT) of the People's Republic of China for issuing updated
9 regulations of radio management on Ultra Wideband (UWB) equipment [1] following its
10 consultation on the "Ultra Wideband (UWB) Equipment Radio Management Regulations (Draft
11 for Comments)" in February 2023 ("the consultation"). We understand that the consultation has
12 closed. Nevertheless, we are writing to offer further comments on this topic, particularly in view
13 of the updated regulations sent to the World Trade Organization.
14

15 IEEE 802 LMSC is a leading consensus-based open standards development committee for
16 networking standards that are used by industry globally. It produces standards for networking
17 devices, including wired and wireless local area networks ("LANs" and "WLANs"), wireless
18 specialty networks ("WSNs"), wireless metropolitan area networks ("Wireless MANs"), and
19 wireless regional area networks ("WRANs"). Technologies produced by implementers of our
20 standards are a critical element for all networked applications today.
21

22 IEEE 802 LMSC is a committee of the IEEE Standards Association and of Technical Activities,
23 two of the Major Organizational Units of the IEEE. IEEE has about 400,000 members in over 160
24 countries and its core purpose is to foster technological innovation and excellence for the benefit
25 of humanity. IEEE is also a major accredited standards development organization whose standards
26 are recognized world-wide. In submitting this document, IEEE 802 LMSC acknowledges and
27 respects that other components of IEEE Organizational Units may have perspectives that differ
28 from, or compete with, those of IEEE 802 LMSC. Therefore, this submission should not be
29 construed as representing the views of IEEE as a whole¹.
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31 On 6 February 2023, IEEE 802 LMSC submitted its reply to the consultation. IEEE 802 LMSC
32 appreciates that our comments on aligning the proposed spectral density mask with those in IEEE
33 Std 802.15.4-2020 [2] have been taken into account and that the allocation has been widened to
34 include the necessary roll-off for 500 MHz channels. Alignment with the spectral masks in the
35 standard provides benefits in terms of availability of products, time to market, and international
36 harmonization.
37

38 However, IEEE 802 LMSC is surprised to find a new maximum value of 650 MHz for the 10 dB
39 bandwidth in the proposed regulations. The 650 MHz value corresponds to the IEEE HRP spectral
40 mask specification for systems nominally occupying 499.2 MHz 3 dB bandwidth [2]. This was
41 also the specification IEEE 802 LMSC quoted in its response to the consultation.
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43 In this follow-up to our previous response, IEEE 802 LMSC would like to highlight that other
44 3 dB bandwidths are part of the specification [2]. In particular, the HRP UWB PHY includes IEEE
45 HRP UWB PHY channel 11 with a nominal 3 dB bandwidth of 1331.2 MHz centered on 7987.2
46 MHz. Since wider bandwidth are required to support high-resolution sensing applications and

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.

47 high-accuracy ranging applications, bandwidths of over 500 MHz have been included in the
48 specification. IEEE 802 LMSC would kindly like to ask MIIT to reconsider whether the 650 MHz
49 maximum limit for the 10 dB bandwidth is required. As of now, no other regulatory regime for
50 UWB contains an upper limit on the 10 dB bandwidth. The inclusion of such an upper limit may
51 limit the capabilities of UWB equipment in utilizing the IEEE HRP UWB PHY channel 11 to
52 support high-resolution sensing applications and high-accuracy ranging applications.
53

54 **Conclusion**

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56 IEEE 802 LMSC thanks MIIT for the opportunity to provide this submission and kindly requests
57 MIIT to consider our request to abolish the 650 MHz maximum limit for the 10 dB bandwidth in
58 its updated regulations on radio management of UWB equipment.
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60 Respectfully submitted,

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62 By: /s/.

63 Paul Nikolich

64 IEEE 802 LAN/MAN Standards Committee Chairman

65 em: p.nikolich@ieee.org

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