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

Draft ex-parte submission to China MIIT's consultation on its updated regulations of radio management on UWB equipment

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This document drafts a proposed ex-parte submission to the Ministry of Industry and Information Technology (MIIT) of the People's Republic of China regarding their notification to World Trade Organization (WTO) for its updated regulations of radio management of Ultra Wideband (UWB) equipment.

See

<https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/G/TBTN23/CHN1753.pdf&Open=True> and  
[https://docs.wto.org/dol2fe/Pages/FE\\_Search/ExportFile.aspx?id=297960&filename=2023/TBT/CHN/23\\_12098\\_00\\_x.pdf&Open=True](https://docs.wto.org/dol2fe/Pages/FE_Search/ExportFile.aspx?id=297960&filename=2023/TBT/CHN/23_12098_00_x.pdf&Open=True)

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5 Electronic filing

October 12, 2023

6  
7 Re: Notification of updated radio management regulations on UWB

8  
9 Dear Radio Administration Bureau,

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

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

25  
26 IEEE 802 LMSC is a committee of the IEEE Standards Association and of Technical Activities,  
27 two of the Major Organizational Units of the IEEE. IEEE has about 400,000 members in over 160  
28 countries and its core purpose is to foster technological innovation and excellence for the benefit  
29 of humanity. IEEE is also a major accredited standards development organization whose standards  
30 are recognized world-wide. In submitting this document, IEEE 802 LMSC acknowledges and  
31 respects that other components of IEEE Organizational Units may have perspectives that differ  
32 from, or compete with, those of IEEE 802 LMSC. Therefore, this submission should not be  
33 construed as representing the views of IEEE as a whole<sup>1</sup>.

34  
35 On 6 February 2023, IEEE 802 LMSC submitted its reply to the consultation. IEEE 802 LMSC  
36 appreciates that our comments on aligning the proposed spectral density mask with those in IEEE  
37 Std 802.15.4-2020 [2] have been taken into account and that the allocation has been widened to  
38 include the necessary roll-off for 500 MHz channels. Alignment with the spectral masks in the  
39 standard provides benefits in terms of availability of products, time to market, and international  
40 harmonization.

41  
42 However, IEEE 802 LMSC is surprised to find a new maximum value of 650 MHz for the 10 dB  
43 bandwidth in the proposed regulations. The 650 MHz value corresponds to the IEEE HRP spectral  
44 mask specification for systems nominally occupying 499.2 MHz 3 dB bandwidth [2]. This was  
45 also the specification IEEE 802 LMSC quoted in its response to the consultation.

46  
47 In this follow-up to our previous response, IEEE 802 LMSC would like to highlight that other  
48 3 dB bandwidths are part of the specification [2]. In particular, the HRP UWB PHY includes IEEE  
49 HRP UWB PHY channel 11 with a nominal 3 dB bandwidth of 1331.2 MHz centered on 7987.2  
50 MHz. Since wider bandwidth are required to support high-resolution sensing applications and

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<sup>1</sup> 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.

51 high-accuracy ranging applications, bandwidths of over 500 MHz have been included in the  
52 specification. IEEE 802 LMSC would kindly like to ask MIIT to reconsider whether the 650 MHz  
53 maximum limit for the 10 dB bandwidth is required. As of now, no other regulatory regime for  
54 UWB contains an upper limit on the 10 dB bandwidth. The inclusion of such an upper limit may  
55 limit the capabilities of UWB equipment in utilizing the IEEE HRP UWB PHY channel 11 to  
56 support high-resolution sensing applications and high-accuracy ranging applications.  
57

## 58 Conclusion

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60 IEEE 802 LMSC thanks MIIT for the opportunity to provide this submission and kindly requests  
61 MIIT to consider our request to abolish the 650 MHz maximum limit for the 10 dB bandwidth in  
62 its updated regulations on radio management of UWB equipment.  
63

64 Respectfully submitted,

65  
66 By: /ss/.

67 Paul Nikolich

68 IEEE 802 LAN/MAN Standards Committee Chairman

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