

20 February 2019

To: The Manager Spectrum Engineering Section and Space Section
Spectrum Planning and Engineering Branch
Australian Communications and Media Authority
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Via On Line: <http://www.acma.gov.au/theACMA/Consultations/Consultations>

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Subject: Comments to ACMA on Proposed updates to class licensing arrangements supporting 5G and other technology innovations

COMMENTS OF IEEE 802

1. IEEE 802 LAN/MAN Standards Committee (LMSC) respectfully submits these responses to the Australia Communications and Media Authority (ACMA).
2. IEEE 802 LMSC is a leading consensus-based industry standards body, producing standards for wireless networking devices, including wireless local area networks (“WLANs”), wireless specialty networks (“WSNs”), wireless metropolitan area networks (“Wireless MANs”), and wireless regional area networks (“WRANs”). We appreciate the opportunity to provide these comments to ACMA.
3. IEEE 802 is a committee of the IEEE Standards Association and Technical Activities, two of the Major Organizational Units of the Institute of Electrical and Electronics Engineers (IEEE). IEEE has about 420,000 members in about 190 countries and supports the needs and interests of engineers and scientists broadly. In submitting this document, IEEE 802 acknowledges and respects that other components of IEEE Organizational Units may have perspectives that differ from, or compete with, those of IEEE 802. Therefore, this submission should not be construed as representing the views of IEEE as a whole.¹

¹ This document solely represents the views of the IEEE 802 LAN/MAN Standards Committee and does not necessarily represent a position of either the IEEE, the IEEE Standards Association or IEEE Technical Activities.

COMMENTS

4. IEEE 802 strongly supports the ACMA proposed update to the LIPD Class Licence for 60 GHz data communications systems frequency range to expand the available frequency range from 57–66 GHz to 57–71 GHz. IEEE Std 802.11ad provides the Multiple Gigabit Wireless System (MGWS) standard at 60 GHz frequency. IEEE Std 802.11-2016 specifies the channelization for the entire 57-71 GHz frequency range as Global Operating Class 180 with a Channel Set consisting of six 2.16 GHz channels. The current draft of IEEE project P802.11ay (Next-Generation 60 GHz), which is expected to result in a standard published in mid-2020, supports bonding of four 2.16 GHz channels together for a maximum bandwidth of 8.64 GHz. The proposed expansion in the 60 GHz band can utilize the bonding capability anticipated in P802.11ay to offer 100 Gbit/s services. Wi-Fi Alliance®[1] currently certifies products based on IEEE Std 802.11ad, under its Wi-Fi CERTIFIED WiGig™ program [appropriate trademark symbols].
5. IEEE 802 supports proposed update to the LIPD Class Licence to include the same arrangements as to those of the FCC for ‘unlicensed’ data communications systems in the frequency range 64–71 GHz as specified in Title 47 §15.255. IEEE 802 recommends complete alignment of the arrangement with the corresponding FCC regulation including a) alignment of maximum average EIRP arrangements governing fixed point-to-point communications transmitters operating in the band to enable outdoor use cases, and b) operation on aircraft.
6. IEEE 802 recommends ACMA to oppose IMT identification in the 66-76 GHz band (overlapping with the frequency range of the proposed update to the LIPD Class Licence) at WRC-19. IEEE 802 believes that IMT identification associated with the 66-71 GHz band is unnecessary and potentially damaging to innovation (currently underway in the band by enabling WiGig® technology) and consumers. IEEE 802 is not opposed to utilization of the 66-71 GHz band for 5G services but believes that the 66-71 GHz band, through its existing co-primary MOBILE allocation designation and unlicensed designation globally, can already be used for 5G services without the need for IMT identification. Note that ITU-R has already recommended implementation of the Multiple Gigabit Wireless Systems (MGWS) in Recommendation ITU-R M.2003, “Multiple gigabit wireless systems in frequencies around 60 GHz” and its companion Report ITU-R M.2227. To the knowledge of IEEE 802, no sharing or compatibility studies between MGWS and IMT have been performed.

CONCLUSION

7. IEEE 802 supports ACMA's proposed update to the LIPD Class Licence to expand the available frequency range from 57–66 GHz to 57–71 GHz. IEEE 802 also supports proposed update to the LIPD Class Licence to include arrangements similar to those of the FCC for 'unlicensed' data communications systems in the frequency range 64–71 GHz as specified in Title 47 §15.255. IEEE 802 recommends ACMA to oppose IMT identification in the 66-76 GHz band at WRC-19.

Respectfully submitted

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References:

- [1] Wi-Fi Alliance® is a non-profit organization that promotes Wi-Fi® technology and certifies Wi-Fi® products if they conform to certain standards of interoperability. Wi-Fi Alliance®, Wi-Fi® and WiGig® are registered trademarks and Wi-Fi CERTIFIED WiGig™ is a trademark of the Wi-Fi Alliance.
- [2] IEEE Std 802.11ad-2012 - IEEE 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 3: Enhancements for Very High Throughput in the 60 GHz Band
- [3] IEEE 802.11-2016, IEEE 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
- [4] IEEE Project P802.11ay/D3.0 Draft Standard for Information Technology: Enhanced throughput for operation in license-exempt bands above 45 GHz
- [5] ITU-R M.2003, Recommendation ITU-R M.2003-2 (01/2018) Multiple Gigabit Wireless Systems in frequencies around 60 GHz
- [6] Report ITU-R M.2227-2 (11/2017) Use of multiple gigabit wireless systems in frequencies around 60 GHz