

Intel response to the ACMA consultation “Proposed updates to the LIPD Class Licence for 6 GHz RLANS”

Intel commends ACMA for issuing the Consultation paper on Proposed updates to the LIPD Class Licence for 6 GHz RLANS and appreciates the opportunity to provide comments.

Intel is an industry leader in creating world-changing technology that enriches the live of every person on earth. We stand at the brink of several technology inflections—artificial intelligence (AI), 5G network transformation, and the rise of the intelligent edge—that together will shape the future of technology. Silicon and software drive these inflections, and Intel is at the heart of it all. Intel® Wi-Fi 6 (based on IEEE 802.11ax **Error! Reference source not found.**) and 6E (Wi-Fi 6 implemented in 6GHz band) solutions enable the fastest wireless speeds for PCs, more responsive performance, with enhanced security and reliability, especially in dense environments.

Intel’s global broadband objectives are the same as that of most governments and consumers: we want to enable high-speed and high-quality, widespread, affordable broadband in all countries extending computing technology to connect and enrich the lives of every person on earth. We strongly encourage all administrations to establish technology and service neutral policies, expeditiously assign spectrum (both licensed and unlicensed), and permit compliance to globally recognized standards. Spectrum is the key enabler for the new emerging technologies including 5G, Wi-Fi 6¹, WiGig² and applications such as AI, IoT, etc.

ACMA’s decision to propose opening the lower 6 GHz band (5925-6425 MHz) for LIPD Class Licence arrangements for low power indoor (LPI) and very low power (VLP) devices in the near term is vitally important for the future of broadband connectivity enabling Australia’s businesses and citizens. While Intel supports opening of the band for operation of LPI and VLP devices, we believe that limiting the maximum transmit power to 24 dBm for LPI mode will significantly limit the coverage and/or throughput performance of the system especially in large channel bandwidth sizes of 160MHz and 320MHz. Therefore, although the subject of LPI transmit power was not raised explicitly in the consultation, we kindly request ACMA to consider aligning the maximum transmit power for LPI mode to that of US FCC at 30 dBm.

Intel also commends ACMA’s proactive initiative to investigate further opportunities for RLAN use in the upper 6 GHz band and seeking comments on possible use of the upper 6 GHz band.

As stated in our response to ACMA’s April 2021 consultation “Exploring RLAN use in the 5 GHz and 6 GHz bands, Intel strongly supports opening up the entire 6GHz band (5925-7125MHz) for LIPD Class Licence operation. Intel agrees with ACMA’s assessment that WRC-23 agenda item 1.2 is not a sufficient reason to delay a decision on the upper 6 GHz band and recommends ACMA to

¹ <https://www.wi-fi.org/discover-wi-fi/wi-fi-certified-6>

² <https://www.wi-fi.org/discover-wi-fi/wi-fi-certified-wigig>

continue with proceedings to authorize LIPD Class Licence operation in the upper 6 GHz band (6425-7125MHz) immediately after adoption of LIPD Class Licence in the lower 6 GHz band.

Intel also appreciates ACMA's consideration of higher power class-licensed devices and supports enablement of this mode for devices under the supervision of Automated Frequency Coordination (AFC) System as being provisioned by other leading regulatory bodies such as US FCC, Canada ISED and Republic of Korea. Intel believes that the coexistence scenario between these higher power-class devices and incumbent Fixed Services in Australia can be similarly and properly addressed with AFC Systems and recommends harmonizing the regulatory requirements of higher power class-licensed devices with that of the US FCC standard power mode which requires the use of an AFC System.

Regarding ACMA's questions on further considerations for the 5 GHz band, Intel appreciates ACMA noting Intel's comments submitted to the April 2021 consultation and respectfully reiterates its recommendation that ACMA adopt provisions from the WRC-19 resolution for 5150-5250MHz especially with respect to outdoor operation and higher power usage in the band. Intel recommends ACMA consider the further options for higher power of maximum 1W (30 dBm) EIRP as permitted by Resolves 3 of Resolution 229 (WRC-19).

Yours sincerely

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