May 7, 2025

The Manager
Malaysian Technical Standards Forum Bhd
Level 3A, MCMC Tower 2, Jalan Impact,
Cyber 6, 63000 Cyberjaya, Selangor
Darul Ehsan.

Re: Short Range Devices-Specification (Third Revision)

Dear Manager

The Dynamic Spectrum Alliance[1] (DSA) welcomes the opportunity to provide input on the proposed Third Revision of the Technical Code for Short Range Devices (SRDs) by the Malaysian Communications and Multimedia Commission (MCMC). As a global advocate for more efficient and innovative spectrum use, the DSA supports efforts to modernize regulatory frameworks in line with technological advancements and growing demand for short-range wireless applications.

This revision is a timely step toward enabling greater flexibility and clarity in SRD operations across Malaysia. We particularly commend MCMC for aligning technical specifications with evolving spectrum needs as outlined in the latest Class Assignments and SRSPs. The DSA encourages MCMC to adopt policies that facilitate license-exempt access to key spectrum bands and support Wireless Access Systems and Radio Local Access Networks (WAS/RLAN) technologies, such as Wi-Fi, which are vital for digital inclusion, economic growth, and innovation.

[1] The DSA is a global, cross-industry, not for profit organization advocating for laws, regulations, and economic best practices that will lead to more efficient utilization of spectrum, fostering innovation and affordable connectivity for all. Our membership spans multinationals, small-and medium-sized enterprises, as well as academic, research and other organizations from around the world all working to create innovative solutions that will benefit consumers and businesses alike by making spectrum abundant through dynamic spectrum sharing. A full list of DSA members is available on the DSA's website at https://www.dynamicspectrumalliance.org/members.

1. Enhancing Outdoor RLAN Use in the 5.15–5.35 GHz Band

The DSA notes that in Table 1 of the draft Technical Code, Items 47 and 48 set an EIRP limit of 200 mW for RLANs in the 5150–5250 MHz band and restrict outdoor use in the 5250–5350 MHz band entirely. From our perspective, this regulatory approach presents a significant constraint on the potential of WAS/RLAN networks in Malaysia, especially given the current scarcity of usable 80 MHz channels for outdoor deployment. Presently, only three such channels are publicly accessible in the 5 GHz band, with one requiring DFS, which complicates deployment and network reliability.

These limitations are particularly impactful in high-density or high-traffic environments such as campuses, healthcare facilities, and commercial premises, as well as in remote areas where WAS/RLAN can complement or extend broadband access.

To enable broader and more effective WAS/RLAN deployment, we encourage MCMC to consider authorizing outdoor operations in the full 5150–5350 MHz range, subject to appropriate interference protections. Doing so would align with Resolution 229 (WRC-19), specifically Resolves 3–5, which provide a well-defined framework for mitigating aggregate interference to satellite services through the use of elevation angle-dependent EIRP masks. Several countries, including Australia and New Zealand, have adopted this resolution to permit up to 1 W EIRP for outdoor WAS/RLAN use, while the United States and Canada go further, allowing up to 4 W EIRP in certain outdoor scenarios.

This policy would strike a balance between enabling modern, high-capacity WAS/RLAN deployments and protecting incumbent services, while also promoting Malaysia's broadband connectivity goals in both urban and underserved areas.

2. Maximizing the Value of the 6 GHz Band for Wi-Fi

The DSA commends Malaysia's progressive step in designating the lower 6 GHz band (5925–6425 MHz) for license-exempt use, opening the door for next-generation WAS/RLAN applications, such as Wi-Fi. However, the 500 MHz available in the lower portion alone falls short of meeting the capacity and performance demands of modern, high-density deployments. Effective Wi-Fi network planning in high-density deployments such as enterprise buildings, schools, hospitals, and public venues often demands at least seven 80 MHz or multiple 160 MHz channels, only possible through access to the full 1200 MHz of the 6 GHz band.

Real-world trials—such as the full-band 6 GHz Wi-Fi deployment at Ramathibodi Hospital in Thailand, authorized by the NBTC—clearly demonstrate the significant advantages of full

1200 MHz access[2]. In this trial, the performance of lower 6 GHz Wi-Fi was compared against full-band 6 GHz Wi-Fi, with a focus on AR/VR-based medical training, video conferencing, and high-density device environments. The results showed marked improvements when using the full-band, particularly in scenarios requiring high-capacity, low-latency connectivity.

In high-density deployments, optimal performance requires access to multiple 80 MHz or 160 MHz channels to support simultaneous users and reduce co-channel interference. While the lower 6 GHz band offers three 160 MHz channels, effective channel reuse in dense deployments typically demands at least seven 80 MHz or more than three 160 MHz channels, which are only achievable with access to the full 1200 MHz band.

To fully unlock the transformative potential of Wi-Fi 6E and Wi-Fi 7, we urge MCMC to consider extending WAS/RLAN authorization to the upper 6 GHz band (6425–7125 MHz). Doing so would not only facilitate improved network efficiency and user experience but also help Malaysia achieve its connectivity goals for smart industries, education, and healthcare.

Additionally, the DSA recommends that Malaysia establish a regulatory framework to enable Standard Power (SP) WAS/RLAN operations both indoors and outdoors, managed through Automated Frequency Coordination (AFC) systems. Countries such as the United States and Canada have already adopted Standard Power WAS with EIRP levels of up to 36 dBm, with multiple AFC systems successfully certified for commercial deployment.

Global industry efforts, led by the Wi-Fi Alliance and WinnForum, have significantly advanced certification standards and compliance frameworks for AFC-enabled devices and systems. These developments ensure efficient spectrum management, minimizing interference while maximizing the potential of Wi-Fi connectivity in high-demand environments. Establishing a clear regulatory pathway for AFC implementation would position Malaysia at the forefront of next-generation wireless innovation, fostering improved connectivity and economic growth.

3. Conclusion

The DSA appreciates the opportunity to contribute to this important consultation on short-range device regulations. We support MCMC's efforts to modernize spectrum policy and enable greater innovation through license-exempt access to the 5 GHz and 6 GHz bands.

[2] Ramathibodi Hospital trials 6 GHz Wi-Fi for enhanced connectivity in healthcare

The DSA welcomes further engagement with MCMC to discuss global best practices, regulatory advancements, and international developments that can guide Malaysia's strategy for maximizing the potential of the 6 GHz band. By fostering collaboration, Malaysia can unlock new opportunities, enhance digital infrastructure, and solidify its position as a leader in next-generation wireless connectivity.

Sincerely,

Martha SUAREZ
President
Dynamic Spectrum Alliance