

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of)	
Use of Spectrum Bands Above 24 GHz)	GN Docket No. 14-177
For Mobile Radio Services)	
)	

Dynamic Spectrum Alliance Reply Comments

September 28, 2018

The Dynamic Spectrum Alliance (“DSA”) is a global organization advocating for laws and regulations that will lead to more efficient and effective spectrum utilization.¹ The DSA’s three goals are closing the digital divide globally, enabling the Internet of Things and alleviating the “spectrum crunch”. DSA submits the following comments in response to the “Spectrum Frontiers” Third Further Notice of Proposed Rulemaking (“3rd FNPRM”).²

We file these reply comments to highlight the record support for enabling indoor operations in the 37.0-37.6 GHz band (“Lower 37 GHz Band”), and to encourage the Commission to maintain its historical technologically neutral posture as it creates the rules for coordination and licensing in the Lower 37 GHz Band.

I. The Record Supports DSA’s Suggestion for Enterprise-Level Access in the Lower 37 GHz Band

As DSA explained in its initial comments, the Commission can enable an additional type of deployment – enterprise-based indoor-only general authorized access (GAA). DSA explained that this additional capacity in the Lower 37 GHz Band within an industrial deployment could enable augmented reality/virtual reality (AR/VR) and for streaming real time video from autonomous mobile (and other) robots in operation. This combined video and data stream could be synchronized with cloud-based systems that consume and analyze the information and can redirect applications within the industrial complex to take actions. Conceptually, this type of deployment would offer a path to new innovation in industrial applications that may not be associated with a carrier-based deployment in this band or another band.

Several commenters, including Intel and Cisco, and the Open Technology Institute at New America (OTI), support indoor or property-level spectrum access in the Lower 37 GHz Band.³ Like DSA, OTI suggests the Commission consider an indoor-only authorization on an unlicensed or GAA basis.⁴ OTI argues that this would “create an access option open to the public that is truly open, uncomplicated and low cost, facilitating customized IoT, neutral host networks, and a variety of other uses indoors.”⁵ Intel and Cisco suggest the creation of another license category – a Property Zone license – to support property-level rights and access in the Lower 37 GHz Band.⁶ While the authorization mechanism may differ, the end goal is the same – as Intel and Cisco explain: “there will be numerous use cases that require ‘deterministic’ use of spectrum – specifically, creating certainty for use cases where an

¹ Our membership spans multinationals, small-and medium-sized enterprises, and academic, research, and other organizations from around the world, all working to create innovative solutions that will increase the amount of available spectrum to the benefit of consumers and businesses alike. A full list of Dynamic Spectrum Alliance members is available on the Dynamic Spectrum Alliance’s website at www.dynamicspectrumalliance.org/members.

² In the Matter of Use of Spectrum Bands Above 24 GHz For Mobile Radio Services (GN Docket No. 14-177) and Amendment of Parts 1, 22, 24, 27, 74, 80, 90, 95, and 101 To Establish Uniform License Renewal, Discontinuance of Operation, and Geographic Partitioning and Spectrum Disaggregation Rules and Policies for Certain Wireless Radio Services (WT Docket No. 10-112), “*Third Report and Order, Memorandum Opinion and Order, and Third Further Notice of Proposed Rulemaking*”, approved June 7, 2018 (“3rd FNPRM”).

³ Joint Comment of Intel Corporation and Cisco Systems, Inc., WT Docket No. 14-177 *et al.* (filed Sept. 10, 2018) (“Intel/Cisco Comments”); Comments of Open Technology Institute at New America, WT Docket No. 14-177 *et al.* (filed Sept. 10, 2018) (“OTI Comments”).

⁴ OTI Comments at 10-12.

⁵ OTI Comments at 11.

⁶ Intel/Cisco Comments at 6-9.

enterprise/industrial user needs to control and manage the radio spectrum without reliance on an external party.”⁷

II. Sharing Rules Must be Technologically Neutral

In the event that the Commission explores dynamic sharing solutions over time – which in principle we support – it must do so in a manner that promotes innovation and both the user base and equipment ecosystem. The Commission has a strong history of promoting technically-neutral solutions to coexistence between systems. Unfortunately, Qualcomm’s suggested use of the still-in-development 5G New Radio – Unlicensed/Shared Spectrum standard (“5G NR-U/SS”)⁸ would necessarily foreclose the development of new technologies and services.

While Qualcomm ostensibly urges the Commission to adopt technologically neutral rules, it actually proposes the Commission implement prescriptive technical rules that are optimized for 5G NR-U/SS.

As DSA and others have explained, the Lower 37 GHz Band is a significant opportunity for new entrants, innovators, industrial users, and others to gain access to millimeter wave spectrum. This will be completely foreclosed if the sharing rules require the use of a specific waveform or any solution that is tailored to one specific technology. The Commission has an opportunity in the Lower 37 GHz Band to enable innovation in 5G and beyond, but it must adopt technologically neutral rules within which new technologies and services can evolve.

III. Conclusion

The DSA applauds the Commission for continuing its efforts to facilitate a viable coordination scheme for Federal and non-Federal users to share the Lower 37 GHz Band. The record shows strong support for creating a path for industrial and other users to gain access to the band on a GAA, unlicensed, or other basis. We strongly encourage the Commission to adopt final rules that are truly technologically neutral, and avoid prescriptive rules that would benefit one technological solution over another.

Respectfully submitted,



Kalpak Gude
President
Dynamic Spectrum Alliance

⁷ Intel/Cisco Comments at 3-4.

⁸ Comments of Qualcomm Incorporated, WT Docket No. 14-177 *et al.* at 7-12 (filed Sept. 10, 2018).