

**August 20, 2018**

Ex Parte  
Ms. Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street SW Washington, DC 20554

Re: Petition for Rulemaking, RADWIN LTD. Amendment of Part 15 of the Commission's Rules to Advance Improved Broadband Services in the U-NII-1 and U-NII-3 Bands, **RM No. 11812**

Dear Ms. Dortch:

The Dynamic Spectrum Alliance (DSA) is submitting this filing to the Federal Communications Commission (FCC) in support of the above Petition for Rulemaking submitted by RADWIN Ltd. The DSA, whose membership spans multinationals, small-and medium-sized enterprises, and academic, research, and other organizations from around the world, is committed to creating innovative solutions that will expand broadband opportunities for consumers and businesses alike.<sup>1</sup> To this end, we respectfully submit the following comments in support of RADWIN's petition.

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<sup>1</sup> The DSA's 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 DSA members is available on the DSA's website at [www.dynamicspectrumalliance.org/members/](http://www.dynamicspectrumalliance.org/members/).

## **Introduction:**

On June 18, 2018, RADWIN LTD submitted a Petition for Rulemaking to the Federal Communications Commission (FCC).<sup>2</sup> RADWIN asked that the FCC change its rules to allow point-to-multipoint devices in the U-NII-1 (5150-5250 MHz) and U-NII-3 bands (5725-5850 MHz) that use sequential multiple directional beam technology, such as beam-forming and beam-steering, to operate with the same effective isotropic radiated power (EIRP) as point-to-point transmitters in those bands. The rule today requires that in the U-NII-1 and U-NII-3 bands, point to multipoint systems must operate with significantly lower EIRP than point-to-point systems.

The DSA agrees with the petitioner that the requested rule change could permit service providers to reach more remote customers from the same base station site. This rule change will also reduce the cost of deployment of these technologies and improve the ability of service providers to reach areas that still suffer from a lack of high speed Internet connectivity, particularly in rural areas where the cost of deployment continues to hamper efforts to solve the connectivity gap. The DSA supports greater use of shared and unlicensed spectrum and believes that expansion of such opportunities is necessary to provide all Americans access to the broadband connectivity that is essential in the 21<sup>st</sup> century. The requested rule change will thus greatly expand use of the spectrum band and improve the efficient use of the spectrum.

## **Requested Rule Changes Can Be Consistent with the Similar Rule Changes in the 2.4 GHz Band**

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<sup>2</sup> FN to Radwin Pet.

The Petition seeks to modify Section 15.407 of the Commission's rules to allow devices that emit multiple directional beams, simultaneously or sequentially, for the purpose of directing signals into individual receivers or groups of receivers to operate under the rules allowed for fixed, point-to-point operations.

Much as the rationale for the changes to the 2.4 GHz band focused on the improved spectrum efficiency through greater re-use of the radio frequencies and the improved ability to provide broadband access in rural and underserved areas,<sup>3</sup> harmonizing the requested rule changes to Section 15.407 with those in Section 15.247 would further the same goals. This is particularly important given the increasing demand for, and importance of, providing high speed broadband access to all people.

### **Requested Rule Change is in the Public Interest**

Modification of Section 15.407 would be in the public interest. The U-NII-1 and U-NII-3 bands are already used to deliver broadband services and the rule change would only improve the ability of service providers to use the band.

The rule change would allow for higher power transmission in the band, helping to change of cost economics of providing broadband, a very critical issue particularly when dealing with rural services. Use of point-to-multipoint base stations with beam-forming and beam-steering antennas will enable them to transmit further, thus requiring fewer base stations and lower cost of deployment.

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<sup>3</sup> Modification of Parts 2 and 15 of the Commission's Rules for unlicensed devices and equipment approval, Report and Order, 19 FCC Rcd 13539 (2004) ("Part 15 Order") at paras. 2-3.

The directional beams that would be permitted as a result of this rule change create no more interference than the point-to-point links allowed by the current rule. The highly directed beams that would be authorized would limit the interference in the U-NII-1 and U-NII-3 bands compared to point-to-point systems using wide beam sector antennas by directing transmissions to specific remote subscriber locations. By issuing a notice of proposed rulemaking proposing to adopt rules that are consistent with Section 15.247 and the 2.4 unlicensed band, the Commission should move forward quickly with this rulemaking.

## **Conclusion**

The FCC has been a global regulatory leader in improving its spectrum management rules to enable greater efficient use of spectrum. The request in the RADWIN petition is consistent with the Commission's goals, both in terms of efficient use of spectrum and improving broadband access to rural areas. Enabling the highly directed point-to-multipoint services that are requested will not change the interference environment but will significantly improve the ability of ISPs to deploy in the band. The DSA strongly urges the Commission to move forward on RADWIN's petition and issue a notice of proposed rulemaking to modify Section 15.407 to be consistent with Section 15.247 of the Commission's rules.

Sincerely,



Kalpaka Gude

President, Dynamic Spectrum Alliance