

August 7, 2019

Via ECFS

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

Re: Wireless Telecommunications Bureau, International Bureau, Office of Engineering and Technology, and Office of Economics and Analytics Seek Focused Additional Comment in 3.7-4.2 GHz Band Proceeding – GN Docket No. 18-122, RM-11791, RM-11778
Comments of Cambium Networks, Ltd.

Dear Ms. Dortch:

Pursuant to the recent Public Notice,¹ Cambium Networks, Ltd. (“Cambium”), submits these Comments in support of the recent Joint Ex Parte Presentation filed by the Wireless Internet Service Providers Association (“WISPA”), Google, and Microsoft in the above-referenced proceeding. Cambium is a manufacturer of Wi-Fi, point-to-point and point-to-multipoint fixed wireless broadband solutions in a variety of spectrum bands, including the adjacent CBRS (3.55-3.7 GHz) band. Cost-effective broadband connectivity is critical for point-to-point and point-to-multipoint installations deployed by Cambium’s customers, which include service providers, enterprises, governmental and military agencies, oil and gas, railroad and utility companies, Internet service providers and public safety first responders. Cambium’s customers, and the Americans they serve, could benefit greatly from the introduction of new point-to-multipoint (P2MP) operations in the C Band.

Based on its customers’ experiences in these other bands, Cambium knows firsthand the need for additional spectrum for fixed wireless uses. And the 3.7-4.2 GHz spectrum (“C-Band”) is particularly well-suited to fill this need.

Cambium supports the conclusions reached in the Reed Engineering study (“Reed Study”) filed in this proceeding by WISPA, Google and Microsoft.² Cambium systems can readily be engineered to support shared, coordinated uses by Part 101 frequency coordinated P2MP operations without causing harmful interference to co-channel Fixed Satellite Service (“FSS”) earth stations.

¹ Public Notice, “Wireless Telecommunications Bureau, International Bureau, Office of Engineering and Technology, and Office of Economics and Analytics Seek Focused Additional comment in 3.7-4.2 GHz Band Proceeding”, DA 19-678, released July 19, 2019.

² See Letter from Wireless Internet Service Providers Association, Google LLC, and Microsoft Corp. to Marlene H. Dortch, Secretary, FCC, GN Docket No.18-122 (filed July 15, 2019) (“WISPA/Google/Microsoft Letter”).

Based upon the Reed Study, WISPA, Google and Microsoft assert that “the Commission can clear 200 megahertz for flexible use, re-pack earth stations from that band in the upper 300 megahertz, and allow shared, coordinated use of the upper 300 megahertz among FSS and P2MP.”³ Cambium agrees.

As the Commission evaluates coexistence in the C-Band among co-channel FSS and P2MP services, Cambium recommends that the Commission rely on the Reed Study’s conclusions on appropriate interference protection for FSS earth stations. In particular, the Reed Study suggests that 10-kilometer exclusion zones would protect most FSS earth stations from harmful interference caused by P2MP services. Cambium agrees with the Reed Study’s conclusion that careful siting and pointing of P2MP nodes would mitigate the risk of harmful interference. The Reed Study’s use of real-world assumptions, such as the need for earth stations to be pointed upward toward the satellites with which they interact, make the Reed Study a reliable predictor of interference (or the lack thereof).

Obviously, systems should (and can) be designed based on appropriate, tailored technical parameters such as the use of reasonable earth station filters and other technical means such as spectral analysis tools and interference mitigation techniques via intelligent beamforming. As WISPA, Google and Microsoft note, “[i]n practice, each P2MP system would be designed and coordinated on a site-specific basis, taking all surrounding earth stations into account and fully protecting those operations.” Such system design is within the capabilities of Cambium technical personnel working with our customers, and readily achievable.

Cambium urges the FCC to implement new rules allowing shared use of C-Band spectrum to support gigabit broadband uses. Doing so will benefit millions of Americans nationwide. Please contact the undersigned with any questions.

Respectfully submitted,

/s/ _____

Scott Imhoff

Vice President of Product Management

CAMBIUM NETWORKS, LTD.

3800 Golf Road Suite 360

Rolling Meadows, IL 60008

³ *Id.* at 2.