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Federal Communications Commission
Office of the Secretary

March 12, 2015

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

**Re: Aviat Networks, Request for Waiver of Certain Antenna
Requirements in the 71-76 and 81-86 GHz Bands**

Dear Ms. Dortch:

On April 5, 2013, Aviat Networks, through its affiliate Aviat U.S., Inc. (“Aviat”), filed a request for partial waiver of Section 101.115 to permit smaller antennas in the 71-76 and 81-86 GHz bands. An amendment to the waiver request was filed on March 24, 2014. T-Mobile believes that the Commission should take action to grant the relief requested by Aviat to allow for the deployment of fixed microwave systems in the 71-76/81-86 GHz bands for wireless backhaul services.

Requests for modifications to the existing antenna requirements for the 71-76/81-86 GHz bands have been pending before the Commission since October of 2012.¹ As has been observed by Aviat as well as the Fixed Wireless Communications Coalition,² the technical requirements contained in Section 101.115 of the Commission’s rules³ unnecessarily limit equipment manufacturers from developing and deploying fixed microwave equipment in an effective and efficient manner. In particular, the requirements for co-polar discrimination and cross-polar discrimination contained in Section 101.115 are more rigorous than applied to other fixed microwave bands and have stifled the ability of parties to fully utilize the 71-76/81-86 GHz bands. Indeed, no other fixed service band below 71 GHz has any co-polar or cross-polar discrimination requirements.⁴ T-Mobile would note that this requirement appears to have been applied based on former technology requirements rather than the current need for small-cell

¹ See Comments of the Fixed Wireless Communications Coalition in Response to the Commission’s Notice of Inquiry in WT Docket No. 10-153 at 2-6 (filed Oct. 5, 2012).

² See *Ex Parte* Presentation of the Fixed Wireless Communications Coalition, WT Docket No. 10-153 (filed April 4, 2013).

³ 47 C.F.R. § 101.115.

⁴ See *Ex Parte* Presentation of the Fixed Wireless Communications Coalition, WT Docket No. 10-153 at 2 (filed April 4, 2013).

backhaul that the 71-76/81-86 GHz bands would enable, so long as the technical requirements of Section 101.115 are waived (or eliminated).⁵

As such, it is clearly in the public interest for the FCC to take action on the Aviat request for waiver of Section 101.115. The requested waiver would allow all parties to make better use of the 71-76/81-86 GHz bands. Since 2005, there have been only approximately 5500 links registered at 71-76/81-86/92-95 GHz, nationwide.⁶ By allowing for the use of small, light, unobtrusive antennas in the 71-76/81-86 GHz spectrum, the Commission will create an incentive for much more extensive deployment. Because the applications envisioned for the proposed antennas (such as small-cell backhaul) will generally entail short links at low power, the requested waiver will continue to allow dense packing of links and high spectrum efficiency in the bands.⁷ T-Mobile therefore encourages the Commission to take action to grant the requested waiver relief sought by Aviat to allow for more effective use of the 71-76/81-86 GHz bands.

Respectfully submitted,



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⁵ *Id.*

⁶ *Id.* at 3.

⁷ The rules require a 2 dB reduction in EIRP for every 1 dB of antenna gain below 50 dBi. 47 C.F.R. § 101.115(b)(2) (table) n.15. The proposed minimum antenna gain of 38 dBi would thus reduce the maximum EIRP by 24 dB. In most applications, the actual power used will be far below the maximum.