

September 30, 2016

Federal Communications Commission
Washington, DC

**Subject: R&O FCC 16-89, Use of Spectrum Bands Above 24 GHz or
Mobile Radio Services, et al.**

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Dear Sirs:

REMEC Broadband Wireless Networks, LLC is a unique supplier of integrated microwave and millimeter wave subsystem solutions for the telecommunications market. We design and manufacture products that operate throughout the radio spectrum, from RF to microwave and millimeter wave frequencies, specializing in complex, high performance point-to-point radio modules and Outdoor Units (ODUs).

REMEC's positions on the proposed changes concerning the 70/80 GHz band in the FNPRM are:

- No mobile operations
- No unlicensed use
- SAS in not needed in this band
- Low gain 38 dBi antennas should be allowed.

Our reasons for the above positions are as follows:

1. The 70/80 GHz bands, as currently used for fixed services (FS), will continue to play an important role in providing high capacity backhaul links supporting advanced LTE and upcoming 5G, public, and private networks. Allowing mobile users in this band would interfere with fixed users making reliable communications nearly impossible.
2. Fixed Services' point-to-point microwave radio is a key component in today's fixed networks including mobile, utilities, public safety, financial, and educational areas. It is essential that the current use of the band should be allowed to continue to expand. The primary application is point-to-point which is "lightly-licensed" on a first-come basis with a 10-year license period. This approach provides interference protection and renewal expectations for the user. Without these expectations, most mobile carriers, as well as private and public networks will not want to deploy networks that are subject to interference. Considering that unlicensed use now has access to 14 GHz of spectrum in the 60 GHz band, we do not see a need to subject the 70/80 GHz band in the mixed use cases based upon the designation of the 57-64 GHz ISM band and the relative sparsity of use. If unlicensed use of the band is considered, studies are needed to ensure that unlicensed use of the band does not

create a risk of interference to incumbent use, including outdoor backhaul use.

3. Regulations for the 70/80 GHz band should accommodate co-primary, flexible use detailed in the FNPRM, but should respect the overwhelming success of the current registration/licensing regime.
4. The SAS is not needed in this band. The concept is new, unproven and complex while the current coordination process for 70/80 GHz is mature, works well, and there are few, if any, reports of interference for almost 13,000 registered paths.

REMEC believes that it is imperative that a smaller fixed antenna (38 dBi) should be allowed as an update to part 101, and as has previously been proposed in the waiver by Aviat Networks, Inc. dated April 5, 2013, and followed up later by other interested parties. Because of the structure stability limitations of telephone poles, light standards and monopoles antenna relaxation to 38 dBi would permit wider beamwidths of approximately 2.4 degrees, opening up huge opportunities for deployment for both mobile operators offering advanced LTE and 5G services and public / private operators who currently do not have access to ultra high capacity broadband services. This request is in line with operation other FCC bands, as well as regulations in other regions, e.g., Canada and Europe. Existing regulations can be met with smaller 38 dBi fixed antennas.

Sincerely,

REMEC BROADBAND WIRELESS NETWORKS, LLC

A handwritten signature in blue ink, appearing to read 'J. Hamdani', written over a horizontal line.

Jamal Hamdani
Chief Executive Officer