



QUALCOMM Incorporated

1730 Pennsylvania Ave., NW ■ Suite 850 ■ Washington, DC 20006 ■ Tel: 202.263.0020 www.qualcomm.com

March 8, 2018

Ex Parte Notice

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

Re: Promoting Investment in the 3550-3700 MHz Band – GN Docket No. 17-258

Dear Ms. Dortch:

On March 6, 2018, Qualcomm had a telephone meeting with representatives from the Commission's Office of Engineering and Technology to discuss the FCC's proposed revisions to the emissions limits for the 3.5 GHz band in the above docket. Qualcomm was represented on the call by Gene Fong, Marco Papaleo, Pushp Trikha, and the undersigned. The FCC was represented by Julius Knapp, Robert Pavlak, and Walter Johnston.

Qualcomm presented the simulation results in the attached deck, which show that implementation of the Qualcomm emissions proposal cures the problem in the current FCC rules that require significant automatic power reduction for user equipment ("UE") operating with a channel bandwidth wider than 10 MHz, while the so-called graduated emissions proposal provides less relief. We discussed the tradeoffs involved in revising the emissions mask — the need to fully protect operations in adjacent bands, the need to avoid imposing an undue power reduction penalty on UEs operating with a channel bandwidth wider than 10 MHz, and the need to avoid allowing any undue noise within the 3.5 GHz band. Qualcomm noted that its emissions proposal does not lessen the relative value of any of the 3.5 GHz channels.

Enabling both 4G and 5G operations in the 3.5 GHz band using channel bandwidths greater than 10 MHz, without requiring any undue power reduction for UEs, without unduly impacting operations on adjacent channels within the 3.5 GHz band, and without causing any harmful impact on operations in adjacent bands, is key to delivering the best possible mobile broadband service for consumers while maintaining the value of all the channels in the band. Qualcomm explained that balancing the multiple factors in play leads to the conclusion that the Commission should adopt Qualcomm's proposal because it will enable improved wireless coverage, protect the utility of the band for both 4G and 5G, and avoid interference to other users. Qualcomm's proposal is especially important because 3.5 GHz is a key spectrum band around the world for 5G, which will use bandwidths much wider than 10 MHz.

Qualcomm noted that it provided this summary of the attached simulation results in its Comments and Reply Comments in this docket: The graduated emissions proposal requires a transmit power reduction that exceeds the power reduction required by the Qualcomm proposal

of as much as 2.5 dB for 20 MHz channels, 1.3 dB for 30 MHz channels, and 0.8 dB for 40 MHz channels.

Finally, Qualcomm explained that its emissions mask proposal would maintain the -40 dBm/MHz additional protection level in FCC Rule Section 96.41(e)(2), so there would not be any increased negative impact to the incumbent operations in the spectrum bands below and above the 3.5 GHz band.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'D. Brenner', with a stylized flourish at the end.

Dean R. Brenner
Senior Vice President, Spectrum Strategy &
Technology Policy

John W. Kuzin
Vice President and Regulatory Counsel

Att.

cc: Julius Knapp
Walter Johnston
Robert Pavlak