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Subject:	RE: Google LLC series of filings
Date:	Tuesday, January 29, 2019 3:23:00 PM

Dear Joanna

Thank you for all the responses to previous questions. As we discussed the Part 27 reports for bands 38/41/17 have not used the correct bandwidth when evaluating emissions more than 1MHz from the block (channel) edge. Depending on the emission bandwidth, the report uses measurements bandwidths of 100kHz, 200kHz, 300kHz or 500kHz at different offsets from the band edge.

Under Part 27 the reference bandwidth for measurements more than 1MHz from the channel edge is 1MHz except for the 1 megahertz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least two percent may be employed, except when the 1 megahertz band is 2495-2496 MHz, in which case a resolution bandwidth of at least one percent may be employed.

While the rules do allow for a narrower resolution bandwidth the measured power has to be corrected / integrated over the full required measurement bandwidth (*i.e. 1 megahertz or 2 percent for mobile digital stations, except in the band 2495-2496 MHz*). The correction factor to adjust a measurement bandwidth of 100kHz (the narrowest bandwidth used) to a reference bandwidth of 1 MHz is 10 log (1 MHz / 100kHz) = +10dB (refer ANSI C63.26 section 4.2.3). Since all emissions measured have a margin of at least 20dB without correction, and given that the worst case correction factor to apply to the measured values would be +10dB, the data provided does demonstrate that the device has at least a 10dB margin to the limits at the block / band edges.

This correspondence will be uploaded to the FCC filing for the PCE equipment code to ensure labs or others reviewing the data understand that compliance has been demonstrated after accounting for the appropriate bandwidth correction factors.

Best regards,

Mark

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