



**QUALCOMM Incorporated**

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March 12, 2014

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

**Re: Expanding the Economic and Innovation Opportunities of  
Spectrum Through Incentive Auctions -- GN Docket No. 12-268**

Dear Ms. Dortch:

On March 10, 2014, Dean Brenner, Sumit Verma, Kent Walker, and the undersigned of QUALCOMM Incorporated (“Qualcomm”) presented the slides that Qualcomm filed in the above-referenced docket on February 19, 2014, to the following FCC staff: Gary Epstein, Howard Symons, Martin Doczkat, Chris Helzer, Matthew Hussey, Ira Keltz, Julius Knapp, Paul Malmud, Geraldine Matise, Paul Murray, Robert Weller, Blaise Scinto, and Edward Smith.

During the course of the conversation, we explained our analysis of the January 30, 2014, Google/Broadcom *ex parte* filing and made some minor clarifications to our slides, which are listed below and do not in any way change any of our conclusions:

The following text on Slide 2 should be modified as follows:

- There are several other potentially relevant use cases
  - TVBD portable device uplink blocking of LTE UE at 5 MHz band edge separation, Case 1
  - TVBD portable device uplink device blocking LTE UE at 10 MHz or greater band edge separation, Case 2
  - TVBD base station blocking of LTE UE at 5 MHz band edge separation, Case 1
  - TVBD base station blocking LTE UE at 10 MHz or greater band edge separation, Case 2

On slides 5 and 7, the text in the upper right corner: “Up to 7.5 MHz,” should be replaced with “5 MHz,” and on slides 6 and 8, the text in the upper right corner: “Up to 12.5 MHz,” should be replaced with “10 MHz or greater.”

The following sentence in the middle of slide 9 should be modified as follows:

It should be noted that, strictly speaking, if the frequency separation narrows to 5 MHz, the blocking requirement becomes 12 dB more relaxed for the UE (-56 dBm) and even a very optimistic set of assumptions does not allow this to function.

These minor clarifications (which follow the letter of the 3GPP specification) have no effect on Qualcomm’s conclusion that an 8 MHz band edge separation is required due to the limitations of expected 600 MHz user equipment filter performance and antenna performance. Moreover, the more stringent Case 2 requirement at a narrower 8 MHz band edge separation is

used, even though, strictly speaking, it is specified only for 10 MHz or greater band edge separation in 3GPP as clarified above.

Indeed, Qualcomm explained during the meeting that these clarifications do not alter the overall conclusions set out in the slide deck, namely that inserting unlicensed services in the 600 MHz band — without unduly expanding the size of the guard band(s) and duplex gap (and thus violating the voluntary incentive auction statute) — will impair the adjacent mobile spectrum blocks and effectively destroy the fungibility of the licensed mobile spectrum that the FCC is working so hard to repurpose through the upcoming voluntary incentive auction.

Respectfully submitted,

*John W. Kuzin*

John W. Kuzin

Senior Director, Government Affairs – Regulatory

cc (via email) Gary Epstein  
Howard Symons  
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