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March 28, 2014

VIA ELECTRONIC FILING

Ms. Marlene Dortch
Secretary
Federal Communications Commission
445 12th 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:

This letter responds to GE Healthcare's ("GEHC") March 7, 2014 letter, which was filed after Broadcom initiated two discussions with GEHC to promote a collaborative approach to addressing Channel 37 sharing opportunities. During those conversations, Broadcom assisted GEHC in understanding Broadcom's technical analysis and sought to better understand wireless medical telemetry service ("WMTS") design and ways in which unlicensed devices can operate in Channel 37 without harmful interference.

Based on the parties' discussions (and GEHC's letter itself) this much is clear to Broadcom: use of a geo-location database and a technically reasonable protection radius will allow unlicensed devices to coexist safely with WMTS in Channel 37. Based on the estimated number of hospitals operating WMTS equipment in the United States, it would not be unreasonably challenging to map such equipment to enable protection through database techniques and exclusion zones. Although the parties are still determining the appropriate assumptions to be made in calculating the size of exclusion zones, the viability of this solution is not reasonably in doubt. As such, the Commission should issue an order finding that sharing in Channel 37 appears to be feasible, subject to appropriate technical rules.

To respond briefly to the various points made by GEHC in its letter, Broadcom believes that the appropriate propagation model and underlying assumptions to be used in determining exclusion zone size will vary according to the environment in which the WMTS equipment is operating. Broadcom's January 17, 2014 filing focused on hospitals operating in cluttered urban environments because they are the areas in which the Channel 37 spectrum would most likely be needed to support unlicensed devices. In rural areas, there will likely be a sufficient number of other channels available for unlicensed use. As such, Broadcom recommends an initial focus on the major urban areas.

Broadcom and GEHC agree that WMTS plays a significant and vital role in our nation's healthcare operations, and that it must be protected appropriately. GEHC's approach, however,



is to employ misleading and unrealistic manipulations of path loss models (including the WINNER stochastic models and parameters) to arrive at large separation distances to effectively prohibit *any* use of unlicensed devices in Channel 37. Broadcom believes that instead of using questionable worst-case scenarios to dictate prohibitive separation distances in all cases and environments, the right approach is to consider average expected path loss and add margin to increase protection. This approach would promote the Commission's goal of maximizing spectrum utility while respecting the need for WMTS equipment to operate without interference. Our analysis shows that adding margin for location accuracy (50 meters) as well as margin for shadowing would result in a protection radius of approximately 200 meters in urban areas.

WMTS can be adequately protected from unlicensed devices operating in Channel 37 if the Commission provides for a geo-location database and technically reasonable exclusion zones. Broadcom urges the Commission to allow for sharing in Channel 37 subject to rigorous technical analysis and the issuance of appropriate technical rules established by FCC staff based on such analysis. We look forward to working with the Commission should it have any questions with respect to this filing.

Sincerely,

/s/ Jennifer K. Bush

Jennifer K. Bush
Associate General Counsel
Broadcom Corporation