3.65-3.70 GHz Experimental License Application

1 Introduction

Qualcomm's technologies powered the smartphone revolution and connected billions of people. We pioneered 3G and 4G – and now we are leading the way to 5G and a new era of intelligent, connected devices. Our products are revolutionizing industries, including automotive, computing, IoT, healthcare and data center, and are allowing millions of devices to connect with each other in ways never imagined. Qualcomm Incorporated includes our licensing business, QTL, and the vast majority of our patent portfolio. Qualcomm Technologies, Inc., a subsidiary of Qualcomm Incorporated, operates, along with its subsidiaries, all engineering, research and development functions, and our products and services businesses, including, our QCT semiconductor business. For more information, visit Qualcomm's website, OnQ blog, Twitter and Facebook pages.

Qualcomm is conducting R&D testis in the range of 3650-3700 and is requesting this experimental license to assist it further in the development, validation, and demonstration of this new technology.

2 Transmitter Information

Experimental tests will be conducted in and around two areas around Qualcomm buildings shown in figure 1 and described in table 1.

The experiment uses LTE TDD base stations transmitting a 5 to 20MHz LTE signal within the band 3.65-3.70 GHz. Mobile devices operate in close proximity of the LTE base stations. The downlink and uplink operate on the same frequency at the minimum transmit power required for the development work.

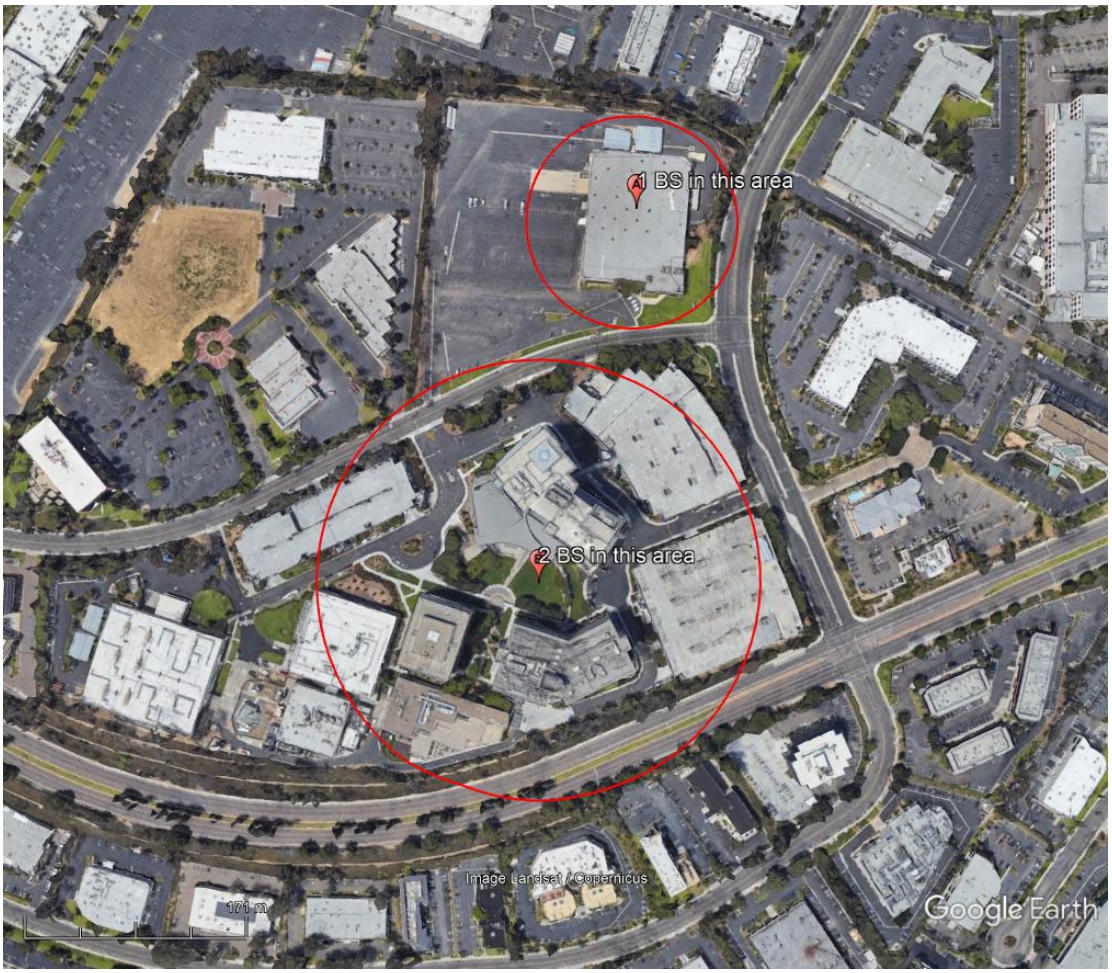

Figure 1. Sorrento Valley, San Diego, CA region of operations.

The base-station transmitters are located within the contours shown and have a maximum EIRP of 30dBm each. When located inside building BC up to 10dB of attenuation is expected.

Table 1 indicates the site and antenna information and table 2 defines the transmitter information.

Address of transmitters	County	Latitude (center)	Longitude (center)	Description
Qualcomm Building BC 5770 Morehouse Drive San Diego CA 92121	San Diego, California	32°53' 52.15" N	117°11'46.74" W	base-stations (H<3m) located inside or around the building which is centered on the above coordinates
Qualcomm Building N Courtyard 5775 Morehouse Drive San Diego CA 92121		32°53' 43.90" N	117°11'44.00" W	base-stations (3 <H< 20m) are located inside or on buildings within the contour shown centered on the above coordinates

Table 1 Site and antenna information

Type	Frequency range (GHz)	Peak EIRP dBm	Peak EIRP dBW	W EIRP	W ERP	Emission designator
10, Experimental Base and user stations	3.65-3.70	30	0	1	0.61	5M0W7D 10M0W7D
	3.65-3.70	23	0	0.2	0.36	5M0W7D 10M0W7D

Table 2 Transmitter Information

3 Interference Coordination

Immediate requests for Qualcomm to stop transmission should be emailed to qualcomm.transmitter.shutdown@qualcomm.com. Alternatively, a shutdown request can be communicated to John Forrester of Qualcomm who can be contacted at 858-845-7428 and jforrest@qti.qualcomm.com.