



3.3 - 3.45 GHz Experiment Description

Introduction

Qualcomm is the world's leading wireless technology innovator and the driving force behind the development, launch and expansion of 5G. When we connected the phone to the internet, the mobile revolution was born. Today, our foundational technologies enable the mobile ecosystem and are found in every 3G, 4G and 5G smartphone. We bring the benefits of mobile to new industries, including automotive, the internet of things and computing, and are leading the way to a world where everything and everyone can communicate and interact seamlessly.

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, substantially all of our engineering, research and development functions, and substantially all of our products and services businesses, including our QCT semiconductor business. For more information, visit www.qualcomm.com.

This experimental application is requested to support multiple terrestrial R&D projects and limited testing with UAS (Unmanned Aircraft System) systems.

The requested frequency range of 3.3-3.45 GHz is for technology development purposes only and not an indication of an effort for future wireless communication deployment in this range in the United States at this time.

Experiment Description and Transmitter Information

Various R&D testing will be completed within a 2 mile radius in San Diego, as noted in Table 1 and Figure 1 below, using transmitters with maximum EIRP no greater than 27.8 dBm EIRP. Transmission systems may be 4G, 5G, or new schemes operating with RF channel bandwidths from 5 MHz to 100 MHz. These systems may operate 24 hours per day, 7 days per week.

The UAS communications development testing in the 3.3-3.45 GHz spectrum will use up to 12 terrestrial mobile devices and 1 airborne mobile device. The transmit power of each of these devices will operate within the specifications defined in Table 1. The channel bandwidth for each device in this experiment will be bounded by 5 MHz (minimum) and 100 MHz (maximum). The maximum airborne device altitude is 150m above ground level (AGL) and uses omni directional antennas. UAS testing will be infrequent where the test systems are only active during testing and disabled when not in use. This testing will be actively managed and supervised; it will not be automated.



Device Name	Quantity	Longitude / Latitude	TX EIRP (dBm)	TX ERP (mW)	Antenna AGL (MAX, m)	Maximum Channel BW (MHz)
Terrestrial device	12	Within 2 miles of 32 58 07 N / 117 05 51 W	30	607	2	100
Airborne device	1	Within 2 miles of 32 58 07 N / 117 05 51 W	30	607	150	100

Table 1: Transmitter Information

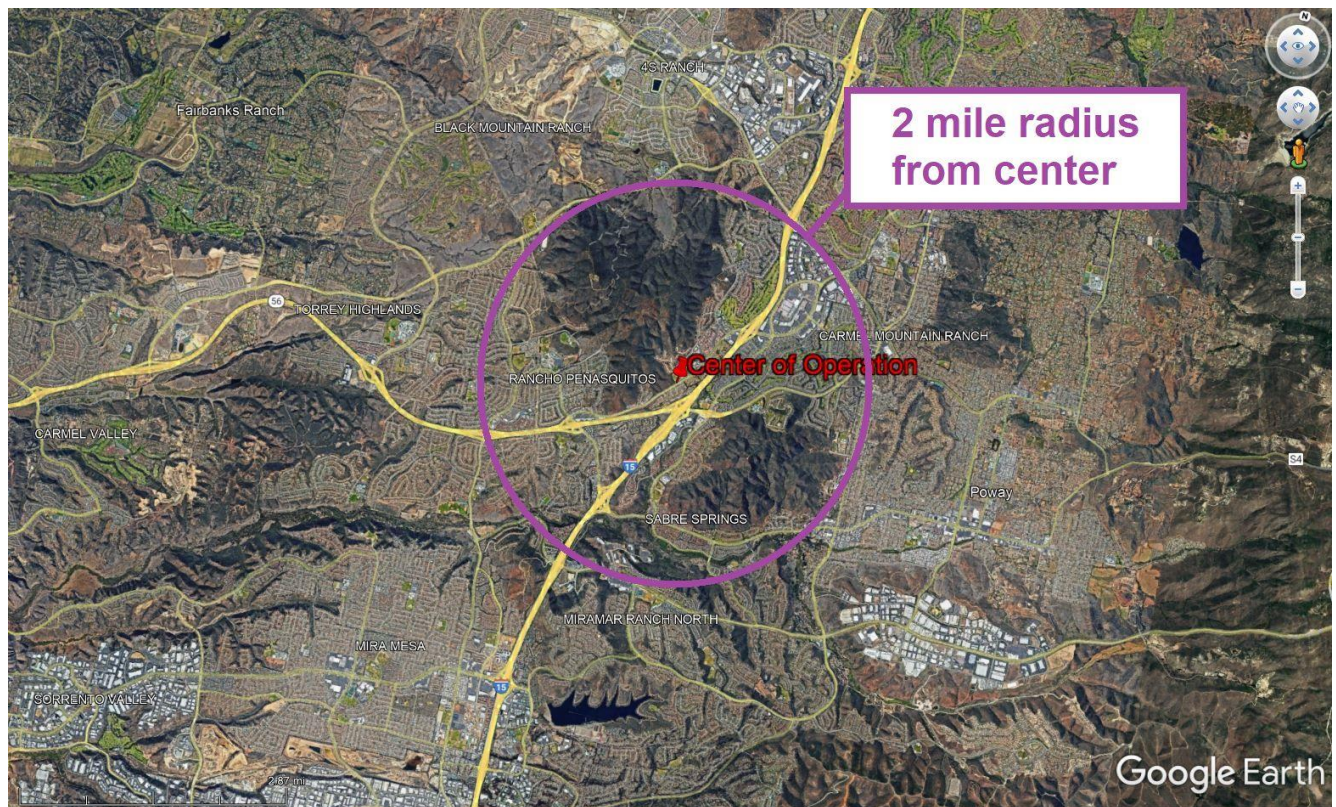


Figure 1: Location of terrestrial and airborne devices, (Within 2 miles of BLDG N, Long/Lat (32 58 07 N / 117 05 51 W))

Interference Coordination

Immediate requests for Qualcomm to stop transmission should be emailed to 3.4GHz.OTA.shutdown@qualcomm.com. Alternatively, a shutdown requested can be submitted through John Forrester who can be contacted at 858-845-7428 or jforrest@qti.qualcomm.com