

## QUALCOMM 700 MHz Experiment Description

### 1 Introduction

Qualcomm Incorporated (NASDAQ:QCOM - News) is the world leader in 3G and next-generation mobile technologies. For 30 years, Qualcomm ideas and inventions have driven the evolution of wireless communications, connecting people more closely to information, entertainment and each other. Today, Qualcomm technologies are powering the convergence of mobile communications and consumer electronics, making wireless devices and services more personal, affordable and accessible to people everywhere. For more information, please visit [www.qualcomm.com](http://www.qualcomm.com).

### 2 Experiment Description

QUALCOMM will perform developmental testing and demonstration of new R&D technologies using 700 MHz frequencies for LTE and next generation technologies.

Given the rapid development of next generation wireless systems, QUALCOMM requires a flexible experimental license for the 700 MHz band that allows testing of different technologies and the ability to quickly change network configurations as technical requirements change. Qualcomm also routinely supports demonstrations for government and private entities and requires the ability to support these demonstrations on short notice.

Qualcomm has two similar flexible experimental licenses for the cellular band (call sign KM2XJY), PCS band (call sign KK2XBJ), and the AWS band (call sign WE2XF0). Since 1992, Qualcomm has successfully worked closely with the licensed spectrum owners to coordinate usage and allow experimental activities without impacting commercial licensed services. Where necessary, these coordination efforts have included formal interference analysis reports from 3<sup>rd</sup> parties that result in carefully designed RF networks to prevent interference to commercial services.

Test and demonstrations will occur at any location within the United States in support of, but not limited to, government agencies, private companies, and tradeshow. These demonstrations are low power setups designed to provide only a small coverage area. Consent with the respective license owner will be obtained prior to any transmission.

### 3 Frequency, Power, Location Information

**Error! Reference source not found.** summarizes the locations, frequencies, and transmit requested in this license application for San Diego. The parameters represent the worst case deployment values for a given site. The actual transmit powers and frequencies used will be depended on R&D requirements, interference considerations, and agreements with the respective license owners. The maximum transmit powers requested in this application are equal or less then that allowed in CFR 47 Part 27.

The maximum occupied bandwidth for each frequency range is 20 MHz but operational bandwidths down to 1.25MHz are possible. The form 442 lists the worst case of 12 MHz. Typical modulation is OFDM.

**Table 2 United States Transmit Frequency and Power Information**

Frequency	Transmitter Type	Experimental License ERP (W)	Experimental License ERP (dBm)	Experimental License EIRP (W)	Experimental License EIRP (dBm)
698-746 MHz	Mobile/Fixed	3	34.8	5	36.9
746-757 MHz	Mobile/Fixed	3	34.8	5	36.9
776-787 MHz	Mobile/Fixed	3	34.8	5	36.9

#### **4 Frequency Coordination**

Prior to transmission, QUALCOMM will coordinate with licensees affected by the proposed networks. If necessary, QUALCOMM will complete internal or external frequency analysis to demonstrate R&D or demonstration activities contribute no interference to licensed services.