

A. Applicant's Qualifications

QUALCOMM Incorporated (www.qualcomm.com) is a leader in developing and delivering innovative digital wireless communications products and services based on CDMA and other advanced technologies. Headquartered in San Diego, Calif., QUALCOMM is included in the S&P 500 Index and is a 2006 FORTUNE 500® company traded on The Nasdaq Stock Market® under the ticker symbol QCOM.

B. Introduction

This experimental license increases the TX power for two in license file 0016-EX-ML-2008 (call sign WE2XFL) that currently authorizes transmission on the requested frequencies. The network is designed to confine the test signals in a small area around Qualcomm buildings and add interference to any TV stations using the spectrum per OET69 interference analysis.

D. Experimentation Proposal

QUALCOMM is expanding its technology with the emergence of new applications for wireless technology in the 700 MHz band. QUALCOMM has successfully developing this new FLO (Forward Link Only) technology while operating under experimental license call sign WE2XFL. This modification to the existing license will add 3 sites that utilize frequencies already used by the experimental licensed.

For this testing, the mobile receiver units operate in a receive mode only. The only transmitters associated with this license application are located at the fixed sites detailed below.

The test transmitters deployed have a maximum of 8MHz bandwidth. The proposed spectrum to support this testing is allocated to licensed Broadcast TV stations that are divided into 6 MHz channels.

Since the 8MHz BW is greater than the 6 MHz TV channels allocated by the FCC, Qualcomm has identified four frequencies for use what will each overlap two TV channels. Ch 52 is a 6 MHz bandwidth system only. Qualcomm has selected these frequencies and power levels after performing an interference analysis report for each effected TV channel. When the Qualcomm system is deployed, the test transmitter will be centered in the middle of two adjacent TV channels as shown in Figure 1.

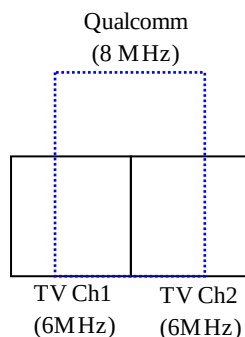


Figure 1: Frequency Overlap

The sites parameters were tested after an interference analysis was performed using the requested peak ERP centered on each TV channel overlapped by the Qualcomm MediaFlo transmitter to present the worst case in-band interference possibility. The four frequencies requested in this application were selected when two adjacent TV channels each resulted in adding 0.00% interference caused to TV stations by the Qualcomm transmitter centered on each channel.

Below, Table 1 and Table 2 summarize Qualcomm's existing license parameters. Table 3 lists the two modified sites where the ERP is increased to 160W ERP.

Table 1: Existing Test Frequencies and Locations

Affected TV Channels	TV Channel Frequency Range	Qualcomm Center Frequency	Max BW (MHz)	Qualcomm Low/High Frequencies	Sites
44	650-656	650	8	650-656 MHz	Building X
52	698-704	701	6	698-704 MHz	Building A
61 62	752-758 758-764	758	8	754 - 762 MHz	Building X
63 64	764-770 770-776	770	8	766 - 774 MHz	Building A Building AA Building AA Building E Building N Building X

Table 2: Existing Transmitter Parameters

Location Name	Lat (N)	Long (W)	Address	Azimuth	RC-AMS L (m)	Down Tilt (degrees)	Antenna Make	Conducted Power (W)	Antenna Gain (dBd)	ERP (W)
Building A	32 53 50.4	117 13 7.5	10555 Sorrento Valley Rd, CA 92121	0	25.28	0	Omni	19.01	6.24	80
Building E	32 52 47.4	117 12 9	4875 Eastgate Mall, San Diego, CA 92121	300	132.63	5	CL-1469B	12.69	8	80.1
Building E	32 52 47.4	117 12 9	4875 Eastgate Mall, San Diego, CA 92121	0	132.63	5	CL-1469B	12.69	8	80.1
Building X	32 54 18.5	117 11 13.2	10309 Pacific Center Ct, San Diego, CA 92121	235	116.24	0	CL-1469B	23.81	8	150.2
Building AA	32 53 27.66	117 13 23.28	10290 Campus Point Dr, San Diego, CA 92121	90	98.5	0	CL1469	19.01	6.24	80
Building AR	32 54 53.30	117 13 42.19	10945 Vista Sorrento Pkwy	Omni	69	0	Omni	19.01	6.24	80
Building N	32 53 45.64	117 11 43.18W	5775 Morehouse Dr, San Diego, CA 92121	270	168	0	CL1469	19.01	6.24	80

Table 3: Modifications for Channel 63 and 64:

Location Name	Lat (N)	Long (W)	Address	Azimuth	RC-AMSL (m)	Down Tilt (degrees)	Antenna Make	Conducted Power (W)	Antenna Gain (dBd)	ERP (W)
Building AA	32 53 27.66	117 13 23.28	10290 Campus Point Dr, San Diego, CA 92121	90	98.5	0	CL1469	38	6.24	160
				340						

Site Name		AA	AA
Lat		32 53 27.66	32 53 27.66
Long		117 13 23.28	117 13 23.28
FCC Question			
1. Channel number.		63, 64	63, 64
2. Antenna location site elevation above mean sea level in meters.		98.5	98.5
3. Overall tower height above ground level in meters.		50	50
4. Height of radiation center above ground level in meters.		148.5	148.5
5. Maximum effective radiated power in kilowatts.		0.08	0.08
6. Transmitter output power in kilowatts.		0.0127	0.0127
7. Verify that the antenna is nondirectional.		directional (90 deg)	directional (340 deg)
8. If the antenna is directional, report the relative field values starting at 0 through 350 every 10 degrees.	Angle (deg)	Rel.FS- Building E	Rel.FS- Building E
	0	0.01	0.812
	10	0.01	0.622
	20	0.01	0.361
	30	0.01	0.086
	40	0.086	0.01
	50	0.361	0.01
	60	0.622	0.01
	70	0.812	0.01
	80	0.947	0.01
	90	1	0.01
	100	0.947	0.01
	110	0.812	0.01
	120	0.622	0.01
	130	0.361	0.01
	140	0.086	0.01
	150	0.01	0.01
	160	0.01	0.01
	170	0.01	0.01
	180	0.01	0.01
	190	0.01	0.01
	200	0.01	0.01
	210	0.01	0.01
	220	0.01	0.01
	230	0.01	0.01
	240	0.01	0.01
	250	0.01	0.01
	260	0.01	0.01
	270	0.01	0.01
	280	0.01	0.01
	290	0.01	0.086
	300	0.01	0.361
	310	0.01	0.622
	320	0.01	0.812
	330	0.01	0.947
	340	0.01	1
	350	0.01	0.947
9. If the emissions are digital, then report the out-of-band emission mask (simple or stringent).			
10. If the emissions are analog, then report the frequency offset (zero, plus, minus or none).			

