

2.10 Band Edge Measurements

Band Edge measurements were made at a Low Channel and High Channel peak at highest EUT related emission outside the occupied bandwidth. A peak measurement was made of the fundamental, and the emission was measured using a peak setting. A Resolution Bandwidth of $> 1\%$ of the emission bandwidth was used. This procedure was repeated for the high channel.

The plots shown were verified to be from the antenna used, using a 17 foot, Flexco cable and Horn Antenna. No preamp was used.

The limits were derived as follows:

High Bandedge

$$5000 \text{ uV/m} = -21.2 \text{ dBm}$$

$$-21.2 \text{ dBm} - 31.8 \text{ dB (antenna factor and cable loss)} = -53.0 \text{ dBm limit}$$

Fundamental measured at High Channel from Table 4c: -31.0

Delta from conducted measurement of band edge from fundamental peak to highest spur 10 MHz outside band edge: -50.87

$$(-31.0) - 50.87 = -81.77$$

Low Bandedge

$$-21.2 \text{ dBm} - 31.6 \text{ dB (antenna factor and cable loss)} = -52.8 \text{ dBm limit}$$

Fundamental measured at Low Channel from Table 4c: -33.2

Delta from conducted measurement of band edge from fundamental peak to highest spur 10 MHz outside band edge: -59.86

$$(-33.2) - 59.86 = -93.06$$

Figure 6a. Band Edge Compliance
Antenna Conducted, High Channel

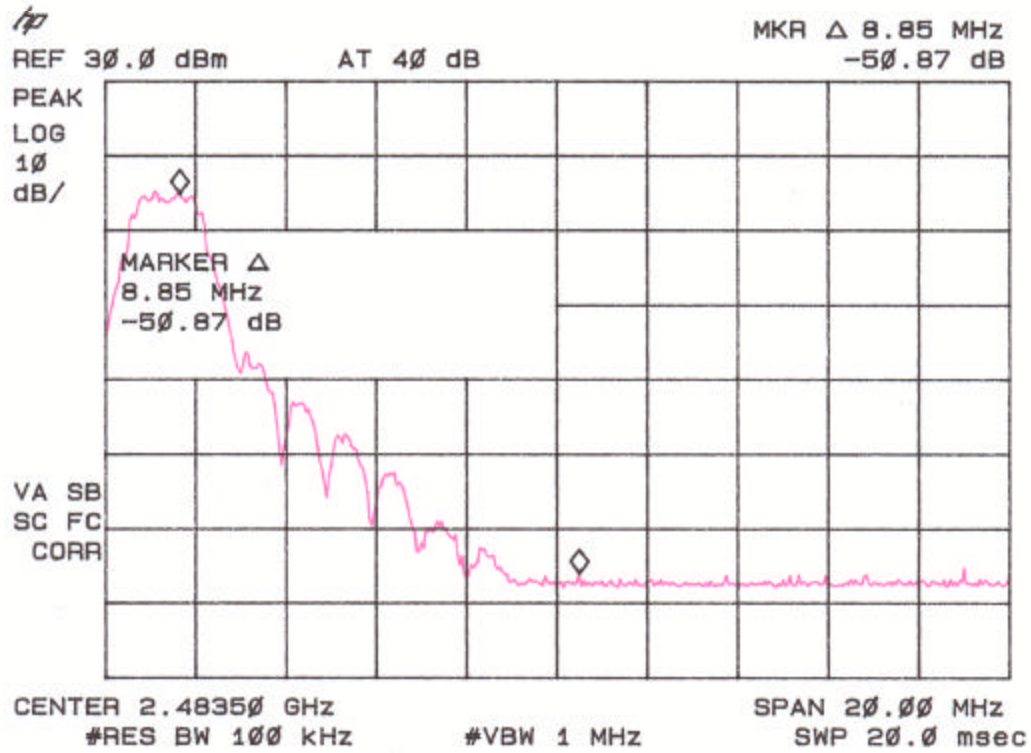
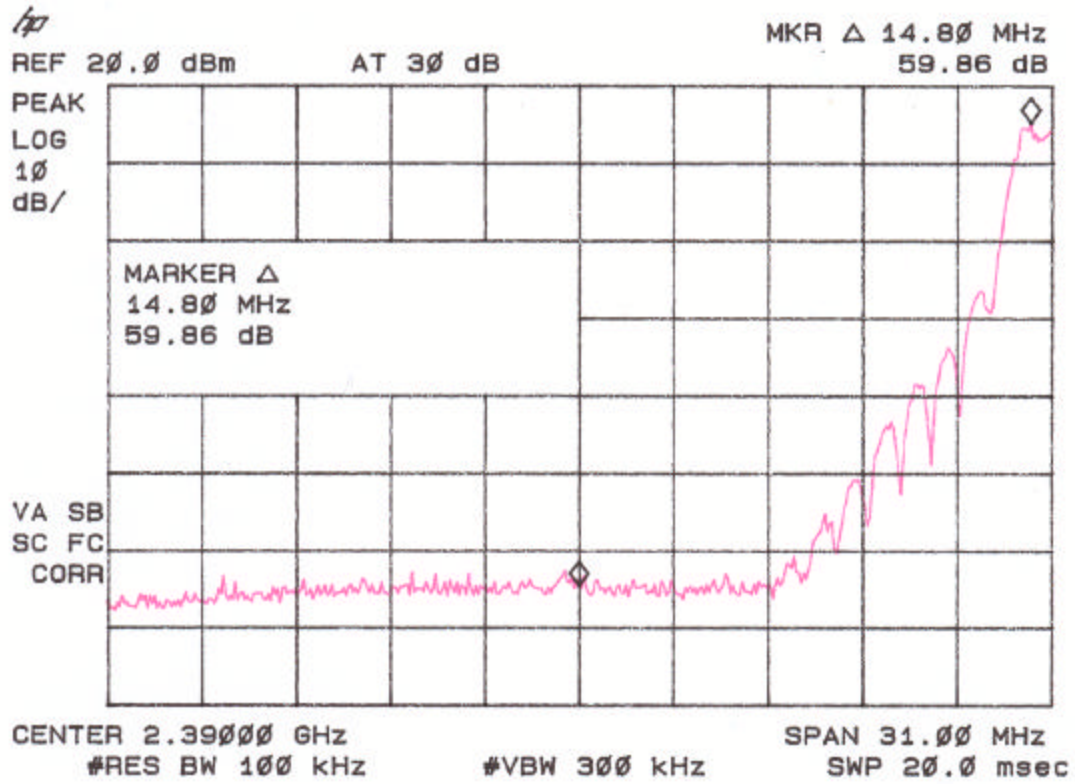


Figure 6b. Band Edge Compliance
Antenna Conducted, Low Channel



2.11 6 dB Bandwidth per FCC Section 15.247(a)(1)(ii)

The antenna port was connected to a spectrum analyzer that was set for a 50 Ω impedance with the RBW = approximately 1/100 of the manufacturers claimed RBW & VBW > RBW. The results of this test are given in Table 6 and Figure 7.

TABLE 6
6 dB Bandwidth

Test Date: July 25, 2006
UST Project: 06-0159
Customer: Cirronet Corporation
Model: EM2420HP Zigbee Radio

Frequency (GHz)	6 dB Bandwidth (MHz)	FCC LIMIT >= (kHz)
2.404588	1.59	500
2.444605	1.58	500
2.480105	1.60	500

Tester**Signature:** **Name:** Austin Thompson

Figure 7a.
 6 dB Bandwidth per FCC Section 15.247(a)(1)(ii) Low

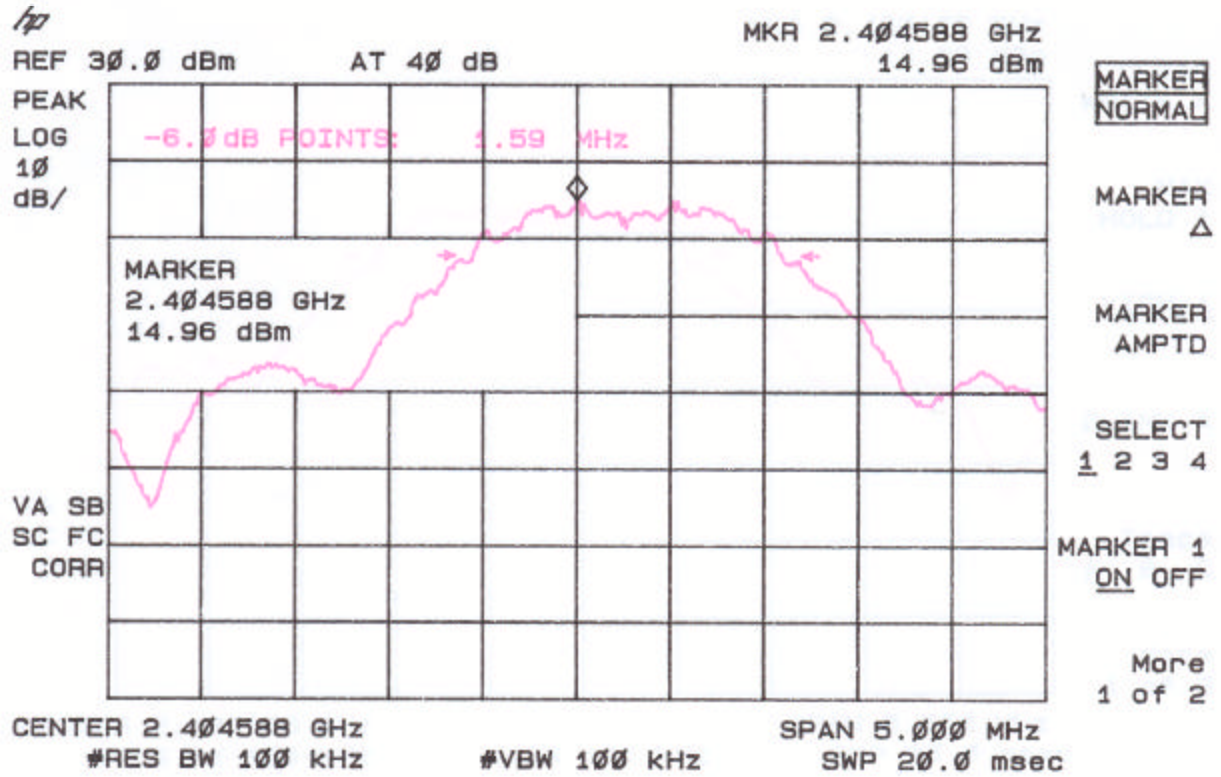


Figure 7b.
 6 dB Bandwidth per FCC Section 15.247(a)(1)(ii) Mid

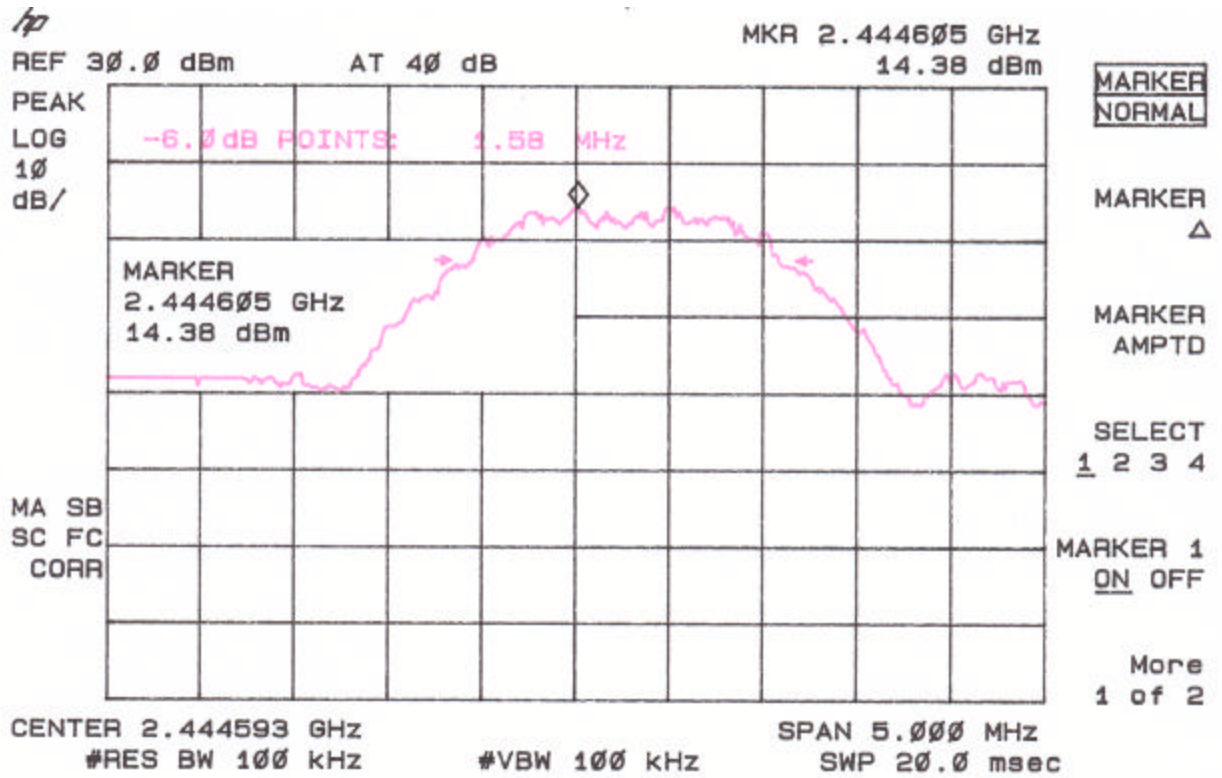


Figure 7c.
6 dB Bandwidth per FCC Section 15.247(a)(1)(ii) High

