

## **2.11 Minimum 6 dB Bandwidth per FCC Section 15.247(a)(2)**

The minimum requirement is given in Figure 7a through 7f. If the EUT incorporates different spreading codes or data rates these were each investigated and the one which produced the smallest 6 dB bandwidth was selected for test.

Figure 7a.  
6 dB Bandwidth per FCC Section 15.247(a)(2) (Antenna A - Low)

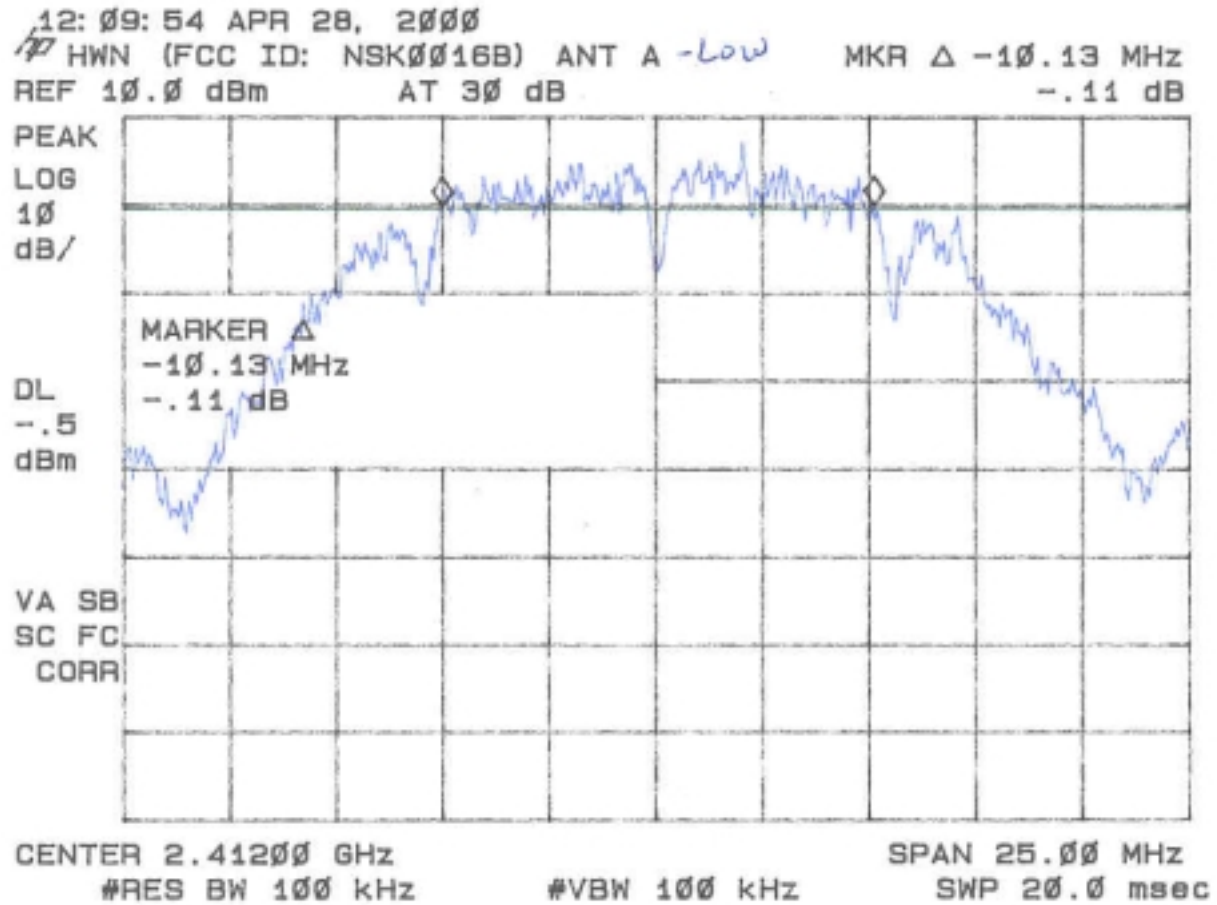


Figure 7b.  
6 dB Bandwidth per FCC Section 15.247(a)(2) (Antenna A - Mid)

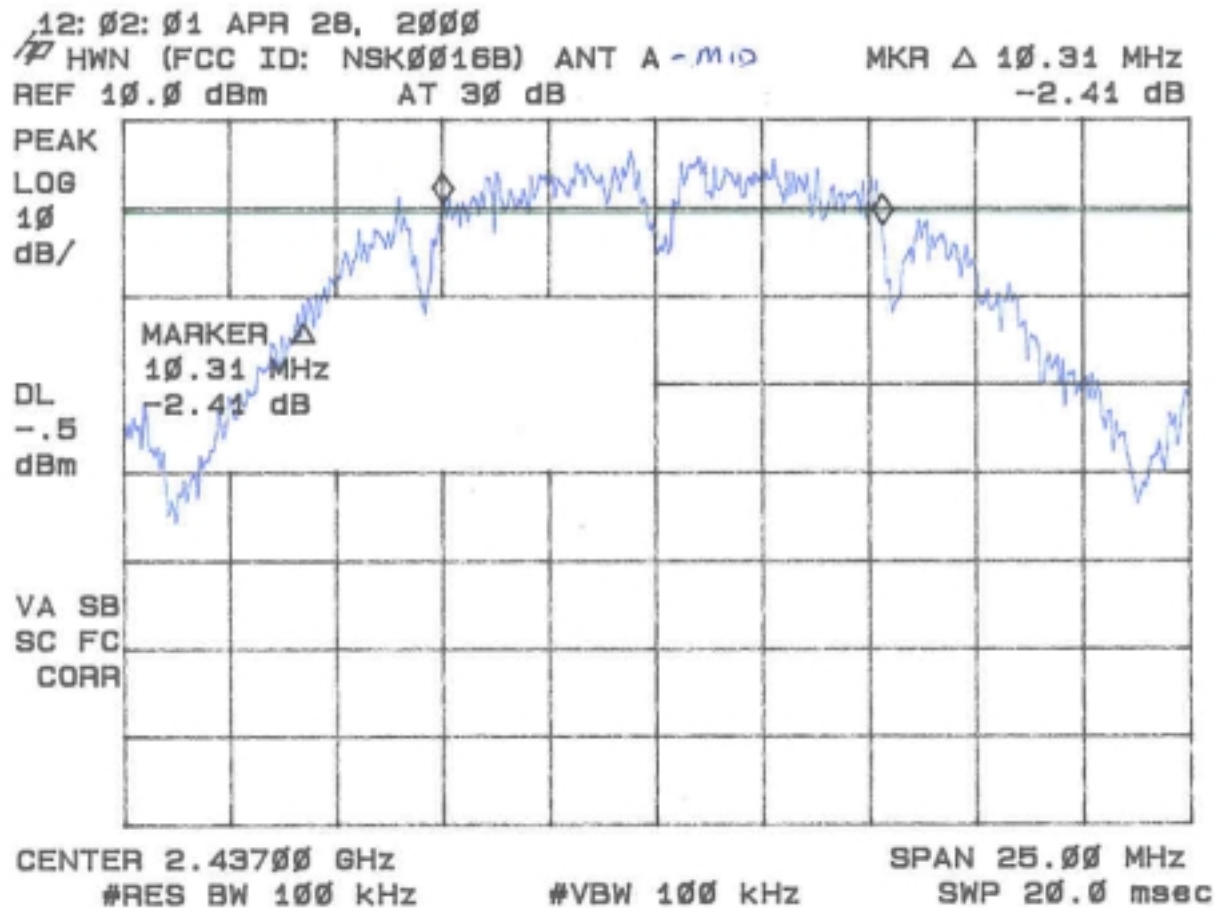


Figure 7c.  
6 dB Bandwidth per FCC Section 15.247(a)(2) (Antenna A - High)

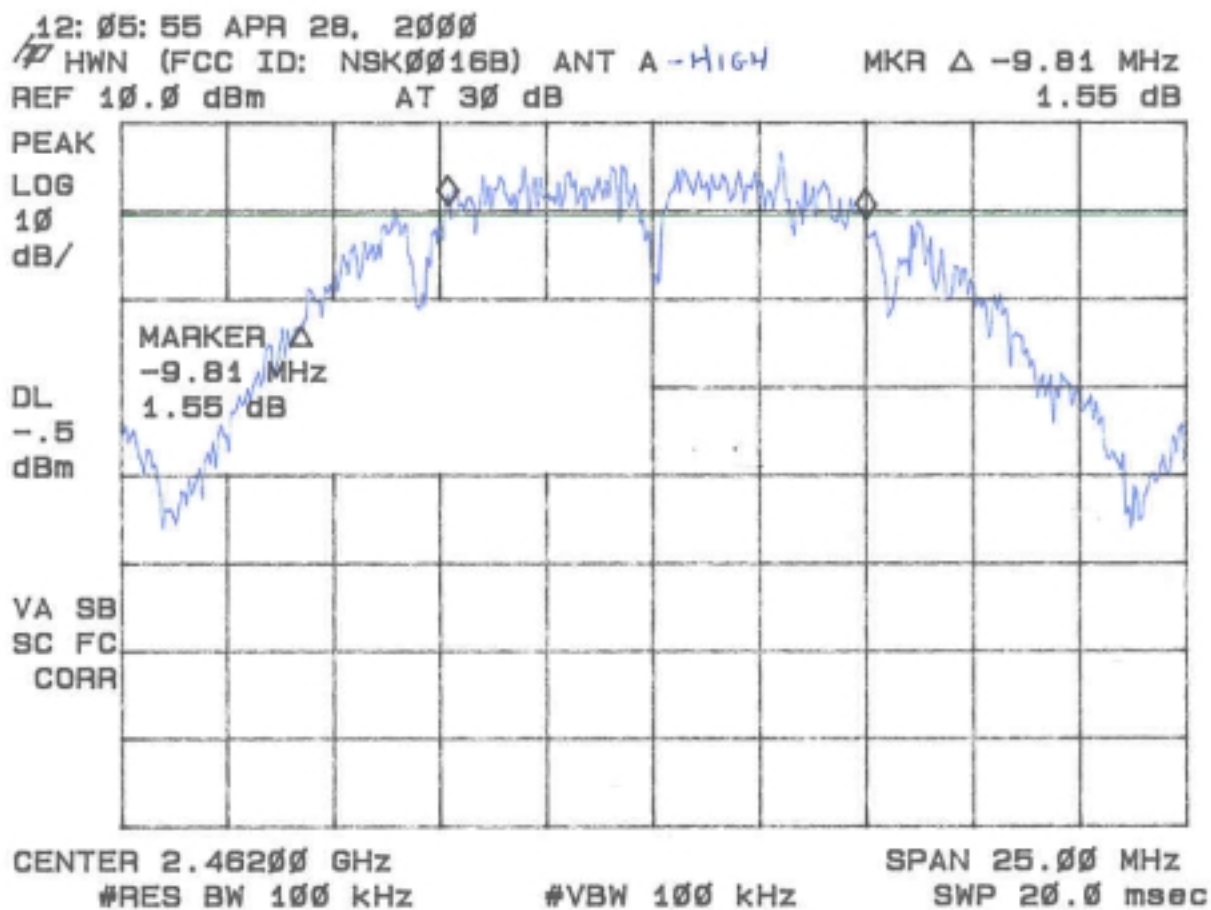


Figure 7d.  
6 dB Bandwidth per FCC Section 15.247(a)(2) (Antenna B - Low)

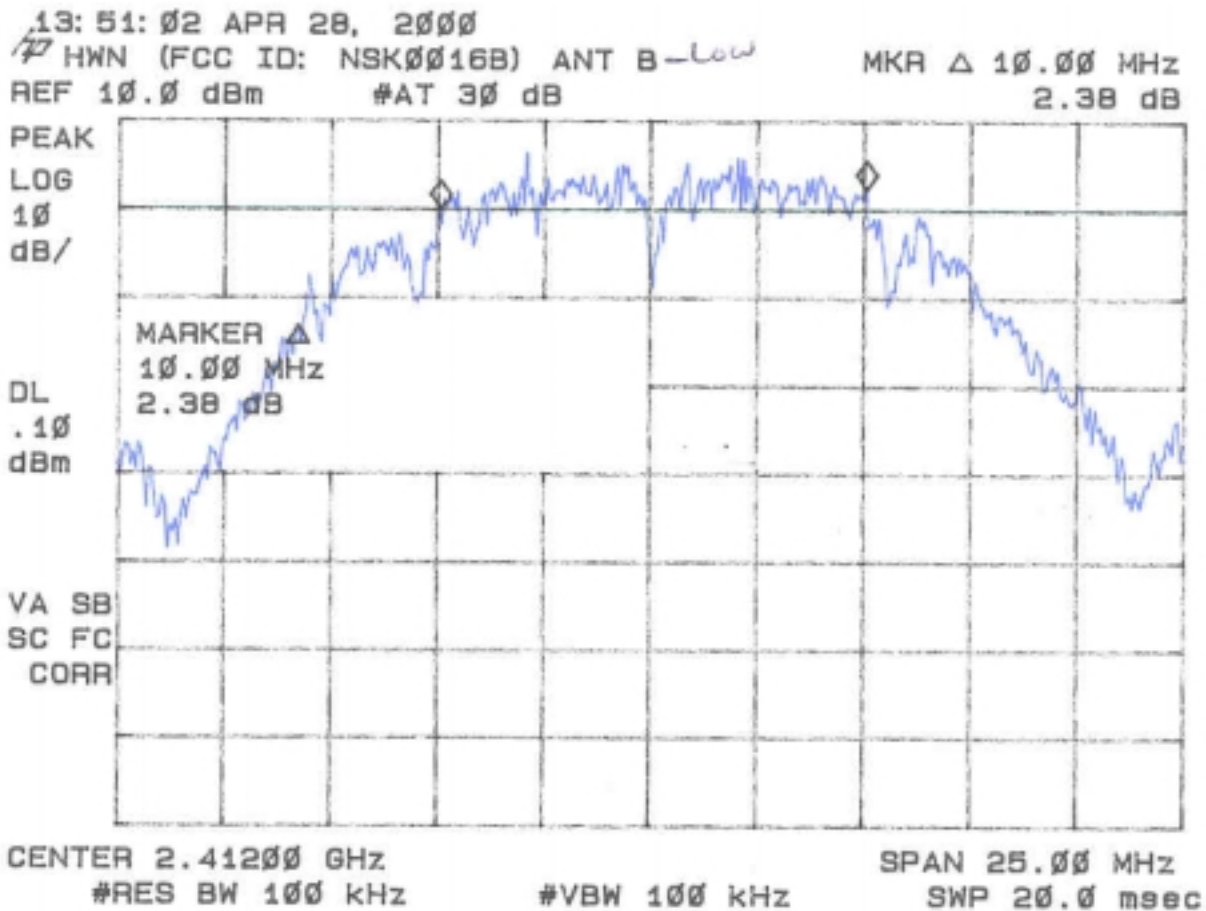


Figure 7e.  
6 dB Bandwidth per FCC Section 15.247(a)(2) (Antenna B - Mid)

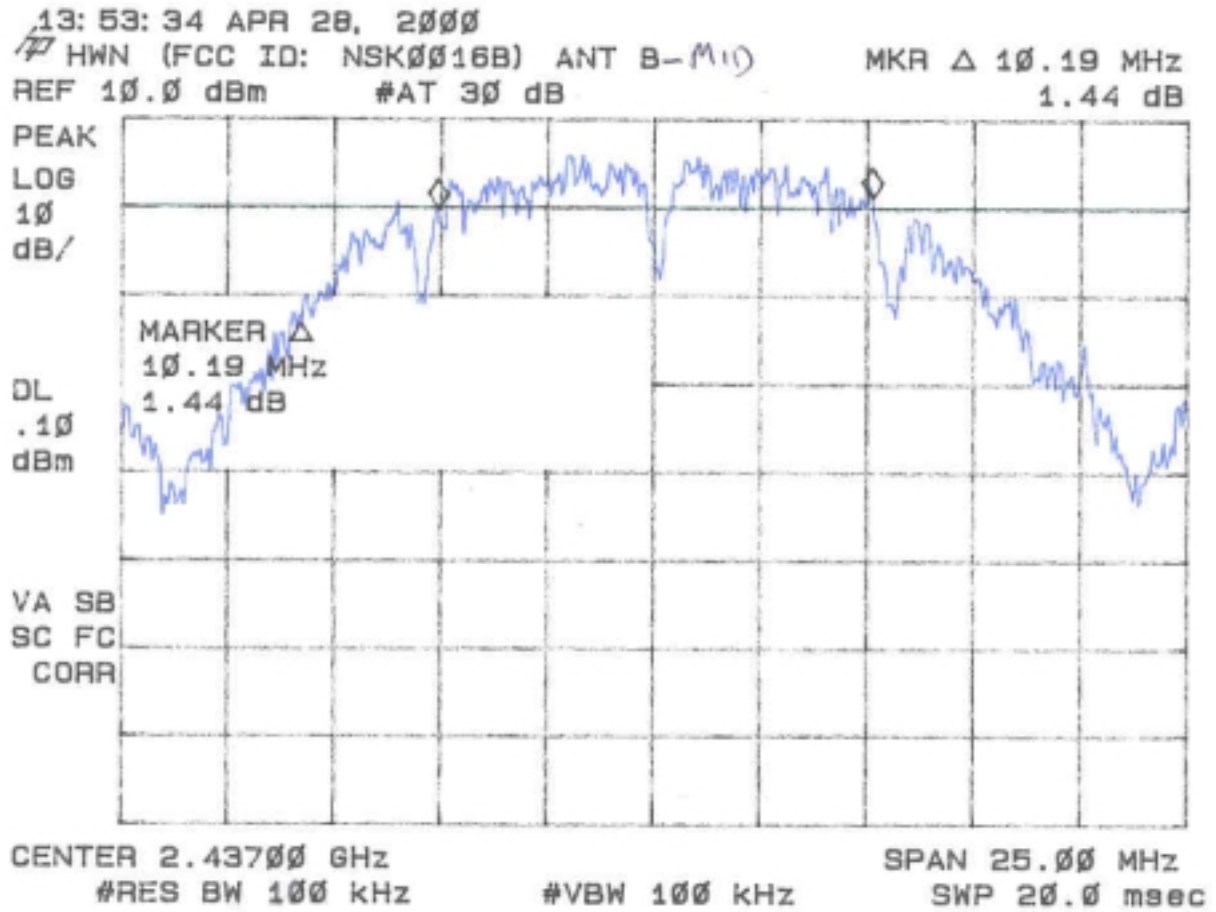
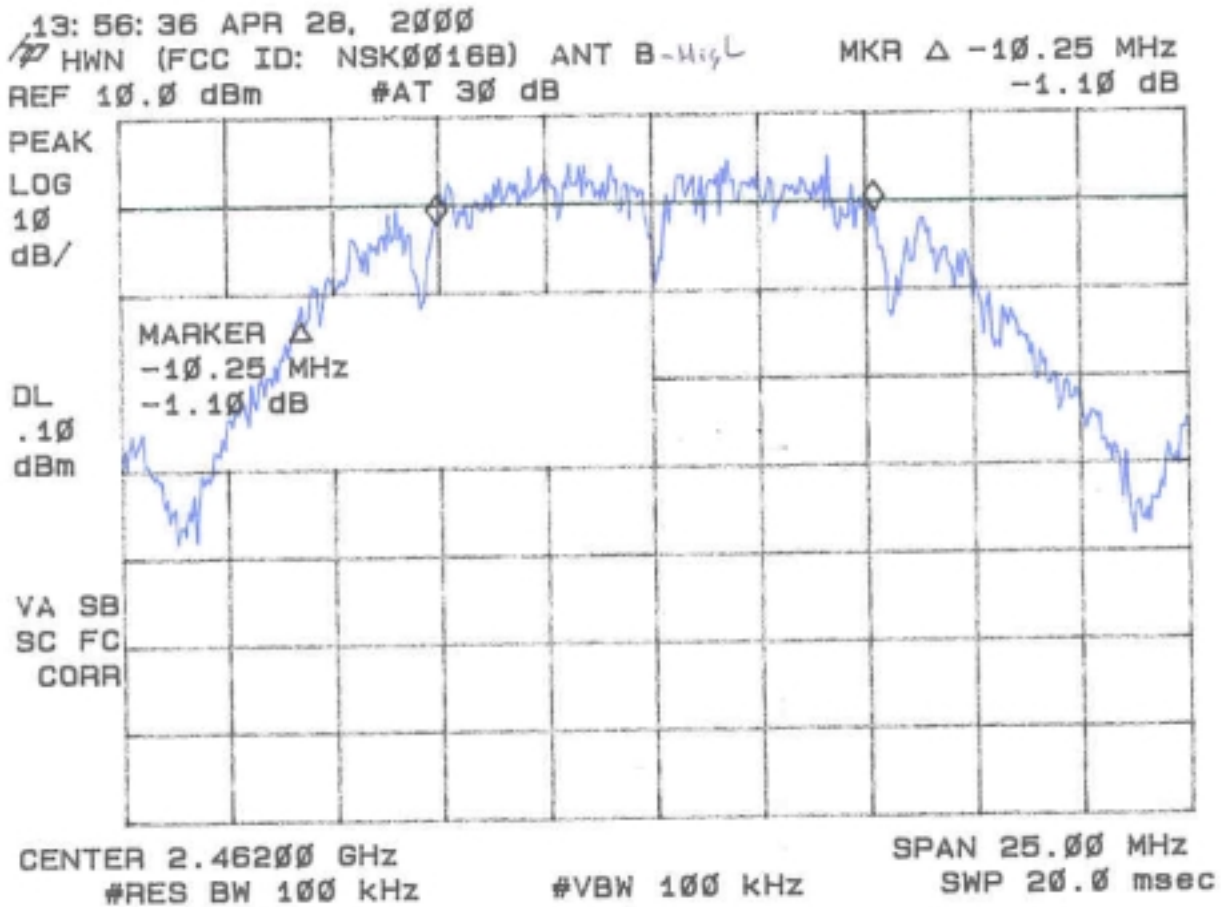


Figure 7f.  
6 dB Bandwidth per FCC Section 15.247(a)(2) (Antenna B - High)



## **2.12 Power Spectral Density FCC Section 15.247(b) and 15.247(d)**

The transmitter power spectral density averaged over any 1 second interval is given in Table 7 and Figure 8a through Figure 8f. If the EUT incorporates different spreading codes or data rates these were each investigated and the one which produced the smallest 6 dB bandwidth was selected for test. The measurement was made using a spectrum analyzer utilizing noise marker mode. A 34.8 dBm adjustment has been added to the measurement to correct from 1 Hz to 3 kHz measurement.



**TABLE 7**  
**POWER SPECTRAL DENSITY**

**Test Date:** April 28  
**UST Project:** 00-0161  
**Customer:** Home Wireless Networks, Inc.  
**Model:** 95-0016-XXX

**Antenna A**

Frequency (GHz)	Test Data (dBm) Normalized to 1 Hz	Results (dBm)	FCC Limit (dBm)
2.413	-53.7	-18.9	8.0
2.438	-51.5	-16.7	8.0
2.461	-52.4	-17.6	8.0

**Antenna B**

Frequency (GHz)	Test Data (dBm) Normalized to 1 Hz	Results (dBm)	FCC Limit (dBm)
2.413	-56.2	-21.4	8.0
2.438	-51.7	-16.9	8.0
2.461	-52.7	-17.9	8.0

**Note: 34.8 dBm has been added to correct from 1 Hz to 3 kHz**

**Tester**

**Signature:** \_\_\_\_\_ **Name:** Tim R. Johnson

Figure 8a  
Power Spectral Density 15.247(b) and 15.247(d) (Antenna A – Low)

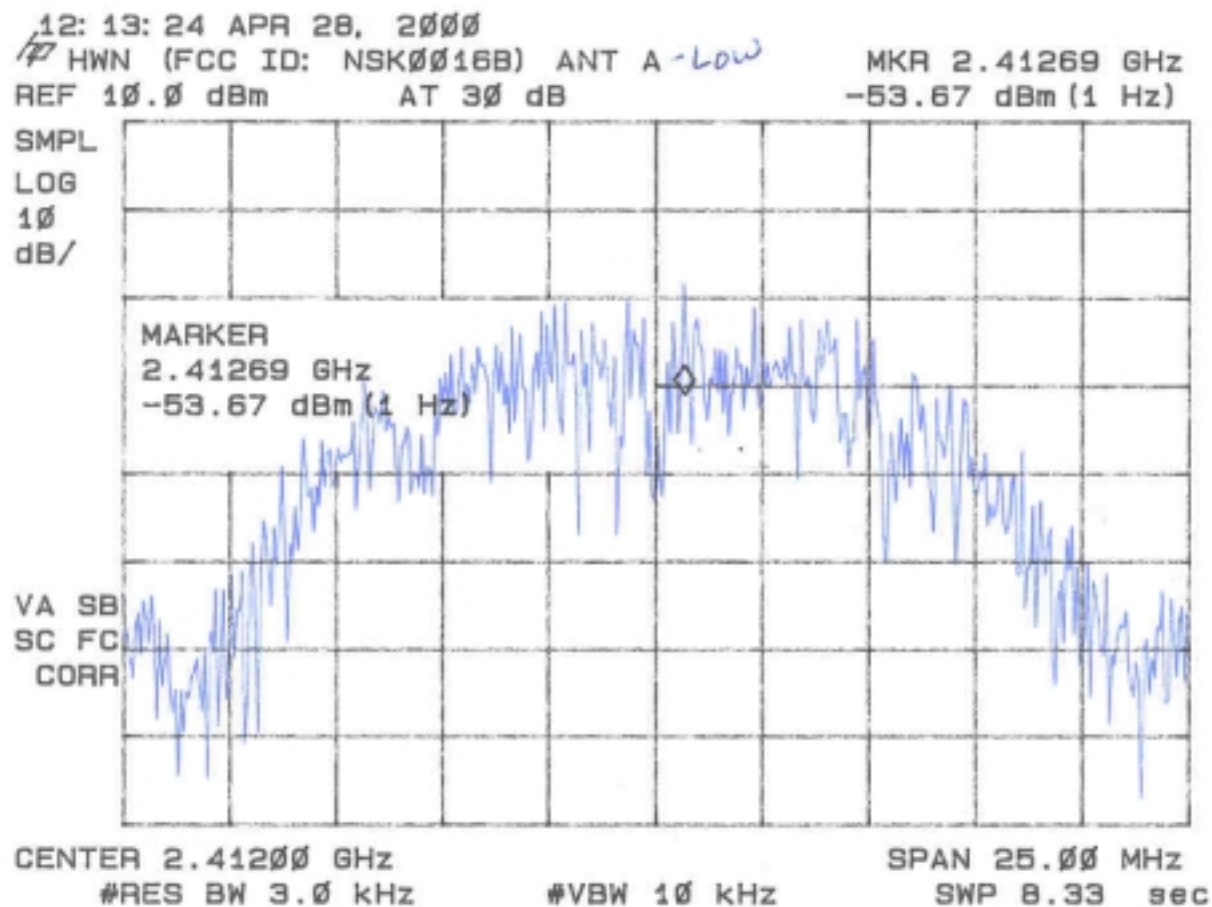


Figure 8b  
Power Spectral Density 15.247(b) and 15.247(d) (Antenna A – Mid)

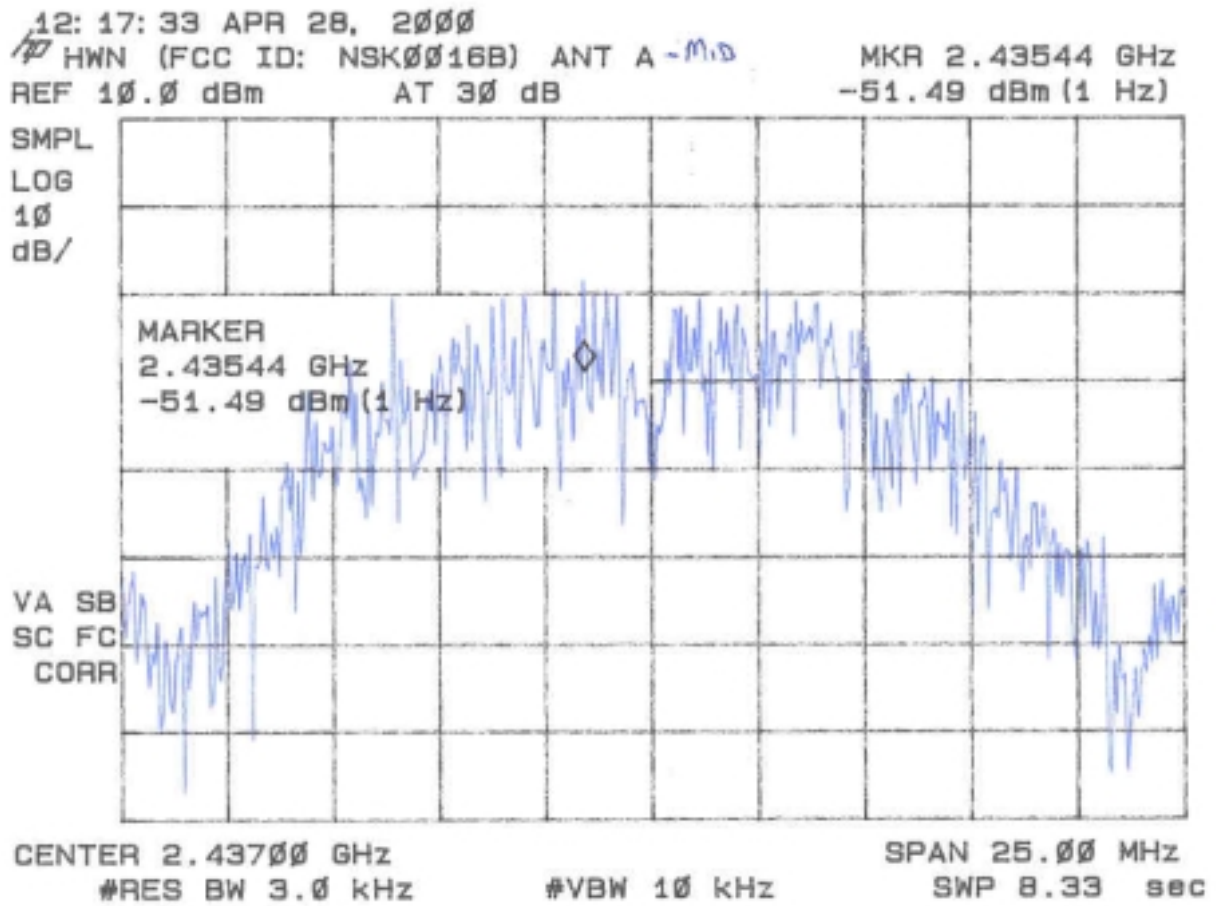


Figure 8c  
Power Spectral Density 15.247(b) and 15.247(d) (Antenna A – High)

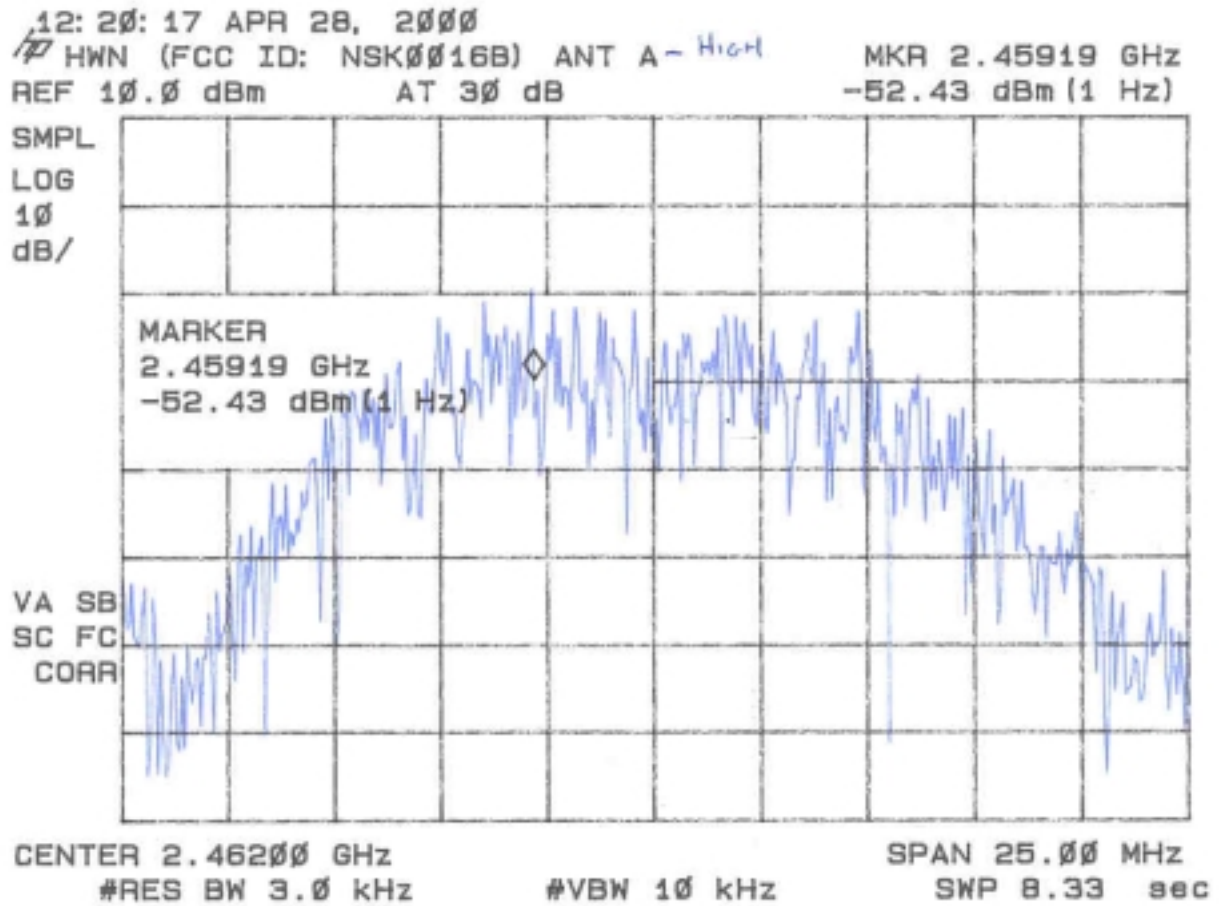


Figure 8d  
Power Spectral Density 15.247(b) and 15.247(d) (Antenna B – Low)

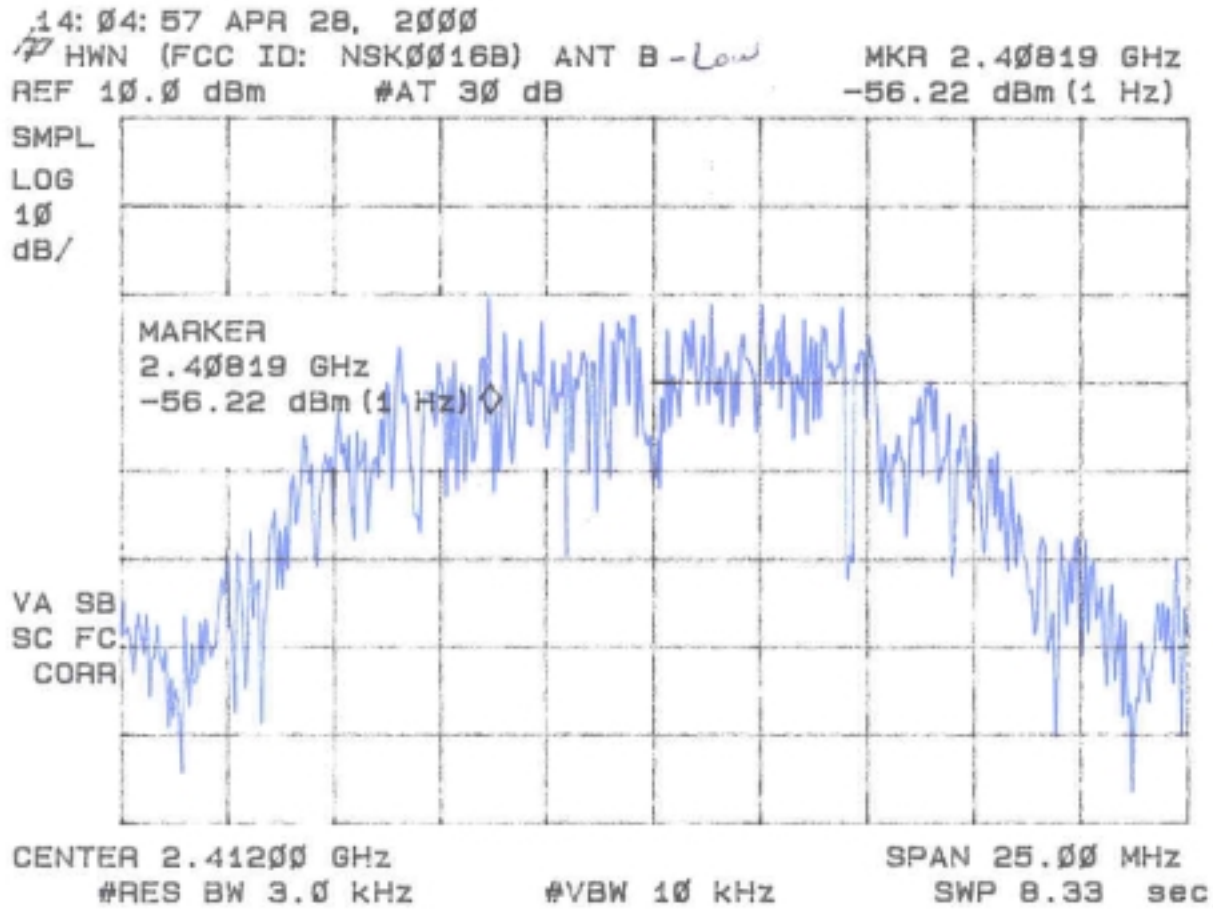


Figure 8e  
Power Spectral Density 15.247(b) and 15.247(d) (Antenna B – Mid)

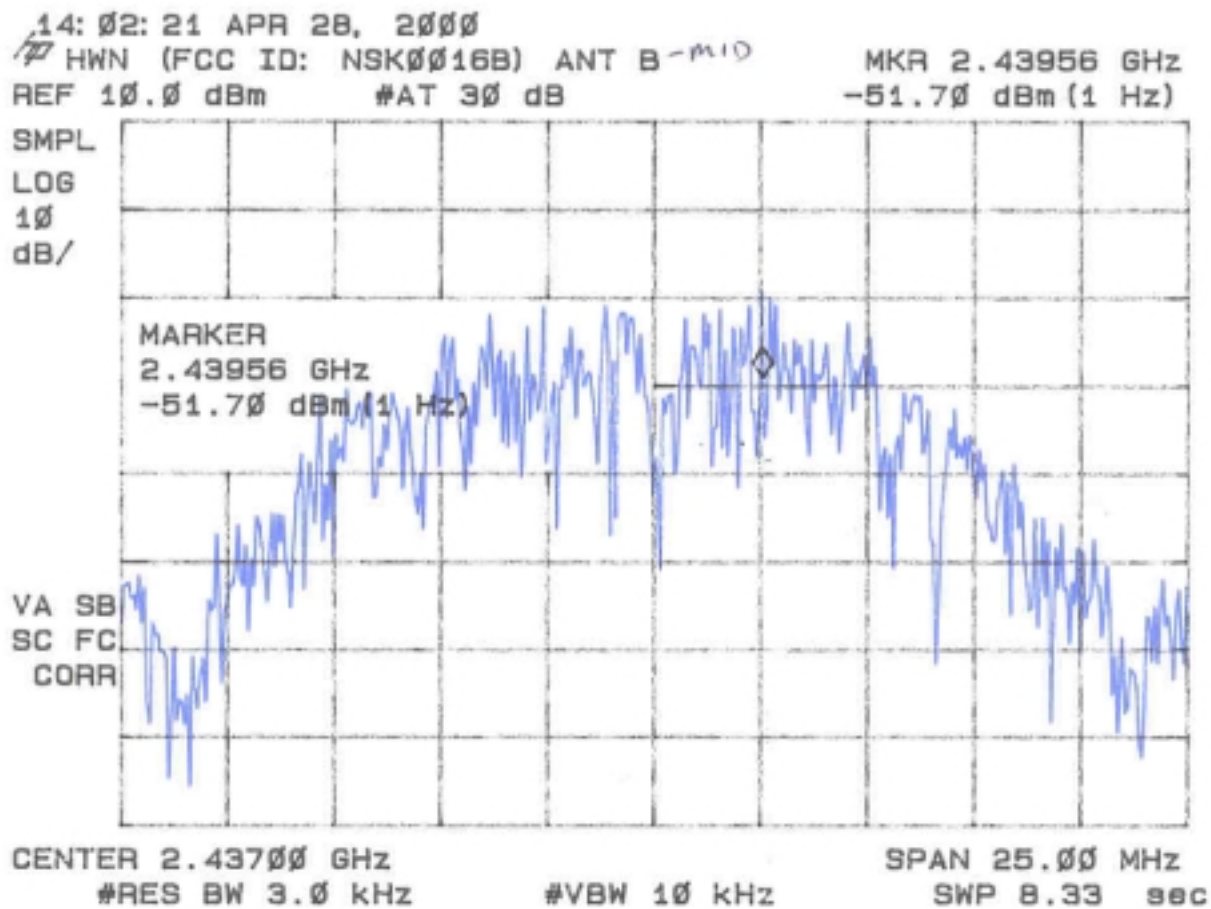
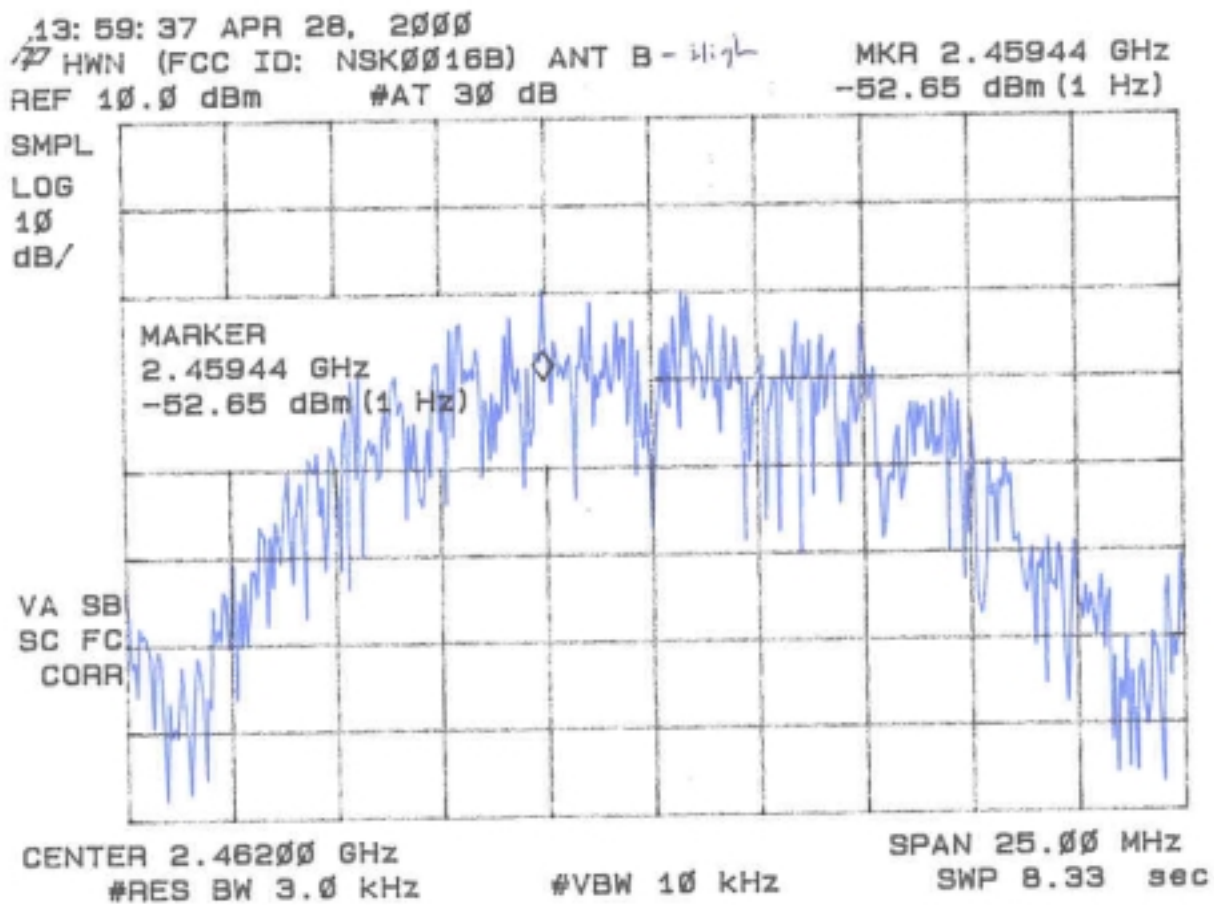


Figure 8f  
Power Spectral Density 15.247(b) and 15.247(d) (Antenna B – High)



### **2.13 Processing Gain**

Data regarding processing gain has been provided on the following page from Home Wireless Networks, Inc.



This has been provided in separate files

## **2.14 Power Line Conducted Emissions for Transmitter FCC Section 15.207**

The conducted voltage measurements have been carried out in accordance with FCC Section 15.207, with a spectrum analyzer connected to a LISN and the EUT placed into a continuous mode of transmit. The results are given in Table 8.

**TABLE 8a. CONDUCTED EMISSIONS DATA  
CLASS B**

Test Date: April 19, 2000  
 UST Project: 00-0161  
 Customer: Home Wireless Networks, Inc.  
 Product: 95-0016-XXX

Configuration with NCU (AC Adapter attached to NCU)

Frequency (MHz)	Test Data (dBm)		RESULTS (uV)		FCC Limits (uV)
	Phase	Neutral	Phase	Neutral	
0.45	-81.0	-78.7	19.9	26.0	250
2.9	-68.6	-67.1	83.2	98.9	250
5.9	-83.6	-81.5	14.8	18.8	250
11.7	-83.1	-83.5	15.7	14.9	250
13.7	-76.6	-71.6	33.1	58.9	250
15.2	-78.0	-75.7	28.2	36.7	250

**SAMPLE CALCULATIONS:**

**RESULTS uV = ANTILOG  $((-81.0 + 107)/20)$  = 19.9**

**CONVERSION FROM dBm TO dBuV = 107 dB**

**Test Results**

**Reviewed By**

**Signature:** \_\_\_\_\_

**Name:** Tim R. Johnson

**TABLE 8b. CONDUCTED EMISSIONS DATA  
CLASS B**

Test Date: April 19, 2000  
 UST Project: 00-0161  
 Customer: Home Wireless Networks, Inc.  
 Product: 95-0016-XXX

Configuration as self contained unit (AC Adapter attached to EUT)

Frequency (MHz)	Test Data (dBm)		RESULTS (uV)		FCC Limits (uV)
	Phase	Neutral	Phase	Neutral	
0.71	-79.2	-77.4	24.5	30.2	250
3.0	-69.1	-65.9	78.5	113.5	250
3.4	-72.5	-76.6	53.1	33.1	250
11.7	-79.6	-76.9	23.4	31.9	250
13.7	-75.2	-74.8	38.9	40.7	250
15.2	-79.8	-68.5	22.9	84.1	250

**SAMPLE CALCULATIONS:**

RESULTS uV = ANTILOG  $((-79.2 + 107)/20) = 24.5$

CONVERSION FROM dBm TO dBuV = 107 dB

Test Results  
 Reviewed By  
 Signature: \_\_\_\_\_

Name: Tim R. Johnson