Table 3d. PEAK RADIATED SPURIOUS EMISSIONS (High)

Radiated Emissions									
						Client:	Axonn		
L.F.	**Project:**	07-0057		**Class:**	**B**	**Model:**	CM1		
Frequency	**Test Data**	**AF**	**Test Data**	**AF+CA-AMP**	**Results**	**Limits**	**Distance /**	**Margin**	**PK = n**
(MHz)	**(dBm)**	**Table**	**(dBuV)**	**(dB)**	**(uV/m)**	**(uV/m)**	**Polarity**	**(dB)**	**/ QP**
4959.91	-46.6	1hn3mv	60.4	5.7	2020.1	5000.0	3m./VERT	**7.9**	**PK**
7439.42	-65.0 *	1hn3mv	42.1	10.2	408.8	5000.0	3m./VERT	**21.7**	**PK**

Data corrected by 0.1 dB for loss of high pass filter, except to fundamental

* Conversion from 1 meter to 3 meters = -9.54 dB

SAMPLE CALCULATION:
RESULTS (uV/m @ 3m) = Antilog ((-46.6 + 5.7 + 107)/20) = 2020.1
CONVERSION FROM dBm TO dBuV = 107 dB

Tester Signature: _____ **Name: Louis A. Feudi**

Figure 3d – 1

Peak Radiated Spurious Emission 15.247(c) High

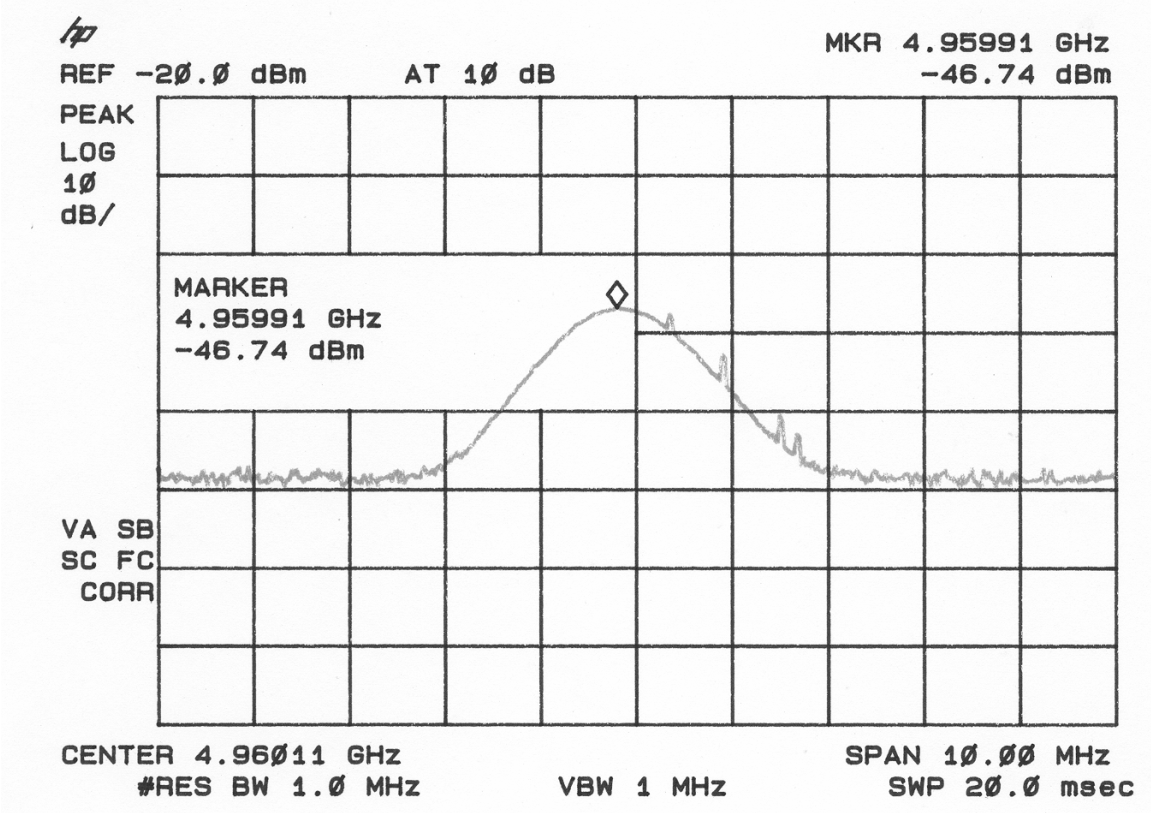


Figure 3d – 2

Peak Radiated Spurious Emission 15.247(c) High

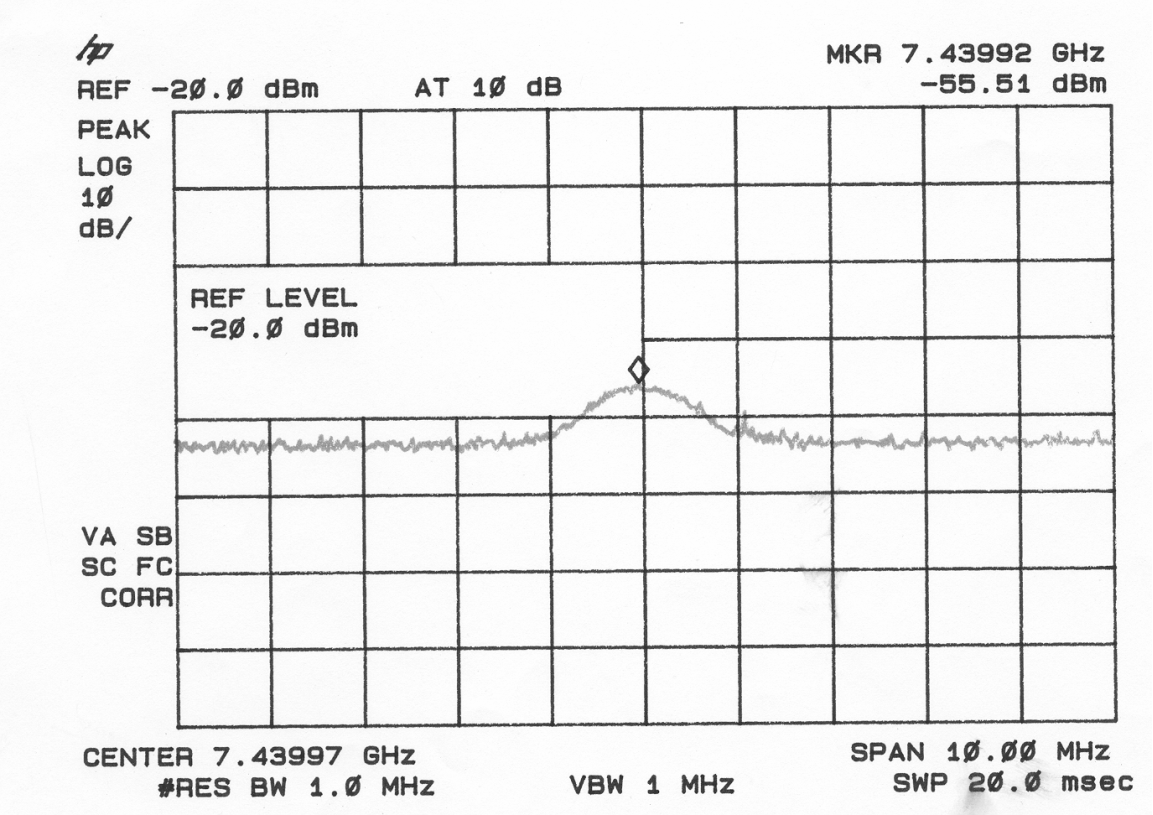


Table 3e. AVERAGE FUNDAMENTAL EMISSIONS

Radiated Emissions									
				Client:	Axonn				
	Project:	07-0057		Class:		Model:	CM1		
Frequency (MHz)	Test Data (dBm)	AF Table	Test Data (dBuV)	AF+CA-AMP (dB)	Results (uV/m)	Limits (uV/m)	Distance / Polarity	Margin (dB)	PK = n / QP
2400.88	-97.2	1HN3mV	9.8	31.9	121.9	50000.0	3m./VERT	**52.3**	**AVG**
2439.89	-93.2	1HN3mV	13.8	32.0	193.8	50000.0	3m./VERT	**48.2**	**AVG**
2480.01	-95.3	1HN3mV	11.7	32.0	154.5	50000.0	3m./VERT	**50.2**	**AVG**

SAMPLE CALCULATION:
RESULTS (uV/m @ 3m) = Antilog ((-97.2 + 31.9 + 107)/20) = 121.9
CONVERSION FROM dBm TO dBuV = 107 Db
Duty Cycle Correction Factor = -44.7 dBm

Tester Signature: _____ **Name: Louis A Feudi**

Table 3d. AVERAGE RADIATED SPURIOUS EMISSIONS (Low)

Radiated Emissions									
						Client:	Axonn		
L.F.		**Project:** 07-0057		**Class:**		**Model:**	CM1		
Frequency	**Test Data**	**AF**	**Test Data**	**AF+CA-AMP**	**Results**	**Limits**	**Distance /**	**Margin**	**PK = n**
(MHz)	**(dBm)**	**Table**	**(dBuV)**	**(dB)**	**(uV/m)**	**(uV/m)**	**Polarity**	**(dB)**	**/ QP**
4801.90	-92.7	1HN3mV	14.3	5.2	9.5	500.0	3m./VERT	**34.4**	AVG
7203	-108.0	1HN3mV	-1.0	9.6	2.7	500.0	3m./VERT	**45.4**	AVG

* Conversion from 1 meter to 3 meters = -9.54 dB

SAMPLE CALCULATION:
RESULTS (uV/m @ 3m) = Antilog ((-92.7 + 5.2 + 107)/20) = 9.5
CONVERSION FROM dBm TO dBuV = 107 dB
Duty Cycle Correction Factor = -44.7 dBm

Tester Signature: _____ **Name: Louis A. Feudi**

Table 3e. AVERAGE RADIATED SPURIOUS EMISSIONS (Mid)

Radiated Emissions									
						Client:	Axonn		
L.F.	Project:	07-0057		Class:		Model:	CM1		
Frequency	Test Data	AF	Test Data	AF+CA-AMP	Results	Limits	Distance /	Margin	PK = n
(MHz)	(dBm)	Table	(dBuV)	(dB)	(uV/m)	(uV/m)	Polarity	(dB)	/ QP
4879.96	-96.5	1hn3mh	10.5	5.7	6.4	500.0	3m./HORZ	**37.8**	**AVG**
2480.01	-95.3	1HN3mV	11.7	-2.5	2.9	500.0	3m./VERT	**44.7**	**AVG**
7319.93	-108.2	1hn3mh	-1.2	10.2	2.8	500.0	3m./HORZ	**45.0**	**AVG**
9759.77	-114.5	1hn3mh	-7.5	13.5	2.0	500.0	3m./HORZ	**48.0**	**AVG**

* Conversion from 1 meter to 3 meters = -9.54 dB

SAMPLE CALCULATION:
RESULTS (uV/m @ 3m) = Antilog ((-96.5 + 5.7 + 107)/20) = 6.4
CONVERSION FROM dBm TO dBuV = 107 dB
Duty Cycle Correction Factor = -44.7 dBm

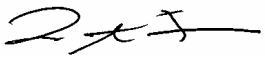
Tester Signature:  **Name: Louis A. Feudi**

Table 3f. AVERAGE RADIATED SPURIOUS EMISSIONS (High)

Radiated Emissions									
						Client:	Axonn		
L.F.	**Project:**	07-0057		**Class:**		**Model:**	CM1		
Frequency	**Test Data**	**AF**	**Test Data**	**AF+CA-AMP**	**Results**	**Limits**	**Distance /**	**Margin**	**PK = n**
(MHz)	**(dBm)**	**Table**	**(dBuV)**	**(dB)**	**(uV/m)**	**(uV/m)**	**Polarity**	**(dB)**	**/ QP**
4959.91	-91.3	1hn3mv	15.7	5.7	11.8	500.0	3m./VERT	**32.6**	AVG
7439.42	-109.7	1hn3mv	-2.6	10.2	2.4	500.0	3m./VERT	**46.4**	AVG

* Conversion from 1 meter to 3 meters = -9.54 dB

SAMPLE CALCULATION:
RESULTS (uV/m @ 3m) = Antilog ((-91.3 + 5.7 + 107)/20) = 11.8
CONVERSION FROM dBm TO dBuV = 107 dB
Duty Cycle Correction Factor = -44.7 dBm

Tester Signature: _____ **Name: Louis A. Feudi**

2.7 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 using a 17 foot, Flexco cable and Horn Antenna. No preamp was used.

The limits were derived as follows:

High Bandedge

5000 uV/m = 73.98 dBuV/m limit

Fundamental measured at High Channel from Table 3a: 56.4+32.0 (Antenna + Cable) = 88.4 dBuV/m

Delta from conducted measurement of band edge from fundamental peak to highest spur outside band edge: -42.54 dB

88.4 – 42.54 = 45.86 dBuV/m

Low Bandedge

5000 uV/m = 73.98 dBuV/m limit

Fundamental measured at Low Channel from Table 3a: 54.5+31.9 = 86.4 dBuV/m

Delta from conducted measurement of band edge from fundamental peak to highest spur 10 MHz outside band edge: -32.44 dB

86.4 – 32.44 = 53.96 dBuV/m

Figure 4a. Band Edge Compliance
Antenna Conducted, Low Channel

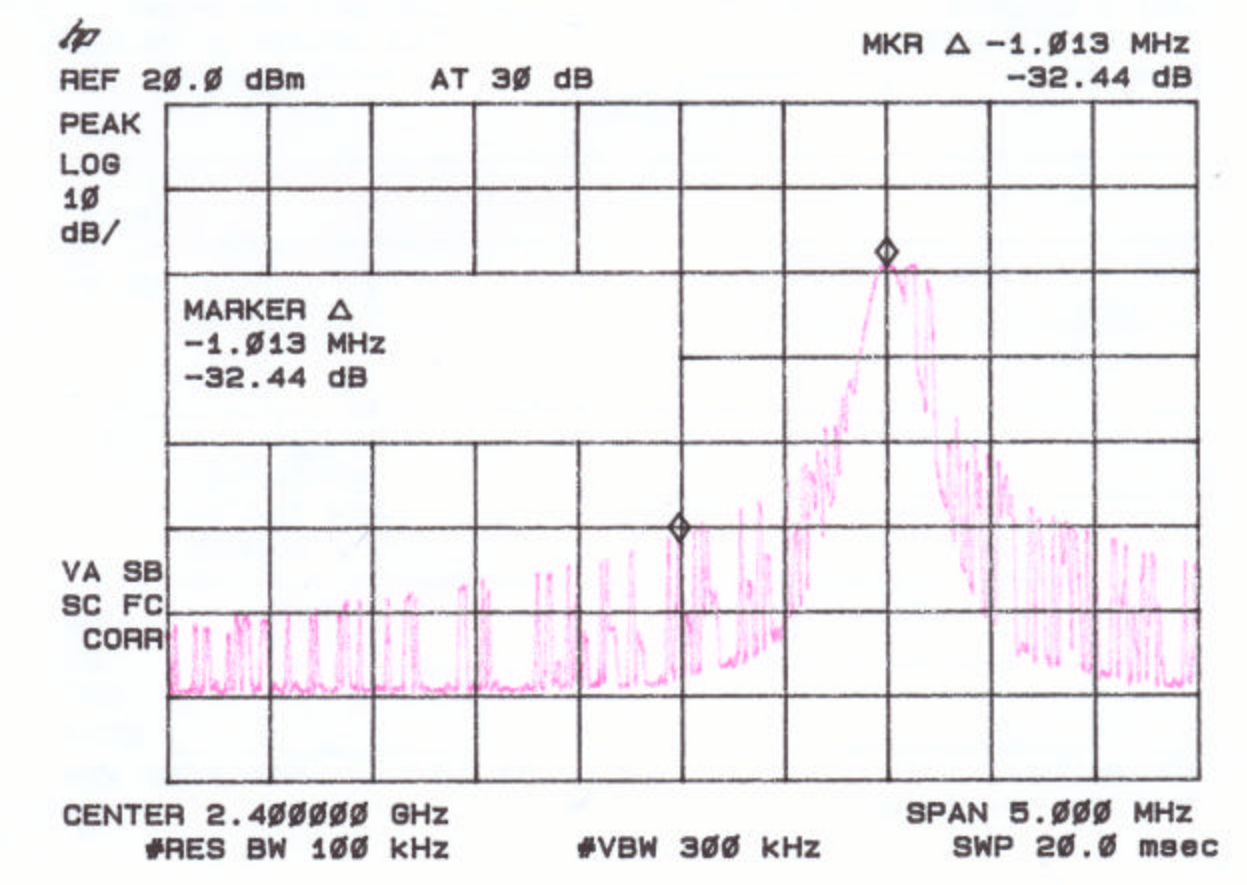
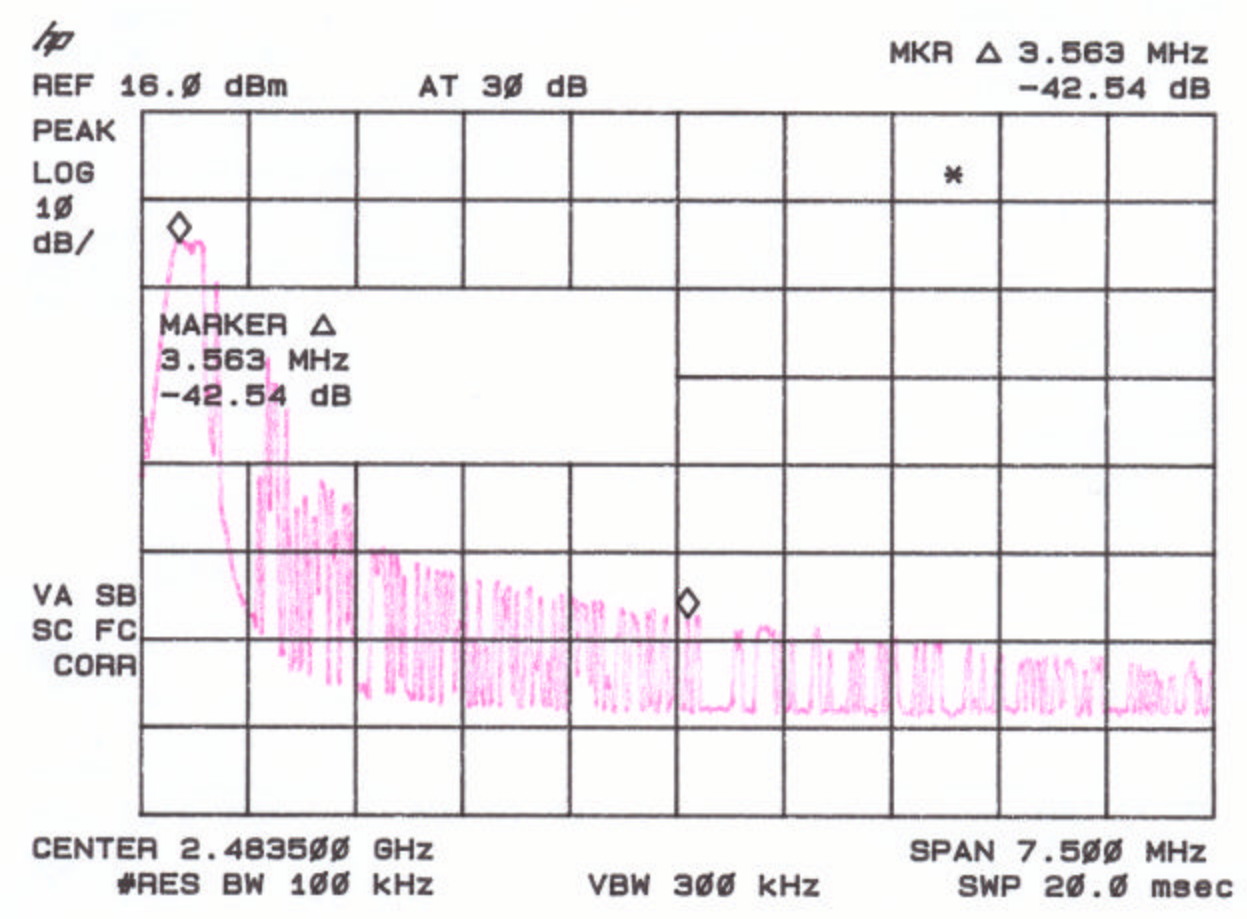


Figure 4b. Band Edge Compliance
Antenna Conducted, High Channel



2.8 20 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 4 and Figure 5.

FCC ID: L2V-CM1

TABLE 4
20 dB Bandwidth

Test Date: **March 29, 2007**
UST Project: **07-0057**
Customer: **Axonn LLC**
Model: **CM1**

Frequency (GHz)	20 dB Bandwidth (MHz)	MAXIMUM FCC LIMIT (MHz)
2.40103	0.350	1.0
2.44003	0.350	1.0
2.48003	0.350	1.0

.

Tester Signature: _____ **Name:** **Louis A. Feudi**

Figure 5a.
20 dB Bandwidth per FCC Section 15.247(a)(1)(ii) Low

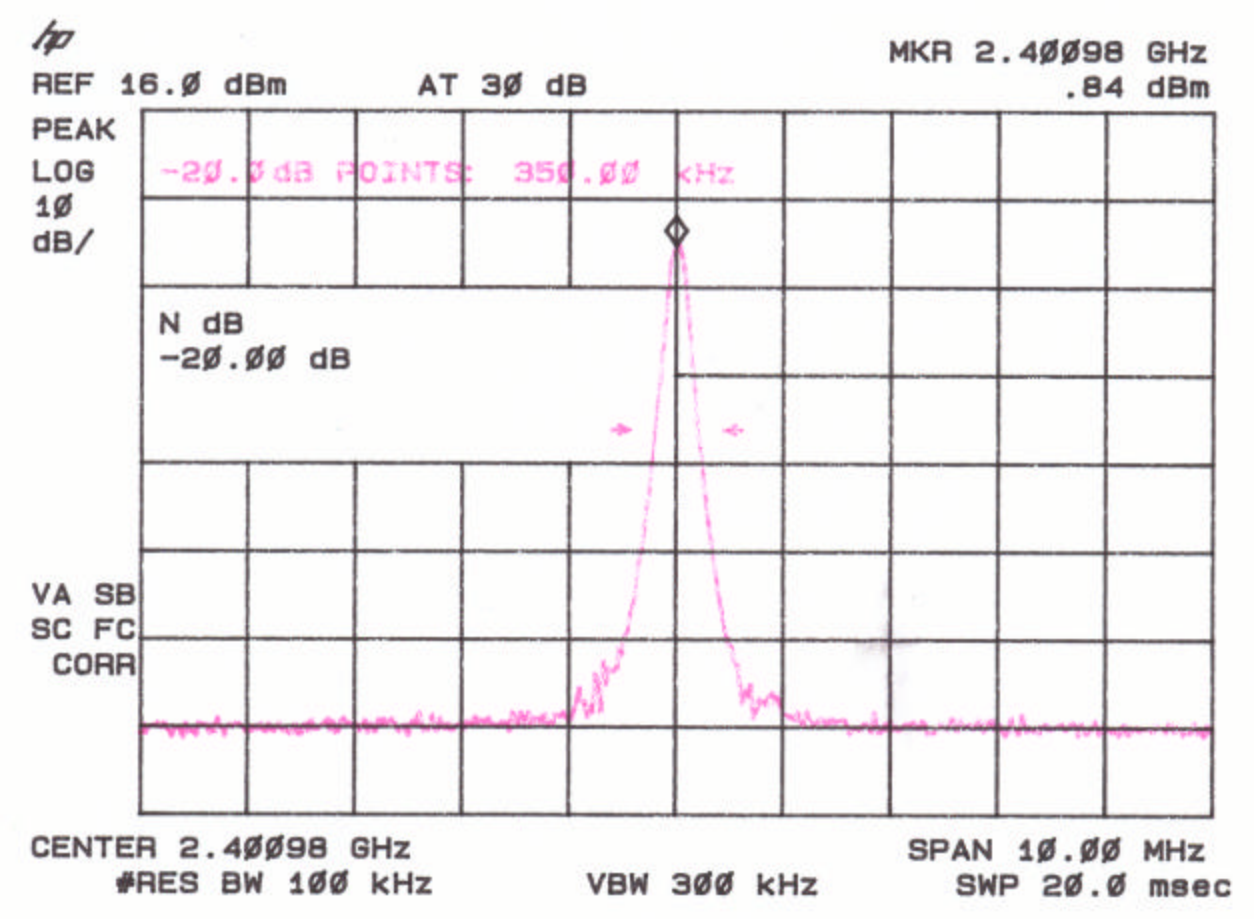


Figure 5b.
20 dB Bandwidth per FCC Section 15.247(a)(1)(ii) Mid

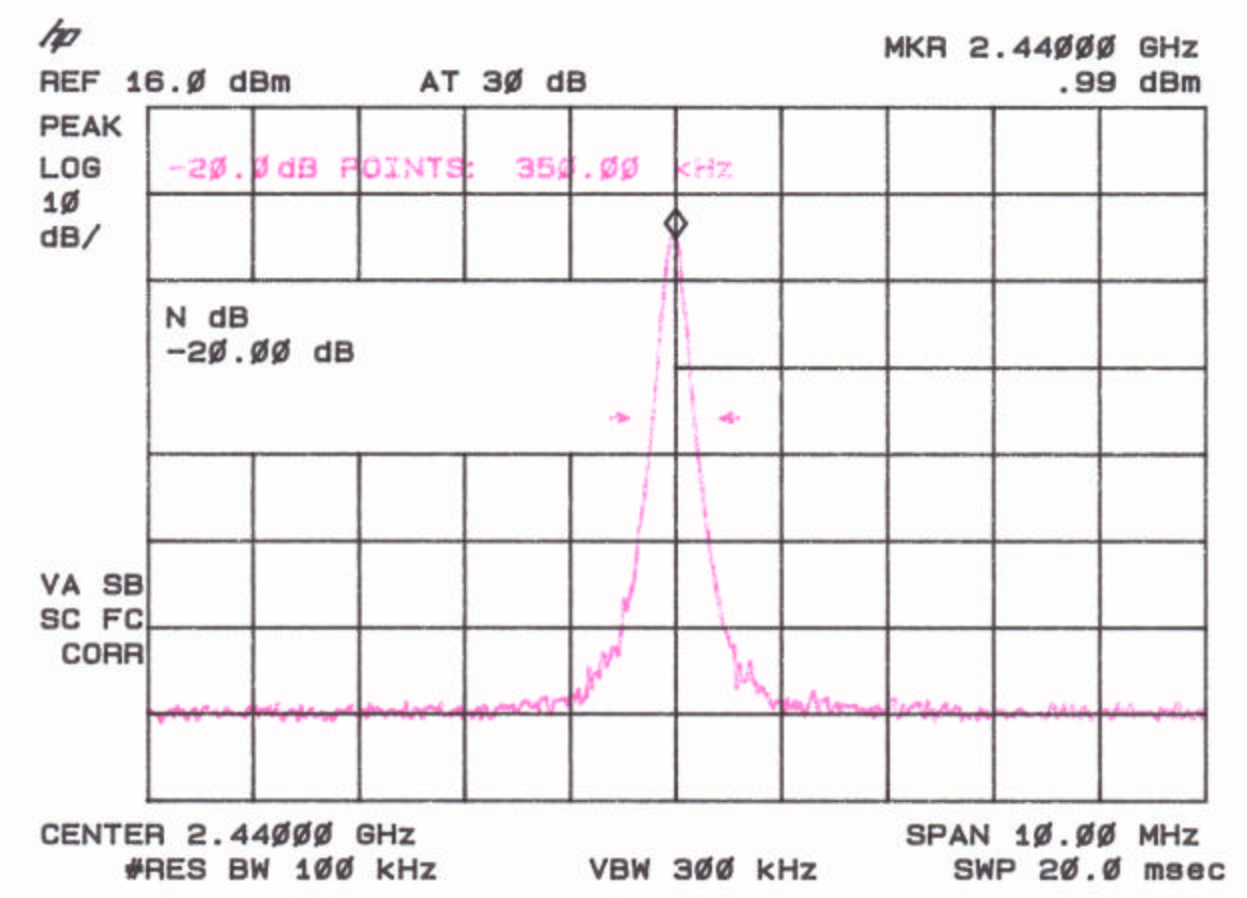
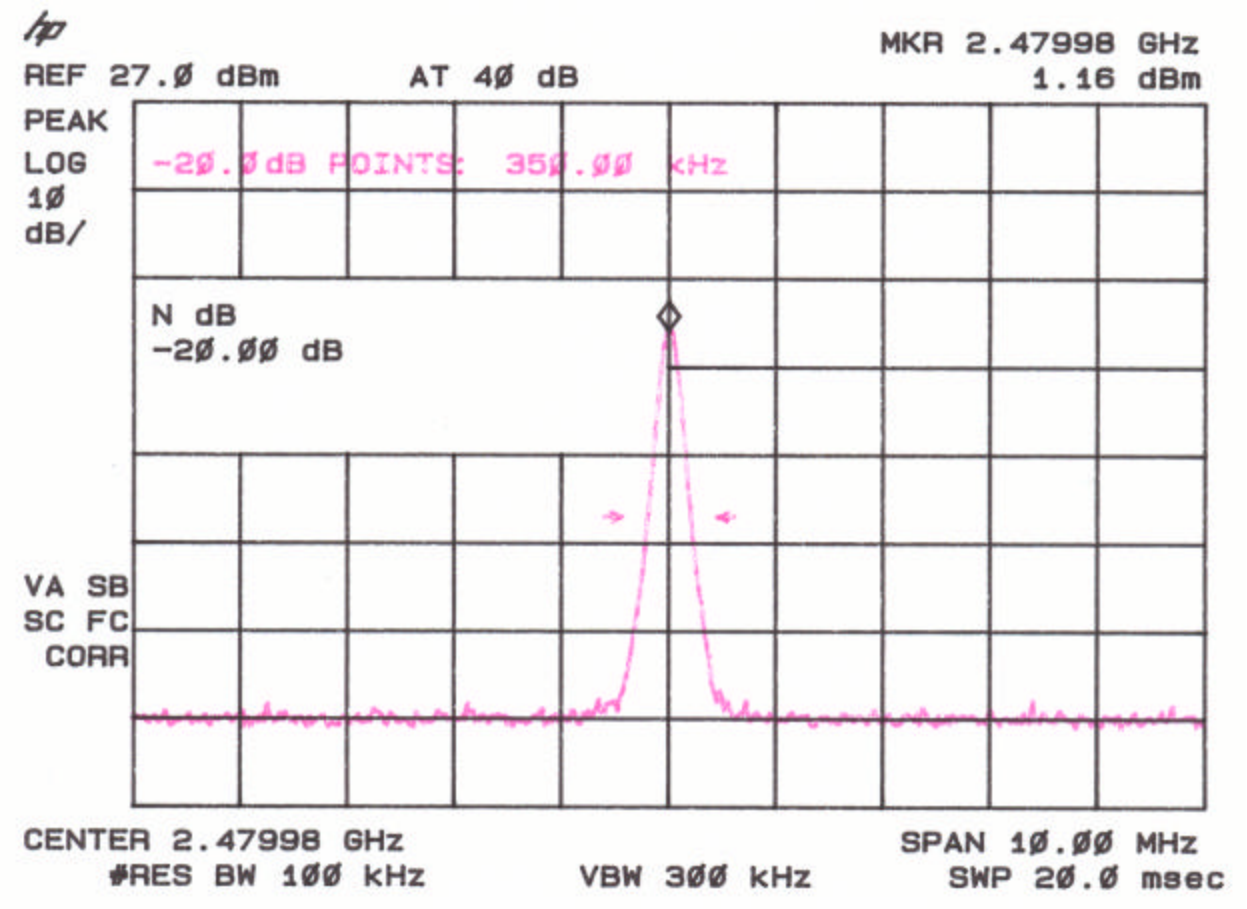


Figure 5c.
20 dB Bandwidth per FCC Section 15.247(a)(1)(ii) High



2.9 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 Tables 5a-5b.

FCC ID: L2V-CM1

TABLE 5a. CONDUCTED EMISSIONS DATA

CLASS B

Test Date: 3/28/2007
UST Project: 07-0057
Customer: Axonn LLC
Model: CM1

Worse Case Mode of Operaton (TX – Low channel)

(Peak/QP vs QP Limits)

Conducted Emissions								
Test By:	Test:	FCC Part 15B			Client:	Axonn		
LAF	Project:	07-0057	Class:	B	Model:	CM1		
Frequency	Test Data	AF	Test Data	AF+CA-AMP	Results	Limits	Margin	PK = n
(MHz)	(dBm)	Table	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	/ QP
0.18	-53.6	LISNP	53.4	-0.2	53.2	64.7	**11.5**	**QP**
0.264	-63.0	LISNP	44.0	-0.2	43.8	61.3	**17.5**	**QP**
0.356	-61.1	LISNP	45.9	-0.1	45.8	58.6	**12.8**	**QP**
0.528	-70.1	LISNP	36.9	-0.1	36.8	56.0	**19.2**	**QP**
0.618	-66.6	LISNP	40.4	-0.1	40.3	56.0	**15.7**	**QP**
12.0	-70.4	LISNP	36.6	0.0	36.6	60.0	**23.4**	**QP**
22.75	-69.9	LISNP	37.1	0.0	37.1	60.0	**22.9**	**QP**
0.18	-51.0	LISNN	56.0	-0.2	55.8	64.7	**8.9**	**QP**
0.264	-61.6	LISNN	45.4	-0.2	45.3	61.3	**16.0**	**QP**
0.356	-57.9	LISNN	49.1	-0.1	49.0	58.6	**9.6**	**QP**
0.528	-68.9	LISNN	38.1	-0.1	38.0	56.0	**18.0**	**QP**
0.618	-68.4	LISNN	38.6	-0.1	38.5	56.0	**17.5**	**QP**
12.0	-66.0	LISNN	41.0	0.0	41.0	60.0	**19.0**	**QP**
22.75	-69.0	LISNN	38.0	0.0	38.0	60.0	**22.0**	**QP**

Tester Signature: _____ **Name:** **Louis A. Feudi**

TABLE 5b. CONDUCTED EMISSIONS DATA

CLASS B

Test Date: March 28, 2007
UST Project: 07-0057
Customer: Axonn LLC
Model: CM1

(AVG vs Average Limits)

Conducted Emissions								
Test By:	**Test:**	FCC Part 15B			**Client:**	Axonn		
LAF	**Project:**	07-0057	**Class:**	**B**	**Model:**	CM1		
Frequency	**Test Data**	**AF**	**Test Data**	**AF+CA-AMP**	**Results**	**Limits**	**Margin**	**PK = n**
(MHz)	**(dBm)**	**Table**	**(dBuV)**	**(dB)**	**(dBuV)**	**(dBuV)**	**(dB)**	**/ QP**
0.18	-64.8	LISNP	42.2	-0.2	42.0	54.7	**12.7**	**AVE**
0.264	-73.2	LISNP	33.8	-0.2	33.6	51.3	**17.7**	**AVE**
0.356	-66.5	LISNP	40.5	-0.1	40.4	48.6	**8.2**	**AVE**
0.528	-73.4	LISNP	33.6	-0.1	33.5	46.0	**12.5**	**AVE**
0.618	-68.7	LISNP	38.3	-0.1	38.2	46.0	**7.8**	**AVE**
12.0	-74.0	LISNP	33.0	0.0	33.0	50.0	**17.0**	**AVE**
22.75	-73.5	LISNP	33.5	0.0	33.5	50.0	**16.5**	**AVE**
0.18	-65.2	LISNN	41.8	-0.2	41.6	54.7	**13.1**	**AVE**
0.264	-69.5	LISNN	37.5	-0.2	37.3	51.3	**14.0**	**AVE**
0.356	-63.7	LISNN	43.3	-0.1	43.2	48.6	**5.4**	**AVE**
0.528	-76.4	LISNN	30.6	-0.1	30.5	46.0	**15.5**	**AVE**
0.618	-73.4	LISNN	33.6	-0.1	33.5	46.0	**12.5**	**AVE**
12.0	-69.7	LISNN	37.3	0.0	37.3	50.0	**12.7**	**AVE**
22.75	-71.5	LISNN	35.5	0.0	35.5	50.0	**14.5**	**AVE**

.

Tester Signature: _____ **Name:** **Louis A. Feudi**

2.10 Radiated Emissions for Digital Device & Receiver (47 CFR 15.109a)

Radiated emissions were evaluated from 30 to 14500 MHz while the EUT was placed into a Receive mode of operation. Measurements were made with the analyzer's bandwidth set to 120 kHz measurements made less than 1 GHz and 1 MHz for measurements made greater than or equal to 1 GHz. The results for less than 1 GHz are shown in Table 6.

FCC ID: L2V-CM1

TABLE 6. RADIATED EMISSIONS DATA
(Digital Device & Receiver)

CLASS B

Test Date: March 27,2007
UST Project: 07-0057
Customer: Axonn LLC
Product: STAMP

Radiated Emissions								
					Client:	Axonn LLC		
	Project:	07-0057		Class:	B	Model:	STAMP	
Frequency	Test Data	AF	Test Data	AF+CA-AMP	Results	Limits	Margin	PK = n
(MHz)	(dBm)	Table	(dBuV)	(dB)	(uV/m)	(uV/m)	(dB)	/ QP
No emissions seen within 20 dB of the FCC Limit.								

Tester Signature: _____ **Name:** Louis A. Feudi

.2.11 Power Line Conducted Emissions for Digital Device and Receiver
FCC Section 15.107

The conducted voltage measurements have been carried out in accordance with FCC Section 15.107, with a spectrum analyzer connected to a LISN and the EUT placed into an idle condition or a continuous mode of receive. Similar results were seen as compared to the EUT in a transmit mode of operation.

Therefore, please refer to the results as shown in Table 5.