



Testing Tomorrow's Technology

**Axon LLC
FCC Part 15, Certification Application
AXTracker MMT Frequency Hopping Transceiver**

**UST Project: 06-0130
Issue Date: August 21, 2006**

**3505 Francis Circle Alpharetta, GA 30004
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MEASUREMENT/TECHNICAL REPORT

COMPANY NAME: **Axon LLC**
MODEL: **AXTracker MMT**
FCC ID: **L2V-STAMP1**
DATE: **August 21, 2006**

This report concerns (check one): Original grant
Class II change

Equipment type: **2.4 GHz Frequency Hopping Transceiver**

Deferred grant requested per 47 CFR 0.457(d)(1)(ii)? yes No

If yes, defer until: _____
date

N.A. agrees to notify the Commission by N.A.
date

of the intended date of announcement of the product so that the grant can be issued on that date.

Report prepared by:

United States Technologies, Inc.
3505 Francis Circle
Alpharetta, GA 30004

Phone Number: (770) 740-0717
Fax Number: (770) 740-1508

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SECTION 1

GENERAL INFORMATION

GENERAL INFORMATION

1.1 Product Description

The Equipment Under Test (EUT) is a Axonn LLC, Model AXTracker MMT modular transceiver. The EUT is a satellite based tracking device that includes a GPS receiver, simplex satellite transmitter and a short range 2.4 GHz transceiver to communicate with wireless sensors and configuration equipment.

The unit consists of :

1. An Axonn LLC, Model STX-2 simplex satellite transmitter. FCC ID: L2V-STX2-1
2. A GPS receiver, Ublox, Model LEA-4A-0-000
3. A 2.4 GHz Frequency Hopping transmitter.

The unit is designed that the Simplex satellite transmitter will not transmit simultaneously with the 2.4 GHz Frequency Hopping Transmitter, by software control. The 2.4 GHz Transmitter is extremely low power.

1.2 Related Submittal(s)/Grant(s)

The EUT will be used to send/receive data. The transceiver presented in this report will be used with other like transceivers:

The EUT is subject to the following authorizations:

- a) Certification as a transceiver
- b) Verification as a digital device

The information contained in this report is presented for the certification & verification authorization(s) for the EUT.

TCB

**GRANT OF EQUIPMENT
AUTHORIZATION**
Certification
Issued Under the Authority of the
Federal Communications Commission
By:

TCB

American TCB, Inc.
6731 Whittier Avenue Suite C110
McLean, VA 22101

Date of Grant: 10/28/2005
Application Dated: 10/27/2005

Axonm L.L.C.
2021 Lakeshore Drive
Suite 500
New Orleans, LA 70122

Attention: David Alley , Senior Engineer

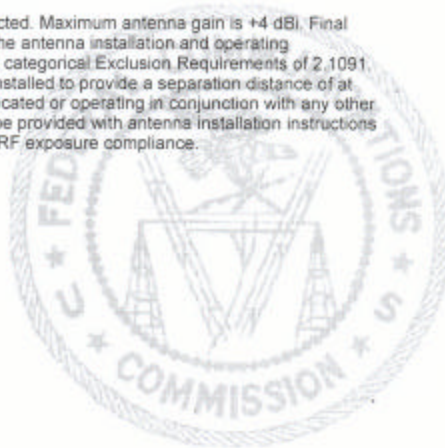
NOT TRANSFERABLE

EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and is VALID ONLY for the equipment identified hereon for use under the Commission's Rules and Regulations listed below.

FCC IDENTIFIER: L2V-STX2-1
Name of Grantee: Axonn L.L.C.
Equipment Class: Licensed Non-Broadcast Station Transmitter
Notes: Satellite Transmitter Module

Grant Notes	FCC Rule Parts	Frequency Range (MHZ)	Output Watts	Frequency Tolerance	Emission Designator
	25	1611.25 - 1618.75	0.139	10.0 PM	1M81G1D

Modular Transmitter. Power output listed is conducted. Maximum antenna gain is +4 dBi. Final installations must be in compliance with 25.213. The antenna installation and operating configurations of this transmitter must satisfy MPE categorical Exclusion Requirements of 2.1091. The antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter. Users and installers must be provided with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.



SECTION 2

TESTS AND MEASUREMENTS

TEST AND MEASUREMENTS

2.1 Configuration of Tested System

The sample was tested per ANSI C63.4, Methods of Measurement from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz (1992). Conducted and radiated emissions data were taken with the test receiver or spectrum analyzer's resolution bandwidth adjusted to 9 kHz and 120 kHz, respectively. All measurements are peak unless stated otherwise. The video filter associated with the spectrum analyzer was off throughout the evaluation process. Block diagrams of the tested systems are shown in Figures 1a and 16. Test configuration photographs for spurious and fundamental emissions are shown in Figure 2a -g.

The sample used for testing was received by U.S. Technologies on June 15, 2006 in good condition.

2.2 Test Facility

Testing was performed at US Tech's measurement facility at 3505 Francis Circle, Alpharetta, GA. This site has been fully described and submitted to the FCC, and accepted in their letter marked 31040/SIT. Additionally this site has also been fully described and submitted to Industry Canada (IC), and has been approved under file number IC2982.

2.3 Test Equipment

Table 2 describes test equipment used to evaluate this product.

2.4 Modifications

No modifications were made by US Tech, to bring the EUT into compliance with FCC Part 15, Class B Limits for the transmitter portion of the EUT or the Class B Digital Device Requirements.

**FIGURE 1
TEST CONFIGURATION**

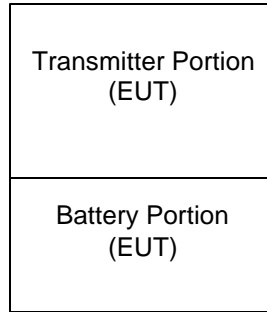


TABLE 1

Test Date: June 15, 16, & July 6, 2006
UST Project: 06-0130
Customer: Axonn LLC
Model: AXTracker MMT

EUT and Peripherals

PERIPHERAL MANU.	MODEL NUMBER	SERIAL NUMBER	FCC ID:	CABLES P/D
(EUT) Axonn LLC	AXTracker MMT	None	None	None

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

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

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

Fundamental measured at High Channel from Table 3c: -44.5 dBm

Delta from conducted measurement of band edge from fundamental peak to highest spur 10 MHz outside band edge: -35 dB (minimum)

$$-44.5 - 35 = -79.5 \text{ dBm}$$

Low Bandedge

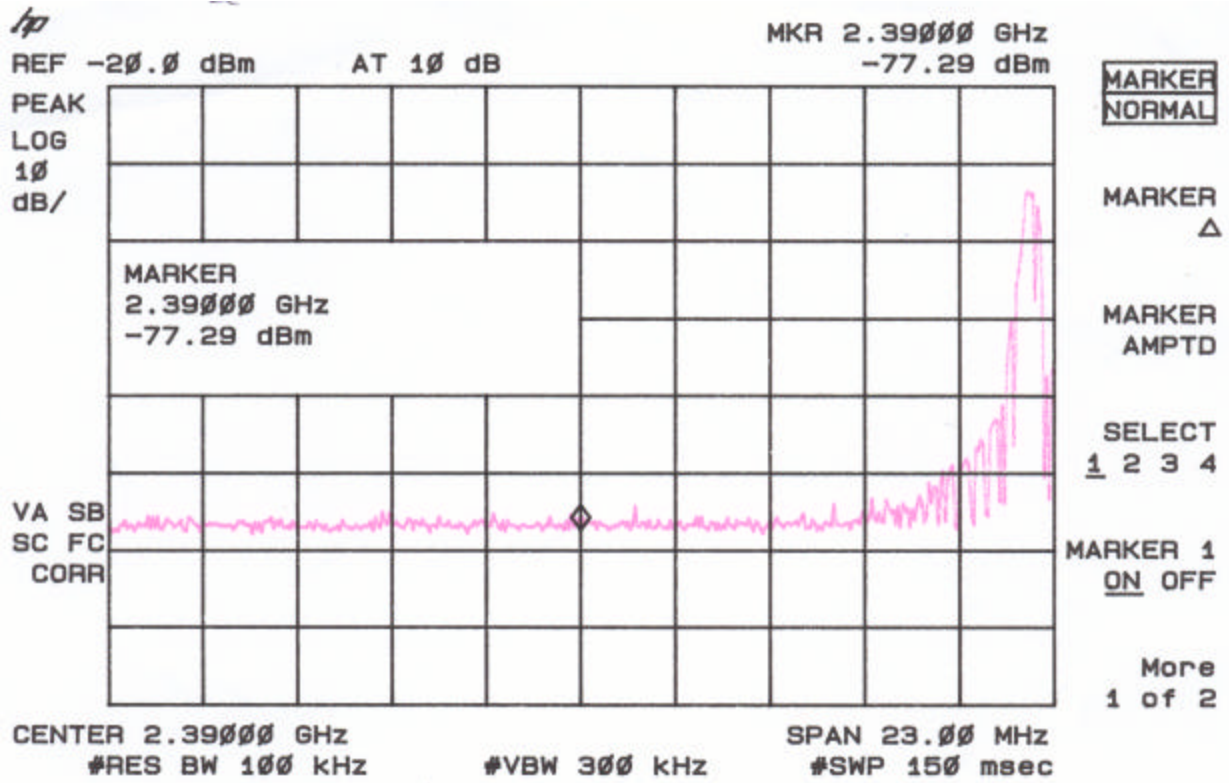
$$-21.2 \text{ dBm} - 31.6 \text{ dB (antenna factor and cable loss)} = -52.8 \text{ dBm limit}$$

Fundamental measured at Low Channel from Table 3a: -46.2 dBm

Delta from conducted measurement of band edge from fundamental peak to highest spur 10 MHz outside band edge: -35 dB (minimum)

$$-46.2 - 35 = -81.2 \text{ dBm}$$

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

TABLE 4
20 dB Bandwidth

Test Date: July 7, 2006
UST Project: 06-0130
Customer: Axonn LLC
Model: AXTracker MMT

Frequency (GHz)	20 dB Bandwidth (MHz)	MAXIMUM FCC LIMIT (MHz)
2.400740	0.365	1.0
2.439740	0.365	1.0
2.479735	0.360	1.0

Tester Signature: 

Name: Austin Thompson

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

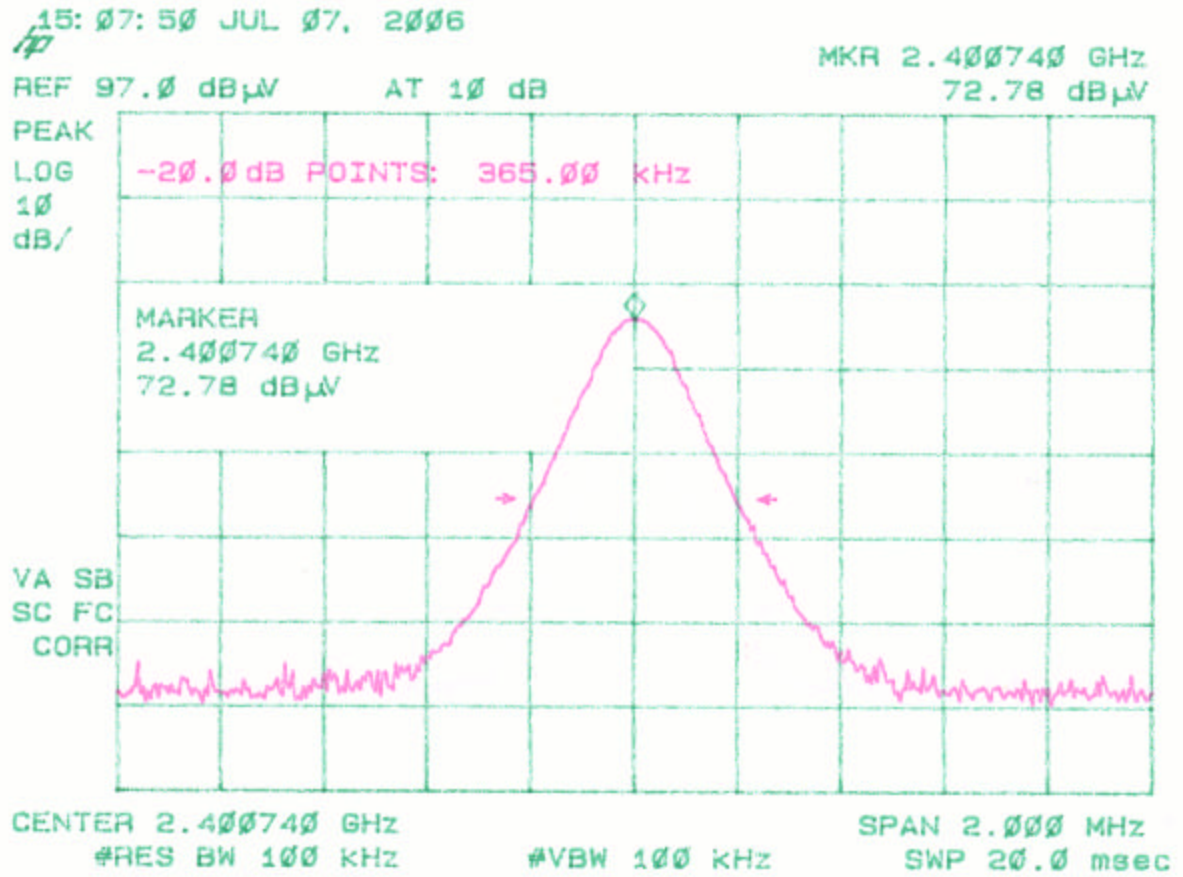


Figure 5b.
20 dB Bandwidth per FCC Section 15.247(a)(1)(ii) Mid

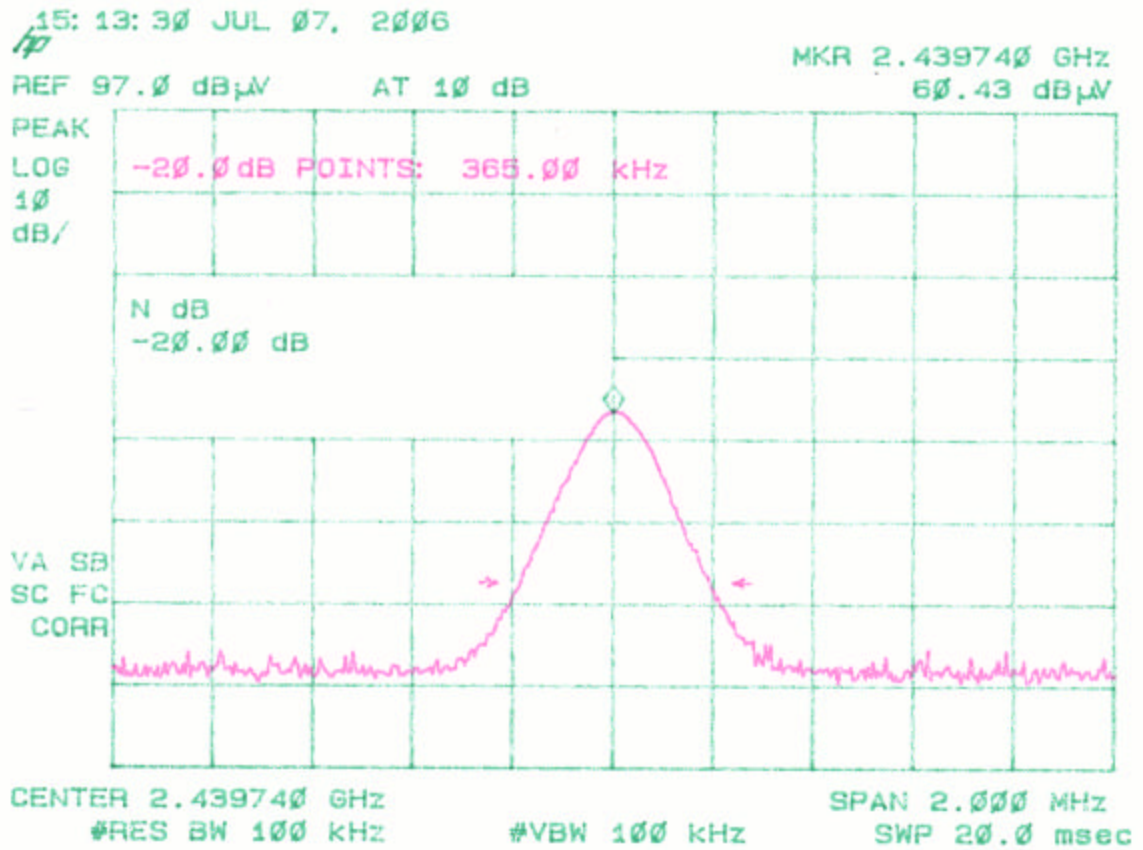
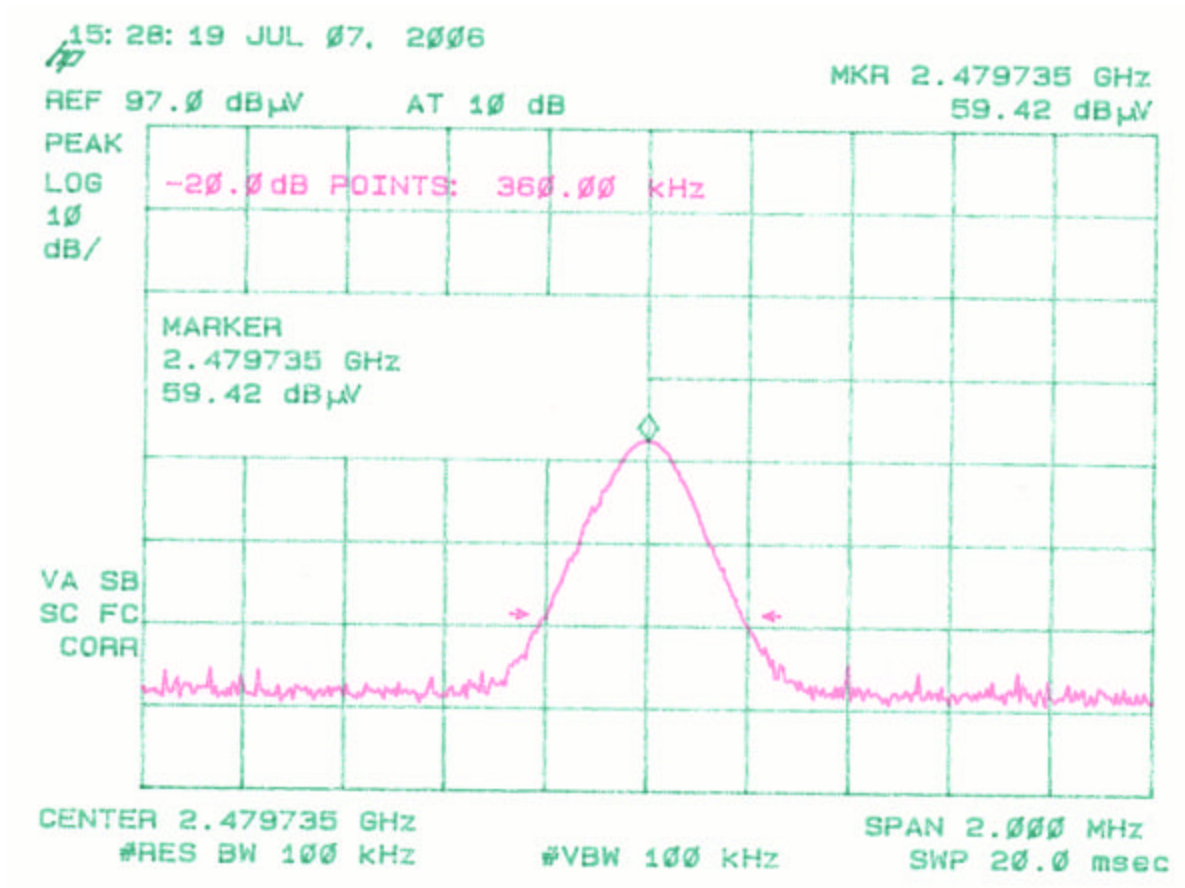


Figure 5c.
20 dB Bandwidth per FCC Section 15.247(a)(1)(ii) High



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.

TABLE 5a. CONDUCTED EMISSIONS DATA

CLASS B

Test Date: February 26, 2006
 UST Project: 06-0130
 Customer: Axonn LLC
 Model: AXTracker MMT

Worse Case Mode of Operaton (TX – Low channel)

(Peak/QP vs QP Limits)

Conducted Emissions									
Test By:	Test: PK/QP vs QP Conducted Emissions					Client:	Axonn LLC		
AT	Project:	06-0130		Class:	B	Model:	AXTracker MMT		
Frequency	Test Data	AF	Test Data	AF+CA-AMP	Results	Limits	Margin	PK = n	
(MHz)	(dBm)	Table	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	/ QP	
Not Applicable EUT is Battery Powered									

Tester
 Signature: 

Name: Austin Thompson

TABLE 5b. CONDUCTED EMISSIONS DATA

CLASS B

Test Date: February 26, 2006
 UST Project: 06-0130
 Customer: Axonn LLC
 Model: AXTracker MMT

Worse Case Mode of Operaton (TX – Low channel)

(AVG vs Average Limits)

Conducted Emissions									
Test By:	Test:	AVG vs AVG Conducted Emissions				Client:	Axonn LLC		
AT	Project:	06-0130		Class:	B	Model:	AXTracker MMT		
Frequency	Test Data	AF	Test Data	AF+CA-AMP	Results	Limits	Margin	PK = n	
(MHz)	(dBm)	Table	(dBuV)	(dB)	(dBuV)	(dBuV)	(dB)	/ QP	
Not Applicable EUT is Battery Powered									

Tester
 Signature: 

Name: Austin Thompson

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.

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

CLASS B

Test Date: December 8, 2005
UST Project: 06-0130
Customer: Axonn LLC
Product: AXTracker MMT

Radiated Emissions								
Test By:	Test:	FCC Part 15 – Receive Mode			Client:	Axonn LLC		
	Project:	06-0130		Class:	B	Model:	AXTracker MMT	
Frequency Range		Table	Model		S/N	Valid	Calibrated:	
		OATS	Cable: 75ft.		S/N	Yes	1/September/2005	
		NCR3V	Model: B100		S/N 172	Yes	19/Sep/2005	
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
43.00	-92.0	NCR3V	15.0	12.1	22.6	100.0	12.9	PK = n
41.6	-92.0	NCR3V	15.0	12.2	22.8	100.0	12.8	PK = n
38	-89.0	NCR3V	18.0	12.1	32.0	100.0	9.9	PK = n
40.8	-86.0	NCR3V	21.0	12.2	45.5	100.0	6.8	QP
44.2	-86.0	NCR3V	21.0	12.1	45.1	100.0	6.9	PK = n
47.9	-87.0	NCR3V	20.0	12.0	39.7	100.0	8.0	PK = n

SAMPLE CALCULATION:

RESULTS (uV/m @ 3m) = Antilog $((-92.0 + 12.1 + 107)/20) = 22.6$

CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: 

Name: Austin Thompson

**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

Results:

Not Applicable. Unit is battery powered.

**TABLE 2
TEST INSTRUMENTS**

EQUIPMENT	MODEL NUMBER	MANUFACTURER	SERIAL NUMBER	DATE OF LAST CALIBRATION
SPECTRUM ANALYZER	8558B	HEWLETT-PACKARD	2332A10055	3/21/06
SPECTRUM ANALYZER	8593E	HEWLETT-PACKARD	3205A00124	7/06/06
SIGNAL GENERATOR	8648B	HEWLETT-PACKARD	3642U01679	10/13/06
RF PREAMP	8447D	HEWLETT-PACKARD	2944A06291	5/24/06
BICONICAL ANTENNA	3110B	EMCO	9307-1431	10/11/06
LOG PERIODIC	3146	EMCO	3110-3236	9/15/05 2 Yr.
LISN (x 2) 8028-50-TS24-BNC	8028	SOLAR ELE.	910494 & 910495	3/29/06
HORN ANTENNA	SAS-571	A. H. SYSTEMS	605	04/1/05 2 Yr.
PREAMP	8449B	HEWLETT PACKARD	3008A00480	08/10/06
CALCULATION PROGRAM	N/A	N/A	Ver. 6.0	N/A

2.5 Antenna Description (Paragraph 15.203)

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

Axon LLC Corporation will sell the AXTracker MMT with the following antenna for the 2.4 GHz Transceiver portion.

MANUFACTURER	TYPE OF ANTENNA	MODEL	GAIN dB	TYPE OR CONNECTOR
Mobile Antennas				
Johanson	Patch	2450ATA100	3 dBi	Permanent through PCB

The STX-2 uses the antenna originally supplied under grant for L2V-STZ-2-1 dated 10/28/2005.

2.6 Fundamental, Peak, and Average Radiated Spurious Emissions in the Frequency Range 30 -25000 MHz (FCC Section 15.249)

The EUT was placed into a continuous transmit mode of operation. A preliminary scan was performed on the EUT to determine frequencies that were caused by the transmitter portion of the product. Significant emissions that fell within restricted bands were then measured on an OAT's site. Radiated measurements below 1 GHz were tested with a RBW = 120 kHz. Radiated measurements above 1 GHz were measured using a RBW = VBW = 1 MHz. The results of peak radiated fundamental frequencies and spurious emissions falling within restricted bands are given in Table 3a –3d and Figure 3a – 3d.

Average values were calculated using the following duty cycle correction.

Worst Case Transmit Duty Cycle for AXTracker MMT

The duty cycle de-rating factor used in the calculation of average radiated limits (per 15.249) is described below. This factor was calculated by first determining the worst case scenario for system operation. The worst case operating scenario is as follows:

Maximum transmit time/on equals 538 μ s (0.538 ms) over a 1.5 sec period. FCC regulations allow a maximum period of 100 ms

The transmission duty cycle correction factor is then calculated as:

$$20 * \log_{10} (0.583\text{ms}/100 \text{ ms}) = -44.7 \text{ dB}$$

This value was subtracted from the peak data listed in Section 2.8 and compared to the average limits in tables 3e and 3f.

Table 3a. PEAK Fundamental EMISSIONS

Radiated Emissions										
Test By:	Test:	FCC Part 15 – Low Channel				Client:	Axonn			
	Project:	06-0130		Class:	B	Model:	MMT			
Frequency Range		Table	Model		S/N		Valid	Calibrated:		
		2HN3mH	Model : SAS-571		S/N 605		Yes	01 APR 05		
Frequency	Test Data	AF	Test Data	AF+CA-AMP	Results	Limits	Distance /	Margi n	PK = n	
(MHz)	(dBm)	Table	(dBuV)	(dB)	(uV/m)	(uV/m)	Polarity	(dB)	/ QP	
2400.68	-46.2	2HN3mH	60.8	28.4	28808.7	500000.0	3m./HORZ	24.8	PK	
2439.8	-45.8	2HN3mH	61.2	28.4	30261.7	500000.0	3m./HORZ	24.4	PK	
2479.8	-44.5	2HN3mH	62.5	28.4	35260.9	500000.0	3m./HORZ	23.0	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 ((-46.2 + 28.4 + 107)/20) = 28808.7

CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: 

Name: Austin Thompson

Figure 3a - 1
Peak Radiated Spurious Emission 15.249(a) Fundamental Low

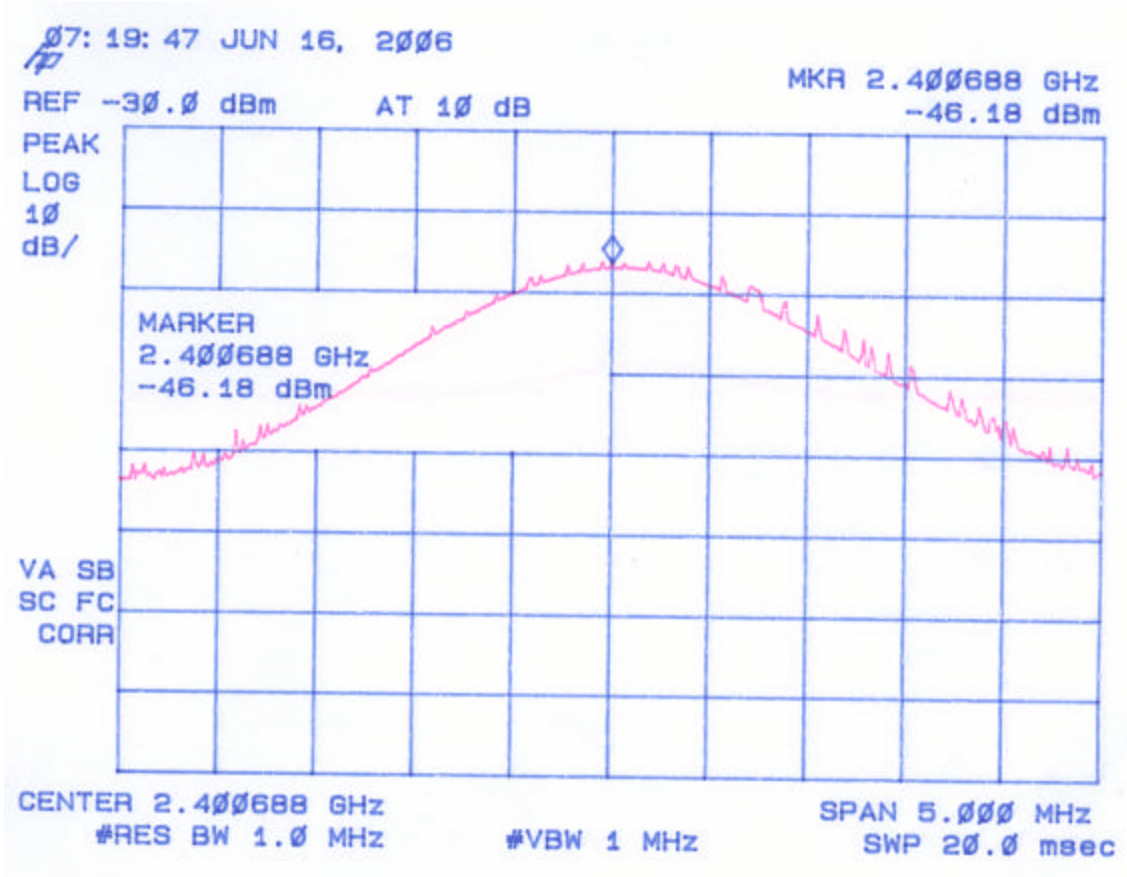


Figure 3a - 2
Peak Radiated Spurious Emission 15.249(a) Fundamental Mid

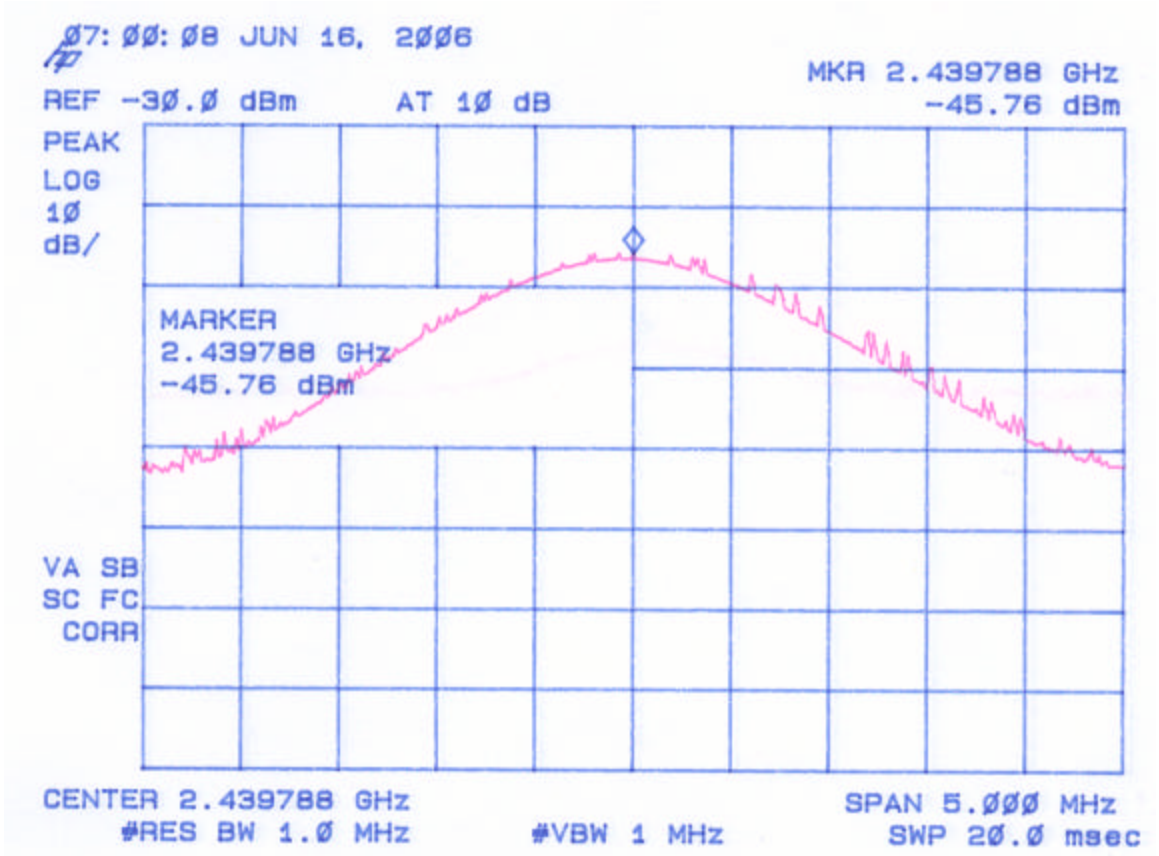


Figure 3a – 3
Peak Radiated Spurious Emission 15.249(a) Fundamental High

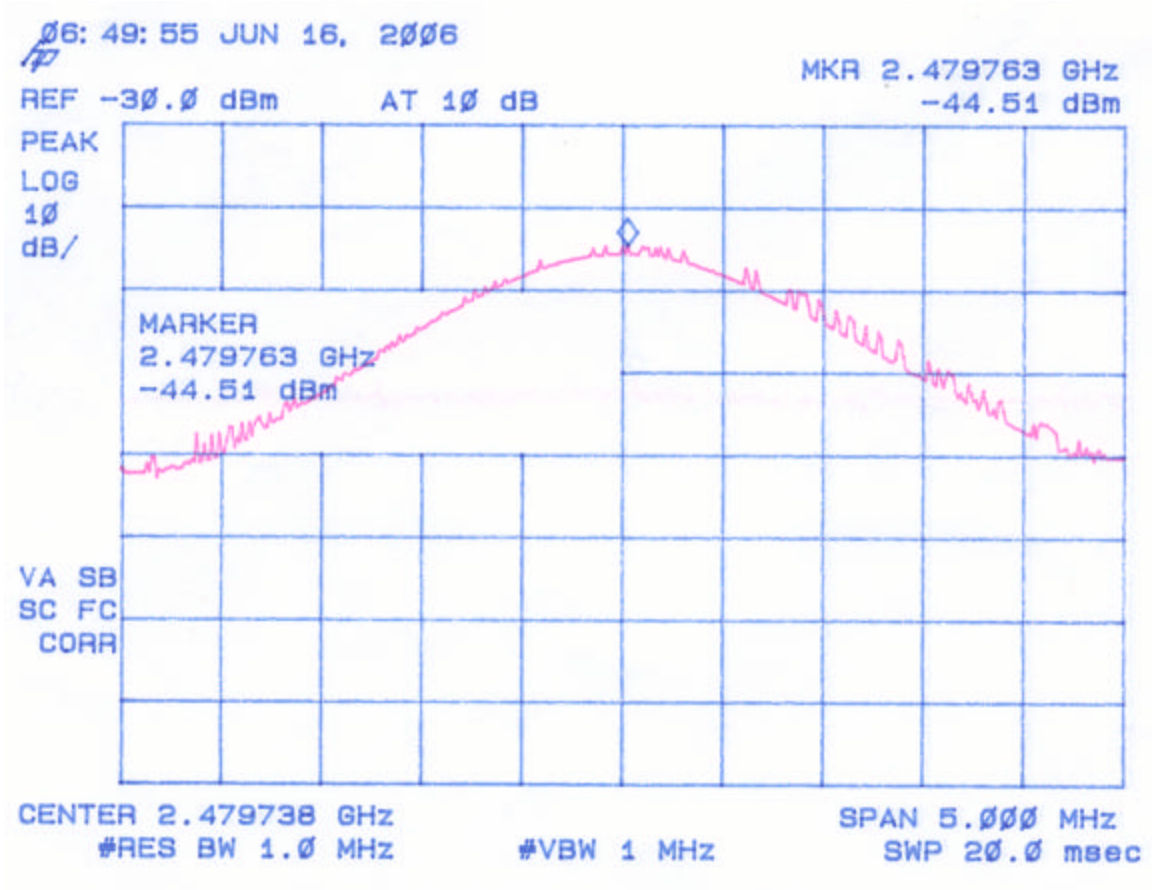


Table 3b. PEAK RADIATED SPURIOUS EMISSIONS (Low)

Radiated Emissions										
Test By:	Test:	FCC Part 15 – Low Channel				Client:	Axonn			
	Project:	06-0130		Class:	B	Model:	MMT			
Frequency Range		Table	Model		S/N		Valid	Calibrated:		
		2HN3mH	Model : SAS-571		S/N 605		Yes	01 APR 05		
Frequency	Test Data	AF	Test Data	AF+CA-AMP	Results	Limits	Distance /	Margi n	PK = n	
(MHz)	(dBm)	Table	(dBuV)	(dB)	(uV/m)	(uV/m)	Polarity	(dB)	/ QP	
4801.5	-47.6	2HN3mH	59.4	5.4	1745.3	5000.0	3m./HORZ	9.1	PK	
7202.1	-67.7	2HN3mH	39.3	10.7	314.9	5000.0	3m./HORZ	13.0	PK	
9602.9	-69.8	2HN3mH	37.2	13.3	333.5	5000.0	3m./HORZ	12.5	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 ((-47.6 + 5.4 + 107)/20) = 1745.3

CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: 

Name: Austin Thompson

Figure 3b - 1
Peak Radiated Spurious Emission 15.249(a) Low

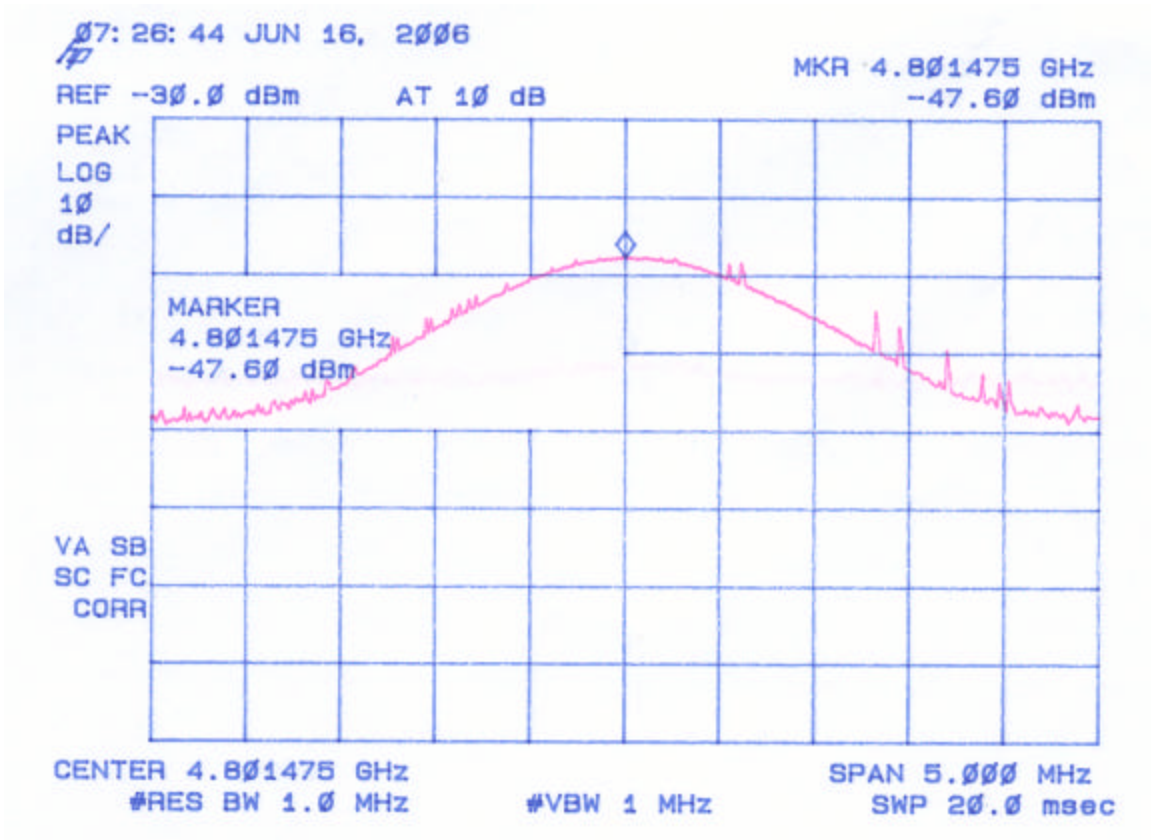


Figure 3b - 2
Peak Radiated Spurious Emission 15.249(a) Low

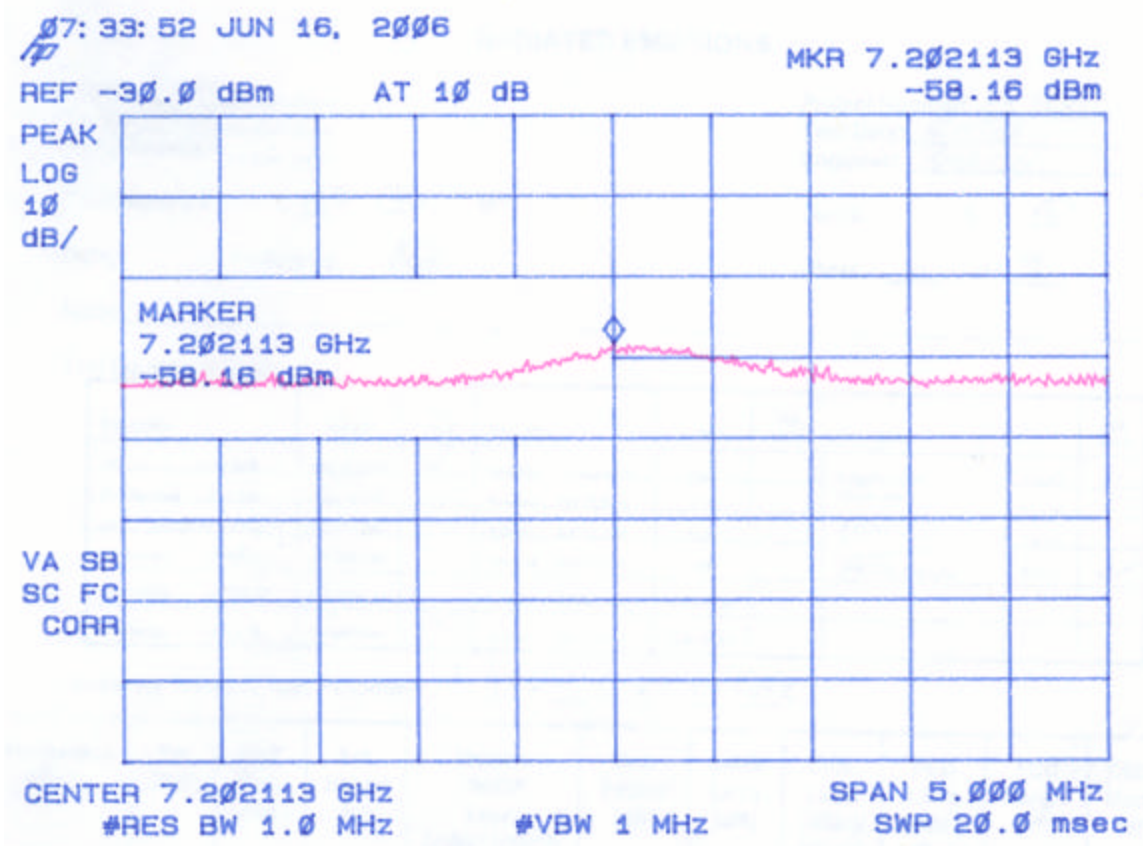


Figure 3b - 3
Peak Radiated Spurious Emission 15.249(a) Low

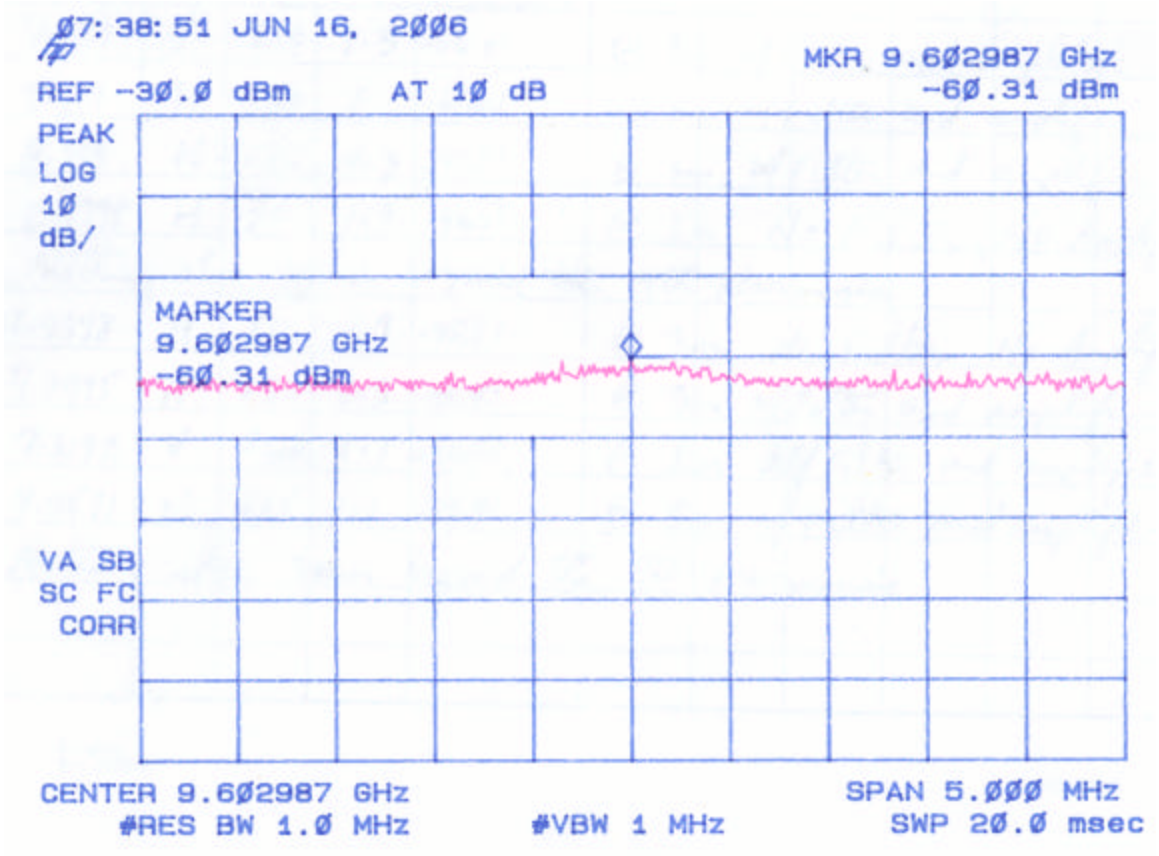


Table 3c. PEAK RADIATED SPURIOUS EMISSIONS (Mid)

Radiated Emissions									
Test By:	Test:	FCC Part 15 – Mid Channel			Client:	Axonn			
	Project:	06-0130		Class:	B	Model:	MMT		
Frequency Range		Table	Model		S/N		Valid	Calibrated:	
		2HN3mH	Model : SAS-571		S/N 605		Yes	01 APR 05	
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
4879.5	-48.4	2HN3mH	58.6	5.7	1643.1	5000.0	3m./HORZ	9.7	PK
7319.2	-66.1	2HN3mH	40.9	10.9	386.3	5000.0	3m./HORZ	22.2	PK
9759.1	-67.9	2HN3mH	39.1	13.5	423.9	5000.6	3m./HORZ	10.9	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 $((-48.4 + 5.7 + 107)/20)$ = 1643.1

CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: 

Name: Austin Thompson

Figure 3c - 1
Peak Radiated Spurious Emission 15.249(a) Mid

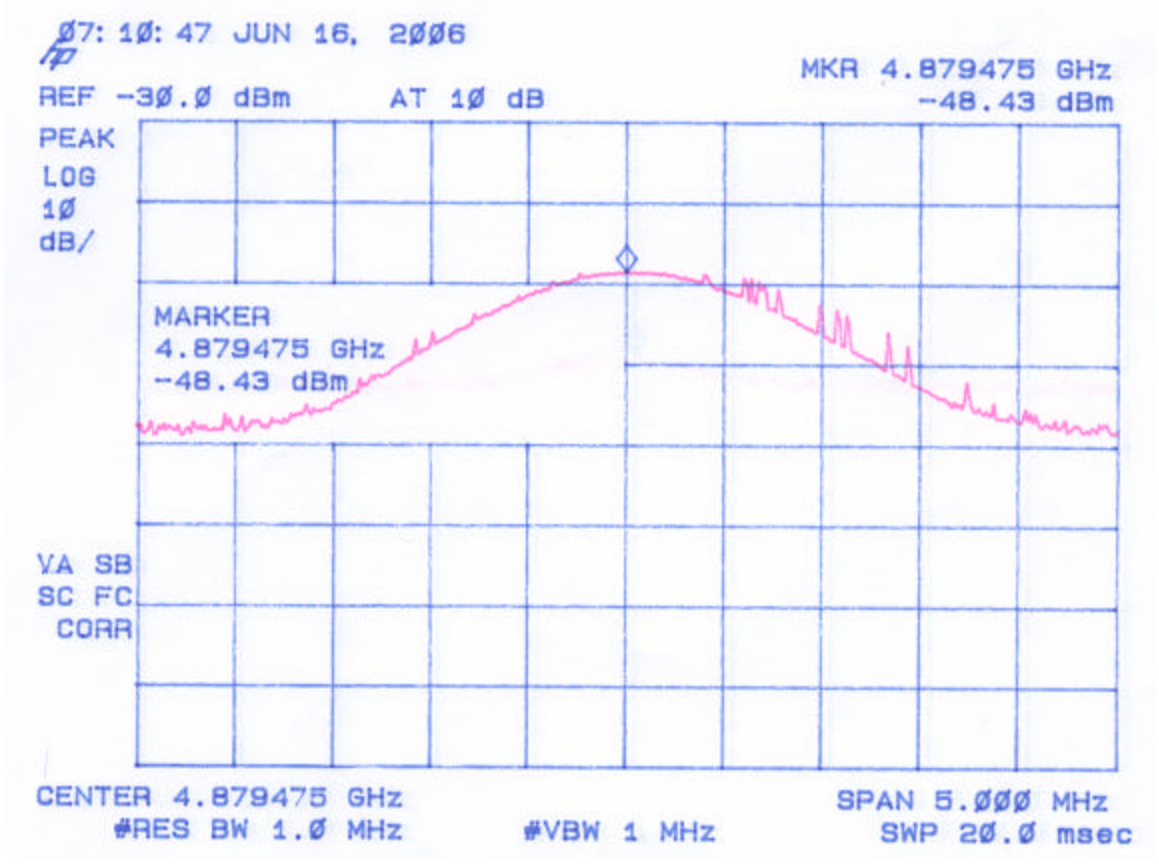


Figure 3c - 2
Peak Radiated Spurious Emission 15.249(a) Mid

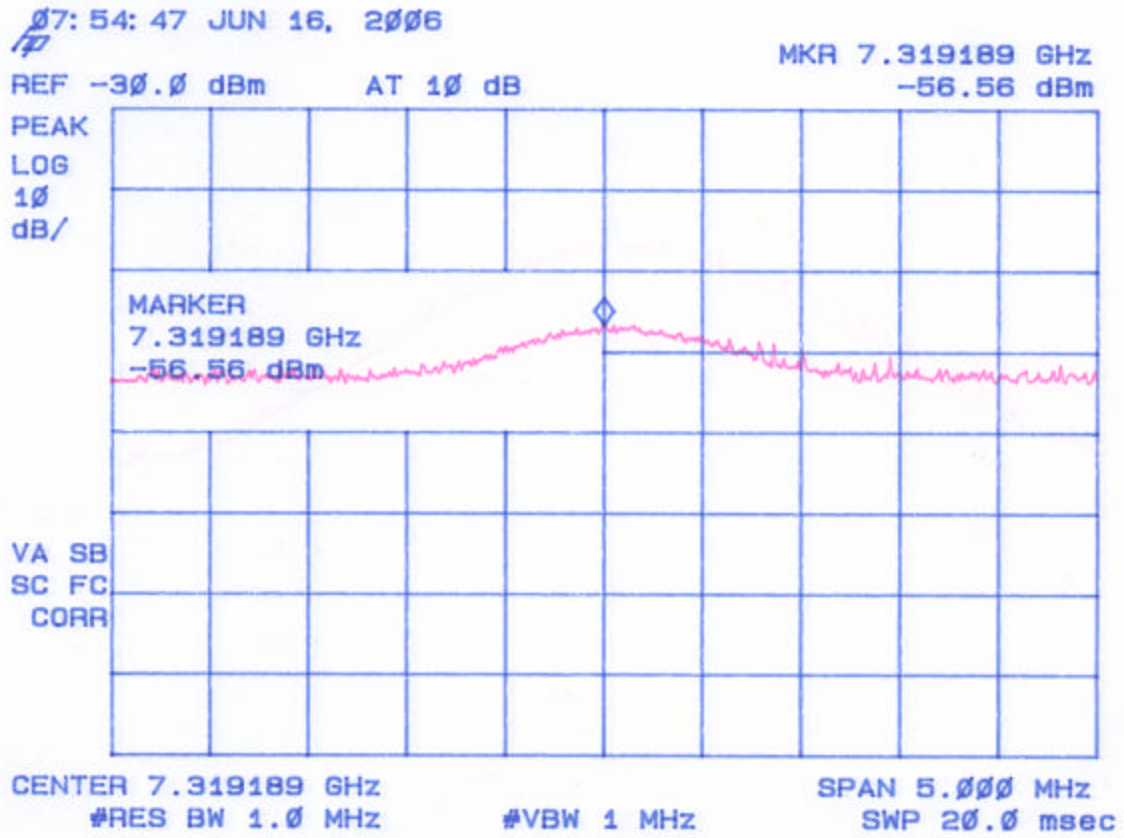


Figure 3c - 3
Peak Radiated Spurious Emission 15.249(a) Mid

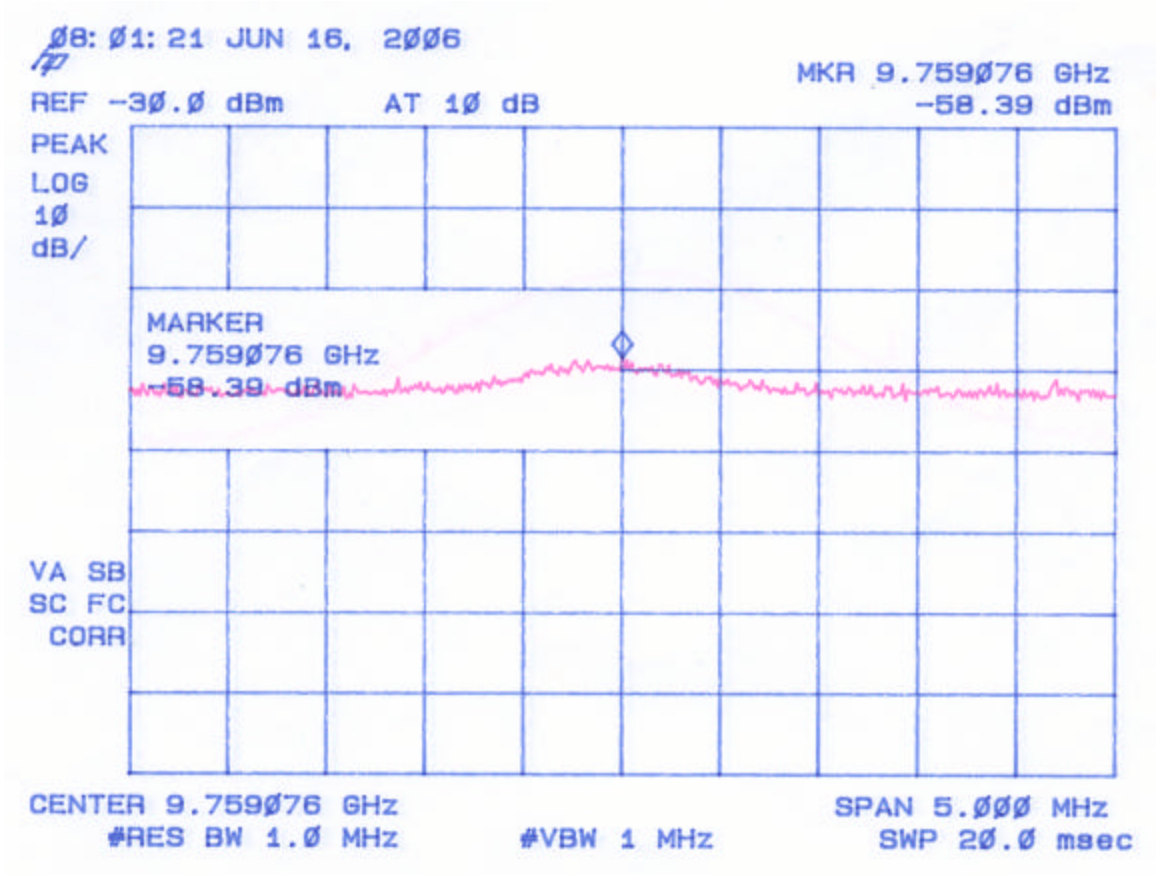


Table 3d. PEAK RADIATED SPURIOUS EMISSIONS (High)

Radiated Emissions										
Test By:	Test:	FCC Part 15 - High Channel				Client:	Axonn			
	Project:	06-0130		Class:	B	Model:	MMT			
Frequency Range		Table	Model		S/N		Valid	Calibrated:		
		2HN3mH	Model : SAS-571		S/N 605		Yes	01 APR 05		
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	-47.8	2HN3mH	59.2	6.0	1818.6	5000.0	3m./HORZ	8.8	PK	
7439	-65.5	2HN3mH	41.5	11.1	422.6	5000.0	3m./HORZ	21.5	PK	
9919	-70.1	2HN3mH	36.9	13.7	336.3	5000.0	3m./HORZ	14.2	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 ((-47.8 + 6.0 + 107)/20) = 1818.6

CONVERSION FROM dBm TO dBuV = 107 dB

Tester
Signature: 

Name: Austin Thompson

Figure 3d – 1
Peak Radiated Spurious Emission 15.249(a) High

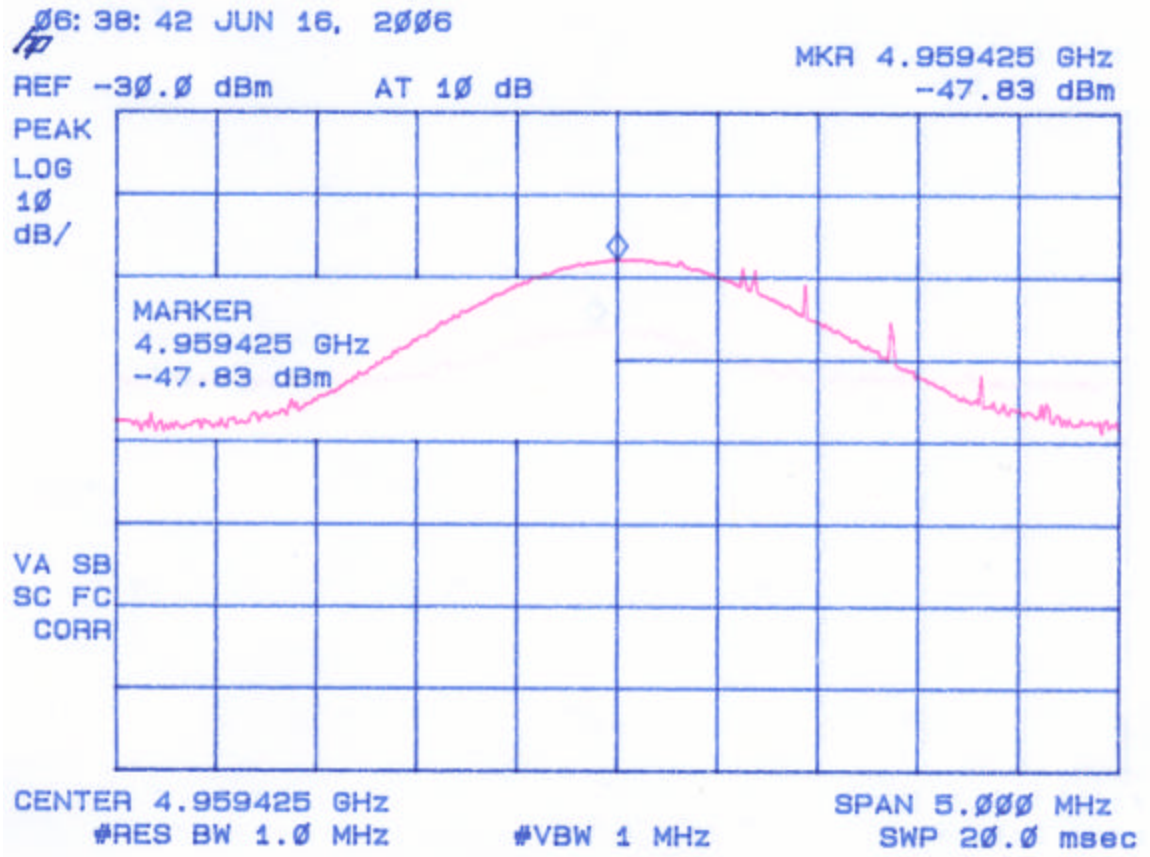


Figure 3d – 2
Peak Radiated Spurious Emission 15.249(a) High

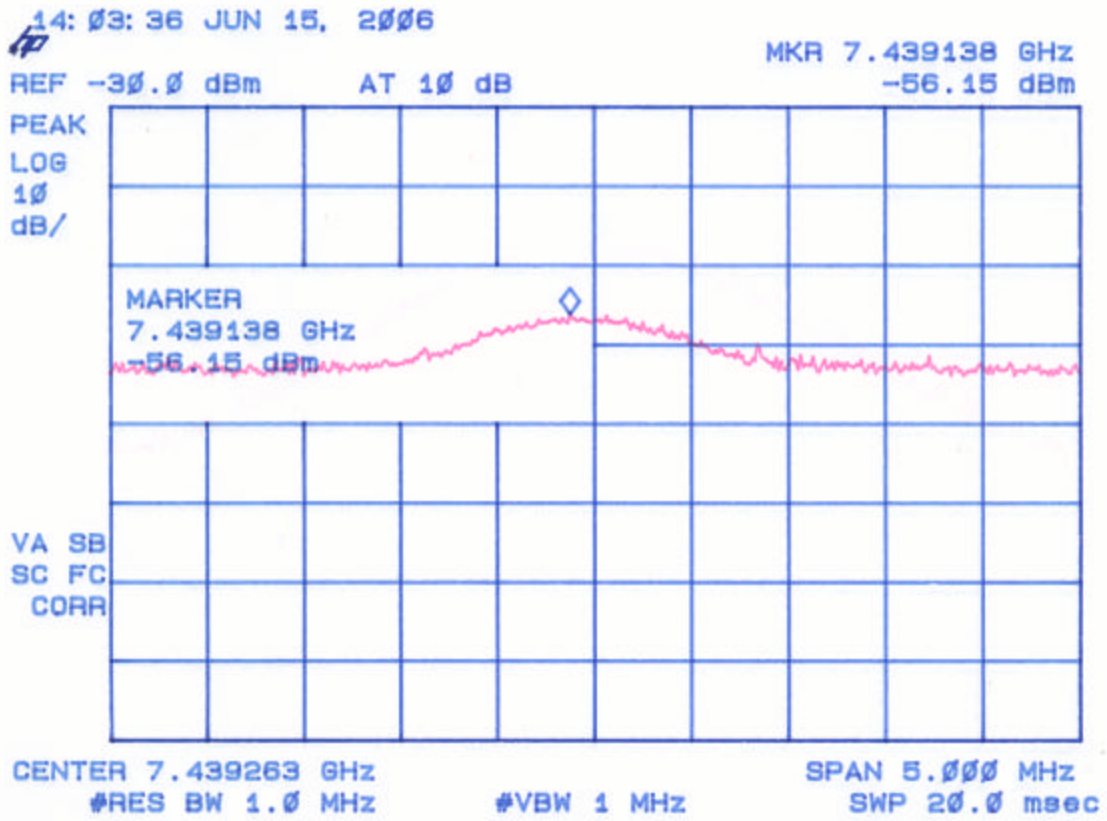


Figure 3d – 3
Peak Radiated Spurious Emission 15.249(a) High

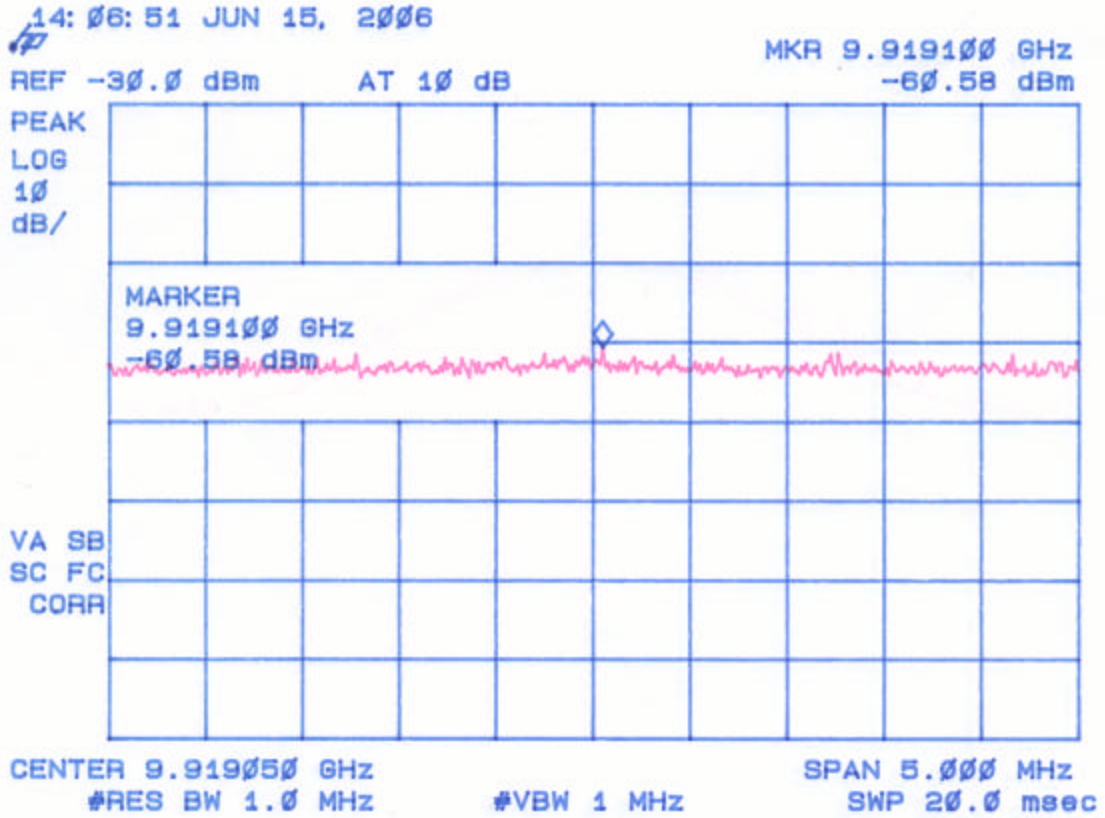


Table 3e. AVERAGE FUNDAMENTAL EMISSIONS

Radiated Emissions									
						Client:	Axonn		
						Model:	AXTracker MMT		
Project:	06-0130		Class:		B				
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
2400	-90.9	2HN3mH	16.1	31.6	243.3	50000.0	3m./HORZ	46.3	AVG
2439.8	-90.5	2HN3mH	16.5	31.7	256.7	50000.0	3m./HORZ	45.8	AVG
2479.8	-89.2	2HN3mH	17.8	31.8	300.5	50000.0	3m./HORZ	44.4	AVG

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

SAMPLE CALCULATION:

RESULTS (uV/m @ 3m) = Antilog ((-108.4 + -1.4 + 107)/20) = 32.4

CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: 

Name: Austin Thompson

Table 3f. AVERAGE RADIATED SPURIOUS EMISSIONS

Radiated Emissions									
						Client:	Axonn		
						Model:	AXTracker MMT		
Frequency	Project:	AF	Test Data	AF+CA-AMP	Results	Limits	Distance /	Margin	PK = n
	(dBm)	Table	(dBuV)	(dB)	(uV/m)	(uV/m)	Polarity	(dB)	/QP
4801.50	-92.3	2HN3mH	14.7	5.4	10.2	500.0	3m./HORZ	33.8	AVG
7201.1	-112.4	2HN3mH	-5.4	10.7	1.8	500.0	3m./HORZ	48.7	AVG
9602.9	-114.5	2HN3mH	-7.5	13.3	2.0	500.0	3m./HORZ	48.2	AVG
4879.5	-93.1	2HN3mH	13.9	5.7	9.6	500.0	3m./HORZ	34.4	AVG
7319.2	-110.8	2HN3mH	-3.8	10.9	2.3	500.0	3m./HORZ	46.9	AVG
9759.1	-112.6	2HN3mH	-5.6	13.5	2.5	500.0	3m./HORZ	46.1	AVG
4959	-92.5	2HN3mH	14.5	6.0	10.6	500.0	3m./HORZ	33.5	AVG
7439	-110.2	2HN3mH	-3.2	11.1	2.5	500.0	3m./HORZ	46.1	AVG
9919	-114.8	2HN3mH	-7.8	13.7	2.0	500.0	3m./HORZ	48.1	AVG

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 ((-109.7 + -2.7 + 107)/20) = 1.4

CONVERSION FROM dBm TO dBuV = 107 dB

Tester

Signature: 

Name: Austin Thompson