



*Testing Tomorrow's Technology*

**FCC Part 25, Certification Application  
of the  
Axonn, LLC  
Satellite Personal Tracker Model: SPT**

**Issue Date: September 21, 2007  
UST Project No: 07-0197**

**3505 Francis Circle Alpharetta, GA 30004  
PH: 770-740-0717 Fax: 770-740-1508  
[www.ustech-lab.com](http://www.ustech-lab.com)**



U.S. Technologies, Inc.

FCC Part 25 Certification

Report Number: 07-0197

Issue Date: September 21, 2007

Customer: Axonn LLC

Model: Satellite Personal Tracker Model: SPT

## MEASUREMENT/TECHNICAL REPORT

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

Equipment type: Satellite Transceiver

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

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

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## GENERAL INFORMATION

### 1.1 Product Description

The Equipment Under Test (EUT) is the Axonn LLC, Satellite Personal Tracker. The EUT is a personal tracking device providing for the location of a person in routine and emergency situations. The device receives location information via the GPS satellite constellation and transmits the information to the Globalstar satellite constellation for relay to the end user or their designated recipient.

The Unit operates at the following 4 transmit frequencies: 1611.25, 1613.75, 1616.26 and 1618.25 MHz. Once service is established with Globalstar, SPT sends information to Globalstar satellites which relay the information to ground stations. The processed information is then available. The device is delivered complete and ready-to-go with no need for an external antenna or power source.

The EUT was configured to operate at 1611.25, 1613.75 and 1618.25 MHz, 255 Symbols, BPSK Demod on continuous transmit mode.

For the purpose of this test the EUT was placed into a (+20 dBm) constant TX mode of operation.

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## **1.2 Related Submittal(s)/Grant(s)**

The EUT is subject to the following authorizations:

- a) Certification as a transceiver as specified by Part 25.

The information contained in this report is presented for the Part 25 Certification authorization(s) for the EUT.



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## SECTION 2

# TEST AND MEASUREMENTS

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## **TEST AND MEASUREMENTS**

### **2.1 Configuration of Tested System**

Prepared in accordance with the requirements of the FCC Rules and Regulations Part 2 & 25. All measurements are peak unless stated otherwise. The video filter associated with the spectrum analyzer was off throughout the evaluation process. Interconnecting cables were manipulated as necessary to maximize emissions. A block diagram of the tested system is shown in Figure 1. Test configuration photographs for spurious emissions are shown in Figure 2.

### **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 registered with the FCC under designation Number US5115. Additionally, this site has also been fully described and submitted to Industry Canada (IC), and has been approved under file number 2982A-1.

### **2.3 Test Equipment**

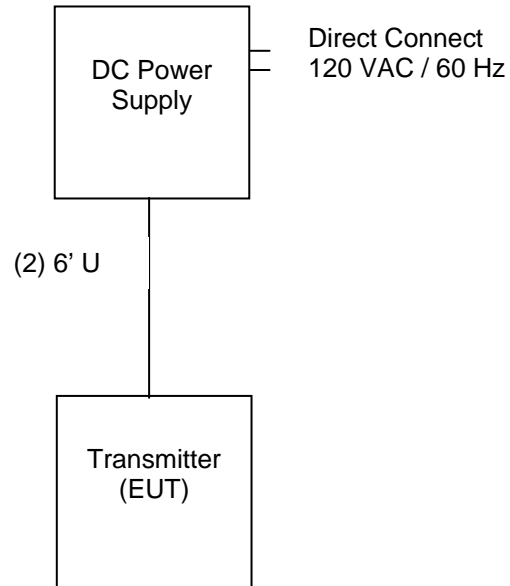
Table 2 describes test equipment used to evaluate this product.

### **2.4 Modifications**

No modifications were made by US Tech to bring the EUT into compliance with FCC Part 25 limits for the transmitter portion of the EUT.

**FIGURE 1**

**TEST CONFIGURATION**



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**TABLE 1****EUT and Peripherals**

| <b>PERIPHERAL<br/>MANUFACTURER</b>               | <b>MODEL<br/>NUMBER</b> | <b>SERIAL<br/>NUMBER</b> | <b>FCC ID:</b> | <b>CABLES<br/>P/D</b>         |
|--------------------------------------------------|-------------------------|--------------------------|----------------|-------------------------------|
| Satellite Personal Tracker<br>Axonn LLC<br>(EUT) | SPT                     | None                     | None           | (2) 6' U<br>DC Leads          |
| DC Power Supply                                  |                         | None                     | N/A            | 6'U<br>120 VAC / 60 Hz Source |

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**TABLE 2  
TEST INSTRUMENTS**

| <b>EQUIPMENT</b>               | <b>MODEL NUMBER</b> | <b>MANUFACTURER</b> | <b>SERIAL NUMBER</b> | <b>DATE OF LAST CALIBRATION</b> |
|--------------------------------|---------------------|---------------------|----------------------|---------------------------------|
| SPECTRUM ANALYZER              | 8558B               | HEWLETT-PACKARD     | 2332A10055           | 02/19/04                        |
| SPECTRUM ANALYZER              | 8593E               | HEWLETT-PACKARD     | 3205A00124           | 3/1/05                          |
| RF PREAMP                      | 8447D               | HEWLETT-PACKARD     | 2944A07436           | 4/6/05                          |
| RF PREAMP                      | 8449B               | HEWLETT-PACKARD     | 3008A00480           | 6/23/04                         |
| LOG PERIODIC ANTENNA           | 3146                | EMCO                | 3236                 | 6/3/05                          |
| LISN (x 2)<br>8028-50-TS24-BNC | 8028                | SOLAR ELE.          | 910494 &<br>910495   | 1/27/05                         |
| HORN ANTENNA                   | 3115                | HEWLETT-PACKARD     | 9107-3723            |                                 |
| CALCULATION PROGRAM            | N/A                 | N/A                 | EMCCALC              | N/A                             |

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## **2.5 Antenna Description**

The EUT will incorporate a Satellite transmit antenna: 25 mm ceramic patch, +4 dBi gain. GPS receive antenna: ceramic patch, passive.

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## **2.6 RF Power Output (FCC Section 2.1046)**

In bands shared coequally with terrestrial radio communications services, the equivalent isotropically radiated power transmitted in any direction towards the horizon by an earth station operating in frequency bands between 1 and 15 GHz, shall not exceed the limits below.

For angles of elevation of the horizon greater than 5 degrees there shall be no restriction as to the equivalent isotropically radiated power transmitted by an earth station towards the horizon.

### **FCC Minimum Standard (FCC Section 25.204 & )**

EIRP < +40 dBW in any 4 kHz band for  $\theta=0$  degrees

The manufacturer has stated that the EUT has a maximum output power of +20 dBm.

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**TABLE 3**  
**RF POWER OUTPUT**

| Frequency of Fundamental (MHz) | Measurement (dBm)* | Measurement (Watt) |
|--------------------------------|--------------------|--------------------|
| 1611.290                       | 19.20              | .083               |
| 1613.570                       | 19.10              | .081               |
| 1618.540                       | 18.70              | .074               |

\*Measurement includes 0.1 dB for cable loss

Note: Given the output power and antenna gain of +4 dBi, even the direct lobe of radiation meets the FCC's EIRP Requirement for  $\theta = 0$  (+40 dBW)

**Test Date: August 14, 2007**

Tester  
Signature: *Daniel Aparaschivei*

Name: Daniel Aparaschivei



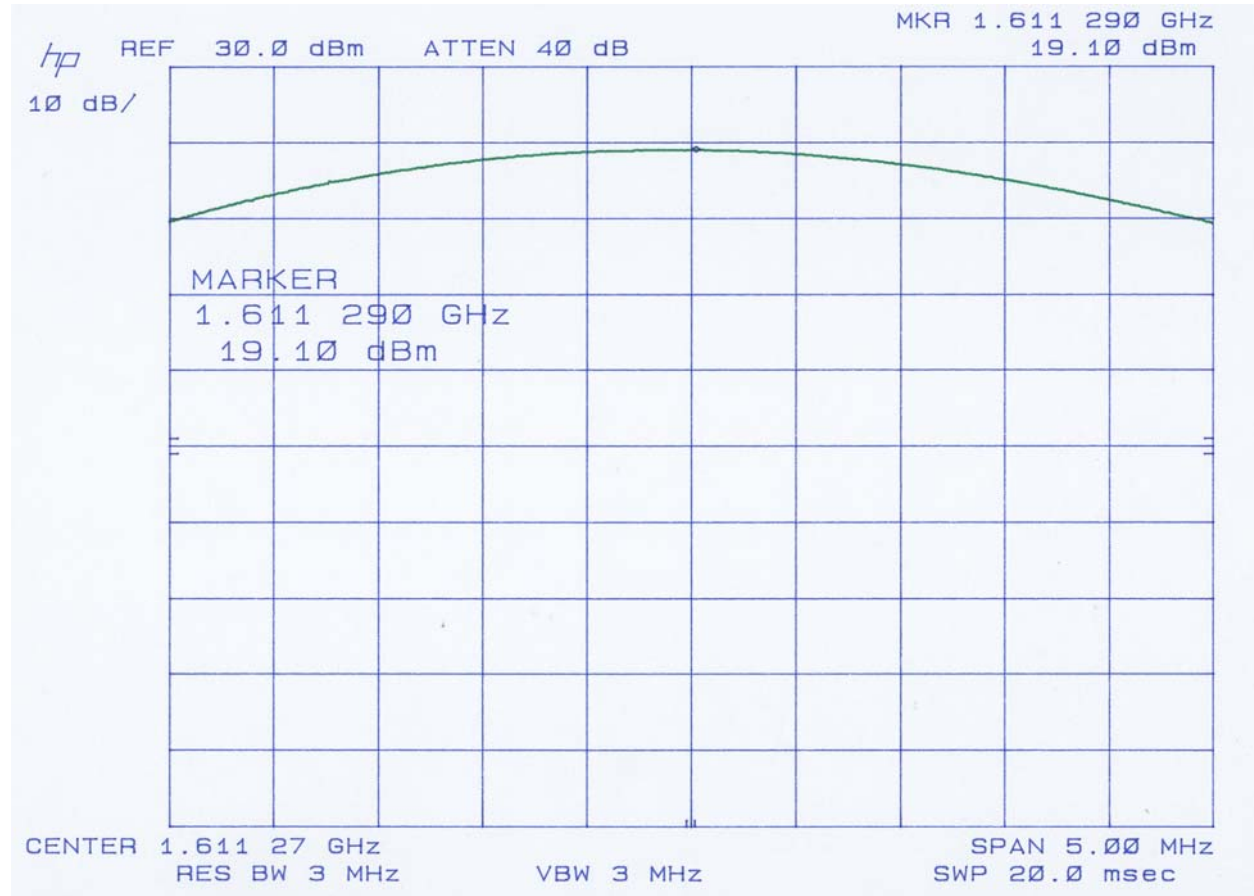
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**Figure 3a.**  
**RF Power Output Low**



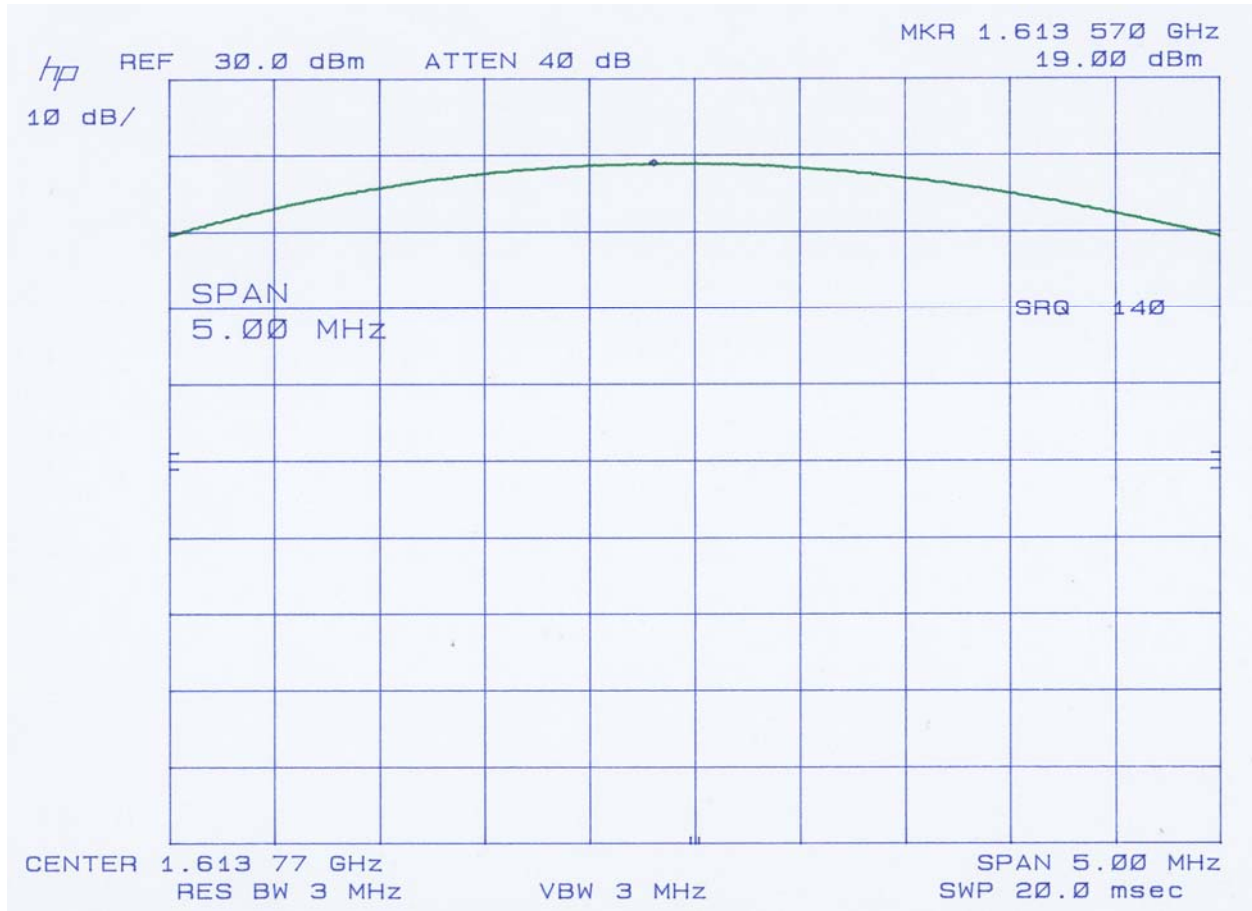
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**Figure 3b.**  
**RF Power Output Mid**



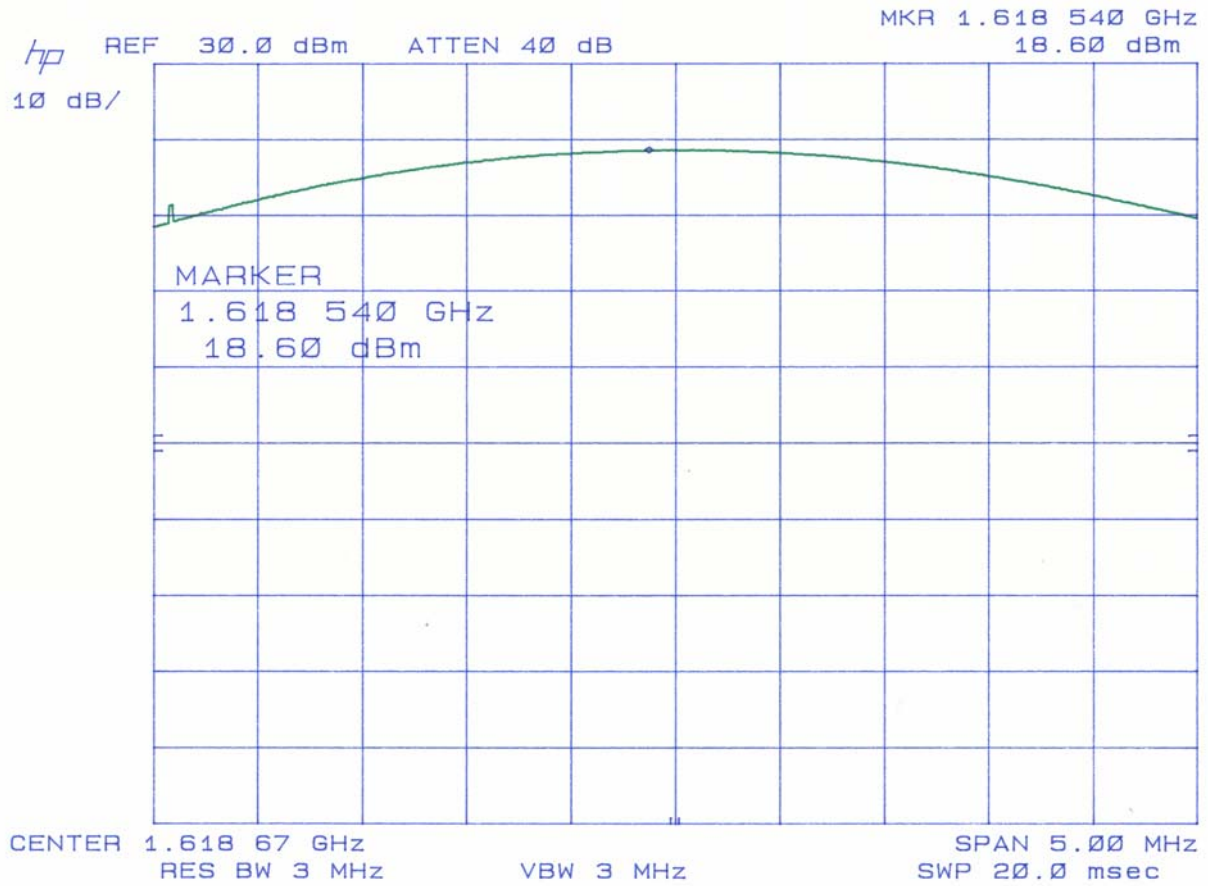
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**Figure 3c.  
RF Power Output High**



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## **2.7 Modulation Characteristics (FCC Section 2.1047)**

Since the device incorporates digital modulation techniques, this information is not necessary.

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**Figure 4.  
Modulation Characteristics**

**The EUT uses digital modulation techniques only which were employed during the tests for occupied bandwidth.**

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## 2.8 Occupied Bandwidth (FCC Section 2.1049)

EUT was modulated by its own internal sources. Low, First Mid, and High Channels were tested. The bandwidth of the fundamental was measured using a spectrum analyzer. The results are shown in Figure 5a through Figure 5d. Long sweep times were applied near to the fundamental to ensure a good signal was obtained.

### FCC Minimum Standard (FCC Section 25.202(f))

For out-of-band emissions for frequencies removed from the midpoint of the assigned frequency by more than 50% up to and including 100% of the authorized bandwidth (2.5 MHz), at least 25 dB.

For out-of-band emissions for frequencies removed from the midpoint of the assigned frequency by more than 100% up to and including 250% of the authorized bandwidth (2.5 MHz), at least 35 dB.

For out-of-band emissions for frequencies removed from the midpoint of the assigned frequency segment by more than 250% of the authorized bandwidth (2.5 MHz), at least  $43 + 10 \log (P_{\text{Watts}})$  attenuation below the mean power of the transmitter.

For Lowest Channel =  $43 + 10 \log (0.083) = 32.2 \text{ dB}$

For Highest Channel =  $43 + 10 \log (0.074) = 31.7 \text{ dB}$

#### Note:

A 30 kHz RBW was used instead. This was deemed to meet the 4 kHz RBW requirement.

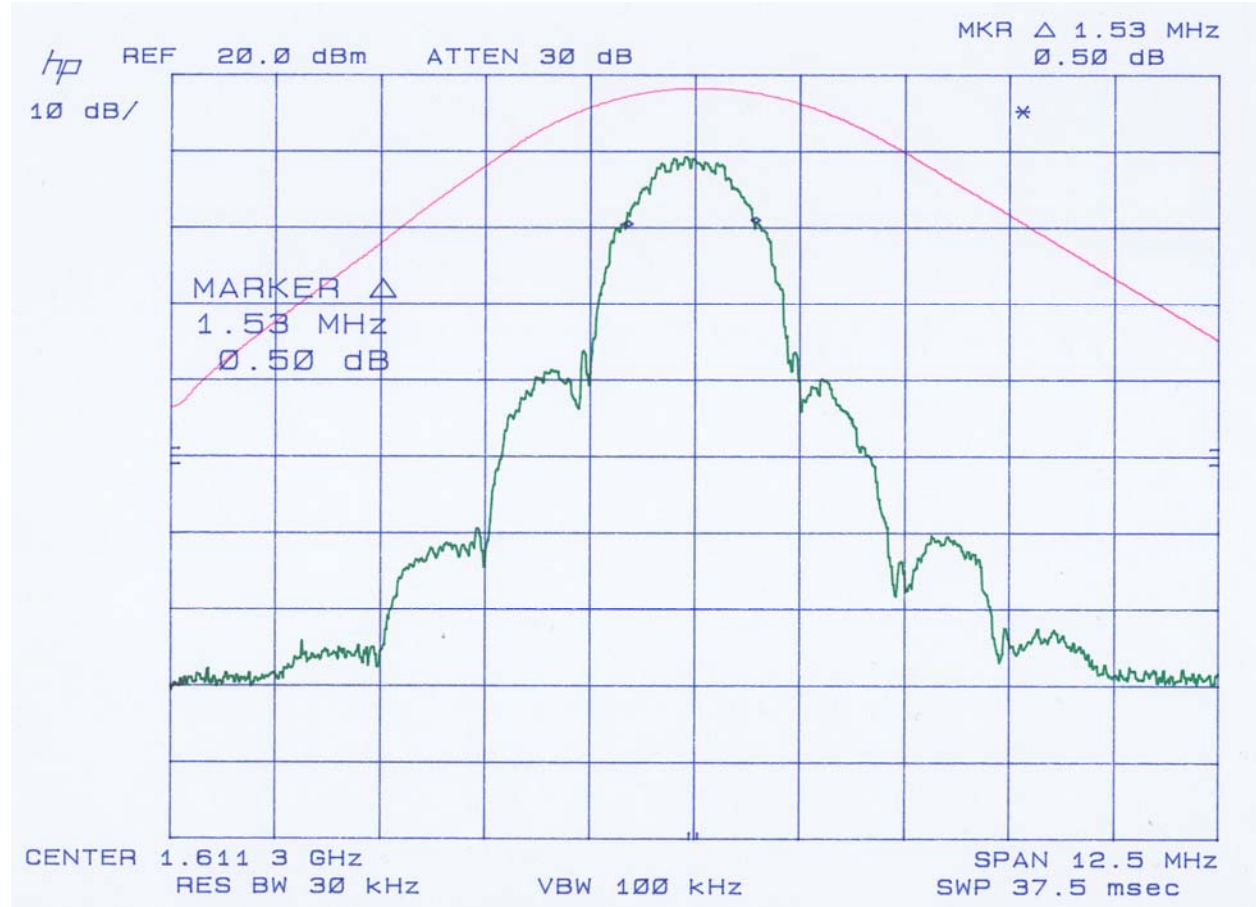
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**Figure 5a.**  
**99 % Occupied Bandwidth – Low**



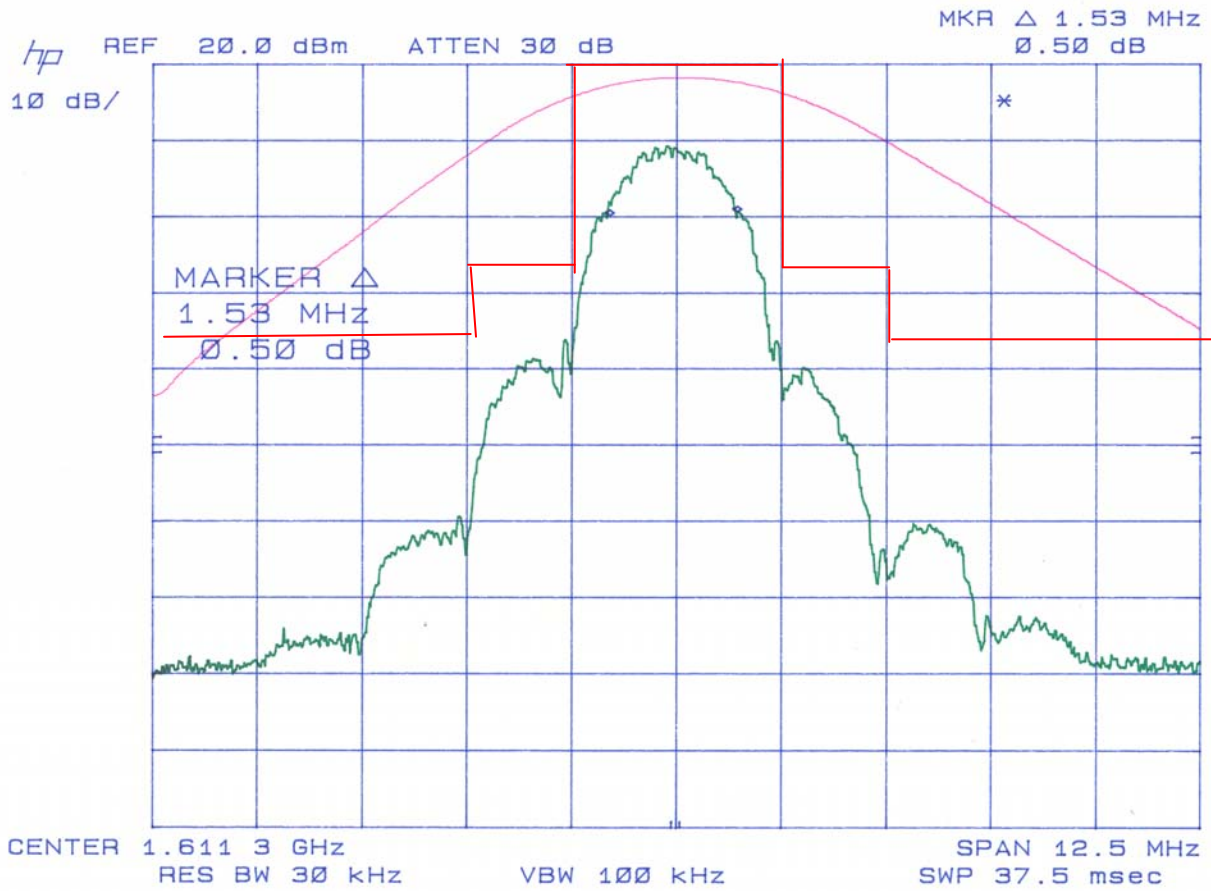
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**Figure 5b.**  
**Occupied Bandwidth > 50% From Edge of Authorized Bandwidth – Low**





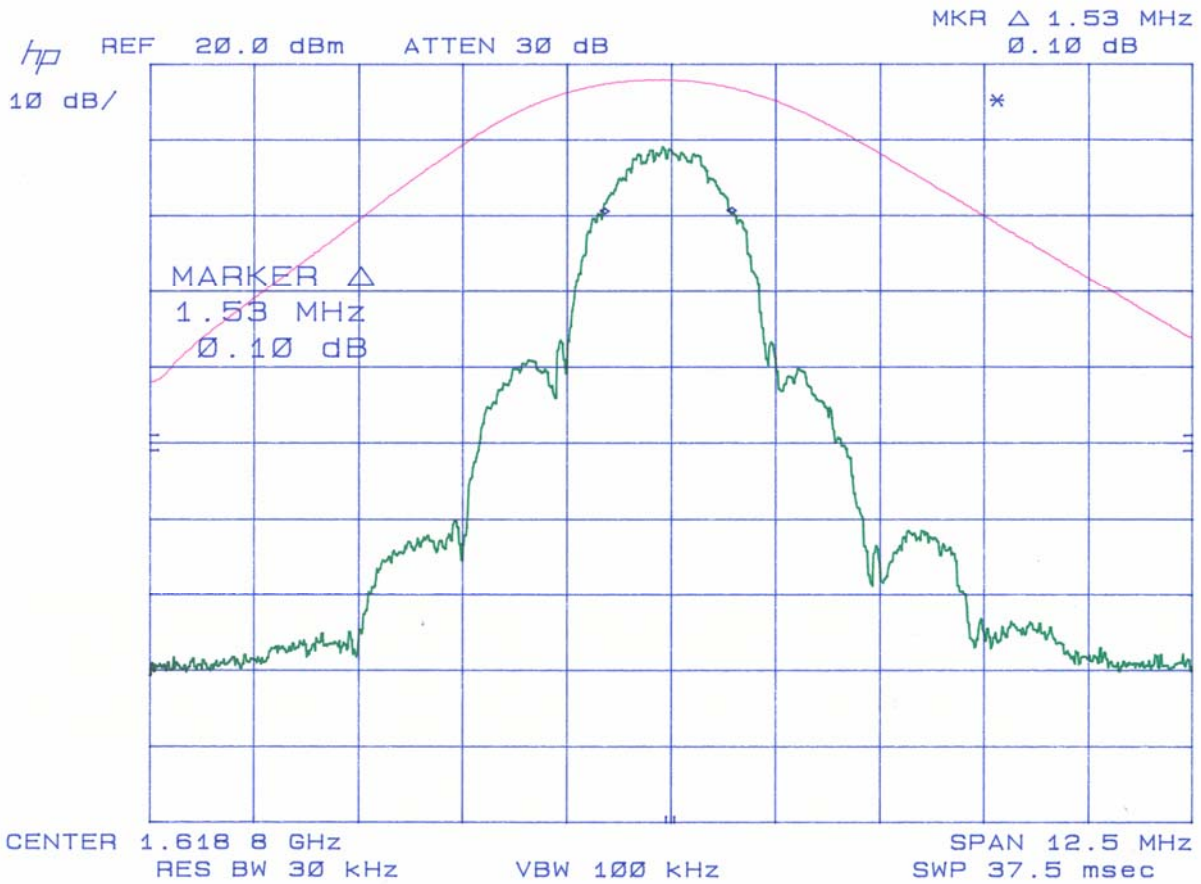
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**Figure 5c.**  
**99% Occupied Bandwidth – High**



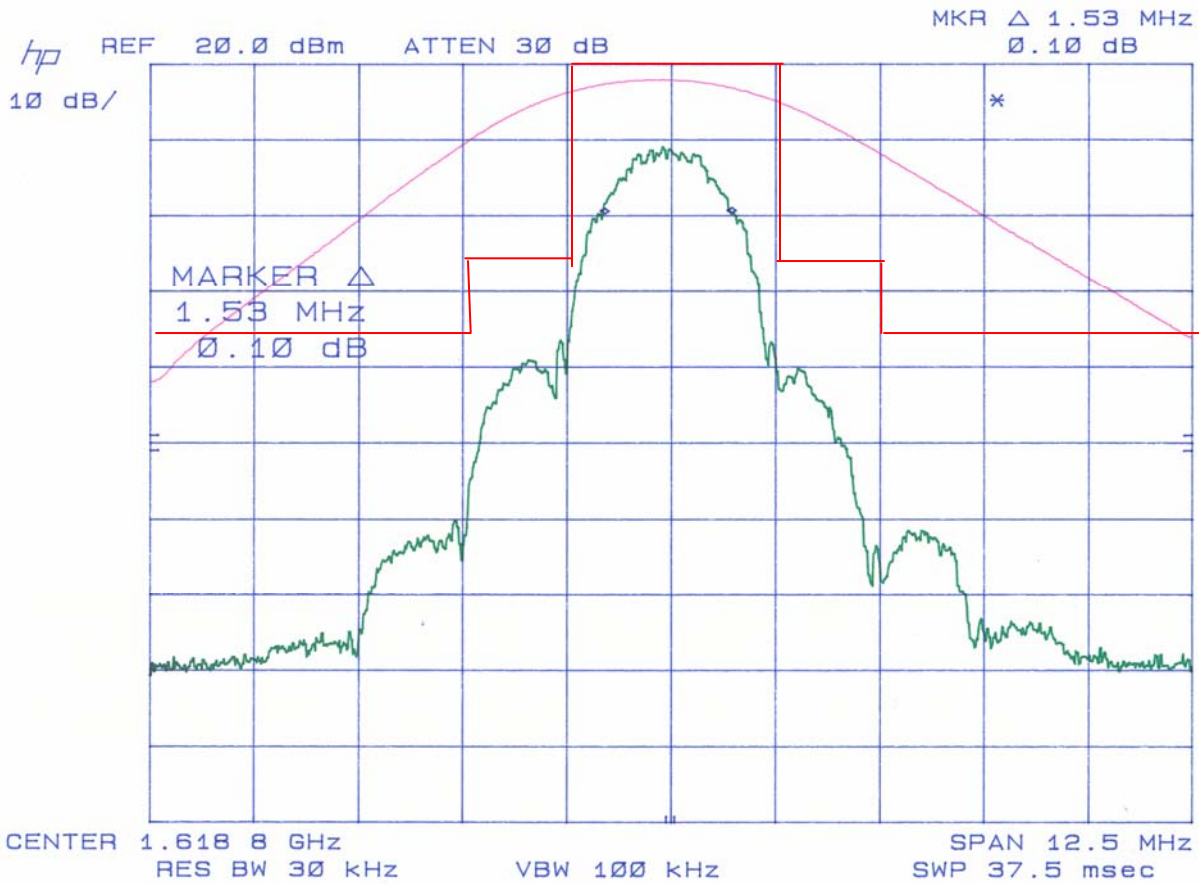
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**Figure 5d.**  
**Occupied Bandwidth > 50% From Edge of Authorized Bandwidth – High**



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## 2.9 Spurious Emissions at Antenna Terminals (FCC Section 2.1051)

Spurious emissions appearing at the antenna terminals were measured with a spectrum analyzer by connecting the spectrum analyzer directly via a short cable to the antenna output terminals or across the antenna leads on the PCB as specified by the manufacturer. Results are shown in Figures 6a – 6n.

Protection of the radio-navigation-satellite service. Mobile earth stations operating in the 1610-1626.5 MHz band shall limit out-of-band emissions in the 1574.397-1576.443 MHz band so as not to exceed an e.i.r.p. density level of -70 dB (W/MHz) averaged over any 20 ms period. The e.i.r.p. of any discrete spurious emission (i.e., bandwidth less than 600 Hz) in the 1574.397-1576.443 MHz band shall not exceed -80 dBW.

### FCC Minimum Standard (FCC Section 25.202(f))

For out-of-band emissions for frequencies removed from the midpoint of the assigned frequency segment by more than 250% of the authorized bandwidth (2.5 MHz), at least

$43 + 10 \log (P_{\text{Watts}})$  attenuation below the mean power of the transmitter.

For Lowest Channel =  $43 + 10 \log (0.083) = 32.2 \text{ dB}$

For Highest Channel =  $43 + 10 \log (0.074) = 31.7 \text{ dB}$

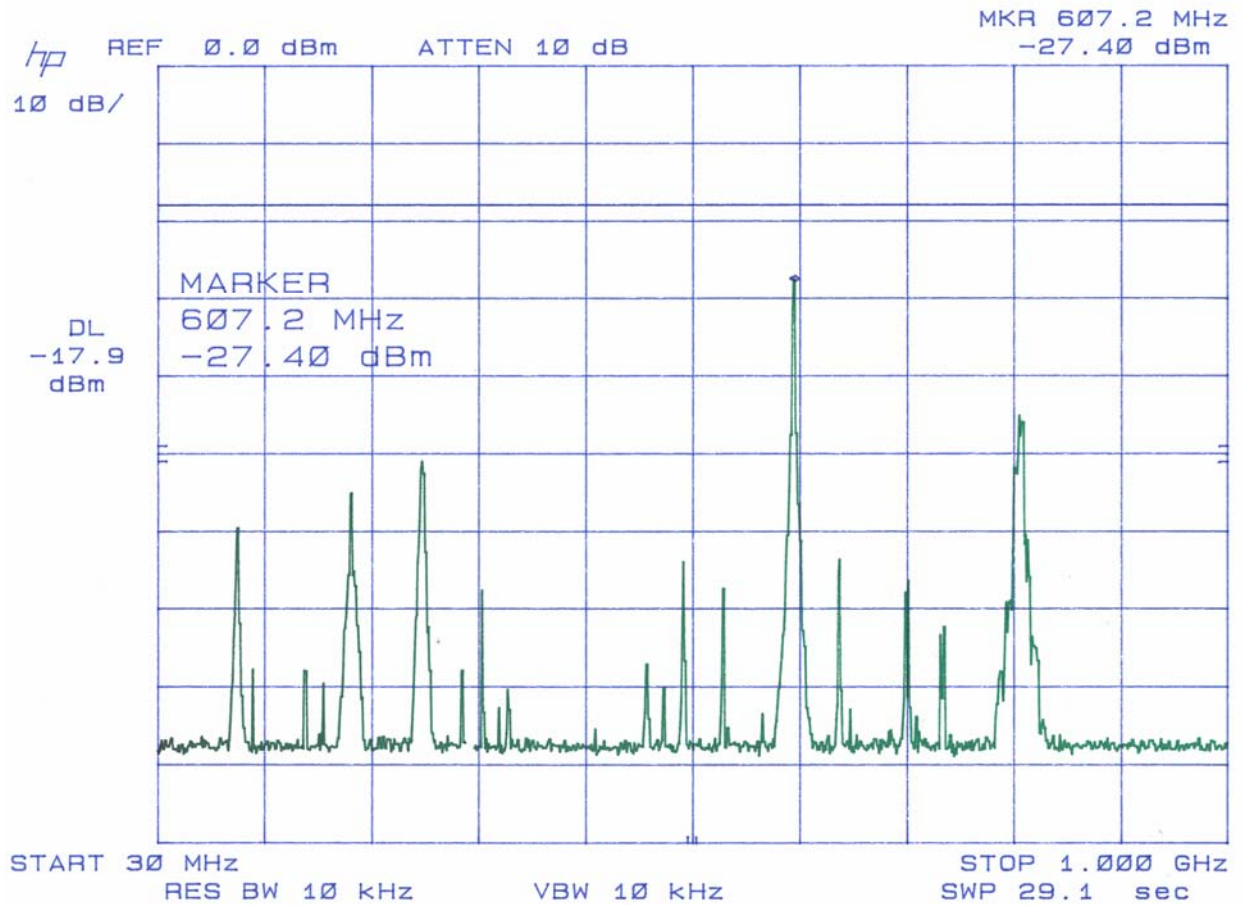
Note:

A 10 kHz RBW was used instead. This was deemed to be comparable to 4 kHz RBW.

### Additional requirement for 1574.397 - 157.443 MHz (FCC Section 25.213(b))

- 80 dBW (- 50 dBm)

**Figure 6a.**  
**Spurious Emissions at Antenna Terminals – Low Channel**



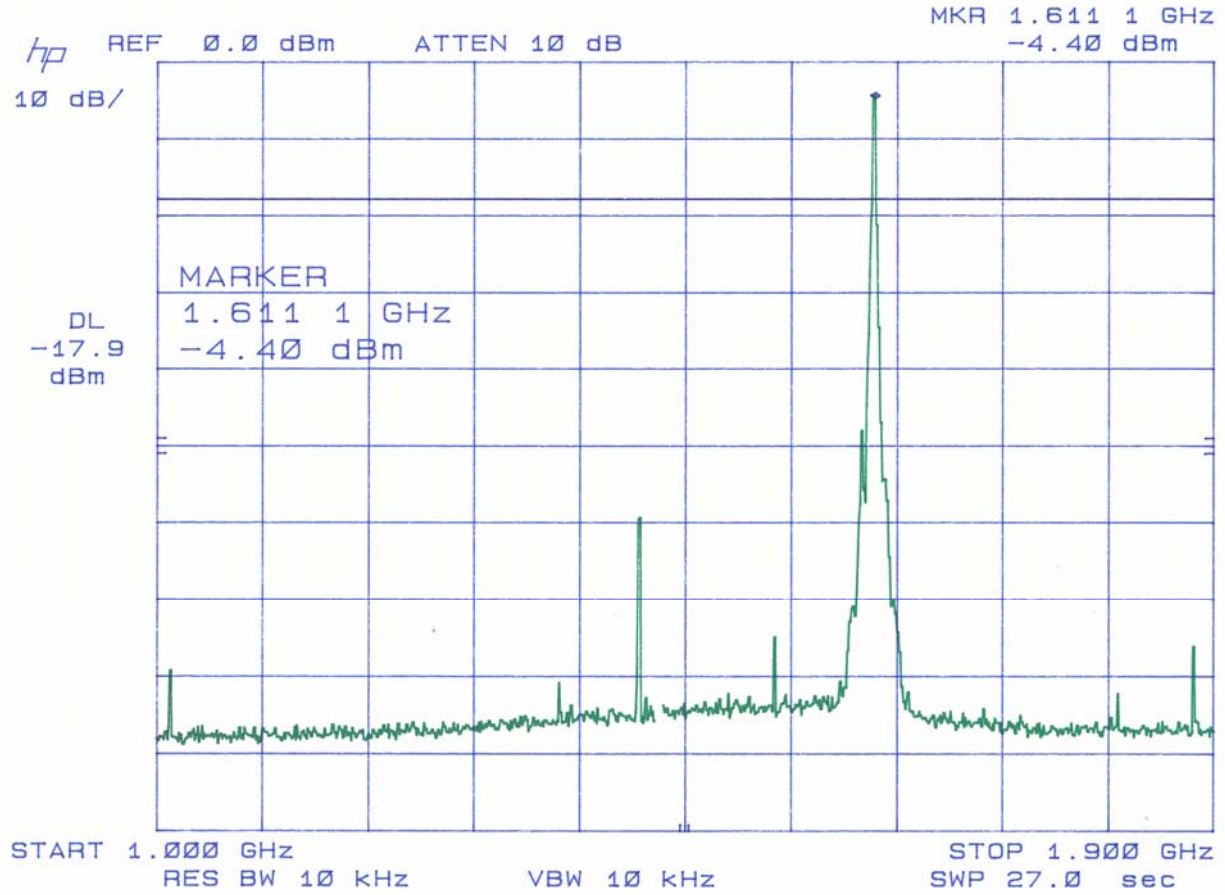
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**Figure 6b.**  
**Spurious Emissions at Antenna Terminals – Low Channel**



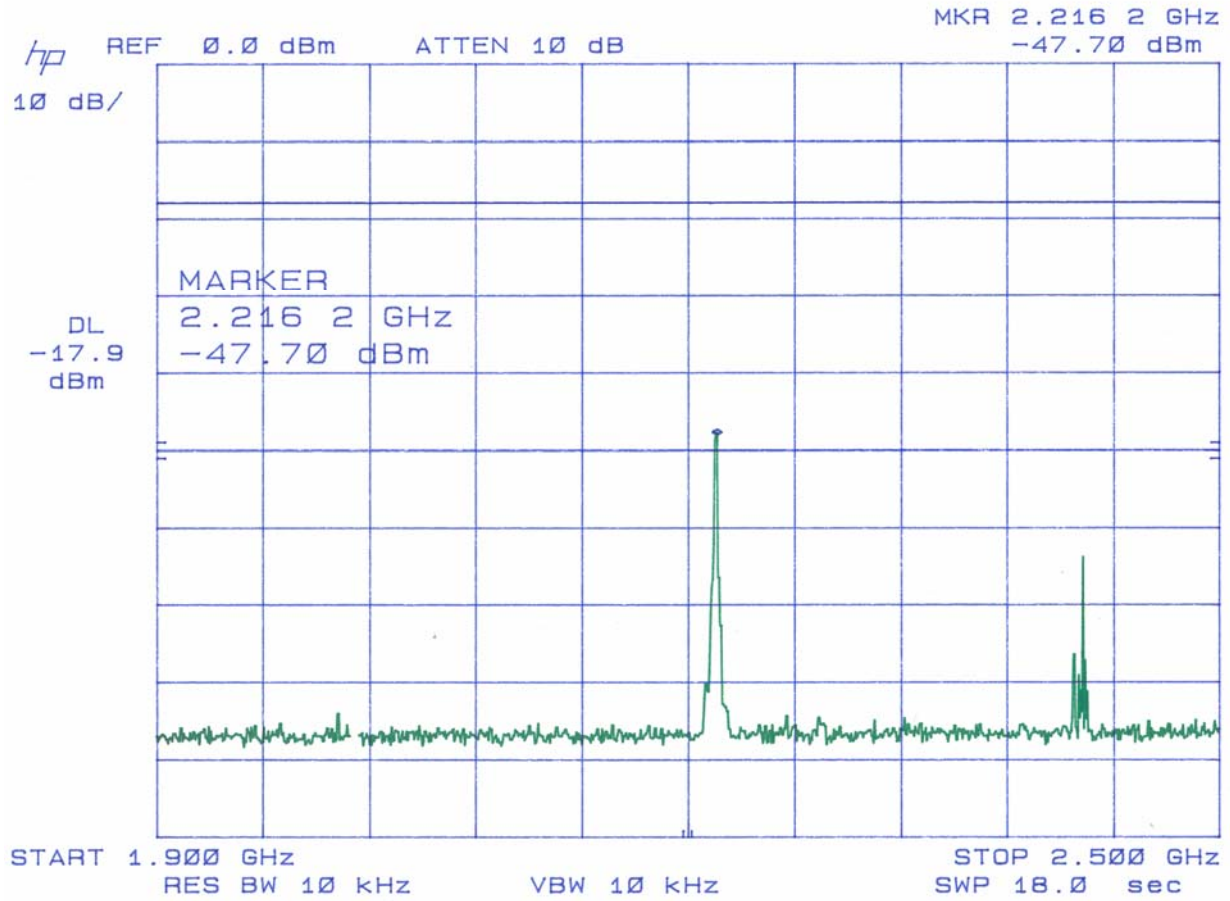
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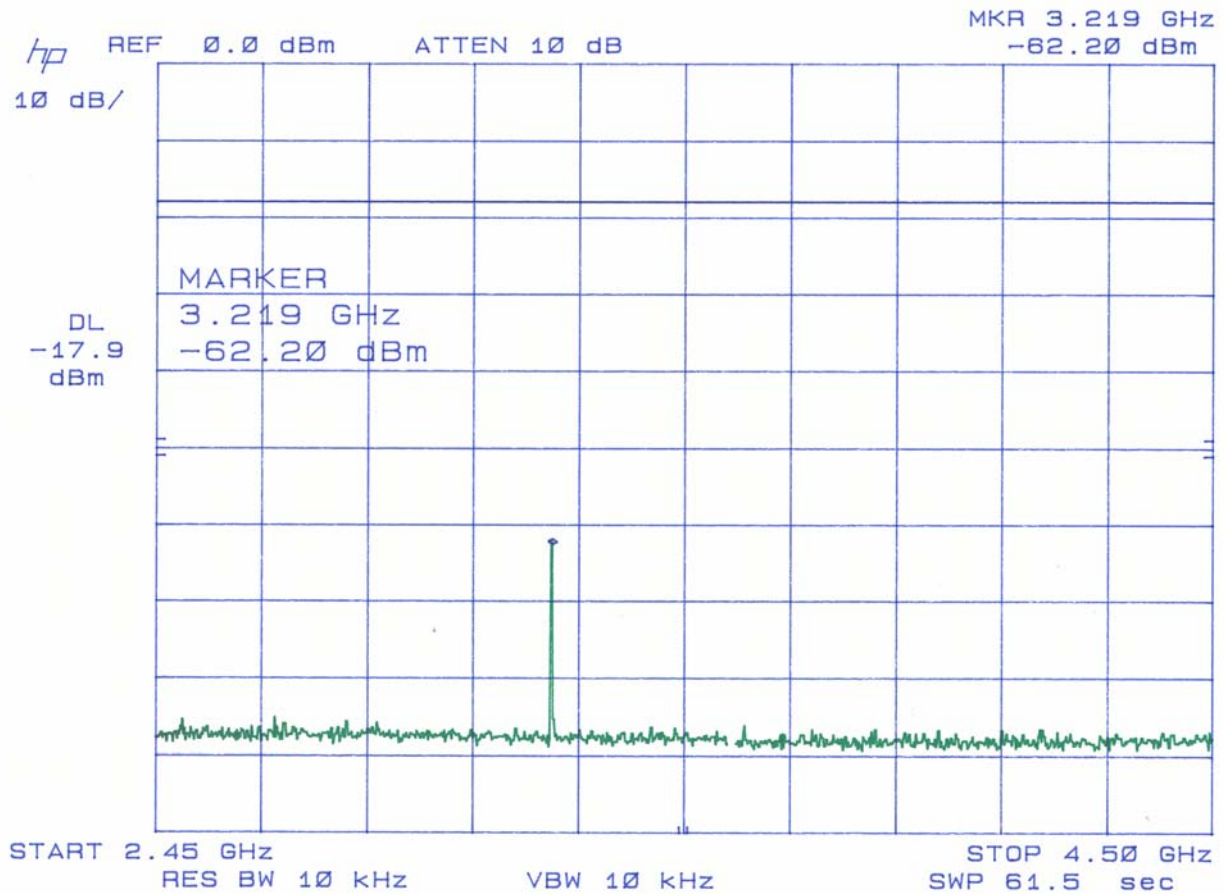
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**Figure 6c.**  
**Spurious Emissions at Antenna Terminals – Low Channel**



**Figure 6d.**  
**Spurious Emissions at Antenna Terminals – Low Channel**





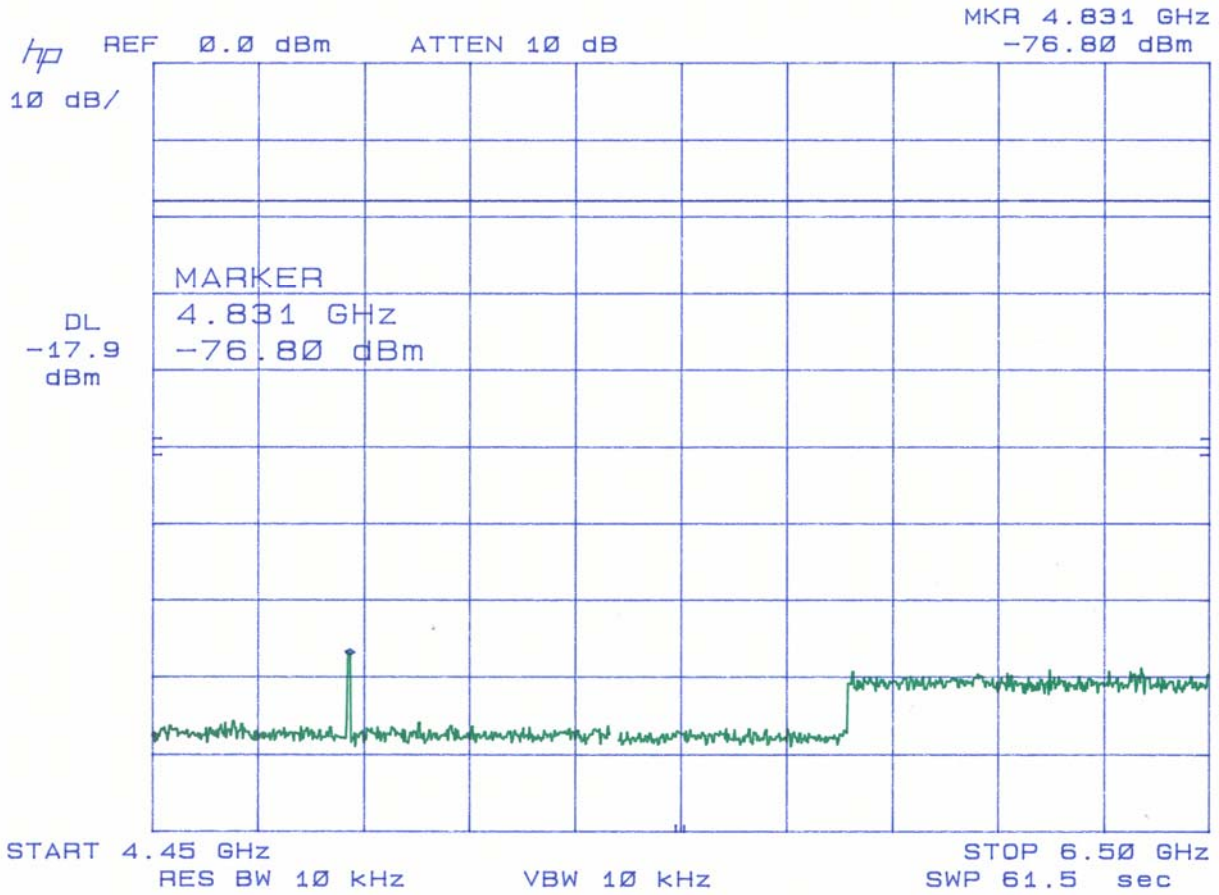
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**Figure 6e.**  
**Spurious Emissions at Antenna Terminals – Low Channel**





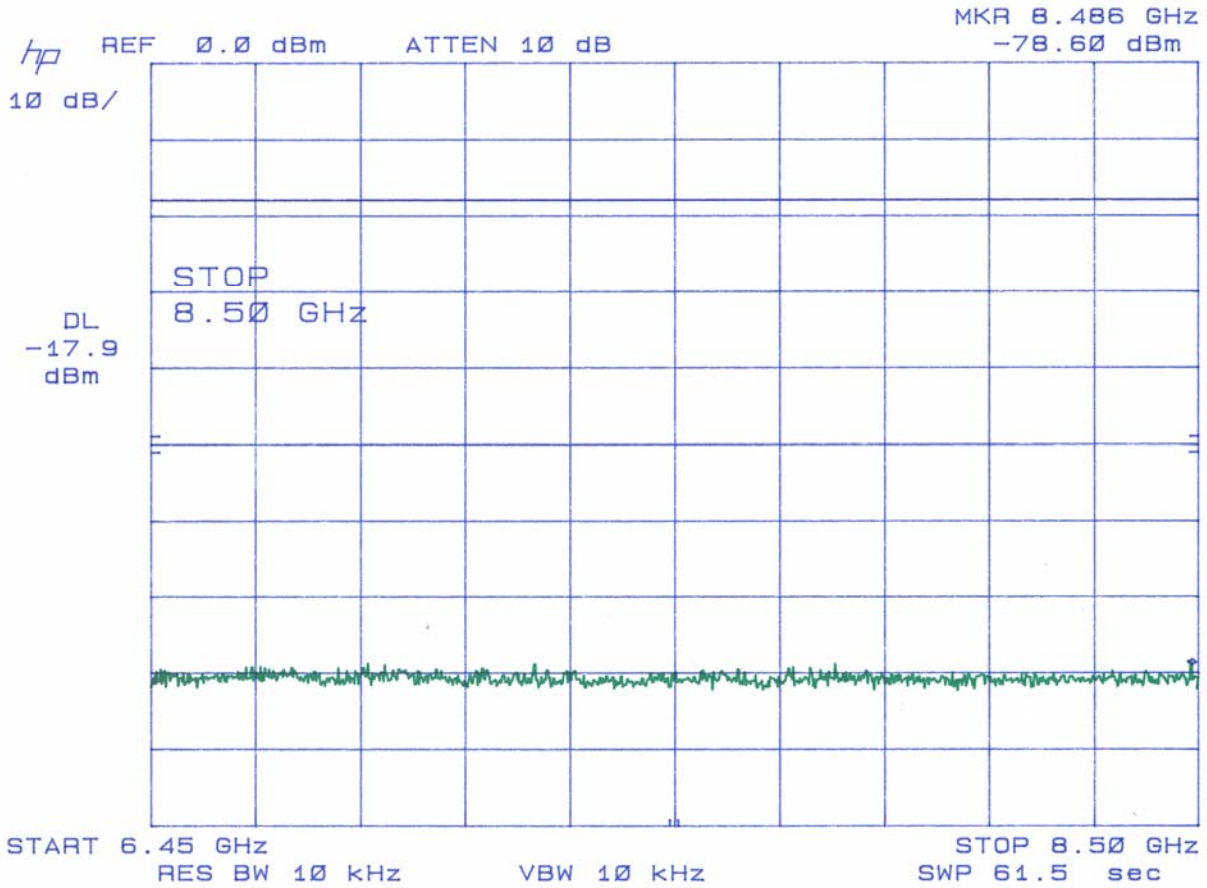
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**Figure 6f**  
**Spurious Emissions at Antenna Terminals – Low Channel**



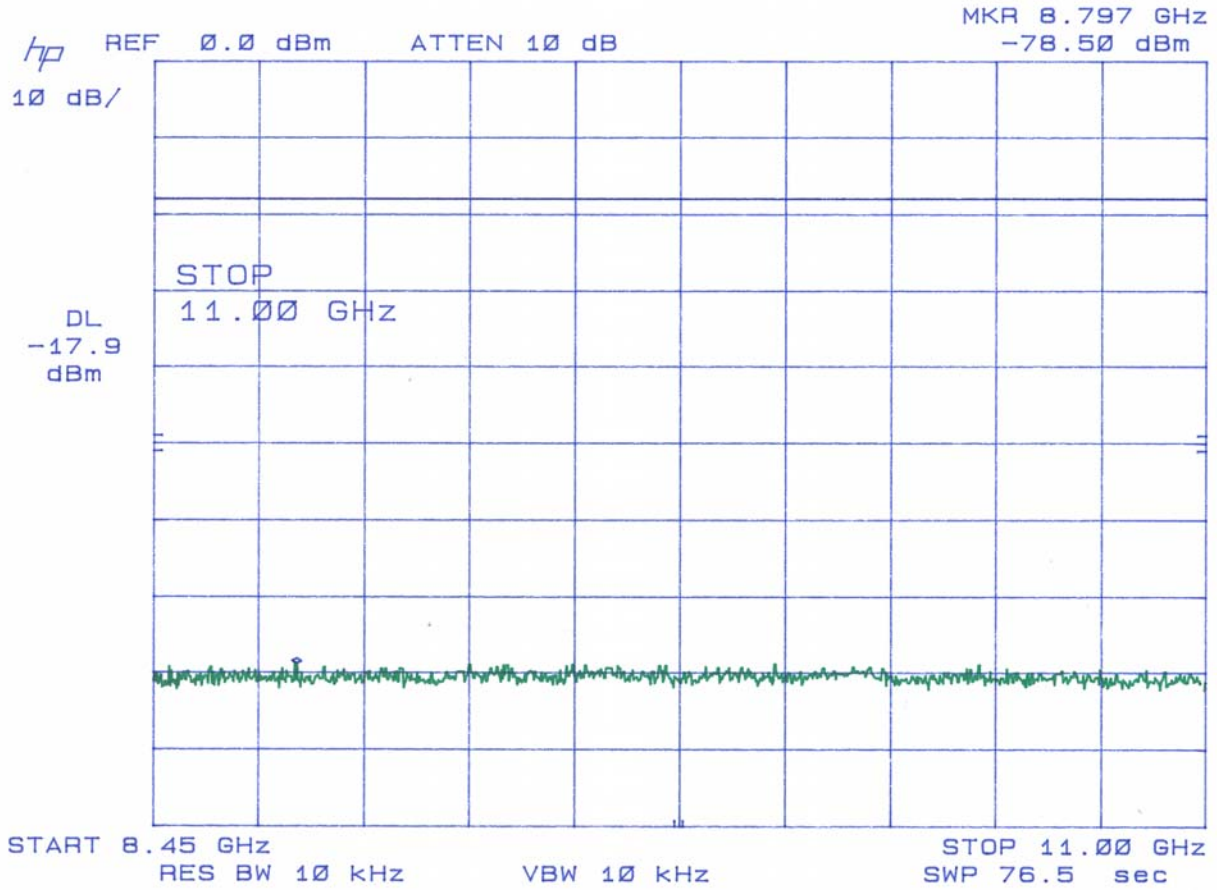
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**Figure 6g**  
**Spurious Emissions at Antenna Terminals – Low Channel**



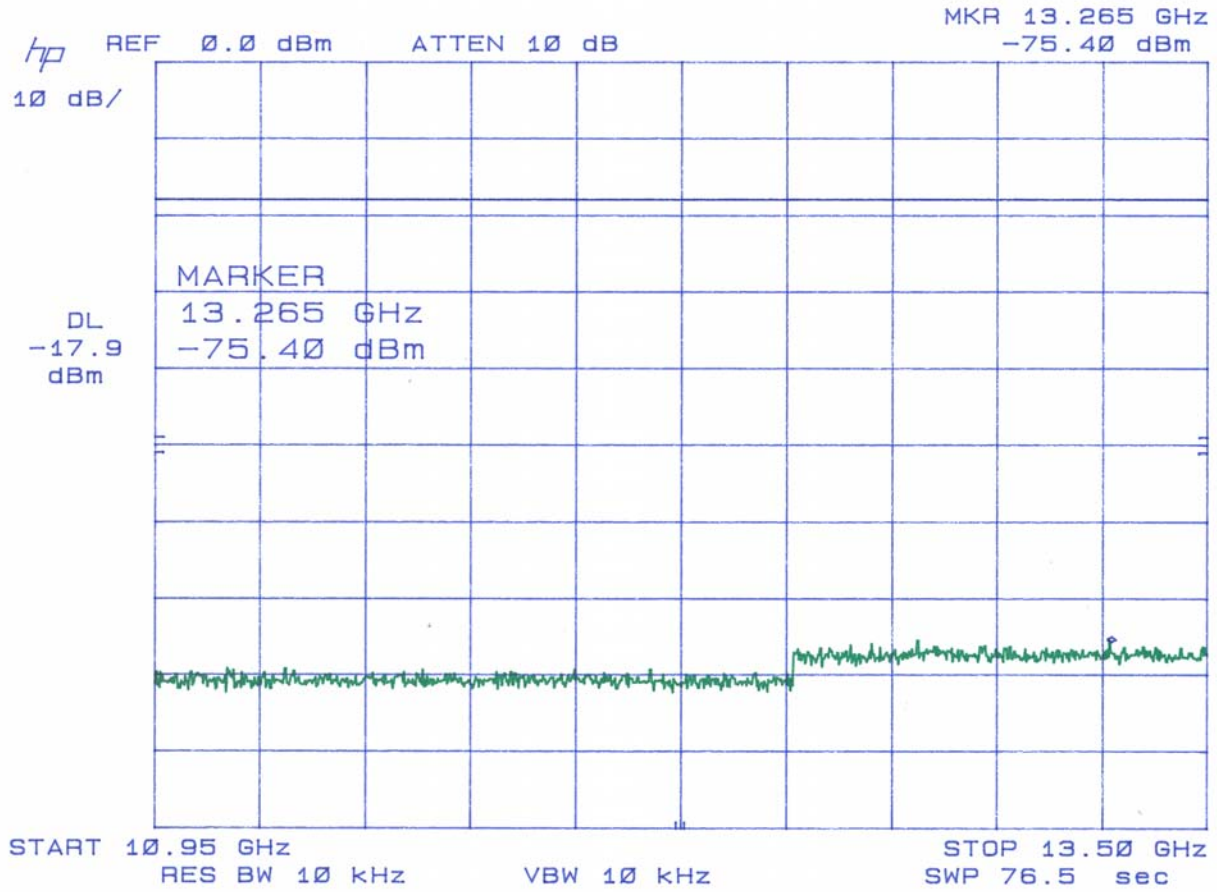
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**Figure 6h**  
**Spurious Emissions at Antenna Terminals – Low Channel**



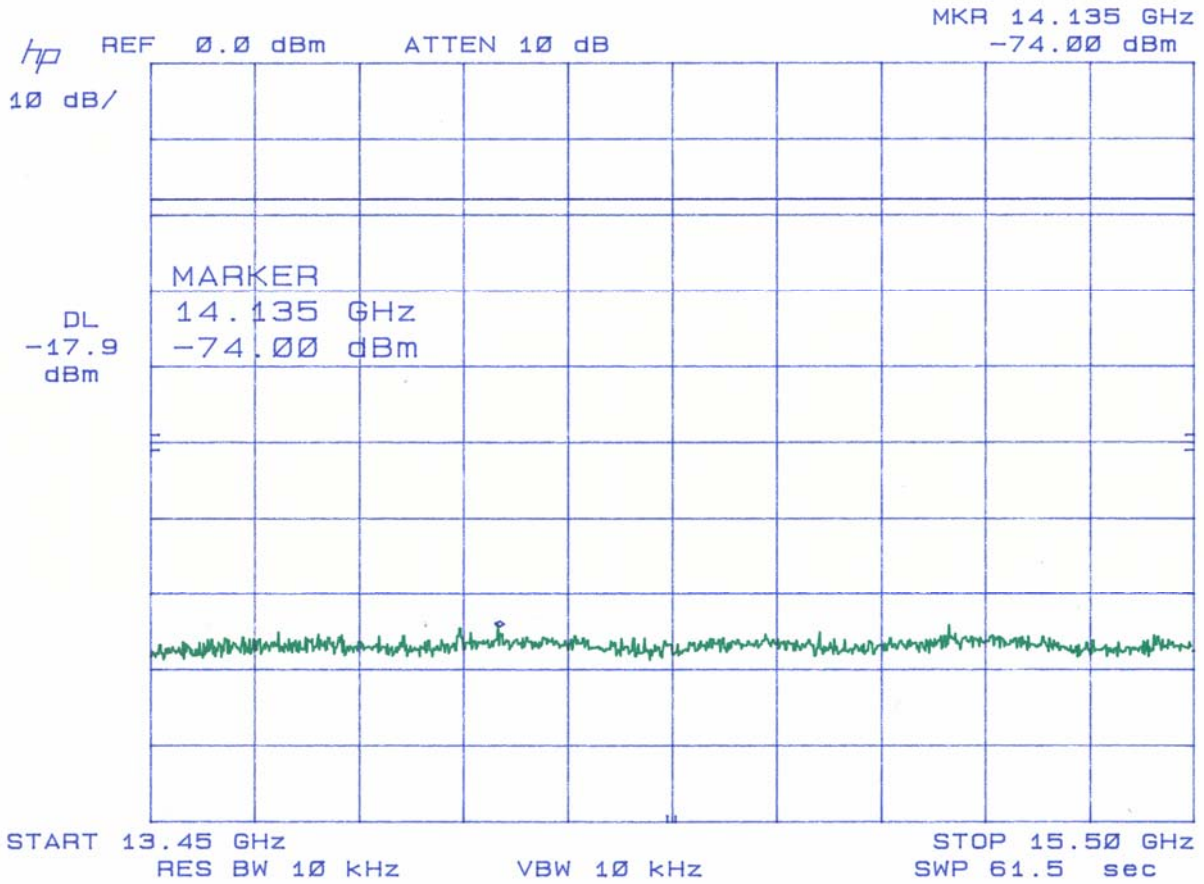
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**Figure 6i**  
**Spurious Emissions at Antenna Terminals – Low Channel**



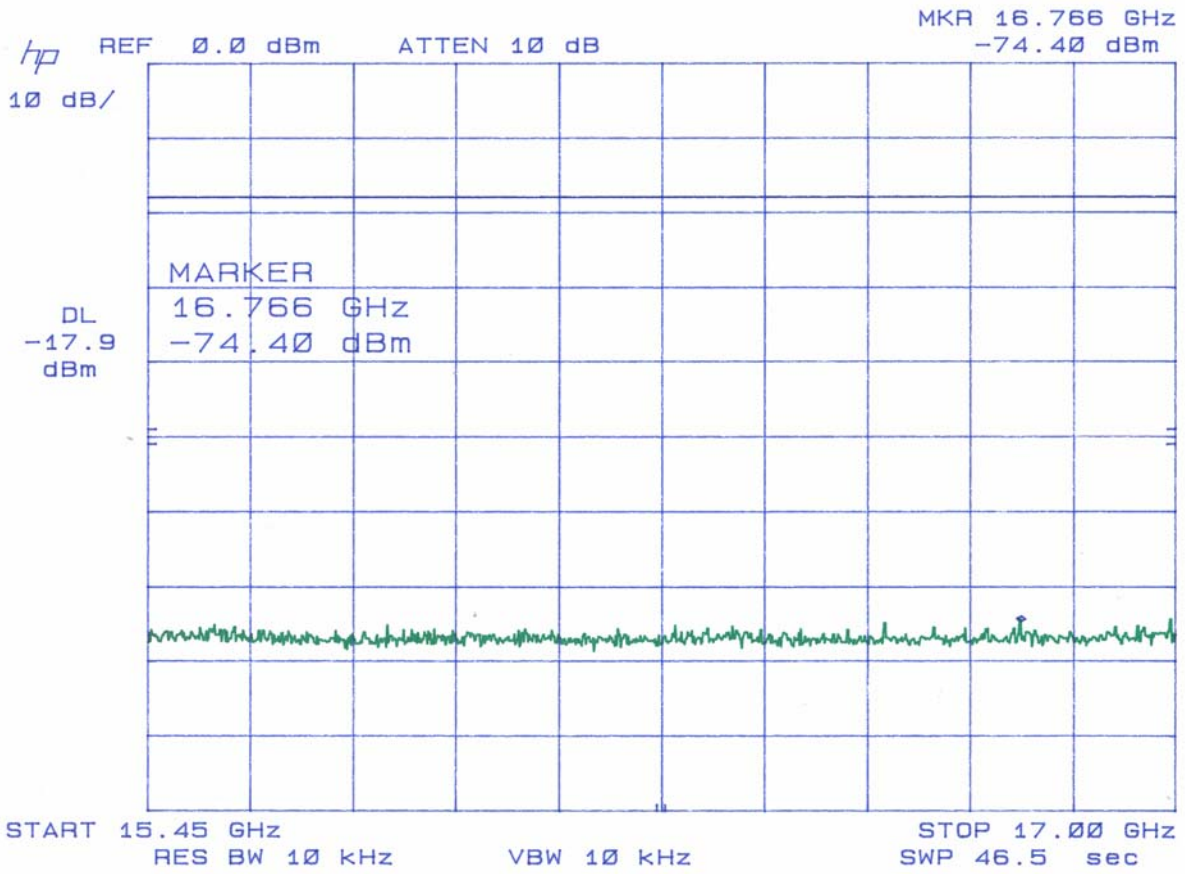
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**Figure 6j**  
**Spurious Emissions at Antenna Terminals – Low Channel**



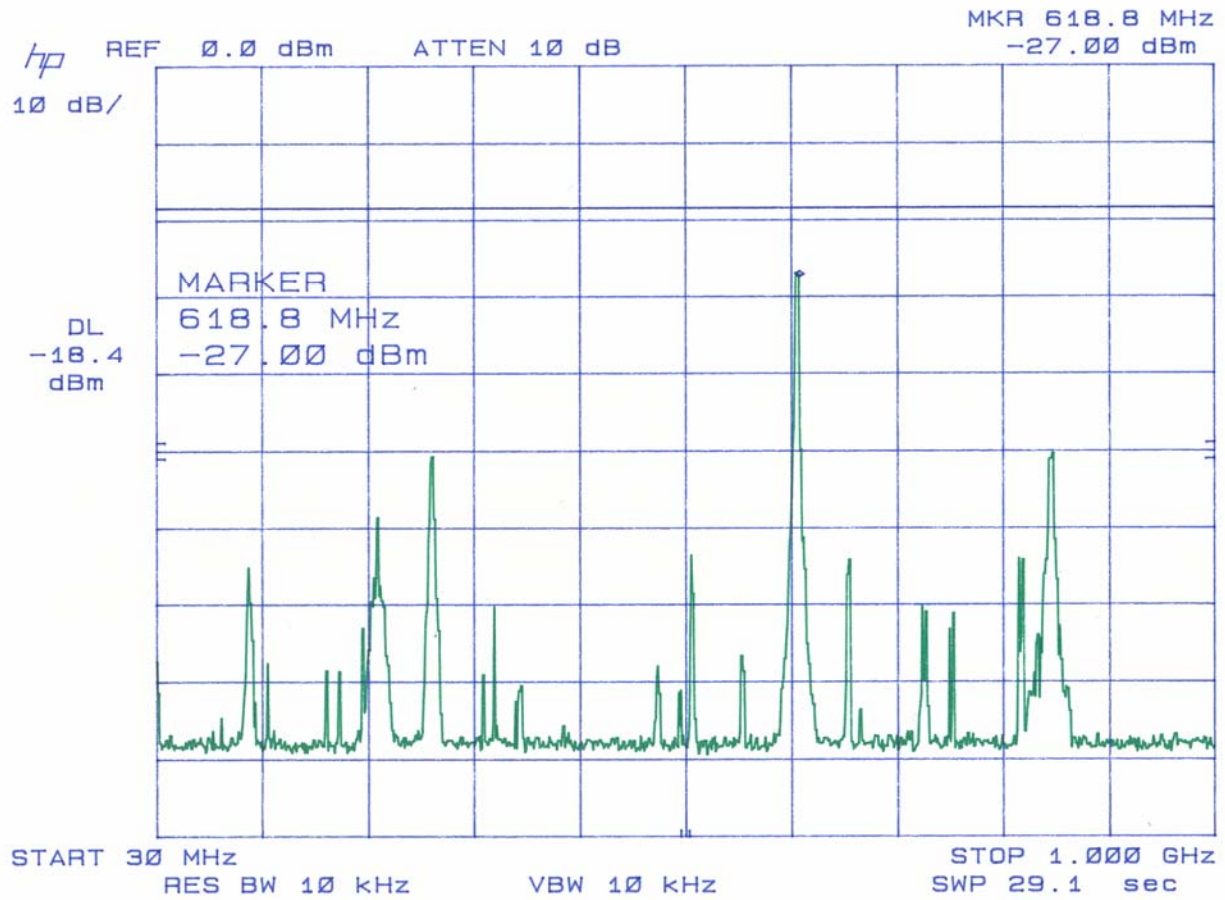
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**Figure 6k**  
**Spurious Emissions at Antenna Terminals - High Channel**





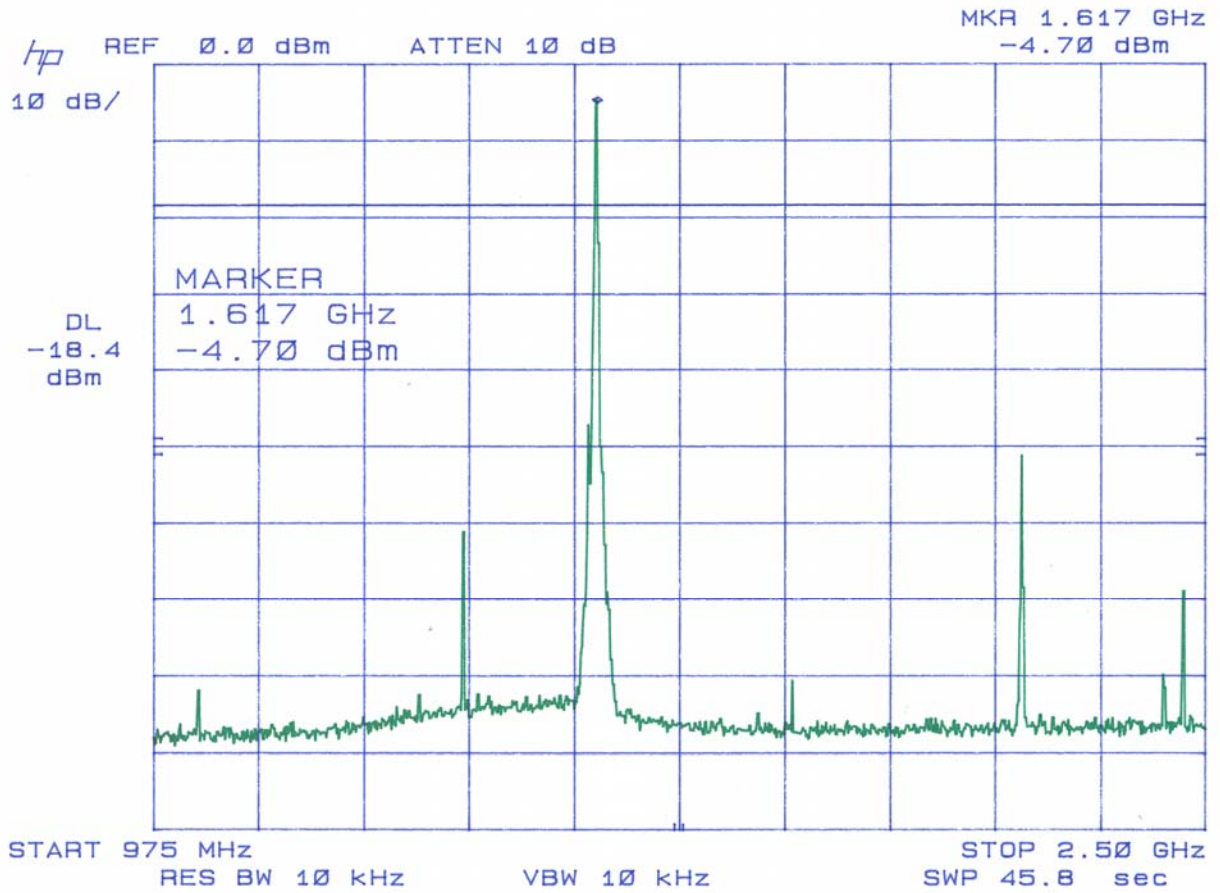
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**Figure 6I.**  
**Spurious Emissions at Antenna Terminals**



**NOTE: Marker shows Fundamental Frequency**

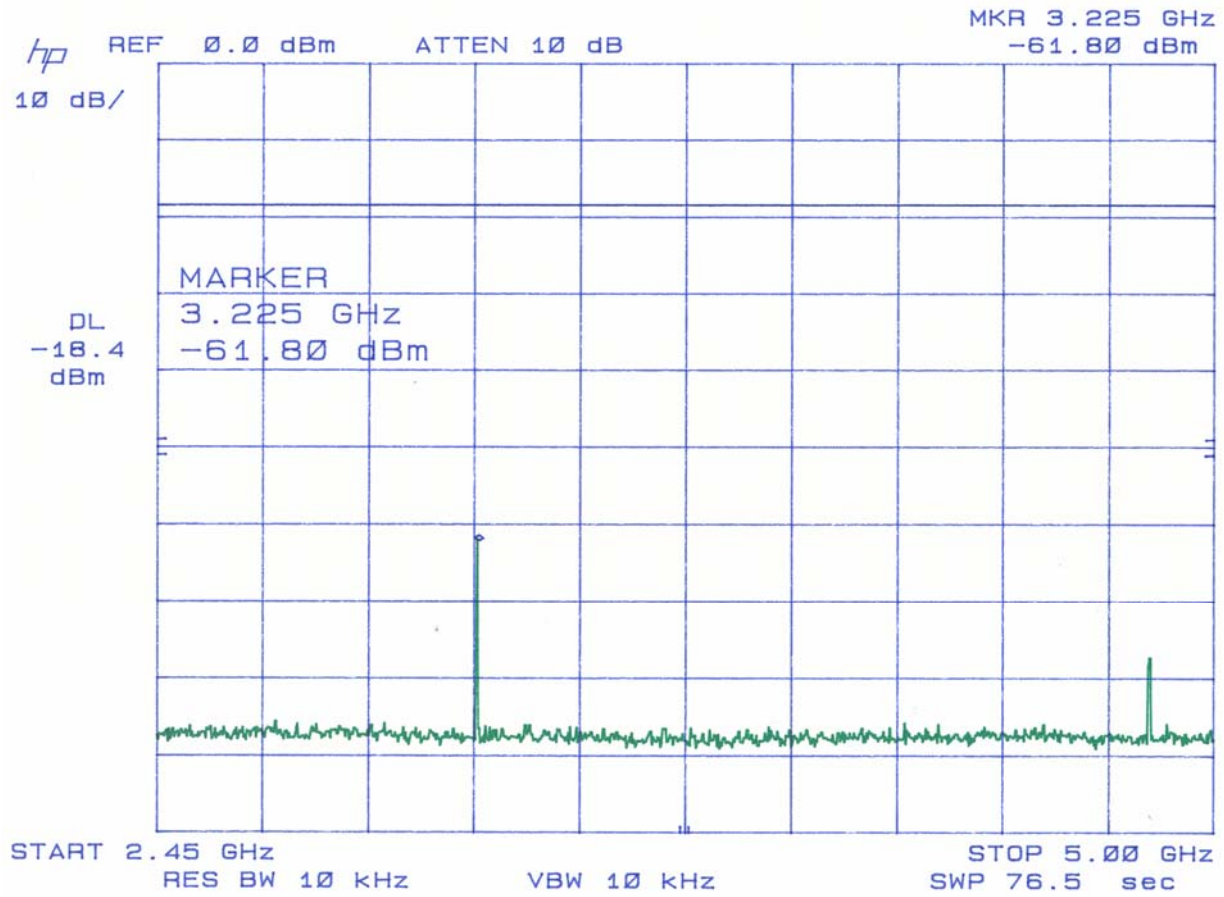
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**Figure 6m.**  
**Spurious Emissions at Antenna Terminals – High Channel**





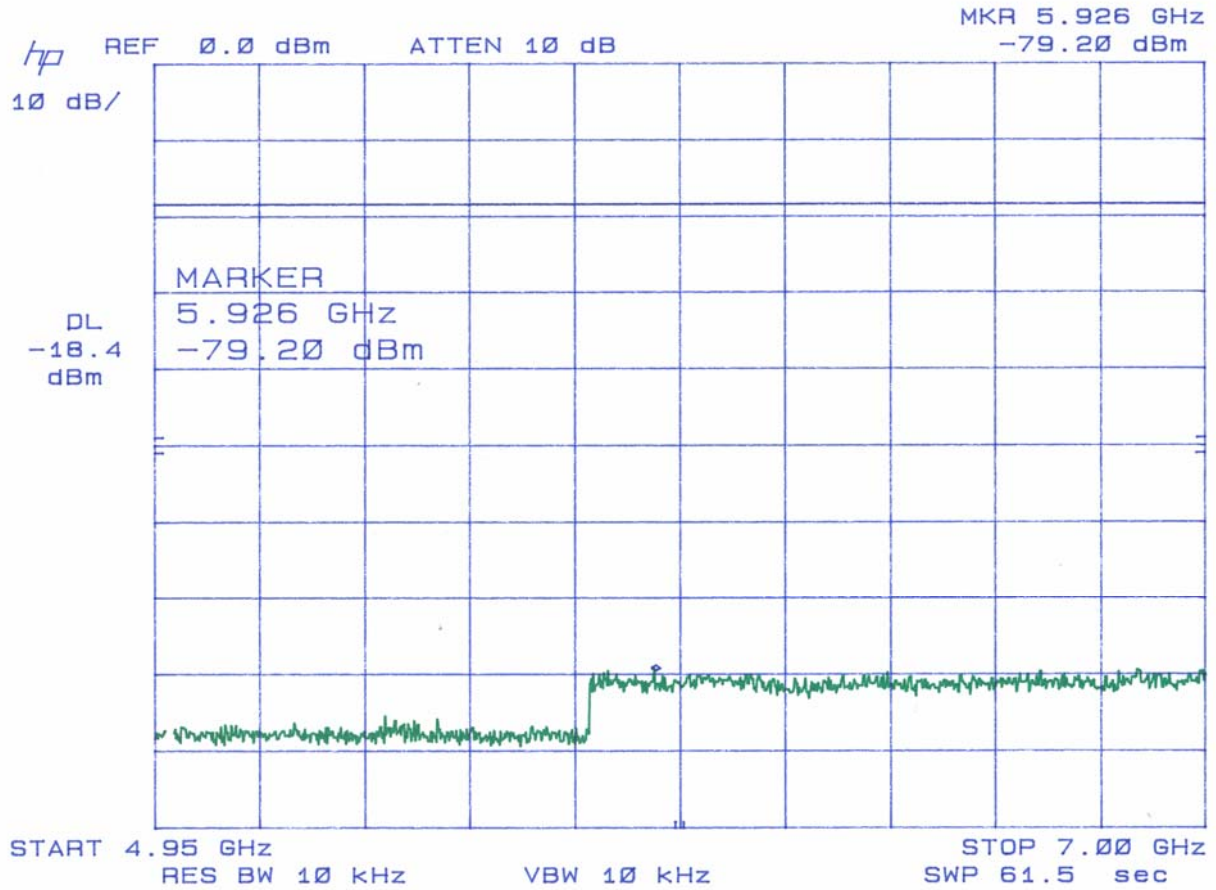
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**Figure 6n**  
**Spurious Emissions at Antenna Terminals – High Channel**



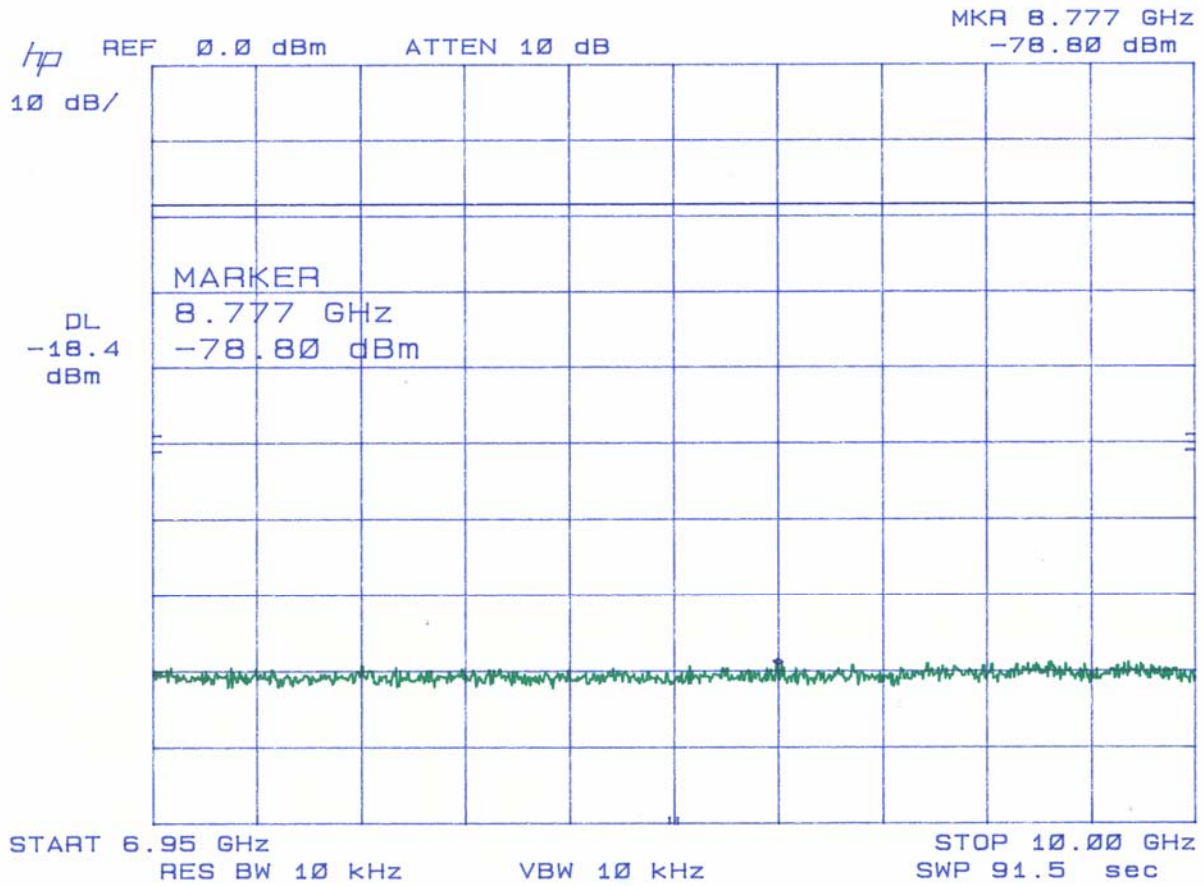
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**Figure 6o.**  
**Spurious Emissions at Antenna Terminals – High Channel**



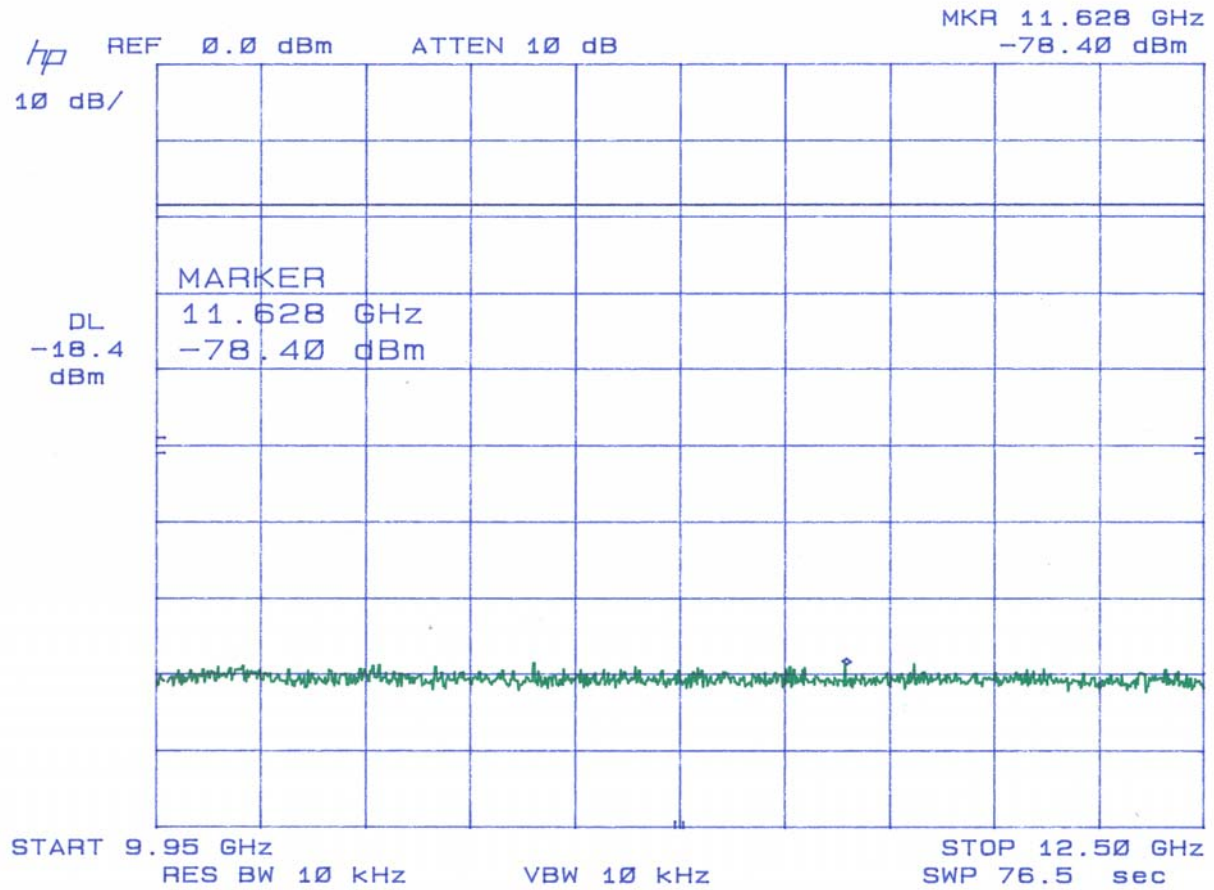
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**Figure 6p.  
Spurious Emissions at Antenna Terminals – High Channel**



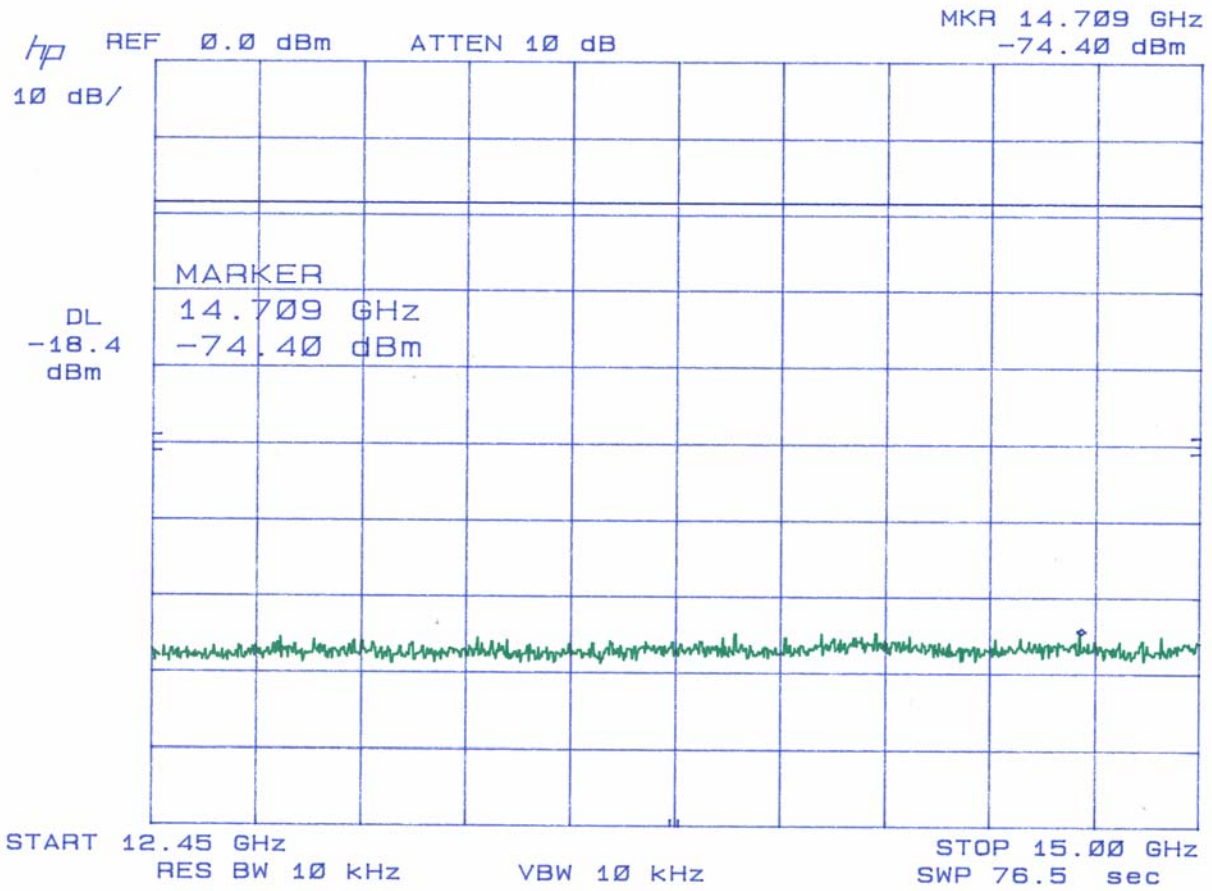
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**Figure 6q.**  
**Spurious Emissions at Antenna Terminals – High Channel**



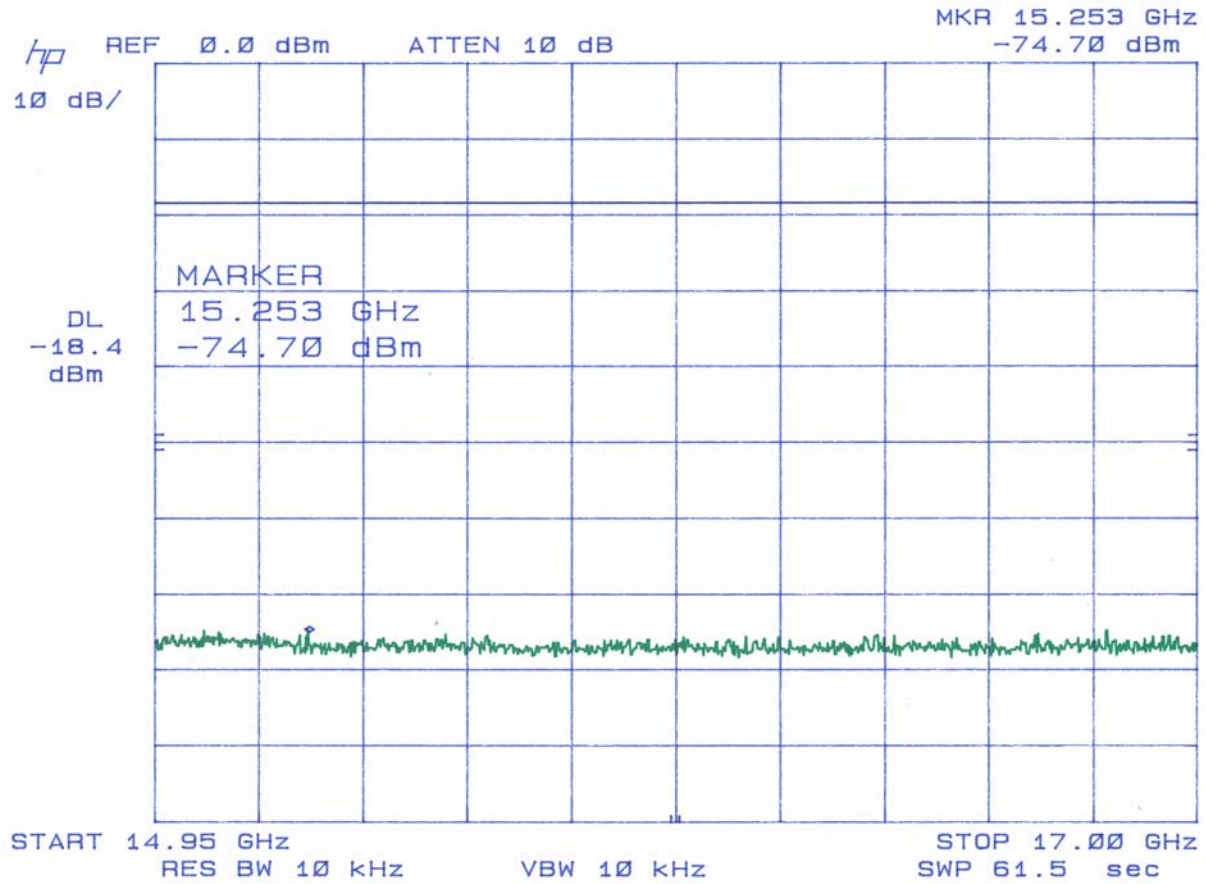
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**Figure 6r.**  
**Spurious Emissions at Antenna Terminals – High Channel**



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## 2.10 Field Strength of Spurious Radiation (FCC Section 2.1053)

Spurious emissions were evaluated from 30 MHz to 16.2 GHz at an EUT to antenna distance of 1 or 3 meters. The EUT was tested with an external power source and modulated by its own internal sources. Both a low and high channel were tested. The EUT was placed on an open area test site and the spurious emissions tested with the Substitution Method as stipulated by EIT/TIA-603: 1992 section 2.2.12. Measurements for 30 to 1000 MHz were made with the analyzer's bandwidth set to 120 kHz. Measurements above 1 GHz were made with the analyzer's bandwidth set to 1 MHz. The worse case results are shown in Table 4.

### FCC Minimum Standard (FCC Section 25.202(f))

For out-of-band emissions for frequencies removed from the midpoint of the assigned frequency segment by more than 250% of the authorized bandwidth (2.5 MHz), at least

$43 + 10 \log (P_{\text{Watts}})$  attenuation below the mean power of the transmitter.

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FCC ID: L2V-PT1  
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 Issue Date: September 21, 2007

### FIELD STRENGTH OF SPURIOUS RADIATION

**Limit:  $43 + 10 \log (P_{\text{Watts}}) = 43 + 10 \log (0.195) = 35.9 \text{ dB}$**   
 $43 + 10 \log (P_{\text{Watts}}) = 43 + 10 \log (0.139) = 34.4$

**TABLE 4**

| Frequency   | Maximum RX Reading (Units A) | Recreated Reading During Substitution (Using Same Units A) | Difference Column A – B - Ideally 0 | TX Gain (dBi) | TX Gain Relative to Dipole (dB) | RF Power into TX antenna (Corrected for any CL and Pads to antenna Feed Point) (dBm) (SG Value-CL) | RF Power into substitution TX antenna corrected by TX Gain Relative to Dipole (dBm) |
|-------------|------------------------------|------------------------------------------------------------|-------------------------------------|---------------|---------------------------------|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>Low</b>  |                              |                                                            |                                     |               |                                 |                                                                                                    |                                                                                     |
| 3222.99     | -63.2                        | -63.1                                                      | -0.1                                | 10            | 7.86                            | -70.74                                                                                             | -62.98                                                                              |
| 4833.54     | -58.8                        | -61.5                                                      | 2.7                                 | 11            | 8.86                            | -59.52                                                                                             | -47.96                                                                              |
| 6445        | -70.6                        | -67.53                                                     | -3.07                               | 12.1          | 9.96                            | -69.87                                                                                             | -62.98                                                                              |
| <b>Mid</b>  |                              |                                                            |                                     |               |                                 |                                                                                                    |                                                                                     |
| 3227.24     | -62.4                        | -57.18                                                     | -5.22                               | 10            | 7.86                            | -65.08                                                                                             | -62.44                                                                              |
| 4841.04     | -59.3                        | -61.54                                                     | 2.24                                | 11            | 8.86                            | -59.54                                                                                             | -48.44                                                                              |
| 6455        | -68.7                        | -67.27                                                     | -1.43                               | 12.1          | 9.96                            | -70                                                                                                | -61.47                                                                              |
| <b>High</b> |                              |                                                            |                                     |               |                                 |                                                                                                    |                                                                                     |
| 3237.26     | -62.1                        | -57.48                                                     | -4.62                               | 10            | 7.86                            | -65.17                                                                                             | -61.93                                                                              |
| 4856.21     | -62.8                        | -60.89                                                     | -1.91                               | 11            | 8.86                            | -59.89                                                                                             | -52.94                                                                              |
| 6474.94     | -70.7                        | -66.65                                                     | -4.05                               | 12.1          | 9.96                            | -69.71                                                                                             | -63.8                                                                               |

**Test Date: October 11, 2007**

**Tester Signature:** *Daniel Aparaschivei*

**Name:** Daniel Aparaschivei

Report Number: 07-0197

Issue Date: September 21, 2007

Customer: Axonn LLC

Model: Satellite Personal Tracker Model: SPT

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## **2.11 Frequency Stability (FCC Section 2.1055 and 25.202(d))**

The frequency tolerance of the carrier signal was measured by while ambient temperature was varied from -30 to 50 degrees centigrade. The frequency tolerance was verified at 10 degree increments. Additionally, the supply voltage was varied from 85% to 115% of the nominal value (except for hand carried, battery powered equipment which was additionally measured at battery endpoint).

### **FCC Minimum Standard**

None



U.S. Technologies, Inc.  
 Report Number: 07-0197  
 Customer: Axonn LLC  
 Model: Satellite Personal Tracker Model: SPT

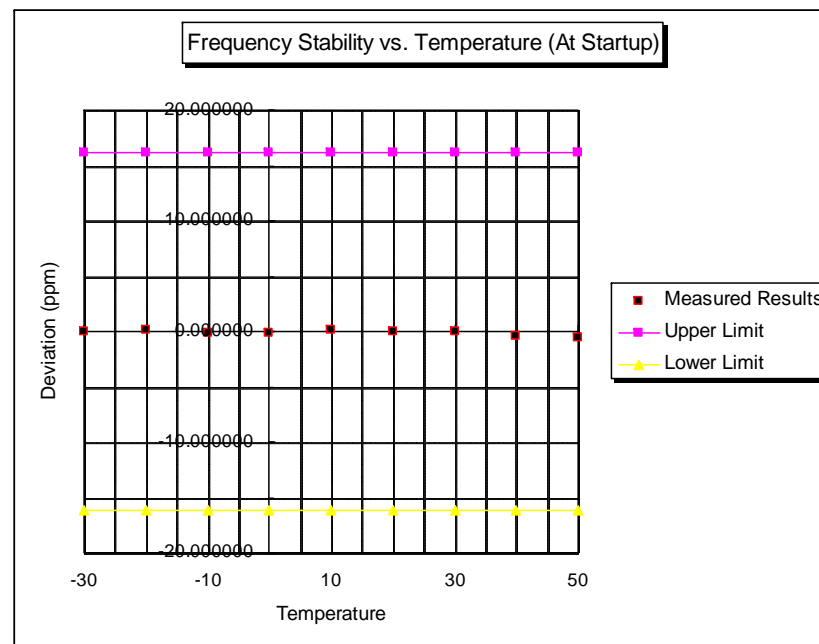
FCC ID: L2V-PT1  
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(15.202 a) Maximum Deviation = 0.001% of Reference Frequency = 0.00001 \* 1611.001788  
 MHz = 16110 Hz = 16. kHz  
 FCC  
 Certification  
 Axonn, LLC Model SPT  
 Frequency Stability vs. Temperature (At  
 Startup)

Test Results  
 Reviewed By:

Louis A.  
 Feudi

| Temperature<br>(degrees C) | Measured<br>Frequency<br>(MHz) | Deviation<br>kHz |
|----------------------------|--------------------------------|------------------|
| -30                        | 1611.001750                    | -0.038000        |
| -20                        | 1611.001964                    | 0.176000         |
| -10                        | 1611.001602                    | -0.186000        |
| 0                          | 1611.001656                    | -0.132000        |
| 10                         | 1611.001874                    | 0.086000         |
| 20                         | 1611.001788                    | 0.000000         |
| 30                         | 1611.001736                    | -0.052000        |
| 40                         | 1611.001390                    | -0.398000        |
| 50                         | 1611.001300                    | -0.488000        |



Actual TX Frequency was: 1611.001788 MHz  
 Reference Point from 20 degrees C:  
 1611.001788 MHz

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Customer: Axonn LLC

Model: Satellite Personal Tracker Model: SPT

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(15.202 a) Maximum Deviation = 0.001% of Reference Frequency = 0.00001 \* 1611.001340

MHz = 16110 Hz = 16.1 kHz

FCC

Certification

Axonn, LLC Model SPT

Frequency Stability vs.

Voltage

Test Results  
Reviewed By:

Louis A.  
Feudi

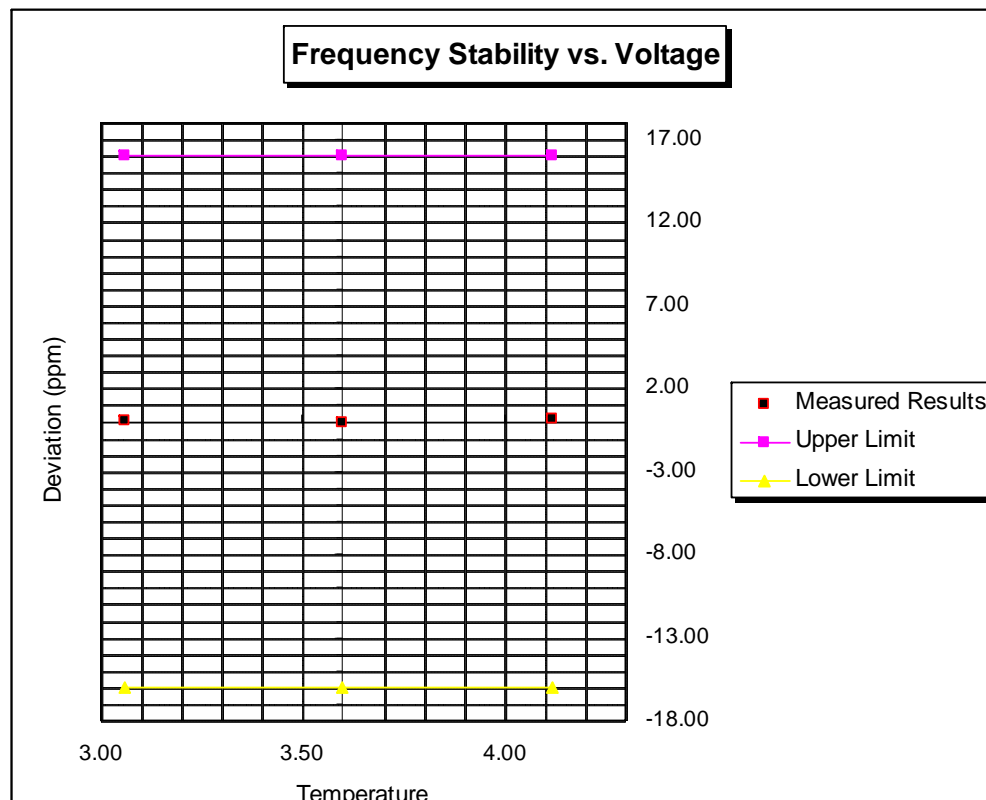
| Voltage (V DC) | Measured Frequency (MHz) | Deviation kHz |
|----------------|--------------------------|---------------|
| 3.06           | 1611.001364              | 0.024000      |
| 3.6            | 1611.001340              | 0.000000      |
| 4.12           | 1611.001508              | 0.168000      |
|                |                          |               |
|                |                          |               |
|                |                          |               |
|                |                          |               |
|                |                          |               |
|                |                          |               |

Actual TX Frequency was: 1611.001340 MHz

Maximum Deviation = 0.0001% or 16.1 kHz

Reference Point From 20 degrees C:

1611.001340 MHz



Report Number: 07-0197

Issue Date: September 21, 2007

Customer: Axonn LLC

Model: Satellite Personal Tracker Model: SPT

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**2.12 Emissions from Mobile Earth Stations for Protection of Aeronautical Radionavigation-Satellite Service. (FCC Section 25.216)**

25.216c(1) Emissions from the EUT were evaluated from 1559 MHz – 1605 MHz and did not exceed the limit at -70dBW/MHz, averaged over 20 milliseconds.

25.216c(2) Emissions from the EUT were evaluated from 1559 MHz – 1605 MHz and did not exceed the limit at -80dBW/MHz, averaged over 20 milliseconds.

25.216g(1) Emissions from the EUT were evaluated from 1605 MHz – 1610 MHz and did not exceed the limits ranging from -70 dBW/MHz at 1605 MHz to -10dBW/MHz at 1610 MHz, averaged over 2 milliseconds.

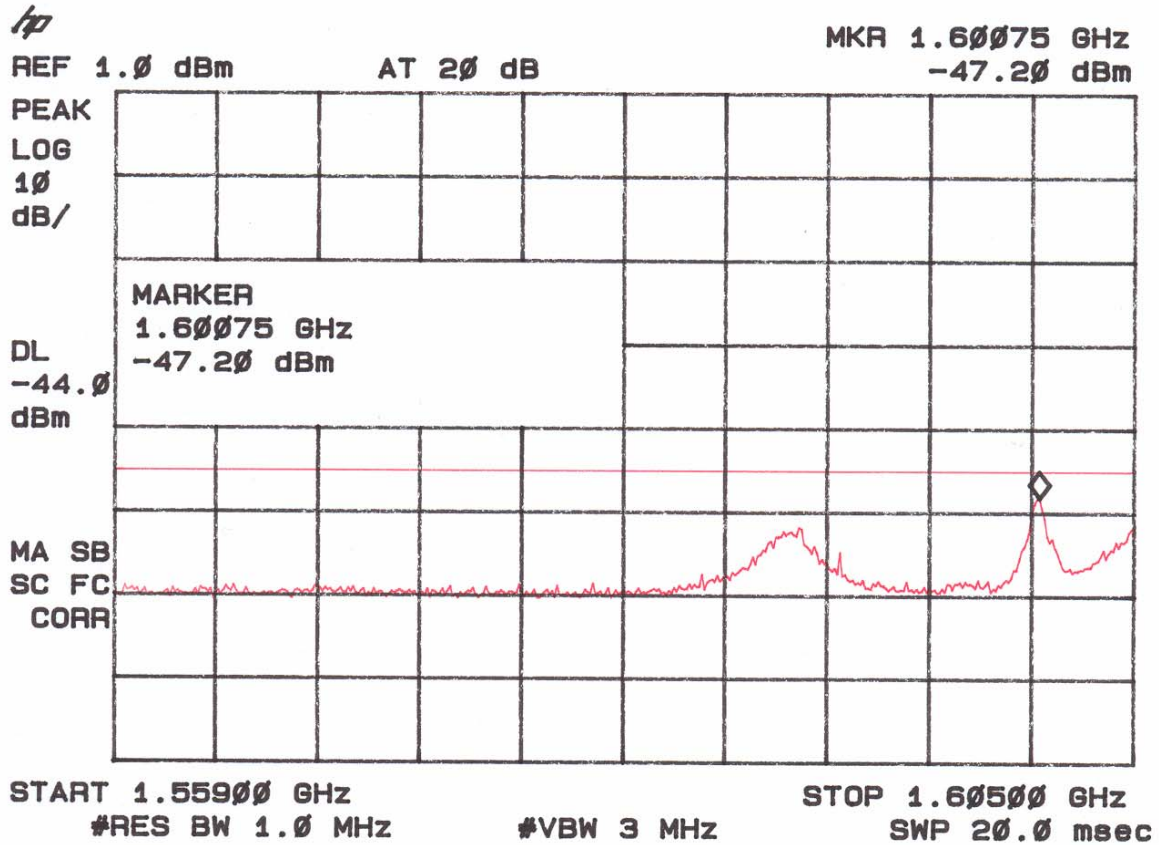
25.216g(2) Emissions from the EUT were evaluated from 1605 MHz – 1610 MHz and did not exceed the limits ranging from -80 dBW/MHz at 1605 MHz to -20dBW/MHz at 1610 MHz, averaged over 2 milliseconds.

25.216(i) Emissions from the EUT were evaluated from 1559 MHz – 1605 MHz and did not exceed -80 dBW/MHz over any 2 millisecond active transmission interval. (carrier off)

Emissions were measured with a spectrum analyzer by connecting the spectrum analyzer directly via a short cable to the antenna output terminal with the Resolution Bandwidth set to 1 MHz. Results are shown on Figures 8a -8c.

**Figure 8a.**  
**Emissions from Mobile Earth Stations for Protection**  
**of Aeronautical Radionavigation-Satellite Service (25.216(c)(1))**

**Limit = - 70 dBW/MHz + 4 dBi (-44 dBm)**



**Measured Value = -47.20 + 0.25 = -46.95**



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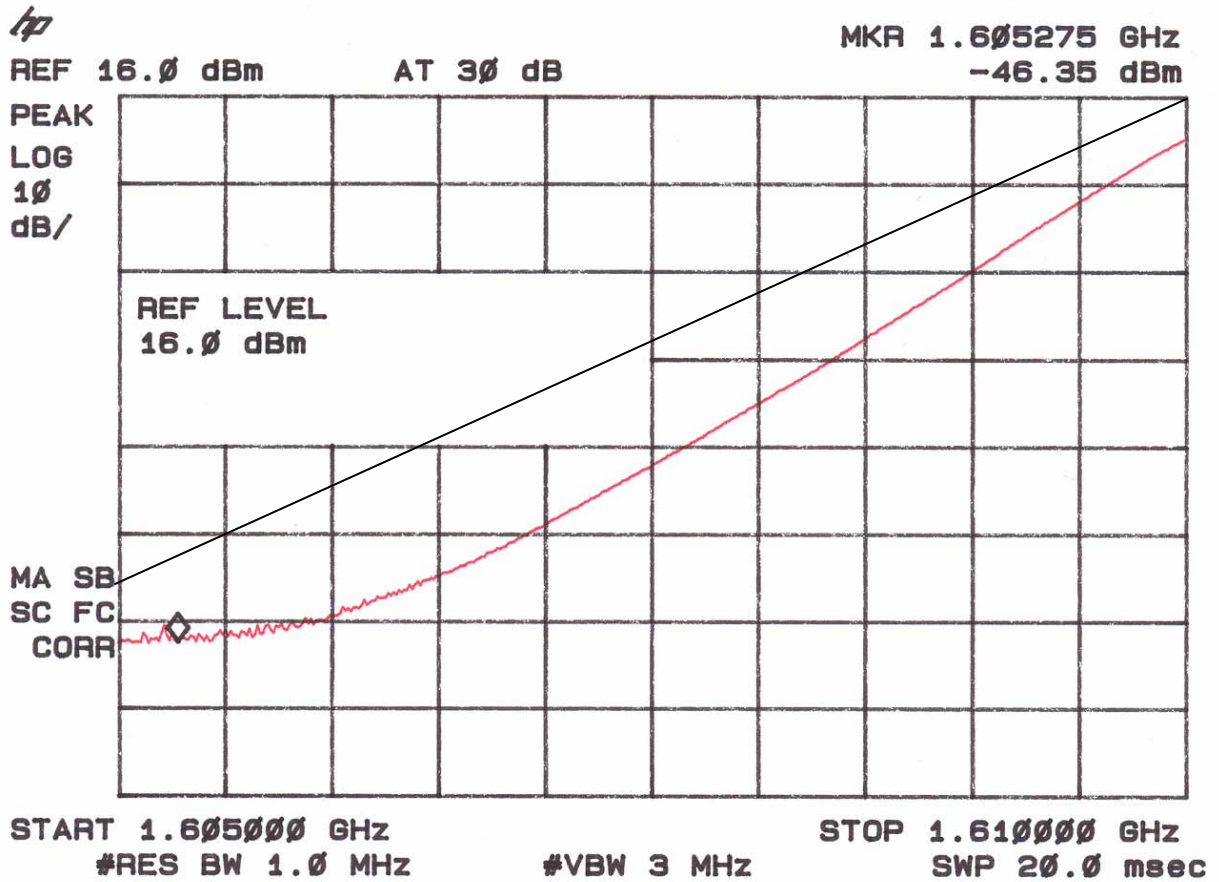
Issue Date: September 21, 2007

Customer: Axonn LLC

Model: Satellite Personal Tracker Model: SPT

**Figure 8c.  
Emissions from Mobile Earth Stations for Protection  
of Aeronautical Radionavigation-Satellite Service( 25.216(g)(1))**

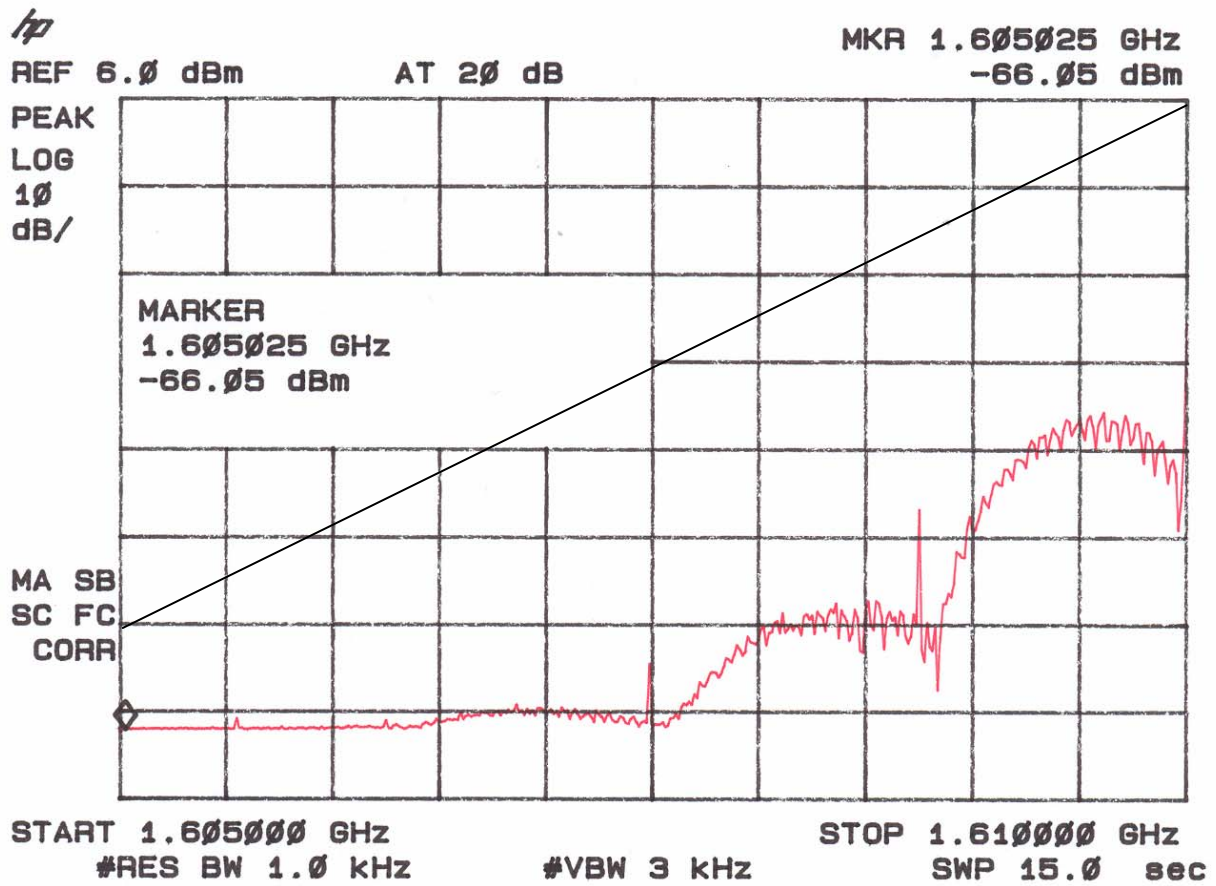
Limit = -70 dBW/MHz at 1605 MHz to -10 dBW/MHz at 1610 (-44 dBm to 16 dBm)



Measured Value is  $-46.35 + 0.25$  (cable loss) =  $-46.10$

**Figure 8d.**  
**Emissions from Mobile Earth Stations for Protection**  
**of Aeronautical Radionavigation-Satellite Service( 25.216(g)(2))**

Limit = -80 dBW/MHz at 1605 MHz to -20 dBW/MHz at 1610 (-54 dBm to 6 dBm)

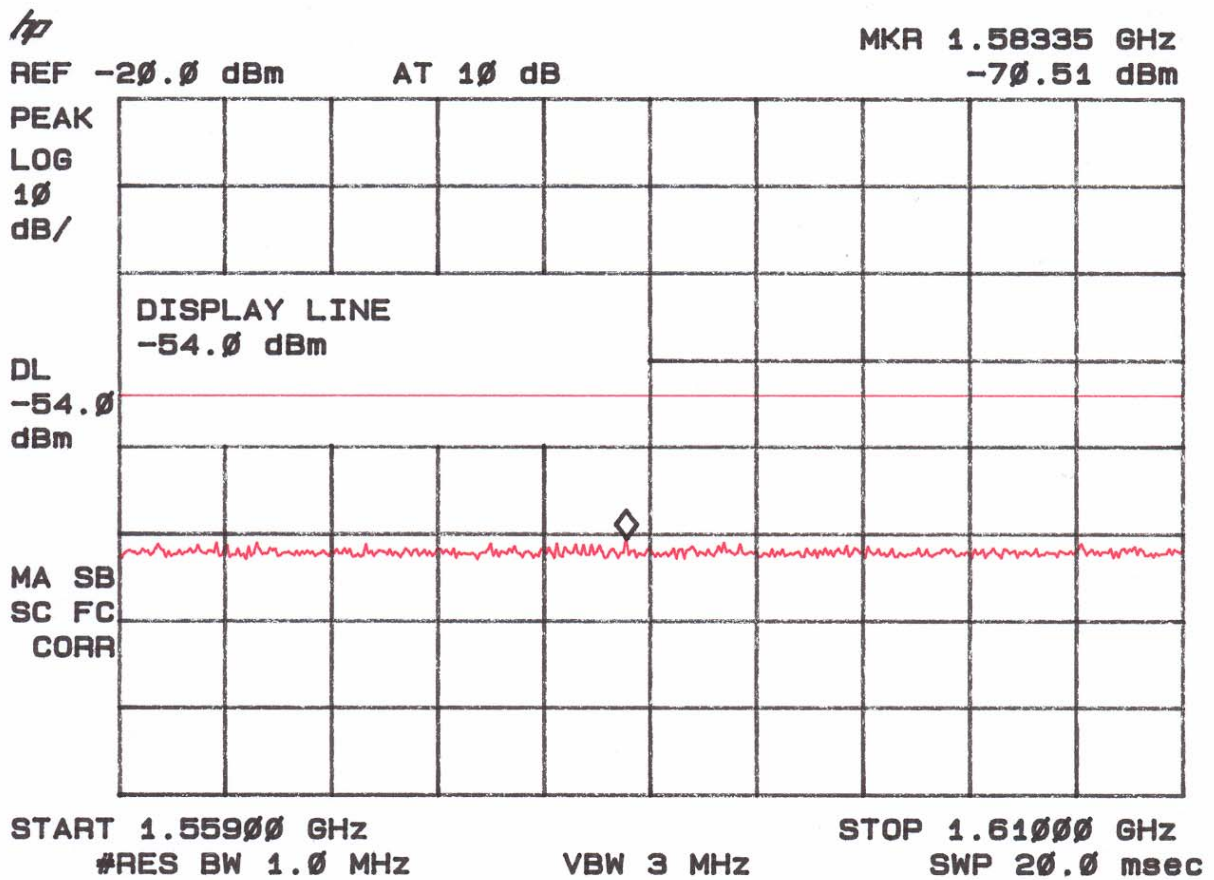


Measured Value is  $-66.05 + 4(\text{dBi}) + 0.25 (\text{cable loss}) = -61.80 \text{ dBm}$



**Figure 8e.**  
**Emissions from Mobile Earth Stations for Protection**  
**of Aeronautical Radionavigation-Satellite Service( 25.216(i)**  
**(carrier off)**

**Limit = -80 dBW/MHz + 4 dBi (-54 dBm)**



**Measured Value is -71.51 + 0.25 (cable loss) = -71.26 dBm**



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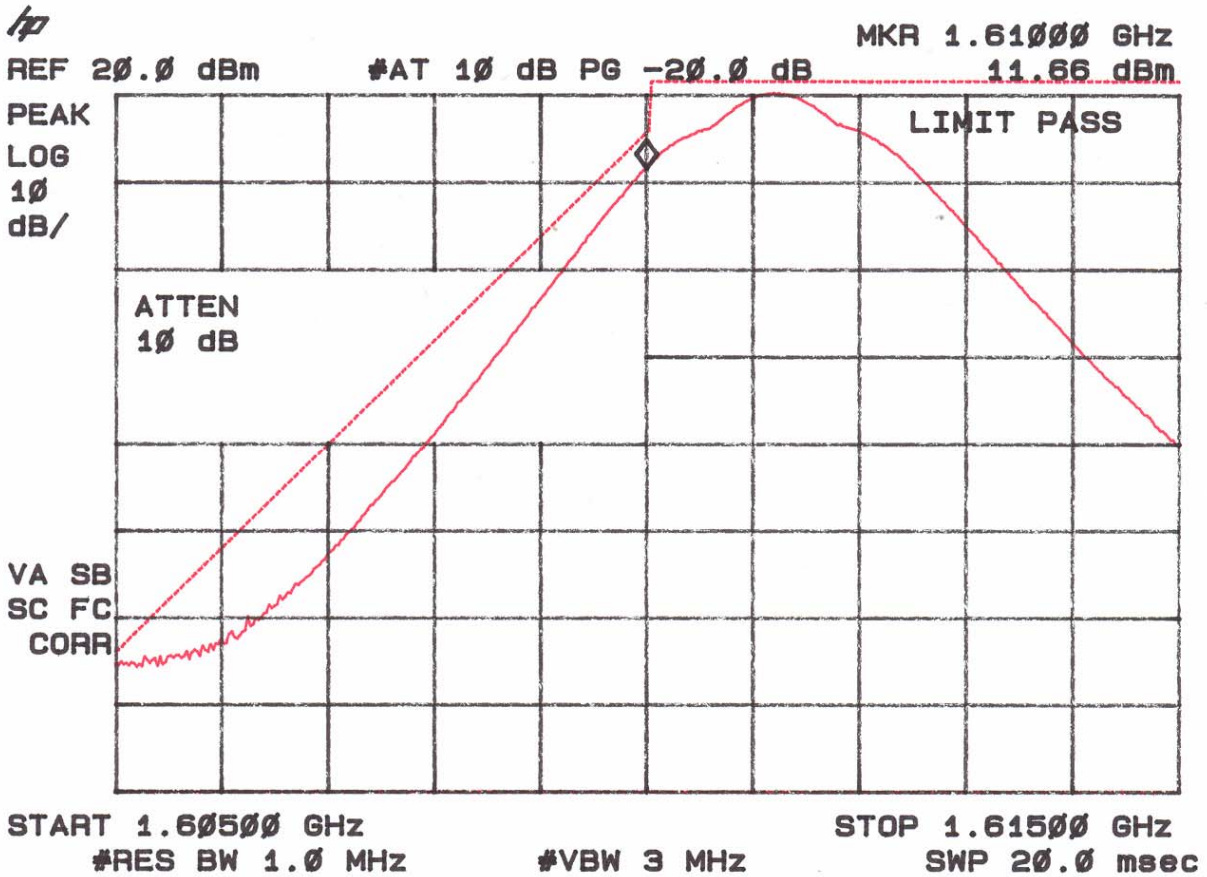
Issue Date: September 21, 2007

Customer: Axonn LLC

Model: Satellite Personal Tracker Model: SPT

**Figure 8f.**  
**Emissions from Mobile Earth Stations for Protection**  
**of Aeronautical Radionavigation-Satellite Service( 25.216(i)**  
**(carrier on)**

**Limit = -80 dBW/MHz + 4 dBi (-54 dBm)**



**Measured Value is 11.66 + 0.25 (cable loss) =11.91 dBm**

U.S. Technologies, Inc.

FCC Part 25 Certification

Report Number: 07-0197

Issue Date: September 21, 2007

Customer: Axonn LLC

Model: Satellite Personal Tracker Model: SPT

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

**CLASS B**

| Radiated Emissions                                |           |             |           |           |         |            |                                       |        |        |
|---------------------------------------------------|-----------|-------------|-----------|-----------|---------|------------|---------------------------------------|--------|--------|
| Test By:                                          | Test:     | FCC Part 15 |           |           | Client: | Axonn, LLC |                                       |        |        |
| DA                                                | Project:  | 07-0197     |           | Class:    | B       | Model:     | Satellite Personal Tracker Model: SPT |        |        |
| 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   |
| 527.05                                            | -88.0     | 1LP3mH      | 19.0      | 22.8      | 122.8   | 200.0      | 3m./HORZ                              | 4.2    | QP     |
| 527.615                                           | -90.0     | 1LP3mV      | 17.0      | 22.2      | 91.5    | 200.0      | 3m./VERT                              | 6.8    | QP     |
| No other emissions seen within 20 dB of the limit |           |             |           |           |         |            |                                       |        |        |

Test Date: **October 4, 2007**

Tester Signature: *Daniel Aparaschivei*

Name: **Daniel Aparaschivei**