**ADDENDUM A – REPLY TO "REQUEST FOR ADDITIONAL INFORMATION"**
**CORRESPONDENCE REFERENCE NUMBER: 22631**

## EMC

### 1) Clarification of Maximum Conducted Power.

The radio submitted for SAR measurement was tuned to its maximum adjustable power setting using specialized software that is **not** available to the dealer or end user. The CPS (Customer Programming Software) available to the dealer allows the power level of each channel to be programmed to "Low Power" (1.2 watts) or "High Power" (2.75 watts) **only**.

These two power levels are factory-adjusted to a tolerance of $\pm$0.1 watt at several frequencies across the operating band, and this information is stored in the radio. The operating frequency of the channel being programmed is used to choose the power output setting that is appropriate for that frequency. This method gives a very accurate and predictable output power setting which is not subject to variations due to errors in customer or dealer power measurement equipment.

### 2) New Occupied Bandwidth Plots

New plots are attached as follows (a note stating "0 dB = 3.0 Watts" has been added to each plot):



### 3) Block Diagrams

Block Diagrams have been attached as follows:

**ADDENDUM A – REPLY TO "REQUEST FOR ADDITIONAL INFORMATION" (CONTINUED)**
**CORRESPONDENCE REFERENCE NUMBER: 22631**

### 4) Radiated Power Testing

Radiated power is measured in accordance with TIA/EIA-603-A section 2.2.17. The data presented was corrected for losses using the substitution method, as specified in TIA/EIA-603-A section 2.2.17.2 (d). This procedure is attached:

PAGES 21-22 – TIA/EIA-603-A Procedure for Average Radiated Power Output

A photograph of the test setup for radiated power and radiated spurious emissions is attached:

PAGE 23 – OATS Radiated Power Test Setup (Photo)

The EPR data supplied as Exhibits 6A-3 and 6A-4 has been amended to show the radiated power in watts as well as dBm, and are attached:

PAGE 24 – Amended Exhibit 6A-3 - RF Output Data – ERP (746, 762 MHz)
PAGE 25 – Amended Exhibit 6A-3 - RF Output Data – ERP (776, 794 MHz)

### 5) Radiated and Conducted Non-Harmonic Spurious Emissions

RADIATED SPURIOUS EMISSIONS

The equipment submitted for OATS Radiated Spurious Emissions Testing was initially pre-screened using a GTEM (Gigahertz Transverse Electromagnetic) cell which meets the specifications of TIA/EIA-603-A section 1.5.36. IEC 60481-1 compliant signal processing software is used to convert the individual 3-axis dBμV field strength measurement into an OATS-correlatable value. The shielding of GTEM cell eliminates unwanted signals, allowing close inspection of the spurious emissions of the equipment with greater resolution and lower noise floor than is obtainable in an open area test site environment. Any measurable non-harmonically-related emissions are noted.

This pre-screening information is supplied to the agency performing the OATS measurement, allowing them to concentrate are areas where spurious emissions may be found. Note that the GTEM data itself is **not** submitted to the FCC, but only used as an aid to locate spurious emissions which may be overlooked due to ambient signal conditions in the OATS test site. For the case of the subject equipment of this application, no such non-harmonically related spurious emissions were found, and therefore were not reported.

Radiated spurious emissions measurements are performed according to the procedures of TIA/EIA-603-A section 2.2.12.2. A non-radiating load is attached directly to the antenna port of the transmitter without RF cable. Photographs of the test fixturing of the equipment are attached:

PAGE 26 – OATS Radiated Spurious Emissions Test Setup (Photo)
PAGE 26 – OATS Device Under Test with Non-Radiating Load (Photo)

CONDUCTED SPURIOUS EMISSIONS

**ADDENDUM A – REPLY TO "REQUEST FOR ADDITIONAL INFORMATION" (CONTINUED)**
**CORRESPONDENCE REFERENCE NUMBER: 22631**

The conducted spurious emissions plots of Exhibit 6F have been amended with non-harmonically-related emissions included. All emissions are significantly within FCC limits.

PAGE 27 – Amended Exhibit 6F-1 - 3 Watts, 746.500 MHz
PAGE 28 – Amended Exhibit 6F-2 - 3 Watts, 763.000 MHz
PAGE 29 – Amended Exhibit 6F-3 - 3 Watts, 776.500 MHz
PAGE 30 – Amended Exhibit 6F-4 - 3 Watts, 793.000 MHz
PAGE 31 – Amended Exhibit 6F-5 - 1 Watt, 746.500 MHz
PAGE 32 – Amended Exhibit 6F-6 - 1 Watt, 763.000 MHz
PAGE 33 – Amended Exhibit 6F-7 - 1 Watt, 776.500 MHz
PAGE 34 – Amended Exhibit 6F-8 - 1 Watt, 793.000 MHz

## 6) Conducted Power Measurement

Conducted power is measured in accordance with accordance with TIA/EIA-603-A section 2.2.1.2. The transmitter under test is connected directly to and H-P model 435 or 438A power meter using two cascaded 20 dB attenuator pads (which also form the 50-ohm RF terminating load), without the use of an interconnecting RF cable. The calibration of the power meter, detector, and attenuator pads is verified on an annual basis. Other power measurement systems that may be used are correlated with this calibrated reference system before measurements are performed, and calibration factors are adjusted as necessary to obtain precise correlation.

A photograph of the calibrated reference power measurement setup is attached:

PAGE 35 – Conducted Power Measurement Test Set-Up

## 7) Reference to 220 MHz Operation

The Owner's Manual supplied with this equipment is also supplied with similar equipment operating in the 220 MHz frequency band. References to 220 MHz operation, and specifically to the 220 MHz antenna on page 101 of the Owner's Manual (Exhibit 8 Part 2 of 2) should be ignored for the subject equipment of this application.

The factory tuning procedures of Exhibit 10C are reproduced from the factory Final Test and Tune Specification, which is also applicable to similar 220 MHz equipment. All references to 220 MHz operation should be ignored for the subject equipment of this application.

## 8) Battery End Point Data for Frequency Stability Test

The battery end point voltage was specified as "radio reset voltage" in the lower left of the Frequency Stability vs. Supply Voltage graph of Exhibit 6H-2. The exhibit has been amended to make this parameter more prominent, and is attached:

PAGE 36 – Amended Exhibit 6H-2 – Frequency Stability vs. Supply Voltage

**ADDENDUM A – REPLY TO "REQUEST FOR ADDITIONAL INFORMATION" (CONTINUED)**
**CORRESPONDENCE REFERENCE NUMBER: 22631**

## SAR

### 1) RF Safety Label

A photograph of the rear view of the transmitter is attached showing the location of the RF Safety Label. It will be co-located above the FCC ID label. The label is in accordance with TIA/EIA TSB133 (draft) as of April 3, 2002.

PAGE 37 – Rear View Showing RF Safety Label
PAGE 38 – Close-up View of RF Safety Label

### 2) Additional User RF Exposure Training Information

Per our telephone discussion, the User Manual language satisfies the requirements of the FCC Rules. The manual provides detailed information on how the user can control RF exposure. Also, this language was accepted in previous FCC applications such as FCC ID: AZ489FT5817. It is, also, included in the proposed TSB133.

### 4) Data to Validate Power Drift Calculations

Please find attached the characteristic curves of the conducted power versus time for each of the batteries offered with this product:

PAGE 39 – Transmitter Conducted Power Output vs. Time
HNN9008A NiMH High Capacity Battery
PAGE 40 – Transmitter Conducted Power Output vs. Time
HNN9009A NiMH Ultra High Capacity Battery
PAGE 41 – Transmitter Conducted Power Output vs. Time
HNN9010A NiMH Ultra High Capacity Factory Mutual Battery
PAGE 42 – Transmitter Conducted Power Output vs. Time
HNN9011A NiCd High Capacity Factory Mutual Battery
PAGE 43 – Transmitter Conducted Power Output vs. Time
HNN9012A NiCd High Capacity Battery
PAGE 44 – Transmitter Conducted Power Output vs. Time
HNN9013A LiIon Battery

Also, please find attached a separate file entitled "Shortened scan results.pdf" that presents the results obtained from the requested "shortened" S.A.R. measurements.

### 5) Additional Validation Data

Please find attached a separate file entitled "additional scans_photos.pdf". The full manufacturer data requested can be found on pages 1 to 6, and the S.A.R. validation plots requested can be found on pages 7 to 10 of this file.

**ADDENDUM A – REPLY TO "REQUEST FOR ADDITIONAL INFORMATION" (CONTINUED)**
**CORRESPONDENCE REFERENCE NUMBER: 22631**

## 6) Tissue Ingredients and Daily Measured Parameters for the Test Liquids

Tissue ingredients and target tissue parameters are presented in section 4.3.2 of the submitted report (Exhibit 11B, page 10). The daily measured parameters are provided in the comment sections of the scans within Appendix A and B of the submitted report (Exhibit 11B, beginning on page 19). A summary of the daily measured parameters for the test liquid is offered in the table below.

| Date | Conductivity (σ) @ 835 MHZ | Dielectric Constant (εr) @ 835 MHZ | Conductivity (σ) @ 770MHZ | Dielectric Constant (εr) @ 770MHZ |
|---|---|---|---|---|
| | | | | |
| 2/28/2002 | 0.99 | 52.6 | 0.92 | 53.5 |
| 3/4/2002 | 1 | 54 | 0.93 | 54.5 |
| 3/8/2002 | 0.99 | 53.2 | 0.92 | 53.4 |
| 3/11/2002 | 0.92 | 42.4 | 0.85 | 43.3 |
| 3/14/2002 | 0.99 | 52.7 | 0.93 | 53.5 |

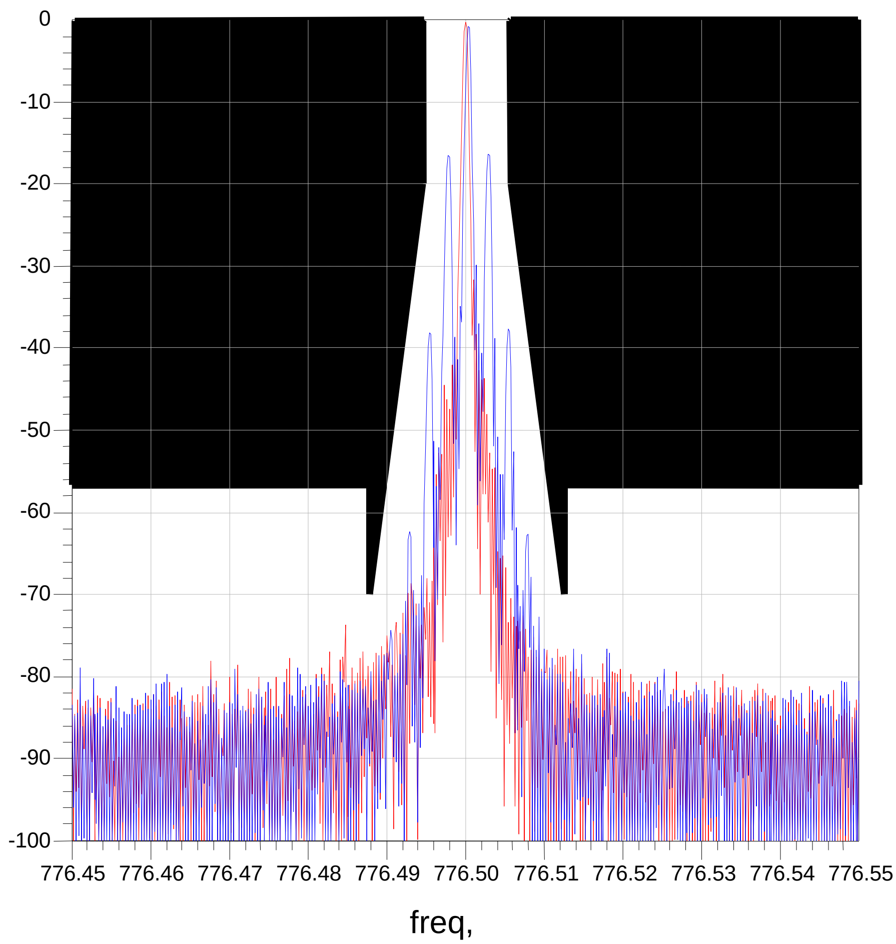
## 7) Additional Test Setup Photos for Highest SAR Configuration

Please find attached a separate file entitled "additional scans_photos.pdf". The additional photos requested can be found on pages 11 to 12 of this file.

## 8) Updated Uncertainty Table

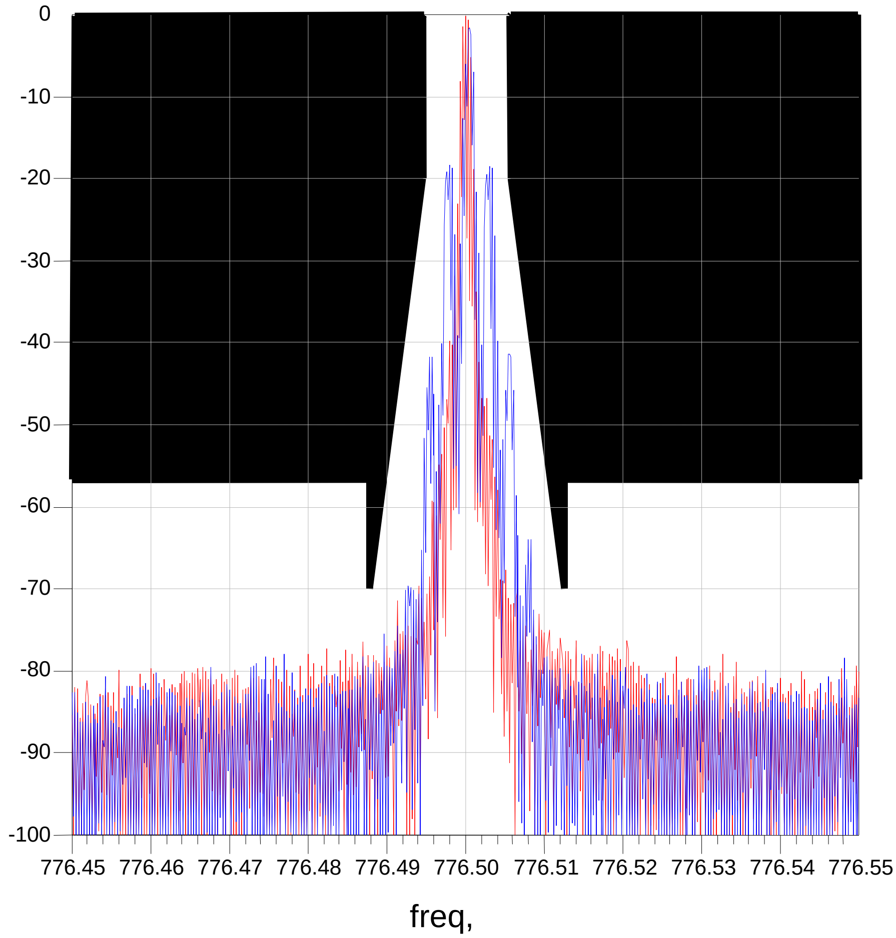
Per item #13 of the *OET 65 Supplement C EAB Part 22/24 SAR Review Reminder Sheet 01/2002* handed out during the February and April, 2002 TCB council meeting attached herein as "SARremindersheet.pdf", the tabulated total measurement uncertainty is nominal until the IEEE Std 1528 is completed. Much of the required information has to be supplied by the equipment manufacturer, which has not yet been officially supplied. Other items are based on results of studies currently underway. Our work is scheduled to be completed by the time IEEE P1528 is ratified and released. The total measurement uncertainty of +/-12.1 % (K=1) was stated in section 6.0 on page 14 of Exhibit 11B of the original filing.

**OCCUPIED BANDWIDTH MEASUREMENT FOR**
**12.5 kHz CHANNEL SPACING, 2500 Hz TONE, CARRIER SQUELCH**
**EMISSION MASK: D**



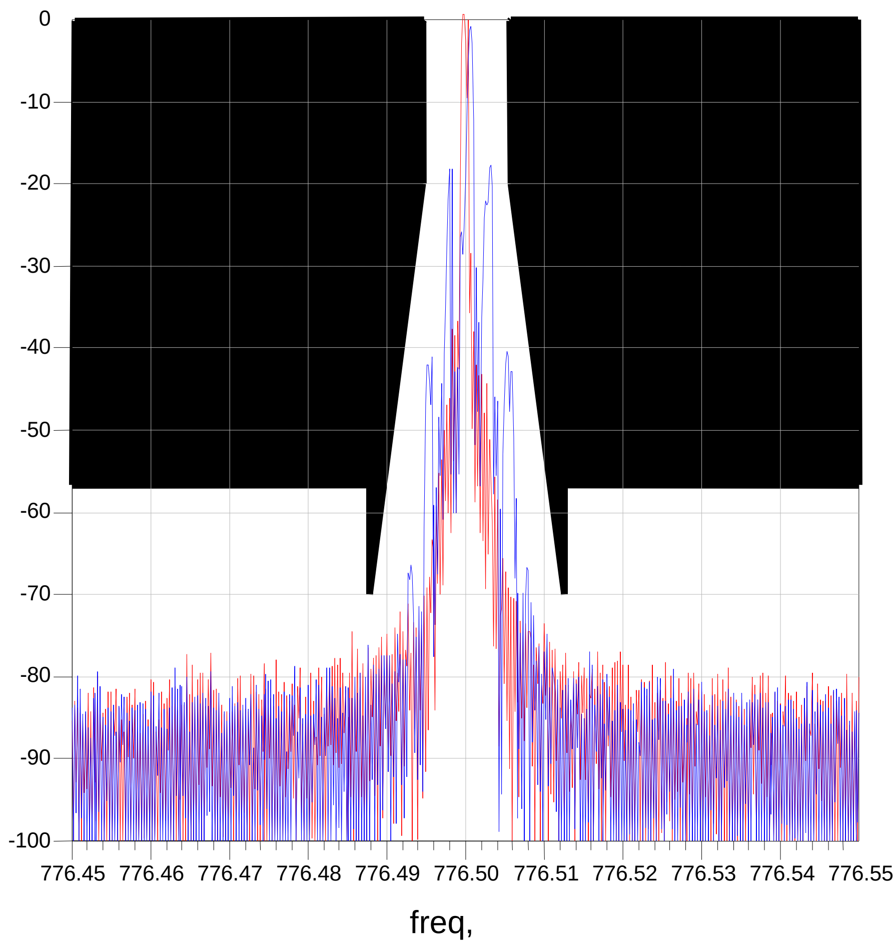

| | |
|---|---|
| CENTER FREQUENCY: | 776.500 MHz |
| RESOLUTION BANDWIDTH: | 300 Hz |
| VIDEO BANDWIDTH: | 3 kHz |
| SPAN: | 100 kHz |
| HORIZONTAL SCALE: | 10 kHz/div |
| SWEEP TIME: | 2 Sec. |
| VERTICAL SCALE: | 10 dB/div |
| REFERENCE LEVEL: | 0 dBm = 3.0 Watts |
| ATTENUATION: | 30 dB |

**OCCUPIED BANDWIDTH MEASUREMENT FOR**
**12.5 kHz CHANNEL SPACING, 2500 Hz TONE, TPL 250.3 Hz**
**EMISSION MASK: D**



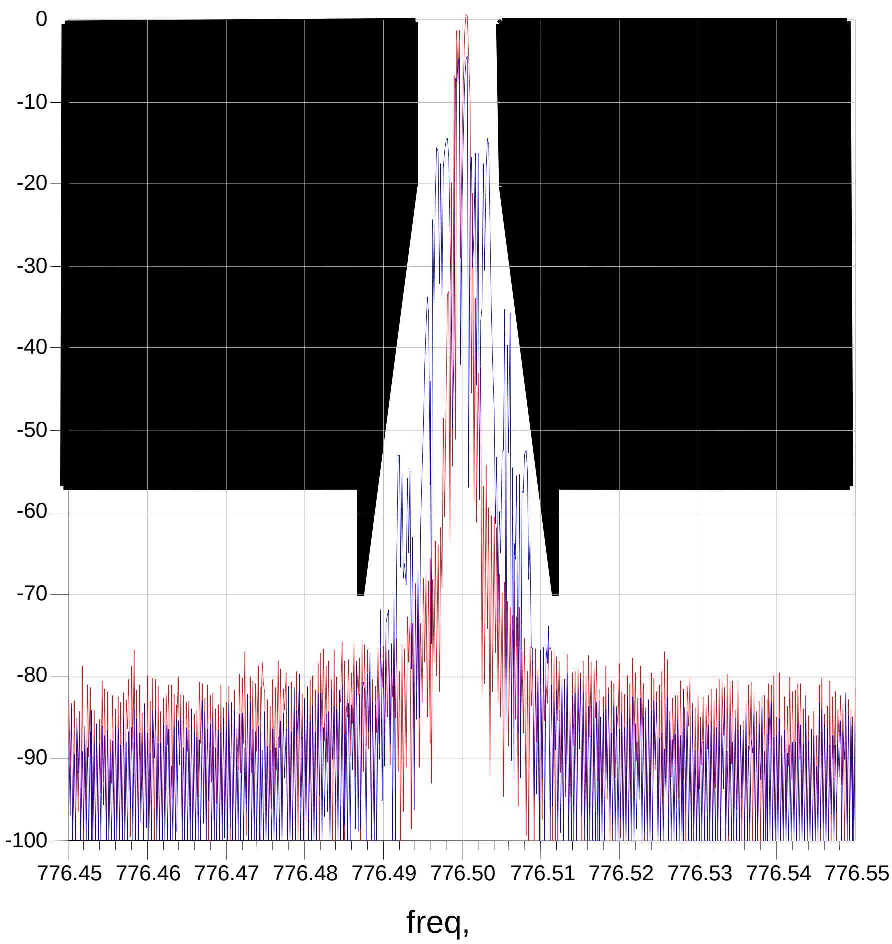

| | |
|---|---|
| CENTER FREQUENCY: | 776.500 MHz |
| RESOLUTION BANDWIDTH: | 300 Hz |
| VIDEO BANDWIDTH: | 3 kHz |
| SPAN: | 100 kHz |
| HORIZONTAL SCALE: | 10 kHz/div |
| SWEEP TIME: | 2 Sec. |
| VERTICAL SCALE: | 10 dB/div |
| REFERENCE LEVEL: | 0 dBm = 3.0 Watts |
| ATTENUATION: | 30 dB |

**OCCUPIED BANDWIDTH MEASUREMENT FOR**
**12.5 kHz CHANNEL SPACING, 2500 Hz TONE, DPL 131**
**EMISSION MASK: D**



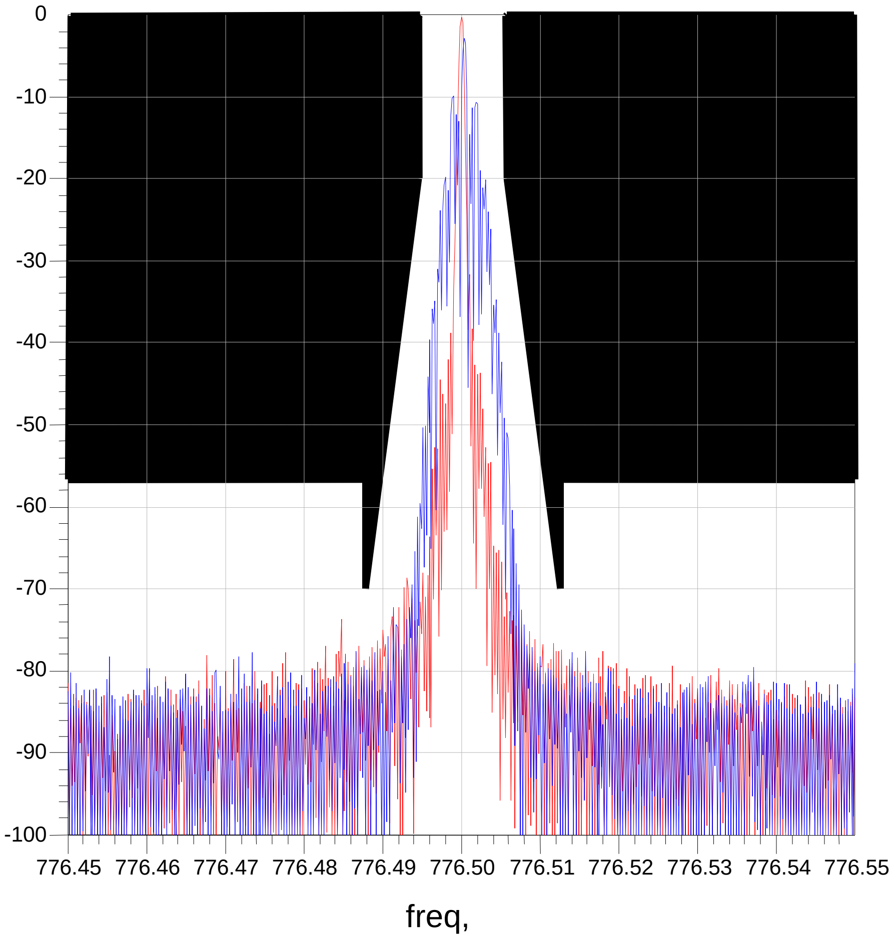

| | |
|---|---|
| CENTER FREQUENCY: | 776.500 MHz |
| RESOLUTION BANDWIDTH: | 300 Hz |
| VIDEO BANDWIDTH: | 3 kHz |
| SPAN: | 100 kHz |
| HORIZONTAL SCALE: | 10 kHz/div |
| SWEEP TIME: | 2 Sec. |
| VERTICAL SCALE: | 10 dB/div |
| REFERENCE LEVEL: | 0 dBm = 3.0 Watts |
| ATTENUATION: | 30 dB |

**OCCUPIED BANDWIDTH MEASUREMENT FOR**
**12.5 kHz CHANNEL SPACING, 2500 Hz TONE, LOW SPEED TRUNKING**
**EMISSION MASK: D**



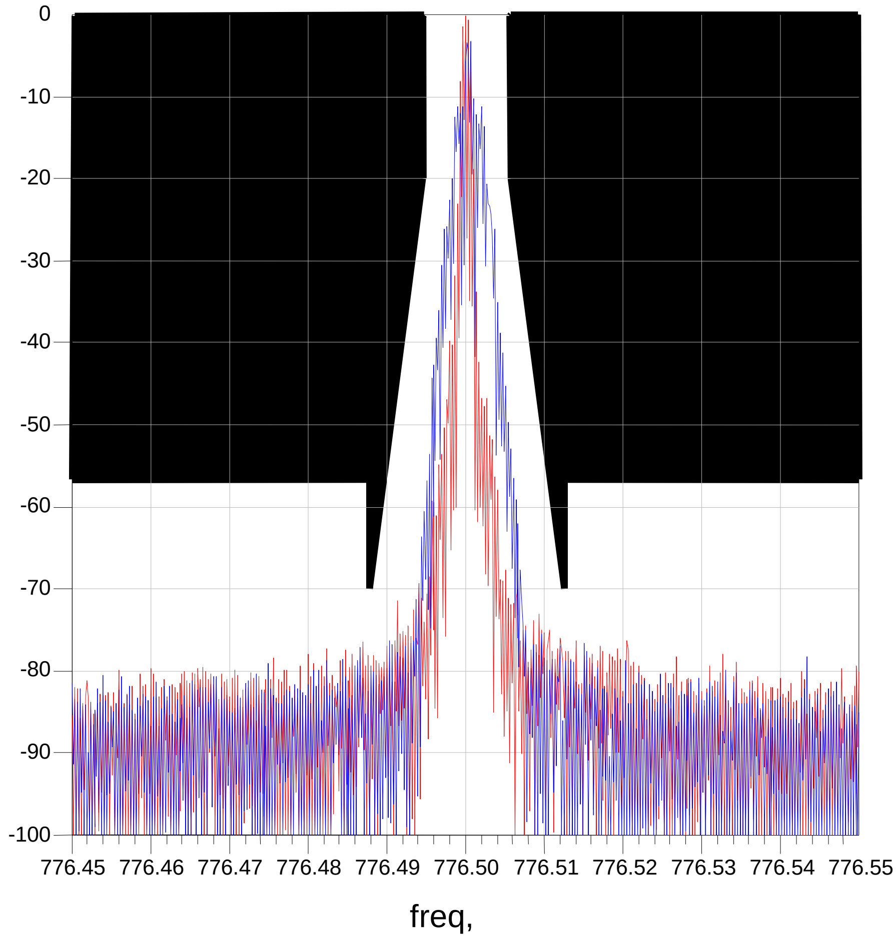

| | |
|---|---|
| CENTER FREQUENCY: | 776.500 MHz |
| RESOLUTION BANDWIDTH: | 300 Hz |
| VIDEO BANDWIDTH: | 3 kHz |
| SPAN: | 100 kHz |
| HORIZONTAL SCALE: | 10 kHz/div |
| SWEEP TIME: | 2 Sec. |
| VERTICAL SCALE: | 10 dB/div |
| REFERENCE LEVEL: | 0 dBm = 3.0 Watts |
| ATTENUATION: | 30 dB |

**OCCUPIED BANDWIDTH MEASUREMENT FOR**
**12.5 kHz CHANNEL SPACING, DTMF MODULATION, CARRIER SQUELCH**
**EMISSION MASK: D**



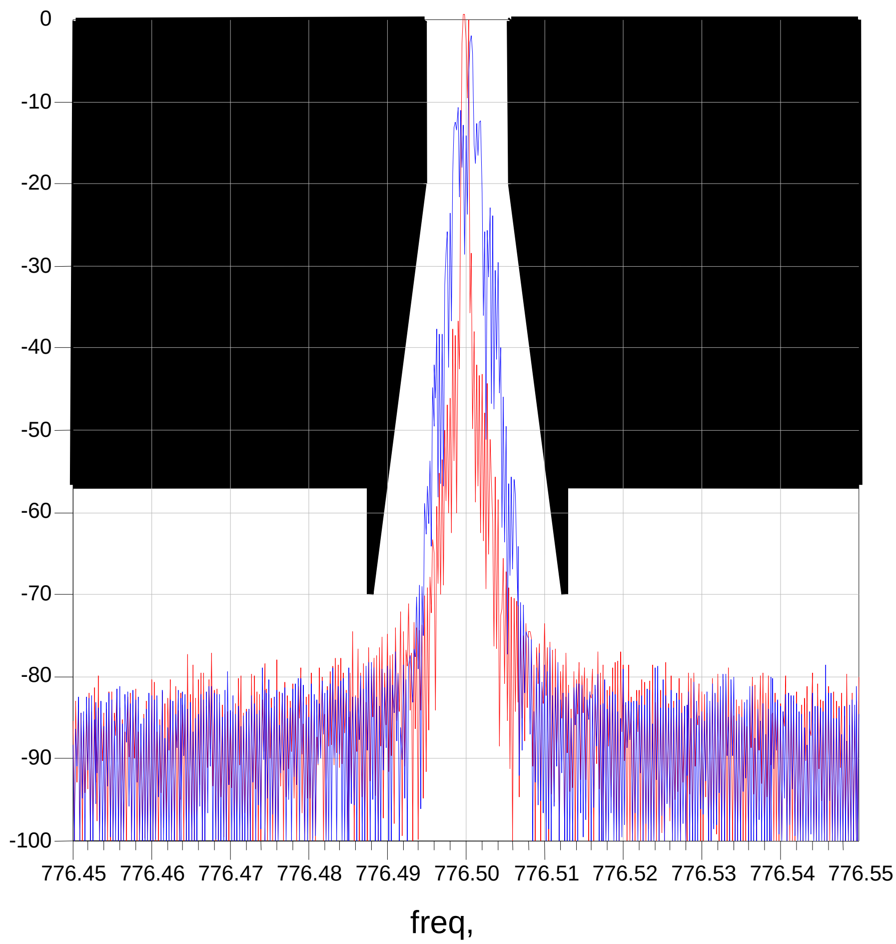

| | |
|---|---|
| CENTER FREQUENCY: | 776.500 MHz |
| RESOLUTION BANDWIDTH: | 300 Hz |
| VIDEO BANDWIDTH: | 3 kHz |
| SPAN: | 100 kHz |
| HORIZONTAL SCALE: | 10 kHz/div |
| SWEEP TIME: | 2 Sec. |
| VERTICAL SCALE: | 10 dB/div |
| REFERENCE LEVEL: | 0 dBm = 3.0 Watts |
| ATTENUATION: | 30 dB |

**OCCUPIED BANDWIDTH MEASUREMENT FOR**
**12.5 kHz CHANNEL SPACING, DTMF MODULATION, TPL 250.3 Hz**
**EMISSION MASK: D**



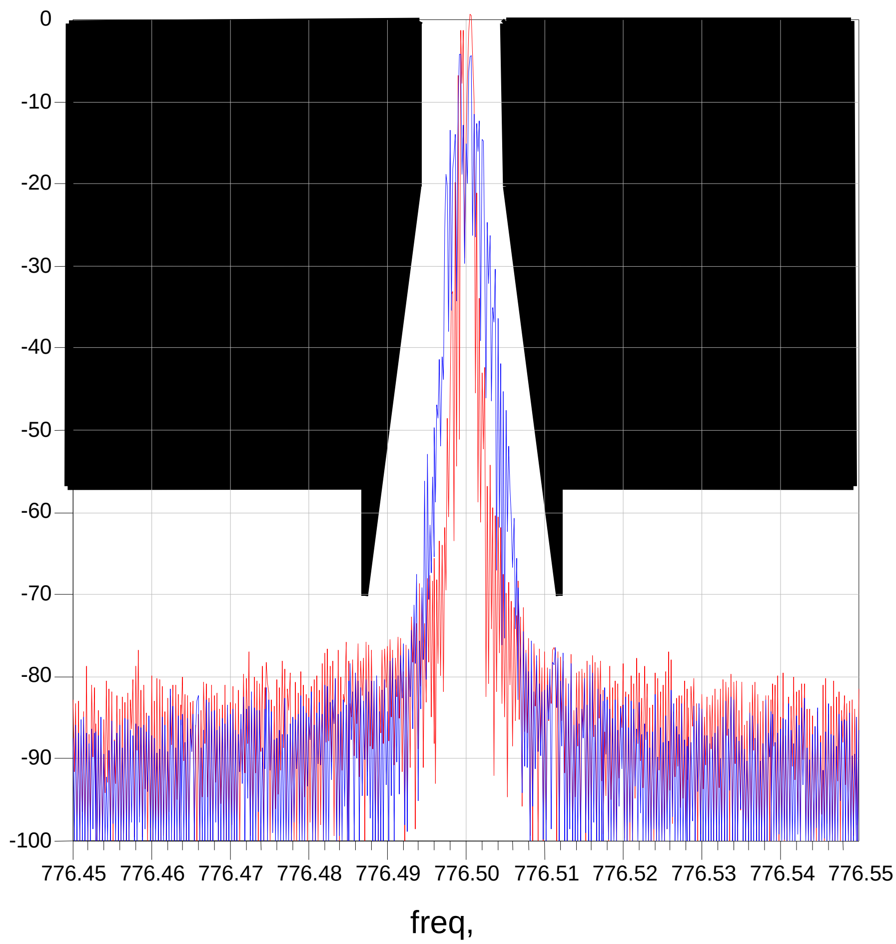

| | |
|---|---|
| CENTER FREQUENCY: | 776.500 MHz |
| RESOLUTION BANDWIDTH: | 300 Hz |
| VIDEO BANDWIDTH: | 3 kHz |
| SPAN: | 100 kHz |
| HORIZONTAL SCALE: | 10 kHz/div |
| SWEEP TIME: | 2 Sec. |
| VERTICAL SCALE: | 10 dB/div |
| REFERENCE LEVEL: | 0 dBm = 3.0 Watts |
| ATTENUATION: | 30 dB |

**OCCUPIED BANDWIDTH MEASUREMENT FOR**
**12.5 kHz CHANNEL SPACING, DTMF MODULATION, DPL 131**
**EMISSION MASK: D**



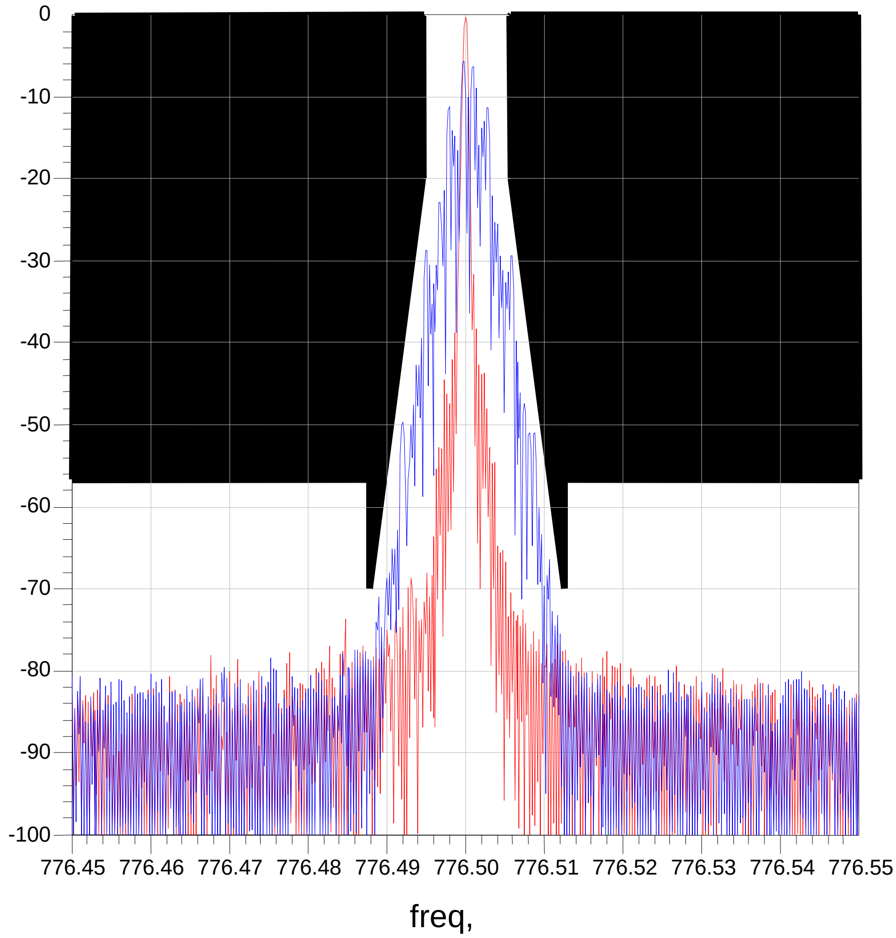

| | |
|---|---|
| CENTER FREQUENCY: | 776.500 MHz |
| RESOLUTION BANDWIDTH: | 300 Hz |
| VIDEO BANDWIDTH: | 3 kHz |
| SPAN: | 100 kHz |
| HORIZONTAL SCALE: | 10 kHz/div |
| SWEEP TIME: | 2 Sec. |
| VERTICAL SCALE: | 10 dB/div |
| REFERENCE LEVEL: | 0 dBm = 3.0 Watts |
| ATTENUATION: | 30 dB |

**OCCUPIED BANDWIDTH MEASUREMENT FOR**
**12.5 kHz CHANNEL SPACING, DTMF MODULATION, LOW SPEED TRUNKING**
**EMISSION MASK: D**



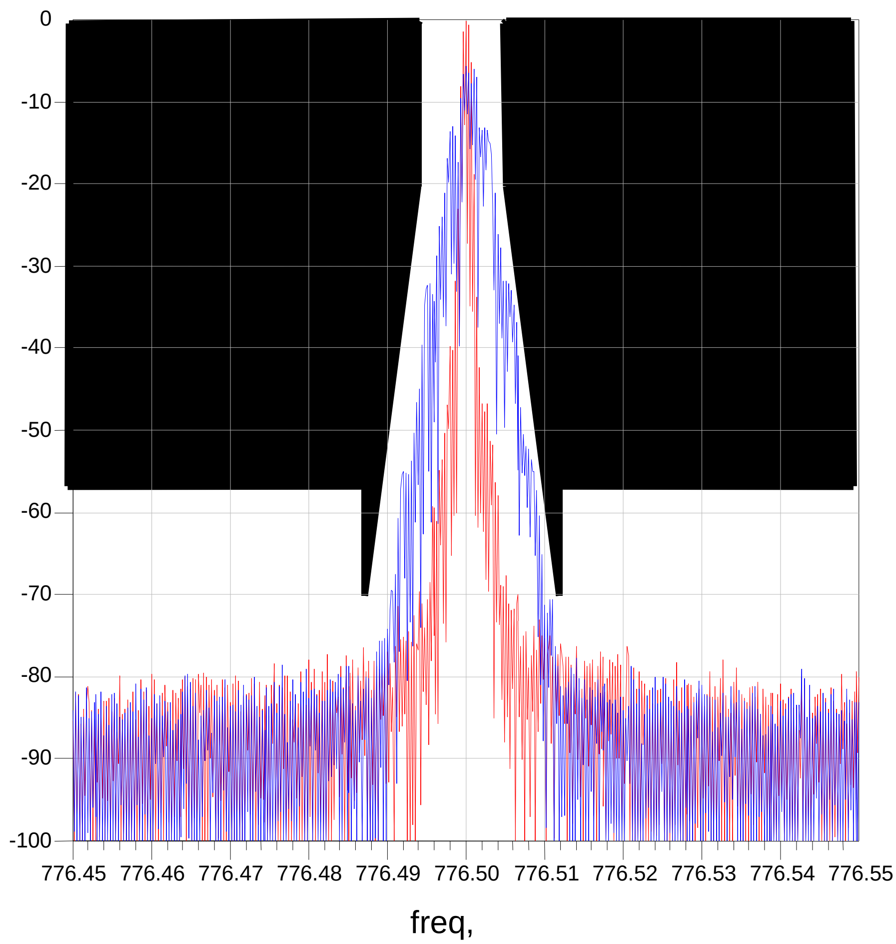

| | |
|---|---|
| CENTER FREQUENCY: | 776.500 MHz |
| RESOLUTION BANDWIDTH: | 300 Hz |
| VIDEO BANDWIDTH: | 3 kHz |
| SPAN: | 100 kHz |
| HORIZONTAL SCALE: | 10 kHz/div |
| SWEEP TIME: | 2 Sec. |
| VERTICAL SCALE: | 10 dB/div |
| REFERENCE LEVEL: | 0 dBm = 3.0 Watts |
| ATTENUATION: | 30 dB |

**OCCUPIED BANDWIDTH MEASUREMENT FOR**
**12.5 kHz CHANNEL SPACING, 2000/3000 Hz FSK, CARRIER SQUELCH**
**EMISSION MASK: D**



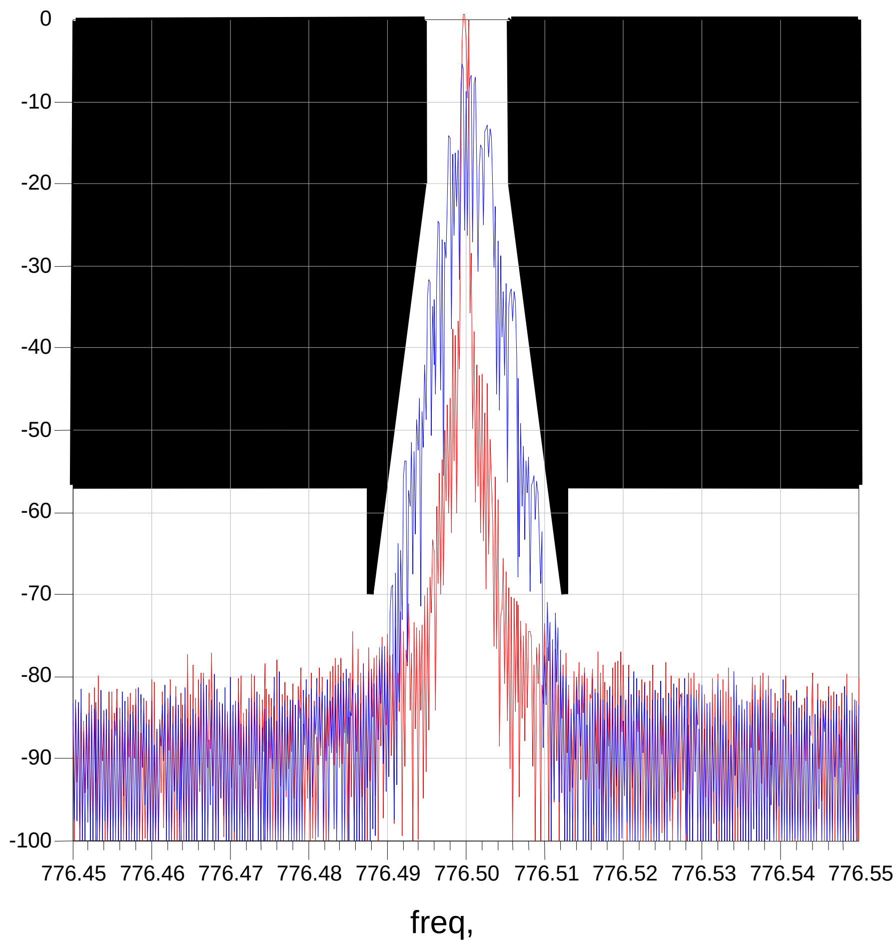

| | |
|---|---|
| CENTER FREQUENCY: | 776.500 MHz |
| RESOLUTION BANDWIDTH: | 300 Hz |
| VIDEO BANDWIDTH: | 3 kHz |
| SPAN: | 100 kHz |
| HORIZONTAL SCALE: | 10 kHz/div |
| SWEEP TIME: | 2 Sec. |
| VERTICAL SCALE: | 10 dB/div |
| REFERENCE LEVEL: | 0 dBm = 3.0 Watts |
| ATTENUATION: | 30 dB |

**OCCUPIED BANDWIDTH MEASUREMENT FOR**
**12.5 kHz CHANNEL SPACING, 2000/3000 Hz FSK, TPL 250.3 Hz**
**EMISSION MASK: D**



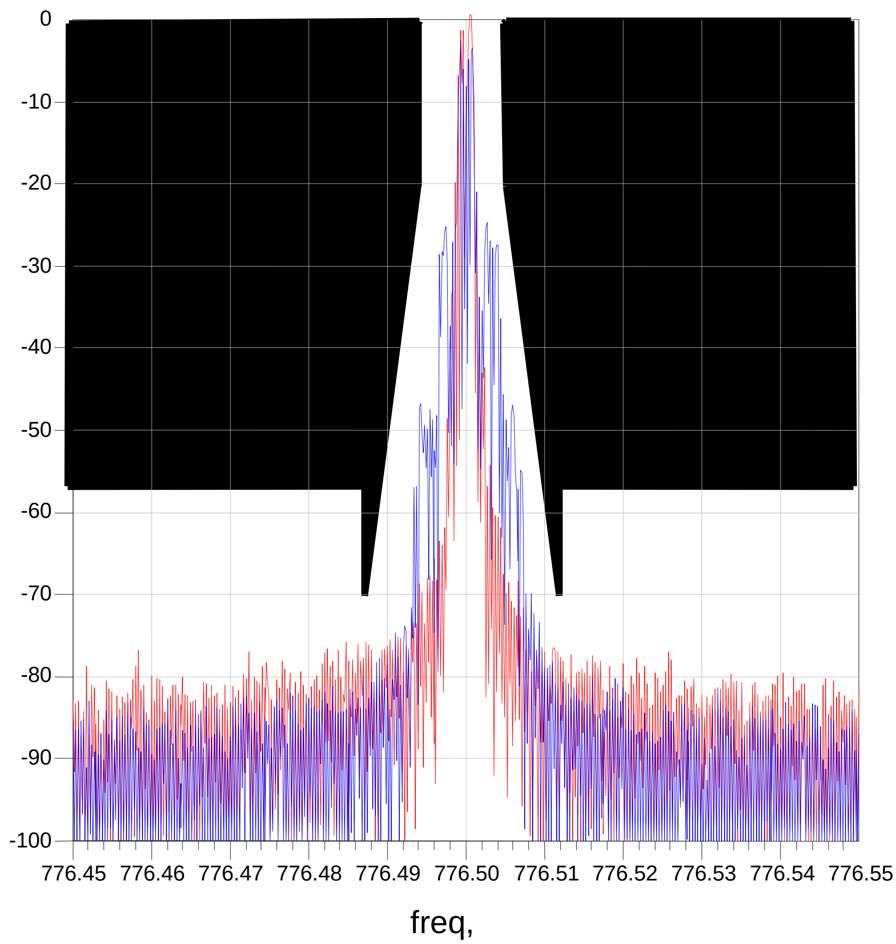

| | |
|---|---|
| CENTER FREQUENCY: | 776.500 MHz |
| RESOLUTION BANDWIDTH: | 300 Hz |
| VIDEO BANDWIDTH: | 3 kHz |
| SPAN: | 100 kHz |
| HORIZONTAL SCALE: | 10 kHz/div |
| SWEEP TIME: | 2 Sec. |
| VERTICAL SCALE: | 10 dB/div |
| REFERENCE LEVEL: | 0 dBm = 3.0 Watts |
| ATTENUATION: | 30 dB |

**OCCUPIED BANDWIDTH MEASUREMENT FOR**
**12.5 kHz CHANNEL SPACING, 2000/3000 Hz FSK, DPL 131**
**EMISSION MASK: D**




| | |
|---|---|
| CENTER FREQUENCY: | 776.500 MHz |
| RESOLUTION BANDWIDTH: | 300 Hz |
| VIDEO BANDWIDTH: | 3 kHz |
| SPAN: | 100 kHz |
| HORIZONTAL SCALE: | 10 kHz/div |
| SWEEP TIME: | 2 Sec. |
| VERTICAL SCALE: | 10 dB/div |
| REFERENCE LEVEL: | 0 dBm = 3.0 Watts |
| ATTENUATION: | 30 dB |

**OCCUPIED BANDWIDTH MEASUREMENT FOR**
**12.5 kHz CHANNEL SPACING, 2000/3000 Hz FSK, LOW SPEED TRUNKING**
**EMISSION MASK: D**




| | |
|---|---|
| CENTER FREQUENCY: | 776.500 MHz |
| RESOLUTION BANDWIDTH: | 300 Hz |
| VIDEO BANDWIDTH: | 3 kHz |
| SPAN: | 100 kHz |
| HORIZONTAL SCALE: | 10 kHz/div |
| SWEEP TIME: | 2 Sec. |
| VERTICAL SCALE: | 10 dB/div |
| REFERENCE LEVEL: | 0 dBm = 3.0 Watts |
| ATTENUATION: | 30 dB |

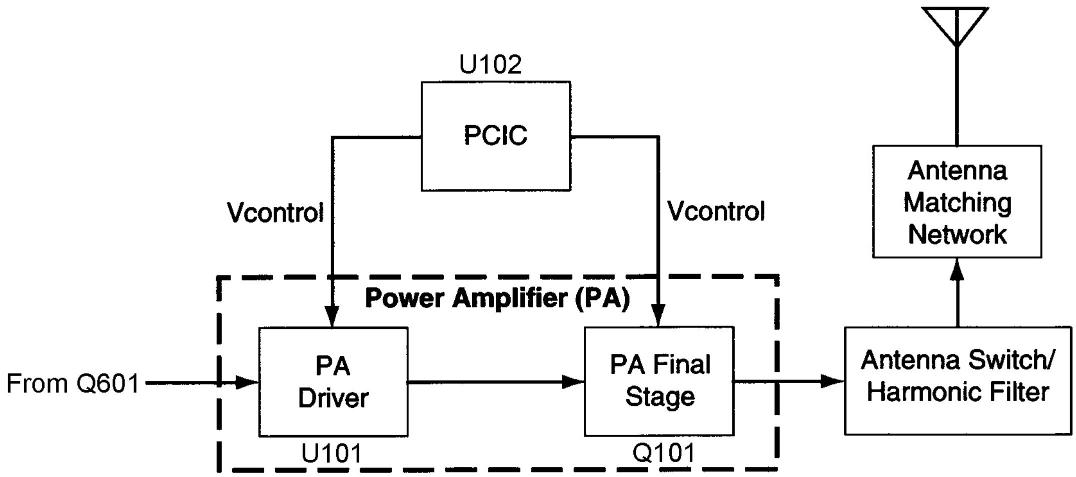



*Figure 1 – Transmitter Block Diagram*

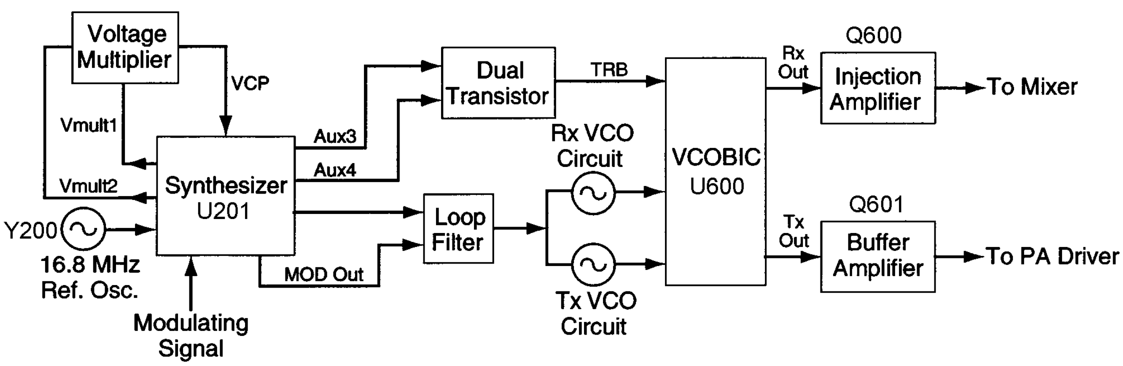



*Figure 2 – Frequency Generation Block Diagram*

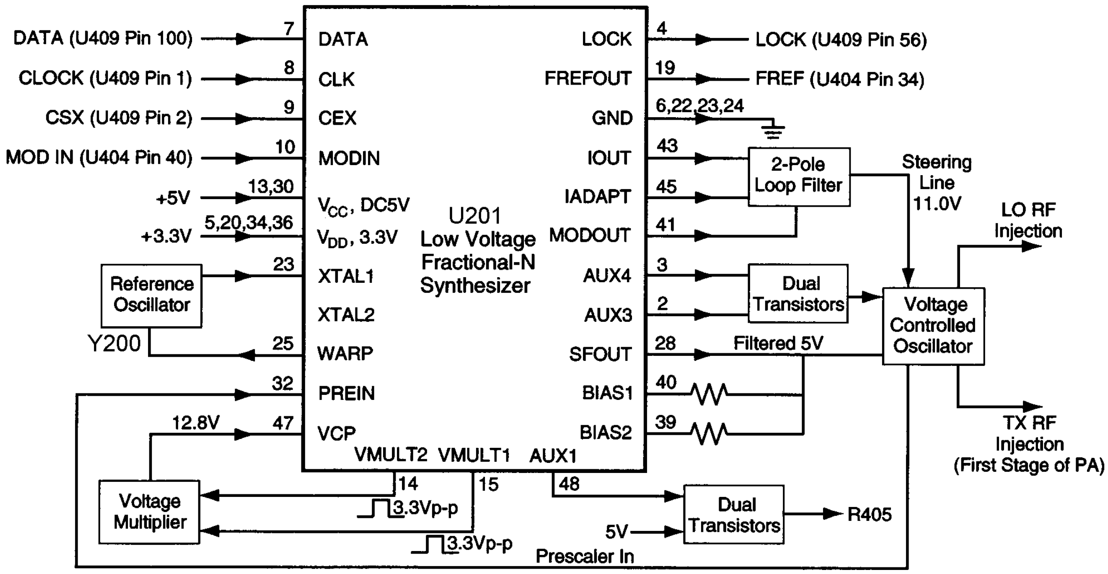



*Figure 3 – Fractional-N Synthesizer IC Internal Block Diagram*

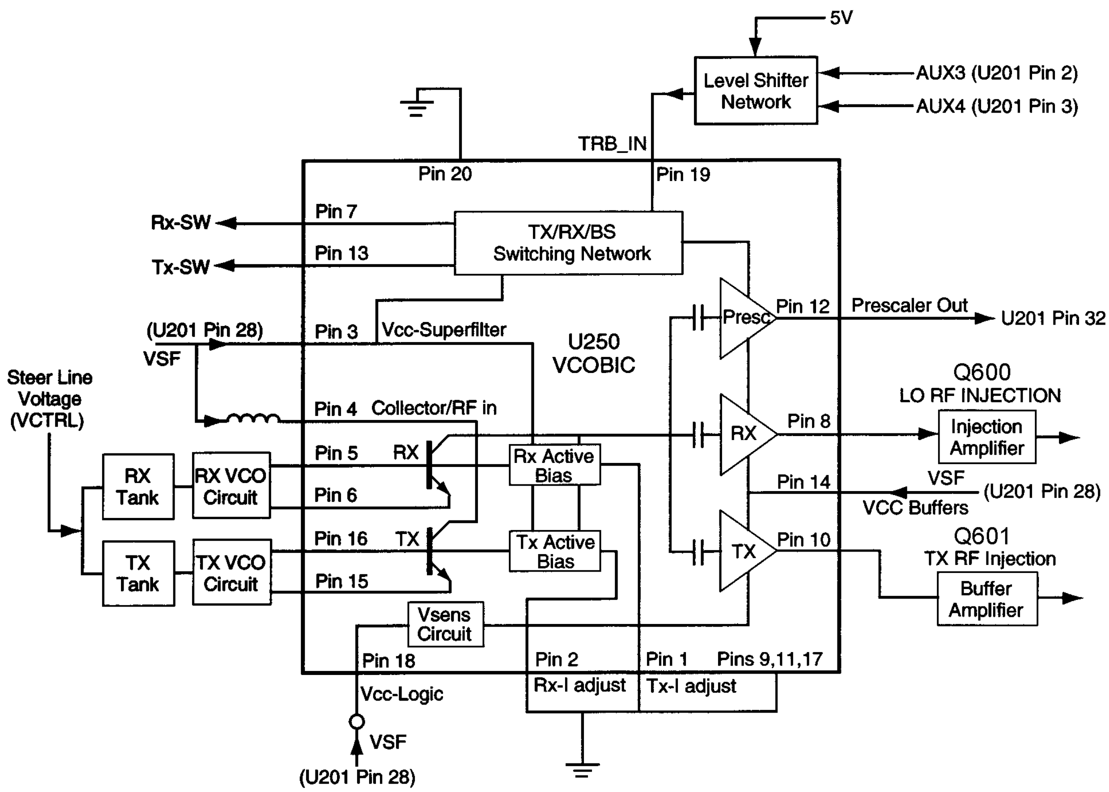



*Figure 4 – VCO/Buffer IC Internal Block Diagram*

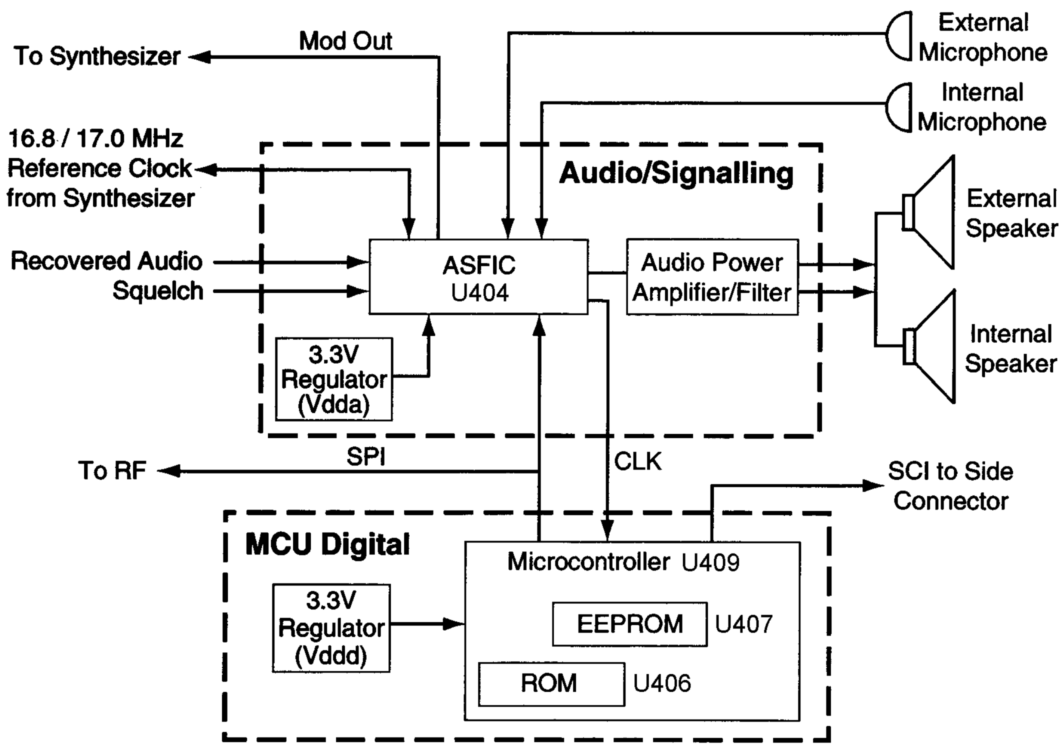



*Figure 5 – Transmitter Audio Path and Microcontroller Block Diagram*

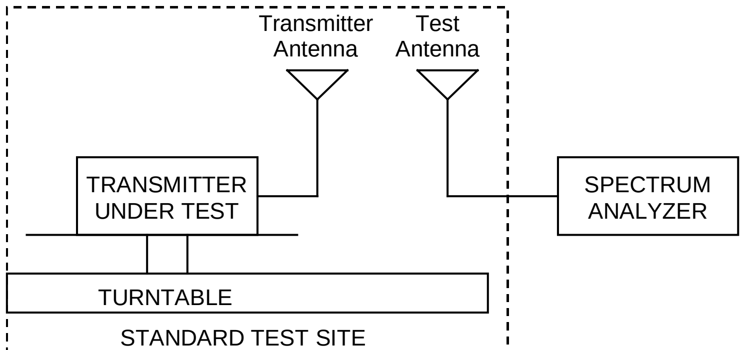
**EIA/TIA-603-A PROCEDURE FOR RADIATED POWER MEASUREMENT**

**2.2.17 Average Radiated Power Output**

2.2.17.1 Definition

The average radiated power of a licensed device is the equivalent power required, when delivered to a half-wave dipole antenna, to produce at a distant point the same average received power as produced by the licensed device.

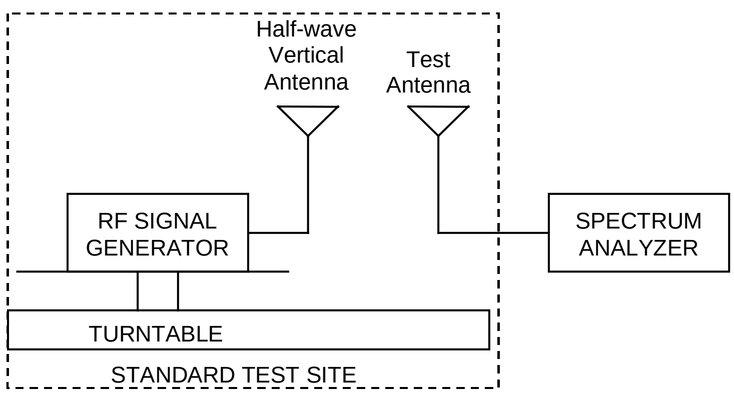
2.2.17.2 Method of Measurement




a) Connect the equipment as illustrated. Place the transmitter to be tested on the turntable in the standard test site.

b) Raise and lower the test antenna from 1 m to 6 m with the transmitter facing the antenna and record the highest received signal in dB as $LVL_i$ .

c) Repeat step b) for seven additional readings at 45$^{o}$ interval positions of the turn table.




d) Replace the transmitter under test with a half-wave vertically polarized antenna. The center of the antenna should be at the same location as the transmitter under test. Connect the antenna to a signal generator with a known output power and record the path loss in dB as *LOSS*.

**EIA/TIA-603-A PROCEDURE FOR RADIATED POWER MEASUREMENT (cont'd)**

e) Calculate the average radiated output power from the readings in step c) and d) by the following:

$$average\ radiated\ \ power = 10\ \log_{10} \sum_{i=1}^{i=8} 10^{\frac{LVL_i\text{-}LOSS}{10}} \quad \text{(dBm)}$$

NOTE: It is permissible to use other antennas provided they can be referenced to a dipole.

*Figure 6 – OATS Radiated Power Test Setup*

## RF OUTPUT DATA – EFFECTIVE RADIATED POWER

Following are amended Exhibits 6A-3 and 6A-4, with Effective Radiated Power expressed in both dBm and Watts:

| Polarization | Frequency (MHz) | Turntable Degrees | Path Loss (dB) | Radiated Spur Emission (dBm) | Radiated Spur Emission (Watts ERP) |
|---|---|---|---|---|---|
| Horizontal | 746 | 0 | 40.15 | 12.65 | 0.018 |
| Horizontal | 746 | 45 | 40.15 | 11.46 | 0.014 |
| Horizontal | 746 | 90 | 40.15 | 7.14 | 0.005 |
| Horizontal | 746 | 135 | 40.15 | 12.11 | 0.016 |
| Horizontal | 746 | 180 | 40.15 | 10.31 | 0.011 |
| Horizontal | 746 | 225 | 40.15 | 15.14 | 0.033 |
| Horizontal | 746 | 270 | 40.15 | 8.48 | 0.007 |
| Horizontal | 746 | 315 | 40.15 | 15.57 | 0.036 |
| Vertical | 746 | 0 | 41.57 | 30.66 | 1.164 |
| Vertical | 746 | 45 | 41.57 | 30.35 | 1.084 |
| Vertical | 746 | 90 | 41.57 | 28.84 | 0.766 |
| Vertical | 746 | 135 | 41.57 | 29.27 | 0.845 |
| Vertical | 746 | 180 | 41.57 | 30.45 | 1.109 |
| Vertical | 746 | 225 | 41.57 | 31.53 | 1.422 |
| Vertical | 746 | 270 | 41.57 | 30.74 | 1.186 |
| Vertical | 746 | 315 | 41.57 | 30.78 | 1.199 |

| Polarization | Frequency (MHz) | Turntable Degrees | Path Loss (dB) | Radiated Spur Emission (dBm) | Radiated Spur Emission (Watts ERP) |
|---|---|---|---|---|---|
| Horizontal | 762 | 0 | 39.77 | 11.96 | 0.016 |
| Horizontal | 762 | 45 | 39.77 | 10.47 | 0.011 |
| Horizontal | 762 | 90 | 39.77 | 10.21 | 0.010 |
| Horizontal | 762 | 135 | 39.77 | 12.28 | 0.017 |
| Horizontal | 762 | 180 | 39.77 | 11.41 | 0.014 |
| Horizontal | 762 | 225 | 39.77 | 15.24 | 0.033 |
| Horizontal | 762 | 270 | 39.77 | 8.42 | 0.007 |
| Horizontal | 762 | 315 | 39.77 | 14.5 | 0.282 |
| Vertical | 762 | 0 | 41.08 | 30.48 | 1.117 |
| Vertical | 762 | 45 | 41.08 | 30.82 | 1.208 |
| Vertical | 762 | 90 | 41.08 | 29.29 | 0.849 |
| Vertical | 762 | 135 | 41.08 | 30.45 | 1.109 |
| Vertical | 762 | 180 | 41.08 | 31.52 | 1.419 |
| Vertical | 762 | 225 | 41.08 | 32.09 | 1.618 |
| Vertical | 762 | 270 | 41.08 | 30.79 | 1.199 |
| Vertical | 762 | 315 | 41.08 | 30.93 | 1.239 |

## RF OUTPUT DATA – EFFECTIVE RADIATED POWER (continued)

| Polarization | Frequency (MHz) | Turntable Degrees | Path Loss (dB) | Radiated Spur Emission (dBm) | Radiated Spur Emission (Watts ERP) |
|---|---|---|---|---|---|
| Horizontal | 776 | 0 | 39.46 | 13.96 | 0.025 |
| Horizontal | 776 | 45 | 39.46 | 9.94 | 0.009 |
| Horizontal | 776 | 90 | 39.46 | 9.87 | 0.009 |
| Horizontal | 776 | 135 | 39.46 | 12.01 | 0.016 |
| Horizontal | 776 | 180 | 39.46 | 12.17 | 0.016 |
| Horizontal | 776 | 225 | 39.46 | 13.87 | 0.024 |
| Horizontal | 776 | 270 | 39.46 | 8.21 | 0.007 |
| Horizontal | 776 | 315 | 39.46 | 14.9 | 0.031 |
| Vertical | 776 | 0 | 40.77 | 30.88 | 1.125 |
| Vertical | 776 | 45 | 40.77 | 31.49 | 1.409 |
| Vertical | 776 | 90 | 40.77 | 29.39 | 0.869 |
| Vertical | 776 | 135 | 40.77 | 29.94 | 0.986 |
| Vertical | 776 | 180 | 40.77 | 30.97 | 1.250 |
| Vertical | 776 | 225 | 40.77 | 31.98 | 1.578 |
| Vertical | 776 | 270 | 40.77 | 31.01 | 1.262 |
| Vertical | 776 | 315 | 40.77 | 31.45 | 1.396 |

| Polarization | Frequency (MHz) | Turntable Degrees | Path Loss (dB) | Radiated Spur Emission (dBm) | Radiated Spur Emission (Watts ERP) |
|---|---|---|---|---|---|
| Horizontal | 794 | 0 | 39.17 | 13.95 | 0.025 |
| Horizontal | 794 | 45 | 39.17 | 13.01 | 0.020 |
| Horizontal | 794 | 90 | 39.17 | 9.25 | 0.008 |
| Horizontal | 794 | 135 | 39.17 | 11.95 | 0.015 |
| Horizontal | 794 | 180 | 39.17 | 14.09 | 0.026 |
| Horizontal | 794 | 225 | 39.17 | 13.3 | 0.021 |
| Horizontal | 794 | 270 | 39.17 | 9.58 | 0.009 |
| Horizontal | 794 | 315 | 40.37 | 14.53 | 0.028 |
| Vertical | 794 | 0 | 40.37 | 30.61 | 1.151 |
| Vertical | 794 | 45 | 40.37 | 30.89 | 1.227 |
| Vertical | 794 | 90 | 40.37 | 29.25 | 0.841 |
| Vertical | 794 | 135 | 40.37 | 29.78 | 0.951 |
| Vertical | 794 | 180 | 40.37 | 30.75 | 1.189 |
| Vertical | 794 | 225 | 40.37 | 31.41 | 1.384 |
| Vertical | 794 | 270 | 40.37 | 30.09 | 1.021 |
| Vertical | 794 | 315 | 40.37 | 30.21 | 1.050 |

*Figure 7 – OATS Radiated Spurious Emissions Test Setup*

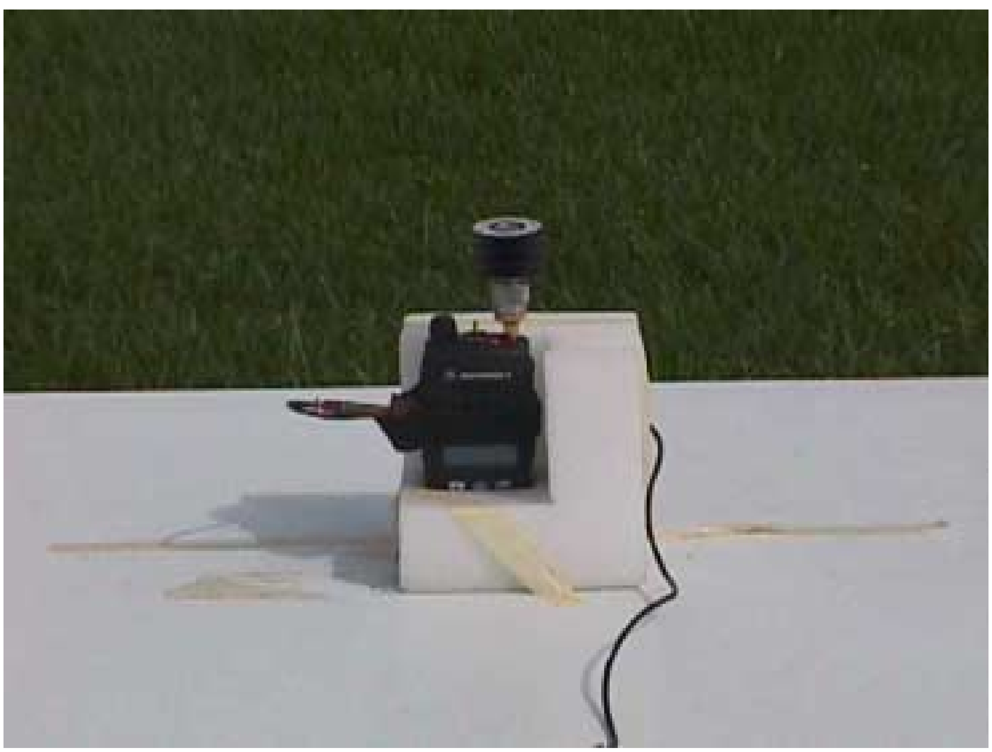
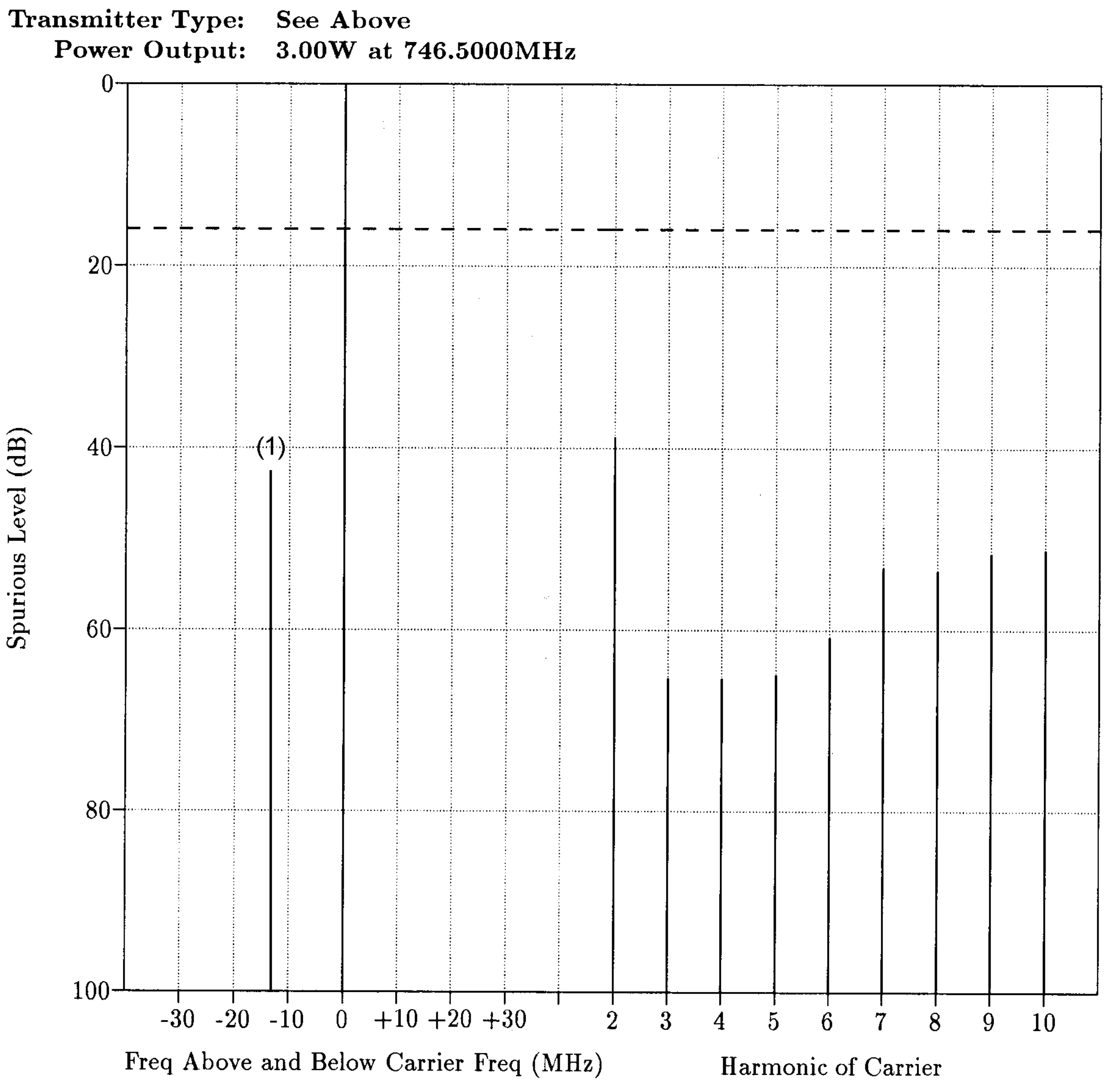


*Figure 8 – OATS Device Under Test with Non-Radiating Load*

## CONDUCTED SPURIOUS EMISSIONS
## HIGH POWER, 746.500 MHz

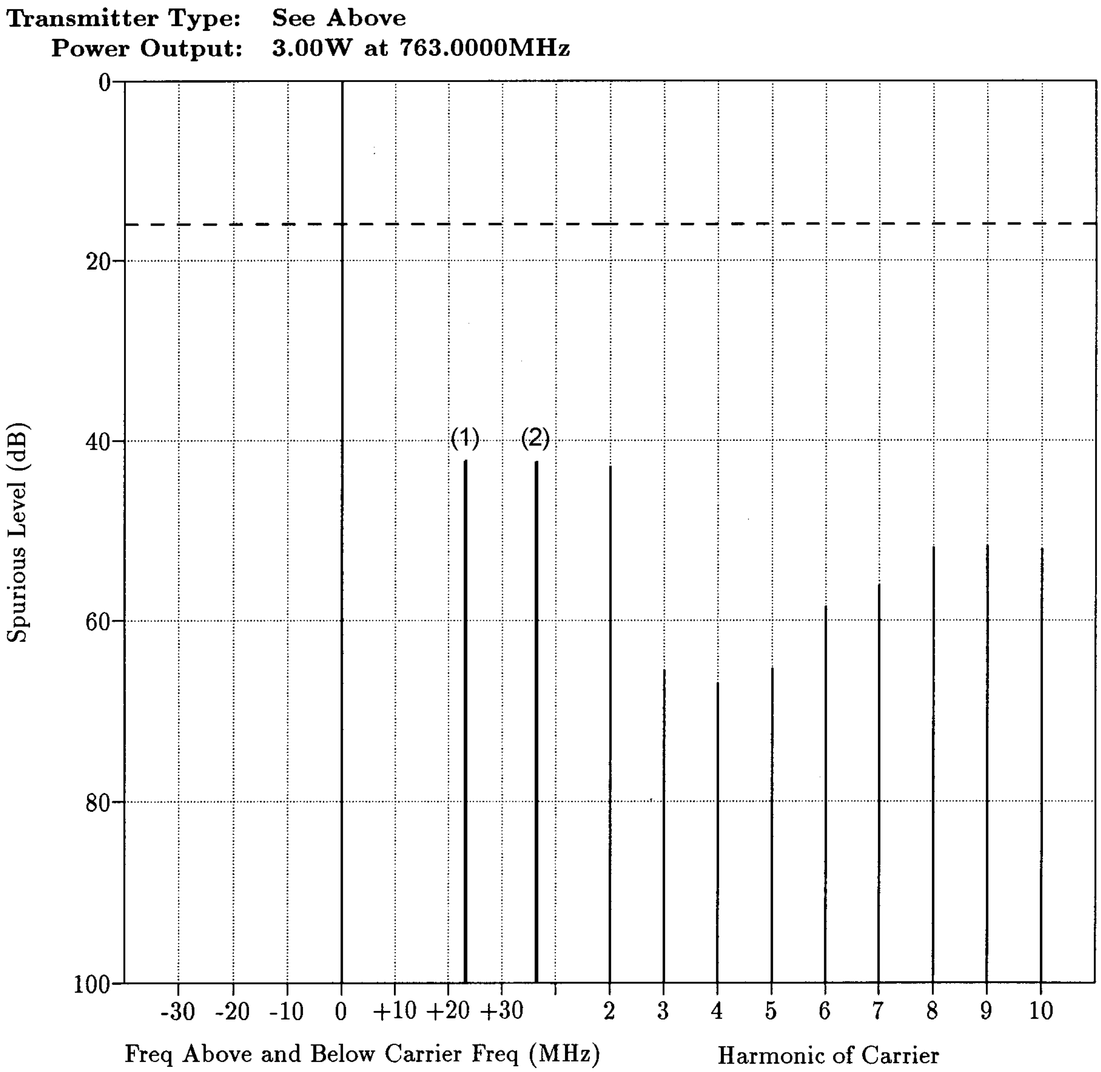



The conducted spurious level is plotted in dBm on the vertical axis.
The specification for conducted spurious emissions is –16 dBm.

**(1)** Spurious emission at 734.4 MHz (12.1 MHz below carrier) at a level of –42.5 dBm

**AMENDED EXHIBIT 6F-1**

**CONDUCTED SPURIOUS EMISSIONS**
**HIGH POWER, 763.000 MHz**

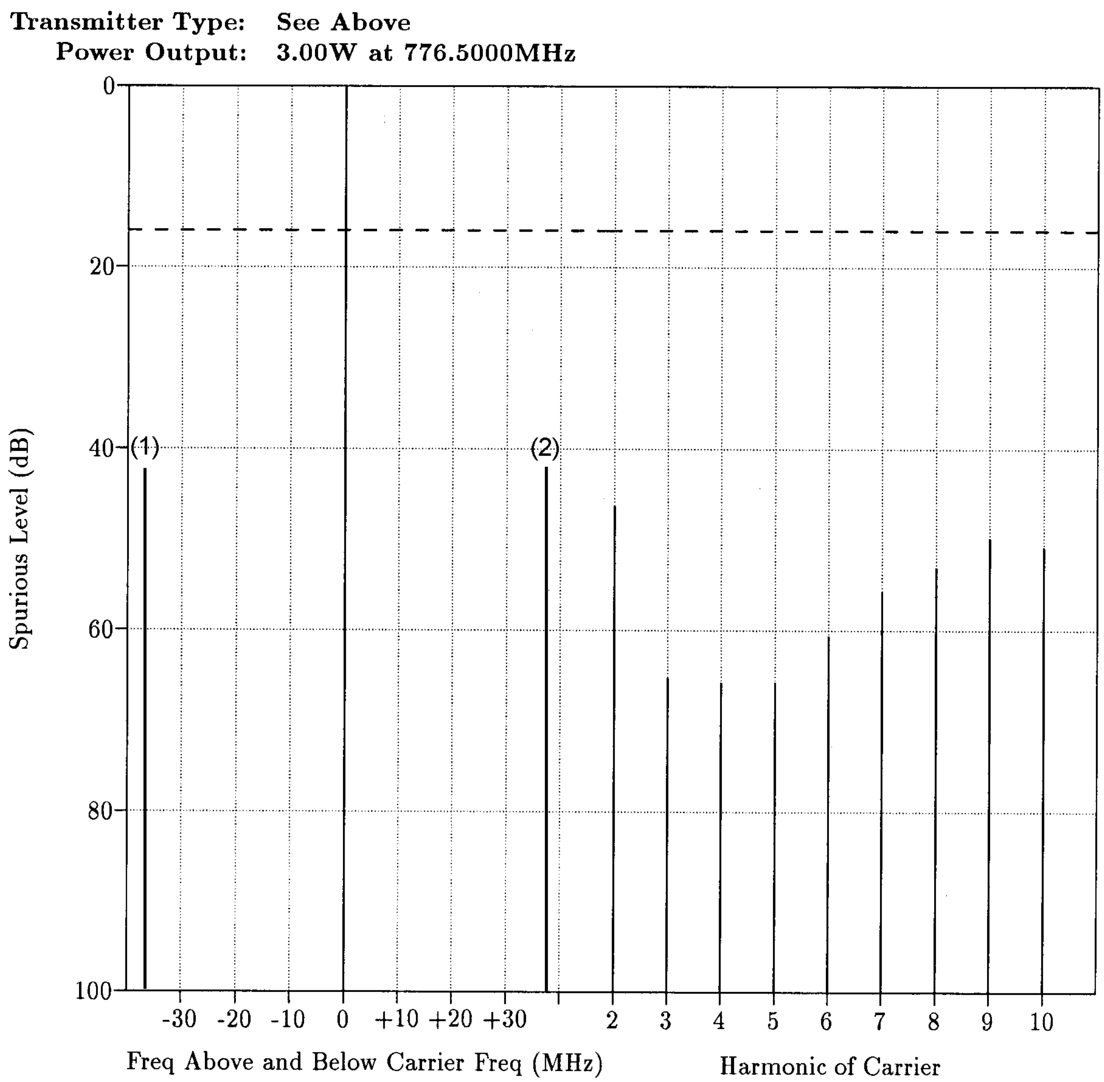



The conducted spurious level is plotted in dBm on the vertical axis.
The specification for conducted spurious emissions is –16 dBm.

**(1)** Spurious emission at 785.9 MHz (22.9 MHz above carrier) at a level of –42.0 dBm
**(2)** Spurious emission at 813.2 MHz (50.2 MHz above carrier) at a level of –42.1 dBm

AMENDED EXHIBIT 6F-2

## CONDUCTED SPURIOUS EMISSIONS
## HIGH POWER, 776.500 MHz

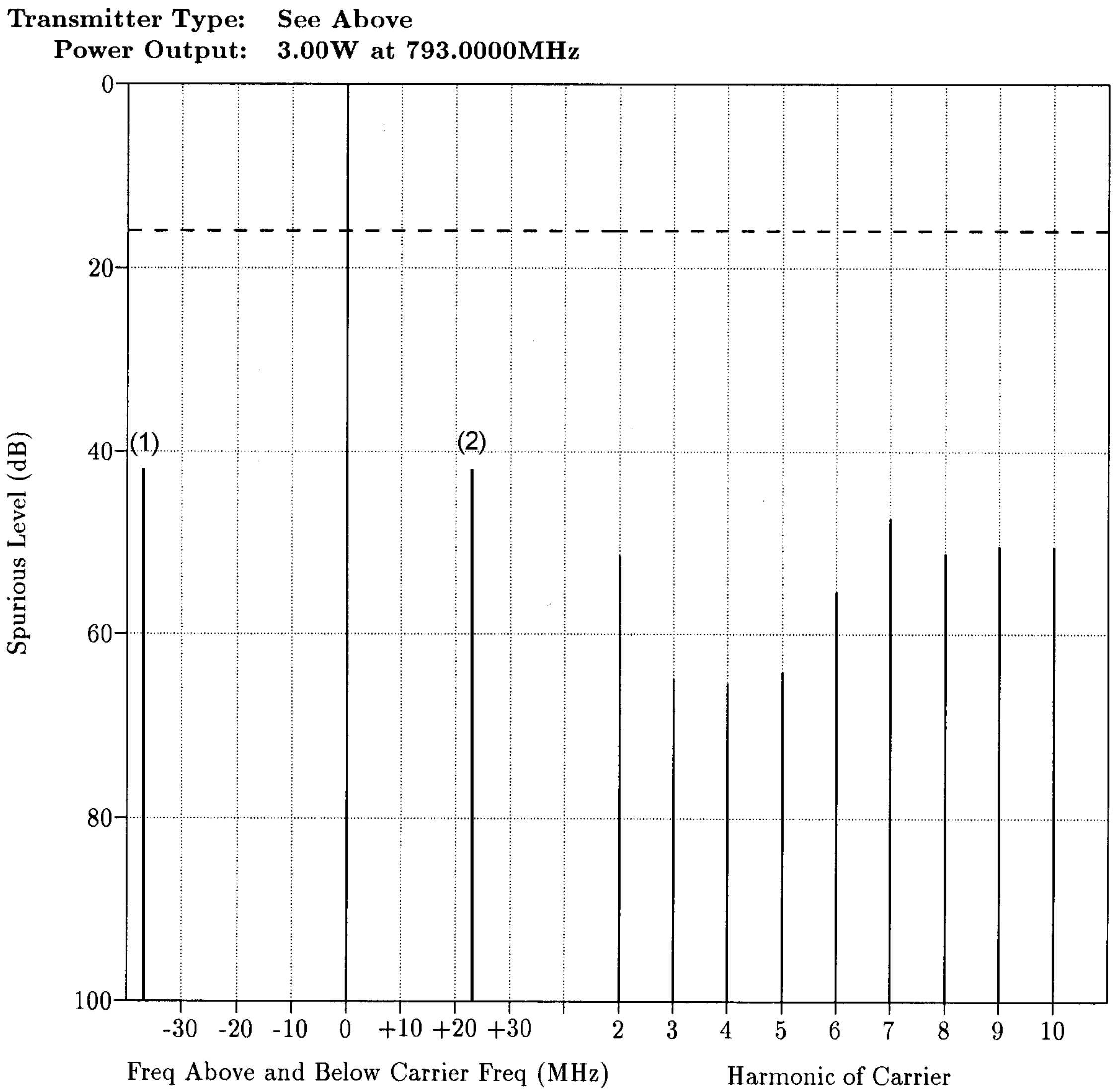



The conducted spurious level is plotted in dBm on the vertical axis.
The specification for conducted spurious emissions is –16 dBm.

**(1)** Spurious emission at 735.2 MHz (41.3 MHz below carrier) at a level of –42.3 dBm
**(2)** Spurious emission at 863.9 MHz (87.4 MHz above carrier) at a level of –41.8 dBm

**AMENDED EXHIBIT 6F-3**

**CONDUCTED SPURIOUS EMISSIONS**
**HIGH POWER, 793.000MHz**

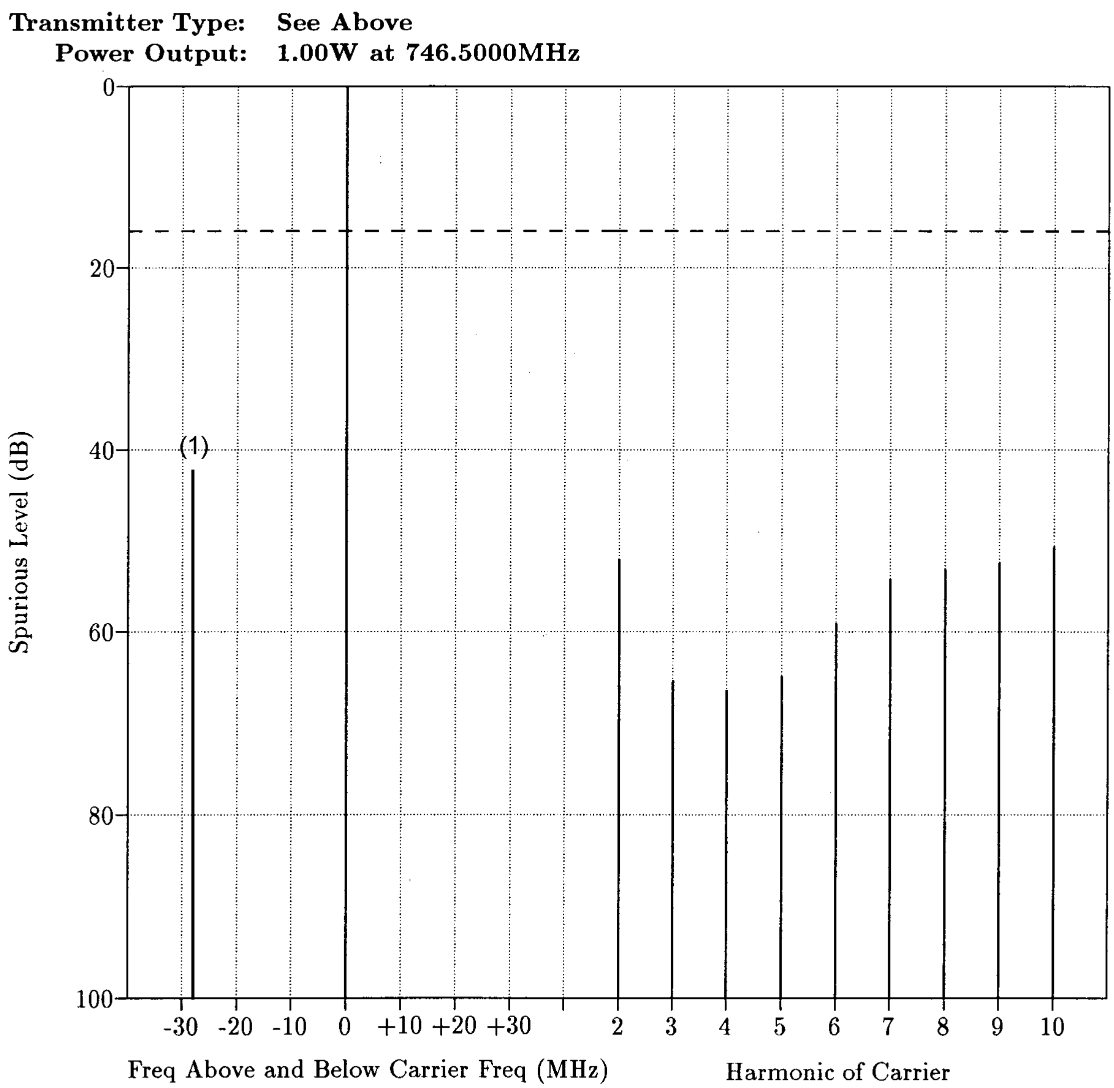



The conducted spurious level is plotted in dBm on the vertical axis.
The specification for conducted spurious emissions is –16 dBm.

**(1)** Spurious emission at 739.6 MHz (53.4 MHz below carrier) at a level of –42.2 dBm
**(2)** Spurious emission at 815.2 MHz (22.2 MHz above carrier) at a level of –42.0 dBm

**AMENDED EXHIBIT 6F-4**

## CONDUCTED SPURIOUS EMISSIONS
## LOW POWER, 746.500 MHz

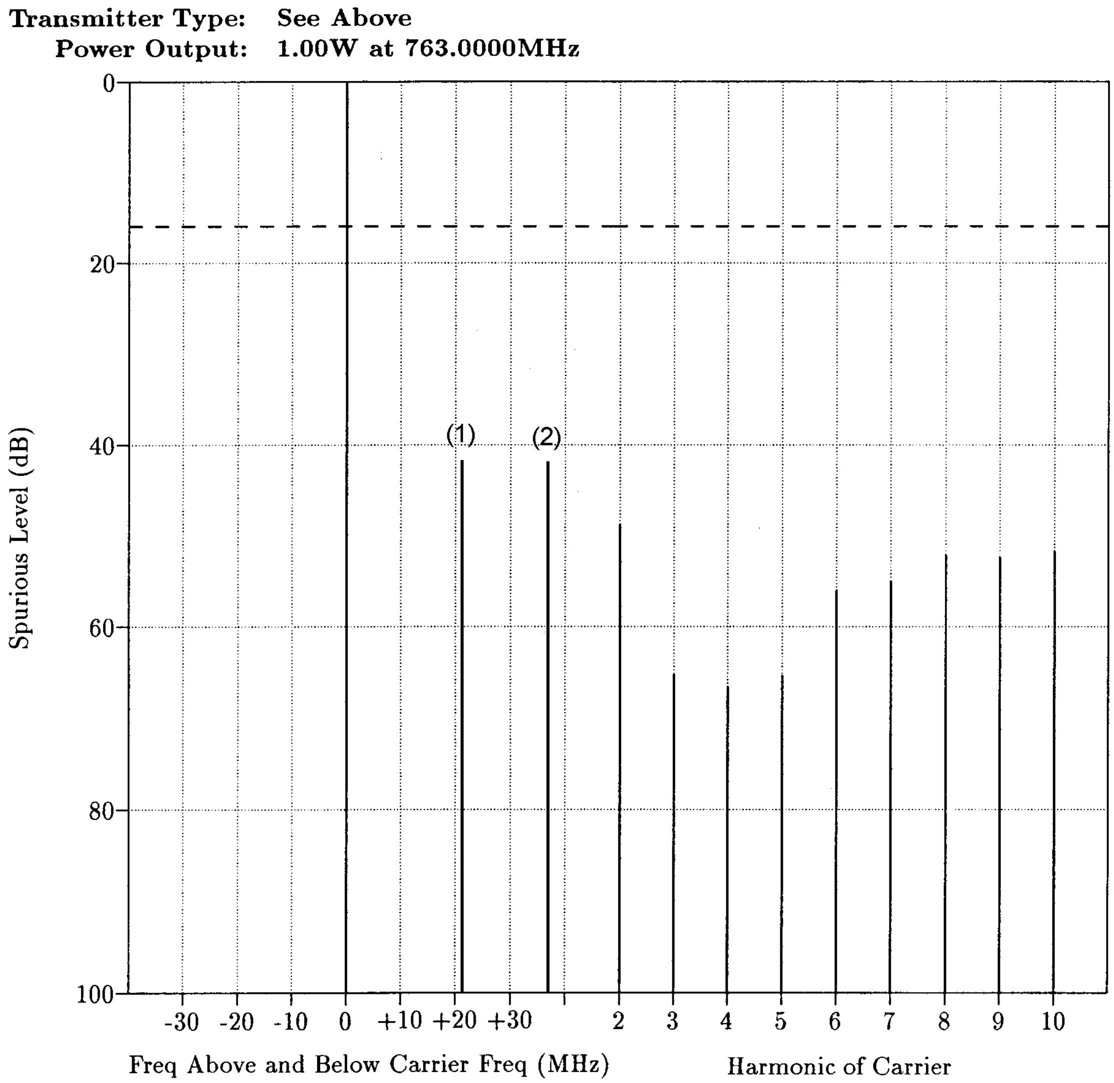



The conducted spurious level is plotted in dBm on the vertical axis.
The specification for conducted spurious emissions is –16 dBm.

**(1)** Spurious emission at 718.5 MHz (28.0 MHz below carrier) at a level of –42.4 dBm

**AMENDED EXHIBIT 6F-5**

**CONDUCTED SPURIOUS EMISSIONS**
**LOW POWER, 763.000 MHz**

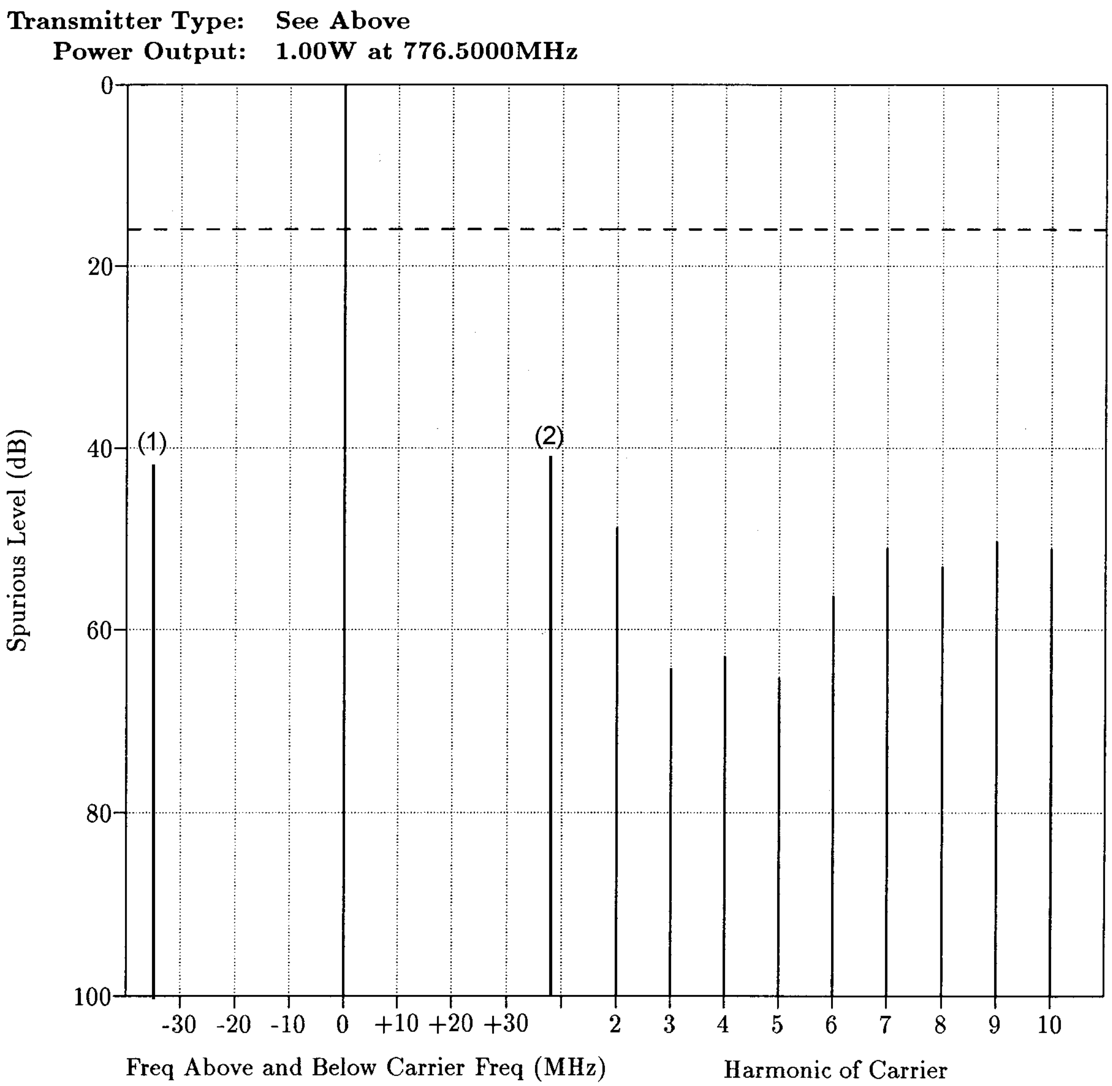



The conducted spurious level is plotted in dBm on the vertical axis.
The specification for conducted spurious emissions is –16 dBm.

**(1)** Spurious emission at 783.6 MHz (20.6 MHz above carrier) at a level of –42.1 dBm
**(2)** Spurious emission at 820.8 MHz (57.8 MHz above carrier) at a level of –42.2 dBm

**AMENDED EXHIBIT 6F-6**

**CONDUCTED SPURIOUS EMISSIONS**
**LOW POWER, 776.500 MHz**

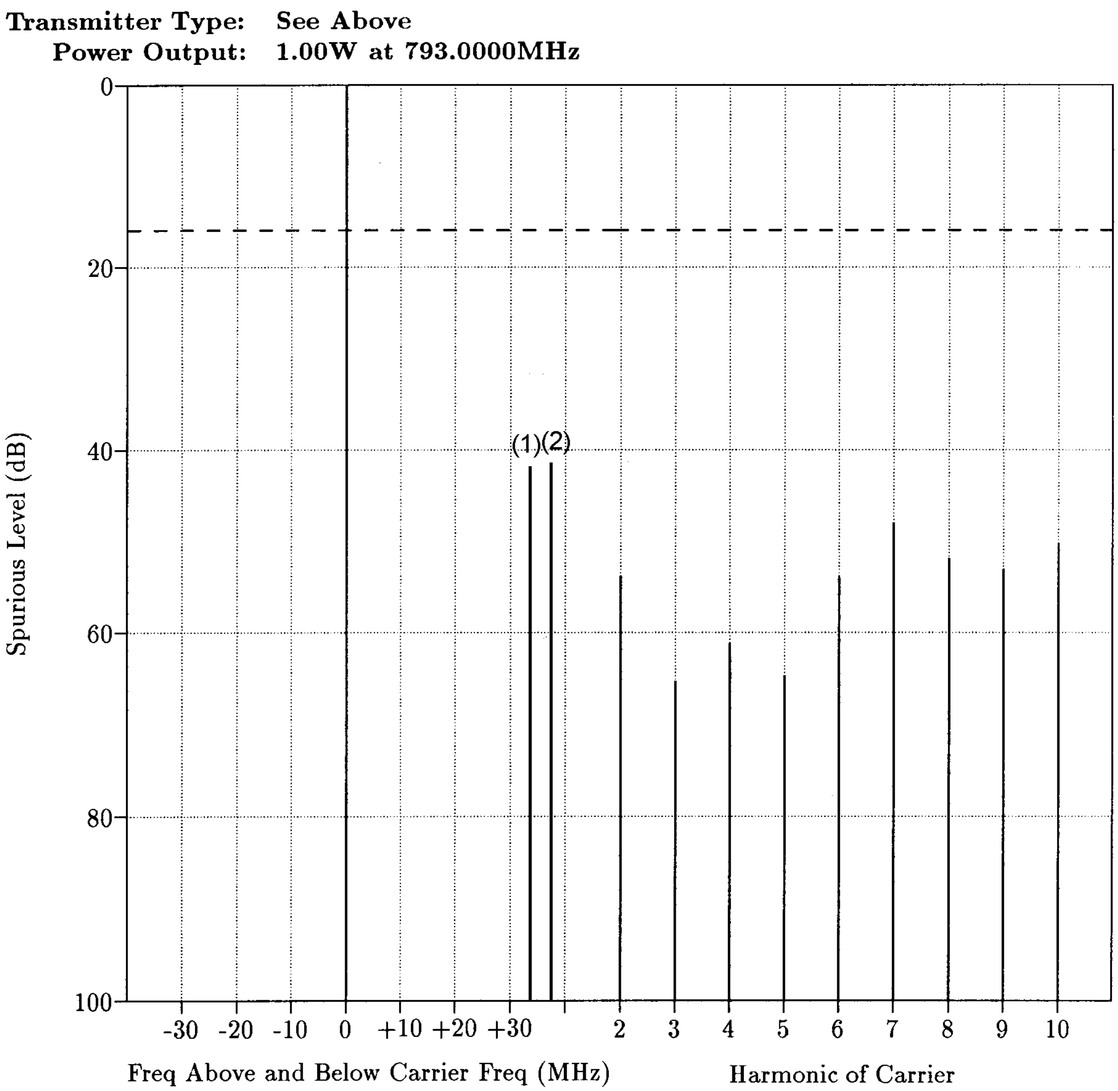



The conducted spurious level is plotted in dBm on the vertical axis.
The specification for conducted spurious emissions is –16 dBm.

**(1)** Spurious emission at 741.3 MHz (35.2 MHz below carrier) at a level of –42.3 dBm
**(2)** Spurious emission at 860.0 MHz (83.5 MHz above carrier) at a level of –41.8 dBm

**AMENDED EXHIBIT 6F-7**

**CONDUCTED SPURIOUS EMISSIONS**
**LOW POWER, 793.000 MHz**



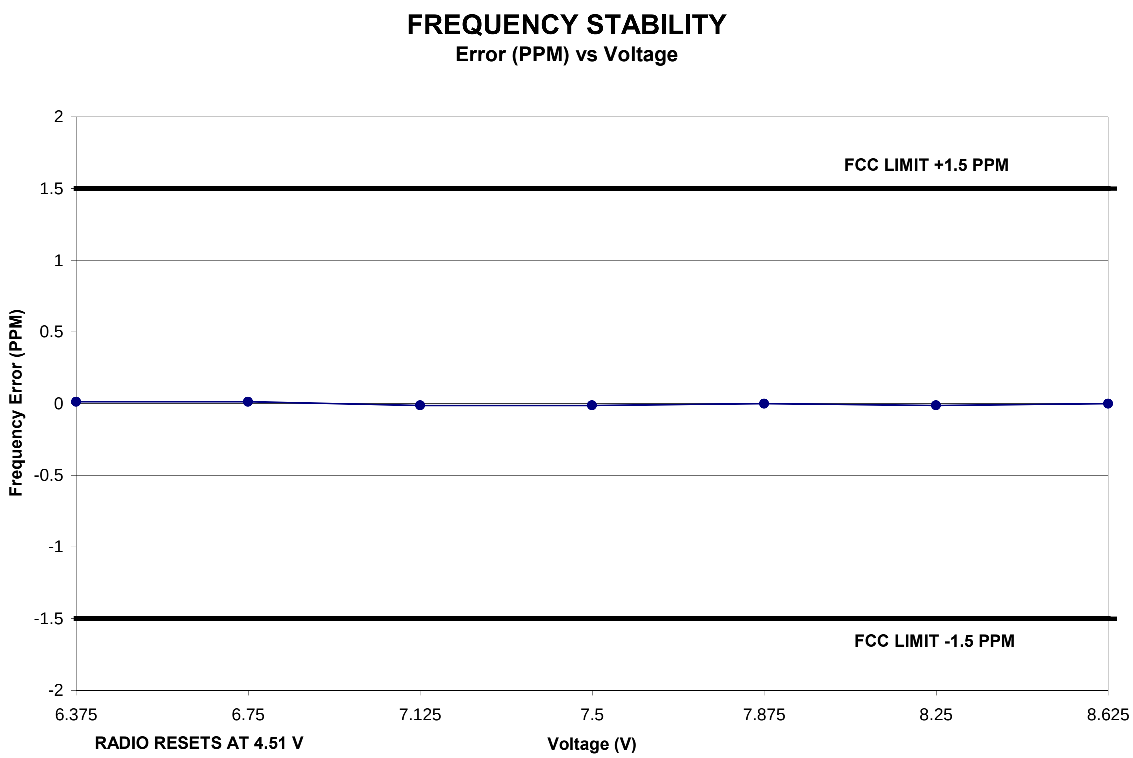

The conducted spurious level is plotted in dBm on the vertical axis.
The specification for conducted spurious emissions is –16 dBm.

**(1)** Spurious emission at 759.0 MHz (34.0 MHz above carrier) at a level of –42.1 dBm
**(2)** Spurious emission at 844.2 MHz (51.0 MHz above carrier) at a level of –41.8 dBm

**AMENDED EXHIBIT 6F-8**


*Figure 9– Conducted Power Measurement Test Setup*

**FREQUENCY STABILITY VS. SUPPLY VOLTAGE**
**REFERENCE 0% = 7.5 VOLTS DC**




**Battery End-Point Voltage: The radio resets at 4.51 volts.**

**AMENDED EXHIBIT 6H-2**


*Figure 10 – Rear View Showing RF Safety Label*

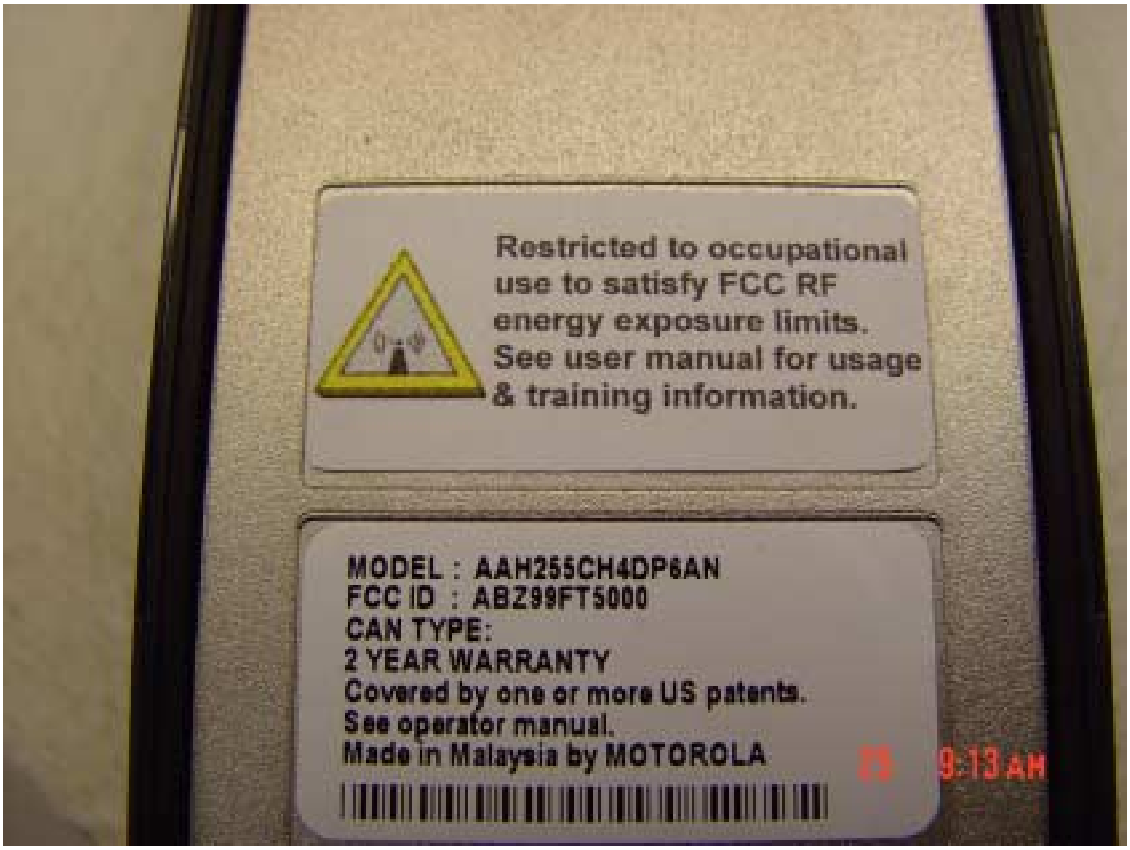
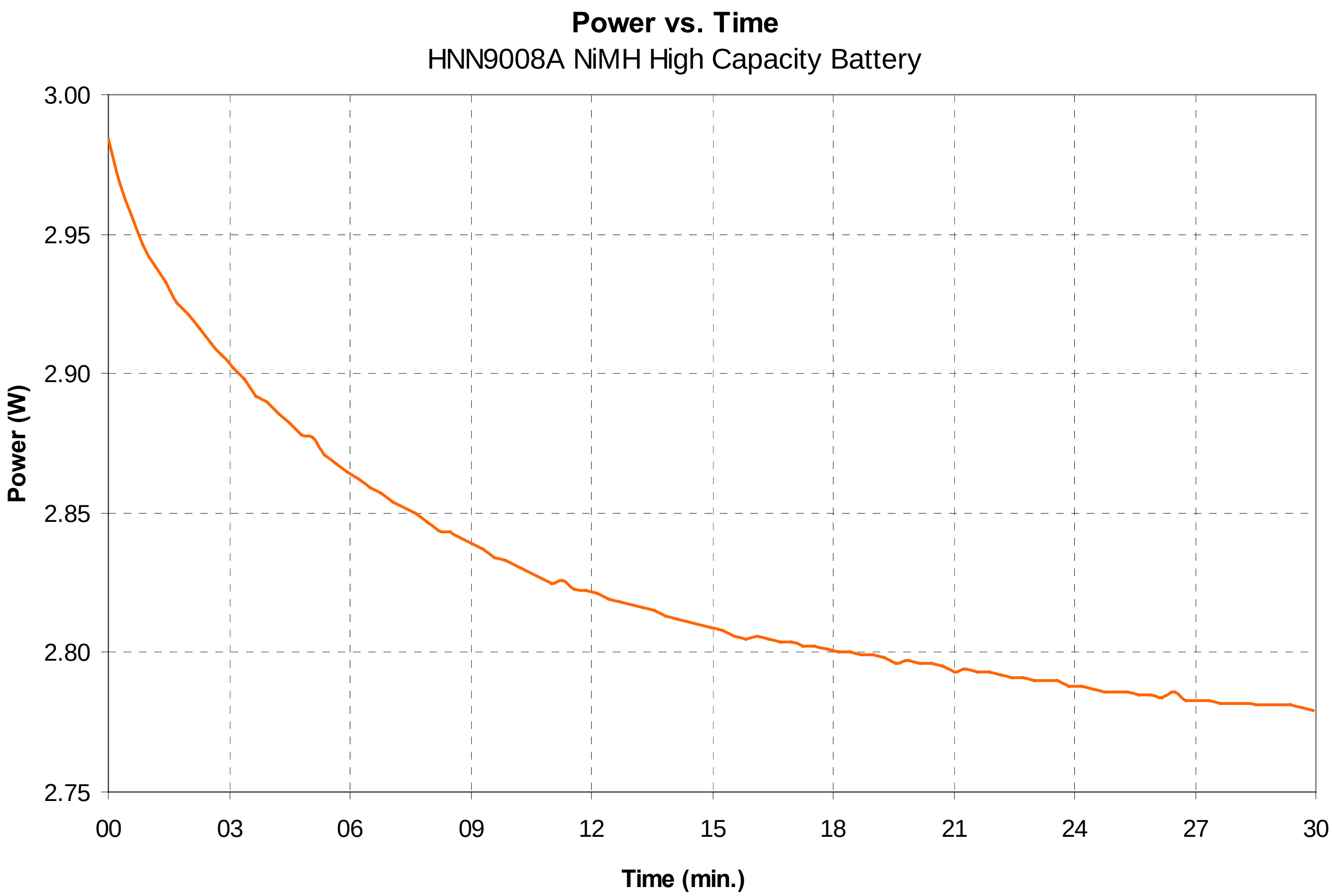


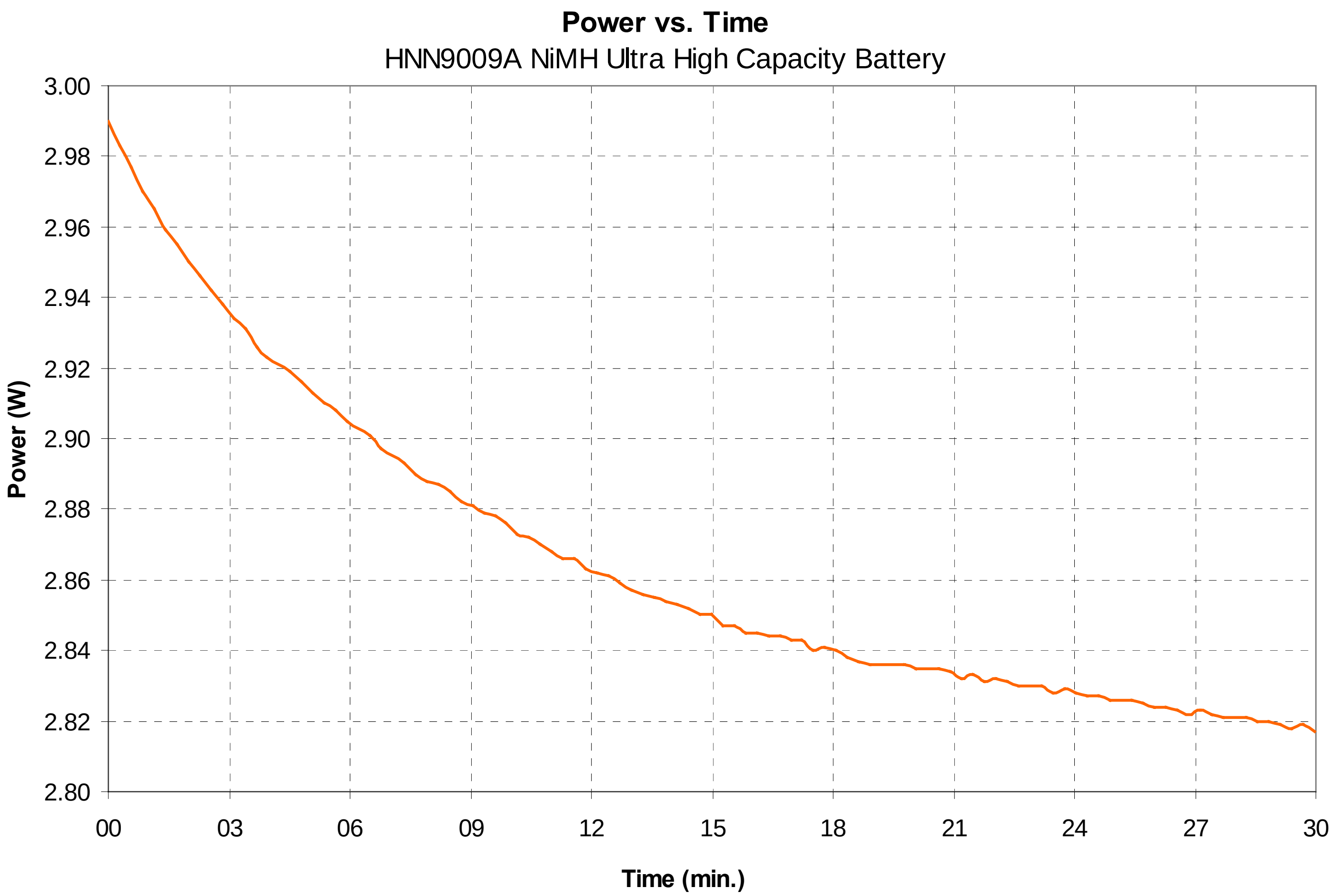

*Figure 11 – Close-Up View of RF Safety Label*

## TRANSMITTER CONDUCTED POWER OUTPUT VS. TIME
## BATTERY DISCHARGE CHARACTERICTIC

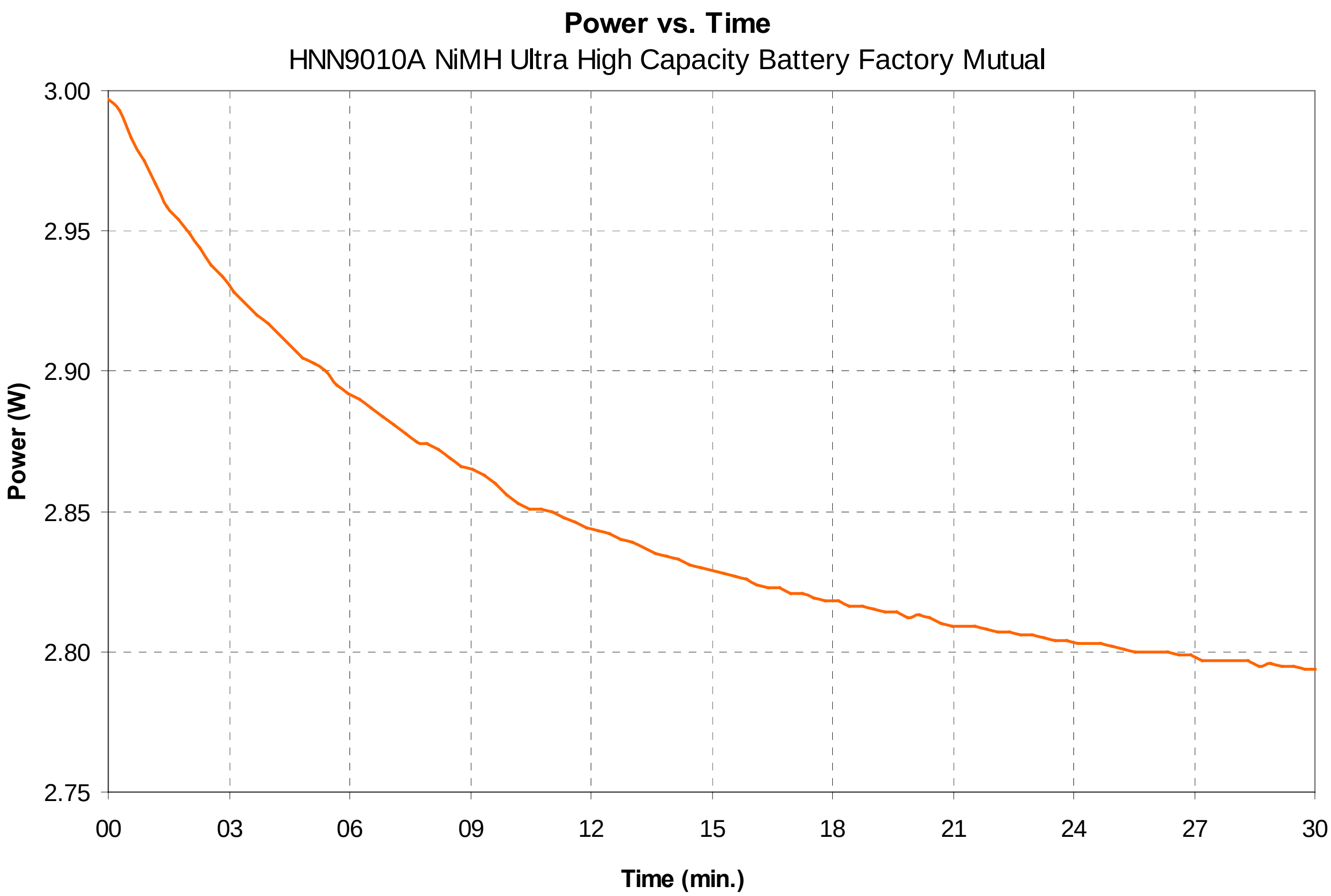
All batteries were fully charged before the test was conducted. Power was initially set to 2.997 watts using the HNN9010A NiMH Ultra High Capacity Battery Factory Mutual Battery.



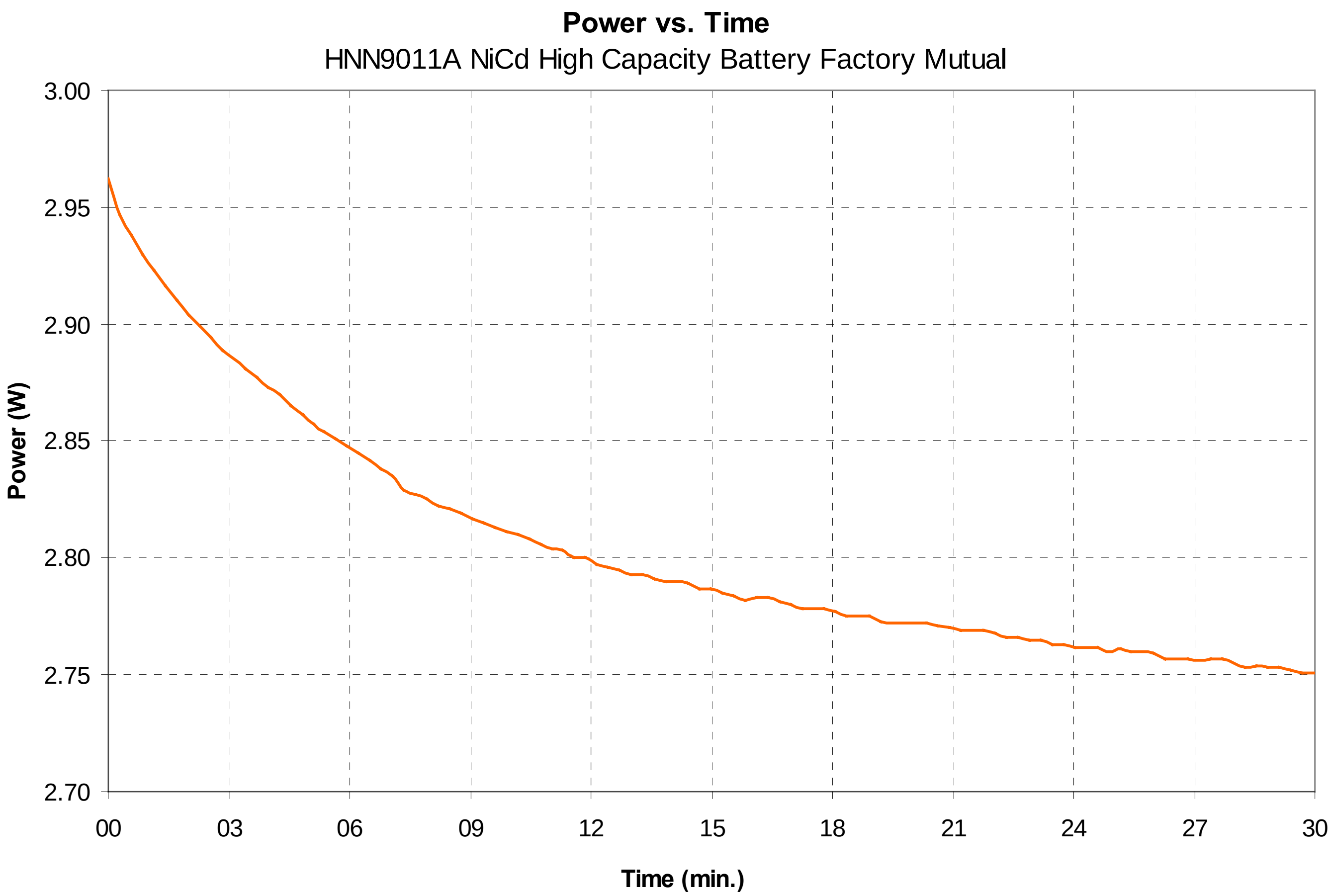
**TRANSMITTER CONDUCTED POWER OUTPUT VS. TIME**
**BATTERY DISCHARGE CHARACTERICTIC (continued)**



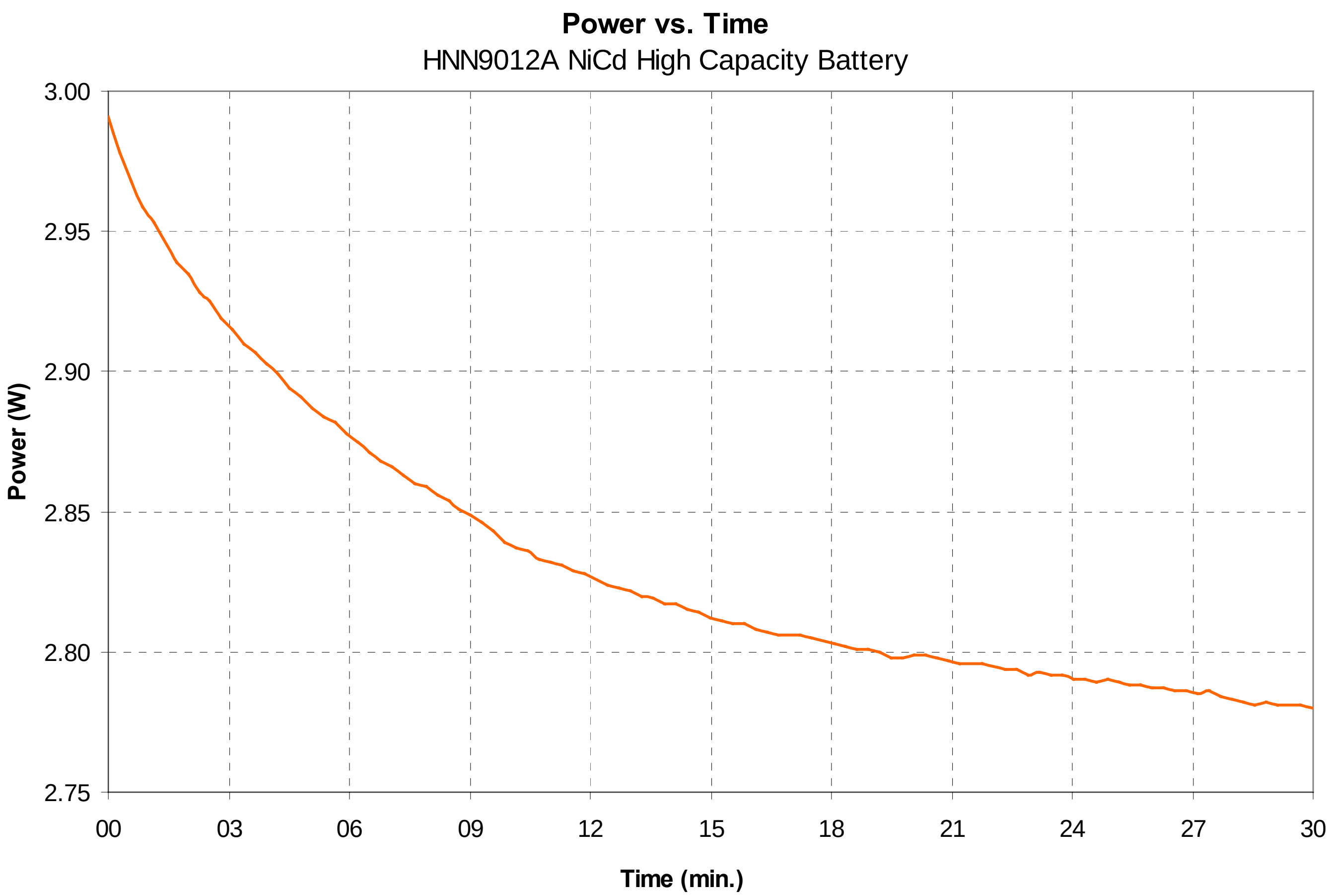
**TRANSMITTER CONDUCTED POWER OUTPUT VS. TIME**
**BATTERY DISCHARGE CHARACTERICTIC (continued)**



**TRANSMITTER CONDUCTED POWER OUTPUT VS. TIME**
**BATTERY DISCHARGE CHARACTERICTIC (continued)**



**TRANSMITTER CONDUCTED POWER OUTPUT VS. TIME**
**BATTERY DISCHARGE CHARACTERICTIC (continued)**



**TRANSMITTER CONDUCTED POWER OUTPUT VS. TIME**
**BATTERY DISCHARGE CHARACTERICTIC (continued)**