TEST REPORT

Exhibit Summary:

EXHIBIT6 contains worst case measurement data that was taken on five different D15 Module configuration, listed below:

1. D15 DV (DV= Data & Voice) Standard
2. D15 DV Slim
3. D15 DVG Slim (DVG= Data, Voice, GPS)
4. D15 DV Board only (Vertical version)
5. D15 DV Board only (Horizontal version)

Contents:

RF Output Power

Exhibit Summary:

EXHIBIT 6A contains both average and peak output powers for the mobile station. The peak power results are presented in tabular form which illustrates the deviation in power with respect to the average value. In all cases, the peak output power is within the required mask (this mask is specified in the JTC standards, TIA PN3389 Vol. 1, Chap. 7, and is not an FCC requirement).

Contents:

Method of Measurement:

1. Setup the mobile station for maximum output power with pseudo random data.

2. Use HP 8991A Peak Power Analyzer to obtain peak and average output power levels.

3. Repeat measurements for carrier frequencies at 1850.2 MHz, 1880.2 MHz, and 1909.8 MHz. Channels 512, 662, and 810 respectively (bottom, middle, and top of operational frequency range).

Measurement Limits: *Table 6.1*

Power Step	Nominal Peak Output Power (dBm)	Tolerance (dB)
0	30	+/- 2

Power Measurements: *Table 6.2*

Frequency (MHz)	Power Step	Peak Output Power (dBm)	Average Output Power (dBm)
1850.2	0	29.9	20.87
1880.2	0	29.5	20.47
1909.8	0	28.75	19.72

Final Amplifier Voltage and Currents

Exhibit Summary:

EXHIBIT 6B below contains the voltages and currents applied to the TX Driver and TX Final Power Amplifier for the entire mobile station operating power range.

Power Step	Power Output Spec. (dBm)	Power Output Meas. (dBm)	Vcc (Q331) (VDC)	Ic (Q331) (mA Peak)	Vdd (Q380) (VDC)	Id(Q380) (mA RMS)
0	30 +/-2	29.9	4.7	24	4.7	290
1	28 +/-3	26.72	4.7	22	4.7	260
2	26 +/-2	25.1	4.7	18	4.7	240
3	24 +/-2	22.95	4.7	16	4.7	230
4	22 +/-3	21	4.7	14	4.7	210
5	20 +/-3	19.15	4.7	13	4.7	200
6	18 +/-3	17.25	4.7	11	4.7	190
7	16 +/-3	15.25	4.7	10	4.7	190
8	14 +/-3	13.3	4.7	8	4.7	180
9	12 +/-4	11.3	4.7	7	4.7	180
10	10 +/-4	8.9	4.7	5.5	4.7	180
11	8 +/-4	7.18	4.7	5	4.7	175
12	6 +/-4	6.19	4.7	4.5	4.7	170
13	4 +/-4	5.55	4.7	4.3	4.7	170
14	2 +/-4	4.1	4.7	4.3	4.7	170
15	0 +/-4	3.3	4.7	4.3	4.7	170

Radiated Spurious Emissions

Exhibit Summary:

EXHIBIT 6C contains measurement data pertaining to radiated spurious emissions.

Contents:

Introduction

The following steps outline the procedure used to measure the radiated emissions from the mobile station.
The data were taken at L. S. Compliance Inc.
Measurement Facility ID Number: 31040/ SIT
Located at W66 N220 Commerce Court, Cedarburg, Wisconsin 53012.
Test Report Number: 300143
Dates of Testing: March 27-29, 2000.

On March 27-29, 2000, a series of Radiated Emissions tests were performed on a sample model of the Motorola D15 family of modules for Cellular Telephone. These tests were performed using the test procedures outlined in ANSI C63.4-1992 for intentional radiators, as called for in section 2.1033 for a type accepted device, and in accordance with the limits set forth in FCC Part 15.109, Part 24, and 22.917e. These tests were performed by Kenneth L. Boston, PE, of L. S. Compliance, Inc. and witnessed by Reuven Konevky of Motorola.

Purpose

The above mentioned tests were performed in order to determine the compliance of the test sample with limits contained in various provisions of Title 47 CFR, including:
2.1051 2.1053 15.109 24.238 22.917

All radiated emissions tests were performed to measure the emissions in the frequency bands described by the above sections, and to determine whether emissions are below the limits established by the above sections. These tests were

performed in accordance with the procedure described in the American National Standard for methods of measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz (ANSI C63.4-1992). Another document used as reference for the EMI receiver specification is the International Special Committee on Radio Interference (CISPR) number 16-1 (1993).

Radiated Emissions Test Setup

The test sample was operated within the 3 meter Semi-Anechoic, FCC listed chamber located at L.S. Compliance in Cedarburg, WI. The sample was placed on an 80cm high small wooden pedestal, centered on the flush-mounted 2m diameter metal turntable. The test sample was configured to run in a continuous transmit mode during the Radiated measurements. The test sample was set to operate on one of three standard channels within the Cellular frequency assignment: one at the low end of the band (512), one in the middle of the band (661) and one near the top of the band(810). For tests in the PCS mode, the test sample was made to operate at channel 512, 668 and 810 to allow analysis at the 1.9 GHz operating frequencies.

Radiated Emission Test Procedure

The fundamental and spurious (harmonic) emissions of the transmitter were tested for compliance to Title 47 CFR, FCC Part 22.917e limits for transmitters in the cellular radio services, and part 24 for PCS cellphones,and were also compared with the general limits in Part 15.109. For the calculations used to determine the limits applicable for the test sample, refer to Appendix A. These limits are expressed in decibels below carrier level. (-dBc) The samples were tested from the lowest frequency generated by the transmitter (without going below 9 kHz) to the 10th harmonic of the fundamental frequency generated by the device. The limits described in part 15.109 were also observed for observation and measurement of spurious signals. The samples were placed on a nonconductive (wooden) pedestal in the 3 Meter chamber and the antenna mast was placed such that the antenna was 3m from the test object. A biconical antenna was used to measure emissions from 30 to 200 MHz, a log periodic was used to measure emissions from 200 to 1000 MHz, and a double ridged waveguide horn was used to measure emissions above 1 GHz. The test object was programmed to operate in continuous transmit, either in the analog or digital mode; and the resultant signals were maximized by rotating the turntable 360 degrees, and by raising and lowering the antenna between 1 and 4 meters. The test object was also given several different orientations to determine the maximum signal levels, using both horizontal and vertical antenna polarities.

No significant emissions were found aside from the transmitter fundamental and several of the lower harmonics. Other emissions seen were more than 20 dB below the part 24 limits. The unit was scanned for emissions in the receive mode, over the range 30 to 10,000 MHz to establish compliance with Part 15.109 for the receiver.

Test Equipment Utilized for the Radiated Emissions Test

A list of the test equipment and antennas used for the tests can be found in Appendix B which includes the calibration information as well as the equipment description. All equipment is calibrated and used according to the user manuals supplied by the manufacturer. All antenna calibrations were performed at an N.I.S.T traceable site, and the resultant correction factors were entered into the Hewlett Packard 8546A EMI receiver software database. The connecting cables used were also measured for loss using a calibrated signal generator and the HP 8546A EMI receiver. The resulting loss factors were entered into the HP 8546A database. This allowed for automatic changes in the antenna correction factor, as well as cable loss or other corrections, to be added to the EMI receiver display while taking measurements. Thus, the resulting data taken from the HP 8546A is an actual reading and can be entered into the database as a corrected meter reading. The HP 8546A EMI receiver was operated with a bandwidth of 120 kHz when receiving signals below 1 GHz, and with a bandwidth of 1 MHz when receiving signals above 1 GHz, in accordance with CISPR 16, while performing the Part 15 measurements. Narrower IF and Video bandwidths were used where appropriate and allowable.

Measurement Results:

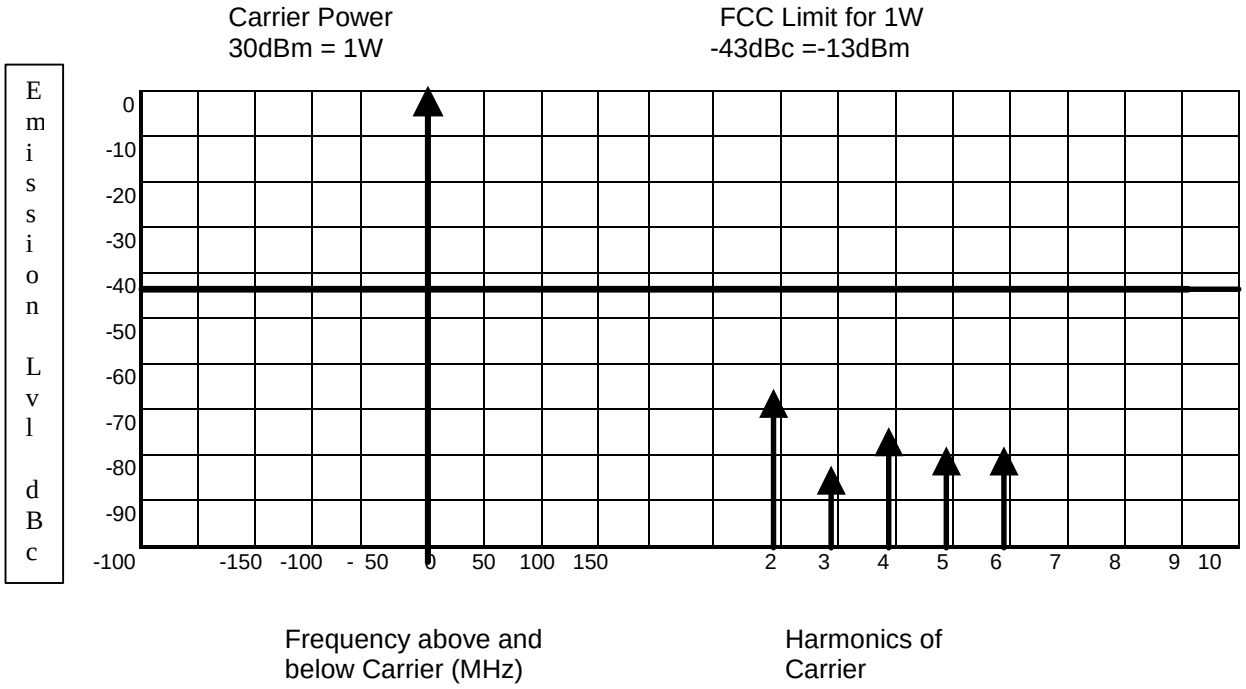
Radiated emissions measurements were made only at the upper, center, and lower carrier frequencies of the USPCS band (1850.2 MHz, 1880.2 MHz and 1909.8 MHz). It was decided that measurements at these three carrier frequencies would be sufficient to demonstrate compliance with emissions limits because it was seen that all the significant spurs occur well outside the band and no radiation was seen from a carrier in one block of the USPCS band into any of the other blocks. The equipment must still, however, meet emissions requirements with the carrier at all frequencies over which it is capable of operating and it is the manufacturer's responsibility to verify this.

No significant emissions were found aside from the transmitter fundamental and several of the lower harmonics. Other emissions that were seen were more than 20 dB below the part 24 limits. The unit was scanned for emissions in the receive mode, over the range 30 to 10,000 MHz to establish compliance with Part 15.109 for the receiver.

The Motorola D15 module Cellular Telephone was found to meet the Radiated emission specification of Title 47 CFR FCC, Part 22, and part 24, for a low power cellular telephone.

The Motorola Cellular Telephone was also found to meet the radiated emission specification of Title 47 CFR, FCC Part 15, subpart B for emissions with regards to the receiver and digital sections of the product.

TRANSMITTED RADIATED SPURIOUS AND HARMONIC EMISSIONS PLOT



Notes:

Transmitter type**: IHDT6AC1**
Carrier Power: 1Watt to 1mW in 2 dB steps.
Carrier Frequency: 1850.2MHz to 1909.8MHz in 200kHz steps**.**

Each Emission shown reflects its level at the channel, polarization, and power level tested that produced the highest level for that Spurious or Harmonic Emission.

Emissions not reported are greater than 20dB below the FCC specs.

Frequency spectrum from 30MHz to 19.1GHz (10^{th} harmonic of the carrier) was searched with the Carrier Level set at Power Step 0
(1 Watt or +30 dBm, nominal).

APPENDIX A: SAMPLE CALCULATIONS

FIELD STRENGTH OF SPURIOUS/HARMONIC FREQUENCIES:

In accordance with section 22.917e:
All out of band spurious emissions must be below the mean power of the carrier by at least:

43 + 10 log(carrier power)

which for the 1.0 watt rating on the test sample is:

43 + 10 log(1)
43 + 0 = -43 dBc

-43 dBc from 30.0 dBm (Analog mode) = --13.0 dBm

FIELD STRENGTH OF PART 22 LIMIT:

AT R = 3 METERS DSTANCE

AND AT R = 1 METERS DSTANCE

FROM THE STANDARD REFERENCE FORMULA FOR POWER TRANSMITTED VERSUS ELECTRIC FIELD:

$Pt = (R^{**}) \times |E|^{**} / 30$

Then to convert to dB:

$Pt = 20\log|E| + 20\log(R) - 10\log(30)$

Insert additional terms to convert watts to milli-watts (in dB) and volts to micro-volts (in dBuV):

$Pt = 20\log|Euv| - 20\log(1{,}000{,}000) + 10\log(1000) + 20\log(3) - 10\log(30)$

$Pt = 20\log|Euv| - 120 + 30 + 9.54 - 14.77$

$Pt = 20\log|Euv| - 95.23$

OR; $20\log|Euv| = Pt \text{ (in dBm)} + 95.23$

$|E|$ (in dBuV) = -13 dBm + 95.23 = 82.23 dBuV/m , at 3 meters

AT R = 1 METER DSTANCE

$|E|$ (in dBuV) = -13 dBm + 104.77 = 91.77 dBuV/m , at 1 meter

The following table depicts the Class B limits for an unintentional radiator: These limits are obtained from Title 47CFR, Part 15.109b, for radiated emissions measurements:

Frequency (MHz)	uV/m	3m limit (dBuV/m)
30-88	100	40.0
88-216	150	43.5
216-960	200	46
960-1000	500	54

Appendix B - Test Equipment

Asset #	Manufacturer	Model #	Serial#	Description	Due Date
AA960004	EMCO	3146	9512-4276	Log Periodic Antenna	3aug2000
AA960005	EMCO	3110B	9601/2280	Biconical Antenna	3aug2000
AA960007	EMCO	3115	99111-4198	Double Ridge Horn Antenna	1aug2000
EE960004	EMCO	2090	9607-1164	Mast/Ttable controller	I.O.
EE960014	HP	85460	3617A00320	EMI receiver Display section	23aug2000
EE960013	HP	85462	3205A00103	EMI receiver Preselector section	23aug2000
CC000221	HP	E4407b	Us39160256	26.5 GHz Spectrum Analyzer	16june2000

Occupied Bandwidth

Exhibit Summary:

EXHIBIT 6D contains measurement data pertaining to occupied bandwidth. For each carrier frequency measured the plots show the modulation spectrum of the carrier measured by two methods: the 99% power bandwidth, and the -26 dBC bandwidth. The following figures illustrate the results of both bandwidth definitions as measured using a Hewlett Packard spectrum analyzer.

Contents:

Measurement Procedure:

This section describes the procedures used to measure occupied bandwidth. A theoretical occupied bandwidth of approximately 246.0 kHz was determined as described in EXHIBIT 12.

1. Determine the measurement bandwidth: Part 24.238 (a) requires a measurement bandwidth of at least 1% of the occupied bandwidth. For 246.0 kHz, this equates to a resolution bandwidth of at least 2.46 kHz. For this testing, a resolution bandwidth 3.0 kHz was used.

2. Outline measurement frequencies: Table 8.1 below lists the measurement frequencies for the bottom, middle, and top of the PCS frequency band. For each frequency at which an occupied bandwidth measurement is made a transmitter output power was set to Power Step 0 (+30 dBm nominal).

USPCS Channel	Transmitter Frequency
512	1850.2 MHz
661	1880.0 MHz
810	1909.8 MHz

Table 8.1: Occupied bandwidth measurement frequencies.

3. Connect test set-up: Employing a cable and an attenuator, connect the mobile station to a spectrum analyzer (HP 8560E).

4. Configure the mobile station: Set TX frequency, power level and activate internal pseudo random data sequence. The sequence used in the radio is a part of the CCIT sequence defined by GSM recs. The sequence is stored in RAM and each timeslot that a pseudo random modulation stream is desired, a seed is generated for this table that will pick the byte to start with. The next 116 data bits are then used for the data to be transmitted. The bit rate of the internal test signal is equivalent to the GSM specification of 270.833 kBits/s.

5. Use the built in Power Bandwidth function of the spectrum analyzer to create a measured plot of the spectrum yielding the 99% occupied bandwidth.

6. Repeat for all required frequencies adjusting the spectrum analyzer as necessary.

7. Set the markers to the points above and below the carrier frequency that are 26dB down from the peak level and record the bandwidth between the markers.

8. Repeat for all required frequencies adjusting the spectrum analyzer as necessary.

Occupied Bandwidth Results

Similar to conducted emissions, occupied bandwidth measurements are only provided for selected frequencies in order to reduce the amount of submitted data. Data were taken at the extreme and mid frequencies of the USPCS frequency band. Table 8.2 below lists the measured 99% power and -26dBC occupied bandwidths. Spectrum analyzer plots are included on the following pages.

Frequency	99% Occupied BW	-26dBC Bandwidth
1850.2 MHz	248.3 kHz	315 kHz
1880.0 MHz	250.0 kHz	325 kHz
1909.8 MHz	248.3 kHz	313 kHz

Table 8.2: Occupied bandwidth results.

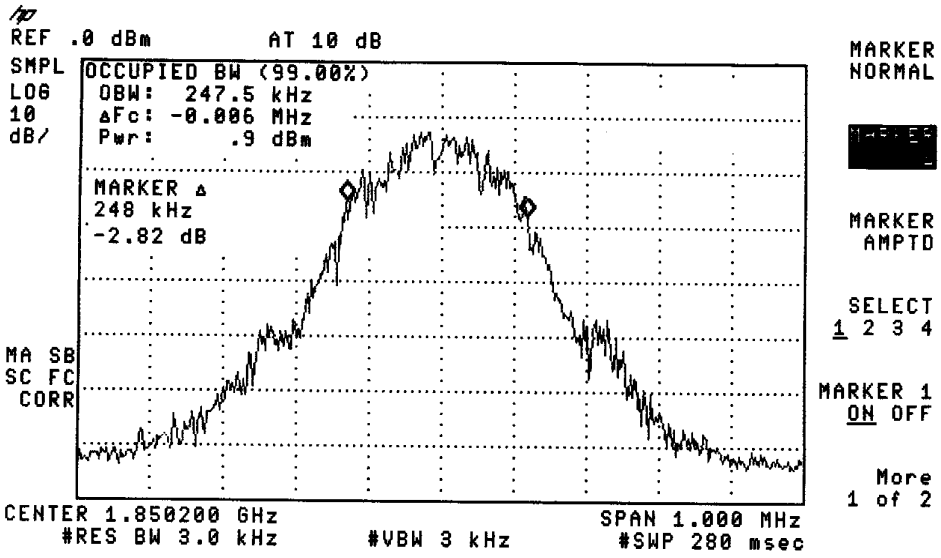


Fig.8.1: Channel 512, 99% Power Bandwidth

Fig.8.1: Channel 512, 99% Power Bandwidth

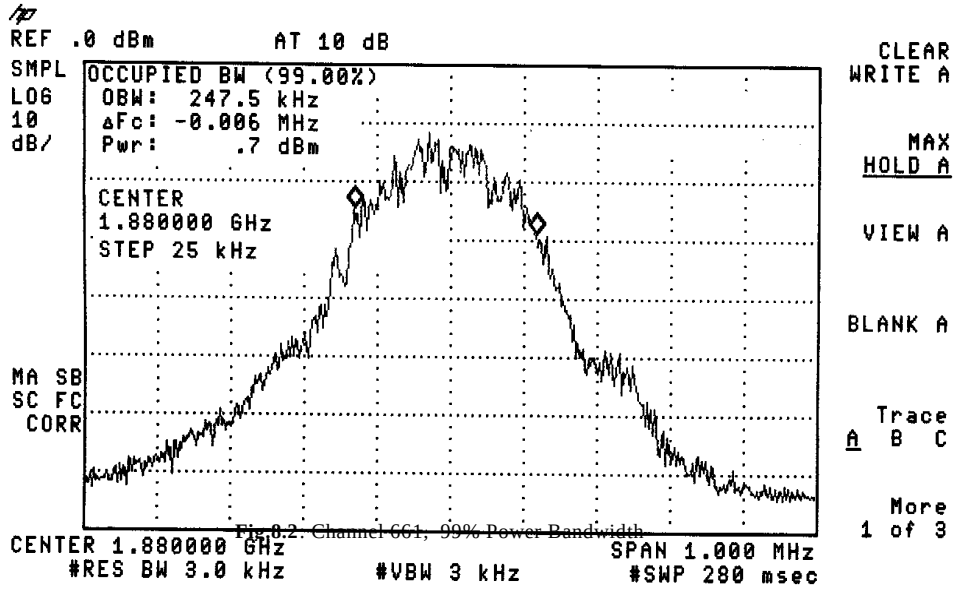


Fig.8.2: Channel 661, 99% Power Bandwidth

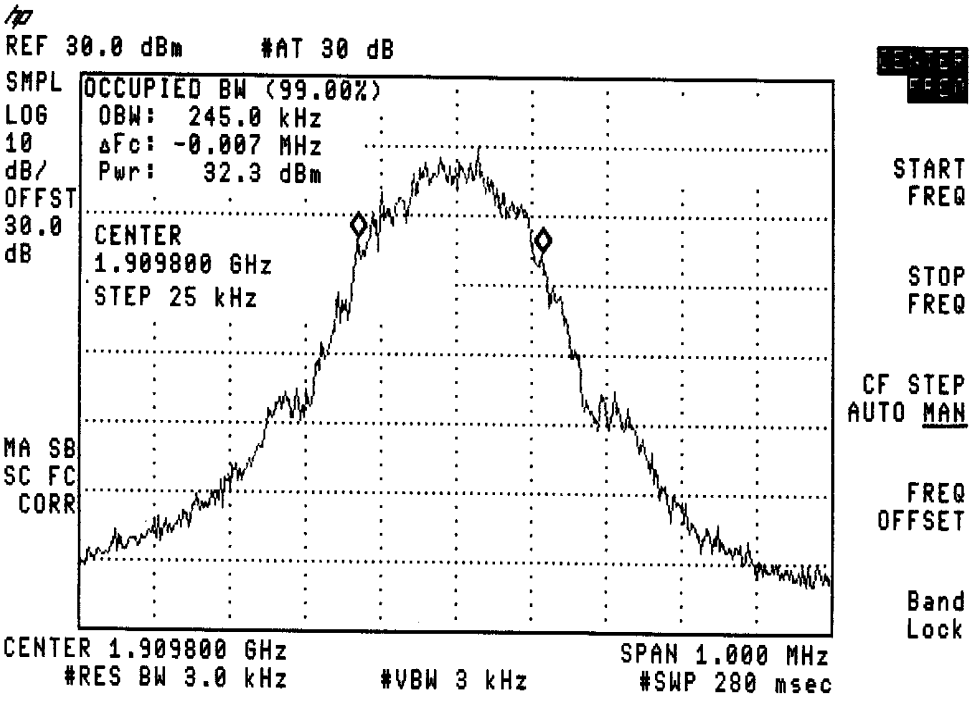


Fig.8.3: Channel 810, 99% Power Bandwidth

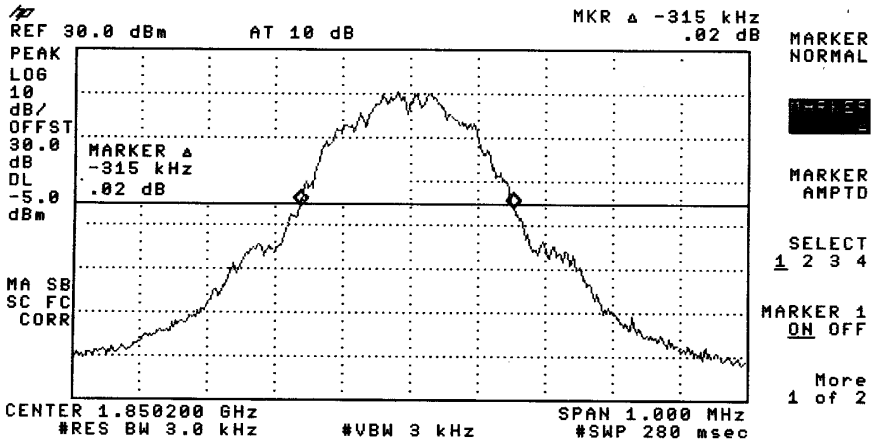


Fig.8.4: Channel 512, -26dBC Bandwidth

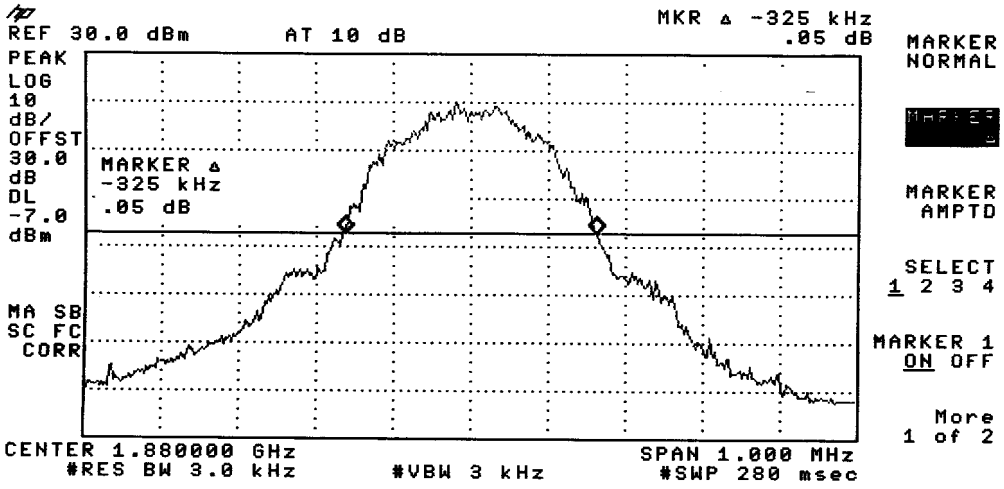


Fig.8.5: Channel 661, -26dBC Bandwidth

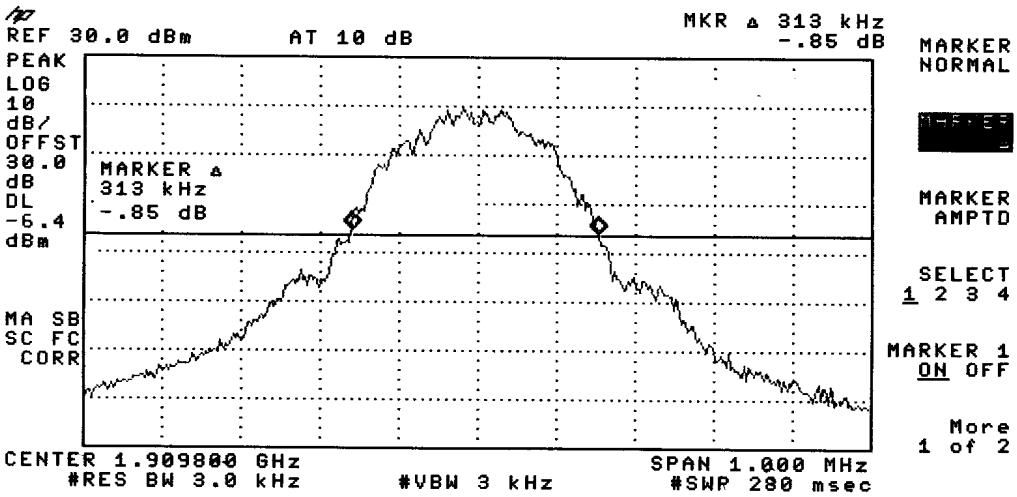


Fig.8.6: Channel 810, -26dBC Bandwidth

Conducted Spurious Emissions

Exhibit Summary:

EXHIBIT 6E contains measurement data pertaining to conducted spurious emissions. As indicated on the chart, some spur levels were reported using a “Brickwall Filter” technique. This measurement method is intended to overcome limitations caused by non-ideal filter roll-off within the measurement equipment (spectrum analyzer). For each spur level reported using this technique, the associated level measured using the FCC method per Part 24.238 is reported in the included table. In addition, at spurs located 1 MHz away from the band edge, the level recorded using the 1% occupied bandwidth or greater requirement is also listed.

Contents:

Measurement Procedure:

The following steps outline the procedure used to measure the conducted emissions from the mobile station.

1. Determine frequency range for measurements: From CFR 2.1057 the spectrum should be
   investigated from the lowest radio frequency generated in the equipment up to at least the 10th harmonic of the carrier frequency. For the mobile station equipment tested, this equates to a frequency range of 13 MHz to 19.1 GHz, data taken from 10 MHz to 20 GHz.
2. Determine mobile station transmit frequencies: Table 9.1 below outlines the band edge
   frequencies pertinent to conducted emissions testing.

USPCS Channel	Transmitter Frequency
512	1850.2 MHz
810	1909.8 MHz

Table 9.1: Transmit frequencies for conducted emissions testing.

The carrier frequencies for each of the 200 kHz wide channels of the USPCS transmit band (1850 to 1910 MHz) begins with the first channel 0.2 MHz higher than the lower band edge, at 1850.2 MHz for channel number 512, and ends with the last channel 0.2 MHz lower than the upper band edge, at 1909.8 MHz for channel number 810.

3. Measure attenuator and cable losses:

a) Connect a TX bandpass filter and nominal 20 dB attenuator together, and place cables at input of the filter and output of the attenuator.
b) Using a signal generator and power meter, calculate the loss through the filter, attenuator and cables at
   each of the frequencies listed in Table 9.1. Use these measurements to properly set the spectrum analyzer amplitude offset.
c) Repeat the measurements on the cables and filter only, without the attenuator. This provides the
   spectrum analyzer offset for the minimum power case.

4. Connect test set-up:

   a) If measuring at max. mobile station output power (Power Step 0, +30 dBm nominal, for the band edge frequencies of interest), connect the filter, attenuator and cable network measured in 3. above from the output of the mobile station to the input of the spectrum analyzer.

b) If measuring at min. output power (Power Step 15, 0 dBm nominal) connect the filter and cable network (no attenuator) measured in 3. above from the output of the mobile station to the input of the spectrum analyzer.

5. Power up Mobile Station:

a) Tune to desired frequency.
b) Set desired output power.
c) Modulate carrier with the mobile station's internal pseudo random data sequence.

6. Set appropriate spectrum analyzer offset level to account for input attenuator using values measured in 3. above.

7. Measure spectrum:

a) In the 1st 1 MHz band outside the band edge nearest the channel of interest use a 3 kHz res. BW.
b) In the 2nd and 3rd 1 MHz bands outside the band edge nearest the channel of interest use the brickwall technique with 3 kHz res. BW and integrate the power in the two 1 MHz bands. The 3 MHz cut-off was determined from the spectrum analyzer filter plot shown on page 12. At 3 MHz from the carrier, the filter attenuation is sufficient enough to guarantee against non-compliance readings.
c) From 3 MHz outside the band edge nearest the channel of interest to the End use 1 MHz res. BW.

8. Repeat 5. through 7. for each carrier frequency listed in Table 9.1.

9. Repeat procedure for both min. and max. power settings.

Measurement Limit:

Sec. 24.238 Emission Limits.

(a) On any frequency outside frequency band of the USPCS spectrum, the power of any emission shall be attenuated below the transmitter power (P, in Watts) by at least 43+10Log(P) dB. For all power levels +30 dBm to 0 dBm, this becomes a constant specification limit of -13 dBm.

Measurement Results:

Conducted Emissions Measurements were made only at the extreme upper and lower carrier frequencies of the USPCS band. It was decided that measurements at these block edge frequencies would be sufficient to demonstrate compliance with emissions limits. The equipment must still, however, meet emissions requirements at all frequencies over which the equipment is designed to operate and it is the manufacturer's responsibility to verify this.

Measurement results are listed below in Tables 9.2 and 9.3 and Figures 9.1 through 9.4. In each of the following charts the emission level reported is the level of the spurious emission of largest magnitude found within the specified frequency window whether the mobile station was transmitting at either high or low power.

Carrier: 1850.2 MHz (Channel 512)

Frequency	Emissions Level	Method Used
10 MHz - 1846 MHz	-36 dBm @ 1846 MHz	FCC
1846 MHz - 1847 MHz	-15.73 dBm @ 1847 MHz See Figure 9.1	FCC
1847 MHz - 1848 MHz	-29.5 dBm @ 1847.9 MHz	Brickwall Filter
1848 MHz - 1849 MHz	-25.4 dBm @ 1848.8 MHz	Brickwall Filter
1849 MHz - 1850 MHz	-14.82 dBm @ 1849.9 MHz See Figure 9.2	FCC
1910 MHz - 20 GHz	-31 dBm @ 3700MHz	FCC

Table 9.2: Conducted emissions results for 1850.2 MHz carrier.

Carrier: 1909.8 MHz (Channel 810)

Frequency	Emissions Level	Method Used
10 MHz - 1850MHz	-35 dBm @ 151MHz	FCC
1910 MHz - 1911 MHz	-17.66 dBm @ 1910 MHz See Figure 9.3	FCC
1911 MHz - 1912 MHz	-27.8 dBm @ 1911.7 MHz	Brickwall Filter
1912 MHz - 1913 MHz	-29 dBm @ 1912.8 MHz	Brickwall Filter
1913 MHz - 1914 MHz	-13.29 dBm @ 1913 MHz See Figure 9.4	FCC
1914 MHz - 20 GHz	-30.5 dBm @3819.7MHz	FCC

Table 9.3: Conducted emissions results for 1909.8 MHz carrier.

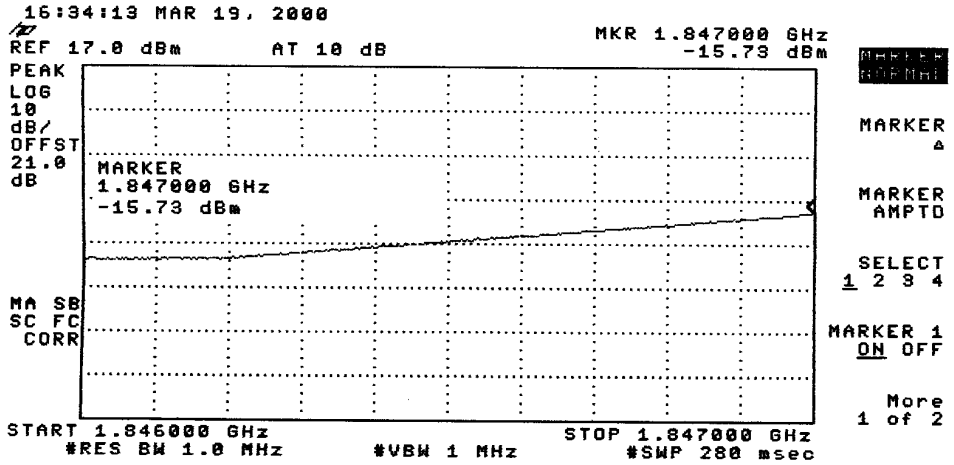


Fig.9.1: Carrier 1850.2MHz, Spectrum 1846 to 1847MHz

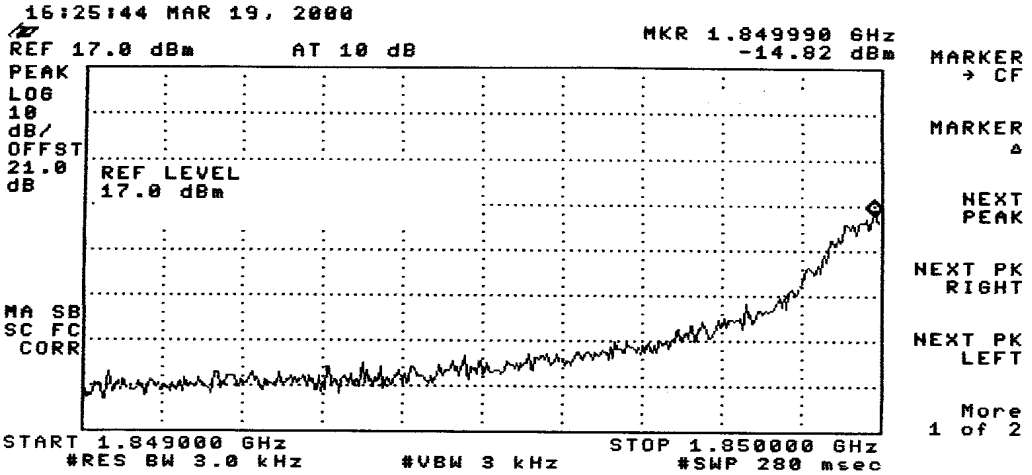


Fig.9.2: Carrier 1850.2MHz, Spectrum 1849 to 1850 MHz

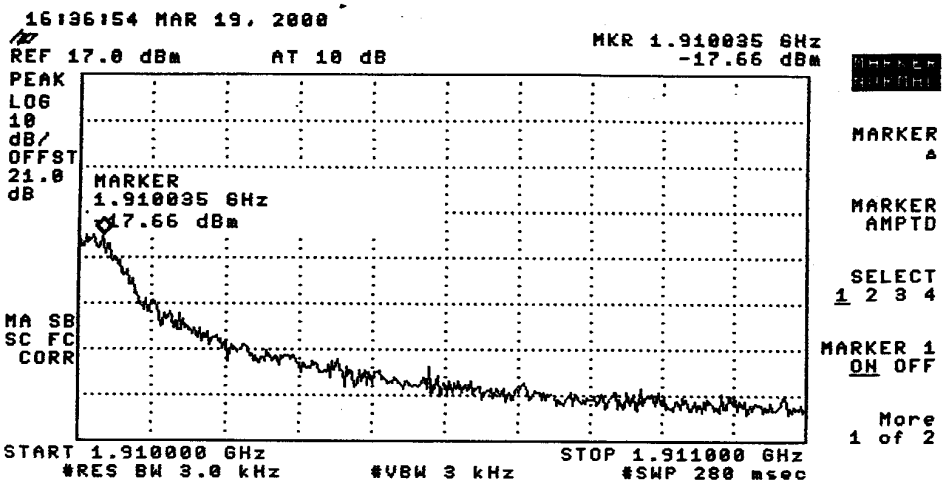


Fig.9.3: Carrier 1909.8, Spectrum 1910 MHz to 1911 MHz

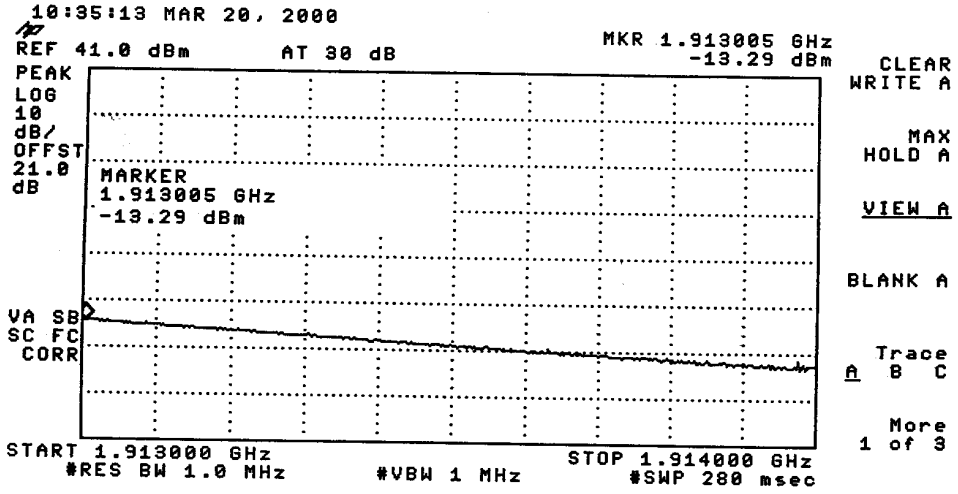


Fig.9.4: Carrier 1909.8, Spectrum 1913 MHz to 1914 MHz

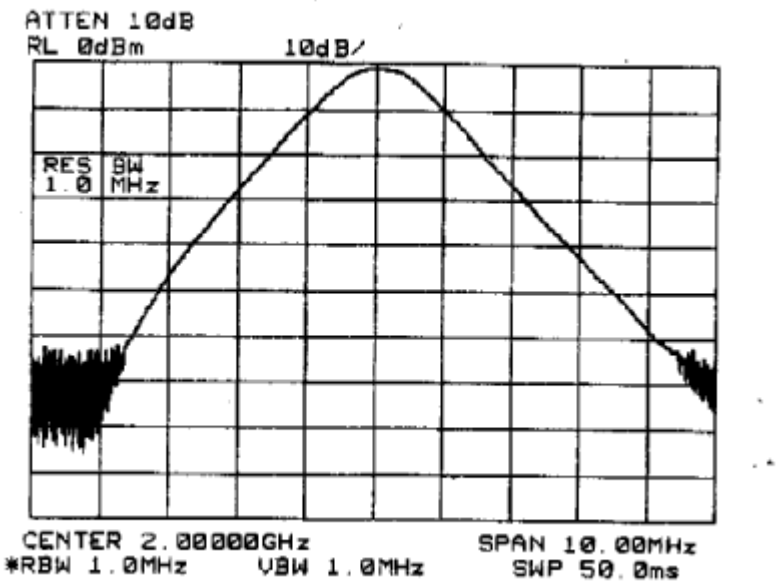


Fig.9.5: Spectrum Analyzer 1 MHZ Resolution Bandwidth Filter Response

Frequency Stability

Contents

Method of Measurement:

In order to measure the carrier frequency under the condition of AFC lock, see EXHIBIT 12, it is necessary to make measurements with the mobile station in a “call mode”. This is accomplished with the use of a Hewlett Packard 8922H GSM MS Test Set.

1. Measure the carrier frequency at room temperature.

2. Subject the mobile station to overnight soak at -30 C.

3. With the mobile station, powered via 4.8 Volts, connected to the 8922H and in a simulated call on channel 662 (center channel), measure the carrier frequency. These measurements should be made within 2 minutes of powering up the mobile station, to prevent significant self warming.

4. Repeat the above measurements at 10 C increments from -30 C to +60 C. Allow at least 1 1/2 hours at each temperature, unpowered, before making measurements.

5. Re-measure carrier frequency at room temperature with nominal 4.8 Volts. Vary supply voltage from minimum 3 Volts to maximum 6 Volts, in 0.2 Volt increments re-measuring carrier frequency at each voltage.

6. Subject the mobile station to overnight soak at +60 C.

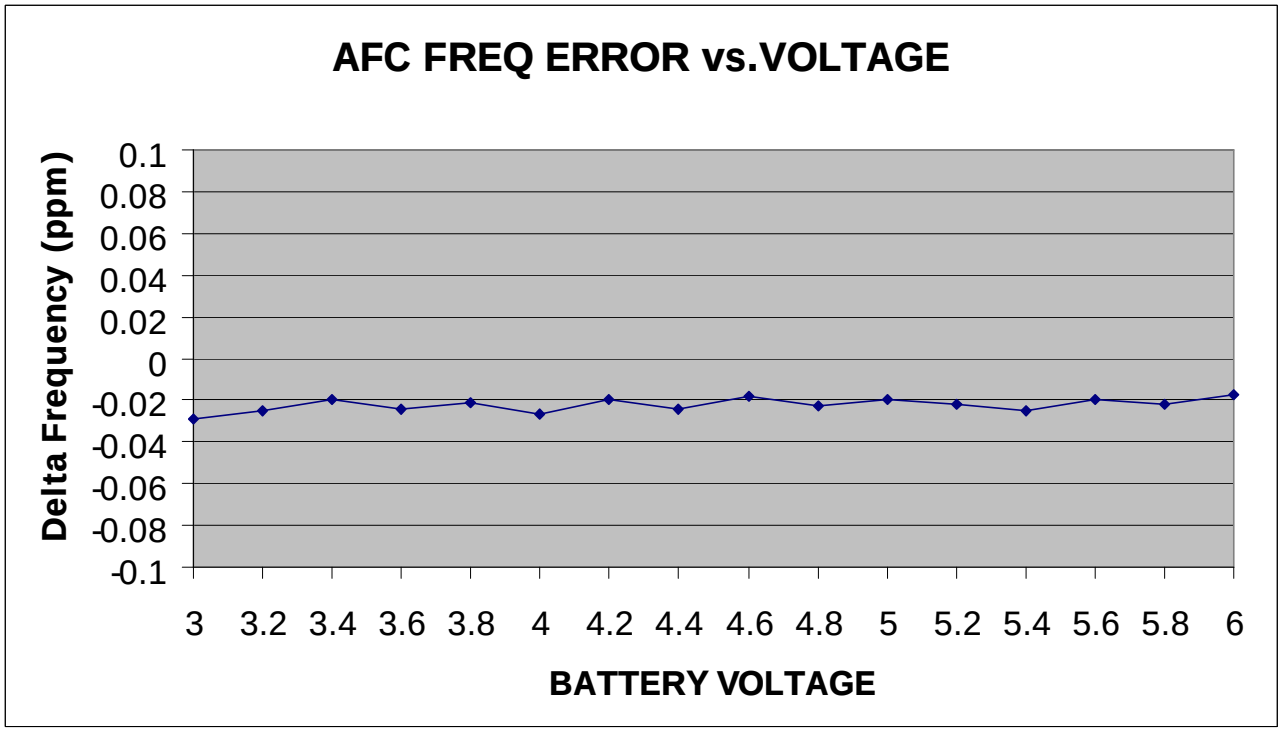
7. With the mobile station, powered via 3 Volts, connected to the 8922H and in a simulated call on channel 662 (center channel), measure the carrier frequency. These measurements should be made within 2 minutes of powering up the mobile station, to prevent significant self warming.

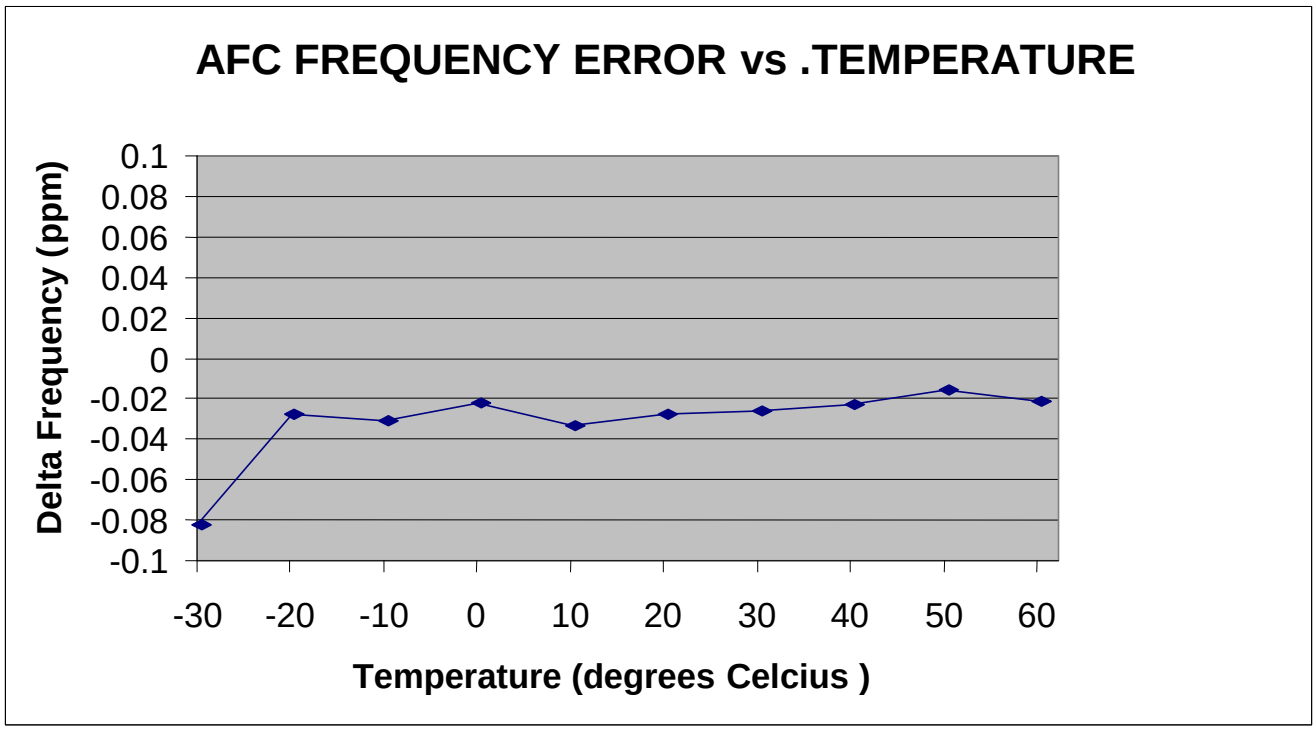
8. Repeat the above measurements at 10 C increments from +60 C to -30 C. Allow at least 1 1/2 hours at each temperature, unpowered, before making measurements.

9. At all temperature levels hold the temperature to +/- 0.5 C during the measurement procedure.

Measurement Limit

According to the JTC standard the frequency stability of the carrier shall be accurate to within 0.1 ppm of the received frequency from the base station. This accuracy is sufficient to meet Sec. 24.235, Frequency Stability. The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.
As this transceiver is considered "Hand carried, battery powered equipment…," Section 2.1055(d)(2) applies. This requires that the lower voltage for frequency stability testing be specified by the manufacturer. This transceiver is specified to operate with an input voltage of between 3 Vdc and 6 Vdc, with a nominal voltage of 4.8 Vdc (based on operation off of a 3-cell Nickel-Metal Hydride battery pack). Operation above or below these voltage limits is prohibited by transceiver software in order to prevent improper operation as well as to protect components from overstress. These voltages represent a tolerance of + 25 % and - 18 %. For the purposes of measuring frequency stability these voltage limits are to be used.


AFC FREQ ERROR vs.VOLTAGE
Delta Frequency (ppm)
0.1
0.08
0.06
0.04
0.02
0
-0.02
-0.04
-0.06
-0.08
-0.1
3 3.2 3.4 3.6 3.8 4 4.2 4.4 4.6 4.8 5 5.2 5.4 5.6 5.8 6
BATTERY VOLTAGE


AFC FREQUENCY ERROR vs .TEMPERATURE
Delta Frequency (ppm)
0.1
0.08
0.06
0.04
0.02
0
-0.02
-0.04
-0.06
-0.08
-0.1
-30 -20 -10 0 10 20 30 40 50 60
Temperature (degrees Celcius)