

Submitted Measured Data

<u>MEASUREMENT</u>	<u>EXHIBIT</u>	<u>NUMBER OF PAGES</u>
1. RF Power Output Data	6A	1
2. Audio Frequency Response	6B	1
3. Low Pass Filter Response	6C	1
4. Modulation Limiting	6D	1
5. Occupied Bandwidth	6E	3
6. Radiated Spurious Emissions	6F	2
7. Conducted Spurious Emissions	6G	2
8. Power Line Conducted Spurious Emissions	6H	2
9. Frequency Stability	6I	1

RF Power Output Data

The RF power output was measured with the indicated voltage applied to and current into the final RF amplifying device.

851.0125 MHz

Measured RF output	3.0 Watts
Nominal DC voltage	7.5 Volts
Nominal DC Current	1.20 Amps
Primary Supply Voltage	7.5 Volts

Measured RF output	2.0 Watts
Nominal DC voltage	7.5 Volts
Nominal DC Current	0.95 Amps
Primary Supply Voltage	7.5 Volts

Measured RF output	1.0 Watt
Nominal DC voltage	7.5 Volts
Nominal DC Current	0.70 Amps
Primary Supply Voltage	7.5 Volts

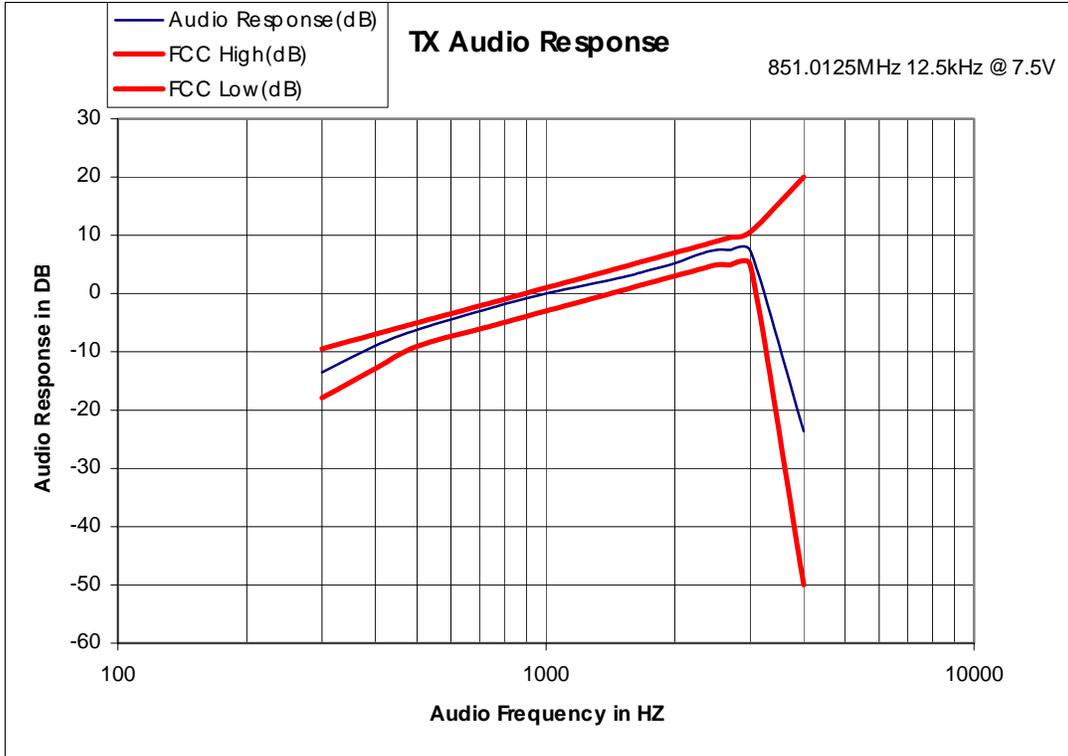


EXHIBIT 6B-1

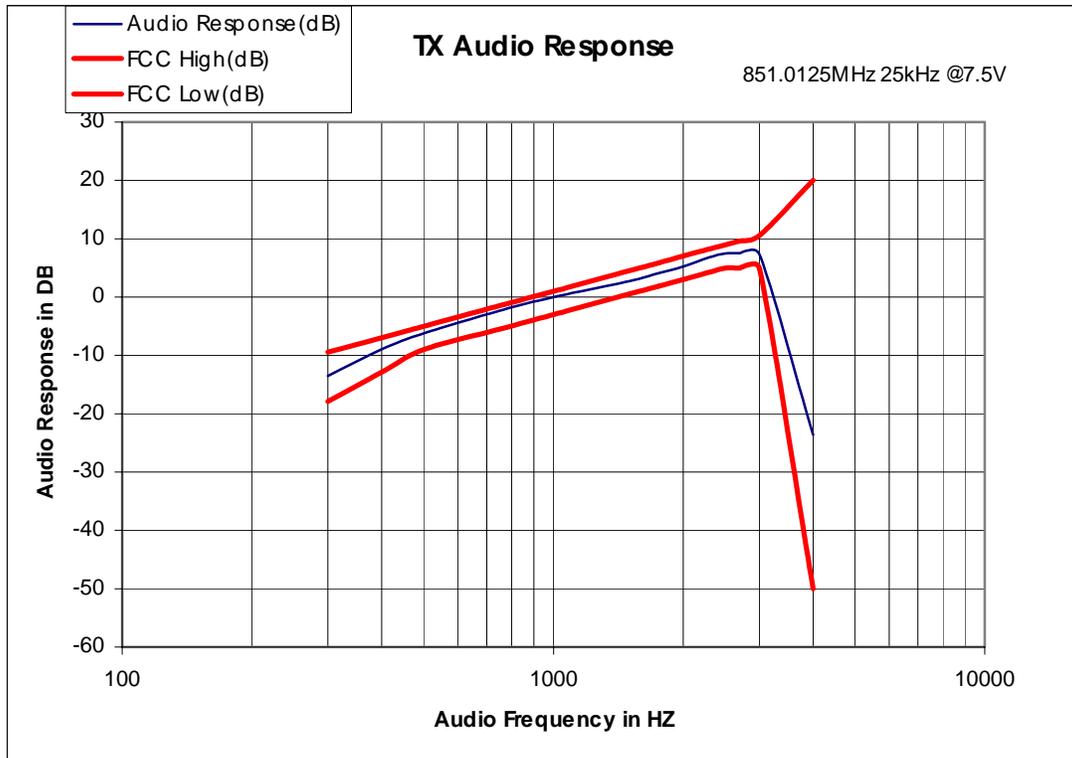
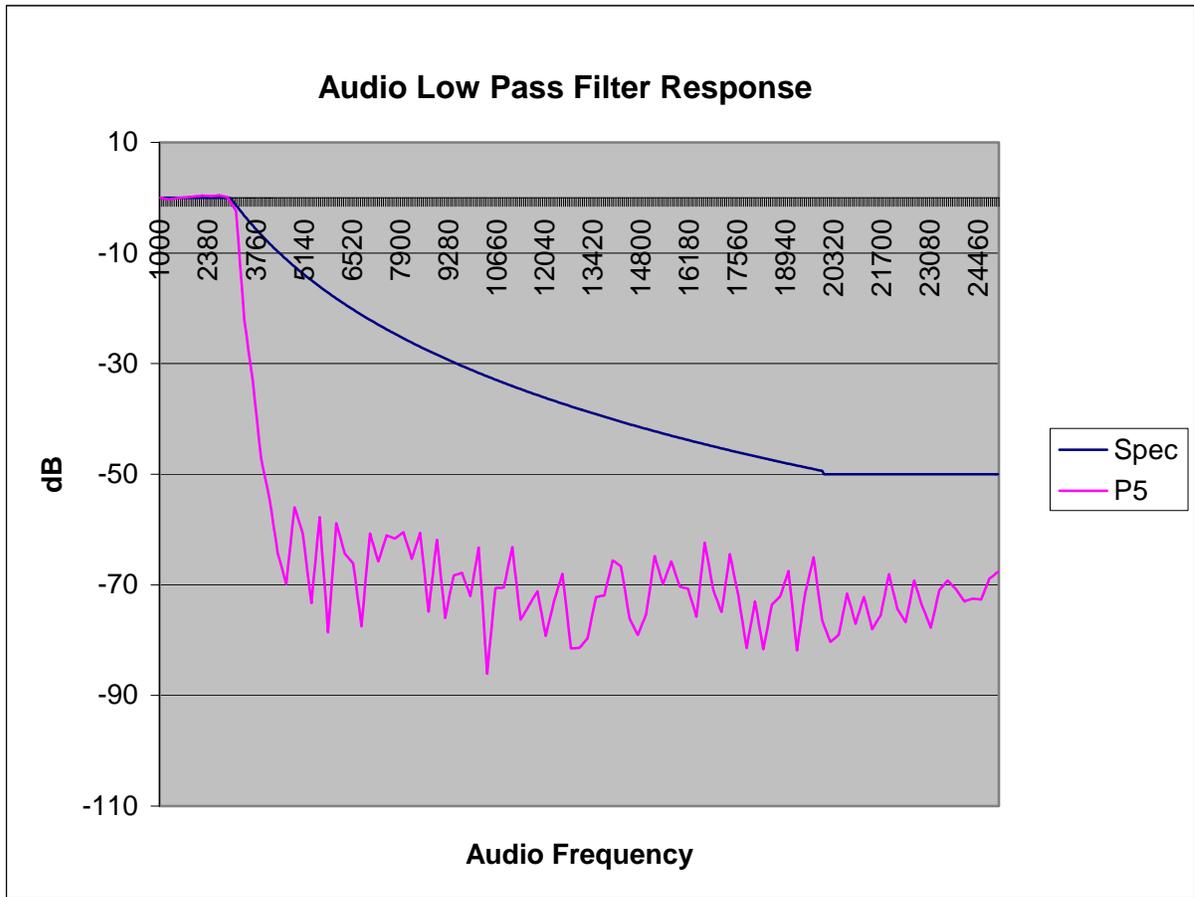


EXHIBIT 6B-2



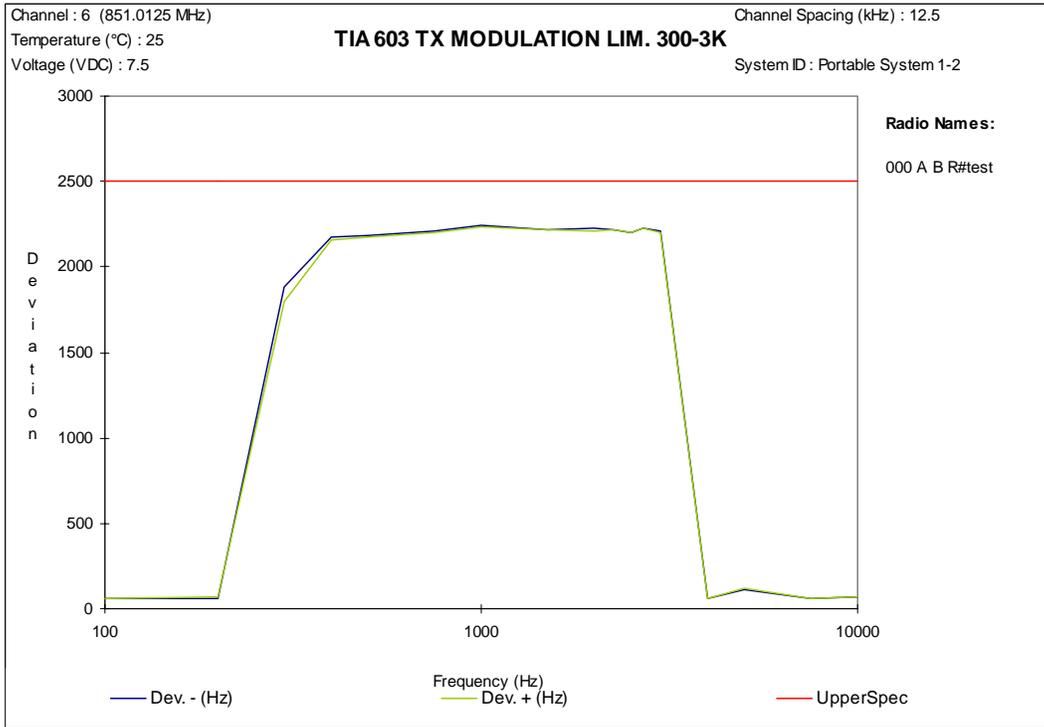


EXHIBIT 6D-1

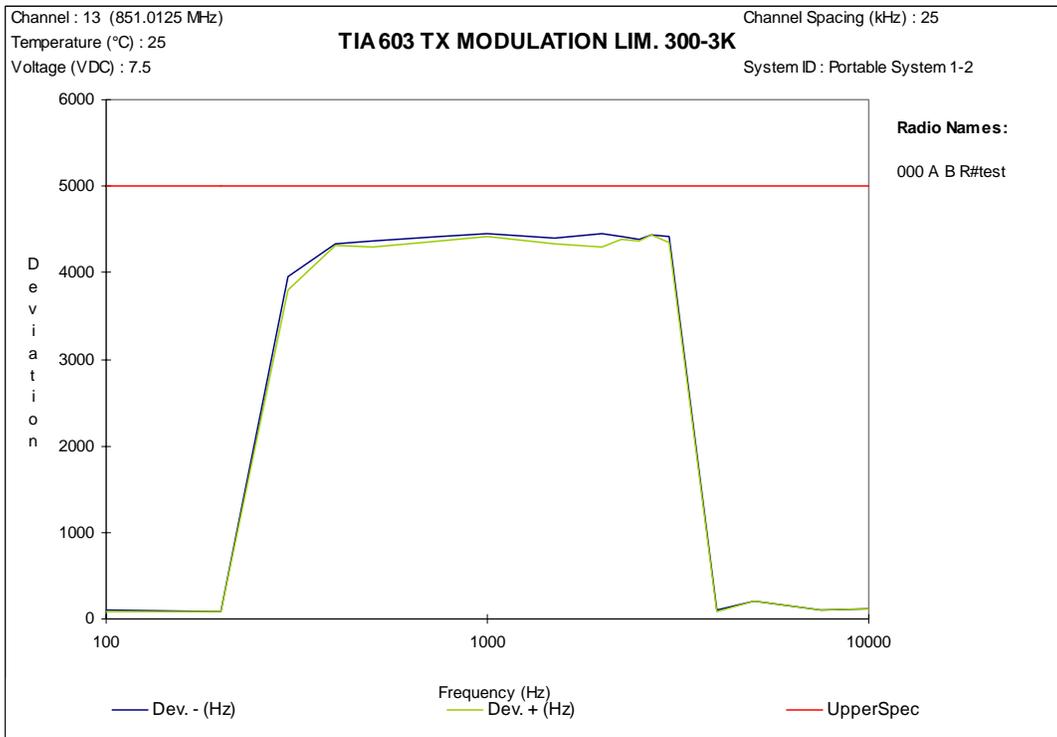


EXHIBIT 6D-2

Occupied Bandwidth Data

BANDWIDTH CALCULATIONS:

Carson's Rule for FM modulation is utilized to compute the bandwidth shown in the FCC emission designator. Carson's Rule is:

$$BW = 2 * (M + D) \text{ where: } \begin{array}{l} BW = \text{Bandwidth} \\ M = \text{Maximum modulating frequency} \\ D = \text{Deviation} \end{array}$$

Shown below are the calculations required for FCC ID: AZ489FT5816.

EXHIBIT 6E-1

Standard Audio Modulation (12.5 kHz Channelization, Analog Voice):

Emission Designator 11K0F3E

In this case, the maximum modulating frequency is 3.0 kHz with a 2.5 kHz deviation.

$$BW = 2(M+D) = 2*(3.0 \text{ kHz} + 2.5 \text{ kHz}) = 11 \text{ kHz} \implies 11K0$$

F3E portion of the designator indicates voice.

Therefore, the entire designator for 12.5 KHz channelization analog voice is 11K0F3E.

EXHIBIT 6E-2

Standard Audio Modulation (25 kHz Channelization, Analog Voice):

Emission Designator 16K0F3E

In this case, the maximum modulating frequency is 3 kHz with a 5 kHz deviation.

$$BW = 2(M+D) = 2*(3 \text{ kHz} + 5 \text{ kHz}) = 16 \text{ kHz} \implies 16K0$$

F3E portion of the designator indicates voice.

Therefore, the entire designator for 25 kHz channelization analog voice is 16K0F3E.

EXHIBIT 6E-3

Digital (12.5 kHz Channelization, Digital Data):

Emission Designator 8K10F1D

Measurements per Rule Part 2.202 Section C (4) were done because Part 2.202 Section g Table III A, 1 formulation produces an excessive result using the value of K recommended in the Table. Therefore, the 99% energy rule (title 47CFR 2.989) was used for digital mode and is more accurate than Carson's rule. It basically states that 99% of the modulation energy falls within X KHz, in this case, 8.10 kHz. Measurements were performed in accordance with TIA/EIA TSB102.CAAB Section 2.2.5.2. The emission mask was obtained from 47CFR 90.210(d).

F1D portion of the designator indicates digital data.

Therefore, the entire designator for 12.5 kHz channelization digital data is 8K10F1D.

EXHIBIT 6E-4

Digital (12.5 kHz Channelization, Digital Voice):

Emission Designator 8K10F1E

Measurements per Rule Part 2.202 Section C (4) were done because Part 2.202 Section g Table III A, 1 formulation produces an excessive result using the value of K recommended in the Table. Therefore, the 99% energy rule (title 47CFR 2.989) was used for digital mode and is more accurate than Carson's rule. It basically states that 99% of the modulation energy falls within X KHz, in this case, 8.10 kHz. Measurements were performed in accordance with TIA/EIA TSB102.CAAB Section 2.2.5.2. The emission mask was obtained from 47CFR 90.210(d).

F1E portion of the designator indicates digital voice.

Therefore, the entire designator for 12.5 kHz channelization digital voice is 8K10F1E.

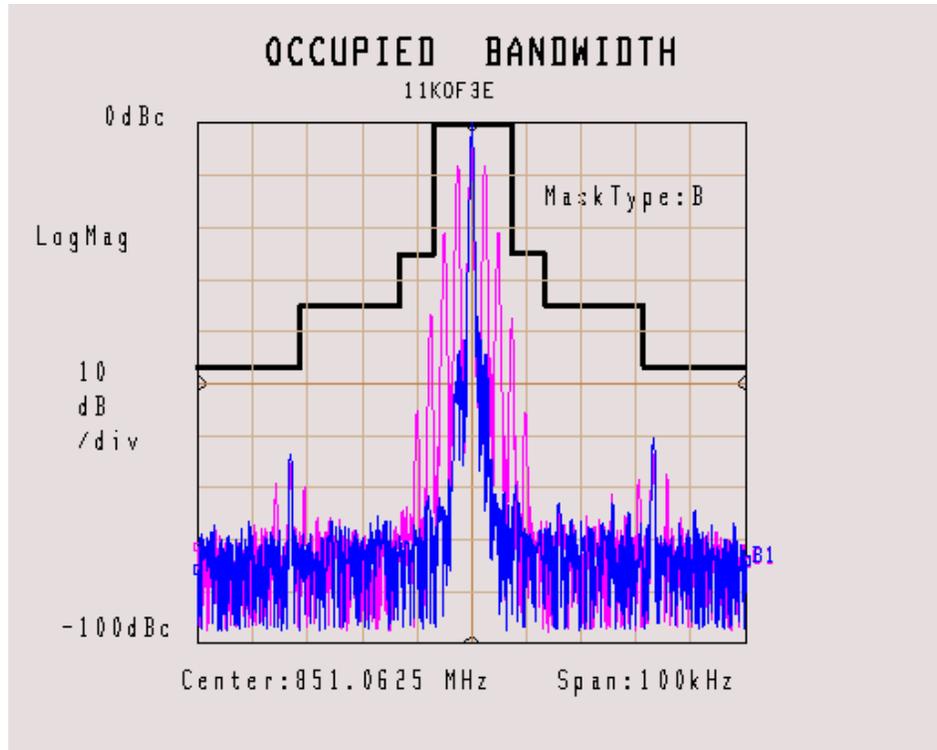


EXHIBIT 6E-1

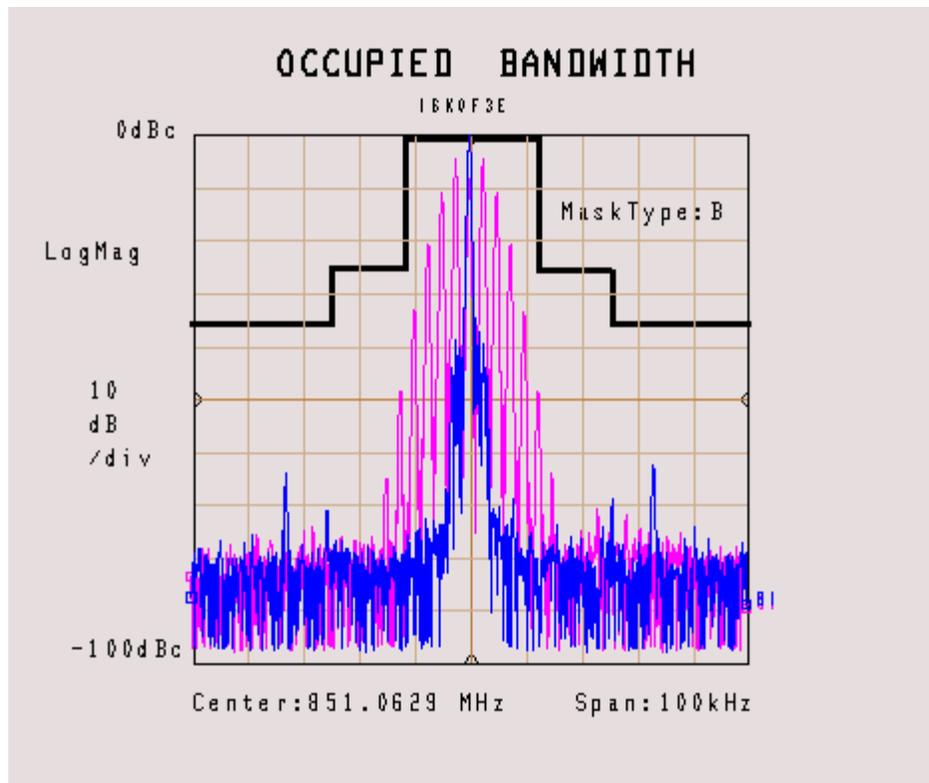


EXHIBIT 6E-2

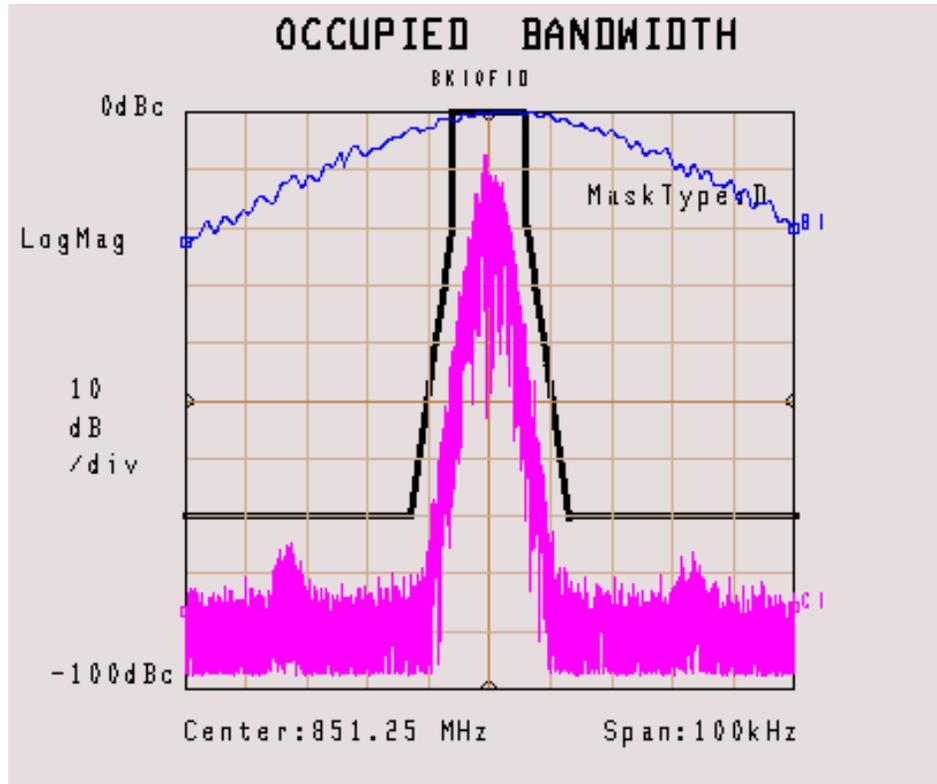


EXHIBIT 6E-3

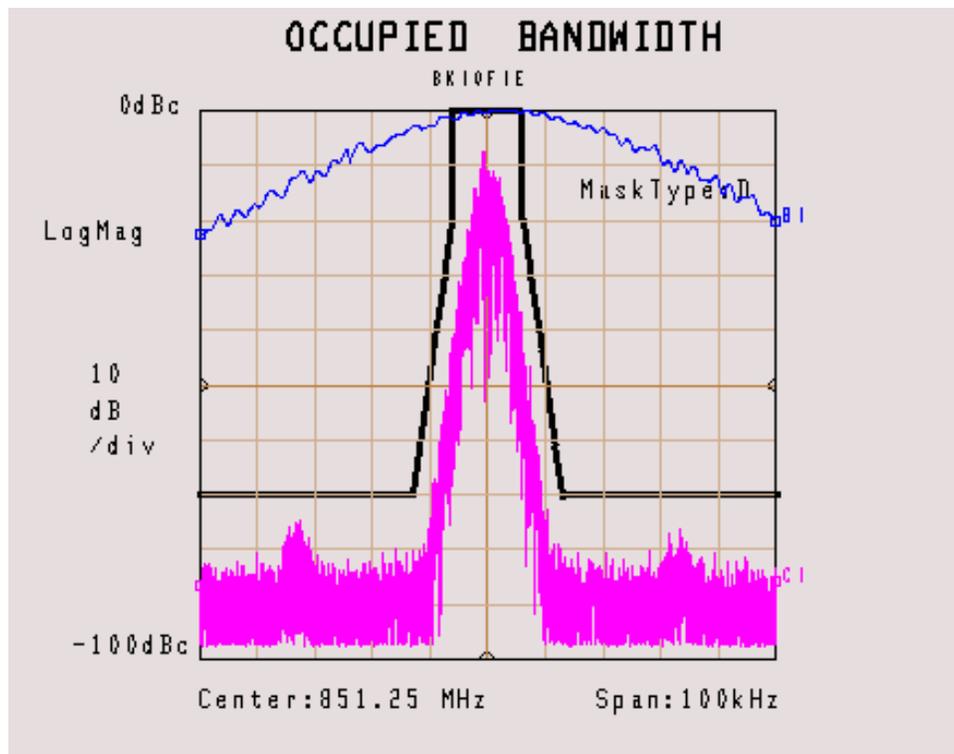
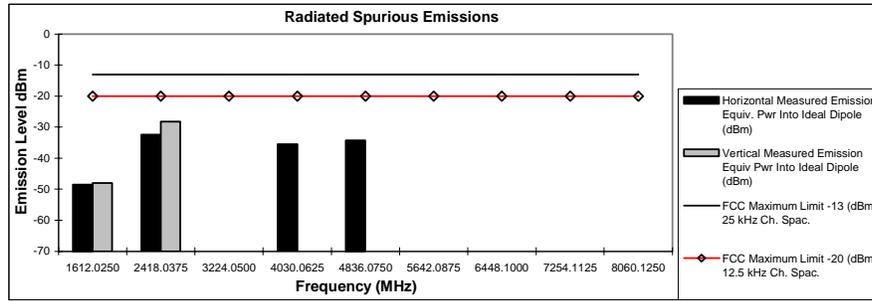


EXHIBIT 6E-4

Transmitter Radiated Spurious Emissions: XTS2500

806.0125 MHz 3.3 Watts Channel Spacing 12.5kHz

Frequency (MHz)	FCC Maximum Limit -13 (dBm) 25 kHz Ch. Spac.	FCC Maximum Limit -20 (dBm) 12.5 kHz Ch. Spac.	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1612.0250	-13	-20	-48.55	-48.00
2418.0375	-13	-20	-32.47	-28.24
3224.0500	-13	-20	*	*
4030.0625	-13	-20	-35.51	*
4836.0750	-13	-20	-34.28	*
5642.0875	-13	-20	*	*
6448.1000	-13	-20	*	*
7254.1125	-13	-20	*	*
8060.1250	-13	-20	*	*



* Indicates the spurious emission was less than -70dBm or could not be detected due to noise limitations or ambients.
 The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Plantation EMC Lab – Test Performed by: Philip Bagwell
 FCC Registration: 91932 / Industry Canada: IC3679

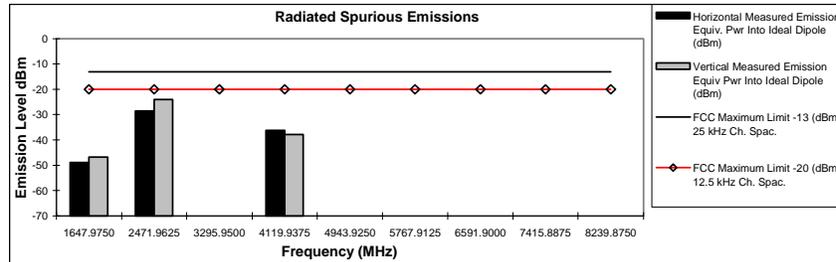
August 23, 2001

EXHIBIT 6F-1

Transmitter Radiated Spurious Emissions: XTS2500

823.9875 MHz 3.3 Watts Channel Spacing 12.5kHz

Frequency (MHz)	FCC Maximum Limit -13 (dBm) 25 kHz Ch. Spac.	FCC Maximum Limit -20 (dBm) 12.5 kHz Ch. Spac.	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1647.9750	-13	-20	-48.88	-46.86
2471.9625	-13	-20	-28.56	-24.05
3295.9500	-13	-20	*	*
4119.9375	-13	-20	-36.23	-37.78
4943.9250	-13	-20	*	*
5767.9125	-13	-20	*	*
6591.9000	-13	-20	*	*
7415.8875	-13	-20	*	*
8239.8750	-13	-20	*	*



* Indicates the spurious emission was less than -70dBm or could not be detected due to noise limitations or ambients.
 The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Plantation EMC Lab – Test Performed by: Philip Bagwell
 FCC Registration: 91932 / Industry Canada: IC3679

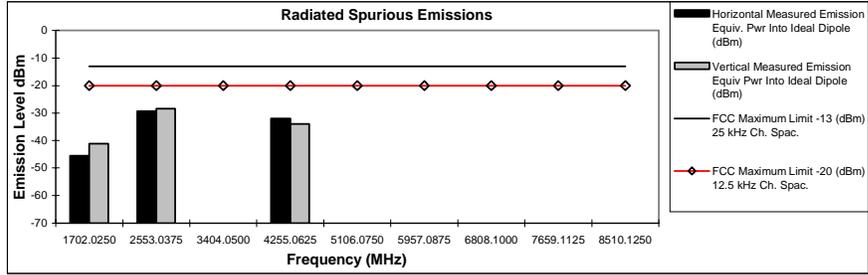
August 23, 2001

EXHIBIT 6F-2

Transmitter Radiated Spurious Emissions: XTS2500

851.0125 MHz 3.3 Watts Channel Spacing 12.5kHz

Frequency (MHz)	FCC Maximum Limit -13 (dBm) 25 kHz Ch. Spac.	FCC Maximum Limit -20 (dBm) 12.5 kHz Ch. Spac.	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1702.0250	-13	-20	-45.50	-41.15
2553.0375	-13	-20	-29.37	-28.41
3404.0500	-13	-20	*	*
4255.0625	-13	-20	-31.98	-33.95
5106.0750	-13	-20	*	*
5957.0875	-13	-20	*	*
6808.1000	-13	-20	*	*
7659.1125	-13	-20	*	*
8510.1250	-13	-20	*	*



* Indicates the spurious emission was less than -70dBm or could not be detected due to noise limitations or ambients. The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Plantation EMC Lab – Test Performed by: Philip Bagwell
 FCC Registration: 91932 / Industry Canada: IC3679

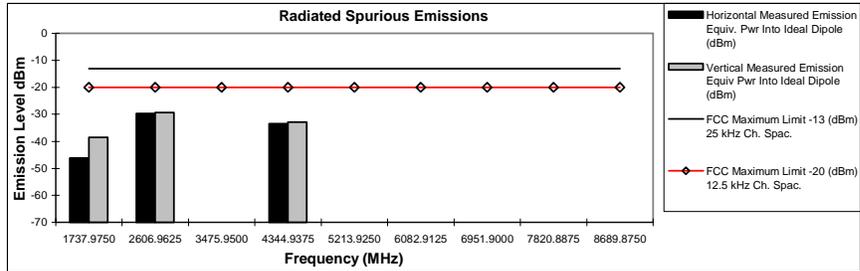
August 23, 2001

EXHIBIT 6F-3

Transmitter Radiated Spurious Emissions: XTS2500

868.9875 MHz 3.3 Watts Channel Spacing 12.5kHz

Frequency (MHz)	FCC Maximum Limit -13 (dBm) 25 kHz Ch. Spac.	FCC Maximum Limit -20 (dBm) 12.5 kHz Ch. Spac.	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1737.9750	-13	-20	-46.18	-38.50
2606.9625	-13	-20	-29.62	-29.35
3475.9500	-13	-20	*	*
4344.9375	-13	-20	-33.40	-32.89
5213.9250	-13	-20	*	*
6082.9125	-13	-20	*	*
6951.9000	-13	-20	*	*
7820.8875	-13	-20	*	*
8689.8750	-13	-20	*	*



* Indicates the spurious emission was less than -70dBm or could not be detected due to noise limitations or ambients. The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Motorola Plantation EMC Lab – Test Performed by: Philip Bagwell
 FCC Registration: 91932 / Industry Canada: IC3679

August 23, 2001

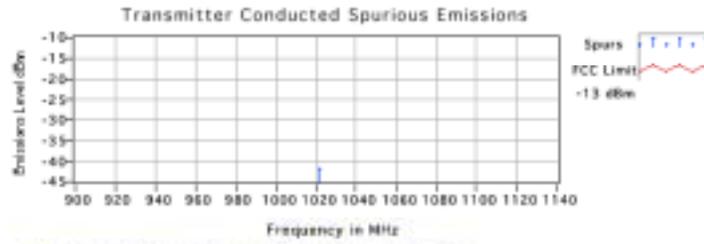
EXHIBIT 6F-4

Transmitter Conducted Spurious Emissions

FREQ: 806.01250 MHz

Power 3.0W

Spur Frequency	FCC Limit	Measured Value (dBm)
1022.00000	-13.0	-42.0



All Transmitter Spurious Emissions Tested to the 10th Harmonic

Motorola Plantation ATE Lab

Wed, Aug 22, 2001

Test Performed By: Jerry Simpson

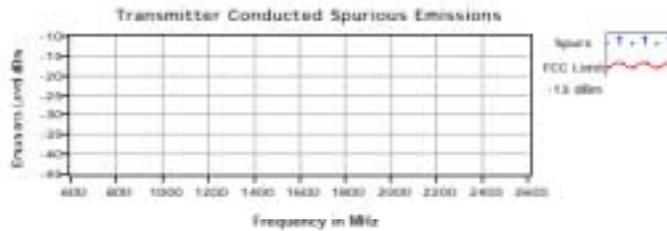
Exhibit 6G – 1 (12.5kHz Ch Sp)

Transmitter Conducted Spurious Emissions

FREQ: 823.98750 MHz

Power 3.0W

Spur Frequency	FCC Limit	Measured Value (dBm)
----------------	-----------	----------------------



All Transmitter Spurious Emissions Tested to the 10th Harmonic

No Spurs Found Above -45 dBm

Motorola Plantation ATE Lab

Wed, Aug 22, 2001

Test Performed By: Jerry Simpson

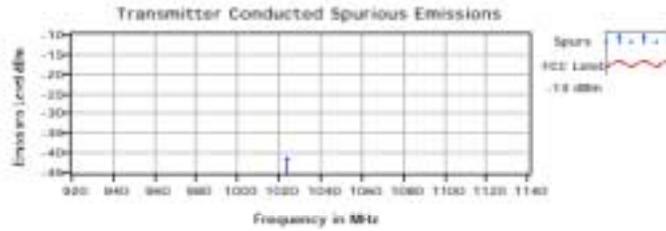
Exhibit 6G – 2 (12.5kHz Ch Sp)

Transmitter Conducted Spurious Emissions

FREQ: 851.01250 MHz

Power 3.0W

Spur Frequency	FCC Limit	Measured Value (dBm)
1024.00000	-13.0	-41.6



All Transmitter Spurious Emissions Tested to the 10th Harmonic

Motorola Plantation ATE Lab

Wed, Aug 22, 2001

Test Performed By: Jerry Simpson

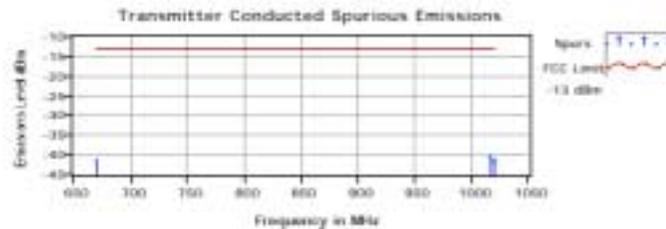
Exhibit 6G – 3 (12.5kHz Ch Sp)

Transmitter Conducted Spurious Emissions

FREQ: 868.98750 MHz

Power 3.0W

Spur Frequency	FCC Limit	Measured Value (dBm)
870.00000	-13.0	-41.6
1017.50000	-13.0	-40.6
1020.00000	-13.0	-41.4



All Transmitter Spurious Emissions Tested to the 10th Harmonic

Motorola Plantation ATE Lab

Wed, Aug 22, 2001

Test Performed By: Jerry Simpson

Exhibit 6G – 4 (12.5kHz Ch Sp)

Power Line Conducted Spurious Emissions

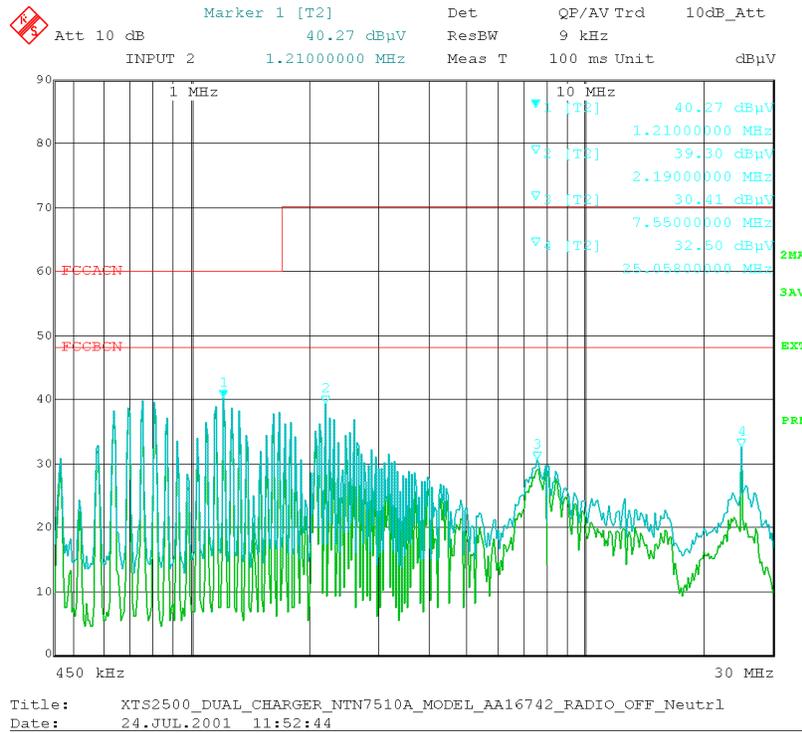


EXHIBIT 6H-1

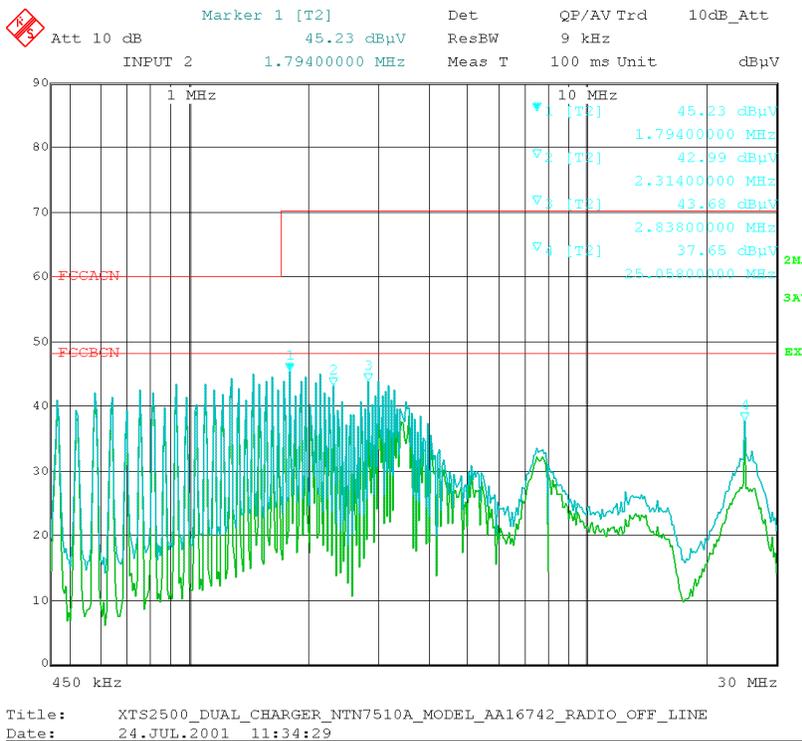


EXHIBIT 6H-2

Power Line Conducted Spurious Emissions

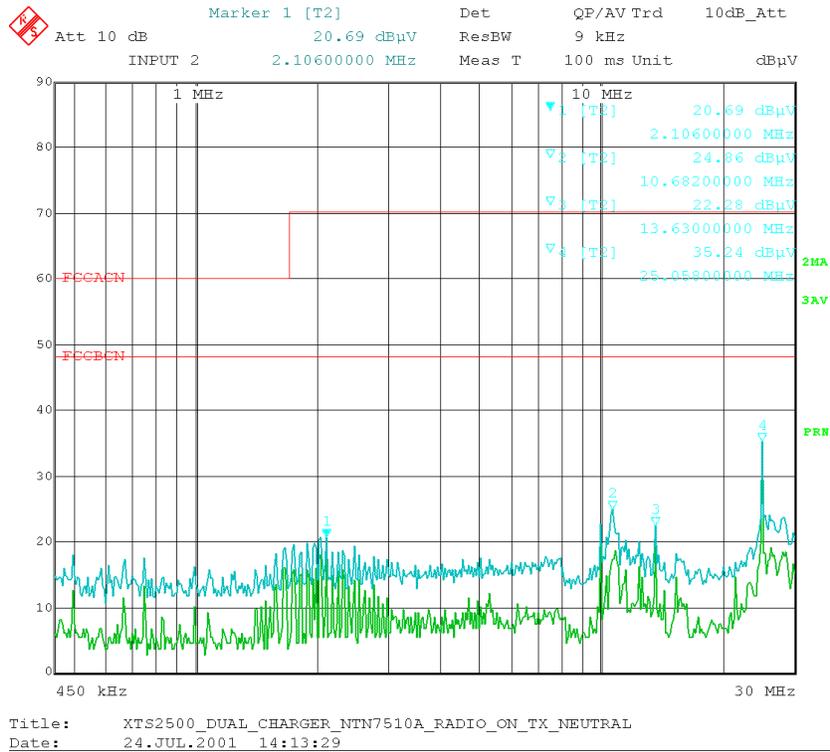


EXHIBIT 6H-3

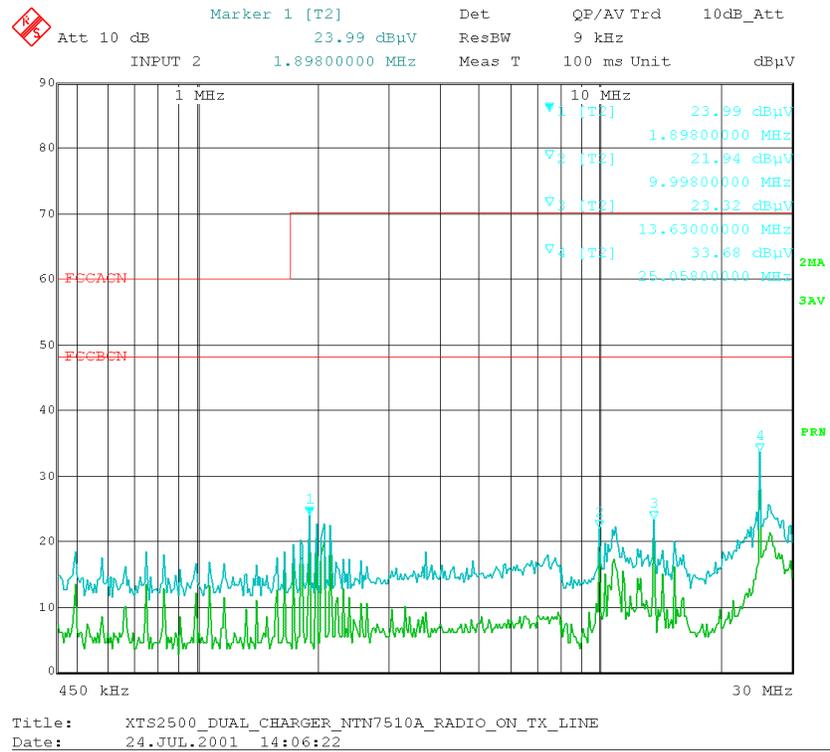


EXHIBIT 6H-4

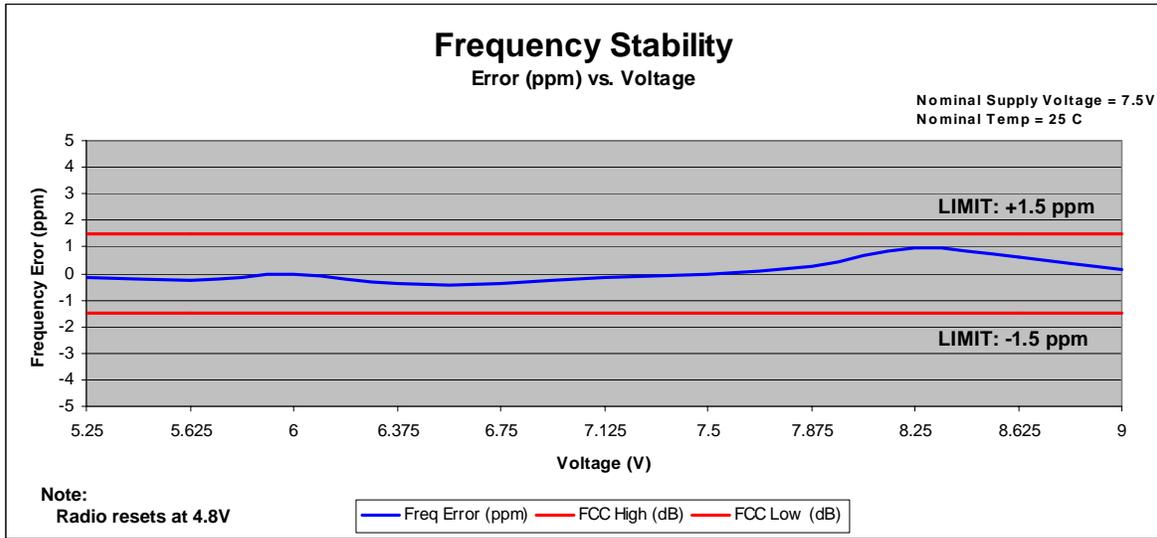


EXHIBIT 6I-1

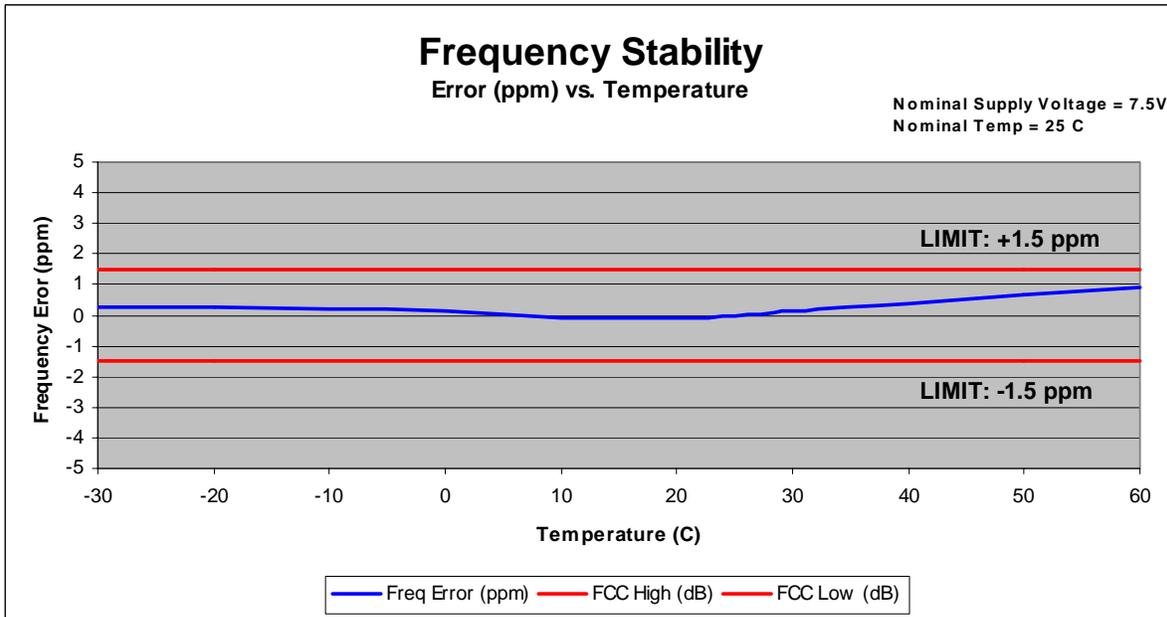


EXHIBIT 6I-2