

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	2
3. Audio Low Pass Filter Response	6C	1
4. Modulation Limiting	6D	2
5. Occupied Bandwidth	6E	8
6. Adjacent Channel Coupled Power Ratio	6F	2
7. Radiated Spurious Emissions	6G	1
8. 1559-1605MHz Rad Emissions (GNSS)	6H	1
9. Conducted Spurious Emissions	6I	1
10. Frequency Stability (Volt/Temp)	6J	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.

775.9875 MHz

Measured RF output: 1.0 Watt
Nominal DC voltage: 7.5 Volts
Nominal DC Current: 886 mAmps
Primary Supply Voltage: 7.5 Volts

Measured RF output: 2.0 Watt
Nominal DC voltage: 7.5 Volts
Nominal DC Current: 1211 mAmps
Primary Supply Voltage: 7.5 Volts

Measured RF output: 2.99 Watts
Nominal DC voltage: 7.5 Volts
Nominal DC Current: 1498 mAmps
Primary Supply Voltage: 7.5 Volts

851.0125

Measured RF output: 1.0 Watt
Nominal DC voltage: 7.5 Volts
Nominal DC Current: 857mAmps
Primary Supply Voltage: 7.5 Volts

Measured RF output: 2.0 Watt
Nominal DC voltage: 7.5 Volts
Nominal DC Current: 1163 mAmps
Primary Supply Voltage: 7.5 Volts

Measured RF output: 3.6Watts
Nominal DC voltage: 7.5 Volts
Nominal DC Current: 1735 mAmps
Primary Supply Voltage: 7.5 Volts

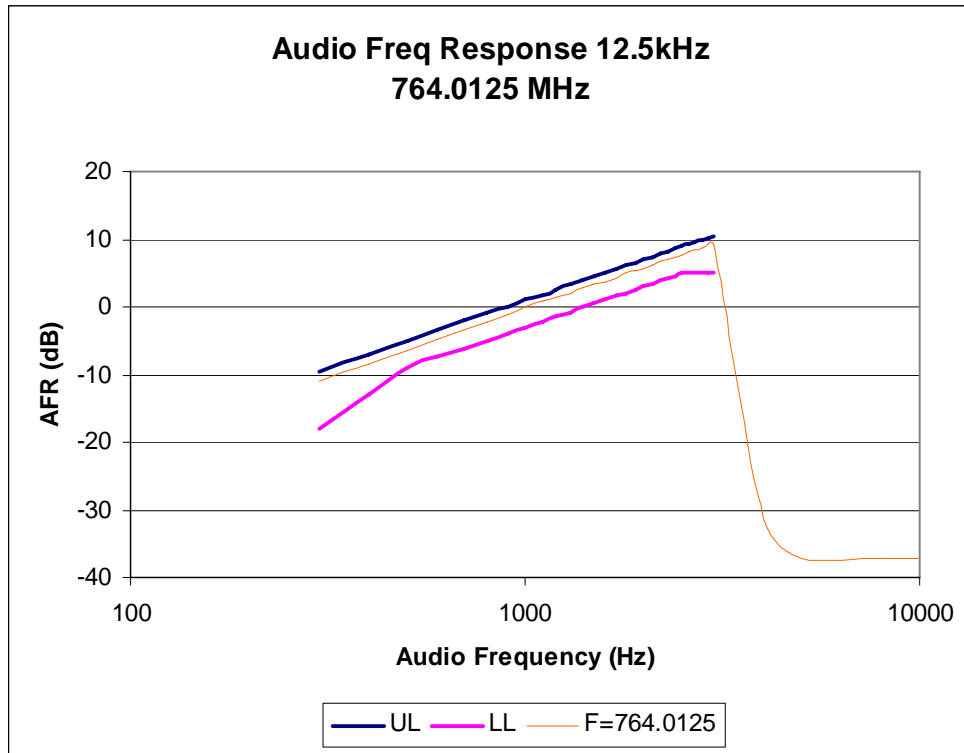
Audio Frequency Response (Freq: 764.0125 MHz, ChSp: 12.5 kHz)

Exhibit 6B-1

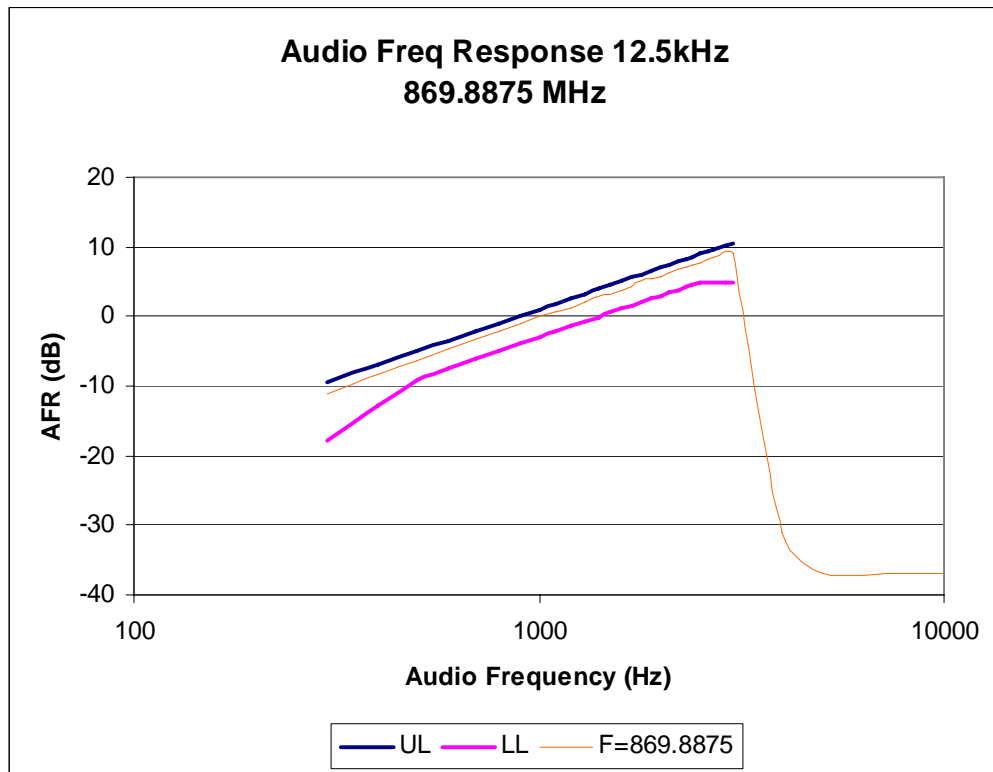
Audio Frequency Response (Freq: 869.8875 MHz, ChSp: 12.5 kHz)

Exhibit 6B-2

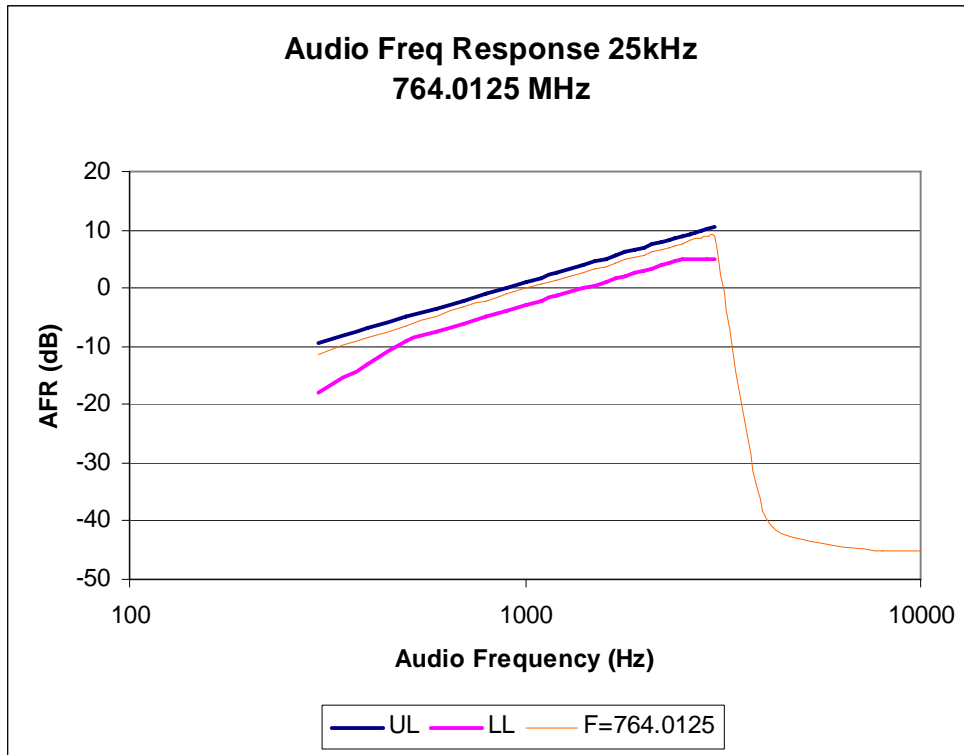
Audio Frequency Response (Freq: 764.0125 MHz, ChSp: 25 kHz)

Exhibit 6B-3

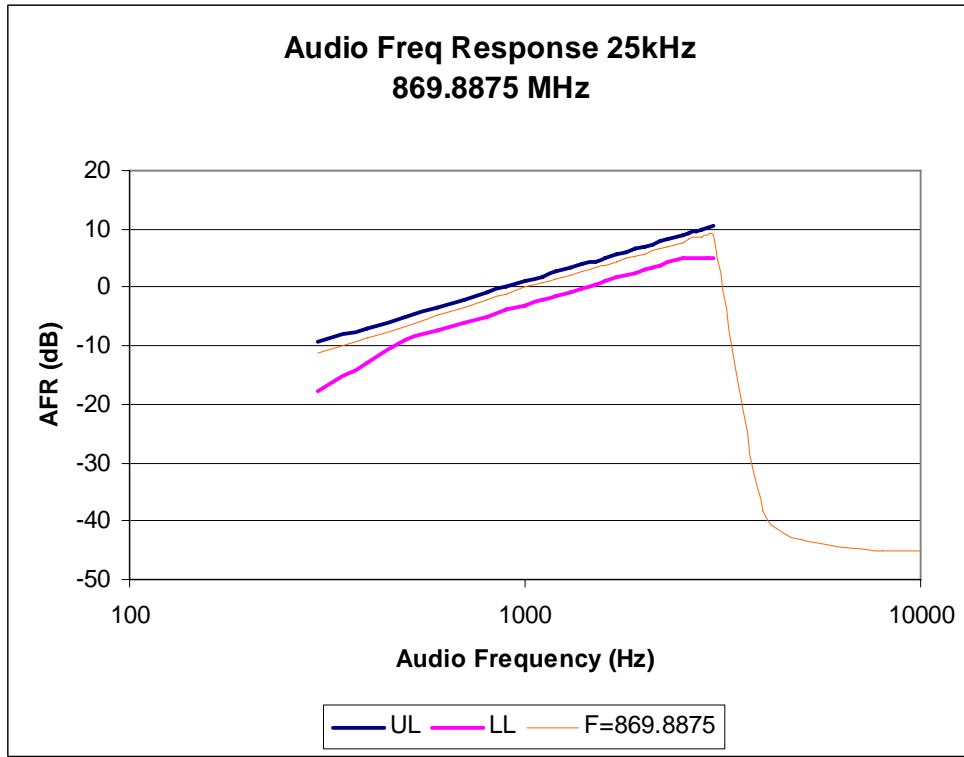
Audio Frequency Response (Freq: 869.8875 MHz, ChSp: 25 kHz)

Exhibit 6B-4

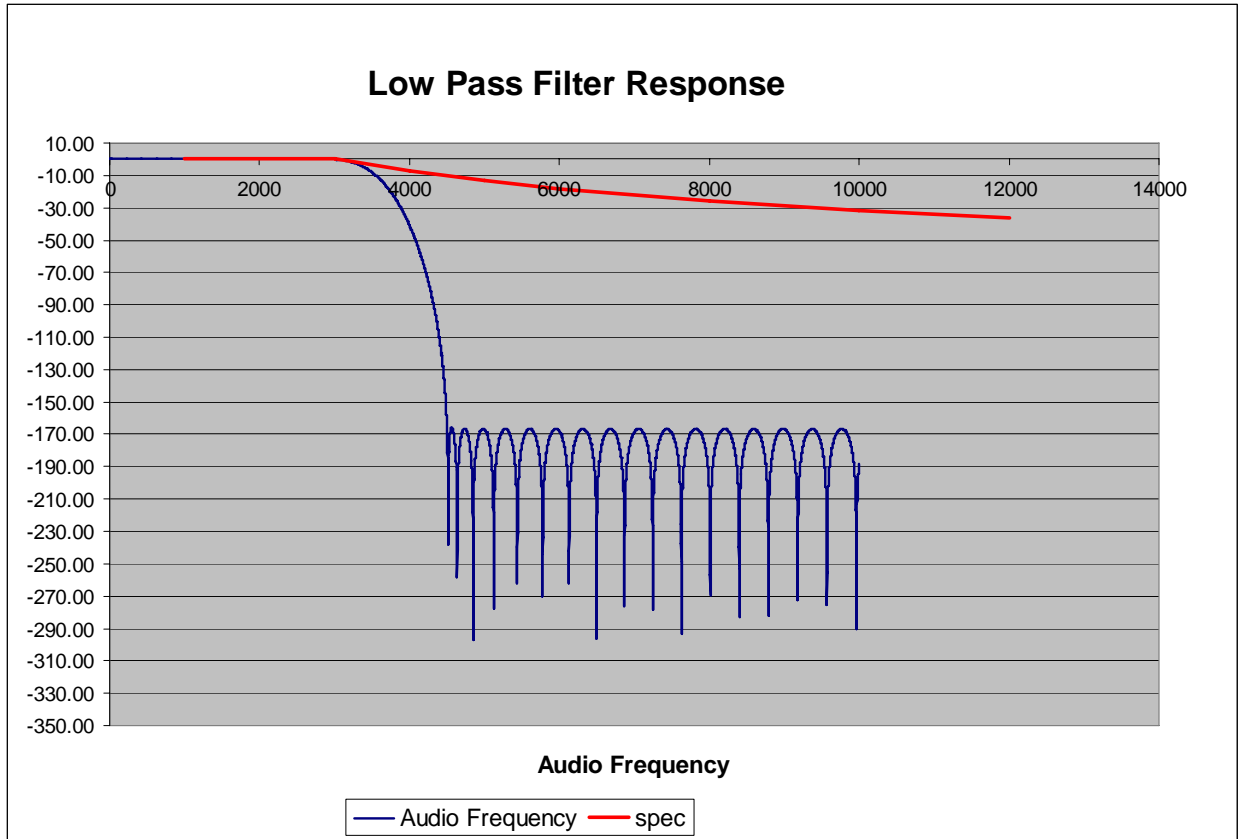
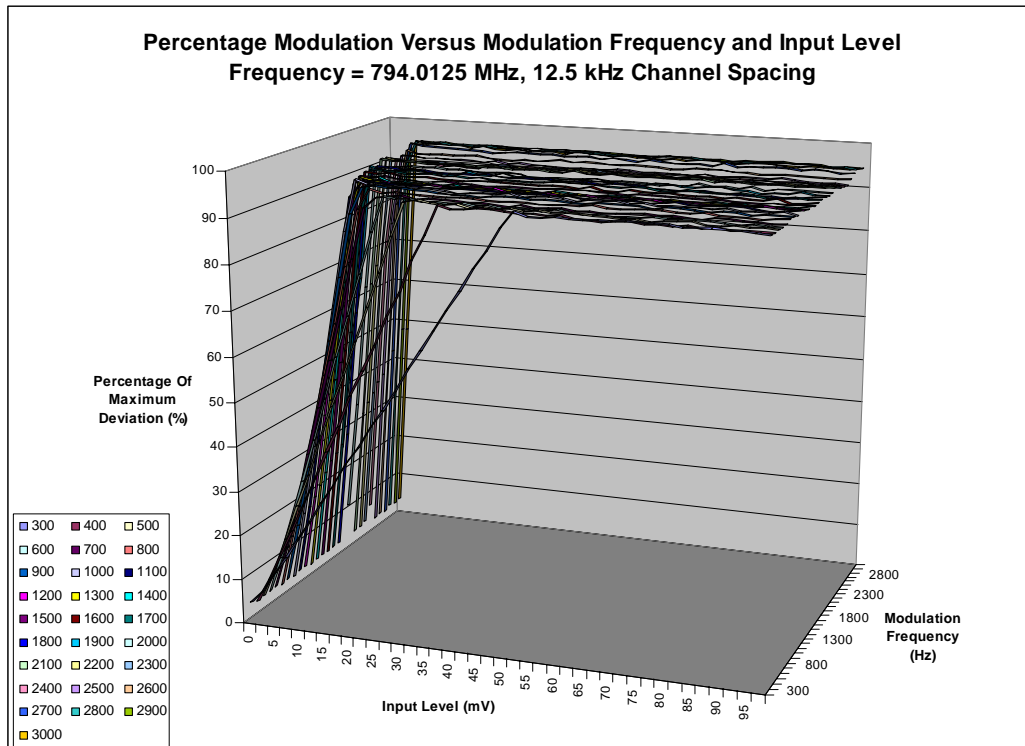
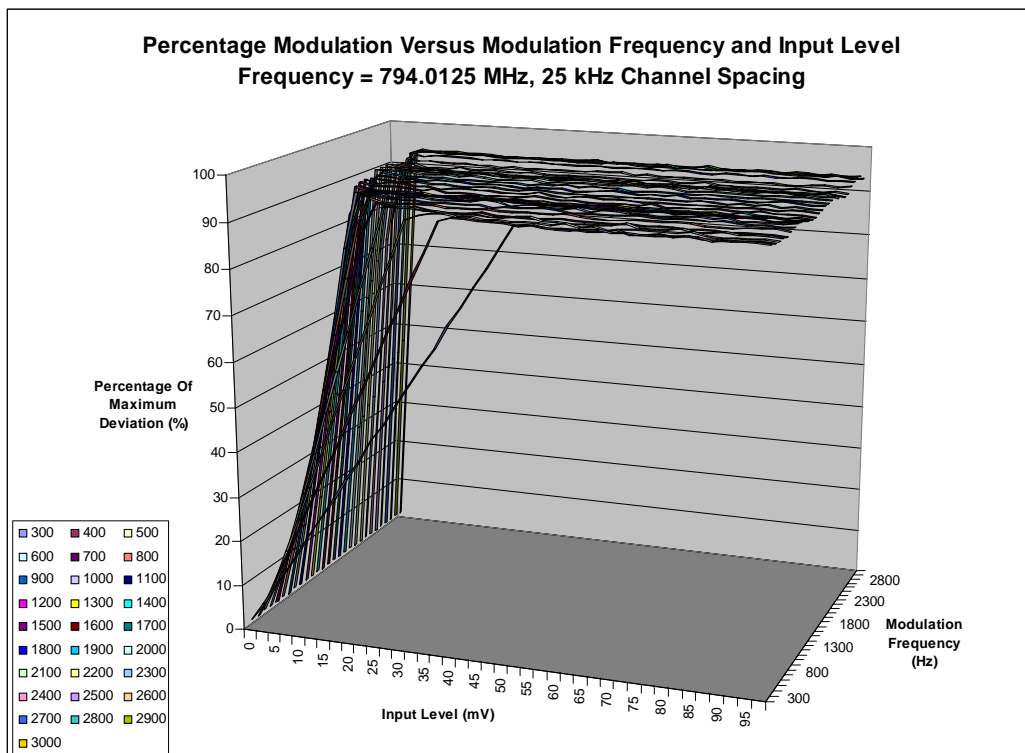


EXHIBIT 6C

Modulation Limiting

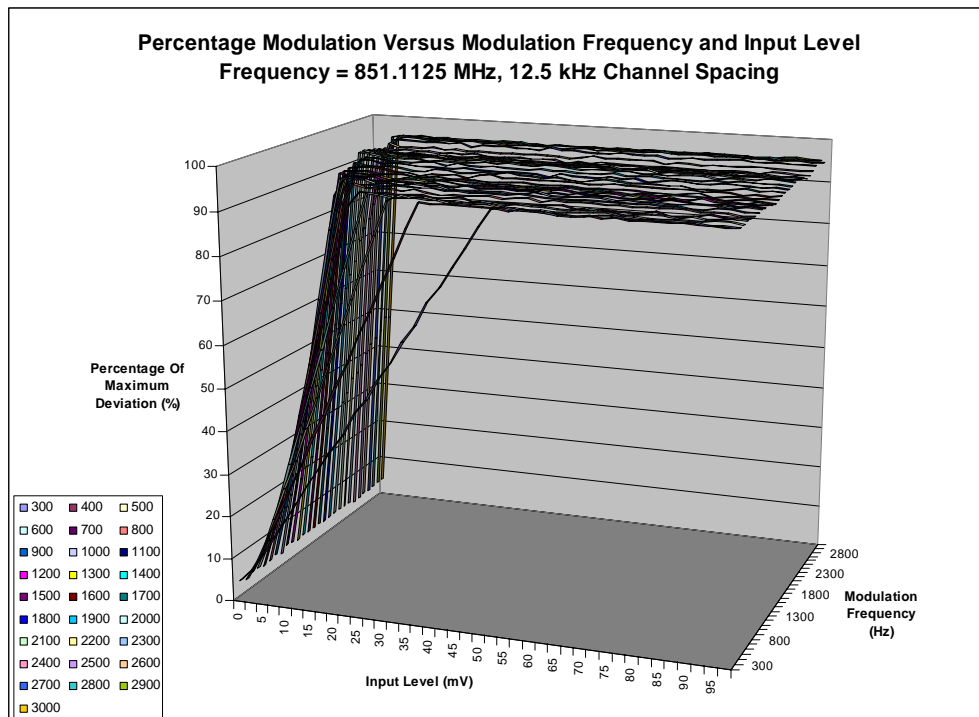
The Percentage of Max. Deviation on the "Z" axis is referenced to 2.5kHz for 12.5kHz bandwidth

Exhibit 6D-1



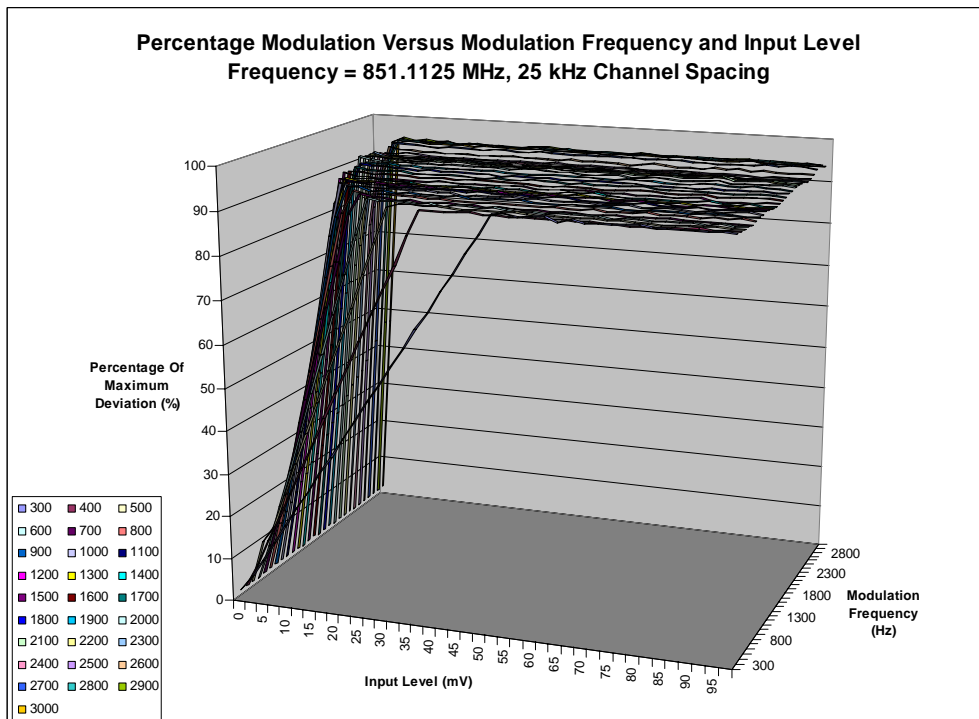
The Percentage of Max. Deviation on the "Z" axis is referenced to 5.0kHz for 25kHz bandwidth

Exhibit 6D-2

Modulation Limiting

The Percentage of Max. Deviation on the "Z" axis is referenced to 2.5kHz for 12.5kHz bandwidth

Exhibit 6D-3



The Percentage of Max. Deviation on the "Z" axis is referenced to 5.0kHz for 25kHz bandwidth

Exhibit 6D-4

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: $BW = 2 * (M + D)$ where: BW = Bandwidth

M= Maximum modulating frequency
D = Deviation

Shown below are the calculations required for FCC ID: AZ489FT5859.

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.

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

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

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

EXHIBIT 6E-4

Digital (12.5 kHz Channelization, Digital Voice):

Emission Designator 8K10F1E

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-5

Digital (12.5 kHz Channelization, Digital TDMA):

Emission Designator 8K10F1W

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).

F1W portion of the designator indicates digital TDMA.

Therefore, the entire designator for 12.5 kHz channelization digital TDMA is 8K10F1W.

EXHIBIT 6E-6

Digital Modulation (20 kHz Channelization, Analog Voice with encryption):

Emission Designator 20K0F1E

In this case, the maximum modulating frequency is 6 kHz with a 4 kHz deviation.

$$BW = 2(M+D) = 2*(6 \text{ kHz} + 4 \text{ kHz}) = 20 \text{ kHz} \Rightarrow 20K0$$

F1E portion of the designator indicates digital voice.

Therefore, the entire designator for 20 kHz channelization analog voice is 20K0F1E.

EXHIBIT 6E

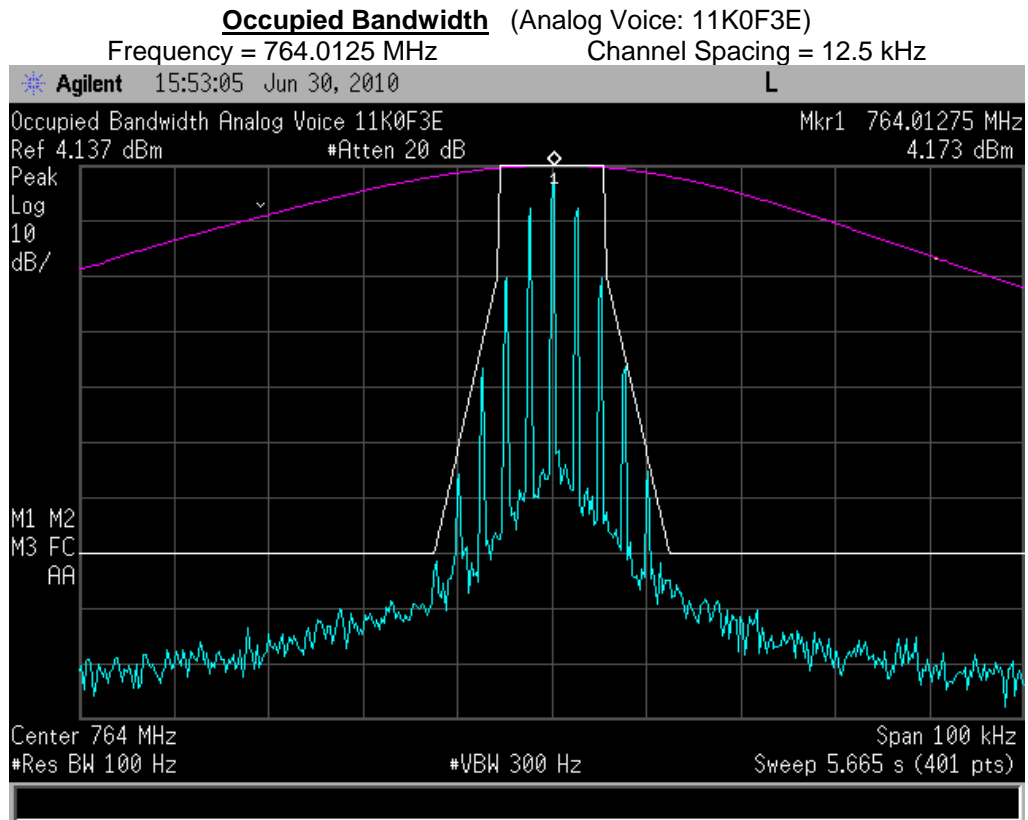


Exhibit 6E-1

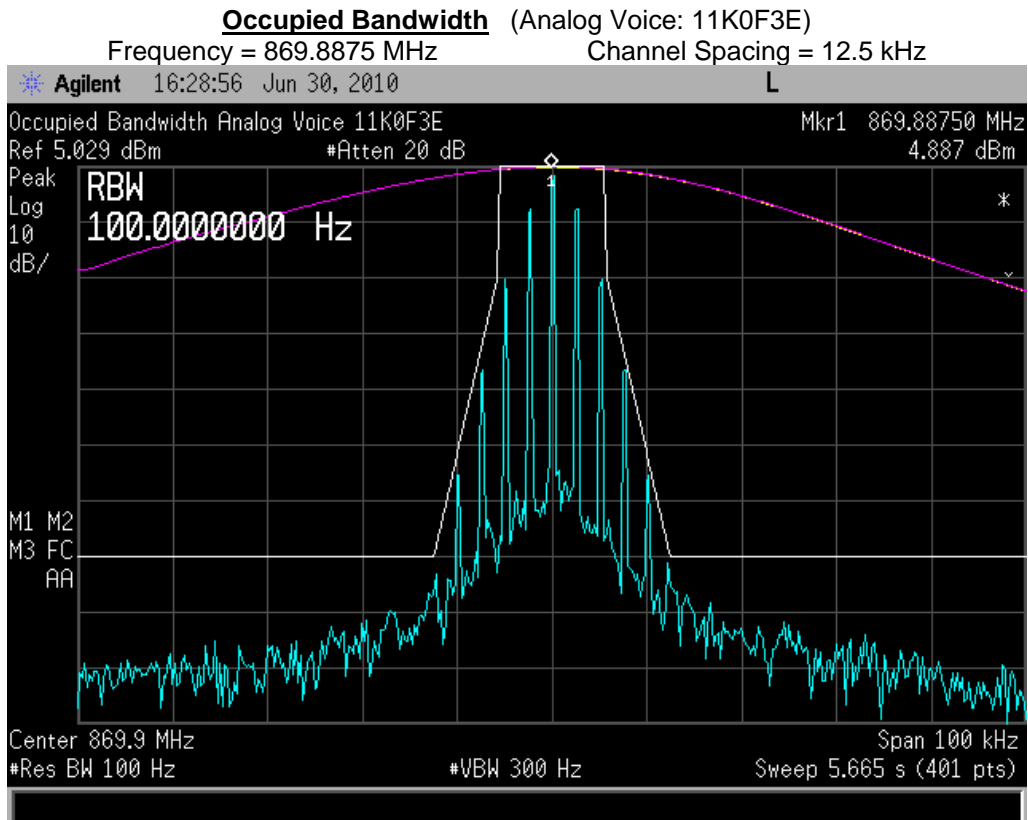


Exhibit 6E-2

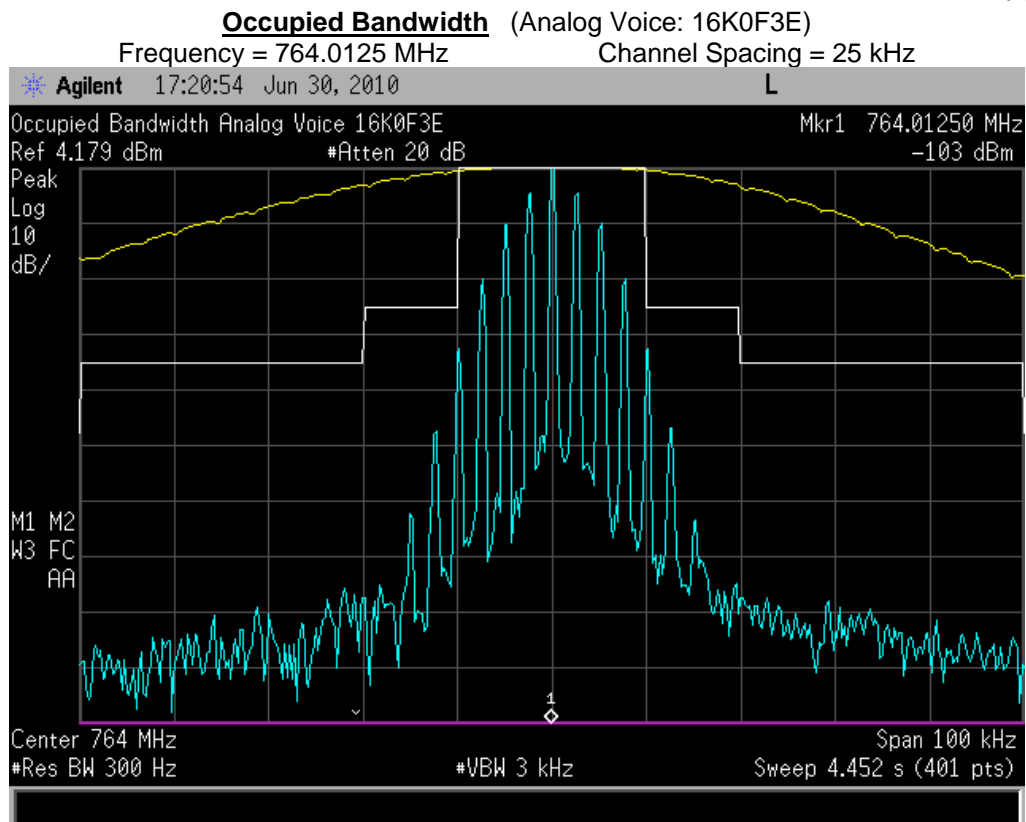


Exhibit 6E-3

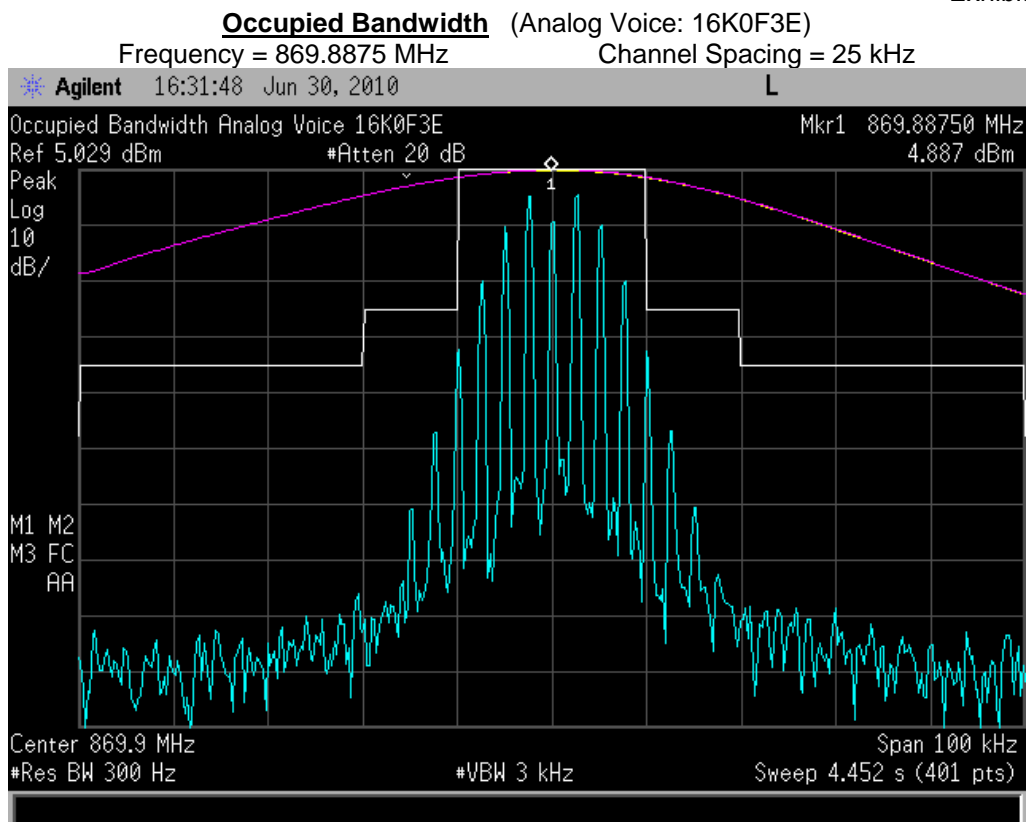


Exhibit 6E-4

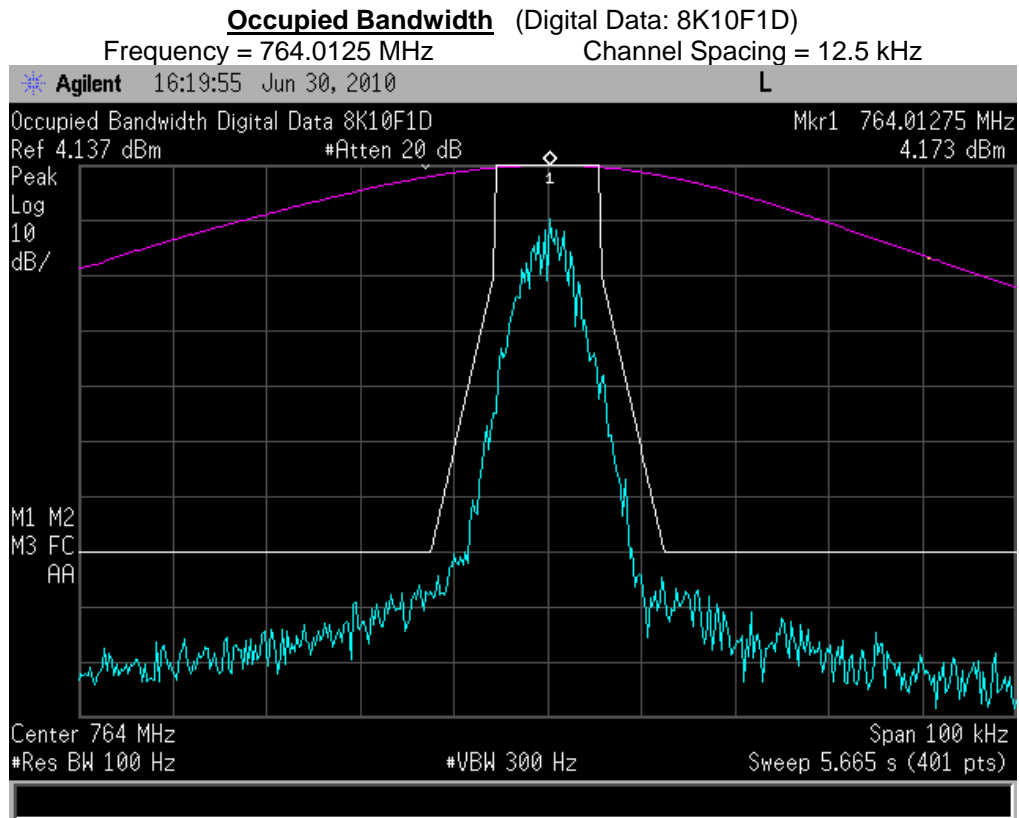


Exhibit 6E-5

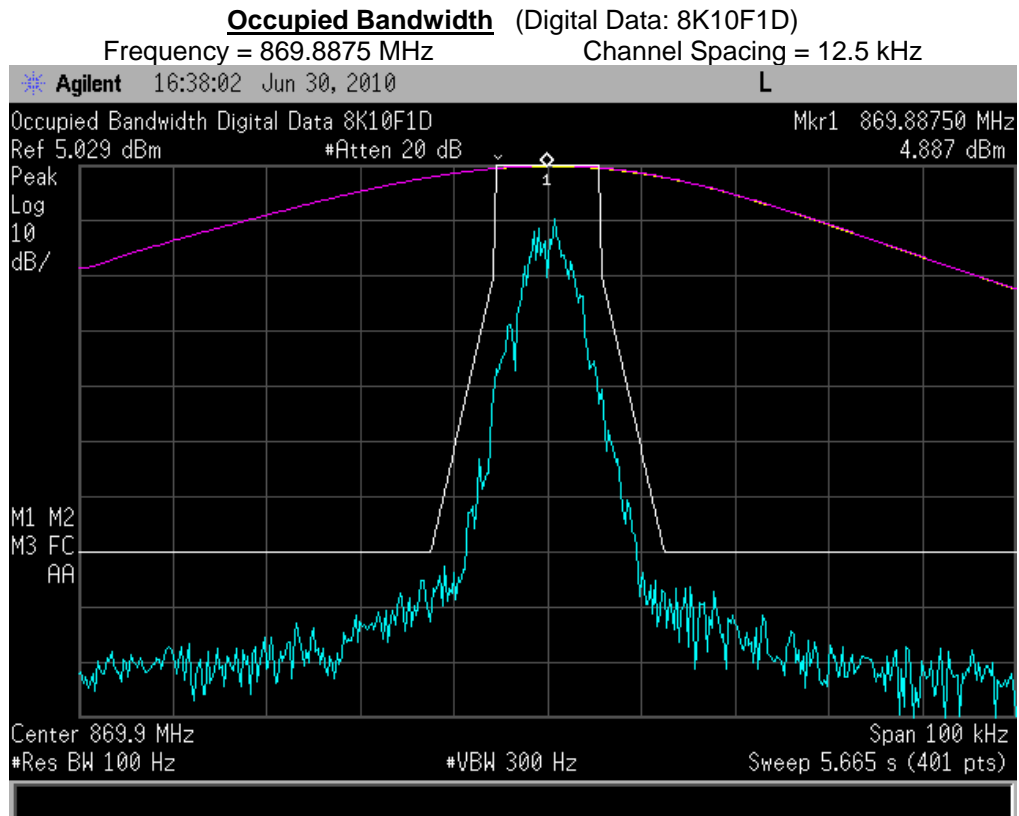


Exhibit 6E-6

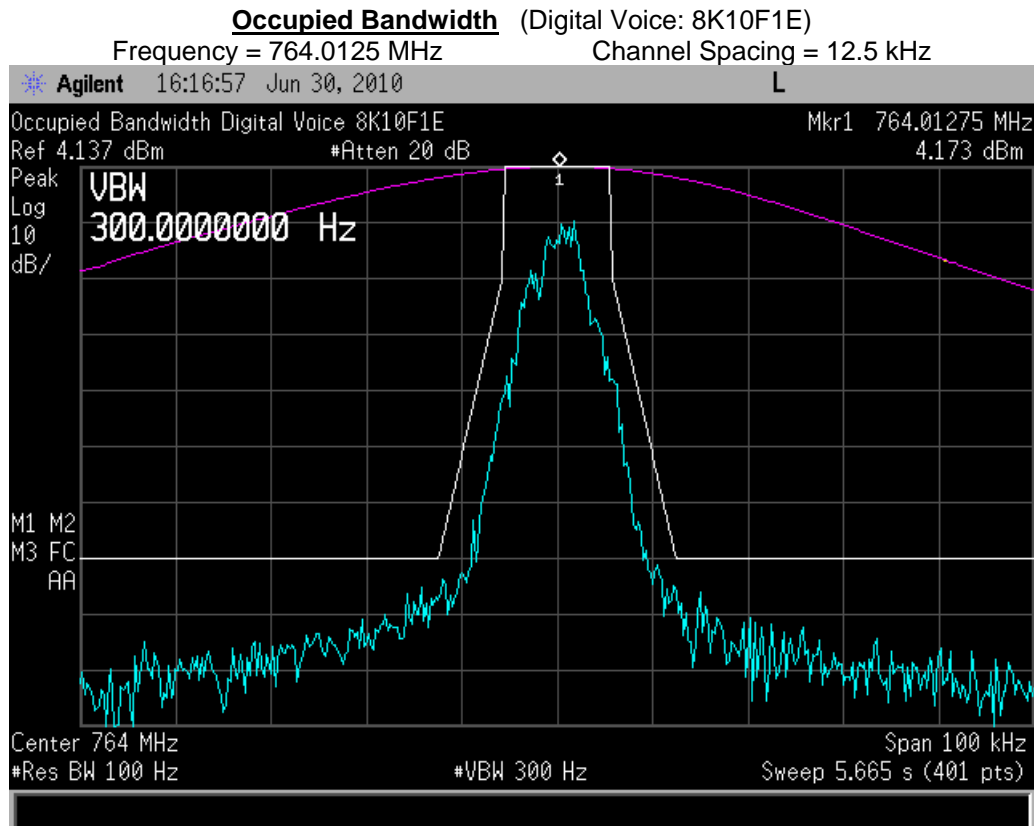


Exhibit 6E-7

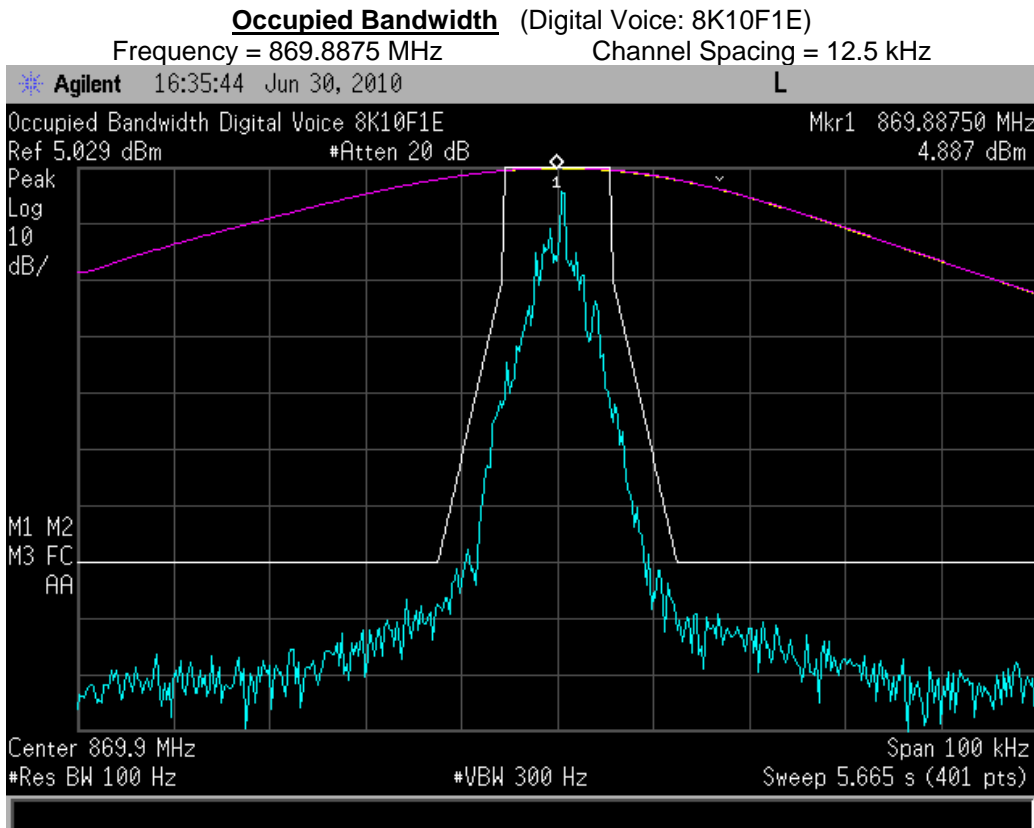


Exhibit 6E-8

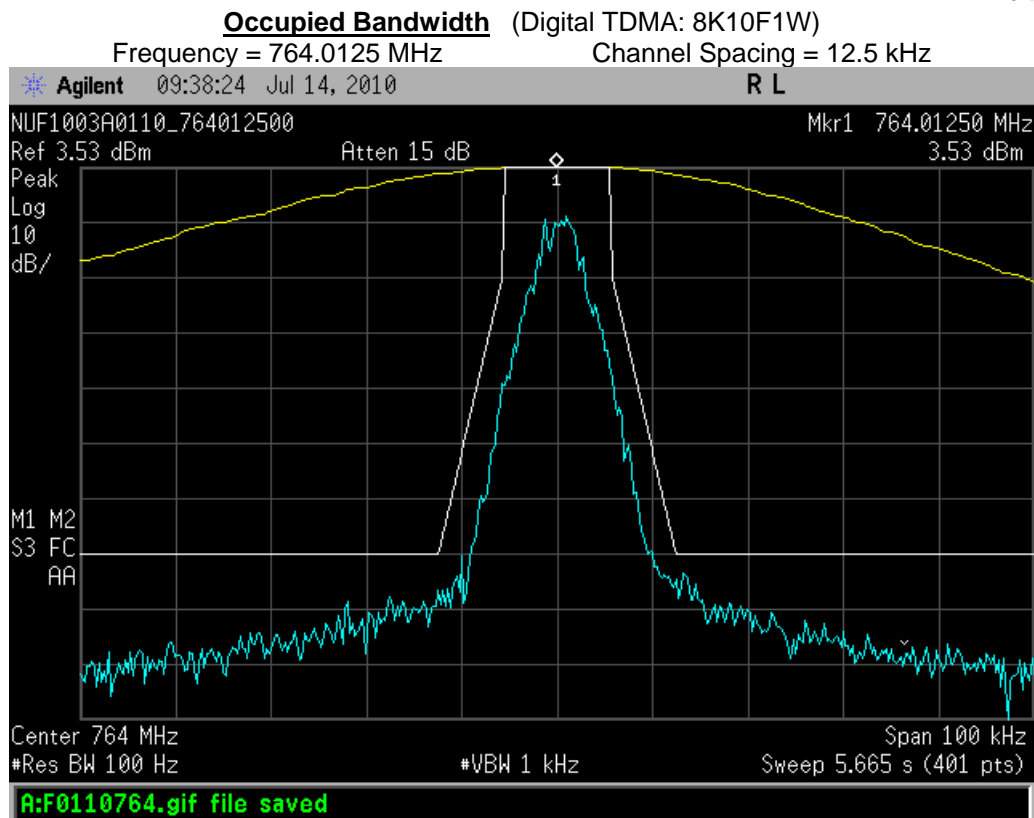


Exhibit 6E-9

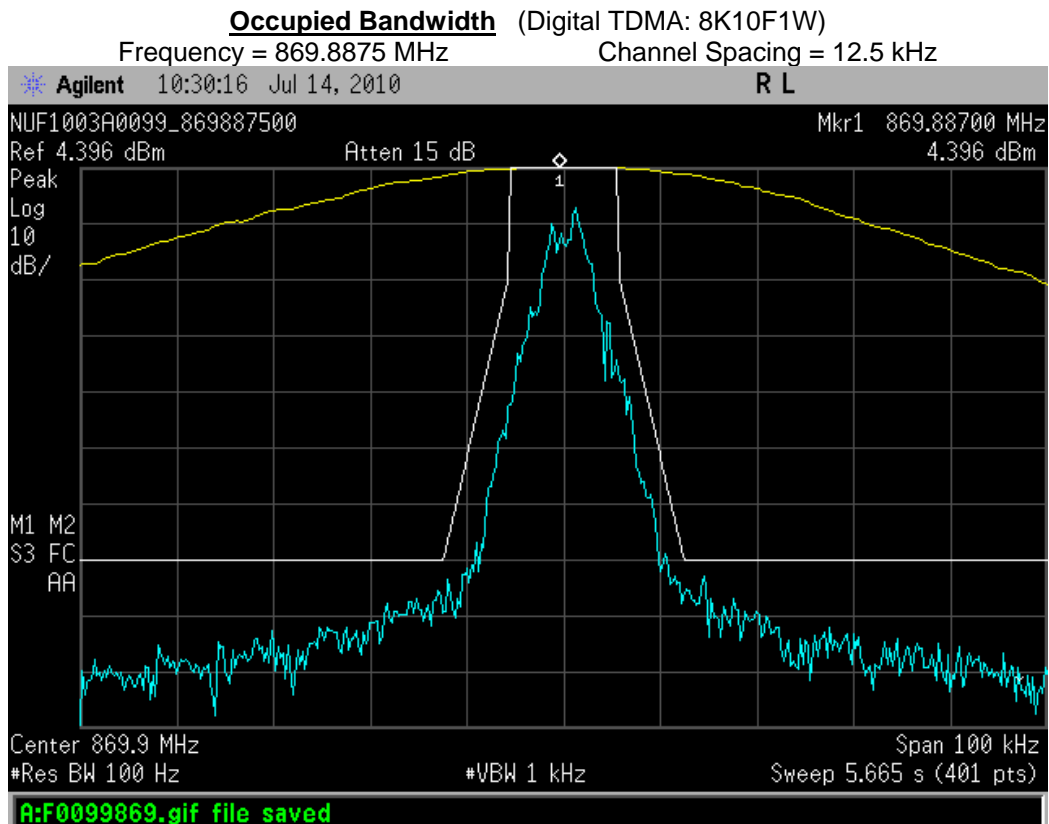


Exhibit 6E-10

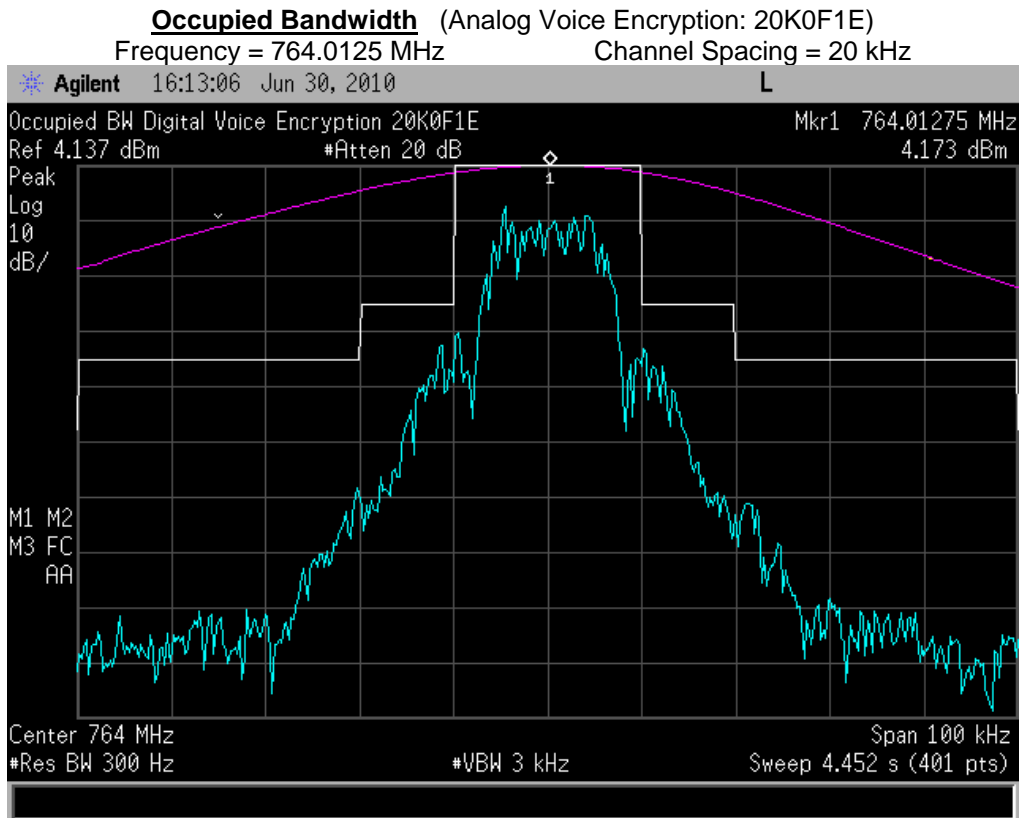


Exhibit 6E-11

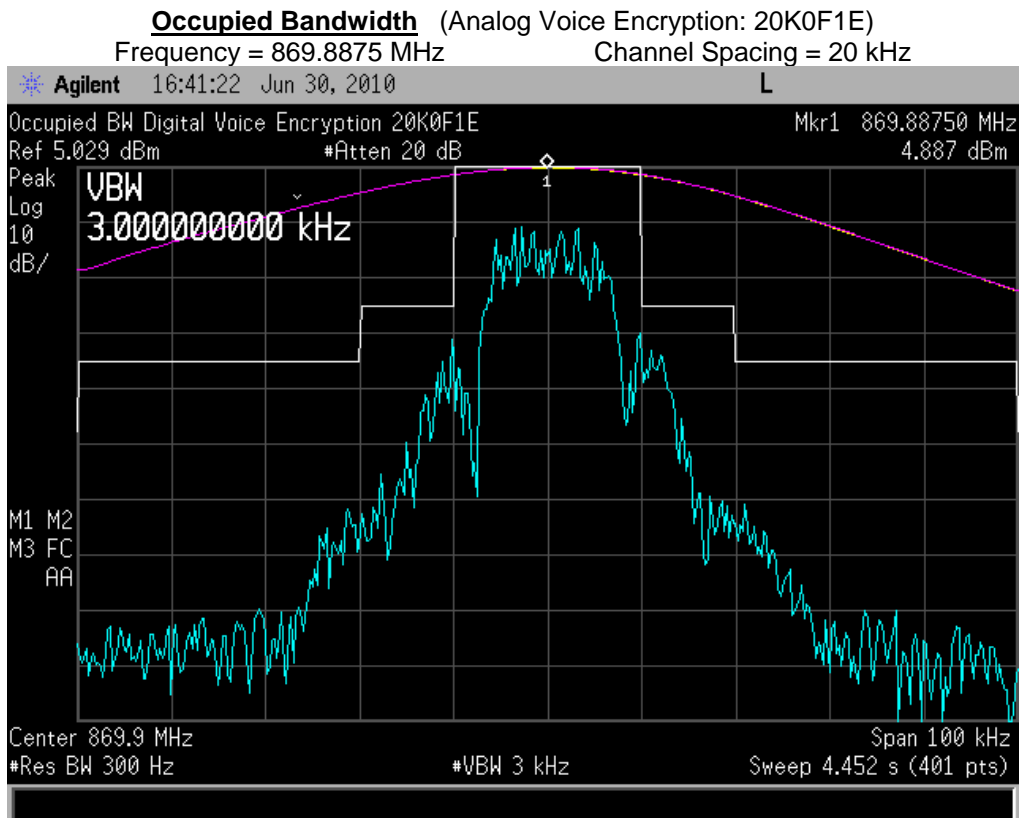


Exhibit 6E-12

Adjacent Channel Coupled Power Ratio

ANALOG 12.5 kHz Channel Spacing			772.0125 MHz		
Offset (kHz)	Meas BW (kHz)		Lower	Upper	Spec (dB)
9.375	6.25		-48.3	-50.17	-40
15.625	6.25		-76.9	-76.6	-60
21.875	6.25		-80.4	-80.3	-60
37.500	25.00		-77.6	-77.6	-60
62.500	25.00		-83.2	-83.3	-65
87.500	25.00		-85.5	-85.2	-65
150.000	100.00		-79.1	-79.1	-65
250.000	100.00		-82.8	-82.6	-65
350.000	100.00		-86.1	-86.0	-65
400k - 12M	30 (swept)		< -75	< -75	-75
12M - RX	30 (swept)		< -75	< -75	-75
RX Band	30 (swept)		< -100	< -100	-100

Exhibit 6F-1

ANALOG 25 kHz Channel Spacing			772.0125 MHz		
Offset (kHz)	Meas BW (kHz)		Lower	Upper	Spec (dB)
15.625	6.25		-72.3	-72.7	-40
21.875	6.25		-80.7	-80.4	-60
37.500	25.00		-77.7	-77.9	-60
62.500	25.00		-83.7	-83.4	-65
87.500	25.00		-85.1	-85.1	-65
150.000	100.00		-78.6	-78.5	-65
250.000	100.00		-81.7	-81.9	-65
350.000	100.00		-84.5	-84.2	-65
400k - 12M	30 (swept)		< -75	< -75	-75
12M - RX	30 (swept)		< -75	< -75	-75
RX Band	30 (swept)		< -100	< -100	-100

Exhibit 6F-2

Adjacent Channel Coupled Power Ratio

APCO 12.5 kHz Channel Spacing			Voice	772.0125 MHz	
Offset (kHz)	Meas BW (kHz)		Lower	Upper	Spec (dB)
9.375	6.25		-41.6	-43.0	-40
15.625	6.25		-77.2	-76.9	-60
21.875	6.25		-80.6	-80.5	-60
37.500	25.00		-77.2	-77.3	-60
62.500	25.00		-83.5	-83.2	-65
87.500	25.00		-85.1	-85.0	-65
150.000	100.00		-79.8	-79.8	-65
250.000	100.00		-83.5	-83.4	-65
350.000	100.00		-86.9	-87.0	-65
400k - 12M	30 (swept)		< -75	< -75	-75
12M - RX	30 (swept)		< -75	< -75	-75
RX Band	30 (swept)		< -100	< -100	-100

Exhibit 6F-3

APCO 12.5 kHz Channel Spacing		Digital Data		772.0125 MHz		
Offset (kHz)	Meas BW (kHz)		Lower		Upper	Spec (dB)
9.375	6.25		-40.5		-42.6	-40
15.625	6.25		-76.9		-76.8	-60
21.875	6.25		-80.5		-80.4	-60
37.500	25.00		-78.3		-77.7	-60
62.500	25.00		-83.7		-83.1	-65
87.500	25.00		-85.1		-85.4	-65
150.000	100.00		-78.9		-78.9	-65
250.000	100.00		-82.8		-82.9	-65
350.000	100.00		-86.0		-85.8	-65
400k - 12M	30 (swept)		< -75		< -75	-75
12M - RX	30 (swept)		< -75		< -75	-75
RX Band	30 (swept)		< -100		< -100	-100

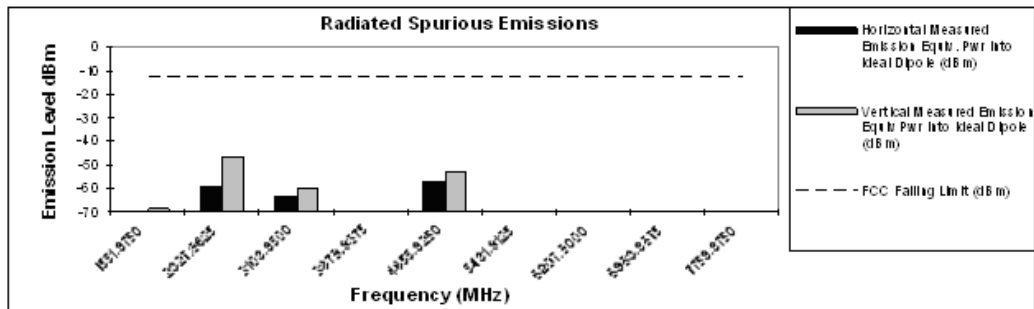
Exhibit 6F-4

12.5 kHz Channel Spacing		F2 Mode	772.0125 MHz			
Offset (kHz)	Meas BW (kHz)		Lower		Upper	Spec (dB)
9.375	6.25		-41.2		-43.5	-40
15.625	6.25		-75.4		-75.7	-60
21.875	6.25		-79.3		-79.2	-60
37.500	25.00		-77.7		-77.9	-60
62.500	25.00		-82.6		-81.9	-65
87.500	25.00		-84.6		-84.5	-65
150.000	100.00		-78.9		-78.7	-65
250.000	100.00		-82.0		-81.8	-65
350.000	100.00		-84.2		-84.2	-65
400k - 12M	30 (swept)		< -75		< -75	-75
12M - RX	30 (swept)		< -75		< -75	-75
RX Band	30 (swept)		< -100		< -100	-100

Exhibit 6F-5

Transmit Radiated Spurious Emissions: APX6000 NUF1007**Tx Power: 2.99 Watts****775.9875 MHz****Channel Spacing 25kHz | S/N A0169**

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1551.9750	-13	-72.57	-68.64
2327.9625	-13	-59.29	-46.44
3103.9500	-13	-63.16	-59.37
3879.9375	-13	*	*
4655.9250	-13	-56.77	-53.06
5431.9125	-13	*	*
6207.9000	-13	*	*
6983.8875	-13	*	*
7759.8750	-13	*	*

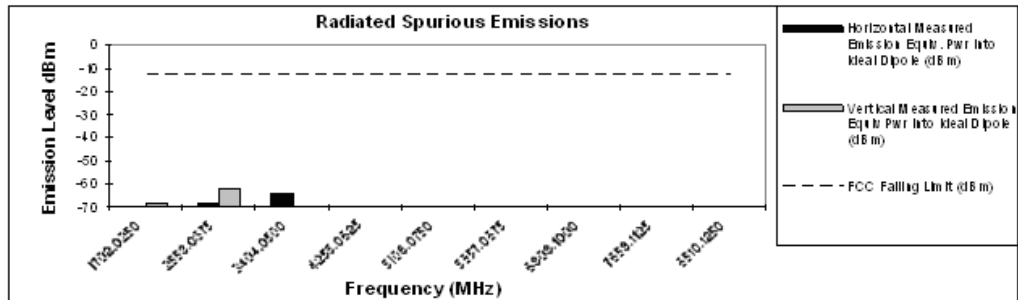


* Indicates the spurious emission could not be detected due to noise limitations or ambients.

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: Andy Gessner**August 7, 2010****FCC Registration: 91932 / Industry Canada: IC109U-1****Exhibit 6G-1****Transmit Radiated Spurious Emissions: APX6000 NUF1007****Tx Power: 2.99 Watts****851.0125 MHz****Channel Spacing 25kHz | S/N A0169**

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1702.0250	-13	*	-68.09
2553.0375	-13	-68.20	-61.73
3404.0500	-13	-64.05	*
4255.0625	-13	*	*
5106.0750	-13	*	*
5957.0875	-13	*	*
6808.1000	-13	*	*
7659.1125	-13	*	*
8510.1250	-13	*	*



* Indicates the spurious emission 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: Curt Mc Lennan**August 9, 2010****FCC Registration: 91932 / Industry Canada: IC109U-1****Exhibit 6G-2**

1559-1605MHz Radiated Emissions (GNSS)

GNSS Testing				
At 10 Meters ERP, ADD +2.15 dB for EIRP				
Date:	8/9/2010	EMC#: EMC07122010-278	Temp: 87F 64%	
Product:	APX6000 NUF1007 BT/Sec	S/N A0169	Channel Spacing: 25kHz	
		Notes:	GNSS	
Tx Freq.	794.0125			
		Horizontal Radiated	Vertical Radiated	
		Spur. Emiss. (dBm)	Spur. Emiss. (dBm)	
Spur	Frequency MHz			
2XFund	1588.0250	-45.78	-48.45	
		Notes:	GNSS	
Tx Freq.	802.5000			
		Horizontal Radiated	Vertical Radiated	
		Spur. Emiss. (dBm)	Spur. Emiss. (dBm)	
Spur	Frequency MHz			
2XFund	1605.0000	-48.4	-50.19	
		Notes:	GNSS	

Exhibit 6H-1

Transmitter Conducted Emissions

Spurious response was measured at 775.8875 and 851.1125 MHz. All Frequencies were measured beyond the tenth harmonic. No spurs were measured above the measurement noise floor of -60 dBm.

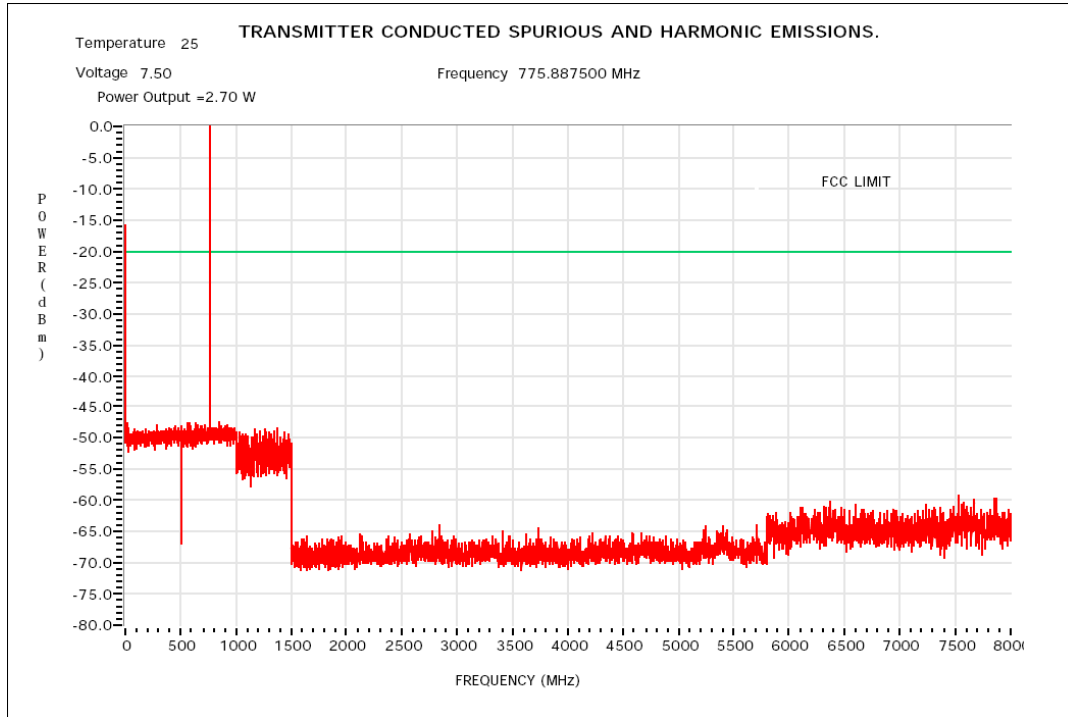


Exhibit 6I-1

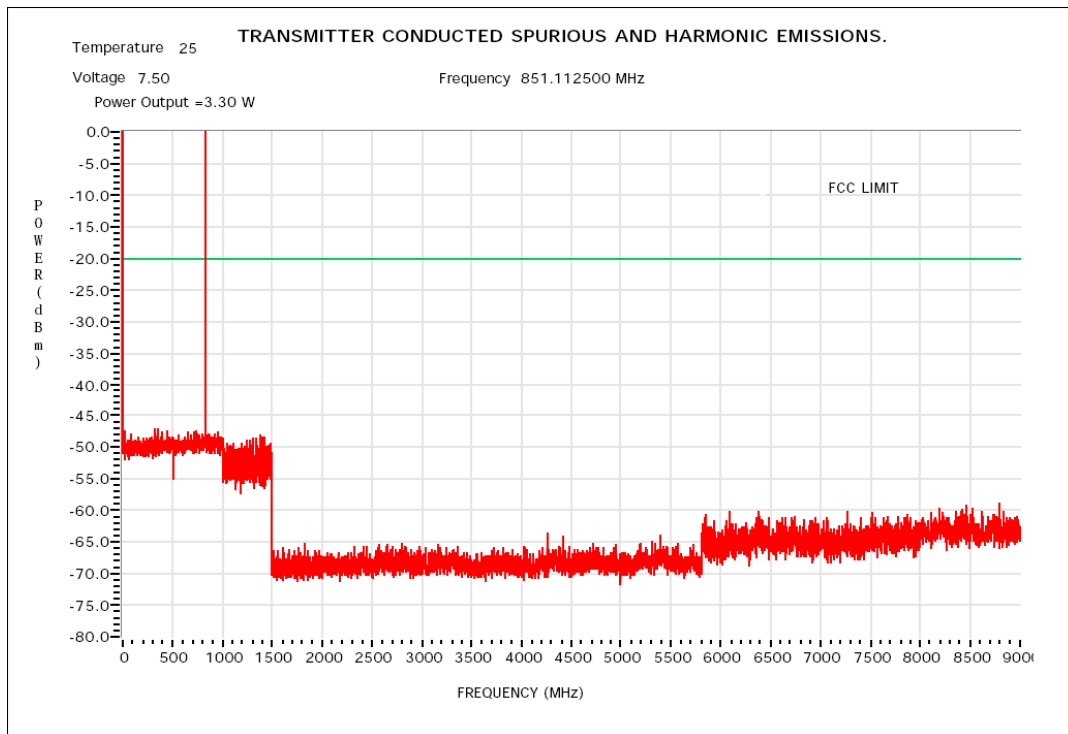


Exhibit 6I-2

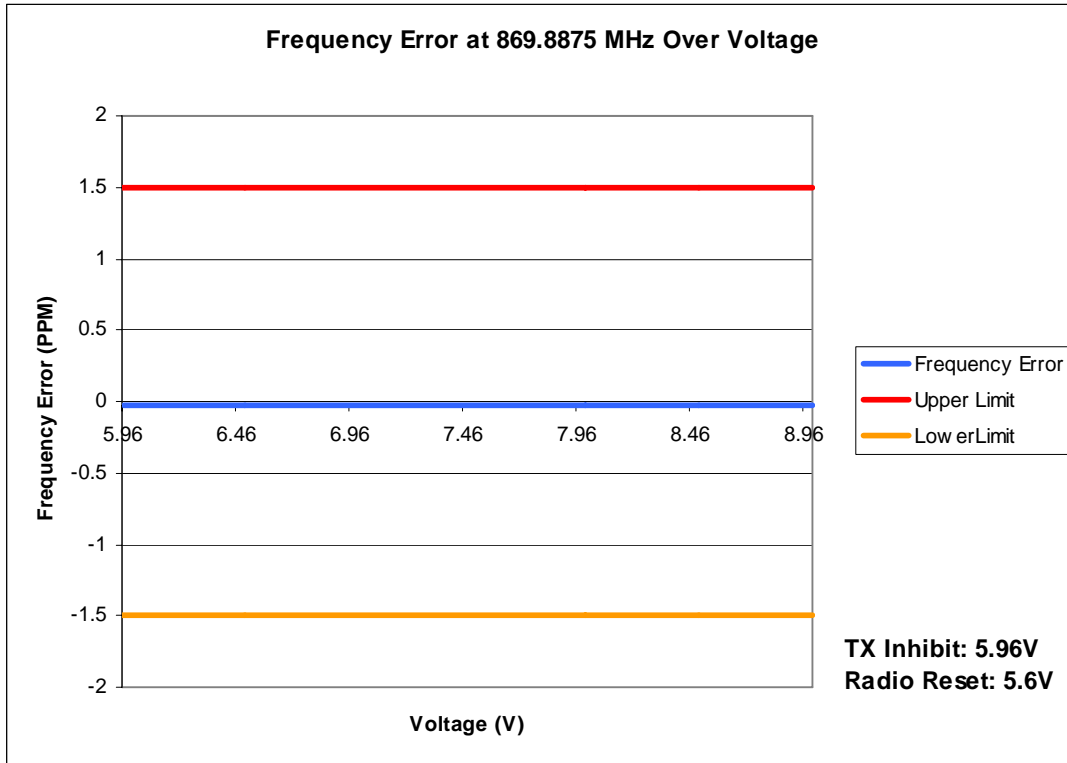
Frequency Stability

Exhibit 6J-1

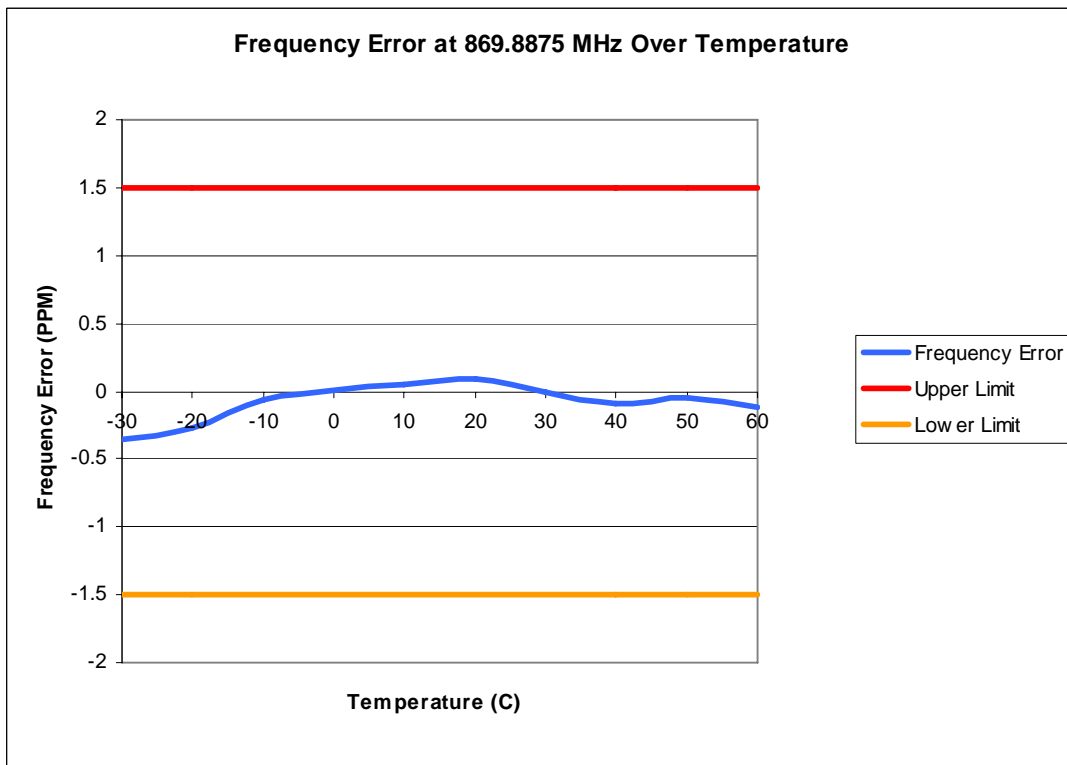


Exhibit 6J-2