

**EXHIBIT 6**

**INDEX OF SUBMITTED MEASURED DATA**

**This exhibit contains the measured data for this equipment as follows:**

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**EXHIBIT 6B** – Audio Frequency Response

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6H-3 - Max Power 511.9875 MHz, 12.5 kHz Channel Spacing

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**EXHIBIT 6I** – Transient Frequency Behavior

6I-1 – 481.0125 MHz, 12.5 kHz Channel Spacing – Transmitter On

6I-2 – 481.0125 MHz, 12.5 kHz Channel Spacing – Transmitter Off

EXHIBIT 6A

RF Conducted Power Output Data -- Pursuant 47 CFR 2.1046(a), 2.1033(c)(6), 2.1033(c)(7) and 2.1033(c)(8)

**Frequency = 450.0125 MHz:**

Output RF power	1.00 Watts
DC Voltage	7.50 Volts
DC Current	0.93 Amps

Output RF power	3.00 Watts
DC Voltage	7.50 Volts
DC Current	1.37 Amps

Output RF power	5.6 Watts
DC Voltage	7.50 Volts
DC Current	1.79 Amps

**Frequency = 481.0125 MHz:**

Output RF power	1.00 Watts
DC Voltage	7.50 Volts
DC Current	0.98 Amps

Output RF power	3.00 Watts
DC Voltage	7.50 Volts
DC Current	1.48 Amps

Output RF power	5.60 Watts
DC Voltage	7.50 Volts
DC Current	1.91 Amps

**Frequency= 511.9875 MHz:**

Output RF power	1.00 Watts
DC Voltage	7.50 Volts
DC Current	0.97 Amps

Output RF power	3.00 Watts
DC Voltage	7.50 Volts
DC Current	1.48 Amps

Output RF power	5.60 Watts
DC Voltage	7.50 Volts
DC Current	1.90 Amps

**EXHIBIT 6B**

**Transmit Audio Response** - Pursuant 47 CFR 2.1047 and 2.1033(c) (13)

**Audio Frequency Response**  
(Freq: 481.0125MHz, ChSp: 12.5 kHz)

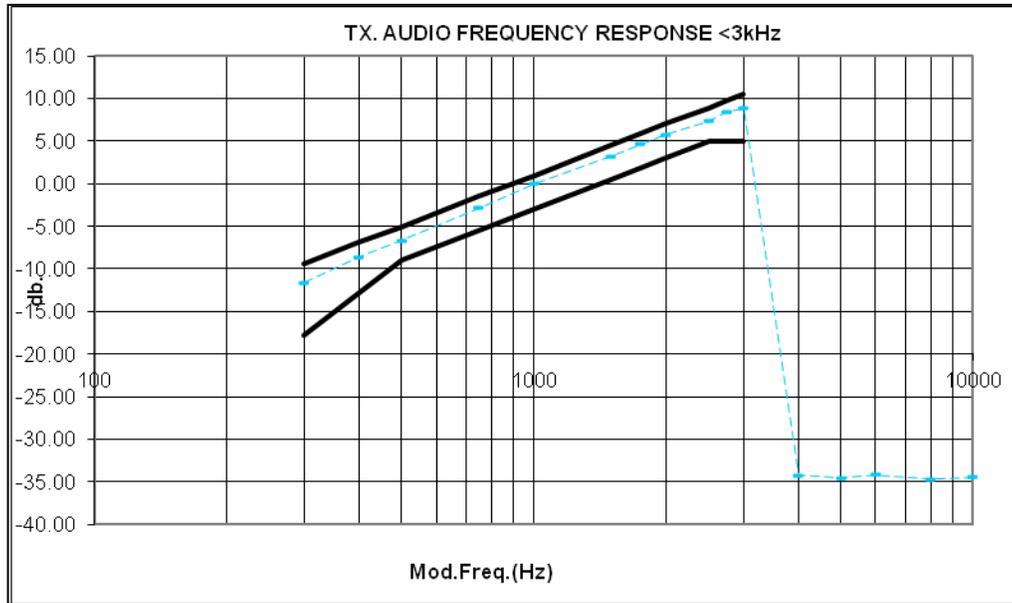


Exhibit 6B-1

**EXHIBIT 6C**

**Audio Low Pass Filter Response-** Pursuant 47 CFR 2.1047 and 2.1033(c)(13)

**Transmit Low Pass Filter Frequency Response**

(Freq: 424.975MHz, ChSp: 12.5 kHz)

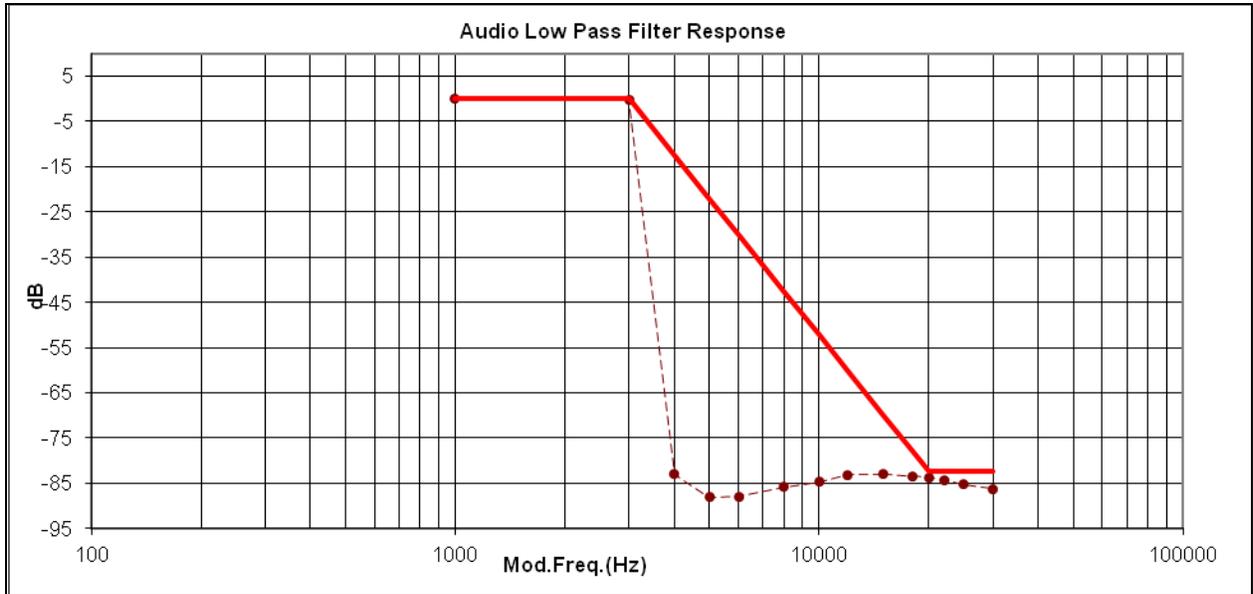


Exhibit 6C-1

EXHIBIT 6D

Modulation Limiting - Pursuant 47 CFR 2.1047 and 2.1033(c)(13)

**Modulation Limiting**  
(Freq: 481.0125MHz, ChSp: 12.5 kHz)

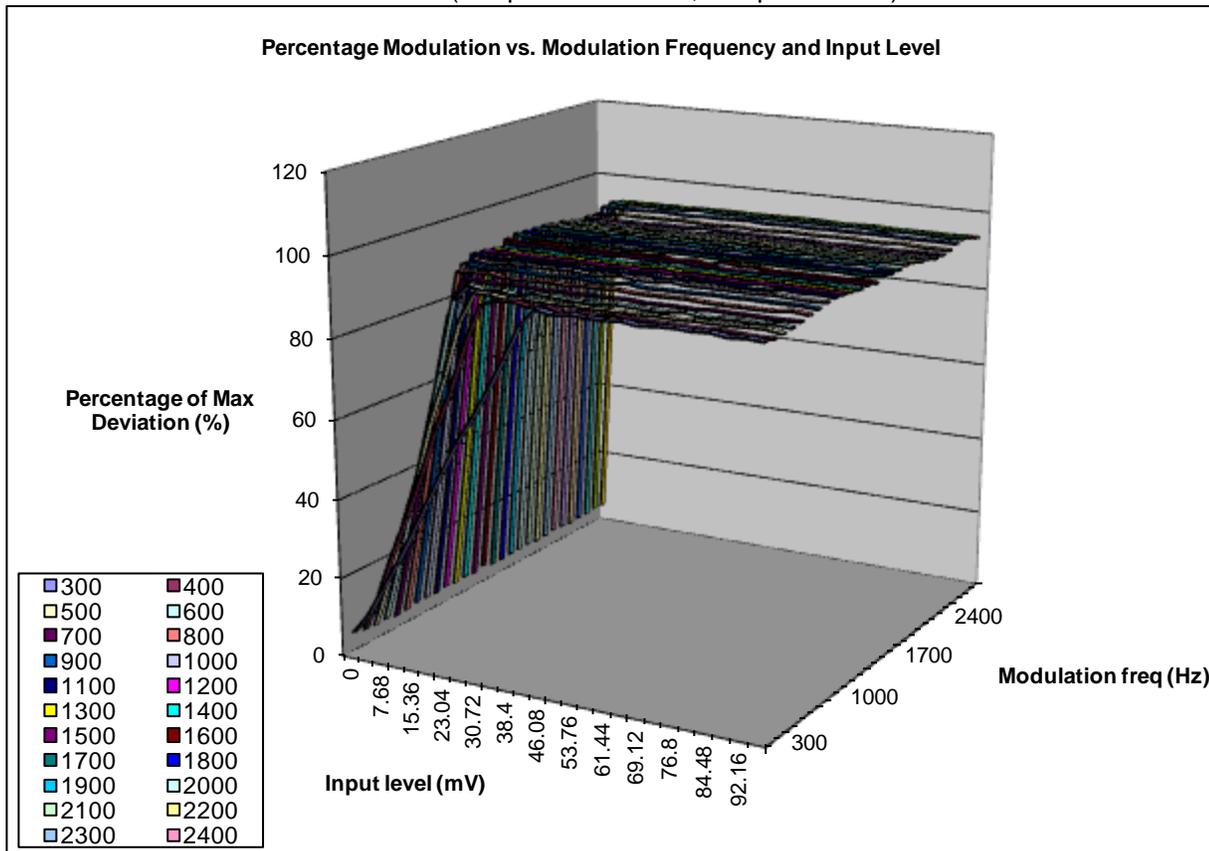


Exhibit 6D-1

**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: AZ489FT4909.

**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**

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-3**

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-4**

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

Occupied Bandwidth Data -- Pursuant 47 CFR 2.1049, 90.210(d) and 90.691

**Occupied Bandwidth** (Analog Voice: 11K0F3E)  
Frequency = 481.0125 MHz Channel Spacing = 12.5 kHz

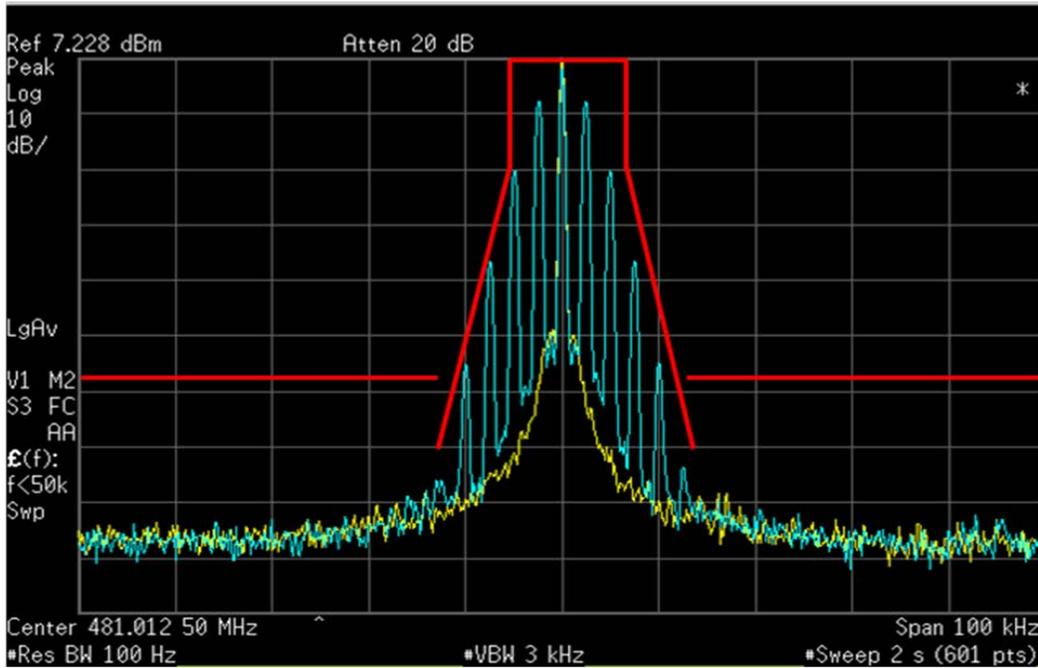


Exhibit 6E-1

**Occupied Bandwidth** (Digital Data: 8K10F1D)  
Frequency = 481.0125 MHz Channel Spacing = 12.5 kHz

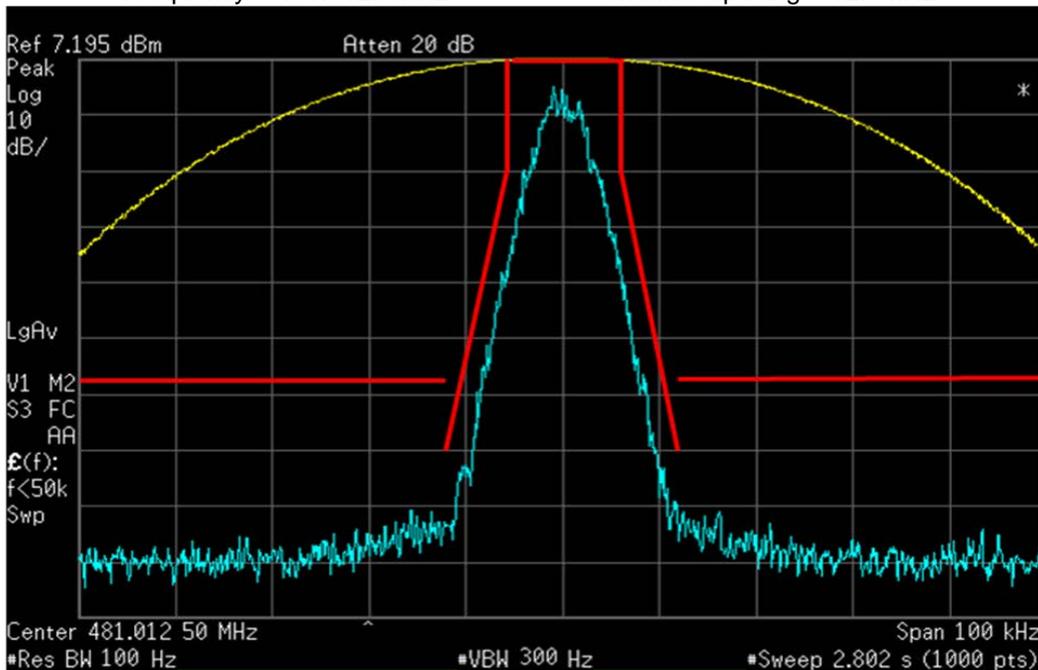


Exhibit 6E-2

**Occupied Bandwidth** (Digital Voice: 8K10F1E)  
Frequency = 481.0125 MHz Channel Spacing = 12.5 kHz

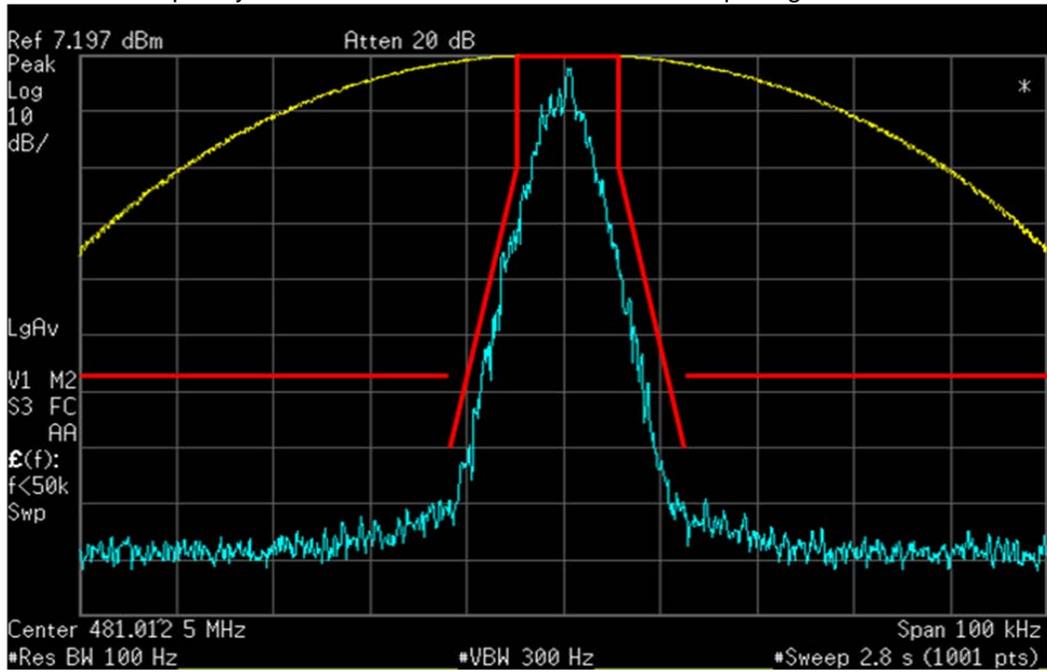


Exhibit 6E-3

**Occupied Bandwidth** (Digital TDMA: 8K10F1W)  
Frequency = 481.0125 MHz Channel Spacing = 12.5 kHz

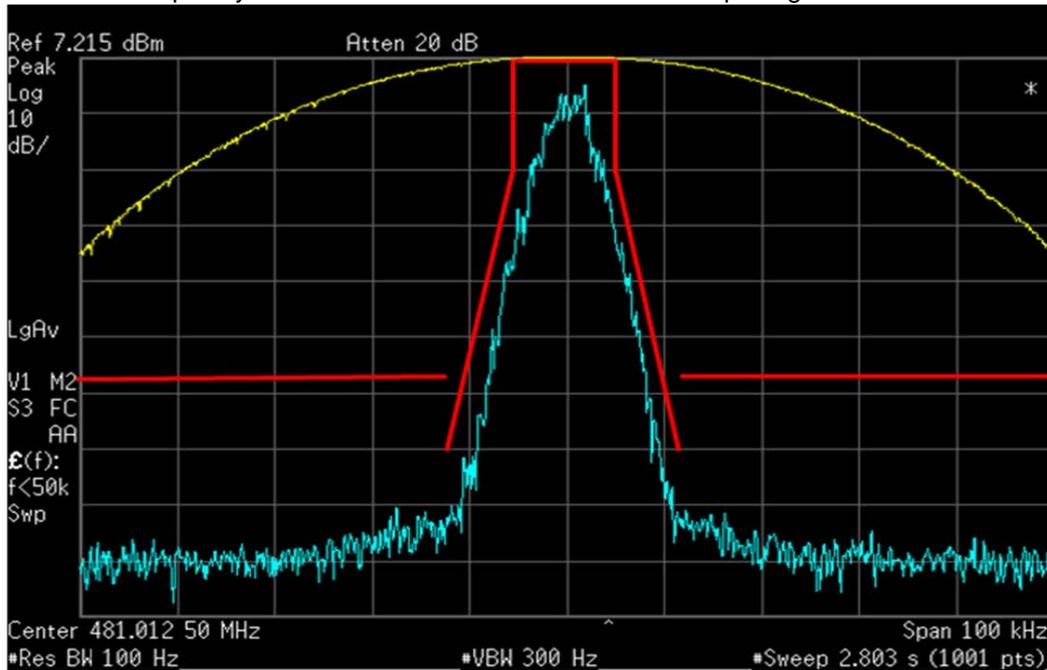


Exhibit 6E-4

**\*\*NOTE:-**

- All measurements of Occupied Bandwidth which are shown on the above plots are measured using a Spectrum Analyzer
- Measurement using a Spectrum Analyzer must use a 30dB attenuation in order to avoid damage to it
- Therefore the reference power level (Ref) shown on each plot refers to its true power level

EXHIBIT 6F

Transmitter Radiated Spurious Emissions - Pursuant 47 CFR 2.1047 and 2.1033(c)(13)

Motorola Solutions

FCC ID:AZ489FT4909

Transmit Radiated Spurious Emissions: APX4000 PMUE3771A No Bluetooth

Tx Power: 5.6 Watts

450.0125 MHz

Channel Spacing 12.5kHz | S/N 426TNB0559

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
900.0250	-20	-52.42	-49.31
1350.0375	-20	-61.51	-45.31
1800.0500	-20	*	*
2250.0625	-20	-65.54	-64.30
2700.0750	-20	-63.80	-60.73
3150.0875	-20	-67.30	-58.88
3600.1000	-20	*	*
4050.1125	-20	*	*
4500.1250	-20	-62.03	-56.02

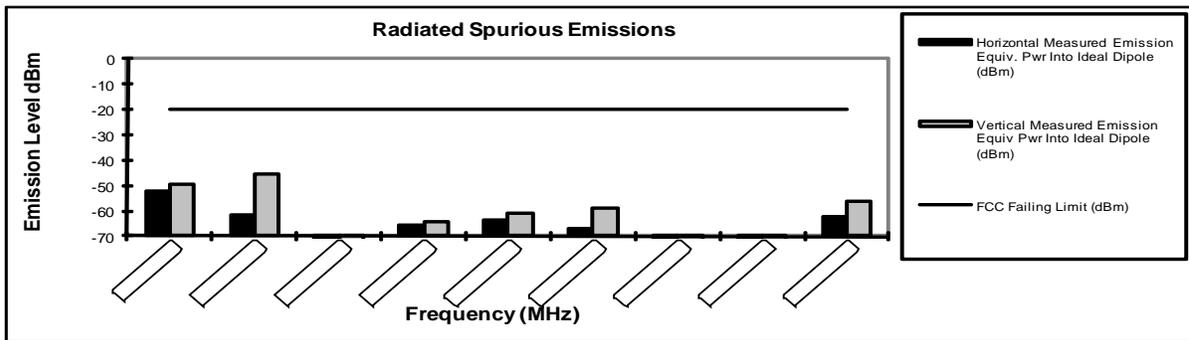


Exhibit 6F-1

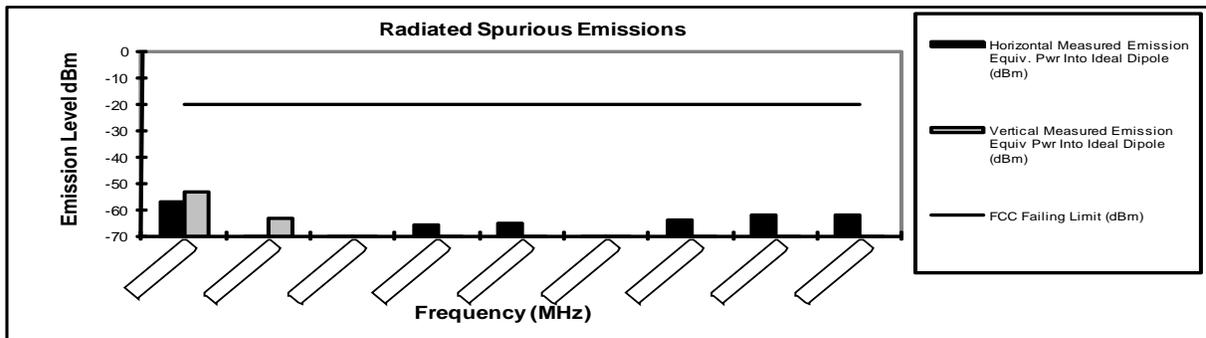
Transmit Radiated Spurious Emissions: APX4000 PMUE3771A No Bluetooth

Tx Power: 5.6 Watts

481.0125 MHz

Channel Spacing 12.5kHz | S/N 426TNB0559

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
962.0250	-20	-56.96	-53.40
1443.0375	-20	-70.69	-63.19
1924.0500	-20	*	*
2405.0625	-20	-65.77	*
2886.0750	-20	-65.48	*
3367.0875	-20	*	*
3848.1000	-20	-64.25	*
4329.1125	-20	-62.06	*
4810.1250	-20	-62.19	*



\* 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.

Exhibit 6F-2

Motorola Solutions

FCC ID:AZ489FT4909

Transmit Radiated Spurious Emissions: APX4000 PMUE3771A No Bluetooth

Tx Power: 5.6 Watts

511.9875 MHz

Channel Spacing 12.5kHz | S/N 426TNB0559

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1023.9750	-20	-57.77	*
1535.9625	-20	-64.88	-55.70
2047.9500	-20	-65.85	-63.68
2559.9375	-20	-61.79	*
3071.9250	-20	-62.52	-59.58
3583.9125	-20	-64.93	*
4095.9000	-20	-56.40	-51.47
4607.8875	-20	-48.37	-45.48
5119.8750	-20	-52.16	-50.72

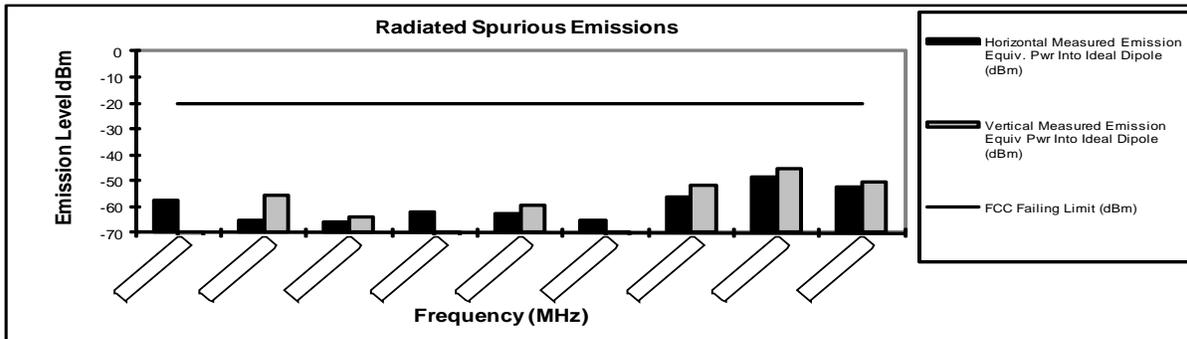


Exhibit 6F-3

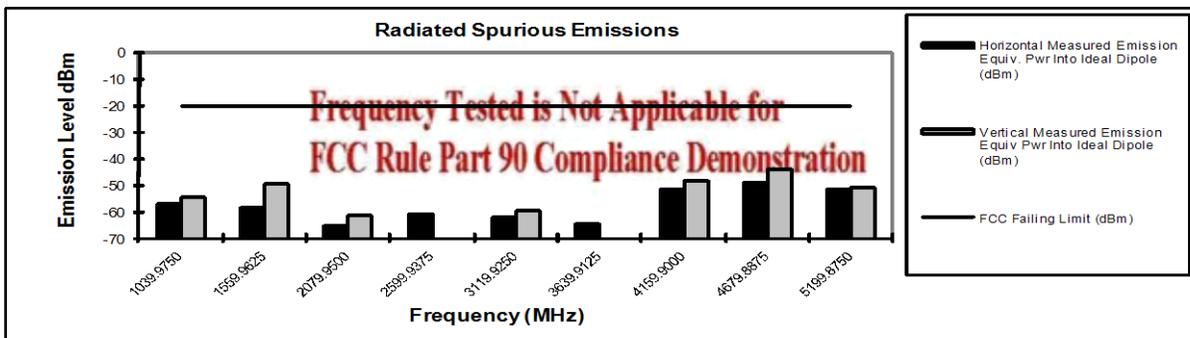
Transmit Radiated Spurious Emissions: APX4000 PMUE3771A No Bluetooth

Tx Power: 5.6 Watts

519.9875 MHz

Channel Spacing 12.5kHz | S/N 426TNB0559

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1039.9750	-20	-57.00	-54.75
1559.9625	-20	-58.15	-49.58
2079.9500	-20	-65.40	-61.60
2599.9375	-20	-61.12	*
3119.9250	-20	-62.41	-59.69
3639.9125	-20	-64.46	*
4159.9000	-20	-51.60	-48.68
4679.8875	-20	-48.93	-43.80
5199.8750	-20	-51.43	-50.88



\* 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.

Exhibit 6F-4

EXHIBIT 6G

Frequency Stability - Pursuant 47 CFR 2.1047 and 2.1033(c)(13)

Frequency Stability (481.0125 MHz) vs. Supply Voltage

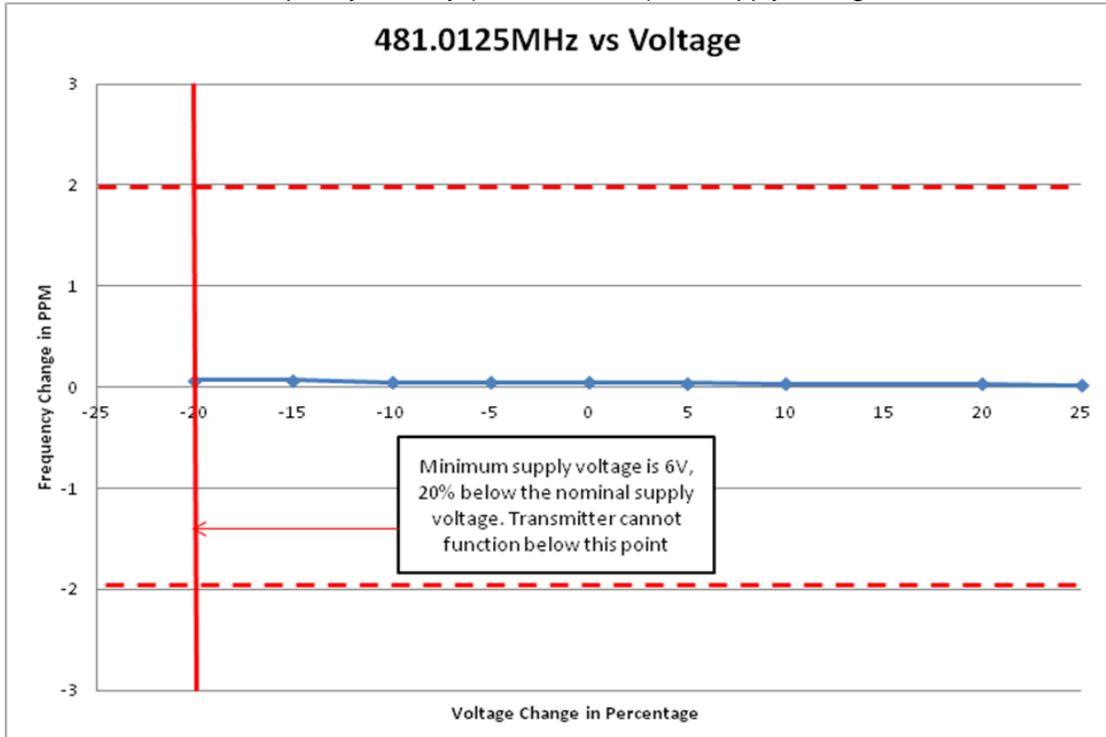


Exhibit 6G-1

Frequency Stability (481.0125 MHz) vs. Temperature

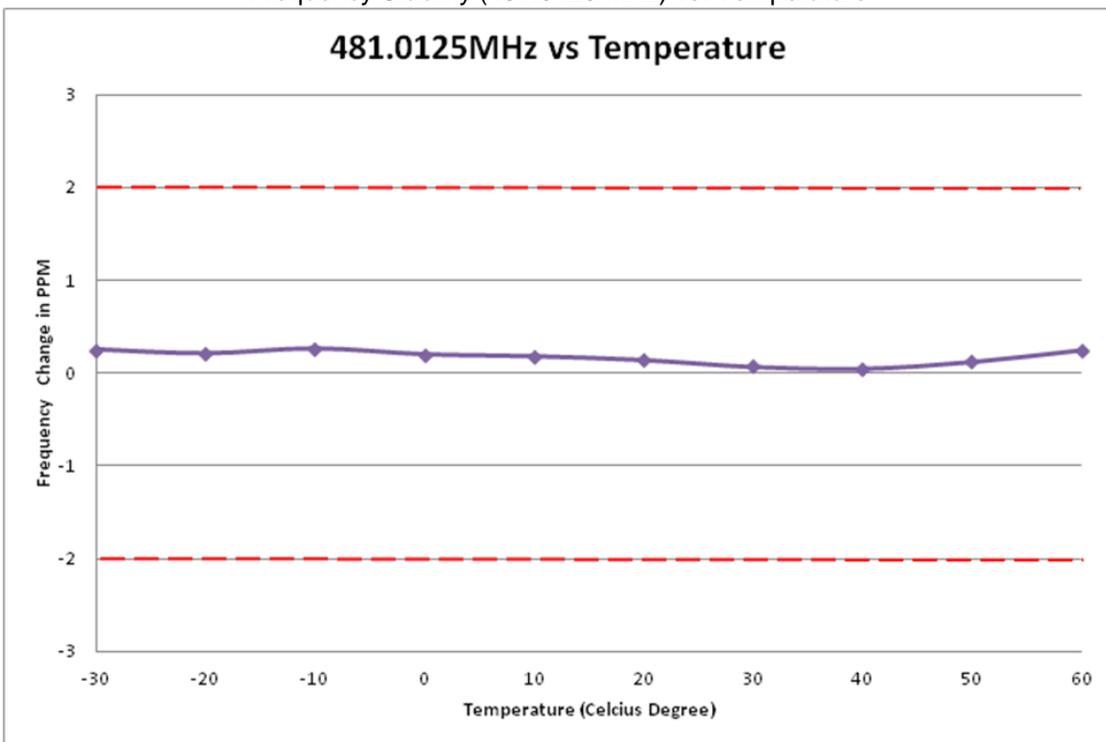


Exhibit 6G-2

**EXHIBIT 6H**

**Transmitter Conducted Spurious Emissions** - Pursuant 47 CFR 2.1047 and 2.1033(c) (13)

Note: Lines on graphs correspond to the FCC limit of -20dBm.

Spurs which are not shown is less than 100dB

450.0125 MHz, 12.5 kHz Channel Spacing, 5.6Watts

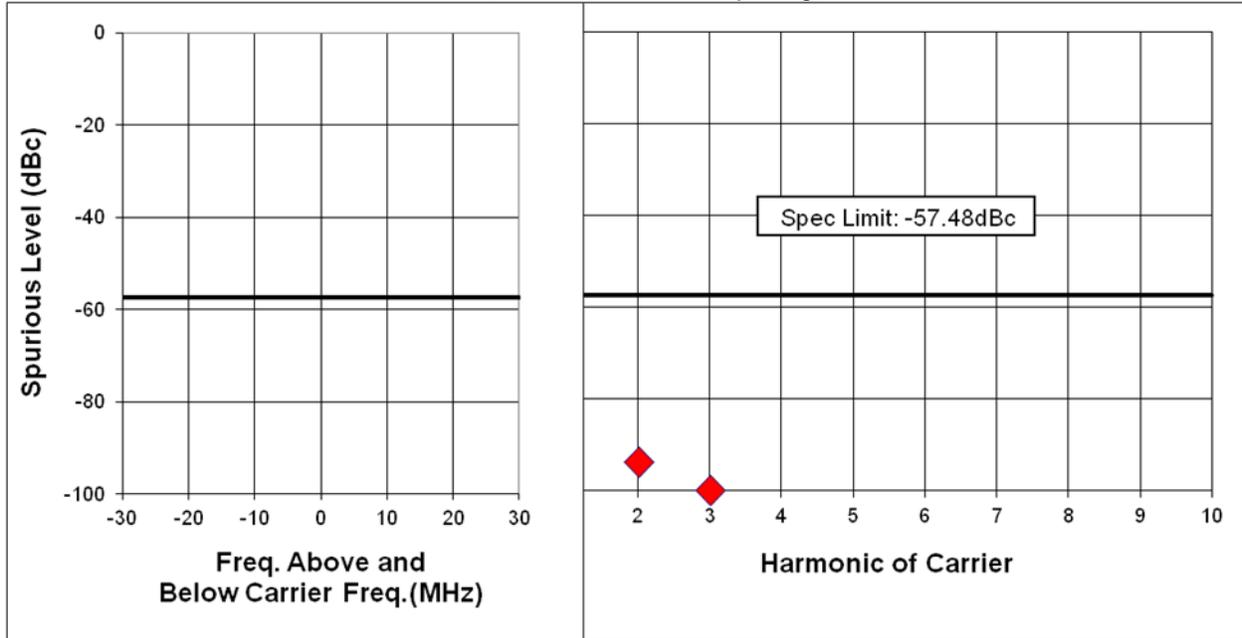


Exhibit 6H-1

481.0125 MHz, 12.5 kHz Channel Spacing, 5.6Watts

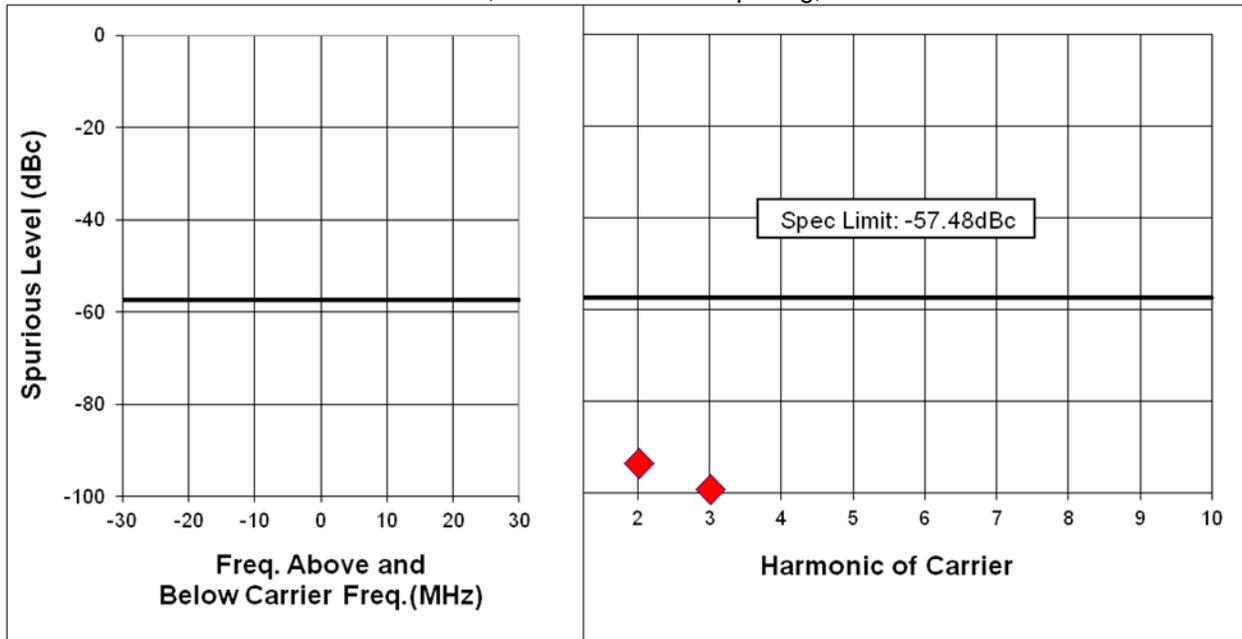


Exhibit 6H-2

511.9875 MHz, 12.5 kHz Channel Spacing, 5.6Watts

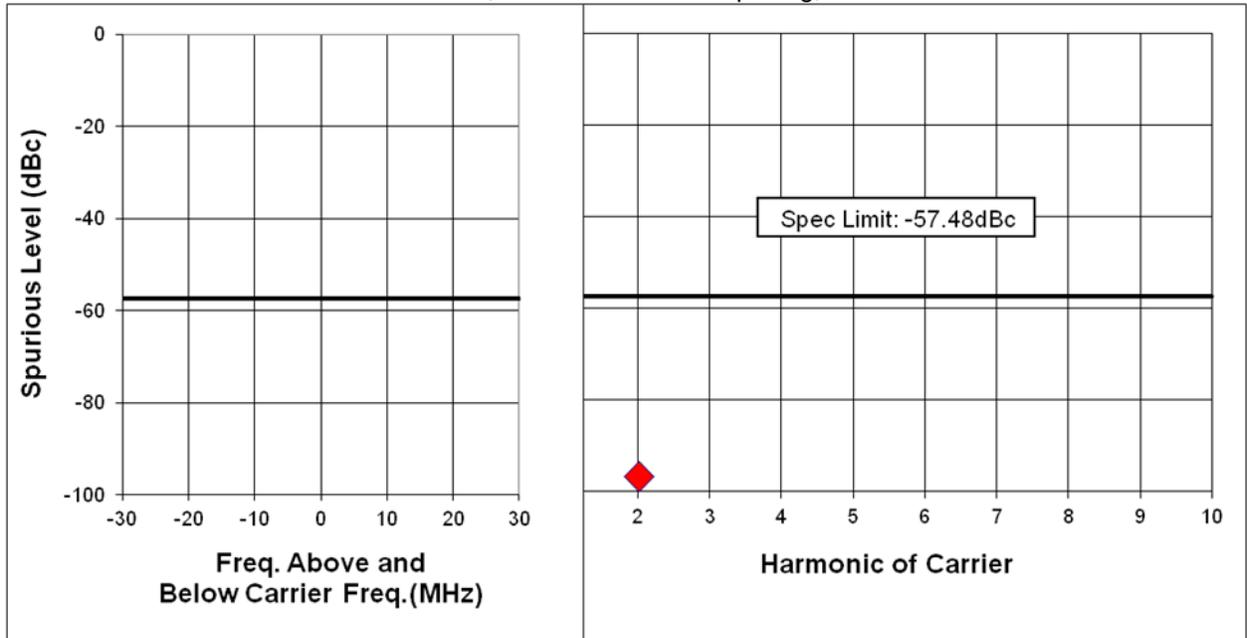


Exhibit 6H-3

519.9875 MHz, 12.5 kHz Channel Spacing, 5.6Watts

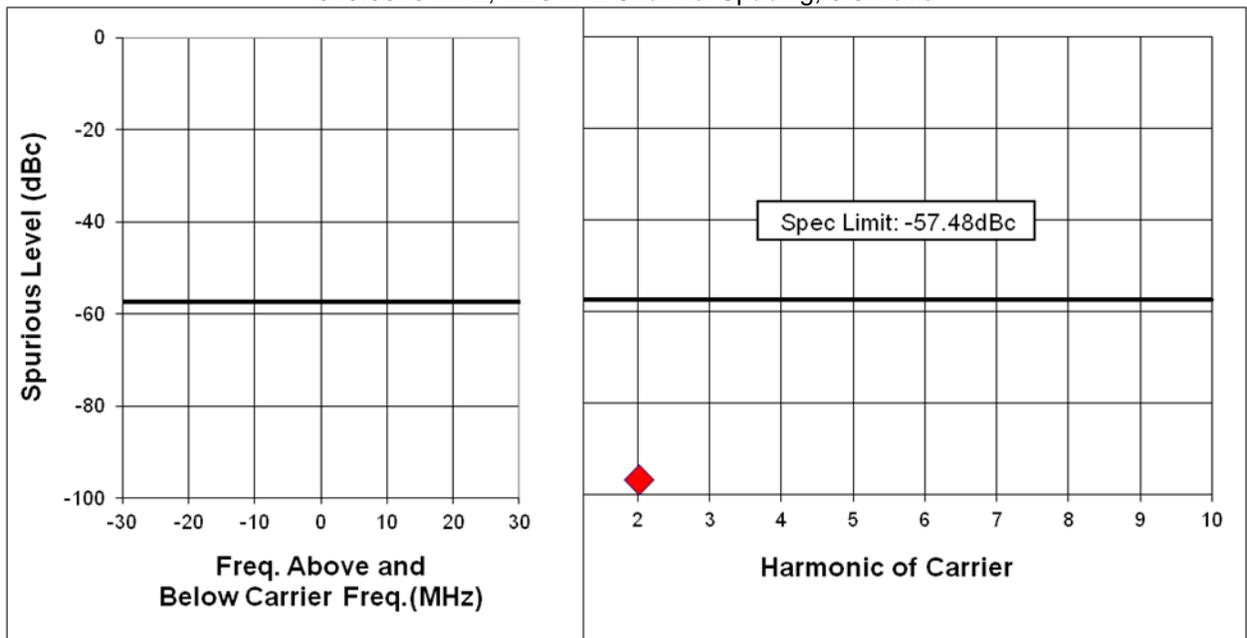


Exhibit 6H-4

**EXHIBIT 6I**  
**Transient Frequency Behavior**

TX 481.0125 MHz – 12.5 kHz Channel Spacing – Transmitter On

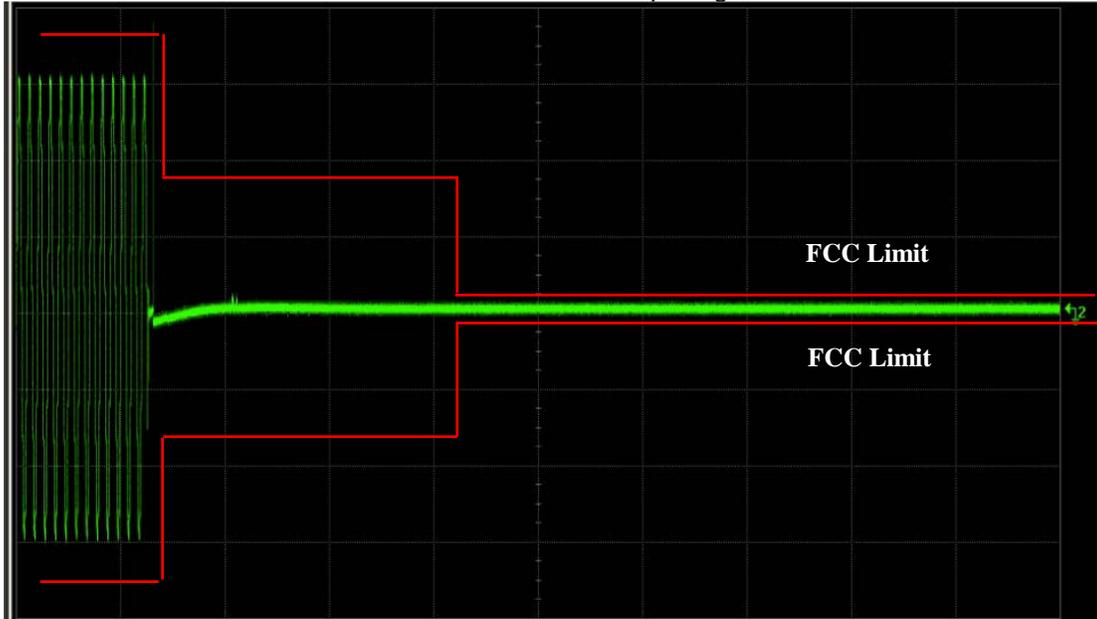


Exhibit 6I-1

TX 481.0125 MHz – 12.5 kHz Channel Spacing – Transmitter Off

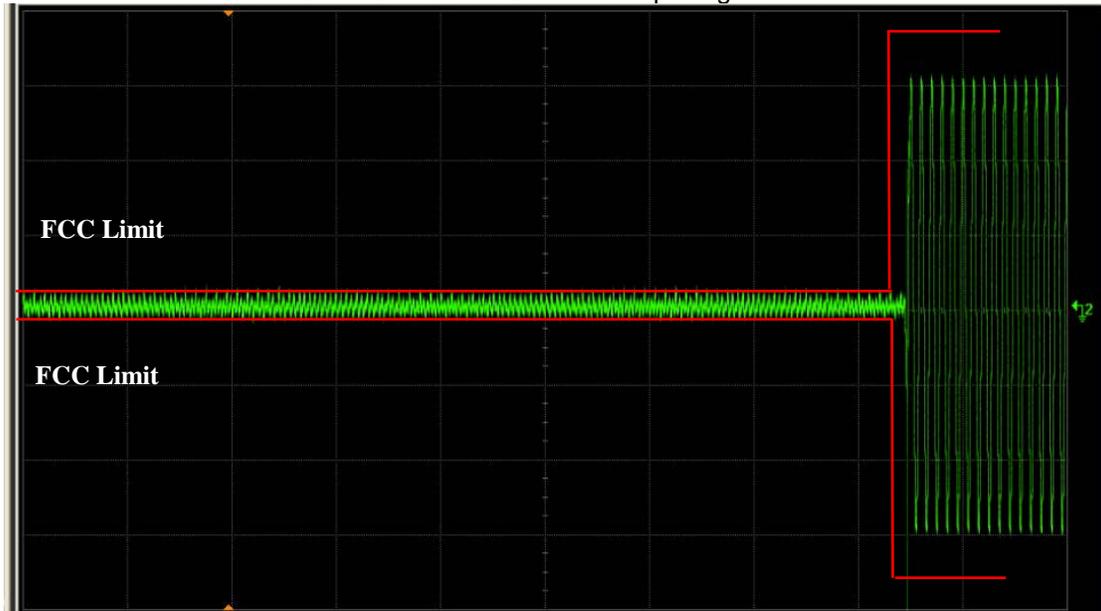


Exhibit 6I-2