

**EXHIBIT 6**

**INDEX OF SUBMITTED MEASURED DATA**

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

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6F-4 - High Power 469.975 MHz, 25 kHz Channel Spacing (Not for FCC Review)

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6G-2 – 424.925 MHz vs. Temperature

**EXHIBIT 6H – Conducted Spurious Emissions**

- 6H-1 - High Power 380.025 MHz, 12.5 kHz Channel Spacing (Not for FCC Review)
- 6H-2 - High Power 425.025 MHz, 12.5 kHz Channel Spacing
- 6H-3 - High Power 469.925 MHz, 12.5 kHz Channel Spacing
- 6H-4 - High Power 380.025 MHz, 25 kHz Channel Spacing (Not for FCC Review)
- 6H-5 - High Power 425.025 MHz, 25 kHz Channel Spacing Not for FCC Review)
- 6H-6 - High Power 469.925 MHz, 25 kHz Channel Spacing Not for FCC Review)

**EXHIBIT 6I – Power Line Conducted Interference**

- 6I-1- Radio Off Line/Neutral
- 6I-2- Radio On Line/Neutral 380.075MHz (Not for FCC Review)
- 6I-3- Radio On Line/Neutral 425.075MHz
- 6I-4- Radio On Line/Neutral 469.975MHz

**EXHIBIT 6J – Transient Frequency Behavior**

- 6J-1 – 424.975 MHz, 12.5 kHz Channel Spacing – Transmitter On
- 6J-2 – 424.975 MHz, 12.5 kHz Channel Spacing – Transmitter Off
- 6J-3 – 424.975 MHz, 25 kHz Channel Spacing – Transmitter On (Not for FCC Review)
- 6J-4 – 424.975 MHz, 25 kHz Channel Spacing – Transmitter Off (Not for FCC Review)

Note: Data was tested to show compliance to RSS102, RSS119, and RSS210, as applicable.

**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 = 380.025 MHz (Not for FCC Review):**

Output RF power	1.0 Watts
DC Voltage	7.50 Volts
DC Current	1.05 Amps
Output RF power	3.00 Watts
DC Voltage	7.50 Volts
DC Current	1.55 Amps
Output RF power	5.7 Watts
DC Voltage	7.50 Volts
DC Current	2.11 Amps

**Frequency = 424.925 MHz:**

Output RF power	1.0 Watts
DC Voltage	7.50 Volts
DC Current	1.02 Amps
Output RF power	3.00 Watts
DC Voltage	7.50 Volts
DC Current	1.52 Amps
Output RF power	5.7 Watts
DC Voltage	7.50 Volts
DC Current	2.11 Amps

**Frequency = 469.925 MHz:**

Output RF power	1.0 Watts
DC Voltage	7.50 Volts
DC Current	1.06 Amps
Output RF power	3.00 Watts
DC Voltage	7.50 Volts
DC Current	1.52 Amps
Output RF power	5.7 Watts
DC Voltage	7.50 Volts
DC Current	2.14 Amps

**EXHIBIT 6B**

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

**Audio Frequency Response**  
(Freq: 424.975MHz, ChSp: 12.5 kHz)

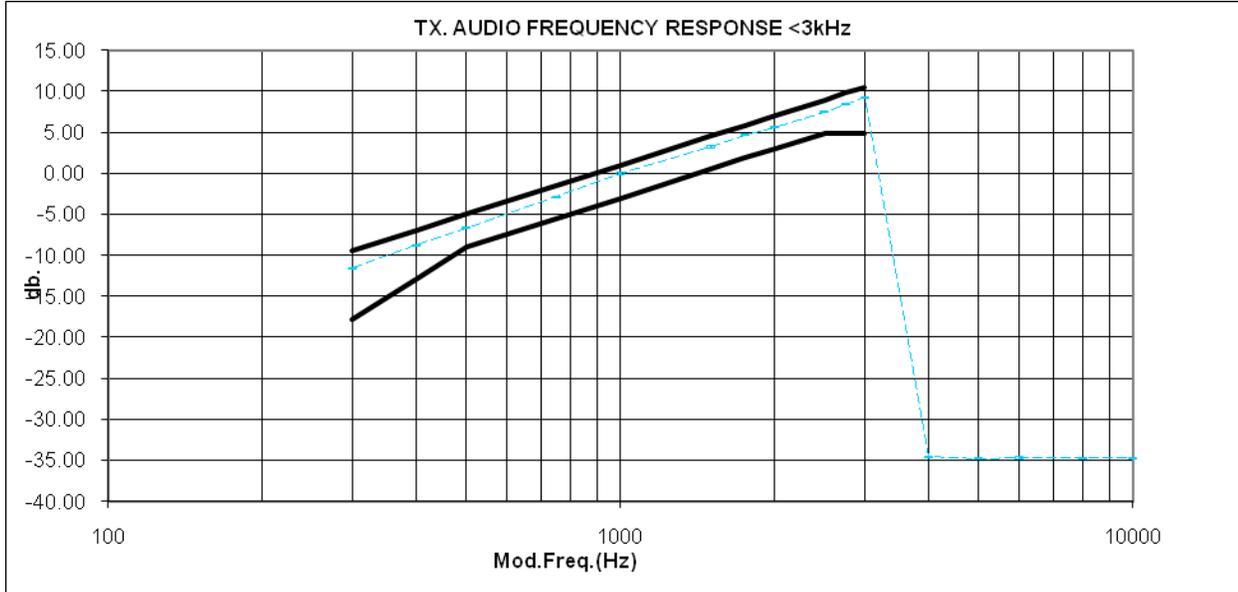


Exhibit 6B-1

**Audio Frequency Response (Not for FCC Review)**  
(Freq: 424.975MHz, ChSp: 25kHz)

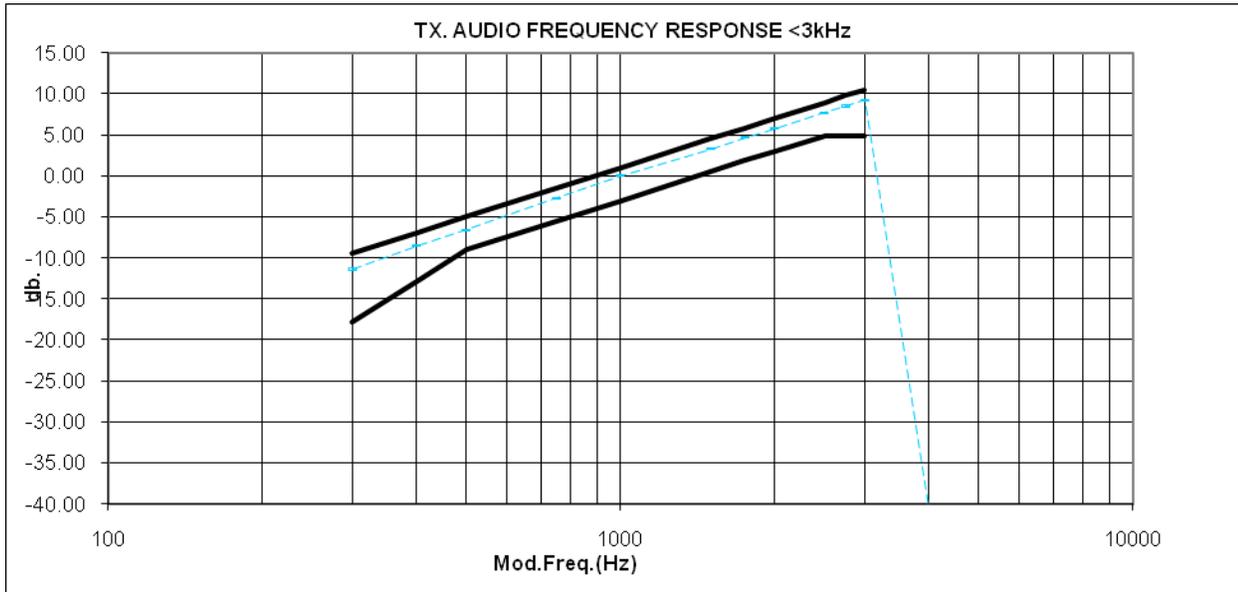


Exhibit 6B-2

**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)

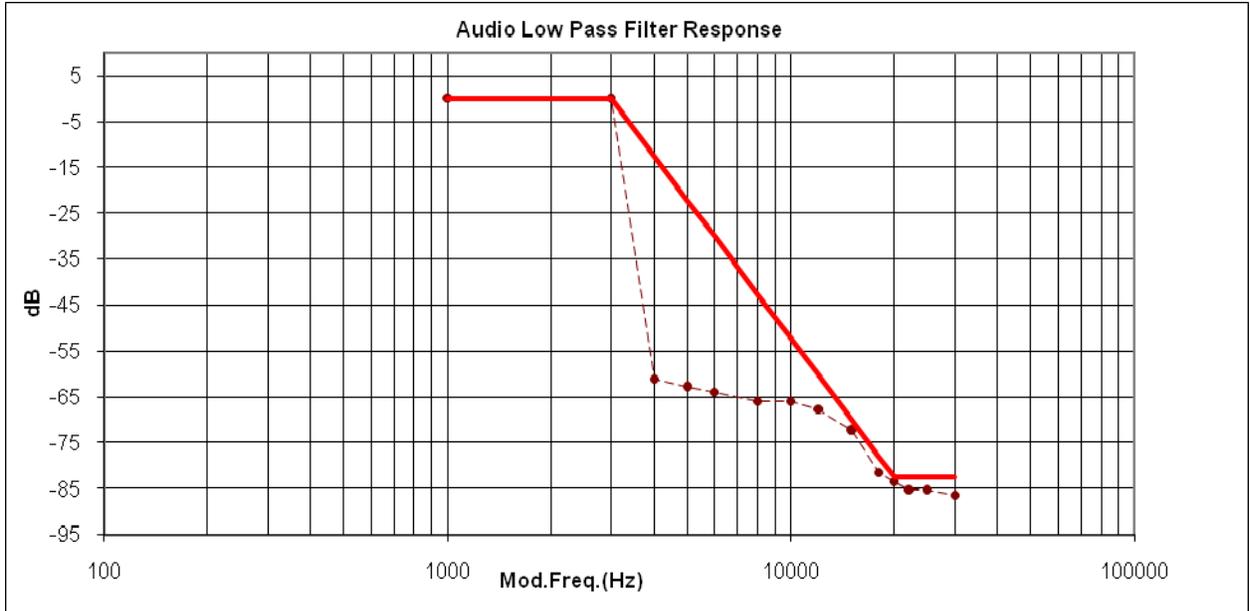


Exhibit 6C-1

**Transmit Low Pass Filter Frequency Response (Not for FCC Review)**  
(Freq: 424.975MHz, ChSp: 25 kHz)

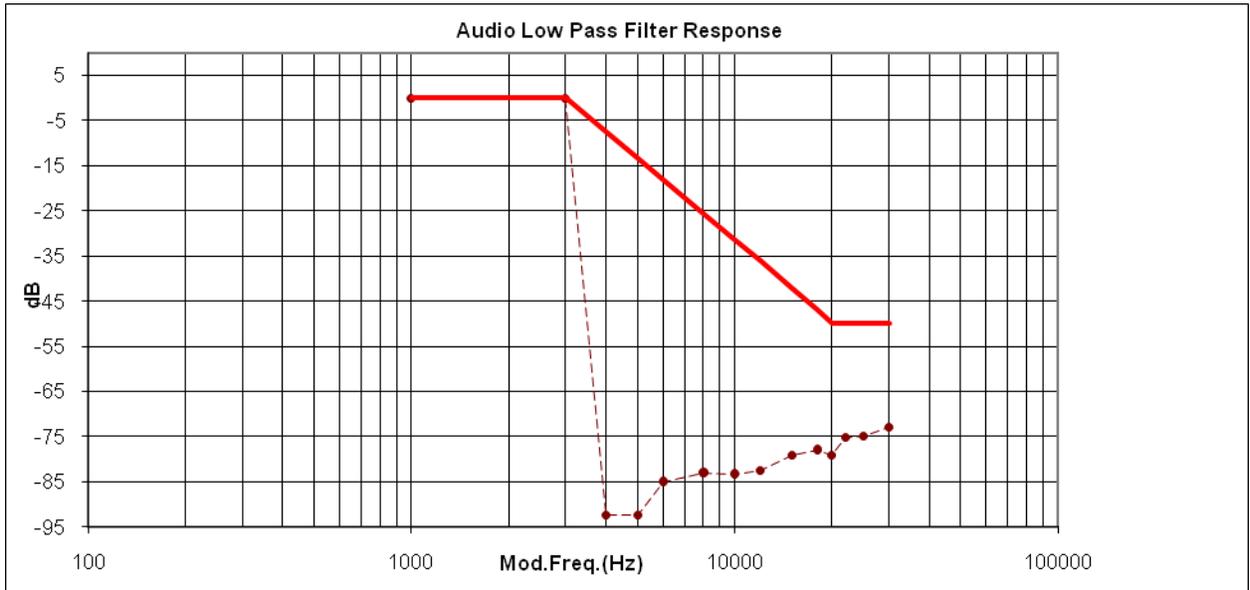


Exhibit 6C-2

**EXHIBIT 6D**

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

**Modulation Limiting (Freq: 424.975MHz, ChSp: 12.5 kHz)**

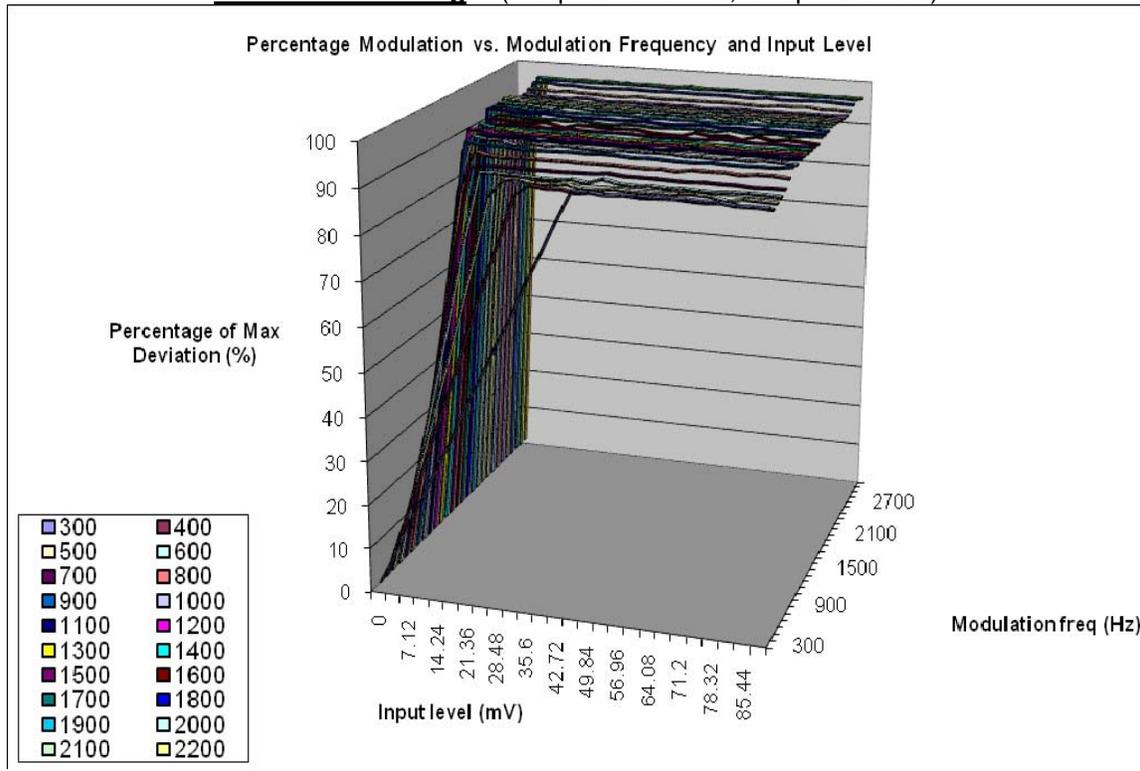


Exhibit 6D-1

**Modulation Limiting (Not for FCC Review) (Freq: 424.975MHz, ChSp: 25 kHz)**

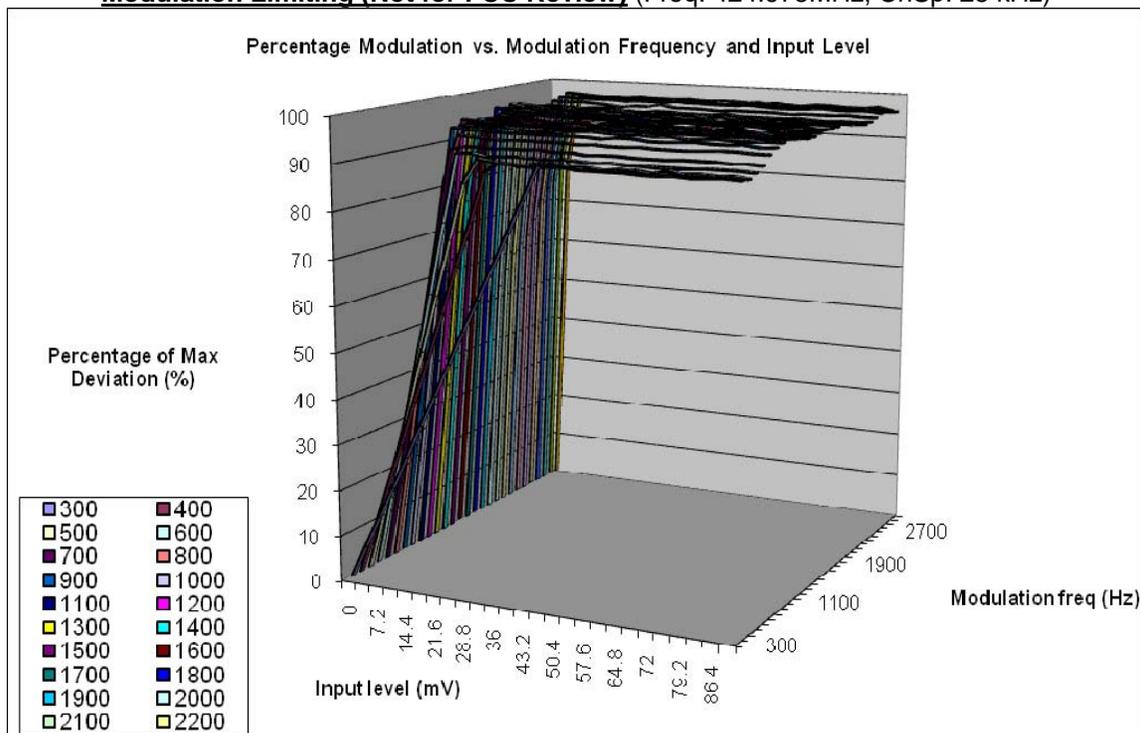


Exhibit 6D-2

**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: AZ489FT7036.

**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.

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

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

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

**Occupied Bandwidth** (Analog Voice: 11K0F3E)

Frequency = 425.075 MHz

Channel Spacing = 12.5 kHz

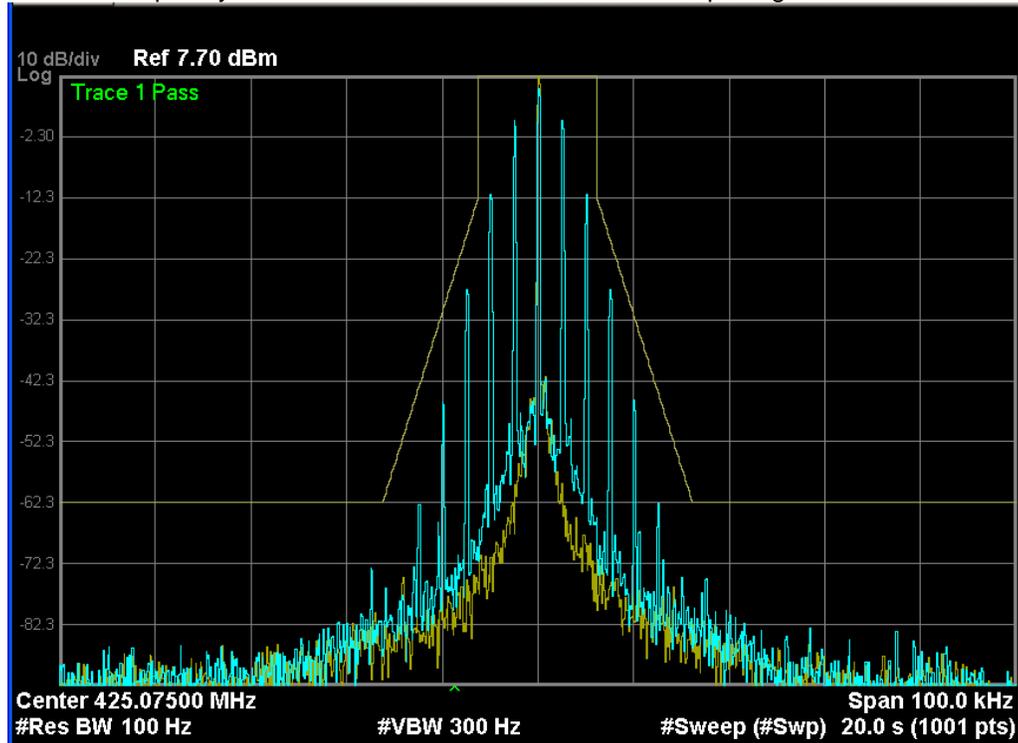


Exhibit 6E-1

**Occupied Bandwidth** (Analog Voice: 16K0F3E) (Not for FCC Review)

Frequency = 425.075 MHz

Channel Spacing = 25 kHz

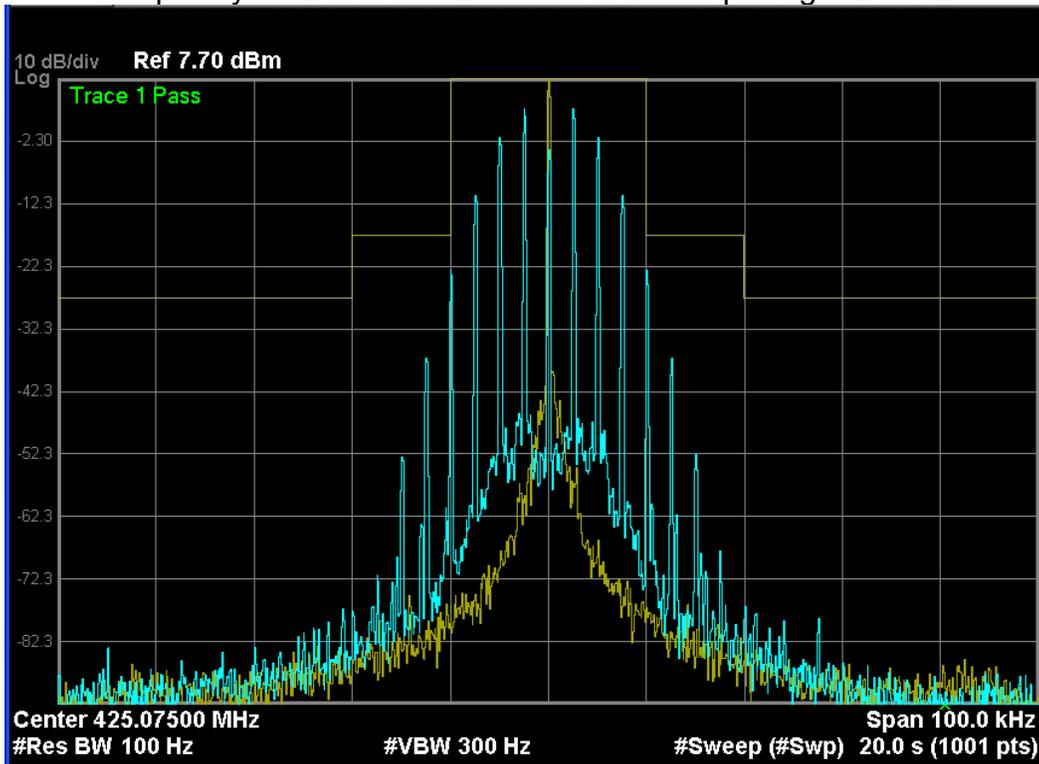


Exhibit 6E-2

**Occupied Bandwidth** (Digital Data: 8K10F1D)  
Frequency = 425.025 MHz Channel Spacing = 12.5 kHz

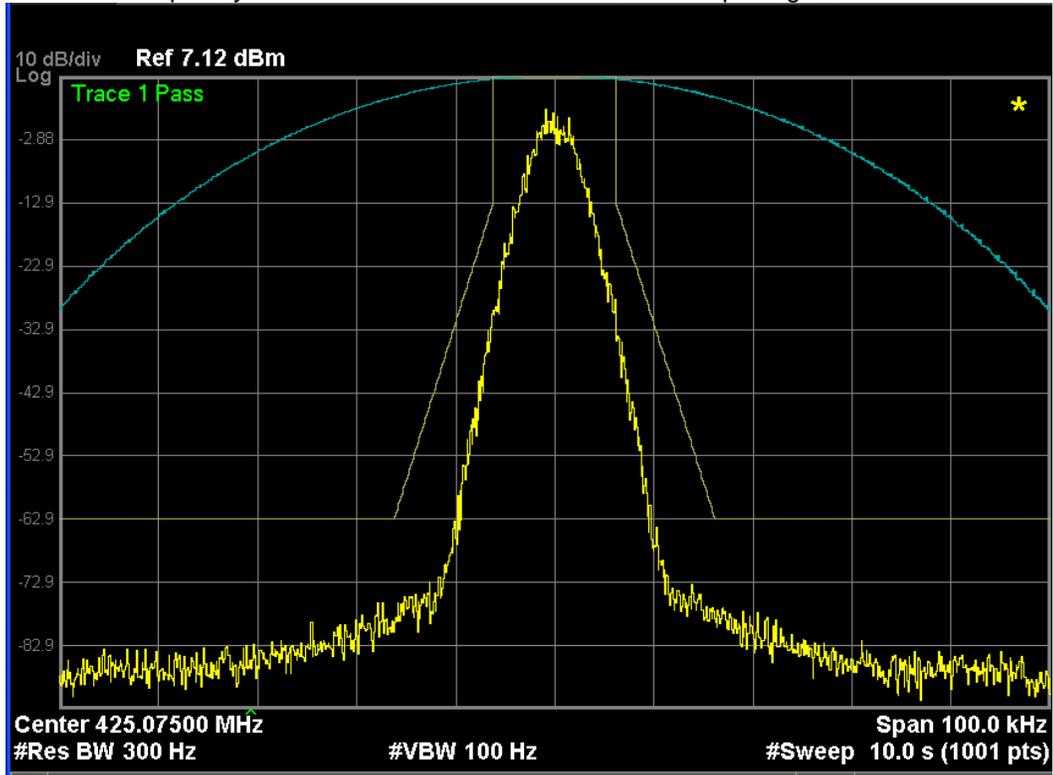


Exhibit 6E-3

**Occupied Bandwidth** (Digital Voice: 8K10F1E)  
Frequency = 425.025 MHz Channel Spacing = 12.5 kHz

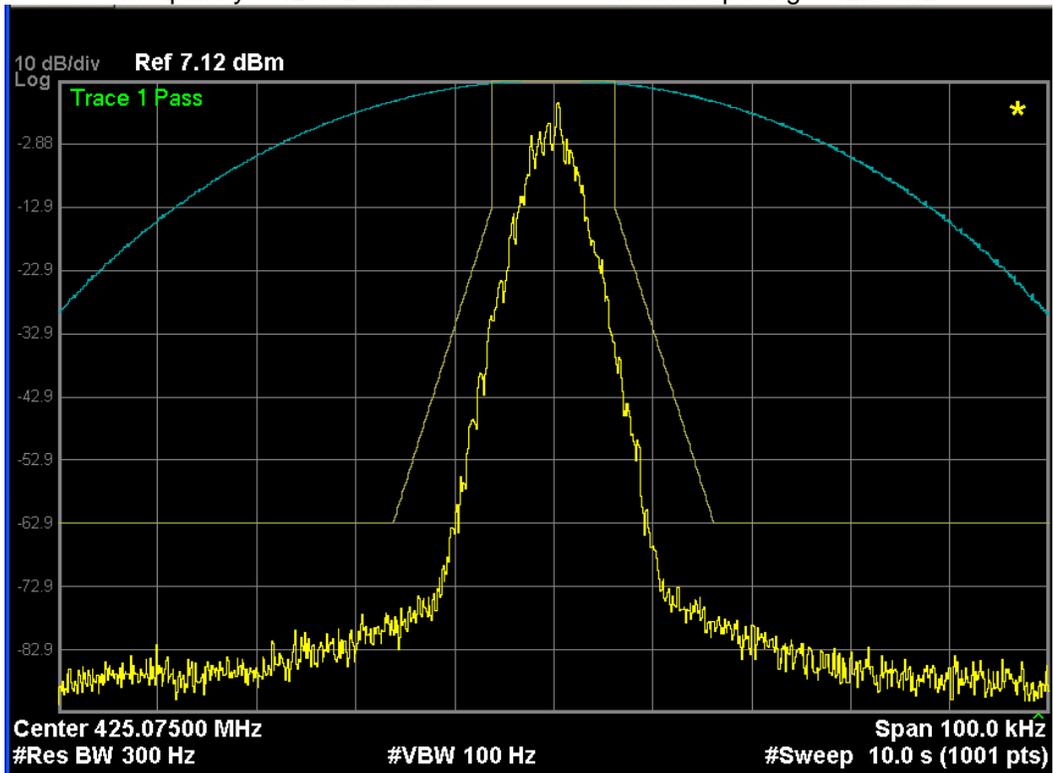


Exhibit 6E-4

**Occupied Bandwidth** (Digital TDMA: 8K10F1W)  
Frequency = 425.025 MHz Channel Spacing = 12.5 kHz

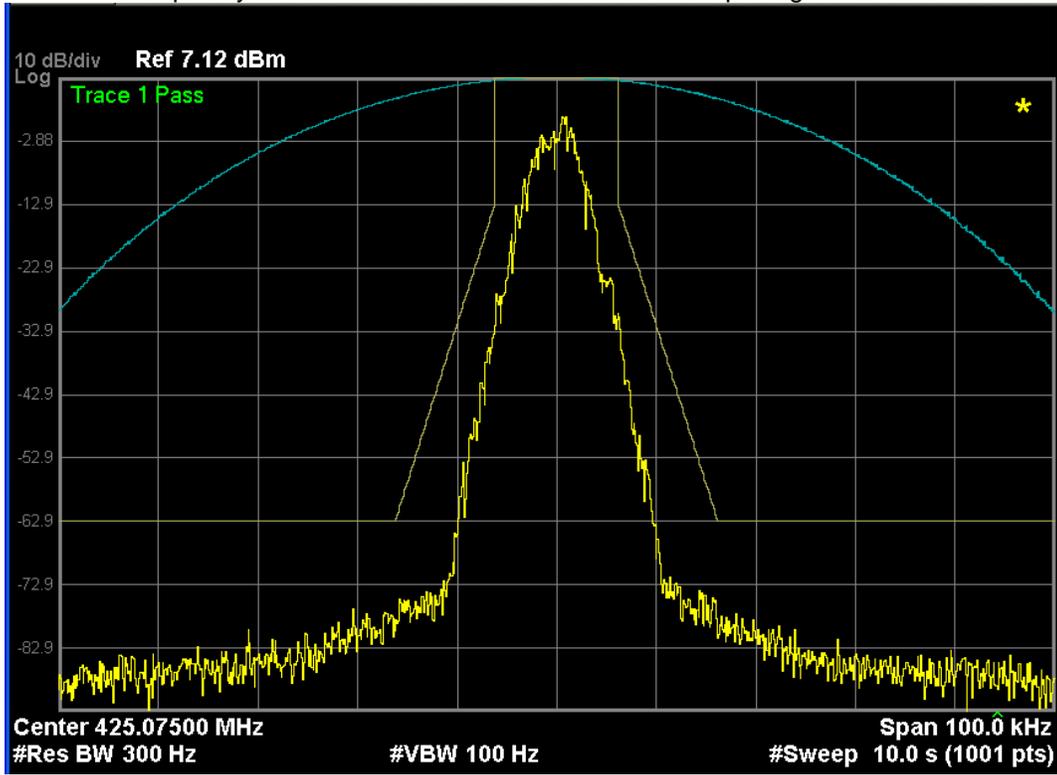


Exhibit 6E-5

**Occupied Bandwidth** (Digital Voice Encryption: 20K0F1E) (Not for FCC Review)  
Frequency = 425.025 MHz Channel Spacing = 20 kHz

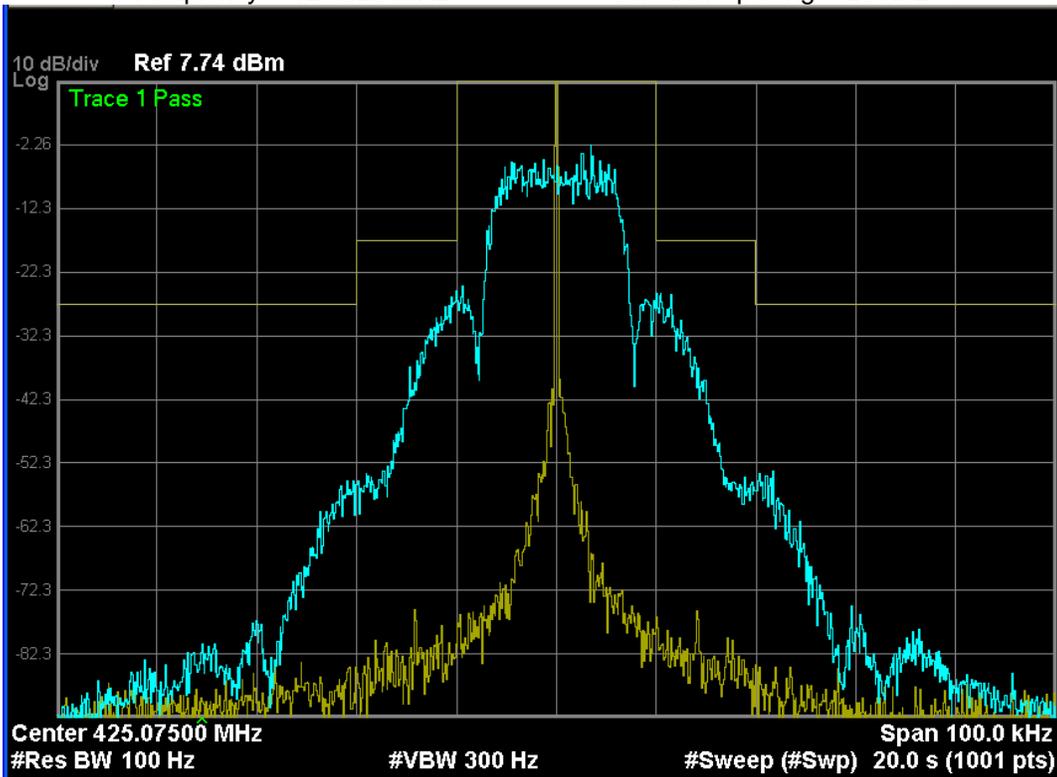


Exhibit 6E-6

**EXHIBIT 6F**

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

**Motorola Solutions**

**FCC ID:AZ489FT4907**

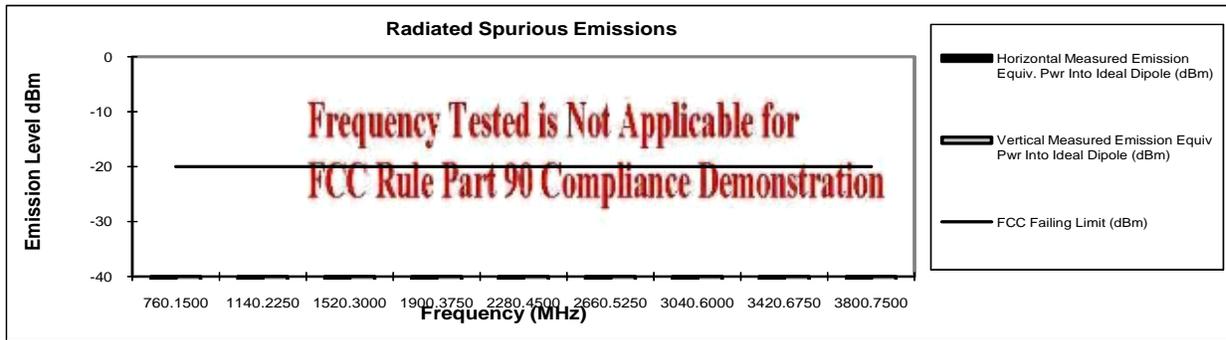
**Transmit Radiated Spurious Emissions: APX4000 Non Bluetooth**

**Tx Power: 5.7 Watts**

**380.075 MHz**

**Channel Spacing 12.5kHz | S/N 426TMM0286**

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
760.1500	-20	*	*
1140.2250	-20	*	*
1520.3000	-20	*	*
1900.3750	-20	*	*
2280.4500	-20	*	*
2660.5250	-20	*	*
3040.6000	-20	*	*
3420.6750	-20	*	*
3800.7500	-20	*	*



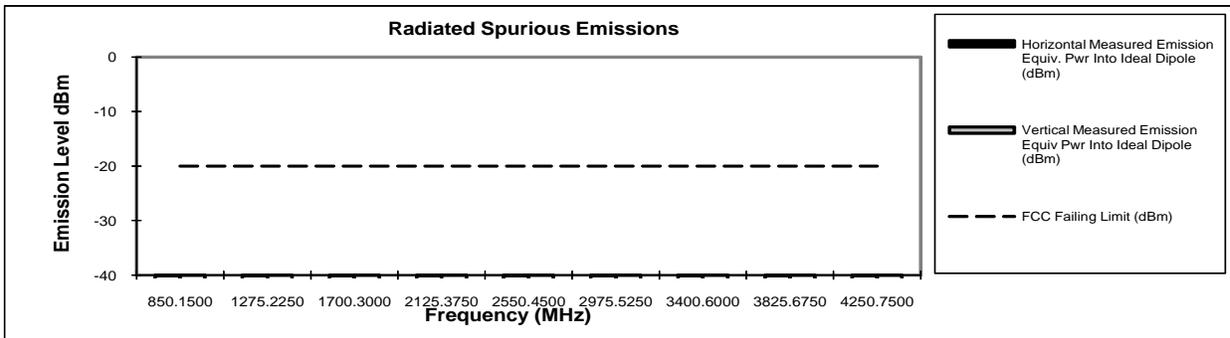
**Transmit Radiated Spurious Emissions: APX4000 Non Bluetooth**

**Tx Power: 5.7 Watts**

**425.075 MHz**

**Channel Spacing 12.5kHz | S/N 426TMM0286**

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
850.1500	-20	*	*
1275.2250	-20	*	*
1700.3000	-20	*	*
2125.3750	-20	*	*
2550.4500	-20	*	*
2975.5250	-20	*	*
3400.6000	-20	*	*
3825.6750	-20	*	*
4250.7500	-20	*	*



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

Pursuant to CFR 47 Part 2.1057(c), emissions attenuated more than 20 dB below the permissible limit are not reported.

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: Alberto Cordero**

**August 14, 2011**

**FCC Registration: 91932 / Industry Canada: IC109U-1**

**Exhibit 6F-1**

**EXHIBIT 6**

**SHEET 12 OF 26**

**Motorola Solutions**

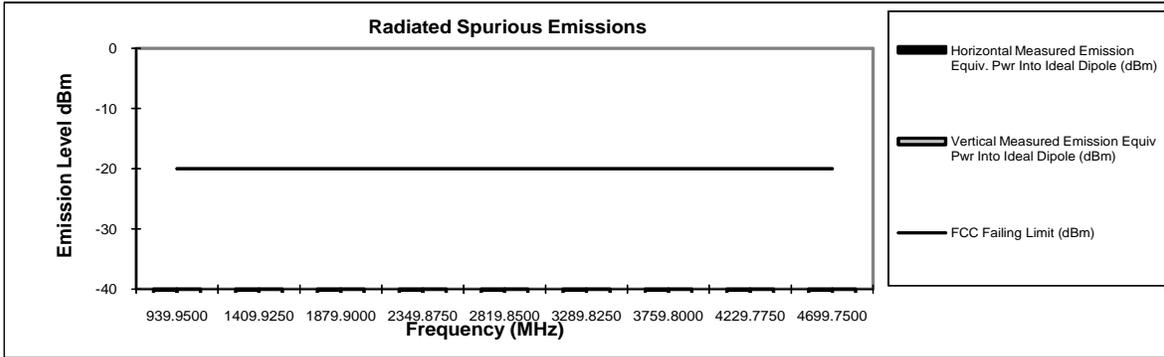
**FCC ID:AZ489FT4905**

**Transmit Radiated Spurious Emissions: APX4000 Bluetooth  
Tx Power: 5.7 Watts**

**469.975 MHz**

**Channel Spacing 12.5kHz | S/N 426TMM0402**

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
939.9500	-20	*	*
1409.9250	-20	*	*
1879.9000	-20	*	*
2349.8750	-20	*	*
2819.8500	-20	*	*
3289.8250	-20	*	*
3759.8000	-20	*	*
4229.7750	-20	*	*
4699.7500	-20	*	*



\* Indicates the spurious emission could not be detected due to noise limitations or ambients.  
Pursuant to CFR 47 Part 2.1057(c), emissions attenuated more than 20 dB below the permissible limit are not reported.

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 11, 2011**  
**FCC Registration: 91932 / Industry Canada: IC109U-1**

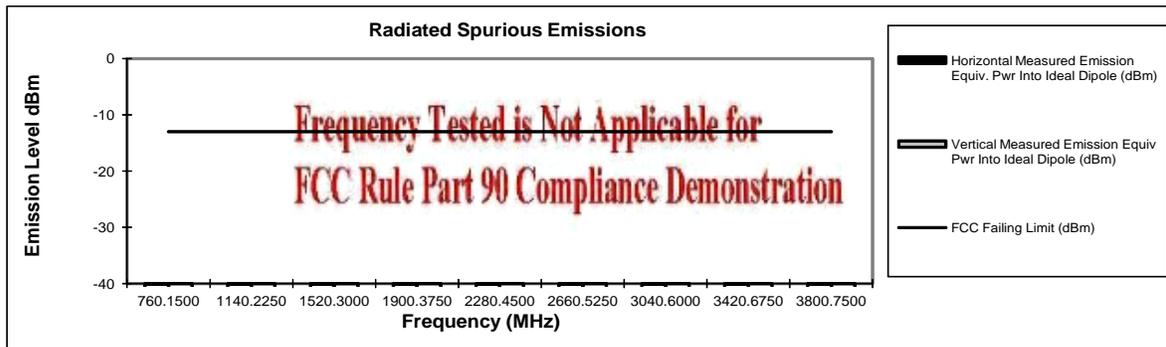
**Motorola Solutions**

**FCC ID:AZ489FT4905**

**Transmit Radiated Spurious Emissions: APX4000 Bluetooth (Not for FCC Review)**  
**Tx Power: 5.7 Watts**

**380.075 MHz Channel Spacing 25kHz | S/N 426TMM0402**

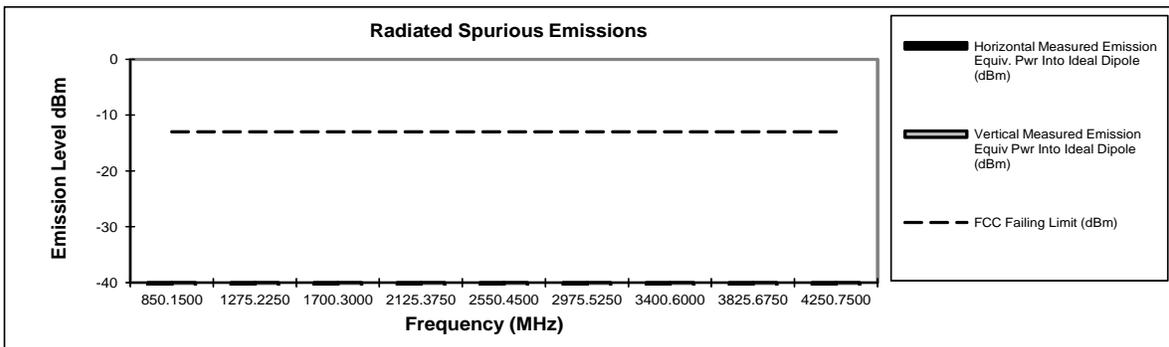
Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
760.1500	-13	*	*
1140.2250	-13	*	*
1520.3000	-13	*	*
1900.3750	-13	*	*
2280.4500	-13	*	*
2660.5250	-13	*	*
3040.6000	-13	*	*
3420.6750	-13	*	*
3800.7500	-13	*	*



**Transmit Radiated Spurious Emissions: APX4000 Bluetooth (Not for FCC Review)**  
**Tx Power: 5.7 Watts**

**425.075 MHz Channel Spacing 25kHz | S/N 426TMM0402**

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
850.1500	-13	*	*
1275.2250	-13	*	*
1700.3000	-13	*	*
2125.3750	-13	*	*
2550.4500	-13	*	*
2975.5250	-13	*	*
3400.6000	-13	*	*
3825.6750	-13	*	*
4250.7500	-13	*	*



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

Pursuant to CFR 47 Part 2.1057(c), emissions attenuated more than 20 dB below the permissible limit are not reported.

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**  
**FCC Registration: 91932 / Industry Canada: IC109U-1**

**August 11, 2011**

Exhibit 6F-3

**Motorola Solutions**

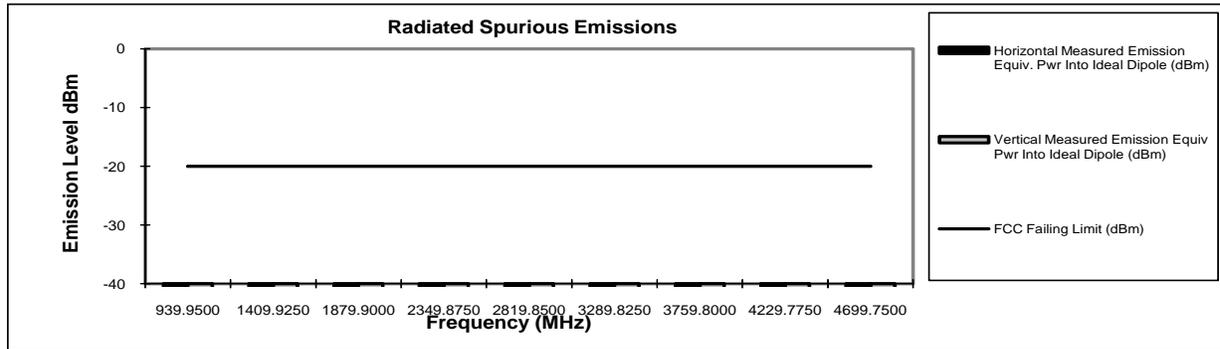
**FCC ID:AZ489FT4907**

**Transmit Radiated Spurious Emissions: APX4000 Non Bluetooth  
Tx Power: 5.7 Watts**

**469.975 MHz**

**Channel Spacing 12.5kHz | S/N 426TMM0286**

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
939.9500	-20	*	*
1409.9250	-20	*	*
1879.9000	-20	*	*
2349.8750	-20	*	*
2819.8500	-20	*	*
3289.8250	-20	*	*
3759.8000	-20	*	*
4229.7750	-20	*	*
4699.7500	-20	*	*



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

Pursuant to CFR 47 Part 2.1057(c), emissions attenuated more than 20 dB below the permissible limit are not reported.

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: Alberto Cordero**

**August 14, 2011**

**FCC Registration: 91932 / Industry Canada: IC109U-1**

Exhibit 6F-4

**EXHIBIT 6G**  
**Frequency Stability - Pursuant 47 CFR 2.1047 and 2.1033(c)(13)**

Frequency Stability (425.075 MHz) vs. Supply Voltage

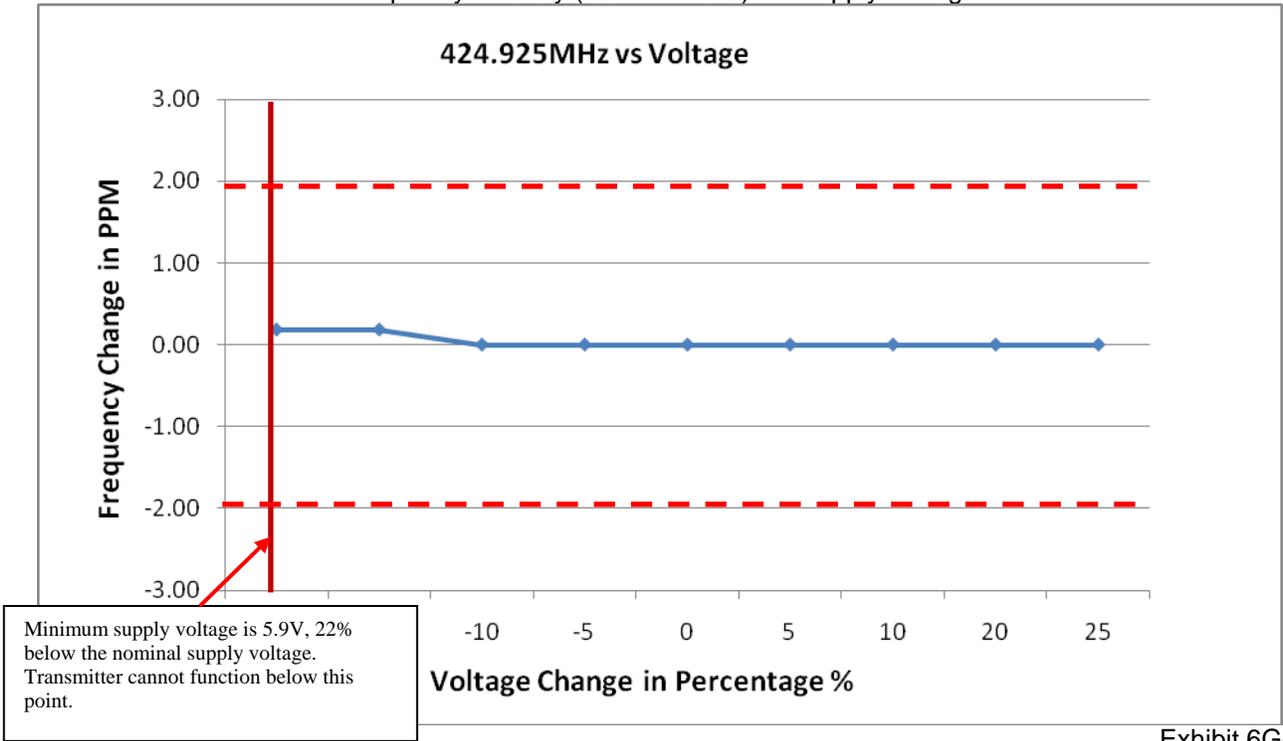


Exhibit 6G-1

Frequency Stability (424.925 MHz) vs. Temperature

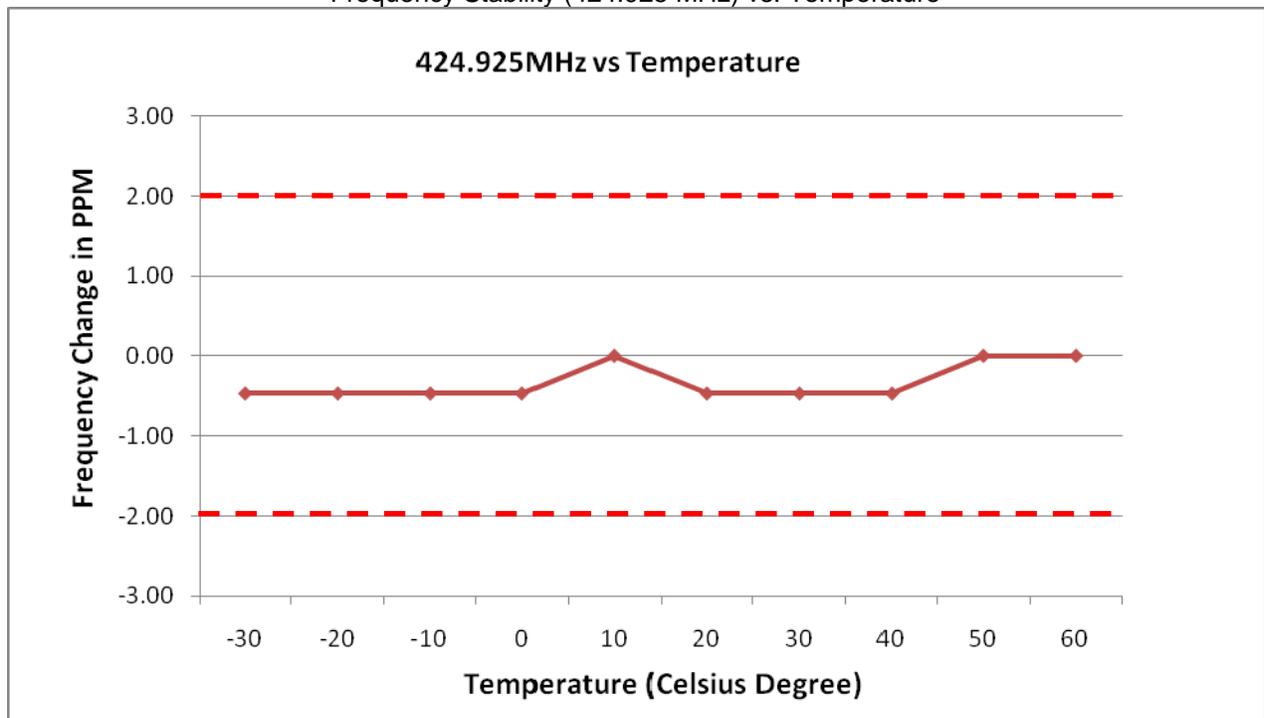


Exhibit 6G-2



**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 -13dBm.

Spurs which are not shown is less than 100dB

380.025 MHz, 12.5 kHz Channel Spacing, 5.7Watts (Not for FCC Review)

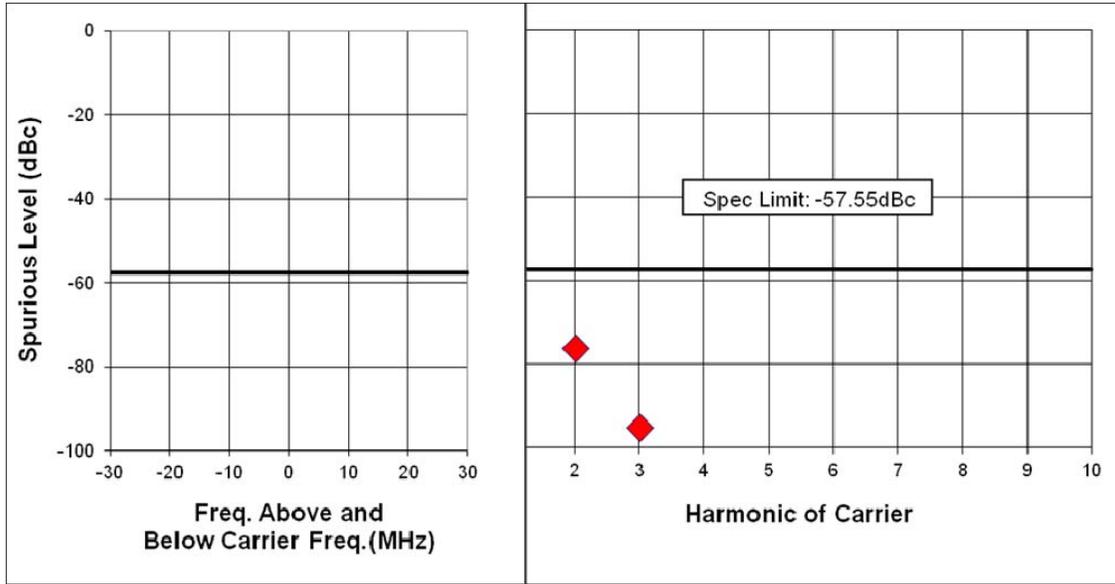


Exhibit 6H-1

424.925 MHz, 12.5 kHz Channel Spacing, 5.7Watts

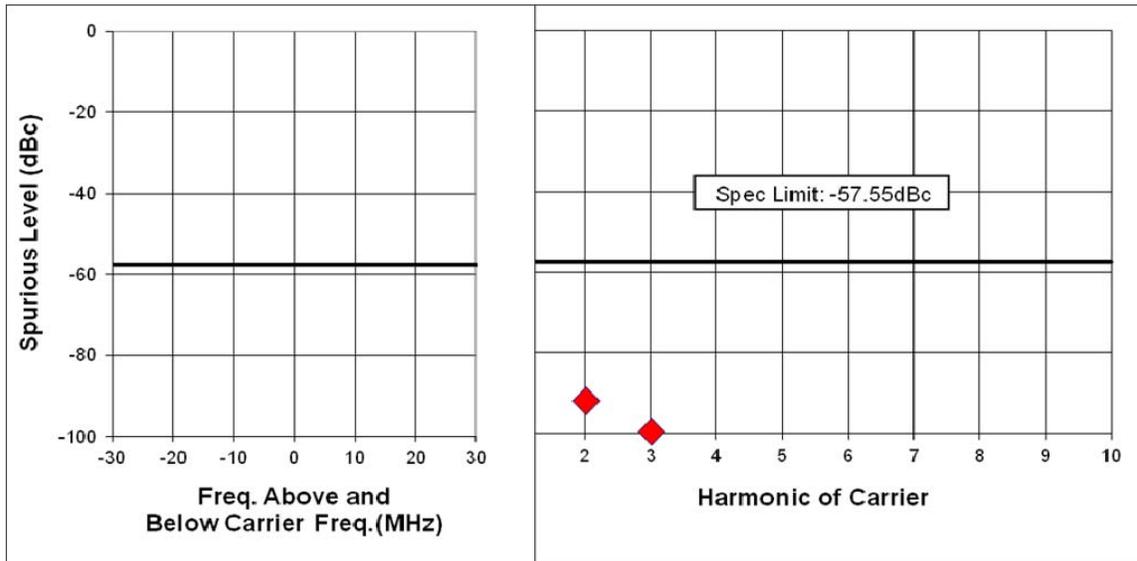


Exhibit 6H-2

469.925 MHz, 12.5 kHz Channel Spacing, 5.7Watts

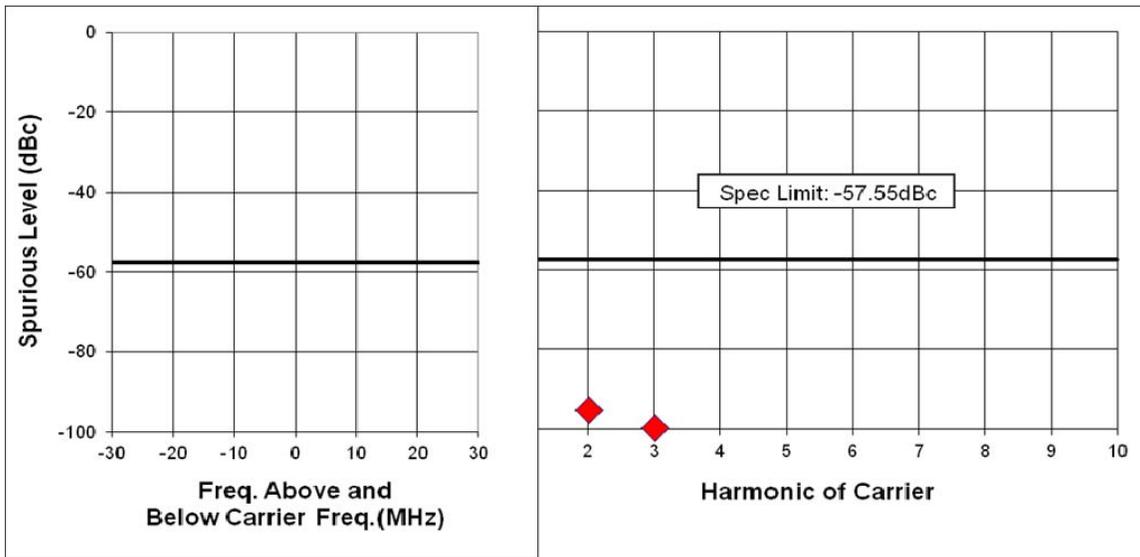


Exhibit 6H-3

380.025 MHz, 25 kHz Channel Spacing, 5.7Watts (Not for FCC Review)

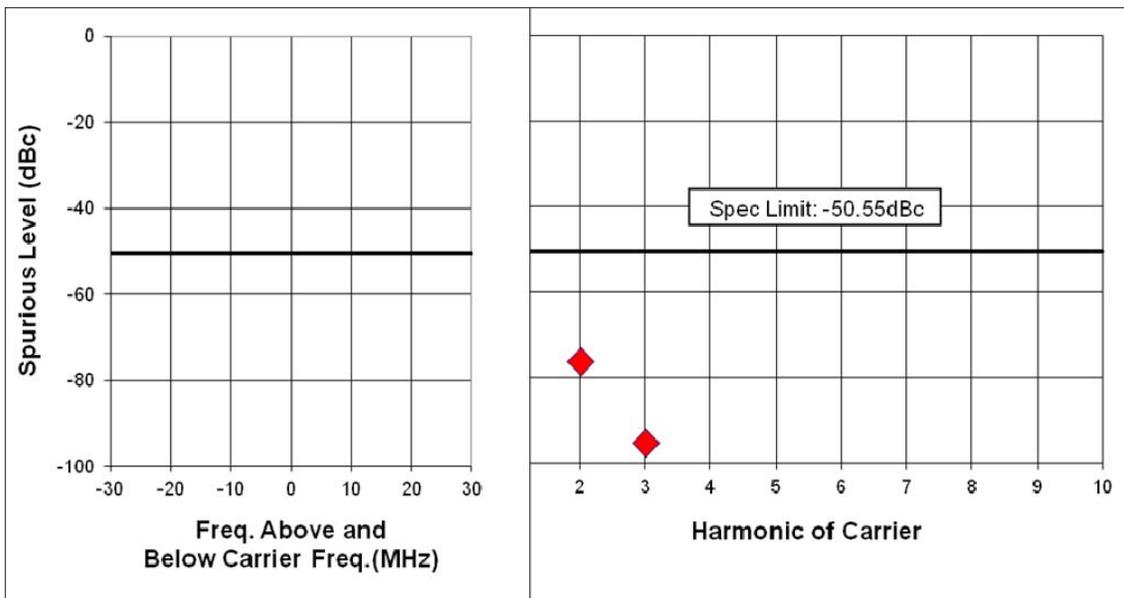


Exhibit 6H-4

424.925 MHz, 25 kHz Channel Spacing, 5.7Watts (Not for FCC Review)

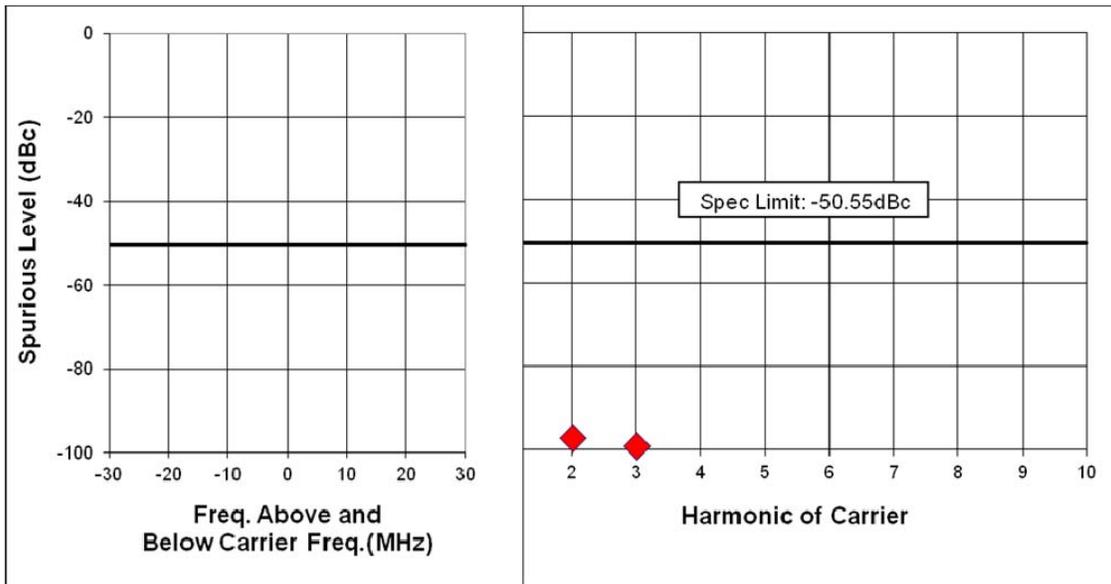


Exhibit 6H-5

469.925 MHz, 25 kHz Channel Spacing, 5.7Watts (Not for FCC Review)

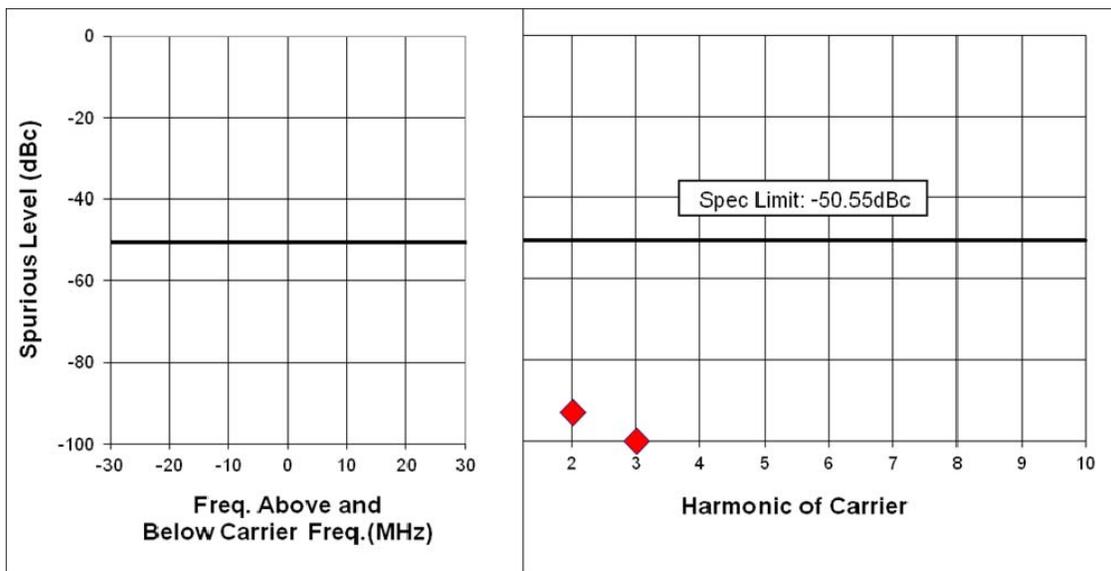
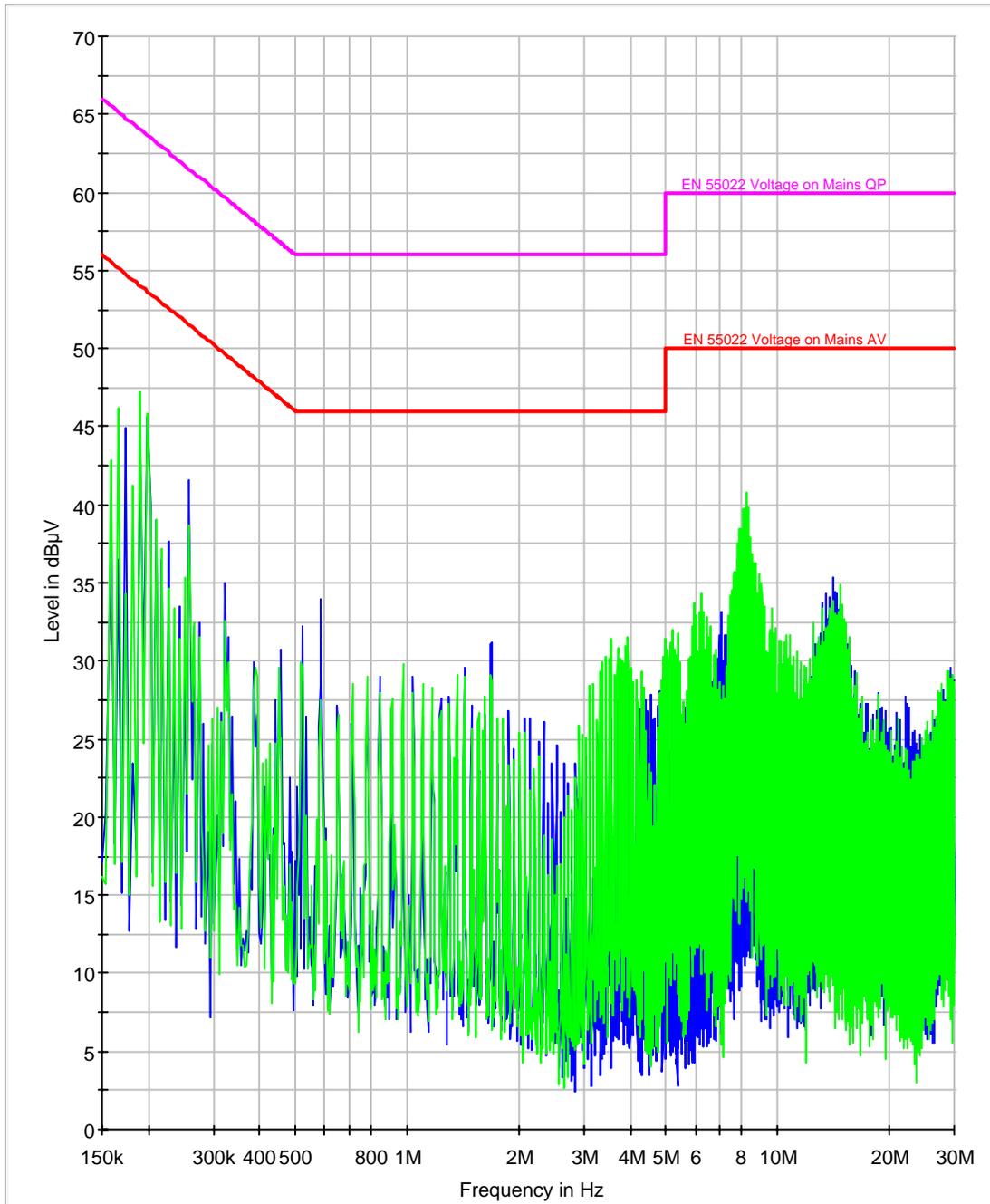


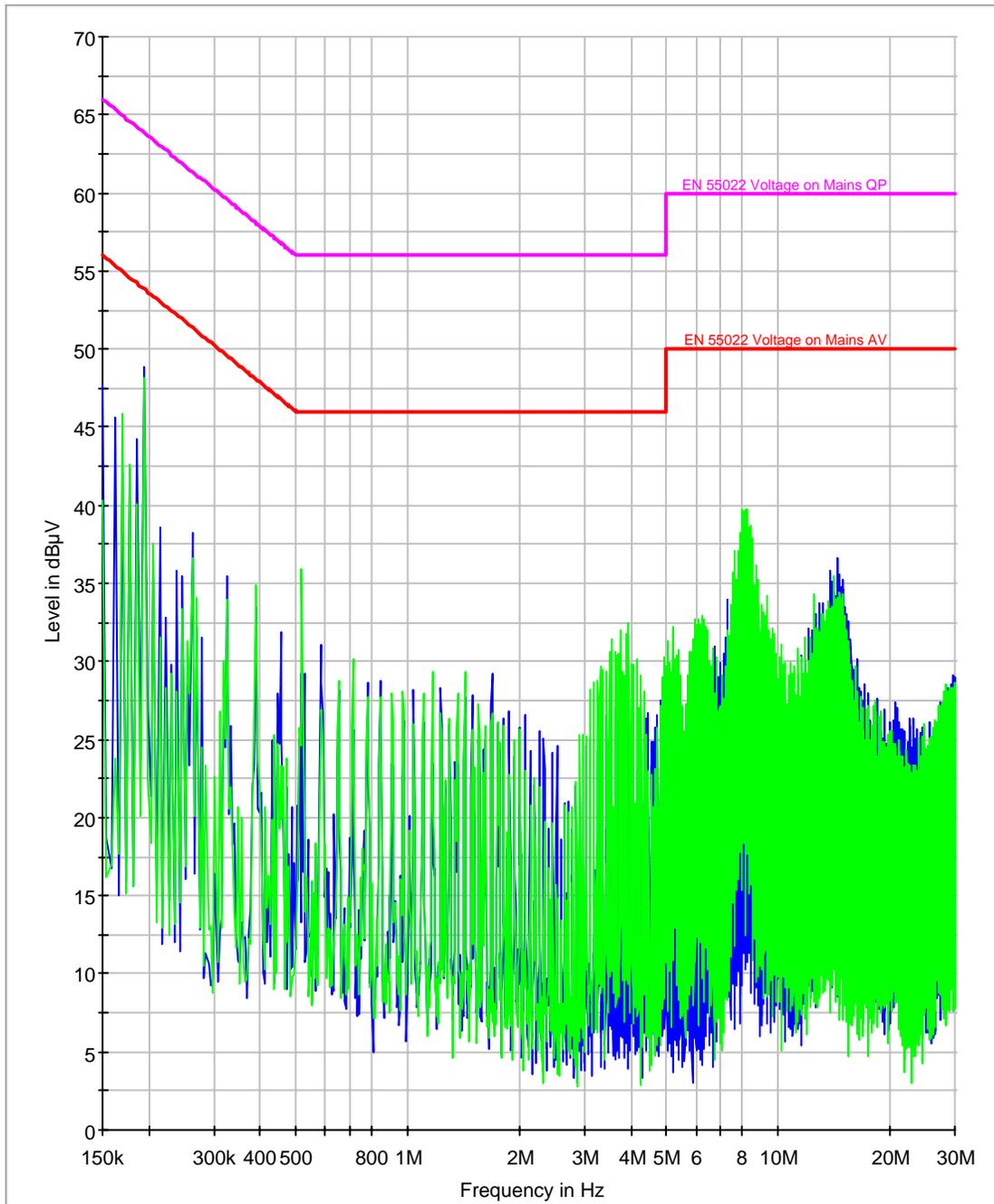
Exhibit 6H-6

**EXHIBIT 6I**  
**Power Line Conducted Spurious Emissions - Pursuant to FCC Rules Part 15.107**



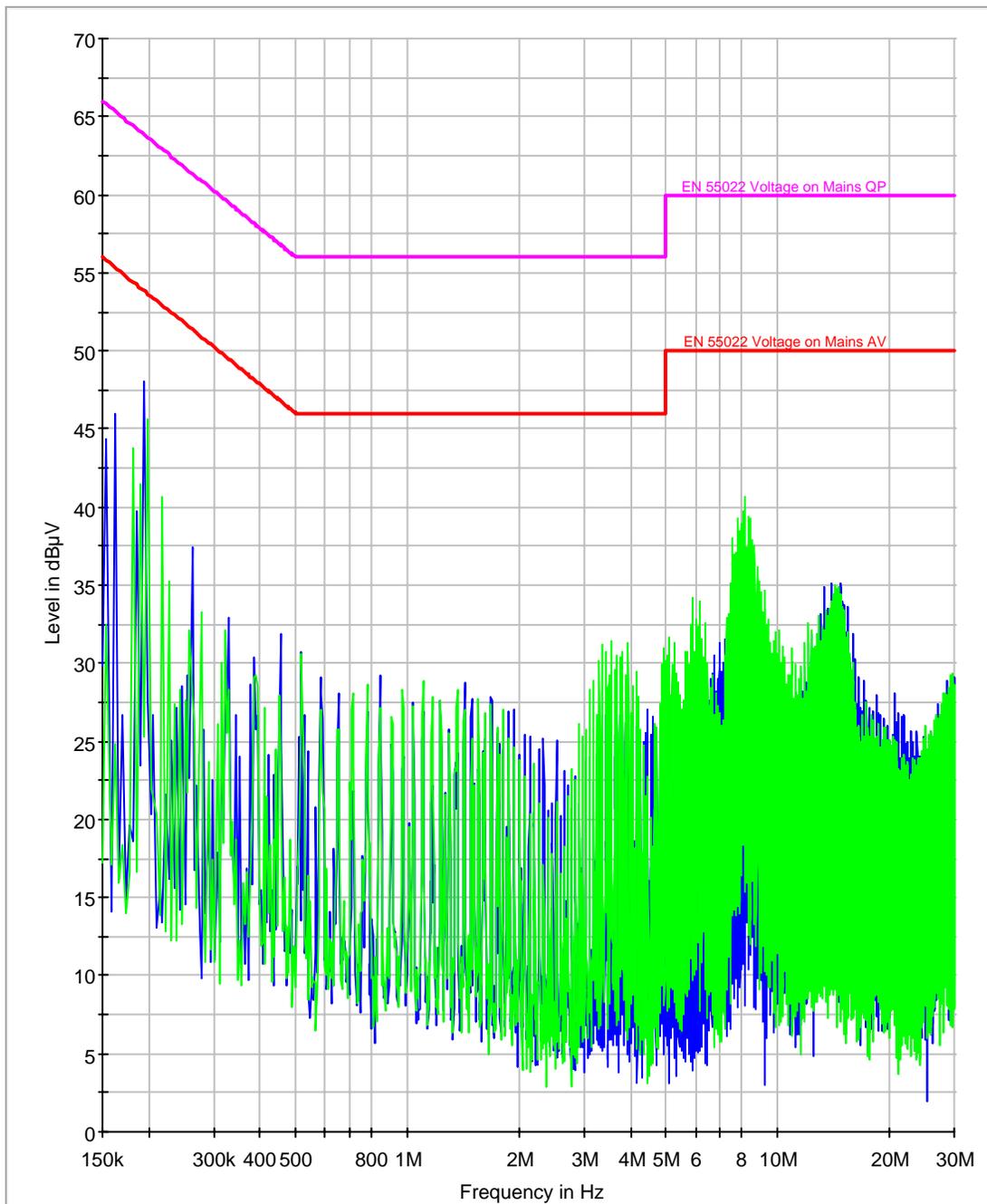
EMI Conducted Scan latest FCC Peak det - 3816 LISN  
Auto Merge Results N – Green L1 – Blue  
Radio Off

Exhibit 6I-1



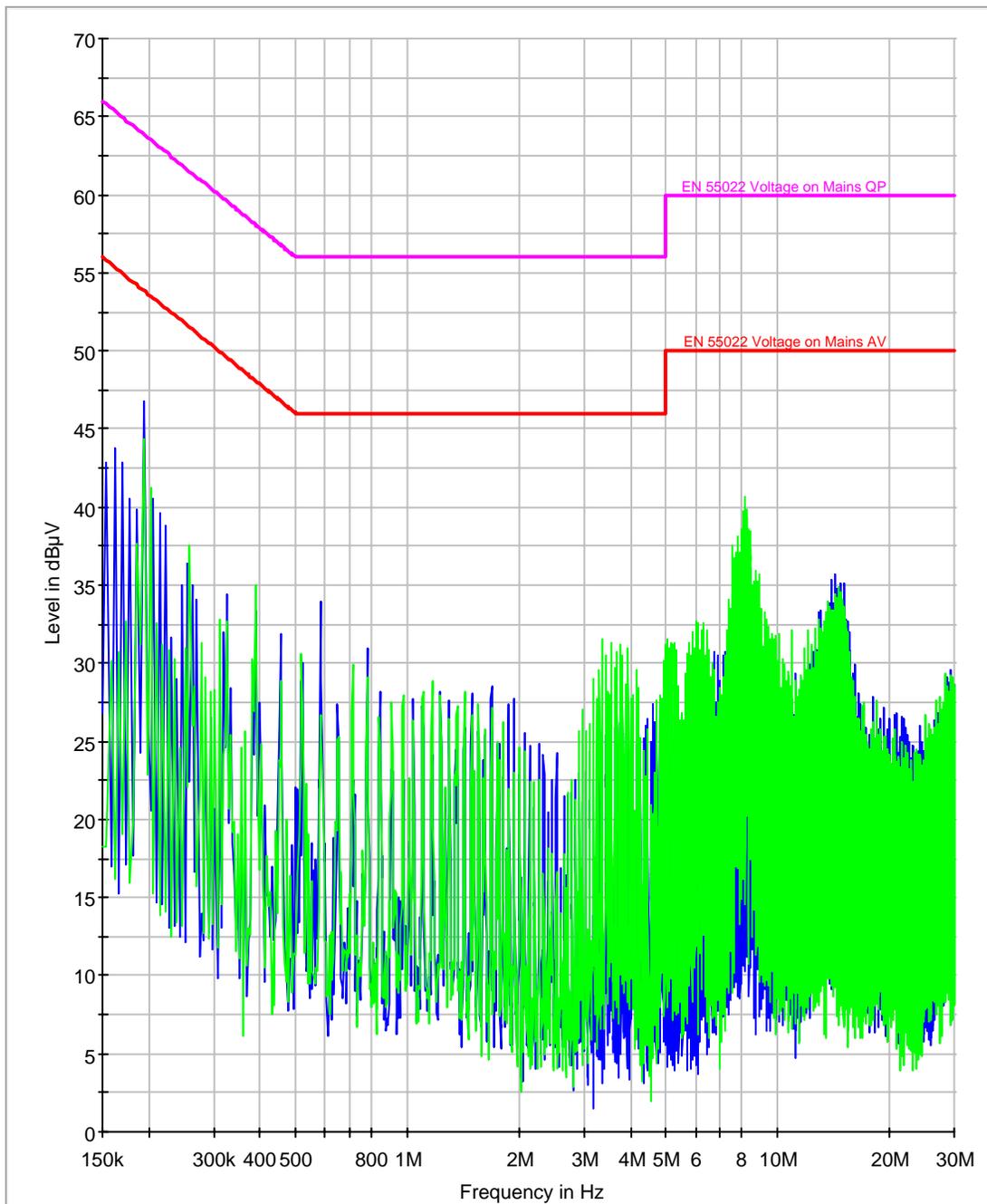
EMI Conducted Scan latest FCC Peak det - 3816 LISN  
Auto Merge Results N – Green L1 – Blue  
TX – 380.075 MHz (Not for FCC Review)

Exhibit 6I-2



EMI Conducted Scan latest FCC Peak det - 3816 LISN  
Auto Merge Results N – Green L1 – Blue  
TX – 425.075 MHz

Exhibit 6I-3



EMI Conducted Scan latest FCC Peak det - 3816 LISN  
Auto Merge Results N – Green L1 – Blue  
TX – 469.975 MHz

Exhibit 6I-4

**EXHIBIT 6J**  
**Transient Frequency Behavior**

TX 424.925 MHz – 12.5 kHz Channel Spacing – Transmitter On

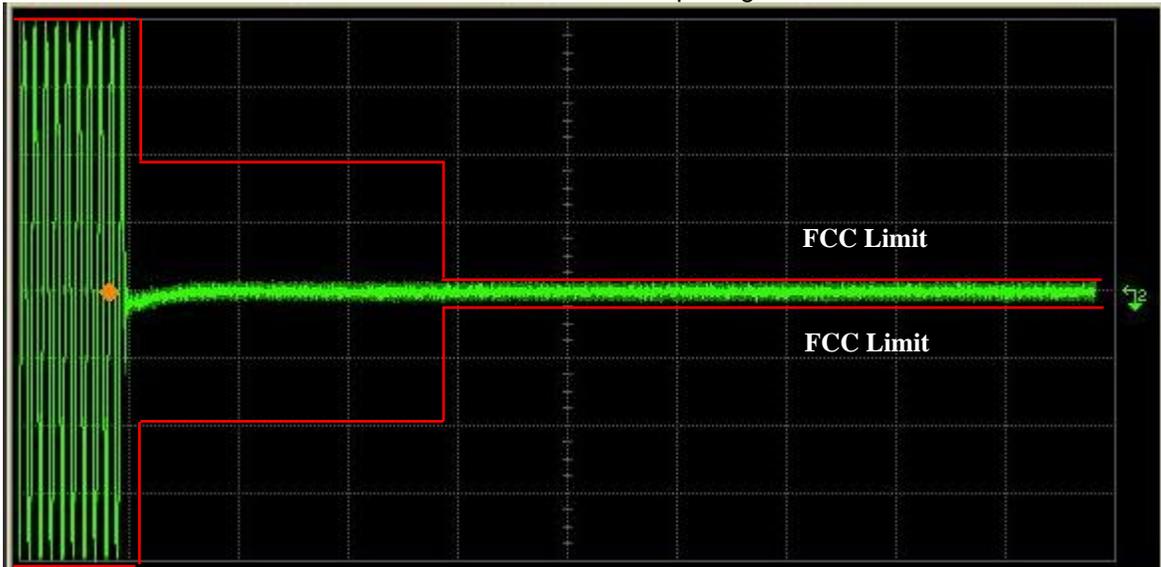


Exhibit 6L-1

TX 424.925 MHz – 12.5 kHz Channel Spacing – Transmitter Off

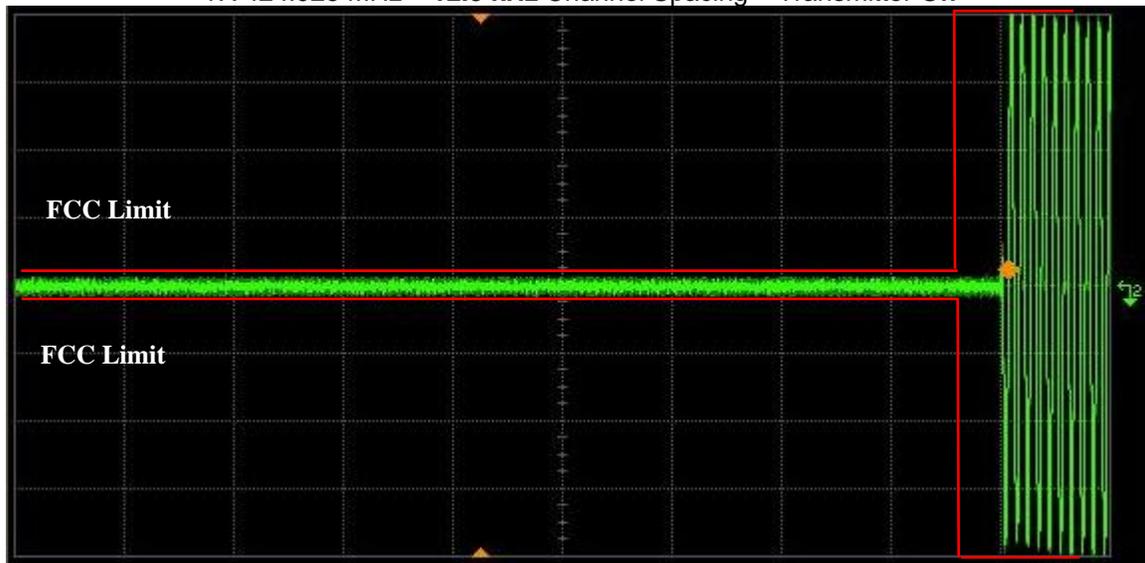


Exhibit 6L-2

TX 424.925 MHz – 25 kHz Channel Spacing – Transmitter On (Not for FCC Review)

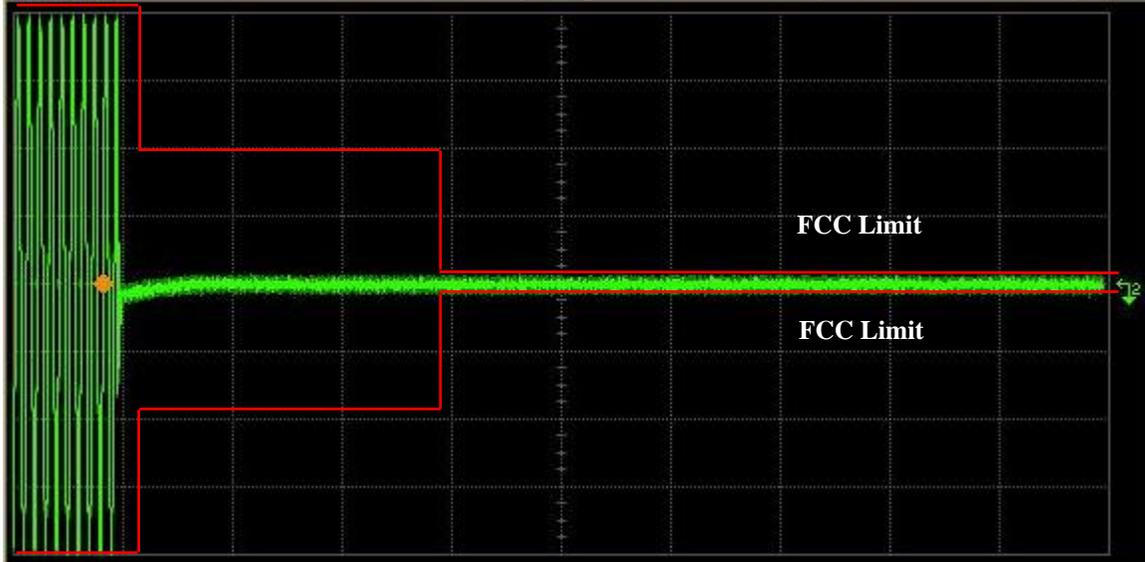


Exhibit 6J-3

TX 424.925 MHz – 25 kHz Channel Spacing – Transmitter Off (Not for FCC Review)

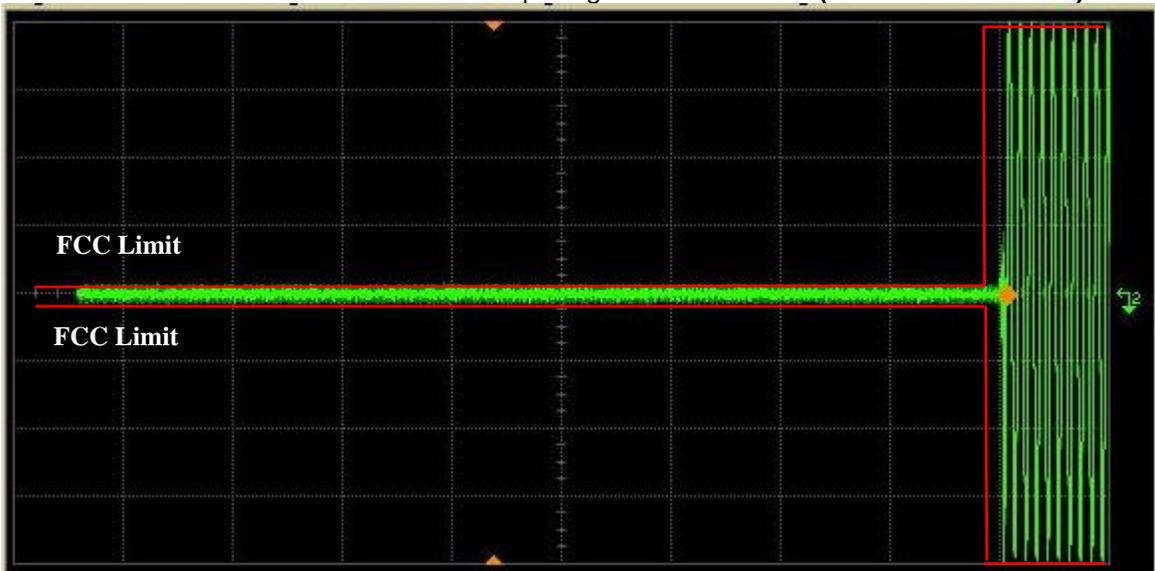


Exhibit 6J-4