

Submitted Measured Data

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**RF Power Output Data**

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

**154.5 MHz**

Measured RF output: 1.0 Watt  
Nominal DC voltage: 7.5 Volts  
Nominal DC Current: 0.830 mAmps  
Primary Supply Voltage: 7.5 Volts

Measured RF output: 3.0 Watts  
Nominal DC voltage: 7.5 Volts  
Nominal DC Current: 1250 mAmps  
Primary Supply Voltage: 7.5 Volts

Measured RF output: 6.6 Watts  
Nominal DC voltage: 7.5 Volts  
Nominal DC Current: 1810 mAmps  
Primary Supply Voltage: 7.5 Volts

**Audio Frequency Response** (Freq: 155.45MHz, ChSp: 12.5 kHz)

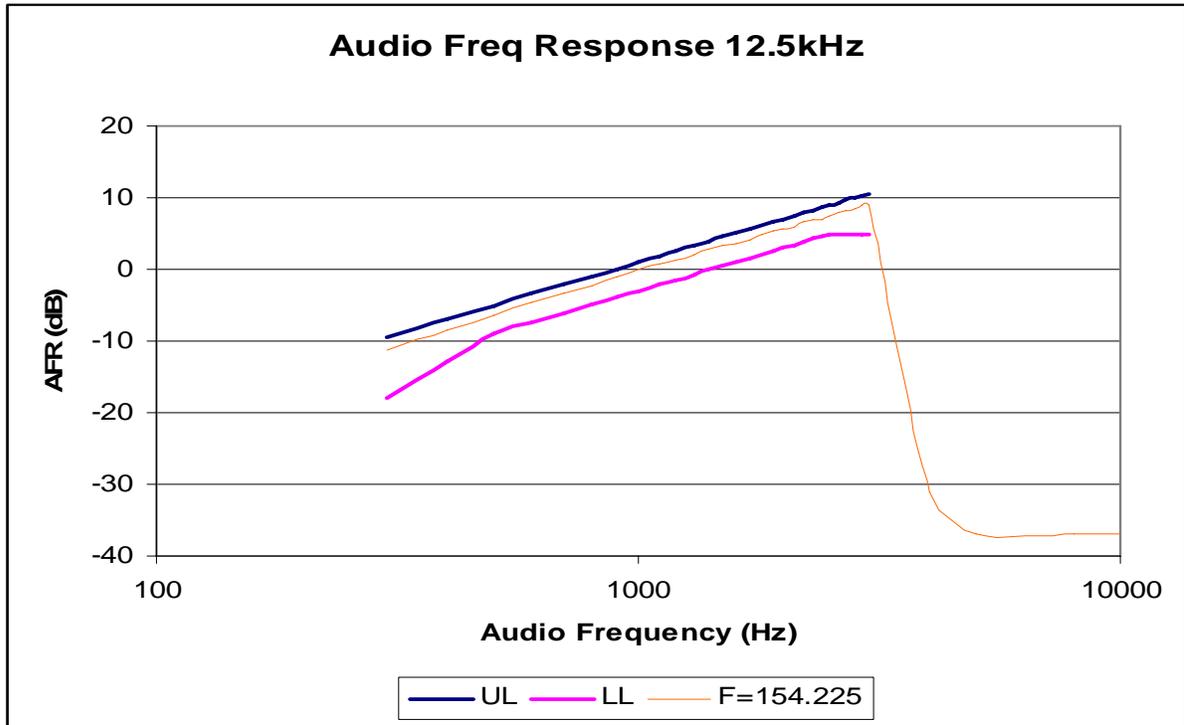


Exhibit 6B-1

**Audio Frequency Response** (Freq: 155.45MHz, ChSp: 25kHz)

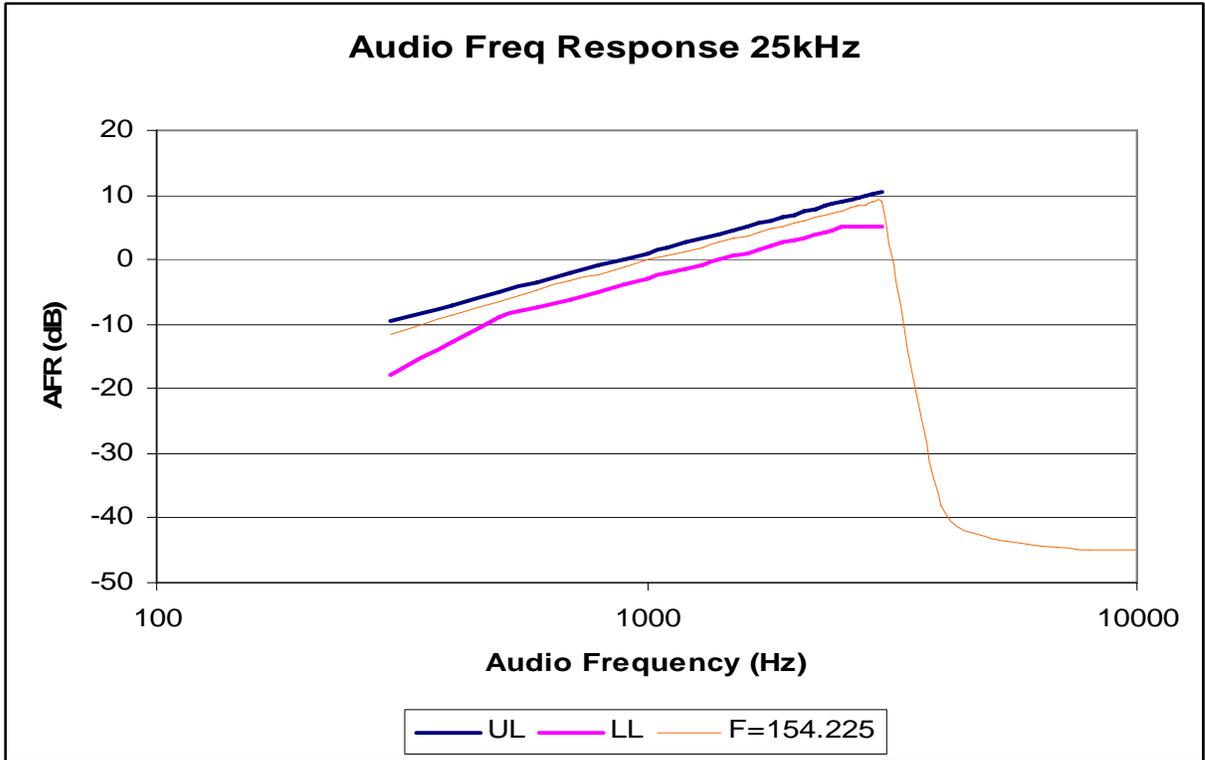


Exhibit 6B-2

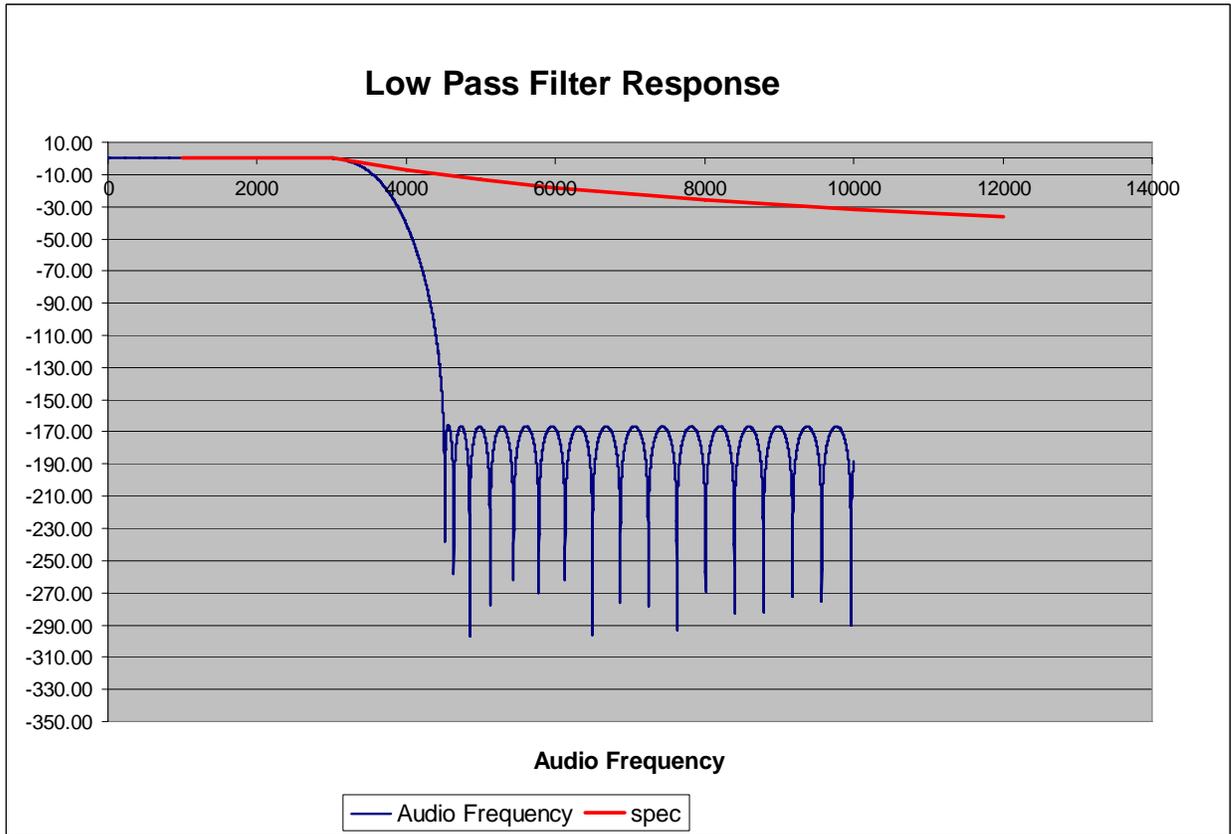


EXHIBIT 6C

**Modulation Limiting**

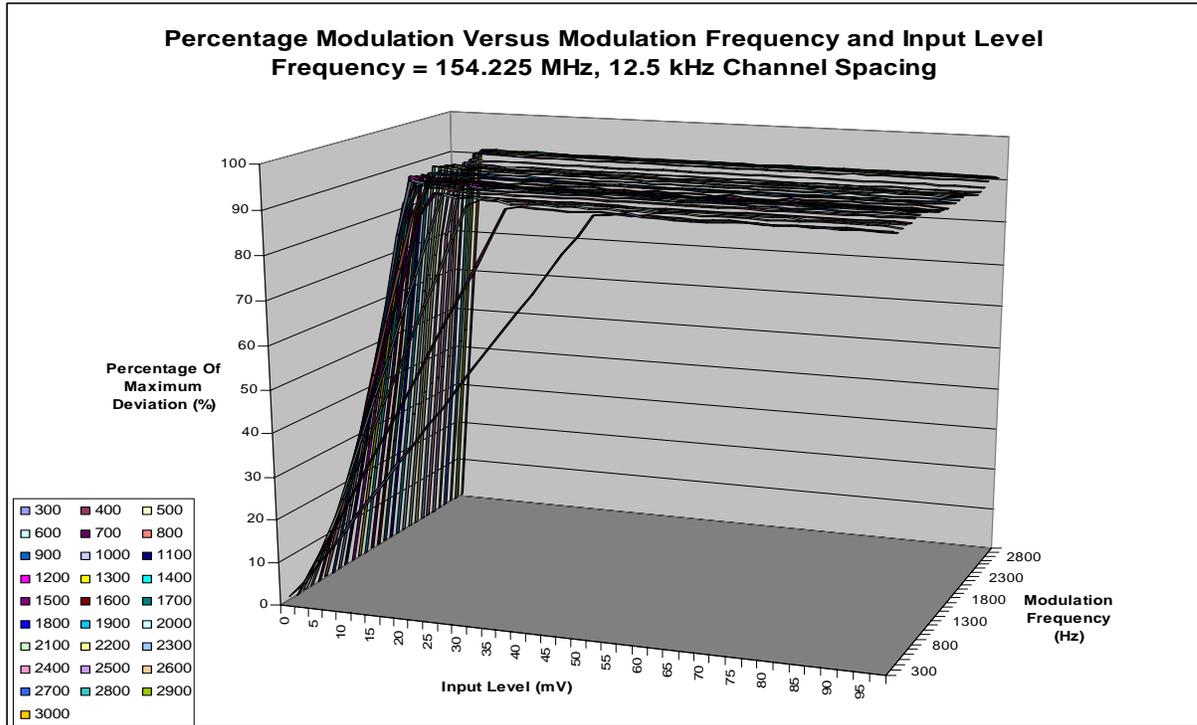
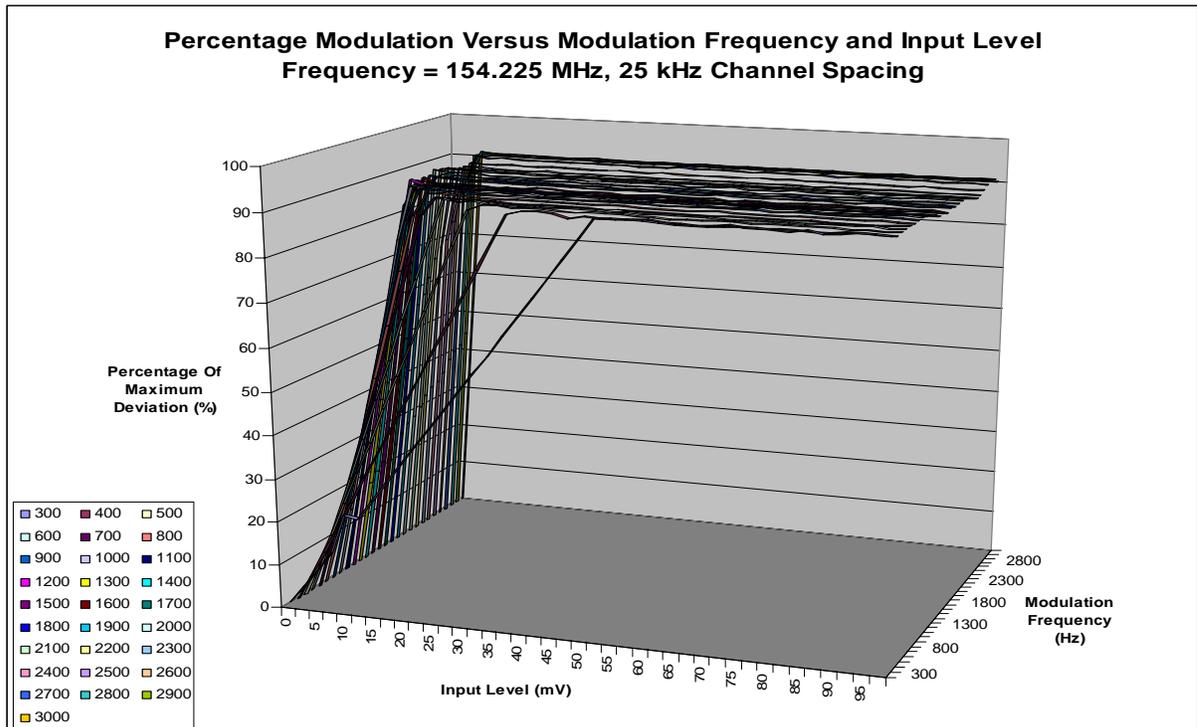


Exhibit 6D-1



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

**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: AZ489FT3829.

**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.

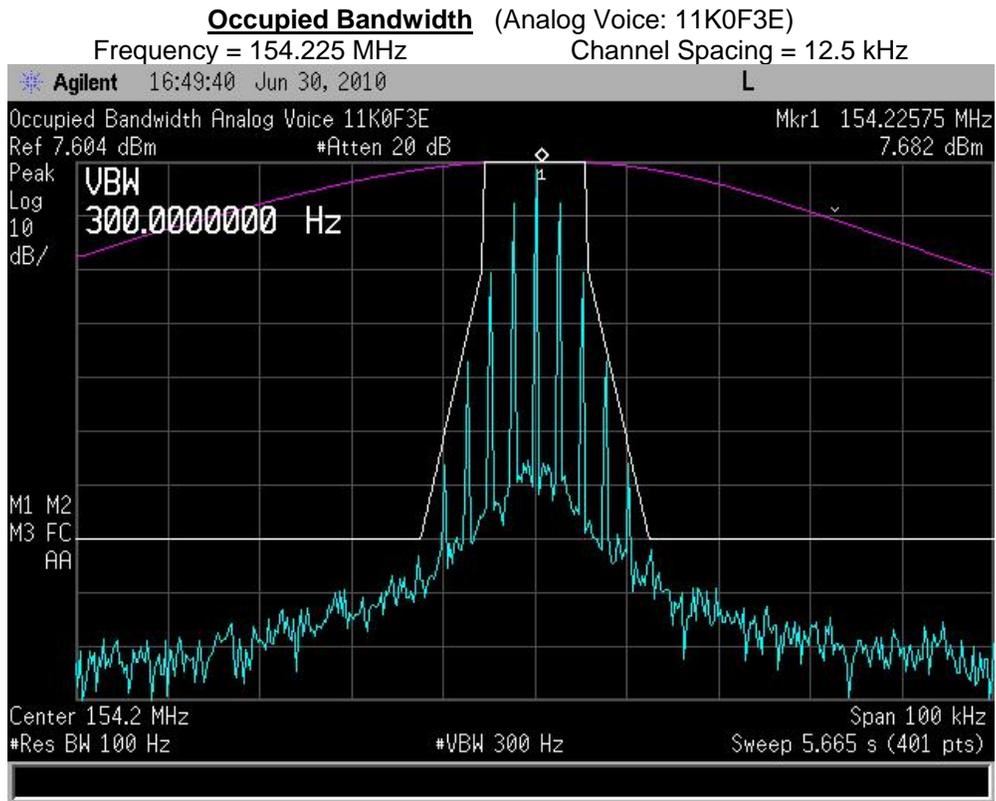


Exhibit 6E-1

**Occupied Bandwidth** (Analog Voice: 16K0F3E)  
Frequency = 154.225 MHz      Channel Spacing = 25 kHz

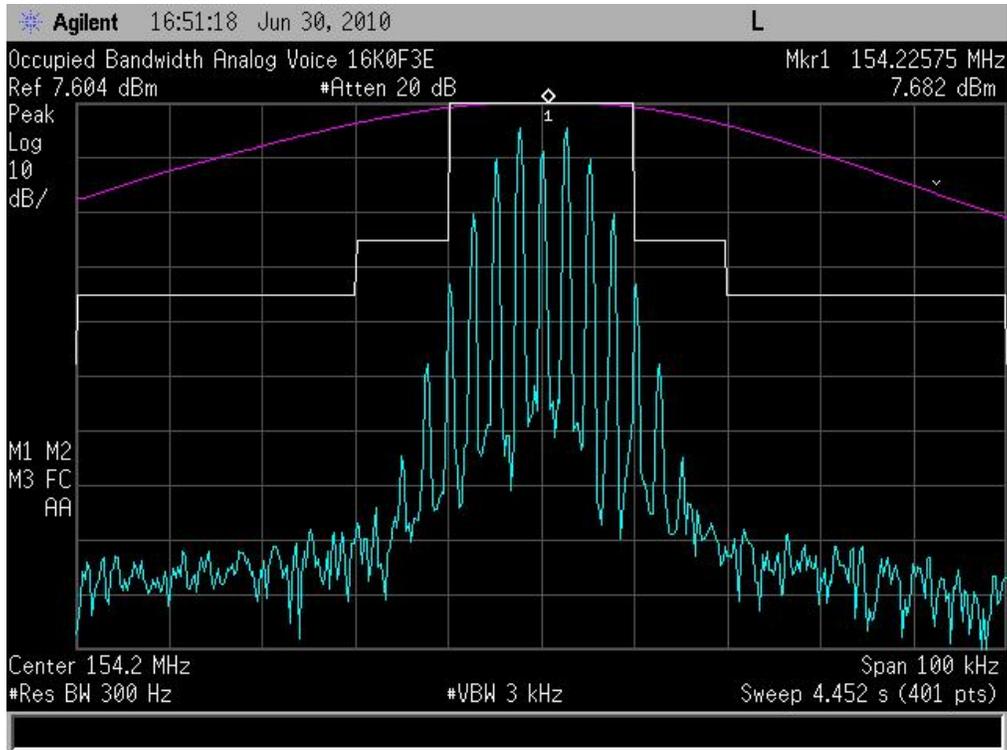


Exhibit 6E-2

**Occupied Bandwidth** (Digital Data: 8K10F1D)

Frequency = 154.225 MHz Channel Spacing = 12.5 kHz

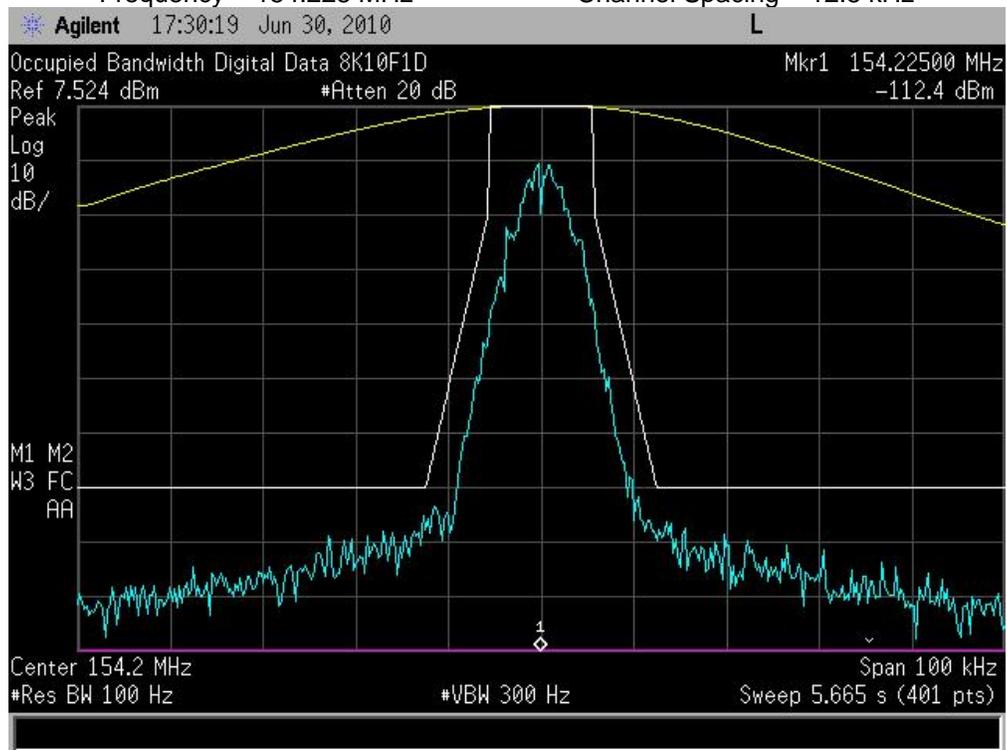


Exhibit 6E-3

**Occupied Bandwidth** (Digital Voice: 8K10F1E)

Frequency = 154.225 MHz Channel Spacing = 12.5 kHz

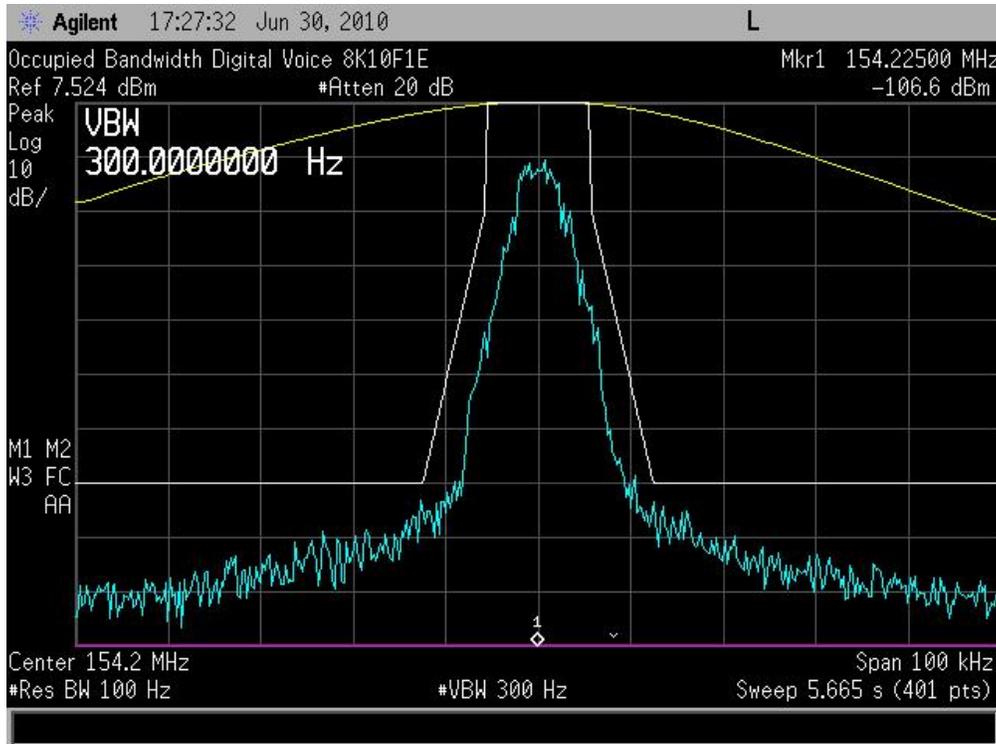


Exhibit 6E-4

**Occupied Bandwidth** (Digital TDMA: 8K10F1W)  
Frequency = 154.225 MHz Channel Spacing = 12.5 kHz

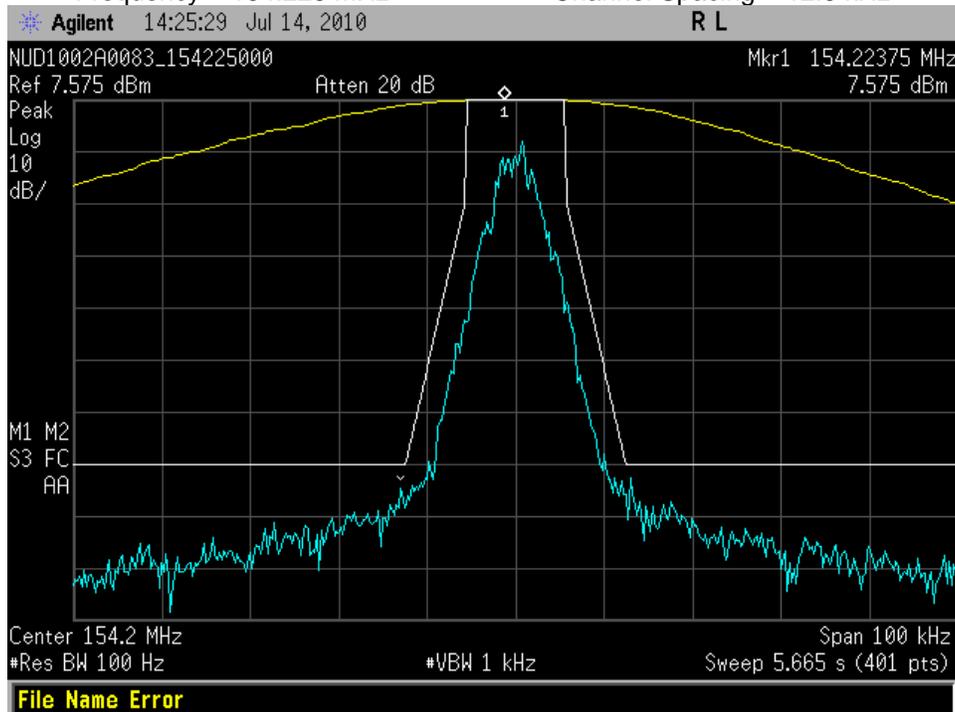


Exhibit 6E-5

**Occupied Bandwidth** (Analog Voice Encryption: 20K0F1E)  
Frequency = 154.225 MHz Channel Spacing = 20 kHz

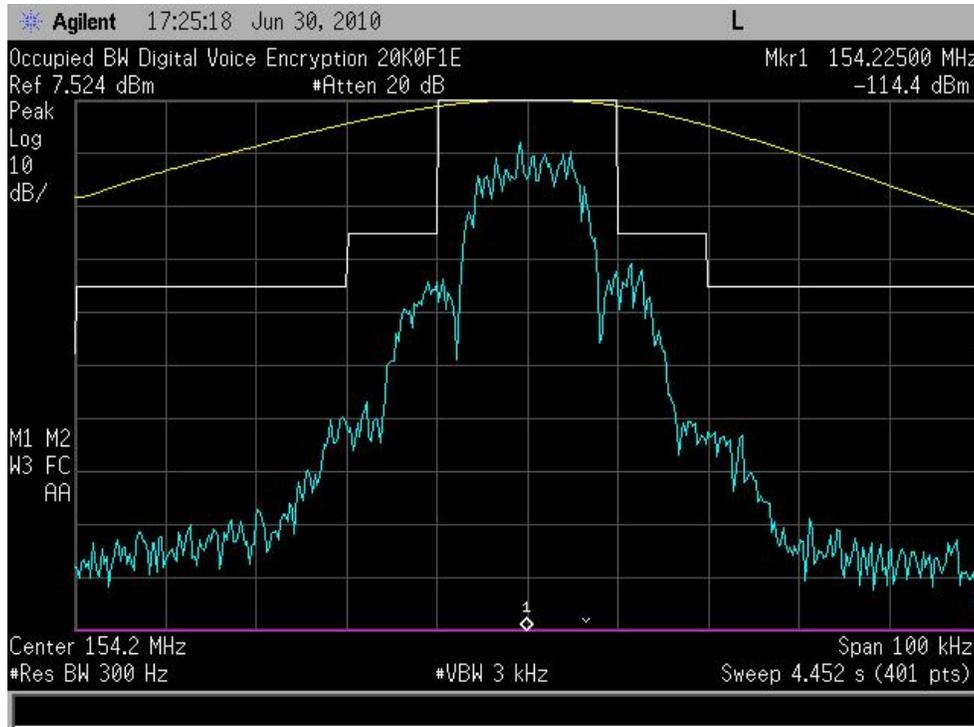


Exhibit 6E-6

**Transmit Radiated Spurious Emissions: APX6000-NUD1006A0091**  
 Tx Power: 6.6 Watts

154.225 MHz Channel Spacing 12.5kHz | S/N C6AC40256

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
308.4500	-20	-73.25	-68.12
462.6750	-20	-70.61	-56.56
616.9000	-20	-72.18	-64.37
771.1250	-20	-68.17	-67.09
925.3500	-20	*	*
1079.5750	-20	*	*
1233.8000	-20	*	*
1388.0250	-20	*	*
1542.2500	-20	*	*

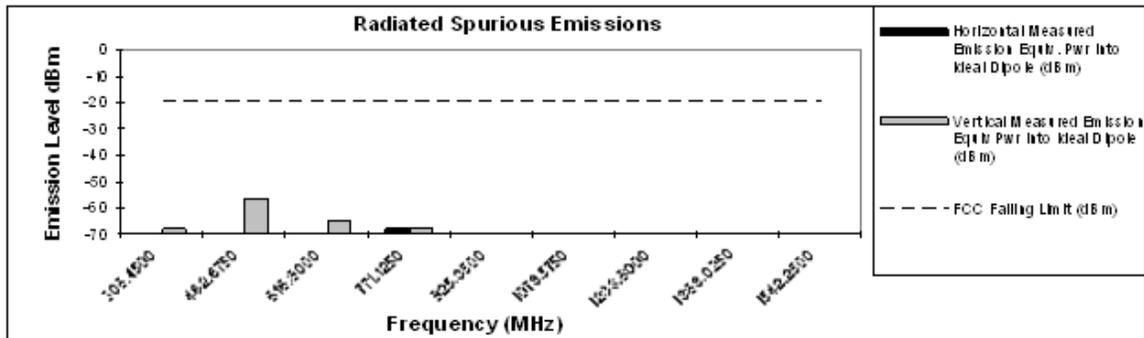
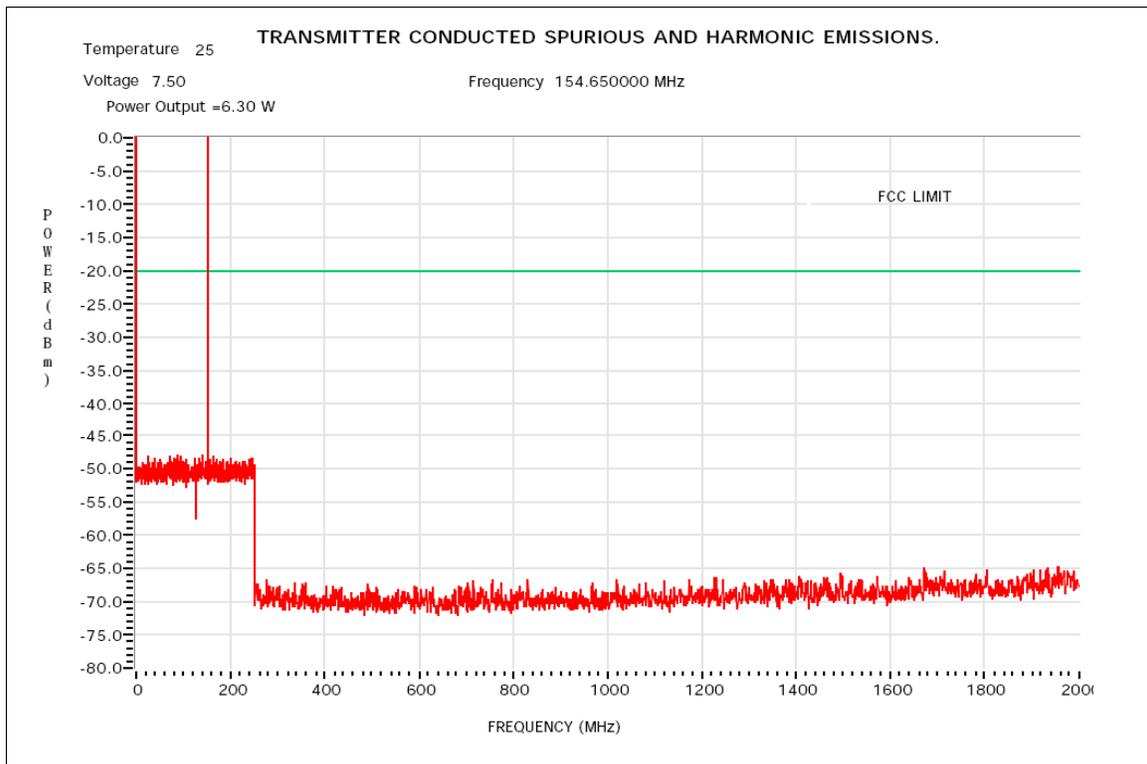


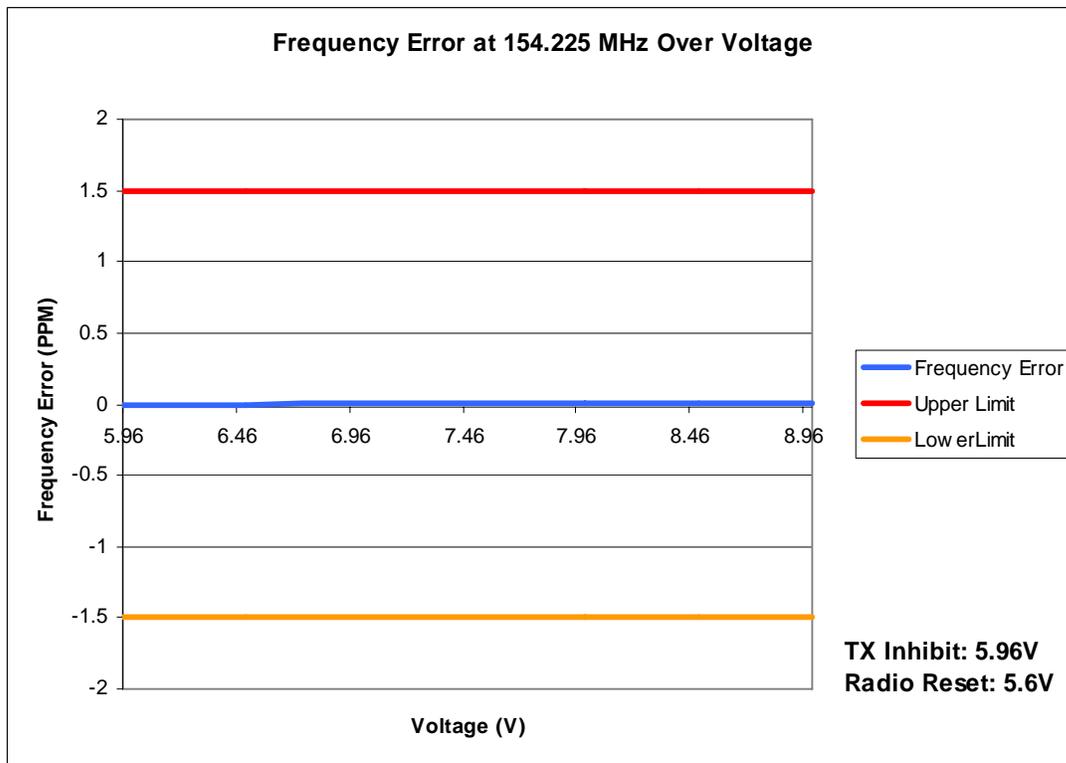
Exhibit 6F-1

### Transmitter Conducted Emissions

Spurious response was measured at 154.650 MHz. Conducted emissions were measured to 2 GHz, beyond the tenth harmonic. No spurs were measured above the measurement noise floor of -65 dBm.



Frequency Stability



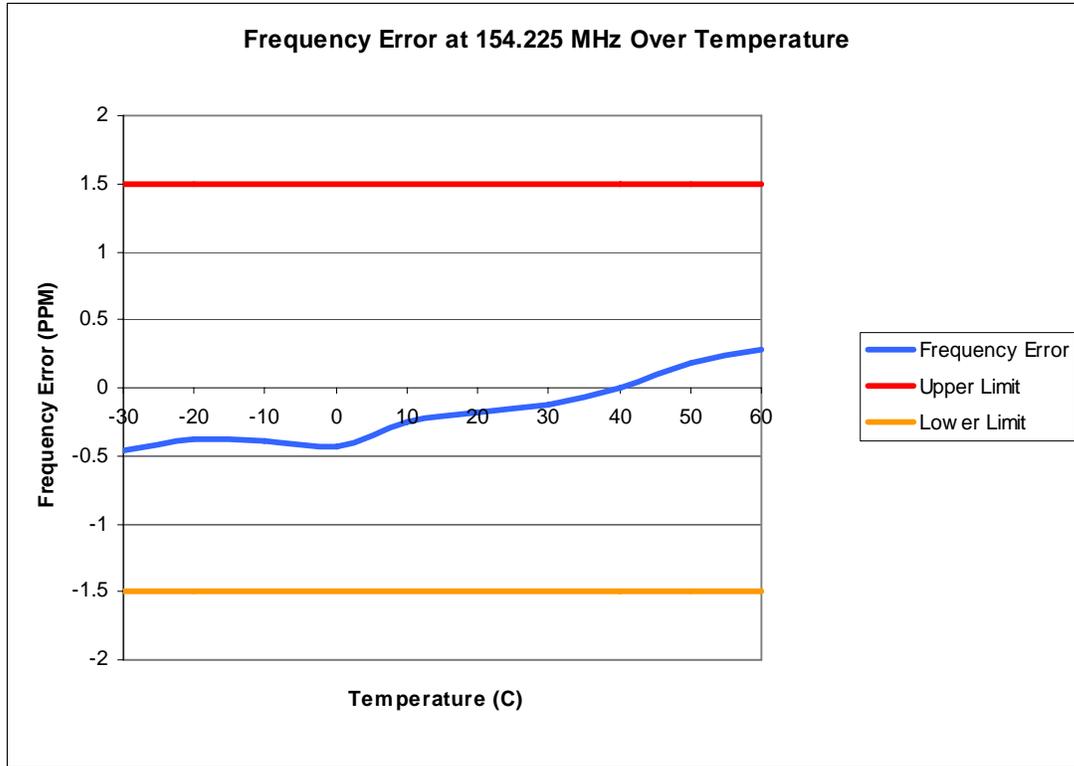


Exhibit 6H-2

### Transient Frequency Behavior

TX 154.225MHz – 12.5 kHz Channel Spacing – Transmitter On

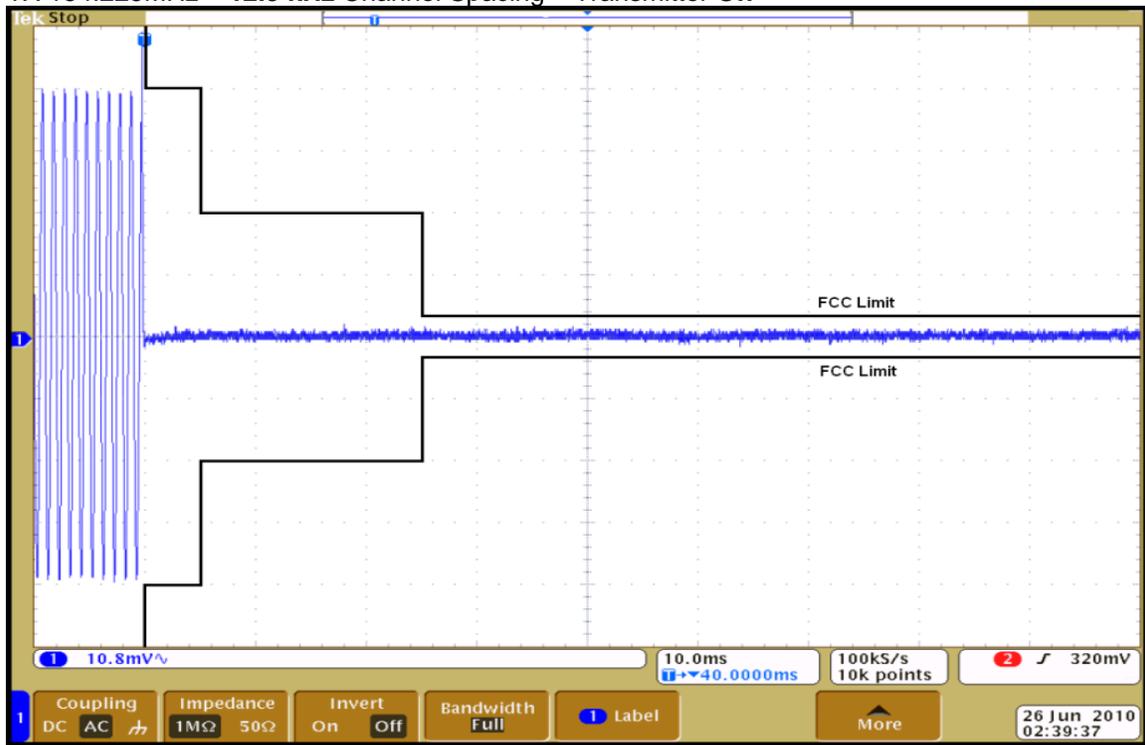


Exhibit 6I-1

TX 154.225Mhz – 12.5 kHz Channel Spacing – Transmitter Off

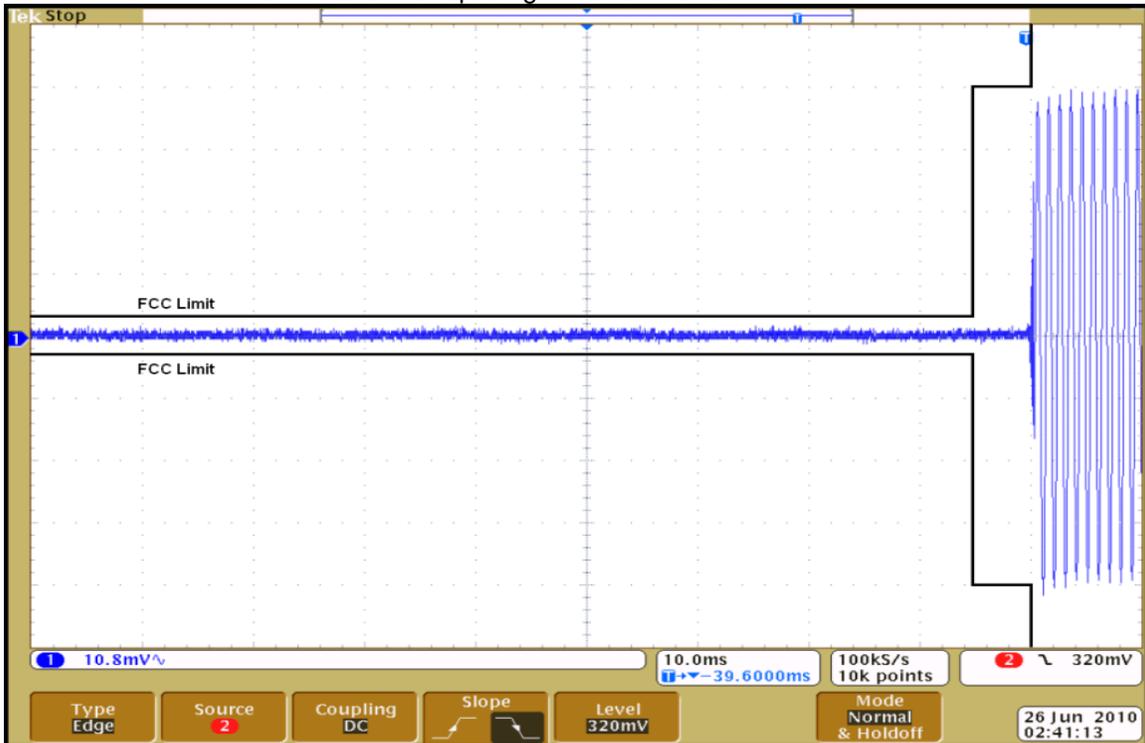


Exhibit 6I-2

Transmit at 154.225MHz – 25 kHz Channel Spacing – Transmitter On

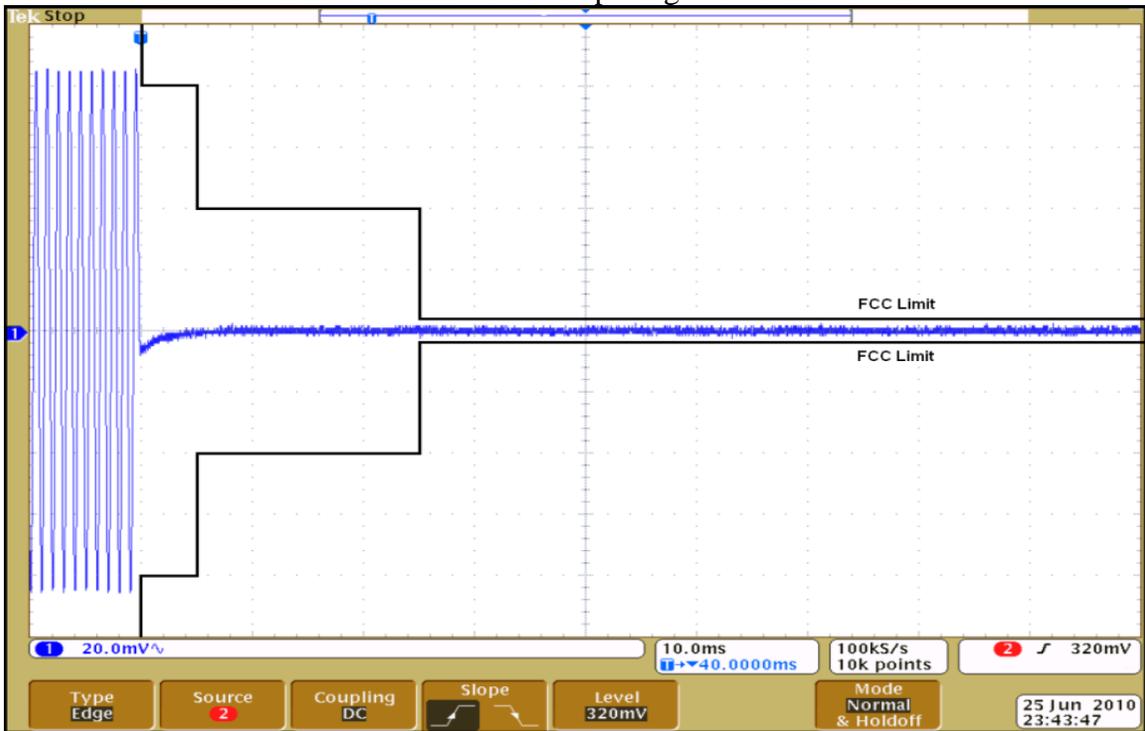


Exhibit 6I-3

Transmit at 154.225MHz – 25 kHz Channel Spacing – Transmitter Off

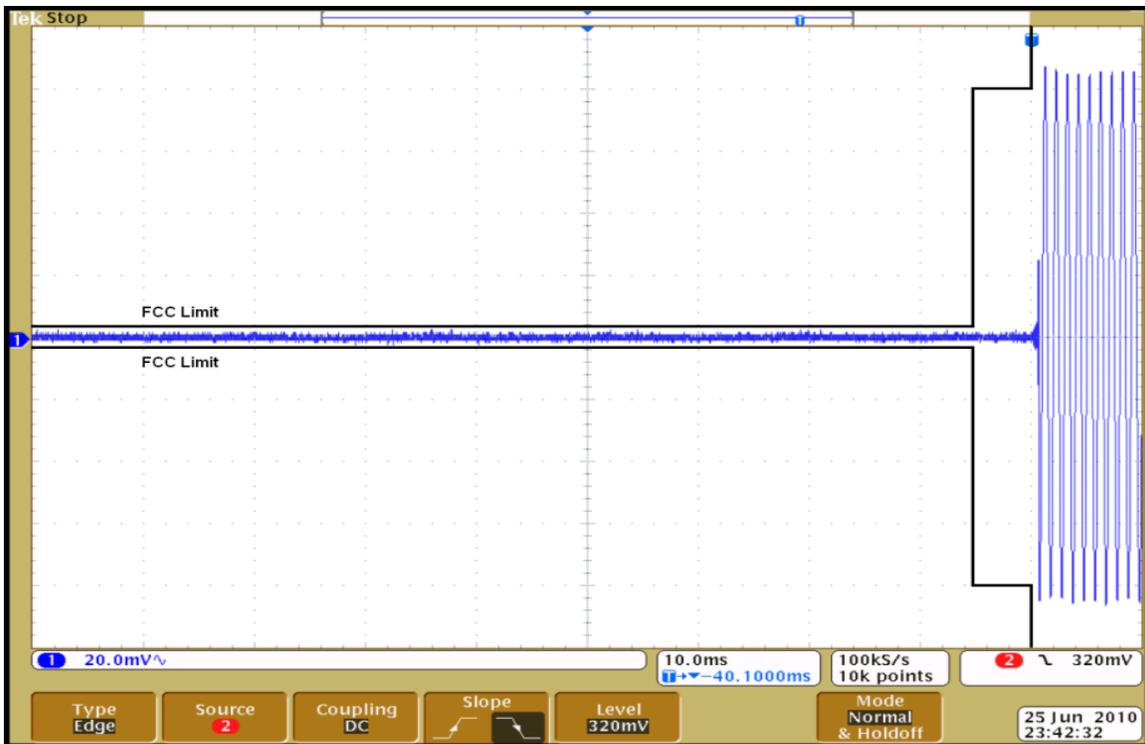


Exhibit 6I-4

**Power Line Conducted Spurious Emissions**

**Scan Parameters: Hardware Setup latest FCC class B – [EMI conducted]**

Test frequencies were swept from 150 kHz to 30 MHz in accordance with FCC 15.107. The tables below list the worst-case quasi-peak and average detector values for Line and Neutral.

EUT Name:	Portable APX6000 NUD 1006
Serial Number:	A0169
FCC ID:	AZ489FT3829
Test Description:	A/C Power Line Conducted Emissions
Operating Conditions:	Room temp
Operator Name:	Mac Elliott
Comment:	Charger – NNTN7079A Power Supply – 2571886T01

**Hardware Setup: EMI conducted\Hardware Setup latest FCC class B - 3816 LISN - [EMI conducted]**

Subrange 1	
Frequency Range:	150 kHz - 30 MHz
Receiver:	ESIB 40 [ESIB 40] @ GPIBO (ADR 29), SN 100308/040, FW 4.35
Signal Path:	Cable 88 FW 1.0 Correction Table: Cable 88 - Cal 3_10
LISN:	3816 LISN Correction Table (Line 0): 2-Line-LISN EMCO 3816 Line N Correction Table (Line 1): 2-Line-LISN EMCO 3816 Line 1

**Scan Setup: EMI Conducted Scan latest FCC Peak det - 3816 LISN [EMI conducted]**

Hardware Setup:	Hardware Setup latest FCC class B - 3816 LISN
Level Unit:	dBµV

<b>Subrange</b>	<b>Detectors</b>	<b>IF Bandwidth</b>	<b>Meas. Time</b>	<b>Receiver</b>
150 kHz - 30 MHz	MaxPeak	9 kHz	0.001 s	ESIB 40

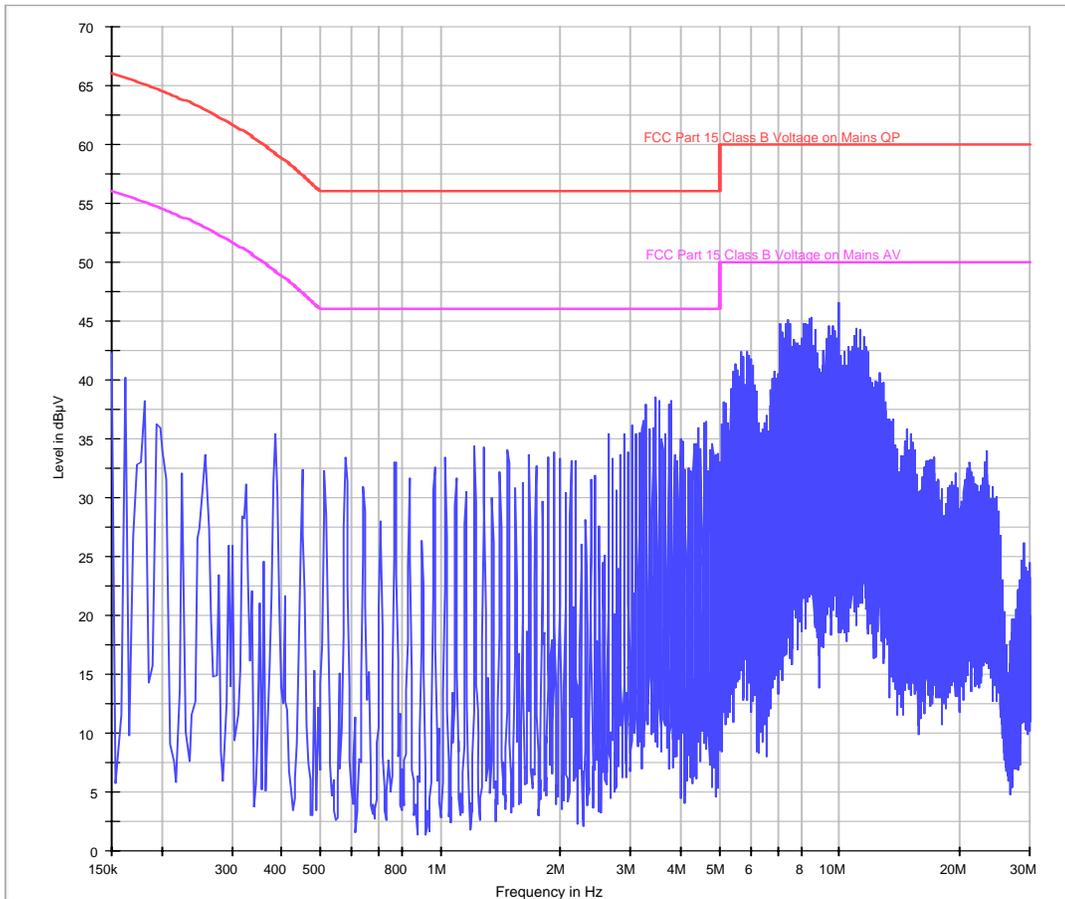
### Result Table\_Single RX – 136.075 MHz Line

Frequency (MHz)	MaxPeak (dBµV)	QuasiPeak (dBµV)	Average (dBµV)	RMS (dBµV)	MinPeak (dBµV)	CAverage (dBµV)	CRMS (dBµV)	ACVideo (dBµV)	Meas. Time (ms)
0.162000	---	34.6	8.5	---	---	---	---	---	1.000
0.182000	---	32.6	16.7	---	---	---	---	---	1.000
0.386000	---	35.2	34.7	---	---	---	---	---	1.000
5.658000	---	41.1	38.8	---	---	---	---	---	1.000
8.554000	---	44.0	40.0	---	---	---	---	---	1.000
10.002000	---	46.4	46.3	---	---	---	---	---	1.000

(continuation of the "Result Table\_Single" table from column 10 ...)

Frequency (MHz)	Bandwidth (kHz)	PE	Line	Corr. (dB)
0.162000	9.000	FL	L1	0.0
0.182000	9.000	FL	L1	0.0
0.386000	9.000	FL	L1	0.0
5.658000	9.000	FL	L1	0.4
8.554000	9.000	FL	L1	0.5
10.002000	9.000	FL	L1	0.5

Auto Merge Results



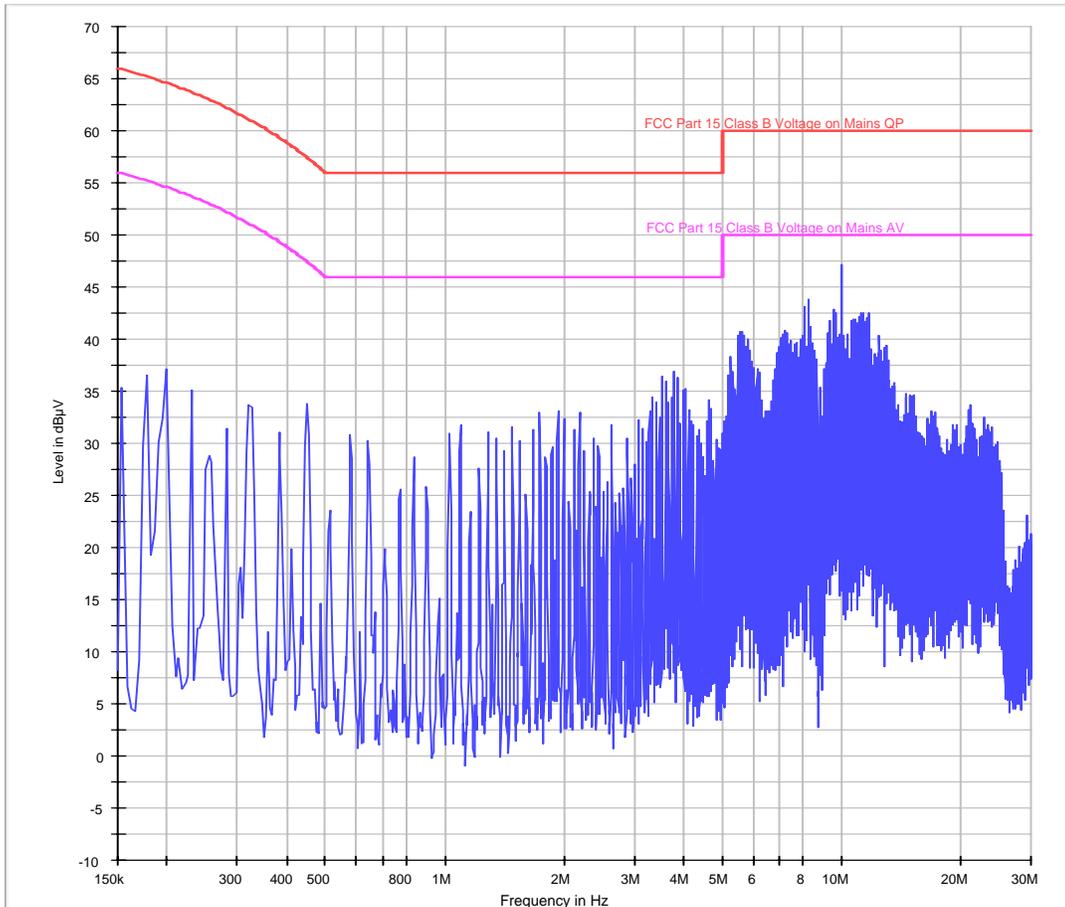
### Result Table\_Single RX – 136.075 MHz Neutral

Frequency (MHz)	MaxPeak (dBµV)	QuasiPeak (dBµV)	Average (dBµV)	RMS (dBµV)	MinPeak (dBµV)	CAverage (dBµV)	CRMS (dBµV)	ACVideo (dBµV)	Meas. Time (ms)
0.178000	---	32.2	14.2	---	---	---	---	---	1.000
0.198000	---	37.5	29.3	---	---	---	---	---	1.000
3.794000	---	36.8	34.1	---	---	---	---	---	1.000
5.594000	---	38.6	35.3	---	---	---	---	---	1.000
8.230000	---	41.9	37.1	---	---	---	---	---	1.000
10.002000	---	47.3	47.4	---	---	---	---	---	1.000

(continuation of the "Result Table\_Single" table from column 10 ...)

Frequency (MHz)	Bandwidth (kHz)	PE	Line	Corr. (dB)
0.178000	9.000	FL	N	0.0
0.198000	9.000	FL	N	0.0
3.794000	9.000	FL	N	0.3
5.594000	9.000	FL	N	0.4
8.230000	9.000	FL	N	0.5
10.002000	9.000	FL	N	0.6

Auto Merge Results



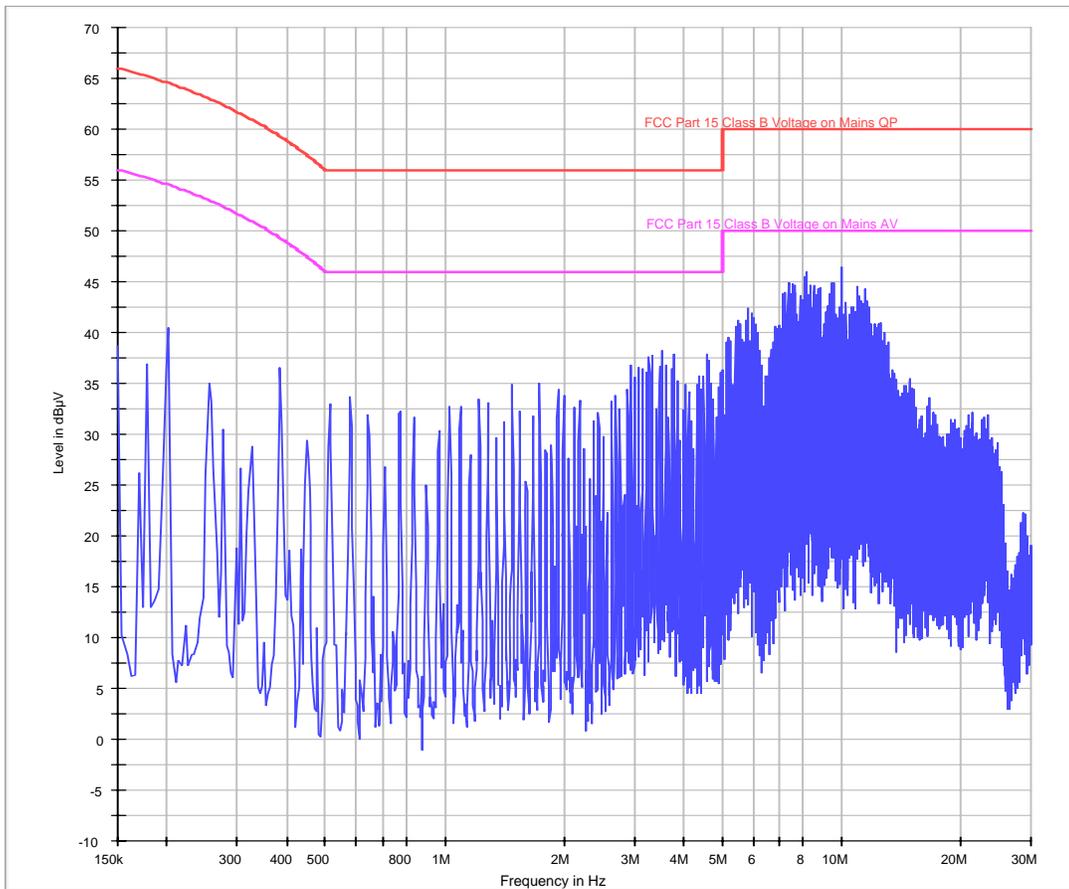
### Result Table\_Single TX – 136.075 MHz Line

Frequency (MHz)	MaxPeak (dBµV)	QuasiPeak (dBµV)	Average (dBµV)	RMS (dBµV)	MinPeak (dBµV)	CAverage (dBµV)	CRMS (dBµV)	ACVideo (dBµV)	Meas. Time (ms)
0.202000	---	32.1	15.5	---	---	---	---	---	1.000
0.386000	---	36.5	36.1	---	---	---	---	---	1.000
5.466000	---	41.0	37.9	---	---	---	---	---	1.000
7.330000	---	43.6	39.0	---	---	---	---	---	1.000
8.166000	---	44.8	40.3	---	---	---	---	---	1.000
9.998000	---	46.5	46.3	---	---	---	---	---	1.000

(continuation of the "Result Table\_Single" table from column 10 ...)

Frequency (MHz)	Bandwidth (kHz)	PE	Line	Corr. (dB)
0.202000	9.000	FL	L1	0.0
0.386000	9.000	FL	L1	0.0
5.466000	9.000	FL	L1	0.4
7.330000	9.000	FL	L1	0.4
8.166000	9.000	FL	L1	0.4
9.998000	9.000	FL	L1	0.5

Auto Merge Results



### Result Table\_Single TX – 136.075 MHz Neutral

Frequency (MHz)	MaxPeak (dBµV)	QuasiPeak (dBµV)	Average (dBµV)	RMS (dBµV)	MinPeak (dBµV)	CAverage (dBµV)	CRMS (dBµV)	ACVideo (dBµV)	Meas. Time (ms)
0.162000	---	35.6	9.0	---	---	---	---	---	1.000
0.258000	---	37.7	29.9	---	---	---	---	---	1.000
0.450000	---	36.2	35.0	---	---	---	---	---	1.000
5.594000	---	40.0	36.6	---	---	---	---	---	1.000
8.102000	---	42.7	38.6	---	---	---	---	---	1.000
9.998000	---	46.6	46.4	---	---	---	---	---	1.000

(continuation of the "Result Table\_Single" table from column 10 ...)

Frequency (MHz)	Bandwidth (kHz)	PE	Line	Corr. (dB)
0.162000	9.000	FL	N	0.0
0.258000	9.000	FL	N	0.0
0.450000	9.000	FL	N	0.0
5.594000	9.000	FL	N	0.4
8.102000	9.000	FL	N	0.5
9.998000	9.000	FL	N	0.6

Auto Merge Results

