

Submitted Measured Data

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

RF Power Output Data

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

450.025 MHz

Measured RF output: 1.0 Watt
Nominal DC voltage: 7.5 Volts
Nominal DC Current: 960 mAmps
Primary Supply Voltage: 7.5 Volts

Measured RF output: 3.0 Watts
Nominal DC voltage: 7.5 Volts
Nominal DC Current: 1533 mAmps
Primary Supply Voltage: 7.5 Volts

Measured RF output: 5.6 Watts
Nominal DC voltage: 7.5 Volts
Nominal DC Current: 2120 mAmps
Primary Supply Voltage: 7.5 Volts

484.975 MHz

Measured RF output: 1.0 Watt
Nominal DC voltage: 7.5 Volts
Nominal DC Current: 880 mAmps
Primary Supply Voltage: 7.5 Volts

Measured RF output: 3.0 Watts
Nominal DC voltage: 7.5 Volts
Nominal DC Current: 1370 mAmps
Primary Supply Voltage: 7.5 Volts

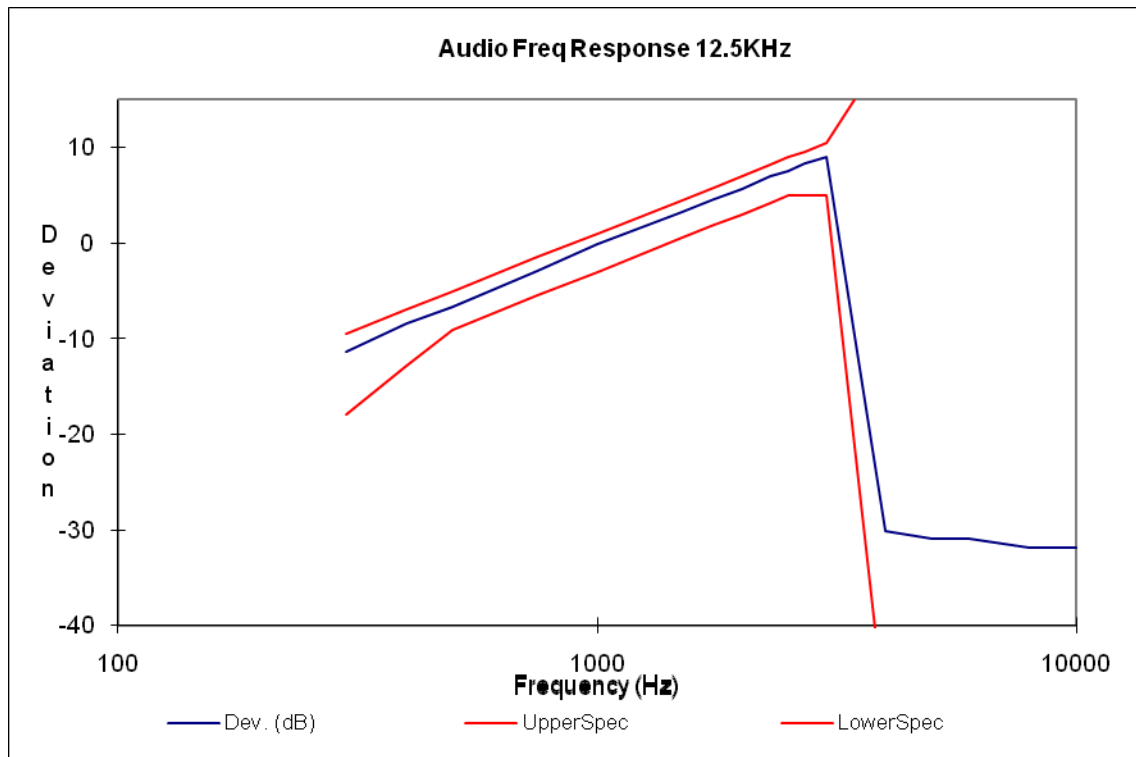
Measured RF output: 5.6 Watts
Nominal DC voltage: 7.5 Volts
Nominal DC Current: 1910 mAmps
Primary Supply Voltage: 7.5 Volts

519.975 MHz

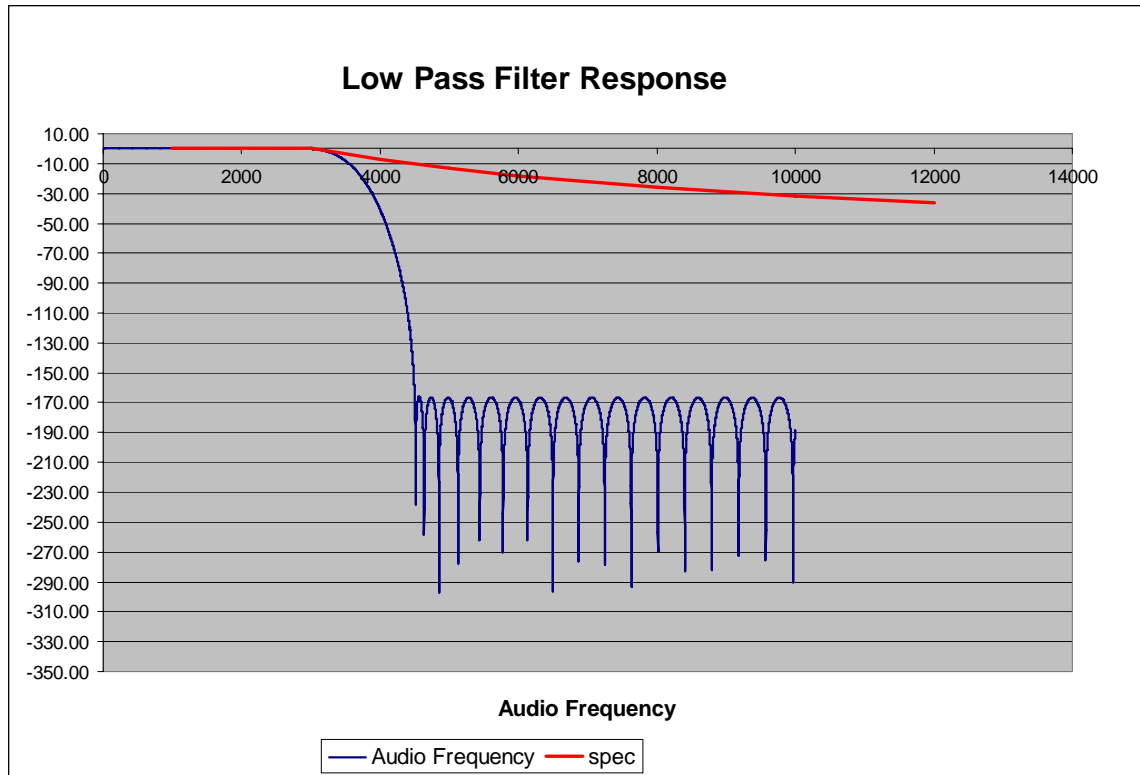
Measured RF output: 1.0 Watt
Nominal DC voltage: 7.5 Volts
Nominal DC Current: 932 mAmps
Primary Supply Voltage: 7.5 Volts

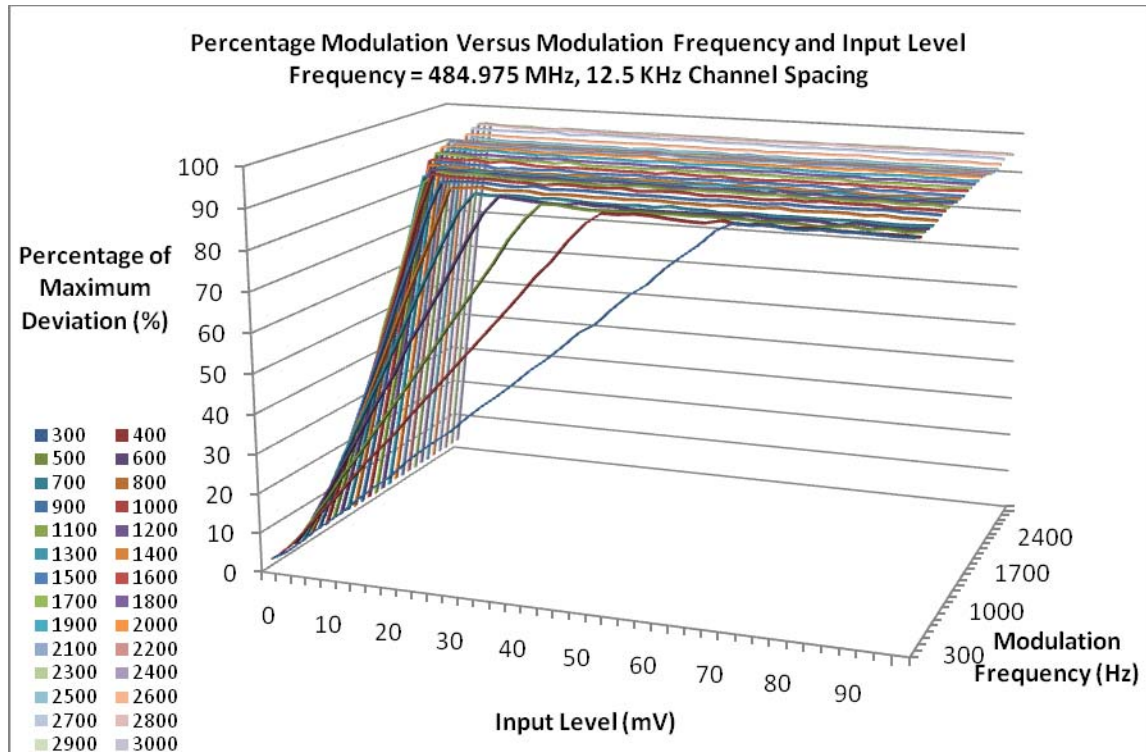
Measured RF output: 3.0 Watts
Nominal DC voltage: 7.5 Volts
Nominal DC Current: 1477 mAmps
Primary Supply Voltage: 7.5 Volts

Measured RF output: 5.6 Watts
Nominal DC voltage: 7.5 Volts
Nominal DC Current: 2069 mAmps
Primary Supply Voltage: 7.5 Volts

Audio Frequency Response (Freq: 484.975MHz, ChSp: 12.5 kHz)

Audio Low Pass Filter Response



Modulation Limiting

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

$$BW = 2 * (M + D) \quad \text{where: } BW = \text{Bandwidth}$$

M= Maximum modulating frequency

D = Deviation

Shown below are the calculations required for FCC ID: AZ489FT4858.

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.

Occupied Bandwidth (Analog Voice: 11K0F3E)
Frequency = 485.025 MHz Channel Spacing = 12.5 kHz

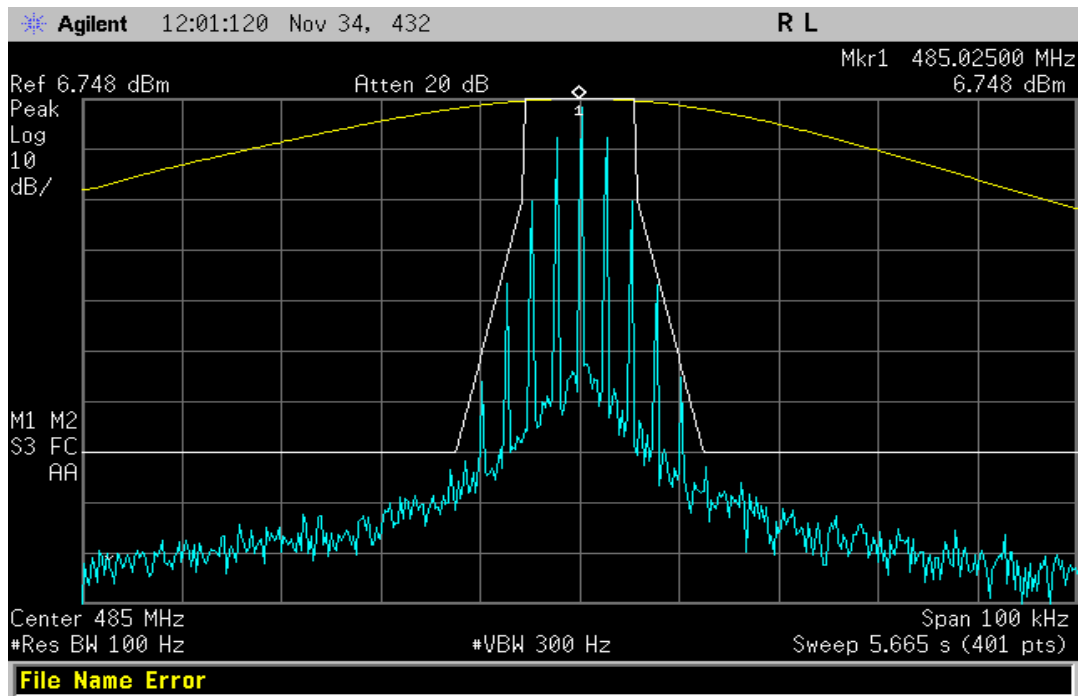


Exhibit 6E-1

Occupied Bandwidth (Digital Data: 8K10F1D)
Frequency = 485.025 MHz Channel Spacing = 12.5 kHz

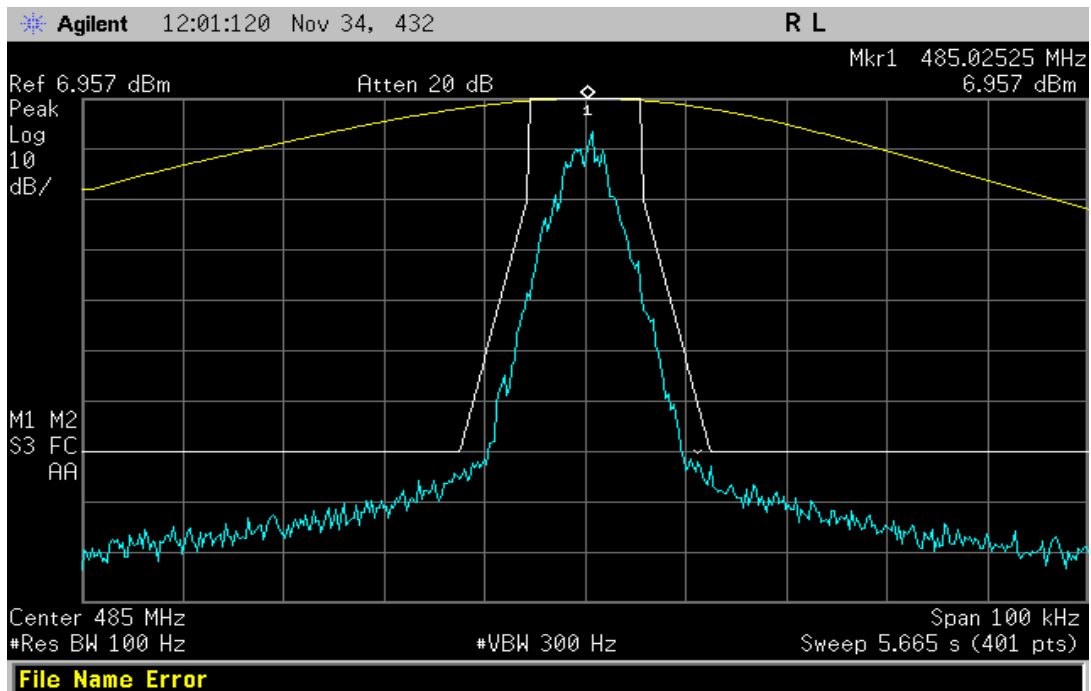


Exhibit 6E-2

Occupied Bandwidth (Digital Voice: 8K10F1E)
Frequency = 485.025 MHz Channel Spacing = 12.5 kHz

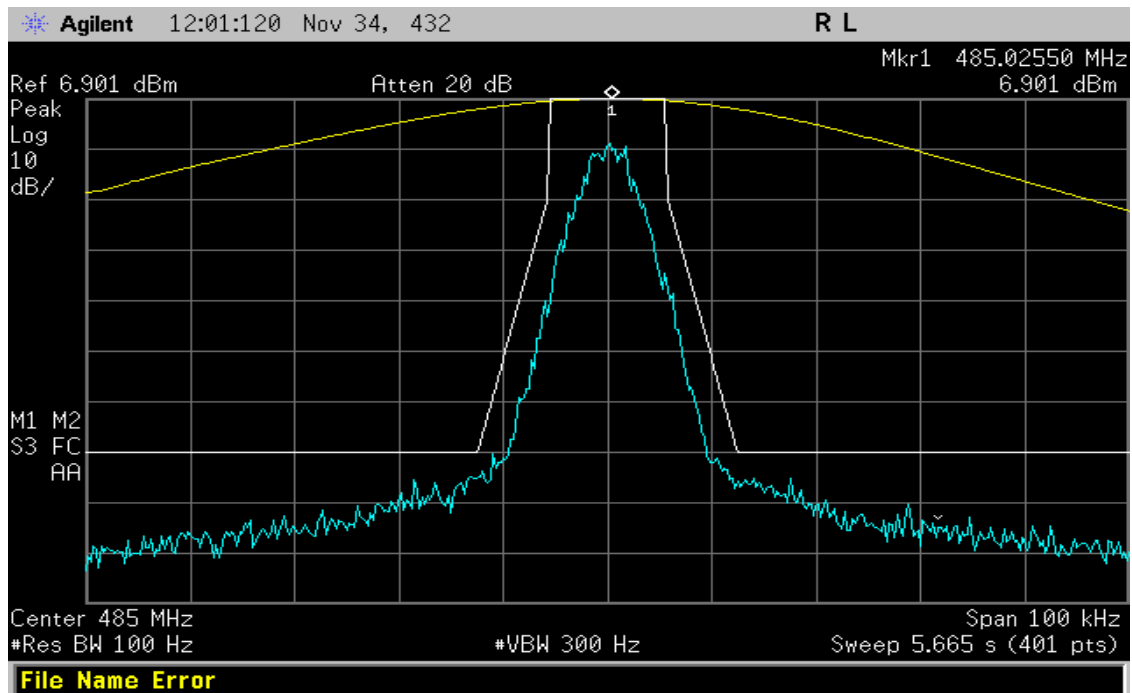


Exhibit 6E-3

Occupied Bandwidth (Digital TDMA: 8K10F1W)
Frequency = 485.025 MHz Channel Spacing = 12.5 kHz

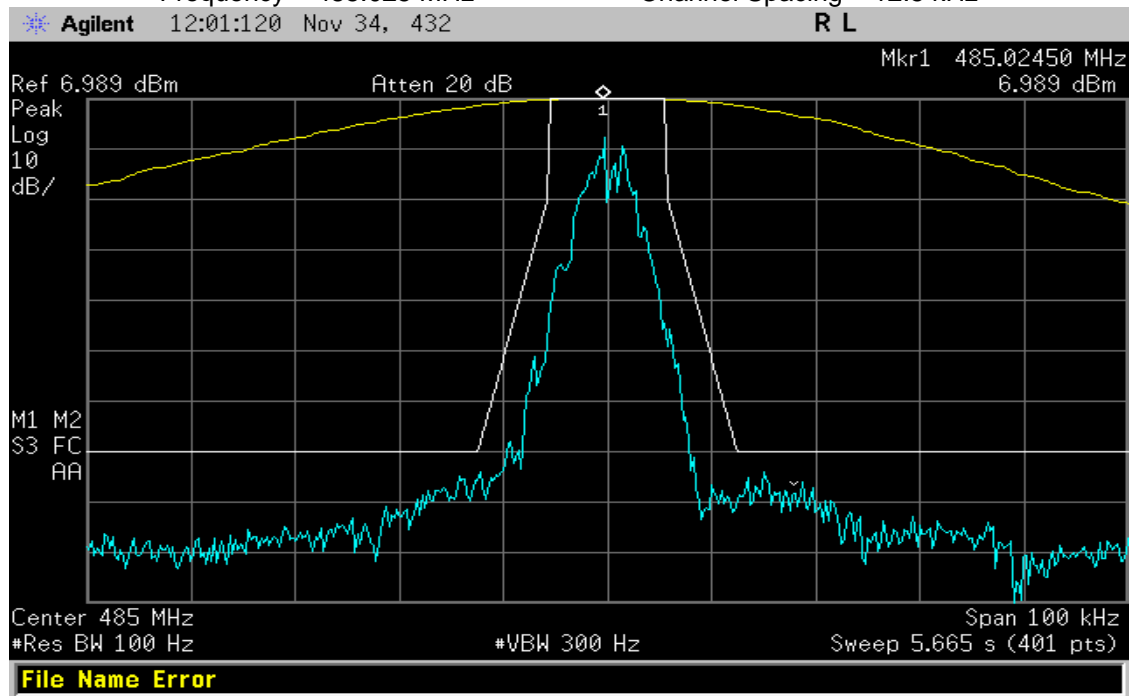


Exhibit 6E-4

Transmit Radiated Spurious Emissions: APX6000 - H98SDH9PW7AN

Tx Power: 5.3 Watts

450.025 MHz

Channel Spacing 12.5kHz | S/N NUE1021A0001

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
900.0500	-20	*	*
1350.0750	-20	*	*
1800.1000	-20	*	*
2250.1250	-20	*	*
2700.1500	-20	*	*
3150.1750	-20	*	*
3600.2000	-20	*	*
4050.2250	-20	*	*
4500.2500	-20	*	*

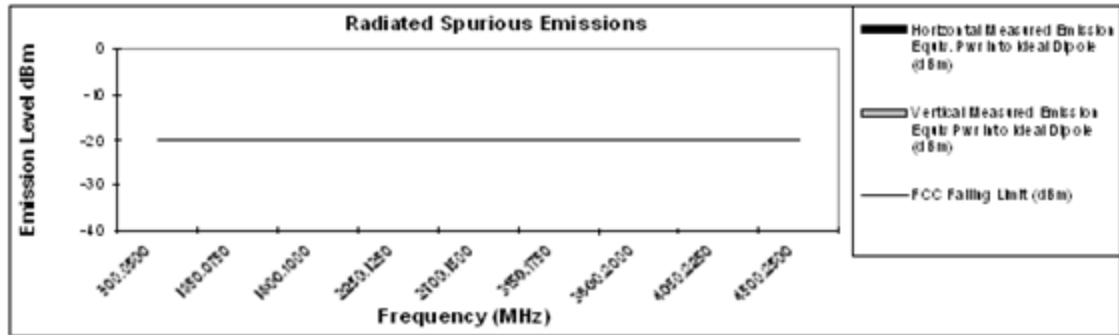


Exhibit 6F-1

Transmit Radiated Spurious Emissions: APX6000 - H98SDH9PW7AN

Tx Power: 5.3 Watts

484.975 MHz

Channel Spacing 12.5kHz | S/N NUE1021A0001

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
969.9500	-20	*	*
1454.9250	-20	*	*
1939.9000	-20	*	*
2424.8750	-20	*	*
2909.8500	-20	*	*
3394.8250	-20	*	*
3879.8000	-20	*	*
4364.7750	-20	*	*
4849.7500	-20	*	*

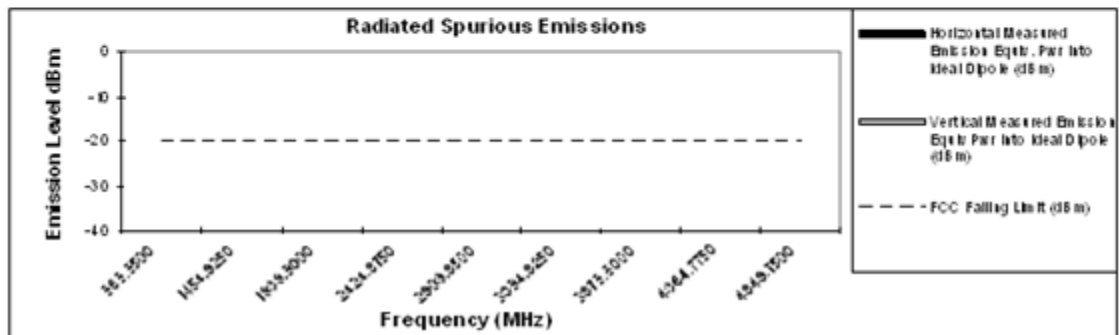


Exhibit 6F-2

Transmit Radiated Spurious Emissions: APX6000 - H98SDH9PW7AN**Tx Power: 5.3 Watts****519.975 MHz****Channel Spacing 12.5kHz | S/N NUE1021A0001**

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
1039.9500	-20	*	*
1559.9250	-20	*	*
2079.9000	-20	*	*
2599.8750	-20	*	*
3119.8500	-20	*	*
3639.8250	-20	*	*
4159.8000	-20	*	*
4679.7750	-20	*	*
5199.7500	-20	*	*

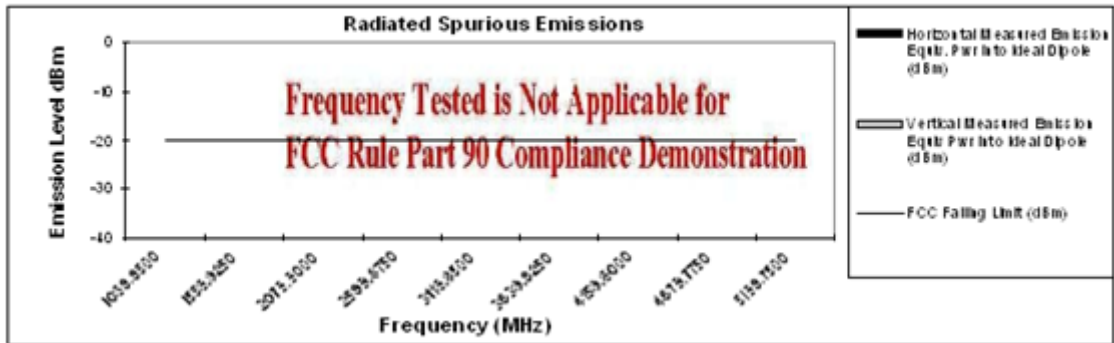


Exhibit 6F-3

Transmitter Conducted Spurious Emissions

Spurious response was measured at 450.025 MHz. Conducted emissions were measured to 5 GHz, beyond the tenth harmonic. All spurious and harmonic emissions are well below the FCC limit.

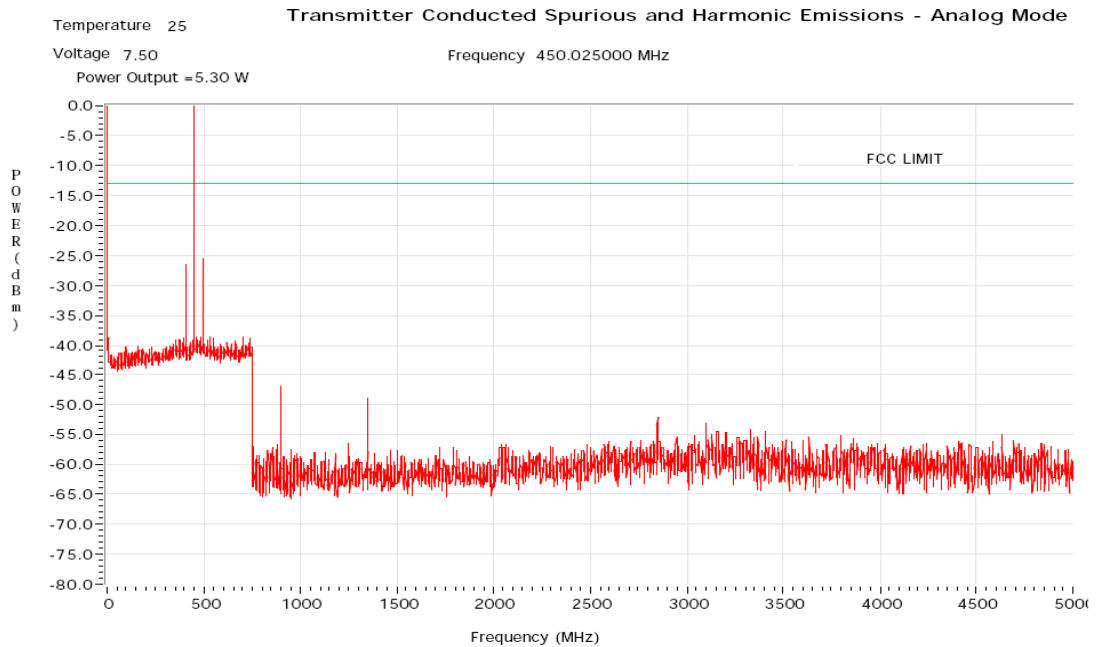


Exhibit 6G-1

Spurious response was measured at 484.975 MHz. Conducted emissions were measured to 5 GHz, beyond the tenth harmonic. All spurious and harmonic emissions are well below the FCC limit.

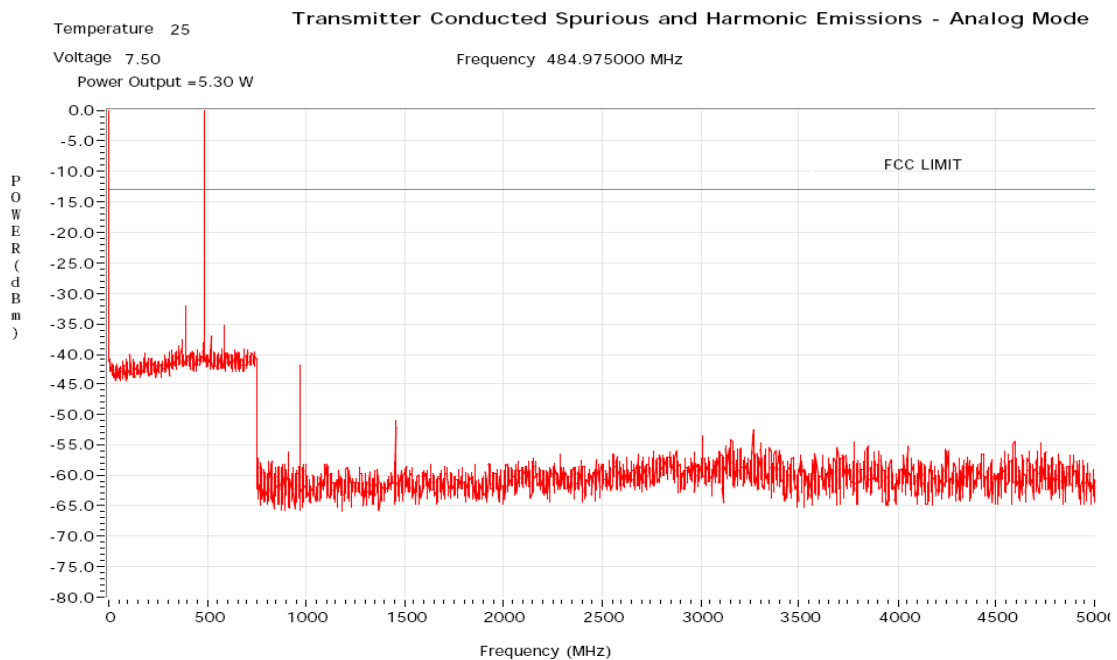


Exhibit 6G-2

Spurious response was measured at 519.975 MHz. Conducted emissions were measured to 6 GHz, beyond the tenth harmonic. All spurious and harmonic emissions are well below the FCC limit.

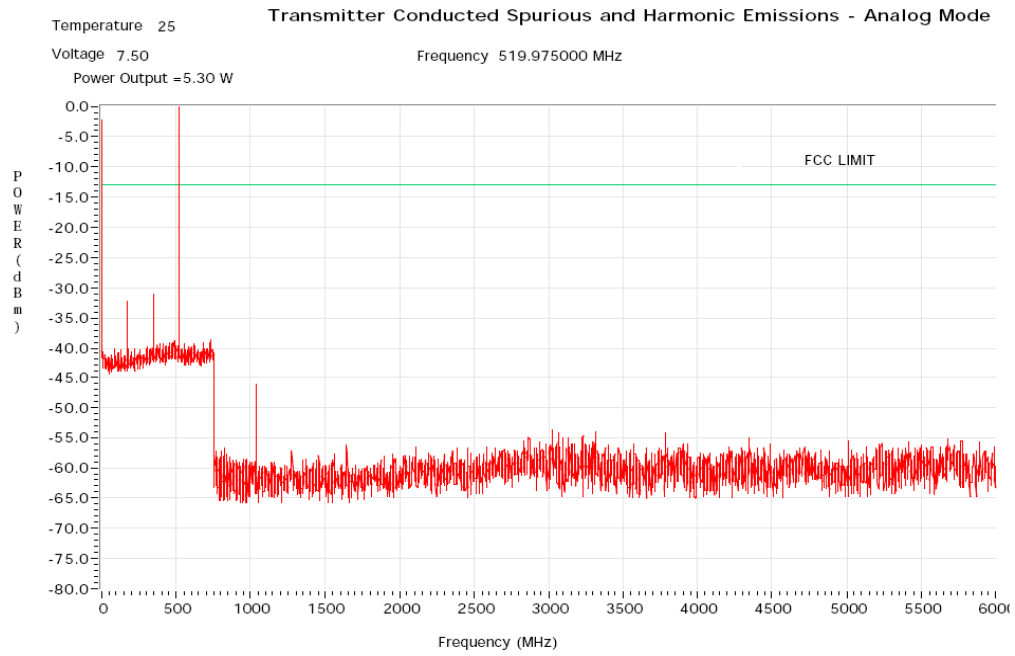


Exhibit 6G-3

Power Line Conducted Emissions**Scan Parameters: Hardware Setup latest FCC class B – [EMI conducted]**

Test frequencies were swept from 150 kHz to 30MHz 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: APX6000 H98SDH9PW7AN with Battery - NNTN8092A
 Serial Number: NUE1021A0001
 FCC ID: AZ489FT4858
 Test Description: A/C Power Line Conducted Emissions
 Operating Conditions: Room temp
 Operator Name: Curt Mc Lennan
 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]
 @ GPIB0 (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

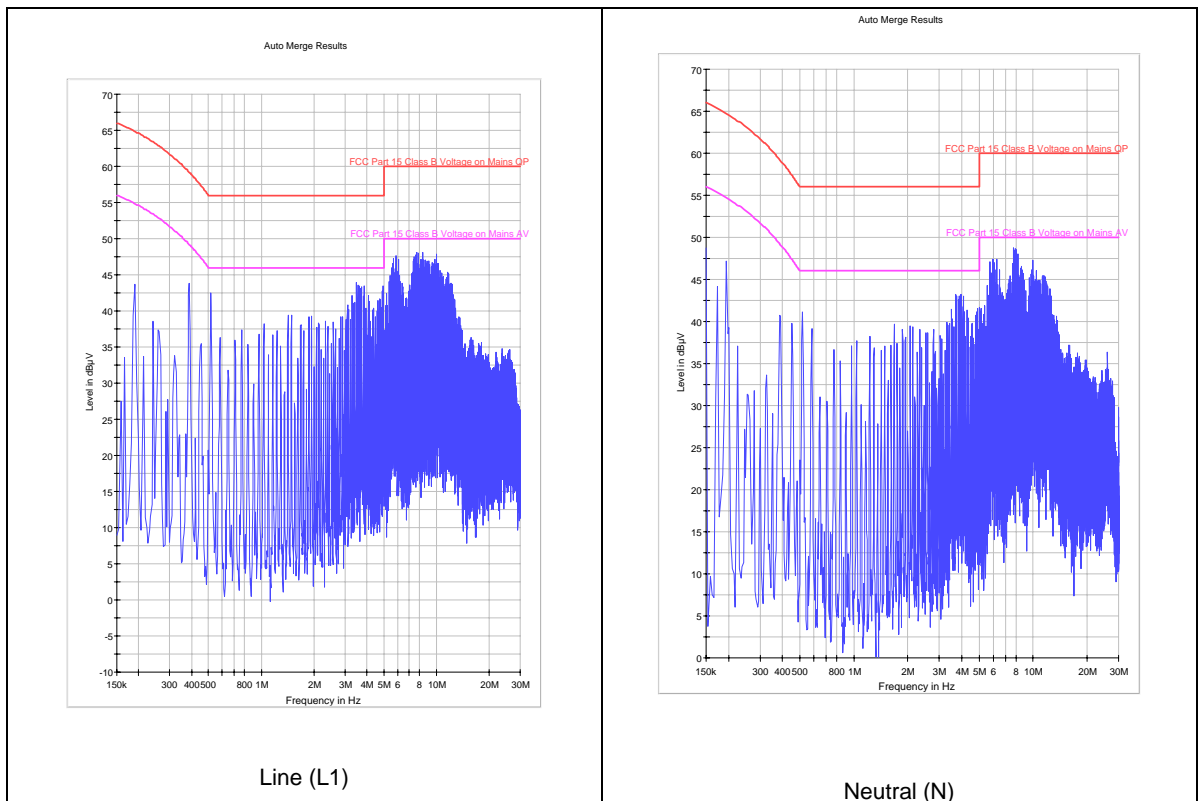
Scan Setup: EMI Conducted Scan latest FCC Peak det - 3816 LISN [EMI conducted]

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

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

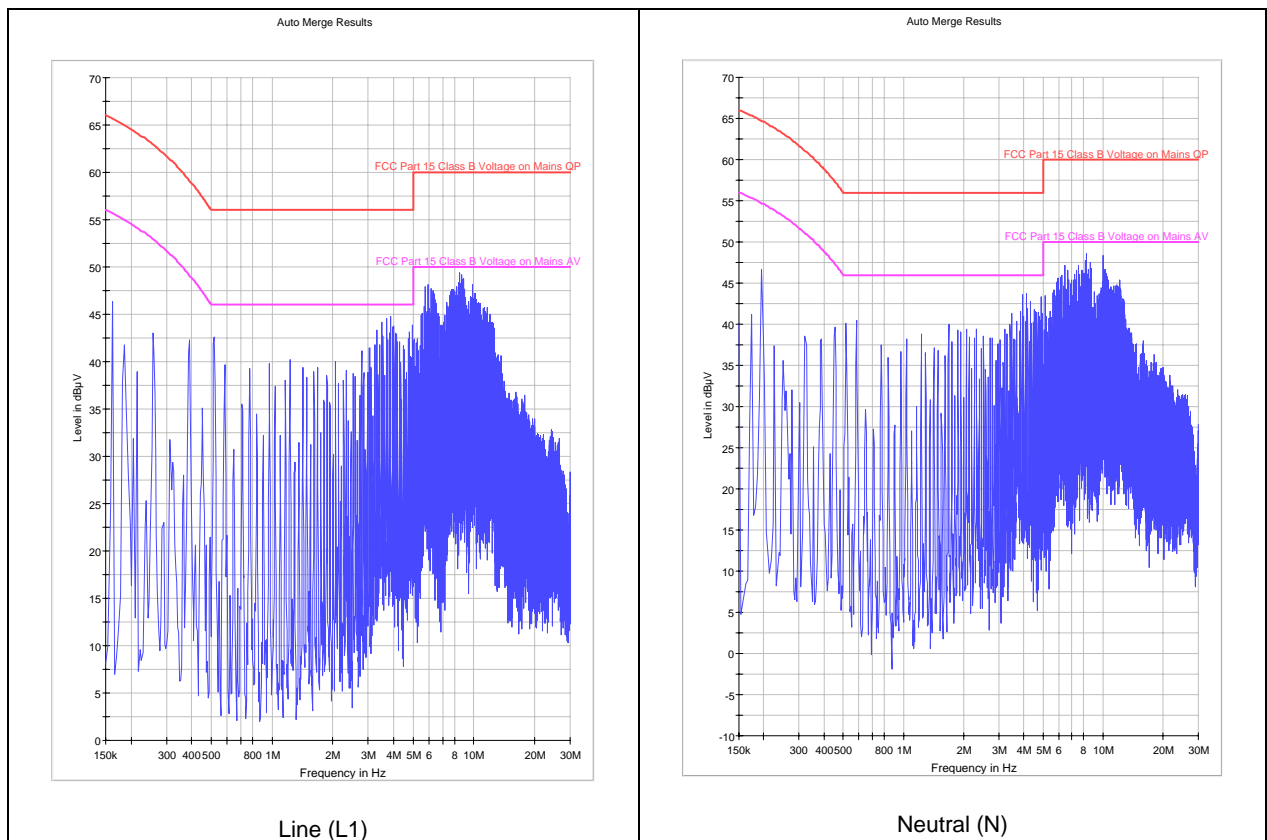
Mode: Receive: 484.975 MHz

Frequency							
500kHz - 5MHz	QP Value	QP Limit	QP Margin	Avr Value	Avr Limit	Avr Margin	Ph
518000	43.20	56.00	12.80	42.50	46.00	3.50	L1
3490000	43.00	56.00	13.00	40.50	46.00	5.50	L1
3686000	41.70	56.00	14.30	38.70	46.00	7.30	N
3946000	39.50	56.00	16.50	35.70	46.00	10.30	N
5MHz - 30MHz	QP Value	QP Limit	QP Margin	Avr Value	Avr Limit	Avr Margin	Ph
5882000	46.3000	60.0000	13.7000	40.8000	50.0000	9.2000	L1
7690000	46.6000	60.0000	13.4000	42.1000	50.0000	7.9000	L1
8338000	45.8000	60.0000	14.2000	39.7000	50.0000	10.3000	L1
10002000	46.4000	60.0000	13.6000	45.8000	50.0000	4.2000	L1
5950000	43.0000	60.0000	17.0000	36.7000	50.0000	13.3000	N
6274000	44.1000	60.0000	15.9000	36.8000	50.0000	13.2000	N
7758000	45.8000	60.0000	14.2000	39.4000	50.0000	10.6000	N
7954000	44.1000	60.0000	15.9000	36.7000	50.0000	13.3000	N



Mode: [Transmit](#): 484.975 MHz

Frequency							
500kHz - 5MHz	QP Value	QP Limit	QP Margin	Avr Value	Avr Limit	Avr Margin	Ph
3494000	43.50	56.00	12.50	40.60	46.00	5.40	L1
3882000	44.20	56.00	11.80	42.20	46.00	3.80	L1
3946000	43.00	56.00	13.00	39.20	46.00	6.80	N
4138000	42.40	56.00	13.60	38.50	46.00	7.50	N
4918000	43.00	56.00	13.00	37.30	46.00	8.70	N
5MHz - 30MHz	QP Value	QP Limit	QP Margin	Avr Value	Avr Limit	Avr Margin	Ph
5950000	47.1000	60.0000	12.9000	43.1000	50.0000	6.9000	L1
8542000	47.7000	60.0000	12.3000	42.9000	50.0000	7.1000	L1
8670000	47.9000	60.0000	12.1000	44.9000	50.0000	5.1000	L1
9834000	46.4000	60.0000	13.6000	41.1000	50.0000	8.9000	L1
6402000	46.3000	60.0000	13.7000	40.9000	50.0000	9.1000	N
8278000	47.5000	60.0000	12.5000	41.1000	50.0000	8.9000	N
9998000	46.9000	60.0000	13.1000	46.5000	50.0000	3.5000	N



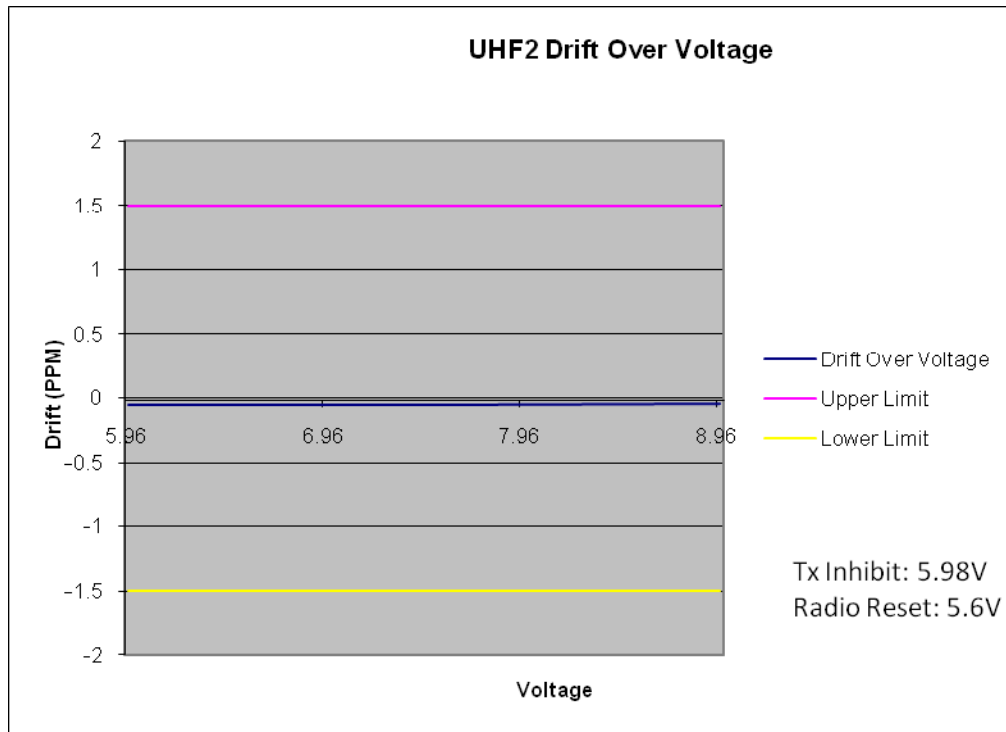
Frequency Stability

Exhibit 6I-1

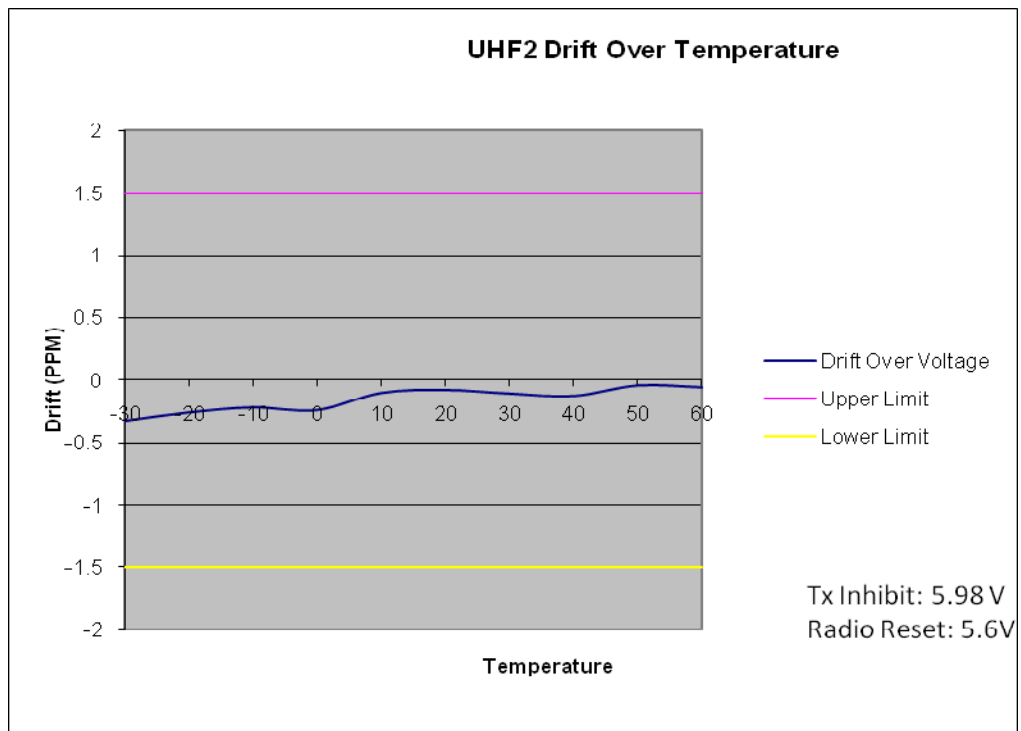


Exhibit 6I-2

Transient Frequency Behavior

TX 485.025MHz – 12.5 kHz Channel Spacing – Transmitter On

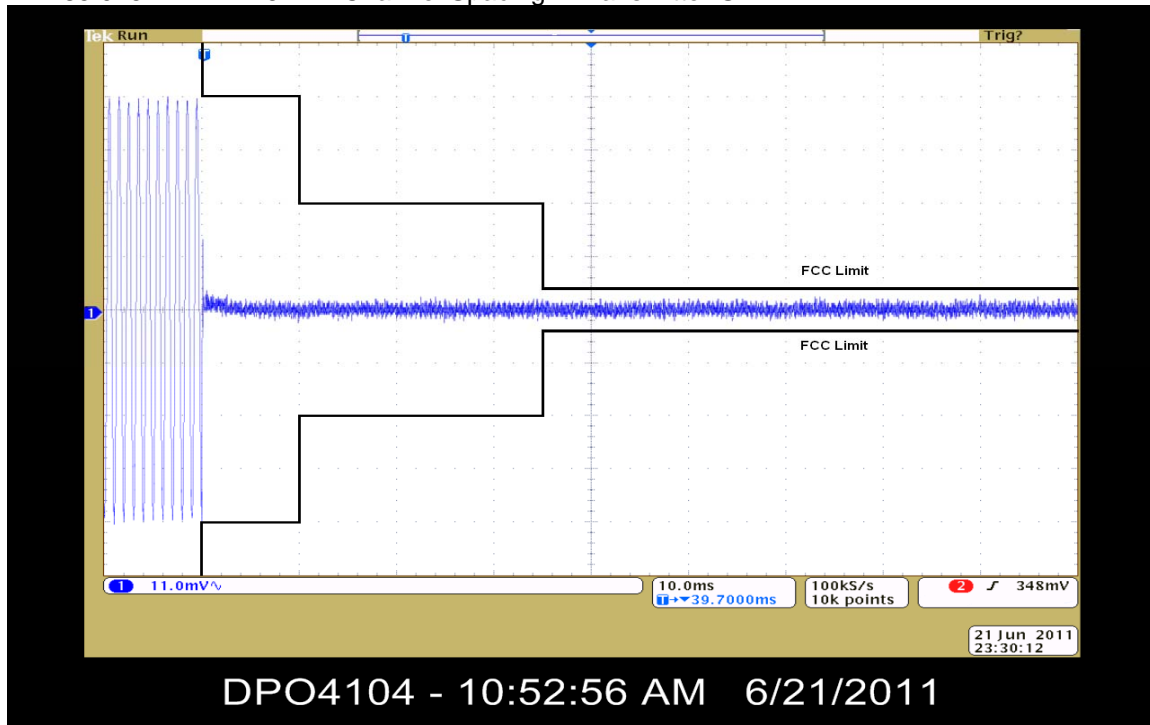


Exhibit 6J-1

TX 485.025MHz – 12.5 kHz Channel Spacing – Transmitter Off

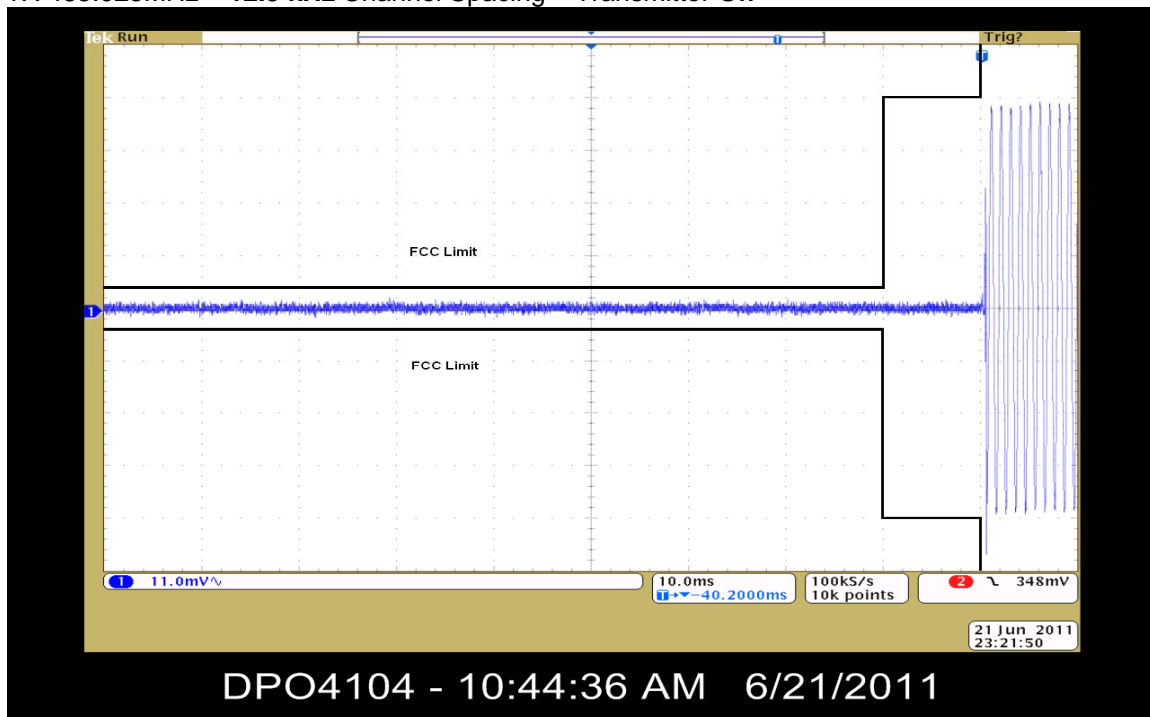


Exhibit 6J-2