

**RDU4100+ Test Report**

<b><u>MEASUREMENT</u></b>	<b><u>EXHIBIT</u></b>	<b><u>NUMBER OF PAGES</u></b>
I RF Power Output Data	6A	1
II Audio Response A. 12.5kHz	6B	1
III Modulation Limiting A. 12.5kHz	6C	1
I V Occupied Bandwidth Data	6D 1-2	3
V Transmit Radiated Spurious Emission A. TX Vertical / Horizontal	6E 1-2	2
B. Conducted	6E 3-4	2
VI Frequency Stability A. Temperature	6F 1	1
B. Frequency vs. Voltage	6F 2	1
VII Transient Frequency Response	6G1-2	2

**RF POWER OUTPUT DATA**

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

Frequency	451.1875 MHz
Measured Conducted RF output*	3.960 Watts
Frequency	469.5625 MHz
Measured Conducted RF output*	3.993 Watts
Primary Supply Voltage	7.80 Volts

\*Note: RF Conducted output power measured at 7.80 Volts

Audio Response 12.5 kHz

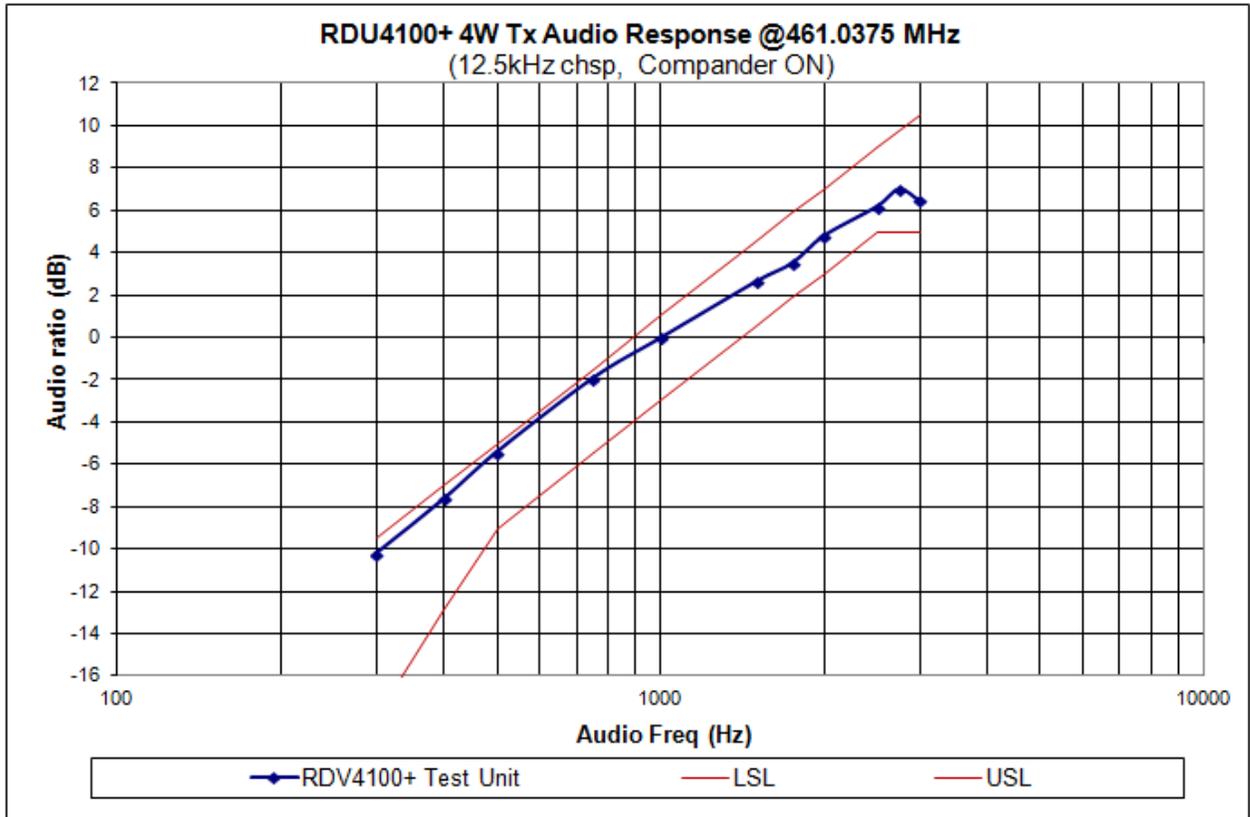


EXHIBIT 6B

MODULATION LIMITING 12.5 kHz

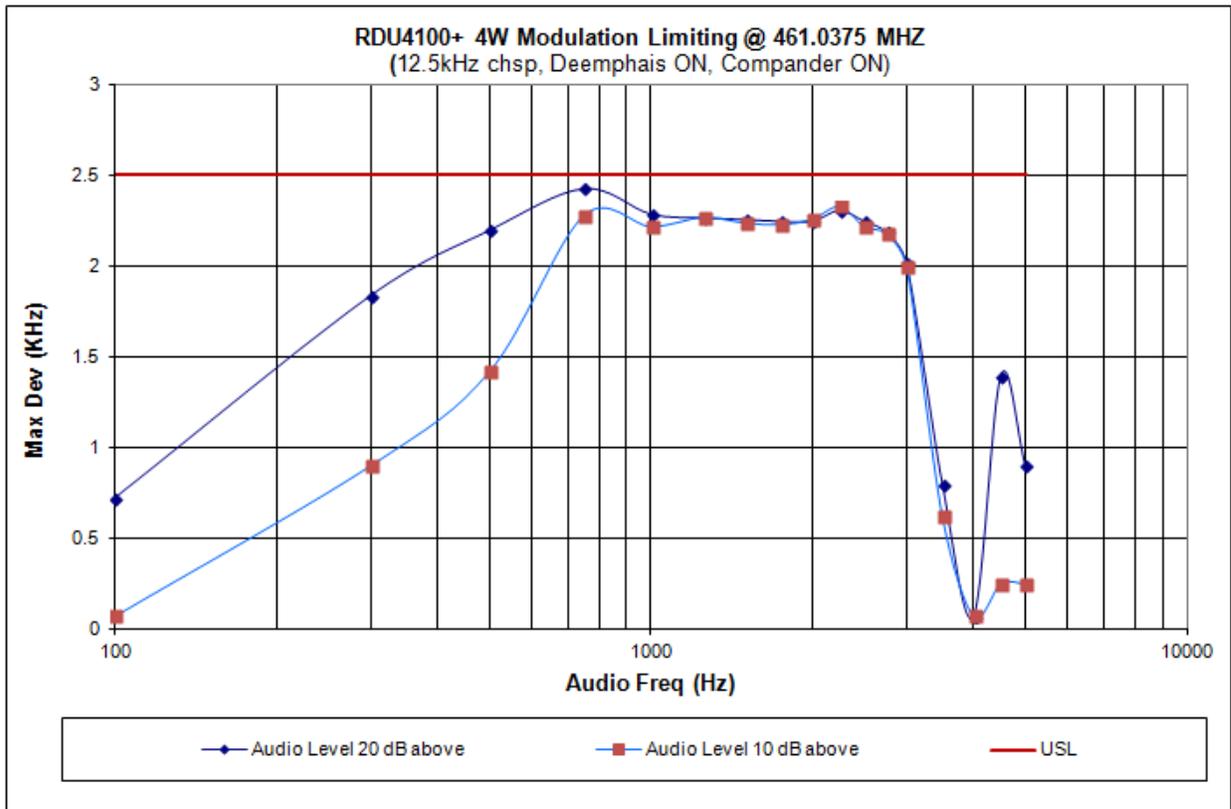


EXHIBIT 6C

**OCCUPIED BANDWIDTH DATA****4Watts**

12.5 kHz Channel Spacing

EXHIBIT 6D-1

2500 Hz Audio Modulation

Emission Type: 11K0F3E

Specification Mask D, 90.210 – 12.5 kHz

EXHIBIT 6D-2

2500 Hz &amp; 77Hz Tone "PL" Modulation

Emission Type: 11K0F3E

Specification Mask D, 90.210 – 12.5 kHz

CARSON'S RULE: 11K0F3E

BW= 2(M+D)

BW=2 (3KHz maximum modulation frequency +2.5 kHz deviation)

BW=2 (5.5)

BW= 11K0

4 Watts 12.5 kHz  
Mask D, Rule Part: 90.210  
Emission Type: 11K0F3E

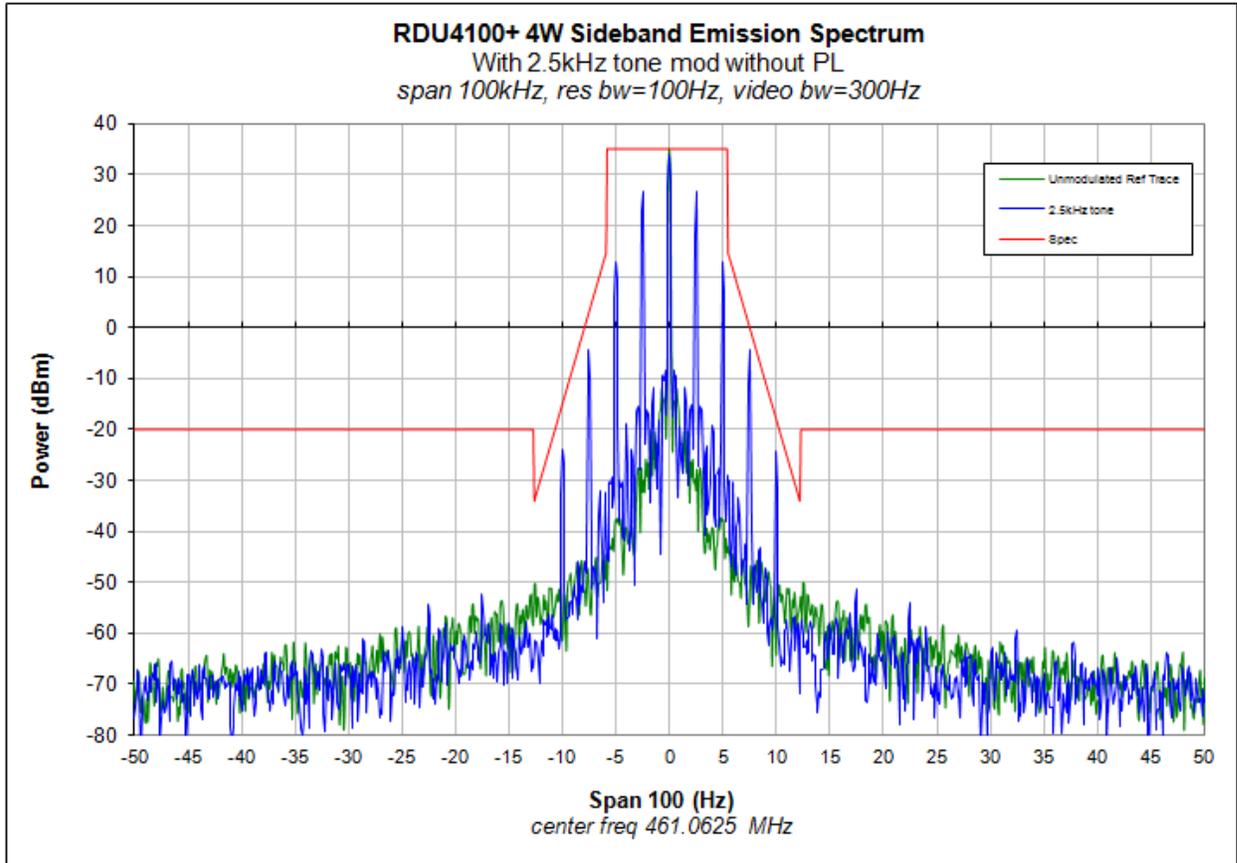


EXHIBIT 6D-1

4 Watts 12.5 kHz  
2500 Hz & 77Hz Tone "PL" Modulation  
Mask D, Rule Part: 90.210  
Emission Type: 11K0F3E

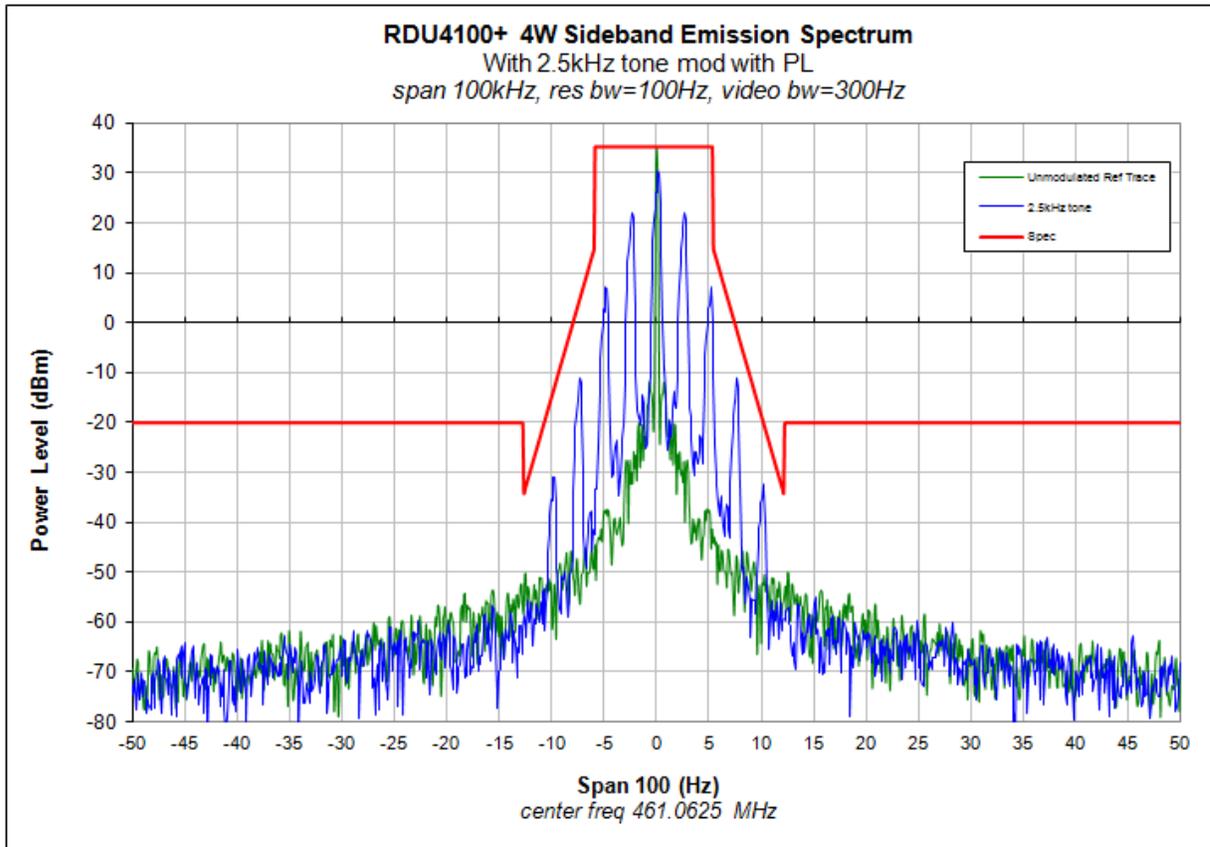


EXHIBIT 6D-2

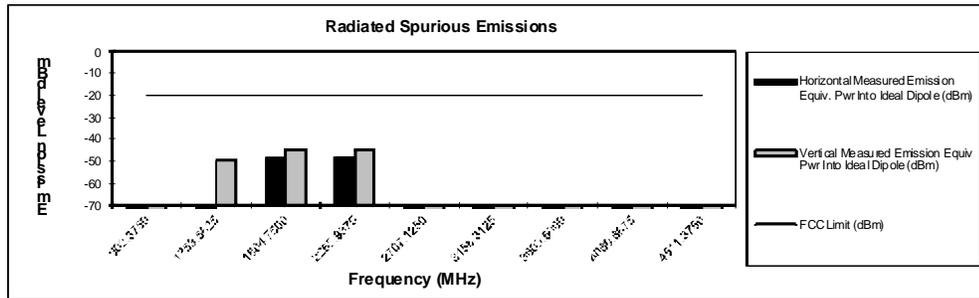
Motorola Solutions

FCC ID:AZ489FT4923

Transmit Radiated Spurious Emissions: **RDU4100+**  
Tx Power: 4 Watts

451.1875 MHz Channel Spacing 12.5kHz | S/N 2

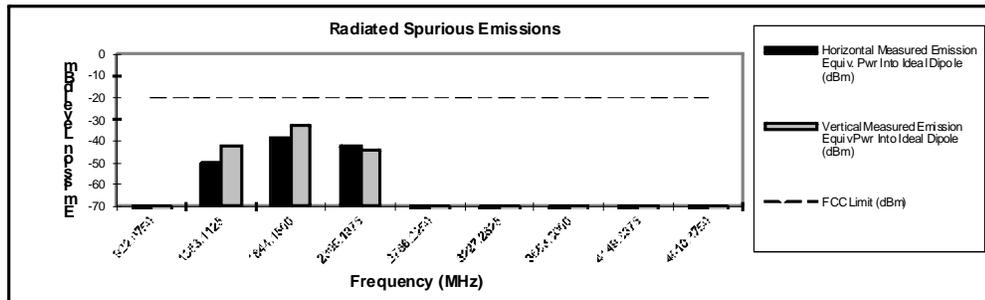
Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
902.3750	-20	*	*
1353.5625	-20	*	-49.85
1804.7500	-20	-48.52	-44.37
2255.9375	-20	-47.97	-44.95
2707.1250	-20	*	*
3158.3125	-20	*	*
3609.5000	-20	*	*
4060.6875	-20	*	*
4511.8750	-20	*	*



Transmit Radiated Spurious Emissions: **RDU4100+**  
Tx Power: 4 Watts

461.0375 MHz Channel Spacing 12.5kHz | S/N 2

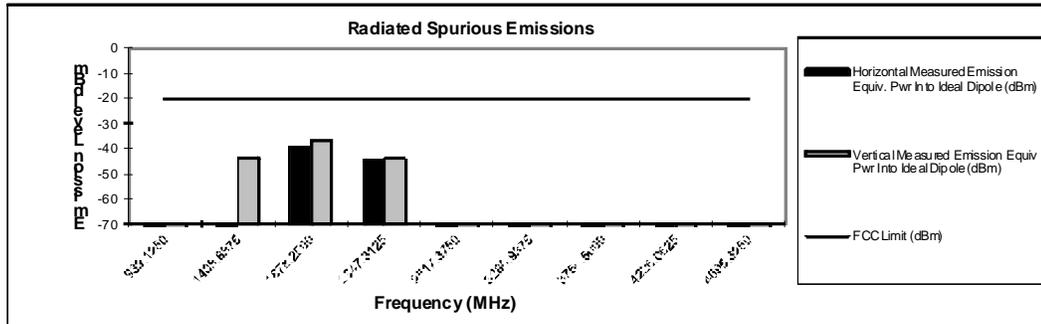
Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
922.0750	-20	*	*
1383.1125	-20	-50.01	-42.13
1844.1500	-20	-38.05	-32.75
2305.1875	-20	-42.20	-43.74
2766.2250	-20	*	*
3227.2625	-20	*	*
3688.3000	-20	*	*
4149.3375	-20	*	*
4610.3750	-20	*	*



\* 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 IIA/EIA-603 document.

**Transmit Radiated Spurious Emissions: RDU4100+**
**Tx Power: 4 Watts**
**469.5625 MHz**
**Channel Spacing 12.5kHz | S/N 2**

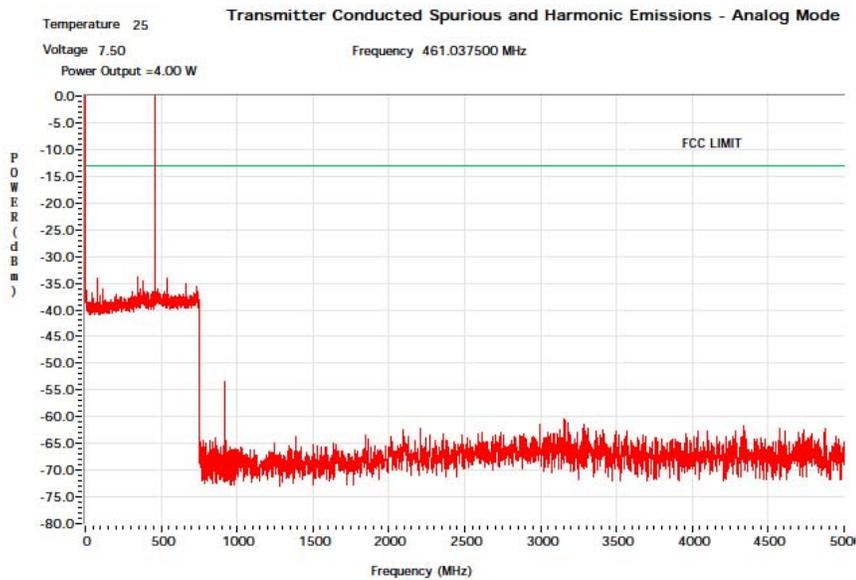
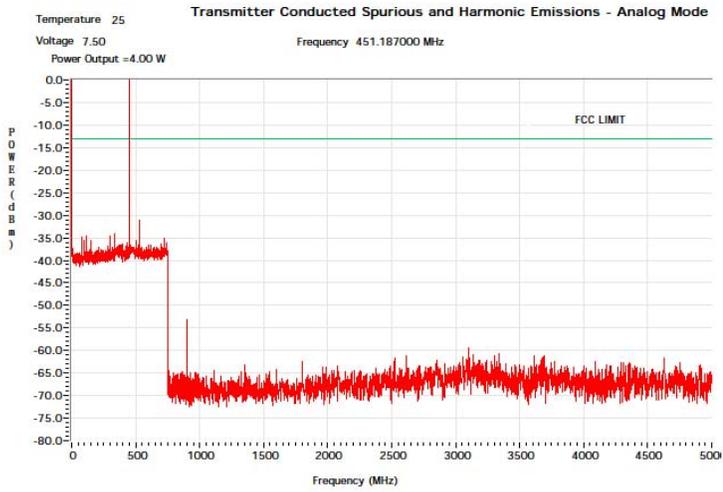
Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
939.1250	-20	*	*
1408.6875	-20	*	-43.56
1878.2500	-20	-39.45	-37.05
2347.8125	-20	-44.27	-44.19
2817.3750	-20	*	*
3286.9375	-20	*	*
3756.5000	-20	*	*
4226.0625	-20	*	*
4695.6250	-20	*	*



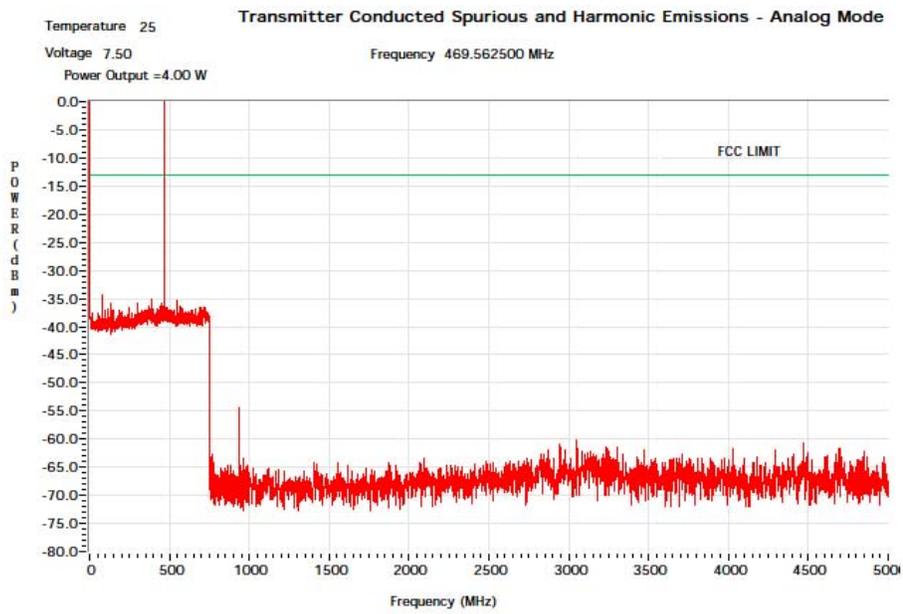
\* Indicates the spurious emission could not be detected due to noise limitations or ambients.

The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Conducted Spurious Emissions



Conducted Spurious Emissions



### Frequency Stability over Temperature

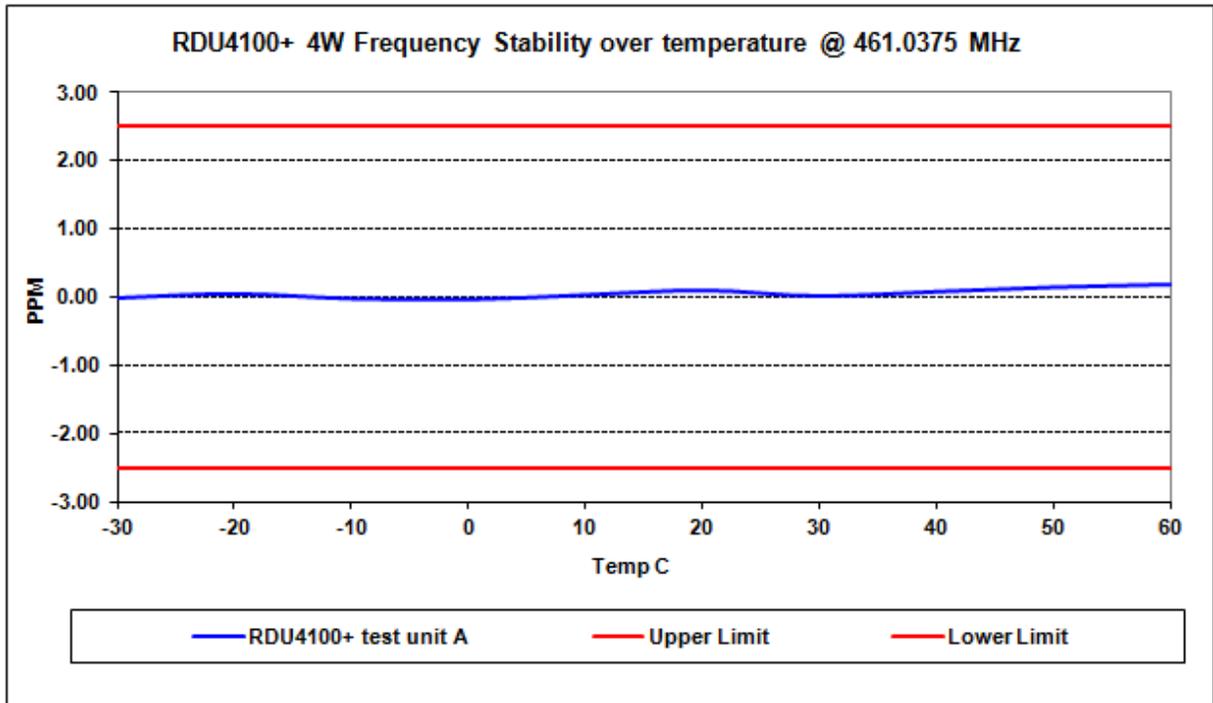


EXHIBIT 6F-1

### Frequency Error over Voltage

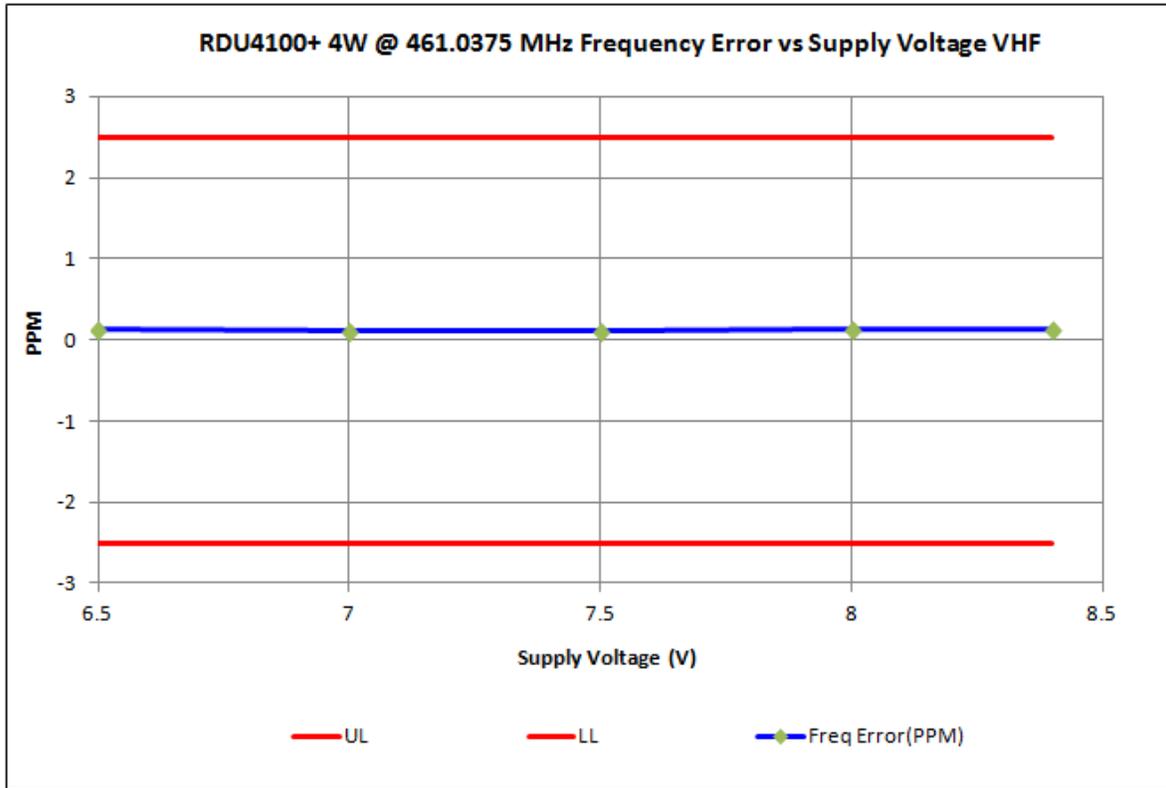
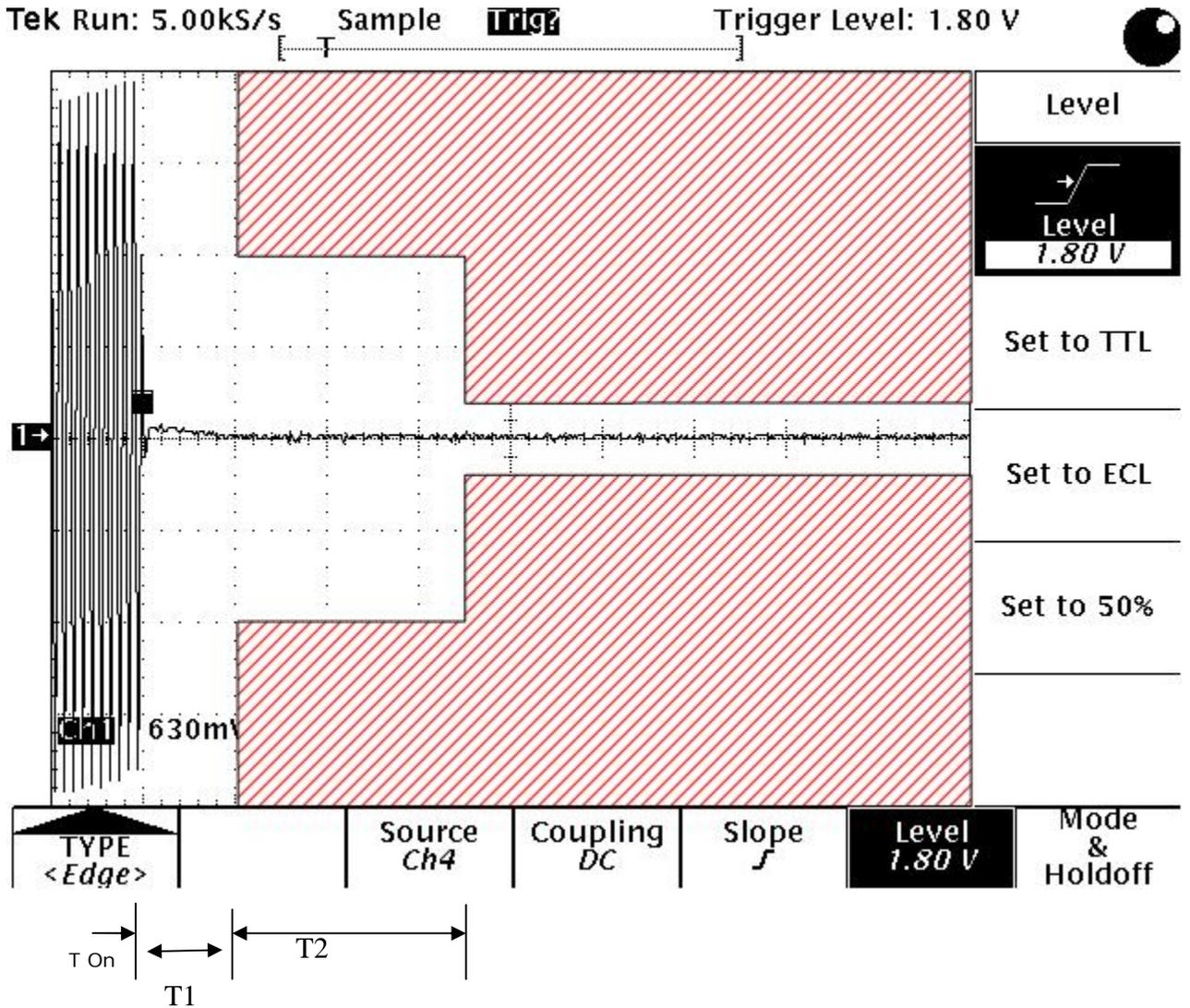


EXHIBIT 6F-2

**Transient Frequency Response TX on 4 Watts @ 461.0375 MHz**

UHF 461.0375 MHz



$$\frac{(\text{Freq}) * (\text{PPM}) * (\pm 4)}{\text{BW}}$$

$$\frac{(461.0375\text{MHz}) * (2.5\text{PPM}) * (\pm 4)}{12.5 \text{ kHz}}$$

= ±0.3688 div

**Transient Frequency Response TX off 4 Watts @ 461.0375 MHz**

UHF 461.0375 MHz

