

RDU4100+ Test Report

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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.

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

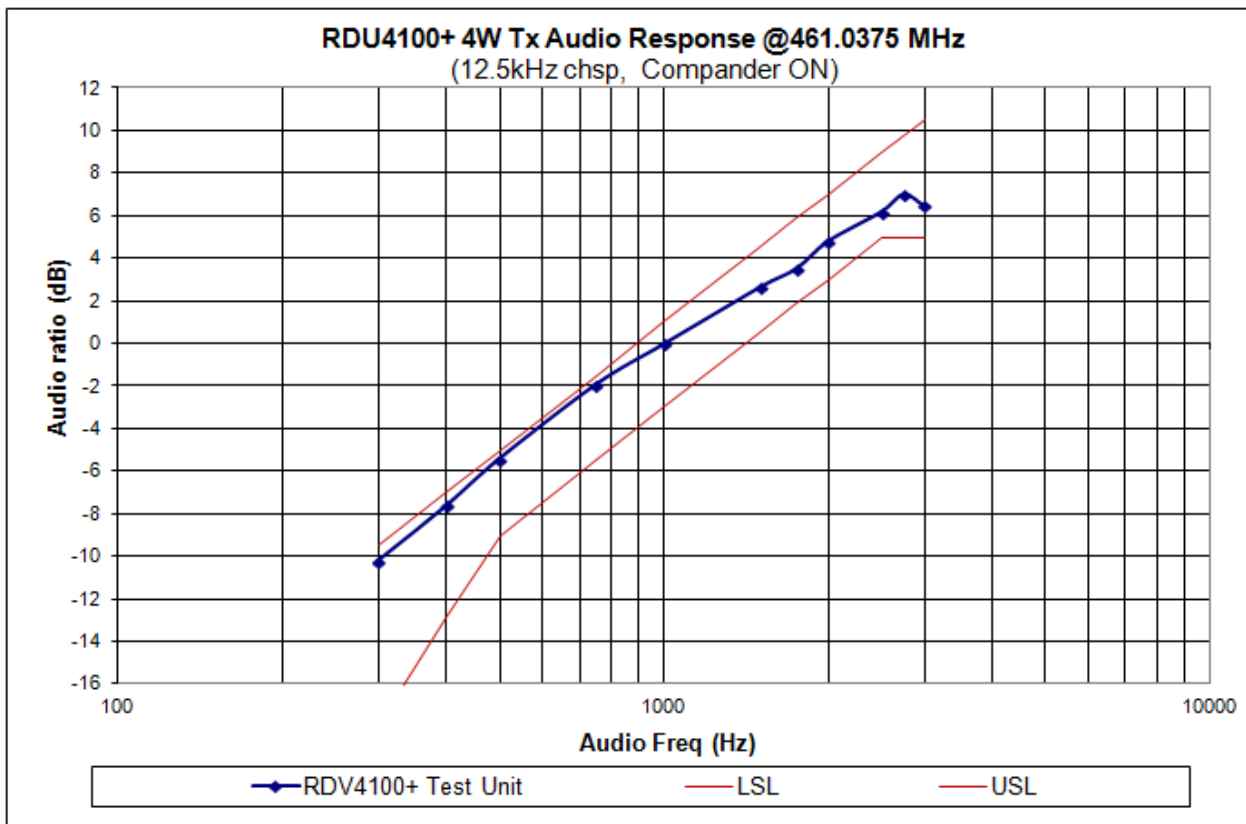


EXHIBIT 6B

MODULATION LIMITING 12.5 kHz

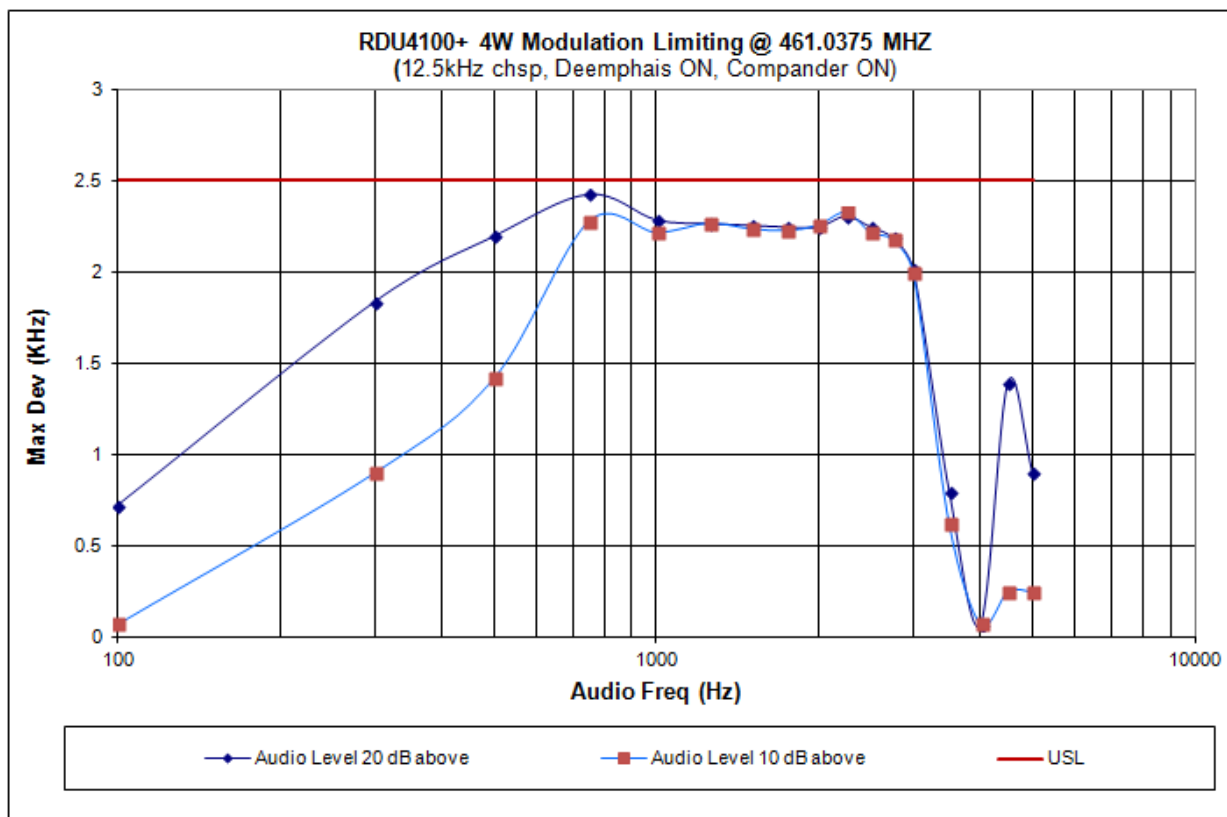


EXHIBIT 6C

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 & 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

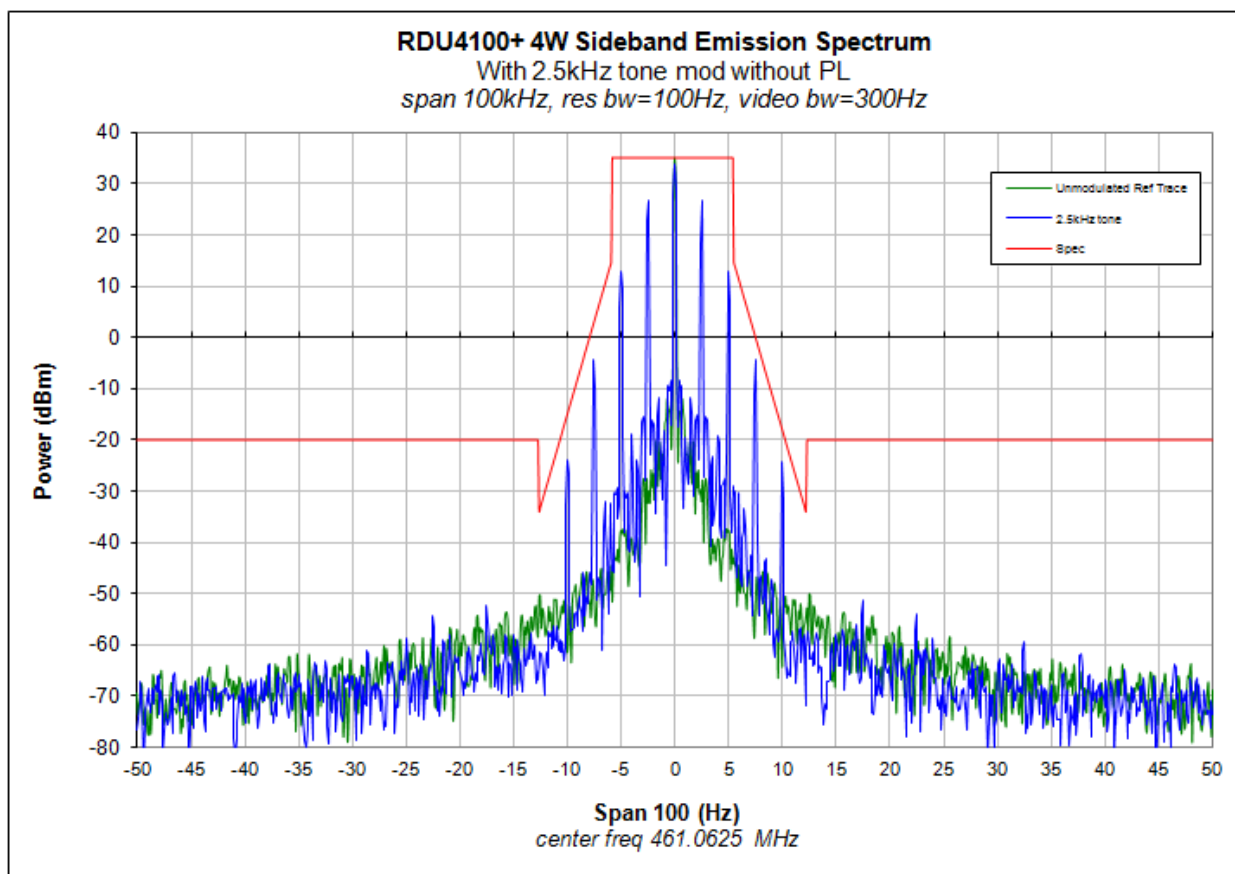


EXHIBIT 6D-1

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

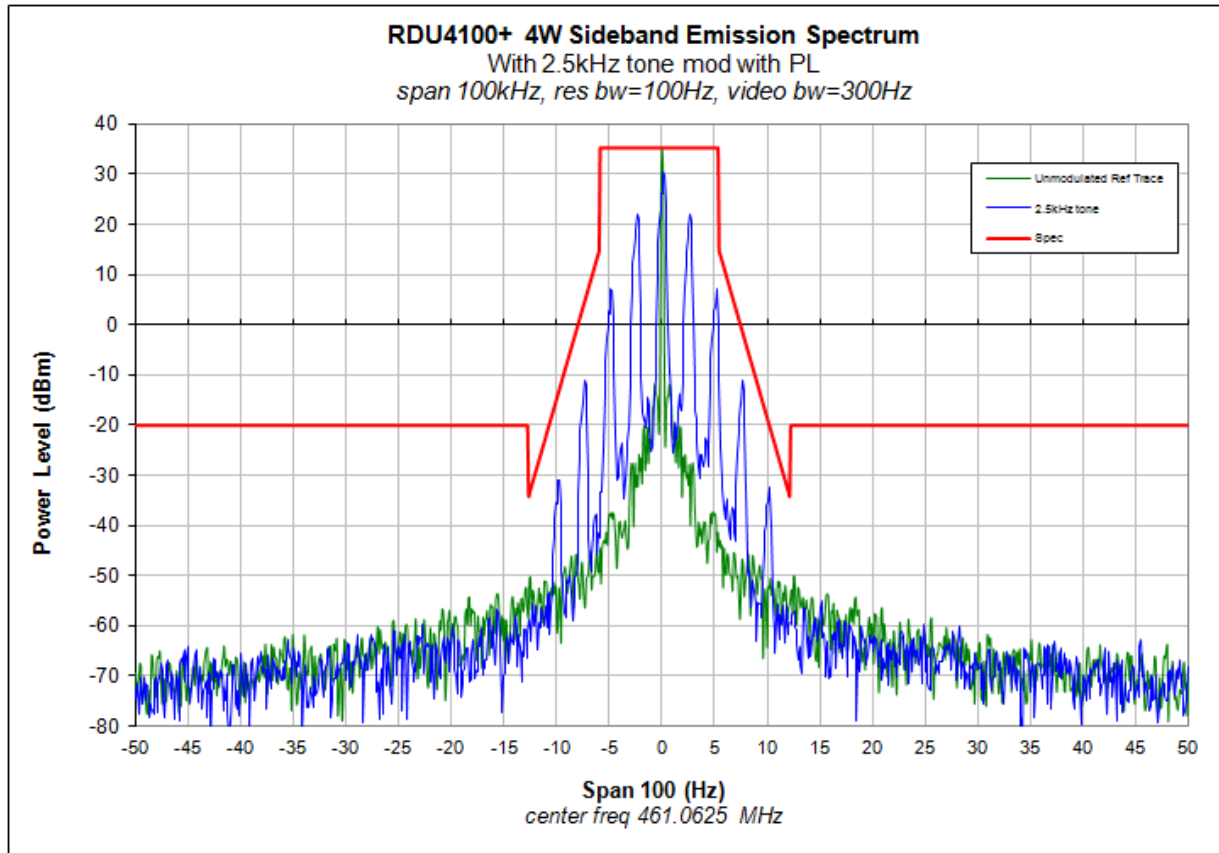


EXHIBIT 6D-2

Motorola Solutions

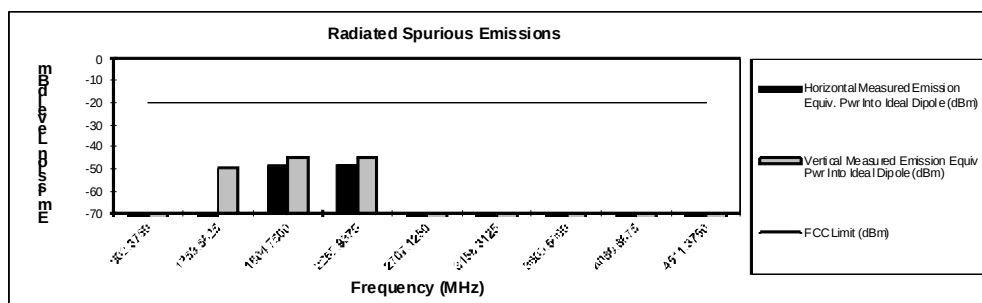
FCC ID:AZ489FT4923

Transmit Radiated Spurious Emissions: **RDU4100+**

Tx Power: 4 Watts

451.1875 MHz
Channel Spacing 12.5kHz | S/N 2

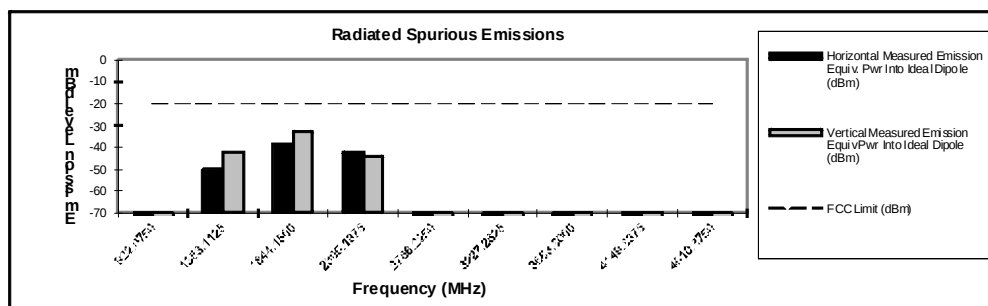
Frequency (MHz)	FCC Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
902.3750	-20	*	*
1353.5625	-20	*	-49.85
1804.7500	-20	-48.52	-44.37
2255.9375	-20	-47.97	-44.95
2707.1250	-20	*	*
3158.3125	-20	*	*
3609.5000	-20	*	*
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 TIA/EIA-603 document.

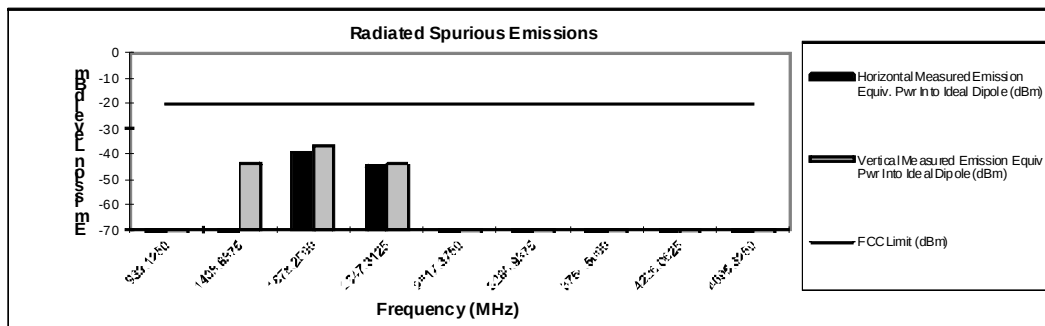
Motorola Plantation EMC Lab – Test Performed by: Curt Mc Lennan
FCC Registration: 91932 / Industry Canada: IC109U-1

October 15, 2014

EXHIBIT 6E-1

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	*	*



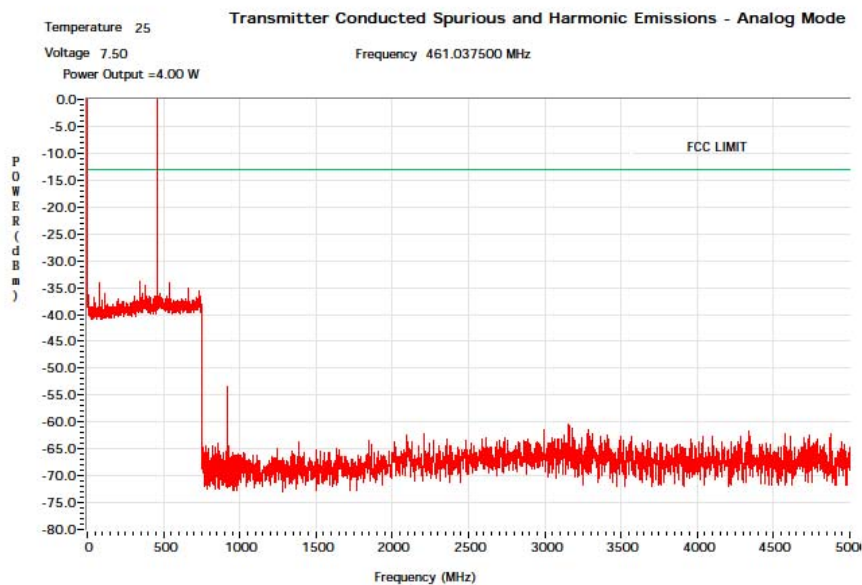
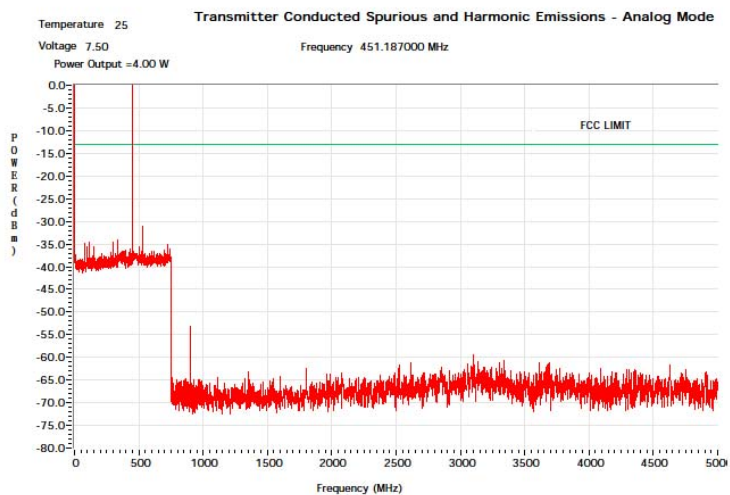
* Indicates the spurious emission could not be detected due to noise limitations or ambients.

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

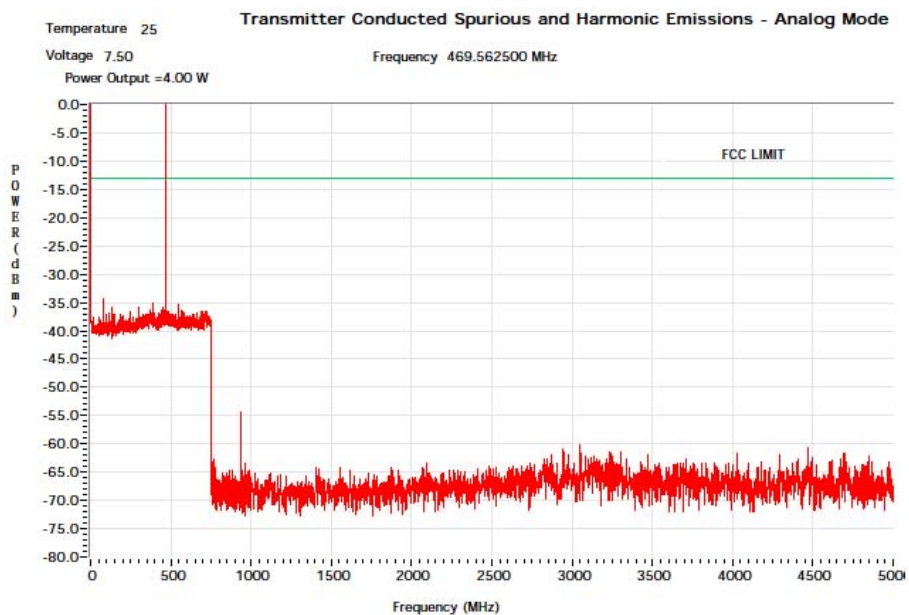
Motorola Plantation EMC Lab – Test Performed by: Curt Mc Lennan
FCC Registration: 91932 / Industry Canada: IC109U-1

October 15, 2014

Conducted Spurious Emissions



Conducted Spurious Emissions



Frequency Stability over Temperature

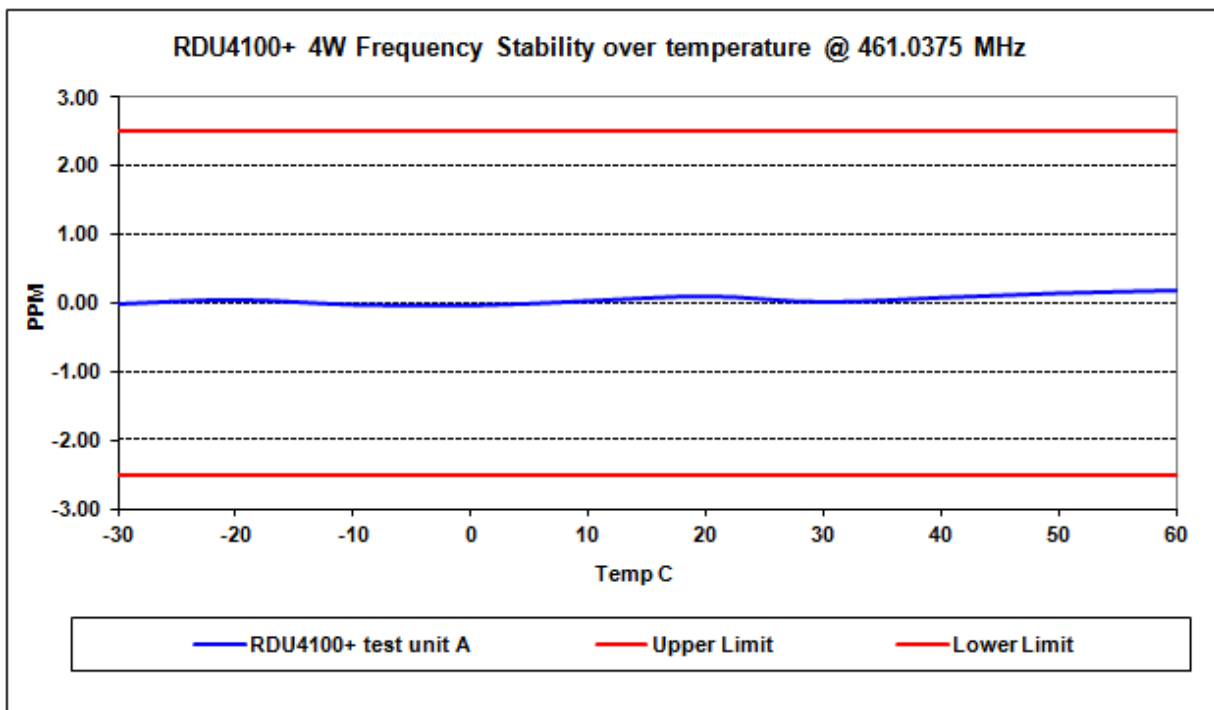


EXHIBIT 6F-1

Frequency Error over Voltage

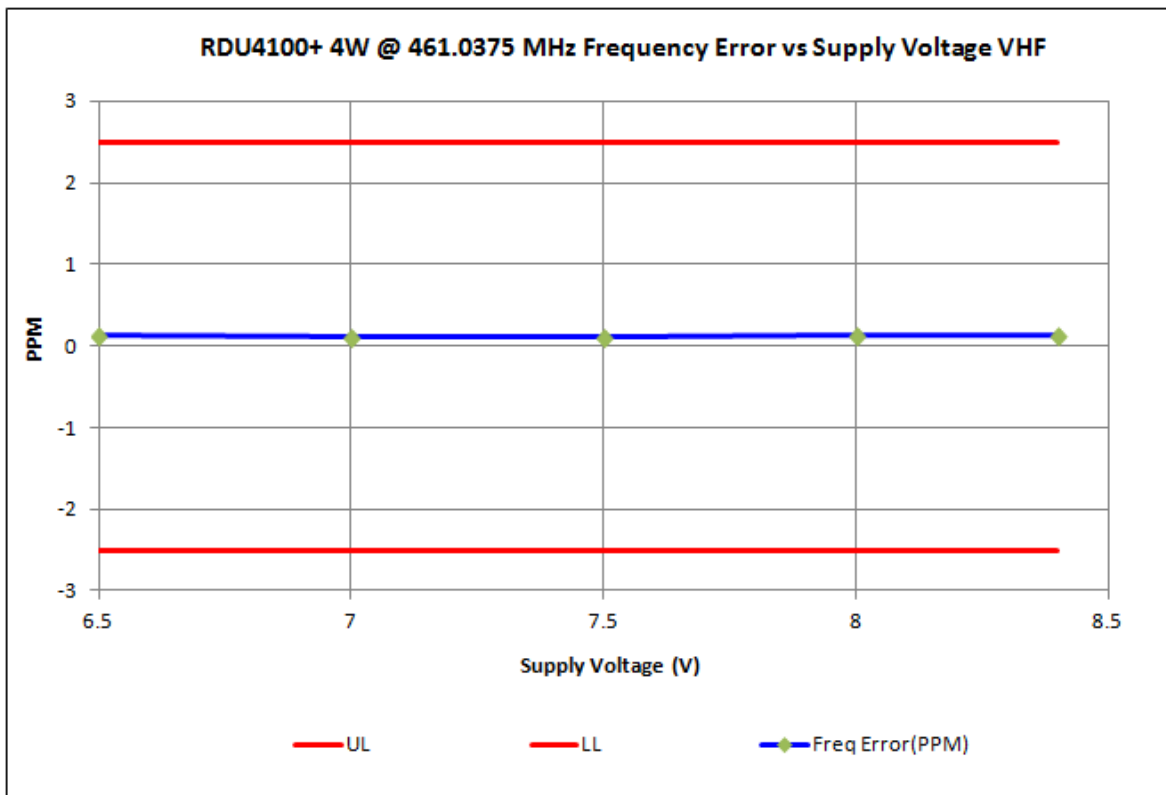
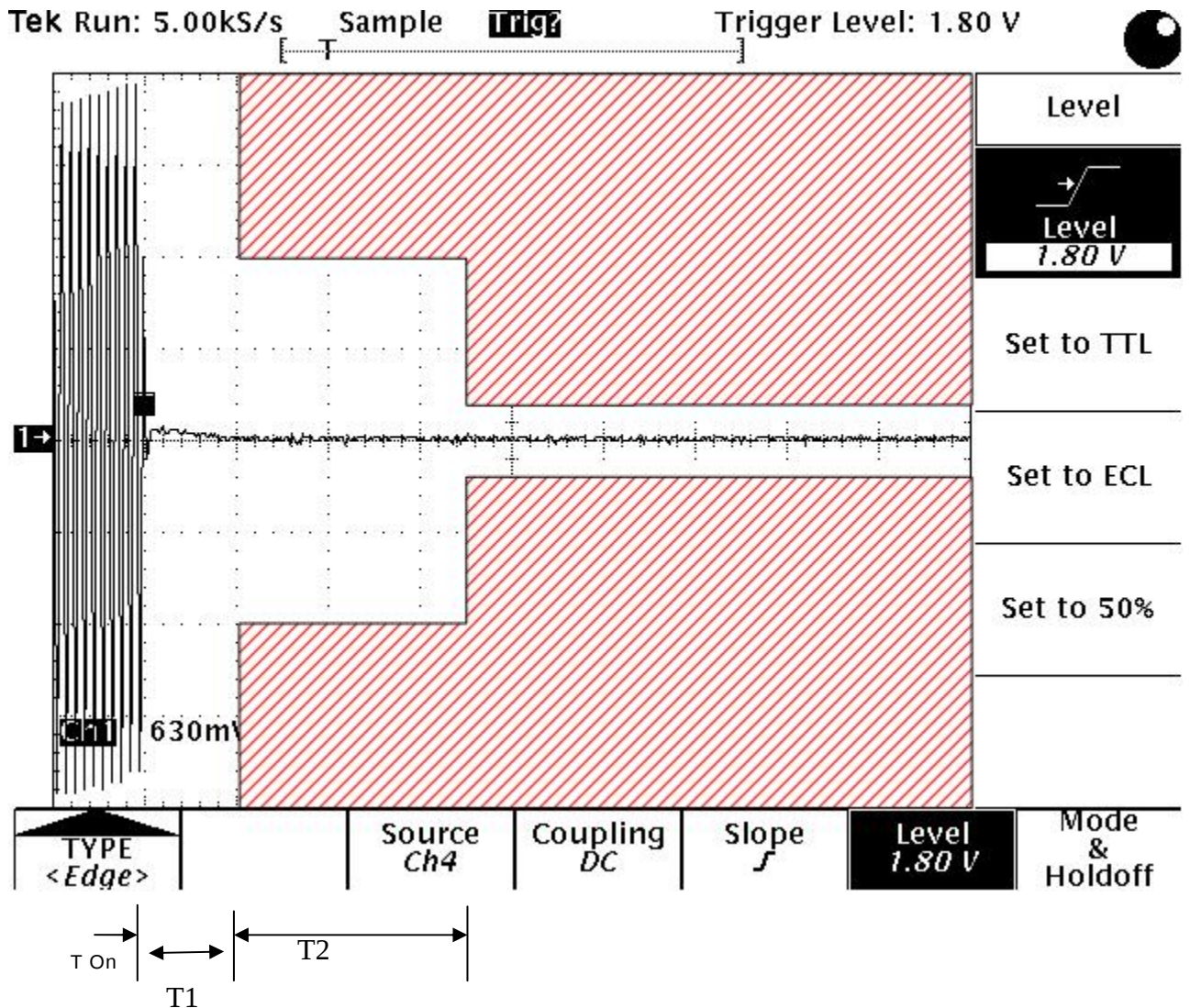


EXHIBIT 6F-2

Transient Frequency Response TX on 4 Watts @ 461.0375 MHz

UHF 461.0375 MHz



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

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

$$= \pm 0.3688 \text{ div}$$

Transient Frequency Response TX off 4 Watts @ 461.0375 MHz

UHF 461.0375 MHz

