

RMU Test Report

<u>MEASUREMENT</u>	<u>EXHIBIT</u>	<u>NUMBER OF PAGES</u>
I RF Power Output	6A	1
II Audio Response A. 12.5 kHz	6B	1
III Modulation Limiting A. 12.5 kHz	6C	1
I V Occupied Bandwidth	6D 1-4	5
V Radiated Spurious Emission A. TX Vertical / Horizontal	6E 1-2	2
VI Frequency Stability A. Temperature B. Frequency vs. Voltage	6F 1 6F 2	2
VII Transient Frequency Behavior	6G1-2	2

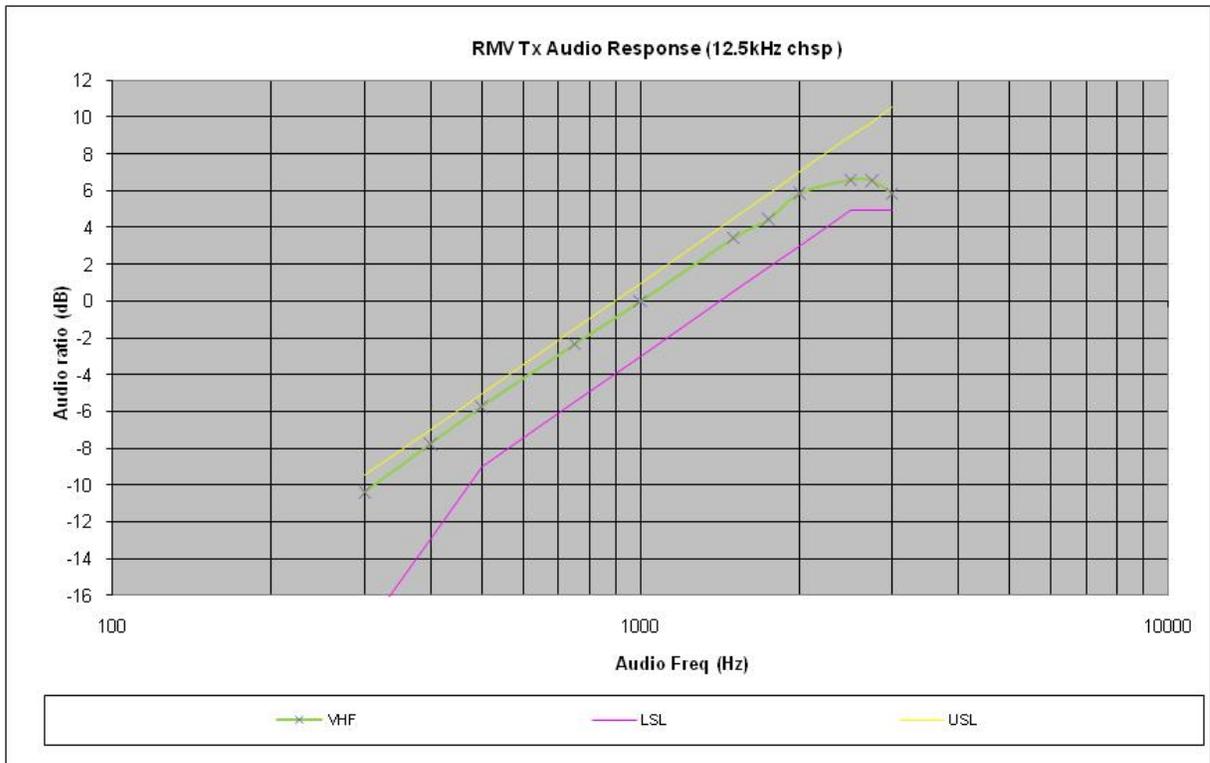
RF POWER OUTPUT DATA

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

Frequency	150.8200 MHz
Measured Conducted RF output*	1.975 Watts
Frequency	160.4000 MHz
Measured Conducted RF output*	1.973 Watts
Frequency	170.0000 MHz
Measured Conducted RF output*	1.993 Watts
Normal DC Voltage	3.70 Volts
Normal DC Current	1.608A
Primary Supply Voltage	3.80 Volts
Frequency	150.8200 MHz
Measured Conducted RF output*	1.064W
Frequency	160.4000 MHz
Measured Conducted RF output*	1.091 Watts
Frequency	170.0000 MHz
Measured Conducted RF output*	1.13 Watts
Normal DC Voltage	3.70 Volts
Normal DC Current	1.225A
Primary Supply Voltage	3.80 Volts

*Note: RF Conducted output power measured at 3.80Volts

Audio Response 12.5 kHz



MODULATION LIMITING 12.5 kHz

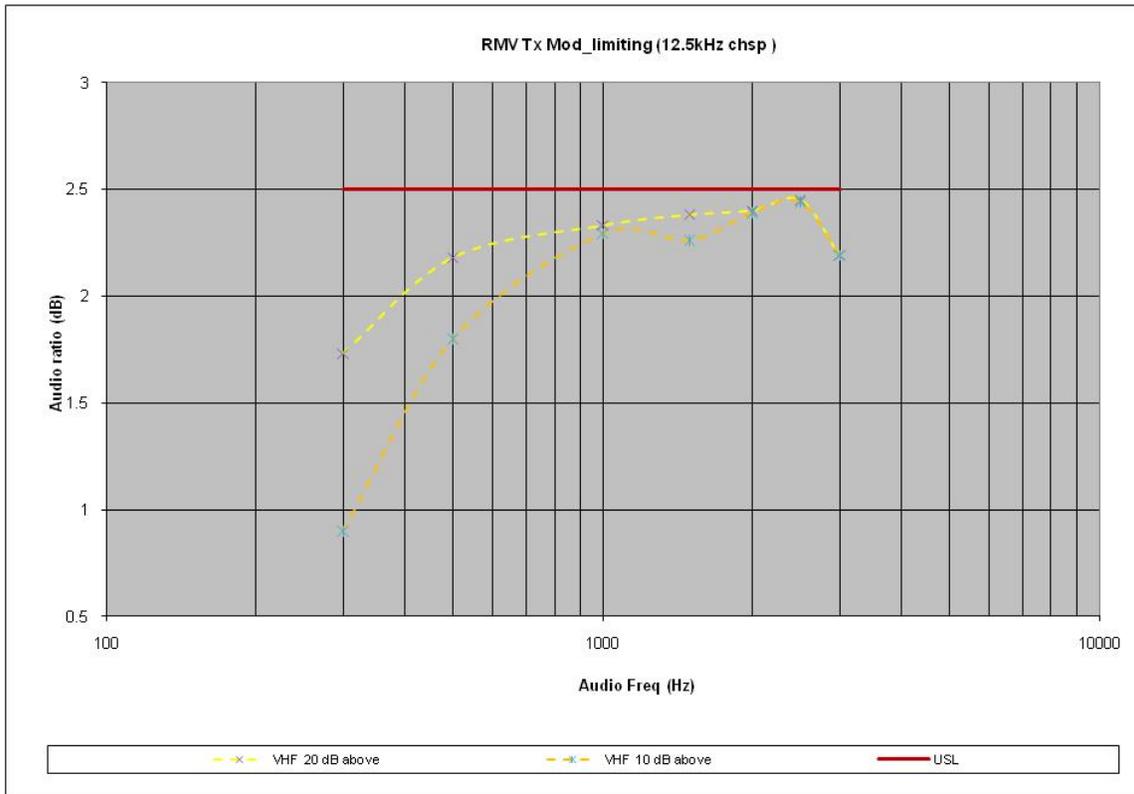


EXHIBIT 6C

OCCUPIED BANDWIDTH DATA

1Watt / 2Watt
12.5 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

EXHIBIT 6D-3 / 2Watts
2500 Hz Audio Modulation
Emission Type: 11K0F3E
Specification Mask D, 90.210 – 12.5 kHz

EXHIBIT 6D-4 / 2Watts
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 (3 kHz maximum modulation frequency +2.5 kHz deviation)
BW=2 (5.5)
BW= 11K0

EXHIBIT 6D

1 Watt 12.5 kHz
Mask D, Rule Part: 90.210
Emission Type: 11K0F3E

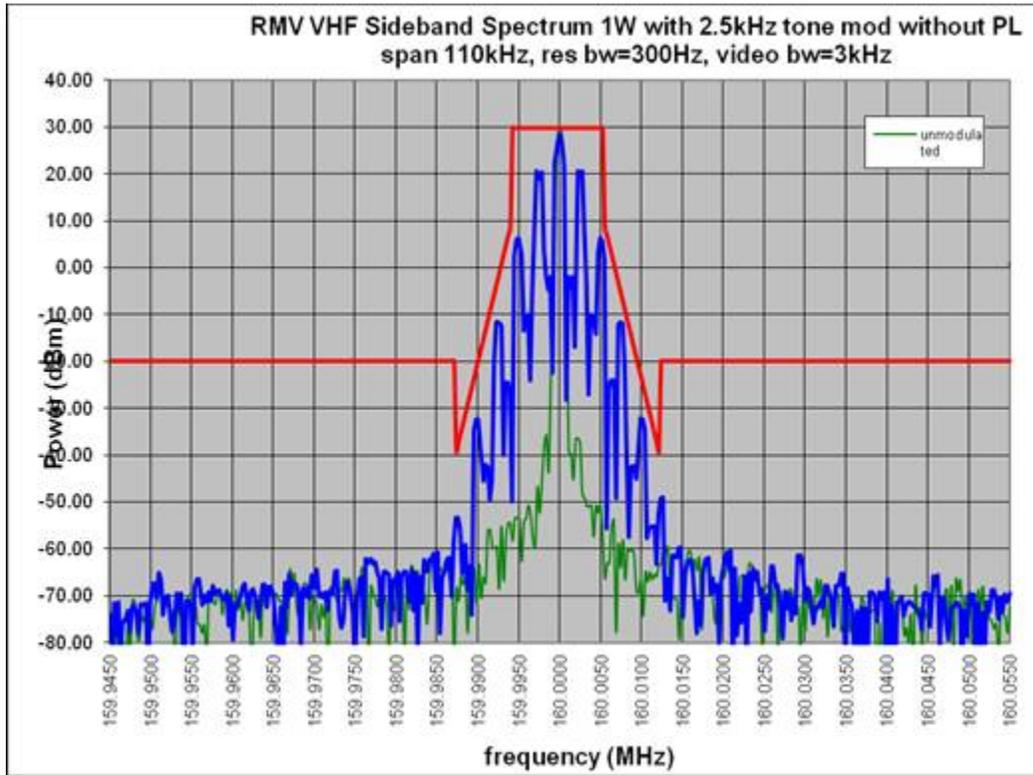


EXHIBIT 6D-1

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

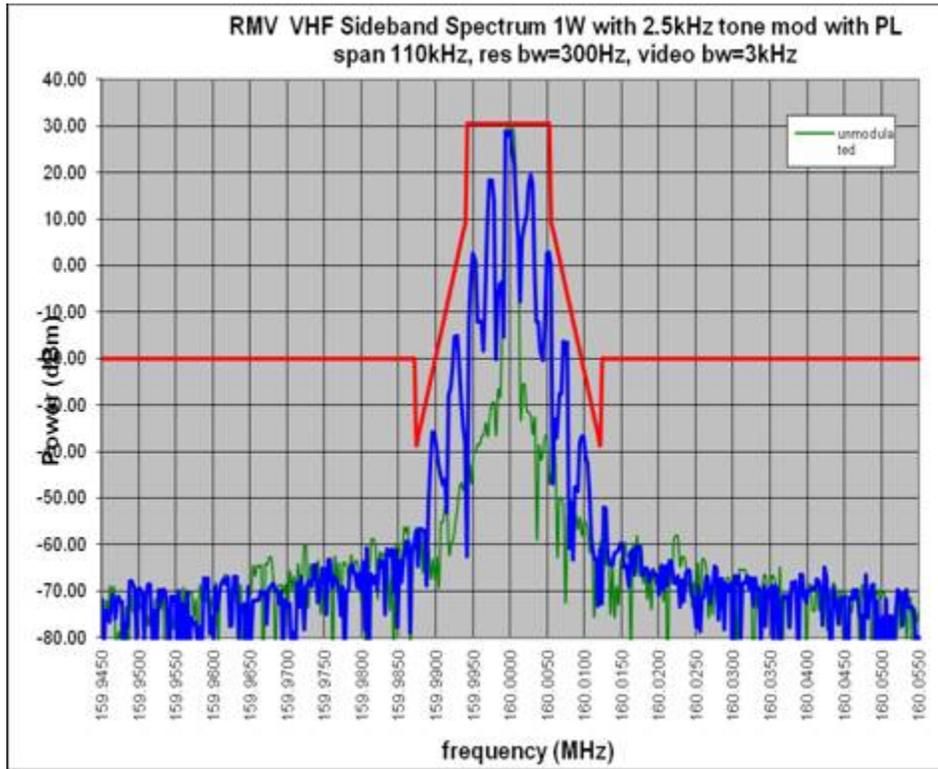


EXHIBIT 6D-2

2 Watt 12.5 kHz
Mask D, Rule Part: 90.210
Emission Type: 11K0F3E

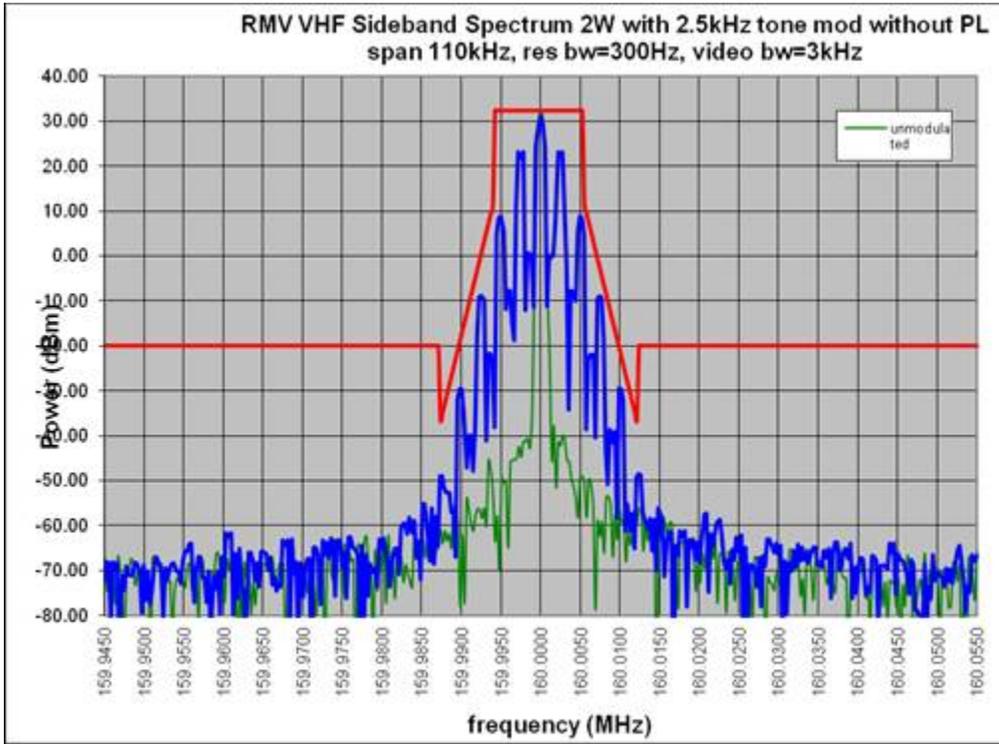


EXHIBIT 6D-3

2 Watt 12.5 kHz
2500 Hz & 77Hz Tone "PL" Modulation
Mask D, Rule Part: 90.210

Emission Type: 11K0F3E

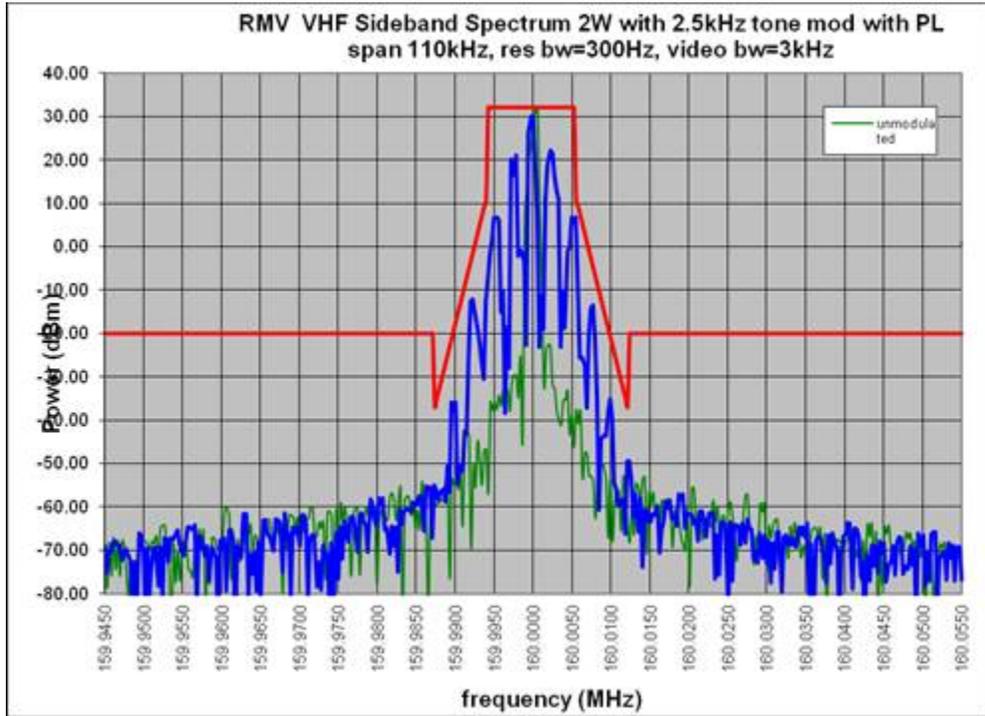
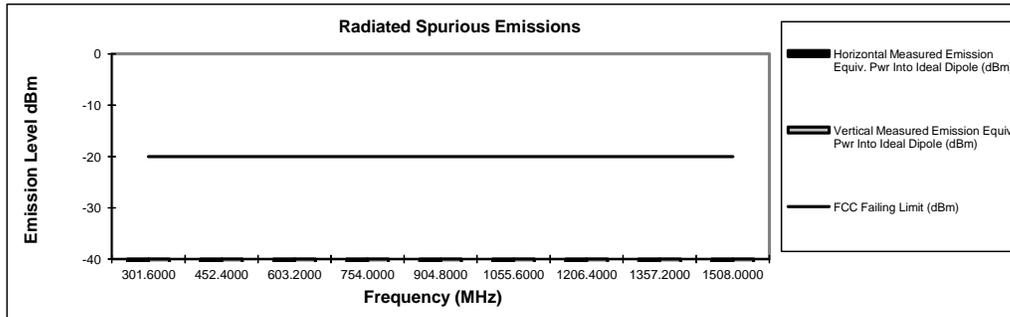


EXHIBIT 6D-4

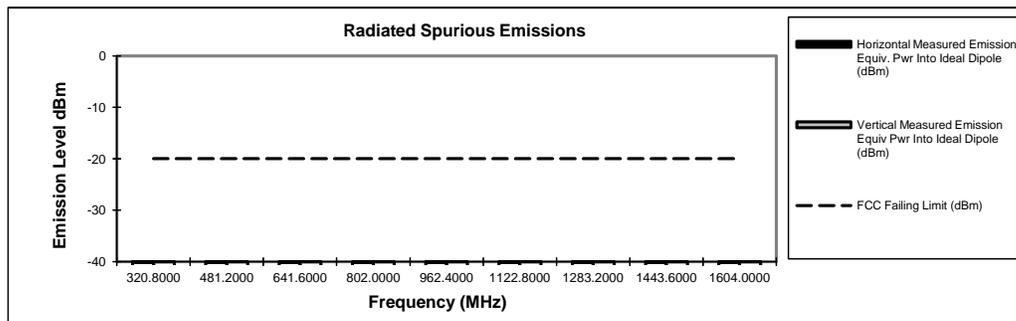
Motorola Solutions

Transmit Radiated Spurious Emissions: PMUD3255A
Tx Power: 2 Watts
150.8 MHz
Channel Spacing 12.5kHz | S/N 024TPD0091

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
301.6000	-20	*	*
452.4000	-20	*	*
603.2000	-20	*	*
754.0000	-20	*	*
904.8000	-20	*	*
1055.6000	-20	*	*
1206.4000	-20	*	*
1357.2000	-20	*	*
1508.0000	-20	*	*


Transmit Radiated Spurious Emissions: PMUD3255A
Tx Power: 2 Watts
160.4 MHz
Channel Spacing 12.5kHz | S/N 024TPD0091

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
320.8000	-20	*	*
481.2000	-20	*	*
641.6000	-20	*	*
802.0000	-20	*	*
962.4000	-20	*	*
1122.8000	-20	*	*
1283.2000	-20	*	*
1443.6000	-20	*	*
1604.0000	-20	*	*



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

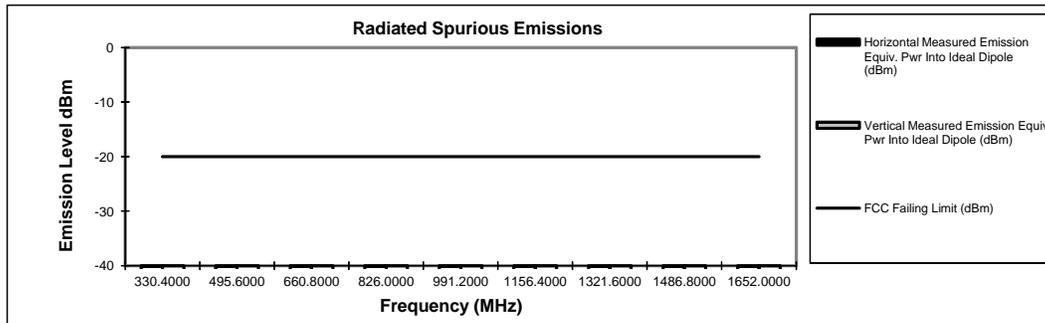
Pursuant to CFR 47 Part 2.1057(c), emissions attenuated more than 20 dB below the permissible limit are not reported.

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

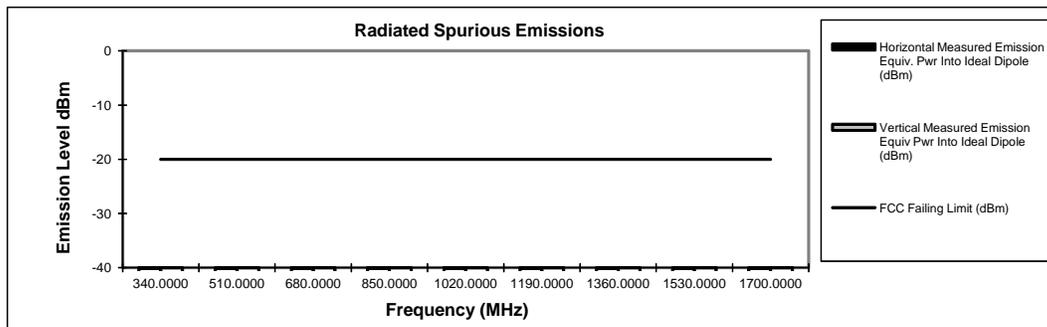
Motorola Plantation EMC Lab – Test Performed by: Alberto Cordero
March 31, 2013
FCC Registration: 91932 / Industry Canada: IC109U-1
EXHIBIT 6E-1

Transmit Radiated Spurious Emissions: PMUD3255A
Tx Power: 2 Watts
165.2 MHz
Channel Spacing 12.5kHz | S/N 024TPD0089

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
330.4000	-20	*	*
495.6000	-20	*	*
660.8000	-20	*	*
826.0000	-20	*	*
991.2000	-20	*	*
1156.4000	-20	*	*
1321.6000	-20	*	*
1486.8000	-20	*	*
1652.0000	-20	*	*


Transmit Radiated Spurious Emissions: PMUD3255A
Tx Power: 2 Watts
170 MHz
Channel Spacing 12.5kHz | S/N 024TPD0089

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
340.0000	-20	*	*
510.0000	-20	*	*
680.0000	-20	*	*
850.0000	-20	*	*
1020.0000	-20	*	*
1190.0000	-20	*	*
1360.0000	-20	*	*
1530.0000	-20	*	*
1700.0000	-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
March 31, 2013
FCC Registration: 91932 / Industry Canada: IC109U-1

Frequency Stability over Temperature

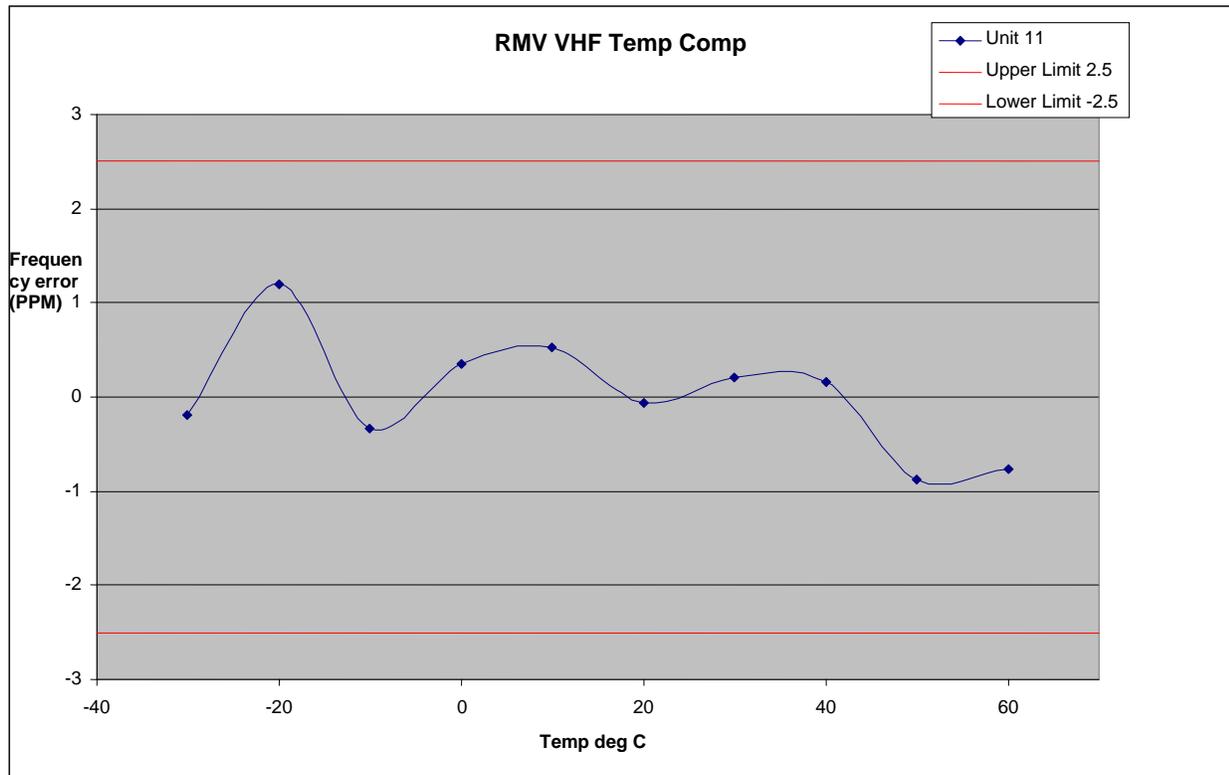
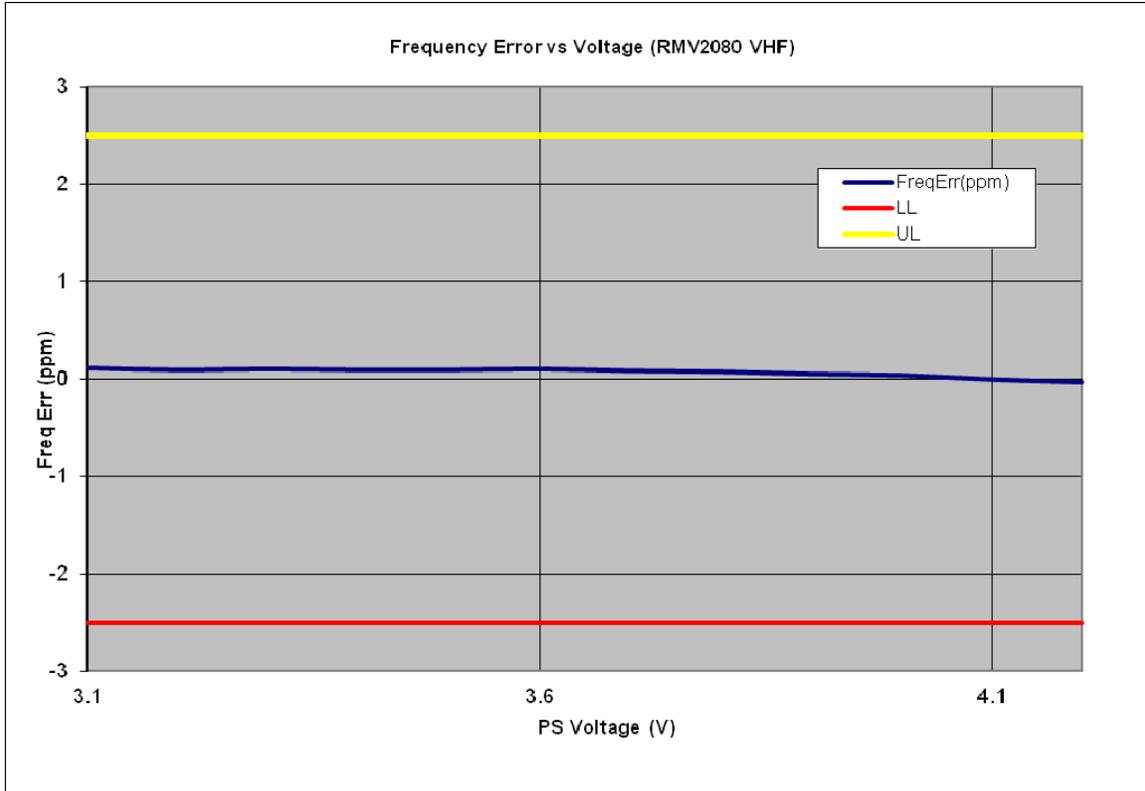


EXHIBIT 6F-1

Frequency Error over Voltage

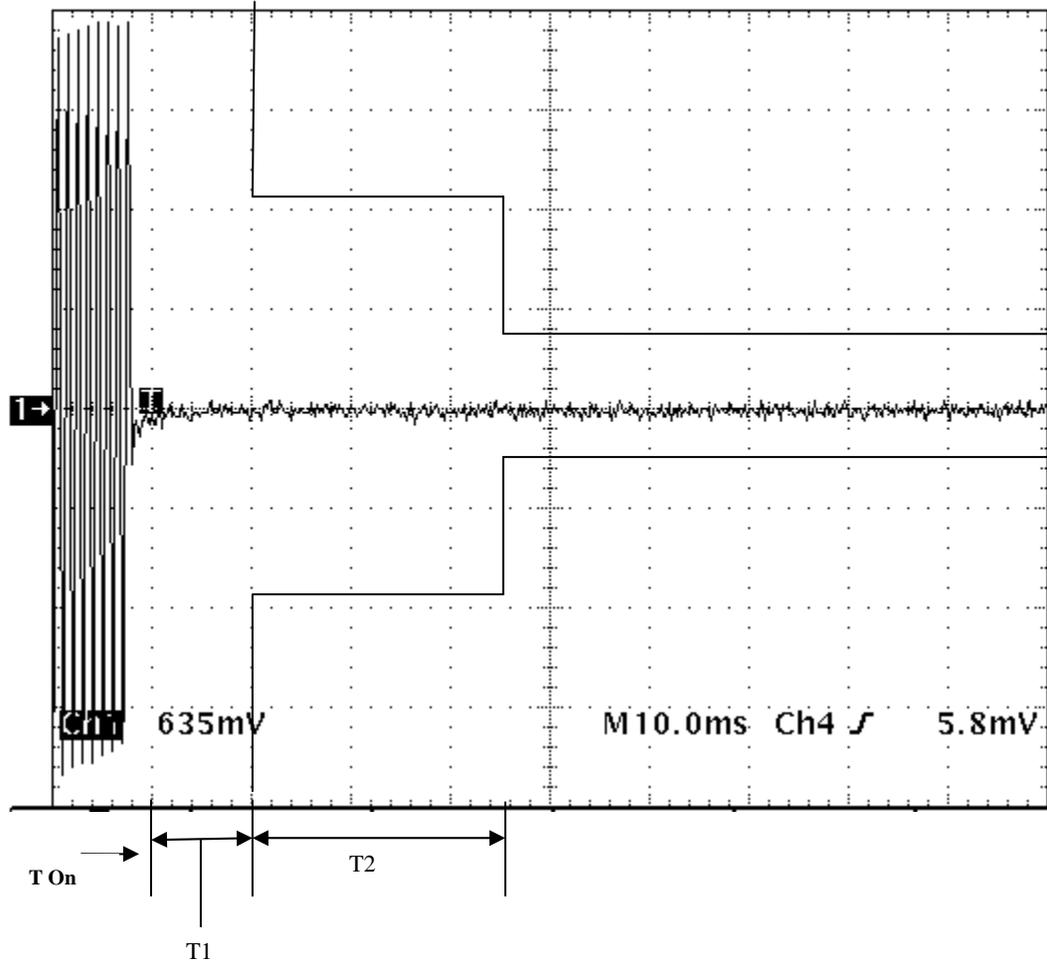


Reset Voltage 3.3Volts

EXHIBIT 6F-2

Transient Frequency Response TX on 2 Watt 12.5 kHz

VHF 150.25 MHz



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

$$\frac{(264\text{MHz}) * (2.5\text{PPM}) * (\pm 4)}{12.5 \text{ kHz}}$$

$$= \pm 0.3712 \text{ div}$$

EXHIBIT 6G-1

Transient Frequency Response TX off 2 Watt 12.5 kHz

VHF 150.25 MHz

