



**Test Report**

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**MOTOROLA**

FCC ID: AZ489FT3818

**RF POWER OUTPUT DATA**

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

**1.0Watts**

Frequency	151.8800MHz
Measured Conducted RF output*	1.02 Watts
Normal DC Voltage	7.80 Volts
Normal DC Current	560 milli amps
Primary Supply Voltage	7.80 Volts

**2.0Watts**

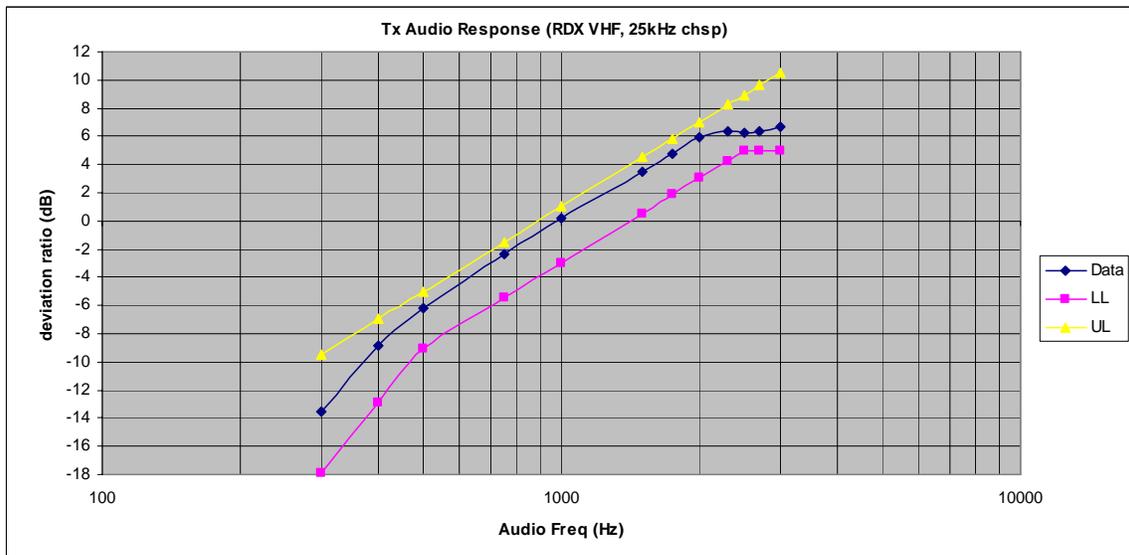
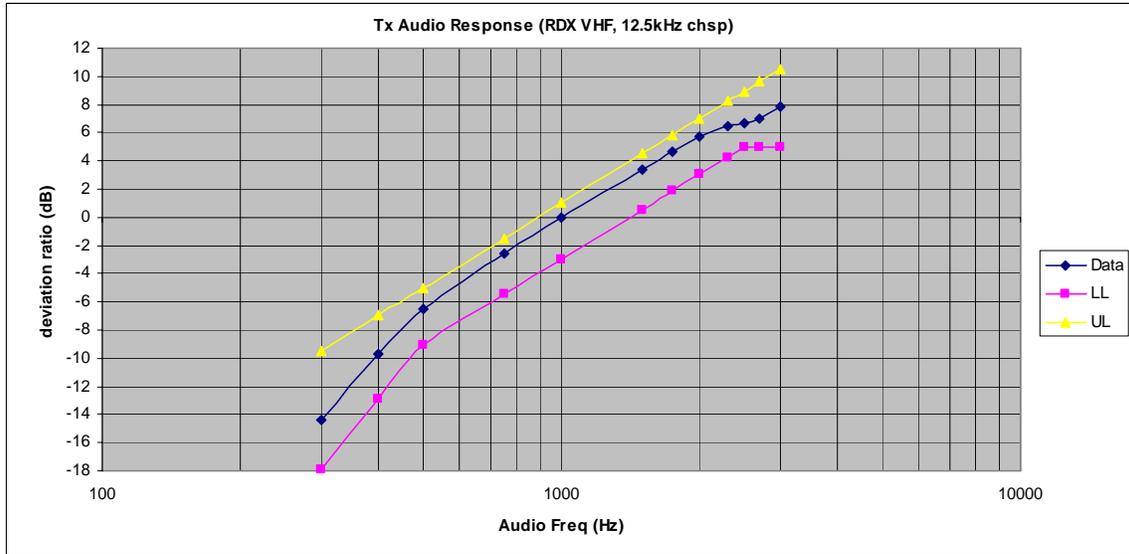
Frequency	151.70MHz
Measured Conducted RF output*	2.30 Watts
Normal DC Voltage	7.80 Volts
Normal DC Current	745 milli amps
Primary Supply Voltage	7.80 Volts

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

EXHIBIT 6A



### Audio Response





**MOTOROLA**

FCC ID: AZ489FT3818

**MODULATION LIMITING**

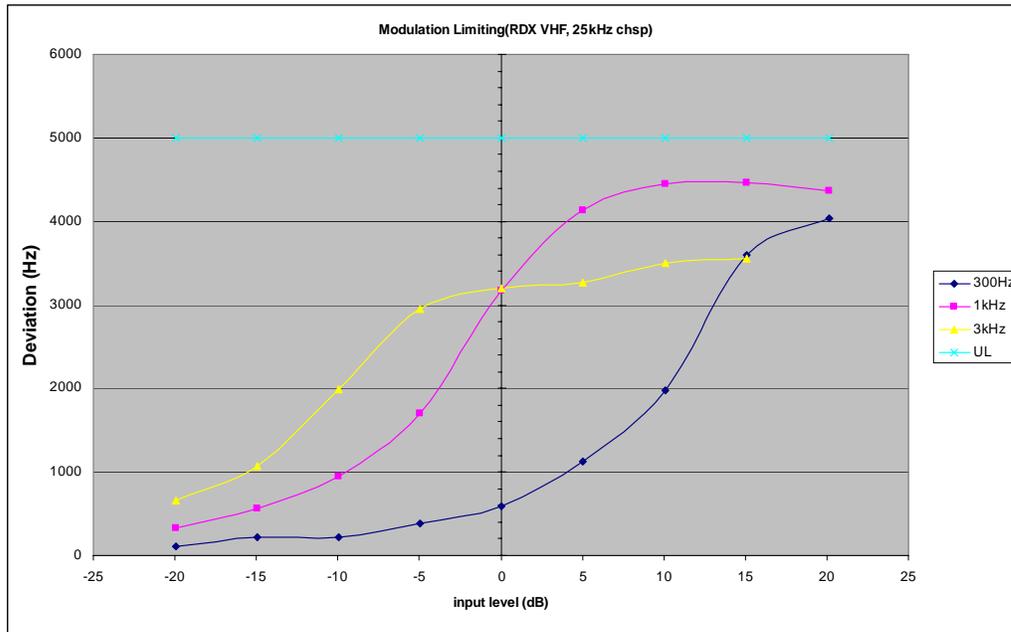
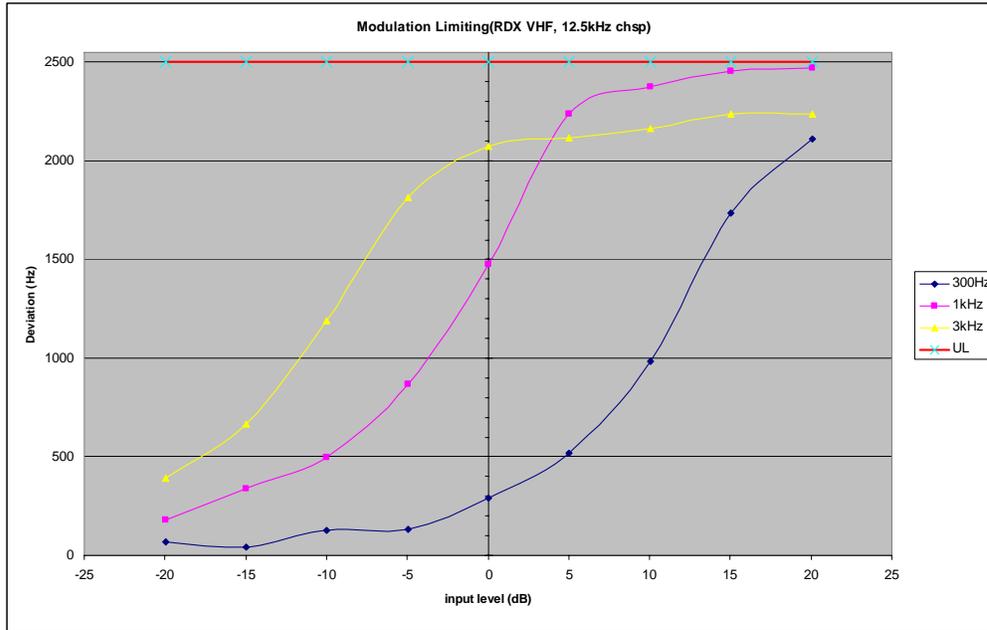


EXHIBIT 6C



**MOTOROLA**

FCC ID: AZ489FT3818

**OCCUPIED BANDWIDTH DATA**

**2Watt**

12.5 / 25 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 Audio Modulation

Emission Type: 16K0F3E

Specification Mask B, 90.210 – 25 kHz

**EXHIBIT 6D-3**

2500 Hz & 77Hz Tone "PL" Modulation

Emission Type: 11K0F3E

Specification Mask D, 90.210 – 12.5 kHz

**EXHIBIT 6D-4**

2500 Hz & 77Hz Tone "PL" Modulation

Emission Type: 16K0F3E

Specification Mask B, 90.210 – 25 kHz

CARSON'S RULE: 11K0F3E

$BW = 2(M+D)$

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

$BW = 2$  (5.5)

$BW = 11K0$

CARSON'S RULE: 16K0F3E

$BW = 2(M+D)$

$BW = 2$  (3 kHz maximum modulation frequency + 5 kHz deviation)

$BW = 2$  (8)

$BW = 16K0$

EXHIBIT 6D



**MOTOROLA**

FCC ID: AZ489FT3818

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

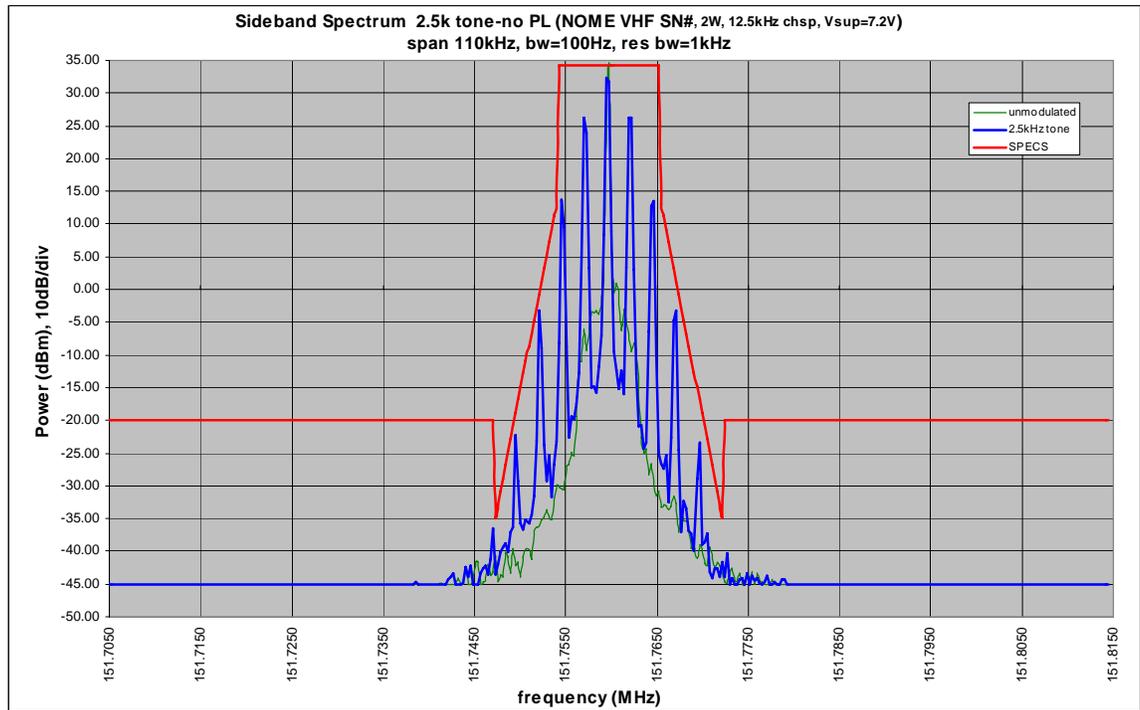


EXHIBIT 6D-1



**MOTOROLA**

FCC ID: AZ489FT3818

2- Watt 25 kHz  
Mask B, Rule Part: 90.210  
Emission Type: 16K0F3E

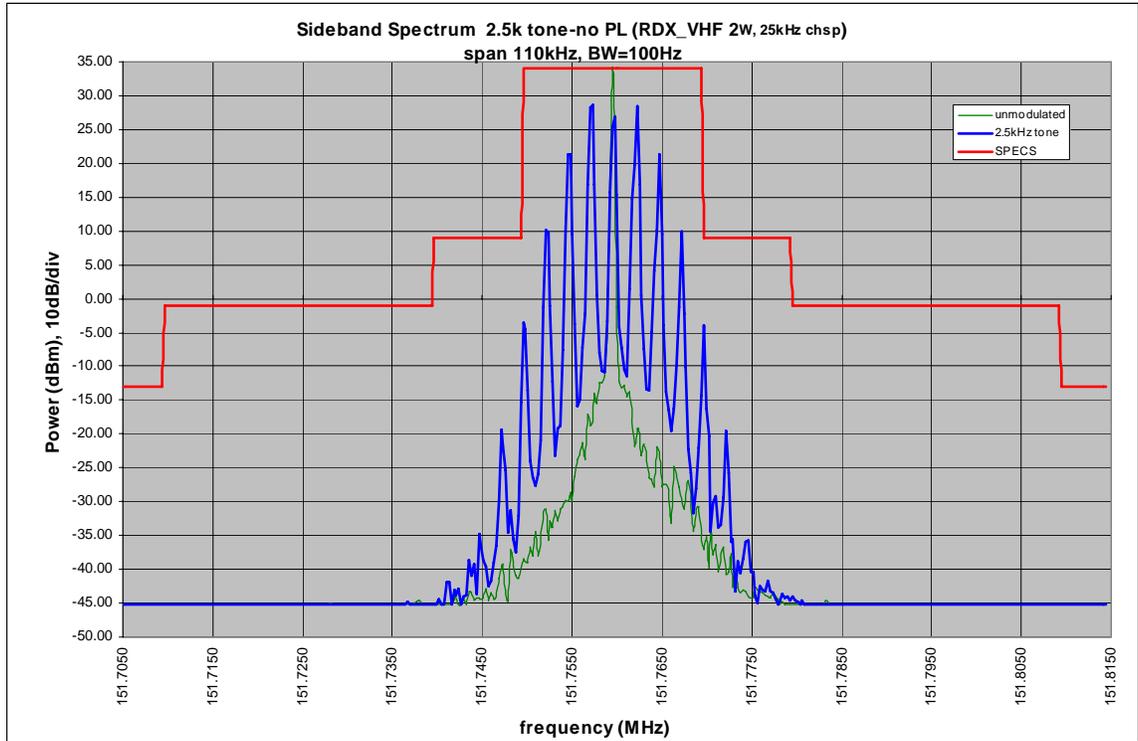


EXHIBIT 6D-2



**MOTOROLA**

FCC ID: AZ489FT3818

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

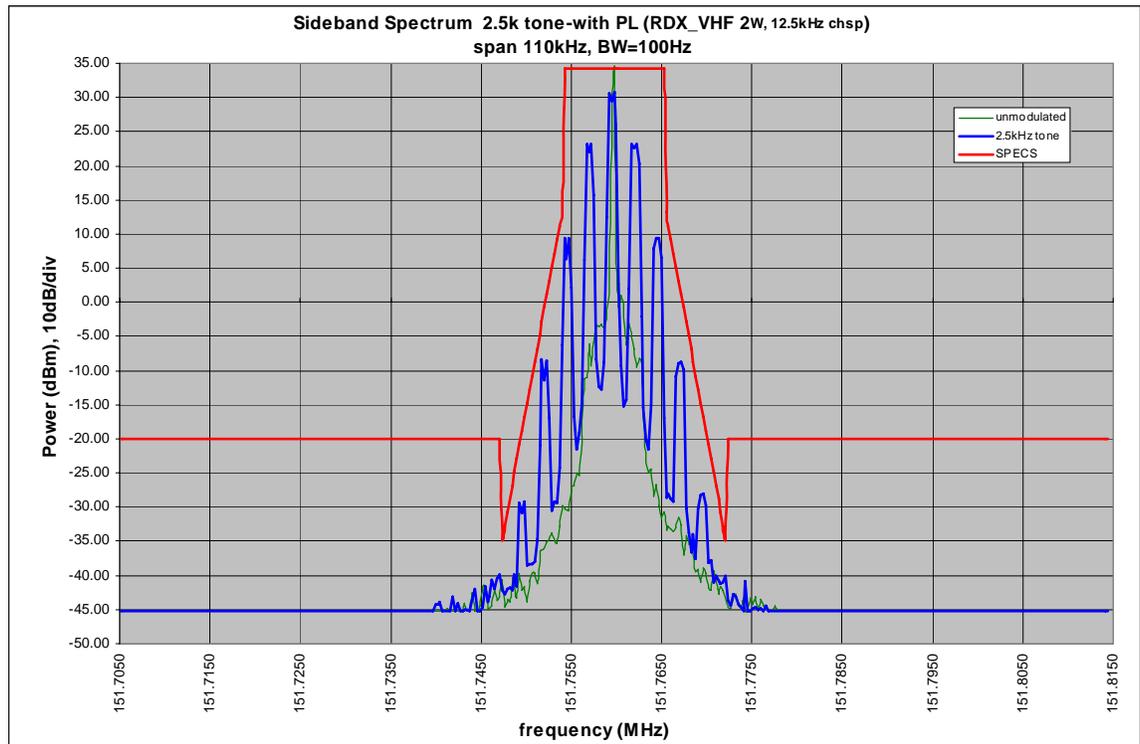


EXHIBIT 6D-3



**MOTOROLA**

FCC ID: AZ489FT3818

2- Watt 25 kHz  
2500 Hz & 77Hz Tone "PL" Modulation  
Mask B, Rule Part: 90.210  
Emission Type: 16K0F3E

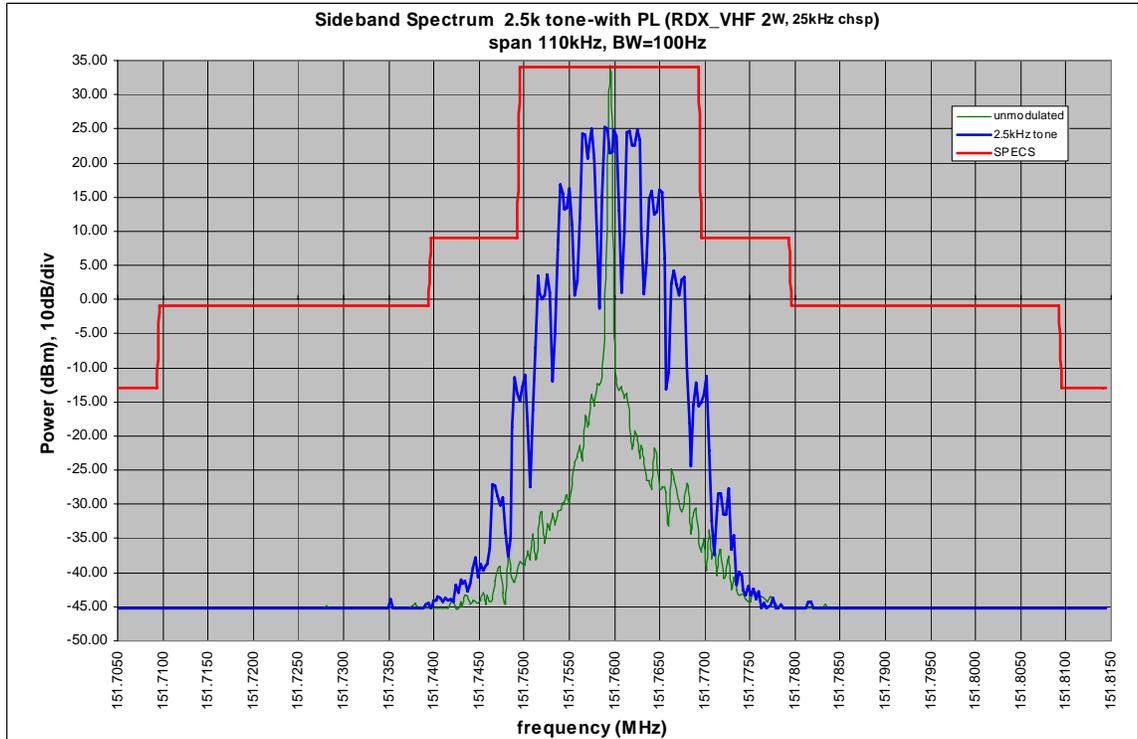


EXHIBIT 6D-4



**MOTOROLA**

FCC ID: AZ489FT3818

**1 Watt/ 12.5kHz**

Motorola Inc.

FCC ID:AZ489FT3818

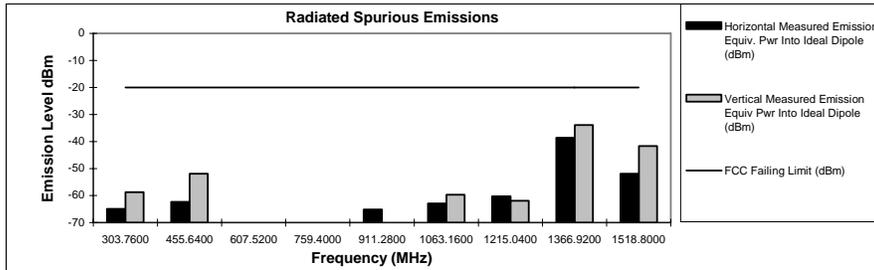
**Transmit Radiated Spurious Emissions: Removable Antenna RDV2020**

**Tx Power: 1 Watts**

**151.88 MHz**

**Channel Spacing 12.5KHZ | S/N #002**

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
303.7600	-20	-64.95	-58.79
455.6400	-20	-62.34	-51.89
607.5200	-20	*	*
759.4000	-20	-72.38	*
911.2800	-20	-65.15	*
1063.1600	-20	-62.88	-59.70
1215.0400	-20	-60.26	-61.95
1366.9200	-20	-38.58	-33.91
1518.8000	-20	-51.91	-41.65



\* 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: IC3679

October 6, 2006

EXHIBIT 6E-1



**MOTOROLA**

FCC ID: AZ489FT3818

**1 Watt/ 25kHz**

Motorola Inc.

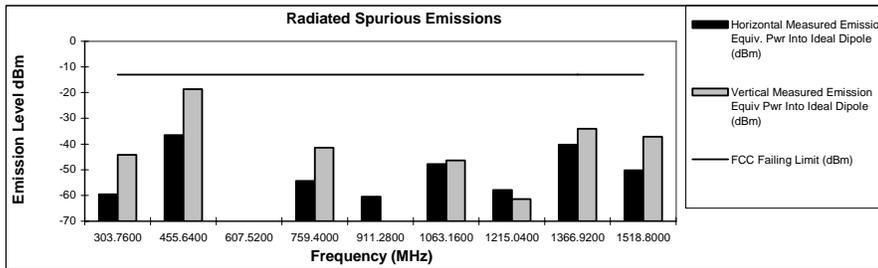
FCC ID:AZ489FT3818

Transmit Radiated Spurious Emissions: Removable Antenna RDV2020  
Tx Power: 1 Watts

151.88 MHz

Channel Spacing 25KHZ | S/N #002

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
303.7600	-13	-59.60	-44.17
455.6400	-13	-36.52	-18.65
607.5200	-13	*	*
759.4000	-13	-54.35	-41.49
911.2800	-13	-60.45	*
1063.1600	-13	-47.82	-46.36
1215.0400	-13	-57.86	-61.45
1366.9200	-13	-40.20	-34.03
1518.8000	-13	-50.22	-37.08



\* 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: IC3679

September 29, 2006

EXHIBIT 6E-2



**MOTOROLA**

FCC ID: AZ489FT3818

**2Watts / 12.5 kHz**

Motorola Inc.

FCC ID:AZ489FT3818

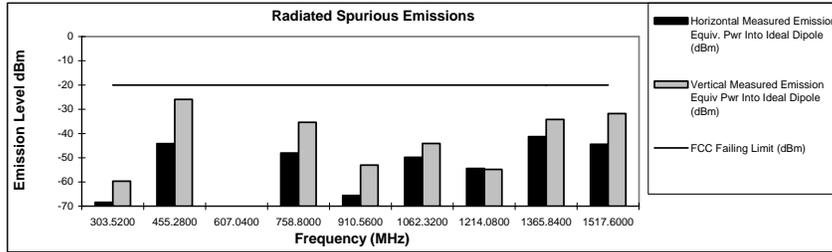
Transmit Radiated Spurious Emissions: Removable Antenna RDV2020

Tx Power: 2.3 Watts

151.76 MHz

Channel Spacing 12.5KHZ | S/N #002

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
303.5200	-20	-68.40	-59.69
455.2800	-20	-44.23	-25.89
607.0400	-20	*	*
758.8000	-20	-48.12	-35.32
910.5600	-20	-65.55	-53.04
1062.3200	-20	-49.86	-44.11
1214.0800	-20	-54.46	-54.83
1365.8400	-20	-41.29	-34.20
1517.6000	-20	-44.46	-31.76



\* 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: IC3679

September 29, 2006

EXHIBIT 6E-3



**2Watts / 25 kHz**

Motorola Inc.

FCC ID:AZ489FT3818

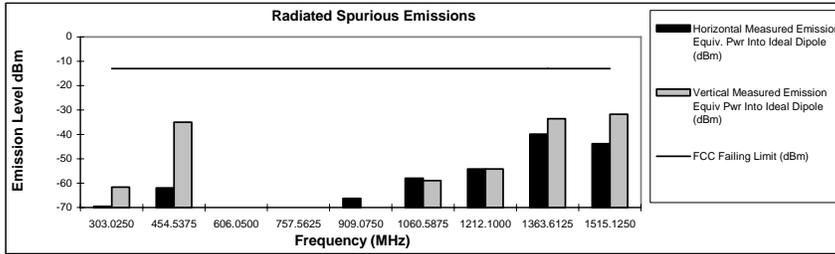
**Transmit Radiated Spurious Emissions: Removable Antenna RDV2020**

**Tx Power: 2.3 Watts**

**151.5125 MHz**

**Channel Spacing 25KHZ | S/N #002**

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
303.0250	-13	-69.57	-61.59
454.5375	-13	-61.95	-34.98
606.0500	-13	*	*
757.5625	-13	-70.92	*
909.0750	-13	-66.27	*
1060.5875	-13	-57.99	-58.95
1212.1000	-13	-54.21	-54.20
1363.6125	-13	-39.86	-33.55
1515.1250	-13	-43.86	-31.71



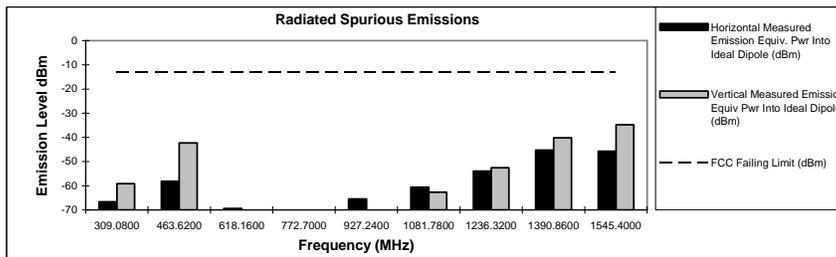
**Transmit Radiated Spurious Emissions: Removable Antenna RDV2020**

**Tx Power: 2.3 Watts**

**154.54 MHz**

**Channel Spacing 25KHZ | S/N #002**

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
309.0800	-13	-66.59	-59.15
463.6200	-13	-58.14	-42.26
618.1600	-13	-69.40	*
772.7000	-13	-71.90	*
927.2400	-13	-65.43	*
1081.7800	-13	-60.52	-62.70
1236.3200	-13	-53.96	-52.52
1390.8600	-13	-45.27	-40.16
1545.4000	-13	-45.67	-34.83



\* 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: IC3679

September 28, 2006

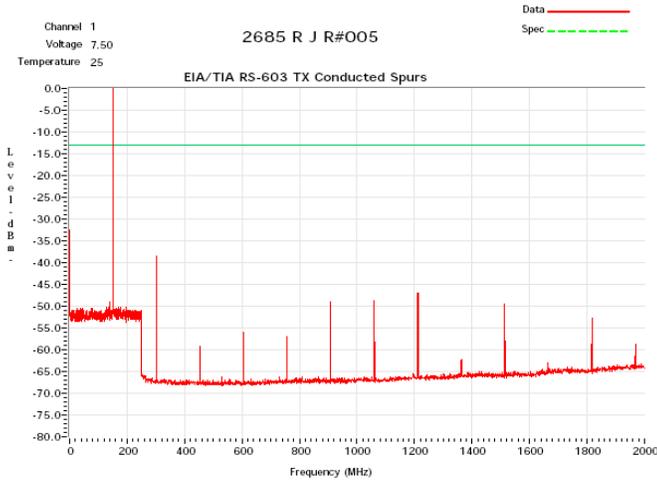


**MOTOROLA**

FCC ID: AZ489FT3818

**Conducted Emissions**

**2Watt TX Frequency 151.5215MHz (25 kHz Channel spacing)**



**2Watt TX Frequency 154.5400MHz (25 kHz Channel spacing)**

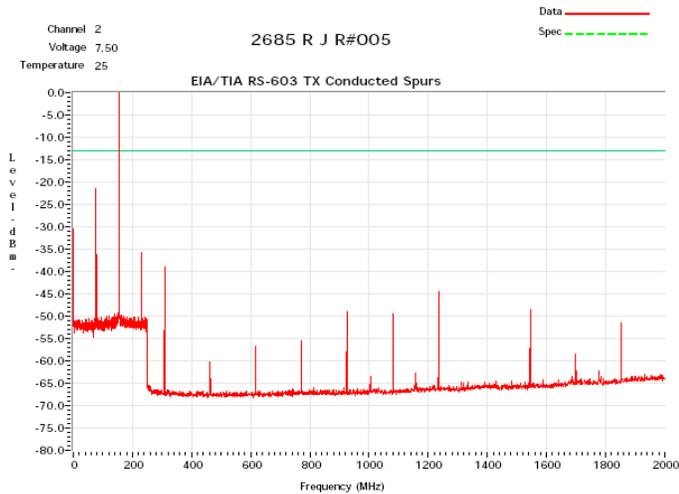


EXHIBIT 6E-5



**MOTOROLA**

FCC ID: AZ489FT3818

Conducted Emissions

2Watt TX Frequency 158.4075MHz (25 kHz Channel spacing)

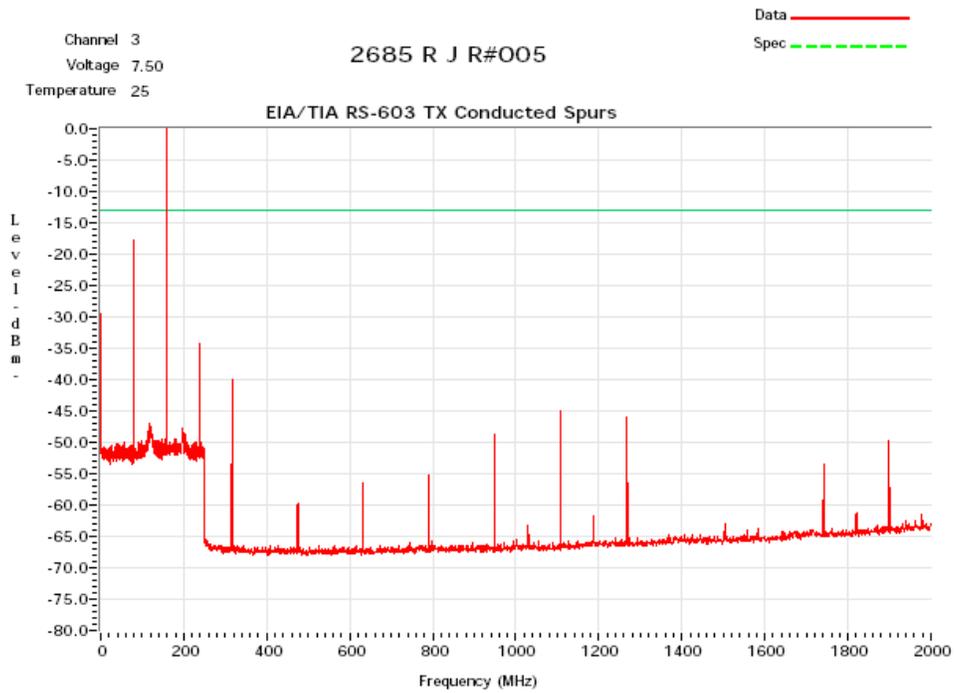


EXHIBIT 6E-6



**MOTOROLA**

FCC ID: AZ489FT3818

**Conducted Emissions**

**2Watt TX Frequency 151.7600MHz (12.5 kHz Channel spacing)**

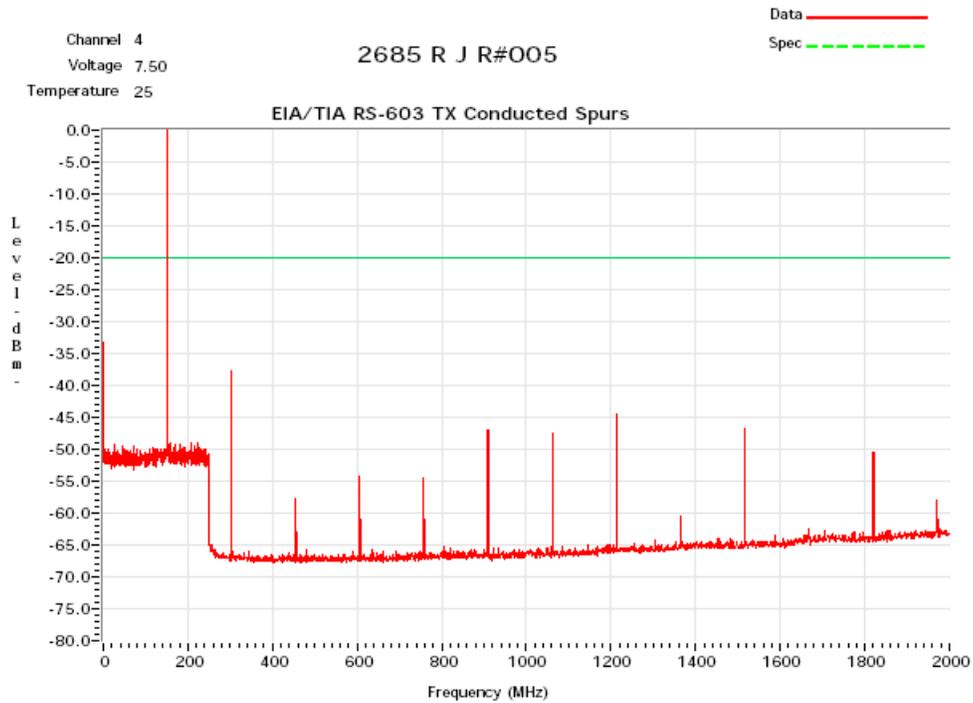


EXHIBIT 6E-7



**MOTOROLA**

FCC ID: AZ489FT3818

**Conducted Emissions**

**1Watt TX Frequency 151.8800MHz (12.5 kHz Channel spacing)**

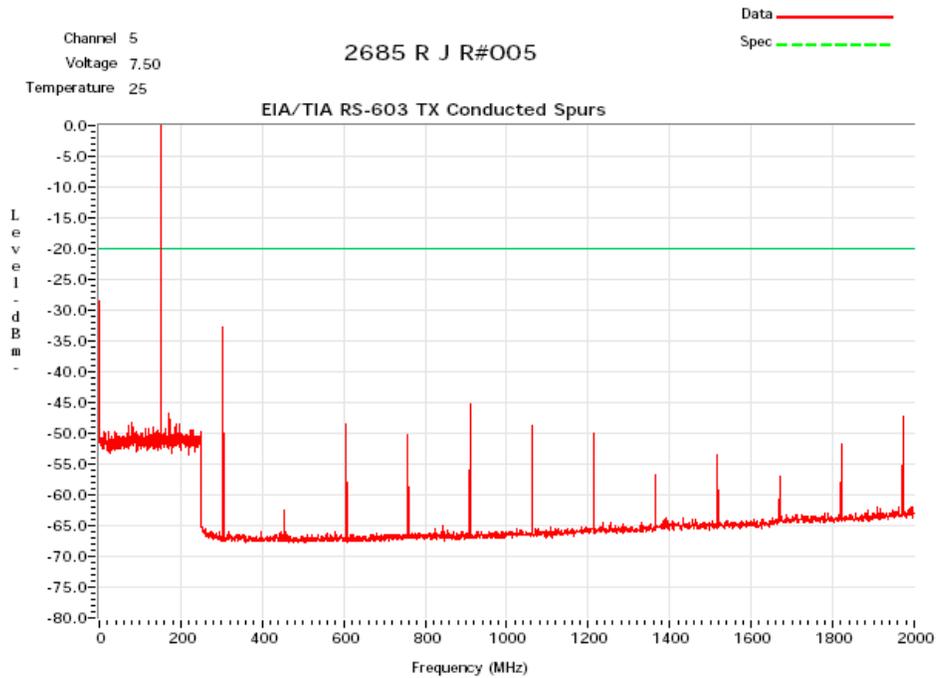
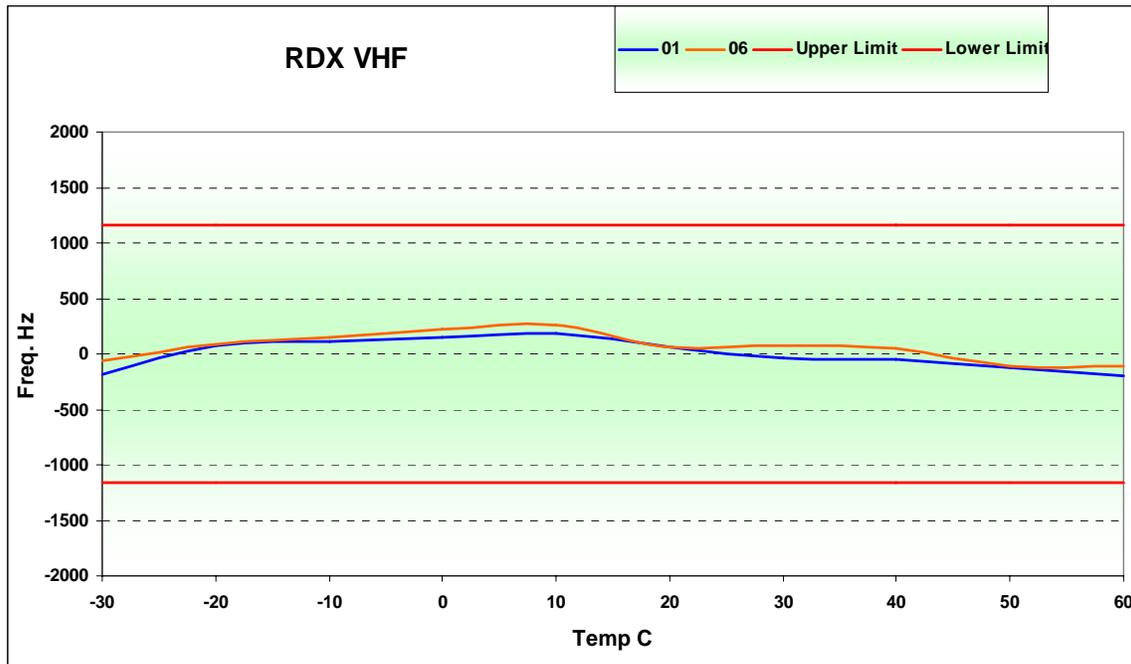


EXHIBIT 6E-8

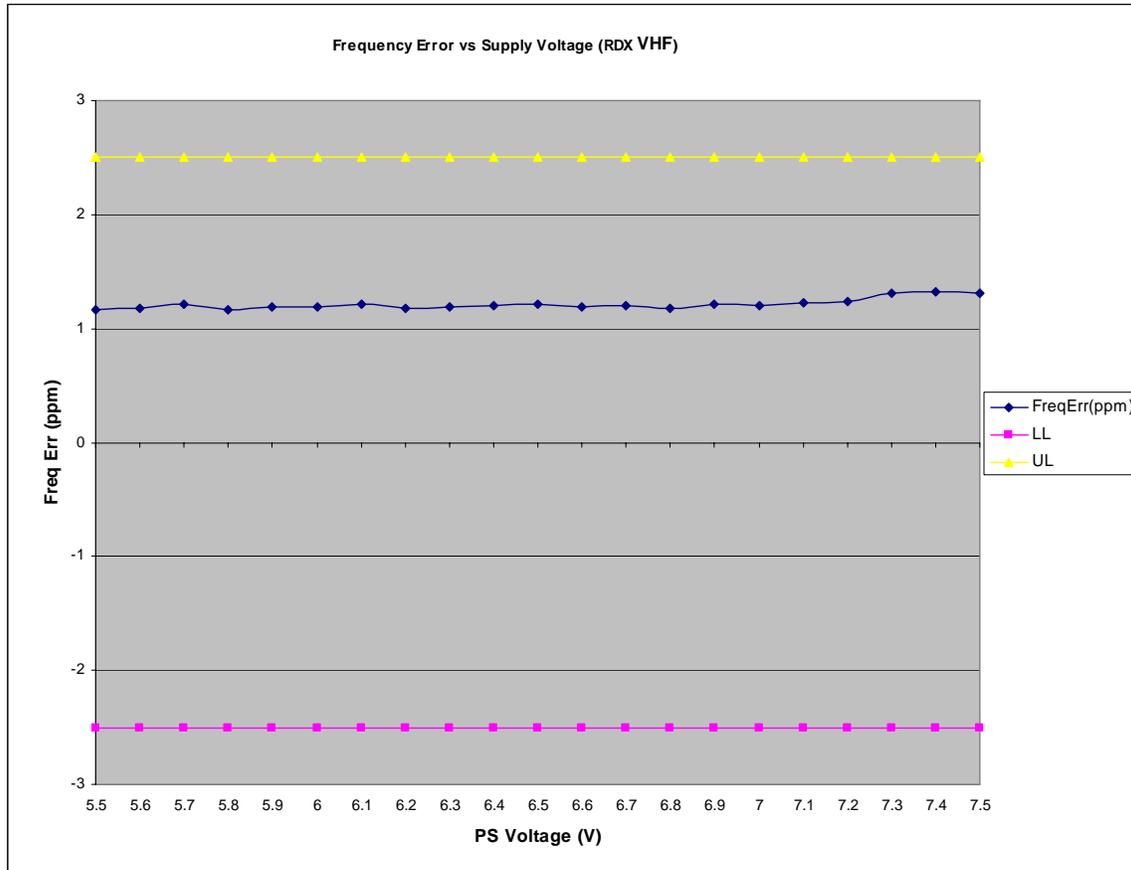


### Frequency Stability over Temperature





### Frequency Error over Voltage



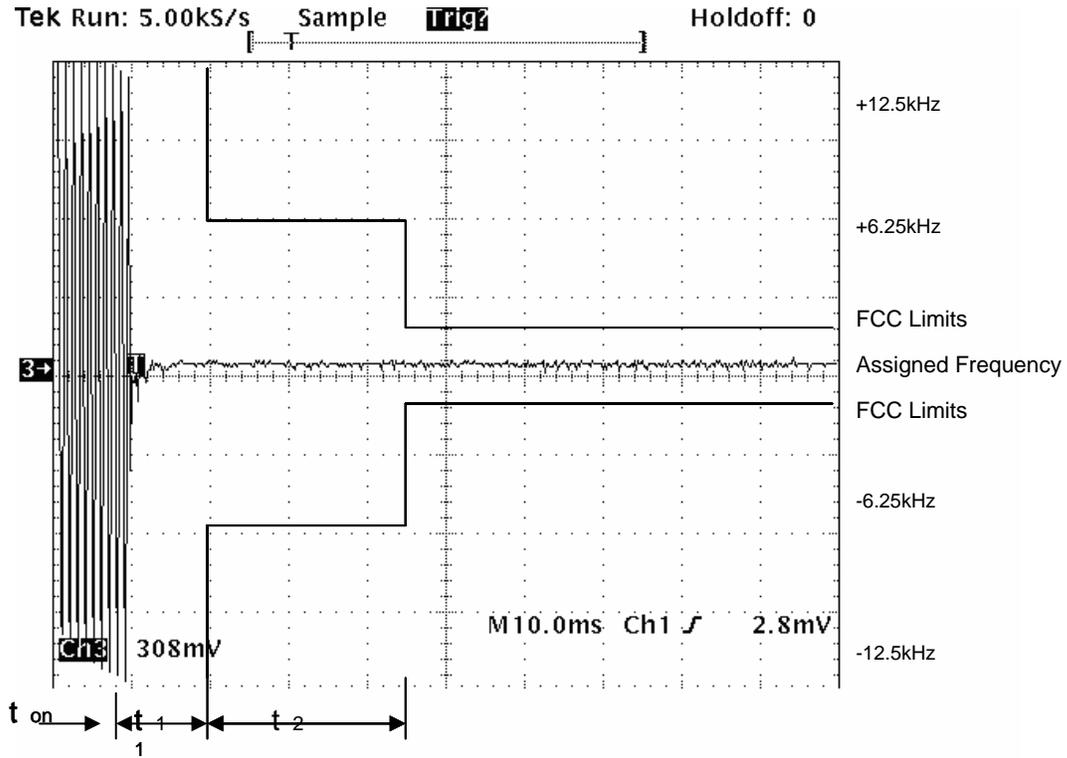
Reset Voltage 5.0volts



**MOTOROLA**

FCC ID: AZ489FT3818

### Transient Frequency Response TX on 2 Watt 12.5 kHz

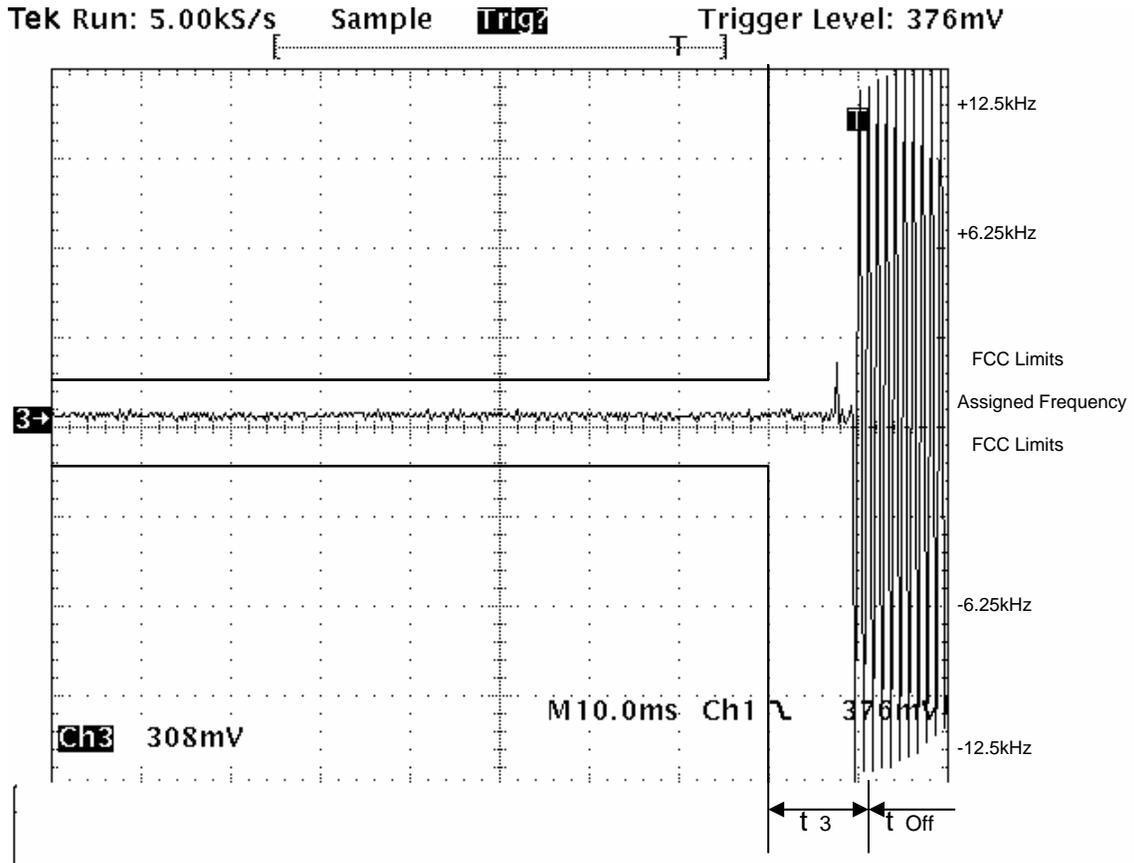




**MOTOROLA**

FCC ID: AZ489FT3818

### Transient Frequency Response TX off 2 Watt 12.5 kHz





**MOTOROLA**

FCC ID: AZ489FT3818

### Transient Frequency Response TX on 2 Watt 25 kHz

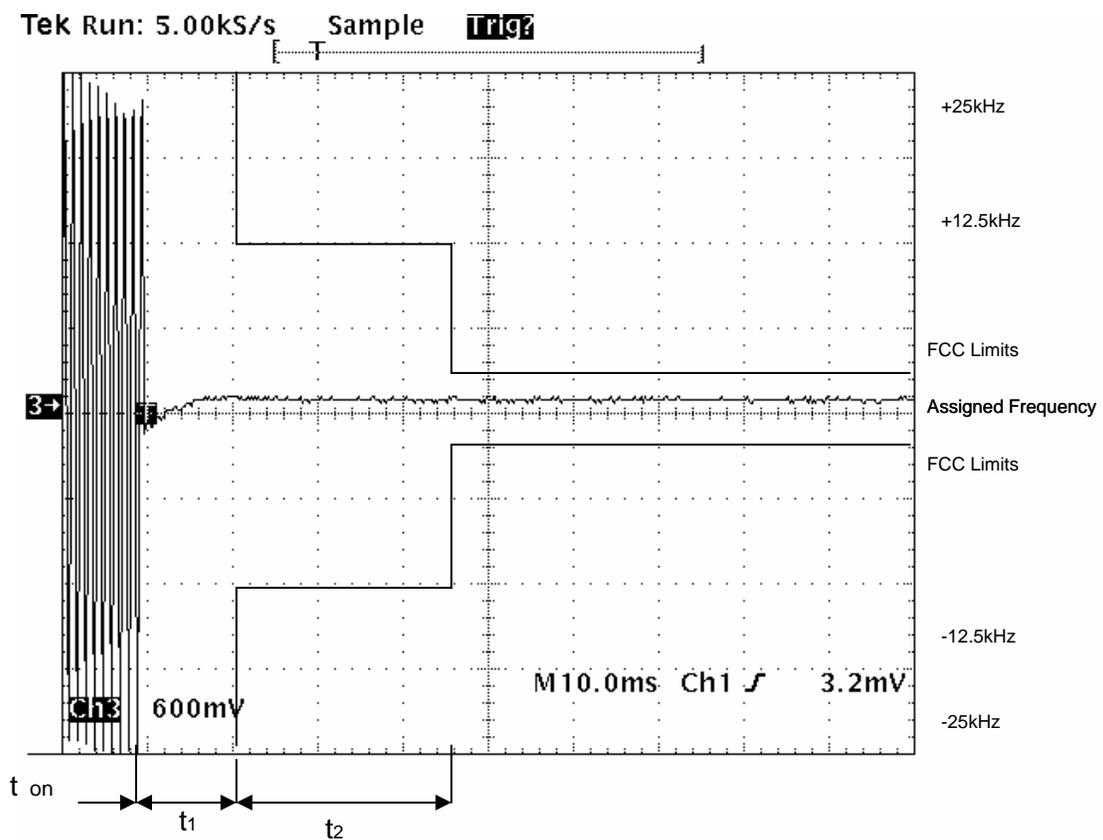


EXHIBIT 6G-3



**MOTOROLA**

FCC ID: AZ489FT3818

### Transient Frequency Response TX off 2 Watt 25 kHz

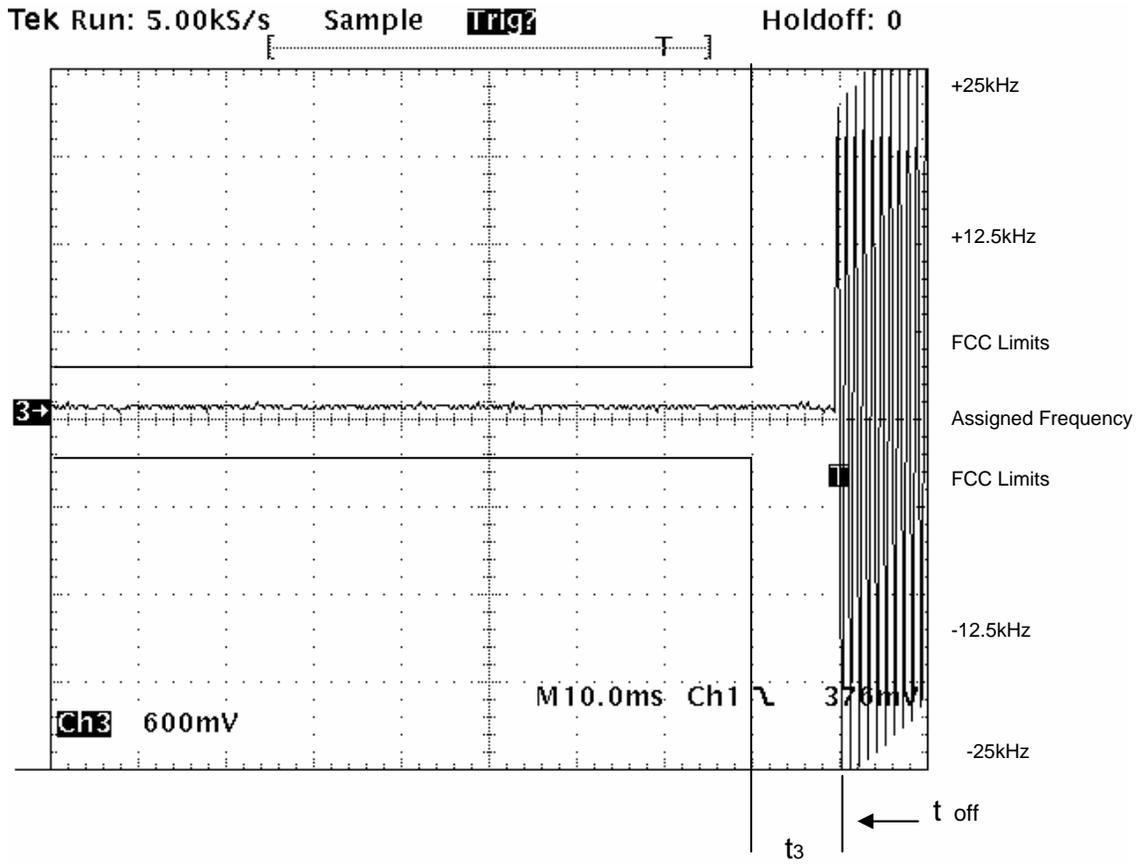


EXHIBIT 6G-4