



Test Report

<u>MEASUREMENT</u>	<u>EXHIBIT</u>	<u>NUMBER OF PAGES</u>
I RF Power Output	6A	1
II Audio Response A. 1 Watt 12.5/25 kHz	6B	1
III Modulation Limiting A. 1 Watt 12.5/25 kHz	6C	1
I V Occupied Bandwidth	6D 1-4	5
V Radiated Spurious Emission 1Watt A. TX Vertical / Horizontal	6E 1-4	4
VI Frequency Stability A. Temperature B. Frequency vs. Voltage	6F 1 6F 2	2
VII Transient Frequency Behavior	6G1-4	4



MOTOROLA

FCC ID: AZ489FT4891

RF POWER OUTPUT DATA

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

1.0 Watt

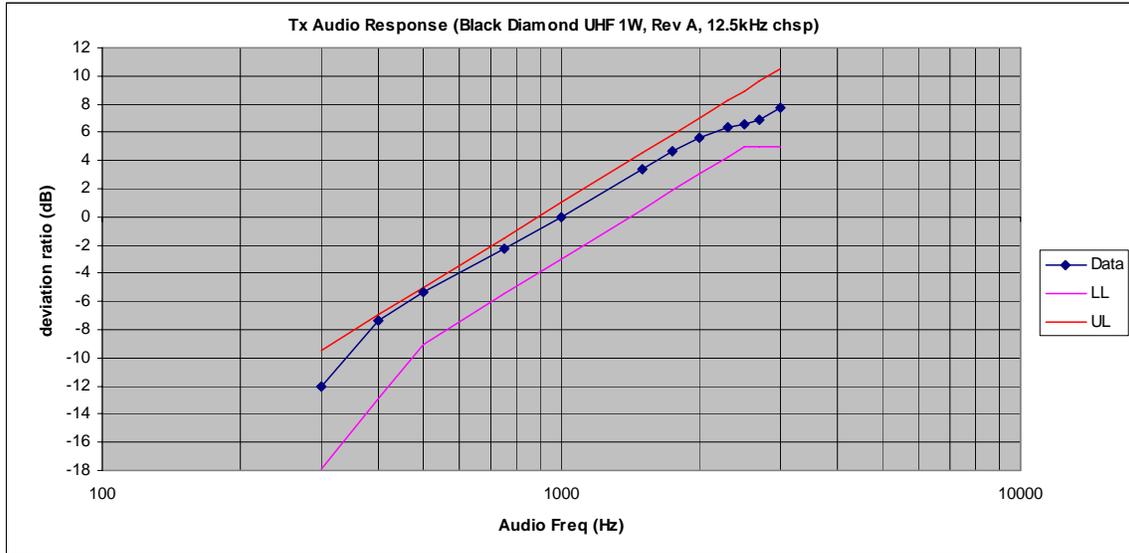
Frequency	464.5500 MHz
Measured Conducted RF output*	1. 0 Watts
Normal DC Voltage	3.70 Volts
Normal DC Current	750 milli amps
Primary Supply Voltage	3.80 Volts

*Note: RF Conducted output power measured at 3.80Volts

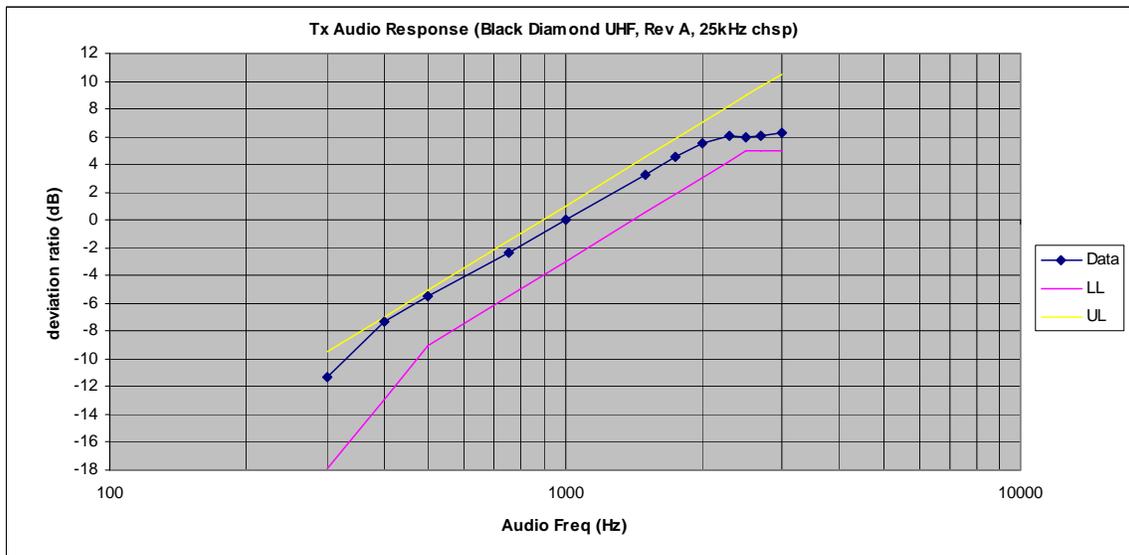
EXHIBIT 6A



Audio Response 12.5/25 kHz



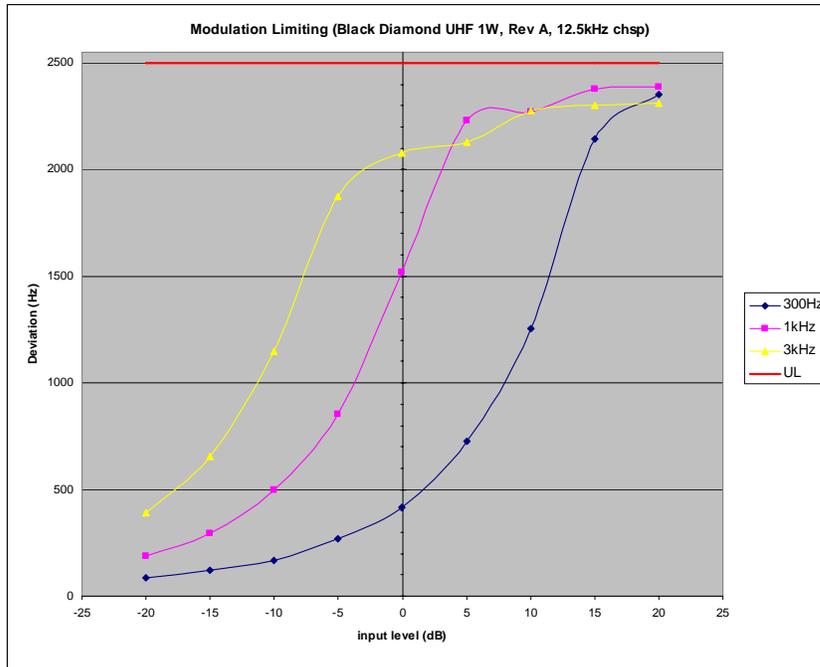
12.5 kHz



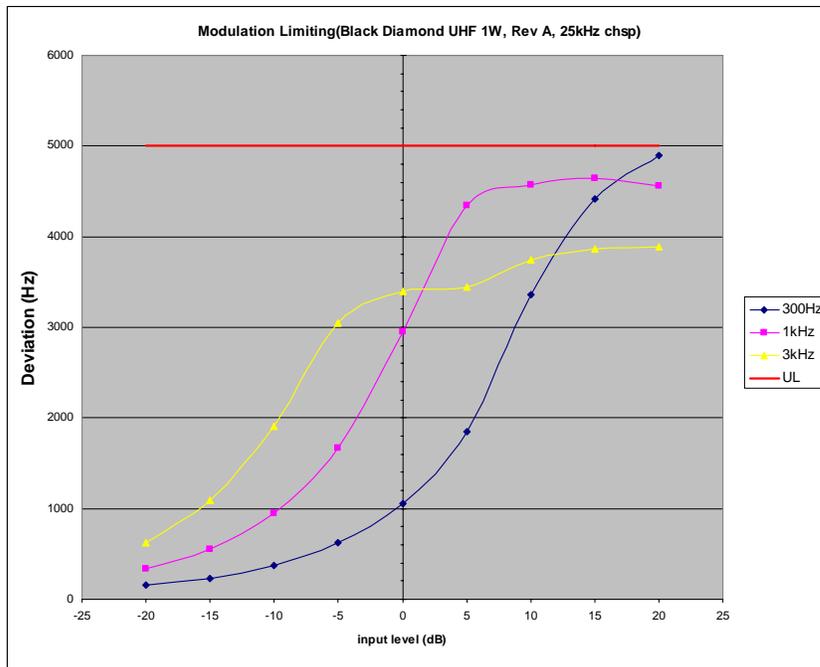
25 kHz



MODULATION LIMITING 12.5/25 kHz



12.5 kHz



25 kHz



MOTOROLA

FCC ID: AZ489FT4891

OCCUPIED BANDWIDTH DATA

1 Watt
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: AZ489FT4891

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

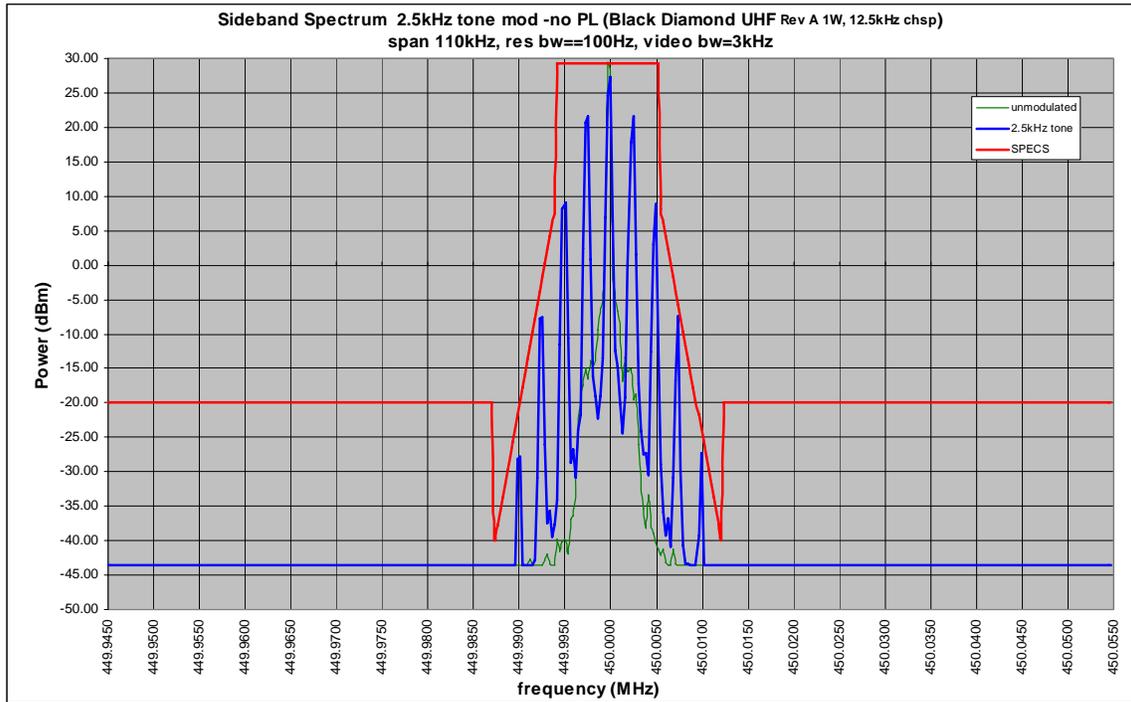


EXHIBIT 6D-1



MOTOROLA

FCC ID: AZ489FT4891

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

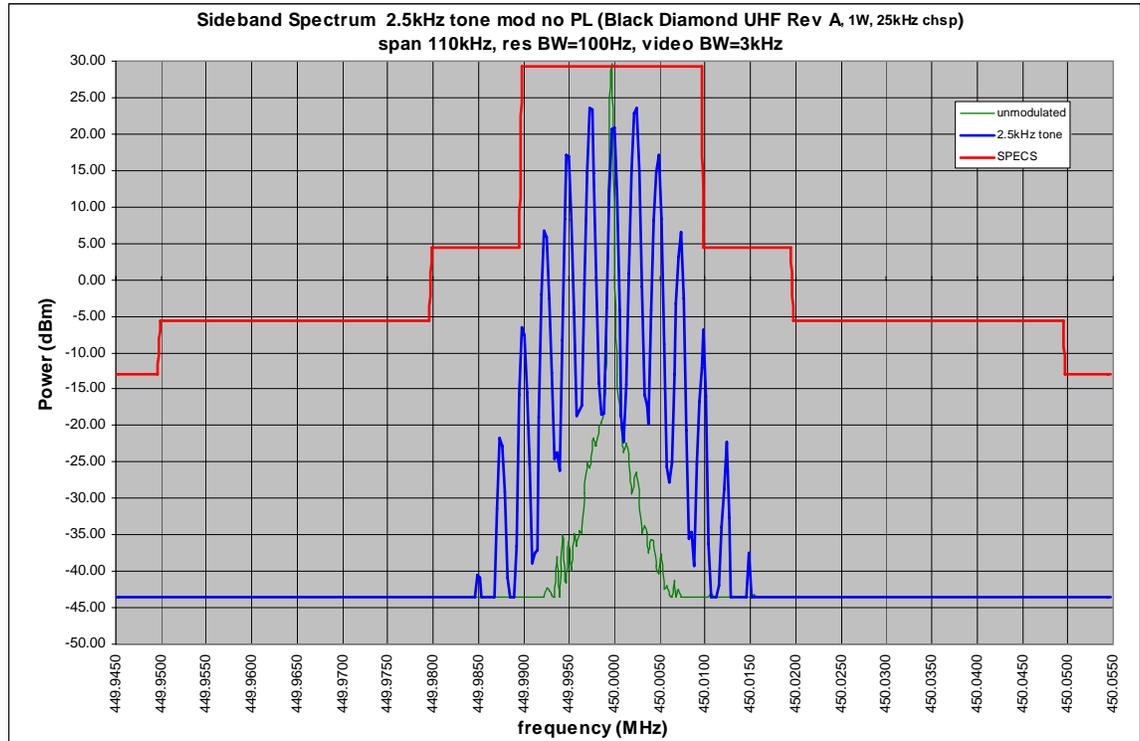


EXHIBIT 6D-2



MOTOROLA

FCC ID: AZ489FT4891

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

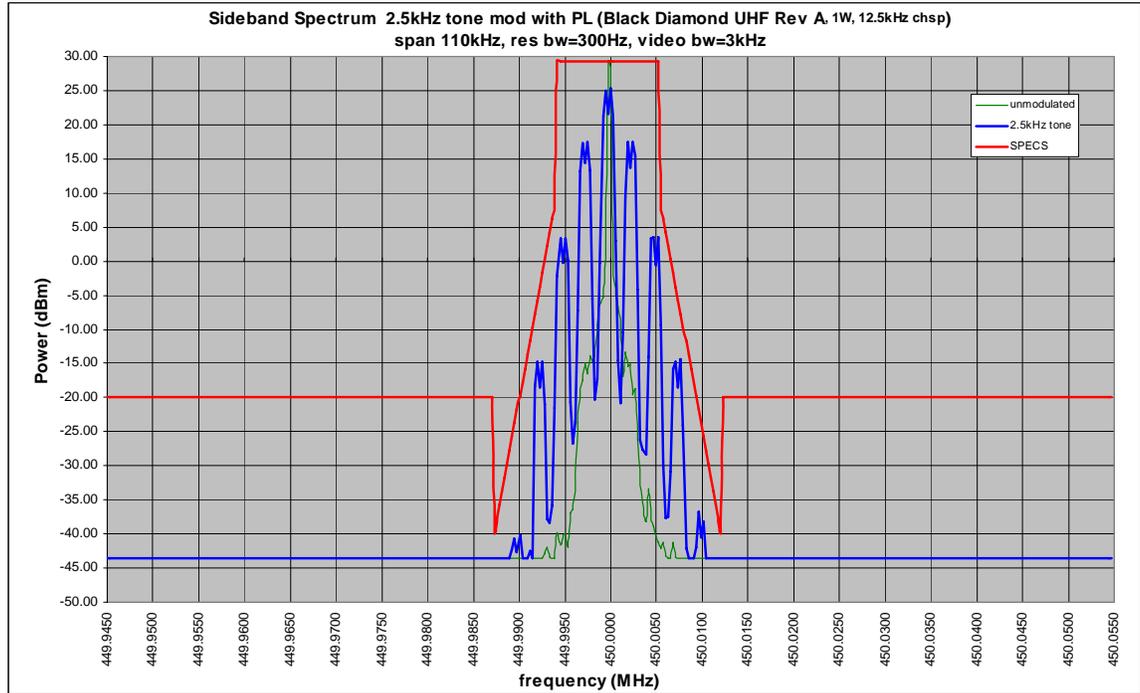


EXHIBIT 6D-3



MOTOROLA

FCC ID: AZ489FT4891

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

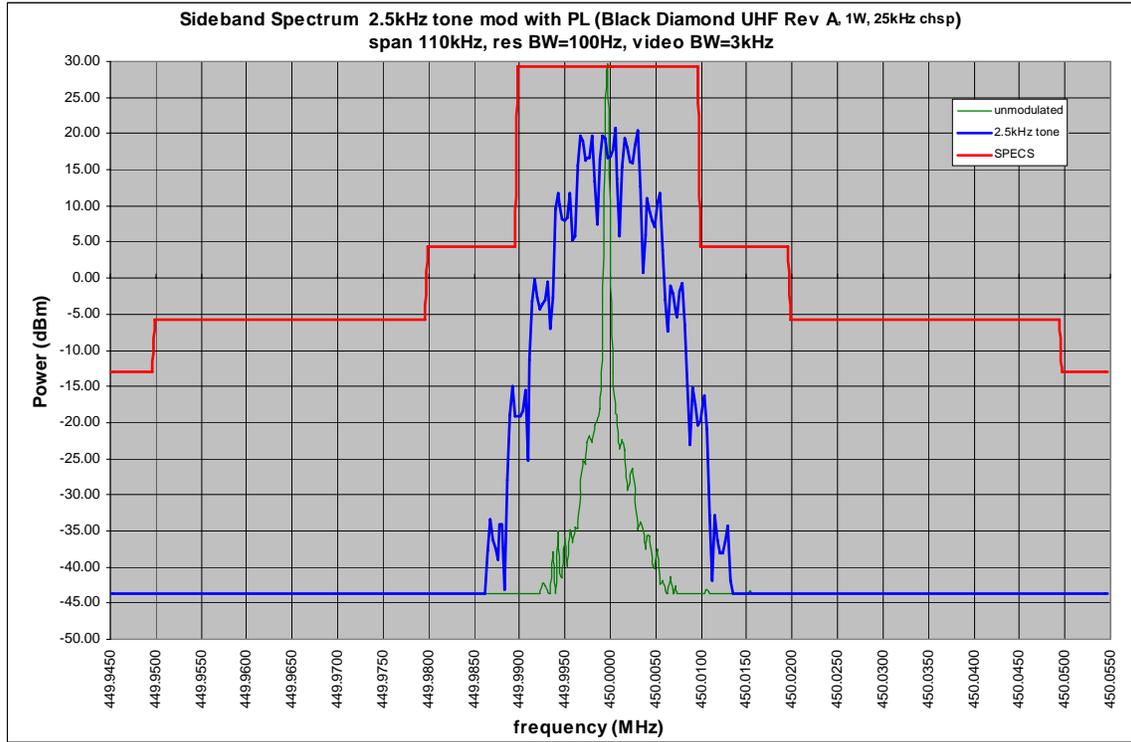


EXHIBIT 6D-4



1Watt

Motorola Inc.

FCC ID:AZ489FT4891

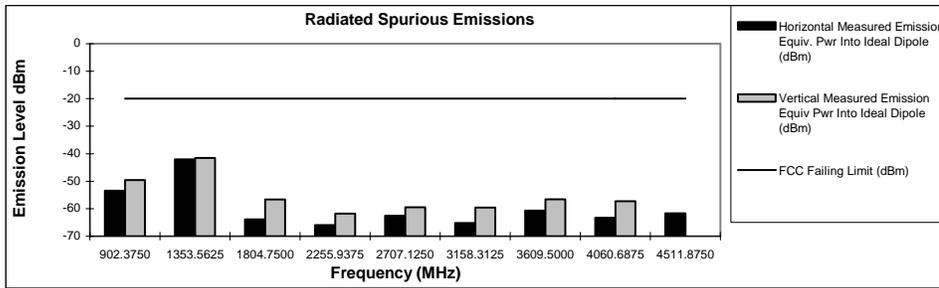
Transmit Radiated Spurious Emissions: CLP with Battery BT60

Tx Power: 1.1 Watts

451.1875 MHz

Channel Spacing 12.5kHz | S/N #9

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
902.3750	-20	-53.43	-49.55
1353.5625	-20	-42.10	-41.52
1804.7500	-20	-63.90	-56.63
2255.9375	-20	-65.94	-61.77
2707.1250	-20	-62.54	-59.49
3158.3125	-20	-65.24	-59.57
3609.5000	-20	-60.71	-56.55
4060.6875	-20	-63.32	-57.25
4511.8750	-20	-61.73	*



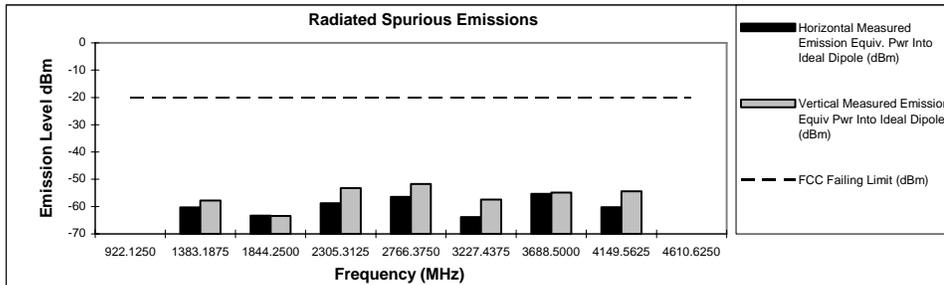
Transmit Radiated Spurious Emissions: CLP with Battery BT60

Tx Power: 1.1 Watts

461.0625 MHz

Channel Spacing 12.5kHz | S/N #9

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
922.1250	-20	*	*
1383.1875	-20	-60.33	-57.79
1844.2500	-20	-63.33	-63.39
2305.3125	-20	-58.75	-53.29
2766.3750	-20	-56.45	-51.71
3227.4375	-20	-63.88	-57.43
3688.5000	-20	-55.32	-54.89
4149.5625	-20	-60.16	-54.40
4610.6250	-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

November 21, 2009



MOTOROLA

FCC ID: AZ489FT4891

1Watt

Motorola Inc.

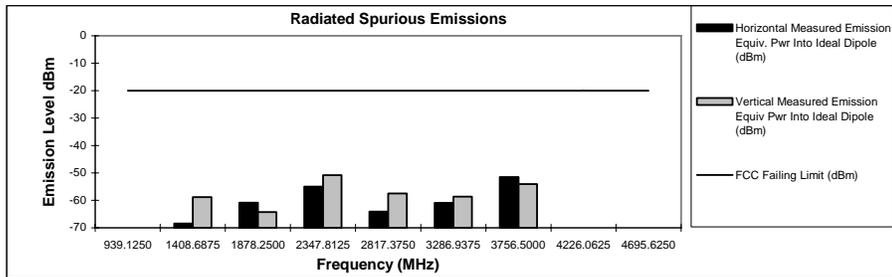
FCC ID:AZ489FT4891

Transmit Radiated Spurious Emissions: CLP with Battery BT60
Tx Power: 1.1 Watts

469.5625 MHz

Channel Spacing 12.5kHz | S/N #9

Frequency (MHz)	FCC Failing 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	-68.44	-58.84
1878.2500	-20	-60.87	-64.28
2347.8125	-20	-55.04	-50.82
2817.3750	-20	-64.12	-57.53
3286.9375	-20	-60.93	-58.66
3756.5000	-20	-51.54	-54.09
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

November 21, 2009

EXHIBIT 6E-2



MOTOROLA

FCC ID: AZ489FT4891

1 Watt

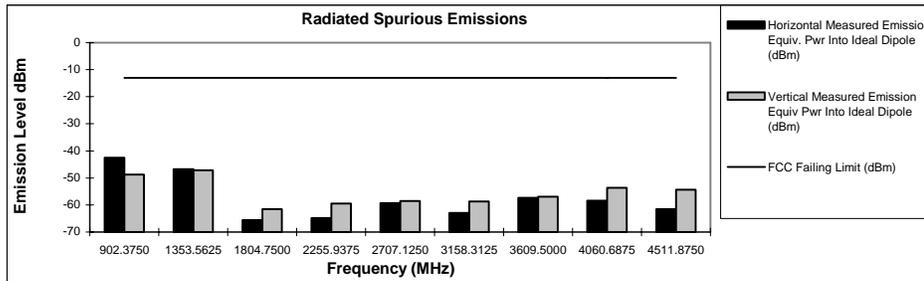
Motorola Inc.

FCC ID:AZ489FT4891

**Transmit Radiated Spurious Emissions: CLP with Battery BT60
Tx Power: 1.1 Watts**

451.1875 MHz Channel Spacing 25kHz | S/N #9

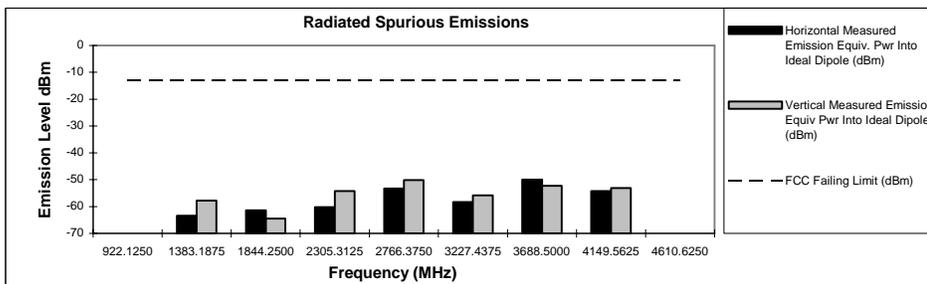
Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
902.3750	-13	-42.47	-48.83
1353.5625	-13	-46.77	-47.16
1804.7500	-13	-65.61	-61.56
2255.9375	-13	-64.79	-59.45
2707.1250	-13	-59.27	-58.49
3158.3125	-13	-62.90	-58.73
3609.5000	-13	-57.39	-56.93
4060.6875	-13	-58.42	-53.67
4511.8750	-13	-61.49	-54.35



**Transmit Radiated Spurious Emissions: CLP with Battery BT60
Tx Power: 1.1 Watts**

461.0625 MHz Channel Spacing 25kHz | S/N #9

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
922.1250	-13	*	*
1383.1875	-13	-63.42	-57.81
1844.2500	-13	-61.40	-64.44
2305.3125	-13	-60.23	-54.28
2766.3750	-13	-53.29	-50.17
3227.4375	-13	-58.33	-55.83
3688.5000	-13	-49.98	-52.26
4149.5625	-13	-54.20	-53.10
4610.6250	-13	*	*



* 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

November 20, 2009



MOTOROLA

FCC ID: AZ489FT4891

1Watt

Motorola Inc.

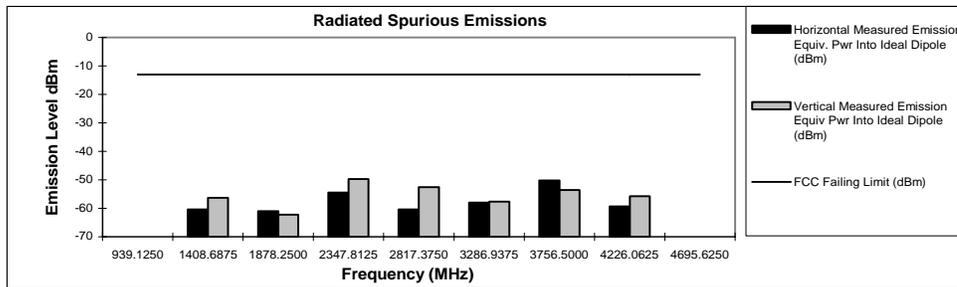
FCC ID:AZ489FT4891

Transmit Radiated Spurious Emissions: CLP with Battery BT60
Tx Power: 1.1 Watts

469.5625 MHz

Channel Spacing 25kHz | S/N #9

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
939.1250	-13	*	*
1408.6875	-13	-60.43	-56.36
1878.2500	-13	-61.01	-62.24
2347.8125	-13	-54.49	-49.79
2817.3750	-13	-60.44	-52.56
3286.9375	-13	-57.96	-57.66
3756.5000	-13	-50.28	-53.61
4226.0625	-13	-59.30	-55.72
4695.6250	-13	*	*



* 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

November 20, 2009

EXHIBIT 6E-4



MOTOROLA

FCC ID: AZ489FT4891

Frequency Stability over Temperature

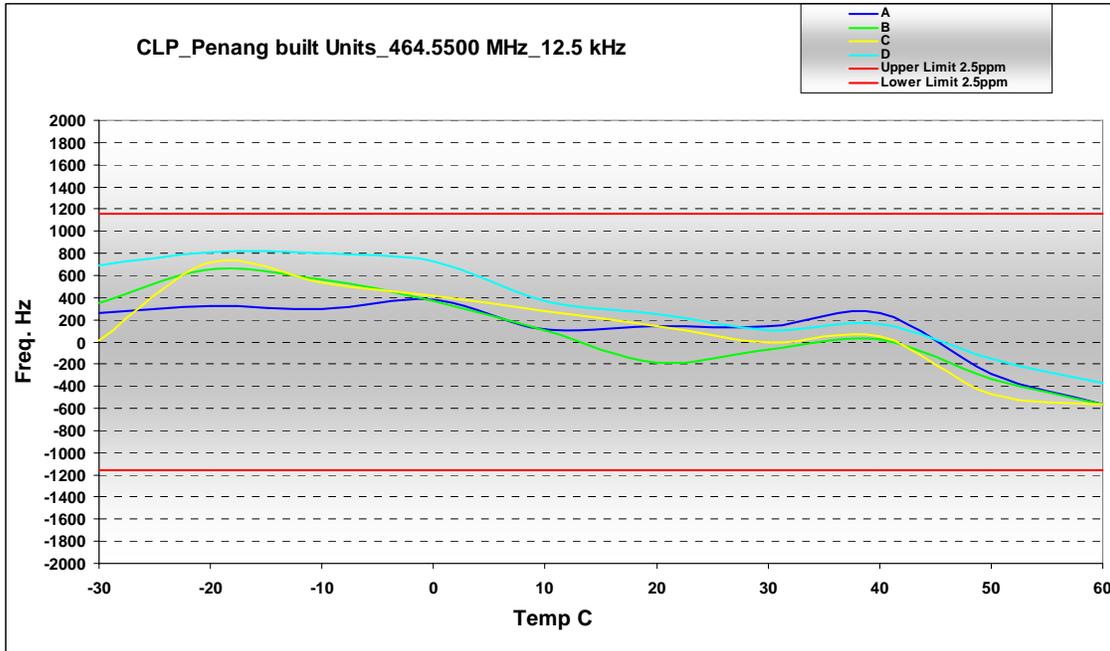
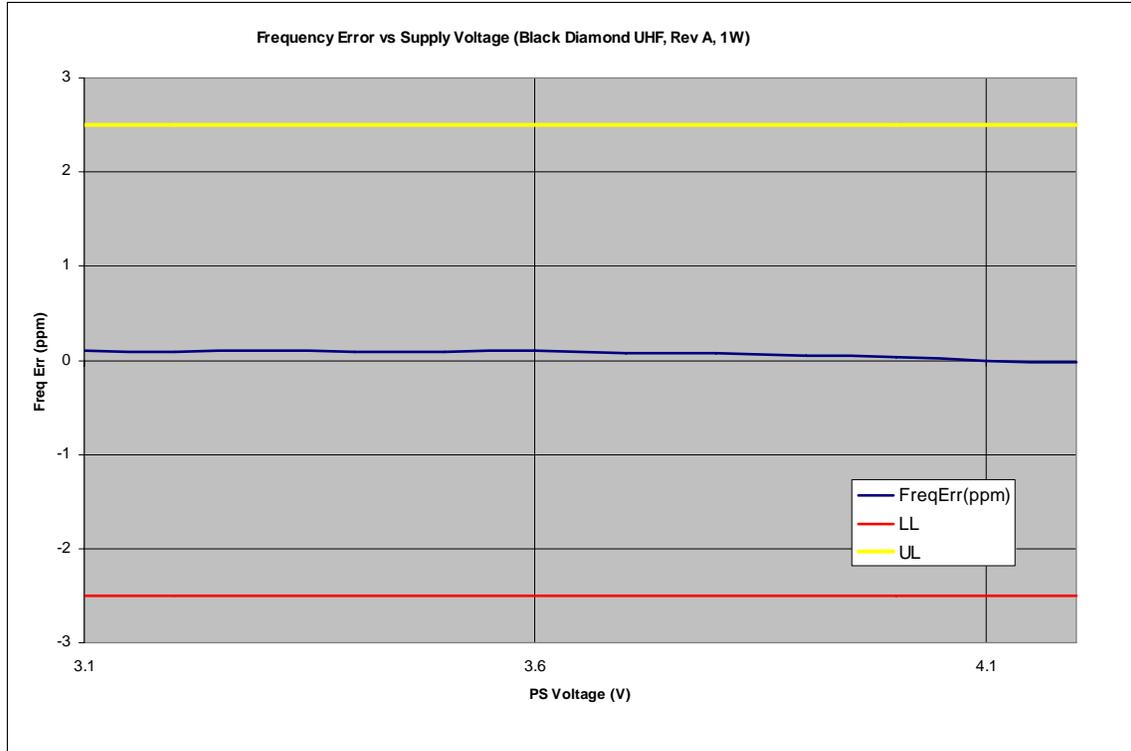


EXHIBIT 6F-1



Frequency Error over Voltage



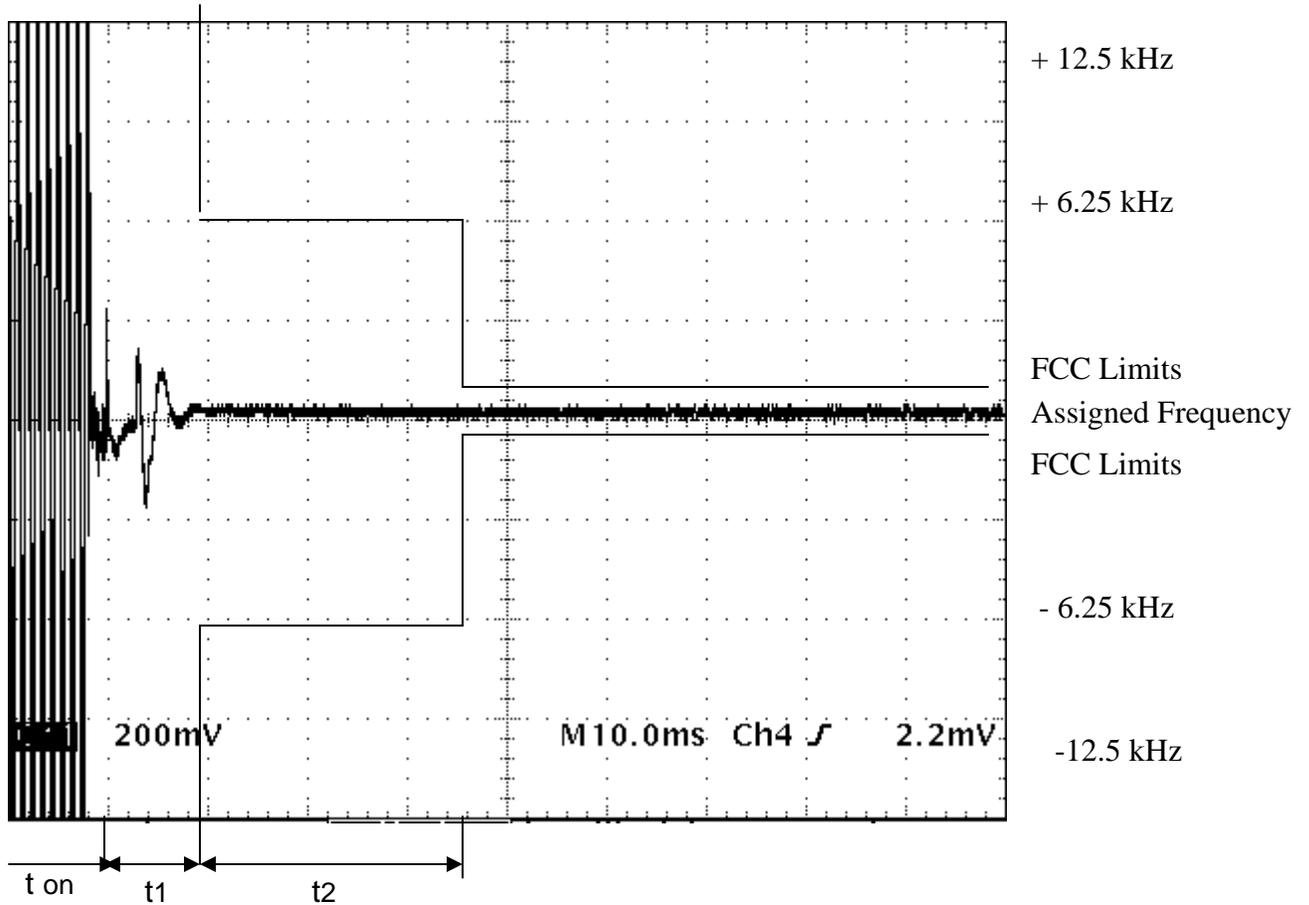
Reset Voltage 3.3Volts



MOTOROLA

FCC ID: AZ489FT4891

Transient Frequency Response TX on 1 Watt 12.5 kHz



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

$$\frac{(461.0625\text{MHz}) * (2.5\text{PPM}) * (\pm 4)}{12.5 \text{ kHz}}$$

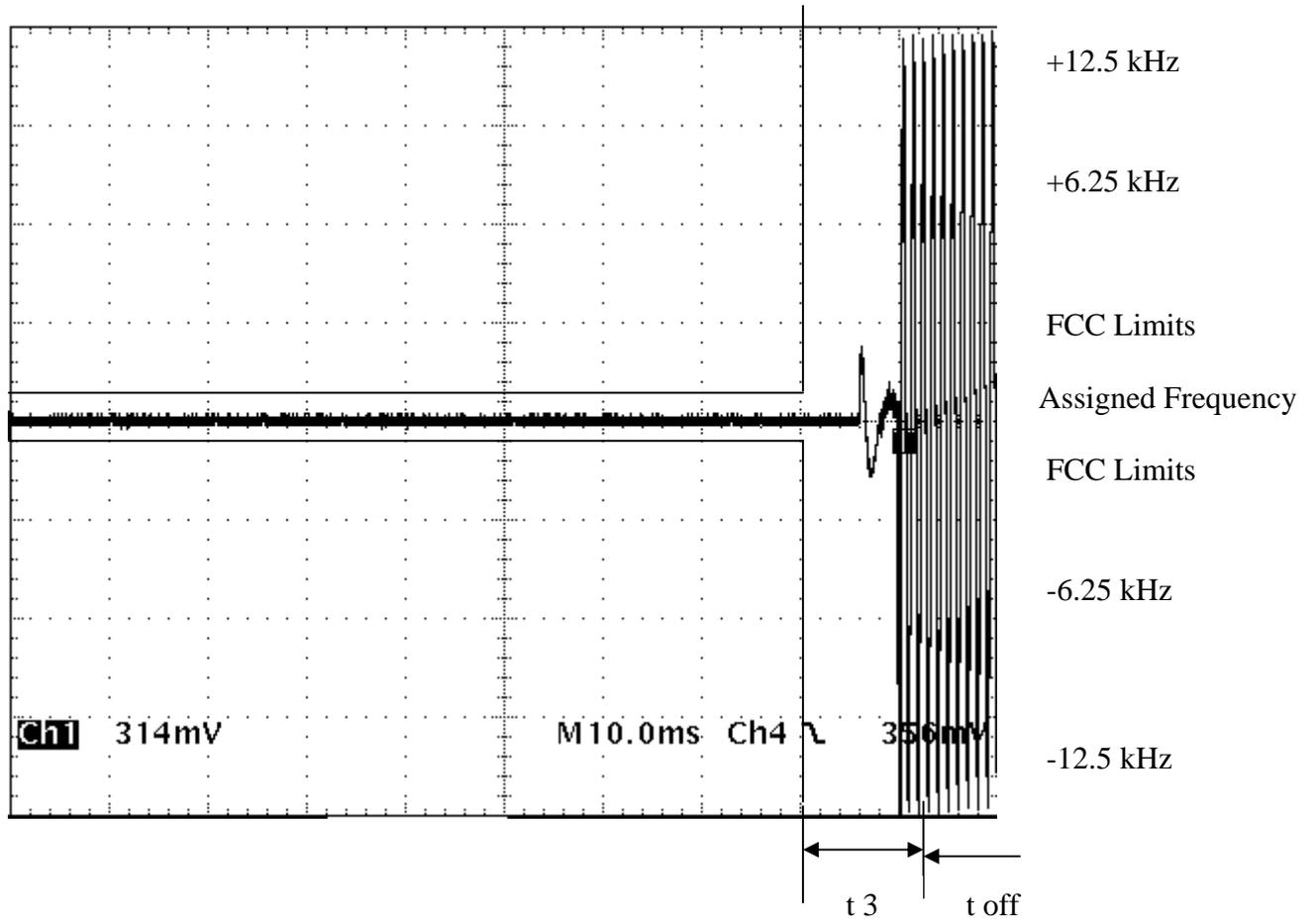
$$= \pm 0.36885 \text{ div}$$



MOTOROLA

FCC ID: AZ489FT4891

Transient Frequency Response TX off 1 Watt 12.5 kHz

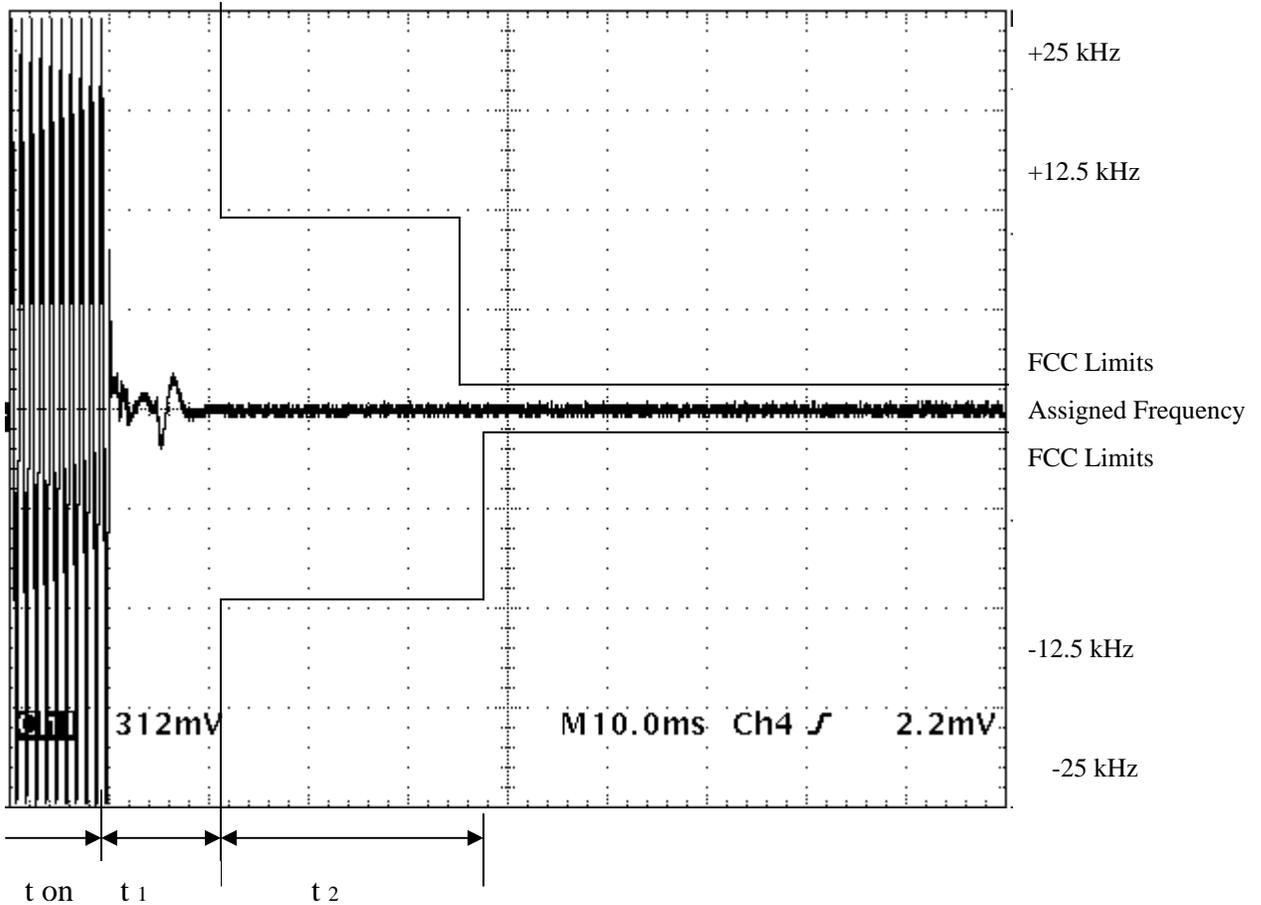




MOTOROLA

FCC ID: AZ489FT4891

Transient Frequency Response TX on 1 Watt 25 kHz



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

$$\frac{(469.5625\text{MHz}) * (5\text{PPM}) * (\pm 4)}{25 \text{ kHz}}$$

$$= \pm 0.37565 \text{ div}$$



MOTOROLA

FCC ID: AZ489FT4891

Transient Frequency Response TX off 1Watt 25 kHz

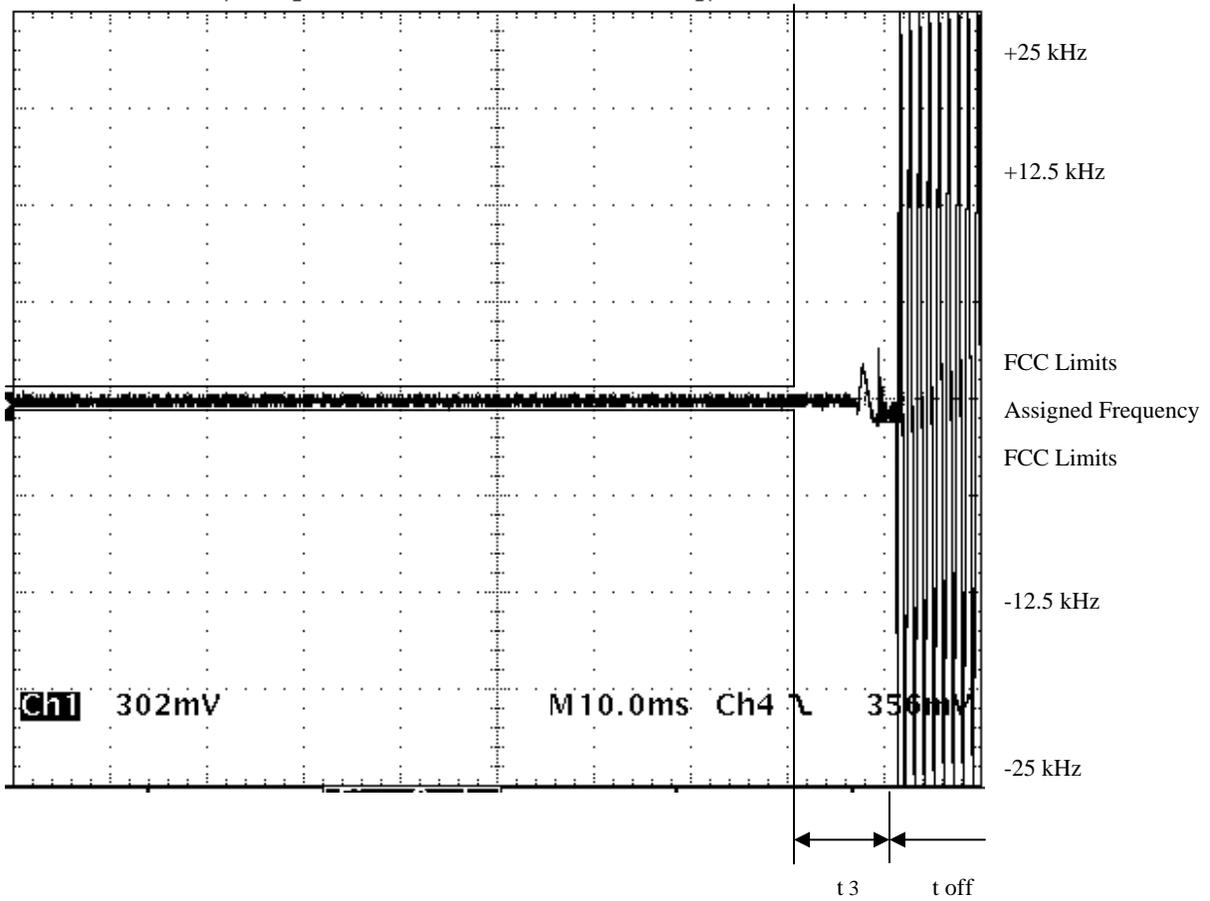


EXHIBIT 6G-4