



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.

2.0Watts

Frequency	464.5500 MHz
Measured Conducted RF output*	2. 0 Watts
Normal DC Voltage	7.80 Volts
Normal DC Current	450 milli amps
Primary Supply Voltage	7.80 Volts

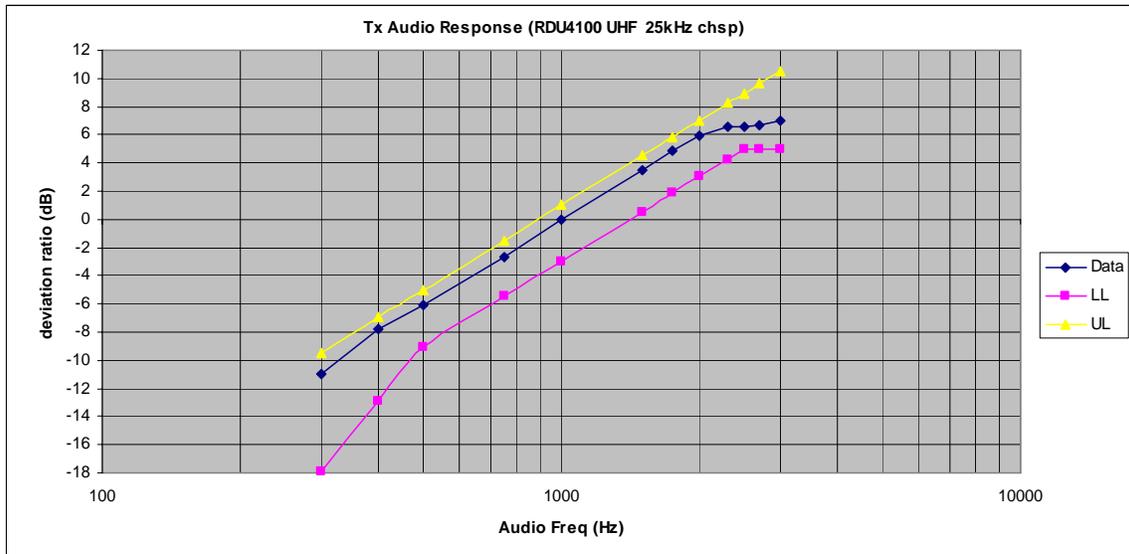
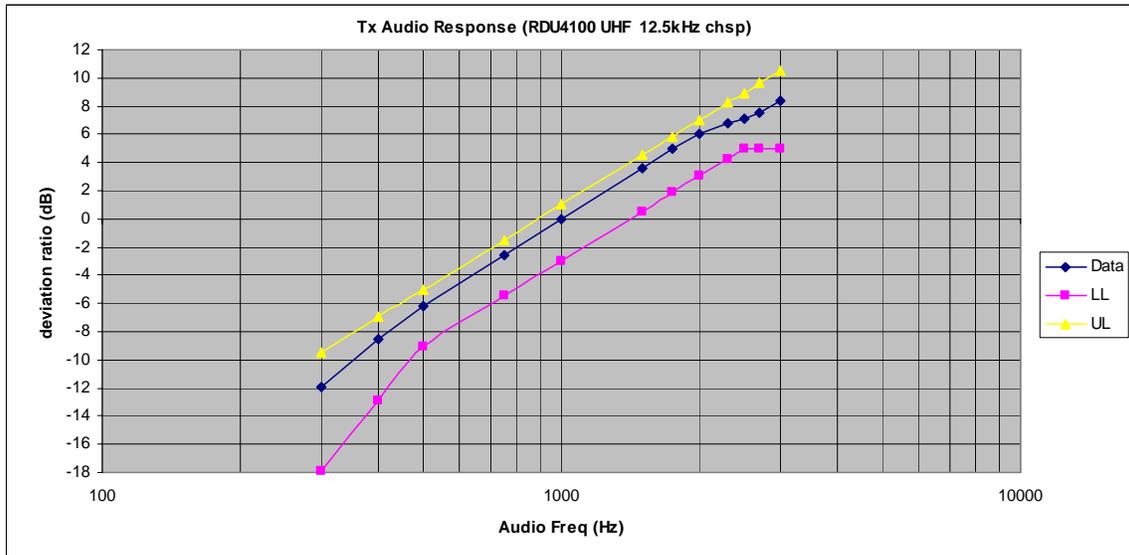
4.0Watts

Frequency	464.5500 MHz
Measured Conducted RF output*	4.20 Watts
Normal DC Voltage	7.80 Volts
Normal DC Current	1.1 Amps
Primary Supply Voltage	7.80 Volts

*Note: RF Conducted output power measured at 7.80Volts

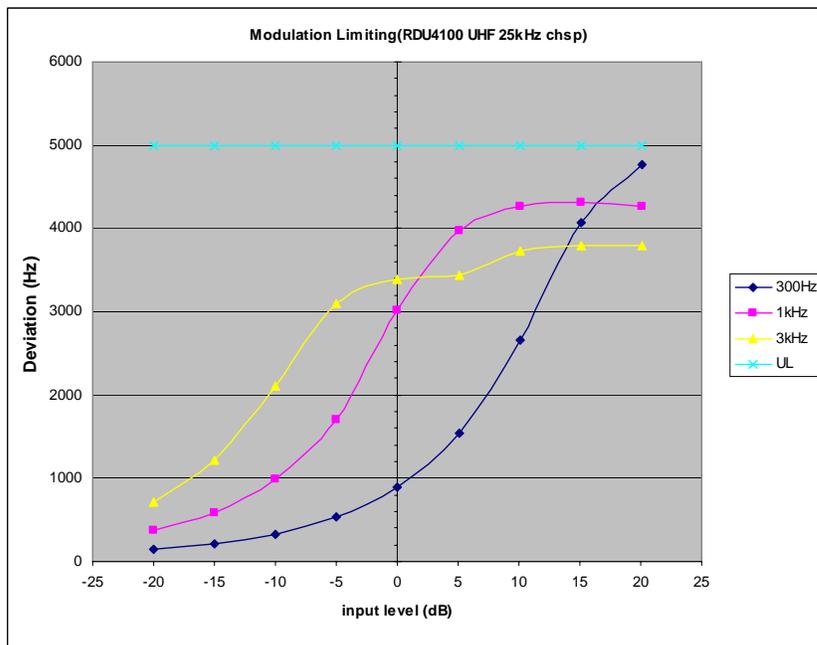
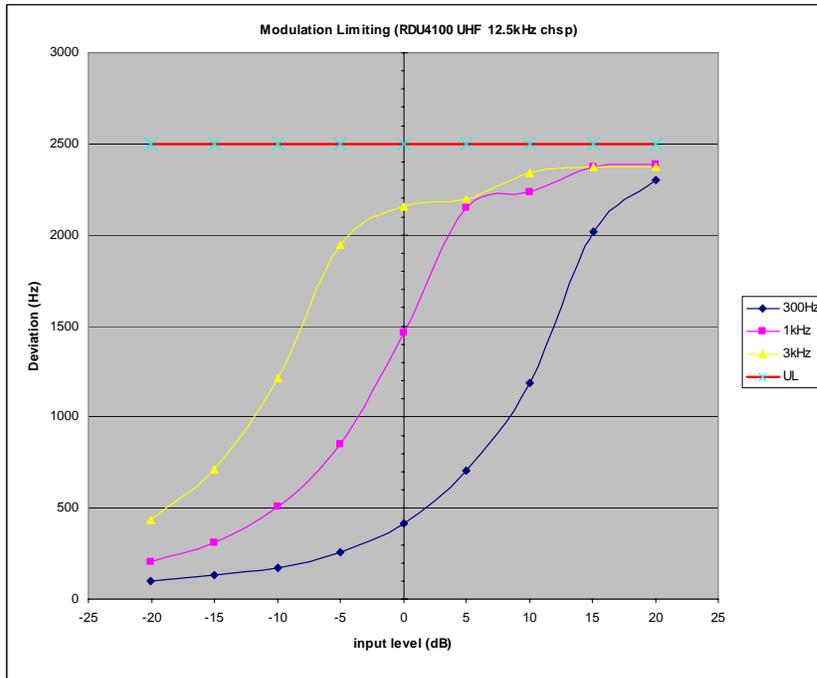


Audio Response





MODULATION LIMITING





MOTOROLA

FCC ID: AZ489FT4882

OCCUPIED BANDWIDTH DATA

4Watt

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: AZ489FT4882

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

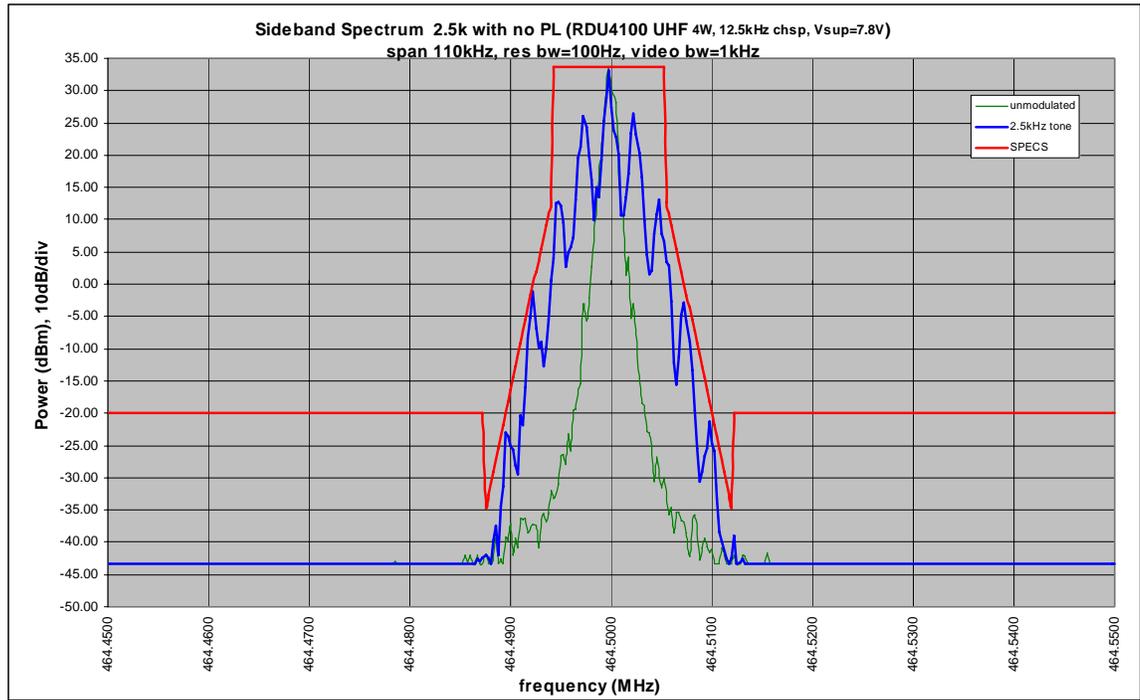


EXHIBIT 6D-1



MOTOROLA

FCC ID: AZ489FT4882

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

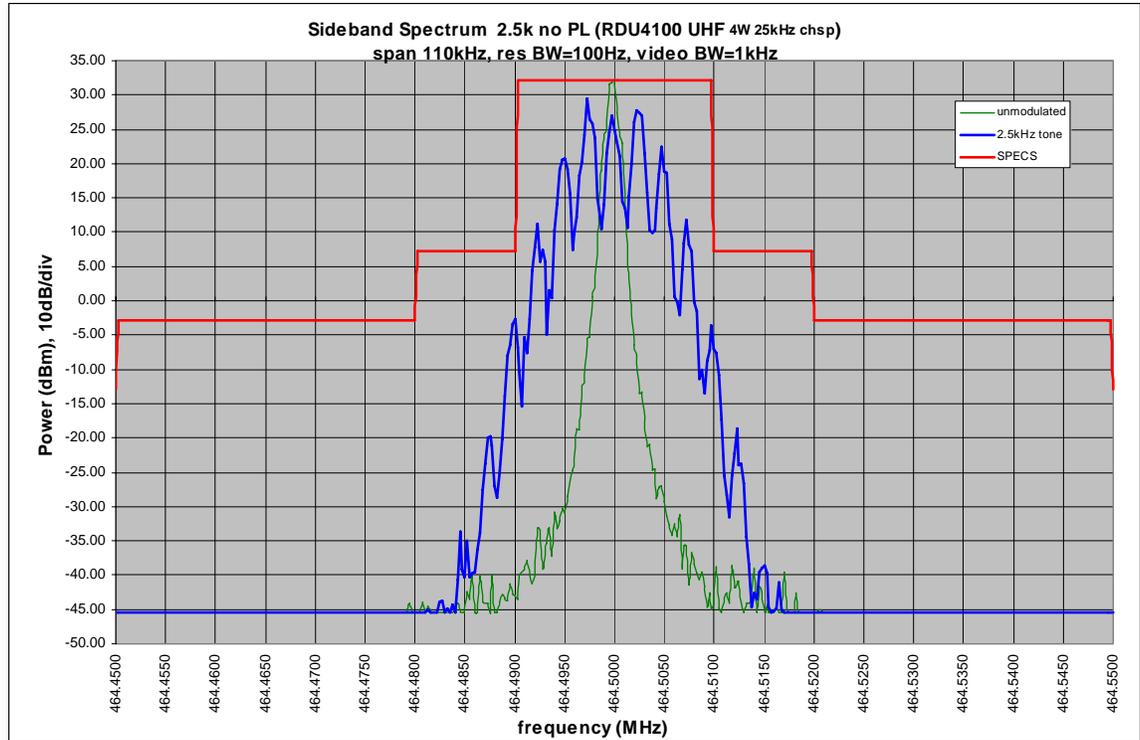


EXHIBIT 6D-2



MOTOROLA

FCC ID: AZ489FT4882

4- Watt 12.5 kHz
2500 Hz & 77Hz Tone "PL" Modulation
Mask D, Rule Part: 90.210
Emission Type: 11KOF3E

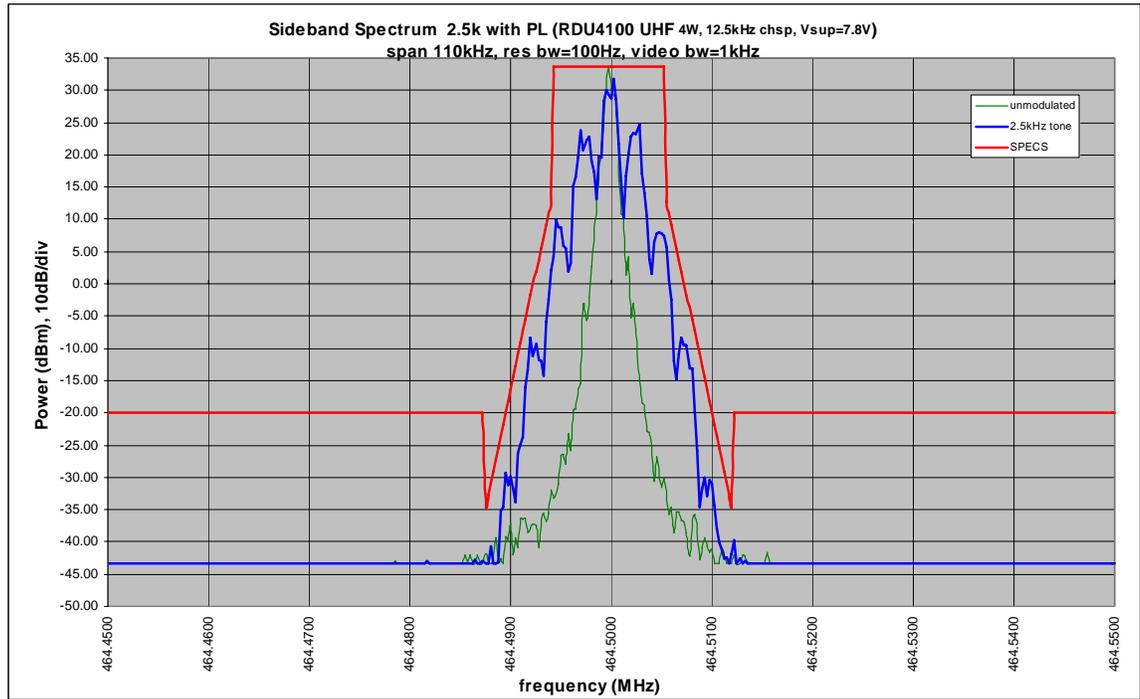


EXHIBIT 6D-3



MOTOROLA

FCC ID: AZ489FT4882

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

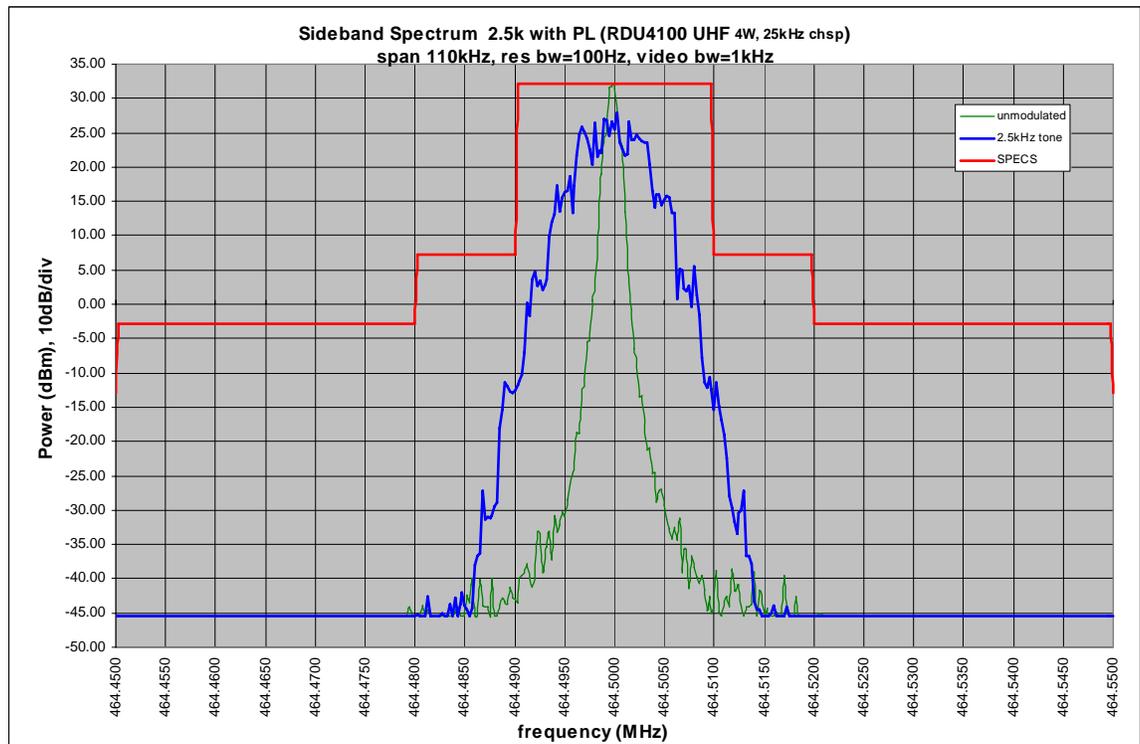


EXHIBIT 6D-4



4 Watt

Motorola Inc.

FCC ID:AZ489FT4882

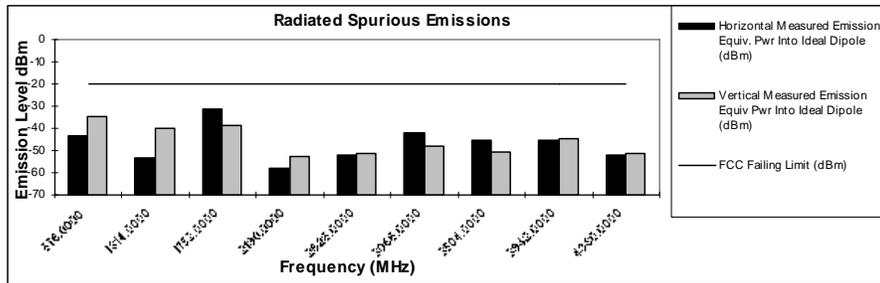
Transmit Radiated Spurious Emissions: RDU4100

Tx Power: 4.2 Watts

438 MHz

Channel Spacing 12.5KHz | S/N Jan 2 1904

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
876.0000	-20	-43.42	-34.48
1314.0000	-20	-53.58	-39.96
1752.0000	-20	-31.23	-38.72
2190.0000	-20	-57.74	-52.53
2628.0000	-20	-51.97	-51.56
3066.0000	-20	-41.75	-47.86
3504.0000	-20	-45.32	-50.41
3942.0000	-20	-45.54	-44.48
4380.0000	-20	-51.86	-51.15



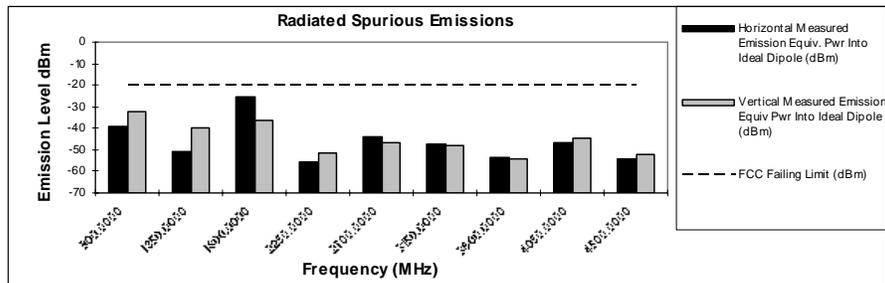
Transmit Radiated Spurious Emissions: RDU4100

Tx Power: 4.2 Watts

450 MHz

Channel Spacing 12.5KHz | S/N Jan 2 1904

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
900.0000	-20	-39.31	-32.30
1350.0000	-20	-50.49	-39.77
1800.0000	-20	-25.20	-36.30
2250.0000	-20	-55.34	-51.45
2700.0000	-20	-43.94	-46.51
3150.0000	-20	-47.28	-47.93
3600.0000	-20	-53.19	-54.46
4050.0000	-20	-46.77	-44.88
4500.0000	-20	-53.90	-52.13



* 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

FCC ID: AZ489FT4882

4Watt

Motorola Inc.

FCC ID:AZ489FT4882

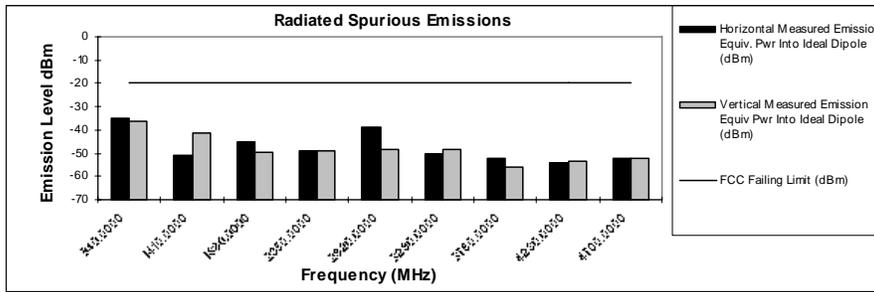
Transmit Radiated Spurious Emissions: RDU4100

Tx Power: 4.2 Watts

470 MHz

Channel Spacing 12.5KHz | S/N Jan 2 1904

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr r Into Ideal Dipole (dBm)
940.0000	-20	-35.30	-36.36
1410.0000	-20	-50.69	-41.25
1880.0000	-20	-45.20	-49.92
2350.0000	-20	-48.97	-49.12
2820.0000	-20	-38.58	-48.31
3290.0000	-20	-50.39	-48.36
3760.0000	-20	-51.98	-55.94
4230.0000	-20	-54.24	-53.62
4700.0000	-20	-52.02	-52.06



* 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: IC3679A-1

September 21, 2007



Motorola Inc.

FCC ID:AZ489FT4882

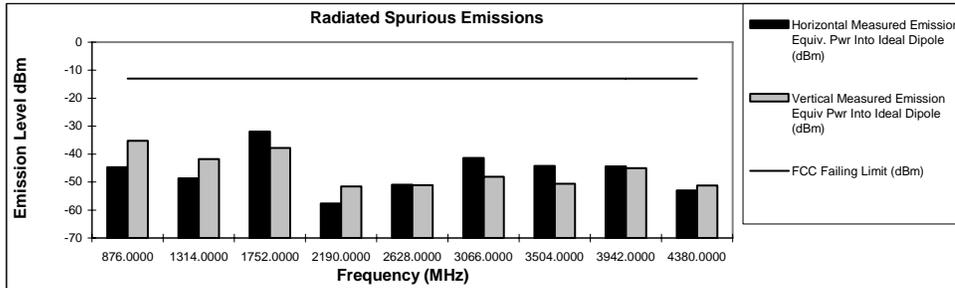
Transmit Radiated Spurious Emissions: RDU4100

Tx Power: 4.2 Watts

438 MHz

Channel Spacing 25KHz | S/N Jan 2 1904

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
876.0000	-13	-44.62	-35.20
1314.0000	-13	-48.61	-41.73
1752.0000	-13	-31.98	-37.82
2190.0000	-13	-57.68	-51.52
2628.0000	-13	-50.90	-51.13
3066.0000	-13	-41.44	-48.13
3504.0000	-13	-44.25	-50.54
3942.0000	-13	-44.44	-45.05
4380.0000	-13	-52.92	-51.16



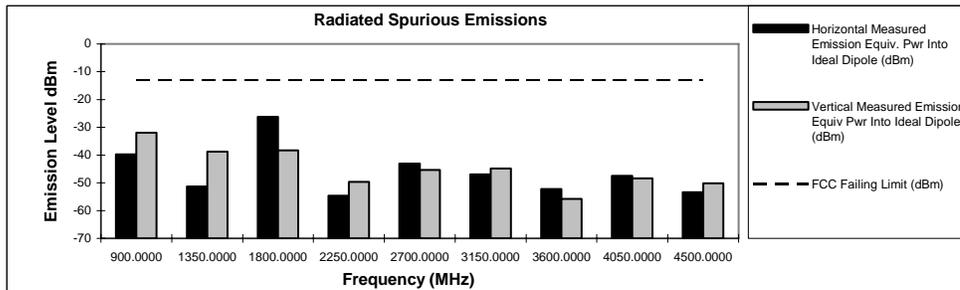
Transmit Radiated Spurious Emissions: RDU4100

Tx Power: 4.2 Watts

450 MHz

Channel Spacing 25KHz | S/N Jan 2 1904

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
900.0000	-13	-39.76	-31.91
1350.0000	-13	-51.36	-38.81
1800.0000	-13	-26.28	-38.33
2250.0000	-13	-54.59	-49.60
2700.0000	-13	-43.07	-45.35
3150.0000	-13	-46.94	-44.85
3600.0000	-13	-52.24	-55.75
4050.0000	-13	-47.51	-48.43
4500.0000	-13	-53.34	-50.16



* 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

FCC ID: AZ489FT4882

Motorola Inc.

FCC ID:AZ489FT4882

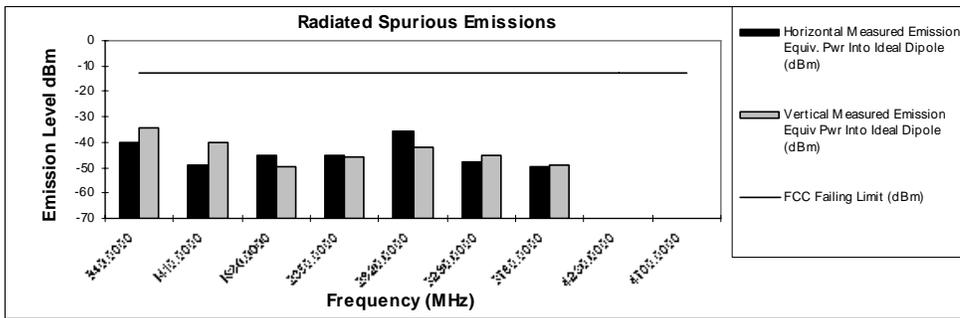
Transmit Radiated Spurious Emissions: RDU4100

Tx Power: 4.2 Watts

470 MHz

Channel Spacing 25KHz | S/N Jan 2 1904

Frequency (MHz)	FCC Failing Limit (dBm)	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
940.0000	-13	-39.99	-34.29
1410.0000	-13	-49.30	-40.15
1880.0000	-13	-45.21	-49.79
2350.0000	-13	-45.06	-45.55
2820.0000	-13	-35.89	-42.21
3290.0000	-13	-47.94	-45.35
3760.0000	-13	-49.77	-49.21
4230.0000	-13	*	*
4700.0000	-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: Frank Baader
FCC Registration: 91932 / Industry Canada: IC3679A-1

September 20, 2007

EXHIBIT 6E-3A



MOTOROLA

FCC ID: AZ489FT4882

Conducted Emission 12.5 kHz

Transmitter Conducted Spurious Emissions

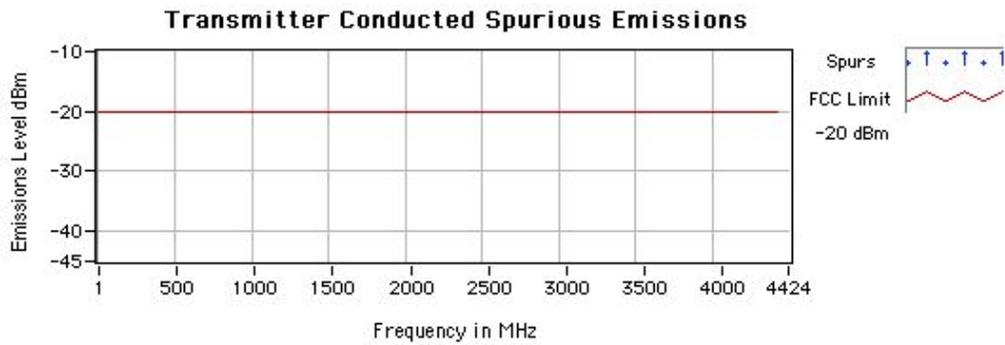
FREQ: 438.00000 MHz

FCC ID: AZ489FT4882

Power 4.2 W

Channel Spacing: 12.50 kHz

Spurious Frequency	FCC Limit	Measured Value (dBm)
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All Transmitter Spurious Emissions tested to the 10th Harmonic

No Spurs Found Above -45 dBm

Motorola Plantation ATE Lab

Wednesday, 17th October 2007

Test Performed By:

EXHIBIT 6E-4



MOTOROLA

FCC ID: AZ489FT4882

Conducted Emission 12.5 kHz

Transmitter Conducted Spurious Emissions

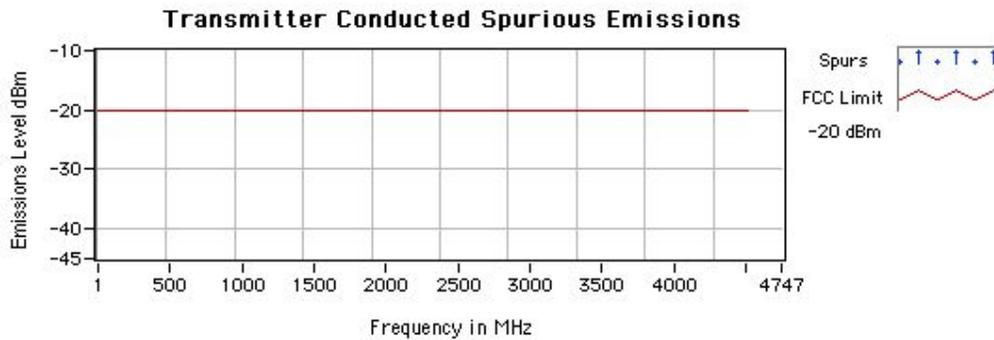
FREQ: 470.00000 MHz

FCC ID: AZ489FT4882

Power 4.2 W

Channel Spacing: 12.50 kHz

Spurious Frequency	FCC Limit	Measured Value (dBm)
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All Transmitter Spurious Emissions tested to the 10th Harmonic

No Spurs Found Above -45 dBm

Motorola Plantation ATE Lab

Wednesday, 17th October 2007

Test Performed By :



MOTOROLA

FCC ID: AZ489FT4882

Conducted Emission 25 kHz

Transmitter Conducted Spurious Emissions

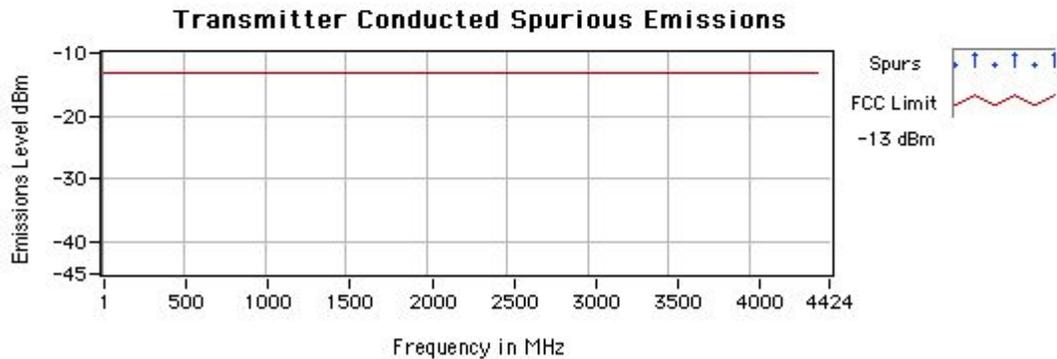
FREQ: 438.00000 MHz

FCC ID: AZ489FT4882

Power 4.2 W

Channel Spacing: 25.00 kHz

Spurious Frequency	FCC Limit	Measured Value (dBm)
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All Transmitter Spurious Emissions tested to the 10th Harmonic

No Spurs Found Above -45 dBm

Motorola Plantation ATE Lab

Wednesday, 17th October 2007

Test Performed By :

EXHIBIT 6E-7



MOTOROLA

FCC ID: AZ489FT4882

Conducted Emission 25 kHz

Transmitter Conducted Spurious Emissions

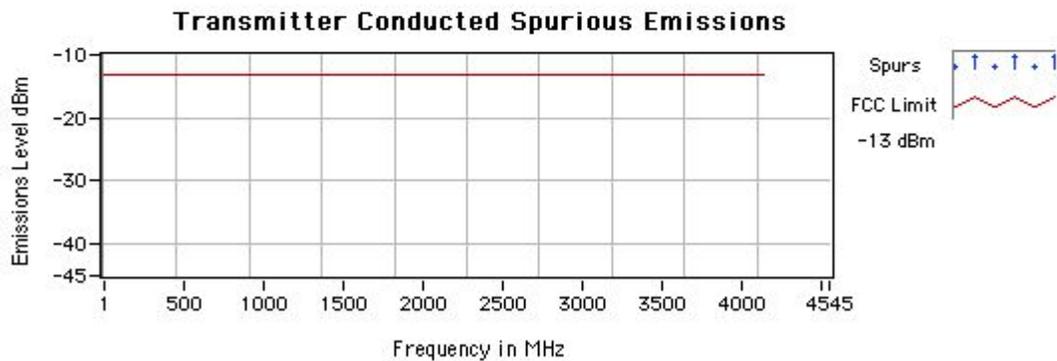
FREQ: 450.00000 MHz

FCC ID: AZ489FT4882

Power 4.2 W

Channel Spacing: 25.00 kHz

Spurious Frequency	FCC Limit	Measured Value (dBm)
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All Transmitter Spurious Emissions tested to the 10th Harmonic

No Spurs Found Above -45 dBm

Motorola Plantation ATE Lab

Wednesday, 17th October 2007

Test Performed By :



MOTOROLA

FCC ID: AZ489FT4882

Conducted Emission 25 kHz

Transmitter Conducted Spurious Emissions

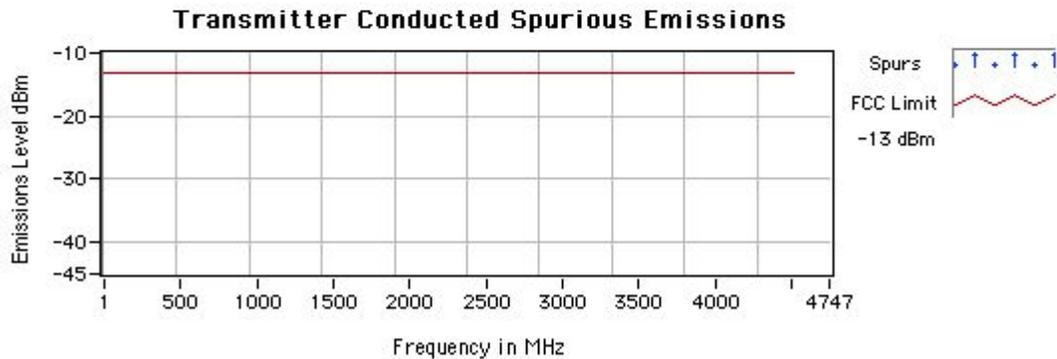
FREQ: 470.00000 MHz

FCC ID: AZ489FT4882

Power 4.2 W

Channel Spacing: 25.00 kHz

Spurious Frequency	FCC Limit	Measured Value (dBm)
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All Transmitter Spurious Emissions tested to the 10th Harmonic

No Spurs Found Above -45 dBm

Motorola Plantation ATE Lab

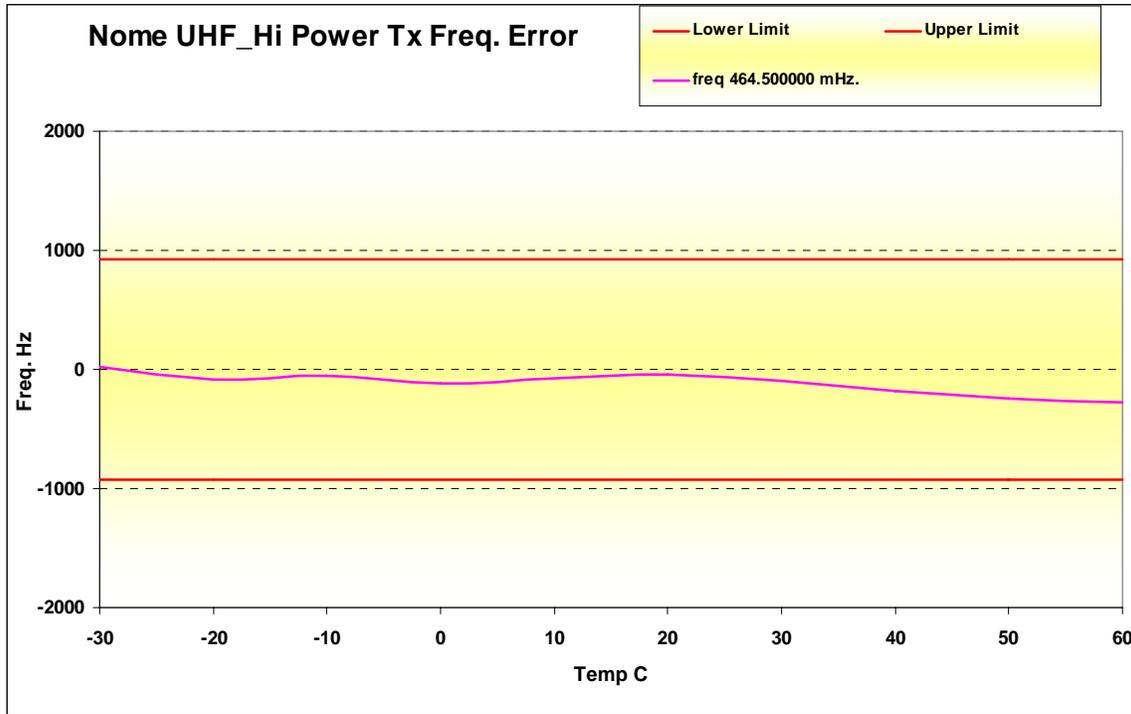
Wednesday, 17th October 2007

Test Performed By :

EXHIBIT 6E-9

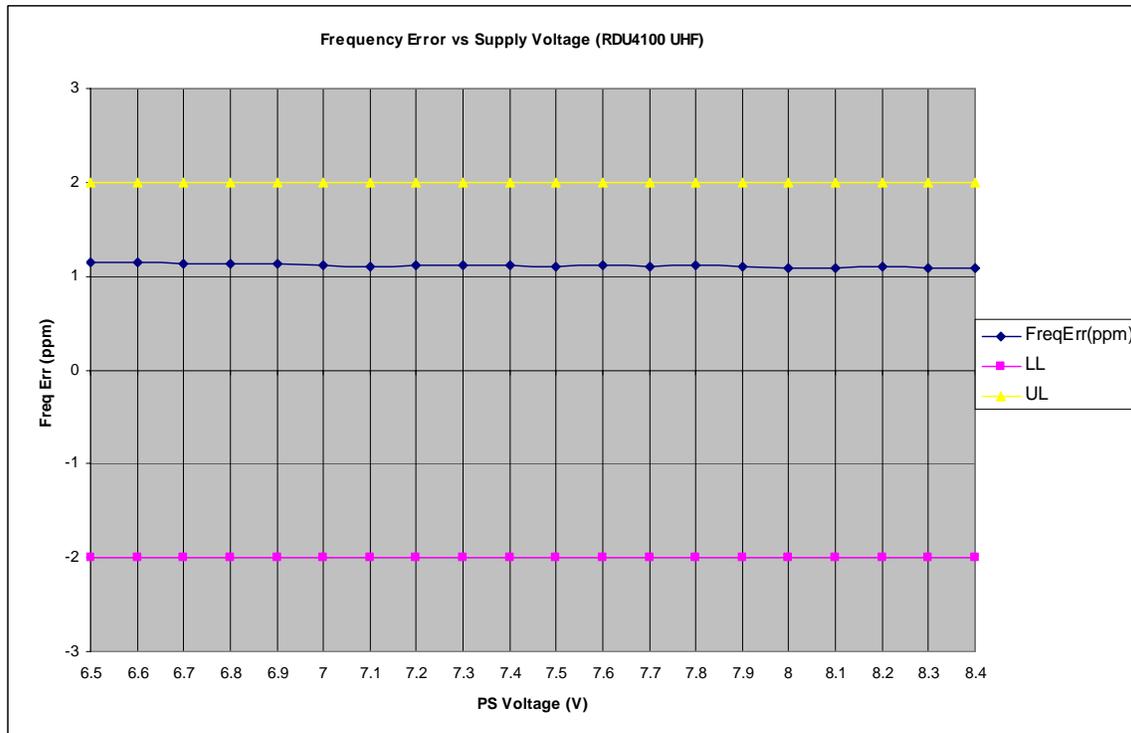


Frequency Stability over Temperature





Frequency Error over Voltage



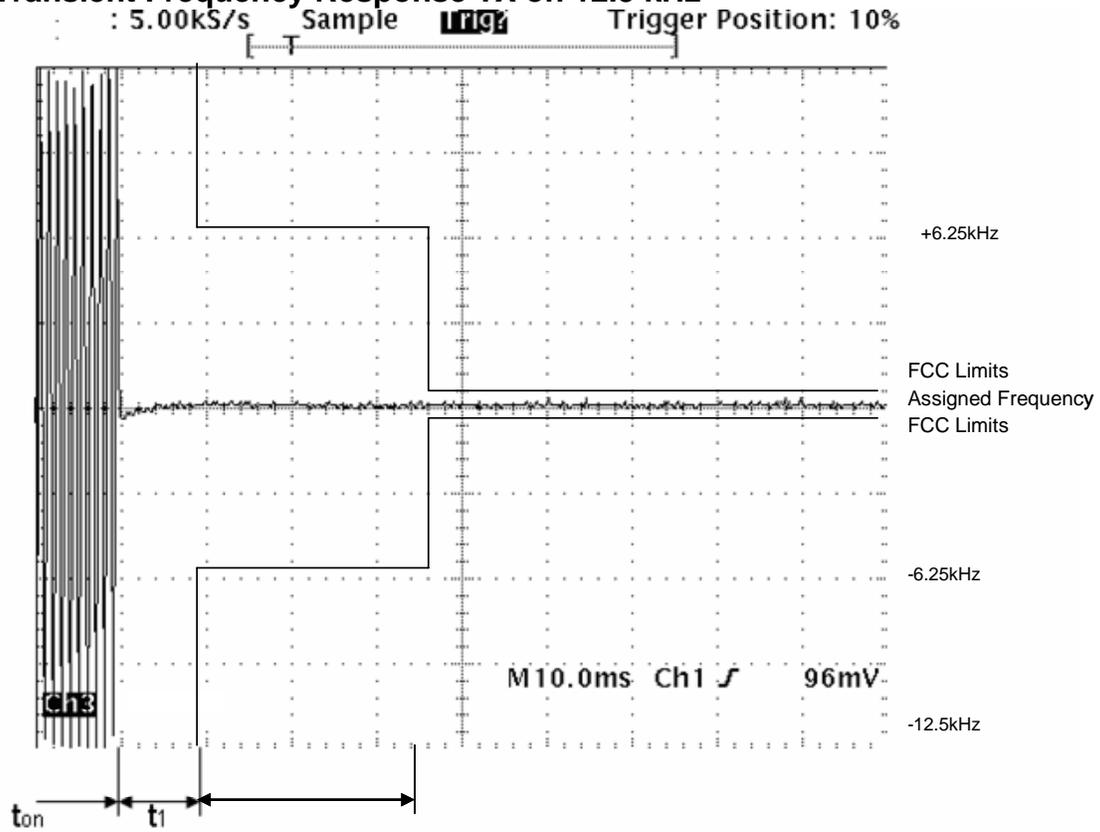
Reset Voltage 5.5Volts



MOTOROLA

FCC ID: AZ489FT4882

Transient Frequency Response TX on 12.5 kHz



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

$$\frac{(464.5\text{MHz}) * (2.0\text{PPM}) * (\pm 4)}{12.5 \text{ kHz}}$$

$$= \pm 0.297 \text{ div}$$

EXHIBIT 6G-1



MOTOROLA

FCC ID: AZ489FT4882

Transient Frequency Response TX off 12.5 kHz

Tek Run: 5.00kS/s Sample **1192** Trigger Position: 90%

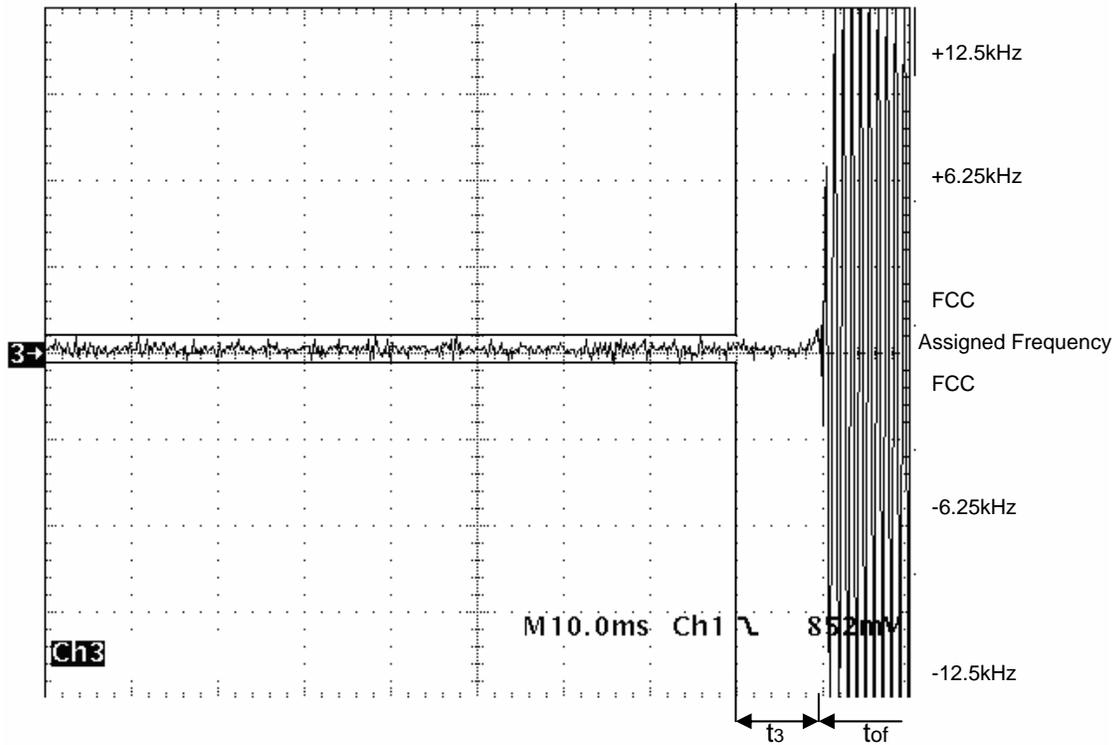
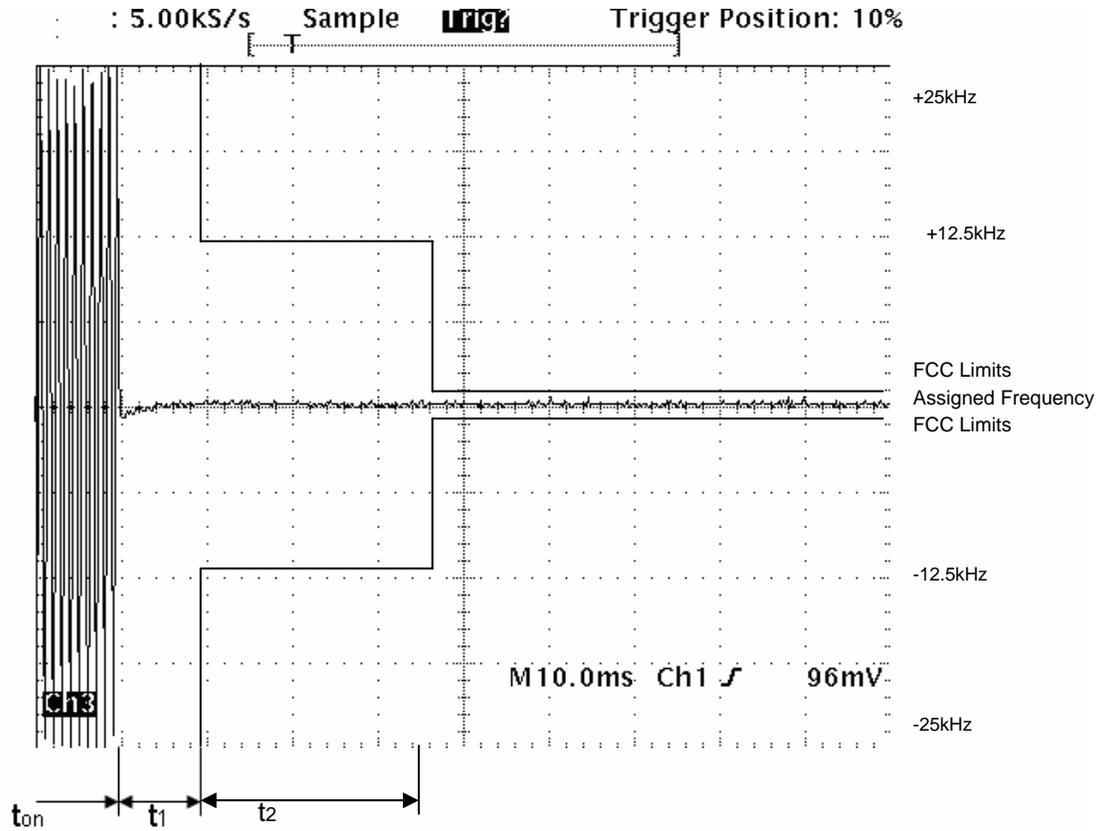


EXHIBIT 6G-2



Transient Frequency Response TX on 25 kHz



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

$$\frac{(464.5\text{MHz}) * (2.0\text{PPM}) * (\pm 4)}{25 \text{ kHz}}$$

$$= \pm 0.1486 \text{ div}$$



MOTOROLA

FCC ID: AZ489FT4882

Transient Frequency Response TX off 25 kHz

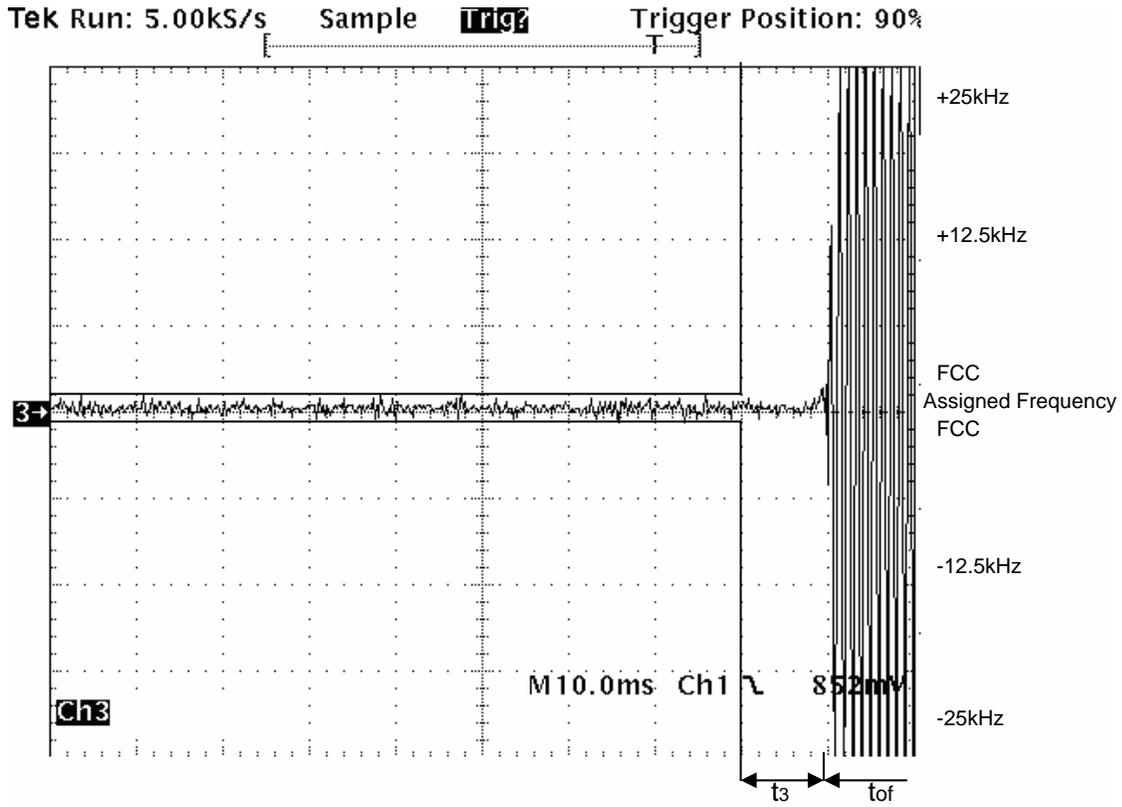


EXHIBIT 6G-4