



Test Report

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MOTOROLA

FCC ID: AZ489FT4853

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 Watts

Measured Conducted RF output	2.128 Watts
Measured Radiated RF output (ERP)	1.559 Watts
Normal DC Voltage	4.80 Volts
Normal DC Current	1.138 Amps

0.5 Watts

Measured Conducted RF output	0.580 Watts
Measured Radiated RF output (ERP)	0.402 Watts
Normal DC Voltage	4.80 Volts
Normal DC Current	0.531 Amps

EXHIBIT 6A



MOTOROLA

FCC ID: AZ489FT4853

AUDIO RESPONSE 2 Watt GMRS.

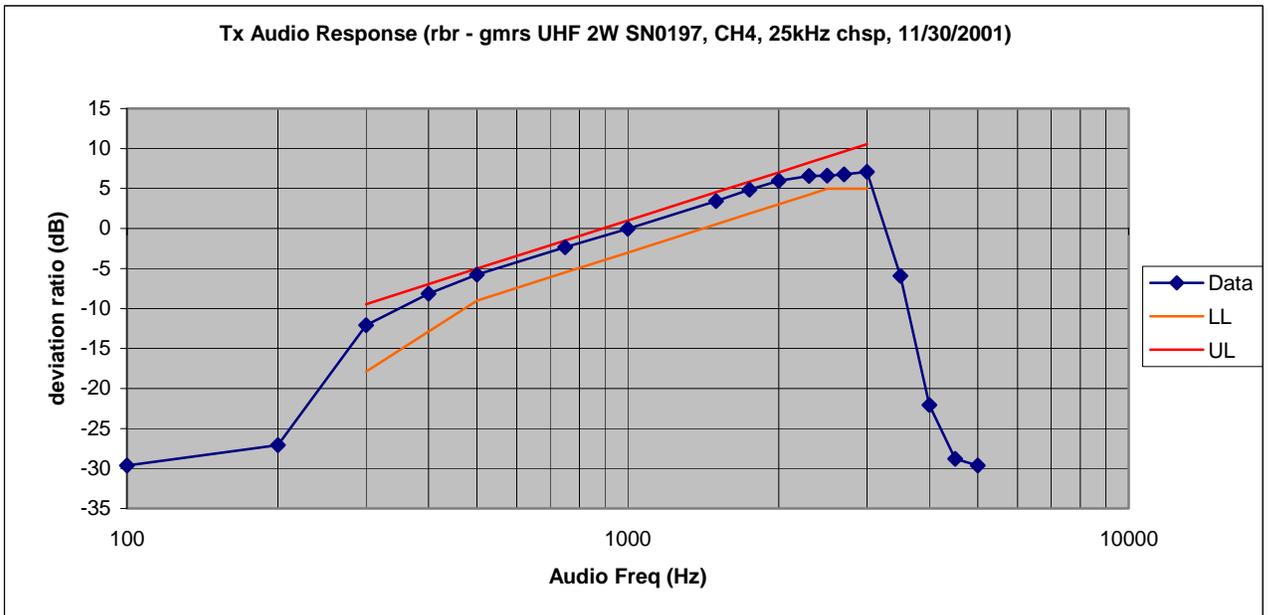
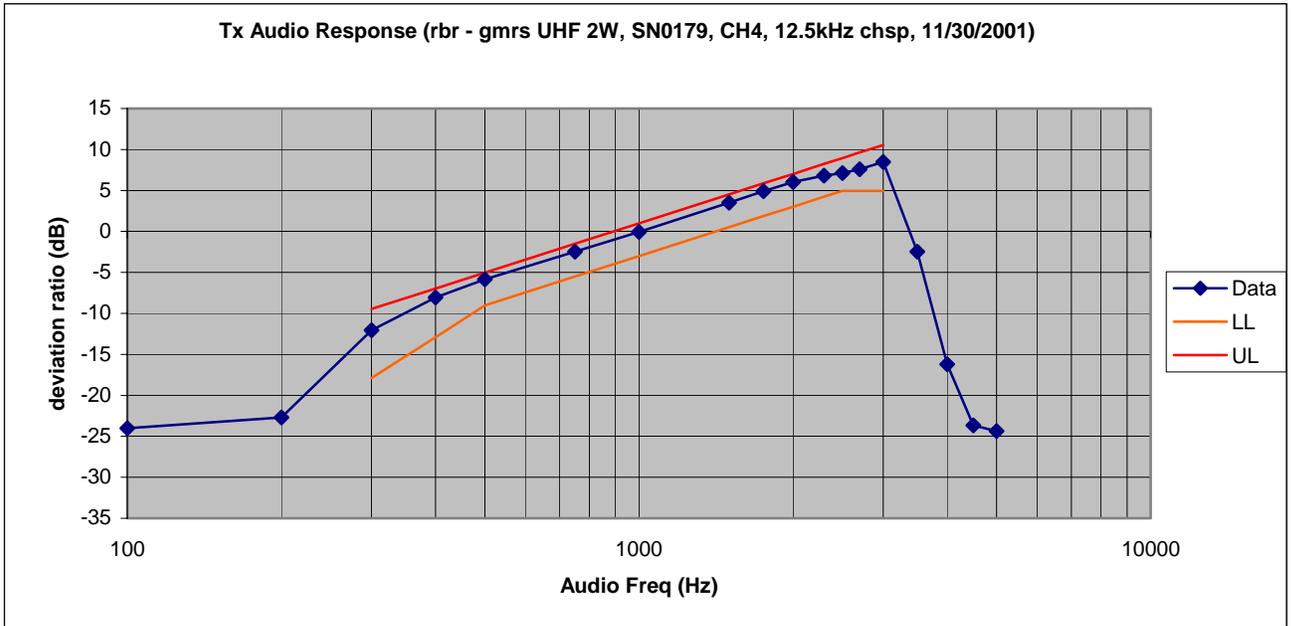


EXHIBIT 6B-1



MOTOROLA

FCC ID: AZ489FT4853

AUDIO RESPONSE 1/2 Watt FRS.

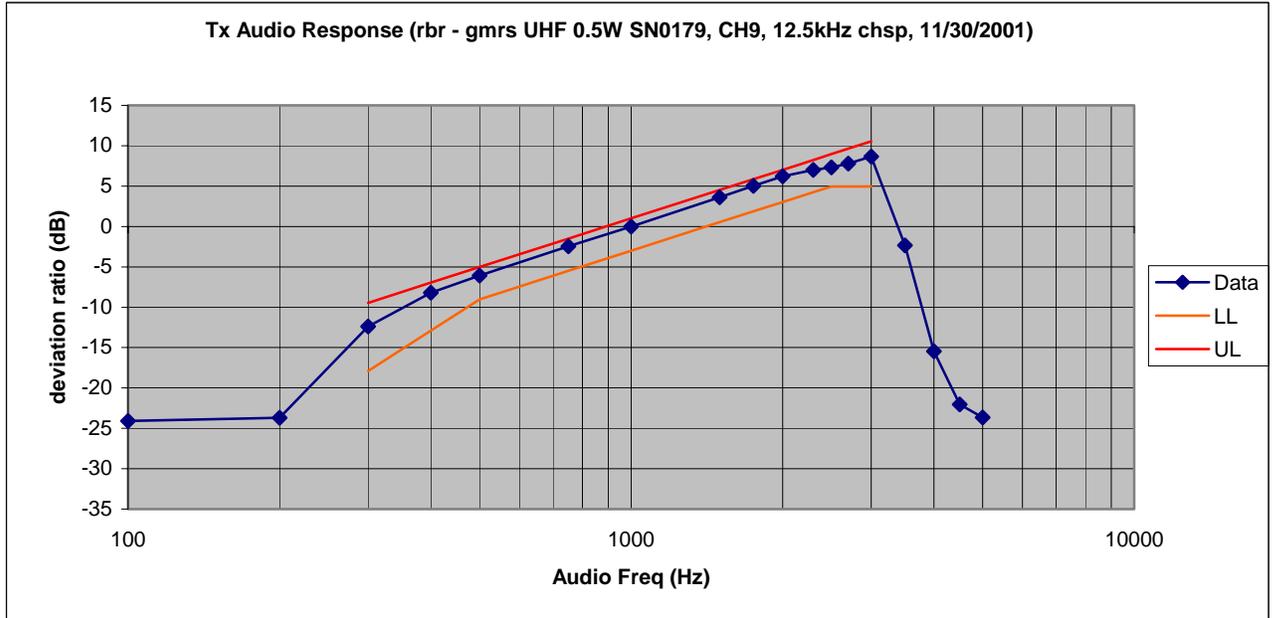


EXHIBIT 6B-2



MOTOROLA

FCC ID: AZ489FT4853

MODULATION LIMITING 2 Watt GMRS.

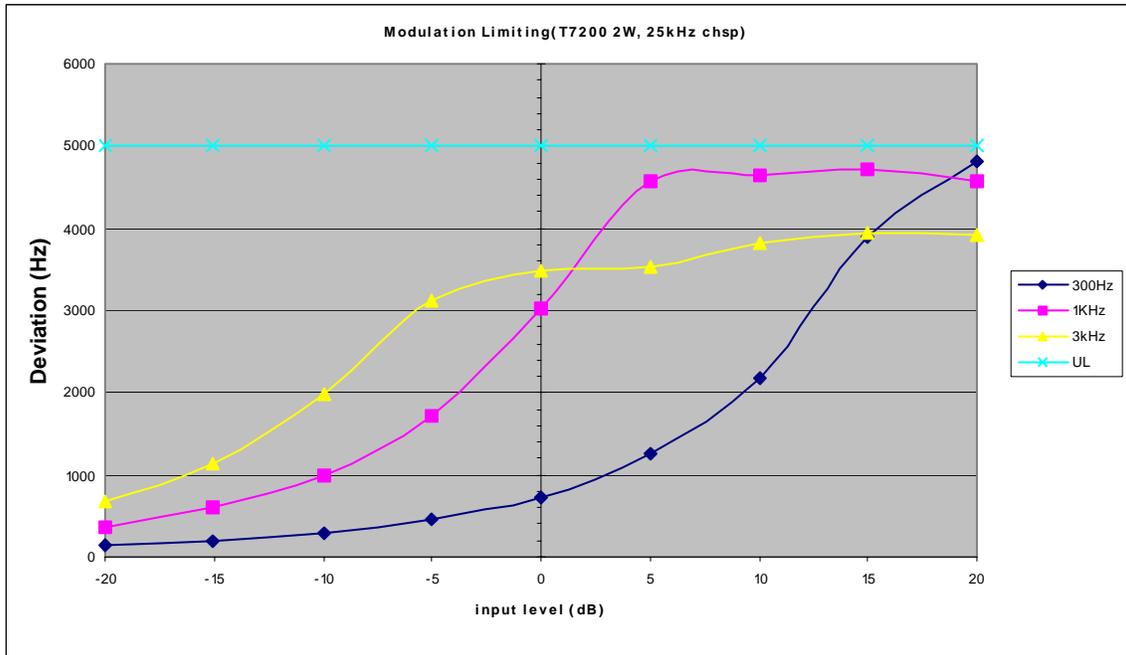
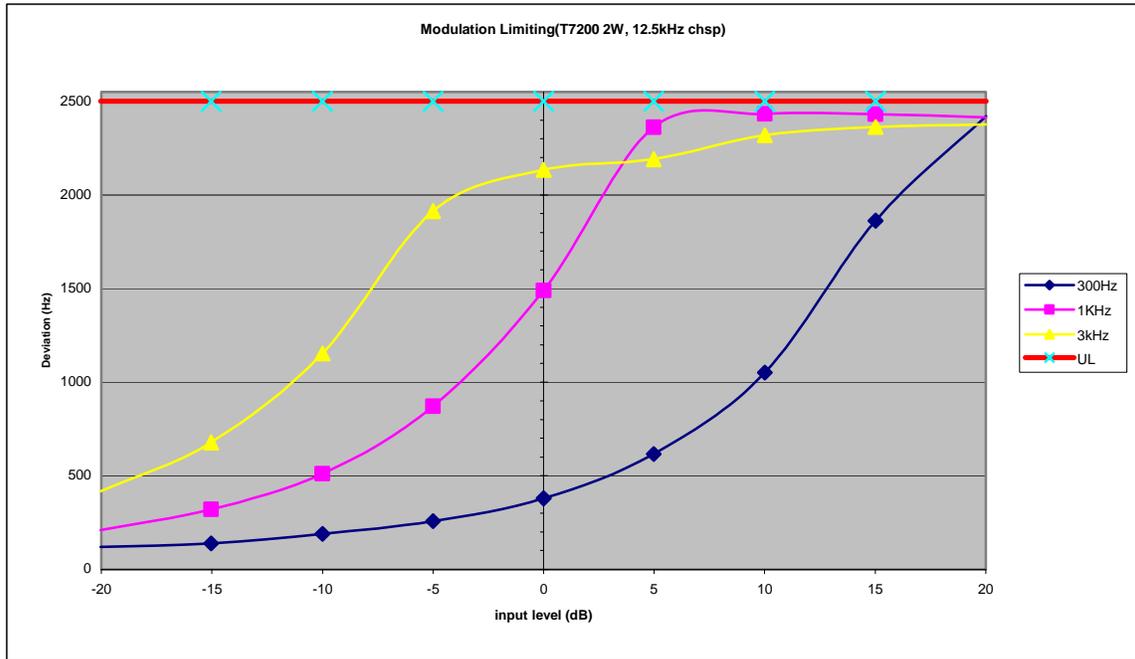
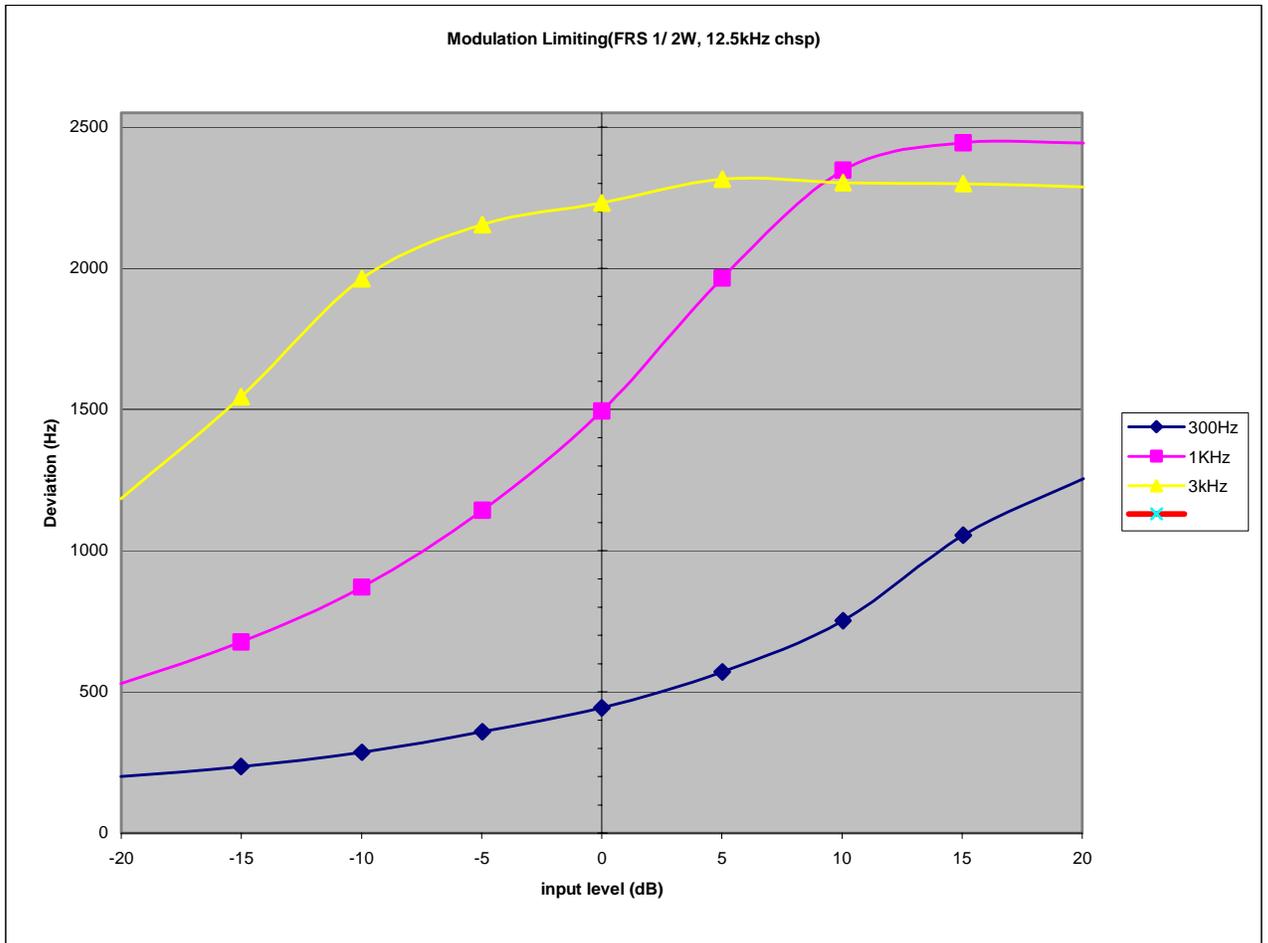


EXHIBIT 6C-1

MODULATION LIMITING 1/2 Watt FRS.





MOTOROLA

FCC ID: AZ489FT4853

OCCUPIED BANDWIDTH DATA

12.5kHz / 25kHz Channel Spacing

EXHIBIT 6D-1 (2Watts)

2500 Hz Audio Modulation

Emission Type: 11K0F3E and 16K0F3E

Specification Mask D, 90.210 – 12.5kHz

Specification Mask B, 90.210 – 25khz

EXHIBIT 6D-2 (2Watts)

2500 Hz & 77Hz Tone "PL" Modulation

Emission Type: 11K0F3E and 16K0F3E

Specification Mask D, 90.210 – 12.5kHz

Specification Mask B, 90.210 – 25kHz

EXHIBIT 6D-3 (0.5Watts)

2500 Hz Audio Modulation

Emission Type: 11K0F3E

Specification Mask D, 90.210 – 12.5kHz

2500 Hz & 77Hz Tone "PL" Modulation

Emission Type: 11K0F3E

Specification Mask D, 90.210 – 12.5kHz

CARSON'S RULE: **11K0F3E**

BW= 2(M+D)

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

BW=2 (5.5)

BW= 11K0

CARSON'S RULE: **16K0F3E**

BW= 2(M+D)

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

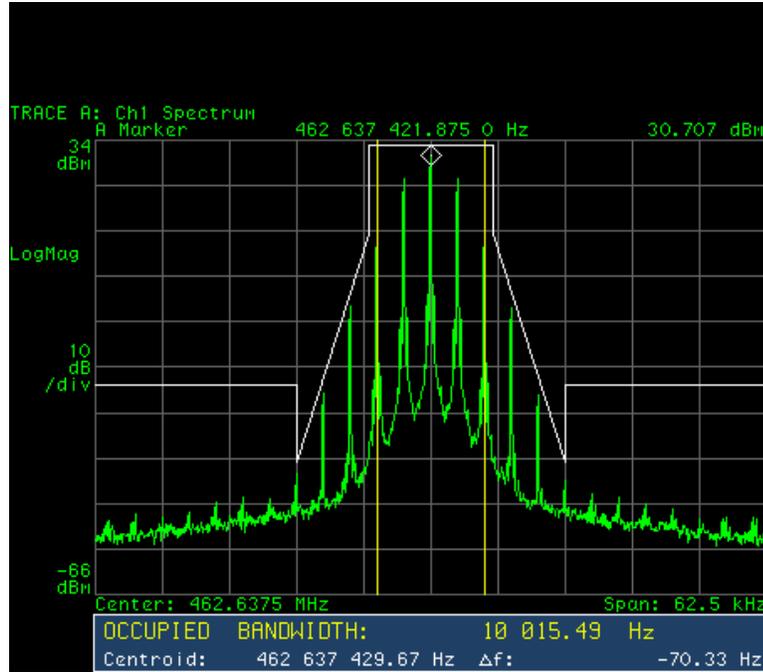
BW=2 (8)

BW= 16K0

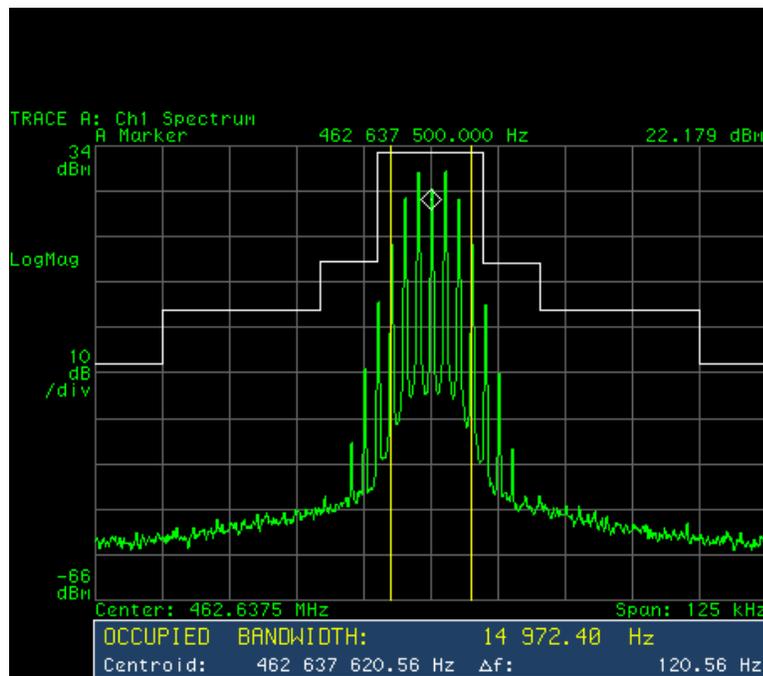
EXHIBIT 6D



Occupied Bandwidth 2 Watts



Occupied Bandwidth for GMRS, BW = 12.5 kHz, Squelch = CSQ



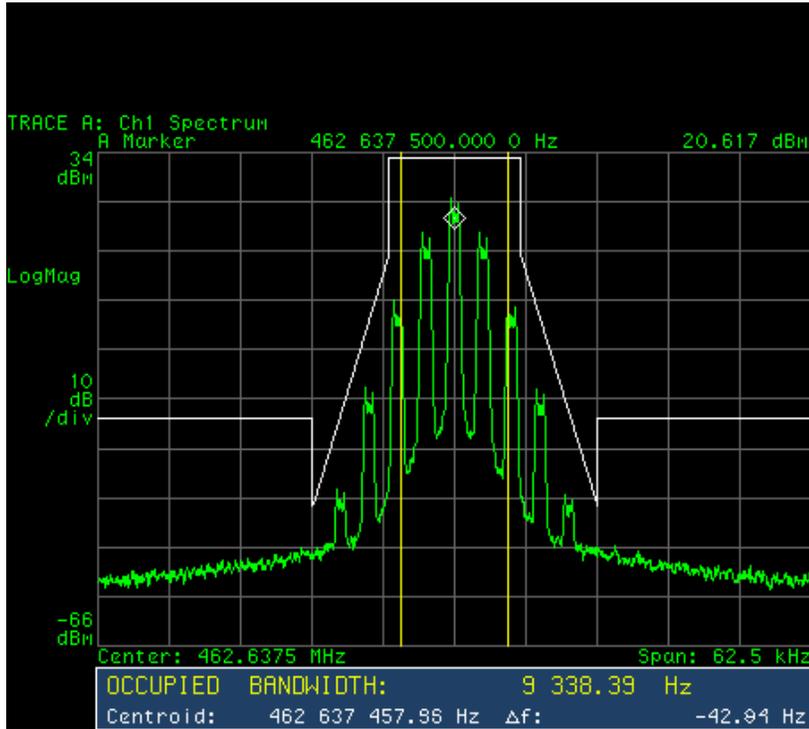
Occupied Bandwidth for GMRS, BW = 25 kHz, Squelch = CSQ



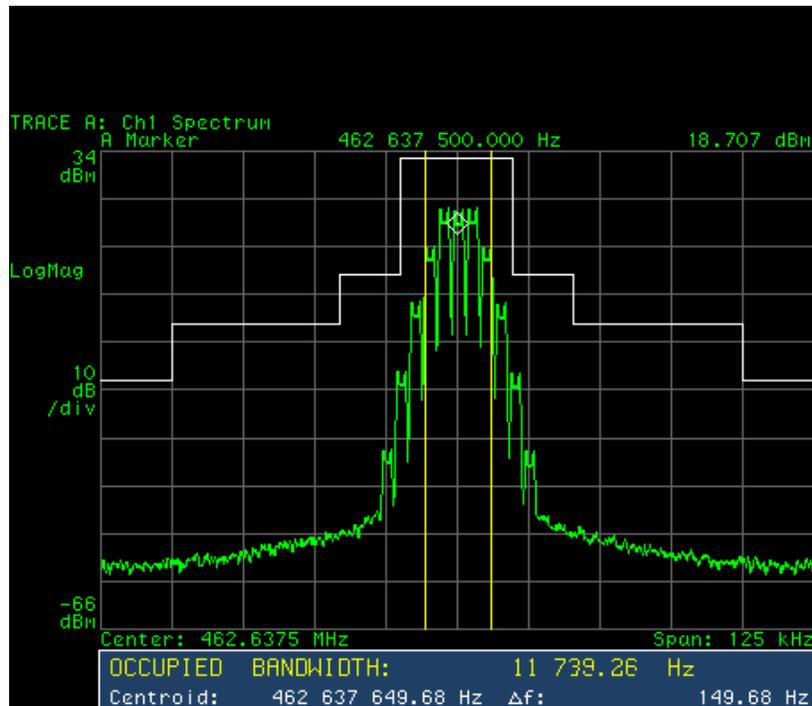
MOTOROLA

FCC ID: AZ489FT4853

Occupied Bandwidth 2 Watts



Occupied Bandwidth for GMRS, BW = 12.5 kHz, Squelch = TPL

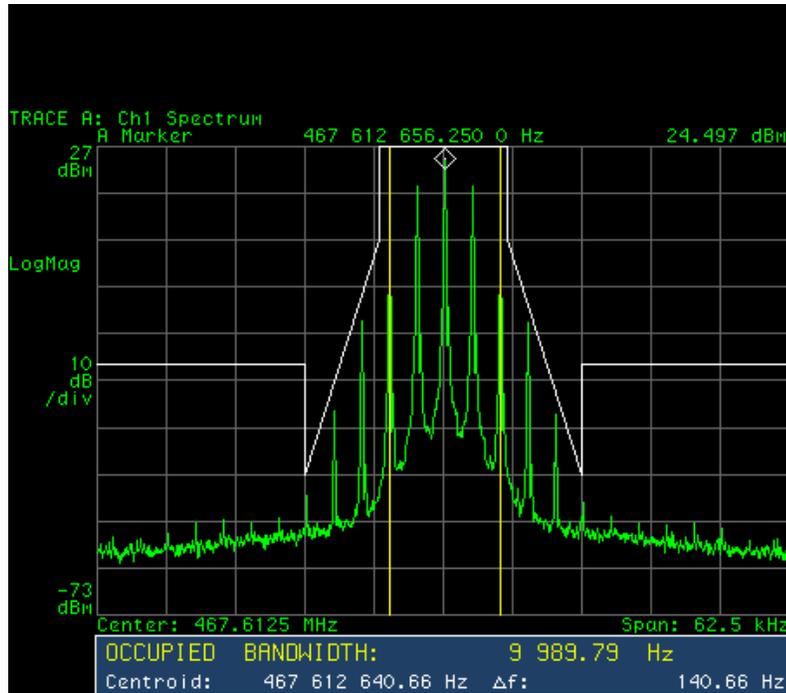


Occupied Bandwidth for GMRS, BW = 25 kHz, Squelch = TPL

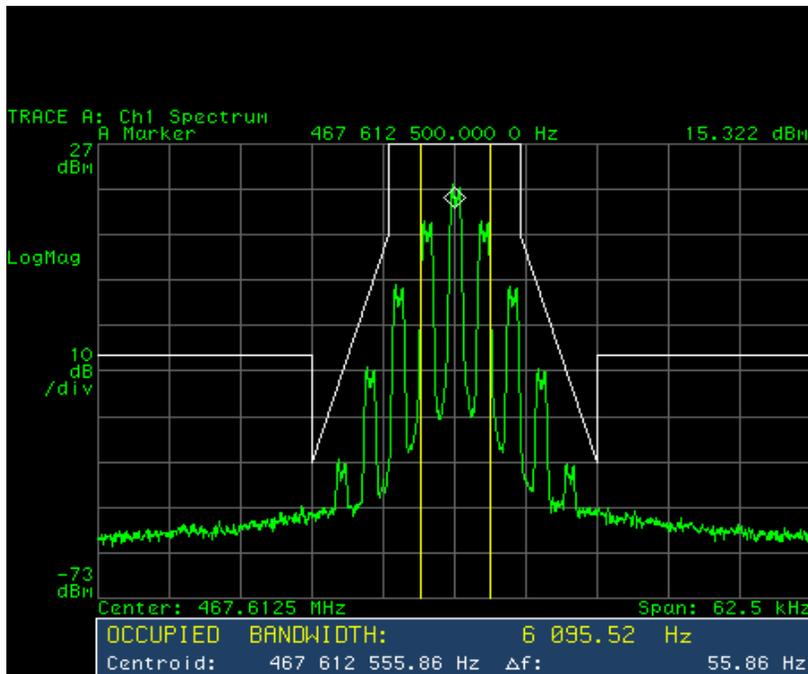
EXHIBIT 6D-2



Occupied Bandwidth 1/2 Watts



Occupied Bandwidth for FRS, BW = 12.5 kHz, Squelch = CSQ



Occupied Bandwidth for FRS, BW = 12.5 kHz, Squelch = TPL



MOTOROLA

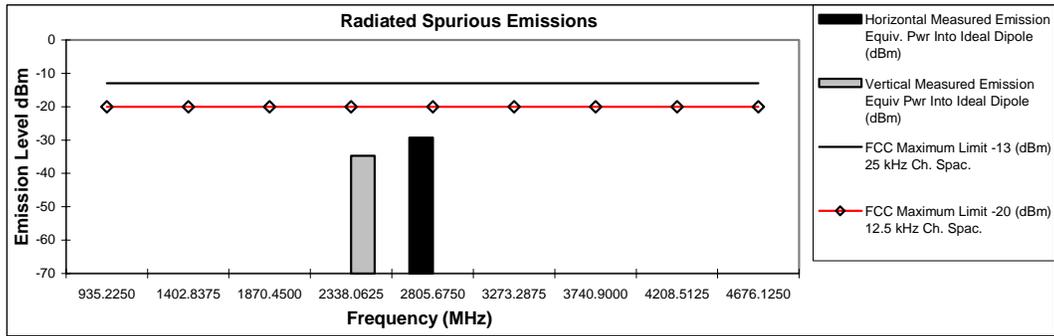
Motorola Inc.

FCC ID: AZ489FT4853
FCC ID:AZ489FT4853

Transmitter Radiated Spurious Emissions: T7200

467.6125 MHz 0.5 Watts Channel Spacing 12.5kHz | S/N 605ABS0181

Frequency (MHz)	FCC Maximum Limit -13 (dBm) 25 kHz Ch. Spac.	FCC Maximum Limit -20 (dBm) 12.5 kHz Ch. Spac.	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
935.2250	-13	-20	*	*
1402.8375	-13	-20	*	*
1870.4500	-13	-20	*	*
2338.0625	-13	-20	*	-34.78
2805.6750	-13	-20	-29.31	*
3273.2875	-13	-20	*	*
3740.9000	-13	-20	*	*
4208.5125	-13	-20	*	*
4676.1250	-13	-20	*	*



* Indicates the spurious emission was less than -70dBm or 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: Bill Quigley
FCC Registration: 91932 / Industry Canada: IC3679

October 10, 2001

EXHIBIT 6E-1



MOTOROLA

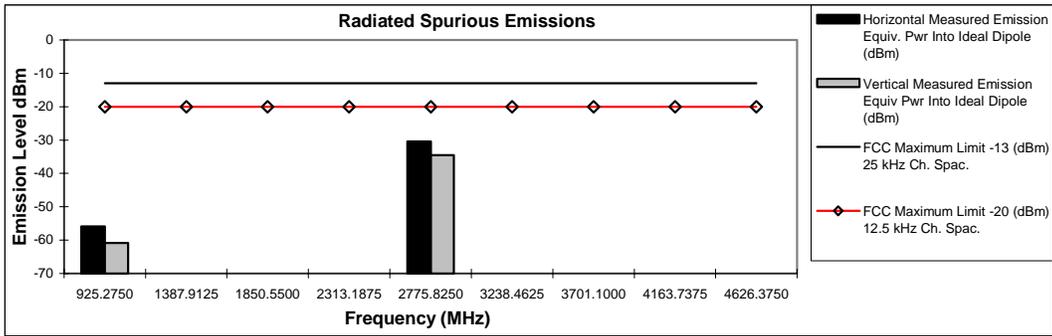
Motorola Inc.

FCC ID: AZ489FT4853
FCC ID:AZ489FT4853

Transmitter Radiated Spurious Emissions: T7200

462.6375 MHz 2 Watts Channel Spacing 12.5kHz | S/N 605ABS0181

Frequency (MHz)	FCC Maximum Limit -13 (dBm) 25 kHz Ch. Spac.	FCC Maximum Limit -20 (dBm) 12.5 kHz Ch. Spac.	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
925.2750	-13	-20	-55.87	-60.79
1387.9125	-13	-20	*	*
1850.5500	-13	-20	*	*
2313.1875	-13	-20	*	*
2775.8250	-13	-20	-30.41	-34.51
3238.4625	-13	-20	*	*
3701.1000	-13	-20	*	*
4163.7375	-13	-20	*	*
4626.3750	-13	-20	*	*



* Indicates the spurious emission was less than -70dBm or 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: Bill Quigley
FCC Registration: 91932 / Industry Canada: IC3679

October 10, 2001

EXHIBIT 6E-2



MOTOROLA

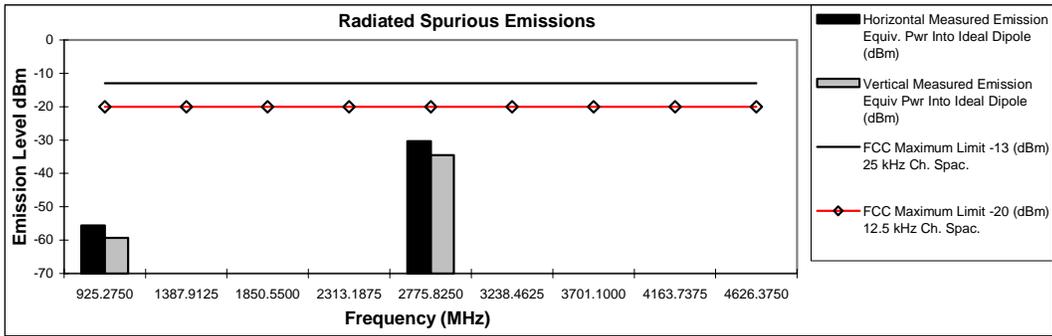
Motorola Inc.

FCC ID: AZ489FT4853
FCC ID:AZ489FT4853

Transmitter Radiated Spurious Emissions: T7200

462.6375 MHz 2 Watts Channel Spacing 25kHz | S/N 605ABS0181

Frequency (MHz)	FCC Maximum Limit -13 (dBm) 25 kHz Ch. Spac.	FCC Maximum Limit -20 (dBm) 12.5 kHz Ch. Spac.	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
925.2750	-13	-20	-55.57	-59.36
1387.9125	-13	-20	*	*
1850.5500	-13	-20	*	*
2313.1875	-13	-20	*	*
2775.8250	-13	-20	-30.33	-34.48
3238.4625	-13	-20	*	*
3701.1000	-13	-20	*	*
4163.7375	-13	-20	*	*
4626.3750	-13	-20	*	*



* Indicates the spurious emission was less than -70dBm or 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: Bill Quigley
FCC Registration: 91932 / Industry Canada: IC3679

October 10, 2001

EXHIBIT 6E-3



2Watt 12.5kHz bandwidth

FCC ID: AZ489FT4853

Transmitter Conducted Spurious Emissions

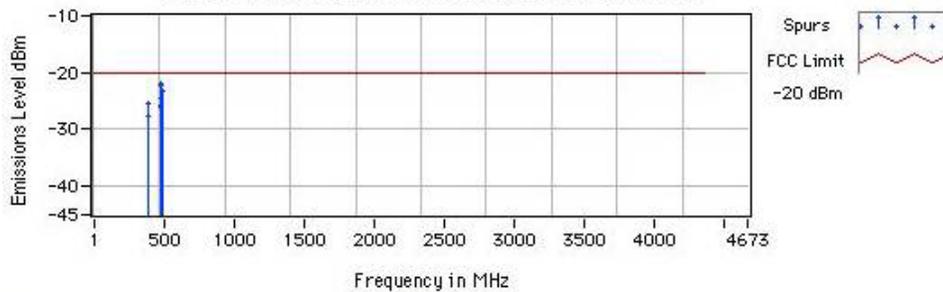
FREQ: 462.63750 MHz

Power 2.0W

Channel Spacing: 12.50 kHz

Spurious Frequency	FCC Limit	Measured Value (dBm)
407.40000	-20.0	-25.6
408.90000	-20.0	-25.5
412.00000	-20.0	-25.4
413.50000	-20.0	-27.6
503.20000	-20.0	-25.9
506.20000	-20.0	-26.2
507.70000	-20.0	-24.6
511.50000	-20.0	-22.1
513.80000	-20.0	-22.3
516.80000	-20.0	-23.4

Transmitter Conducted Spurious Emissions



All Transmitter Spurious Emissions tested to the 10th Harmonic

Motorola Plantation ATE Lab

Tuesday, th December 2001

Test Performed By: **Jerry Simpson**



MOTOROLA

FCC ID: AZ489FT4853

2Watt 25kHz bandwidth

Transmitter Conducted Spurious Emissions

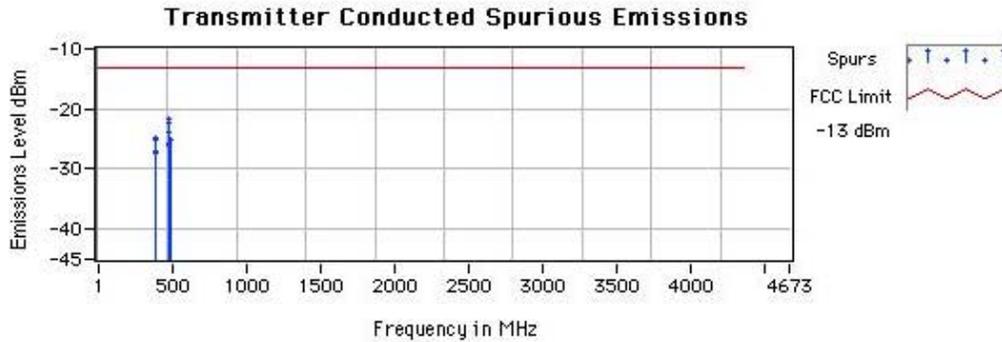
FREQ: 462.63750 MHz

Power 2.0W

Channel Spacing: 25.00 kHz

FCC ID: AZ489FT4853

Spurious Frequency	FCC Limit	Measured Value (dBm)
407.40000	-13.0	-26.9
408.90000	-13.0	-24.9
412.00000	-13.0	-25.1
413.50000	-13.0	-27.3
503.20000	-13.0	-26.1
506.20000	-13.0	-25.7
507.70000	-13.0	-24.0
512.30000	-13.0	-21.7
513.80000	-13.0	-22.3
516.80000	-13.0	-25.1



All Transmitter Spurious Emissions tested to the 10th Harmonic

Motorola Plantation ATE Lab

Tuesday, th December 2001

Test Performed By: Jerry Simpson

EXHIBIT 6F-2



MOTOROLA

FCC ID: AZ489FT4853

½ Watt 12.5KHz bandwidth

Transmitter Conducted Spurious Emissions

FREQ: 467.61250 MHz

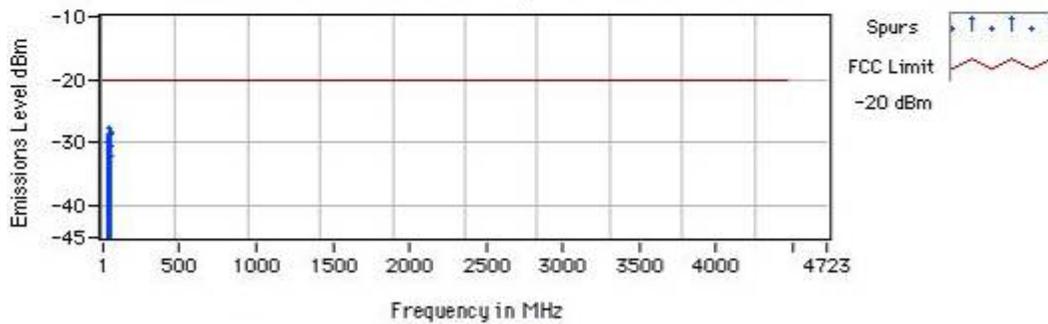
Power

FCC ID: AZ489FT4853

Channel Spacing: 12.50 kHz

Spurious Frequency	FCC Limit	Measured Value (dBm)
33.50000	-20.0	-29.9
38.10000	-20.0	-30.0
39.60000	-20.0	-29.0
42.70000	-20.0	-28.7
44.20000	-20.0	-29.1
45.70000	-20.0	-27.6
48.70000	-20.0	-28.5
50.30000	-20.0	-28.3
53.30000	-20.0	-30.4
56.30000	-20.0	-32.0

Transmitter Conducted Spurious Emissions



All Transmitter Spurious Emissions tested to the 10th Harmonic

Motorola Plantation ATE Lab

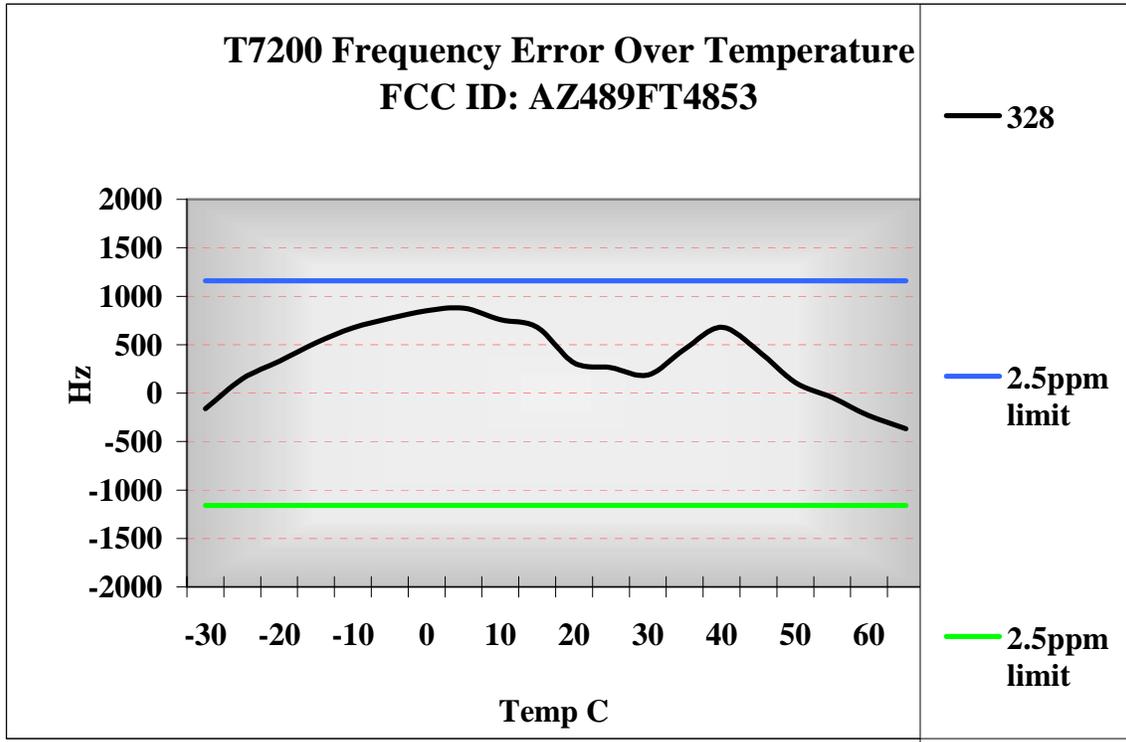
Tuesday, th December 2001

Test Performed By: Jerry Simpson

EXHIBIT6 F-3

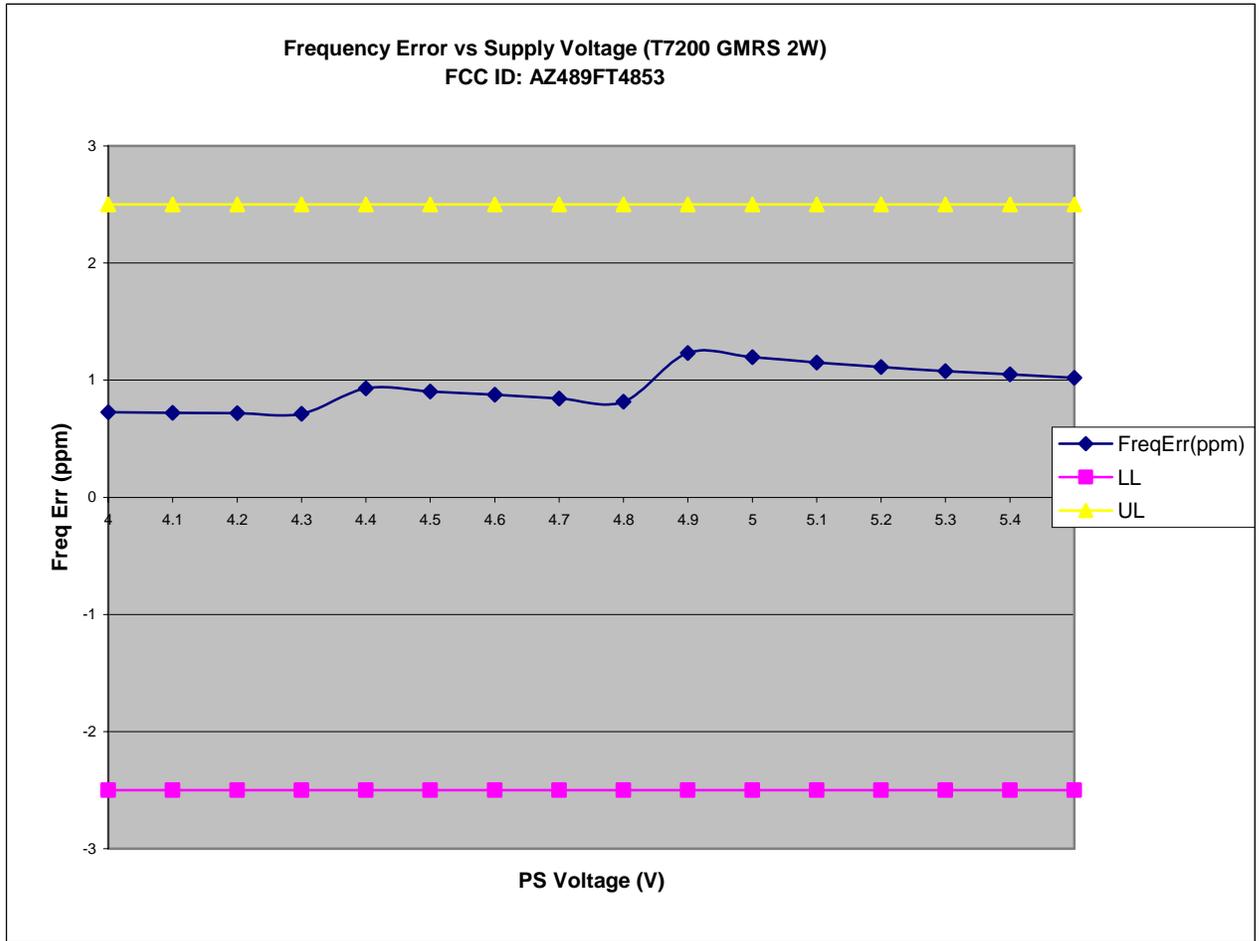


Frequency Stability over Temperature





Frequency Error vs Voltage





Frequency Error vs. Voltage

