INDEX OF SUBMITTED MEASURED DATA

This exhibit contains the measured data for this equipment as follows:

EXHIBIT 6A - RF Power Output (Table)

EXHIBIT 6B - Transmit Audio Response (2 Graphs)
6B-1 – 12.5 kHz Channel Spacing
6B-2 – 25 kHz Channel Spacing

EXHIBIT 6C - Transmit Audio Post Limiter Lowpass Filter Response (Graph)

EXHIBIT 6D - Modulation Limiting Characteristics (6 Graphs)
6D-1 – 12.5 kHz Carrier Squelch Mode
6D-2 – 12.5 kHz Tone Private Line (CTCSS) Mode
6D-3 – 12.5 kHz Digital Private Line (CDCSS) Mode
6D-4 – 25 kHz Carrier Squelch Mode
6D-5 – 25 kHz Tone Private Line (CTCSS) Mode
6D-6 – 25 kHz Digital Private Line (CDCSS) Mode

EXHIBIT 6E - Occupied Bandwidth (20 Spectrum Analyzer Plots)
6E-1 – 12.5 kHz 2500 Hz Audio Modulation Only
6E-2 – 12.5 kHz 2500 Hz Audio and TPL (CTCSS) Modulation
6E-3 – 12.5 kHz 2500 Hz Audio and DPL (CDCSS) Modulation
6E-4 – 12.5 kHz DTMF Modulation Only
6E-5 – 12.5 kHz DTMF Modulation and TPL (CTCSS) Modulation
6E-6 – 12.5 kHz DTMF Modulation and DPL (CDCSS) Modulation
6E-7 – 12.5 kHz 2000/3000 Hz FSK Data Modulation Only
6E-8 – 12.5 kHz 2000/3000 Hz FSK Data and TPL (CTCSS) Modulation
6E-9 – 12.5 kHz 2000/3000 Hz FSK Data and DPL (CDCSS) Modulation
6E-10 – 12.5 kHz 4-Level FSK Digital Data
6E-11 – 12.5 kHz 4-Level FSK Digital Voice and Data
6E-12 – 25 kHz 2500 Hz Audio Modulation Only
6E-13 – 25 kHz 2500 Hz Audio and TPL (CTCSS) Modulation
6E-14 – 25 kHz 2500 Hz Audio and DPL (CDCSS) Modulation
6E-15 – 25 kHz DTMF Modulation Only
6E-16 – 25 kHz DTMF Modulation and TPL (CTCSS) Modulation
6E-17 – 25 kHz DTMF Modulation and DPL (CDCSS) Modulation
6E-18 – 25 kHz 2000/3000 Hz FSK Data Modulation Only
6E-19 – 25 kHz 2000/3000 Hz FSK Data and TPL (CTCSS) Modulation
6E-20 – 25 kHz 2000/3000 Hz FSK Data and DPL (CDCSS) Modulation

EXHIBIT 6F - Conducted Spurious Emissions (6 Graphs)
6F-1 – 48 Watts, 403.000 MHz
6F-2 – 48 Watts, 436.500 MHz
6F-3 – 48 Watts, 470.000 MHz
6F-4 – 25 Watts, 403.000 MHz
6F-5 – 25 Watts, 436.500 MHz
6F-6 – 25 Watts, 470.000 MHz

INDEX OF SUBMITTED MEASURED DATA (CONTINUED)

EXHIBIT 6G – Radiated Spurious Emissions – (24 Graphs)
6G-1 – RX, 403MHz, vertical 30MHz-1GHz span
6G-2 – RX, 403MHz, horizontal 30MHz-1GHz span
6G-3 – RX, 403MHz, horizontal 1GHz-2GHz span
6G-4 – RX, 403MHz, vertical 1GHz-2GHz span
6G-5 – RX, 436MHz, vertical 30MHz-1GHz span
6G-6 – RX, 436MHz, horizontal 30MHz-1GHz span
6G-7 – RX, 436MHz, horizontal 1GHz-2GHz span
6G-8 – RX, 436MHz, vertical 1GHz-2GHz span
6G-9 – RX, 470MHz, vertical 30MHz-1GHz span
6G-10 – RX, 470MHz, horizontal 30MHz-1GHz span
6G-11 – RX, 470MHz, horizontal 1GHz-2GHz span
6G-12 – RX, 470MHz, vertical 1GHz-2GHz span
6G-13 – TX, 403MHz, horizontal 30MHz-1GHz span
6G-14 – TX, 403MHz, vertical 30MHz-1GHz span
6G-15 – TX, 403MHz, horizontal 1GHz-5GHz span
6G-16 – TX, 403MHz, vertical 1GHz-5GHz span
6G-17 – TX, 436MHz, horizontal 30MHz-1GHz span
6G-18 – TX, 436MHz, vertical 30MHz-1GHz span
6G-19 – TX, 436MHz, horizontal 1GHz-5GHz span
6G-20 – TX, 436MHz, vertical 1GHz-5GHz span
6G-21 – TX, 470MHz, horizontal 30MHz-1GHz span
6G-22 – TX, 470MHz, vertical 30MHz-1GHz span
6G-23 – TX, 470MHz, horizontal 1GHz-5GHz span
6G-24 – TX, 470MHz, vertical 1GHz-5GHz span

EXHIBIT 6H – Frequency Stability (2 Graphs)
6H-1 – Frequency Stability vs. Temperature
6H-2 – Frequency Stability vs. Voltage

EXHIBIT 6I- Transient Frequency Behavior (8 Graphs)
6I-1 – 48 Watts, 12.5 kHz Key-Up Attack Time
6I-2 – 48 Watts, 12.5 kHz De-Key Decay Time
6I-3 – 48 Watts, 25 kHz Key-Up Attack Time
6I-4 – 48 Watts, 25 kHz De-Key Decay Time
6I-5 – 25 Watts, 12.5 kHz Key-Up Attack Time
6I-6 – 25 Watts, 12.5 kHz De-Key Decay Time
6I-7 – 25 Watts, 25 kHz Key-Up Attack Time
6I-8 – 25 Watts, 25 kHz De-Key Decay Time

RF OUTPUT DATA

The RF power output was measured with the indicated voltage applied to and current into the final RF amplifying device, pursuant to 47 CFR 2.1033(c)(8) and 2.1046.

HIGH POWER SETTING, FREQUENCY 403.000 MHz

Measured RF Output Power:	48.0 Watts
Measured DC Voltage:	13.6 Volts
Measured DC Input Current:	9.69 Amperes
Measured DC Input Power:	131.7 Watts

LOW POWER SETTING, FREQUENCY 403.000 MHz

Measured RF Output Power:	25.0 Watt
Measured DC Voltage:	13.6 Volts
Measured DC Input Current:	6.66 Amperes
Measured DC Input Power:	90.6 Watts

HIGH POWER SETTING, FREQUENCY 436.500 MHz

Measured RF Output Power:	48.0 Watts
Measured DC Voltage:	13.6 Volts
Measured DC Input Current:	8.88 Amperes
Measured DC Input Power:	120.77 Watts

LOW POWER SETTING, FREQUENCY 436.500 MHz

Measured RF Output Power:	25.0 Watt
Measured DC Voltage:	13.6 Volts
Measured DC Input Current:	6.16 Amperes
Measured DC Input Power:	83.78 Watts

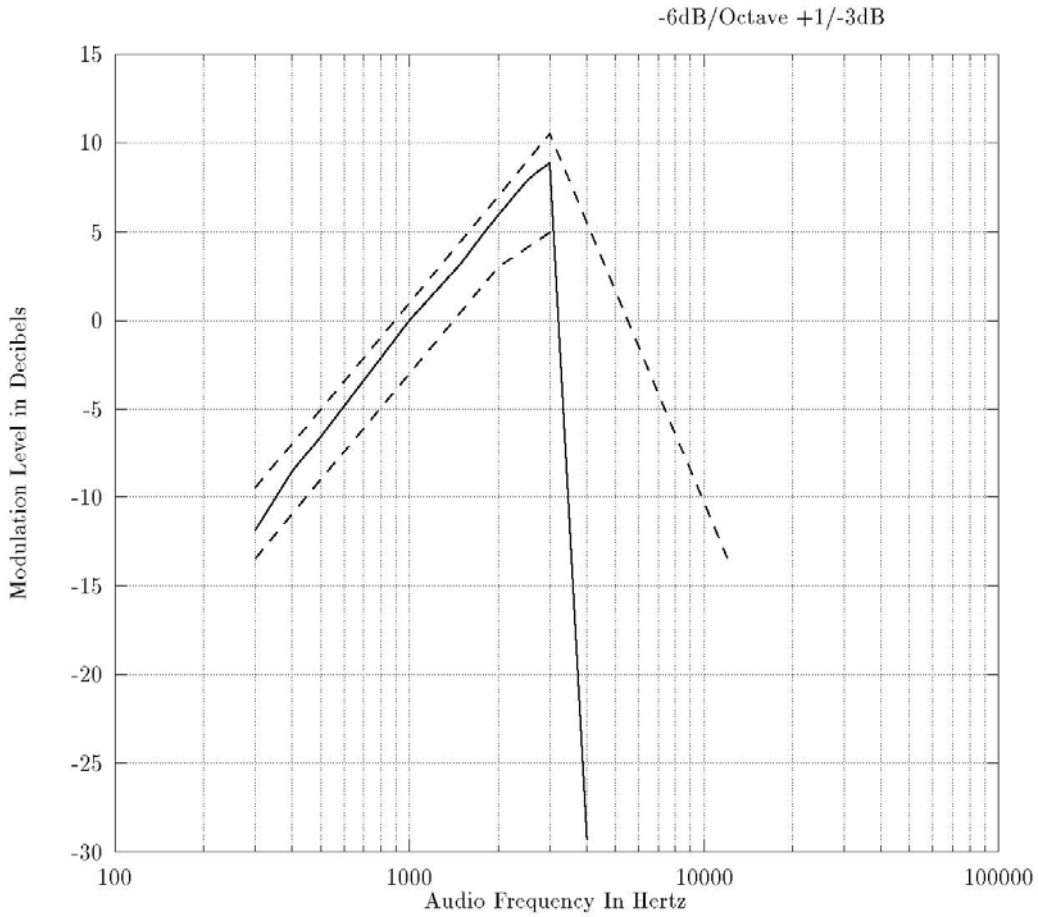
HIGH POWER SETTING, FREQUENCY 470.000 MHz

Measured RF Output Power:	48.0 Watts
Measured DC Voltage:	13.6 Volts
Measured DC Input Current:	8.86 Amperes
Measured DC Input Power:	120.5 Watts

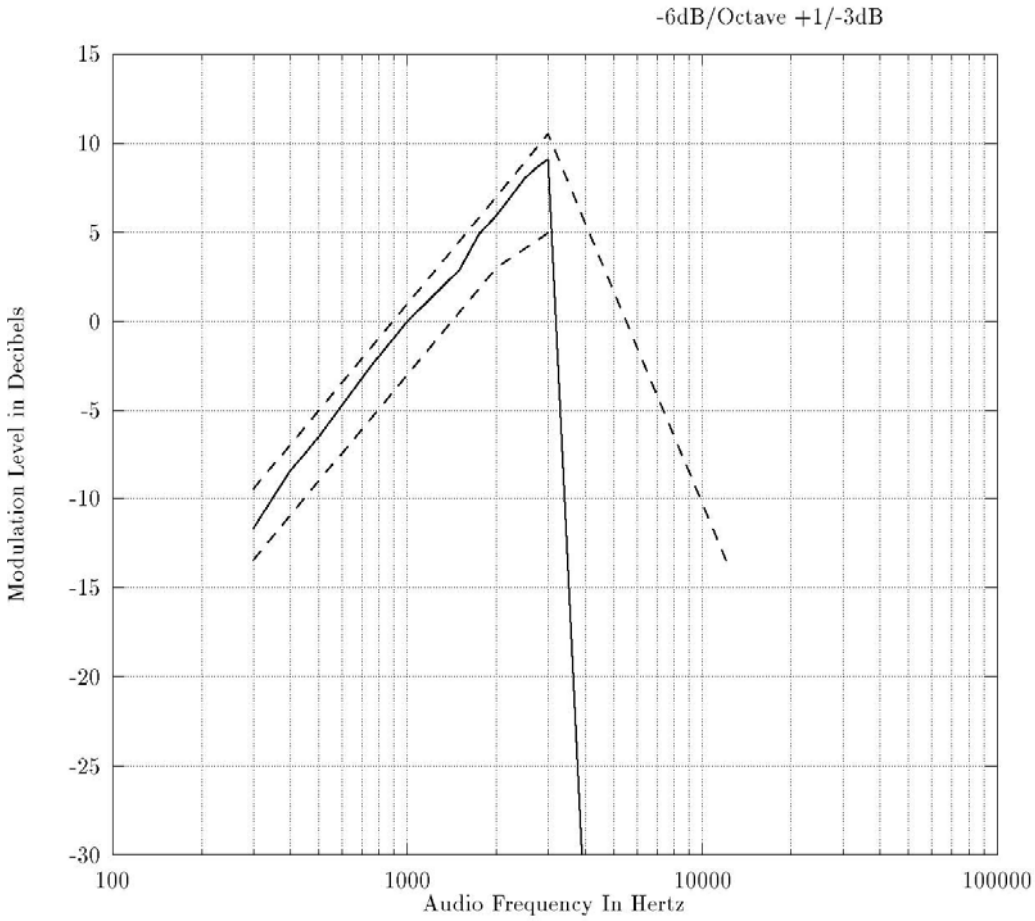
LOW POWER SETTING, FREQUENCY 470.000 MHz

Measured RF Output Power:	25.0 Watt
Measured DC Voltage:	13.6 Volts
Measured DC Input Current:	6.28 Amperes
Measured DC Input Power:	85.4 Watts

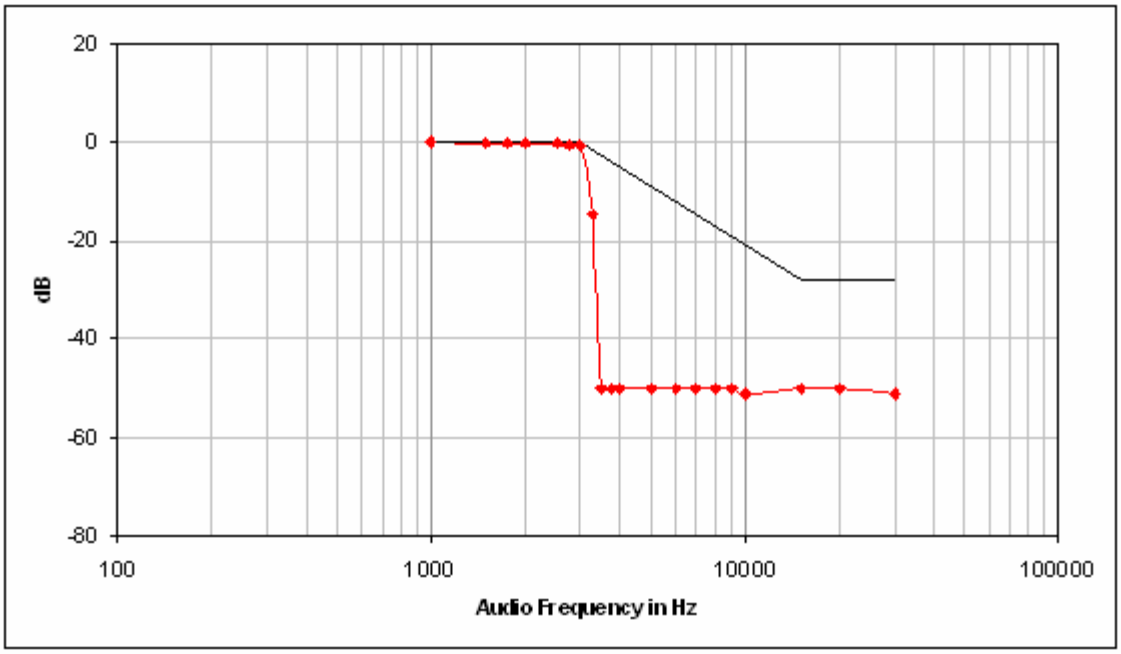
TRANSMIT AUDIO RESPONSE
12.5 kHz CHANNEL SPACING



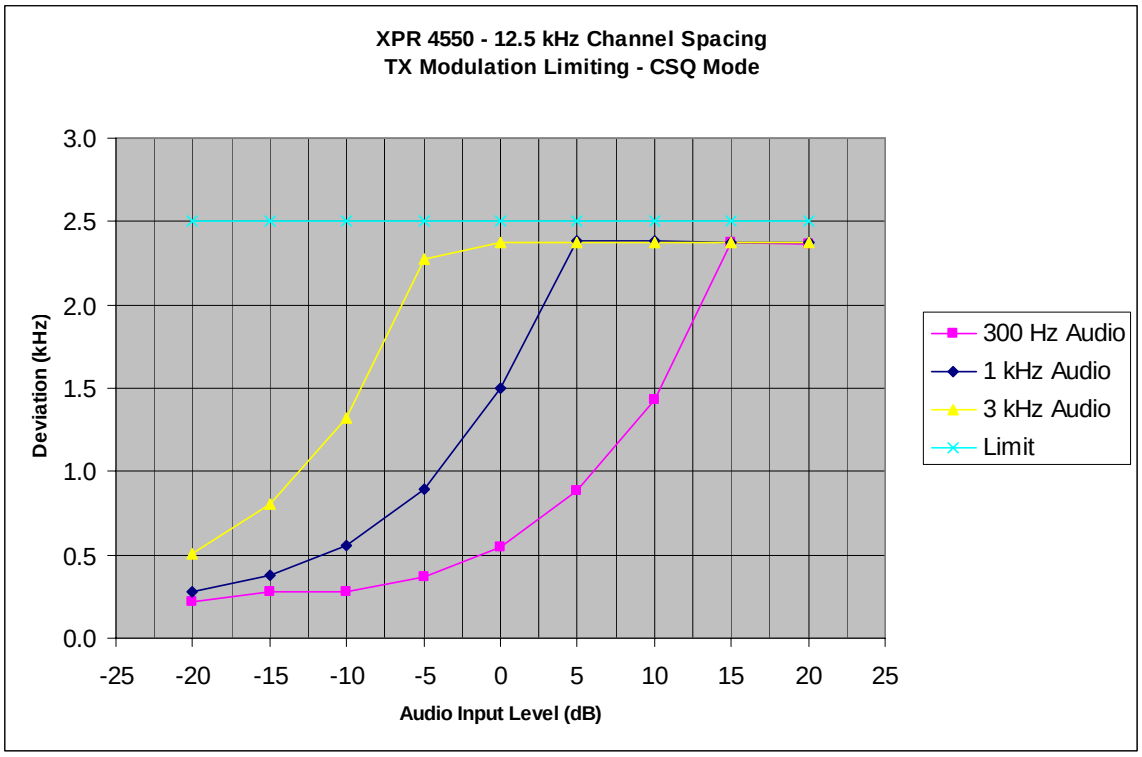
TRANSMIT AUDIO RESPONSE
25 kHz CHANNEL SPACING



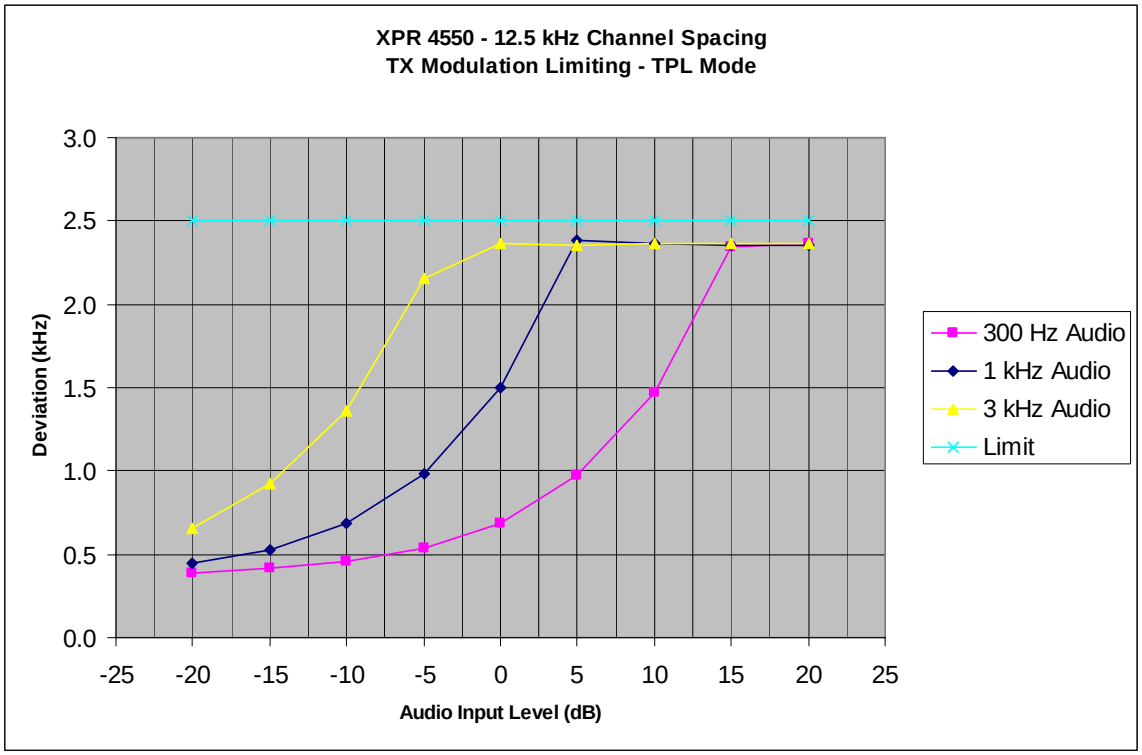
POST-LIMITER LOWPASS FILTER RESPONSE



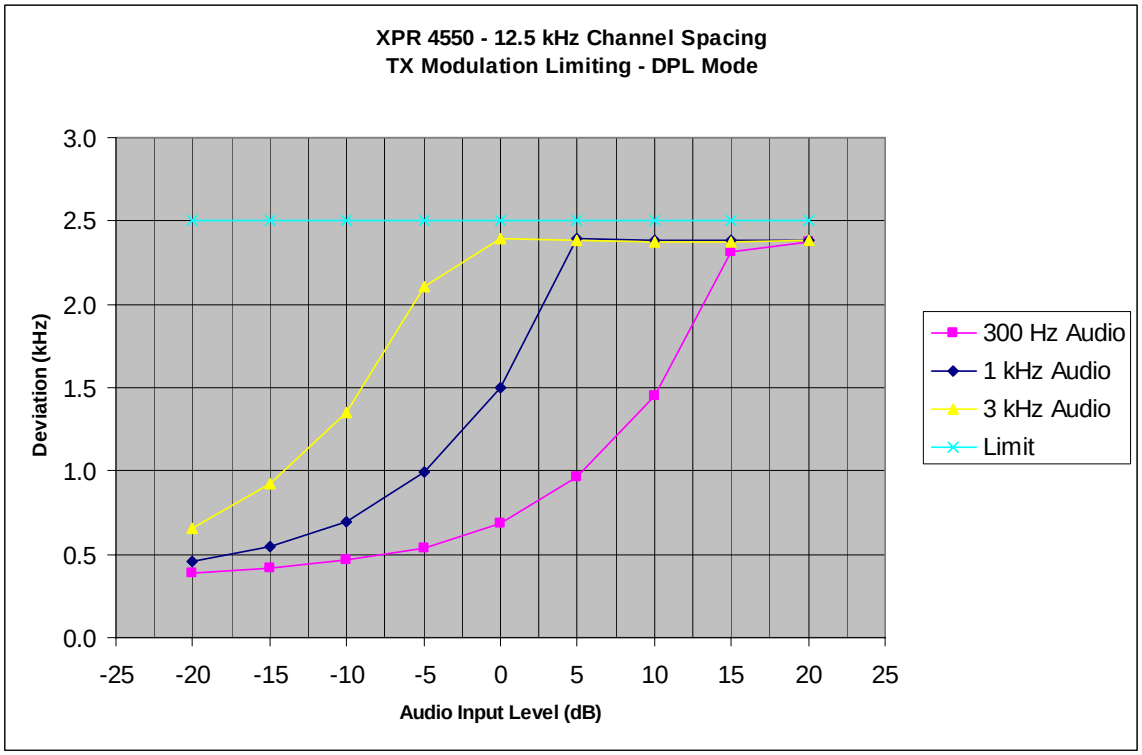
MODULATION LIMITING CHARACTERISTIC
12.5 kHz CARRIER SQUELCH MODE



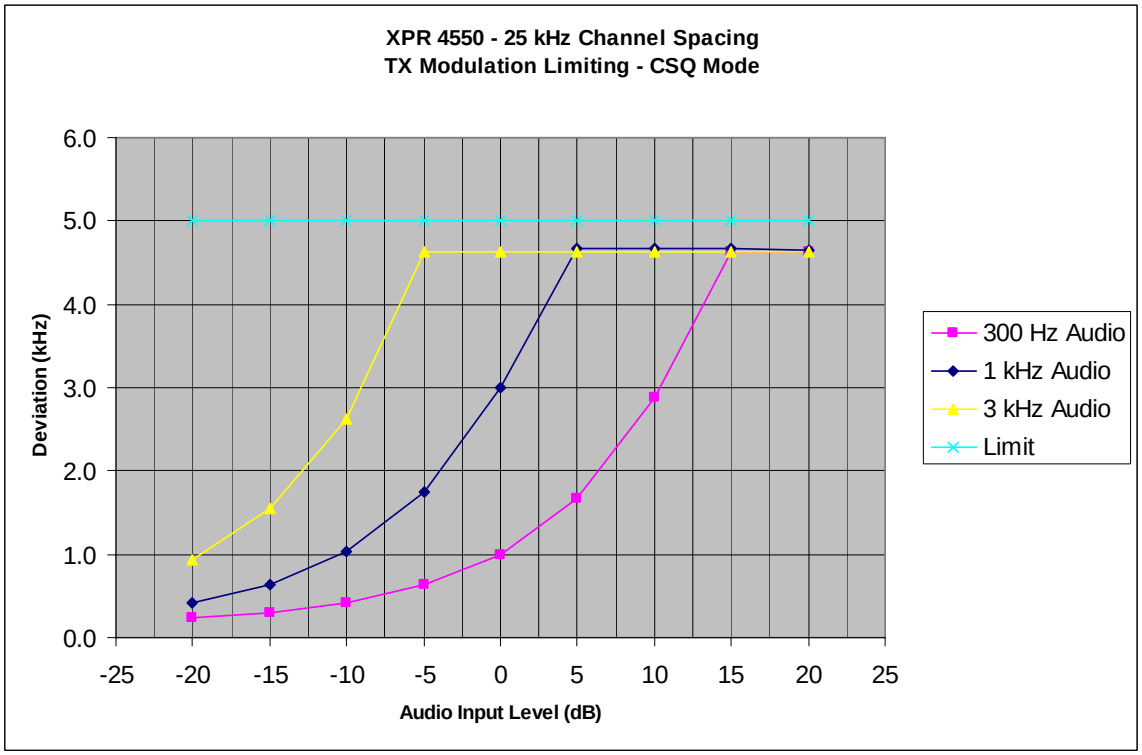
MODULATION LIMITING CHARACTERISTIC
12.5 kHz TONE PL MODE



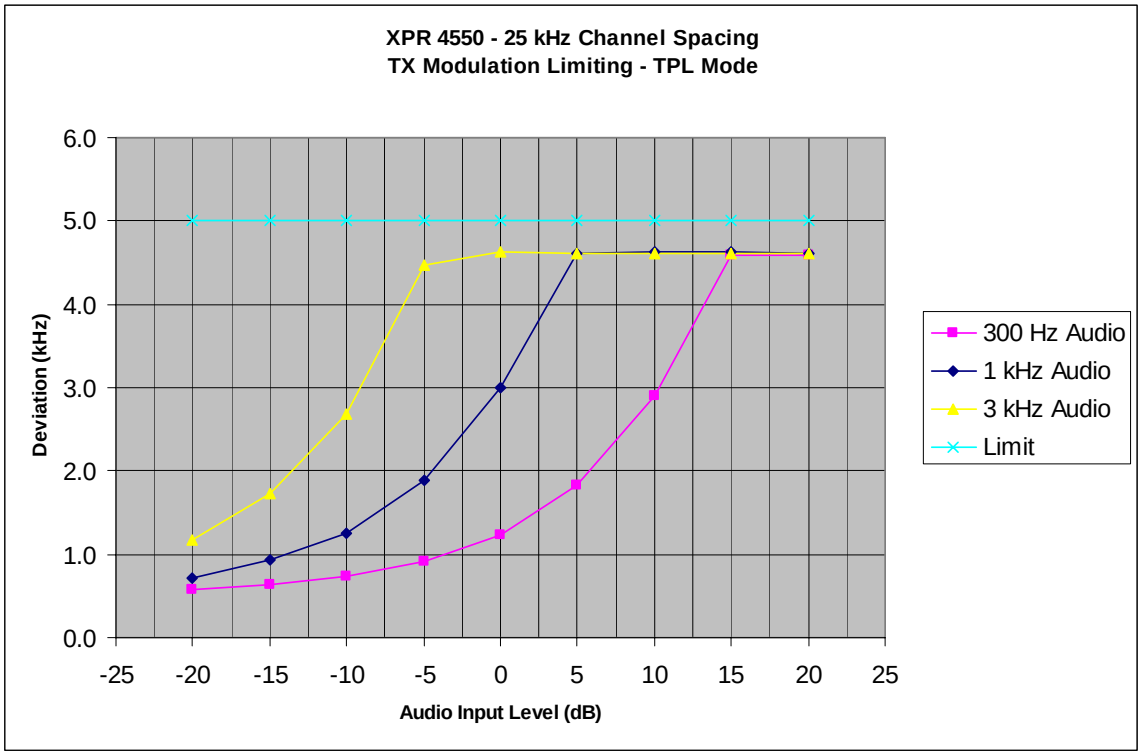
MODULATION LIMITING CHARACTERISTIC
12.5 kHz DPL MODE



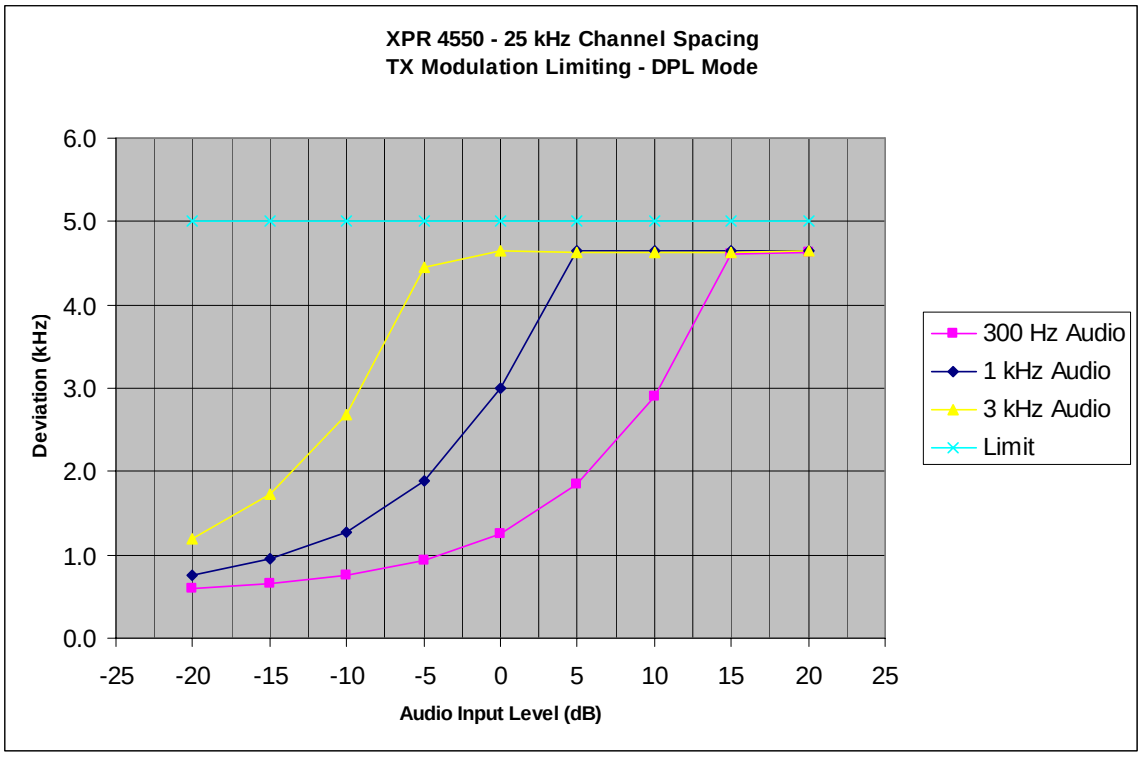
MODULATION LIMITING CHARACTERISTIC
25 kHz CARRIER SQUELCH MODE



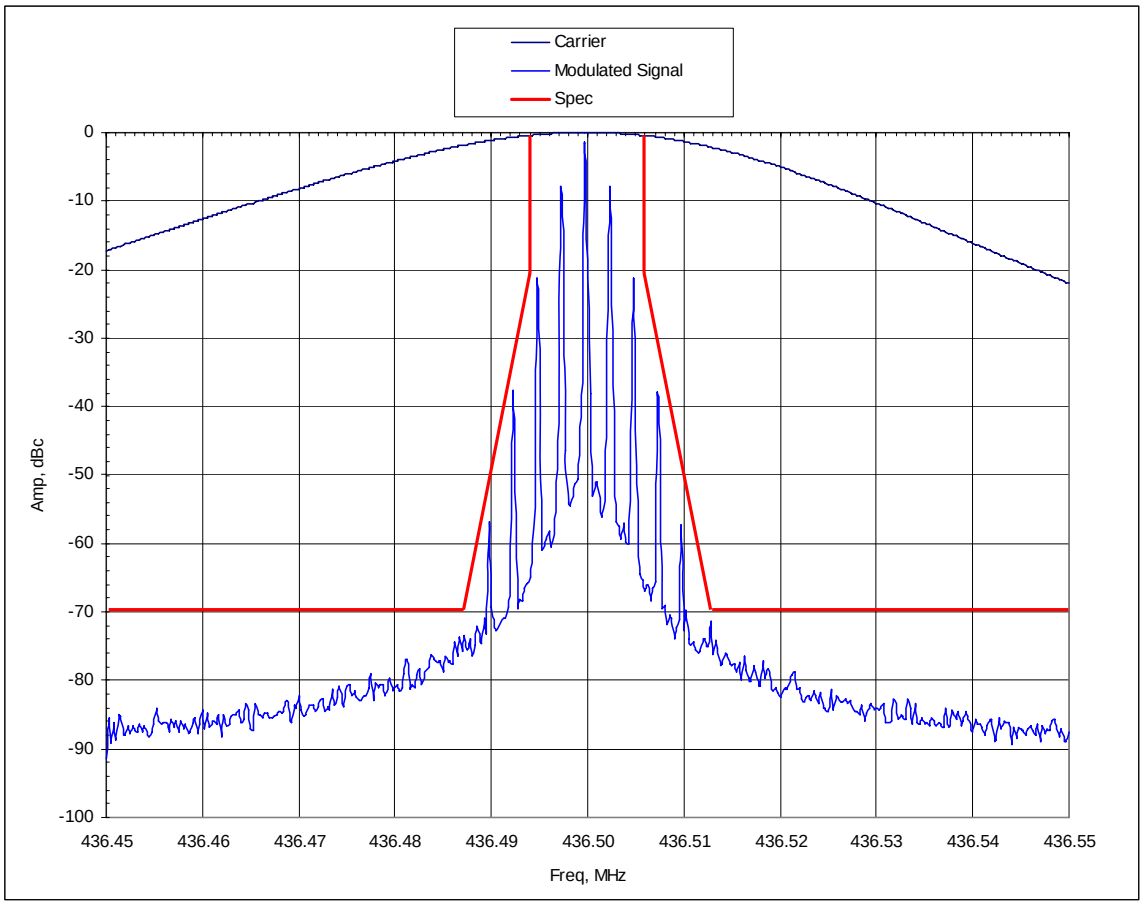
MODULATION LIMITING CHARACTERISTIC
25 kHz TONE PL MODE



MODULATION LIMITING CHARACTERISTIC
25 kHz DPL MODE

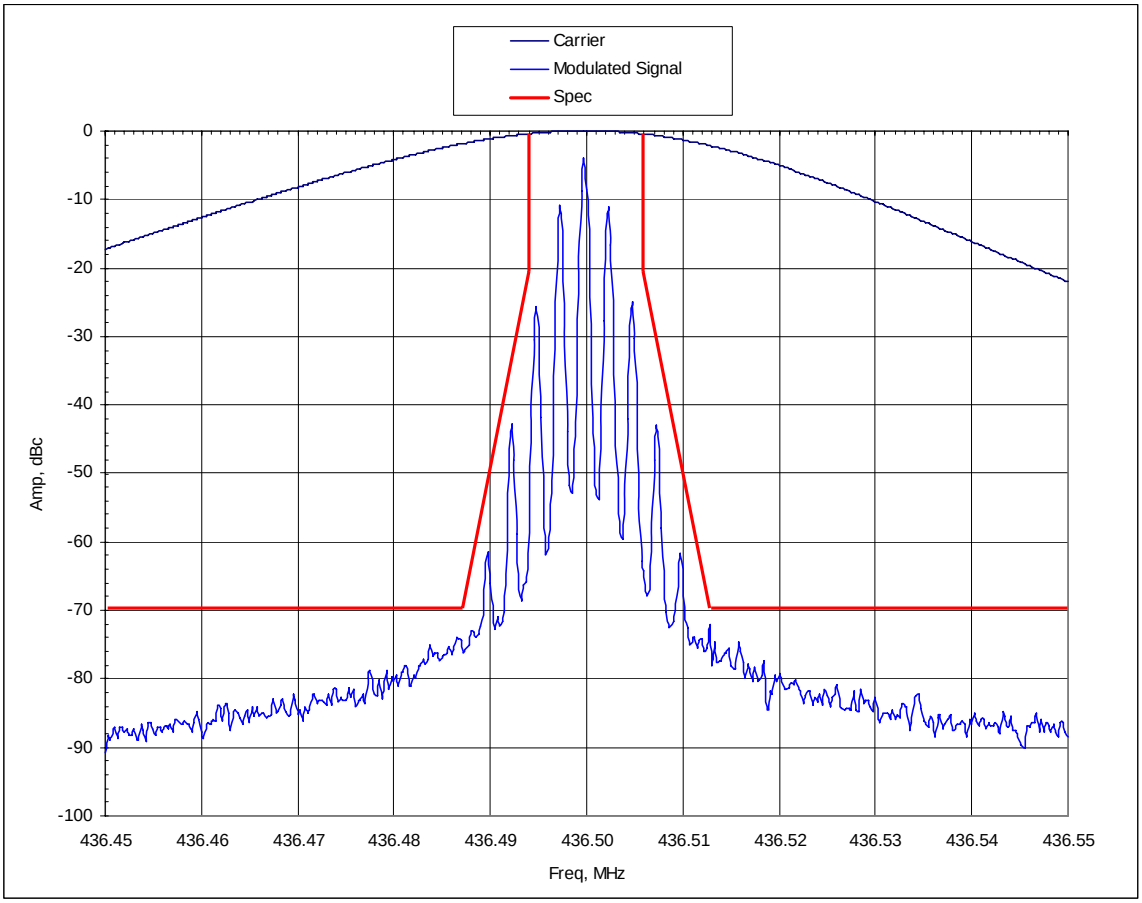


OCCUPIED BANDWIDTH MEASUREMENT FOR
12.5 kHz CHANNEL SPACING, 2500 Hz TONE, CARRIER SQUELCH
EMISSION MASK: D



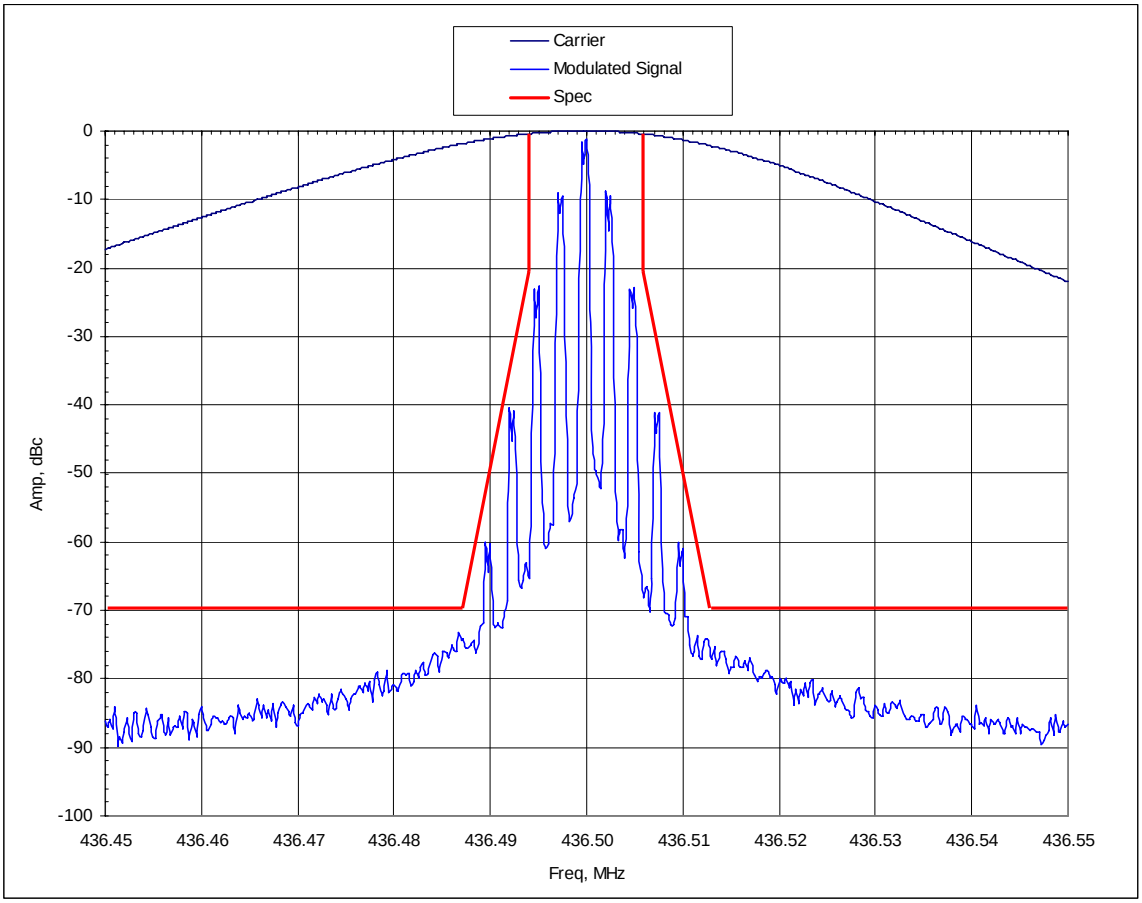
CENTER FREQUENCY:	436.500 MHz
RESOLUTION BANDWIDTH:	100 Hz
VIDEO BANDWIDTH:	1 kHz
SPAN:	100 kHz
HORIZONTAL SCALE:	10 kHz/div
SWEEP TIME:	50 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dB = 4.6 Watts
ATTENUATION:	30 dB

OCCUPIED BANDWIDTH MEASUREMENT FOR
12.5 kHz CHANNEL SPACING, 2500 Hz TONE, TPL 250.3 Hz
EMISSION MASK: D



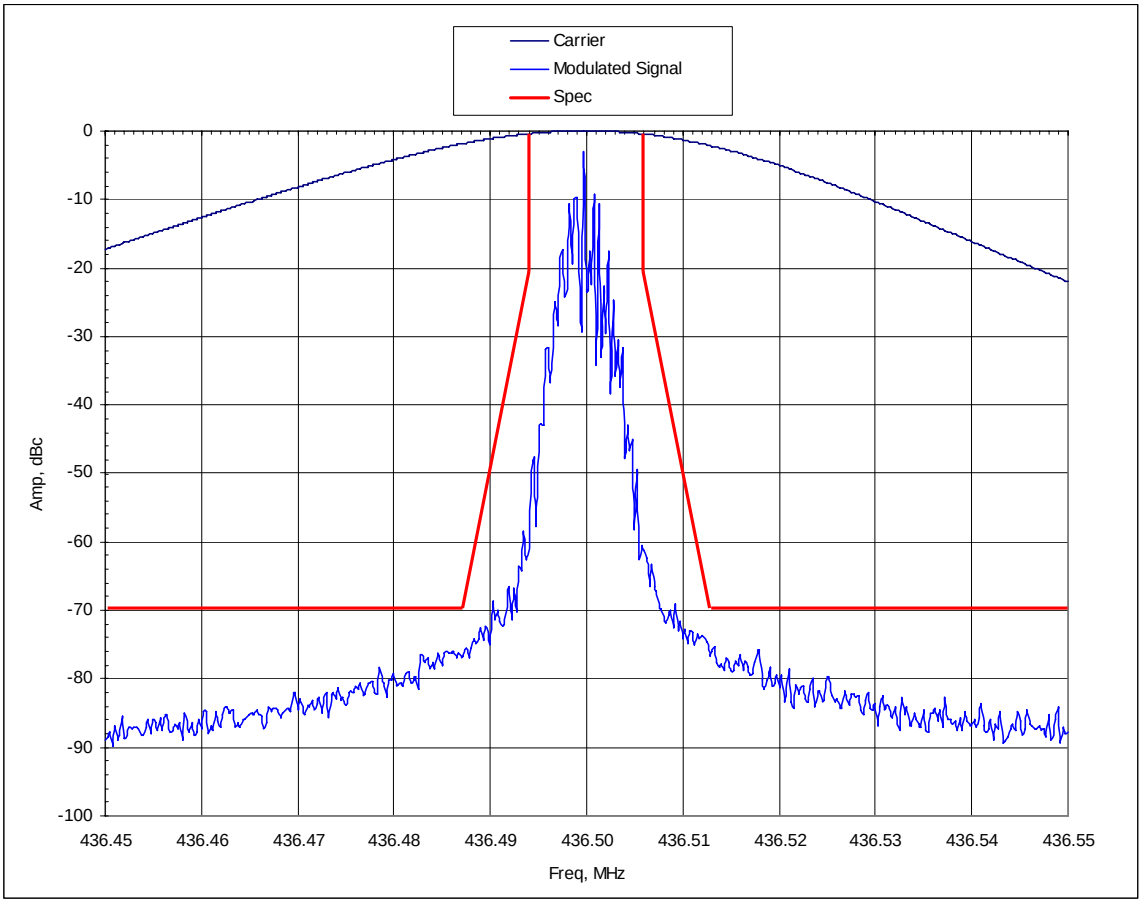
CENTER FREQUENCY:	436.500 MHz
RESOLUTION BANDWIDTH:	100 Hz
VIDEO BANDWIDTH:	1 kHz
SPAN:	100 kHz
HORIZONTAL SCALE:	10 kHz/div
SWEEP TIME:	50 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dB = 4.6 Watts
ATTENUATION:	30 dB

OCCUPIED BANDWIDTH MEASUREMENT FOR
12.5 kHz CHANNEL SPACING, 2500 Hz TONE, DPL 131
EMISSION MASK: D



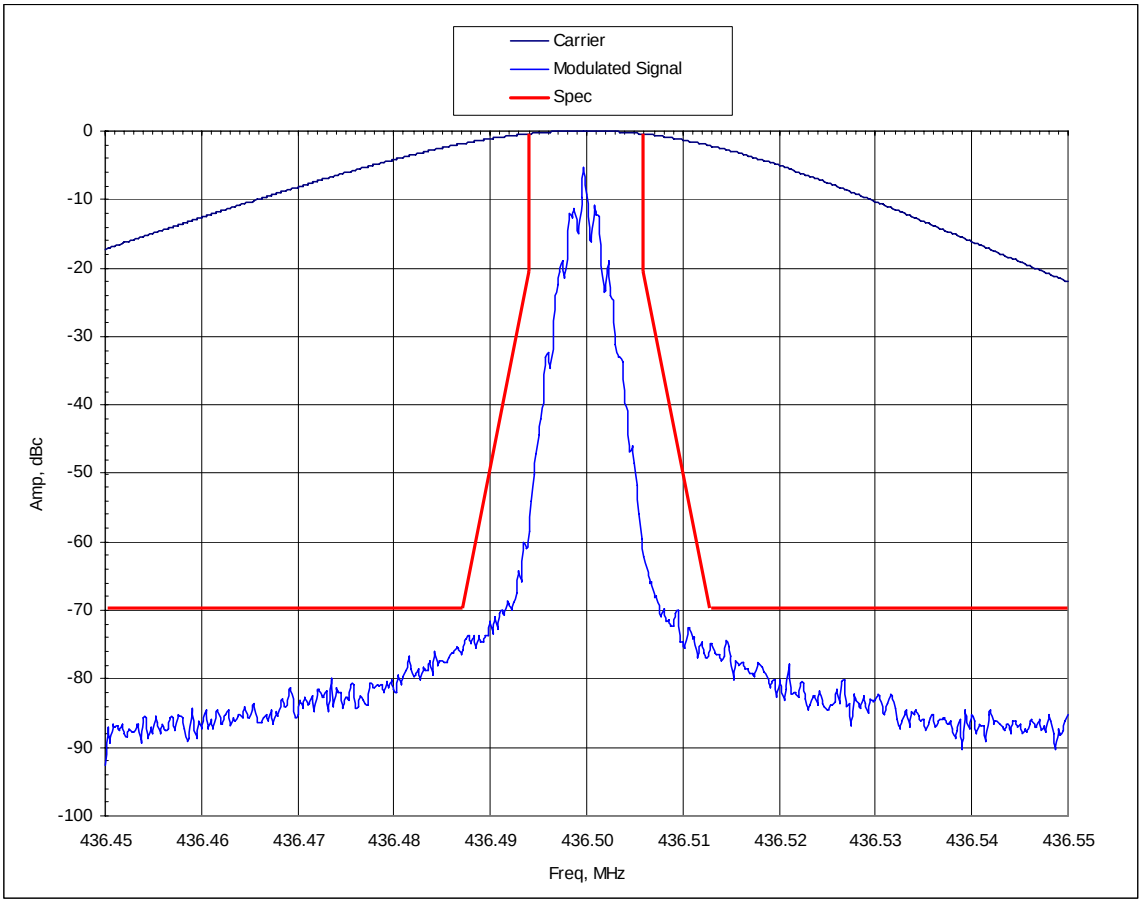
CENTER FREQUENCY:	436.500 MHz
RESOLUTION BANDWIDTH:	100 Hz
VIDEO BANDWIDTH:	1 kHz
SPAN:	100 kHz
HORIZONTAL SCALE:	10 kHz/div
SWEEP TIME:	50 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dB = 4.6 Watts
ATTENUATION:	30 dB

OCCUPIED BANDWIDTH MEASUREMENT FOR
12.5 kHz CHANNEL SPACING, DTMF MODULATION, CARRIER SQUELCH
EMISSION MASK: D



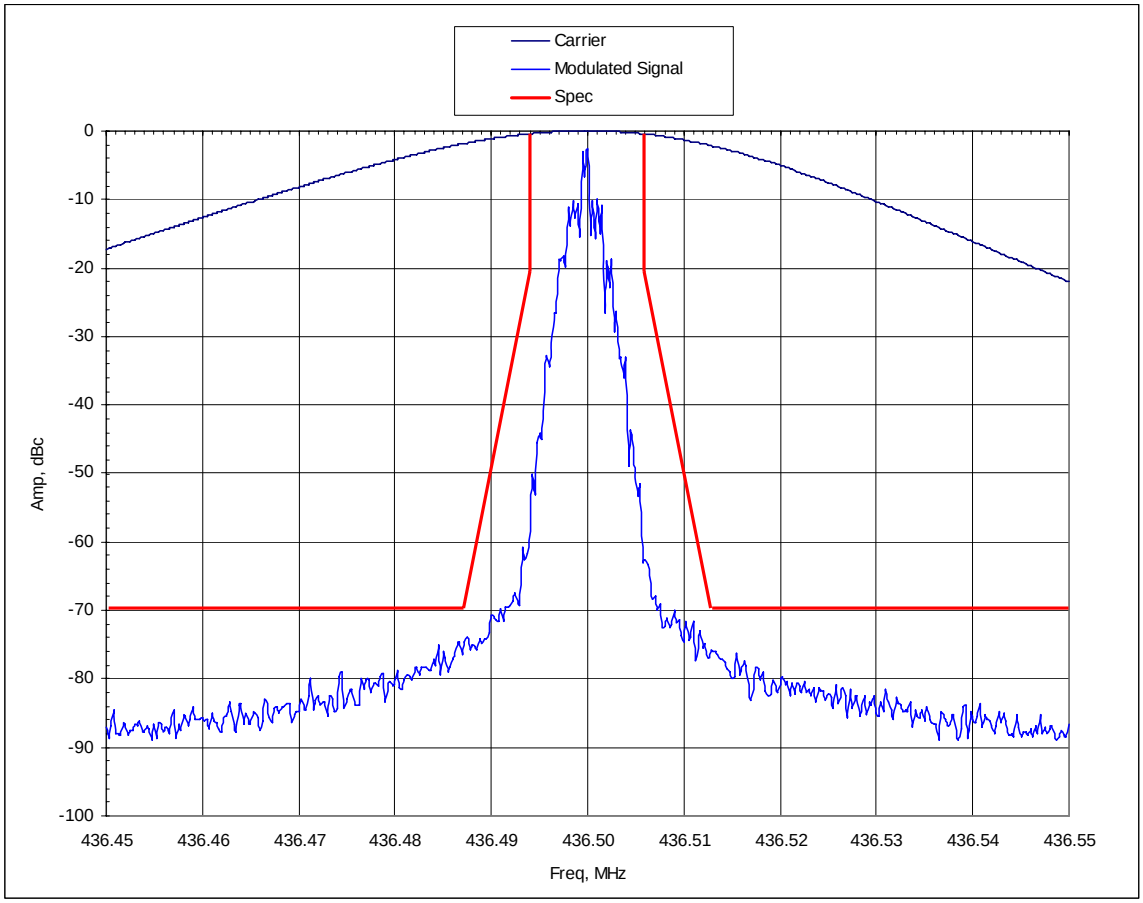
CENTER FREQUENCY:	436.500 MHz
RESOLUTION BANDWIDTH:	100 Hz
VIDEO BANDWIDTH:	1 kHz
SPAN:	100 kHz
HORIZONTAL SCALE:	10 kHz/div
SWEEP TIME:	50 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dB = 4.6 Watts
ATTENUATION:	30 dB

OCCUPIED BANDWIDTH MEASUREMENT FOR
12.5 kHz CHANNEL SPACING, DTMF MODULATION, TPL 250.3 Hz
EMISSION MASK: D



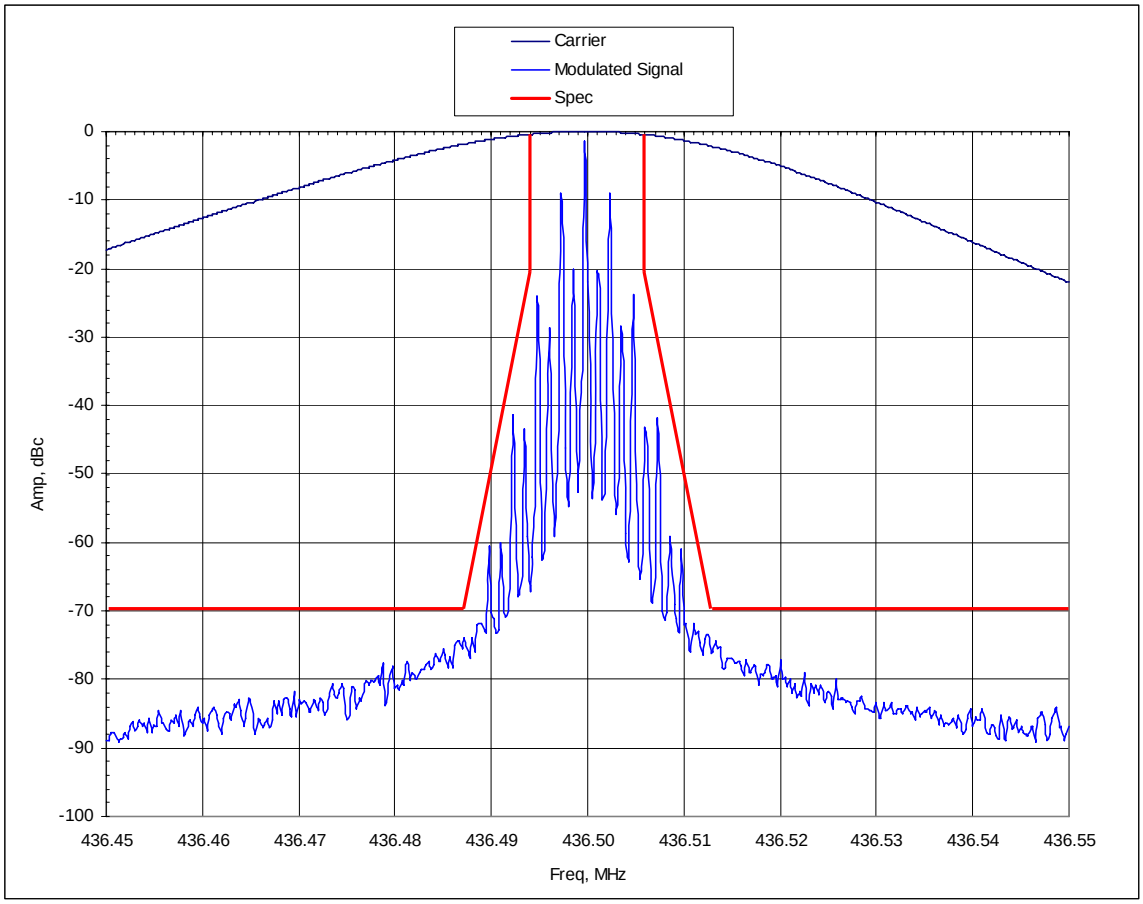
CENTER FREQUENCY:	436.500 MHz
RESOLUTION BANDWIDTH:	100 Hz
VIDEO BANDWIDTH:	1 kHz
SPAN:	100 kHz
HORIZONTAL SCALE:	10 kHz/div
SWEEP TIME:	50 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dB = 4.6 Watts
ATTENUATION:	30 dB

OCCUPIED BANDWIDTH MEASUREMENT FOR
12.5 kHz CHANNEL SPACING, DTMF MODULATION, DPL 131
EMISSION MASK: D



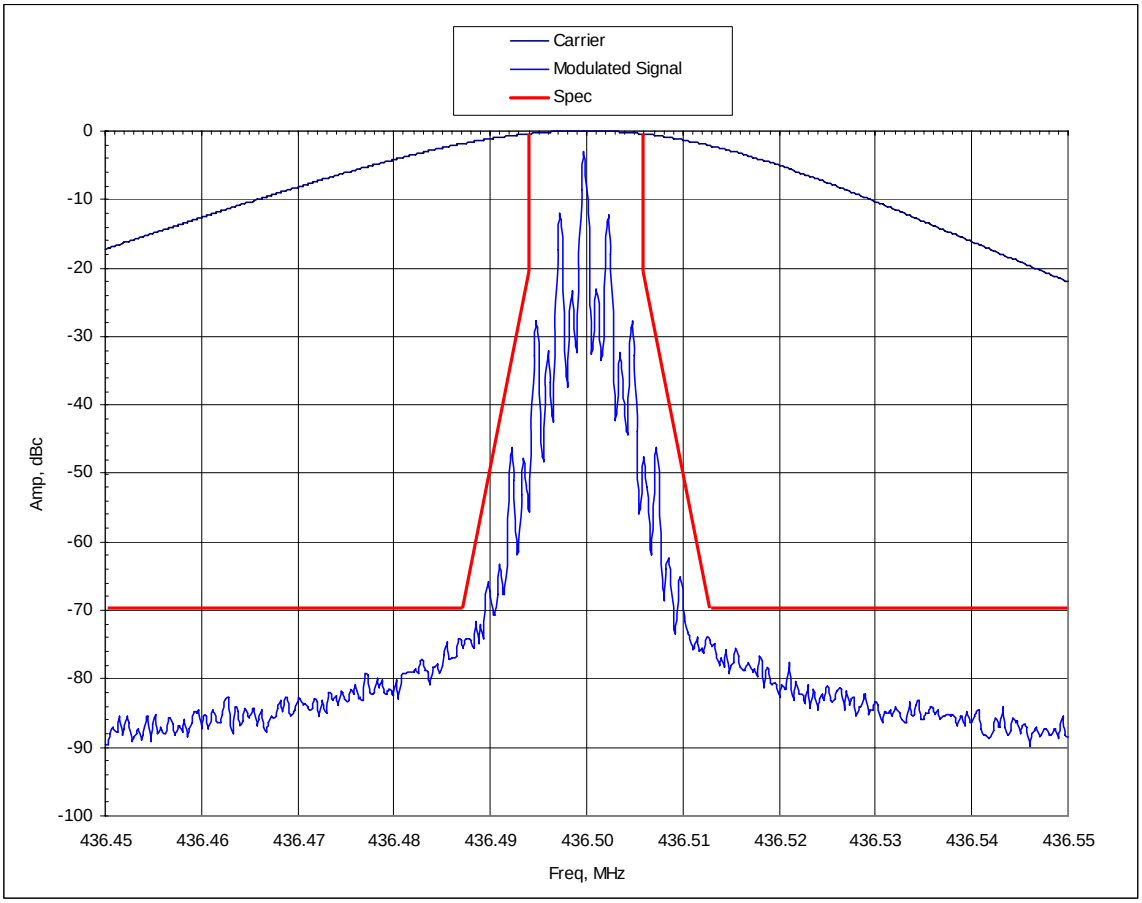
CENTER FREQUENCY:	436.500 MHz
RESOLUTION BANDWIDTH:	100 Hz
VIDEO BANDWIDTH:	1 kHz
SPAN:	100 kHz
HORIZONTAL SCALE:	10 kHz/div
SWEEP TIME:	50 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dB = 4.6 Watts
ATTENUATION:	30 dB

OCCUPIED BANDWIDTH MEASUREMENT FOR
12.5 kHz CHANNEL SPACING, 2000/3000 Hz FSK, CARRIER SQUELCH
EMISSION MASK: D



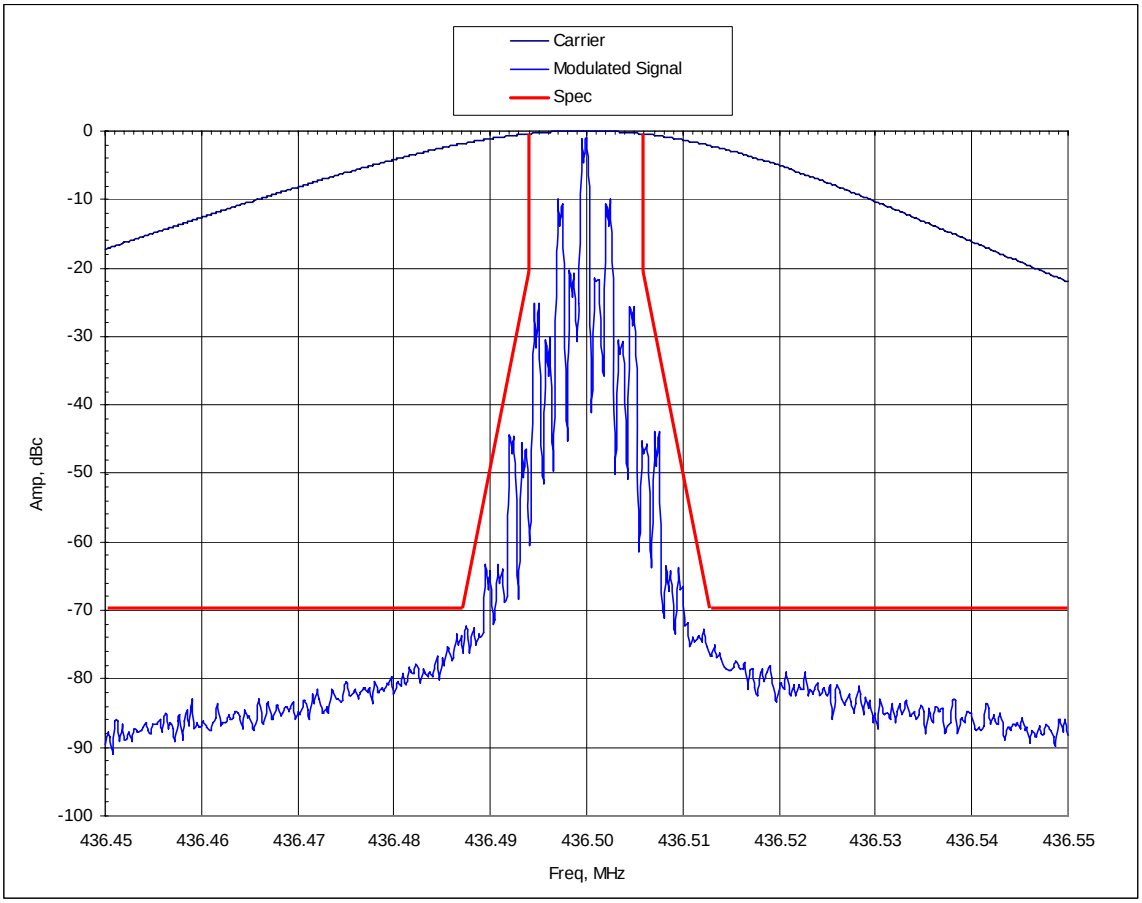
CENTER FREQUENCY:	436.500 MHz
RESOLUTION BANDWIDTH:	100 Hz
VIDEO BANDWIDTH:	1 kHz
SPAN:	100 kHz
HORIZONTAL SCALE:	10 kHz/div
SWEEP TIME:	50 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dB = 4.6 Watts
ATTENUATION:	30 dB

OCCUPIED BANDWIDTH MEASUREMENT FOR
12.5 kHz CHANNEL SPACING, 2000/3000 Hz FSK, TPL 250.3 Hz
EMISSION MASK: D



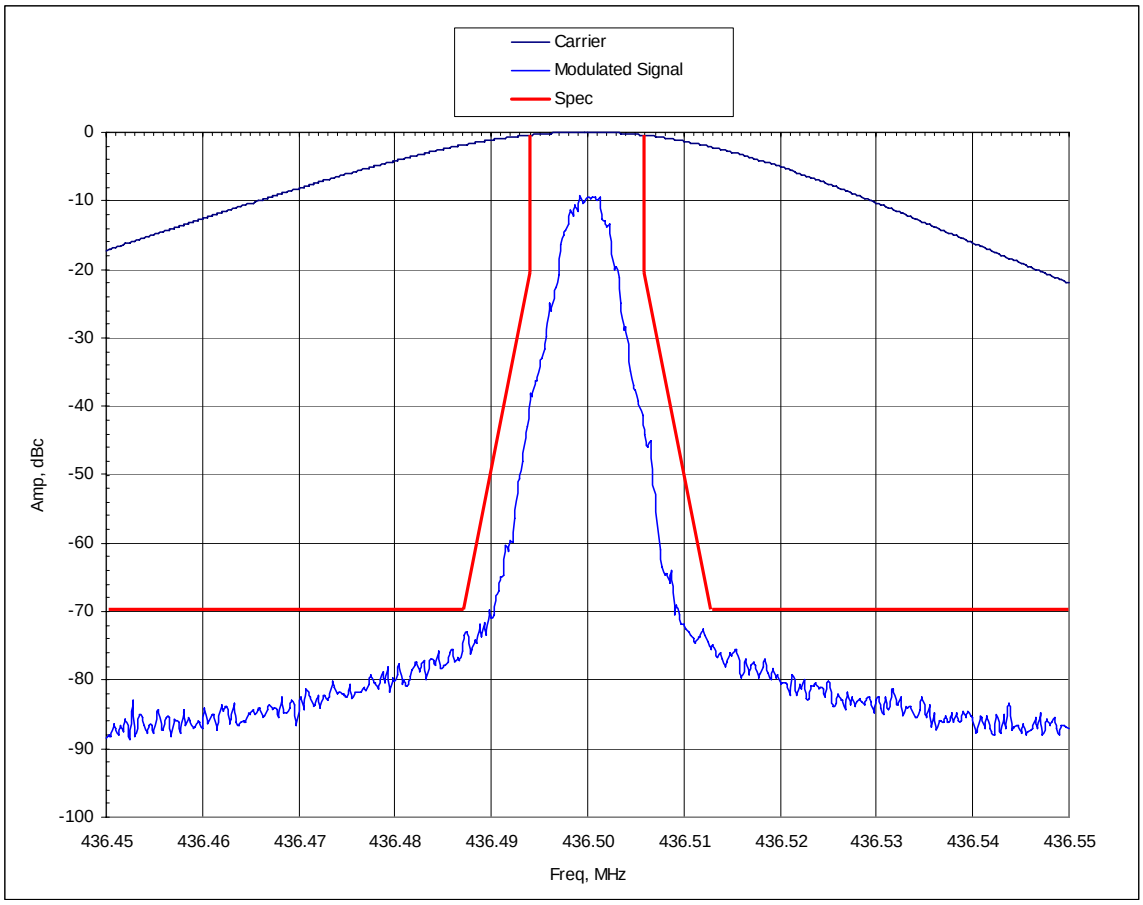
CENTER FREQUENCY:	436.500 MHz
RESOLUTION BANDWIDTH:	100 Hz
VIDEO BANDWIDTH:	1 kHz
SPAN:	100 kHz
HORIZONTAL SCALE:	10 kHz/div
SWEEP TIME:	50 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dB = 4.6 Watts
ATTENUATION:	30 dB

OCCUPIED BANDWIDTH MEASUREMENT FOR
12.5 kHz CHANNEL SPACING, 2000/3000 Hz FSK, DPL 131
EMISSION MASK: D



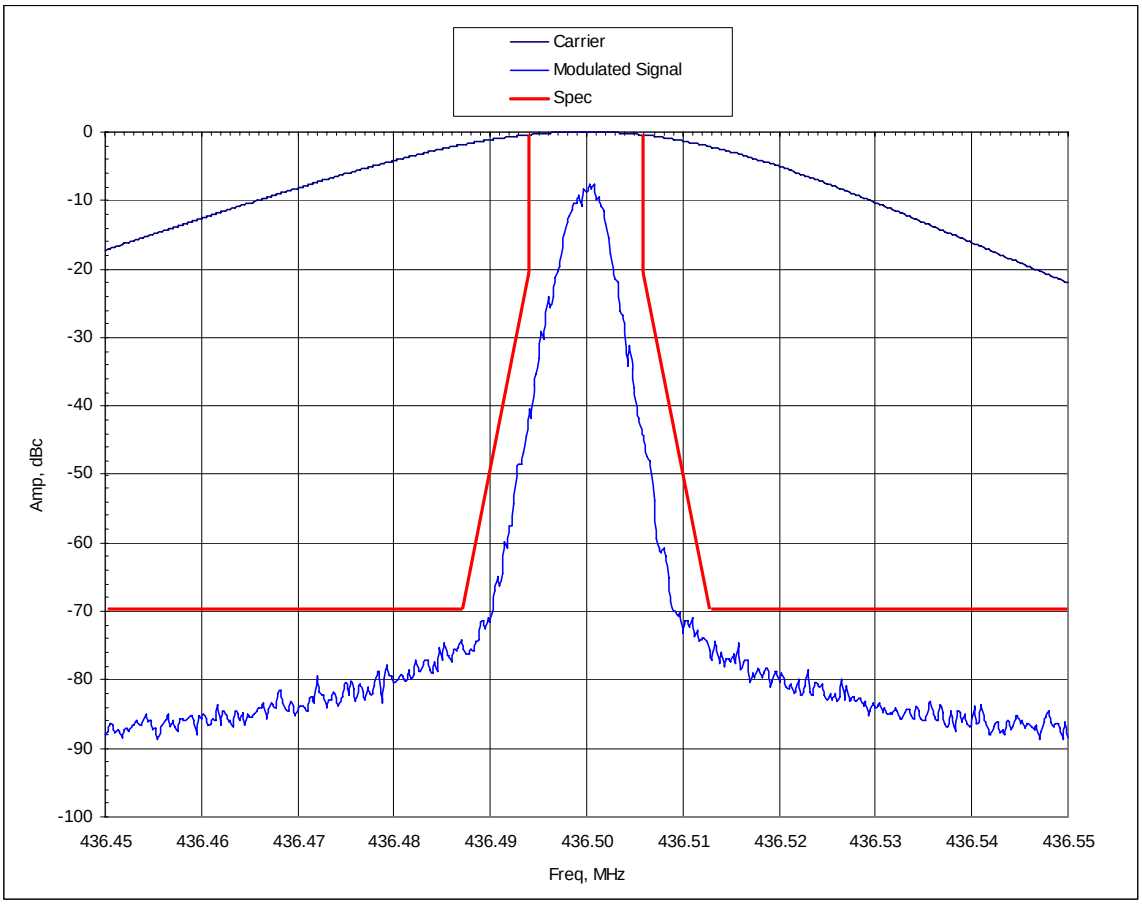
CENTER FREQUENCY:	436.500 MHz
RESOLUTION BANDWIDTH:	100 Hz
VIDEO BANDWIDTH:	1 kHz
SPAN:	100 kHz
HORIZONTAL SCALE:	10 kHz/div
SWEEP TIME:	50 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dB = 4.6 Watts
ATTENUATION:	30 dB

OCCUPIED BANDWIDTH MEASUREMENT FOR
12.5 kHz CHANNEL SPACING, 4-LEVEL FSK DATA
EMISSION MASK: D



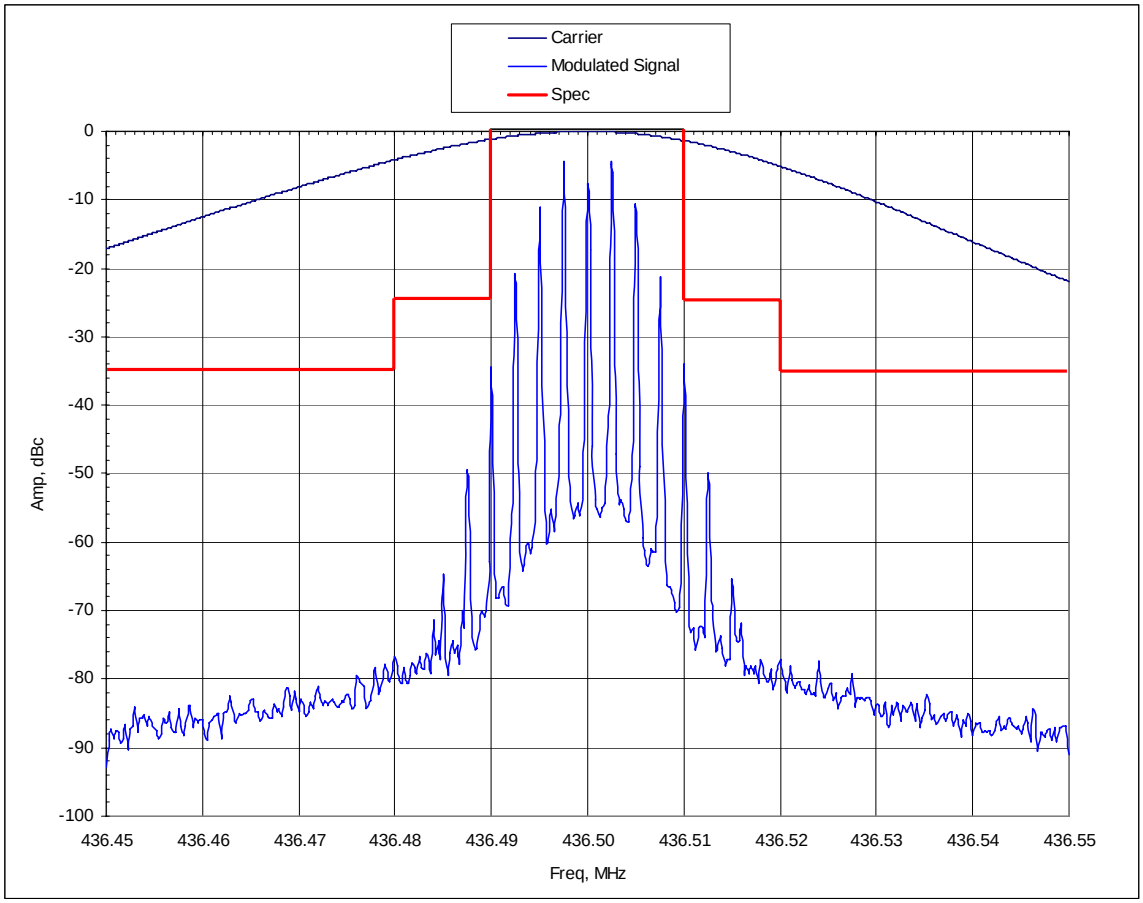
CENTER FREQUENCY:	436.500 MHz
RESOLUTION BANDWIDTH:	100 Hz
VIDEO BANDWIDTH:	1 kHz
SPAN:	100 kHz
HORIZONTAL SCALE:	10 kHz/div
SWEEP TIME:	50 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dB = 4.6 Watts
ATTENUATION:	30 dB

OCCUPIED BANDWIDTH MEASUREMENT FOR
12.5 kHz CHANNEL SPACING, 4-LEVEL FSK VOICE AND DATA
EMISSION MASK: D



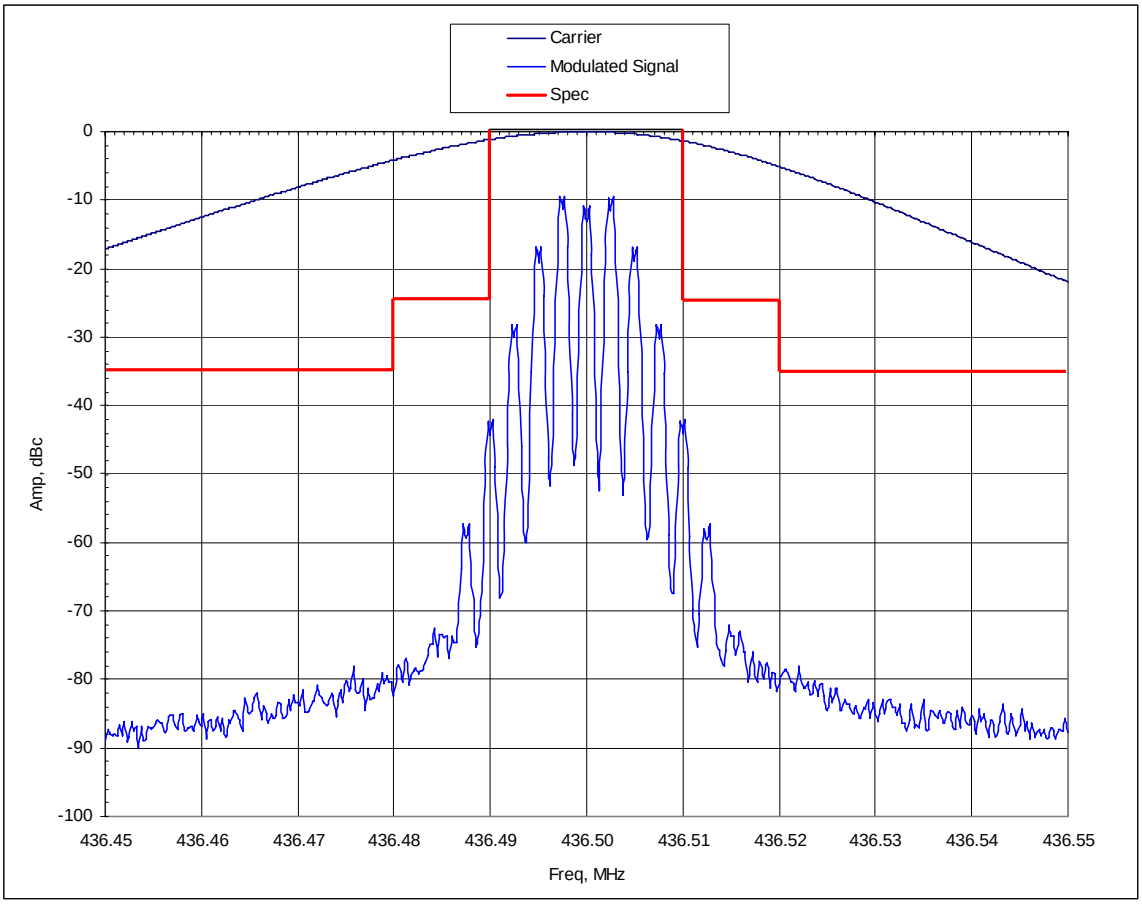
CENTER FREQUENCY:	436.500 MHz
RESOLUTION BANDWIDTH:	100 Hz
VIDEO BANDWIDTH:	1 kHz
SPAN:	100 kHz
HORIZONTAL SCALE:	10 kHz/div
SWEEP TIME:	50 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dB = 4.6 Watts
ATTENUATION:	30 dB

OCCUPIED BANDWIDTH MEASUREMENT FOR
25 kHz CHANNEL SPACING, 2500 Hz TONE, CARRIER SQUELCH
EMISSION MASK: B



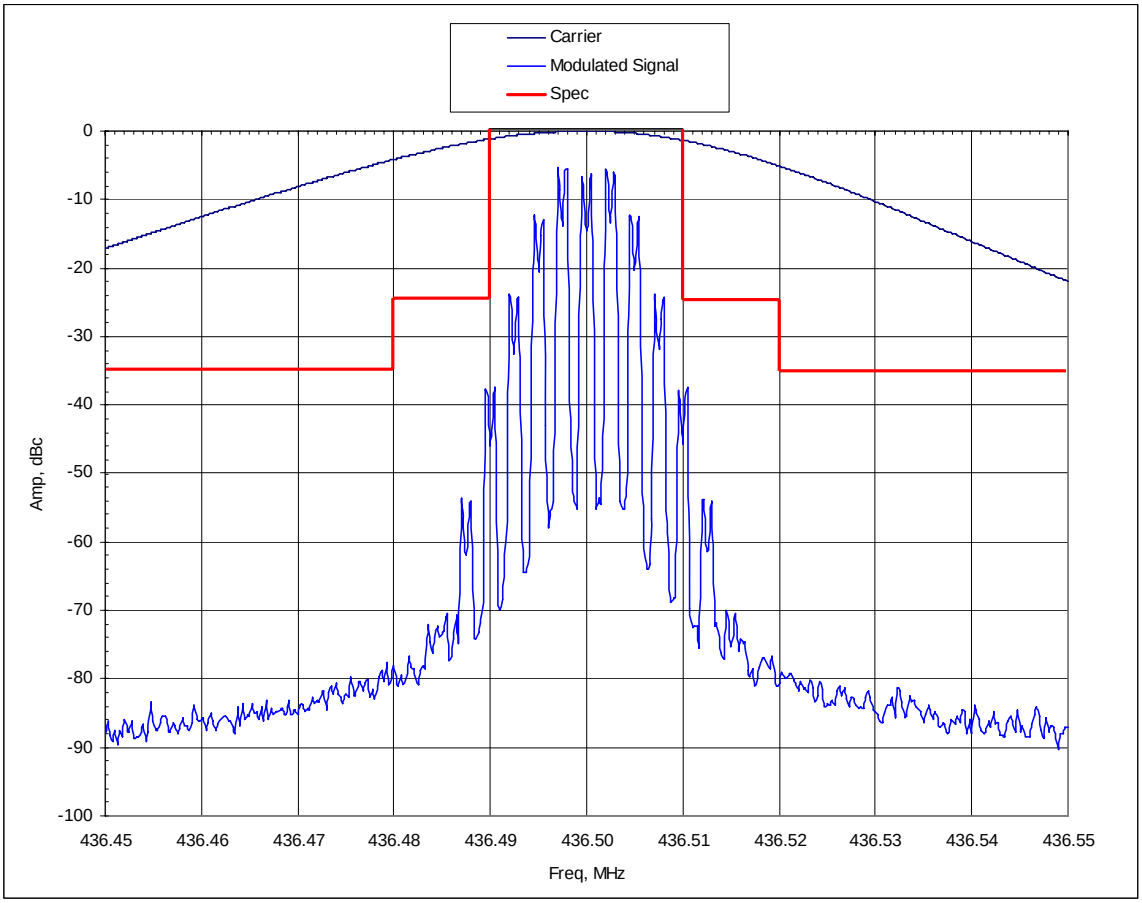
CENTER FREQUENCY:	436.500 MHz
RESOLUTION BANDWIDTH:	100 Hz
VIDEO BANDWIDTH:	1 kHz
SPAN:	100 kHz
HORIZONTAL SCALE:	10 kHz/div
SWEEP TIME:	50 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dB = 4.6 Watts
ATTENUATION:	30 dB

OCCUPIED BANDWIDTH MEASUREMENT FOR
25 kHz CHANNEL SPACING, 2500 Hz TONE, TPL 250.3 Hz
EMISSION MASK: B



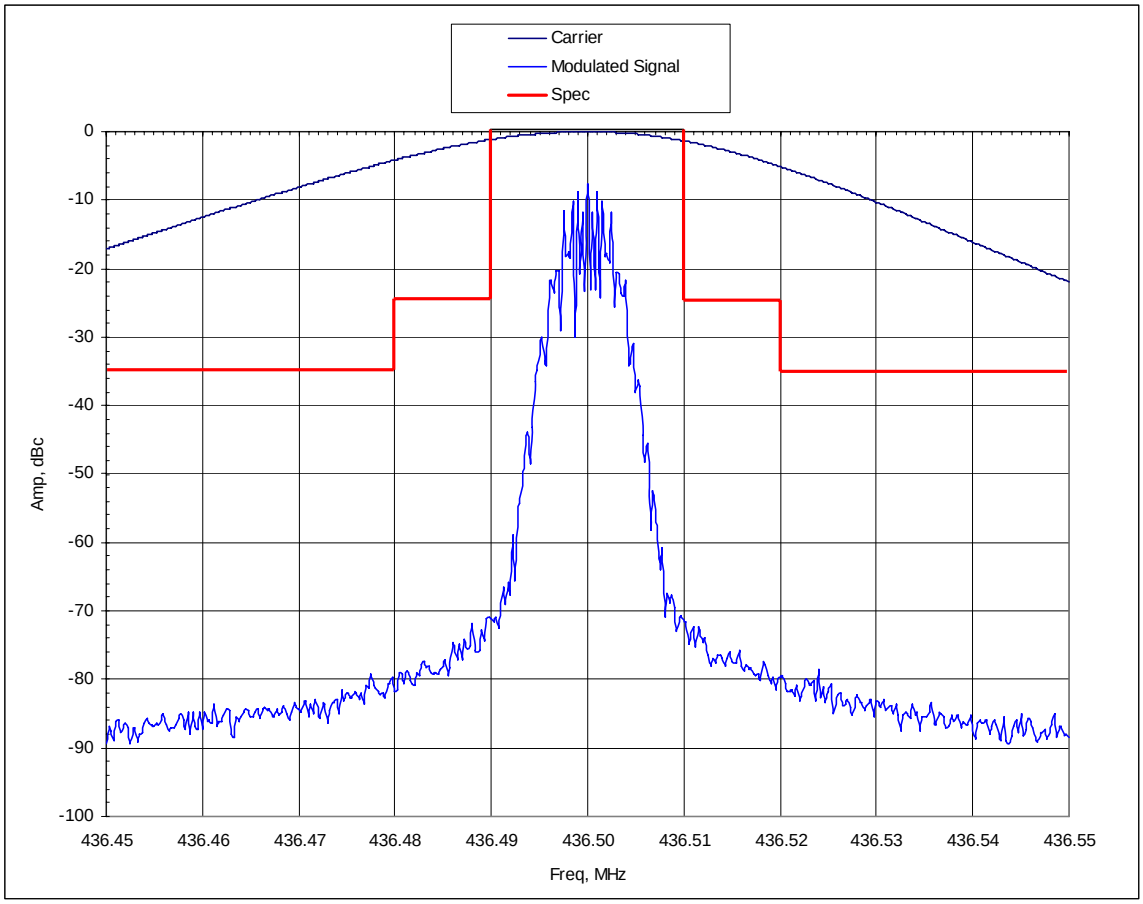
CENTER FREQUENCY:	436.500 MHz
RESOLUTION BANDWIDTH:	100 Hz
VIDEO BANDWIDTH:	1 kHz
SPAN:	100 kHz
HORIZONTAL SCALE:	10 kHz/div
SWEEP TIME:	50 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dB = 4.6 Watts
ATTENUATION:	30 dB

OCCUPIED BANDWIDTH MEASUREMENT FOR
25 kHz CHANNEL SPACING, 2500 Hz TONE, DPL 131
EMISSION MASK: B



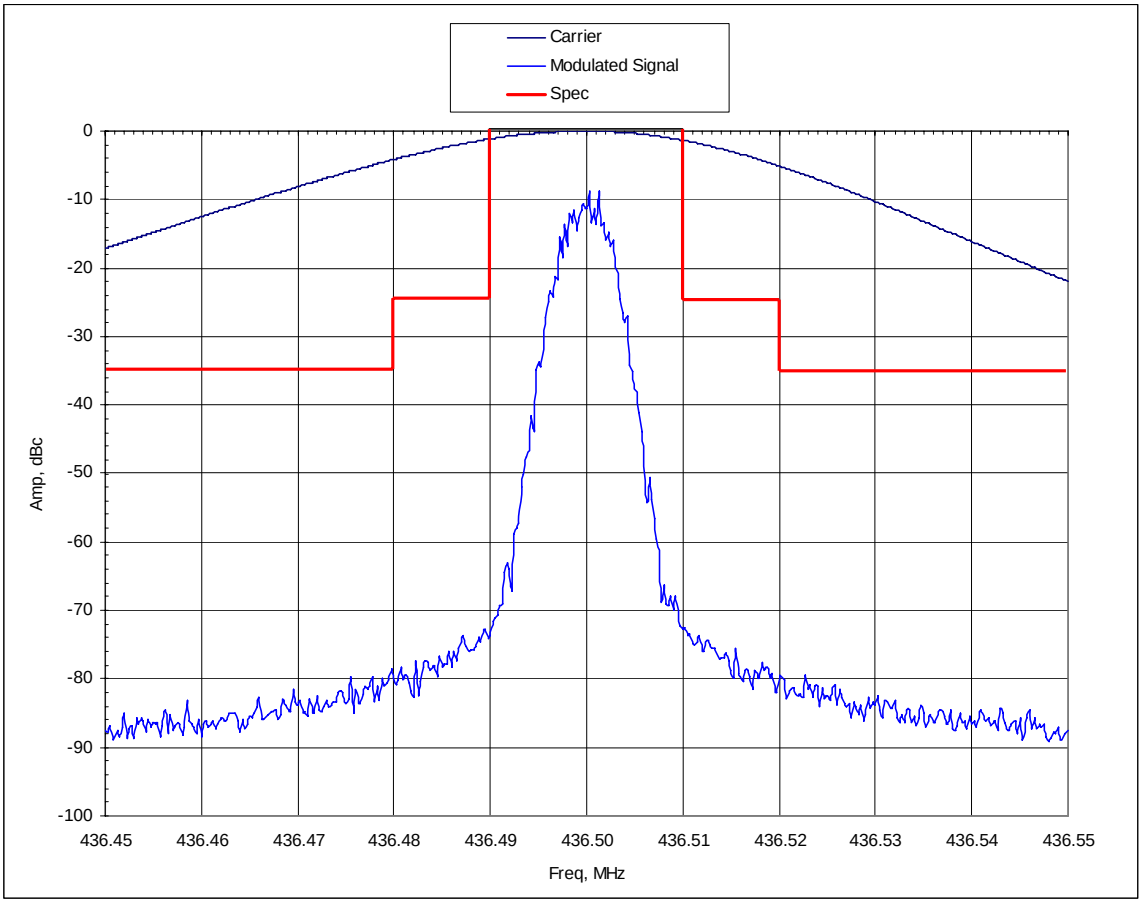
CENTER FREQUENCY:	436.500 MHz
RESOLUTION BANDWIDTH:	100 Hz
VIDEO BANDWIDTH:	1 kHz
SPAN:	100 kHz
HORIZONTAL SCALE:	10 kHz/div
SWEEP TIME:	50 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dB = 4.6 Watts
ATTENUATION:	30 dB

OCCUPIED BANDWIDTH MEASUREMENT FOR
25 kHz CHANNEL SPACING, DTMF MODULATION, CARRIER SQUELCH
EMISSION MASK: B



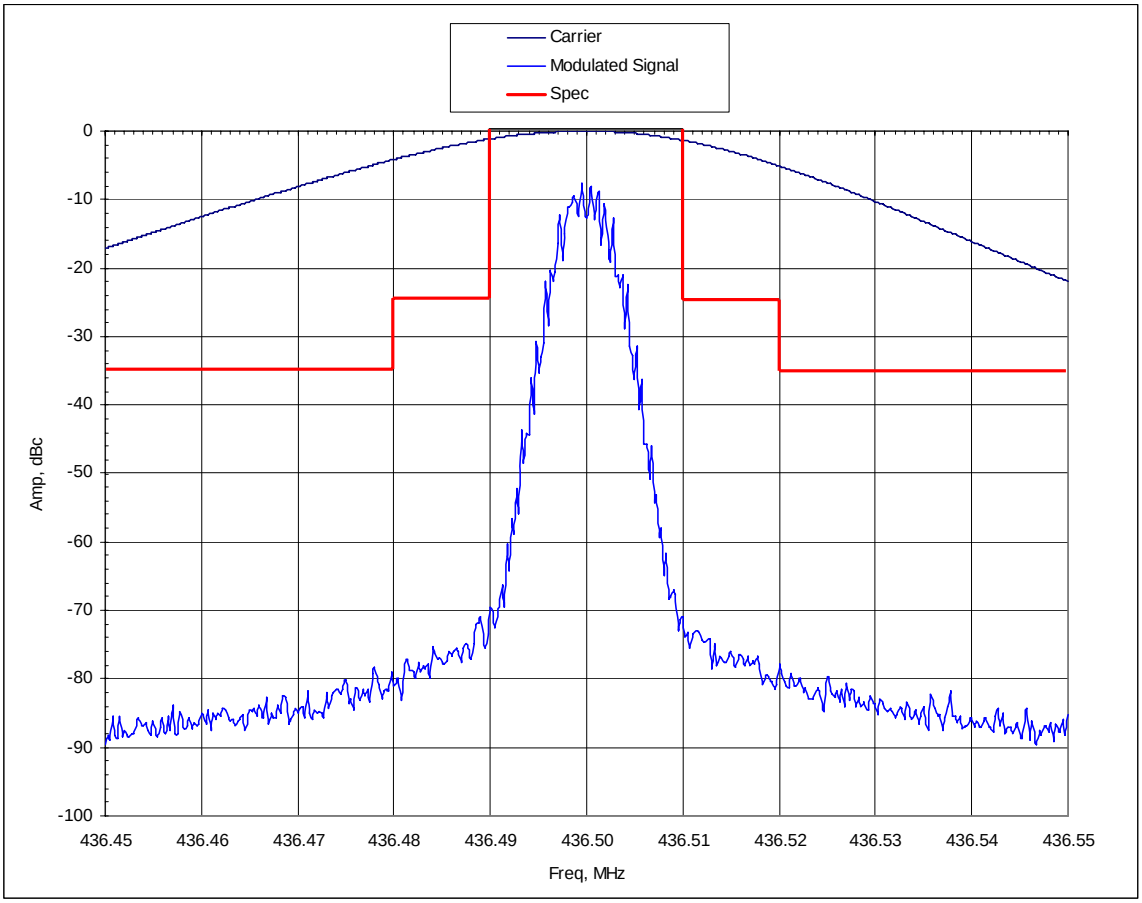
CENTER FREQUENCY:	436.500 MHz
RESOLUTION BANDWIDTH:	100 Hz
VIDEO BANDWIDTH:	1 kHz
SPAN:	100 kHz
HORIZONTAL SCALE:	10 kHz/div
SWEEP TIME:	50 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dB = 4.6 Watts
ATTENUATION:	30 dB

OCCUPIED BANDWIDTH MEASUREMENT FOR
25 kHz CHANNEL SPACING, DTMF MODULATION, TPL 250.3 Hz
EMISSION MASK: B



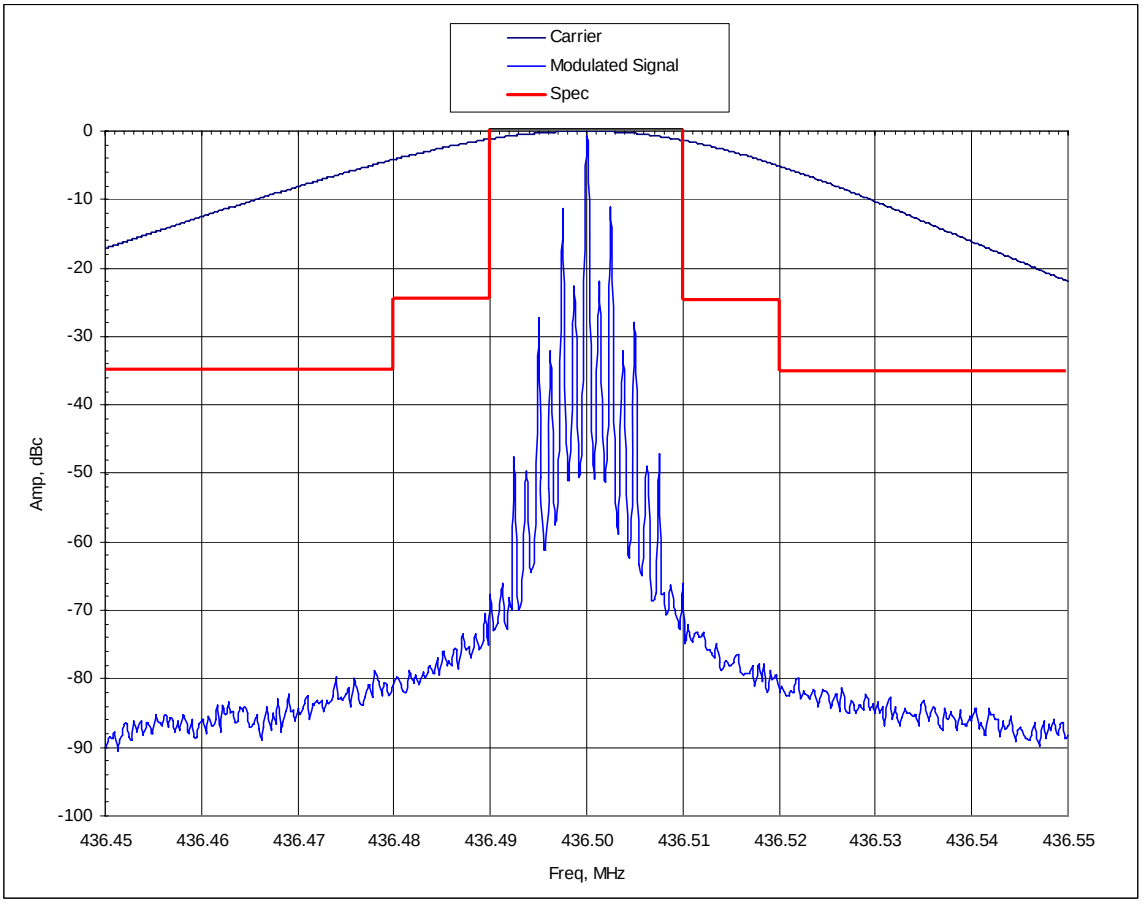
CENTER FREQUENCY:	436.500 MHz
RESOLUTION BANDWIDTH:	100 Hz
VIDEO BANDWIDTH:	1 kHz
SPAN:	100 kHz
HORIZONTAL SCALE:	10 kHz/div
SWEEP TIME:	50 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dB = 4.6 Watts
ATTENUATION:	30 dB

OCCUPIED BANDWIDTH MEASUREMENT FOR
25 kHz CHANNEL SPACING, DTMF MODULATION, DPL 131
EMISSION MASK: B



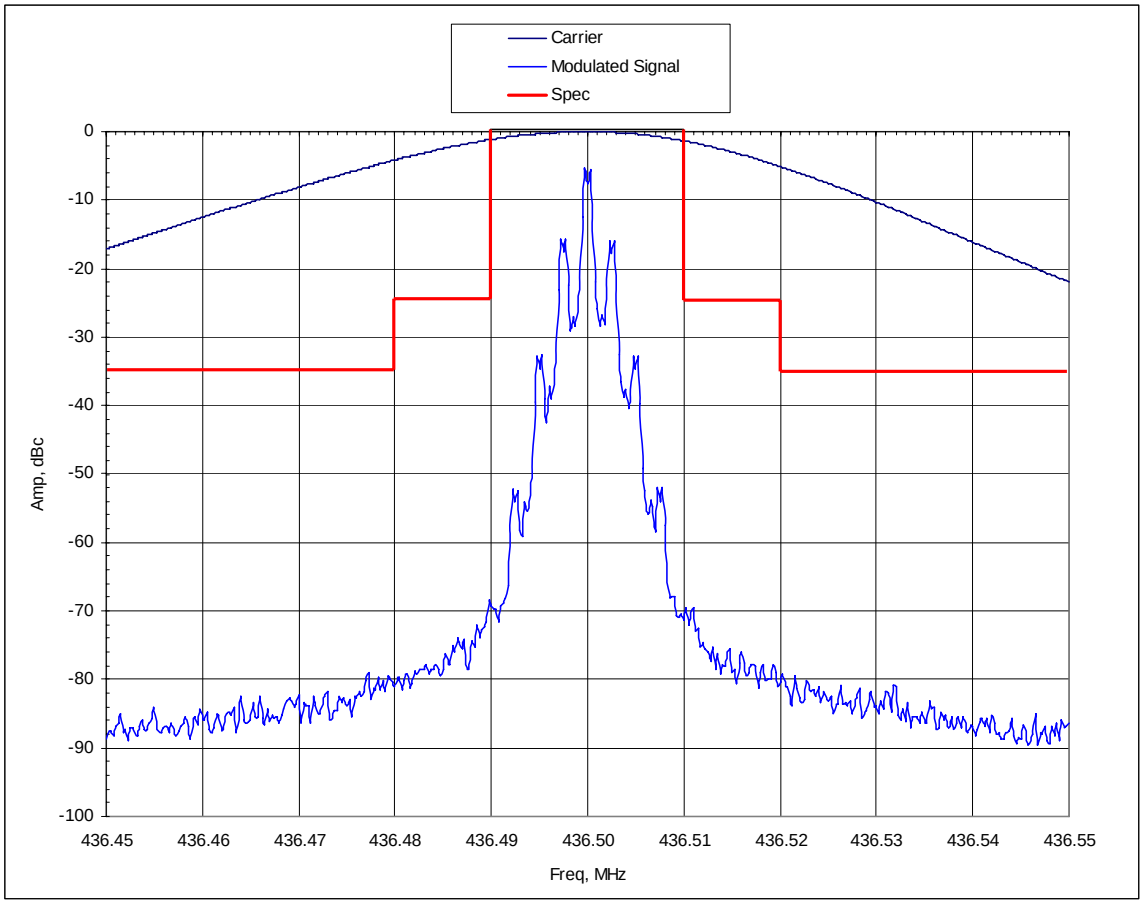
CENTER FREQUENCY:	436.500 MHz
RESOLUTION BANDWIDTH:	100 Hz
VIDEO BANDWIDTH:	1 kHz
SPAN:	100 kHz
HORIZONTAL SCALE:	10 kHz/div
SWEEP TIME:	50 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dB = 4.6 Watts
ATTENUATION:	30 dB

OCCUPIED BANDWIDTH MEASUREMENT FOR
25 kHz CHANNEL SPACING, 2000/3000 Hz FSK, CARRIER SQUELCH
EMISSION MASK: B



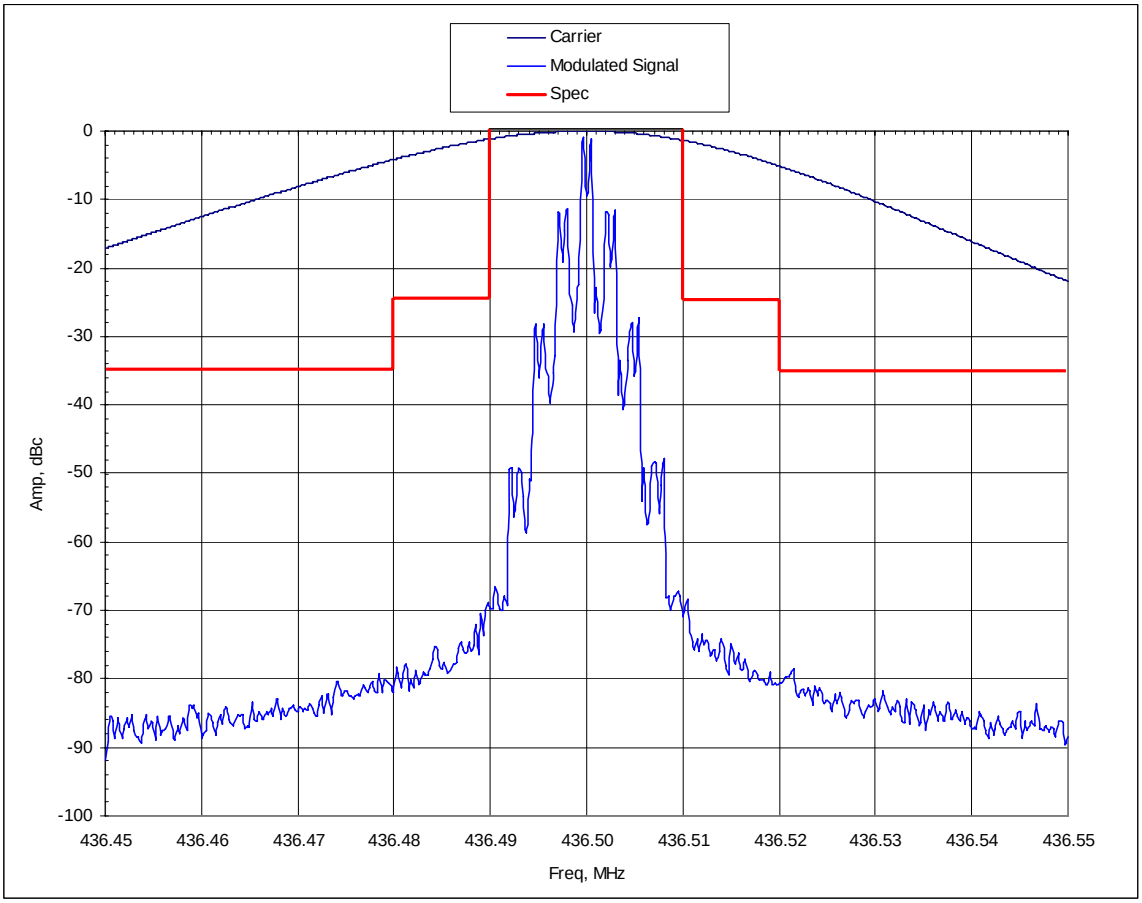
CENTER FREQUENCY:	436.500 MHz
RESOLUTION BANDWIDTH:	100 Hz
VIDEO BANDWIDTH:	1 kHz
SPAN:	100 kHz
HORIZONTAL SCALE:	10 kHz/div
SWEEP TIME:	50 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dB = 4.6 Watts
ATTENUATION:	30 dB

OCCUPIED BANDWIDTH MEASUREMENT FOR
25 kHz CHANNEL SPACING, 2000/3000 Hz FSK, TPL 250.3 Hz
EMISSION MASK: B



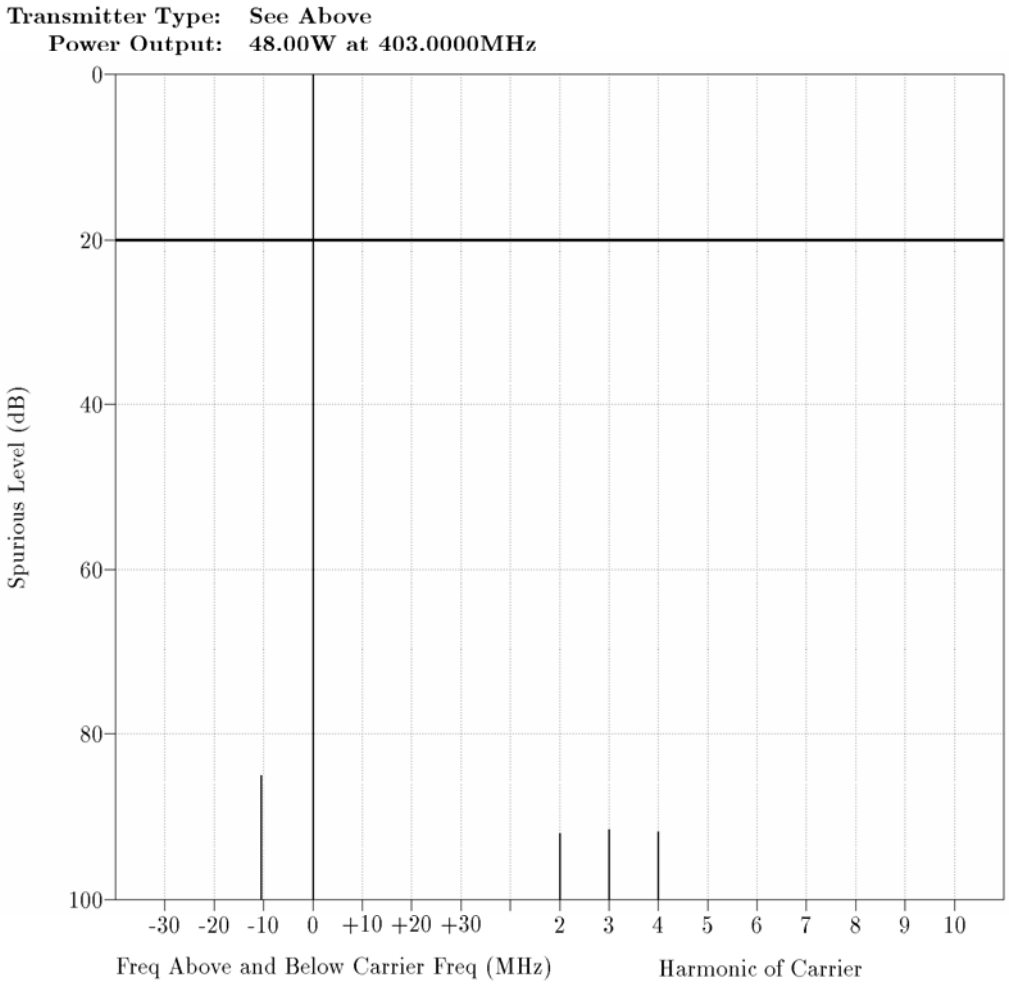
CENTER FREQUENCY:	436.500 MHz
RESOLUTION BANDWIDTH:	100 Hz
VIDEO BANDWIDTH:	1 kHz
SPAN:	100 kHz
HORIZONTAL SCALE:	10 kHz/div
SWEEP TIME:	50 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dB = 4.6 Watts
ATTENUATION:	30 dB

OCCUPIED BANDWIDTH MEASUREMENT FOR
25 kHz CHANNEL SPACING, 2000/3000 Hz FSK, DPL 131
EMISSION MASK: B



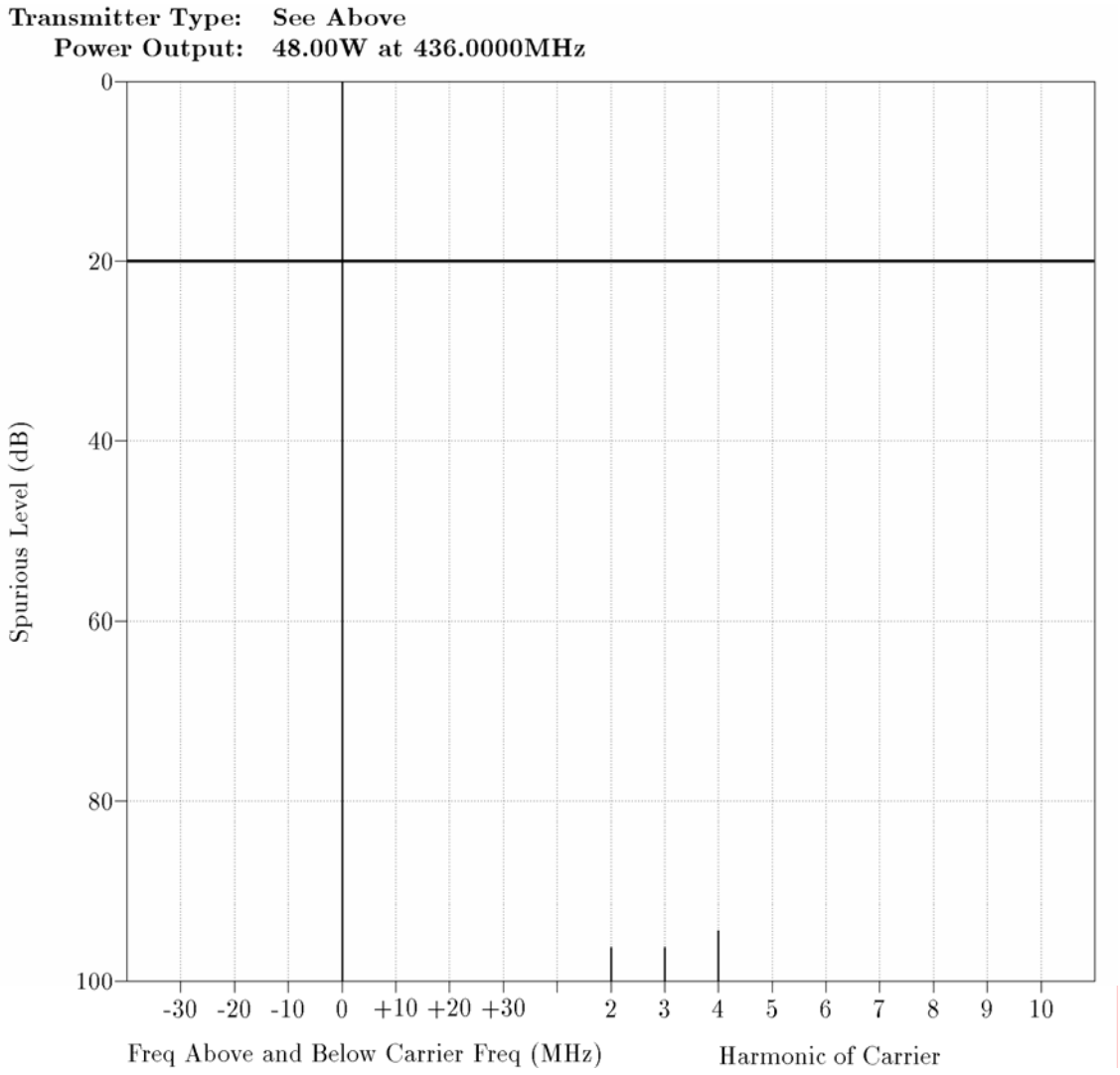
CENTER FREQUENCY:	436.500 MHz
RESOLUTION BANDWIDTH:	100 Hz
VIDEO BANDWIDTH:	1 kHz
SPAN:	100 kHz
HORIZONTAL SCALE:	10 kHz/div
SWEEP TIME:	50 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dB = 4.6 Watts
ATTENUATION:	30 dB

CONDUCTED SPURIOUS EMISSIONS
HIGH POWER, 403.000 MHz



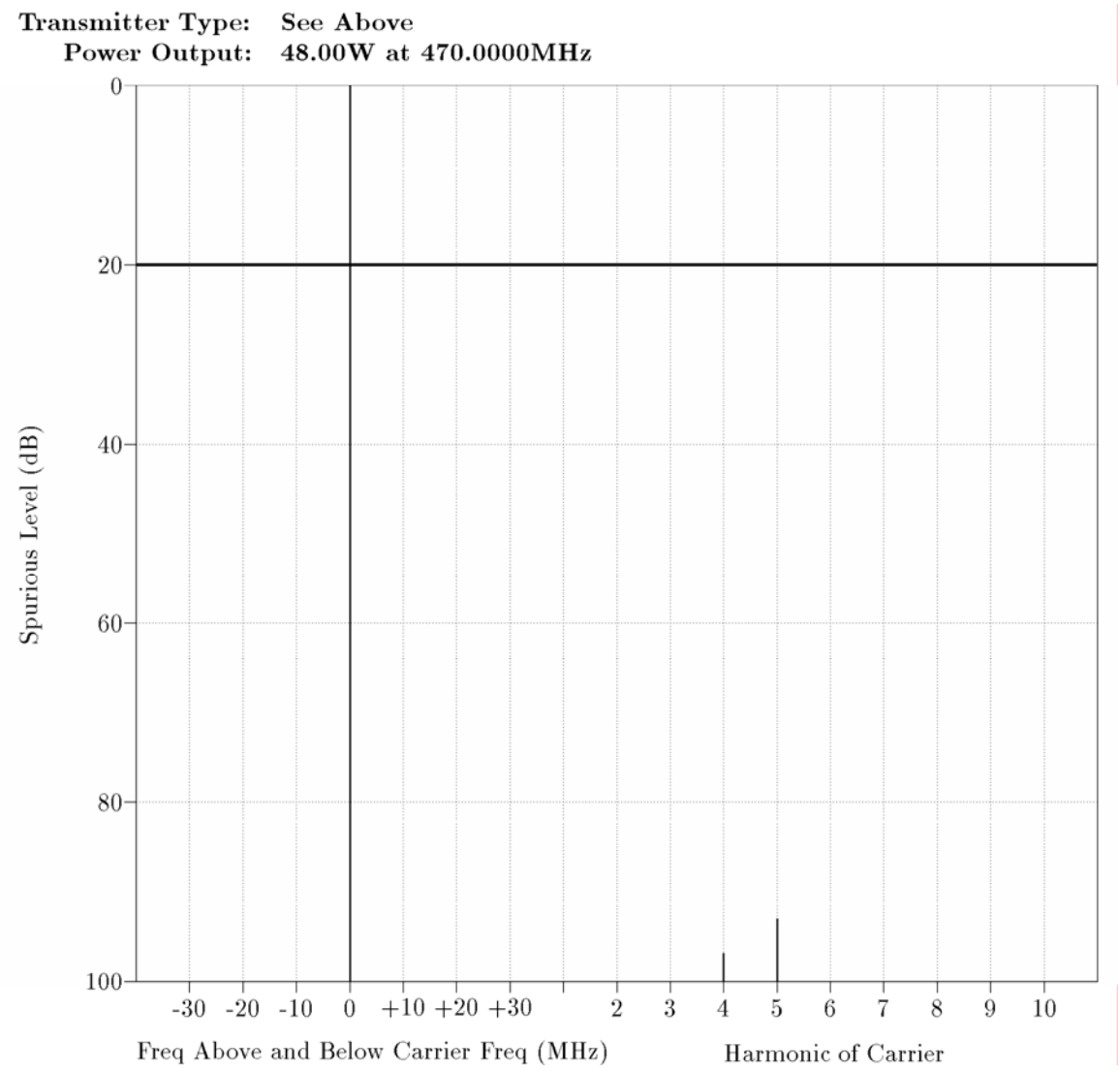
The conducted spurious level is plotted in dBm on the vertical axis.
The specification for conducted spurious emissions is -20 dBm.
All non-harmonic emissions are at or below the noise floor.

CONDUCTED SPURIOUS EMISSIONS
HIGH POWER, 436.000 MHz



The conducted spurious level is plotted in dBm on the vertical axis.
The specification for conducted spurious emissions is -20 dBm.
All non-harmonic emissions are at or below the noise floor.

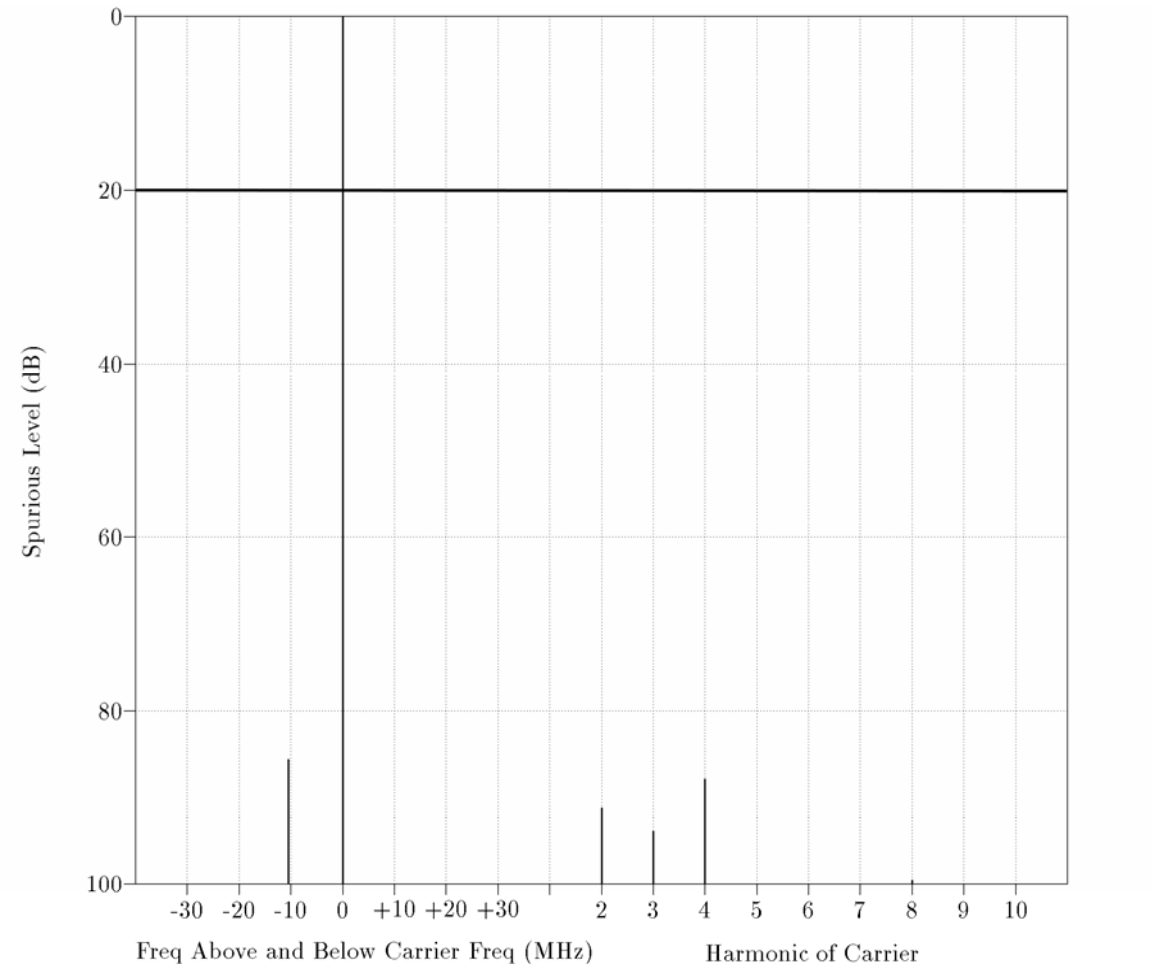
CONDUCTED SPURIOUS EMISSIONS
HIGH POWER, 470.000 MHz



The conducted spurious level is plotted in dBm on the vertical axis.
The specification for conducted spurious emissions is -20 dBm.
All non-harmonic emissions are at or below the noise floor.

CONDUCTED SPURIOUS EMISSIONS
LOW POWER, 403.000 MHz

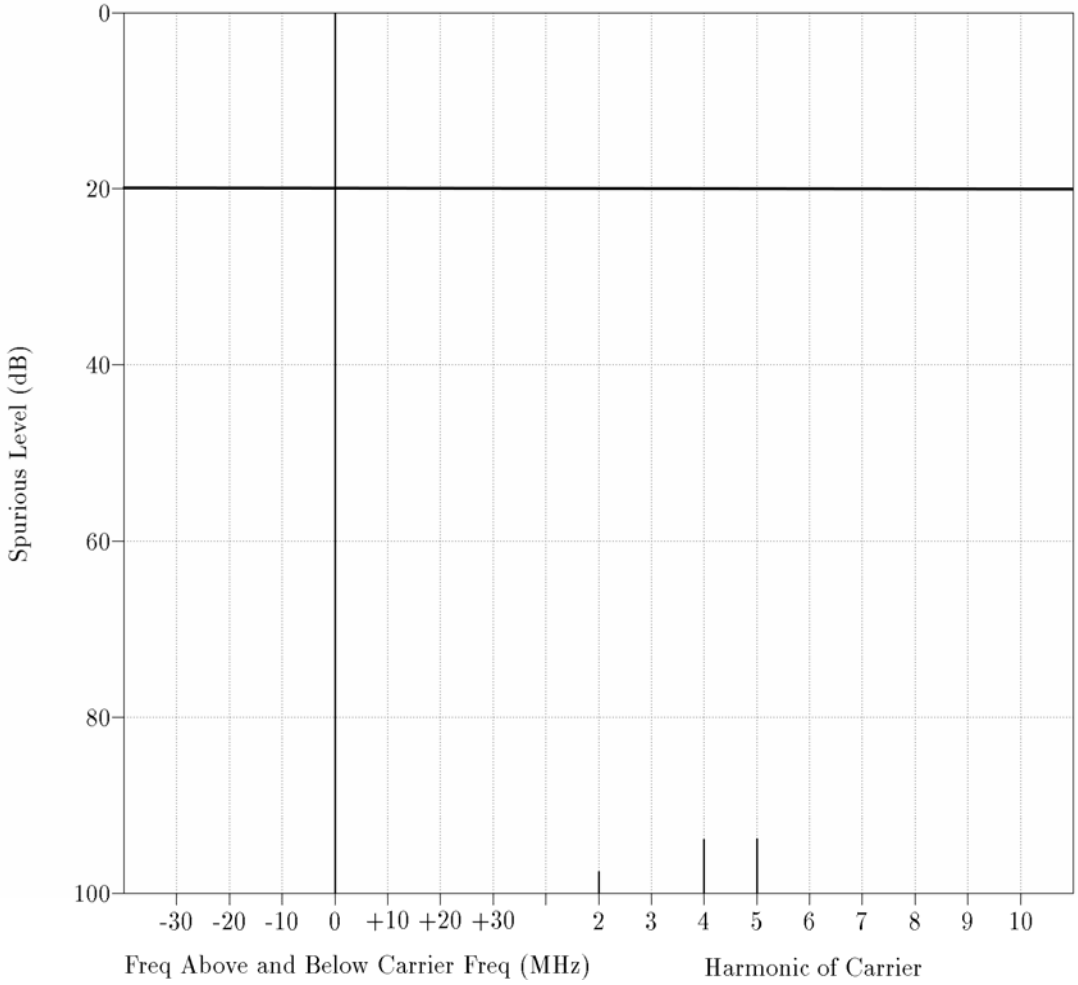
Transmitter Type: See Above
Power Output: 25.00W at 403.0000MHz



The conducted spurious level is plotted in dBm on the vertical axis.
The specification for conducted spurious emissions is -20 dBm.
All non-harmonic emissions are at or below the noise floor.

CONDUCTED SPURIOUS EMISSIONS
LOW POWER, 436.000 MHz

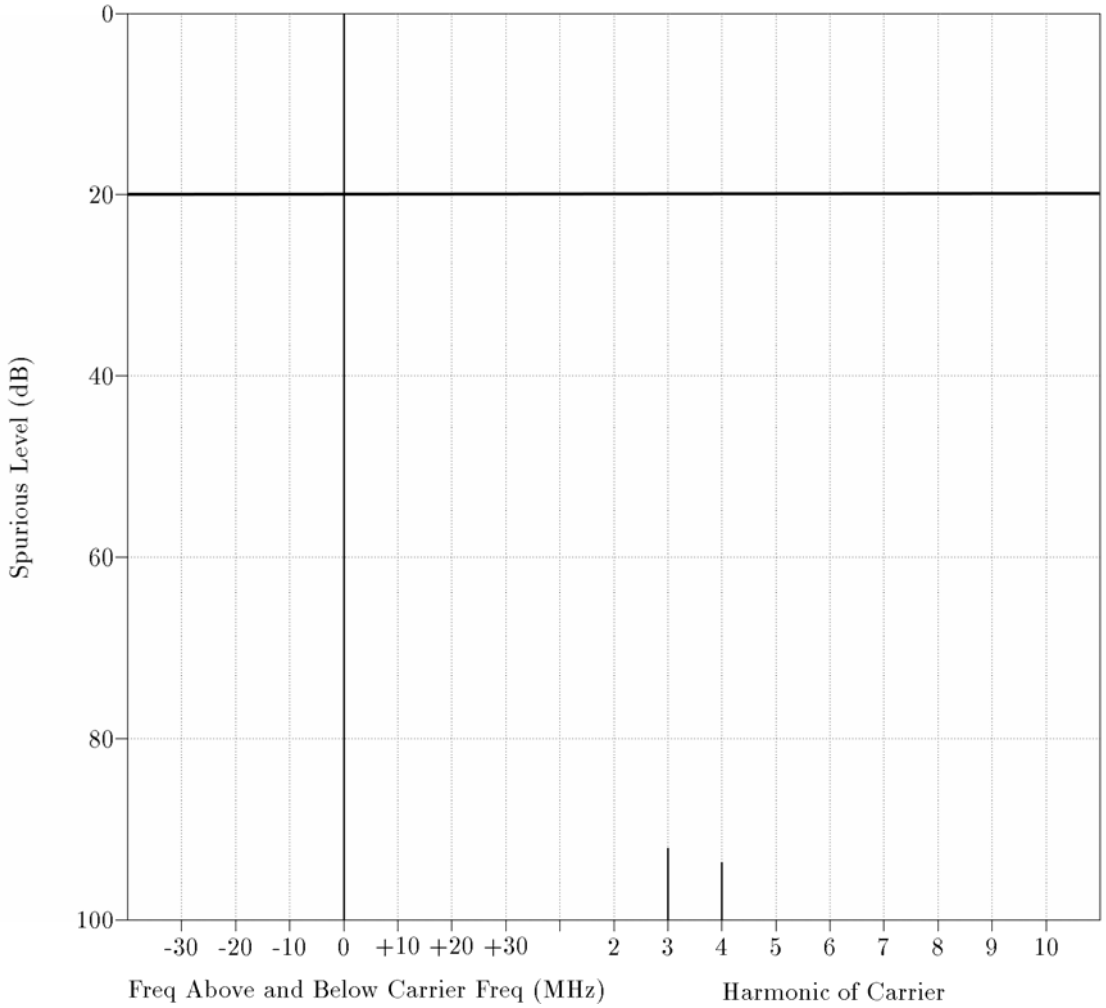
Transmitter Type: See Above
Power Output: 25.00W at 436.0000MHz



The conducted spurious level is plotted in dBm on the vertical axis.
The specification for conducted spurious emissions is -20 dBm.
All non-harmonic emissions are at or below the noise floor.

CONDUCTED SPURIOUS EMISSIONS
LOW POWER, 470.000 MHz

Transmitter Type: See Above
Power Output: 25.00W at 470.0000MHz



The conducted spurious level is plotted in dBm on the vertical axis.
The specification for conducted spurious emissions is -20 dBm.
All non-harmonic emissions are at or below the noise floor.

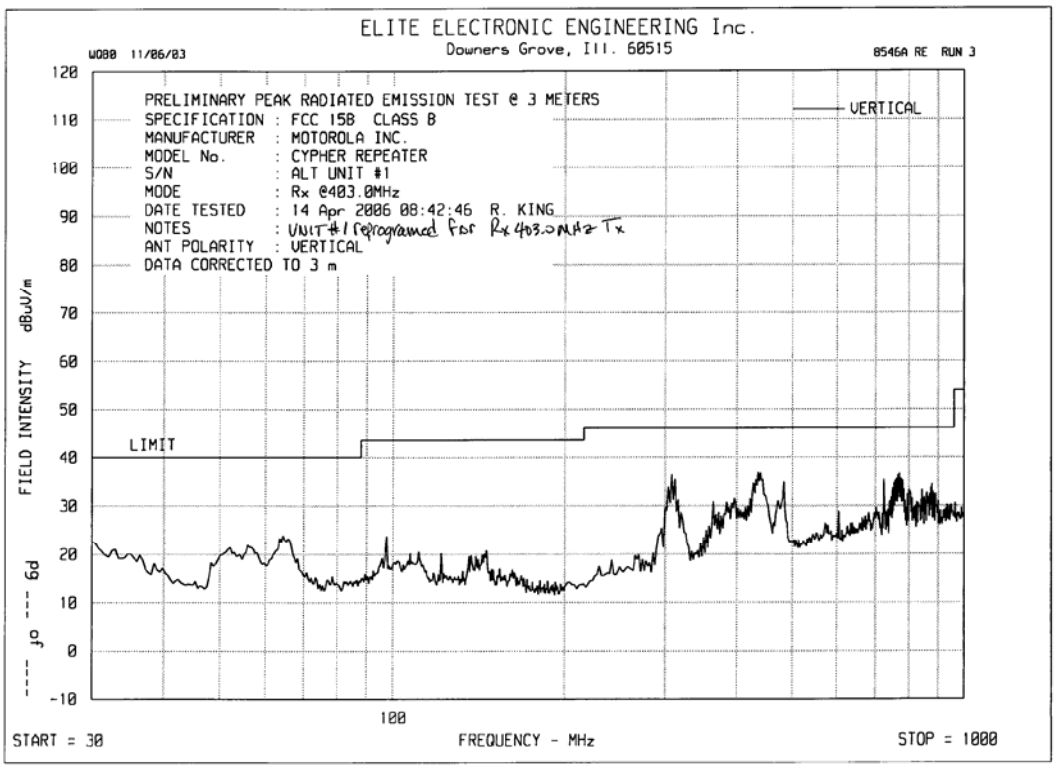
RADIATED SPURIOUS EMISSIONS

ETR No. 8546A
DATA SHEET TEST NO. 3

RADIATED QP EMISSION MEASUREMENTS in a 3 m SEMI-ANECHOIC ROOM
SPECIFICATION : FCC 15B CLASS B
MANUFACTURER : MOTOROLA INC.
MODEL NO. : CYPHER REPEATER
SERIAL NO. : ALT UNIT #1
TEST MODE : Rx @403.0MHz
NOTES :
TEST DATE : 14 Apr 2006 08:42:46
TEST DISTANCE : 3 m (DATA EXTRAPOLATED TO 3 m)

FREQUENCY MHz	QP READING dBuV	ANT FAC dB	CBL FAC dB	EXT ATTN dB	DIST FAC dB	TOTAL dBuV/m	QP LIMIT dBuV/m	AZ deg	ANT HT cm	POLAR
63.35	14.3	7.6	.5	0.0	0.0	22.4	40.0	300	200	V
96.90	11.8	10.7	.5	0.0	0.0	22.9	43.5	120	120	V
112.10	.3	11.8	.6	0.0	0.0	12.7	43.5	60	120	V
121.13	10.6	12.2	.6	0.0	0.0	23.4	43.5	240	340	H
153.56	-5.6	11.0	.8	0.0	0.0	6.2	43.5	300	120	H
167.17	-4.9	10.4	.9	0.0	0.0	6.4	43.5	120	120	V
240.01	3.9	12.5	1.1	0.0	0.0	17.6	46.0	120	340	V
305.63	21.0	13.9	1.3	0.0	0.0	36.2	46.0	180	200	V
433.13	18.4	17.1	1.5	0.0	0.0	37.1	46.0	0	200	V
480.00	16.0	17.8	1.6	0.0	0.0	35.4	46.0	300	120	V
611.25	-.3	19.6	1.7	0.0	0.0	21.0	46.0	180	120	V
768.76	14.1	20.9	1.9	0.0	0.0	36.8	46.0	-0	200	V
877.50	9.9	22.3	1.9	0.0	0.0	34.1	46.0	120	200	V
938.29	-3.3	22.6	2.0	0.0	0.0	21.3	46.0	120	120	H

EXHIBIT 6G-1



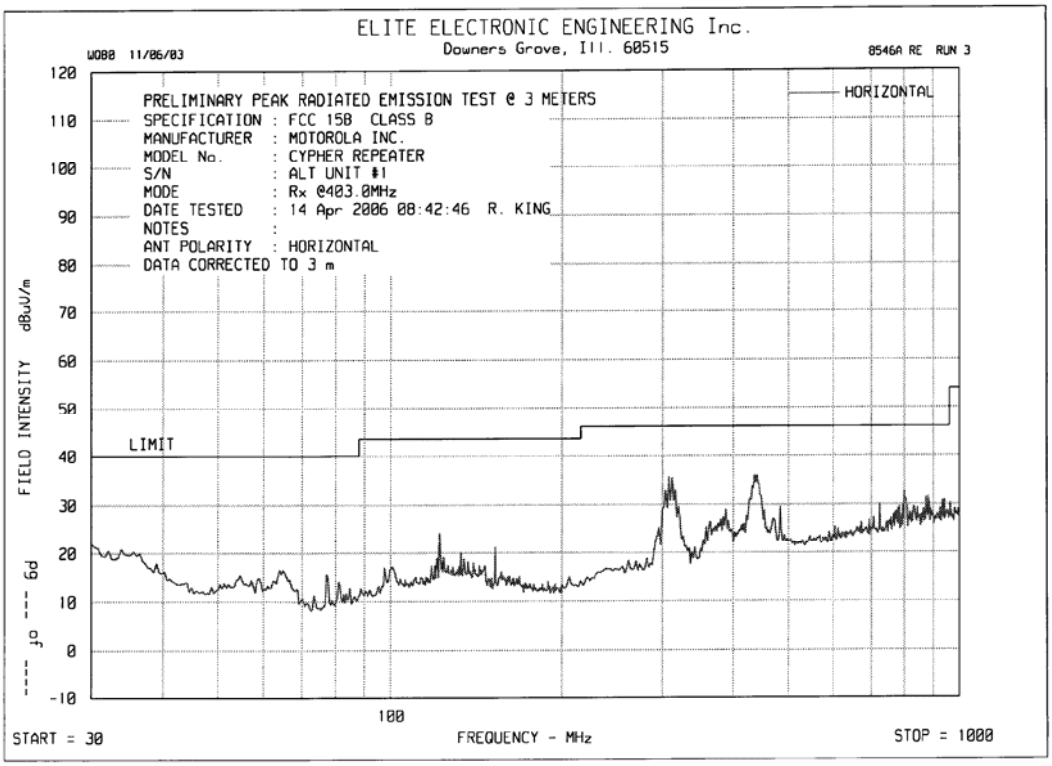


EXHIBIT 6G-2

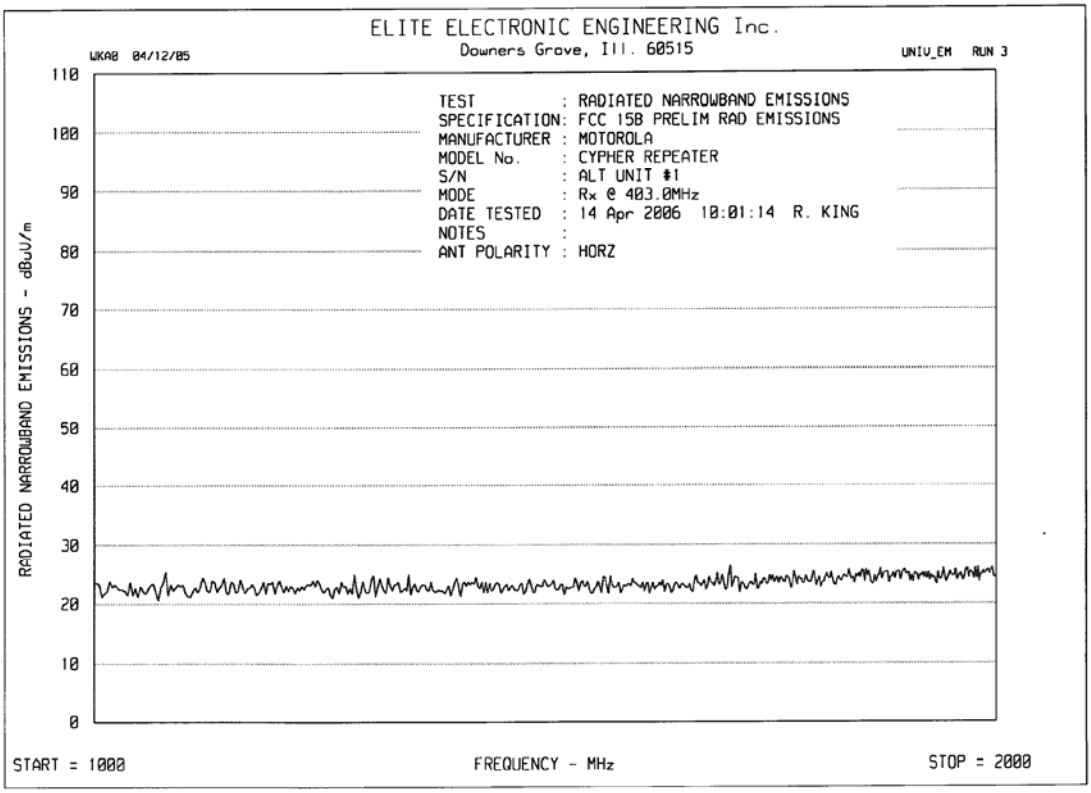


EXHIBIT 6G-3

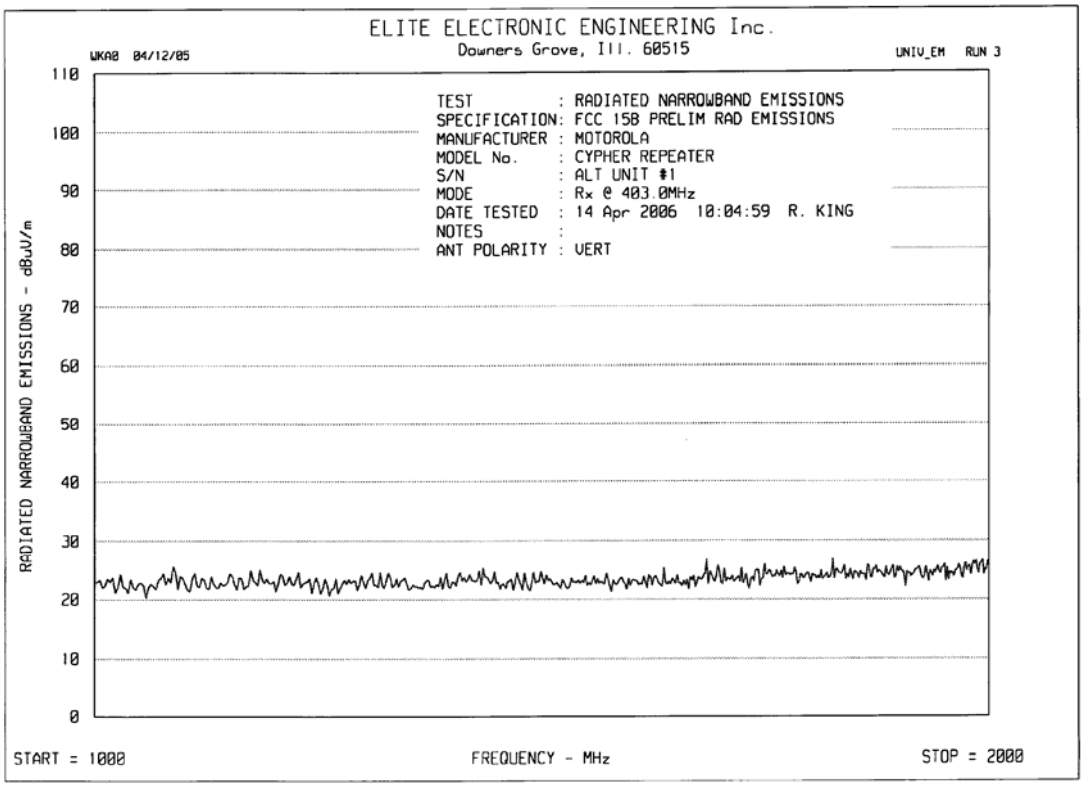


EXHIBIT 6G-4

ETR No. 8546A
DATA SHEET TEST NO. 2

RADIATED QP EMISSION MEASUREMENTS in a 3 m SEMI-ANECHOIC ROOM
SPECIFICATION : FCC 15B CLASS B
MANUFACTURER : MOTOROLA INC.
MODEL NO. : CYPHER REPEATER
SERIAL NO. : ALT UNIT #1
TEST MODE : Rx @ 436MHz
NOTES :
TEST DATE : 14 Apr 2006 08:00:09
TEST DISTANCE : 3 m (DATA EXTRAPOLATED TO 3 m)

FREQUENCY MHz	QP READING dBuV	ANT FAC dB	CBL FAC dB	EXT ATTN dB	DIST FAC dB	TOTAL dBuV/m	QP LIMIT dBuV/m	AZ deg	ANT HT cm	POLAR
65.47	12.8	7.4	.5	0.0	0.0	20.8	40.0	-0	120	V
97.27	10.3	10.7	.5	0.0	0.0	21.5	43.5	120	120	V
105.46	7.2	11.4	.5	0.0	0.0	19.2	43.5	240	120	V
121.59	7.6	12.2	.6	0.0	0.0	20.5	43.5	180	200	H
147.03	2.7	11.3	.8	0.0	0.0	14.8	43.5	240	200	H
169.33	-3.6	10.3	.9	0.0	0.0	7.6	43.5	240	120	V
240.00	4.8	12.3	1.1	0.0	0.0	18.3	46.0	0	340	H
343.12	19.3	15.0	1.4	0.0	0.0	35.7	46.0	0	200	V
414.37	14.6	16.9	1.5	0.0	0.0	33.0	46.0	120	120	H
537.05	-6.2	18.8	1.7	0.0	0.0	14.2	46.0	60	200	H
585.00	5.4	19.2	1.7	0.0	0.0	26.3	46.0	-0	121	V
719.99	16.0	20.4	1.8	0.0	0.0	38.3	46.0	-0	121	V
810.00	10.0	21.3	1.9	0.0	0.0	33.2	46.0	180	121	V
922.50	.8	22.4	2.0	0.0	0.0	25.2	46.0	0	121	V

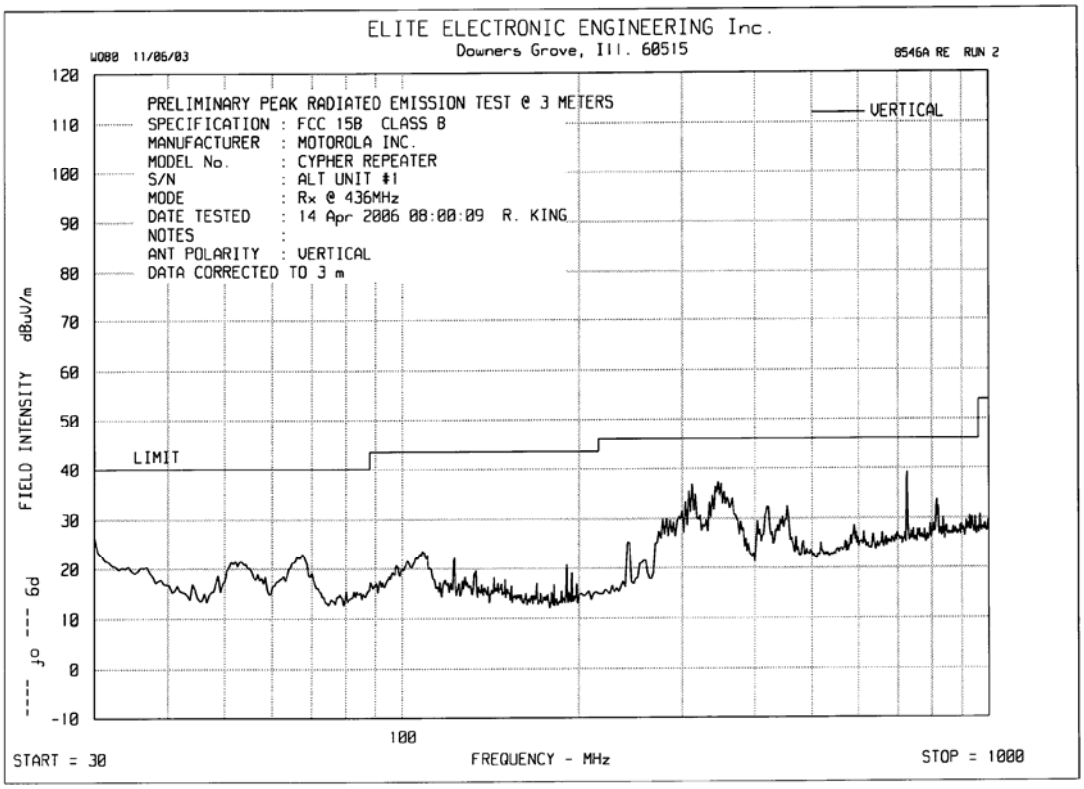


EXHIBIT 6G-5

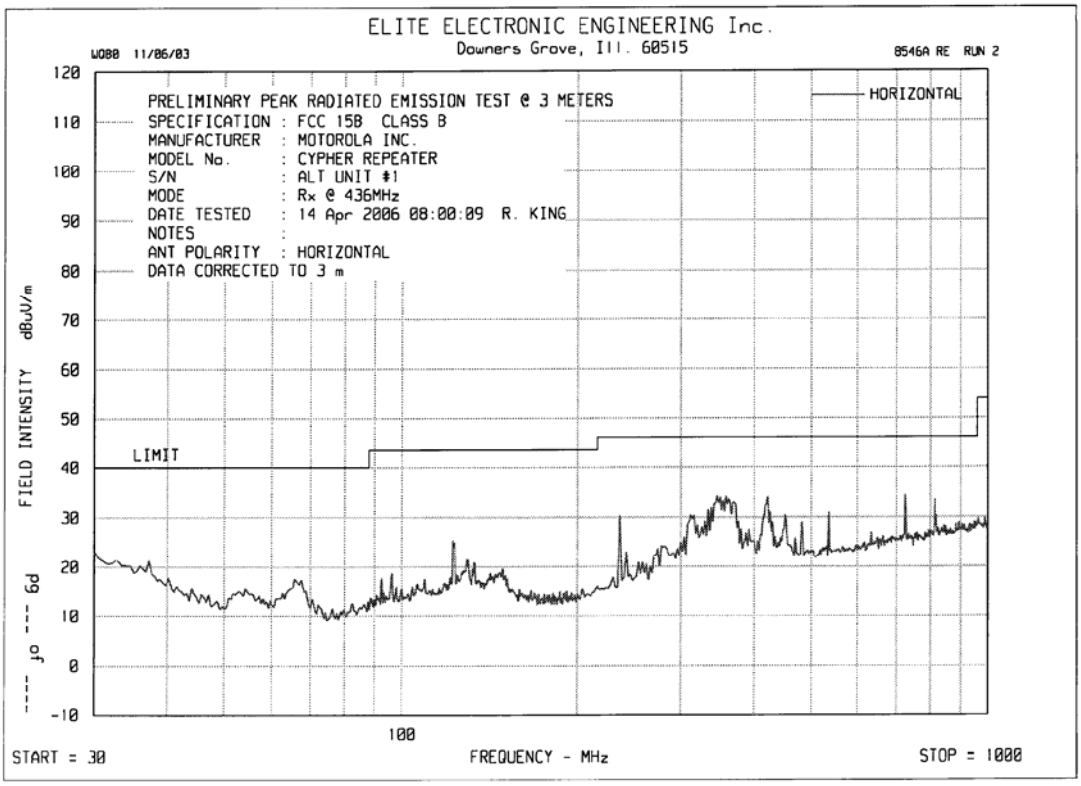


EXHIBIT 6G-6

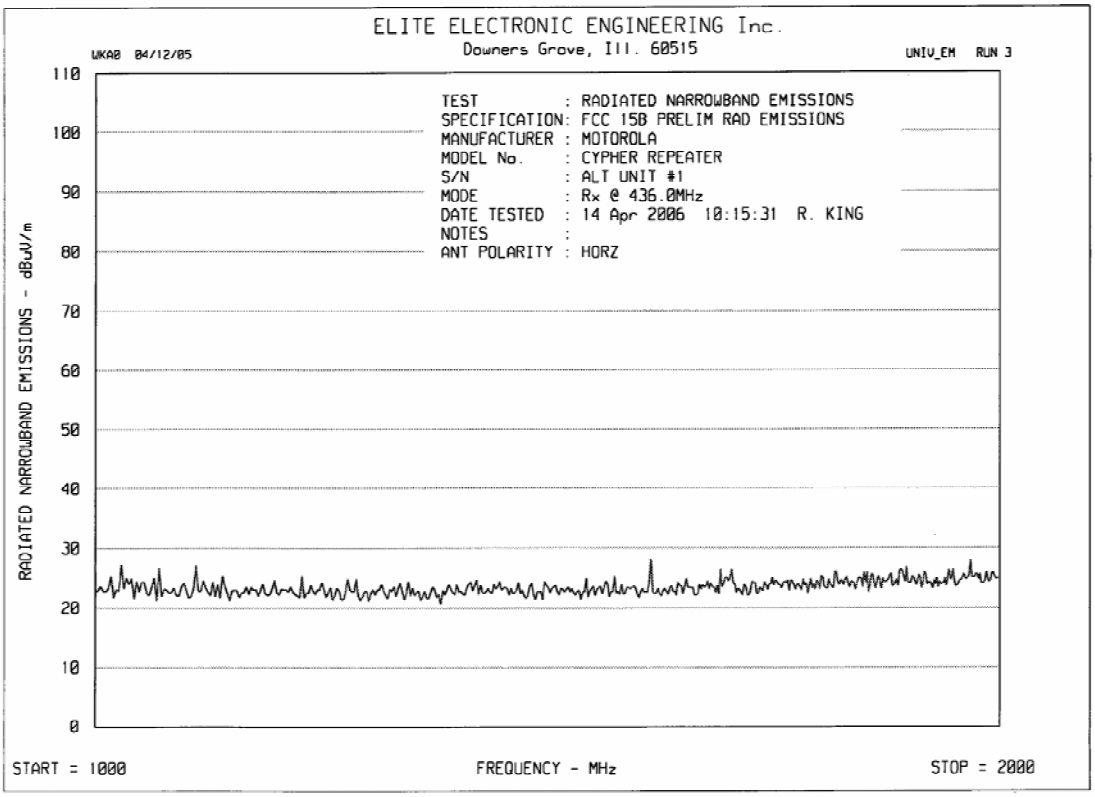


EXHIBIT 6G-7

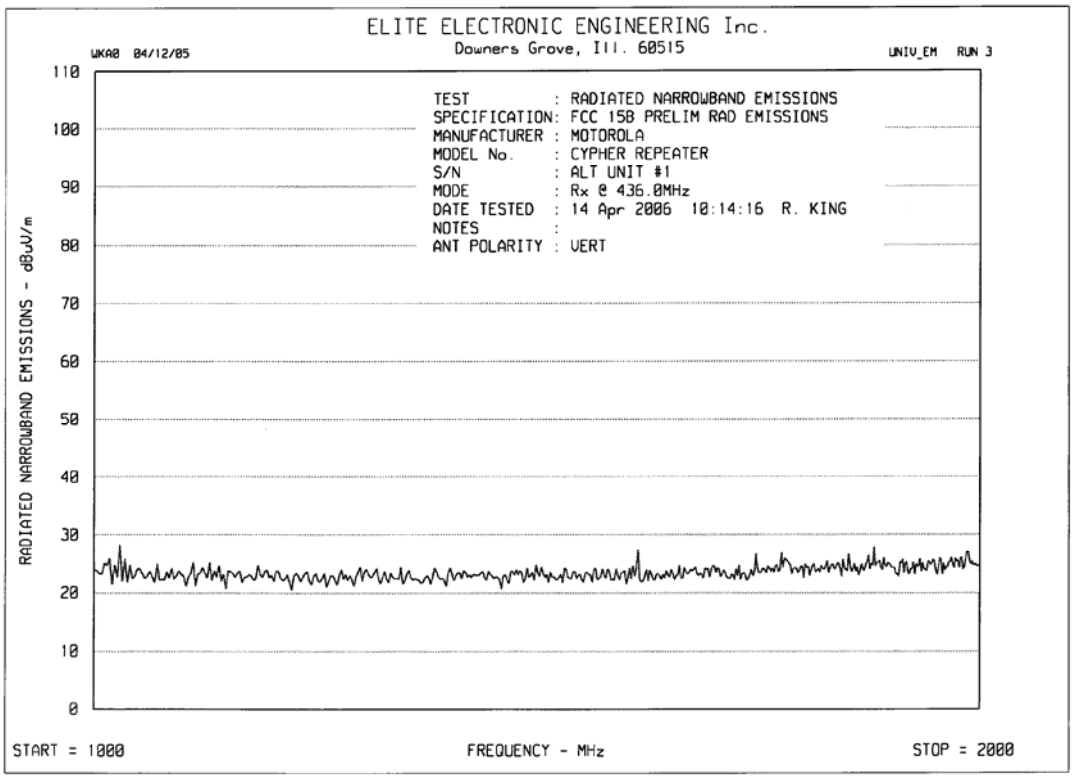
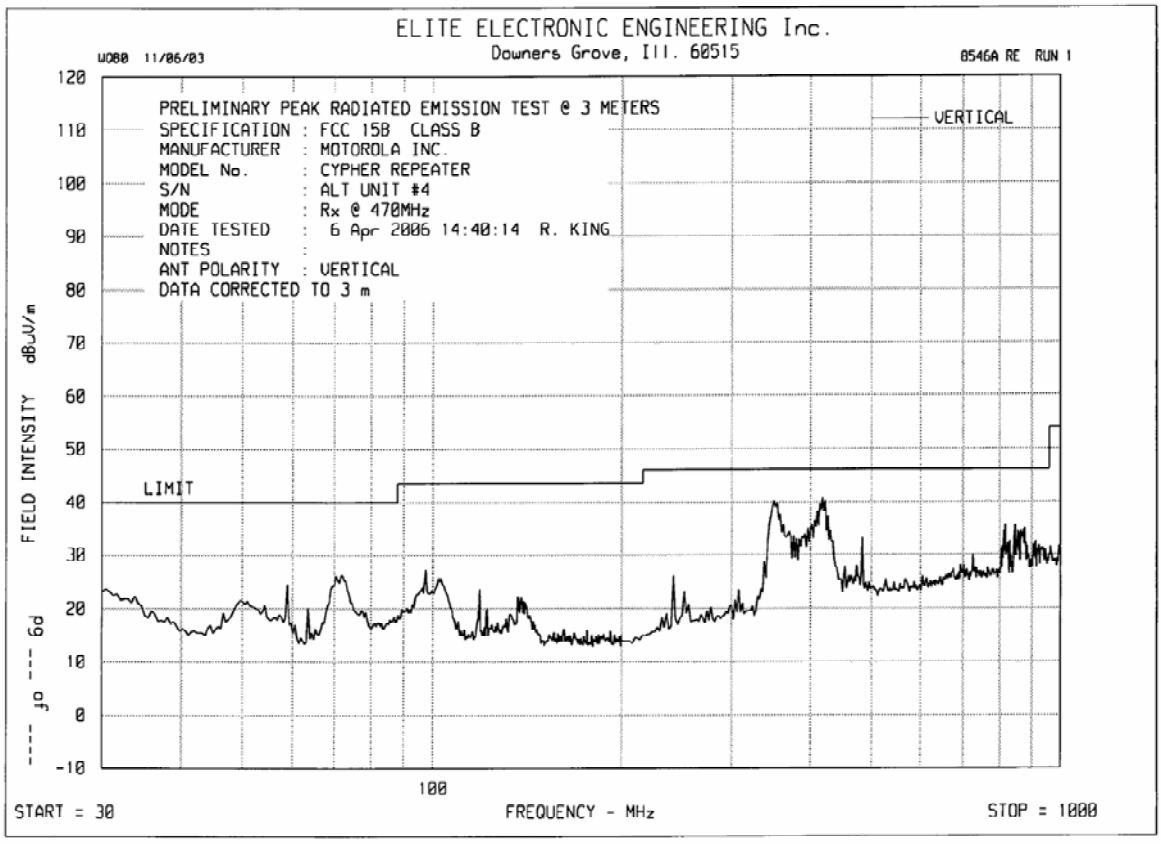


EXHIBIT 6G-8

ETR No. 8546A
DATA SHEET TEST NO. 1

RADIATED QP EMISSION MEASUREMENTS in a 3 m SEMI-ANECHOIC ROOM
SPECIFICATION : FCC 15B CLASS B
MANUFACTURER : MOTOROLA INC.
MODEL NO. : CYPHER REPEATER
SERIAL NO. : ALT UNIT #4
TEST MODE : Rx @ 470MHz
NOTES :
TEST DATE : 6 Apr 2006 14:40:14
TEST DISTANCE : 3 m (DATA EXTRAPOLATED TO 3 m)

FREQUENCY MHz	QP READING dBuV	ANT FAC dB	CBL FAC dB	EXT ATTN dB	DIST FAC dB	TOTAL dBuV/m	QP LIMIT dBuV/m	AZ deg	ANT HT cm	POLAR
70.82	16.2	7.0	.5	0.0	0.0	23.7	40.0	0	200	V
96.90	15.3	10.7	.5	0.0	0.0	26.5	43.5	120	120	V
100.93	10.6	11.2	.5	0.0	0.0	22.2	43.5	120	120	V
136.86	6.2	11.8	.7	0.0	0.0	18.7	43.5	60	200	H
143.50	2.2	11.5	.8	0.0	0.0	14.4	43.5	60	200	H
175.34	-5.6	10.1	.9	0.0	0.0	5.4	43.5	180	120	V
240.01	10.6	12.5	1.1	0.0	0.0	24.3	46.0	0	340	V
346.89	22.8	15.1	1.4	0.0	0.0	39.3	46.0	0	200	V
414.39	21.4	16.9	1.5	0.0	0.0	39.8	46.0	0	120	V
480.01	11.7	17.8	1.6	0.0	0.0	31.1	46.0	0	120	V
695.35	-4.9	20.2	1.8	0.0	0.0	17.1	46.0	120	120	H
720.01	7.7	20.5	1.8	0.0	0.0	30.0	46.0	180	120	H
810.02	10.5	21.3	1.9	0.0	0.0	33.8	46.0	180	200	V
911.27	4.9	22.3	1.9	0.0	0.0	29.1	46.0	-0	120	V



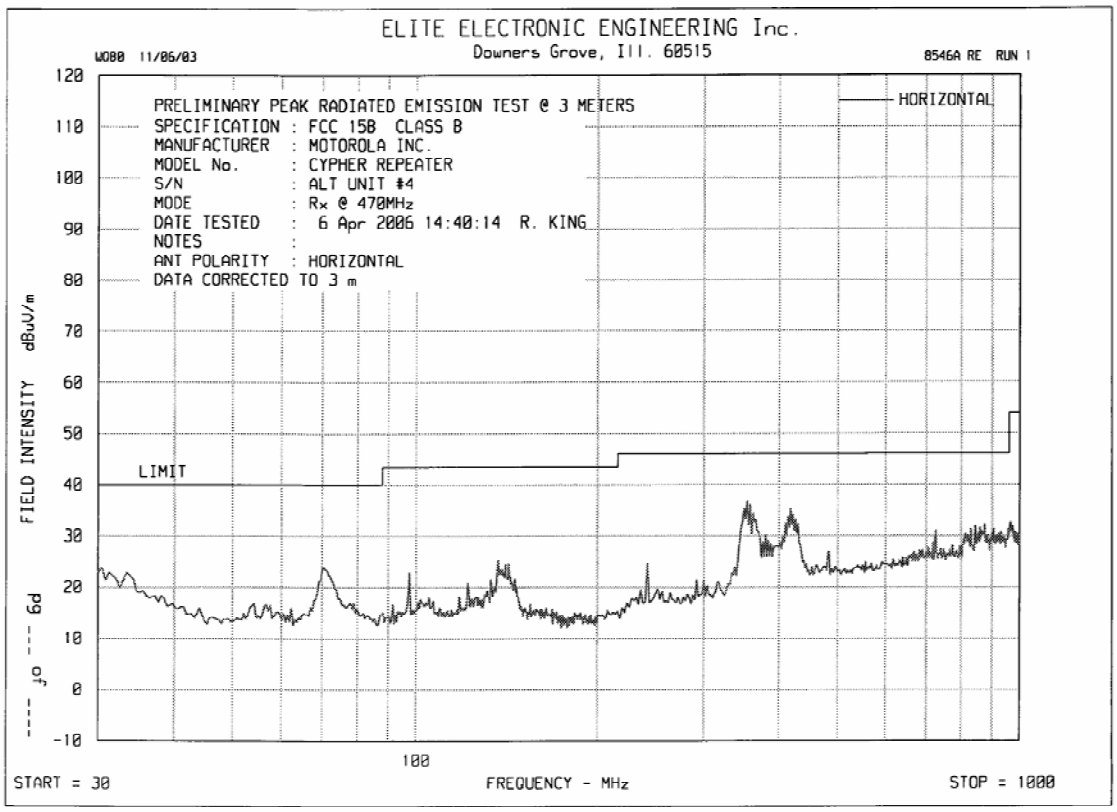


EXHIBIT 6G-10

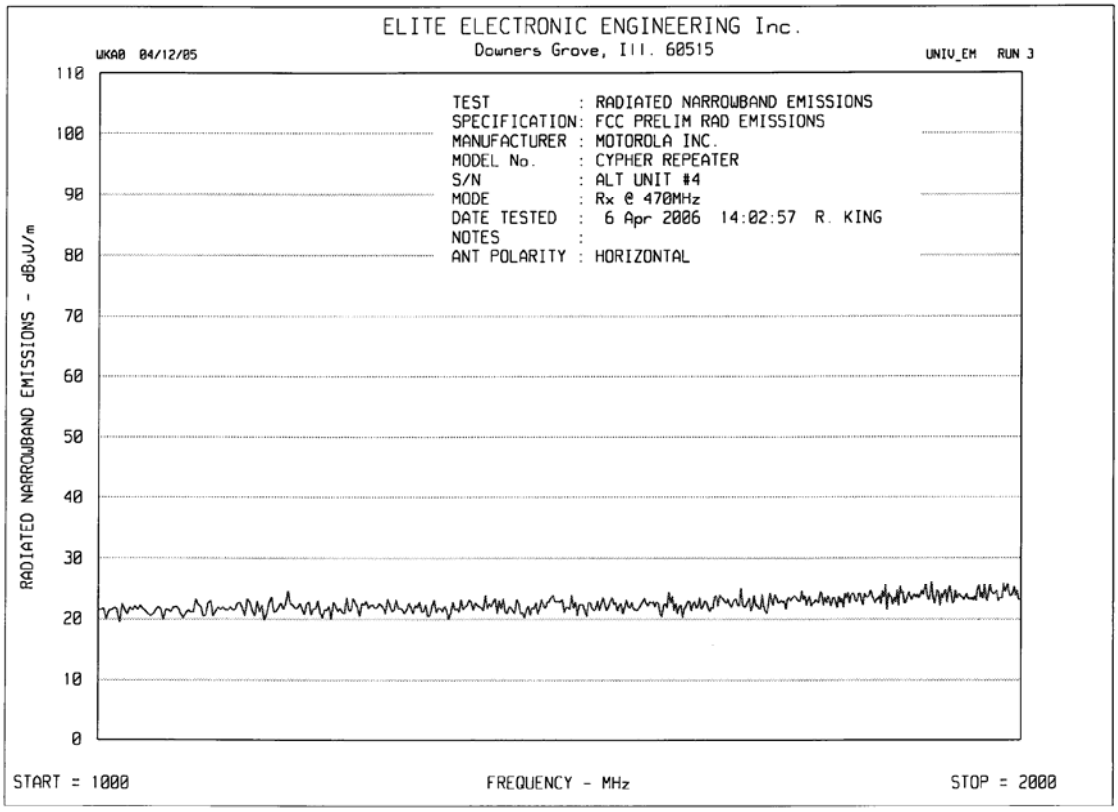


EXHIBIT 6G-11

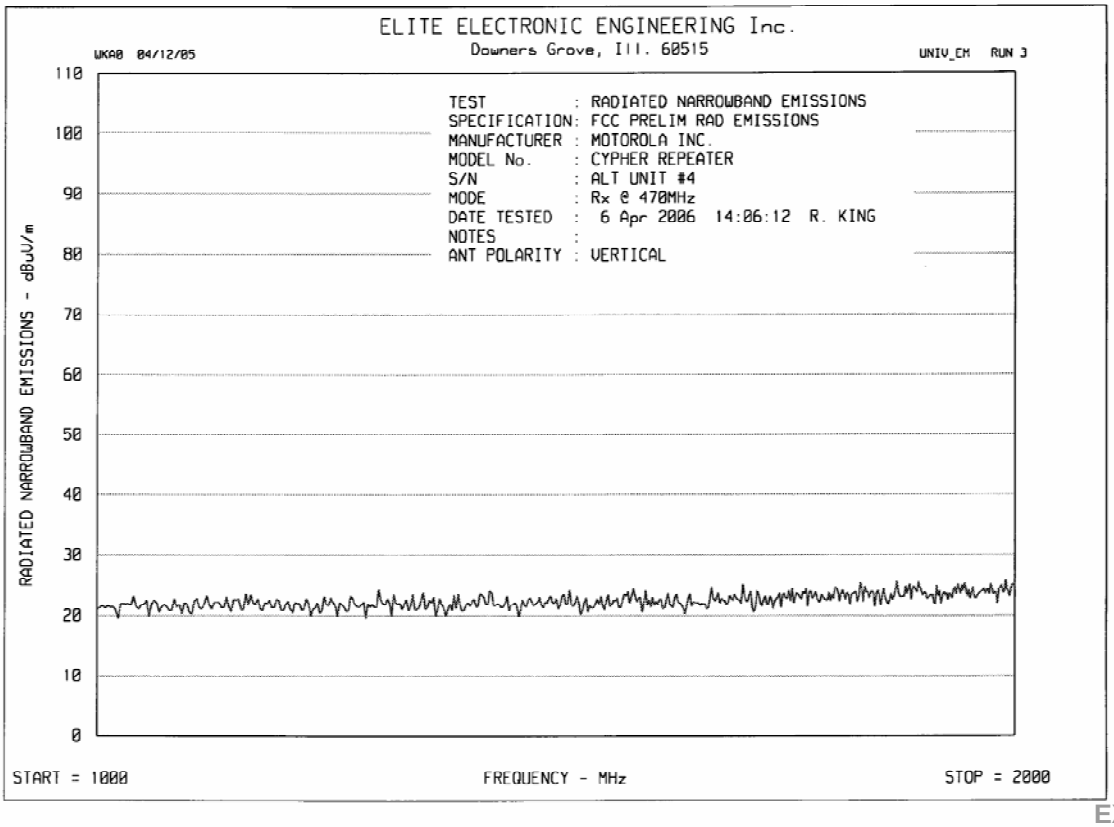


EXHIBIT 6G-12

SPECIFICATION : FCC-90 Open Field Spurious Radiated Emissions
MODE : Tx @ 403MHz
NOTES : ALT UNIT #1 reprogrammed to Tx @ 403.0MHz
: Tx Full Power (45W) into 50 ohms @ 3 meters

Freq. MHz	Ant Pol	Mtr. Rdg (dBuV)	amb	Matched Sig Gen (dBm)	equil ant gain	CL (dB)	ERP Total (dBm)	Atten. (dB)	Min Attn. (dB)
806.0	H	19.9		-56.4	0.0	3.0	-53.4	99.9	66.5
806.0	V	22.0		-54.3	0.0	3.0	-51.3	97.8	66.5
1209.0	H	64.7		-47.2	2.5	3.8	-41.0	87.5	66.5
1209.0	V	62.1		-49.8	2.5	3.8	-43.6	90.1	66.5
1612.0	H	43.2	*	-67.8	2.8	4.3	-60.7	107.2	66.5
1612.0	V	42.9	*	-68.1	2.8	4.3	-61.0	107.5	66.5
2015.0	H	44.6		-64.7	2.8	5.0	-56.9	103.4	66.5
2015.0	V	46.3		-63.0	2.8	5.0	-55.2	101.7	66.5
2418.0	H	41.5	*	-66.7	3.4	5.5	-57.8	104.3	66.5
2418.0	V	41.6	*	-66.6	3.4	5.5	-57.7	104.2	66.5
2821.0	H	46.3		-61.5	4.3	5.9	-51.2	97.7	66.5
2821.0	V	47.9		-59.9	4.3	5.9	-49.6	96.1	66.5
3224.0	H	40.8	*	-67.4	5.3	6.4	-55.8	102.3	66.5
3224.0	V	42.2	*	-66.0	5.3	6.4	-54.4	100.9	66.5
3627.0	H	39.8	*	-68.4	5.5	6.8	-56.1	102.6	66.5
3627.0	V	40.4	*	-67.8	5.5	6.8	-55.5	102.0	66.5
4030.0	H	40.4	*	-66.7	5.0	7.2	-54.4	100.9	66.5
4030.0	V	40.4	*	-66.7	5.0	7.2	-54.4	100.9	66.5

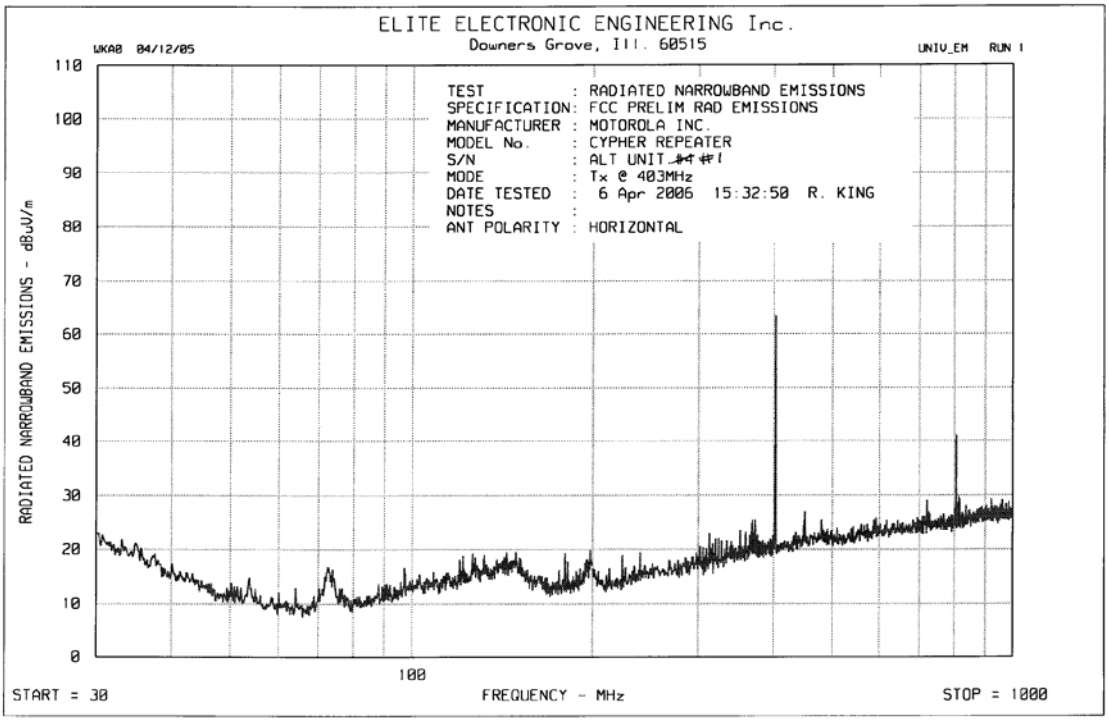


EXHIBIT 6G-13

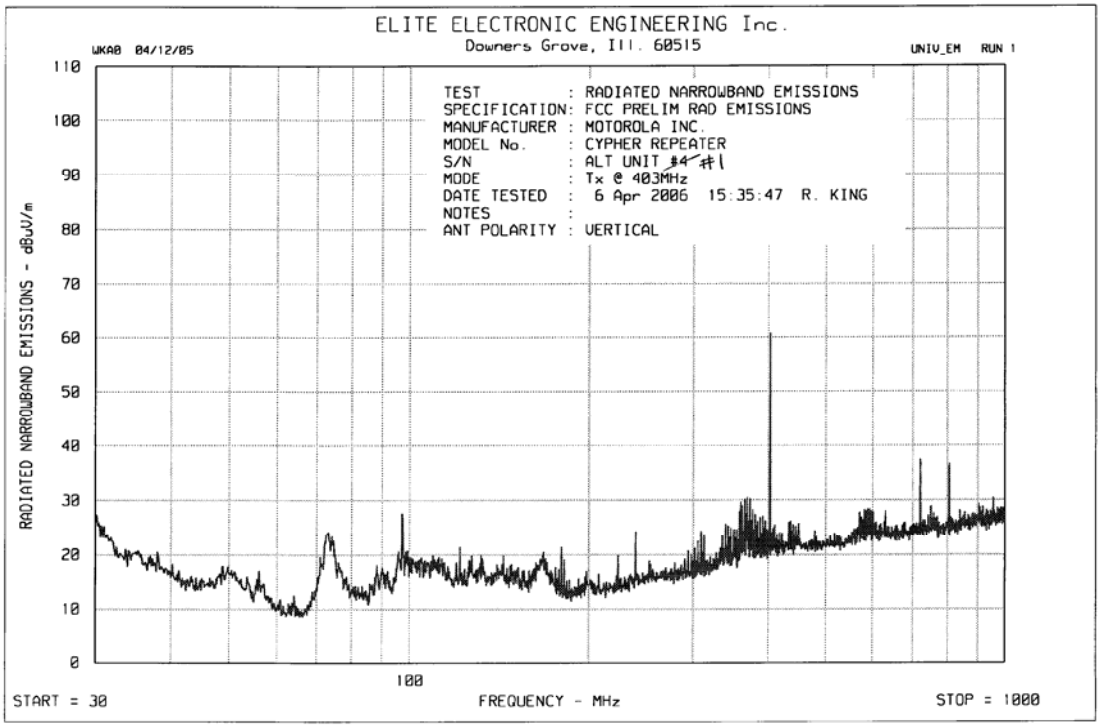


EXHIBIT 6G-14

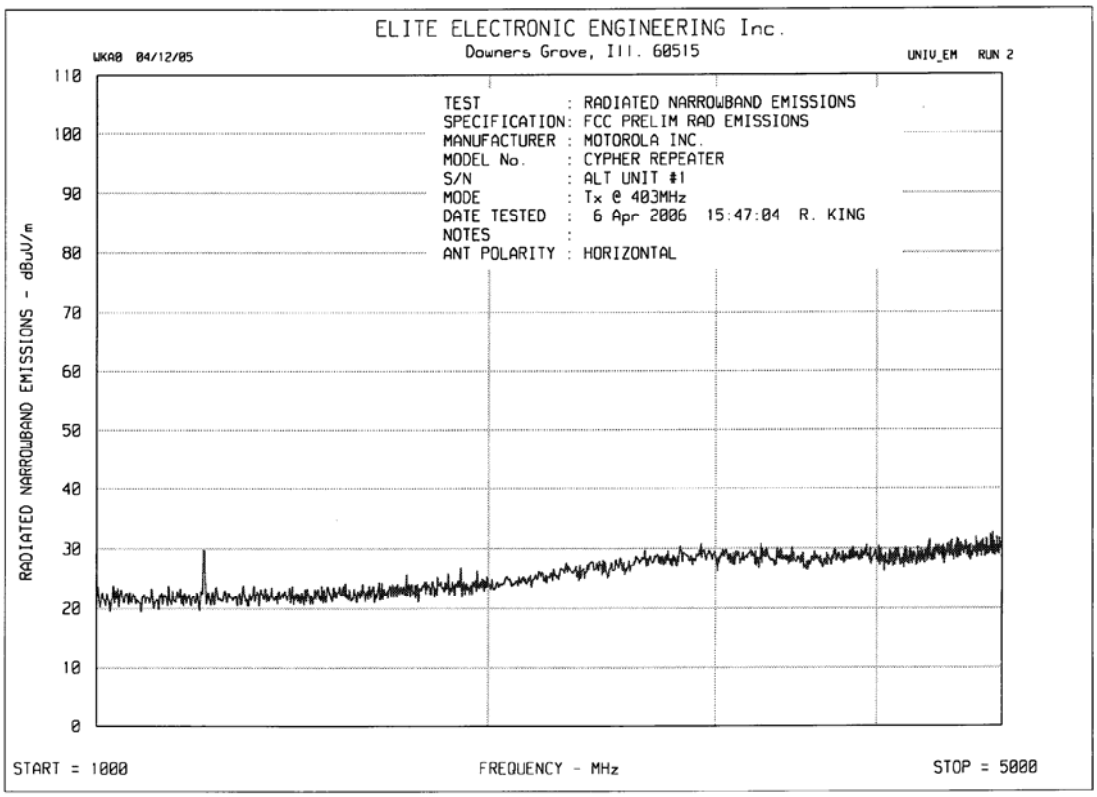


EXHIBIT 6G-15

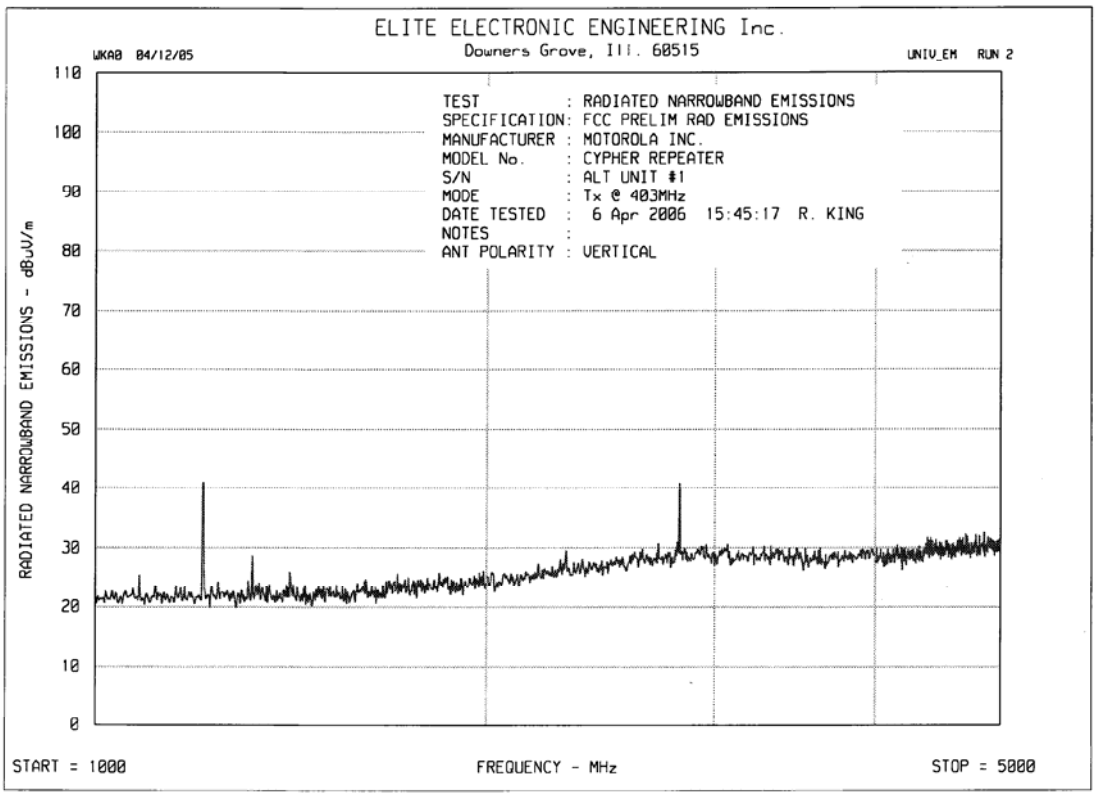


EXHIBIT 6G-16

SPECIFICATION : **FCC-90 Open Field Spurious Radiated Emissions**
MODE : **Tx @ 436MHz**
NOTES : **Tx Full Power (45W) into 50 ohms @ 3 meters.**

Freq. MHz	Ant Pol	Mtr. Rdg (dBuV)	amb	Matched Sig Gen (dBm)	equil ant gain	CL (dB)	ERP Total (dBm)	Atten. (dB)	Min Attn. (dB)
872.0	H	19.0		-56.9	0.0	3.0	-53.8	100.3	66.5
872.0	V	17.0		-58.9	0.0	3.0	-55.8	102.3	66.5
1308.0	H	69.3		-42.9	3.2	3.8	-36.0	82.5	66.5
1308.0	V	72.7		-39.5	3.2	3.8	-32.6	79.1	66.5
1744.0	H	46.2		-64.7	3.5	4.3	-56.8	103.3	66.5
1744.0	V	46.5		-64.4	3.5	4.3	-56.5	103.0	66.5
2180.0	H	42.4	*	-66.7	3.5	5.0	-58.1	104.6	66.5
2180.0	V	42.6	*	-66.5	3.5	5.0	-57.9	104.4	66.5
2616.0	H	44.4		-63.6	4.1	5.5	-54.0	100.5	66.5
2616.0	V	46.0		-62.0	4.1	5.5	-52.4	98.9	66.5
3052.0	H	43.5	*	-64.2	5.0	5.9	-53.3	99.8	66.5
3052.0	V	42.4	*	-65.3	5.0	5.9	-54.4	100.9	66.5
3488.0	H	43.0	*	-65.6	6.0	6.4	-53.3	99.8	66.5
3488.0	V	42.8	*	-65.8	6.0	6.4	-53.5	100.0	66.5
3924.0	H	41.2	*	-66.8	6.2	6.8	-53.8	100.3	66.5
3924.0	V	40.3	*	-67.7	6.2	6.8	-54.7	101.2	66.5
4360.0	H	41.2	*	-66.6	5.7	7.2	-53.7	100.2	66.5
4360.0	V	41.3	*	-66.5	5.7	7.2	-53.6	100.1	66.5

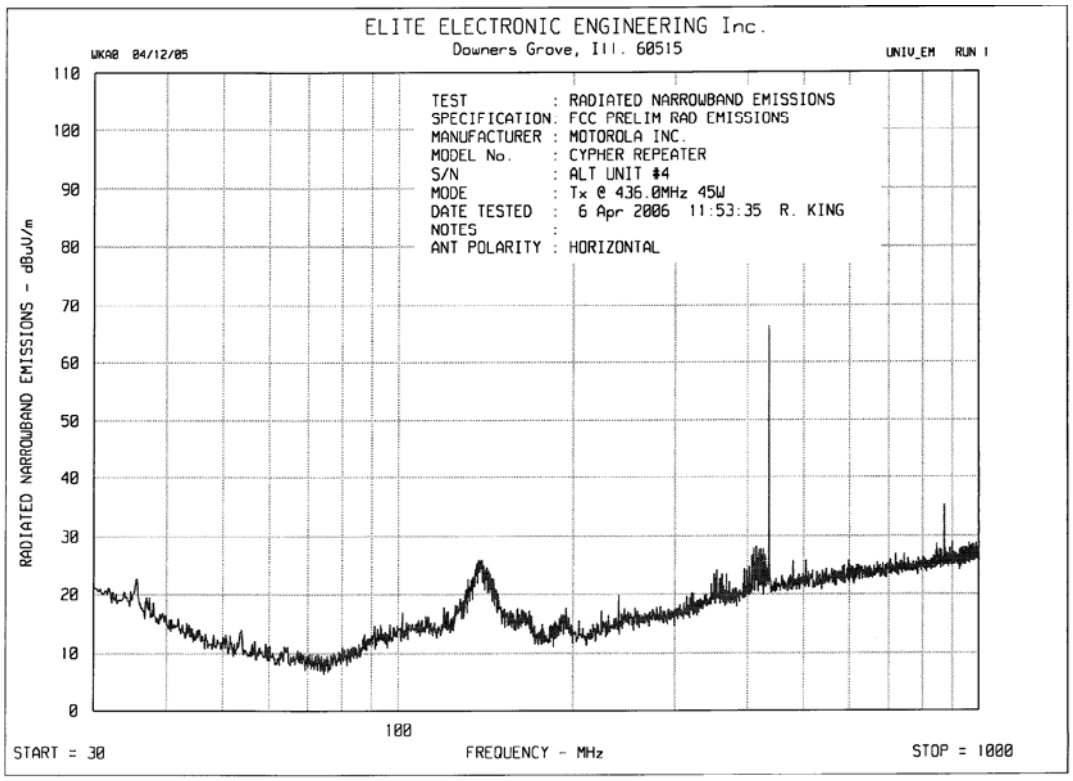


EXHIBIT 6G-17

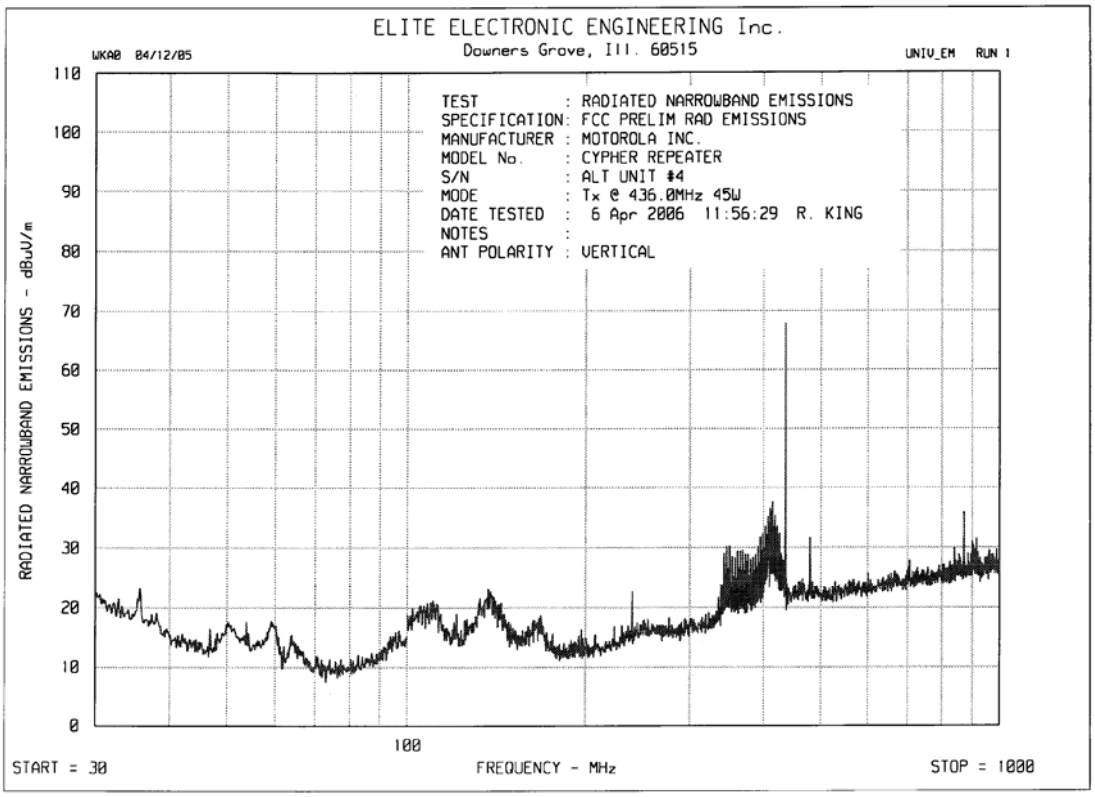


EXHIBIT 6G-18

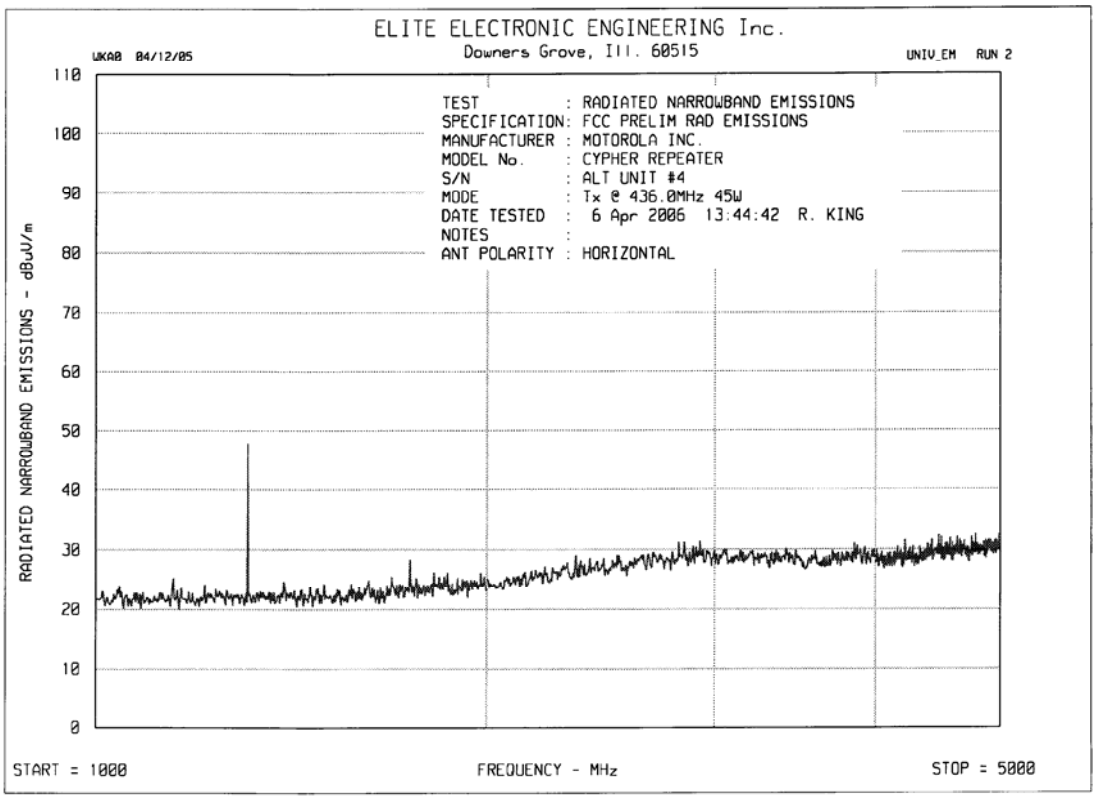


EXHIBIT 6G-19

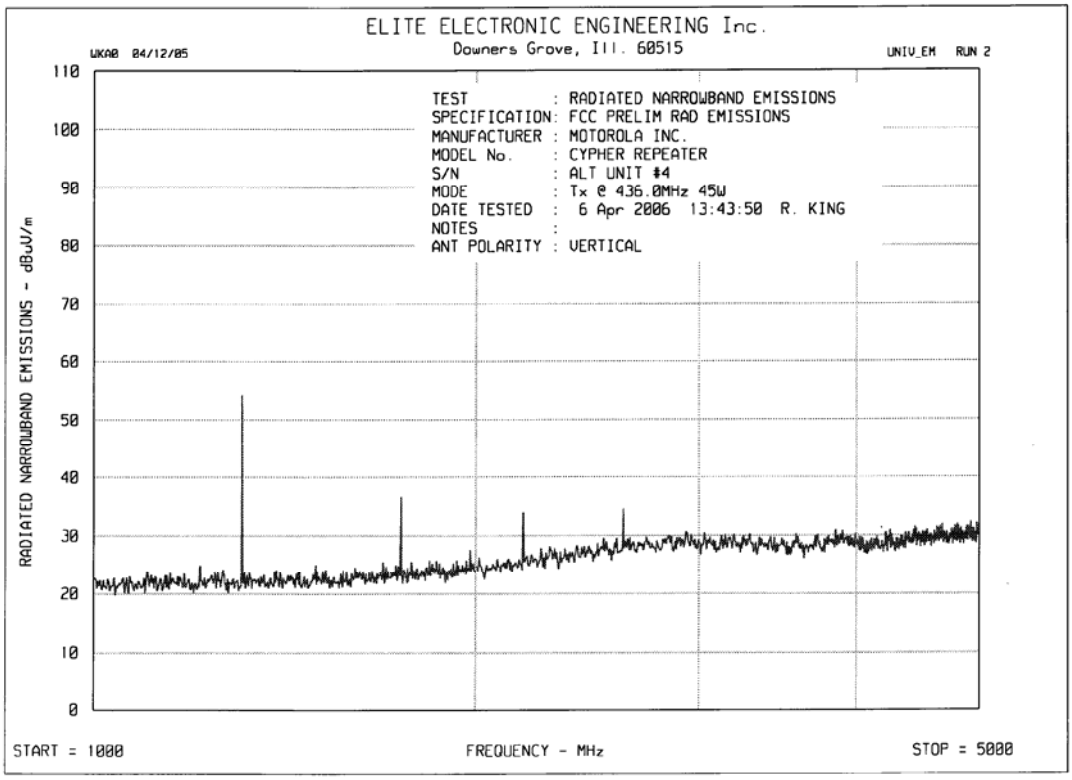


EXHIBIT 6G-20

SPECIFICATION : **FCC-90 Open Field Spurious Radiated Emissions**
MODE : **Tx @ 470MHz**
NOTES : **Tx Full Power (45W) into 50 ohms @ 3 meters.**

Freq. MHz	Ant Pol	Mtr. Rdg (dBuV)	amb	Matched Sig Gen (dBm)	equil ant gain	CL (dB)	ERP Total (dBm)	Atten. (dB)	Min Attn. (dB)
940.0	H	24.2		-50.6	0.0	3.0	-47.5	94.0	66.5
940.0	V	21.9		-52.9	0.0	3.0	-49.8	96.3	66.5
1410.0	H	65.8		-46.7	3.8	3.8	-39.1	85.6	66.5
1410.0	V	60.1		-52.4	3.8	3.8	-44.8	91.3	66.5
1880.0	H	45.0	*	-65.7	4.2	4.3	-57.2	103.7	66.5
1880.0	V	44.8	*	-65.9	4.2	4.3	-57.4	103.9	66.5
2350.0	H	46.7		-62.1	4.2	5.0	-52.9	99.4	66.5
2350.0	V	47.3		-61.5	4.2	5.0	-52.3	98.8	66.5
2820.0	H	45.1		-62.7	4.7	5.5	-52.4	98.9	66.5
2820.0	V	48.8		-59.0	4.7	5.5	-48.7	95.2	66.5
3290.0	H	43.9	*	-64.2	5.7	5.9	-52.6	99.1	66.5
3290.0	V	43.7	*	-64.4	5.7	5.9	-52.8	99.3	66.5
3760.0	H	39.7	*	-68.8	6.6	6.4	-55.8	102.3	66.5
3760.0	V	40.1	*	-68.4	6.6	6.4	-55.4	101.9	66.5
4230.0	H	40.7	*	-67.8	6.8	6.8	-54.2	100.7	66.5
4230.0	V	40.6	*	-67.9	6.8	6.8	-54.3	100.8	66.5
4700.0	H	40.5	*	-67.3	6.4	7.2	-53.7	100.2	66.5
4700.0	V	40.4	*	-67.4	6.4	7.2	-53.8	100.3	66.5

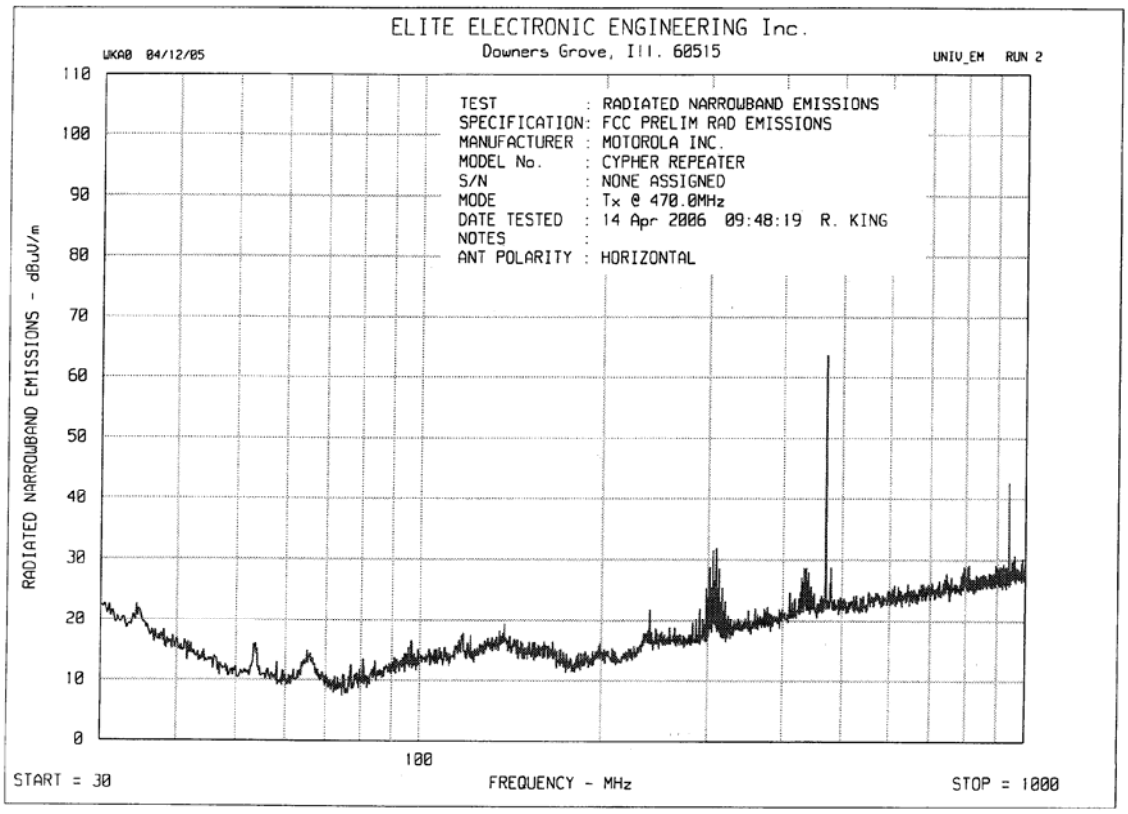


EXHIBIT 6G-21

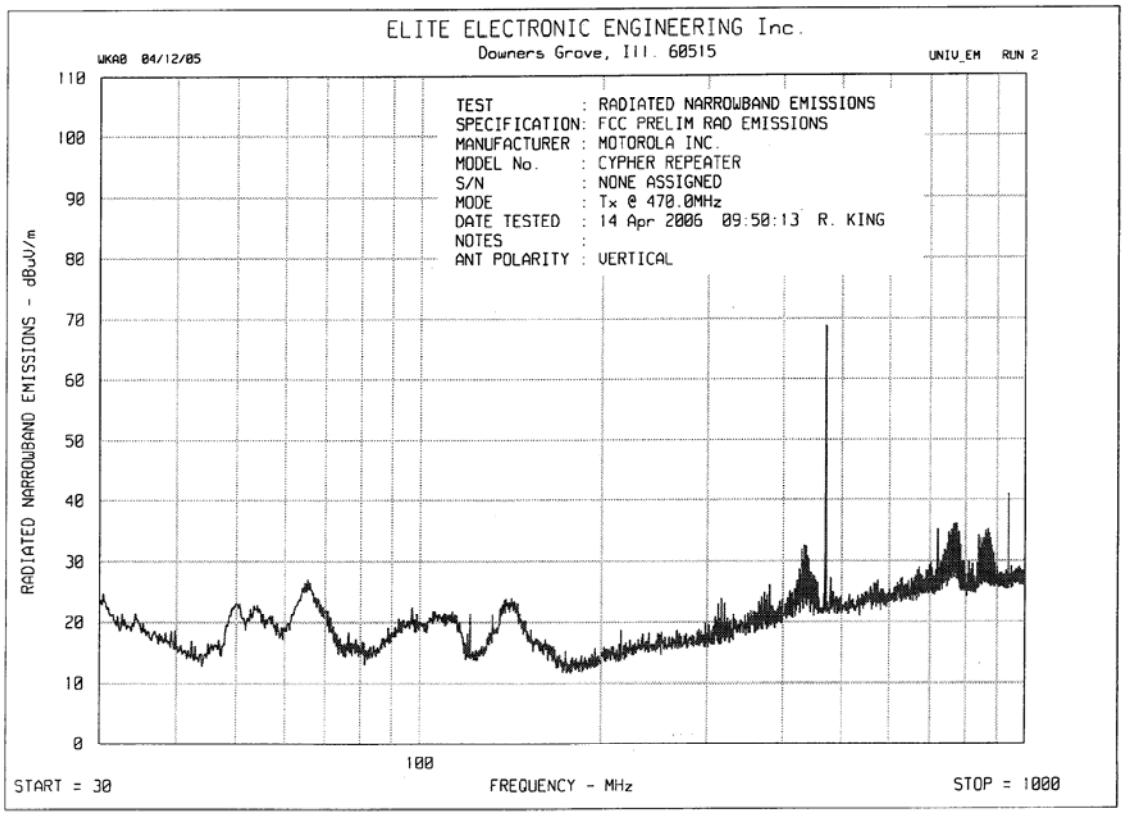


EXHIBIT 6G-22

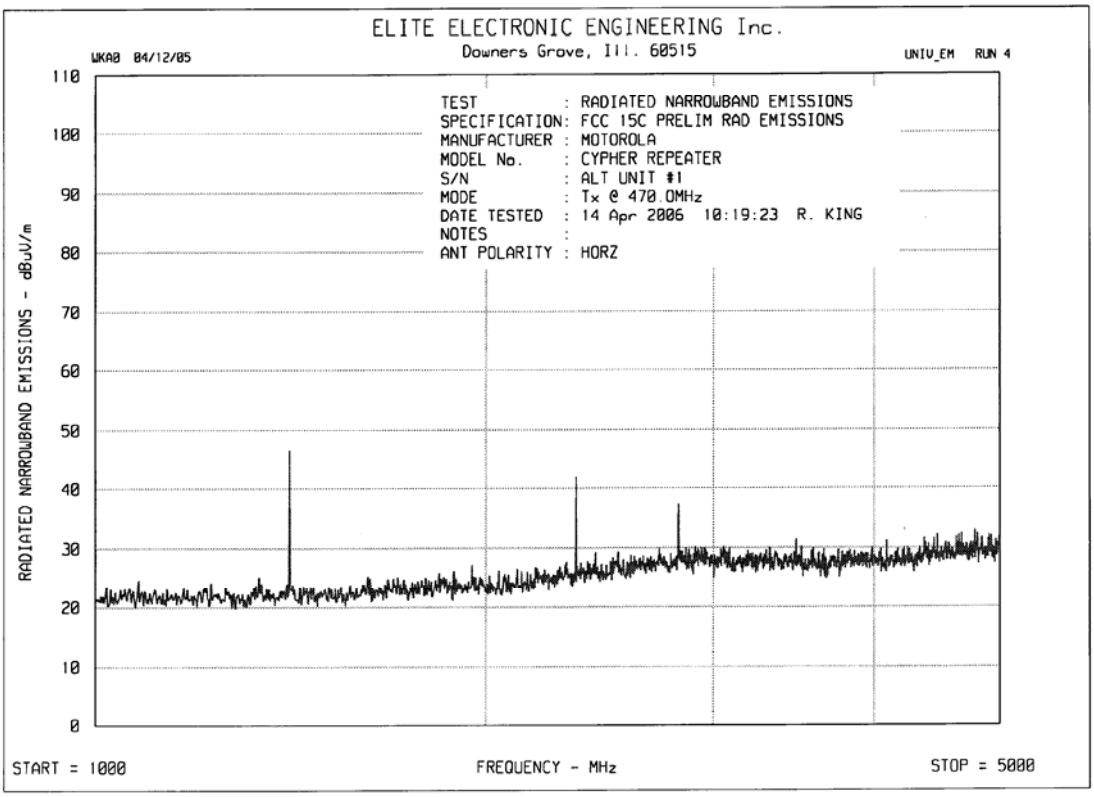


EXHIBIT 6G-23

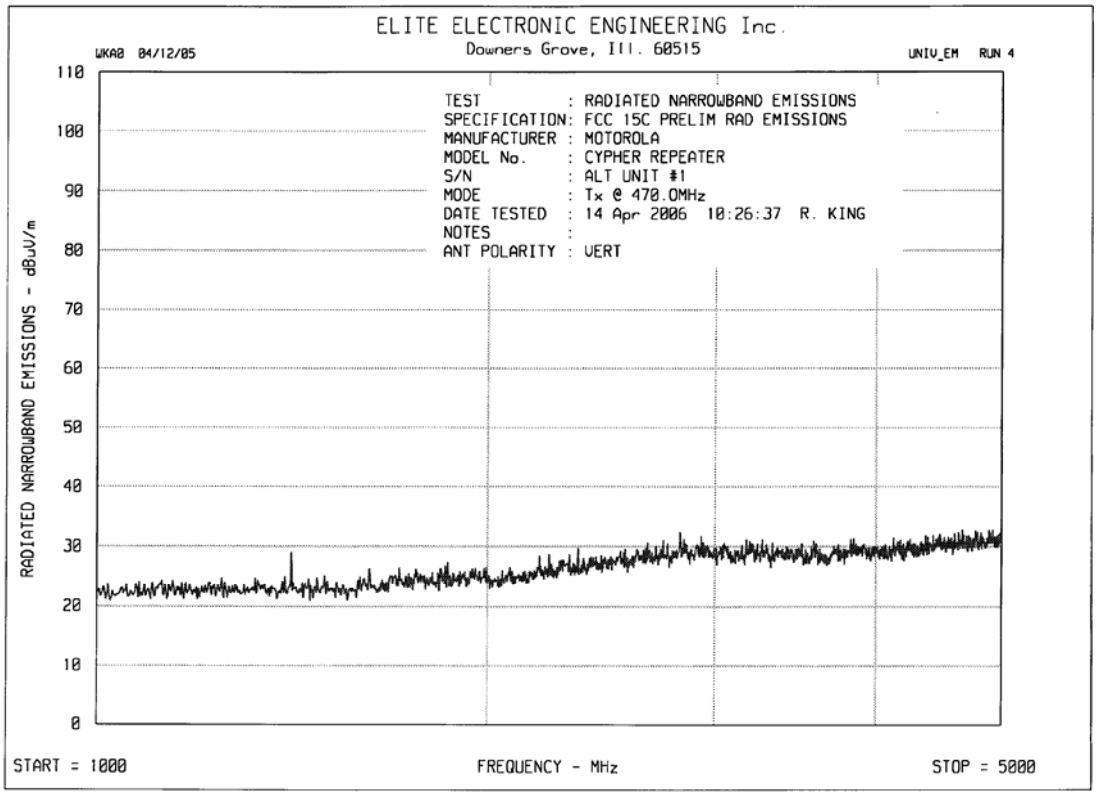
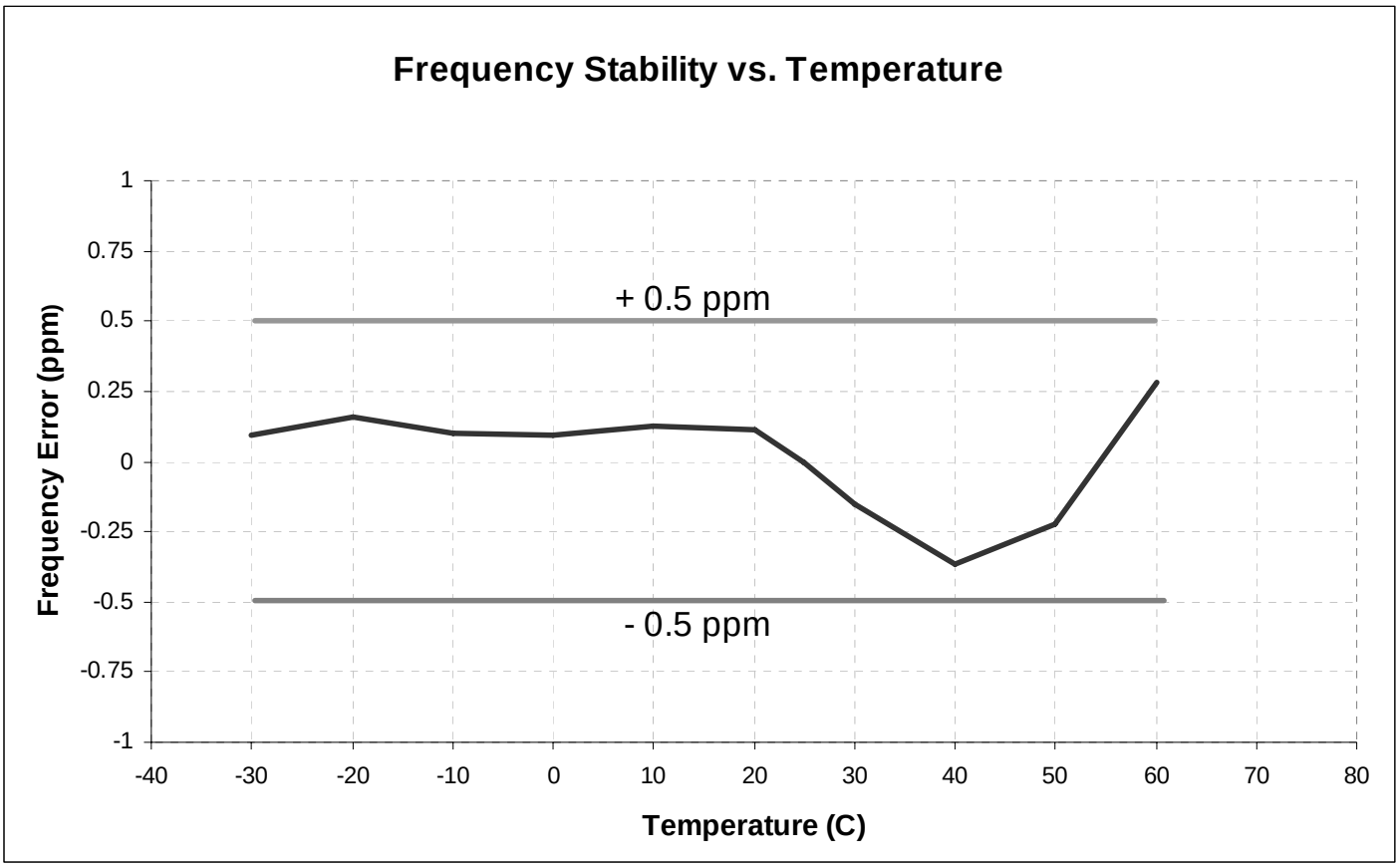
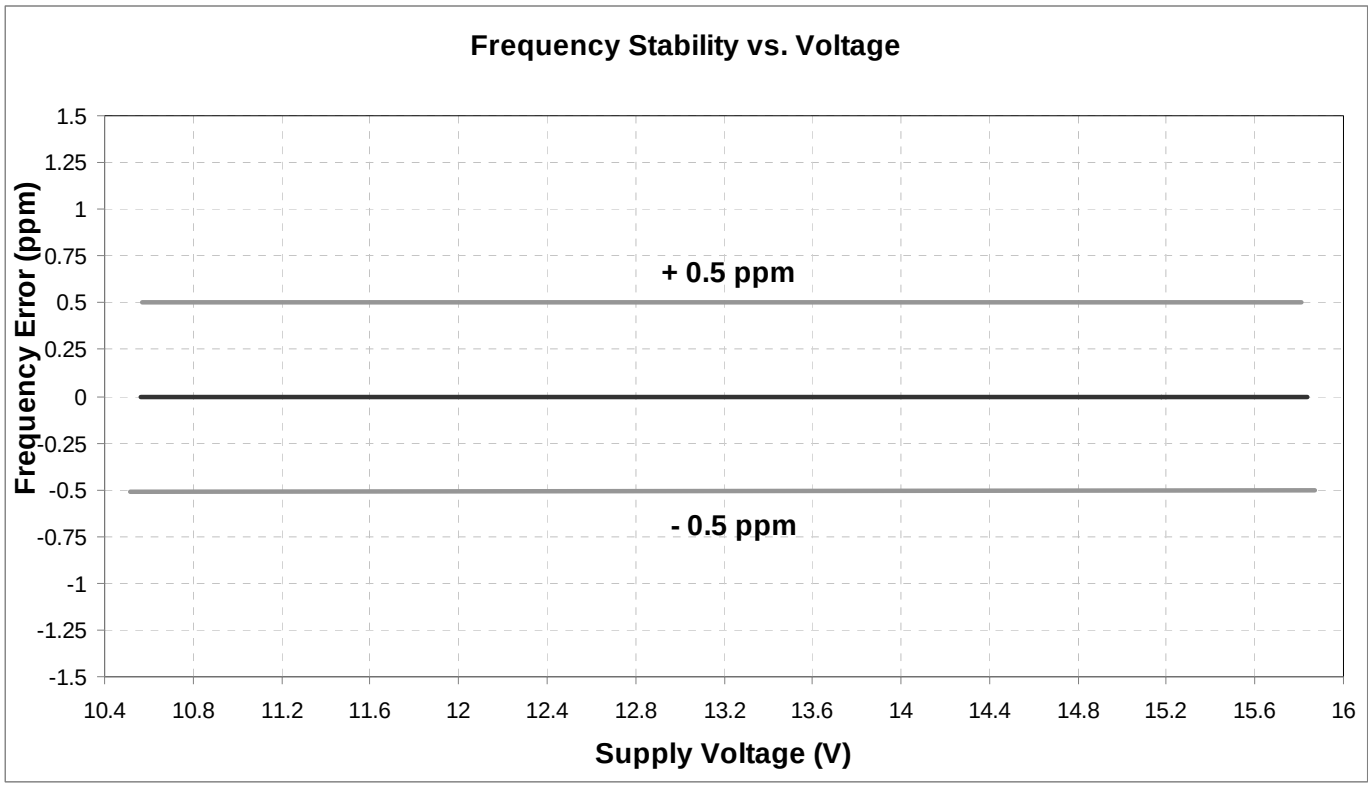


EXHIBIT 6G-24

FREQUENCY STABILITY VS. TEMPERATURE
SPECIFIED LIMITS: ±0.5 PPM (-30 TO +60 DEGREES C)



FREQUENCY STABILITY VS. SUPPLY VOLTAGE



TRANSIENT FREQUENCY BEHAVIOR
48 WATTS, 12.5 kHz, KEY-UP ATTACK TIME

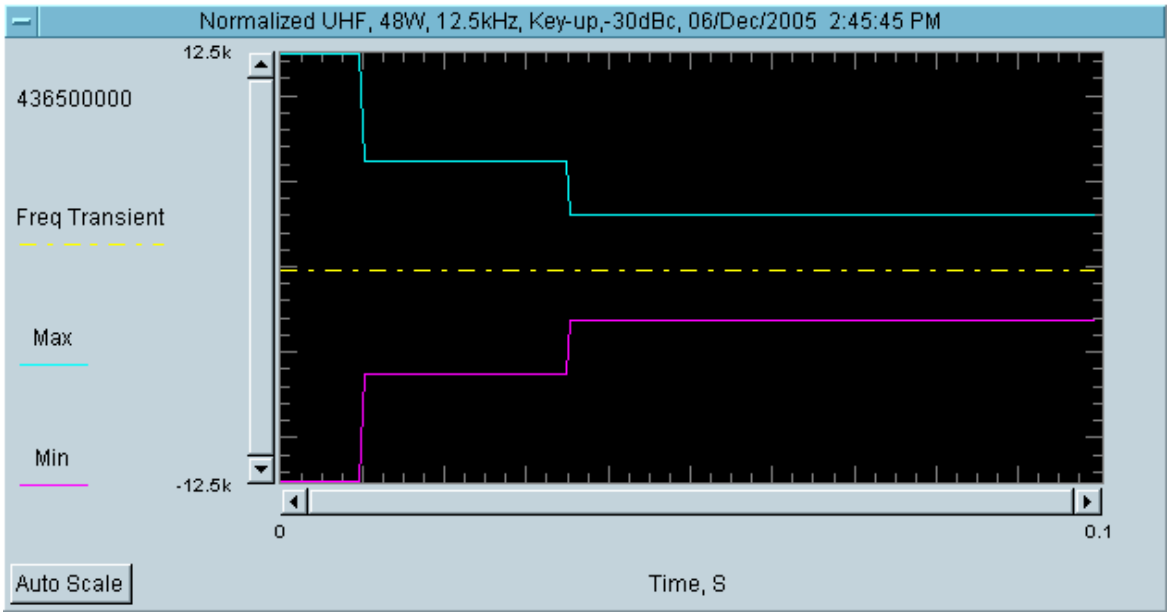


EXHIBIT 6I-1

TRANSIENT FREQUENCY BEHAVIOR
48 WATTS, 12.5 kHz, DE-KEY DECAY TIME

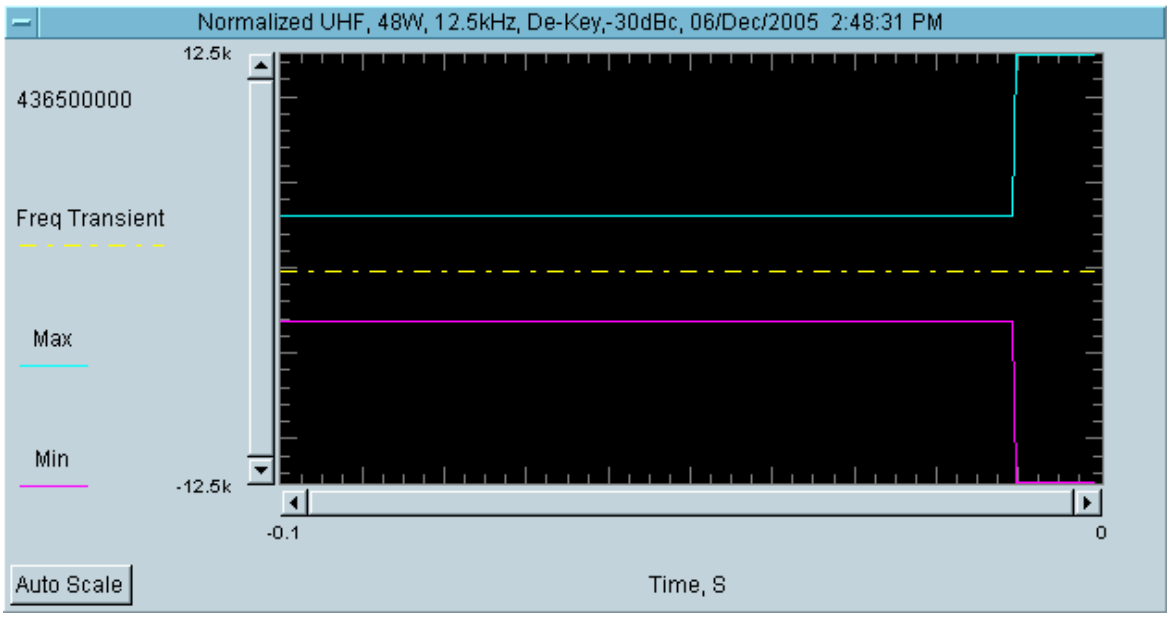


EXHIBIT 6I-2

TRANSIENT FREQUENCY BEHAVIOR
48 WATTS, 25 kHz, KEY-UP ATTACK TIME

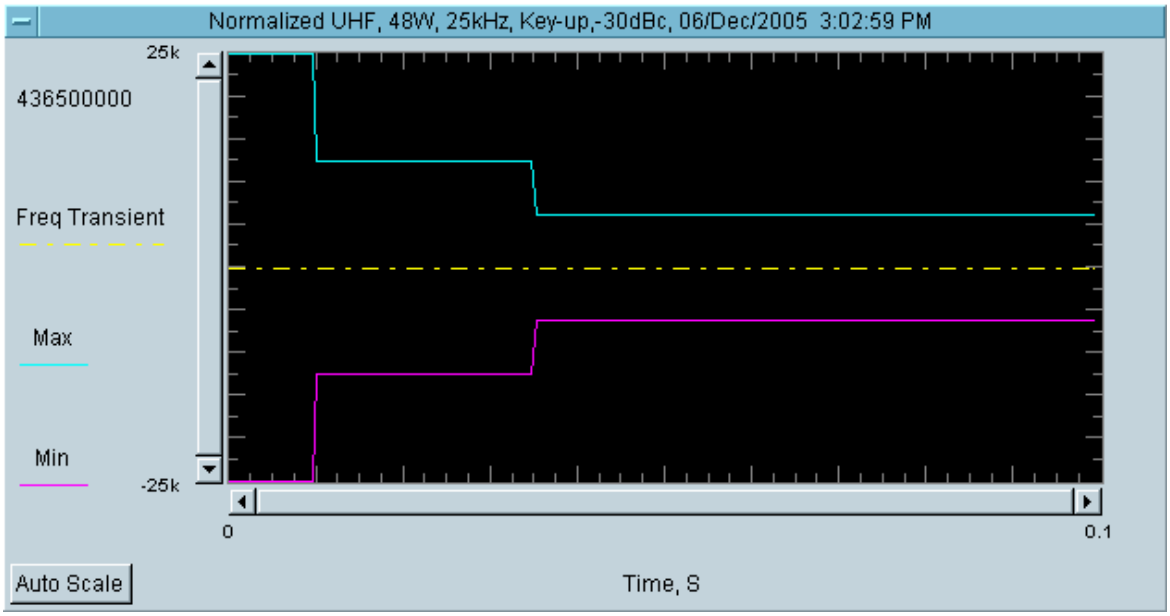


EXHIBIT 6I-3

TRANSIENT FREQUENCY BEHAVIOR
48 WATTS, 25 kHz, DE-KEY DECAY TIME

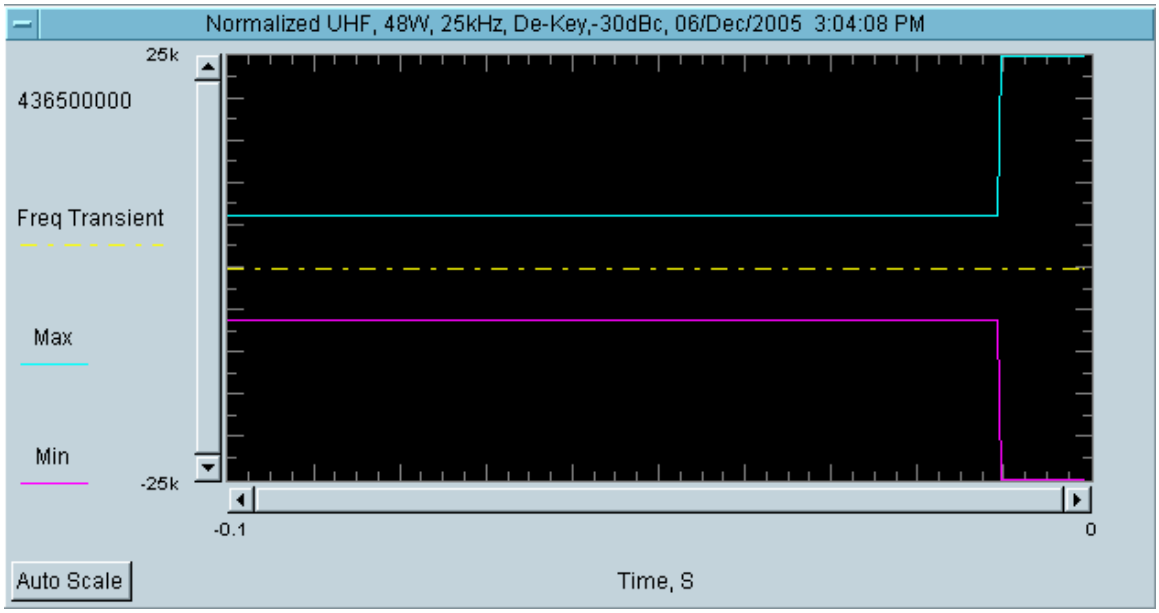


EXHIBIT 6I-4

TRANSIENT FREQUENCY BEHAVIOR
25 WATTS, 12.5 kHz, KEY-UP ATTACK TIME

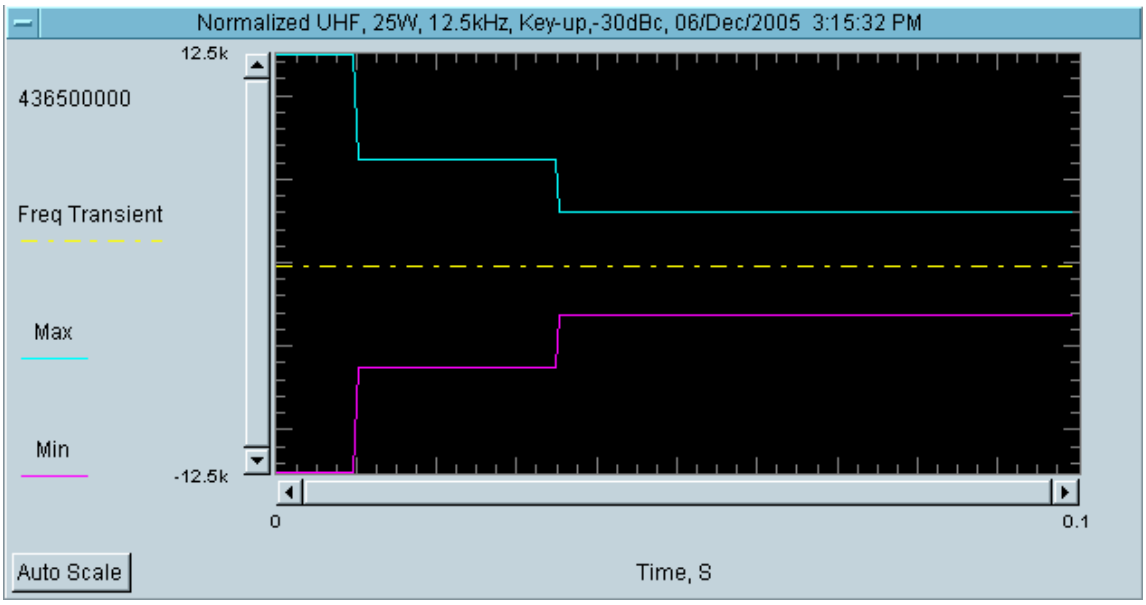


EXHIBIT 6I-5

TRANSIENT FREQUENCY BEHAVIOR
25 WATTS, 12.5 kHz, DE-KEY DECAY TIME

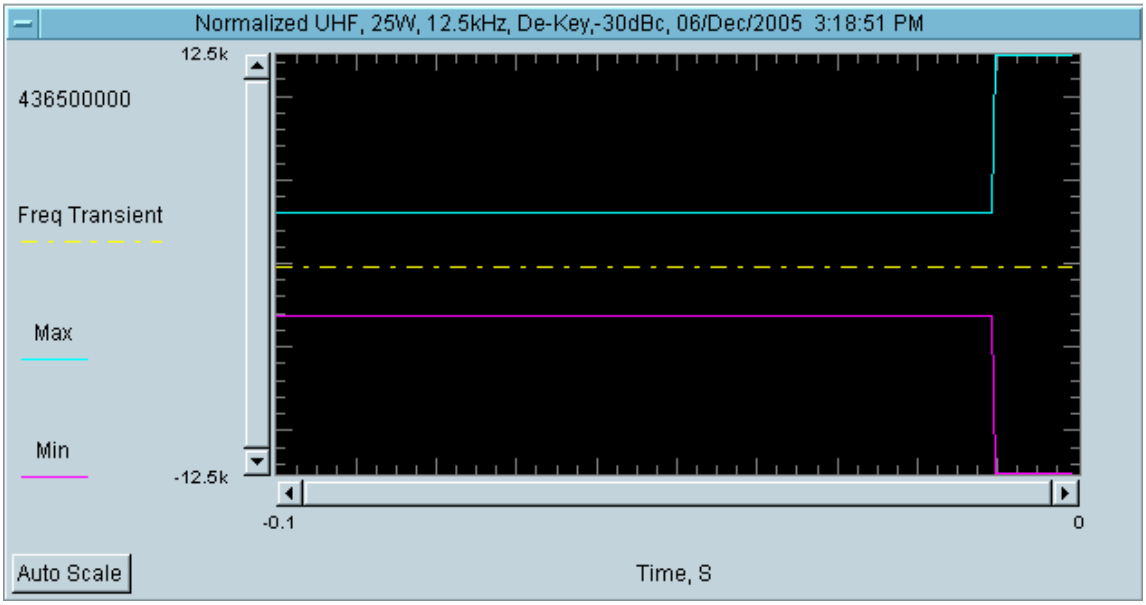


EXHIBIT 6I-6

TRANSIENT FREQUENCY BEHAVIOR
25 WATTS, 25 kHz, KEY-UP ATTACK TIME

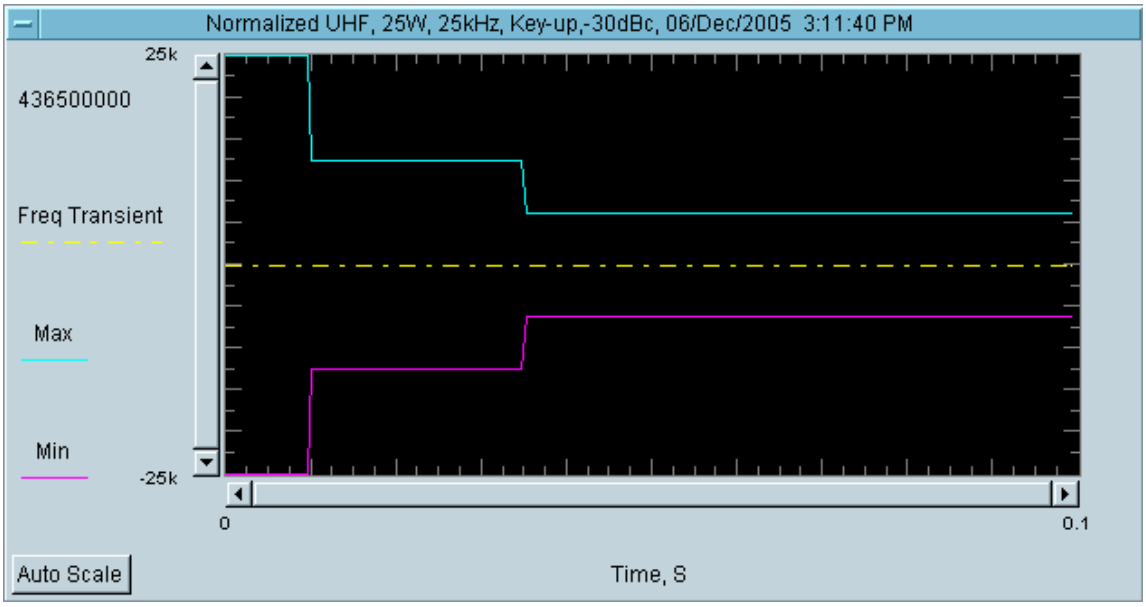


EXHIBIT 6I-7

TRANSIENT FREQUENCY BEHAVIOR
25 WATTS, 25 kHz, DE-KEY DECAY TIME

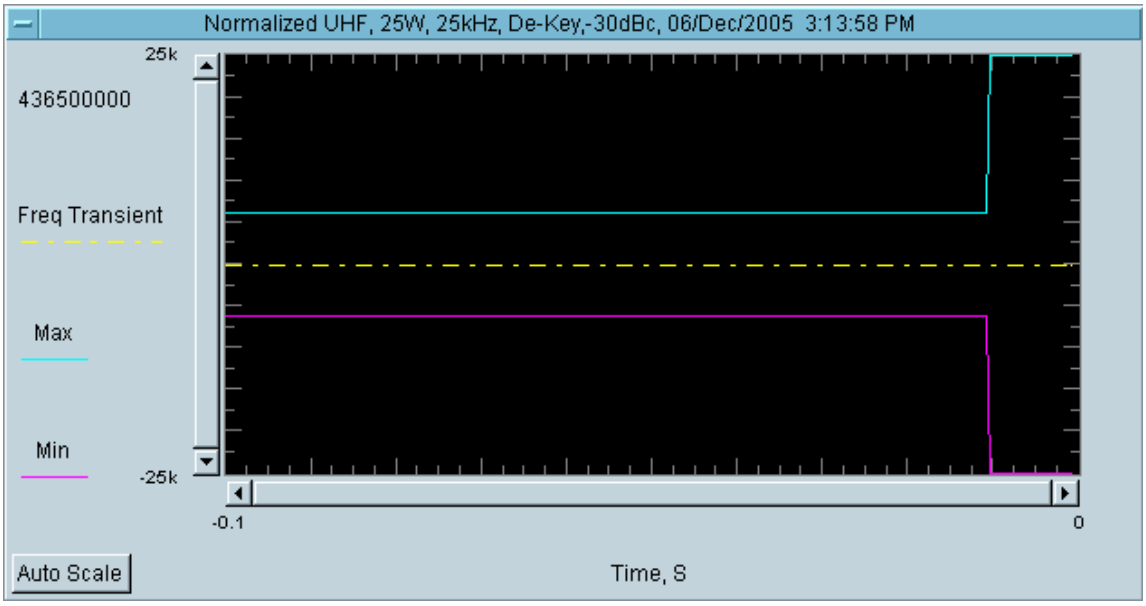


EXHIBIT 6I-8