SUBMITTED MEASURED DATA AND METHOD OF MEASUREMENT

	MEASUREMENT	EXHIBIT	NUMBER OF PAGES
I	RF Power Output	7A	1
II	Audio Response	7B	2
III	Low Pass Filter Response	7C	2
IV	Modulation Limiting	7D	6
V	Occupied Bandwidth	7E	8
V1	Conducted Spurious Emissions	7F	4
VII	Radiated Spurious Emissions	7G	2
VIII	Frequency Stability		
	A. Temperature	7H	1
	B. Supply Voltage	7I	1
IX	Transient Frequency Behavior	7J	4

EXHIBIT 7

RF Power Output - Measured Data

The supply voltage to the transmitter was set to 7.5 volts DC. The RF output power was measured with the indicated voltage and current applied into the final RF amplifying device.

HIGH - POWER SETTING, FREQUENCY 136.050 MHz.

Measured RF Output Power :   5.48 WATTS
Measured DC Voltage :   7.27 VOLTS
Measured DC Current :   1.42 AMP
Measured DC Input Power :   10.28 WATTS

HIGH - POWER SETTING, FREQUENCY 156.050 MHz.

Measured RF Output Power :   5.44 WATTS
Measured DC Voltage :   7.302 VOLTS
Measured DC Current :   1.16 AMP
Measured DC Input Power :   8.47 WATTS

HIGH - POWER SETTING, FREQUENCY 173.950 MHz.

Measured RF Output Power :   5.50 WATTS
Measured DC Voltage :   7.27 VOLTS
Measured DC Current :   1.43 AMP
Measured DC Input Power :   10.40 WATTS

LOW - POWER SETTING, FREQUENCY 136.050 MHz.

Measured RF Output Power :   1.26 WATTS
Measured DC Voltage :   7.39 VOLTS
Measured DC Current :   0.63 AMP
Measured DC Input Power :   4.66 WATTS

LOW - POWER SETTING, FREQUENCY 156.050 MHz.

Measured RF Output Power :   1.34 WATTS
Measured DC Voltage :   7.39 VOLTS
Measured DC Current :   0.63 AMP
Measured DC Input Power :   4.66 WATTS

LOW- POWER SETTING, FREQUENCY 173.950 MHz.

Measured RF Output Power: 1.33 WATTS
Measured DC Voltage: 7.39 VOLTS
Measured DC Current: 0.67 AMP
Measured DC Input Power: 4.95 WATTS

EXHIBIT 7A

MOTOROLA INC.

TRANSMITTER AUDIO RESPONSE CHARACTERISTIC
MODULATION LEVEL vs. AUDIO FREQUENCY

==
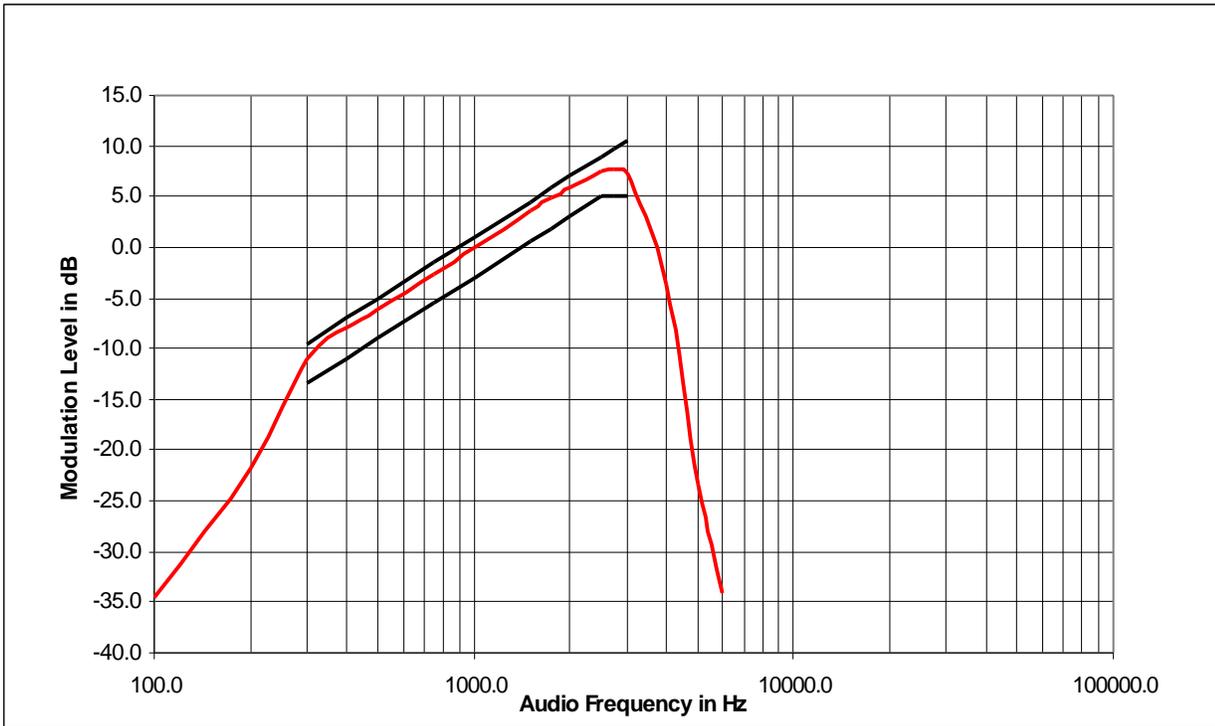
Xmtr Type : AZ489FT3798

Log Page   : ---

Date   : 19th. May 1999

Signature   : SF Ooi

Frequency: 156.050 MHz
Channel Spacing: 25 kHz

EXHIBIT 7B -1

MOTOROLA INC.

TRANSMITTER AUDIO RESPONSE CHARACTERISTIC
MODULATION LEVEL vs. AUDIO FREQUENCY

==
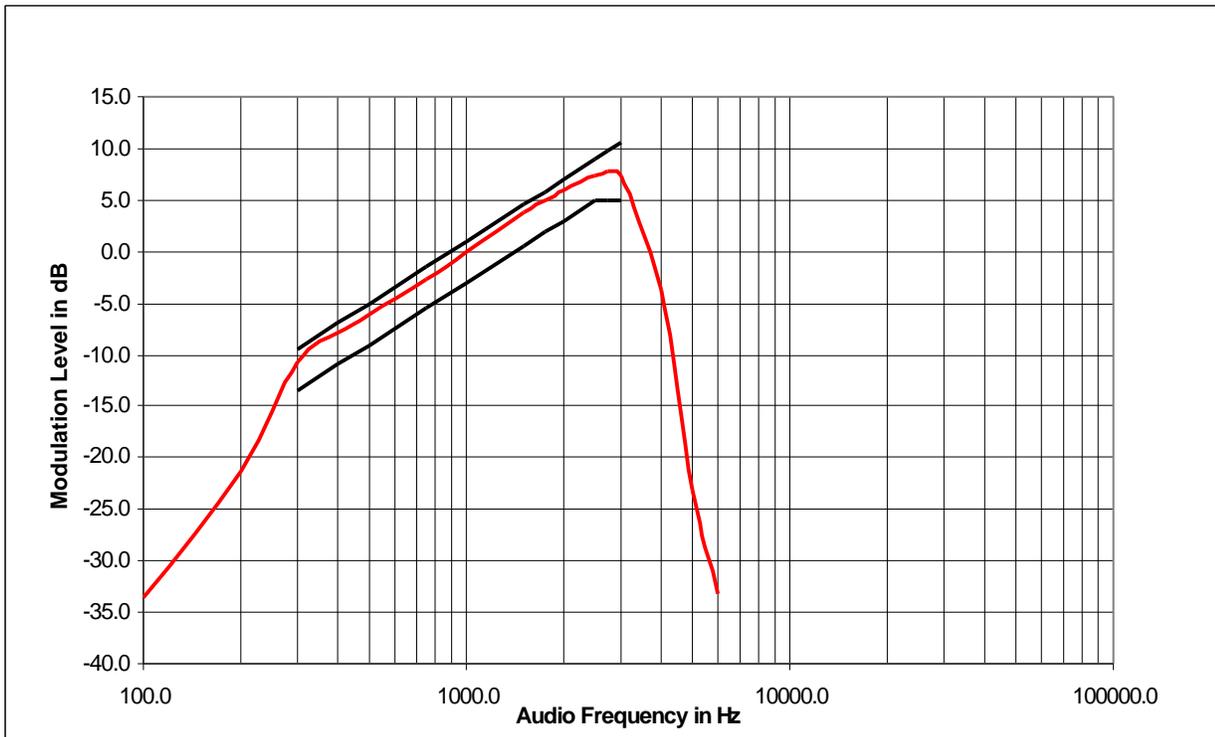
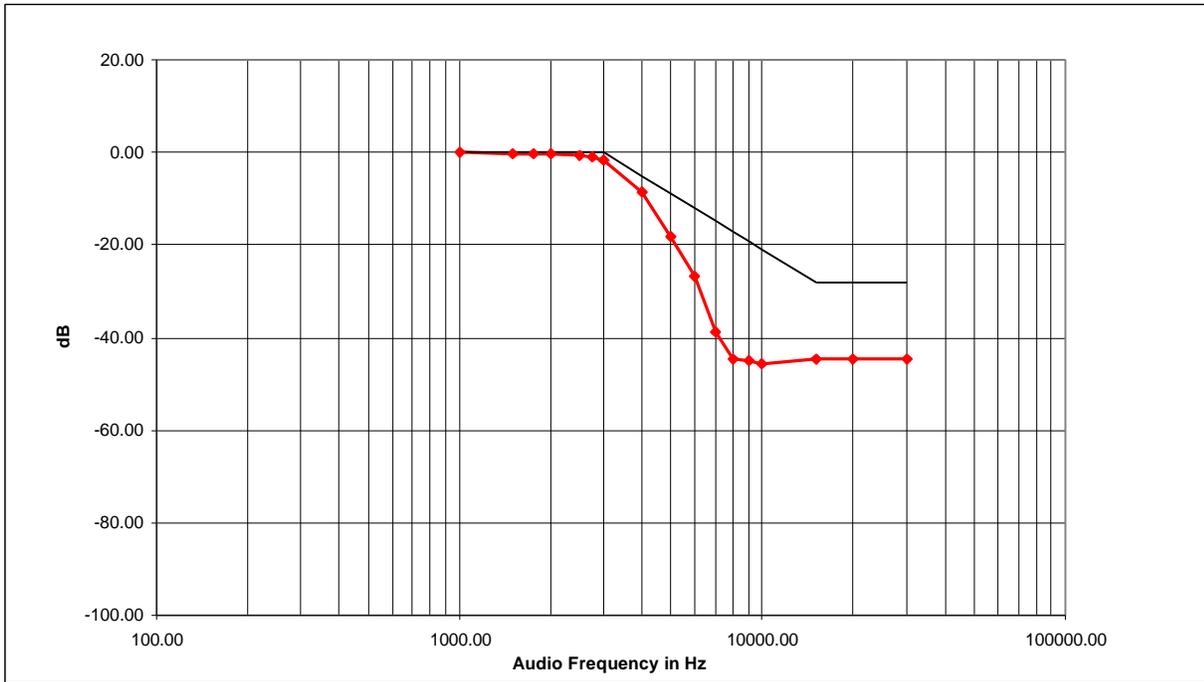Xmtr Type : AZ489FT3798

Log Page   : ---

Date   : 19th. May 1999

Signature   : SF Ooi

Frequency: 156.050 MHz
Channel Spacing: 12.5 kHz

MOTOROLA INC.

TRANSMITTER
POST - LIMITER ROLL OFF RESPONSE

FILTER OUTPUT vs. AUDIO FREQUENCY

==

Xmtr Type : AZ489FT3798
Log Page   : ---

Date   : 19th. May 1999

Signature   : SF Ooi

Frequency : 156.050 MHz
Channel Spacing : 25 kHz

MOTOROLA INC.

TRANSMITTER
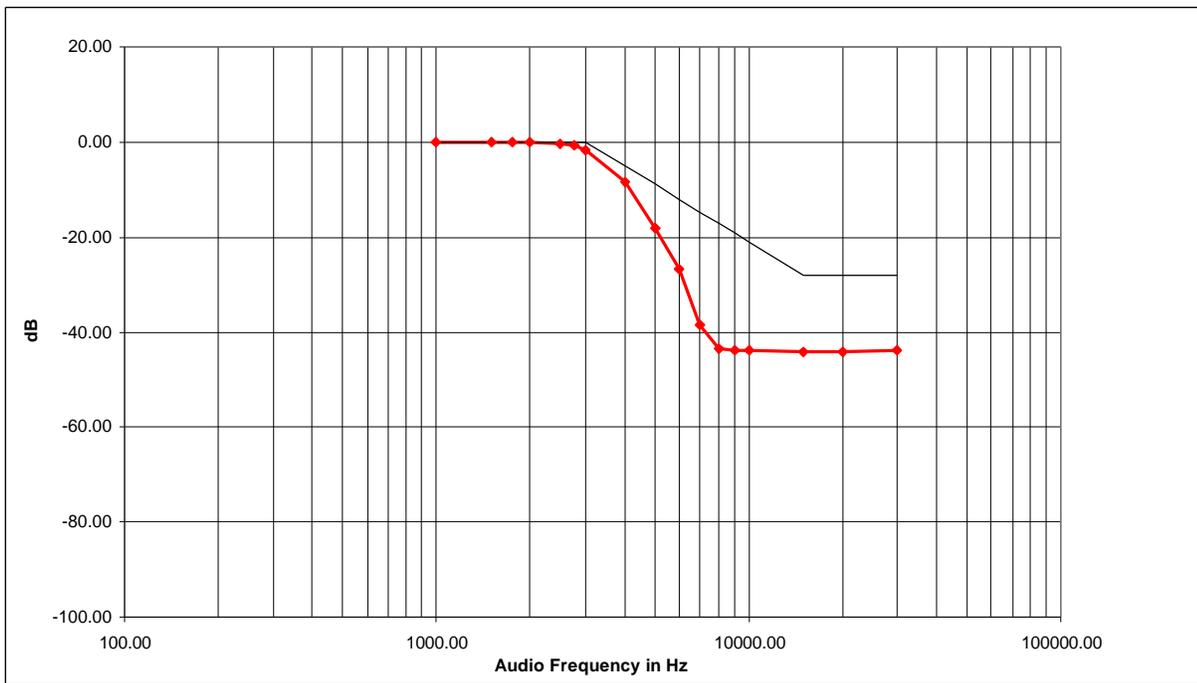POST - LIMITER ROLL OFF RESPONSE

FILTER OUTPUT vs. AUDIO FREQUENCY
===

Xmtr Type : AZ489FT3798
Log Page   : ---

Date   : 19th. May 1999

Signature   : SF Ooi

Frequency : 156.050 MHz
Channel Spacing : 12.5 kHz

MOTOROLA INC.

CARRIER SQUELCH
AUDIO INPUT LEVEL vs. DEVIATION
==
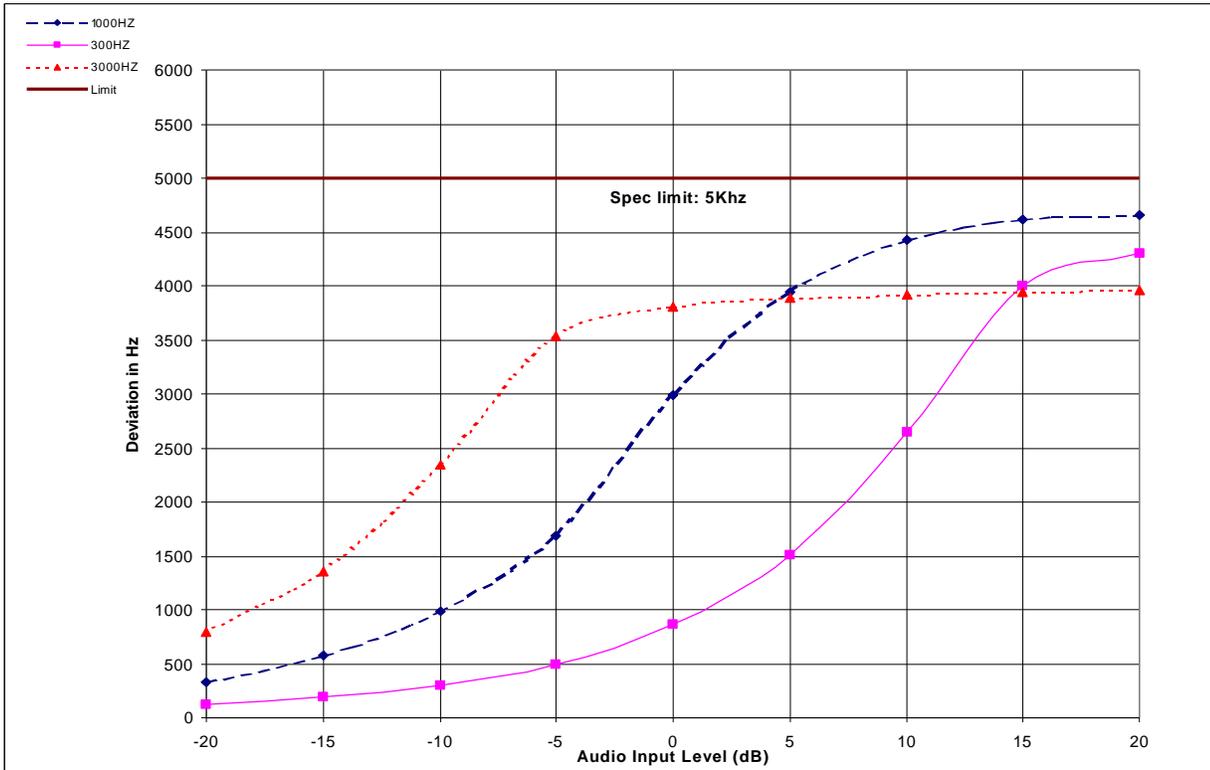
Xmtr Type : AZ489FT3798

Log Page   : ---

Date   : 19th. May 1999

Signature   : SF Ooi

Frequency : 156.050 MHz
Channel Spacing : 25 kHz

MOTOROLA INC.

TONE WITH "PL"
AUDIO INPUT LEVEL vs. DEVIATION
==
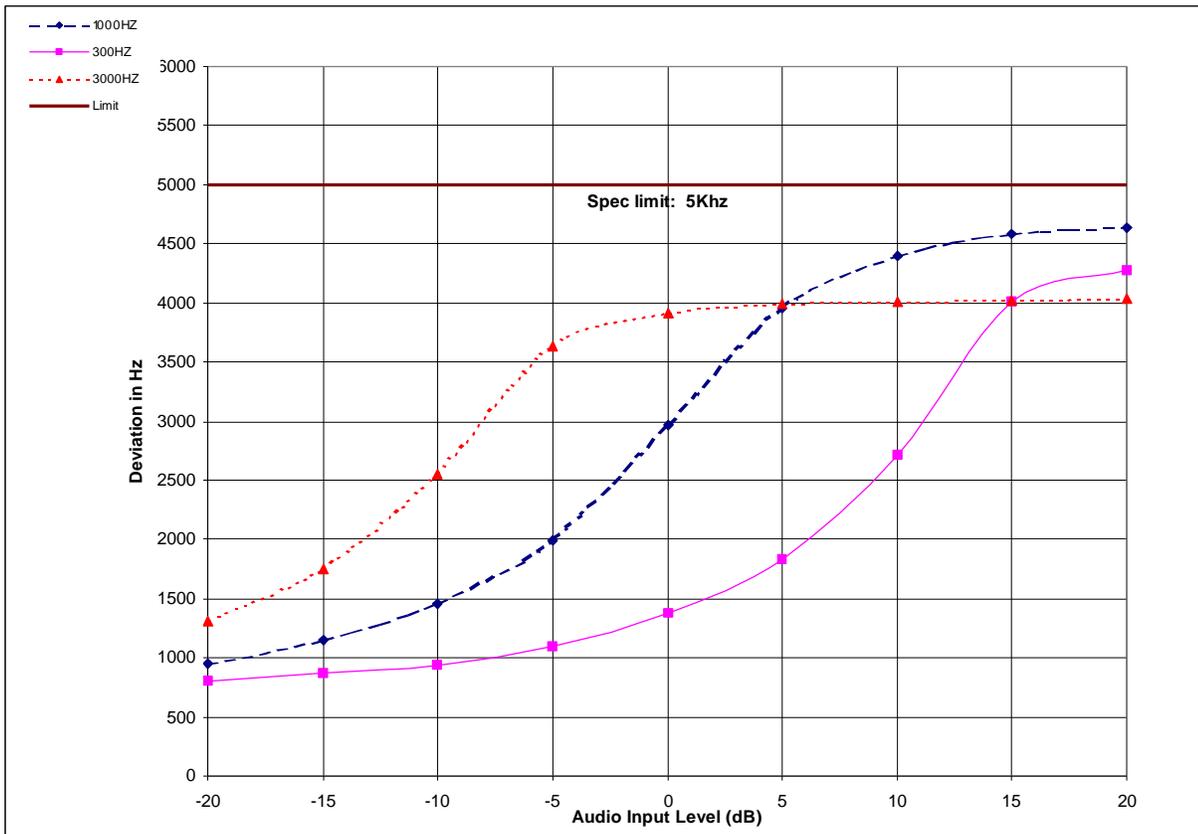
Xmtr Type : AZ489FT3798

Log Page   : ---

Date   : 19th. May 1999

Signature   : SF Ooi

Frequency : 156.050 MHz
Channel Spacing : 25 kHz

MOTOROLA INC.

TONE WITH "DPL"
AUDIO INPUT LEVEL vs. DEVIATION

===
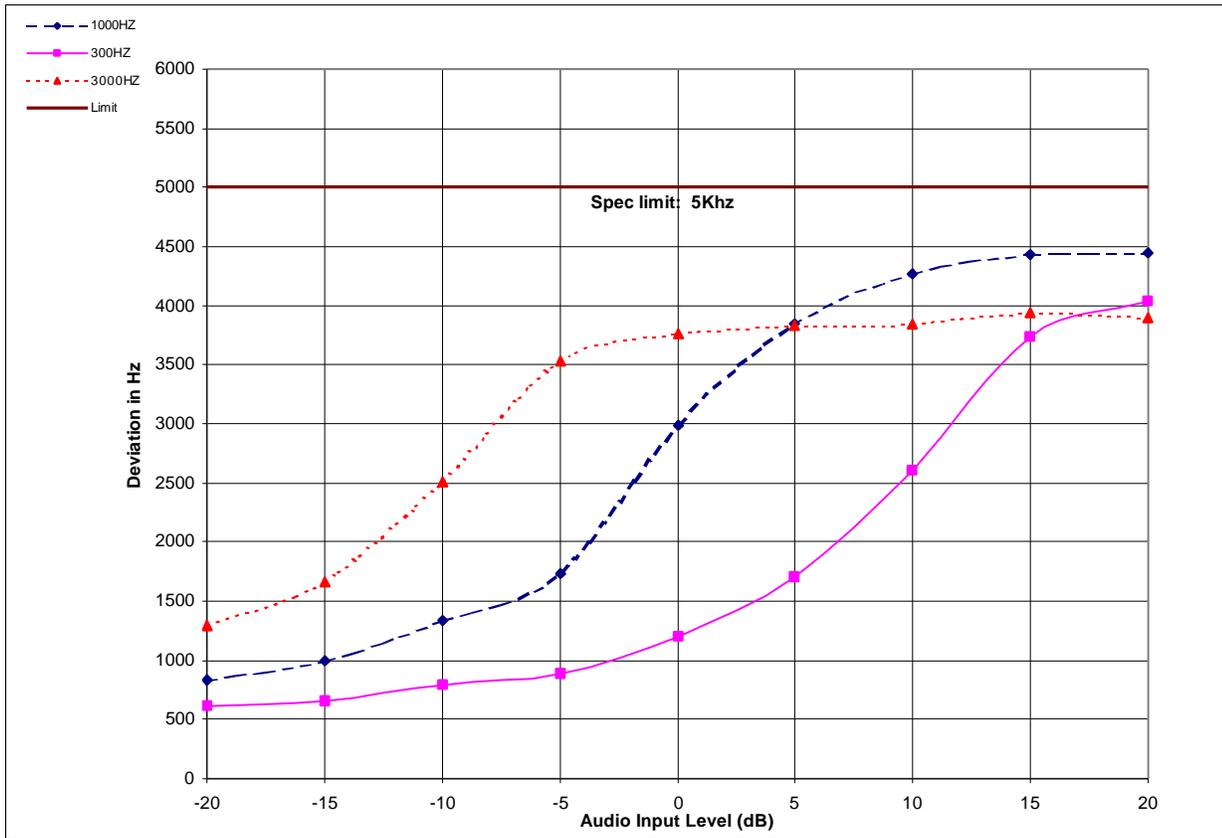
Xmtr Type : AZ489FT3798

Log Page   : ---

Date   : 19th. May 1999

Signature   : SF Ooi

Frequency : 156.050 Mhz
Channel Spacing : 25KHz

MOTOROLA INC.

CARRIER SQUELCH
AUDIO INPUT LEVEL vs. DEVIATION
==

Xmtr Type : AZ489FT3798

Log Page   : ---

Date   : 19th. May 1999

Signature   : SF Ooi

Frequency : 156.050 Mhz
Channel Spacing : 12.5KHz

MOTOROLA INC.

TONE WITH "PL"
AUDIO INPUT LEVEL vs. DEVIATION
===
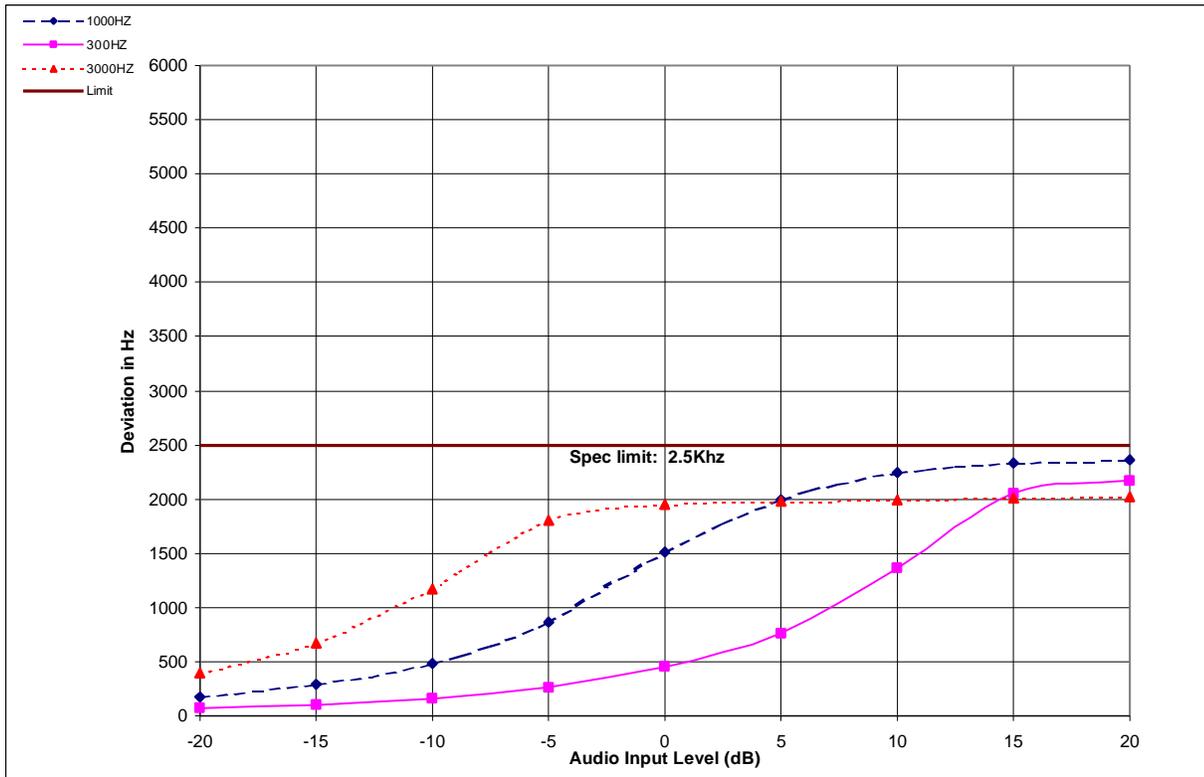
Xmtr Type : AZ489FT3798

Log Page   : ---

Date   : 19th. May 1999

Signature   : SF Ooi

Frequency : 156.050 Mhz
Channel Spacing : 12.5KHz

MOTOROLA INC.

TONE WITH "DPL"
AUDIO INPUT LEVEL vs. DEVIATION
==
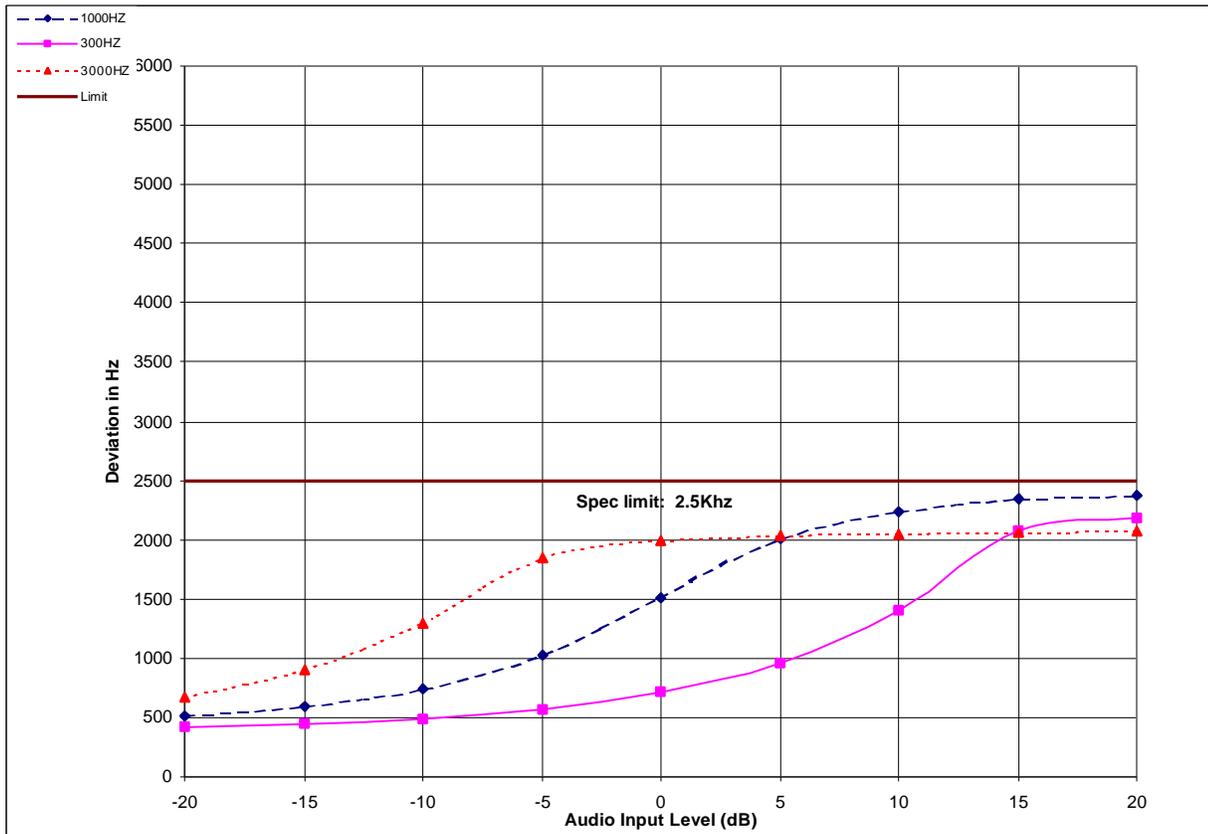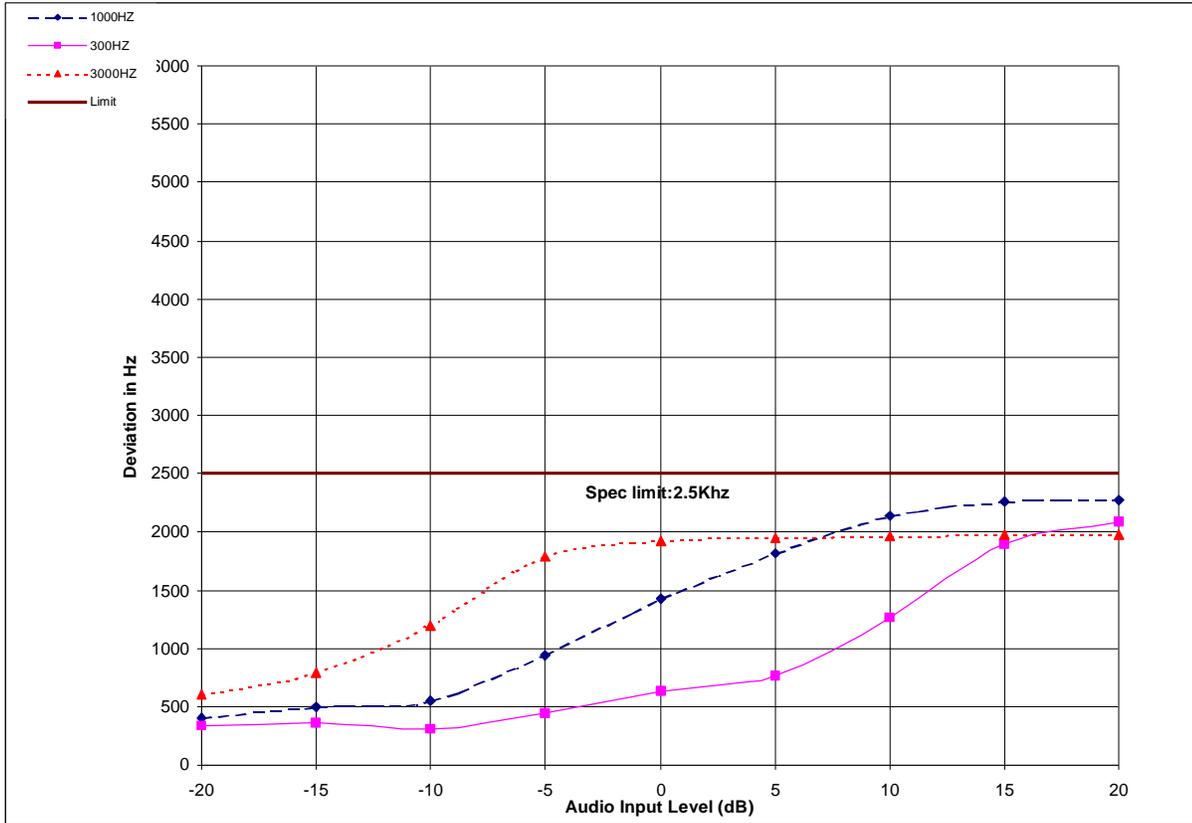
Xmtr Type : AZ489FT3798

Log Page   : ---

Date   : 19th. May 1999

Signature   : SF Ooi

Frequency : 156.050 Mhz
Channel Spacing : 12.5KHz

MOTOROLA INC.

OCCUPIED BANDWIDTH
(2500 HZ AUDIO MODULATION ONLY)

==

Xmtr Type : AZ489FT3798

Log Page   : ---

Date   : 19th. May 1999

Signature   : SF Ooi

25Khz Channel Spacing

CENTER FREQUENCY(MHz):	156.050
RESOLUTION BANDWIDTH(Hz):	300
VIDEO BANDWIDTH(kHz):	300
SPAN(kHz):	100
SWEEP TIME(SEC):	3
SCALE(DB/):	10
REF LEVEL(dBm)	5.8
ATTEN (dB)	30

Note: Emission Mask B

MOTOROLA INC.

OCCUPIED BANDWIDTH
(2500 HZ AUDIO & PL TONE MODULATION)
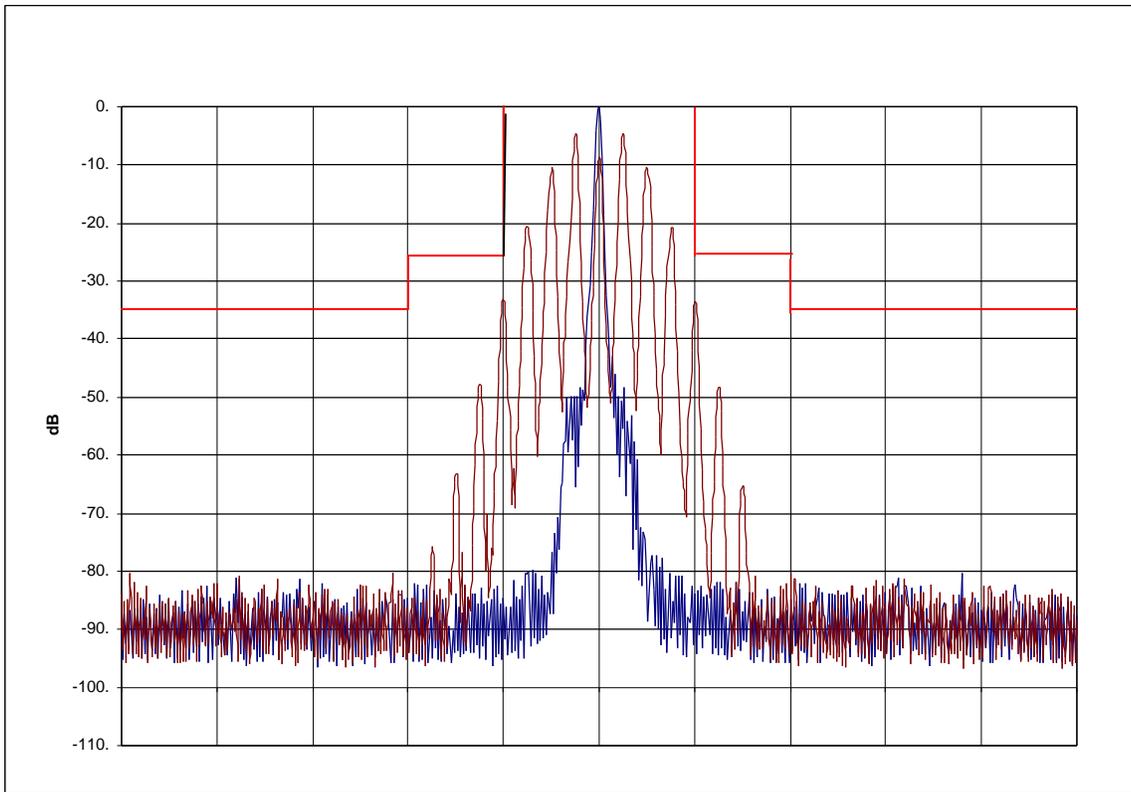==

Xmtr Type : AZ489FT3798

Log Page   : ---

Date   : 19th. May 1999

Signature   : SF Ooi.

25Khz Channel Spacing

CENTER FREQUENCY(MHz):	156.050
RESOLUTION BANDWIDTH(Hz):	300
VIDEO BANDWIDTH(kHz):	300
SPAN(kHz):	100
SWEEP TIME(SEC):	3
SCALE(DB/):	10
REF LEVEL(dBm)	5.8
ATTEN (dB)	30

Note: Emission Mask B

MOTOROLA INC.

OCCUPIED BANDWIDTH
(2500 HZ AUDIO & DPL TONE MODULATION)

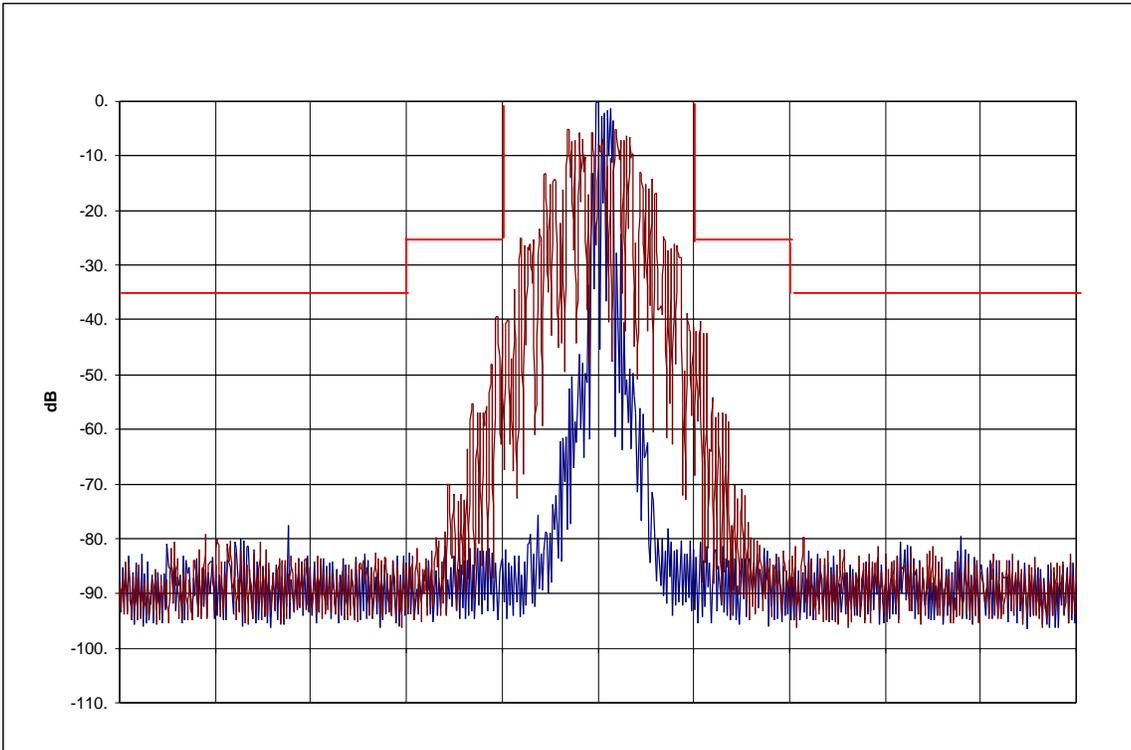==

Xmtr Type : AZ489FT3798

Log Page   : ---

Date   : 19th. May 1999

Signature   : SF Ooi

25Khz Channel Spacing

CENTER FREQUENCY(MHz):	156.050
RESOLUTION BANDWIDTH(Hz):	300
VIDEO BANDWIDTH(kHz):	300
SPAN(kHz):	100
SWEEP TIME(SEC):	3
SCALE(DB/):	10
REF LEVEL(dBm)	5.8
ATTEN (dB)	30

Note: Emission Mask B

MOTOROLA INC.

OCCUPIED BANDWIDTH
(DTMF MODULATION ONLY)
==
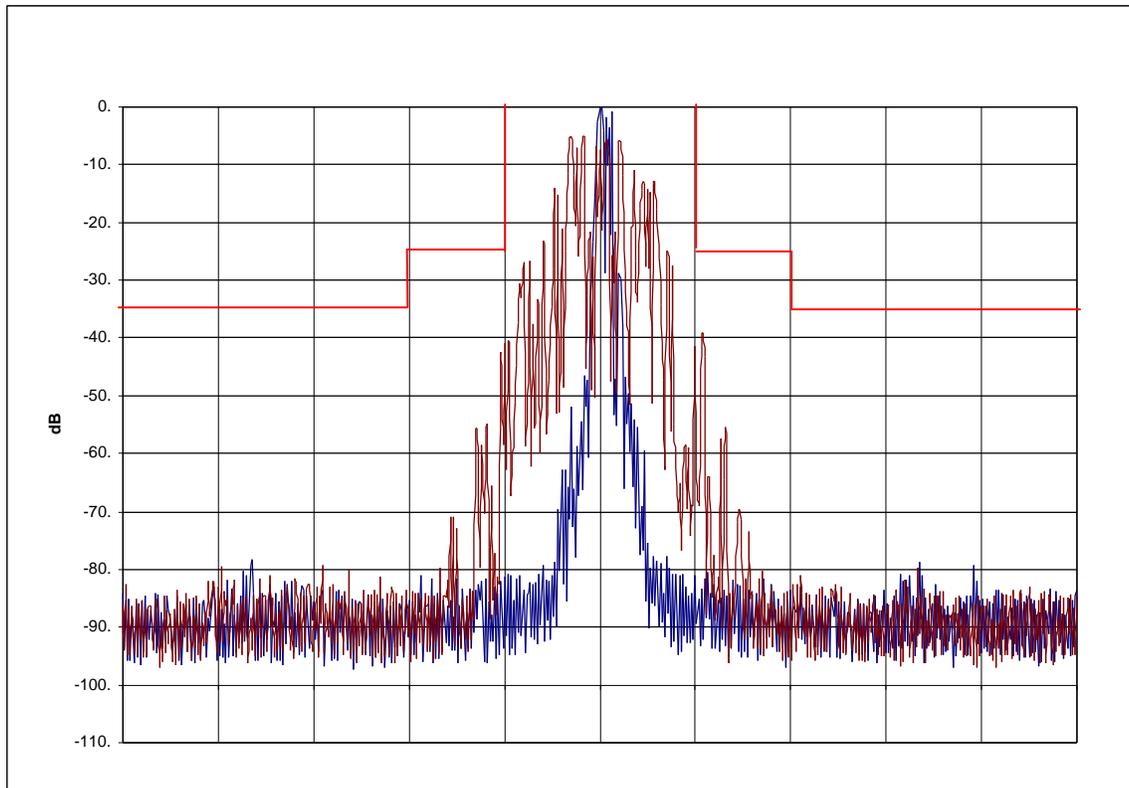
Xmtr Type : AZ489FT3798

Log Page   : ---

Date   : 19th. May 1999

Signature   : SF Ooi

25Khz Channel Spacing

CENTER FREQUENCY(MHz):	156.050
RESOLUTION BANDWIDTH(Hz):	300
VIDEO BANDWIDTH(kHz):	300
SPAN(kHz):	100
SWEEP TIME(SEC):	3
SCALE(DB/):	10
REF LEVEL(dBm)	5.8
ATTEN (dB)	30

Note: Emission Mask B

MOTOROLA INC.

OCCUPIED BANDWIDTH
(2500 HZ AUDIO MODULATION ONLY)
==
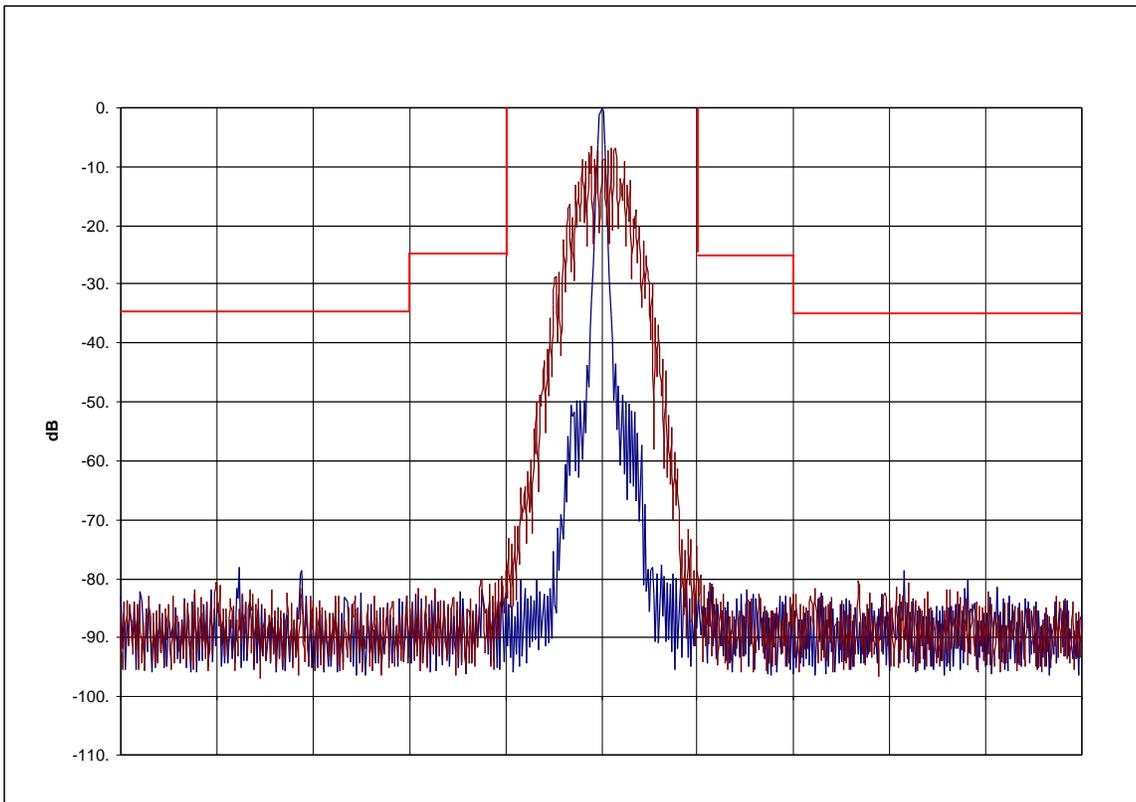
Xmtr Type : AZ489FT3798

Log Page   : ---

Date   : 19th. May 1999

Signature   : <u>SF Ooi</u>

12.5Khz Channel Spacing

CENTER FREQUENCY(MHz):	156.050
RESOLUTION BANDWIDTH(Hz):	300
VIDEO BANDWIDTH(kHz):	300
SPAN(kHz):	100
SWEEP TIME(SEC):	3
SCALE(DB/):	10
REF LEVEL(dBm)	5.8
ATTEN (dB)	30

Note: Emission Mask D

MOTOROLA INC.

OCCUPIED BANDWIDTH
(2500 HZ AUDIO & PL TONE MODULATION)
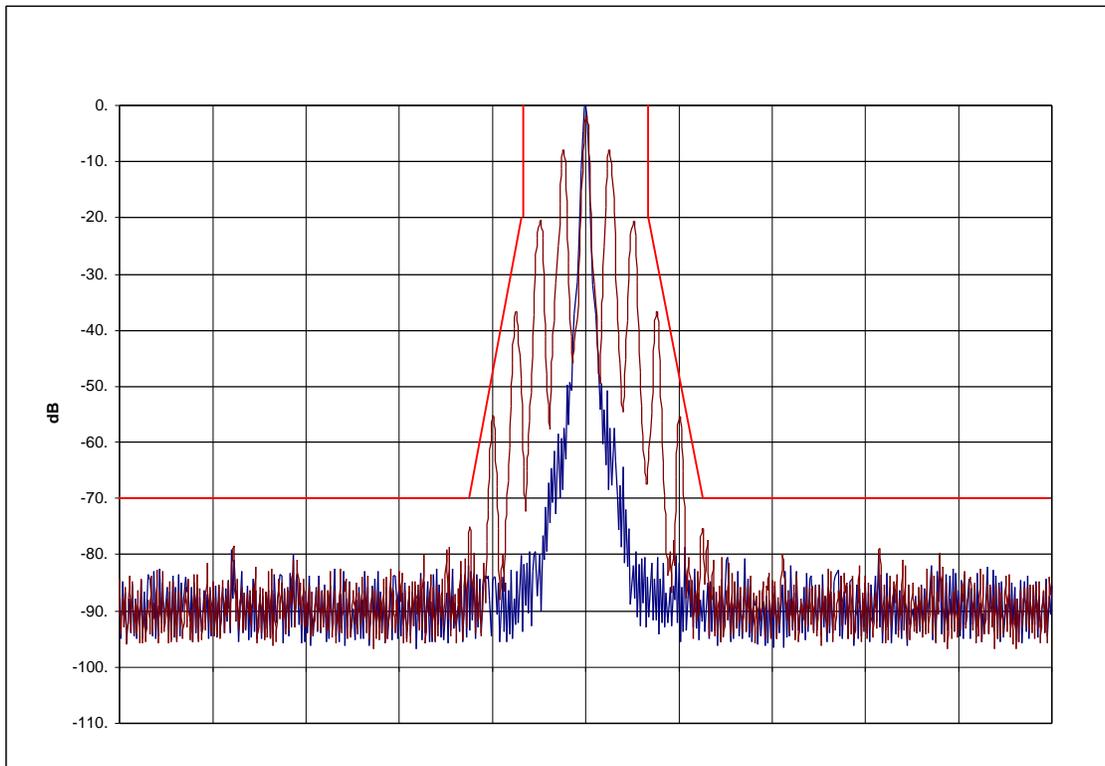==

Xmtr Type : AZ489FT3798

Log Page   : ---

Date   : 19th. May 1999

Signature   : SF Ooi

12.5Khz Channel Spacing

CENTER FREQUENCY(MHz):	156.050
RESOLUTION BANDWIDTH(Hz):	300
VIDEO BANDWIDTH(kHz):	300
SPAN(kHz):	100
SWEEP TIME(SEC):	3
SCALE(DB/):	10
REF LEVEL(dBm)	5.8
ATTEN (dB)	30

Note: Emission Mask D

MOTOROLA INC.

OCCUPIED BANDWIDTH
(2500 HZ AUDIO & DPL TONE MODULATION)
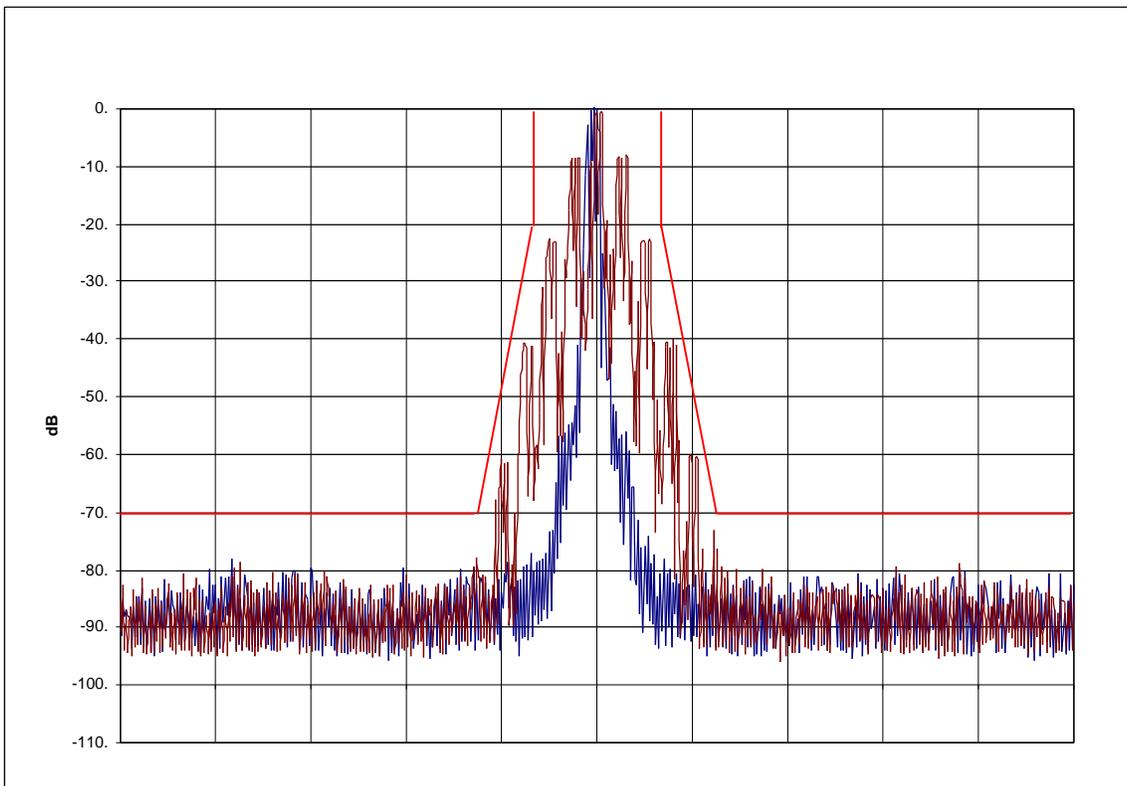==

Xmtr Type : AZ489FT3798

Log Page   : ---

Date   : 19th. May 1999

Signature   : SF Ooi

12.5Khz Channel Spacing

CENTER FREQUENCY(MHz):	156.050
RESOLUTION BANDWIDTH(Hz):	300
VIDEO BANDWIDTH(kHz):	300
SPAN(kHz):	100
SWEEP TIME(SEC):	3
SCALE(DB/):	10
REF LEVEL(dBm)	5.8
ATTEN (dB)	30

Note: Emission Mask D

MOTOROLA INC.

OCCUPIED BANDWIDTH
(DTMF MODULATION ONLY)

==
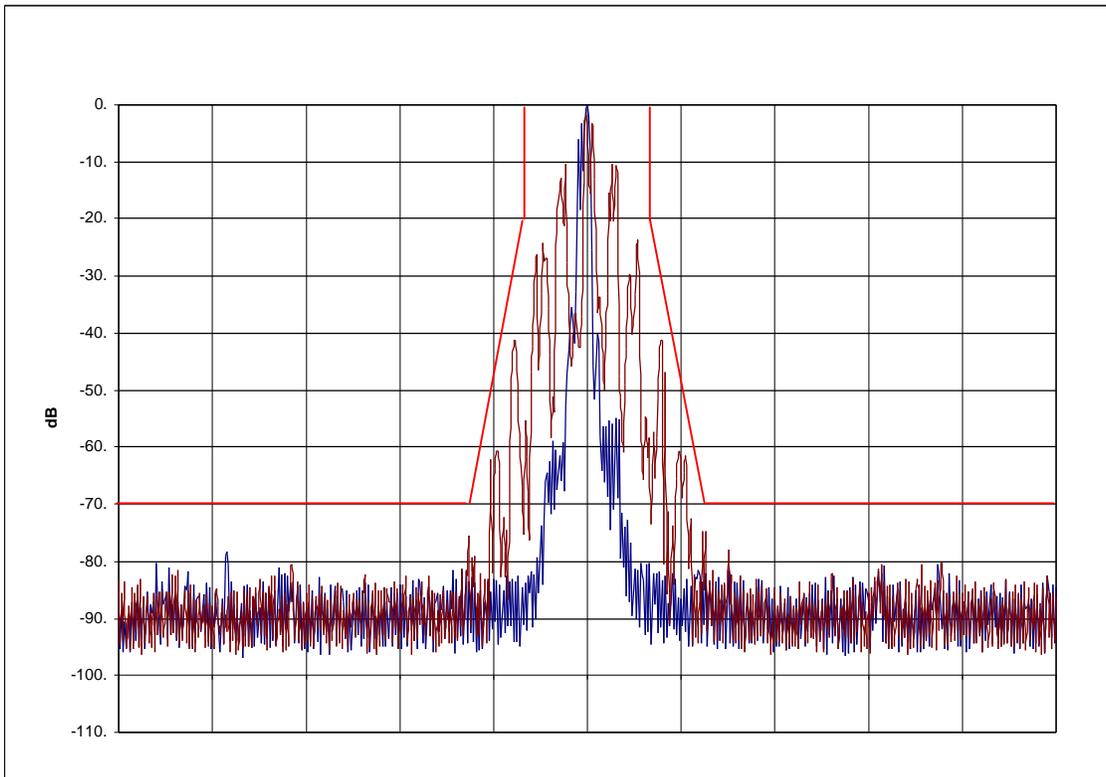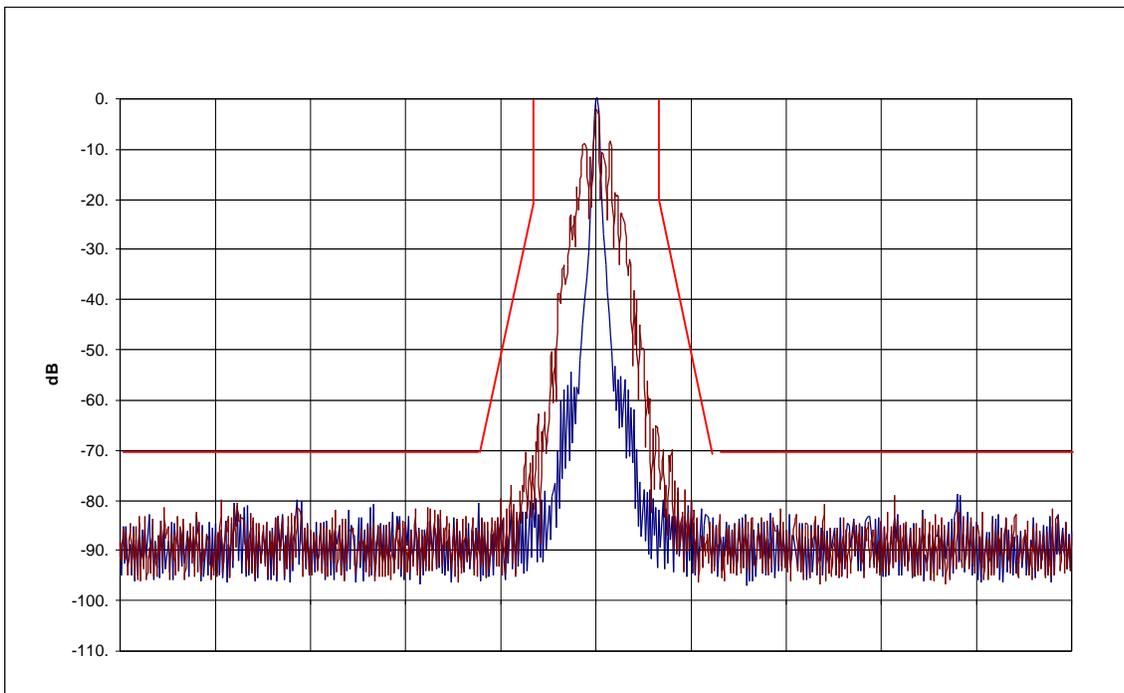
Xmtr Type : AZ489FT3798

Log Page   : ---

Date   : 19th. May 1999

Signature   : SF Ooi

12.5Khz Channel Spacing

CENTER FREQUENCY(MHz):	156.050
RESOLUTION BANDWIDTH(Hz):	300
VIDEO BANDWIDTH(kHz):	300
SPAN(kHz):	100
SWEEP TIME(SEC):	3
SCALE(DB/):	10
REF LEVEL(dBm)	5.8
ATTEN (dB)	30

Note: Emission Mask D

MOTOROLA INC.

TRANSMITTER SPURIOUS EMISSION CHARACTERISTIC
CONDUCTED SPURIOUS AND HARMONIC EMISSIONS

==

Xmtr Type : AZ489FT3798

Log Page   : ---

Date   : 19th. May 1999

Signature   : SF Ooi

Power Output : 5W at 136.050 MHz.
Channel Spacing : 25 kHz.

Note: Other emissions not reported were more than 40dB below the limit

MOTOROLA INC.

TRANSMITTER SPURIOUS EMISSION CHARACTERISTIC
CONDUCTED SPURIOUS AND HARMONIC EMISSIONS
==

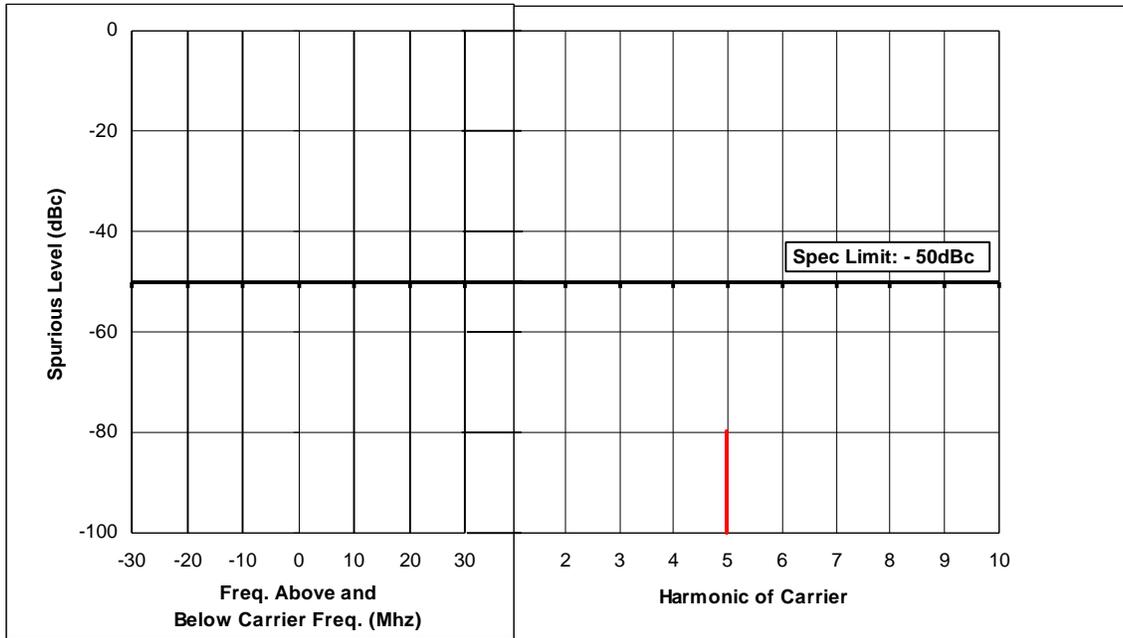Xmtr Type : AZ489FT3798

Log Page   : ---

Date   : 19th. May 1999

Signature   : SF Ooi

Power Output : 5W at 173.950 MHz.
Channel Spacing : 25 kHz.

Note: Other emissions not reported were more than 40dB below the limit

MOTOROLA INC.

TRANSMITTER SPURIOUS EMISSION CHARACTERISTIC
CONDUCTED SPURIOUS AND HARMONIC EMISSIONS
==

Xmtr Type : AZ489FT3798

Log Page   : ---

Date   : 19th. May 1999

Signature   : SF Ooi

Power Output : 5W at 173.950 MHz.
Channel Spacing : 12.5 kHz.

Note: Other emissions not reported were more than 35dB below the limit

MOTOROLA INC.

TRANSMITTER SPURIOUS EMISSION CHARACTERISTIC
CONDUCTED SPURIOUS AND HARMONIC EMISSIONS

==
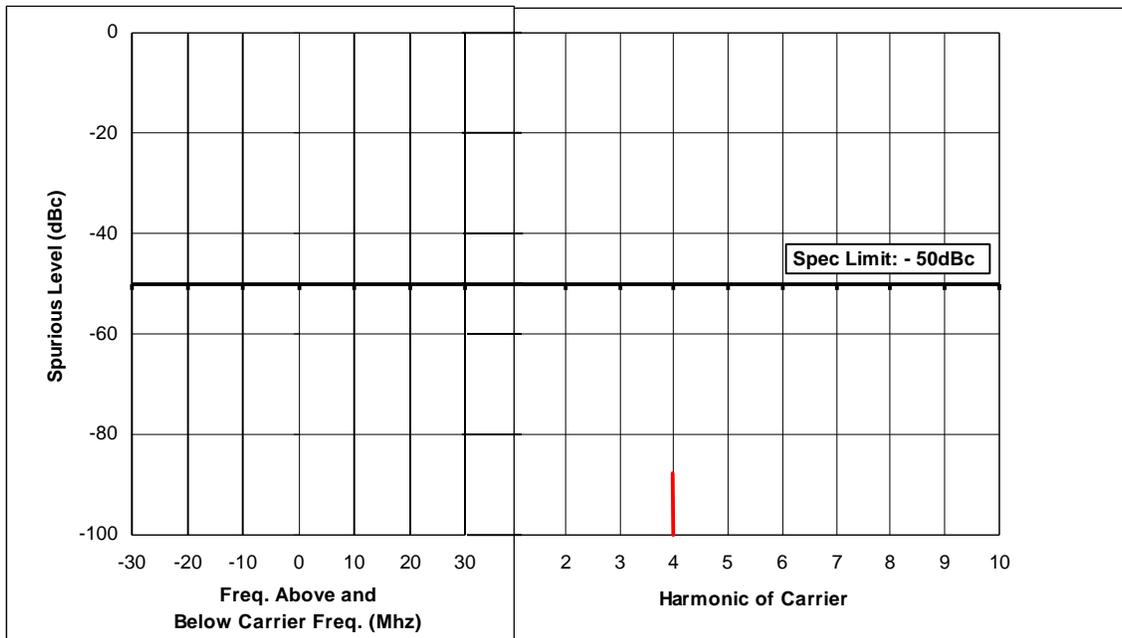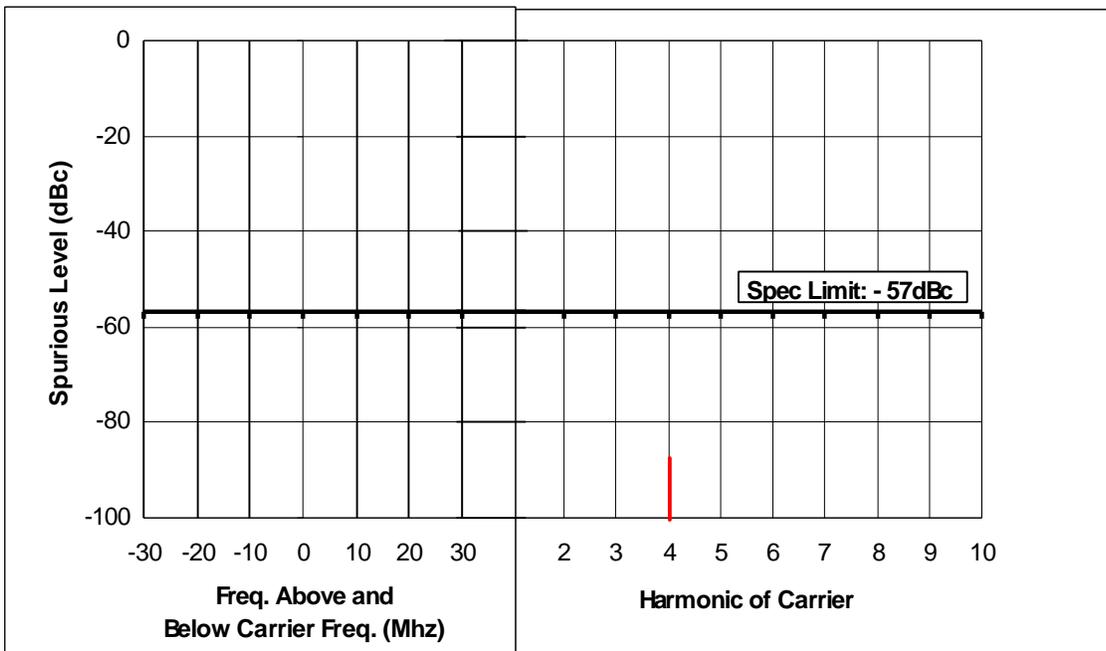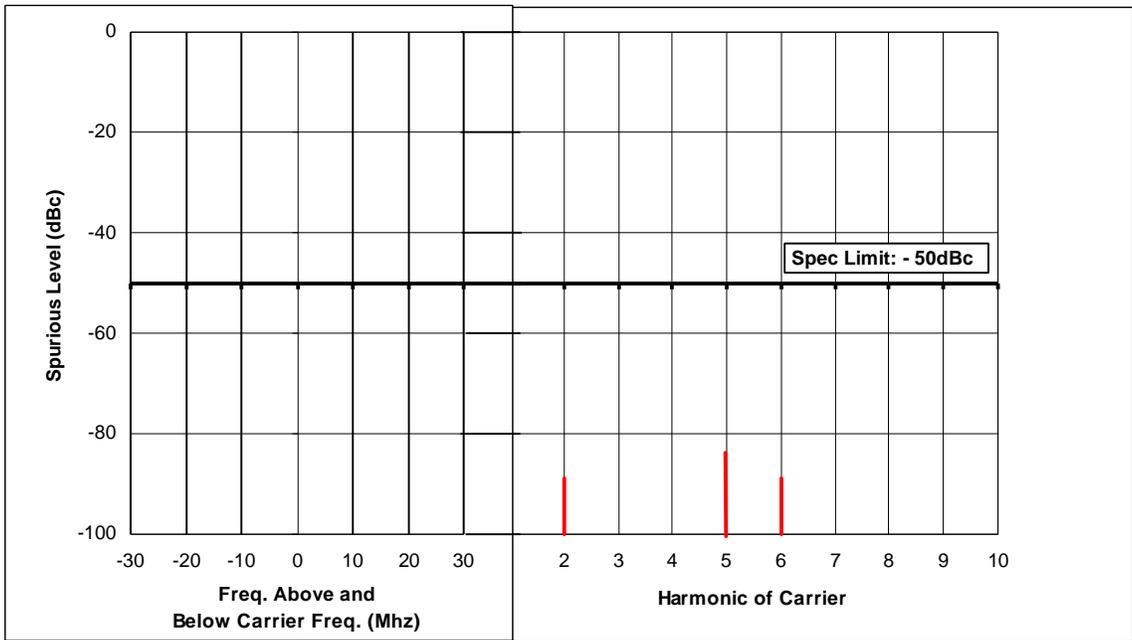
Xmtr Type : AZ489FT3798

Log Page   : ---

Date   : 19th. May 1999

Signature   : SF Ooi

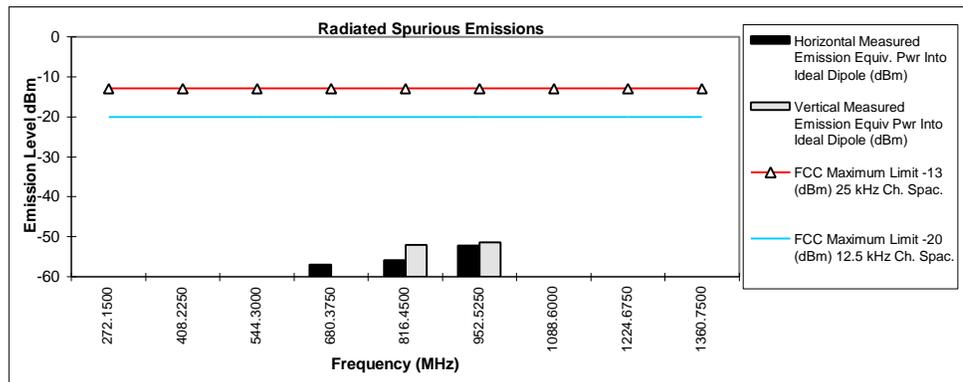Power Output : 1W at 136.050 MHz.
Channel Spacing : 12.5 kHz.

Note: Other emissions not reported were more than 40dB below the limit
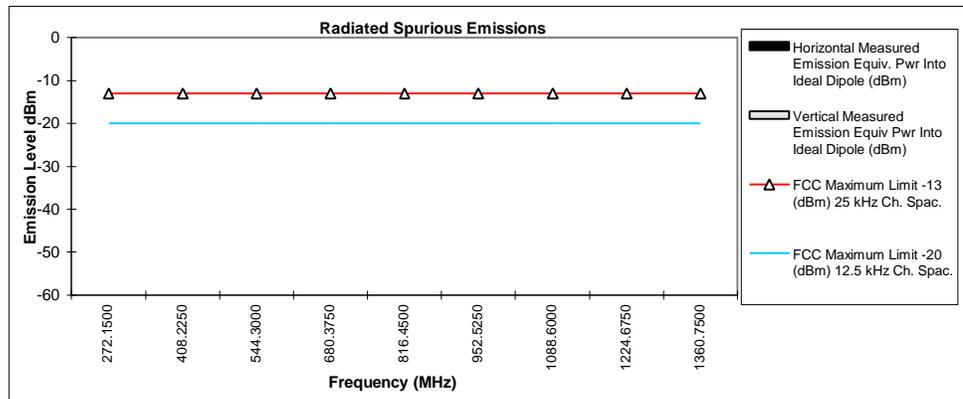
Transmitter Radiated Spurious Emissions: VHF Radio

136.075 - 5.0 W - 25 kHz CH. Spacing

Spur	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)
2X FUND	272.1500	-13	-20	-71.9	-68.6
3X FUND	408.2250	-13	-20	-71.2	-63.7
4X FUND	544.3000	-13	-20	-66.5	-63.6
5X FUND	680.3750	-13	-20	-57.0	-60.3
6X FUND	816.4500	-13	-20	-55.7	-52.1
7X FUND	952.5250	-13	-20	-52.2	-51.4
8X FUND	1088.6000	-13	-20	*	*
9X FUND	1224.6750	-13	-20	*	*
10XFUND	1360.7500	-13	-20	*	*

136.075 - 1.0 W - 25 kHz CH. Spacing

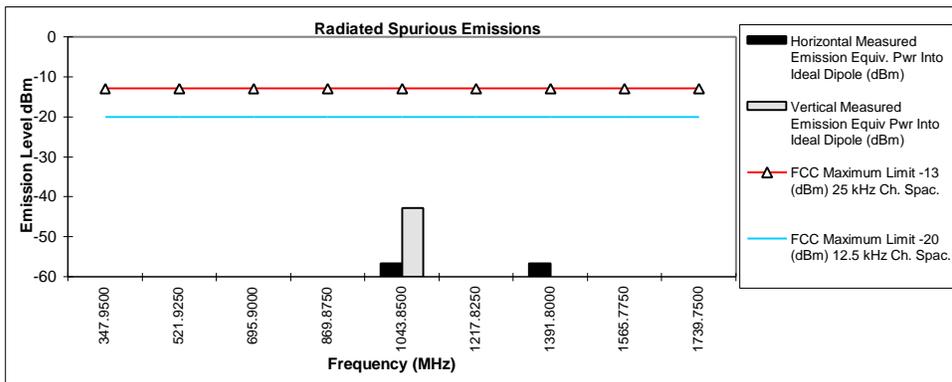|	Frequency (MHz)	FCC Maximum Limit -13 (dBm) 25 kHz Ch. Spac.	FCC Maximum Limit 20 (dBm) 12.5 kHz Ch. Spac.	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
2X FUND	272.1500	-13	-20	-69.6	-68.5
3X FUND	408.2250	-13	-20	*	-67.5
4X FUND	544.3000	-13	-20	*	*
5X FUND	680.3750	-13	-20	-65.5	*
6X FUND	816.4500	-13	-20	-64.1	*
7X FUND	952.5250	-13	-20	*	*
8X FUND	1088.6000	-13	-20	*	*
9X FUND	1224.6750	-13	-20	*	*
10XFUND	1360.7500	-13	-20	*	*

* Indicates the spurious emission was less than -60dBm or could not be detected due to noise limitations or ambients.
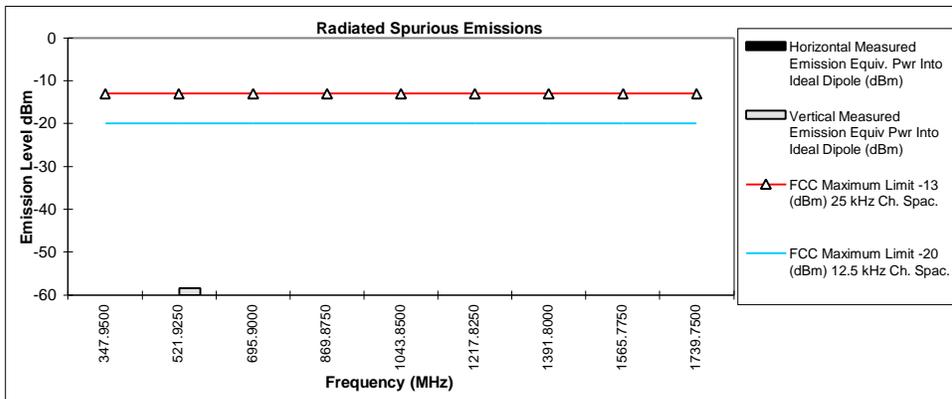
Transmitter Radiated Spurious Emissions: VHF Radio

173.975 - 5.0 W - 25 kHz CH. Spacing

Spur	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)
2X FUND	347.9500	-13	-20	-65.9	-61.4
3X FUND	521.9250	-13	-20	-66.2	-63.0
4X FUND	695.9000	-13	-20	*	*
5X FUND	869.8750	-13	-20	*	*
6X FUND	1043.8500	-13	-20	-56.6	-42.7
7X FUND	1217.8250	-13	-20	*	*
8X FUND	1391.8000	-13	-20	-56.6	*
9X FUND	1565.7750	-13	-20	*	*
10XFUND	1739.7500	-13	-20	*	*

173.975 - 1.0 W - 25 kHz CH. Spacing

	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)
2X FUND	347.9500	-13	-20	-68.7	-64.0
3X FUND	521.9250	-13	-20	*	-58.3
4X FUND	695.9000	-13	-20	*	*
5X FUND	869.8750	-13	-20	*	*
6X FUND	1043.8500	-13	-20	*	*
7X FUND	1217.8250	-13	-20	*	*
8X FUND	1391.8000	-13	-20	*	*
9X FUND	1565.7750	-13	-20	*	*
10XFUND	1739.7500	-13	-20	*	*

* Indicates the spurious emission was less than -60dBm or could not be detected due to noise limitations or ambients.

MOTOROLA INC.

CRYSTAL OSCILLATOR STABILITY CHARACTERISTIC
FREQUENCY vs. TEMPERATURE

==

Xmtr Type : AZ489FT3798

Log Page   : ---   Spec. Limit : -50dBc

Date   : 19th. May 1999

Signature   : SF Ooi
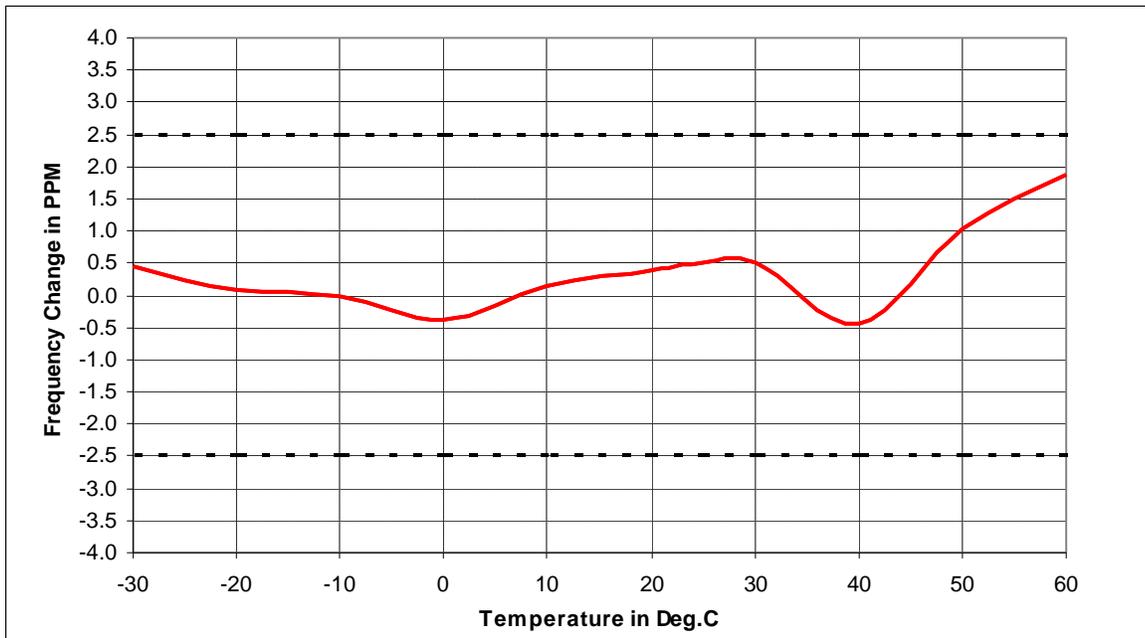
FREQ : 156.050 MHz.

MOTOROLA INC.

STABILITY CHARACTERISTIC
FREQUENCY vs. VOLTAGE
==

Xmtr Type: FCC ID: AZ489FT3798

Log Page: ---

Date: 19th. May 1999

Signature: SF Ooi

FREQ: 156.050 MHz.

Radio battery minimum, 5.625V.
Transmitter cannot function
below this voltage.

Y-axis: Frequency Change in PPM

X-axis: Percentage of Supply Voltage Change (%)

MOTOROLA INC.

TRANSIENT FREQUENCY BEHAVIOR

==

Xmtr Type : AZ489FT3798

Log Page   : ---

Date   : 19th. May 1999

Signature   : <u>SF Ooi</u>

Power: 1W & 5W at 156.050 MHz
Channel Spacing: 25 kHz.
Switch - On Condition

		B
ATN		63 mV
CPL		
OFS		0 V
MTB		5 ms
DLY		-4.9 ms
SMP		512
DAT		19-05-99
TIM		07:07:14
ATN		
CPL		
OFS		
MTB		
DLY		
SMP		
DAT		
TIM		

Graph labels: +25KHz, +12.5KHz, FCC Limit : +2KHz, FCC Limit : -2KHz, -12.5KHz, -25KHz, t2 = 20ms, t1 = 5ms, t = On, B

MOTOROLA INC.

TRANSIENT FREQUENCY BEHAVIOR
===
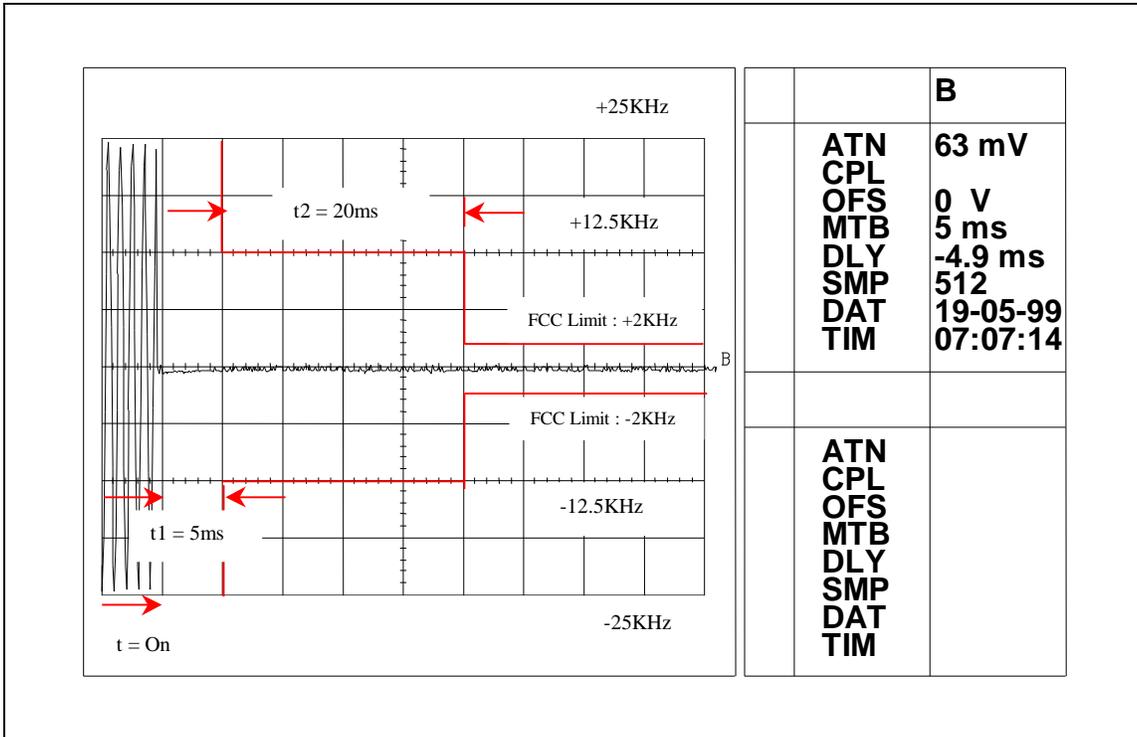
Xmtr Type : AZ489FT3798

Log Page   : ---

Date   : 19th. May 1999

Signature   : SF Ooi

Power: 1W & 5W at 156.050 MHz.
Channel Spacing : 25 kHz.
Switch - Off Condition

	B
ATN	63 mV
CPL	
OFS	0 V
MTB	5 ms
DLY	-45.1 ms
SMP	512
DAT	19-05-99
TIM	07:09:10
ATN	
CPL	
OFS	
MTB	
DLY	
SMP	
DAT	
TIM	

Plot labels: +25KHz, +12.5KHz, FCC Limit:+2KHz, FCC Limit:-2KHz, -12.5KHz, -25KHz, t = off, t3, B

MOTOROLA INC.

TRANSIENT FREQUENCY BEHAVIOR

===
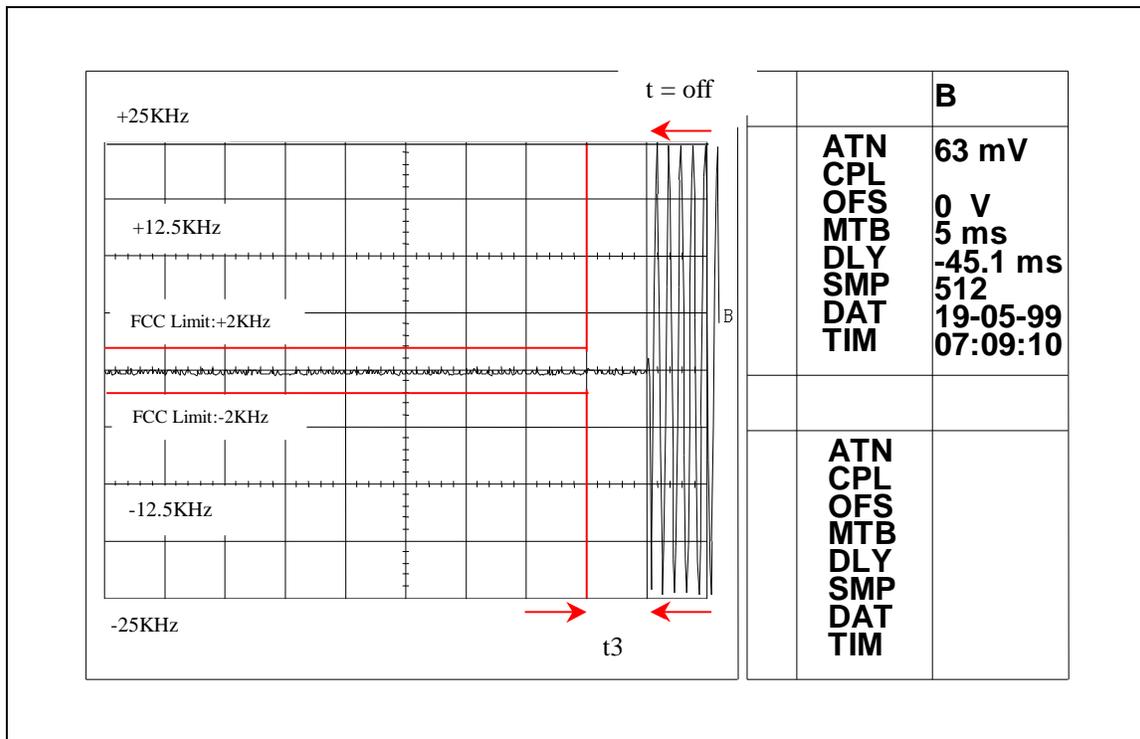
Xmtr Type : AZ489FT3798

Log Page   : ---

Date   : 19th. May 1999

Signature   : <u>SF Ooi</u>

Power : 1W & 5W at 156.050 MHz.
Channel Spacing : 12.5 kHz
Switch - On Condition

MOTOROLA INC.

TRANSIENT FREQUENCY BEHAVIOR

==
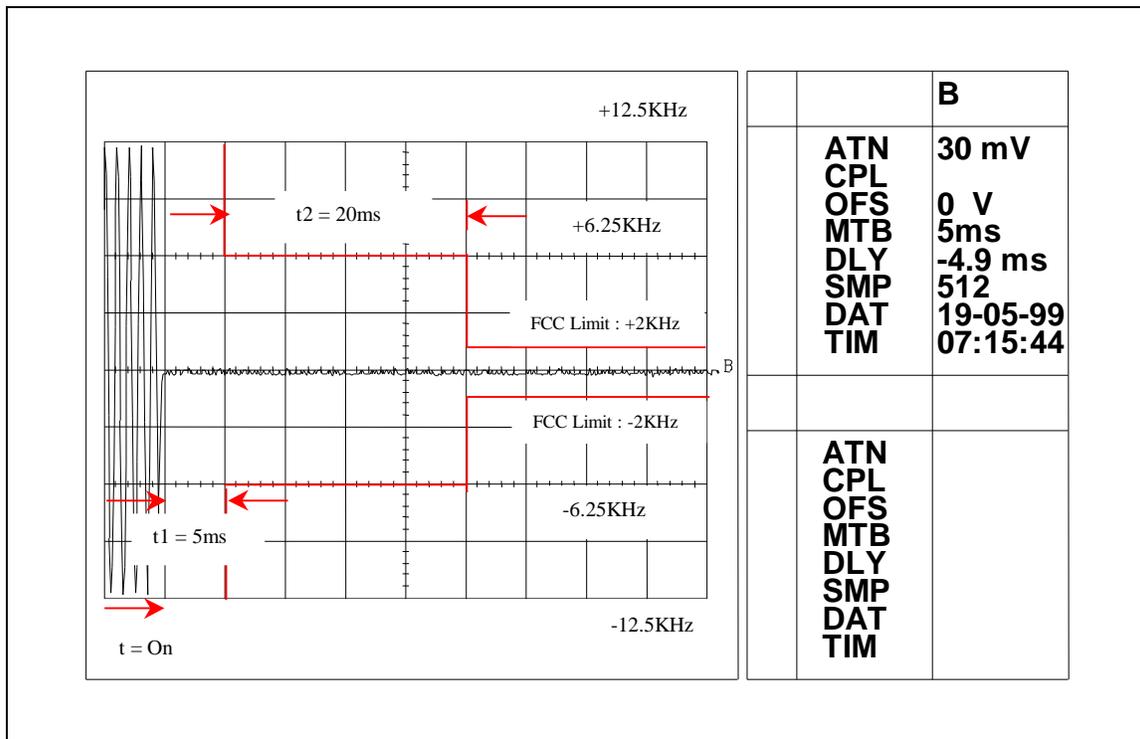
Xmtr Type : AZ489FT3798

Log Page   : ---

Date   : 19th. May 1999

Signature   : <u>SF Ooi</u>

Power : 1W & 5W at 156.050 MHz.
Channel Spacing : 12.5 kHz
Switch - Off Condition

		B
	t = off	
+12.5KHz		
		ATN 30 mV
		CPL
+6.25KHz		**OFS** 152.3 uV
		MTB 5 ms
FCC Limit:+2KHz		**DLY** -45.2 ms
		SMP 512
		DAT 19-05-99
		TIM 07:18:10
FCC Limit:-2KHz		
-6.25KHz		**ATN**
		CPL
		OFS
		MTB
		DLY
-12.5KHz		**SMP**
	t3	**DAT**
		TIM