

INDEX OF SUBMITTED MEASURED DATA

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

EXHIBIT 7A - RF Power Output (Table)

EXHIBIT 7B - Transmit Audio Response

EXHIBIT 7C - Transmit Audio Post Limiter Lowpass Filter Response

EXHIBIT 7D - Modulation Limiting Characteristics (3 Graphs)

7D-1 - Carrier Squelch Mode

7D-2 - Tone Private Line (TPL) Mode

7D-3 - Digital Private Line (DPL) Mode

EXHIBIT 7E - Occupied Bandwidth (9 Spectrum Analyzer Plots)

7E-1 - 2500 Hz Audio Modulation Only

7E-2 - 2500 Hz Audio and PL Tone Modulation

7E-3 - 2500 Hz Audio and DPL Modulation

7E-4 - DTMF Modulation Only

7E-5 - DTMF Modulation and PL Tone Modulation

7E-6 - DTMF Modulation and DPL Modulation

7E-7 - 2000/3000 Hz FSK Data Modulation Only

7E-8 - 2000/3000 Hz FSK Data and PL Tone Modulation

7E-9 - 2000/3000 Hz FSK Data and DPL Tone Modulation

EXHIBIT 7F - Conducted Spurious Emissions (6 Graphs)

7F-1 - 72 Watts, 42.100 MHz

7F-2 - 72 Watts, 46.100 MHz

7F-3 - 72 Watts, 49.900 MHz

7F-4 - 40 Watts, 42.100 MHz

7F-5 - 40 Watts, 46.100 MHz

7F-6 - 40 Watts, 49.900 MHz

EXHIBIT 7G - Radiated Spurious Emissions – (4 Tables)

7G-1 - 72 Watts, 46.100 MHz, Horizontal

7G-2 - 72 Watts, 46.100 MHz, Vertical

7G-3 - 40 Watts, 46.100 MHz, Horizontal

7G-4 - 40 Watts, 46.100 MHz, Vertical

EXHIBIT 7H - Frequency Stability (2 Graph)

7H-1 - Frequency Stability vs. Temperature

7H-2 - Frequency Stability vs. Voltage

EXHIBIT 7A – RF OUTPUT DATA**HIGH POWER SETTING, FREQUENCY 42.100 MHz**

Measured RF Output Power:	72.0 Watts
Measured DC Voltage:	13.58 Volts
Measured DC Input Current:	15.8 Amperes
Measured DC Input Power:	214.56 Watts

LOW POWER SETTING, FREQUENCY 42.100 MHz

Measured RF Output Power:	40.0 Watts
Measured DC Voltage:	13.58 Volts
Measured DC Input Current:	11.9 Amperes
Measured DC Input Power:	161.60 Watts

HIGH POWER SETTING, FREQUENCY 46.100 MHz

Measured RF Output Power:	72.0 Watts
Measured DC Voltage:	13.58 Volts
Measured DC Input Current:	13.5 Amperes
Measured DC Input Power:	183.33 Watts

LOW POWER SETTING, FREQUENCY 46.100 MHz

Measured RF Output Power:	40.0 Watts
Measured DC Voltage:	13.58 Volts
Measured DC Input Current:	10.0 Amperes
Measured DC Input Power:	135.80 Watts

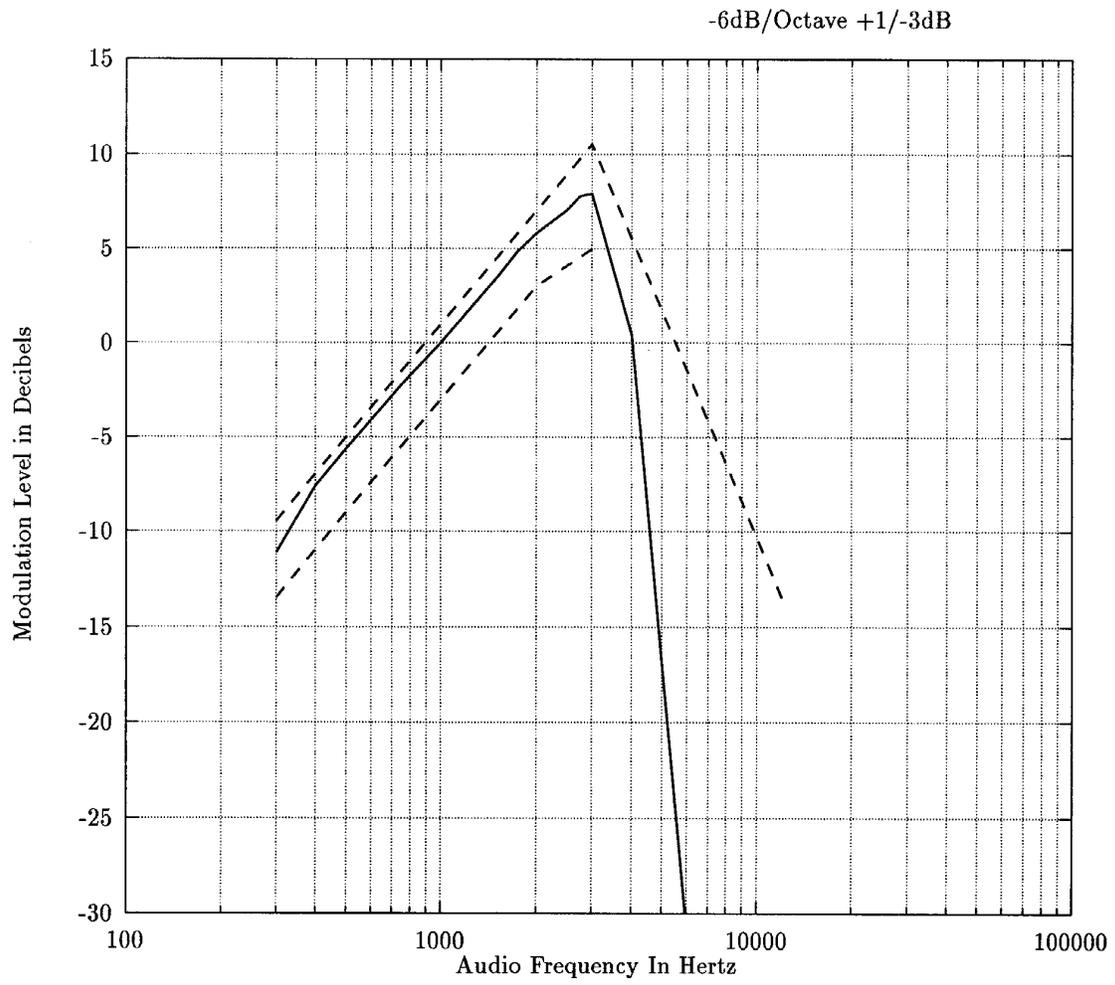
HIGH POWER SETTING, FREQUENCY 49.950 MHz

Measured RF Output Power:	72.0 Watts
Measured DC Voltage:	13.58 Volts
Measured DC Input Current:	14.00 Amperes
Measured DC Input Power:	190.12 Watts

LOW POWER SETTING, FREQUENCY 49.950 MHz

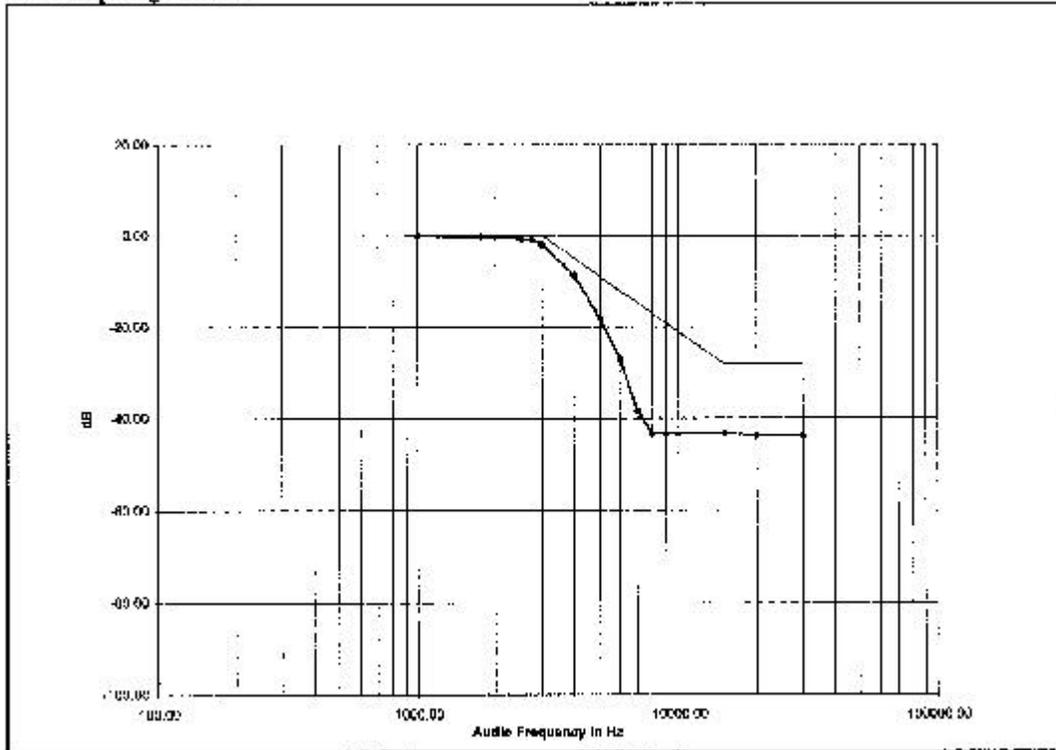
Measured RF Output Power:	40.0 Watts
Measured DC Voltage:	13.58 Volts
Measured DC Input Current:	10.3 Amperes
Measured DC Input Power:	139.87 Watts

TRANSMIT AUDIO RESPONSE

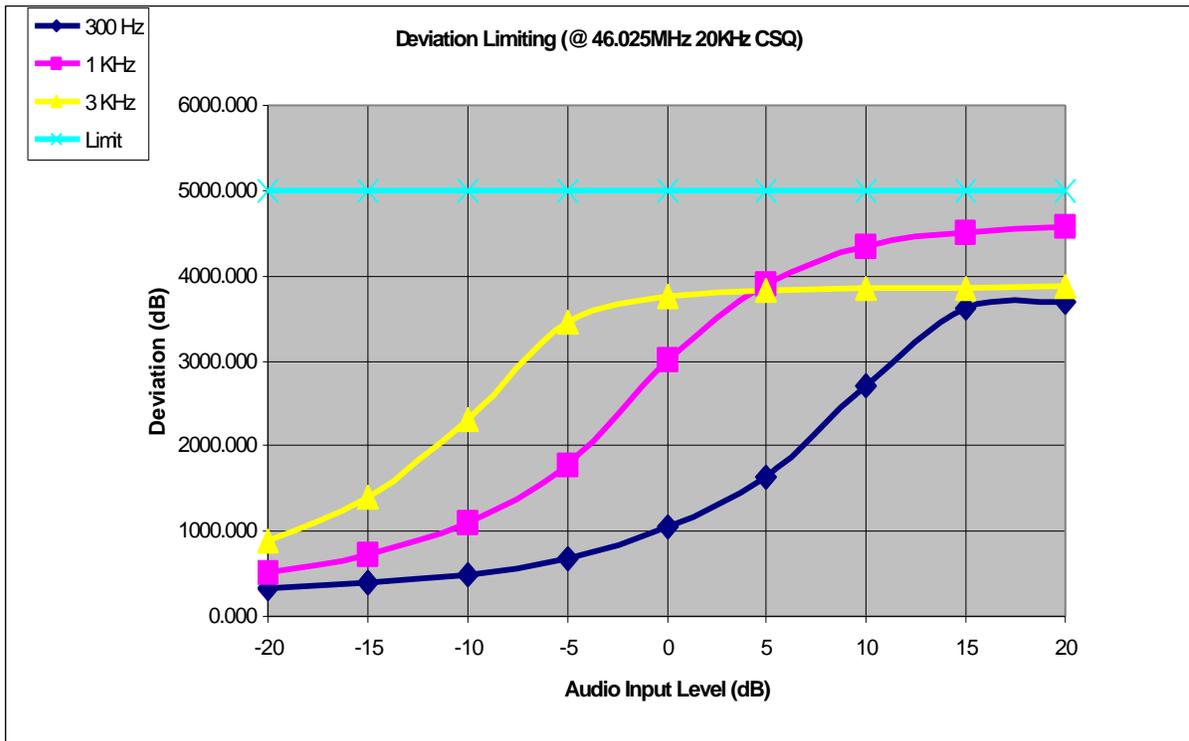


POST-LIMITER LOWPASS FILTER RESPONSE

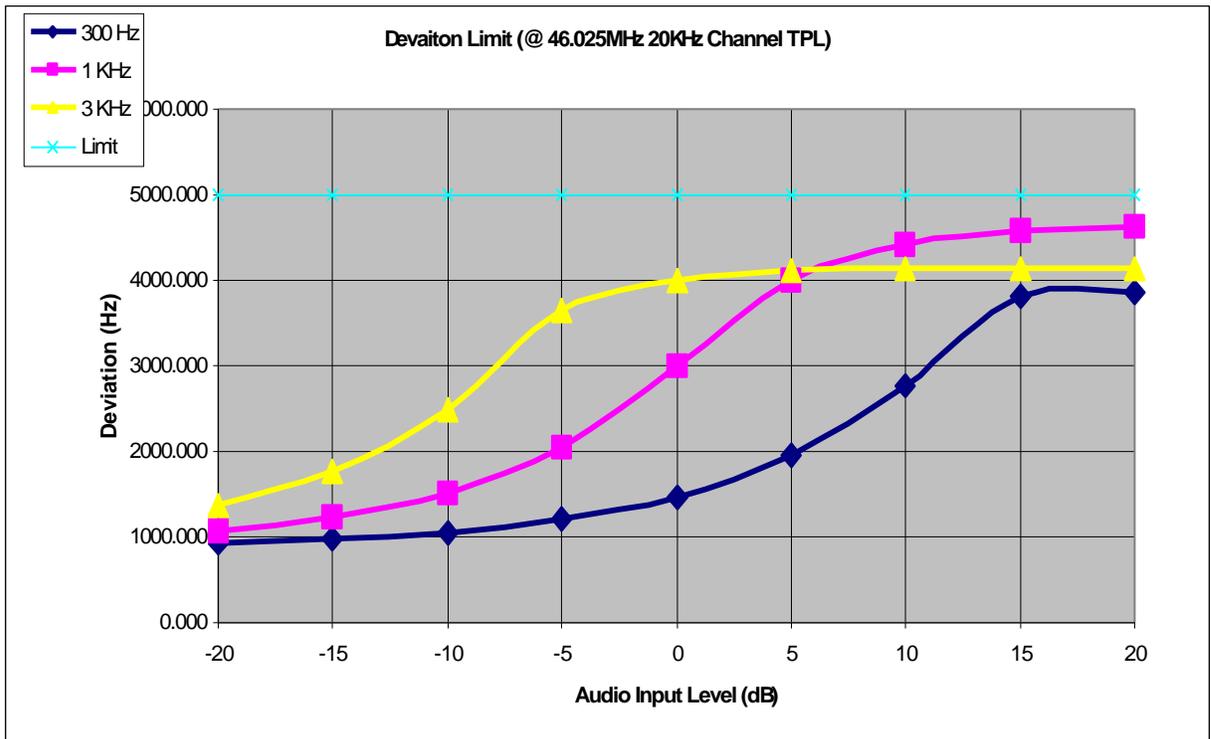
Channel Spacing : 20KHz



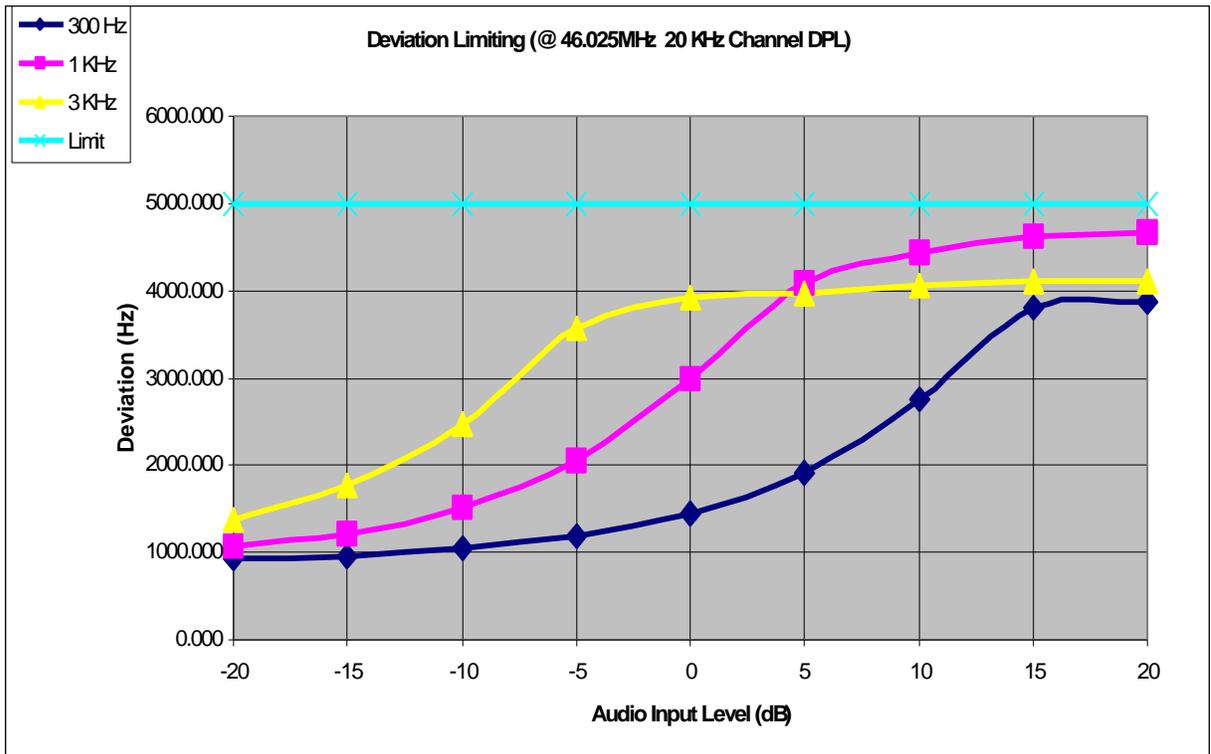
**MODULATION LIMITING CHARACTERISTIC
CARRIER SQUELCH MODE**



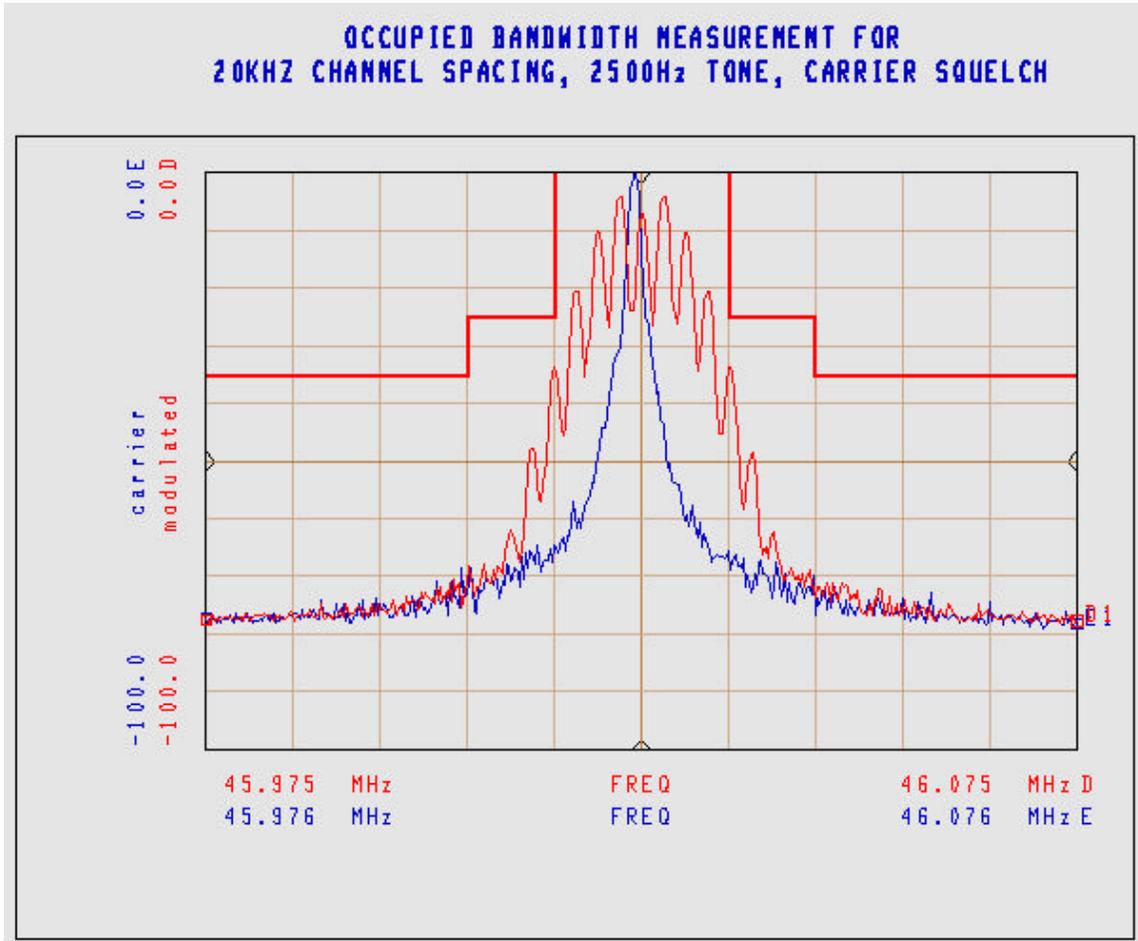
MODULATION LIMITING CHARACTERISTIC
TONE PL MODE



MODULATION LIMITING CHARACTERISTIC
DPL MODE



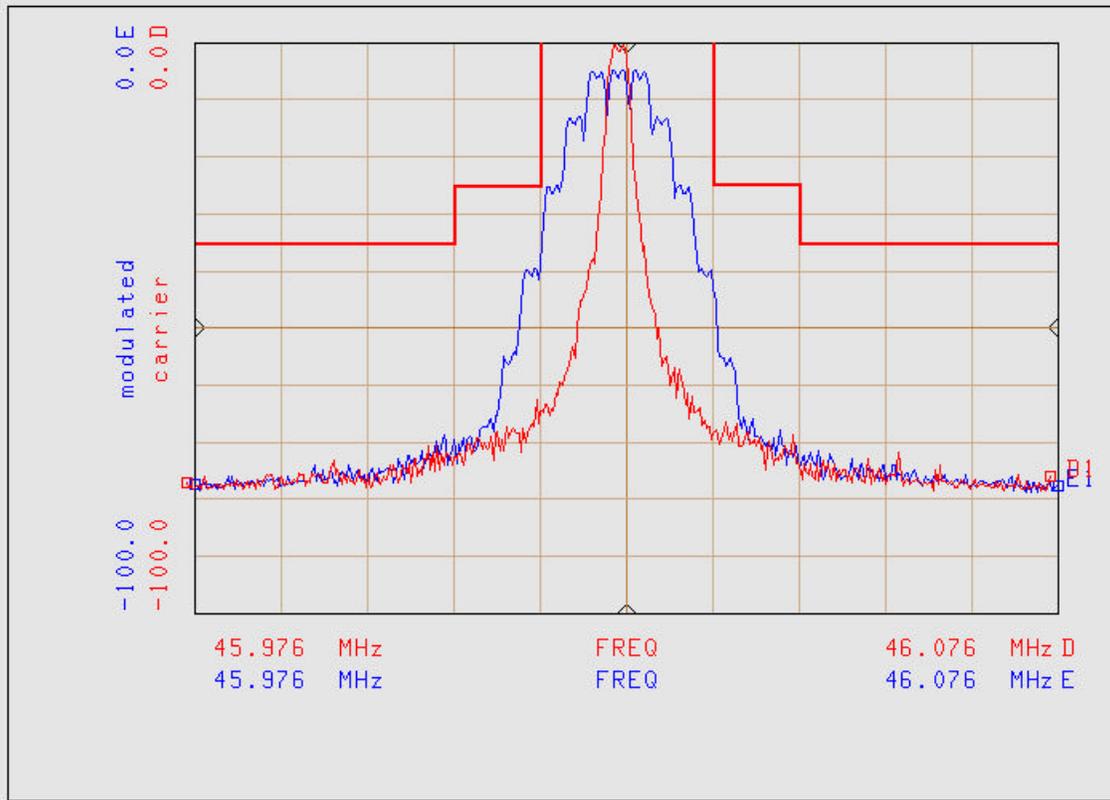
OCCUPIED BANDWIDTH MEASUREMENT FOR
 20 kHz CHANNEL SPACING, 2500 Hz TONE, CARRIER SQUELCH
 EMISSION MASK: B



CENTER FREQUENCY:	46.025 MHz
RESOLUTION BANDWIDTH:	300 kHz
VIDEO BANDWIDTH:	300 kHz
SPAN:	100 kHz
SWEEP TIME:	3 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dBm
ATTENUATION:	30 dB

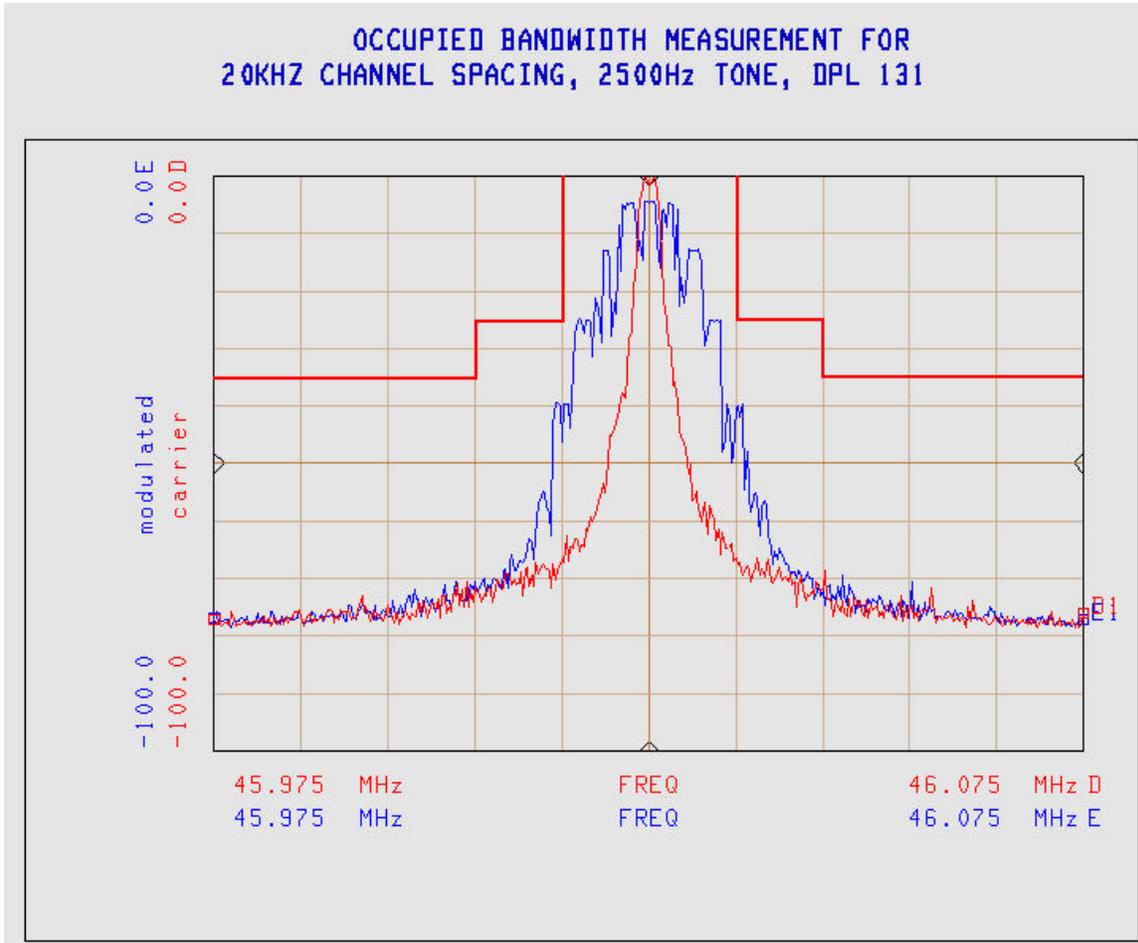
OCCUPIED BANDWIDTH MEASUREMENT FOR
 20 kHz CHANNEL SPACING, 2500 Hz TONE, PL
 EMISSION MASK: B

OCCUPIED BANDWIDTH MEASUREMENT FOR
 20KHZ CHANNEL SPACING, 2500Hz TONE, TPL 250.3HZ



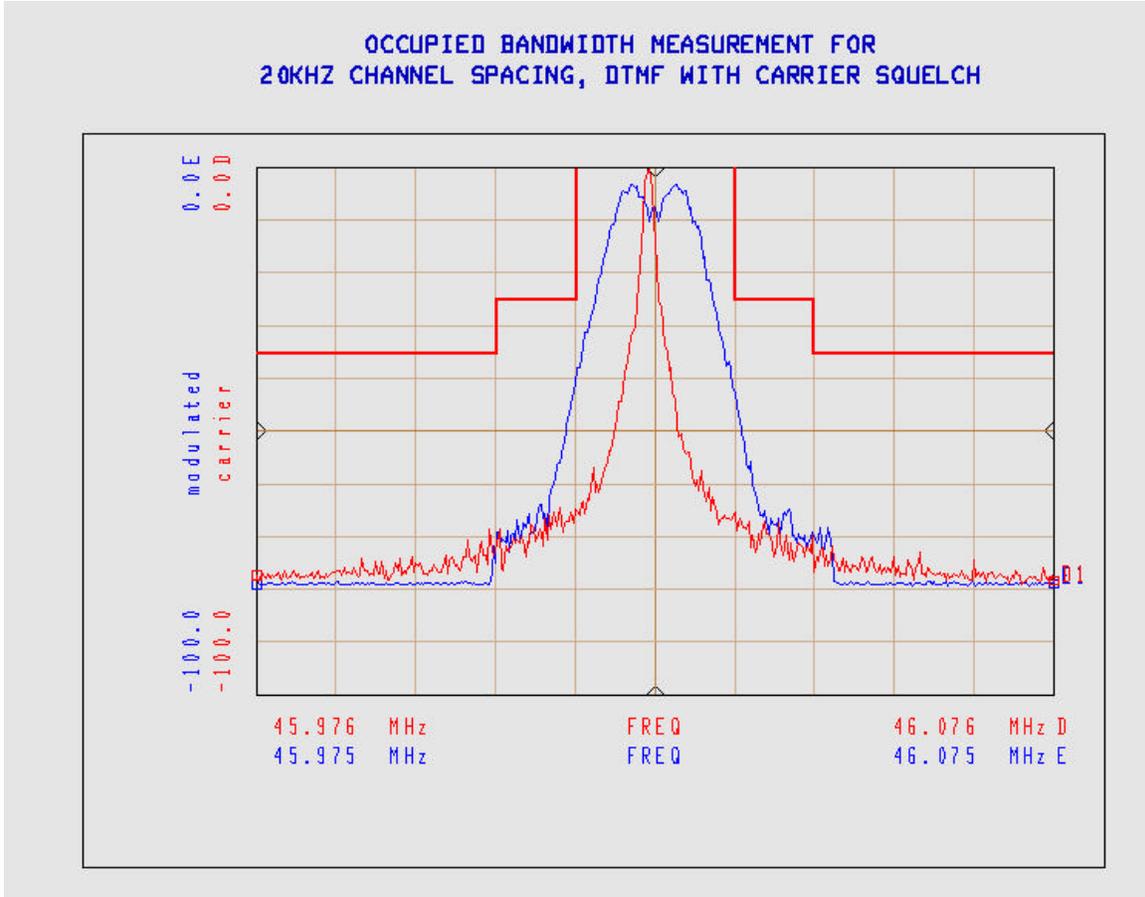
CENTER FREQUENCY:	46.025 MHz
RESOLUTION BANDWIDTH:	300 kHz
VIDEO BANDWIDTH:	300 kHz
SPAN:	100 kHz
SWEEP TIME:	3 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dBm
ATTENUATION:	30 dB

OCCUPIED BANDWIDTH MEASUREMENT FOR
 20 KHZ CHANNEL SPACING, 2500 Hz TONE, DPL
 EMISSION MASK: B



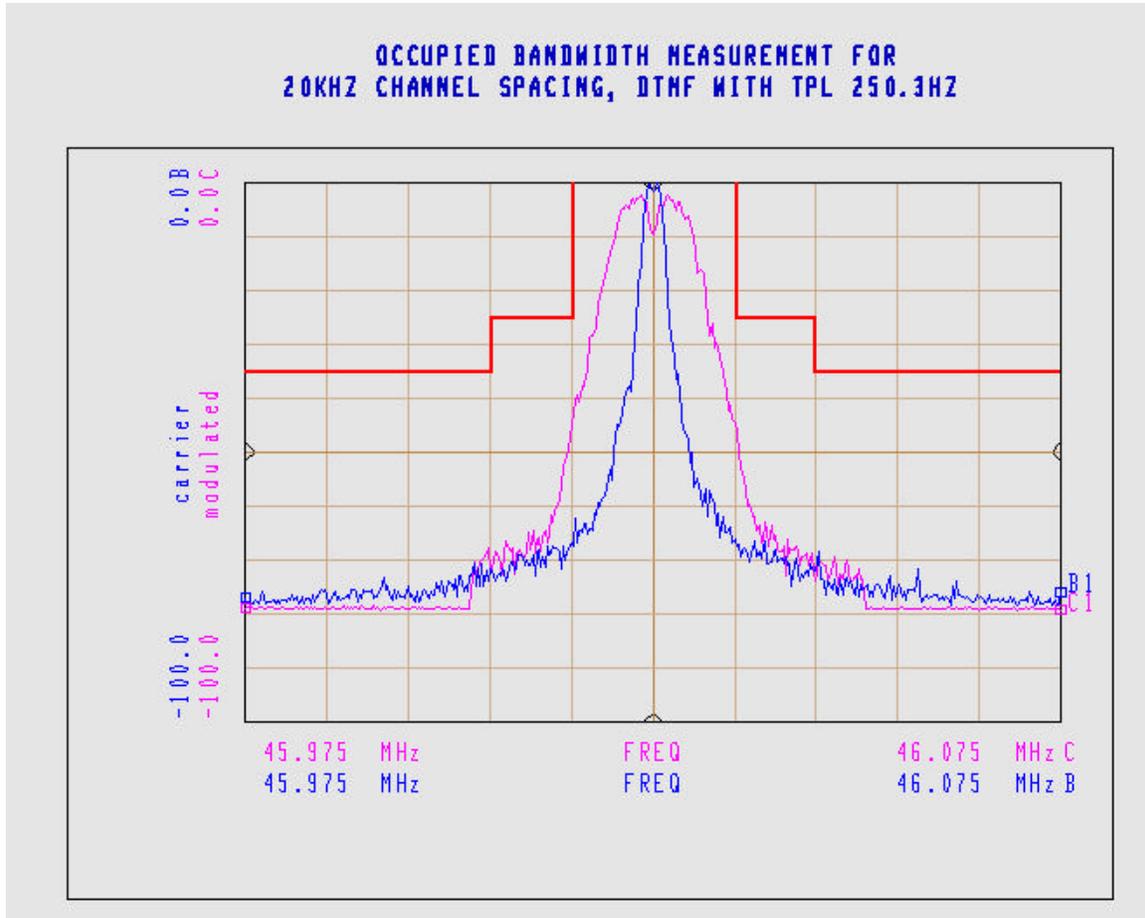
CENTER FREQUENCY:	46.025 MHz
RESOLUTION BANDWIDTH:	300 kHz
VIDEO BANDWIDTH:	300 kHz
SPAN:	100 kHz
SWEEP TIME:	3 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dBm
ATTENUATION:	30 dB

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



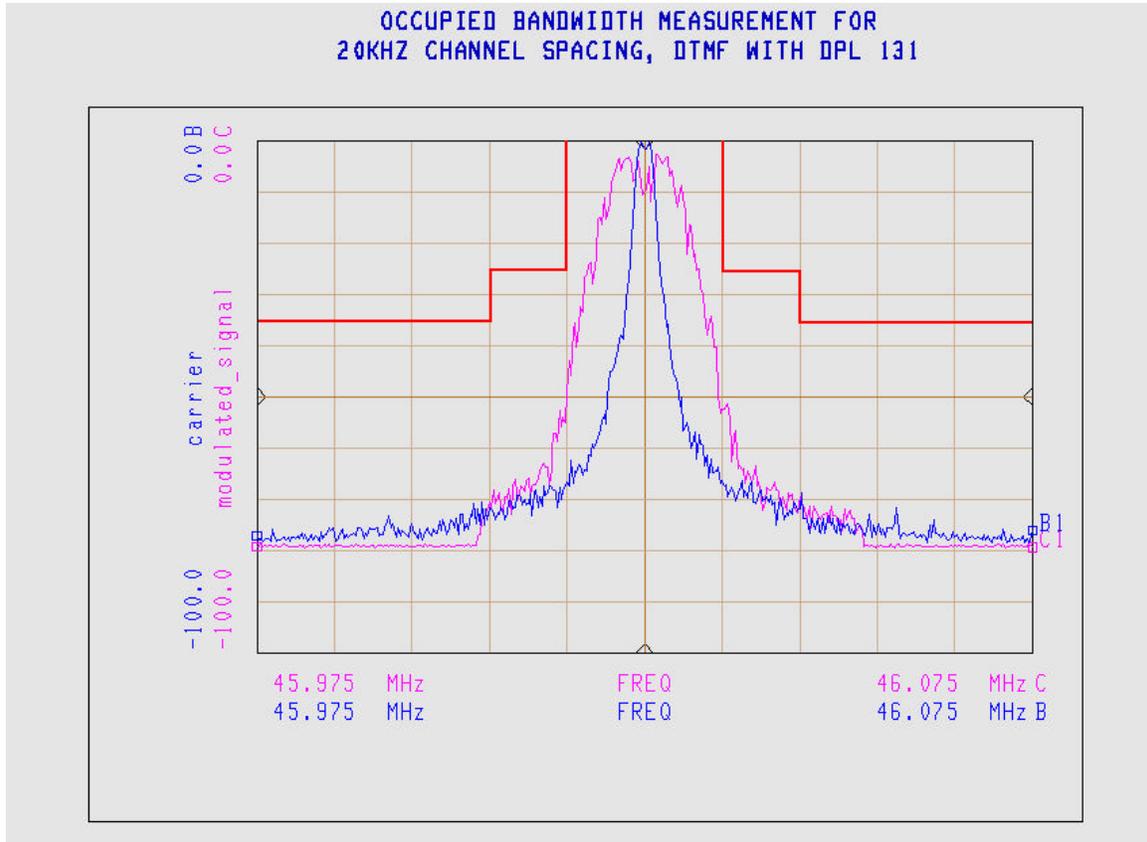
CENTER FREQUENCY:	46.025 MHz
RESOLUTION BANDWIDTH:	300 kHz
VIDEO BANDWIDTH:	300 kHz
SPAN:	100 kHz
SWEEP TIME:	3 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dBm
ATTENUATION:	30 dB

OCCUPIED BANDWIDTH MEASUREMENT FOR
 20 KHZ CHANNEL SPACING, DTMF MODULATION, PL
 EMISSION MASK: B



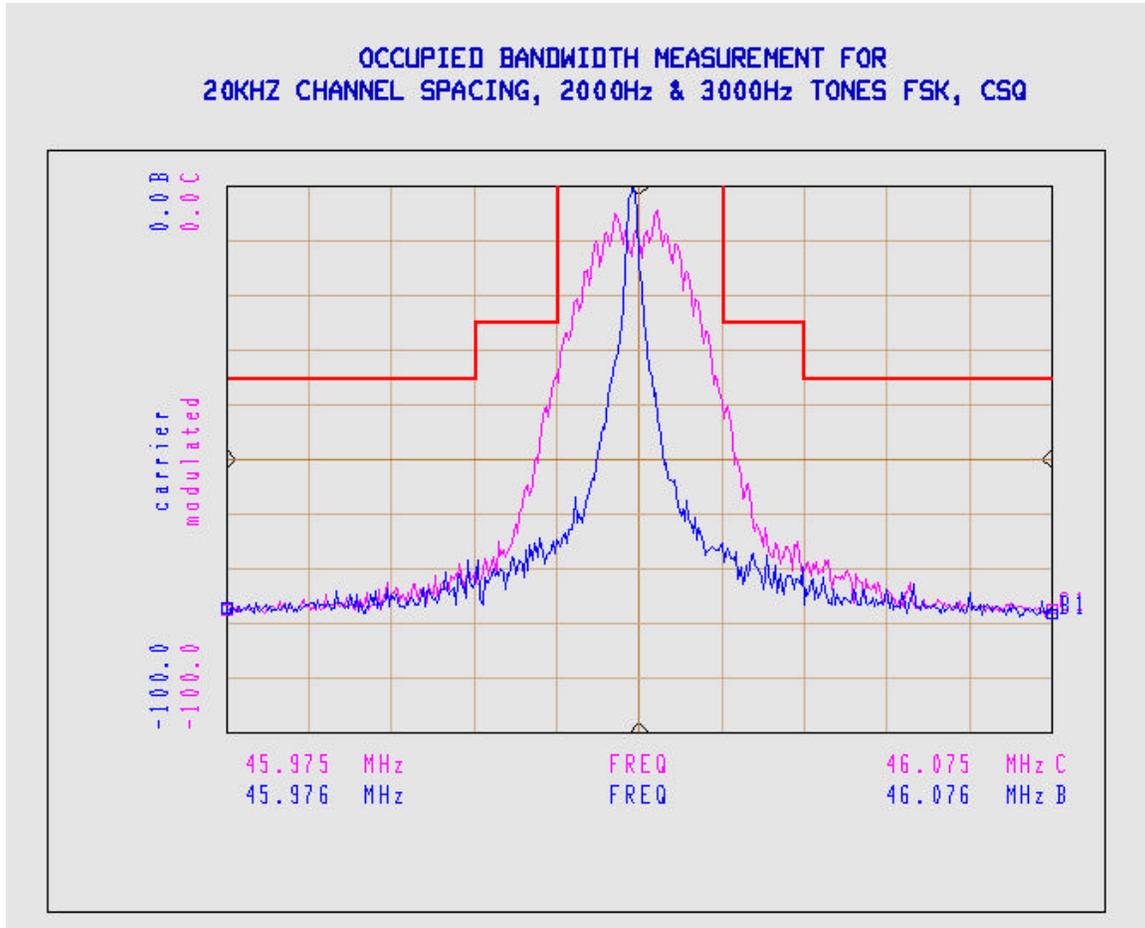
CENTER FREQUENCY:	46.025 MHz
RESOLUTION BANDWIDTH:	300 kHz
VIDEO BANDWIDTH:	300 kHz
SPAN:	100 kHz
SWEEP TIME:	3 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dBm
ATTENUATION:	30 dB

OCCUPIED BANDWIDTH MEASUREMENT FOR
 20 KHz CHANNEL SPACING, DTMF MODULATION, DPL
 EMISSION MASK: B



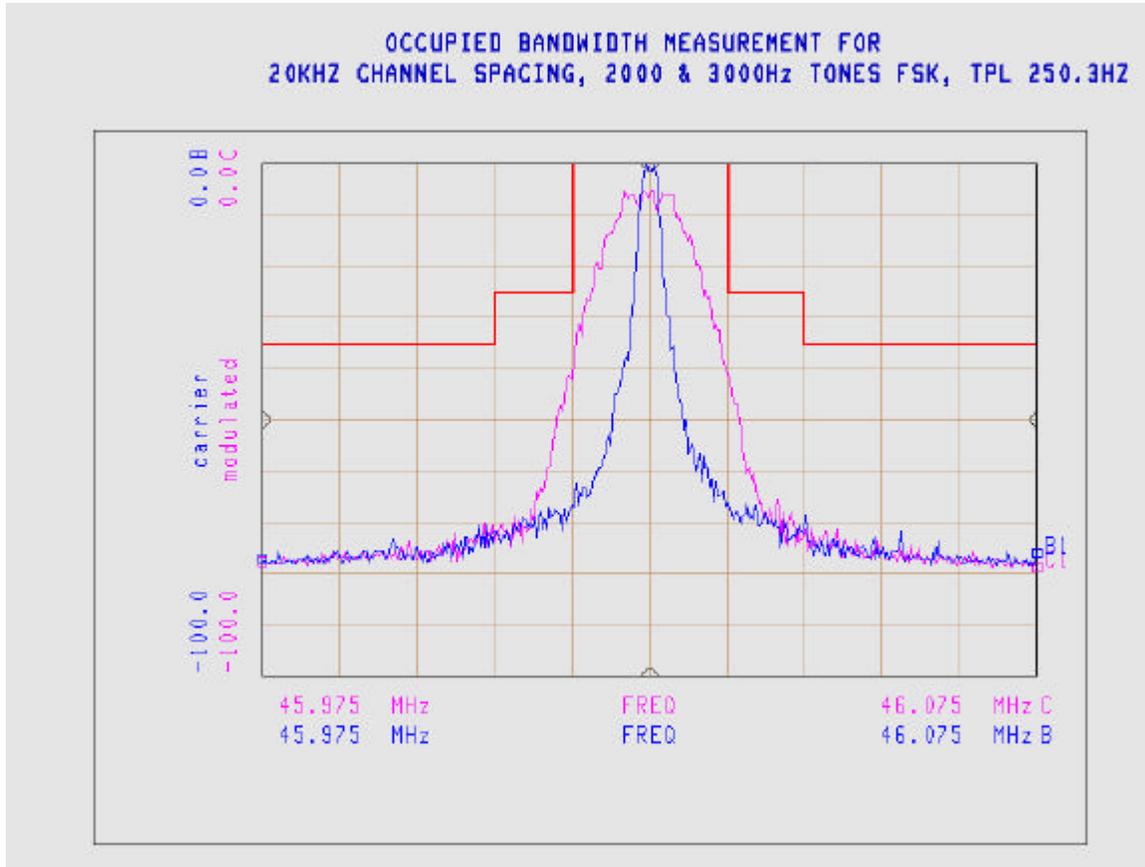
CENTER FREQUENCY:	46.025 MHz
RESOLUTION BANDWIDTH:	300 kHz
VIDEO BANDWIDTH:	300 kHz
SPAN:	100 kHz
SWEEP TIME:	3 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dBm
ATTENUATION:	30 dB

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



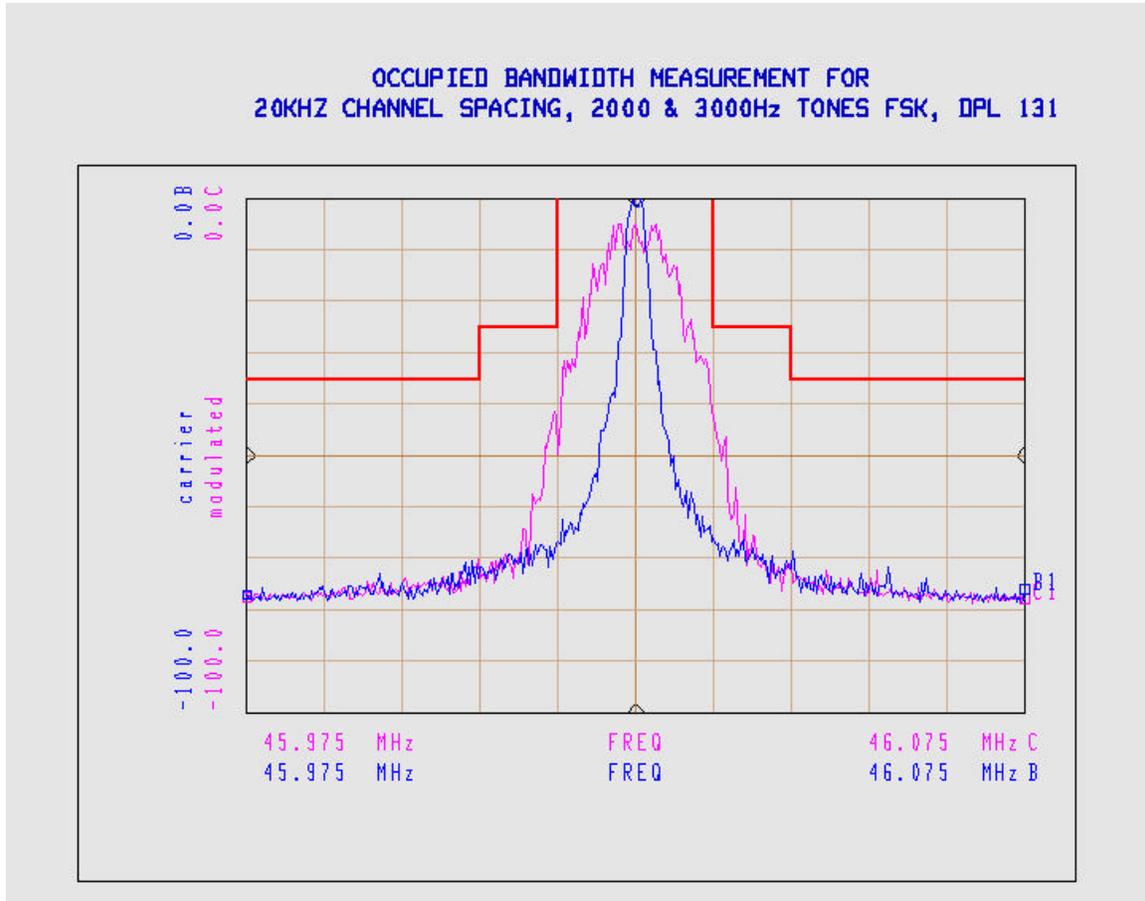
CENTER FREQUENCY:	46.025 MHz
RESOLUTION BANDWIDTH:	300 kHz
VIDEO BANDWIDTH:	300 kHz
SPAN:	100 kHz
SWEEP TIME:	3 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dBm
ATTENUATION:	30 dB

OCCUPIED BANDWIDTH MEASUREMENT FOR
 20 KHZ CHANNEL SPACING, 2000/3000 Hz FSK, PL
 EMISSION MASK: B



CENTER FREQUENCY:	46.025 MHz
RESOLUTION BANDWIDTH:	300 kHz
VIDEO BANDWIDTH:	300 kHz
SPAN:	100 kHz
SWEEP TIME:	3 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dBm
ATTENUATION:	30 dB

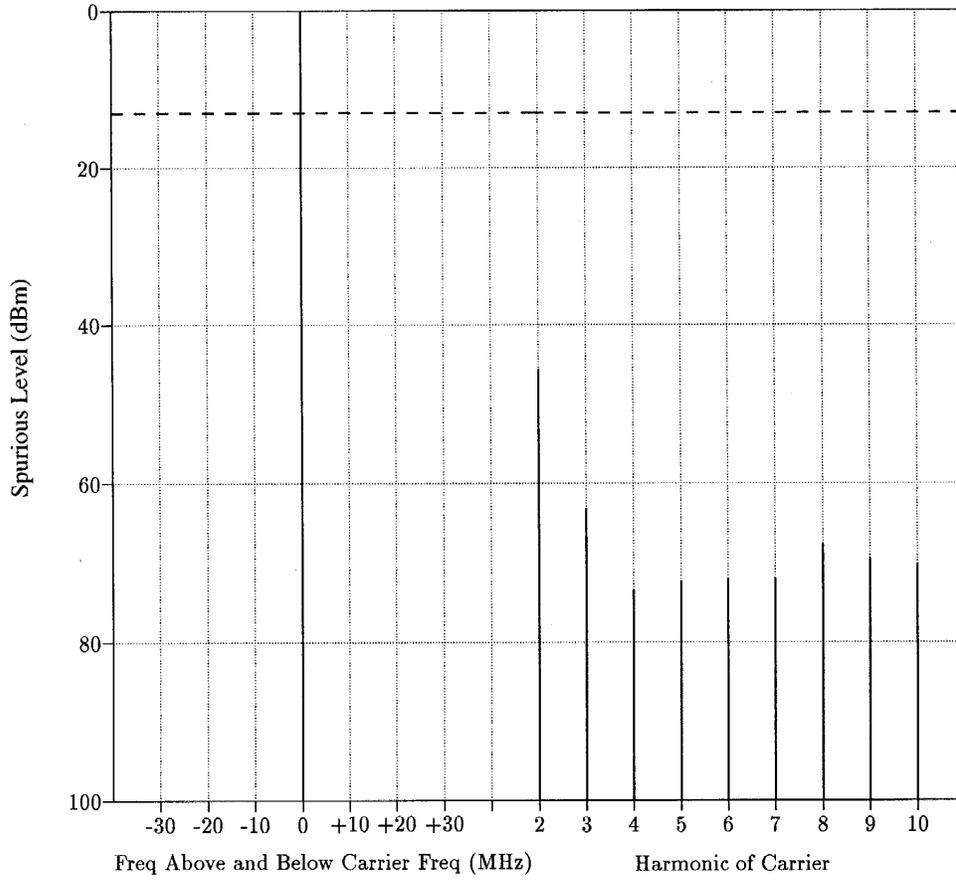
OCCUPIED BANDWIDTH MEASUREMENT FOR
20 kHz CHANNEL SPACING, 2000/3000 Hz FSK, DPL
EMISSION MASK: B



CENTER FREQUENCY:	46.025 MHz
RESOLUTION BANDWIDTH:	300 kHz
VIDEO BANDWIDTH:	300 kHz
SPAN:	100 kHz
SWEEP TIME:	3 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dBm
ATTENUATION:	30 dB

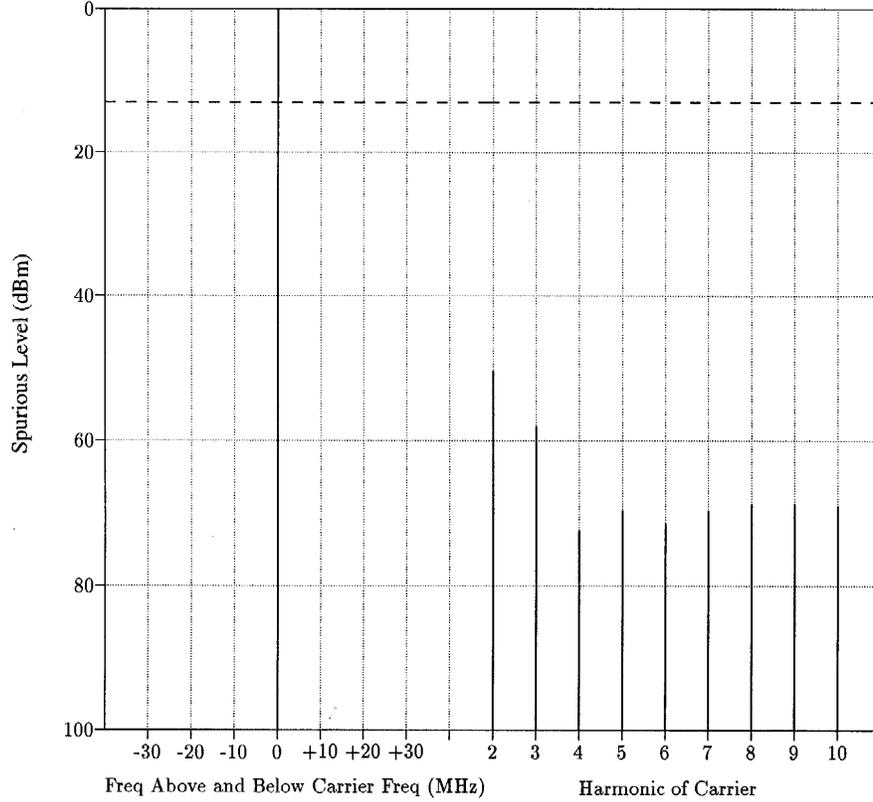
**CONDUCTED SPURIOUS EMISSIONS
HIGH POWER, 42.100 MHz**

Transmitter Type: See Above
Power Output: 72.00W at 42.100MHz



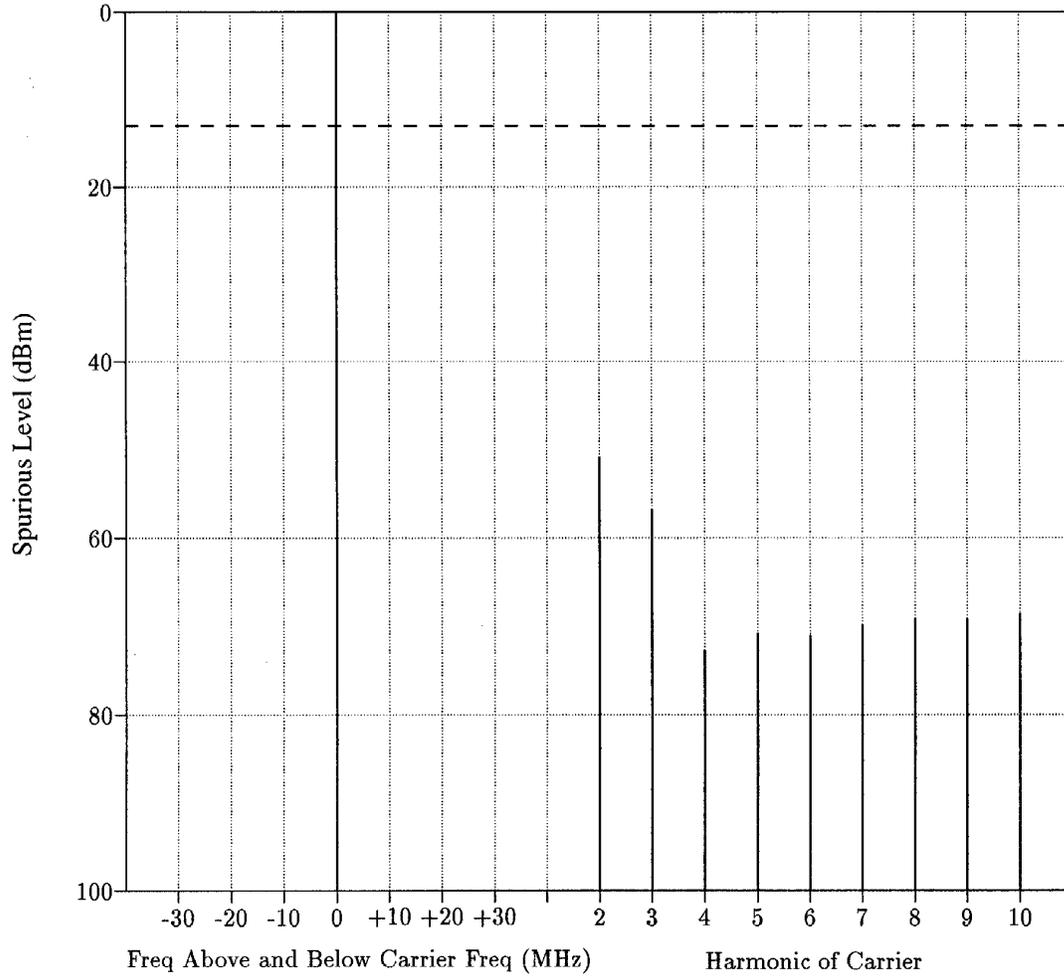
**CONDUCTED SPURIOUS EMISSIONS
HIGH POWER, 46.100 MHz**

Transmitter Type: See Above
Power Output: 72.00W at 46.100MHz



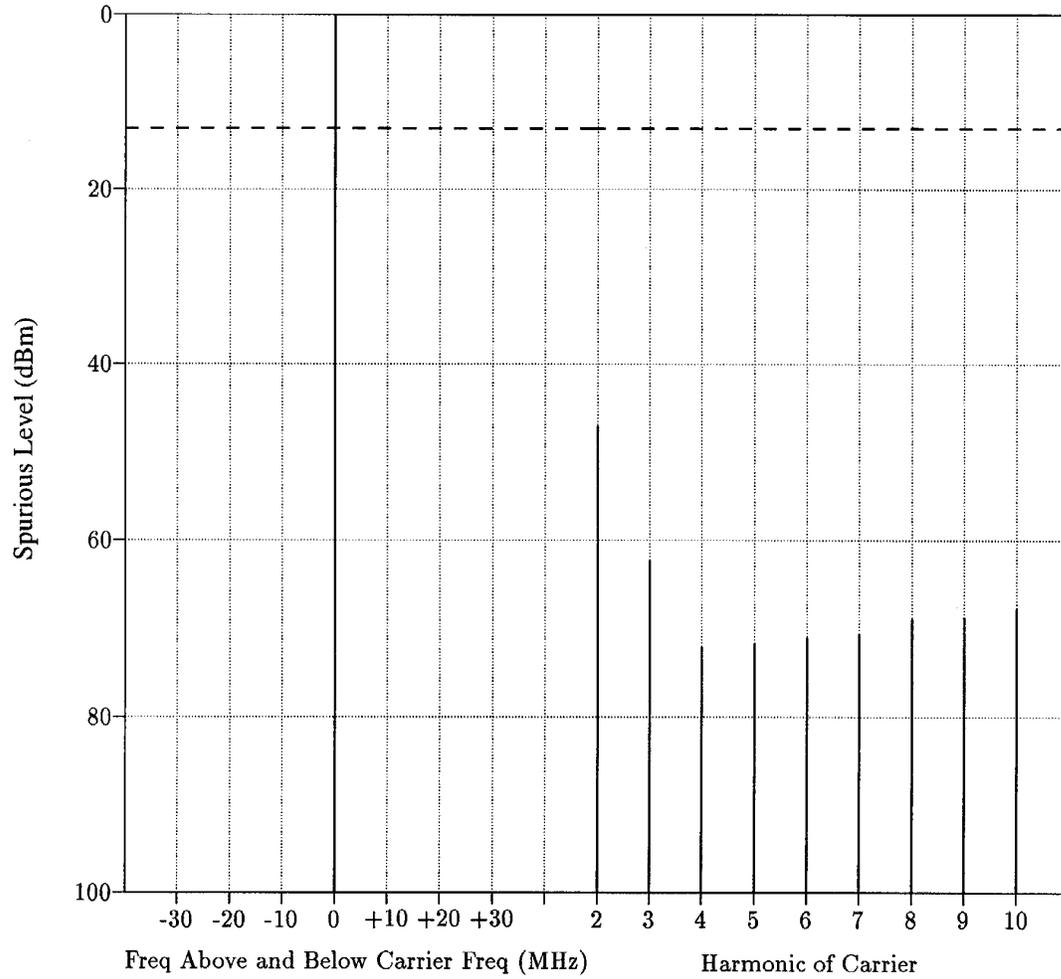
**CONDUCTED SPURIOUS EMISSIONS
HIGH POWER, 49.900 MHz**

Transmitter Type: See Above
Power Output: 72.00W at 49.900MHz



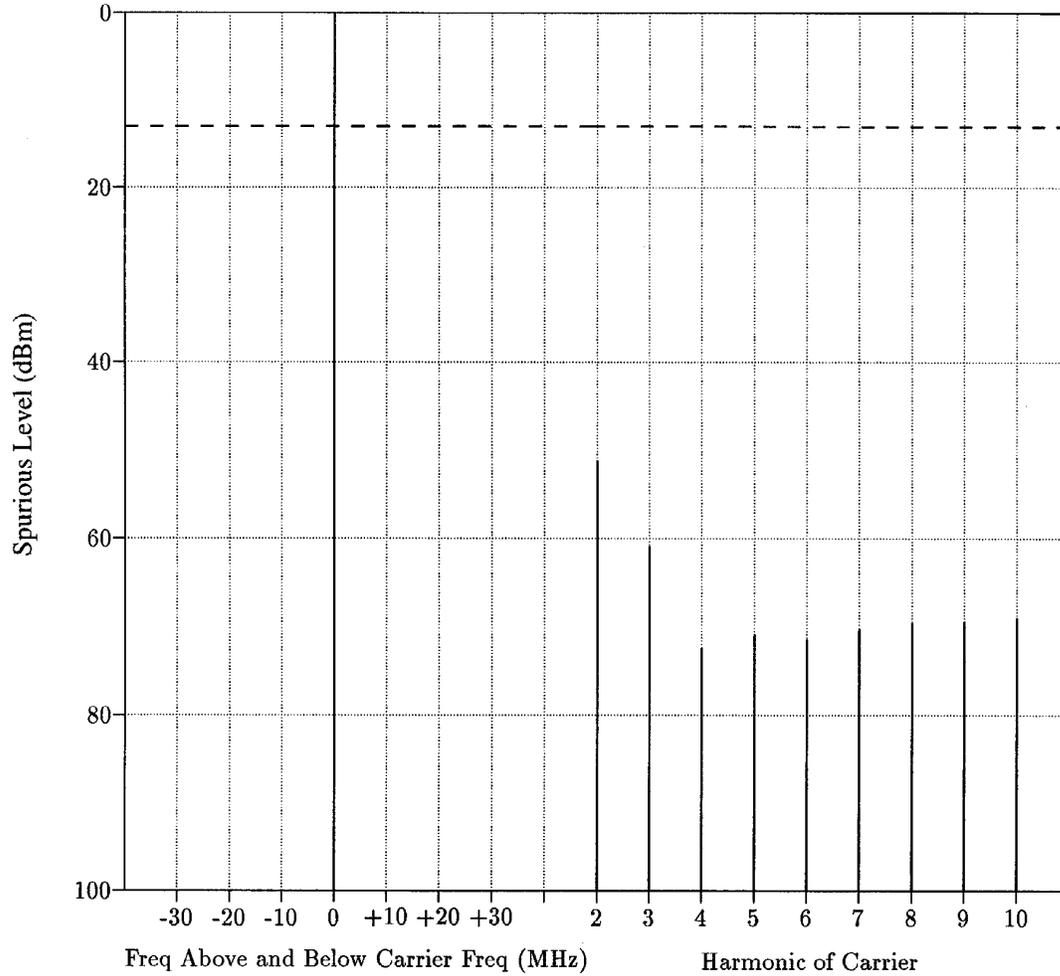
**CONDUCTED SPURIOUS EMISSIONS
LOW POWER, 42.100 MHz**

Transmitter Type: See Above
Power Output: 40.00W at 42.100MHz



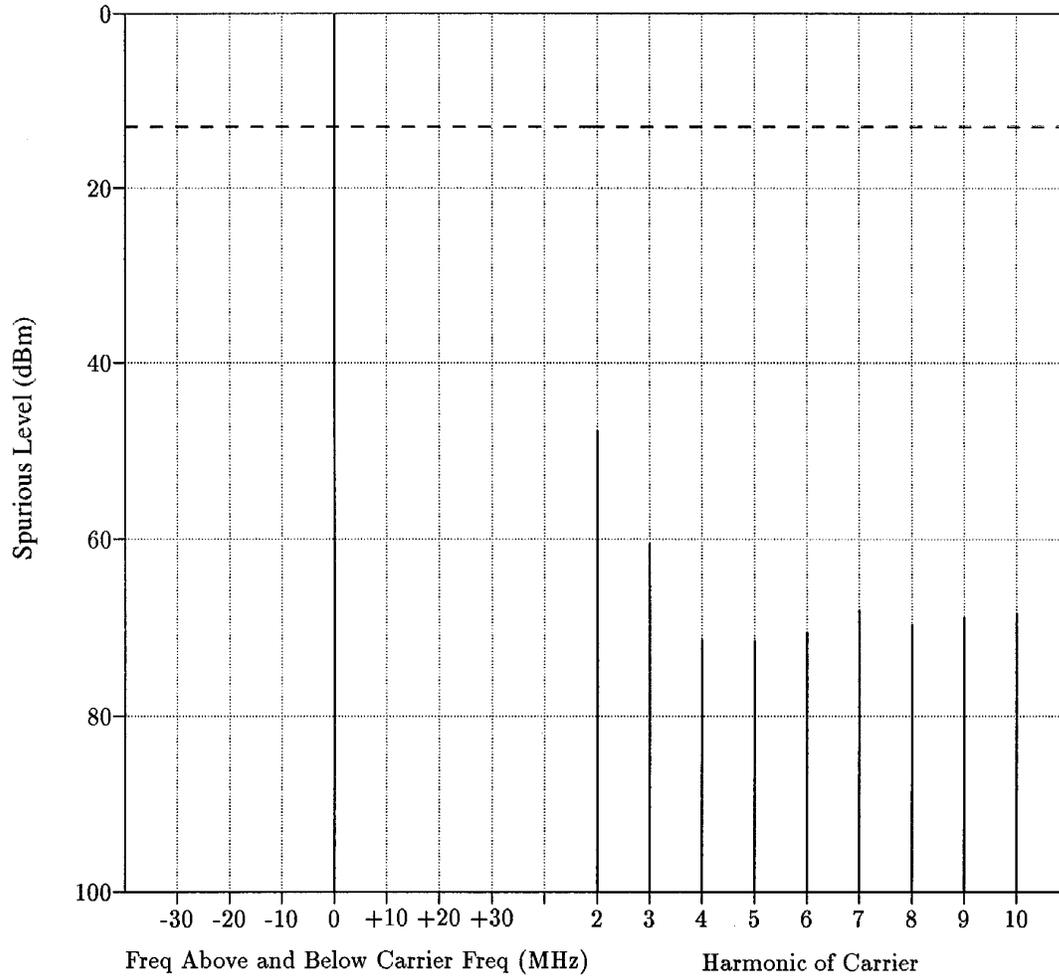
**CONDUCTED SPURIOUS EMISSIONS
LOW POWER, 46.100 MHz**

Transmitter Type: See Above
Power Output: 40.00W at 46.1000MHz



**CONDUCTED SPURIOUS EMISSIONS
LOW POWER, 49.900 MHz**

Transmitter Type: See Above
Power Output: 40.00W at 49.900MHz



**RADIATED SPURIOUS EMISSIONS
HIGH POWER, 46.100 MHz, HORIZONTAL POLARIZATION
OUTPUT POWER = 72.0 WATTS**

All of the measured radiated emissions were found to be greater than -100 dBc (more than 100 dB below the carrier level), which is the lower limit of the normally supplied graph. Therefore, this data is being presented in a tabular format:

Harmonic	Frequency	Level (dBm)	Limit (dBm)	Level (dBc)	Limit (dBc)
2 nd	92.2 MHz	-81.1	-13.0	-129.7	-61.6
3 rd	138.3 MHz	-96.9	-13.0	-145.5	-61.6
4 th	184.4 MHz	-98.0	-13.0	-146.6	-61.6
5 th	230.5 MHz	-103.8	-13.0	-152.4	-61.6
6 th	276.6 MHz	-105.9	-13.0	-154.5	-61.6
7 th	322.7 MHz	-100.7	-13.0	-149.3	-61.6
8 th	368.8 MHz	-104.2	-13.0	-152.8	-61.6
9 th	414.9 MHz	-101.9	-13.0	-150.5	-61.6
10 th	461.0 MHz	-101.7	-13.0	-150.3	-61.6

**RADIATED SPURIOUS EMISSIONS
HIGH POWER, 46.100 MHz, VERTICAL POLARIZATION
OUTPUT POWER = 72.0 WATTS**

All of the measured radiated emissions were found to be greater than -100 dBc (more than 100 dB below the carrier level), which is the lower limit of the normally supplied graph. Therefore, this data is being presented in a tabular format:

Harmonic	Frequency	Level (dBm)	Limit (dBm)	Level (dBc)	Limit (dBc)
2 nd	92.2 MHz	-85.0	-13.0	-133.6	-61.6
3 rd	138.3 MHz	-103.4	-13.0	-152.0	-61.6
4 th	184.4 MHz	-97.4	-13.0	-146.0	-61.6
5 th	230.5 MHz	-102.4	-13.0	-151.0	-61.6
6 th	276.6 MHz	-105.9	-13.0	-154.5	-61.6
7 th	322.7 MHz	-100.6	-13.0	-149.2	-61.6
8 th	368.8 MHz	-104.2	-13.0	-152.8	-61.6
9 th	414.9 MHz	-102.3	-13.0	-150.9	-61.6
10 th	461.0 MHz	-102.5	-13.0	-151.1	-61.6

**RADIATED SPURIOUS EMISSIONS
LOW POWER, 46.100 MHz, HORIZONTAL POLARIZATION
OUTPUT POWER = 40.0 WATTS**

All of the measured radiated emissions were found to be greater than -100 dBc (more than 100 dB below the carrier level), which is the lower limit of the normally supplied graph. Therefore, this data is being presented in a tabular format:

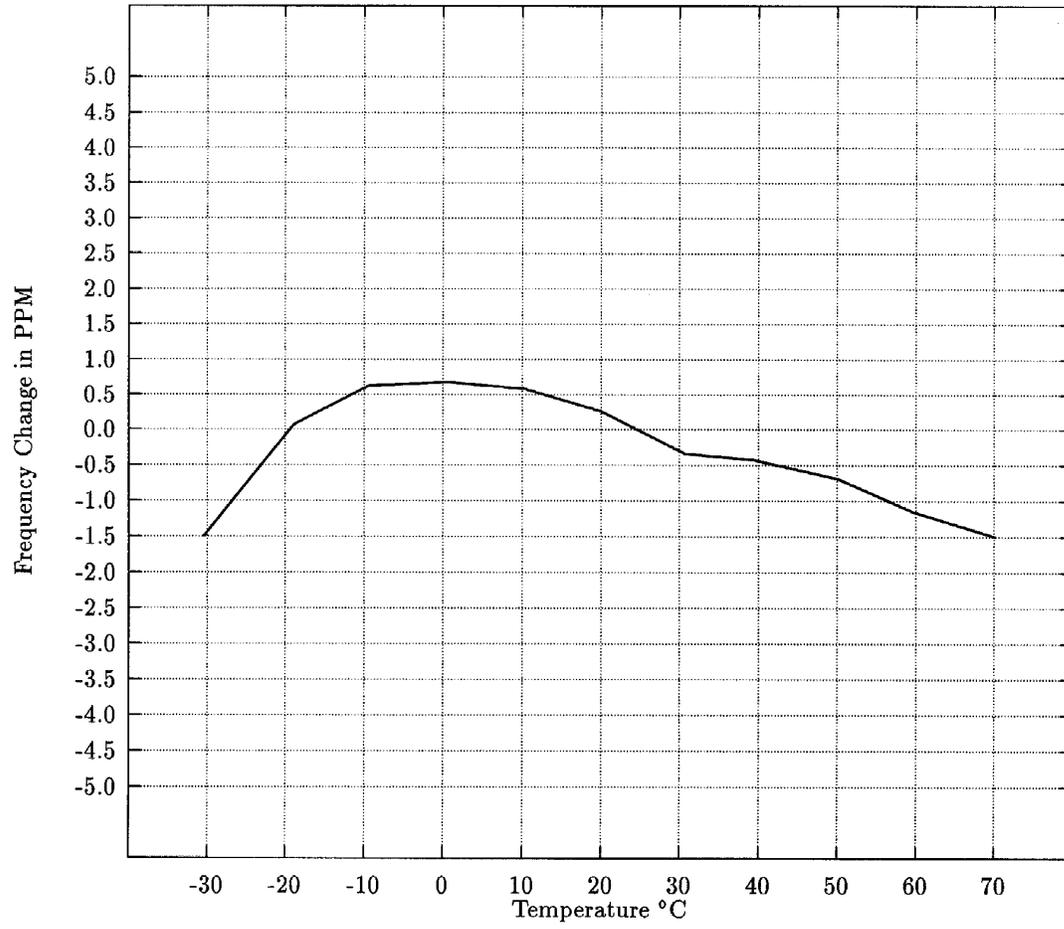
Harmonic	Frequency	Level (dBm)	Limit (dBm)	Level (dBc)	Limit (dBc)
2 nd	92.2 MHz	-74.2	-13.0	-120.2	-59.0
3 rd	138.3 MHz	-82.0	-13.0	-128.0	-59.0
4 th	184.4 MHz	-82.3	-13.0	-128.3	-59.0
5 th	230.5 MHz	-88.9	-13.0	-134.9	-59.0
6 th	276.6 MHz	-91.5	-13.0	-137.5	-59.0
7 th	322.7 MHz	-86.3	-13.0	-132.3	-59.0
8 th	368.8 MHz	-89.7	-13.0	-135.7	-59.0
9 th	414.9 MHz	-87.8	-13.0	-133.8	-59.0
10 th	461.0 MHz	-86.6	-13.0	-132.6	-59.0

**RADIATED SPURIOUS EMISSIONS
LOW POWER, 46.100 MHz, VERTICAL POLARIZATION
OUTPUT POWER = 40.0 WATTS**

All of the measured radiated emissions were found to be greater than -100 dBc (more than 100 dB below the carrier level), which is the lower limit of the normally supplied graph. Therefore, this data is being presented a tabular format:

Harmonic	Frequency	Level (dBm)	Limit (dBm)	Level (dBc)	Limit (dBc)
2 nd	92.2 MHz	-65.5	-13.0	-111.5	-59.0
3 rd	138.3 MHz	-88.1	-13.0	-134.1	-59.0
4 th	184.4 MHz	-82.0	-13.0	-128.0	-59.0
5 th	230.5 MHz	-87.9	-13.0	-133.9	-59.0
6 th	276.6 MHz	-90.9	-13.0	-136.9	-59.0
7 th	322.7 MHz	-88.9	-13.0	-134.9	-59.0
8 th	368.8 MHz	-89.8	-13.0	-135.8	-59.0
9 th	414.9 MHz	-87.1	-13.0	-133.1	-59.0
10 th	461.0 MHz	-85.8	-13.0	-131.8	-59.0

FREQUENCY STABILITY VS. TEMPERATURE
SPECIFIED LIMITS: ± 5 PPM (-30 TO +60 DEGREES C)



FREQUENCY STABILITY VS. SUPPLY VOLTAGE
REFERENCE 0% = 13.6 VOLTS DC

