

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

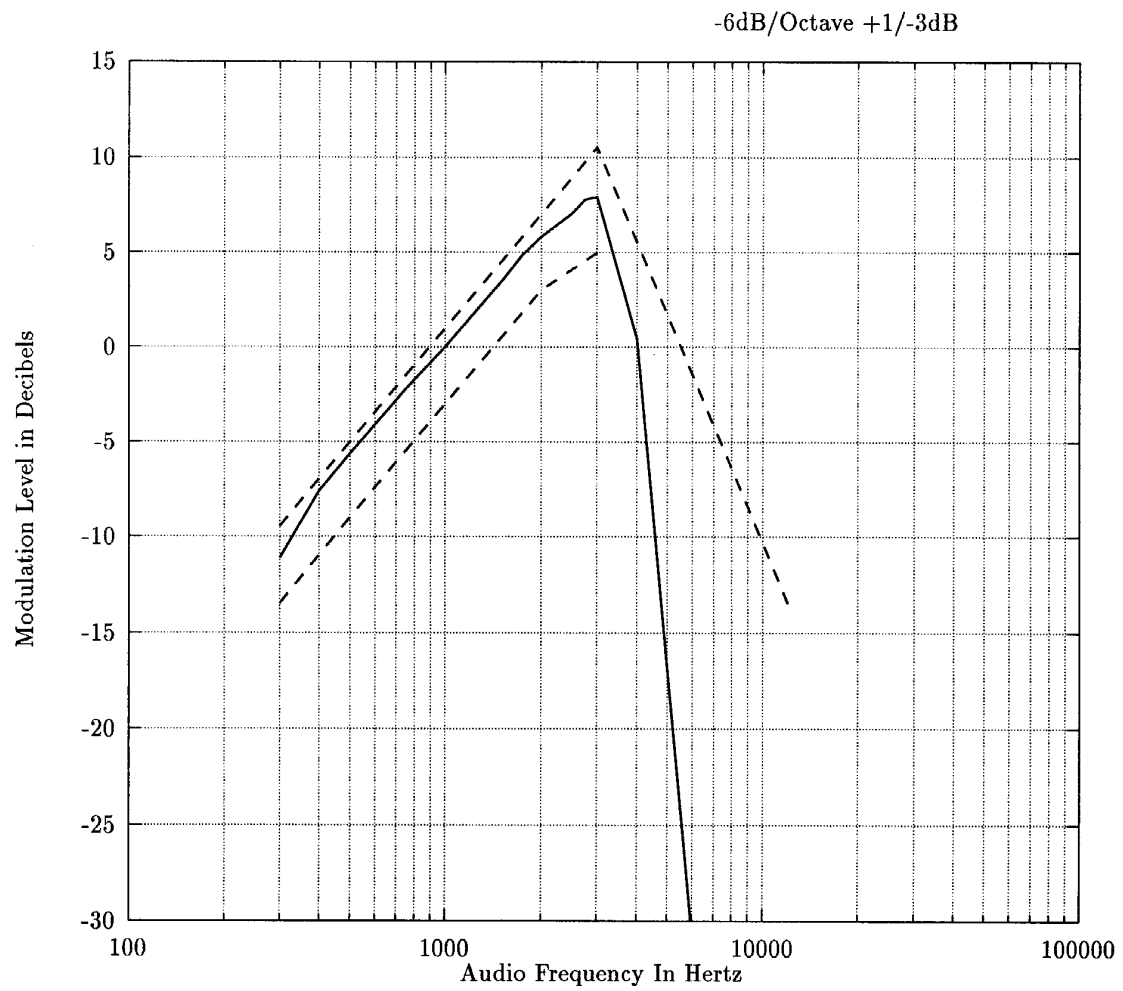
HIGH POWER SETTING, FREQUENCY 49.950 MHz

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

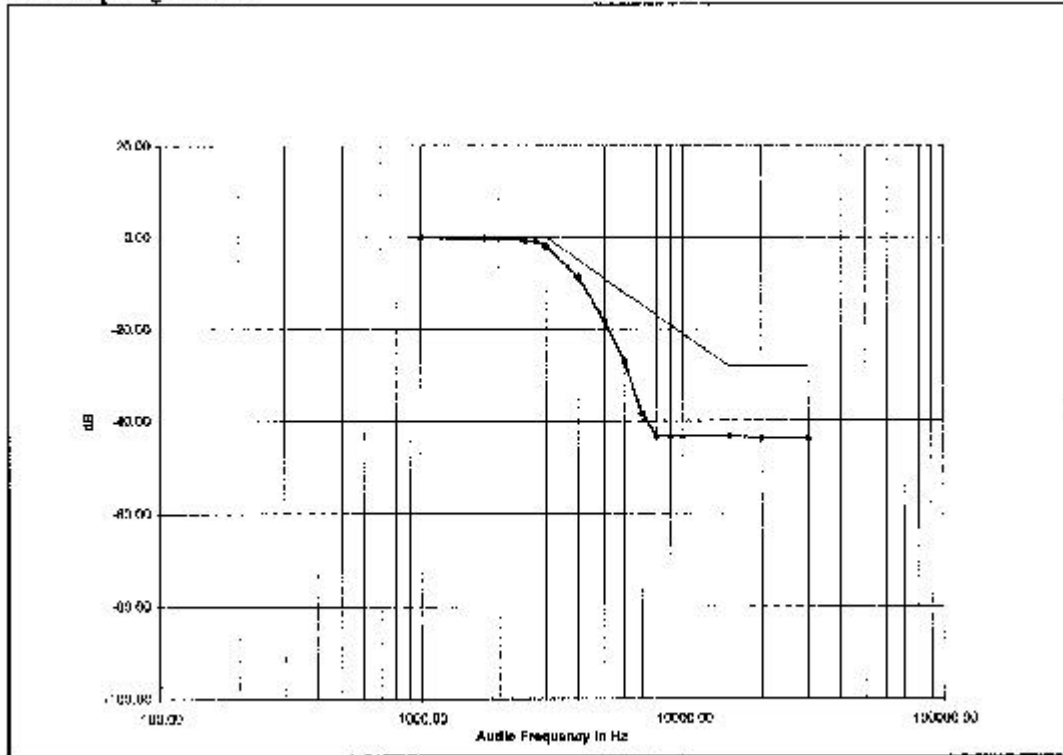
Measured RF Output Power:	40.0 Watts
Measured DC Voltage:	13.58 Volts
Measured DC Input Current:	10.3 Amperes
Measured DC Input Power:	139.87 Watts

TRANSMIT AUDIO RESPONSE

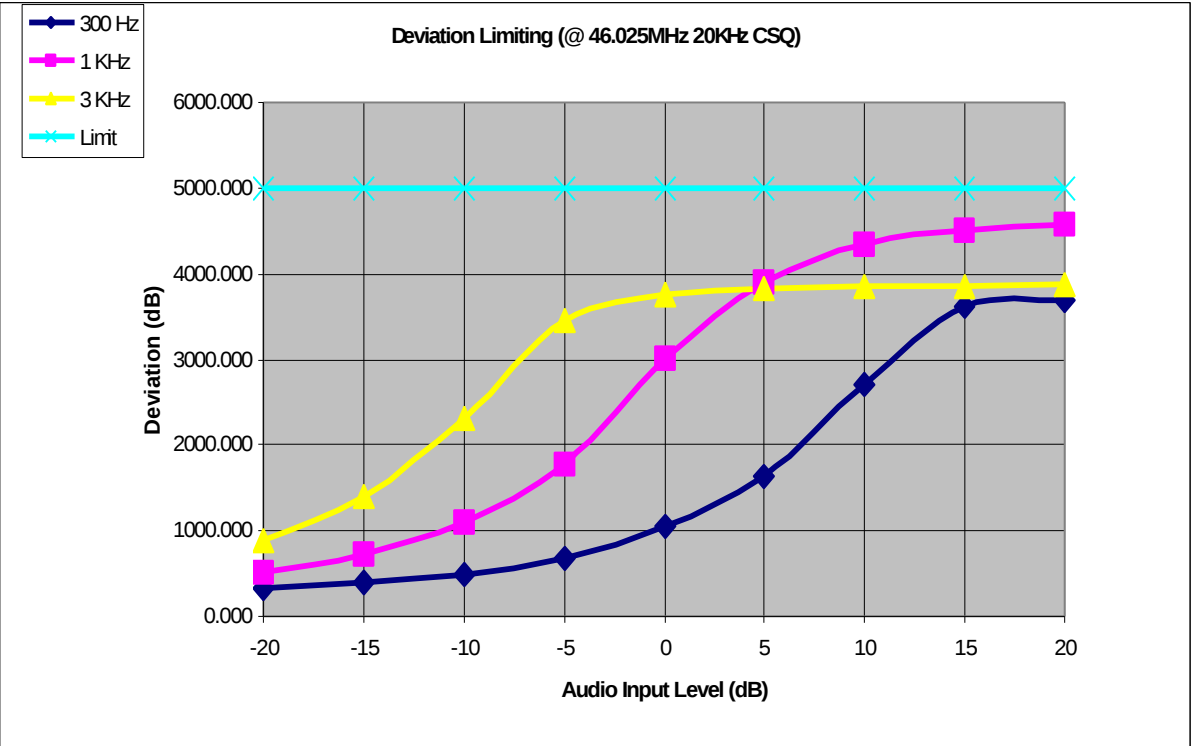


POST-LIMITER LOWPASS FILTER RESPONSE

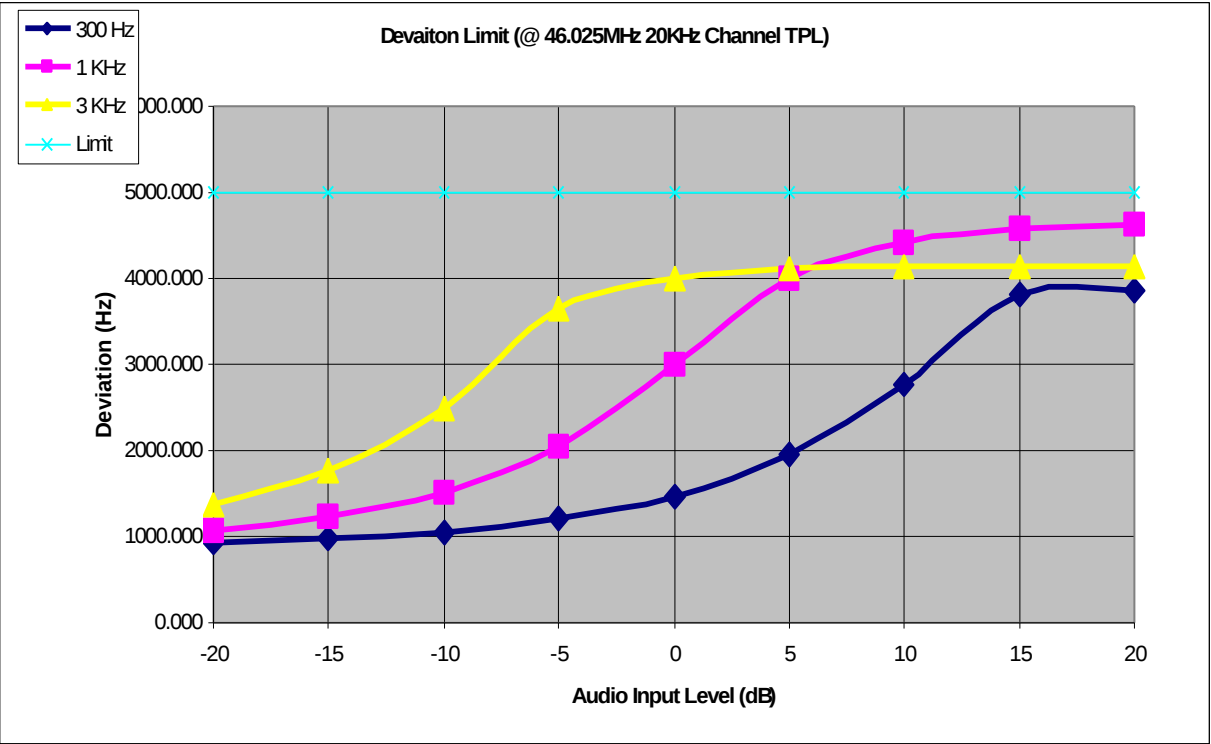
Channel Spacing : 20KHz



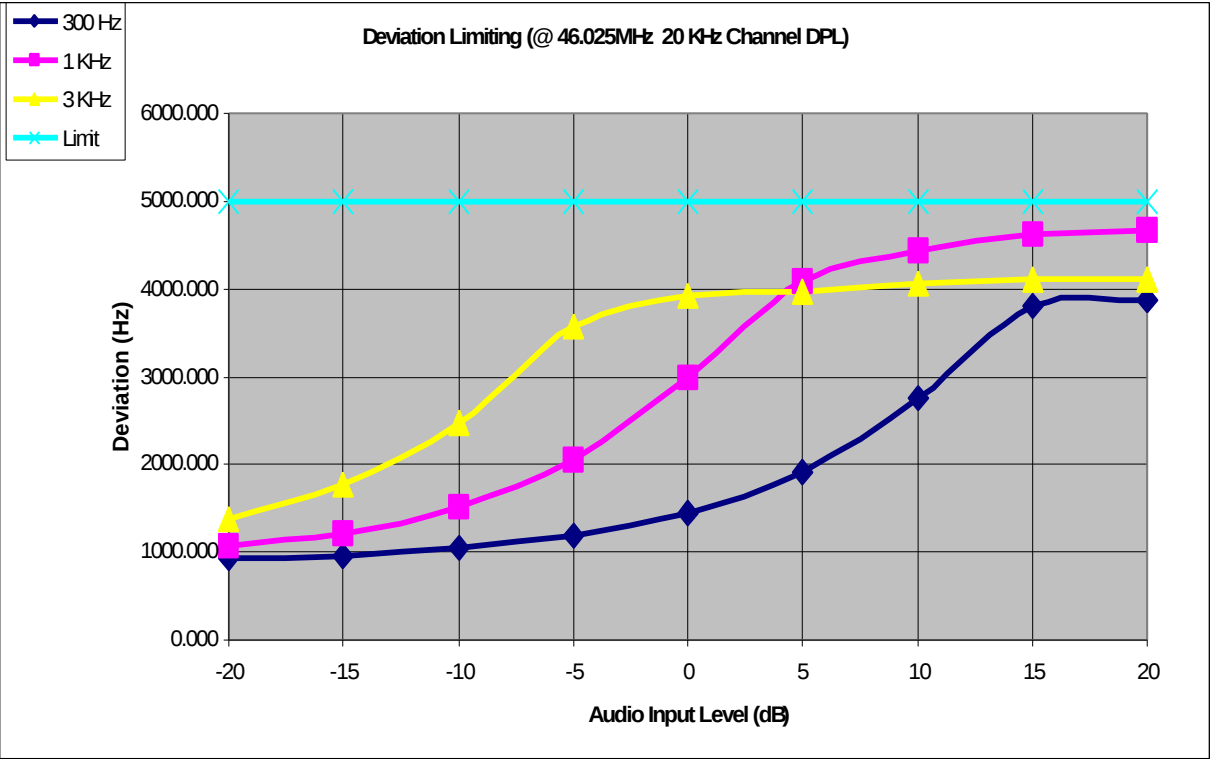
MODULATION LIMITING CHARACTERISTIC
CARRIER SQUELCH MODE



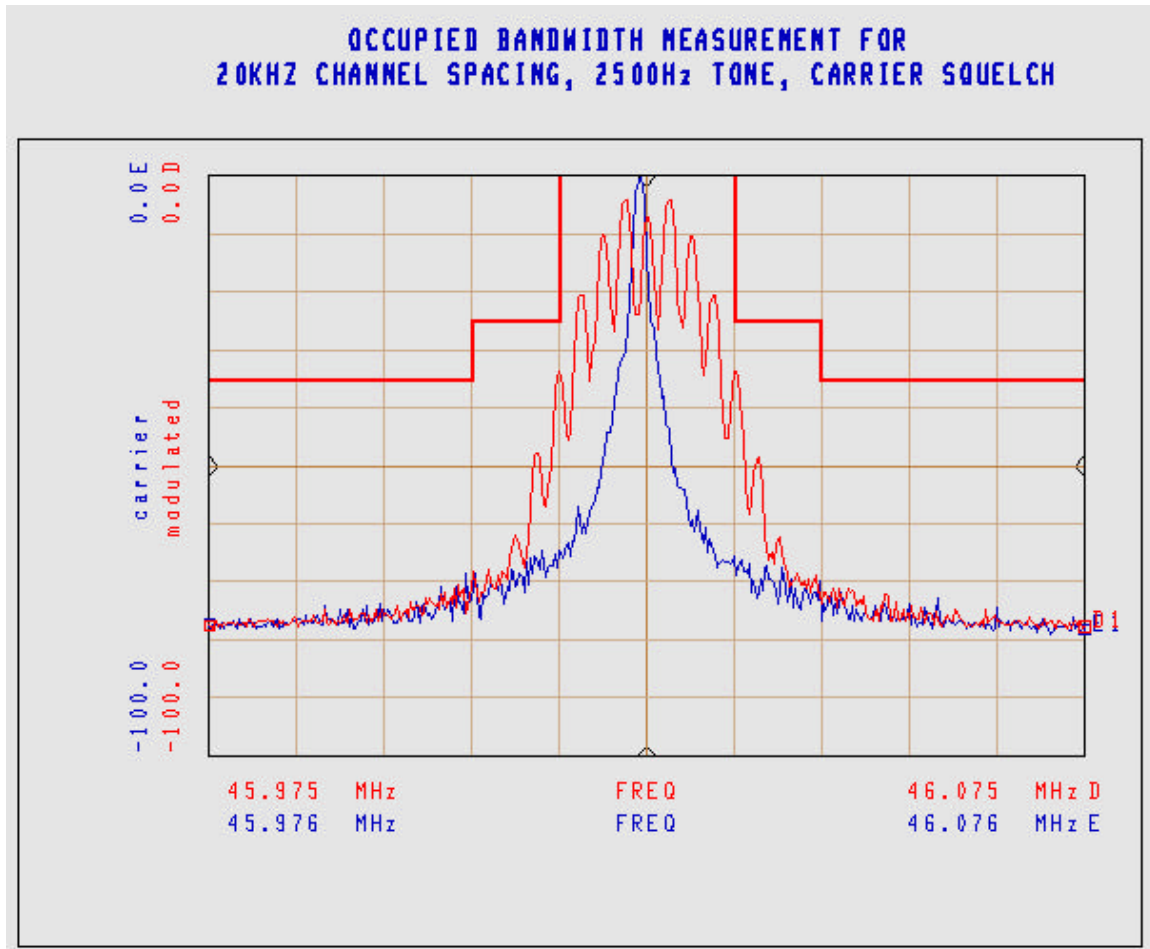
MODULATION LIMITING CHARACTERISTIC
TONE PL MODE



MODULATION LIMITING CHARACTERISTIC
DPL MODE

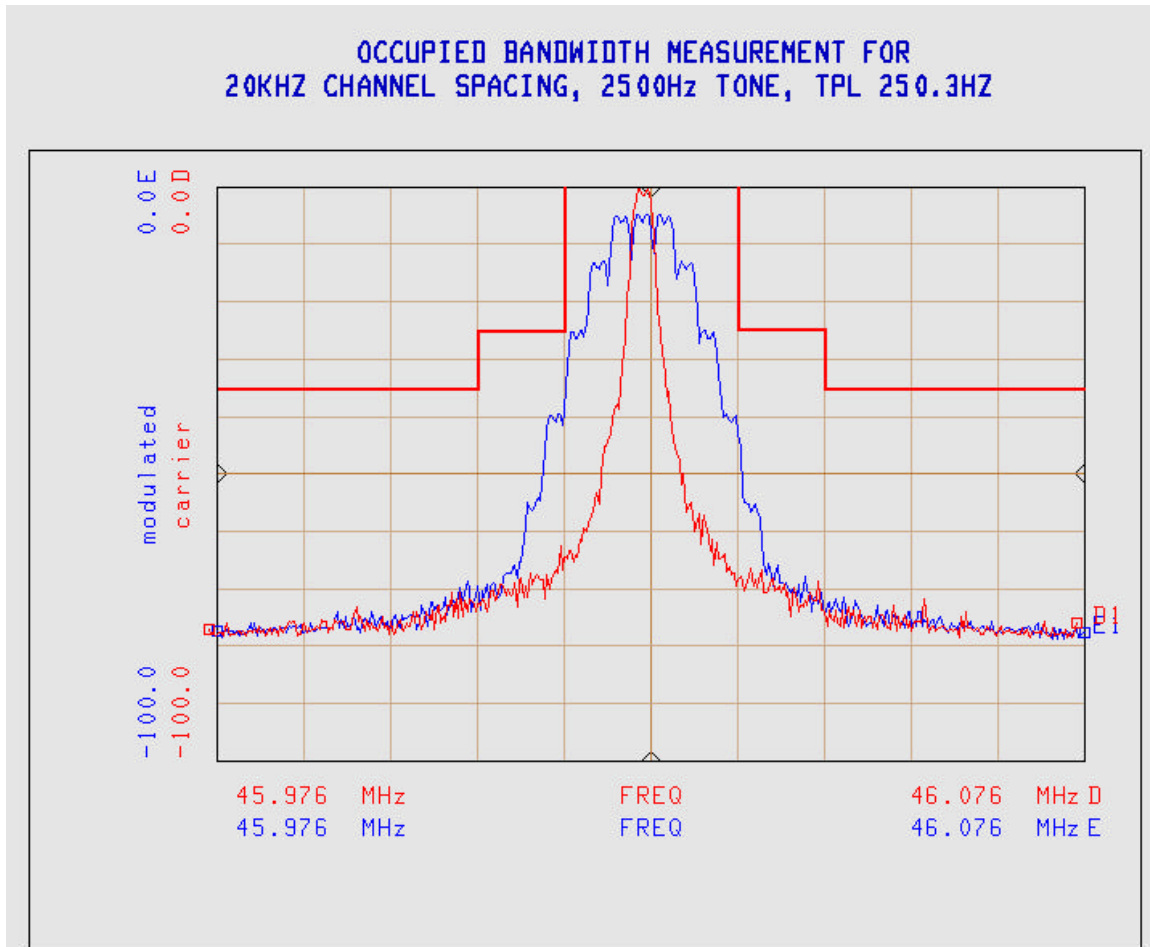


OCCUPIED BANDWIDTH MEASUREMENT FOR
20 kHz CHANNEL SPACING, 2500 Hz TONE, CARRIER SQUELCH
EMISSION MASK: B



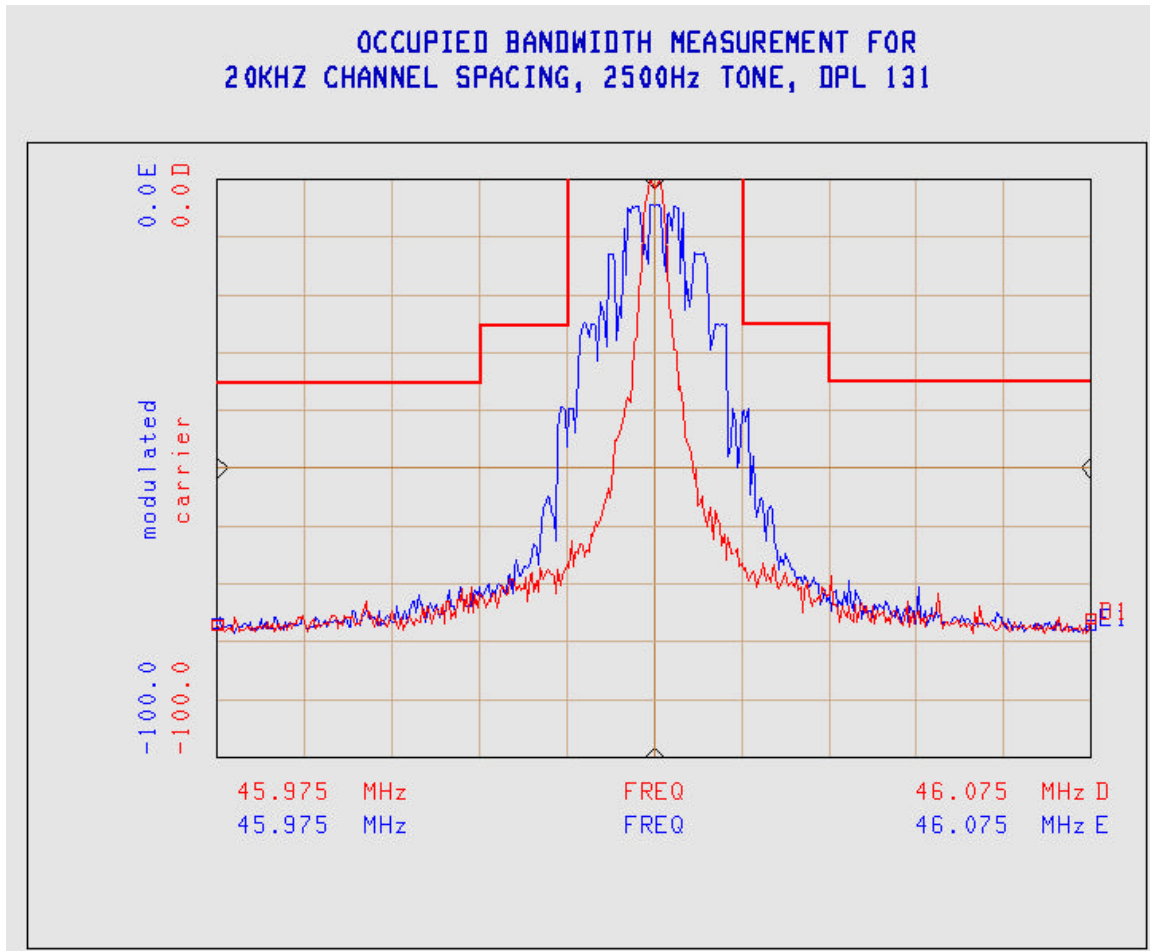
CENTER FREQUENCY:	46.025 MHz
RESOLUTION BANDWIDTH:	300 kHz
VIDEO BANDWIDTH:	300 kHz
SPAN:	100 kHz
SWEEP TIME:	3 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dBm
ATTENUATION:	30 dB

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



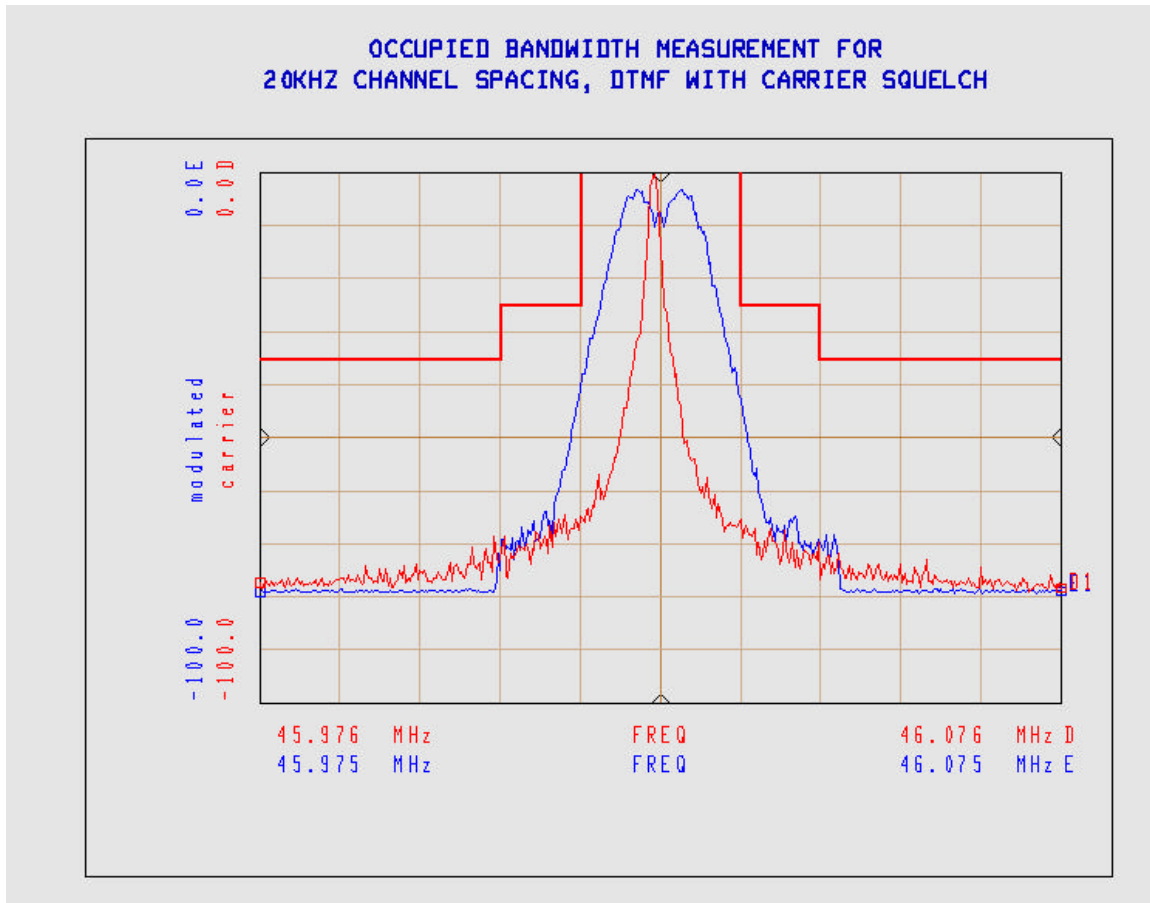
CENTER FREQUENCY:	46.025 MHz
RESOLUTION BANDWIDTH:	300 kHz
VIDEO BANDWIDTH:	300 kHz
SPAN:	100 kHz
SWEEP TIME:	3 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dBm
ATTENUATION:	30 dB

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



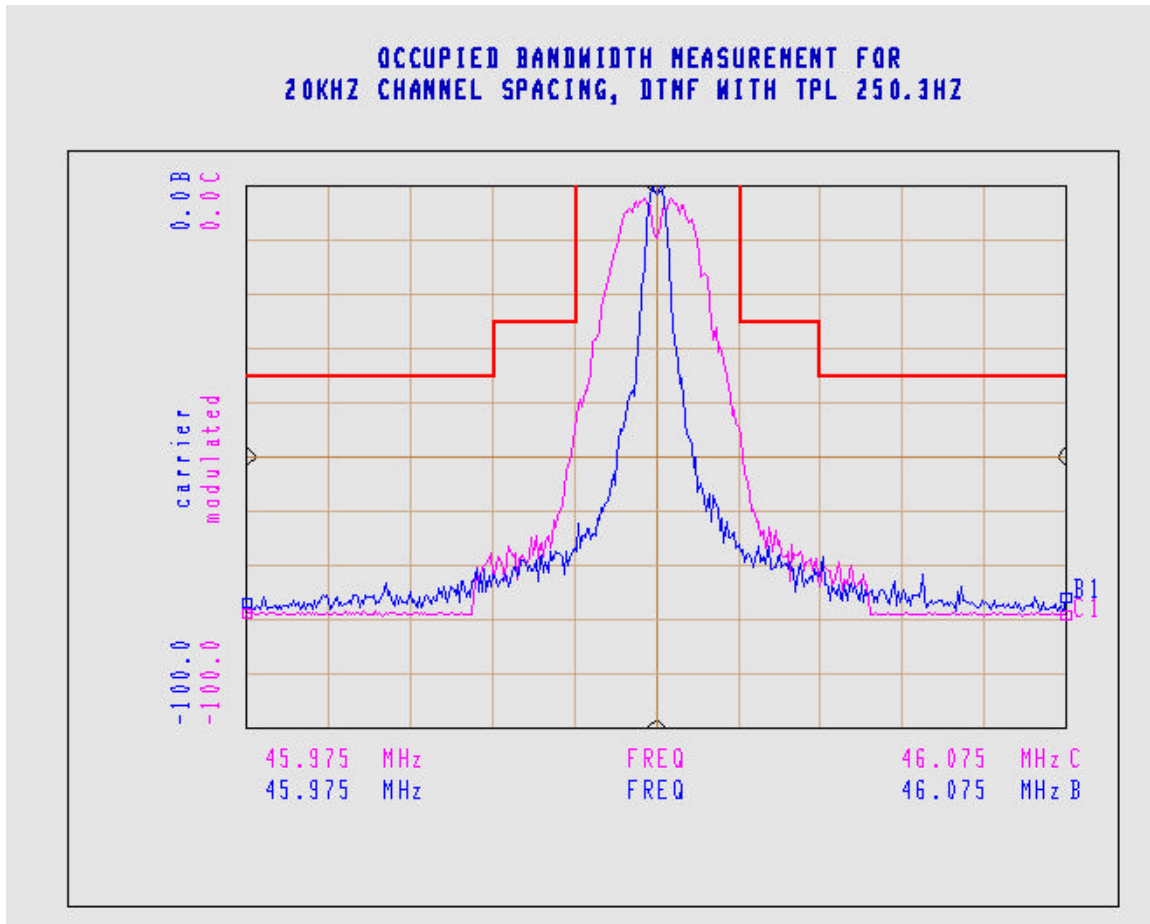
CENTER FREQUENCY:	46.025 MHz
RESOLUTION BANDWIDTH:	300 kHz
VIDEO BANDWIDTH:	300 kHz
SPAN:	100 kHz
SWEEP TIME:	3 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dBm
ATTENUATION:	30 dB

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



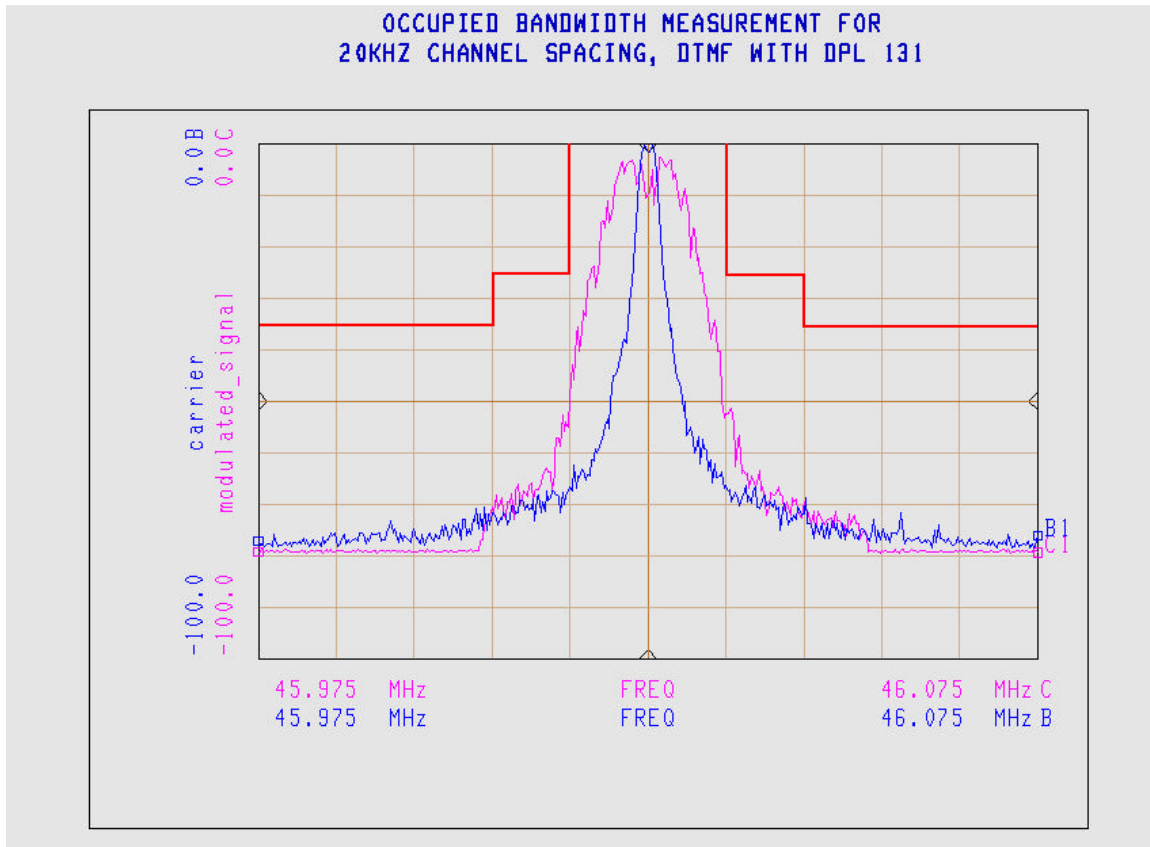
CENTER FREQUENCY:	46.025 MHz
RESOLUTION BANDWIDTH:	300 kHz
VIDEO BANDWIDTH:	300 kHz
SPAN:	100 kHz
SWEEP TIME:	3 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dBm
ATTENUATION:	30 dB

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



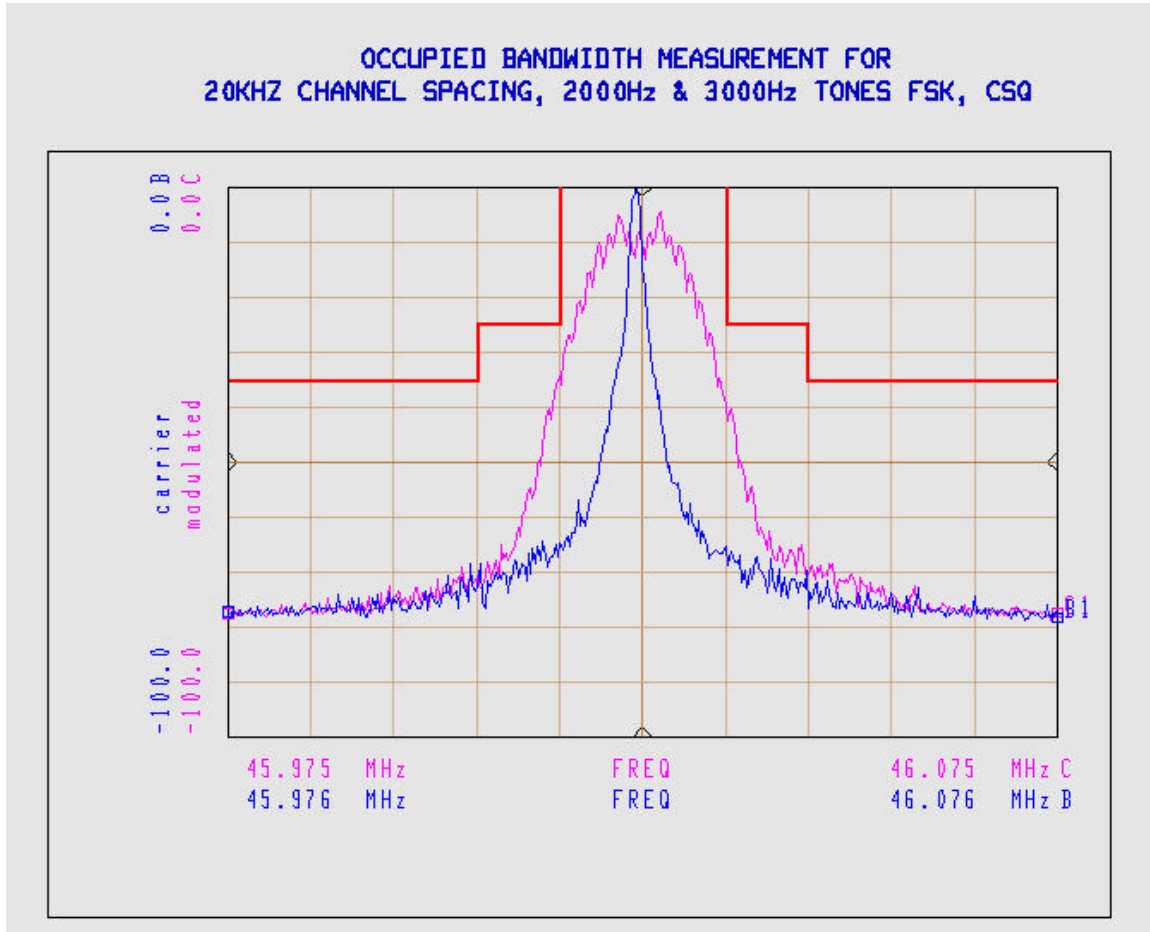
CENTER FREQUENCY:	46.025 MHz
RESOLUTION BANDWIDTH:	300 kHz
VIDEO BANDWIDTH:	300 kHz
SPAN:	100 kHz
SWEEP TIME:	3 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dBm
ATTENUATION:	30 dB

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



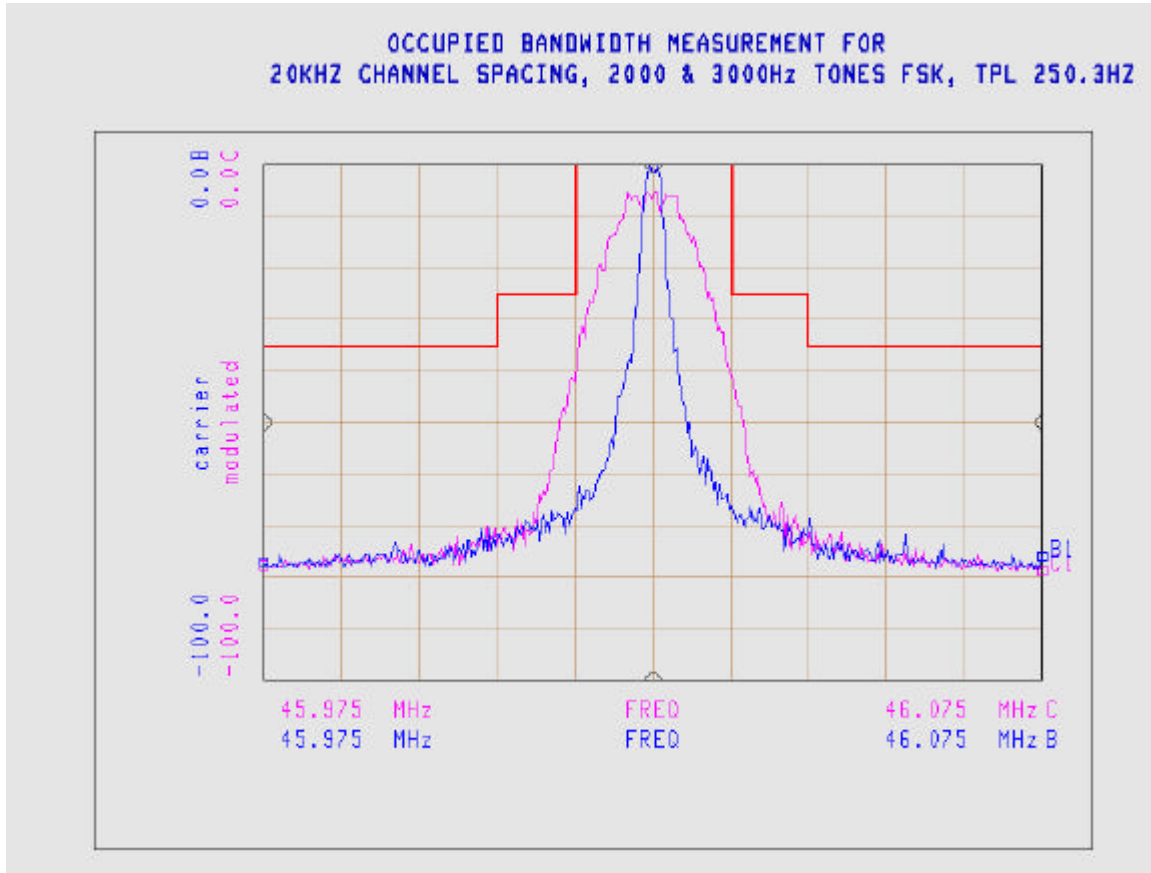
CENTER FREQUENCY:	46.025 MHz
RESOLUTION BANDWIDTH:	300 kHz
VIDEO BANDWIDTH:	300 kHz
SPAN:	100 kHz
SWEEP TIME:	3 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dBm
ATTENUATION:	30 dB

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



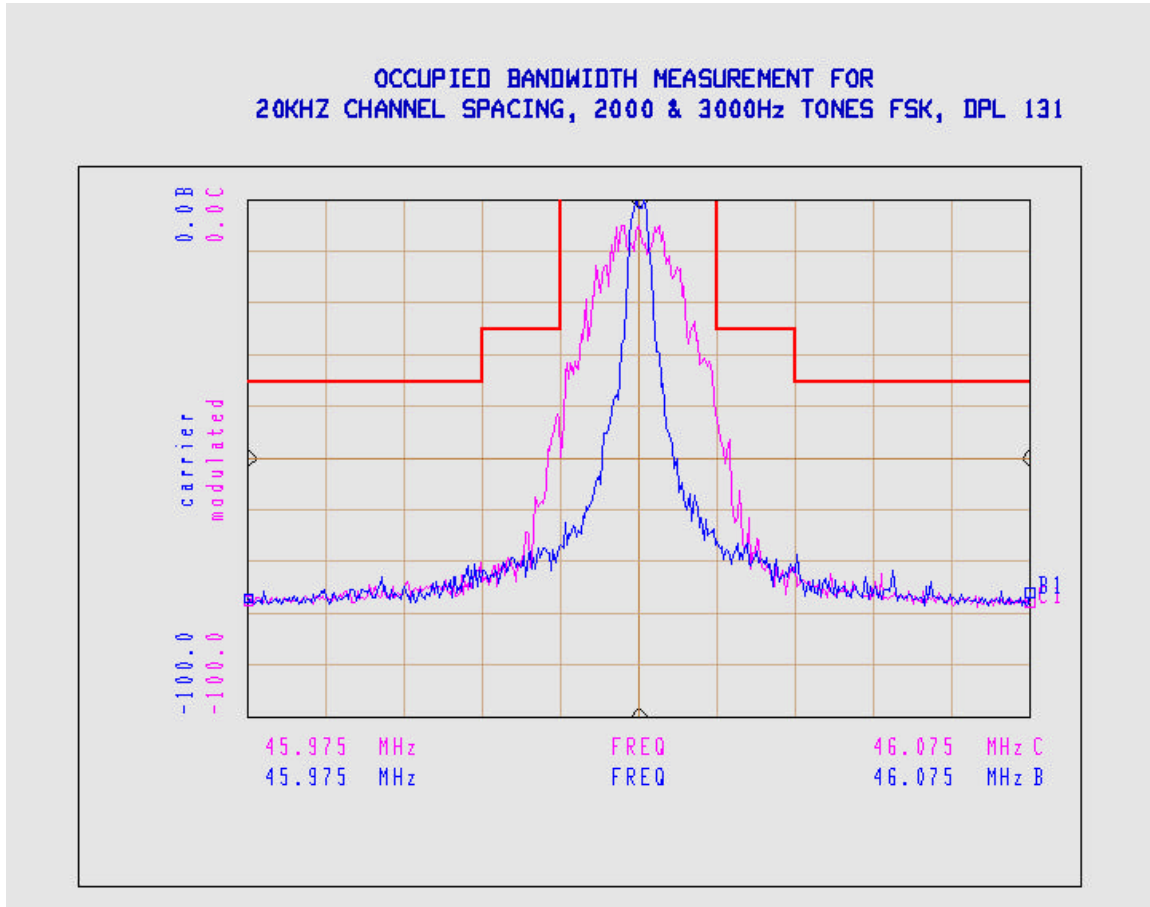
CENTER FREQUENCY:	46.025 MHz
RESOLUTION BANDWIDTH:	300 kHz
VIDEO BANDWIDTH:	300 kHz
SPAN:	100 kHz
SWEEP TIME:	3 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dBm
ATTENUATION:	30 dB

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

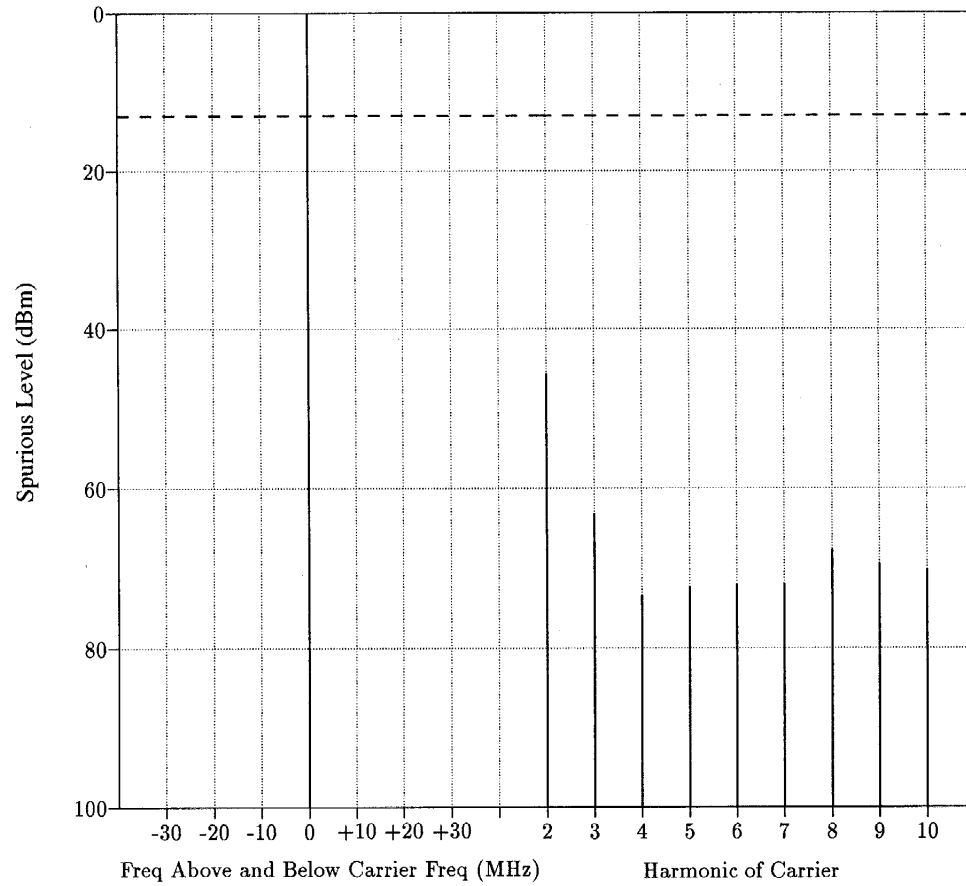
OCCUPIED BANDWIDTH MEASUREMENT FOR
20 kHz CHANNEL SPACING, 2000/3000 Hz FSK, DPL
EMISSION MASK: B

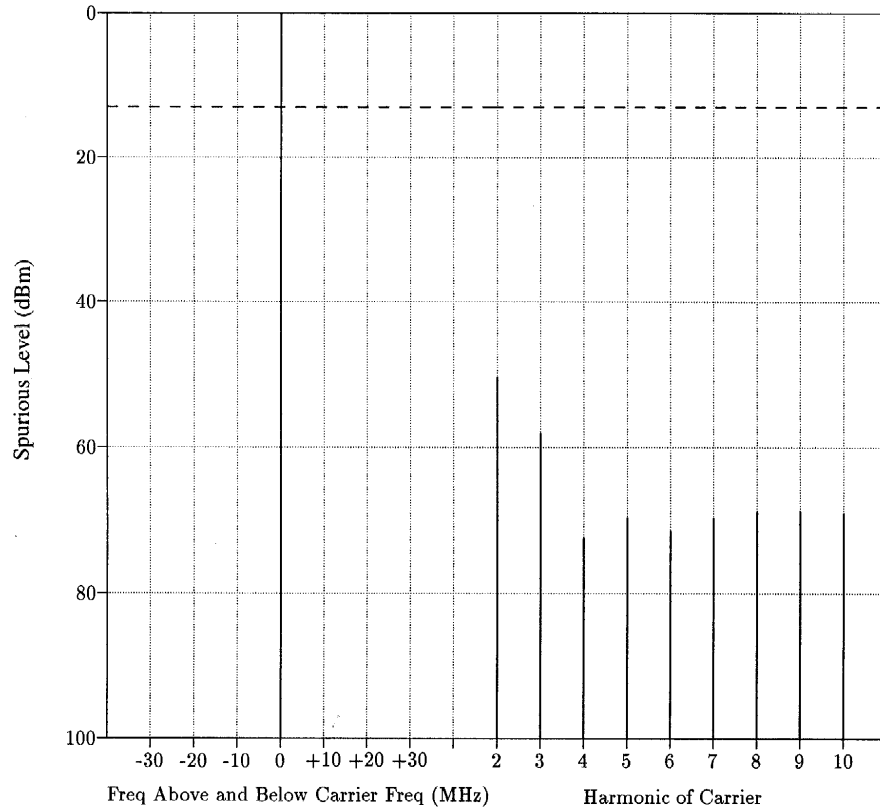


CENTER FREQUENCY:	46.025 MHz
RESOLUTION BANDWIDTH:	300 kHz
VIDEO BANDWIDTH:	300 kHz
SPAN:	100 kHz
SWEEP TIME:	3 Sec.
VERTICAL SCALE:	10 dB/div
REFERENCE LEVEL:	0 dBm
ATTENUATION:	30 dB

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

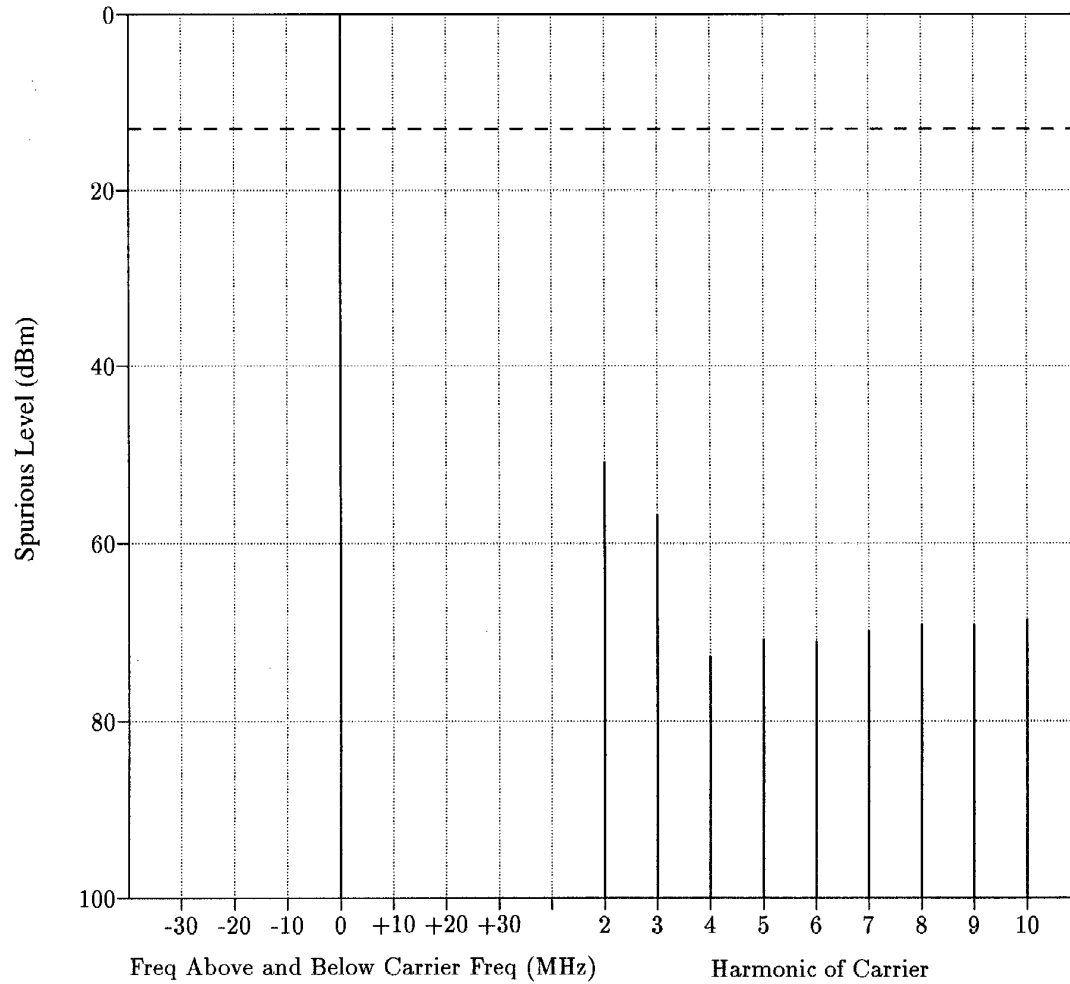
Transmitter Type: See Above
Power Output: 72.00W at 42.1000MHz



**CONDUCTED SPURIOUS EMISSIONS
HIGH POWER, 46.100 MHz****Transmitter Type:** See Above**Power Output:** 72.00W at 46.1000MHz

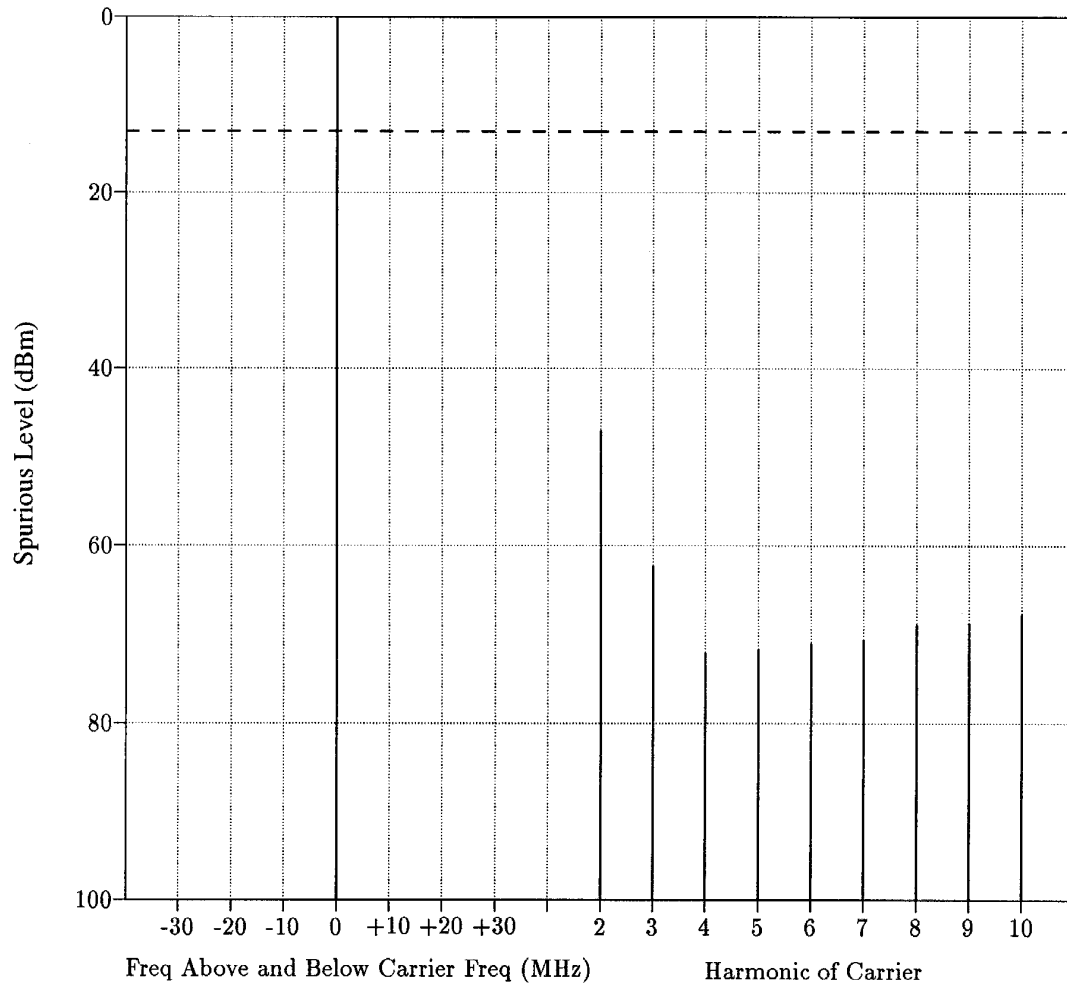
CONDUCTED SPURIOUS EMISSIONS
HIGH POWER, 49.900 MHz

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



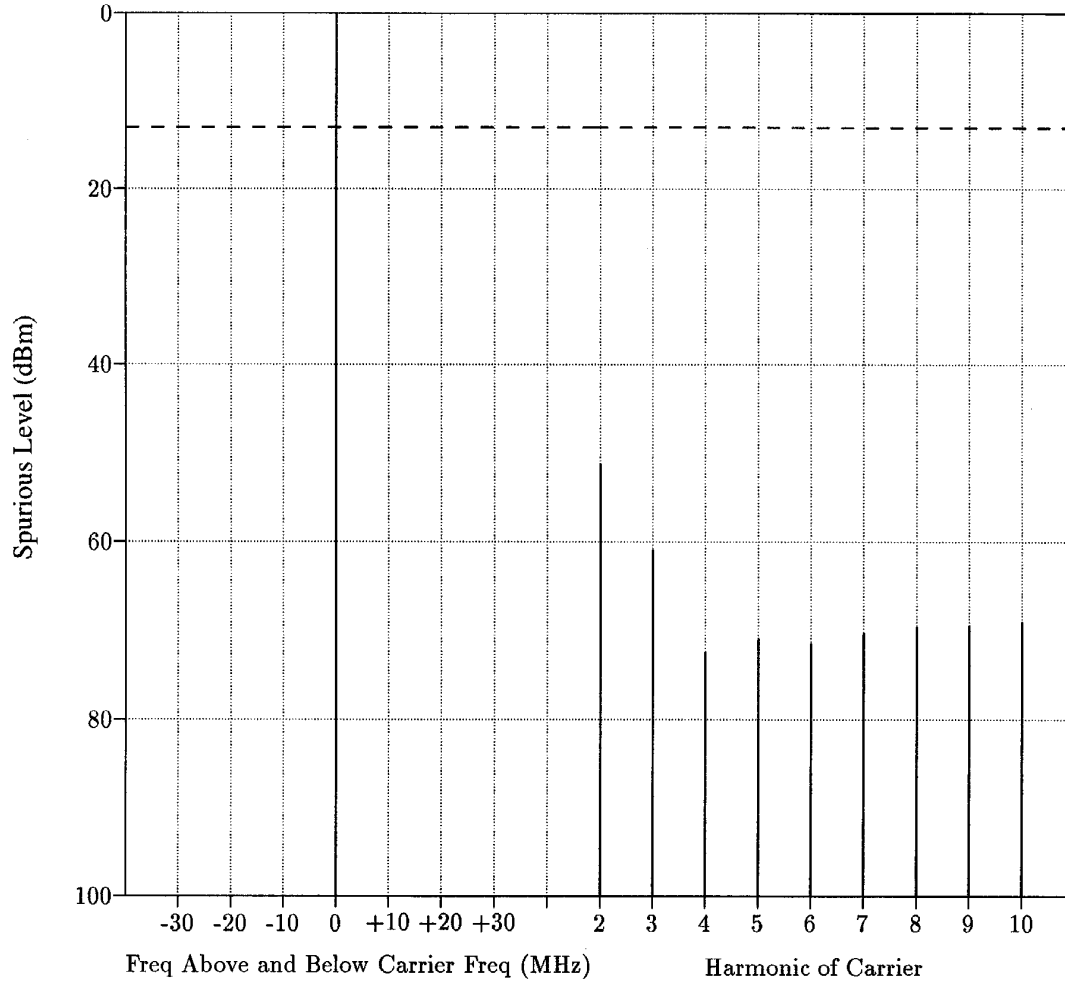
CONDUCTED SPURIOUS EMISSIONS
LOW POWER, 42.100 MHz

Transmitter Type: See Above
Power Output: 40.00W at 42.1000MHz



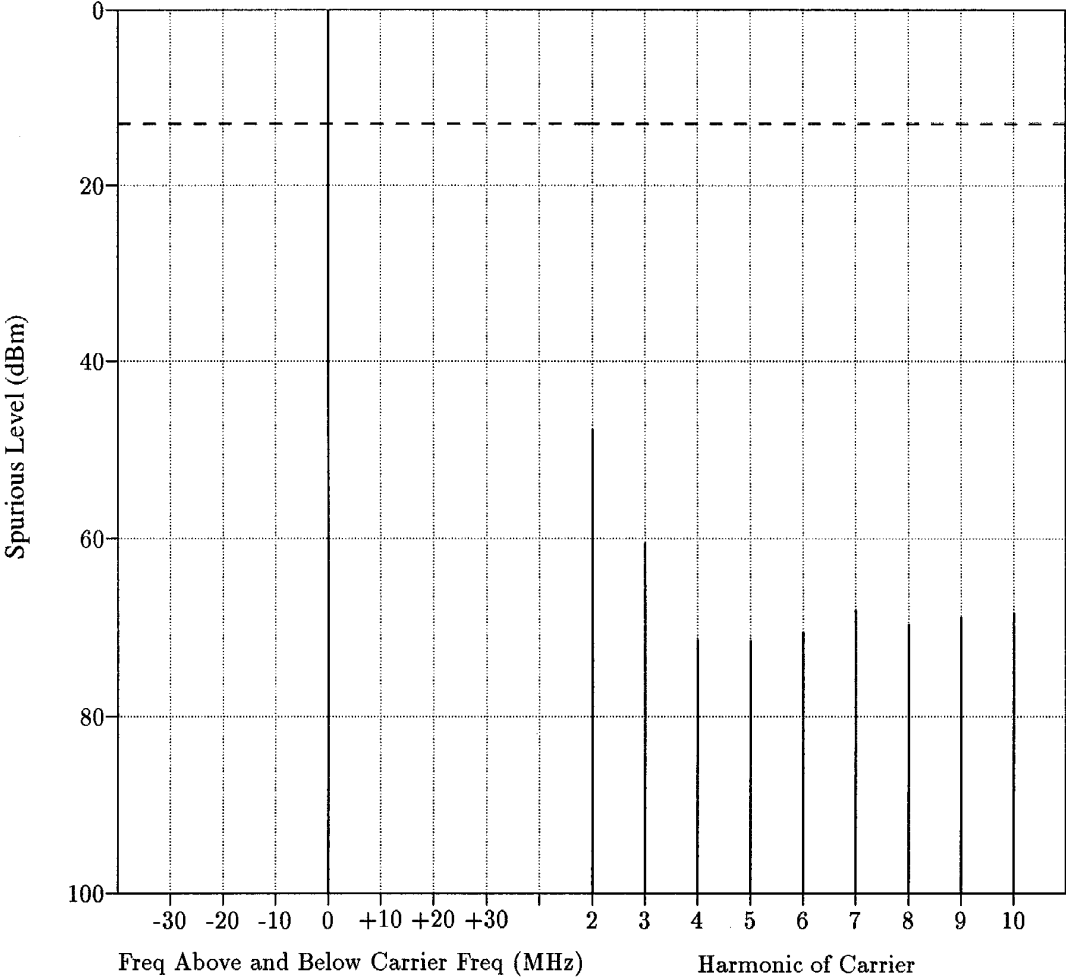
**CONDUCTED SPURIOUS EMISSIONS
LOW POWER, 46.100 MHz**

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 49.9000MHz



**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:

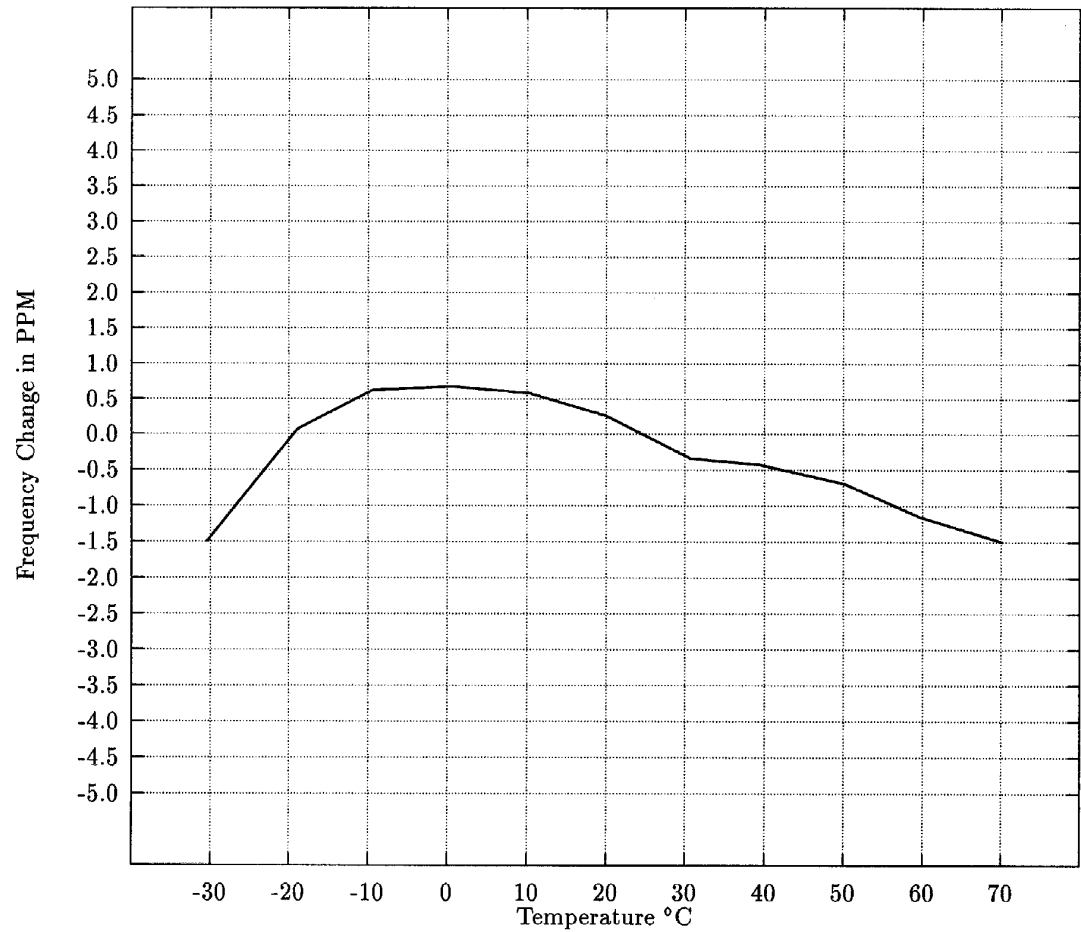
Harmonic	Frequency	Level (dBm)	Limit (dBm)	Level (dBc)	Limit (dBc)
2 nd	92.2 MHz	-74.2	-13.0	-120.2	-59.0
3 rd	138.3 MHz	-82.0	-13.0	-128.0	-59.0
4 th	184.4 MHz	-82.3	-13.0	-128.3	-59.0
5 th	230.5 MHz	-88.9	-13.0	-134.9	-59.0
6 th	276.6 MHz	-91.5	-13.0	-137.5	-59.0
7 th	322.7 MHz	-86.3	-13.0	-132.3	-59.0
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

