Submitted Measured Data

MEASUREMENT		EXHIBIT	NUMBER OF PAGES
1.	RF Power Output Data	6A	1
2.	Audio Frequency Response	6B	1
3.	Low Pass Filter Response	6C	1
4.	Modulation Limiting	6D	1
5.	Occupied Bandwidth	6E	5
6.	Radiated Spurious Emissions	6F	2
7.	Conducted Spurious Emissions	6G	2
8.	Frequency Stability	6H	1
9.	Transient Frequency Behavior	6I	3

RF Power Output Data

The RF power output was measured with the indicated voltage applied to and current into the final RF amplifying device.

469.0125 MHz

Measured RF output	5.00 Watts
Nominal DC voltage	7.5 Volts
Nominal DC Current	1.92 Amps
Primary Supply Voltage	7.5 Volts

Measured RF output	2.0 Watts
Nominal DC voltage	7.5 Volts
Nominal DC Current	1.13 Amps
Primary Supply Voltage	7.5 Volts

EXHIBIT 6A

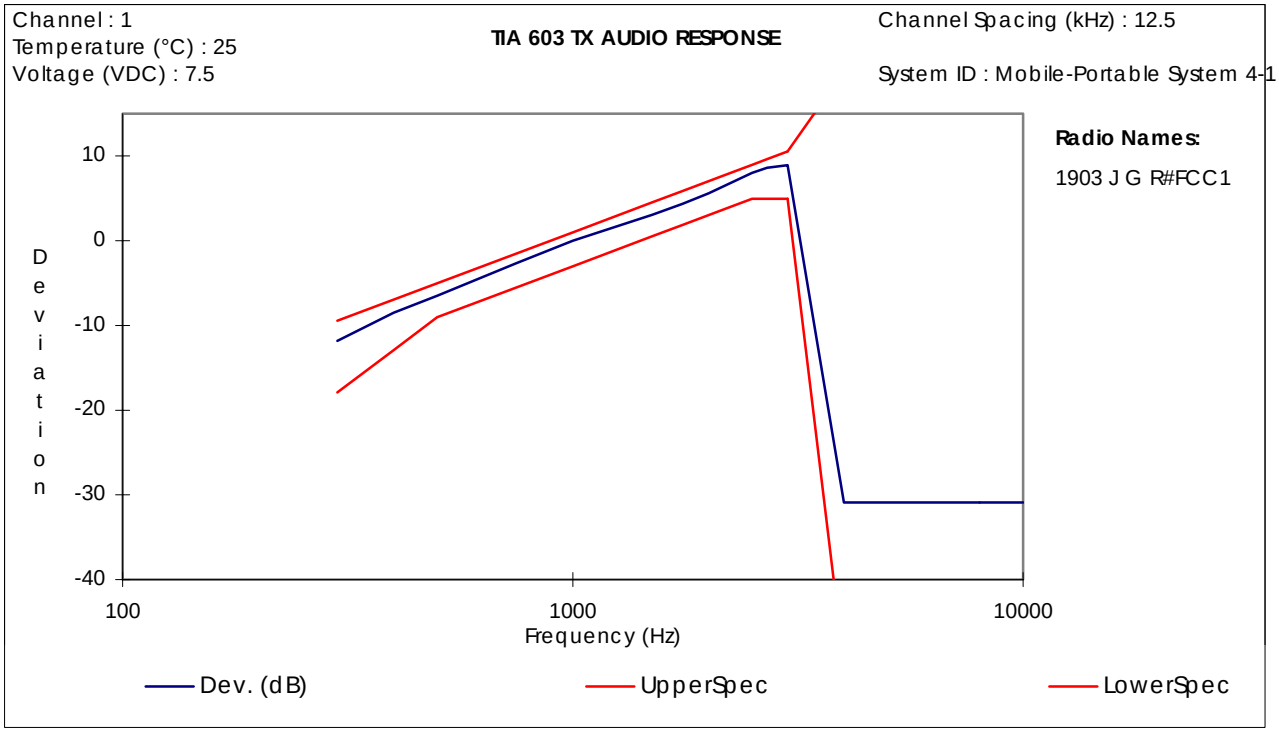


EXHIBIT 6B-1

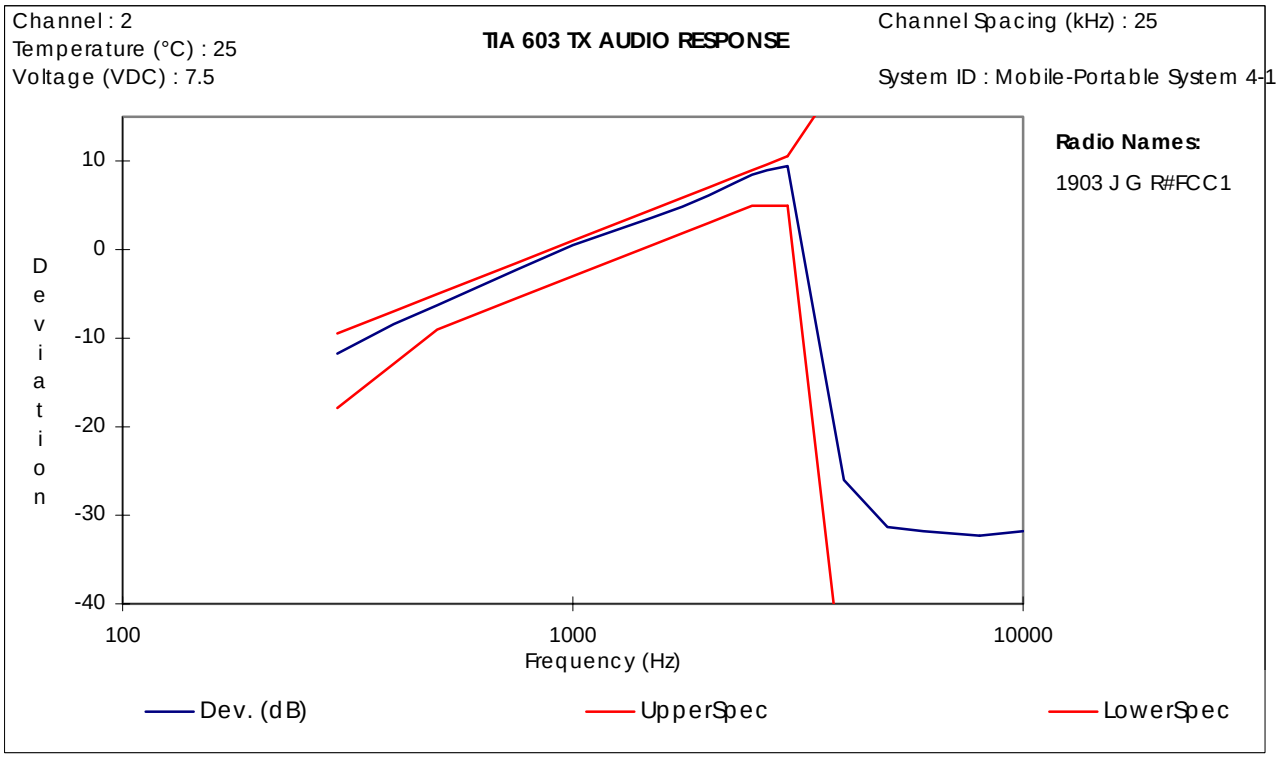


EXHIBIT 6B-2

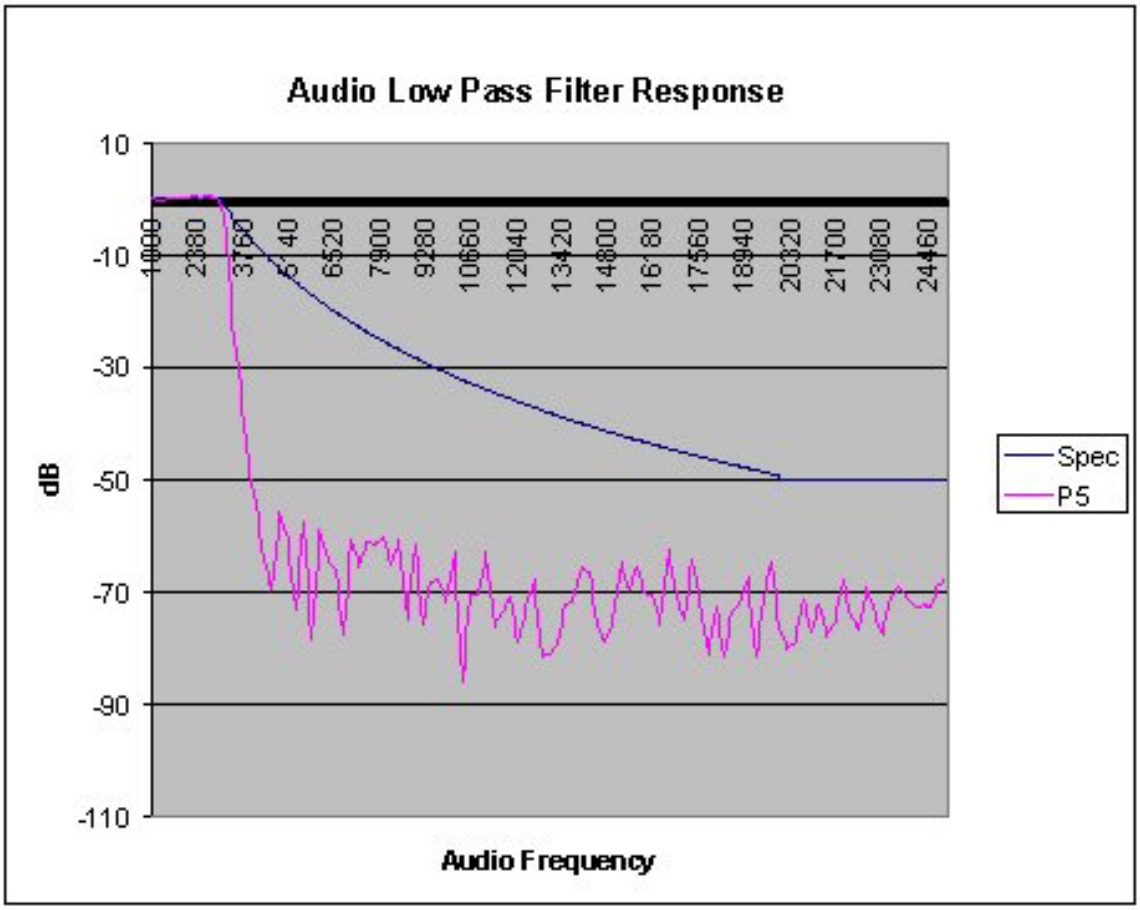

Audio Low Pass Filter Response
10
-10
-30
-50
-70
-90
-110
dB
1000
2380
3760
5140
6520
7900
9280
10660
12040
13420
14800
16180
17560
18940
20320
21700
23080
24460
Audio Frequency
Spec
P5

EXHIBIT 6C

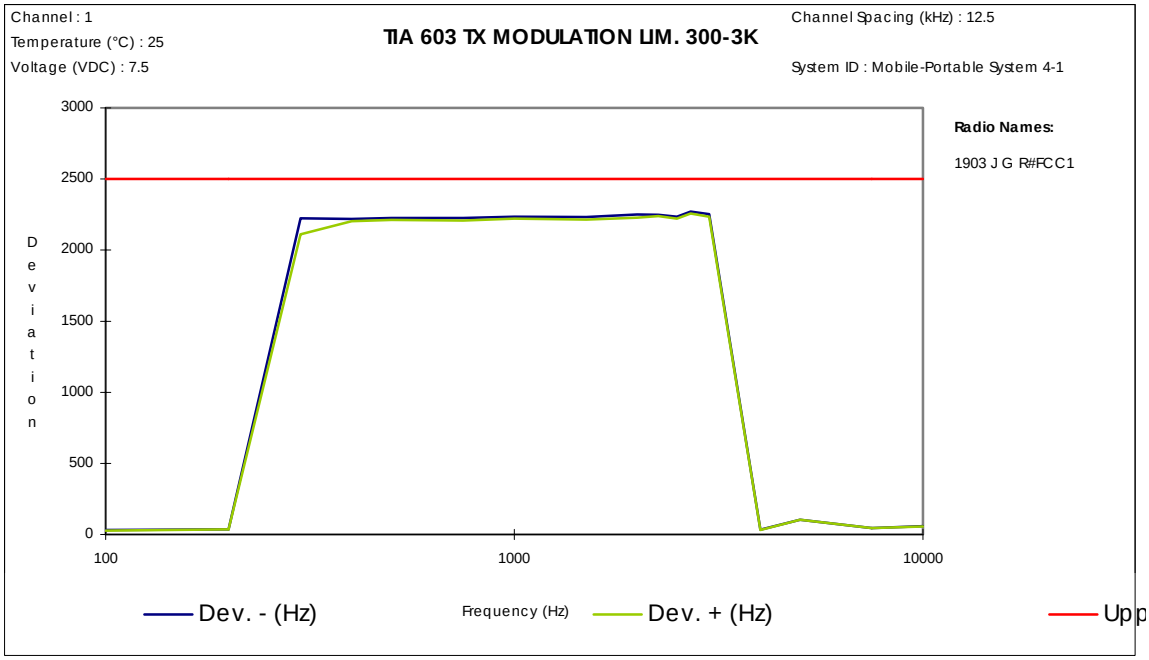


EXHIBIT 6D-1

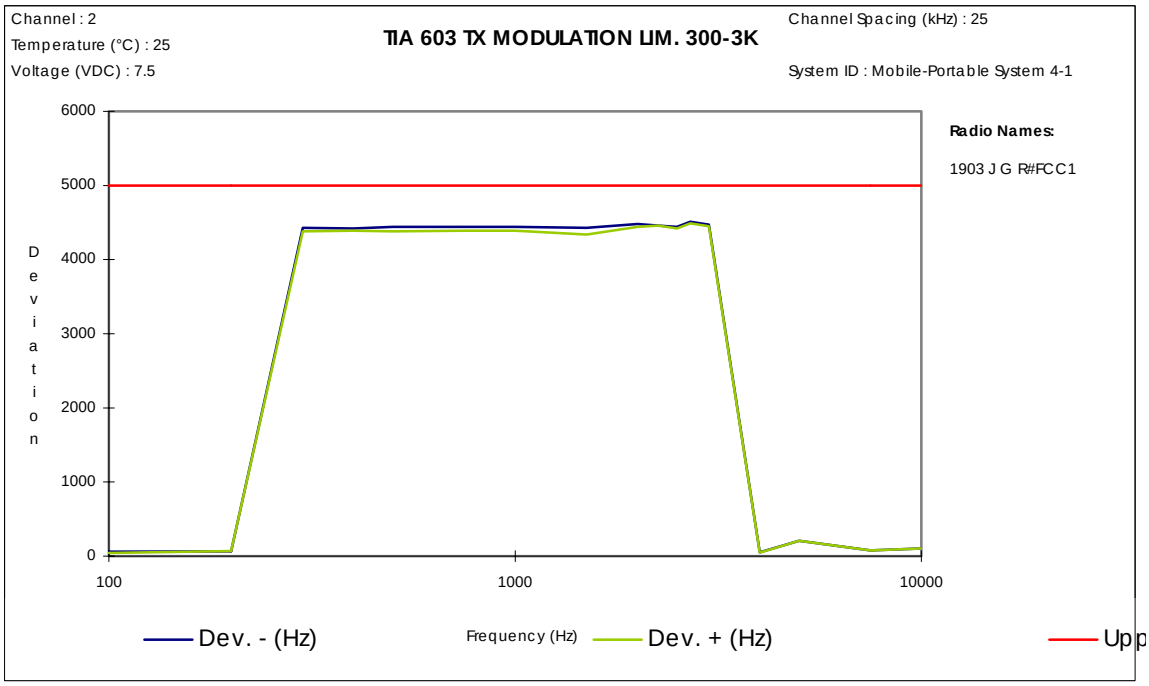


EXHIBIT 6D-2

Percentage Modulation Versus Modulation Frequency and Input Level
Frequency = 469.0625 MHz Channel Spacing = 25.0 kHz

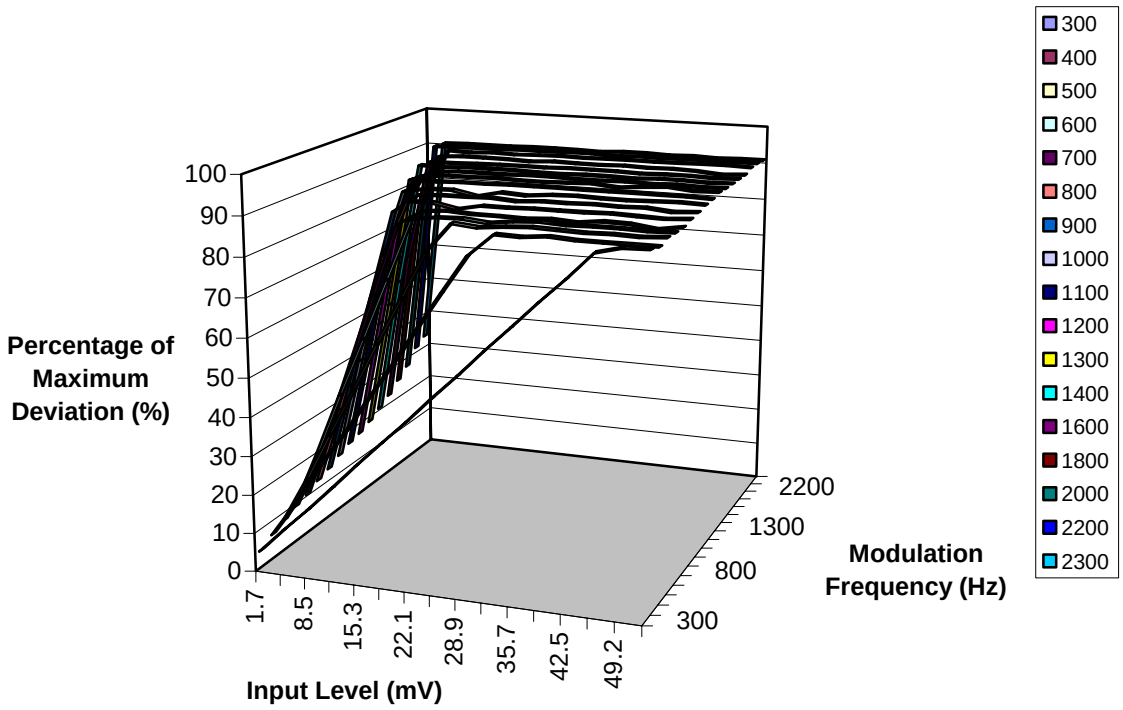


EXHIBIT 6D-3

Percentage Modulation Versus Modulation Frequency and Input Level
Frequency = 469.0625 MHz Channel Spacing = 12.5 kHz

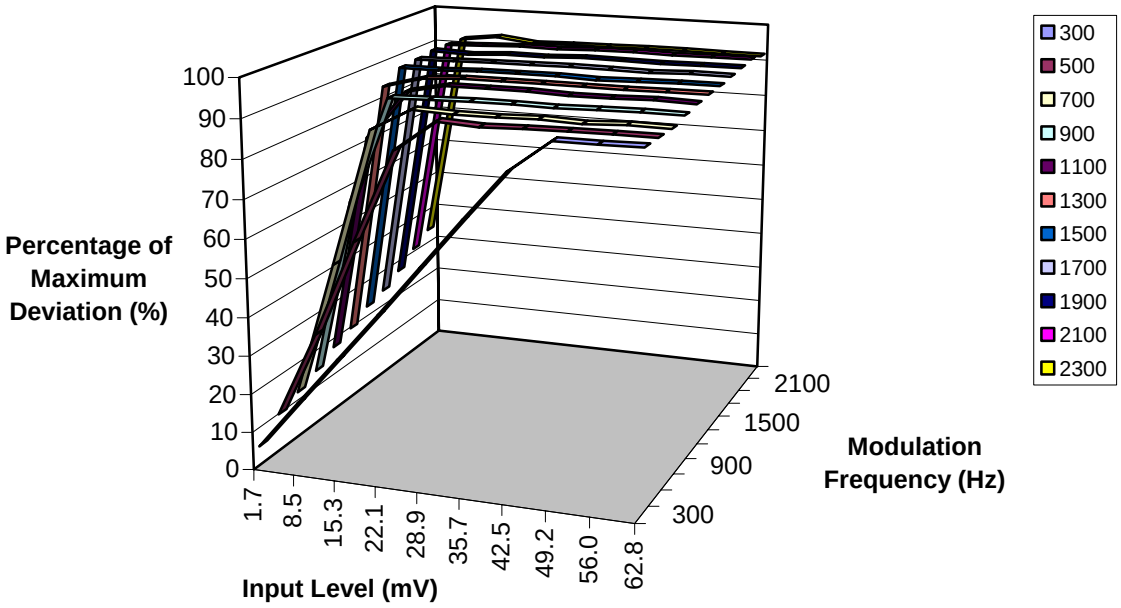


EXHIBIT 6D-4

Occupied Bandwidth Data

BANDWIDTH CALCULATIONS**:**

Carson's Rule for FM modulation is utilized to compute the bandwidth shown in the FCC emission designator. Carson's Rule is: BW = 2 * (M + D) where: BW = Bandwidth
M= Maximum modulating frequency
D = Deviation

Shown below are the calculations required for FCC ID: **AZ489FT4861**.

EXHIBIT 6E-1
Standard Audio Modulation (12.5 kHz Channelization, Analog Voice):
Emission Designator 11K0F3E

In this case, the maximum modulating frequency is 3.0 kHz with a 2.5 kHz deviation.

BW = 2(M+D) = 2*(3.0 kHz + 2.5 kHz) = 11 kHz ===> 11K0
F3E portion of the designator indicates voice.

Therefore, the entire designator for 12.5 KHz channelization analog voice is 11K0F3E.

EXHIBIT 6E-2
Standard Audio Modulation (25 kHz Channelization, Analog Voice):
Emission Designator 16K0F3E

In this case, the maximum modulating frequency is 3 kHz with a 5 kHz deviation.

BW = 2(M+D) = 2*(3 kHz + 5 kHz) = 16 kHz ===> 16K0
F3E portion of the designator indicates voice.

Therefore, the entire designator for 25 kHz channelization analog voice is 16K0F3E.

EXHIBIT 6E-3
Digital (12.5 kHz Channelization, Digital Data):
Emission Designator 8K10F1D

Measurements per Rule Part 2.202 Section C (4) were done because Part 2.202 Section g Table III A, 1 formulation produces an excessive result using the value of K recommended in the Table. Therefore, the 99% energy rule (title 47CFR 2.989) was used for digital mode and is more accurate than Carson's rule. It basically states that 99% of the modulation energy falls within X KHz, in this case, 8.10 kHz Measurements were performed in accordance with TIA/EIA TSB102.CAAB Section 2.2.5.2. The emission mask was obtained from 47CFR 90.210(d).

F1D portion of the designator indicates digital data.

Therefore, the entire designator for 12.5 kHz channelization digital data is 8K10F1D.

EXHIBIT 6E-4
Digital (12.5 kHz Channelization, Digital Voice):
Emission Designator 8K10F1E

Measurements per Rule Part 2.202 Section C (4) were done because Part 2.202 Section g Table III A, 1 formulation produces an excessive result using the value of K recommended in the Table. Therefore, the 99% energy rule (title 47CFR 2.989) was used for digital mode and is more accurate than Carson's rule. It basically states that 99% of the modulation energy falls within X KHz, in this case, 8.10 kHz. Measurements were performed in accordance with TIA/EIA TSB102.CAAB Section 2.2.5.2. The emission mask was obtained from 47CFR 90.210(d).

F1E portion of the designator indicates digital voice.

Therefore, the entire designator for 12.5 kHz channelization digital voice is 8K10F1E.

EXHIBIT 6E-5

Digital Modulation (20 kHz Channelization, Digital Voice with encryption):
Emission Designator 20K0F1E

In this case, the maximum modulating frequency is 6 kHz with a 4 kHz deviation.

BW = 2(M+D) = 2*(6 kHz + 4 kHz) = 20 kHz ===> 20K0
F1E portion of the designator indicates digital voice.

Therefore, the entire designator for 20 kHz channelization analog voice is 20K0F1E.

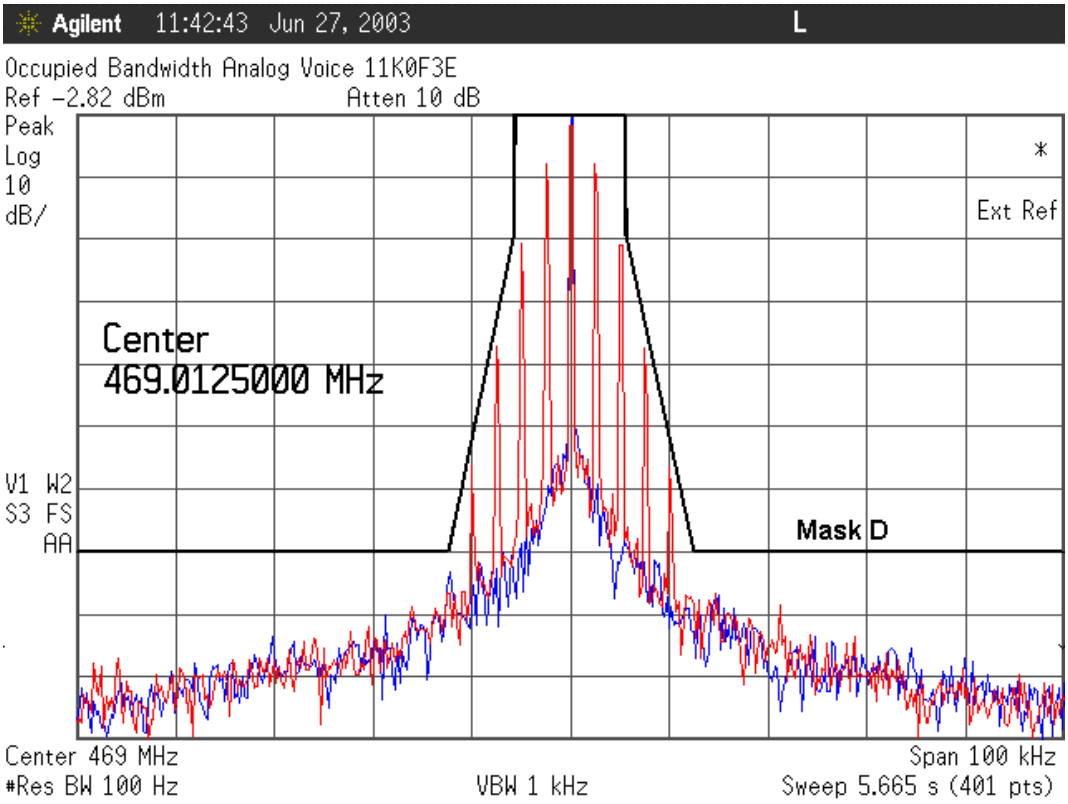

Agilent 11:42:43 Jun 27, 2003
L
Occupied Bandwidth Analog Voice 11K0F3E
Ref -2.82 dBm
Atten 10 dB
Peak
Log
10
dB/
*
Ext Ref
Center
469.0125000 MHz
V1 W2
S3 FS
AA
Mask D
Center 469 MHz
#Res BW 100 Hz
VBW 1 kHz
Span 100 kHz
Sweep 5.665 s (401 pts)

EXHIBIT 6E-1

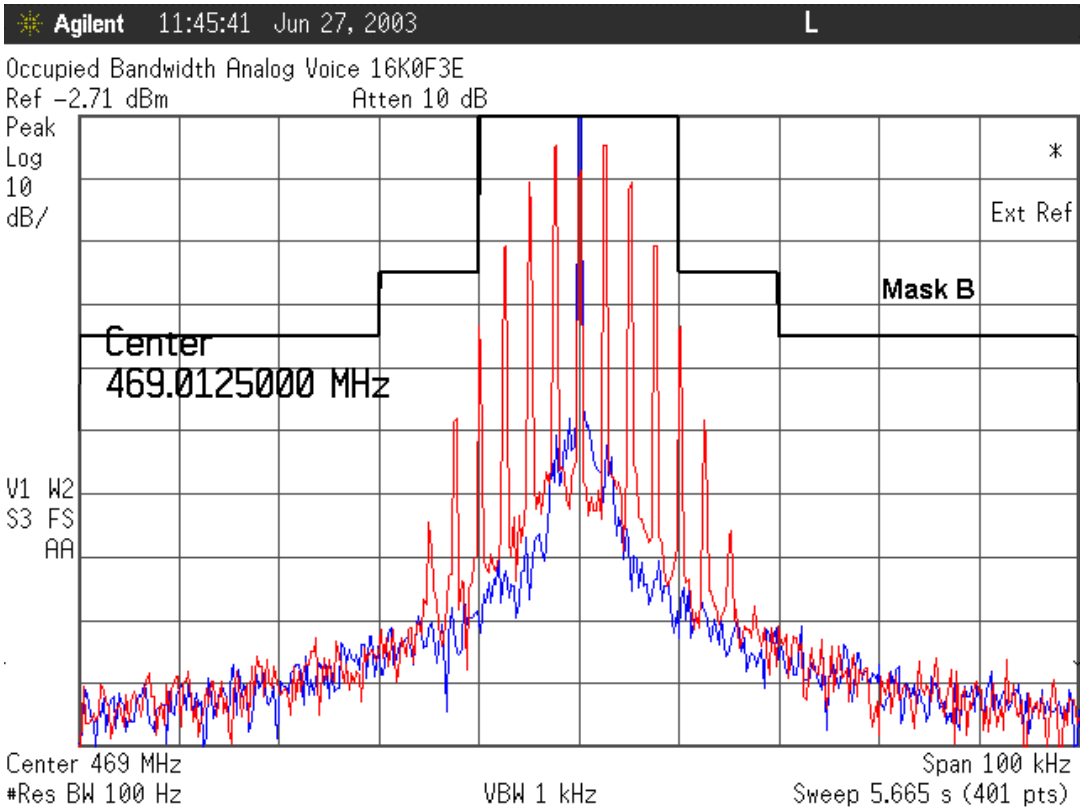

Agilent 11:45:41 Jun 27, 2003
L
Occupied Bandwidth Analog Voice 16K0F3E
Ref -2.71 dBm
Atten 10 dB
Peak
Log
10
dB/
*
Ext Ref
Mask B
Center
469.0125000 MHz
V1 W2
S3 FS
AA
Center 469 MHz
#Res BW 100 Hz
VBW 1 kHz
Span 100 kHz
Sweep 5.665 s (401 pts)

EXHIBIT 6E-2

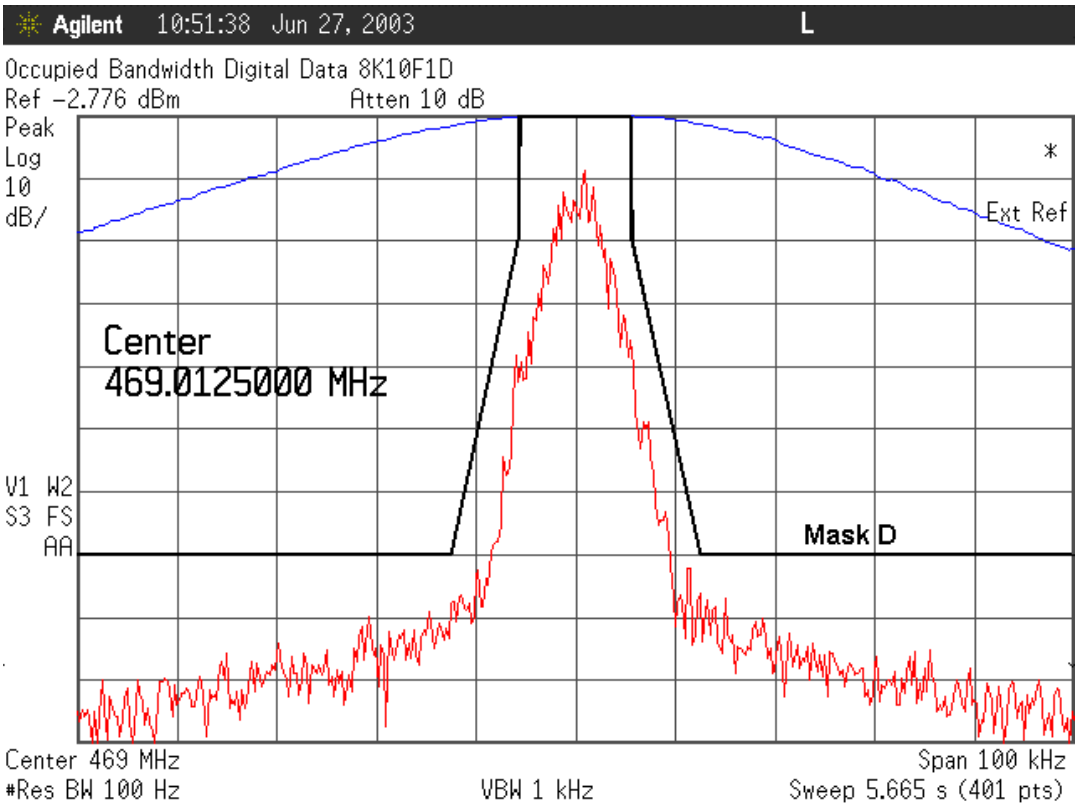

Agilent 10:51:38 Jun 27, 2003
L
Occupied Bandwidth Digital Data 8K10F1D
Ref -2.776 dBm
Atten 10 dB
Peak
Log
10
dB/
*
Ext Ref
Center
469.0125000 MHz
V1 W2
S3 FS
AA
Mask D
Center 469 MHz
#Res BW 100 Hz
VBW 1 kHz
Span 100 kHz
Sweep 5.665 s (401 pts)

EXHIBIT 6E-3

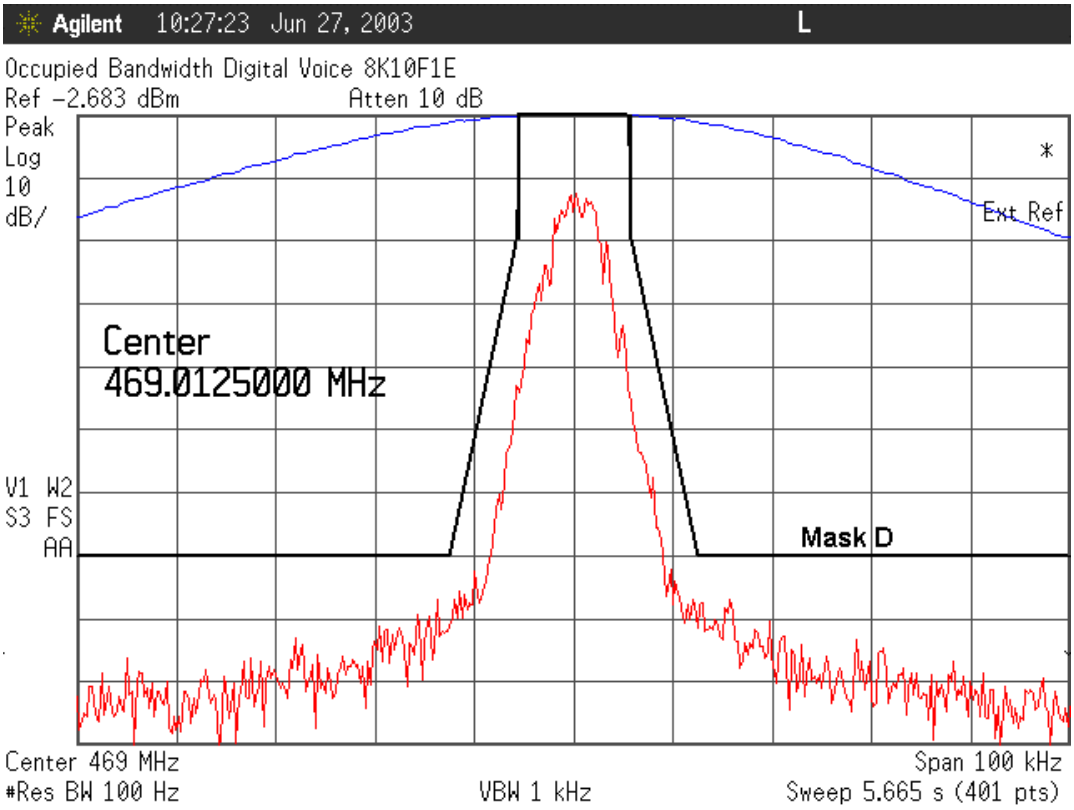

Agilent 10:27:23 Jun 27, 2003
L
Occupied Bandwidth Digital Voice 8K10F1E
Ref -2.683 dBm
Atten 10 dB
Peak
Log
10
dB/
*
Ext Ref
Center
469.0125000 MHz
V1 W2
S3 FS
AA
Mask D
Center 469 MHz
#Res BW 100 Hz
VBW 1 kHz
Span 100 kHz
Sweep 5.665 s (401 pts)

EXHIBIT 6E-4

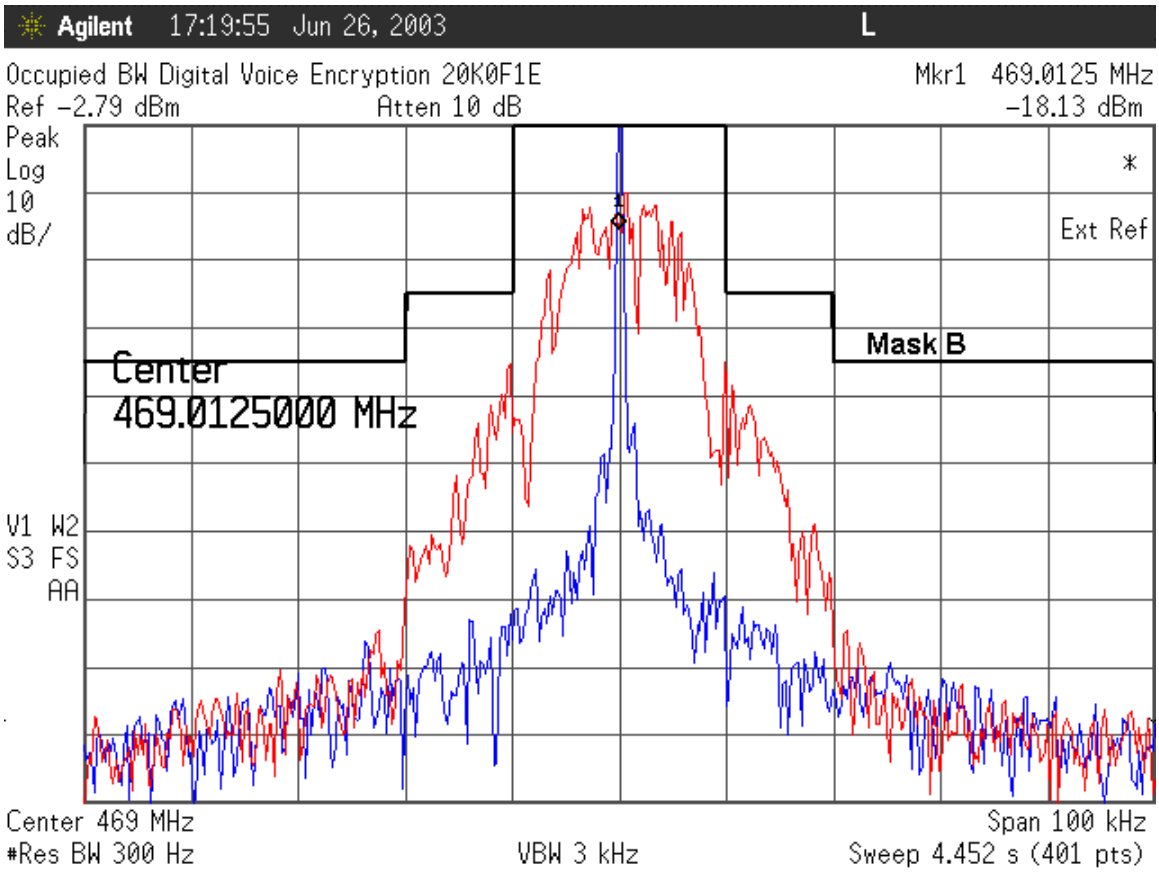

Agilent 17:19:55 Jun 26, 2003
L
Occupied BW Digital Voice Encryption 20K0F1E
Mkr1 469.0125 MHz
Ref -2.79 dBm
Atten 10 dB
-18.13 dBm
Peak
Log
10
dB/
*
Ext Ref
Mask B
Center
469.0125000 MHz
V1 W2
S3 FS
AA
Center 469 MHz
Span 100 kHz
#Res BW 300 Hz
VBW 3 kHz
Sweep 4.452 s (401 pts)

EXHIBIT 6E-5

Transmitter Radiated Spurious Emissions: NYPD SSE 5000

450.0125 MHz **5 Watts** **Channel Spacing 25KHZ | S/N FCC #1**

Frequency (MHz)	FCC Maximum Limit -13(dBm) 25 kHz Chan. Spacing	FCC Maximum Limit -20(dBm) 12.5 kHz Chan. Spacing	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
900.0250	-13	-20	-41.88	-48.07
1350.0375	-13	-20	-43.06	-44.36
1800.0500	-13	-20	-38.72	*
2250.0625	-13	-20	-33.50	-36.89
2700.0750	-13	-20	-30.28	-30.13
3150.0875	-13	-20	*	-35.75
3600.1000	-13	-20	*	*
4050.1125	-13	-20	*	*
4500.1250	-13	-20	*	*

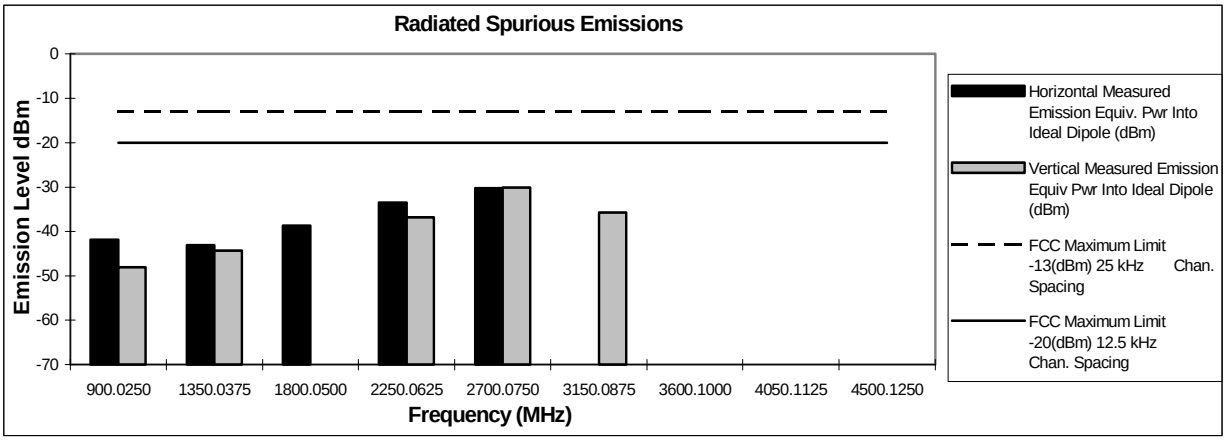
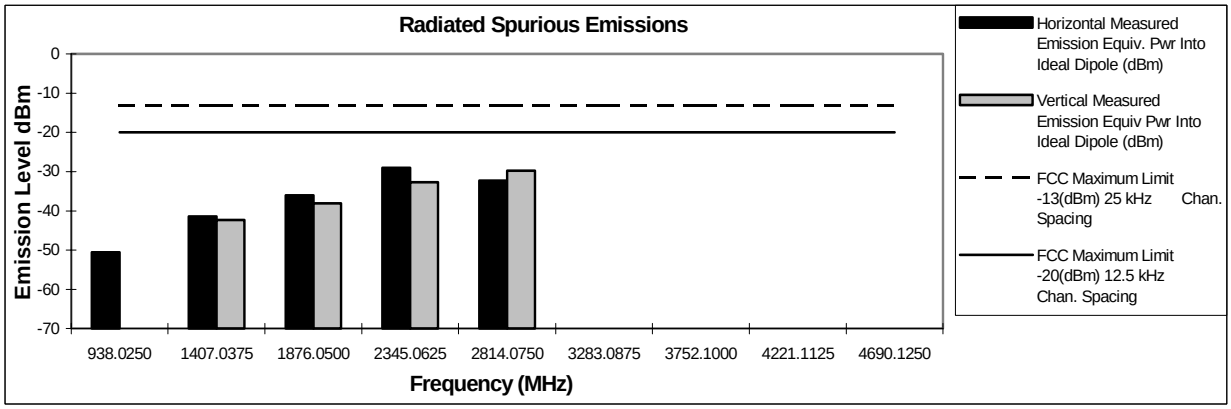


Exhibit 6F-1

Transmitter Radiated Spurious Emissions: NYPD SSE 5000

469.0125 MHz **5 Watts** **Channel Spacing 25KHZ | S/N FCC #1**

Frequency (MHz)	FCC Maximum Limit -13(dBm) 25 kHz Chan. Spacing	FCC Maximum Limit -20(dBm) 12.5 kHz Chan. Spacing	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
938.0250	-13	-20	-50.49	*
1407.0375	-13	-20	-41.37	-42.31
1876.0500	-13	-20	-36.01	-38.11
2345.0625	-13	-20	-29.06	-32.68
2814.0750	-13	-20	-32.31	-29.69
3283.0875	-13	-20	*	*
3752.1000	-13	-20	*	*
4221.1125	-13	-20	*	*
4690.1250	-13	-20	*	*



* Indicates the spurious emission was less than -70dBm or could not be detected due to noise limitations or ambients.

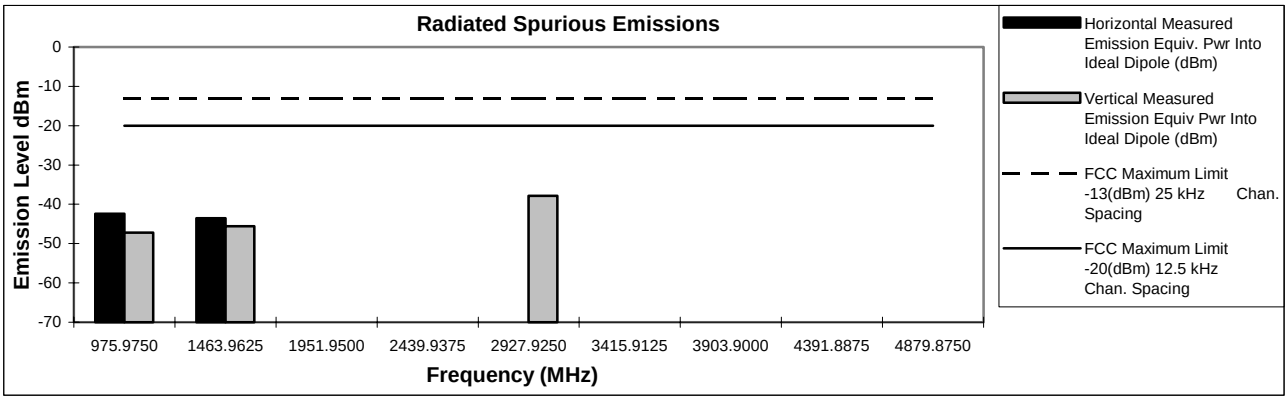
The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

Exhibit 6F-2

Transmitter Radiated Spurious Emissions: NYPD SSE 5000

487.9875 MHz **5 Watts** **Channel Spacing 25KHZ | S/N FCC #1**

Frequency (MHz)	FCC Maximum Limit -13(dBm) 25 kHz Chan. Spacing	FCC Maximum Limit -20(dBm) 12.5 kHz Chan. Spacing	Horizontal Measured Emission Equiv. Pwr Into Ideal Dipole (dBm)	Vertical Measured Emission Equiv Pwr Into Ideal Dipole (dBm)
975.9750	-13	-20	-42.43	-47.20
1463.9625	-13	-20	-43.54	-45.58
1951.9500	-13	-20	*	*
2439.9375	-13	-20	*	*
2927.9250	-13	-20	*	-37.87
3415.9125	-13	-20	*	*
3903.9000	-13	-20	*	*
4391.8875	-13	-20	*	*
4879.8750	-13	-20	*	*



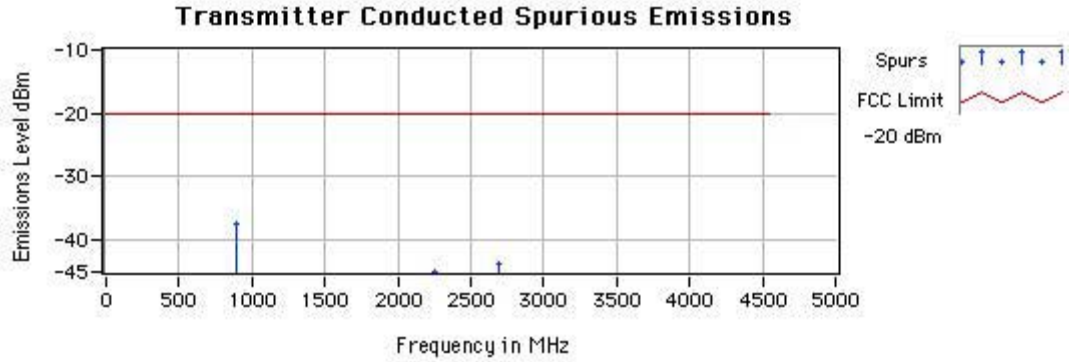
* Indicates the spurious emission was less than -70dBm or could not be detected due to noise limitations or ambients.

The data presented here was taken using the substitution method as found in the TIA/EIA-603 document.

EXHIBIT 6F-3

Transmitter Conducted Spurious Emissions
FREQ: 450.01250 MHz
Power 5.0 W
Channel Spacing: 12.50 kHz

Spurious Frequency	FCC Limit	Measured Value (dBm)
898.80000	-20.0	-37.5
2246.00000	-20.0	-44.9
2248.00000	-20.0	-46.2
2690.00000	-20.0	-43.6



All Transmitter Spurious Emissions tested to the 10th Harmonic

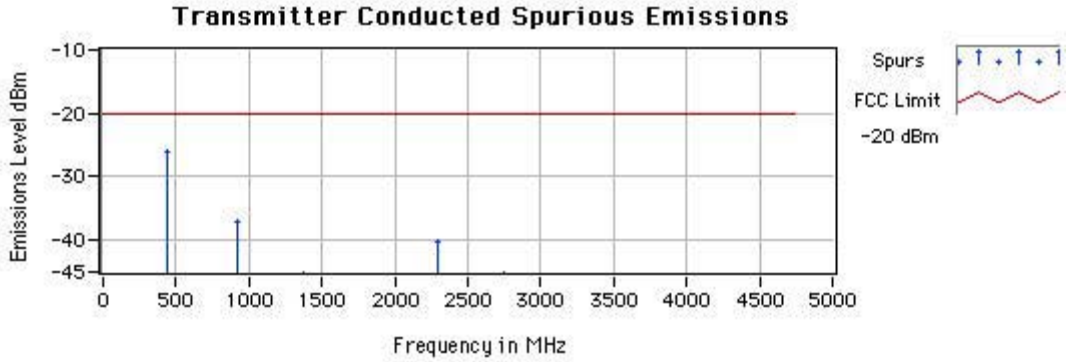
Motorola Plantation ATE Lab **Thursday, 26th June 2003**

Test Performed By: **Jerry Simpson**

Exhibit 6G – 1 (12.5kHz Ch Sp)

Transmitter Conducted Spurious Emissions
FREQ: 469.01250 MHz
Power 5.0 W
Channel Spacing: 12.50 kHz

Spurious Frequency	FCC Limit	Measured Value (dBm)
444.00000	-20.0	-26.2
916.30000	-20.0	-37.1
1372.00000	-20.0	-49.3
2291.00000	-20.0	-40.3
2744.00000	-20.0	-48.6



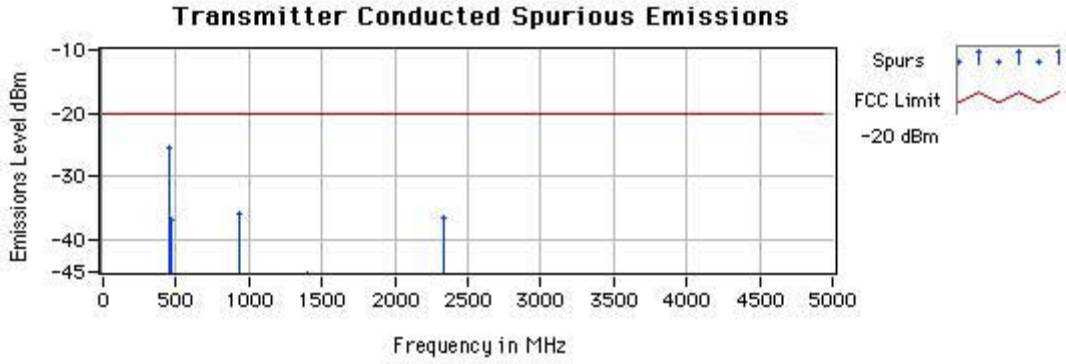
All Transmitter Spurious Emissions tested to the 10th Harmonic

Motorola Plantation ATE Lab **Thursday, 26th June 2003**

Test Performed By: **Jerry Simpson**

Transmitter Conducted Spurious Emissions
FREQ: 487.98750 MHz
Power 5.0 W
Channel Spacing: 12.50 kHz

Spurious Frequency	FCC Limit	Measured Value (dBm)
454.50000	-20.0	-25.4
463.50000	-20.0	-36.9
936.00000	-20.0	-35.9
1401.00000	-20.0	-48.9
2340.00000	-20.0	-36.4



All Transmitter Spurious Emissions tested to the 10th Harmonic

Motorola Plantation ATE Lab **Thursday, 26th June 2003**

Test Performed By: **Jerry Simpson**

FREQUENCY STABILITY

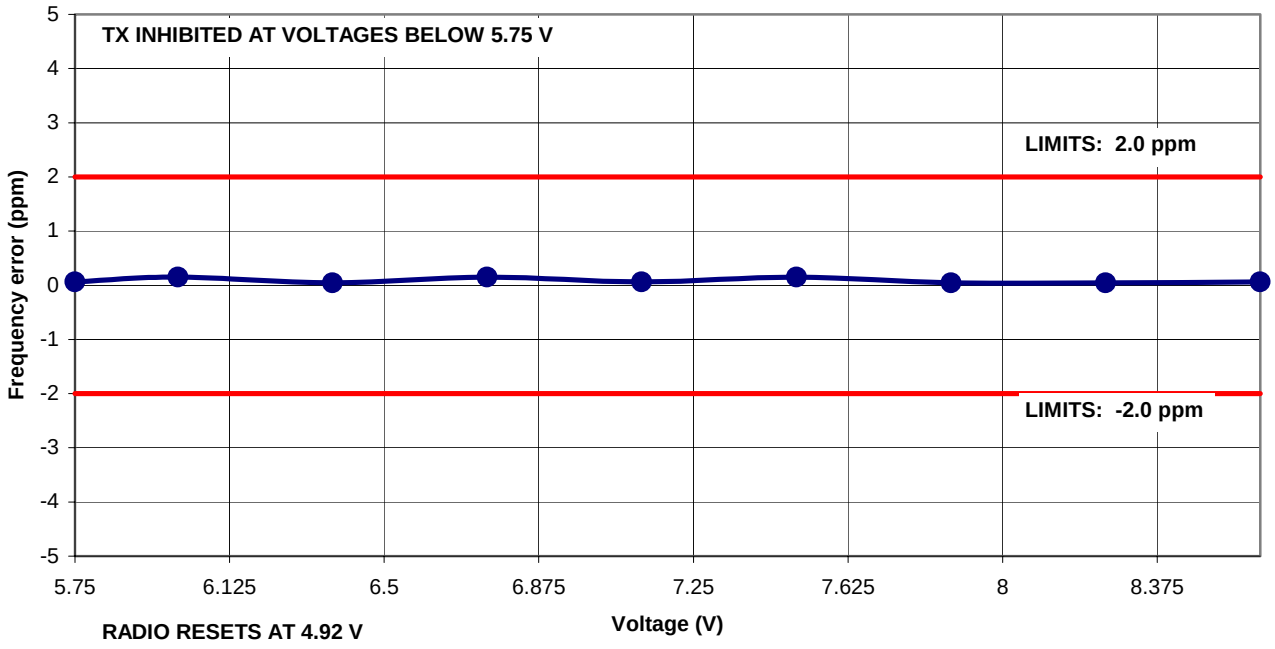


EXHIBIT 6H-1

FREQUENCY STABILITY

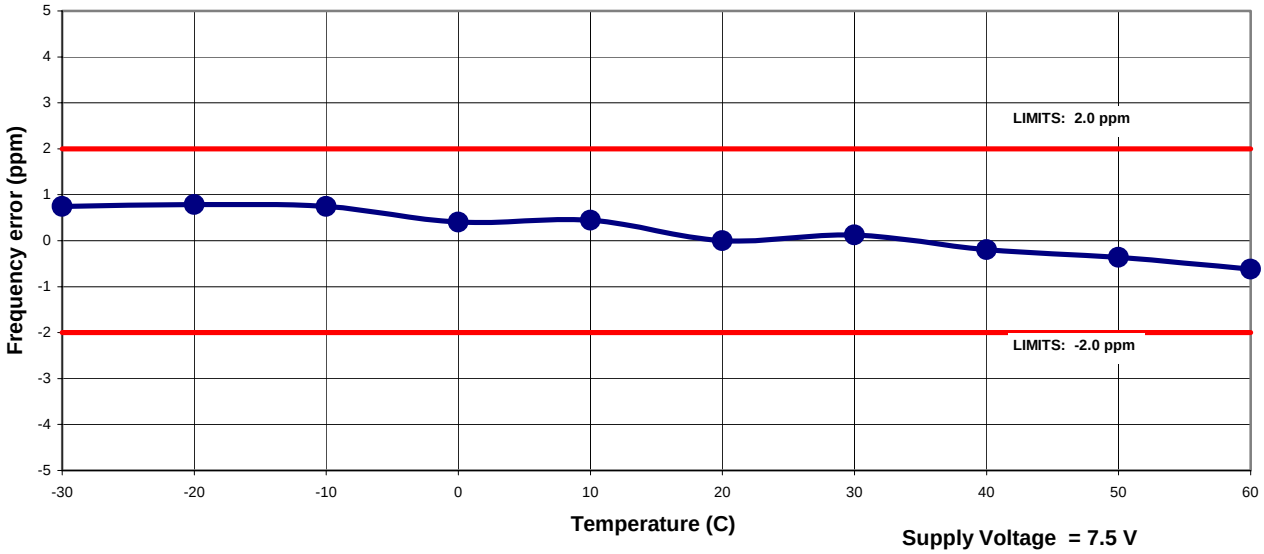


EXHIBIT 6H-2

Transmitter Transient Frequency Behavior
Frequency = 469.0125 MHz Channel Spacing = 12.5KHz

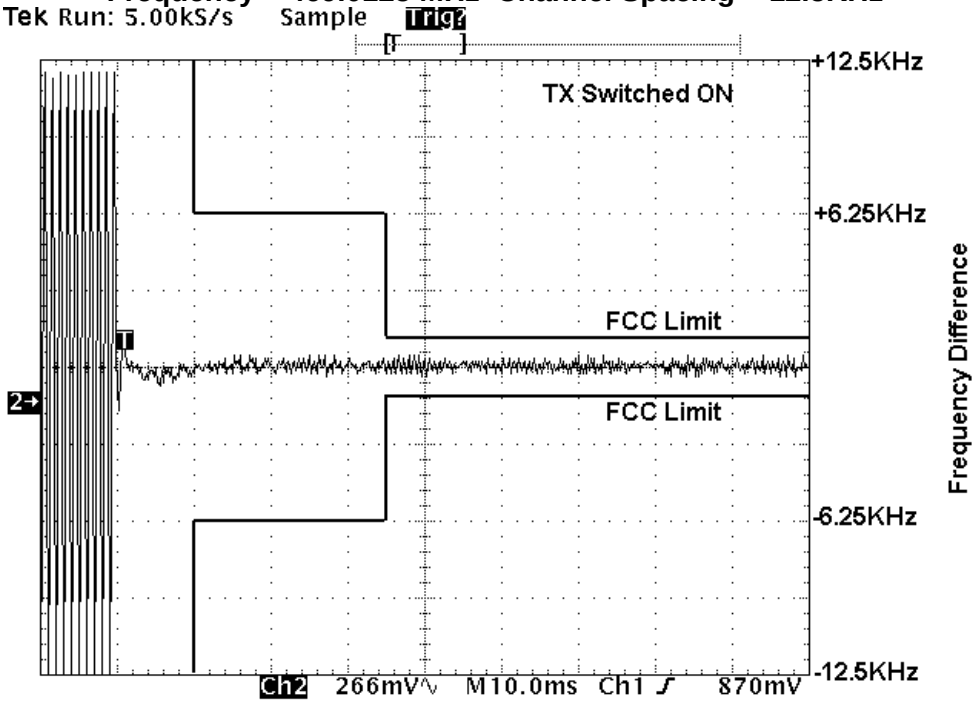


EXHIBIT 6I-1

Transmitter Transient Frequency Behavior
Frequency = 469.0125 MHz Channel Spacing = 12.5KHz

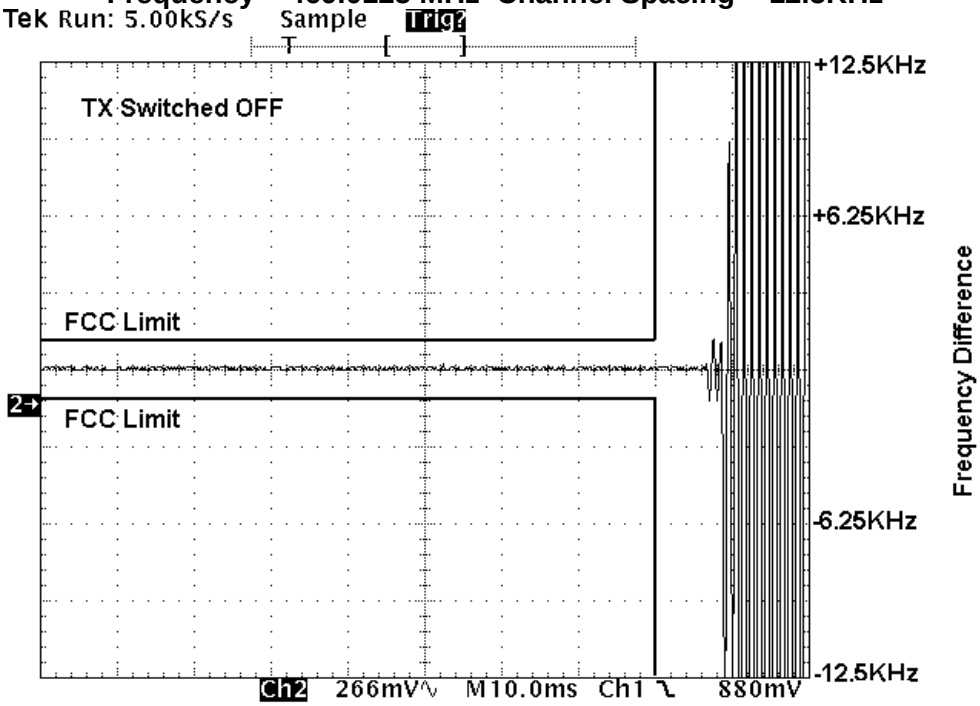


EXHIBIT 6I-2

Transmitter Transient Frequency Behavior
Frequency = 469.0125 MHz Channel Spacing = 25KHz

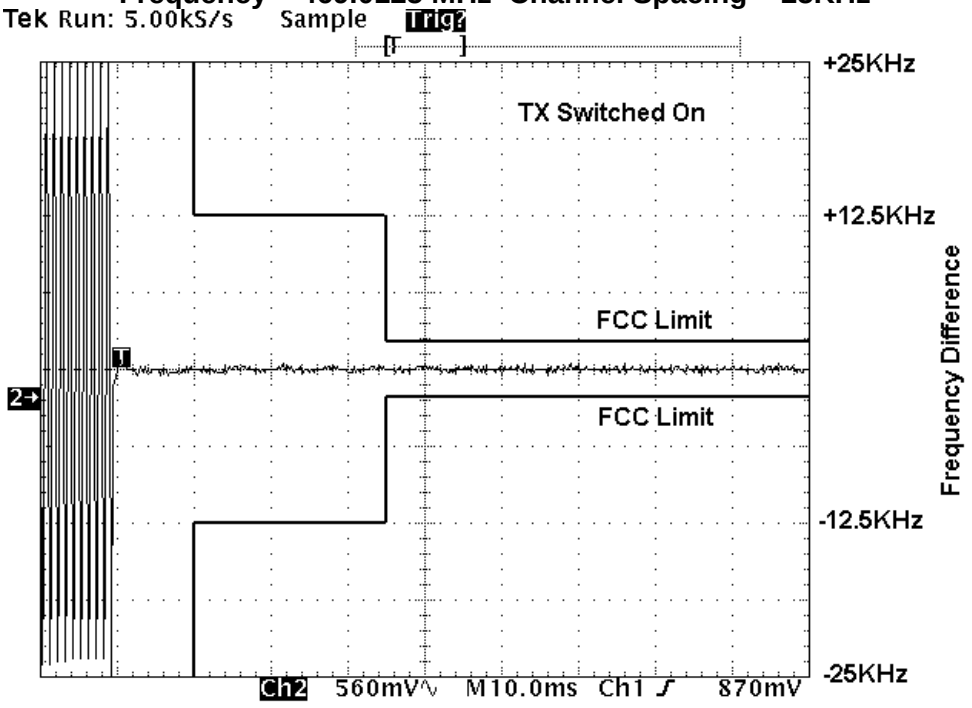


EXHIBIT 6I-3

Transmitter Transient Frequency Behavior
Frequency = 469.0125 MHz Channel Spacing = 25KHz

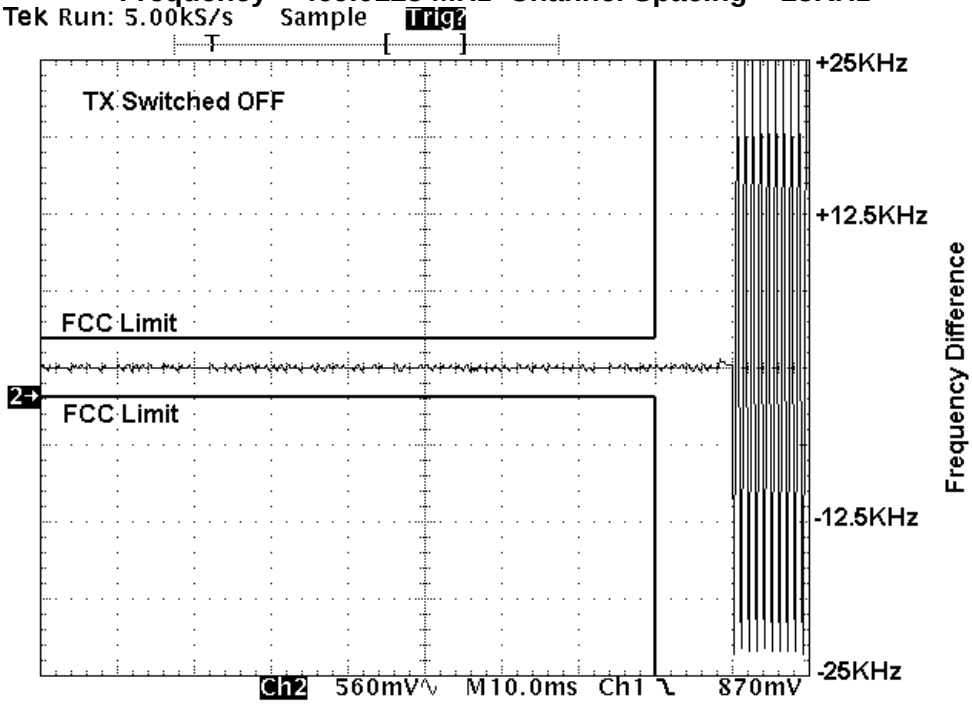


EXHIBIT 6I-4