



UltraTech
Engineering Labs Inc.

KAVAL TELECOM INC.

BDA1300 BI-DIRECTIONAL AMPLIFIER, UHF 403-512 MHz

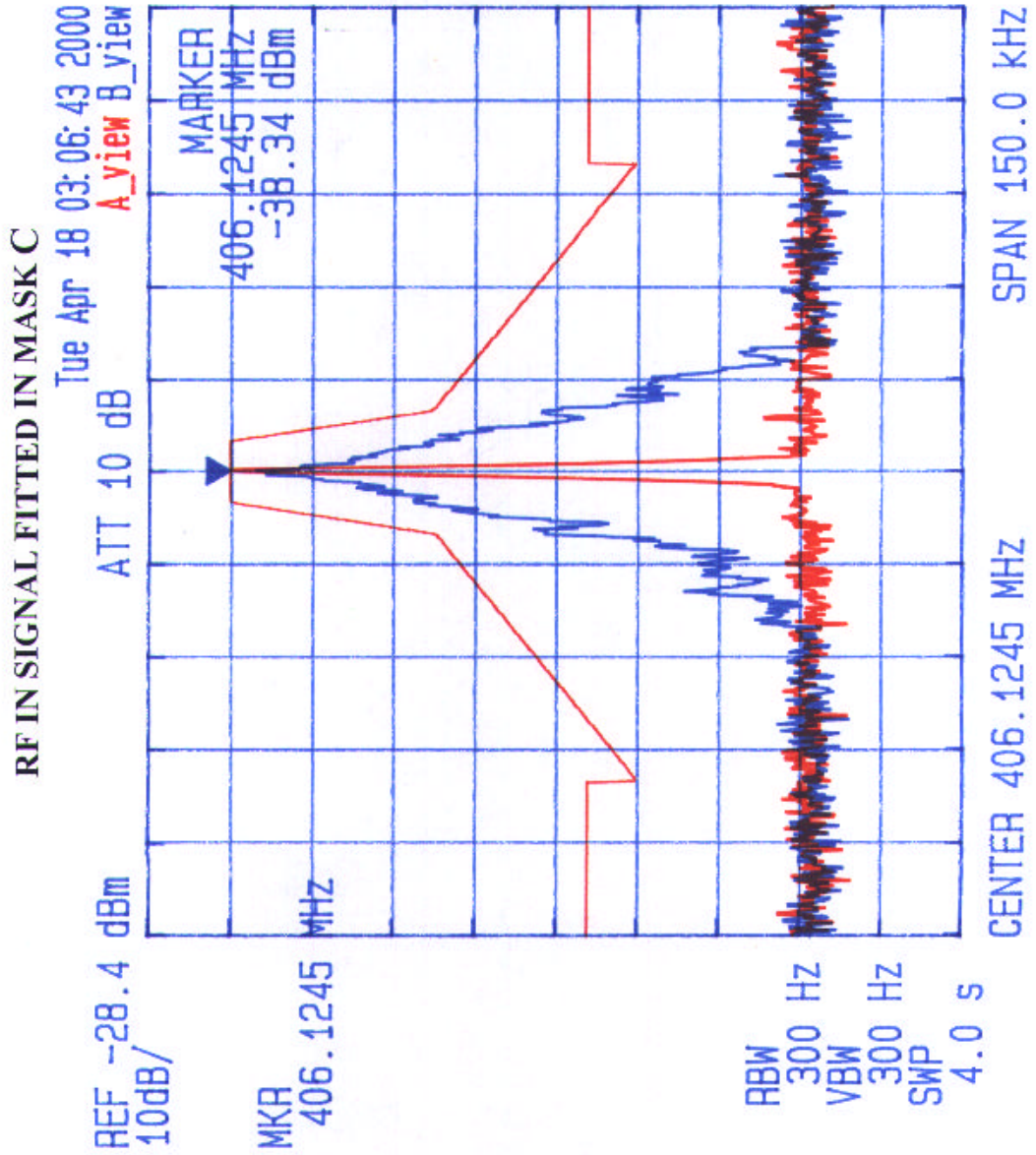
RF In at level of -40 dBm @ 450 MHz

Mod: FM Modulated with an external 9600 b/s random data, Freq. Dev.: 2 kHz

Emissions Mask C, Channel spacing 25 kHz

Date: April 18 2000
Tested by: Hung Trinh

EXHIBIT 9 - PLOT #21 OF 60





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KAVAL TELECOM INC.

BDA1300 BI-DIRECTIONAL AMPLIFIER, UHF 403-512 MHz

Tx Freq.: 450 MHz, RF Output: 1.3 Watts

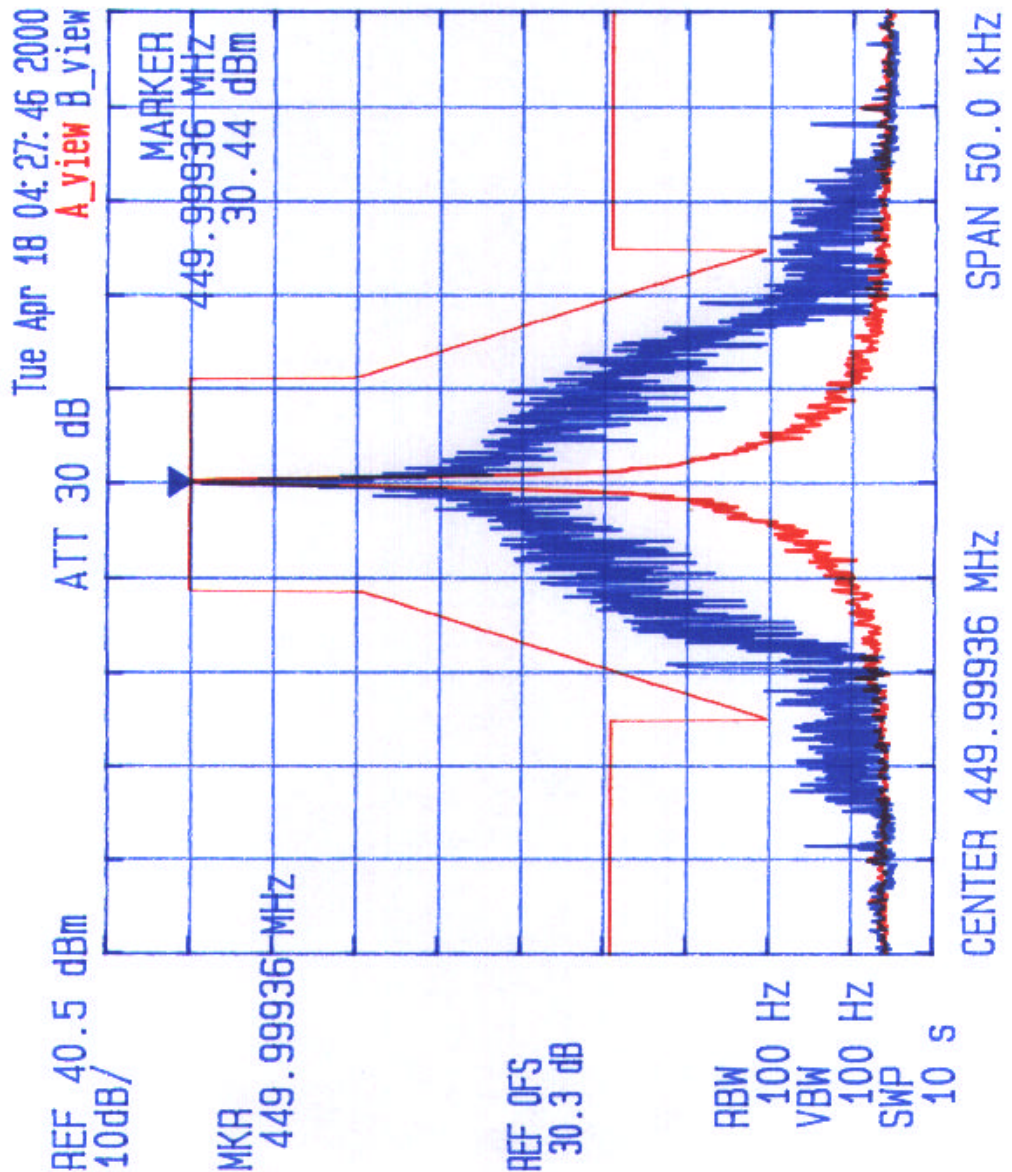
RF In at level of -40 dBm @ 450 MHz

Mod: FM Modulated with an external 9600 b/s random data, Freq. Dev.: 2.5 kHz

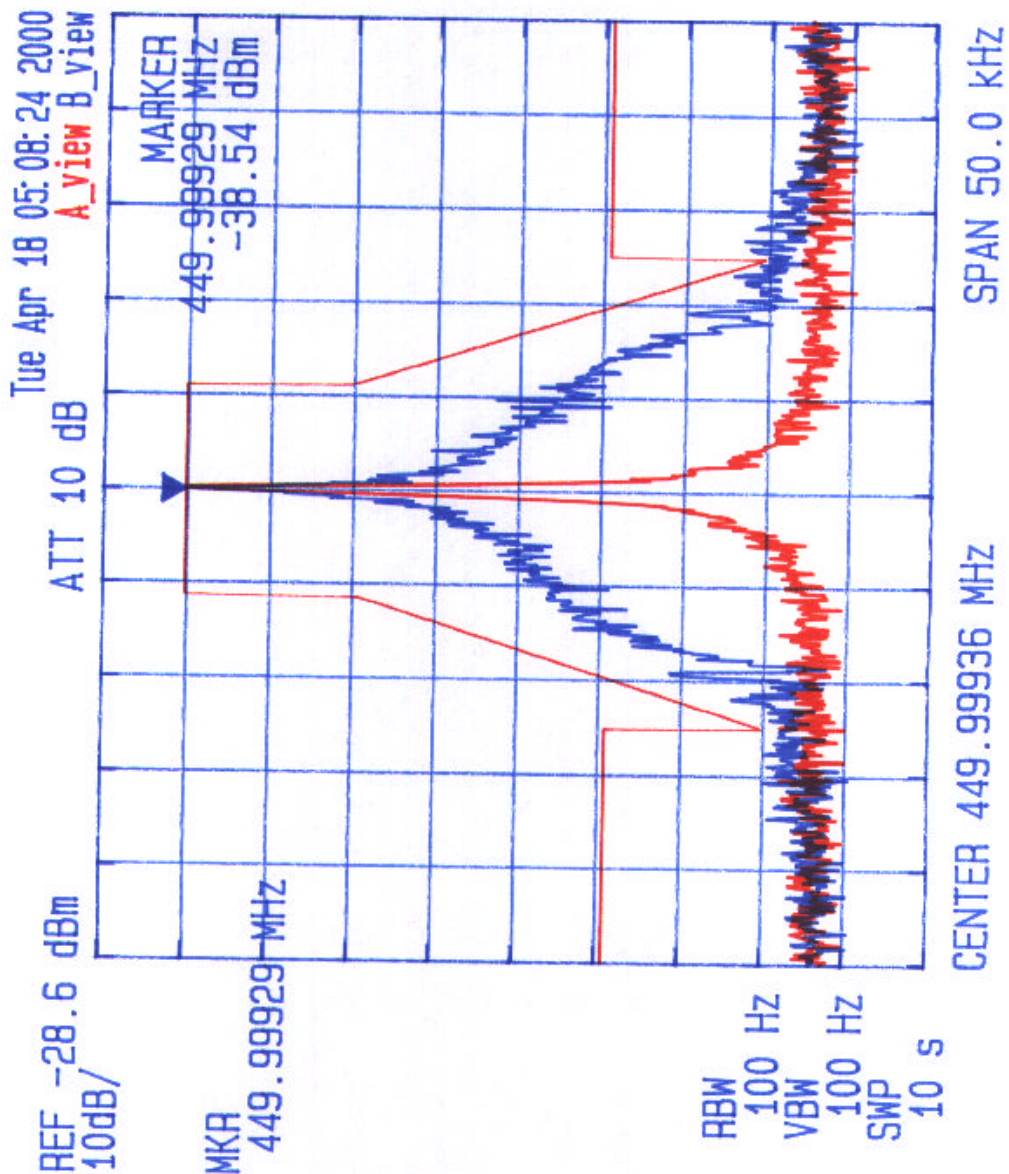
Emissions Mask D, Channel Spacing 12.5 kHz

Date: April 18, 2000
Tested by: Hung Trinh

EXHIBIT 9 - PLOT #22 OF 60



RF IN SIGNAL FITTED IN MASK D





KAVAL TELECOM INC.

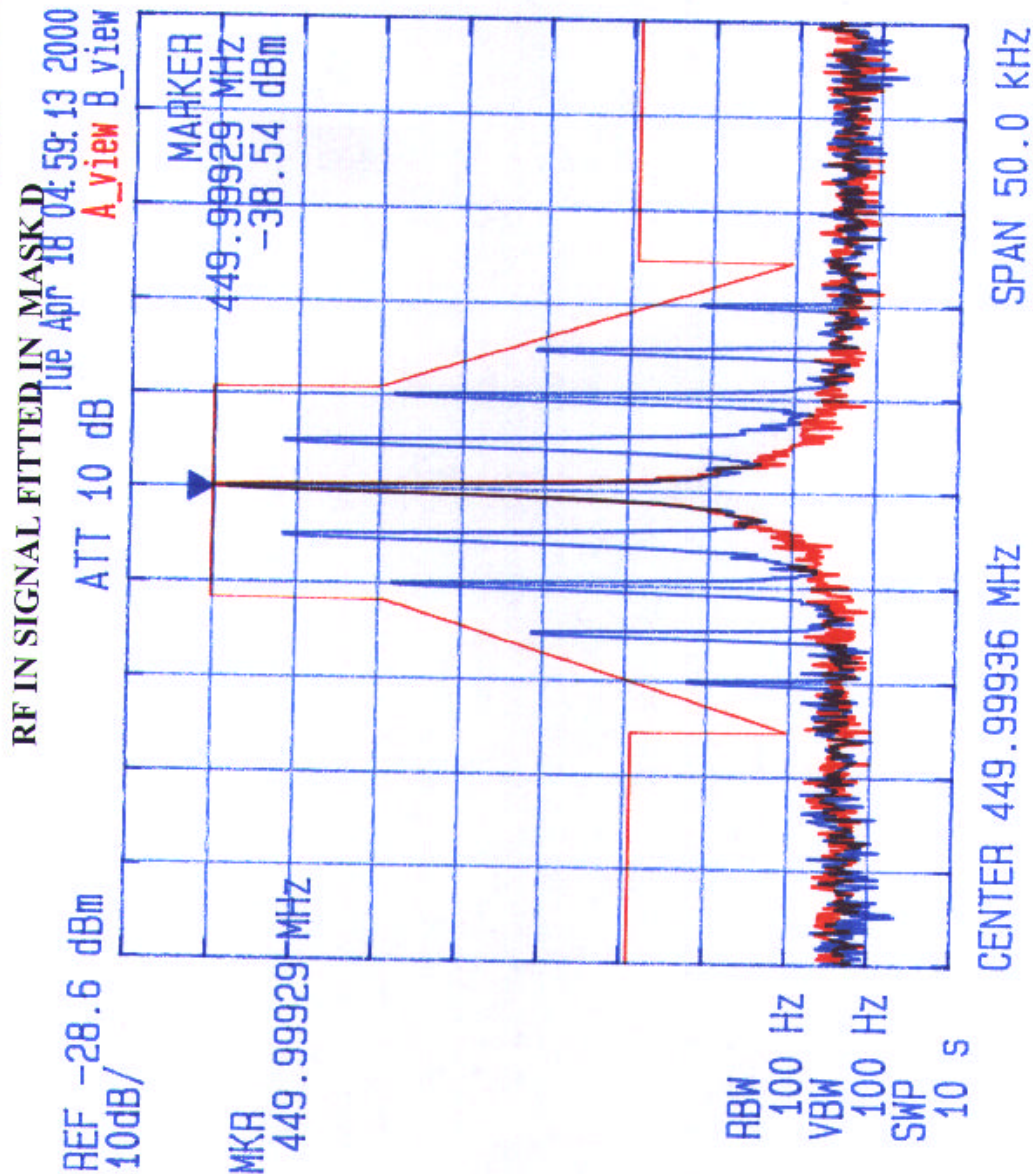
BDA1300 BI-DIRECTIONAL AMPLIFIER, UHF 403-512 MHz

RF In at level of -40 dBm @ 450 MHz

Mod: FM Modulated with 2.5 kHz Sine Wave signal, Freq. Dev.: 1.5 kHz

Emissions Mask D, Channel spacing 12.5 kHz

Date: April 18, 2000
Tested by: Hung Trinh





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KAVAL TELECOM INC.

BDA1300 BI-DIRECTIONAL AMPLIFIER, UHF 403-512 MHz

Tx Freq.: 450 MHz, RF Output: 1.3 Watts

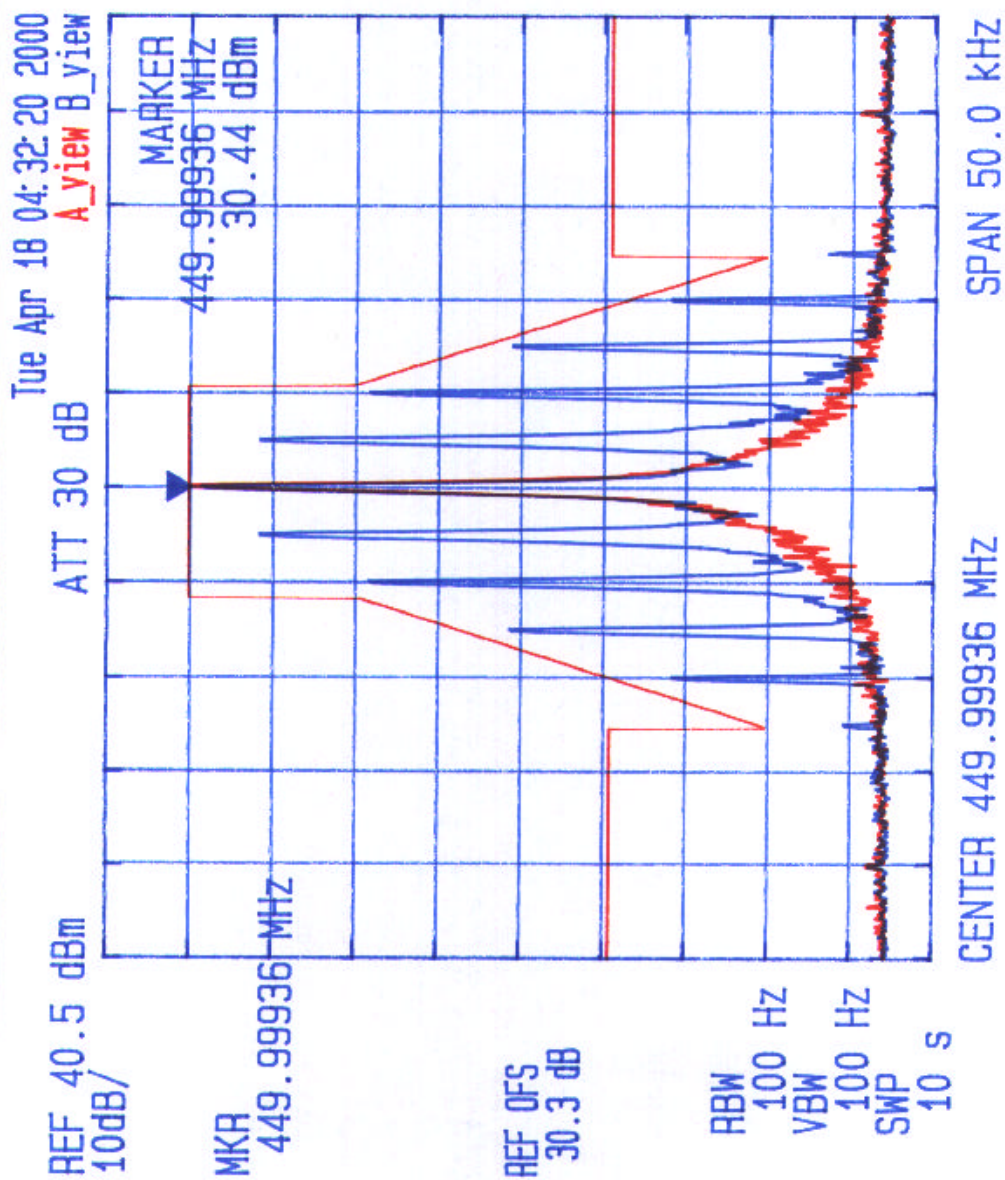
RF In at level of -40 dBm @ 450 MHz

Mod: FM Modulated with 2.5 kHz Sine Wave signal, Freq. Dev.: 1.5 kHz

Emissions Mask D, Channel Spacing 12.5 kHz

Date: April 18, 2000
Tested by: Hung Trinh

EXHIBIT 9 - PLOT #25 OF 60





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KAVAL TELECOM INC.

BDA1300 BI-DIRECTIONAL AMPLIFIER, UHF 403-512 MHz

Tx Freq.: 470 MHz, RF Output: 0.83 Watts

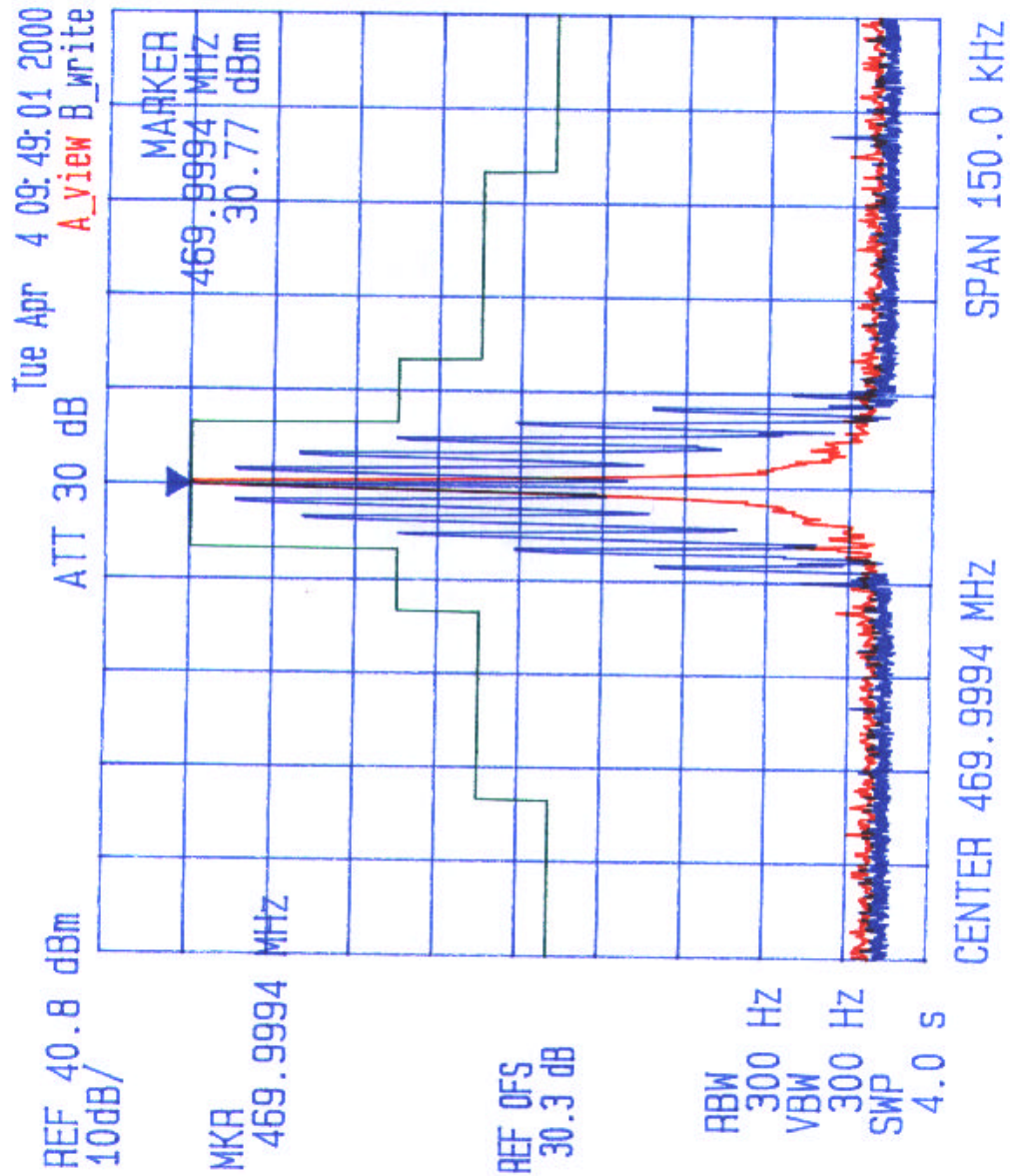
RF In at level of -40 dBm @ 470 MHz

Mod: FM Modulated with 2.5 kHz Sine Wave signal, Freq. Dev.: 2 kHz

Emissions Mask B, Channel spacing 25 kHz

Date: April 04, 2000
Tested by: Hung Trinh

EXHIBIT 9 - PLOT #26 OF 60





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KAVAL TELECOM INC.

BDA1300 BI-DIRECTIONAL AMPLIFIER, UHF 403-512 MHz

Tx Freq: 469.9992 MHz, RF Output: 470 Watts

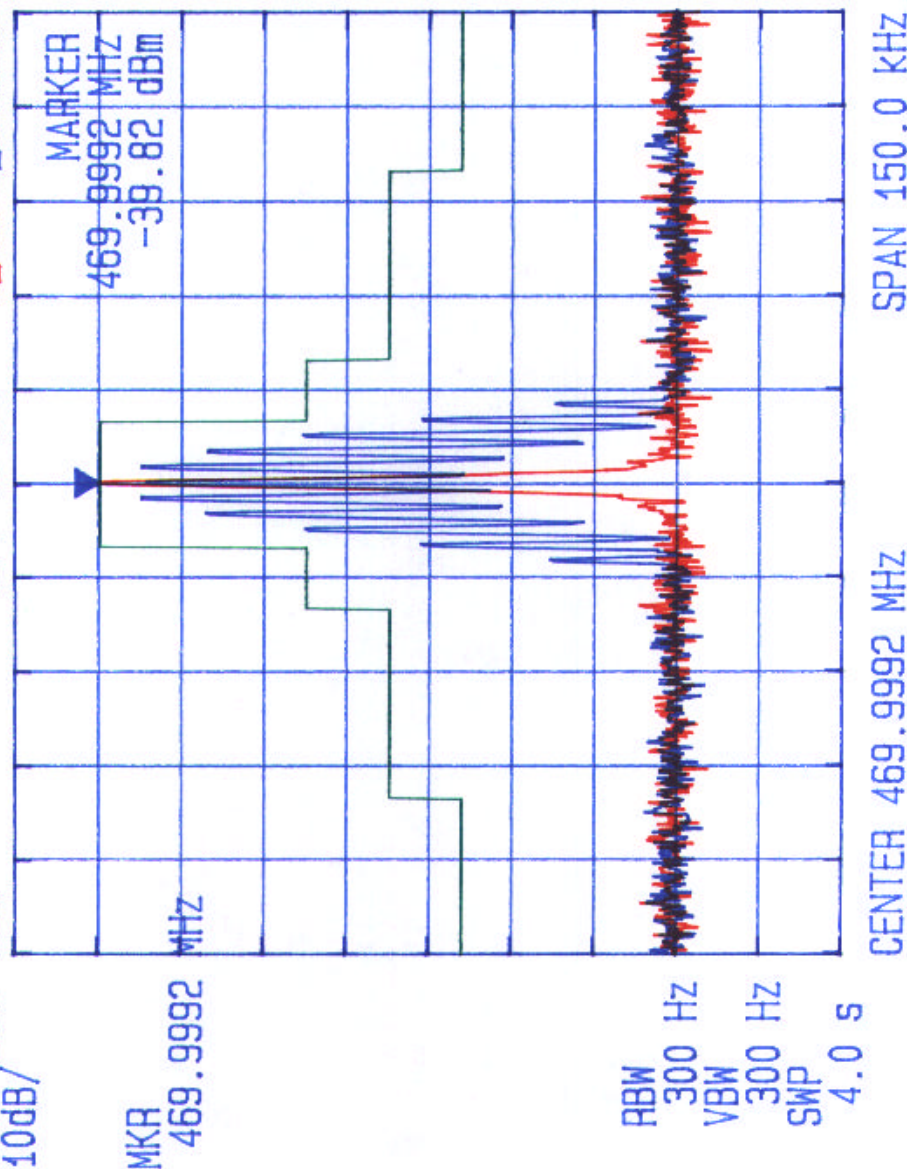
RF In at level of -40 dBm @ 470 MHz

Mod: FM Modulated with 2.5 kHz Sine Wave signal, Freq. Dev.: 2 kHz

Emissions Mask B, Channel spacing 25 kHz

Date: April 27, 2000
Tested by: Hung Trinh

RF SIGNAL FITTED IN MASK B Tue Apr 4 12:54:43 2000
REF -29.7 dBm ATT 10 dB A_view B_write&max
10dB/





UltraTech
Engineering Labs Inc.

KAVAL TELECOM INC.

BDA1300 BI-DIRECTIONAL AMPLIFIER, UHF 403-512 MHz

Tx Freq: 470 MHz, RF Output: 0.83 Watts

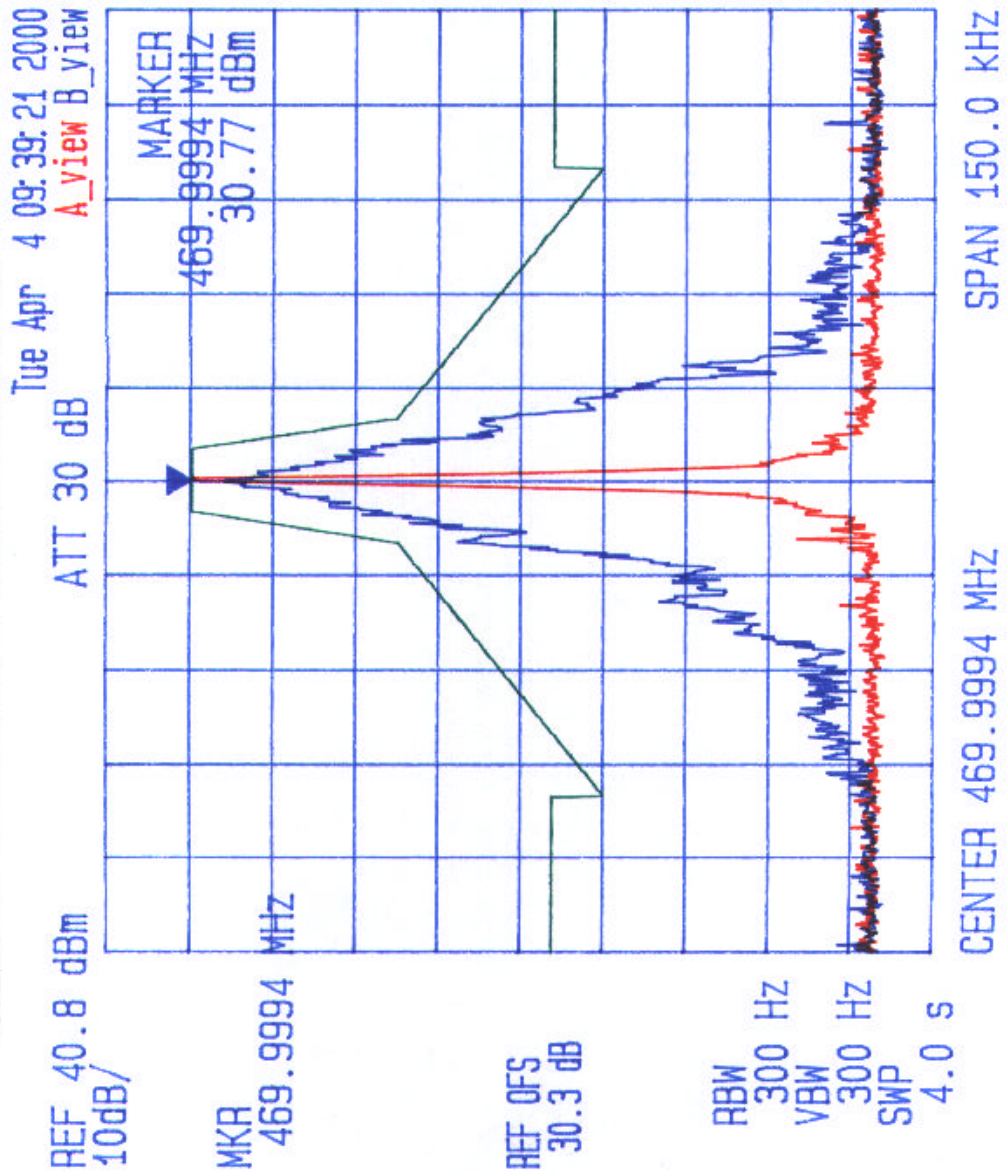
RF In at level of -40 dBm @ 470 MHz

Mod: FM Modulated with an external 9600 b/s random data, Freq. Dev.: 2 kHz

Emissions Mask C, Channel spacing 25 kHz

Date: April 04 2000
Tested by: Hung Trinh

EXHIBIT 9 - PLOT #28 OF 60





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KAVAL TELECOM INC.

BDA1300 BI-DIRECTIONAL AMPLIFIER, UHF 403-512 MHz

Tx Freq: 469.9992 MHz, RF Output: 10 Watts

RF In at level of -40 dBm @ 470 MHz

Mod: FM Modulated with an external 9600 b/s random data, Freq. Dev.: kHz

Emissions Mask C, Channel spacing 25 kHz

Date: April 04, 2000
Tested by: Hung Trinh

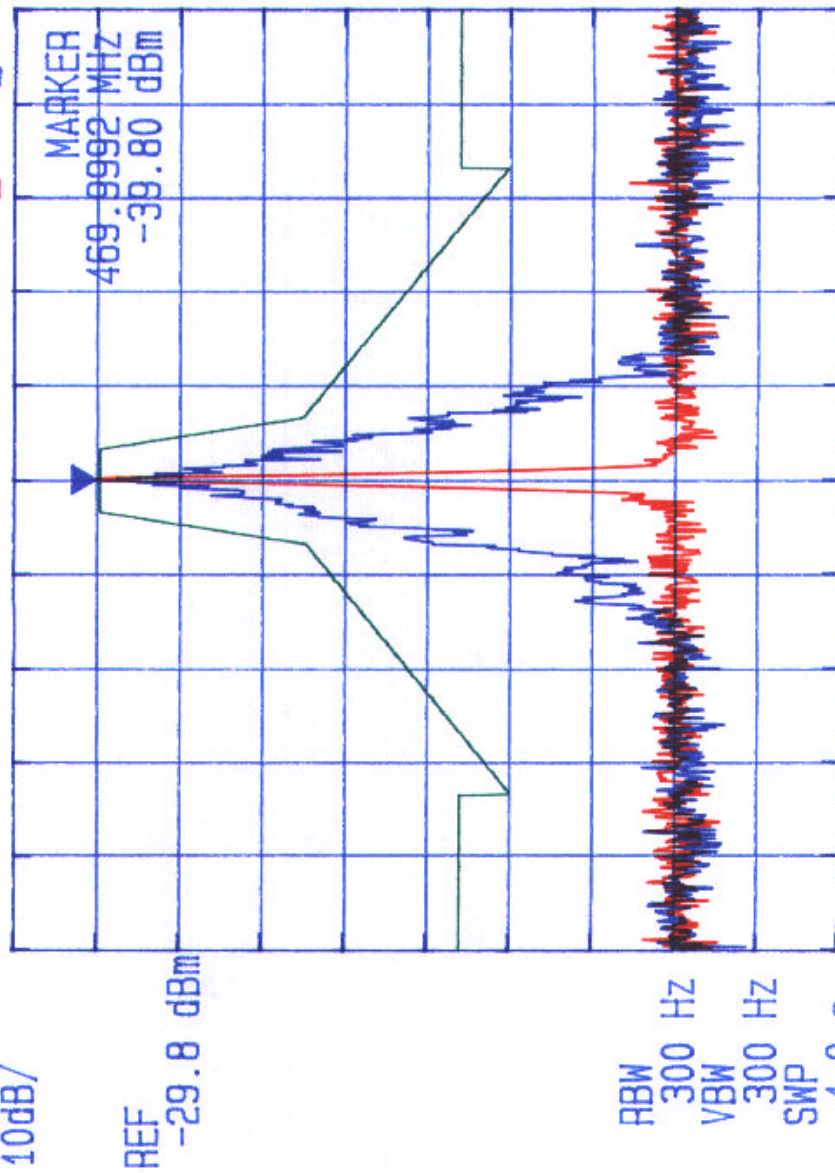
RF IN SIGNAL FITTED IN MASK C

Tue Apr 4 12:31:39 2000

REF -29.8 dBm
10dB/

ATT 10 dB

A_view B_view



CENTER 469.9992 MHz

SPAN 150.0 kHz



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KAVAL TELECOM INC.

BDA1300 BI-DIRECTIONAL AMPLIFIER, UHF 403-512 MHz

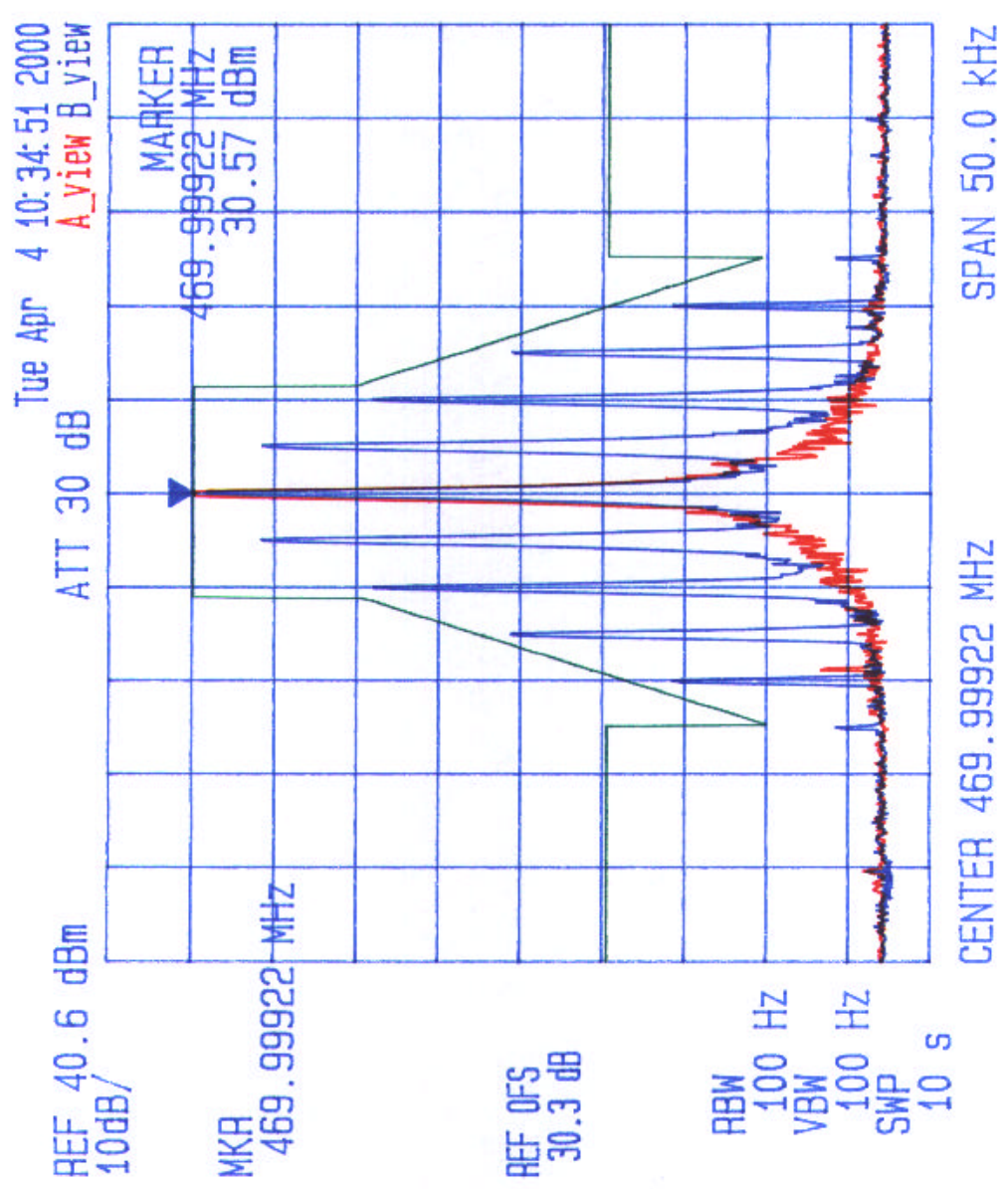
Tx Freq: 470 MHz, RF Output: 0.83 Watts

RF In at level of -40 dBm @ 470 MHz

Mod: FM Modulated with 2.5 kHz Sine Wave signal, Freq. Dev.: 1.5 kHz

Emissions Mask D, Channel spacing 12.5 kHz

Date: April 04, 2000
Tested by: Hung Trinh





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KAVAL TELECOM INC.

BDA1300 BI-DIRECTIONAL AMPLIFIER, UHF 403-512 MHz

Tx Freq: 469.99922 MHz, RF Output: 1.5 Watts

RF In at level of -40 dBm @ 469.99922 MHz

Mod: FM Modulated with 2.5 kHz Sine Wave signal, Freq. Dev.: 1.5 kHz

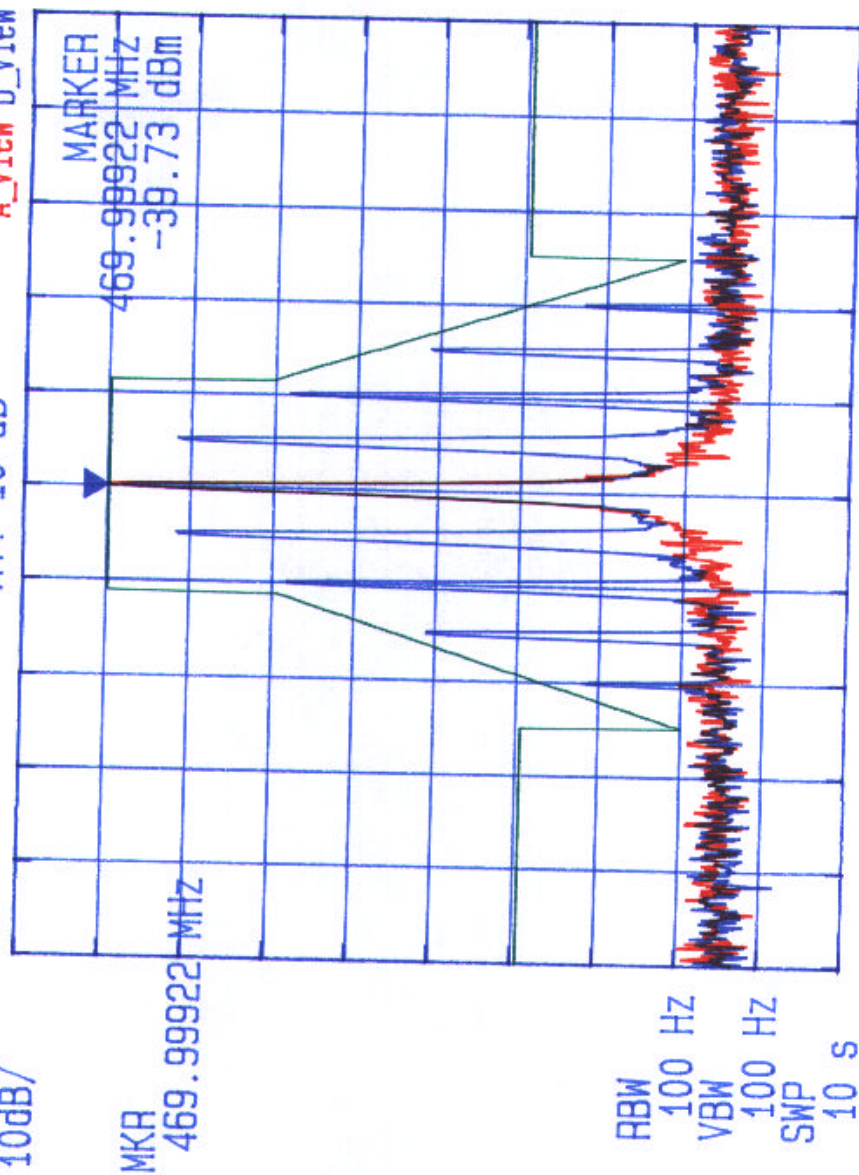
Emissions Mask D, Channel spacing 12.5 kHz

Date: April ~~04~~ 2000
Tested by: Hung Trinh

RF IN SIGNAL FITTED IN MASK D

REF -29.7 dBm
10dB/

Tue Apr 4 11:27:23 2000
ATT 10 dB
A_view B_view





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KAVAL TELECOM INC.

BDA1300 BI-DIRECTIONAL AMPLIFIER, UHF 403-512 MHz

Tx Freq: 470 MHz, RF Output: 0.83 Watts

RF In at level of -40 dBm @ 470 MHz

Mod: FM Modulated with an external 9600 b/s random data, Freq. Dev: 2.5 kHz

Emissions Mask D, Channel spacing 12.5 kHz

Date: April 04, 2000
Tested by: Hung Trinh

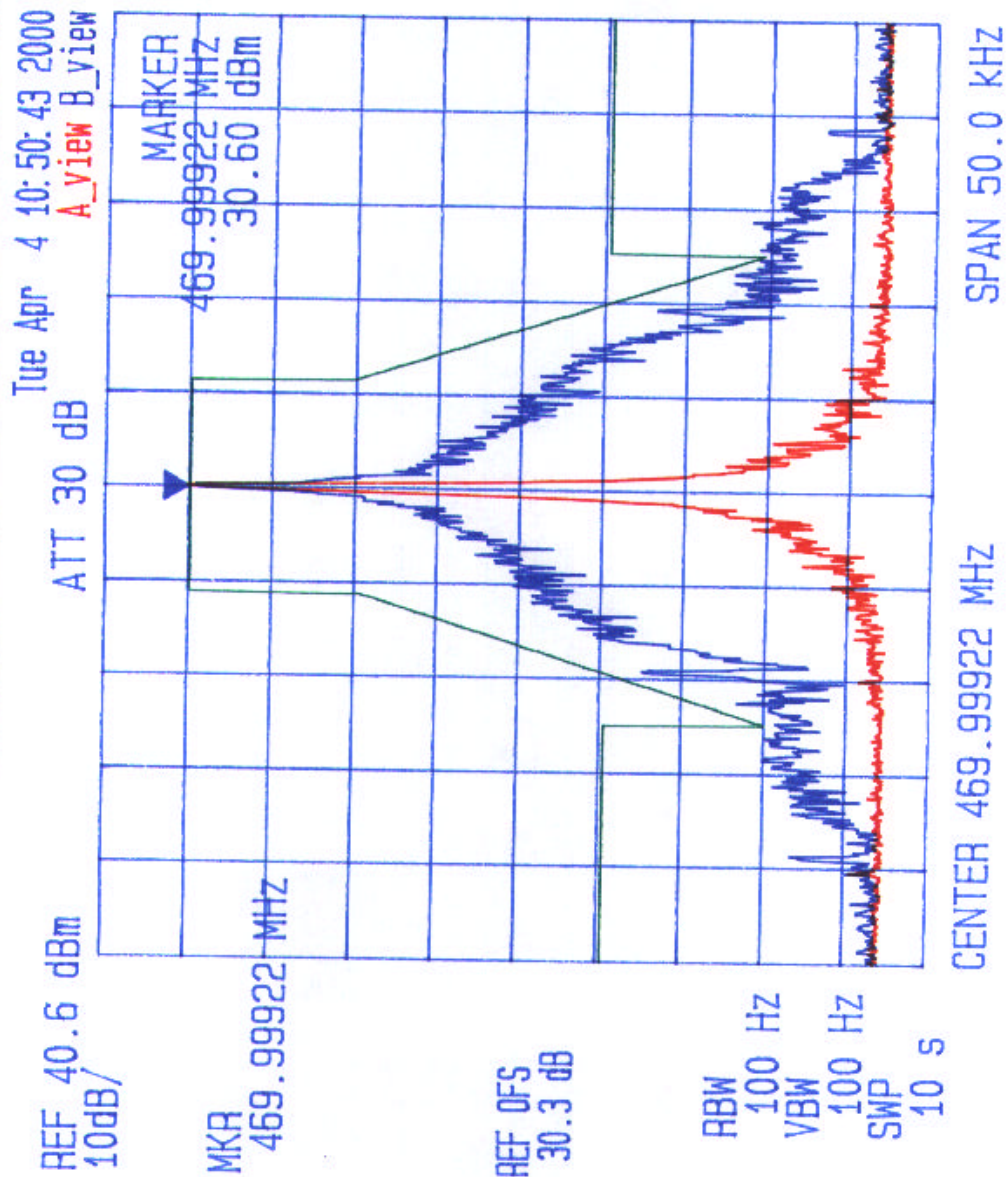


EXHIBIT 9 - PLOT #32 OF 60



KAVAL TELECOM INC.

BDA1300 BI-DIRECTIONAL AMPLIFIER, UHF 403-512 MHz

Tx Freq: 469.99922 MHz, RF Output: 40 Watts

RF In at level of -40 dBm @ 469.99922 MHz

Mod: FM Modulated with an external 9600 b/s random data, Freq. Dev: 1.5 kHz

Emissions Mask D, Channel spacing 12.5 kHz

Date: April 22, 2000
Tested by: Hung Trinh

RF IN SIGNAL FITTED IN MASK D

REF -29.7 dBm
10dB/

Tue Apr 4 11:18:53 2000

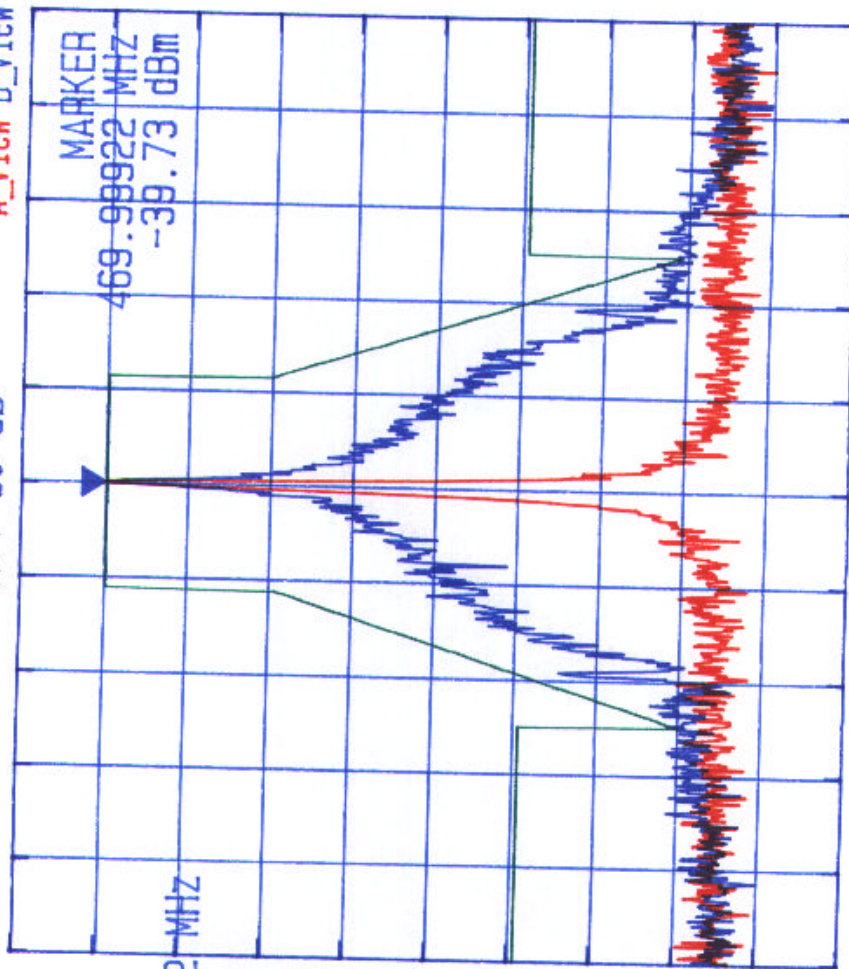
ATT 10 dB

A_view B_view

MKR
469.99922 MHz

MARKER
469.99922 MHz
-39.73 dBm

RBW 100 Hz
VBW 100 Hz
SWP 10 s



CENTER 469.99922 MHz

SPAN 50.0 kHz



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KAVAL TELECOM INC.
BDA1300 BI-DIRECTIONAL AMPLIFIER, UHF 403-512 MHz
20 dB BW of the 403-512 MHz band pass gain

Date: April 19, 2000
Tested by: Hung Trinh

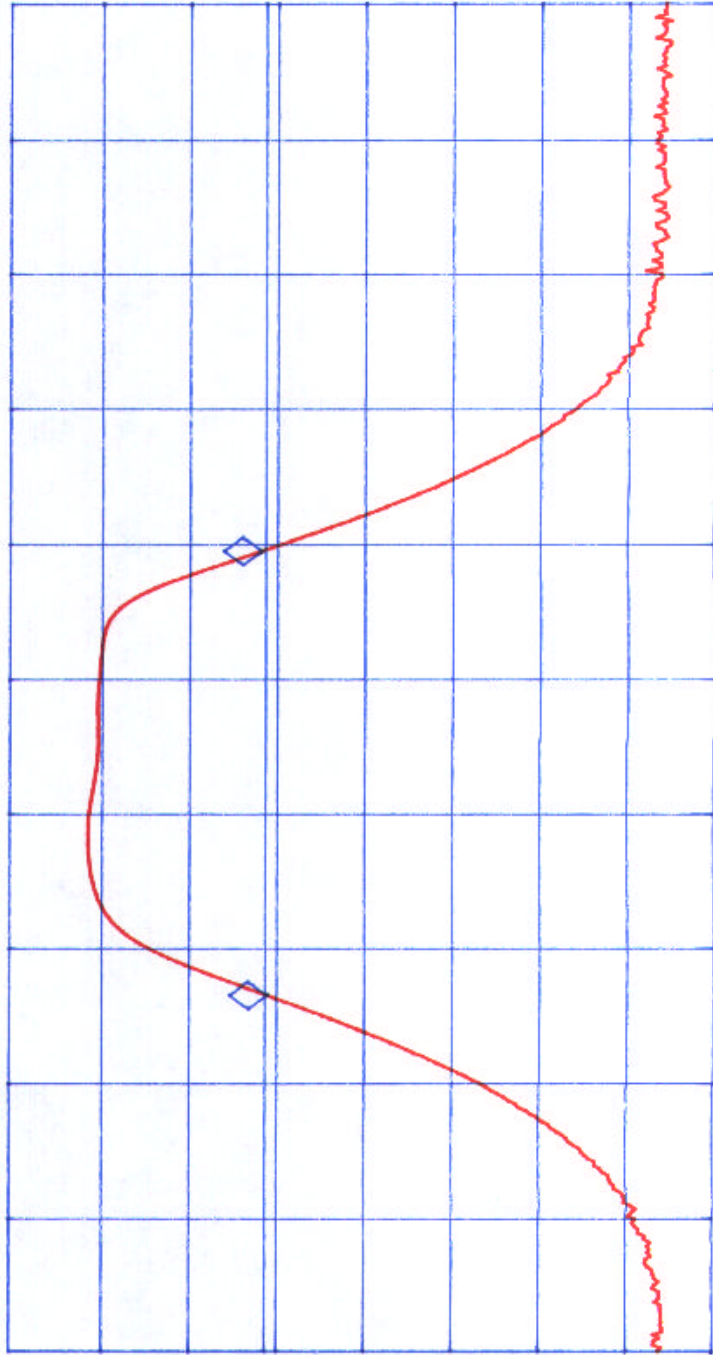
hp

MARKER Δ
8.25 MHz
.71 dB

ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 8.25 MHz
.71 dB

REF OFFST 30.3 dB
REF 40.3 dBm

LOG
10
dB/
ATN
20 dB
DL
11.4
dBm
MA SB
SC FC
CORR



CENTER 406.13 MHz
IF BW 120 kHz
SPAN 25.00 MHz
SWP 20.0 msec
AVG BW 300 kHz

EXHIBIT 9 - PLOT #34 OF 60



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KAVAL TELECOM INC.
BDA1300 BI-DIRECTIONAL AMPLIFIER, UHF 403-512 MHz
20 dB BW of the 403-512 MHz band pass gain

Date: April 2000
Tested by: Hying Trinh

MARKER Δ
10.38 MHz
.09 dB

ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 10.38 MHz
.09 dB

REF OFFST 30.3 dB
REF 40.3 dBm

LOG

10

dB/

ATN

20 dB

DL

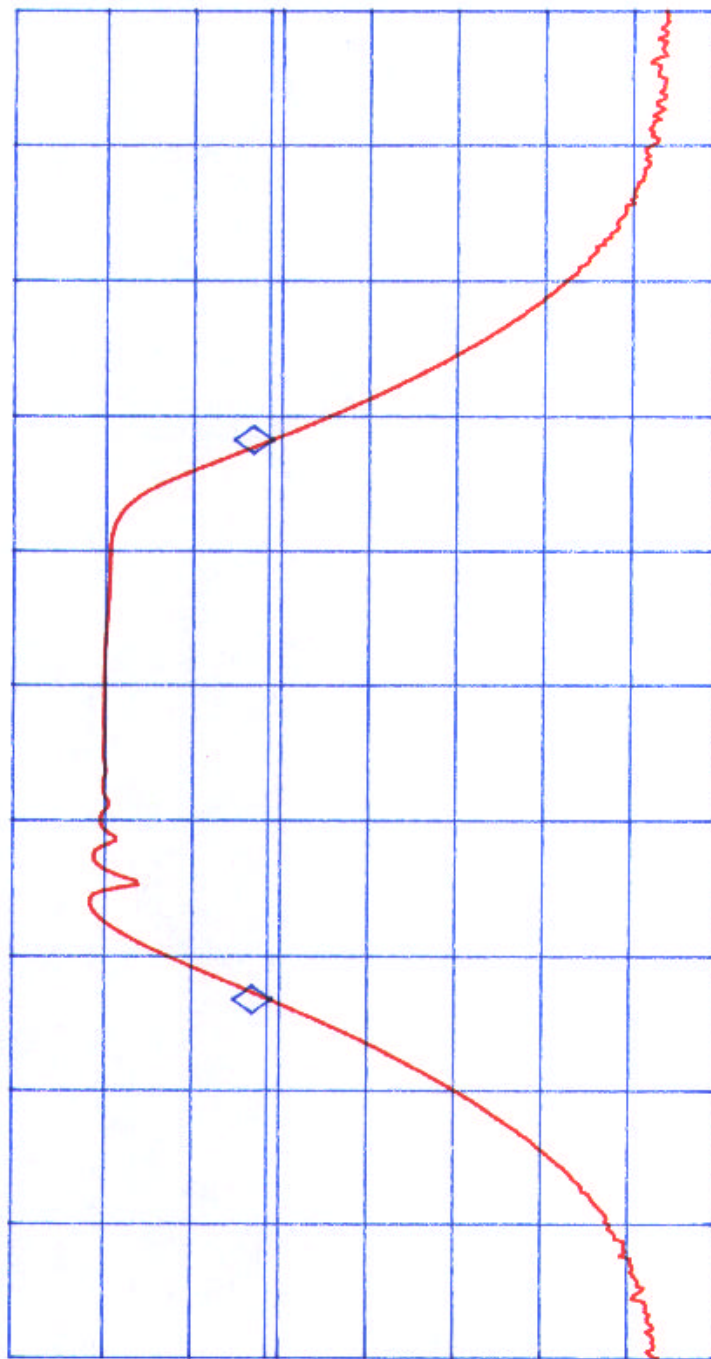
11.4

dBm

MA SB

SC FC

CORR



CENTER 450.00 MHz

IF BW 120 kHz

AVG BW 300 kHz

SPAN 25.00 MHz

SWP 20.0 msec



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Engineering Labs Inc.

KAVAL TELECOM INC.
BDA1300 BI-DIRECTIONAL AMPLIFIER, UHF 403-512 MHz
20 dB BW of the 403-512 MHz band pass gain

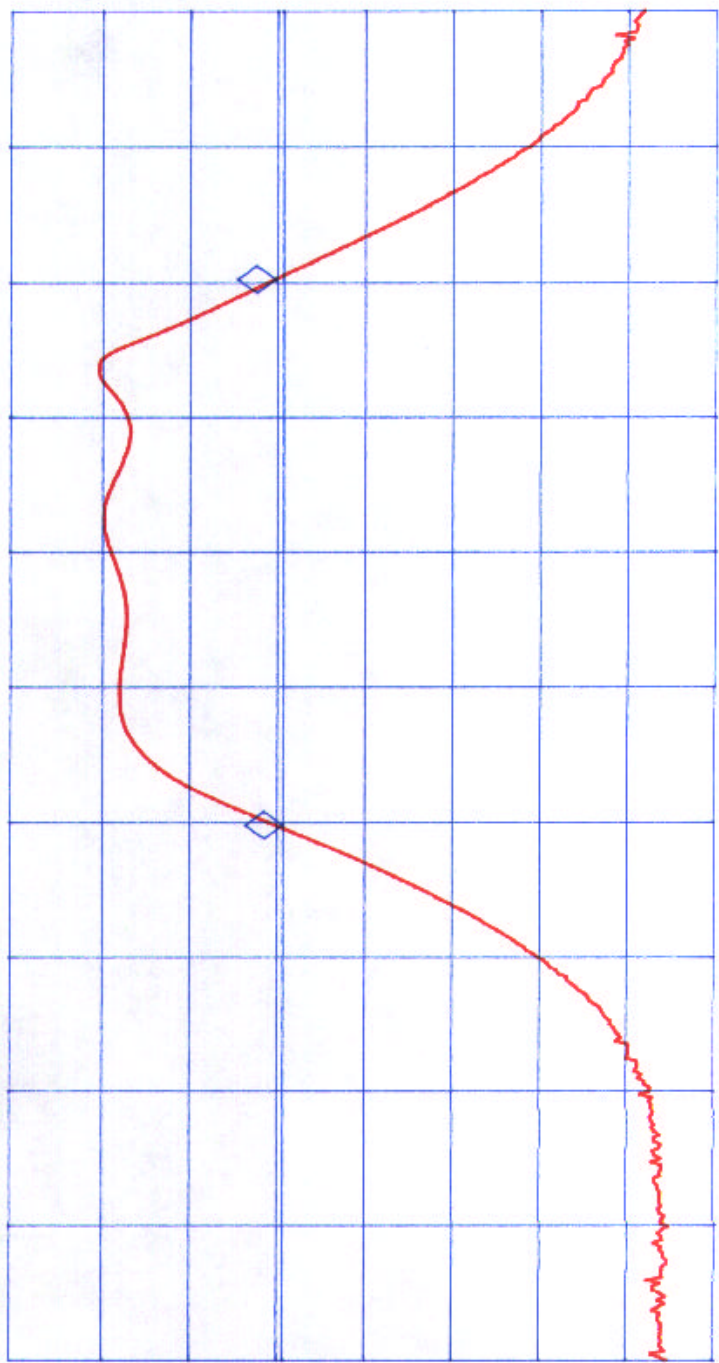
Date: April 05, 2000
Tested by: Hung Trinh

MARKER Δ
10.13 MHz
.94 dB

ACTV DET: PEAK
MEAS DET: PEAK QP AVG
MKR 10.13 MHz
.94 dB

REF OFFST 30.3 dB
REF 40.3 dBm

LOG
10
dB/
ATN
20 dB
DL
9.3
dBm
MA SB
SC FC
CORR

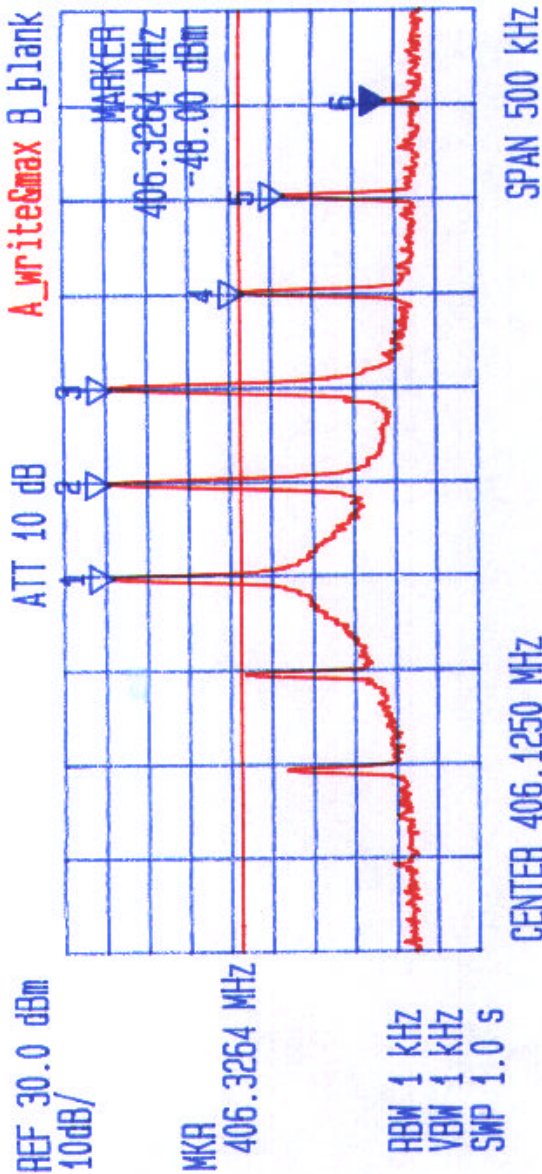


CENTER 470.00 MHz
IF BW 120 kHz
AVG BW 300 kHz
SPAN 25.00 MHz
SWP 20.0 msec



KAVAL TELECOM INC.
BDA1300 BI-DIRECTIONAL AMPLIFIER, UHF 403-512 MHz
Intermodulation with 3 RF Input signals in 403-512 MHz band
406.075, 406.125, & 406.175 MHz

Date: April 17, 2000
Tested by: Hung Trinh



No.	Multi Marker	List	***
1:	406.0736 MHz	18.06 dBm	A
2:	406.1236 MHz	19.38 dBm	A
3:	406.1743 MHz	18.75 dBm	A
4:	406.2250 MHz	-13.13 dBm	A
5:	406.2764 MHz	-23.06 dBm	A
6:	406.3264 MHz	-48.00 dBm	A
Δ:			



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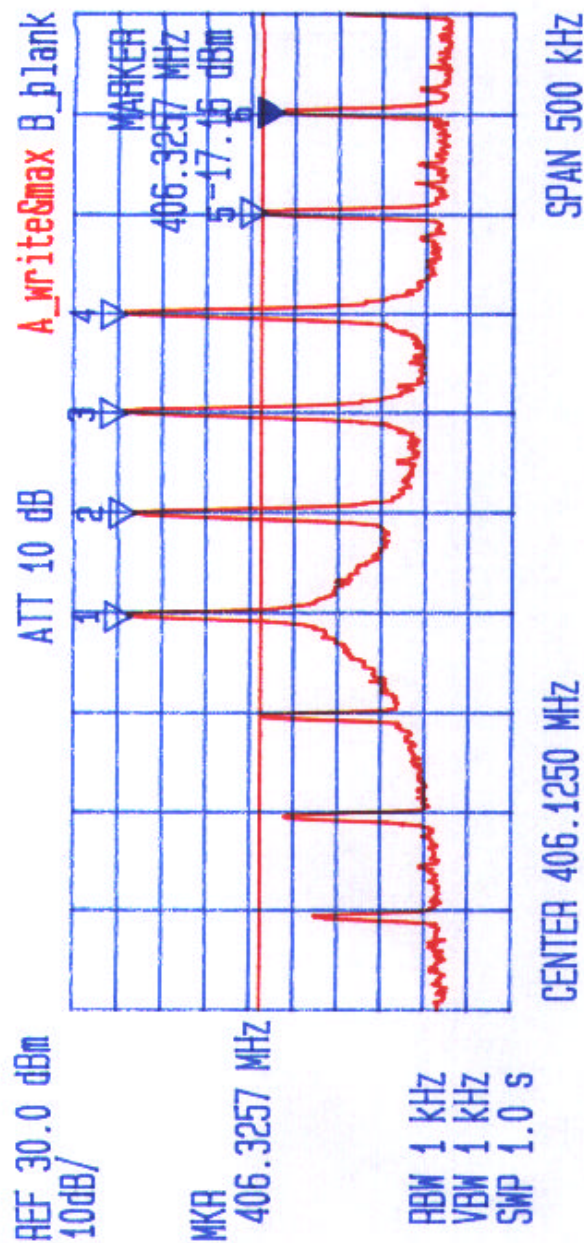
KAVAL TELECOM INC.

BDA1300 BI-DIRECTIONAL AMPLIFIER, UHF 403-512 MHz

Intermodulation with 4 RF Input signals in 403-512 MHz band

406.075, 406.125, 406.175, & 406.225 MHz

Date: April 17 2000
Tested by: Hung Trinh



*** Multi Marker List ***

No.	1:	2:	3:	4:	5:	6:	7:	8:	Δ:
	406.0729 MHz	406.1243 MHz	406.1743 MHz	406.2243 MHz	406.2757 MHz	406.3257 MHz			
	17.41 dBm	16.38 dBm	18.44 dBm	18.09 dBm	-13.13 dBm	-17.16 dBm			
	A	A	A	A	A	A			

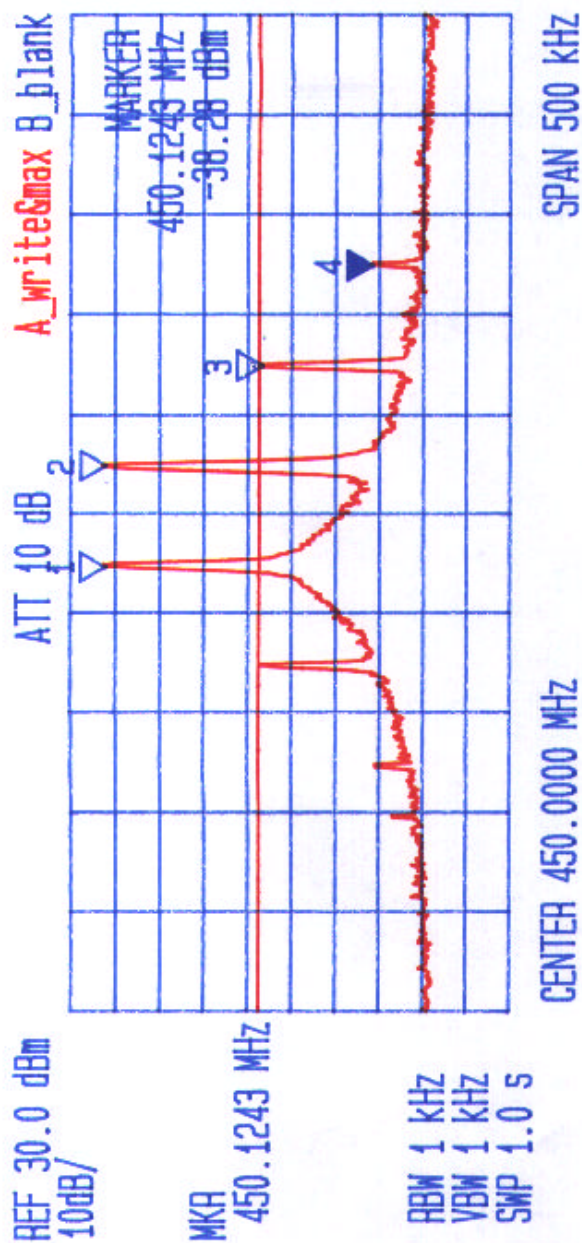


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KAVAL TELECOM INC.

BDA1300 BI-DIRECTIONAL AMPLIFIER, UHF 403-512 MHz
Intermodulation with 2 RF Input signals in 403-512 MHz band
450.025 & 449.975 MHz

Date: April 17, 2000
Tested by: Hung Trinh



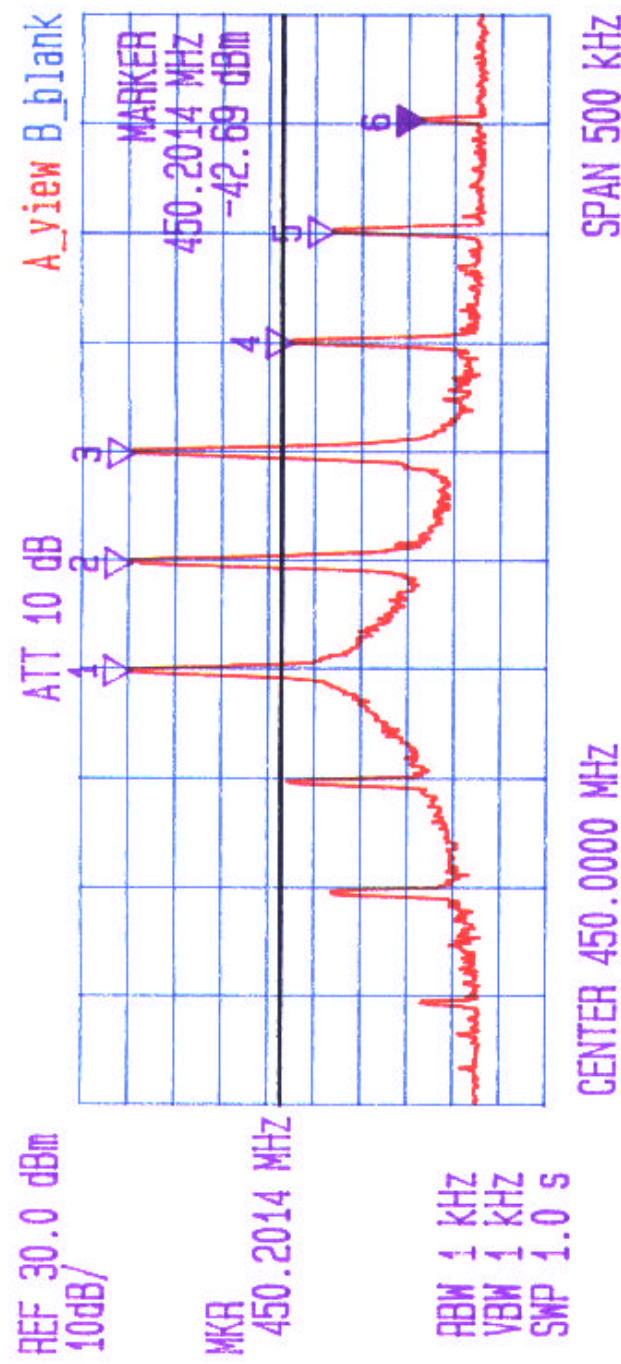
*** Multi Marker List ***

No.	Frequency (MHz)	Power (dBm)	Label
1.	449.9729	-22.47	A
2.	450.0243	-22.41	A
3.	450.0743	-13.34	A
4.	450.1243	-38.28	A



KAVAL TELECOM INC.
BDA1300 BI-DIRECTIONAL AMPLIFIER, UHF 403-512 MHz
Intermodulation with 3 RF Input signals in 403-512 MHz band
450.05, 450.00, & 449.95 MHz

Date: May 12 2000
Tested by: Hung Trinh



*** Multi Marker List ***

No. 1:	449.9486 MHz	19.50 dBm	A
No. 2:	449.9986 MHz	19.53 dBm	A
No. 3:	450.0493 MHz	19.44 dBm	A
No. 4:	450.1000 MHz	-14.63 dBm	A
No. 5:	450.1507 MHz	-23.53 dBm	A
No. 6:	450.2014 MHz	-42.69 dBm	A
No. 7:			
No. 8:			
Δ:			