



1/10

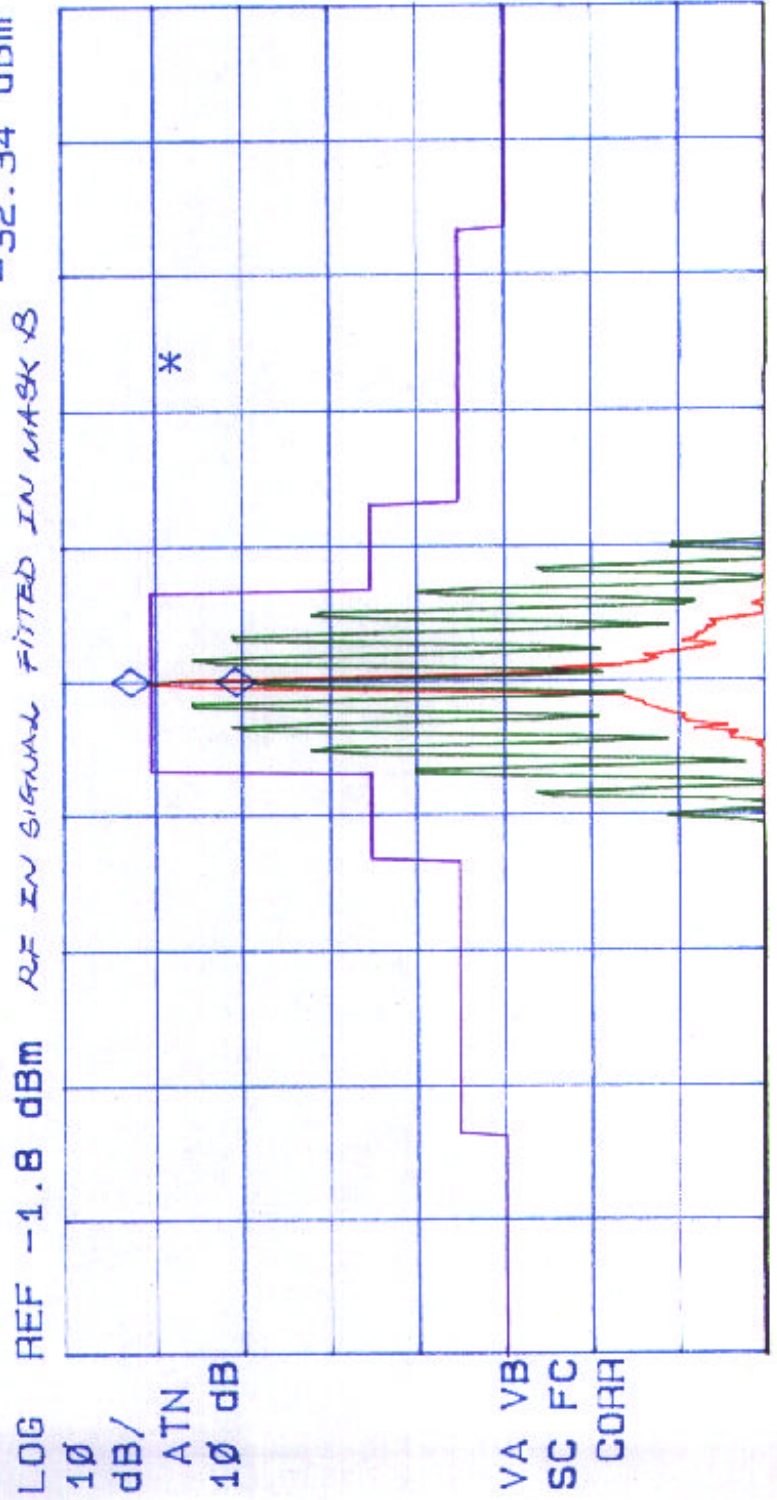
Date: Jan. 02, 2000  
Tested by: Hung Trinh

**KAVAL TELECOM INC.**  
BI-DIRECTIONAL AMPLIFIERS, MODEL: BDA 1250-T- 806 - 884 MHz  
Tx Freq.: \_\_\_\_\_ MHz, RF Output at antenna: \_\_\_\_\_ Watts  
Modulation: RF In at level of \_\_\_\_\_ dBm @ 806 MHz, FM Modulated with 2.5 kHz  
Sine Wave signal, Freq. Dev.: 0.3 kHz

CENTER  
806.0015 MHz

ACTV DET: PEAK  
MEAS DET: PEAK QP AVG  
MKR 806.0015 MHz  
-11.81 dBm  
-20.53 dBm ATN  
-32.34 dBm

# PLOT #15



CENTER 806.0015 MHz  
#IF BW 300 Hz  
AVG BW 300 Hz  
SPAN 150.0 KHz  
SWP 5.00 sec

Date: Jan. 02, 2000  
Tested by: Hung Trinh

**KAVAL TELECOM INC.**  
BI-DIRECTIONAL AMPLIFIERS, MODEL: BDA 1250-T-806 - 804 MHz  
Tx Freq.: 806 MHz, RF Output at antenna: 0.81 Watts  
Modulation: RF In at level of -34 dBm @ 806 MHz, FM Modulated with 2.5 kHz  
Sine Wave signal, Freq. Dev.: 2.3 kHz



hp

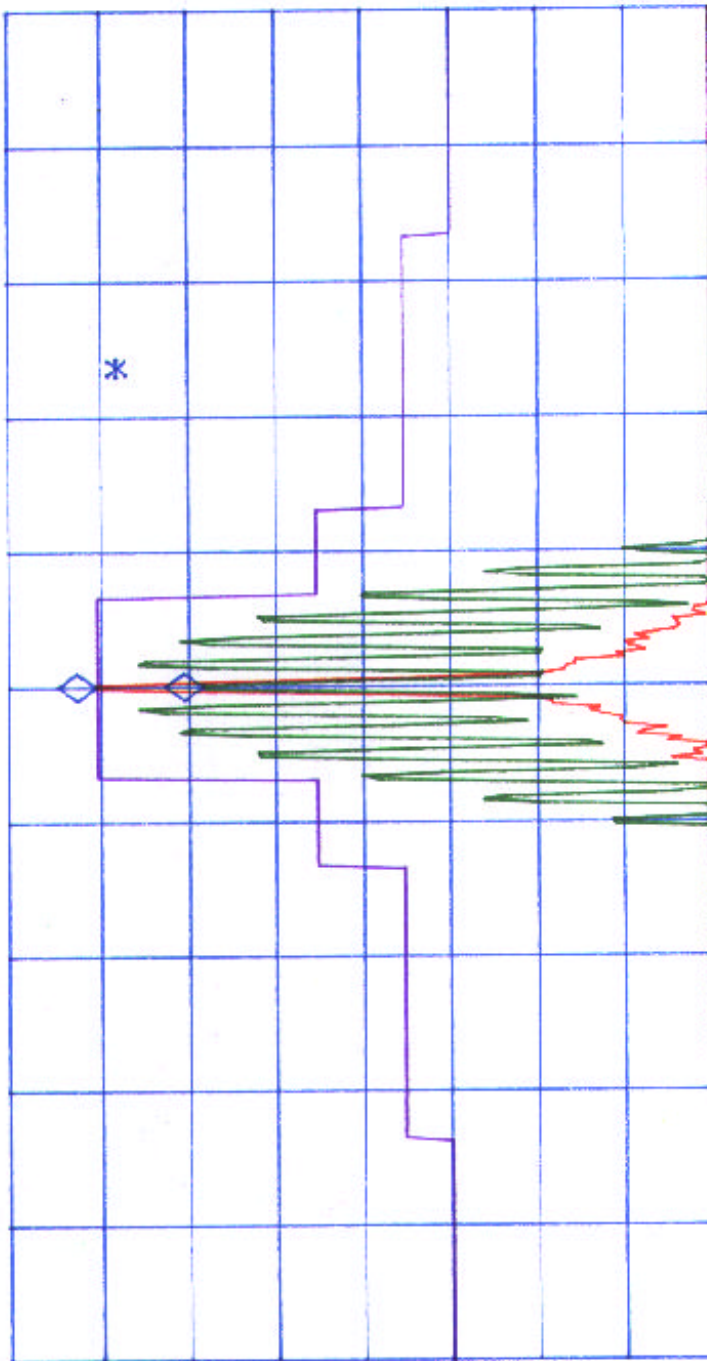
REF LEVEL  
38.5 dBm

ACTV DET: PEAK  
MEAS DET: PEAK QP AVG  
MKR 806.0015 MHz  
28.47 dBm

REF OFFST 20.8 dB  
REF 38.5 dBm

MASK B (RF OUT)

LOG  
10  
dB/  
ATN  
30 dB



VA VB  
SC FC  
CORR

CENTER 806.0015 MHz  
#IF BW 300 Hz

SPAN 150.0 kHz  
SWP 5.00 sec

# PLOT #16





**UltraTech**  
Engineering Labs Inc.

**KAVAL TELECOM INC.**

BI-DIRECTIONAL AMPLIFIERS, MODEL: BDA 1250-T- 80G - 824 MHz  
Tx Freq.:    MHz, RF Output at antenna:    Watts  
Modulation: RF In at level of    dBm @ 815 MHz, FM Modulated with 2.5 kHz  
Sine Wave signal, Freq. Dev.: 2.3 kHz

Date: Jan. 07, 2000  
Tested by: Hung Triah

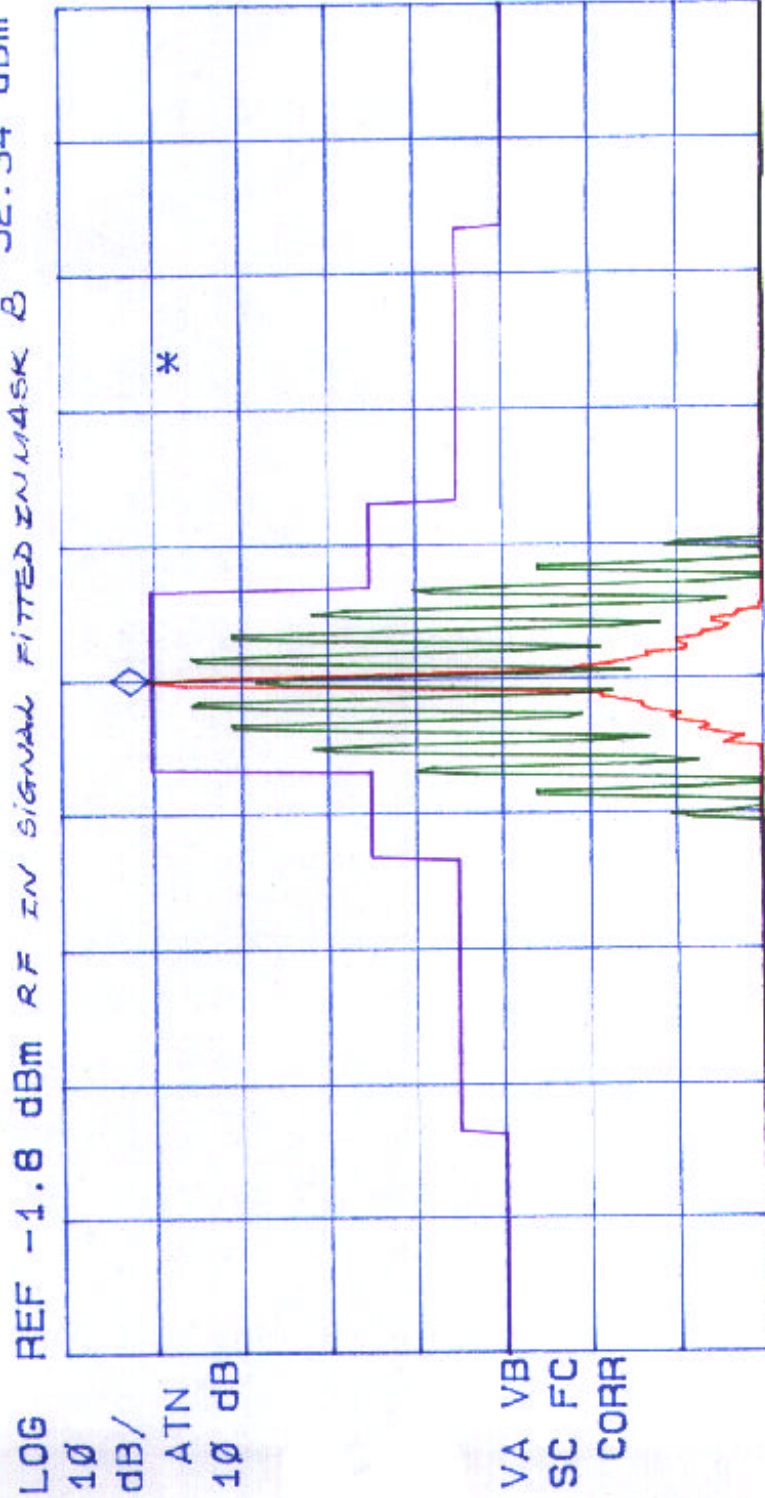
MARKER

815.0015 MHz  
-11.81 dBm

ACTV DET: PEAK

MEAS DET: PEAK QP AVG  
MKR 815.0015 MHz  
-11.81 dBm  
-20.53 dBm ATN  
-32.34 dBm

**PLOT #17**



CENTER 815.0015 MHz  
#IF BW 3000 Hz

AVG BW 3000 Hz

SPAN 150.0 kHz  
SWP 5.00 sec



**UltraTech**  
Engineering Labs Inc.

Date: Jan. 02, 2000  
Tested by: Hung Trinh

**KAVAL TELECOM INC.**  
BI-DIRECTIONAL AMPLIFIERS, MODEL: BDA 1250-T- 806 - 824 MHz  
Tx Freq.: 815 MHz, RF Output at antenna: 1.00 Watts  
Modulation: RF In at level of -34 dBm @ 815 MHz, FM Modulated with 2.5 kHz  
Sine Wave signal, Freq. Dev.: 2.3 kHz

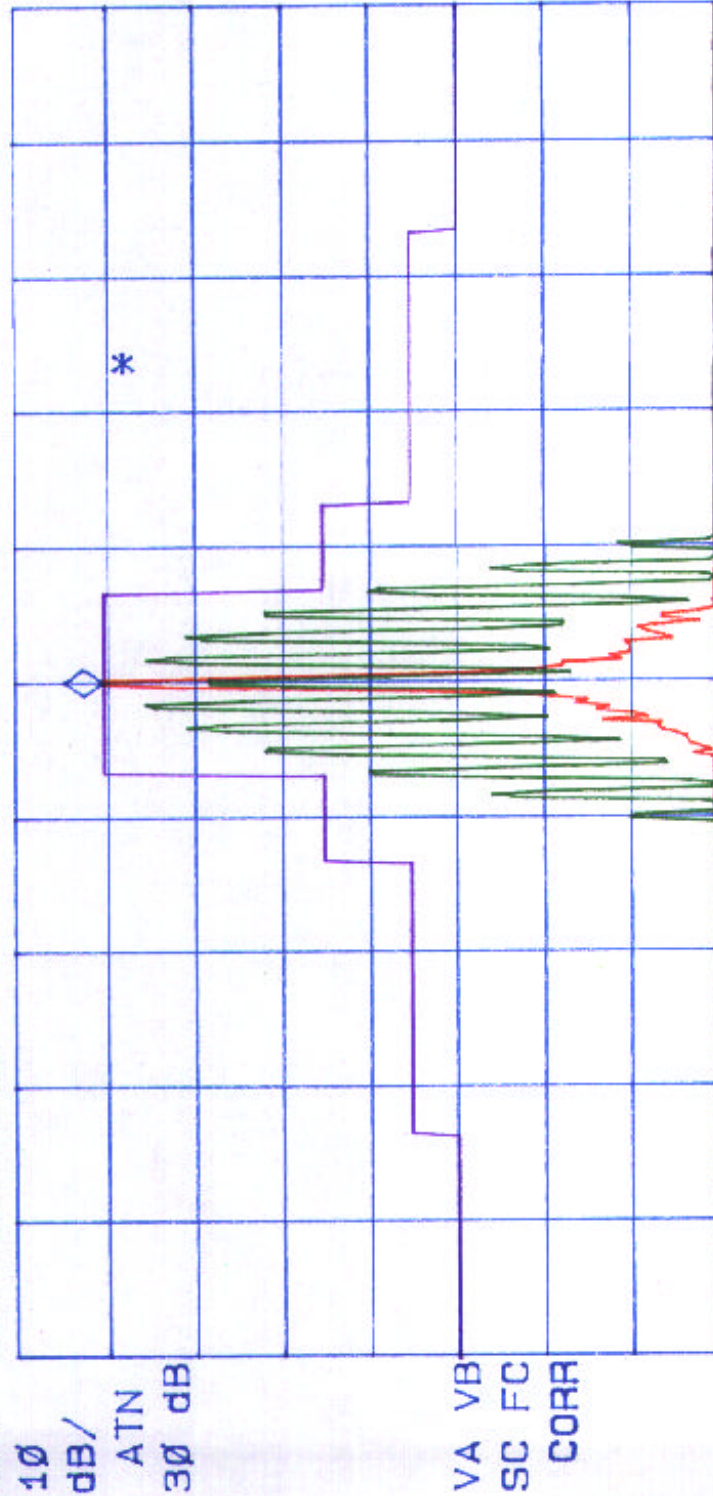
hjp

REF LEVEL  
39.1 dBm

ACTV DET: PEAK  
MEAS DET: PEAK QP AVG  
MKR 815.0015 MHz  
29.10 dBm

REF OFFST 20.8 dB  
REF 39.1 dBm

MASK B (RF OUT)



PLOT #18

CENTER 815.0015 MHz  
#IF BW 300 Hz

AVG BW 300 Hz

SPAN 150.0 kHz  
SWP 5.00 sec



Date: Jan. 02, 2000  
 Tested by: Hung Trinh

**KAVAL TELECOM INC.**  
 BI-DIRECTIONAL AMPLIFIERS, MODEL: BDA 1250-T- 806 - 824 MHz  
 Tx Freq.: 824 MHz, RF Output at antenna: 1 Watts  
 Modulation: RF In at level of 1 dBm @ 824 MHz, FM Modulated with 2.5 kHz  
 Sine Wave signal, Freq. Dev.: 2.5 kHz

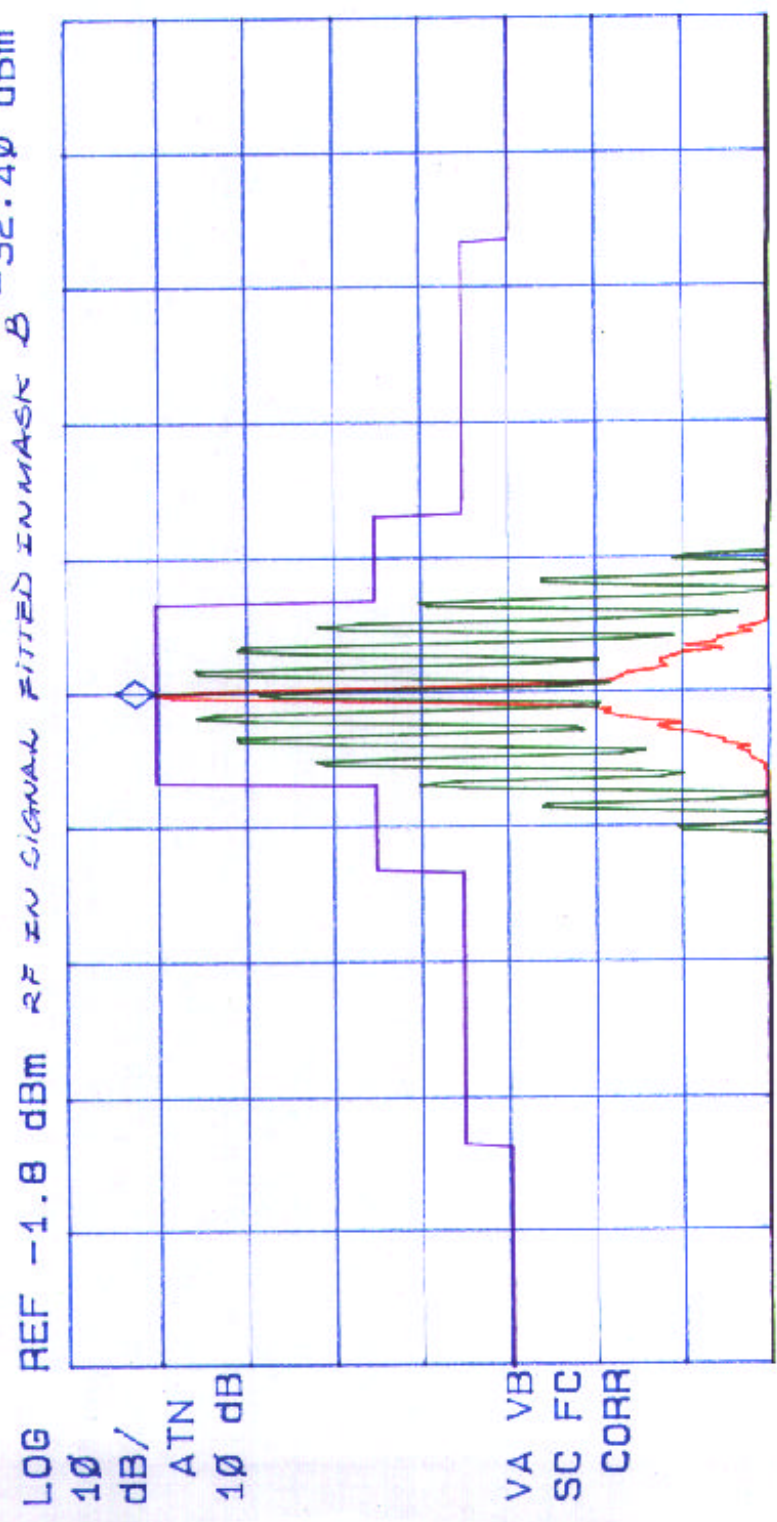


hpa

REF LEVEL  
 -1.8 dBm

ACTV DET: PEAK  
 MEAS DET: PEAK QP AVG  
 MKR 824.0015 MHz  
 -11.87 dBm  
 -20.53 dBm ATN  
 -32.40 dBm

# PLOT #19



CENTER 824.0015 MHz SPAN 150.0 kHz  
 #IF BW 300 Hz AVG BW 300 Hz SWP 5.00 sec



**UltraTech**  
Engineering Labs Inc.

Date: Jan. 02, 2000  
Tested by: Hung Trinh

**KAVAL TELECOM INC.**  
BI-DIRECTIONAL AMPLIFIERS, MODEL: BDA 1250-T- 806-824 MHz  
Tx Freq.: 824 MHz, RF Output at antenna: 0.56 Watts  
Modulation: RF In at level of -34 dBm @ 824 MHz, FM Modulated with 2.5 kHz  
Sine Wave signal, Freq. Dev.: 2.3 kHz

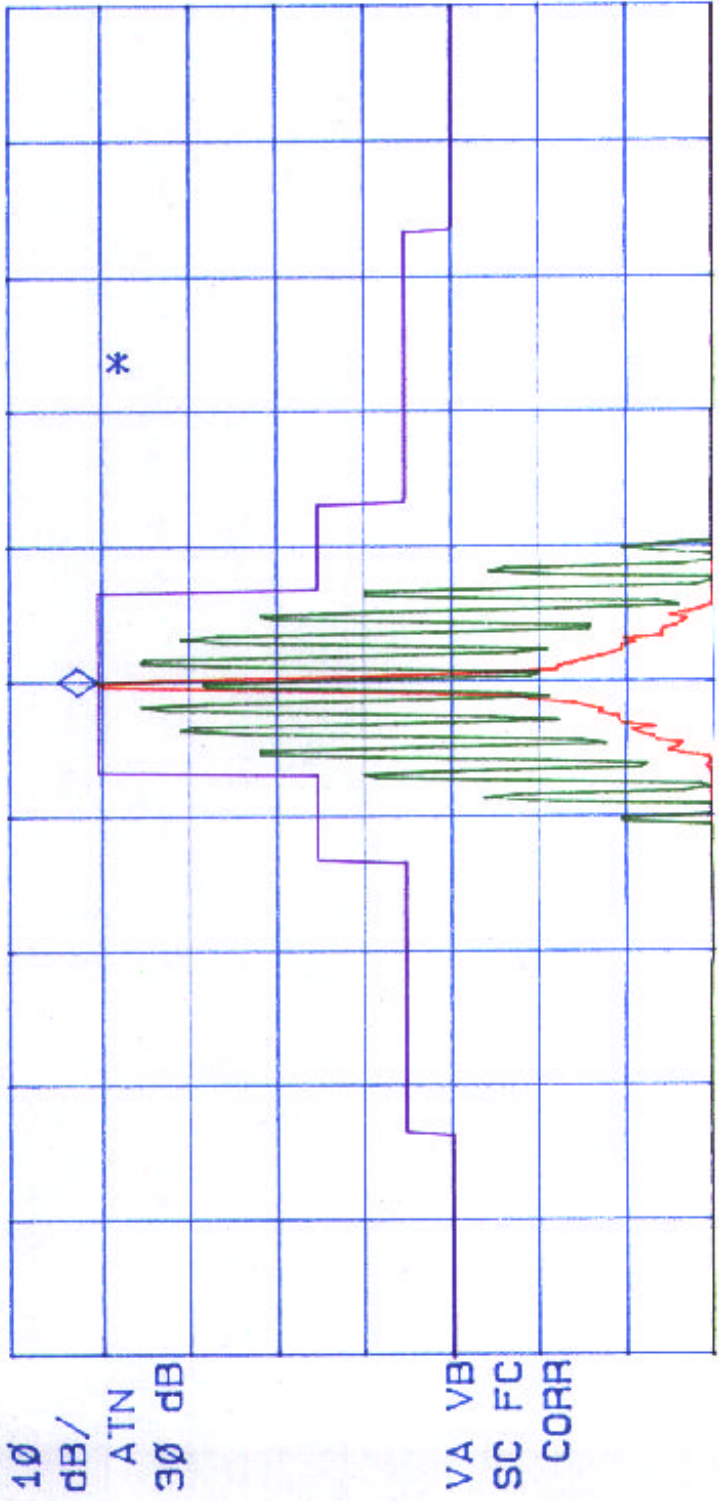
hp

REF LEVEL  
38.2 dBm

ACTV DET: PEAK  
MEAS DET: PEAK QP AVG  
MKR 824.0019 MHz  
28.19 dBm

REF OFFST 20.8 dB  
REF 38.2 dBm

*MASK B (RF OUT)*



CENTER 824.0019 MHz  
#IF BW 3000 Hz

AVG BW 3000 Hz

SPAN 150.0 KHz  
SWP 5.00 sec

# PLOT #20





**UltraTech**  
Engineering Labs Inc.

Date: Jan. 02, 2000  
Tested by: Hung Trinh

**KAVAL TELECOM INC.**

BI-DIRECTIONAL AMPLIFIERS, MODEL: BDA 1250-T- 851- 869 MHz  
Tx Freq.: MHz, RF Output at antenna: Watts  
Modulation: RF In at level of dBm @ 851 MHz, FM Modulated with 2.5 kHz  
Sine Wave signal, Freq. Dev.: 2.5 kHz

MARKER

851.0015 MHz

-11.81 dBm

ACTV DET: PEAK

MEAS DET: PEAK QP AVG

MKR 851.0015 MHz

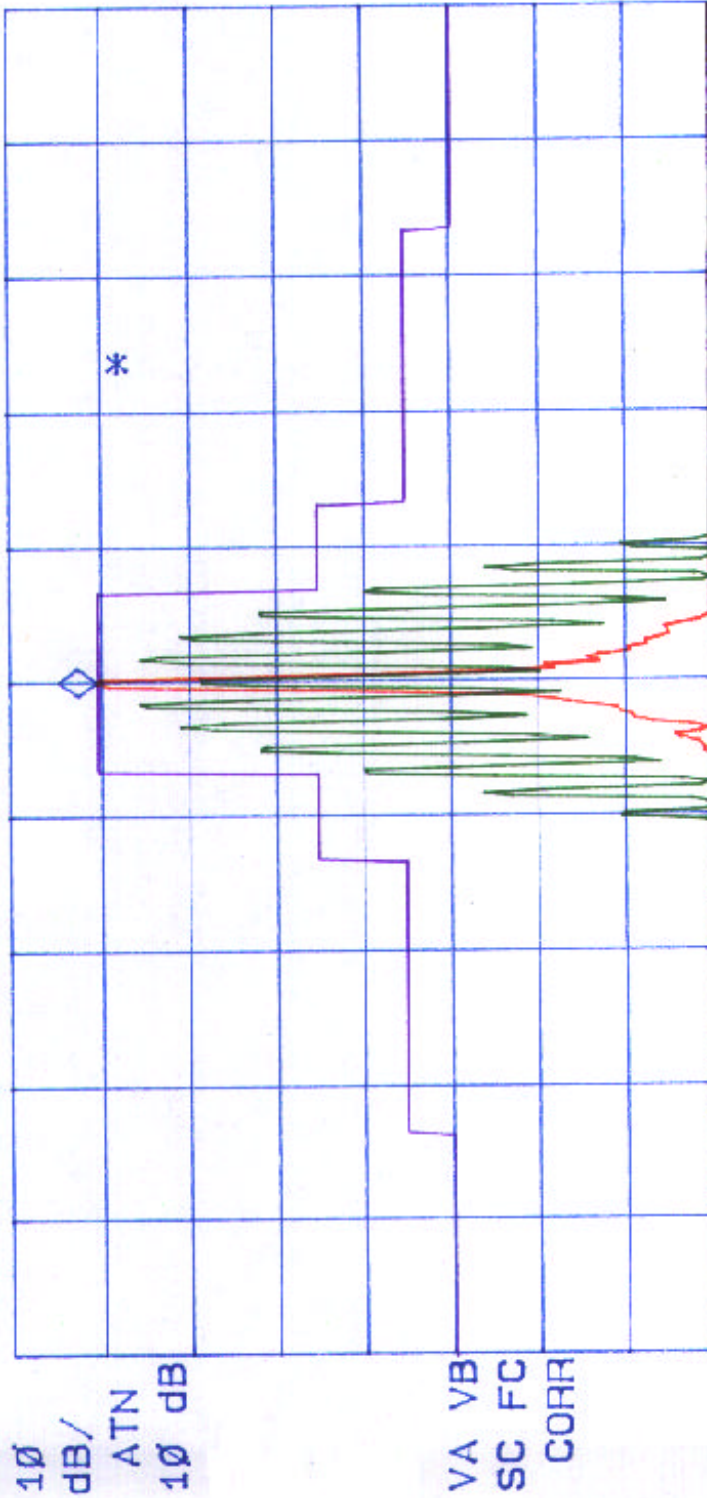
-11.81 dBm

-20.53 dBm ATN

-32.34 dBm

Add -20.53 dBm to correct for attenuation

LOG REF -1.8 dBm RF IN SIGNAL FITTED IN MASK B



CENTER 851.0015 MHz

#IF BW 300 Hz

AVG BW 3000 Hz

SPAN 150.0 KHz

SWP 5.00 sec

**PLOT #21**



**UltraTech**  
Engineering Labs Inc.

hp

Date: Jan. 22, 2000  
Tested by: Hung Trinh

**KAVAL TELECOM INC.**

BI-DIRECTIONAL AMPLIFIERS, MODEL: BDA 1250-T- 851- 809 MHz

Tx Freq.: 851 MHz, RF Output at antenna: 0.74 Watts

Modulation: RF In at level of -94 dBm @ 851 MHz, FM Modulated with 2.5 kHz

Sine Wave signal, Freq. Dev.: 2.5 kHz

ACTV DET: PEAK  
MEAS DET: PEAK QP AVG  
MKR 851.0023 MHz  
27.36 dBm

REF OFFST 20.8 dB MASK B (RF OUT)

REF 37.4 dBm

LOG 10  
dB/

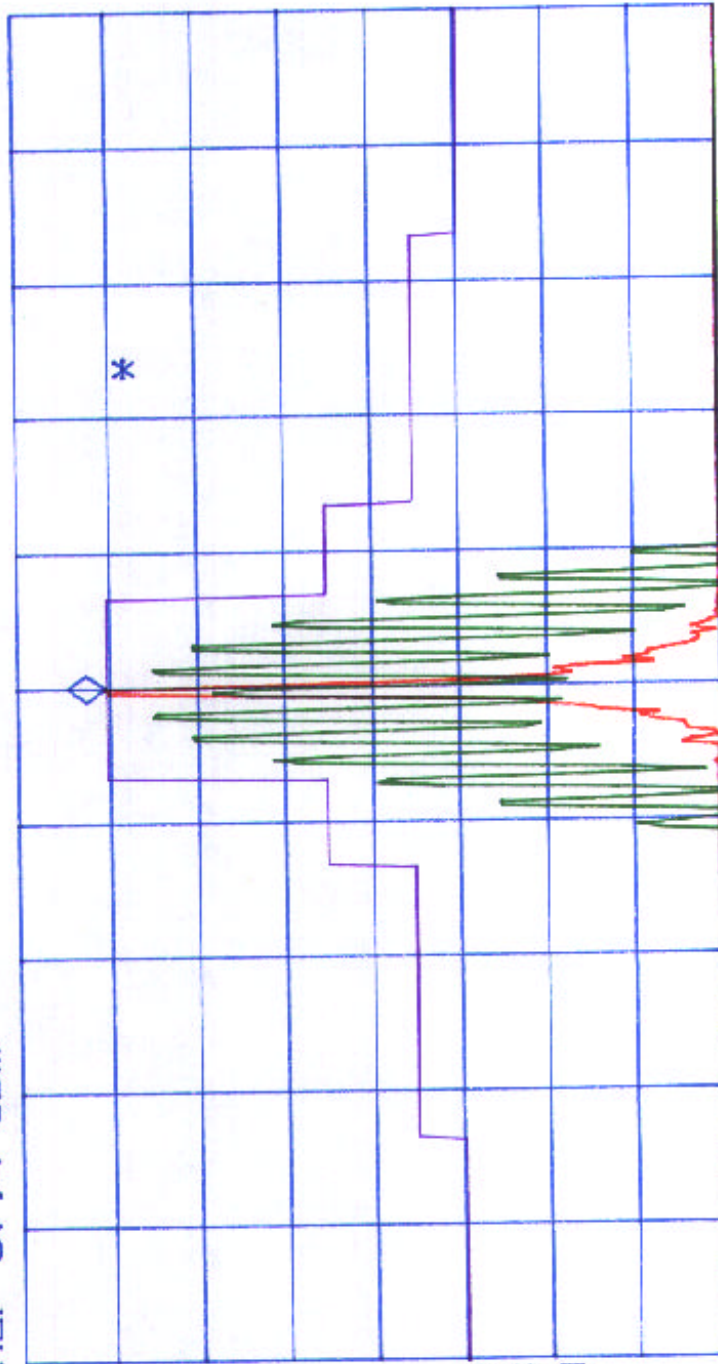
ATN

30 dB

VA VB

SC FC

CORR



CENTER 851.0023 MHz

#IF BW 300 Hz

AVG BW 300 Hz

SPAN 150.0 KHz

SWP 5.00 sec

**PLOT #22**



Date: Jan. 27, 2000  
Tested by: Hung Trinh

**KAVAL TELECOM INC.**

BI-DIRECTIONAL AMPLIFIERS, MODEL: BDA 1250-T- 851-809 MHz

Tx Freq: 851 MHz, RF Output at antenna: 809 Watts

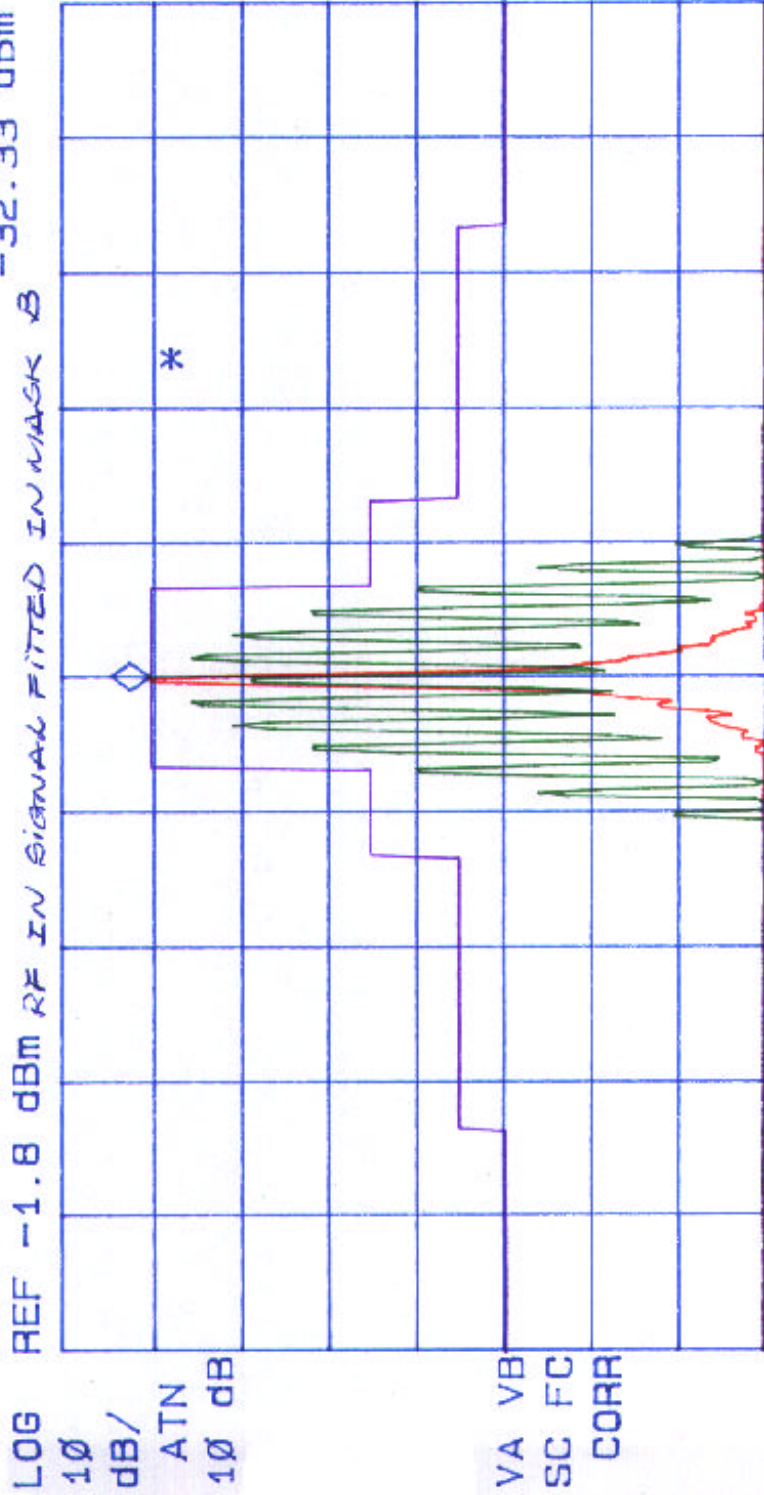
Modulation: RF In at level of 8 dBm @ 860 MHz, FM Modulated with 2.5 kHz Sine Wave signal, Freq. Dev.: 5 kHz



hp

# PLOT #23

CENTER 860.0019 MHz  
ACTV DET: PEAK  
MEAS DET: PEAK QP AVG  
MKR 860.0019 MHz  
-11.80 dBm  
Add - 20.53 dBm to correct for attenuation  
-20.53 dBm ATN  
-32.33 dBm



CENTER 860.0019 MHz  
#IF BW 300 Hz  
AVG BW 300 Hz  
SPAN 150.0 kHz  
SWP 5.00 sec



**UltraTech**  
Engineering Labs Inc.

hp

**KAVAL TELECOM INC.**

BI-DIRECTIONAL AMPLIFIERS, MODEL: BDA 1250-T- 851-869 MHz  
Tx Freq.: 860 MHz, RF Output at antenna: 0.87 Watts  
Modulation: RF In at level of -24 dBm @ 860 MHz, FM Modulated with 2.5 kHz  
Sine Wave signal, Freq. Dev.: 2.5 kHz

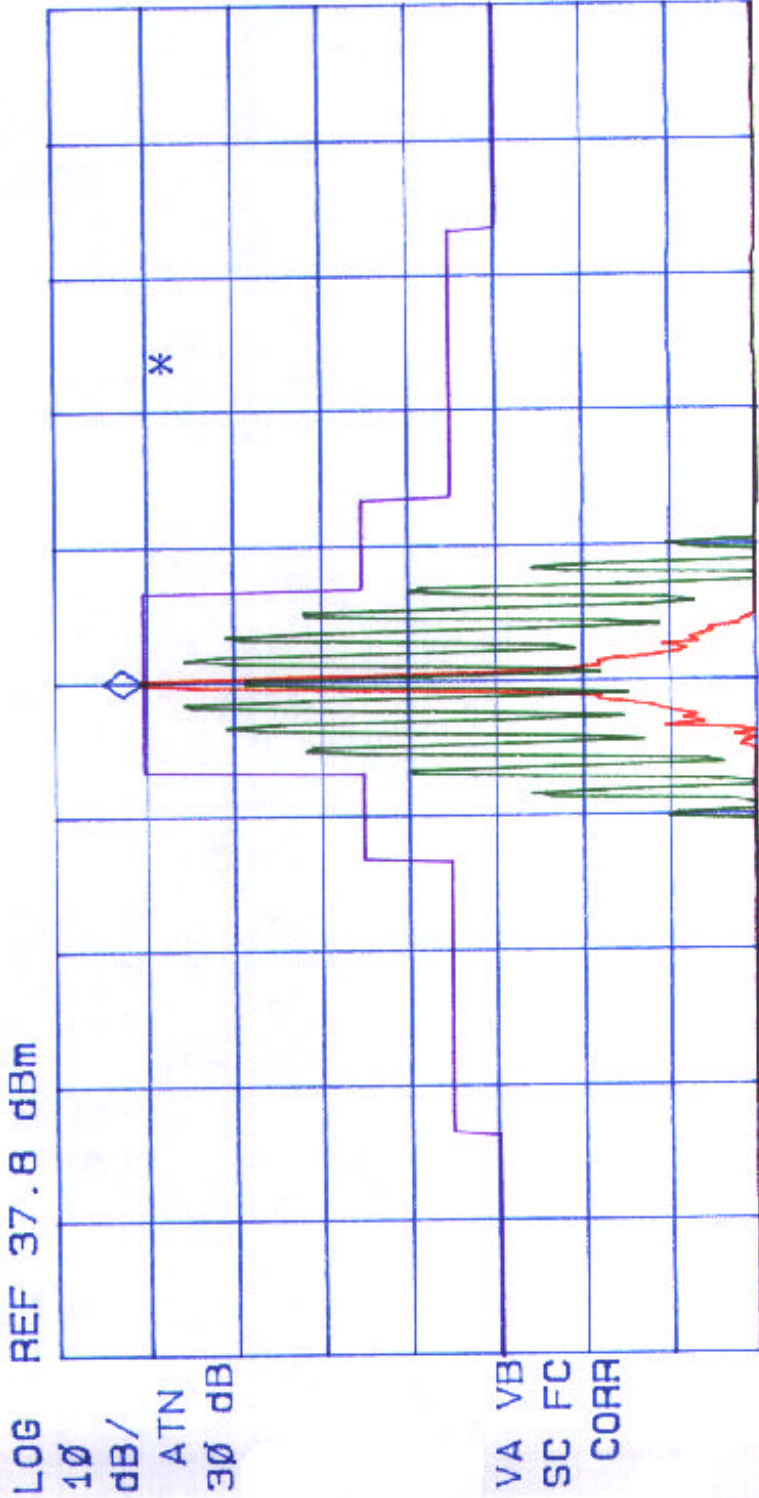
Date: Jan. 02, 2000  
Tested by: Hung Trinh

REF LEVEL  
37.8 dBm

ACTV DET: PEAK  
MEAS DET: PEAK QP AVG  
MKR 860.0015 MHz  
27.84 dBm

MASK 8 (RF OUT)

REF OFFST 20.8 dB  
REF 37.8 dBm



CENTER 860.0015 MHz  
#IF BW 300 Hz

AVG BW 300 Hz

SPAN 150.0 kHz  
SWP 5.00 sec

**PLOT #24**





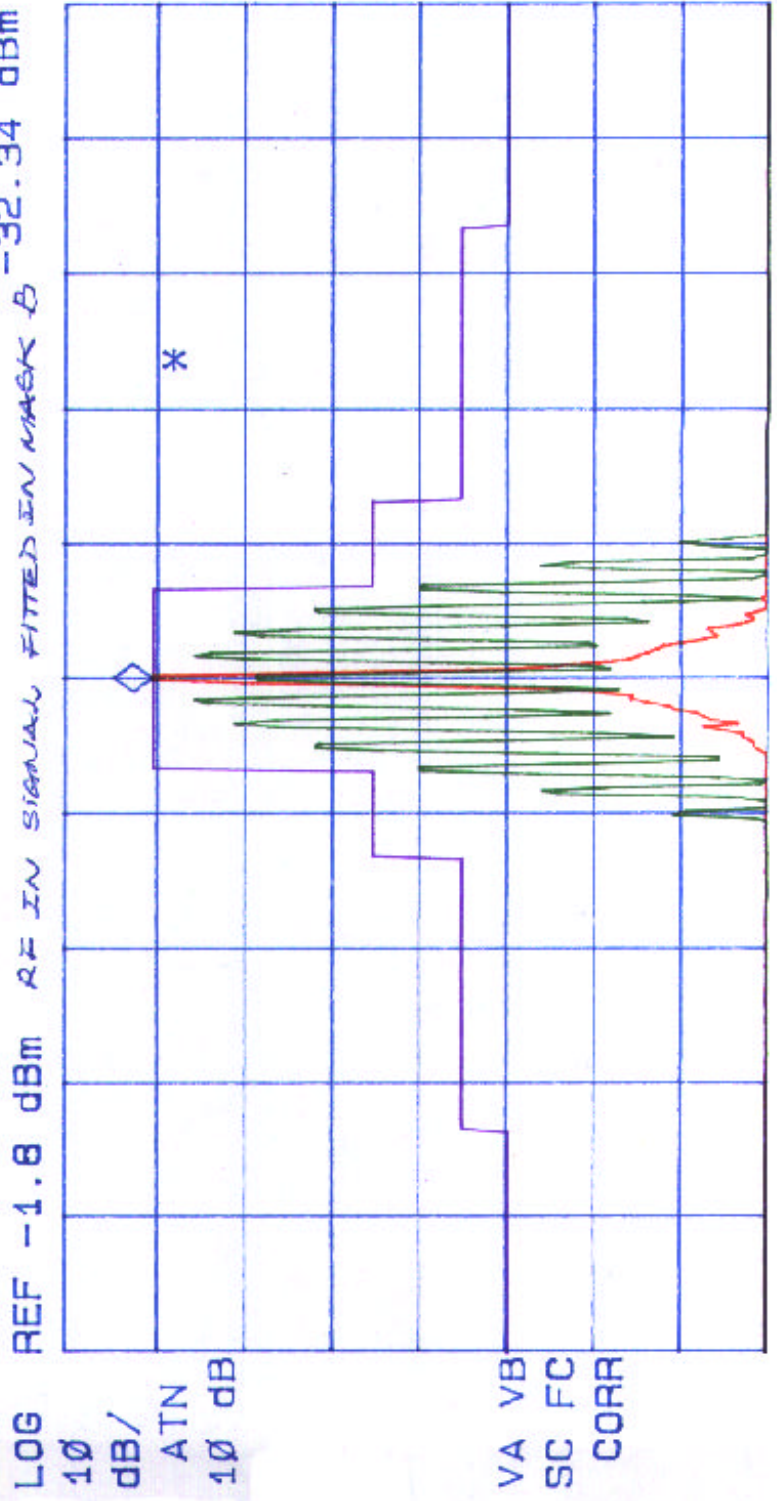
**KAVAL TELECOM INC.**  
 BI-DIRECTIONAL AMPLIFIERS, MODEL: BDA 1250-T- 851-809 MHz  
 Tx Freq.: 851 MHz, RF Output at antenna: Watts  
 Modulation: RF In at level of dBm @ 869 MHz, FM Modulated with 2.5 kHz  
 Sine Wave signal, Freq. Dev.: 2.5 kHz

Date: Jan. 07 2000  
 Tested by: Hung Trinh

REF LEVEL  
 -1.8 dBm

ACTV DET: PEAK  
 MEAS DET: PEAK QP AVG  
 MKR 869.0015 MHz  
 -11.81 dBm  
 -20.53 dBm ATN  
 -32.34 dBm

Add - 20.53 dBm to correct for attenuation



CENTER 869.0015 MHz SPAN 150.0 KHz  
 #IF BW 300 Hz AVG BW 300 Hz SWP 5.00 sec

# PLOT #25



UltraTech  
Engineering Labs Inc.

**KAVAL TELECOM INC.**

BI-DIRECTIONAL AMPLIFIERS, MODEL: BDA 1250-T- 851-869 MHz

TX Freq.: 869 MHz, RF Output at antenna: 0.53 Watts

Modulation: RF In at level of -34 dBm @ 869 MHz, FM Modulated with 2.5 kHz Sine Wave signal, Freq. Dev.: 2.5 kHz

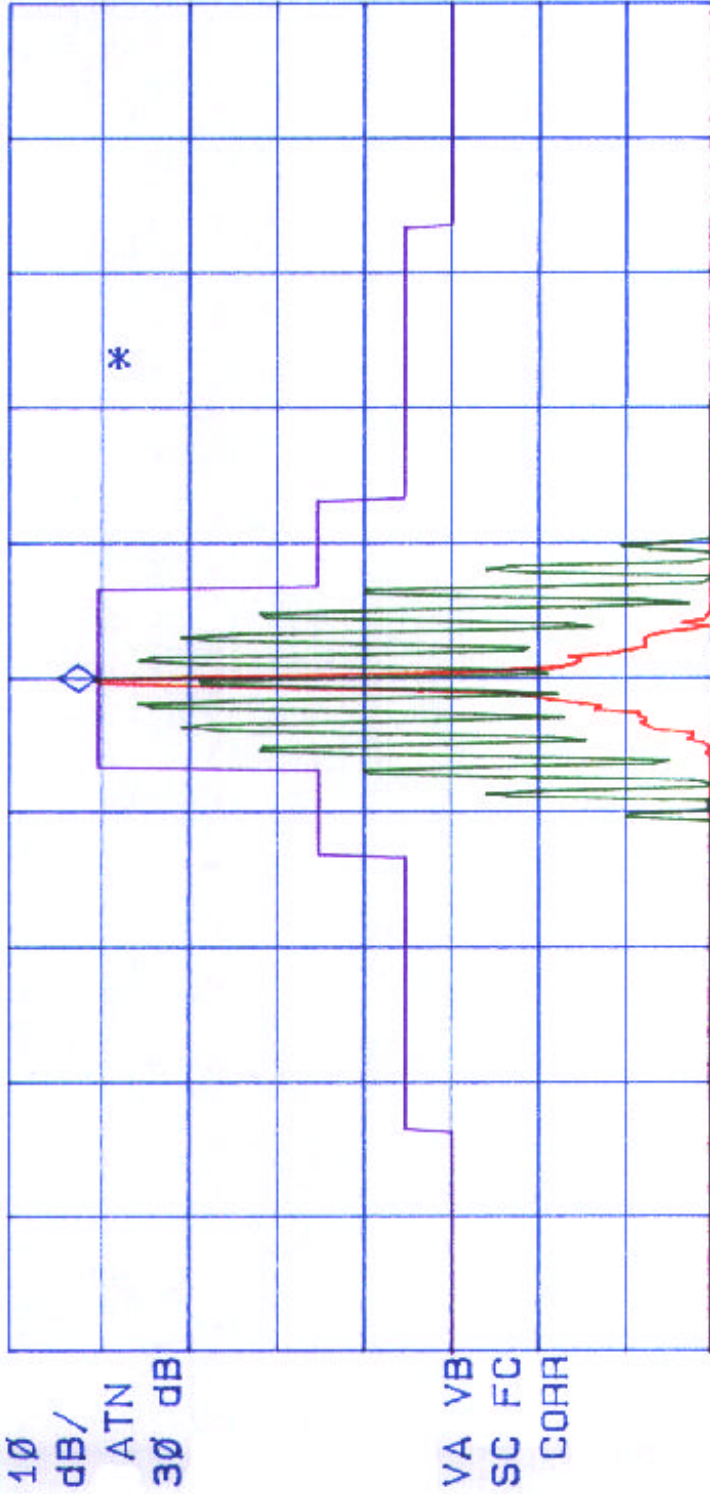
Date: Jan. 22, 2000  
Tested by: Hung Trinh

REF LEVEL  
35.6 dBm

ACTV DET: PEAK  
MEAS DET: PEAK QP AVG  
MKR 869.0019 MHz  
25.55 dBm

REF OFFST 20.8 dB MASK B (RF OUT)

LOG 10 dB/ ATN 30 dB



CENTER 869.0019 MHz  
#IF BW 300 Hz

AVG BW 300 Hz

SPAN 150.0 kHz  
SWP 5.00 sec

**PLOT #26**