

Oct. 27, 1998

FEDERAL COMMUNICATIONS COMMISSION
Equipment Authorization Division, Applications Processing Branch
7435 Oakland Mills Road
Columbia, MD 21046

Re: 5800 Next Generation Test Data Submitted to the FCC
FCC ID: LB45800NG

The test data measured by Ortel for the 5800 Next Generation is in accordance as outlined per the FCC requirements in Parts 22.917. All the test data taken was also in accordance to the guidelines set forth by the FCC via fax and verbal communication.

Sincerely,

A handwritten signature in black ink, appearing to read 'Toan Tran', with a stylized flourish at the end.

Toan Tran



May 06, 1998

FEDERAL COMMUNICATIONS COMMISSION
Equipment Authorization Division, Applications Processing Branch
7435 Oakland Mills Road
Columbia, MD 21046

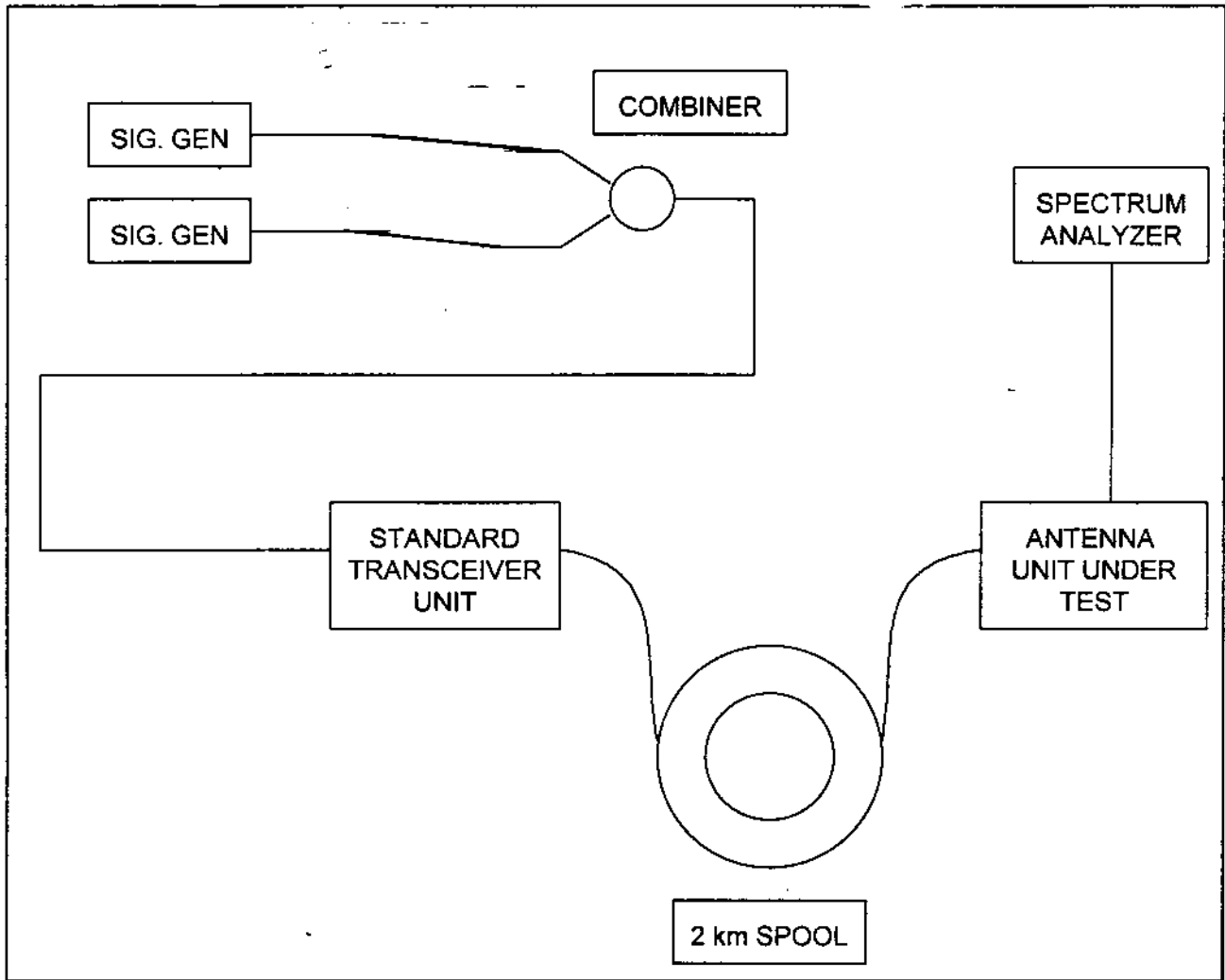
Product: 5800 Next Generation
Re: Test Data Submitted to the FCC
FCC ID: LB45800NG

The test data measured by Ortel for the 5800 Next Generation Fiberoptic Transceiver Plug-in and Antenna unit is in accordance as outlined per the FCC requirements in Parts 2.985, 2.989, 2.991 and 24.238. Additionally, the data for intermodulation and input/output spreading were measured also in accordance to the guidelines set forth by the FCC via fax and verbal communication.

Sincerely,

Toan Tran
Quality Engineering Section Head

5800 Next Gen. Test Setup



5800 Next Generation FCC/IC

Test Equipment List

1. HP 8648B 100KHz – 2000MHz Signal Generator
2. HP8648C 100KHZ – 3200MHz Signal Generator
3. HP8563E Spectrum Analyzer
4. MCLI PS2-3 Combiner
5. HP7470A Plotter
6. TPS-4000 Power Supply

DL HIGH FREQ.
(893.8MHz)

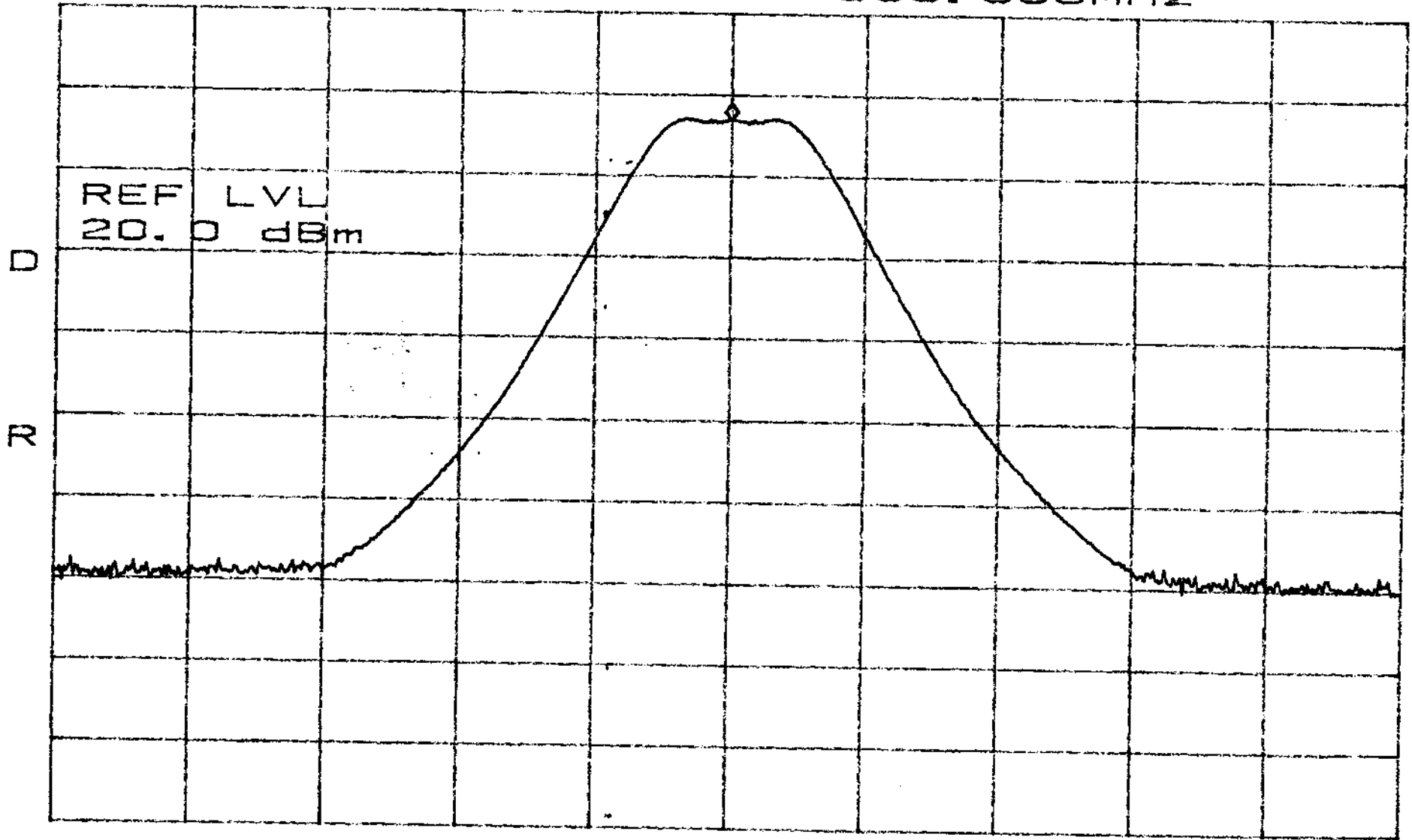
OCCUPIED BW
MAX HOLD

3/25/98

ATTEN 30dB
BPOB
RL 20.0dBm

10dB/

MKR 7.00dBm
893.800MHz



CENTER 893.800MHz
*RBW 100kHz *VBW 100kHz

SPAN 2.000MHz
SWP 50.0ms

MID
DL ~~HIGH~~ FREQ.
(881.5 MHz)

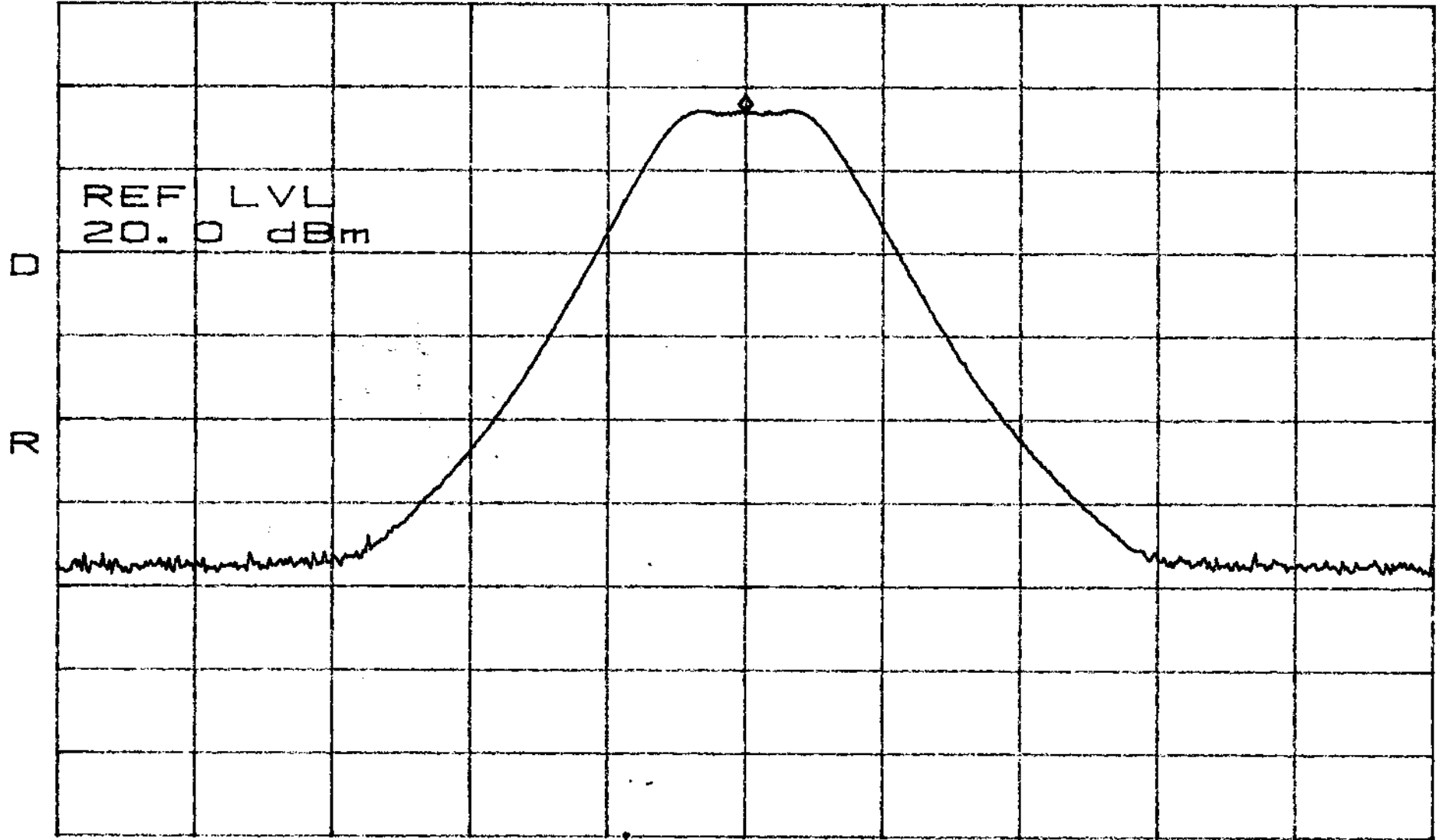
OCCUPIED BW
MAX HOLD

3/25/98

ATTEN 30dB
RL 20.0dBm

10dB/

MKR 7.00dBm
881.500MHz



CENTER 881.500MHz
*RBW 100kHz *VBW 100kHz

SPAN 2.000MHz
SWP 50.0ms

DL LOW FREQ.
(869.2 MHz)

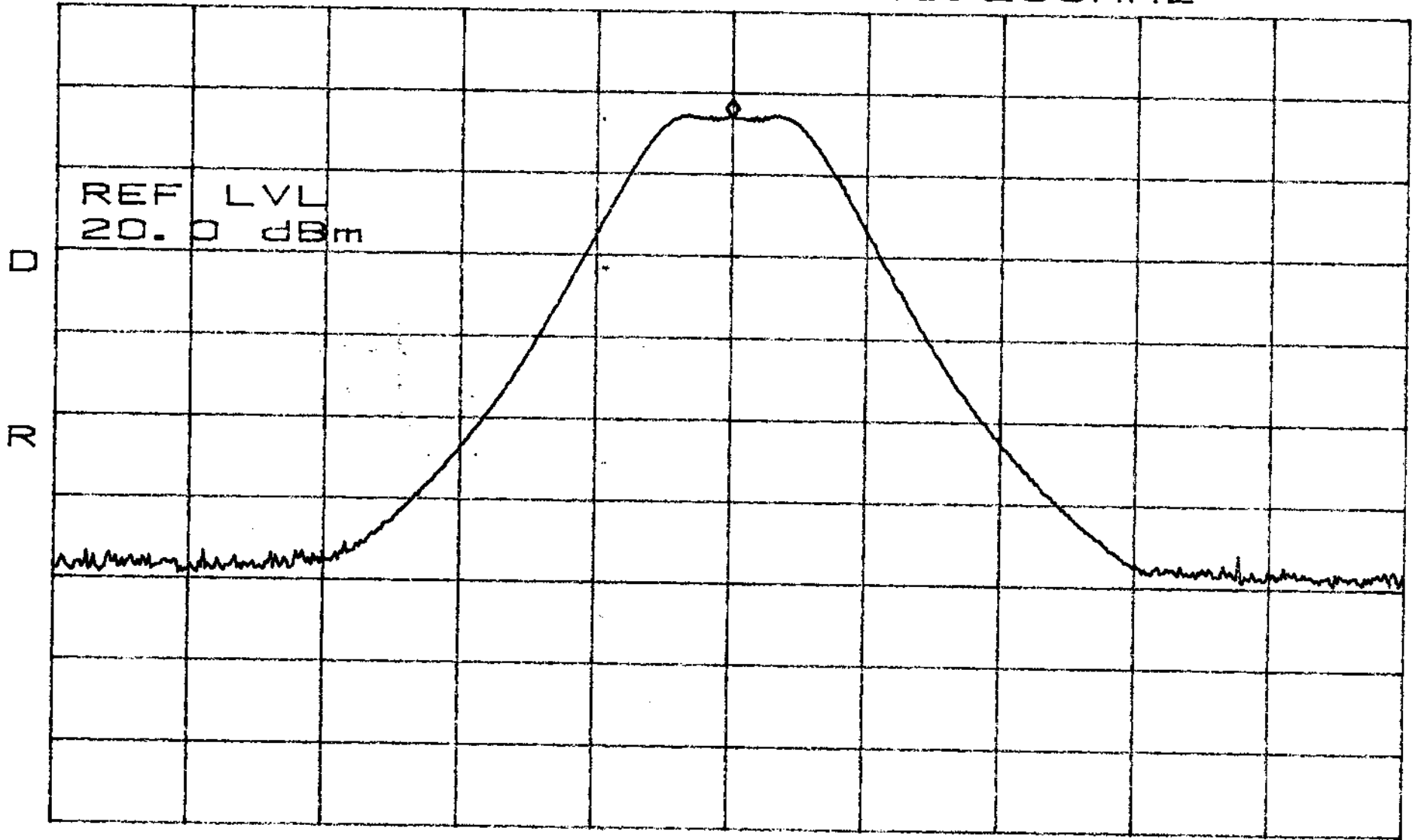
OCCUPIED BW
MAX HOLD

3/25/98

ATTEN 30dB
RL 20.0dBm

10dB/

MKR 7.17dBm
869.200MHz



CENTER 869.200MHz
*RBW 100kHz *VBW 100kHz

SPAN 2.000MHz
SWP 50.0ms

DL HIGH FREQ.
(893.8 MHz)

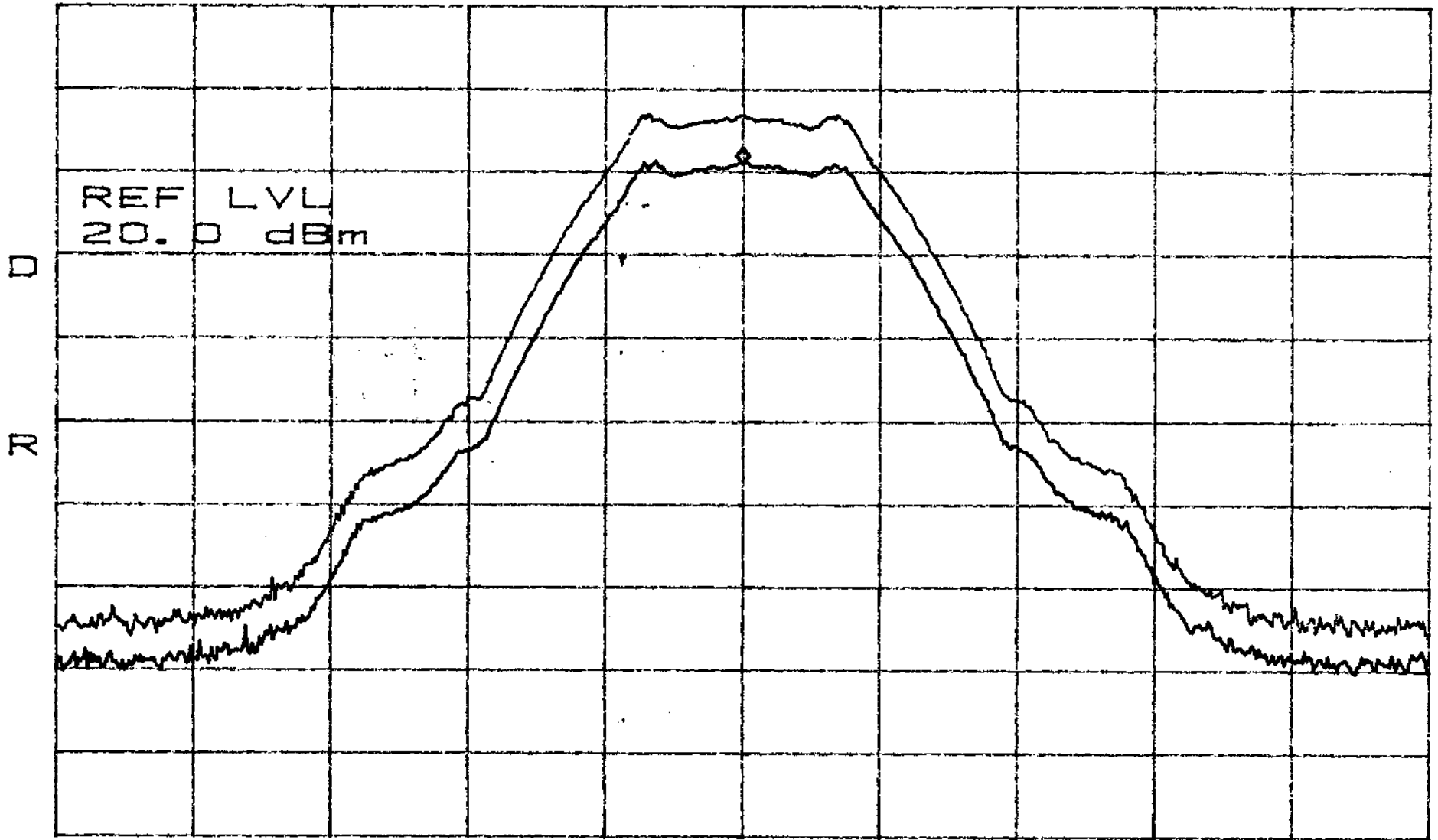
IN/OUT
MAX HOLD

3/25/98

ATTEN 30dB
RL 20.0dBm

10dB/

MKR 1.00dBm
893.800MHz



CENTER 893.800MHz
*RBW 30kHz *VBW 30kHz

SPAN 1.000MHz
SWP 50.0ms

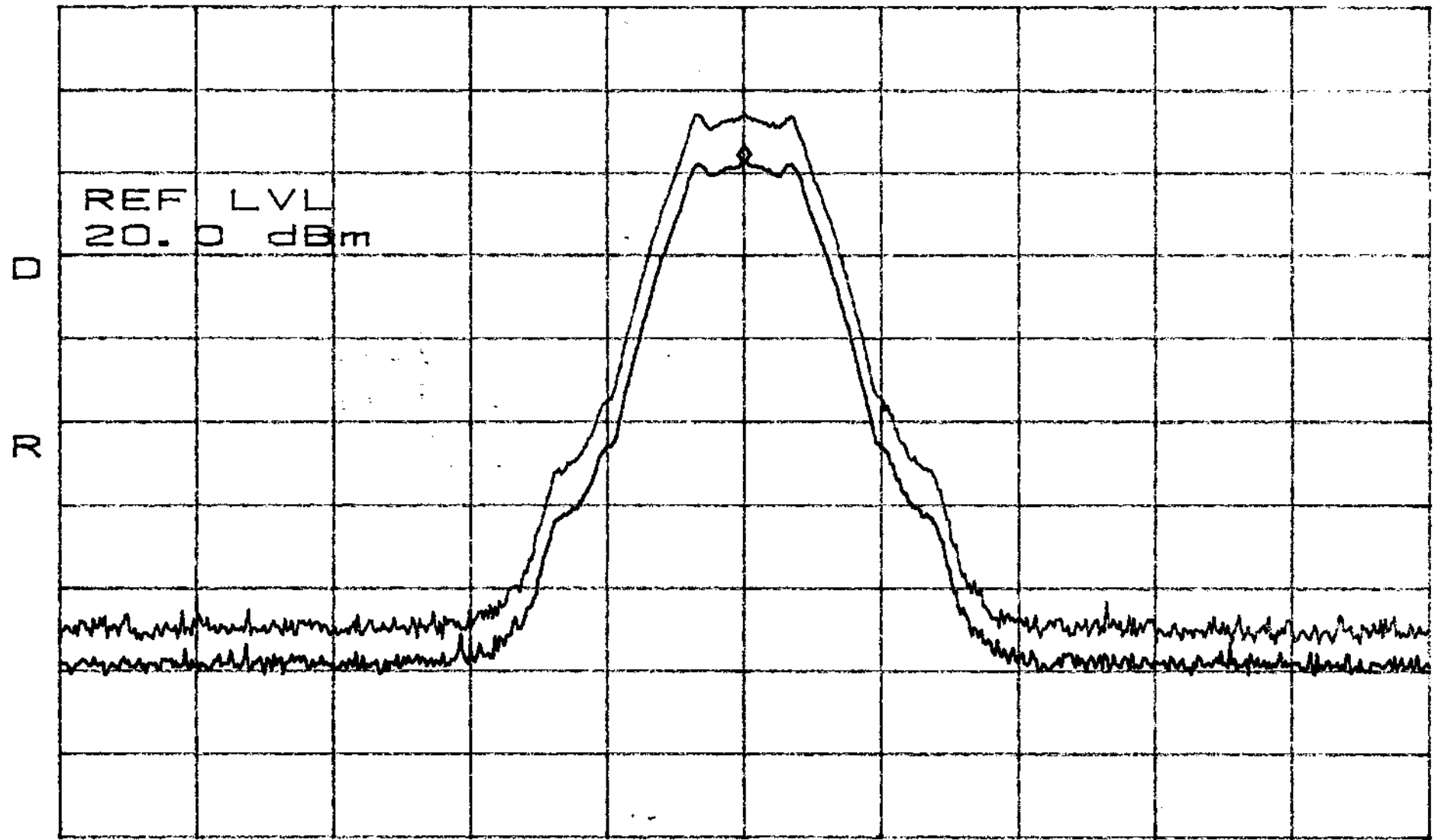
DL HIGH FREQ.
(893.8 MHz)

IN/OUT
MAX HOLD

3/25/98

ATTEN 30dB
BPOB
RL 20.0dBm

MKR 1.33dBm
ZHM008.893.800MHz



CENTER 893.800MHz
*RBW 30kHz *VBW 30kHz

SPAN 2.000MHz
SWP 50.0ms

DL MID. FREQ.
(881.5 MHz)

IN/OUT

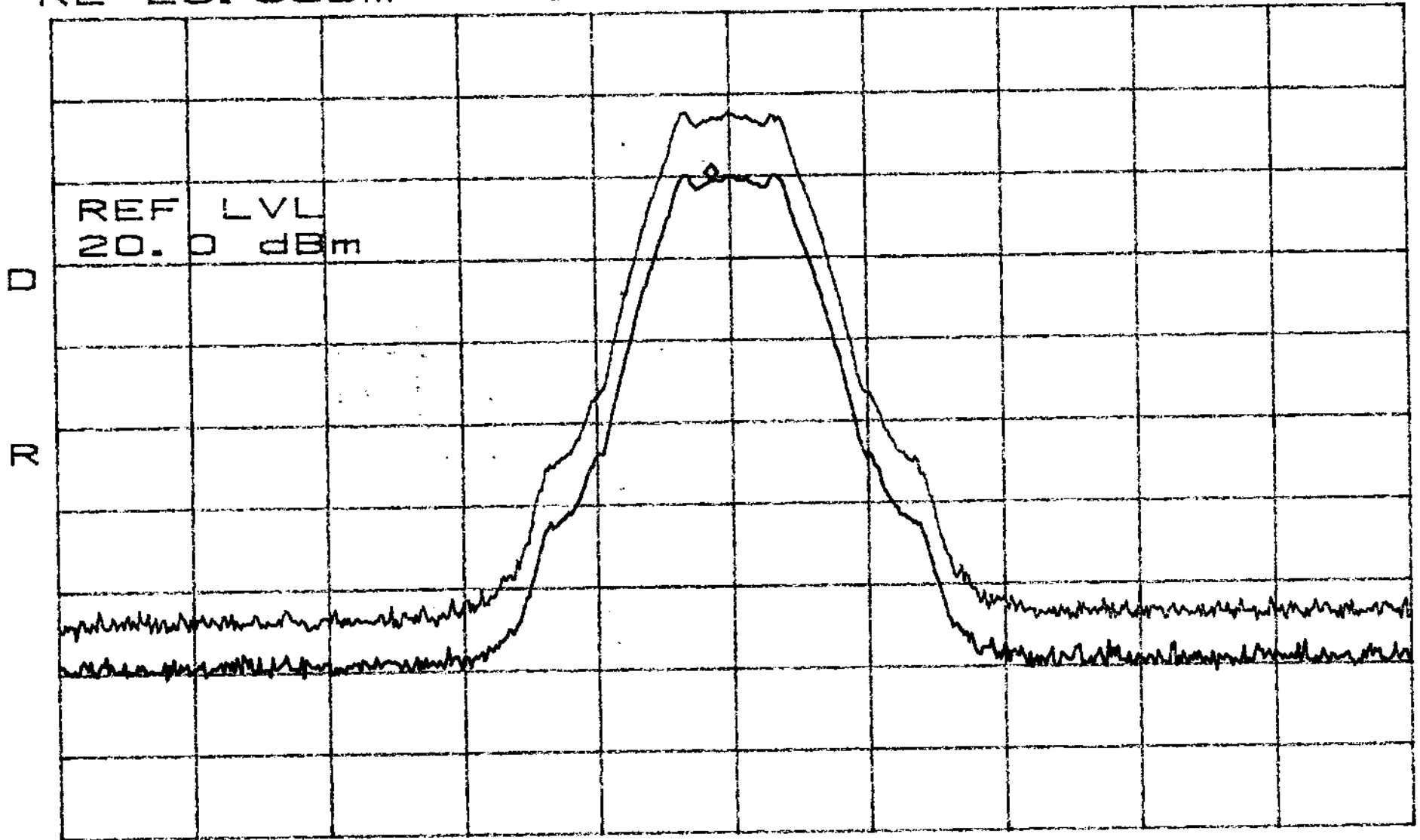
3/25/98

MAX HOLD

ATTEN 30dB
RL 20.0dBm

MKR -.50dBm
881.473MHz

10dB/



CENTER 881.500MHz
*RBW 30kHz *VBW 30kHz

SPAN 2.000MHz
SWP 50.0ms

MID FREQ.
(881.5 MHz)

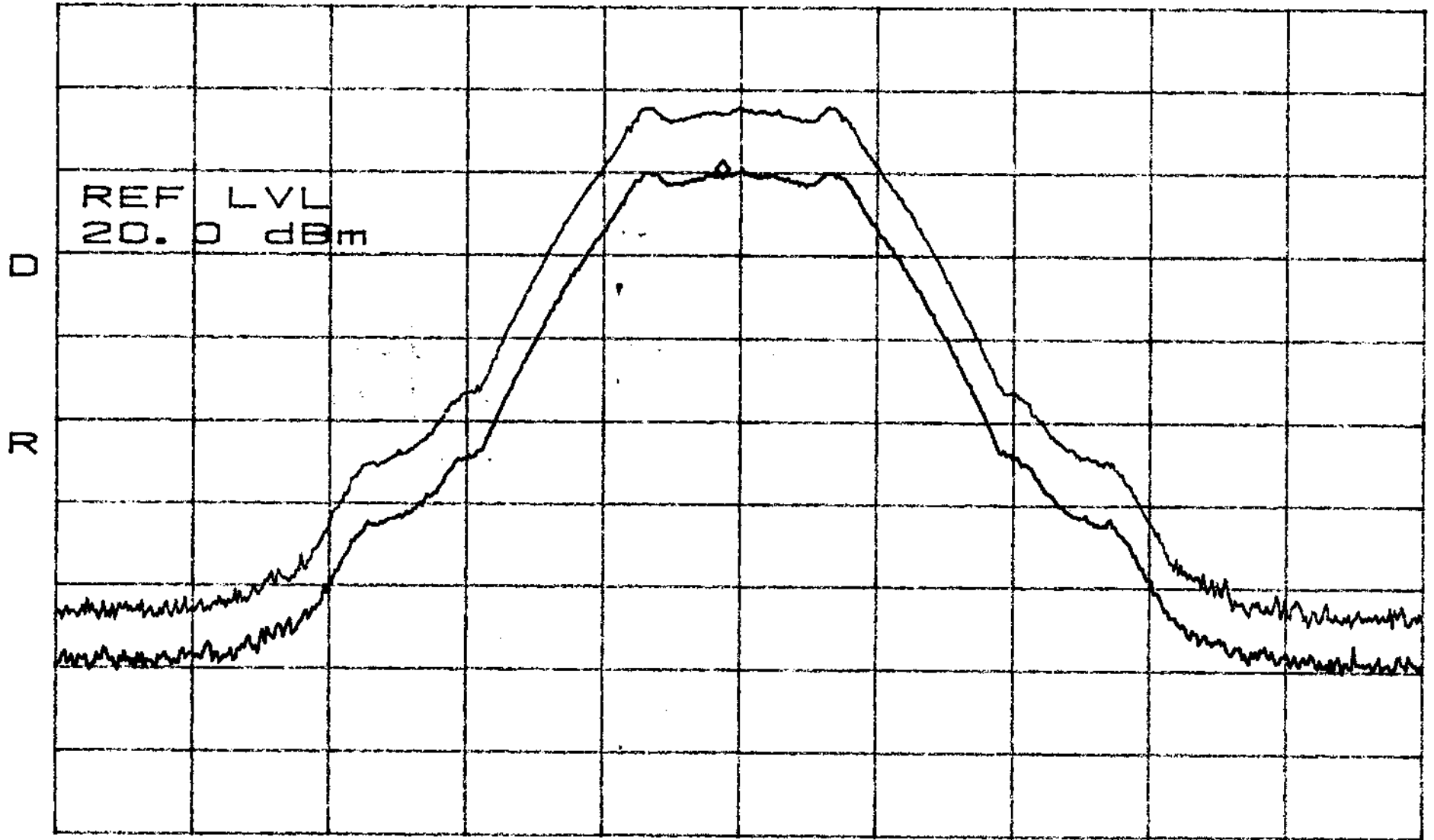
IN/OUT

3/25/98

MAX HOLD

ATTEN 30dB
RL 20.0dBm

MKR -.50dBm
881.487MHz



CENTER 881.500MHz
*RBW 30kHz *VBW 30kHz

SPAN 1.000MHz
SWP 50.0ms

DL LOW FREQ.
(869.2 MHz)

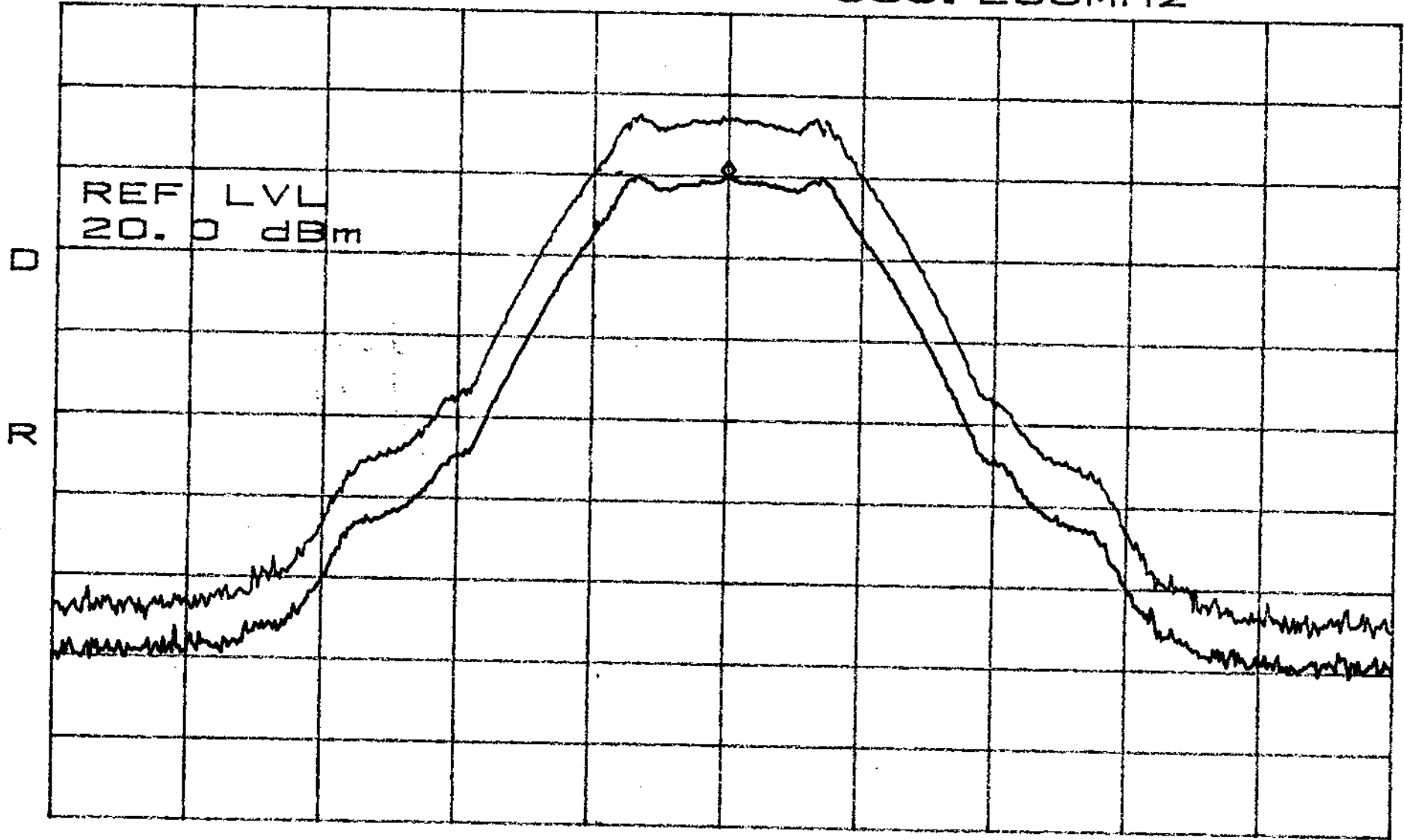
IN/OUT
MAX HOLD

3/25/98

ATTEN 30dB
RL 20.0dBm

10dB/

MKR -.17dBm
869.200MHz



CENTER 869.200MHz
*RBW 30kHz *VBW 30kHz

SPAN 1.000MHz
SWP 50.0ms

DL LOW FREQ.
(869.2 MHz)

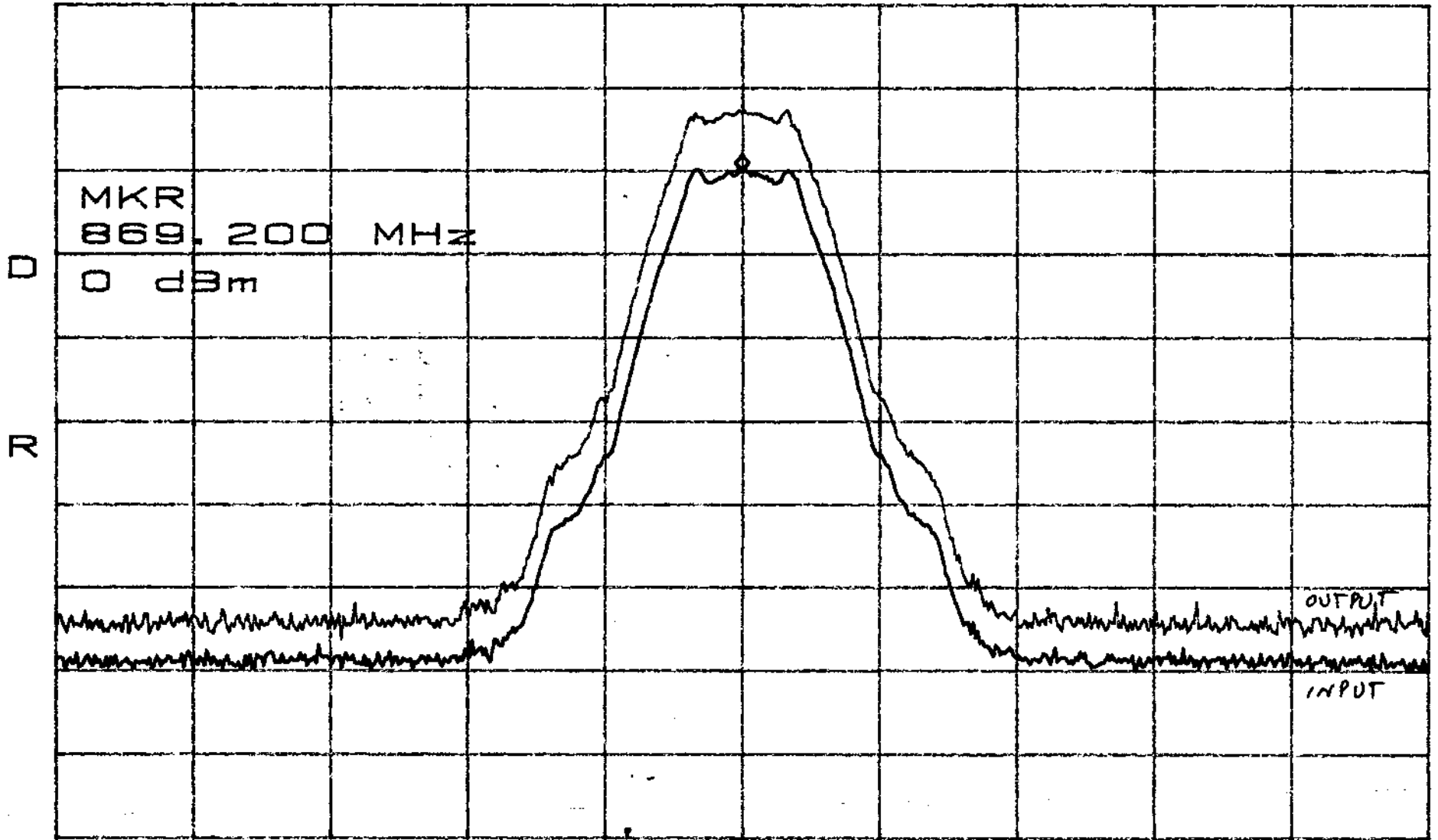
IN/OUT
MAX HOLD

3/25/98

ATTEN 30dB
RL 20.0dBm

MKR 0dBm
869.200MHz

1dB/



CENTER 869.200MHz
*RBW 30kHz *VBW 30kHz

SPAN 2.000MHz
SWP 50.0ms

DL LOW FREQ.
(869.2 MHz)

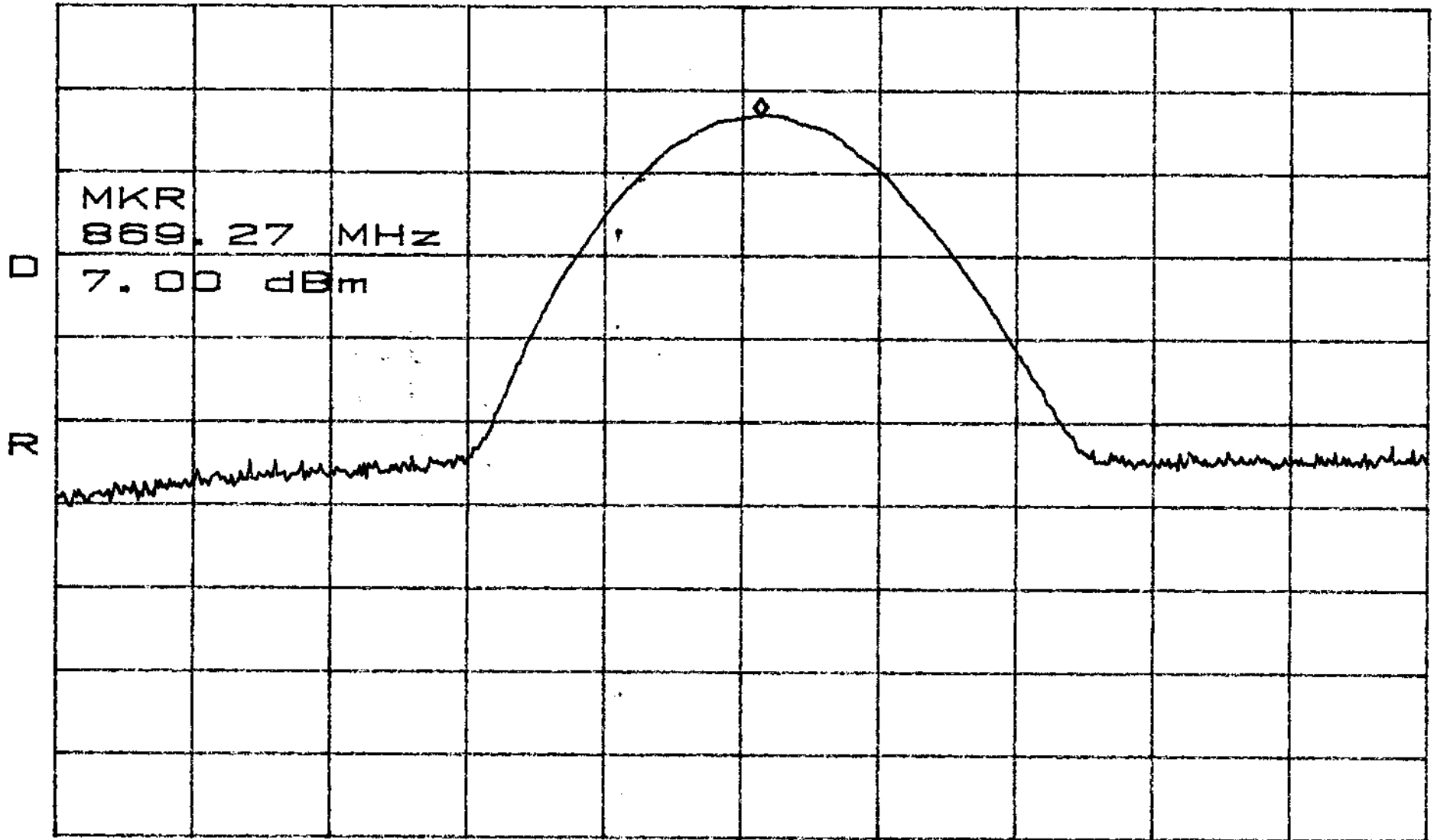
RF OUTPUT
MAX HOLD

3/25/98

ATTEN 30dB
RL 20.0dBm

10dB/

MKR 7.00dBm
869.27MHz



CENTER 869.00MHz
*RBW 2.0MHz

VBW 3.0MHz

SPAN 20.00MHz
SWP 50.0ms

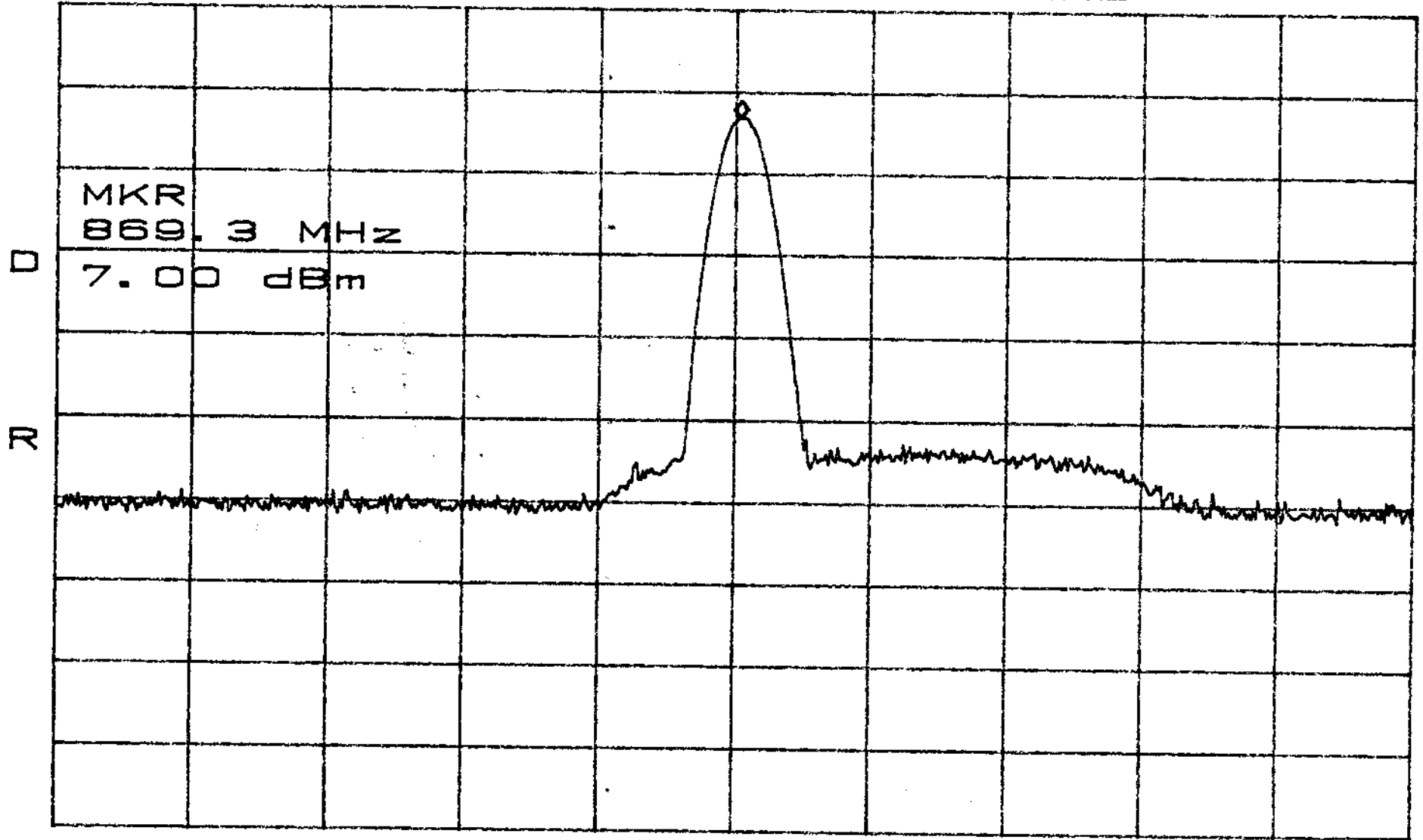
DL LOW FREQ
(869.2 MHz)

RF OUTPUT
MAX HOLD

3/25/98

ATTEN 30dB
BPOE 30dB
RL 20.0dBm

MKR 7.00dBm
ZHM6.698
1/BPO1



CENTER 869.0MHz
*RBW 2.0MHz VBW 3.0MHz

SPAN 100.0MHz
SWP 50.0ms

DL HIGH FREQ.
(893.8 MHz)

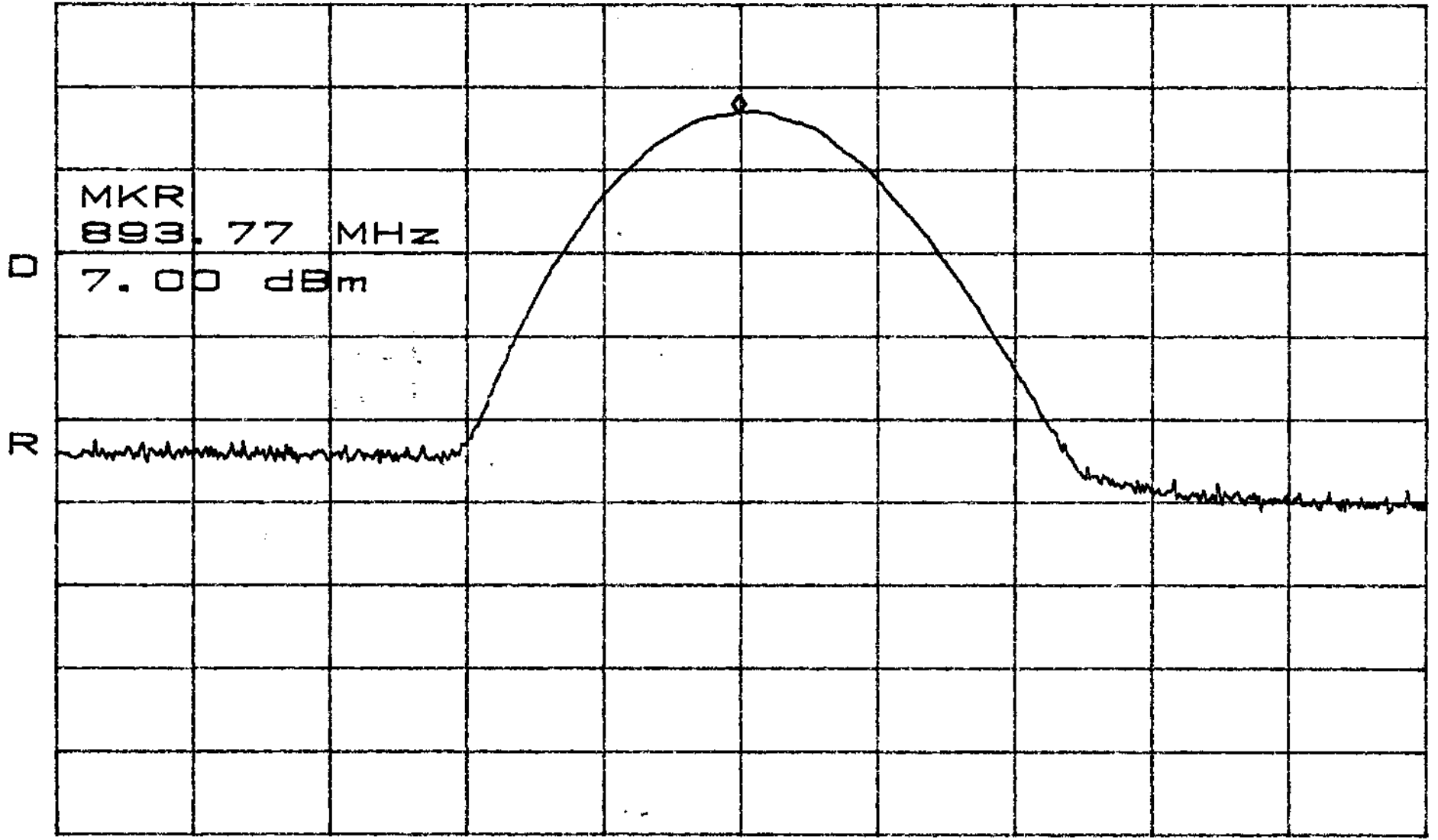
RF OUTPUT
MAX HOLD

3/25/98

ATTEN 30dB
BPOE
RL 20.0dBm

10dB/

MKR 7.00dBm
893.77MHz



CENTER 893.80MHz SPAN 20.00MHz
 *RBW 2.0MHz VBW 3.0MHz SWP 50.0ms

DL MID FREQ.
(881.5MHz)

RF OUTPUT
MAX HOLD

3/25/98

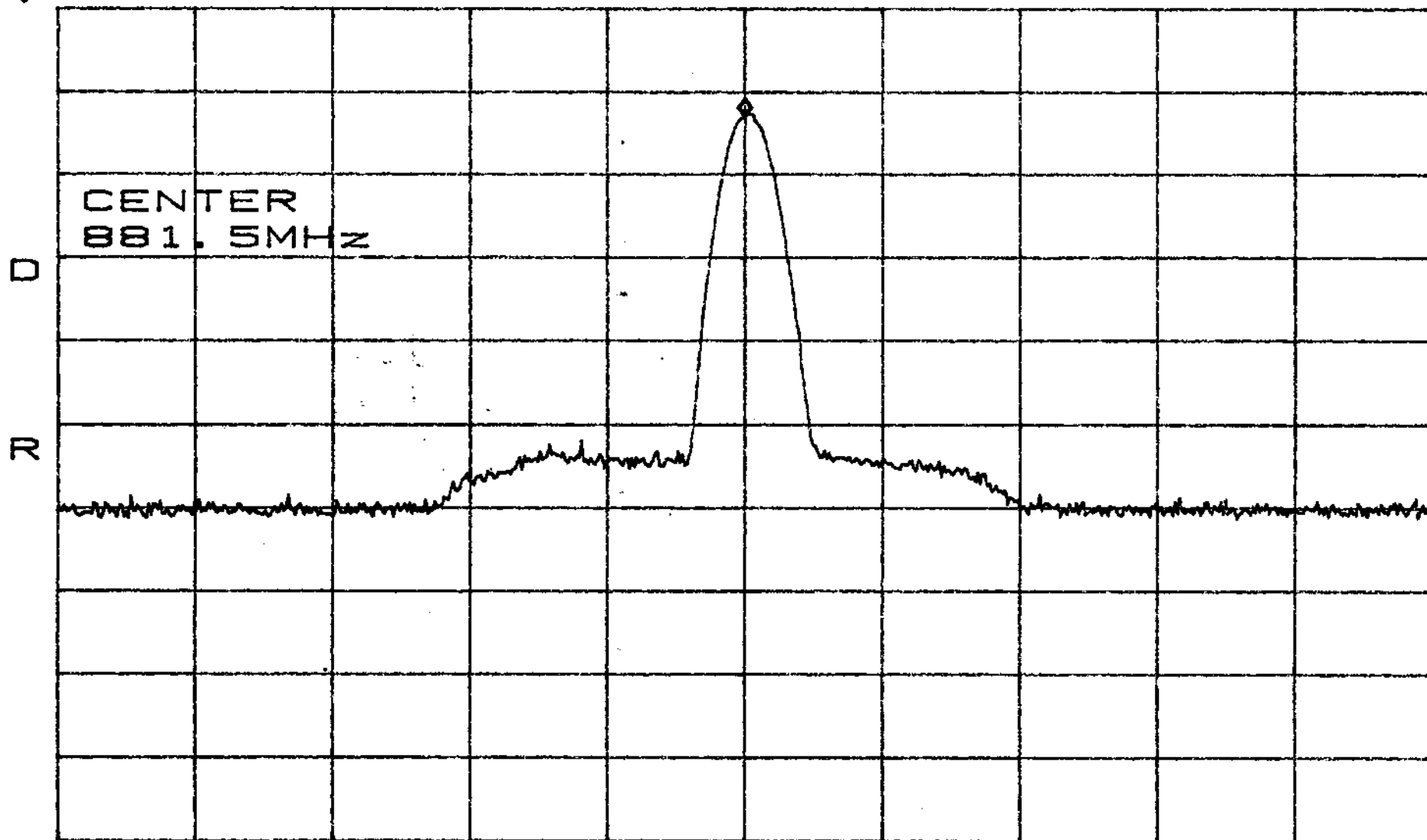
ATTEN 30dB

MKR 7.17dBm

RL 20.0dBm

10dB/

881.5MHz



CENTER 881.5MHz

SPAN 100.0MHz

*RBW 2.0MHz

VBW 3.0MHz

SWP 50.0ms

DL MID FREQ.
(881.5 MHz)

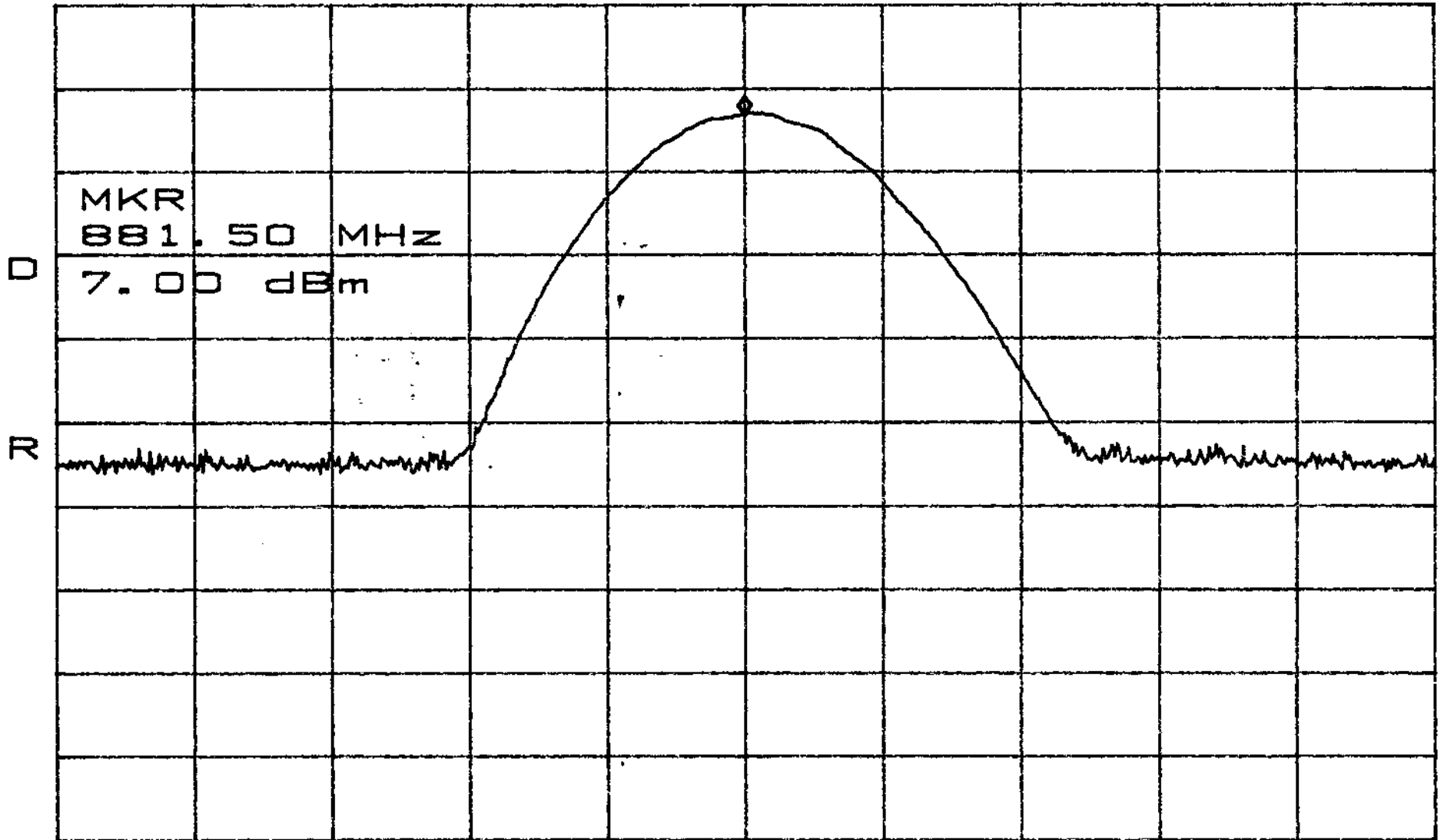
RF OUTPUT
MAX HOLD

3/25/98

ATTEN 30dB
RL 20.0dBm

1dB/

MKR 7.00dBm
881.50MHz



CENTER 881.50MHz
*RBW 2.0MHz

VBW 3.0MHz

SPAN 20.00MHz
SWP 50.0ms

DL ^{HIGH} FREQ.
(869.2 MHz)

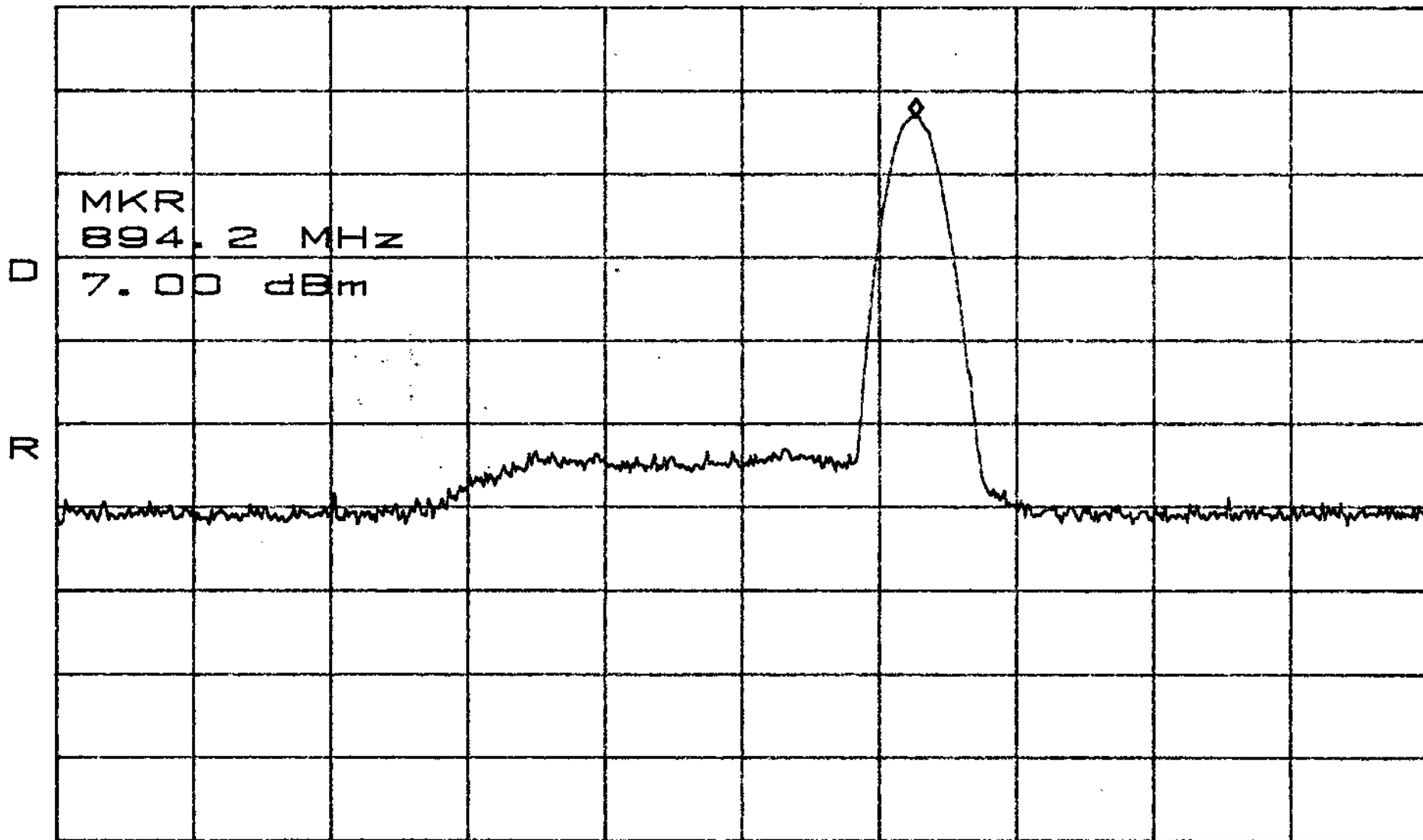
RF OUTPUT
MAX HOLD

3/25/98

ATTEN 30dB
RL 20.0dBm

10dB/

MKR 7.00dBm
894.2MHz



CENTER 881.5MHz
*RBW 2.0MHz VBW 3.0MHz

SPAN 100.0MHz
SWP 50.0ms

22.917 DATE 11/13/98

HIGH FREQ.

*ATTEN 30dB
RL 7.0dBm

Δ MKR -63.33dB
1.789GHz



START 840MHz

STOP 2.900GHz

*RBW 30kHz

*VBW 30kHz

SWP 5.80sec

22.917

DATE 11/13/98

MID. FREQ.

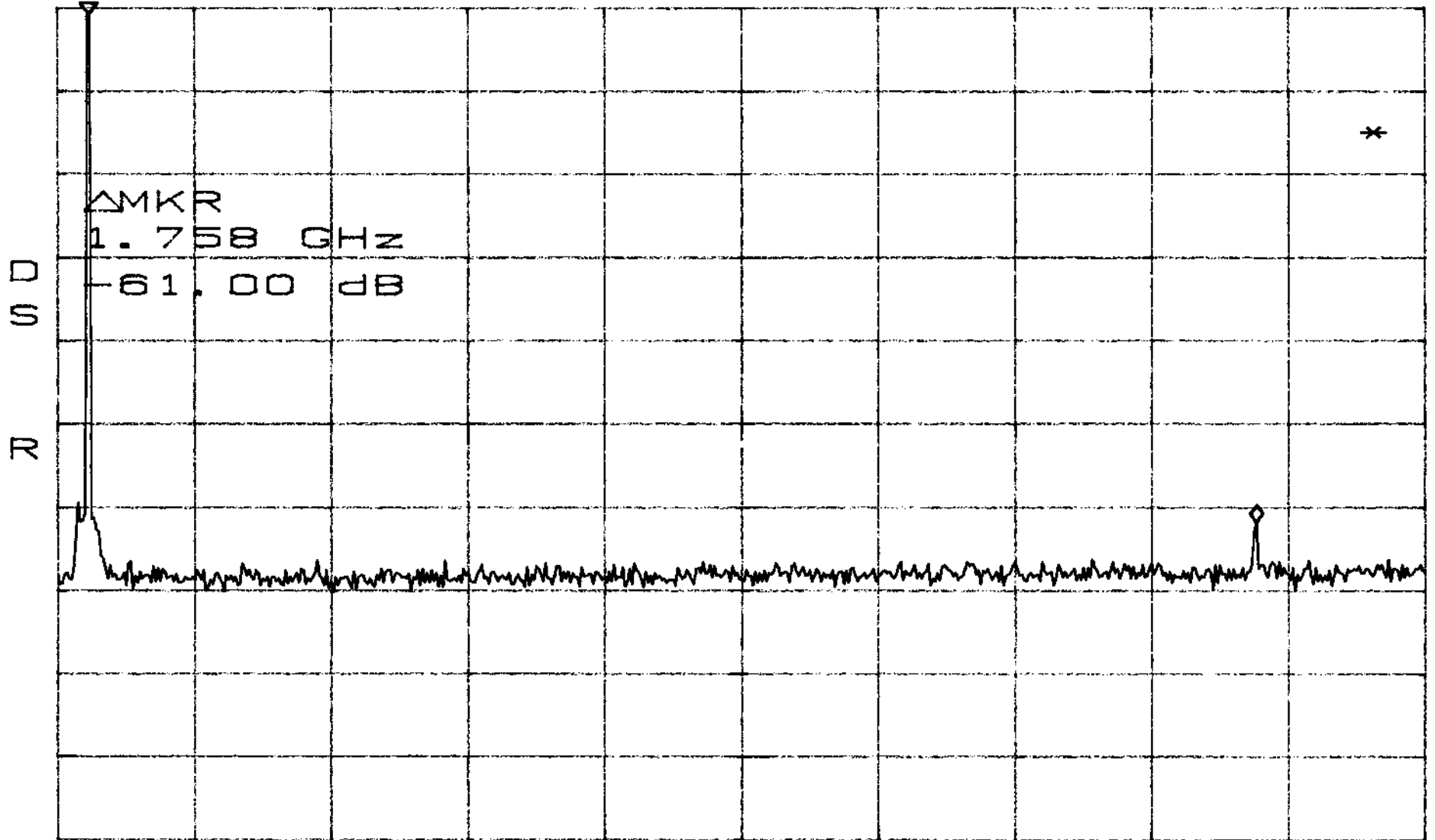
*ATTEN 30dB

ΔMKR -61.00dB

RL 7.0dBm

10dB/

1.758GHz



START 840MHz

STOP 2.900GHz

*RBW 30kHz

*VBW 30kHz

SWP 5.80sec

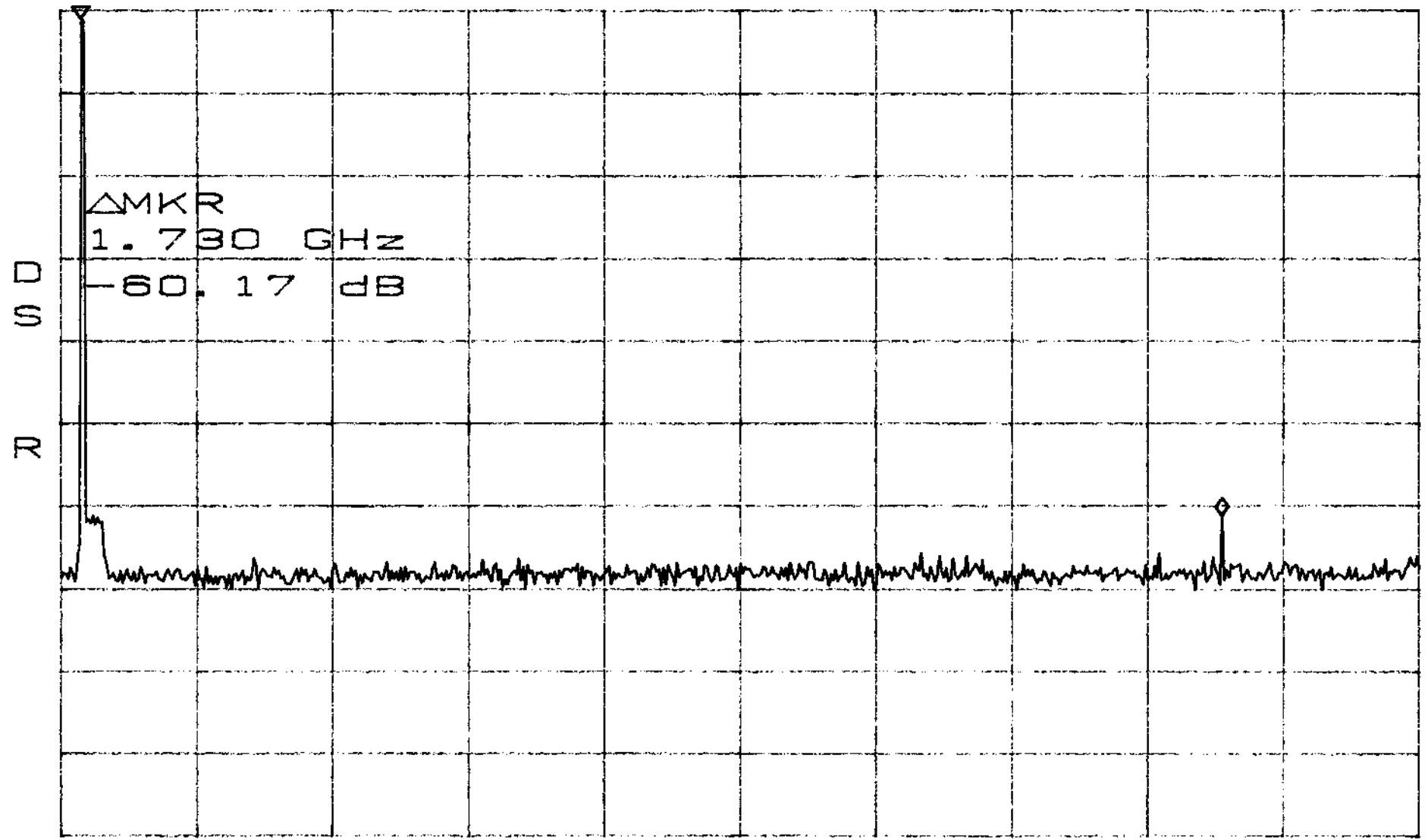
22.917 DATE: 11/13/98

LOW FREQ.

*ATTEN 30dB
RL 7.0dBm

ΔMKR -60.17dB
1.730GHz

10dB/



START 840MHz

STOP 2.900GHz

*RBW 30kHz

*VBW 30kHz

SWP 5.80sec

22.917 DATE 11/13/98

MID FREQ.

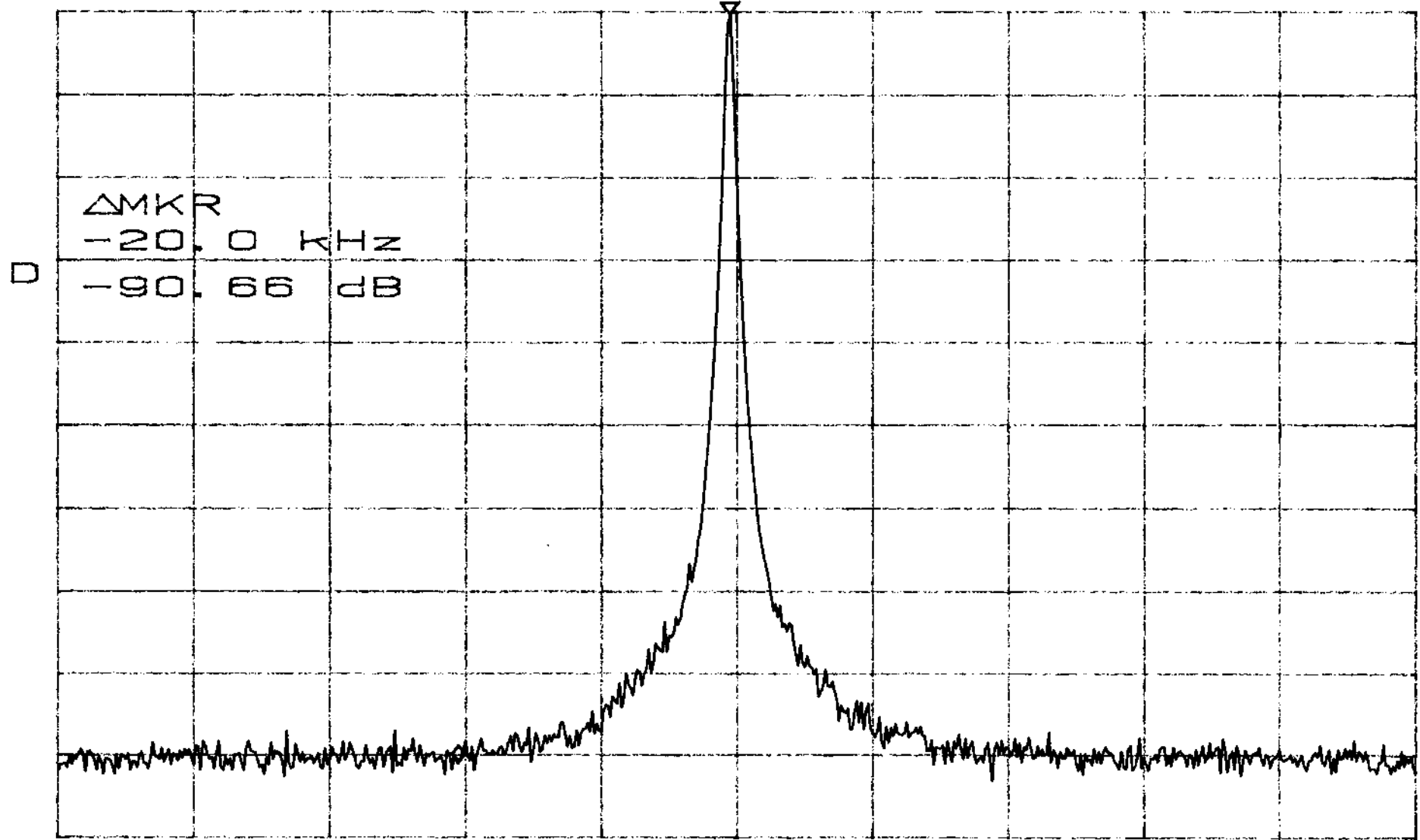
*ATTEN 30dB

Δ MKR -90.66dB

RL 7.0dBm

10dB/

-20.0kHz



Δ MKR
 -20.0 kHz
 -90.66 dB

CENTER 881.5000MHz

SPAN 100.0kHz

*RBW 300Hz

*VBW 10Hz

SWP 84.0sec

22.917 DATE 11/13/98

HIGH FREQ

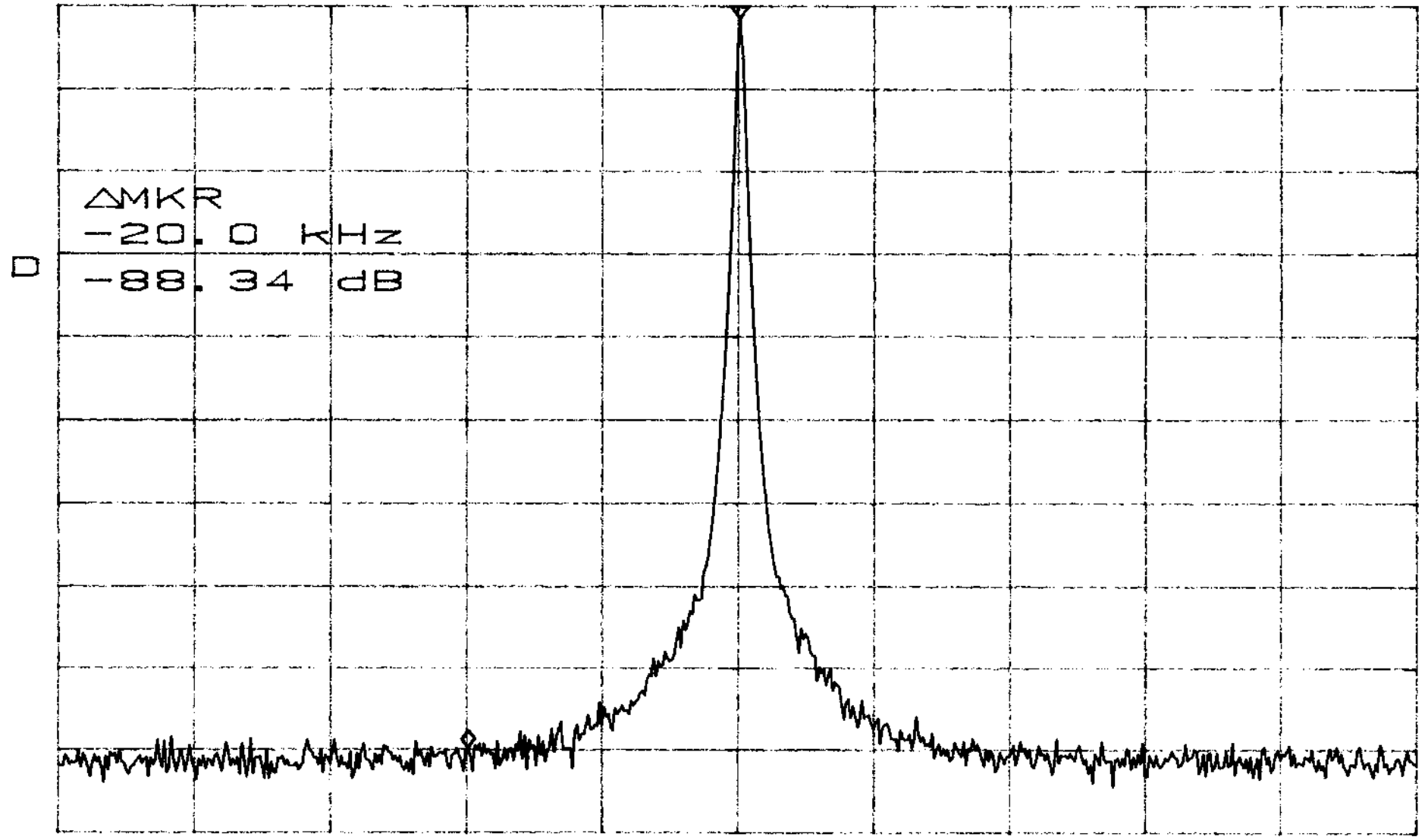
*ATTEN 30dB

ΔMKR -88.34dB

RL 7.0dBm

10dB/

-20.0kHz



ΔMKR
 -20.0 kHz
 -88.34 dB

CENTER 893.9993MHz

SPAN 100.0kHz

*RBW 300Hz

*VBW 10Hz

SWP 84.0sec

22.917

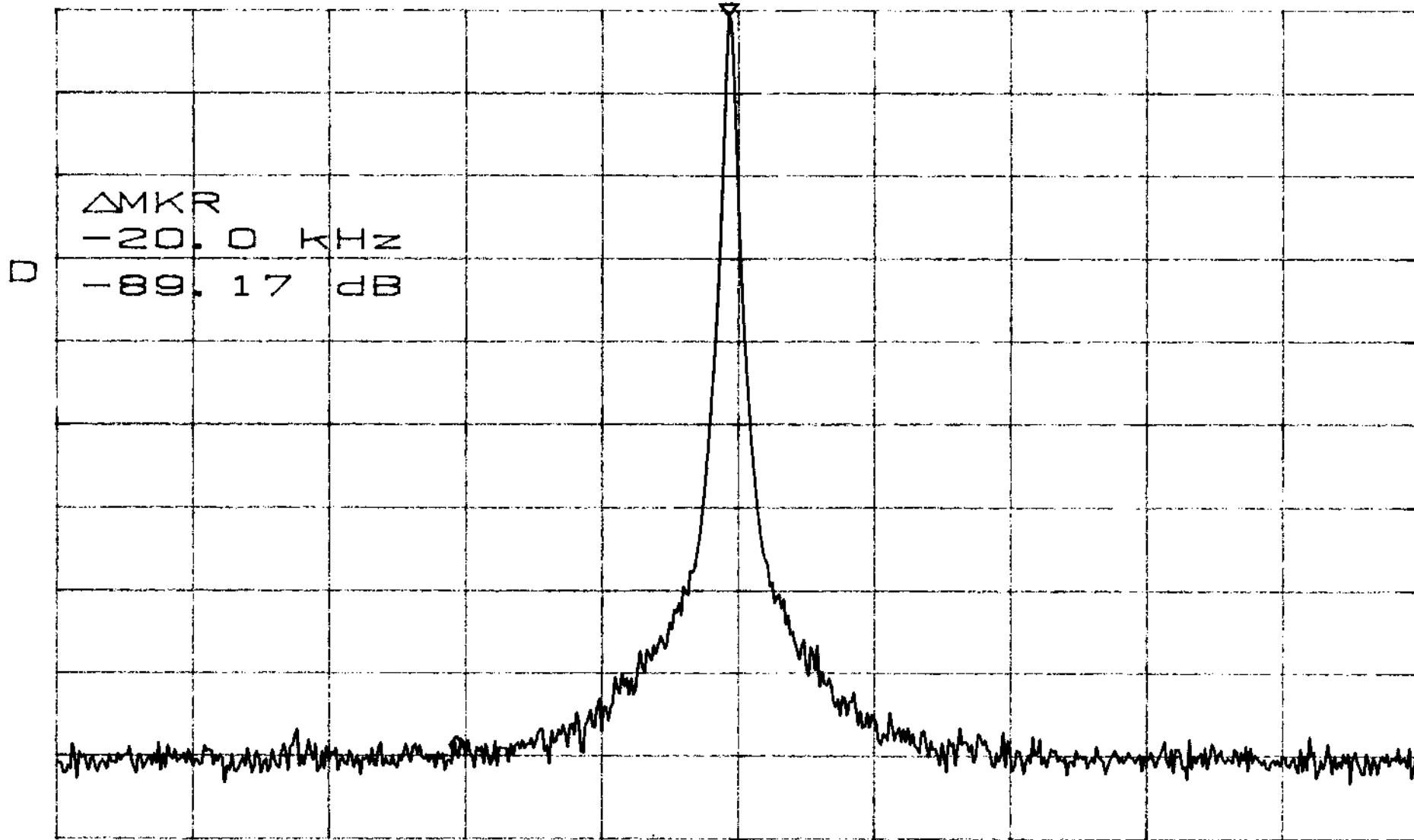
DATE 11/13/98

LOW FREQ.

*ATTEN 30dB
RL 7.0dBm

Δ MKR -89.17dB
-20.0kHz

10dB/



Δ MKR
-20.0 kHz
-89.17 dB

D

CENTER 869.0000MHz

SPAN 100.0kHz

*RBW 300Hz

*VBW 10Hz

SWP 84.0sec

22.917

Date 11/6/98

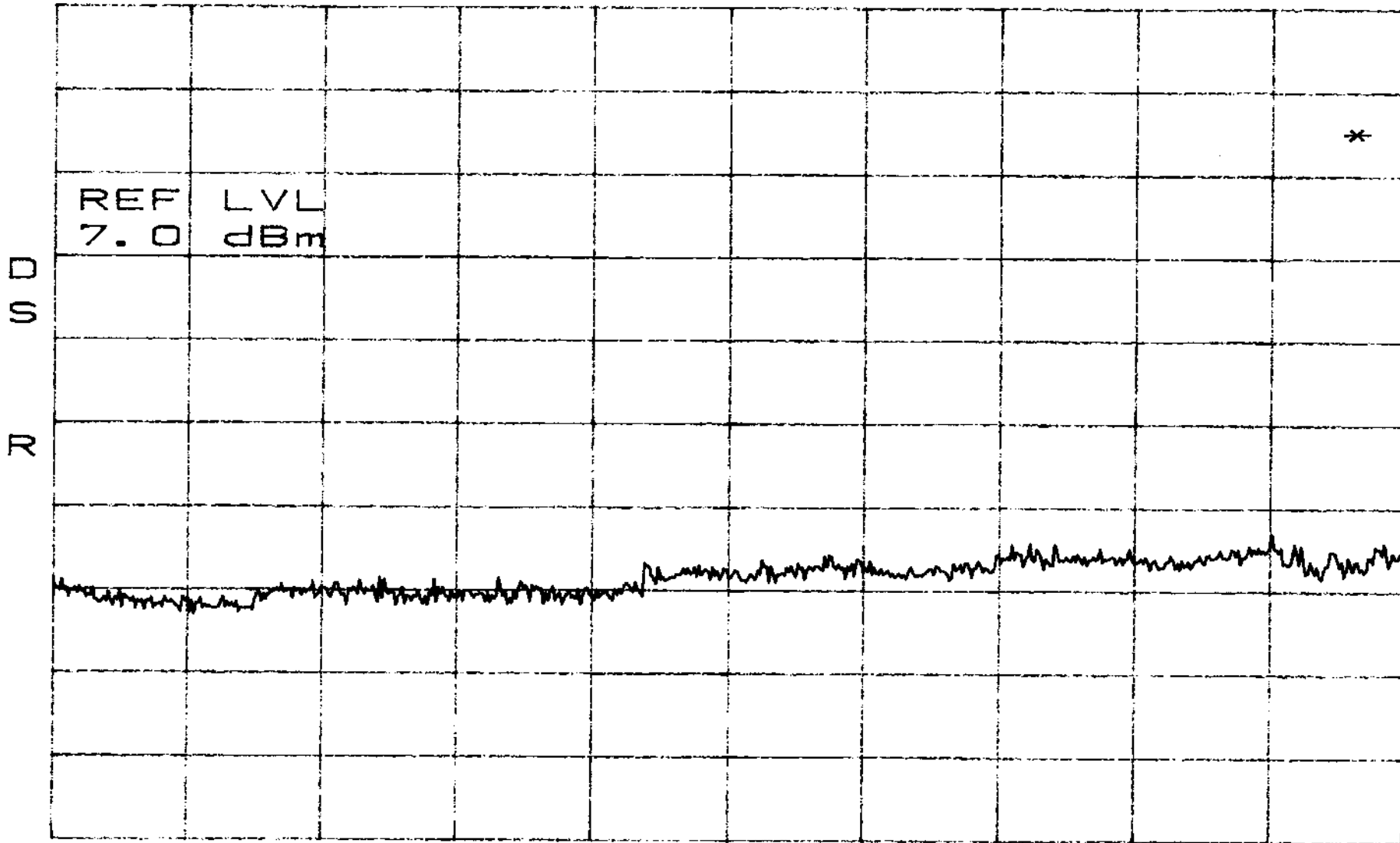
Low FREQ.

12.991

*ATTEN 20dB

RL 7.0dBm

10dB/



REF LVL
7.0 dBm

dB
MHz

START 2.90GHz

STOP 26.50GHz

*RBW 100kHz

VBW 100kHz

SWP 5.90sec

22.917

Date 11/6/98

MID. FREQ.

9.2991

use RBW of 30kHz

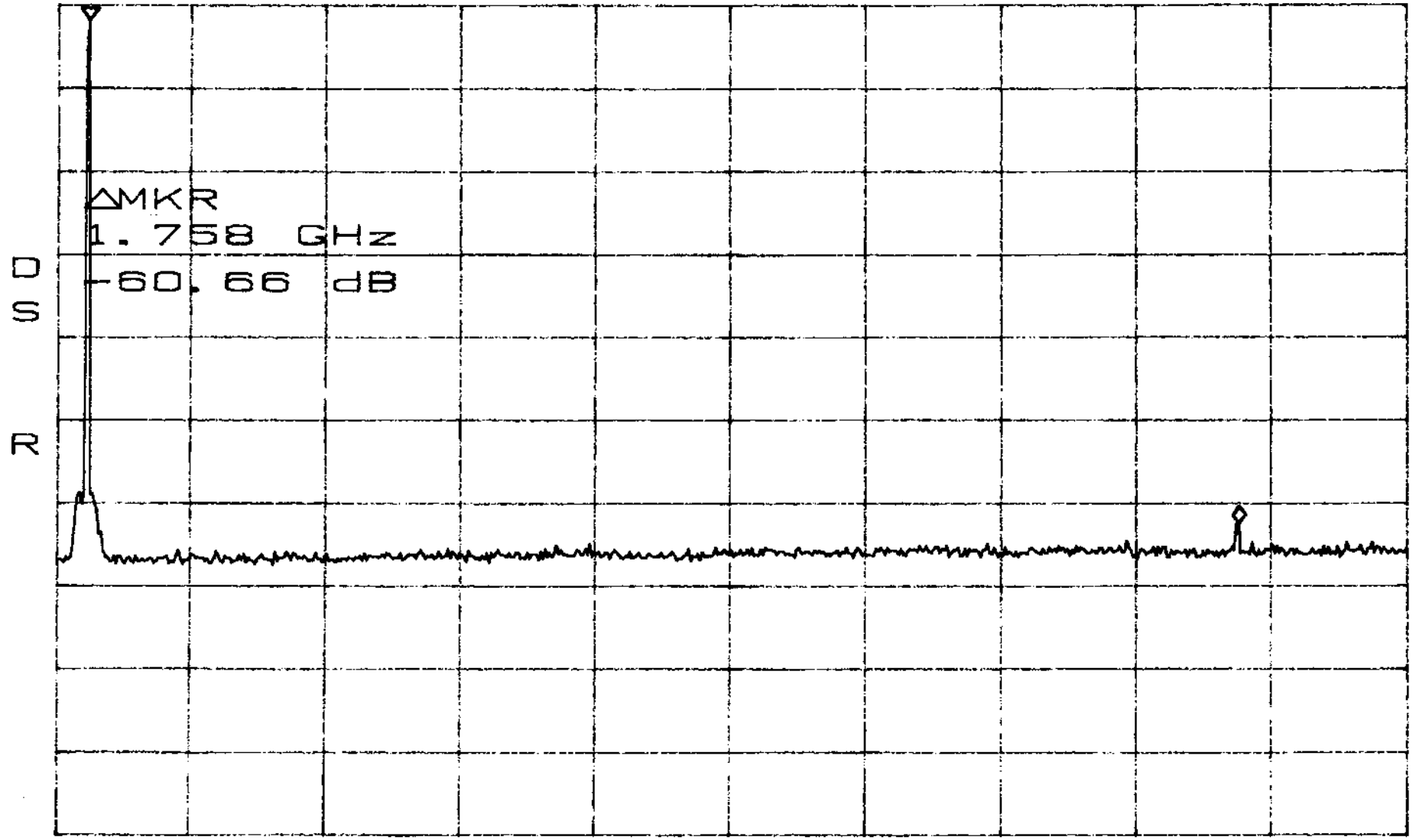
*ATTEN 30dB

ΔMKR -60.66dB

RL 7.0dBm

10dB/

1.758GHz



START 840MHz

STOP 2.900GHz

*RBW 300kHz

*VBW 10kHz

SWP 1.80sec

Nov-09-98 04:39P

P.07

22917

Date 11/6/98

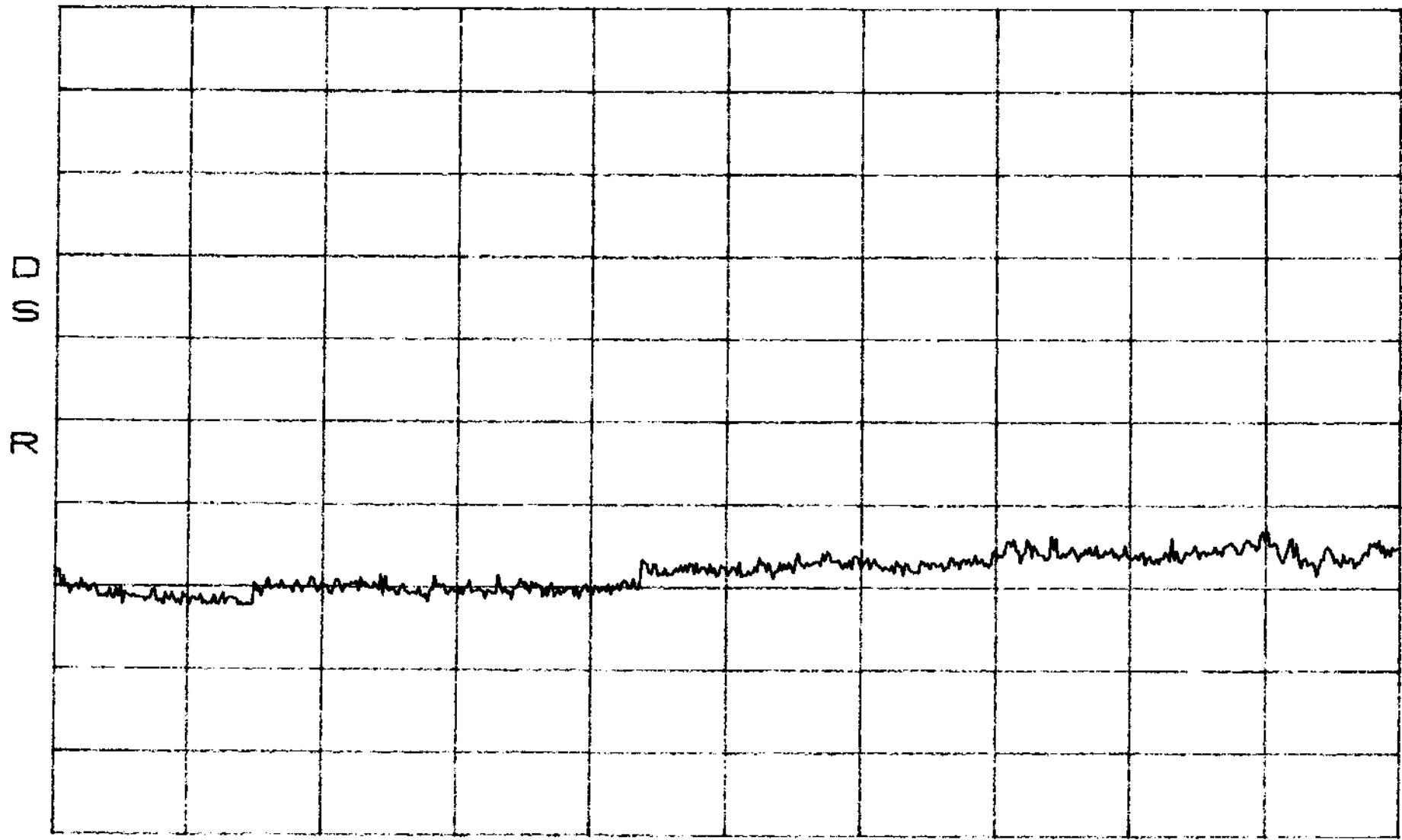
MID. FREQ.

62991

*ATTEN 20dB

RL 7.0dBm

10dB/



START 2.90GHz

STOP 26.50GHz

*RBW 100kHz

VBW 100kHz

SWP 5.90sec

22917

Date 11/6/98

HIGH FREQ.

2.991

Use RBW of 30kHz

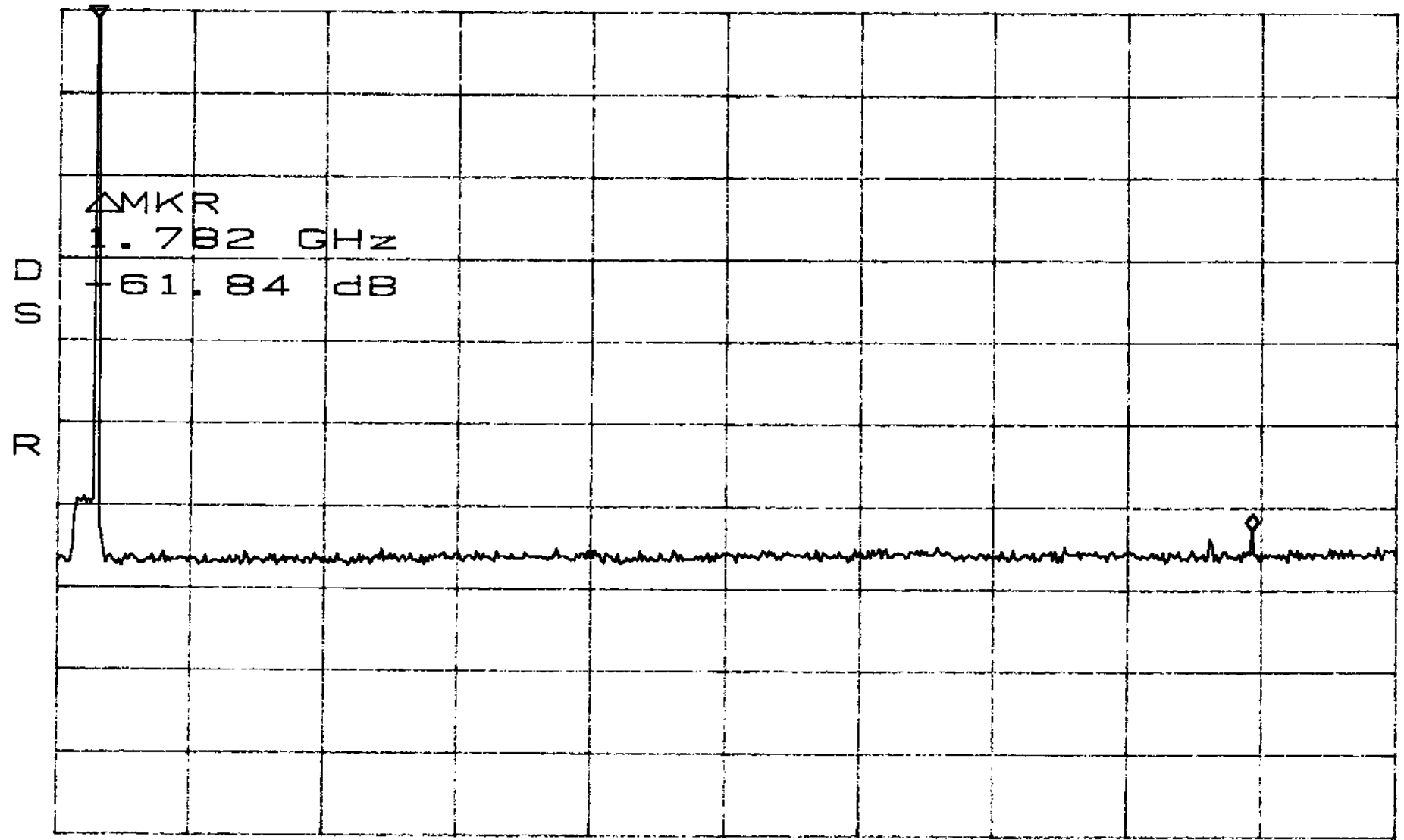
*ATTEN 30dB

Δ MKR -61.84dB

RL 7.0dBm

10dB/

1.782GHz



START 840MHz

STOP 2.900GHz

*RBW 300kHz

*VBW 10kHz

SWP 1.80sec

25

22-917

Date 11/6/98

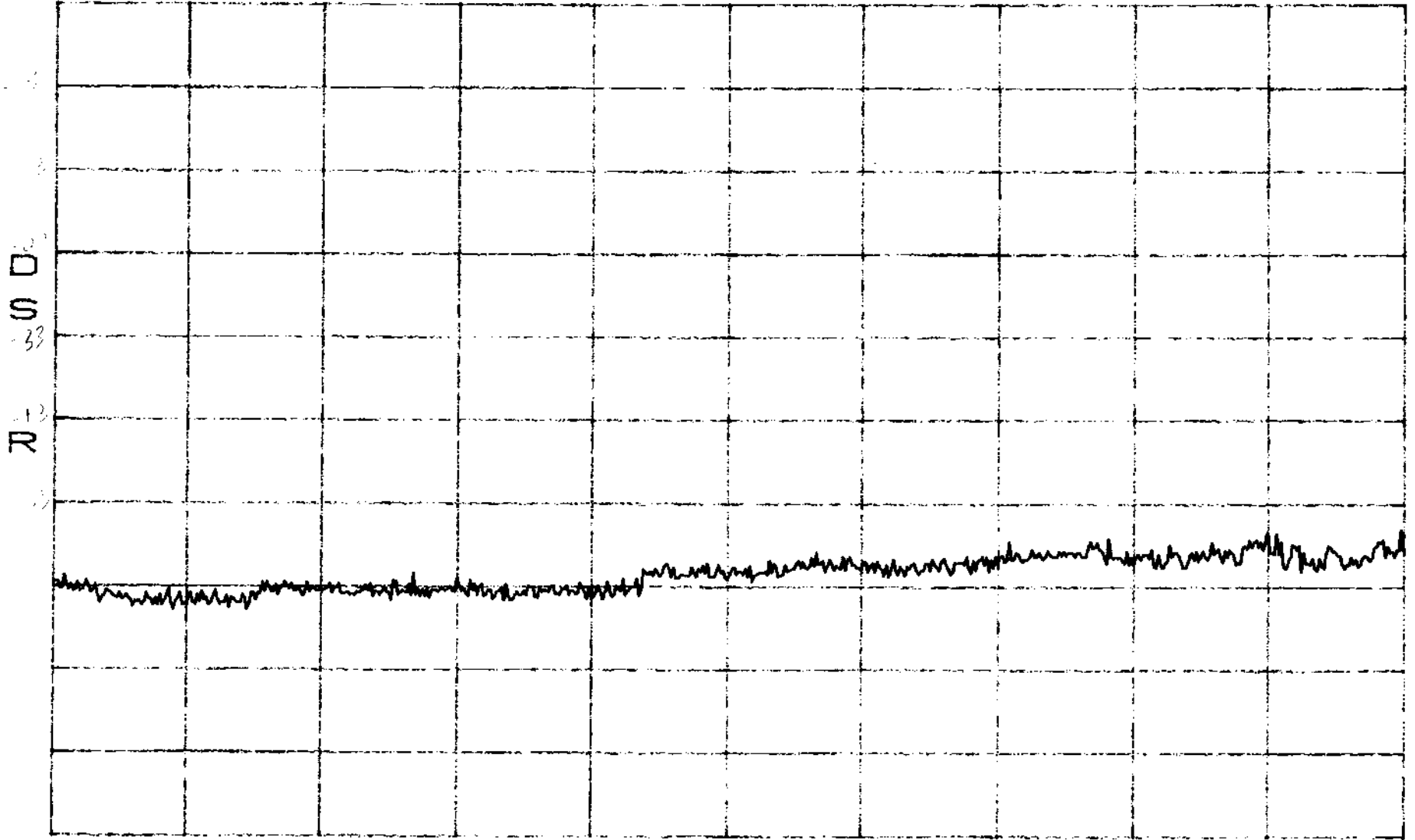
HIGH FREQ.

2991

*ATTEN 20dB

RL 7.0dBm

10dB/



START 2.90GHz

STOP 26.50GHz

*RBW 100kHz

VBW 100kHz

SWP 5.90sec

26

DL Input Freq: 869.2 MHz
893.8 MHz
(GSM Source)

Output Intermod
MAX HOLD

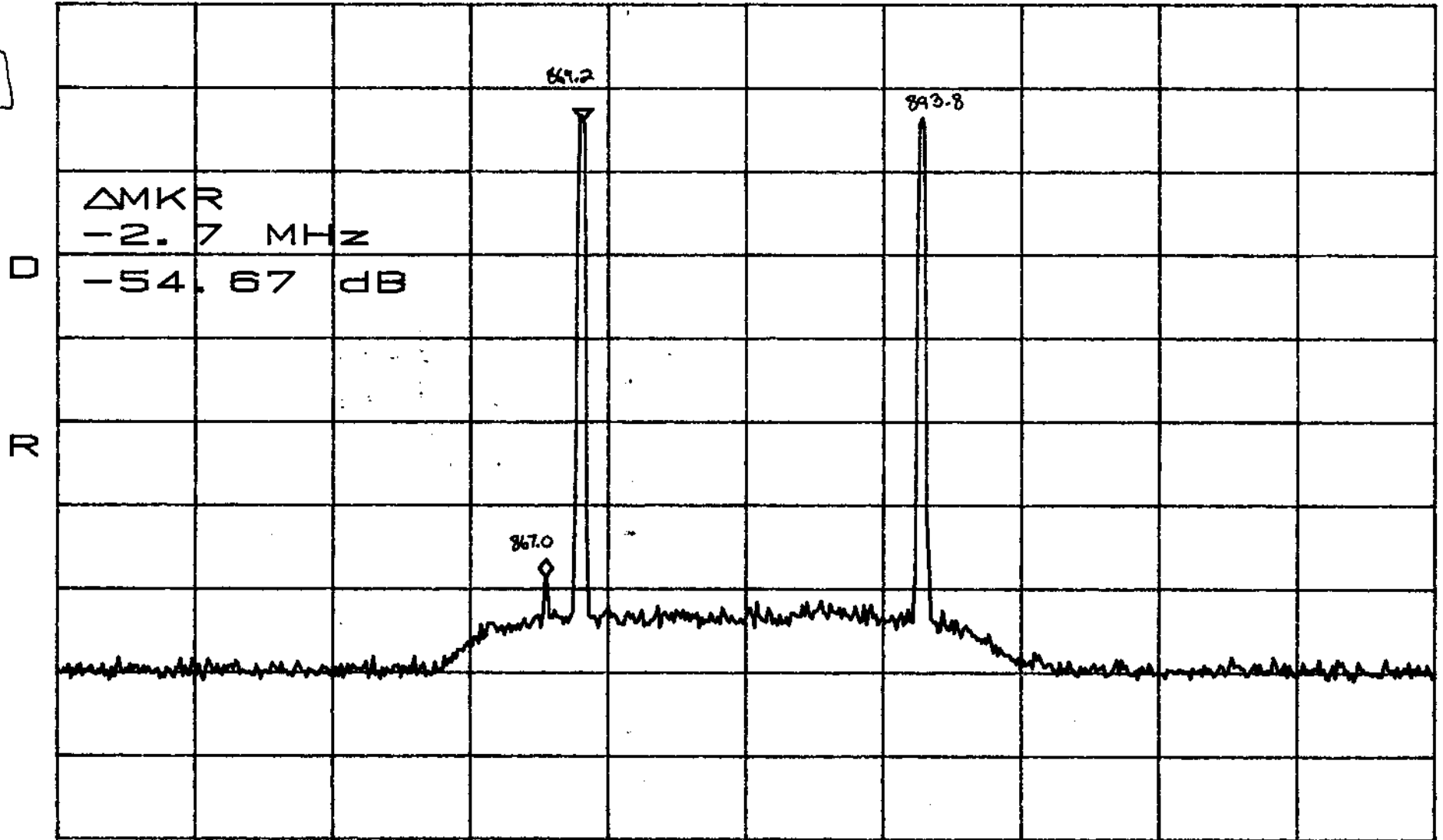
4/6/98

ATTEN 30dB
RL 20.0dBm

Δ MKR -54.67dB
-2.7MHz

10dB/
/BP01

2-tone



CENTER 881.5MHz SPAN 100.0MHz
*RBW 30kHz *VBW 30kHz SWP 280ms

DL Input Freq: 869.2 MHz
893.8 MHz

Output Intermod

4/6/98

(GSM Source)

MAX HOLD

ATTN 30dB

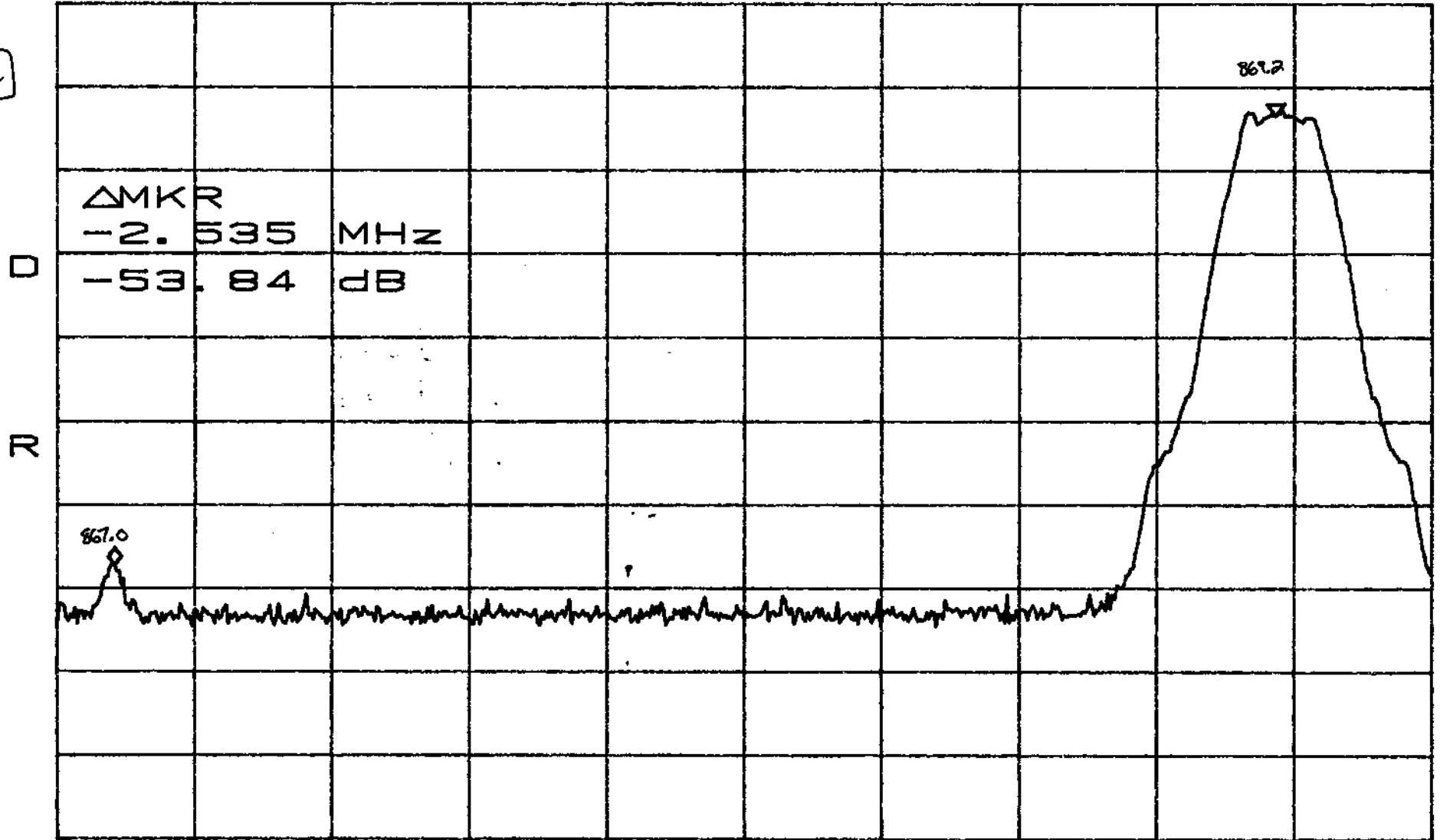
Δ MKR -53.84dB

RL 20.0dBm

10dB/
/BP01

-2.535MHz

2-tone



CENTER 868.040MHz

SPAN 3.000MHz

*RBW 30kHz

*VBW 30kHz

SWP 50.0ms

DL Input Freq: 869.2 MHz
893.8 MHz

Input Signals
MAX HOLD

4/6/98
 Δ due to minor variations in
gain over BW

(GSM Source)

ATTEN 30dB

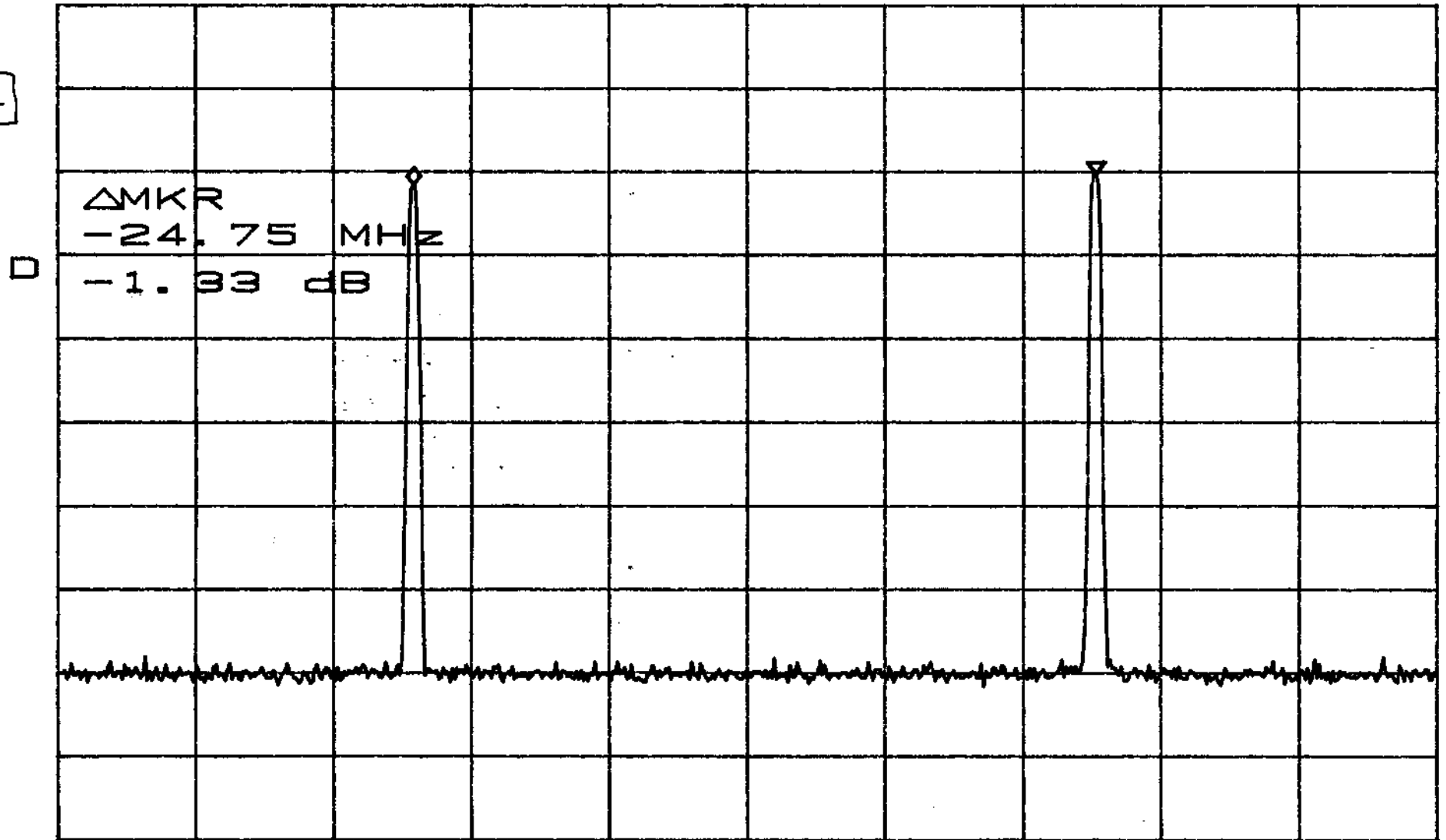
Δ MKR -1.33dB

RL 20.0dBm

10dB/BP01

-24.75MHz

2-tone



CENTER 881.50MHz

SPAN 50.00MHz

*RBW 30kHz

*VBW 30kHz

SWP 140ms

DL Input Freq: 869.2 MHz
869.4 MHz

Output Intermod:
MAX HOLD

4/6/98

(GSM Source)

ATTEN 30dB

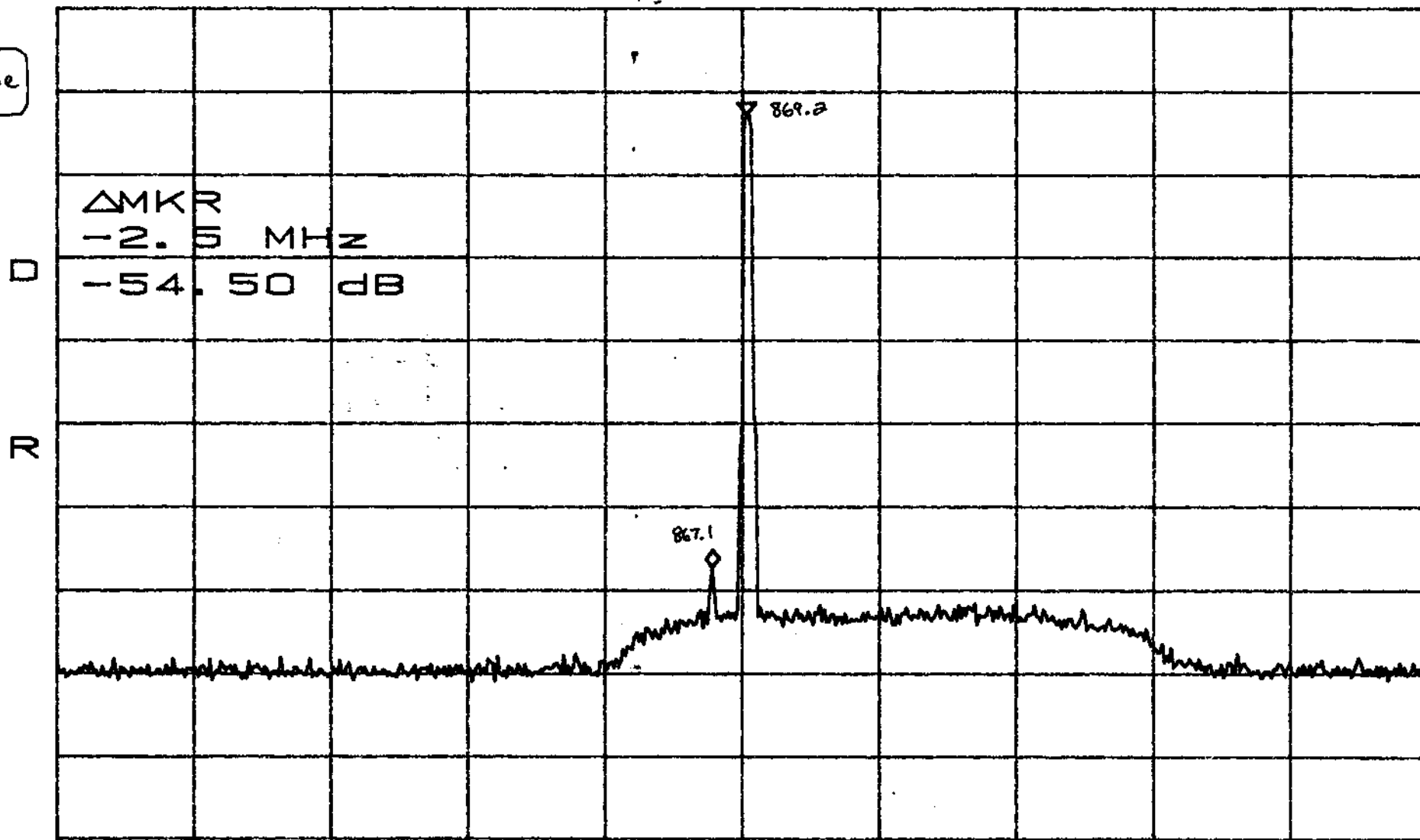
Δ MKR -54.50dB

RL 20.0dBm

10dB/

-2.5MHz

2-tone



CENTER 869.3MHz

SPAN 100.0MHz

*RBW 30kHz

*VBW 30kHz

SWP 280ms

Input Freq: 869.2 MHz
869.4 MHz

Output Intermods
MAX HOLD

4/6/98

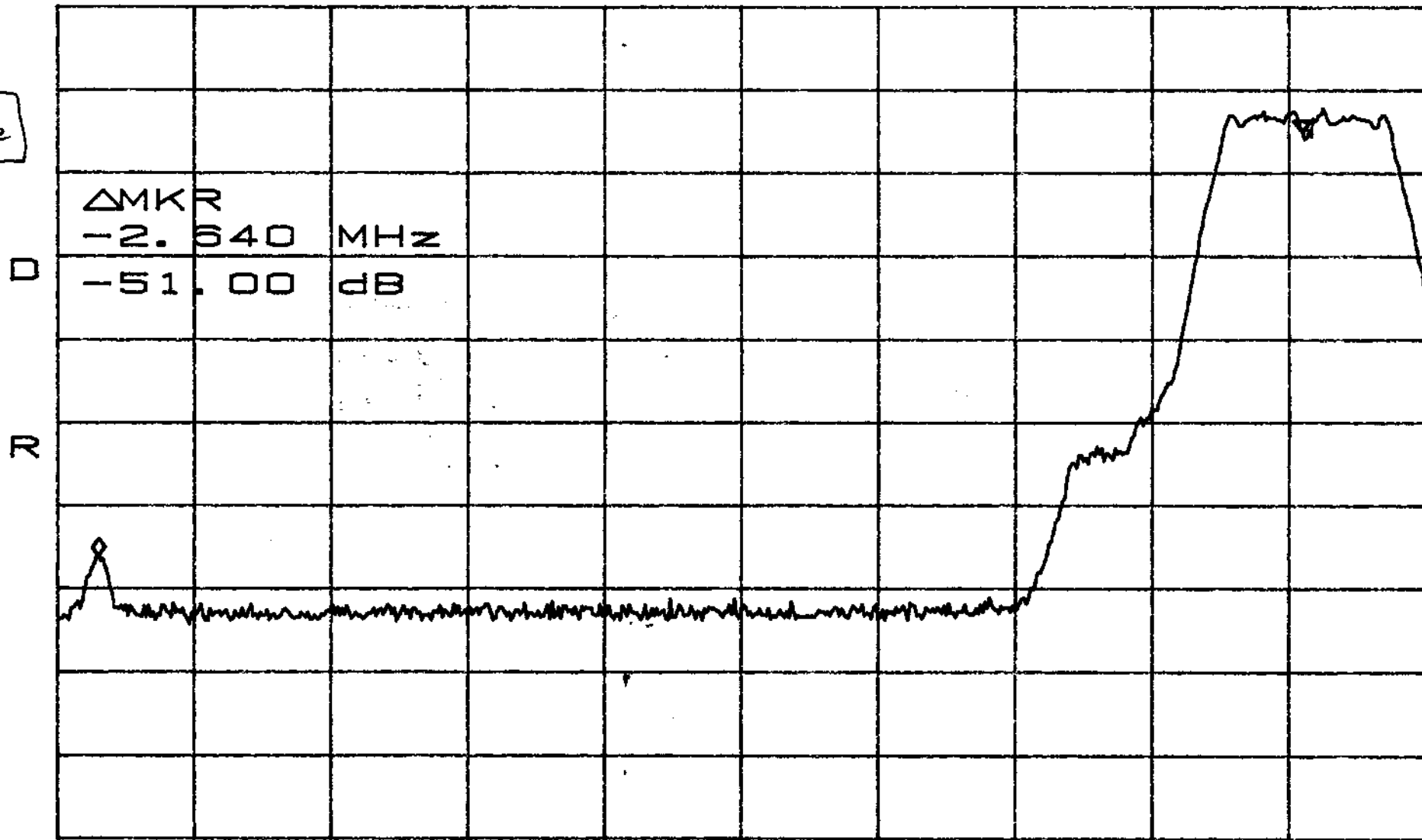
(GSM Source)

ATTEN 30dB
RL 20.0dBm

10dB/
/BP01

Δ MKR -51.00dB
BP00 -2.640MHz

2-tone



CENTER 868.070MHz SPAN 3.000MHz
*RBW 30kHz *VBW 30kHz SWP 50.0ms

Input Freq: 869.2 MHz
869.4 MHz

Input Signals
MAX HOLD

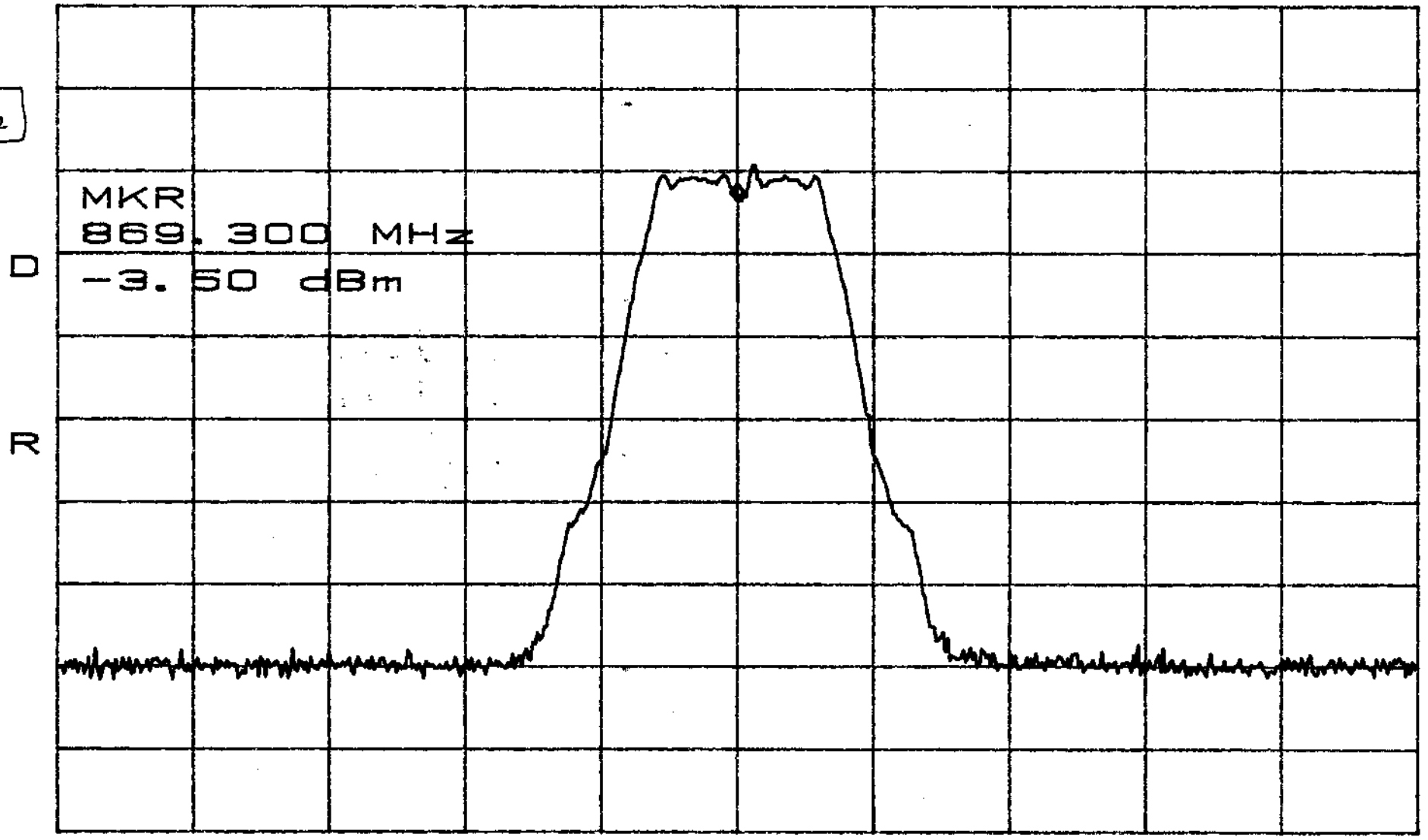
4/6/98

ATTN 30dB
RL 20.0dBm

10dB/

MKR -3.50dBm
869.300MHz

2-tone



CENTER 869.300MHz SPAN 3.000MHz
*RBW 30kHz *VBW 30kHz SWP 50.0ms