

A.5 CONDUCTED EMISSION DATA

MODEL CDR-1902-1-B (B-Band CDMA Repeater) with option 7.1 W DL/1.0W UL

See following page(s).

FCC Part 2.985: RF Output Power

DUT: Model CDR-1902-1-B (B-Band CDMA Repeater),
with option 7.1W DL / 1.0W UL

S/N: FCC Unit

Test Date: 7/29/98

FCC ID: LB41900CDMA

Company: Ortel Corporation

****RF Output Power Measured with Power Meter**
(HP Model: 438A Ortel Asset Number: 8L034349)

UPLINK:

Channel	Frequency (MHz)	Output Power (dBm)
425	1871.25	29.82
550	1877.50	29.73
675	1883.75	29.75

DOWNLINK:

Channel	Frequency (MHz)	Output Power (dBm)
425	1951.25	38.27
550	1957.50	38.14
675	1963.75	38.30

****Per FCC request to use power meter.**

CDR 1CH.X 7.1W
S/N: FCC UMT

DL
CH. 425(Low)

B-BAND

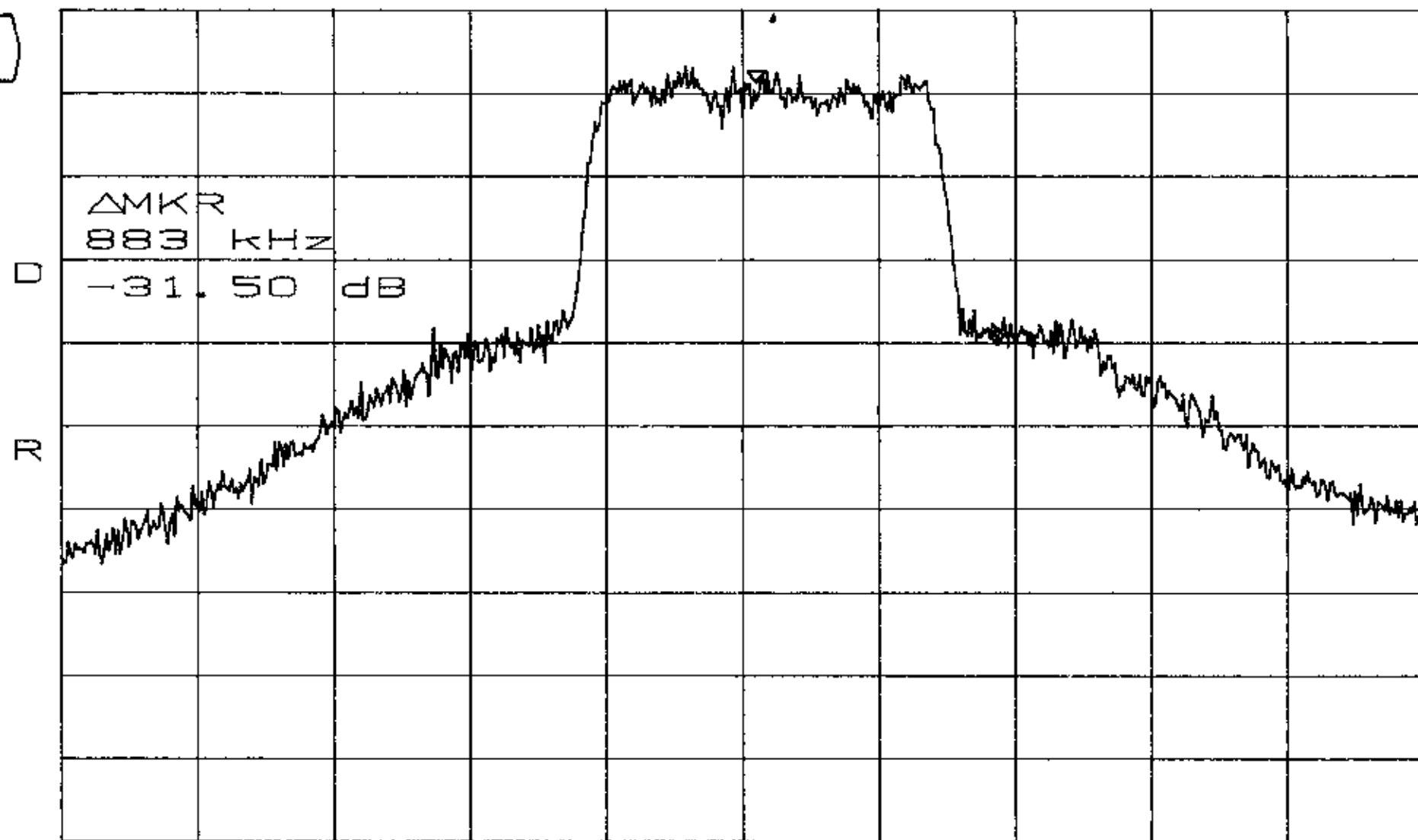
2/29/98

*ATTEN 10dB
BPO1
RL 30.0dBm

VAVG 10
10dB/
BPO1

Δ MKR -31.50dB
883kHz

2.989



CENTER 1.951200GHz
*RBW 30kHz *VBW 30kHz

SPAN 5.000MHz
SWP 50.0ms

CDR 1CH. X 7.1W

DL

B-BAND

7/29/98

S/N: FCC UNIT

CH. 675 (HIGH)

*ATTEN 10dB

VAVG 10

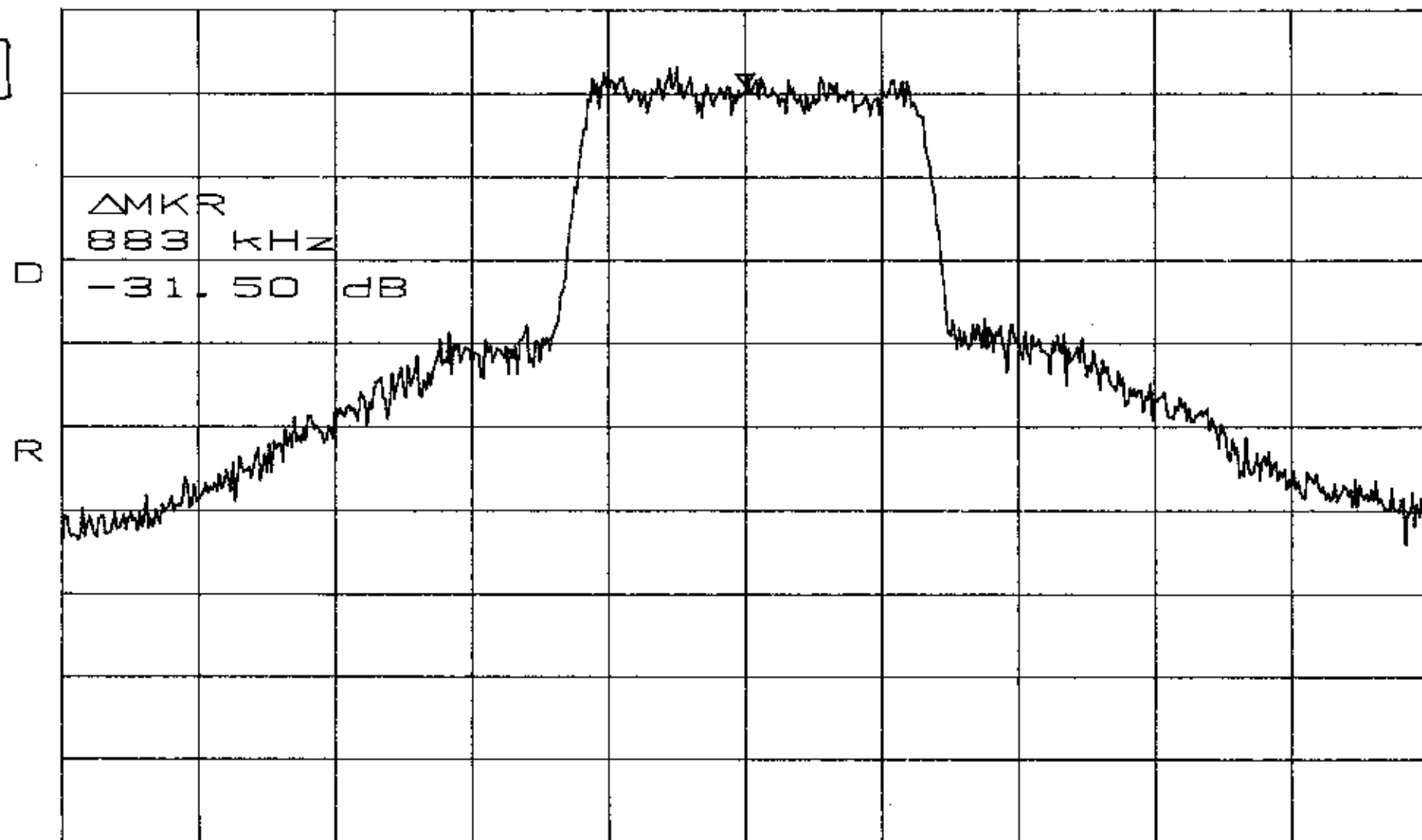
Δ MKR -31.50dB

RL 30.0dBm

10dB/

883kHz

2.989



CENTER 1.963750GHz

SPAN 5.000MHz

*RBW 30kHz

*VBW 30kHz

SWP 50.0ms

CDR 1CH. X 7.1W
SIN: FCC UNIT

UL
CH. 425 (LOW)

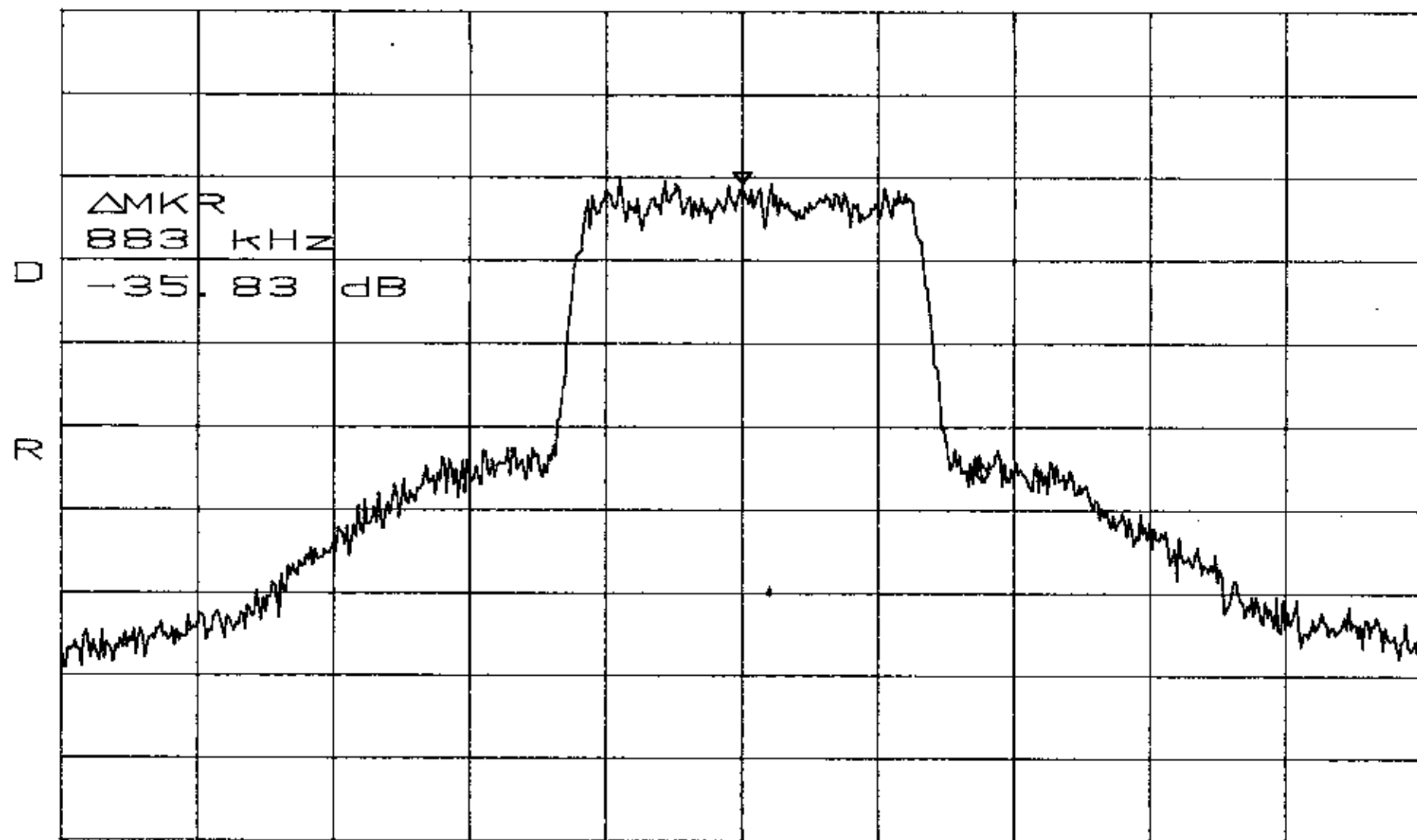
B-BAND

7/29/98

*ATTEN 10dB
RL 30.0dBm

VAVG 10
10dB/

Δ MKR -35.83dB
883kHz



CENTER 1.871250GHz

SPAN 5.000MHz

*RBW 30kHz

*VBW 30kHz

SWP 50.0ms

CDR 1CH.X7.1W

S/N: FCC UNIT

UL

CH. 675(HIGH)

B-BAND

7/29/98

*ATTEN 10dB

VAVG 10

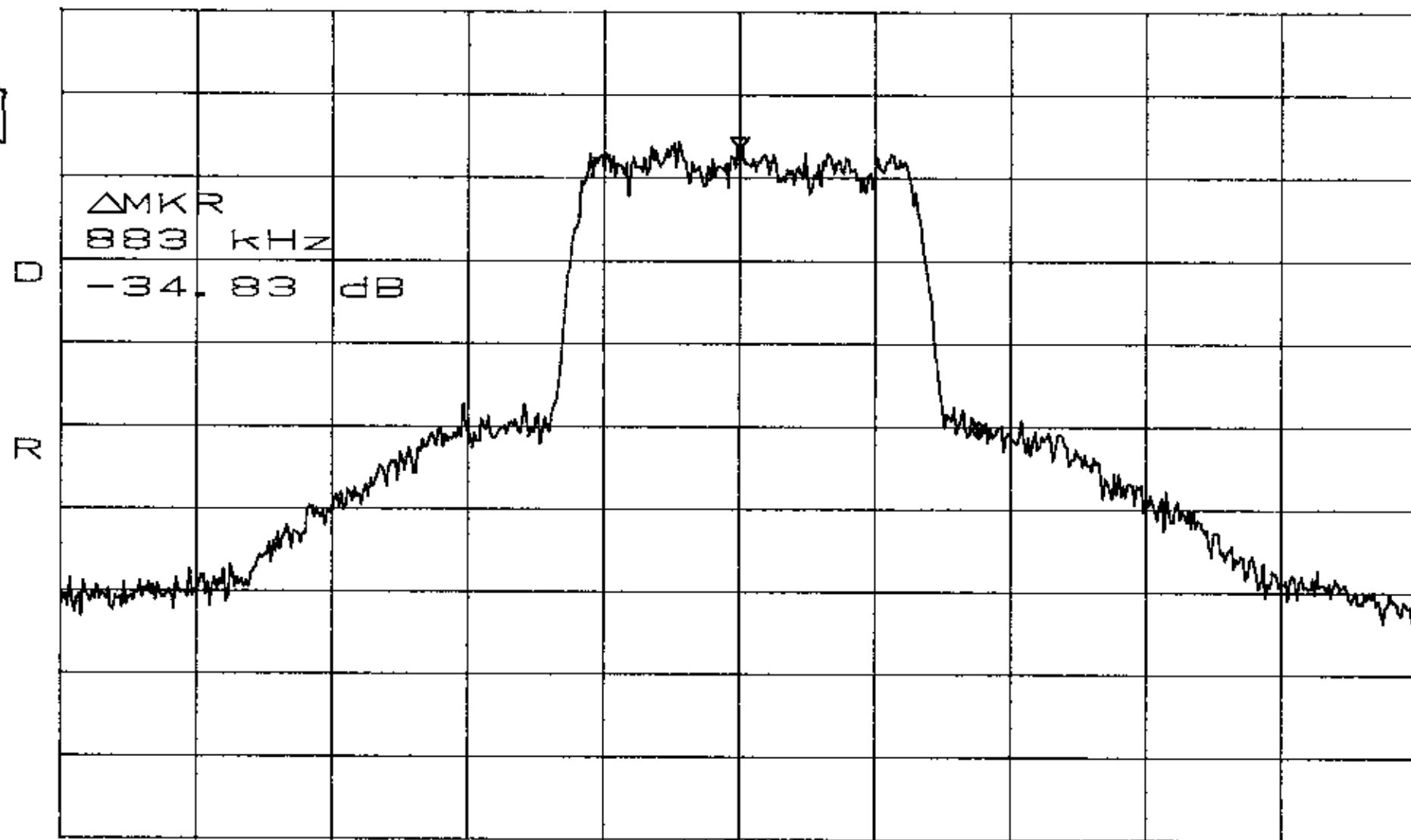
ΔMKR -34.83dB

RL 30.0dBm

10dB/

883kHz

2.989



CENTER 1.883750GHz

SPAN 5.000MHz

*RBW 30kHz

*VBW 30kHz

SWP 50.0ms

CDR 1CH. X 7.1W
S/N: FCC UNIT

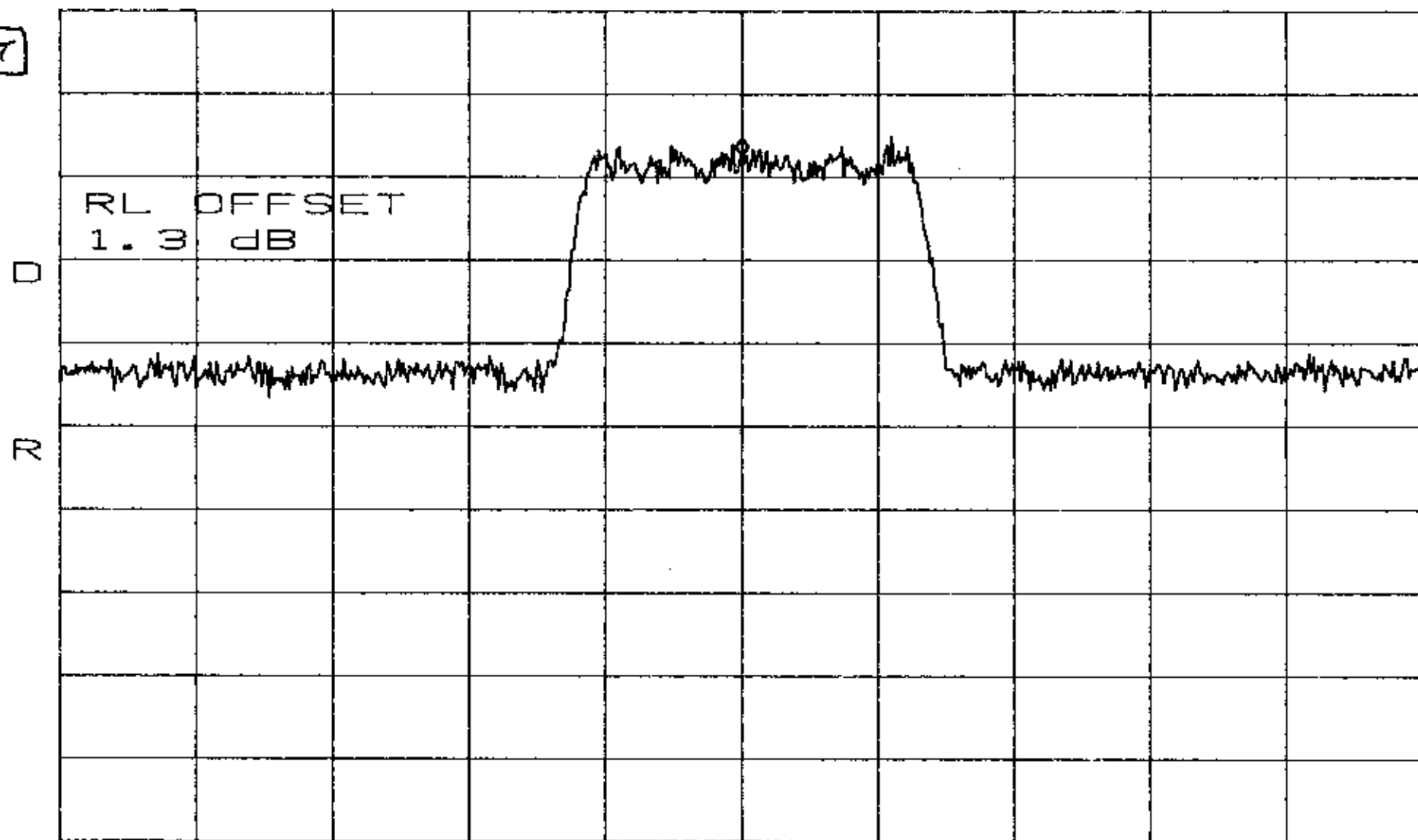
DL
CH. 425 (LOW)

B-BAND)
(INPUT)

7/29/98

*ATTEN 10dB VAVG 10 MKR -67.33dBm
RL -50.0dBm 10dB/ 1.951250GHz

N/OUT



CENTER 1.951250GHz SPAN 5.000MHz
*RBW 30kHz *VBW 30kHz SWP 50.0ms

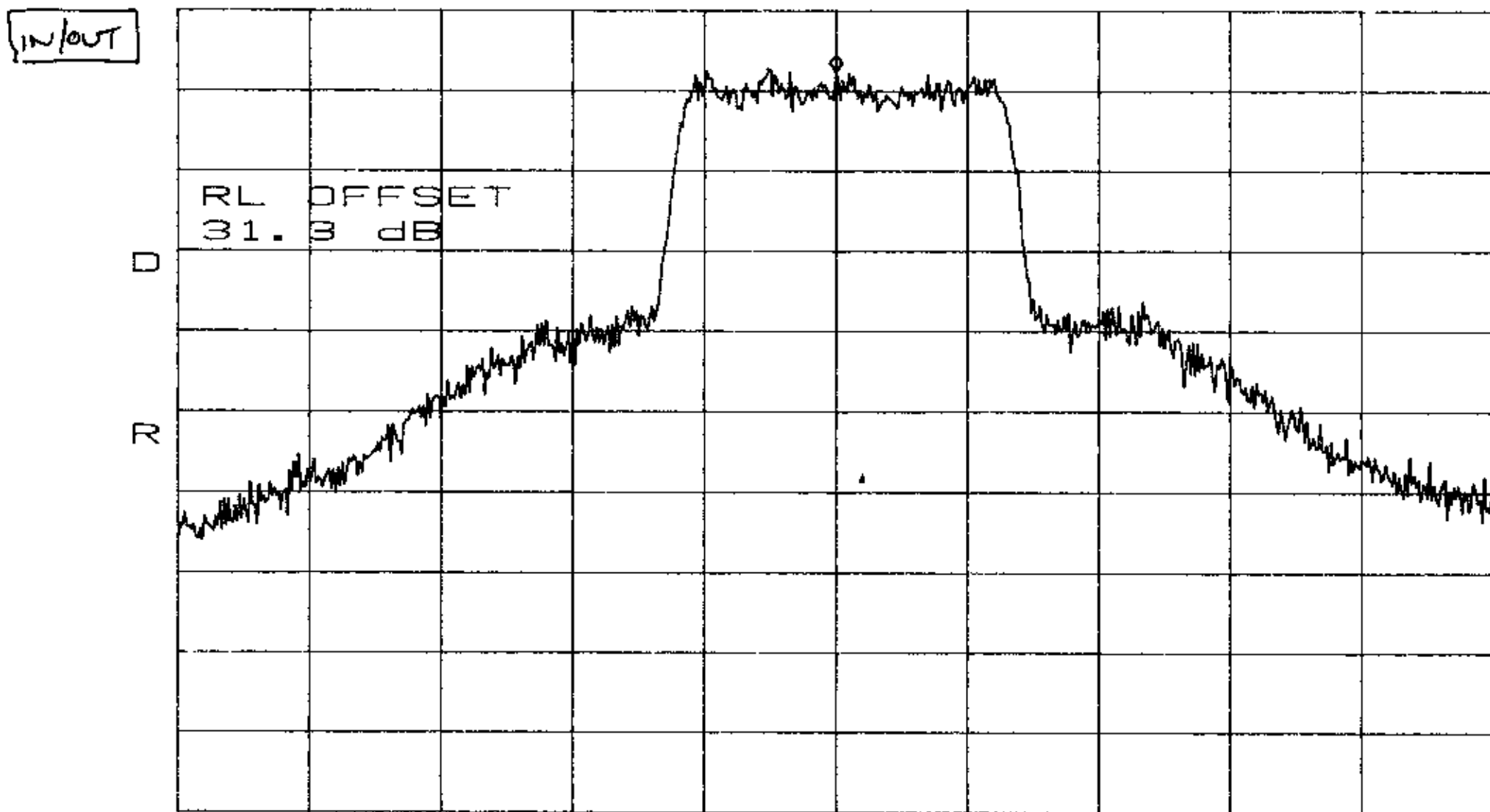
CDR 1CH. X 7.1W
S/N: FCC UNIT

DL
CH. 425 (~~HIGH~~)

B-BAND
(OUTPUT)

7/29/98

*ATTEN 10dB VAVG 10 MKR 22.50dBm
RL 30.00dBm 10dB/ 1.951250GHz



CENTER 1.951250GHz SPAN 5.000MHz
*RBW 30kHz *VBW 30kHz SWP 50.0ms

CDR 1CH. X 7.1W

DL

B-BAND

7/29/98

S/N: FCC UNIT

CH. 675(HIGH)

(INPUT)

*ATTEN 10dB

VAVG 10

MKR -70.83dBm

RL -50.0dBm

10dB/

1.963750GHz

INPUT

RL OFFSET
1.3 dB

D

R

CENTER 1.963750GHz

SPAN 5.000MHz

*RBW 30kHz

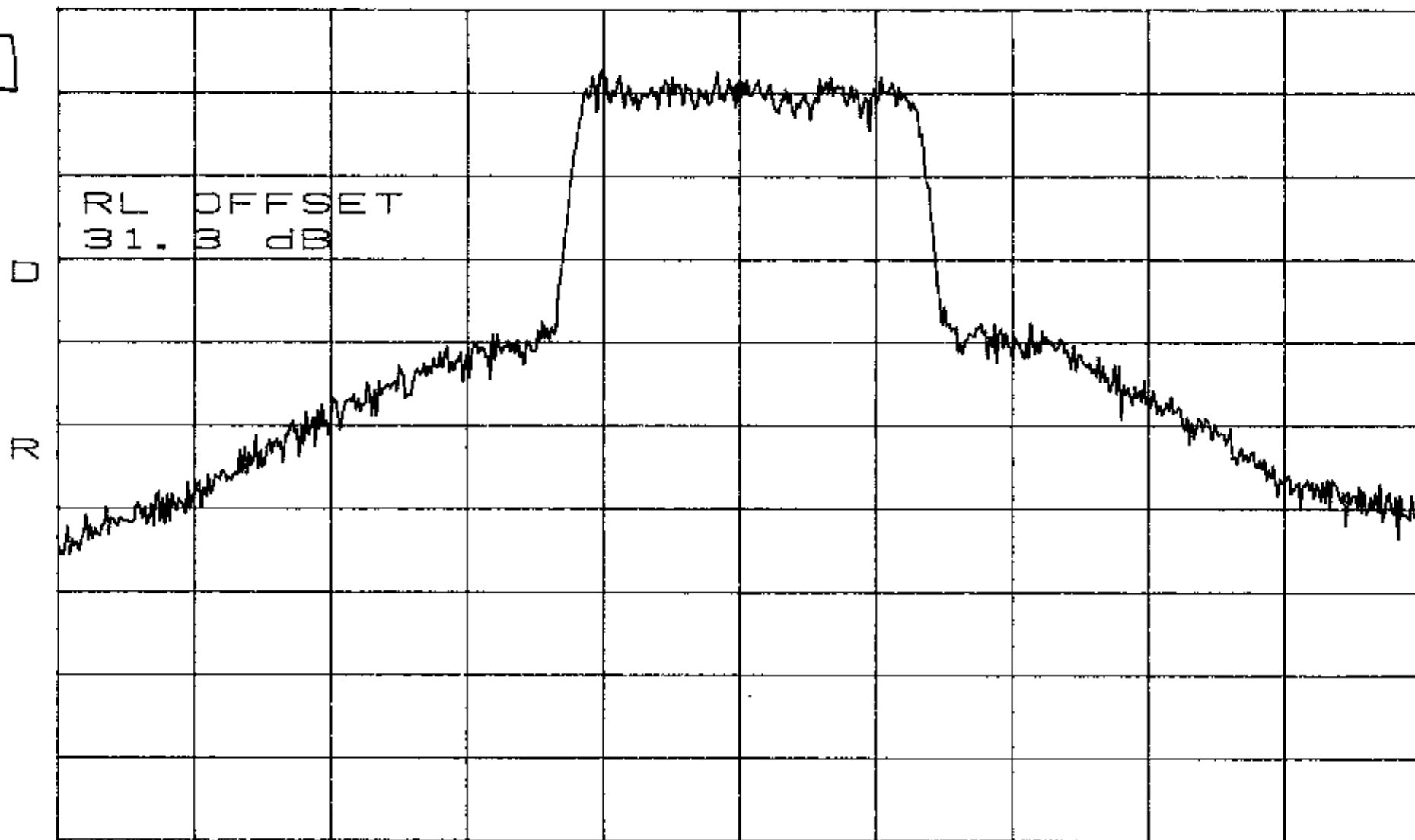
*VBW 30kHz

SWP 50.0ms

CDR 1CH. x 7.1W DL B-BAND) 7/29/98
S/N: FCC UNIT CH. 675(HIGH) (OUTPUT)

*ATTEN 10dB VAVG 10 MKR 19.50dBm
RL 30.0dBm 10dB/ 1.963750GHz

IN/OUT



CENTER 1.963750GHz SPAN 5.000MHz
*RBW 30kHz *VBW 30kHz SWP 50.0ms

CDR 1CH. X 7.1W
S/N: FCC UNIT

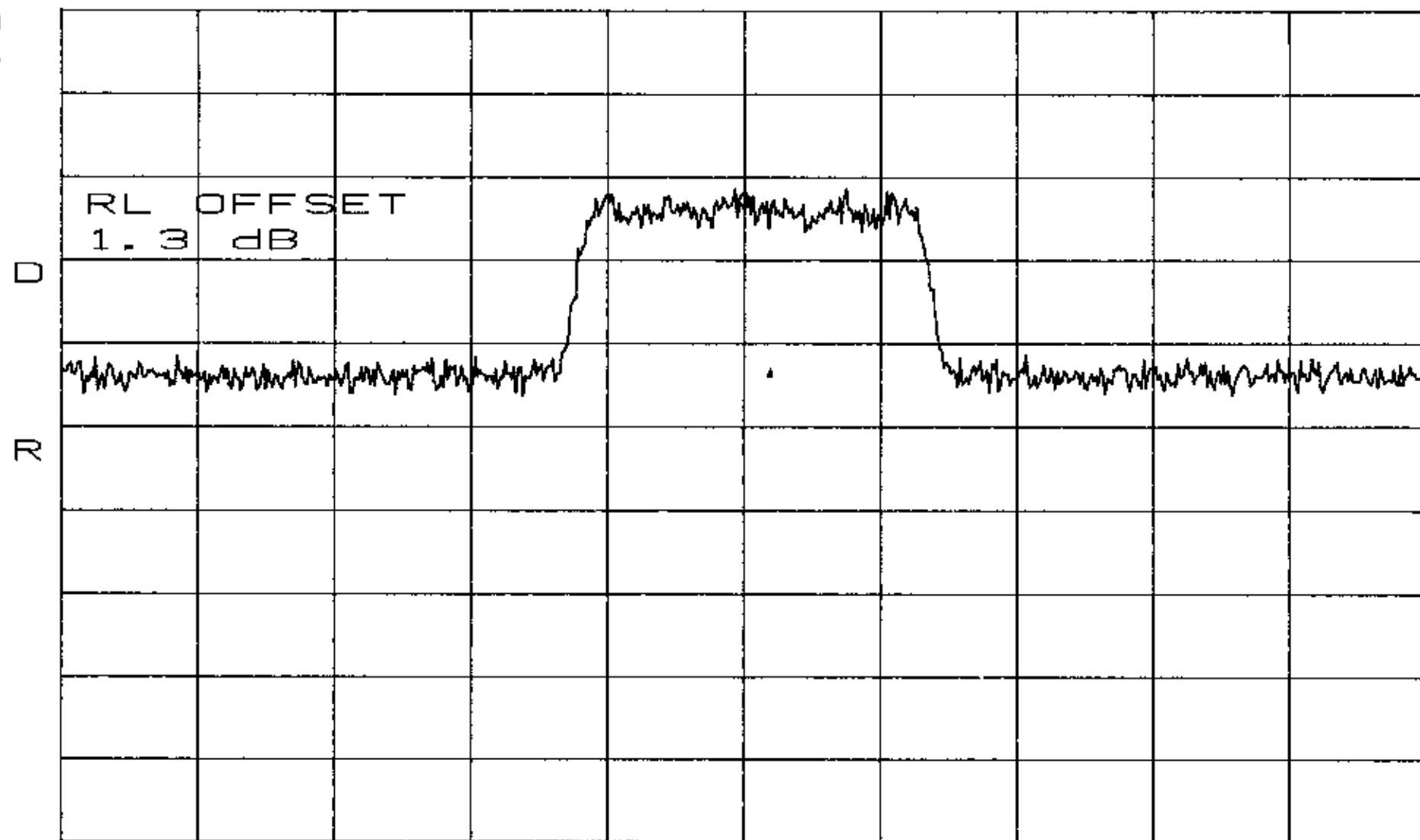
OL
CH. 425 (LOW)

B-BAND
(INPUT)

7/29/98

*ATTEN 10dB VAVG 10 MKR -73.67dBm
RL -50.0dBm 10dB/ 1.871250GHz

IN/OUT



CENTER 1.871250GHz SPAN 5.000MHz
*RBW 30kHz *VBW 30kHz SWP 50.0ms

CDR 1CH.X 7.1W

S/N: FCC UNIT

UL

CH. 425(Low)

B-BAND

(OUTPUT)

7/29/98

*ATTEN 10dB

VAVG 10

MKR 10.67dBm

RL 30.0dBm

10dB/

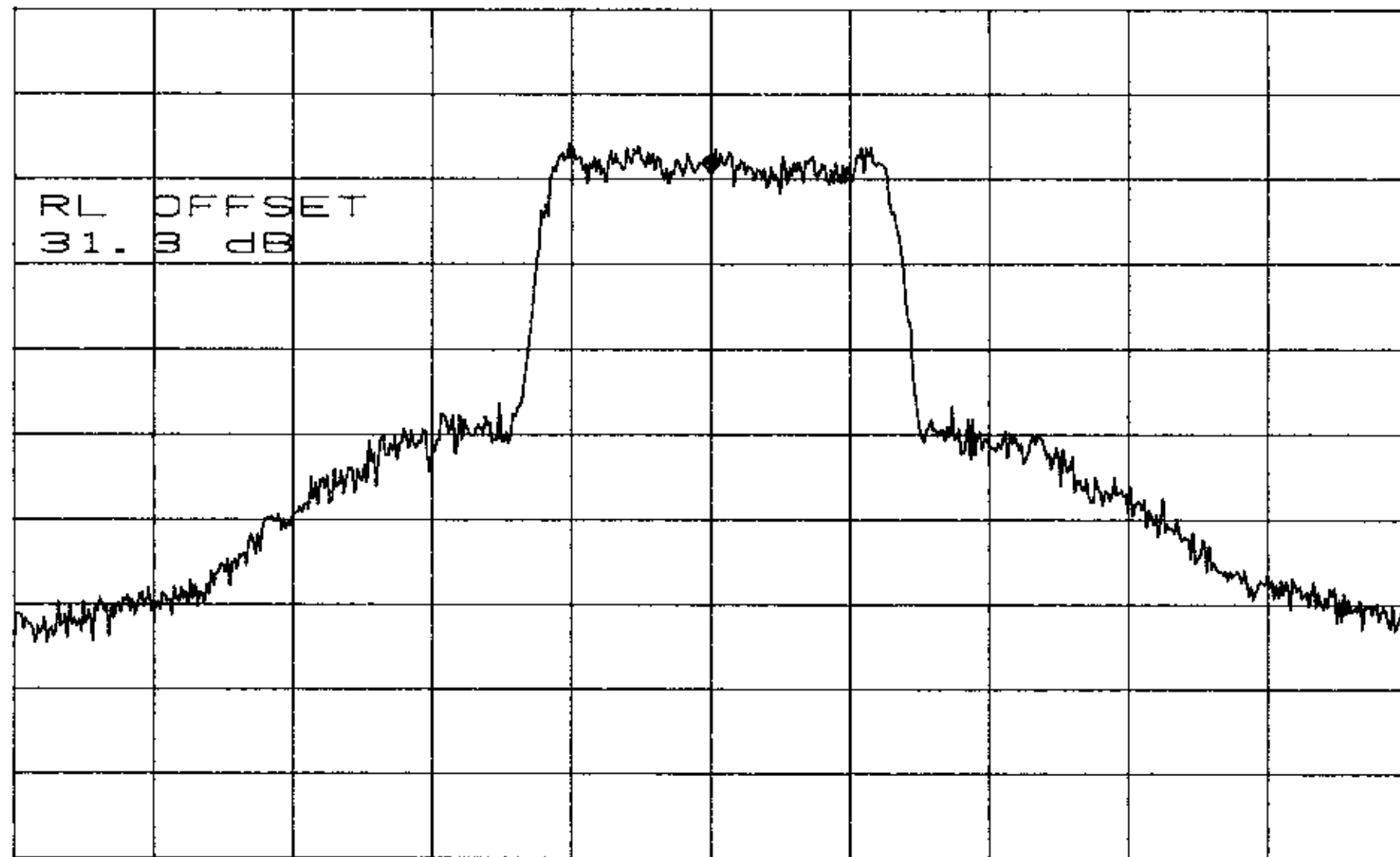
1.871250GHz

IN/OUT

RL OFFSET
31.8 dB

D

R



CENTER 1.871250GHz

SPAN 5.000MHz

*RBW 30kHz

*VBW 30kHz

SWP 50.0ms

CDR 1CH. x7.1W
S/N: FCC UNIT

UL
CH. 675(HIGH)

B-BAND
(INPUT)

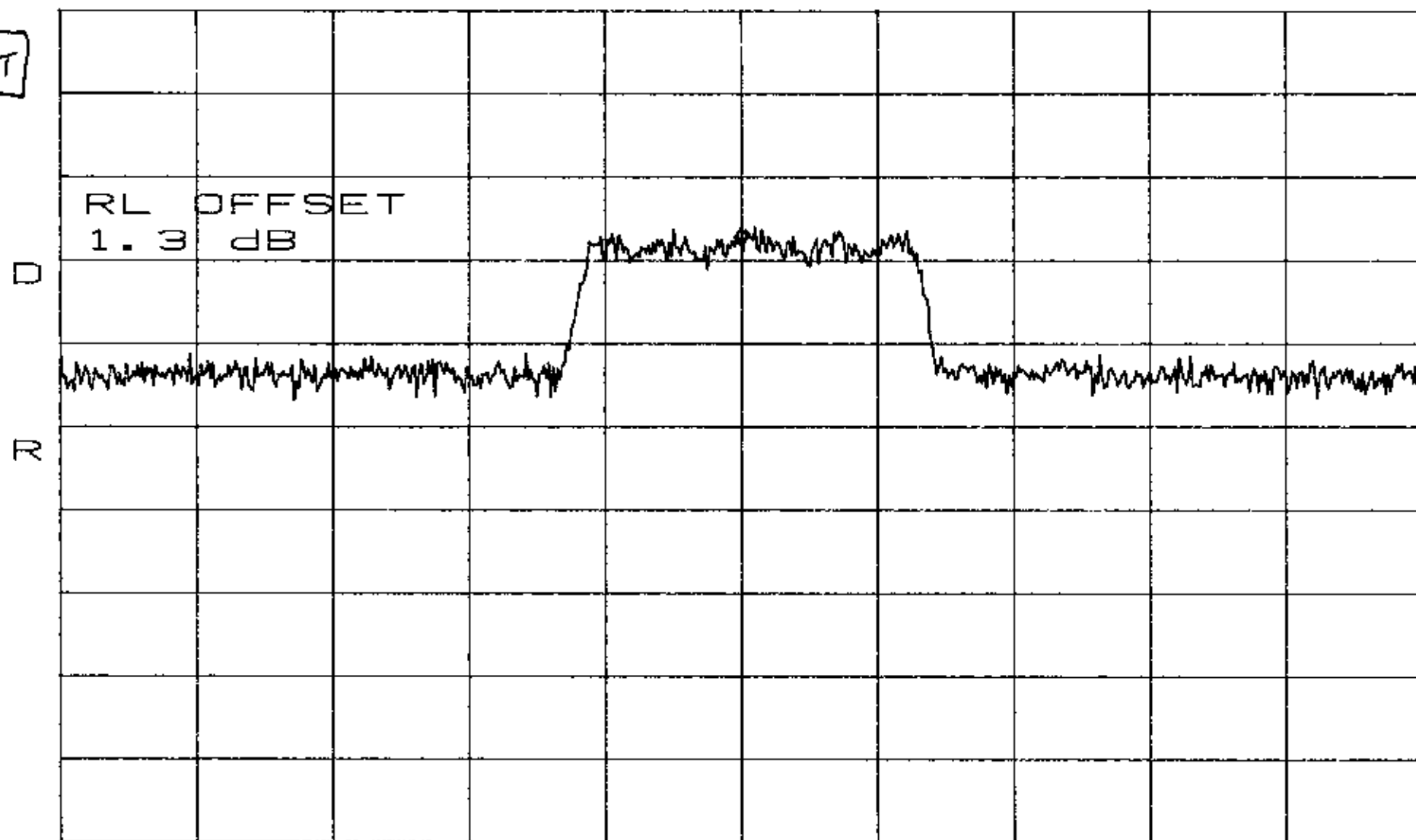
7/29/98

*ATTEN 10dB
RL -50.00dBm

VAVG 10
10dB/

MKR -78.17dBm
1.883750GHz

IN/OUT



CENTER 1.883750GHz
*RBW 30kHz *VBW 30kHz

SPAN 5.000MHz
SWP 50.0ms

CDR 1CH.X7.1W
S/N:FCC UNIT

UL
CH. 675 (HIGH)

B-BAND
(OUTPUT)

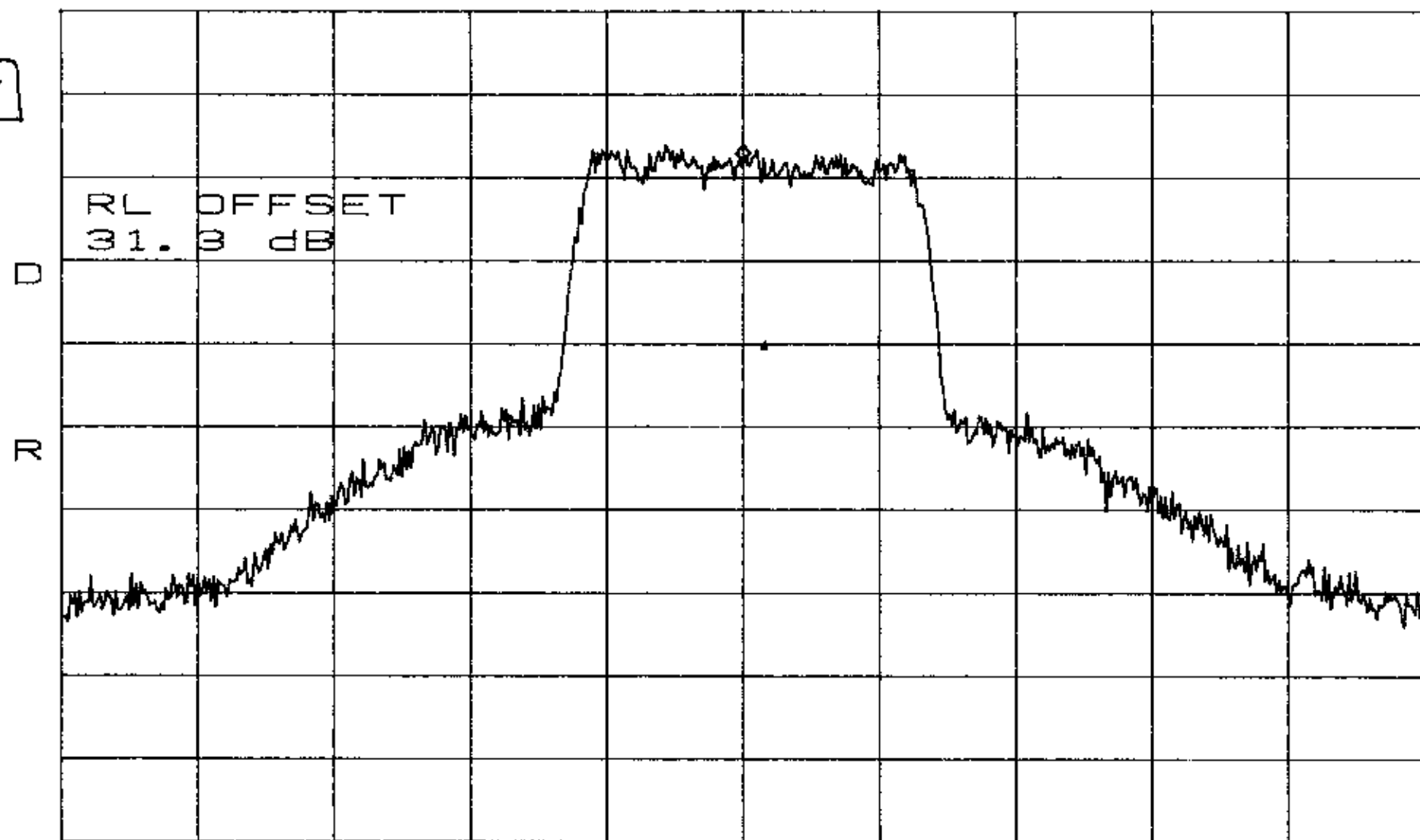
7/29/98

*ATTEN 10dB
RL 30.0dBm

VAVG 10
10dB/

MKR 12.00dBm
1.883750GHz

IN/OUT



CENTER 1.883750GHz
*RBW 30kHz *VBW 30kHz

SPAN 5.000MHz
SWP 50.0ms

CDR 1CH-7.1W
SIN: FCC UNIT

DL
CH. 425 (LOW)

B-BAND
CDMA SOURCE

7/29/98

*ATTEN 30dB

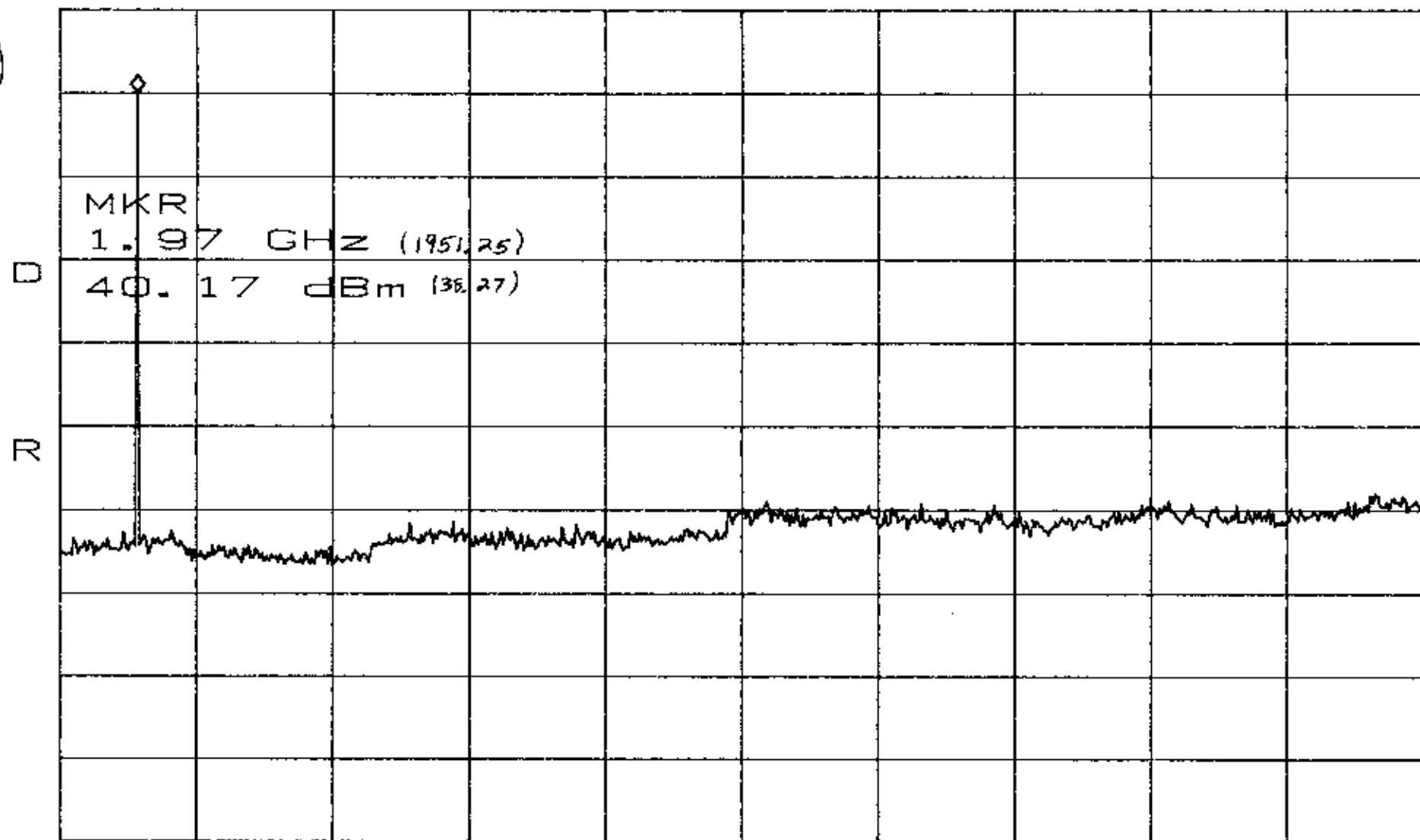
MKR 40.17dBm

RL 50.0dBm

10dB/

1.97GHz

2.991



START 500MHz

STOP 26.50GHz

*RBW 1.0MHz

*VBW 1.0MHz

*SWP 520ms

CDR 1CH. X7.1W
S/N: FCC UNIT

DL
CH. 675 (H14#)

B-BAND
CDMA SOURCE

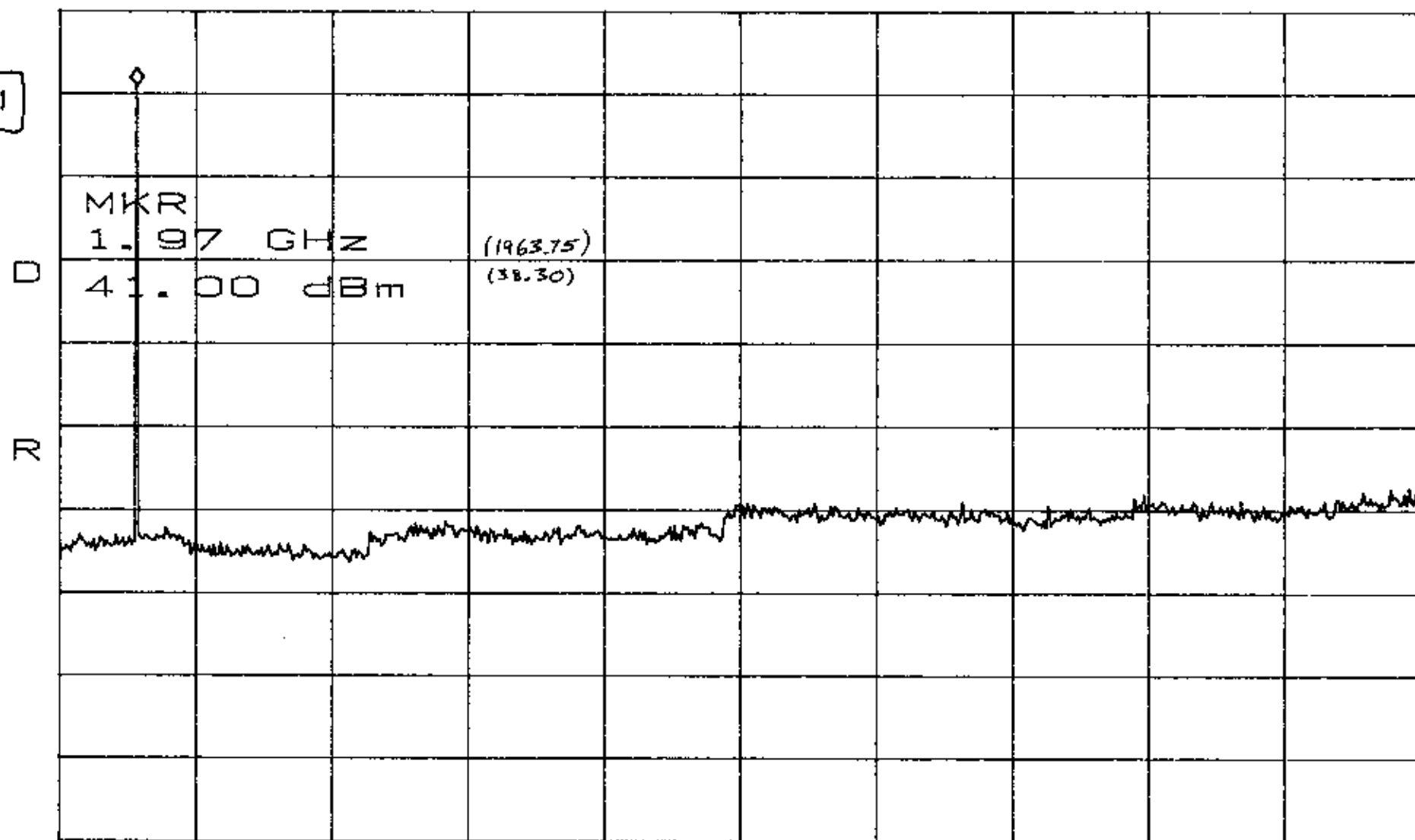
7/29/98

*ATTEN 30dB
RL 50.0dBm

10dB/

MKR 41.00dBm
1.97GHz

2.991



START 500MHz . STOP 26.50GHz
*RBW 1.0MHz *VBW 1.0MHz *SWP 520ms

CDR 1CH x 7.1W

UL

3-BAND

7/29/98

S/N: FCC UNIT

CH 425 (LOW)

CDMA SOURCE

*ATTEN 30dB

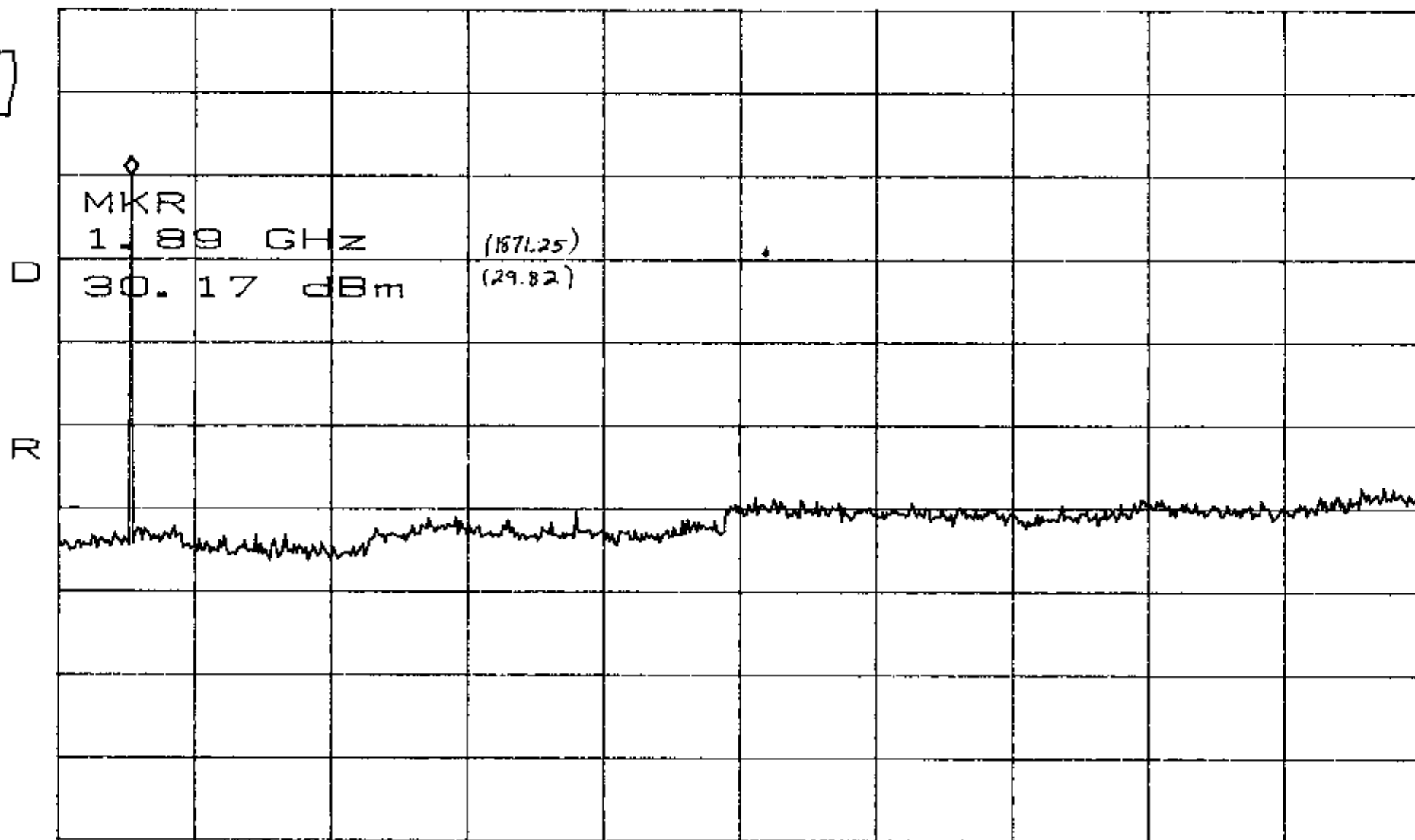
MKR 30.17dBm

RL 50.0dBm

10dB/

1.89GHz

2.991



START 500MHz

STOP 26.50GHz

*RBW 1.0MHz

*VBW 1.0MHz

*SWP 520ms

CDR 1CH. X 7.1 W
S/N: FCC UNIT

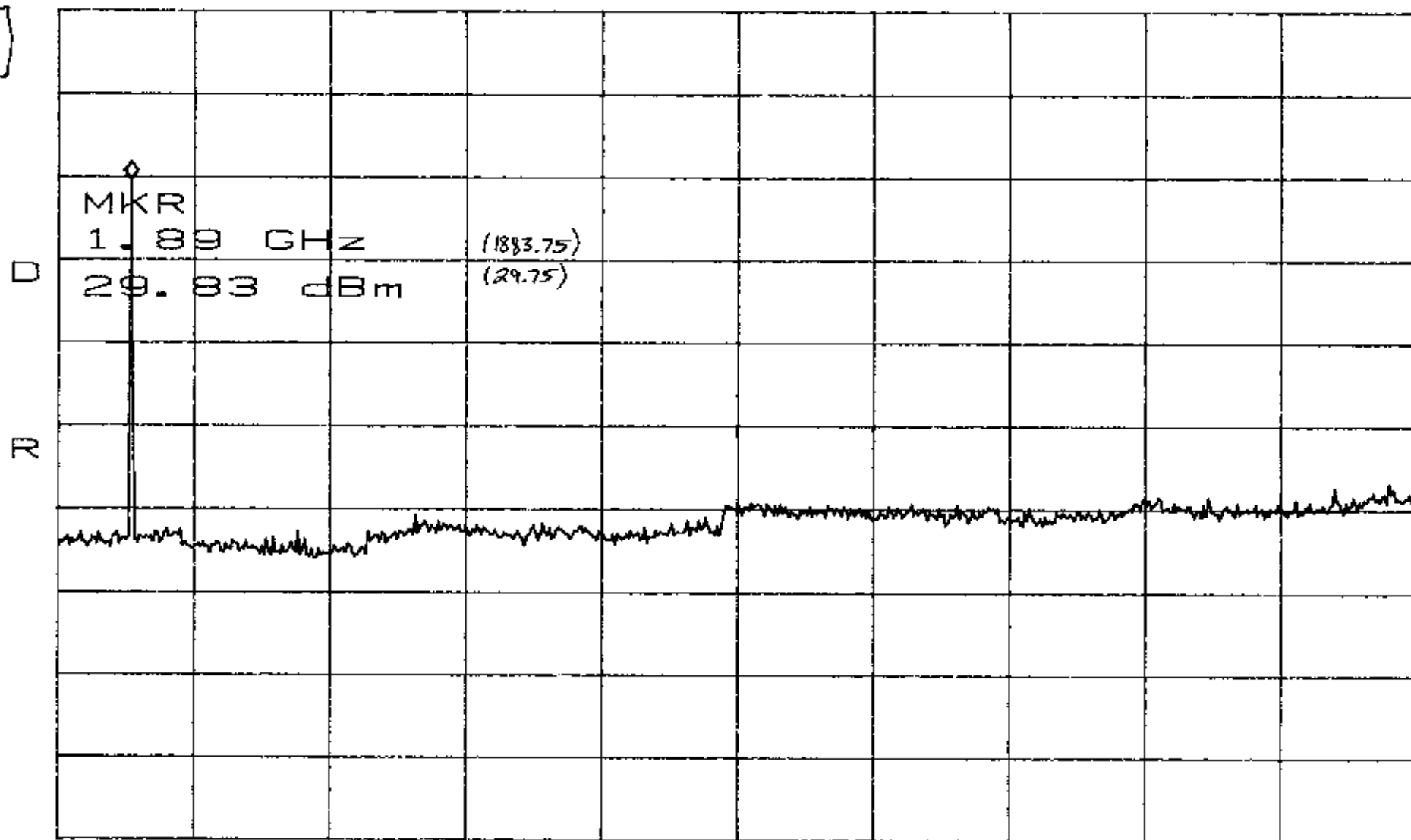
UL
CH. 675 (HIGH) D-BAND
CDMA SOURCE

7/29/98

*ATTEN 30dB
RL 50.0dBm

MKR 29.83dBm
1.89GHz

2.991



START 500MHz STOP 26.50GHz
*RBW 1.0MHz *VBW 1.0MHz *SWP 520ms

CDA 1CH. X 7.1W
S/N: FCC UNIT

UL
CH. 425 (LOW)

FUNDAMENTAL
B-BAND

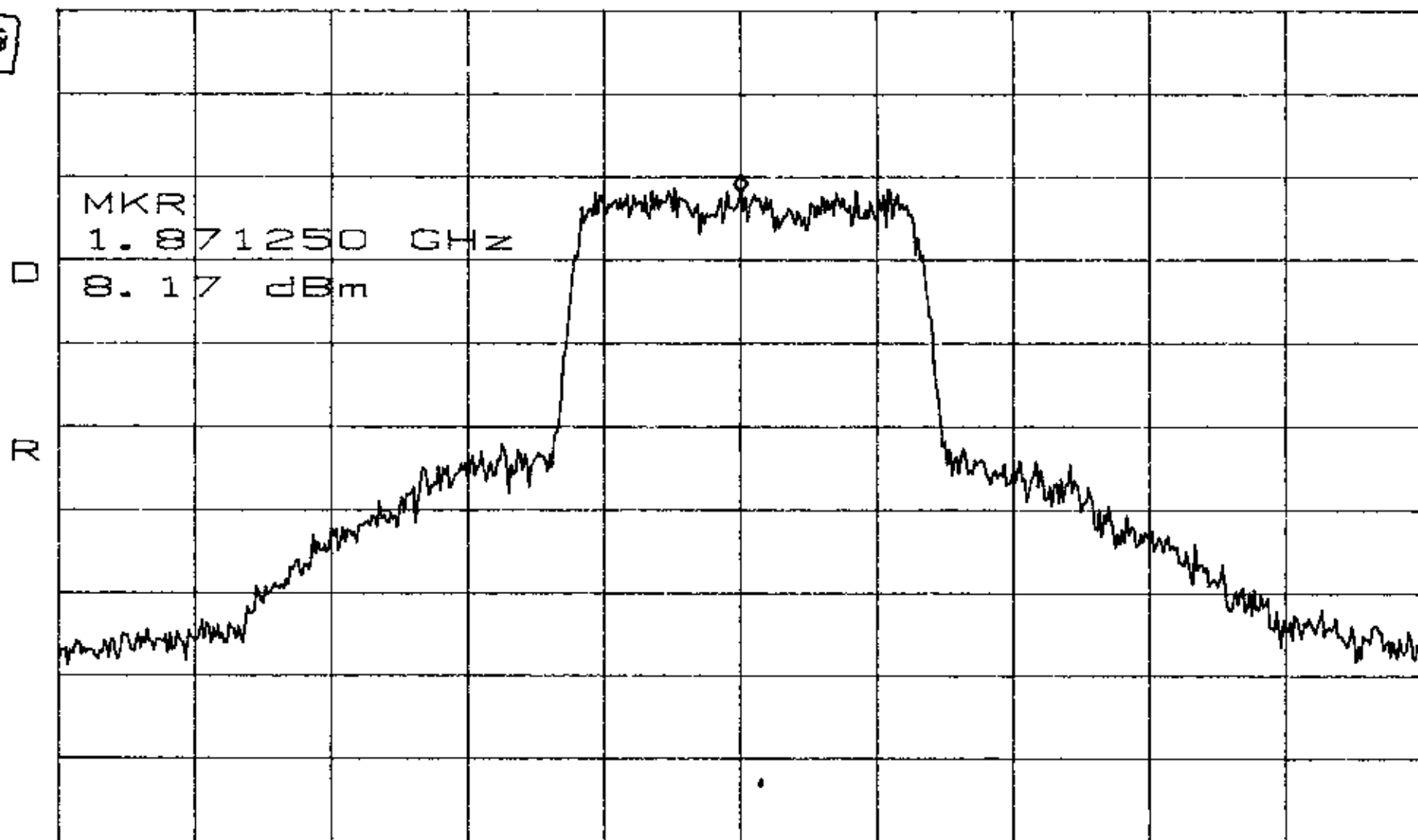
7/29/98

*ATTEN 10dB
RL 30.0dBm

VAVG 10
10dB/

MKR 8.17dBm
1.871250GHz

24.238



CENTER 1.871250GHz SPAN 5.000MHz
*RBW 30kHz *VBW 30kHz *SWP 50.0ms

CDR 1CH. X 7.1W

SIN: FCC UNIT

UL

CH.425(Low)

Below FUNDAMENTAL

B-BAND

7/29/98

*ATTEN 10dB

VAVG 10

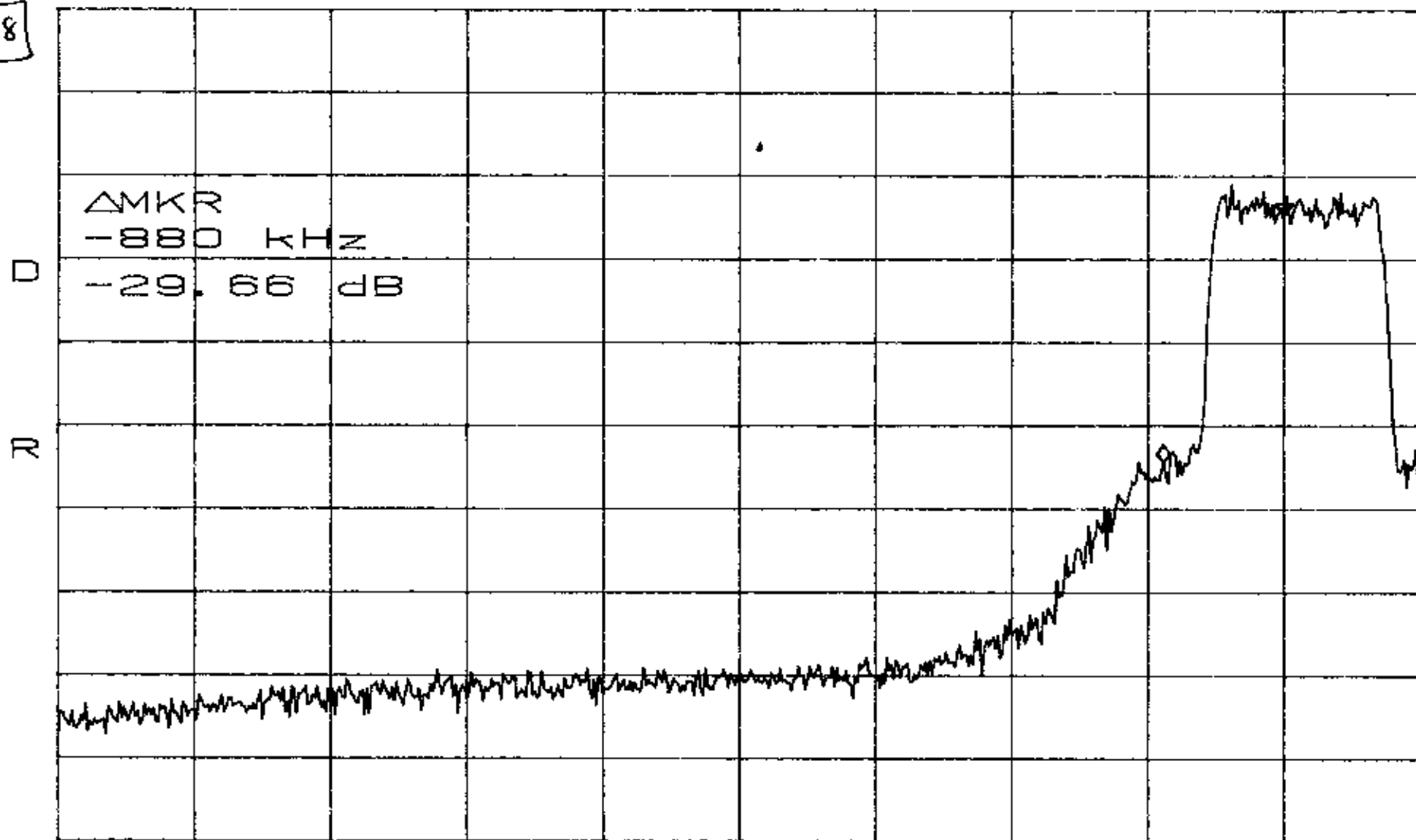
ΔMKR -29.66dB

RL 30.0dBm

10dB/

-880kHz

24.238



CENTER 1.86725GHz

SPAN 10.00MHz

*RBW 30kHz

*VBW 30kHz

*SWP 50.0ms

CDR 1CH X7.1W
SIN: FCC UNIT

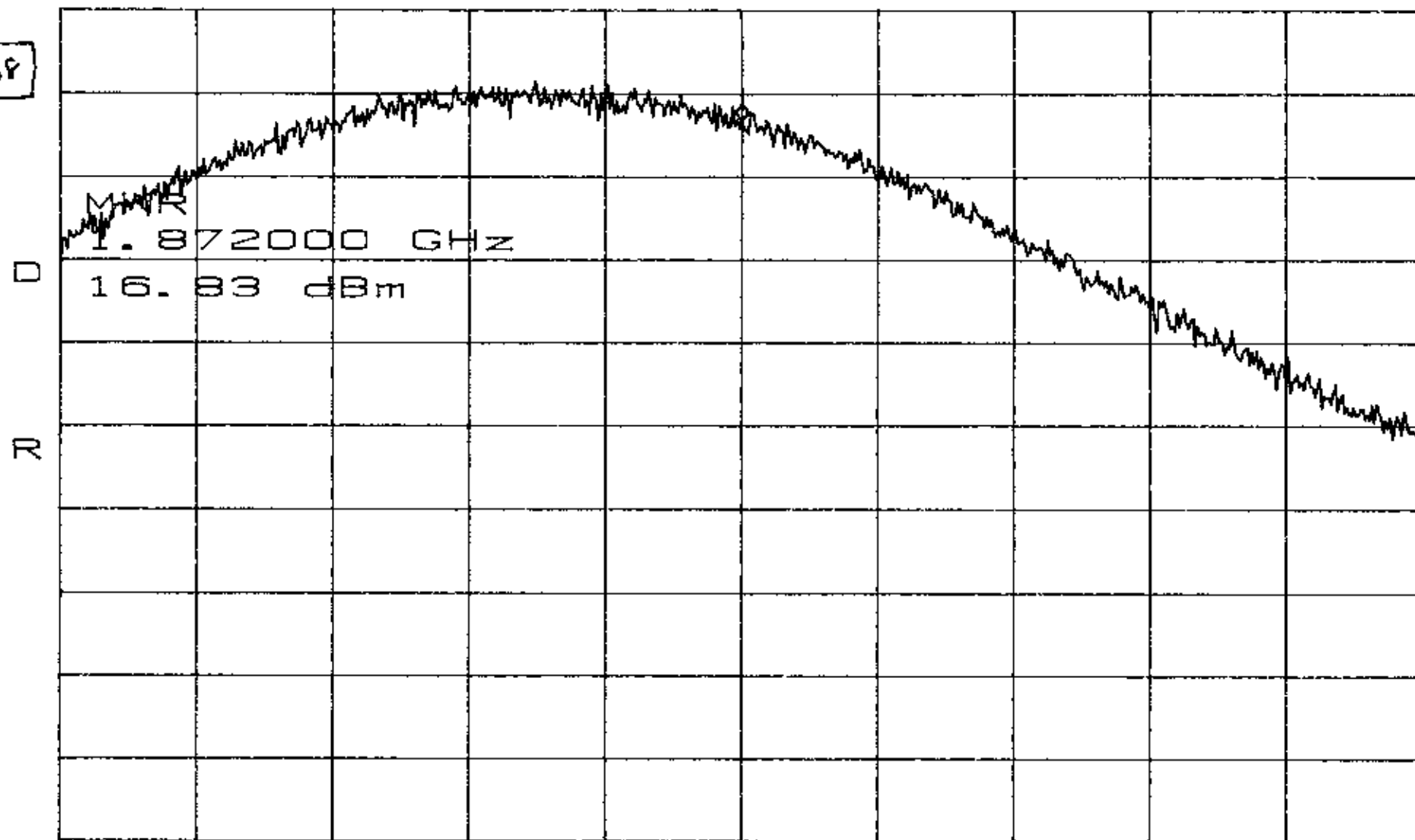
UL
CH.425(Low)

ABOVE FUNDAMENTAL
B-BAND

7/29/98

*ATTEN 10dB VAVG 10 MKR 16.83dBm
RL 30.0dBm 10dB/ 1.872000GHz

24.239



CENTER 1.872000GHz SPAN 5.000MHz
*RBW 1.0MHz *VBW 1.0MHz *SWP 50.0ms

CDR 1CH. X 7.1 W
S/N: FCC UNIT

UL
CH. 425 (Low)

ABOVE FUNDAMENTAL
B-BAND

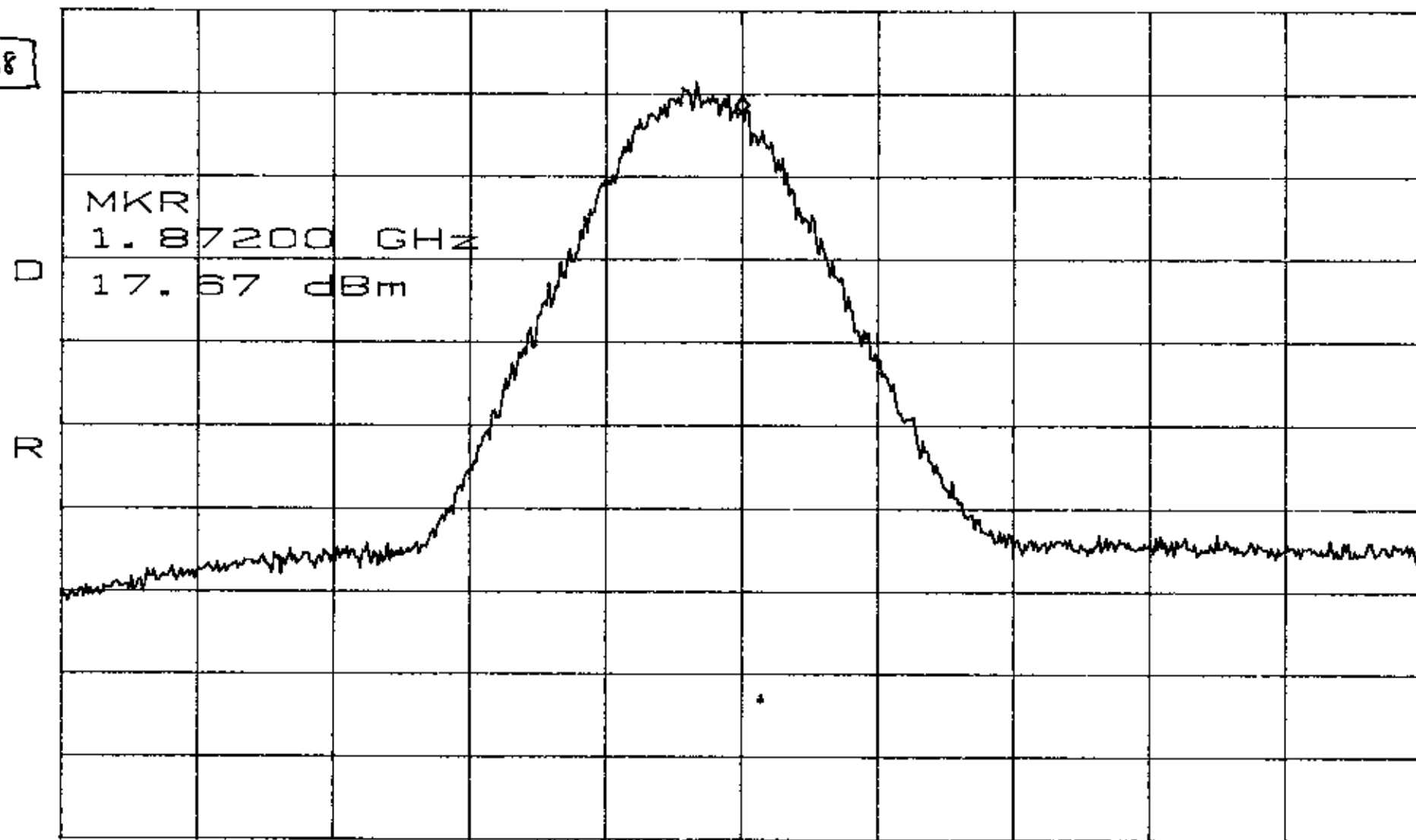
7/29/98

*ATTEN 10dB
RL 30.0dBm

VAVG 10
10dB/

MKR 17.67dBm
1.87200GHz

24.238



CENTER 1.87200GHz

SPAN 20.00MHz

*RBW 1.0MHz

*VBW 1.0MHz

*SWP 50.0ms

CDR 1CH. X7.1W

UL

BELOW FUNDAMENTAL

7/29/98

S/N: FCC UNIT

CH. 425 (LOW)

B-BAND

*ATTEN 10dB

VAVG 10

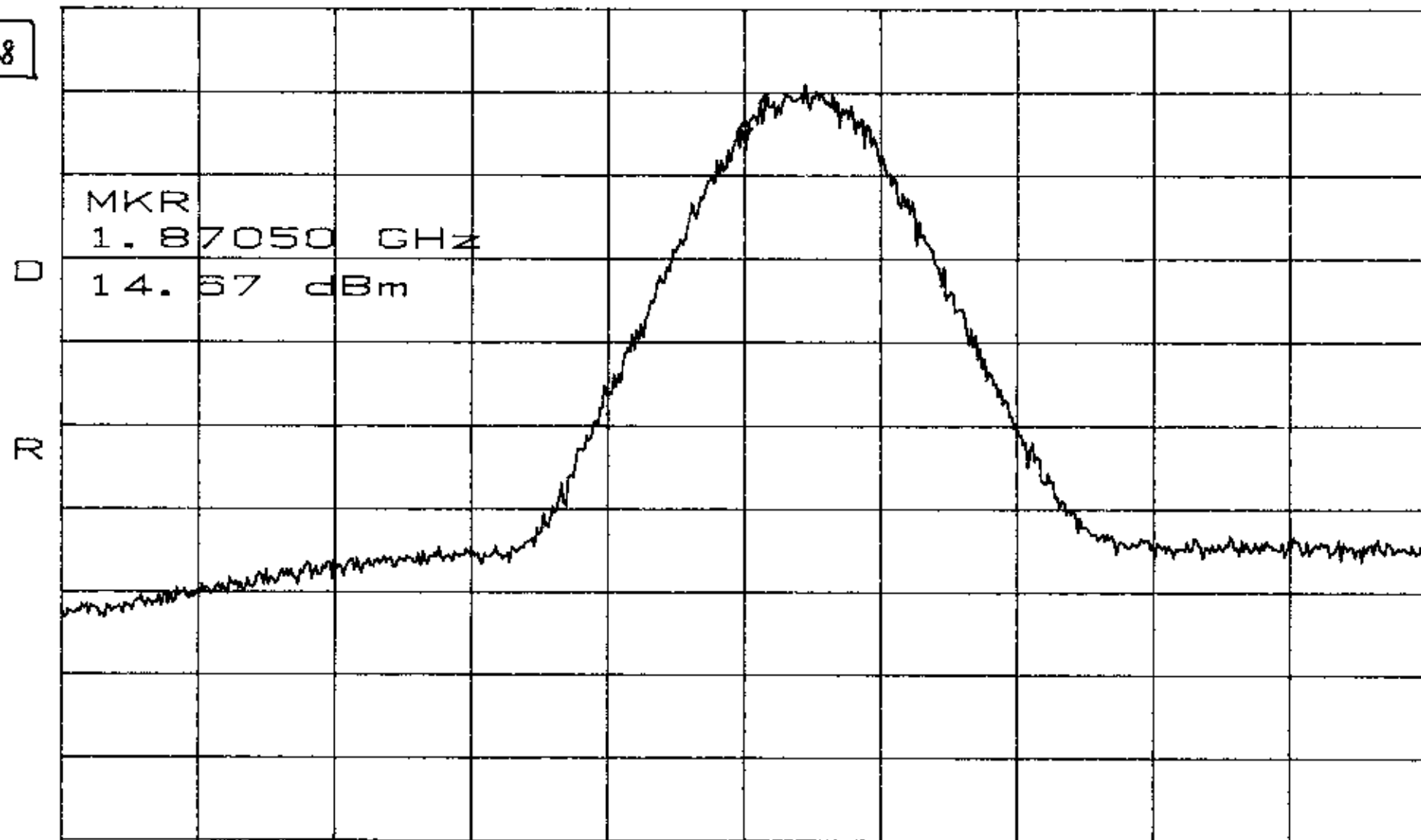
MKR 14.67dBm

RL 30.0dBm

10dB/

1.87050GHz

24.238



CENTER 1.87050GHz

SPAN 20.00MHz

*RBW 1.0MHz

*VBW 1.0MHz

*SWP 50.0ms

CDR 1CH. X 7.1W
S/N: FCC UNIT

UL
CH 425 (LOW)

BELOW FUNDAMENTAL
B-BAND

7/29/98

*ATTEN 10dB
RL 30.0dBm

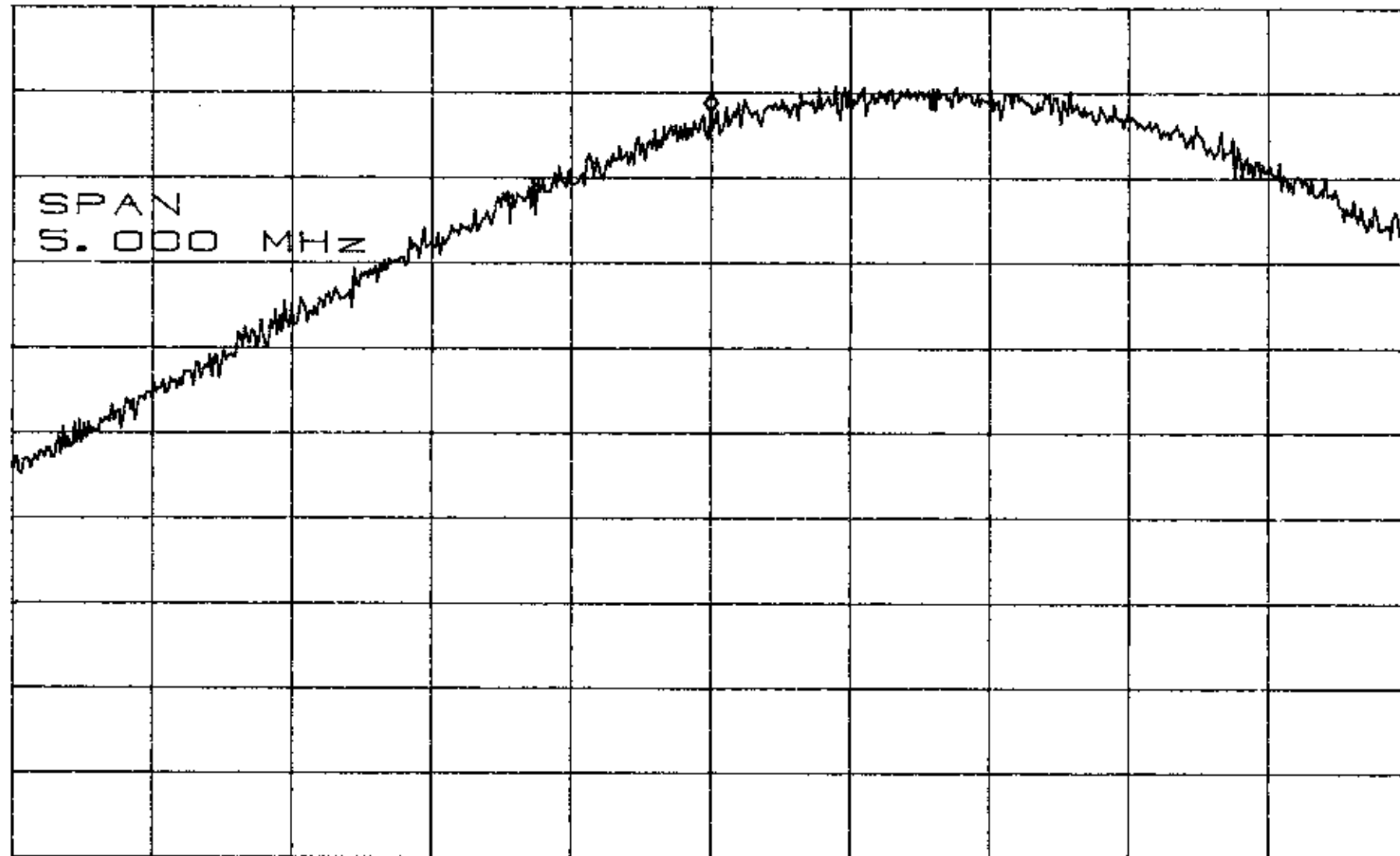
VAVG 10
10dB/

MKR 17.83dBm
1.870500GHz

24.238

SPAN
5.000 MHz

D
R



CENTER 1.870500GHz
*RBW 1.0MHz *VBW 1.0MHz SPAN 5.000MHz
*SWP 50.0ms

CDR 1CH.X 7.1W

UL

FUNDAMENTAL

7/29/98

S/N: FCC UNIT

CH. 675 (HIGH)

B-BAND

*ATTEN 10dB

VAVG 10

MKR 6.50dBm

RL 30.0dBm

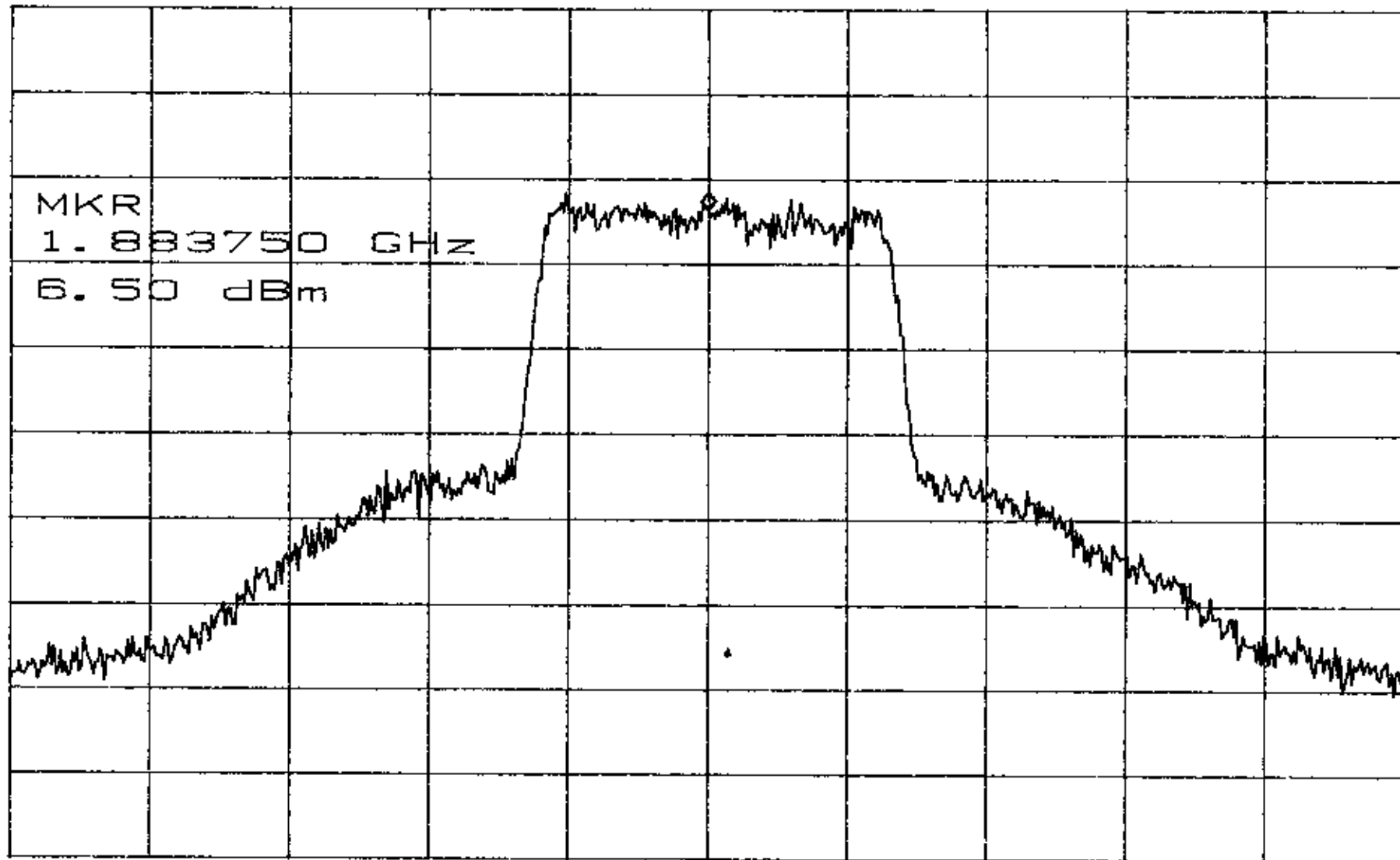
10dB/

1.883750GHz

24.238

MKR
1.883750 GHz
6.50 dBm

D
R



CENTER 1.883750GHz

SPAN 5.000MHz

*RBW 30kHz

*VBW 30kHz

*SWP 50.0ms

CDR ICIT. X7.1W

UL

ABOVE FUNDAMENTAL

7/29/98

S/N: FCC UNIT

CH. 675 (H14H)

B-BAND

*ATTEN 10dB

VAVG 10

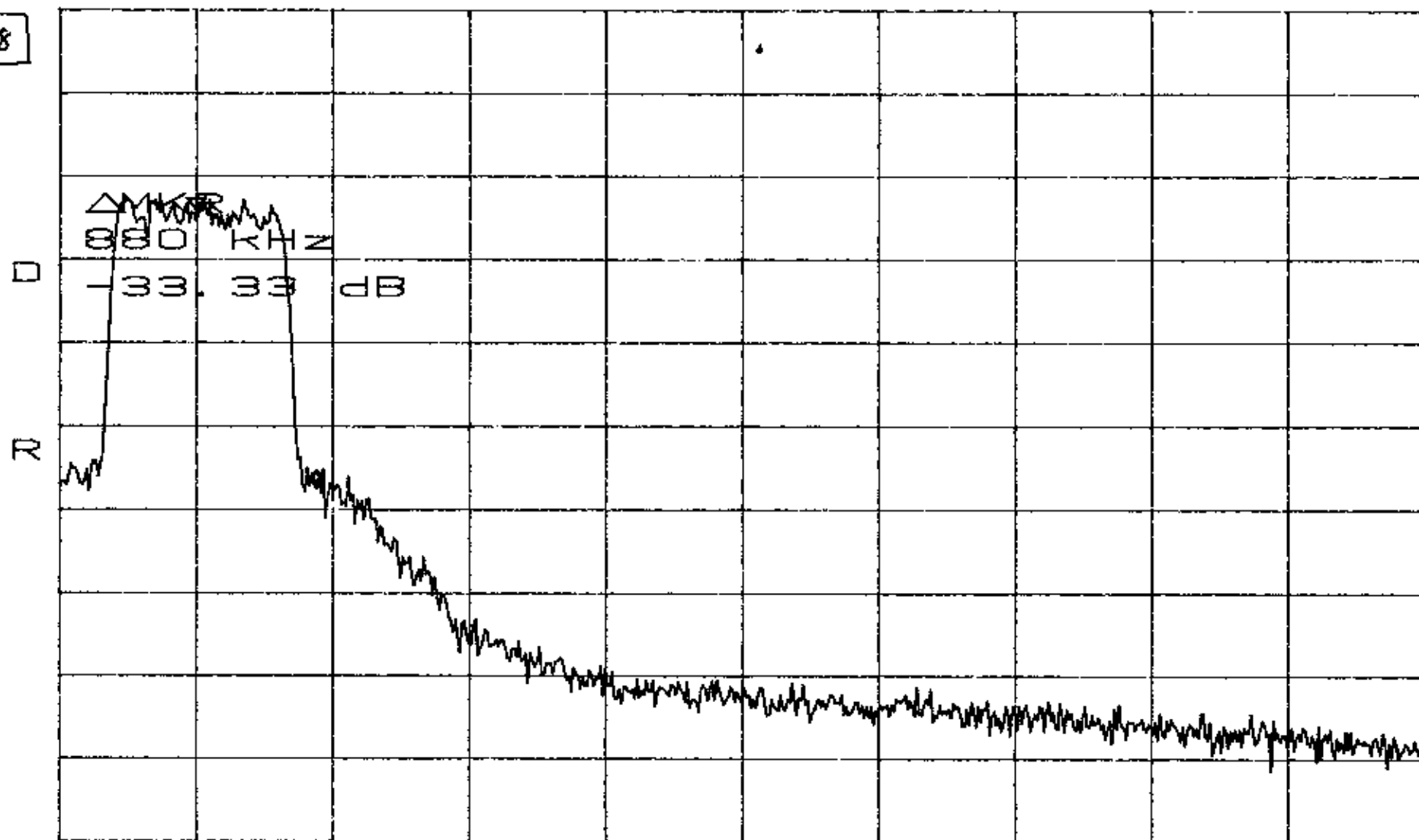
ΔMKR -33.33dB

RL 30.0dBm

10dB/

880kHz

24.238



CENTER 1.88775GHz

SPAN 10.00MHz

*RBW 30kHz

*VBW 30kHz

*SWP 50.0ms

CDR KIT. X 7.1 W
S/N: FCC UNIT

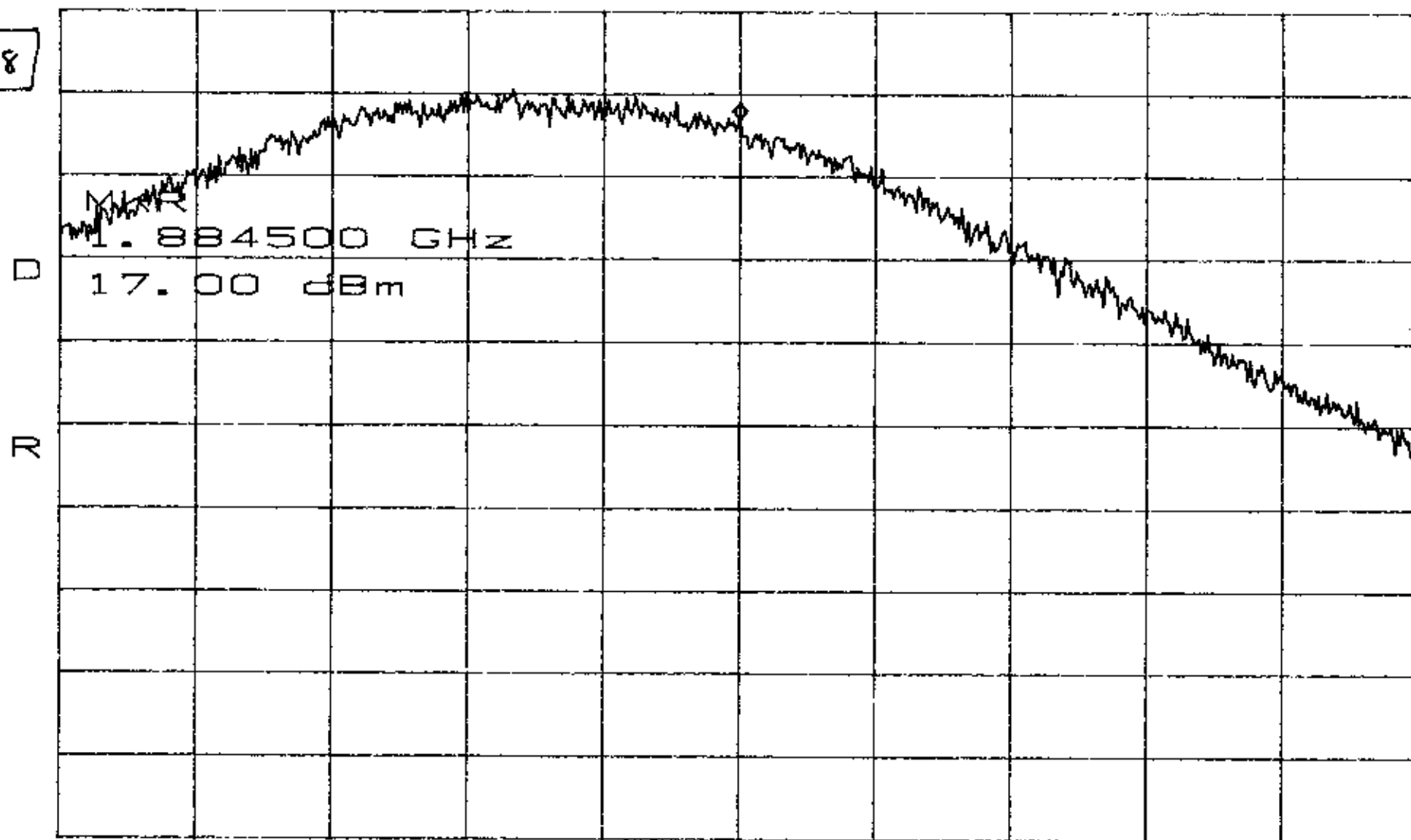
UL
CH. 675 (174H)

ABOVE FUNDAMENTAL
B-BAND

7/29/98

*ATTEN 10dB VAVG 10 MKR 17.00dBm
RL 30.00dBm 10dB/ 1.884500GHz

24.238



CENTER 1.884500GHz SPAN 5.000MHz
*RBW 1.0MHz *VBW 1.0MHz *SWP 50.0ms

CDR 1CA. X 7.1 W

UL

ABOVE FUNDAMENTAL

7/29/98

S/N: FCC UNIT

CH. 675 (HIGH)

B-BAND

*ATTEN 10dB

VAVG 10

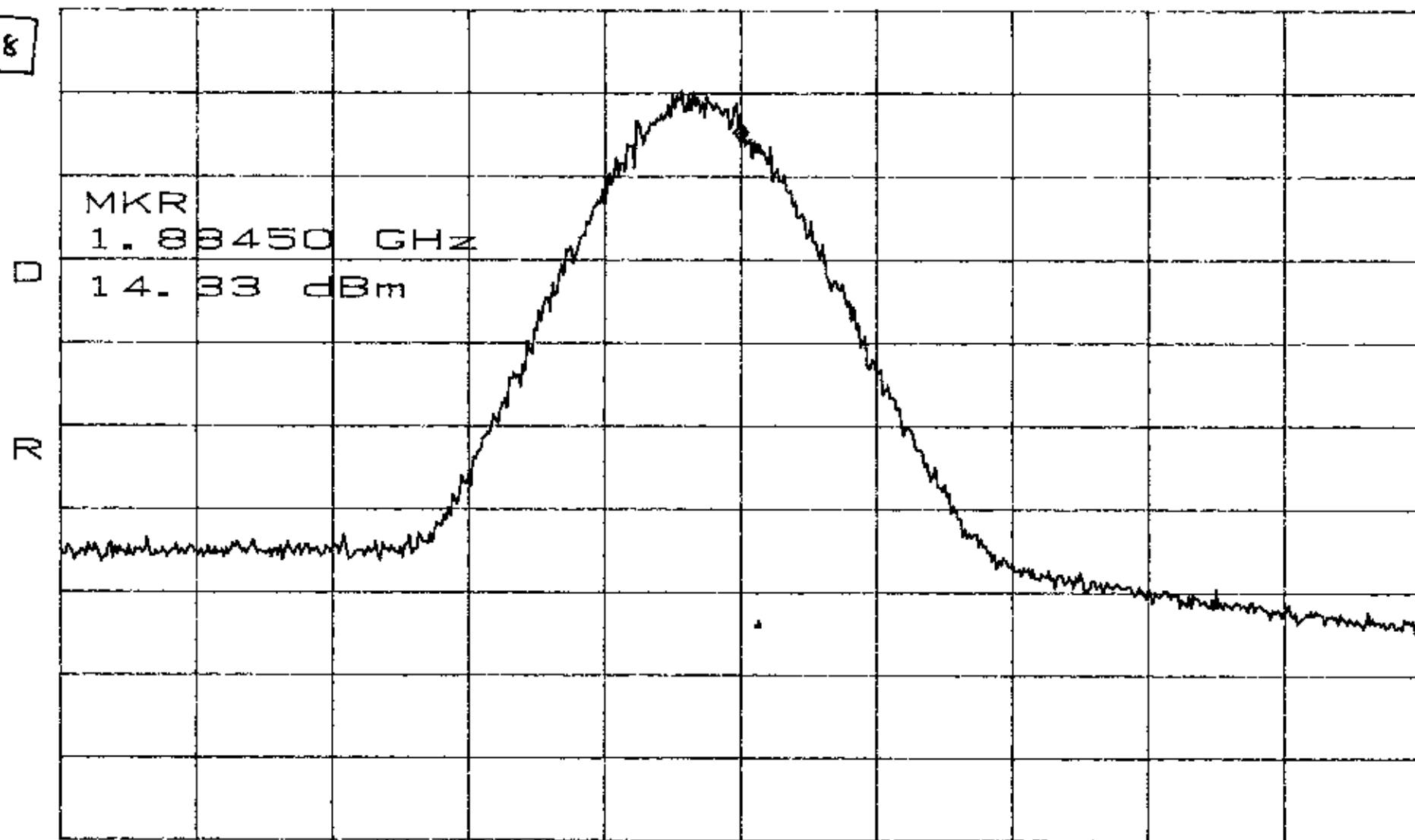
MKR 14.33dBm

RL 30.0dBm

10dB/

1.88450GHz

24.238



CENTER 1.88450GHz

SPAN 20.00MHz

*RBW 1.0MHz

*VBW 1.0MHz

*SWP 50.0ms

CDR 1CH, X 7.1 u
S/N: FCC UNIT

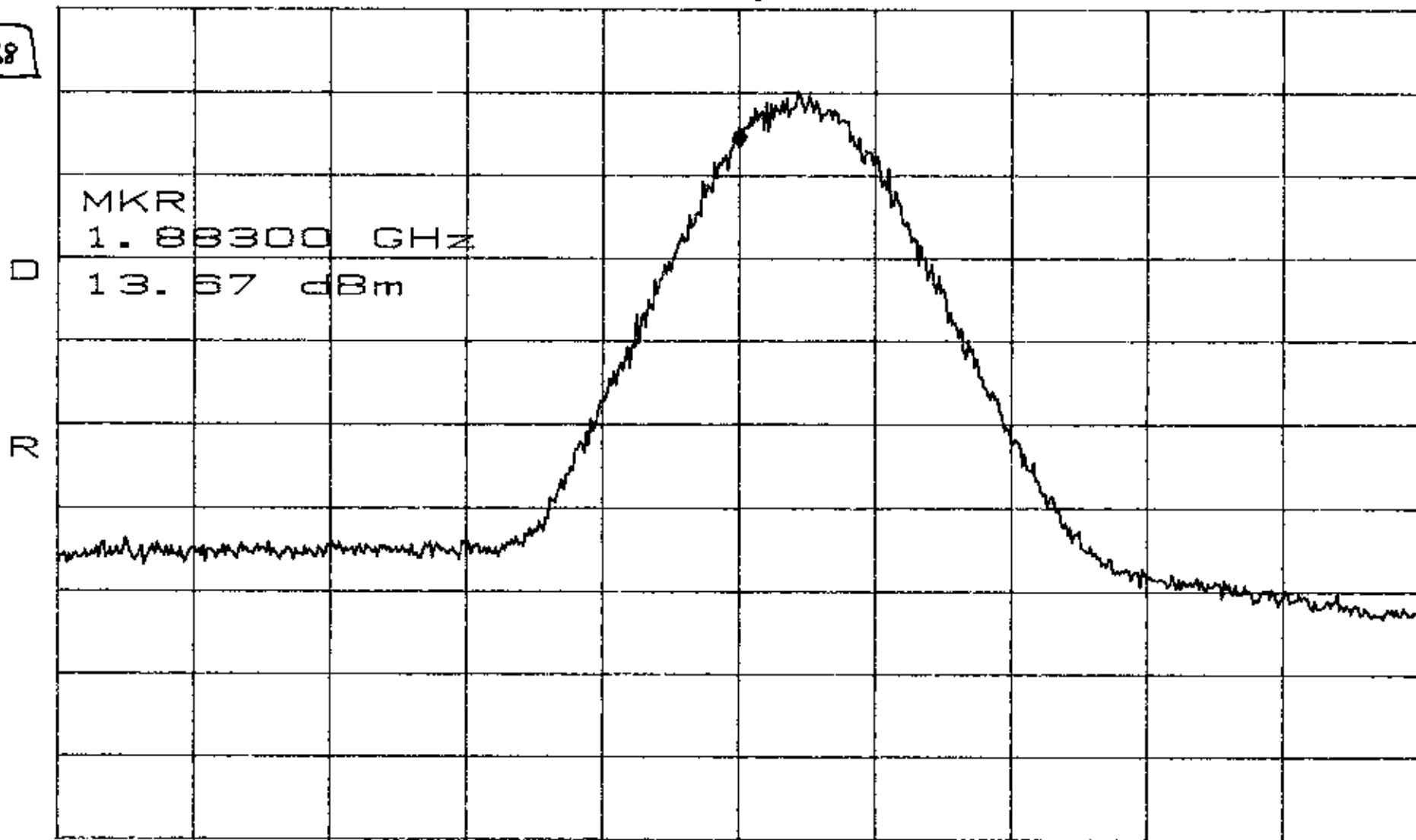
UL
CH. 675 (HIGH)

BELOW FUNDAMENTAL
B-BAND

7/29/98

*ATTEN 10dB VAVG 10 MKR 13.67dBm
RL 30.0dBm 10dB/ 1.88300GHz

24,238



CENTER 1.88300GHz SPAN 20.00MHz
*RBW 1.0MHz *VBW 1.0MHz *SWP 50.0ms

CDR ICIT. X 7.1W
S/N : FCC UNIT

UL
CH. 675 (HIGH)

BELOW FUNDAMENTAL
B-BAND

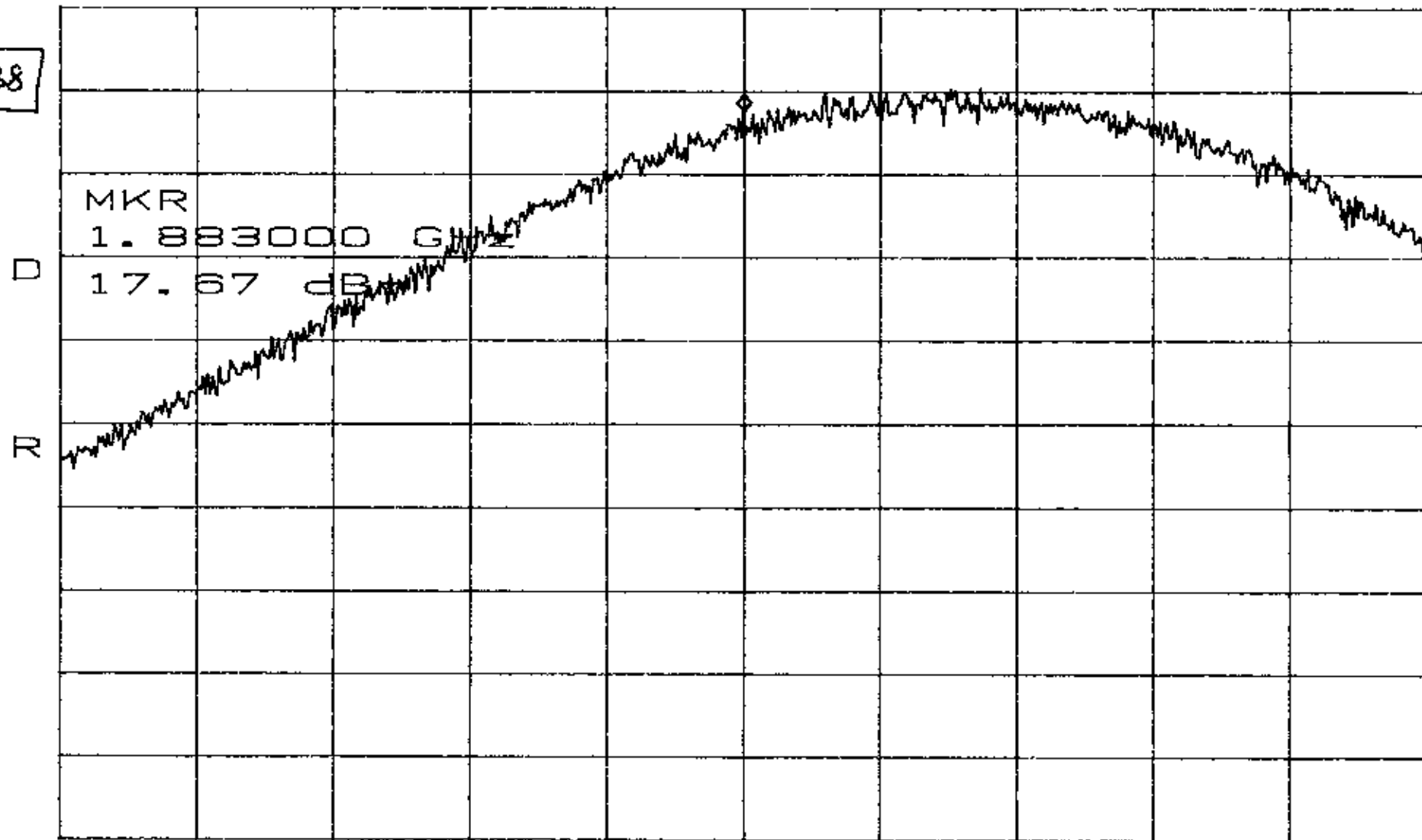
7/29/98

*ATTEN 10dB
RL 30.0dBm

VAVG 10
10dB/

MKR 17.67dBm
1.883000GHz

24.238



CENTER 1.883000GHz

SPAN 5.000MHz

*RBW 1.0MHz

*VBW 1.0MHz

*SWP 50.0ms

CDR 1CH. X 7.1 W
S/N: FCC UNIT

DL
CH. 675 (H19A)

FUNDAMENTAL
B-BAND

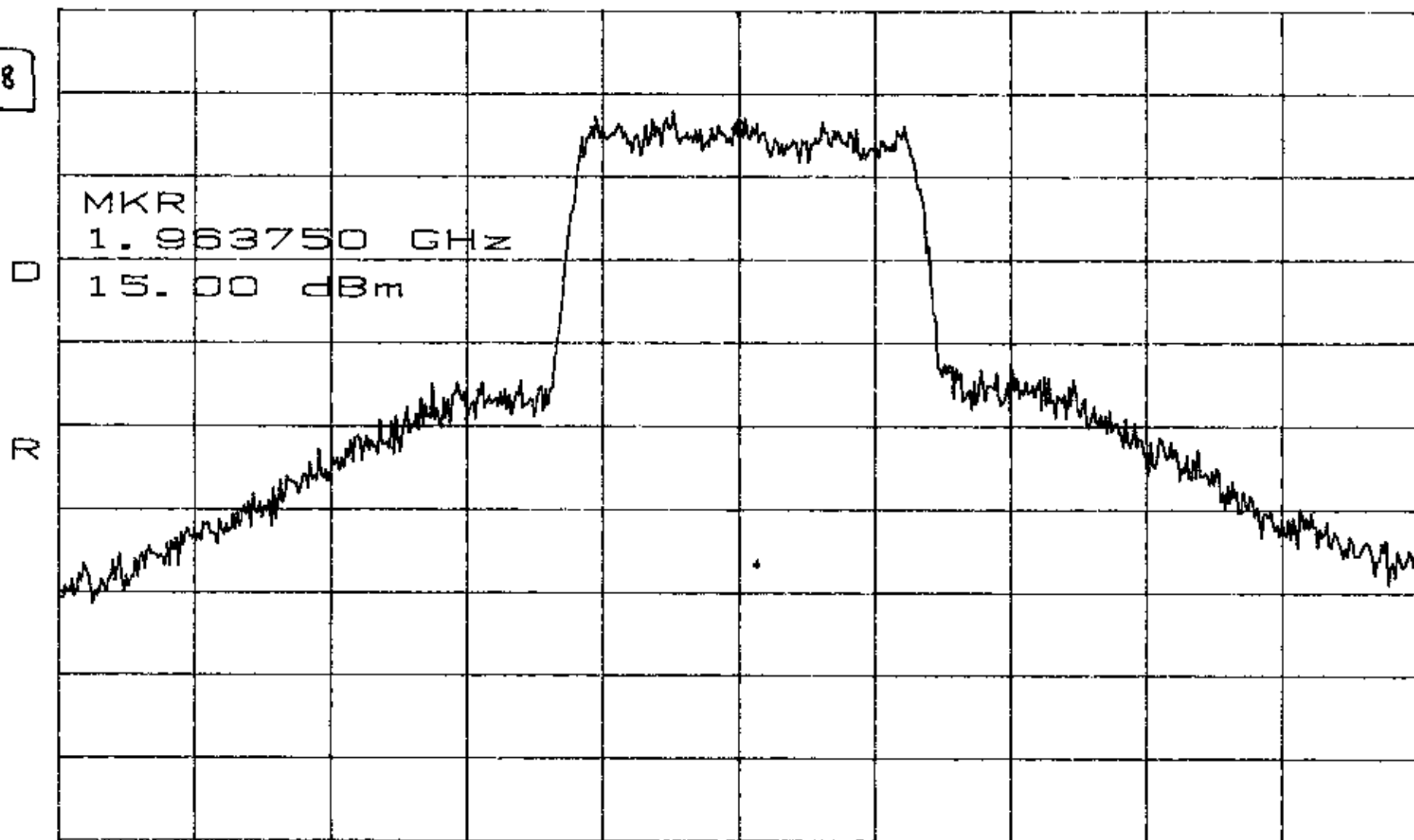
7/29/98

*ATTEN 10dB
RL 30.00dBm

VAVG 10
10dB/

MKR 15.00dBm
1.963750GHz

24.238



CENTER 1.963750GHz

SPAN 5.000MHz

*RBW 30kHz

*VBW 30kHz

*SWP 50.0ms

CDR 1CH.X 7.1W
S/N: FCC UNIT

DL
CH. 675 (11KHz)

ABOVE FUNDAMENTAL
B-BAND

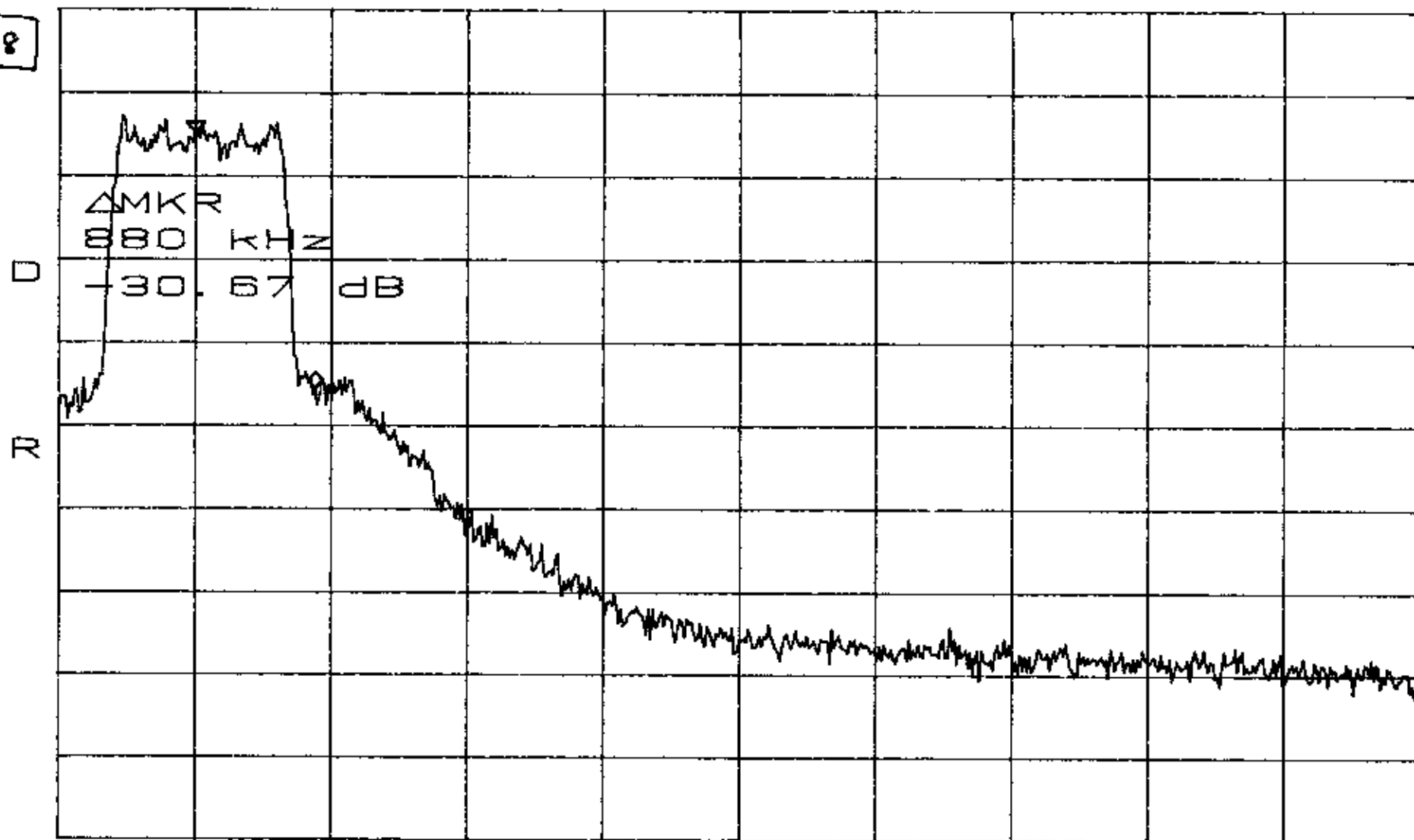
7/29/98

*ATTEN 10dB
RL 30.0dBm

VAVG 10
10dB/

Δ MKR -30.67dB
880kHz

24.238



CENTER 1.96775GHz

SPAN 10.00MHz

*RBW 30kHz

*VBW 30kHz

*SWP 50.0ms

(DR) 1CH. X 7.1W

DL

ABOVE FUNDAMENTAL

7/29/98

S/N: FCC UNIT

CH. 675 (HIGH)

B-BAND

*ATTEN 10dB

VAVG 10

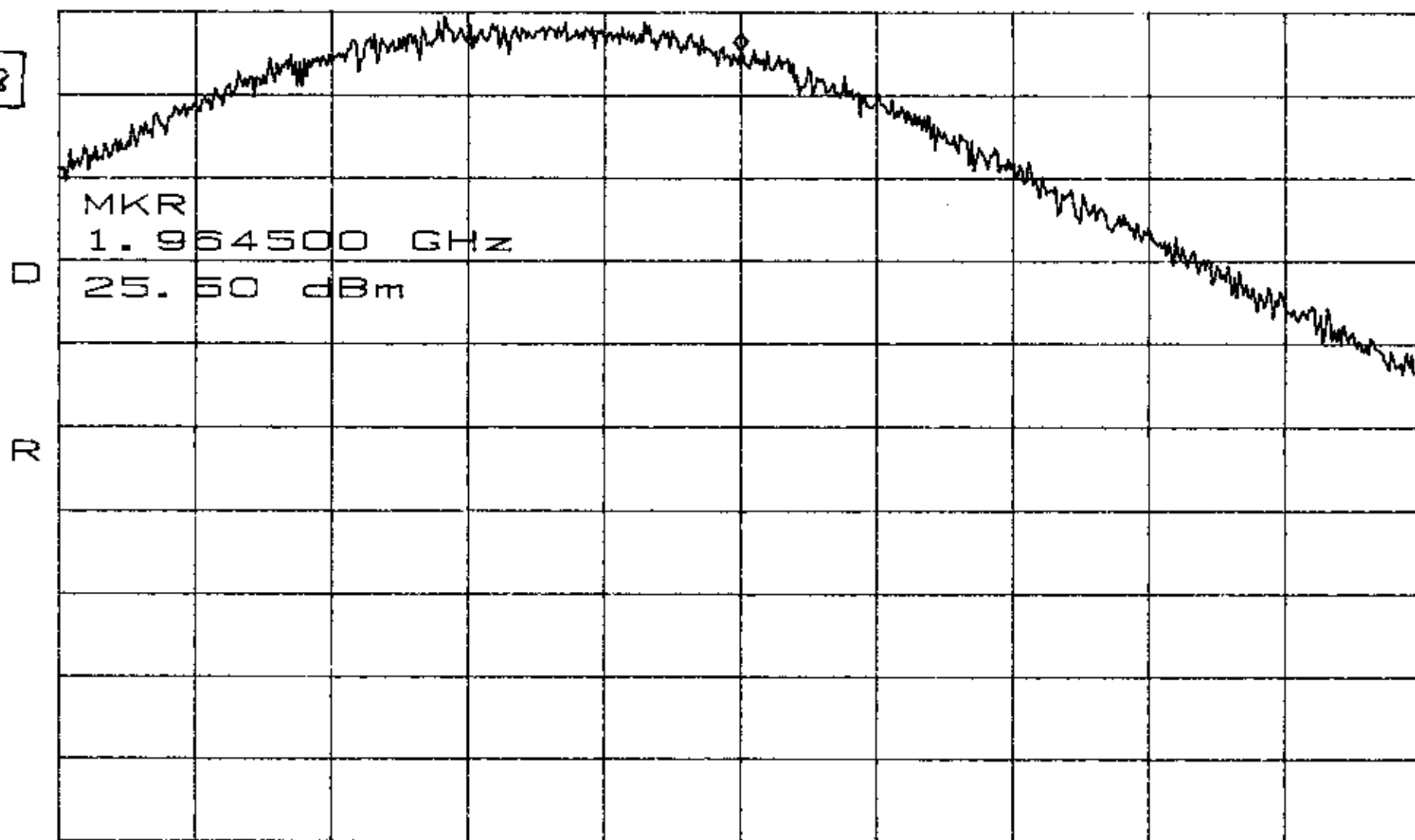
MKR 25.50dBm

RL 30.0dBm

10dB/BPO

1.964500GHz

24.238



CENTER 1.964500GHz

SPAN 5.000MHz

*RBW 1.0MHz

*VBW 1.0MHz

*SWP 50.0ms

CDR 1CH. X 7.1W
S/N: FCC DNT

DL
CH. 675 (MHz)

ABOUT FUNDAMENTAL
B-BAND

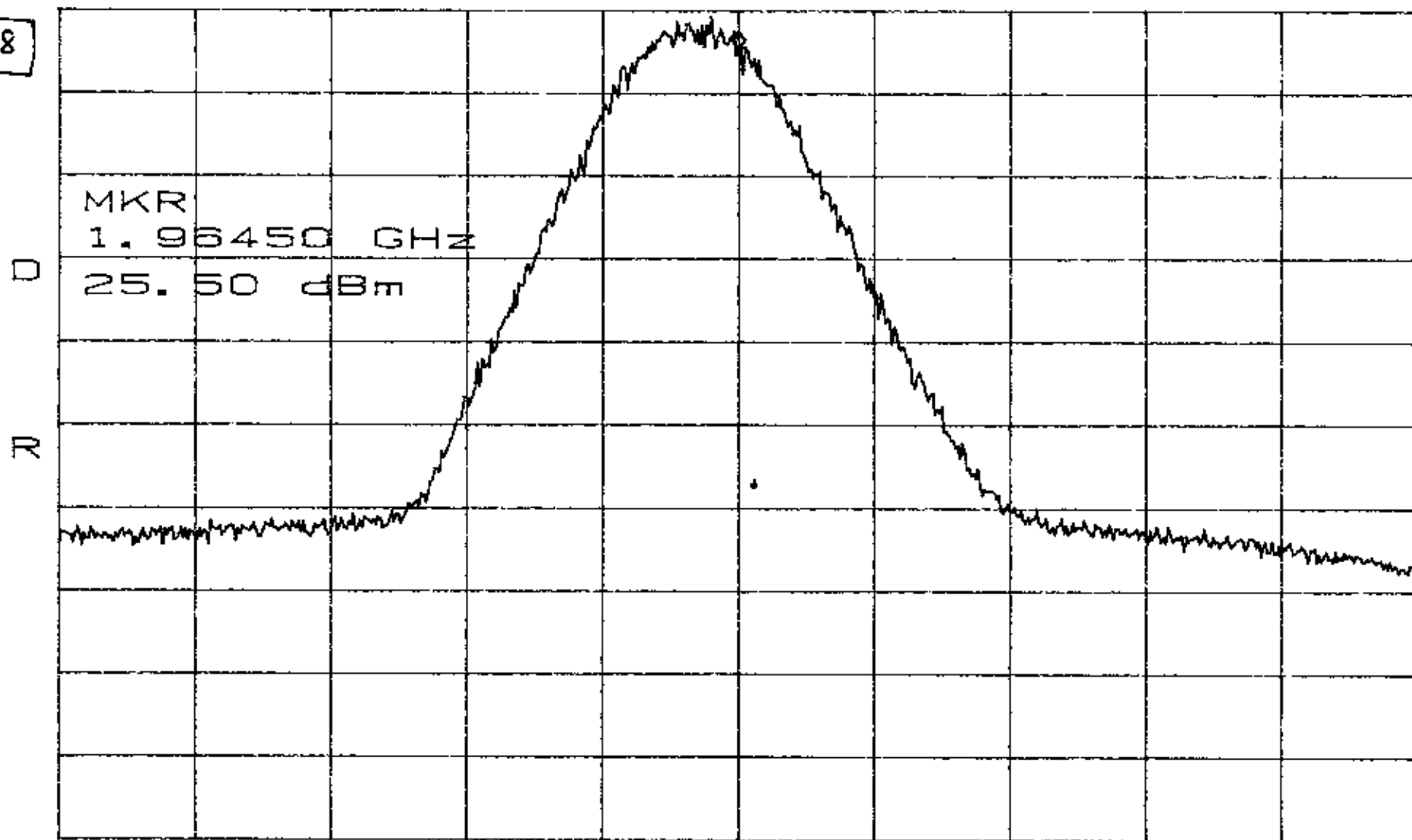
7/29/98

*ATTEN 10dB
RL 30.0dBm

VAVG 10
10dB/

MKR 25.50dBm
1.96450GHz

24.238



CENTER 1.96450GHz

SPAN 20.00MHz

*RBW 1.0MHz

*VBW 1.0MHz

*SWP 50.0ms

CDR 1CH.X7.1W

DL

~~BELOW~~

FUNDAMENTAL

7/29/98

S/N: FCC UNIT

CH.675 (HAR)

B-BAND

*ATTEN 10dB

VAVG 10

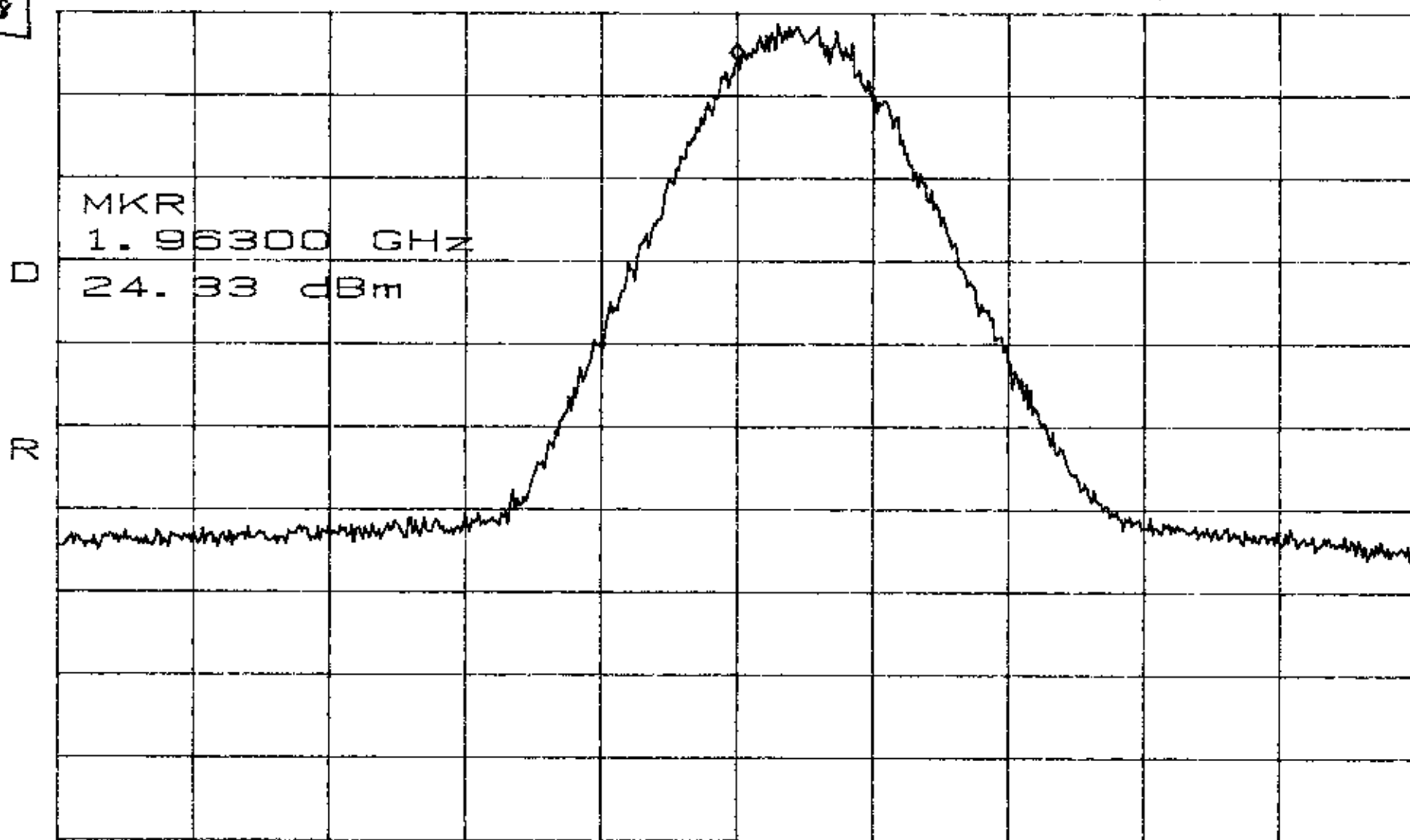
MKR 24.33dBm

RL 30.0dBm

10dB/

1.96300GHz

24.288



CENTER 1.96300GHz

SPAN 20.00MHz

*RBW 1.0MHz

*VBW 1.0MHz

*SWP 50.0ms

CDR 1CH. X71W
SIN: FCC UNIT

DL
CH. 675 (MHz)

Below Fundamental
B-BAND

7/29/98

*ATTEN 10dB

VAVG 10

MKR 24.50dBm

RL 30.00dBm

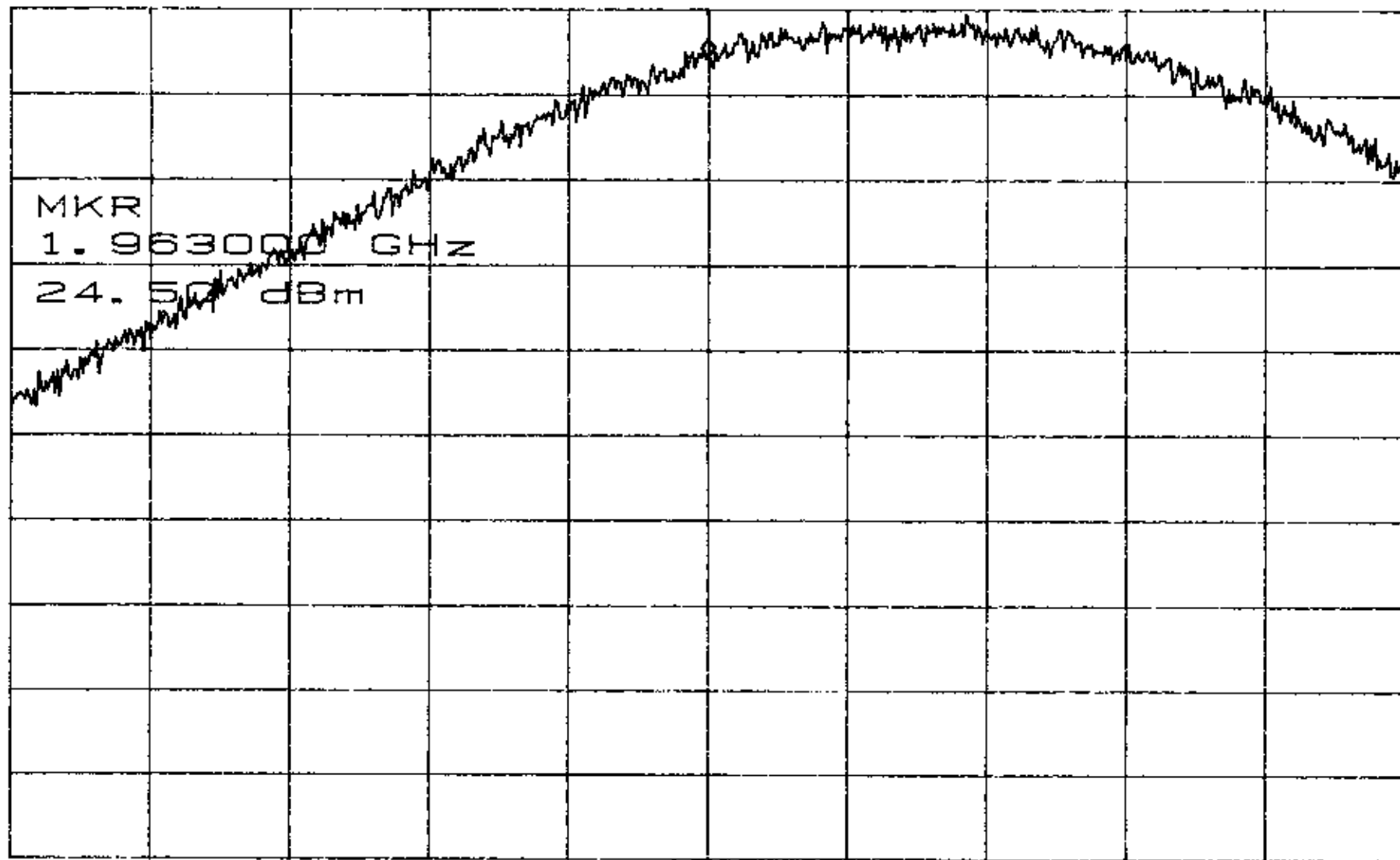
10dB/

1.963000GHz

24.238

D

R



CENTER 1.963000GHz

SPAN 5.000MHz

*RBW 1.0MHz

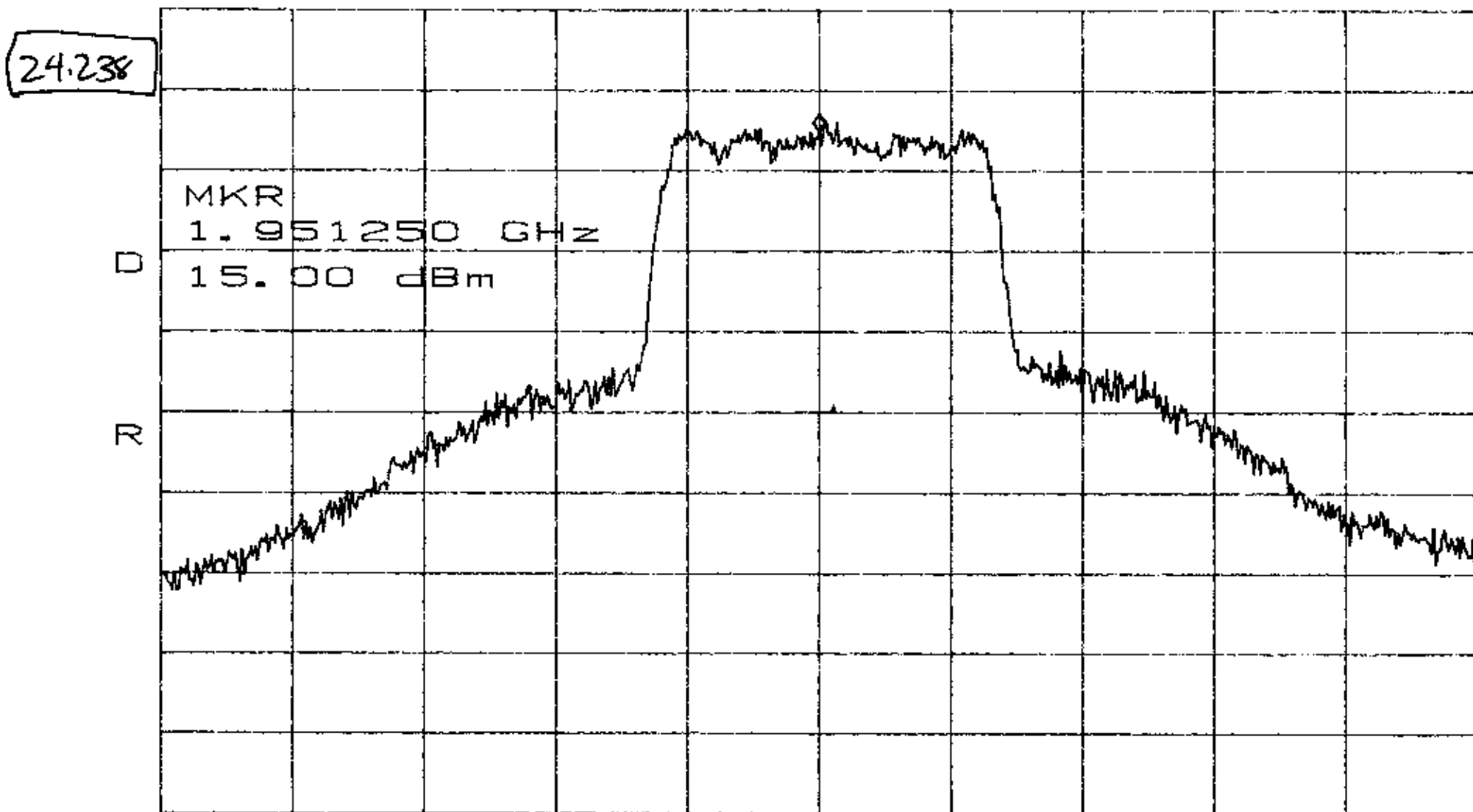
*VBW 1.0MHz

*SWP 50.0ms

7/29/98

MKR 15.00dBm

1. 951250GHN



CENTER 1.951250GHZ

SPAN 5.000MHz

```
*RBW 30kHz
```

```
*VBW 30KHZ
```

*SWP 50.0ms

CDR 1CH.X 7.1W

DL

BELOW FUNDAMENTAL

7/29/98

S/N: FCC UNIT

CH. 425 (LOW)

B-BAND

*ATTEN 10dB

VAVG 10

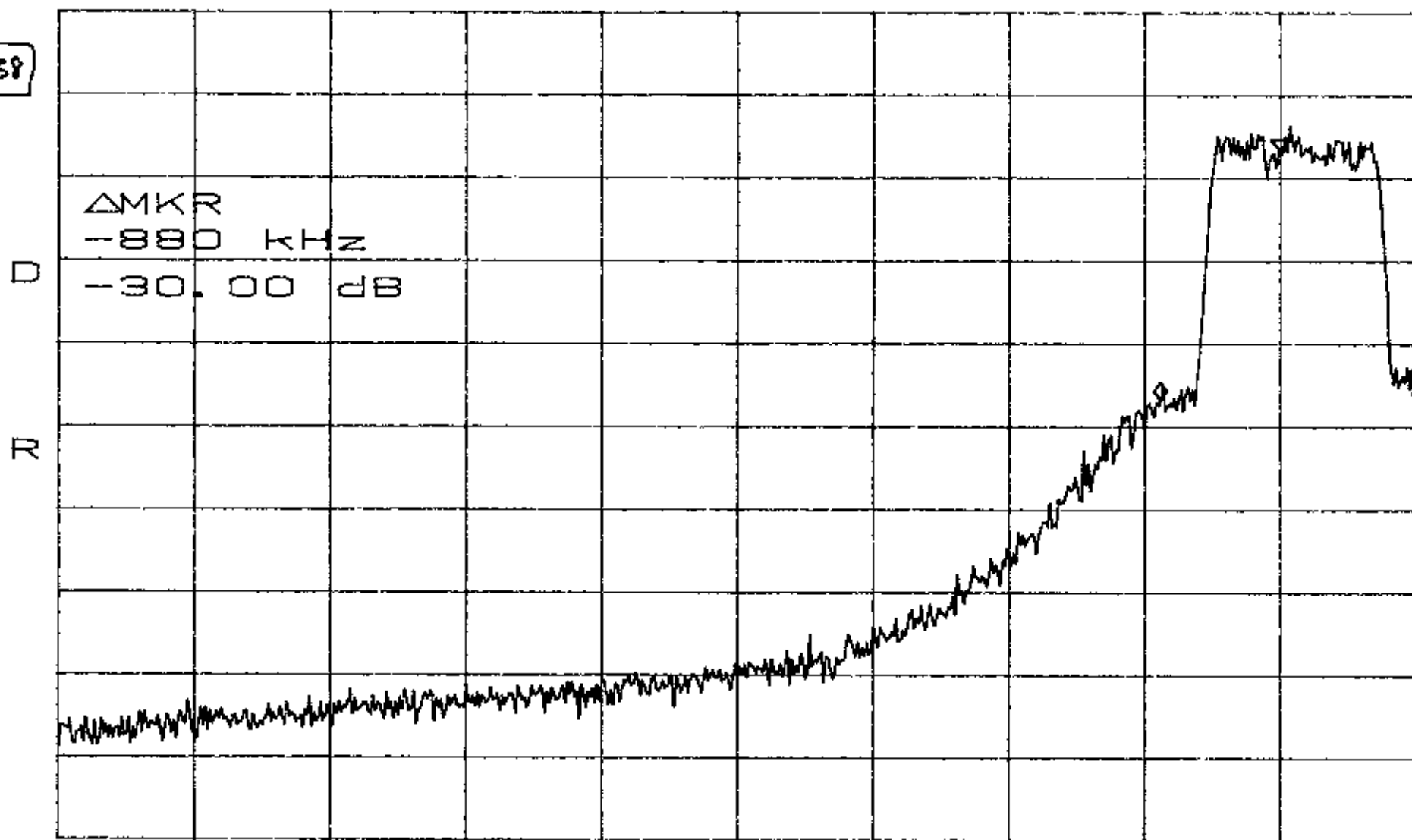
ΔMKR -30.00dB

RL 30.0dBm

10dB/

-880kHz

24.238



CENTER 1.94725GHz

SPAN 10.00MHz

*RBW 30kHz

*VBW 30kHz

*SWP 50.0ms

CDR 1CH. X7.1W

DL

ABOVE FUNDAMENTAL

7/29/98

S/N: FCC UNIT

CH. 425 (LOW)

B-BAND

*ATTEN 10dB

VAVG 10

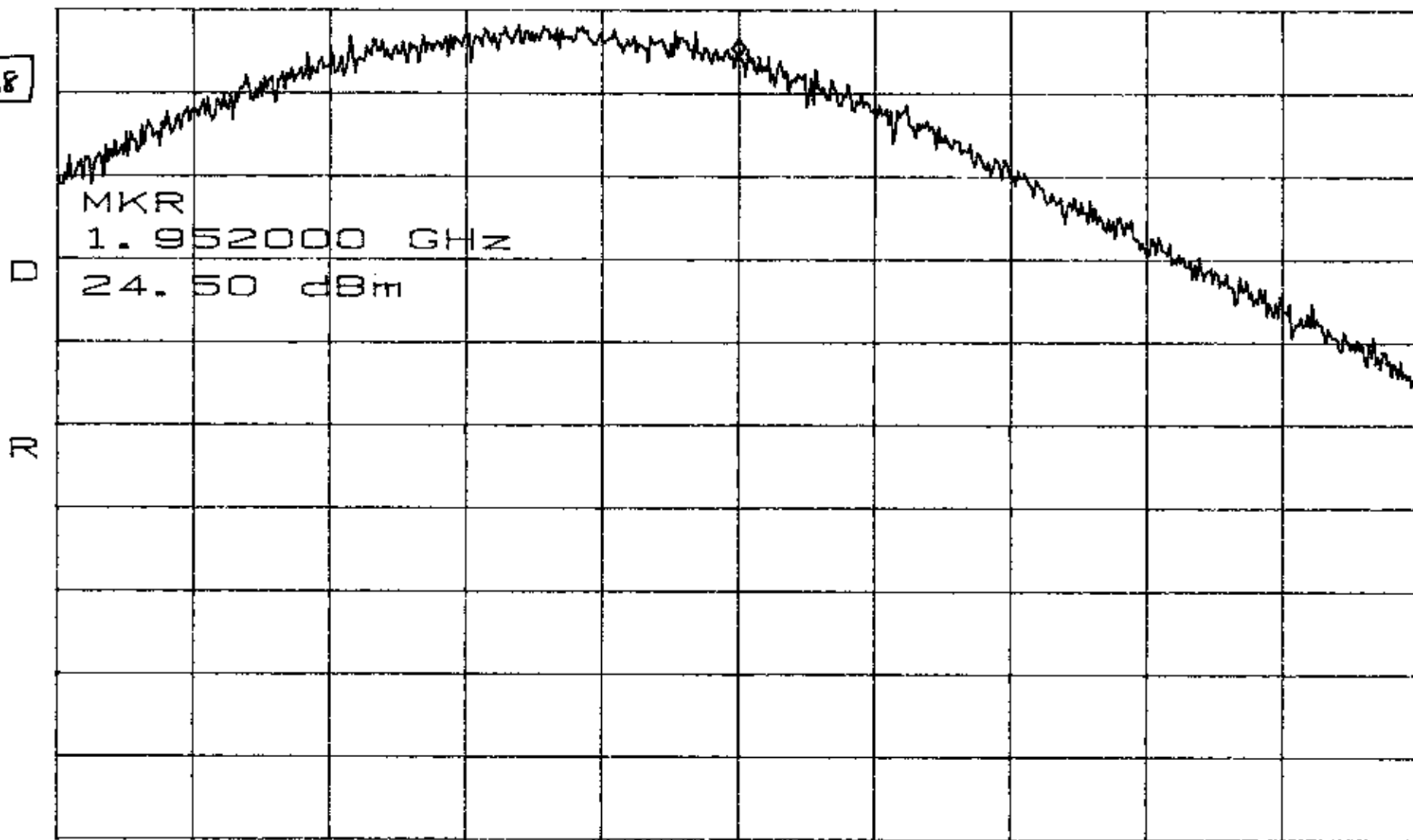
MKR 24.50dBm

RL 30.0dBm

10dB/

1.952000GHz

24.238



CENTER 1.952000GHz

SPAN 5.000MHz

*RBW 1.0MHz

*VBW 1.0MHz

*SWP 50.0ms

CDR 1CH.X7.1W
S/N: FCC UNIT

DL
CH.425(Low)

ABOVE FUNDAMENTAL
B-BAND

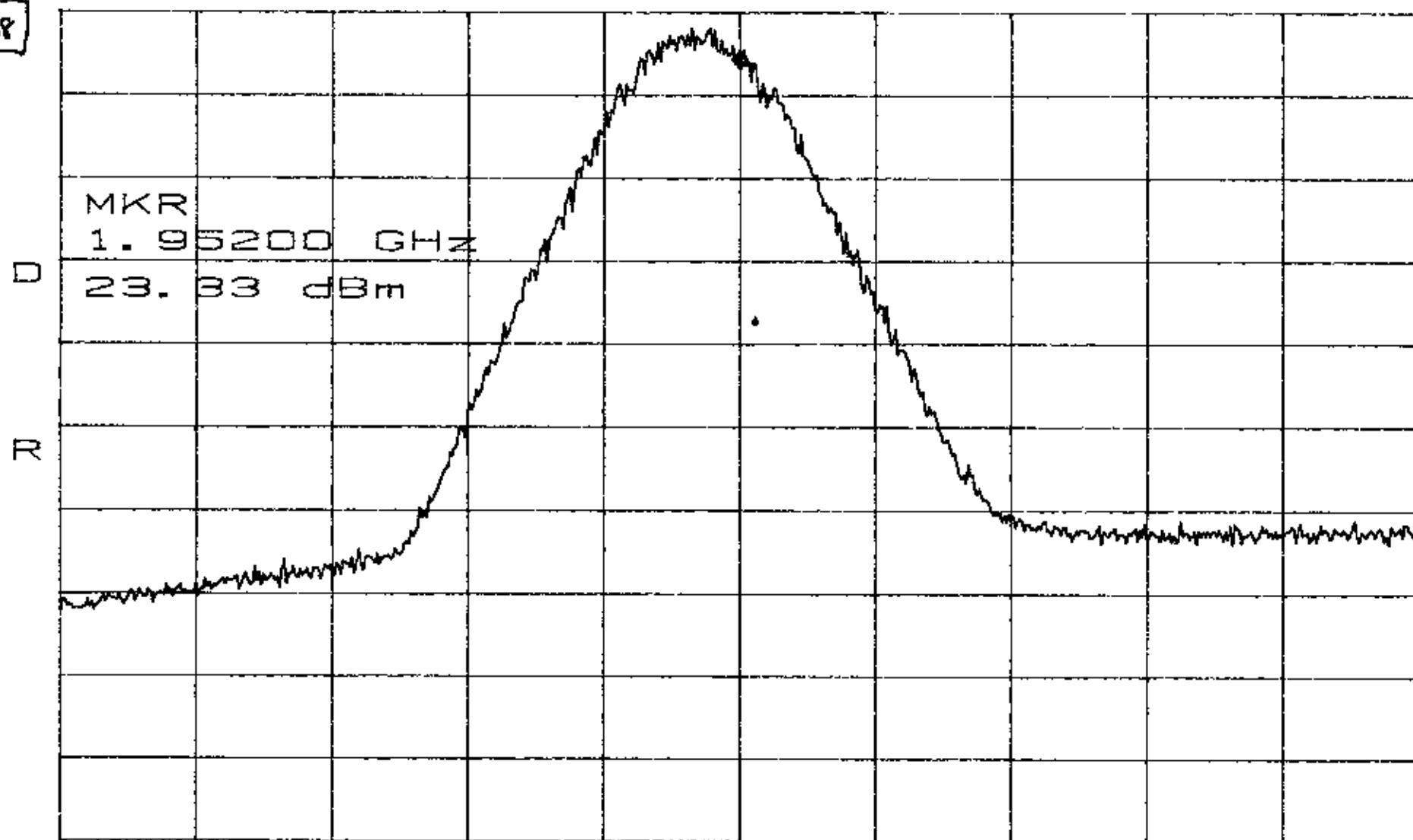
7/29/98

*ATTEN 10dB
RL 30.0dBm

VAVG 10
10dB/

MKR 23.33dBm
1.95200GHz

24.238



CENTER 1.95200GHz SPAN 20.00MHz
*RBW 1.0MHz *VBW 1.0MHz *SWP 50.0ms

CDR 1CH.X7.1W

DL

Below FUNDAMENTAL

7/29/98

S/N: FCC UNIT

CH. 425 (LOW)

B-BAND

*ATTEN 10dB

VAVG 10

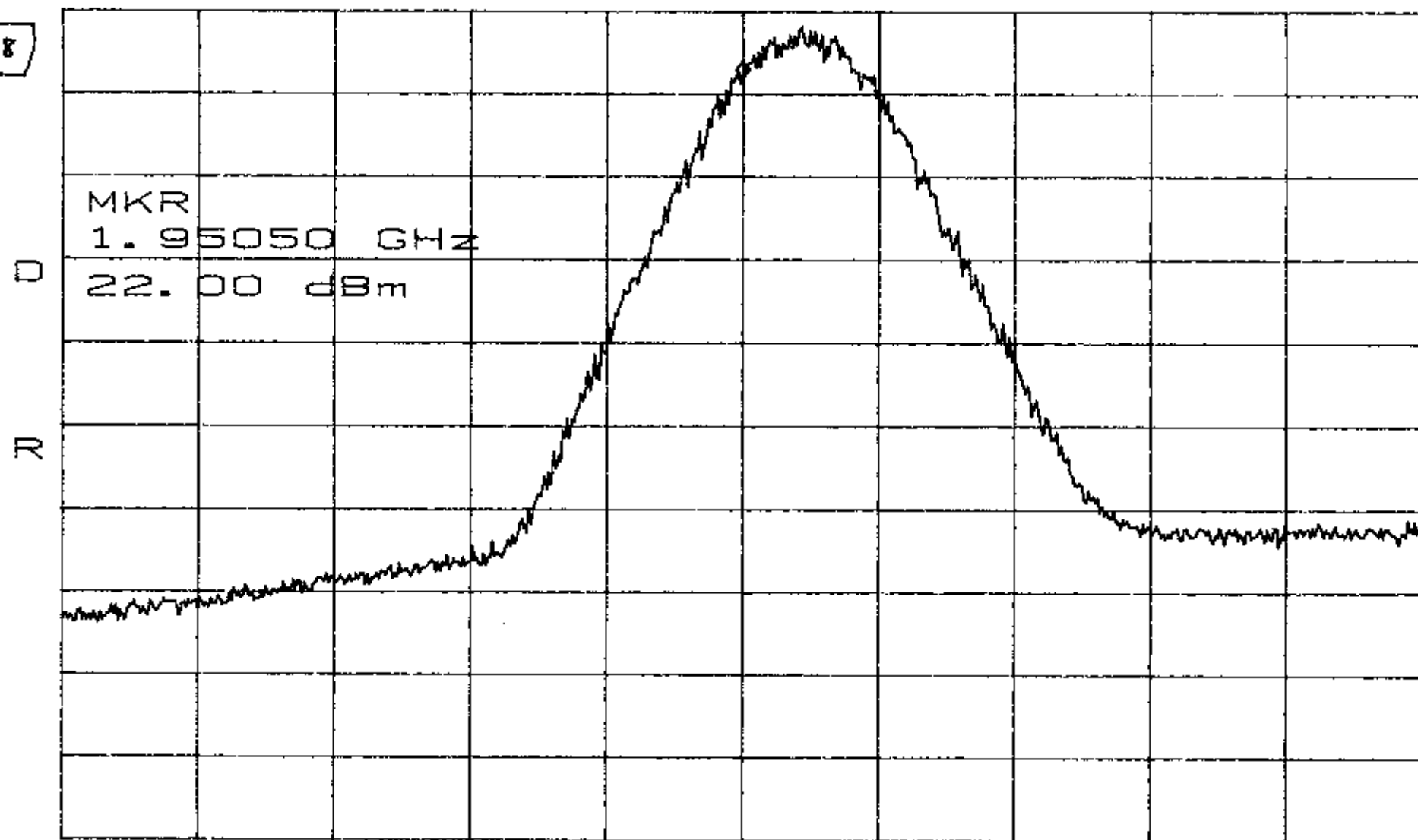
MKR 22.00dBm

RL 30.00dBm

10dB/

1.95050GHz

24.238



CENTER 1.95050GHz

SPAN 20.00MHz

*RBW 1.0MHz

*VBW 1.0MHz

*SWP 50.0ms

CDR 1 CH. X 7.1 W

DL

Below Fundamental

7/29/98

S/N: FCC UNIT

CH. 425 (Low)

B-BAND

*ATTEN 10dB

VAVG 10

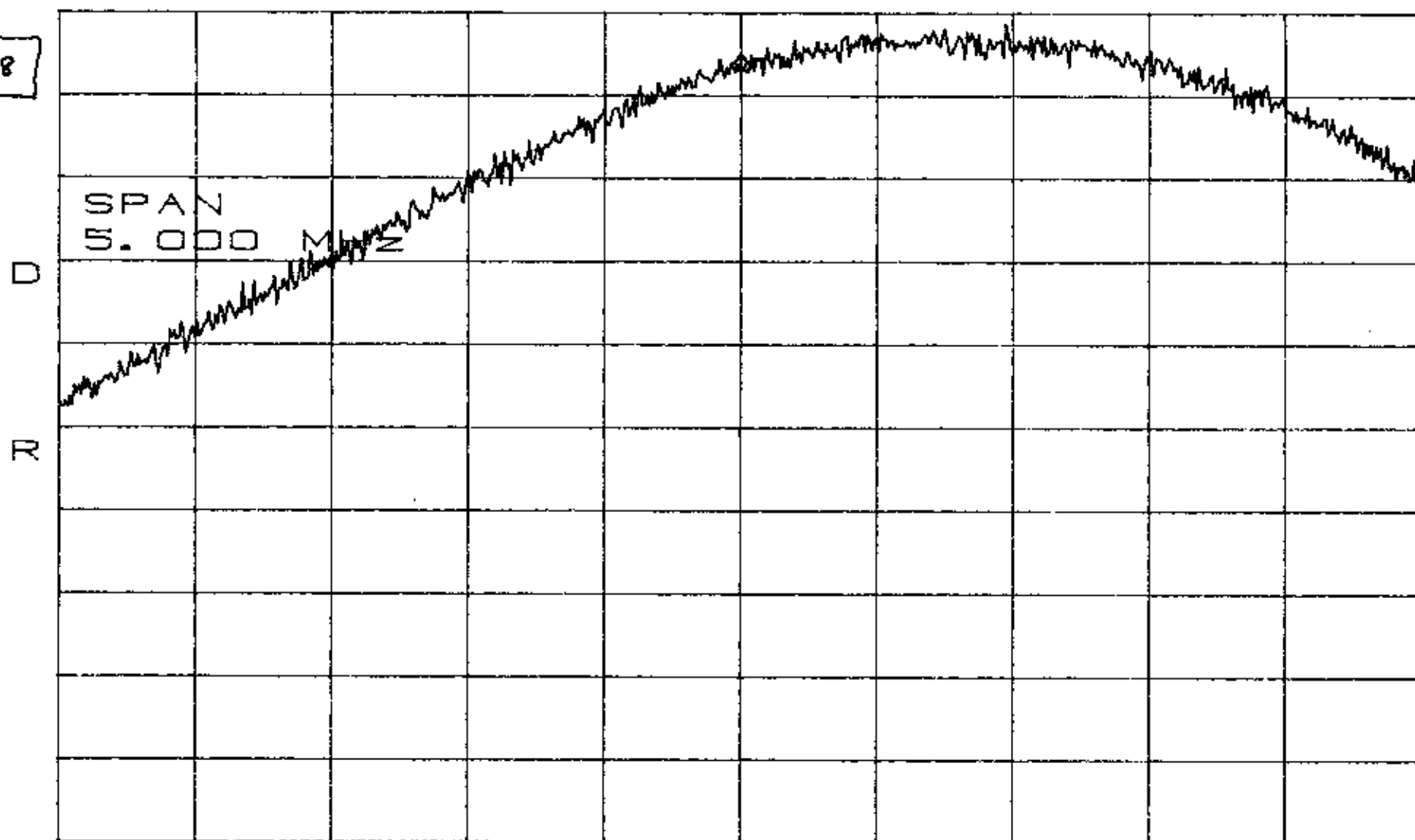
MKR 23.00dBm

RL 30.0dBm

10dB/

1.950500GHz

24.238



CENTER 1.950500GHz

SPAN 5.000MHz

*RBW 1.0MHz

*VBW 1.0MHz

*SWP 50.0ms