

A.8 CONDUCTED EMISSION DATA

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

S/N: FCC Unit

Test Date: 8/3/98

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)
725	1886.25	29.77
800	1890.00	29.82
875	1893.75	29.81

DOWNLINK:

Channel	Frequency (MHz)	Output Power (dBm)
725	1966.25	38.35
800	1970.00	38.35
875	1973.75	38.60

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

CDR 104.X7.1W
S/N: FCC UNIT

DL
CH. 725 (LOW)

E(F-BAND)

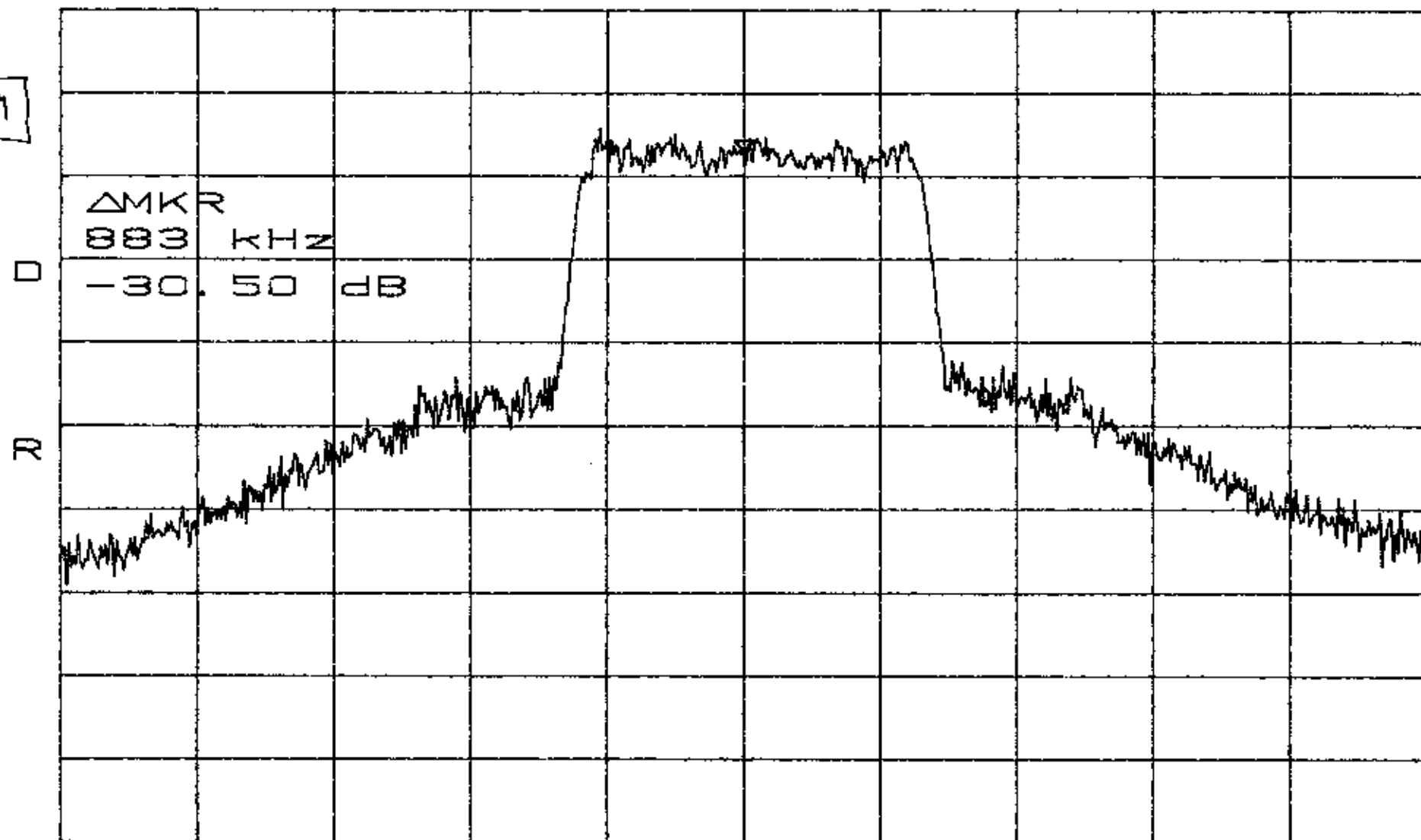
8/3/98

*ATTN 10dB
RL 30.0dBm

VAVG 10
10dB/BPO1

Δ MKR -30.50dB
883kHz

2.989



CENTER 1.966250GHz
*RBW 30kHz *VBW 30kHz SPAN 5.000MHz
*SWP 50.0ms

CDR 10th X 7.1W
S/N: FCC UNIT

DL
CH. 875 (HIGH)

E/F-BAND

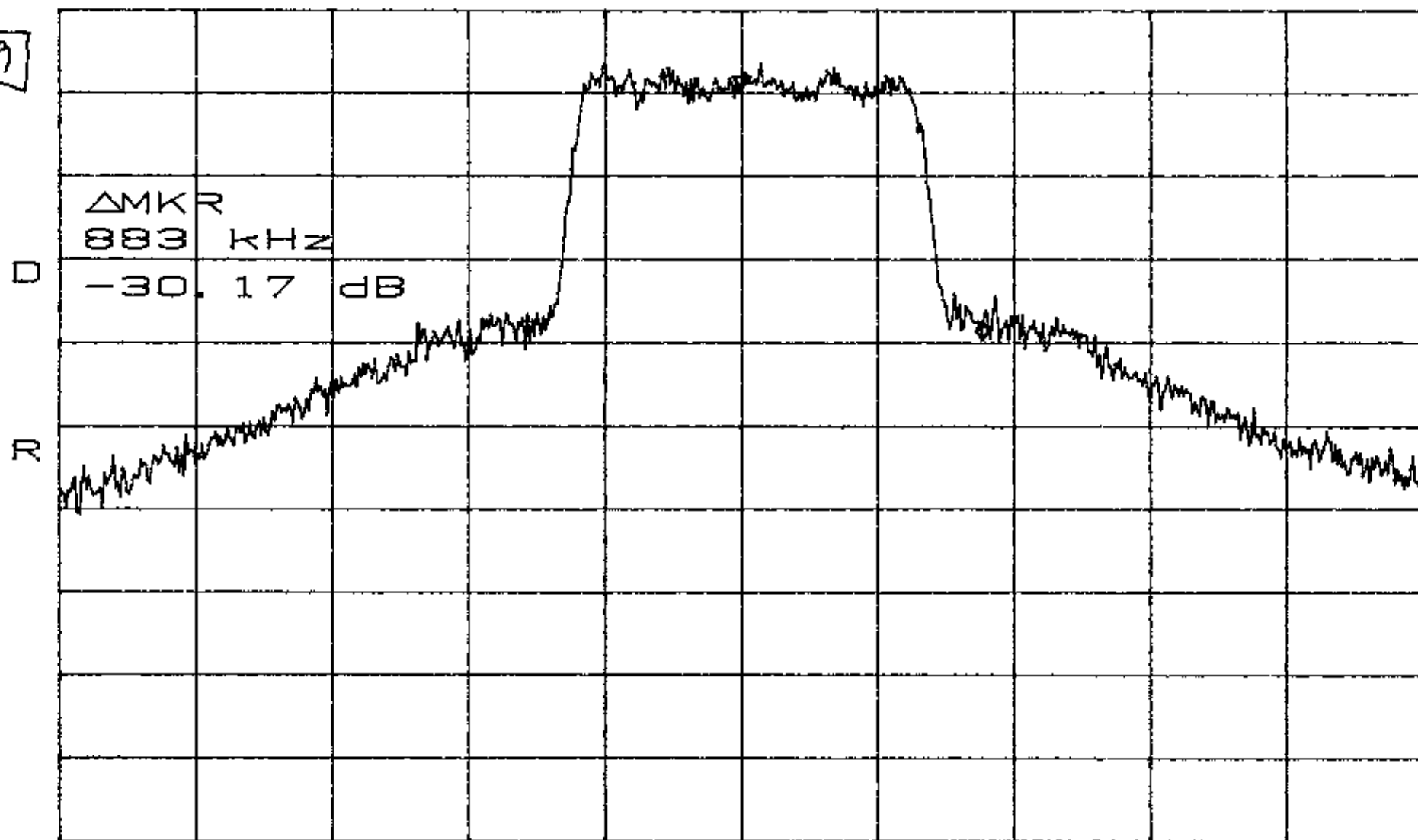
8/3/98

*ATTEN 10dB
RL 30.0dBm

VAVG 10
10dB/

Δ MKR -30.17dB
883kHz

2.989



CENTER 1.973750GHz , SPAN 5.000MHz
*RBW 30kHz *VBW 30kHz *SWP 50.0ms

CDR 1CH x 7.1W
S/N: FCC UNIT

UL
CH. 725 (LOW)

E/F-BAND

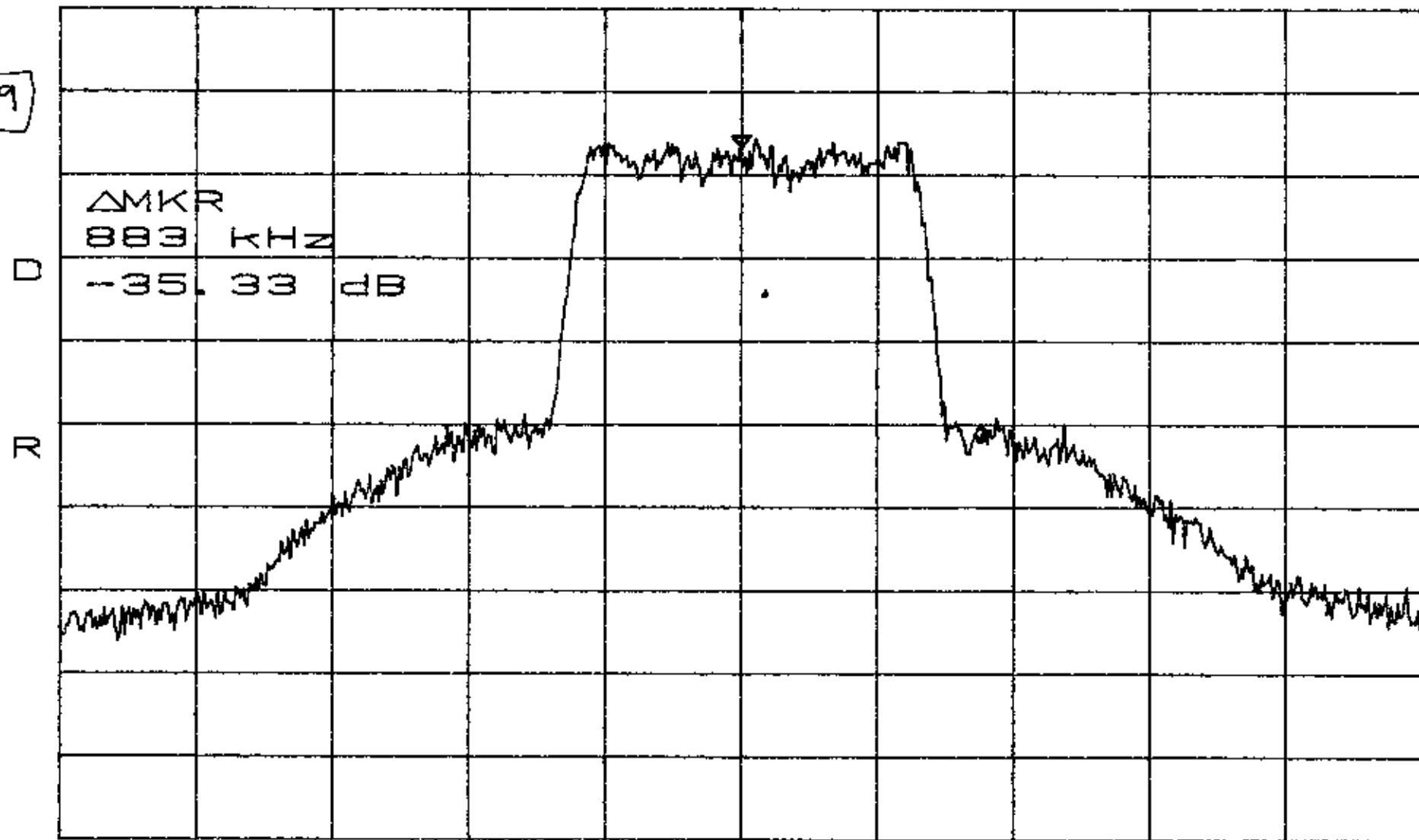
8/3/98

*ATTEN 10dB
RL 30.0dBm

VAVG 10
10dB/

ΔMKR -35.33dB
883kHz

2.989



CENTER 1.886250GHz

SPAN 5.000MHz

*RBW 30kHz

*VBW 30kHz

*SWP 50.0ms

CDC ICA.X7.1W
S/N: FCC UNIT

UL
CH. 875 (HIGH)

E(F-BAND)

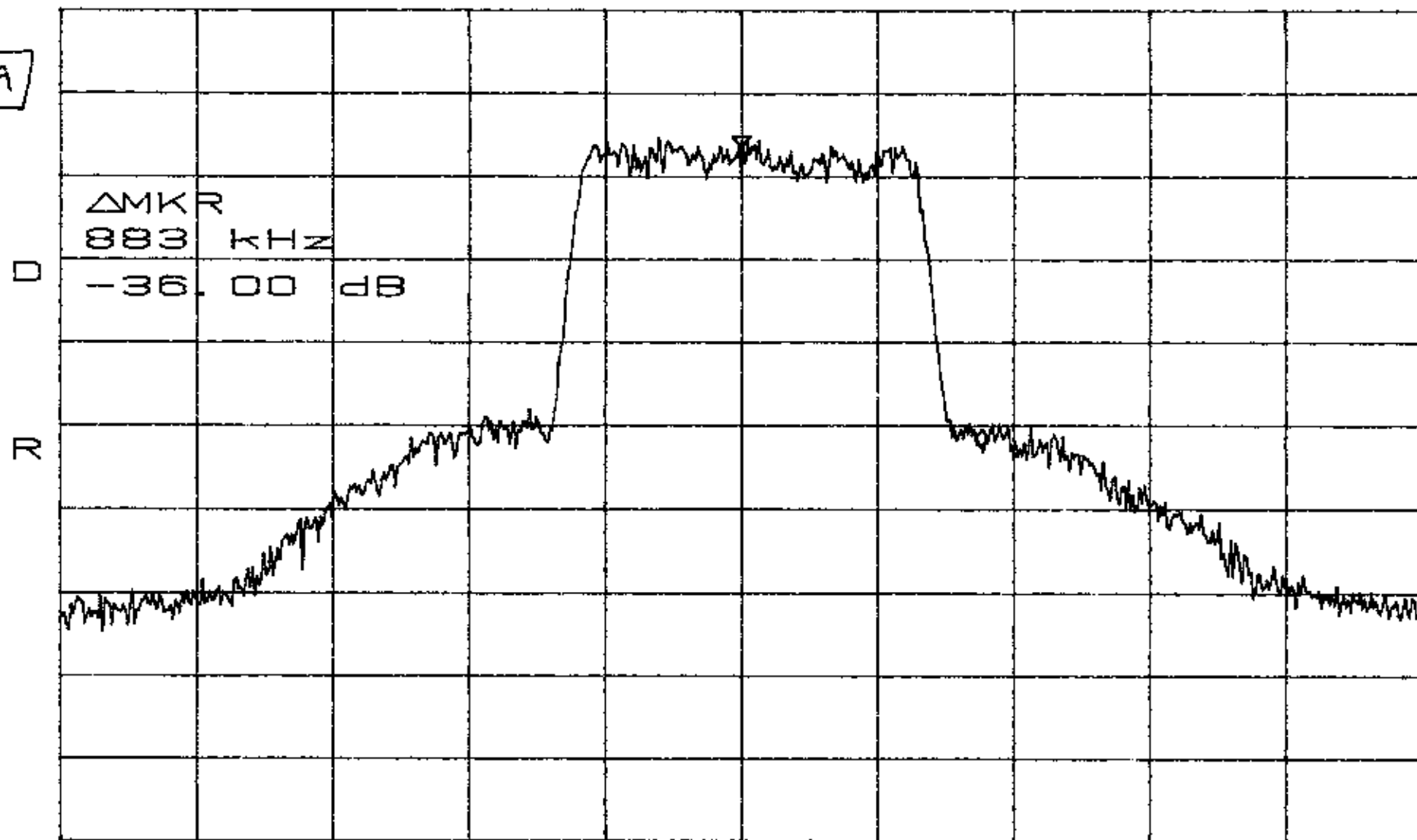
8/3/98

*ATTEN 10dB
RL 30.00dBm

VAVG 10
10dB/

Δ MKR -36.00dB
883kHz

2.989



CENTER 1.893750GHz SPAN 5.000MHz
*RBW 30kHz *VBW 30kHz *SWP 50.0ms

CDR 1CH. X 7.1W

DL

E/F-BAND

8/3/98

SIN: FCC UNIT

CH. 725 (LOW)

(INPUT)

*ATTEN 10dB

VAVG 10

MKR -69.33dBm

RL -50.0dBm

10dB/

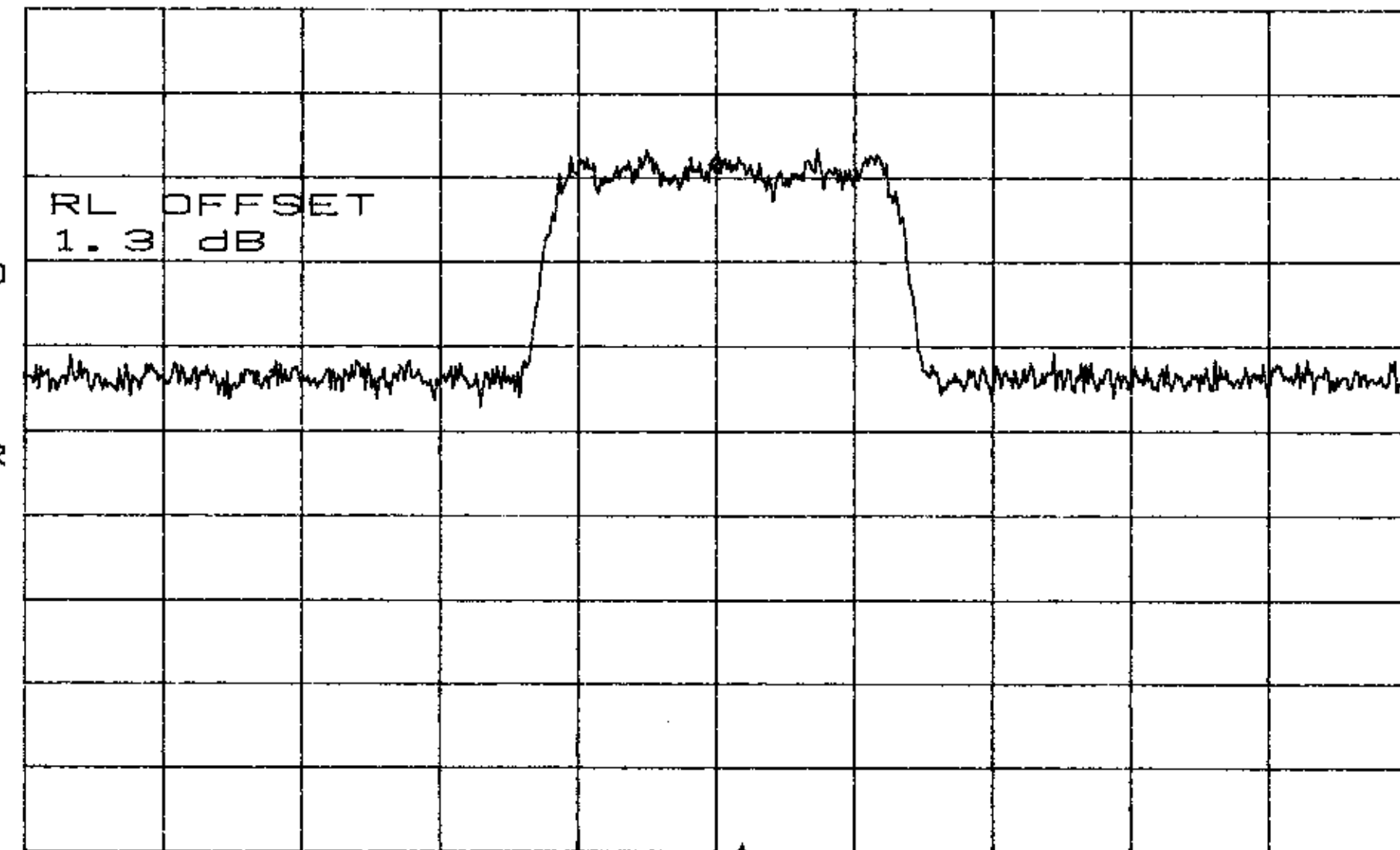
1.966250GHz

IN/OUT

RL OFFSET
1.3 dB

D

R



CENTER 1.966250GHz

SPAN 5.000MHz

*RBW 30kHz

*VBW 30kHz

*SWP 50.0ms

CDR 1CH.X 7.1W

DL

E/F-BAND

8/3/98

S/N: FCC UNIT

CH. (75) LOW

~~6.000000~~
(OUTPUT)

*ATTEN 10dB

VAVG 10

MKR 13.00dBm

RL 30.0dBm

10dB/

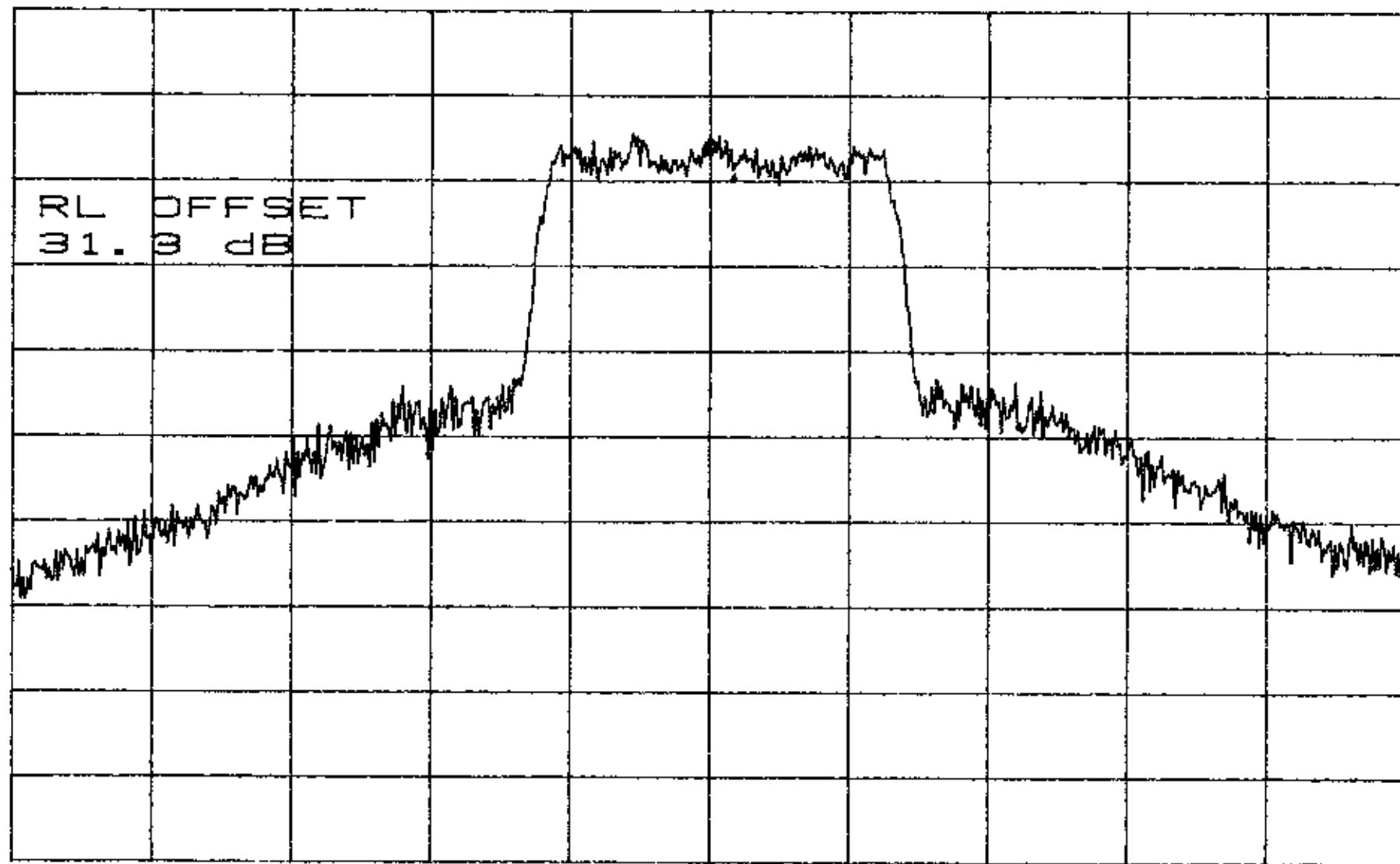
1.966250GHz

IN/OUT

RL OFFSET
31.8 dB

D

R



CENTER 1.966250GHz

SPAN 5.000MHz

*RBW 30kHz

*VBW 30kHz

*SWP 50.0ms

CDR 1CH.X7.1W

DL

E/F-BAND

8/3/98

S/N: FCC UNIT

CH. 875 (HIGH)

(INPUT)

*ATTEN 10dB

VAVG 10

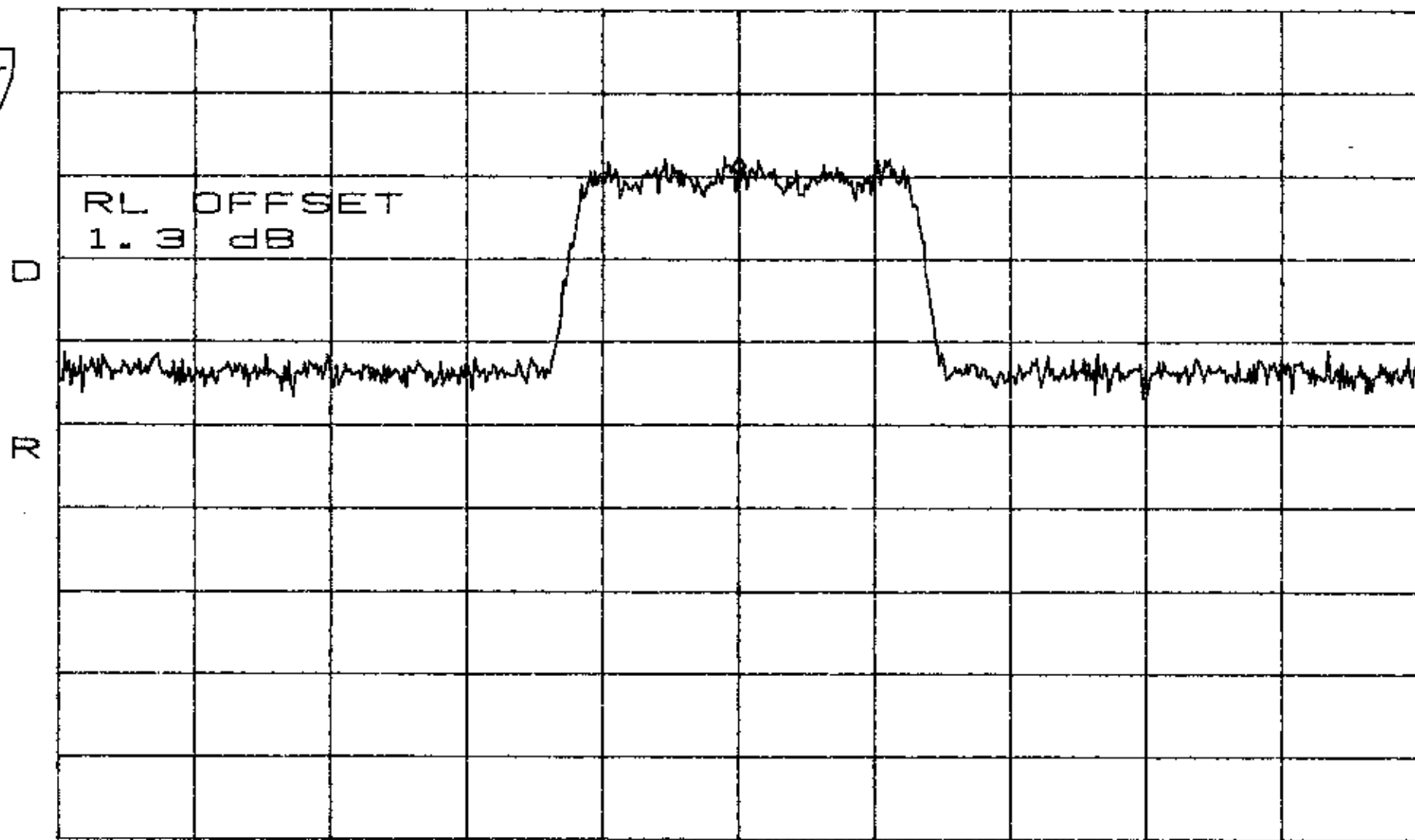
MKR -69.67dBm

RL -50.00dBm

10dB/

1.973750GHz

IN/CUT



CENTER 1.973750GHz

SPAN 5.000MHz

*RBW 30kHz

*VBW 30kHz

*SWP 50.0ms

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

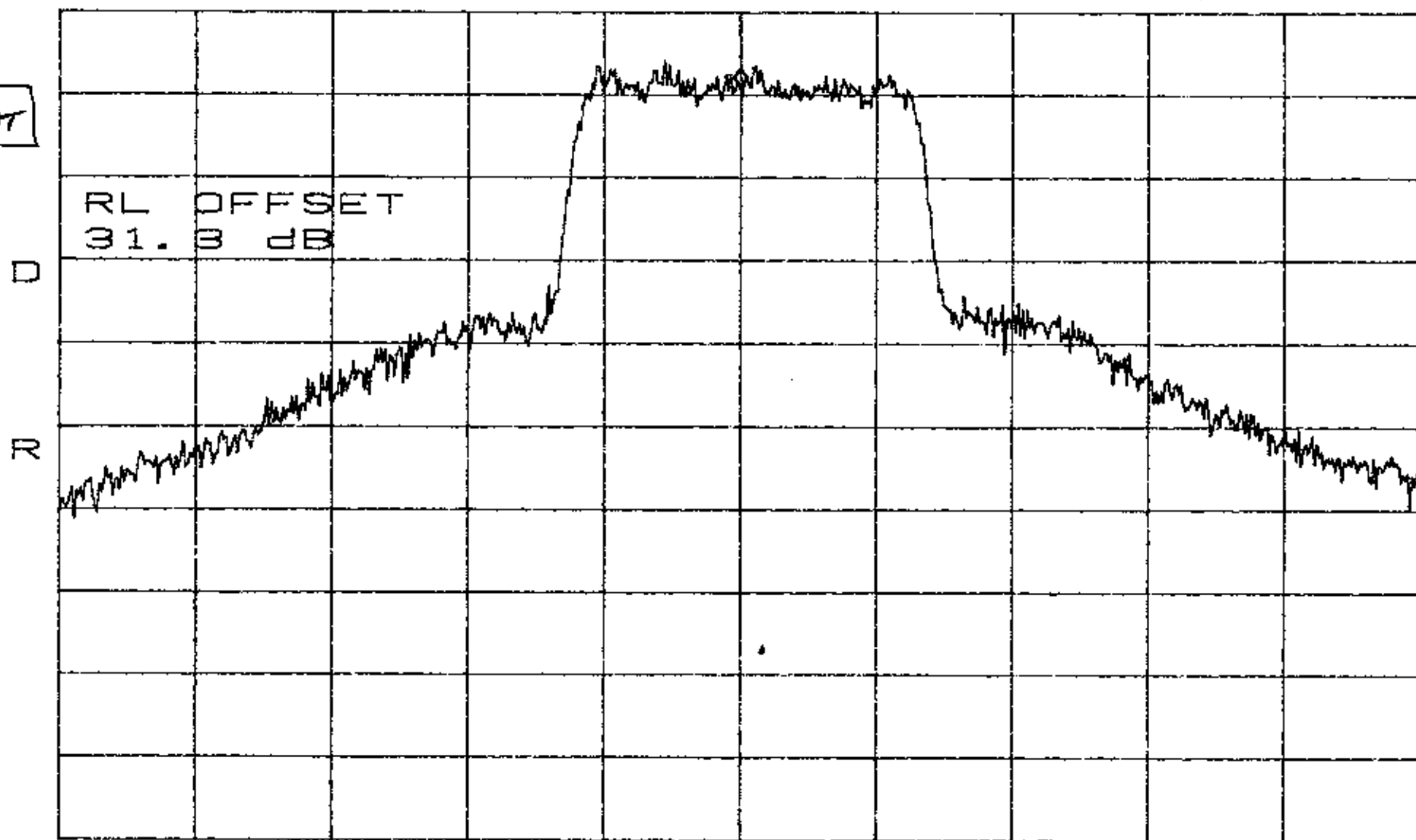
DL
CA.875 (HIGH)

E/F-BAND
(OUTPUT)

8/3/98

*ATTEN 10dB BPO 10 MKR 21.17dBm
RL 30.0dBm 10dB/ 1.973750GHz

IN/OUT



CENTER 1.973750GHz SPAN 5.000MHz
*RBW 30kHz *VBW 30kHz *SWP 50.0ms

CDR 1CH. X7.1W

UL

E/F-BAND

8/3/98

S/N: FCC UNIT

CH. 725(Low)

(INPUT)

*ATTEN 10dB

VAVG 10

MKR -76.50dBm

RL -50.00dBm

10dB/

1.886250GHz

IN/OUT

RL OFFSET
1.3 dB

D

R

CENTER 1.886250GHz

SPAN 5.000MHz

*RBW 30kHz

*VBW 30kHz

*SWP 50.0ms

COR 1CH X 7.1W
S/N: FCC UNIT

UL
CH. 725 (LOW)

EIF-BAND
(OUTPUT)

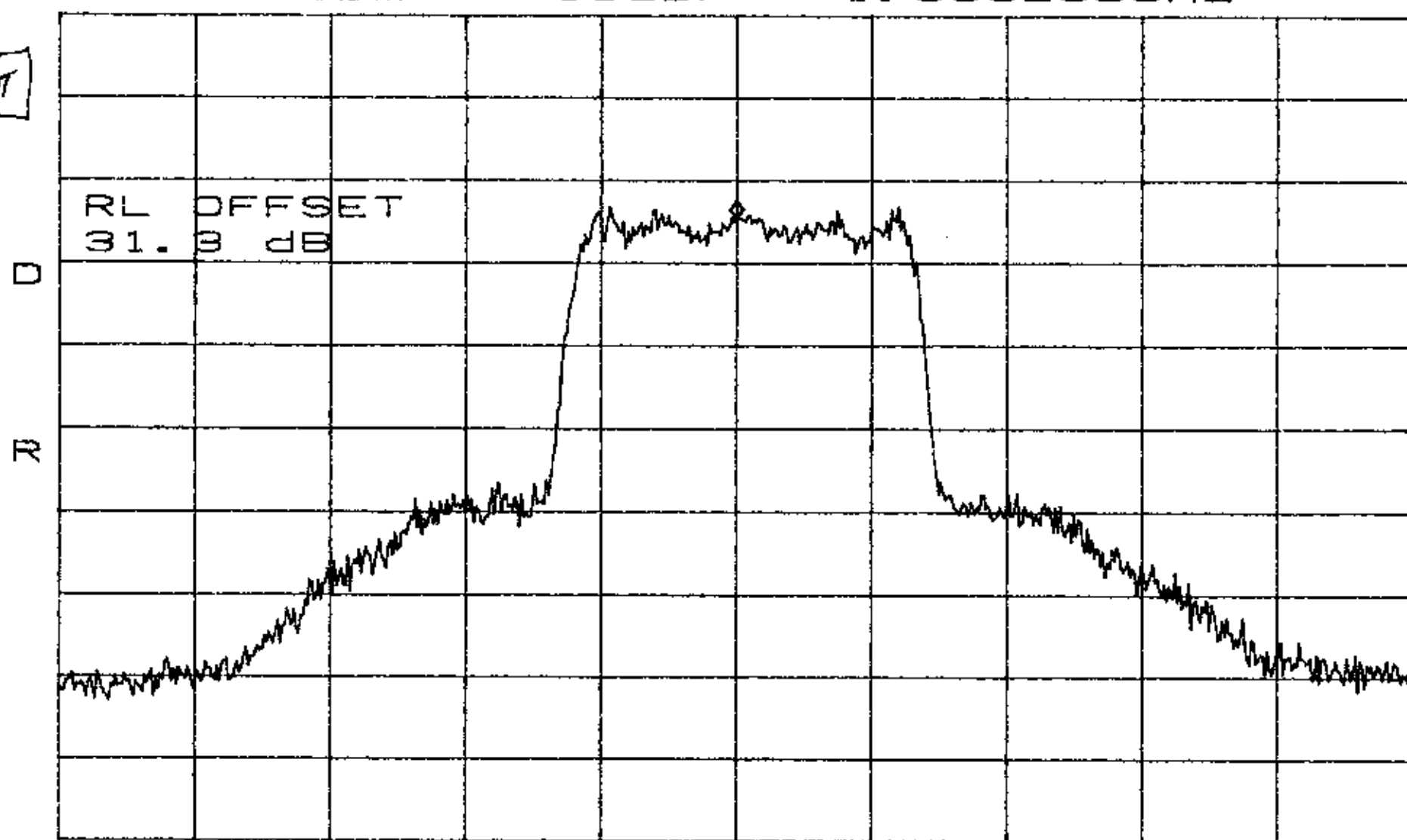
8/3/98

*ATTEN 10dB
RL 30.0dBm

VAVG 10
10dB/

MKR 5.50dBm
1.886250GHz

1W OUT



CENTER 1.886250GHz

SPAN 5.000MHz

*RBW 30kHz

*VBW 30kHz

*SWP 50.0ms

CDR ICH. K7.1W
S/N: FCC UNIT

UL
CH 88 (HIGH)

E/F-BAND
(INPUT)

8/3/98

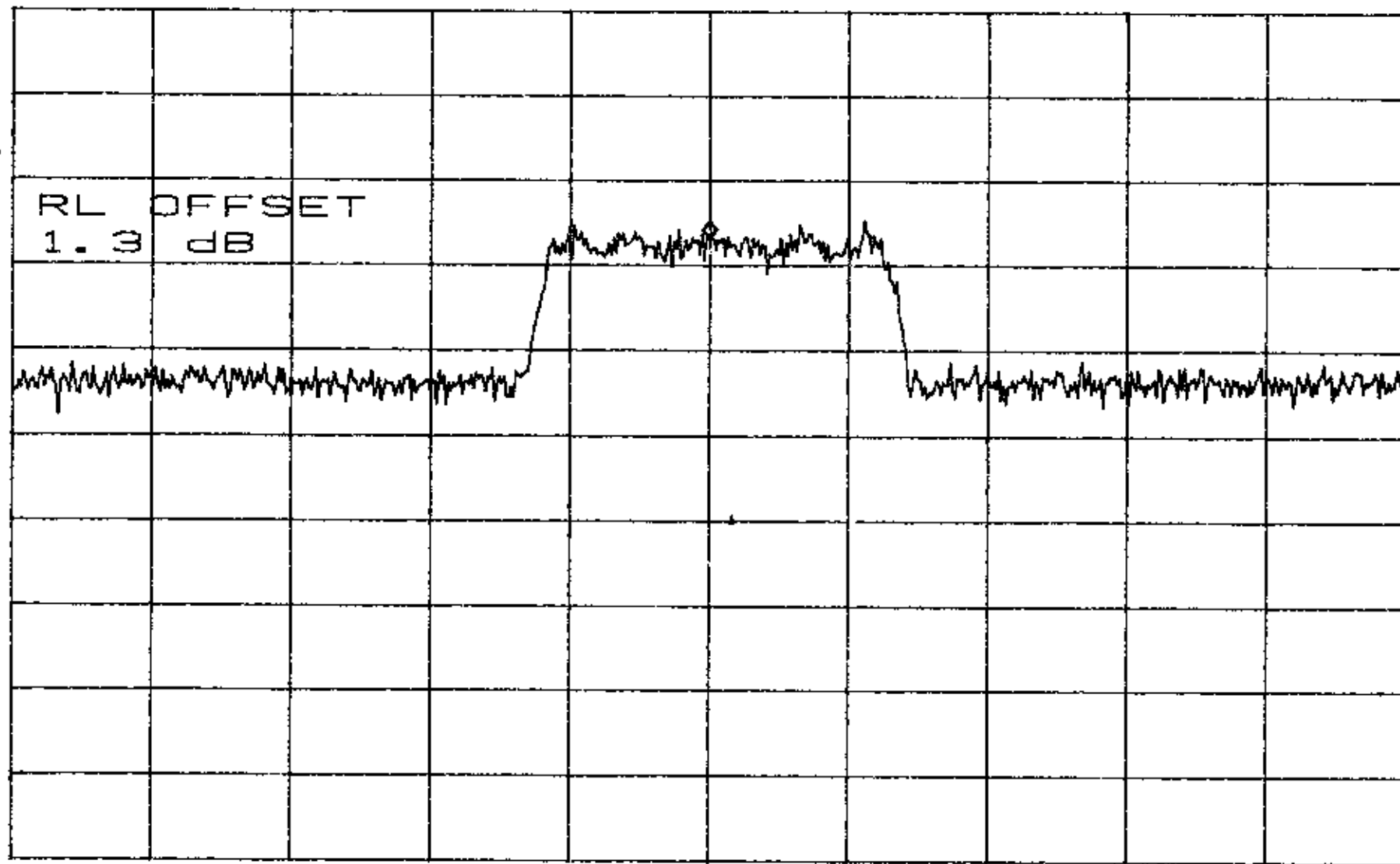
*ATTEN 10dB VAVG 10 MKR -76.83dBm
RL -50.00dBm 10dB/ BPO1 1.893750GHz

IN/OUT

RL OFFSET
1.3 dB

D

R



CENTER 1.893750GHz SPAN 5.000MHz
*RBW 30kHz *VBW 30kHz *SWP 50.0ms

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

UL
CH. 875 (HIGH)

E/F-BAND
(OUTPUT)

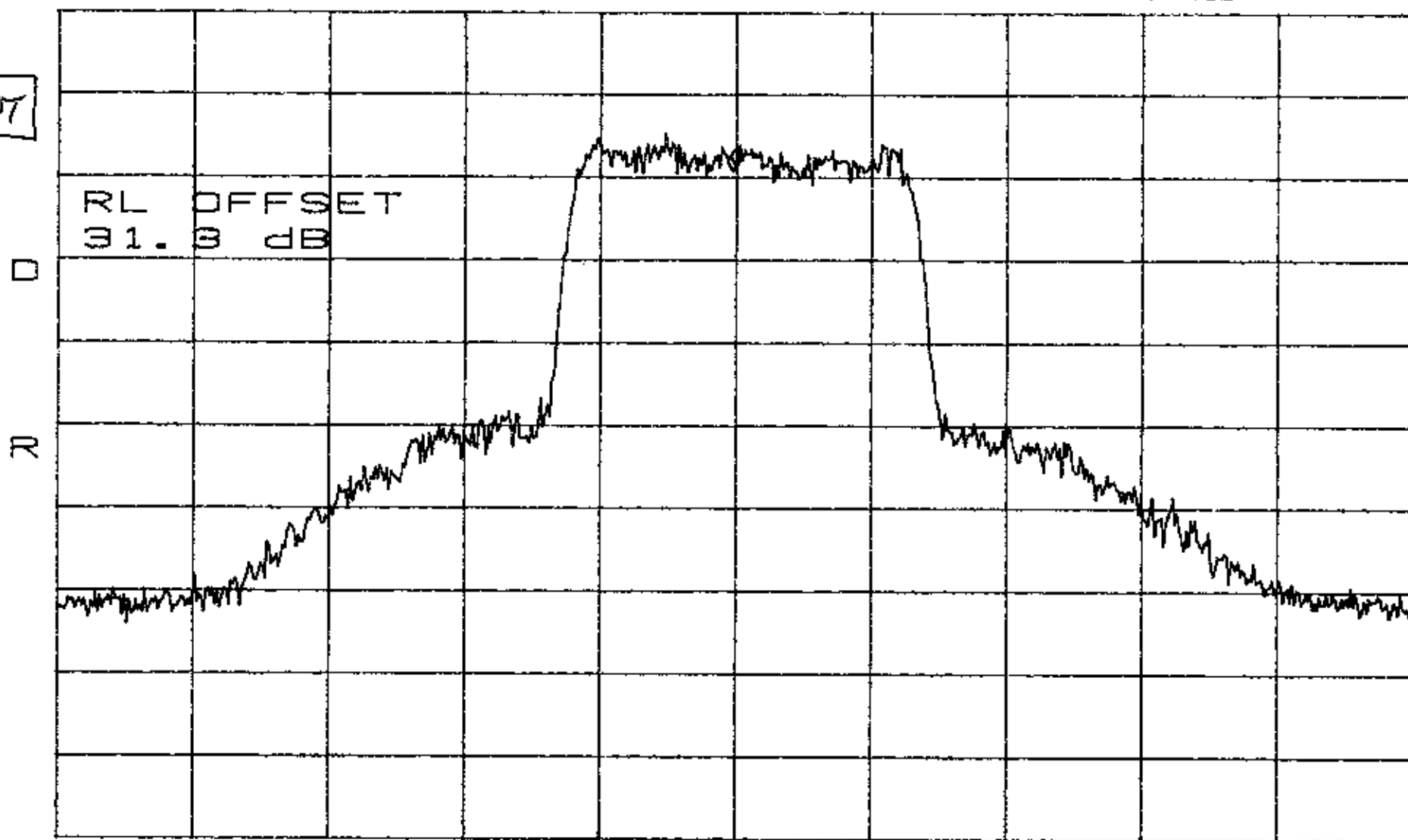
8/3/98

*ATTEN 10dB
RL 30.0dBm

VAVG 10
10dB/

MKR 11.50dBm
1.893750GHz

IN/OUT



CENTER 1.893750GHz

SPAN 5.000MHz

*RBW 30kHz

*VBW 30kHz

*SWP 50.0ms

CDR10A. X 7.1W

DL

E/F-BAND

8/3/98

SIN: FCC UNIT

CH. 725 (LOW)

CDMA SOURCE

*ATTEN 30dB

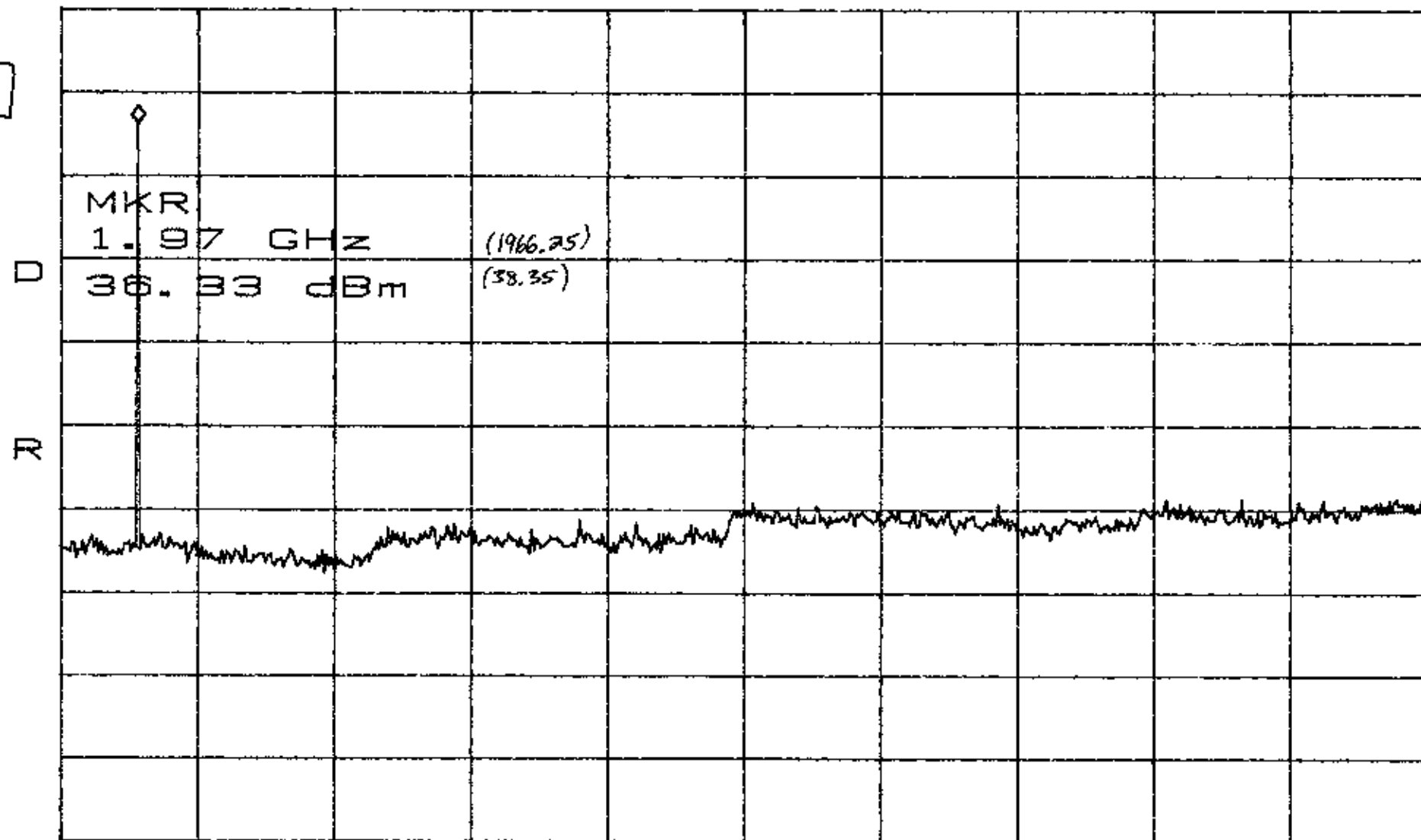
MKR 36.33dBm

RL 50.0dBm

10dB/

1.97GHz

2.991



START 500MHz

STOP 26.50GHz

*RBW 1.0MHz

*VBW 1.0MHz

*SWP 520ms

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

DL
CH. 875 (HIGH)

EIF-BAND
CDMA SOURCE

8/3/98

*ATTEN 30dB

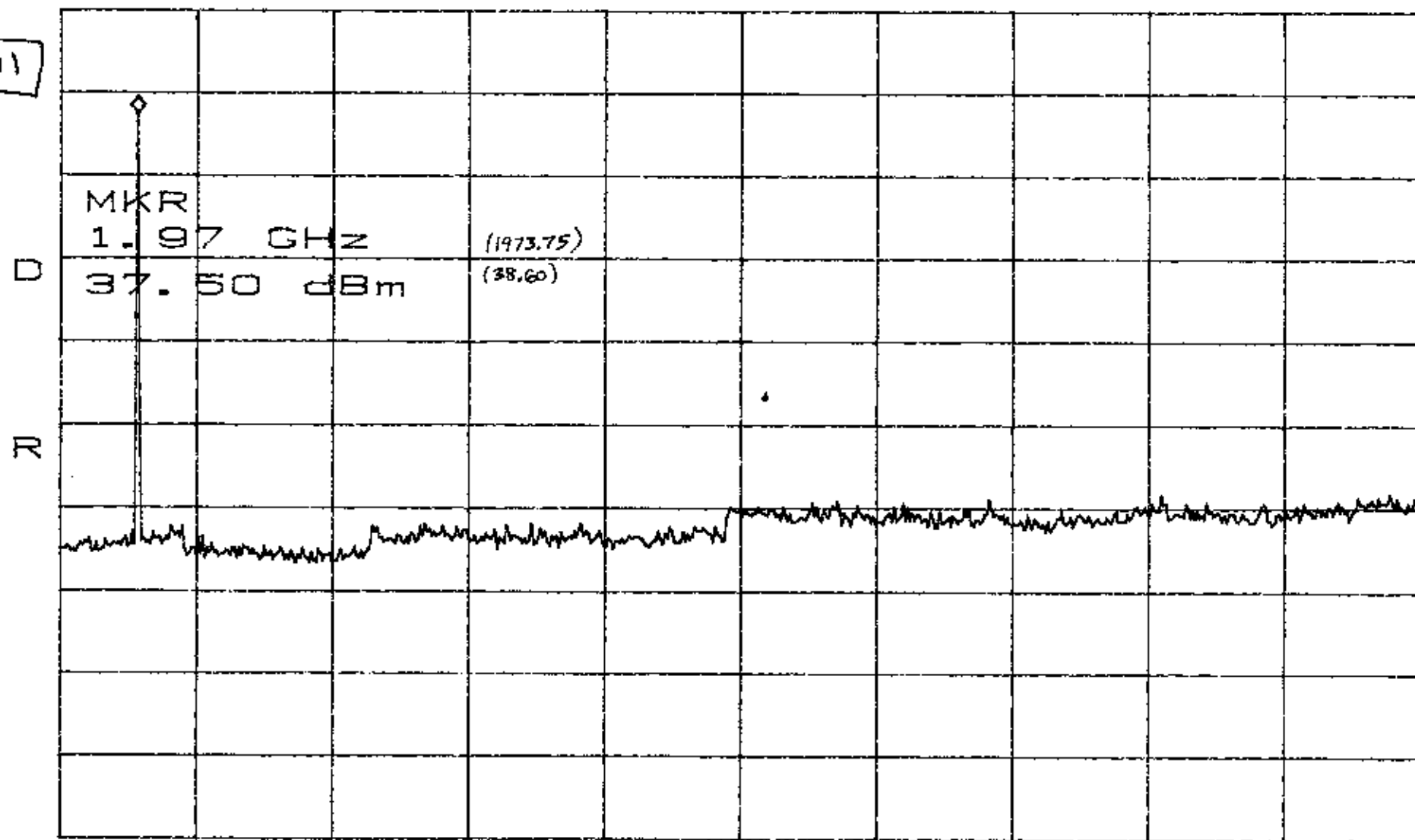
RL 50.0dBm

10dB/

MKR 37.50dBm

1.97GHz

2.991



START 500MHz

STOP 26.50GHz

*RBW 1.0MHz

*VBW 1.0MHz

*SWP 520ms

CDR 1CHX7.1W UL E/F-BAND 8/3/98
S/N: FCC UNIT CH. 875 (HIGH) CDMA SOURCE

*ATTEN 30dB

MKR 27.67dBm

RL 50.0dBm

10dB/

1.97GHz

2.991

D
R

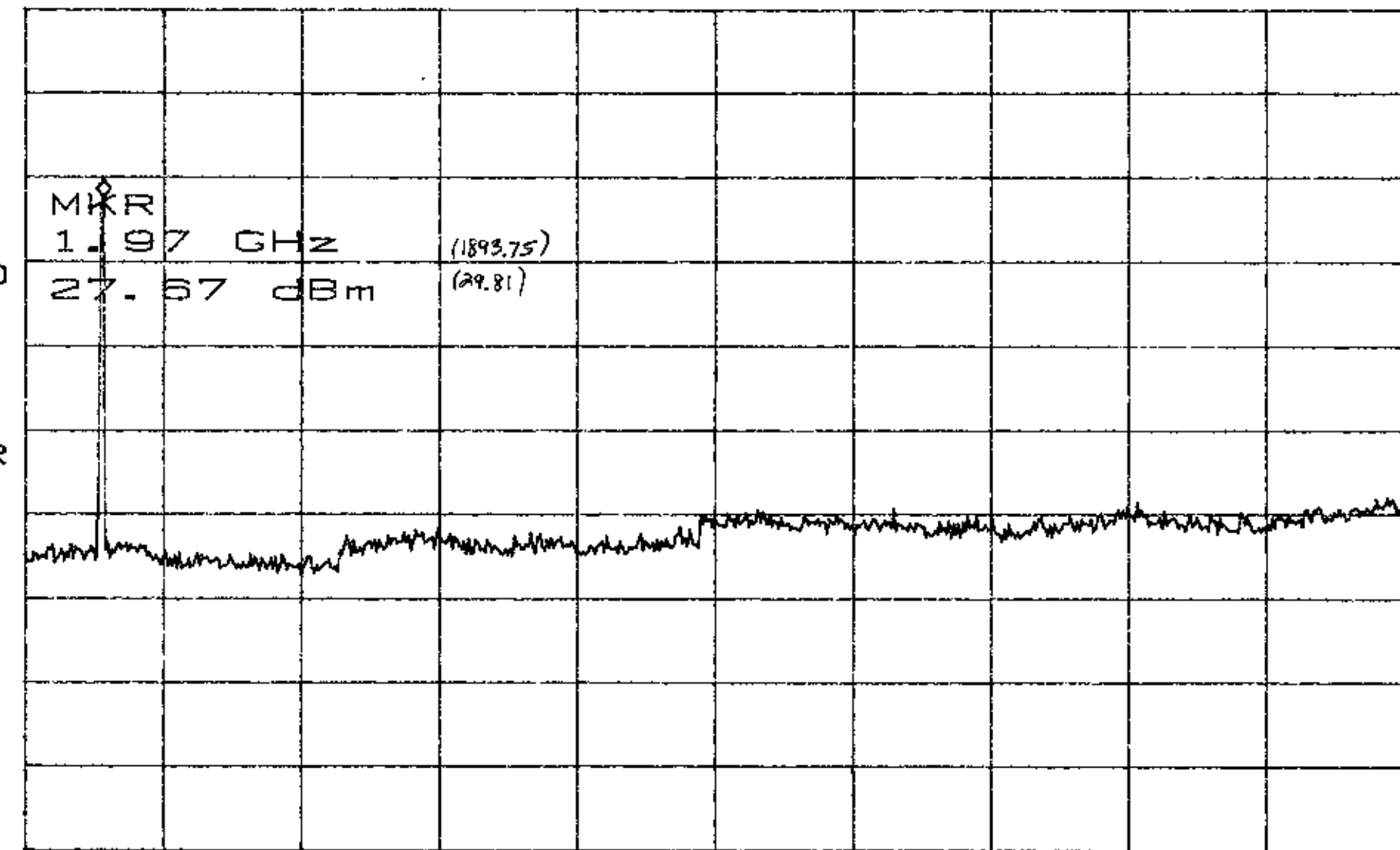
MKR

1.97 GHz

27.67 dBm

(1893.75)

(29.81)



START 500MHz

STOP 26.50GHz

*RBW 1.0MHz

*VBW 1.0MHz

*SWP 520ms

CDR 1CA. x7.1W

UL

E/F-BAND

8/13/98

SIN: FCC UNIT

CU. 725(Low)

CDMA SOURCE

*ATTEN 30dB

MKR 27.33dBm

RL 50.0dBm

10dB/

1.89GHz

2.991

D

R

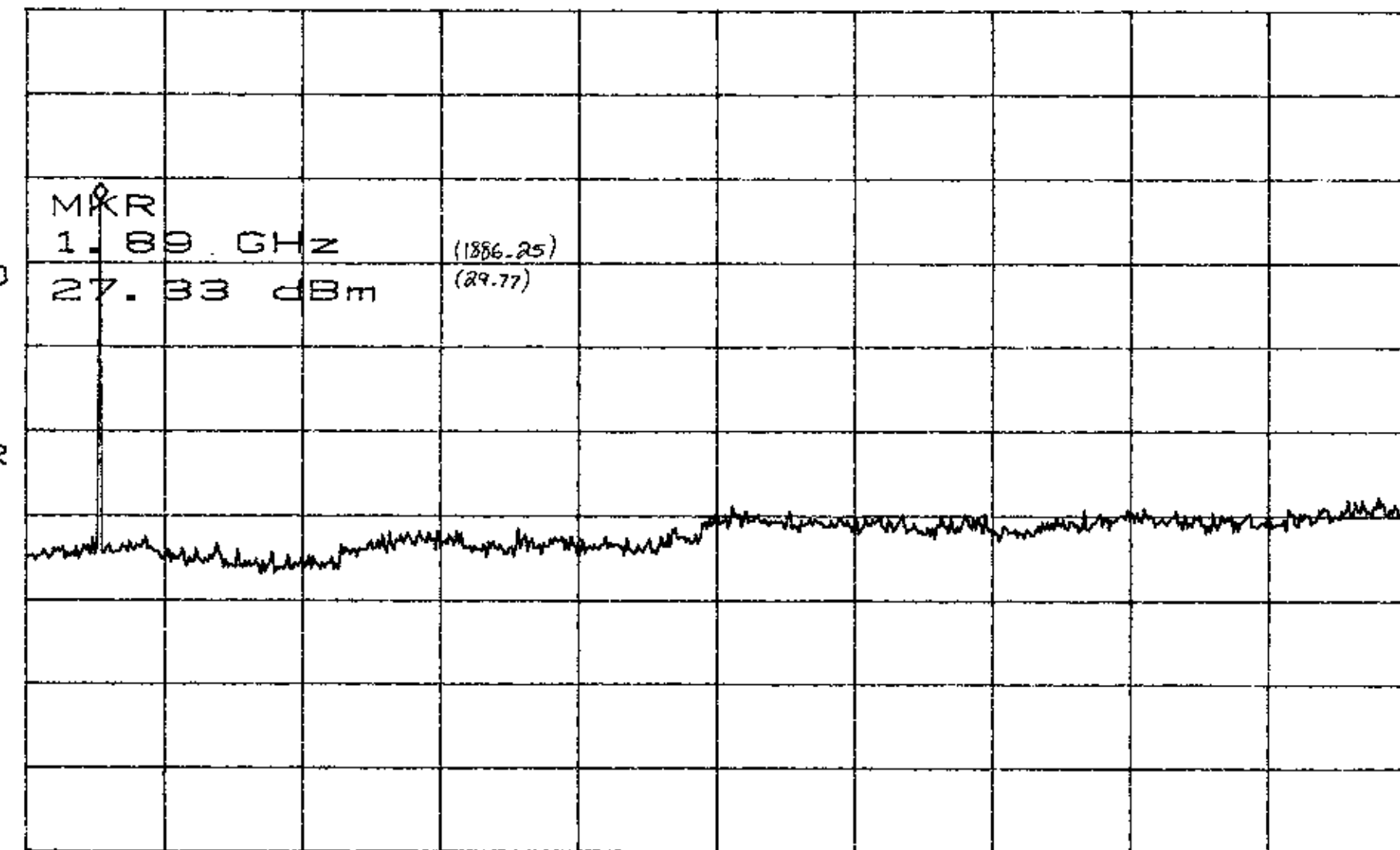
MKR

1.89 GHz

27.33 dBm

(1886.25)

(29.77)



START 500MHz

STOP 26.50GHz

*RBW 1.0MHz

*VBW 1.0MHz

*SWP 520ms

CDR 1CH.X7.1W

DL

FUNDAMENTAL

8/3/98

S/N: FCC UNCT

CH. 725 (LOW)

ELF-BAND

*ATTEN 10dB

VAVG 10

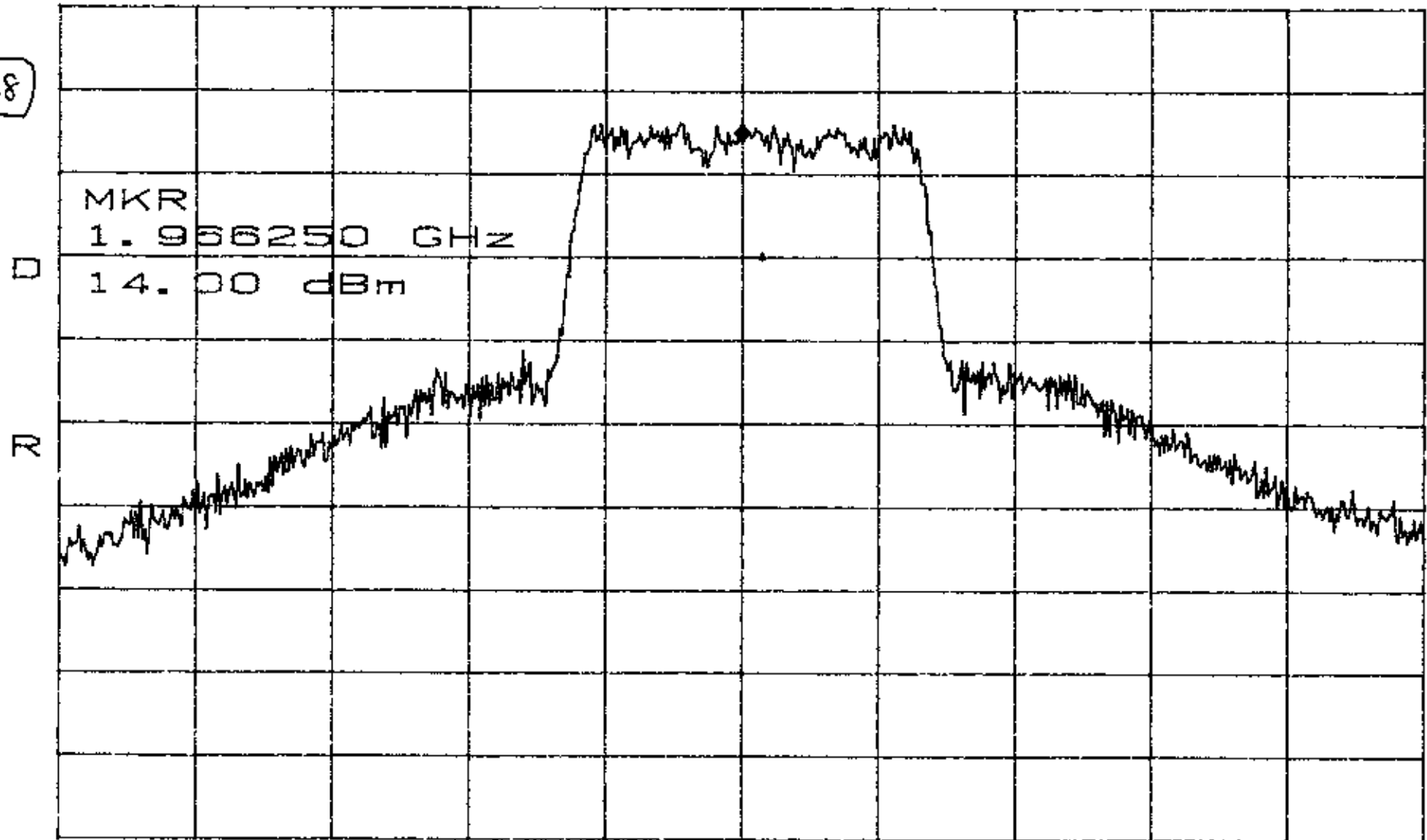
MKR 14.00dBm

RL 30.00dBm

10dB/

1.966250GHz

24.238



CENTER 1.966250GHz

SPAN 5.000MHz

*RBW 30kHz

*VBW 30kHz

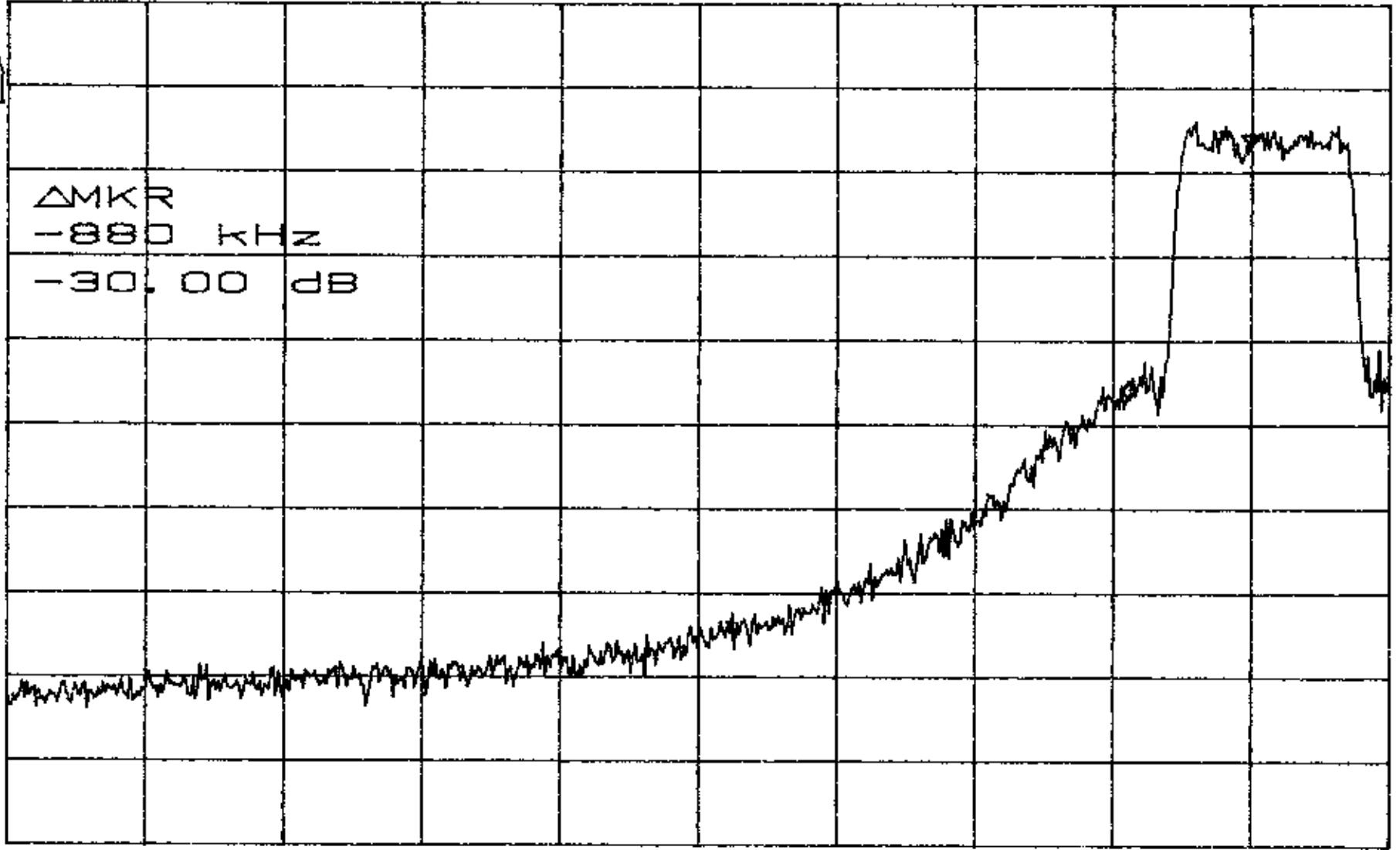
*SWP 50.0ms

CDR 1CH. X 7.1W DL BELOW FUNDAMENTAL 8/3/98
S/N: FCC UNIT CH. 725 (LOW) E/F-BAND

*ATTEN 10dB BPO 10 ΔMKR -30.00dB
RL 30.00dBm 10dB/ -880kHz

24.238

ΔMKR
-880 kHz
D -30.00 dB
R



CENTER 1.96225GHz SPAN 10.00MHz
*RBW 30kHz *VBW 30kHz *SWP 50.0ms

CDR 104. X7.1W
S/N: FCC UNIT

DL
CH. 725 (LOW)

ABOVE FUNDAMENTAL
ETP-BAND

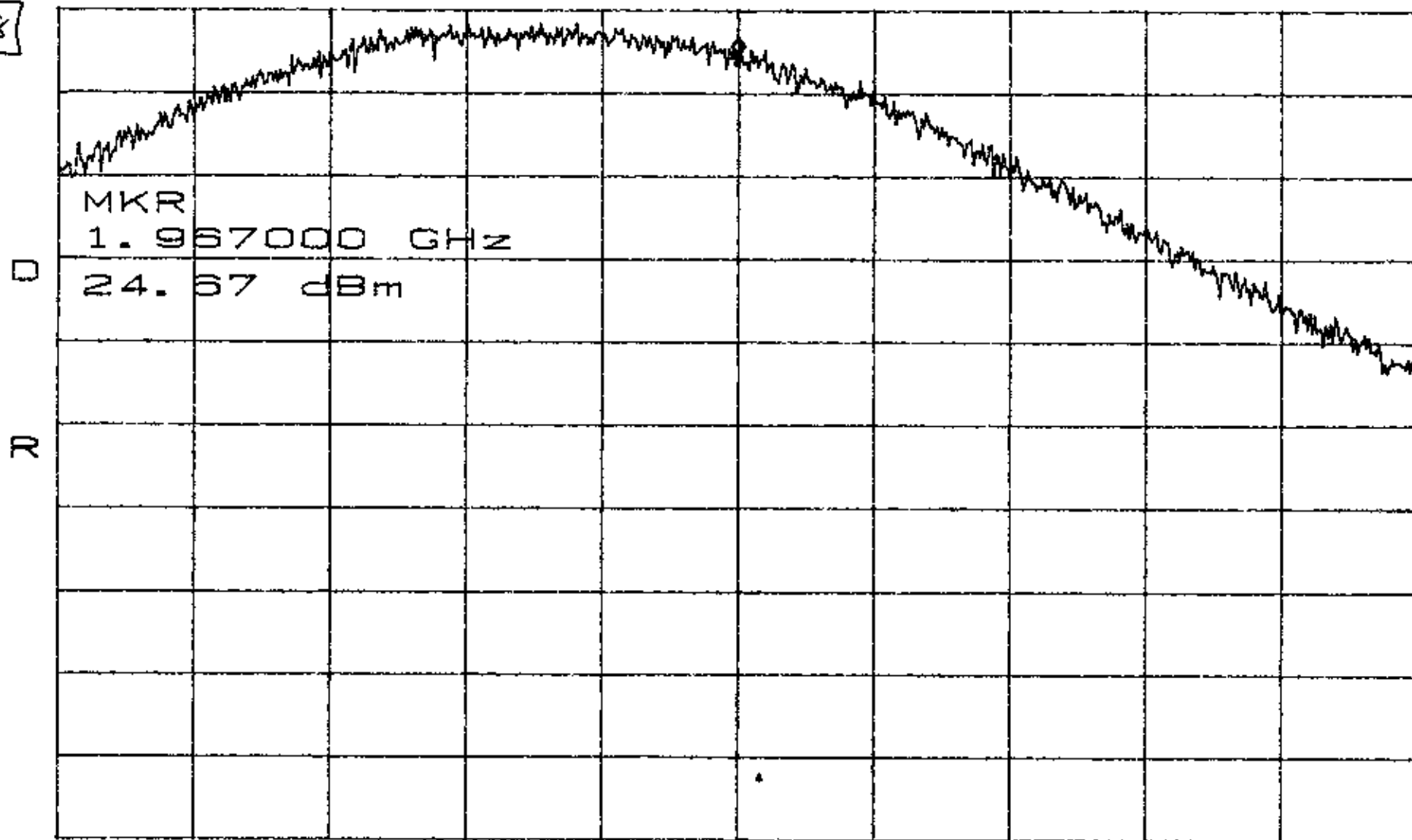
8/3/98

*ATTEN 10dB
RL 30.0dBm

VAVG 10
10dB/

MKR 24.67dBm
1.967000GHz

24.238



CENTER 1.967000GHz

SPAN 5.000MHz

*RBW 1.0MHz

*VBW 1.0MHz

*SWP 50.0ms

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

DL
CH. 725 (LOW)

ABOVE FUNDAMENTAL
E/F-BAND

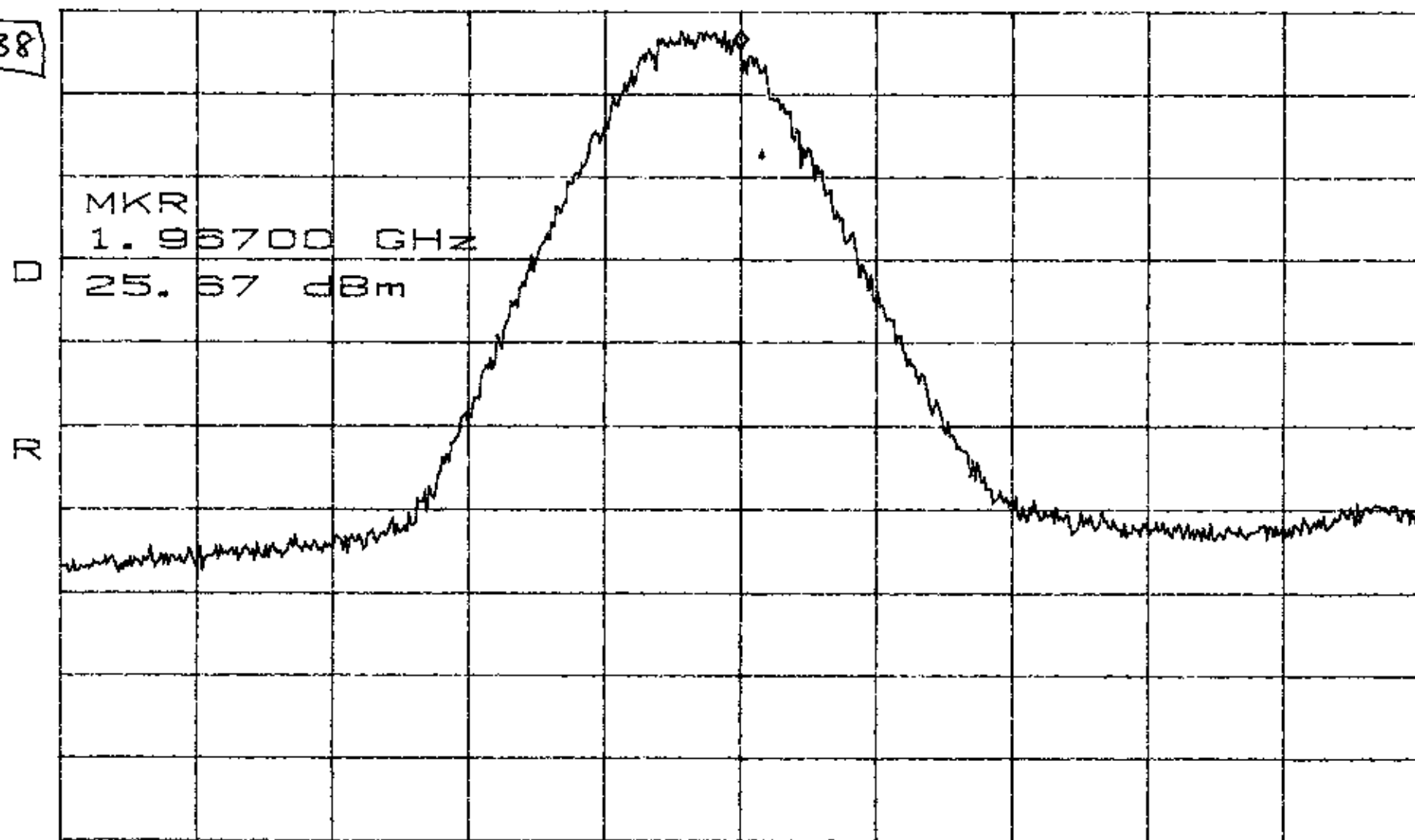
8/13/98

*ATTEN 10dB
RL 30.0dBm

VAVG 10
10dB/

MKR 25.67dBm
1.96700GHz

24.238



CENTER 1.96700GHz

SPAN 20.00MHz

*RBW 1.0MHz

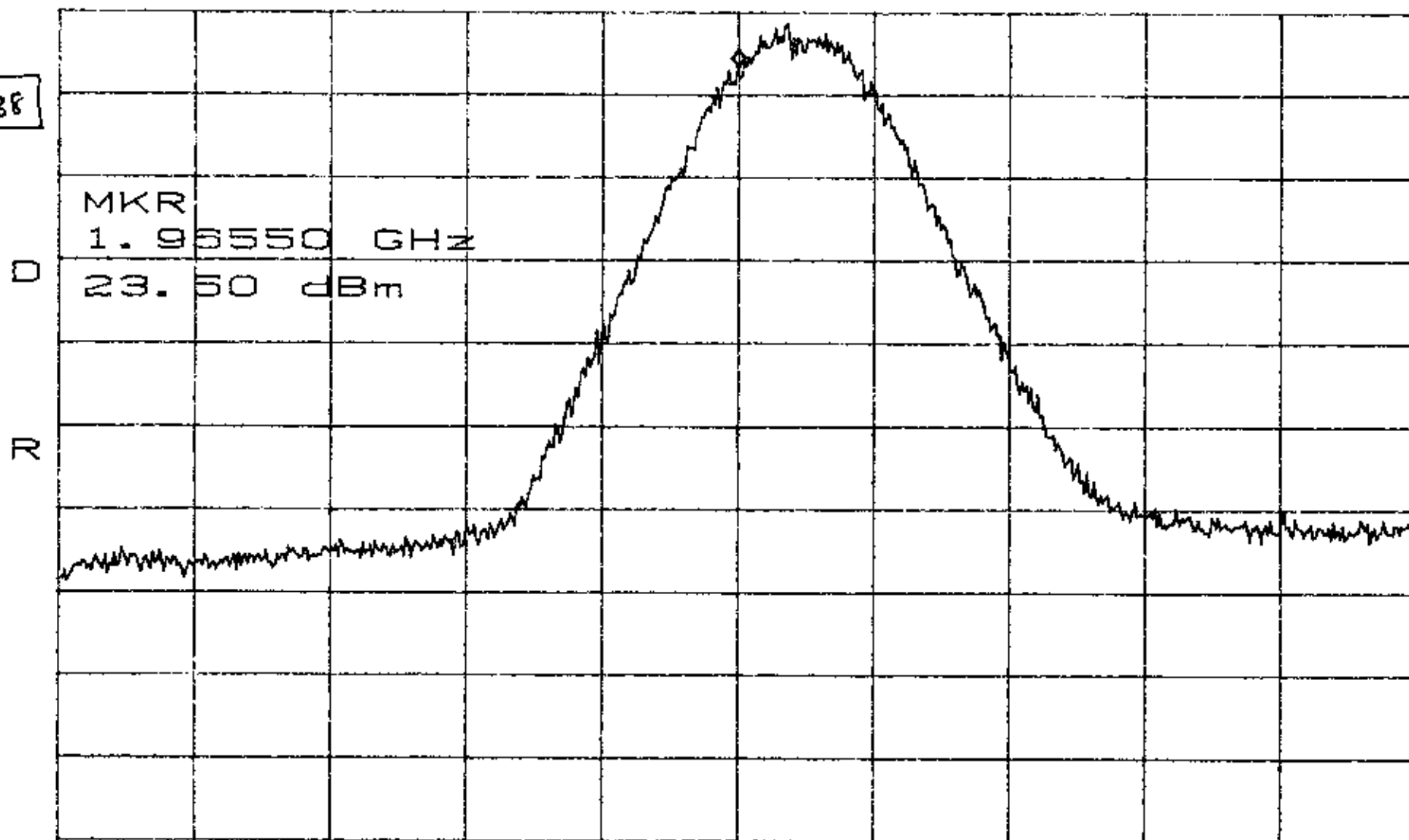
*VBW 1.0MHz

*SWP 50.0ms

CDR 1CH-X7.1W DL 8/3/98
S/N: FCC UNIT CH. 725 (LOW) BELOW FUNDAMENTAL
EIR-BAND

*ATTEN 10dB VAVG 10 MKR 23.50dBm
RL 30.00dBm 10dB/BPO 1.96550GHz

24.238



CENTER 1.96550GHz SPAN 20.00MHz
*RBW 1.0MHz *VBW 1.0MHz *SWP 50.0ms

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

DL
CH. 725(Low)

BELOW FUNDAMENTAL
ETF-BAND

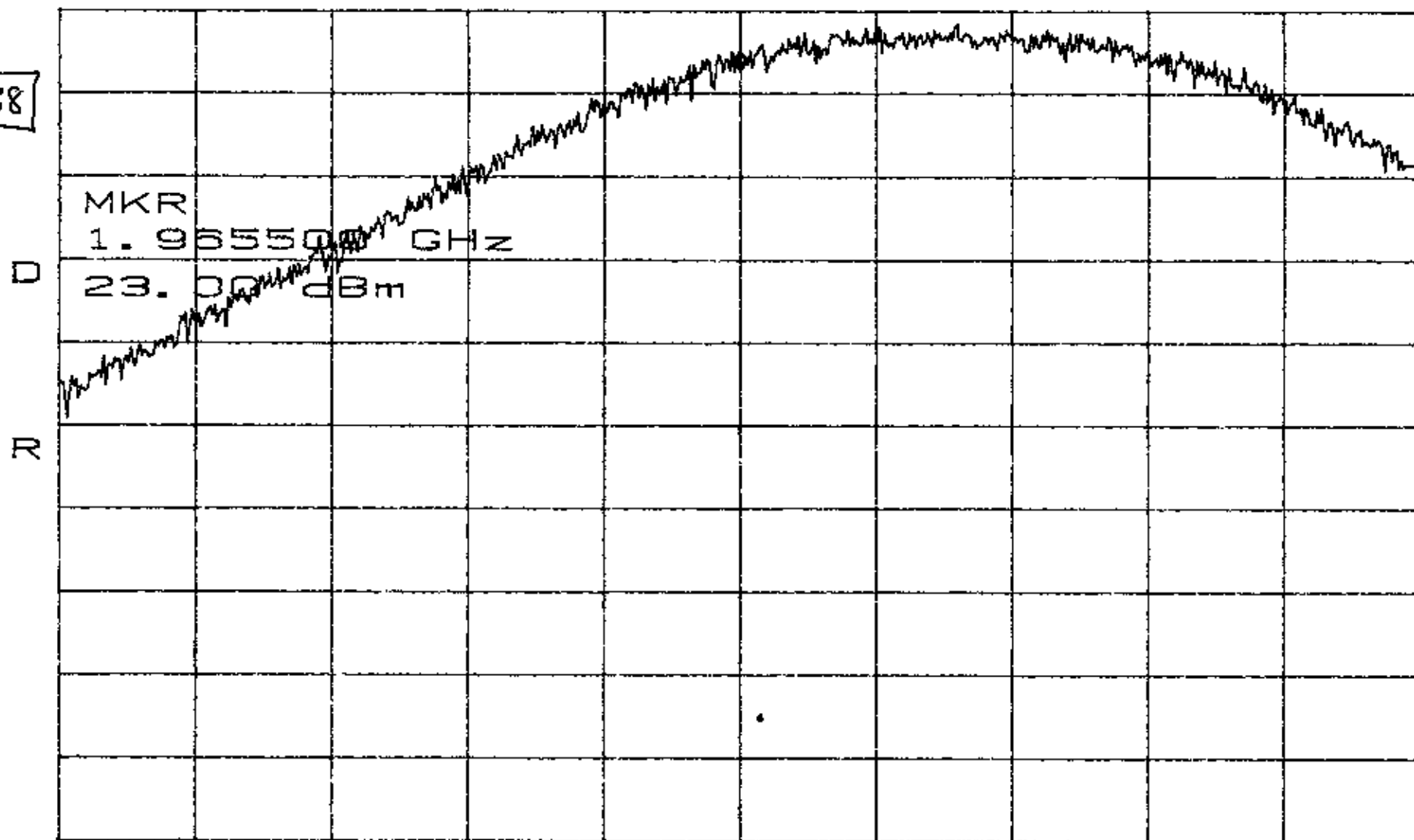
8/3/98

*ATTEN 10dB
RL 30.00dBm

VAVG 10
10dB/

MKR 23.00dBm
1.965500GHz

24.238



CENTER 1.965500GHz

SPAN 5.000MHz

*RBW 1.0MHz

*VBW 1.0MHz

*SWP 50.0ms

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

DL
CH. 875 (HIGH)

FUNDAMENTAL
E(F-BAND)

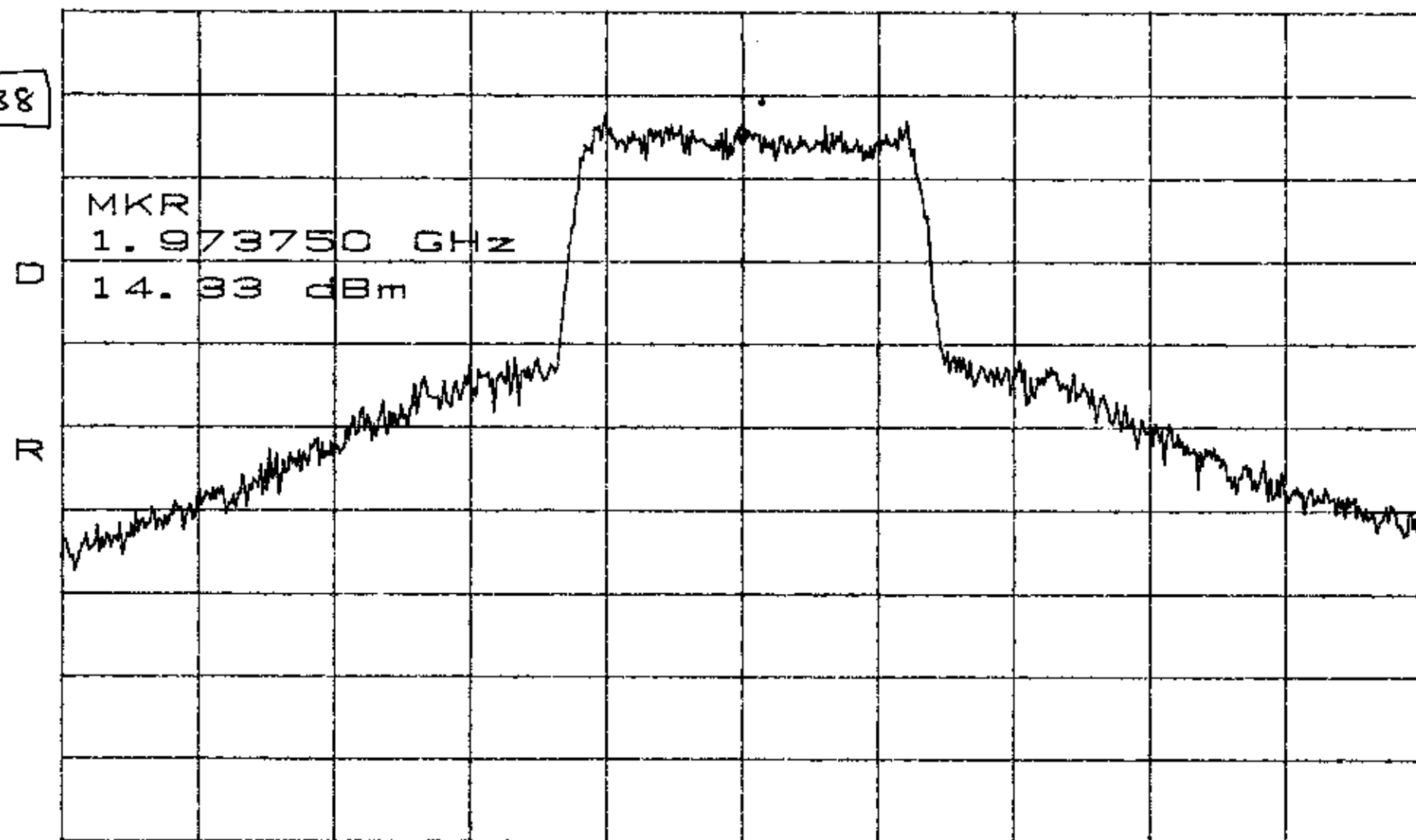
8/3/98

*ATTEN 10dB
RL 30.0dBm

VAVG 10
10dB/

MKR 14.33dBm
1.973750GHz

24.238



CENTER 1.973750GHz SPAN 5.000MHz
*RBW 30kHz *VBW 30kHz *SWP 50.0ms

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

DL
CH. 875 (HIGH)

ABOVE FUNDAMENTAL
E/F-BAND

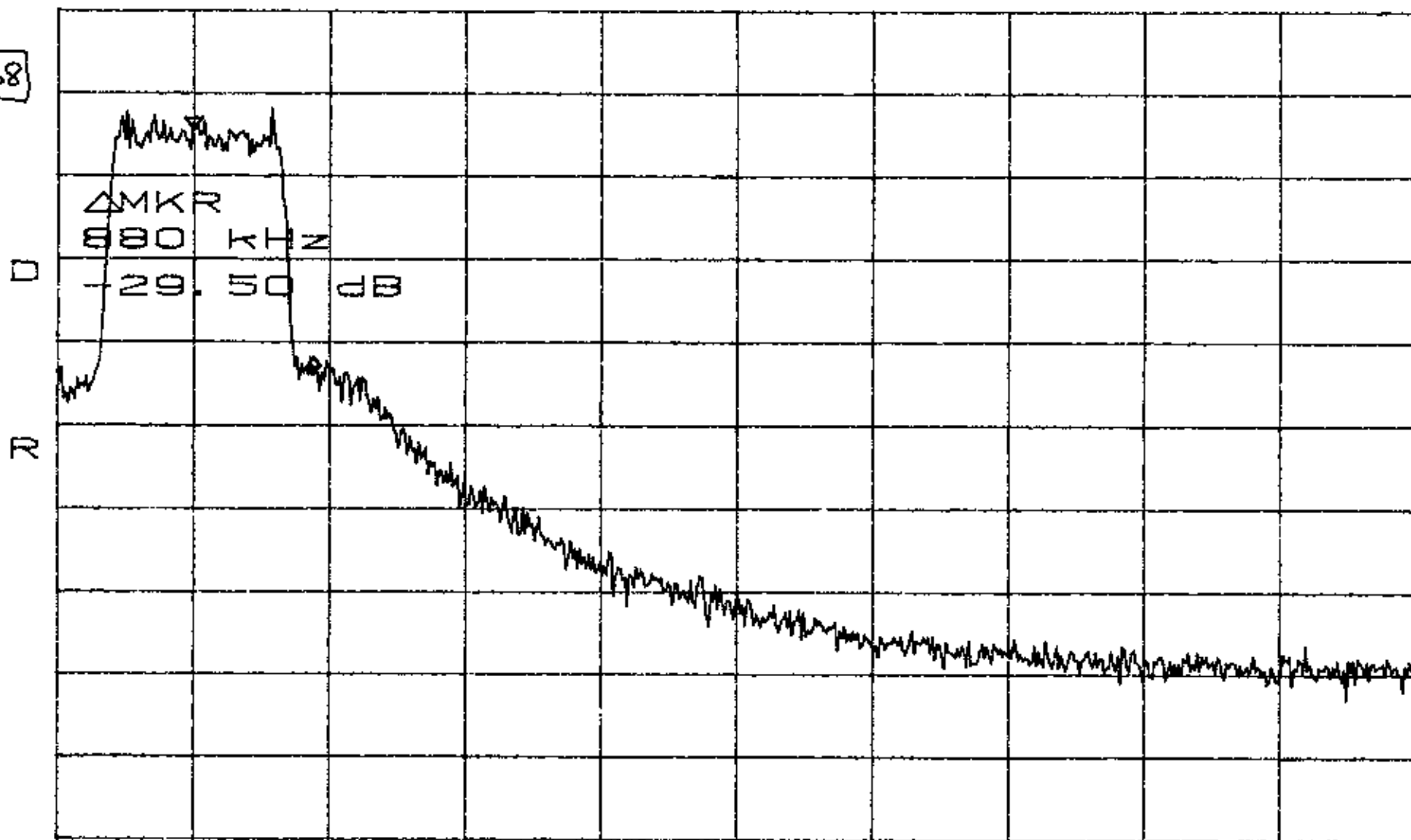
8/3/98

*ATTEN 10dB
RL 30.0dBm

VAVG 10
10dB/

Δ MKR -29.50dB
880kHz

24.238



CENTER 1.97775GHz

SPAN 10.00MHz

*RBW 30kHz

*VBW 30kHz

*SWP 50.0ms

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

DL
CH 875 (HIGH)

ABOVE FUNDAMENTAL
E/F-BAND

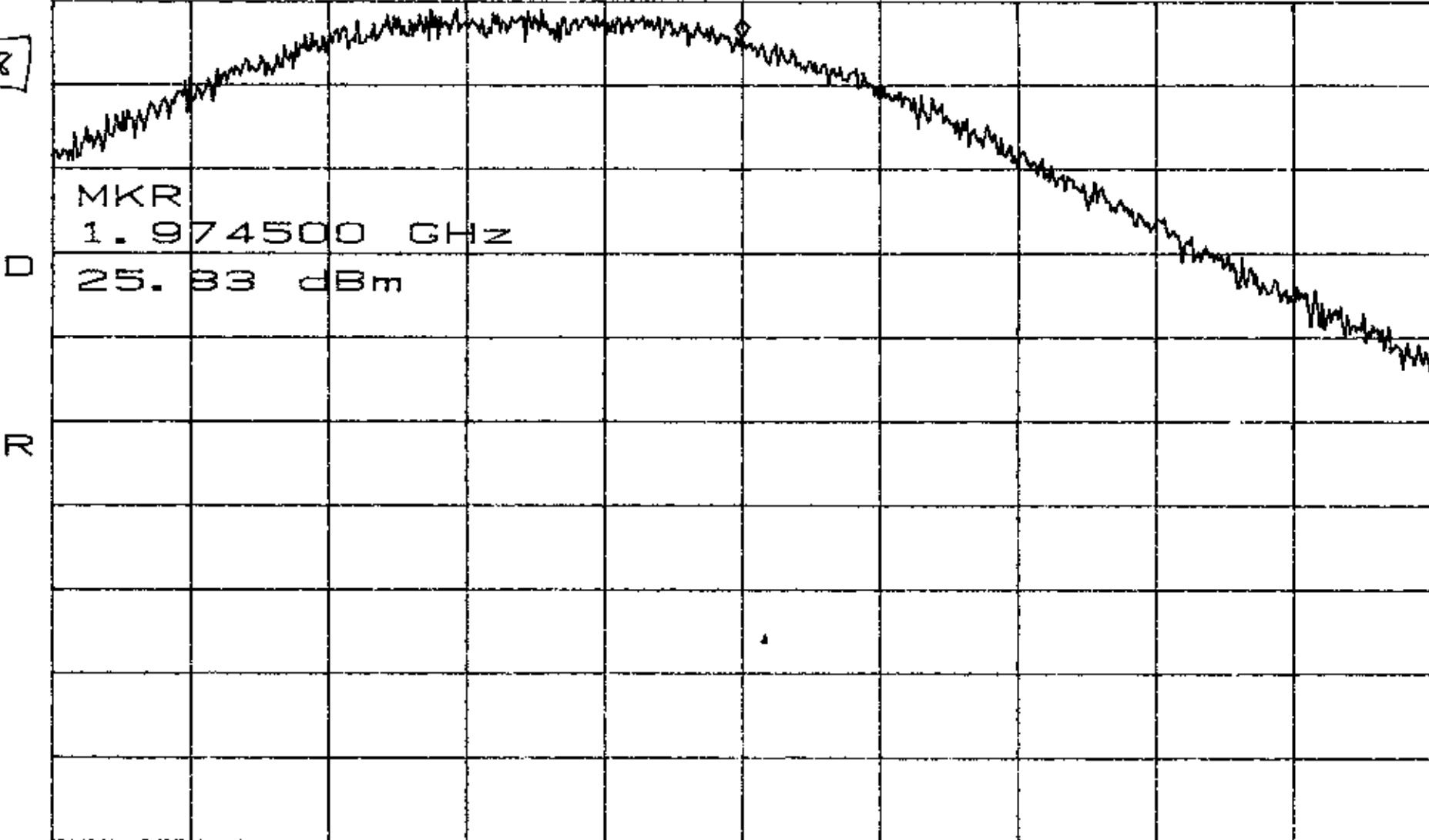
8/3/98

*ATTEN 10dB
RL 30.0dBm

VAVG 10
10dB/

MKR 25.83dBm
1.974500GHz

24.238



CENTER 1.974500GHz

SPAN 5.000MHz

*RBW 1.0MHz

*VBW 1.0MHz

*SWP 50.0ms

CDR 1CH X7.1W
SIN. FCC UNIT

DL
CH 875 (HIGH)

ABOVE FUNDAMENTAL
E/F-BAND

8/3/98

*ATTEN 10dB

VAVG 10

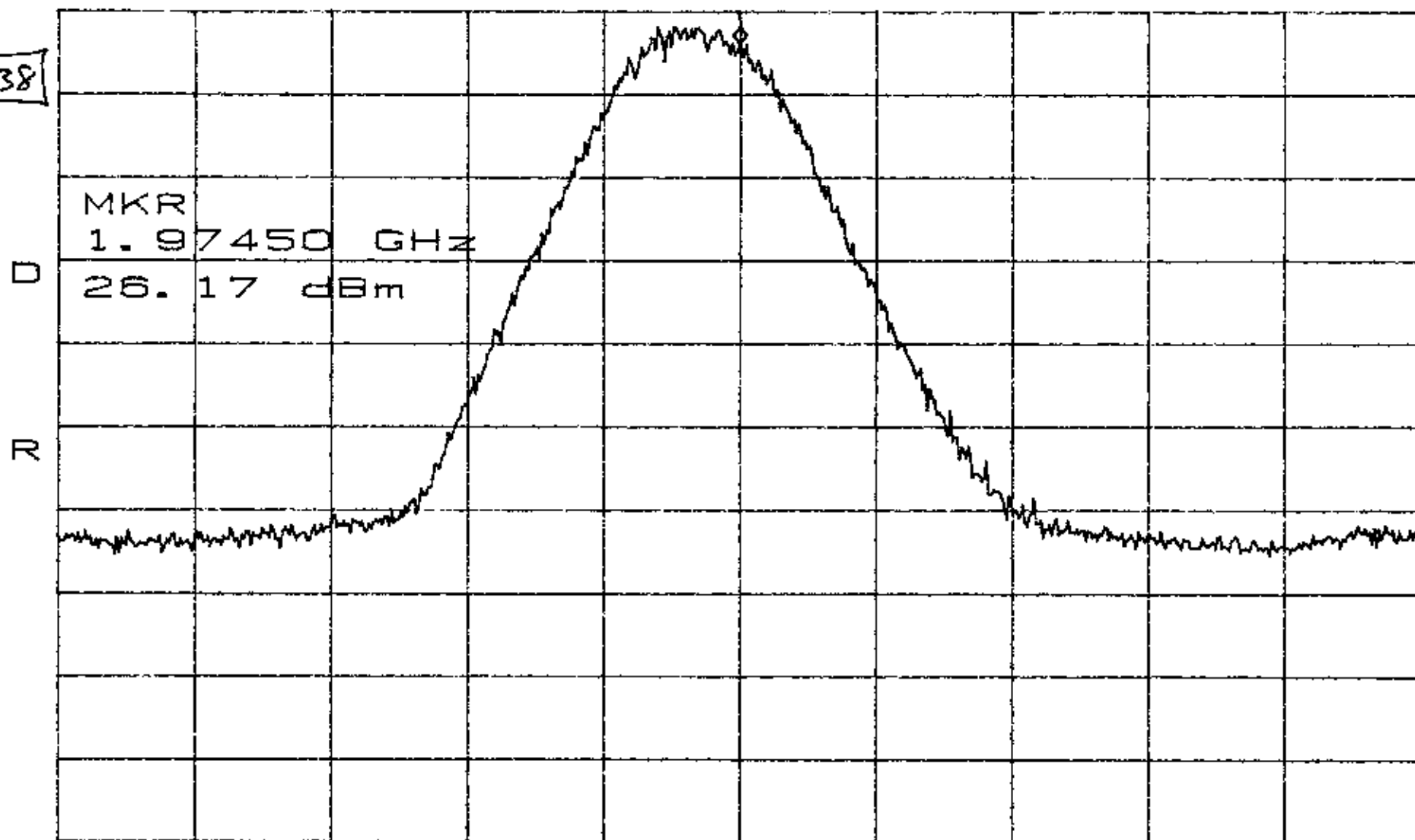
MKR 26.17dBm

RL 30.0dBm

10dB/

1.97450GHz

24.238



CENTER 1.97450GHz

SPAN 20.00MHz

*RBW 1.0MHz

*VBW 1.0MHz

*SWP 50.0ms

CDR 1CA X 7.1W

S/N: FCC UNIT

DL

CH. 875 (HIGH)

BELOW FUNDAMENTAL

ET/F-BAND

8/3/98

*ATTEN 10dB

VAVG 10

MKR 24.00dBm

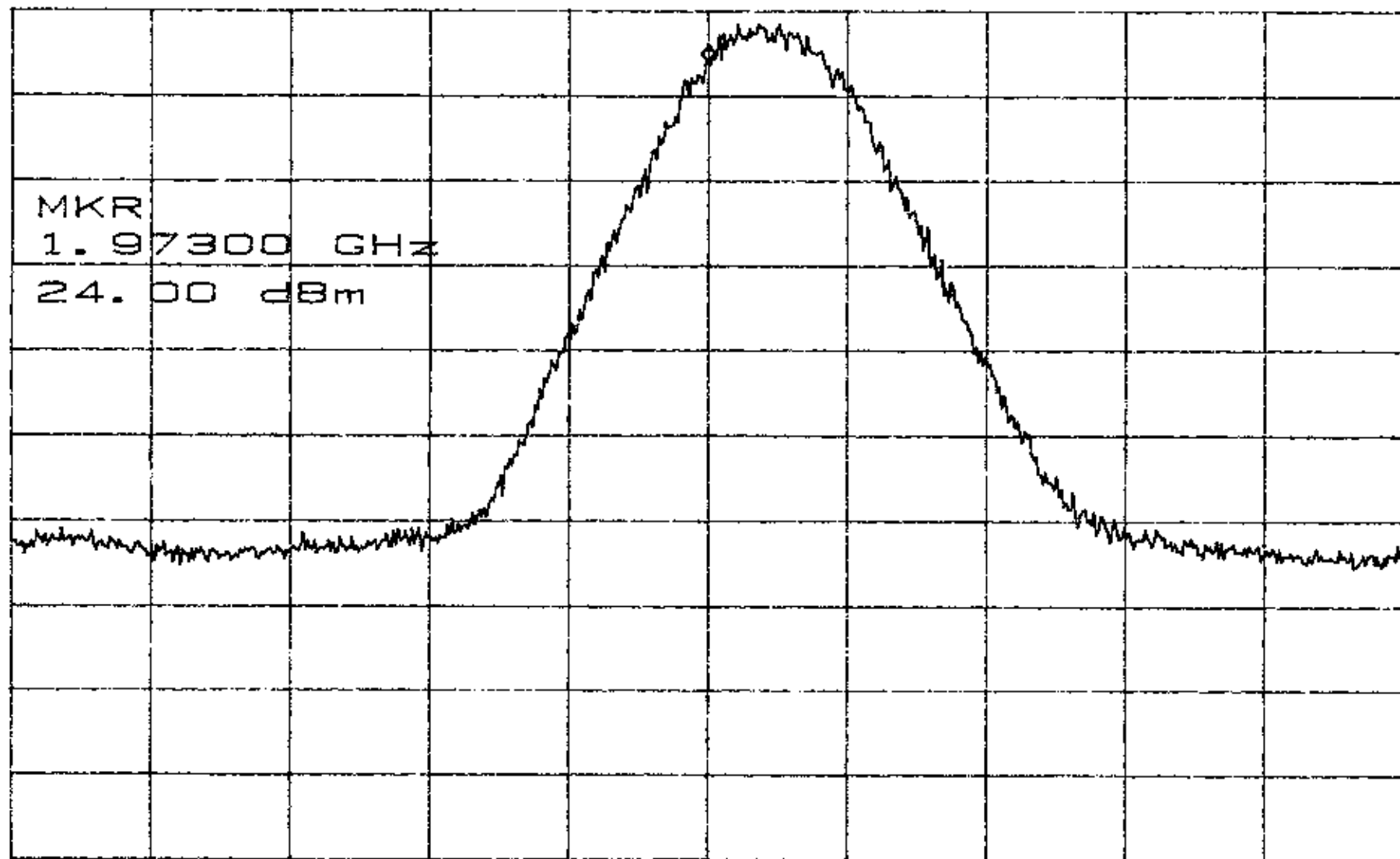
RL 30.00dBm

10dB/

1.97300GHz

24.238

MKR
1.97300 GHz
24.00 dBm



CENTER 1.97300GHz

SPAN 20.00MHz

*RBW 1.0MHz

*VBW 1.0MHz

*SWP 50.0ms

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

DL
CH 875(KH)

BELOW FUNDAMENTAL
E/F-BAND

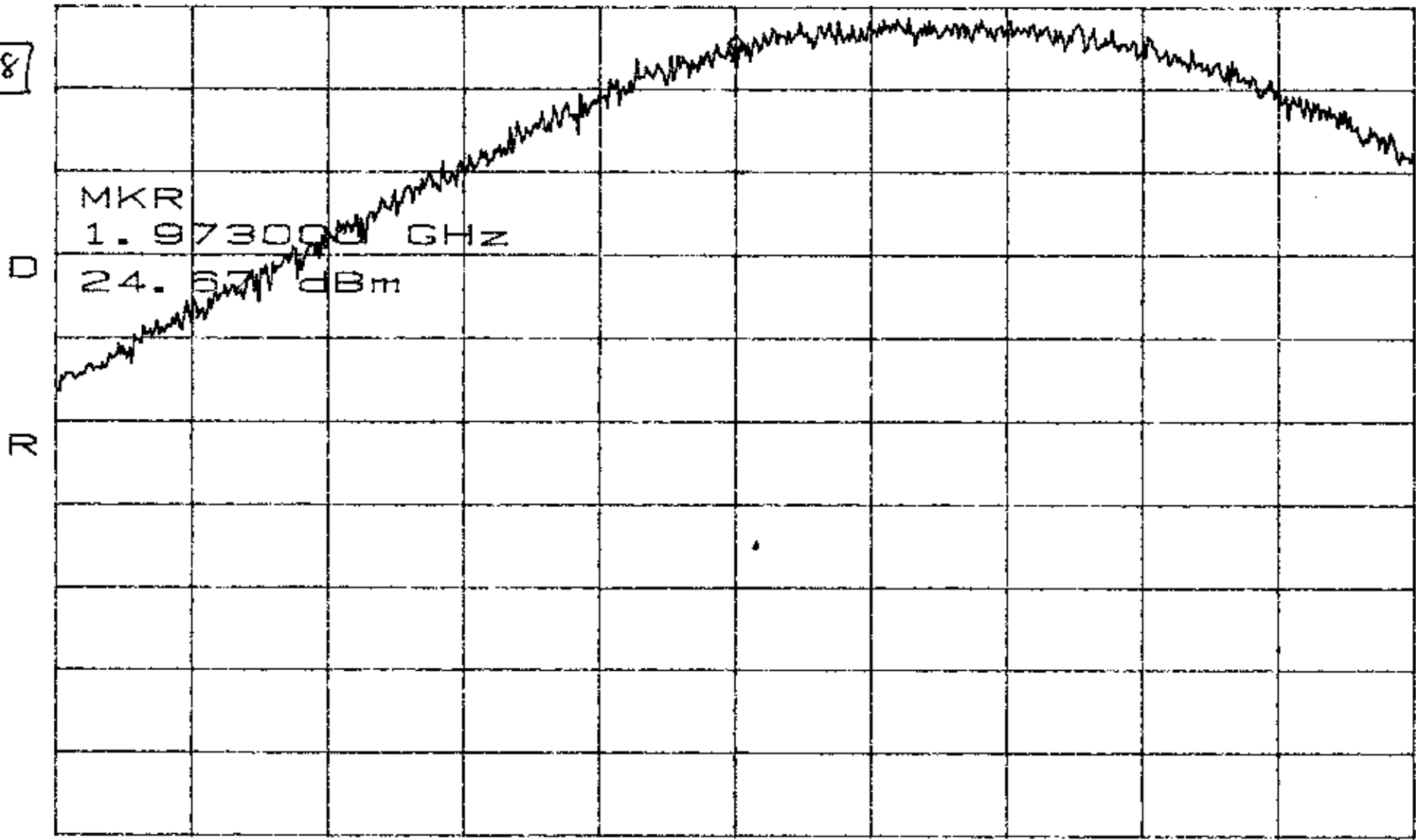
8/3/98

*ATTEN 10dB
RL 30.0dBm

VAVG 10
10dB/

MKR 24.67dBm
1.973000GHz

24.238



CENTER 1.973000GHz SPAN 5.000MHz
*RBW 1.0MHz *VBW 1.0MHz *SWP 50.0ms

CDR 1CH. X7.1W

UL

FUNDAMENTAL

8/13/98

S/N: FCC UNIT

CH 875 (HIGH)

ELF BAND

*ATTEN 10dB

VAVG 10

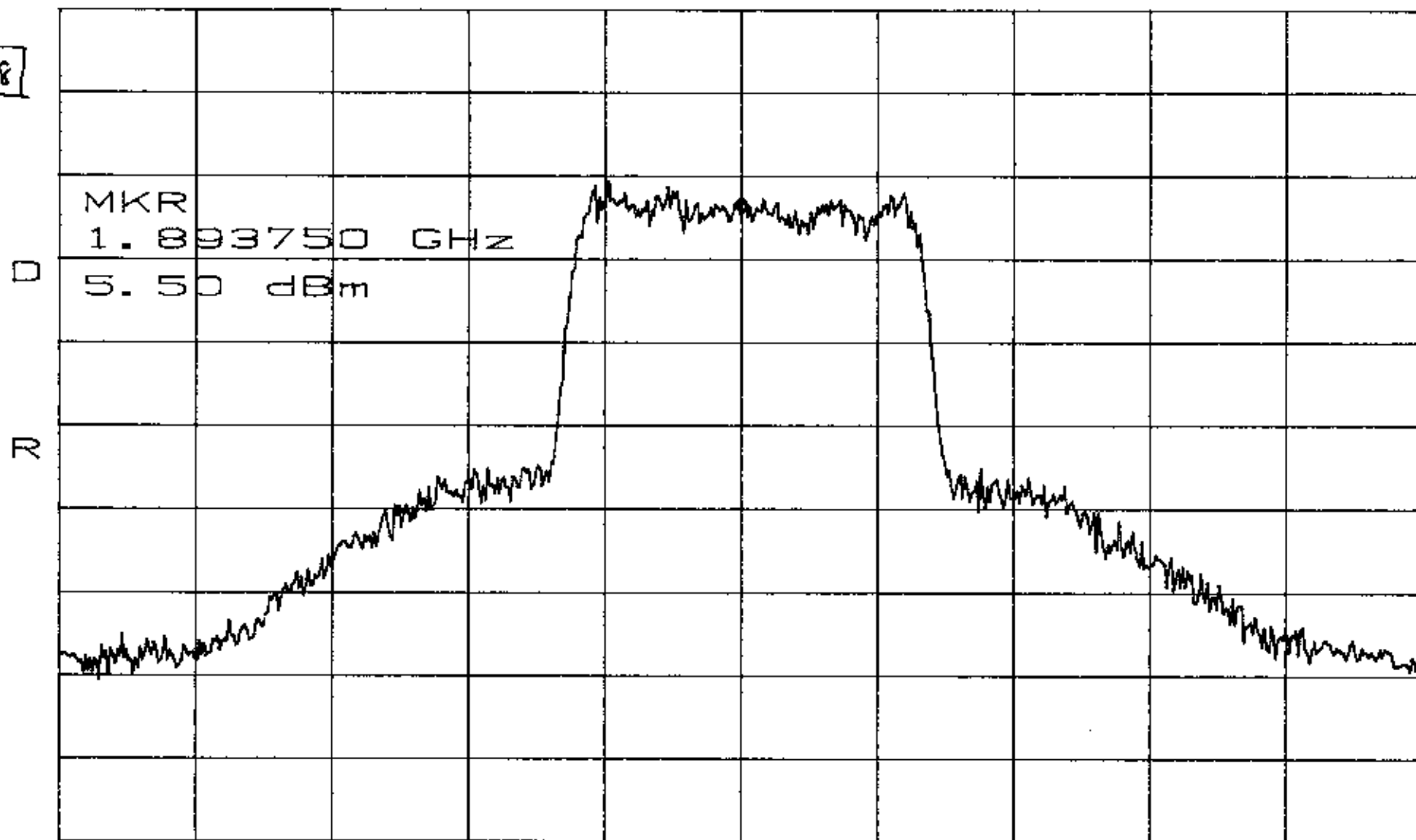
MKR 5.50dBm

RL 30.0dBm

10dB/

1.893750GHz

24.238



CENTER 1.893750GHz

SPAN 5.000MHz

*RBW 30kHz

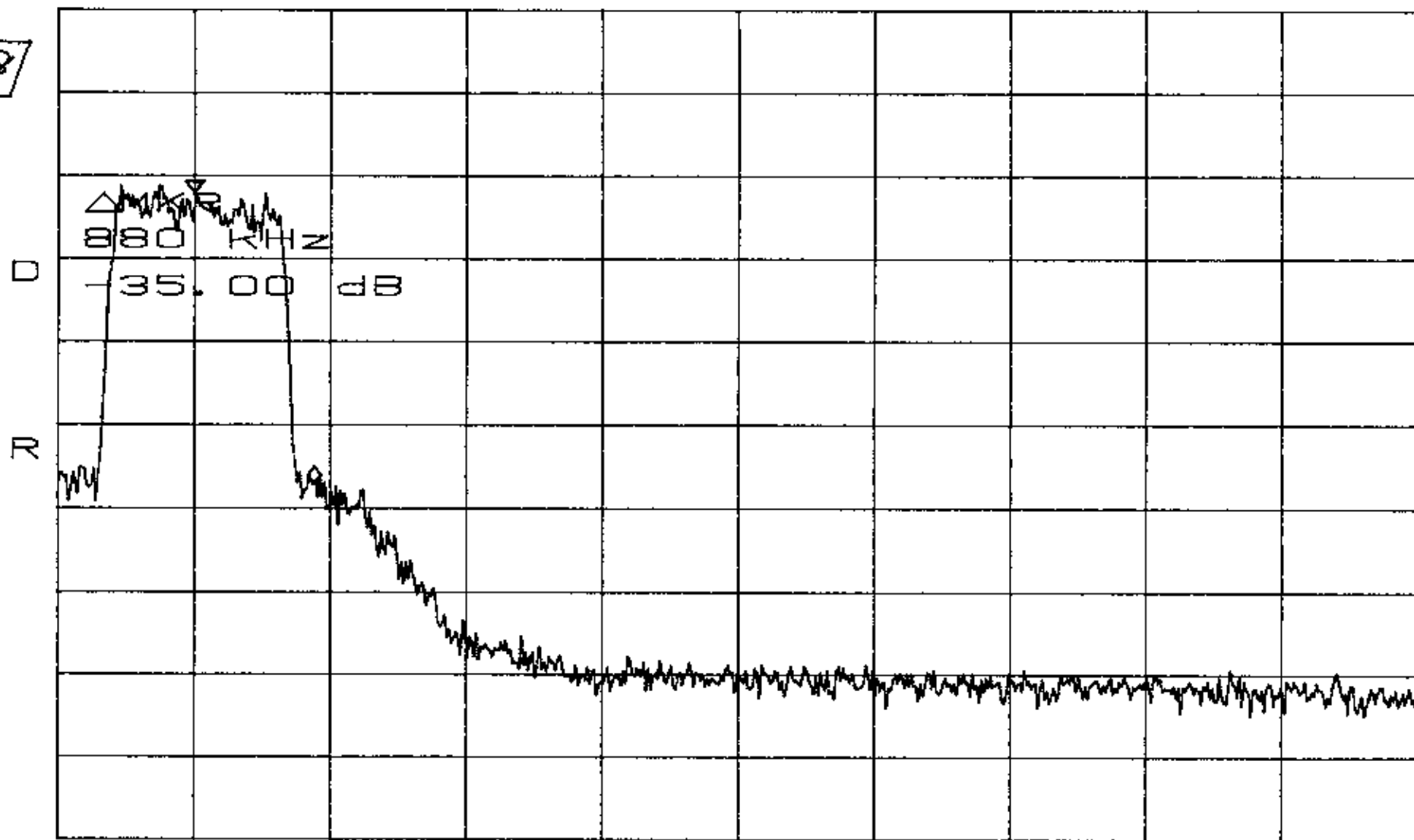
*VBW 30kHz

*SWP 50.0ms

CDE ICH. X7.1W UL ABOVE FUNDAMENTAL 8/3/98
S/N: FCC UNIT CH. 875(HIGH) E/F-BAND

*ATTEN 10dB VAVG 10 ΔMKR -35.00dB
RL 30.0dBm 10dB/ 880kHz

24.238

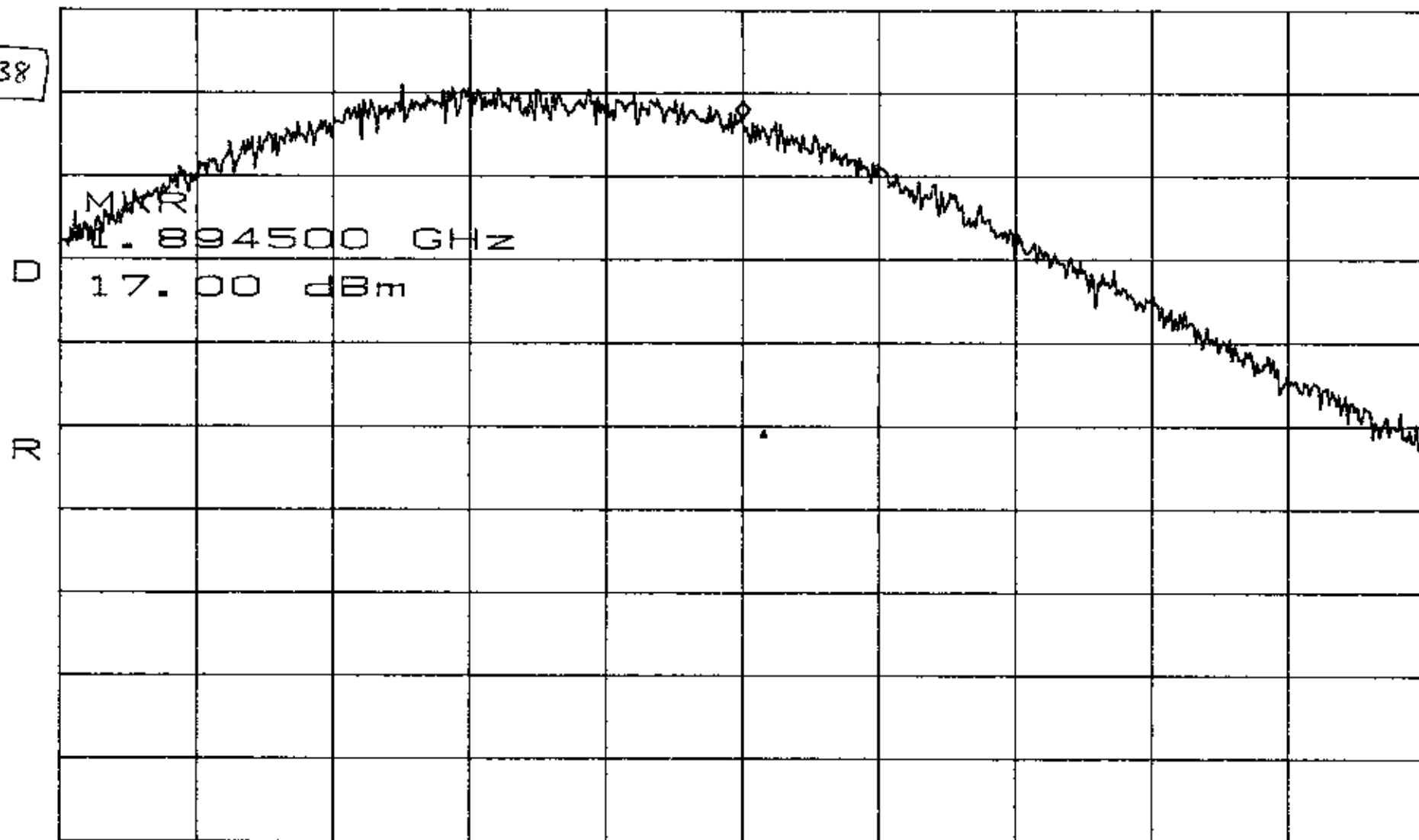


CENTER 1.89775GHz SPAN 10.00MHz
*RBW 30kHz *VBW 30kHz *SWP 50.0ms

CDR 14. X 7.1W UL ABOVE FUNDAMENTAL 8/3/98
S/N: FCC UNIT CH. 275 (HIGH) E/F-BAND

*ATTEN 10dB VAVG 10 MKR 17.00dBm
RL 30.00dBm 10dB/ 1.894500GHz

24.238



CENTER 1.894500GHz SPAN 5.000MHz
*RBW 1.0MHz *VBW 1.0MHz *SWP 50.0ms

CDR 1CA.X7.1W UL
S/N: FCC UNIT CH. 875 (HIGH)

ABOVE FUNDAMENTAL
E/F-BAND

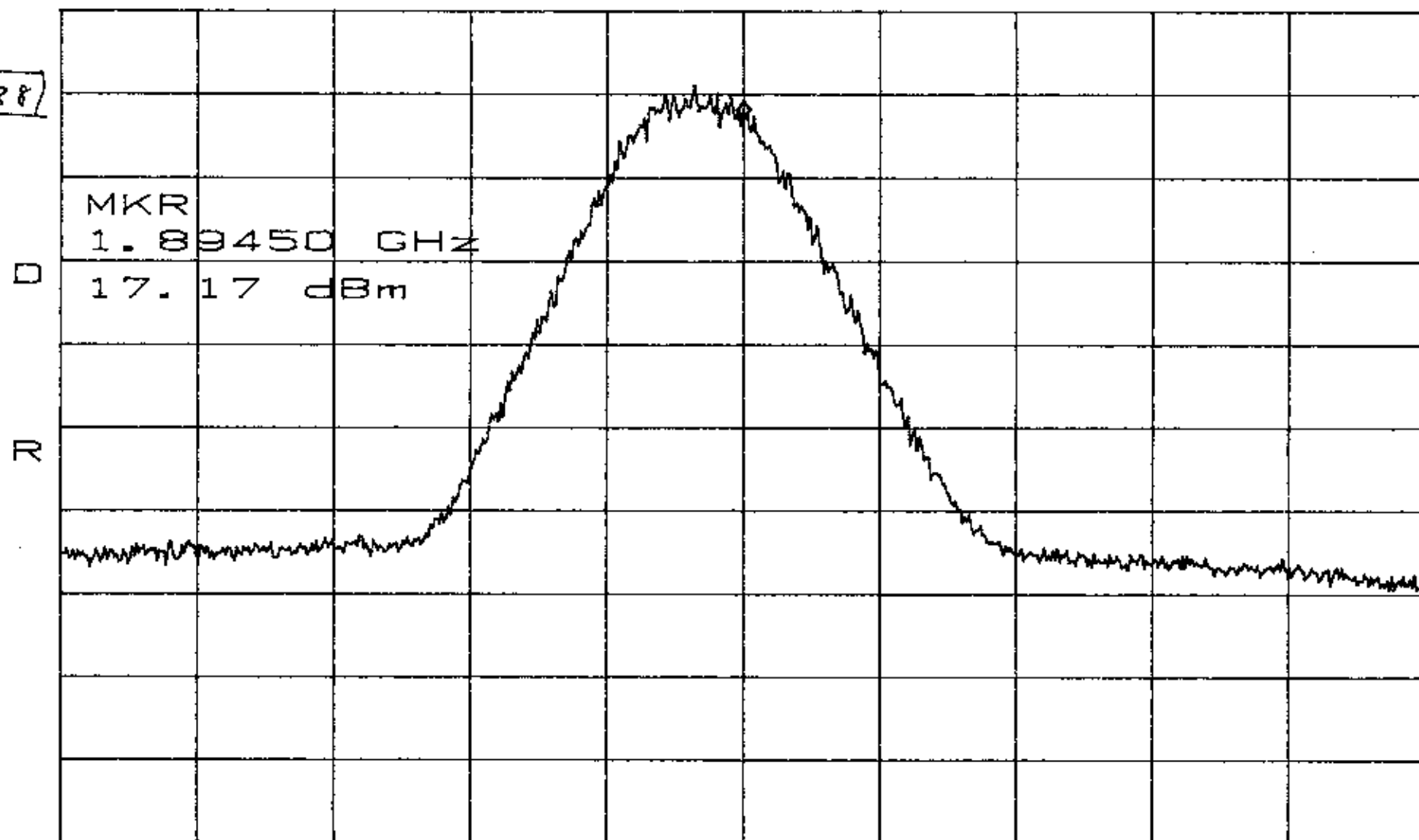
8/3/98

*ATTEN 10dB
RL 30.0dBm

VAVG 10
10dB/

MKR 17.17dBm
1.89450GHz

24.238



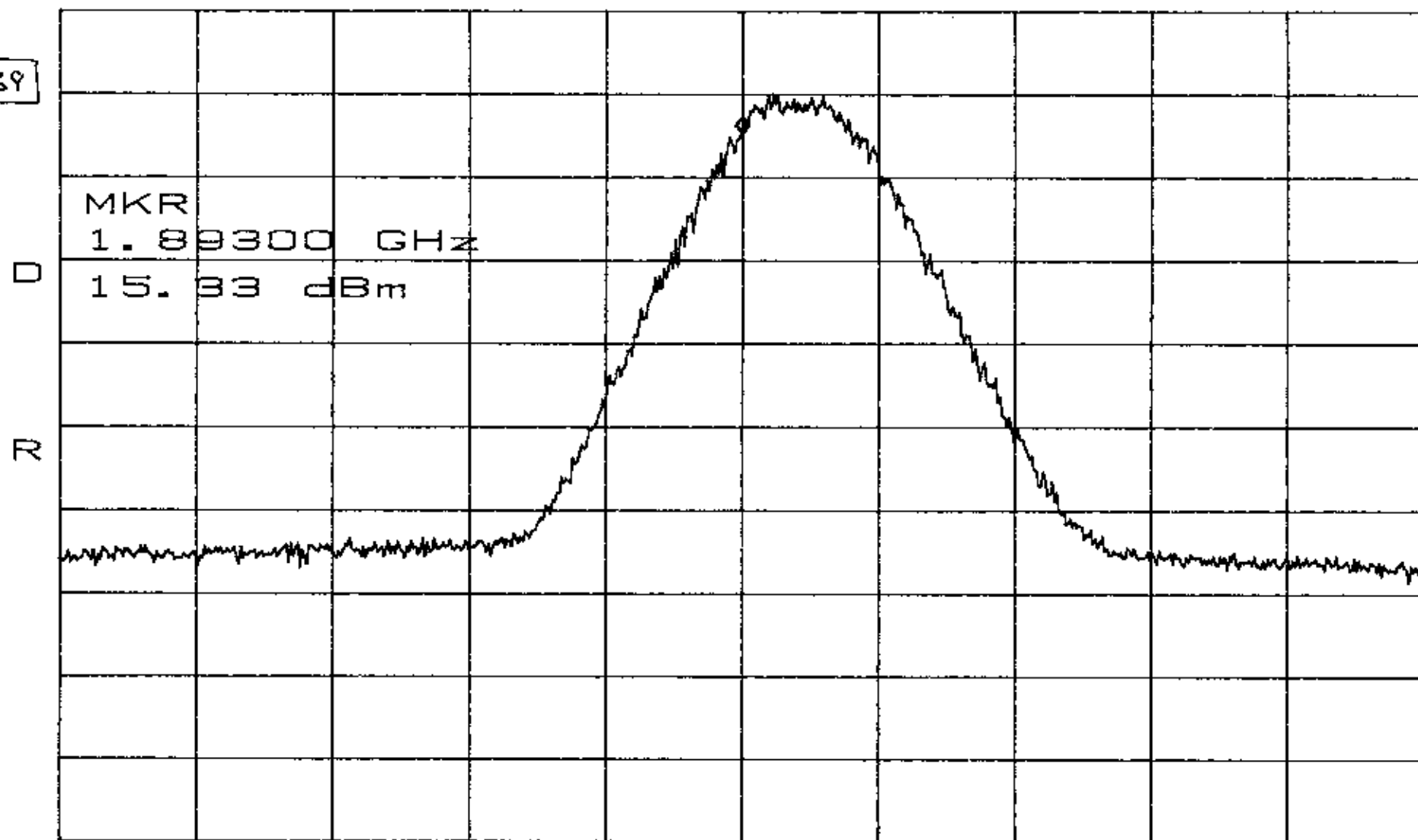
CENTER 1.89450GHz SPAN 20.00MHz
*RBW 1.0MHz *VBW 1.0MHz *SWP 50.0ms

COR 1CH. X71W UL
S/N: FCC UNIT CH.875(HIGH)

BELOW FUNDAMENTAL 8/3/98
B/F-BAND

*ATTEN 10dB VAVG 10 MKR 15.33dBm
RL 30.0dBm 10dB/ MBPO 0.0
1.89300GHz

24.239



CENTER 1.89300GHz SPAN 20.00MHz
*RBW 1.0MHz *VBW 1.0MHz *SWP 50.0ms

CDR 1CH.X7.1W
SIN: FCC UNIT

UL
CH.875(HIGH)

BELOW FUNDAMENTAL
E/F-BAND

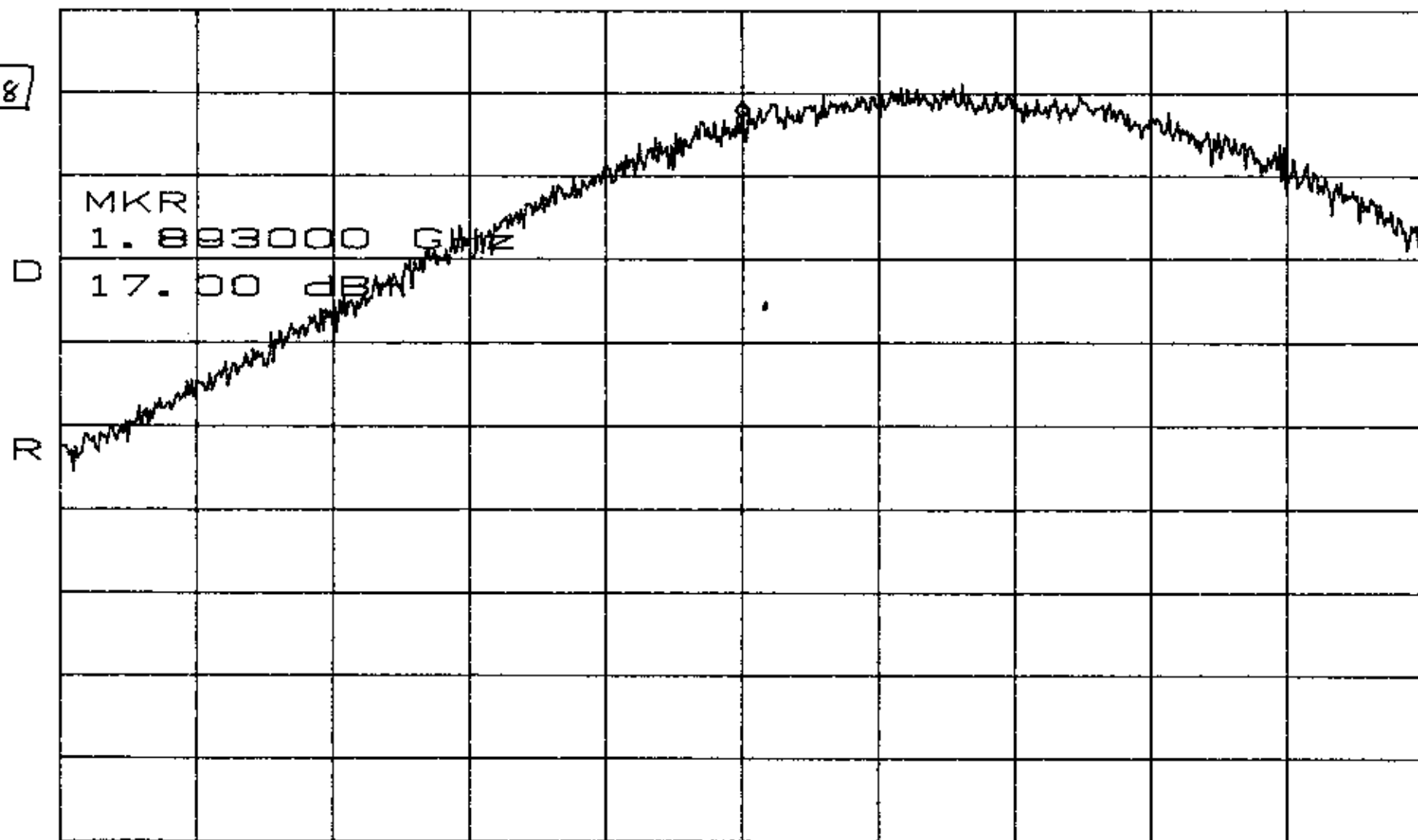
8/3/88

*ATTEN 10dB
RL 30.0dBm

VAVG 10
10dB/

MKR 17.00dBm
1.893000GHz

24.238



CENTER 1.893000GHz

SPAN 5.000MHz

*RBW 1.0MHz

*VBW 1.0MHz

*SWP 50.0ms

COR 104 X7.1W
S/N: FCC UNIT

UL
CH 725 (LOW)

FUNDAMENTAL
E/F-BAND

8/3/98

*ATTEN 10dB
RL 30.0dBm

VAVG 10
10dB/

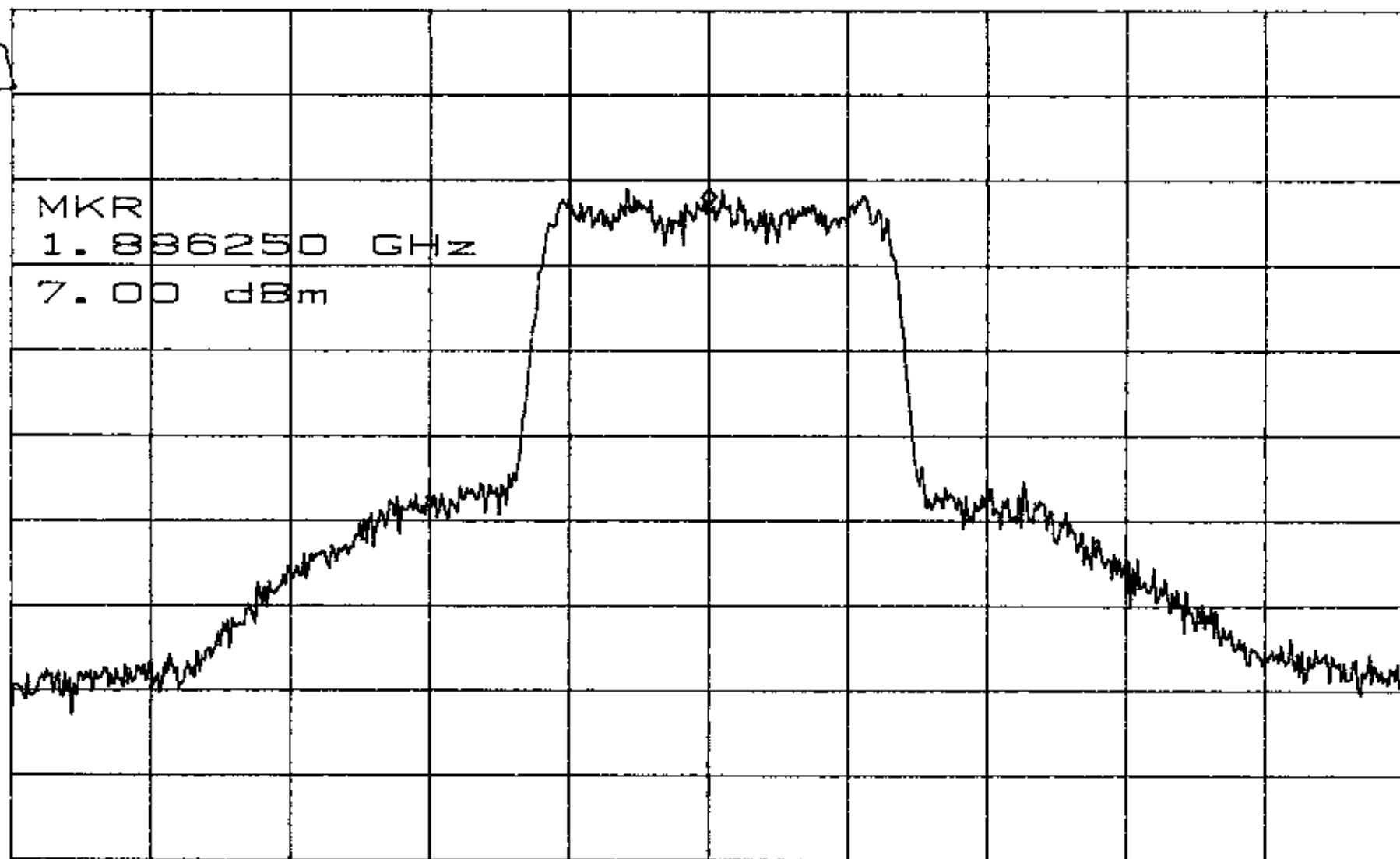
MKR 7.00dBm
1.886250GHz

24.238

MKR
1.886250 GHz
7.00 dBm

D

R



CENTER 1.886250GHz

SPAN 5.000MHz

*RBW 30kHz

*VBW 30kHz

*SWP 50.0ms

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

UL
CH. 725 (LOW)

BELOW FUNDAMENTAL
E/F-BAND

8/3/98

*ATTEN 10dB
RL 30.0dBm

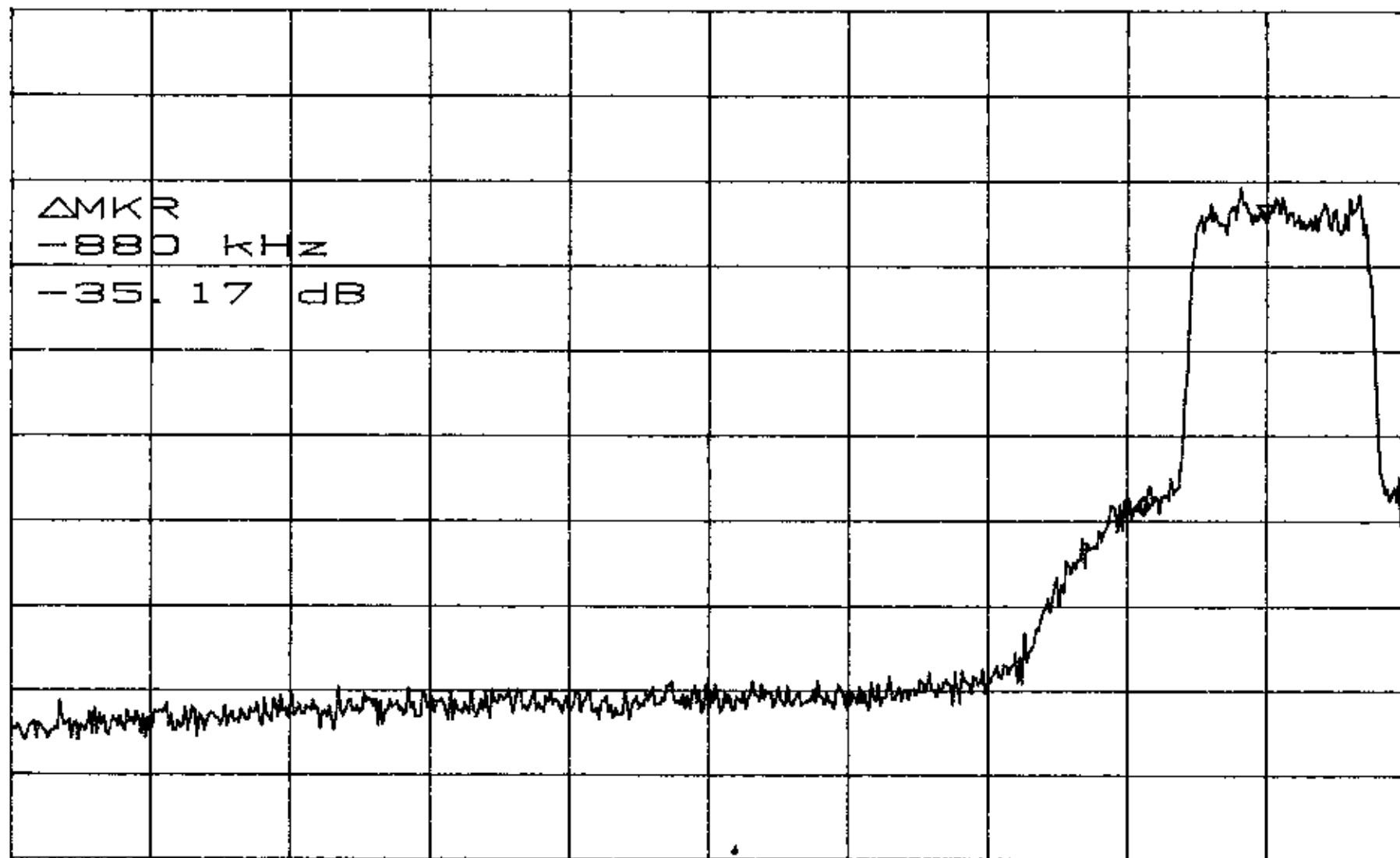
VAVG 10
10dB/

Δ MKR -35.17dB
-880kHz

24.238

D
R

Δ MKR
-880 kHz
-35.17 dB



CENTER 1.88225GHz

SPAN 10.00MHz

*RBW 30kHz

*VBW 30kHz

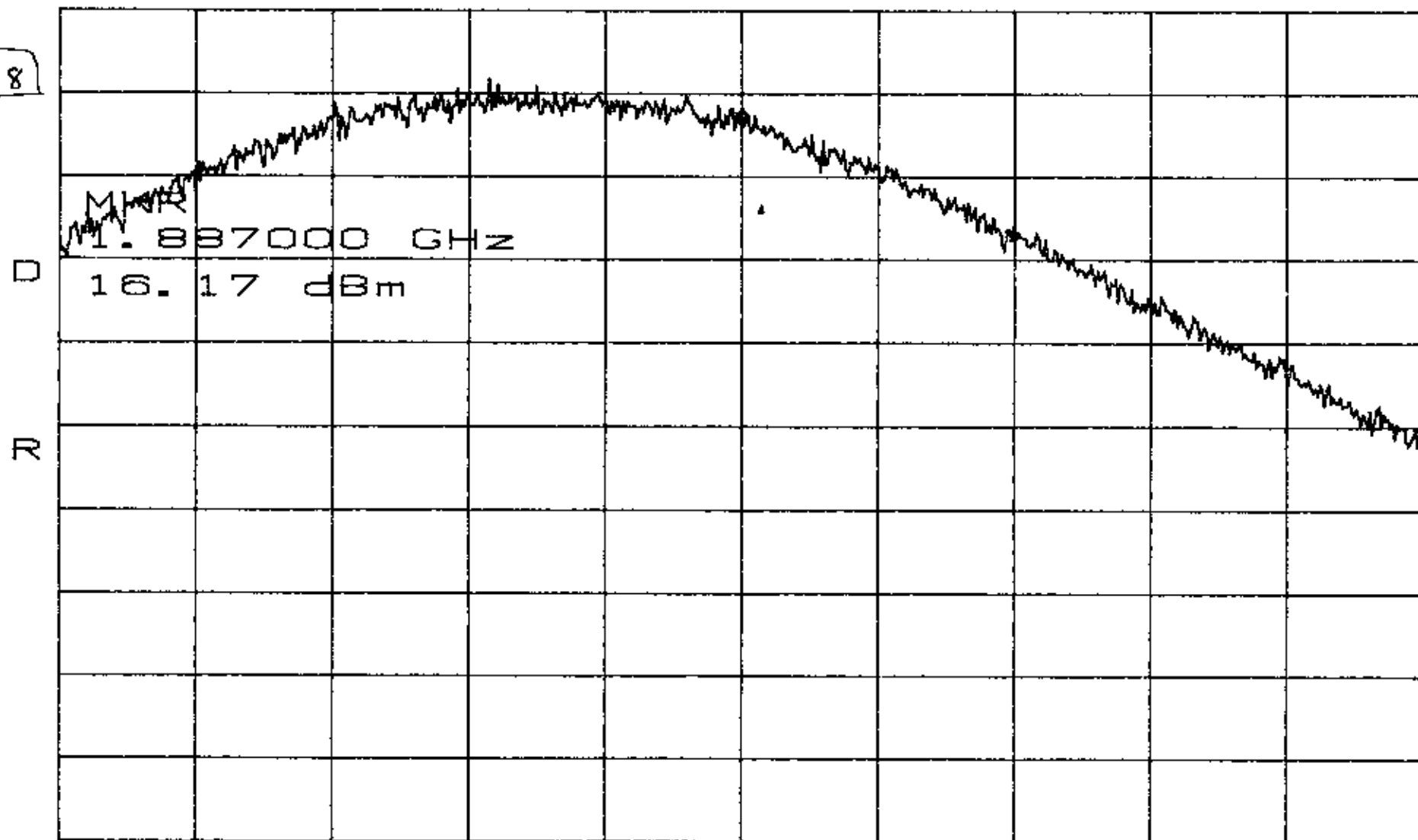
*SWP 50.0ms

CDR 1CH. X7.1W U
S/N: FCC UNIT CH. 725 (LOW)

ABOVE FUNDAMENTAL
E/F-BAND

8/3/98

*ATTEN 10dB VAVG 10 MKR 16.17dBm
RL 30.0dBm 10dB/BPO 1.887000GHz



CENTER 1.887000GHz SPAN 5.000MHz
*RBW 1.0MHz *VBW 1.0MHz *SWP 50.0ms

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

UL
CH. 725 (LOW)

ABOVE FUNDAMENTAL
E/F-BAND

8/3/98

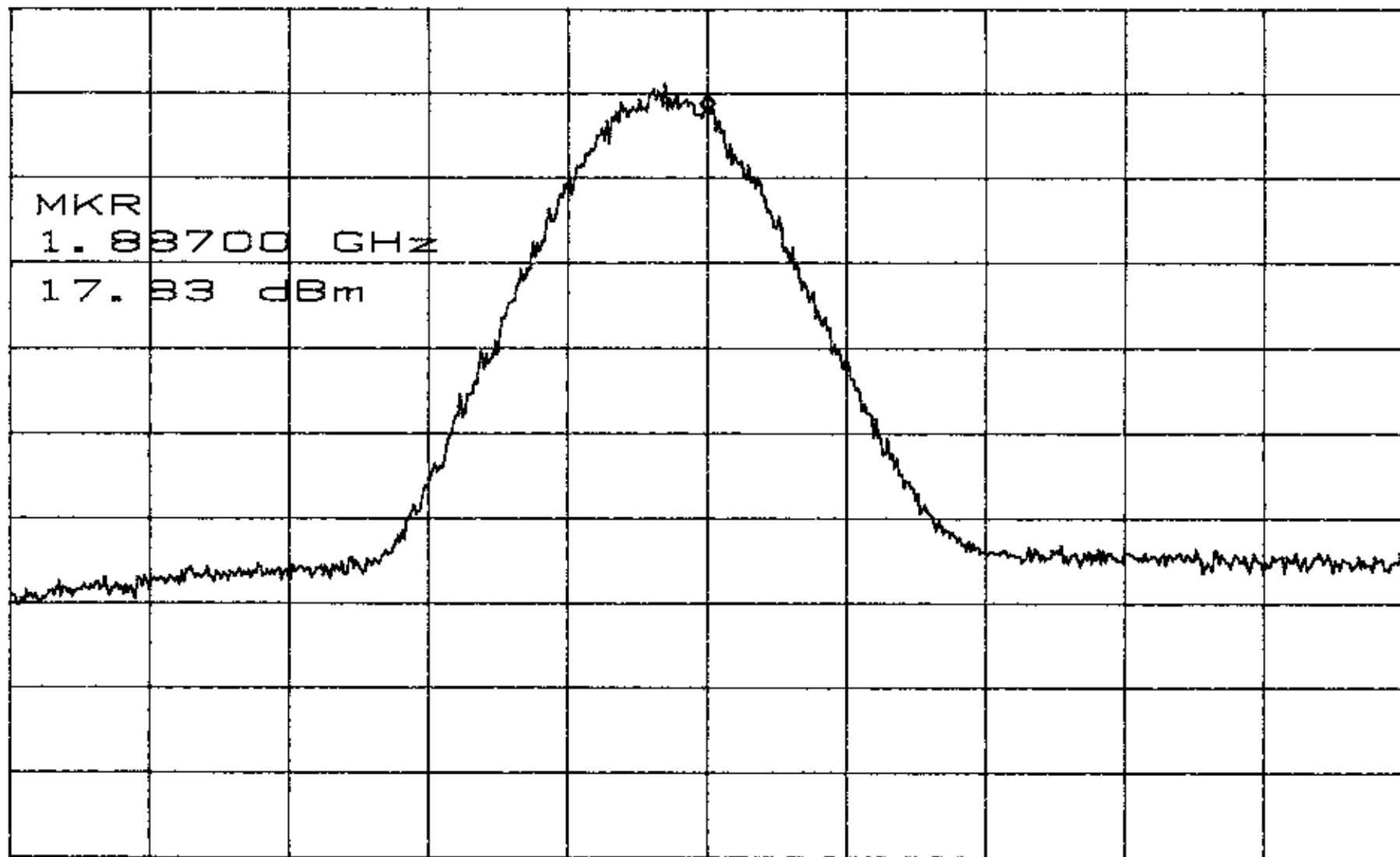
*ATTEN 10dB
RL 30.0dBm

VAVG 10
10dB/

MKR 17.83dBm
1.88700GHz

24.238

D
R



CENTER 1.88700GHz

SPAN 20.00MHz

*RBW 1.0MHz

*VBW 1.0MHz

*SWP 50.0ms

CPR 10A, x 7.1W
S/N: FCC UNIT

UL
CH. 725 (LOW)

Below FUNDAMENTAL
E/F-BAND

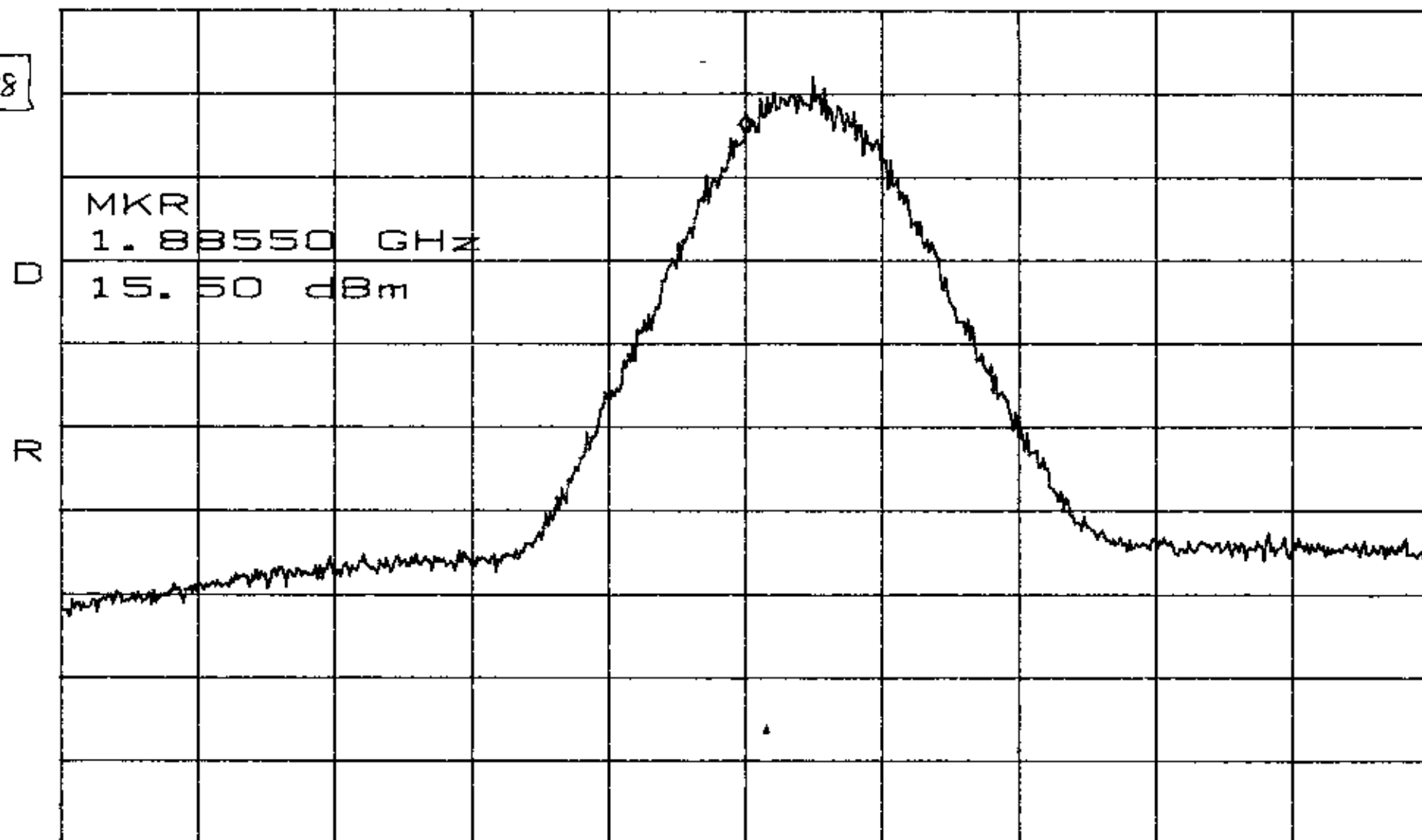
8/3/98

*ATTEN 10dB
RL 30.0dBm

VAVG 10
10dB/

MKR 15.50dBm
1.88550GHz

24.238



CENTER 1.88550GHz

SPAN 20.00MHz

*RBW 1.0MHz

*VBW 1.0MHz

*SWP 50.0ms

CDR 10A X 7.1W

UL

BELOW FUNDAMENTAL

8/3/98

S/N: FCC UNIT

(H. 725 (Low))

E/F-BAND

*ATTEN 10dB

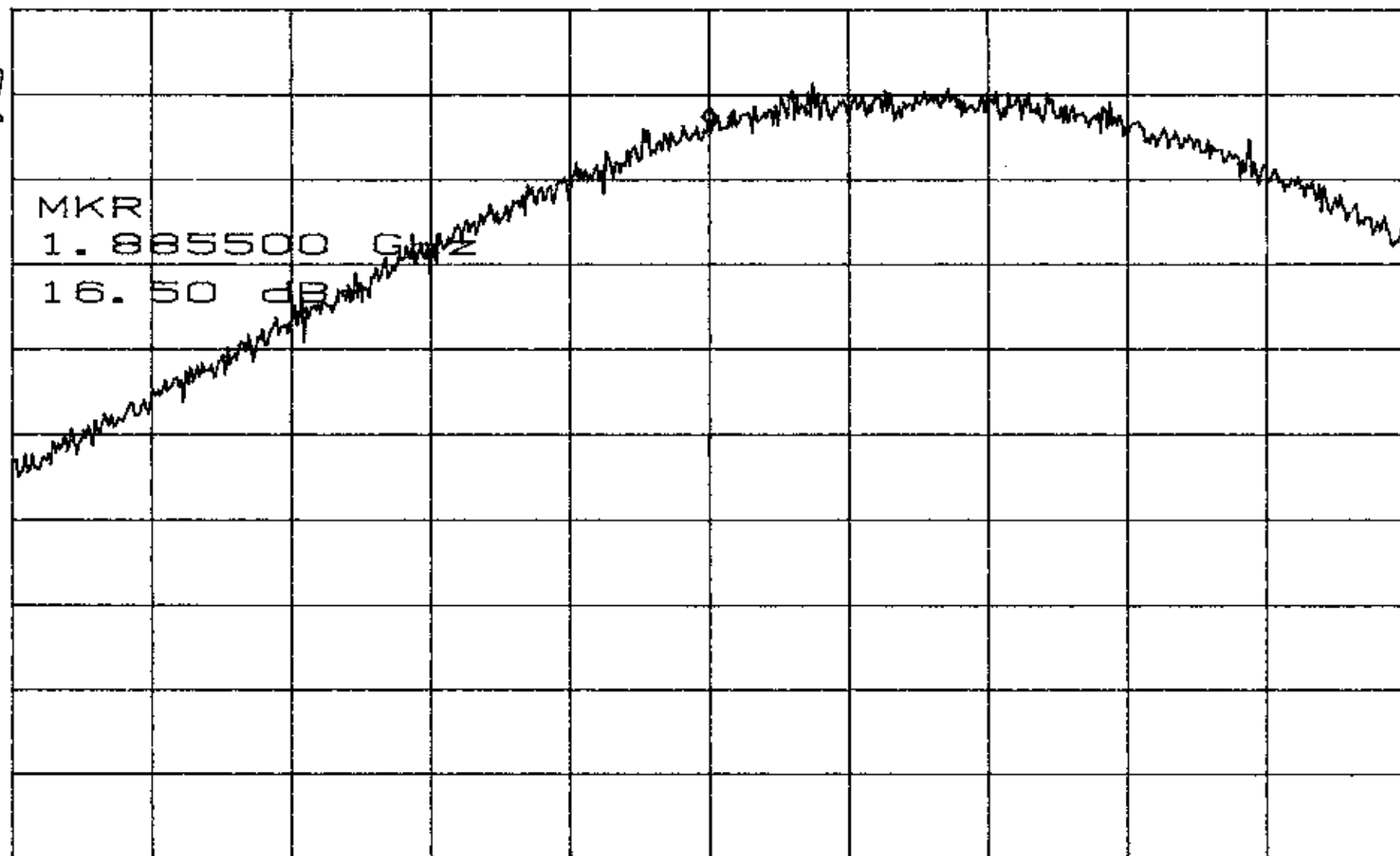
VAVG 10

MKR 16.50dBm

RL 30.0dBm

10dB/

1.885500GHz



CENTER 1.885500GHz

SPAN 5.000MHz

*RBW 1.0MHz

*VBW 1.0MHz

*SWP 50.0ms