

A7.E6

Report No. S8310-08 (FCC ID: LB41900CDMA)



**A.7 CONDUCTED EMISSION DATA**

**MODEL CDR-1902-1-D (D-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-D (D-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)
325	1866.25	30.01
350	1867.50	30.00
375	1868.75	30.00

***DOWNLINK:***

Channel	Frequency (MHz)	Output Power (dBm)
325	1946.25	38.57
350	1947.50	38.53
375	1948.75	38.53

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

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

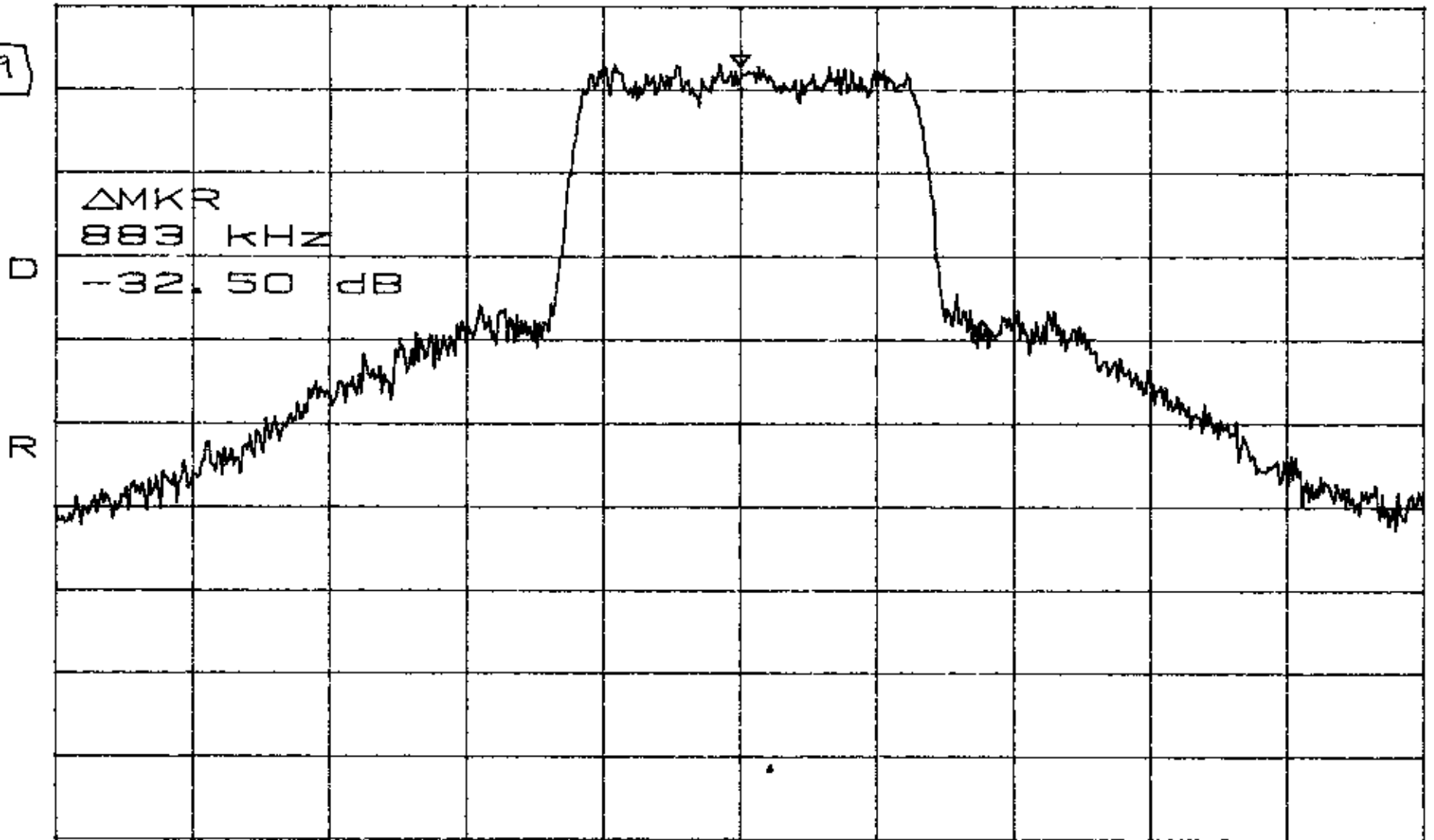
DL  
CH. 325 (LOW)

D-BAND

8/3/98

\*ATTEN 10dB VAVG 10 ΔMKR -32.50dB  
RL 30.0dB /BP01 888KHZ

2.989



ΔMKR  
888 KHZ  
BP 05.28-

CENTER 1.946250GHZ SPAN 5.000MHZ  
\*RBW 30KHZ \*VBW 30KHZ SWP 50.0ms

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

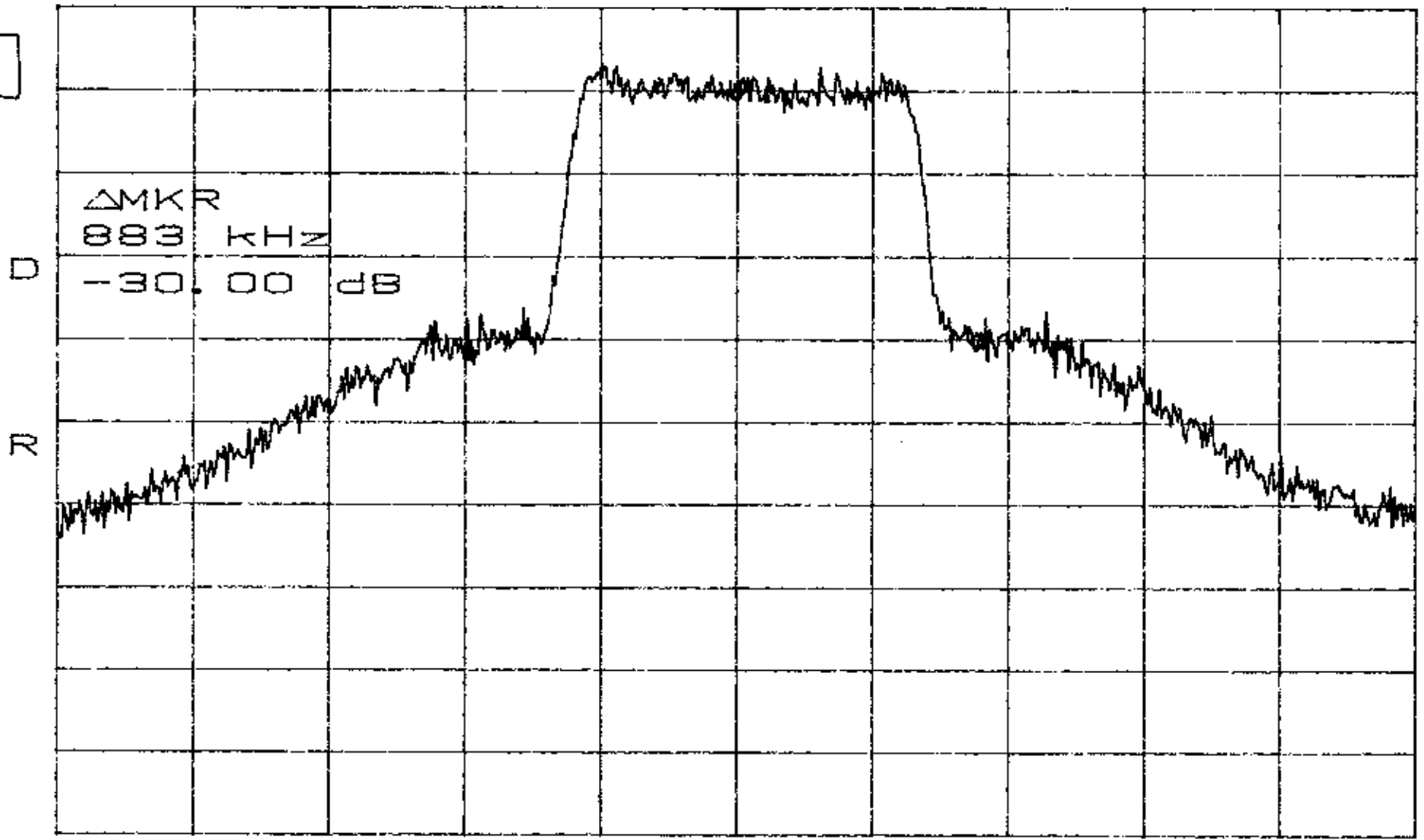
DL  
CH. 375 (H14H)

D-BAND

8/3/98

\*ATTN 10dB    VAVG 10    ΔMKR -30.00dB  
RL 30.00dBm    /BP01    883kHz

2.989



CENTER 1.948750GHz    SPAN 5.000MHz  
\*RBW 30kHz    \*VBW 30kHz    SWP 50.0ms

CDR 1CH. X 7.1W

E'UL

D-BAND

8/31/98

S/N: FCC UNIT

CH. 325 (LOW)

\*ATTEN 10dB

VAVG 10

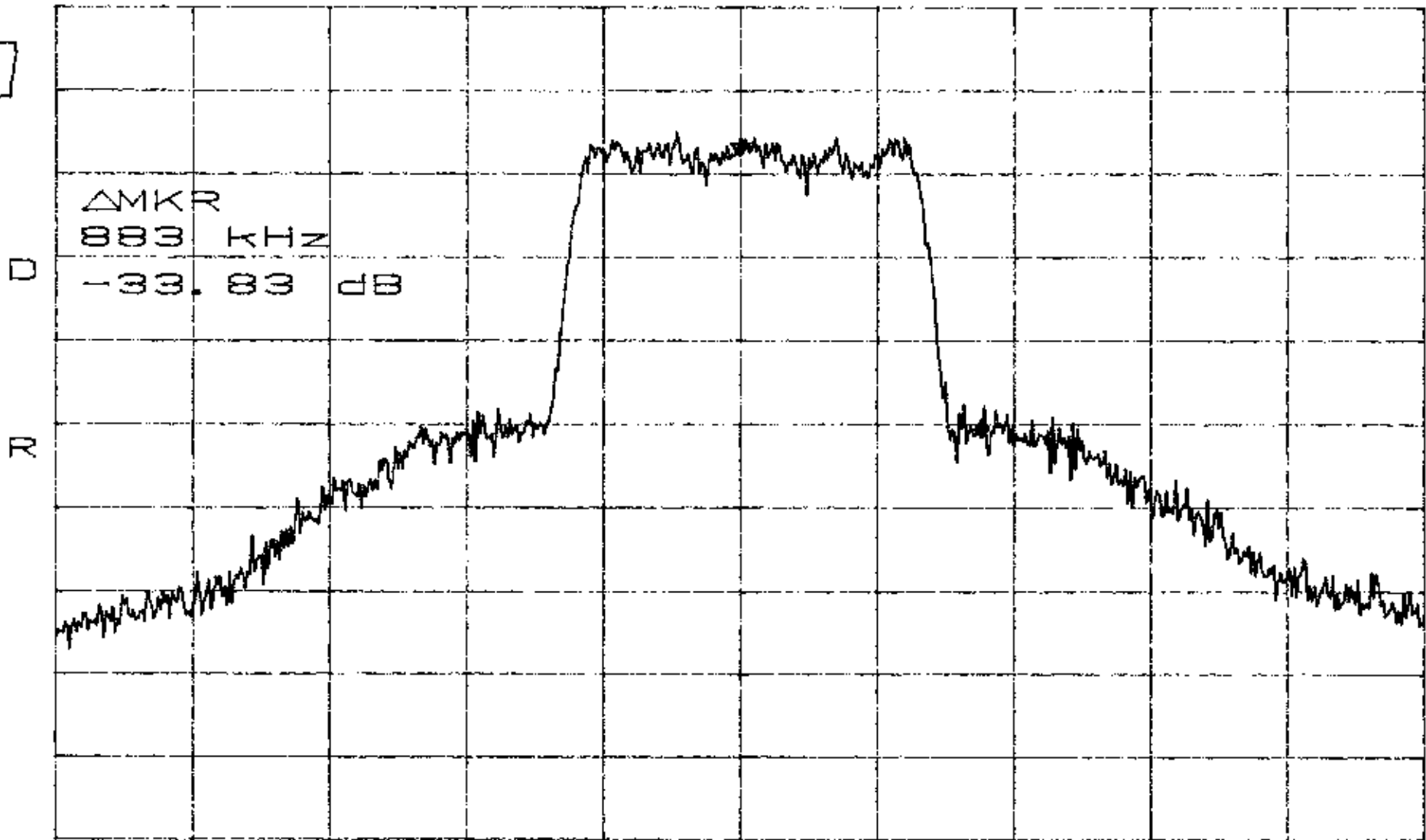
ΔMKR -33.83dB

RL 30.00MHz

/BP01

888kHz

2.989



CENTER 1.866250GHz

SPAN 5.000MHz

\*RBW 30kHz

\*VBW 30kHz

SWP 50.0ms

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

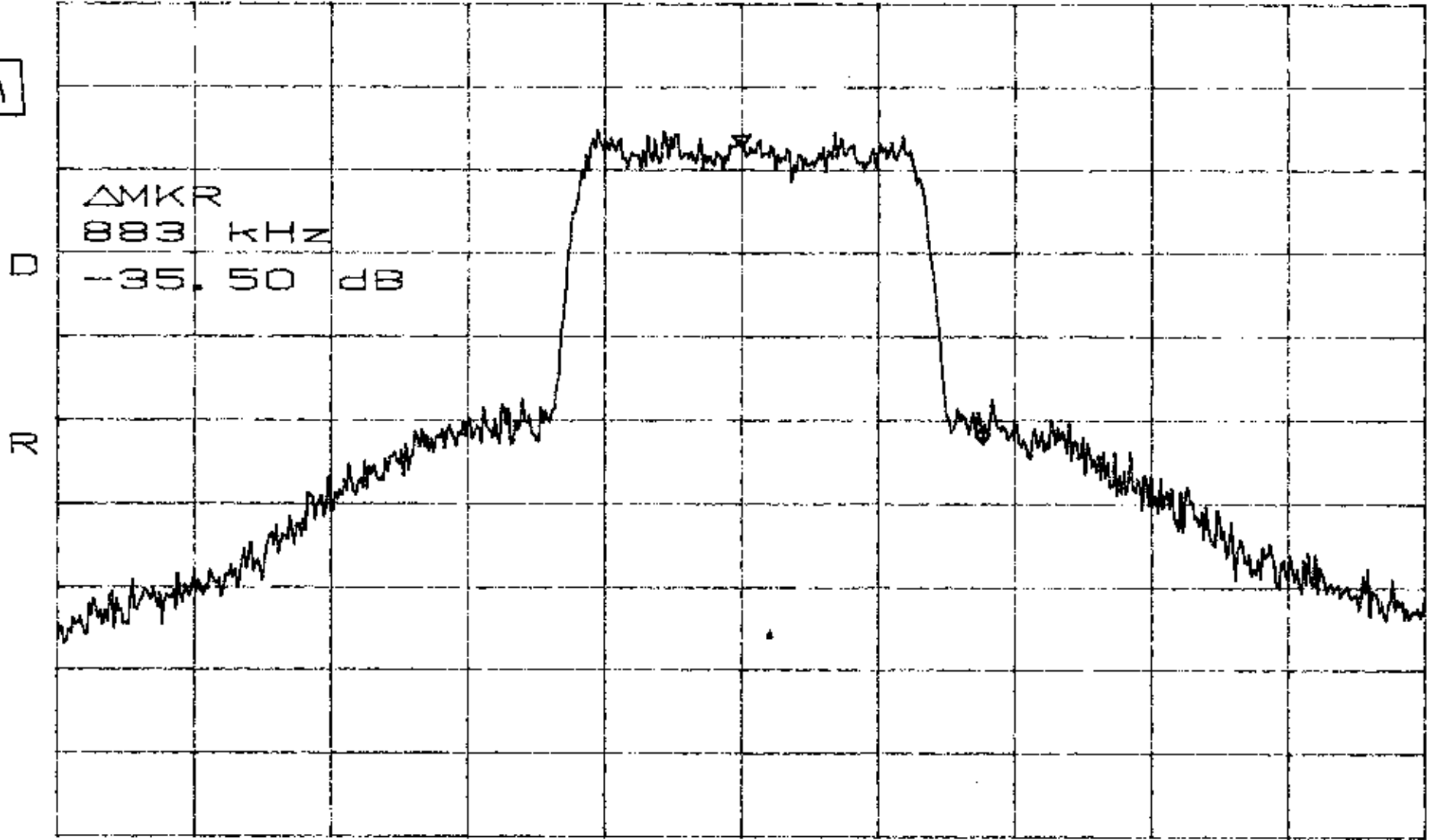
UL  
CH, 375 (HIGH)

D-BAND

8/31/98

\*ATTN 10dB    VAVG 10    ΔMKR -35.50dB  
RL 30.0dBm    /BP01    888kHz

2.989



CENTER 1.868750GHz    SPAN 5.000MHz  
\*RBW 30kHz    \*VBW 30kHz    SWP 50.0ms

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

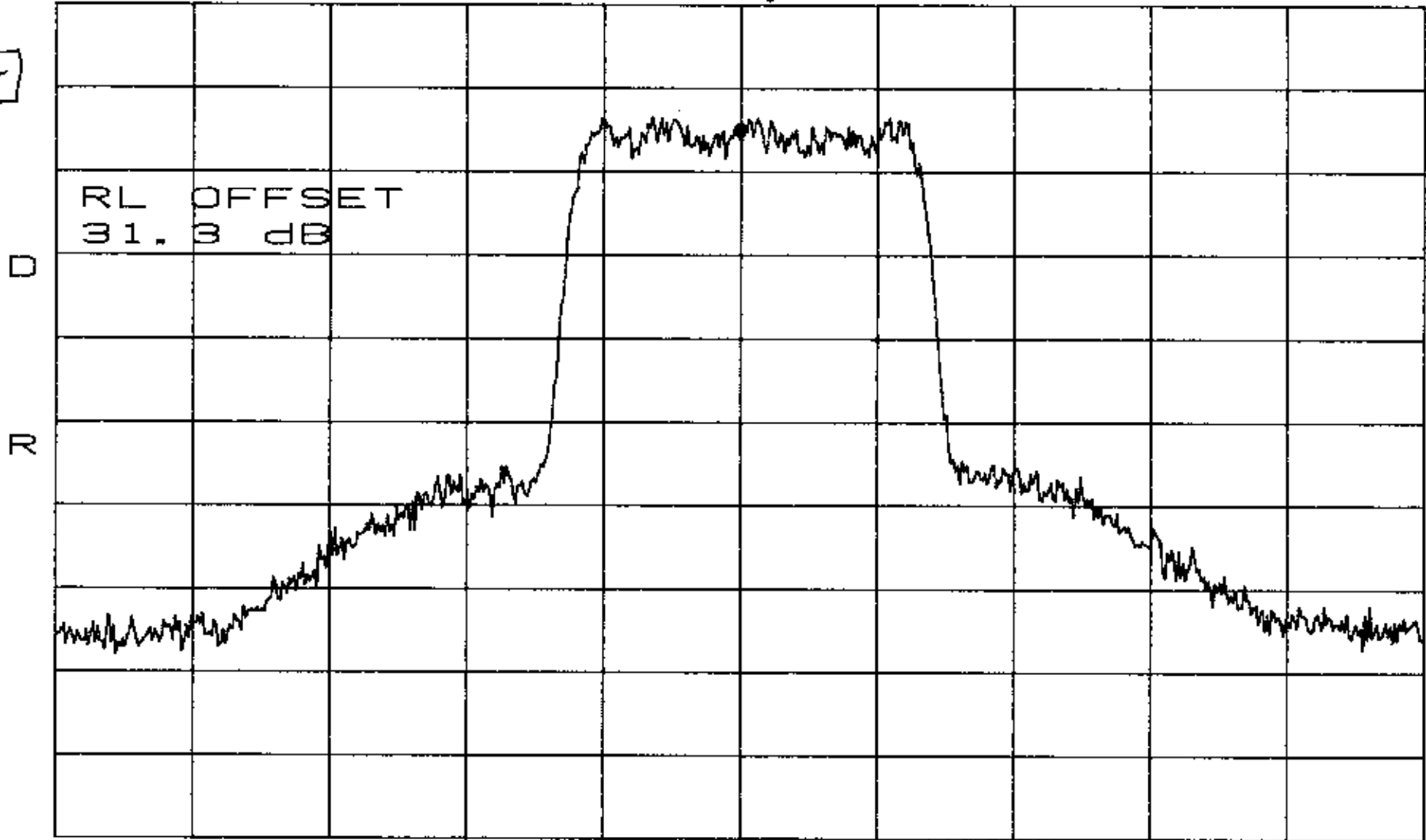
DL  
CH. 325 (LOW)

D-BAND  
(OUTPUT)

8/3/98

\*ATTN 10dB      VAVG 10      MKR 14.00dBm  
RL 30.00dBm      10dB/      1.946250GHz

IN/OUT



CENTER 1.946250GHz      SPAN 5.000MHz  
\*RBW 30kHz      \*VBW 30kHz      SWP 50.0ms

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

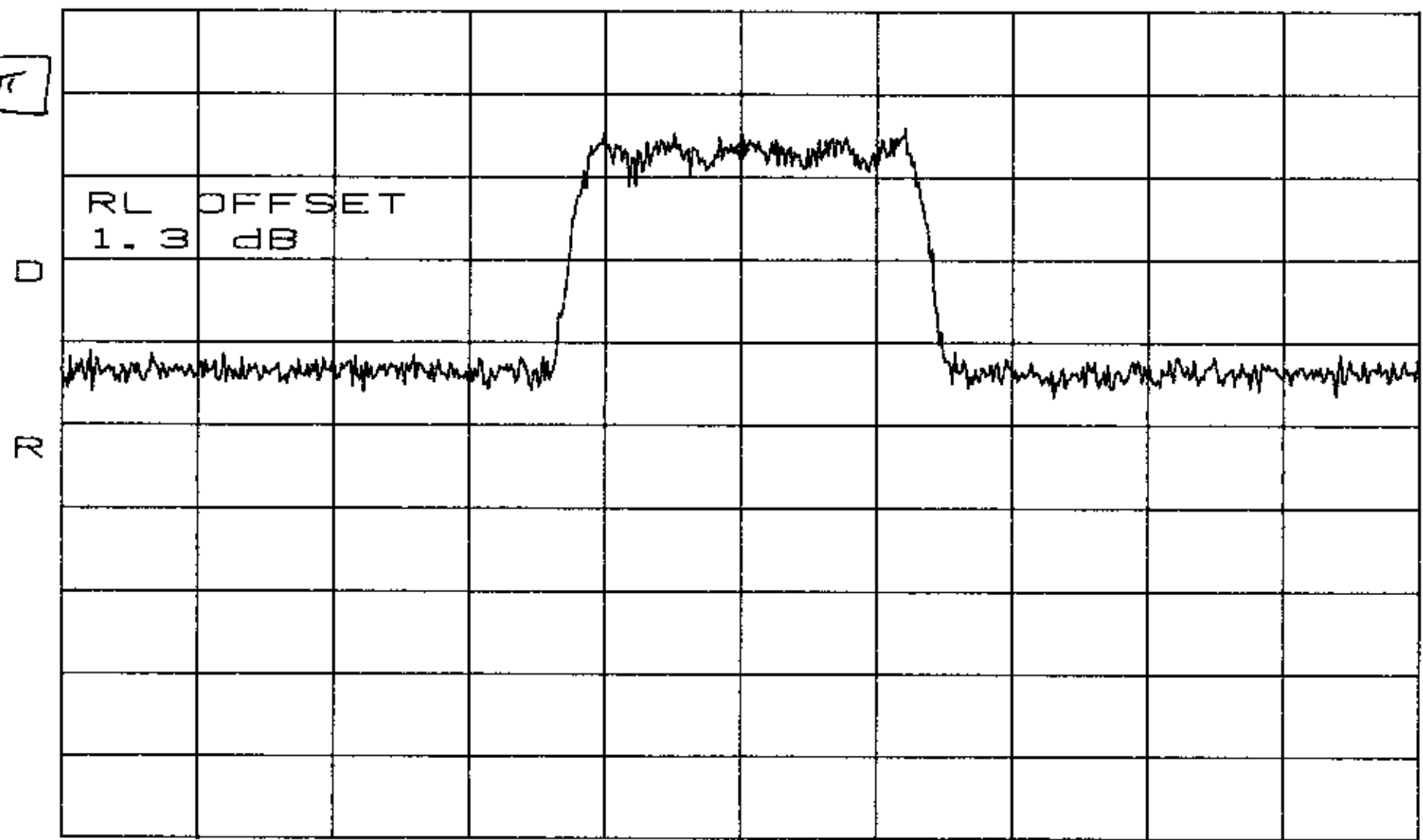
DL  
CH. 325(Low)

D-BAND  
(INPUT)

8/3/98

\*ATTEN 10dB VAVG 10 MKR -67.67dBm  
RL -50.00dBm 10dB/BPO1 1.946250GHz

IN/OUT



CENTER 1.946250GHz SPAN 5.000MHz  
\*RBW 30kHz \*VBW 30kHz SWP 50.0ms



CDR 1CH.X 7.1W  
SIN: FCC UNIT

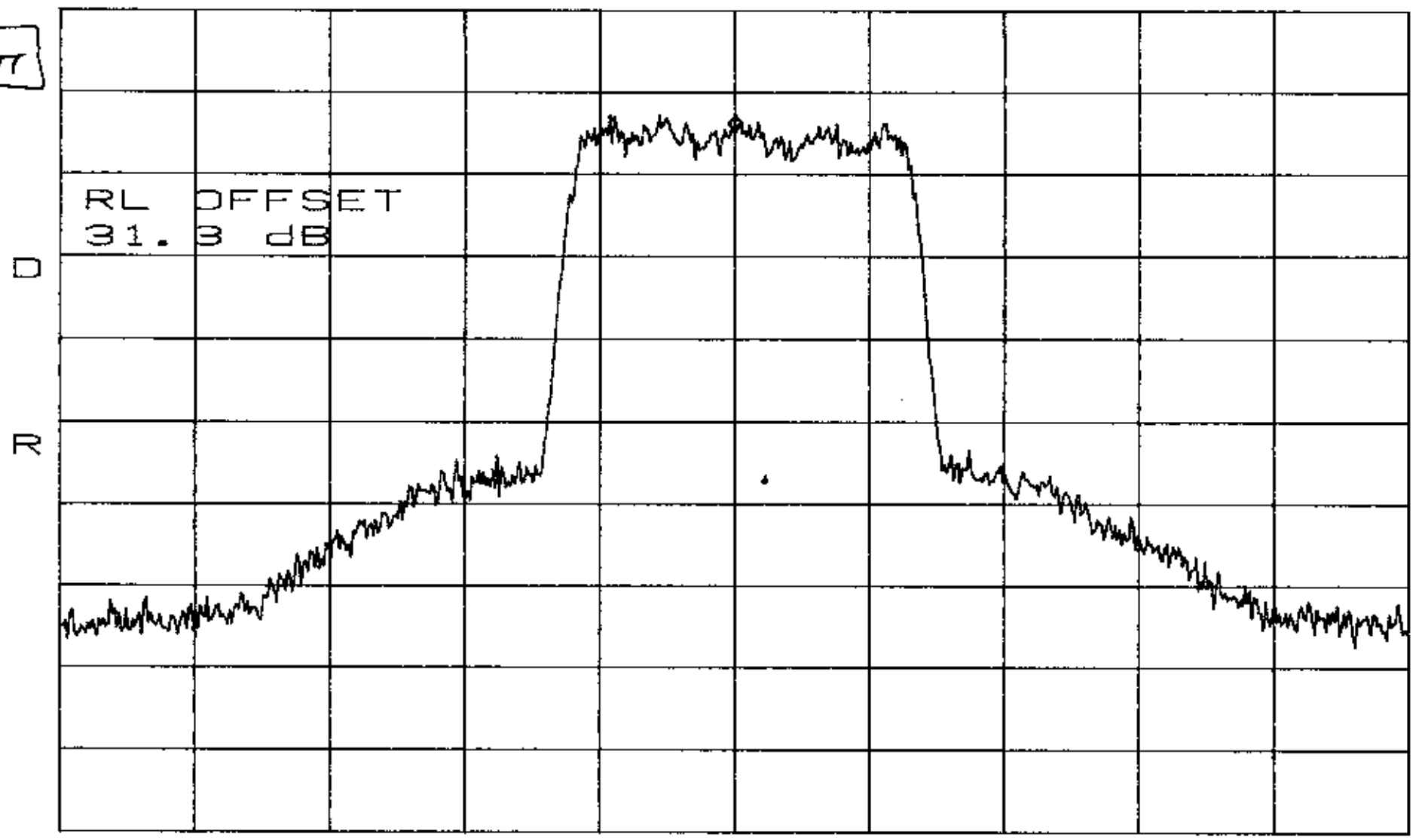
DL  
CH. 375 (MHz)

D-BAND  
(OUTPUT)

8/3/98

\*ATTEN 10dB    VAVG 10    MKR 15.17dBm  
RL 30.0dBm    10dB/    1.948750GHz

IN/OUT



CENTER 1.948750GHz    SPAN 5.000MHz  
\*RBW 30kHz    \*VBW 30kHz    SWP 50.0ms

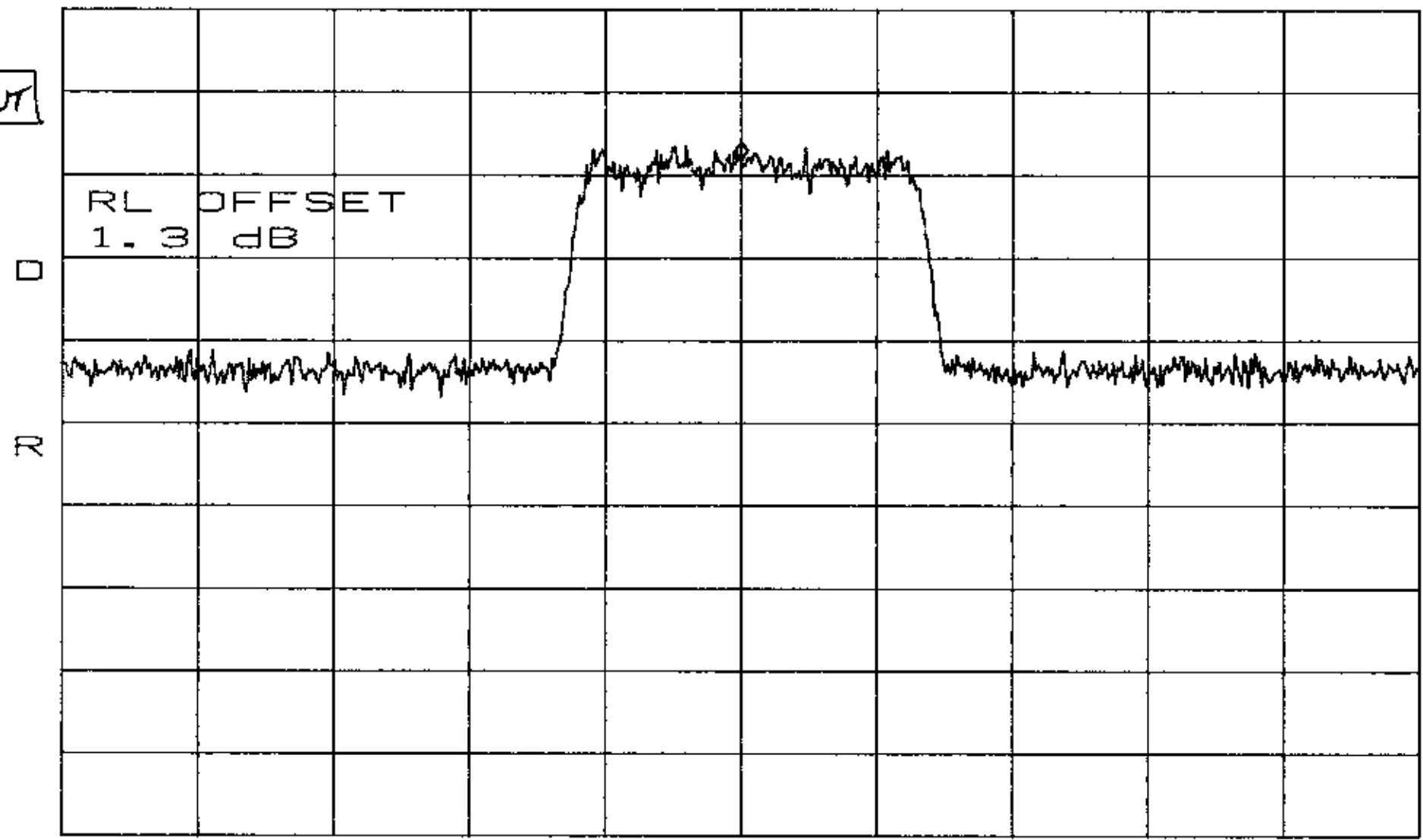
CDR 1CH.X 7.1W  
S/N: FCC UNIT

DL  
CH. 375 (HIGH)

(D-BAND)  
(INPUT)

\*ATTEN 10dB VAVG 10 MKR -68.00dBm  
RL -50.00dBm 10dB/8P01 1.948750GHz

IN|OUT



CENTER 1.948750GHz SPAN 5.000MHz  
\*RBW 30kHz \*VBW 30kHz SWP 50.0ms

CDR 1CH. x7.1u

UL

DBAND

8/3/98

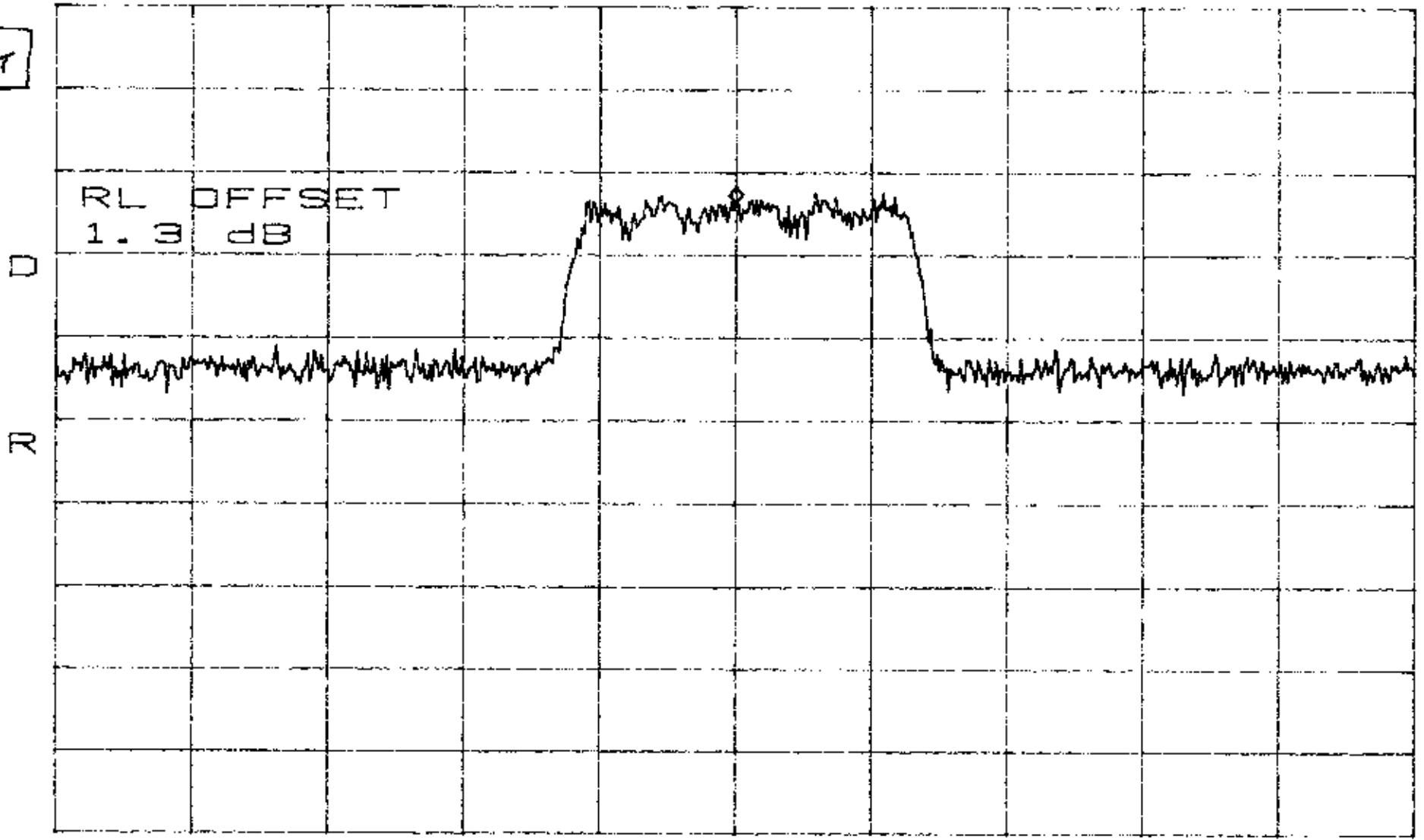
S/N: FCC UNIT

CH. 325(Low)

(INPUT)

\*ATTEN 10dB    VAVG 10    MKR -73.67dBm  
 \*RL -50.0dBm    10dB/8P01    1.866250GHz

IN/OUT



CENTER 1.866250GHz    SPAN 5.000MHz  
 \*RBW 30kHz    \*VBW 30kHz    SWP 50.0ms

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

UL  
CH.325(Low)

D-BAND  
(OUTPUT)

8/3/98

\*ATTEN 10dB  
RL 30.0dBm

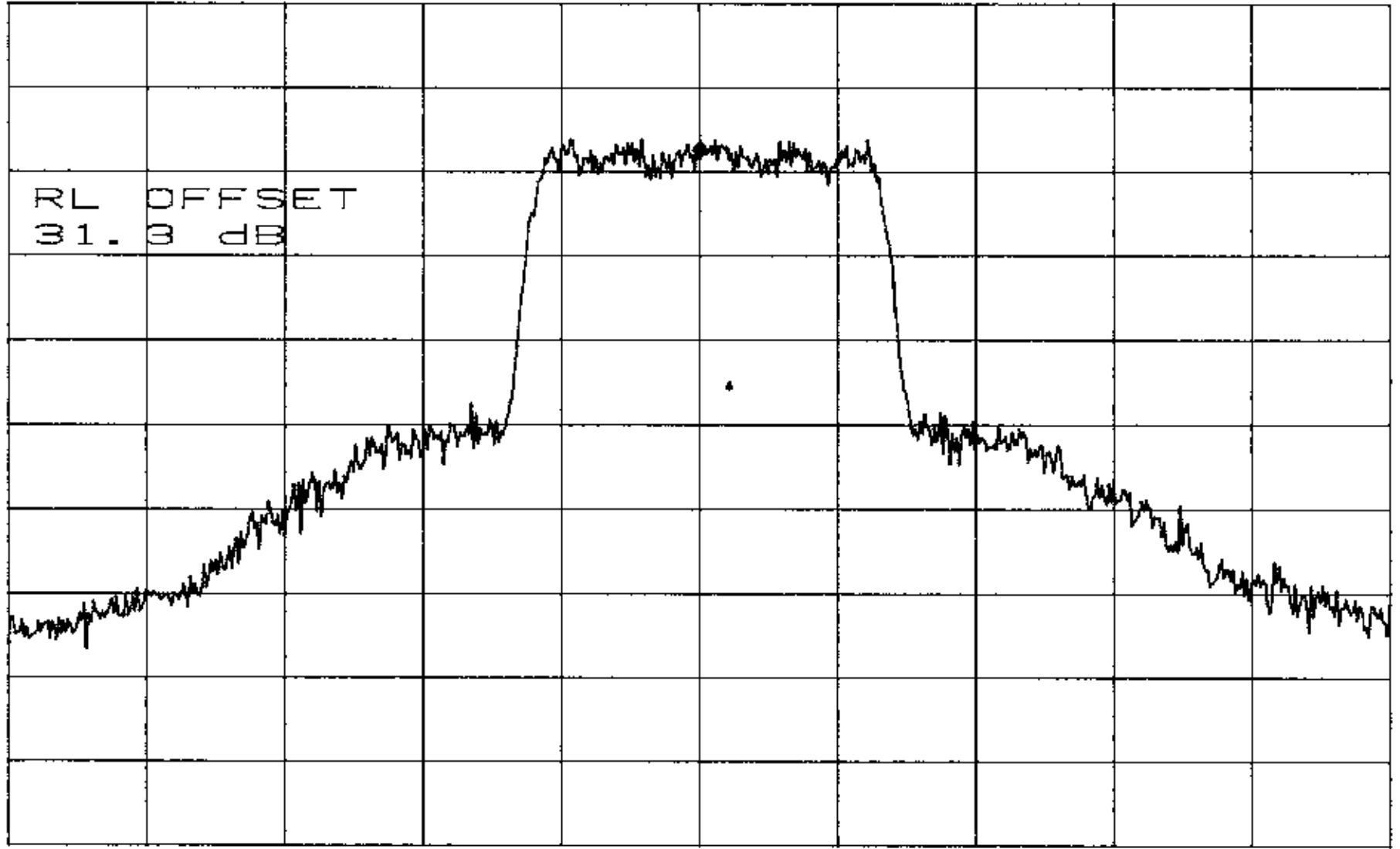
VAVG 10  
10dB/

MKR 11.67dBm  
1.866250GHz

IN/OUT

RL OFFSET  
BP 8.18 dB

D  
R



CENTER 1.866250GHz SPAN 5.000MHz  
\*RBW 30kHz \*VBW 30kHz SWP 50.0ms

CDR 1CH. x 7.1W  
SIN: FCC UNIT

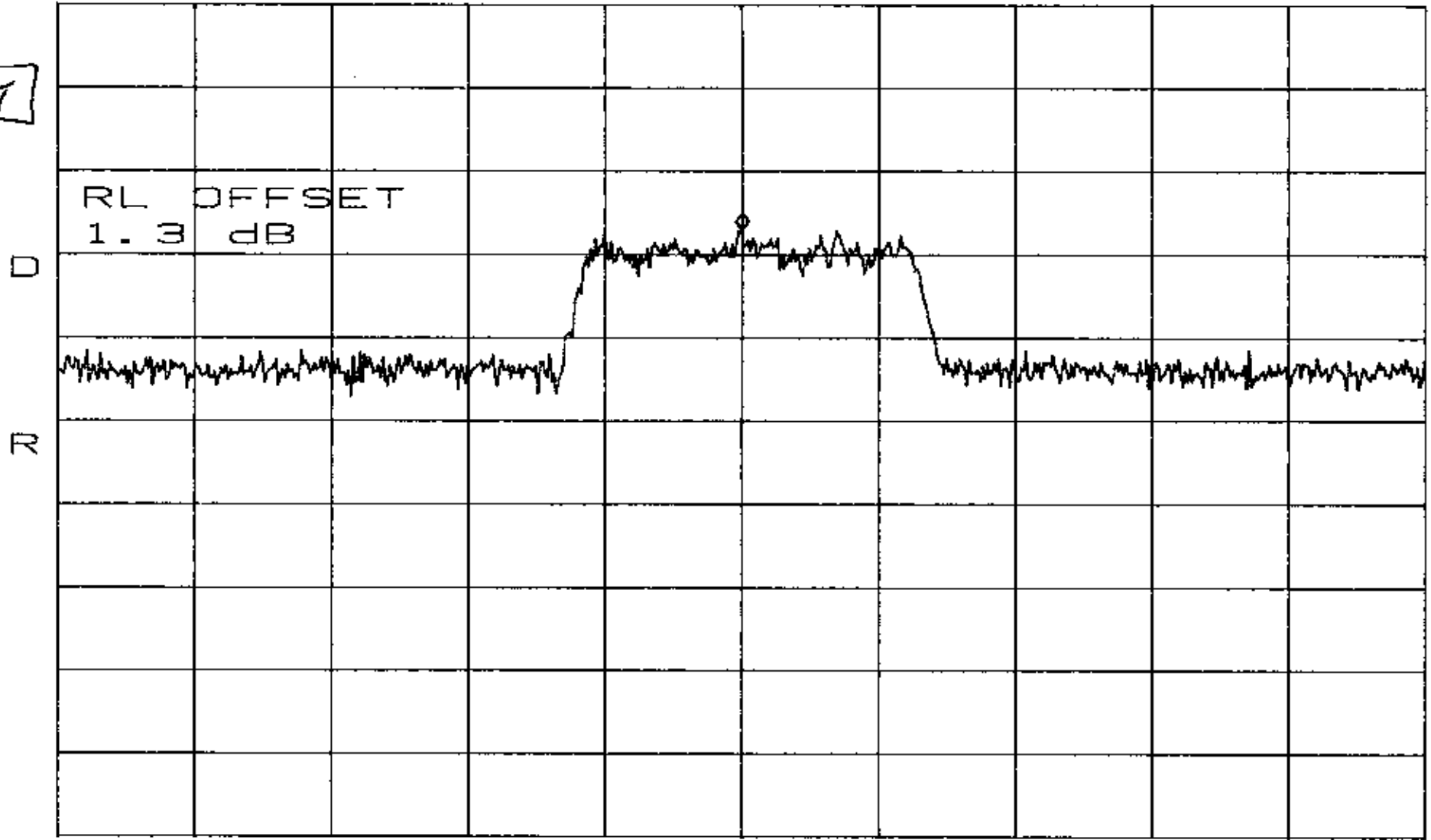
UL  
CH. 375 (HIGH)

D-BAND  
(INPUT)

8/3/98

\*ATTEN 10dB    VAVG 10    MKR -77.00dBm  
RL -50.00dBm    10dB/    1.868750GHz

IN/OUT



CENTER 1.868750GHz    SPAN 5.000MHz  
\*RBW 30kHz    \*VBW 30kHz    SWP 50.0ms



CON ICH-K7.1 W  
S/N: FCC UNIT

DL  
CH. 325 (LOW)

D-BAND  
CDMA SOURCE

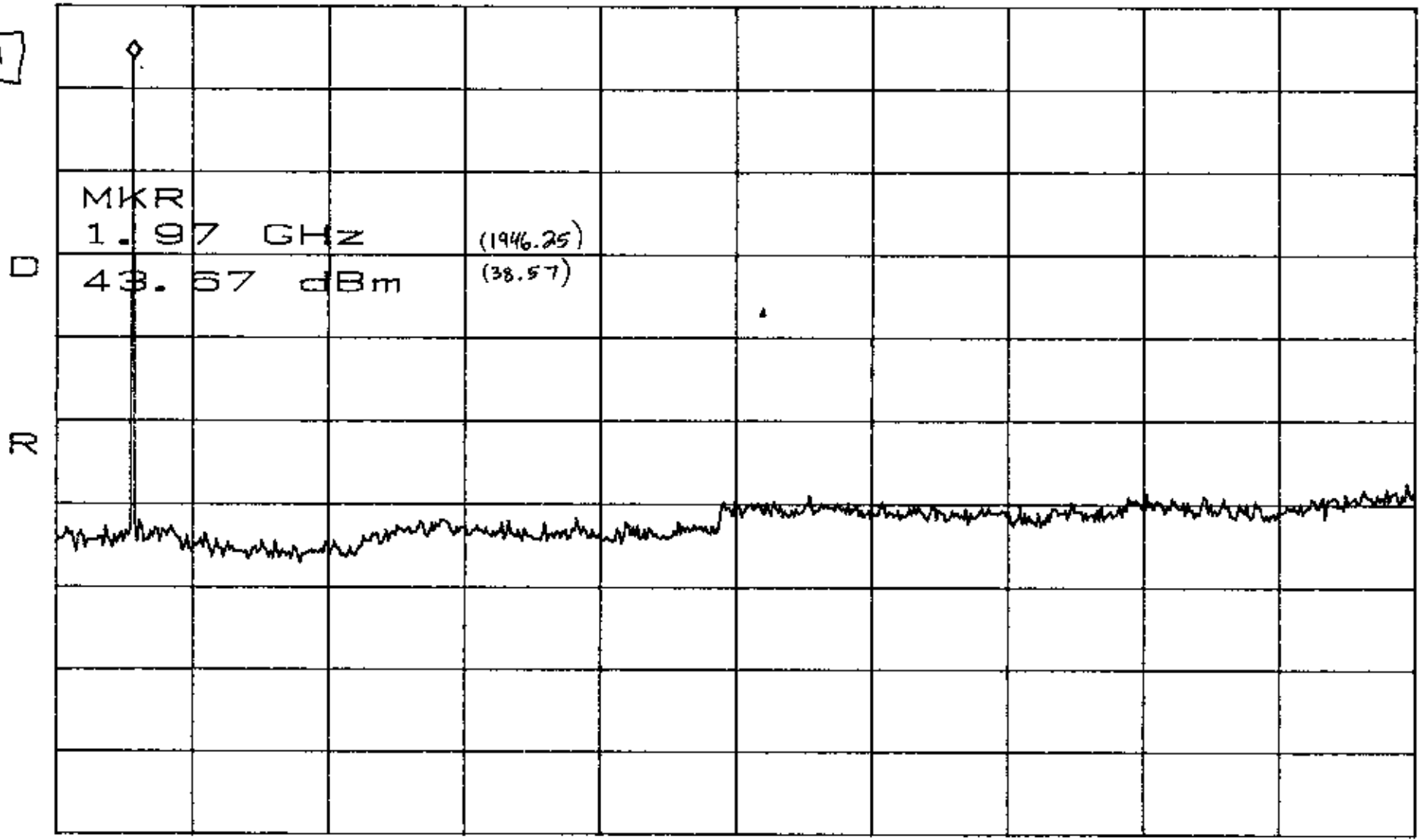
8/3/98

\*ATTEN 30dB  
RL 50.0dBm

10dB/

MKR 43.67dBm  
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. 375 (14KH)

D-BAND  
CDMA SOURCE

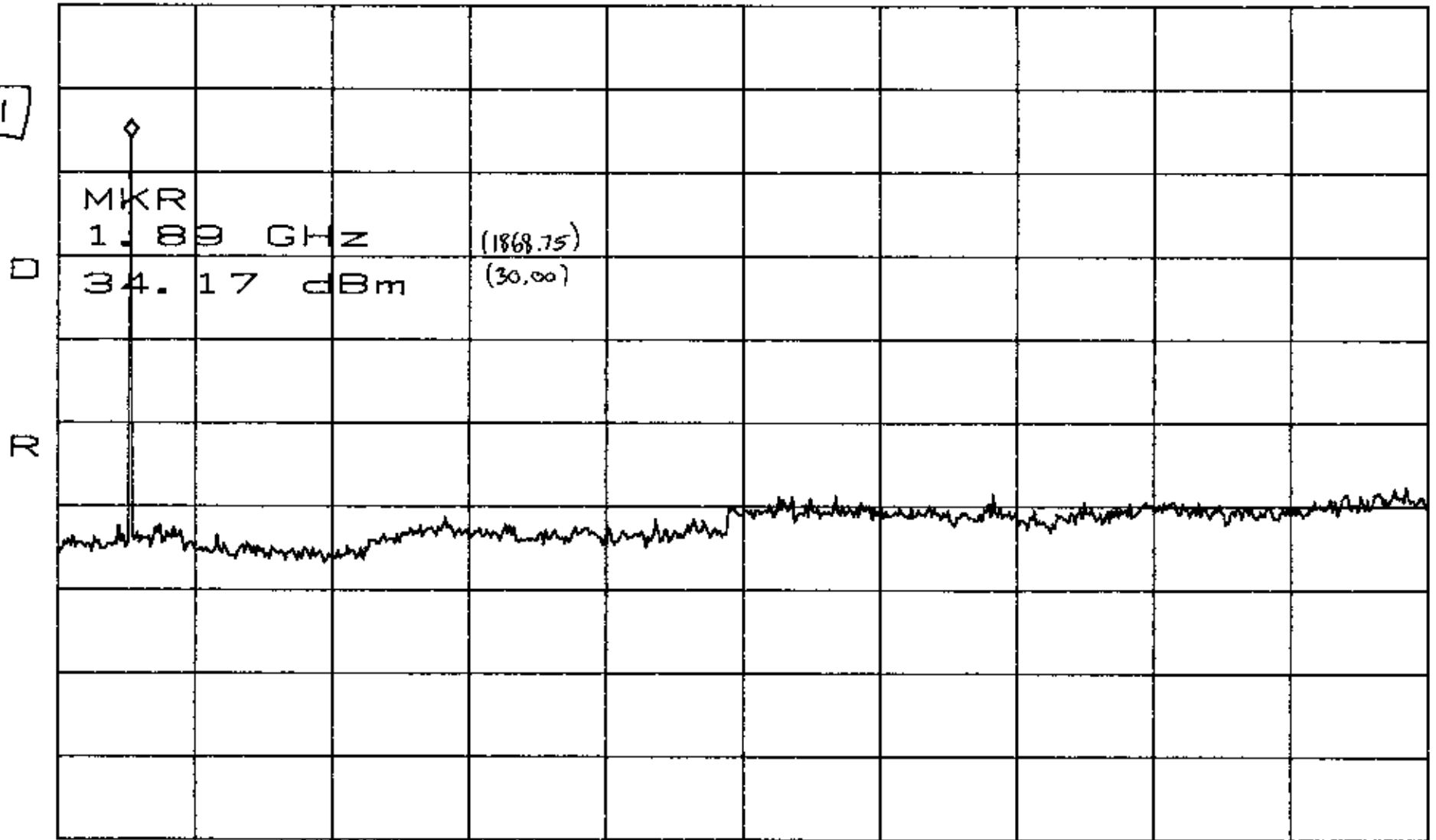
8/3/98

\*ATTN 30dB  
BPOB  
RL 50.0dBm

10dB/

MKR 34.17dBm  
1.89GHz

2.991



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

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

UL  
CH. 325 (LOW)

D-BAND  
CDMA SOURCE

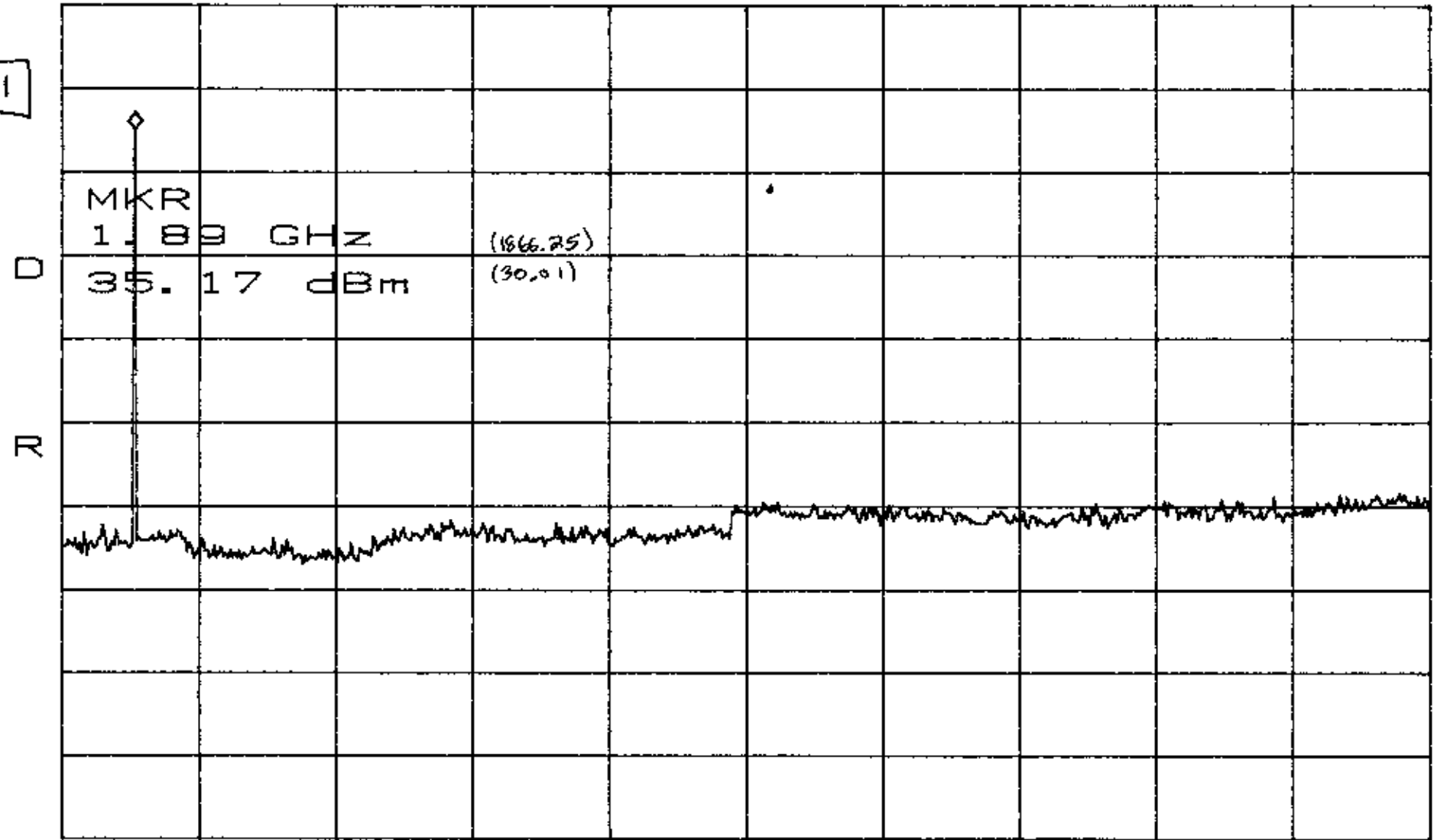
8/3/98

\*ATTEN 30dB  
RL 50.0dBm

10dB/

MKR 35.17dBm  
1.89GHz

2.991



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

CDR 10H.X 7.1W  
S/N: FCC UNIT

UL  
CH325 (Low)

FUNDAMENTAL  
D-BAND

8/3/98

\*ATTEN 10dB    VAVG 10    MKR 12.00dBm  
RL 30.00dBm    10dB/BPOI    1.866250GHz

24.238



CENTER 1.866250GHz    SPAN 5.000MHz  
\*RBW 30kHz    \*VBW 30kHz    \*SWP 50.0ms

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

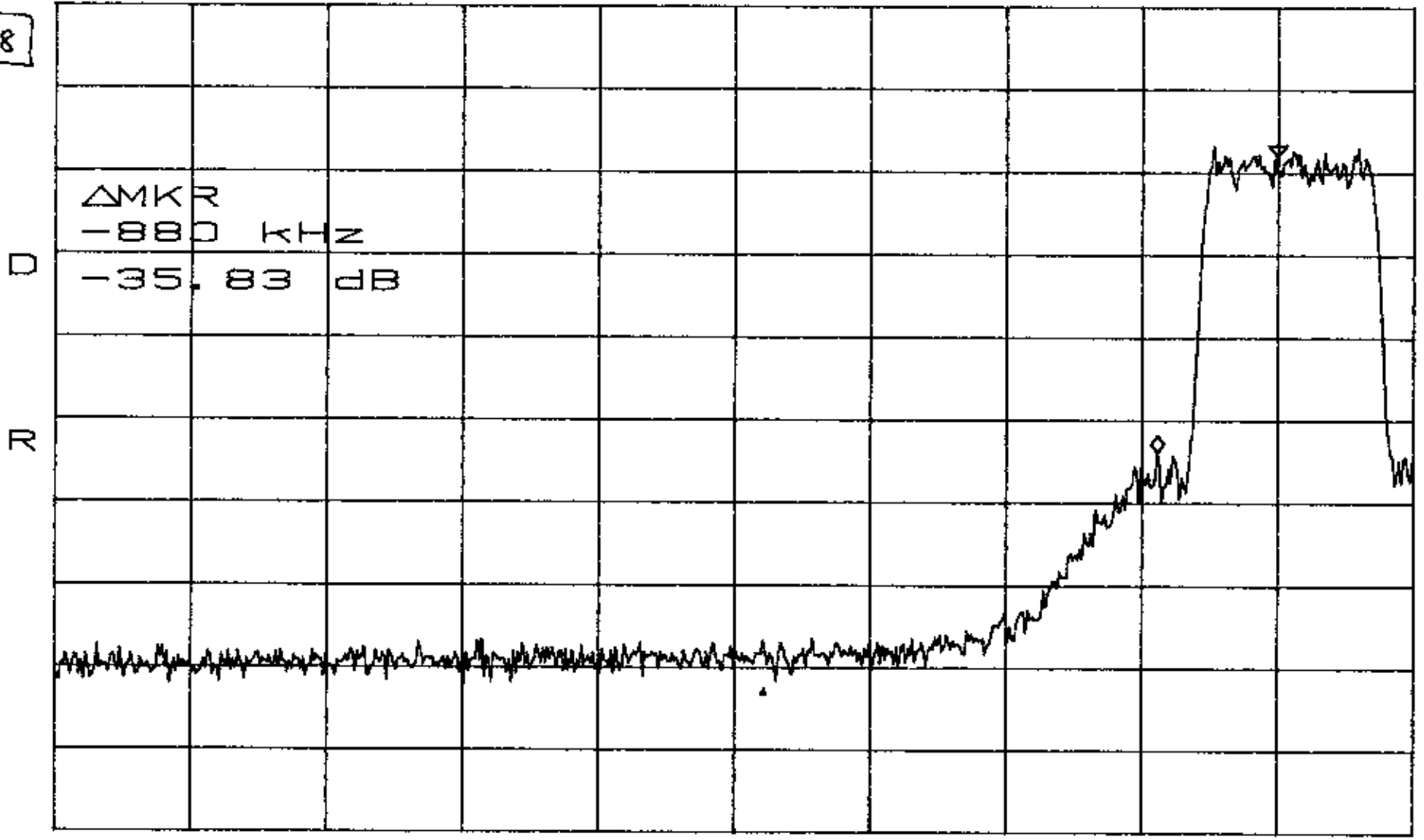
UL  
CH. 325 (low)

Below FUNDAMENTAL  
D-BAND

8/3/98

\*ATTEN 10dB      VAVG 10      ΔMKR -35.83dB  
RL 30.0dBm      10dB/      -880kHz

24.738



CENTER 1.86225GHz      SPAN 10.00MHz  
\*RBW 30kHz      \*VBW 30kHz      \*SWP 50.0ms

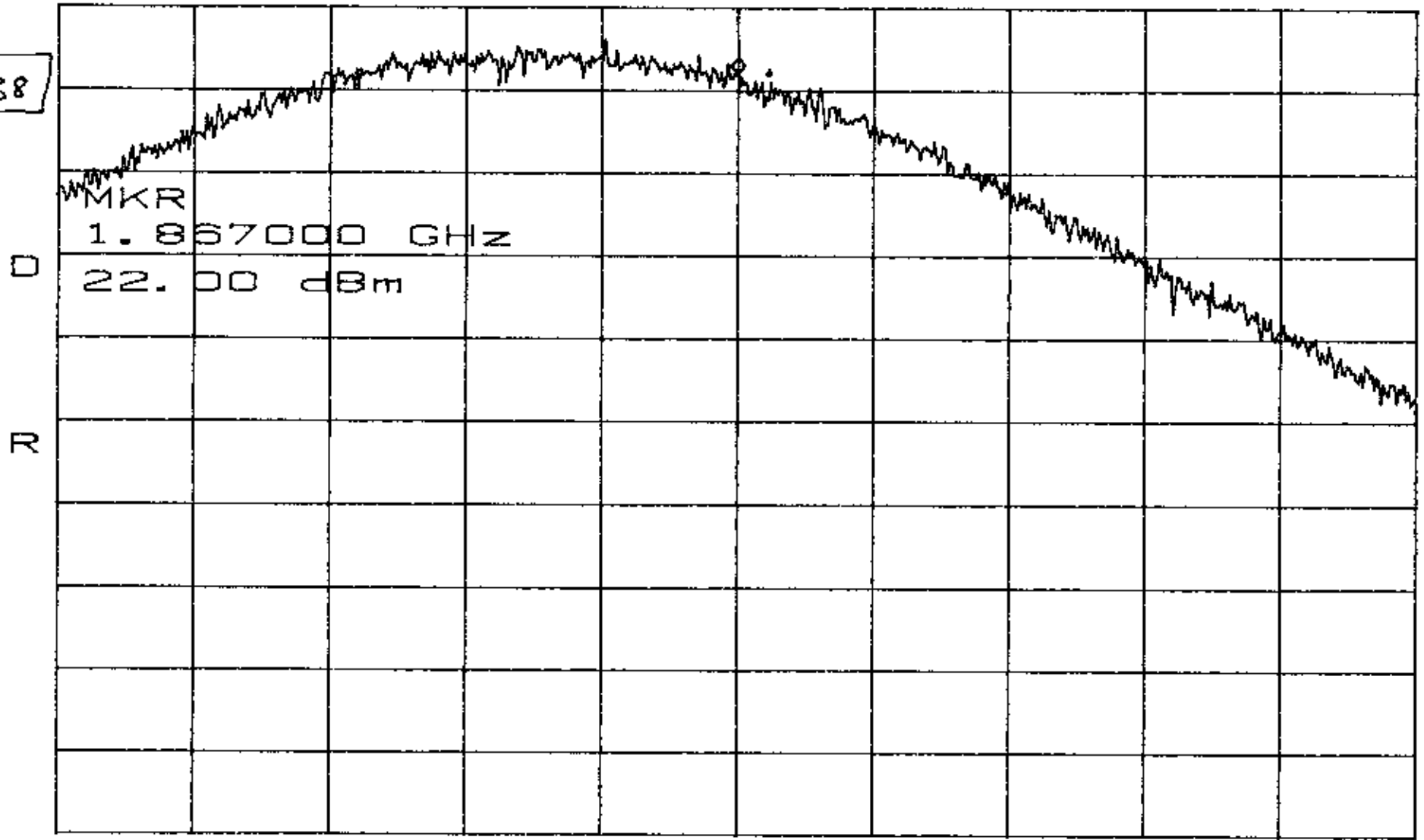
CDR 1CH X7.1W  
S/N: FCC UNIT

UL  
CH. 325 (Low)

ABOVE FUNDAMENTAL 8/3/98  
D-BAND

\*ATTEN 10dB    VAVG 10    MKR 22.00dBm  
RL 30.00dBm    10dB/    1.867000GHz

24.238



CENTER 1.867000GHz    SPAN 5.000MHz  
\*RBW 1.0MHz    \*VBW 1.0MHz    \*SWP 50.0ms

CDR 1CH X7.1W

UL

ABOVE FUNDAMENTAL

8/3/98

SIN: FCC UNIT

CH. 325(Low)

D-BAND

\*ATTEN 10dB

VAVG 10

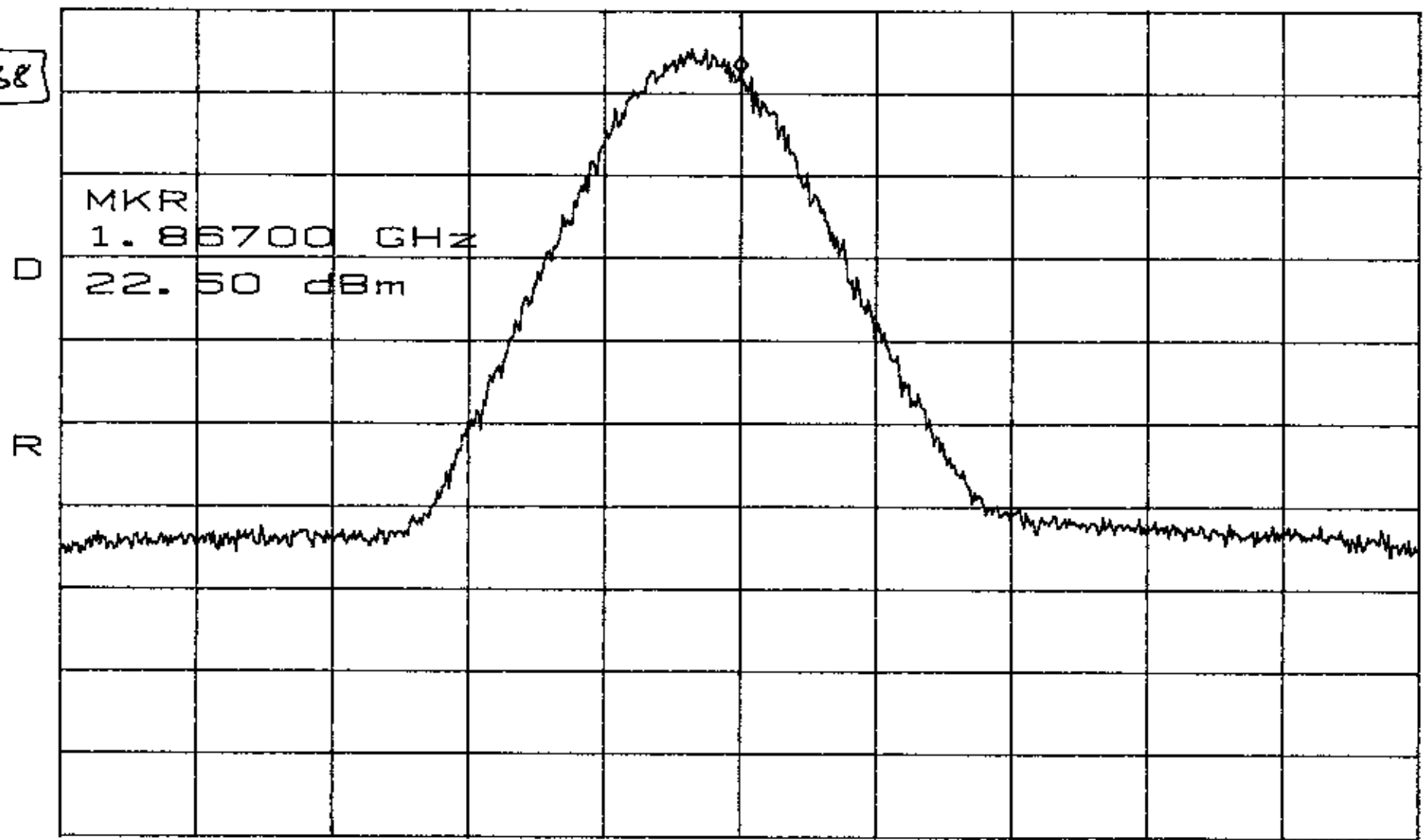
MKR 22.50dBm

RL 30.0dBm

10dB/

1.86700GHz

24.238



CENTER 1.86700GHz

SPAN 20.00MHz

\*RBW 1.0MHz

\*VBW 1.0MHz

\*SWP 50.0ms

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

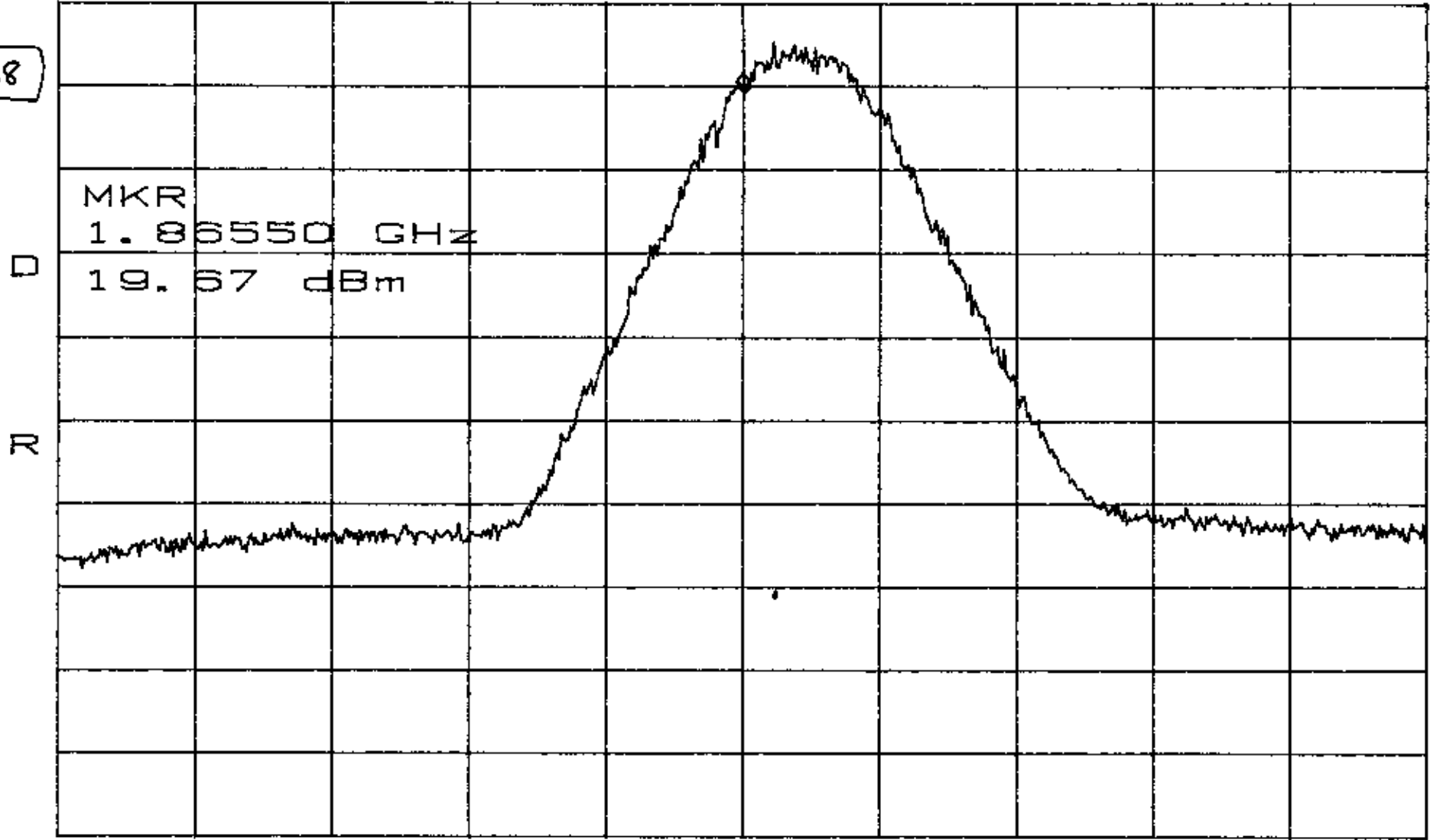
UL  
CH. 325 (LOW)

Below FUNDAMENTAL  
D-BAND

8/3/98

\*ATTEN 10dB    VAVG 10    MKR 19.67dBm  
RL 30.0dBm    10dB/    1.86550GHz

24.238



CENTER 1.86550GHz    SPAN 20.00MHz  
\*RBW 1.0MHz    \*VBW 1.0MHz    \*SWP 50.0ms

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

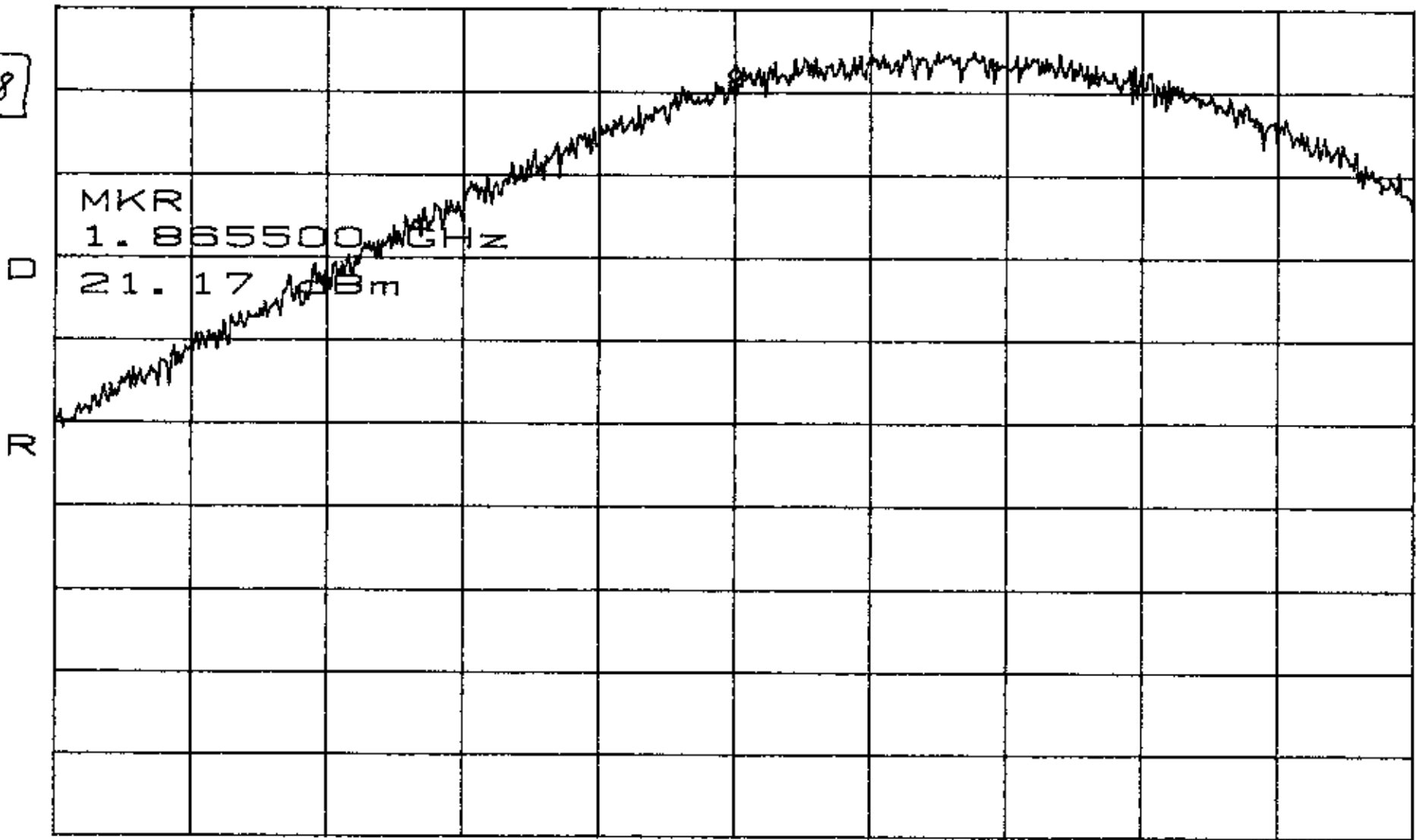
UL  
CH. 325 (LOW)

BELOW FUNDAMENTAL  
D-BAND

8/3/98

\*ATTEN 10dB      VAVG 10      MKR 21.17dBm  
RL 30.0dBm      10dB/      1.865500GHz

24.238



CENTER 1.865500GHz      SPAN 5.000MHz  
\*RBW 1.0MHz      \*VBW 1.0MHz      \*SWP 50.0ms



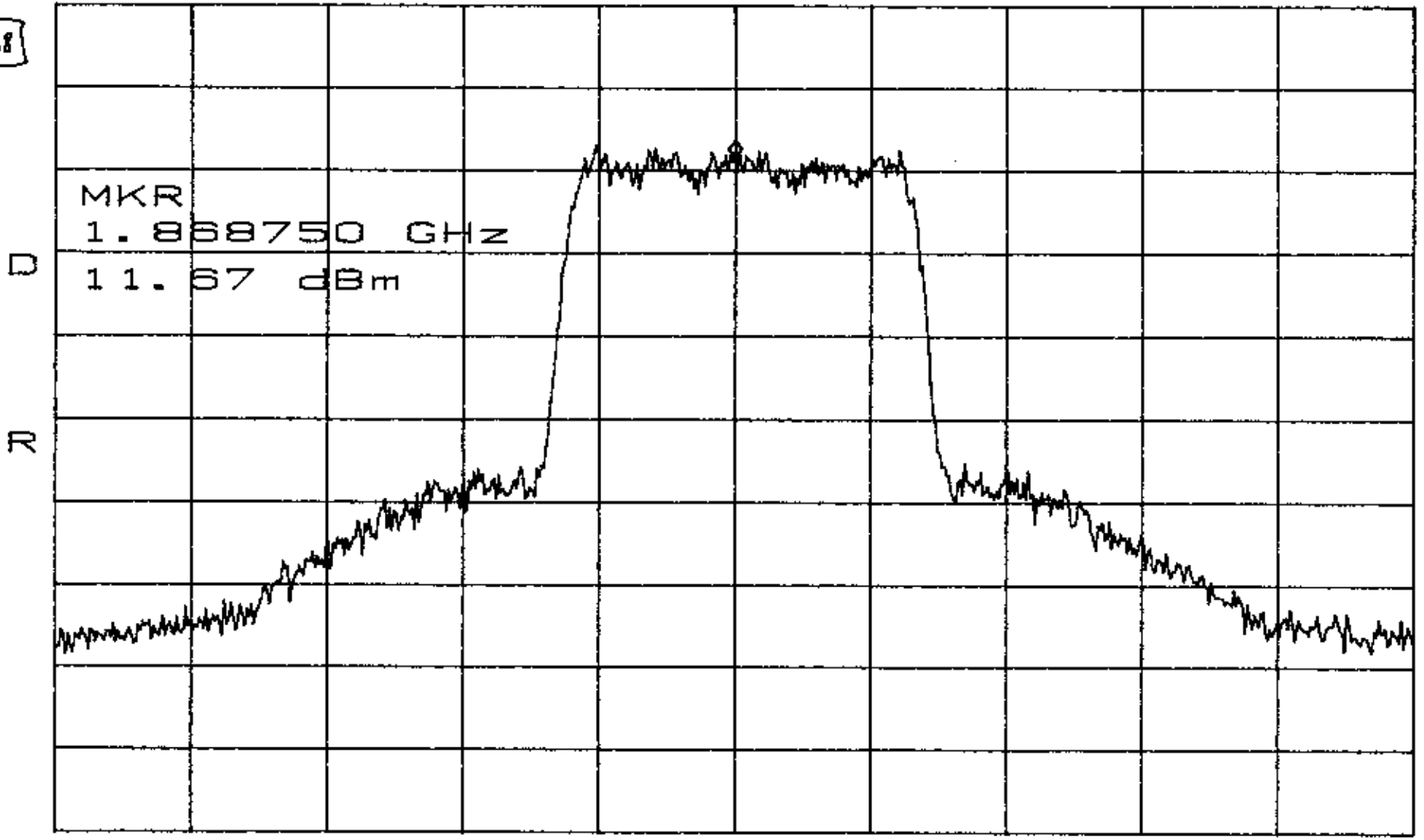
CDR 1CH X 7.1W UL  
S/N: FCC UNIT CH. 375 (HGA#)

FUNDAMENTAL  
DBAND

8/3/98

\*ATTEN 10dB VAVG 10 MKR 11.67dBm  
RL 30.0dBm 10dB/ /BPO1 1.868750GHz

24.238



CENTER 1.868750GHz SPAN 5.000MHz  
\*RBW 30kHz \*VBW 30kHz \*SWP 50.0ms

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

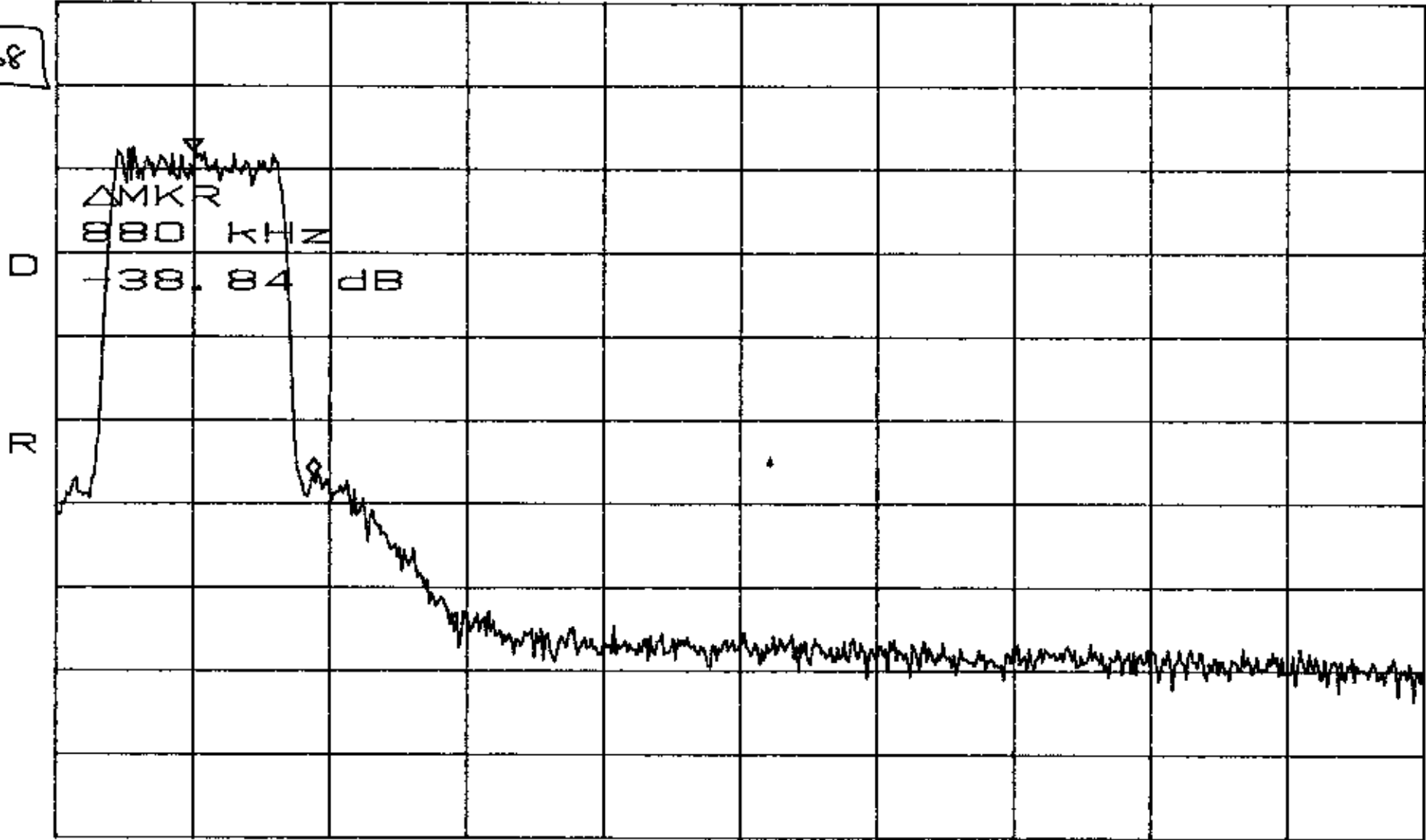
UL  
CH: 375 (HIGH)

ABOVE FUNDAMENTAL  
D-BAND

8/3/98

\*ATTEN 10dB      VAVG 10      ΔMKR -38.84dB  
RL 30.0dBm      10dB/      880kHz

24.238



CENTER 1.87275GHz      SPAN 10.00MHz  
\*RBW 30kHz      \*VBW 30kHz      \*SWP 50.0ms

CDR 1CH X 7.1W

UL

ABOVE FUNDAMENTAL

8/3/98

S/N: FCC UNIT

CH. 375 (HIGH)

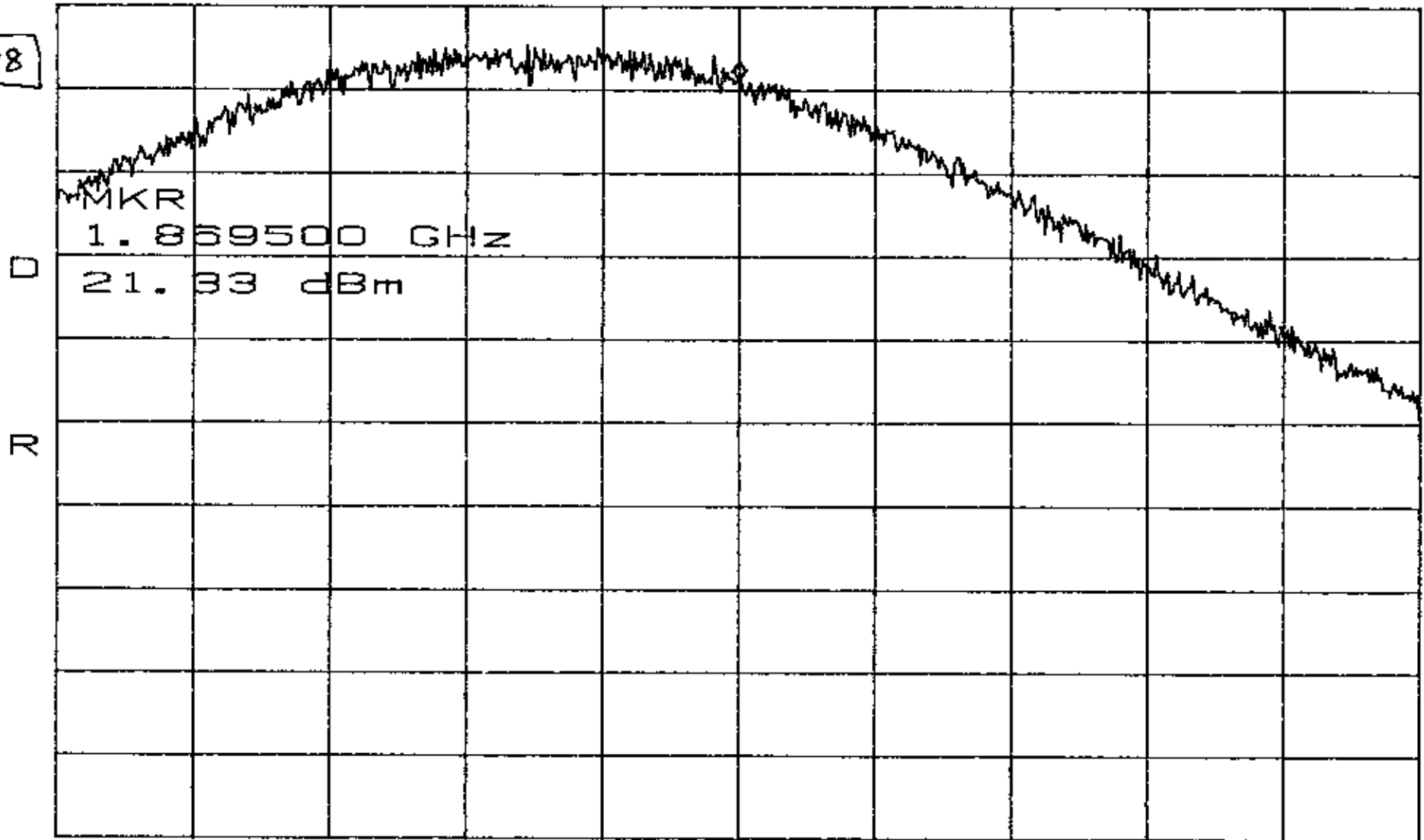
D-RAND

\*ATTEN 10dB  
BPO1  
RL 30.0dBm

VAVG 10  
10dB/  
BPO1

MKR 21.33dBm  
1.869500GHz

24.238



CENTER 1.869500GHz

SPAN 5.000MHz

\*RBW 1.0MHz

\*VBW 1.0MHz

\*SWP 50.0ms

CDR ICH. X701 (W)  
S/N: FCC UNIT

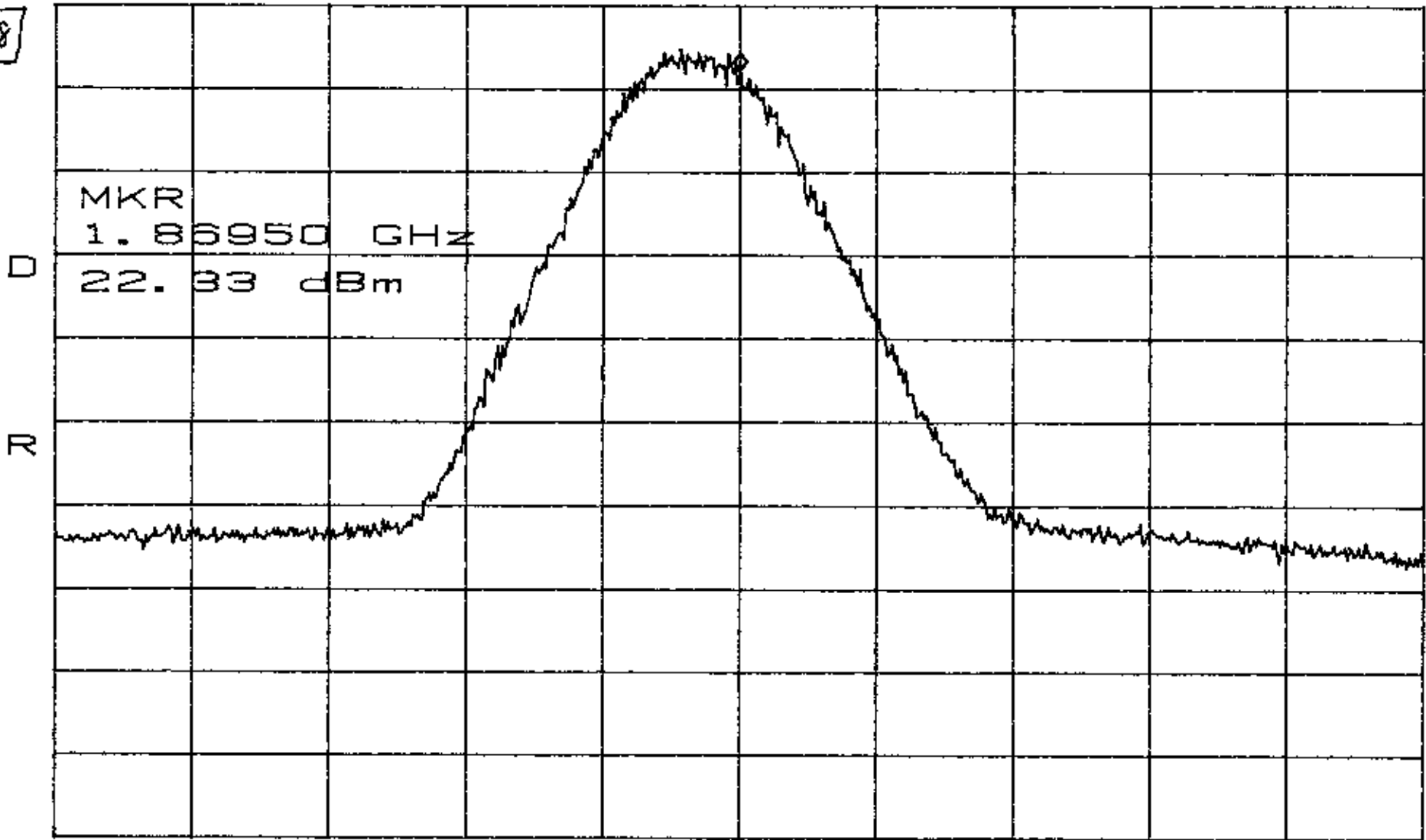
UL  
CH. 375 (HIGH)

ABOVE FUNDAMENTAL  
D-BAND

8/3/98

\*ATTEN 10dB    VAVG 10    MKR 22.33dBm  
RL 30.0dBm    10dB/    1.86950GHZ

24.238



CENTER 1.86950GHZ    SPAN 20.00MHZ  
\*RBW 1.0MHZ    \*VBW 1.0MHZ    \*SWP 50.0ms

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

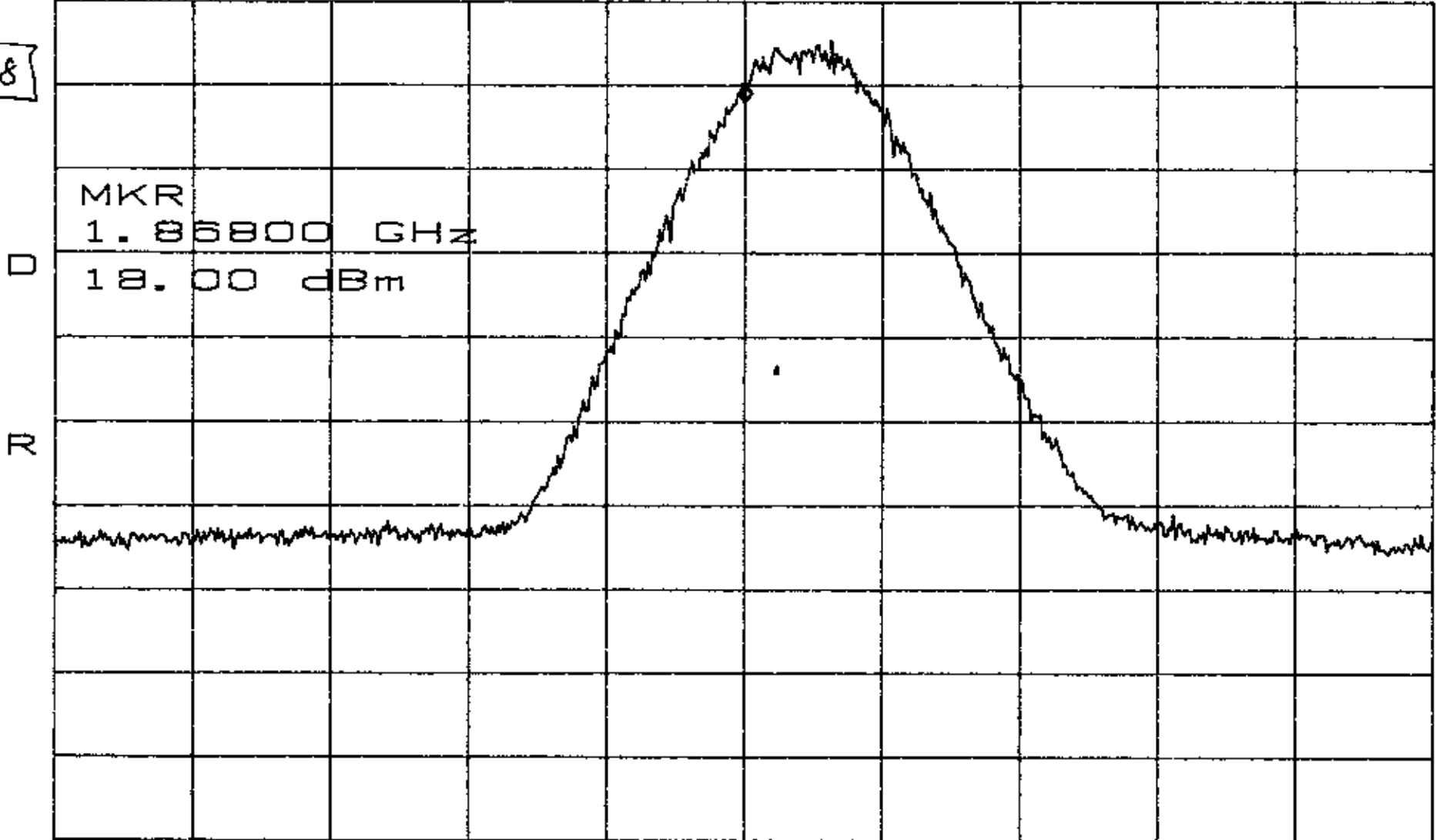
UL  
CH. 375 (149H)

BELOW FUNDAMENTAL  
D-BAND

8/3/98

\*ATTEN 10dB    VAVG 10    MKR 18.00dBm  
RL 30.00dB    10BP01    1.86800GHz

24.238



CENTER 1.86800GHz    SPAN 20.00MHz  
\*RBW 1.0MHz    \*VBW 1.0MHz    \*SWP 50.0ms

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

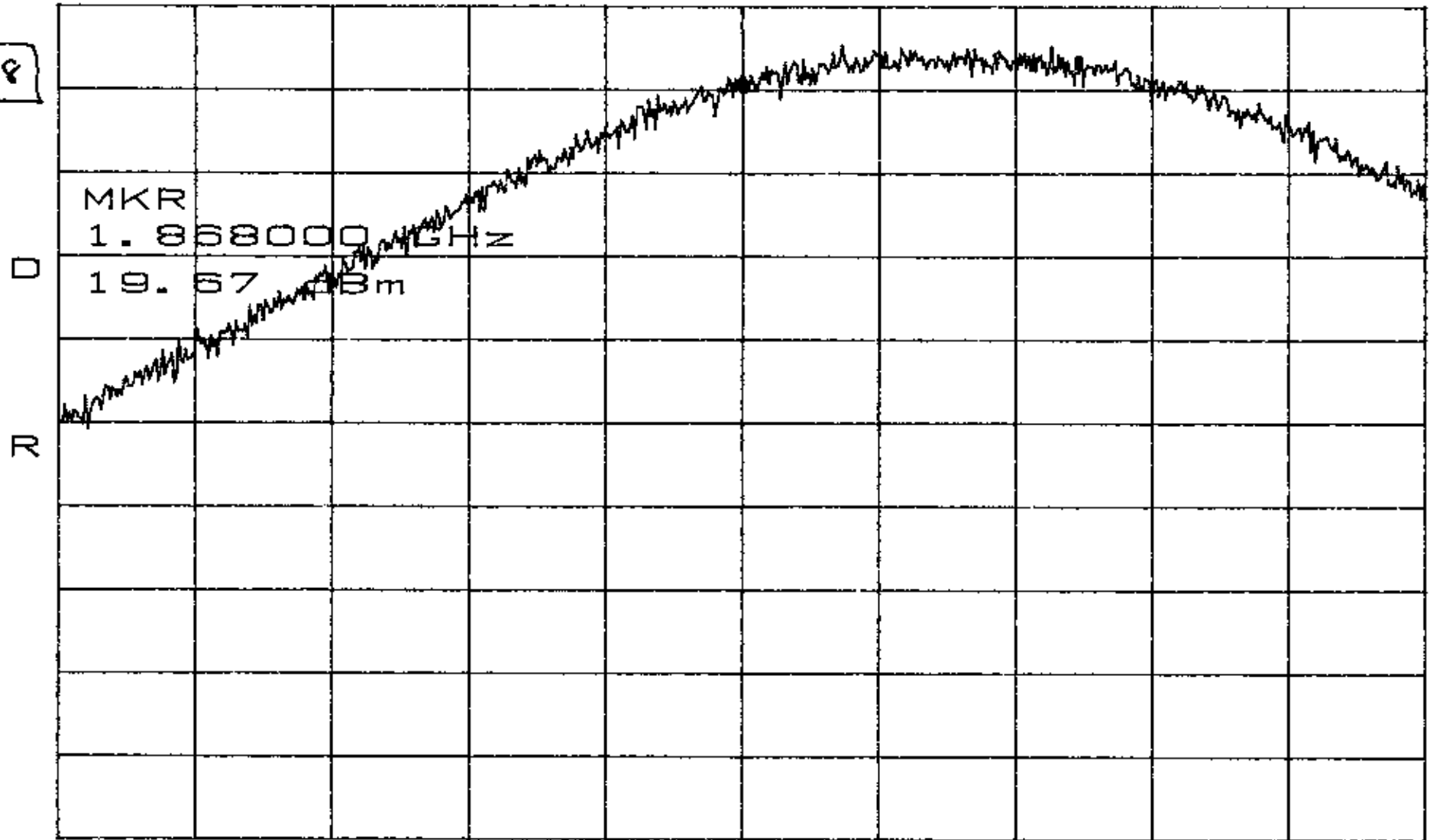
UL  
CH 375 (H1A1T)

BELOW FUNDAMENTAL  
D-BAND

8/3/98

\*ATTN 10dB      VAVG 10      MKR 19.67dBm  
RL 30.0dBm      10dB/      1.868000GHz

24.238



CENTER 1.868000GHz      SPAN 5.000MHz  
\*RBW 1.0MHz      \*VBW 1.0MHz      \*SWP 50.0ms

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

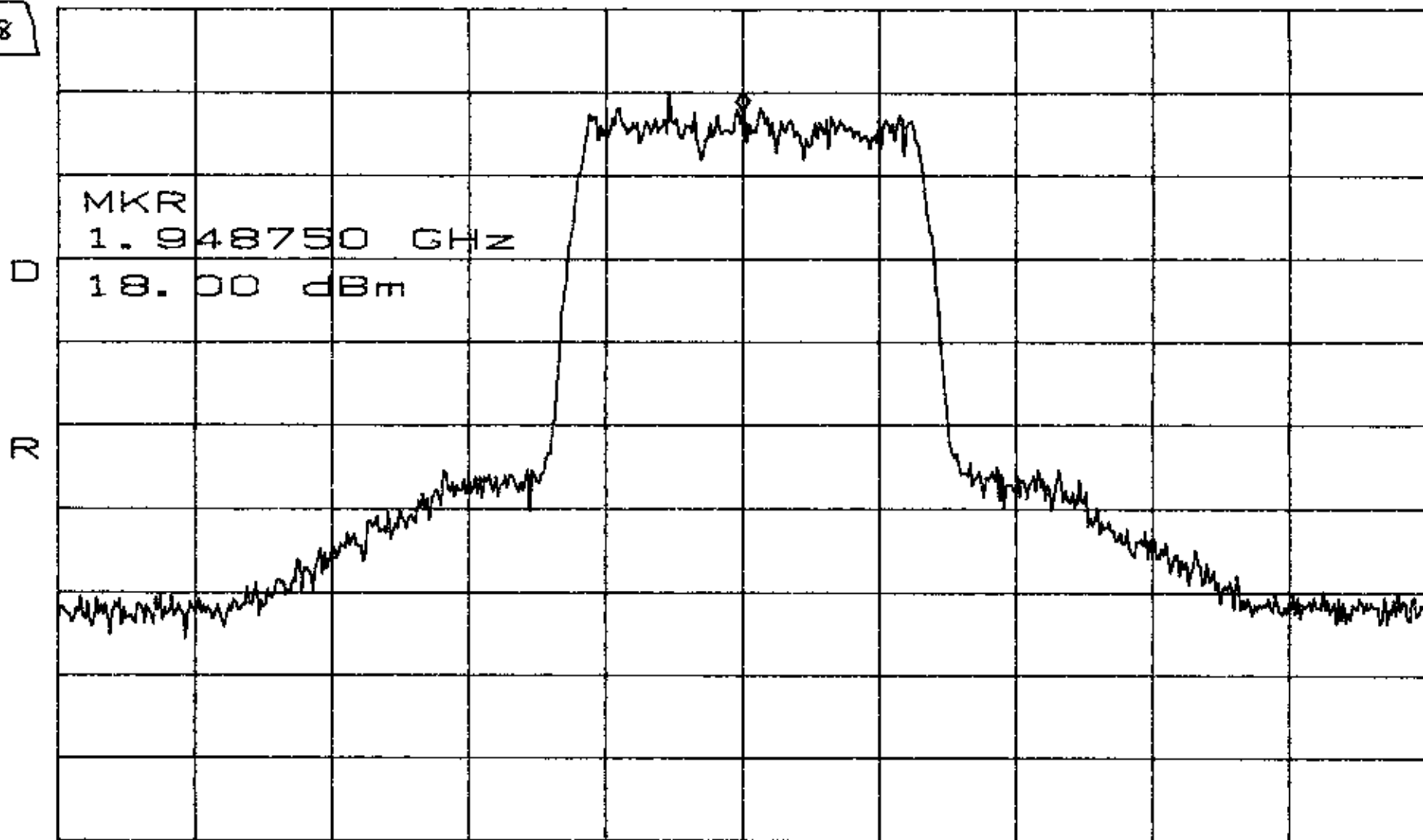
DL  
CH. 375(HIGH)

FUNDAMENTAL  
D-BAND

8/3/98

\*ATTEN 10dB    VAVG 10    MKR 18.00dBm  
RL 30.00dBm    10dB/    1.948750GHz

24.238



CENTER 1.948750GHz    SPAN 5.000MHz  
\*RBW 30kHz    \*VBW 30kHz    \*SWP 50.0ms

CDR IC4.X7.1W  
SIN: FCC UNIT

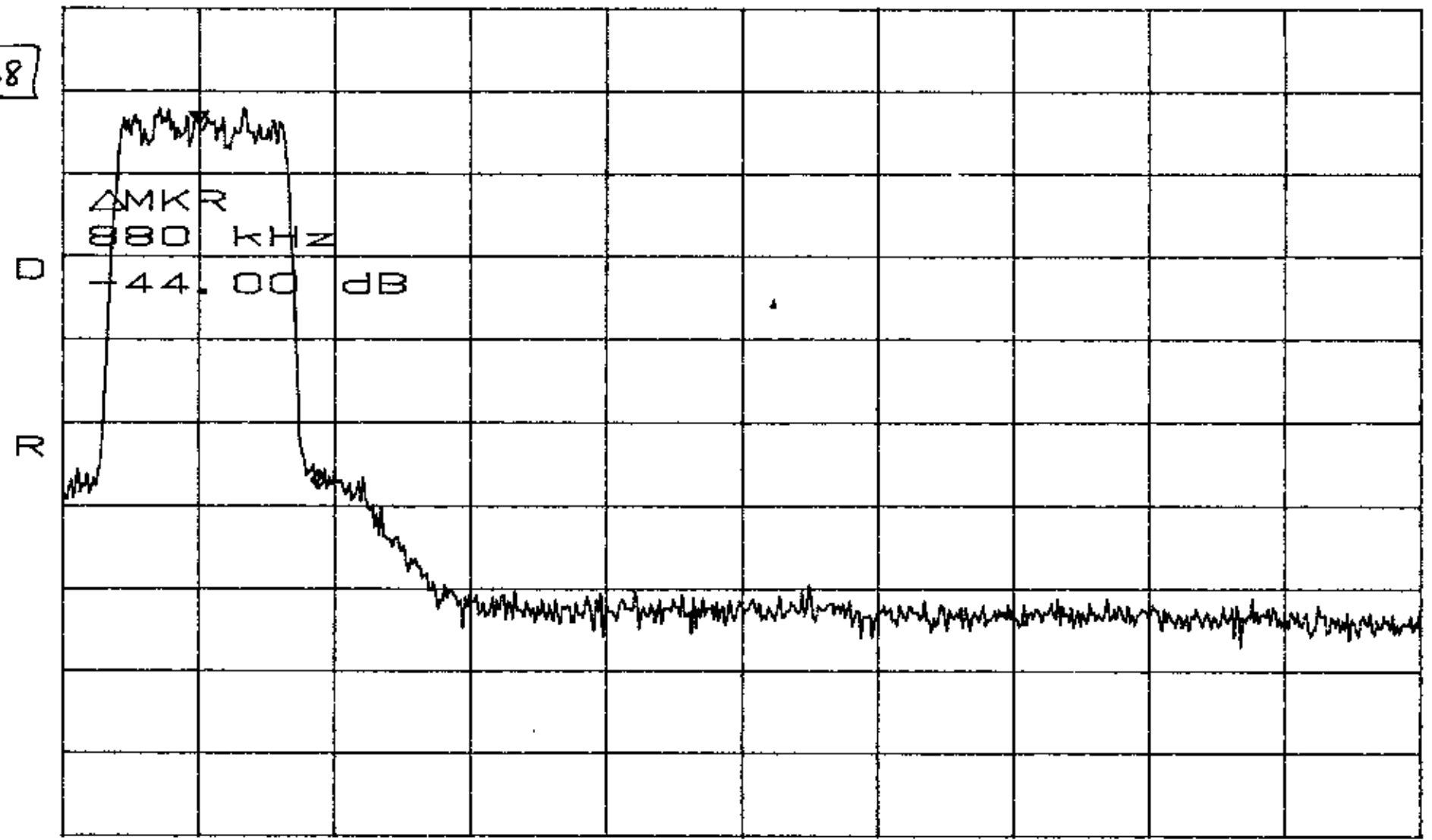
DL  
CH: 375 (HIGH)

ABOVE FUNDAMENTAL  
D-BAND

8/3/98

\*ATTEN 10dB      VAVG 10      ΔMKR -44.00dB  
RL 30.00MHz      10dB/      880kHz

24.238



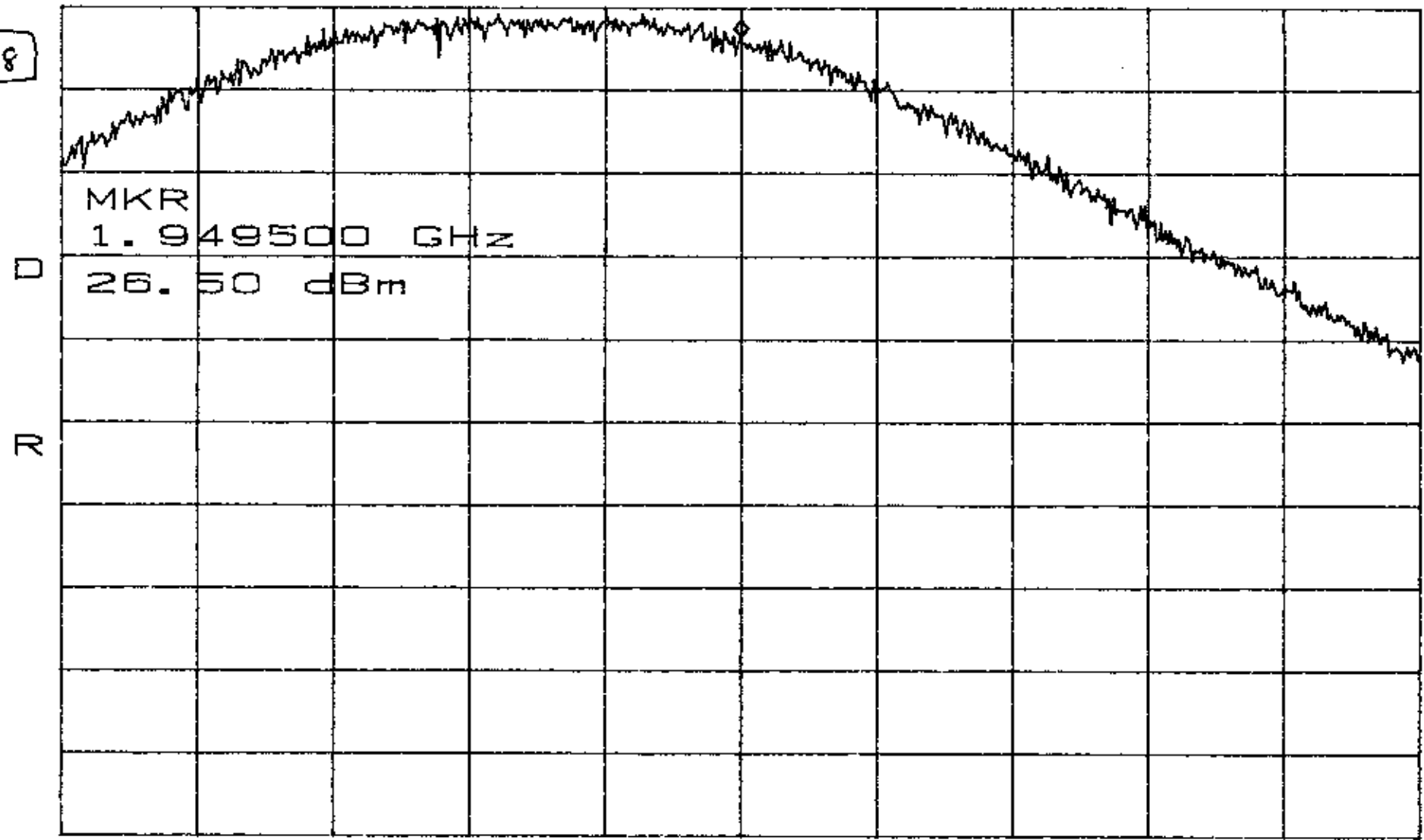
CENTER 1.95275GHz      SPAN 10.00MHz  
\*RBW 30kHz      \*VBW 30kHz      \*SWP 50.0ms



CDR ICH. X7.1W DL ABOVE FUNDAMENTAL 8/3/98  
S/N: FCC UNIT CH. 375 (HIGH) D-BAND

\*ATTEN 10dB VAVG 10 MKR 26.50dBm  
RL 30.0dBm 10dB/ /BP01 1.949500GHz

24.238



CENTER 1.949500GHz SPAN 5.000MHz  
\*RBW 1.0MHz \*VBW 1.0MHz \*SWP 50.0ms

COR 10H. X7.1W  
S/N: FCC UNIT

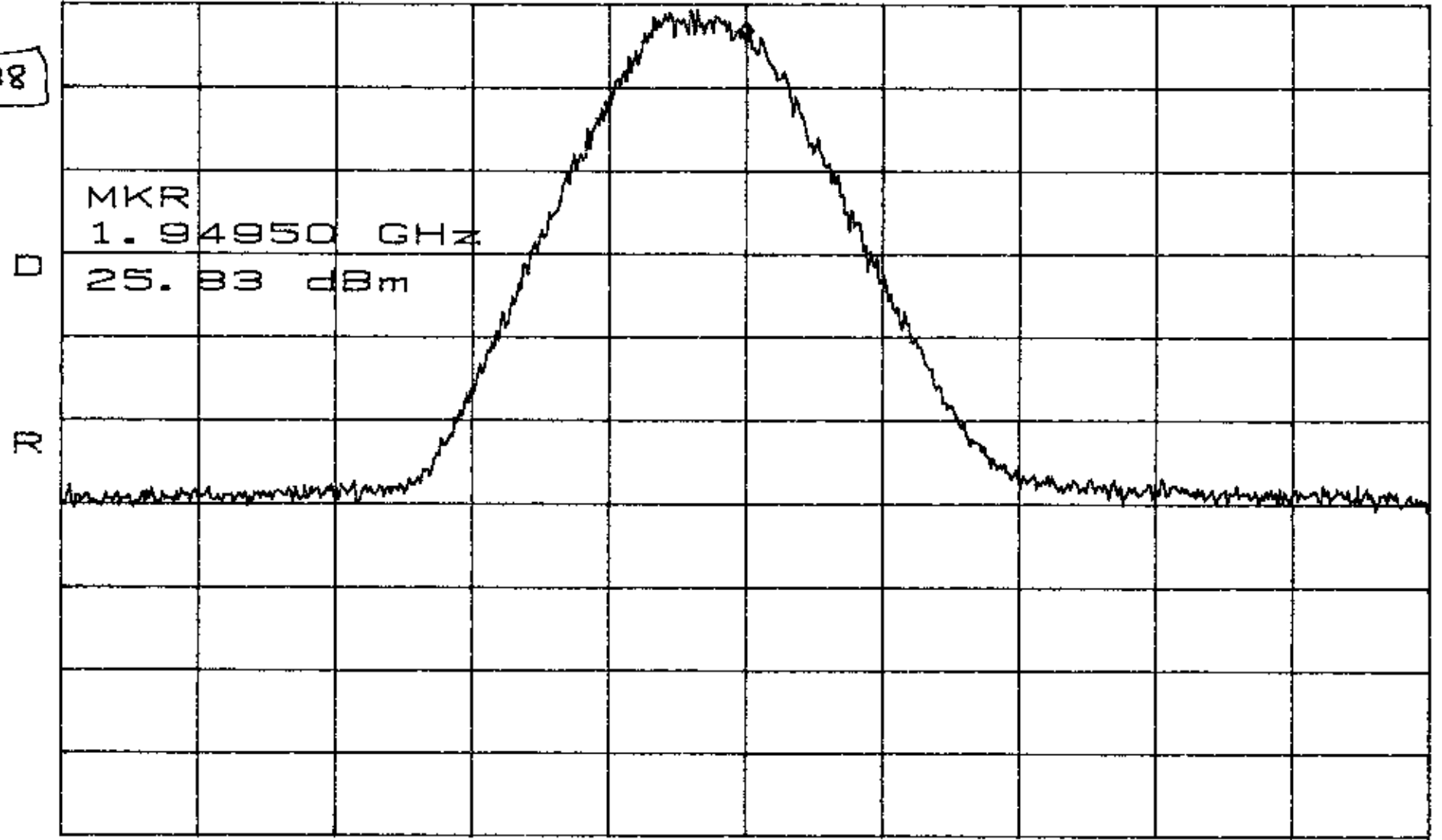
DL  
CH. 375 (HIGH)

ABOVE FUNDAMENTAL  
D-BAND

8/3/98

\*ATTEN 10dB    VAVG 10    MKR 25.83dBm  
RL 30.0dBm    10dB/    1.94950GHz

24.238



CENTER 1.94950GHz    SPAN 20.00MHz  
\*RBW 1.0MHz    \*VBW 1.0MHz    \*SWP 50.0ms

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

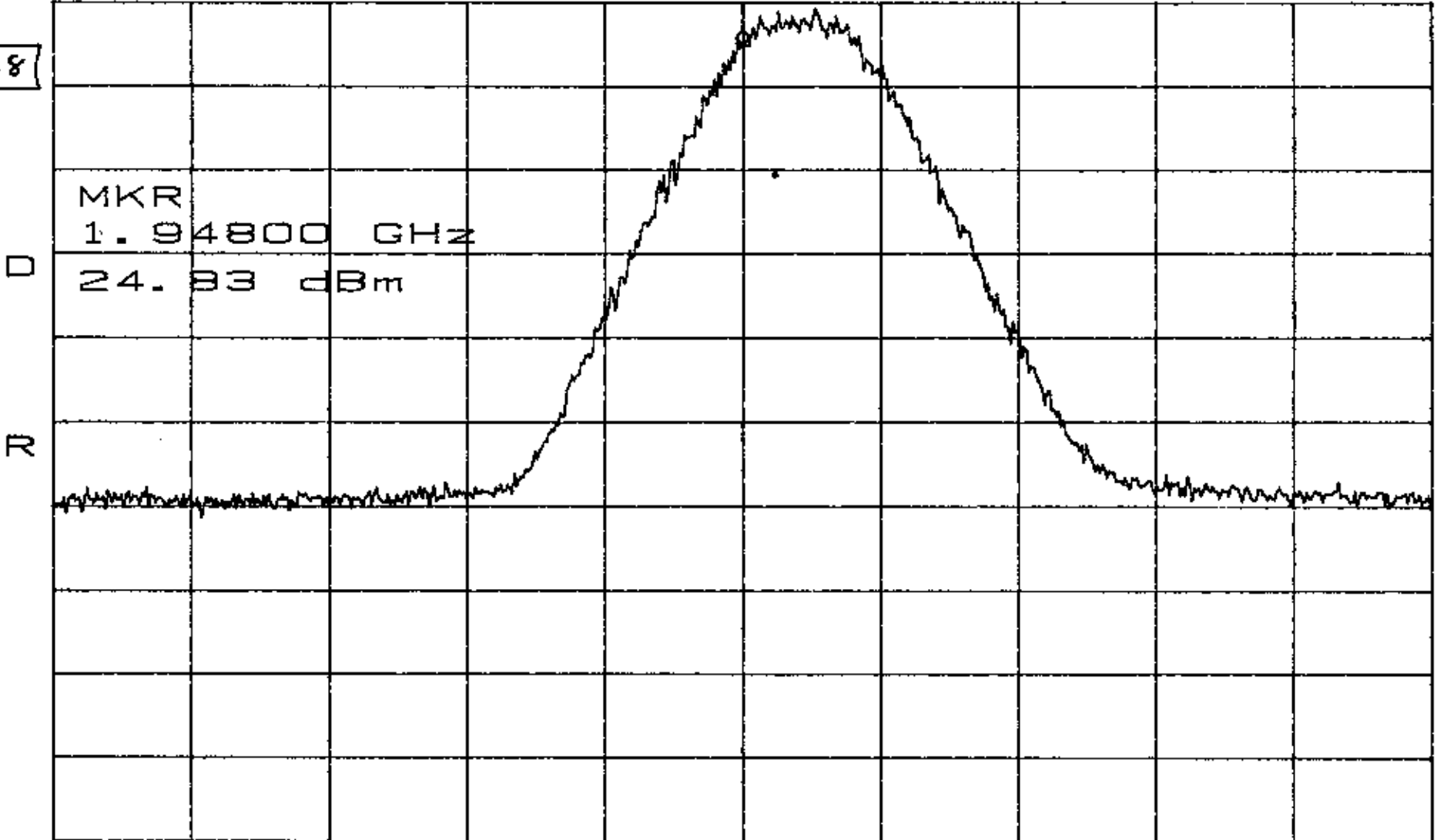
DL  
CH. 375 (HIGH)

BELOW FUNDAMENTAL  
D-BAND

8/3/98

\*ATTEN 10dB      VAVG 10      MKR 24.83dBm  
RL 30.0dBm      10dB/      1.94800GHz

24.238



CENTER 1.94800GHz      SPAN 20.00MHz  
\*RBW 1.0MHz      \*VBW 1.0MHz      \*SWP 50.0ms

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

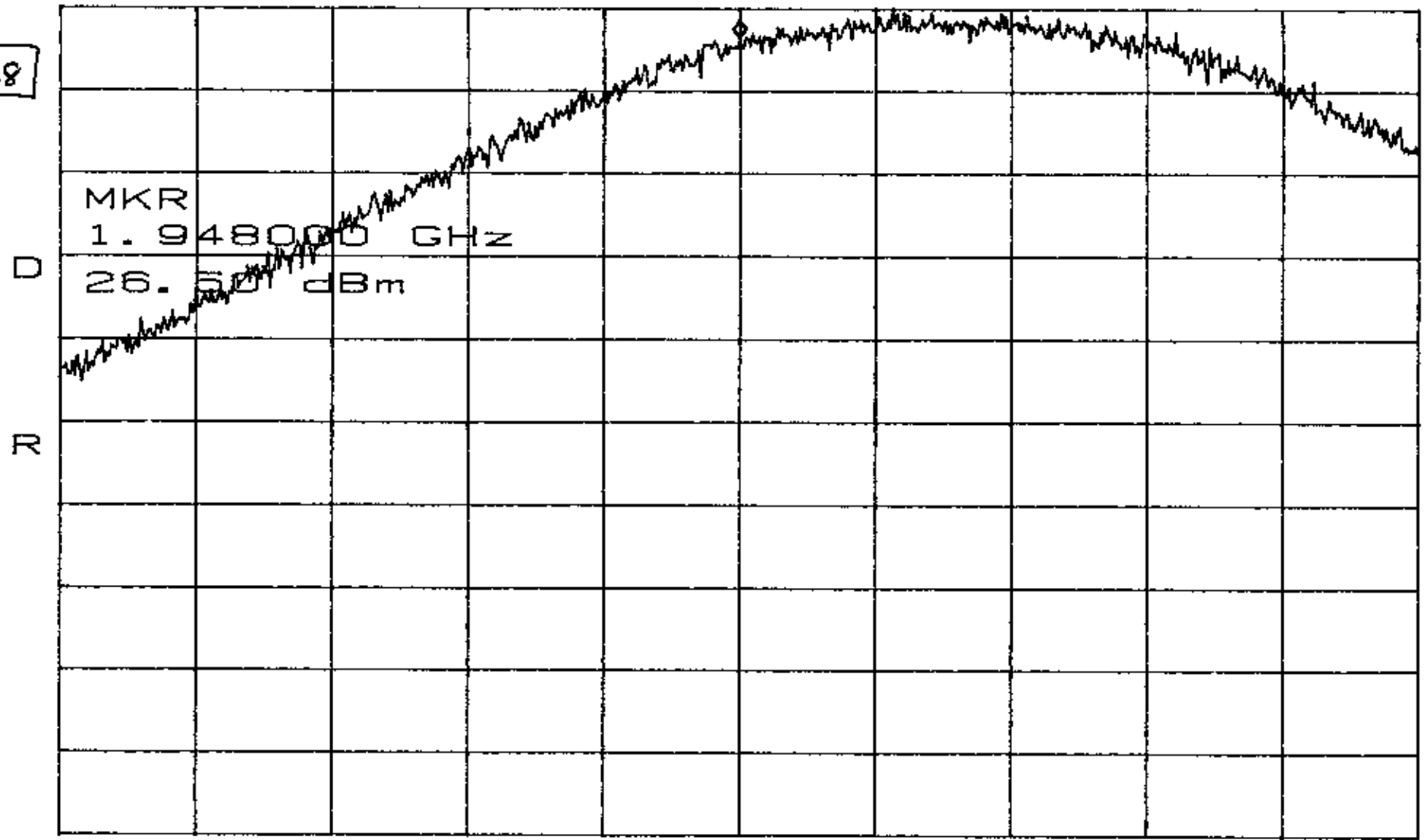
DL  
CH. 375 (HIGH)

BELOW FUNDAMENTAL  
D-BAND

8/3/98

\*ATTEN 10dB      VAVG 10      MKR 26.50dBm  
RL 30.00dBm      10dB/      1.948000GHz

24.238



CENTER 1.948000GHz      SPAN 5.000MHz  
\*RBW 1.0MHz      \*VBW 1.0MHz      \*SWP 50.0ms

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

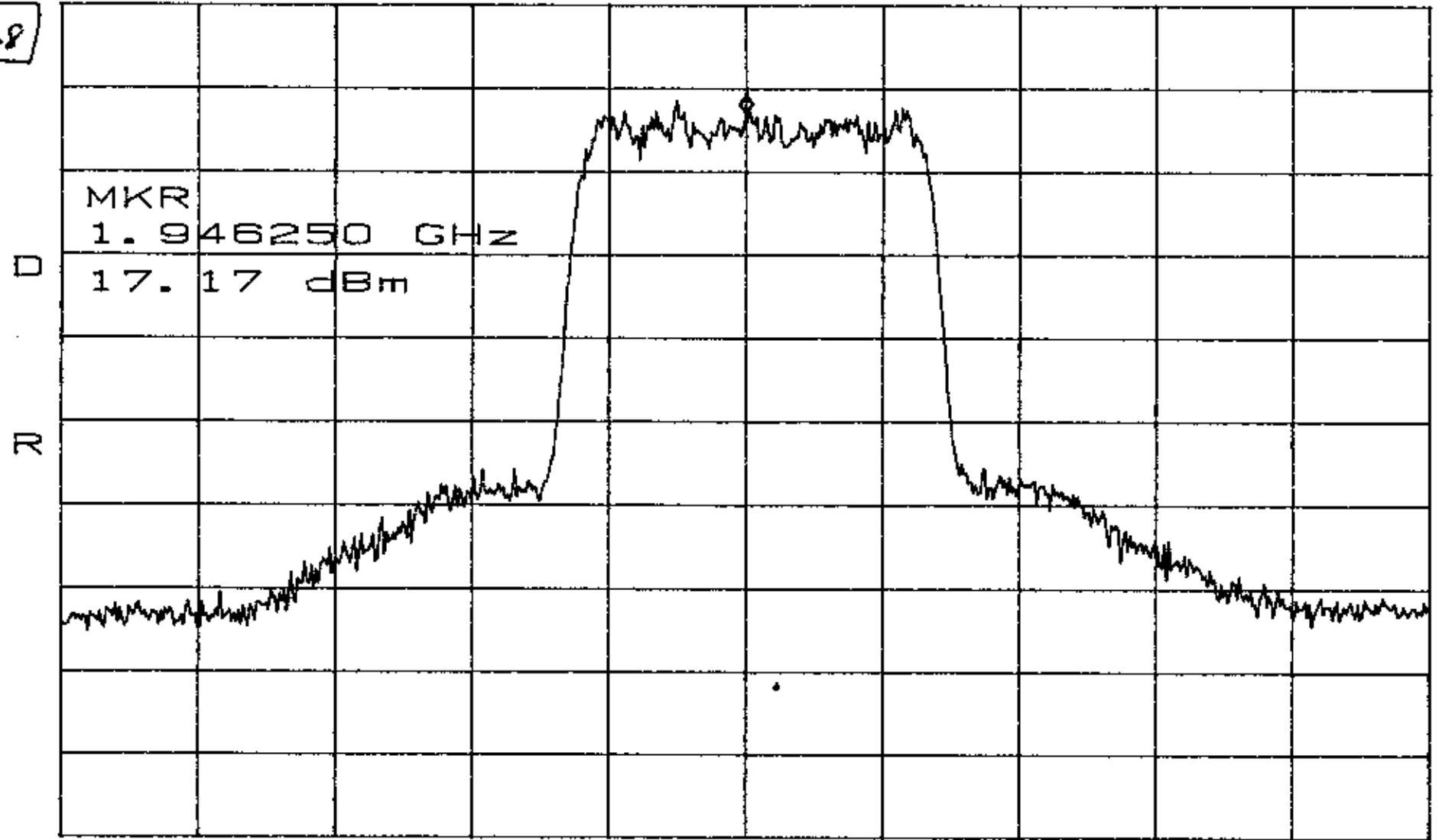
DL  
CH. 325 (LOW)

FUNDAMENTAL  
D-BAND

8/3/98

\*ATTEN 10dB    VAVG 10    MKR 17.17dBm  
RL 30.0dBm    10dB/    1.946250GHz

24.238



CENTER 1.946250GHz    SPAN 5.000MHz  
\*RBW 30kHz    \*VBW 30kHz    \*SWP 50.0ms

CDR 1CH X 7.1W  
SIN: FCC UNIT

DL  
CH. 325 (LOW)

BELOW FUNDAMENTAL  
D-BAND

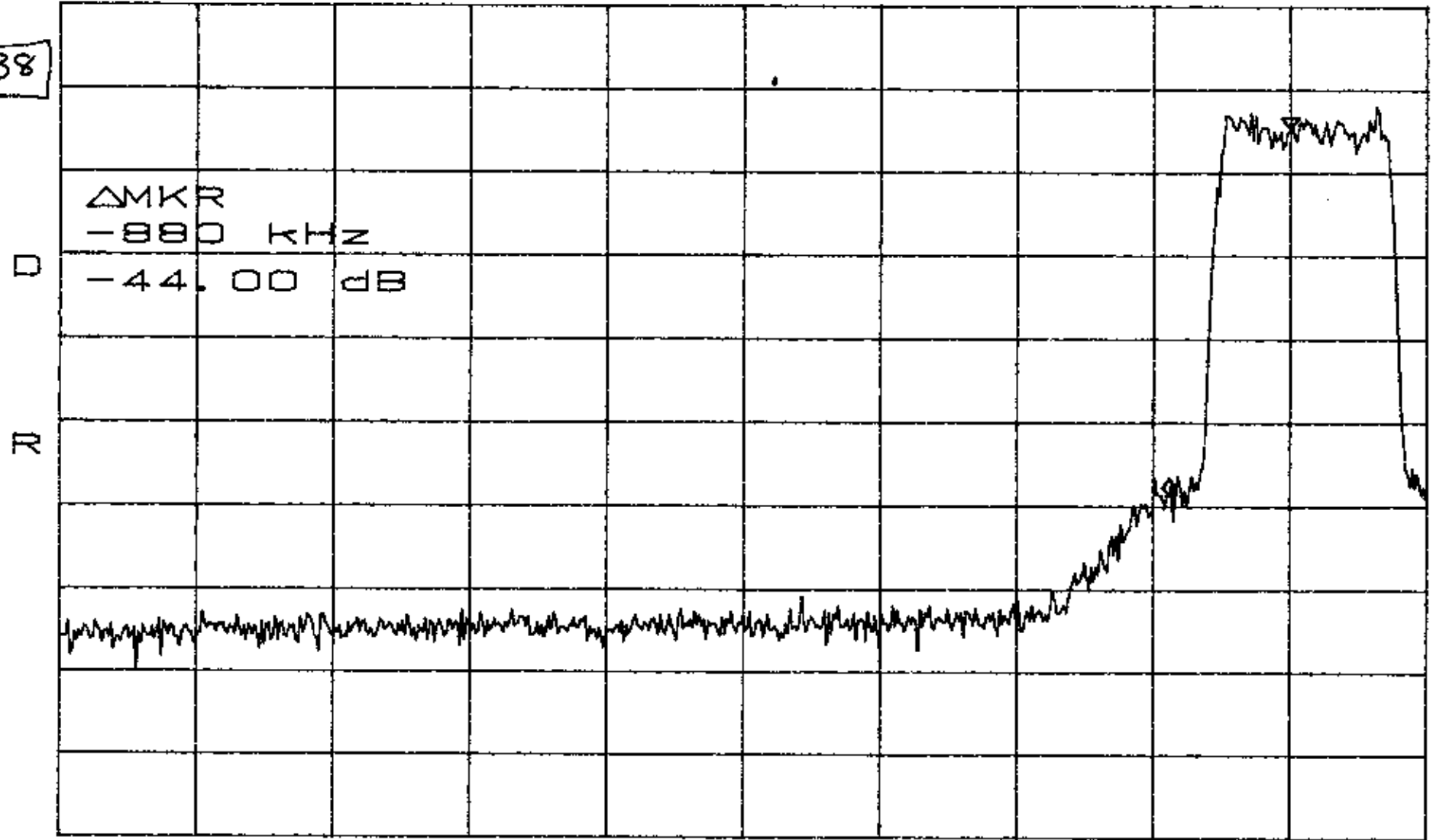
8/3/98

\*ATTEN 10dB  
RL 30.0dBm

VAVG 10  
10dB/BPOI

ΔMKR -44.00dB  
-880kHz

24.238



CENTER 1.94225GHz

SPAN 10.00MHz

\*RBW 30kHz

\*VBW 30kHz

\*SWP 50.0ms

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

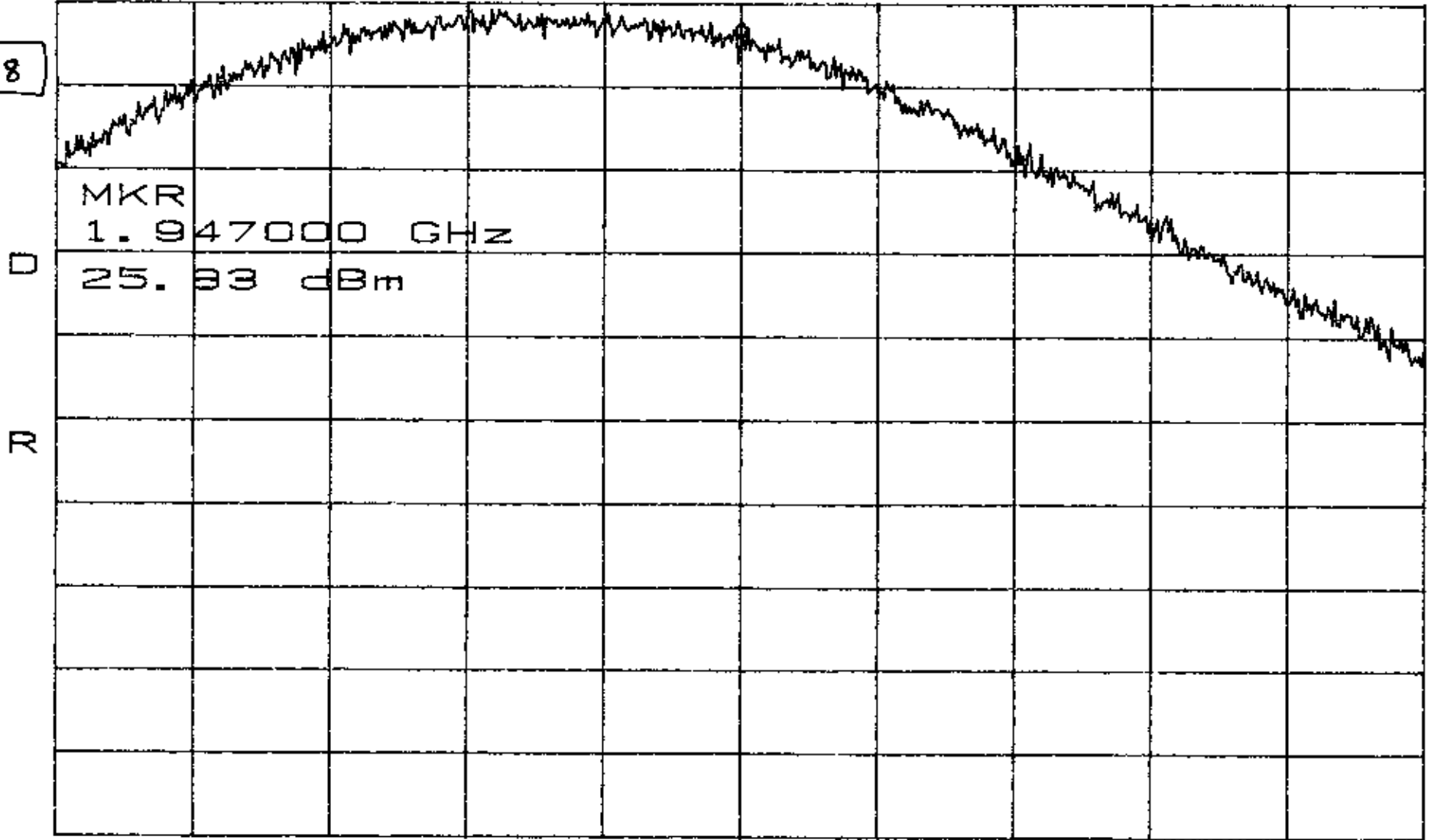
DL  
CH. 325 (LOW)

ABOVE FUNDAMENTAL  
D-BAND

8/3/98

\*ATTEN 10dB      VAVG 10      MKR 25.83dBm  
RL 30.0dBm      10dB/BPOI      1.947000GHz

24.238



CENTER 1.947000GHz      SPAN 5.000MHz  
\*RBW 1.0MHz      \*VBW 1.0MHz      \*SWP 50.0ms

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

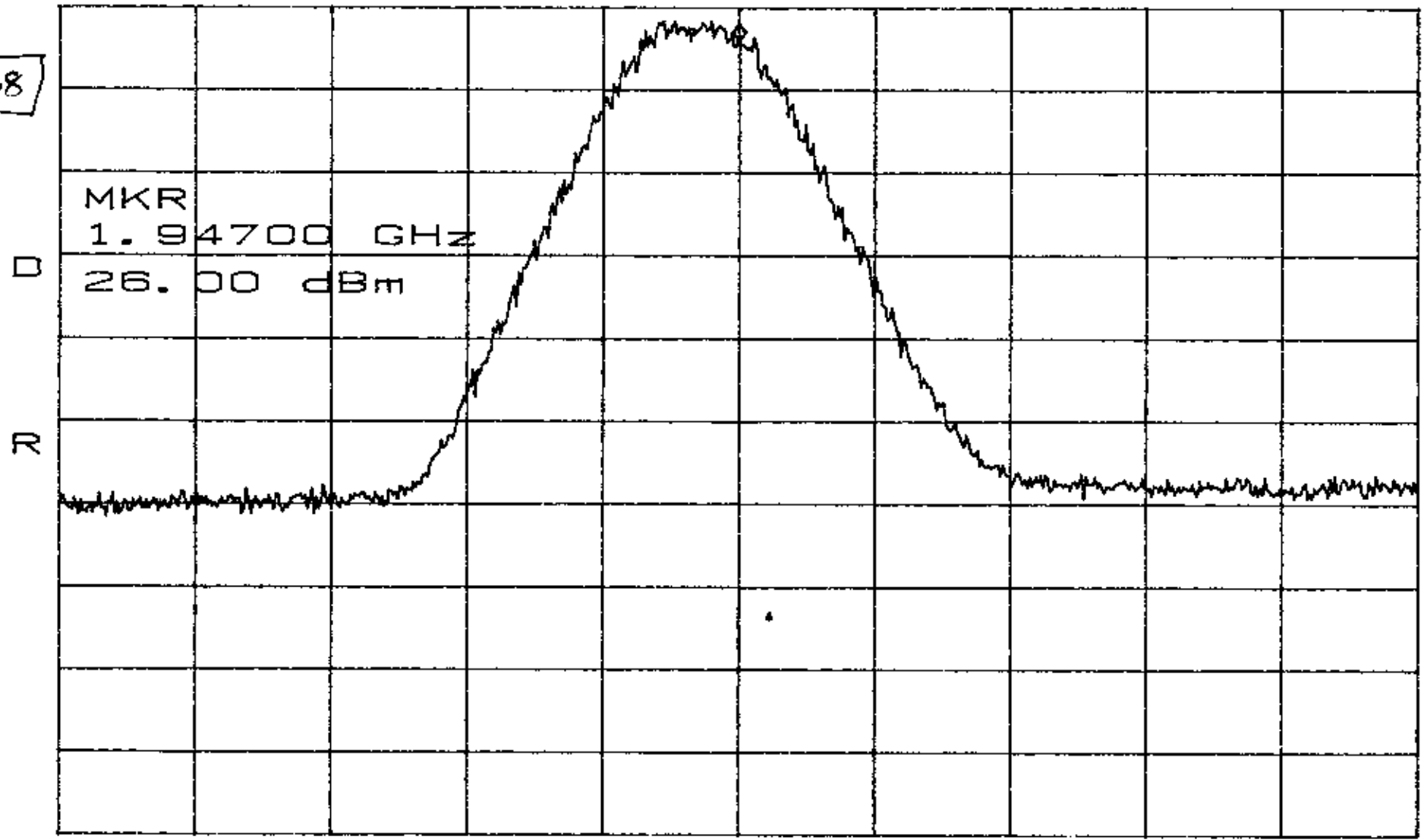
DL  
CH. 325 (LOW)

ARCS FUNDAMENTAL  
D-BAND

8/3/98

\*ATTEN 10dB    VAVG 10    MKR 26.00dBm  
RL 30.00dBm    10dB/    1.94700GHz

24.238



CENTER 1.94700GHz    SPAN 20.00MHz  
\*RBW 1.0MHz    \*VBW 1.0MHz    \*SWP 50.0ms



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

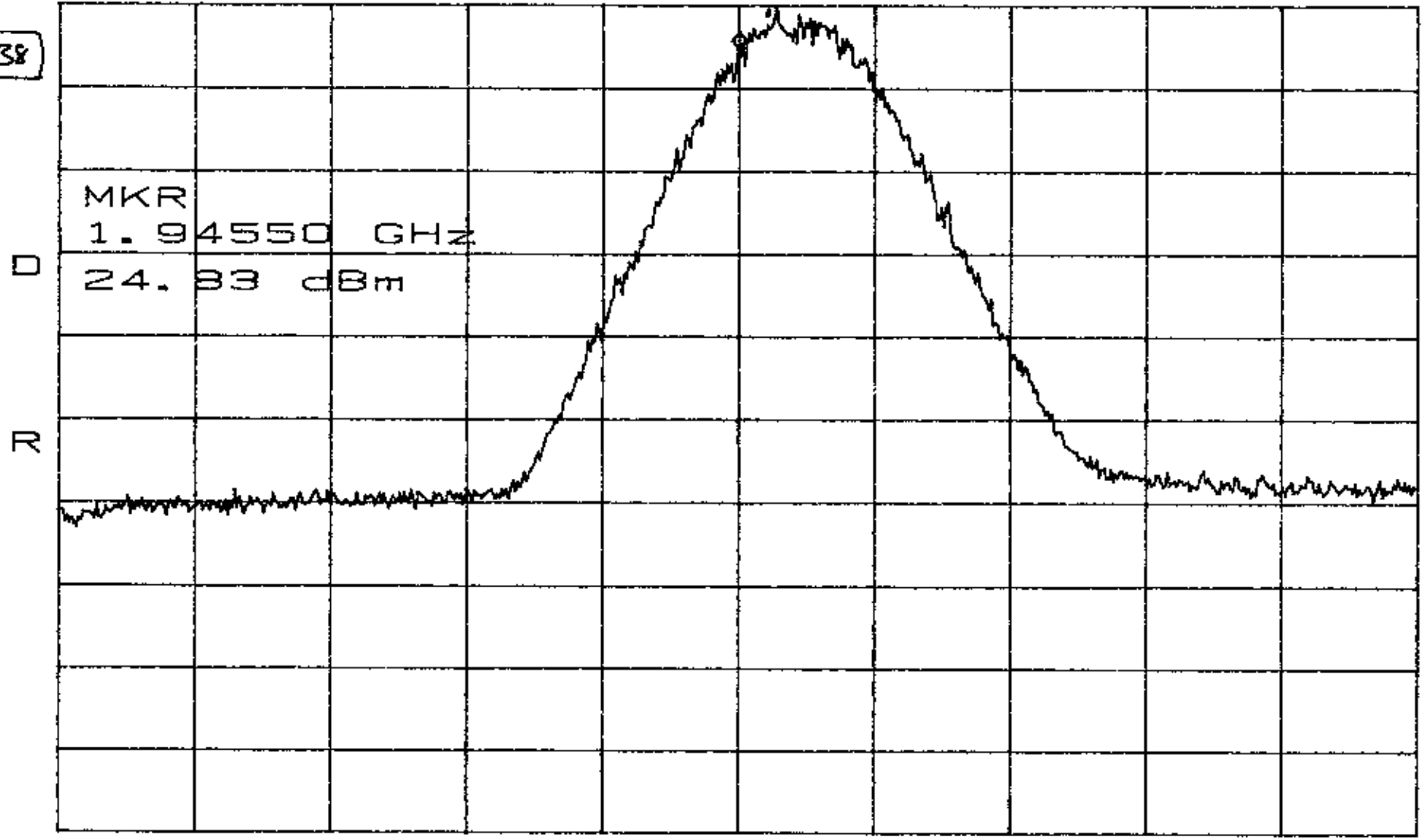
DL  
CH. 325 (LOW)

Below FUNDAMENTAL  
D-BAND

8/3/98

\*ATTEN 10dB    VAVG 10    MKR 24.83dBm  
RL 30.0dBm    10dB/    1.94550GHz

24.238



CENTER 1.94550GHz    SPAN 20.00MHz  
\*RBW 1.0MHz    \*VBW 1.0MHz    \*SWP 50.0ms

CDR 1CH K7.1W  
SIN: FCC UNIT

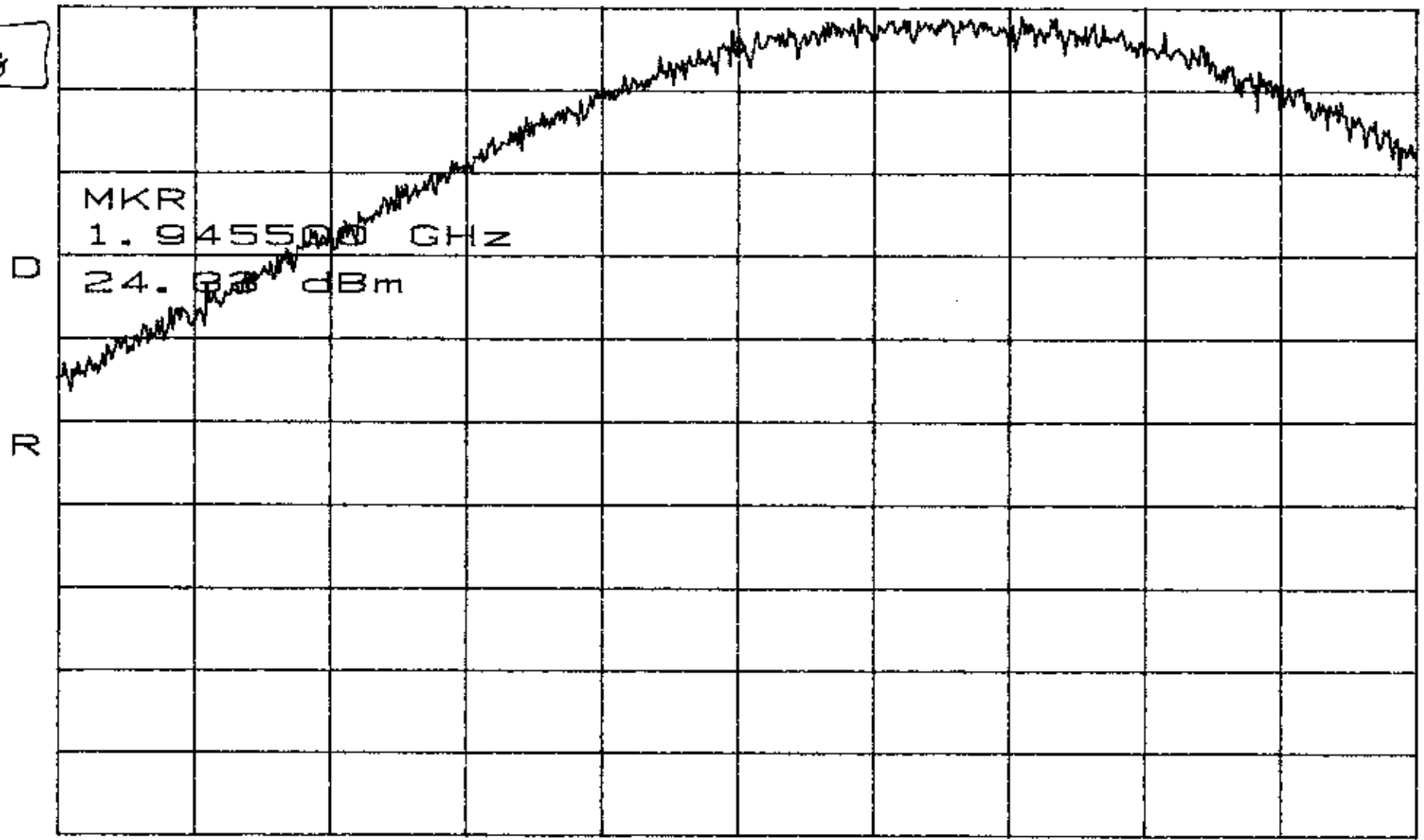
DL  
CH: 325 (LOW)

BELOW FUNDAMENTAL  
D-BAND

8/3/98

\*ATTEN 10dB      VAVG 10      MKR 24.33dBm  
RL 30.0dBm      10dB/      1.945500GHz

24238



CENTER 1.945500GHz      SPAN 5.000MHz  
\*RBW 1.0MHz      \*VBW 1.0MHz      \*SWP 50.0ms