



Emissions Test Data

Client:	Shareware	Date:	12/13 and 12/16 1999	Test Engr:	Tuan Banh
Product:	Modular Radio Rev. C	File:	D36226	Proj. Engr:	Mark Briggs
Objective	Engineering Eval.	Site:	SVOATS #2	Contact:	Dale Darando
Spec:	FCC 15.247	Distance:	3 meters	Approved:	

Ambient Conditions

Temperature: 7.2 °C
Humidity: 76.1 % RH

Run #1: Direct Power Output Measurement, Antenna Port (Taken from D35037, 12/13/99)

Measurements made using power meter and external 10 dB pad. The readings have been corrected by adding 10 dB. The cable used to connect to the power meter has a 2.7 dB loss at 2.4 GHz. The readings have been corrected by adding 2.7 dB.

<u>Frequency</u>	<u>Power Output (dBm)</u>	<u>Result</u>
2412 MHz (low channel)	17.7	Pass
2437 MHz (mid channel)	17.7	Pass
2462 MHz (high channel)	15.7	Pass

Run #2: Measurement of 6dB Bandwidth (Taken from D35037, 12/13/99)

Measurements made using spectrum analyzer and external 30dB pad and internal -30dB reference level offset. No corrections to the readings are necessary since the measurement is a bandwidth measurement. See plots for details.

<u>Frequency</u>	<u>6dB Bandwidth</u>	<u>Result</u>
2412 MHz (low channel)	6.50 MHz	Pass
2437 MHz (mid channel)	7.25 Mhz	Pass
2462 MHz (high channel)	7.97 MHz	Pass

Run #3: Measurement of Power Density (Taken from D35037, 12/13/99)

See plots for details.

Measurements made using spectrum analyzer and external 30dB pad and internal -30dB reference level offset. The results below include a +2.7dB correction for the cable loss at 2.4 GHz.

<u>Frequency</u>	<u>Result</u>
2412 MHz (low channel)	-1.0 dBm/3kHz
2437 MHz (mid channel)	0.1 dBm/3kHz
2462 MHz (high channel)	-1.3 dBm/3kHz

Run #4: Measurement of Power Density (Taken from D35084, 12/16/99)

See plots for details. All signals outside of the allocated band were more than 20dB below the highest in-band signal level.

T35037

6dB Bandwidth, ^{Low} Noise Channel

*ATTEN 20dB

RL 11.50dBm

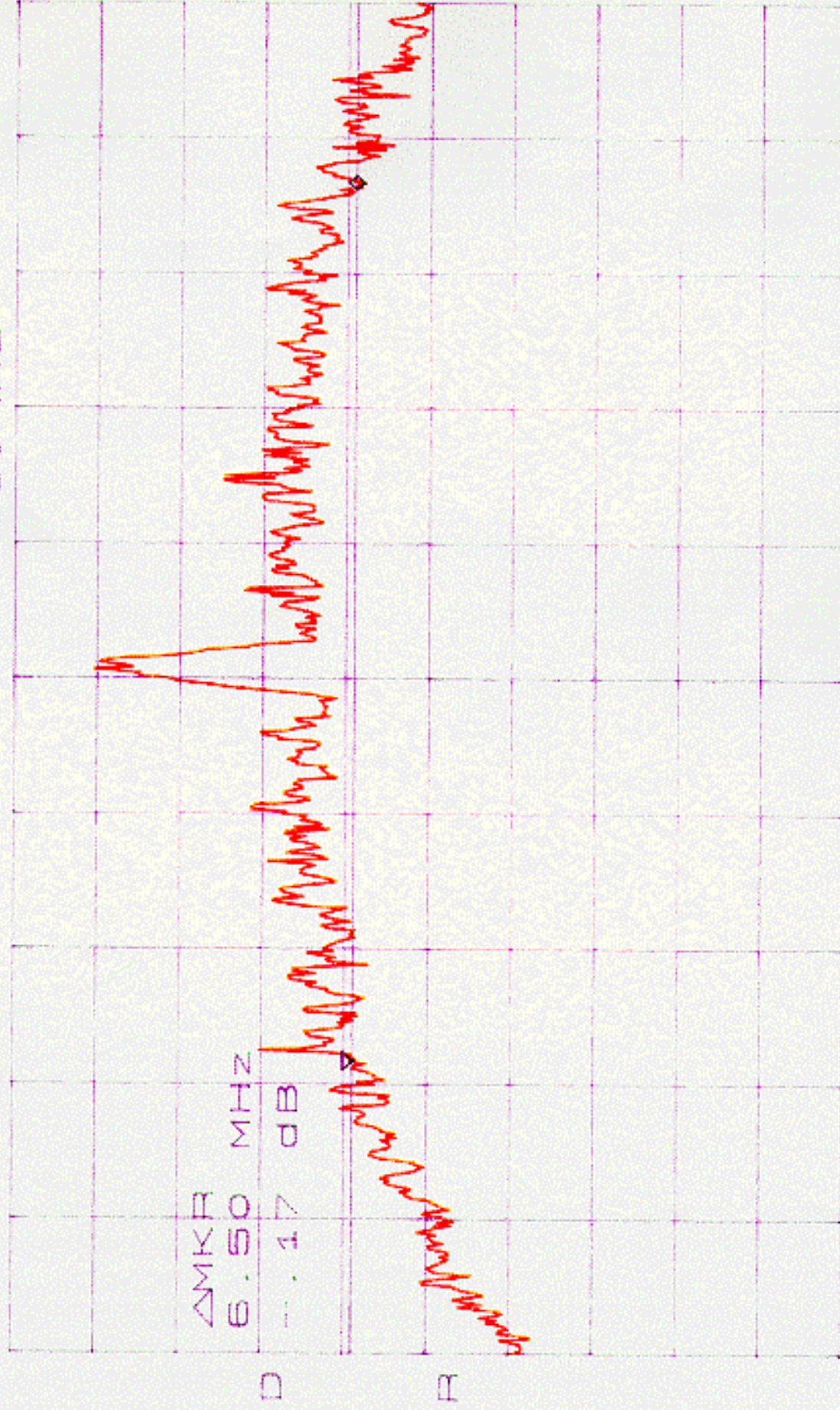
20dB/

 Δ MKR -- 17dB

6.50MHz

 Δ MKR
6.50 MHz

-- 17 dB



CENTER 2.41200GHz

SPAN 10.00MHz

*RBW 100KHz

*VBW 100KHz

SWP 50ms

T35037

6dB Bandwidth, High Channel

*ATTEN 20dB

RL 11.5dBm

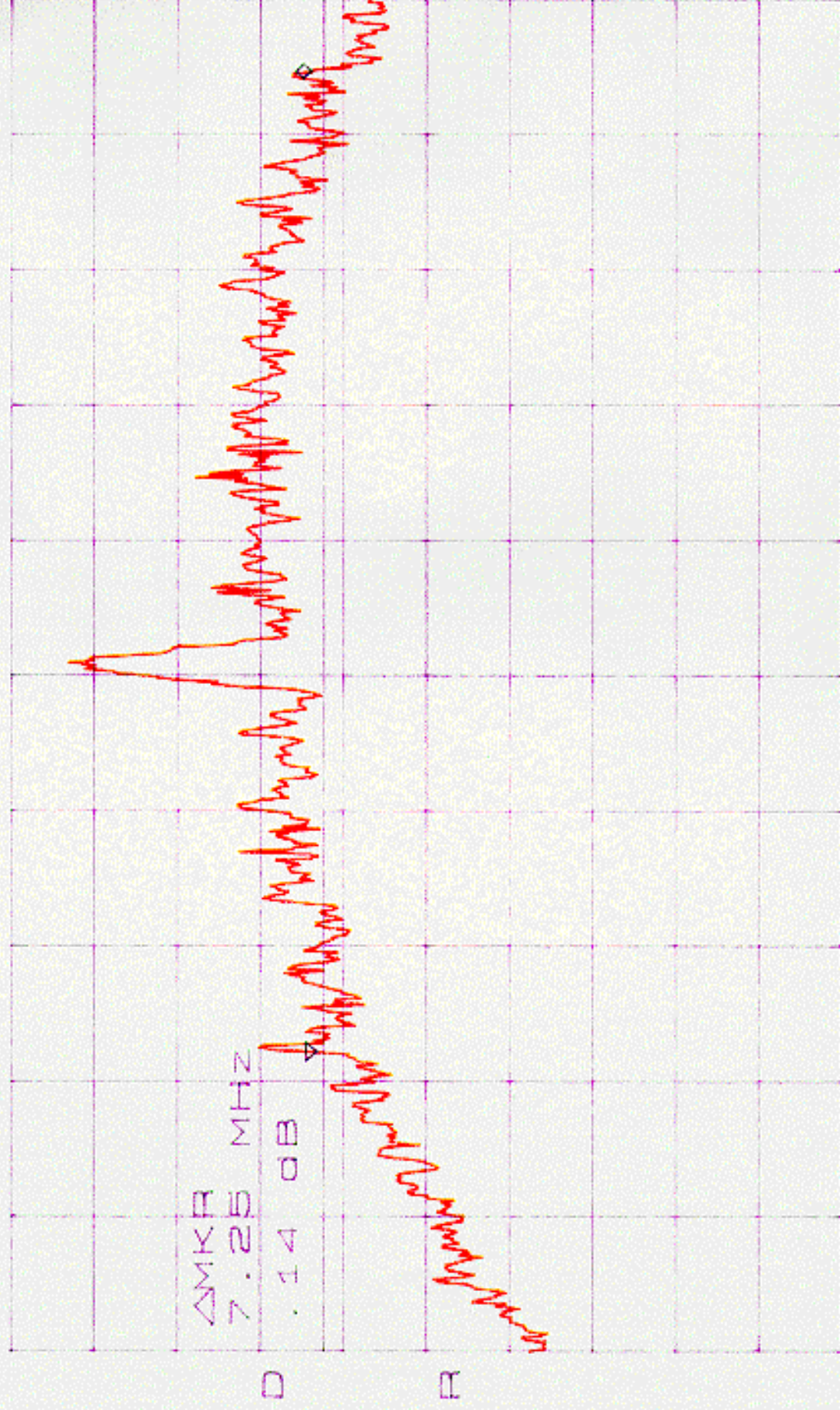
20dB/

ΔMKR .14dB

7.25MHz

ΔMKR
7.25 MHz

.14 dB



CENTER 2.43700GHZ

SPAN 10.00MHz

*RBW 100kHz

*VBW 100kHz

SWP 50ms

T35037

Cap Bandwidth, ~~Low~~ High Channel

*ATTEN 20dB

PL 11.5dBm

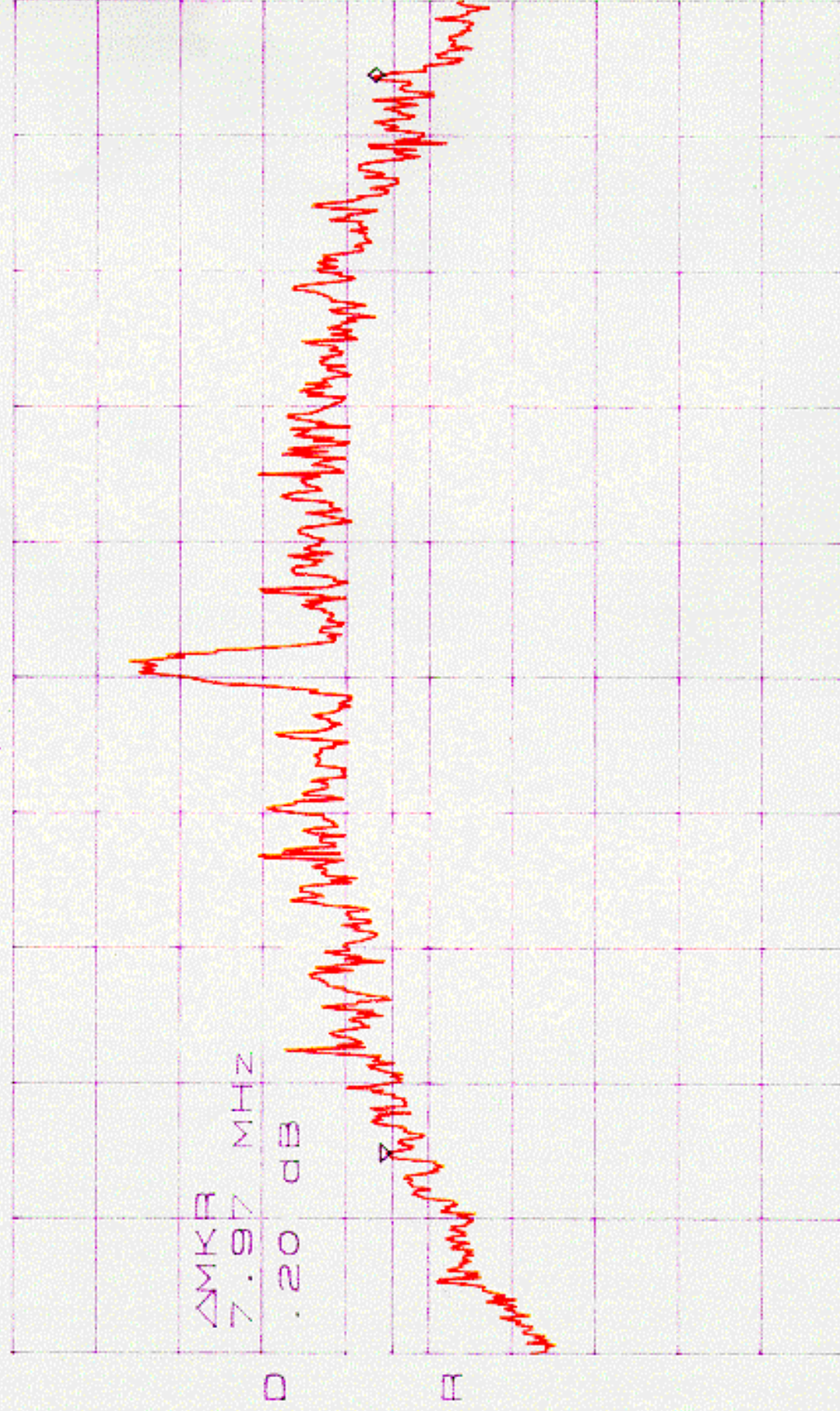
ΔMKR .20dB

7.97MHz

2dB/

ΔMKR
7.97 MHz

.20 dB



CENTER 2.46200GHz

SPAN 10.00MHz

*RBW 100kHz

*VBW 100kHz

SWP 50ms

Power Density, Low Channel

T35037

*ATTEN 20dB
*AL 10.0dBm

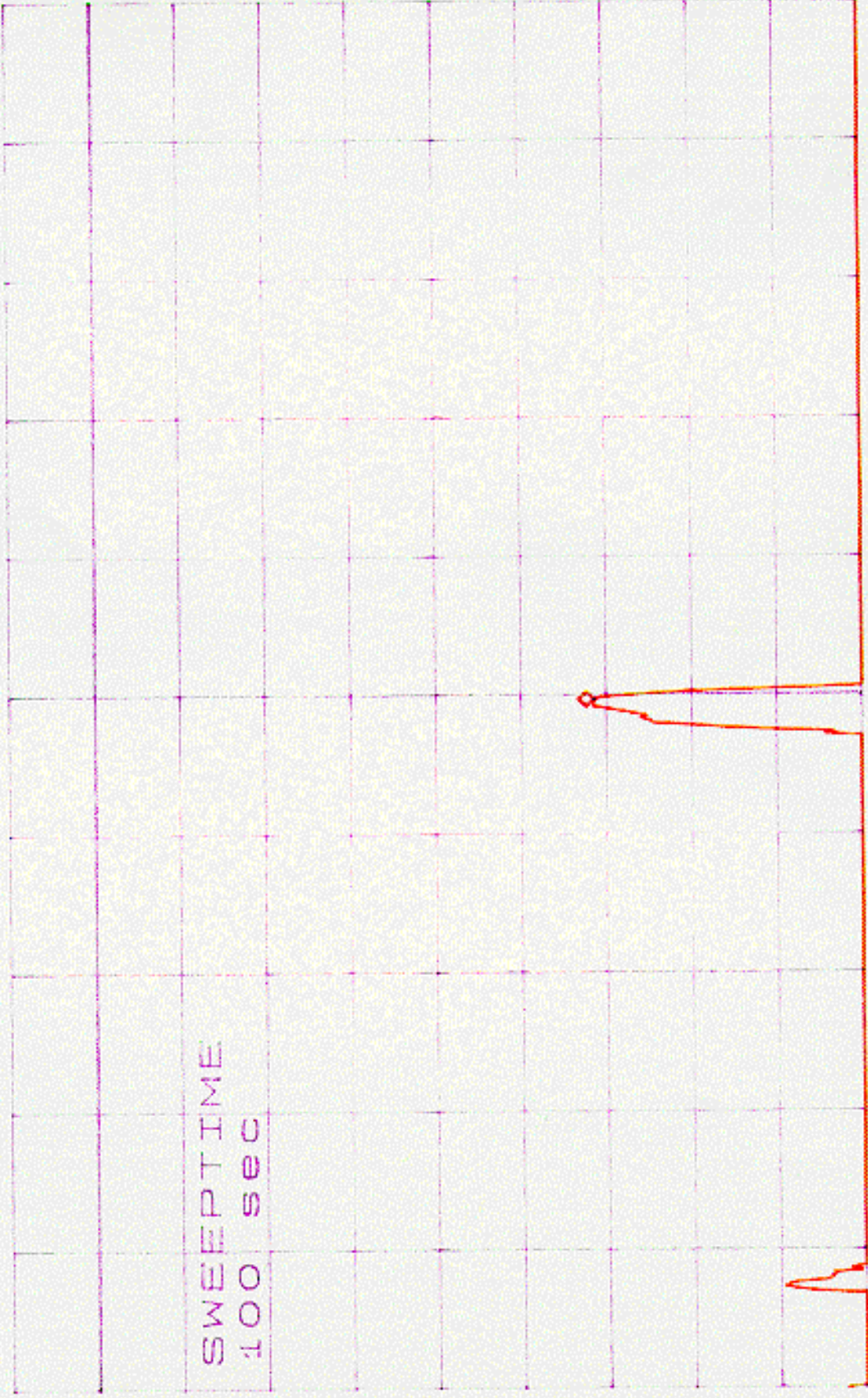
MKR -3.73dBm
2.41197986GHz

SWEPTIME
100 sec

D

H

CENTER 2.41198086GHz SPAN 300.0kHz
*RBW 3.0kHz *VBW 3.0kHz *SWP 100sec



T35037 Power Density, Mid Channel

*ATTEN 20dB

RL 10.0dBm

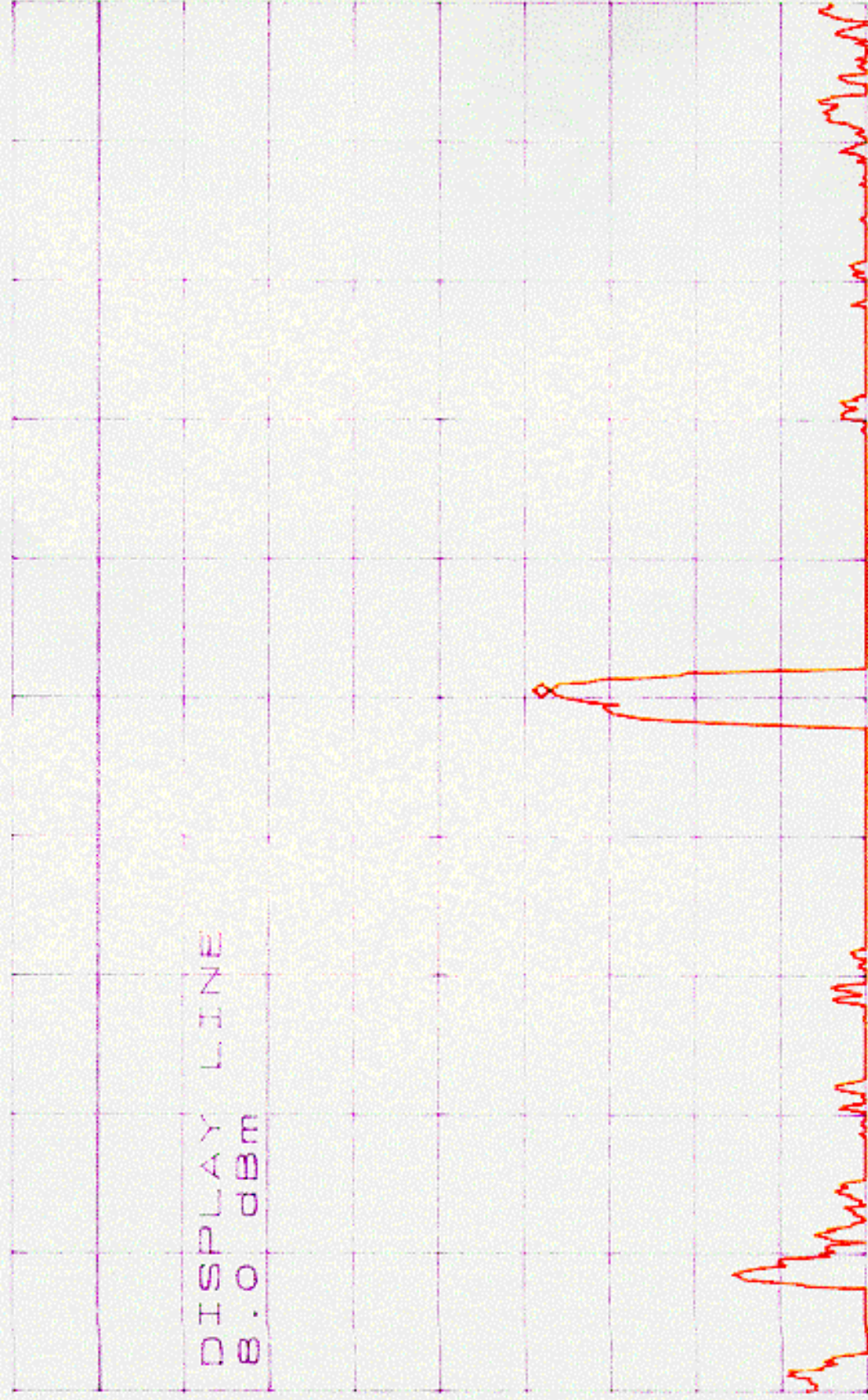
2dB/

MARK -2.60dBm

2.4369787GHz

DISPLAY LINE
8.0 dBm

0



CENTER 2.4369787GHz

SPAN 300.0KHz

*RBW 3.0KHz

*VBW 3.0KHz

*SWP 100sec

T35037

Power Density, High Channel

*ATTEN 20dB

RL 10.0dBm

MKR -3.97dBm

2.4619762GHz

2dB/

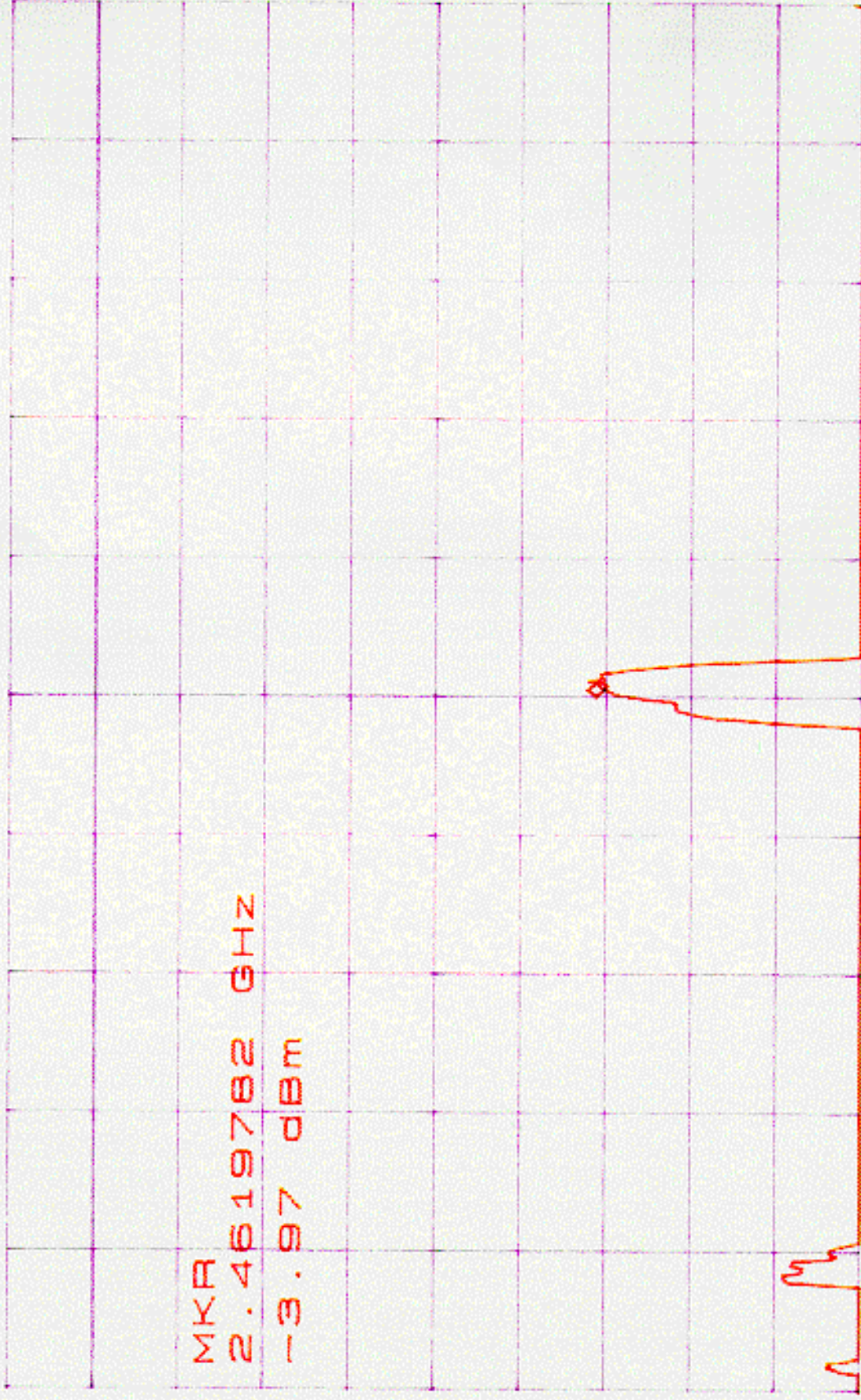
MKR

2.4619762 GHz

-3.97 dBm

0

1



CENTER 2.4619762GHz

SPAN 300.0KHz

*RBW 3.0KHz

*VBW 3.0KHz

*SWP 100Sec

SPURIOUS EMISSIONS

LOW CHANNEL D35084

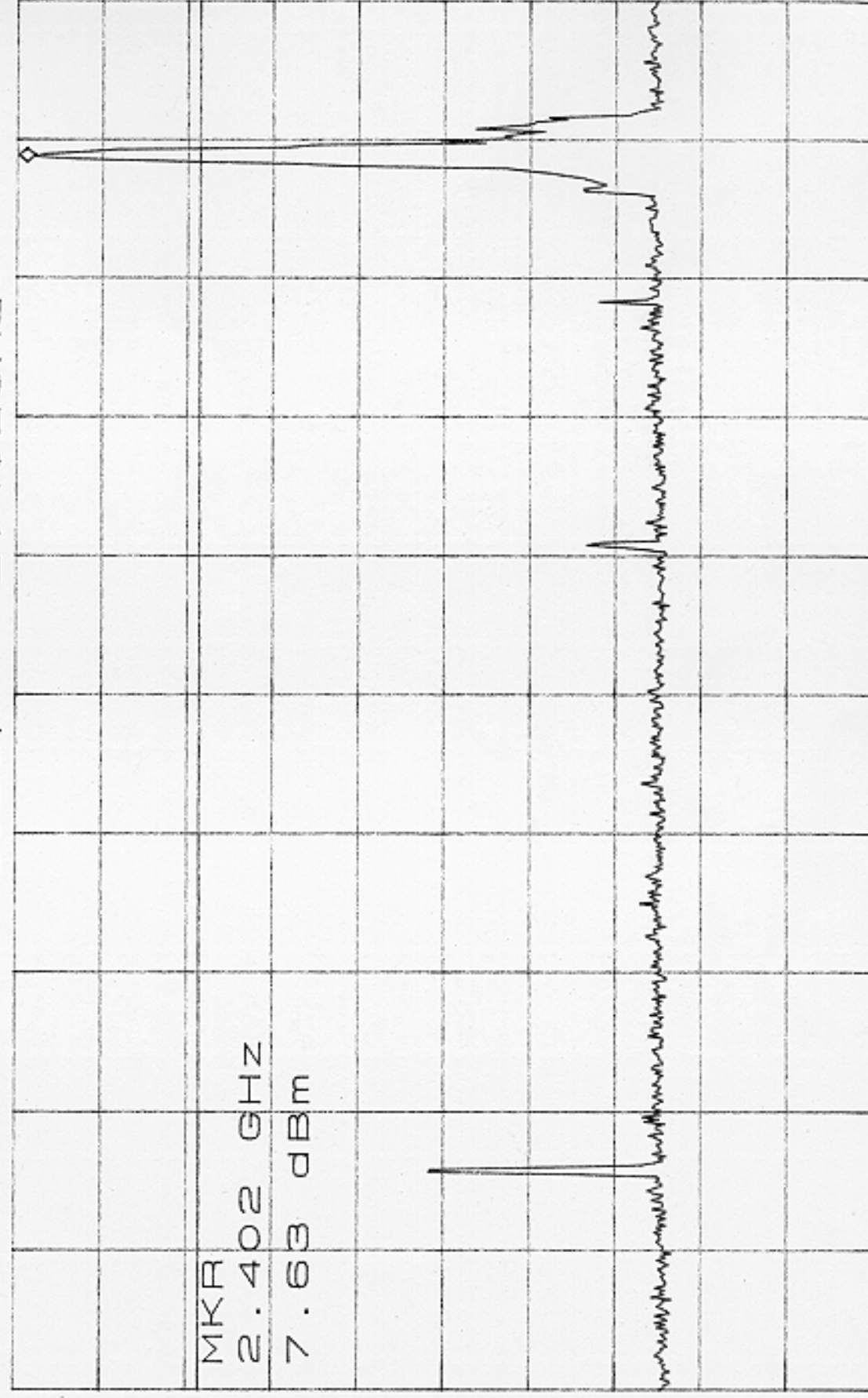
ATTEN 20dB

MKR 7.63dBm

RL 9.8dBm

10dB/

2.402GHz



START 30MHz

STOP 2.700GHz

*RBW 100KHz

*VBW 100KHz

SWP 670ms

SPURIOUS EMISSIONS

LOW CHANNEL

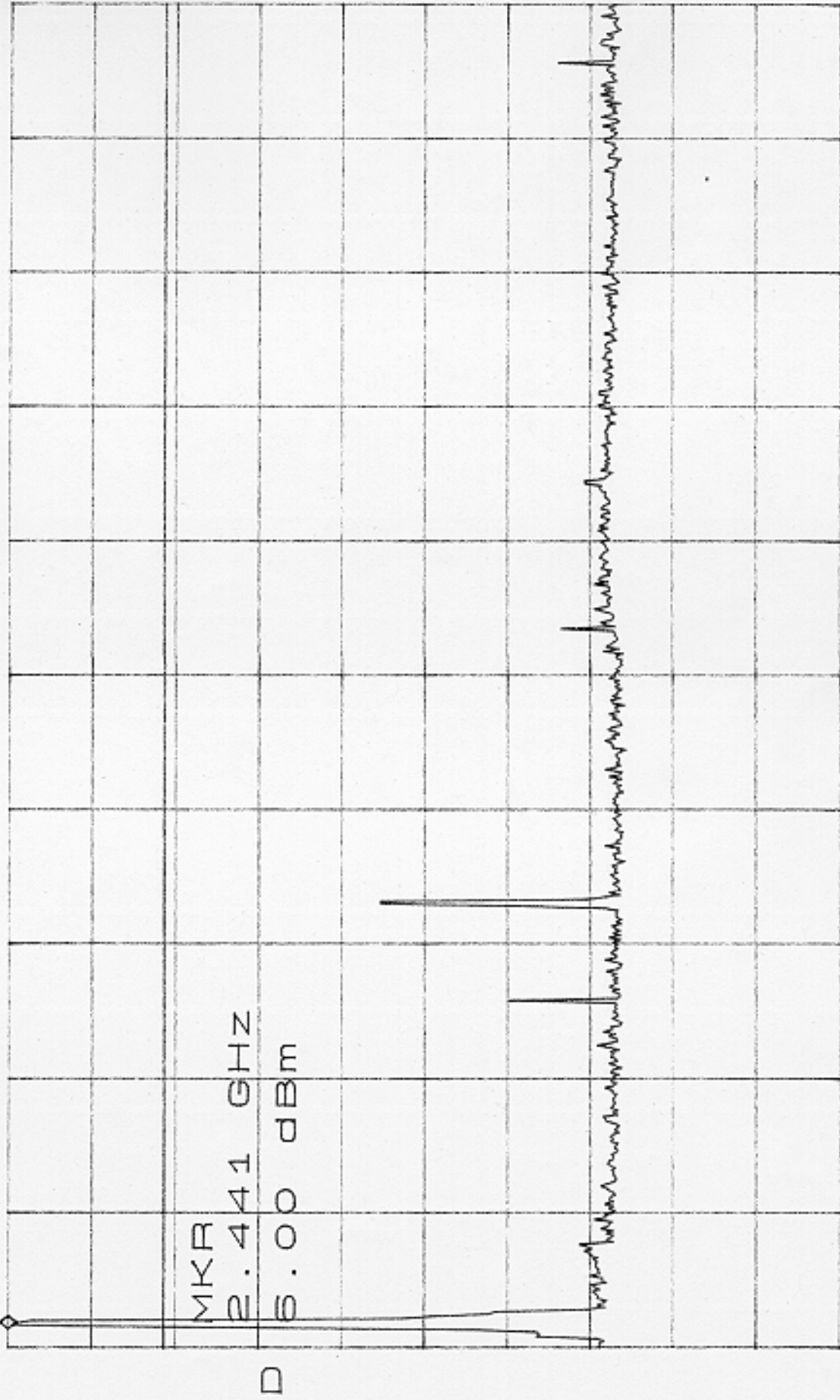
D35084

ATTEN 20dB

RL 7.0dBm

MKR 6.00dBm

10dB/ 2.441GHZ



START 2.300GHZ

STOP 10.000GHZ

*RBW 100KHZ

*VBW 100KHZ

SWP 2.0sec

SPURIOUS EMISSIONS

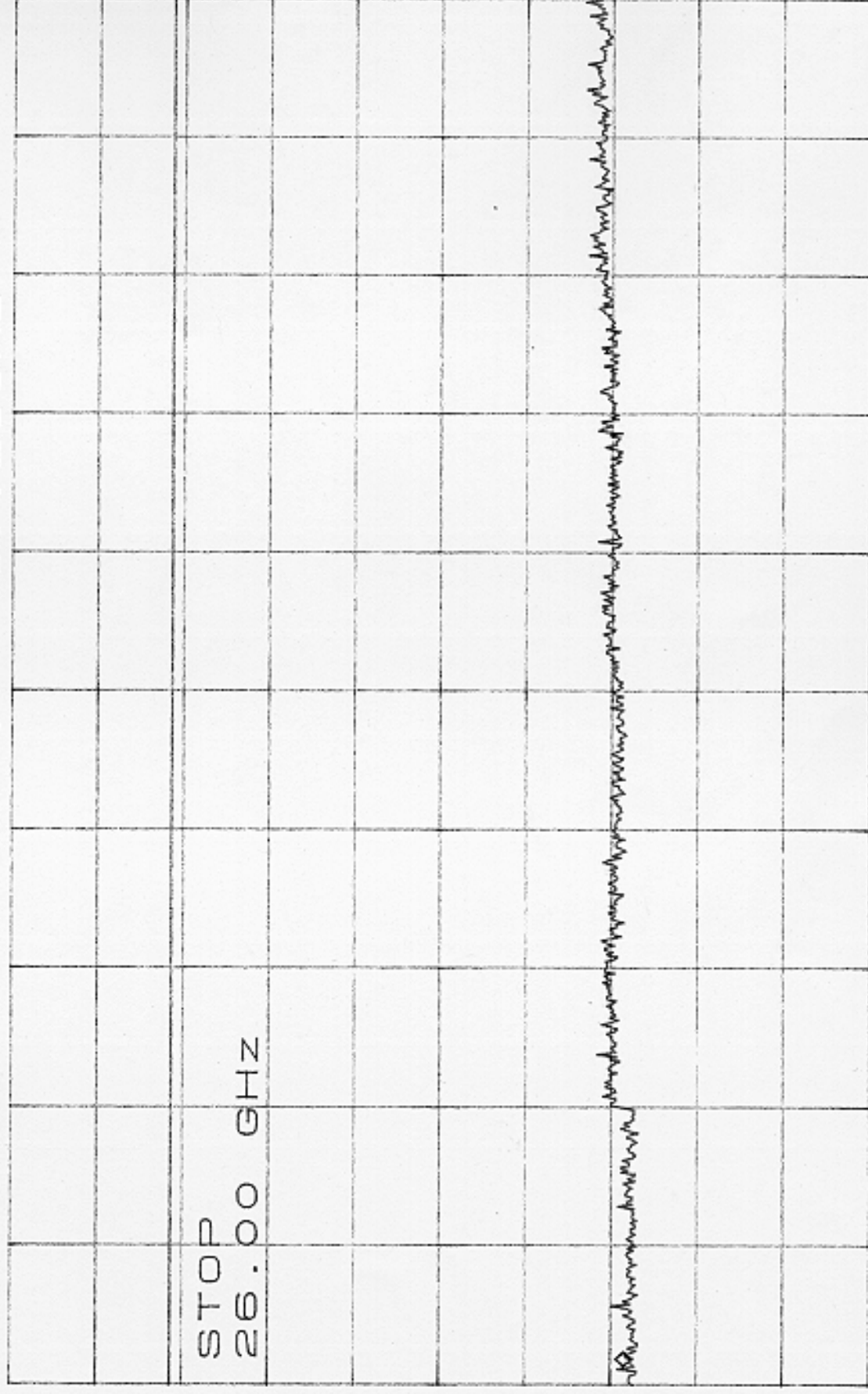
LOW CHANNEL D35084

ATTEN 20dB

MKR -65.50dBm

RL 7.0dBm

10dB/ 10.29GHZ



D

START 10.00GHZ

STOP 26.00GHZ

*RBW 100KHZ

*VBW 100KHZ

SWP 4.0sec

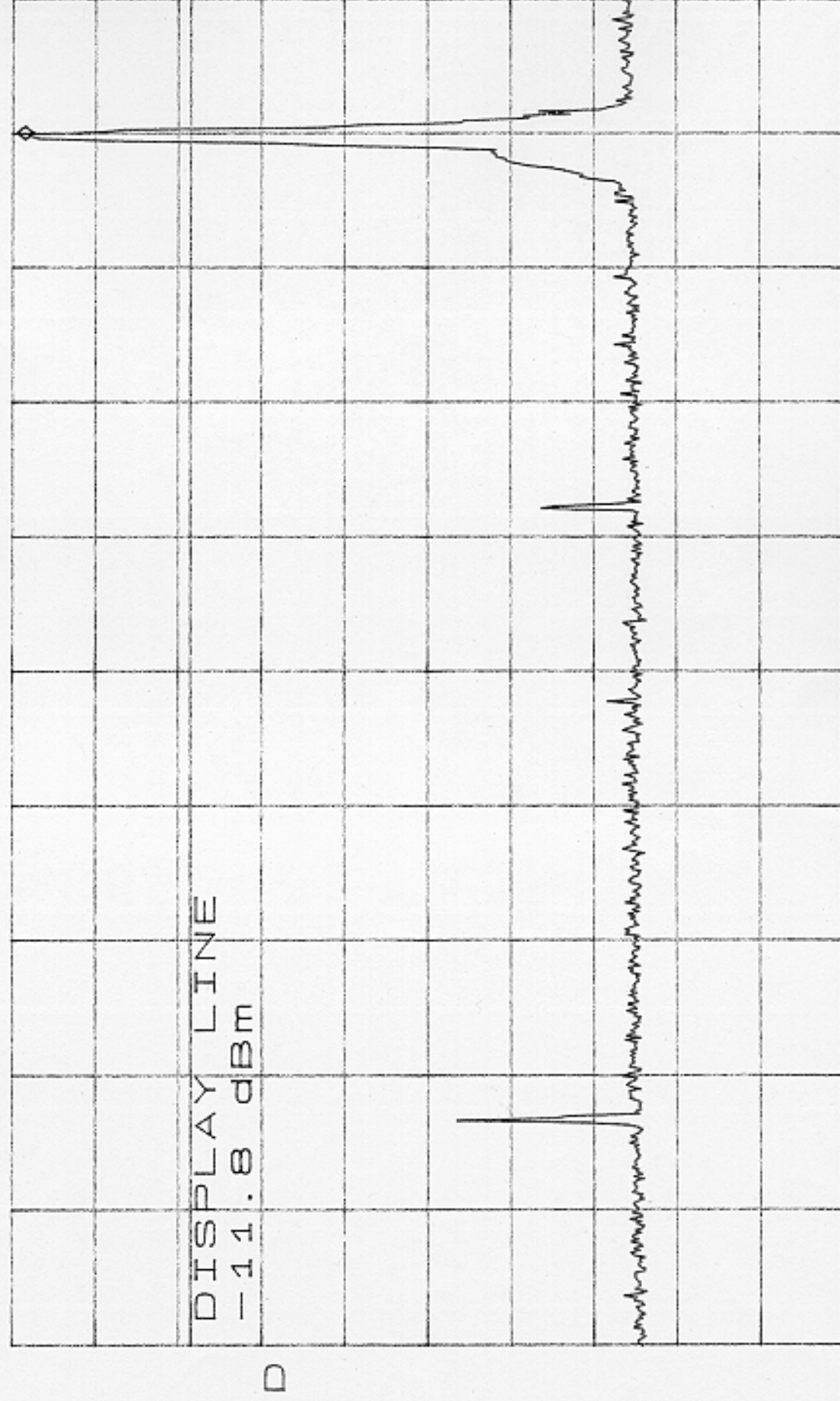
SPUA1003 Emission D35084
MIDDLE CHANNEL

ATTEN 20dB

MKR 7.30dBm

RL 9.8dBm

10dB/ 2.433GHz



START 30MHz

STOP 2.700GHz

*RBW 100kHz

*VBW 100kHz

SWP 670ms

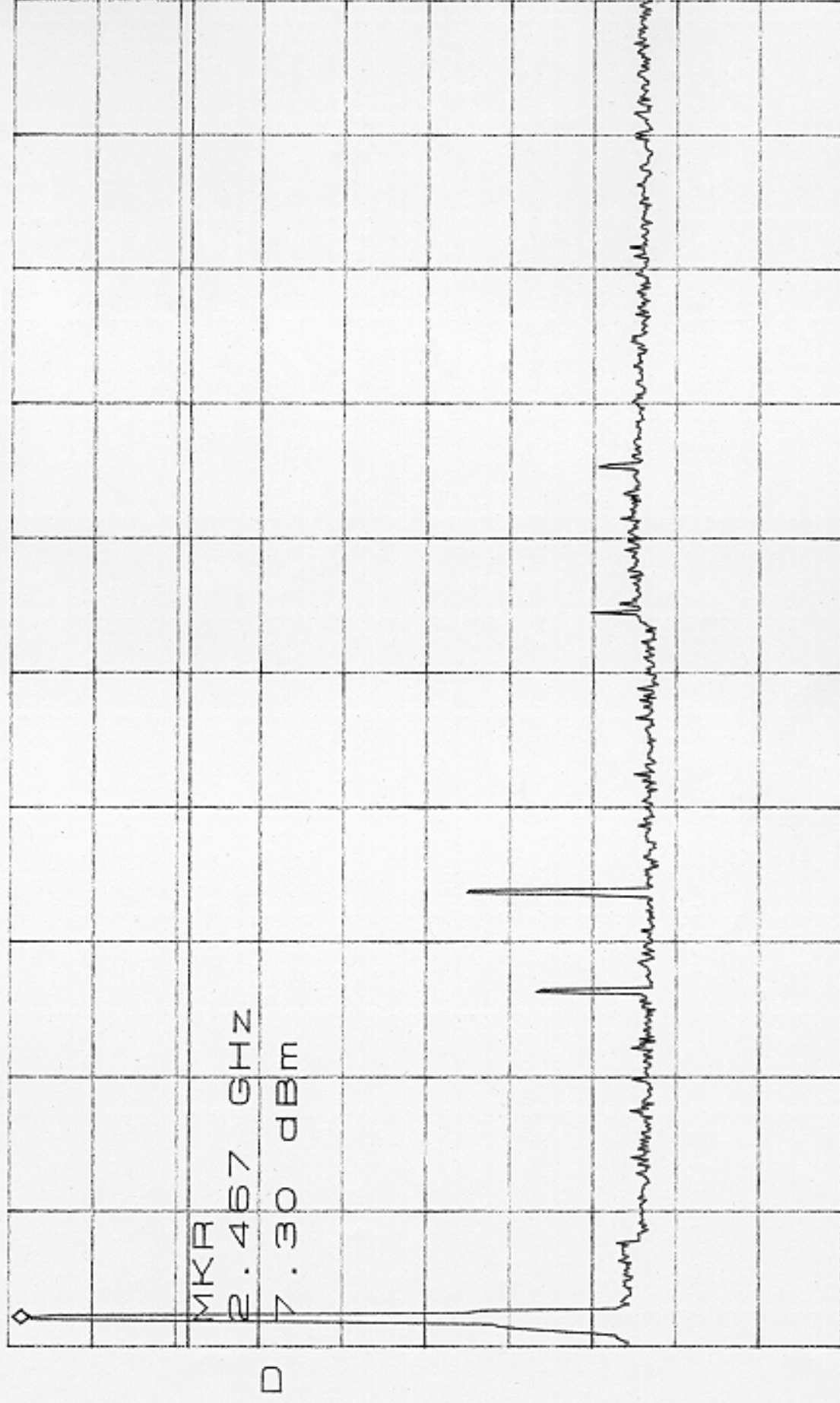
Spurious Emission
Middle Channel D35084

ATTEN 20dB

MKR 7.30dBm

RL 9.8dBm

10dB/ 2.467GHz



START 2.300GHz

STOP 10.000GHz

*RBW 100KHz

*VBW 100KHz

SWP 2.0sec

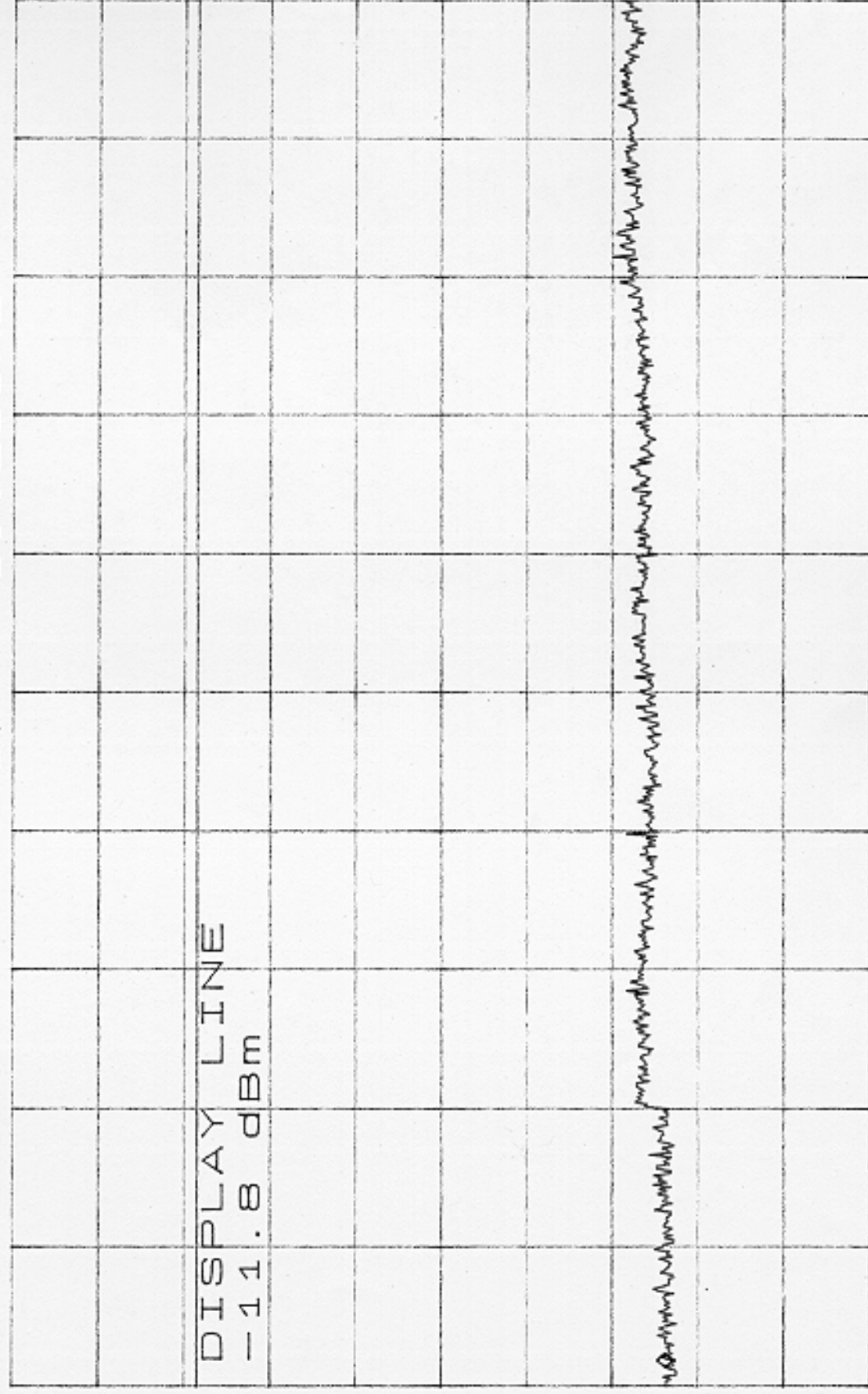
SPURIOUS EMISSIONS
Middle Channel D35084

ATTEN 20dB

MKR -67.37dBm

RL 9.8dBm

10dB/ 10.29GHZ



START 10.00GHZ

STOP 26.00GHZ

*RBW 100KHZ

*VBW 100KHZ

SWP 4.0sec

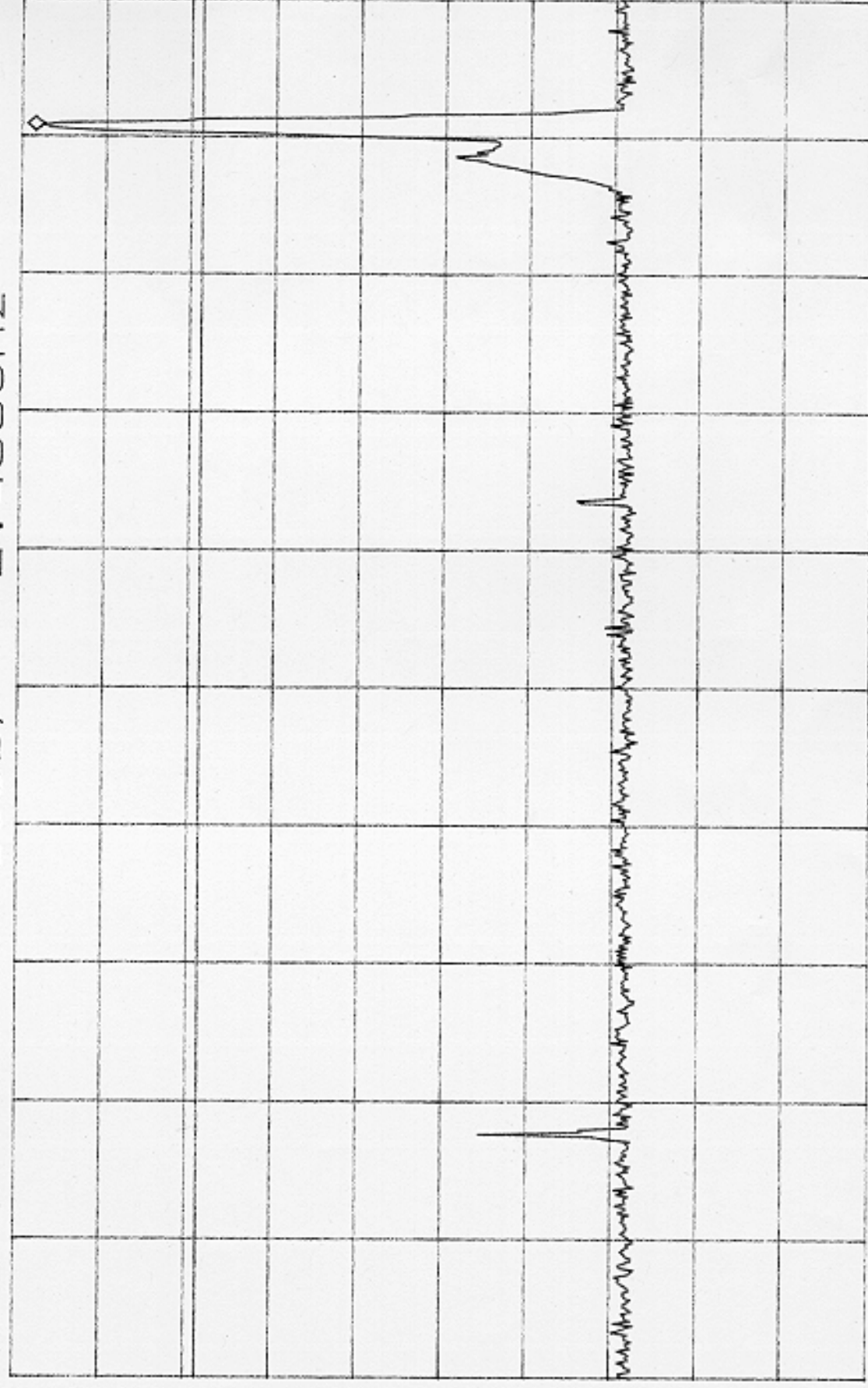
SPURIOUS EMISSIONS
High CHANNEL D35084

ATTEN 20dB

MKR 3.83dBm

RL 6.5dBm

10dB/ 2.455GHz



START 30MHz

STOP 2.700GHz

*RBW 100KHz

*VBW 100KHz

SWP 670ms

DAVID L. G. E.
High Channel

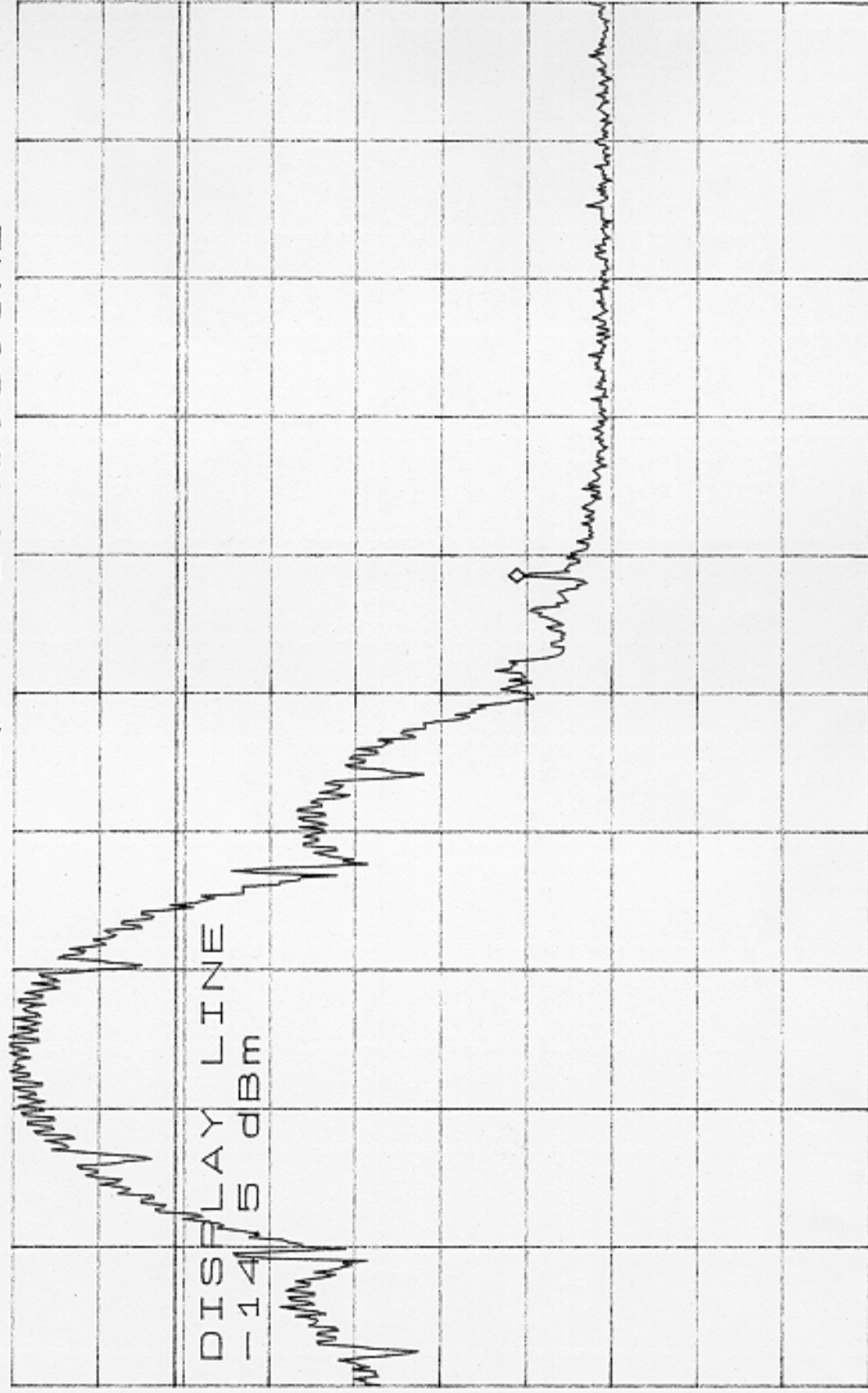
P35084

ATTEN 20dB

MKR -55.23dBm

RL 4.6dBm

10dB/ 2.49030GHz



CENTER 2.48350GHz

SPAN 80.00MHz

*RBW 100kHz

*VBW 100kHz

SWP 50ms

SPURIOUS EMISSION

High Channel

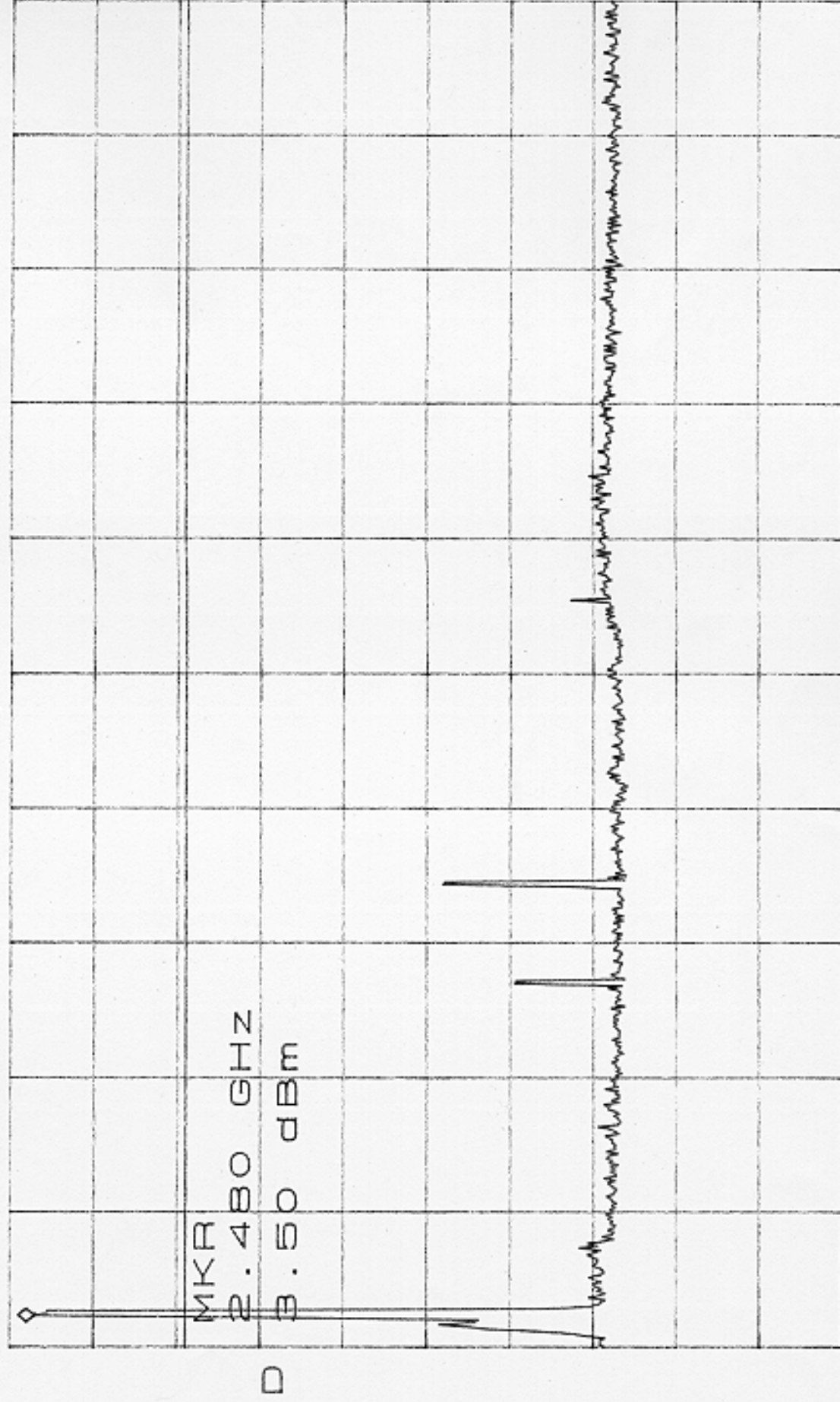
D35084

ATTEN 20dB

MKR 3.50dBm

RL 6.5dBm

10dB/ 2.480GHZ



START 2.300GHZ

STOP 10.000GHZ

*RBW 100KHZ

*VBW 100KHZ

SWP 2.0sec

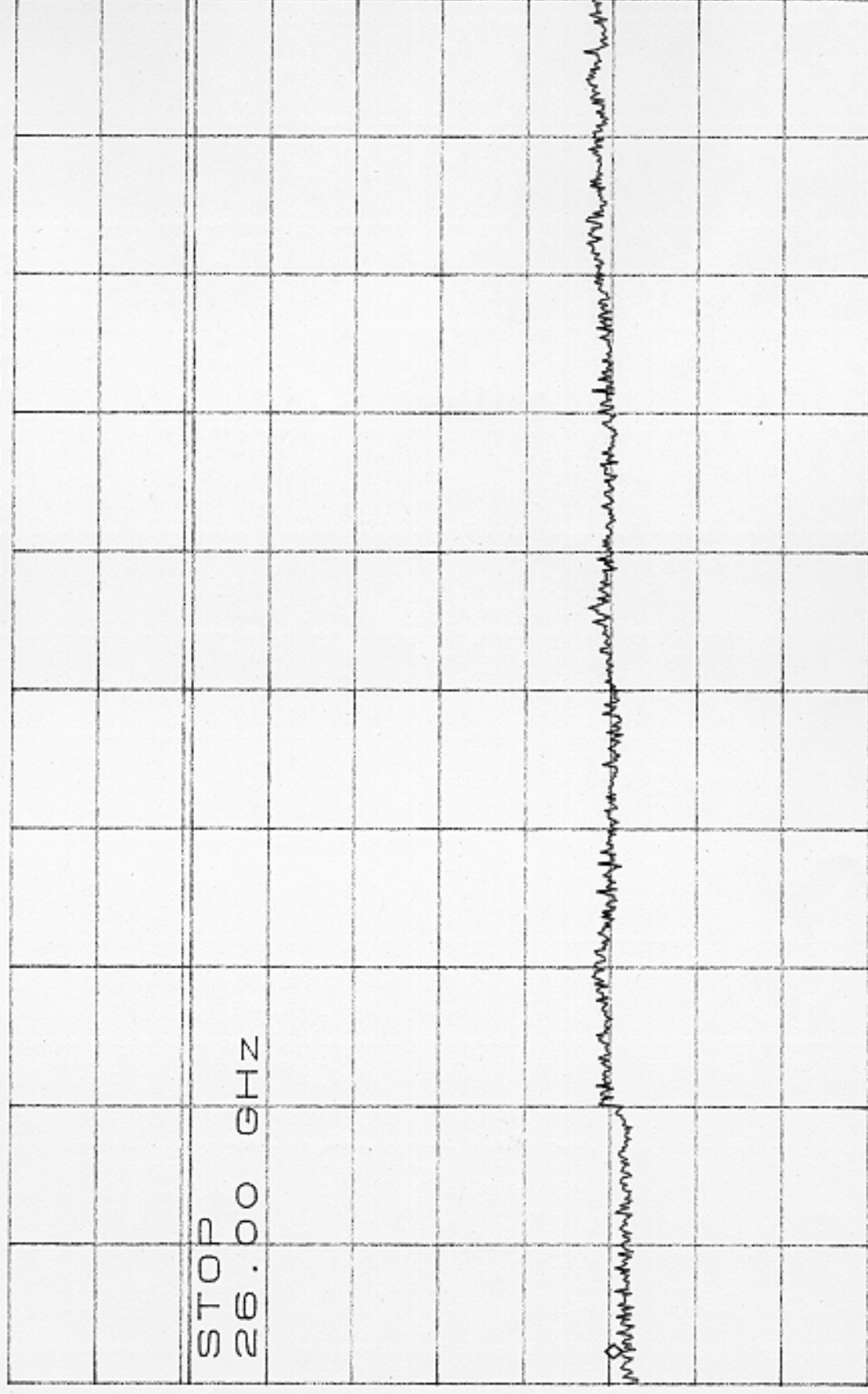
SPURIOUS EMISSIONS D35084
High Channel

ATTEN 20dB

MKR -65.00dBm

RL 6.5dBm

10dB/ 10.37GHz



START 10.00GHz

STOP 26.00GHz

*RBW 100kHz

*VBW 100kHz

SWP 4.0sec