

**Conducted Emission Limits Test for ADC Inc.
Digivance Long Range Coverage System
Model Number DGVL-202120SYS.**

The out of band emissions were measured directly from the EUT antenna output with a spectrum analyzer from 30 MHz to the 10th harmonic of the highest carrier frequency. Test signals used: CW, FM (1 kHz @ 8 kHz deviation), TDMA, and CDMA. The different signals were input one at a time to the EUT. In all cases, the out of band emissions were less than -13dBm from the equation
$$(19\text{dBm} - [43 + 10\log(0.08\text{W})])$$

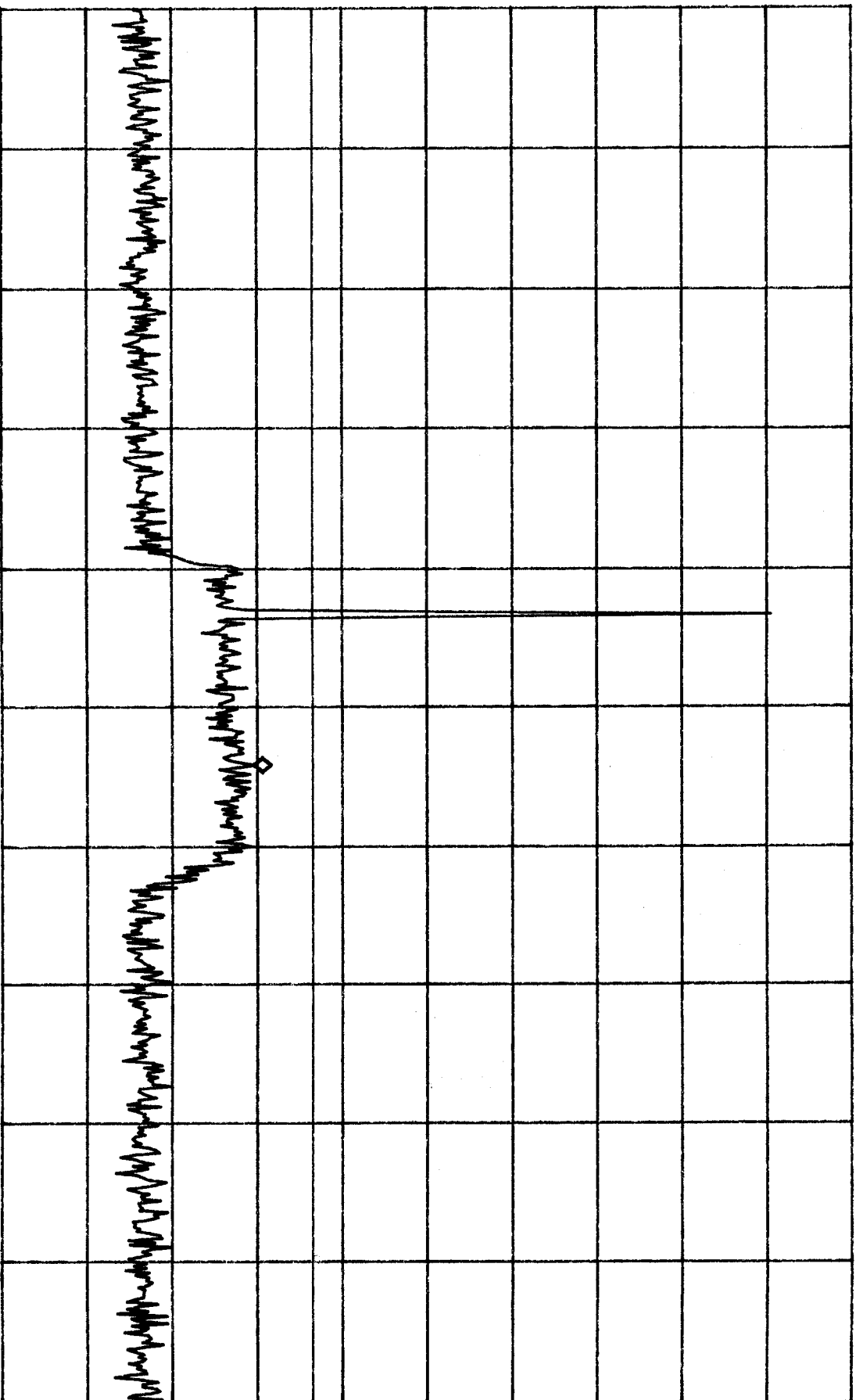
Band edge compliance is also demonstrated using a FM signal at the upper and lower limits of the band and a resolution bandwidth of 300 Hz.

Results:

Pass (see plots)

Conducted Emissions
Low Band SMr

*ATTEN 20dB
RL 50.5dBm 10dB/ MKR -19.83dBm
862.2MHz



□ □ □
R

CENTER 858.0MHz SPAN 100.0MHz
*RBW 30kHz VBW 30kHz SWP 280ms

Conducted Emissions
Low Band SMC

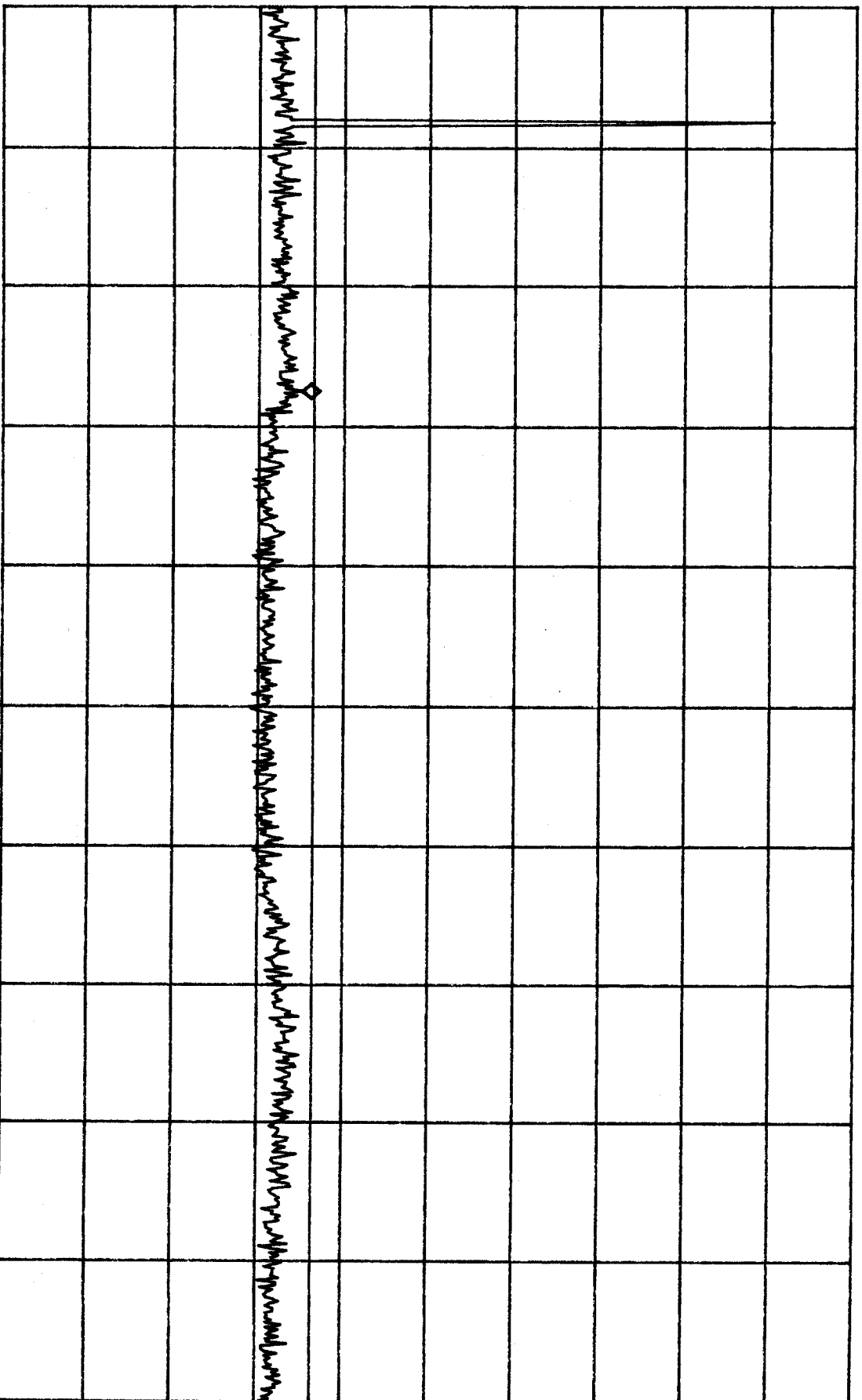
*ATTEN 20dB

MKR -14.33dBm

RL 50.5dBm

10dB/

2.772GHz



START 30MHz

STOP 10.000GHz

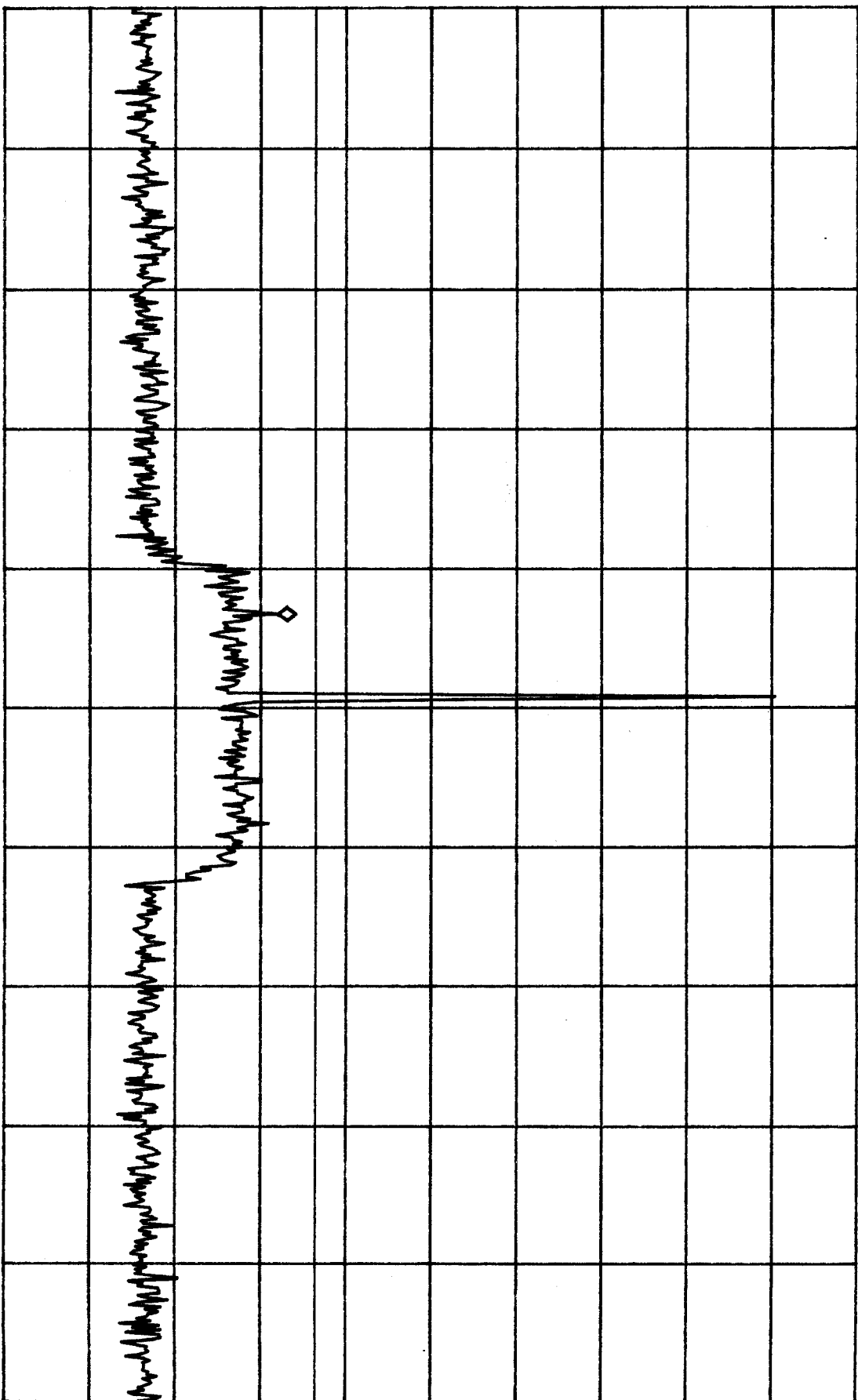
*RBW 1.0MHz

VBW 1.0MHz

SWP 200ms

Conducted Emissions Band SMr
Mid

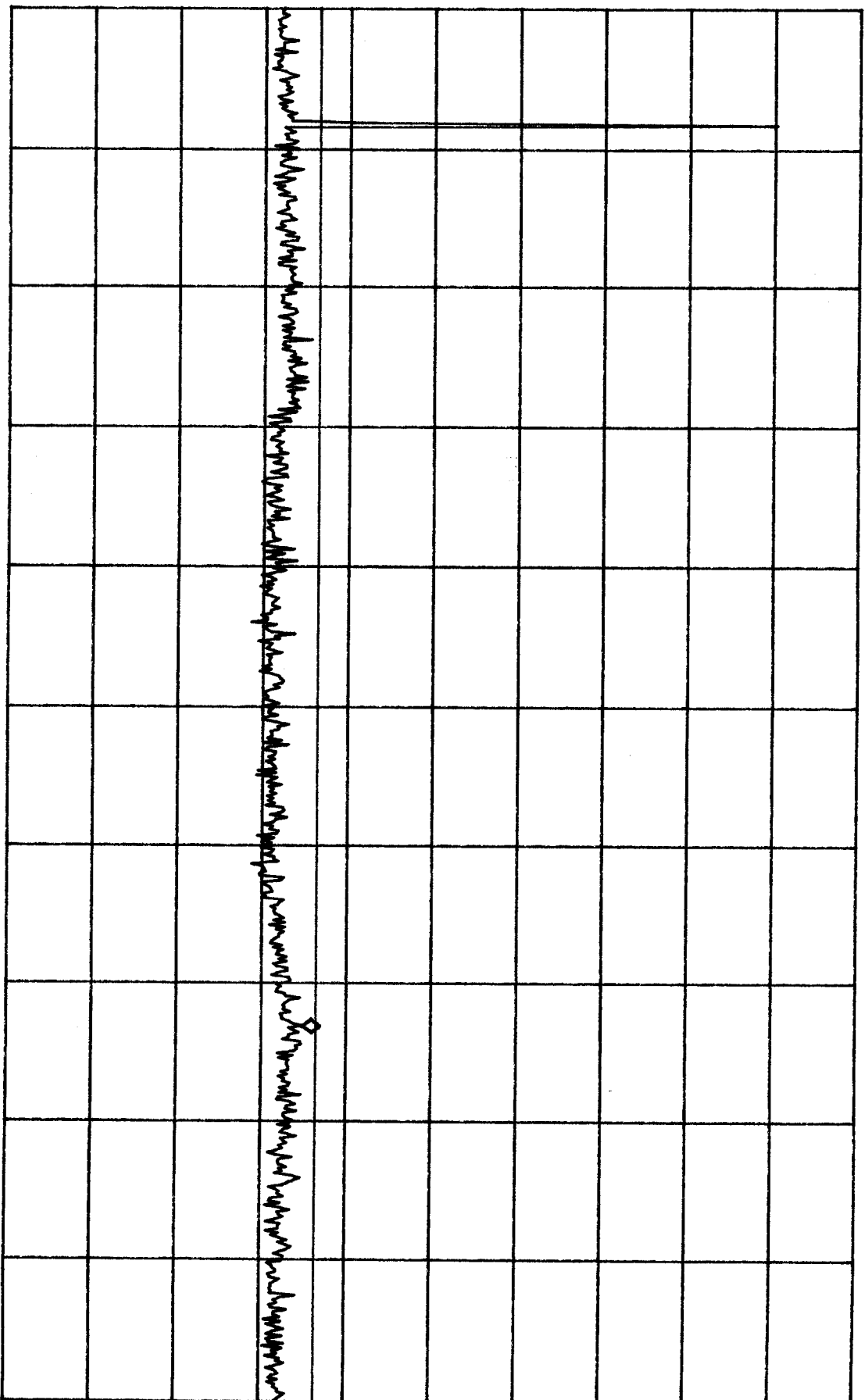
*ATTEN 20dB RL 50.5dBm 10dB/ MKR -17.33dBm
851.3MHz



CENTER 858.0MHz SPAN 100.0MHz
*RBW 30kHz VBW 30kHz SWP 280ms

Conducted Emissions Band 5Mc
Mid

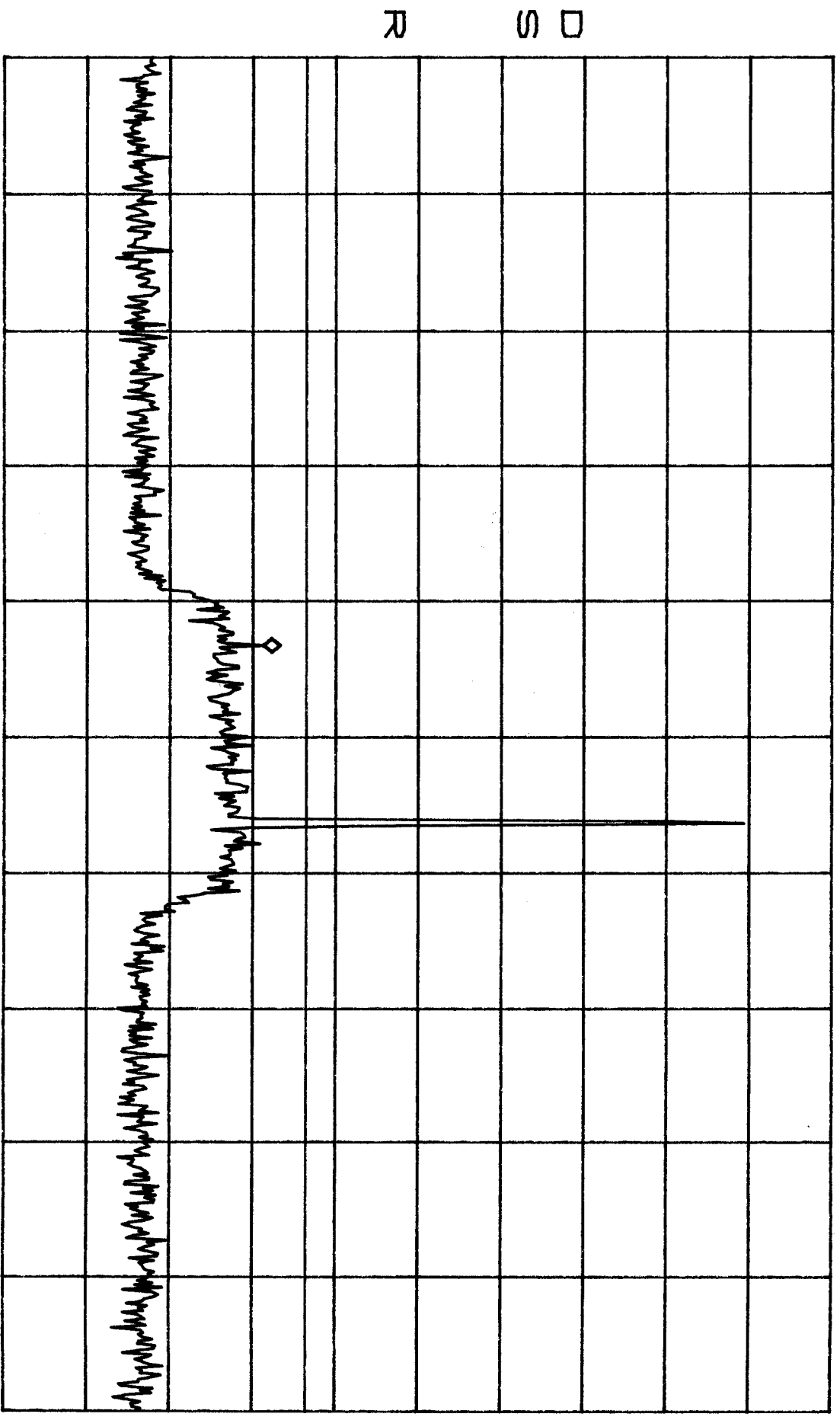
*ATTEN 20dB
RL 50.5dBm 10dB/ MKR -14.50dBm
7.325GHz



START 30MHz STOP 10.000GHz
*RBW 1.0MHz VBW 1.0MHz SWP 200ms

Conducted Emissions Band 5mE
High

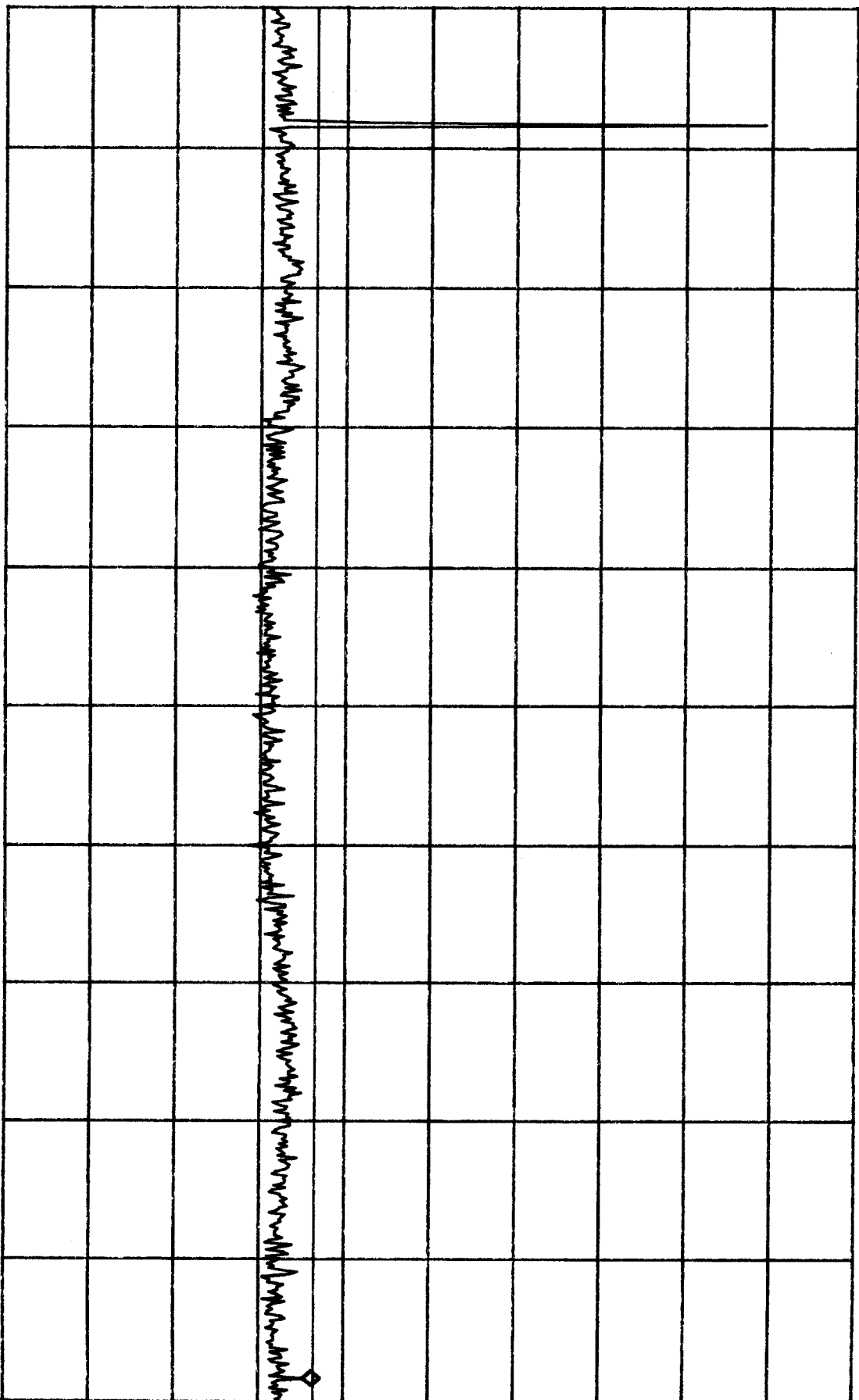
*ATTEN 20dB
RL 50.5dBm
10dB/
MKR -18.17dBm
851.3MHz



CENTER 858.0MHz
SPAN 100.0MHz
*RBW 30kHz
VBW 30kHz
SWP 280ms

Conducted Emissions Band 5mK
High

*ATTEN 20dB
RL 50.5dBm
10dB/
MKR -14.17dBm
9.834GHz

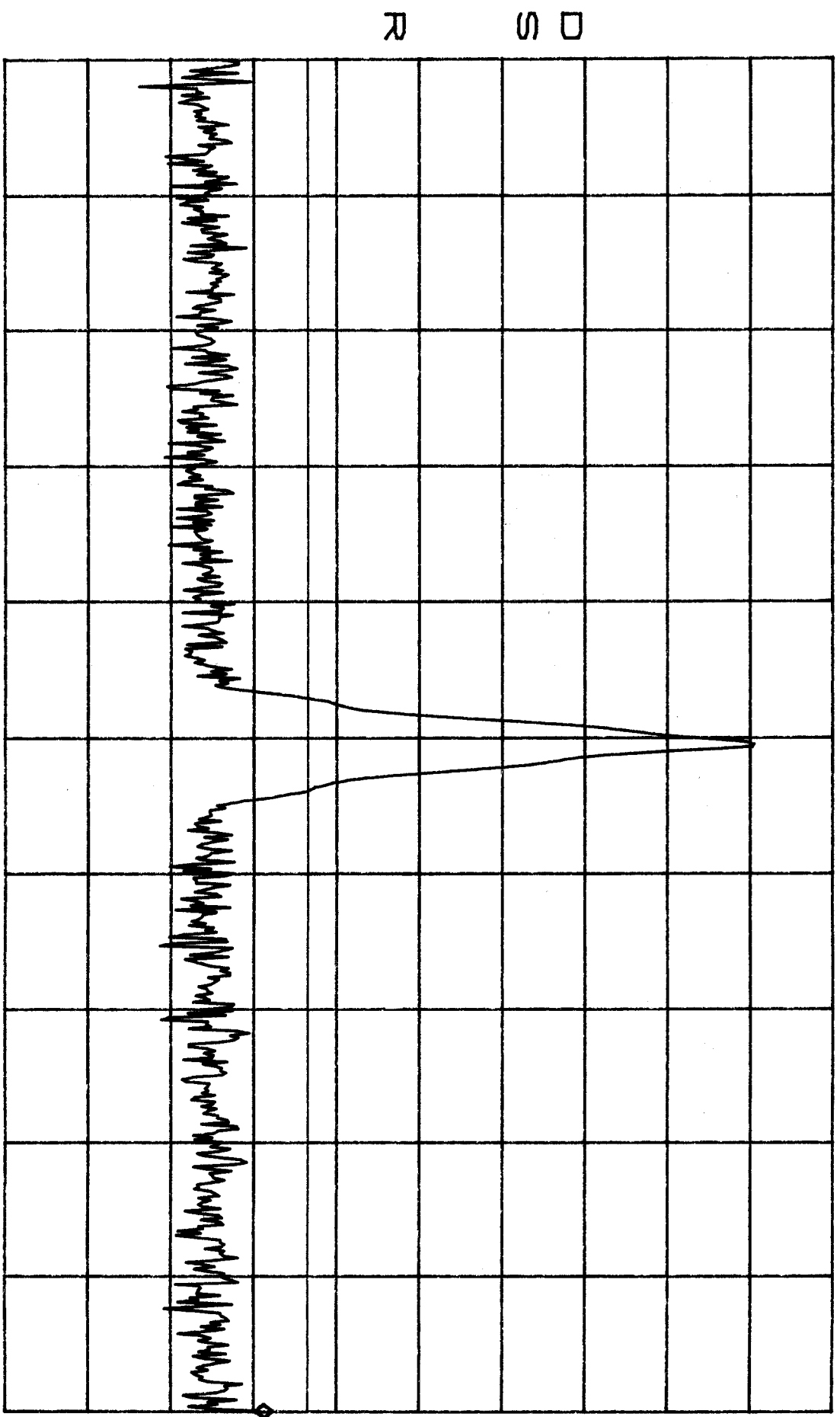


0 5 R

START 30MHz
STOP 10.000GHz
*RBW 1.0MHz
VBW 1.0MHz
SWP 200ms

Conducted Emissions Band 5Mk
FM

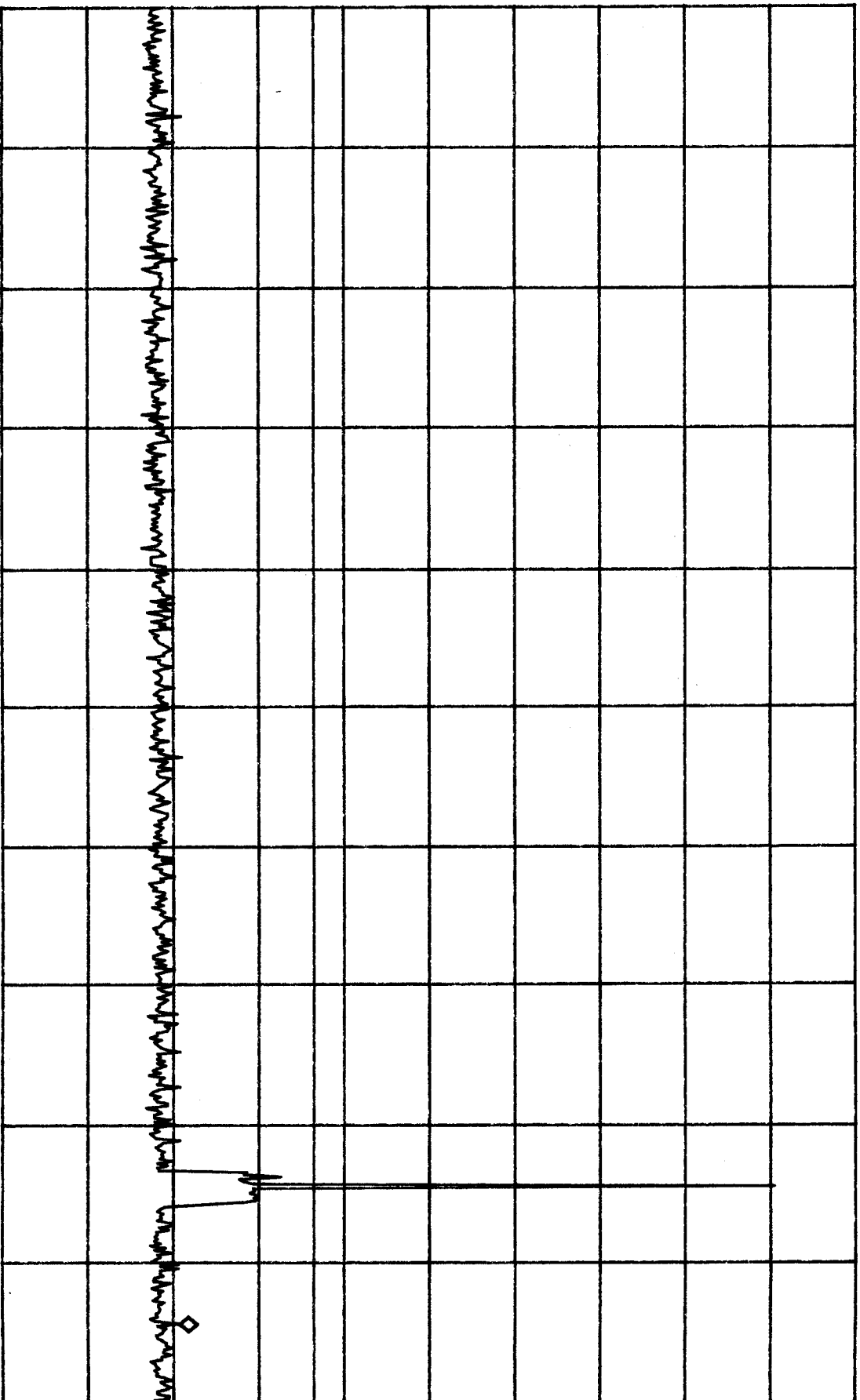
*ATTEN 20dB
RL 50.5dBm
10dB/
MKR -19.17dBm
860.500MHz



CENTER 858.000MHz
SPAN 5.000MHz
*RBW 30kHz
VBW 30kHz
SWP 50ms

Conducted Emissions Band 5Mc
FM

*ATTEN 20dB RL 50.5dBm 10dB/ MKR -28.67dBm
945.0MHz

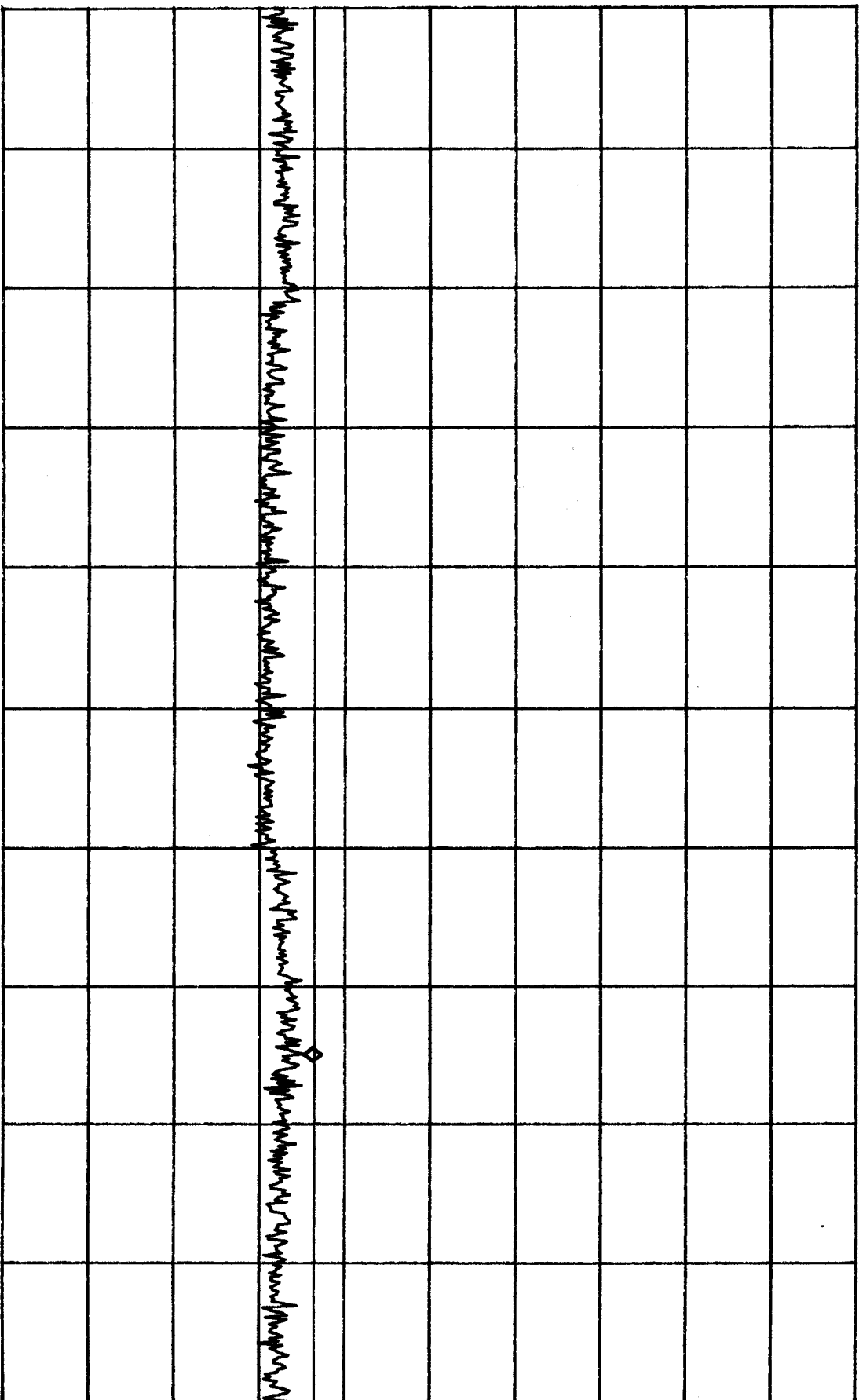


DS
R

START 30.0MHz STOP 1.0000GHz
*RBW 30kHz VBW 30kHz SWP 2.7sec

Conducted Emissions Band Swe FM

*ATTEN 20dB RL 50.5dBm 10dB/ MKR -14.17dBm 7.750GHz

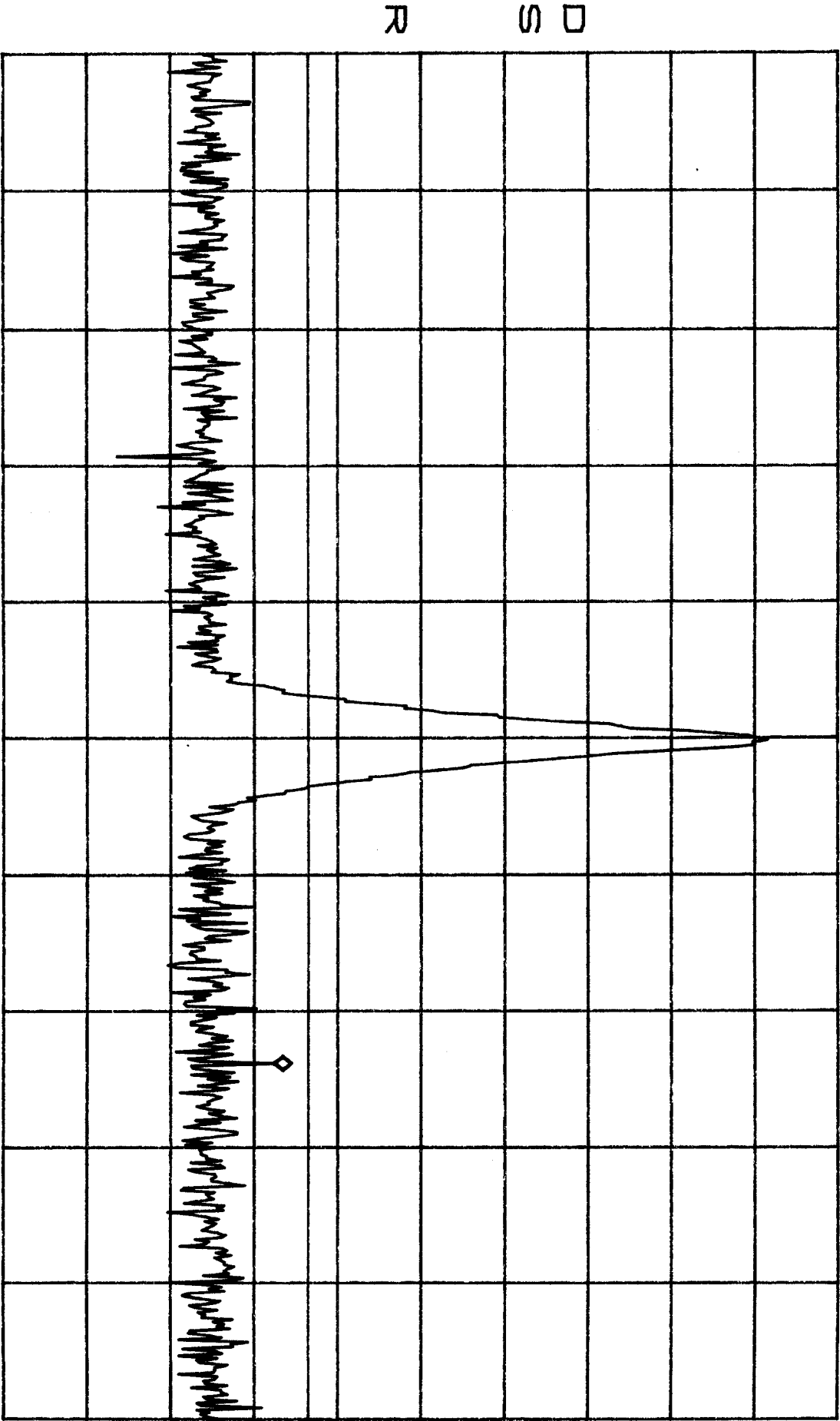


DS R

START 1.000GHz STOP 10.000GHz
 *RBW 1.0MHz VBW 1.0MHz SWP 180ms

Conducted Emissions Band Sme
TDMR

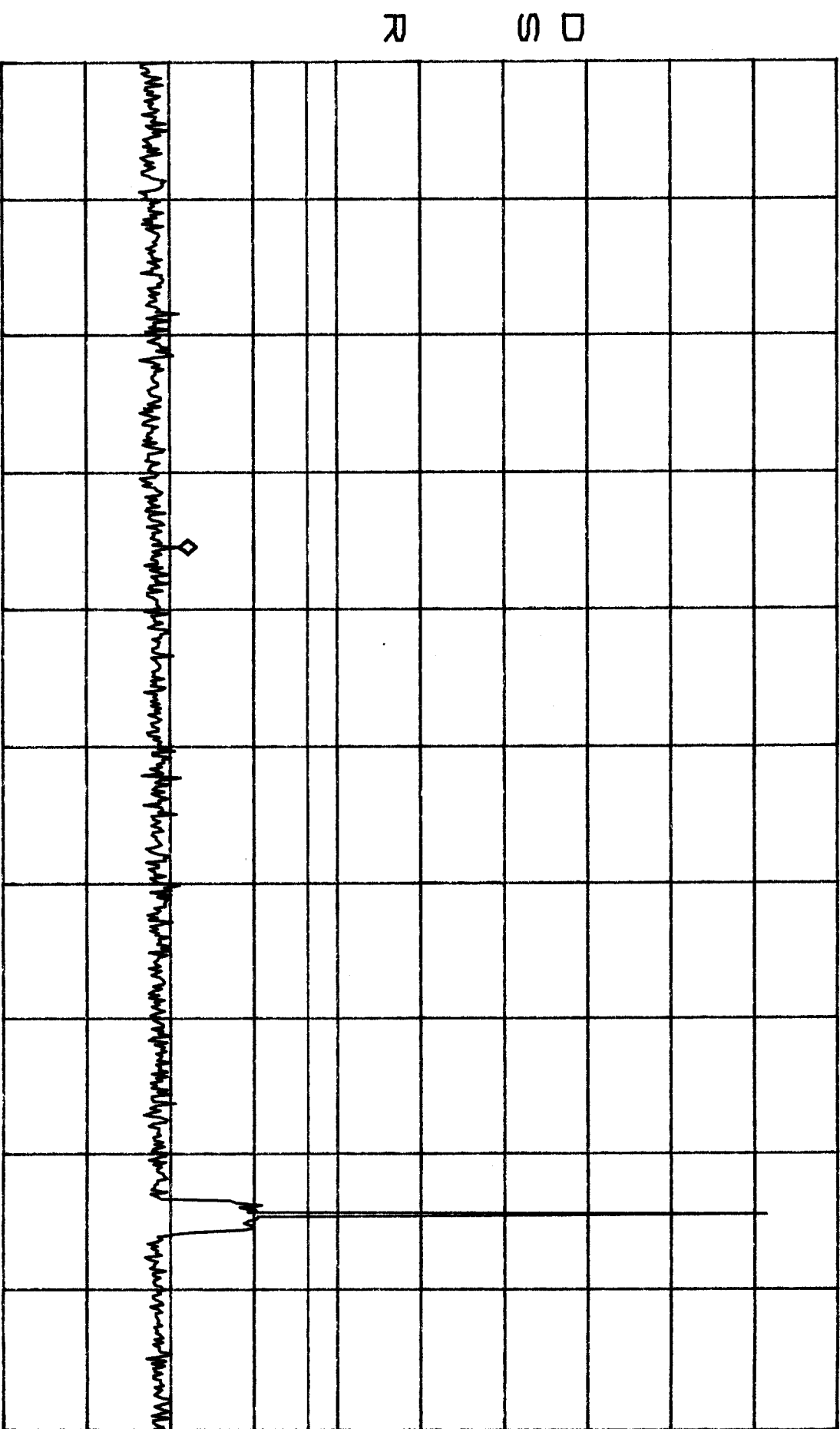
*ATTEN 20dB
RL 50.5dBm
10dB/
MKR -17.00dBm
859.192MHz



CENTER 858.000MHz
SPAN 5.000MHz
*RBW 30kHz
VBW 30kHz
SWP 50ms

Conducted Emissions Band Swe
TDMA

*ATTEN 20dB MKR -28.33dBm
RL 50.5dBm 10dB/ 374.4MHz

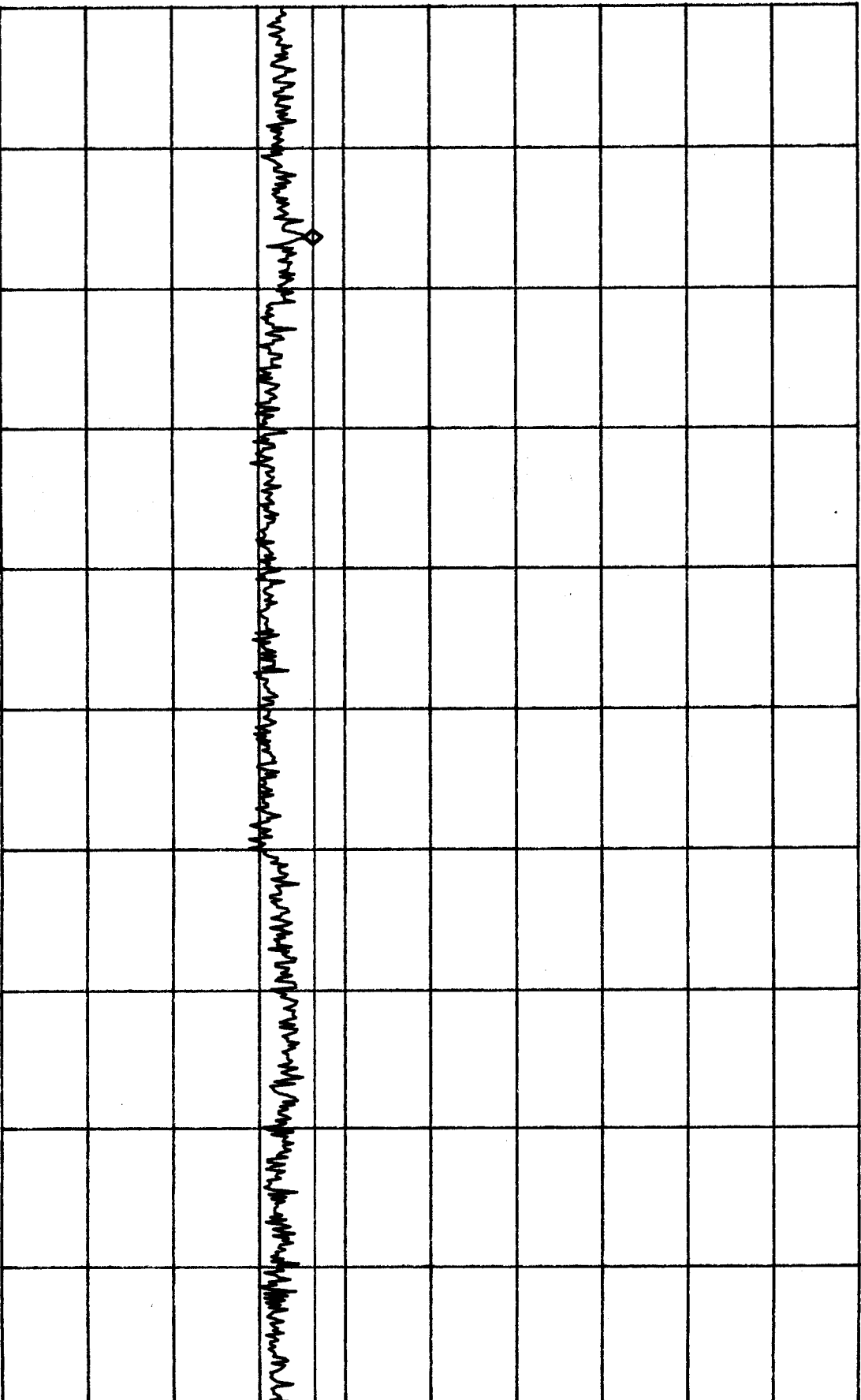


DS
R

START 30.0MHz STOP 1.0000GHz
*RBW 30kHz VBW 30kHz SWP 2.7sec

Conducted Emissions Band Sme
TDMR

*ATTEN 20dB
RL 50.5dBm
10dB/
MKR -14.00dBm
2.470GHz



DS
R

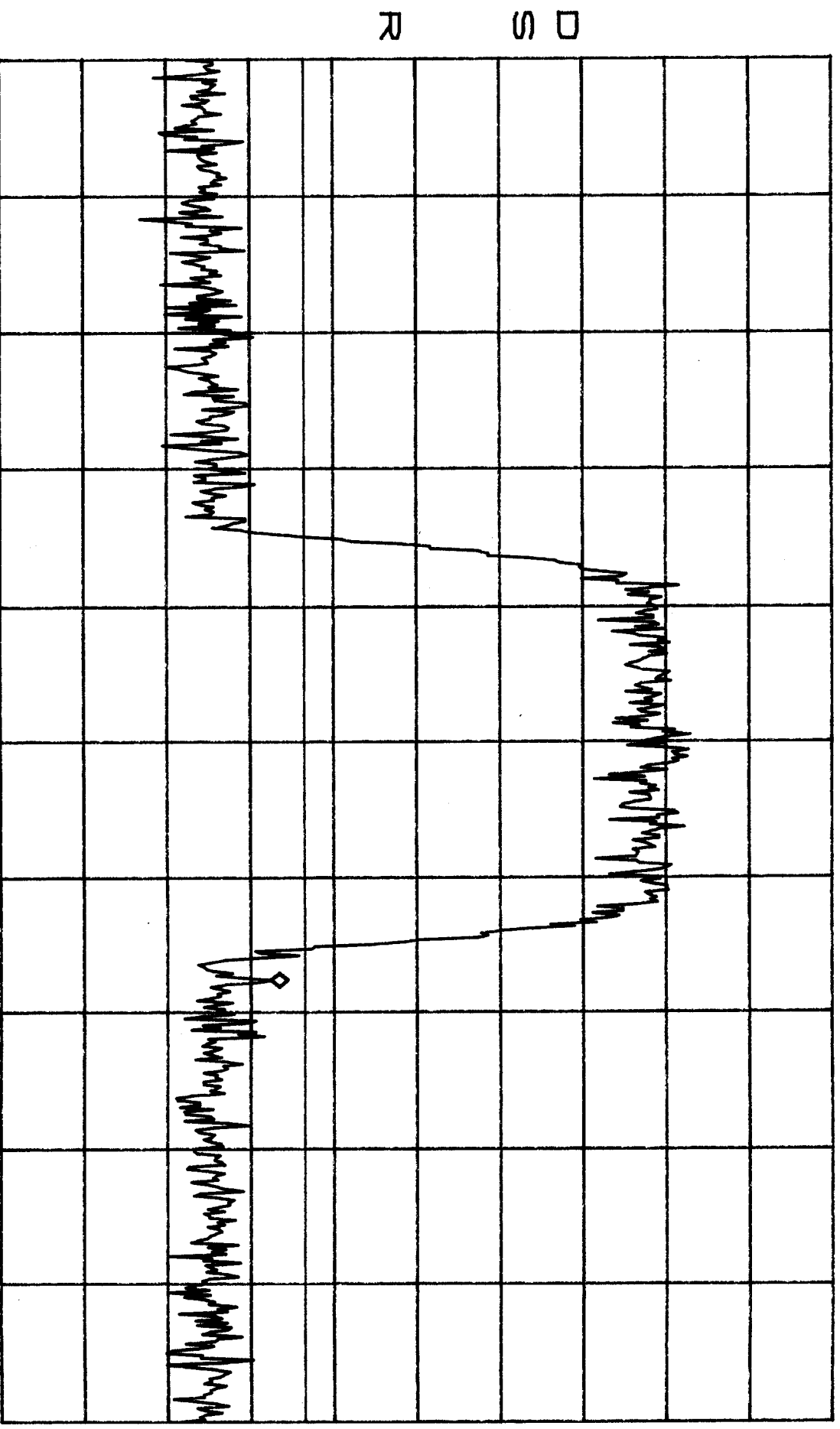
START 1.000GHz STOP 10.000GHz
*RBW 1.0MHz VBW 1.0MHz SWP 180ms

Conducted Emissions Band Swe
CDMA

*ATTEN 20dB
RL 50.5dBm

10dB/

MKR -17.00dBm
858.883MHz



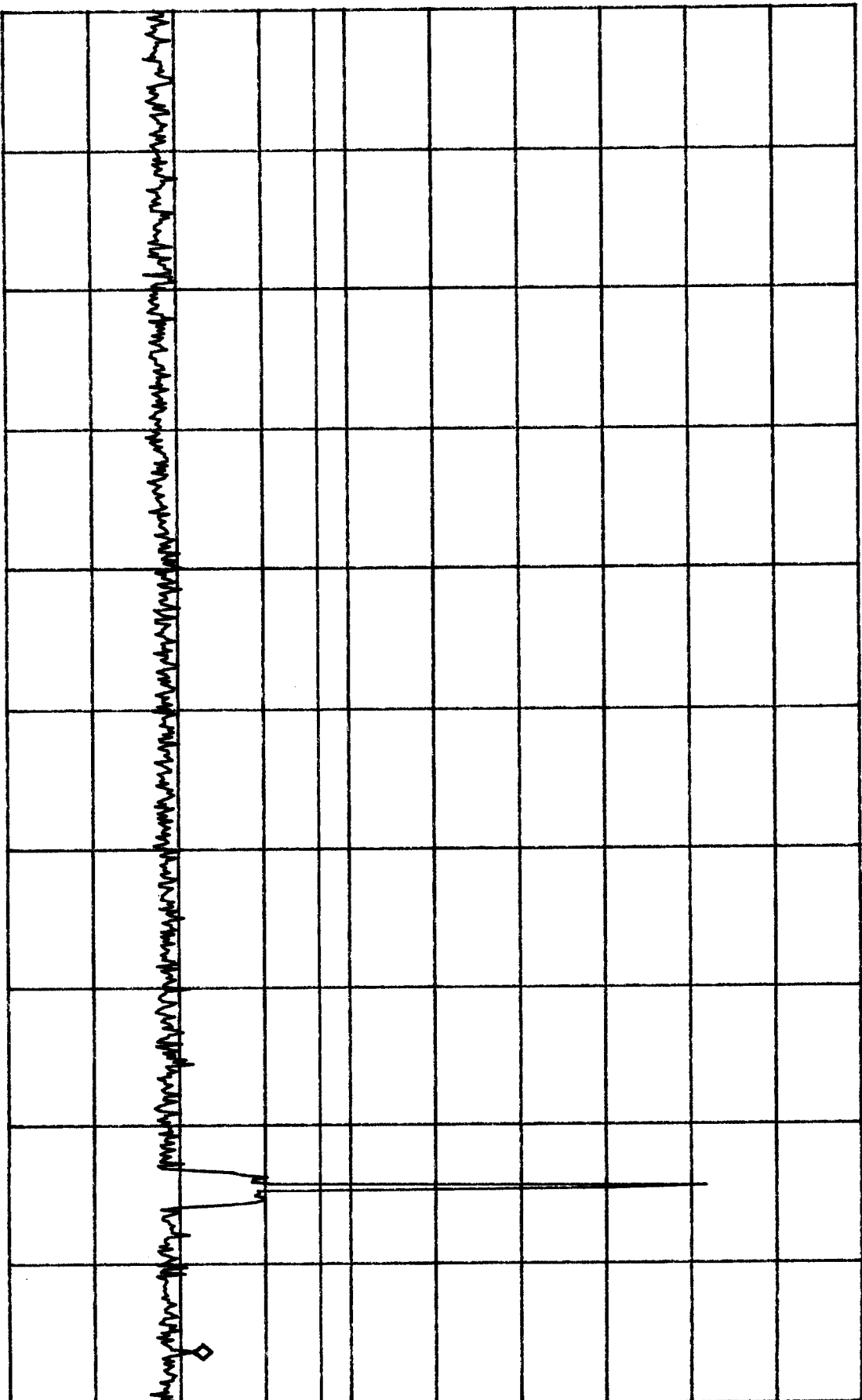
DS
R

CENTER 858.000MHz
*RBW 30kHz VBW 30kHz

SPAN 5.000MHz
SWP 50ms

Conducted Emissions Band Swe
CDMA

*ATTEN 20dB RL 50.5dBm 10dB/ MKR -27.83dBm 964.4MHz

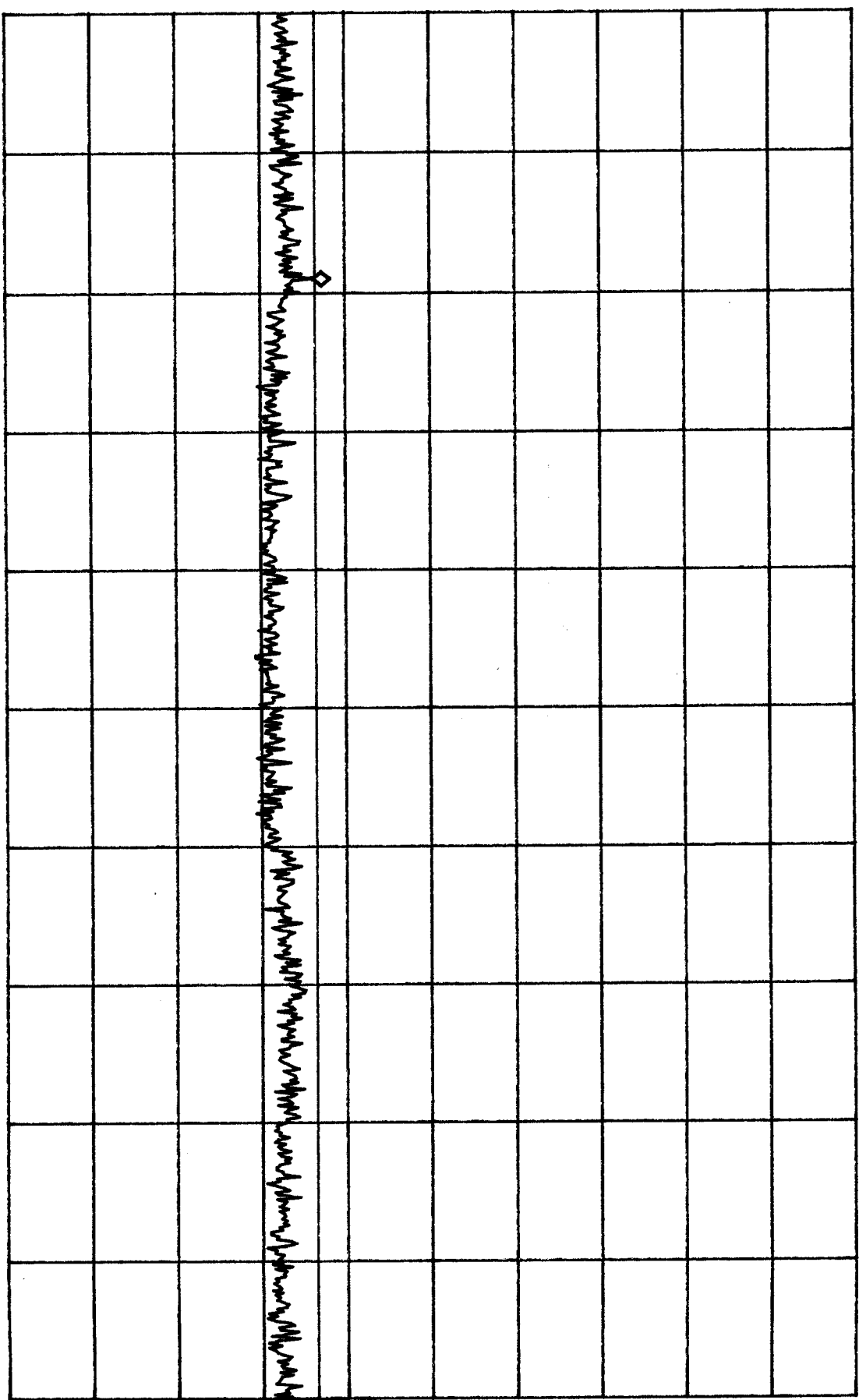


Q S R

START 30.0MHz STOP 1.0000GHz
*RBW 30kHz VBW 30kHz SWP 2.7sec

Conducted Emissions Band 5m
CDMA

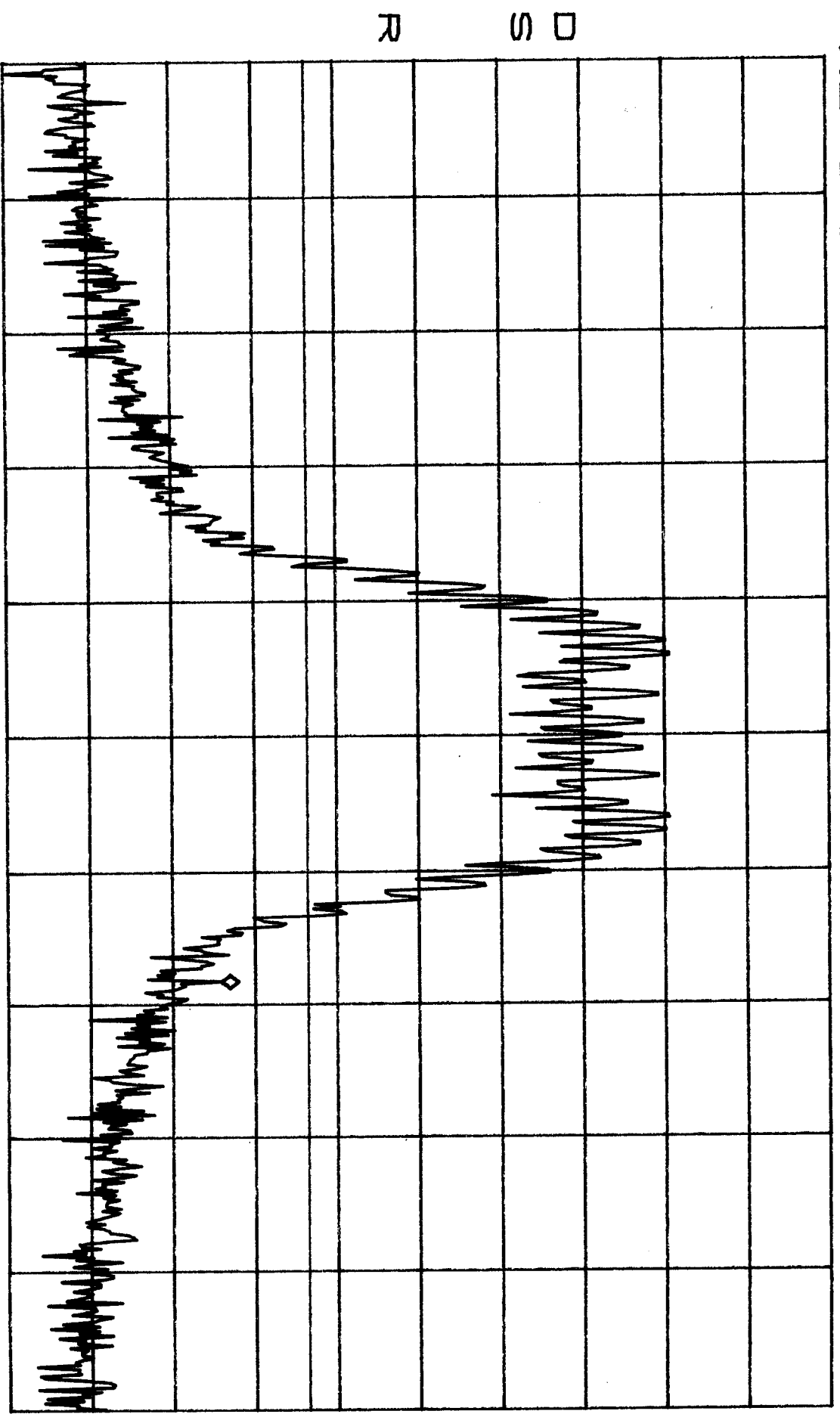
*ATTEN 20dB MKR -13.17dBm
RL 50.5dBm 10dB/ 2.710GHz



START 1.000GHz STOP 10.000GHz
*RBW 1.0MHz VBW 1.0MHz SWP 180ms

Conducted Emissions
Band Edge
FM

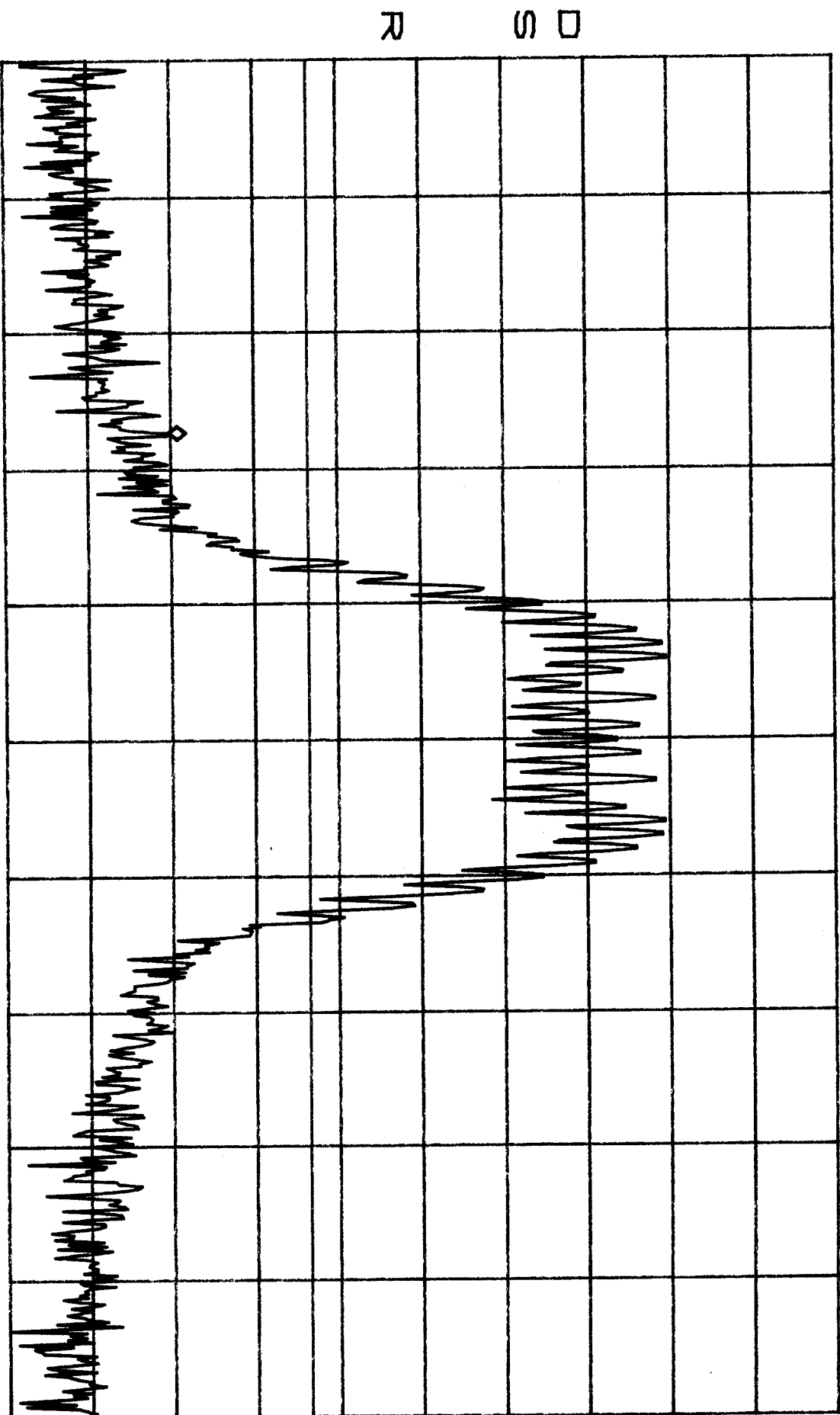
*ATTEN 20dB
RL 50.5dBm
10dB/
MKR -23.50dBm
851.2183MHz



CENTER 851.2000MHz
SPAN 100.0KHz
*RBW 300Hz
VBW 300Hz
SWP 2.8sec

Conducted Emissions
Band Edge
FM
Band 5MR

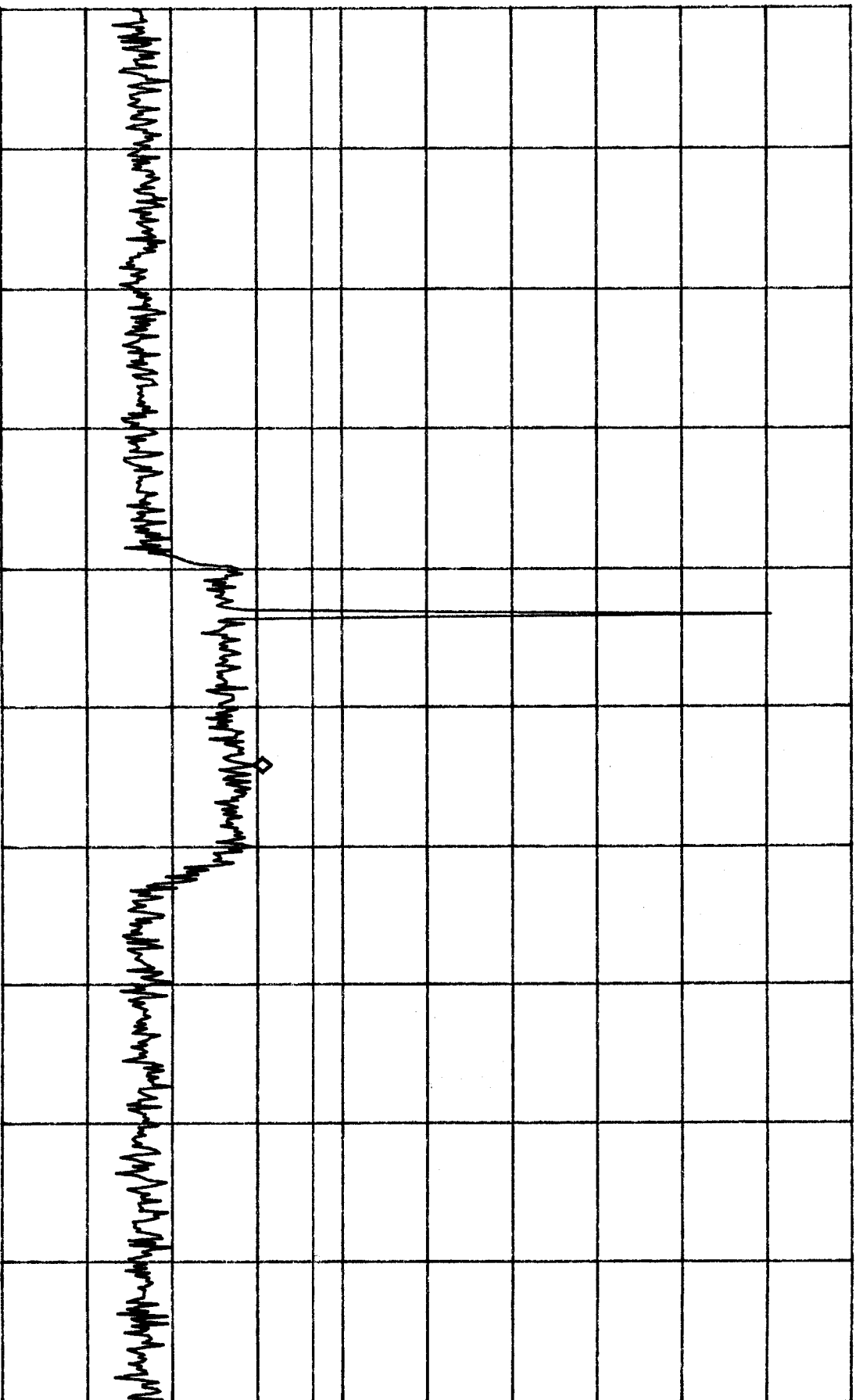
*ATTEN 20DB
RL 50.5DBm
10DB/
MKR -29.67DBm
865.7773MHZ



CENTER 865.800MHZ
SPAN 100.0KHz
*RBW 300HZ
VBW 300HZ
SWP 2.8sec

Conducted Emissions
Low Band SMr

*ATTEN 20dB
RL 50.5dBm 10dB/ MKR -19.83dBm
862.2MHz



□ □ □
R

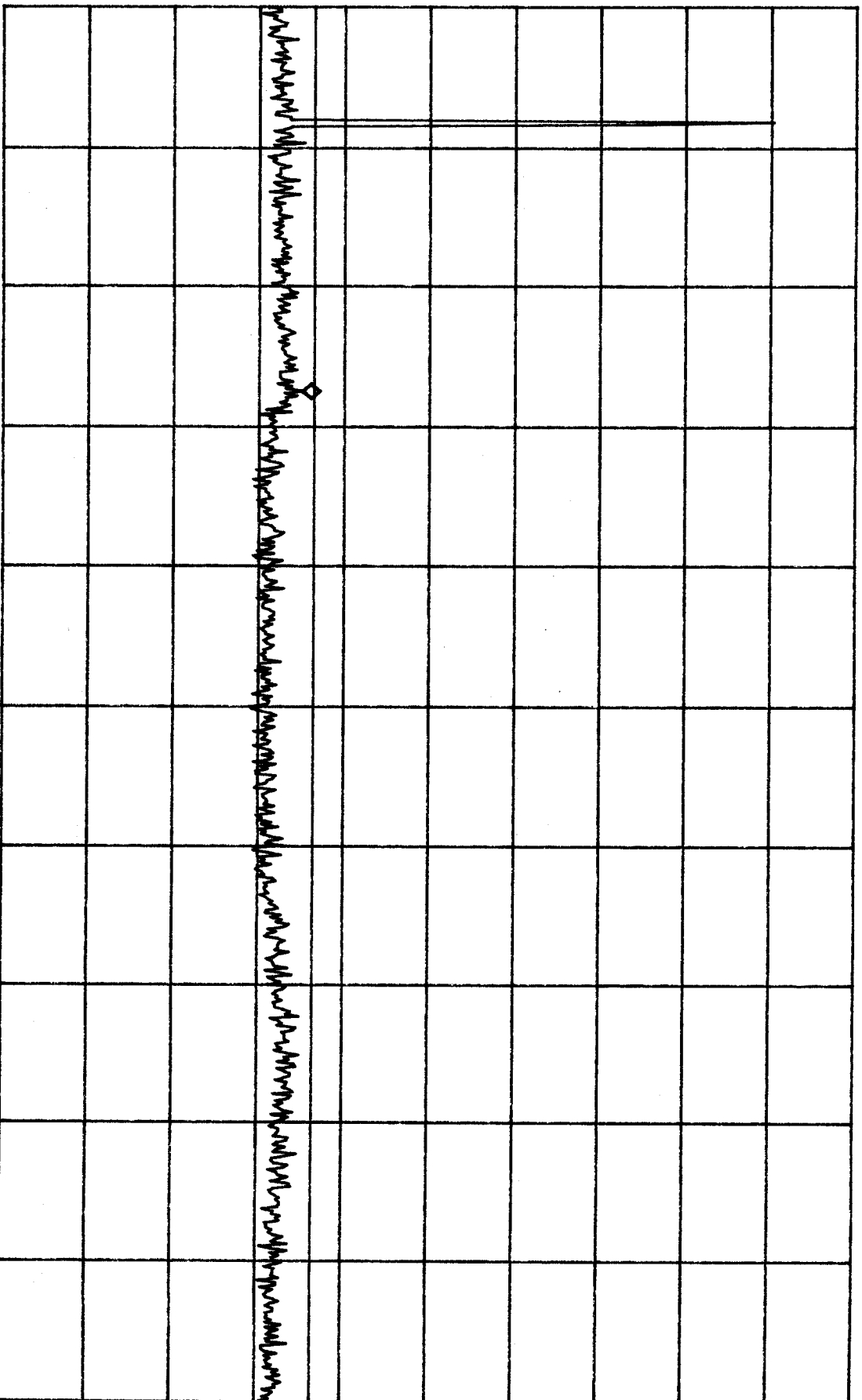
CENTER 858.0MHz SPAN 100.0MHz
*RBW 30kHz VBW 30kHz SWP 280ms

Conducted Emissions Band SMC
Low

*ATTEN 20dB
RL 50.5dBm

10dB/

MKR -14.33dBm
2.772GHz



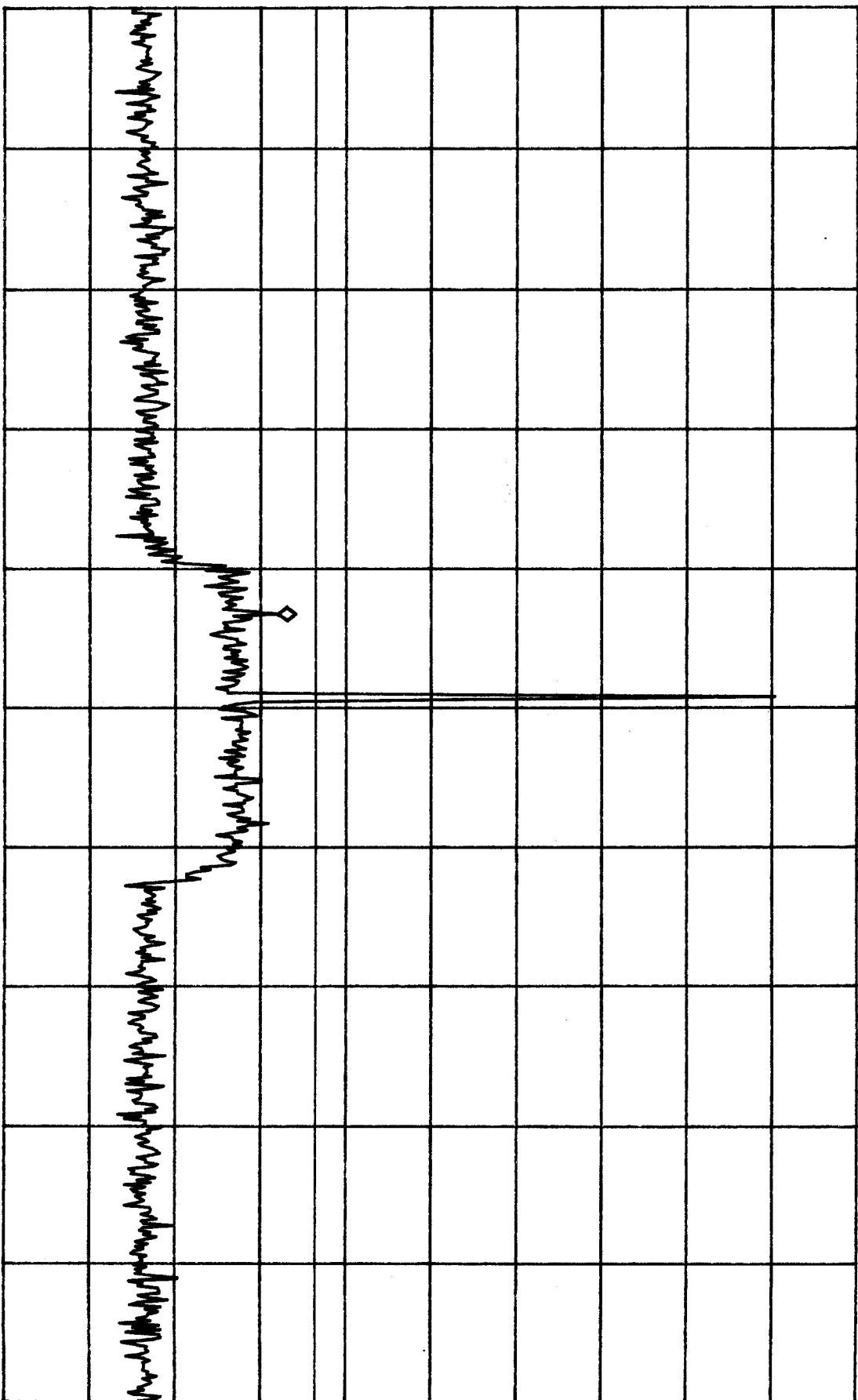
START 30MHz
*RBW 1.0MHz

VBW 1.0MHz

STOP 10.000GHz
SWP 200ms

Conducted Emissions Band SMr
Mid

*ATTEN 20dB RL 50.5dBm 10dB/ MKR -17.33dBm
851.3MHz

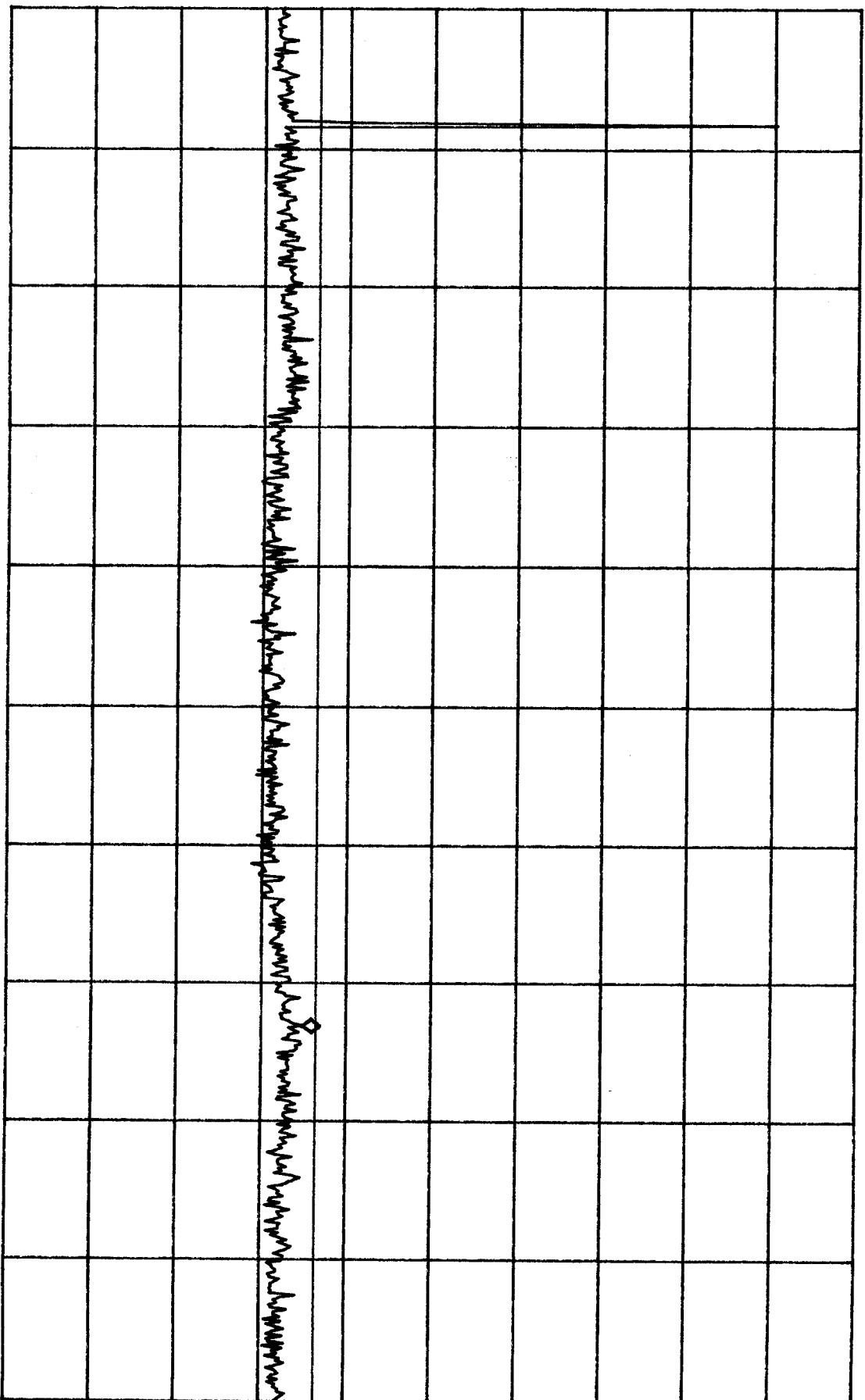


DSR

CENTER 858.0MHz SPAN 100.0MHz
*RBW 30kHz VBW 30kHz SWP 280ms

Conducted Emissions Band 5mV
Mid

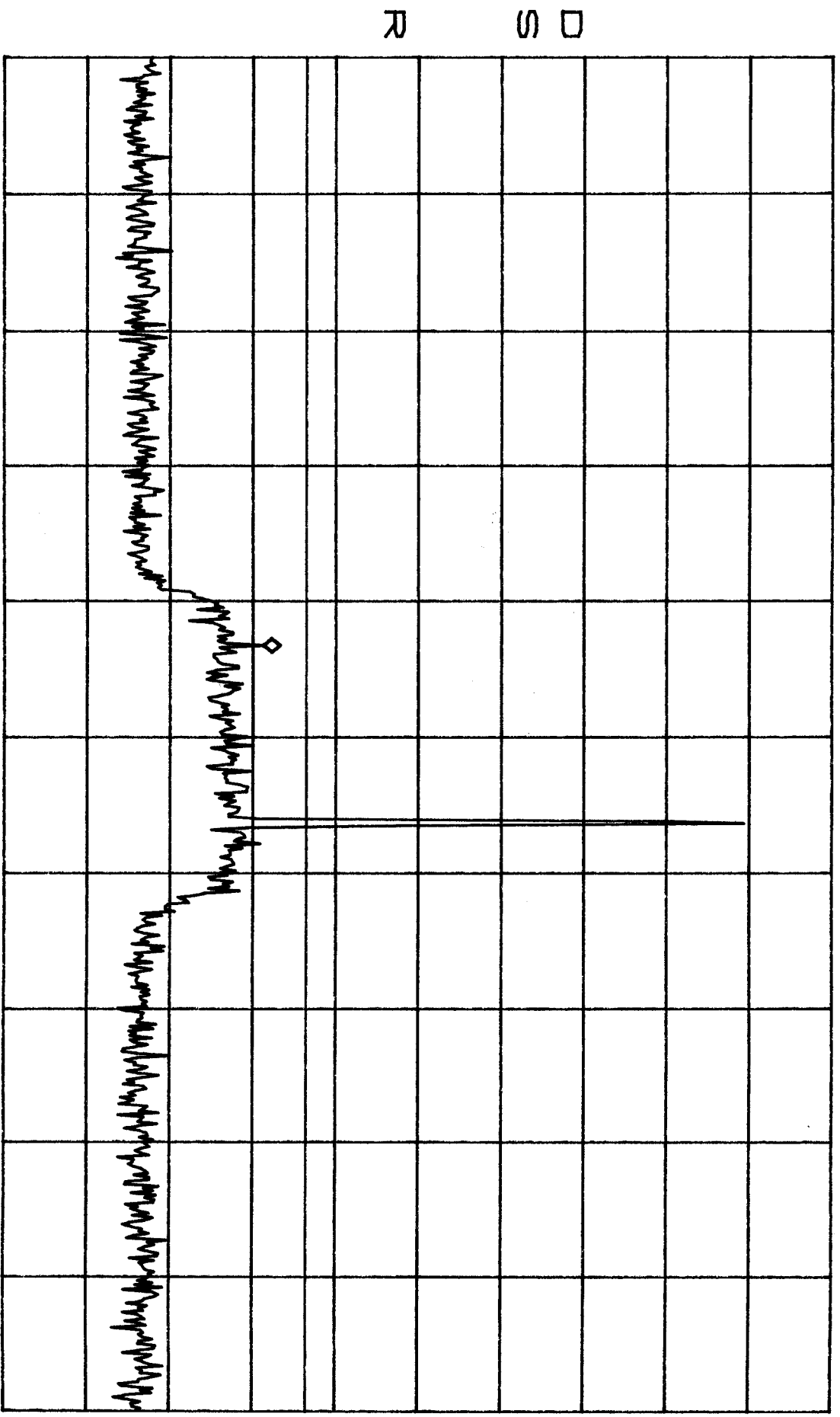
*ATTEN 20dB
RL 50.5dBm 10dB/ MKR -14.50dBm
7.325GHz



START 30MHz STOP 10.000GHz
*RBW 1.0MHz VBW 1.0MHz SWP 200ms

Conducted Emissions Band 5mE
High

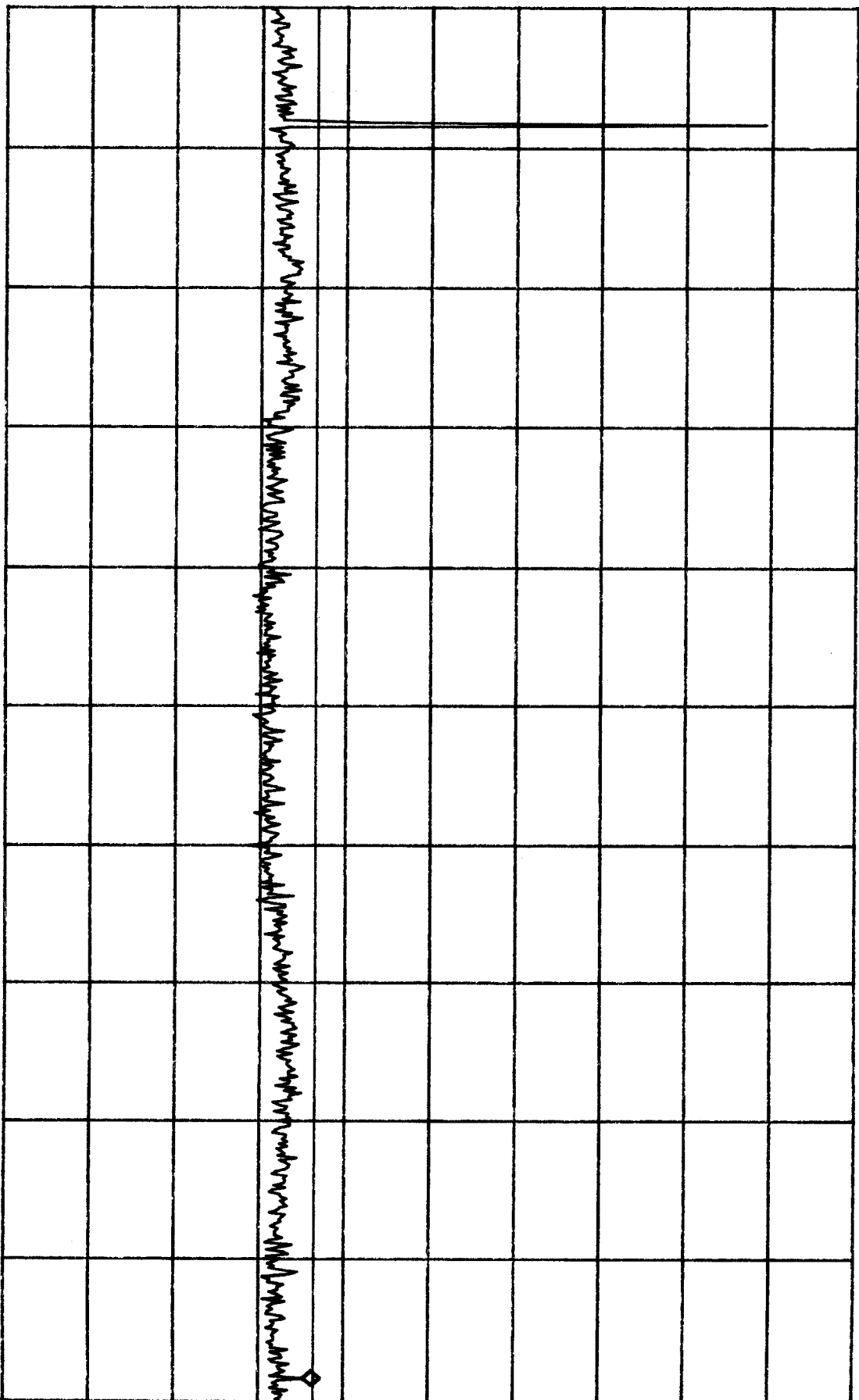
*ATTEN 20dB
RL 50.5dBm
10dB/
MKR -18.17dBm
851.3MHz



CENTER 858.0MHz
SPAN 100.0MHz
*RBW 30kHz
VBW 30kHz
SWP 280ms

Conducted Emissions Band 5mK
High

*ATTEN 20dB
RL 50.5dBm 10dB/ MKR -14.17dBm
9.834GHz

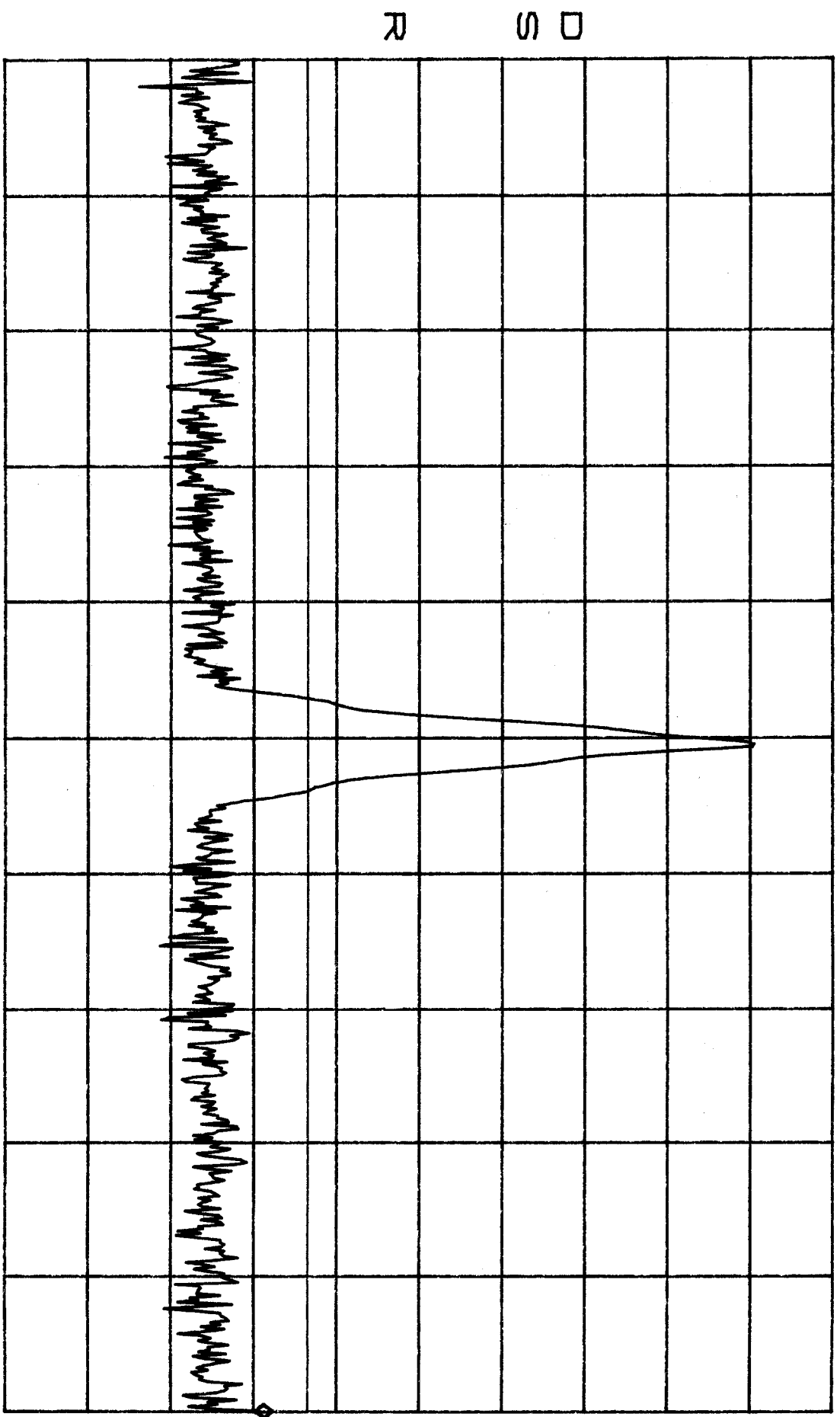


0 5 R

START 30MHz STOP 10.000GHz
*RBW 1.0MHz VBW 1.0MHz SWP 200ms

Conducted Emissions Band 5Mk
FM

*ATTEN 20dB
RL 50.5dBm
10dB/
MKR -19.17dBm
860.500MHz

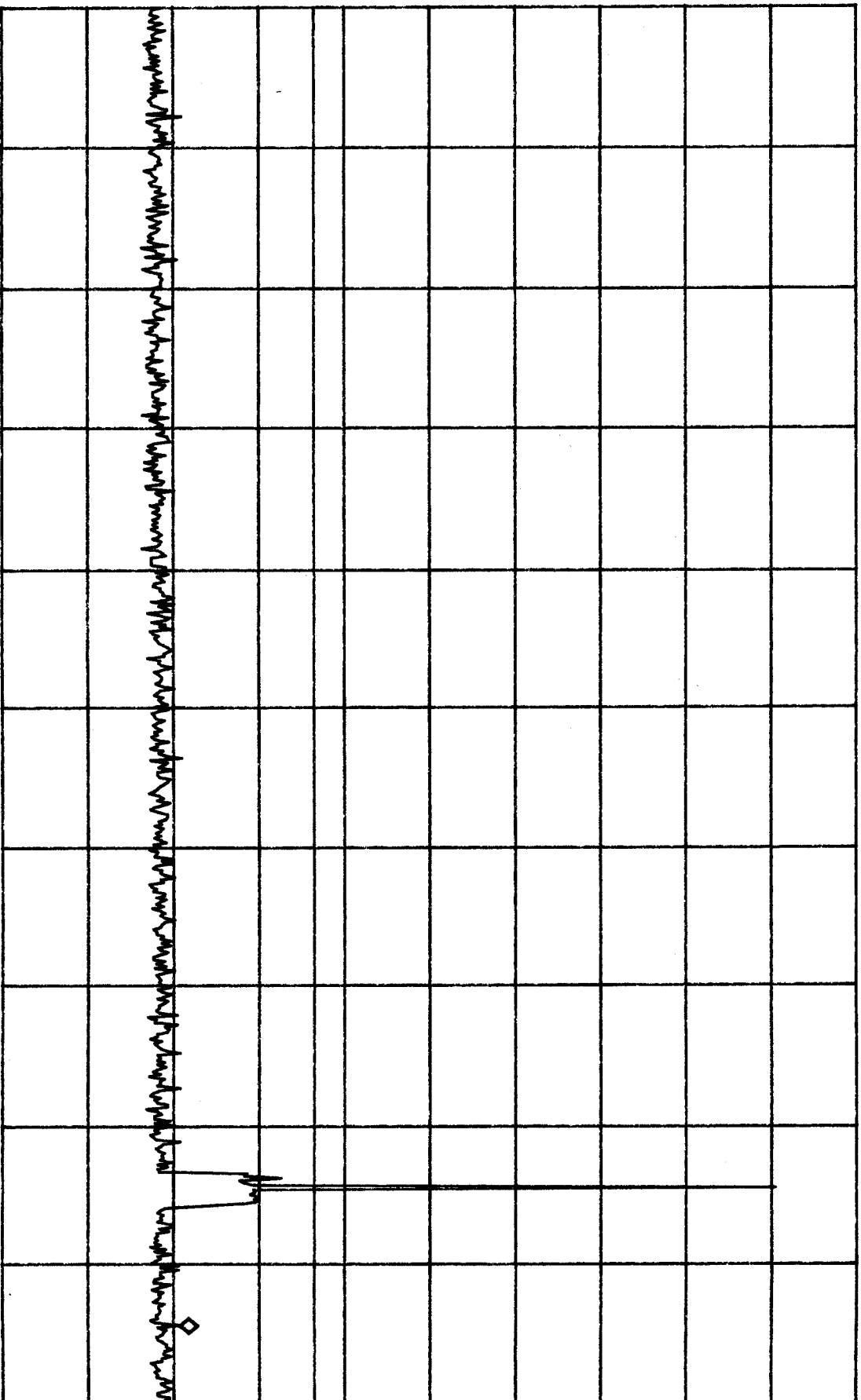


DS
R

CENTER 858.000MHz
SPAN 5.000MHz
*RBW 30kHz
VBW 30kHz
SWP 50ms

Conducted Emissions Band 5Mc
FM

*ATTEN 20dB RL 50.5dBm 10dB/ MKR -28.67dBm
945.0MHz

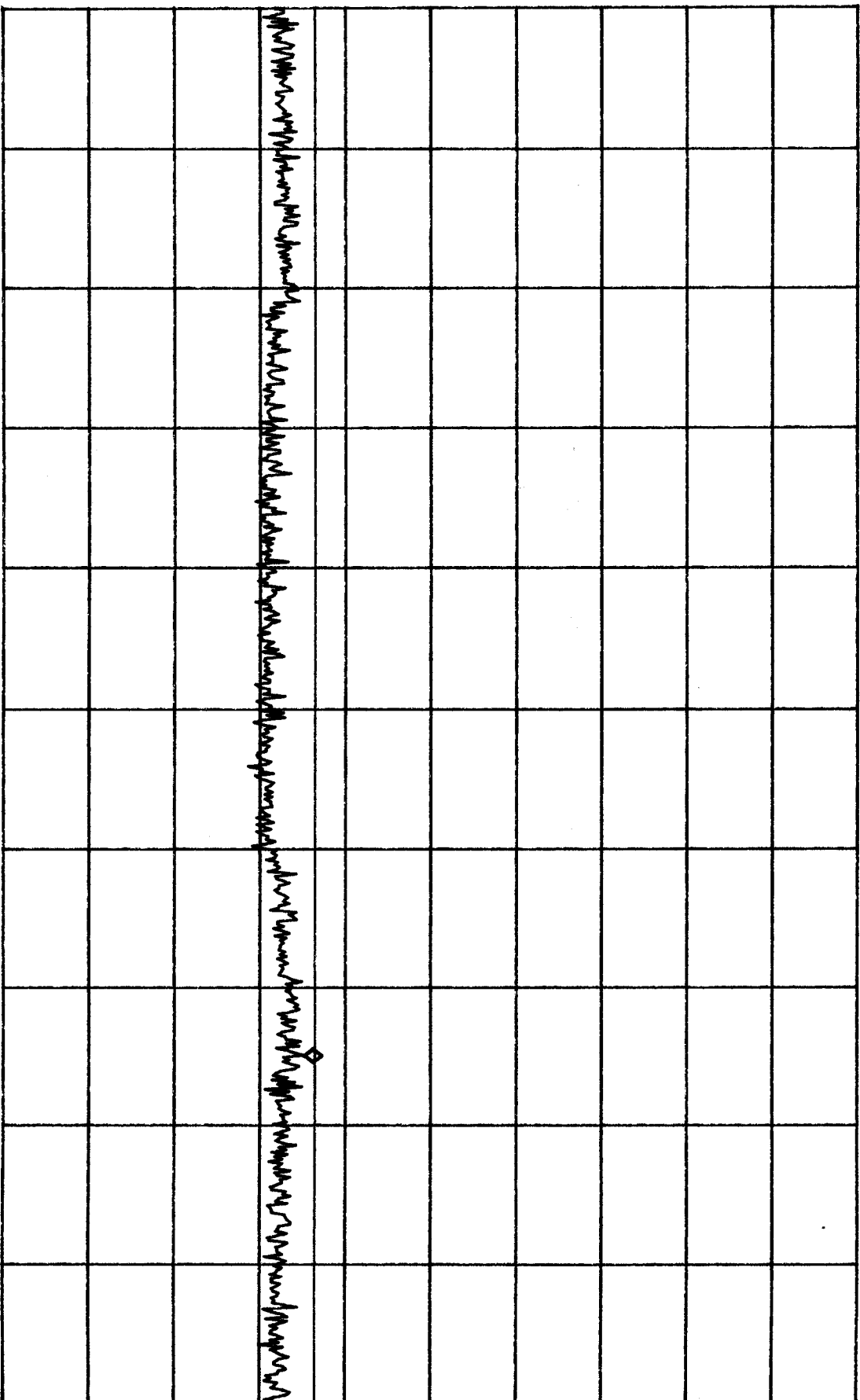


DS
R

START 30.0MHz STOP 1.0000GHz
*RBW 30kHz VBW 30kHz SWP 2.7sec

Conducted Emissions Band Swe FM

*ATTEN 20dB RL 50.5dBm 10dB/ MKR -14.17dBm 7.750GHz

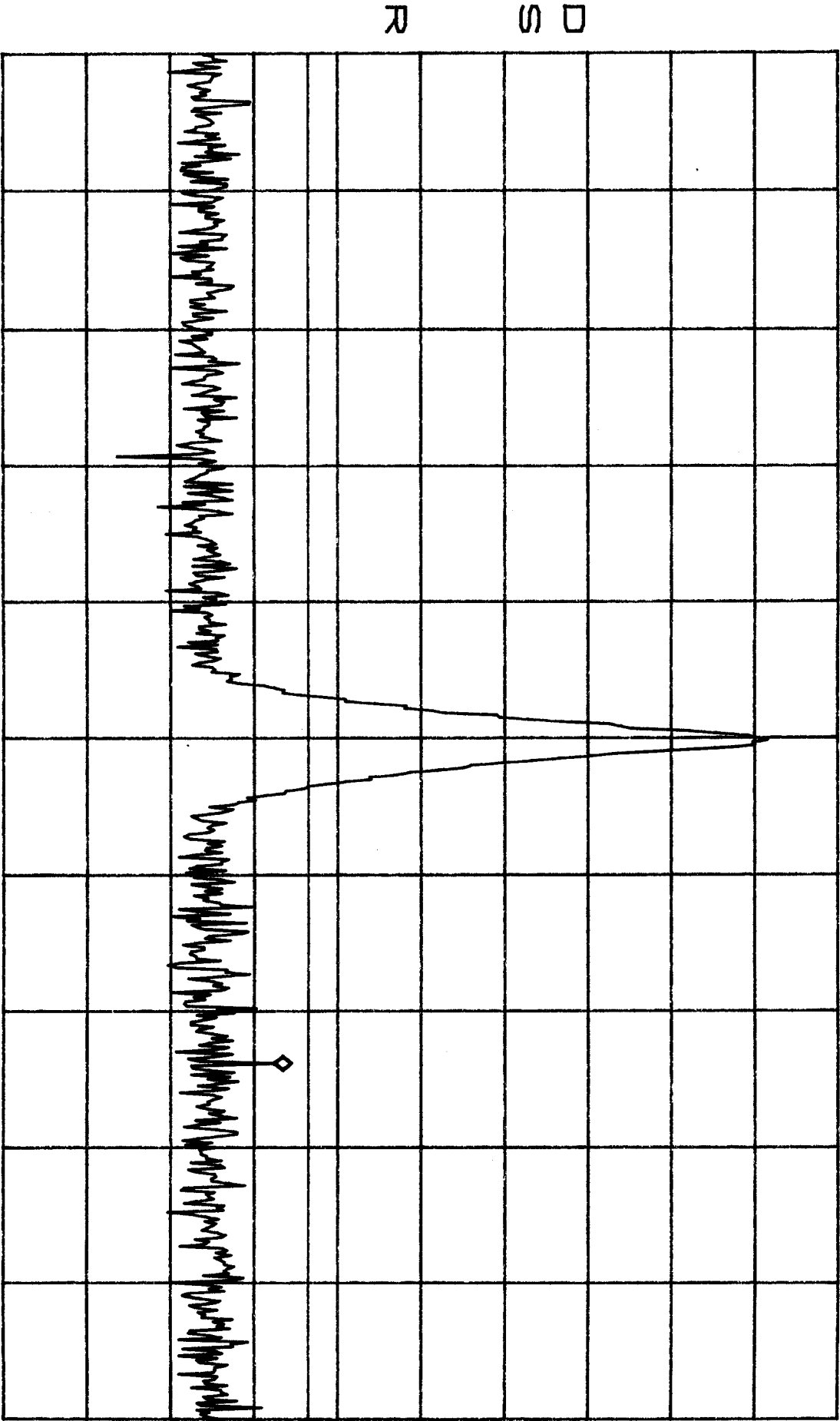


DS R

START 1.000GHz STOP 10.000GHz
 *RBW 1.0MHz VBW 1.0MHz SWP 180ms

Conducted Emissions Band Sme
TDMR

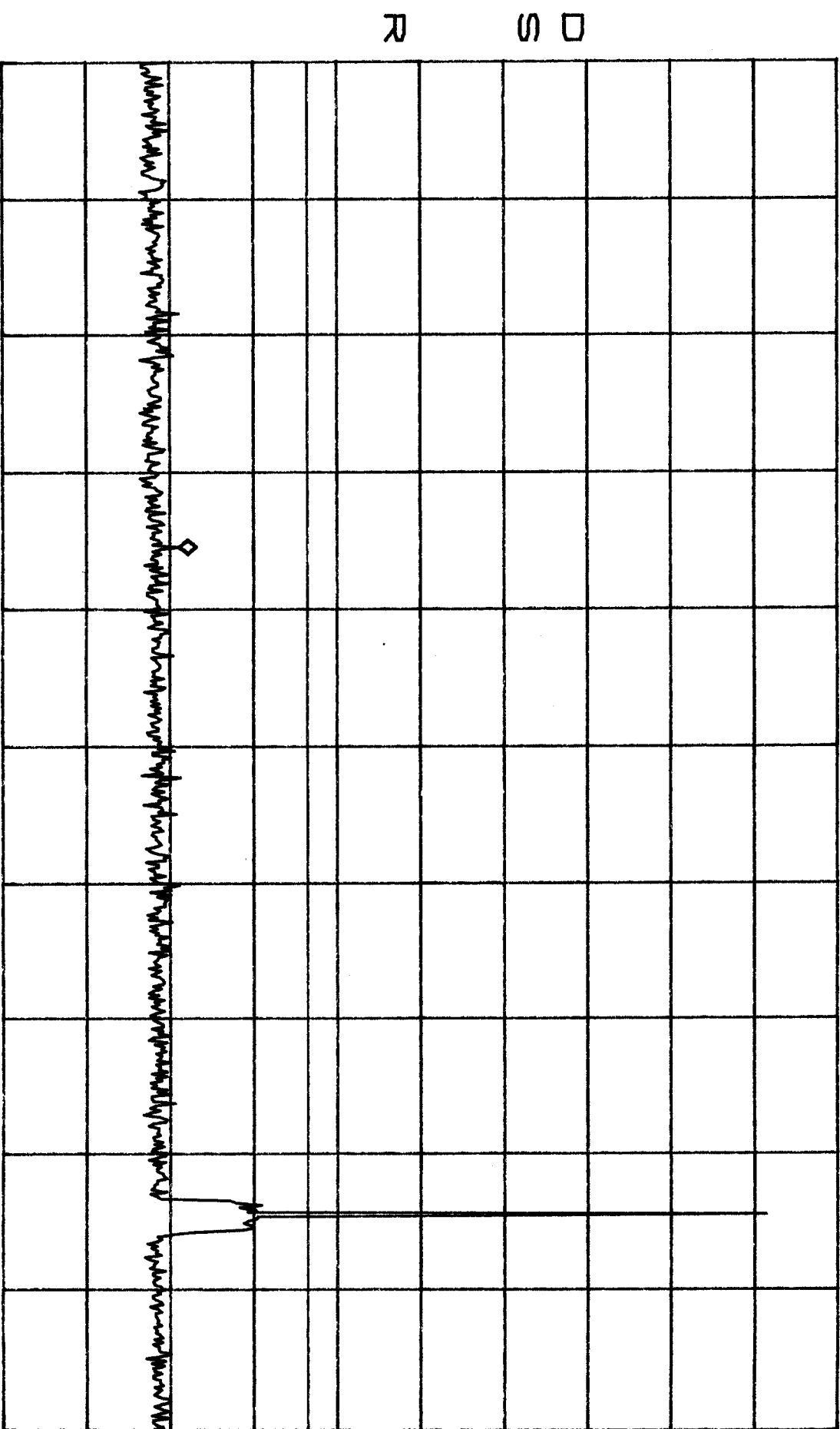
*ATTEN 20dB
RL 50.5dBm
10dB/
MKR -17.00dBm
859.192MHz



CENTER 858.000MHz
SPAN 5.000MHz
*RBW 30kHz
VBW 30kHz
SWP 50ms

Conducted Emissions Band Swe
TDMA

*ATTEN 20dB MKR -28.33dBm
RL 50.5dBm 10dB/ 374.4MHz

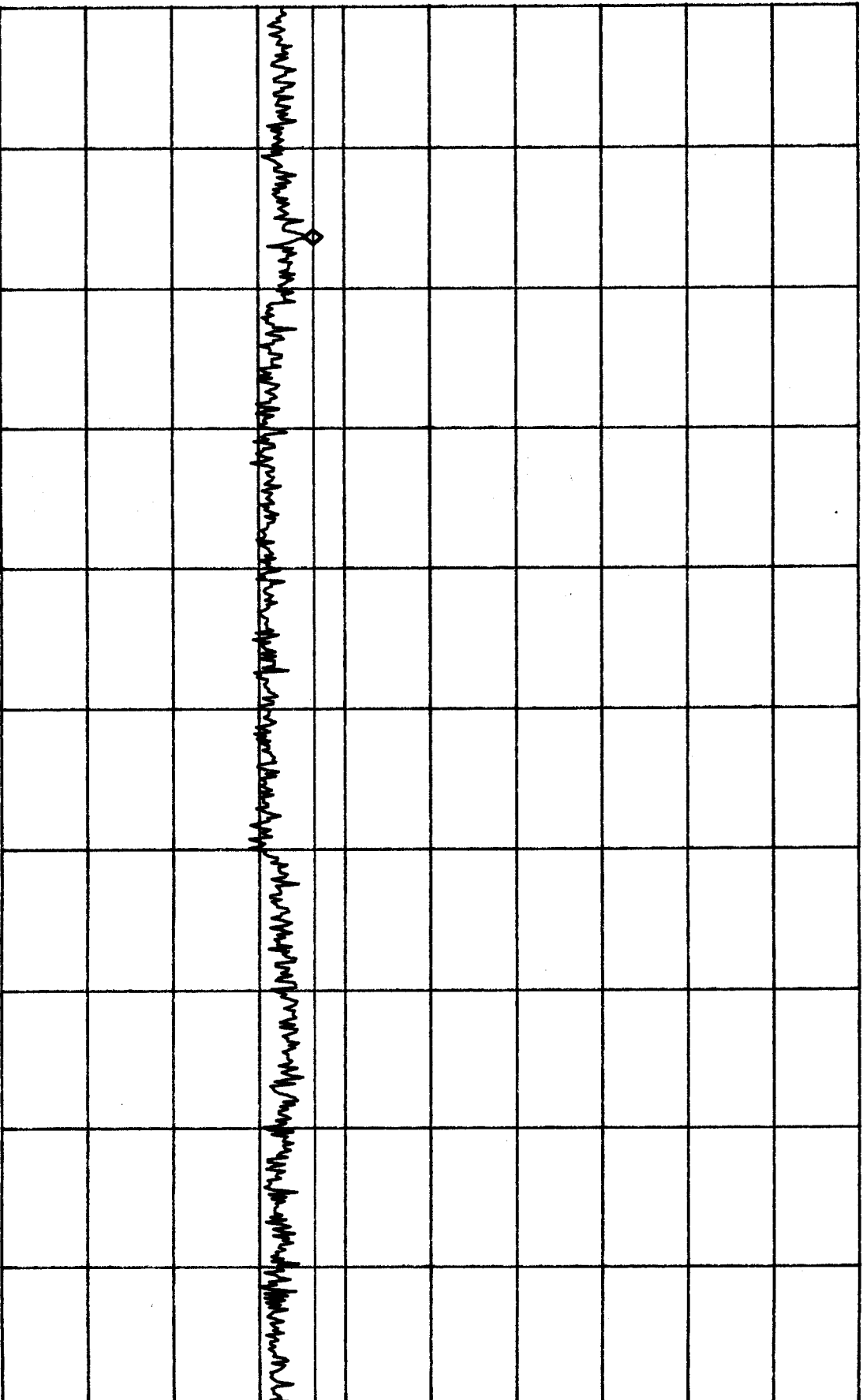


U
R

START 30.0MHz STOP 1.0000GHz
*RBW 30kHz VBW 30kHz SWP 2.7sec

Conducted Emissions Band Sme
TDMR

*ATTEN 20dB
RL 50.5dBm
10dB/
MKR -14.00dBm
2.470GHz



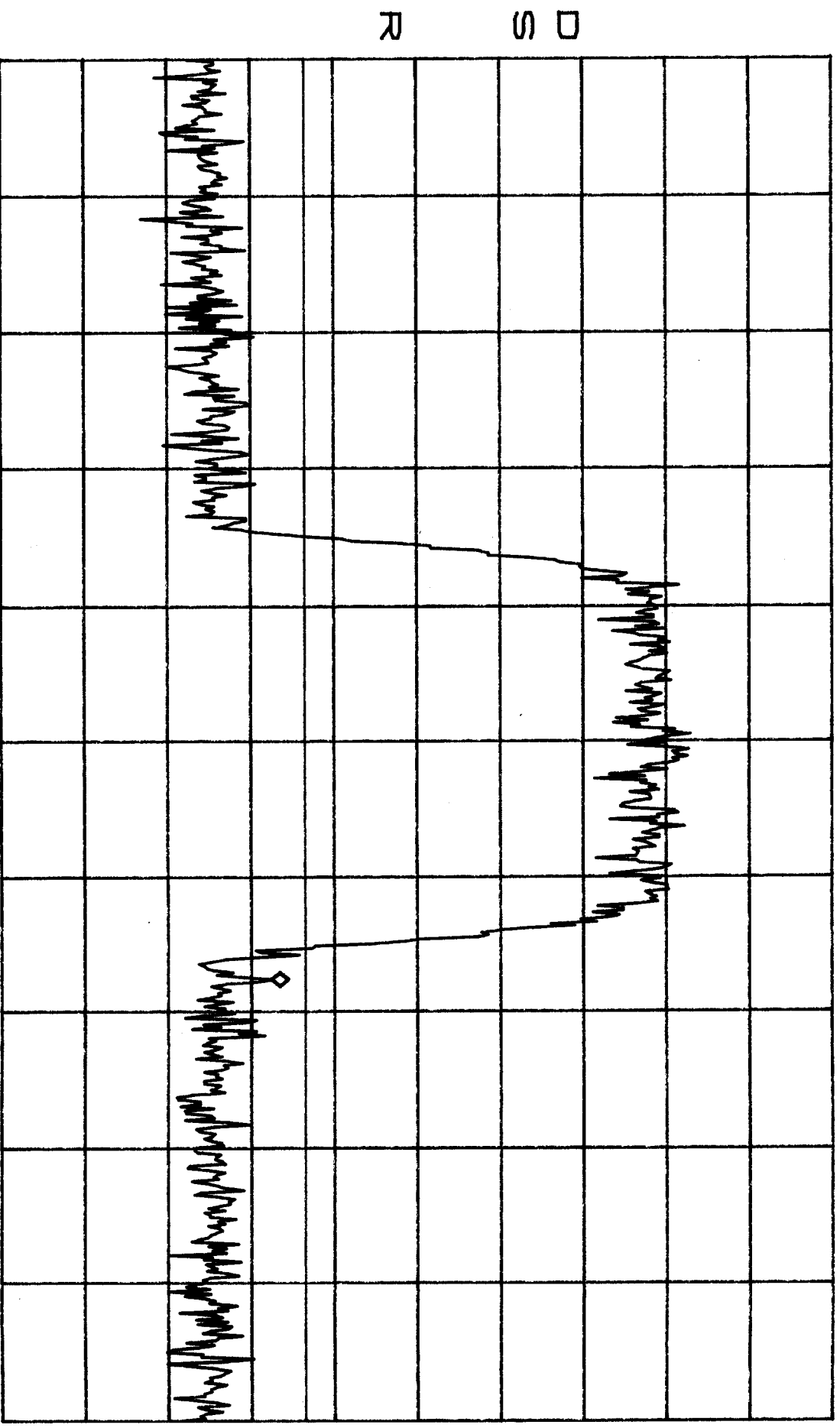
START 1.000GHz STOP 10.000GHz
*RBW 1.0MHz VBW 1.0MHz SWP 180ms

Conducted Emissions Band Swe
CDMA

*ATTEN 20dB
RL 50.5dBm

10dB/

MKR -17.00dBm
858.883MHz

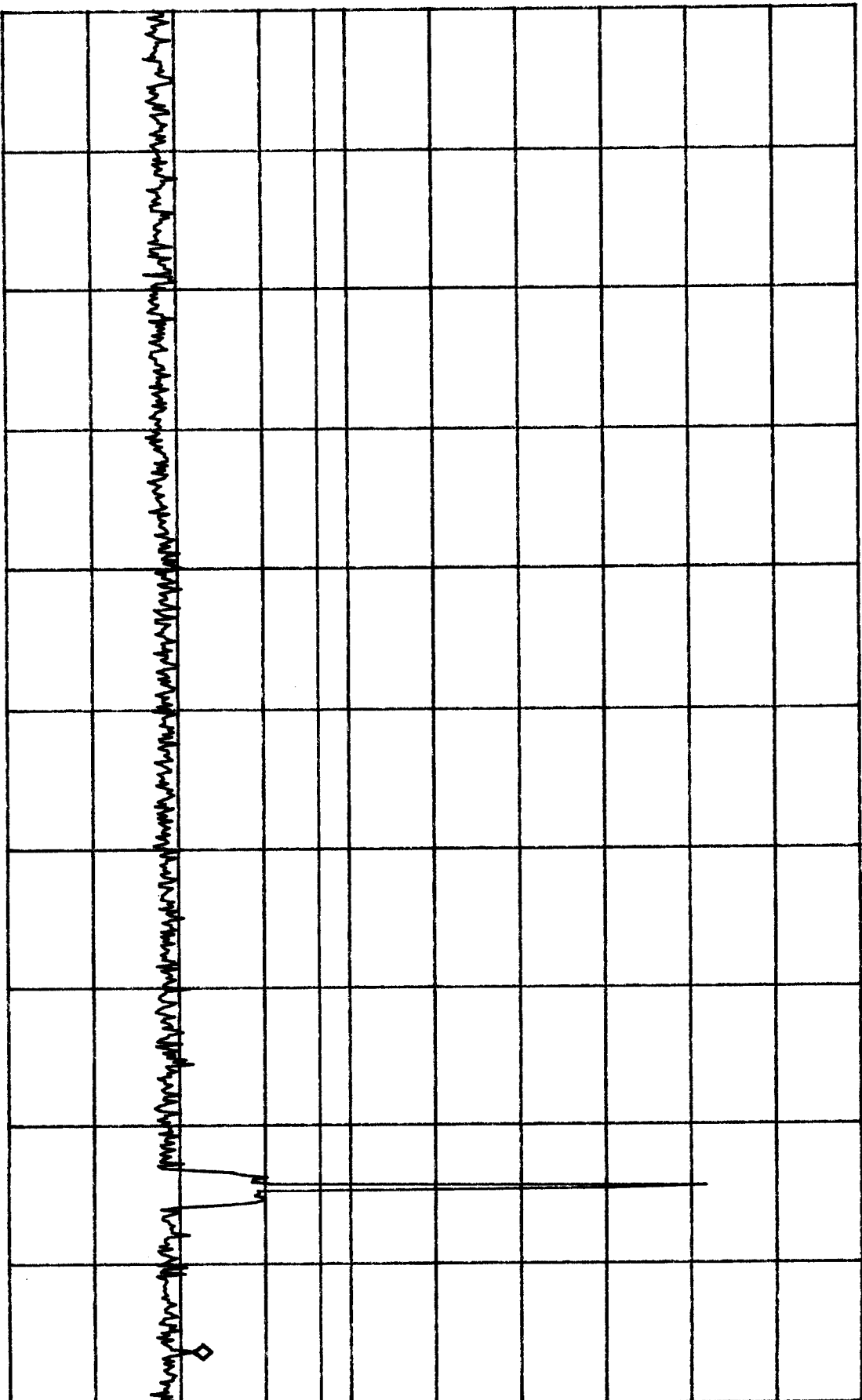


DS
SS

CENTER 858.000MHz SPAN 5.000MHz
*RBW 30kHz VBW 30kHz SWP 50ms

Conducted Emissions Band Swe
CDMA

*ATTEN 20dB RL 50.5dBm 10dB/ MKR -27.83dBm 964.4MHz

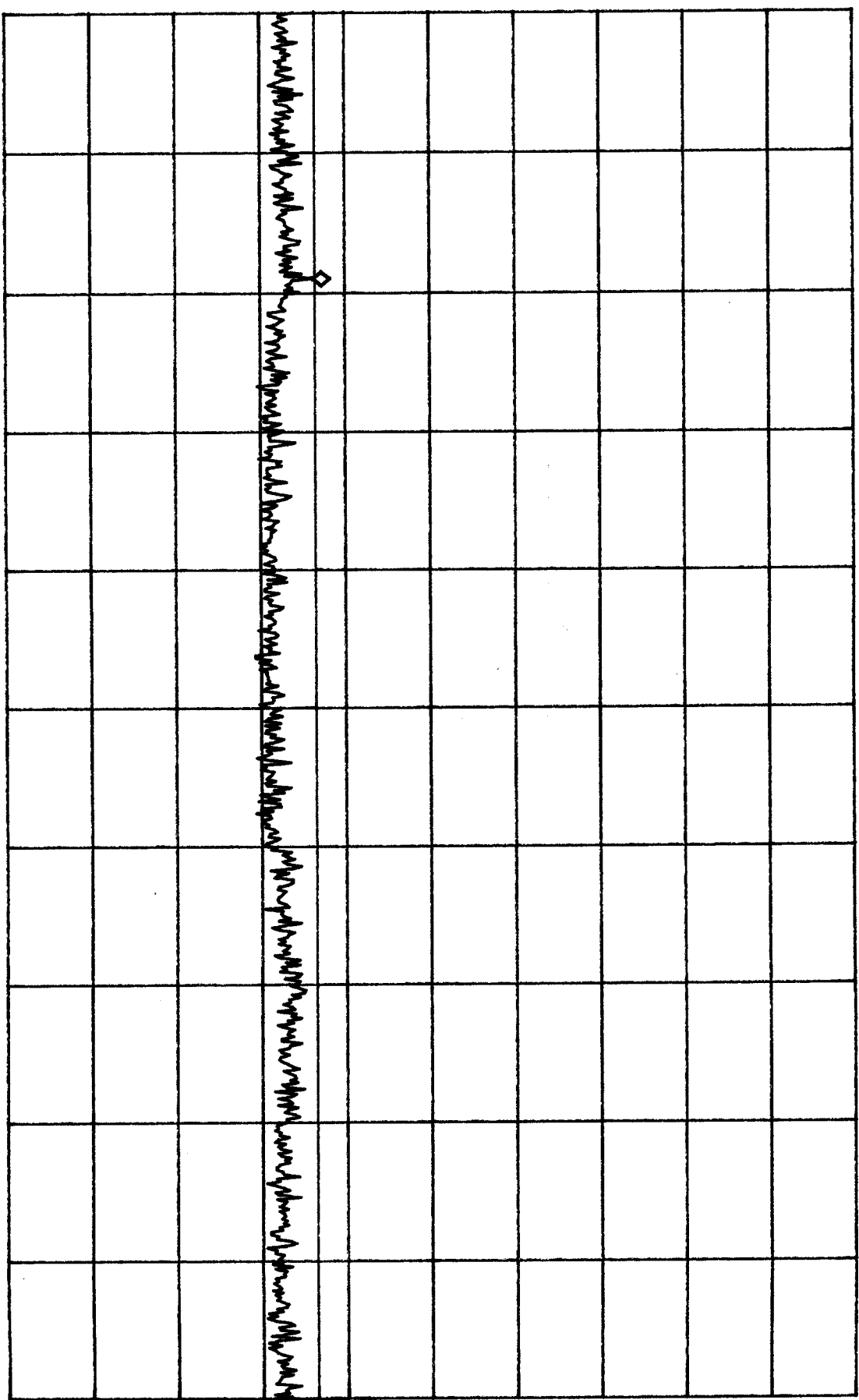


Q S R

START 30.0MHz STOP 1.0000GHz
*RBW 30kHz VBW 30kHz SWP 2.7sec

Conducted Emissions Band 5mK
CDMA

*ATTEN 20dB RL 50.5dBm 10dB/ MKR -13.17dBm 2.710GHz

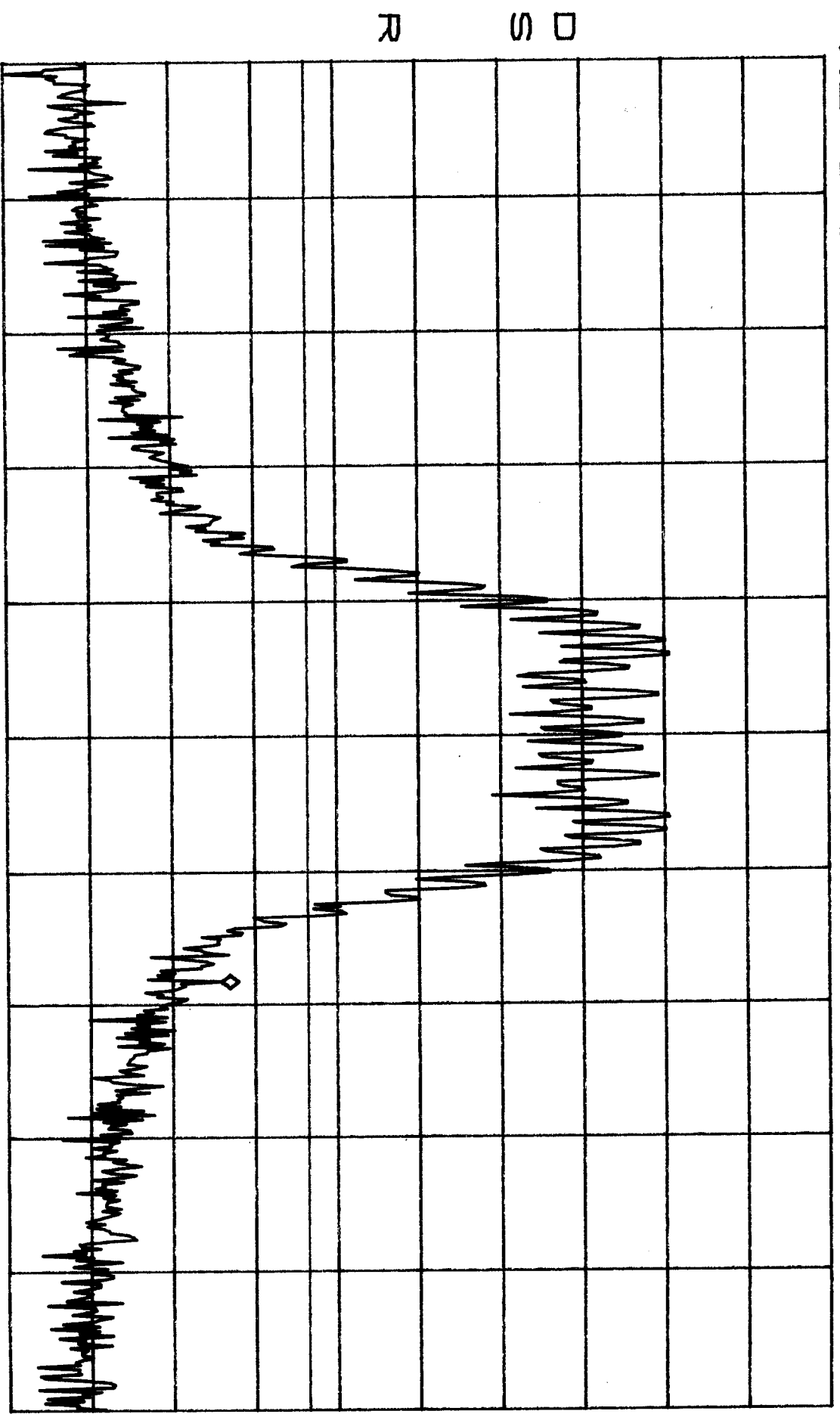


DS
R

START 1.000GHz STOP 10.000GHz
*RBW 1.0MHz VBW 1.0MHz SWP 180ms

Conducted Emissions
Band Edge
FM

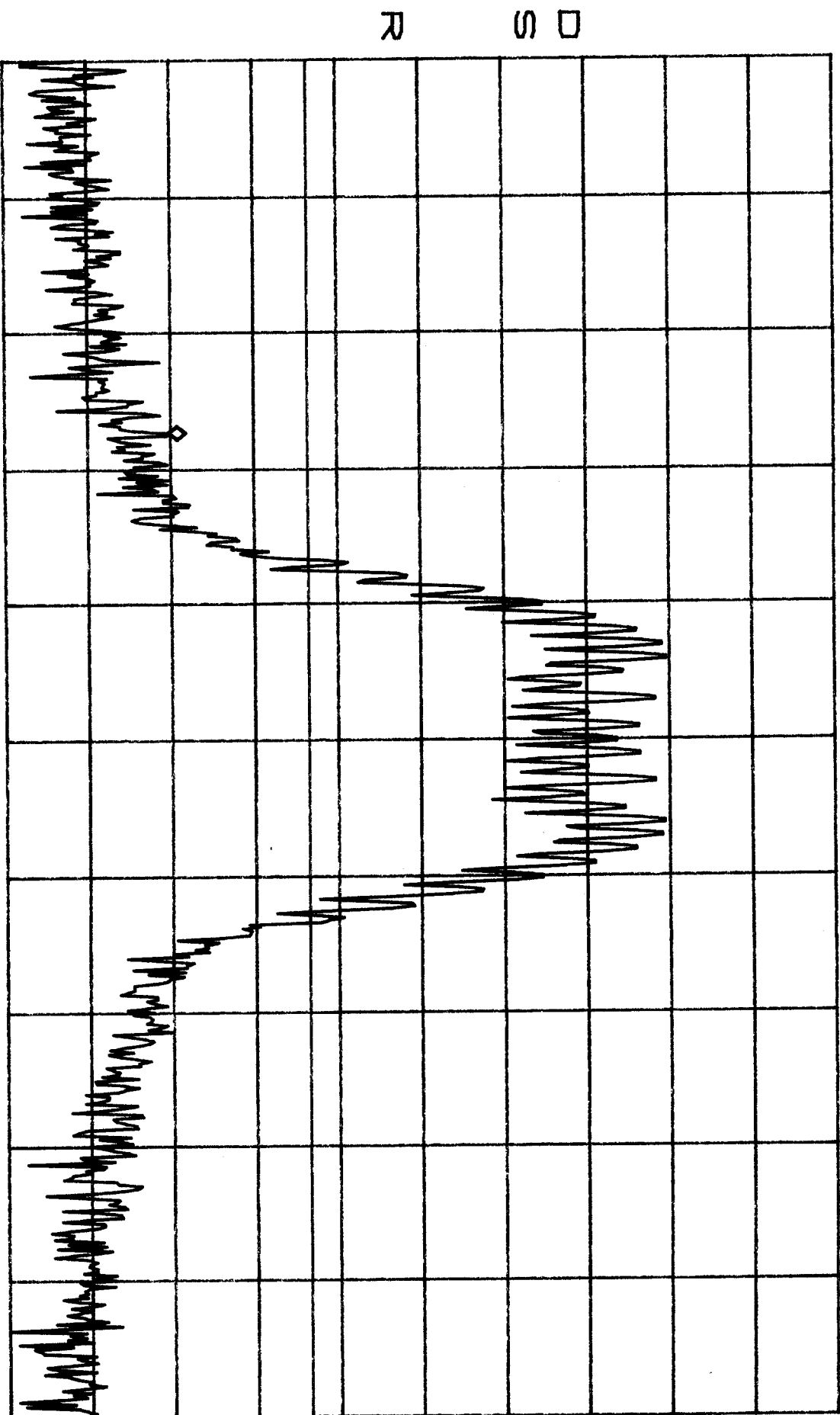
*ATTEN 20dB
RL 50.5dBm
10dB/
MKR -23.50dBm
851.2183MHz



CENTER 851.2000MHz
SPAN 100.0KHz
*RBW 300Hz
VBW 300Hz
SWP 2.8sec

Conducted Emissions
Band Edge
FM
Band 5MR

*ATTEN 20DB
RL 50.5DBm
10DB/
MKR -29.67DBm
865.7773MHZ



CENTER 865.800MHZ
SPAN 100.0KHz
*RBW 300HZ
VBW 300HZ
SWP 2.8sec