

Additional Report

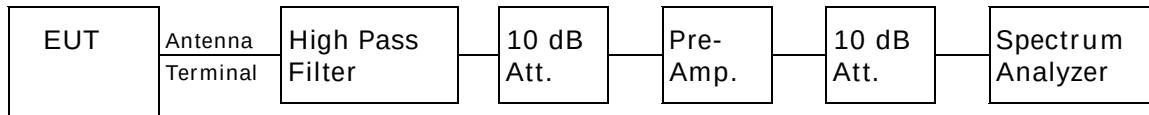
Antenna Conducted Spurious Emission Measurement (§2.1051,§24.238))

-Spurious Emission Except the harmonics frequency-

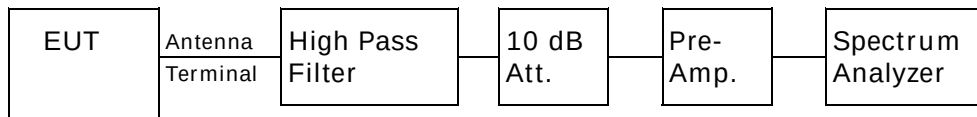
Test Procedure :

The Antenna Conducted Emission was measured with a spectrum analyzer, one or two 10 dB attenuator, a high pass filter., a pre-amplifier and a short, low loss cable.

1) Frequency Range : 2GHz - 6GHz



2) Frequency Range : 6GHz - 20GHz



Test location :

KITA-KANSAI Testing Center

7-7, Ishimaru, 1-Chome, Mino-Shi, Osaka, 562-0027, Japan

● - Shielded room

KAMEOKA EMC Branch

9-1, Ozaki, Inukanno, Nishibetsuin-Cho, Kameoka-Shi, Kyoto, 621-0126, Japan

○ - Shielded room

Used test instruments:

Model No.	Device ID	Last Cal. Date	Cal. Interval
○ - MP721C	D - 66		
● - 4T-10	D - 73	May, 2002	1 Year
● - 4T-10	D - 74	May, 2002	1 Year
○ - 2-10	D - 79		
○ - 2-10	D - 80		
● - UHP-127	D - 42	May, 2002	1 Year
○ - UHP-128	D - 43		
● - 8566B	A - 13	February, 2003	1 Year
○ - 8593A	A - 15		
○ - WJ-6611-513	A - 23		
● - WJ-6882-824	A - 21	May, 2002	1 Year
● - DBL-0618N515	A - 33	May, 2002	1 Year

Environmental conditions:

Temperature: 22 °C Humidity: 54 %

Measurement Result:

The plot data is shown in the attachment.

Pages 3-5 : 1850.200MHz(512ch)

Pages 6-8 : 1880.000MHz(661ch)

Pages 9-11 : 1909.800MHz(810ch)

The all spurious emission not listed in page 28 of 42 in KL8030023 were found to be more than 20 dB below the limit.

Sample Calculation:

Transmitting Frequency	Frequency	Correction Factor	Meter Readings (dBm)	Limits	Results (dBm)
[MHz]	[MHz]	[dB]		(dBm)	
1850.2	3696.0	-20.8	-27.6	-13.0	-48.4
1880.0	3756.0	-20.7	-25.8	-13.0	-46.5
1909.2	3816.0	-20.7	-27.6	-13.0	-48.3

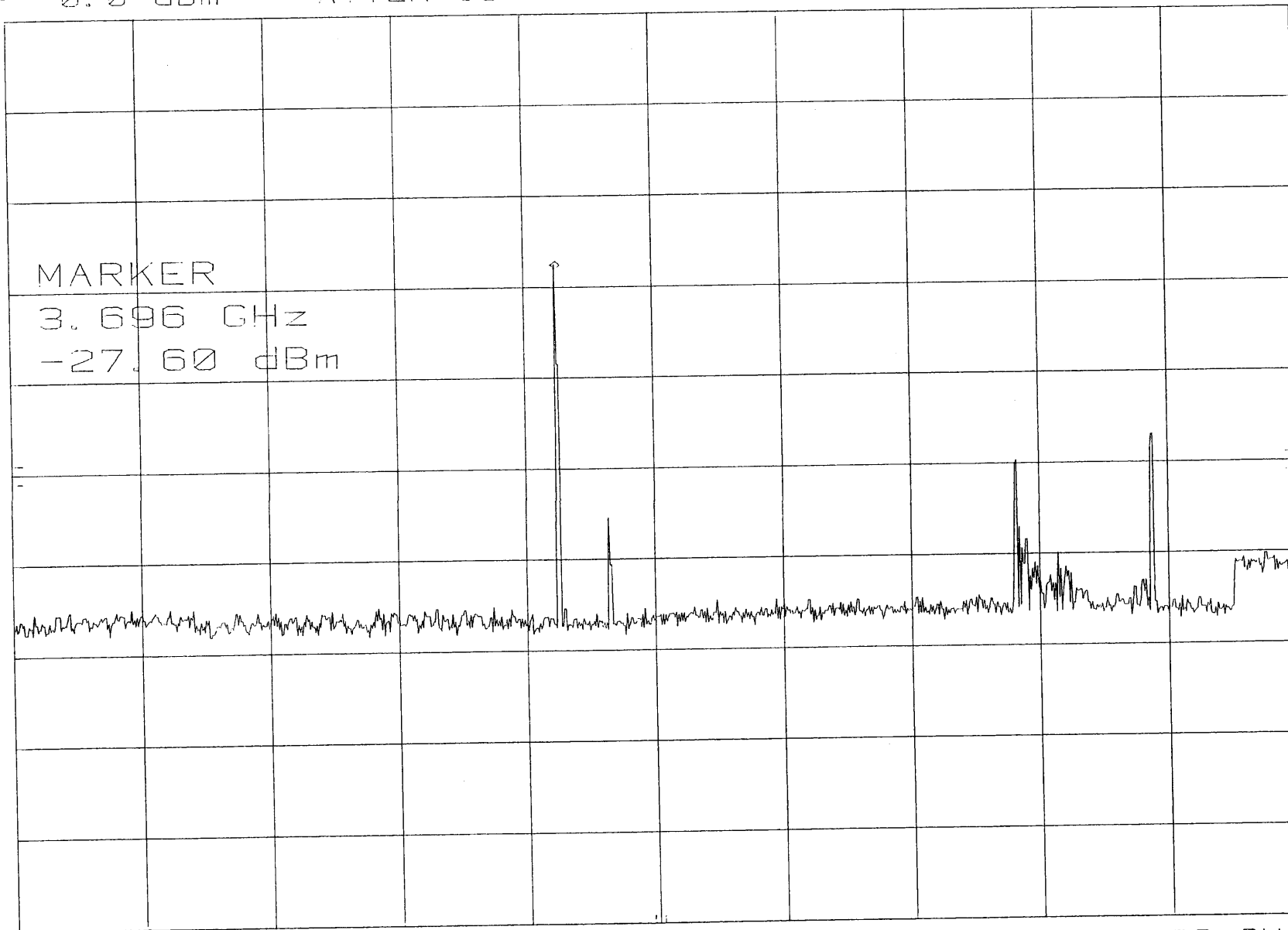
Note: The Amp Gain , the attenuator loss and the cable loss are included in the correction factor.

Judgement procedure:

The spurious data is compared to the antenna conducted emission level of the discrete frequencies of page 28 of 42.

MKR 3.696 GHz
-27.60 dBm

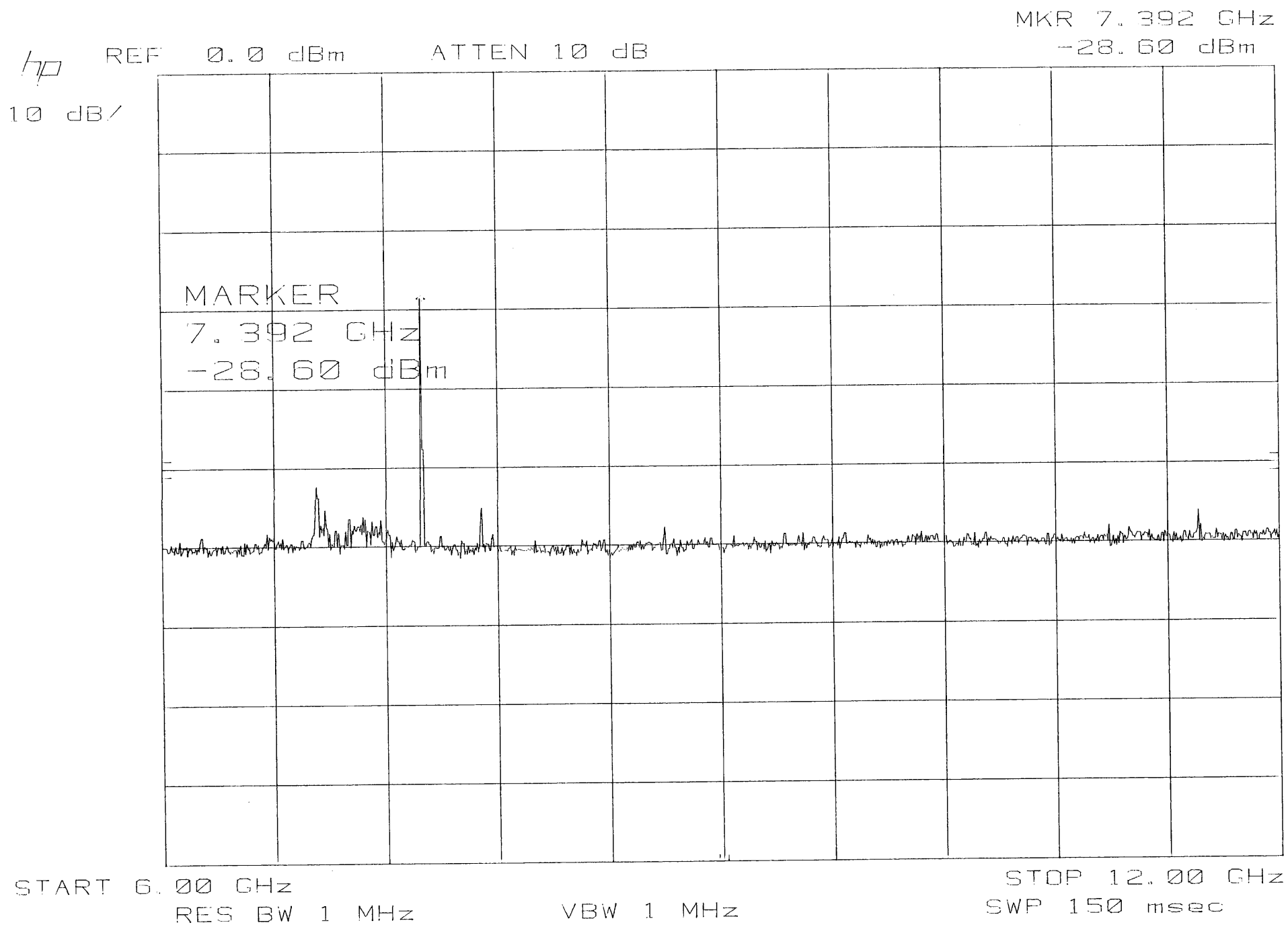
hp REF 0.0 dBm ATTN 10 dB
10 dB/



START 2.00 GHz
RES BW 1 MHz

VBW 1 MHz

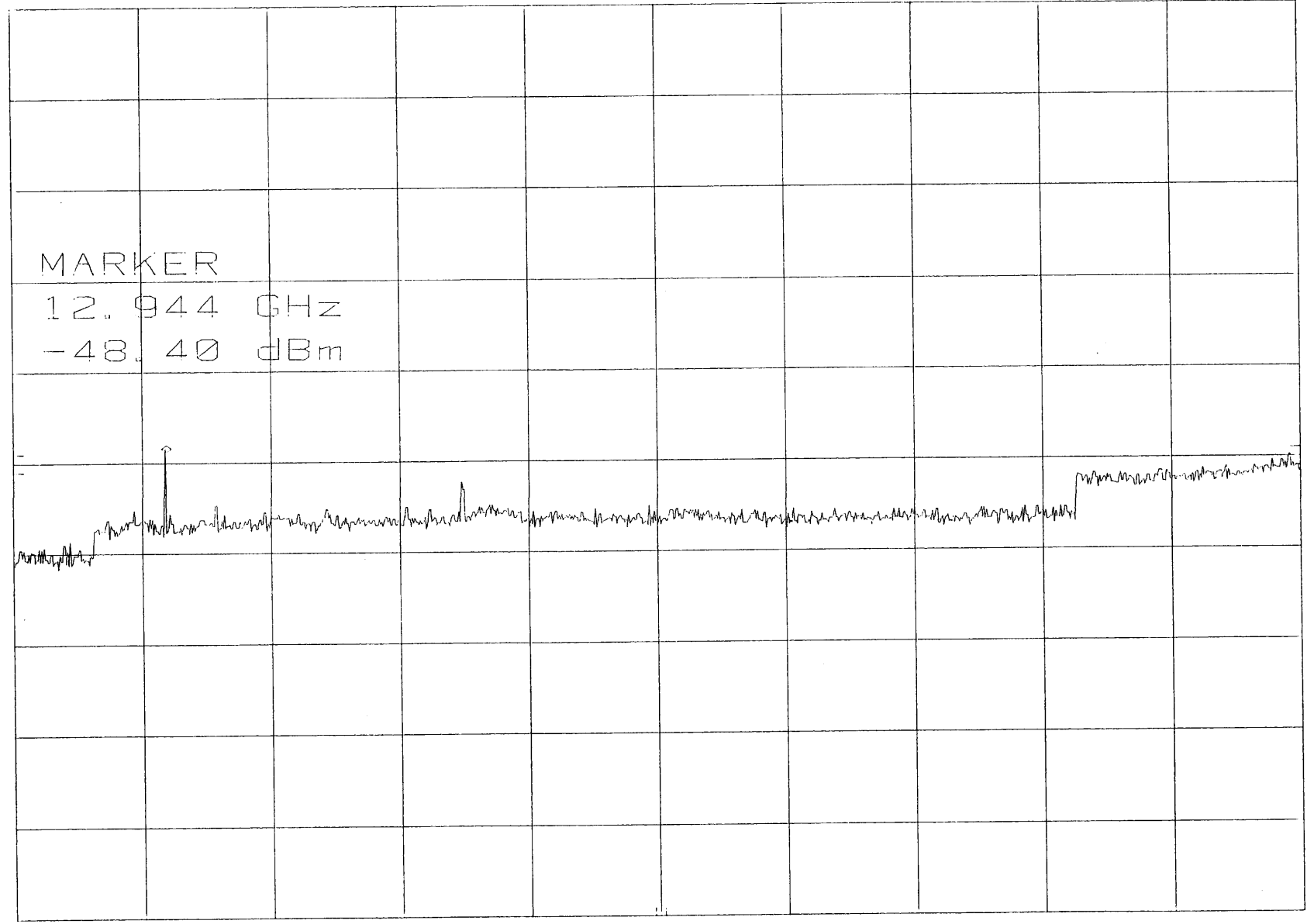
STOP 6.00 GHz
SWP 100 msec



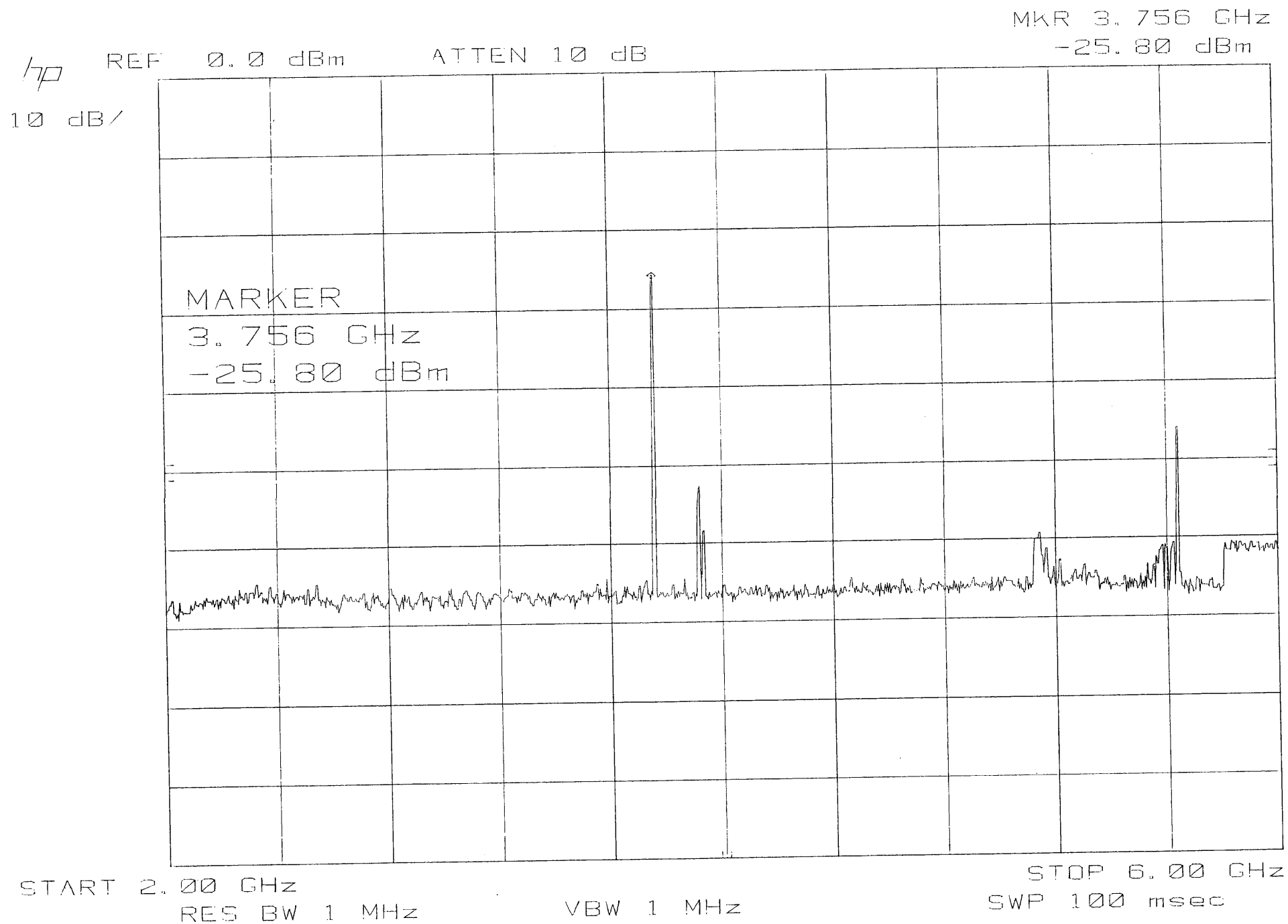
hp
10 dB/

REF 0.0 dBm ATTEN 10 dB

MKR 12.944 GHz
-48.40 dBm



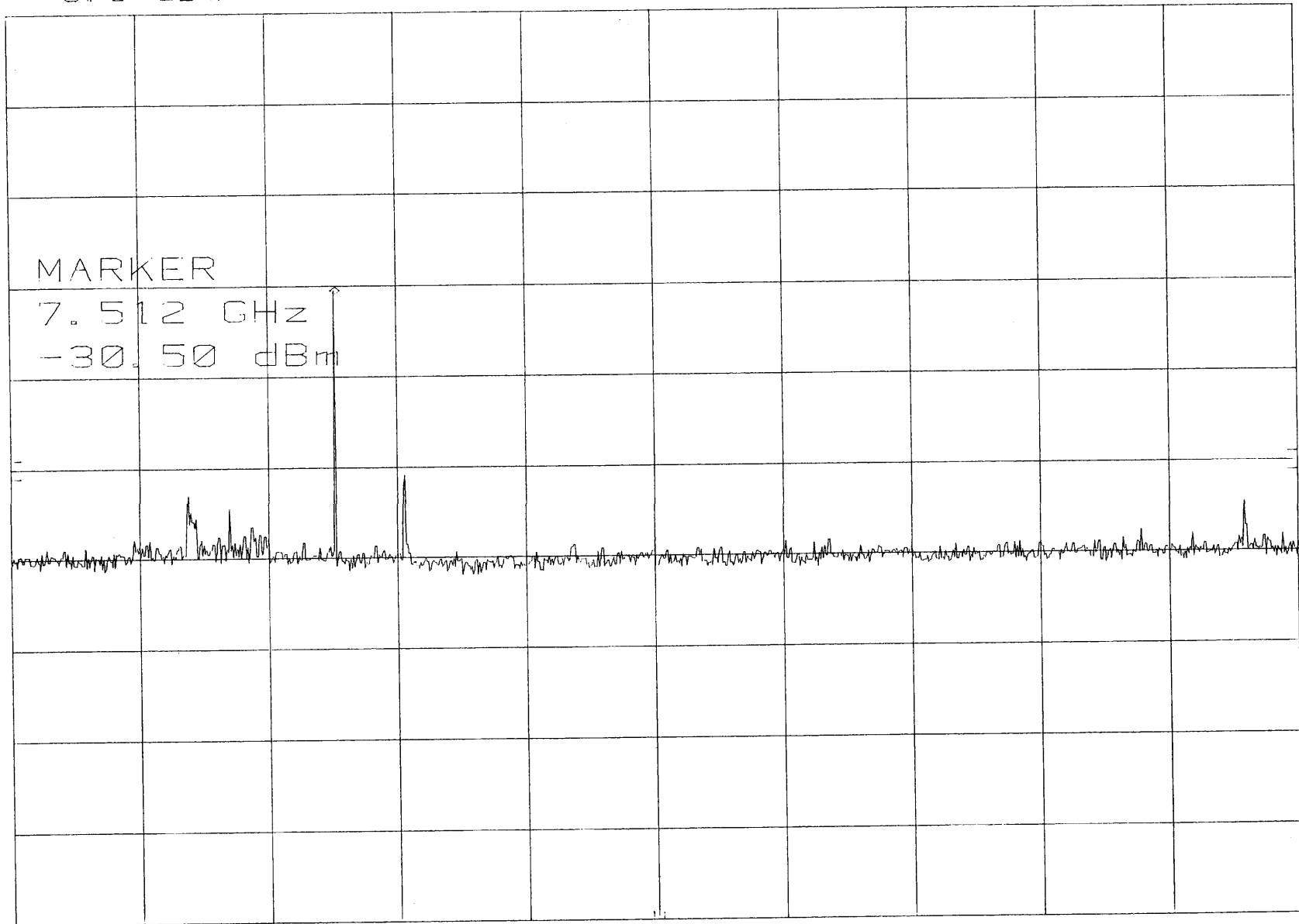
START 12.00 GHz STOP 20.00 GHz
RES BW 1 MHz VBW 1 MHz SWP 200 msec



hp
10 dB/

REF 0.0 dBm ATTEN 10 dB

MKR 7.512 GHz
-30.50 dBm



START 6.00 GHz

RES BW 1 MHz

VBW 1 MHz

STOP 12.00 GHz

SWP 150 msec

hp
10 dB/

REF 0.0 dBm

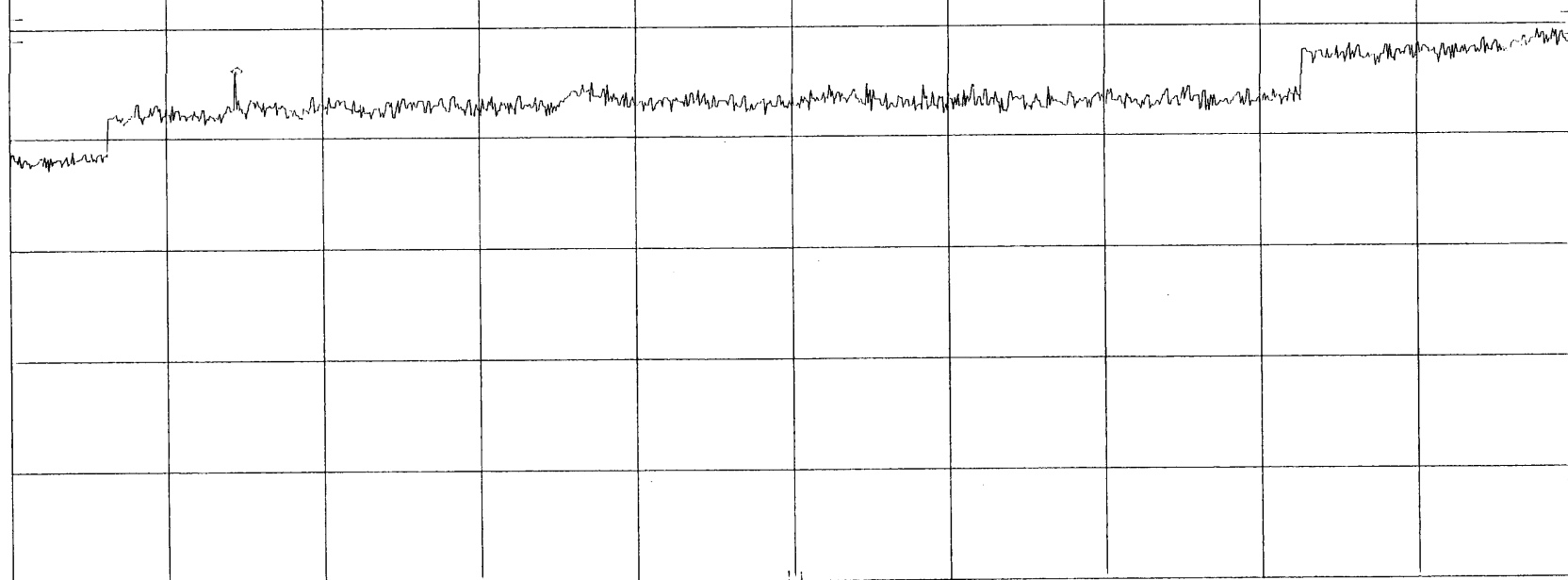
ATTEN 10 dB

MKR 13.152 GHz
-53.80 dBm

MARKER

13.152 GHz

-53.80 dBm



START 12.00 GHz

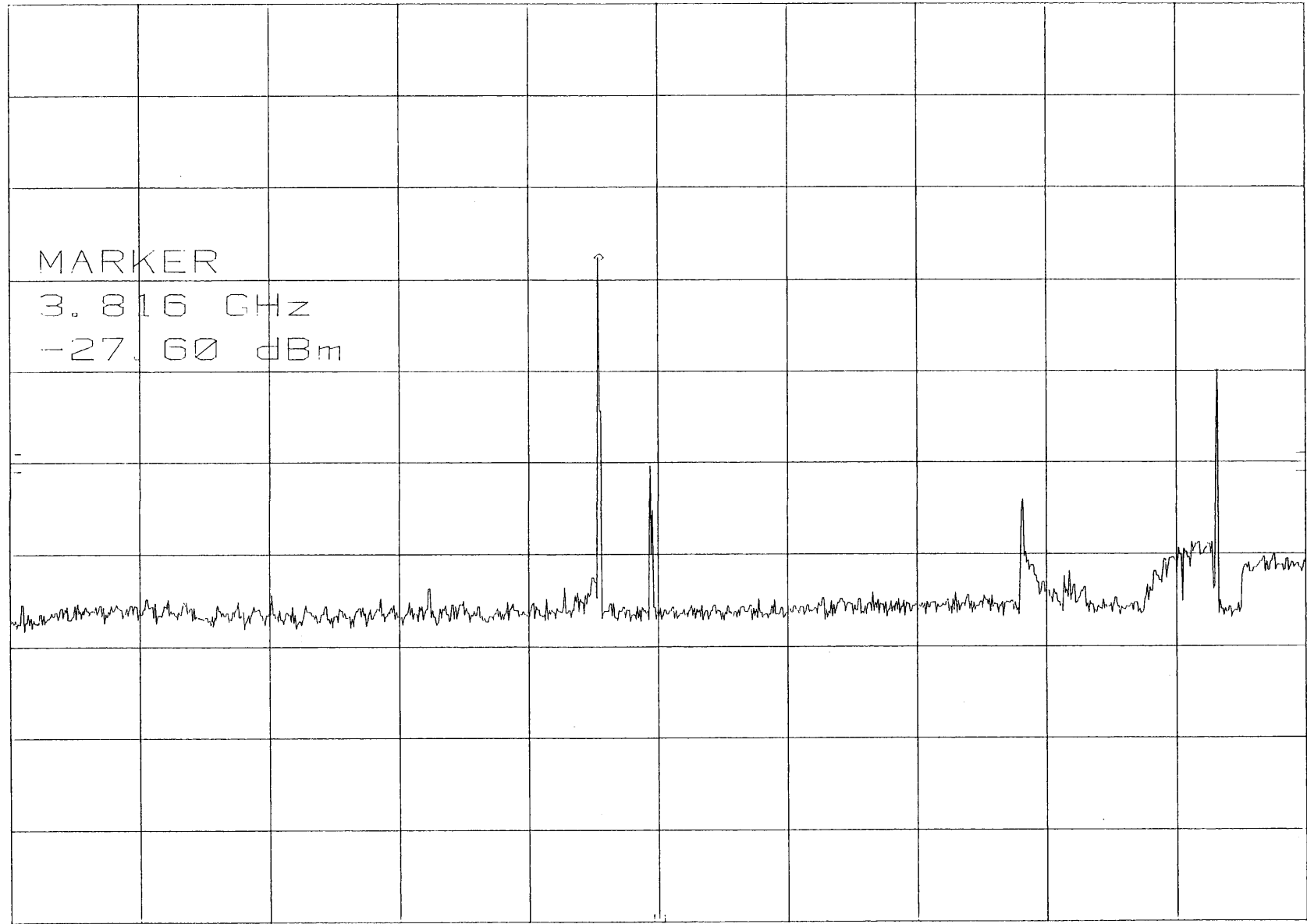
RES BW 1 MHz

VBW 1 MHz

STOP 20.00 GHz

SWP 200 msec

hp REF 0.0 dBm ATTN 10 dB MKR 3.816 GHz
10 dB/ -27.60 dBm



START 2.00 GHz STOP 6.00 GHz
RES BW 1 MHz VBW 1 MHz SWP 100 msec

hp

REF 0.0 dBm

ATTEN 10 dB

MKR 7.632 GHz

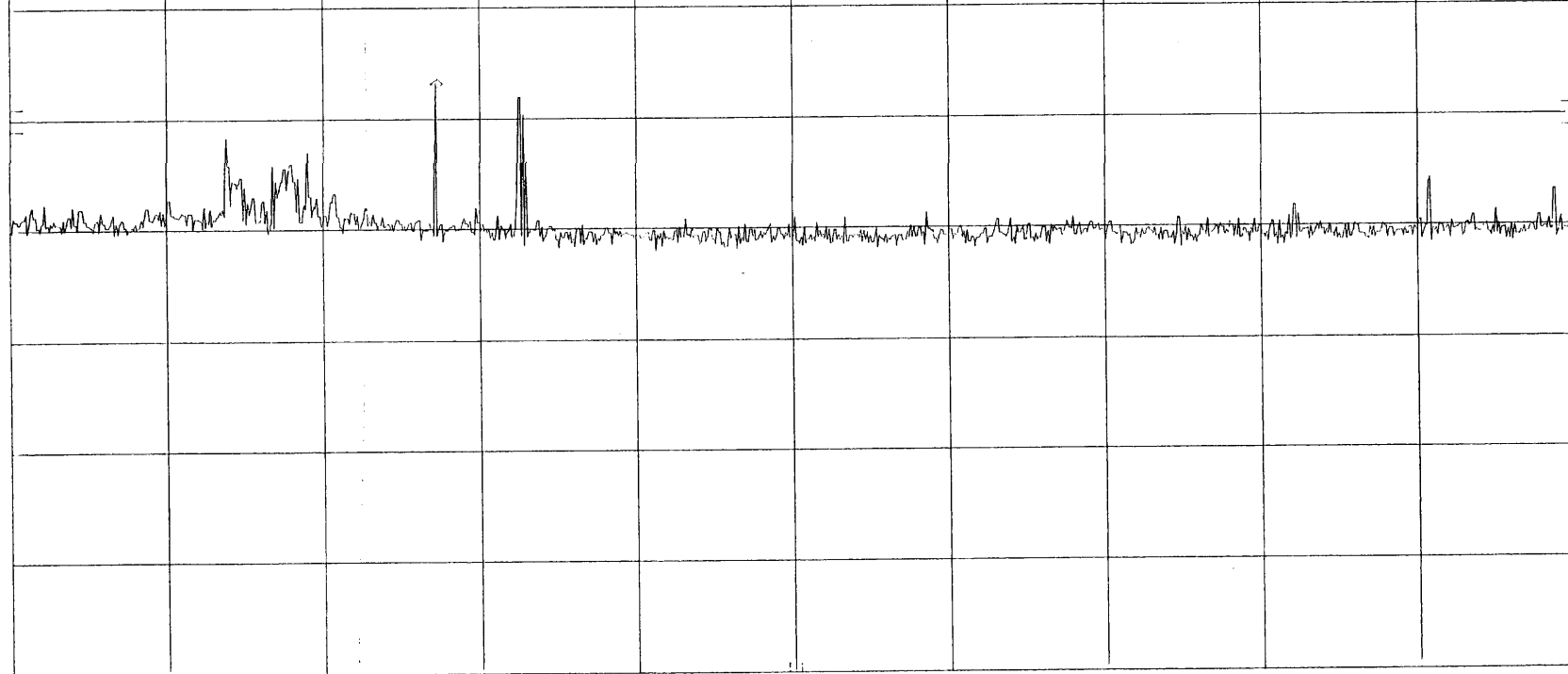
-46.80 dBm

10 dB/

MARKER

7.632 GHz

-46.80 dBm



START 6.00 GHz

RES BW 1 MHz

VBW 1 MHz

STOP 12.00 GHz

SWP 150 msec

MKR 13.360 GHz
-48.10 dBm

hp

REF 0.0 dBm

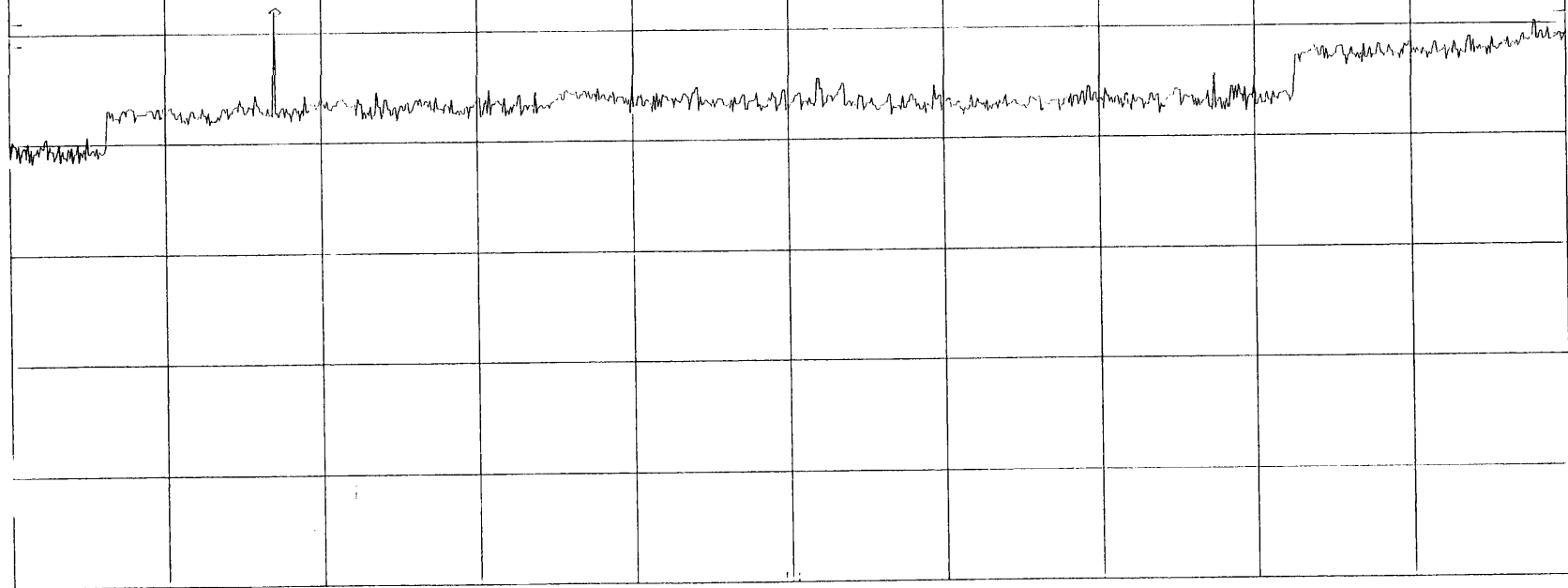
ATTEN 10 dB

10 dB/

MARKER

13.360 GHz

-48.10 dBm



START 12.00 GHz

RES BW 1 MHz

VBW 1 MHz

STOP 20.00 GHz

SWP 200 msec