

FCCID: E675JS0027



Emissions Test Conditions: CONDUCTED EMISSIONS (FCC Part 2, Paragraphs 2.985, 2.989, 2.991 and Part 24, Paragraph 24.238)

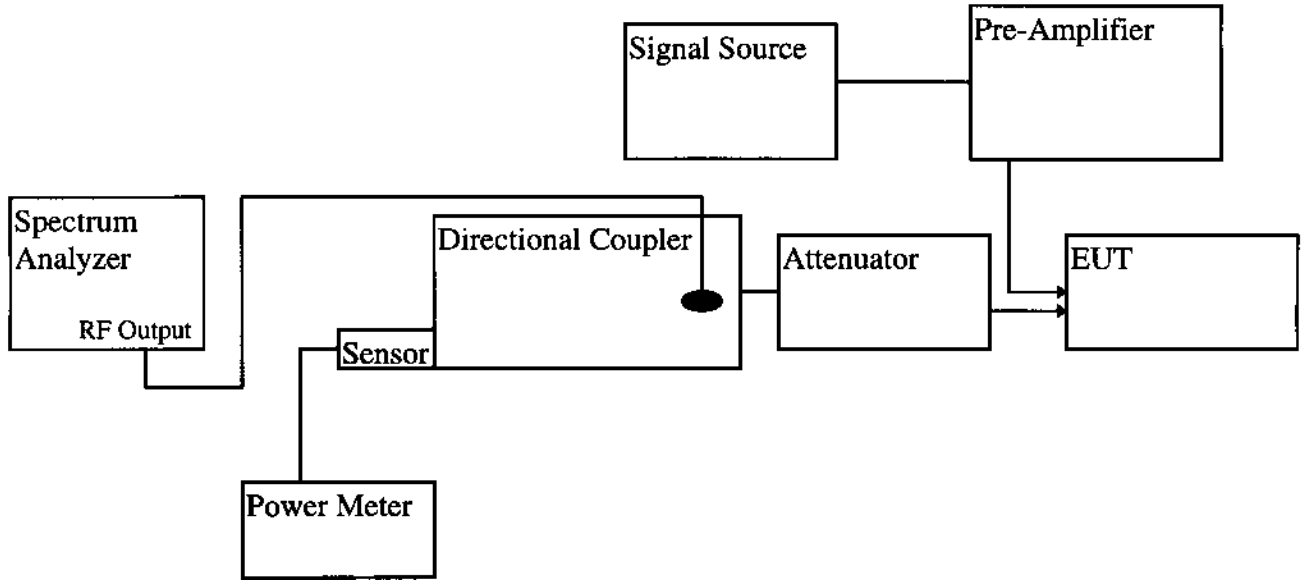
Test Equipment Used :

Model Number	Manufacturer	Description	Serial Number	Prop. No.	Cal Date
■ - 3022	Narda	74663	74663	--	NCR
■ - 8481A	Hewlett Packard	Power Sensor	US 37290516	--	09/16/99
■ - 437B	Hewlett Packard	Power Meter	3125U26022	572	09/16/99
■ - ESG-02000A	Hewlett Packard	Digital Signal Generator	--	--	01/07/99
■ - MPA9603-25	Miteq, Inc.	Pre-amplifier	189296	--	NCR
■ - MPA9600-25	Miteq, Inc.	Pre-amplifier	207728	--	NCR

Remarks: _____

FCC ID: E675J80027

Test Setup for
Part 2, Paragraph 2.985, 2.989, 2.991 and
Part 24, Paragraph 24.238



CLIENT: POWERWAVE
SPEC: FCC PART 2, PARAGRAPH 2.985

DATE: 10/14/98

REPORT NO. S8511

NOTES: 1) MID CHANNEL GSM

2) RF OUTPUT POWER - 49 dBm = 79.4 W

MKR 1.959 98 GHz
49.00 dBm

hp

REF 61.0 dBm

ATTEN 50 dB

Mary Washington

10 dB/

SAMPLE

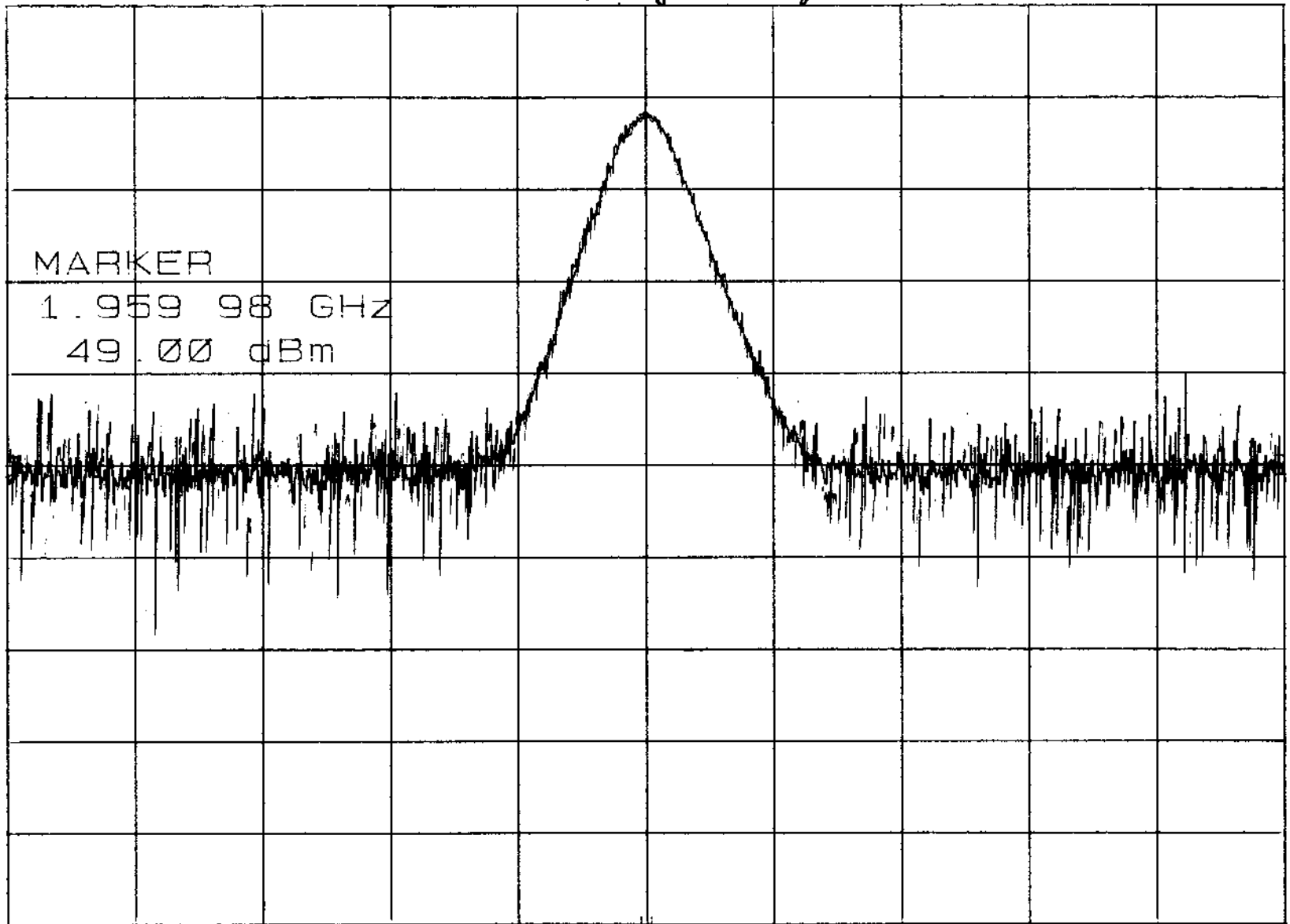
OFFSET

51.1
dB

MARKER

1.959 98 GHz
49.00 dBm

VID AVG
11



CENTER 1.960 0 GHz

RES BW 1 MHz (1)

VBW 1 MHz

SPAN 20.0 MHz
SWP 50.0 msec

CLIENT: POWERWAVE
SPEC: FCC PART 2, PARAGRAPH 2.985
NOTES: 1) LOW CHANNEL GSM

DATE: 10/13/95

REPORT NO. S8511

2) RF OUTPUT POWER - 49.1 dBm = 81.3W

REF 51.4 dBm

ATTEN 10 dB

May Washington

MKR 1.930 12 GHz
49.00 dBm

10 dB/

SAMPLE

OFFSET

51.4
dB

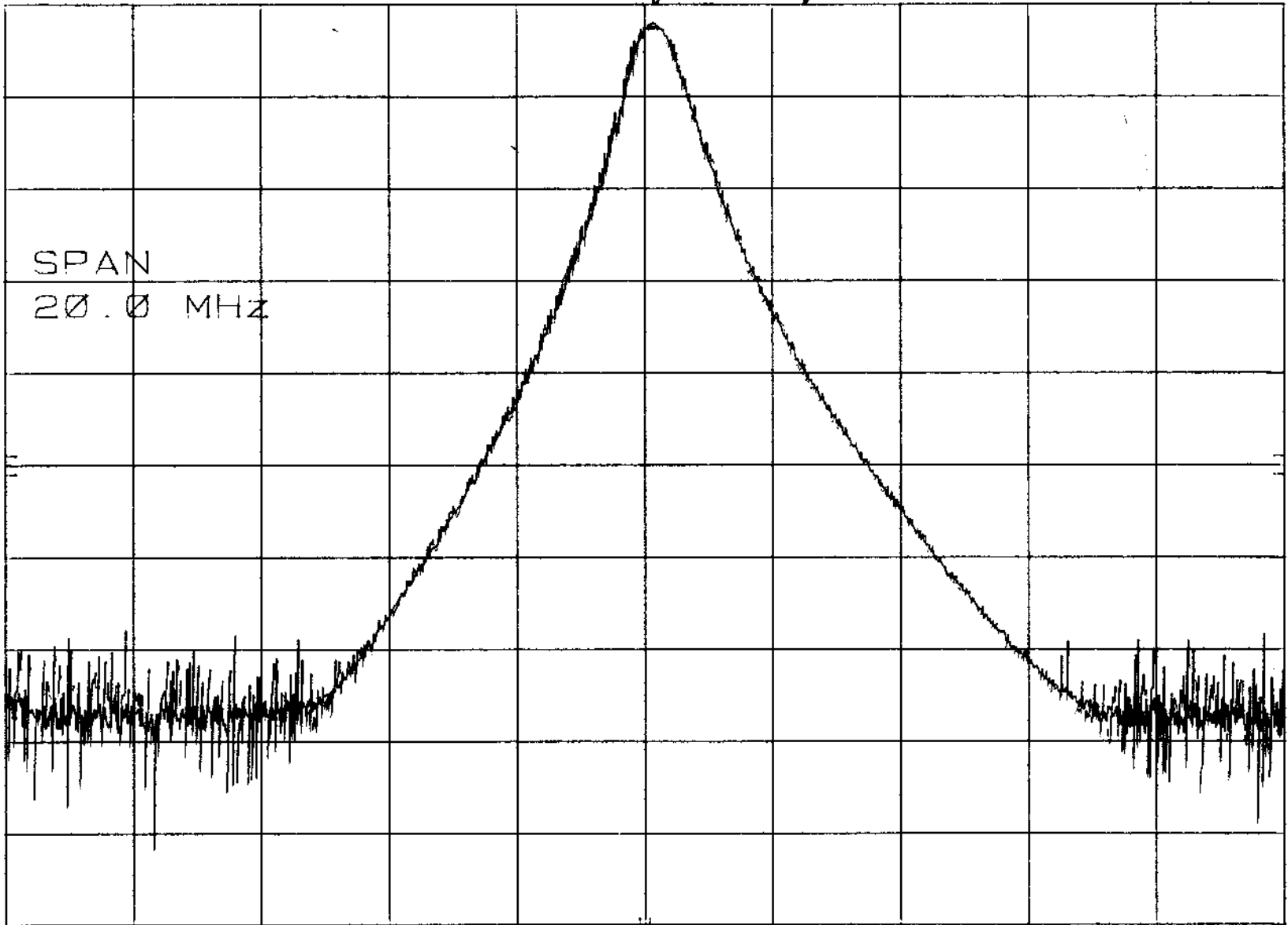
SPAN

20.0 MHz

VID AVG

11

global
~~CORR-D~~



CENTER 1.930 12 GHz

RES BW 1 MHz (1)

VBW 1 MHz

SPAN 20.0 MHz
SWP 37.5 msec

CLIENT: POWERWAVE
SPEC: FCC PART 2, PARAGRAPH 2.985
NOTES: 1) HIGH CHANNEL GSM

DATE: 10/13/98

REPORT NO. S8511

2) RF OUTPUT POWER - 48.9 dBm = 77.6 W

MKR 1.989 82 GHz

REF 51.2 dBm ' ATTEN 10 dB *Mary Washington*

48.90 dBm

10 dB/

SAMPLE

OFFSET

51.2
dB

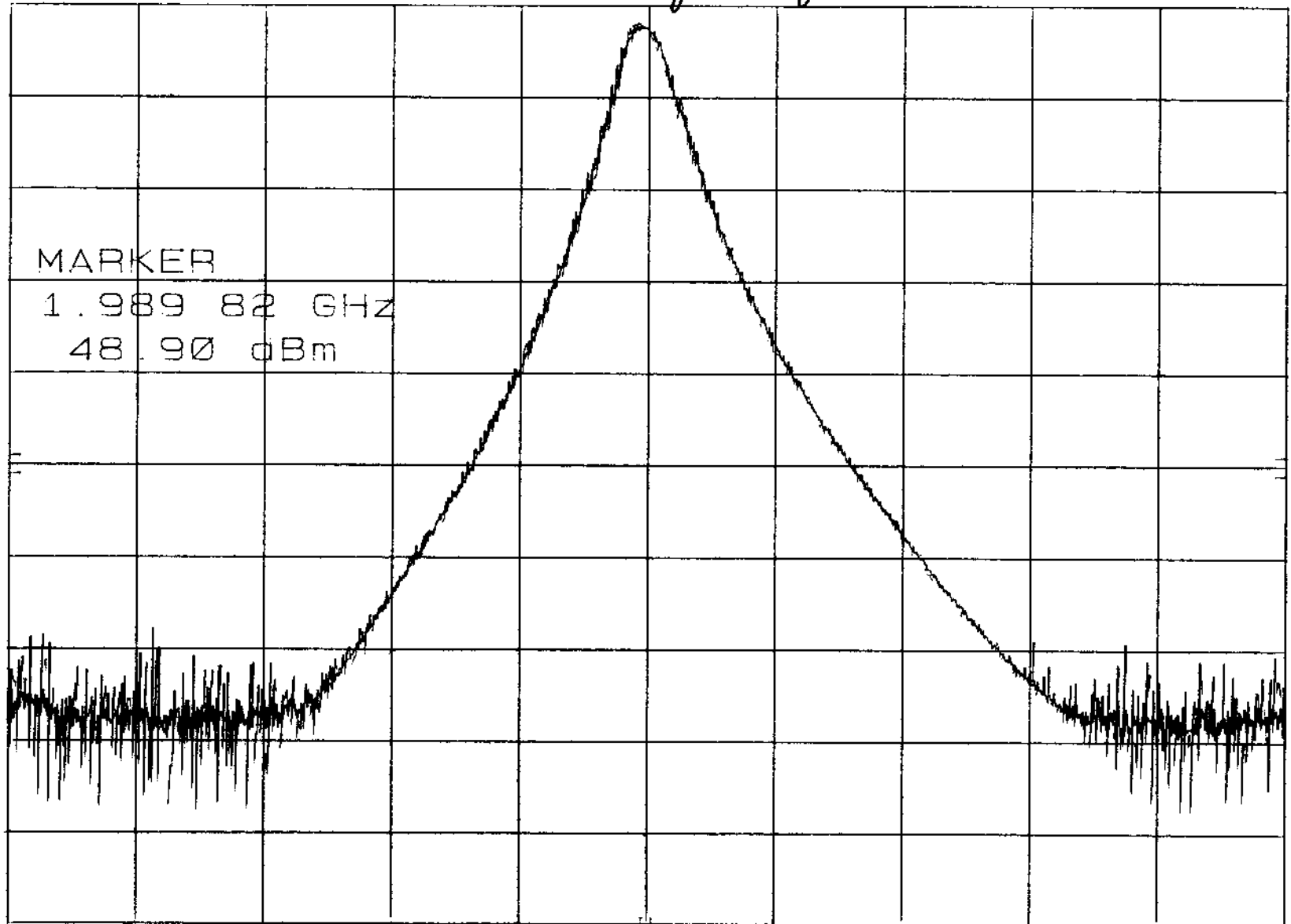
MARKER

1.989 82 GHz

48.90 dBm

VID AVG

11



CENTER 1.990 0 GHz

RES BW 1 MHz (i)

VBW 1 MHz

SPAN 20.0 MHz

SWP 20.0 msec

MKR 1.930 050 GHz
39.60 dBm

hp REF 51.4 dBm

ATTEN 10 dB *mary washington*

10 dB/

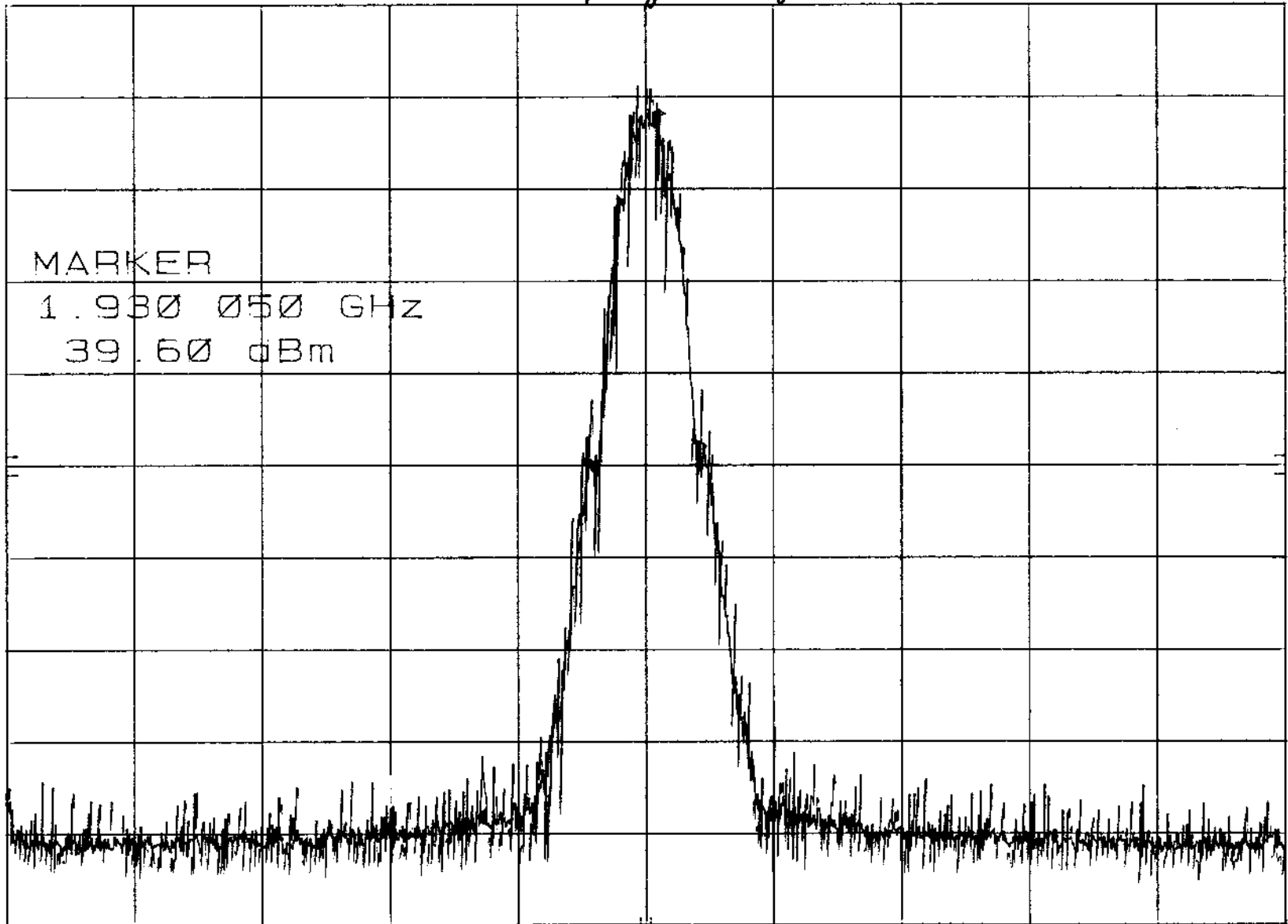
SAMPLE

OFFSET
51.4
dB

MARKER
1.930 050 GHz
39.60 dBm

VID AVG
11

CORR'D



CENTER 1.930 00 GHz

RES BW 30 kHz (1)

VBW 30 kHz

SPAN 5.00 MHz
SWP 37.5 msec

CLIENT: POWERWAVE
SPEC: FCC PART 2, PARAGRAPH 2.989
NOTES: 1) MID CHANNEL GSM

DATE: 10/14/98

REPORT NO. S8511

MKR 1.960 005 GHz
41.20 dBm

HP

REF 51.1 dBm

ATTEN 10 dB

Mary Washburner

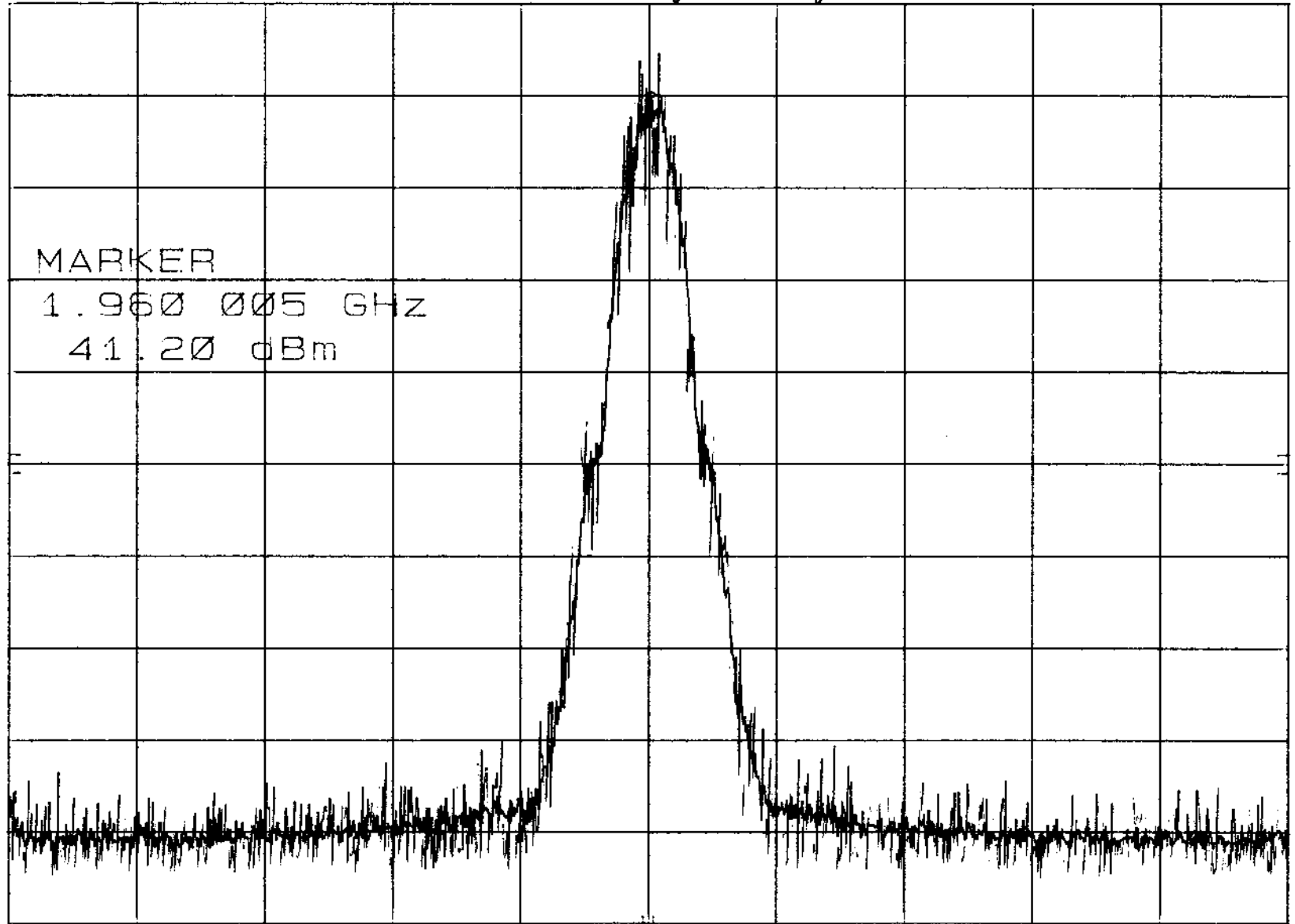
10

F

OFFSET
51.1
dB

MARKER
1.960 005 GHz
41.20 dBm

VID AVG
11



CENTER 1.960 00 GHz

RES BW 30 KHz (1)

VBW 30 KHz

SPAN 5.00 MHz

SWP 50.0 msec

MKR 1.990 000 GHz
41.90 dBm

hp

REF 51.2 dBm

ATTEN 10 dB

marywestinger

10 dB/

SAMPLE

OFFSET

51.2
dB

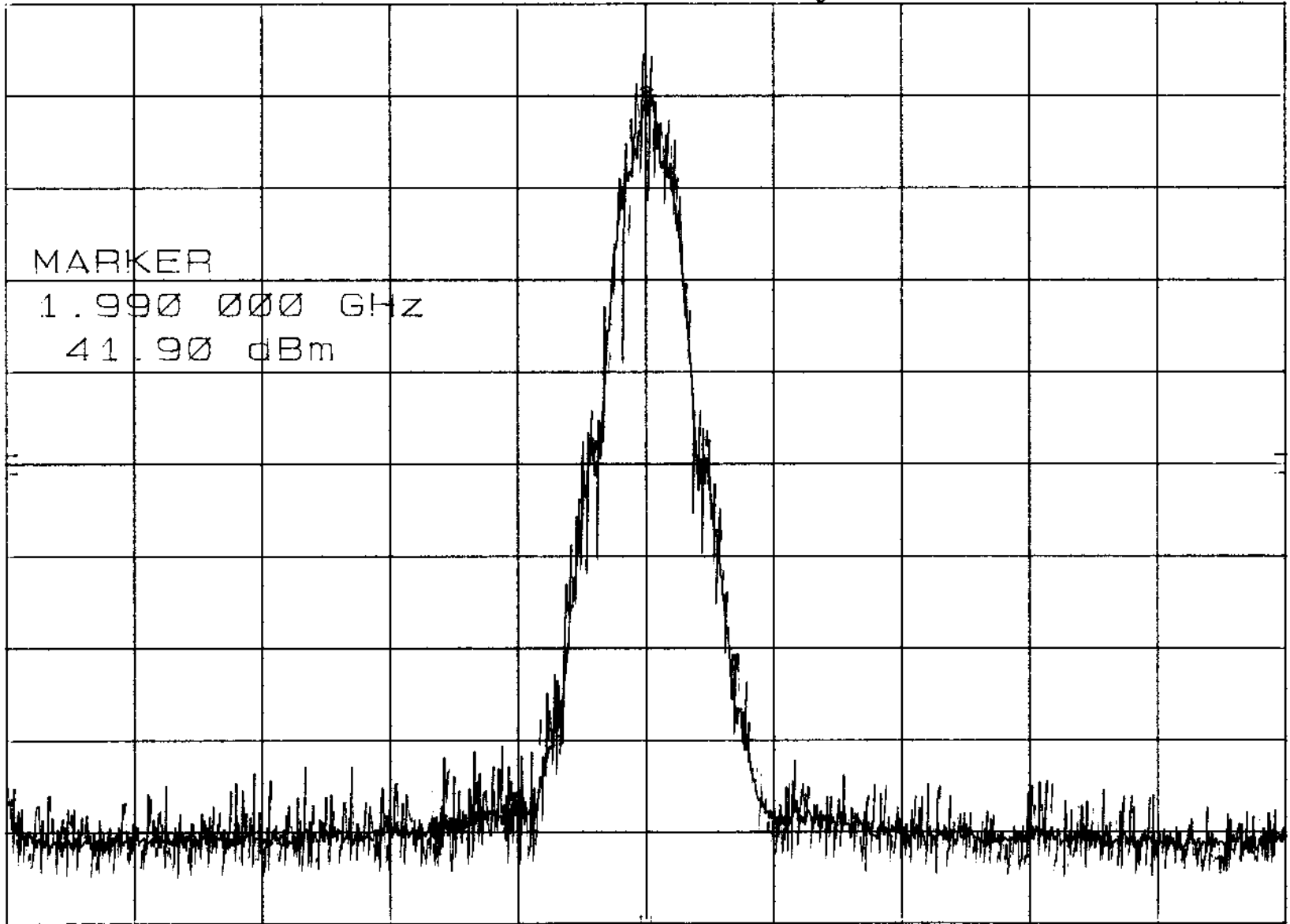
MARKER

1.990 000 GHz

41.90 dBm

VID AVG

11



CENTER 1.990 00 GHz

RES BW 30 kHz (1)

VBW 30 kHz

SPAN 5.00 MHz

SWP 50.0 msec

MKR 1.933 GHz
21.20 dBm

hp REF 41.4 dBm

ATTEN 0 dB *Mary Washington*

10 dB/

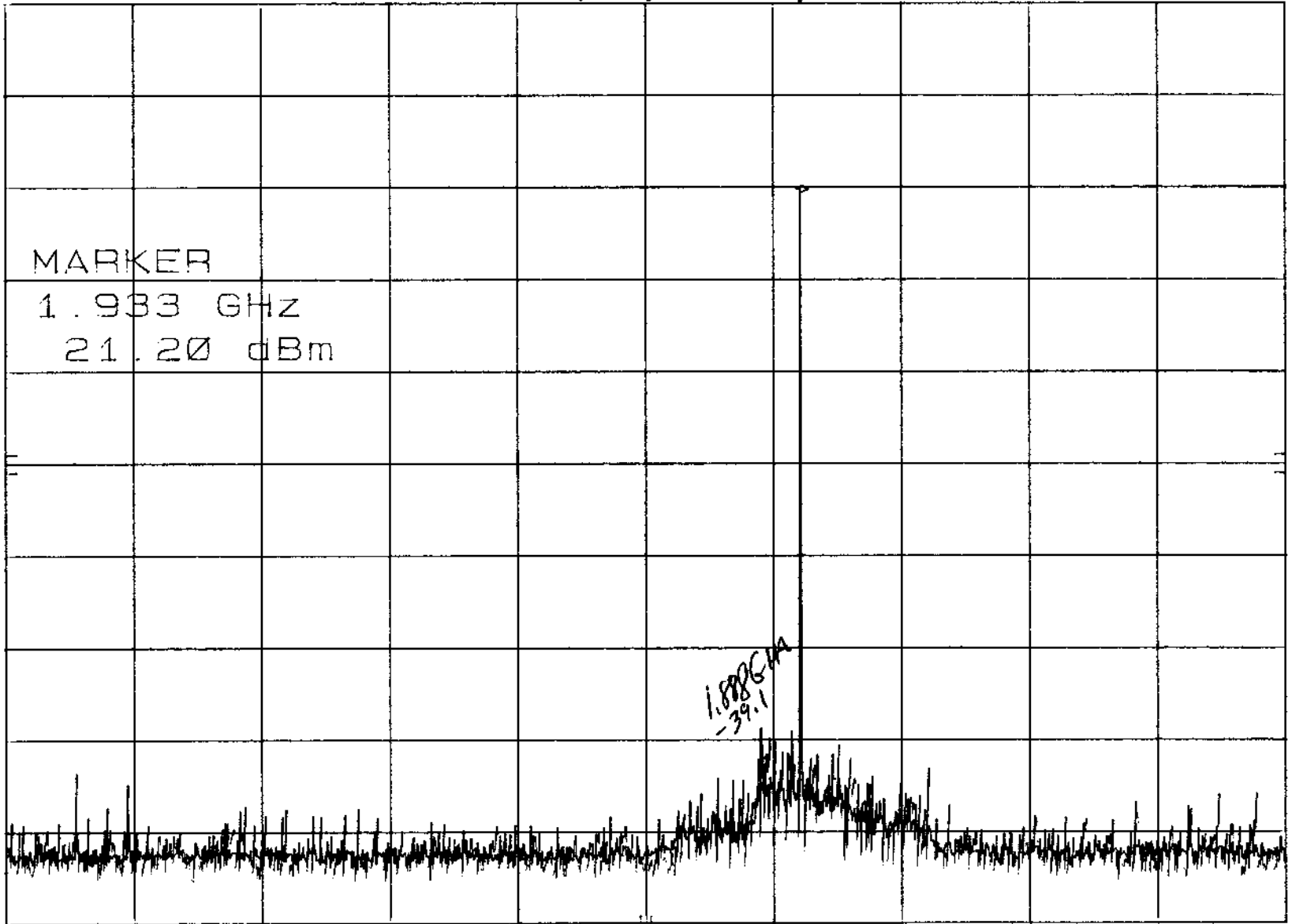
SAMPLE

OFFSET
51.4
dB

MARKER
1.933 GHz
21.20 dBm

VID AVG
11

~~CORR B~~



START 1.00 GHz

RES BW 30 kHz (i)

VBW 30 kHz

STOP 2.50 GHz
SWP 20.0 sec

- NOTES: 1) LOW CHANNEL GSM
- 2) SPURIOUS AT ANTENNA TERMINALS

MKR 3.864 GHz
-35.70 dBm

hp REF 41.4 dBm ATTEN 0 dB *mary Washington*

10 dB/

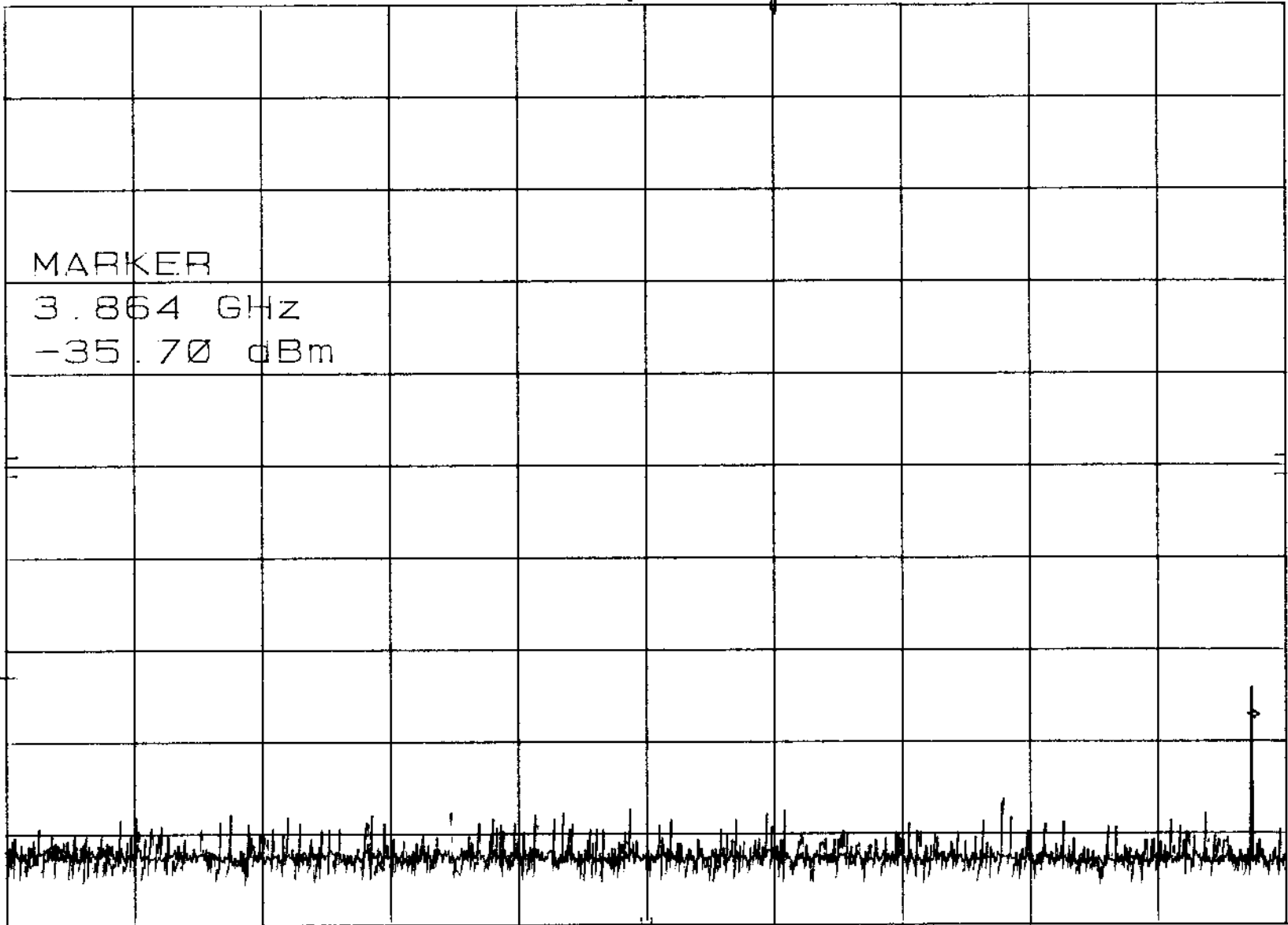
SAMPLE

OFFSET
51.4
dB

MARKER
3.864 GHz
-35.70 dBm

VID AVG
11

~~CORR D~~



START 2.50 GHz

RES BW 30 kHz (i)

VBW 30 kHz

STOP 3.90 GHz

SWP 20.0 sec

CLIENT: POWERWAVE
SPEC: FCC PART 2, PARAGRAPH 2.991
NOTES: 1) LOW CHANNEL GSM

DATE: 10/13/98

REPORT NO. S8511

2) SPURIOUS AT ANTENNA TERMINALS

MKR 3.860 1 GHz
-17.40 dBm

hp

REF 41.4 dBm

ATTEN 0 dB *Mary Washington*

10 dB/

SAMPLE

OFFSET

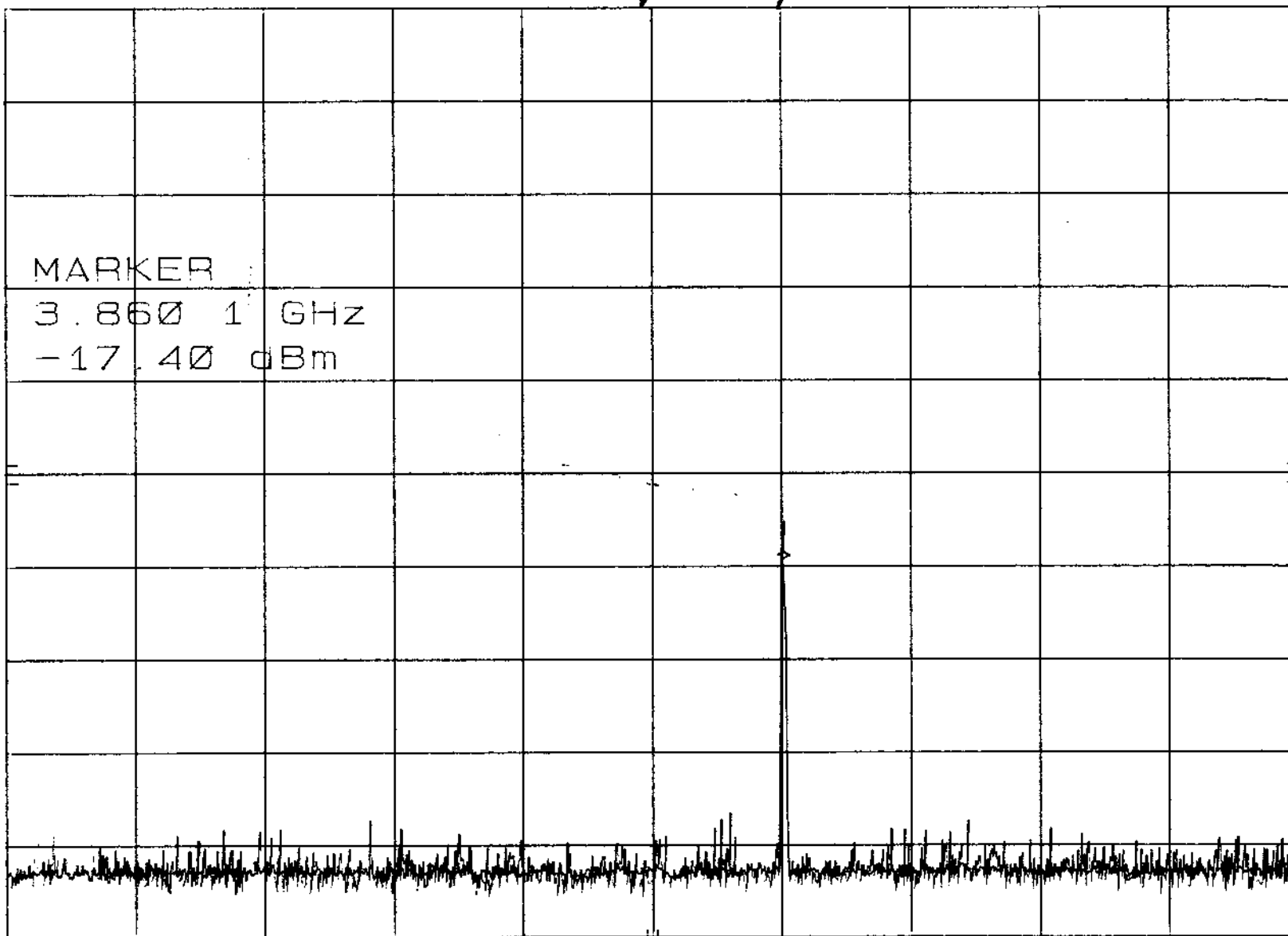
51.4
dB

MARKER
3.860 1 GHz
-17.40 dBm

VID AVG

11

CORR'D



START 3.800 GHz

RES BW 30 kHz (1)

VBW 30 kHz

STOP 3.900 GHz

SWP 5.00 sec

MKR 19.95 GHz
-24.90 dBm

hp REF 41.4 dBm ATTN 0 dB *Mary Washington*

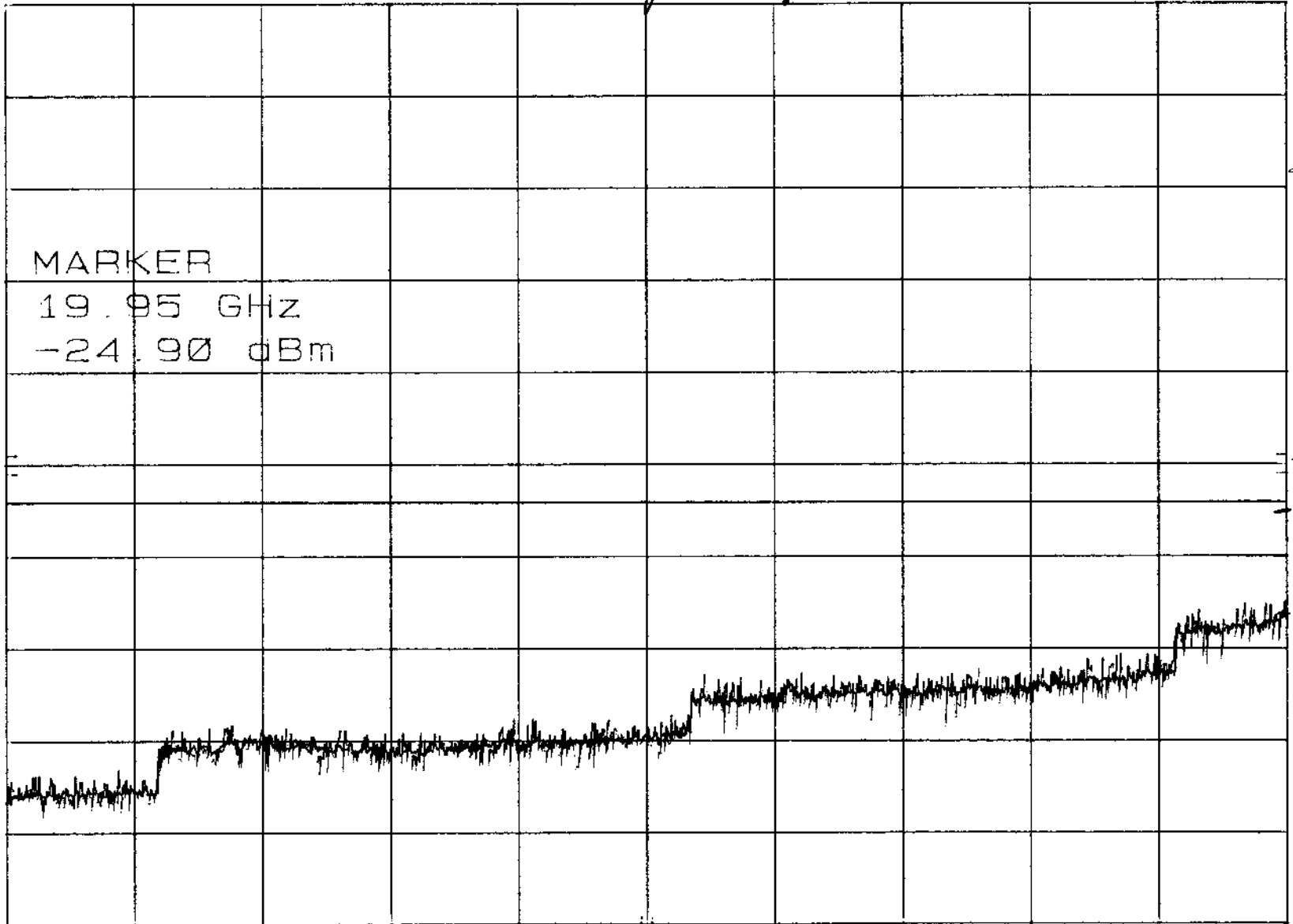
10 dB/

SAMPLE

OFFSET
51.4
dB

DL
-12.7
dBm

VID AVG
11



START 3.9 GHz

RES BW 300 kHz (i)

VBW 10 kHz

STOP 20.0 GHz

SWP 25.8 sec

MKR 1.963 GHz
44.40 dBm

hp REF 51.1 dBm ATTEN 10 dB *may absolute*

10 dB/

SAMPLE

OFFSET

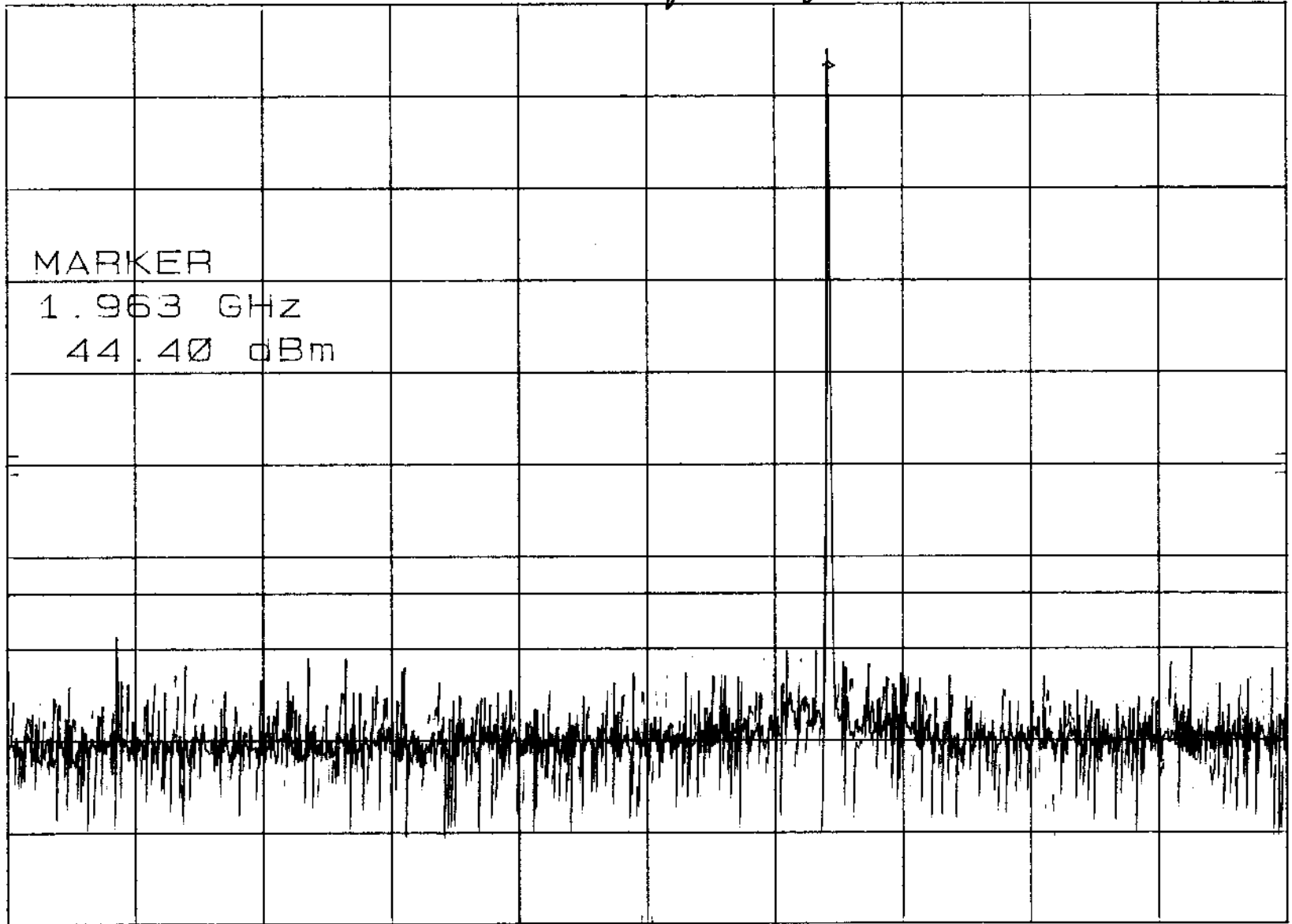
51.1
dB

DL

-13.0
dBm

VID AVG

11



START 1.00 GHz

RES BW 1 MHz (i)

VBW 1 MHz

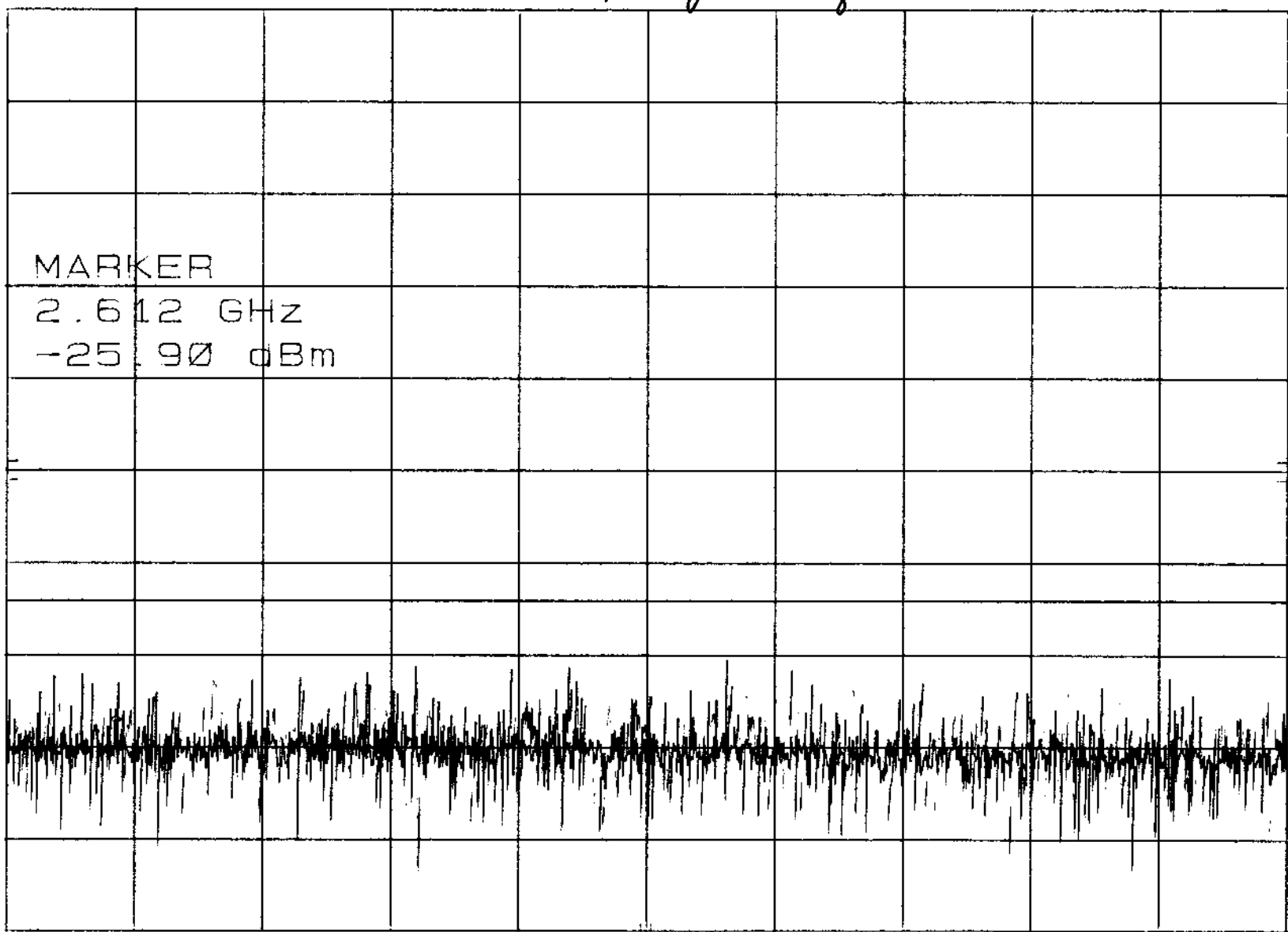
STOP 2.50 GHz

SWP 5.00 sec

MKR 2.612 GHz
-25.90 dBm

hp REF 51.1 dBm ATTEN 10 dB *Mary Woshington*

10 dB/
SAMPLE
OFFSET
51.1
dB
DL
-13.0
dBm
VID AVG
11



START 2.50 GHz STOP 3.82 GHz
RES BW 1 MHz (1) VBW 1 MHz SWP 5.00 sec

CLIENT: POWERWAVE
SPEC: FCC PART 2, PARAGRAPH 2.991
NOTES: 1) MID CHANNEL GSM

DATE: 10/15/98

REPORT NO. S8511

MKR 3.920 6 GHz
-15.40 dBm

hp REF 51.1 dBm ATTEN 20 dB *may washington*

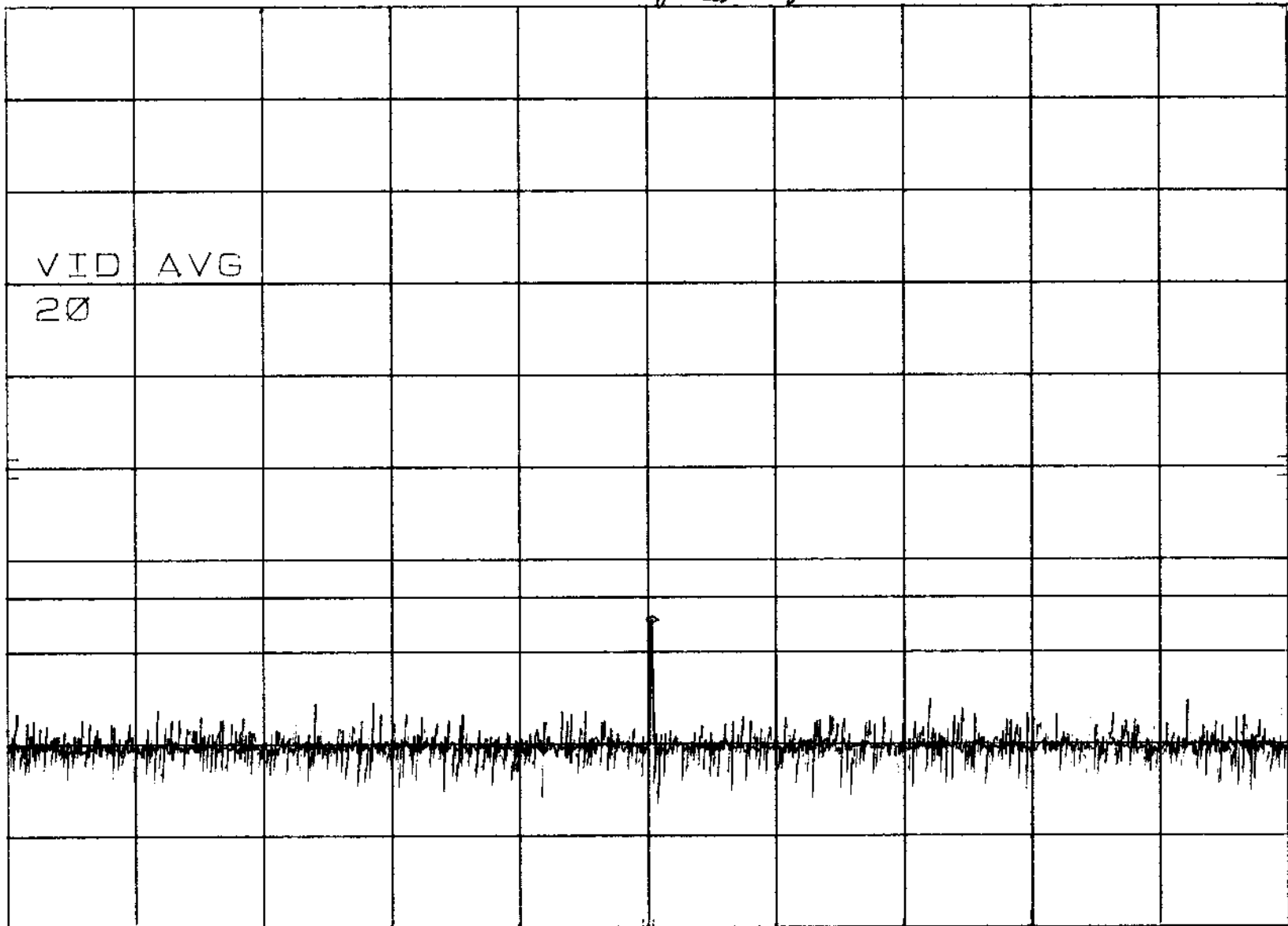
10 dB/

SAMPLE

OFFSET
51.1
dB

DL
-13.0
dBm

VID AVG
20



CENTER 3.920 GHz

RES BW 100 kHz (1) VBW 10 kHz

SPAN 200 MHz
SWP 5.00 sec

3.820

4.02

CLIENT: POWERWAVE
SPEC: FCC PART 2, PARAGRAPH 2.991
NOTES: 1) MID CHANNEL GSM

DATE: 10/14/98

REPORT NO. S8511

MKR 7.482 GHz
-20.20 dBm

hp REF 61.1 dBm

ATTEN 20 dB *may Washington*

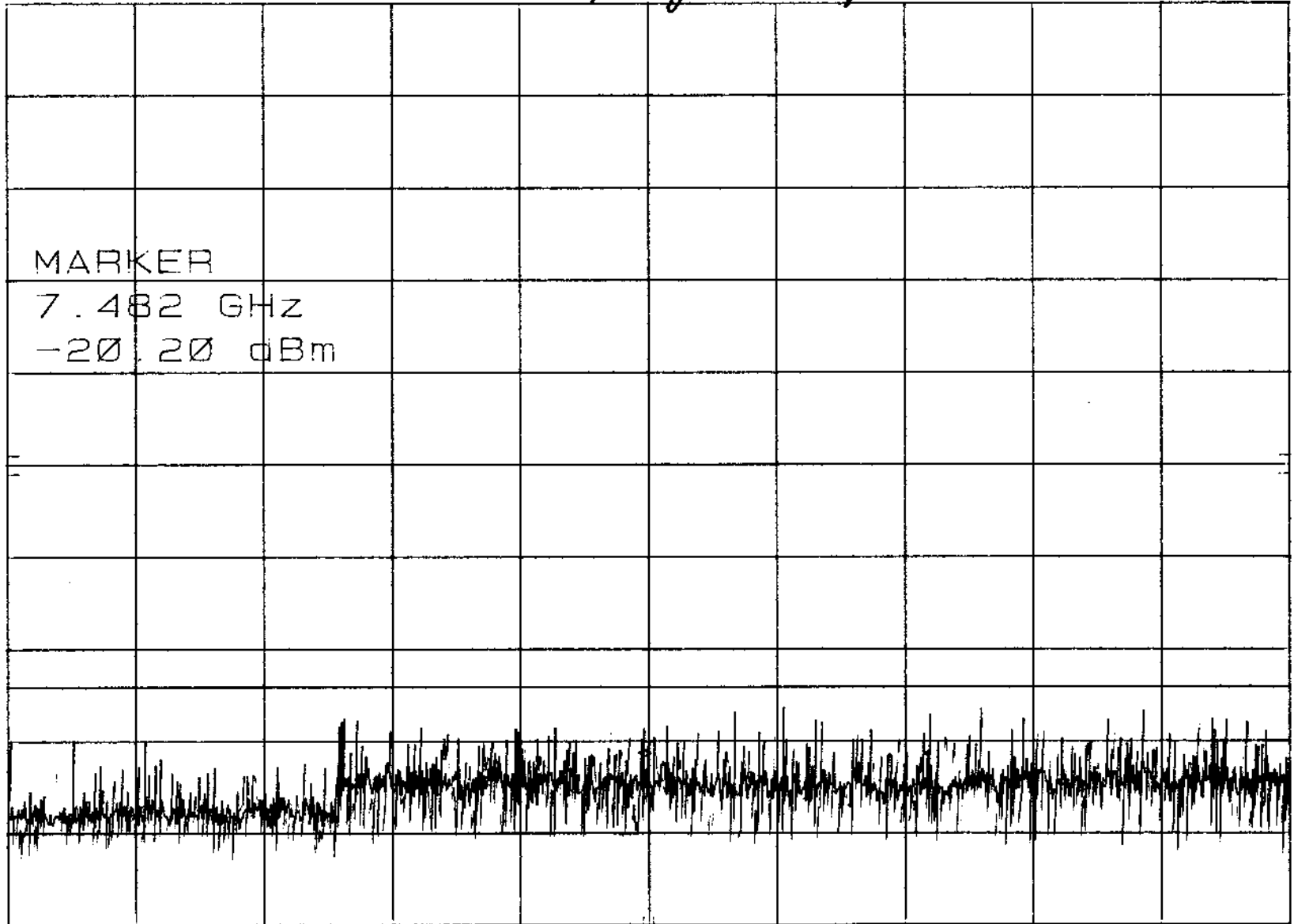
10 dB/

SAMPLE

OFFSET
51.1
dB

DL
-13.0
dBm

VID AVG
11



START 4.02 GHz

RES BW 100 kHz (i)

VBW 100 kHz

STOP 11.00 GHz

SWP 10.0 sec

MKR 19.942 GHz
-18.00 dBm

hp REF 41.1 dBm ATTN 0 dB *maryashwin*

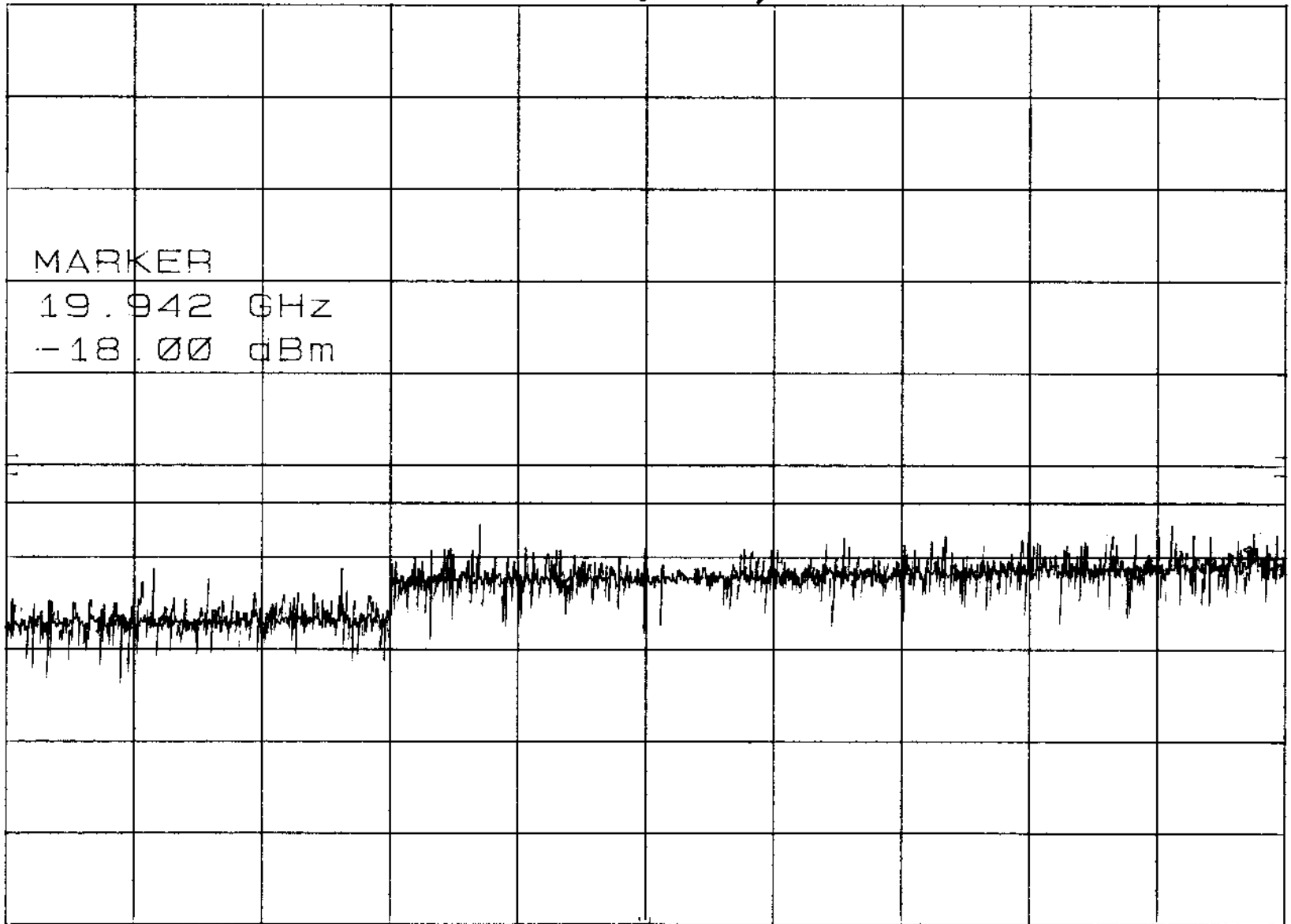
10 dB/

SAMPLE

OFFSET
51.1
dB

DL
-13.0
dBm

VID AVG
11



START 17.99 GHz

RES BW 1 MHz (i)

VBW 100 kHz

STOP 20.00 GHz

SWP 2.00 sec

CLIENT: POWERWAVE
SPEC: FCC PART 2, PARAGRAPH 2.991
NOTES: 1) MID CHANNEL GSM

DATE: 10/15/98

REPORT NO. S8511

hp REF 41.1 dBm ATTEN 0 dB *marywashington* MKR 17.895 GHz
-31.50 dBm

10 dB/

SAMPLE

OFFSET

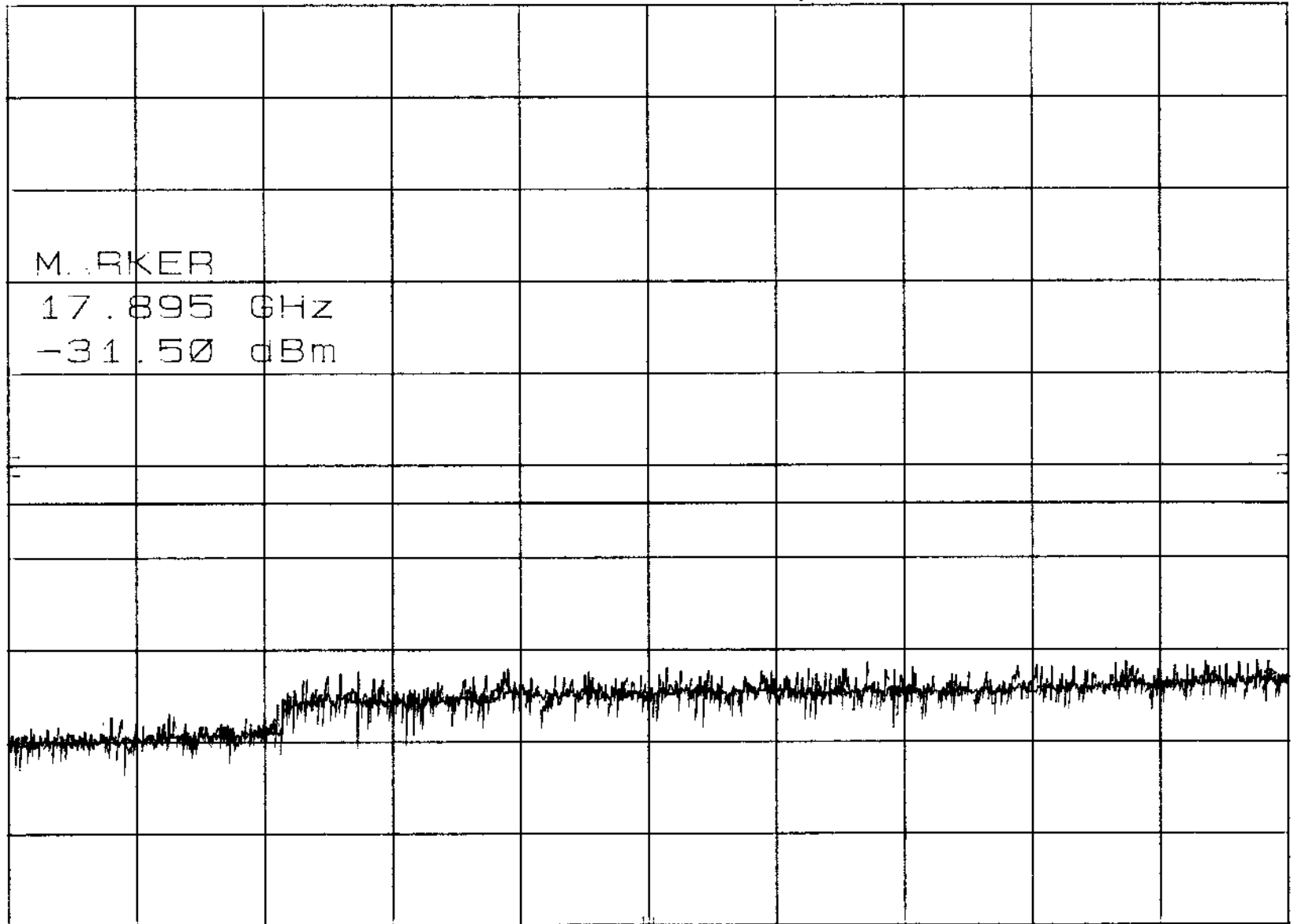
51.1
dB

DL

-13.0
dBm

VID AVG

11



START 11.00 GHz

RES BW 300 kHz (i)

VBW 10 kHz

STOP 18.00 GHz

SWP 11.2 sec

CLIENT: POWERWAVE
SPEC: FCC PART 2, PARAGRAPH 2.991
NOTES: 1) HIGH CHANNEL GSM
2 Video

DATE: 10/13/98

REPORT NO. S8511

MKR 1.995 GHz
48.90 dBm

REF 51.2 dBm

ATTEN 10 dB

maywashita

10 dB/

SAMPLE

OFFSET

51.2
dB

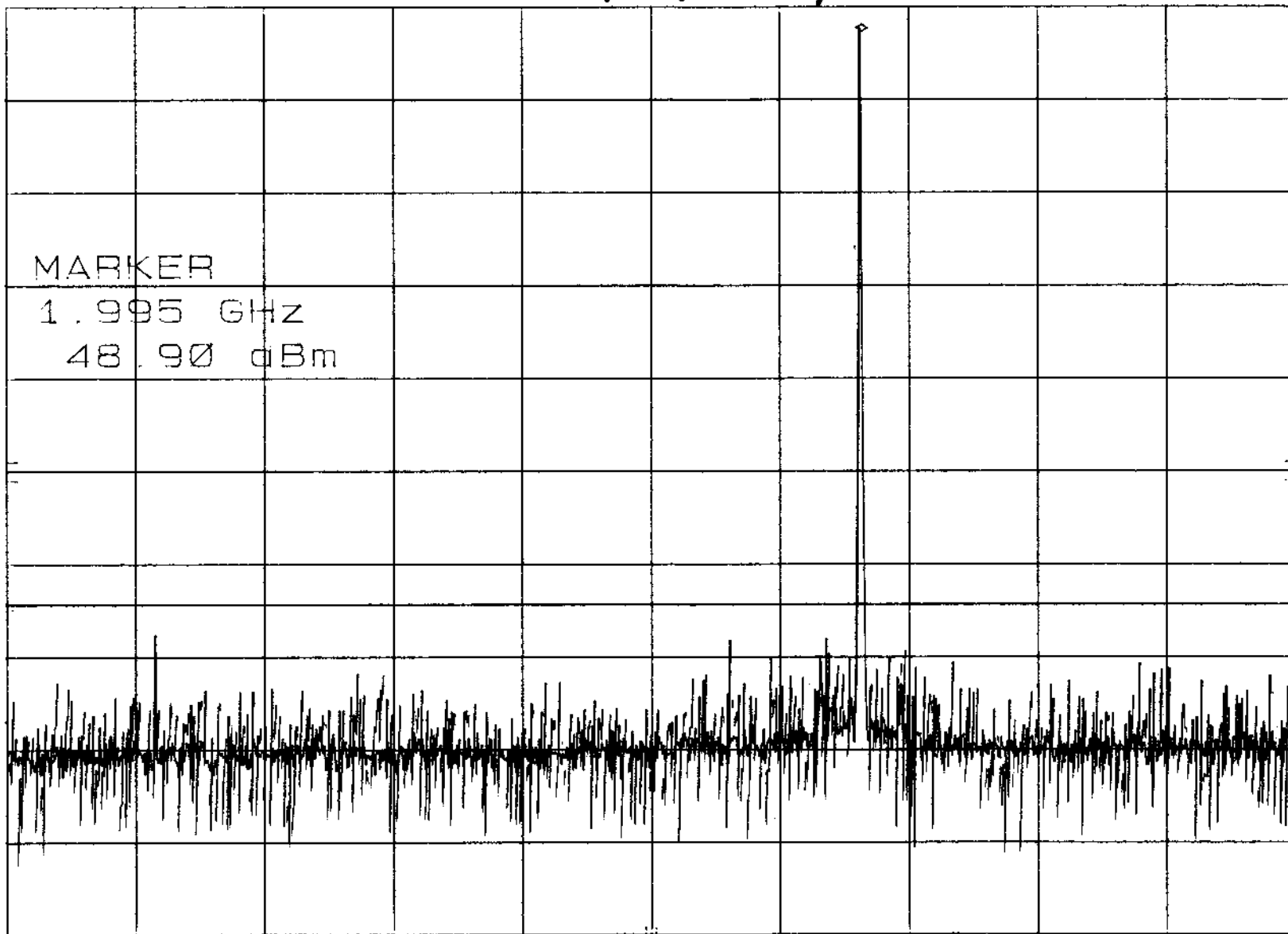
MARKER

DL
-13.2
dBm

1.995 GHz
48.90 dBm

VID AVG

11



START 1.00 GHz

RES BW 1 MHz (i)

VBW 1 MHz

STOP 2.50 GHz
SWP 37.5 msec

CLIENT: POWERWAVE
SPEC: FCC PART 2, PARAGRAPH 2.991
NOTES: 1) HIGH CHANNEL GSM

DATE: 10/14/98

REPORT NO. S8511

MKR 2.725 GHz
-25.40 dBm

hp REF 61.2 dBm ATTEN 20 dB *may Washington*

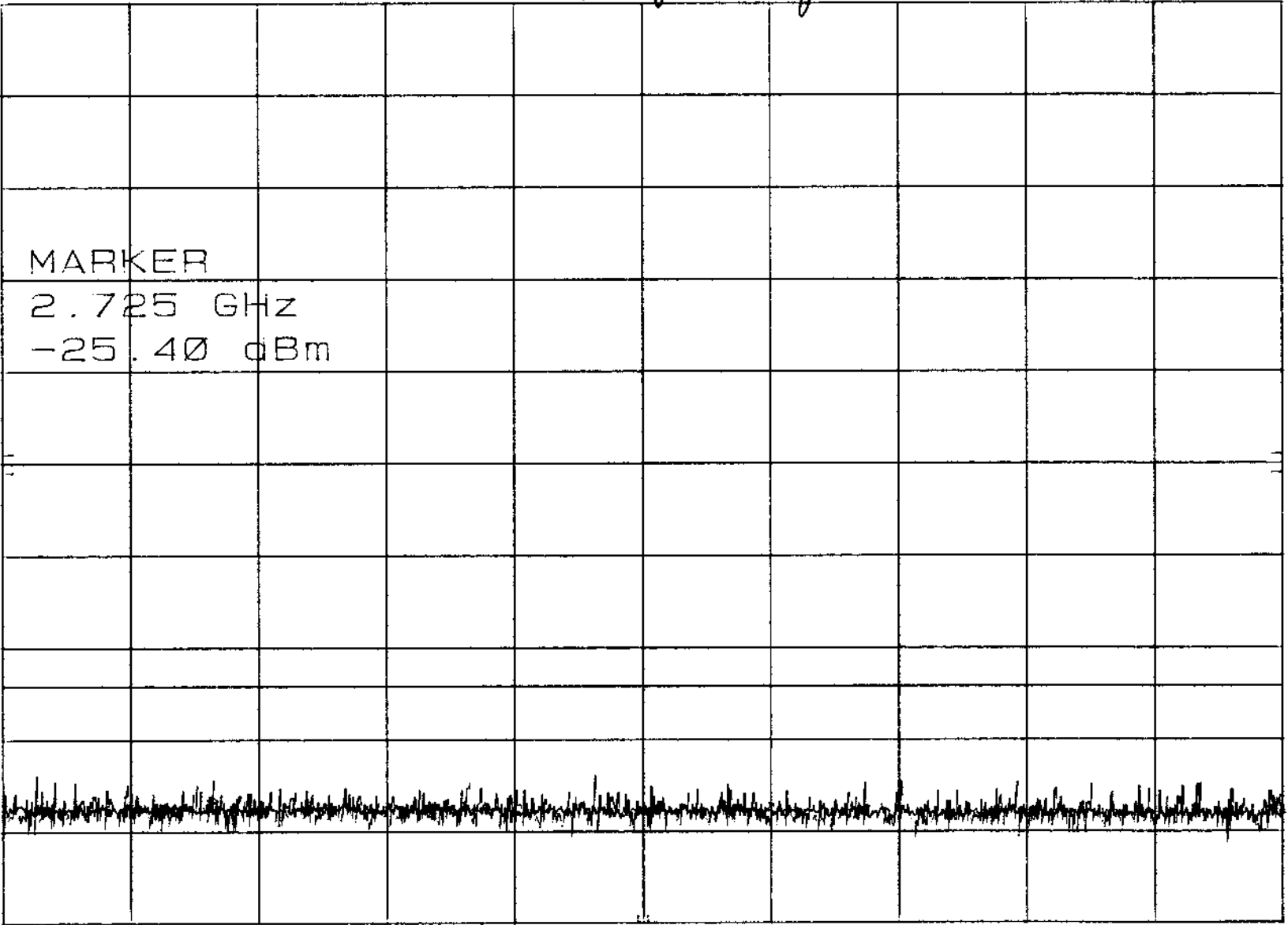
10 dB/

SAMPLE

OFFSET
51.2
dB

DL
-13.0
dBm

VID AVG
11



START 2.50 GHz

RES BW 100 kHz (1)

VBW 10 kHz

STOP 3.88 GHz

SWP 10.0 sec

CLIENT: POWERWAVE
SPEC: FCC PART 2, PARAGRAPH 2.991
NOTES: 1) HIGH CHANNEL GSM

DATE: 10/15/98

REPORT NO. S8511

MKR 3.980 2 GHz
-14.60 dBm

hp REF 61.2 dBm ATTEN 20 dB *mayusshinger*

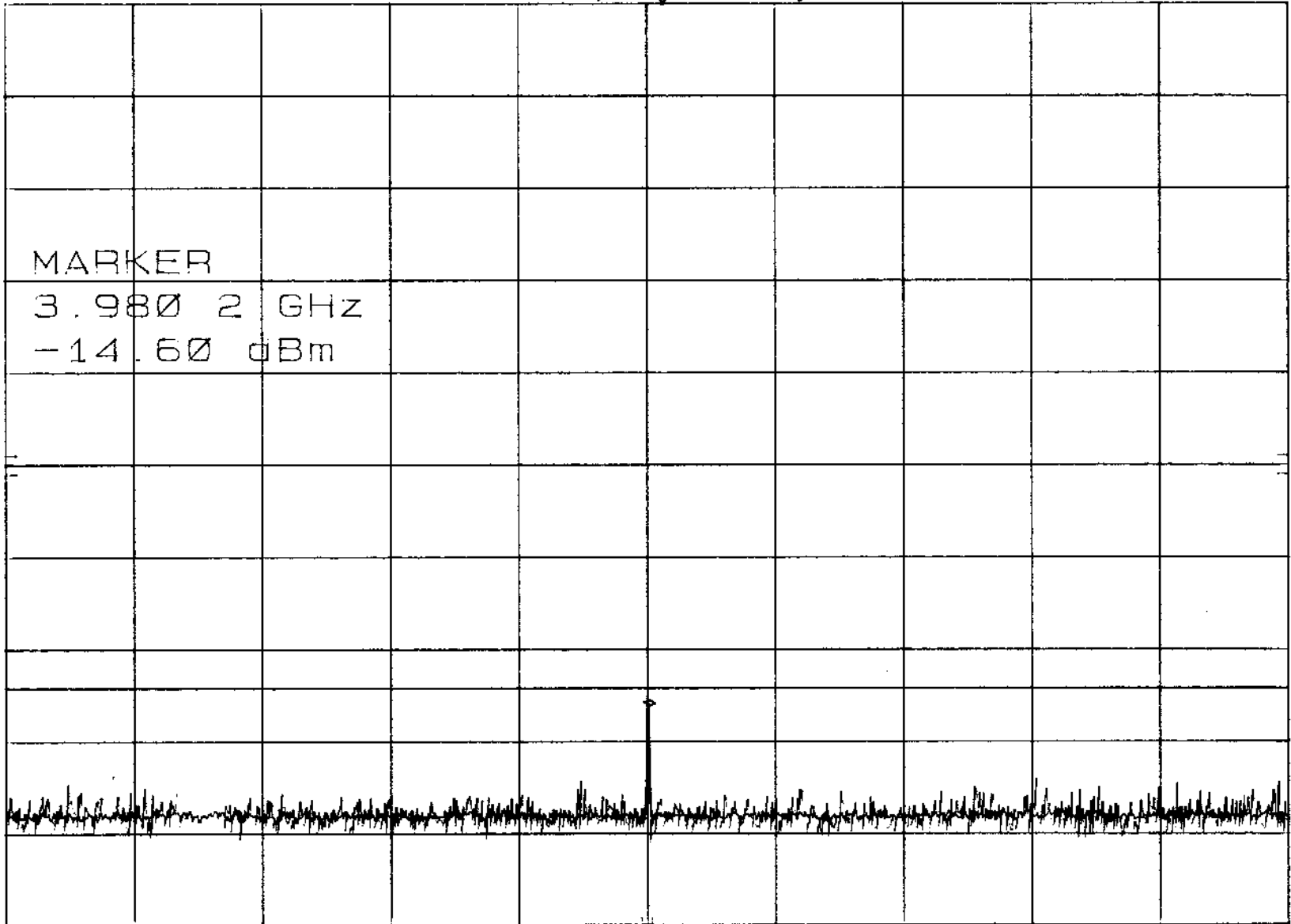
10 dB/

SAMPLE

OFFSET
51.2
dB

DL
-13.0
dBm

VID AVG
20



CENTER 3.980 GHz

RES BW 100 kHz (1) VBW 10 kHz

SPAN 200 MHz

SWP 5.00 sec

3.80

4.080

CLIENT: POWERWAVE
SPEC: FCC PART 2, PARAGRAPH 2.991
NOTES: 1) HIGH CHANNEL GSM

DATE: 10/14/98

REPORT NO. S8511

MKR 7.816 GHz
-18.10 dBm

hp REF 61.2 dBm ATTEN 20 dB *Mary Washington*

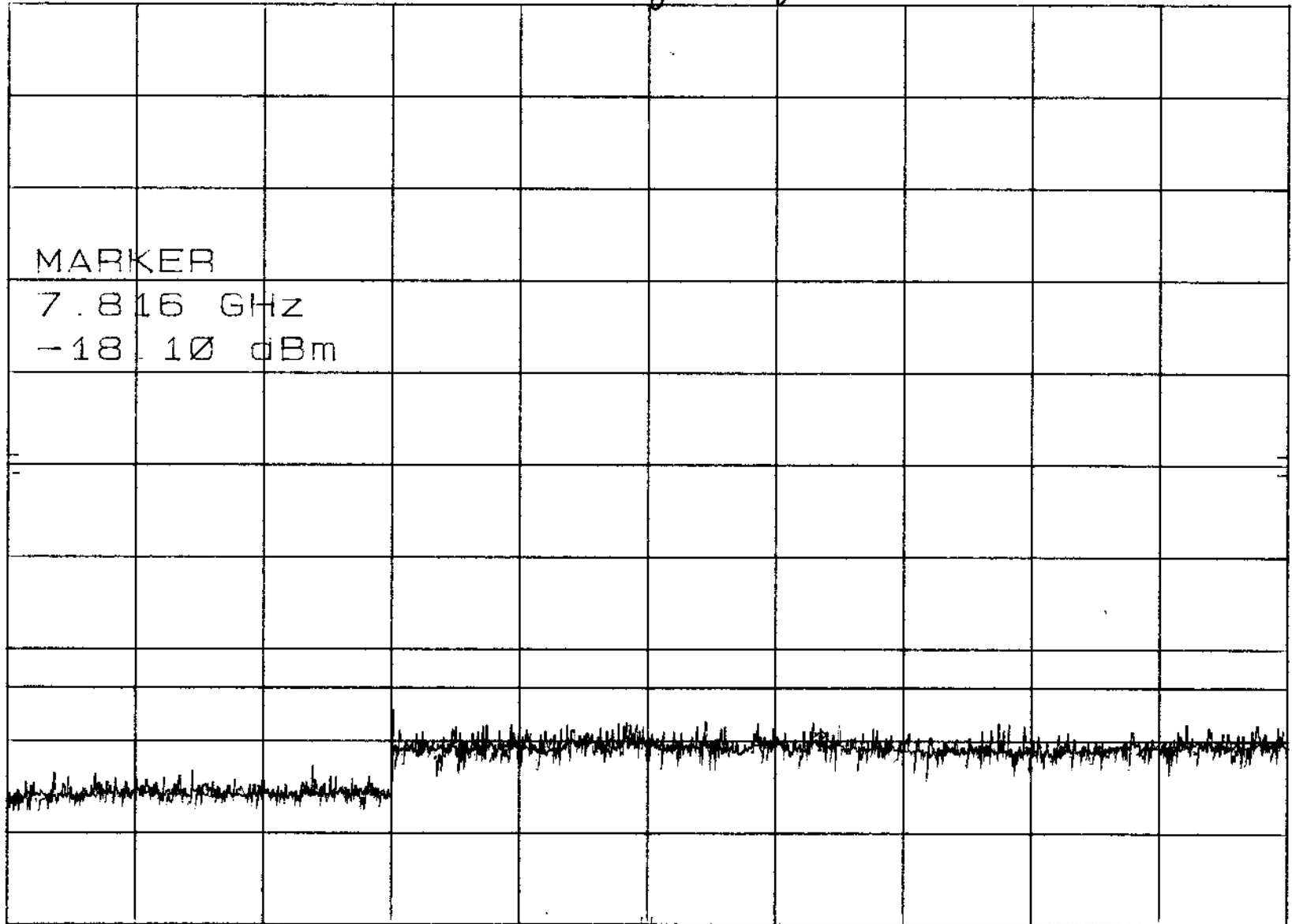
10 dB/

SAMPLE

OFFSET
51.2
dB

DL
-13.0
dBm

VID AVG
11



START 4.00 GHz

RES BW 300 kHz (i) VBW 10 kHz

STOP 10.00 GHz
SWP 10.0 sec

CLIENT: POWERWAVE
SPEC: FCC PART 2, PARAGRAPH 2.991
NOTES: 1) HIGH CHANNEL GSM

DATE: 10/14/98

REPORT NO. S8511

MKR 13.770 GHz
-22.30 dBm

hp REF 51.2 dBm ATTEN 10 dB *Mary Washington*

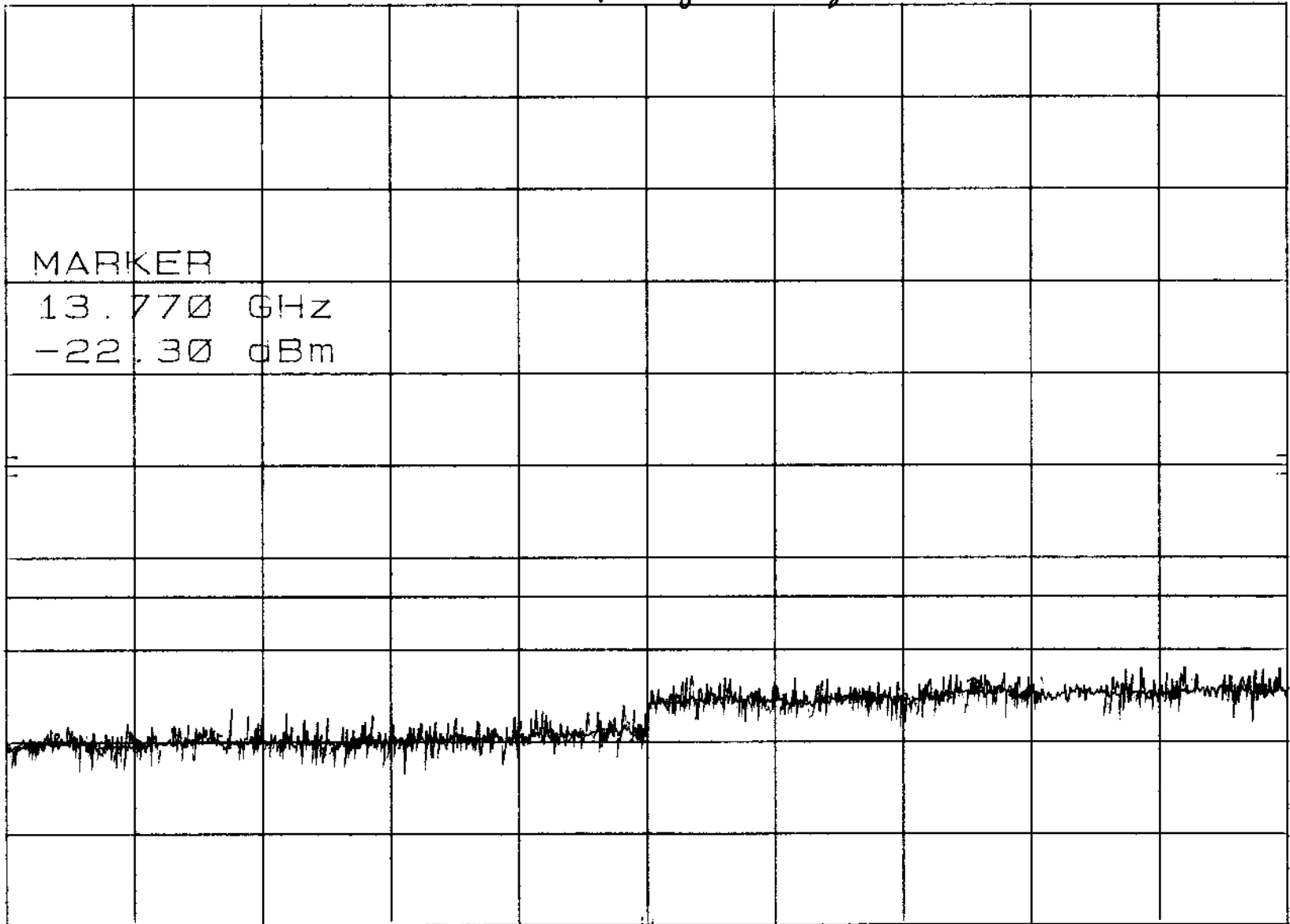
10 dB/

SAMPLE

OFFSET
51.2
dB

DL
-13.0
dBm

VID AVG
11



START 10.00 GHz

RES BW 300 kHz (i)

VBW 10 kHz

STOP 15.00 GHz

SWP 10.0 sec

CLIENT: POWERWAVE
SPEC: FCC PART 2, PARAGRAPH 2.991
NOTES: 1) HIGH CHANNEL GSM

DATE: 10/15/98

REPORT NO. S8511

MKR 19.980 GHz
-24.40 dBm

hp REF 41.2 dBm ATTN 0 dB *may Washington*

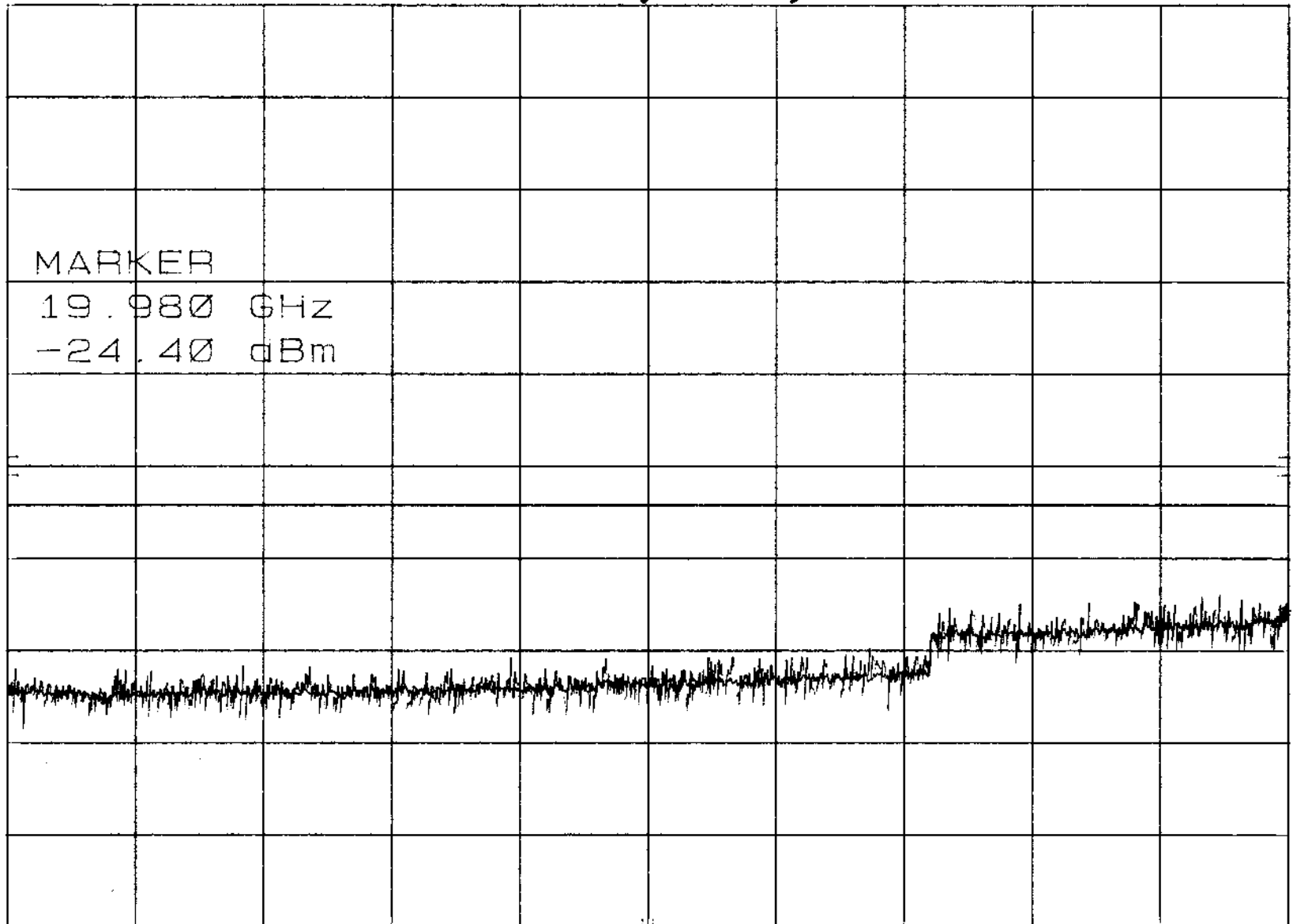
10 dB/

SAMPLE

OFFSET
51.2
dB

DL
-13.0
dBm

VID AVG
11



START 15.00 GHz

RES BW 300 kHz (i) VBW 10 kHz

STOP 20.00 GHz

SWP 8.00 sec

CLIENT: POWERWAVE
SPEC: FCC PART 24, PARAGRAPH 24.238
NOTES: 1) LOW CHANNEL GSM

DATE: 10/13/98
(Bandedges)

REPORT NO. S8511

2) Below f_0

MKR 1.930 015 GHz
49.10 dBm

hp

REF 51.4 dBm

ATTEN 10 dB

Mary Washington

10 dB/

SAMPLE

OFFSET

51.4
dB

SPAN
5.00 MHz

VID AVG

11

CORR'D

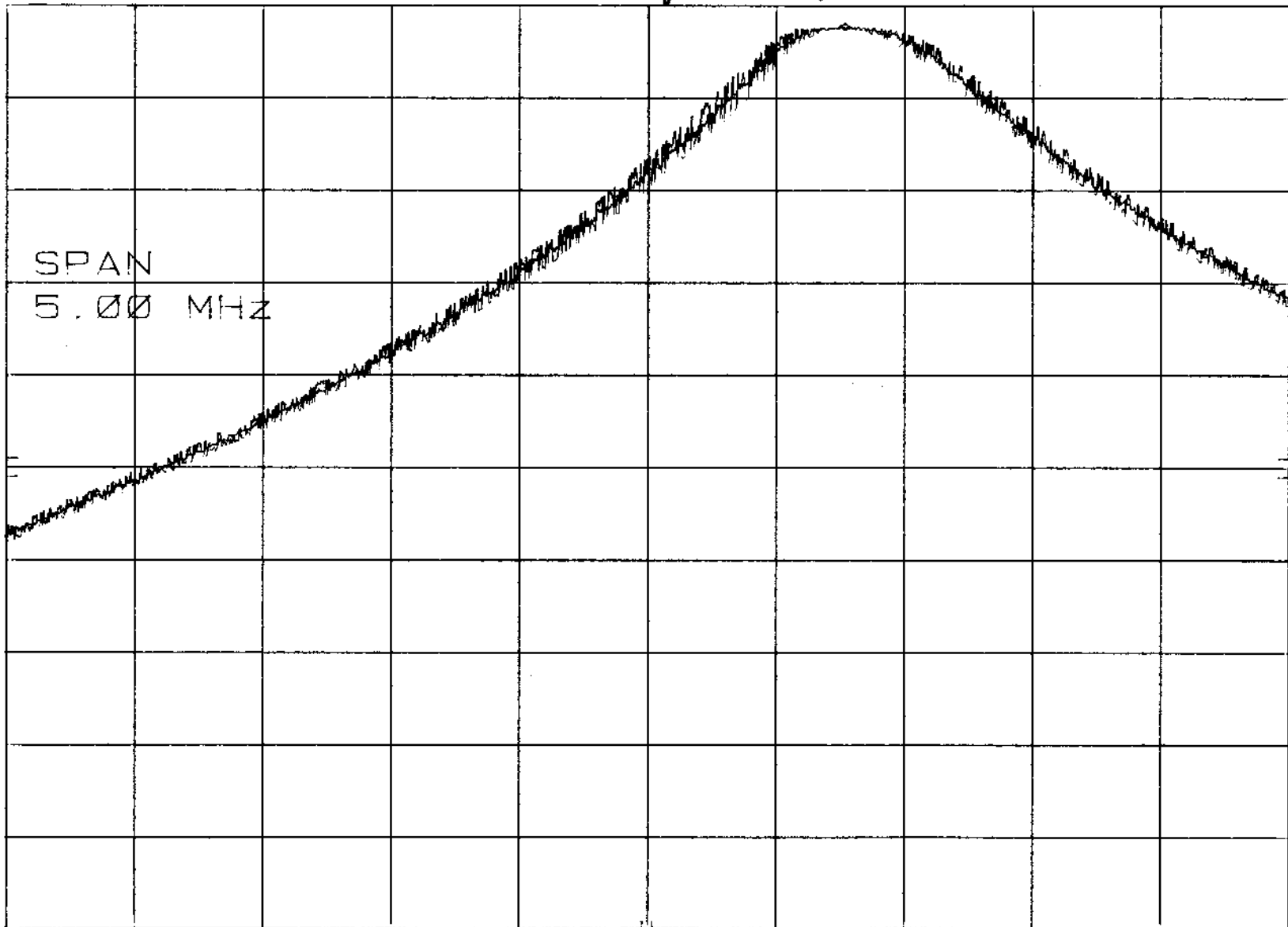
CENTER 1.929 25 GHz

RES BW 1 MHz (1)

VBW 1 MHz

SPAN 5.00 MHz

SWP 37.5 msec



CLIENT: POWERWAVE

DATE: 10/13/98

REPORT NO. S8511

SPEC: FCC PART 24, PARAGRAPH 24.238 (bandedges)

NOTES: 1) Low channge GSM

2) Below f_0

MKR 1.930 09 GHz

49.00 dBm

hp

REF 51.4 dBm

ATTEN 10 dB *maywashengto*

10 dB/

SAMPLE

OFFSET

51.4

dB

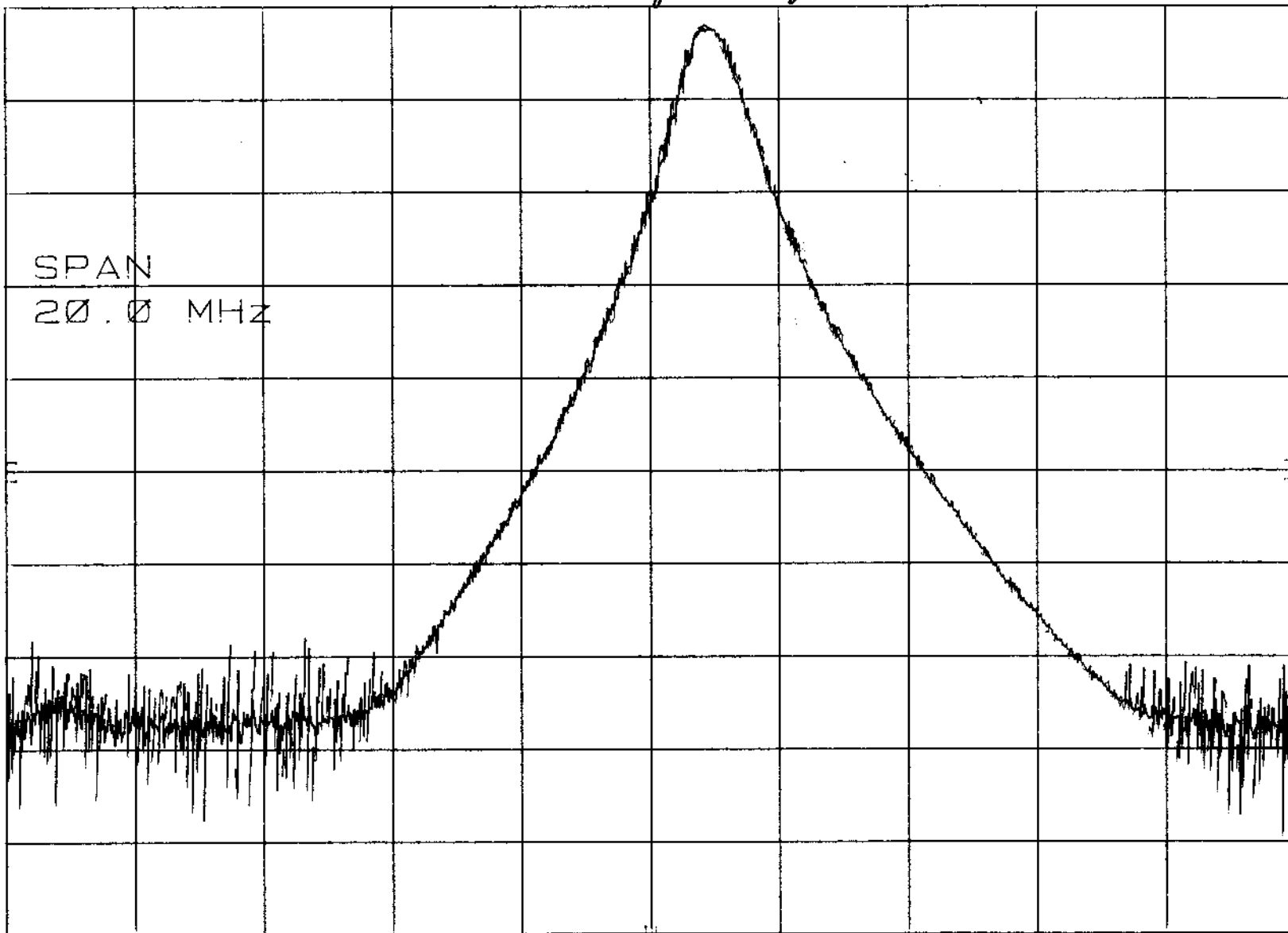
SPAN

20.0 MHz

VID AVG

11

CORR'D



CENTER 1.929 2 GHz

RES BW 1 MHz (1)

VBW 1 MHz

SPAN 20.0 MHz

SWP 37.5 msec

NOTES: 1) LOW CHANNEL GSM

2) Video averaging

3) Peak measured

4) Above f_0

MKR 1.929 965 GHz

49.10 dBm

REF 51.4 dBm

ATTEN 10 dB

Mary W Ashurst

10 dB/

SAMPLE

OFFSET

51.4

dB

SPAN

5.00 MHz

VID AVG

11

CORR'D

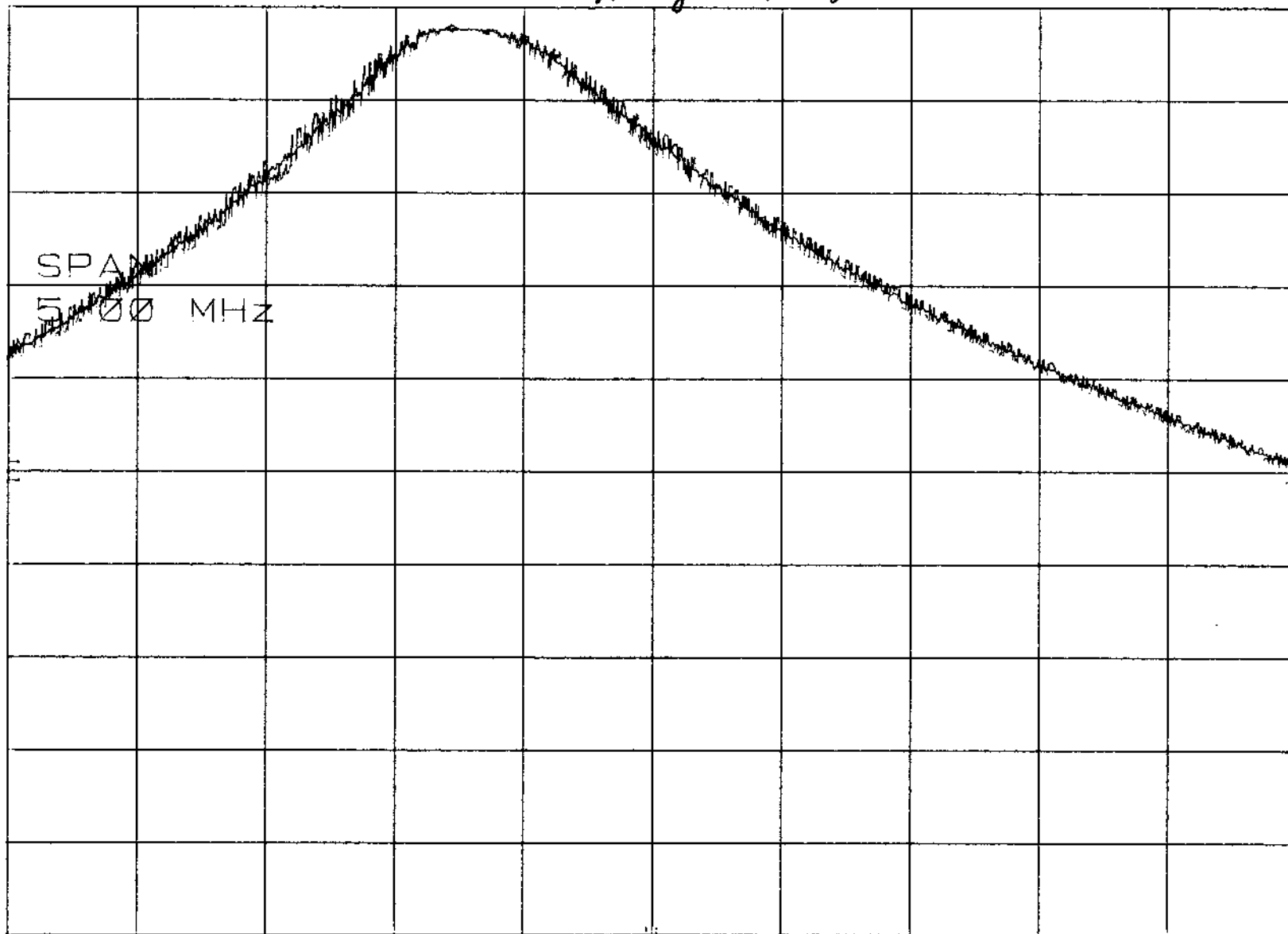
CENTER 1.930 75 GHz

RES BW 1 MHz (1)

VBW 1 MHz

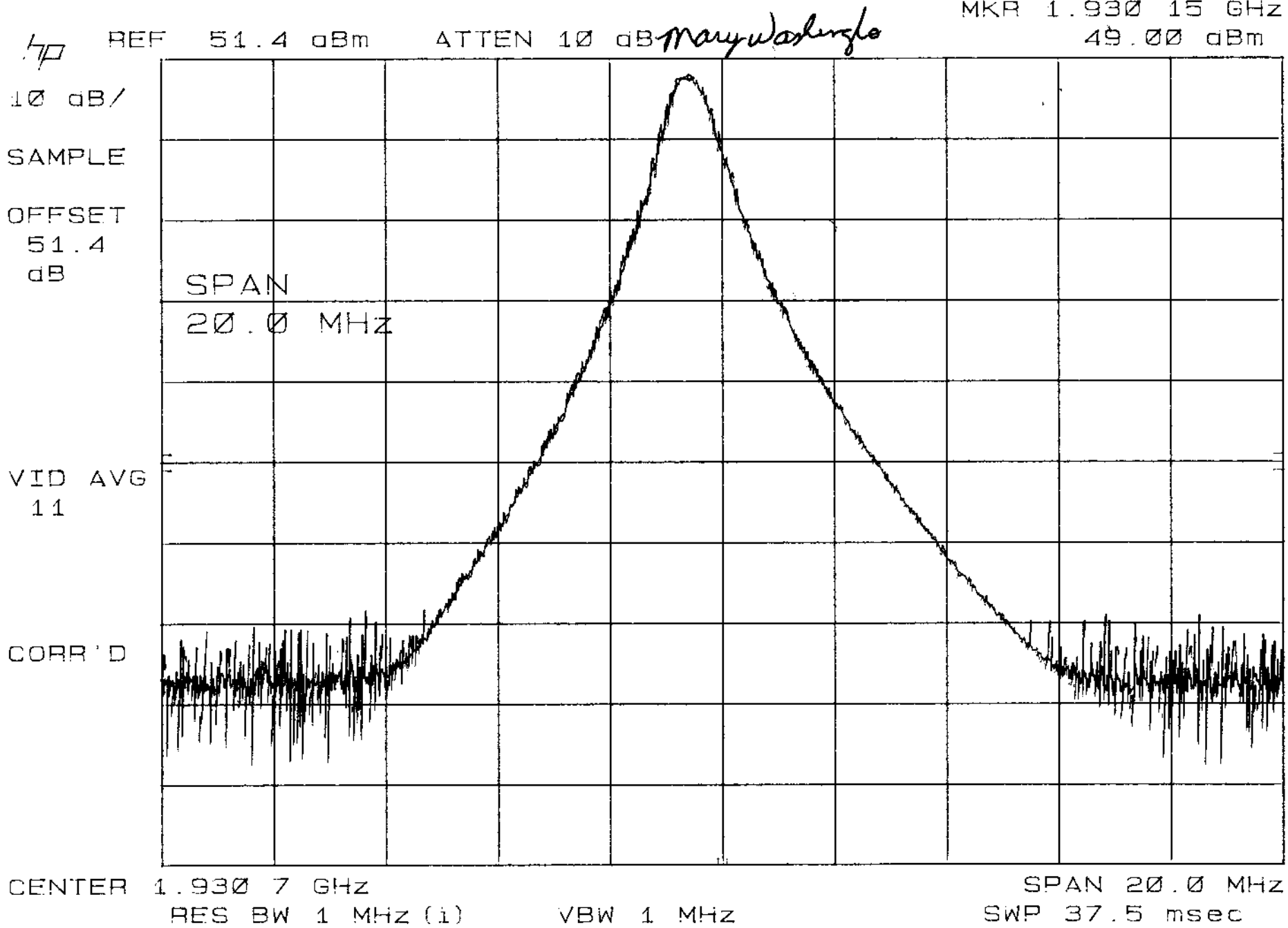
SPAN 5.00 MHz

SWP 37.5 msec



NOTES: 1) LOW CHANNEL GSM
2) Above f_0

MKR 1.930 15 GHz
49.00 dBm



CLIENT: POWERWAVE
SPEC: FCC PART 24, PARAGRAPH 24.238
NOTES: 1) HIGH CHANNEL GSM

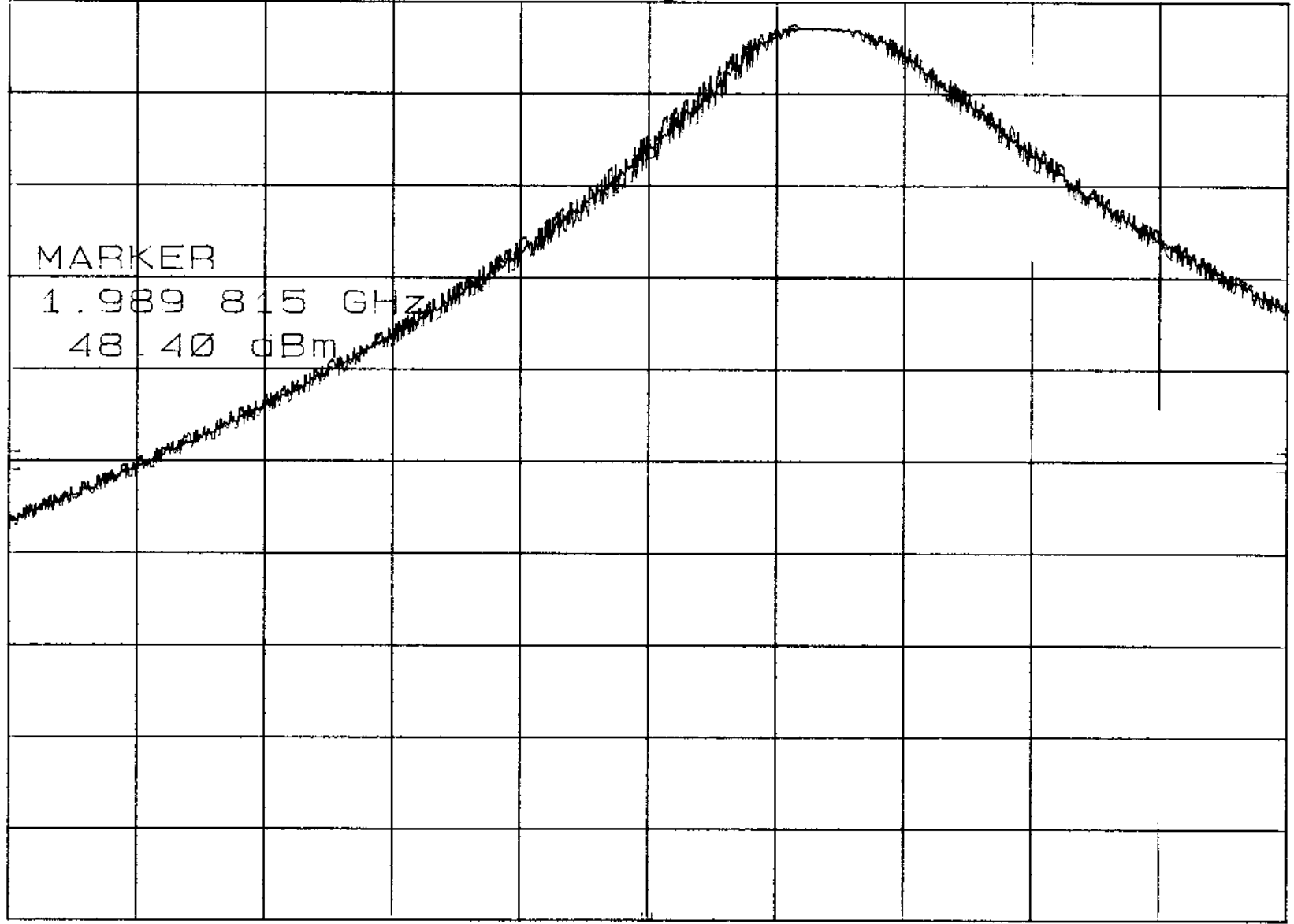
DATE: 10/14/98

REPORT NO. S8511

MKR 1.989 815 GHz
48.40 dBm

hp
REF 51.2 dBm
ATTEN 10 dB
10 dB/
SAMPLE
OFFSET
51.2
dB

margin adjustment



CENTER 1.989 25 GHz
RES BW 1 MHz (1) VBW 1 MHz SPAN 5.00 MHz
SWP 50.0 msec

MKR 1.989 89 GHz
48.30 dBm

hp REF 51.2 dBm ATTEN 10 dB *Mary Washineta*

10 dB/

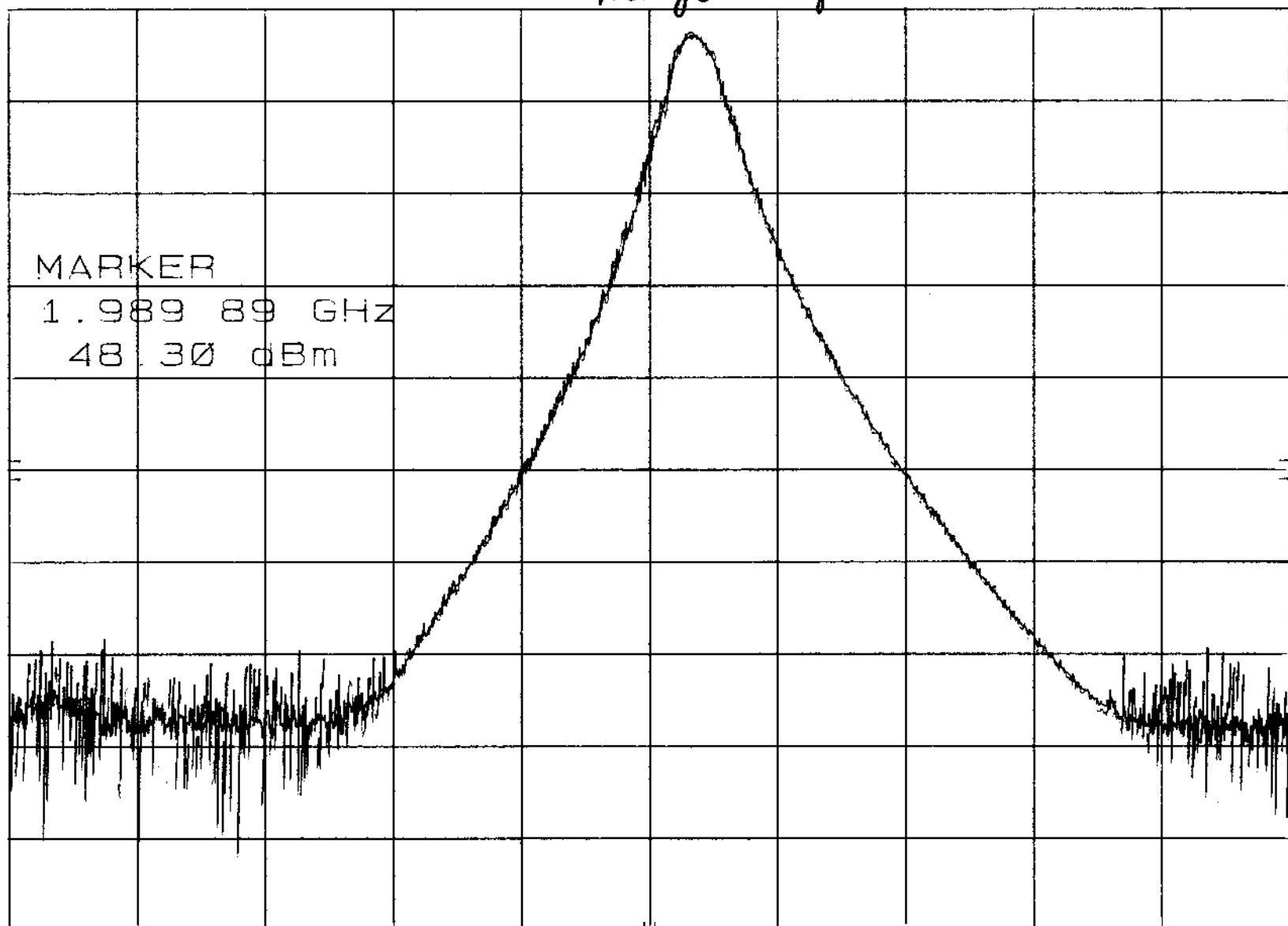
SAMPLE

OFFSET

51.2
dB

MARKER
1.989 89 GHz
48.30 dBm

VID AVG
11



CENTER 1.989 2 GHz

RES BW 1 MHz (i)

VBW 1 MHz

SPAN 20.0 MHz

SWP 50.0 msec

MKR 1.989 85 GHz
48.30 dBm

hp REF 51.2 dBm ATTEN 10 dB

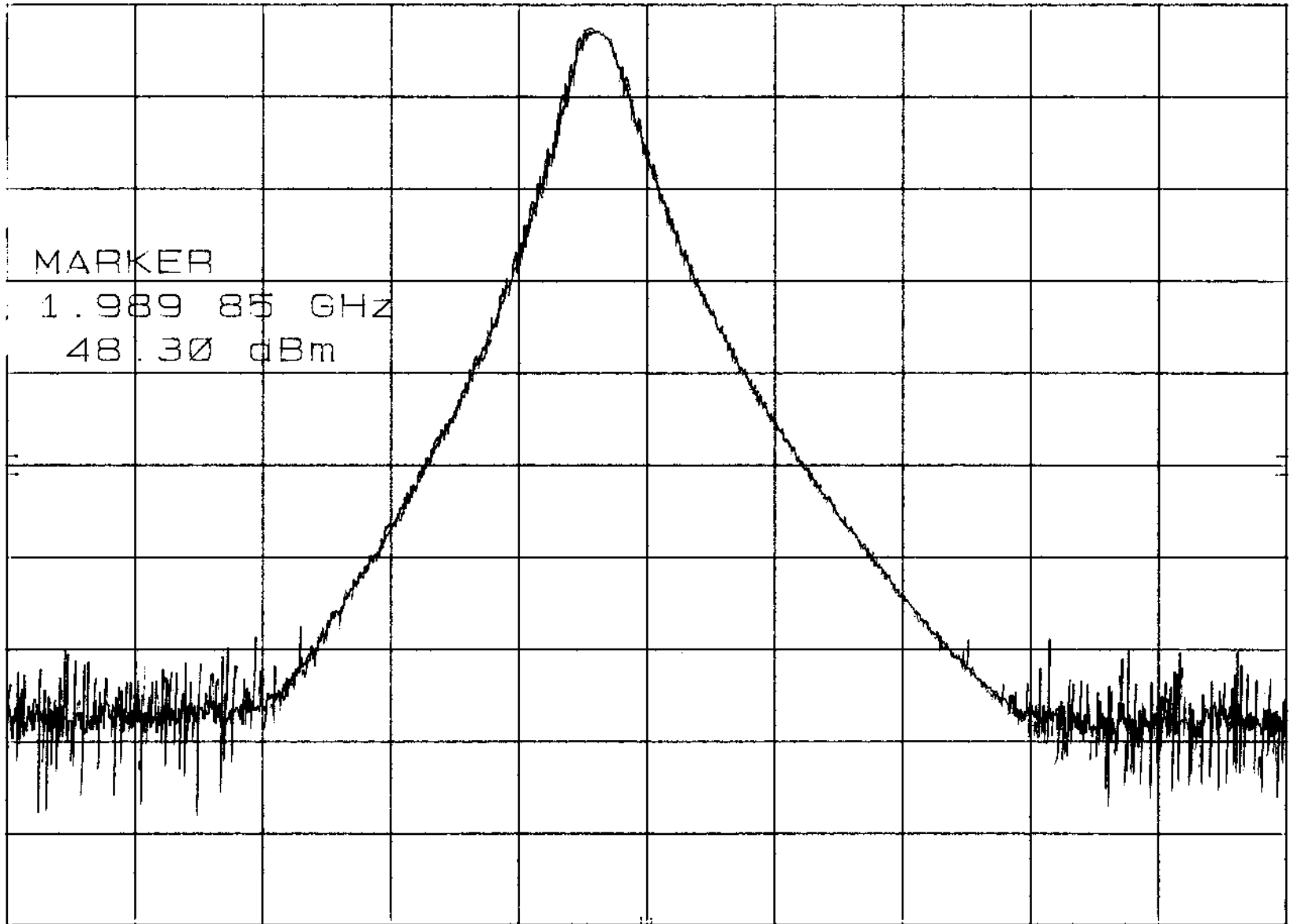
10 dB/

SAMPLE

OFFSET
51.2
dB

MARKER
1.989 85 GHz
48.30 dBm

VID AVG
11



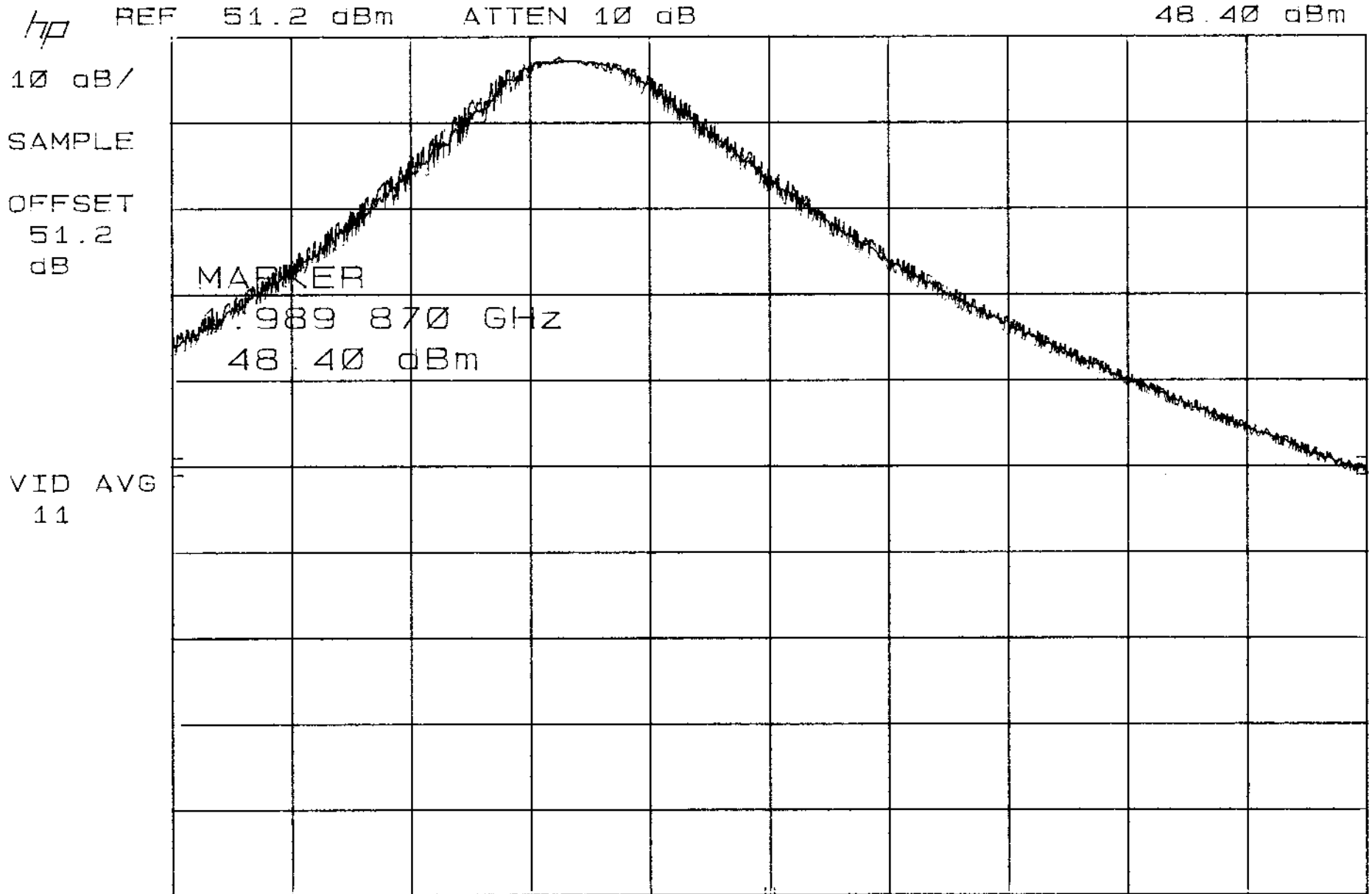
CENTER 1.990 7 GHz

RES BW 1 MHz (i)

VBW 1 MHz

SPAN 20.0 MHz
SWP 50.0 msec

MKR 1.989 870 GHz
48.40 dBm



CENTER 1.990 75 GHz

RES BW 1 MHz (1)

VBW 1 MHz

SPAN 5.00 MHz
SWP 50.0 msec