

TEST RESULT SUMMARY

UNITED STATES STANDARD 47 CFR PART 15, SUBPART C

MANUFACTURER NAME	Lucent Technologies Nederland B.V.
NAME OF EQUIPMENT	Orinoco Mini PCI-3A
MODEL NUMBER	MPCI3A-20
MANUFACTURER ADDRESS	Zadelstede 1-10 Nieuwegein, Zip: 3431 JZ, The Netherland
TEST REPORT NUMBER	A2110352F01
TEST DATE	11 December 2000

According to testing performed at BABT Product Service, the above-mentioned unit is in compliance with the electromagnetic compatibility requirements defined in United States Standard 47 CFR Part 15, Subpart C.

BABT Product Service reports apply only to the specific sample tested under stated test conditions. It is the manufacturer's responsibility to assure the continued compliance of production units of this model. BABT Product Service shall have no liability for any deductions, inferences or generalizations drawn by the client or others from BABT Product Service issued reports.

As the responsible EMC Project/Division Managers, we hereby declare that the equipment tested at BABT Product Service as specified above conforms to the requirements of United States Standard 47 CFR Part 15, Radio Frequency Devices, Subpart C, Intentional Radiators.

Date: 19 December, 2000

Location: Santa Clara, California
USA



Frank Ibrahim
Engineer In Charge



Harry Ward
EMC and Radio Manager



Certificate No: 1212-01

Not Transferable

EMC EMISSION - TEST REPORT

UNITED STATES STANDARD 47 CFR PART 15, SUBPART C

Test Report File No. : A2110352F01 Date of Issue: 19 December, 2000

Model / Serial No. : MPCI3A-20 / 00UT36470058

Product Type : Orinoco Mini PCI-3A

Applicant : Lucent Technologies Nederland B.V.

Manufacturer : Lucent Technologies Nederland B.V.

License holder : Lucent Technologies Nederland B.V.

Address : Zadelstede 1-10
: Nieuwegein, Zip: 3431 JZ, The Netherland

Test Result : ☒ **Positive** ☐ **Negative**

Test Project Number
Reference(s) : A2110352F01

Total pages - Test Report : 15

BABT Product Service is a joint venture between TÜV Product Service, Inc. and BABT.

BABT Product Service reports apply only to the specific sample tested under stated test conditions. It is the manufacturer's responsibility to assure the continued compliance of production units of this model. BABT Product Service shall have no liability for any deductions, inferences or generalizations drawn by the client or others from BABT Product Service issued reports.

This report is the confidential property of the client. As a mutual protection to our clients, the public and ourselves, extracts from the test report shall not be reproduced except in full without our written approval.

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EMISSIONS TEST REGULATIONS :

The emissions tests were performed according to the following regulations:

- | | | |
|--|---|--|
| <input type="checkbox"/> - EN 50081-1 : 1992 | | |
| <input type="checkbox"/> - EN 55011 : 1991 | <input type="checkbox"/> - Group 1 | <input type="checkbox"/> - Group 2 |
| <input type="checkbox"/> - EN 55013 : 1990 | <input type="checkbox"/> - Class A | <input type="checkbox"/> - Class B |
| <input type="checkbox"/> - EN 55014-1 : 1993 | <input type="checkbox"/> - Household appliances | |
| | <input type="checkbox"/> - Electric tools | |
| | <input type="checkbox"/> - Similar apparatus | |
| <input type="checkbox"/> - EN 55014-1 : 1993 / Amendment A1 : 1997 | | |
| <input type="checkbox"/> - EN 55015 : 1993 | | |
| <input type="checkbox"/> - EN 55015 : 1996 | | |
| <input type="checkbox"/> - EN 55015 : 1996 / Amendment A1 : 1997 | | |
| <input type="checkbox"/> - EN 55022 / 1987 | <input type="checkbox"/> - Class A | <input type="checkbox"/> - Class B |
| <input type="checkbox"/> - EN 55022 / 1994 | <input type="checkbox"/> - Class A | <input type="checkbox"/> - Class B |
| <input type="checkbox"/> - Amendment A1 : 1995 to EN 55022 : 1994 | | |
| <input type="checkbox"/> - Amendment A2 : 1997 to EN 55022 : 1994 | | |
| <input type="checkbox"/> - EN 55022 : 1998 | <input type="checkbox"/> - Class A | <input type="checkbox"/> - Class B |
| <input type="checkbox"/> - BS | | |
| <input type="checkbox"/> - VCCI | <input type="checkbox"/> - Class A ITE | <input type="checkbox"/> - Class B ITE |
| <input checked="" type="checkbox"/> - 47 CFR Part 15, Subpart C | | |
| <input checked="" type="checkbox"/> - 247 | | |
| <input type="checkbox"/> - 107(b) (Class A) | | |
| <input checked="" type="checkbox"/> - 107(a) (Class B) | | |
| <input type="checkbox"/> - 107(e) | <input type="checkbox"/> - Class A | <input type="checkbox"/> - Class B (CISPR22) |
| <input type="checkbox"/> - 109(b) (Class A) | | |
| <input checked="" type="checkbox"/> - 109(a) (Class B) | | |
| <input type="checkbox"/> - 109(g) | <input type="checkbox"/> - Class A | <input type="checkbox"/> - Class B (CISPR22) |
| <input type="checkbox"/> - AS/NZS 3548: 1995 | <input type="checkbox"/> - Class A | <input type="checkbox"/> - Class B |
| <input type="checkbox"/> - CISPR 11 (1997) | <input type="checkbox"/> - Group 1 | <input type="checkbox"/> - Group 2 |
| | <input type="checkbox"/> - Class A | <input type="checkbox"/> - Class B |
| <input type="checkbox"/> - CISPR 22 (1997) | <input type="checkbox"/> - Class A | <input type="checkbox"/> - Class B |

Environmental Conditions In The Laboratory:

	<u>Actual</u>
Temperature:	: 25 °C
Relative Humidity:	: 45 %
Atmospheric Pressure:	: 101.0 kPa

Power Supply Utilized:

Power supply system : 120 V / 60 Hz / 1 ϕ

Symbol Definitions:

- - Applicable
- - Not Applicable

Description of EUT:

The ORiNOCO MiniPCI radio module in combination with antennas connected externally to the unit provides a wireless connection for portable and mobile computers in accordance with IEEE standard 802.11 Direct Sequence Spread Spectrum.

Operation is in the 2.4 GHz frequency band at 11 sub channels, 2412 thru 2462 MHz. The data rate is 11 Mbps with fallback rates of 5.5 Mbps, 2Mbps and 1 Mbps. The operation is in accordance with IEEE 802.11.

The radio module will be installed in a standard Mini PCI card slot located inside the PC.

Two antennas are factory installed in the screen of the PC. One of the antennas is used as TX/RX antenna. The other is used as RX antenna. By diversity switching the best receiving antenna is selected.

Measurement Methods

Measurements were made in accordance with ANSI C63.4:1992. All emissions measurements are fully automated.

For conducted emissions, the receiver is swept over the frequency range 450kHz to 30MHz using detector functions as specified in CISPR 16. The measured levels from the receiver are then re-calculated taking into account the LISN and coax

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cable loss to derive the corrected level. This is then compared with the limits specified in FCC 47 CFR Part 15.107 to determine the compliance of the EUT.

For radiated emissions, the receiver is swept over the frequency range 30MHz to 24GHz, while the turntable is rotated through 360° and the antenna height is varied between 1m and 4m. The worst-case emission level is recorded for each frequency and recorded for the full frequency range. The measured levels from the receiver are then re-calculated taking into account the antenna gain, mast amplifier gain and coax cable loss to derive the corrected level. All peak emissions over the limit are re-measured using the CISPR 16 quasi-peak detector, in any case the highest 15 peaks are re-measured. These are then compared with the limits specified in FCC 47 CFR Part 15.247 and 15.205 where applicable to determine the compliance of the EUT.

Sample Calculations

These calculations are performed automatically by the control software prior to display. For radiated emissions the corrected level is derived by taking into account the antenna gain, antenna mast amplifier and coax cable loss.

For example, assuming a receiver measurement of 50.0dB μ V. Allowing for an antenna factor of 10.0dB/m, a mast amplifier gain of 25dB and a cable loss of 0.64dB, the resultant corrected field strength would be calculated as follows:-

$$\text{Receiver level} = \text{field strength} - \text{antenna factor} + \text{amplifier gain} - \text{cable factor}$$

$$\text{Corrected field strength} = (\text{Receiver level}) + (\text{Cable factor}) - (\text{Amp gain}) + (\text{Antenna factor})$$

$$= 50.0 + 10.0 + 0.64 - 25$$

$$= 35.64\text{dB}\mu\text{V/m}$$

FCC limits are specified in μ V for conducted emissions and μ V/m for radiated emissions. These are converted to dB μ V and dB μ V/m respectively by the control software before results are displayed, limits being converted accordingly. The conversion factor is $20 \log_{10}(\mu\text{V}) = \text{dB}\mu\text{V}$.

Emissions Test Conditions: CONDUCTED EMISSIONS (Interference Voltage)

The **CONDUCTED EMISSIONS (INTERFERENCE VOLTAGE)** measurements were performed at the following test location:

☐ - Test not applicable

■ - Test area no. 1 – Semi - anechoic absorber – lined chamber (80' x 44' x 28')

☐ - Test area no. 2 – Shielded room (19' x 19' x 8')

☐ - Test area no. 3 – Fully – anechoic ferrite – lined chamber (24' x 16' x 11')

Test Equipment Used :

	Model No.	Description	Manufacturer	Serial No.	Due Calib. Date
■ -	85462A	Receiver RF Section	Hewlett Packard	3325A00161	5/1/01
■ -	85460A	RF Filter Section	Hewlett Packard	3330A00160	5/1/01
<input type="checkbox"/> -	AC LISN	Line Impedance Stabilization Network	Fischer Custom Communications	6A,6B	5/22/01
<input type="checkbox"/> -	AC LISN	Line Impedance Stabilization Network	Fischer Custom Communications	3A,3B	5/22/01
■ -	AC LISN	Line Impedance Stabilization Network	Fischer Custom Communications	2A,2B,2C,2D	5/22/01
<input type="checkbox"/> -	AC LISN	Line Impedance Stabilization Network	Fischer Custom Communications	1A,1B,1C,1D	5/22/01
<input type="checkbox"/> -	AC LISN	Line Impedance Stabilization Network	Fischer Custom Communications	4A,4B	5/22/01
<input type="checkbox"/> -	AC LISN	Line Impedance Stabilization Network	Fischer Custom Communications	7A,7B	5/22/01
<input type="checkbox"/> -	DC LISN	Line Impedance Stabilization Network	Fischer Custom Communications	5A,5B	5/22/01
<input type="checkbox"/> -	DC LISN	Line Impedance Stabilization Network	Fischer Custom Communications	8A,8B	5/22/01
<input type="checkbox"/> -	NNLA 8120	Line Impedance Stabilization Network	Rohde & Schwartz	8120490	-----
<input type="checkbox"/> -	NNLA 8120	Line Impedance Stabilization Network	Rohde & Schwartz	8120491	-----
<input type="checkbox"/> -	NNLK 8121	Line Impedance Stabilization Network	Rohde & Schwartz	-----	-----

Remarks: _____

Emissions Test Conditions: RADIATED EMISSIONS (Magnetic Field)

The *RADIATED EMISSIONS (MAGNETIC FIELD)* measurements were performed at the following test location:

■ - Test not applicable

- ☐ - Test area no. 1 – Semi - anechoic absorber – lined chamber (80' x 44' x 28')
- ☐ - Test area no. 2 – Shielded room (19' x 19' x 8')
- ☐ - Test area no. 3 – Fully – anechoic ferrite – lined chamber (24' x 16' x 11')

Testing was performed at a test distance of :

- ☐ - 3 meters
- ☐ - 10 meters

Test Equipment Used :

	Model No.	Description	Manufacturer	Serial No.	Due Calib. Date
<input type="checkbox"/>	85462A	Receiver RF Section	Hewlett Packard	3325A00161	5/1/01
<input type="checkbox"/>	85460A	RF Filter Section	Hewlett Packard	3330A00160	5/1/01
<input type="checkbox"/>	87405A	RF Pre-Amplifier	Hewlett Packard	3207A01433	9/25/01
<input type="checkbox"/>	HFH 2 - Z2	Loop Antenna	Rohde & Schwarz	892 665 / 019	-----

Remarks: _____

Emissions Test Conditions: RADIATED EMISSIONS (Electric Field)

The *RADIATED EMISSIONS (ELECTRIC FIELD)* measurements, in the frequency range of 30 MHz-1000 MHz, were tested in a horizontal and vertical polarization at the following test location :

☐ - Test not applicable

- - Test area no. 1 – Semi - anechoic absorber – lined chamber (80' x 44' x 28')
- ☐ - Test area no. 2 – Shielded room (19' x 19' x 8')
- ☐ - Test area no. 3 – Fully – anechoic ferrite – lined chamber (24' x 16' x 11')

Testing was performed at a test distance of :

- - 3 meters
- ☐ - 10 meters

Test Equipment Used :

	Model No.	Description	Manufacturer	Serial No.	Due Calib. Date
■ -	85462A	Receiver RF Section	Hewlett Packard	3325A00161	5/1/01
■ -	85460A	RF Filter Section	Hewlett Packard	3330A00160	5/1/01
■ -	87405A	RF Pre-Amplifier	Hewlett Packard	3207A01433	9/25/01
■ -	CBL6111	Bilog Antenna	Chase	1122	8/15/01

Remarks: _____

Emissions Test Conditions: INTERFERENCE POWER

The *INTERFERENCE POWER* measurements were performed by using the absorbing clamp on the mains and interface cables in the frequency range 30 MHz - 300 MHz at the following test location :

■ - Test not applicable

- ☐ - Test area no. 1 – Semi - anechoic absorber – lined chamber (80' x 44' x 28')
- ☐ - Test area no. 2 – Shielded room (19' x 19' x 8')
- ☐ - Test area no. 3 – Fully – anechoic ferrite – lined chamber (24' x 16' x 11')

Test Equipment Used :

Model No.	Description	Manufacturer	Serial No.	Due Calib. Date
<input type="checkbox"/> - MDS-21	Absorbing Clamp	Rohde & Schwarz	20798	-----
<input type="checkbox"/> - 85462A	Receiver RF Section	Hewlett Packard	3325A00161	5/1/01
<input type="checkbox"/> - 85460A	RF Filter Section	Hewlett Packard	3330A00160	5/1/01

Remarks: _____

Emissions Test Conditions: RADIATED EMISSIONS (Electric Field)

The *EQUIVALENT RADIATED EMISSIONS* measurements in the frequency range 1 GHz - 24 GHz were performed in a horizontal and vertical polarization at the following test location :

☐ - Test not applicable

- - Test area no. 1 – Semi - anechoic absorber – lined chamber (80' x 44' x 28')
- ☐ - Test area no. 2 – Shielded room (19' x 19' x 8')
- ☐ - Test area no. 3 – Fully – anechoic ferrite – lined chamber (24' x 16' x 11')

Testing was performed at a test distance of:

- ☐ - 1 meters
- - 3 meters
- ☐ - 10 meters

Test Equipment Used :

Model No.	Description	Manufacturer	Serial No.	Due Calib. Date
■ - 85462A	Receiver RF Section	Hewlett Packard	3325A00161	5/1/01
■ - 85460A	RF Filter Section	Hewlett Packard	3330A00160	5/1/01
■ - 87405A	RF Pre-Amplifier	Hewlett Packard	3207A01433	9/25/01
■ - A-AMF10009046	RF Pre-amplifier	Miteq Inc.	AMF-5D-010180-35-10P	4/5/01
■ - 3115	Double Ridge Horn Antenna	EMCO	9902-5686	11/22/01
■ - 3116	Waveguide Horn Antenna	EMCO	9810-2405	12/21/00

Remarks:

Equipment Under Test (EUT) Test Operation Mode - Emissions Tests :

The equipment under test was operated under the following conditions during emissions testing:

- ☐ - Standby
- ☐ - Test Program (H - Pattern)
- ☐ - Test Program (Color Bar)
- ☒ - Test Program (Customer Specified), (Refer to appendix B)
- ☐ - Practice Operation
- ☐ - Normal Operating Mode
- ☐ - _____

Configuration of the equipment under test:

- ☐ - See Constructional Data Form in Appendix B - Page B2
- ☒ - See Product Information Form(s) in Appendix B - Page B2

The following peripheral devices and interface cables were connected during the testing: (Refer to appendix B)

- | | |
|---|----------------|
| <input type="checkbox"/> - _____ | Type : _____ |
| <input type="checkbox"/> - _____ | Type : _____ |
| <input type="checkbox"/> - _____ | Type : _____ |
| <input type="checkbox"/> - _____ | Type : _____ |
| <input type="checkbox"/> - _____ | Type : _____ |
| <input type="checkbox"/> - _____ | Type : _____ |
| <input type="checkbox"/> - _____ | Type : _____ |
| <input type="checkbox"/> - _____ | Type : _____ |
| <input type="checkbox"/> - _____ | Type : _____ |
| <input type="checkbox"/> - Unshielded power cable | |
| <input type="checkbox"/> - Unshielded cables | |
| <input type="checkbox"/> - Shielded cables | MPS.No.: _____ |
| <input type="checkbox"/> - Customer specific cables | |
| <input type="checkbox"/> - _____ | |
| <input type="checkbox"/> - _____ | |

Emissions Test Results:**Conducted Emissions, 10/150/450 kHz - 30 MHz**☒ - PASS☐ - FAIL☐ - NOT APPLICABLE

Minimum limit margin (PK) _____ 4.44 dB at _____ 6.75 MHz

Maximum limit exceeding _____ dB at _____ MHz

Remarks: Limits shown in the results are in dB μ V rather than μ V.**Radiated Emissions (Magnetic Field), 10 kHz - 30 MHz**☐ - PASS☐ - FAIL☒ - NOT APPLICABLE

Minimum limit margin _____ dB at _____ MHz

Maximum limit exceeding _____ dB at _____ MHz

Remarks: _____

Radiated Emissions (Electric Field), 30 MHz - 1000 MHz☒ - PASS☐ - FAIL☐ - NOT APPLICABLE

Minimum limit margin (PK) _____ 9.7 dB at _____ 703.75 MHz

Maximum limit exceeding _____ dB at _____ MHz

Remarks: Limits shown in the results are in dB μ V rather than μ V.**Interference Power at the Mains and Interface Cables, 30 MHz - 300 MHz**☐ - PASS☐ - FAIL☒ - NOT APPLICABLE

Minimum limit margin _____ dB at _____ MHz

Maximum limit exceeding _____ dB at _____ MHz

Remarks: _____

Equivalent Radiated Emissions, 1 GHz - 24 GHz☒ - PASS☐ - FAIL☐ - NOT APPLICABLE

Minimum limit margin, (AV) - CH1 _____ 9.18 dB at _____ 4824 MHz

Minimum limit margin, (PK) - CH6 _____ 5.98 dB at _____ 4874 MHz

Minimum limit margin, (AV) - CH11 _____ 7.48 dB at _____ 4924 MHz

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Maximum limit exceeding _____ dB at _____ MHz

Remarks: _____

GENERAL REMARKS:

No modifications were necessary in order for the EUT to meet the emissions requirements.

SUMMARY:

All tests according to the regulations cited on page 3 were

☒ - Performed

☐ - **Not** Performed

The Equipment Under Test

☒ - **Fulfills** the general approval requirements cited on page 3.

☐ - **Does not** fulfill the general approval requirements cited on page 3.

Statement of Measurement Uncertainty

The data and results referenced in this document are true and accurate. There may be some degree or level of measurement uncertainty. As EN 45001 does not allow recommendations to be included in the test report, the reader is encouraged to request a copy of the BABT Product Service policy concerning pass or fail judgment with respect to possible measurement uncertainties.

Equipment Received Date: On file

Testing Start Date: 11 December 2000

Testing End Date: 11 December 2000

- BABT PRODUCT SERVICE -

Engineer In Charge:



Frank Ibrahim
(EMC Engineer)

Tester:



Kim Nguyen
(EMC Technician)

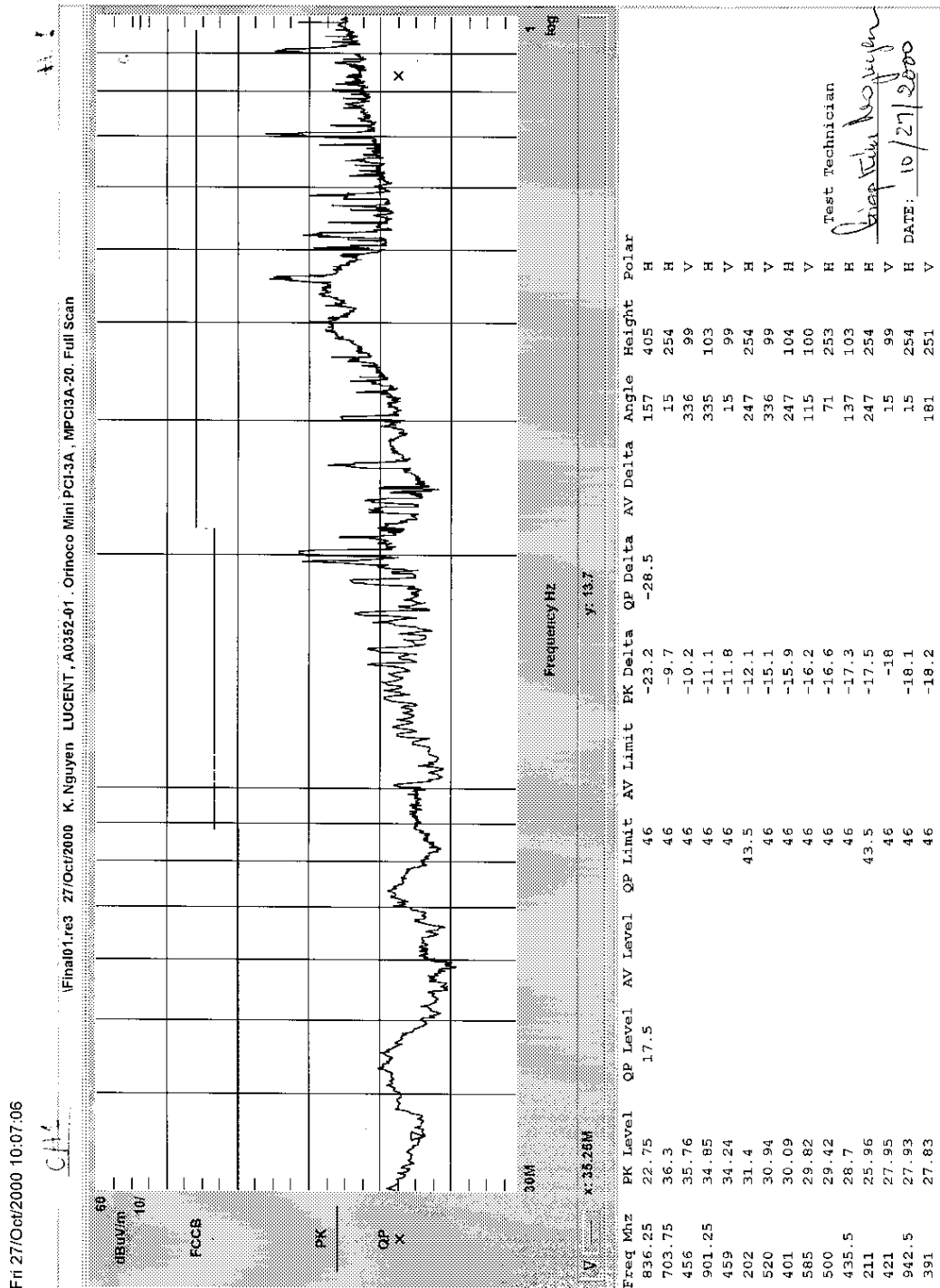
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Technical Documentation

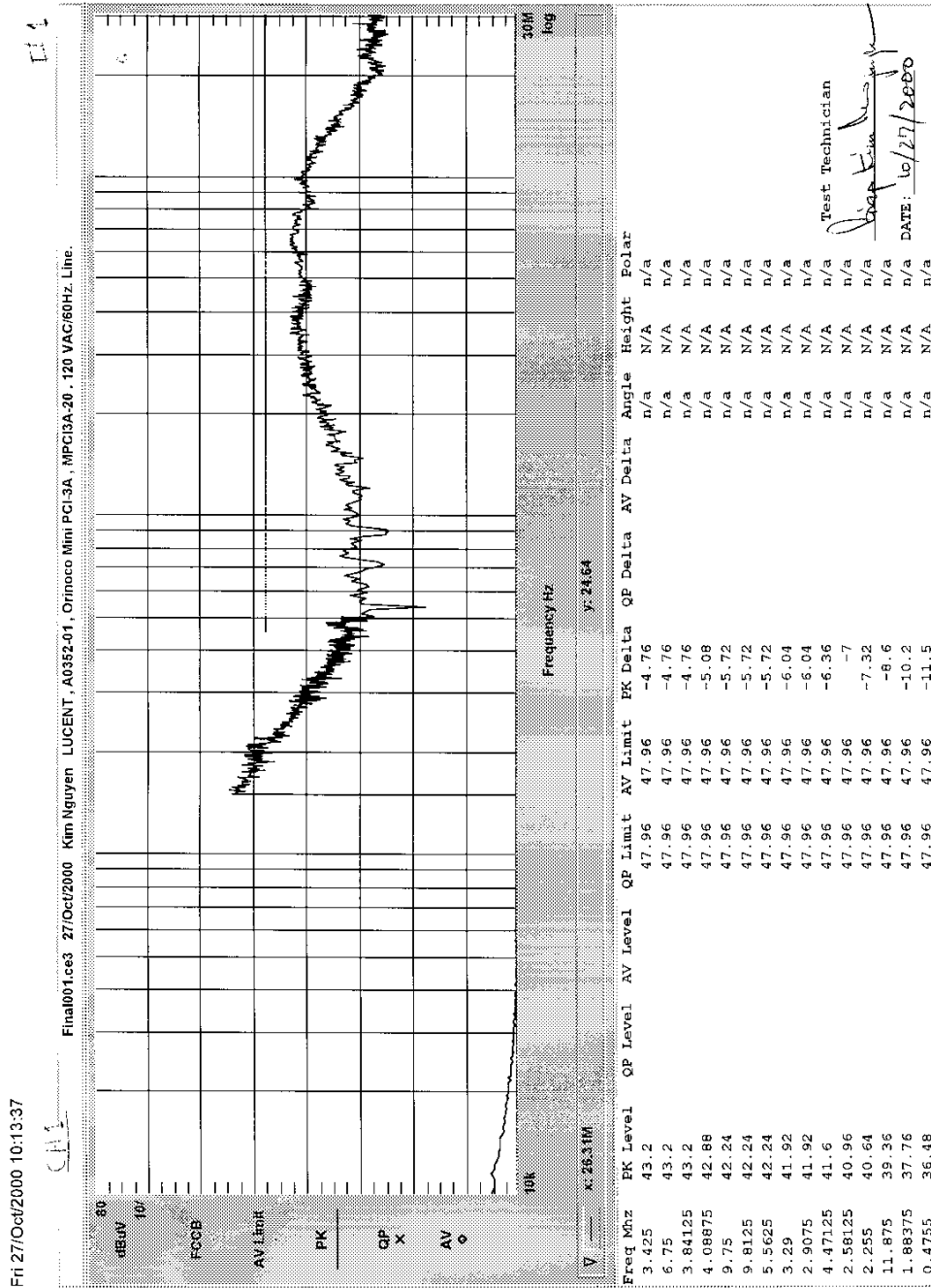
Test Data Sheets

and

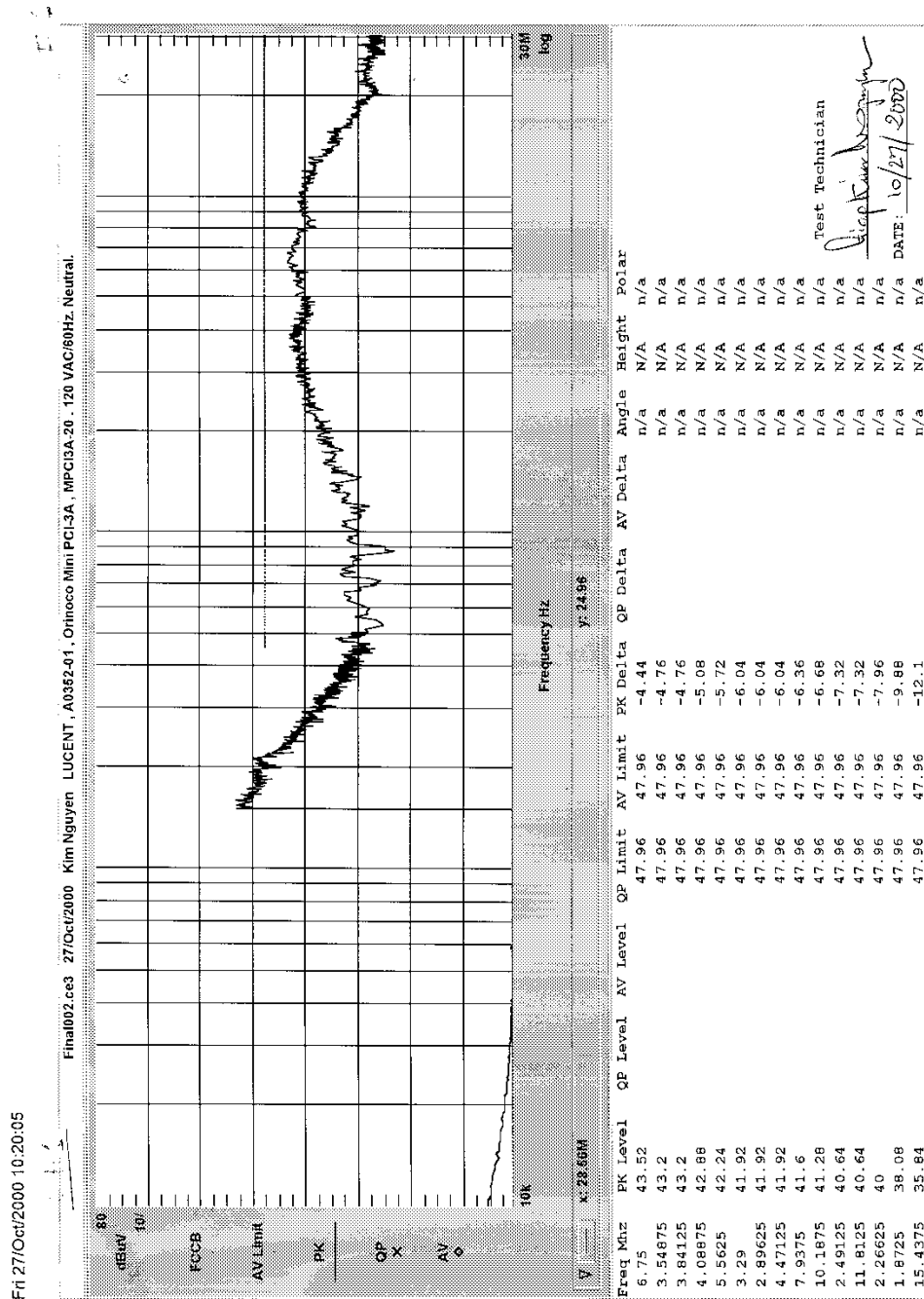
Test Setup Drawing(s)



Radiated Emissions Data Sheets
Channel 1 / (30 MHz - 1 GHz)
Radio Card installed in Dell Laptop Latitude C600, Model No. PP01L



Conducted Emissions Data Sheets
Channel 1 / (450 kHz - 30 MHz), Line
Radio Card installed in Dell Laptop Latitude C600, Model No. PP01L



Conducted Emissions Data Sheets
Channel 1 / (450 kHz - 30 MHz), Neutral
Radio Card installed in Dell Laptop Latitude C600, Model No. PP01L

Emissions Results (1 – 24) GHz, FCC 15.247 and 15.205, Horizontal Polarization, CH1 ON

Freq (MHz)	Receiver Ampl (dBuV)	Amplifier Gain (dB)	Antenna Factor (dB/m)	Corrected Ampl (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1000	49.2(PK)	46.0	24.4	27.6	53.98	-26.38
1019	52.4(PK)	45.9	24.4	30.9	53.98	-23.08
1039	49.4(PK)	45.8	24.5	28.1	53.98	-25.88
1059	44.7(PK)	45.8	24.6	23.5	53.98	-30.48
1380	42.2(PK)	44.9	25.4	31.28	53.98	-22.70
1407	43.4(PK)	44.8	25.5	24.1	53.98	-29.88
1854	54.9(PK)	44.7	27.3	37.5	62.60	-25.10
2059	41.9(PK)	44.6	28.0	25.3	62.60	-37.3
2411	98.3(PK)	44.6	28.6	82.6	137.00	-54.4
4824	54.5 (AV)	45.6	33.9	42.8	53.98	-11.18
7235	48.6 (PK)	45.3	37.5	46.8	62.60	-15.80

Emissions Results (1 – 24) GHz, FCC 15.247 and 15.205, Vertical Polarization, CH1 ON

Freq (MHz)	Receiver Ampl (dBuV)	Amplifier Gain (dB)	Antenna Factor (dB/m)	Corrected Ampl (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1076	43.8 (PK)	46.3	24.6	22.1	53.98	-31.88
1209	44.3 (PK)	46.0	24.9	23.2	53.98	-30.78
1260	45.6 (PK)	45.8	25.1	24.9	62.60	-37.70
1300	45.0 (PK)	45.7	25.2	24.5	53.98	-29.48
1381	44.2 (PK)	45.9	25.4	23.7	53.98	-30.28
1808	52.7 (PK)	45.6	27.1	34.2	62.60	-28.40
2411	102.6 (PK)	44.6	28.6	86.6	137.00	-50.40
4824	56.5 (AV)	45.6	33.9	44.8	53.98	-9.18
7208	43.8 (PK)	45.3	36.8	35.3	62.60	-27.30

Emissions Results (1 – 24) GHz, FCC 15.247 and 15.205, Horizontal Polarization, CH6 ON

Freq (MHz)	Receiver Ampl (dBuV)	Amplifier Gain (dB)	Antenna Factor (dB/m)	Corrected Ampl (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1019	54.3 (PK)	45.9	24.4	32.8	53.98	-21.18
1039	50.4 (PK)	45.8	24.5	29.1	53.98	-24.88
1614	50.0 (PK)	45.6	26.2	30.6	53.98	-23.38
1726	44.1 (PK)	45.5	26.7	25.3	66.50	-41.20
2436	103.5 (PK)	44.6	28.7	87.6	137.00	-49.40
4874	59.6 (AV)	45.6	34.0	48.0	53.98	-5.98
7295	52.5 (AV)	45.3	37.5	44.7	53.98	-9.28
9728	58.9 (PK)	45.3	38.4	52.0	66.50	-14.50

Emissions Results (1 – 24) GHz, FCC 15.247 and 15.205, Vertical Polarization, CH6 ON

Freq (MHz)	Receiver Ampl (dBuV)	Amplifier Gain (dB)	Antenna Factor (dB/m)	Corrected Ampl (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1000	51.4 (PK)	46.0	24.4	29.8	53.98	-24.18
1341	47.5 (PK)	45.7	25.2	27.0	53.98	-26.98
1846	50.8 (PK)	44.7	27.3	33.4	66.50	-33.10
2438	102.4 (PK)	44.6	28.7	86.5	137.00	-50.50
4873	51.8 (AV)	45.6	34.0	40.2	53.98	-13.78
6017	42.9 (PK)	45.7	35.2	32.4	66.50	-34.10

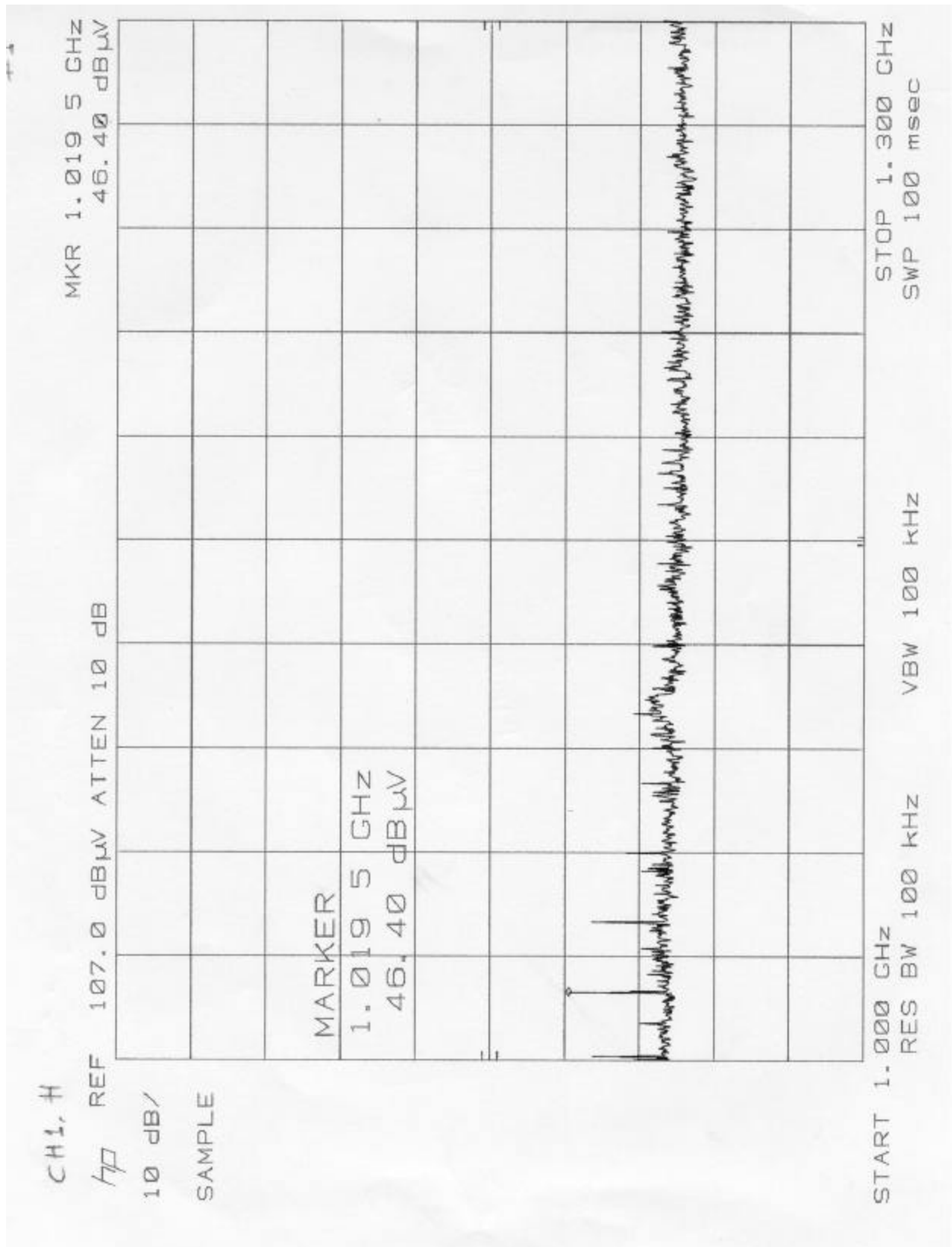
Emissions Results (1 – 24) GHz, FCC 15.247 and 15.205, Horizontal Polarization, CH11 ON

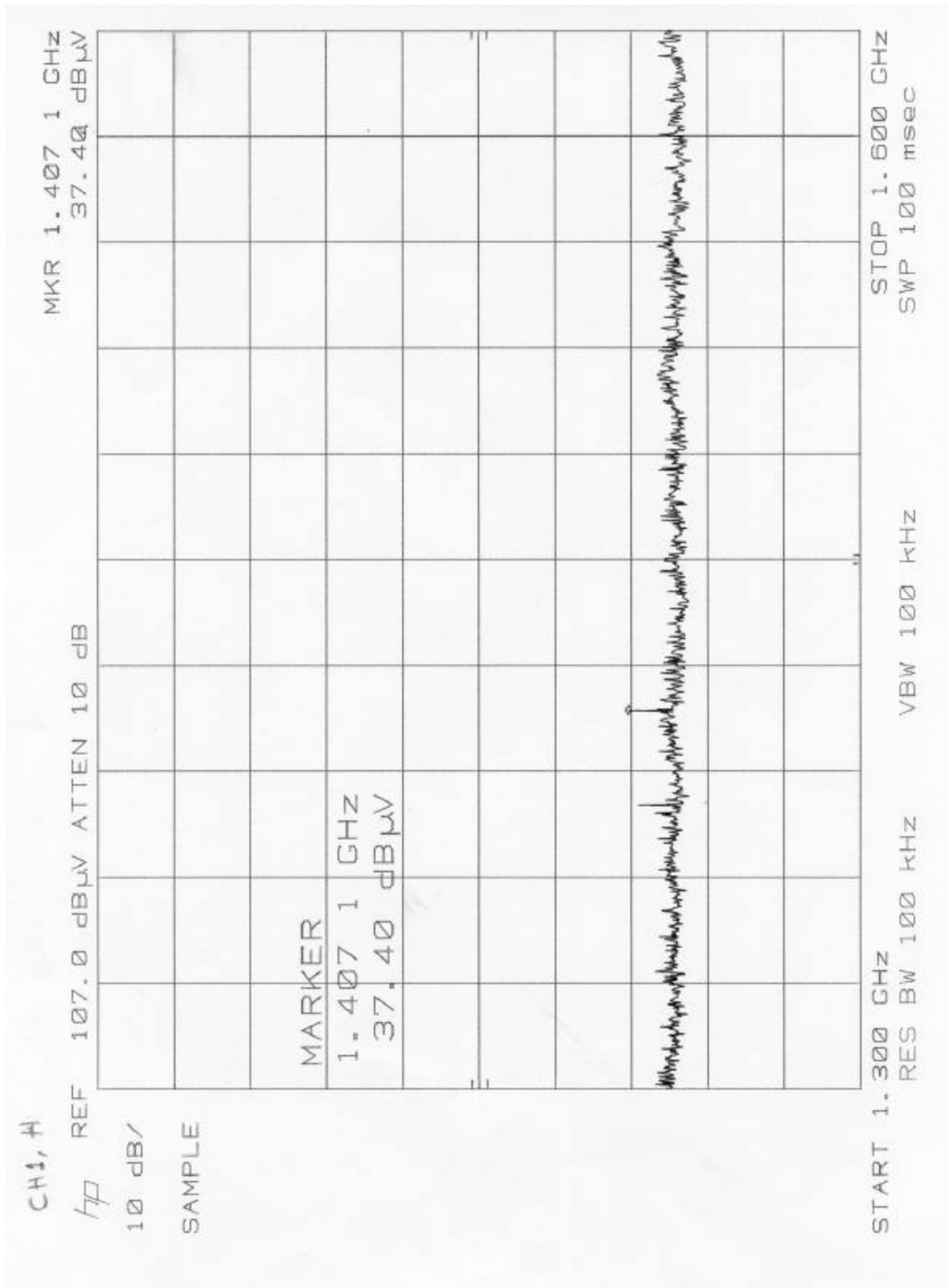
Freq (MHz)	Receiver Ampl (dBuV)	Amplifier Gain (dB)	Antenna Factor (dB/m)	Corrected Ampl (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1001	48.6 (PK)	45.9	24.4	27.1	53.98	-26.88
1019	47.6 (PK)	46.0	24.4	26.0	53.98	-27.98
1910	40.9 (PK)	45.0	27.5	23.4	63.60	-40.20
2464	104.0 (PK)	44.7	28.7	88.0	137.00	-49.00
3083	39.3 (PK)	44.6	30.6	25.3	63.60	-38.3
4924	58.0 (PK)	45.7	34.2	46.5	53.98	-7.48
7370	50.3 (AV)	45.3	37.5	42.5	53.98	-11.48
9836	54.0 (PK)	45.3	38.4	47.1	63.60	-16.50

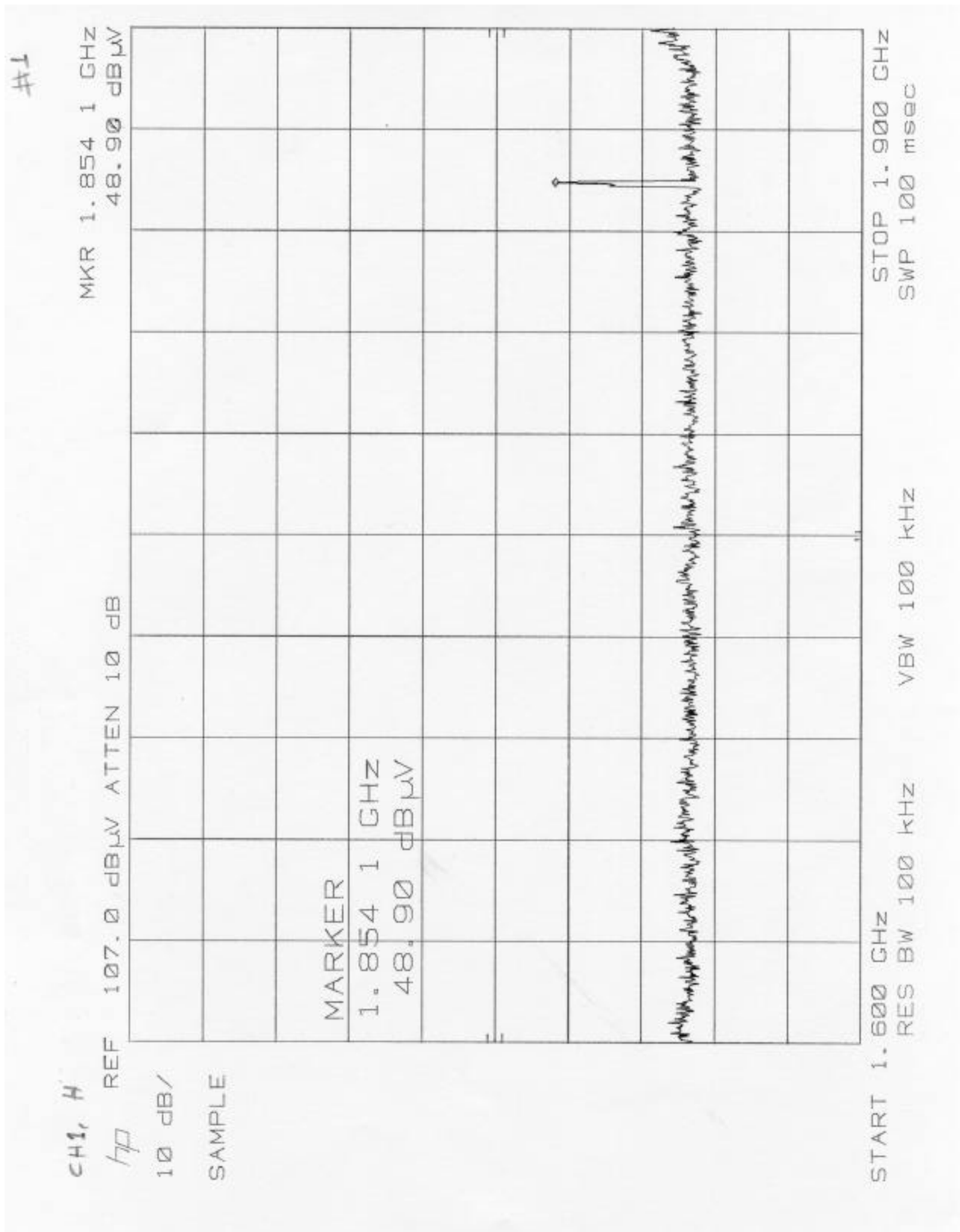
Emissions Results (1 – 24) GHz, FCC 15.247 and 15.205, Vertical Polarization, CH11 ON

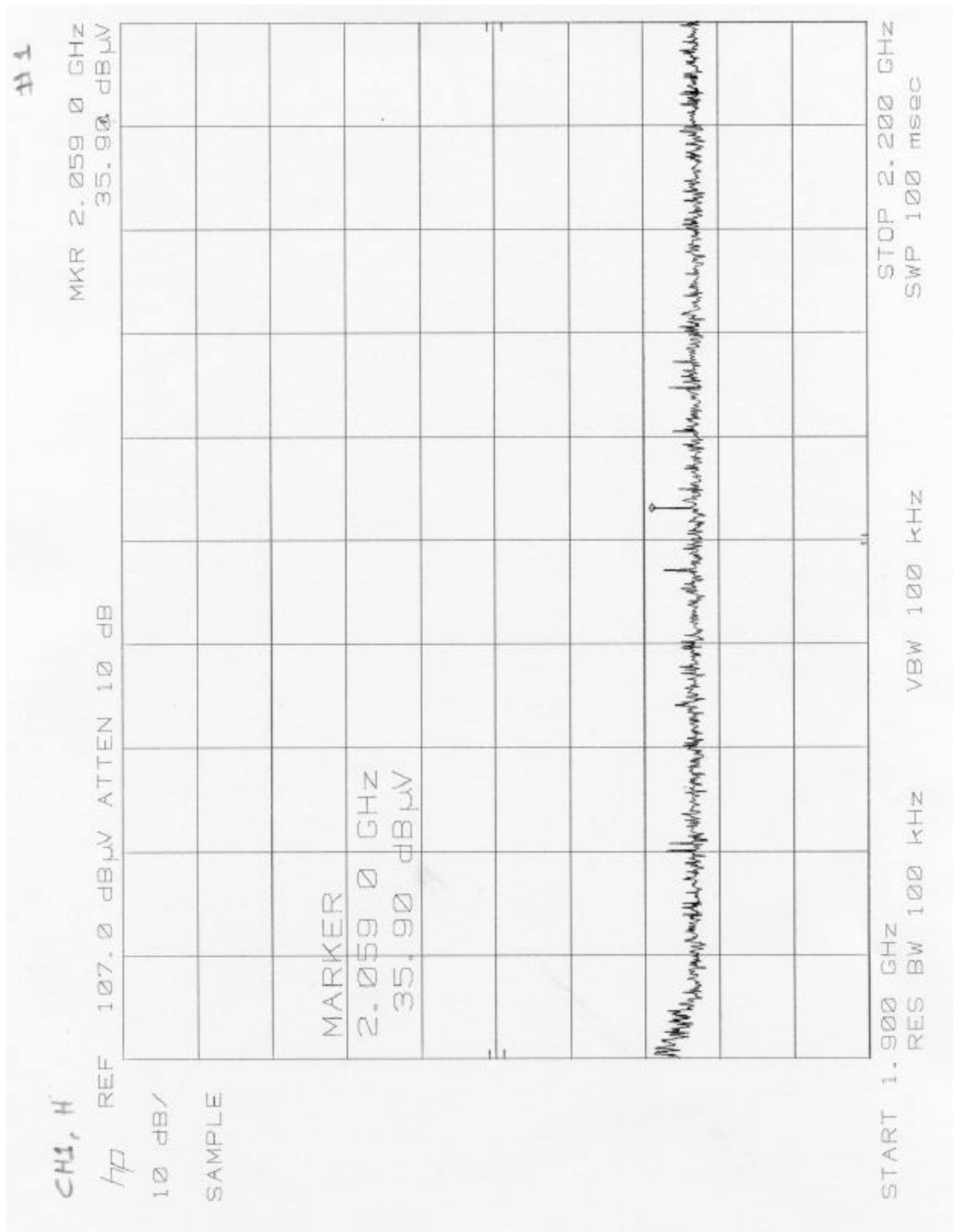
Freq (MHz)	Receiver Ampl (dBuV)	Amplifier Gain (dB)	Antenna Factor (dB/m)	Corrected Ampl (dBuV/m)	Limit (dBuV/m)	Margin (dB)
1000	50.1	46.0	24.4	28.5	53.98	-25.48
1103	49.2	46.0	24.9	28.1	53.98	-25.88
1883	50.0	45.3	27.4	32.1	63.60	-31.5
2463	99.6	44.7	28.7	83.6	137.00	-53.4
3501	39.0	44.7	32.0	26.3	63.60	-37.3
4925	55.0 (AV)	45.7	34.2	43.5	53.98	-10.48

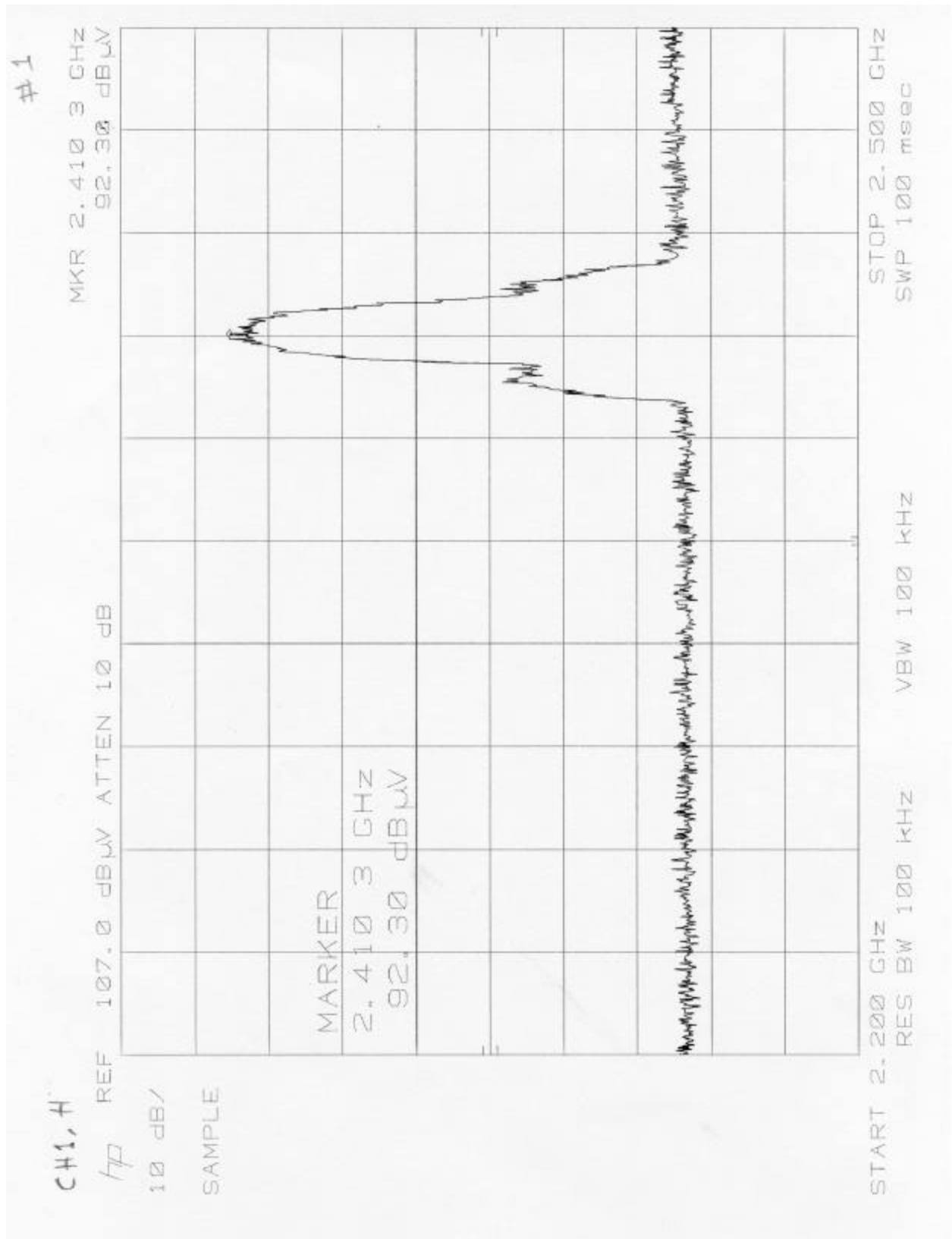
Radiated Emissions Plots
(1 - 24) GHz - Horizontal Polarization
Radio Card installed in Dell Laptop Latitude C600, Model No. PP01L
Channel 1

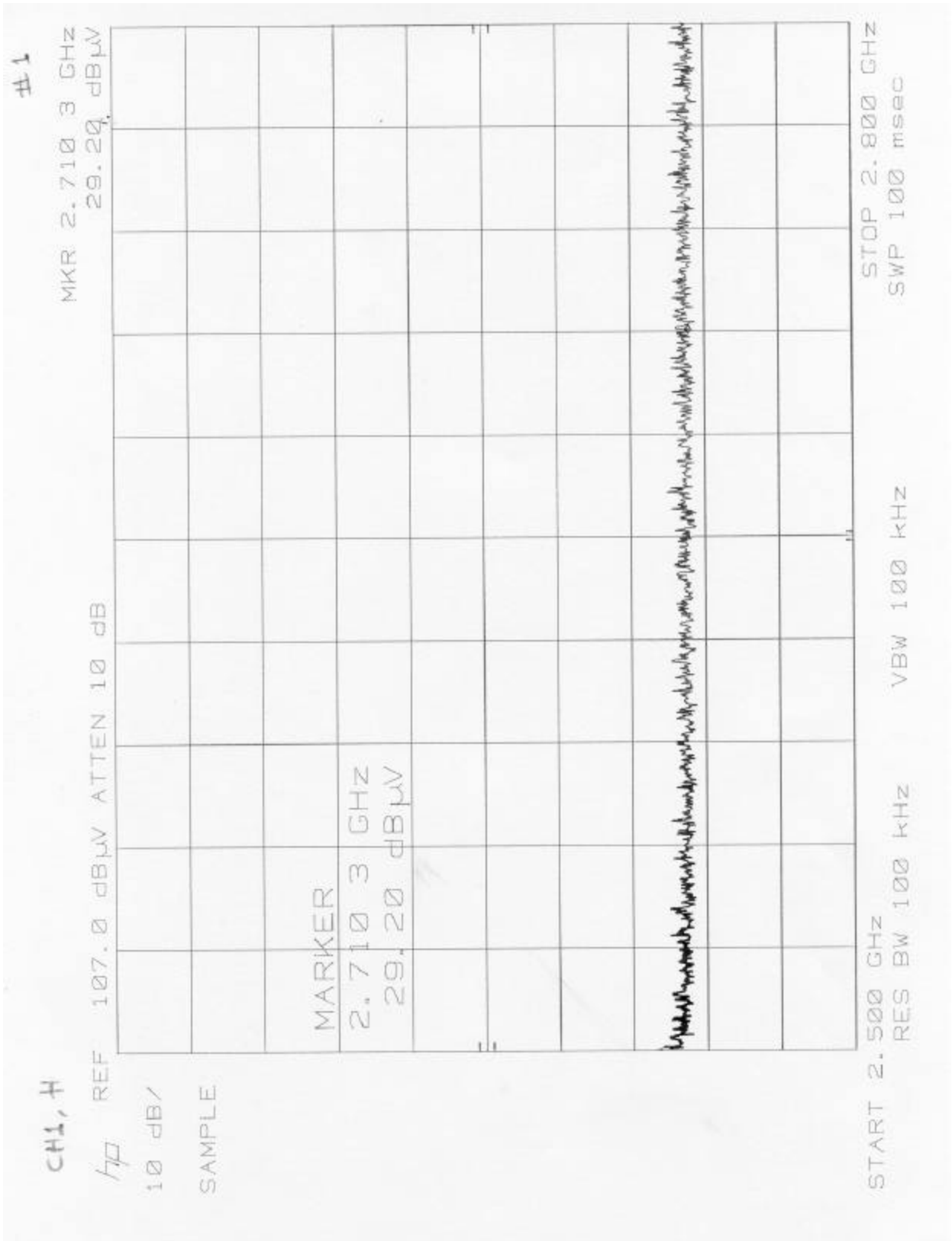


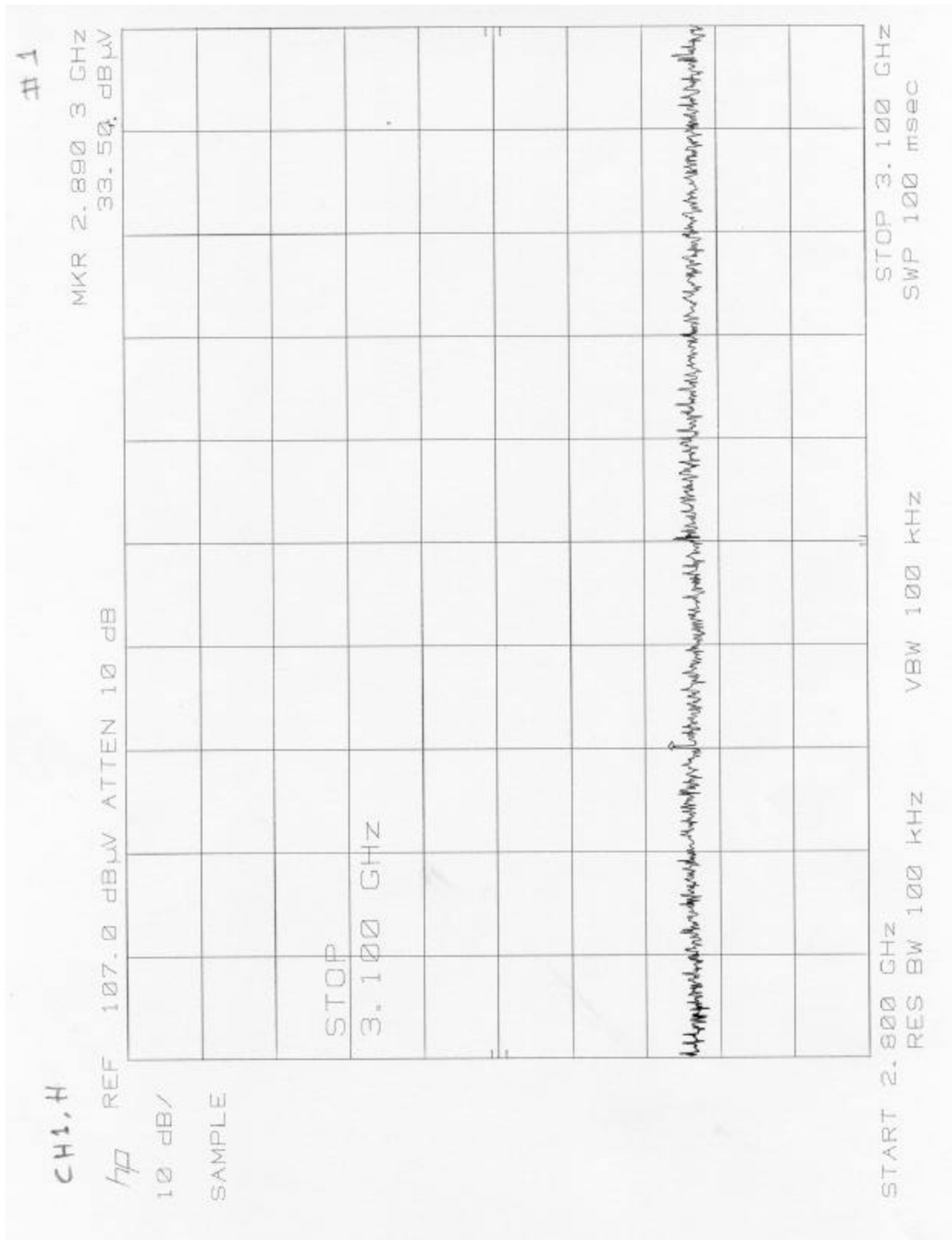


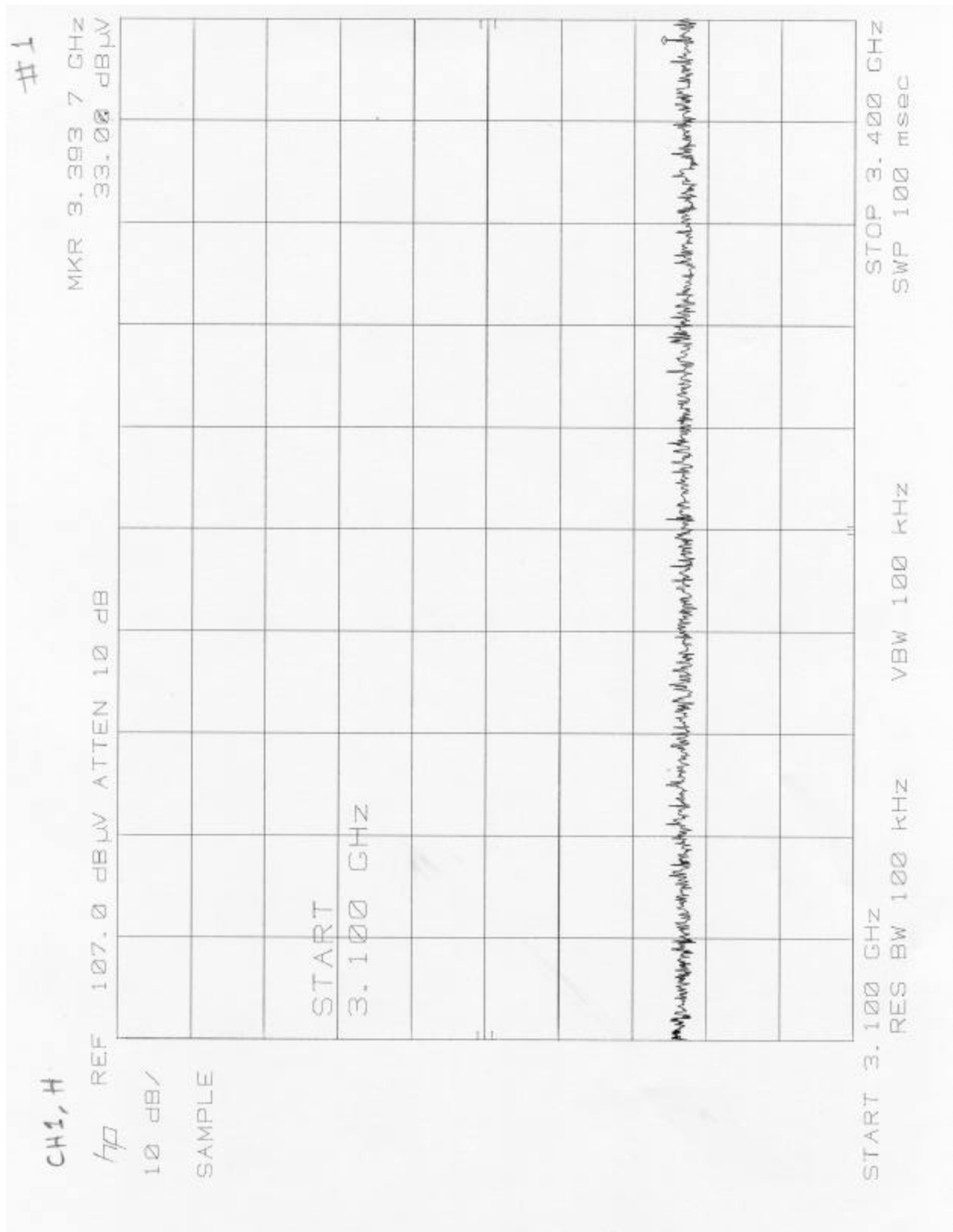


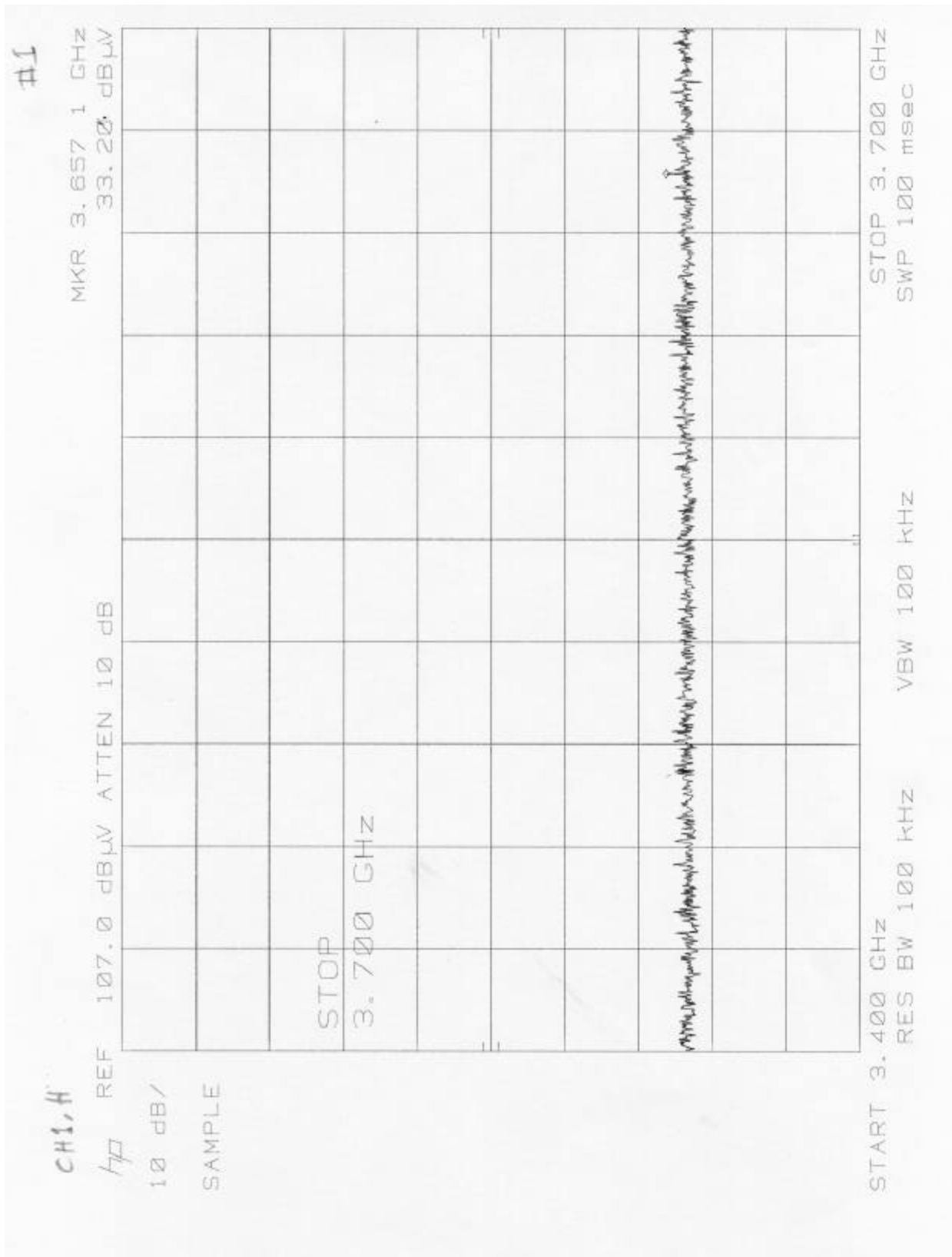


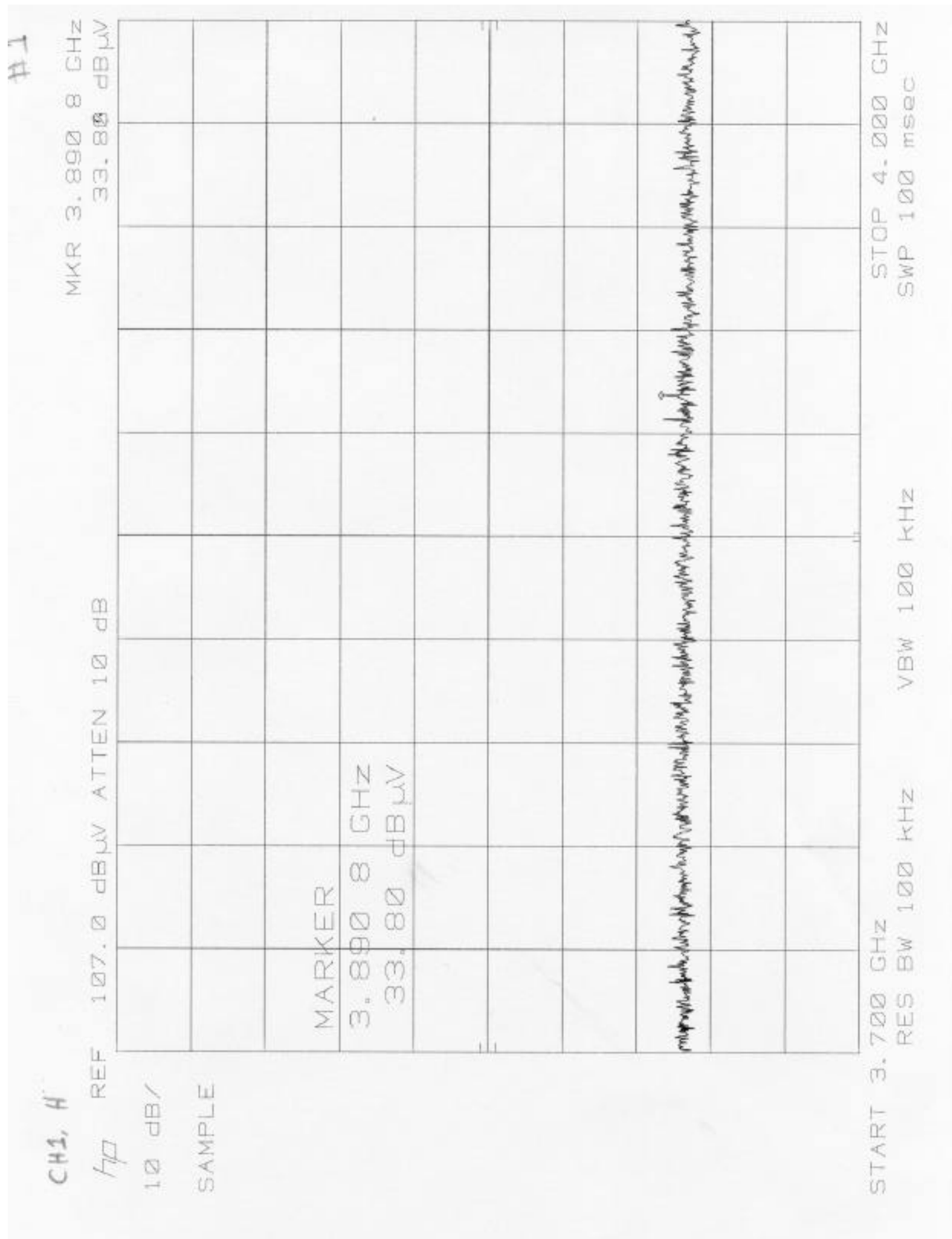


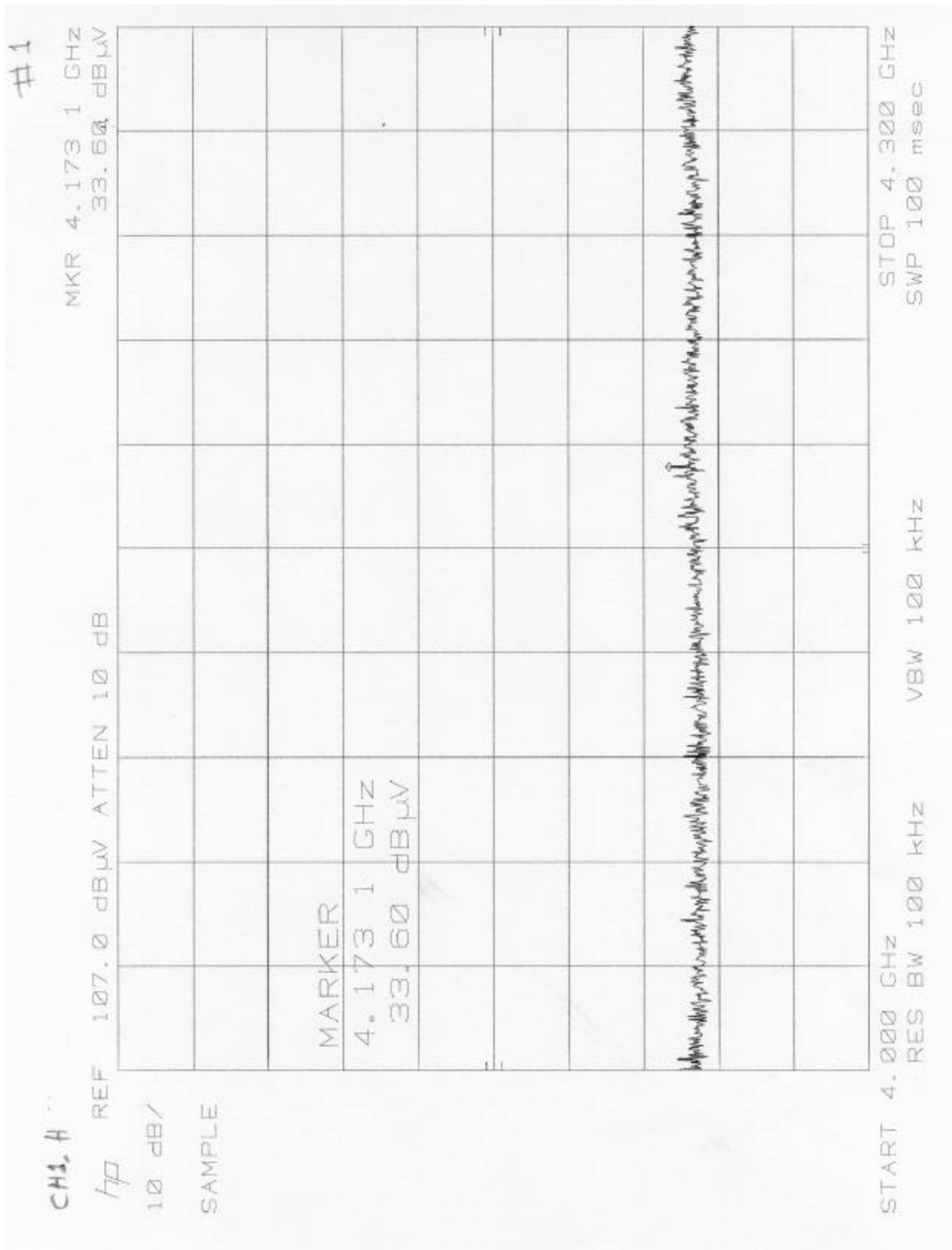


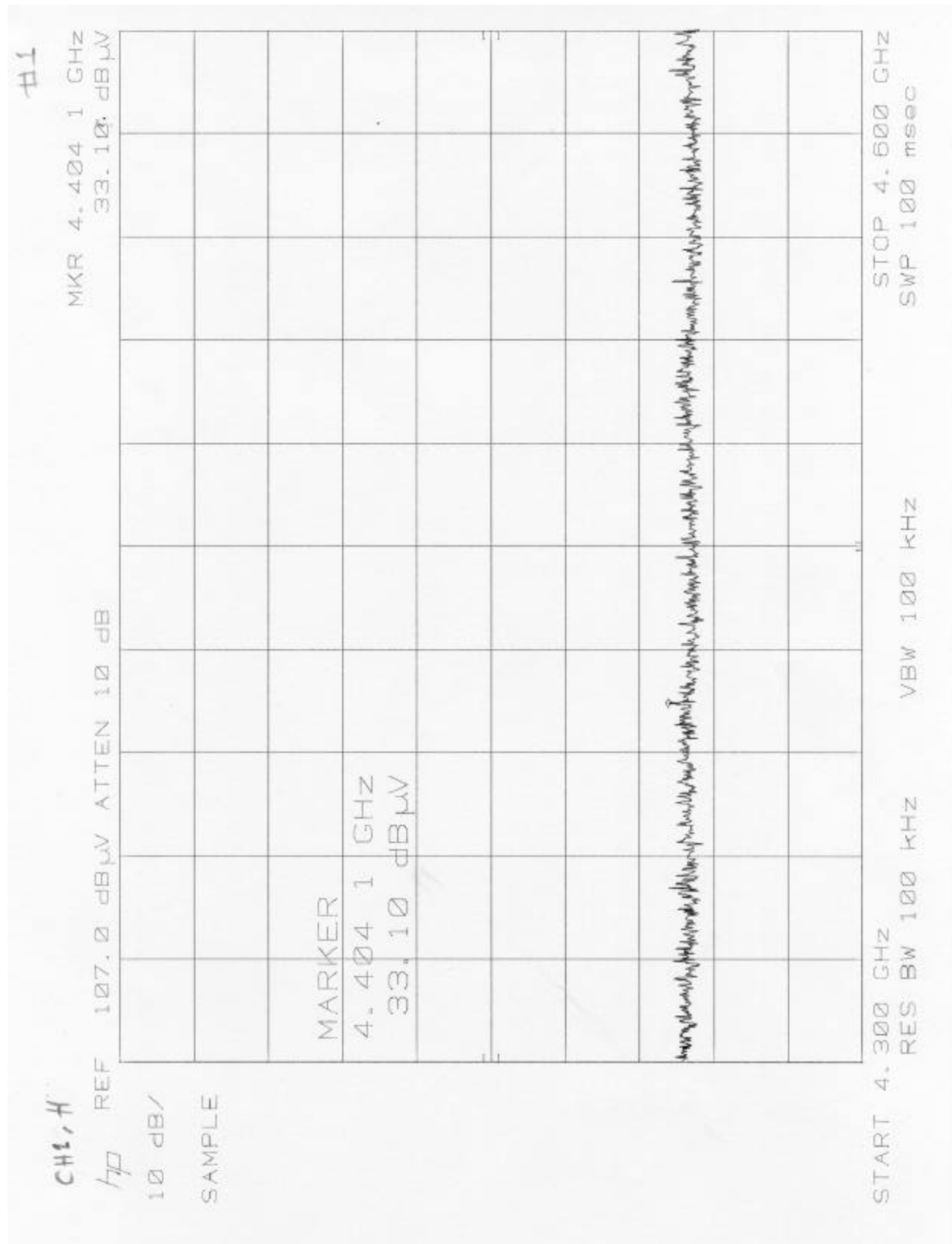


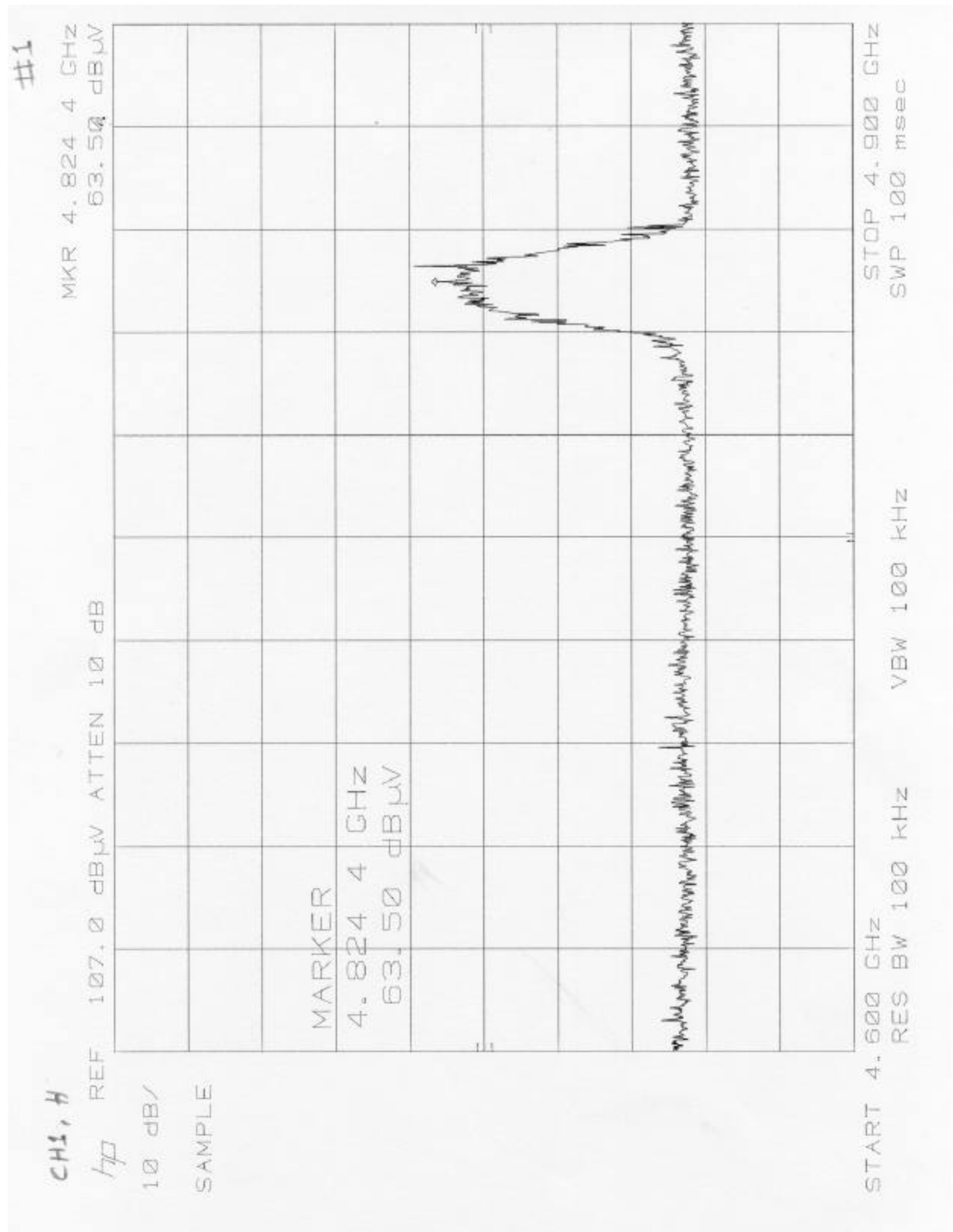


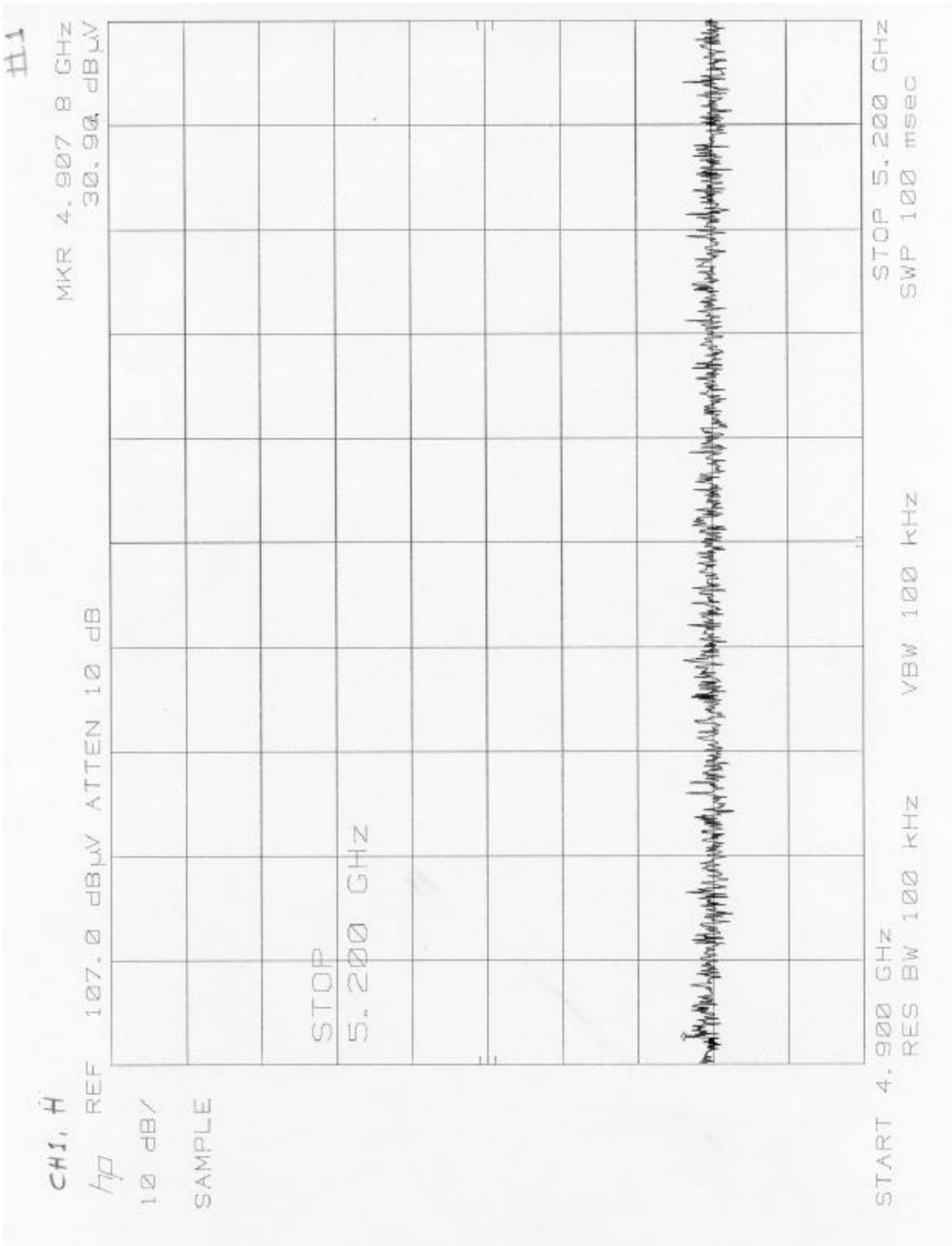


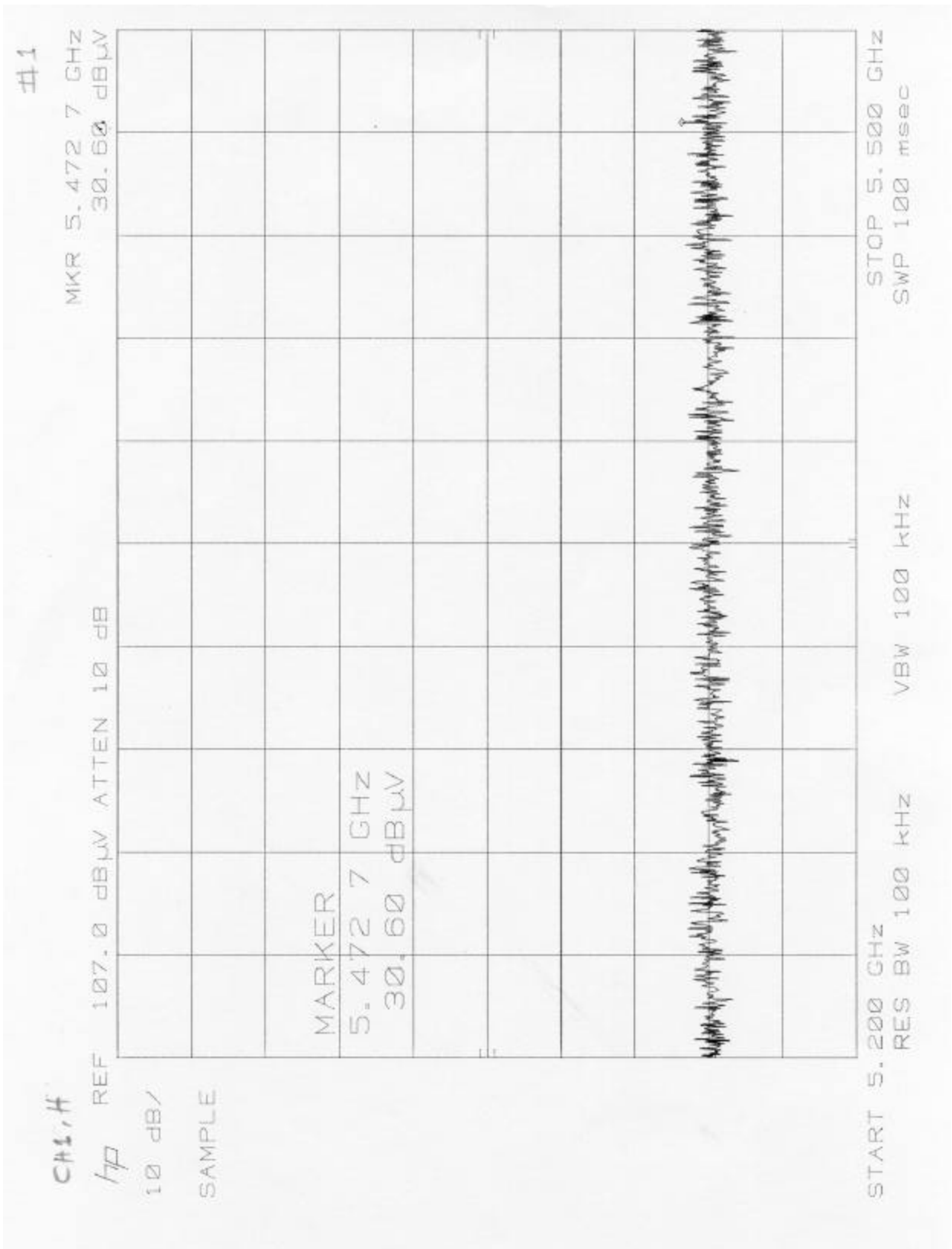


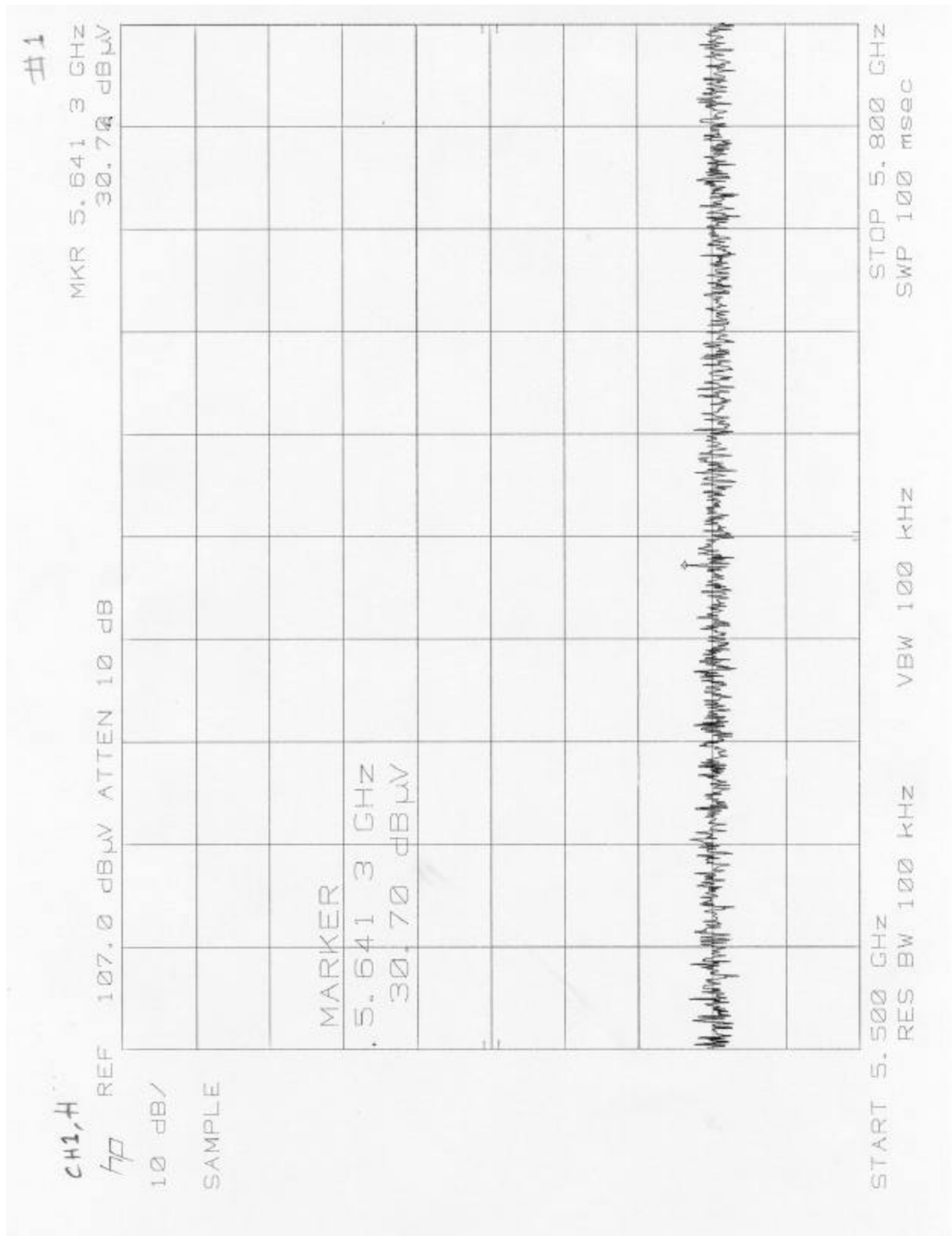


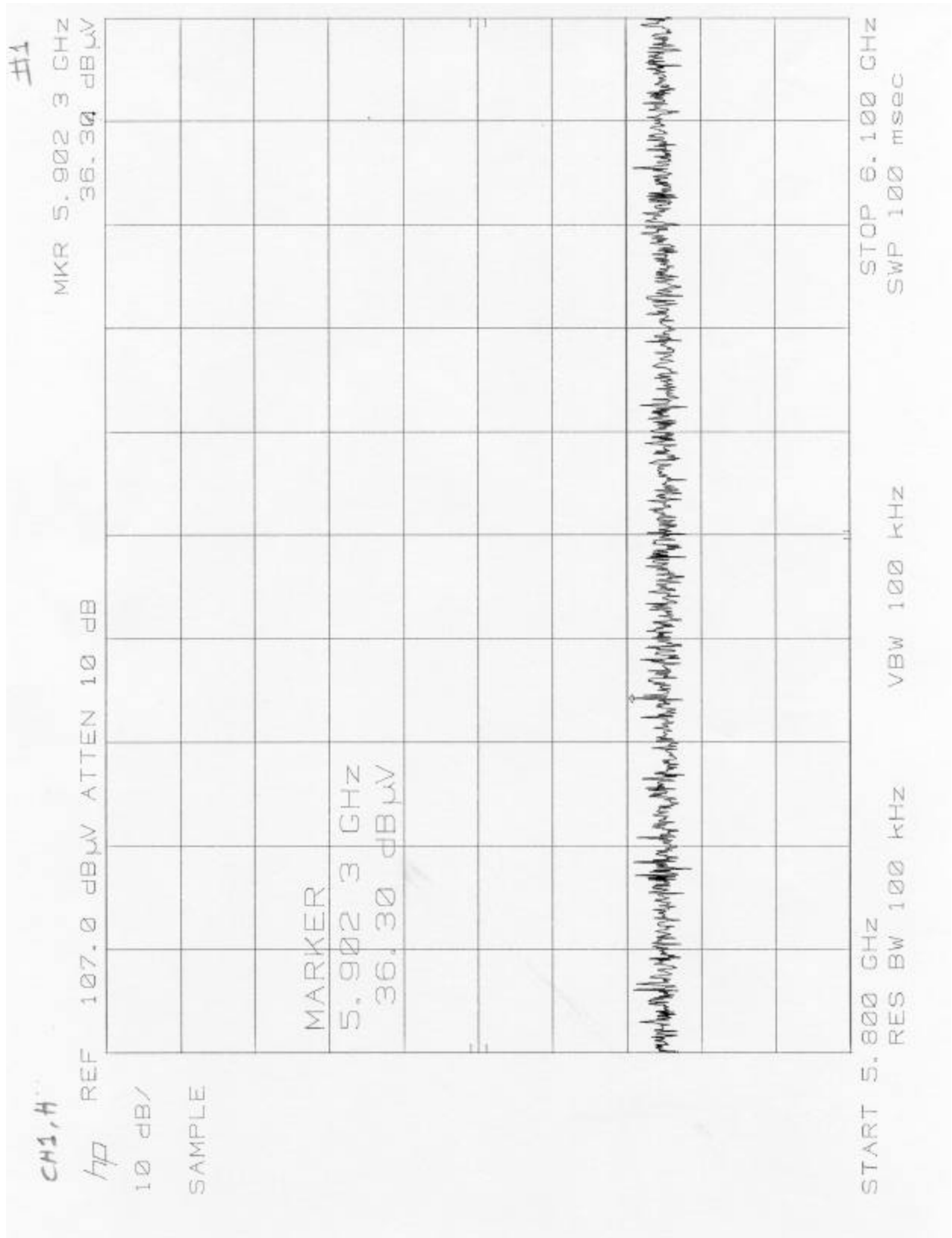


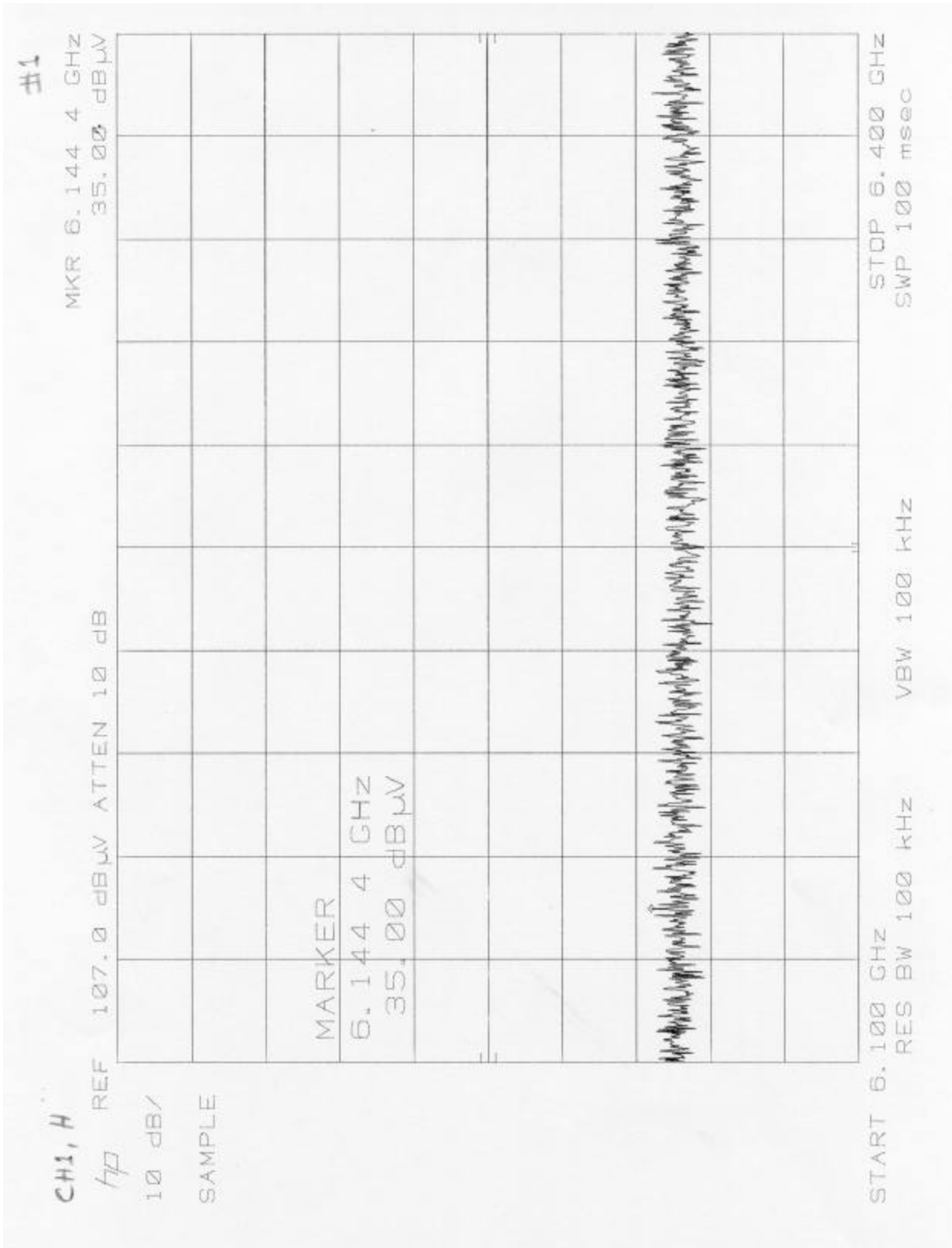


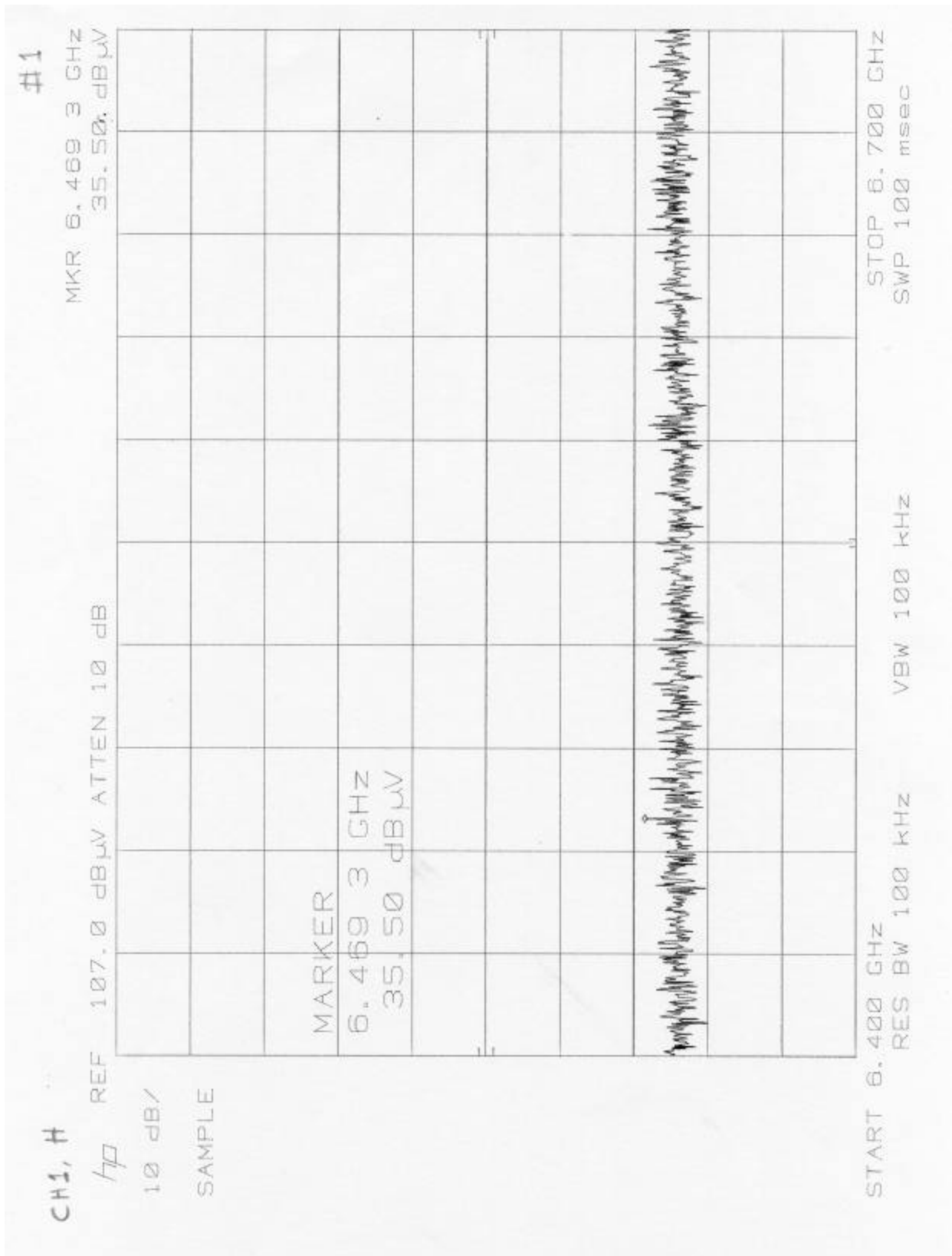


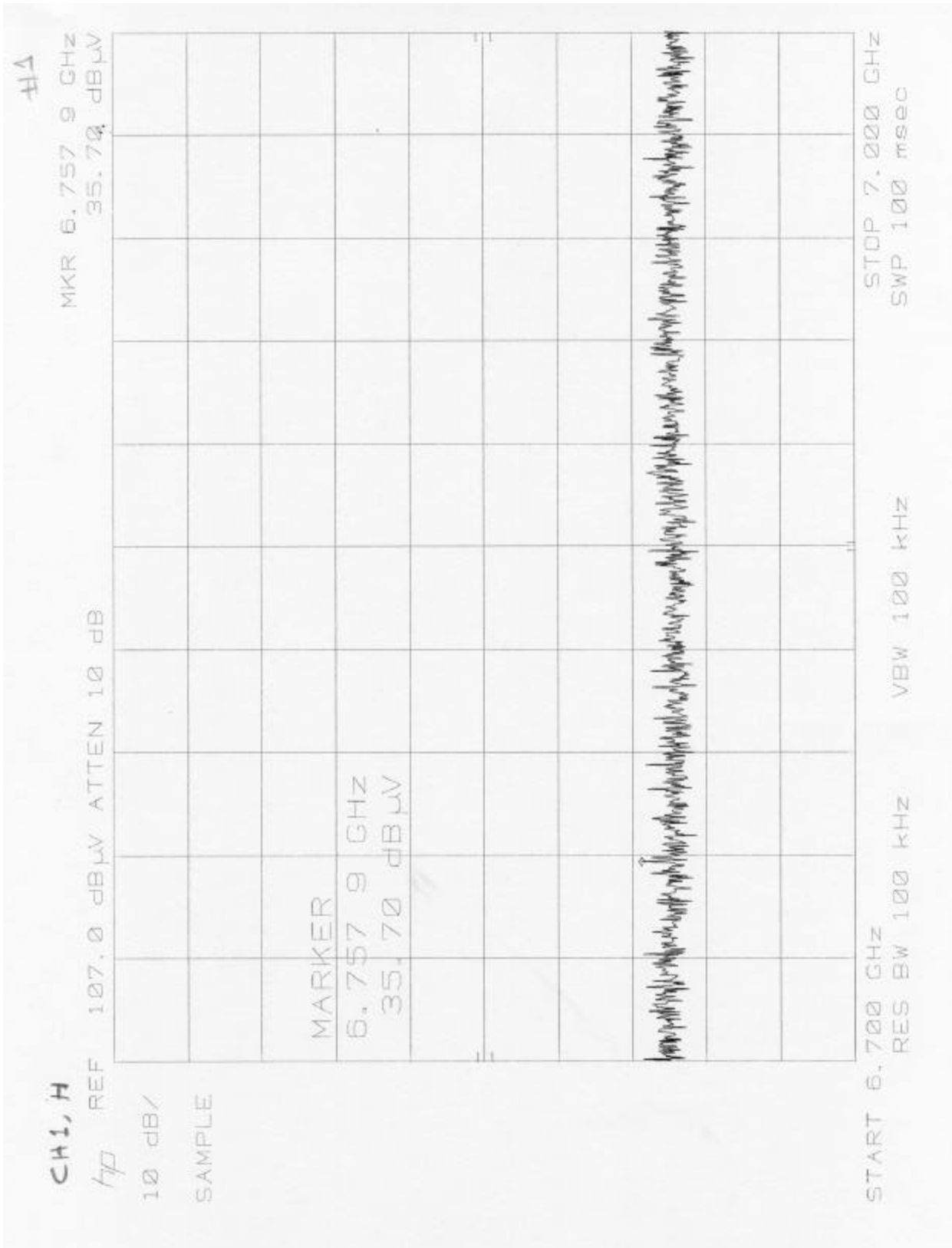


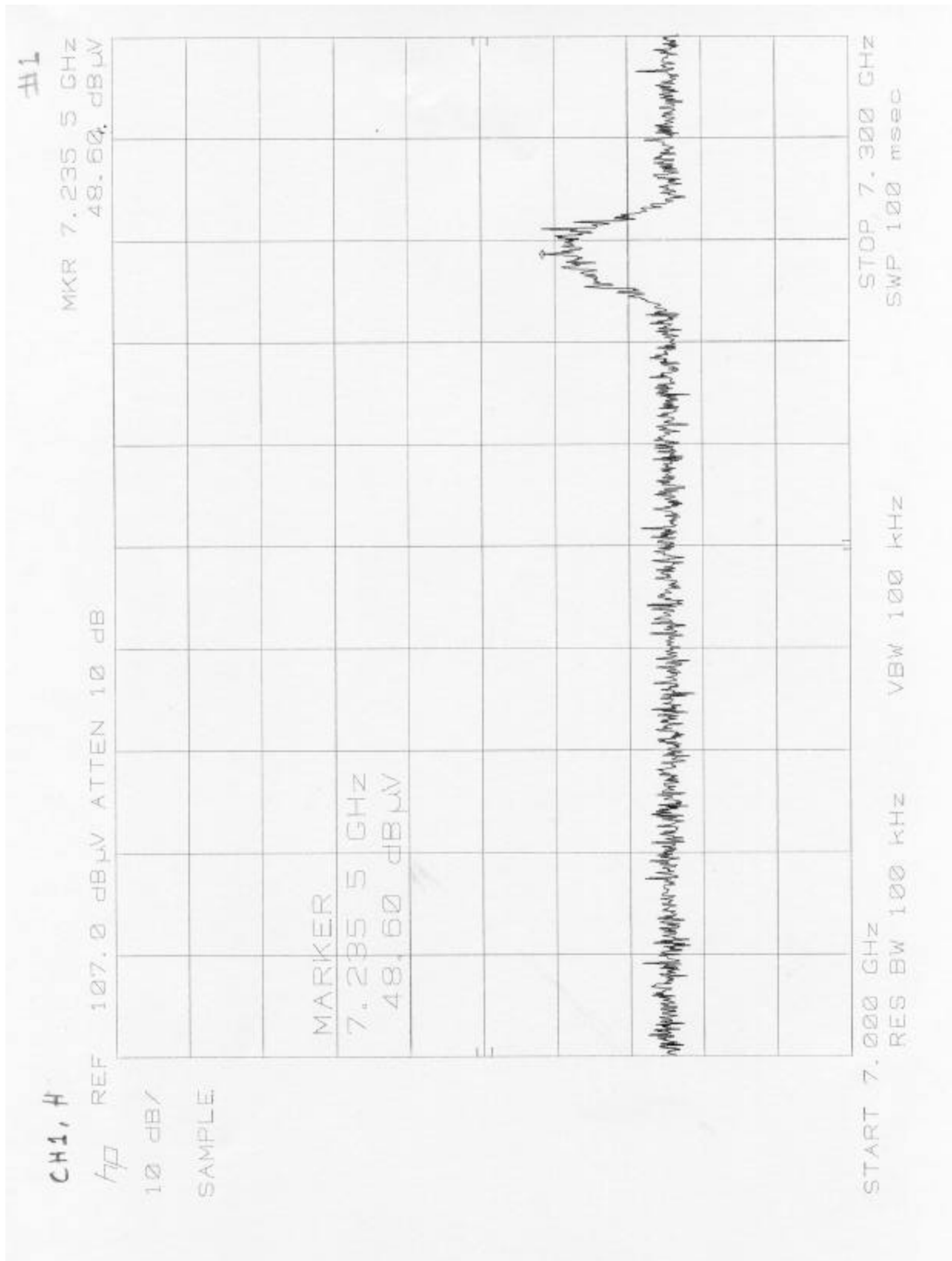


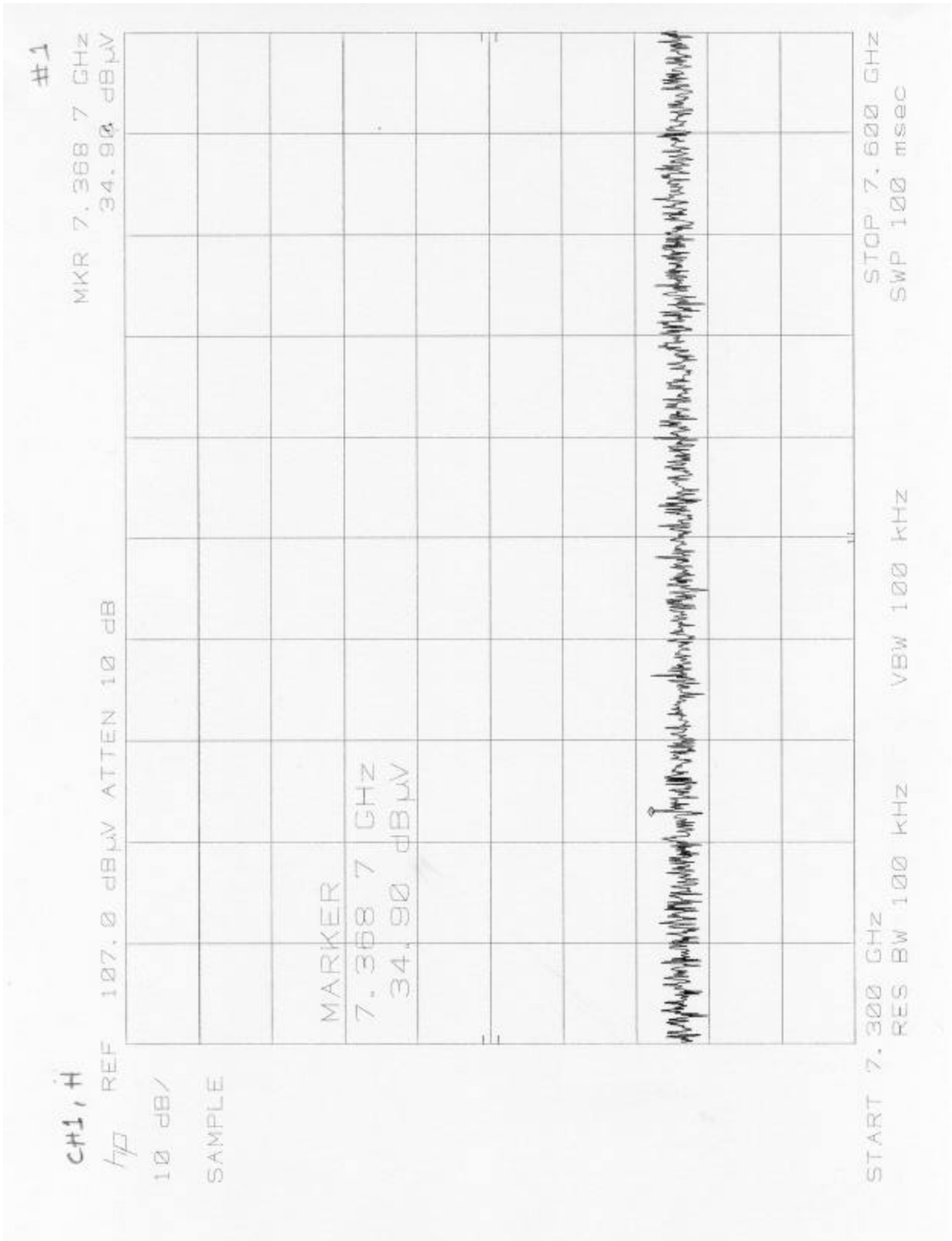


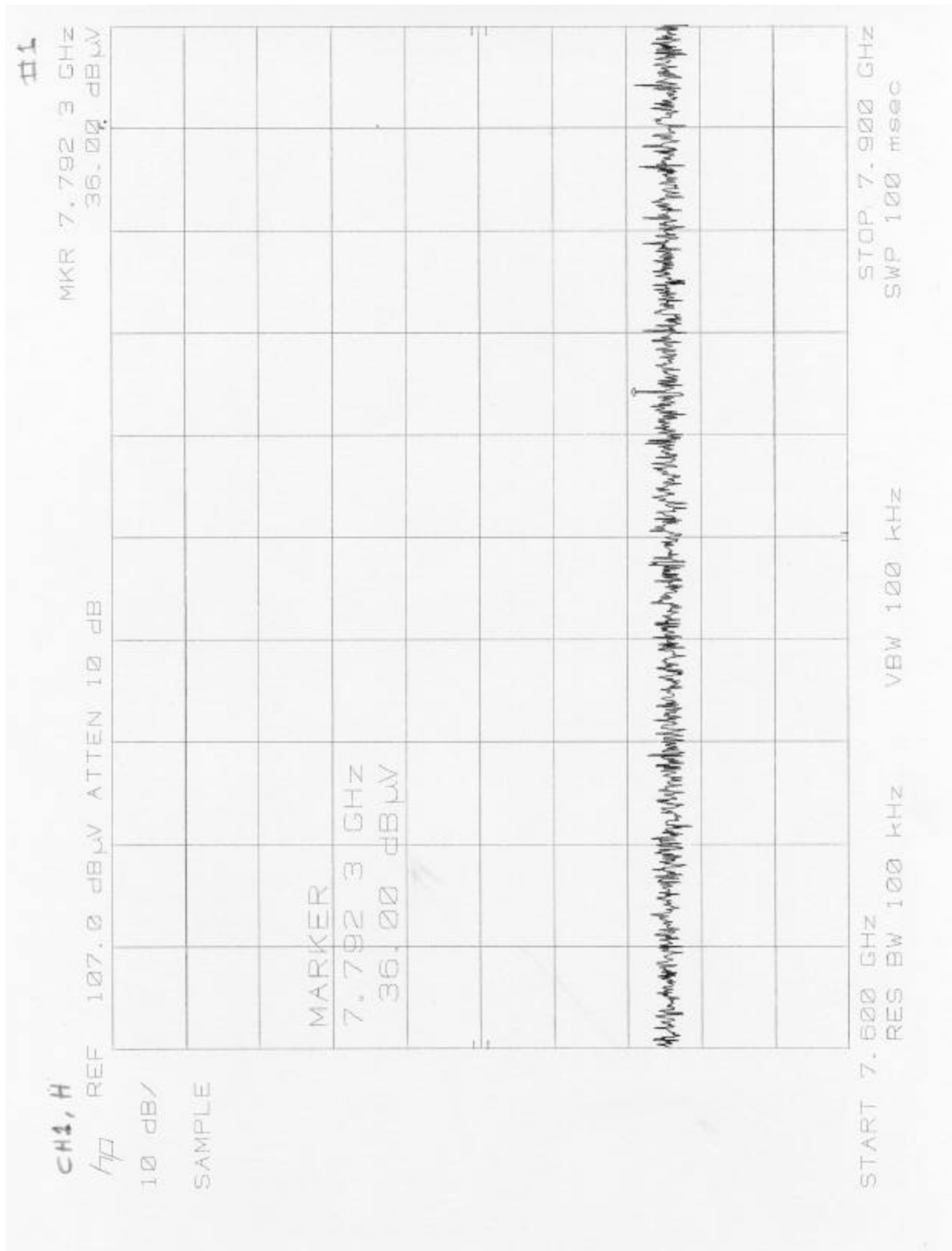


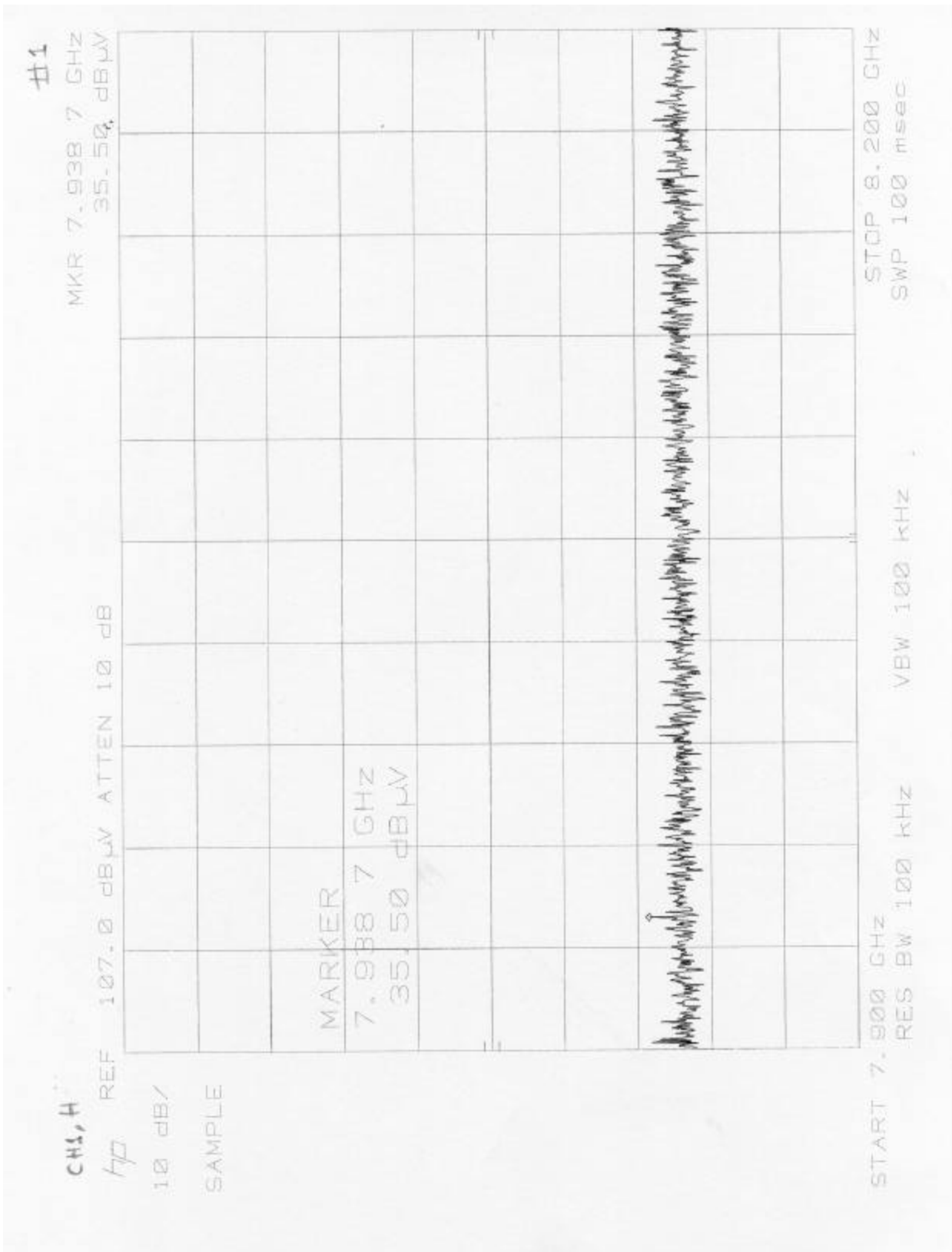


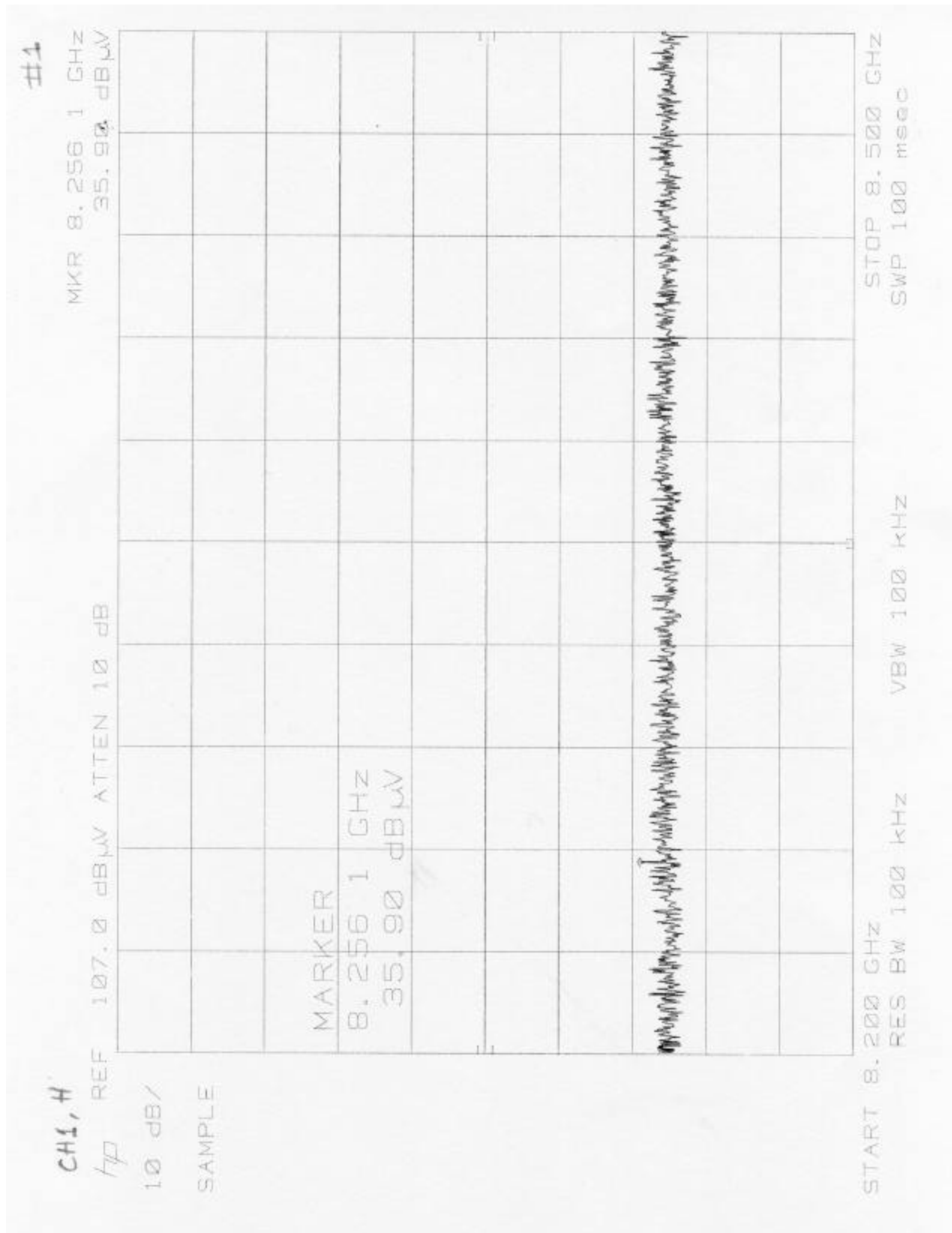


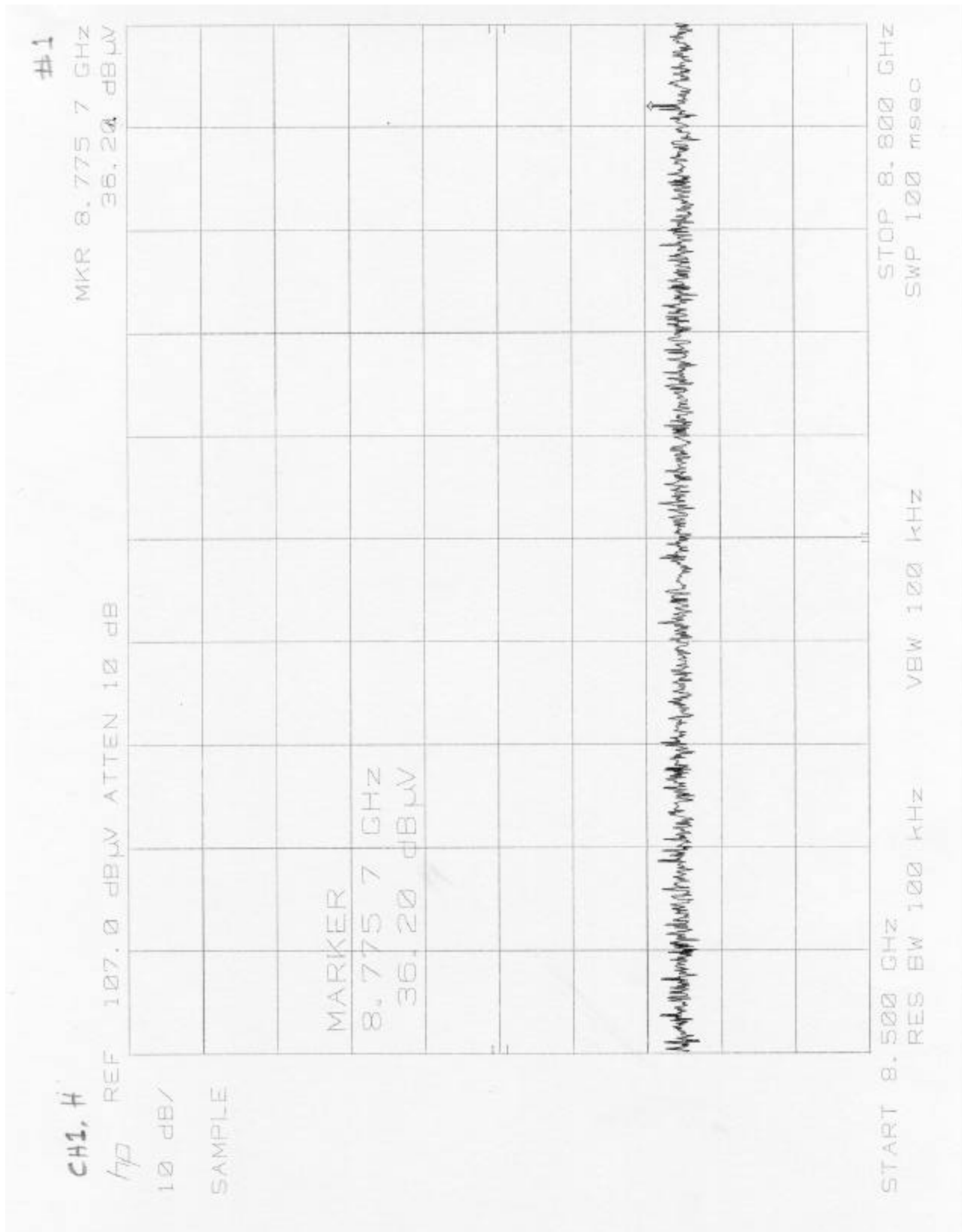


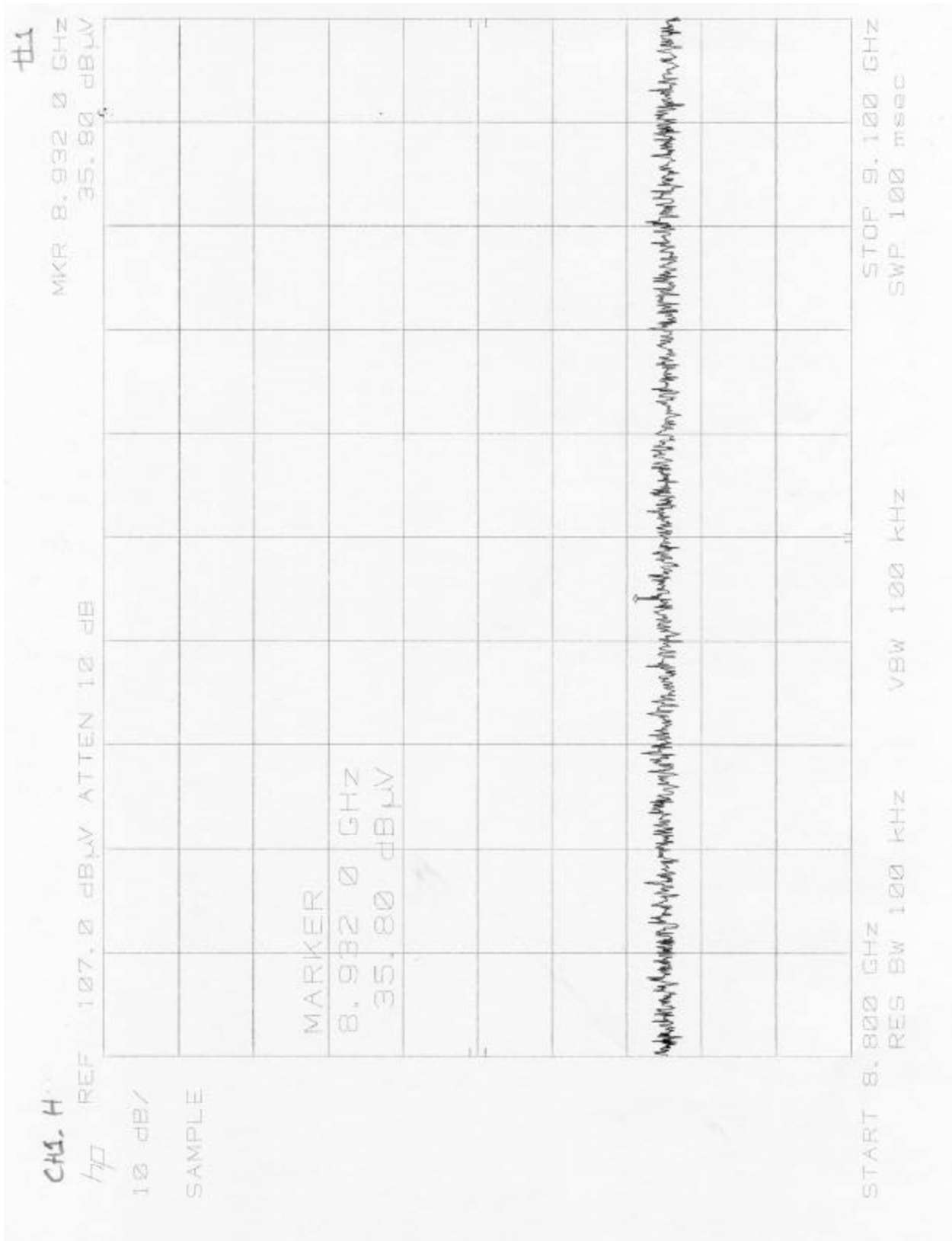


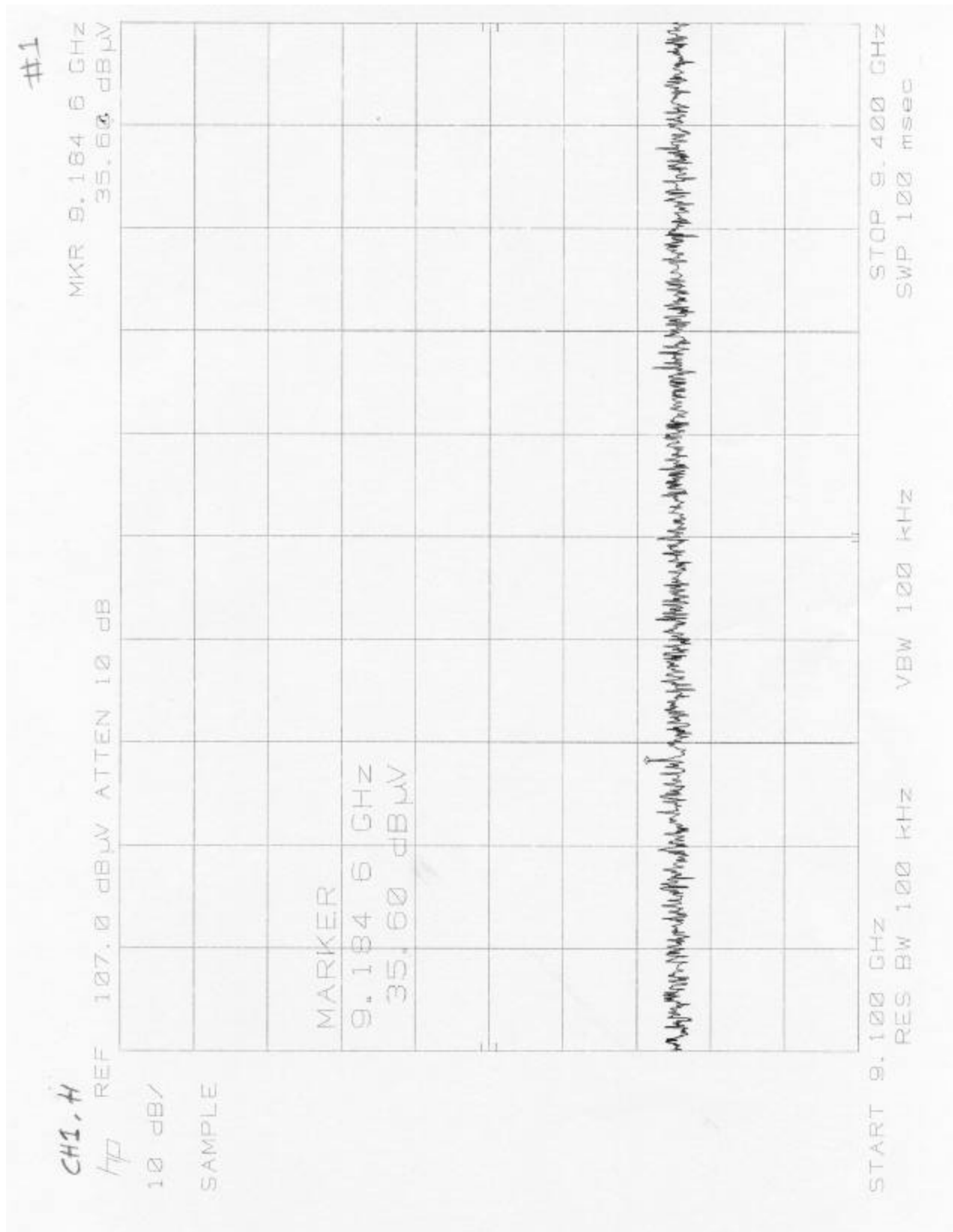


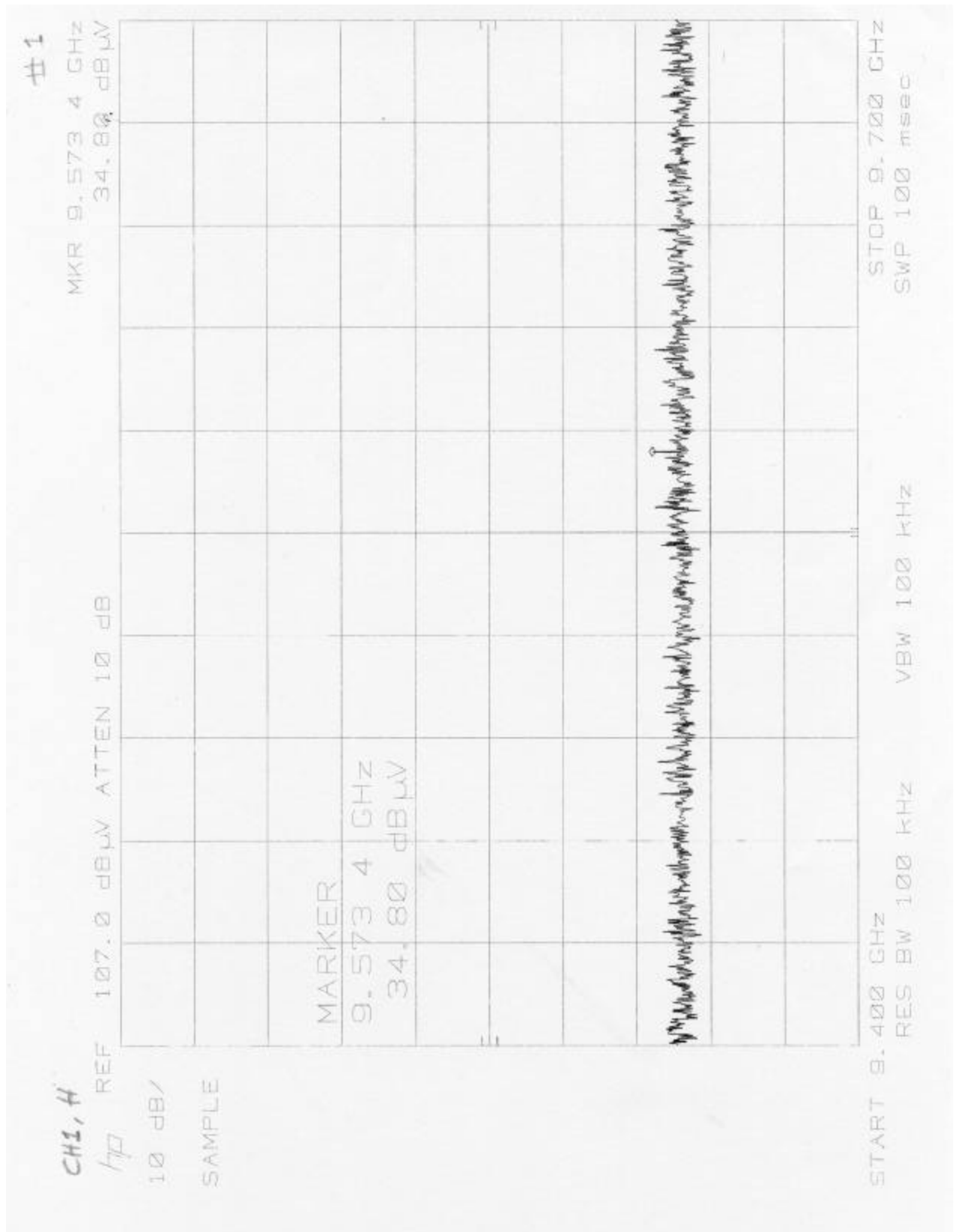


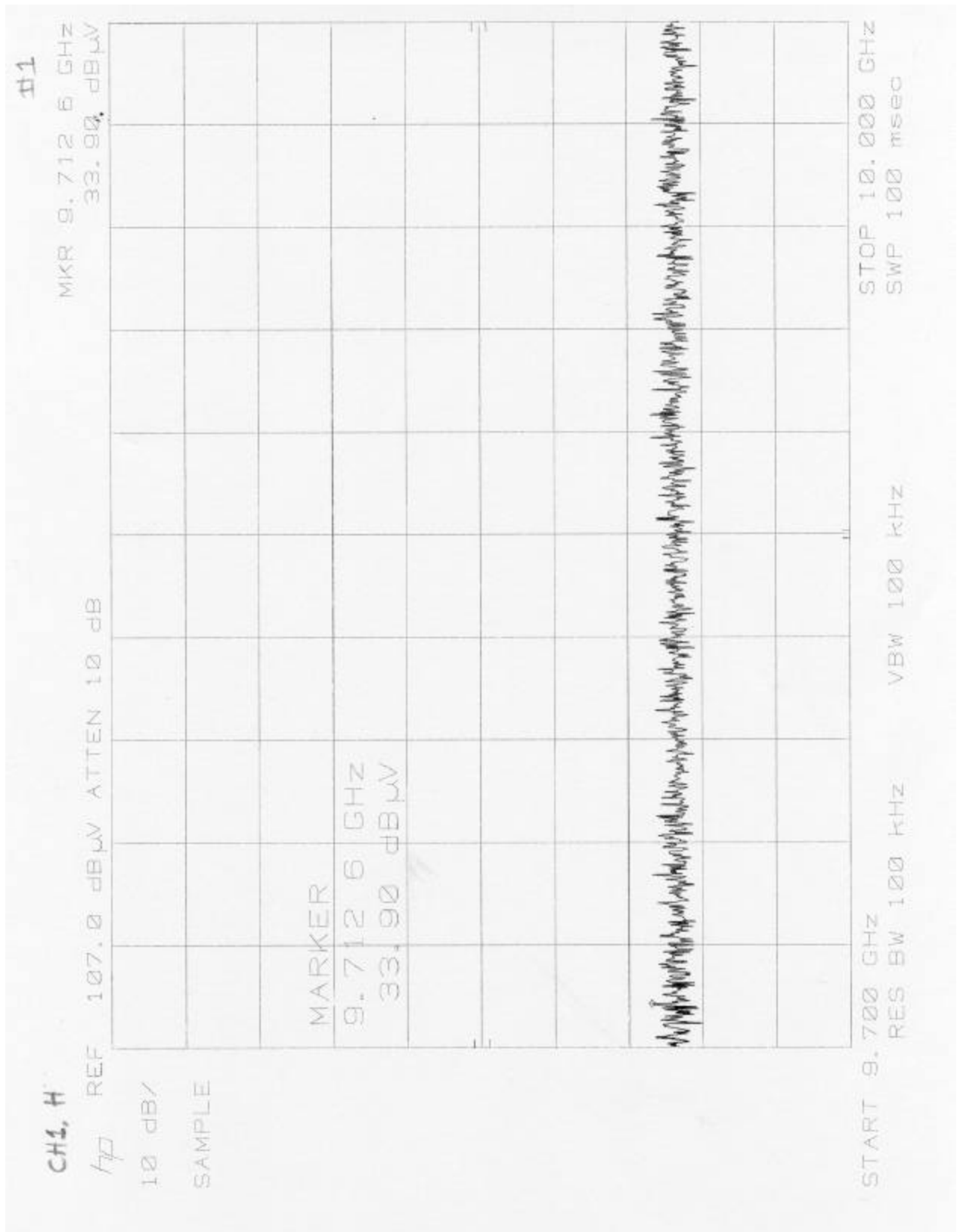


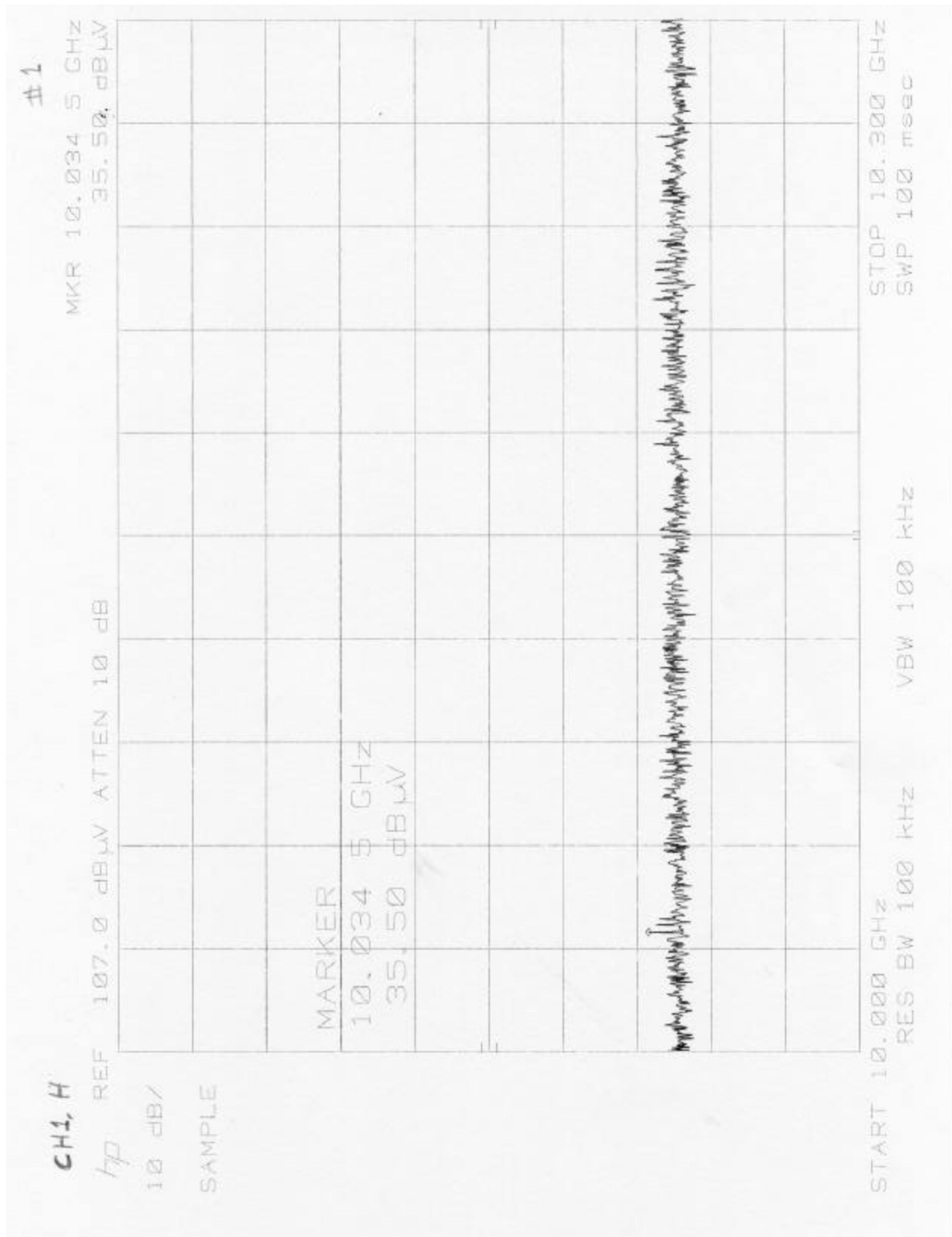


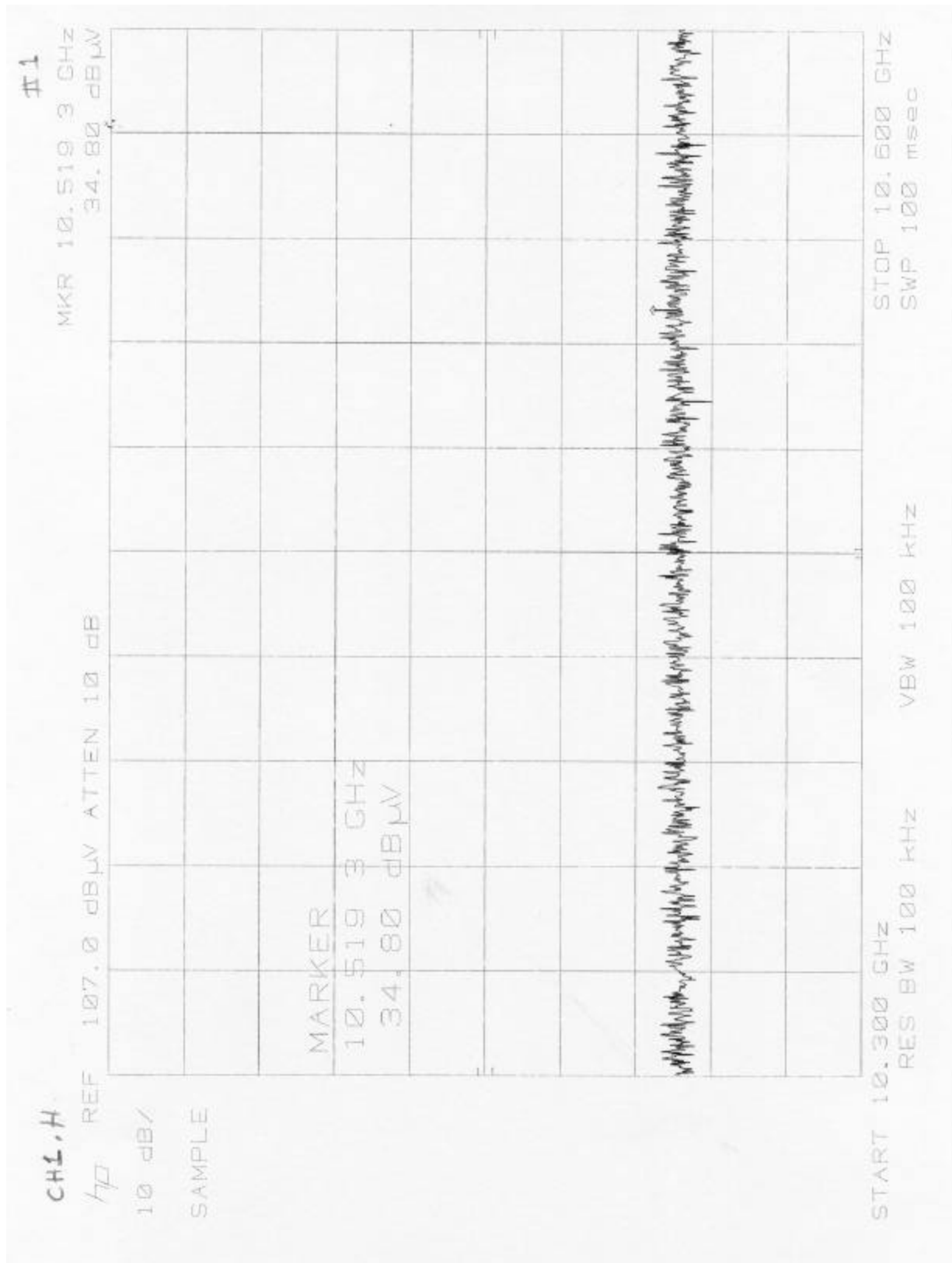


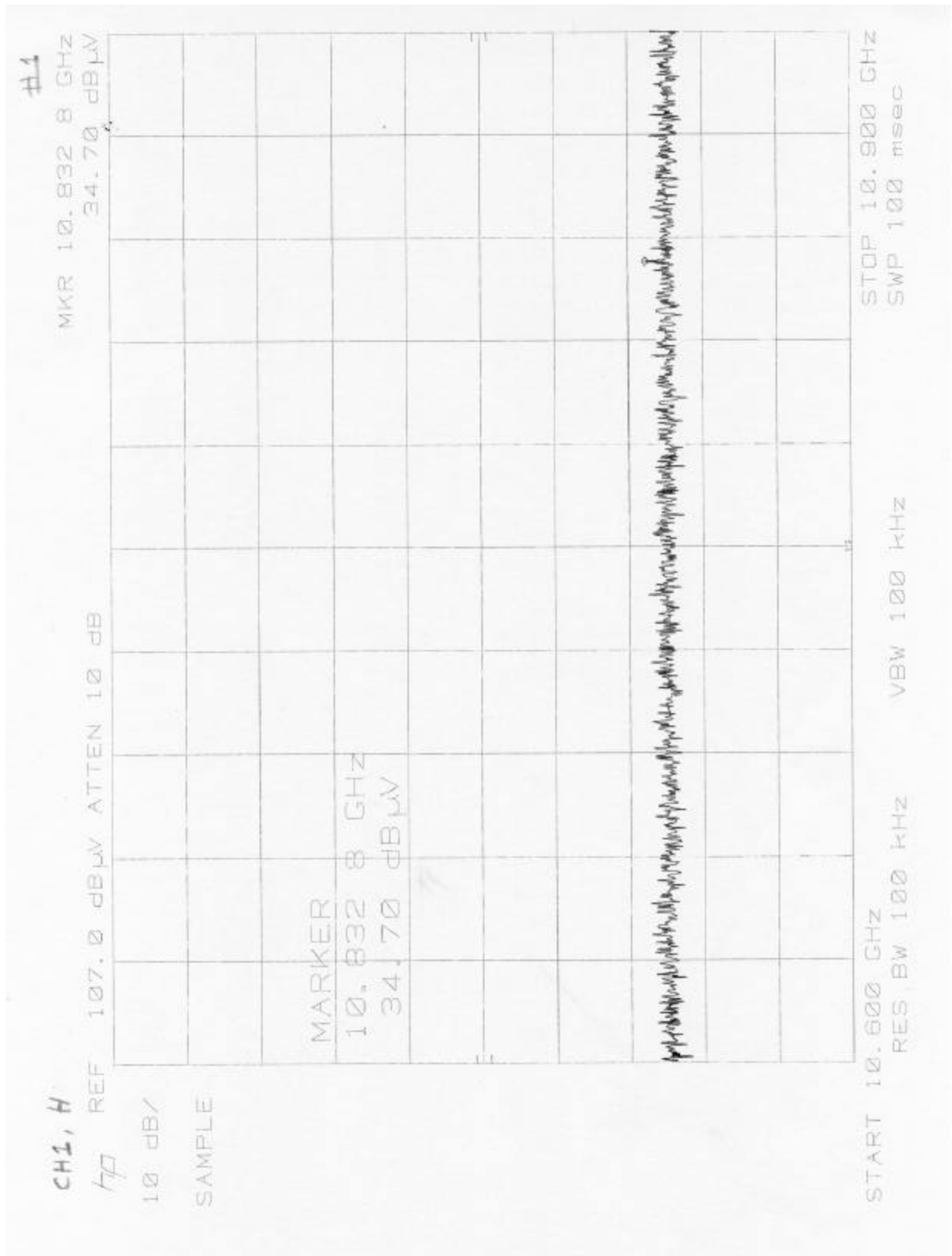


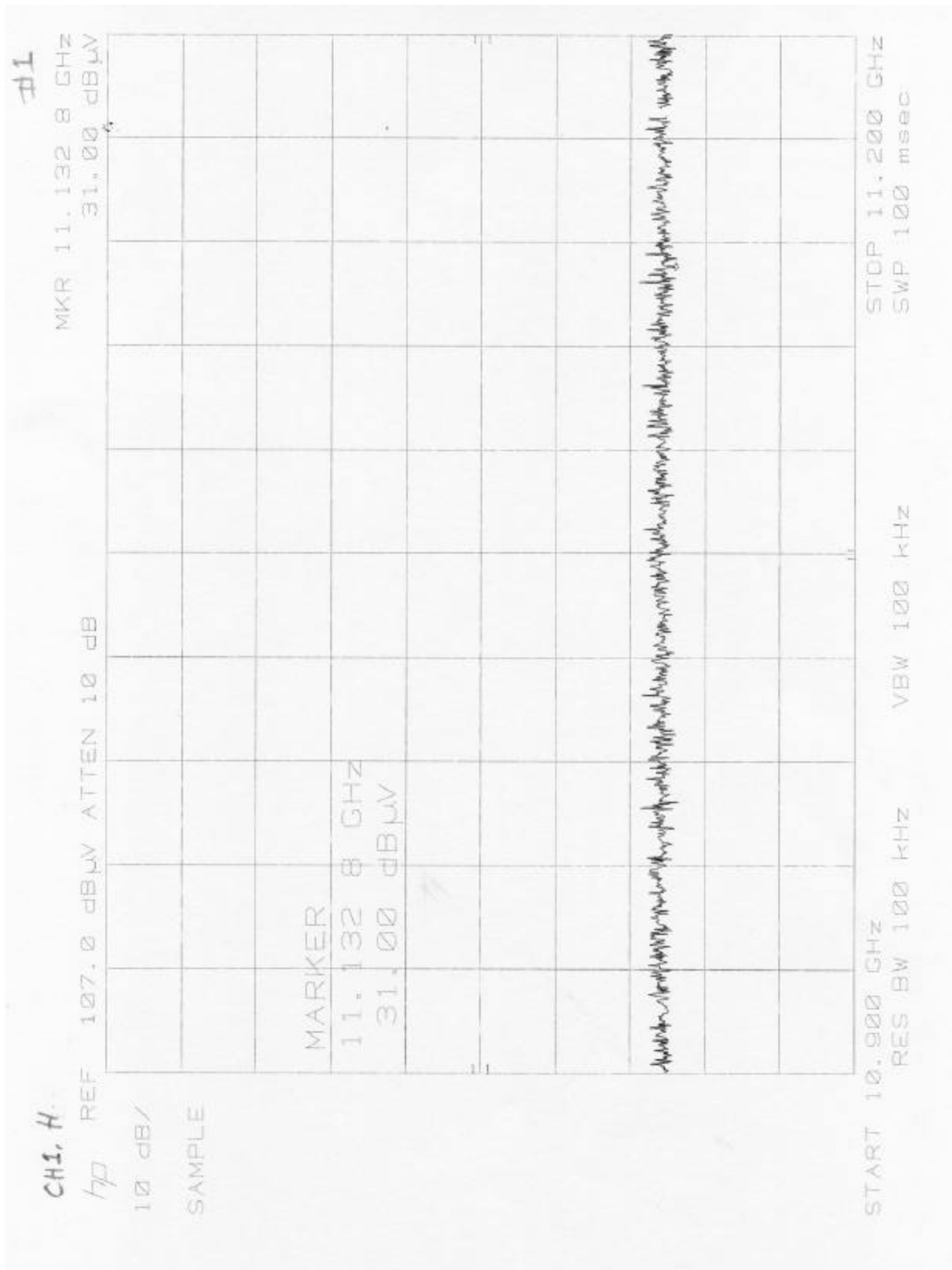


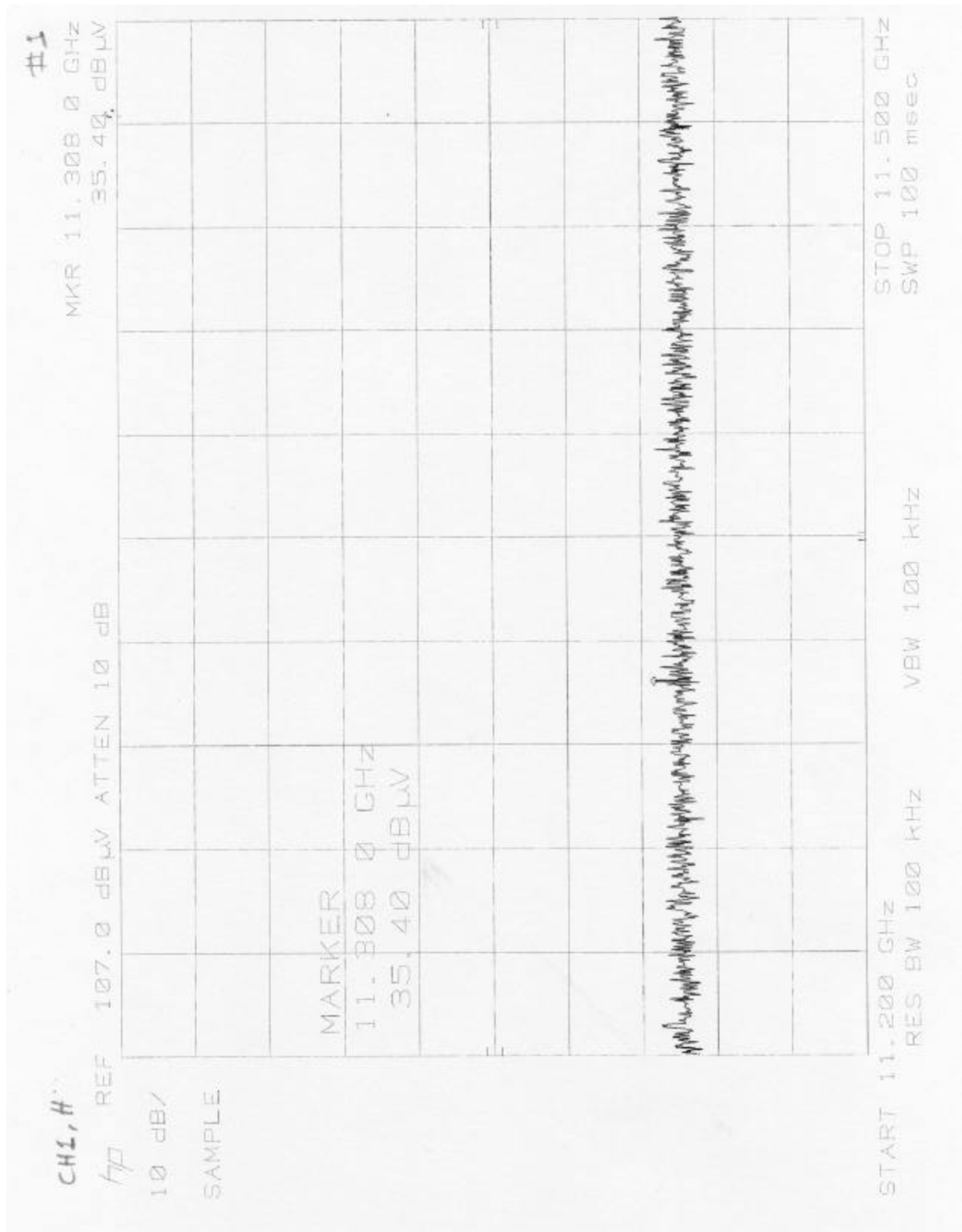


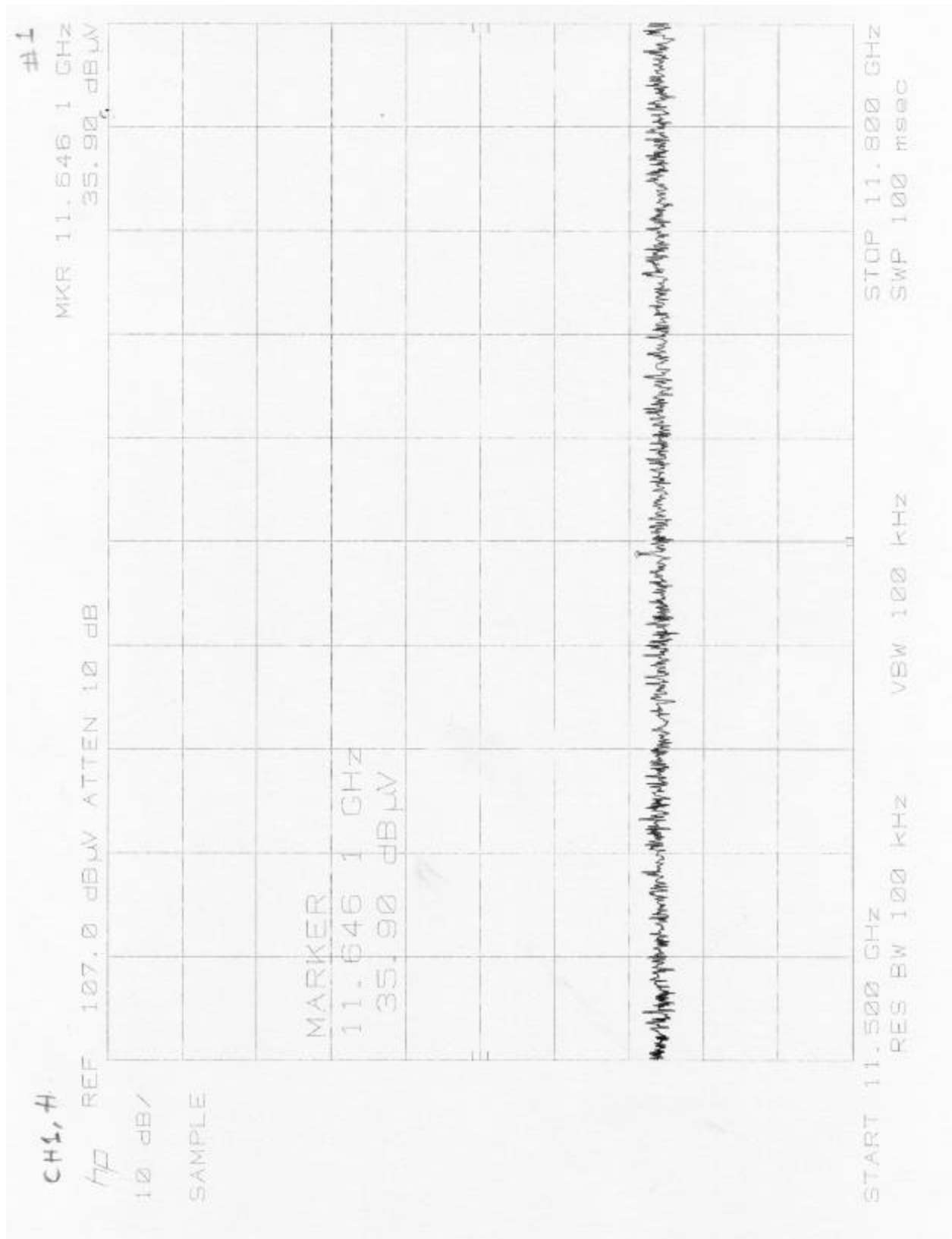


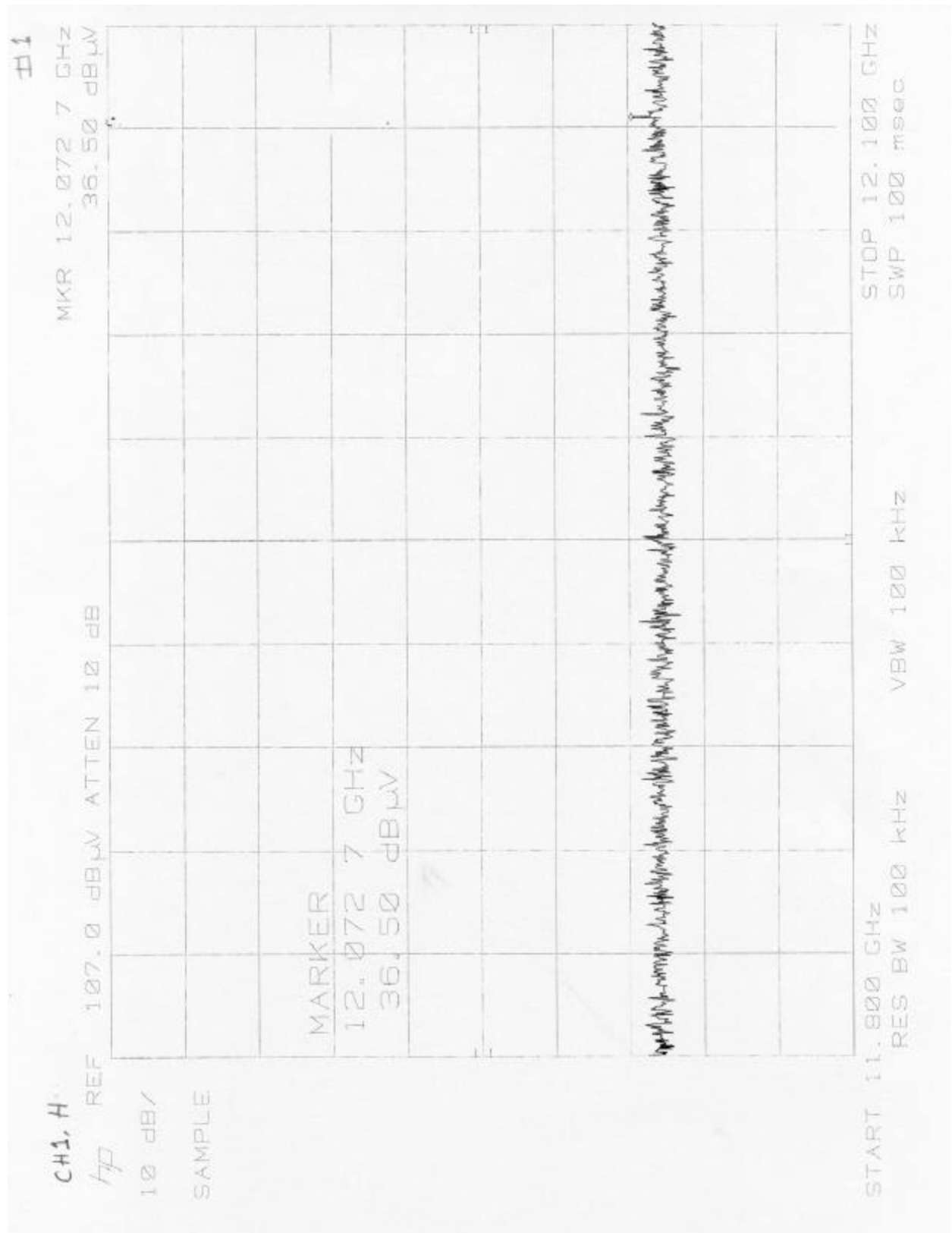


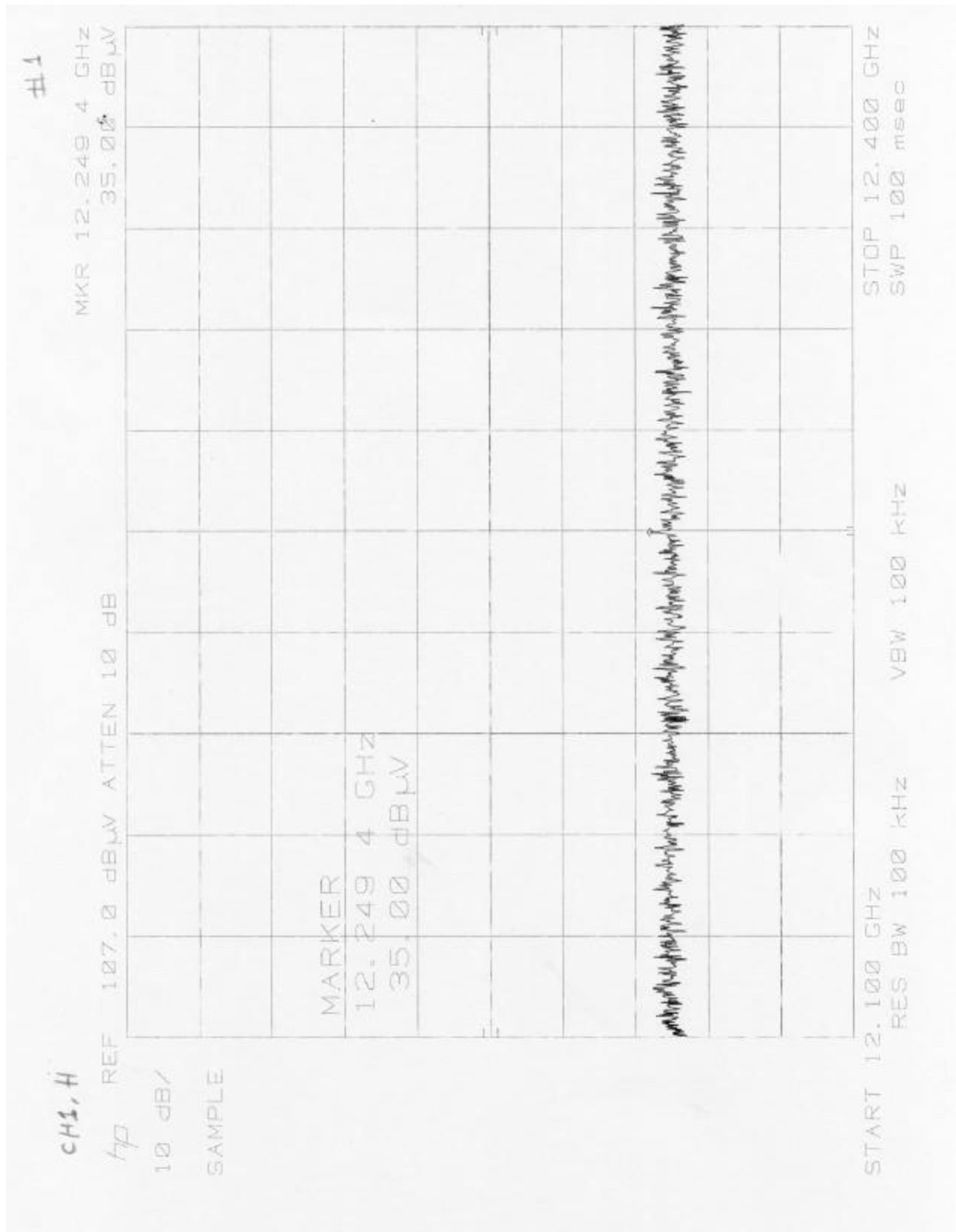


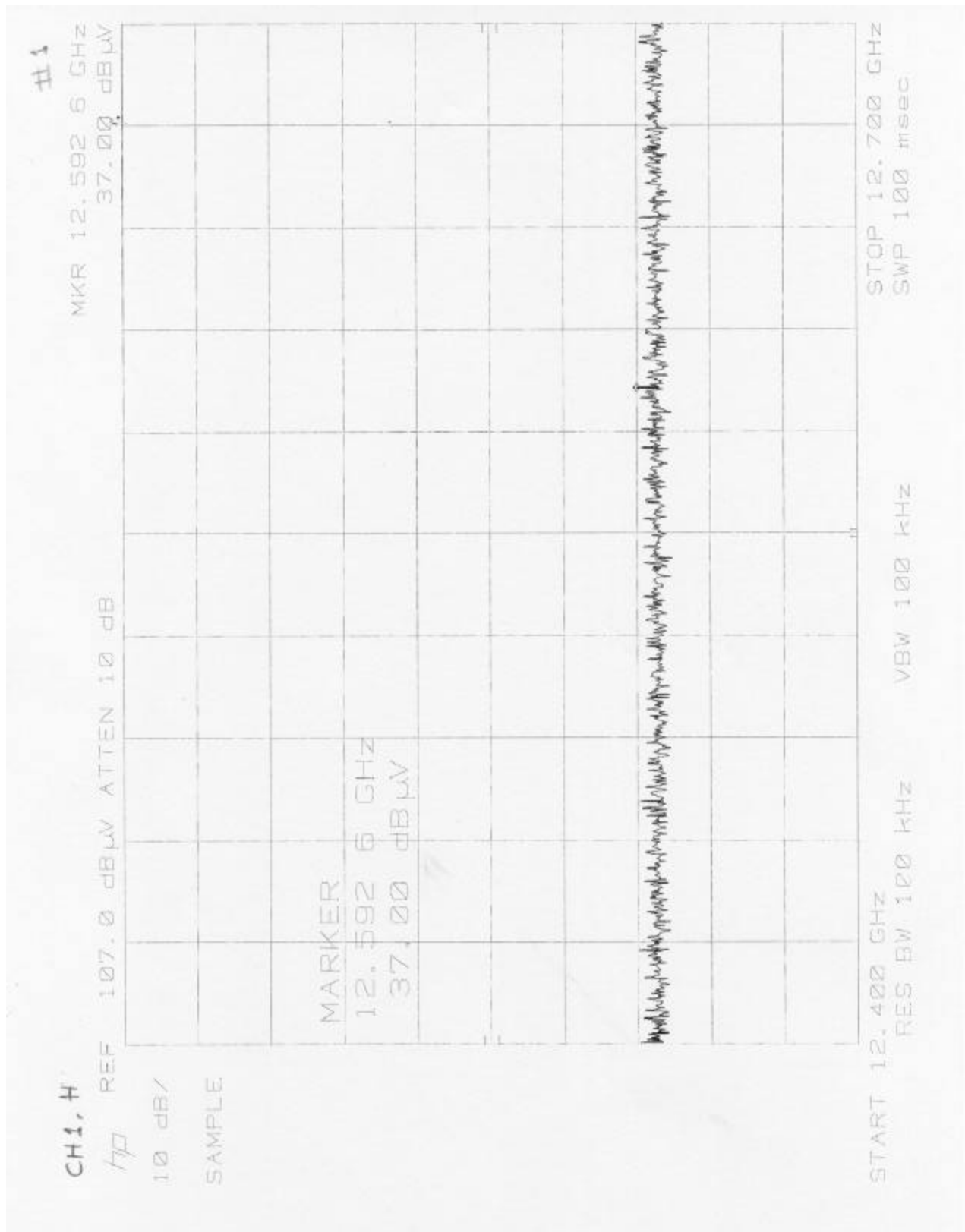


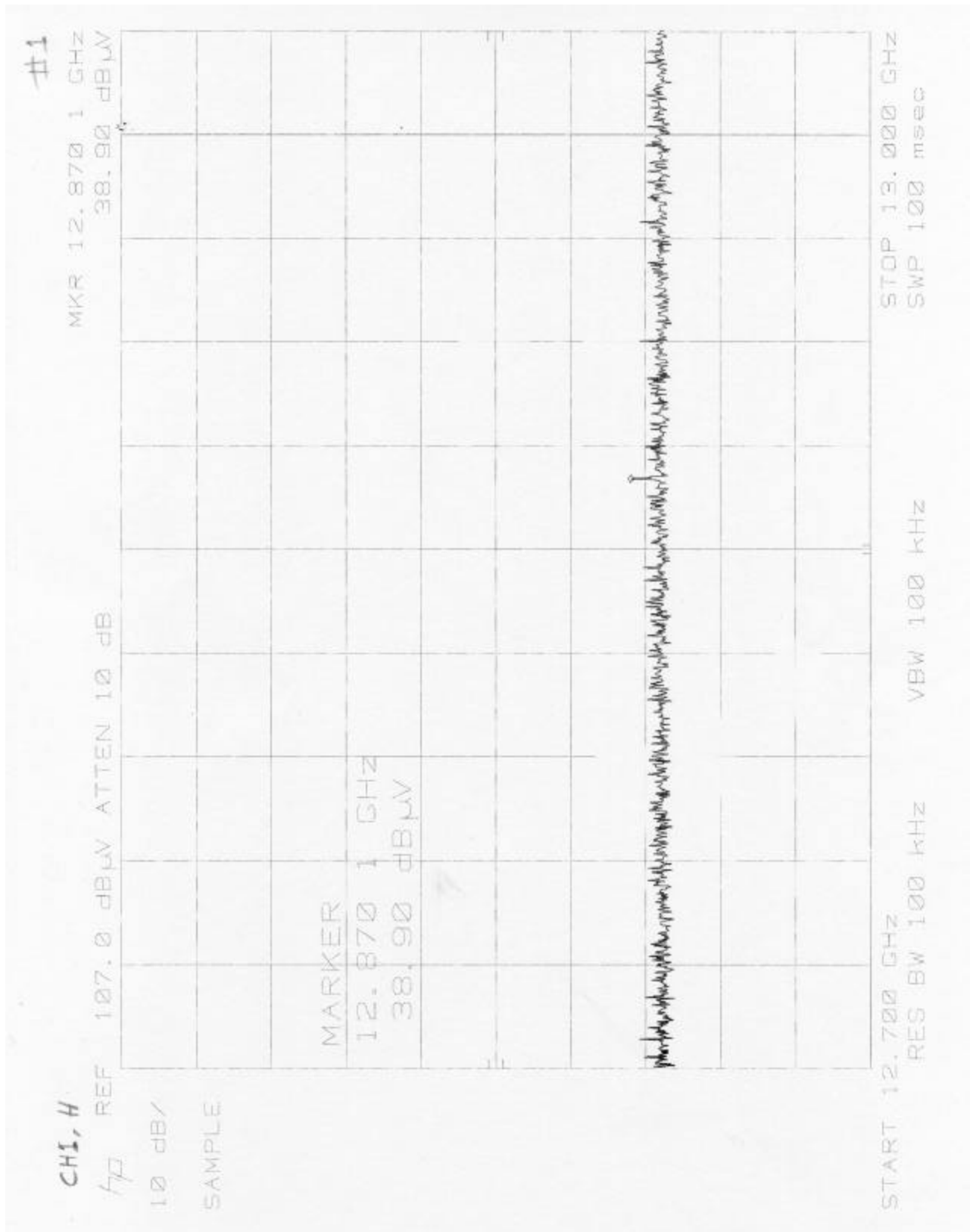


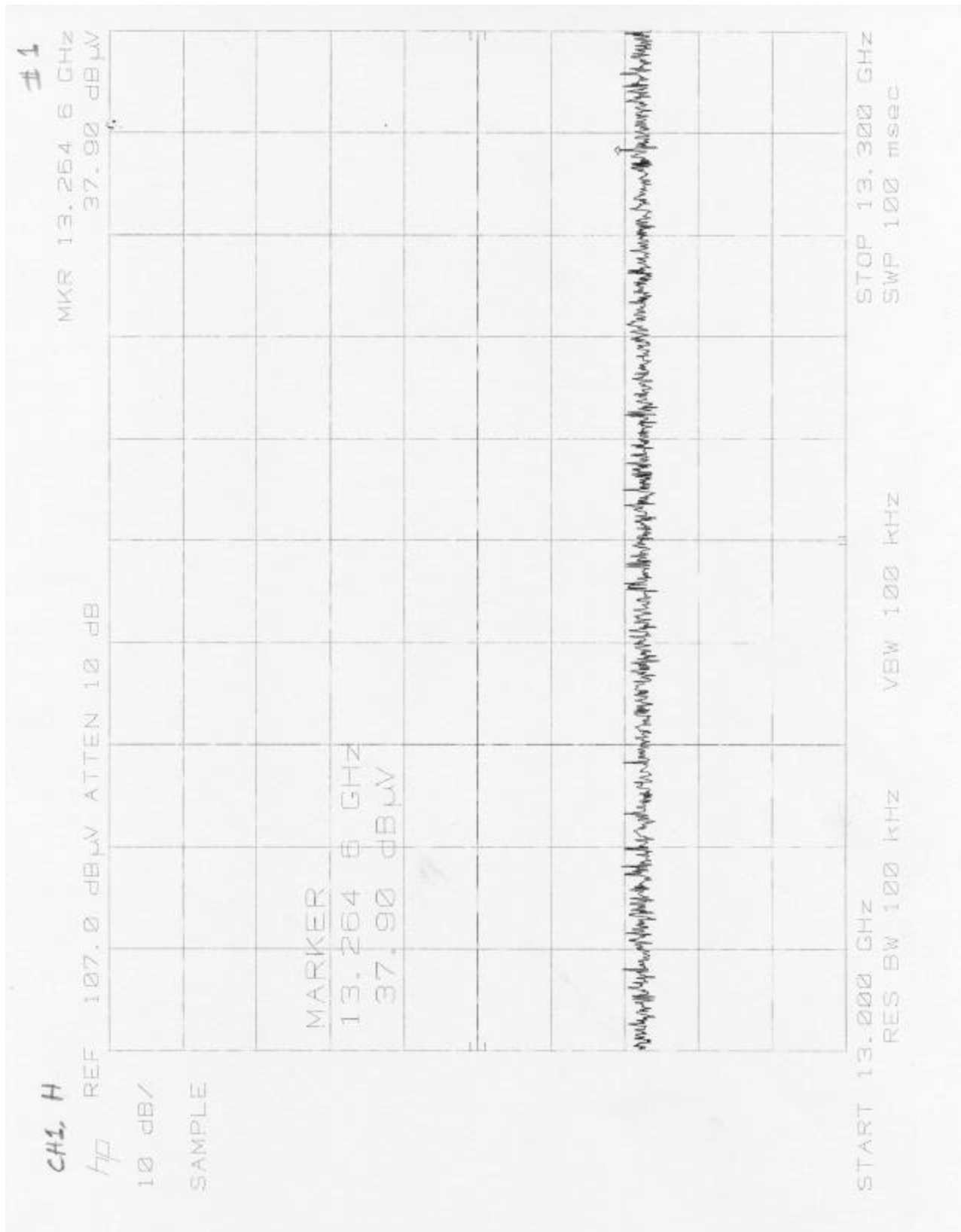


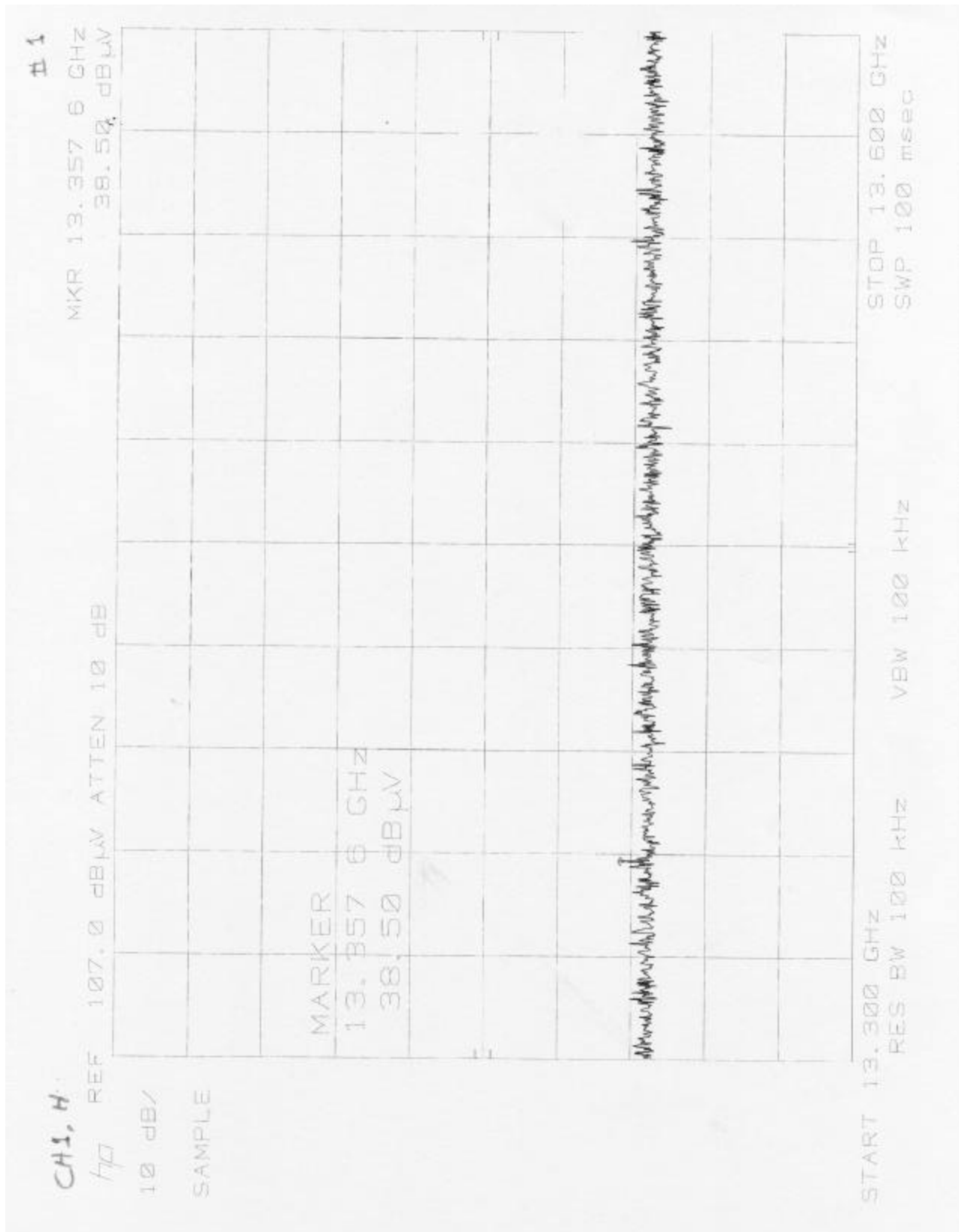


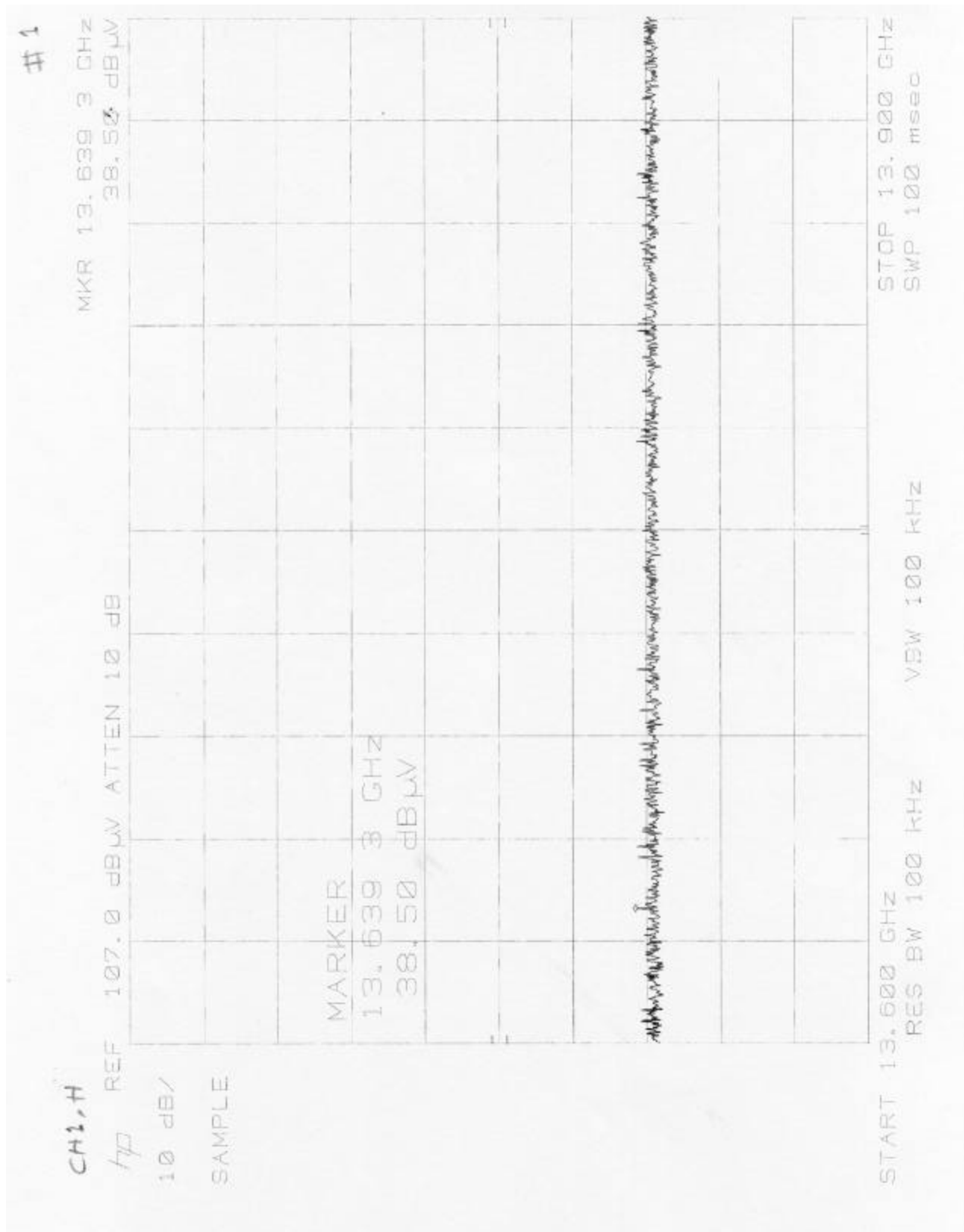


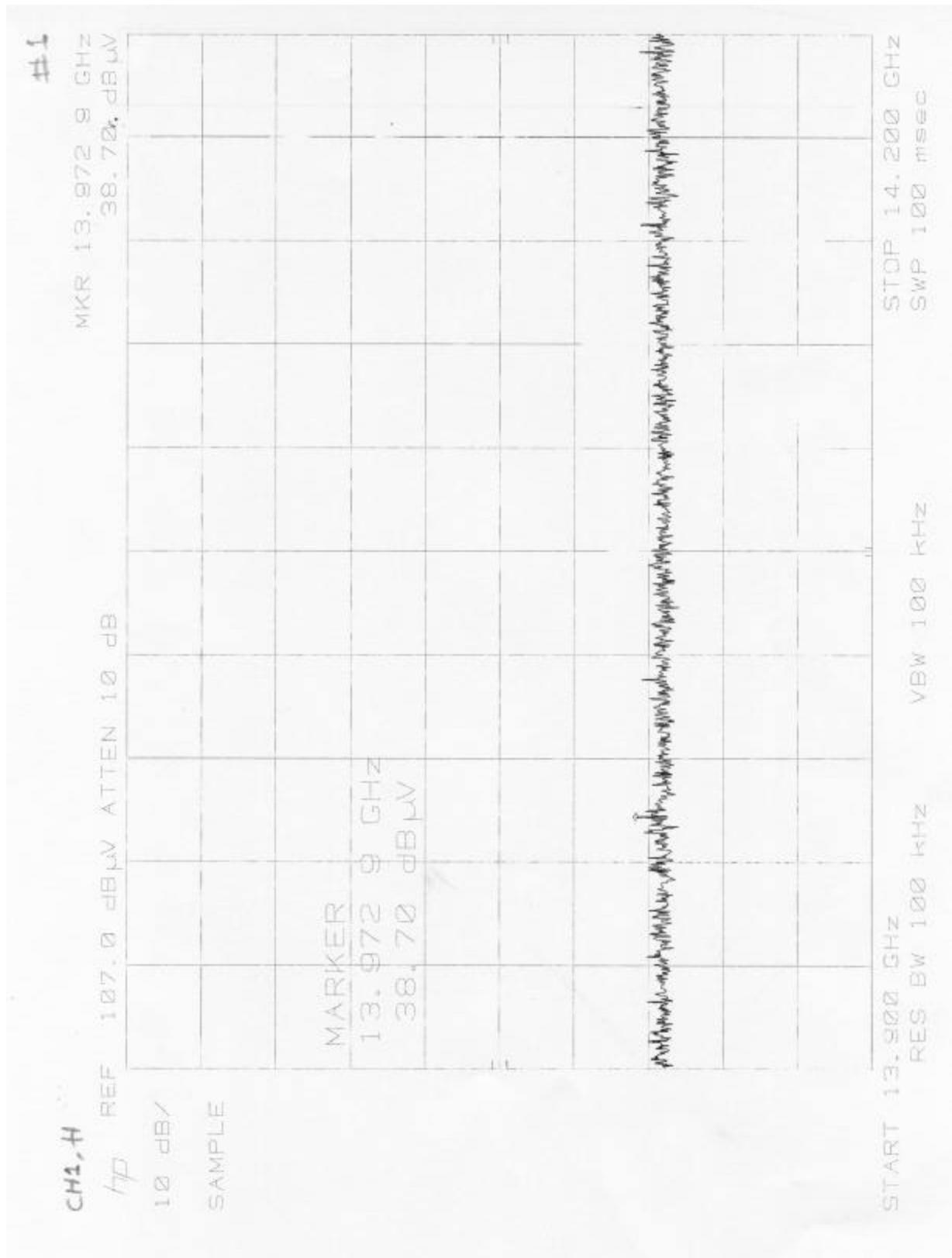


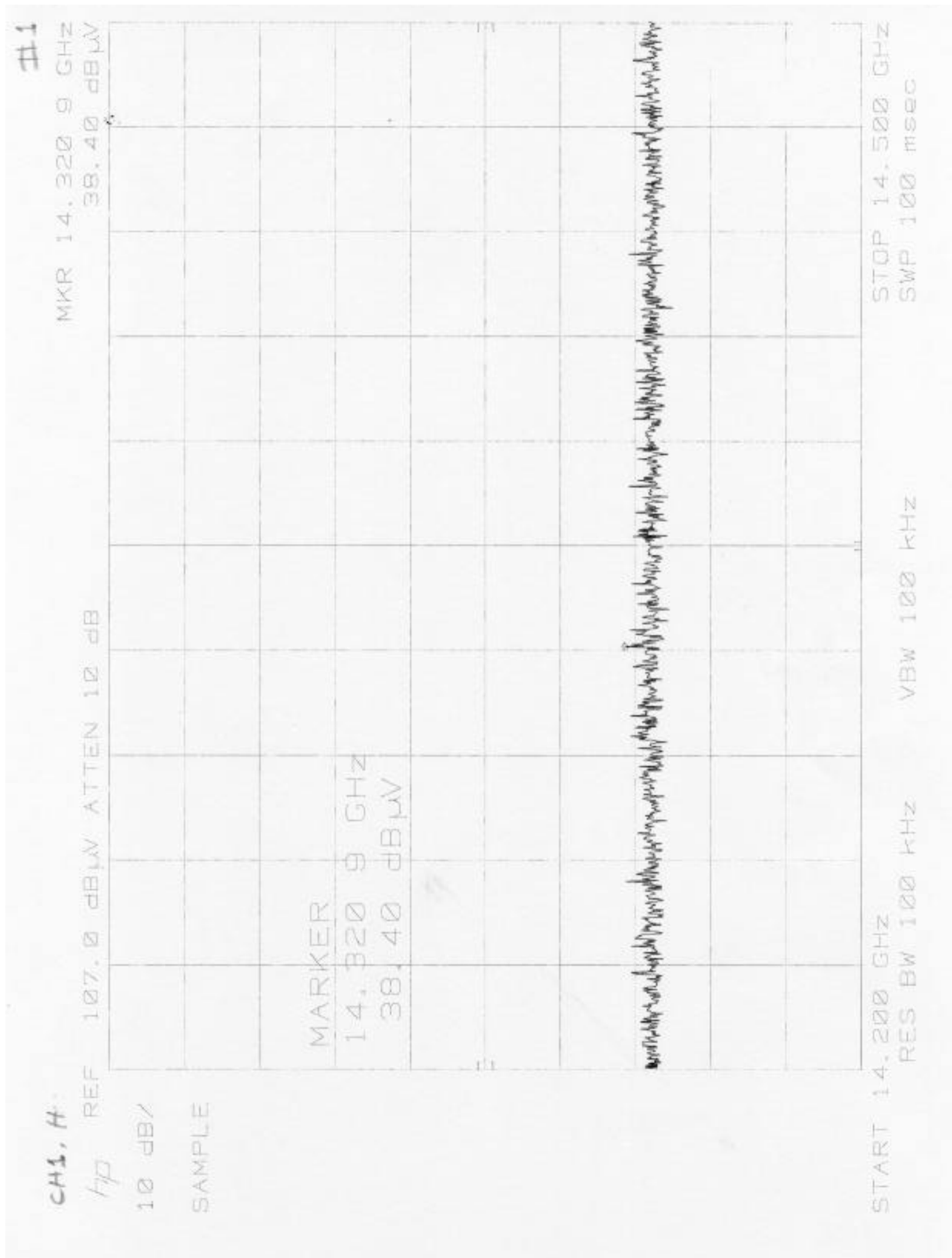


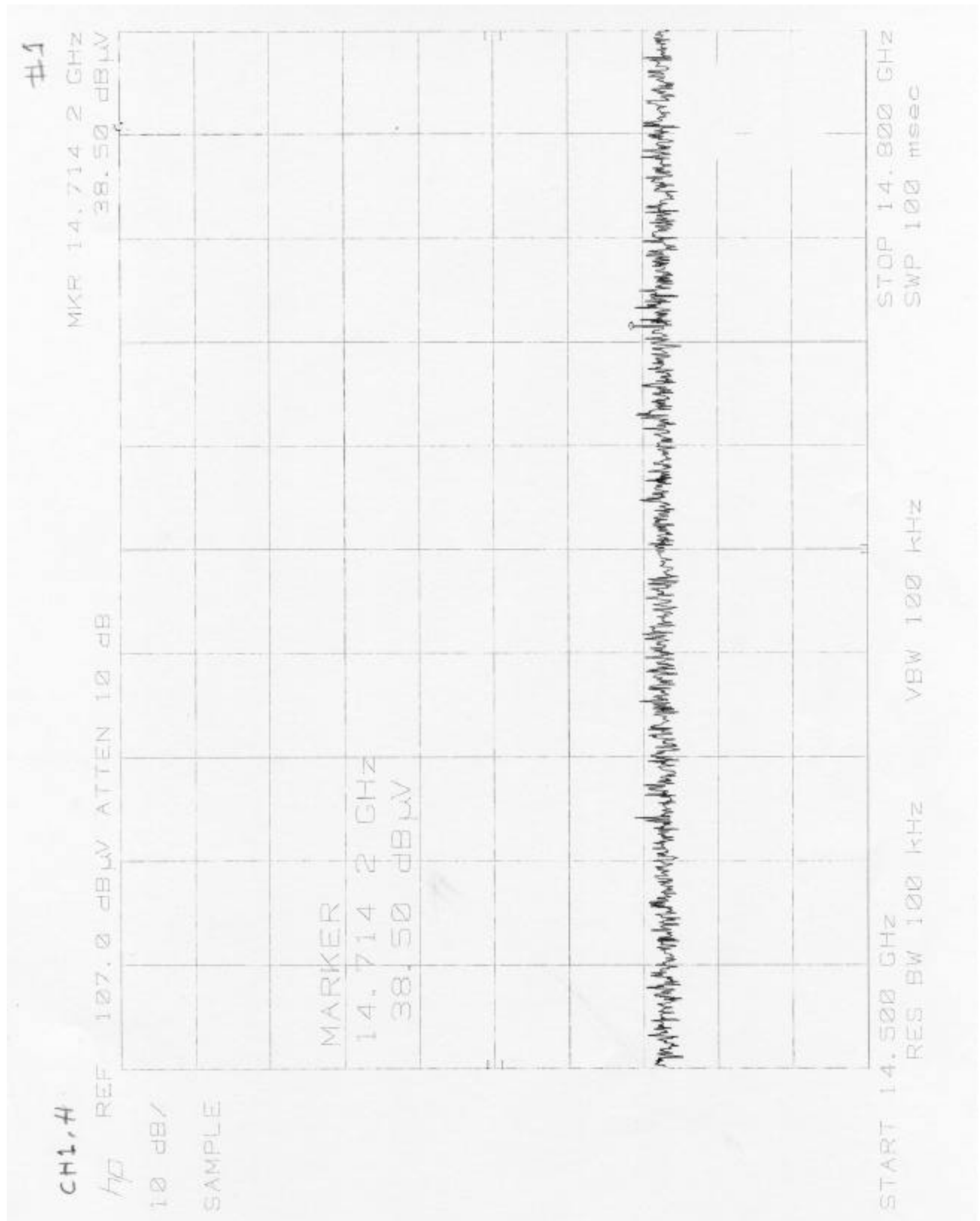


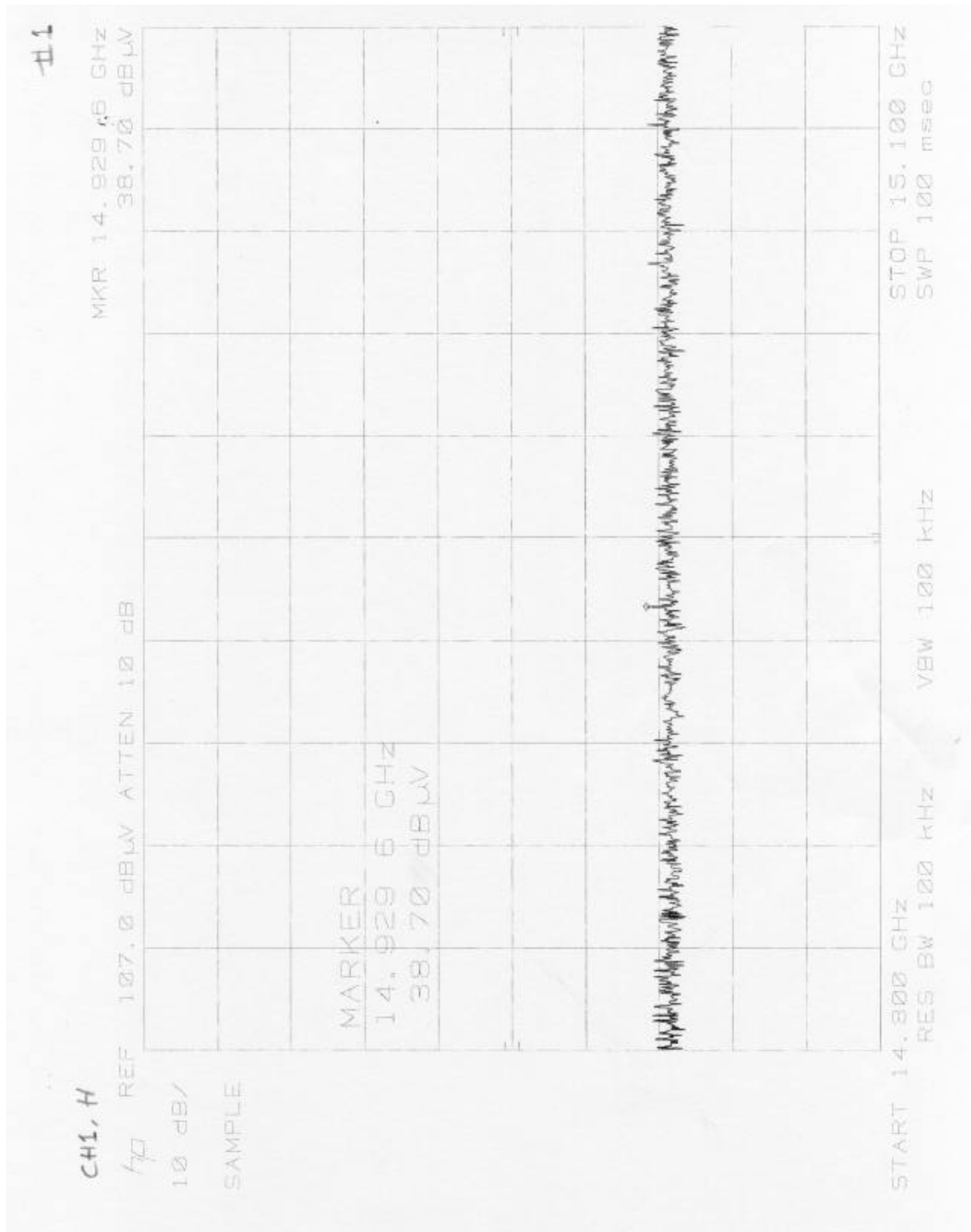


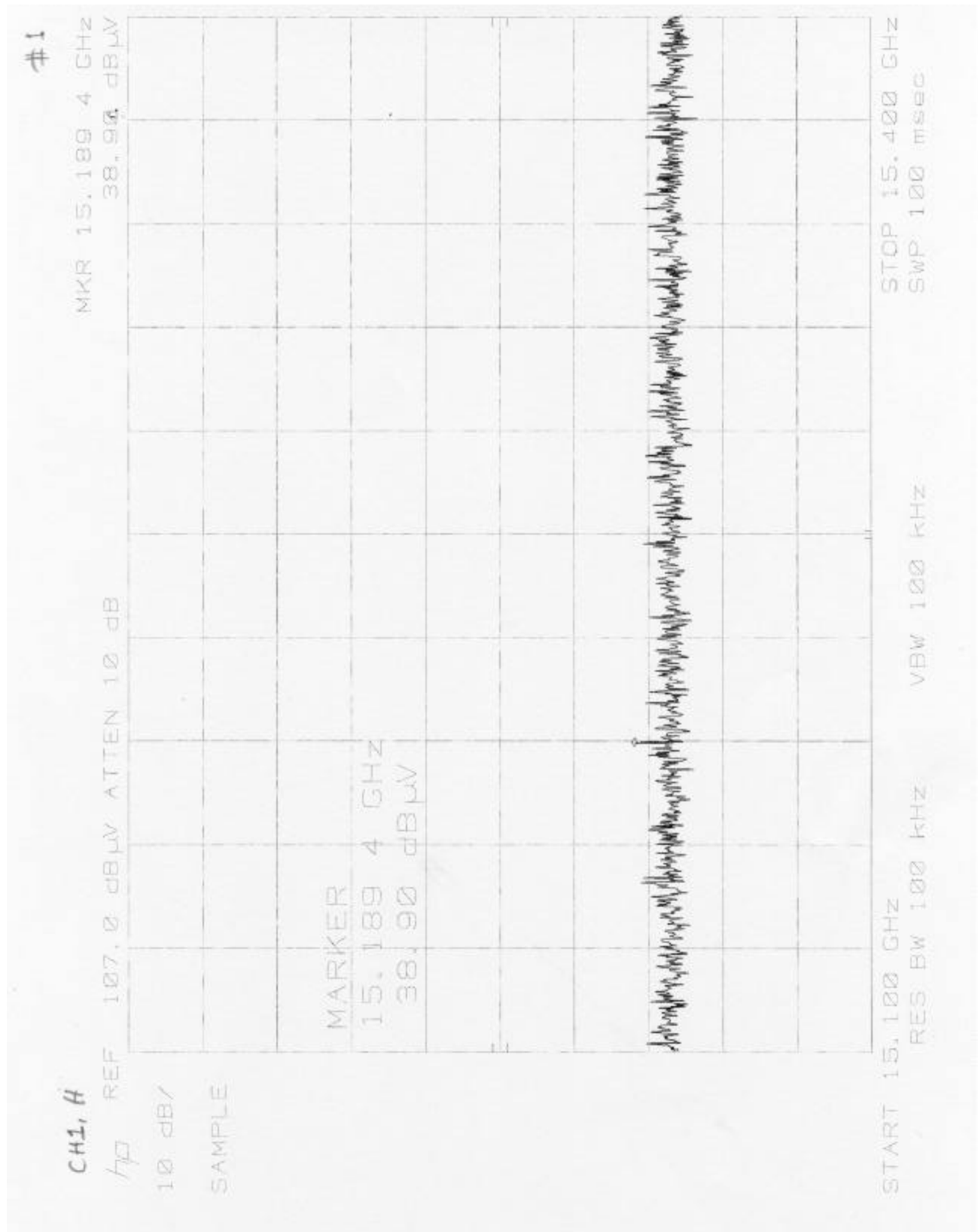


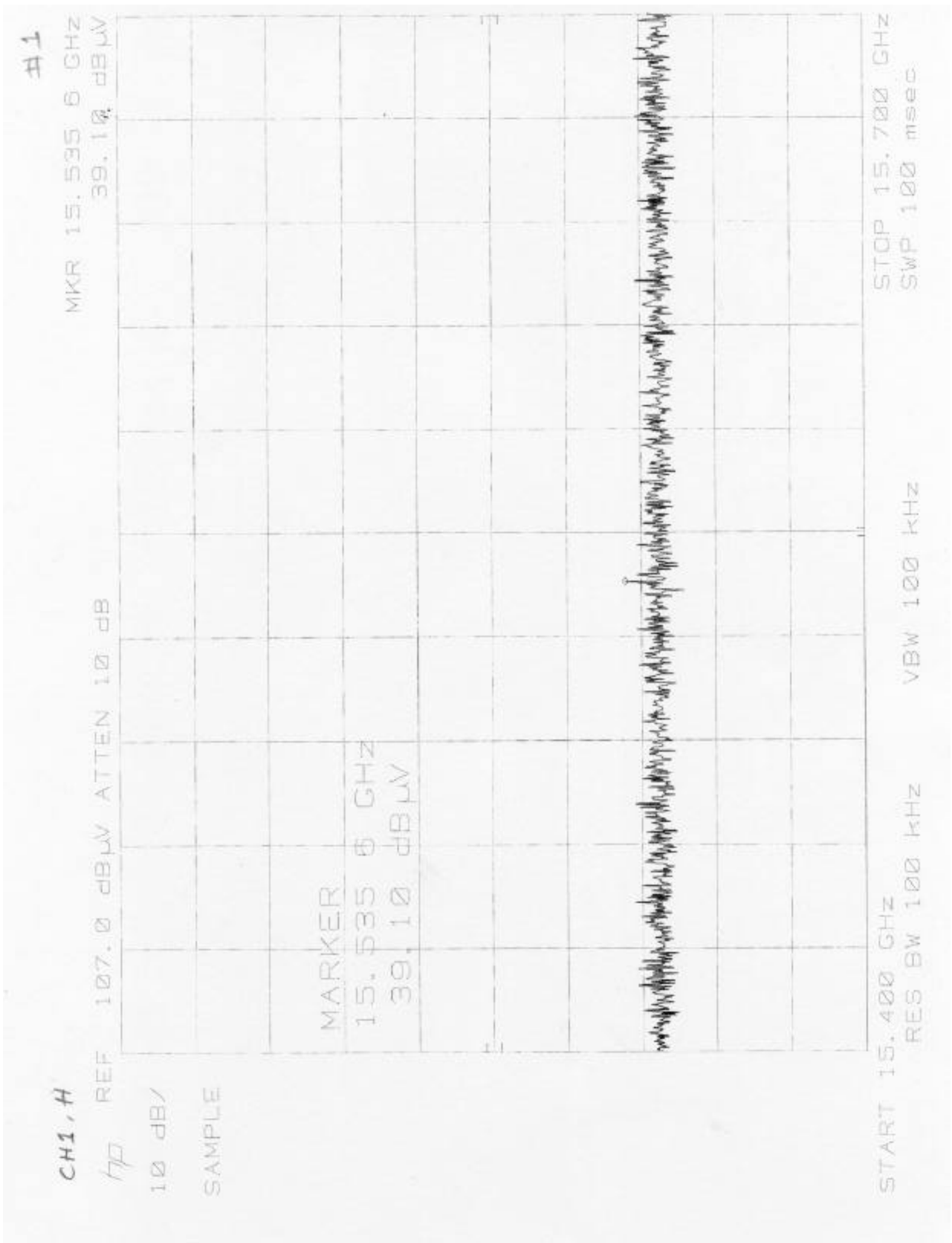


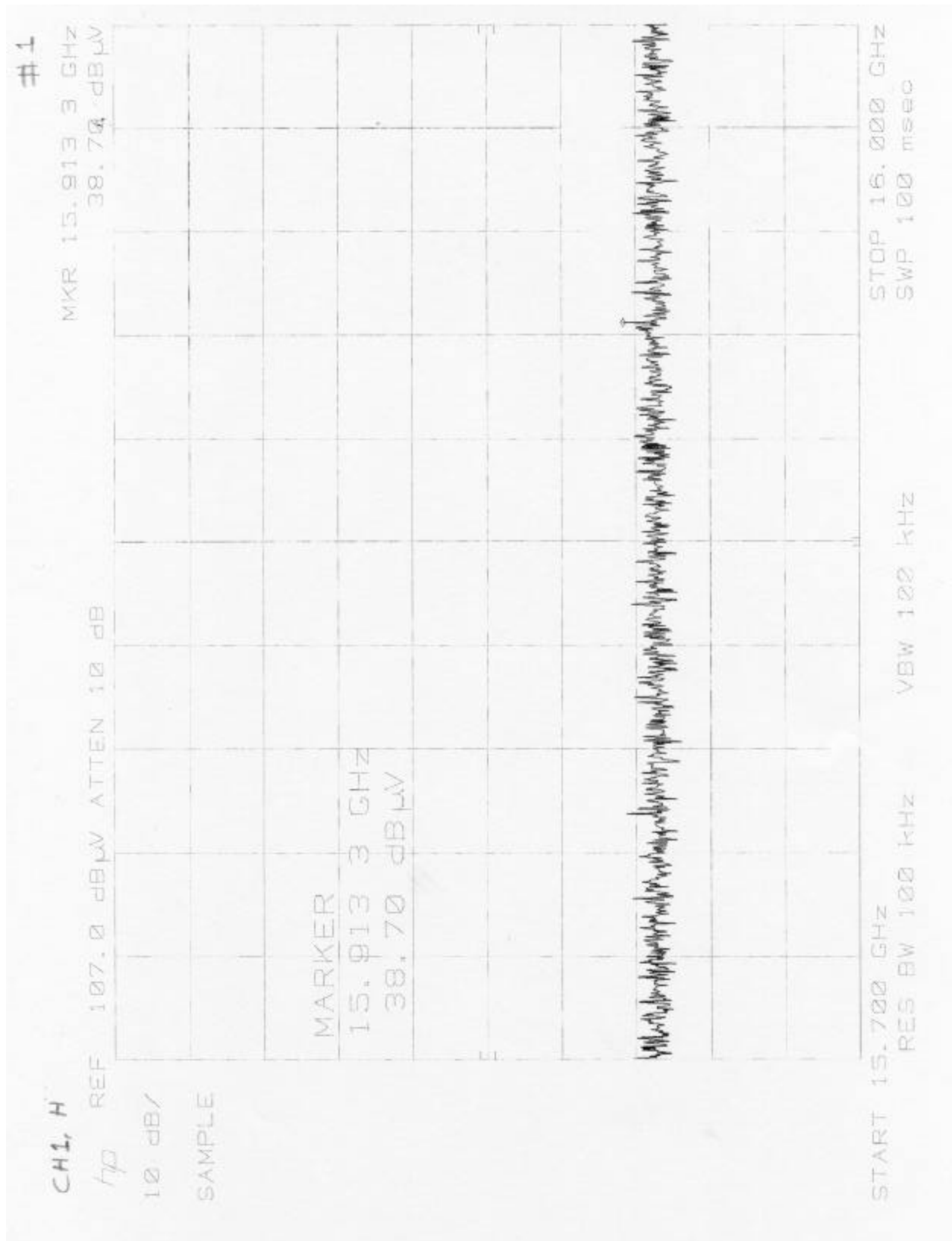


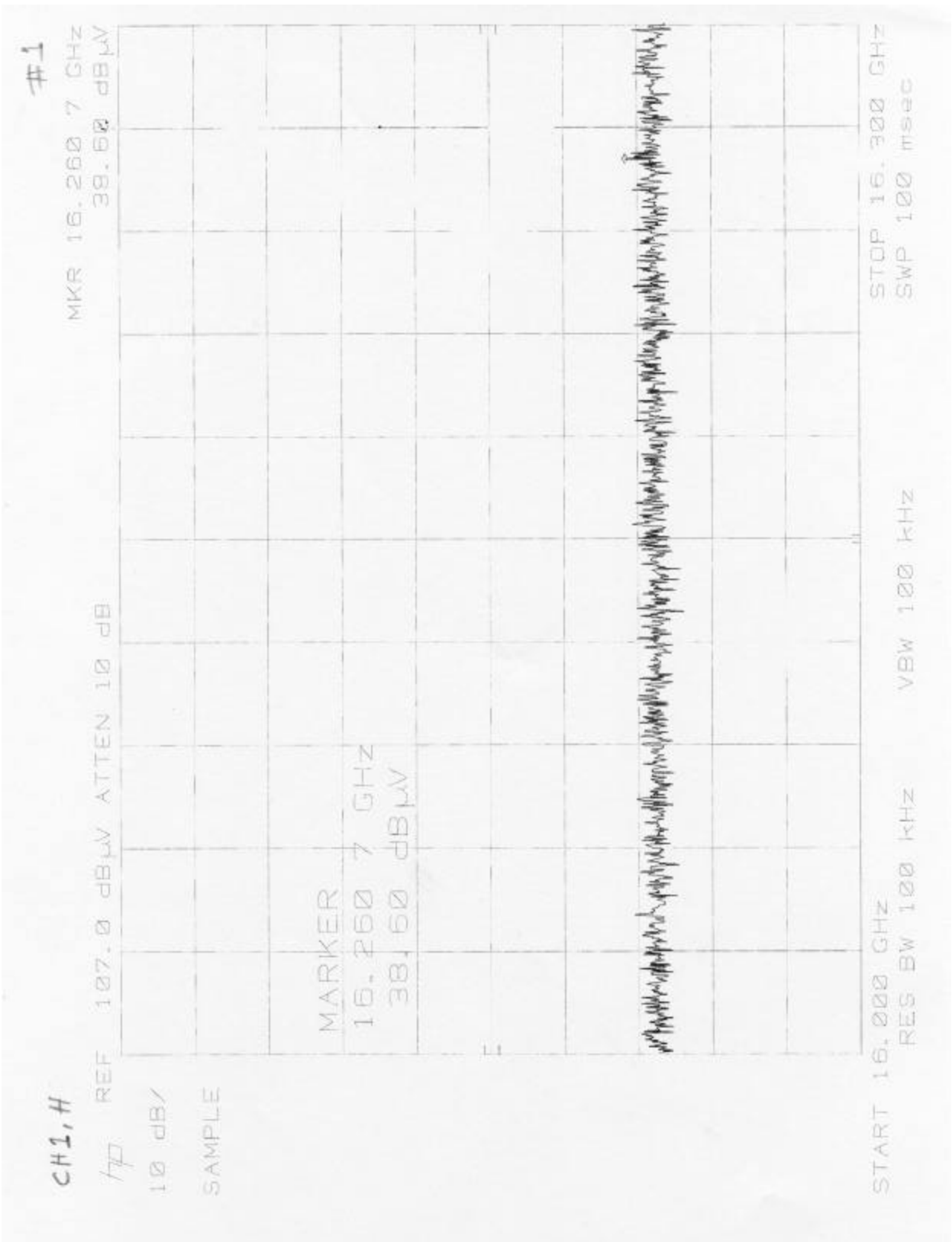


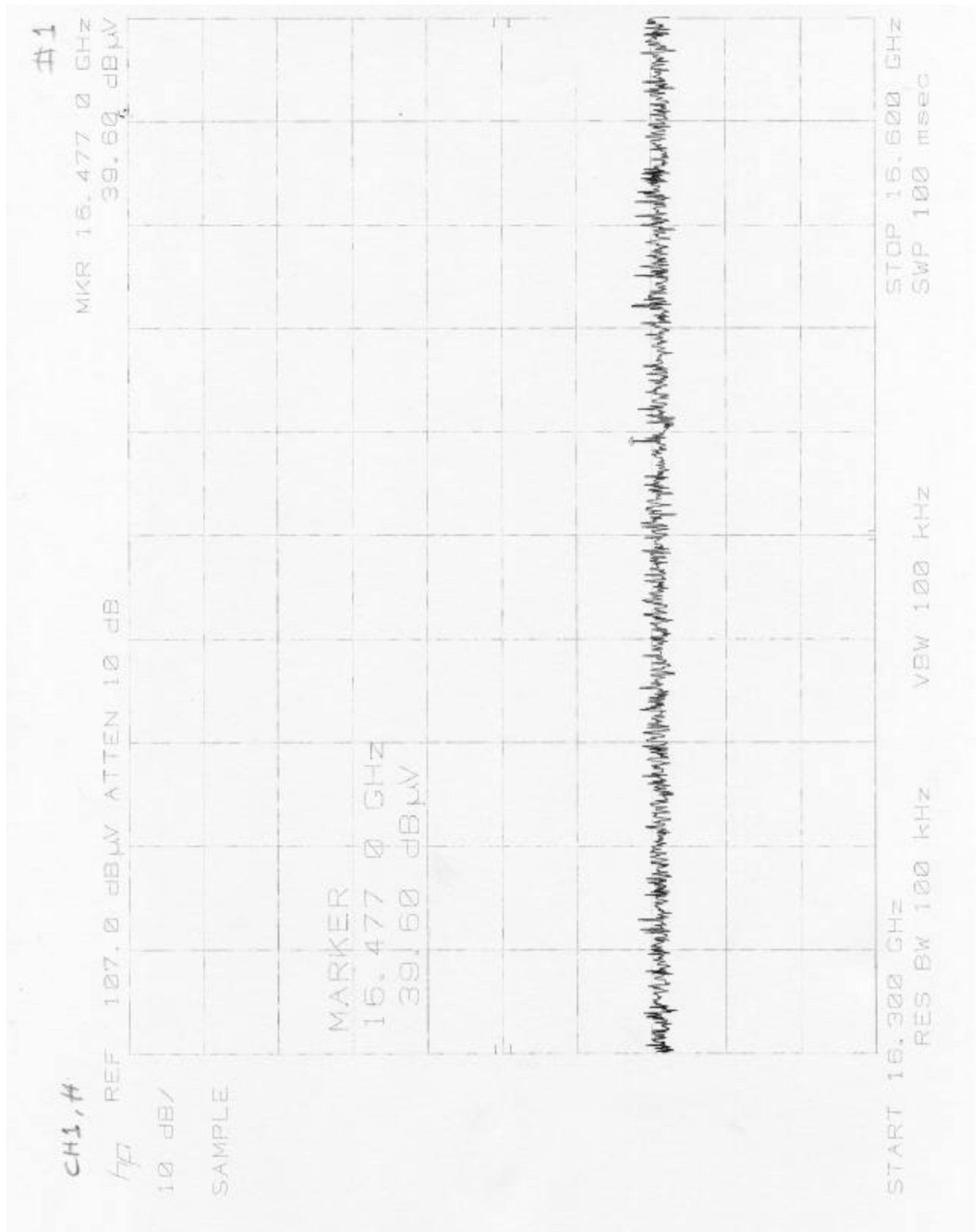


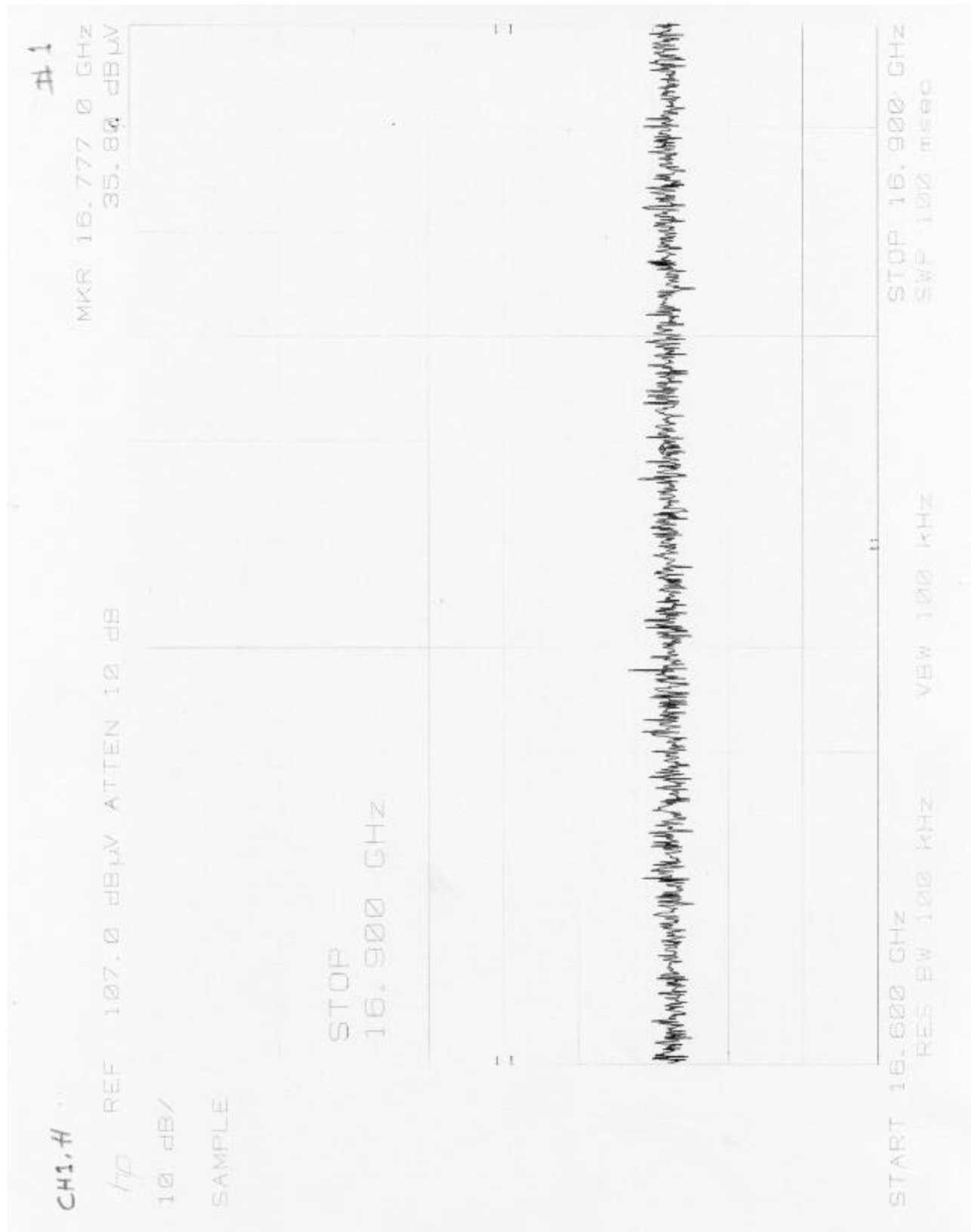


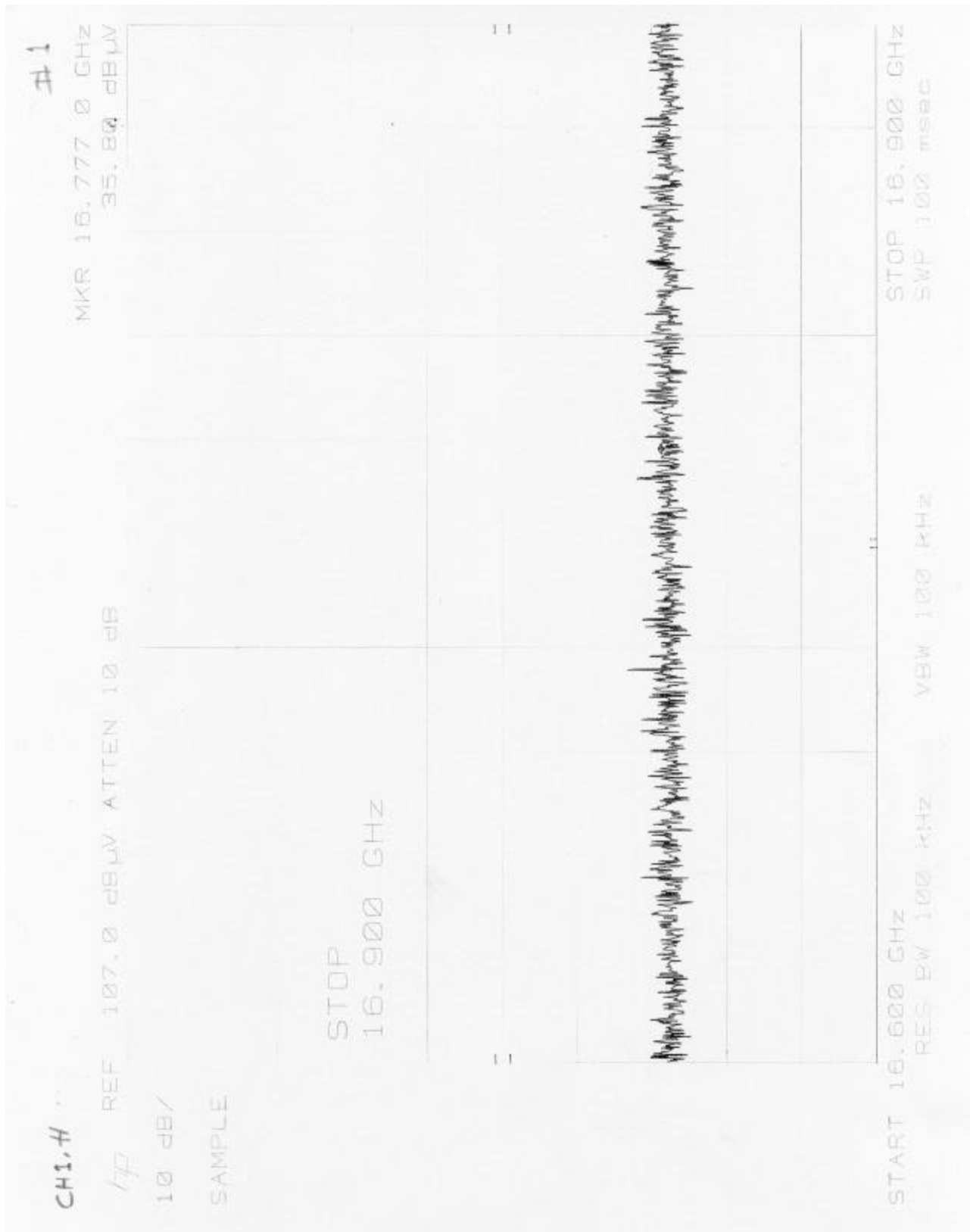


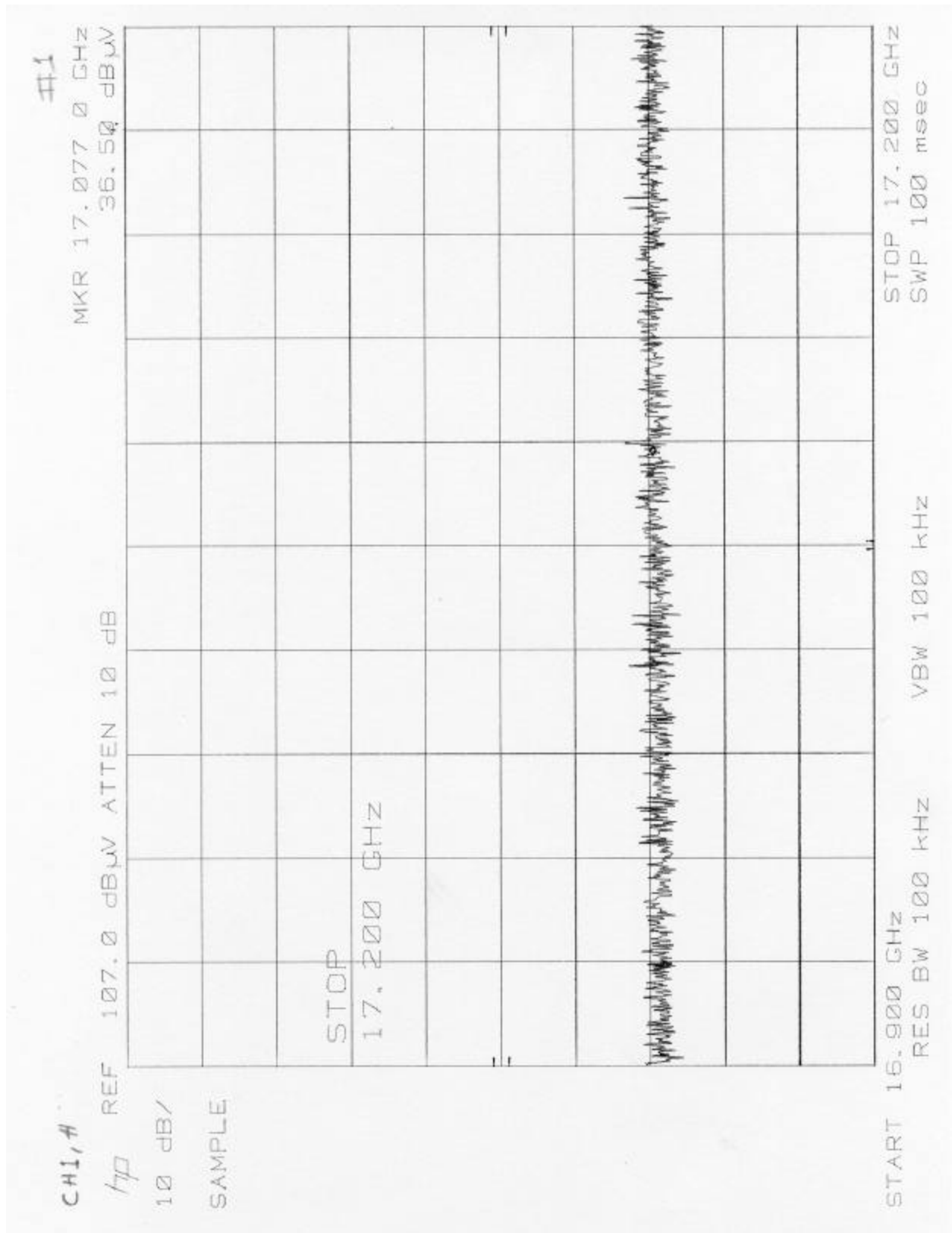


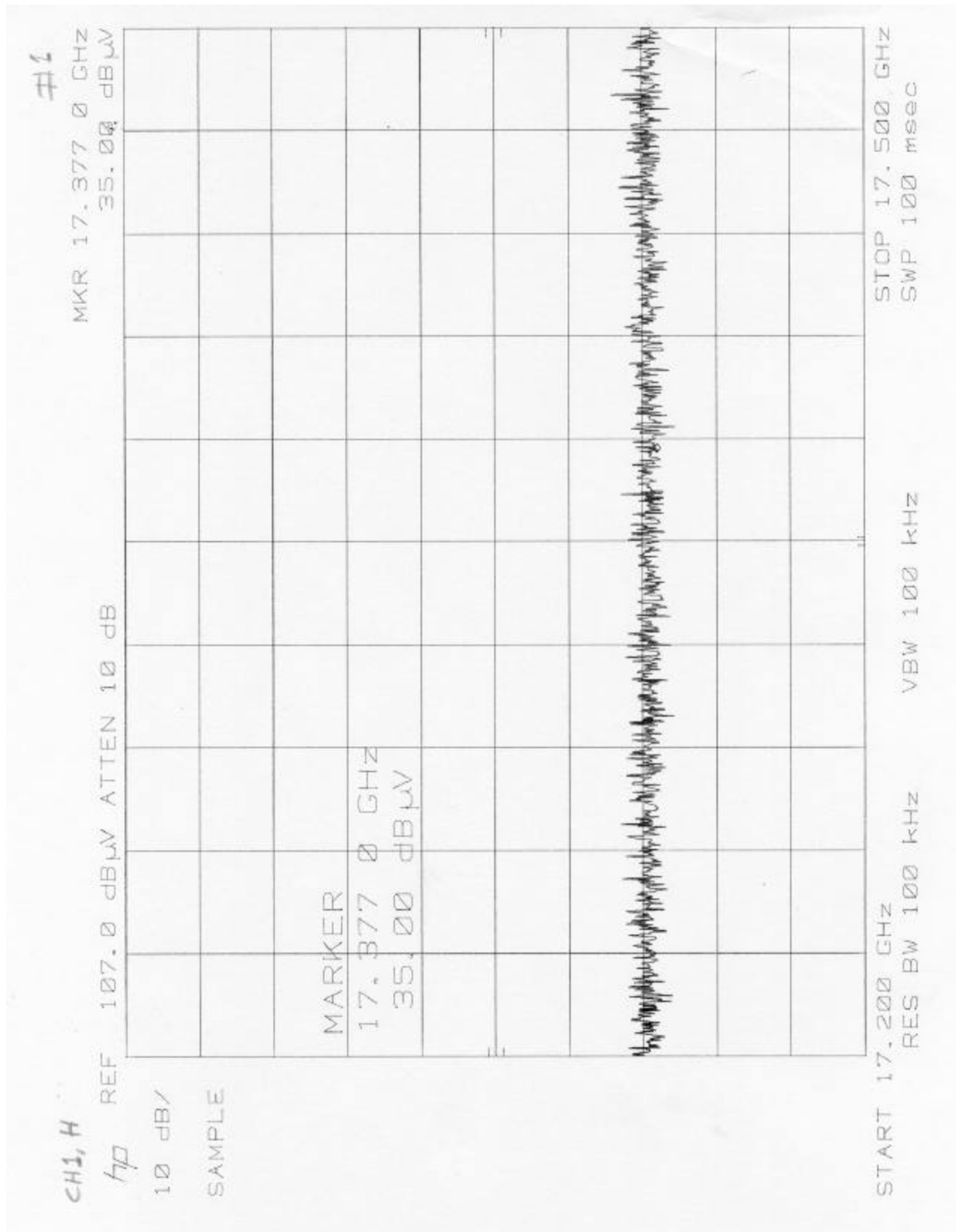


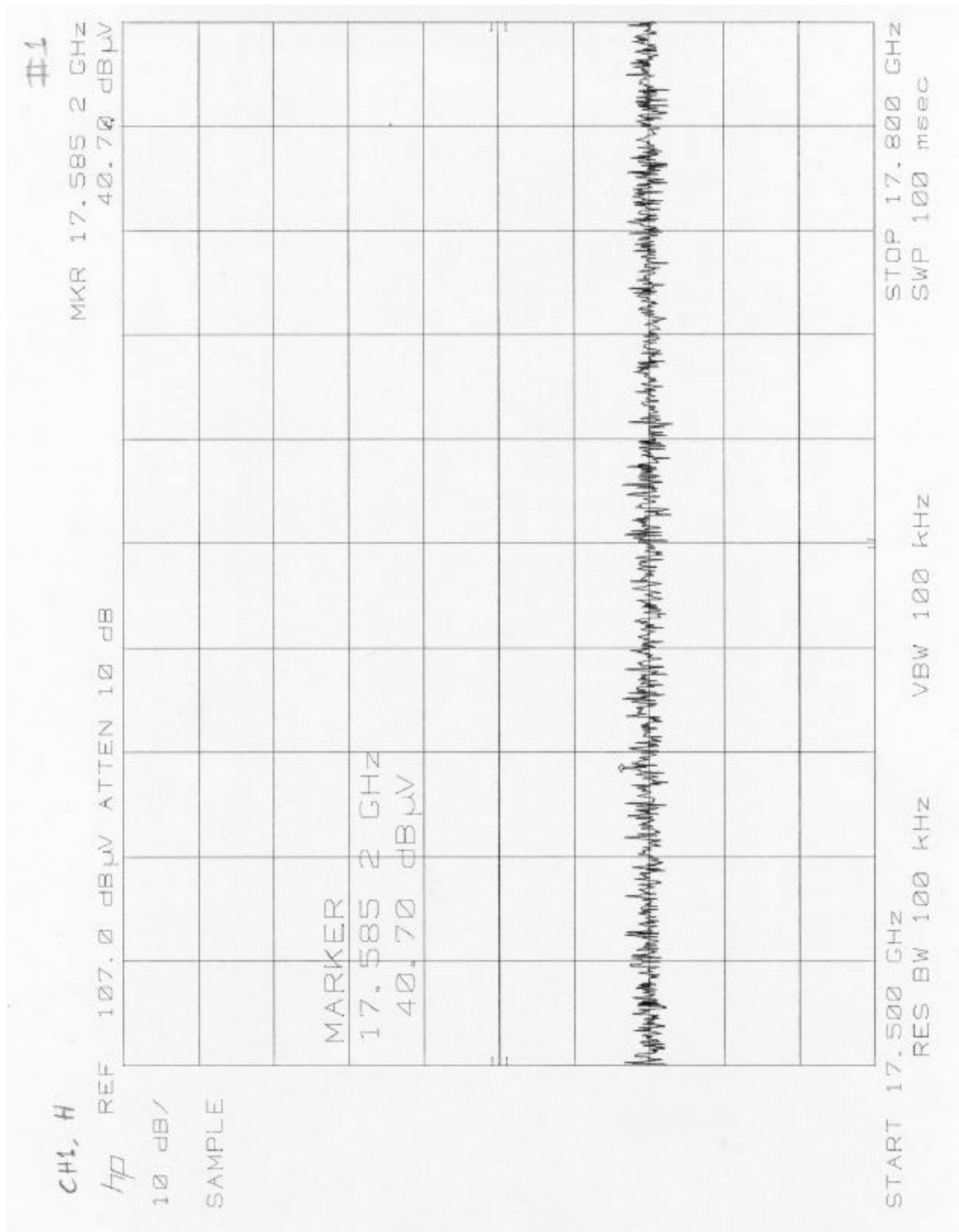


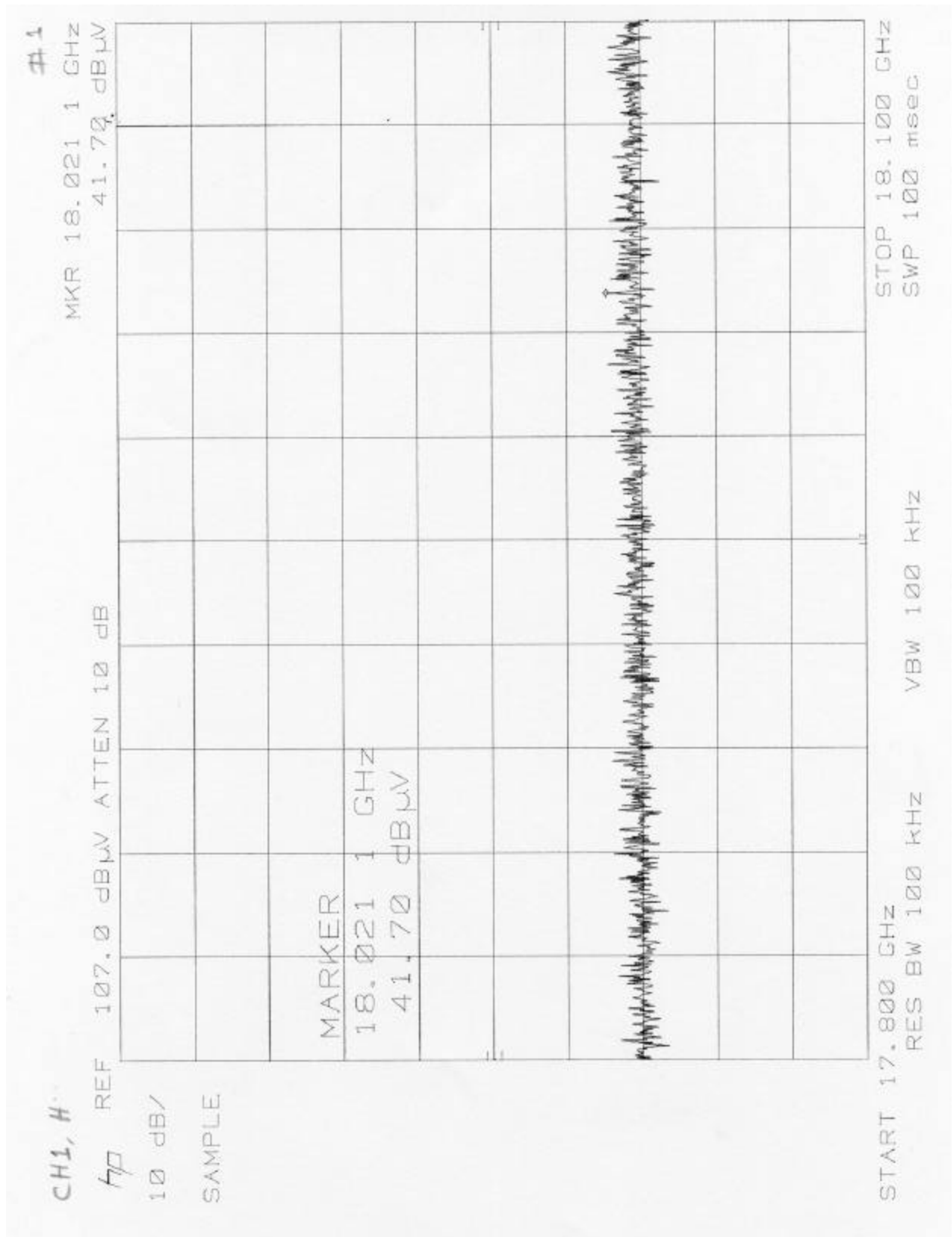


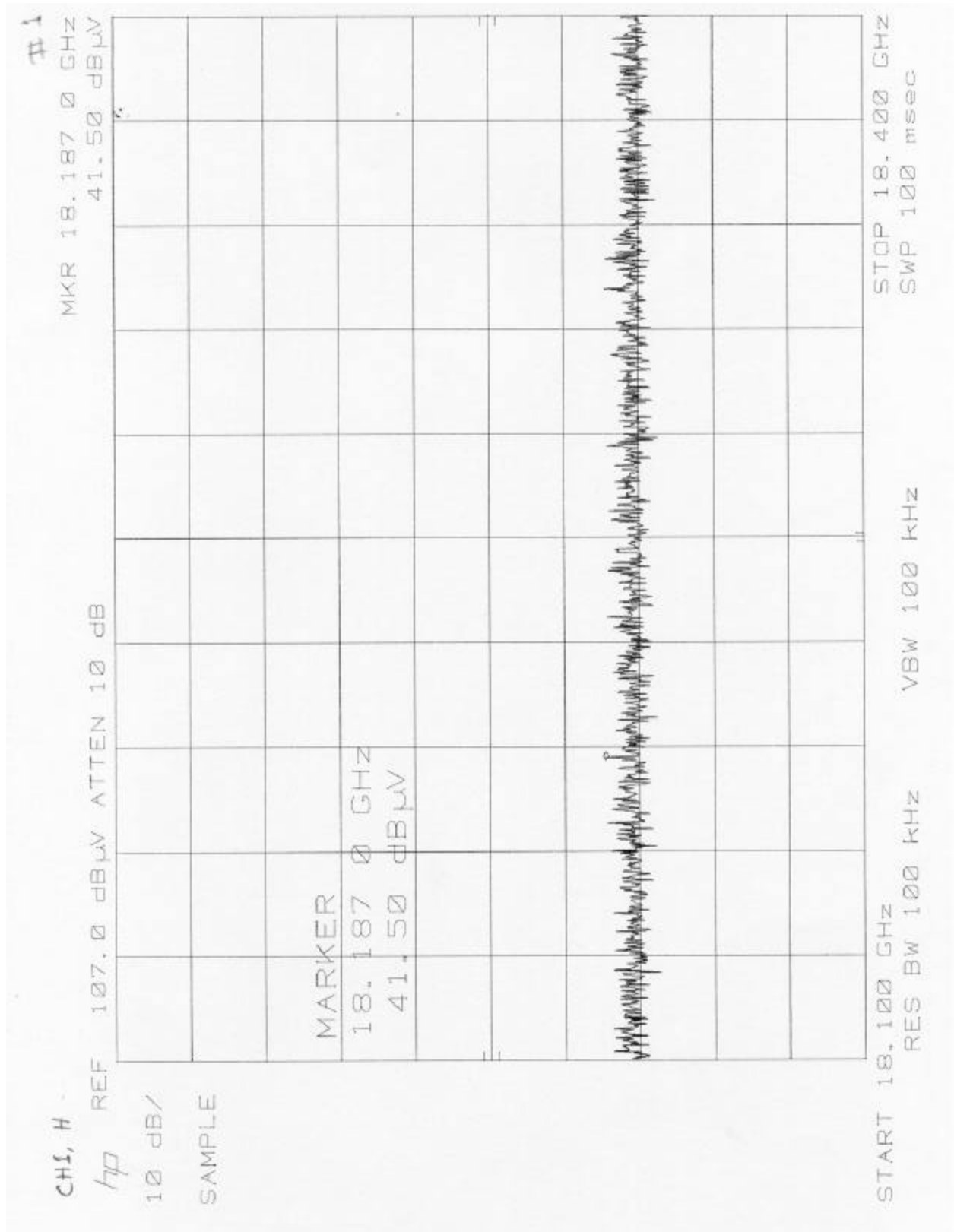


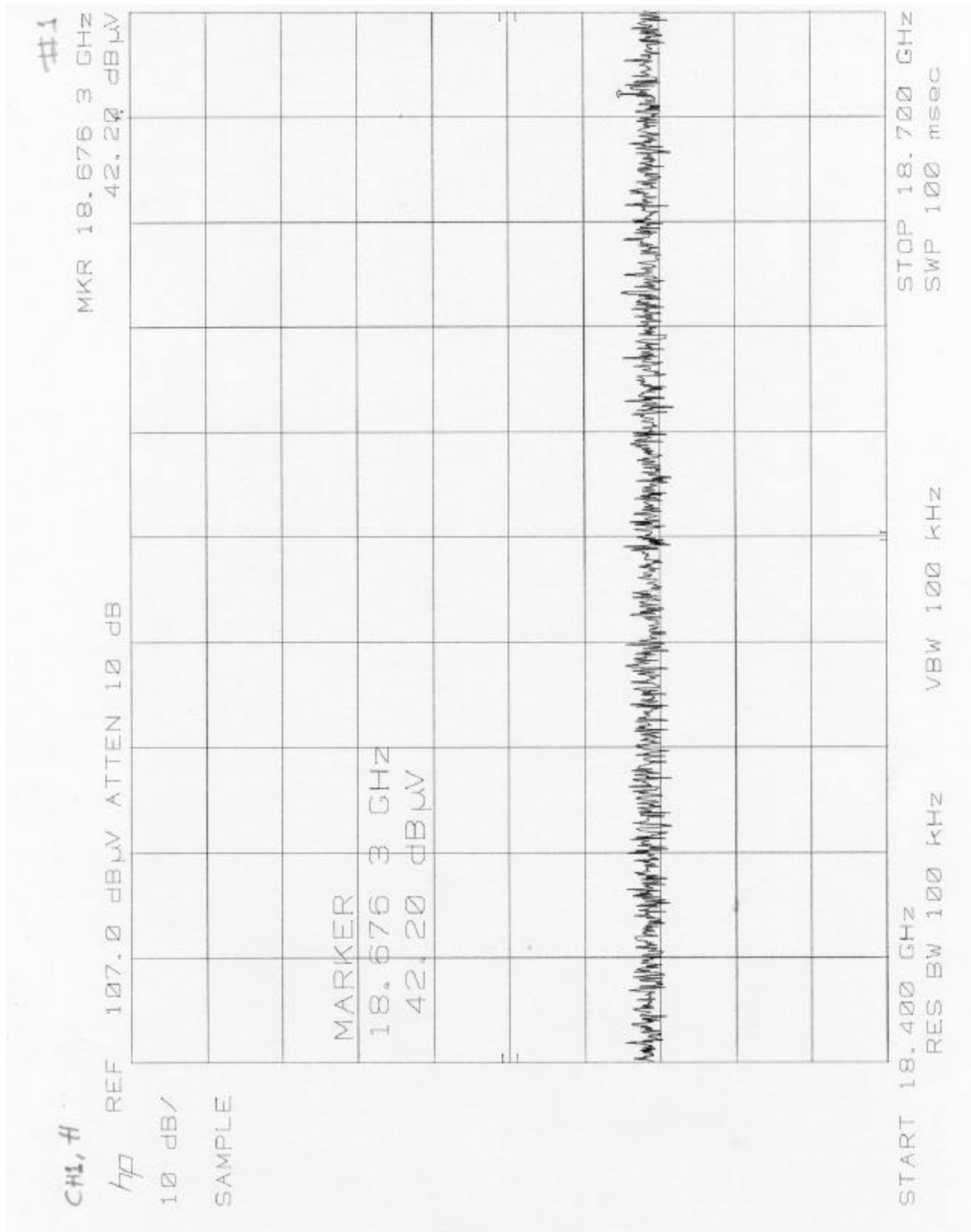


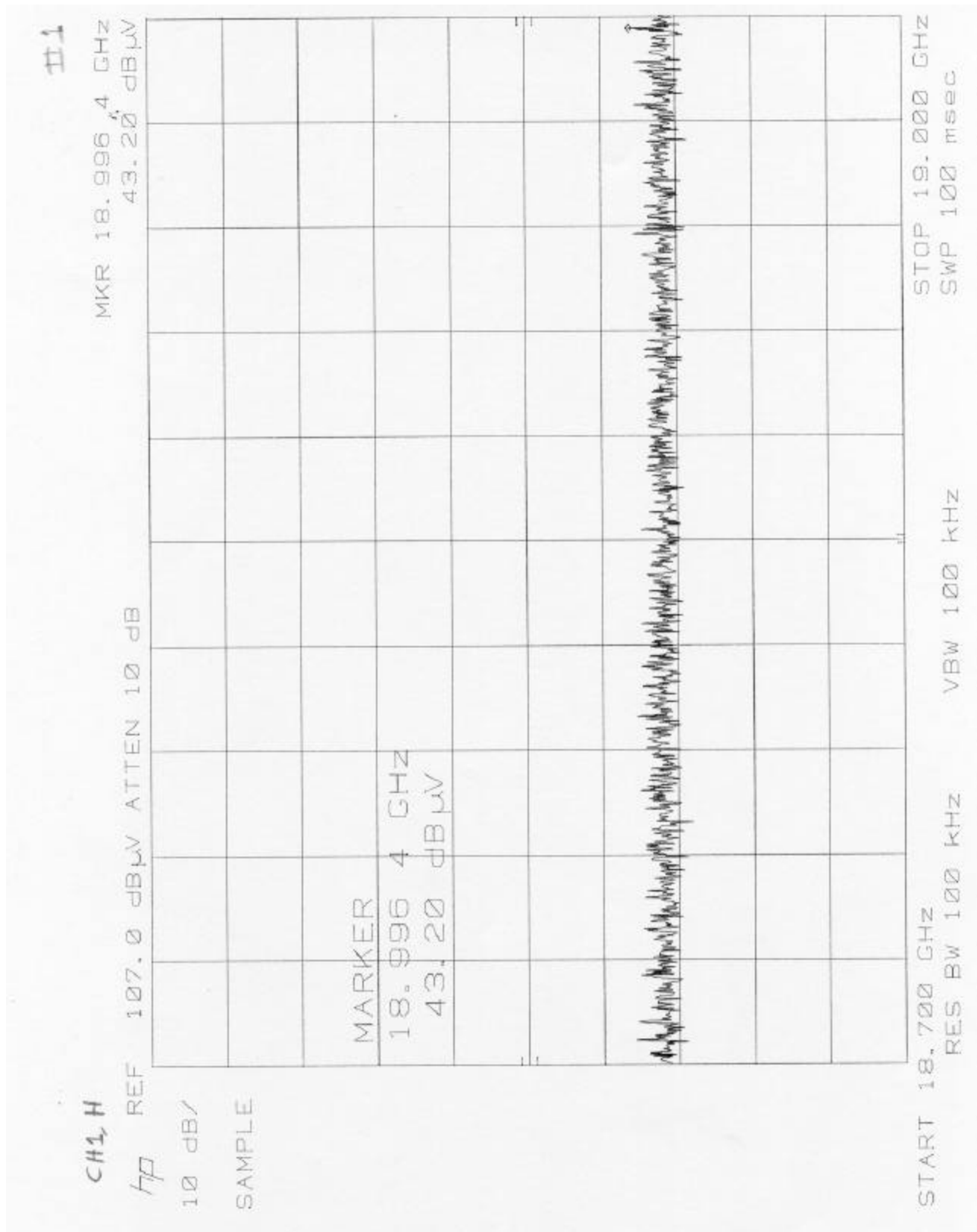


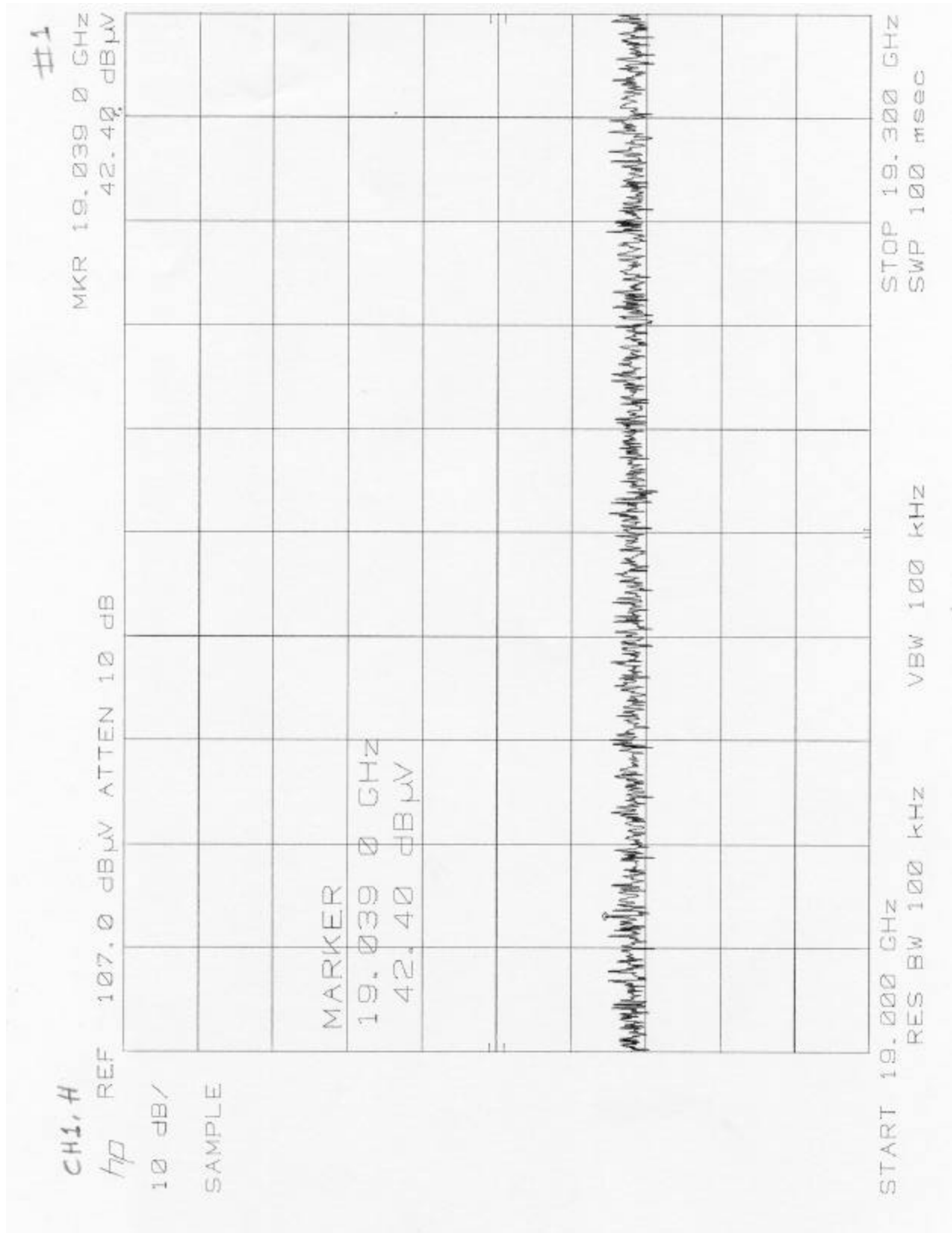


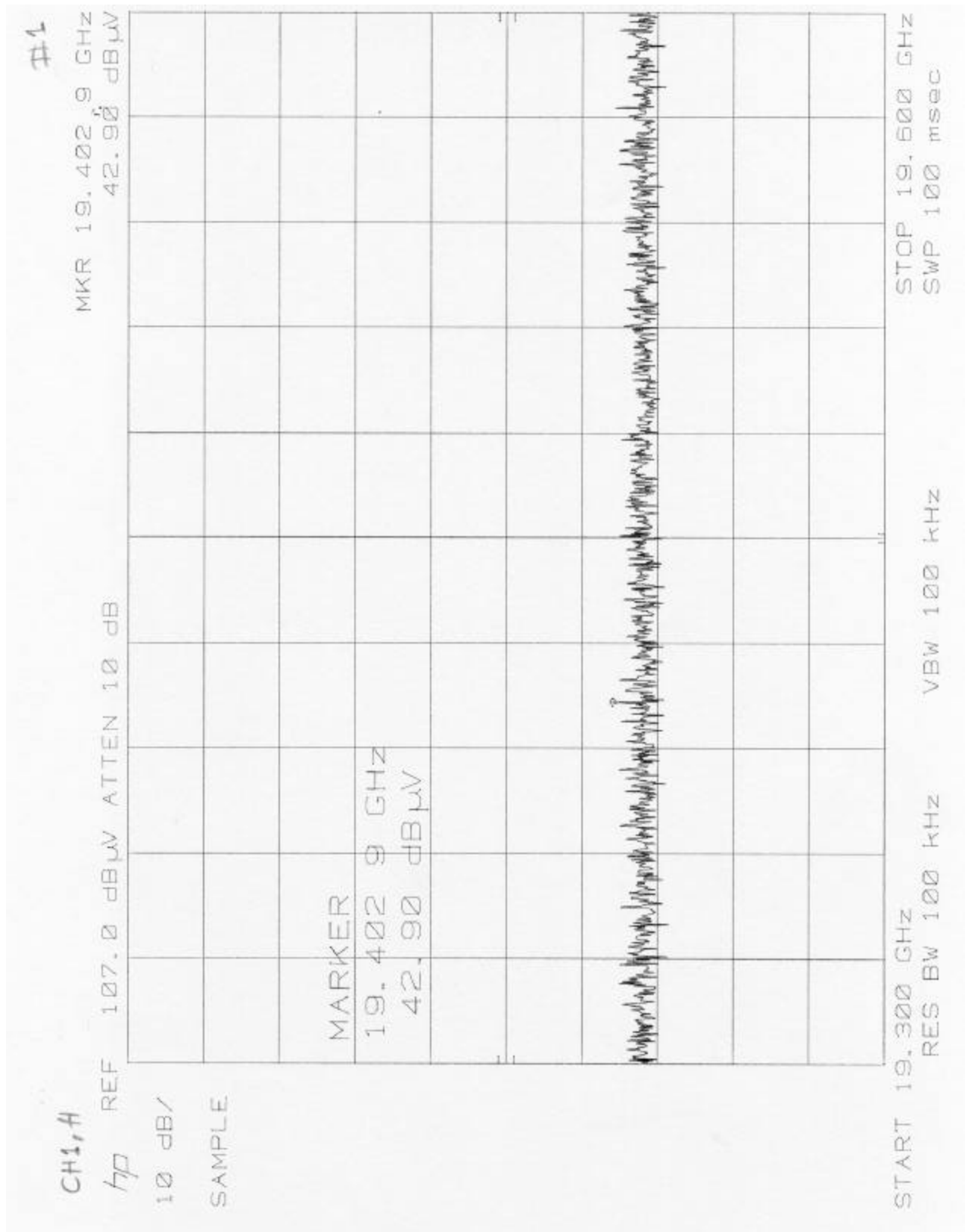


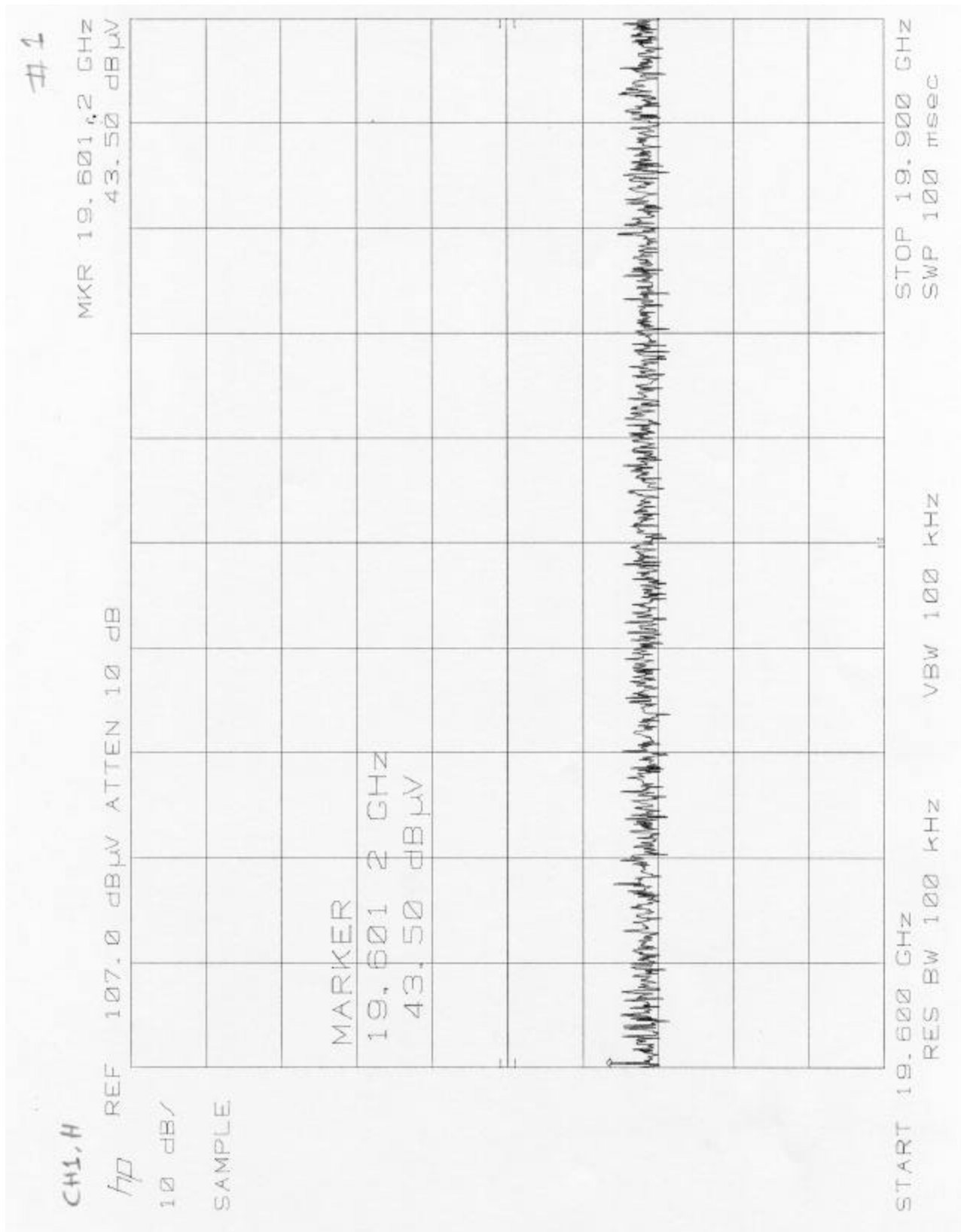


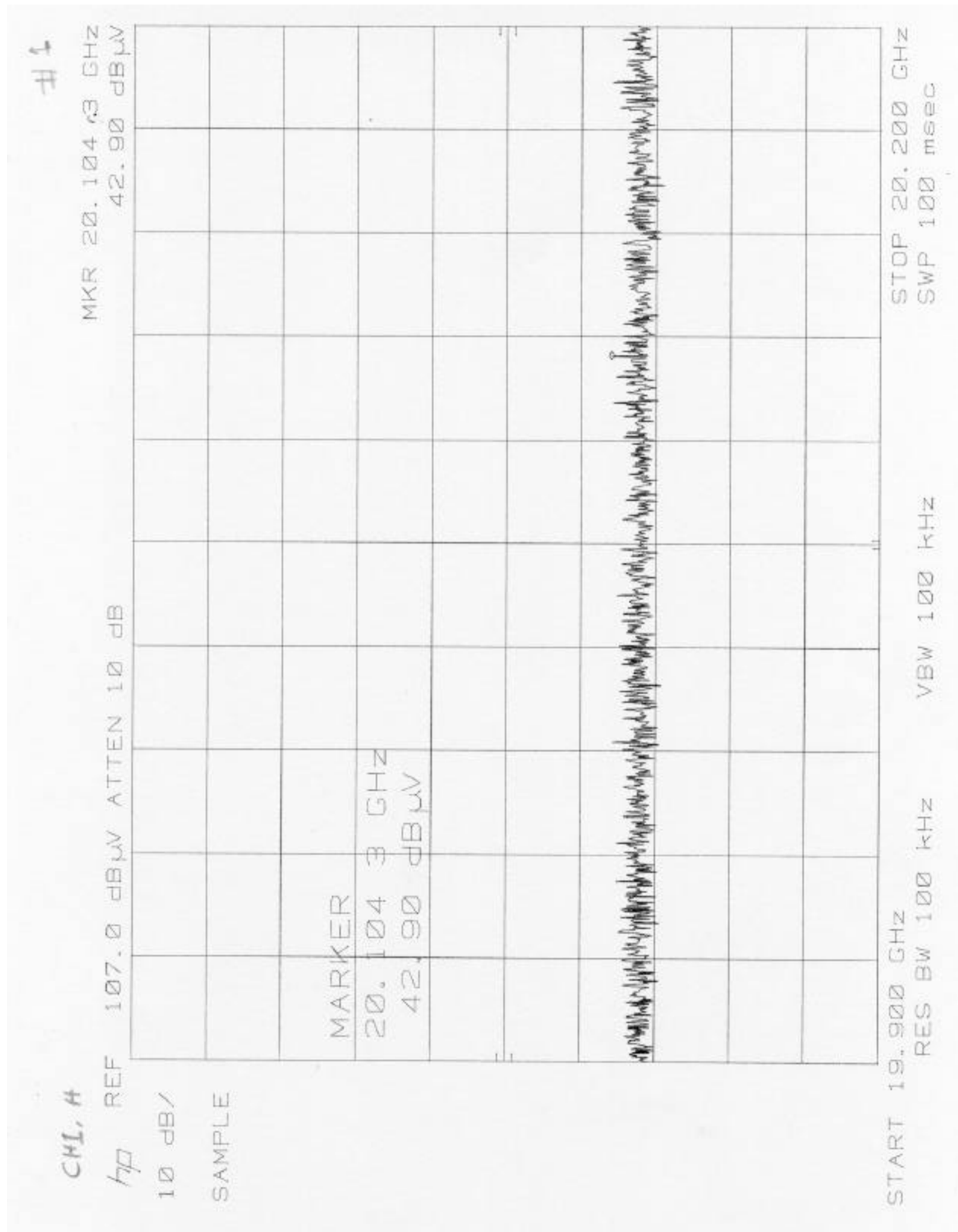


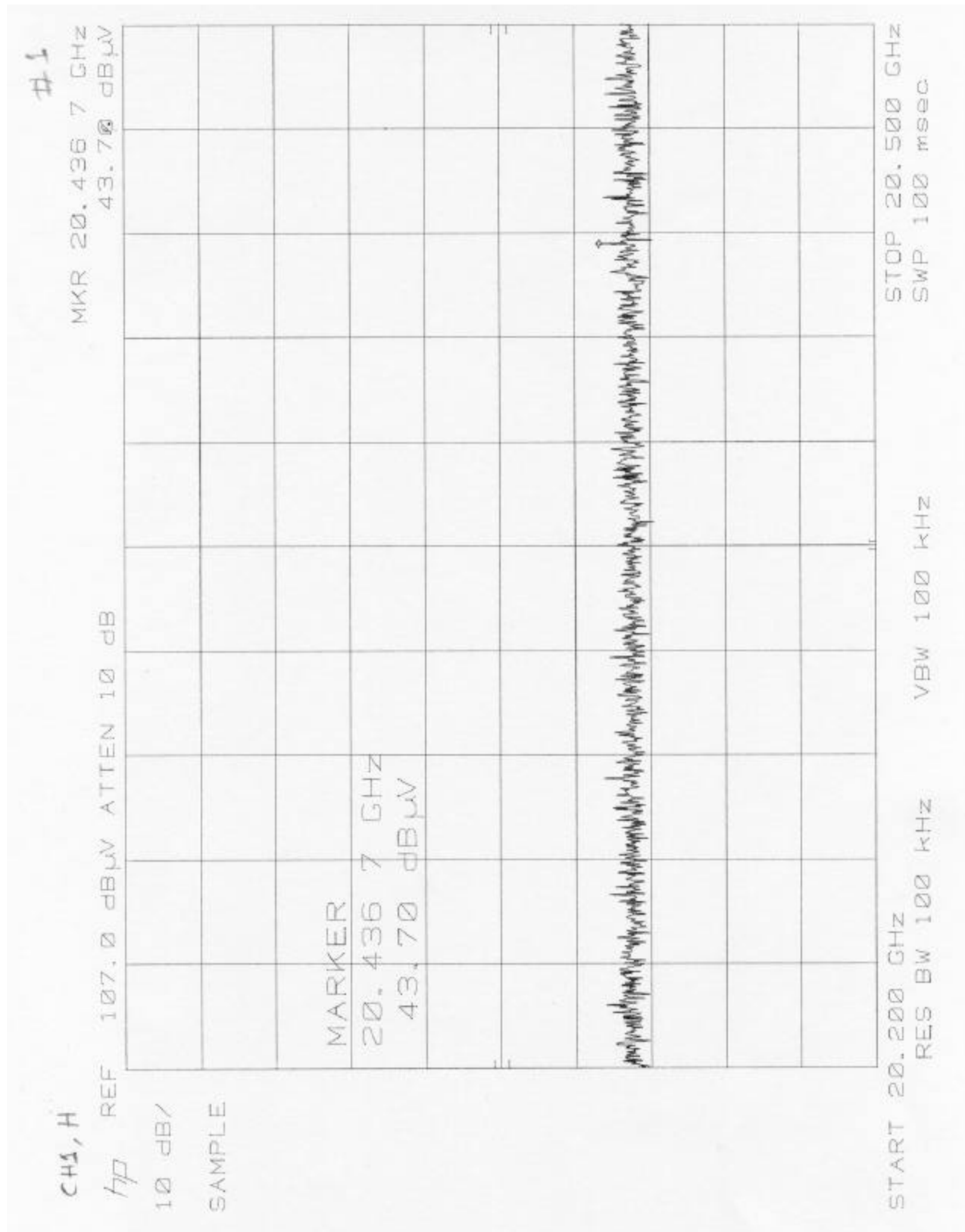


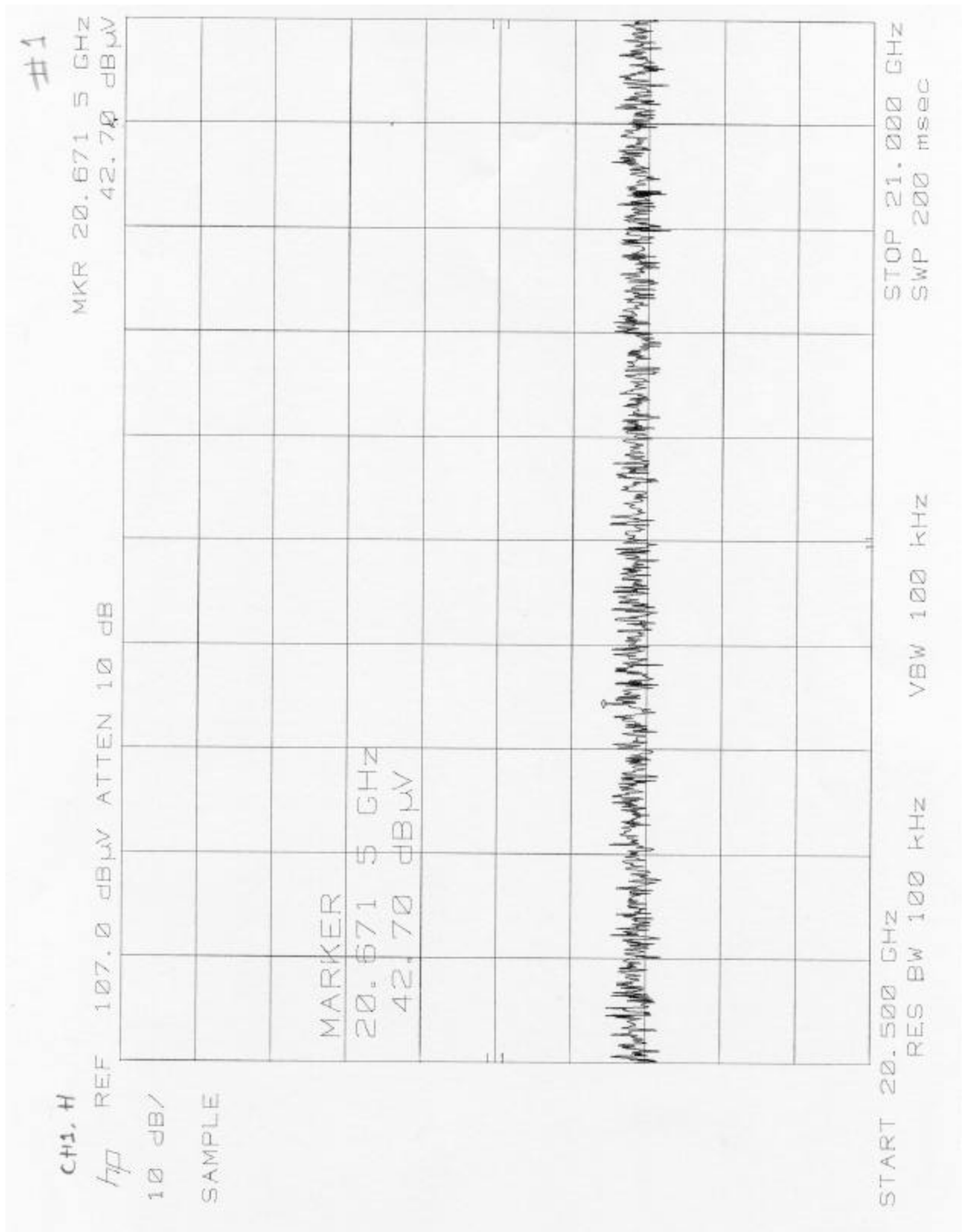


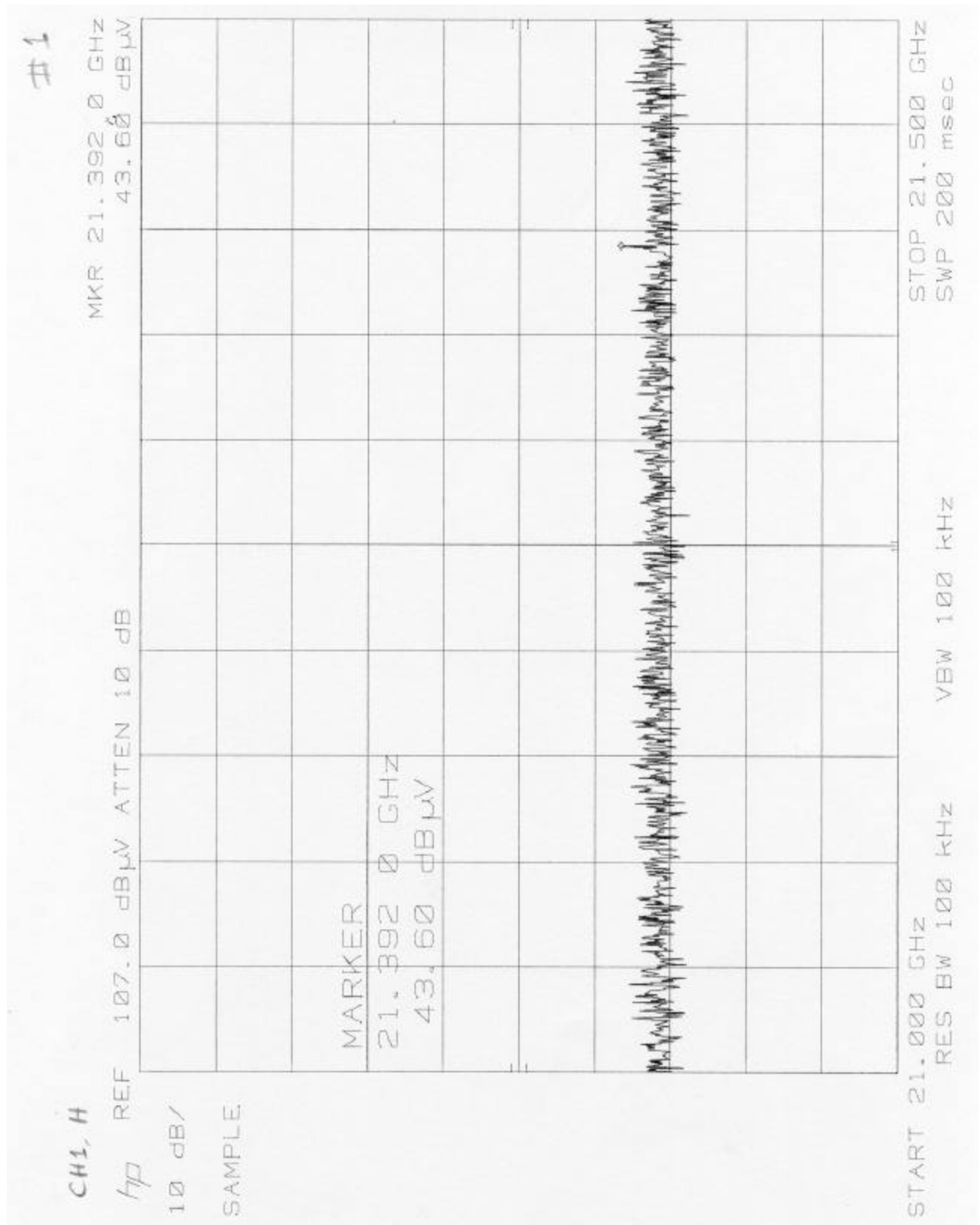


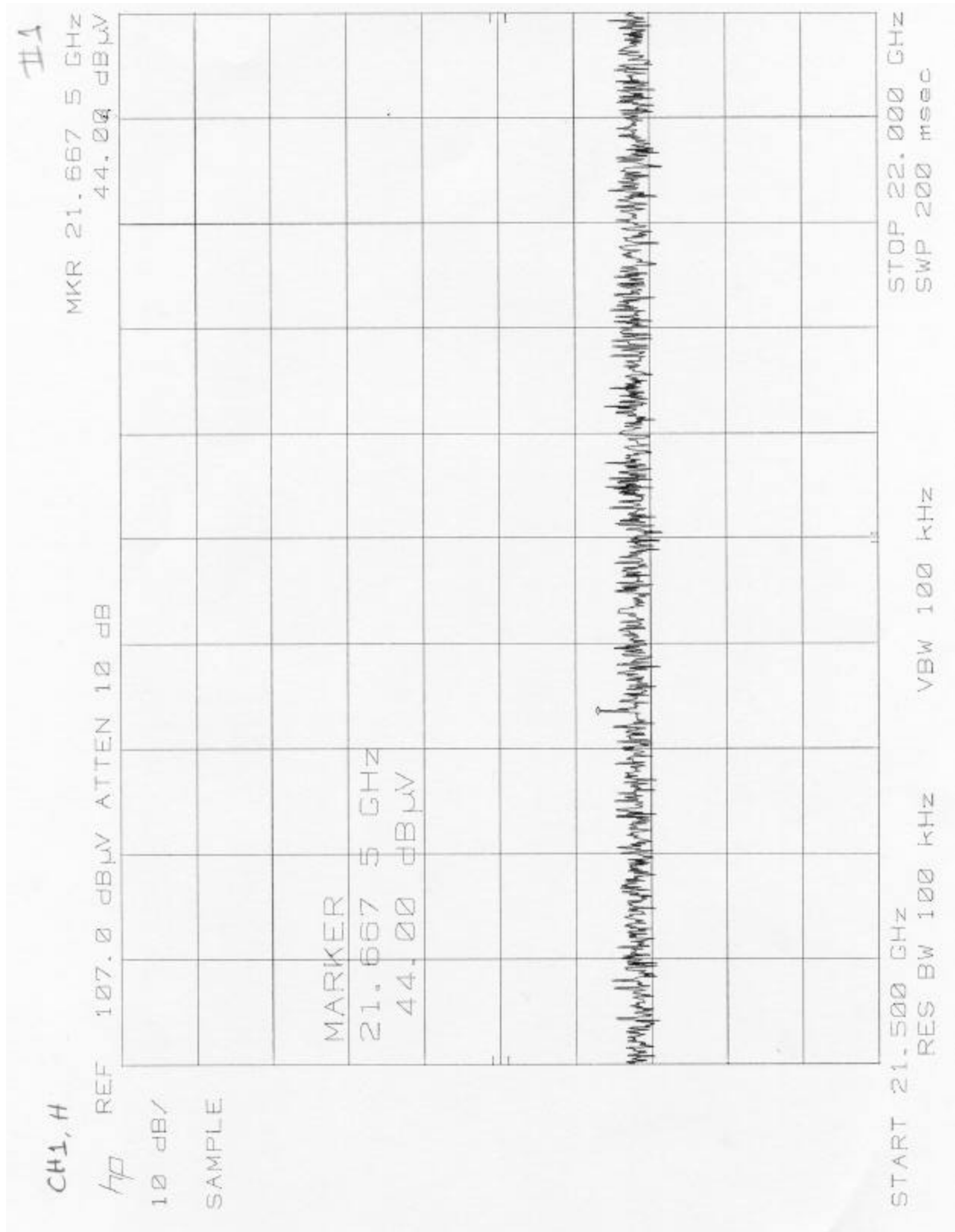


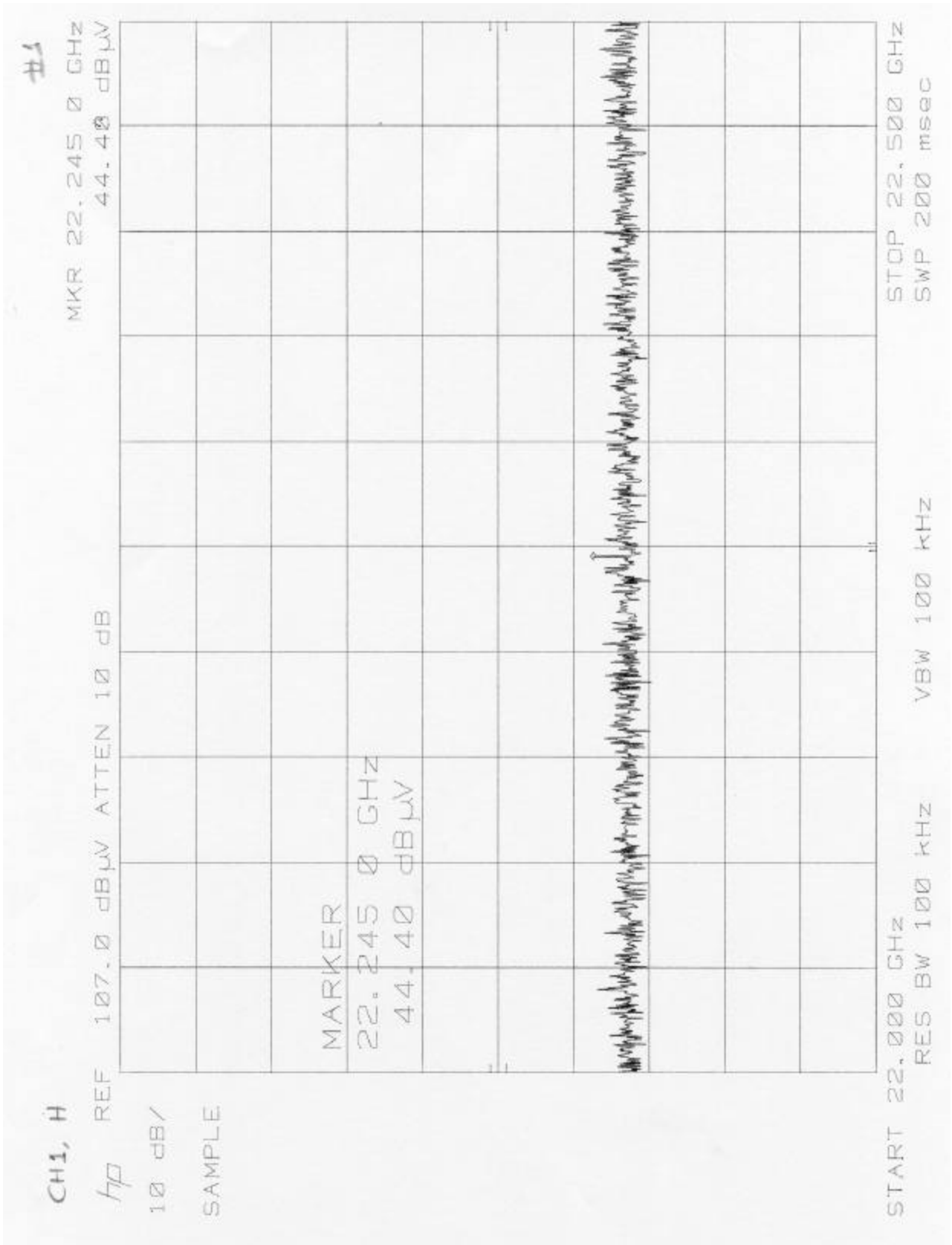


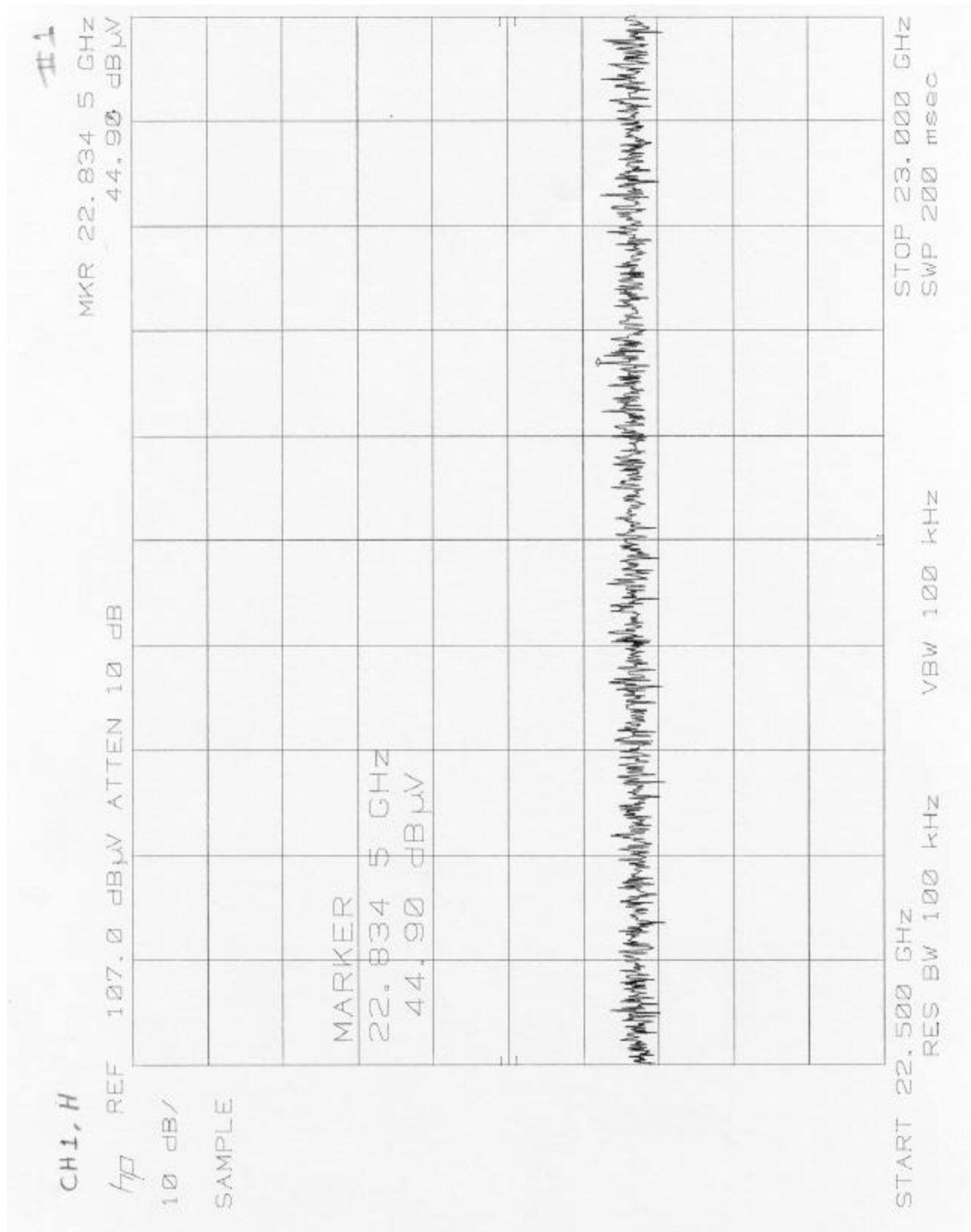


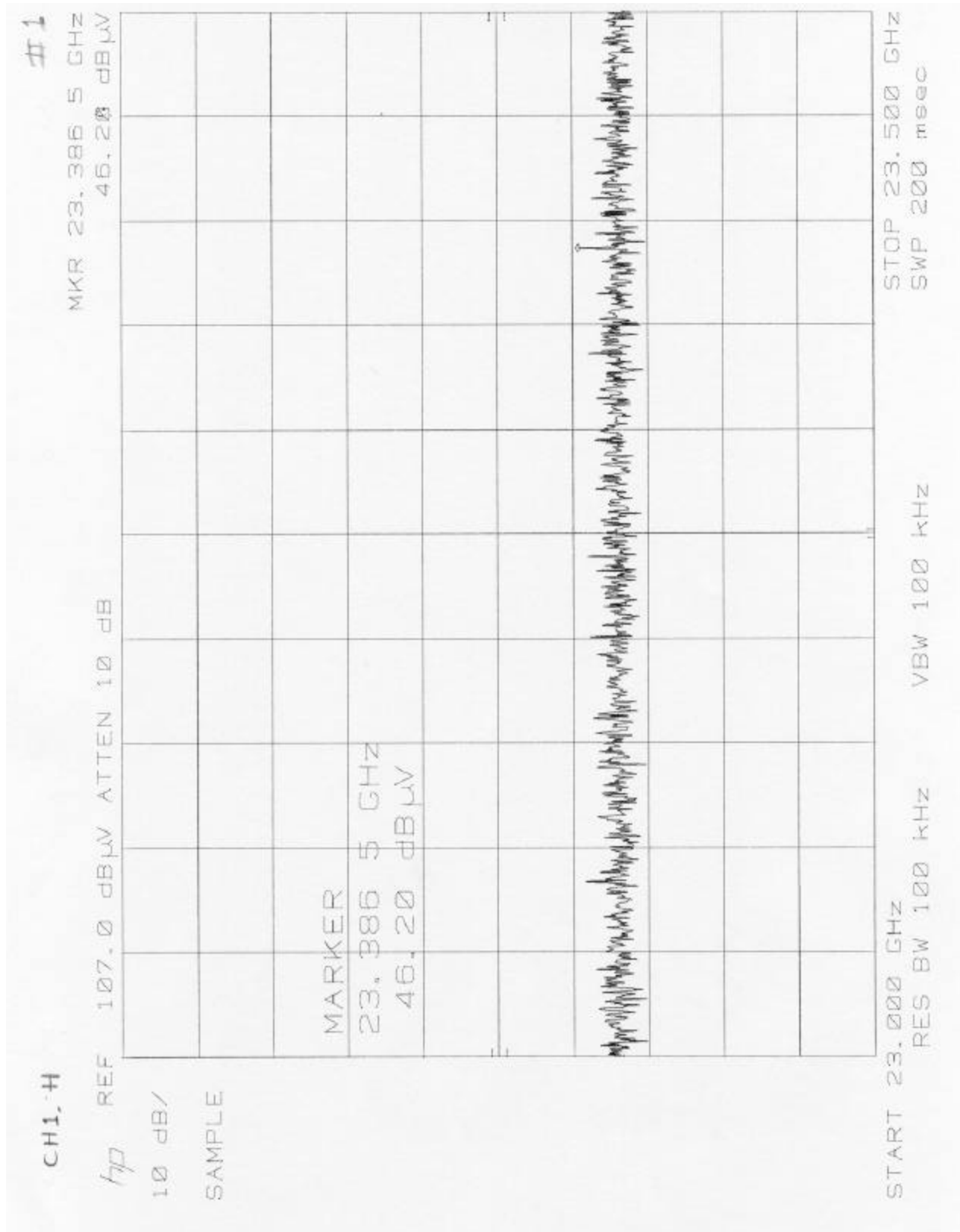


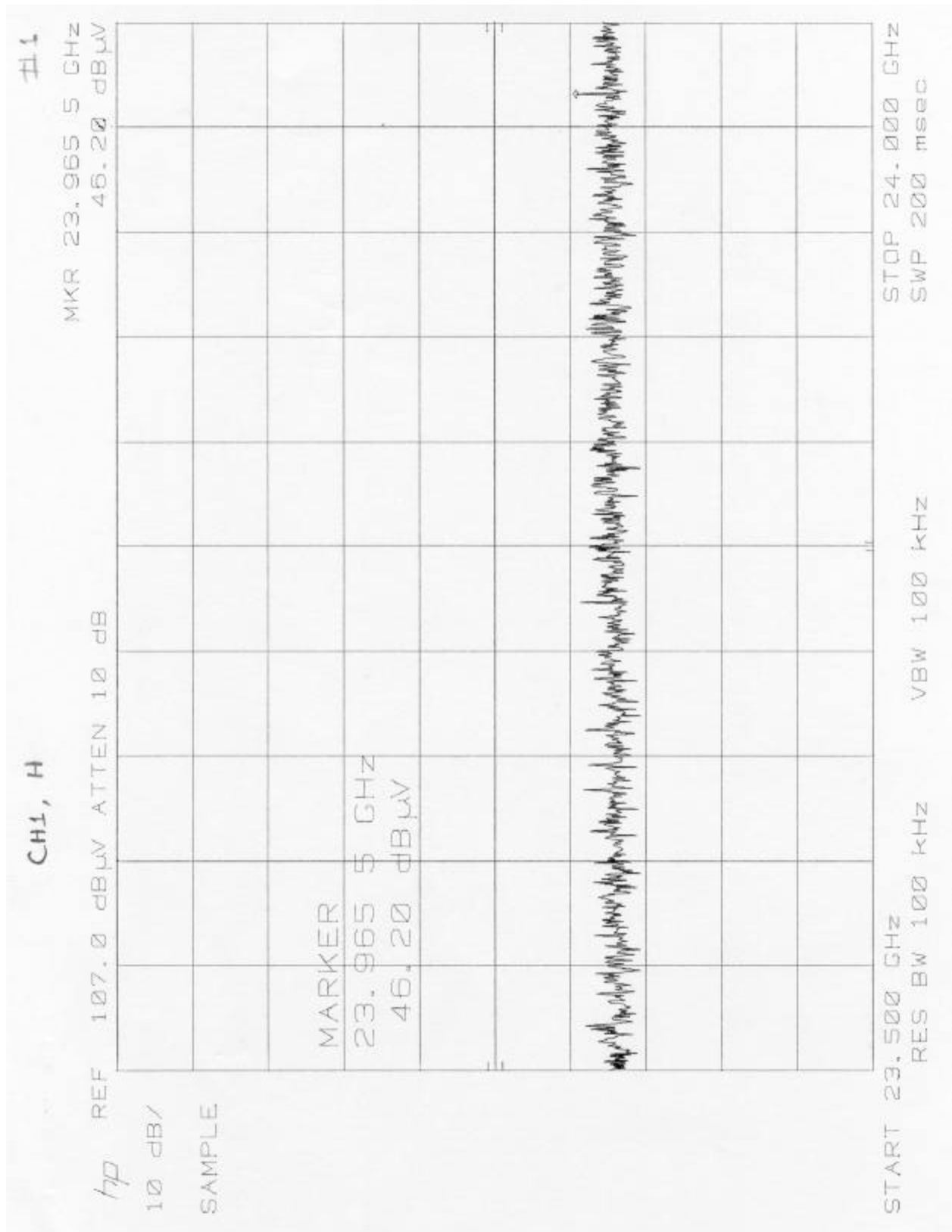




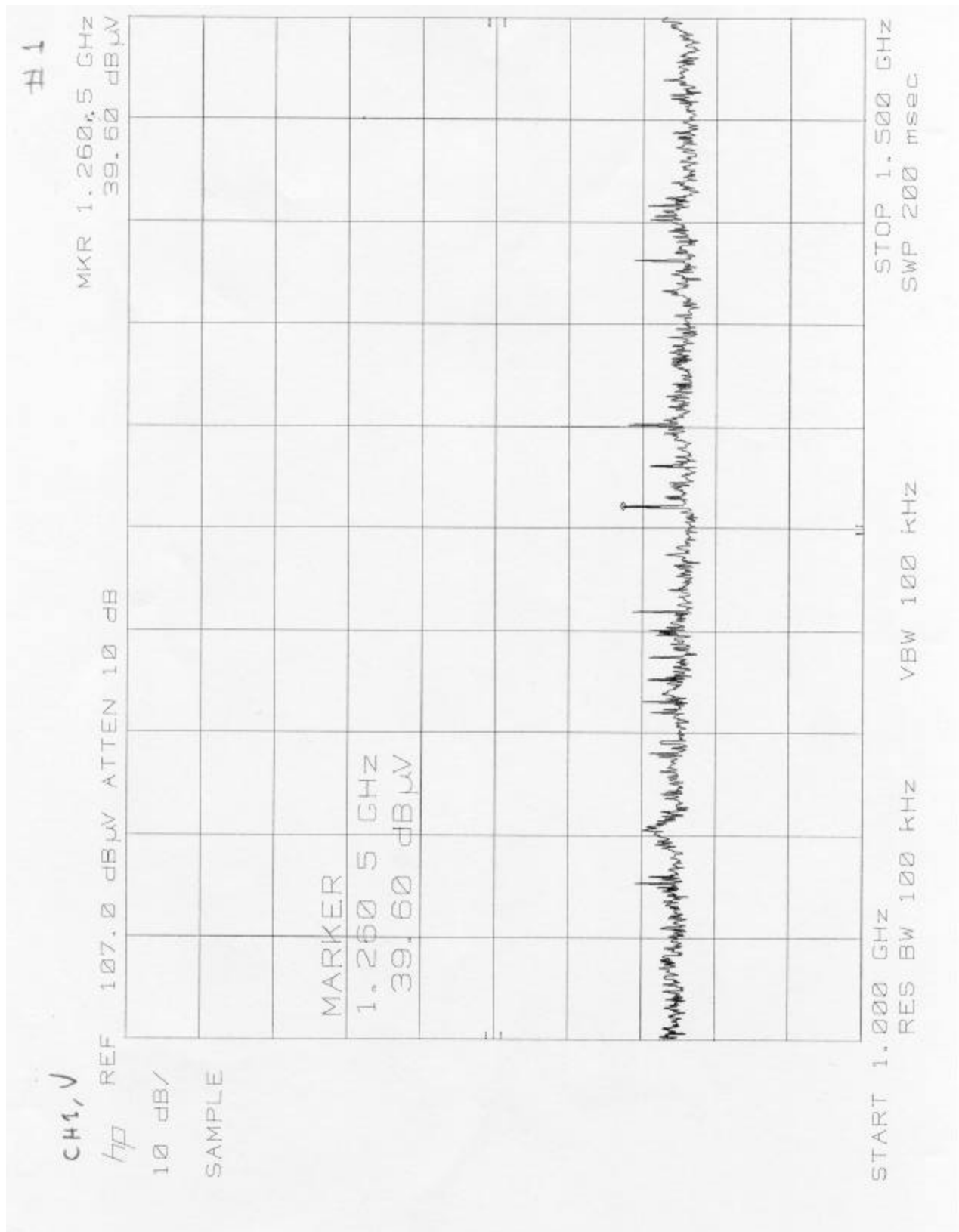


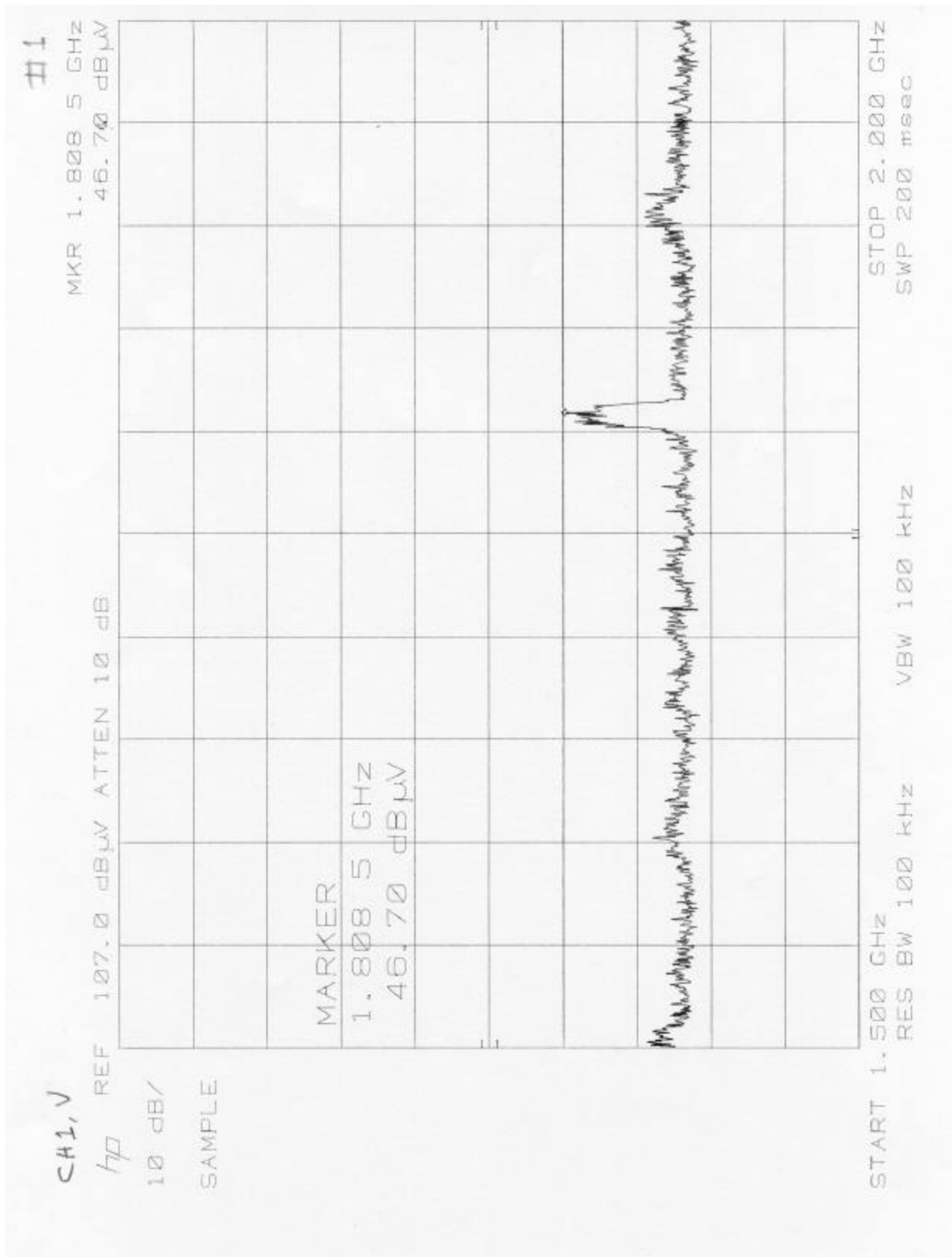


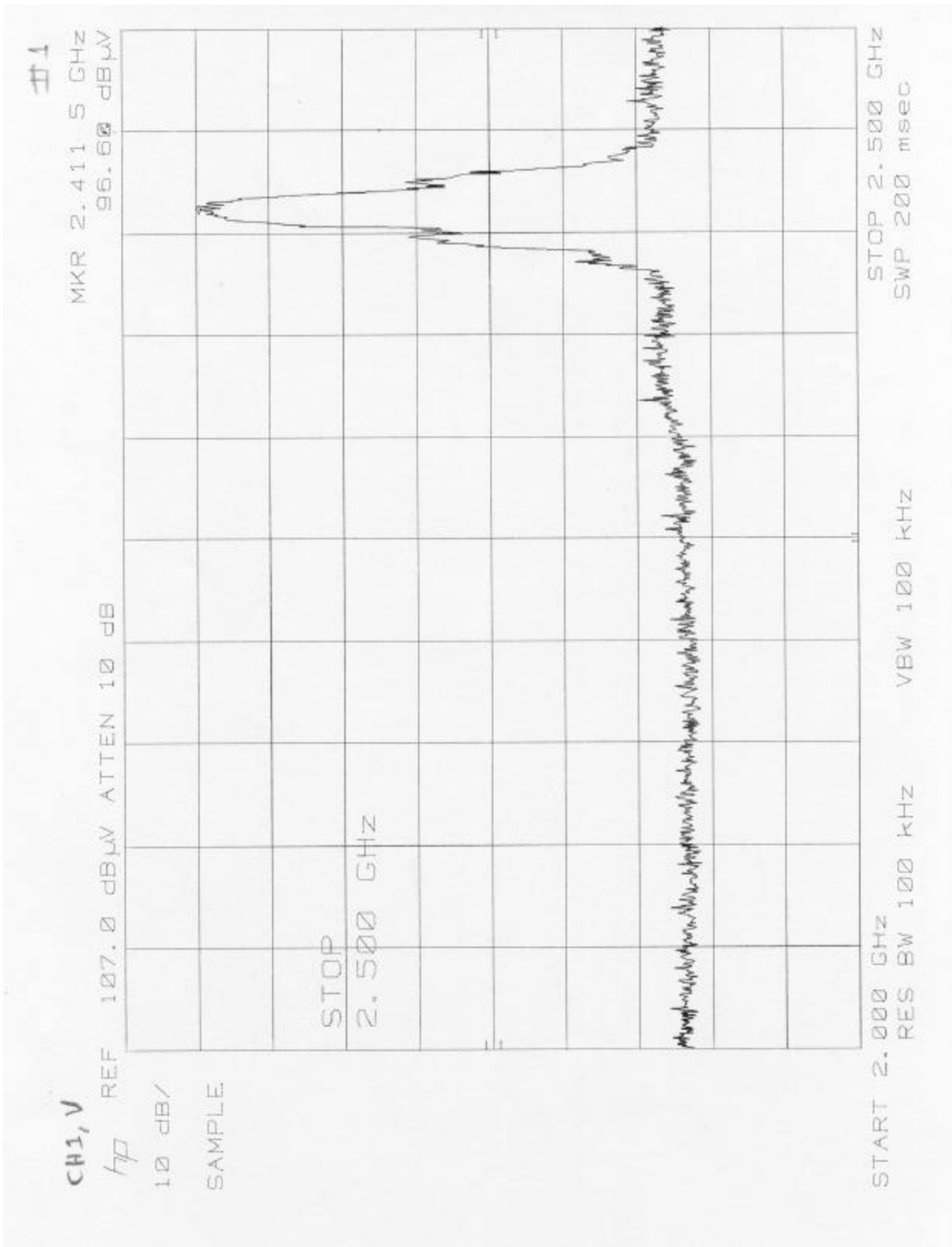


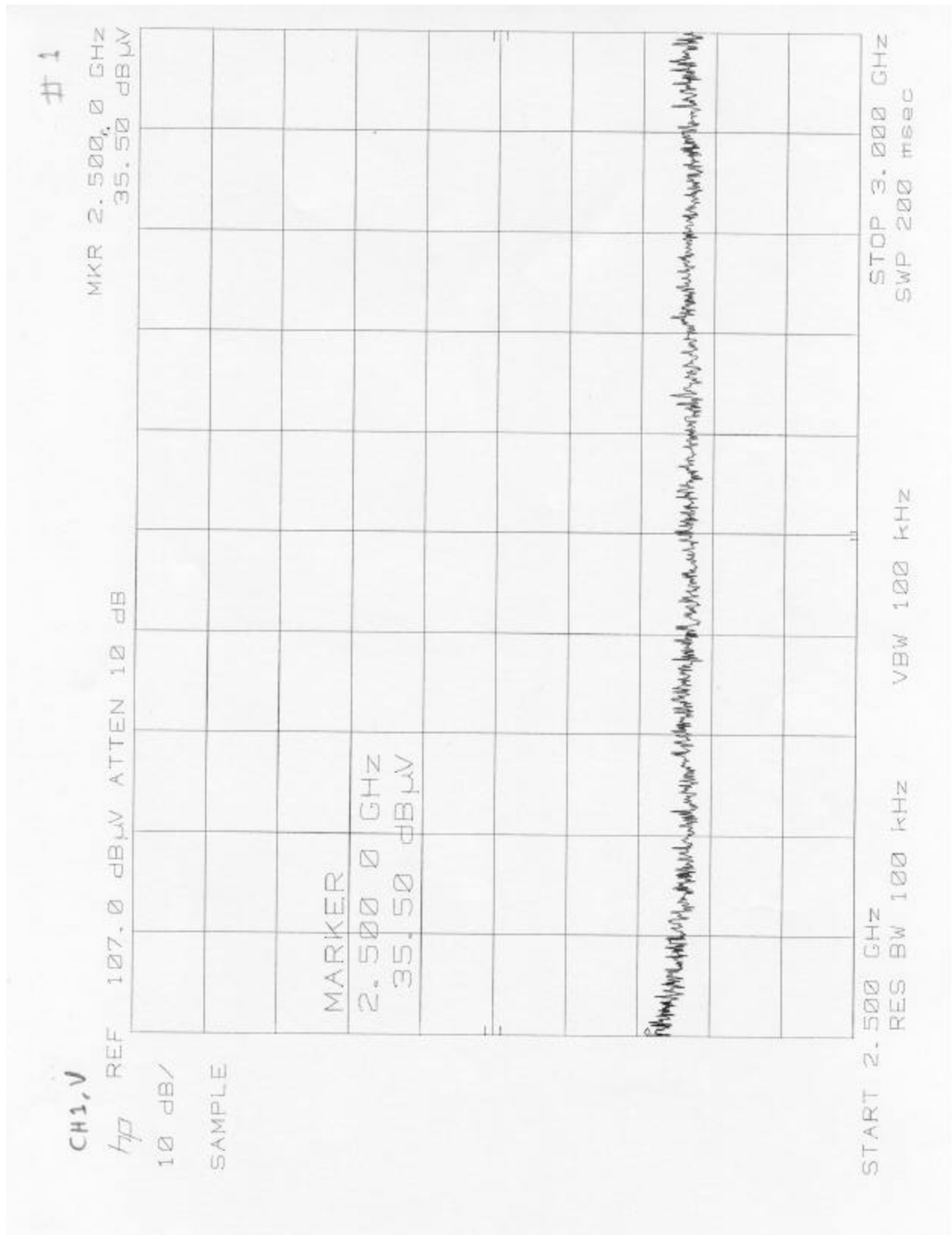


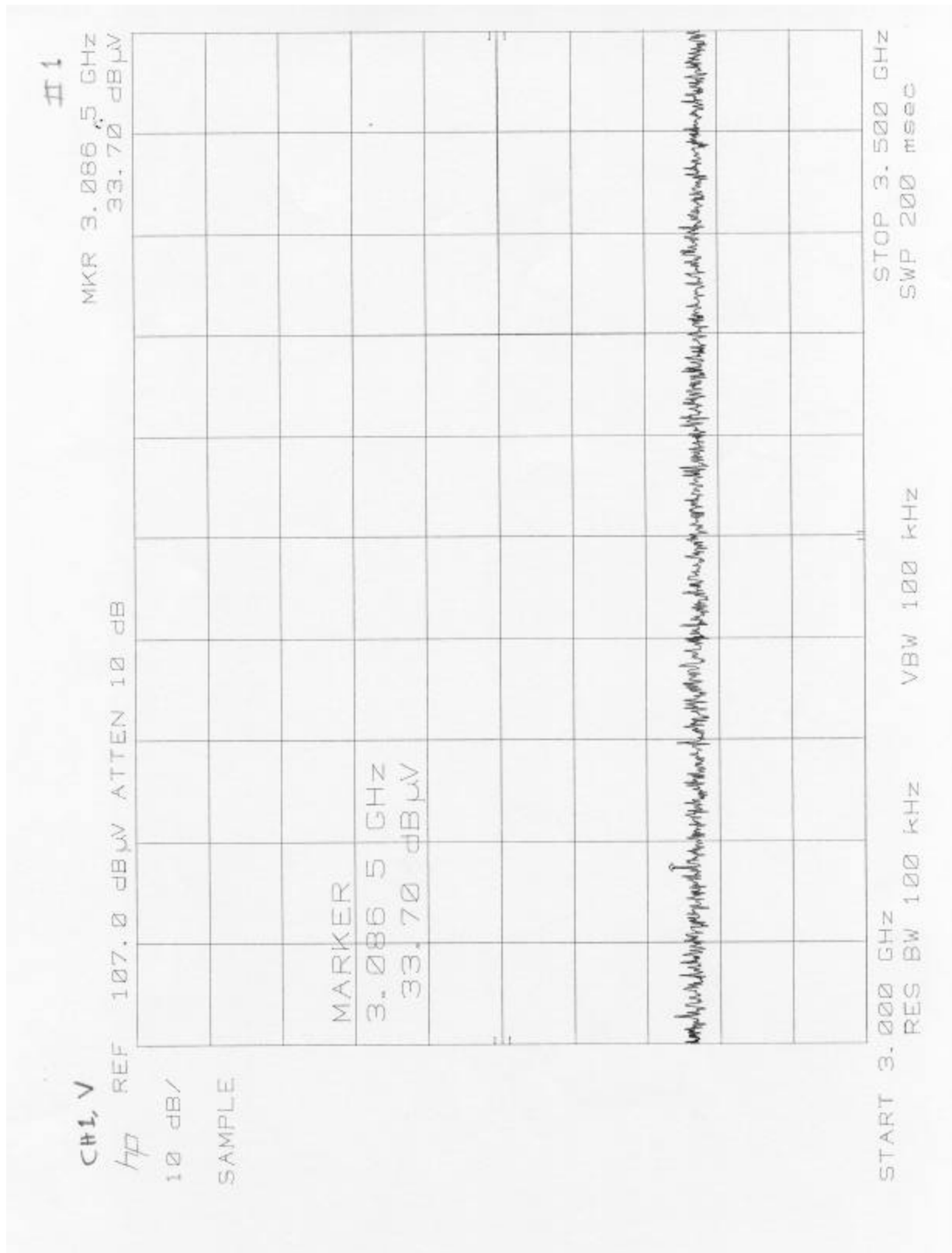
**Radiated Emissions Plots
(1 - 24) GHz - Vertical Polarization
Radio Card installed in Dell Laptop Latitude C600, Model No. PP01L
Channel 1**

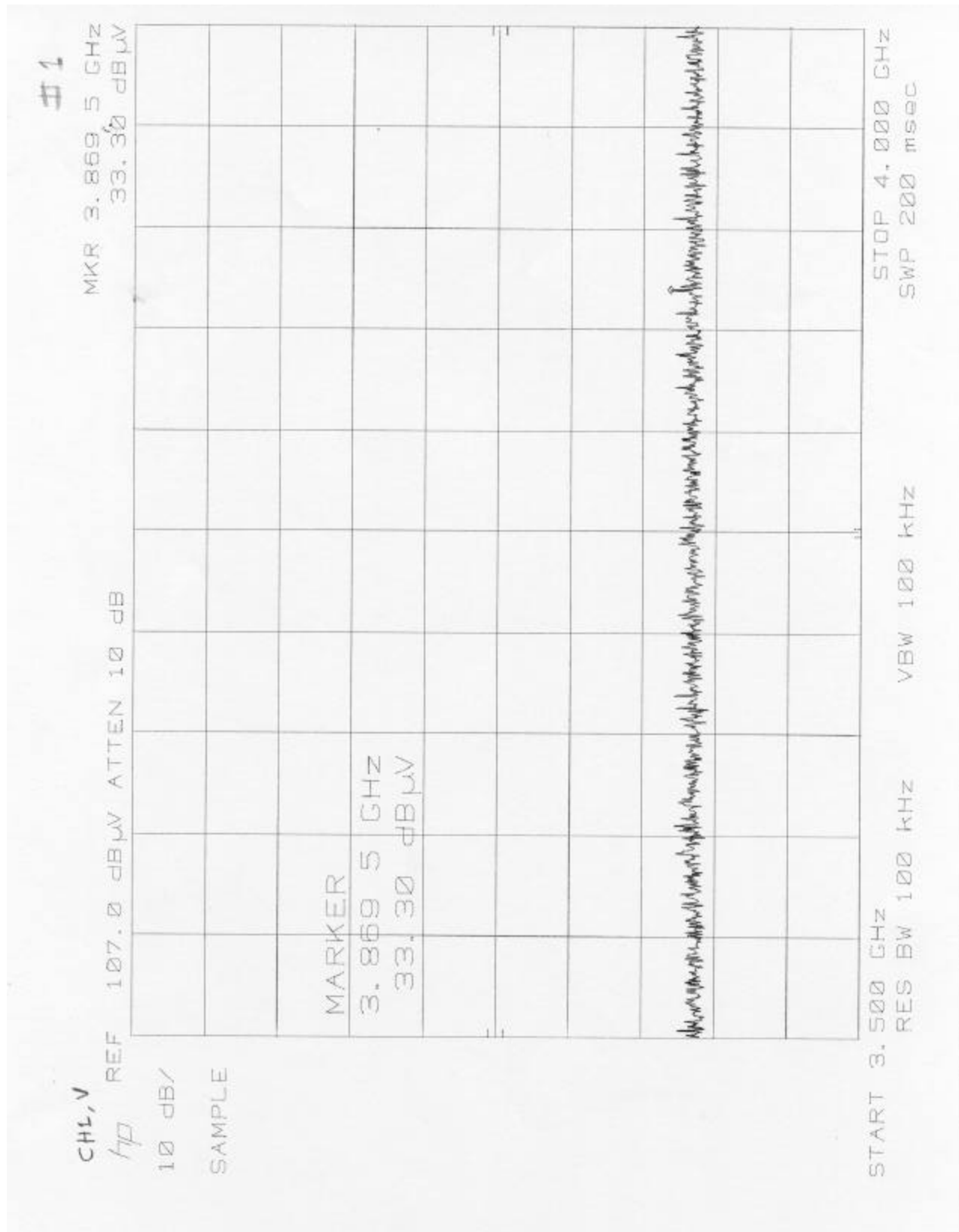


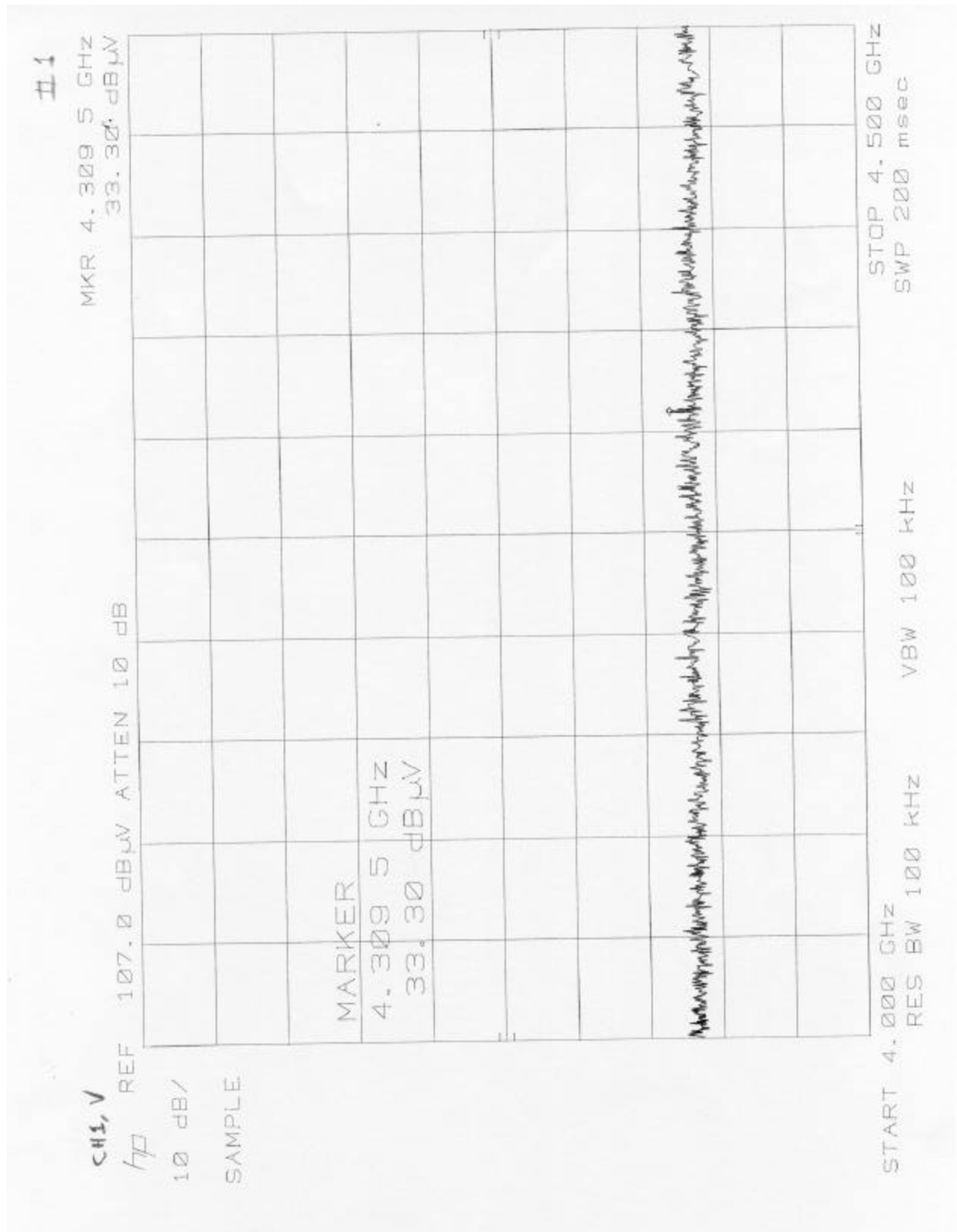


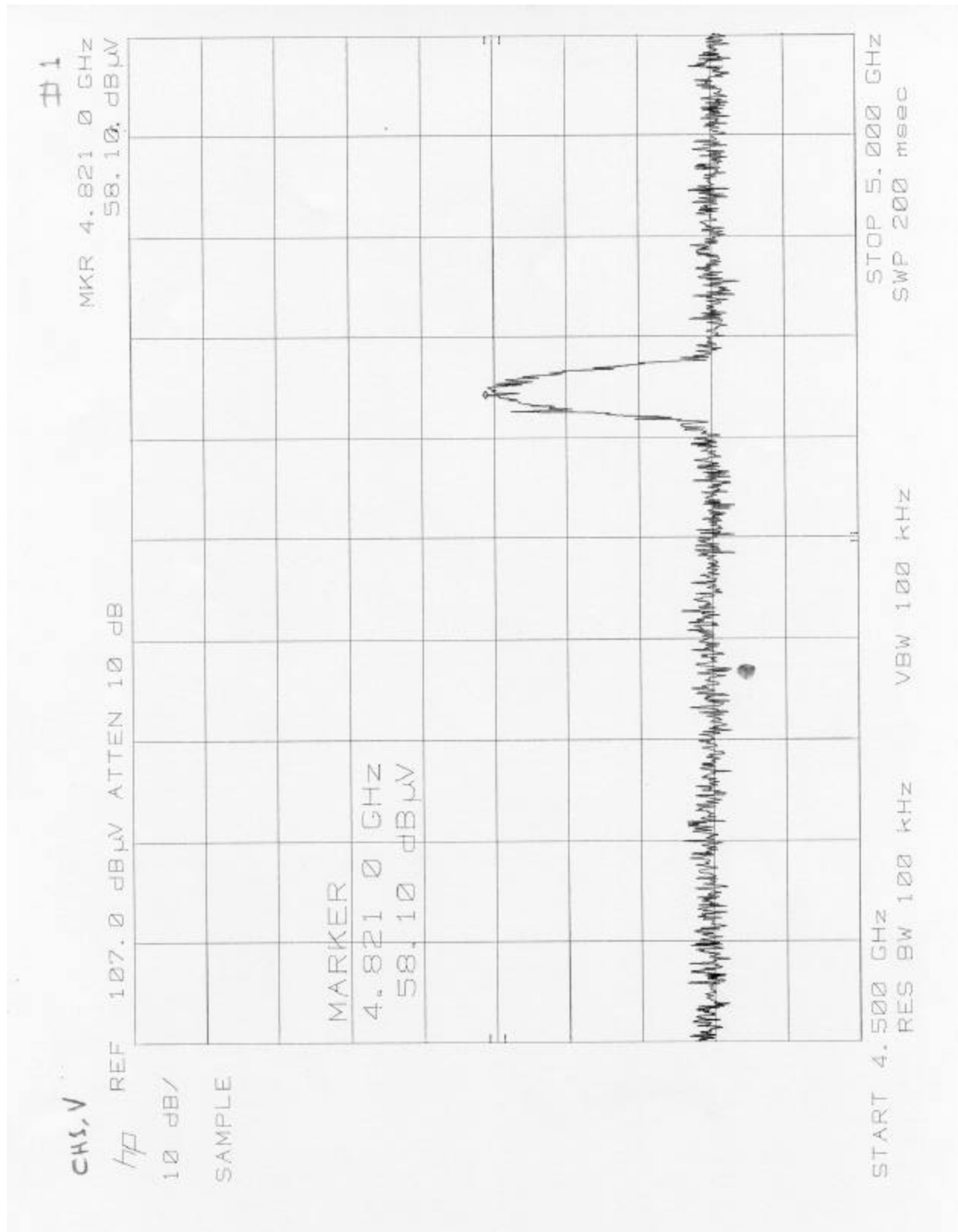


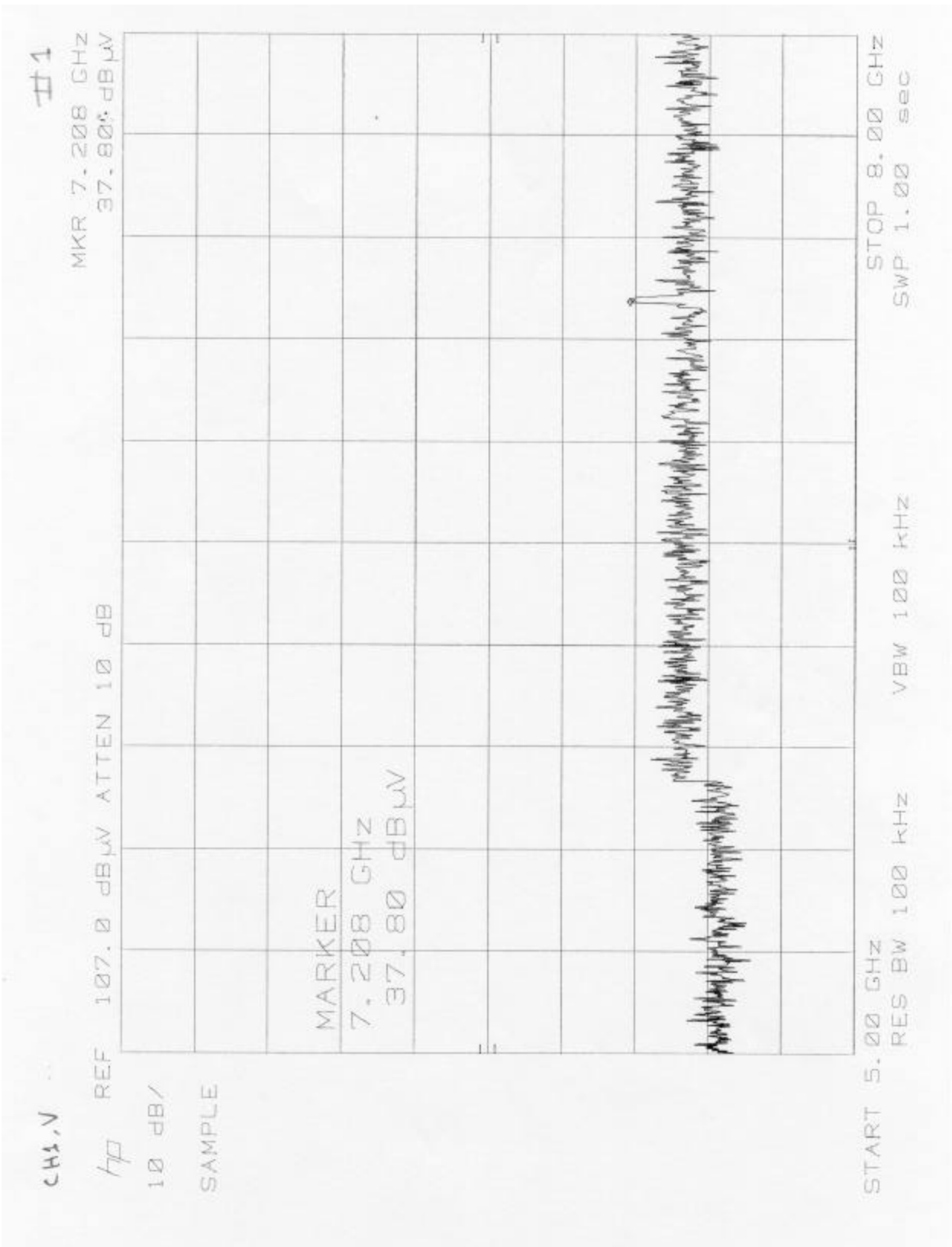


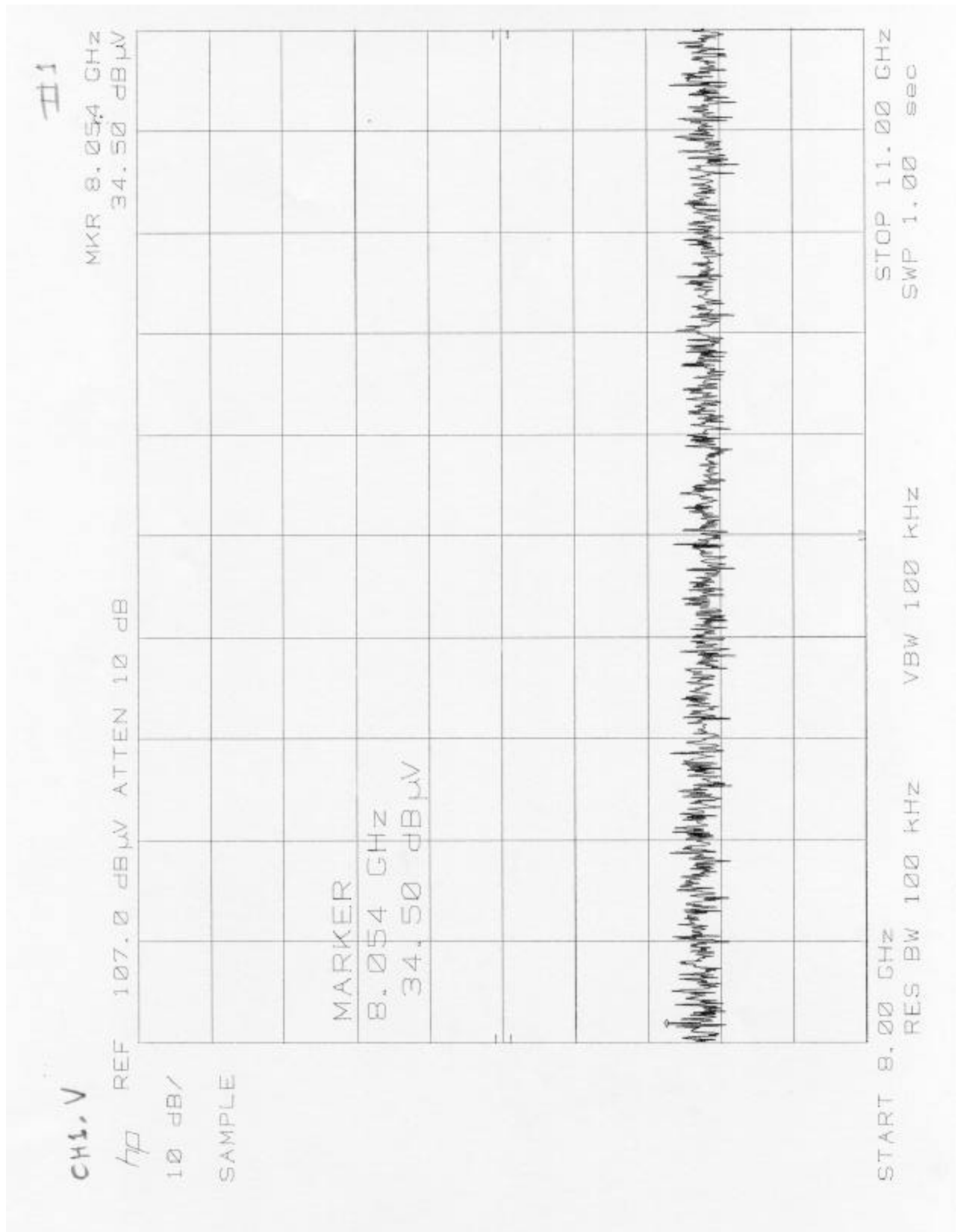


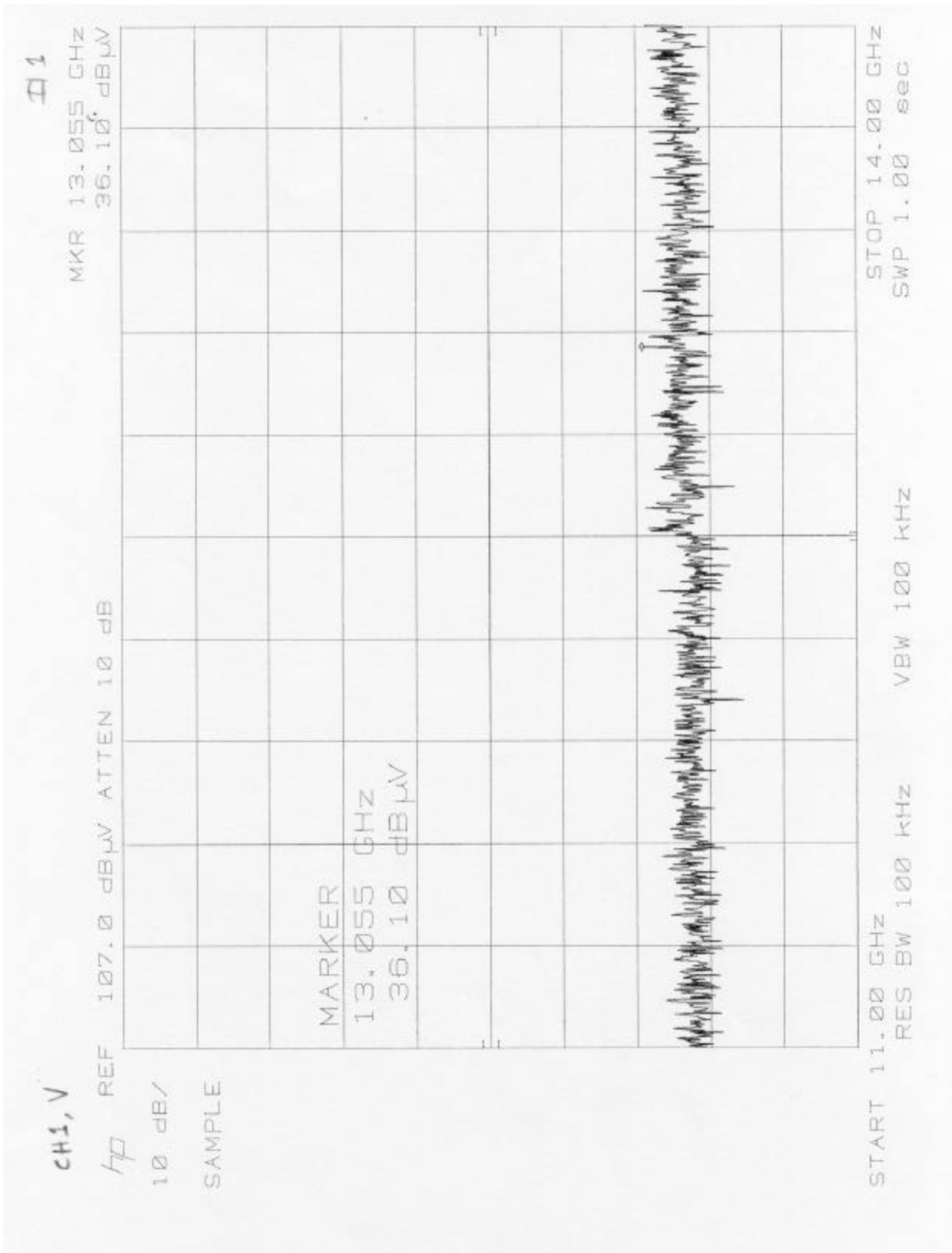


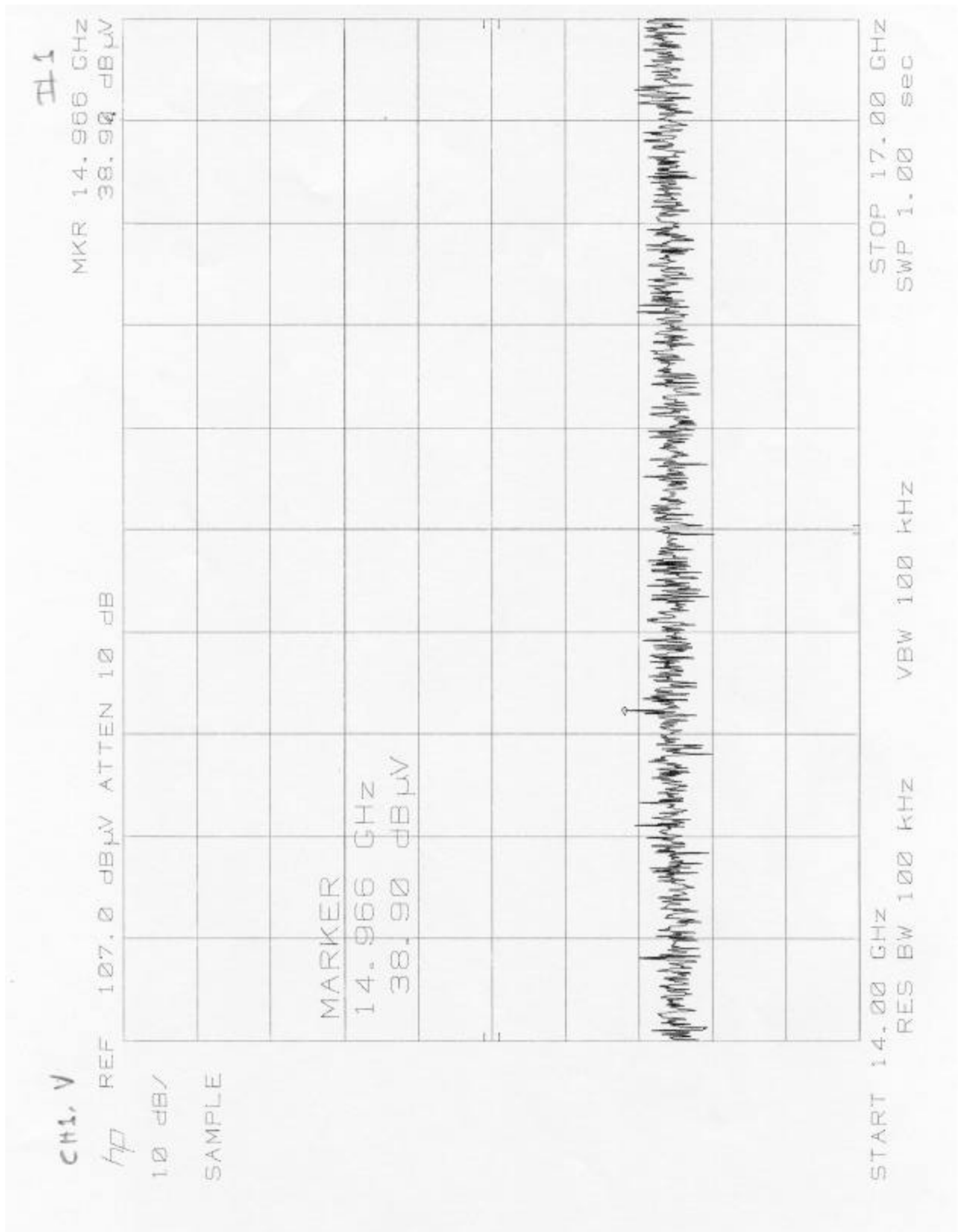


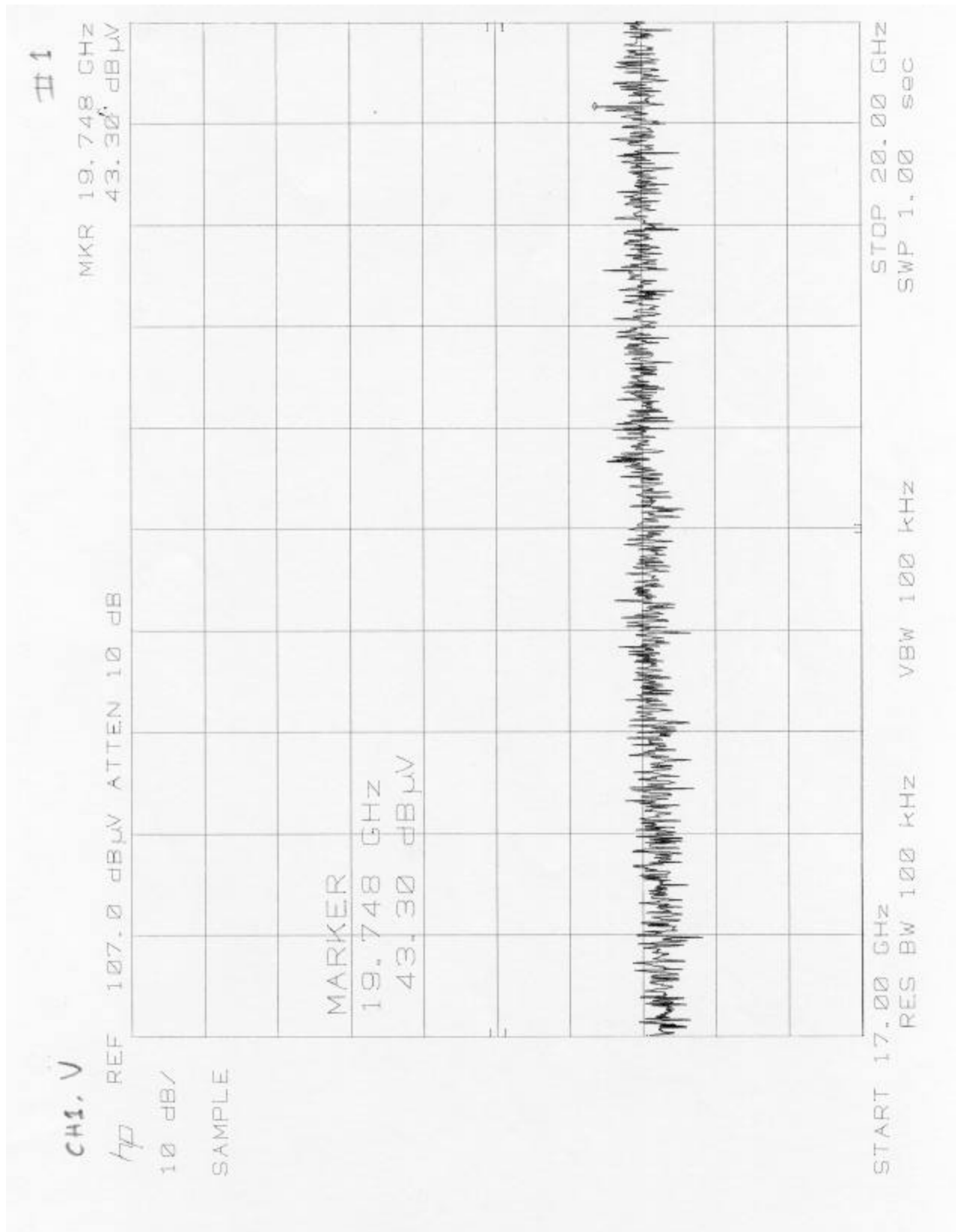


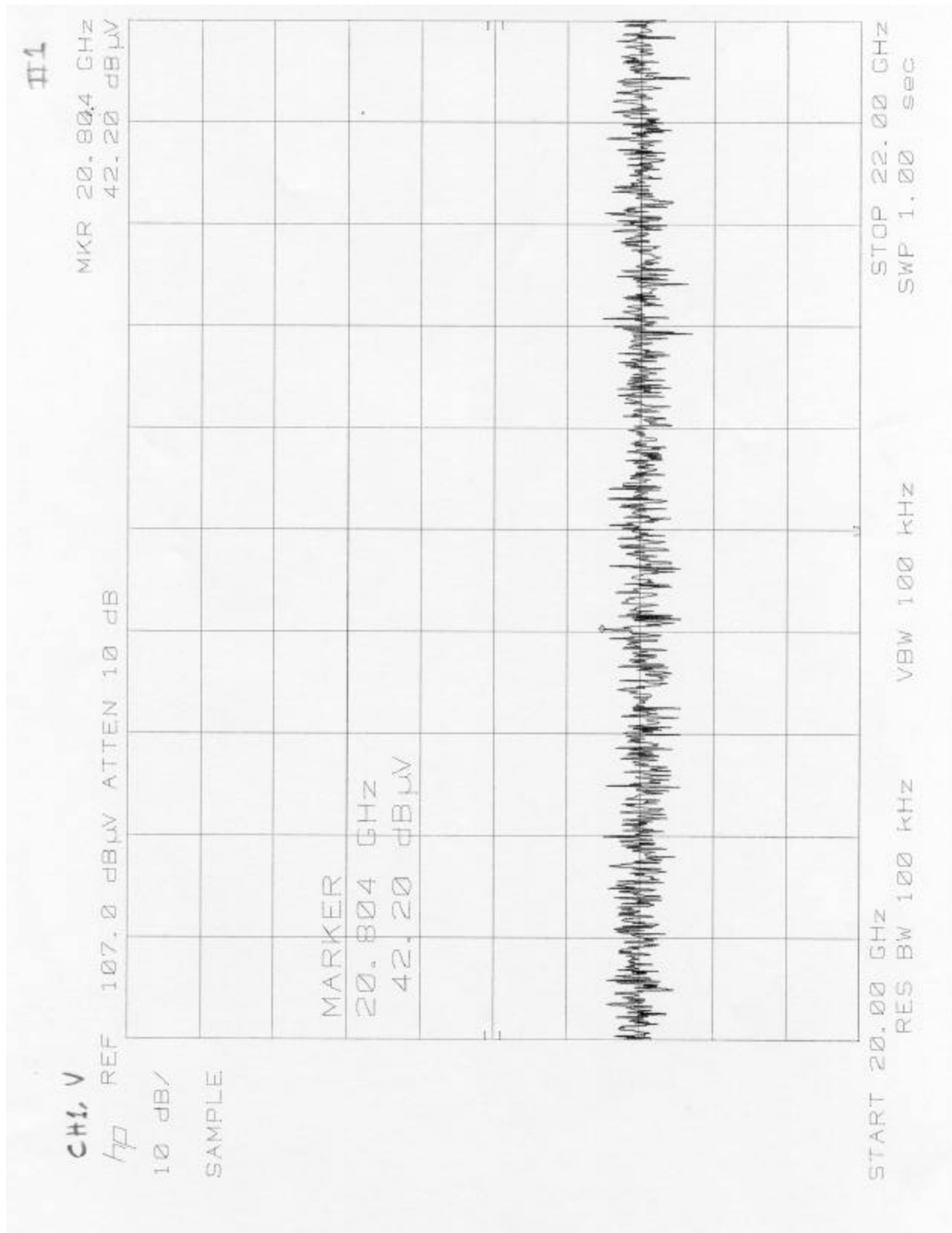


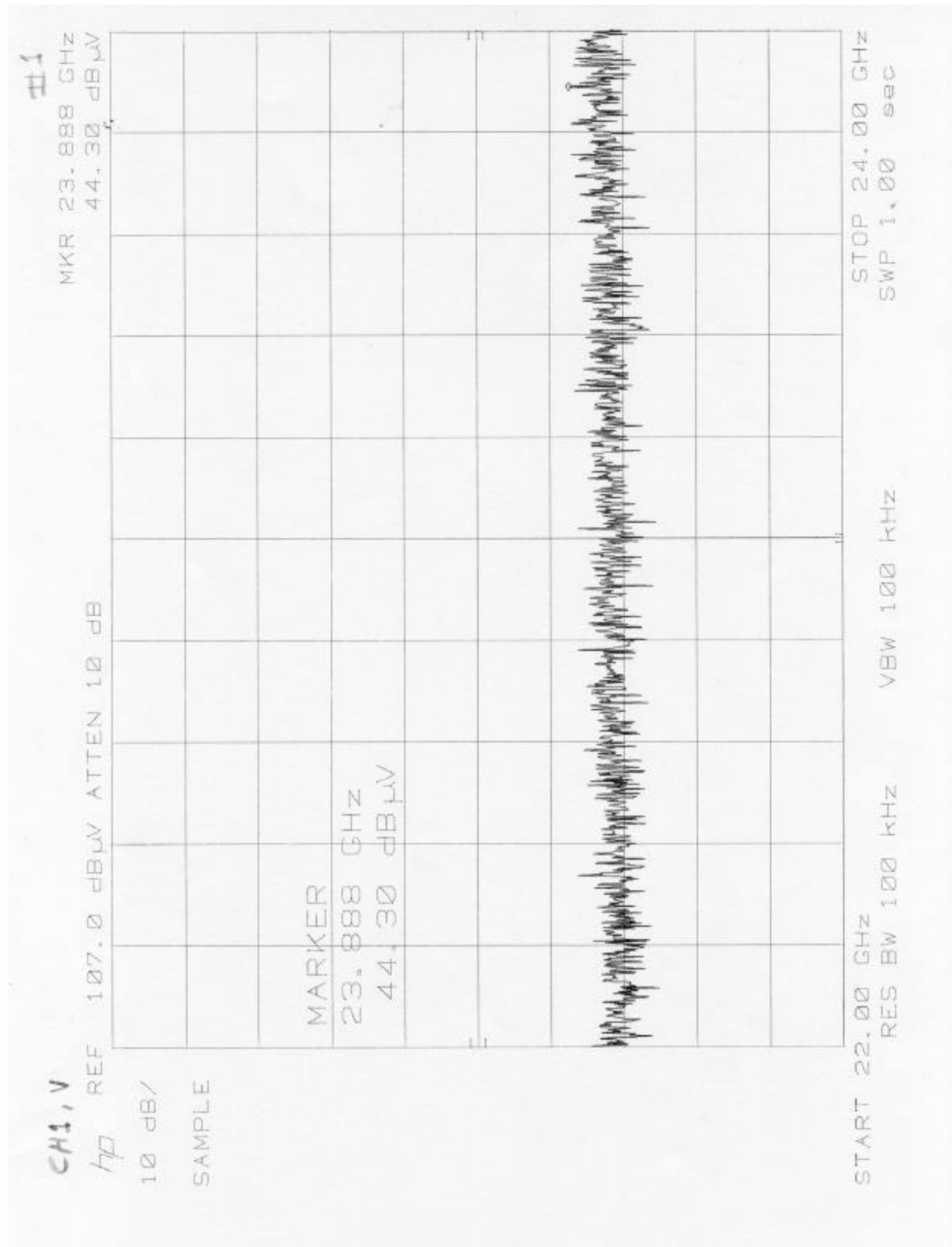




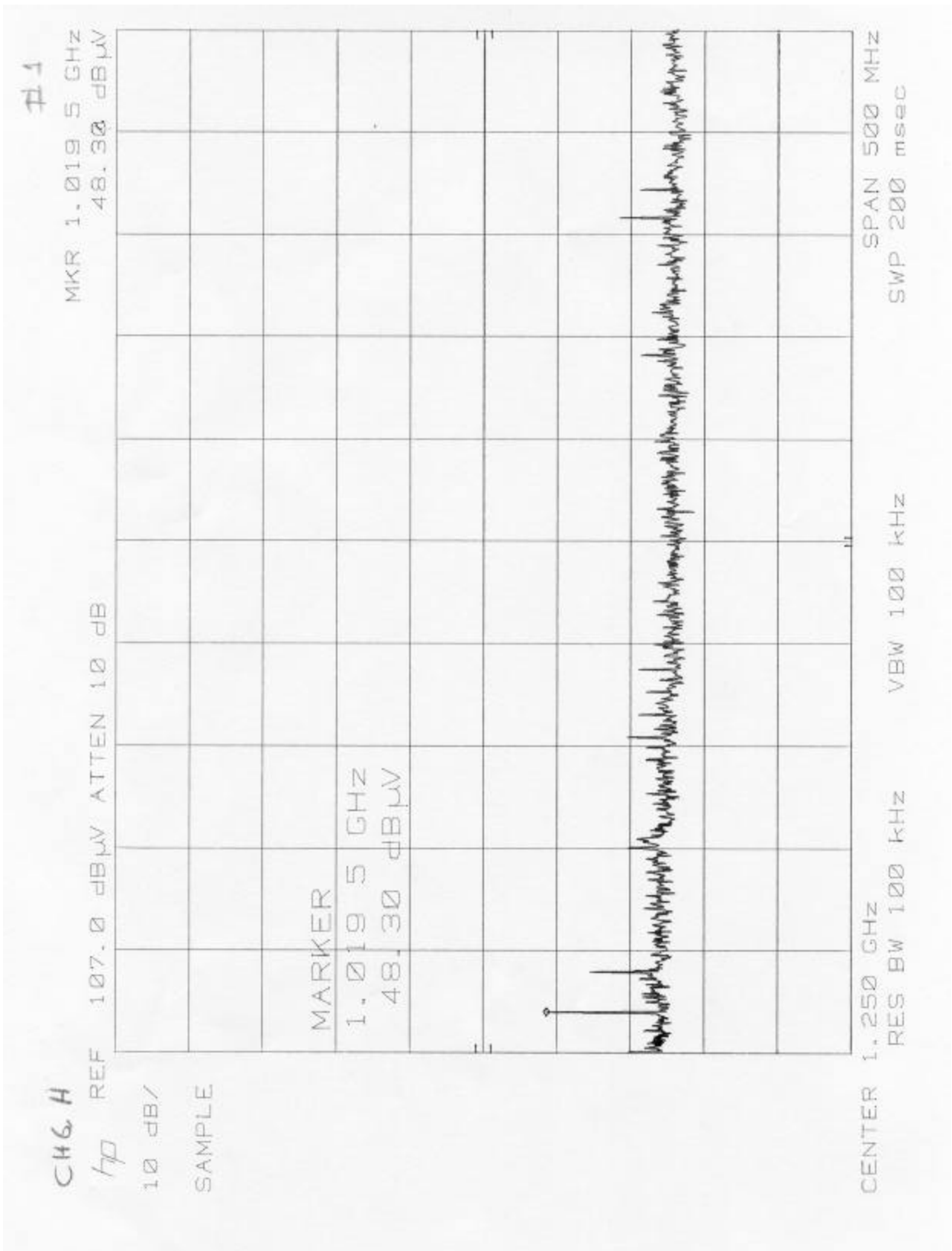


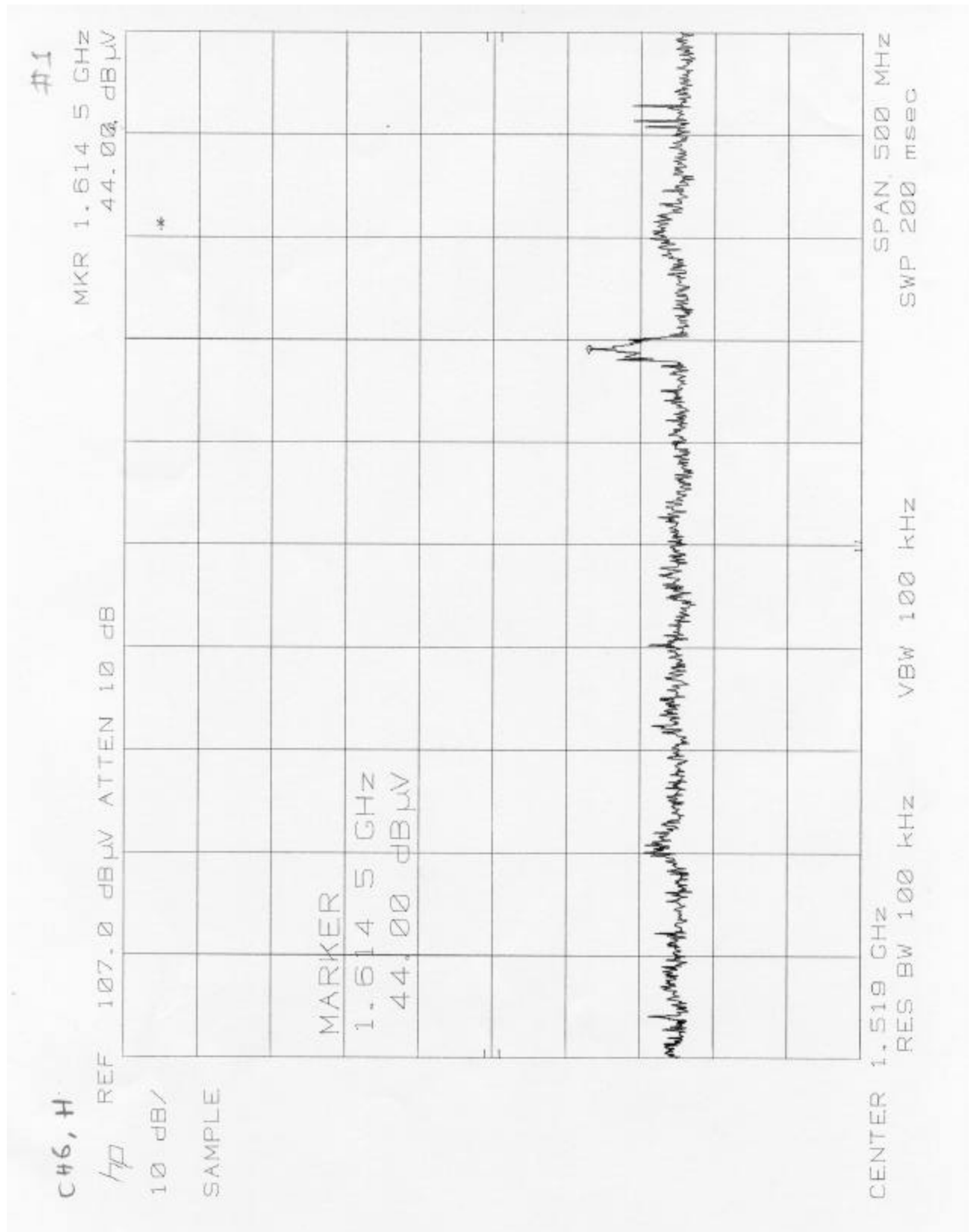


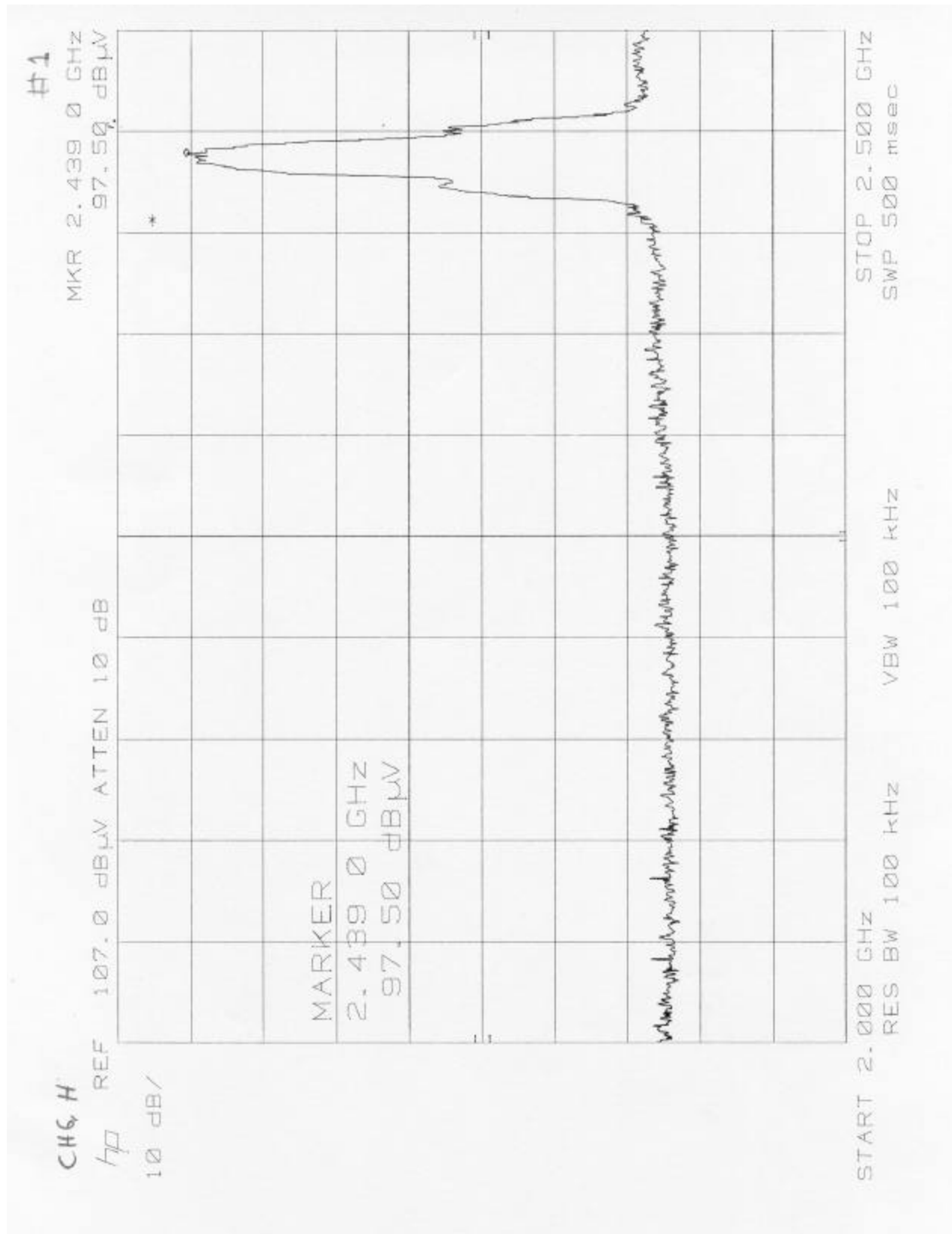


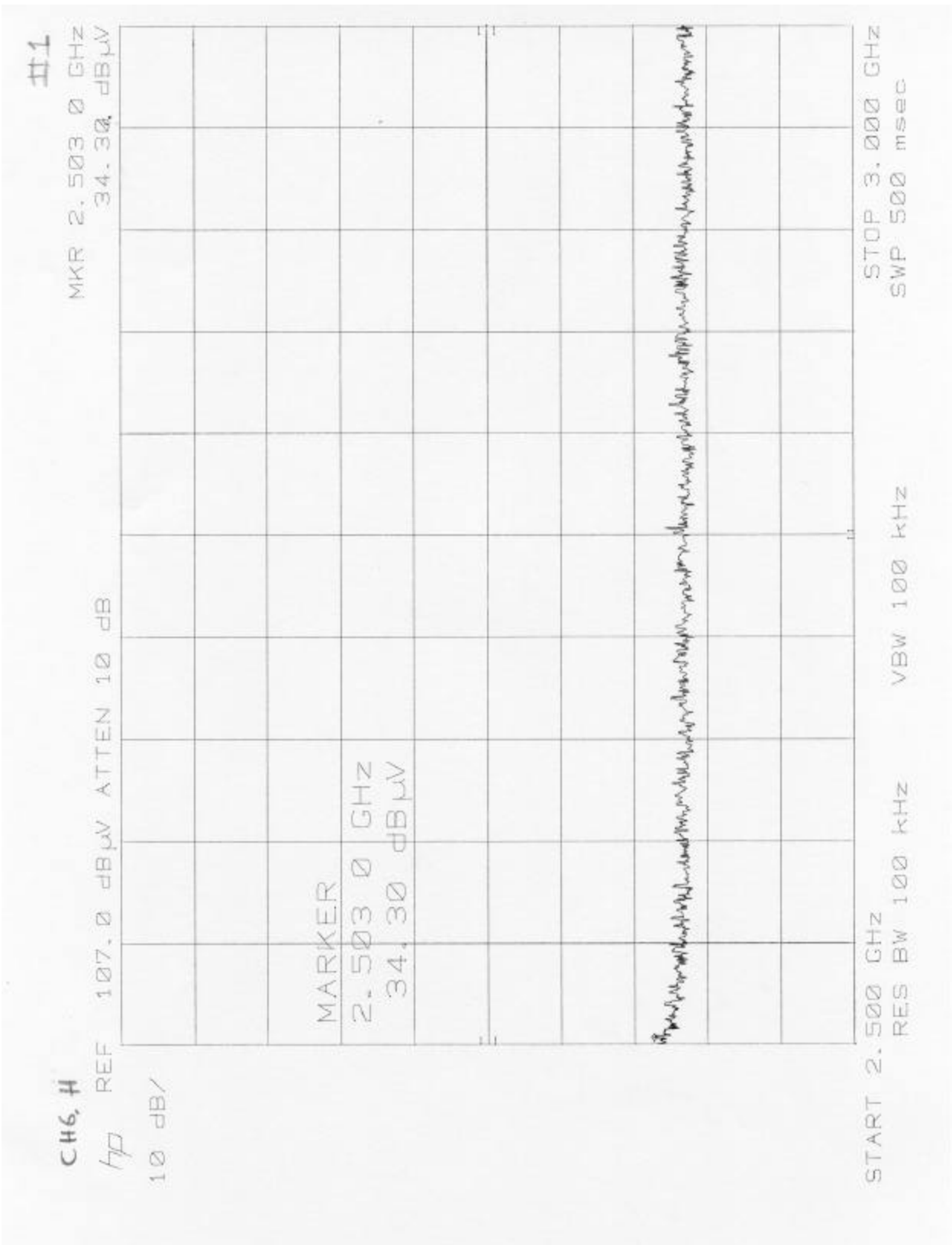


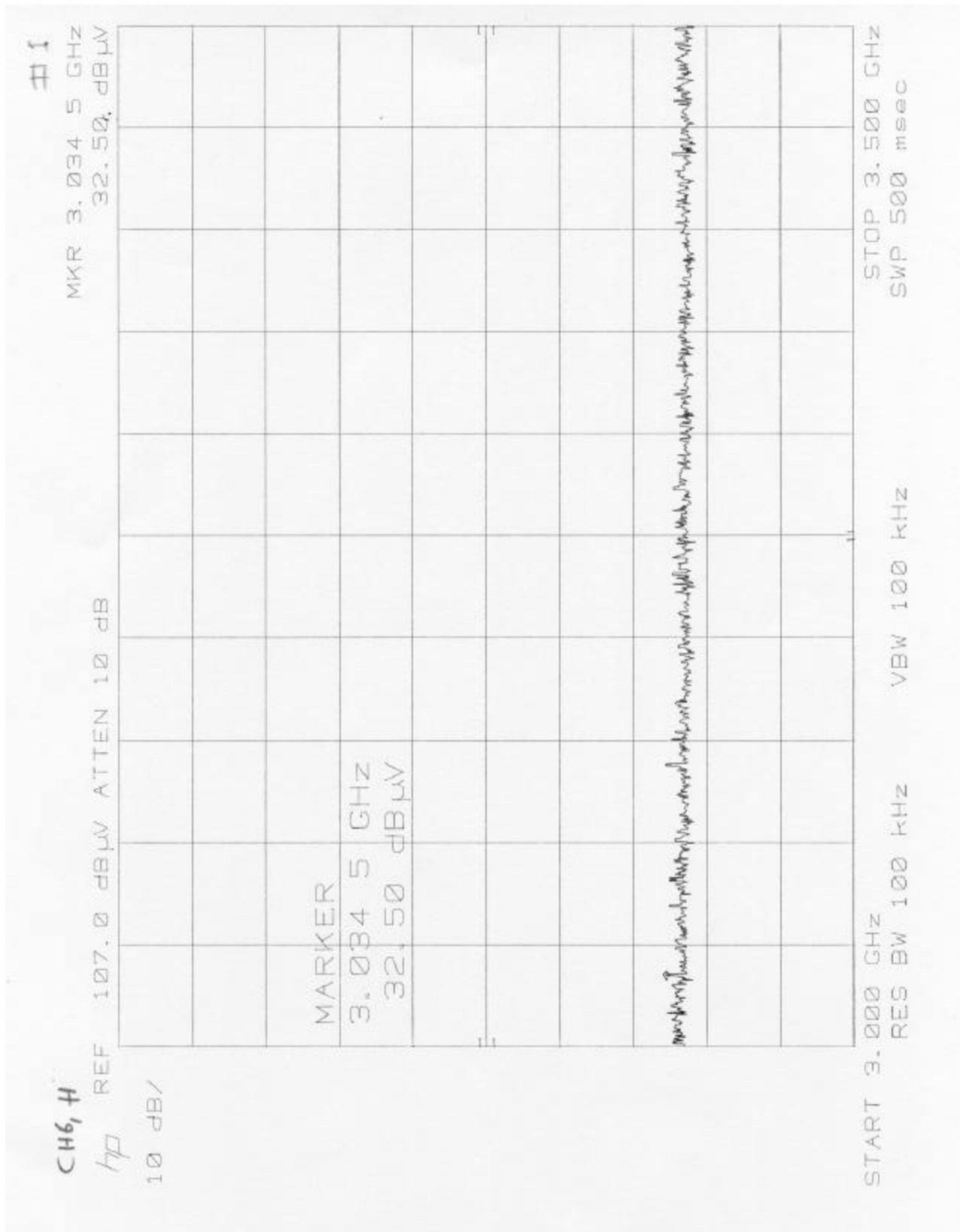
**Radiated Emissions Plots
(1 - 24) GHz - Horizontal Polarization
Radio Card installed in Dell Laptop Latitude C600, Model No. PP01L
Channel 6**

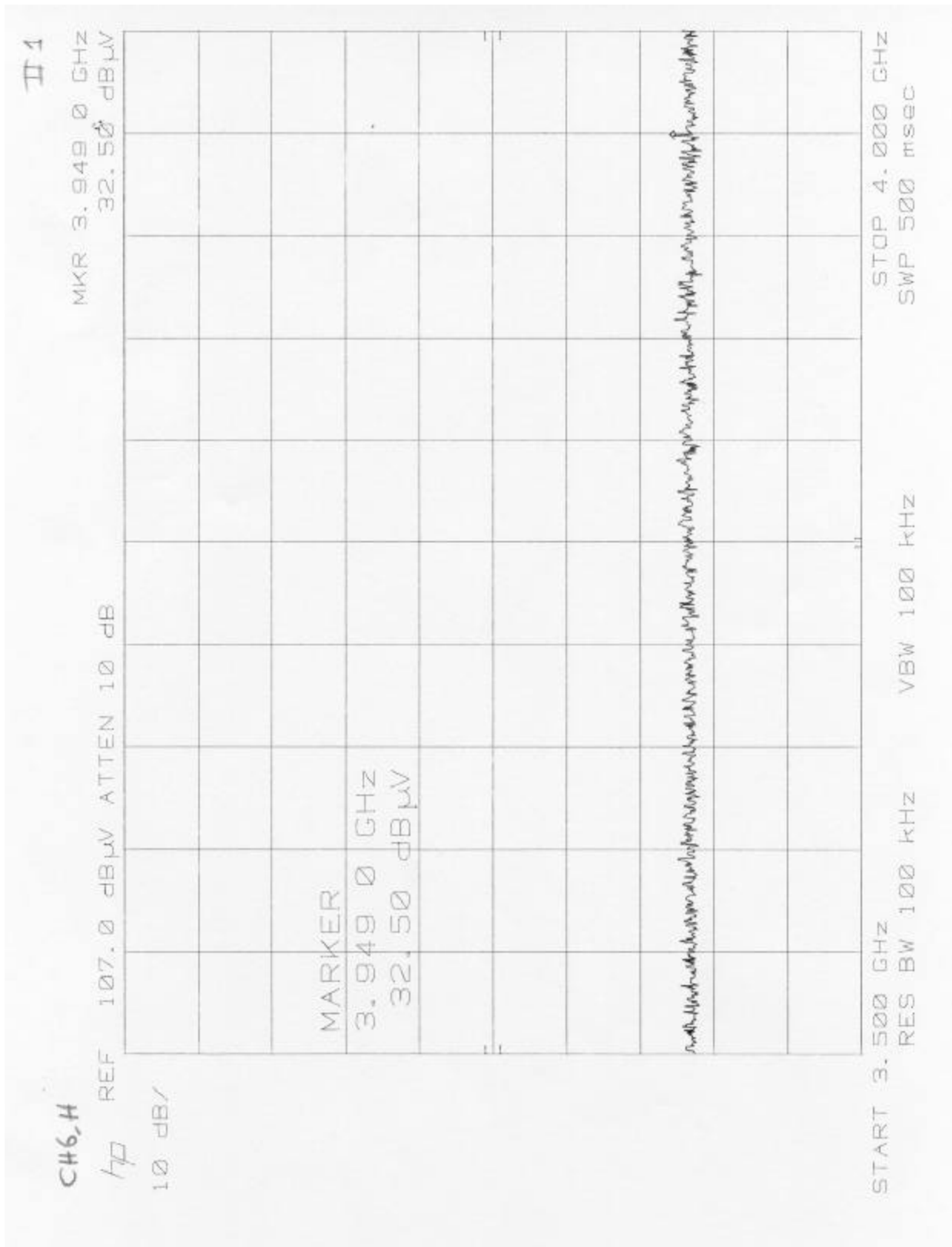


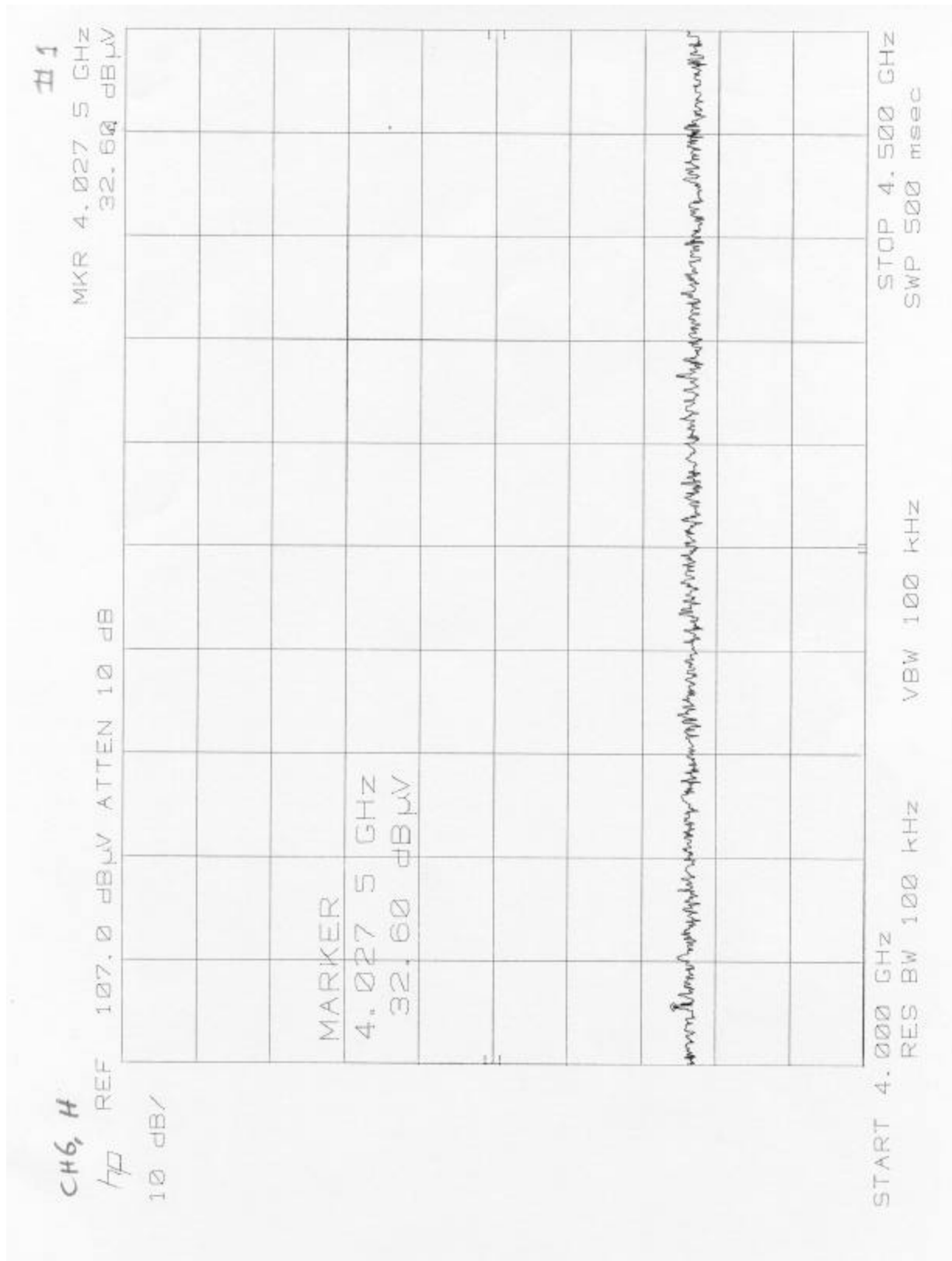


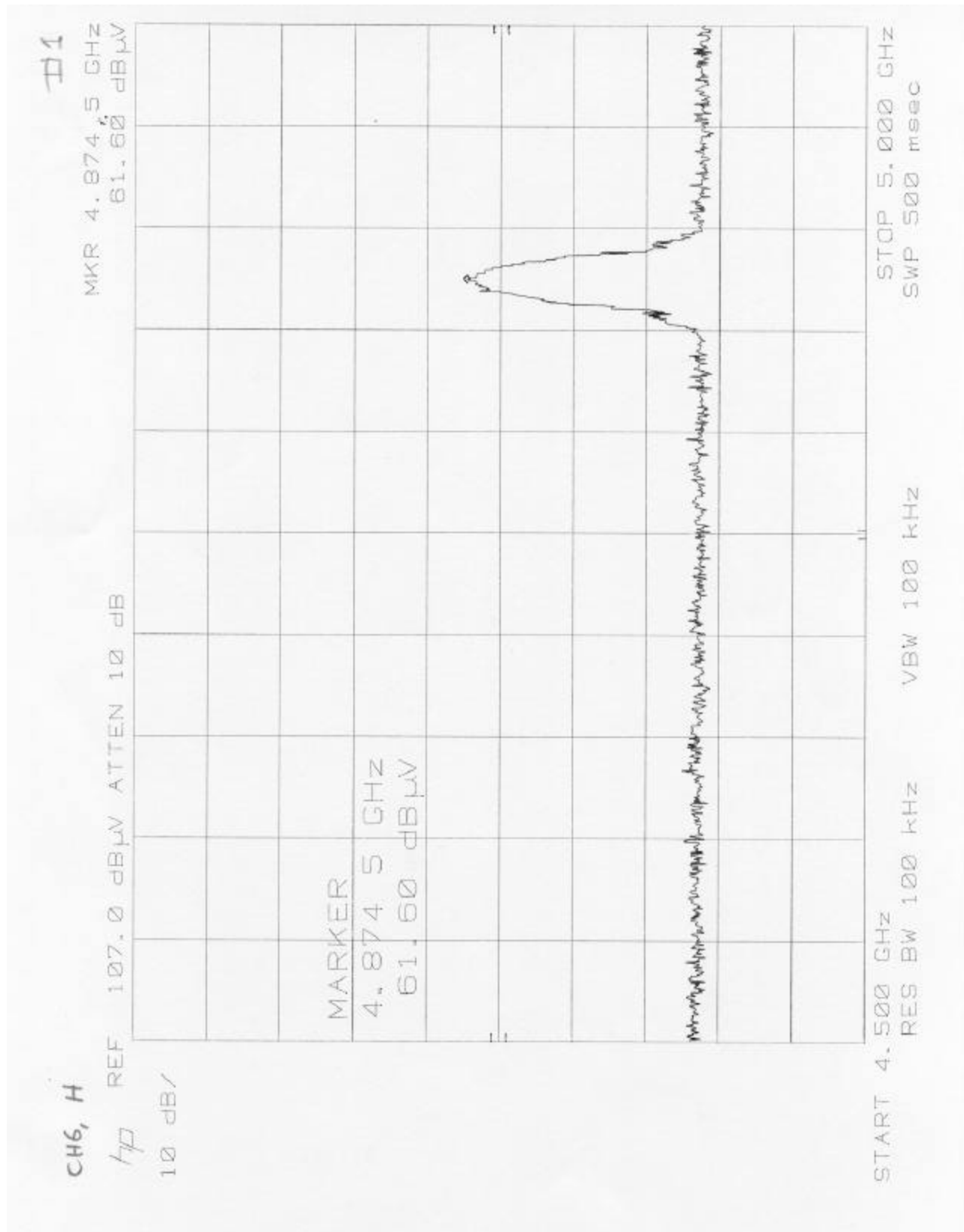


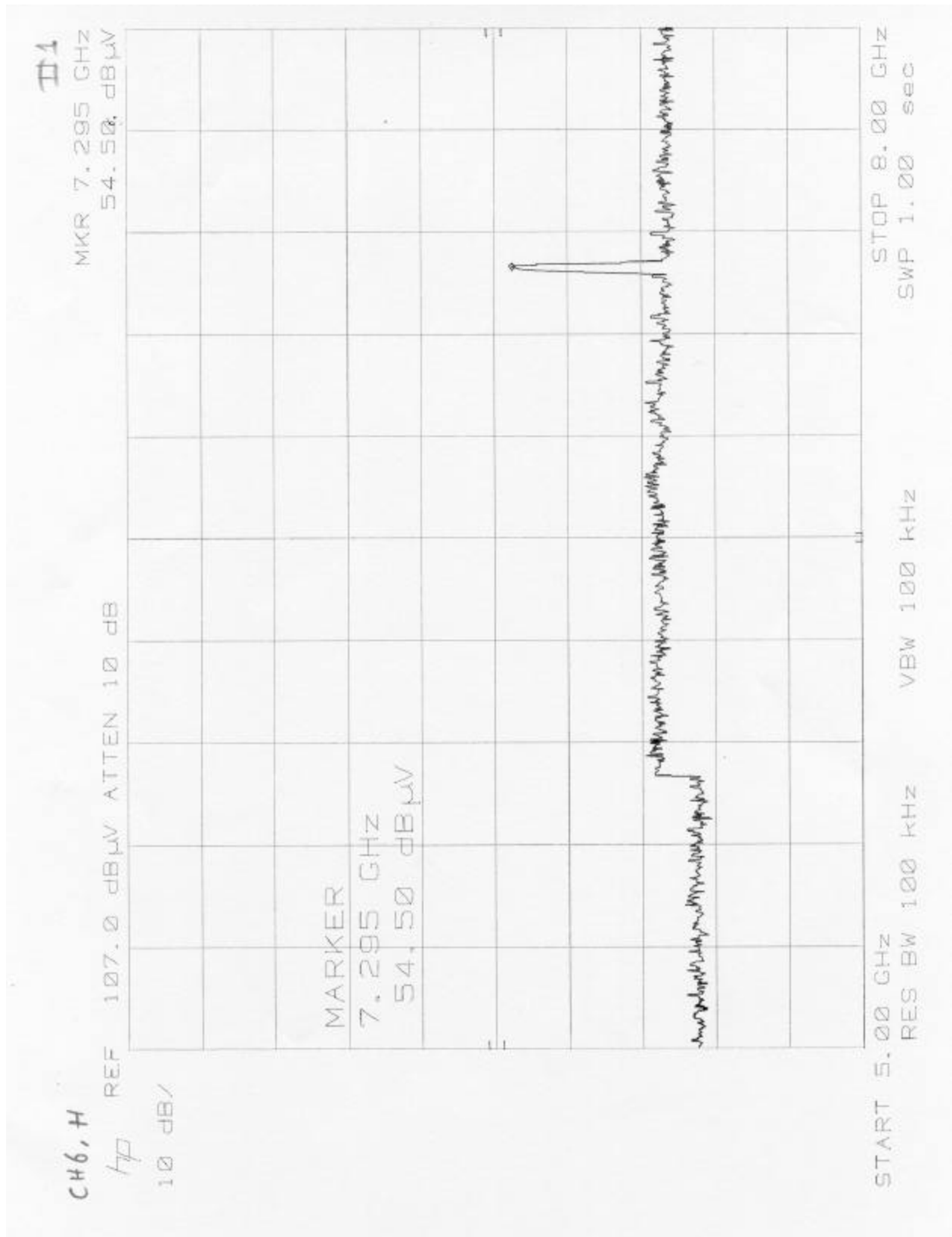


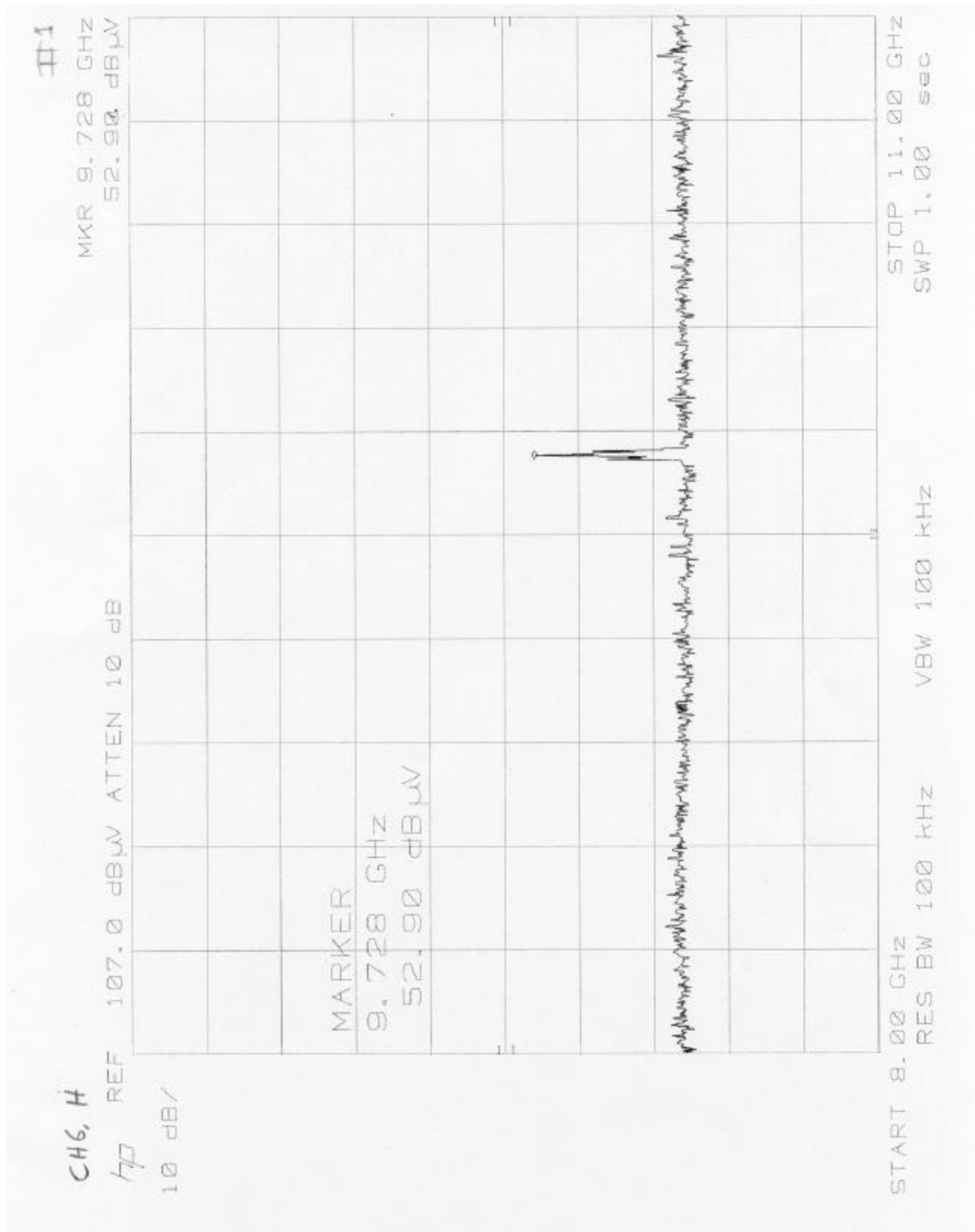


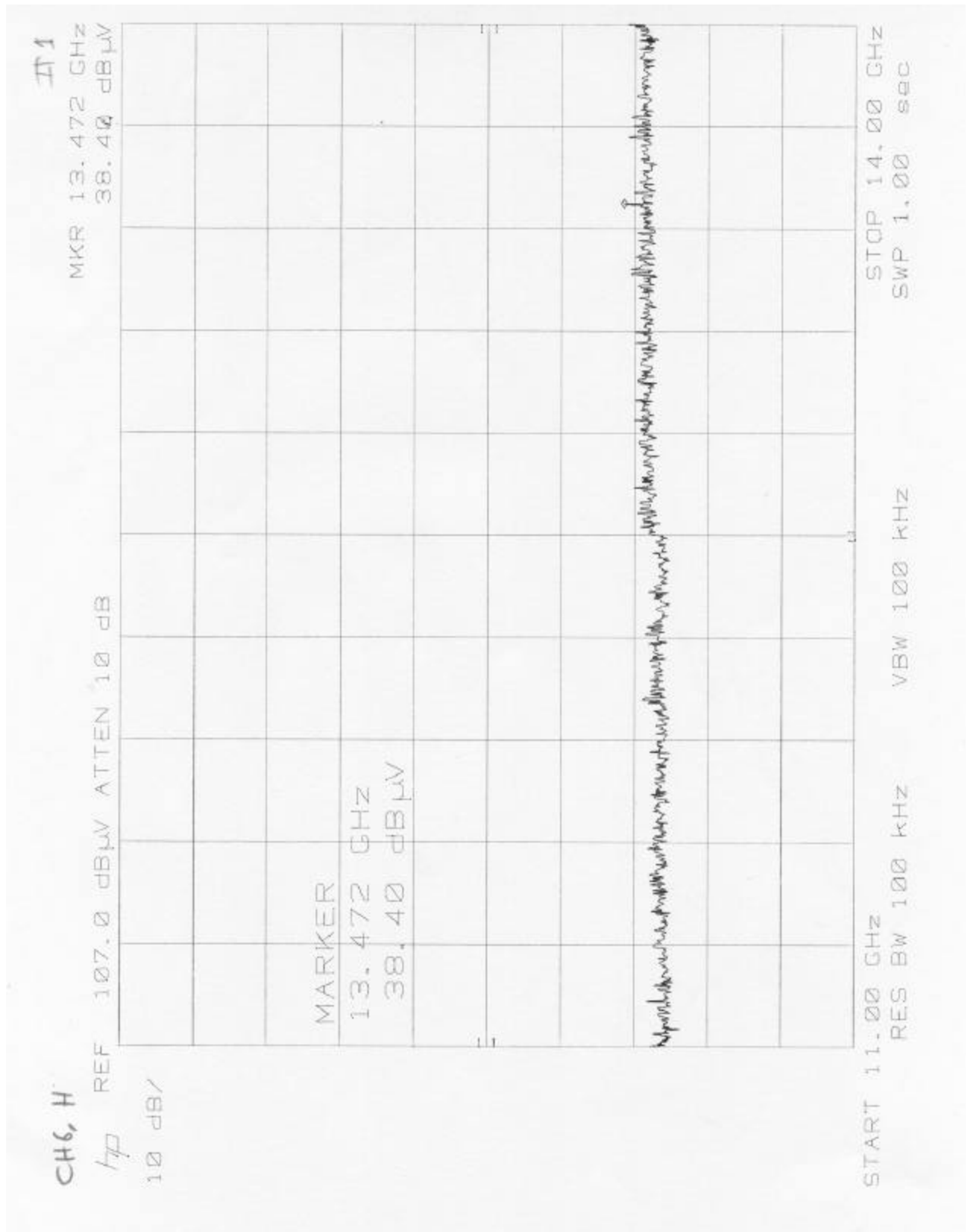


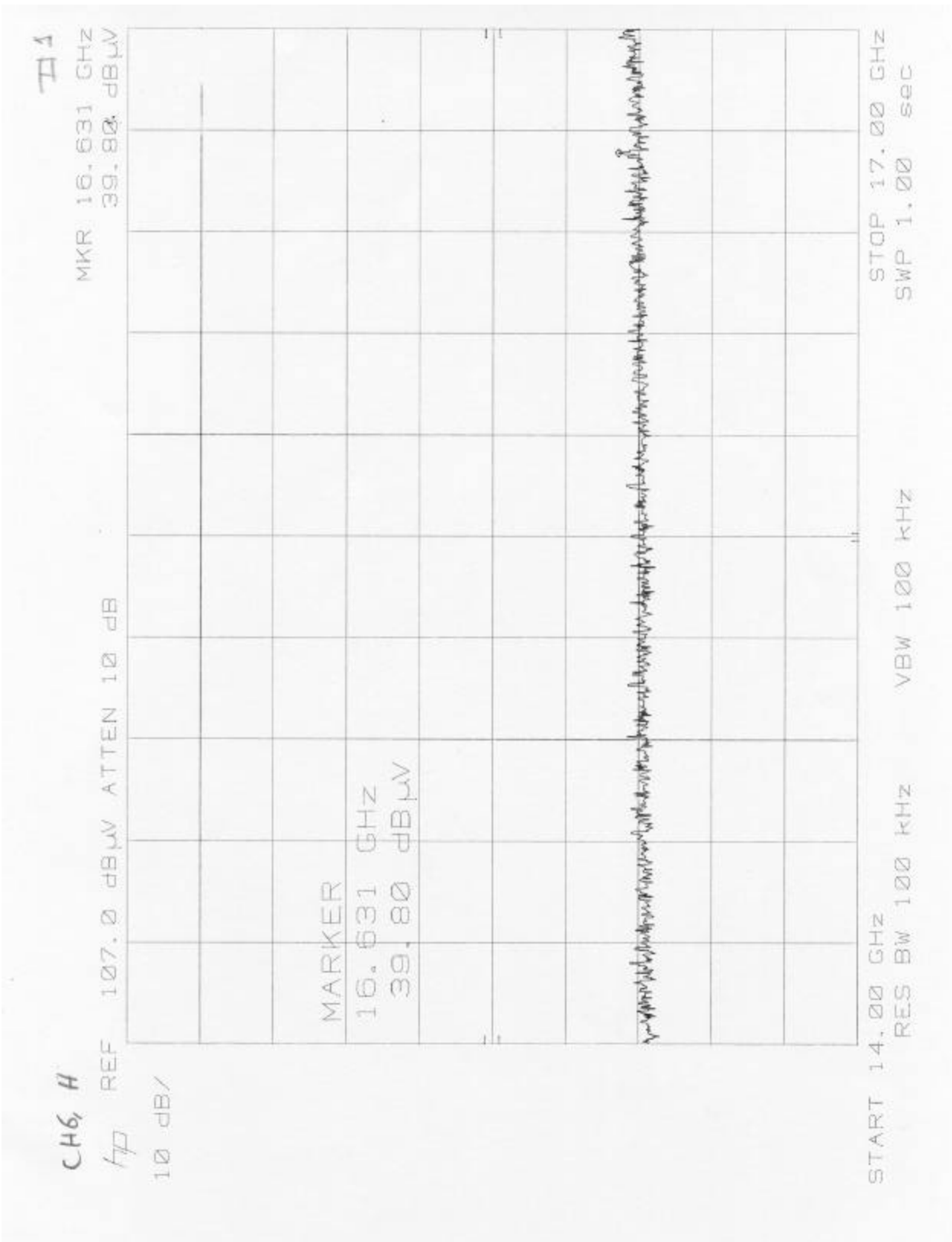


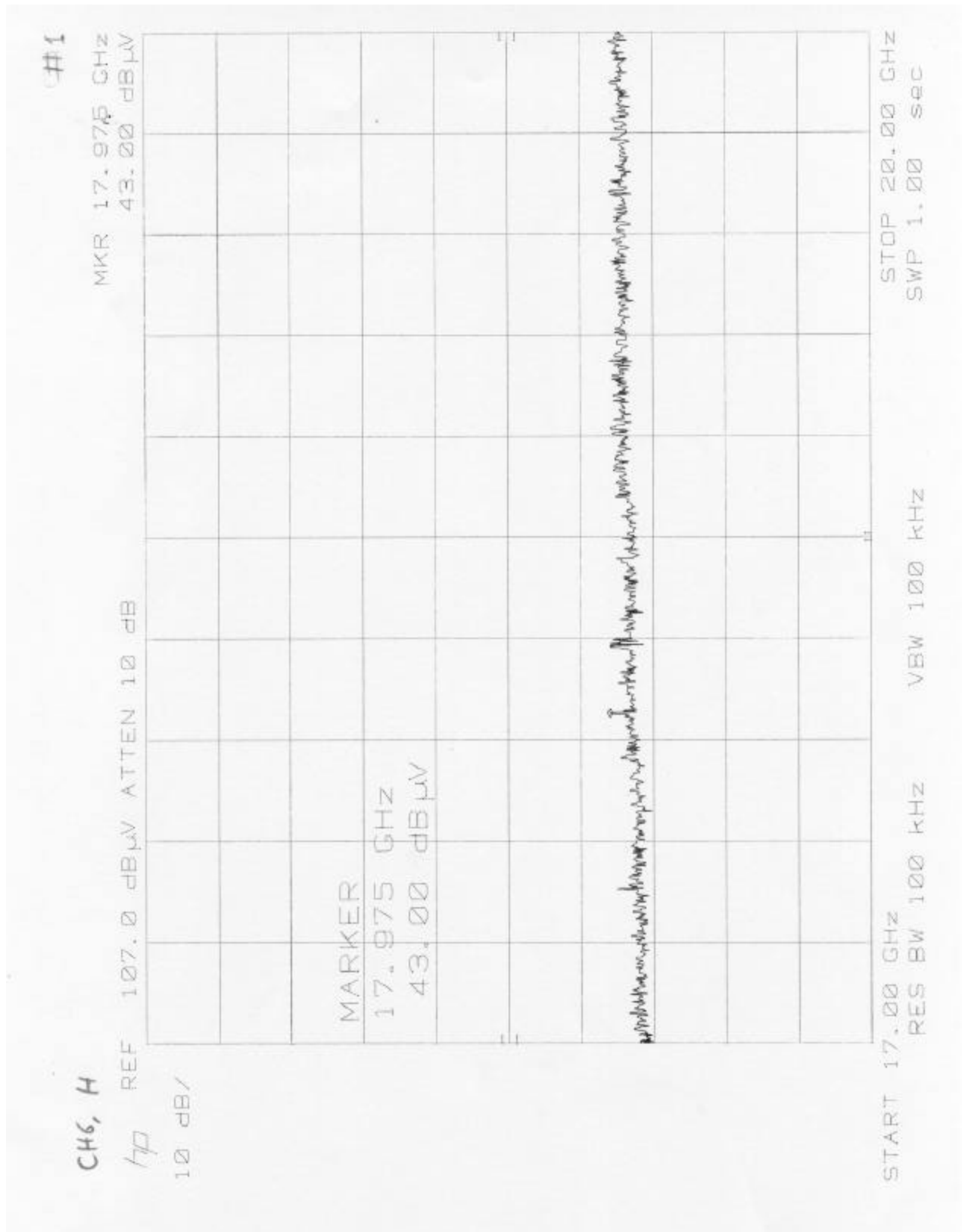


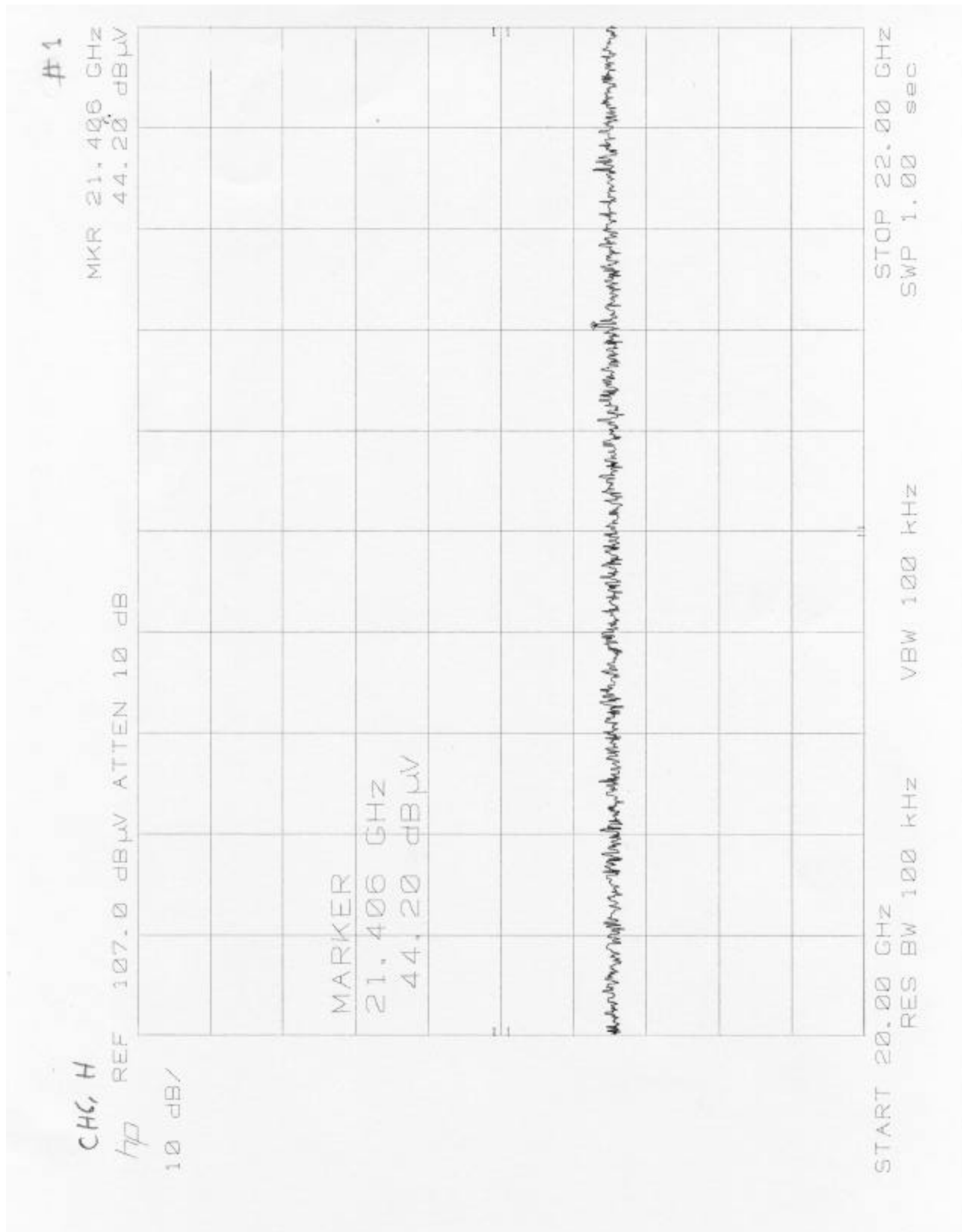


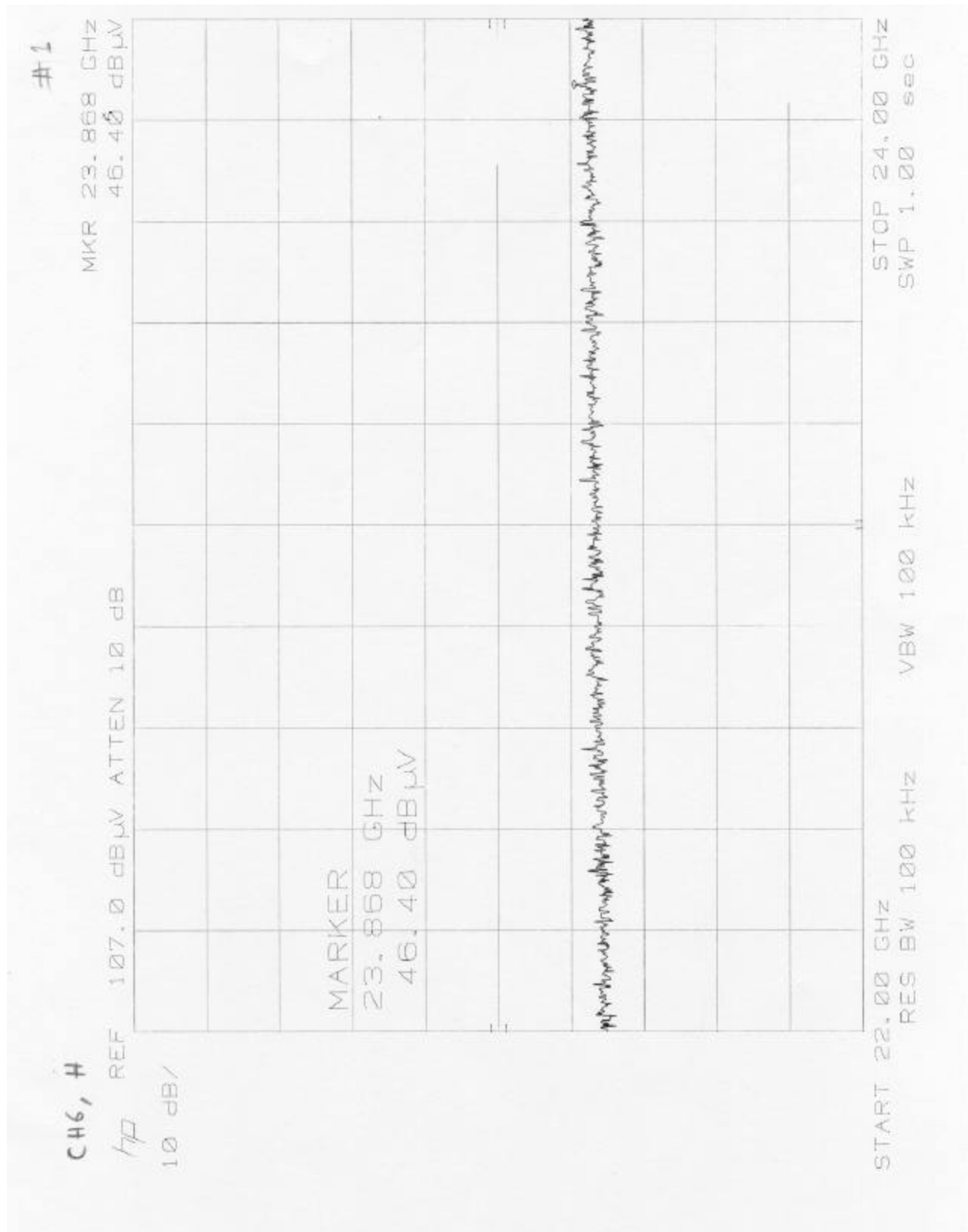




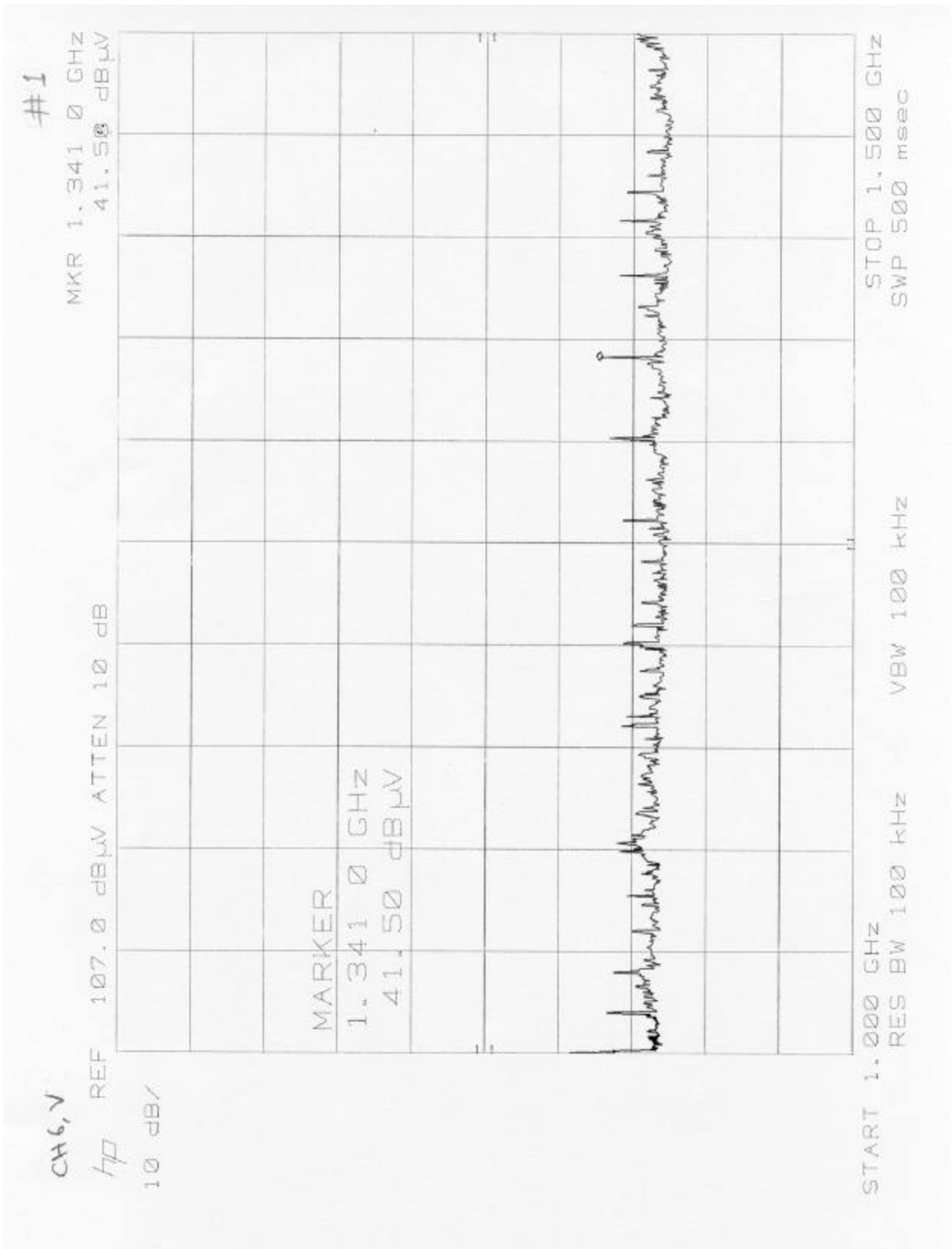


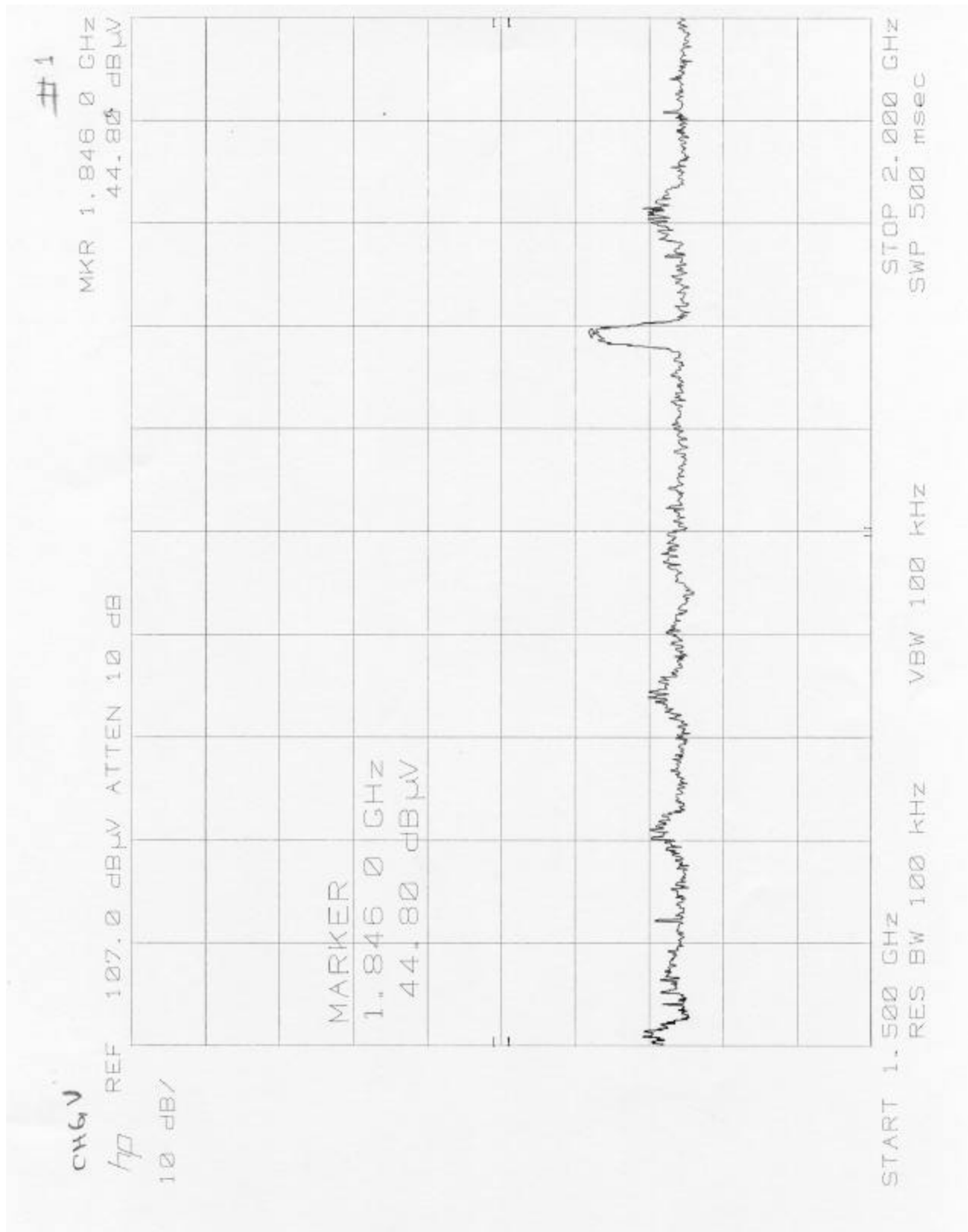


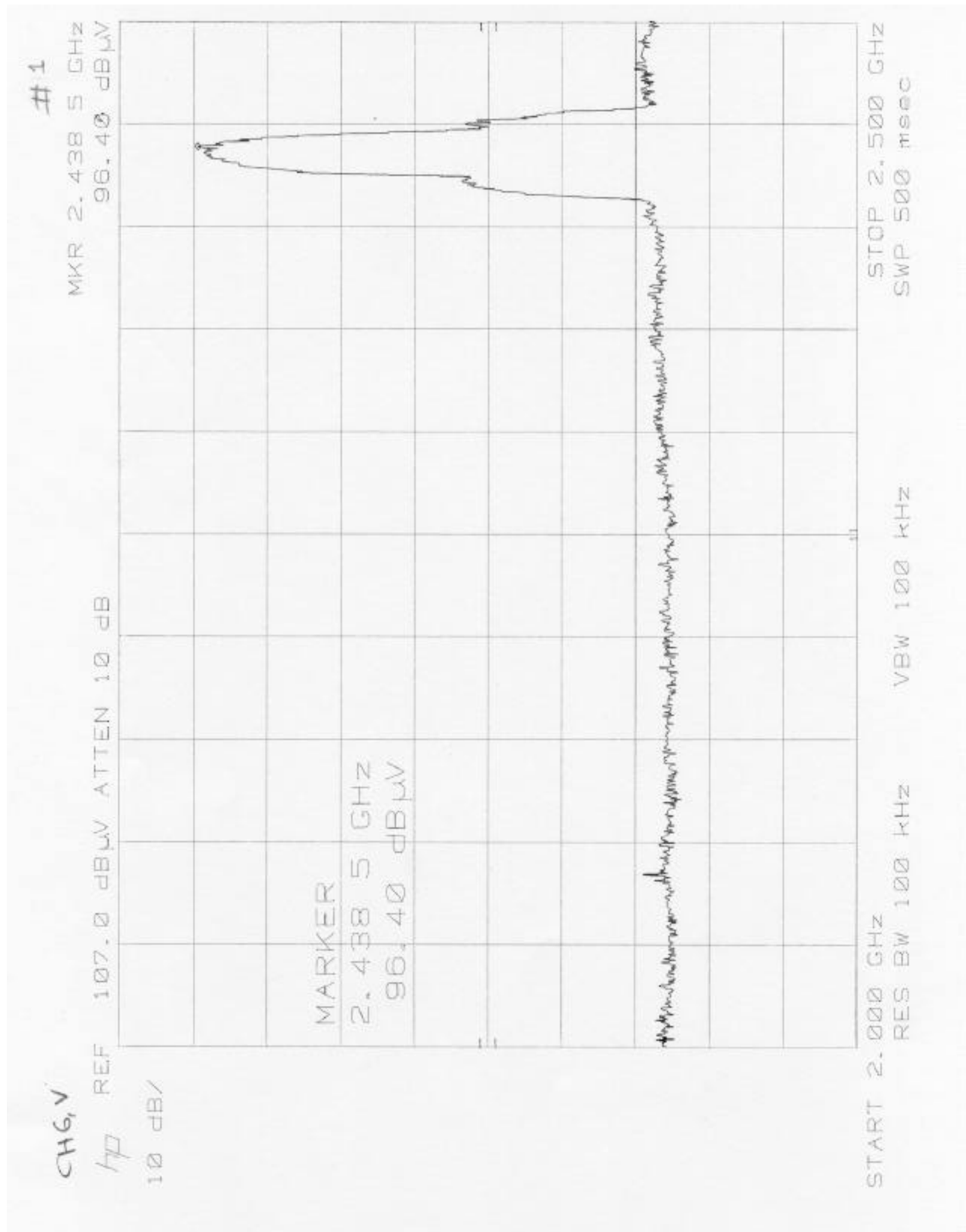


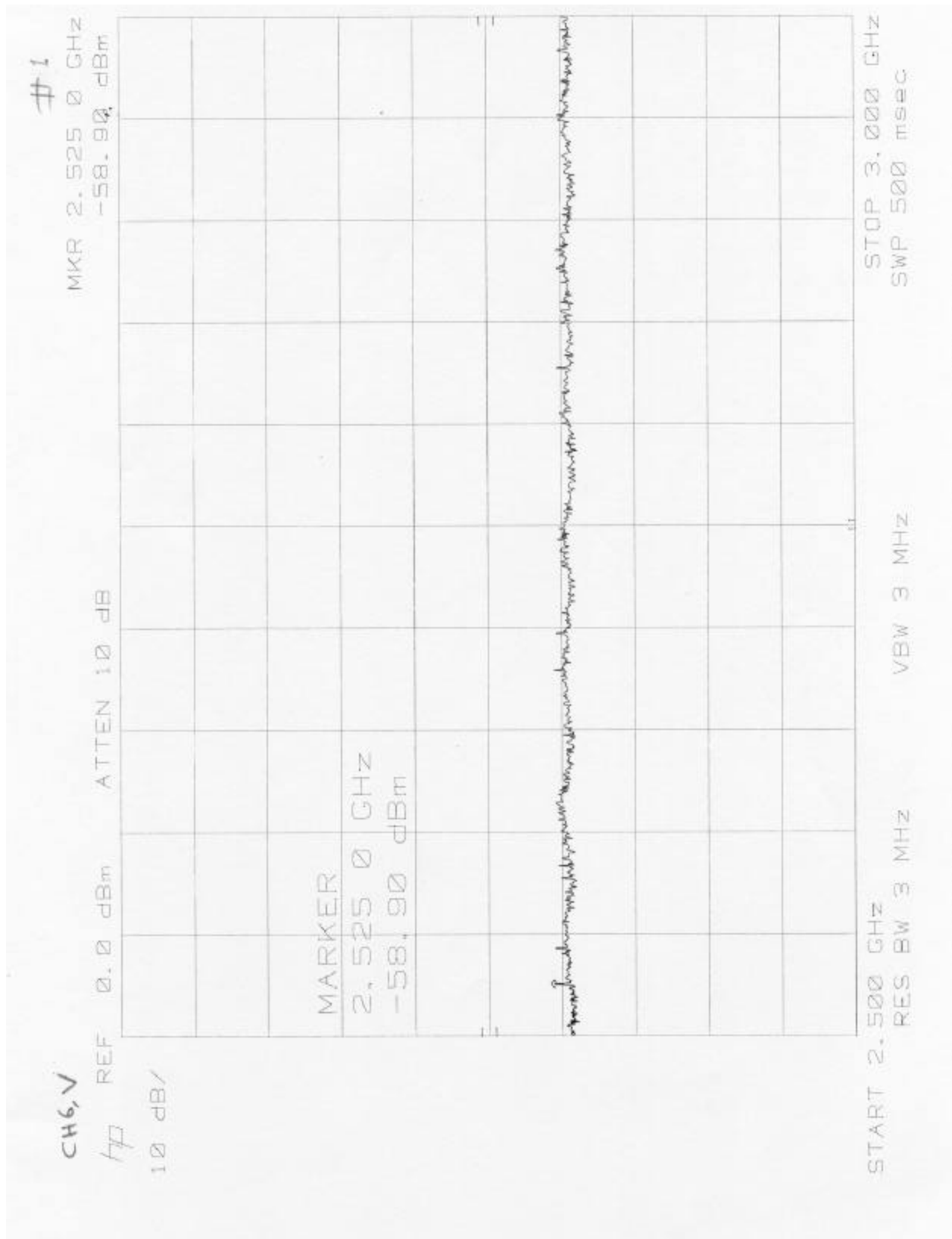


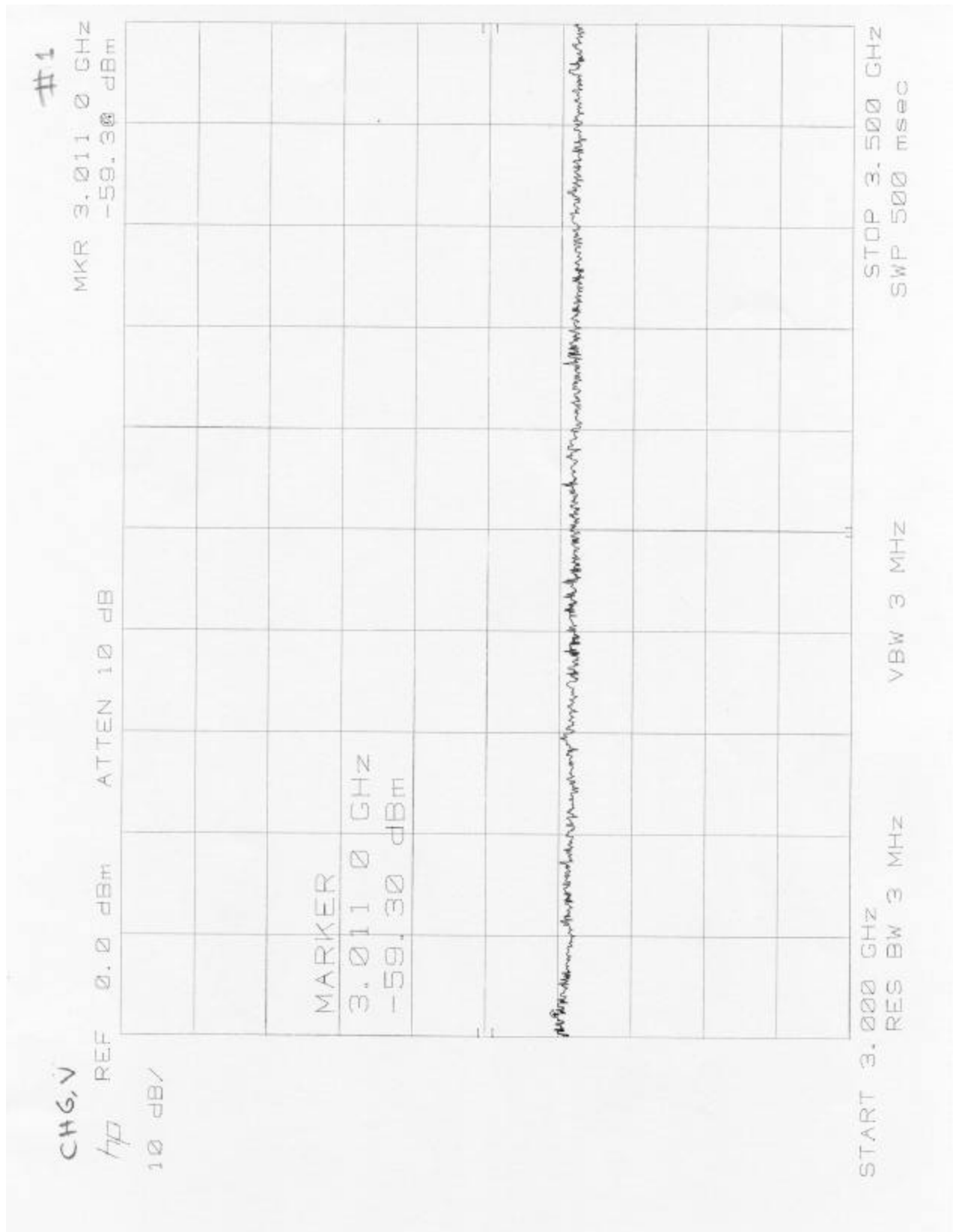
**Radiated Emissions Data Plots
(1 - 24) GHz - Vertical Polarization
Radio Card installed in Dell Laptop Latitude C600, Model No. PP01L
Channel 6**

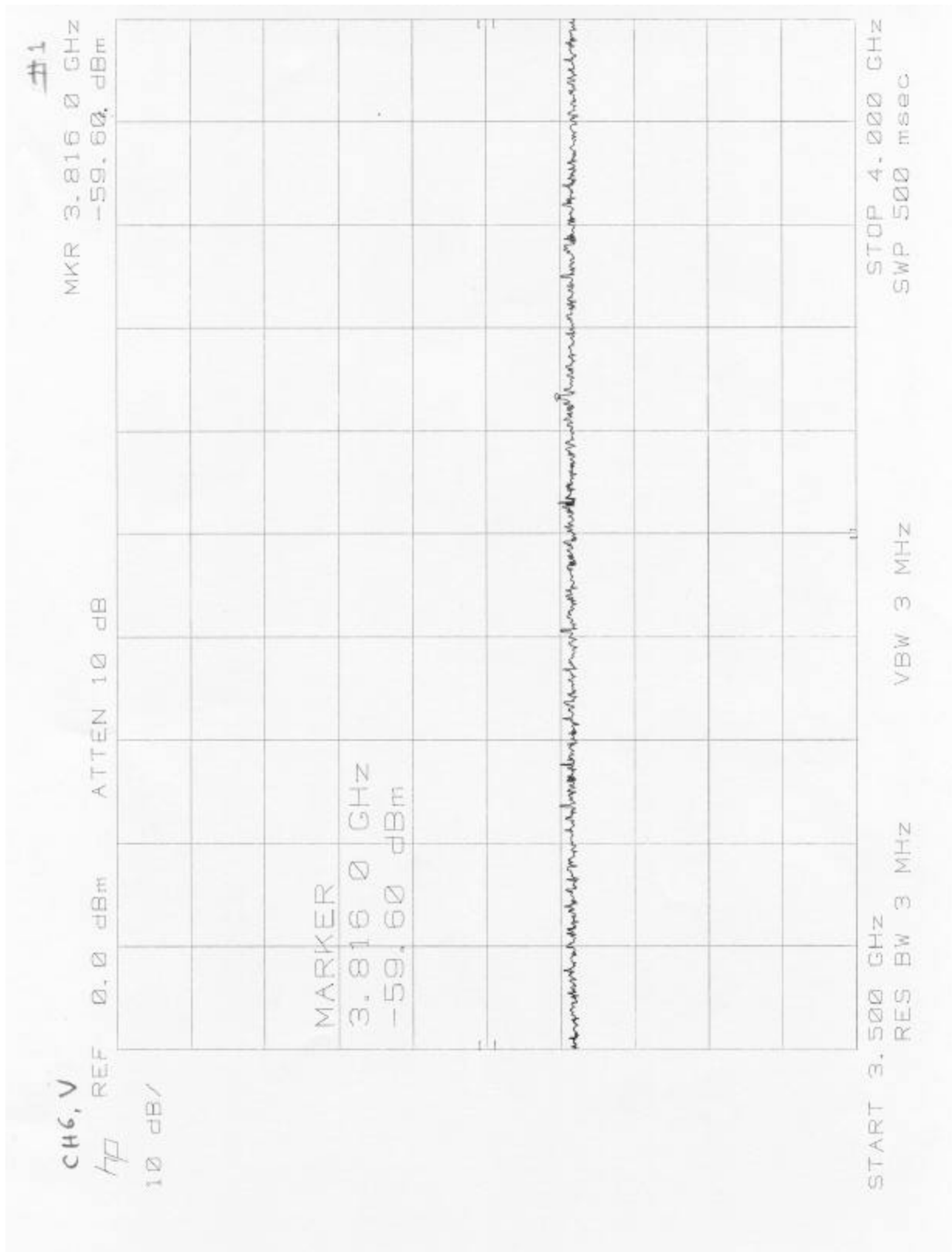


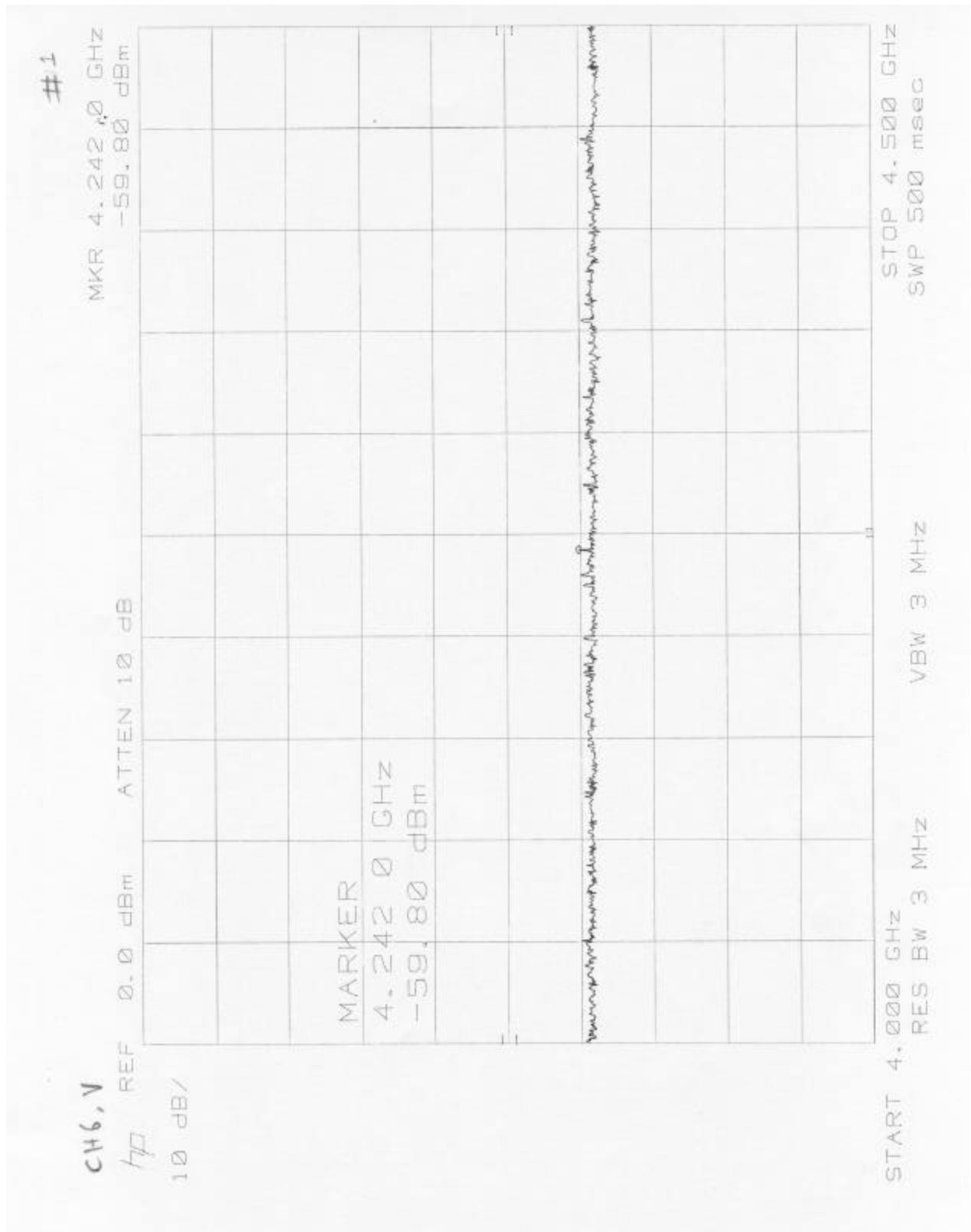


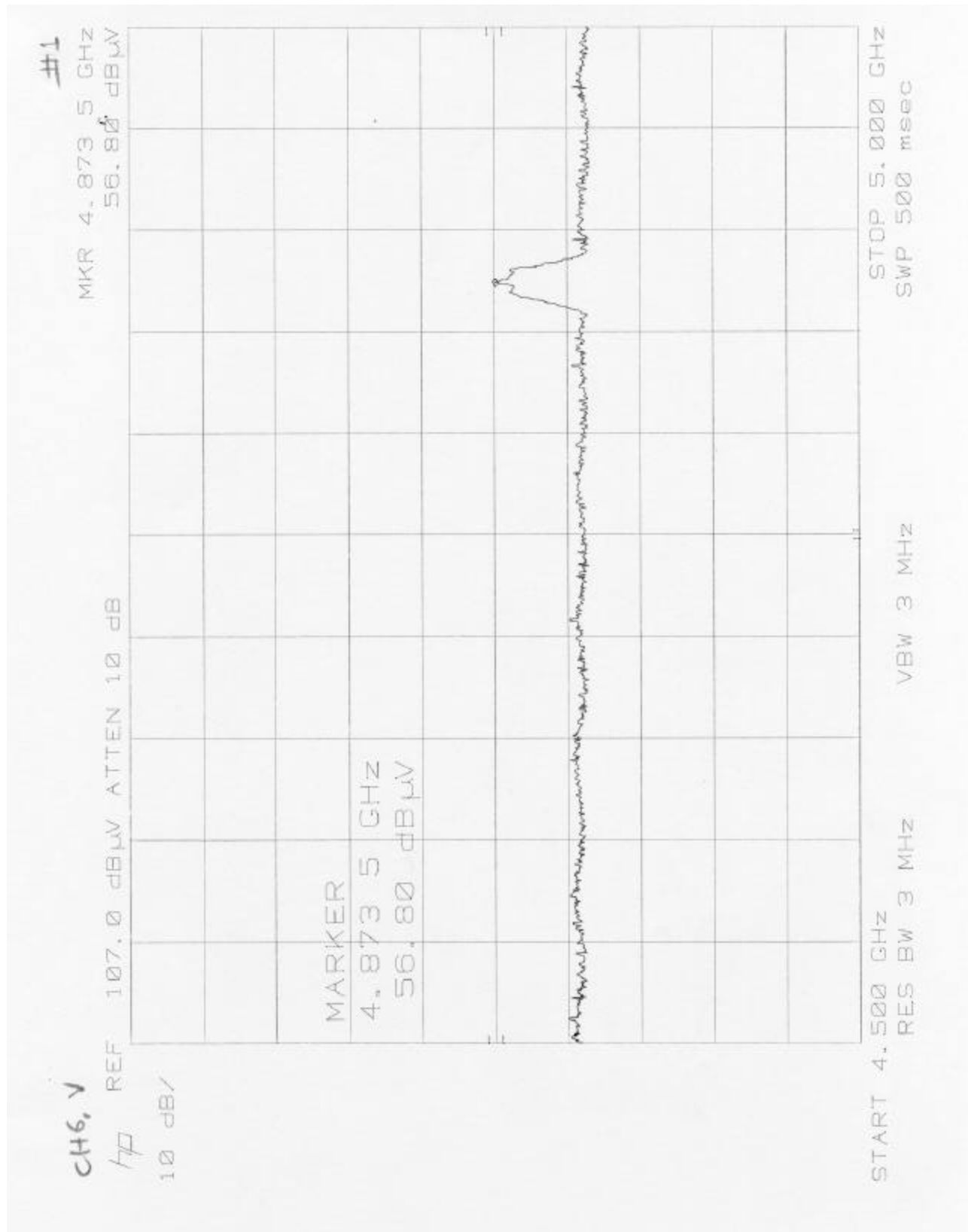


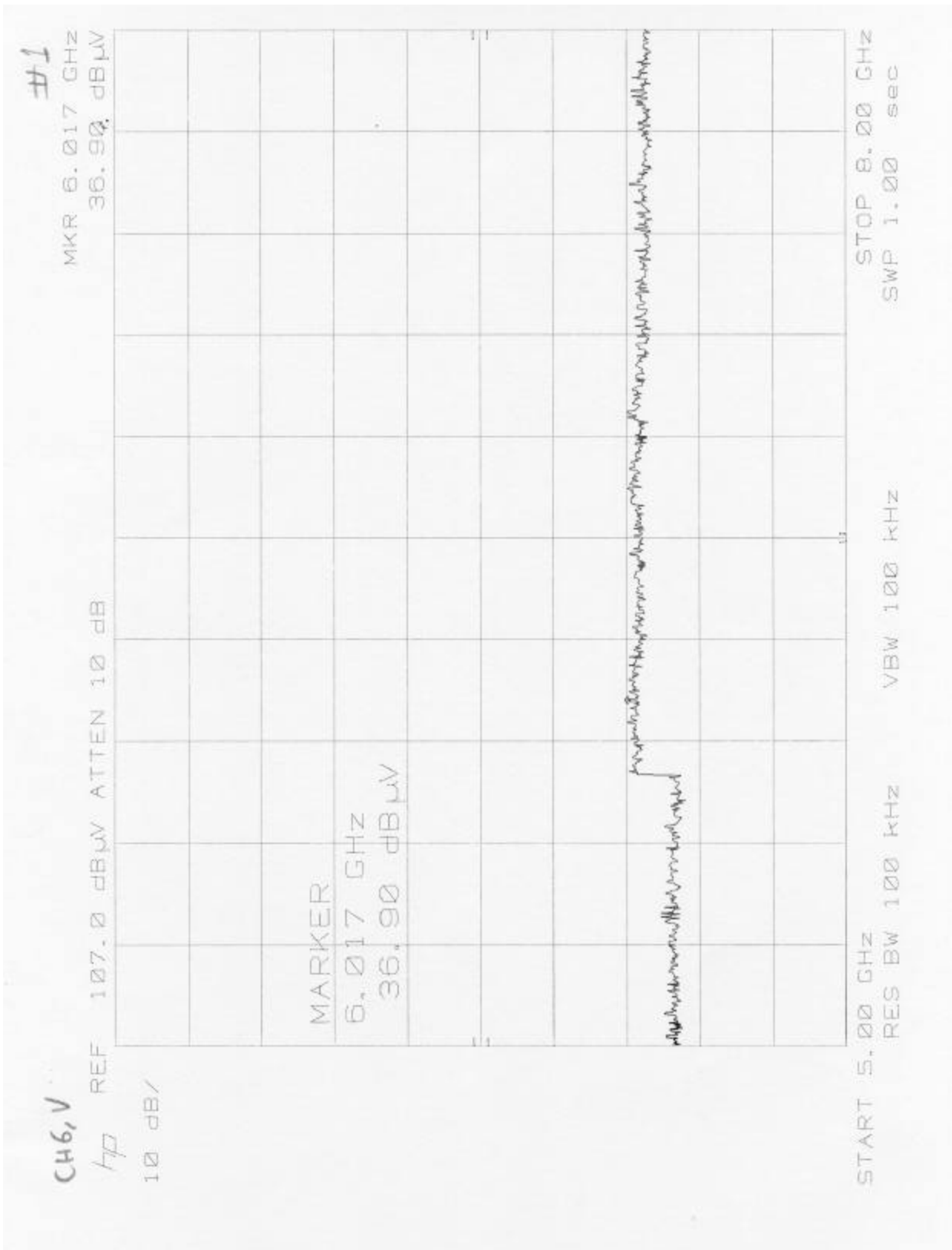


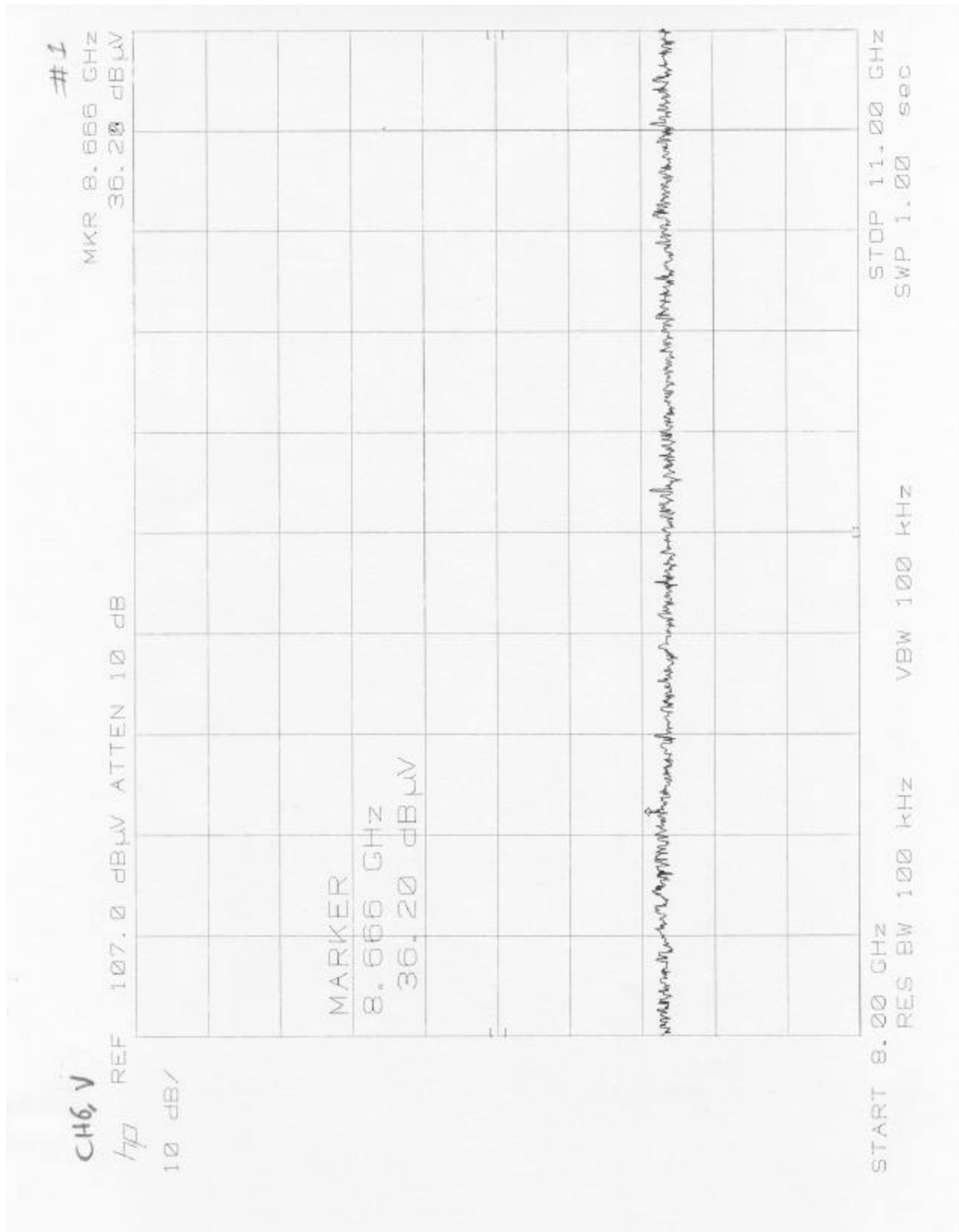


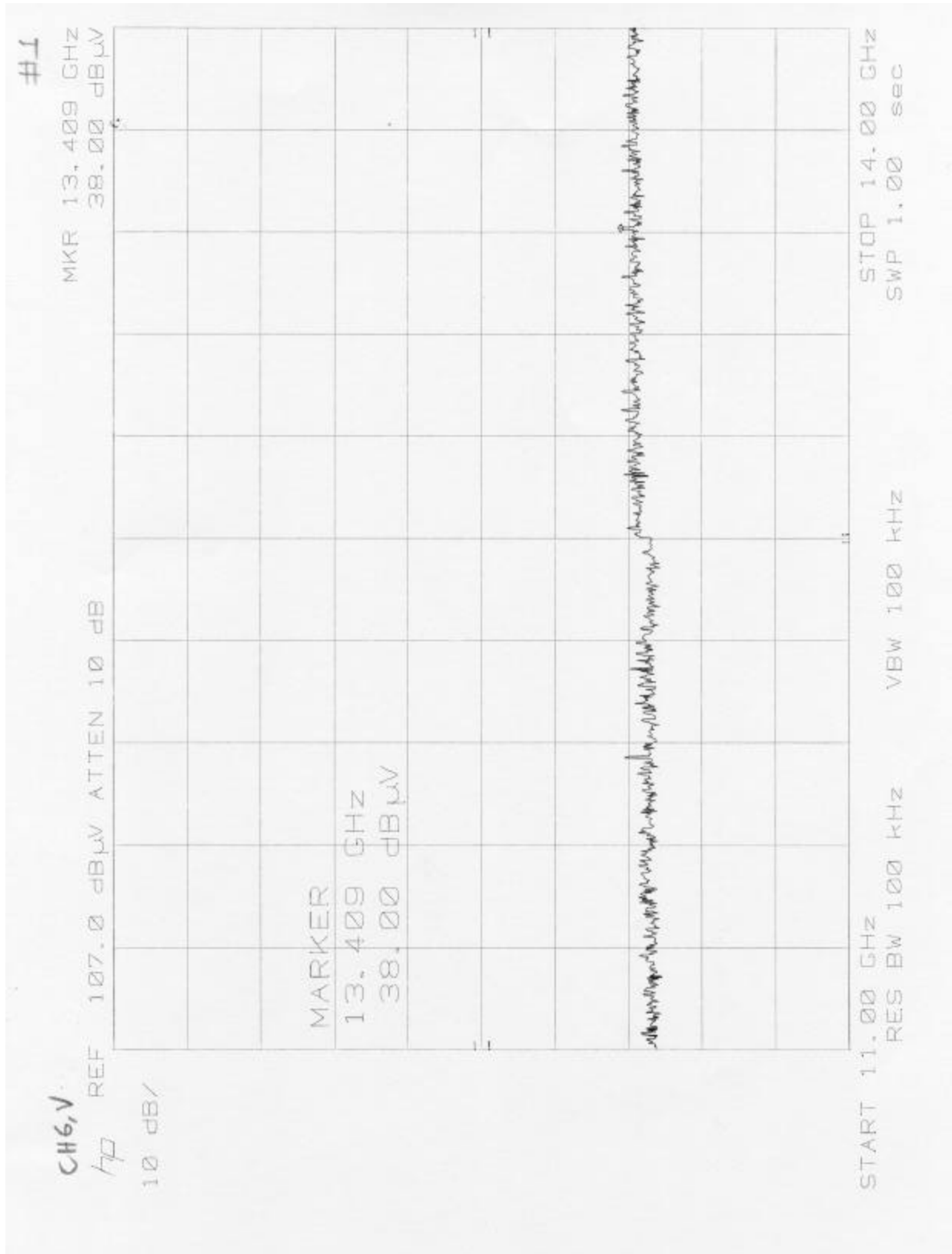


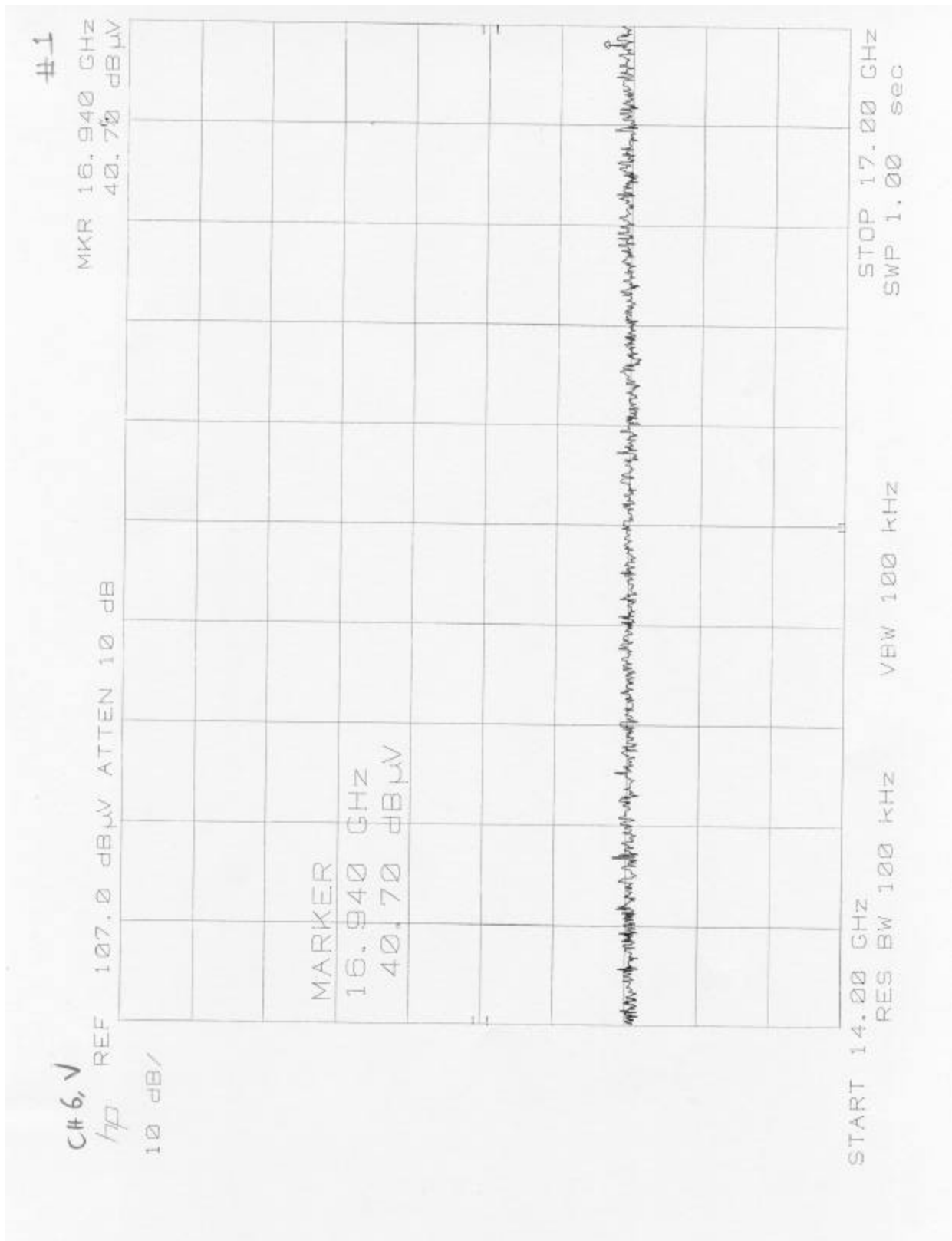


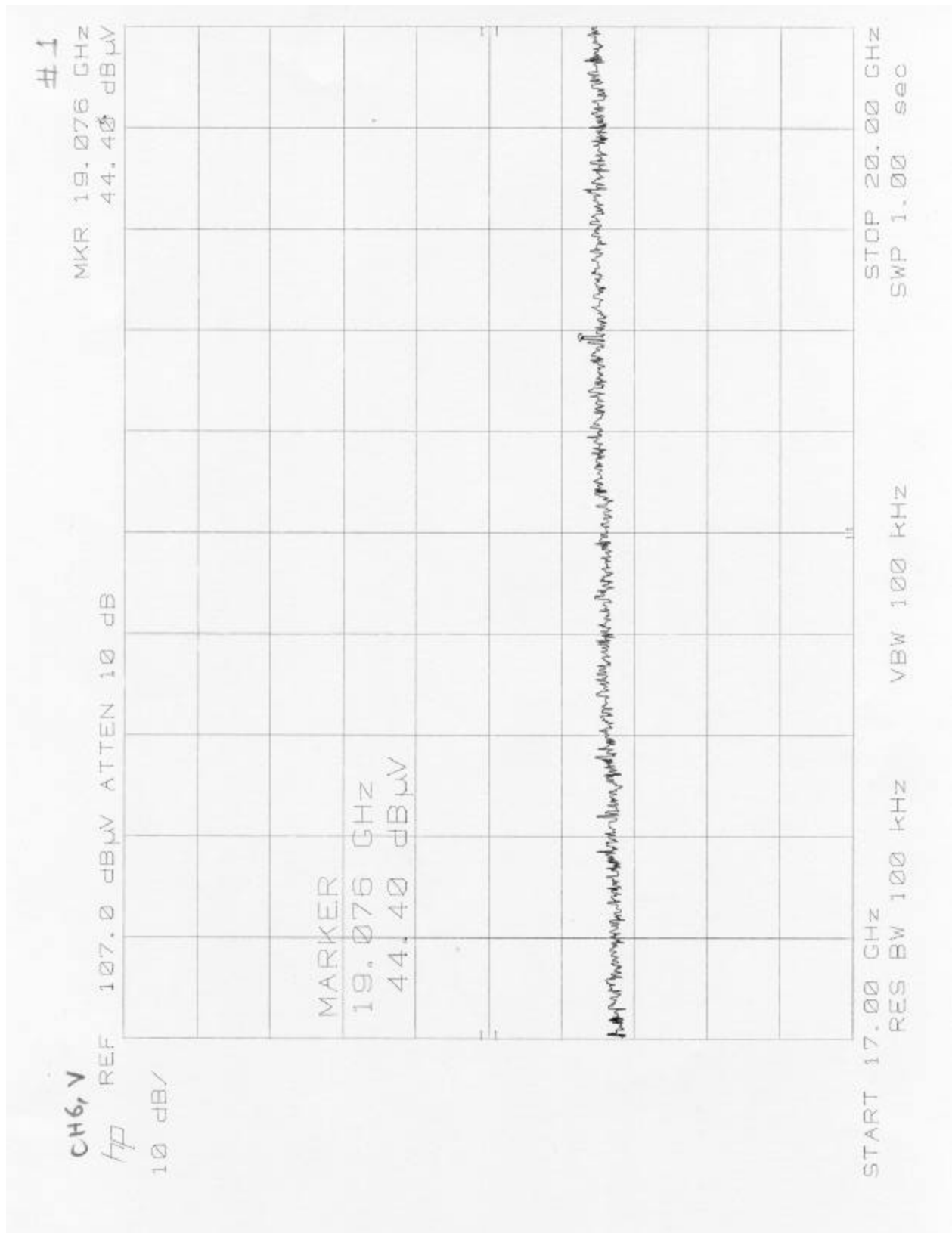


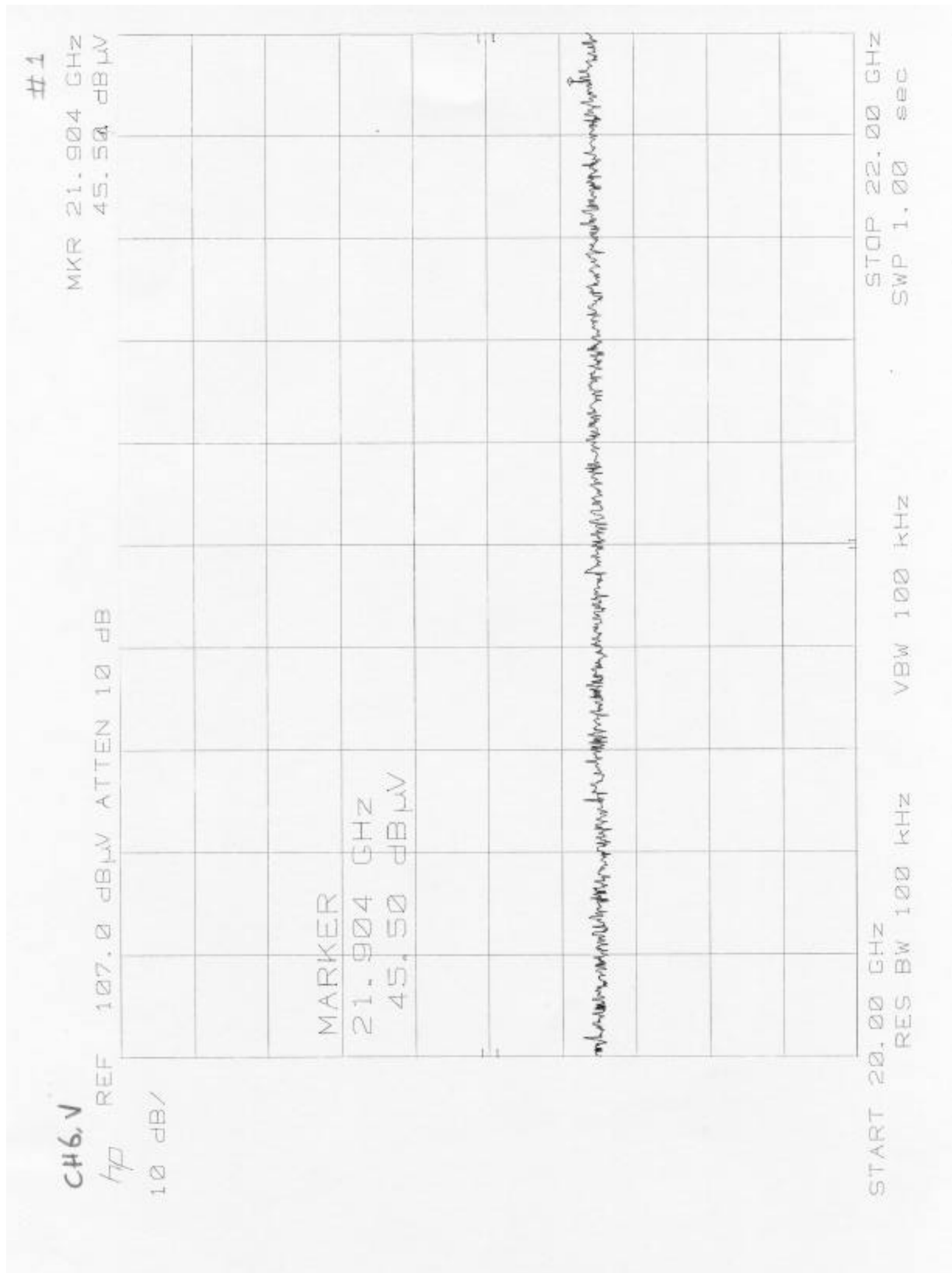


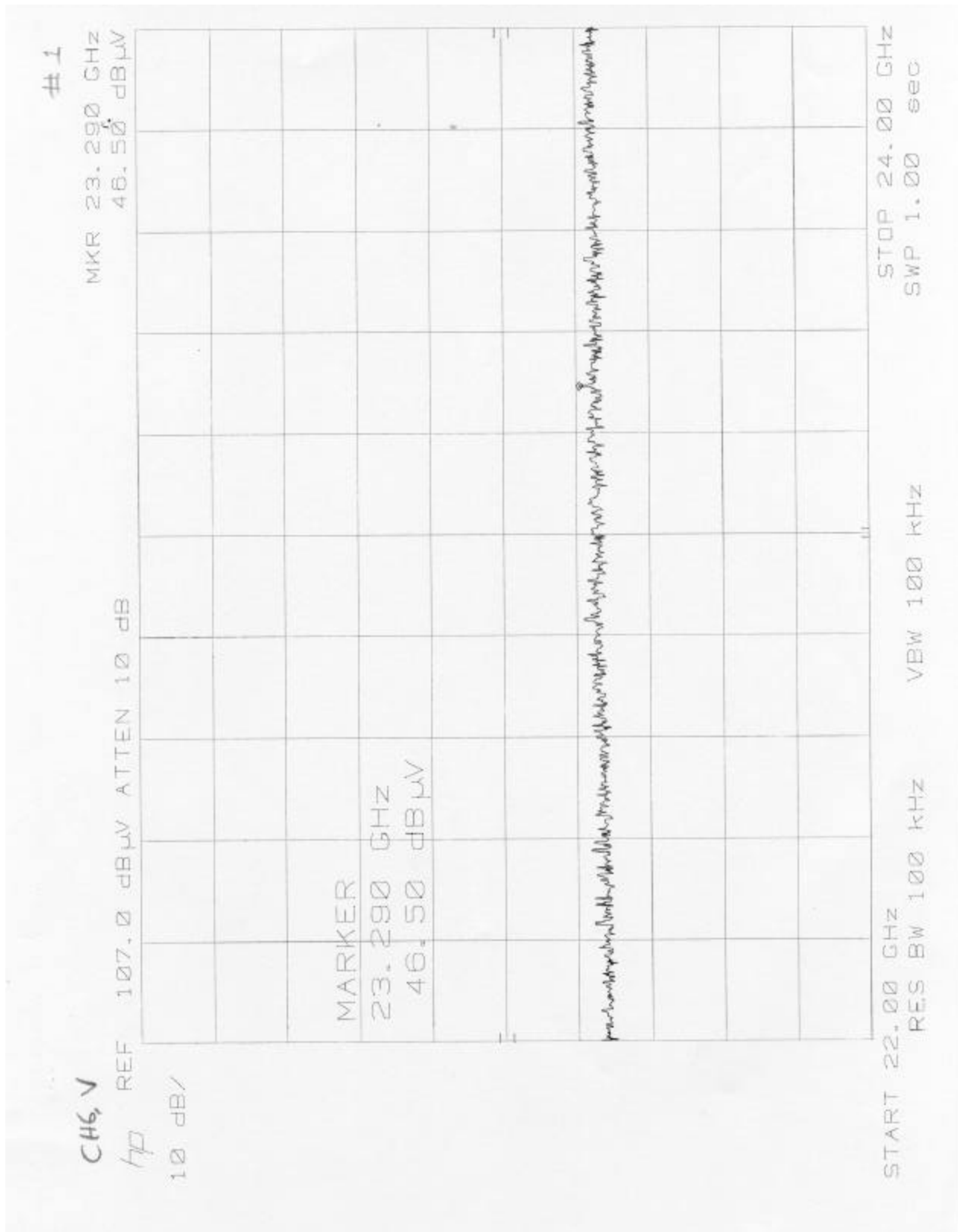




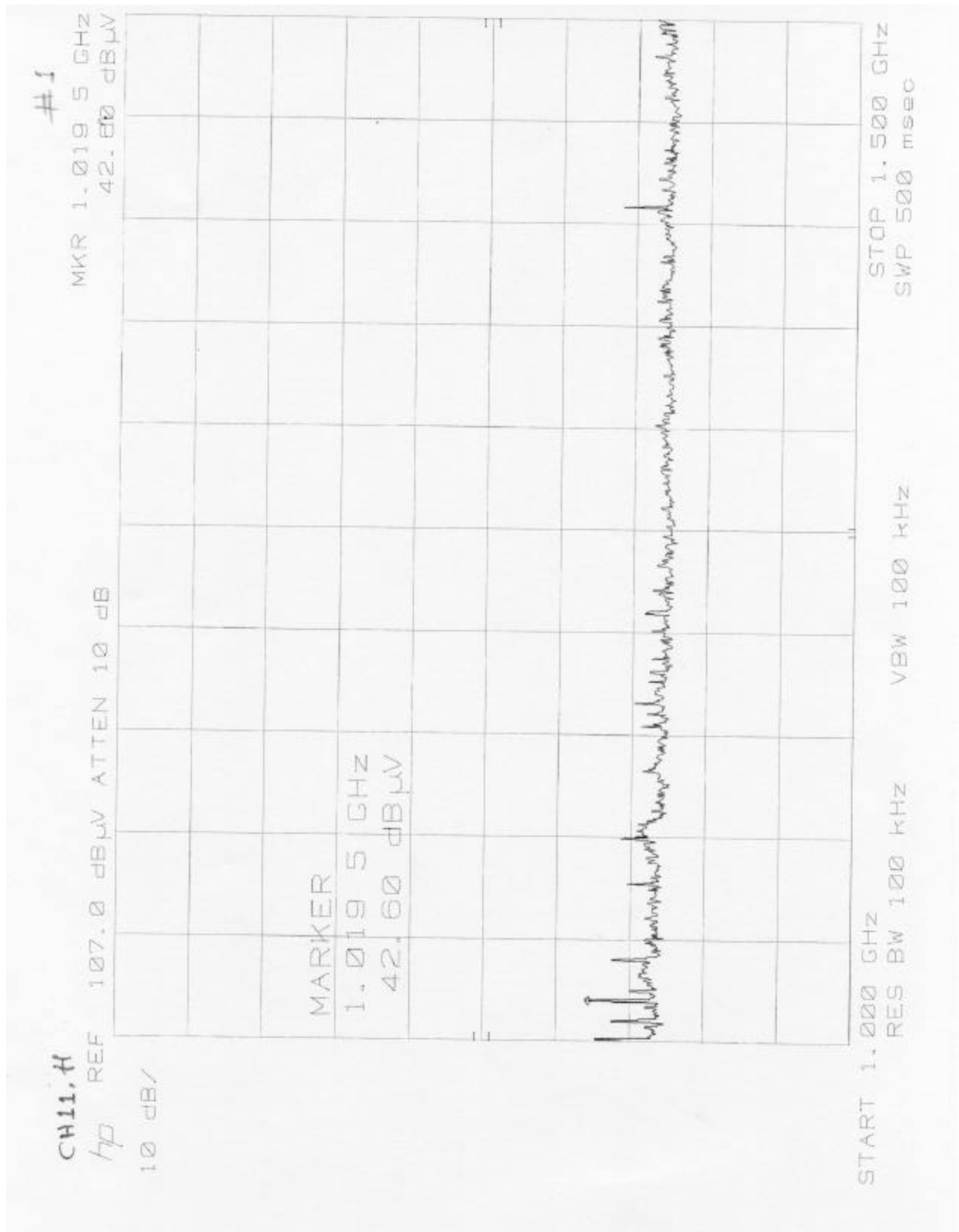


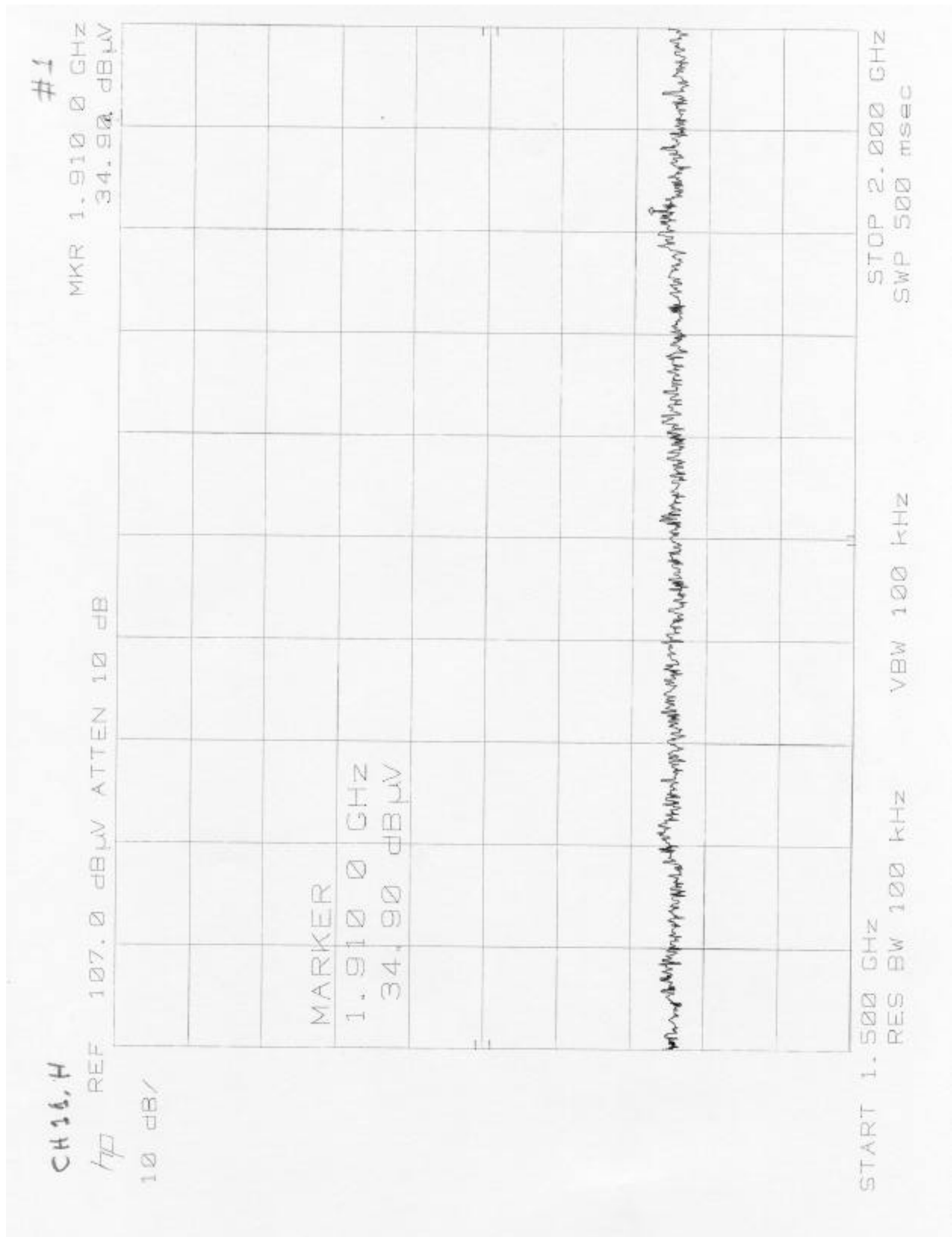


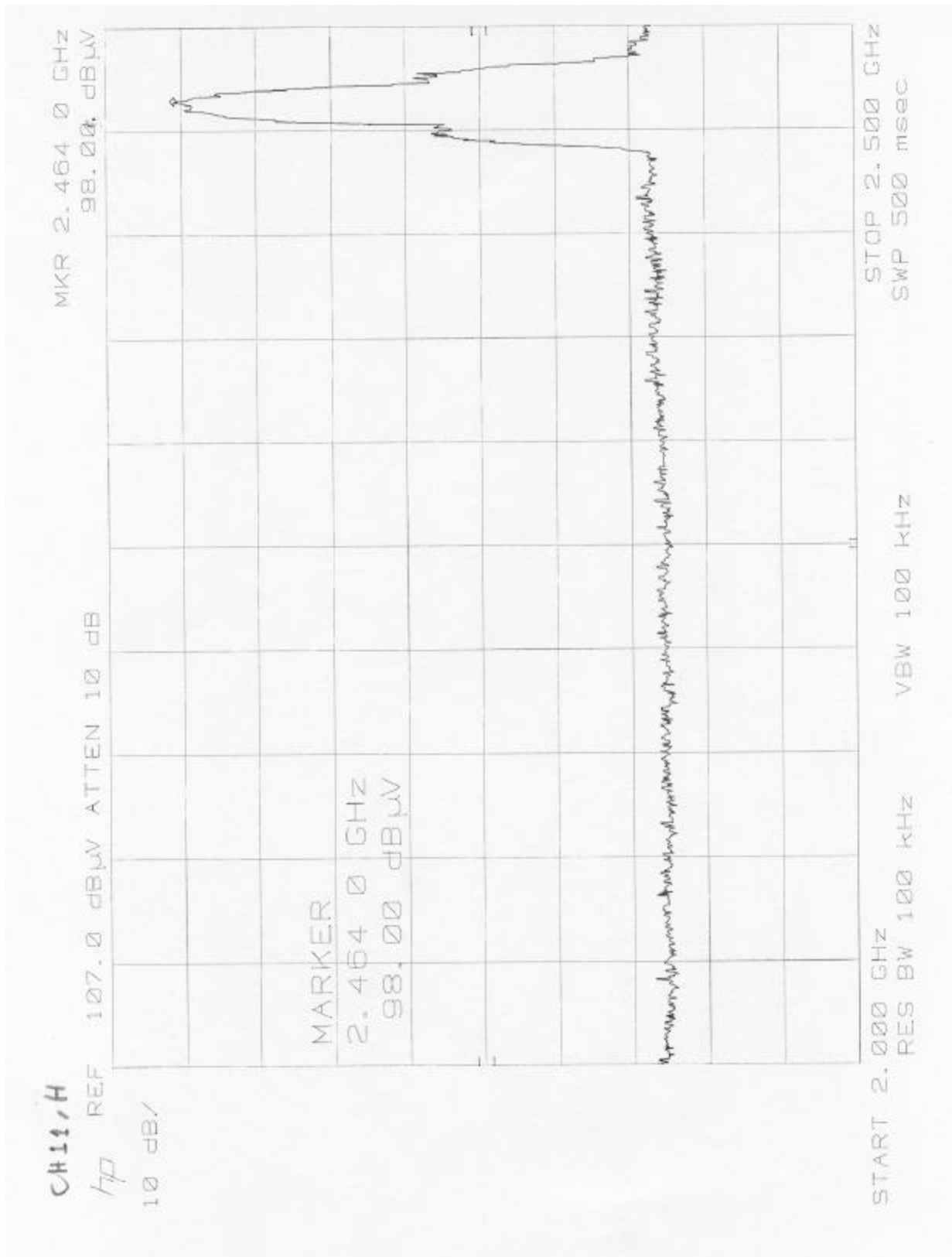


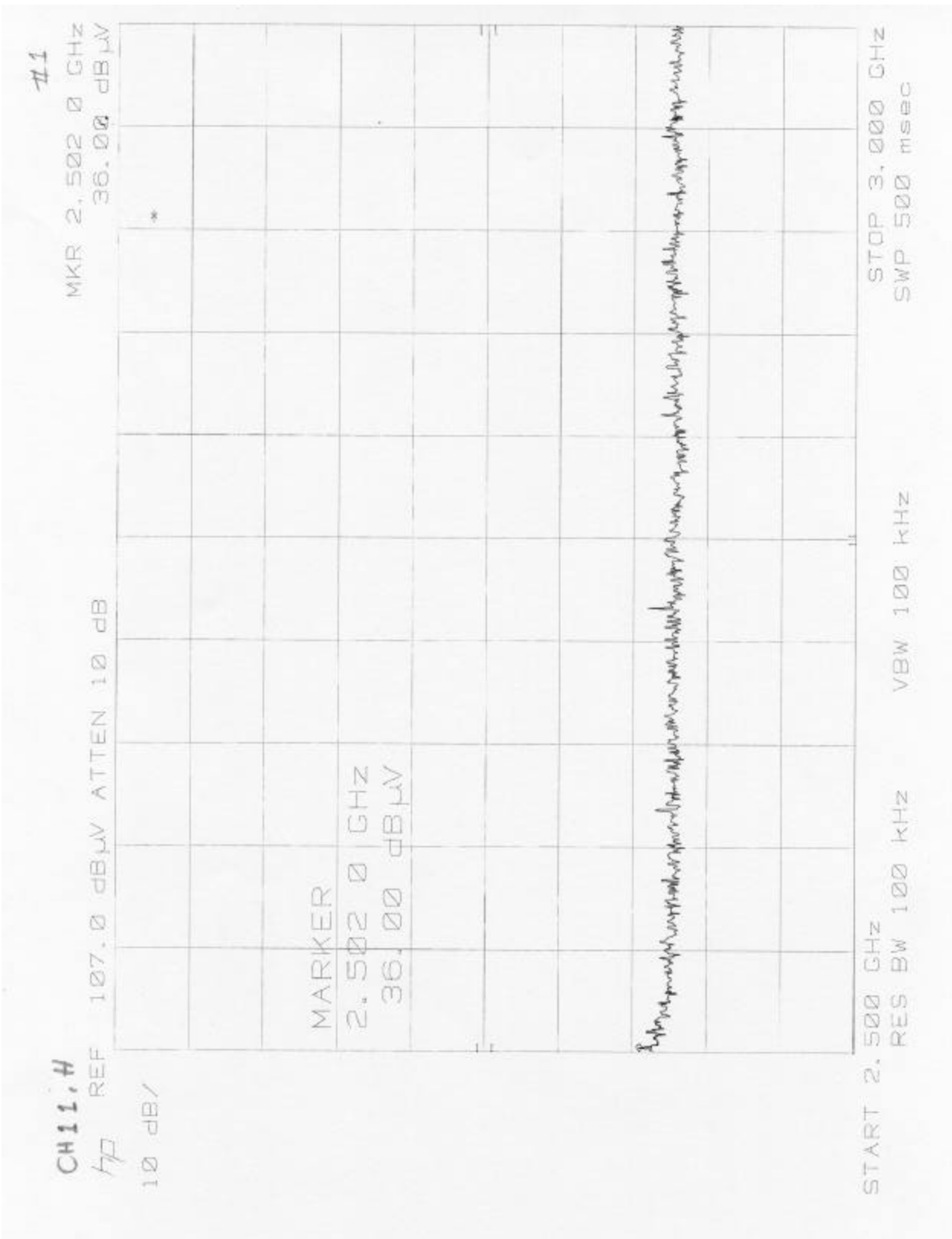


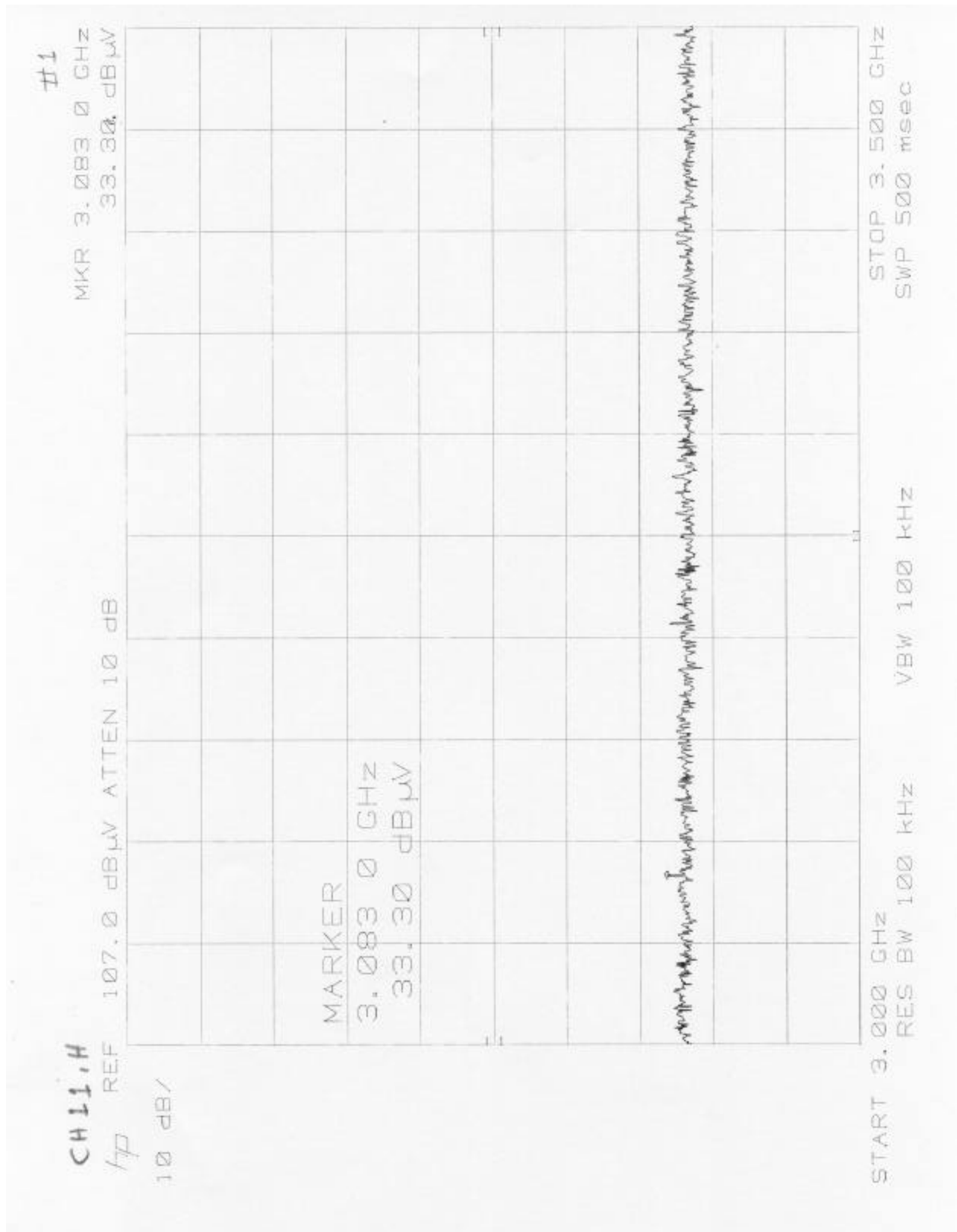
**Radiated Emissions Plots
(1 - 24) GHz - Horizontal Polarization
Radio Card installed in Dell Laptop Latitude C600, Model No. PP01L
Channel 11**

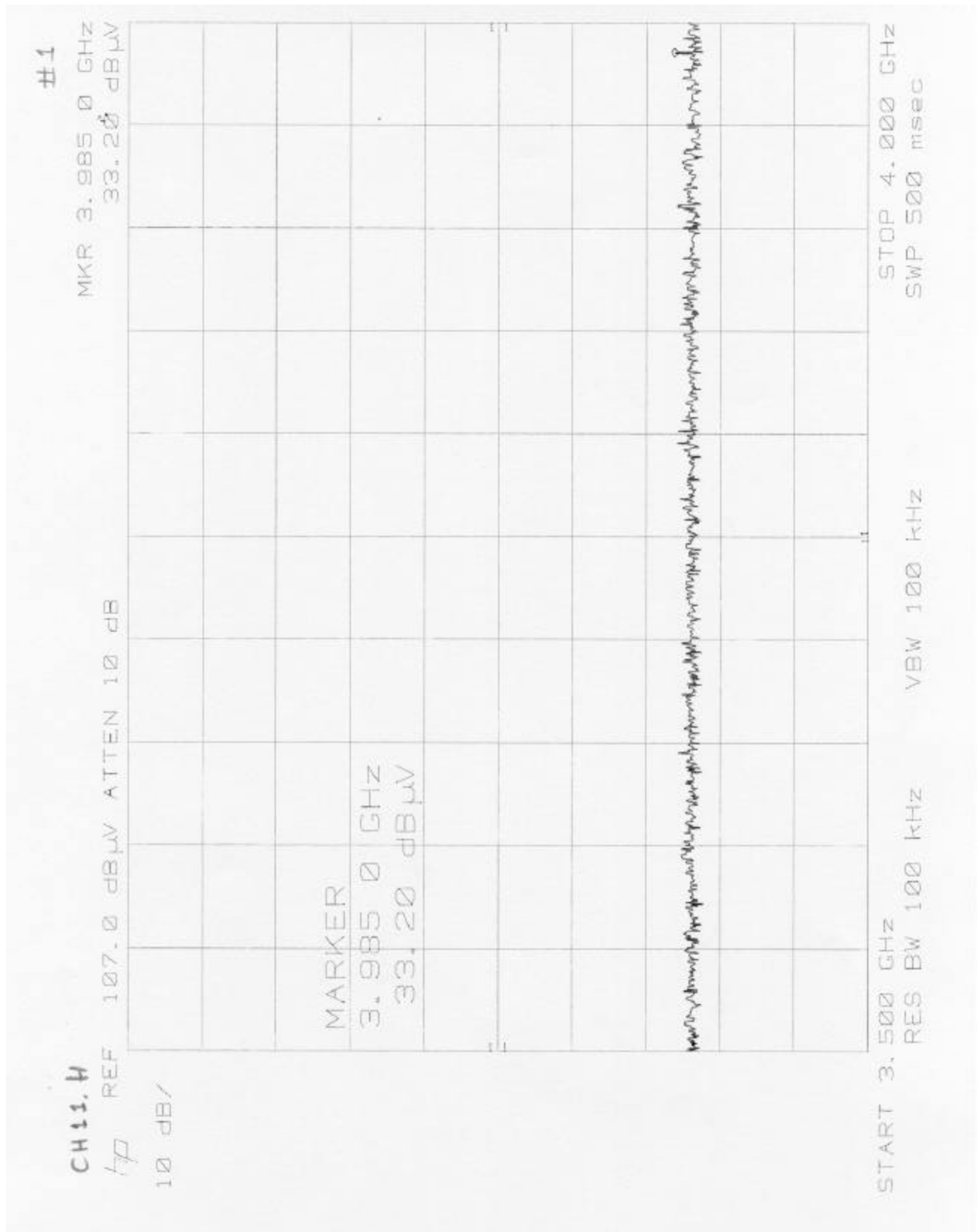


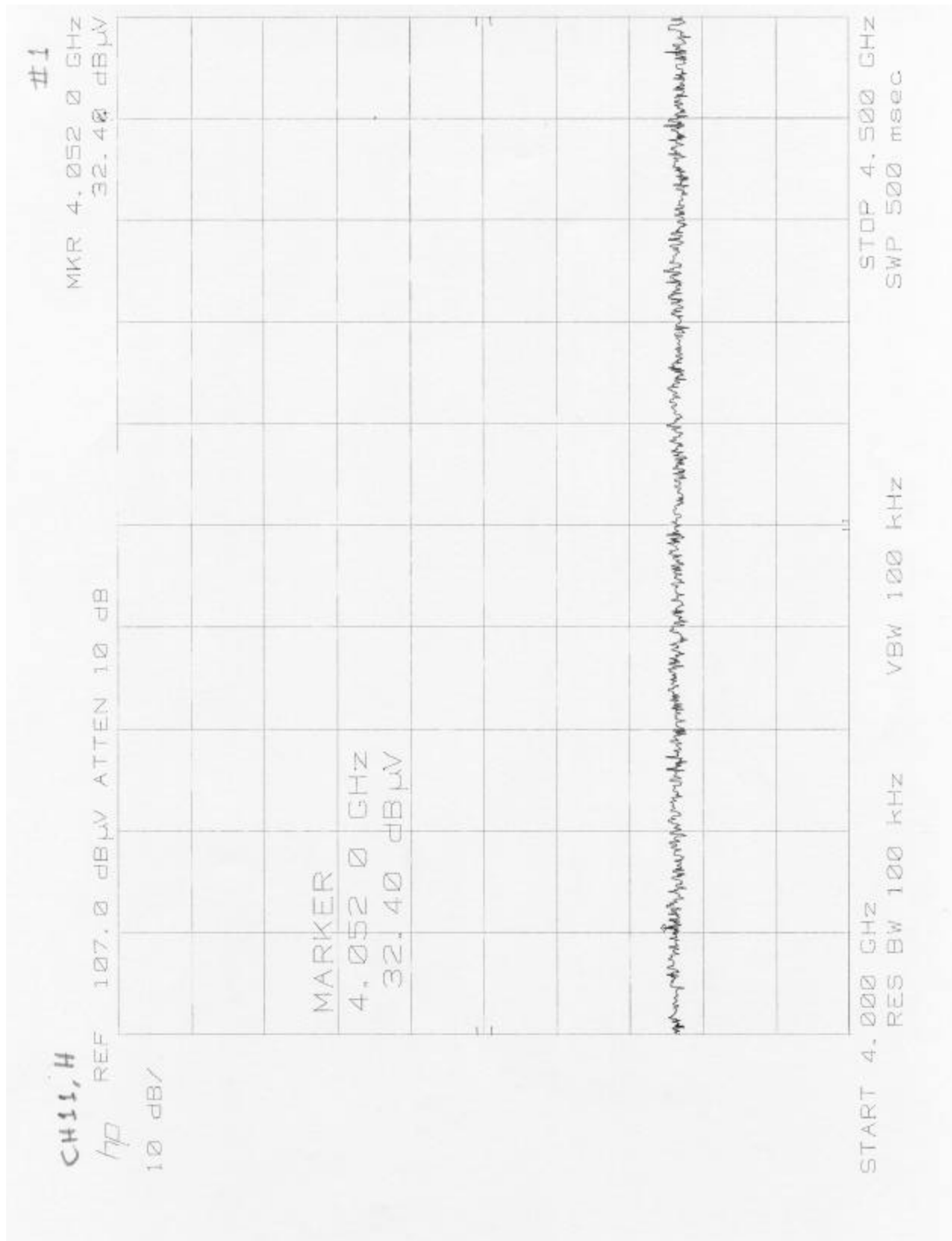


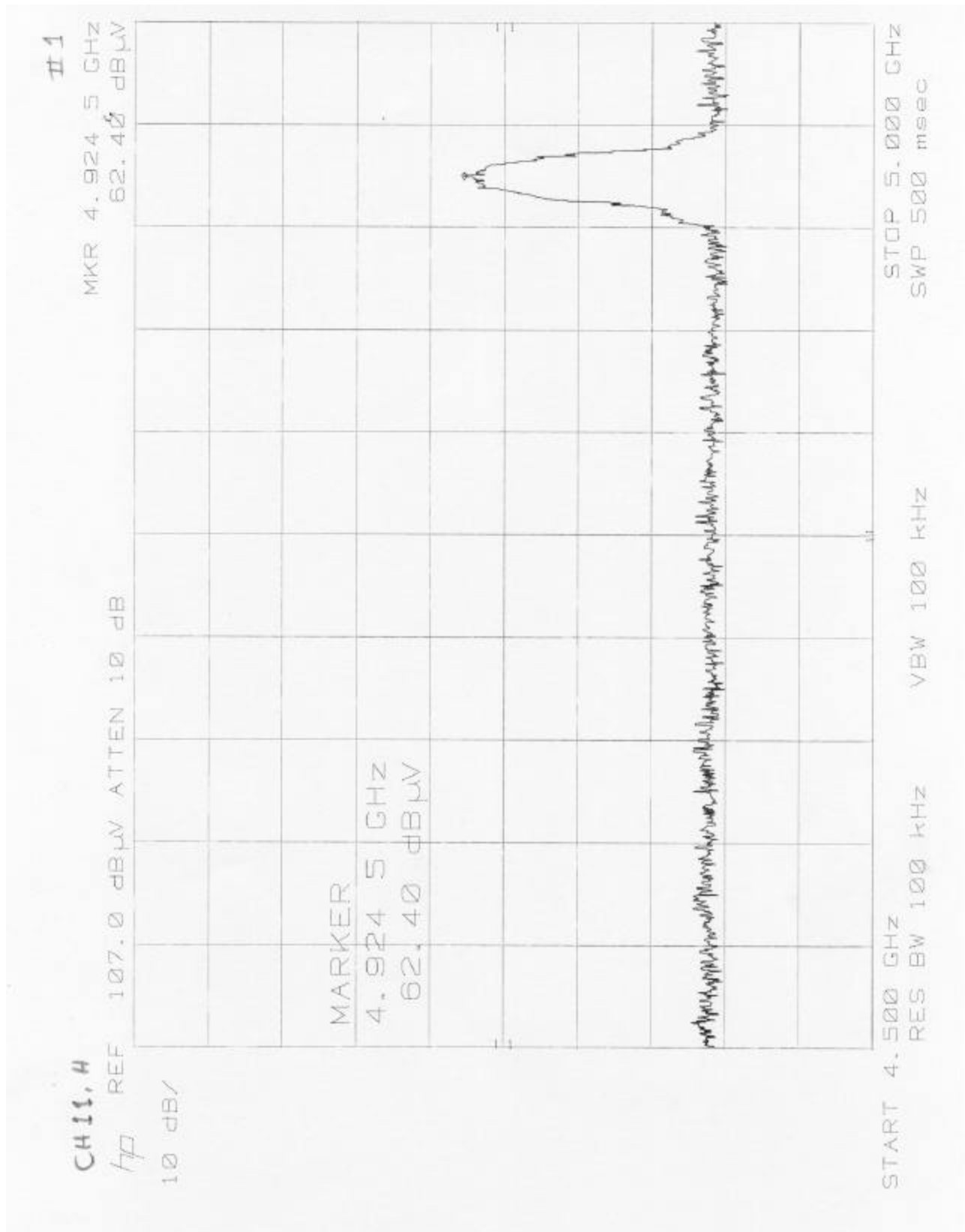


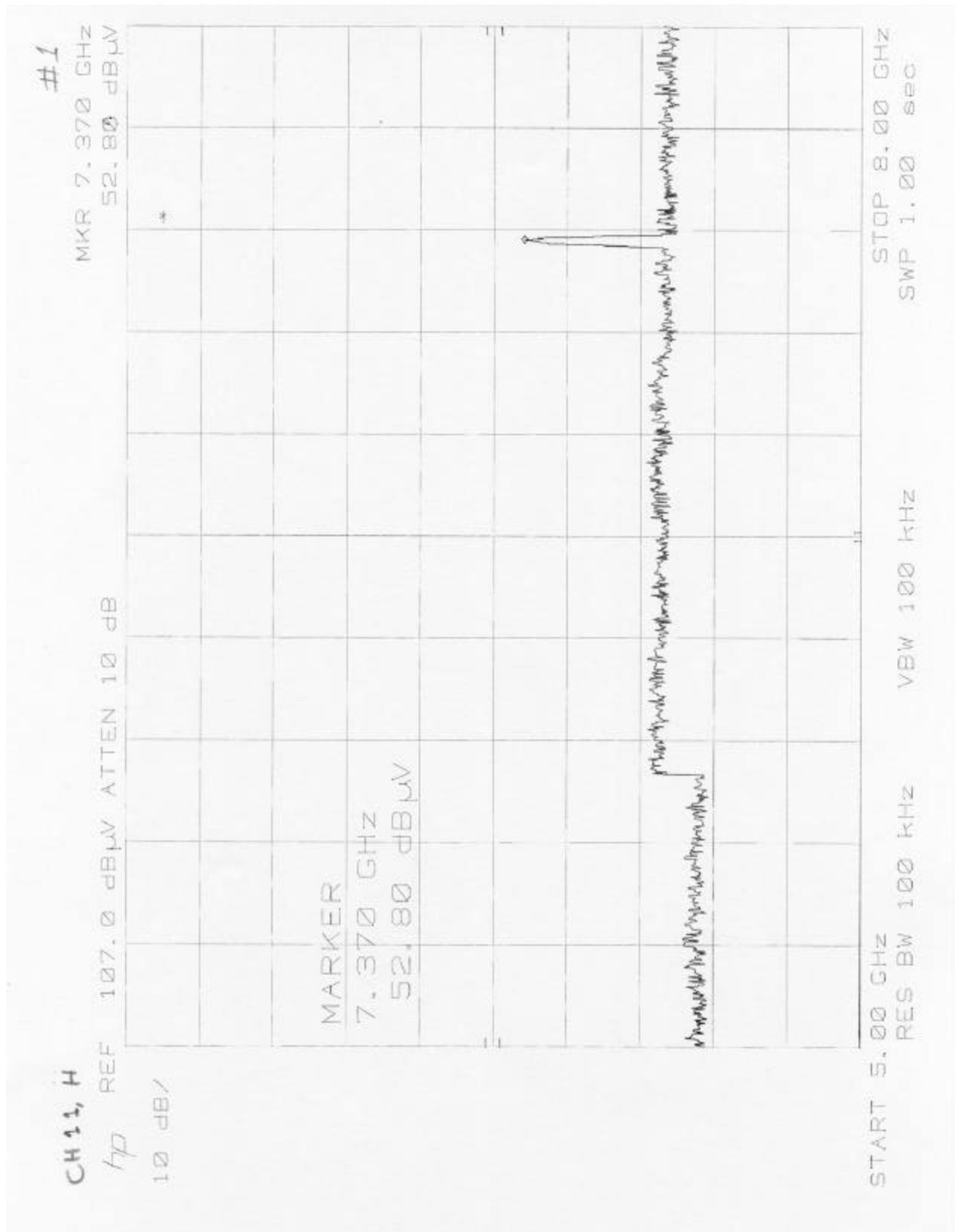


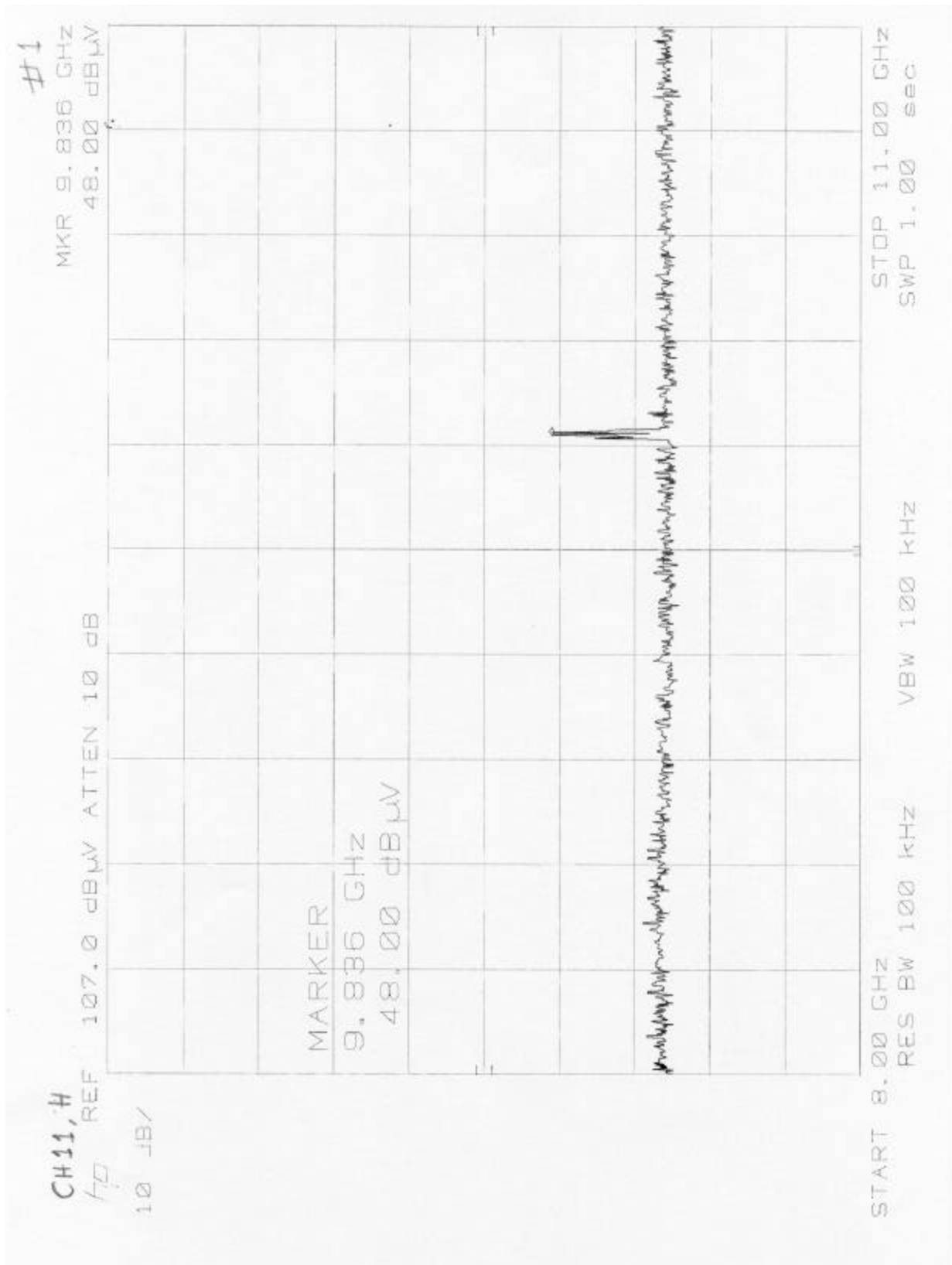


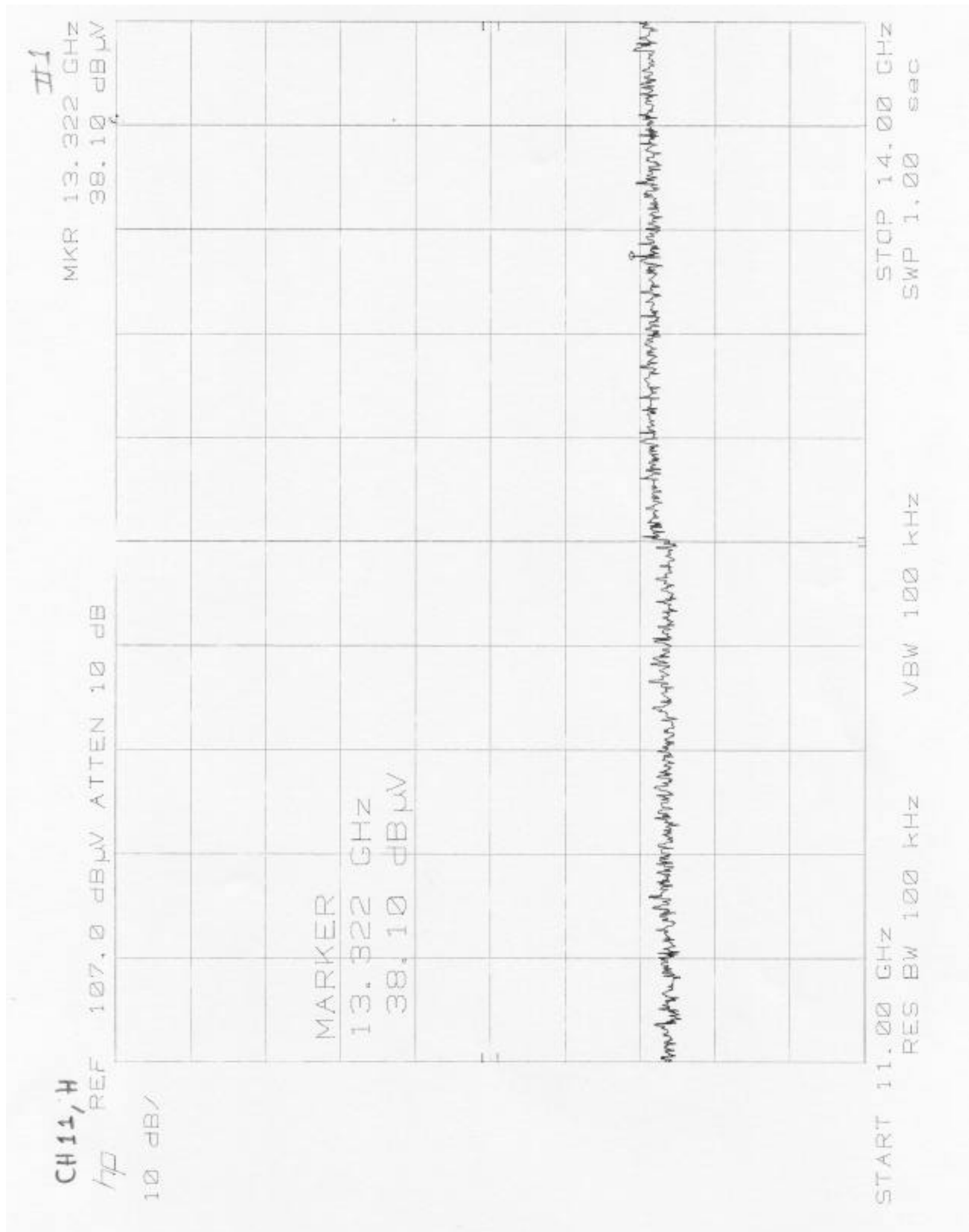


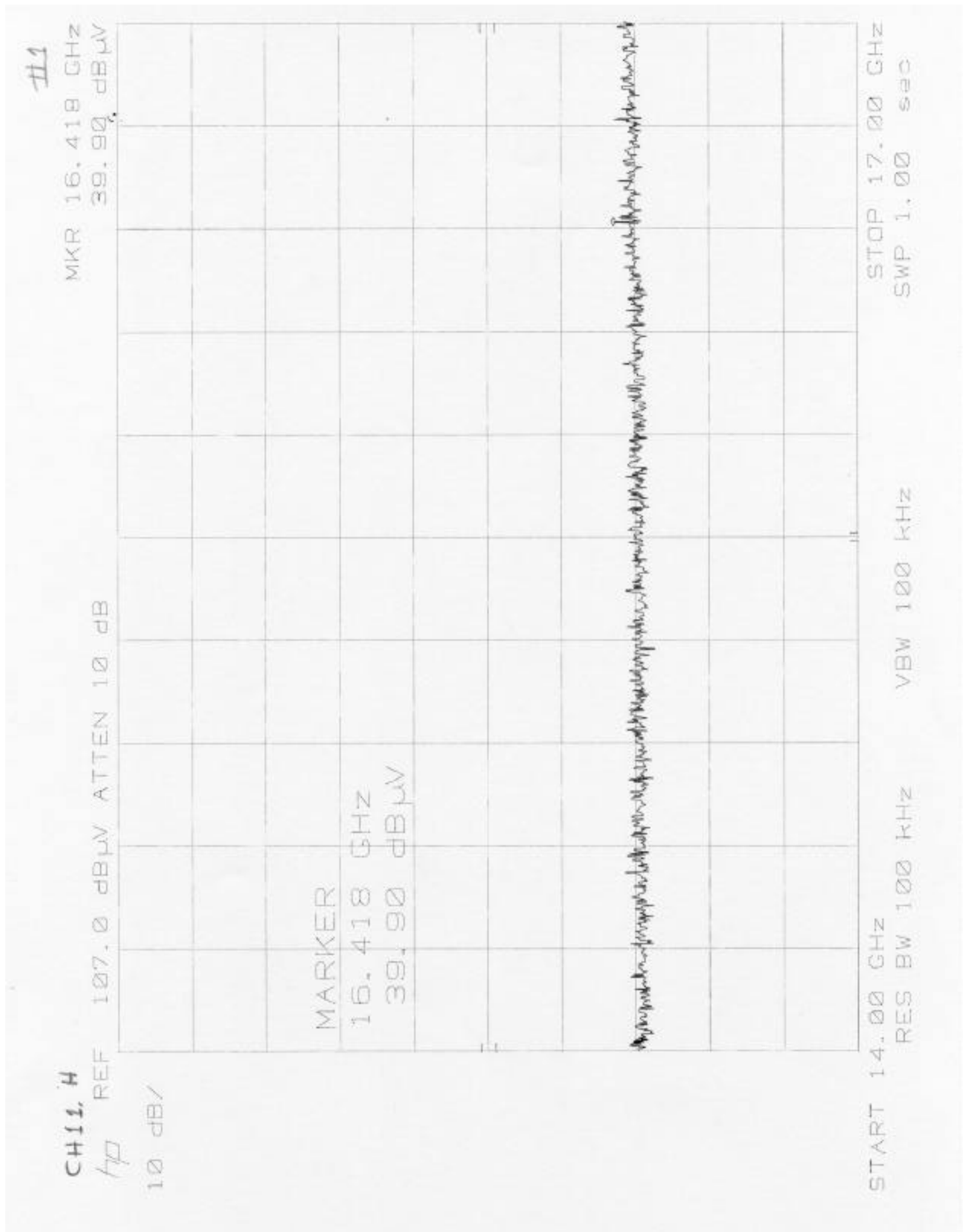


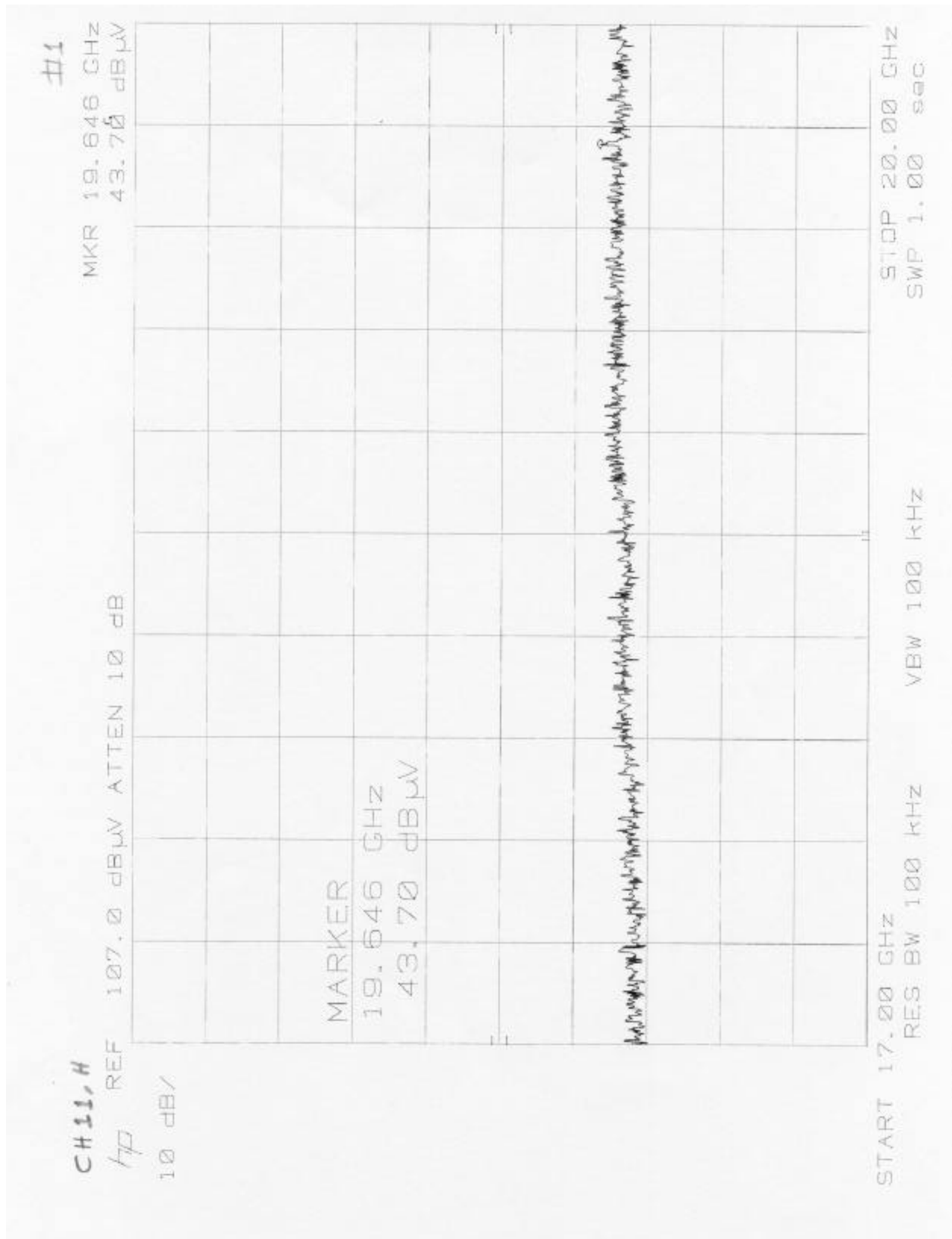


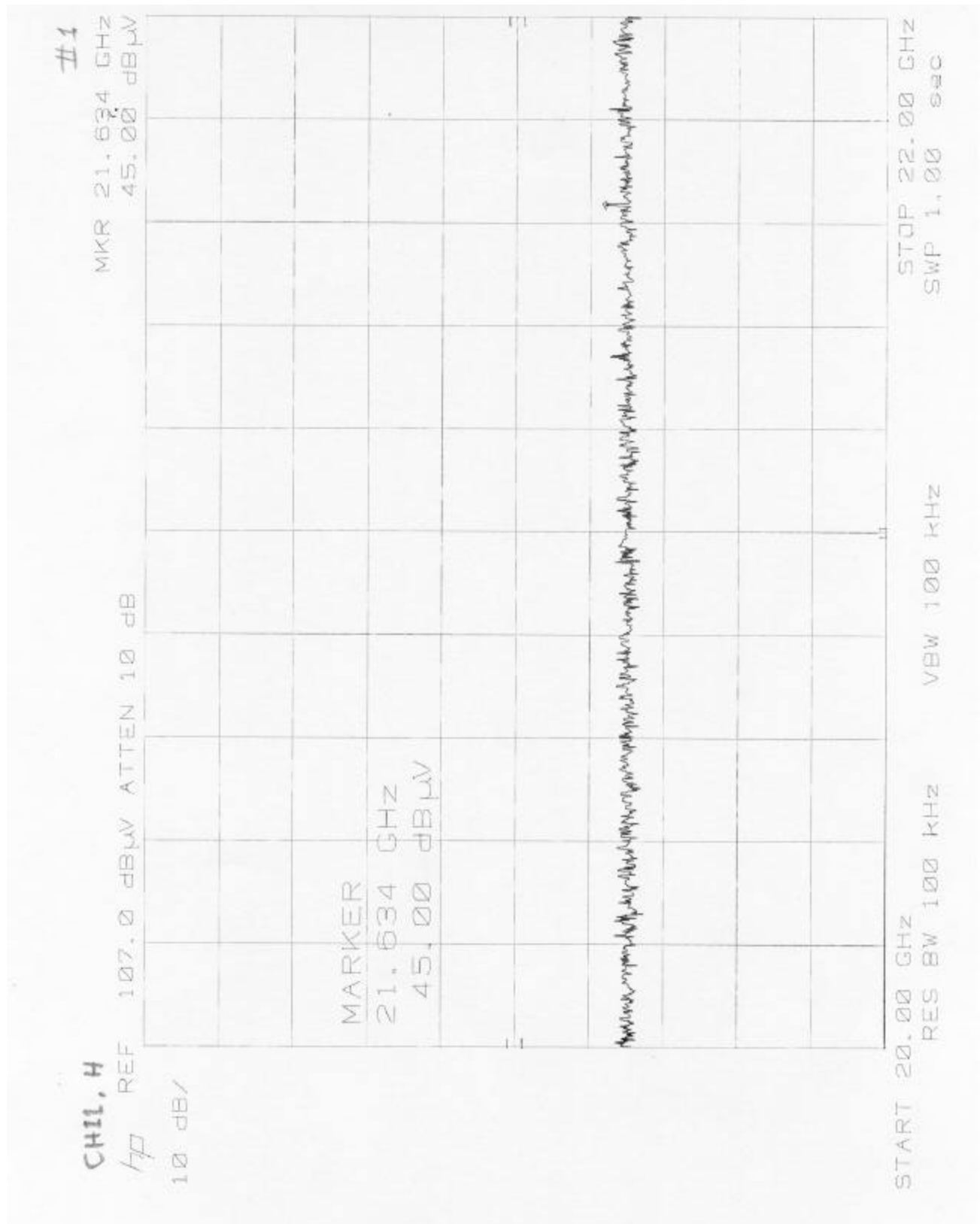


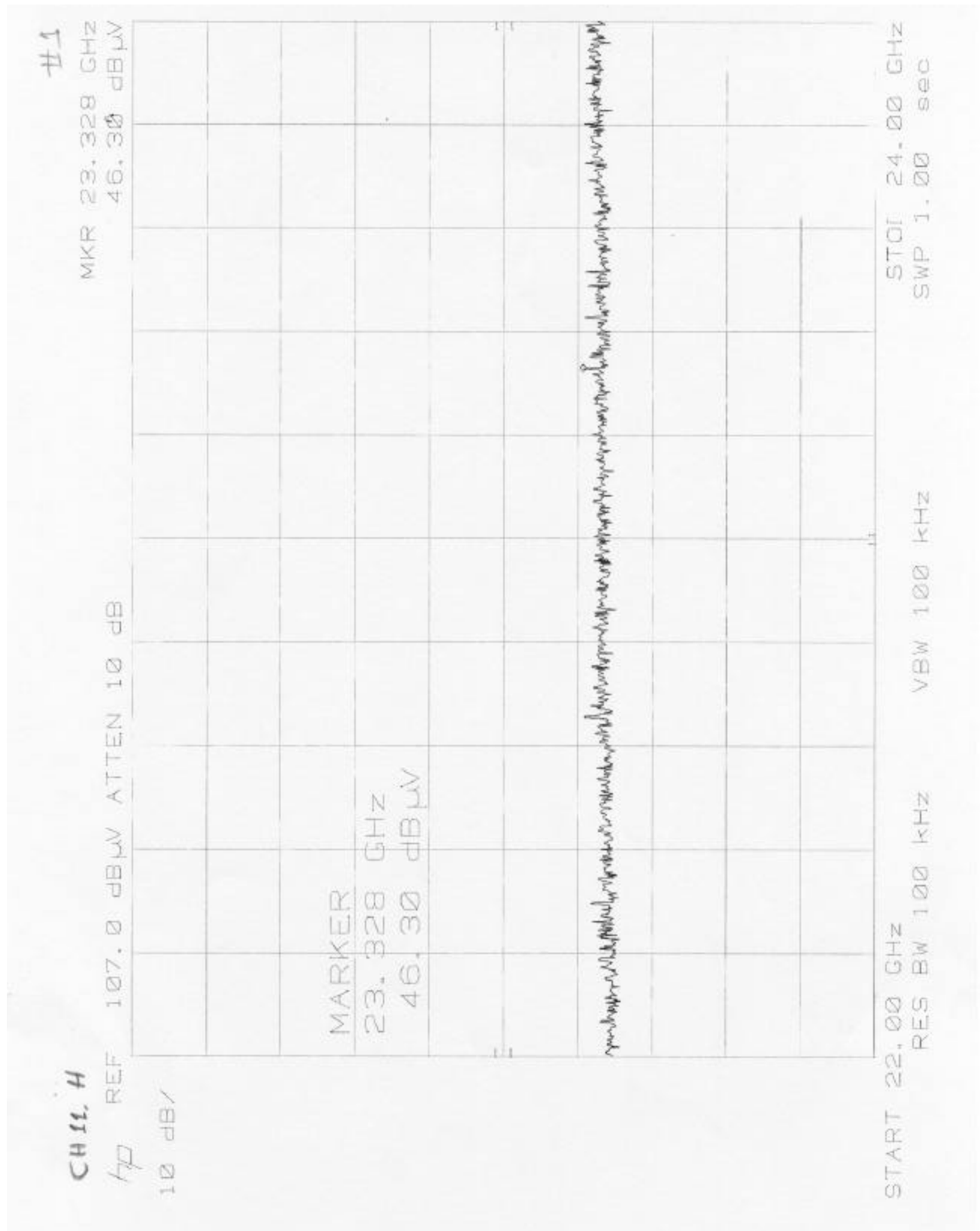






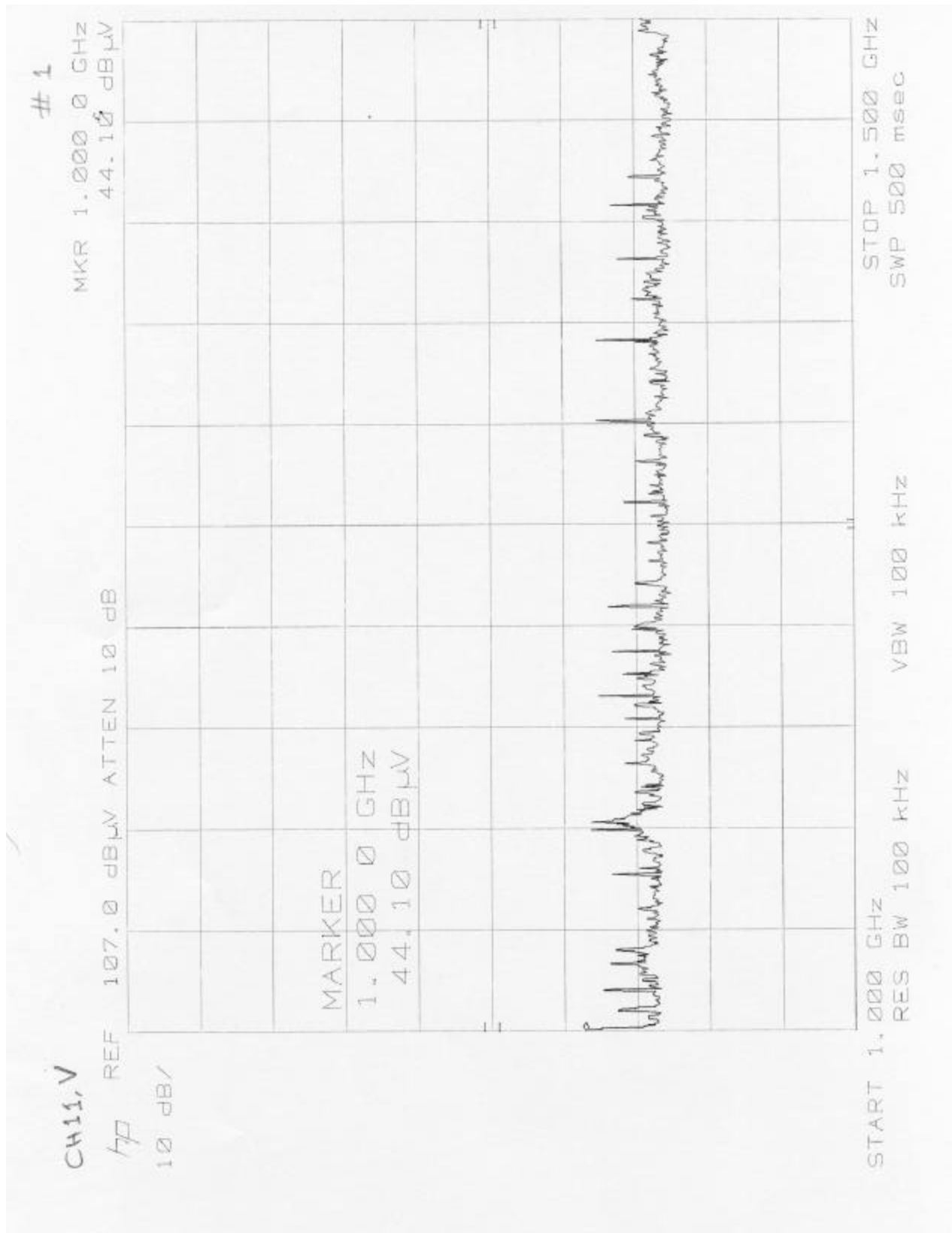


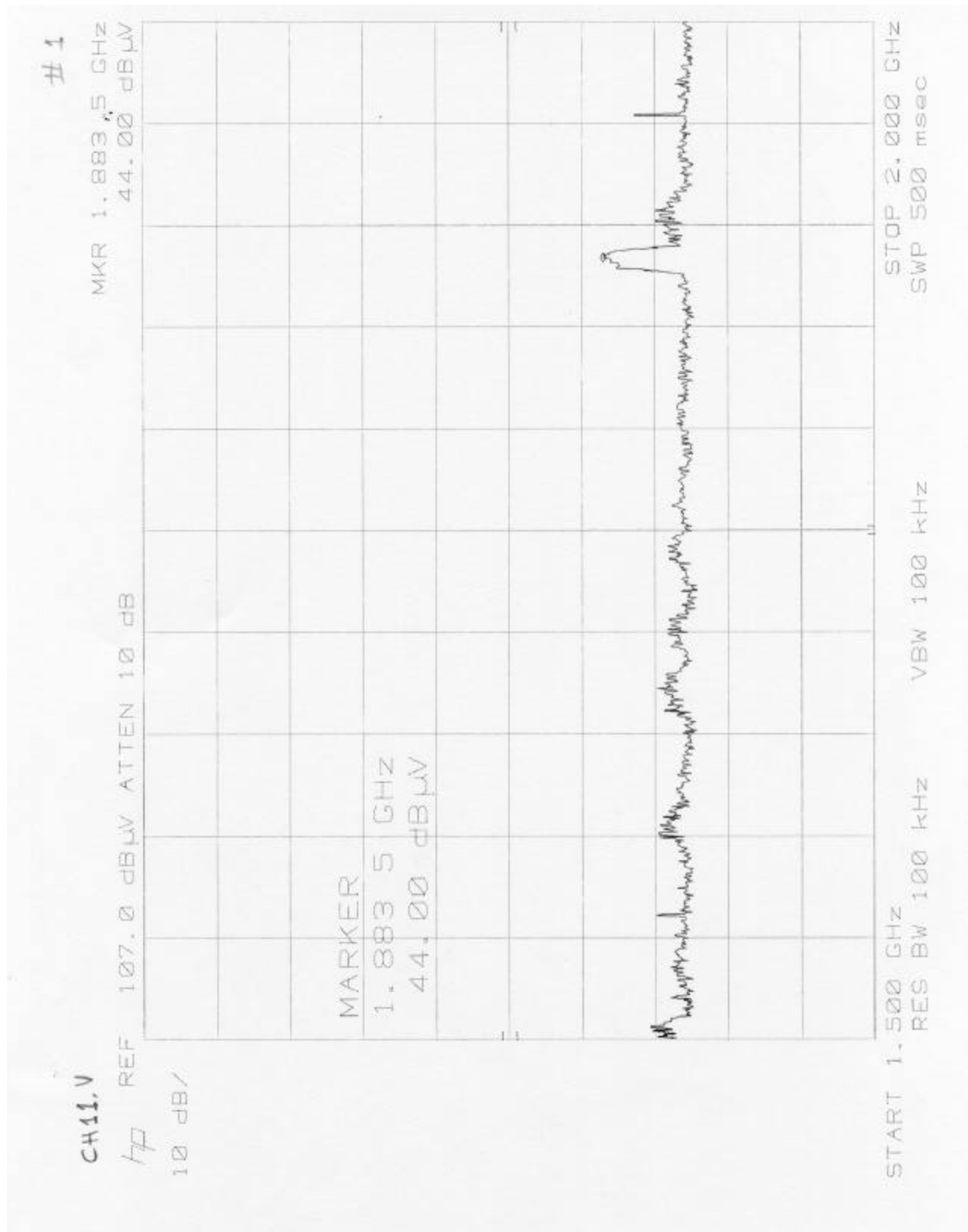


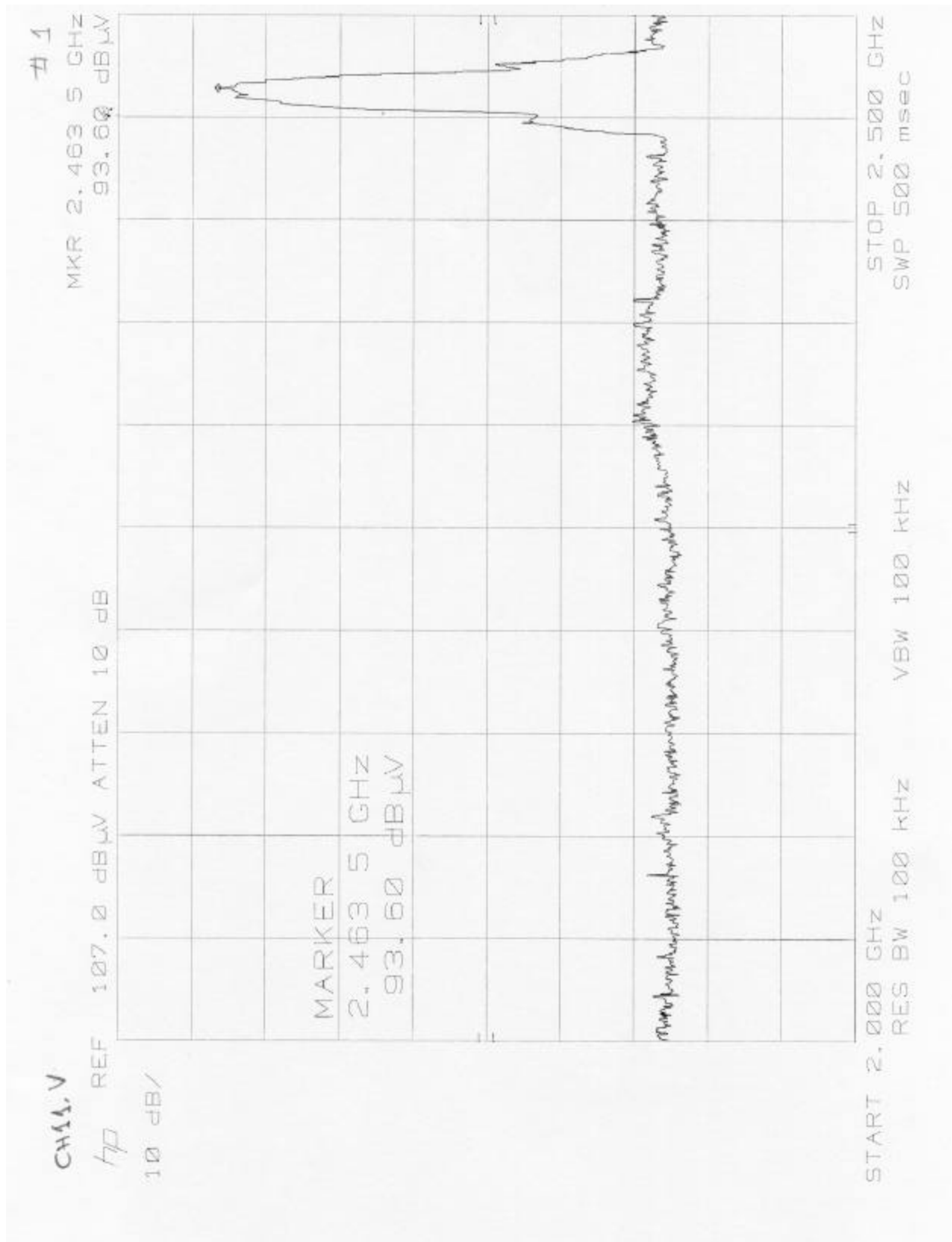


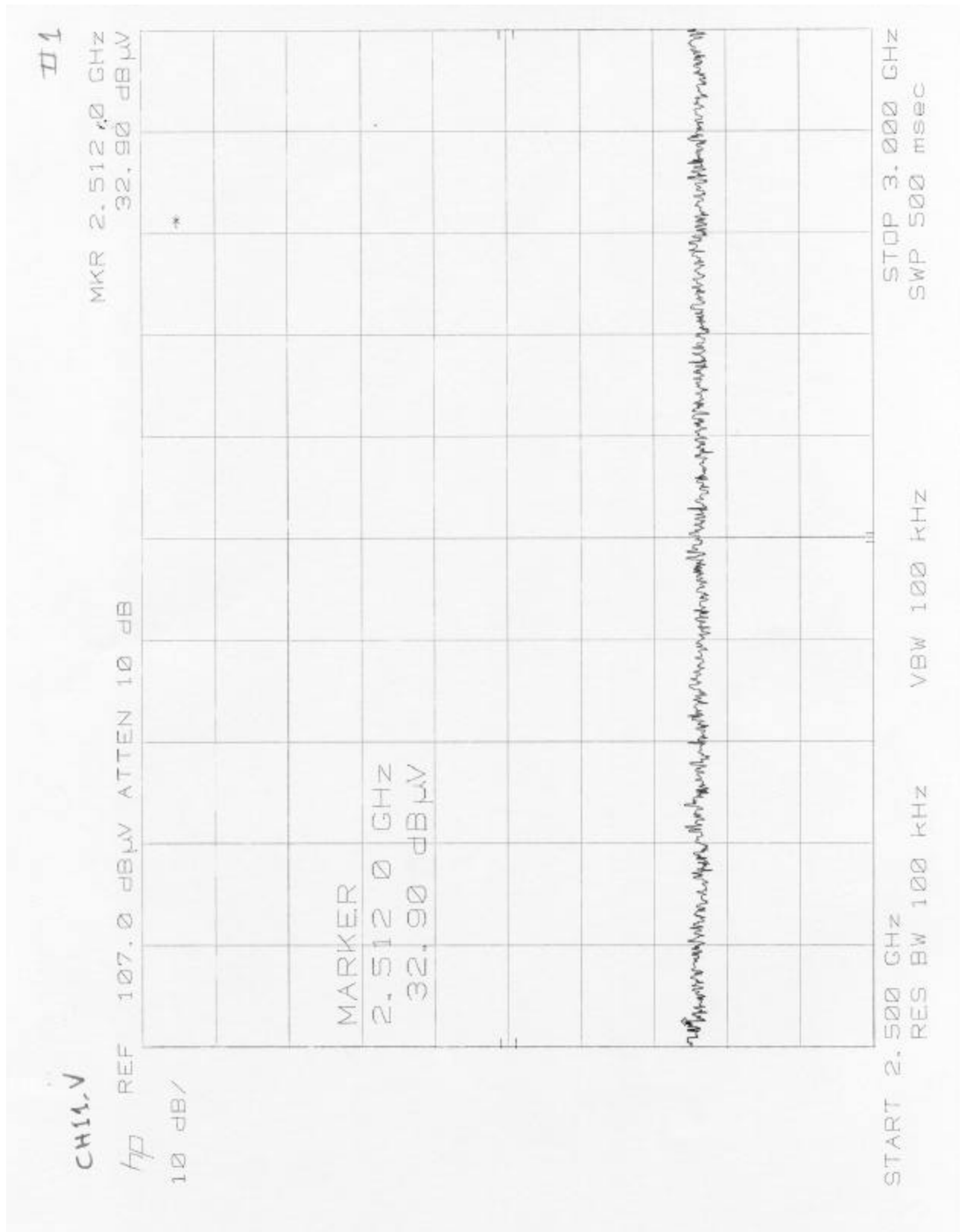
Report No. A2110352F01

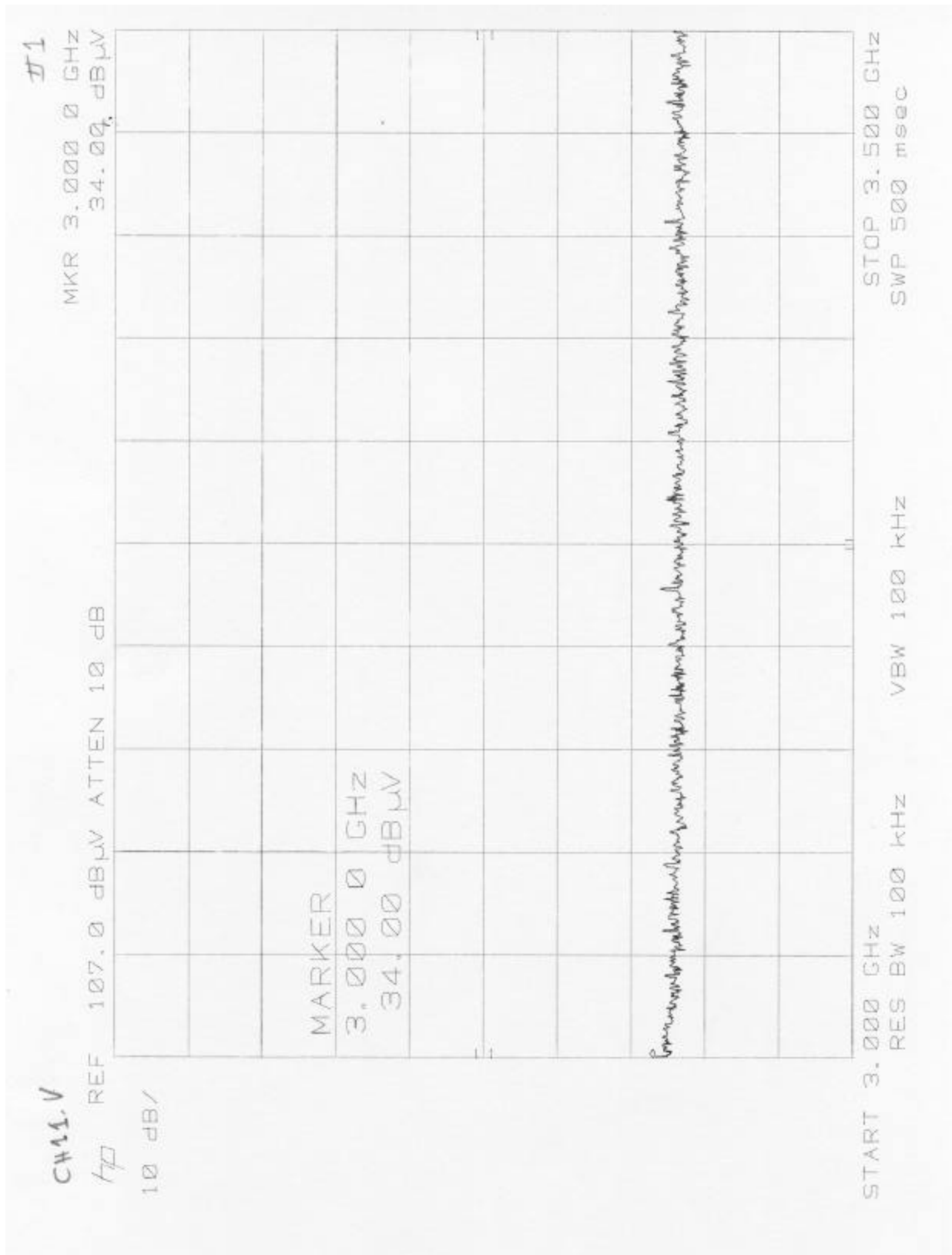
Radiated Emissions Plots
(1 - 24) GHz - Vertical Polarization
Radio Card installed in Dell Laptop Latitude C600, Model No. PP01L
Channel 11

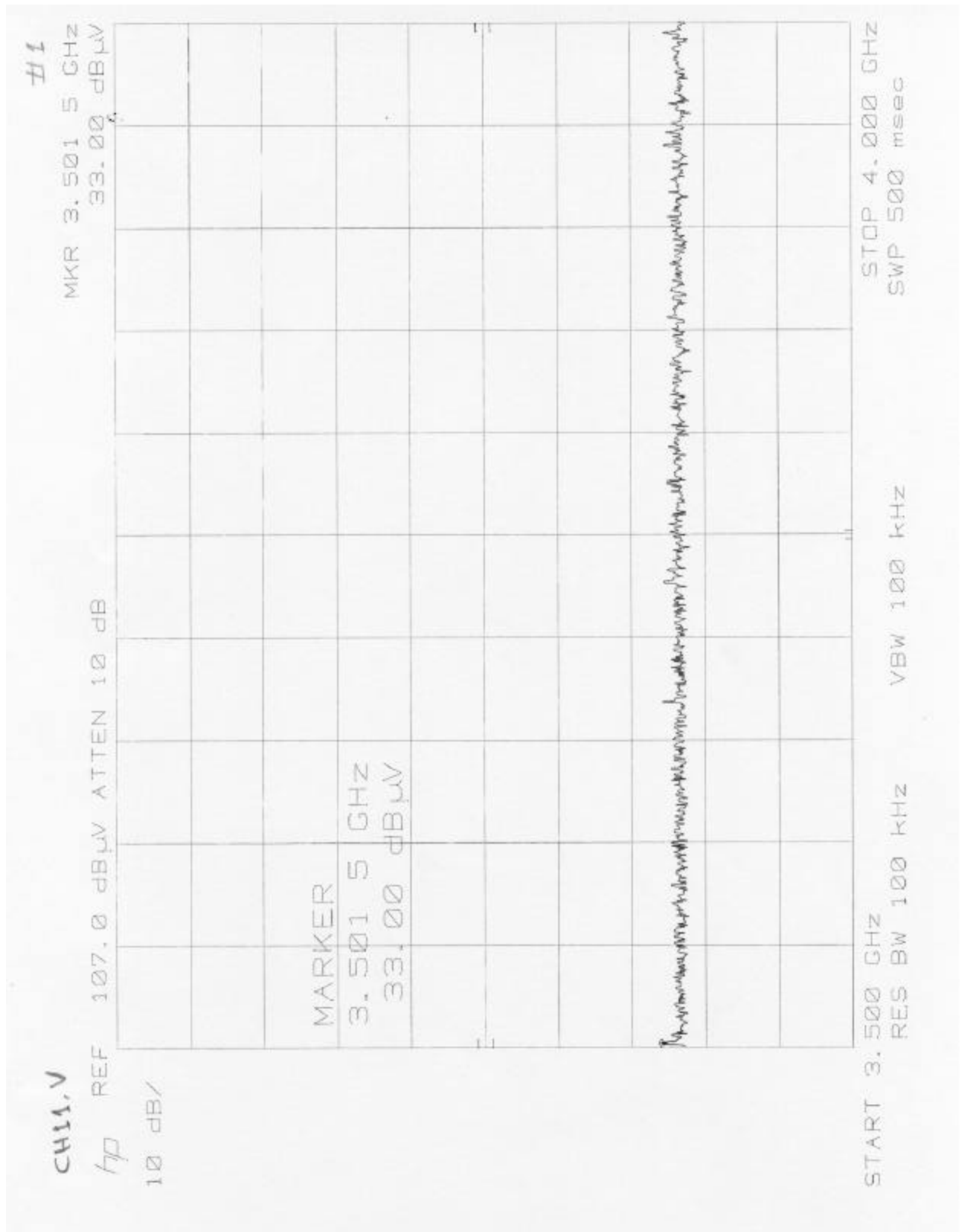


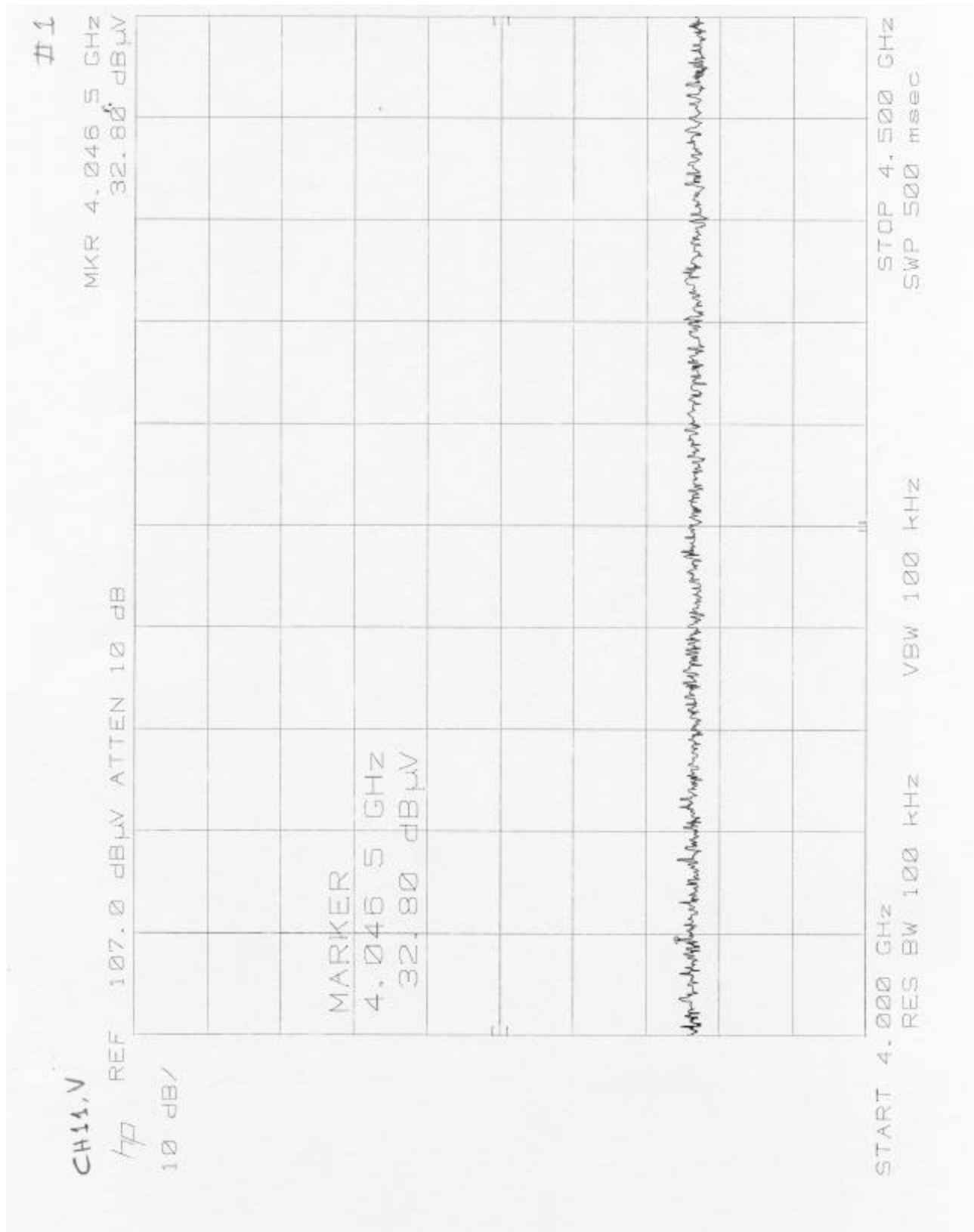


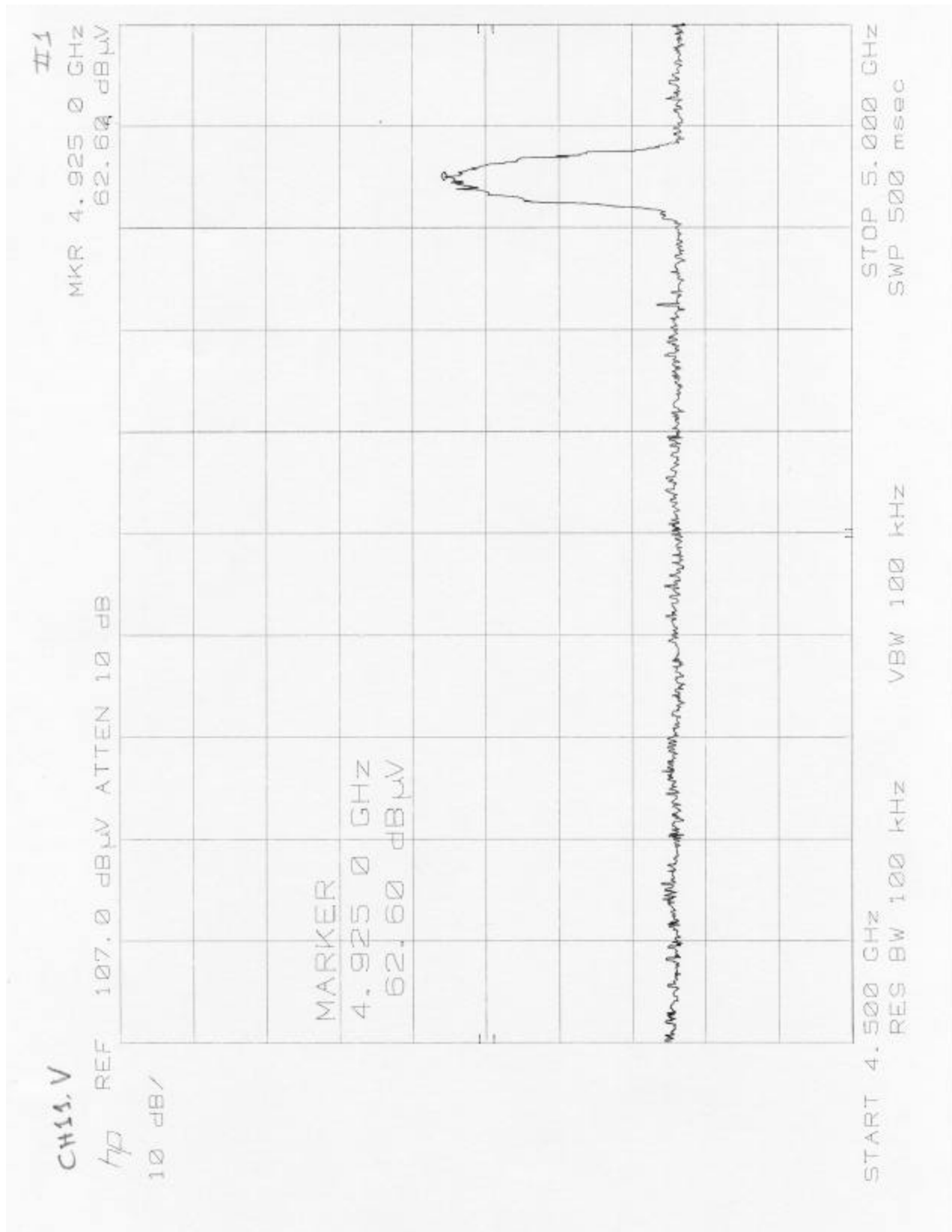


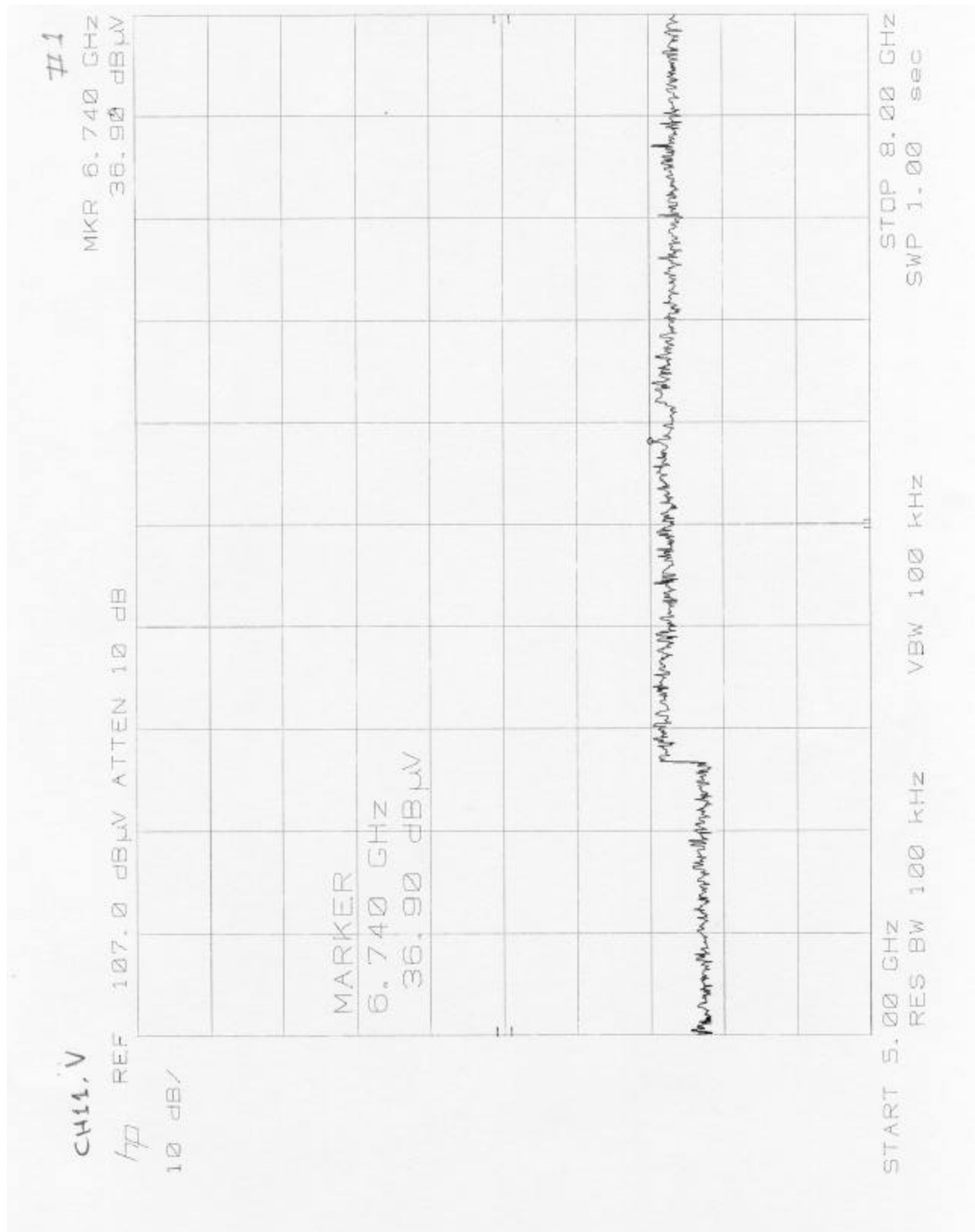


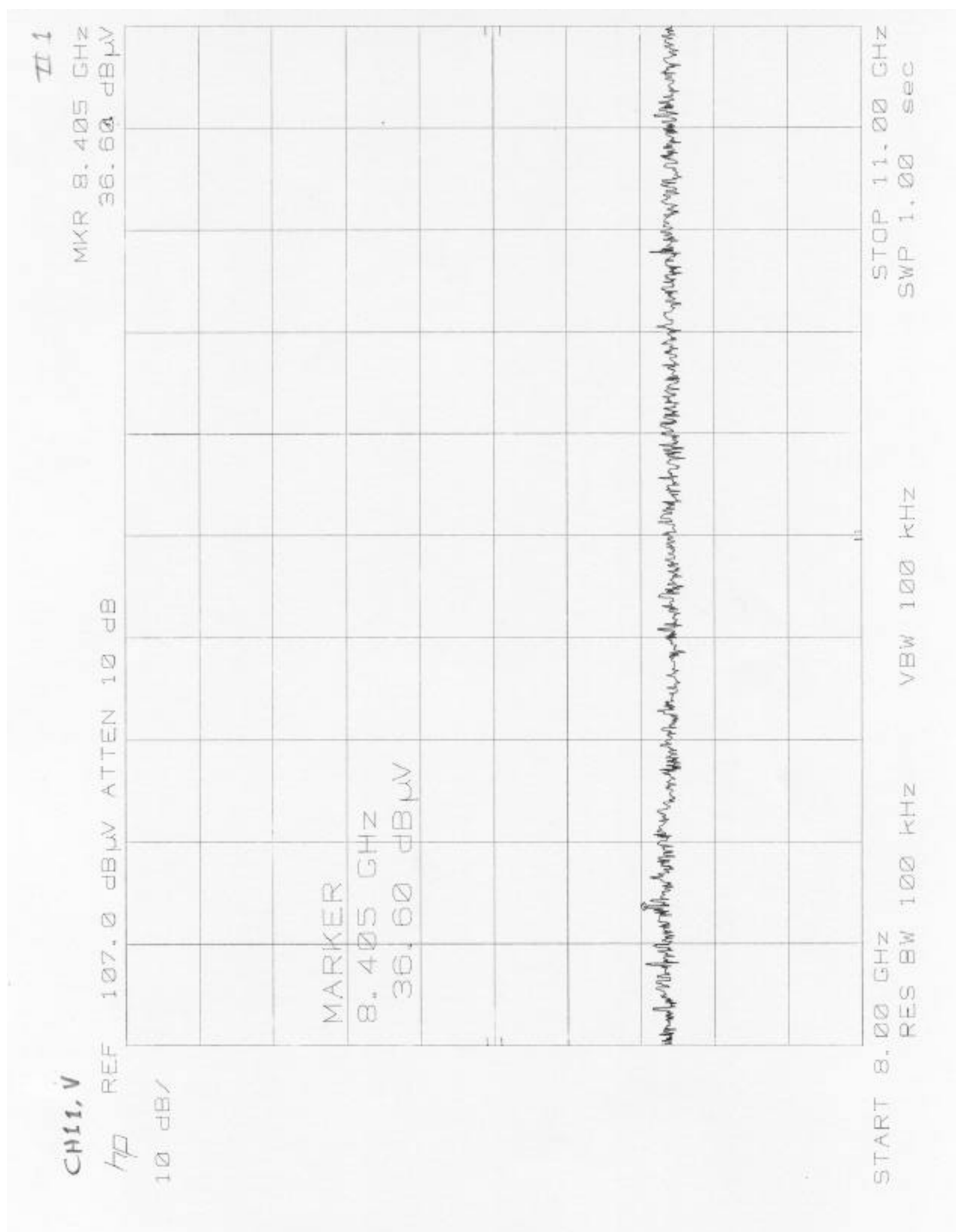


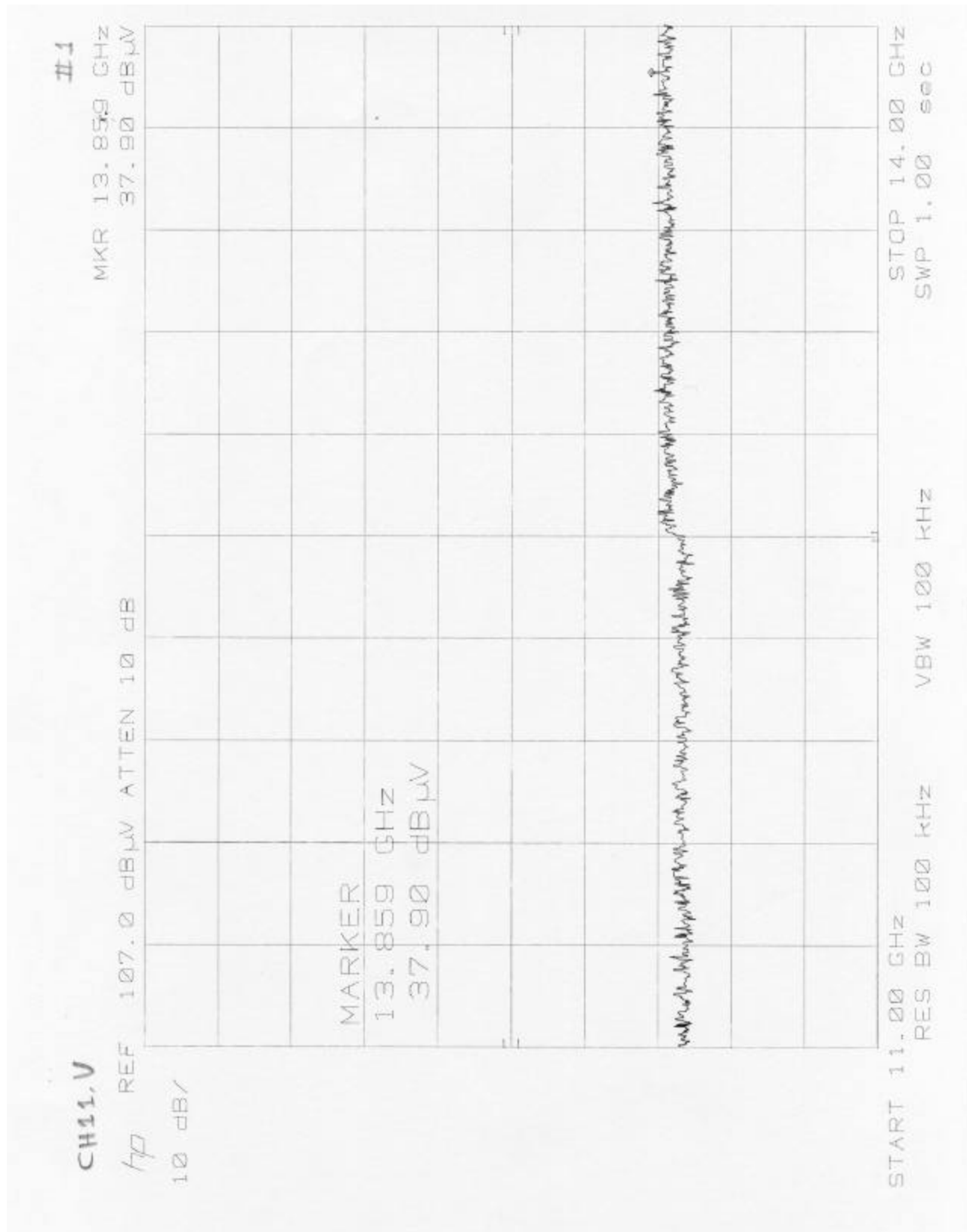


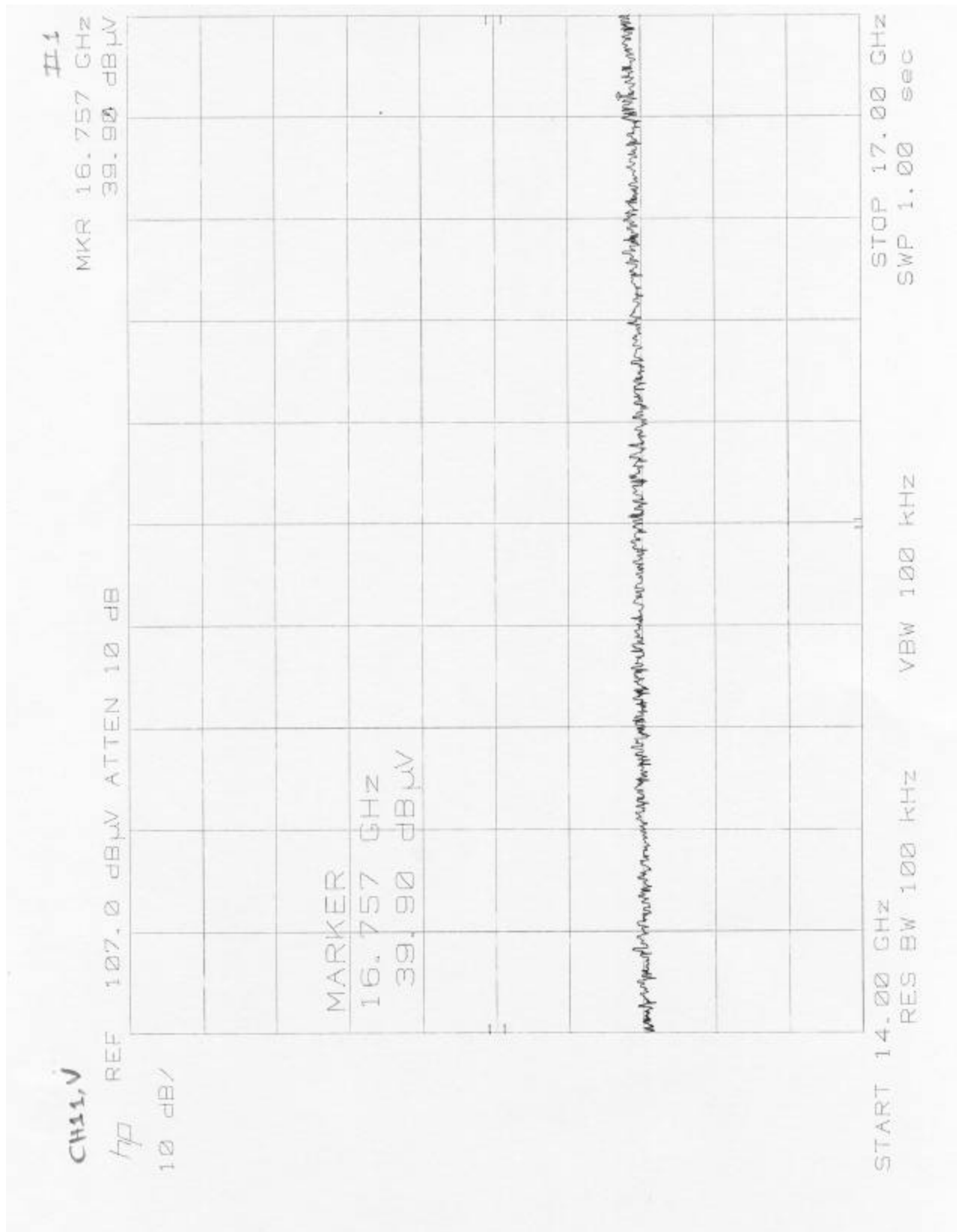


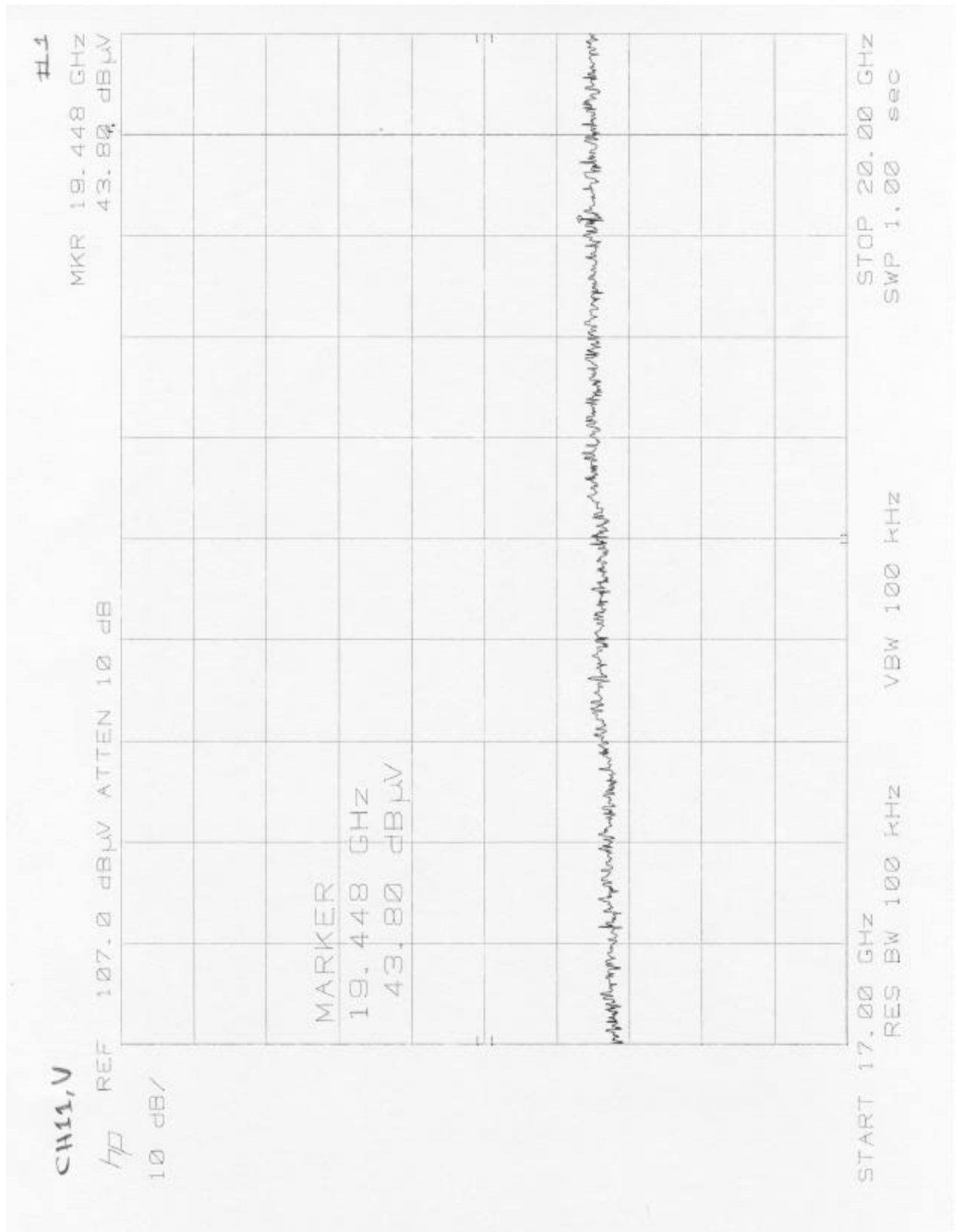


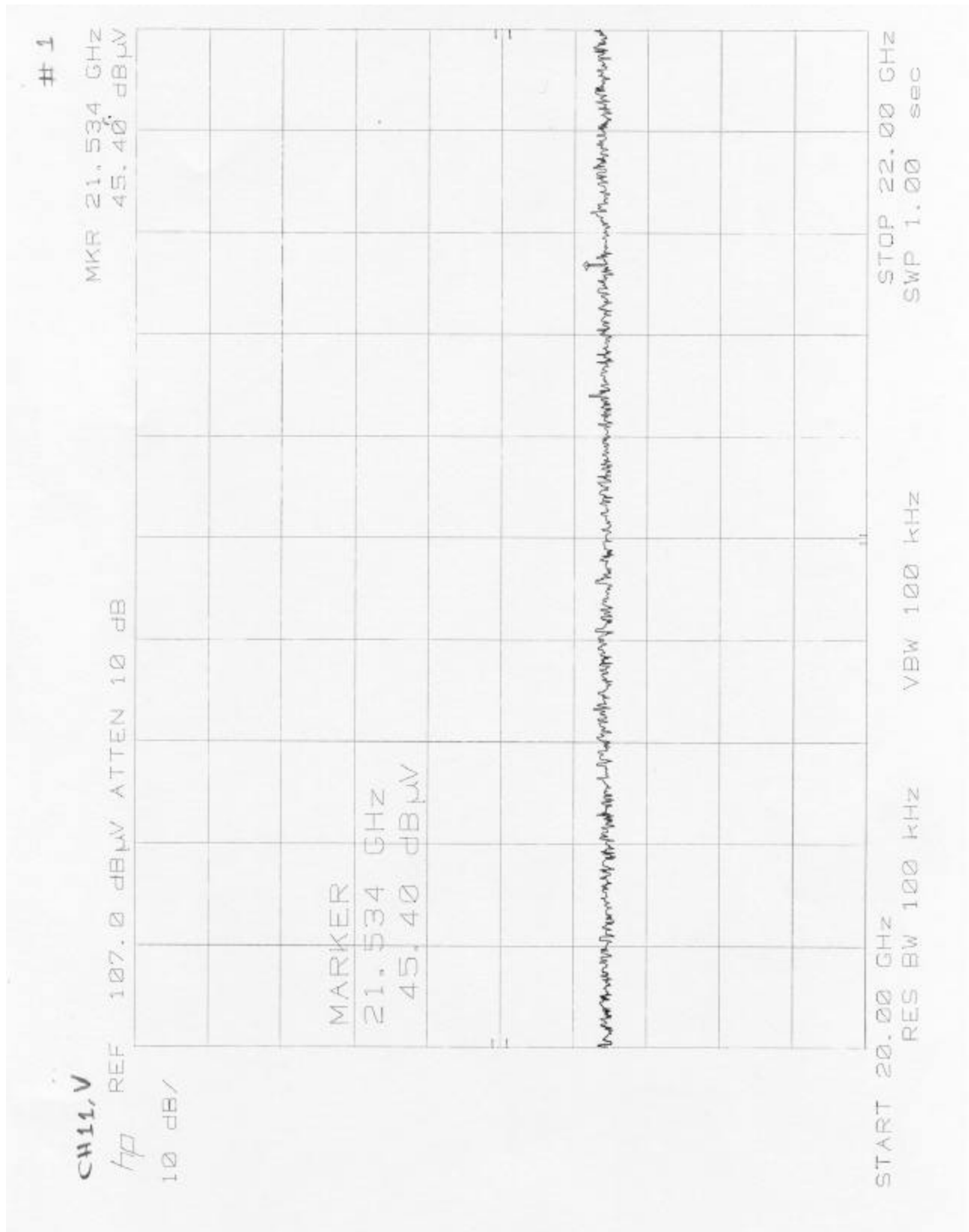


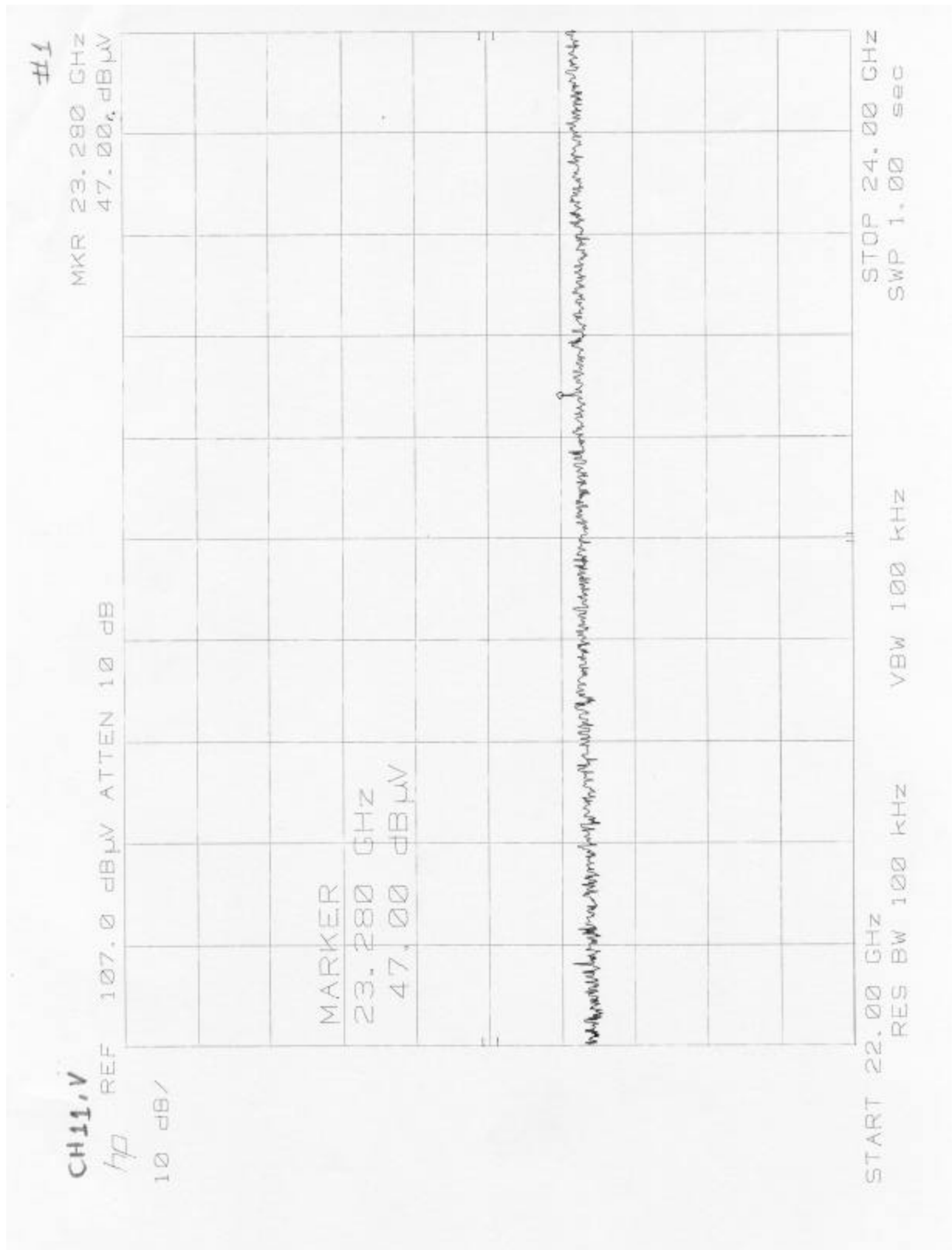




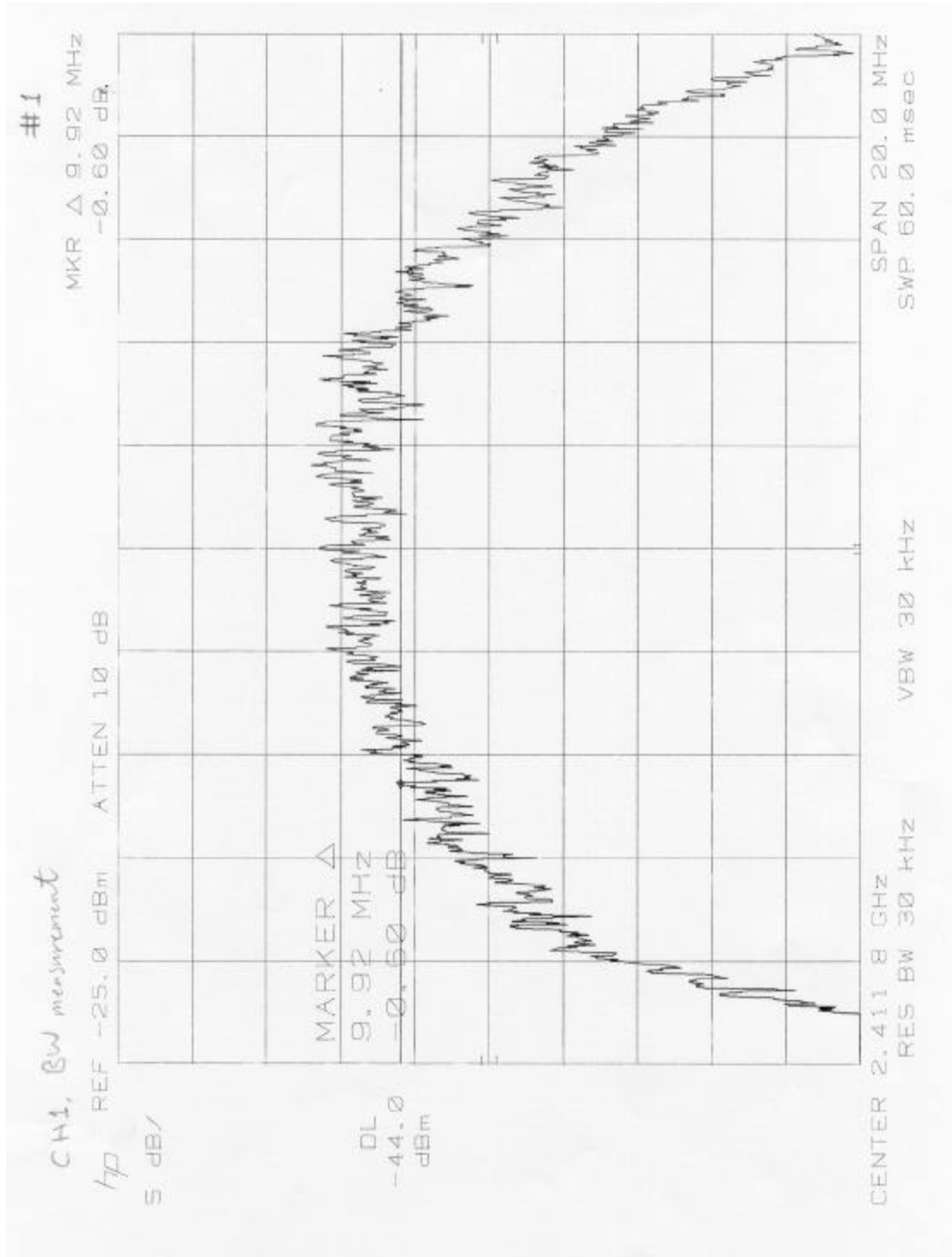




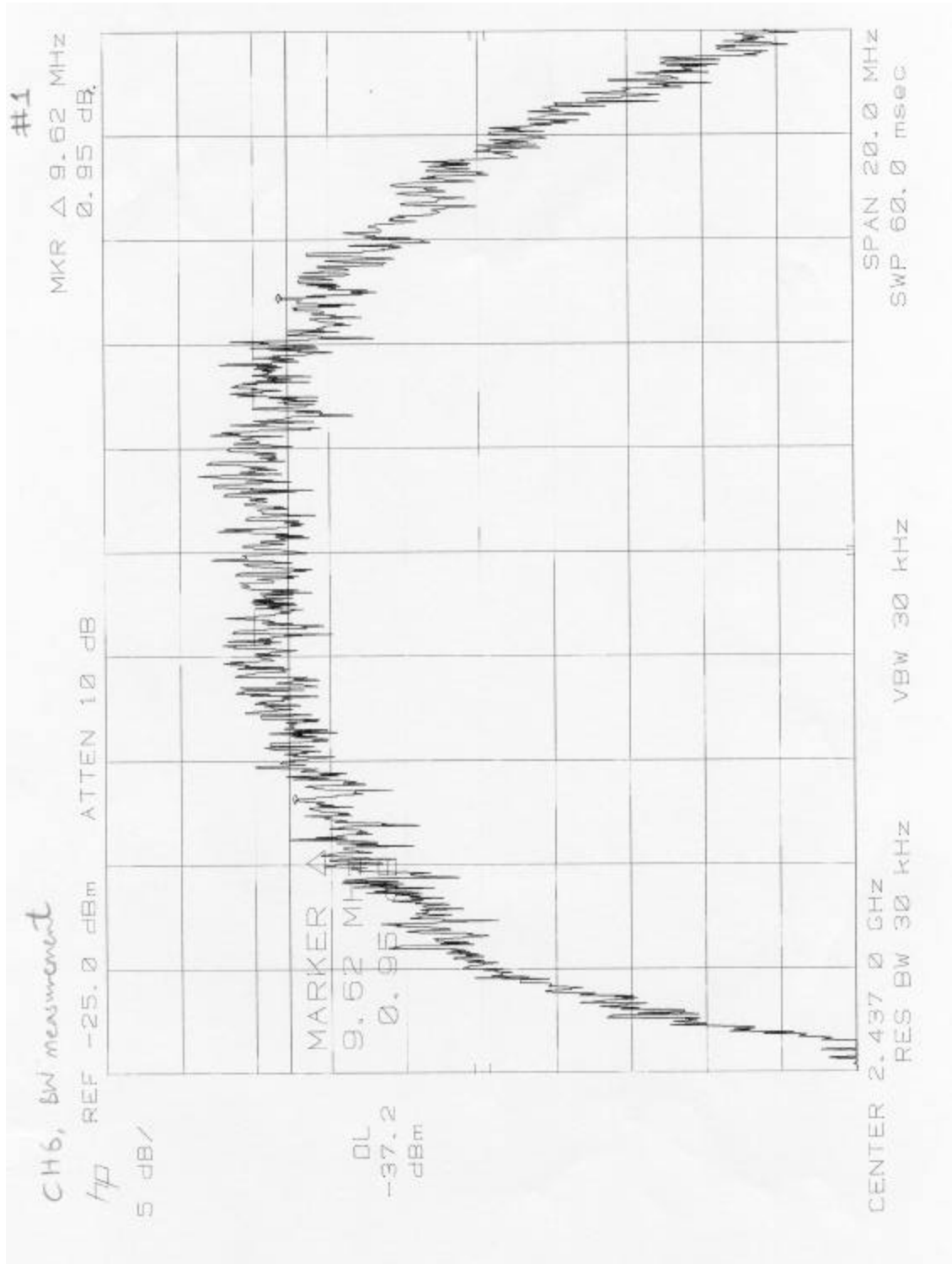




6 dB Bandwidth Measurement - Channel 1
Radio Card installed in Dell Laptop Latitude C600, Model No. PP01L
BW = 9.92 MHz



6 dB Bandwidth Measurement - Channel 6
Radio Card installed in Dell Laptop Latitude C600, Model No. PP01L
BW = 9.62 MHz



6 dB Bandwidth Measurement - Channel 11
Radio Card installed in Dell Laptop Latitude C600, Model No. PP01L
BW = 9.92 MHz

