3.4 Photographs of EUT System Configuration

Horizontally
Placing

Vertically
Placing

Applicant: Shintom Co., Ltd. Transmitter Type: BFYM3047

Designated by Ministry of International Trade and Industry

KANSAI ELECTRONIC INDUSTRY DEVELOPMENT CENTER

HEAD OFFICE
6-8-7, NISHITEMMA
KITA-KU, OSAKA, 530 JAPAN

KEC

IKOMA
TESTING LABORATORY
10630, TAKAYAMA-CHO
IKOMA-CITY, NARA, 630-01 JAPAN

Corporate Juridical Person

ENGINEERING TEST REPORT

REPORT NO. A-041-98-C Date : December 25, 1998

This test report is to certify that the tested device properly complies with the requirements of:

FCC Rules and Regulations Part 22 Subpart H ; a Public Mobile Service.

ALL the tests necessary to show compliance to the requirements were performed and these results met the specifications of requirement. The results of this report should not be construed to imply compliance of equipment other than that which was tested. Unless the laboratory permission, this report should not be copied in part.

1. Applicant

Company Name : Shintom Co., Ltd.

Mailing Address : 1-19-20, Shin-Yokohama, Kohoku-ku, Yokohama, 222-0033 Japan

2. Identification of Tested Device

FCC ID	: BFYM3047
Device Name	: Handy Cellular Telephone
Trade Name	: AUDIOVOX
Model Number	: MVX605
Serial Number	: 17400000736
Date of Manufacture	: September, 1998

3. Test Items and Procedure

1) MEASUREMENT OF FIELD STRENGTH OF SPURIOUS RADIATION
2) MEASUREMENT OF RF POWER OUTPUT(SUBSTITUTION METHOD)

Above all tests were performed under : FCC Part 2 Section 2.985 and Section 2.993

4. Date of Test

Receipt of Test Sample : December 2, 1998
Test Completed on : December 18, 1998

CERTIFIED BY :

Eizo Hariya
General Manager of Ikoma Testing Laboratory

EXHIBIT 22
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ENGINEERING TEST REPORT

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ENGINEERING TEST REPORT

1. GENERAL INFORMATION

1.1 Product Description

The AUDIOVOX Model No. MVX605(referred as EUT in this report) is AMPS SYSTEM(ANALOG) HANDHELD PORTABLE CELLULAR TELEPHONE.

1) Transmitting Frequency Range : 824.04 - 848.97 MHz

2) Receiving Frequency Range : 869.04 - 893.97 MHz

3) Emission Designator : F3E

4) Type of Circuit : Superheterodyne
1st IF : 83.16 MHz
2nd IF : 60 kHz

5) Type of Antenna : Built-in Antenna (50Ω, unbalanced)

6) Rated Power Supply : DC 4.8 V(Nickel Metal Hydride Battery)

7) Contained Oscillator

(1) SYSTEM CLOCK : 14.4 MHz

(2) 2nd LOCAL OSC : 83.1 MHz

(3) RX VCO : 952.19 - 977.13 MHz

1.2 Description for Equipment Authorization

1) Rules Part(s) under which Equipment operated

FCC Rule Part 22, Subpart H ; a Public Mobile Service

2) Kind of Equipment Authorization

( ) Type Acceptance (X) Certification ( ) Verification

3) Procedure of Application

(x) Original Equipment ( ) Modification

1.3 Test Facility

Name : KANSAI ELECTRONIC INDUSTRY DEVELOPMENT CENTER (KEC)
IKOMA TESTING LABORATORY
Open Test Site No.2

Address : 10630, Takayama-cho Ikoma-city, Nara, 630-0101 Japan

This test facility has been filed in FCC under the criteria in ANSI C63.4-1992.

2. TESTED SYSTEM

2.1 Test Mode

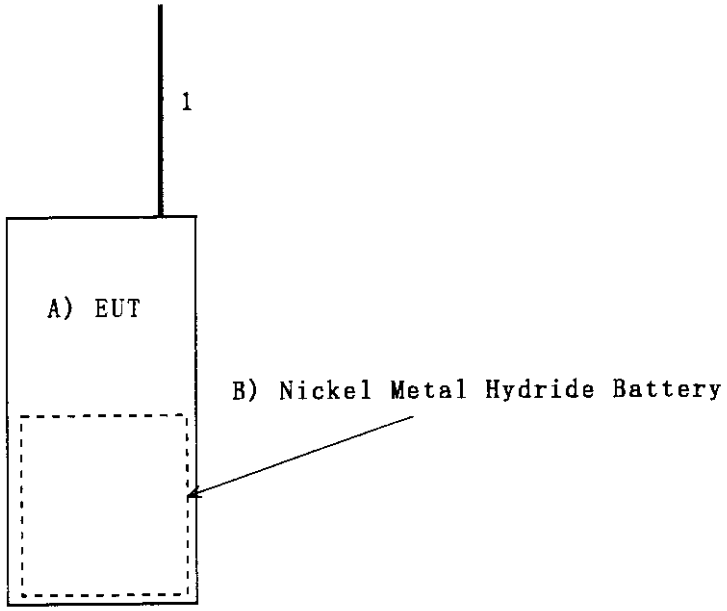
The EUT was placed in horizontally and vertically on the turn table.
The data of maximum emission was reported at each place.

The compliance tests were performed under the following operation mode.

Carrier wave is continuously transmitted at Max power Level.

ENGINEERING TEST REPORT

2.2 Block Diagram of EUT System



[Note]

See 2.3 List of EUT System and 2.4 List of Antenna

2.3 List of EUT System

No	Device Name	Model Number (Serial Number)	FCC ID (Trade Name)	Note	Remark
A	Handy Cellular Telephon	MVX605 (17400000736)	BFYM3047 (AUDIOVOX)		1)
B	Nickel Metal Hydride Battery	BTE605	N/A (AUDIOVOX)	Output DC 4.8V	2)

[Attention]
N/A : Not Applicable

[Remark]
1) : EUT
2) : Accessory of EUT

2.4 List of Antenna

No	Type	Length (m)	Note	Remark
1	Built-in Antenna(50 Ω)	0.10	permanently attached to EUT.	

3. MEASUREMENT OF FIELD STRENGTH OF SPURIOUS RADIATION

3.1 Reference Rule and Specification

FCC Rule Part 22 Subpart H [§22.917] and Part 2 Subpart J [§2.993]

3.2 Test Procedure

1) Tune-up the transmitter.

2) The transmitter and accessories are placed on the test table.

3) For each spurious measurement the receiving antenna is used the dipole antenna or the broadband antenna or the horn antenna.These measurements are made from the lowest radio frequency generated in the EUT to the tenth harmonic of the carrier.

4) For each spurious frequency, raise and lower the receiving antenna to obtain a maximum reading on the Spectrum Analyzer with the antenna at horizontal polarity.Then the turntable is rotated to further increase this maximum reading.Repeat this procedure of raising and lower the antenna and rotating the turntable until highest possible signal has been obtain.Record this maximum reading.

5) Repeat Step 4) for each spurious frequency with the antennas polarized vertically.

6) The field strength of the spurious emission and the attenuation of the spurious in dB can be calculated from the following formula:

$$\text{Field Strength of Spurious Emission}[\text{dB}\mu\text{V/m}] = \text{Meter Reading}[\text{dB}\mu\text{V}] + \text{Antenna Factor}[\text{dB}] + \text{Cable Loss}[\text{dB}] - \text{Pre-AMP Gain}[\text{dB}]$$

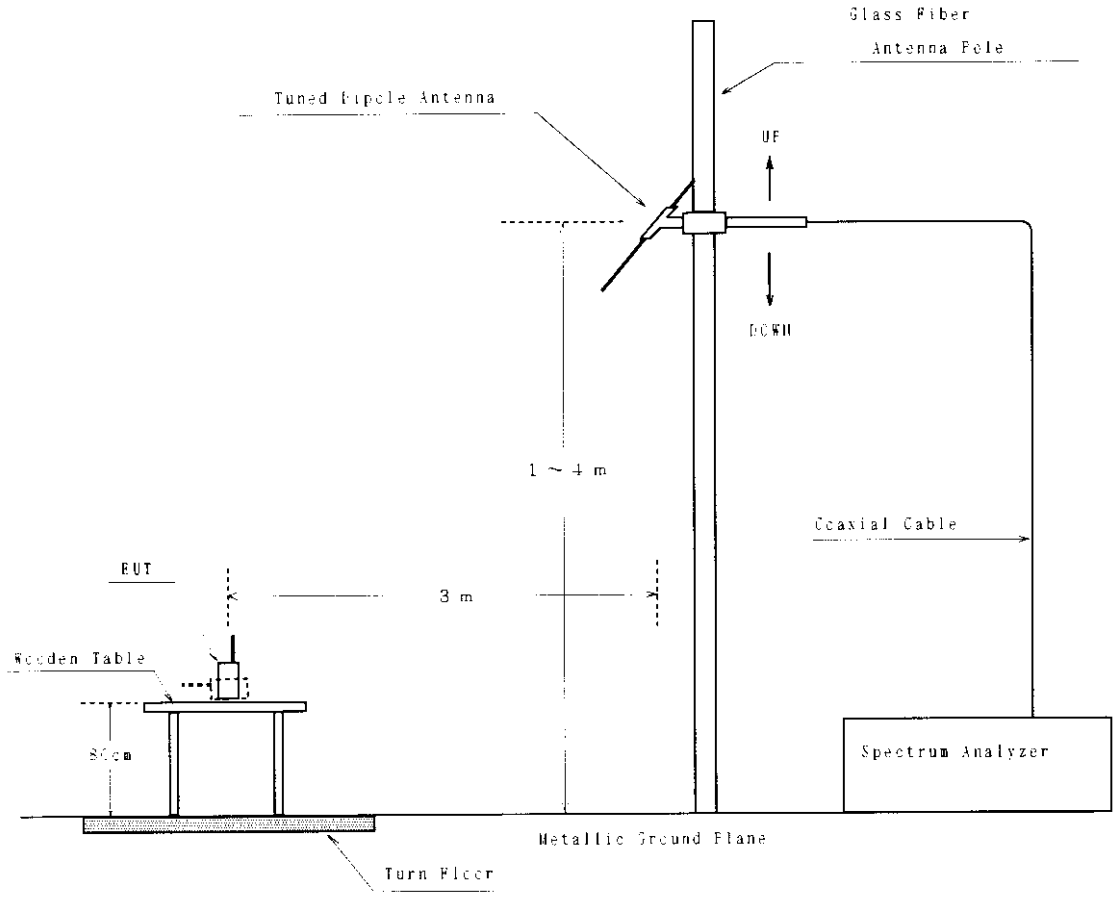
$$\text{Spurious Attenuation Ratio}[\text{dB}] = \text{Carrier Emission}[\text{dB}\mu\text{V/m}] - \text{Spurious Emission}[\text{dB}\mu\text{V/m}]$$

ENGINEERING TEST REPORT

3.3 Test Configuration

[below 1GHz]

[Open Site]

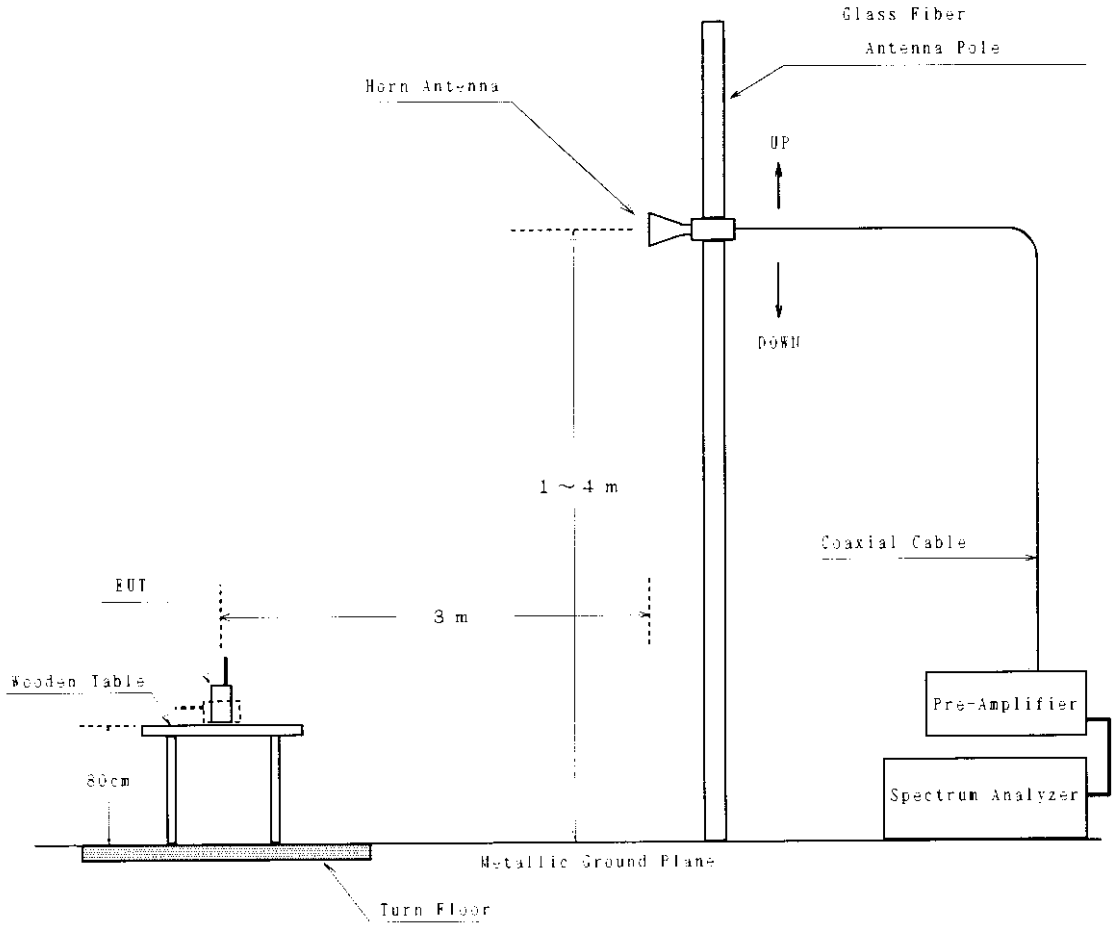


ENGINEERING TEST REPORT

- Conitnued -

[above 1GHz]

[Open Site]



ENGINEERING TEST REPORT

3.5 Test Results

1) (991 ch.)

EMISSION FREQUENCY [MHz]	METER READING [dBμV] Horiz.	Vert.	ANTENNA FACTOR [dB]	PRE-AMP GAIN [dB]	MAXIMUM FIELD STRENGTH [dBμV/m]	ATTENUATION RATIO FROM CARRIER [dB]	LIMIT [dB]
Carrier Emission							
824.04	93.6	93.3	35.7	–	129.3	–	–
Spurious Emission							
1648.08	47.2	45.4	22.0	–	69.2	60.1	41.0
2472.12	72.5	69.7	24.2	35.3	61.5	67.8	41.0
3296.16	58.2	58.3	26.5	34.7	50.1	79.2	41.0
4120.20	58.1	55.5	29.0	34.0	53.1	76.2	41.0
4944.24	56.0	56.4	31.2	34.0	53.6	75.7	41.0
5768.28	52.7	50.7	32.3	33.9	51.1	78.2	41.0
6592.32	49.6	47.5	31.2	34.0	46.8	82.5	41.0
7416.36	46.8	44.7	32.1	34.2	44.7	84.6	41.0
8240.40	49.3	49.9	34.9	34.2	50.6	78.7	41.0

[Note]
1) The spectrum was scanned from 25MHz to the ten harmonic of the carrier, and all emissions not reported were very low.
2) The cable loss is included in the antenna factor.
3) Calculation of Limit
43 + 10Log(Power) = 43 + 10Log(0.6310) = 41.0 dB

[Environment]
Temperature : 20°C Humidity : 40%

[Sample Calculation]
(Carrier Emission)
Frequency : 824.04 [MHz]
Meter Reading : 93.6 [dBμV] (at Horizontal Polarization)
Antenna Factor : 35.7 [dB]

(Spurious Emision)
Frequency : 1648.08 [MHz]
Meter Reading : 47.2 [dBμV] (at Horizontal Polarization)
Antenna Factor : 22.0 [dB]
Pre-AMP GAIN : - [dB]

Then, Field Strength is calculated as follows,

Field Strength(Carrier Emission) = 93.6 + 35.7 = 129.3 [dBμV/m]
Field Strength(Spurious Emission) = 47.2 + 22.0 = 69.2 [dBμV/m]

Then, Attenuation Ratio from Carrier is calculated as follows,

Attenuation Ratio from Carrier = 129.3 - 69.2 = 60.1 [dB]

[Summary of Test Result]
Minimum margin was 19.1 dB at 1648.08 MHz, at Horizontal polarization.

Tested Date: December 18, 1998 Tester Signature Y. Kawai
Yasunari Kawai

ENGINEERING TEST REPORT

- Continued -

2) (383 ch.)

EMISSION FREQUENCY [MHz]	METER READING [dBμV] Horiz.	Vert.	ANTENNA FACTOR [dB]	PRE-AMP GAIN [dB]	MAXIMUM FIELD STRENGTH [dBμV/m]	ATTENUATION RATIO FROM CARRIER [dB]	LIMIT [dB]
Carrier Emission							
836.49	94.4	93.8	36.0	—	130.4	—	—
Spurious Emission							
1672.98	45.8	46.3	22.1	—	68.4	62.0	41.3
2509.47	75.8	72.5	24.3	35.3	64.8	65.6	41.3
3345.96	59.5	60.9	26.7	34.6	53.0	77.4	41.3
4182.45	56.1	54.1	29.5	34.0	51.6	78.8	41.3
5018.94	53.2	53.7	31.3	34.0	51.0	79.4	41.3
5855.43	53.9	51.3	31.1	33.9	50.1	80.3	41.3
6691.92	48.5	46.8	31.4	34.0	45.9	84.5	41.3
7528.41	45.6	46.4	32.4	34.2	44.6	85.8	41.3
8364.90	47.3	47.3	34.9	34.2	48.0	82.4	41.3

[Note]
1) The spectrum was scanned from 25MHz to the ten harmonic of the carrier, and all emissions not reported were very low.
2) The cable loss is included in the antenna factor.
3) Calculation of Limit
43 + 10Log(Power) = 43 + 10Log(0.6761) = 41.3 dB

[Environment]
Temperature : 20°C Humidity : 40%

[Sample Calculation]
(Carrier Emission)
Frequency : 836.49 [MHz]
Meter Reading : 94.4 [dBμV] (at Horizontal Polarization)
Antenna Factor : 36.0 [dB]

(Spurious Emision)
Frequency : 1672.98 [MHz]
Meter Reading : 46.3 [dBμV] (at Vertical Polarization)
Antenna Factor : 22.1 [dB]
Pre-AMP GAIN : - [dB]

Then, Field Strength is calculated as follows,

Field Strength(Carrier Emission) = 94.4 + 36.0 = 130.4 [dBμV/m]
Field Strength(Spurious Emission) = 46.3 + 22.1 = 68.4 [dBμV/m]

Then, Attenuation Ratio from Carrier is calculated as follows,

Attenuation Ratio from Carrier = 130.4 - 68.4 = 62.0 [dB]

[Summary of Test Result]
Minimum margin was 20.7 dB at 1672.98 MHz, at Vertical polarization.

Tested Date: December 18, 1998 Tester Signature Y. Kawai
Yasunari Kawai

ENGINEERING TEST REPORT

- Continued -

3) (799 ch.)

EMISSION FREQUENCY [MHz]	METER READING [dBμV] Horiz.	Vert.	ANTENNA FACTOR [dB]	PRE-AMP GAIN [dB]	MAXIMUM FIELD STRENGTH [dBμV/m]	ATTENUATION RATIO FROM CARRIER [dB]	LIMIT [dB]
Carrier Emission							
848.97	94.5	92.6	36.3	–	130.8	–	–
Spurious Emission							
1697.94	46.4	46.1	22.2	–	68.6	62.2	41.3
2546.91	75.0	72.8	24.4	35.2	64.2	66.6	41.3
3395.88	54.1	59.5	26.8	34.5	51.8	79.0	41.3
4244.85	63.1	61.0	29.5	34.0	58.6	72.2	41.3
5093.82	50.0	47.8	31.5	34.0	47.5	83.3	41.3
5942.79	56.1	55.5	30.4	33.9	52.6	78.2	41.3
6791.76	46.3	45.7	31.4	34.1	43.6	87.2	41.3
7640.73	45.7	46.9	32.5	34.2	45.2	85.6	41.3
8489.70	45.4	45.3	35.0	34.2	46.2	84.6	41.3

[Note]
1) The spectrum was scanned from 25MHz to the ten harmonic of the carrier, and all emissions not reported were very low.
2) The cable loss is included in the antenna factor.
3) Calculation of Limit
43 + 10Log(Power) = 43 + 10Log(0.6761) = 41.3 dB

[Environment]
Temperature : 20°C Humidity : 40%

[Sample Calculation]
(Carrier Emission)
Frequency : 848.97 [MHz]
Meter Reading : 94.5 [dBμV] (at Horizontal Polarization)
Antenna Factor : 36.3 [dB]

(Spurious Emision)
Frequency : 1697.94 [MHz]
Meter Reading : 46.4 [dBμV] (at Horizontal Polarization)
Antenna Factor : 22.2 [dB]
Pre-AMP GAIN : - [dB]

Then, Field Strength is calculated as follows,

Field Strength(Carrier Emission) = 94.5 + 36.3 = 130.8 [dBμV/m]
Field Strength(Spurious Emission) = 46.4 + 22.2 = 68.6 [dBμV/m]

Then, Attenuation Ratio from Carrier is calculated as follows,

Attenuation Ratio from Carrier = 130.8 - 68.6 = 62.2 [dB]

[Summary of Test Result]
Minimum margin was 20.9 dB at 1697.94 MHz, at horizontal polarizaton.

Tested Date: December 18, 1998 Tester Signature Y. Kawai
Yasunari Kawai

4. MEASUREMENT OF RF POWER OUTPUT (Substitution Method)

4.1 Reference Rule and Specification

FCC Rule Part 22 Subpart H [§22.913] and Part 2 Subpart J [§2.985]

4.2 Test Procedure

1) Tune-up the transmitter.

2) The transmitter and accessories are placed on the test table.

3) The receiving antenna is adjusted to the correct length for the carrier frequency.

4) Raise and lower the receiving antenna to obtain a maximum reading on the spectrum analyzer with the antenna at horizontal polarity.Then the turntable is rotated to further increase this maximum reading. Repeat this procedure of raising and lower the antenna and rotating the turntable until the highest possible signal has been obtain. Record this maximum reading.

5) Repeat Step 4) with the antenna polarized vertically.

6) Remove the transmitter and replace it with the tuned dipole antenna. The center of this antenna is approximately at the same location as the center of the transmitter.

7) Feed the tuned dipole antenna at the transmitter end with a signal generator connected to the antenna by means of a non-radiating cable. With the antennas at both ends horizontally polarized and with the signal generator tuned to the carrier frequency, raise and lower the receiver antenna to obtain a maximum reading at the spectrum analyzer. Adjust the level of the signal generator output until the previous recorded maximum reading for this set of conditions its obtained.

8) Repeat Step 7) with both antennas vertically polarized for the frequency.

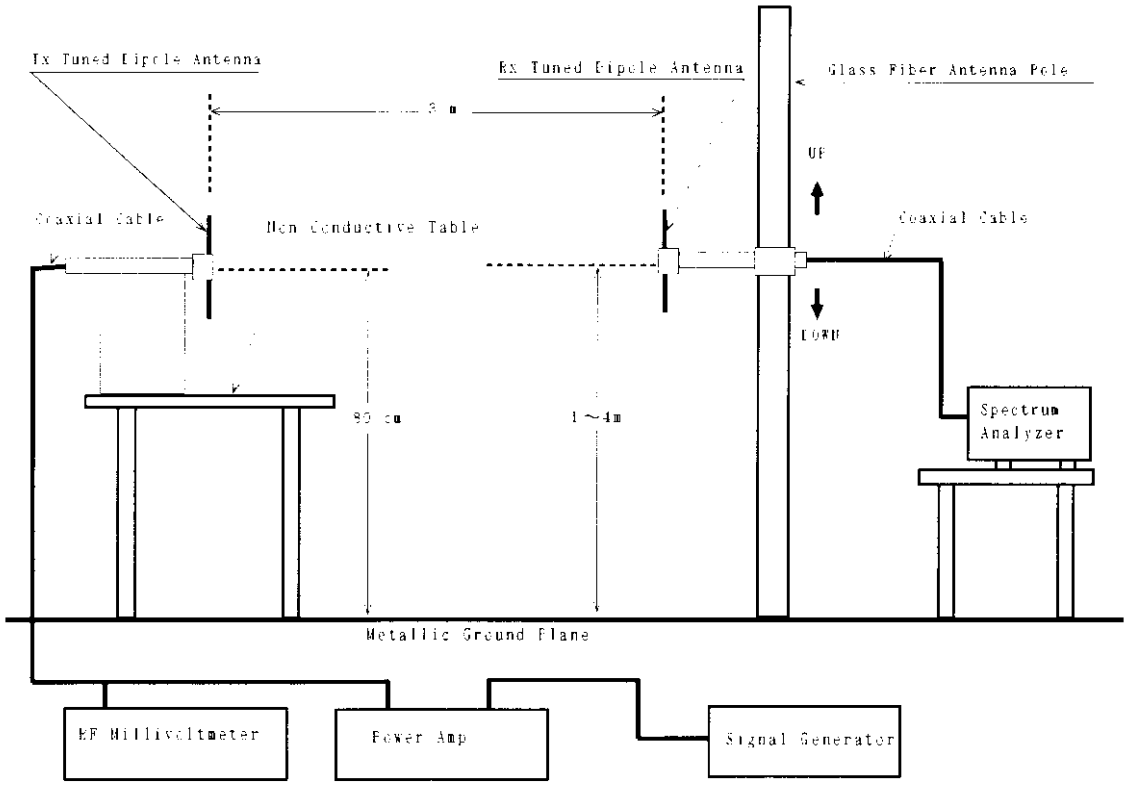
9) The RF Output Power can be calculated from following formula:

$$\text{RF Output Power}_{[mW]} = 10^{\left(\text{SG Output Level}_{[dBm]} - \text{Cable Loss}_{[dB]}\right) \div 10}$$

ENGINEERING TEST REPORT

4.3 Test Configuration

[O p e n S i t e]



ENGINEERING TEST REPORT

4.4 Test Results

Carrier Frequency [MHz]	Meter Reading at 3m [dBμV]	SG Output Level [dBm]	Cable Loss [dB]	RF Output Power [mW]	Limit [W]
991 ch.					
824.04	93.3	30.2	2.2	631.0	7.0
383 ch.					
836.49	93.8	30.5	2.2	676.1	7.0
799 ch.					
848.97	92.6	30.5	2.2	676.1	7.0

[Environment]

Temperature : 20°C Humidity : 40%

[Sample Culculation]

Frequency : 836.49 [MHz]
SG Output Level : 30.5 [dBm] (at 383 ch.)
Cable Loss : 2.2 [dB]

Then, RF Power Output is calculated as follows,

RF Power Output = $10^{(30.5-2.2)/10}$ = 676.1 [mW]

[Summary of Test Result]
Minimum margin was 10.2 dB at 836.49 MHz and 848.97 MHz.

Tested Date : December 16, 1998 Tester Signature Y. Kawai
Yasunari Kawai

5. LIST OF TEST INSTRUMENTS

Instrument	Manufacturer	Model No	Specifications	KEC Control No.	If used checked by "X".	Last Cal.	Next Cal.
Test Receiver	Rohde & Schwarz	ESVP	Frequency Range 20 MHz - 1.3 GHz	FS-48-3	☒	1998/5	1999/5
Spectrum Analyzer	Advantest	TR4172	Frequency Range 50 Hz - 1.8 GHz	FS-44-2	☒	1998/5	1999/5
Pre-Selecter	Advantest	TR14037	Frequency Range 10 kHz - 1.0 GHz	FS-44-3	☒	1998/5	1999/5
Biconical Antenna	Schwarzbeck	BBA9106	Frequency Range 30 MHz - 300 MHz	AN-80	☐	1998/2	1999/2
Log-Periodic Antenna	Schwarzbeck	UHALP 9107	Frequency Range 300 MHz - 1 GHz	AN-97	☐	1998/2	1999/2
Tuned Dipole Antenna	Kyoritsu	KBA-511AS	Frequency Range 25 MHz - 500 MHz	AN-112	☐	1998/3	1999/3
		KBA-611S	Frequency Range 500 MHz - 1 GHz	AN-7-16	☒	1998/3	1999/3

ENGINEERING TEST REPORT

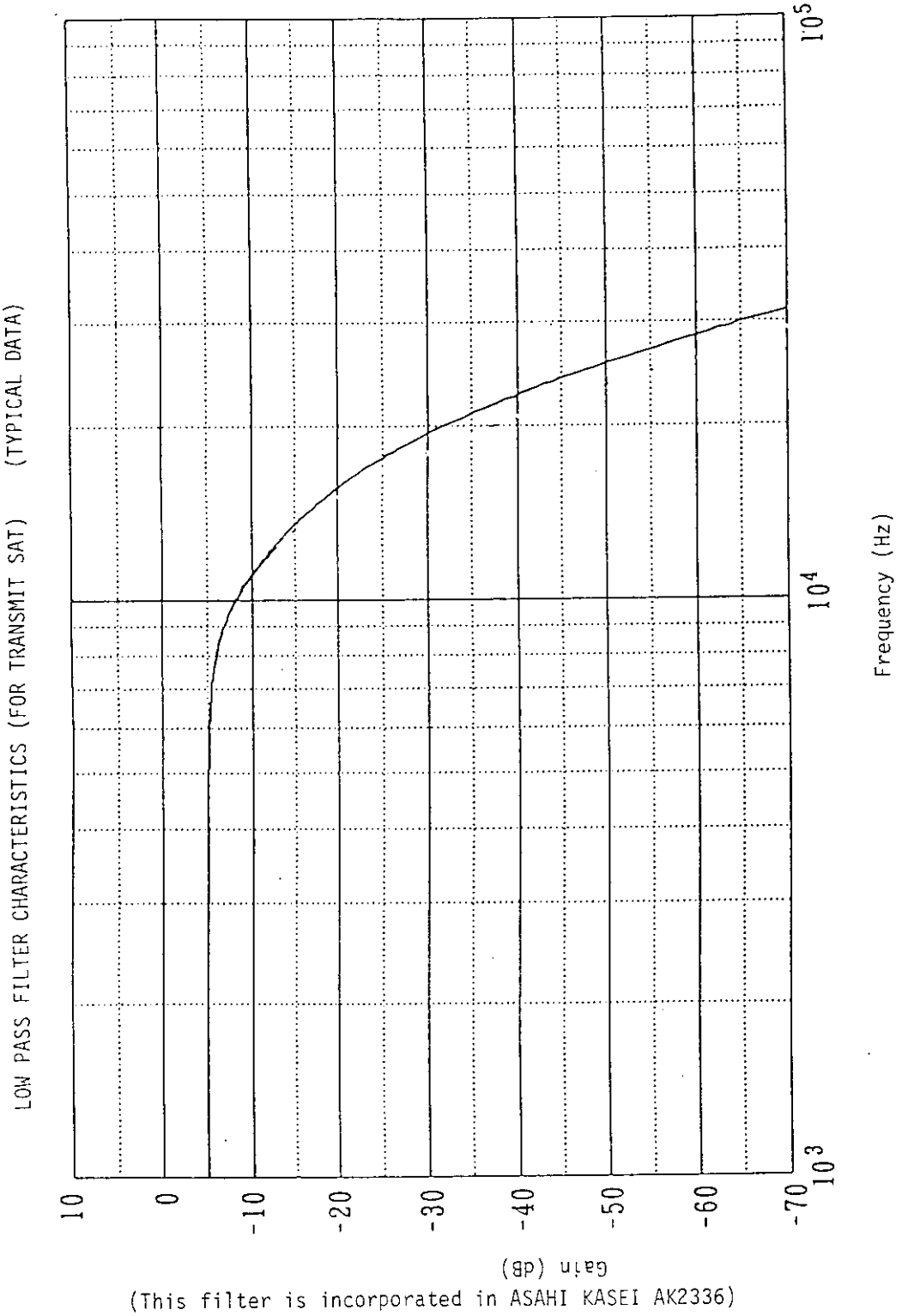
- Continued -

Instrument	Manufacturer	Model No	Specifications	KEC Control No.	If used checked by "X".	Last Cal.	Next Cal.
Tuned Dipole Antenna	Kyoritsu	KBA-511S	Frequency Range 25 MHz - 500 MHz	AN-7-5	☐	1998/3	1999/3
	Kyoritsu	KBA-611S	Frequency Range 500 MHz - 1 GHz	AN-7-16	☒	1998/3	1999/3
Signal Generator	Wiltron	6759A-10	Frequency Range 10 MHz - 26.5 GHz	SG-38	☒	1998/6	1999/6
		6769B	Frequency Range 10 MHz - 40.0 GHz	SG-42	☐	1998/6	1999/6
	Anritsu	MG3601A	Frequency Range 0.1 MHz - 1040 MHz	SG-40	☐	1998/6	1999/6
				SG-41	☐	1998/6	1999/6
Power Amp.	ENI	601L	Frequency Range 0.8 MHz - 1 GHz	AM-24	☒	1998/6	1999/6
		411LA	Frequency Range 0.15 MHz - 300 MHz	AM-25	☐	1998/6	1999/6
	Amplifier Research	100W1000 M1	Frequency Range 80 MHz - 1 GHz	AM-55	☐	1998/6	1999/6
RF Millivolt-meter	Rohde & Schwarz	URV5	Frequency Range 10 kHz - 2 GHz	VV-24	☒	1998/3	1999/3
				VV-28	☐	1998/3	1999/3
				VV-29	☐	1998/3	1999/3
				VV-32	☐	1998/3	1999/3
Coaxial Cable	KEC	5D2W	Length : 27m N - N	CL-33	☐	1998/3	1999/3
			Length : 35m N - N	CL-34	☐	1998/3	1999/3
	Suhner	SUCOFLEX 104	Length : 1m [SMA(p)-SMA(p)]	CL-42	☒	1998/2	1999/2
			Length : 10m [SMA(p)-SMA(p)]	CL-45	☒	1998/2	1999/2
				CL-46	☐	1998/2	1999/2

ENGINEERING TEST REPORT

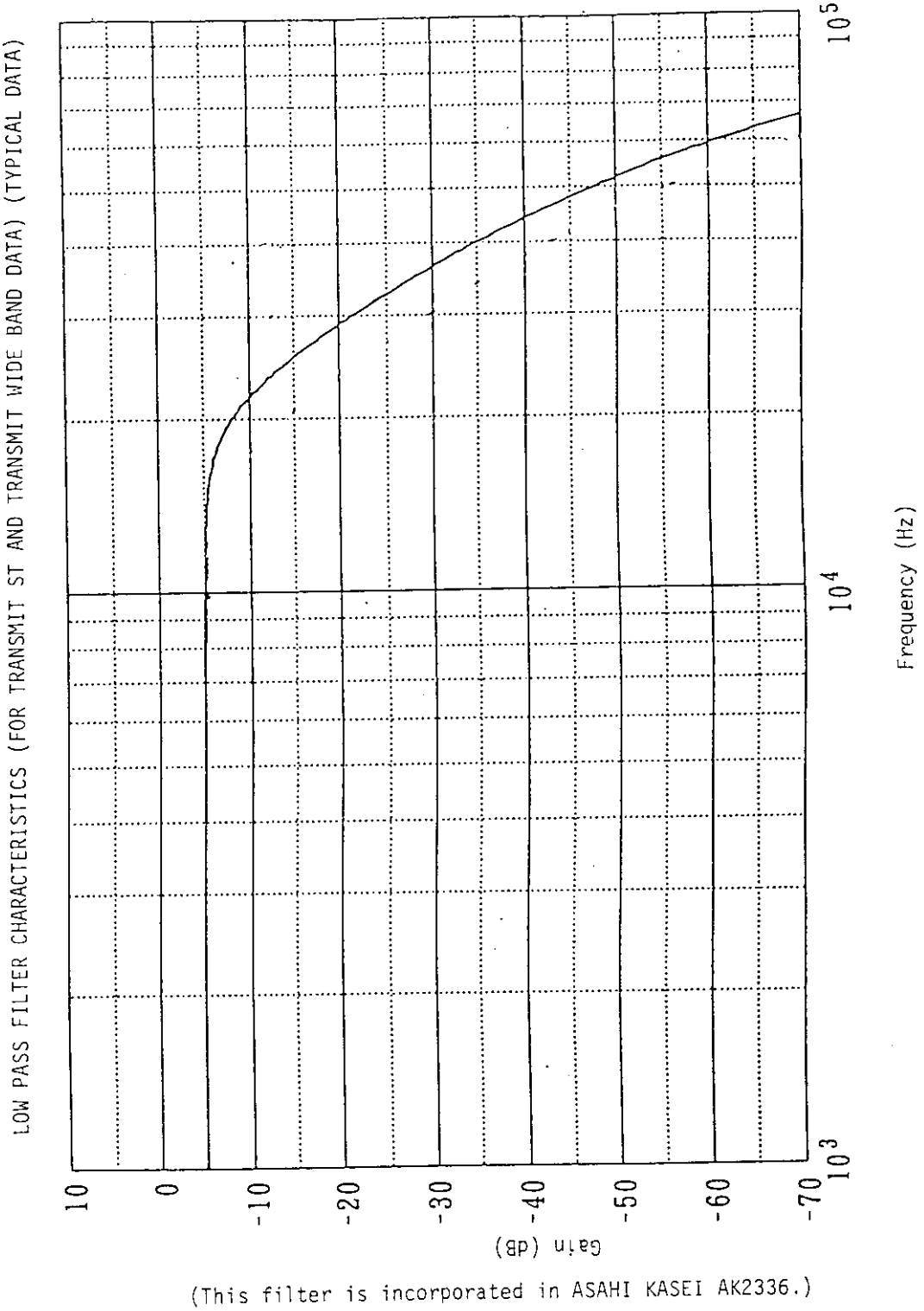
- Continued -

Instrument	Manufacturer	Model No	Specifications	KEC Control No.	If used, checked by "X".	Last Cal.	Next Cal.
Spectrum Analyzer	Advantest	R3261B	Frequency Range 9 kHz - 3.6 GHz	SA-30	☐	1998/7	1999/7
				SA-31	☐	1998/5	1999/5
	Hewlett Packard	8564E	Frequency Range 30 Hz - 40 GHz	SA-39	☒	1998/12	1999/12
Pre-Amplifier	Hewlett Packard	8449B	Frequency Range 1 GHz - 26.5 GHz	AM-52	☒	1998/4	1999/4
				AM-53	☐	1998/7	1999/7
Horn Antenna	Raven	91888-2	Frequency Range 1 GHz - 2 GHz	AN-211	☐	1998/10	2000/10
				AN-167	☒	1997/11	1999/11
		91889-2	Frequency Range 2 GHz - 5 GHz	AN-212	☐	1998/10	2000/10
				AN-168	☒	1997/11	1999/11
	Scientific Atlanta	12-3.9	Frequency Range 3.95GHz - 5.85 GHz	AN-142	☐	1998/6	1999/6
				AN-231	☒	1998/8	1999/8
		12-5.8	Frequency Range 5.85GHz - 8.2 GHz	AN-143	☐	1998/6	1999/6
				AN-104	☒	1998/8	1999/8
		12-8.2	Frequency Range 8.2 GHz - 12.4 GHz	AN-210	☐	1998/6	1999/6
				AN-055	☒	1998/8	1999/8
		12-12.0	Frequency Range 12.4GHz - 18.0 GHz	AN-145	☐	1998/6	1999/6
				AN-105	☐	1998/8	1999/8
Terminater	Anritsu	MP752A	50 Ω	ST-45	☒	1998/3	1999/3
				VV-34-2	☒	1998/3	1999/3



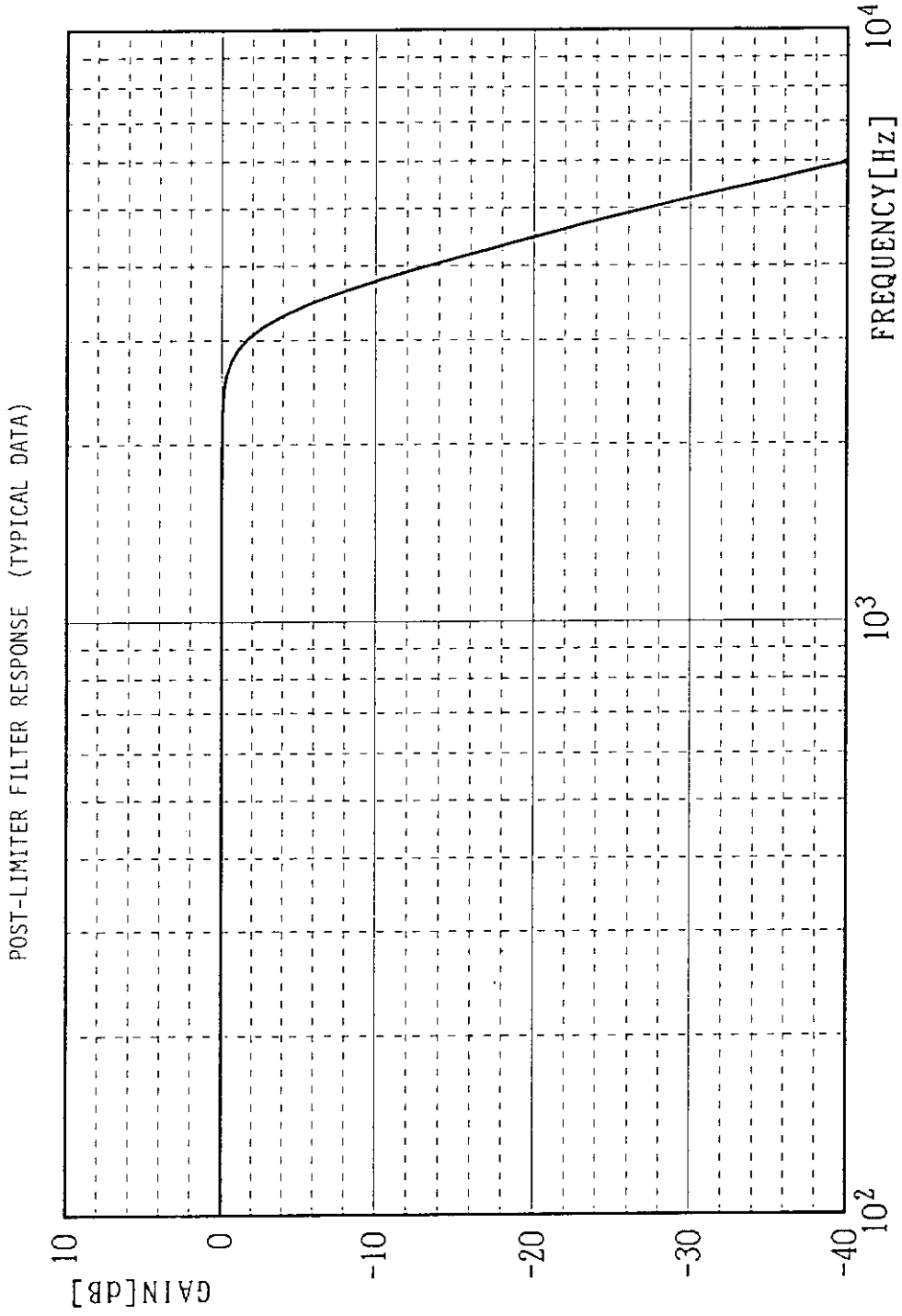
(This filter is incorporated in ASAHI KASEI AK2336)

EXHIBIT 23



(This filter is incorporated in ASAHI KASEI AK2336.)

EXHIBIT 24

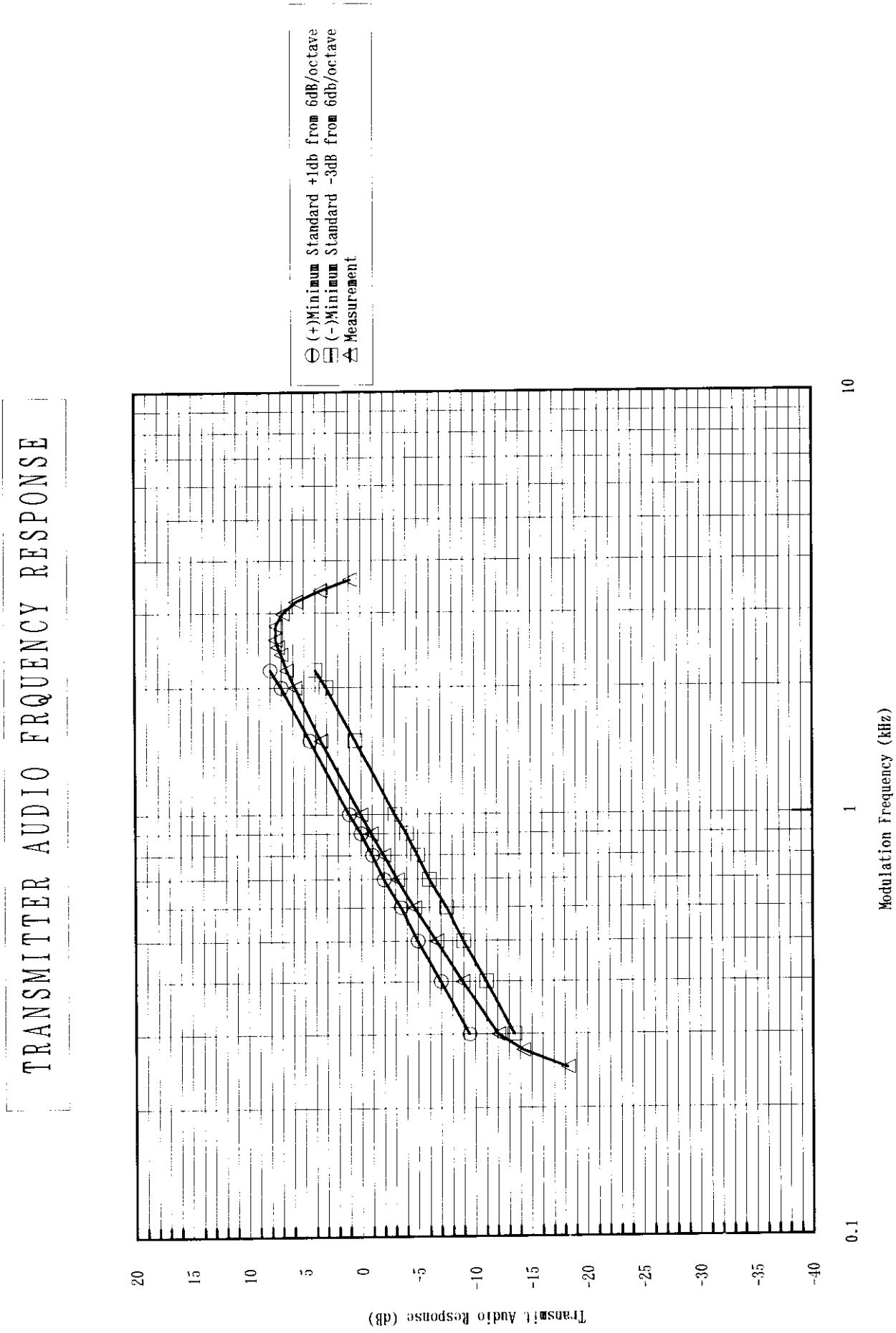


(This filter is incorporated in ASAHI KASEI AK2336.)

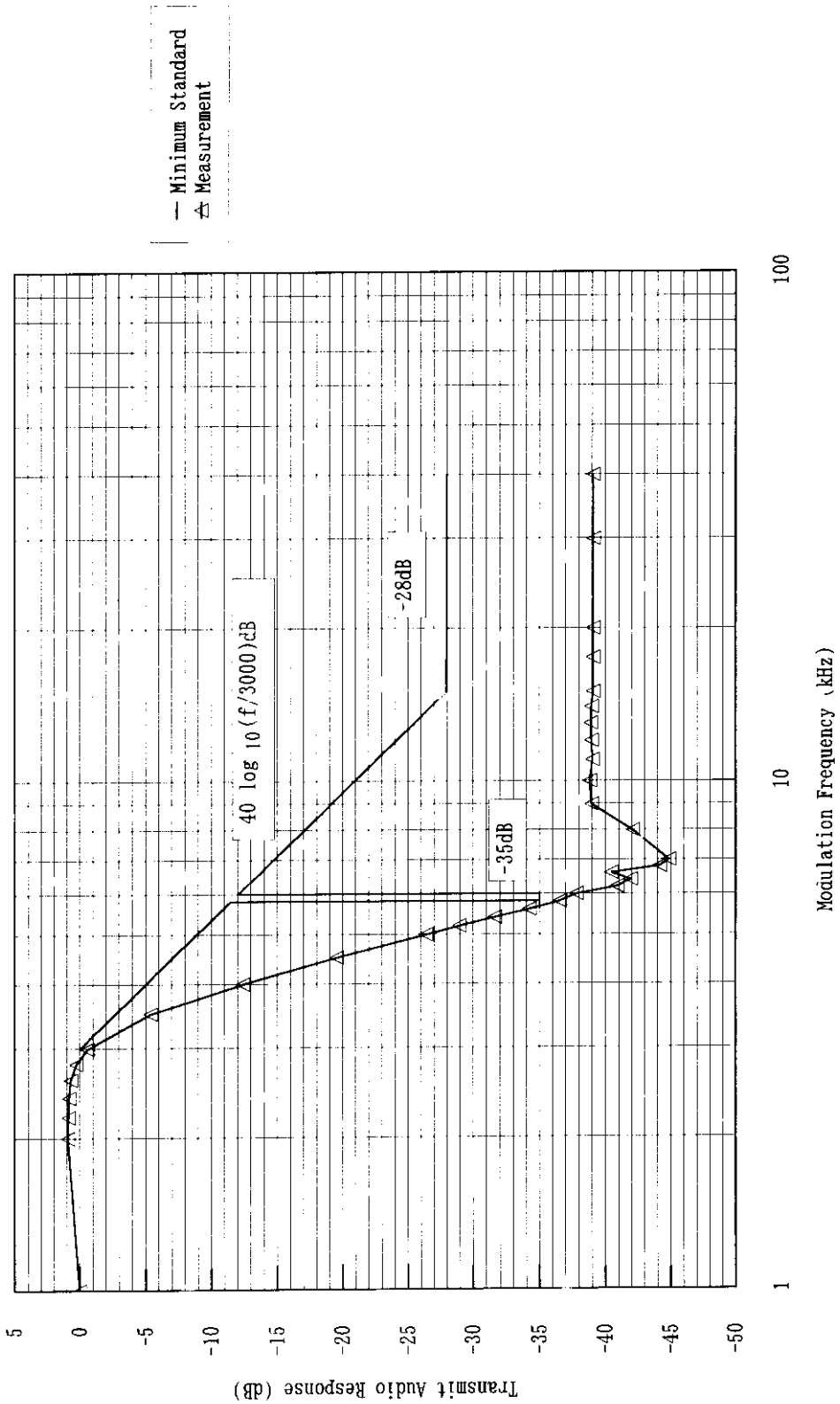
EXHIBIT 25

Applicant: Shintom Co., Ltd.

Transmitter Type: BFYM3047



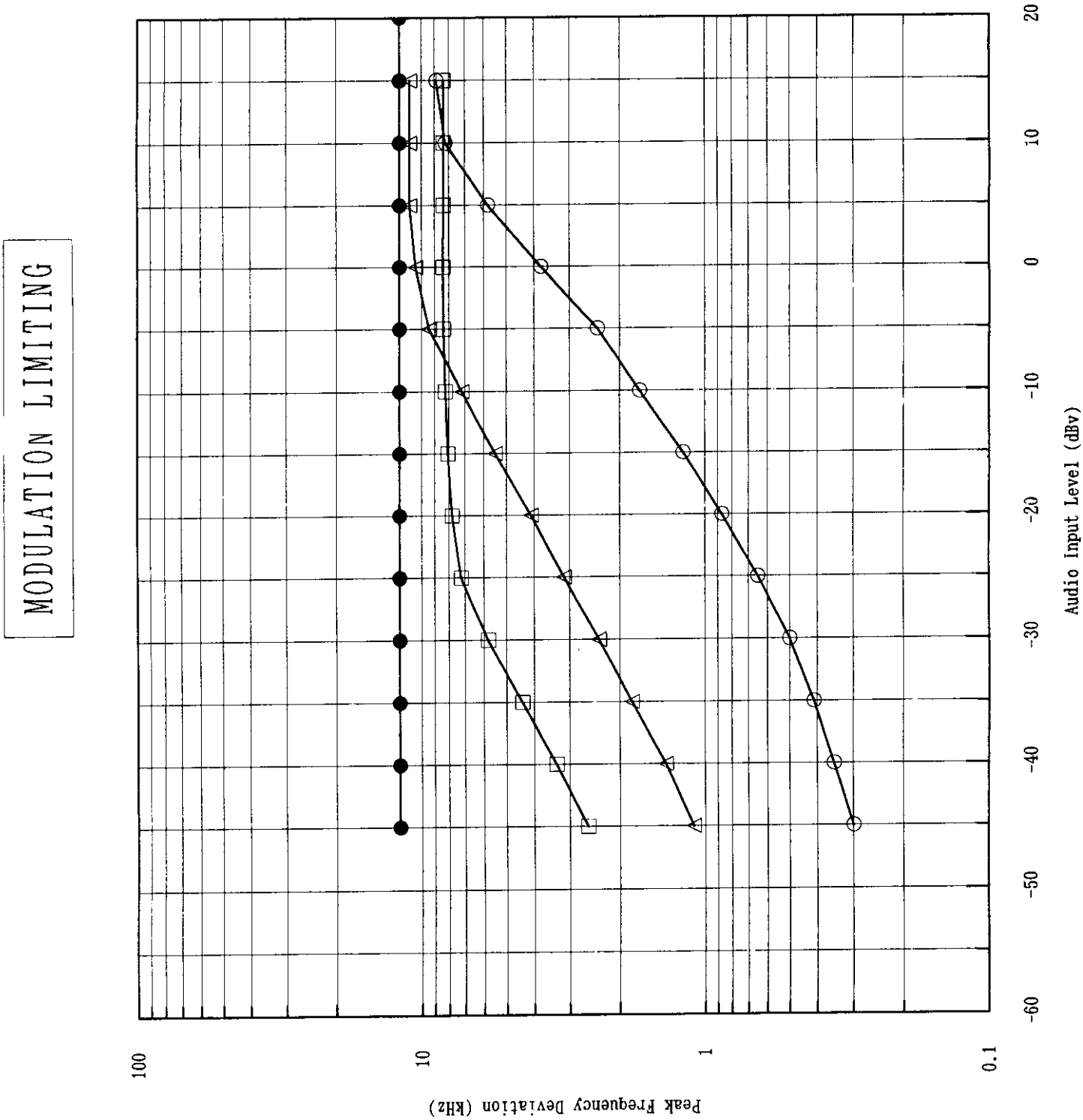
TRANSMITER AUDIO FREQUENCY RESPONSE



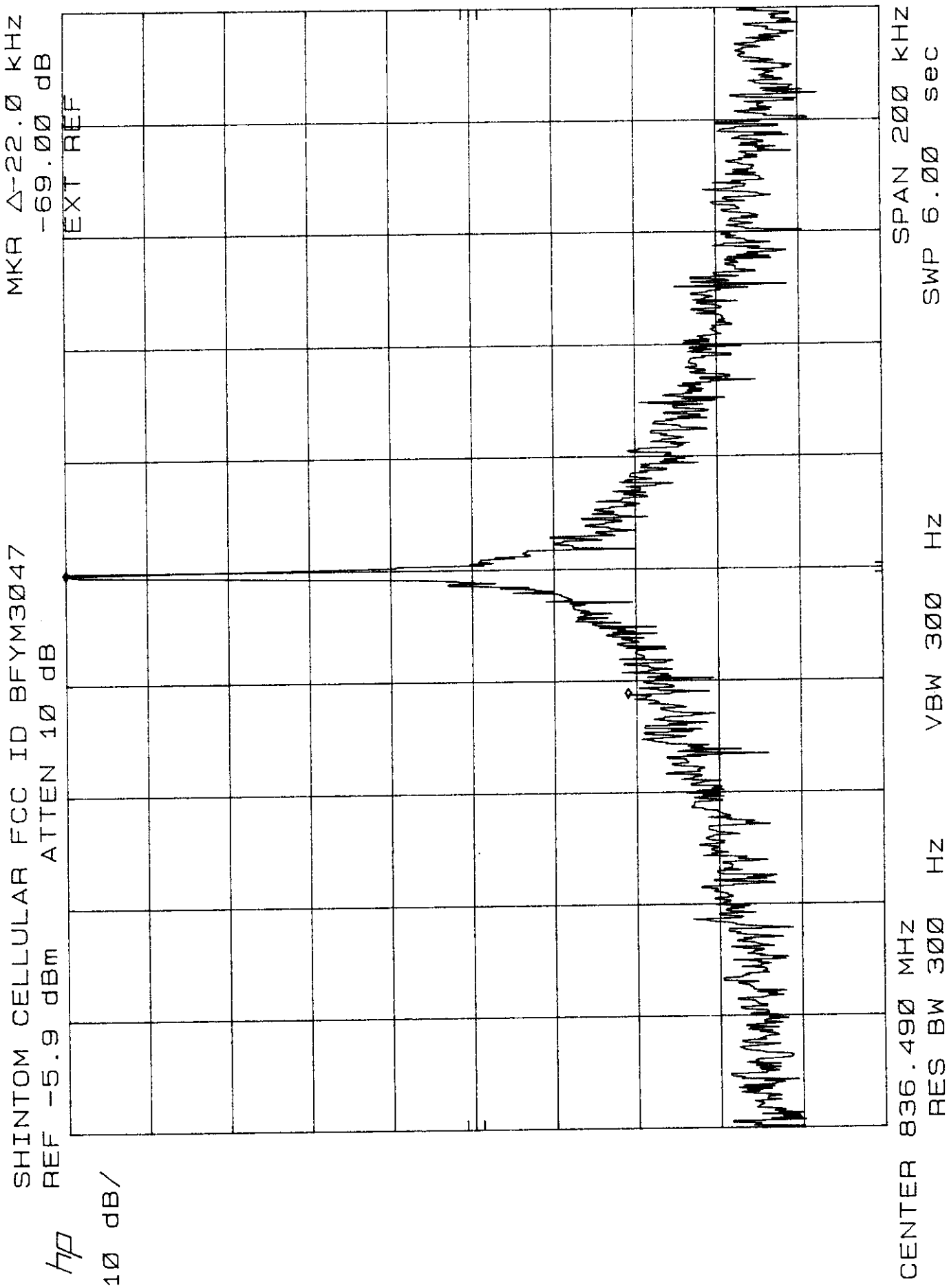
Applicant: Shintom Co., Ltd.

Transmitter Type: BFYM3047

MODULATION LIMITING



Applicant: Shintom Co., Ltd. Transmitter Type: BFYM3047



OCCUPIED BANDWIDTH
NO MODULATION

EXHIBIT 28

Applicant: Shintom Co., Ltd. Transmitter Type: BFYM3047

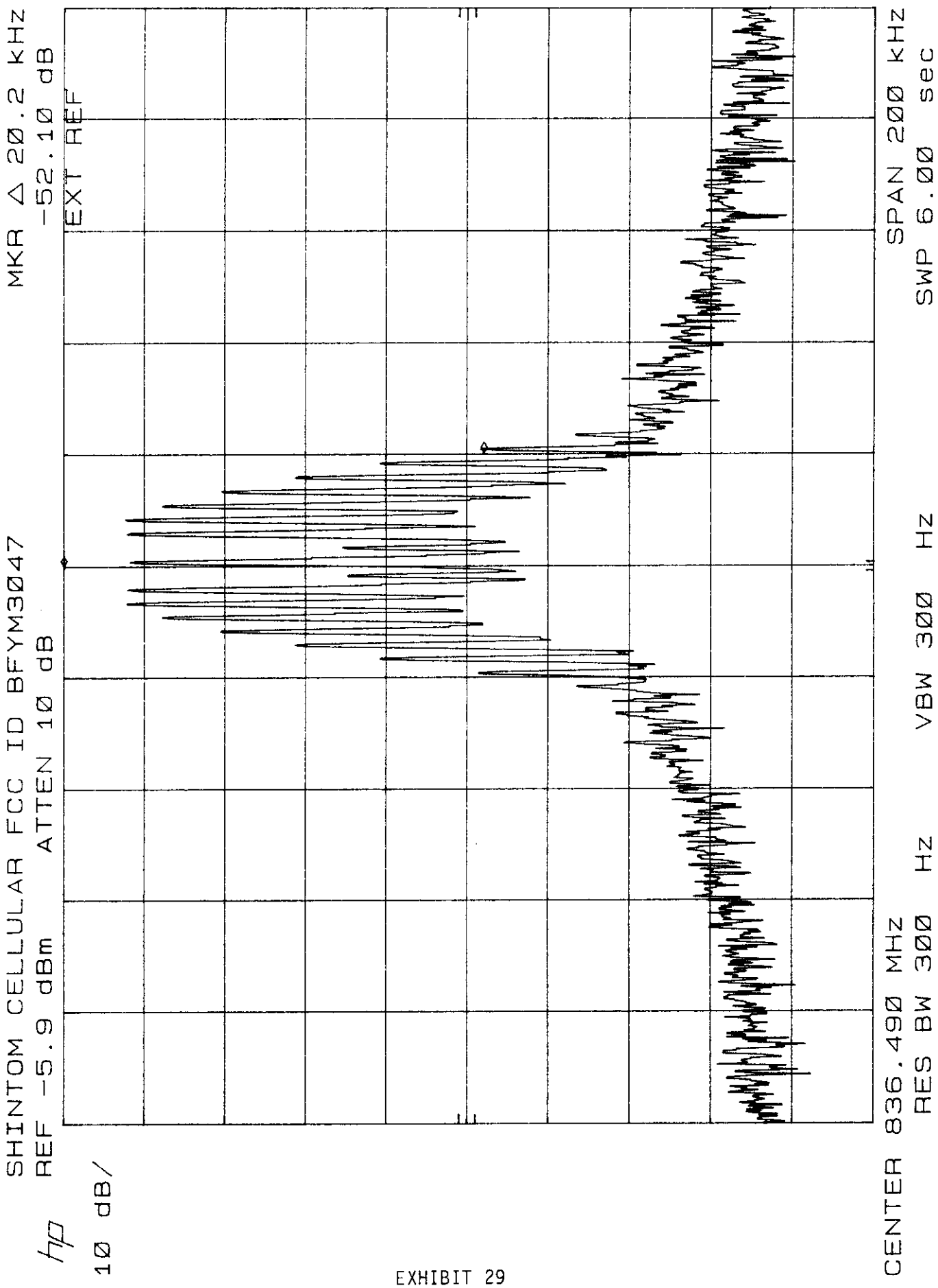
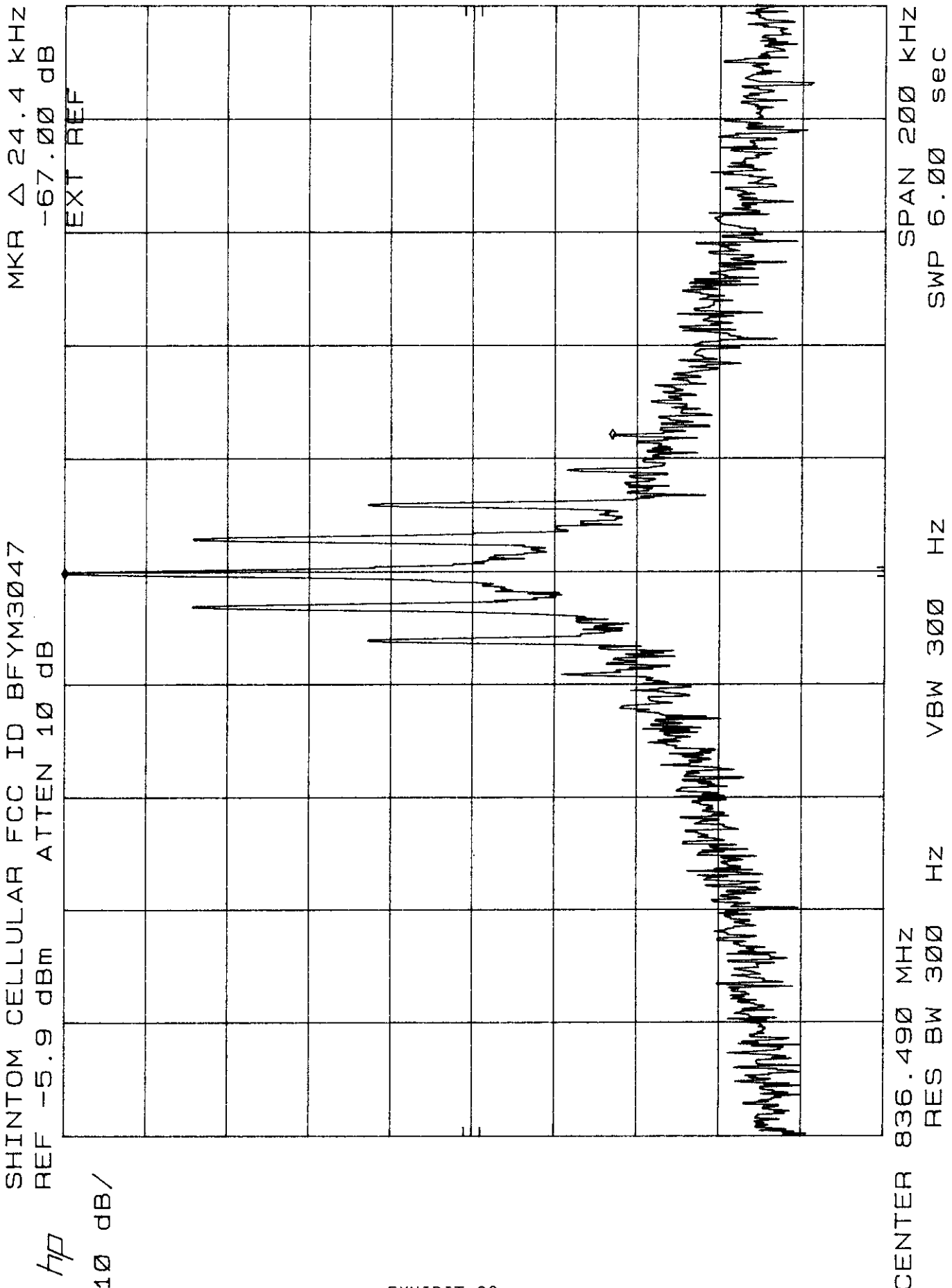


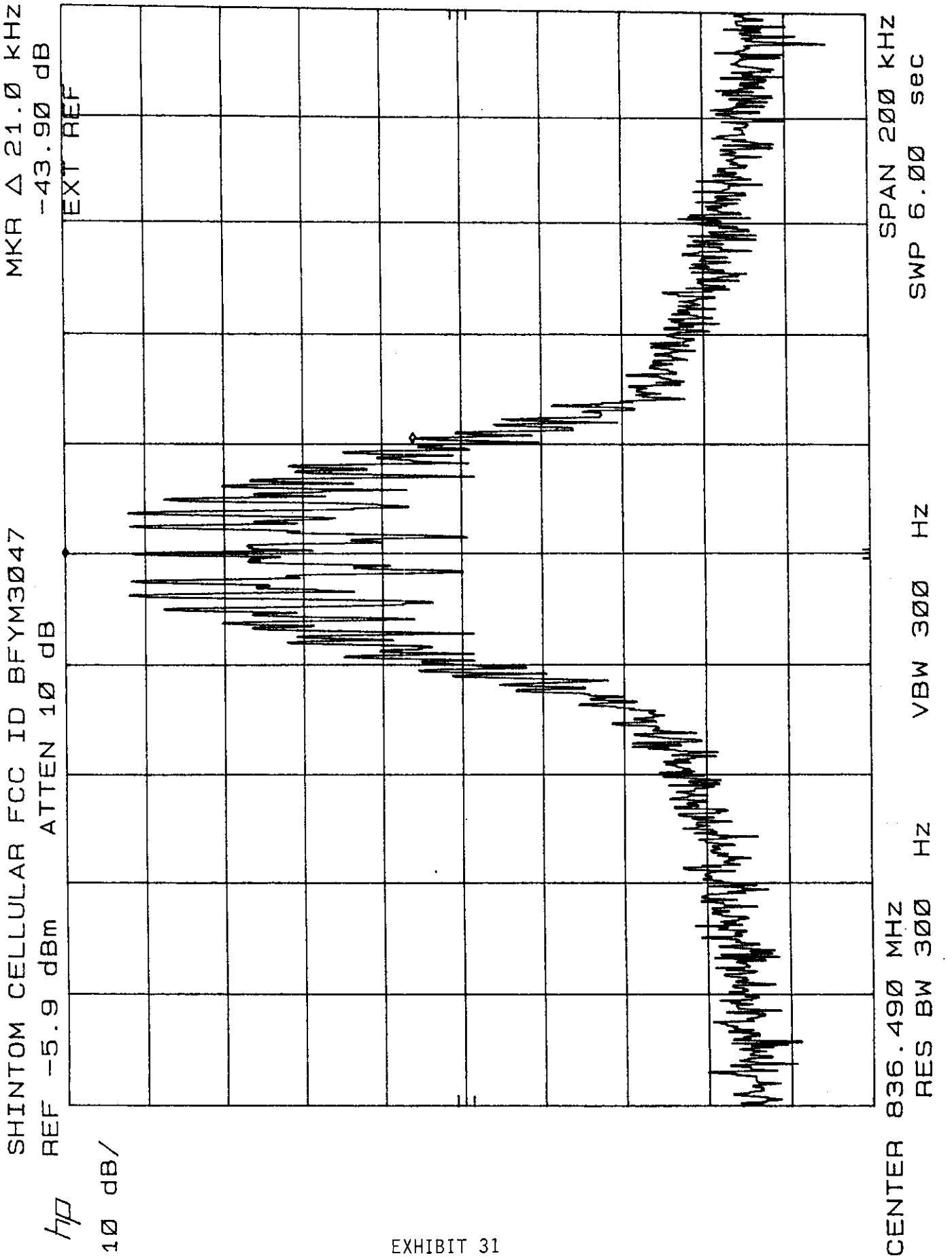
EXHIBIT 29

Applicant: Shintom Co., Ltd. Transmitter Type: BFYM3047

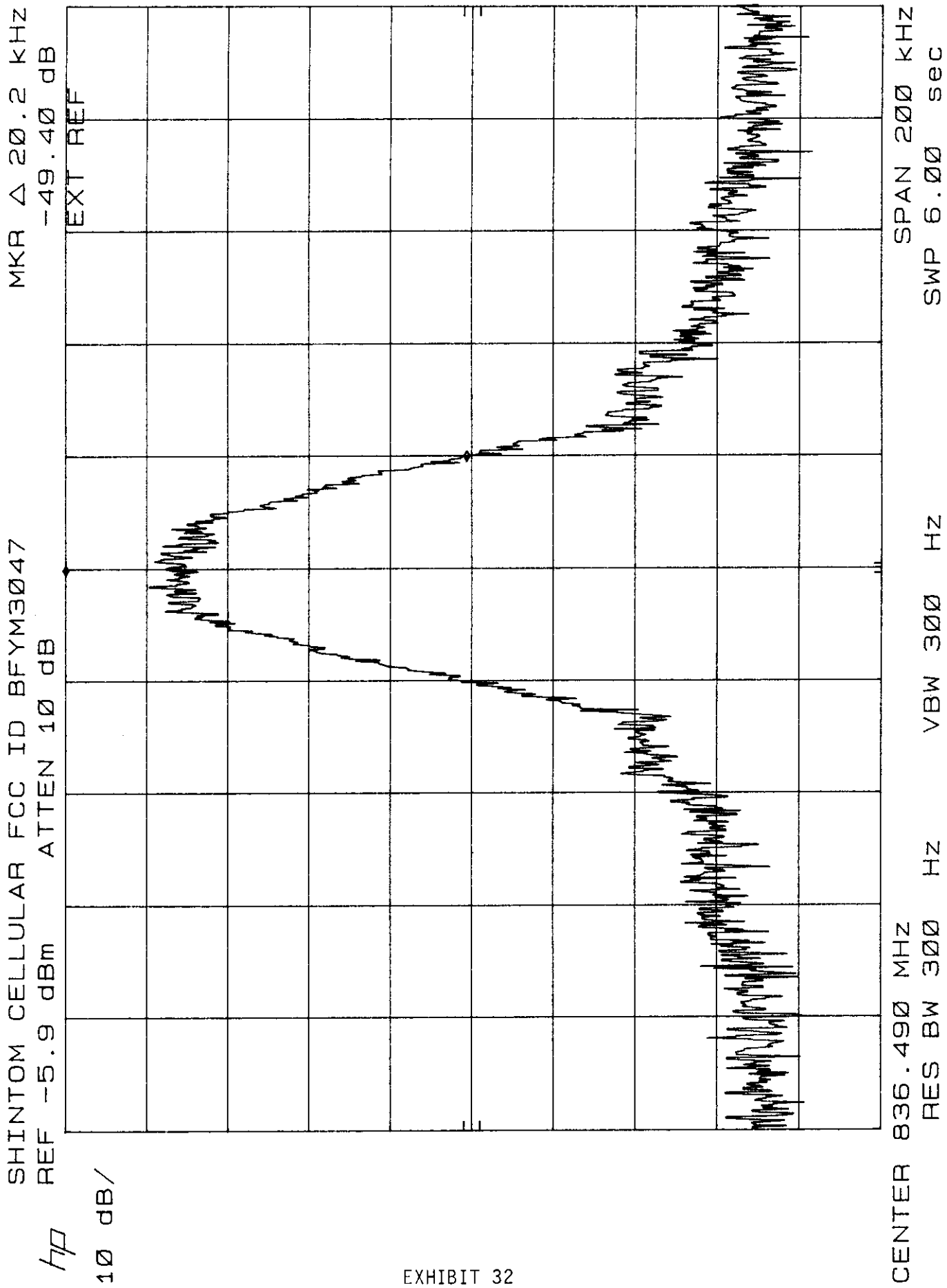
OCCUPIED BANDWIDTH
MODULATION: AT (6KHz) 2KHz PEAK DEVIATION

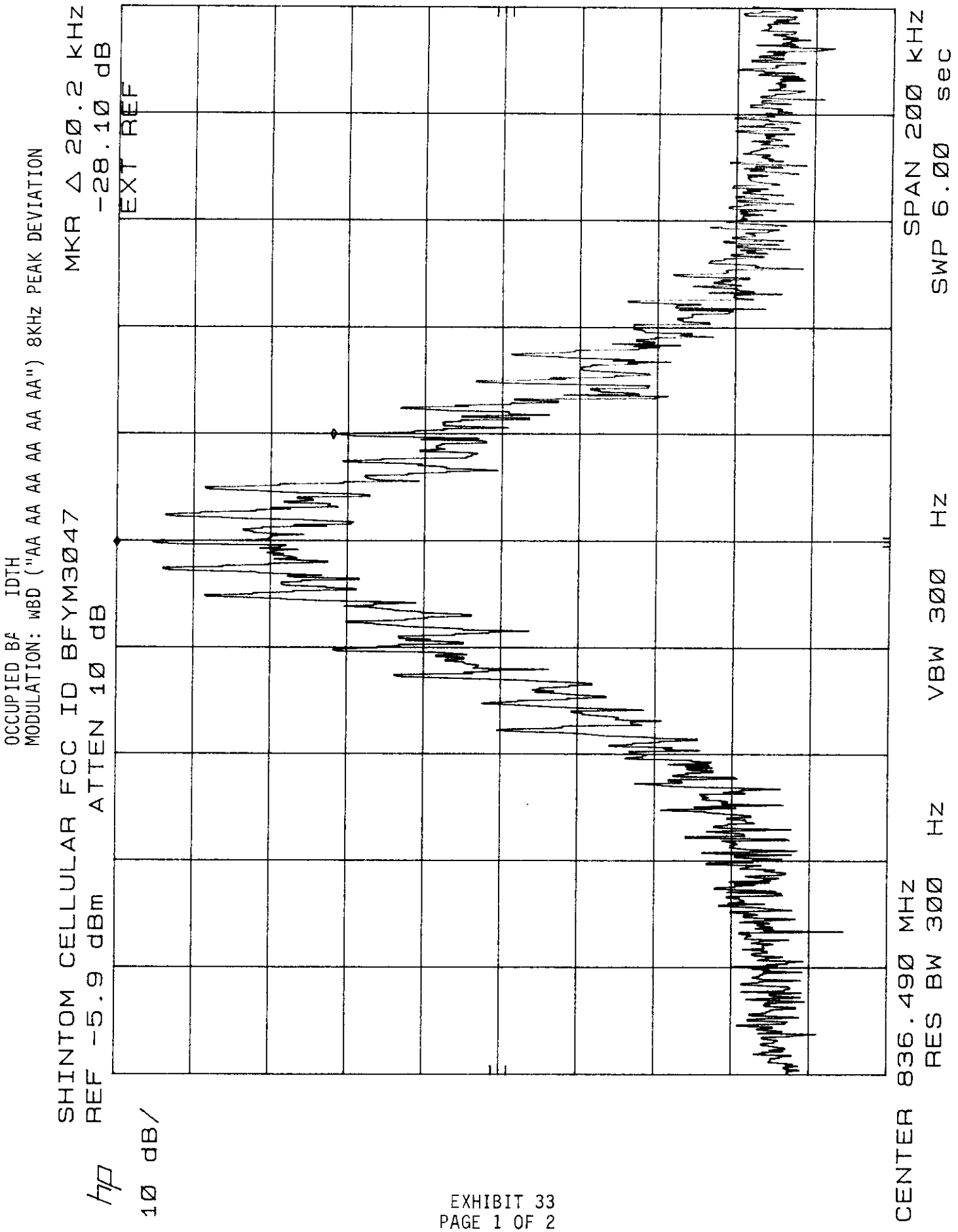


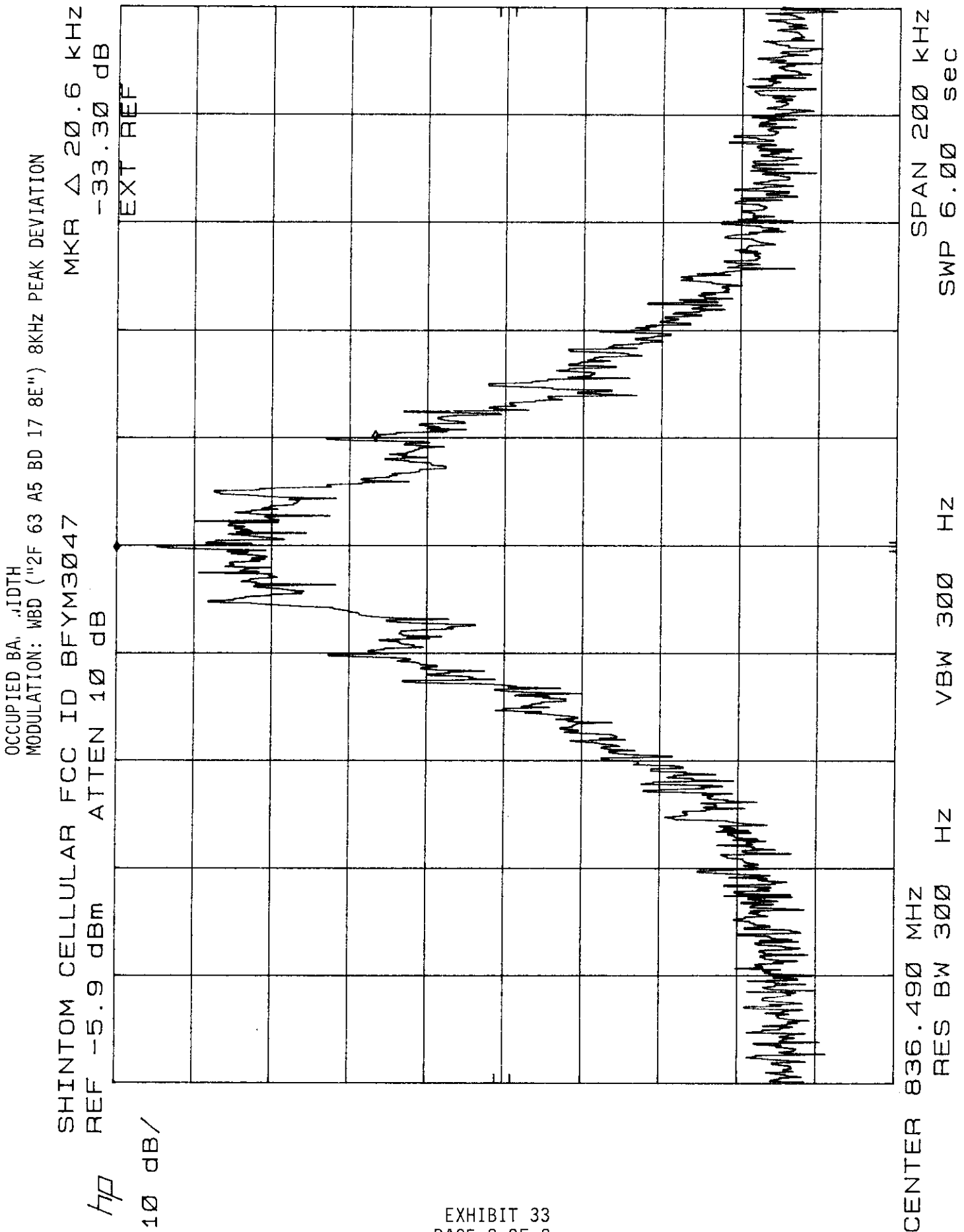
OCCUPIED B' WIDTH
MODULATION. UDIO (2.5KHz) + SAT (6KHz)

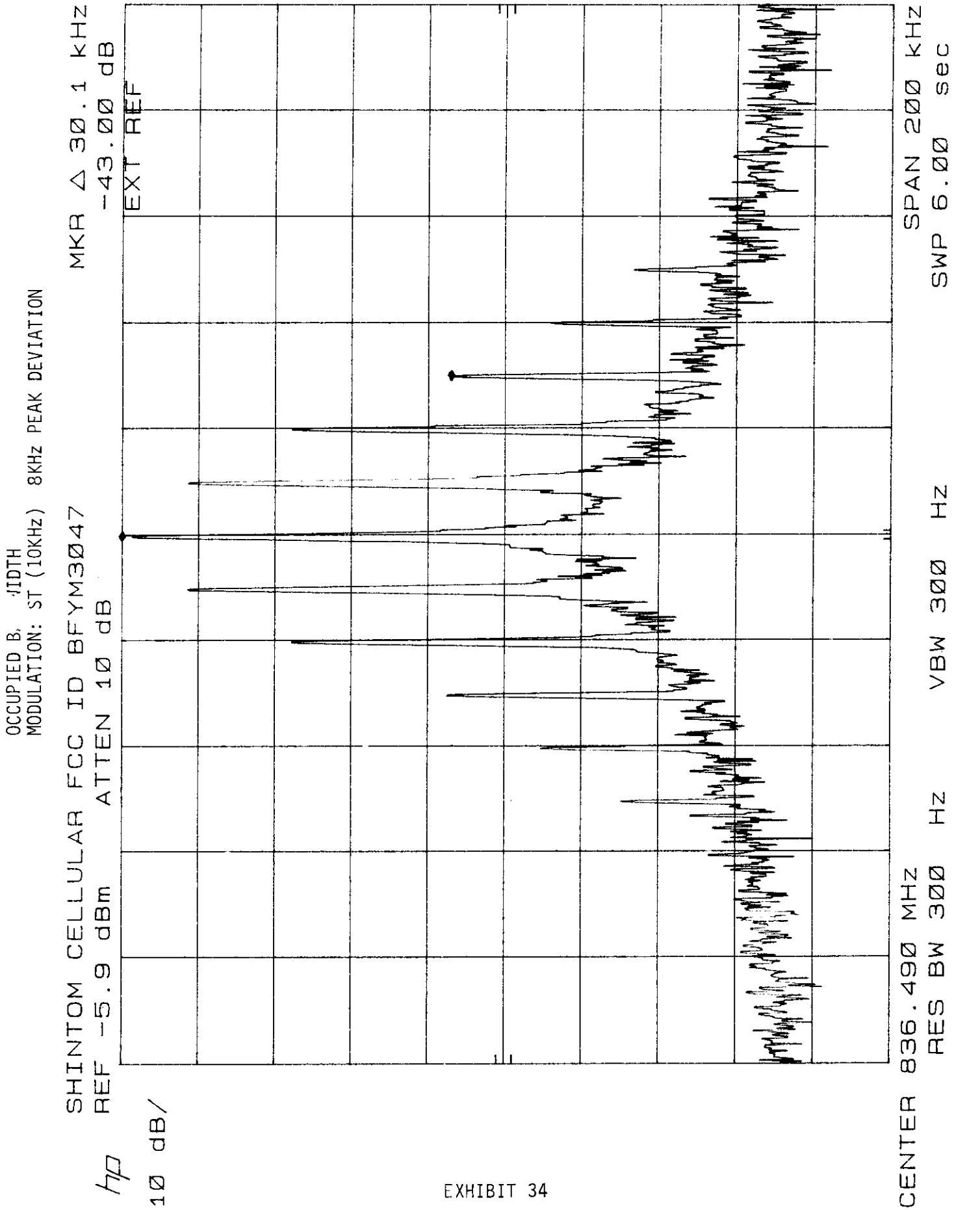


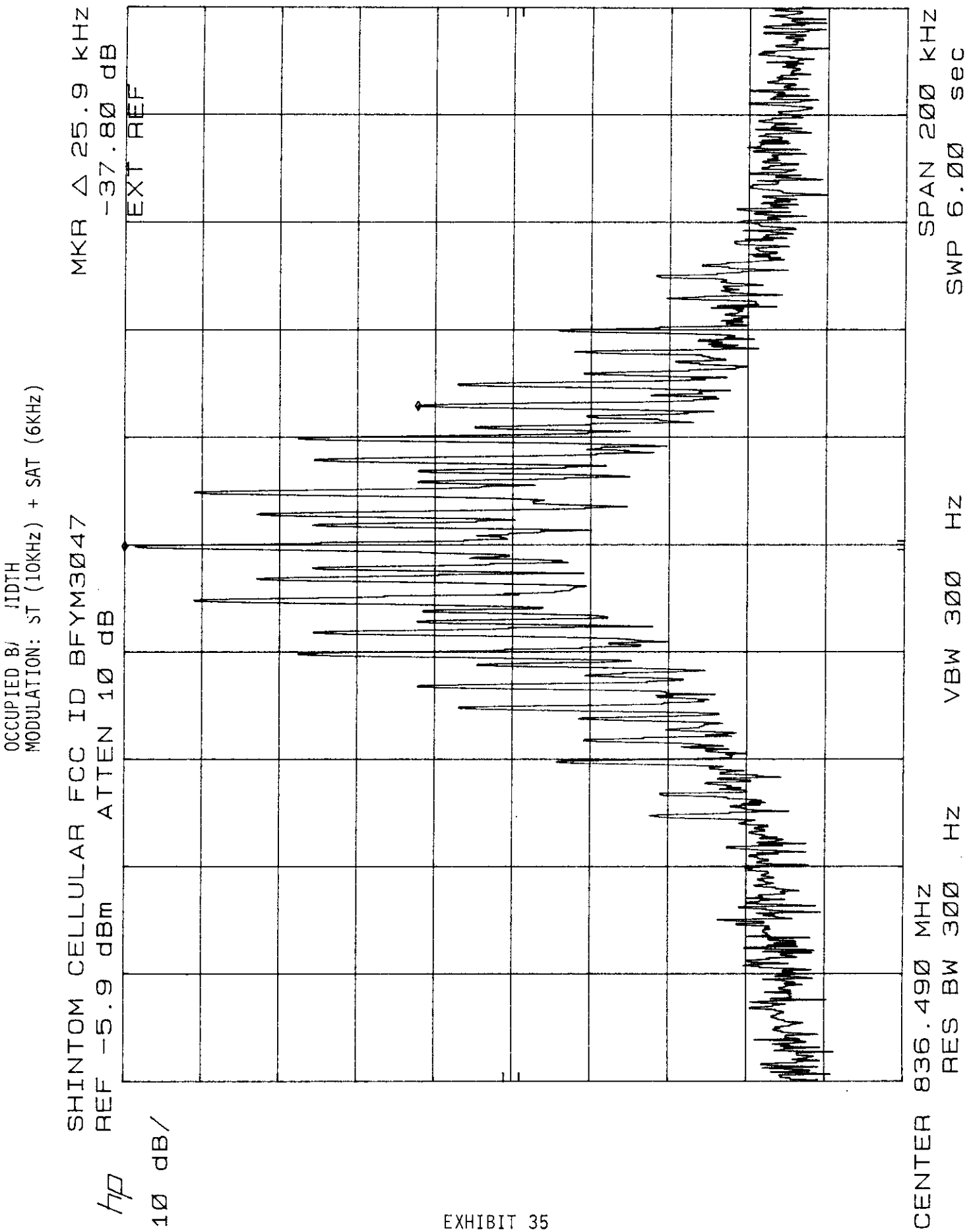
OCCUPIED BANDWIDTH
MODULATION. JTMF (1477 Hz, 941Hz) + SAT (6KHz)

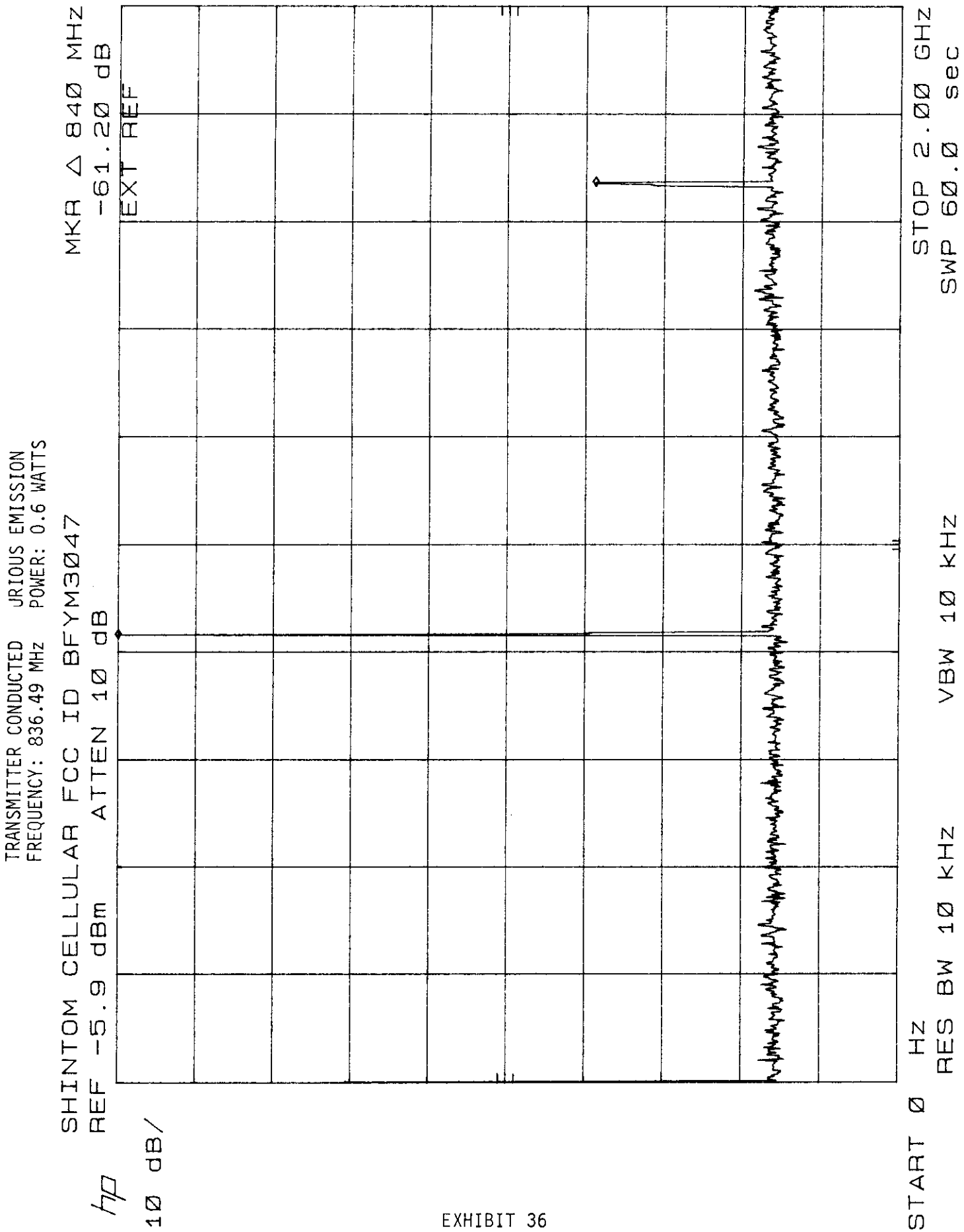


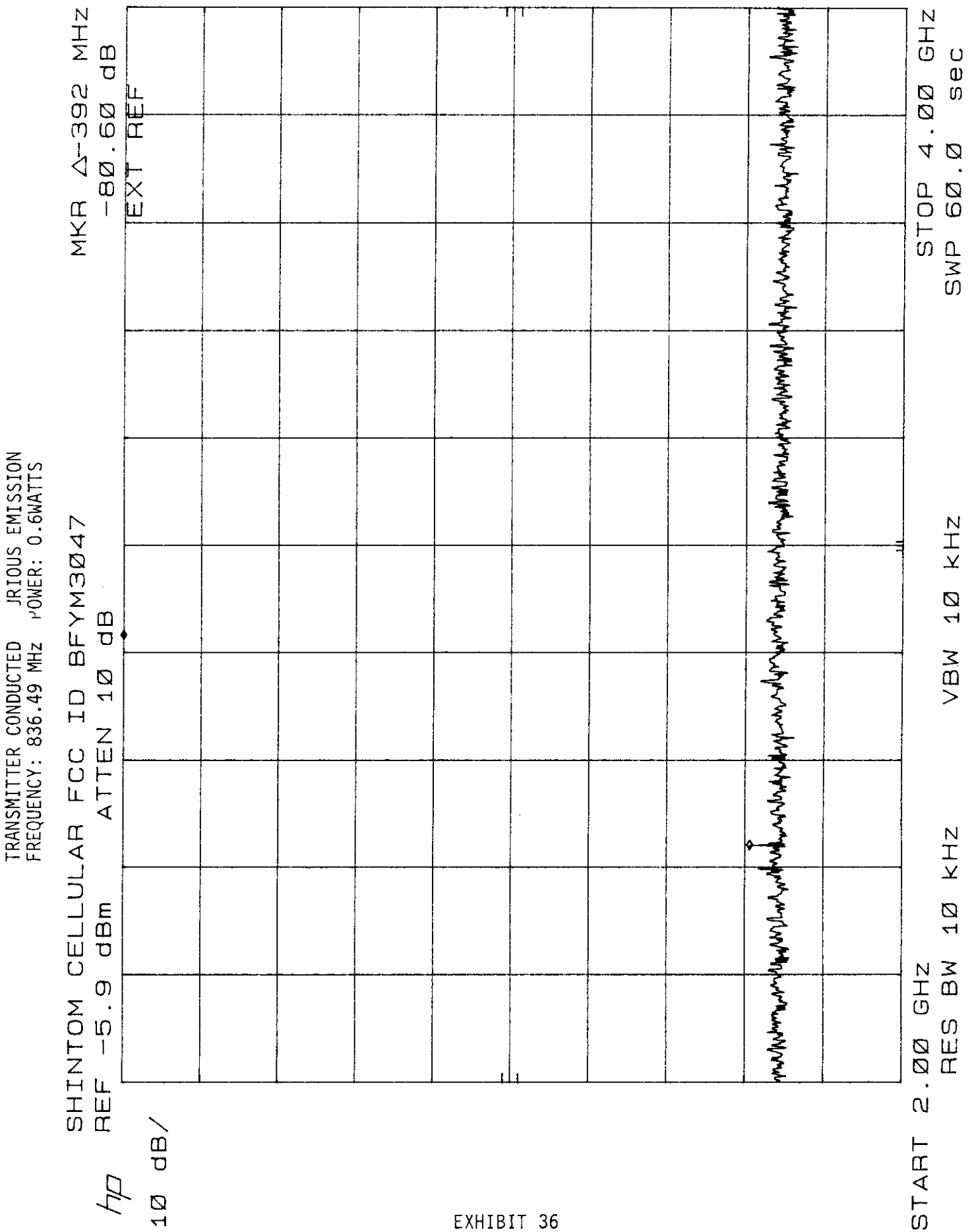

OCCUPIED BA IDTH
MODULATION: WBD ("AA AA AA AA AA AA AA") 8KHz PEAK DEVIATION
SHINTOM CELLULAR FCC ID BFYM3047
REF -5.9 dBm ATTEN 10 dB
MKR Δ 20.2 kHz
-28.10 dB
EXT REF
10 dB/
SPAN 200 kHz
SWP 6.00 sec
CENTER 836.490 MHz
RES BW 300 Hz
VBW 300 Hz

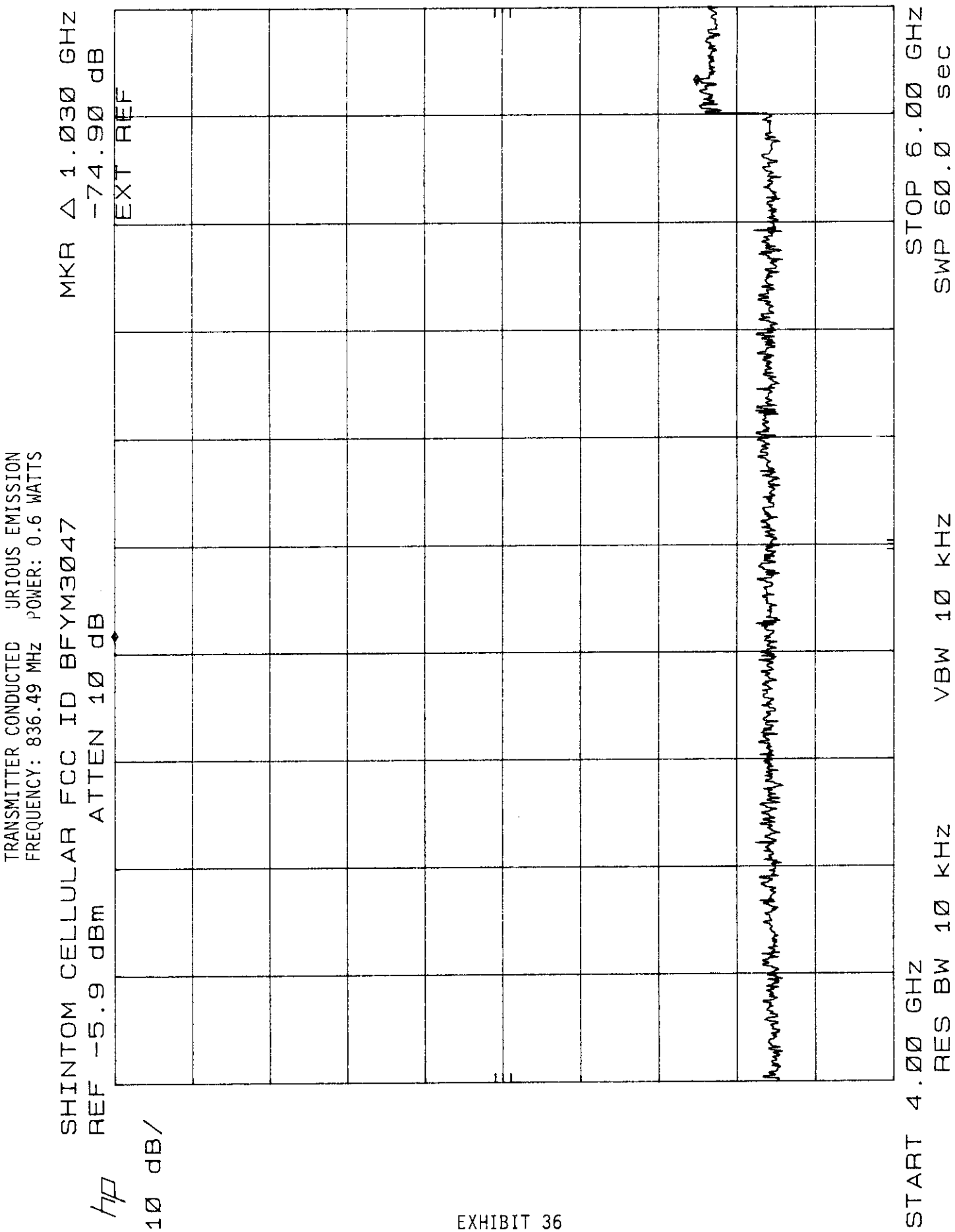

OCCUPIED BA, .IDTH
MODULATION: WBD ("2F 63 A5 BD 17 8E") 8KHz PEAK DEVIATION
MKR Δ 20.6 kHz
-33.30 dB
EXT REF
SHINTOM CELLULAR FCC ID BFYM3047
REF -5.9 dBm ATTEN 10 dB
SPAN 200 kHz
SWP 6.00 sec
10 dB/
CENTER 836.490 MHz
RES BW 300 Hz
VBW 300 Hz

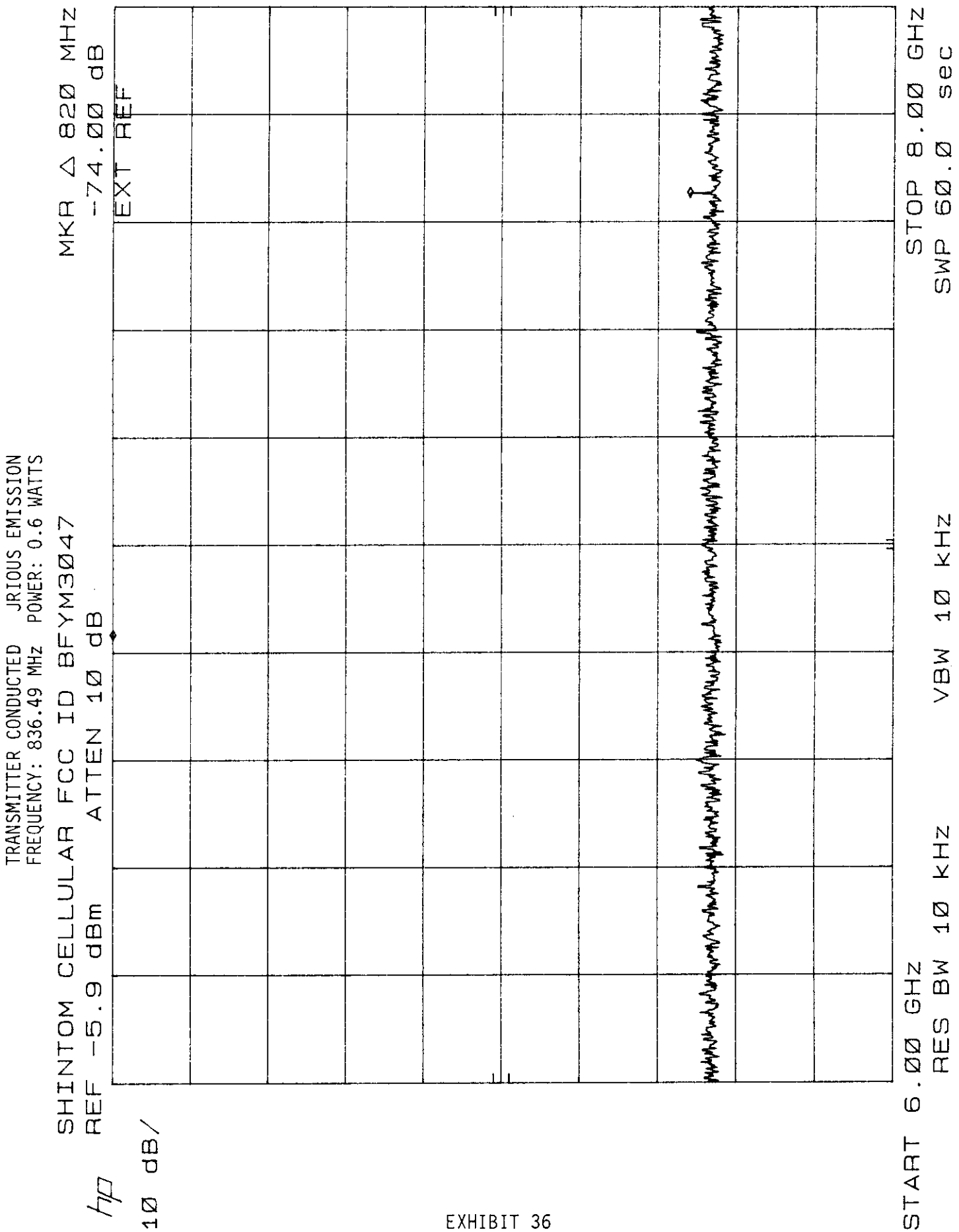

OCCUPIED B. WIDTH
MODULATION: ST (10KHz) 8KHz PEAK DEVIATION
SHINTOM CELLULAR FCC ID BFYM3047
REF -5.9 dBm ATTEN 10 dB
MKR Δ 30.1 kHz
-43.00 dB
EXT REF
10 dB/
CENTER 836.490 MHz
RES BW 300 Hz
VBW 300 Hz
SPAN 200 kHz
SWP 6.00 sec

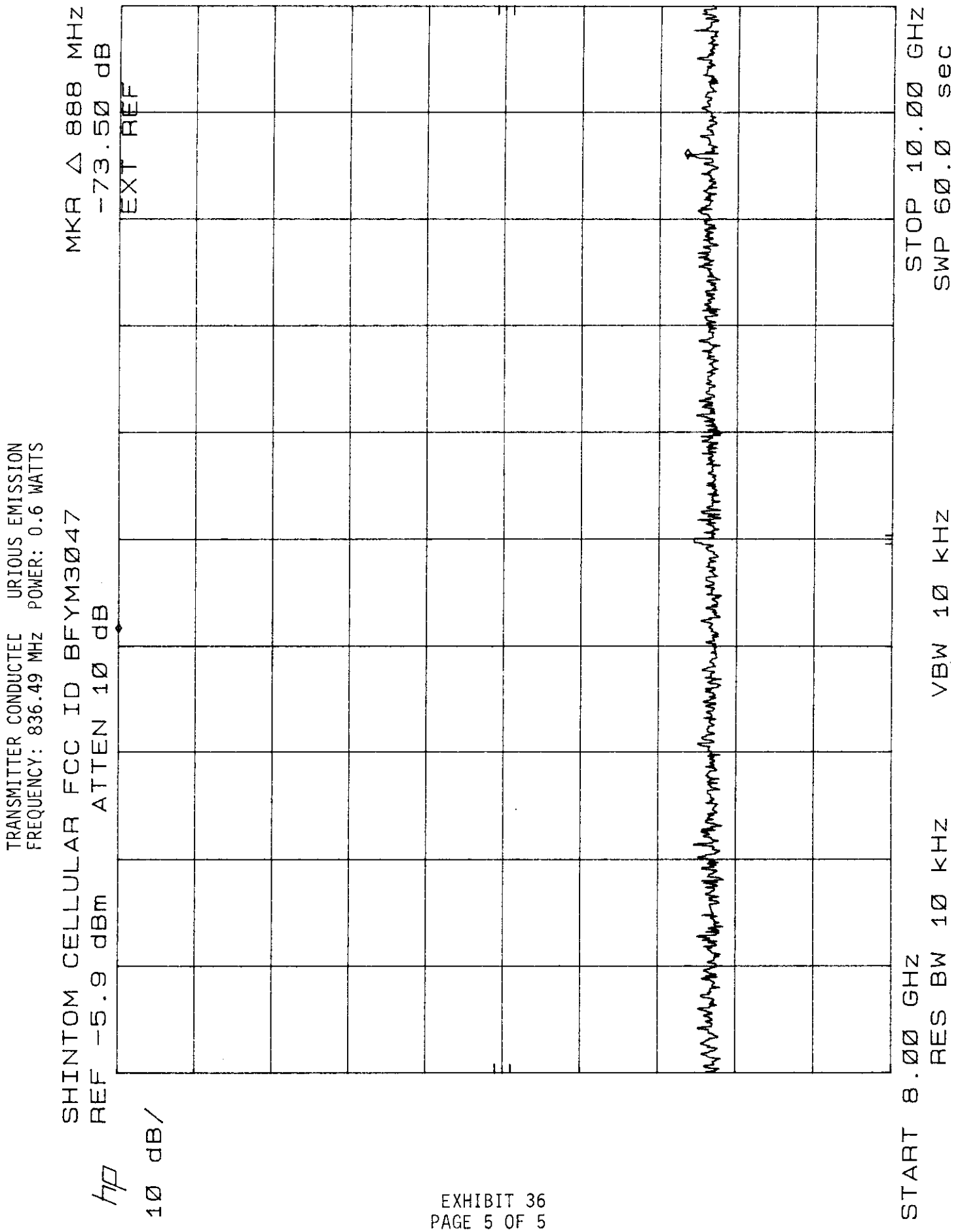

OCCUPIED BW
MODULATION: ST (10KHz) + SAT (6KHz)
SHINTOM CELLULAR FCC ID BFYM3047
REF -5.9 dBm ATTEN 10 dB
MKR Δ 25.9 kHz
-37.80 dB
EXT REF
10 dB/
CENTER 836.490 MHz
RES BW 300 Hz
VBW 300 Hz
SPAN 200 kHz
SWP 6.00 sec

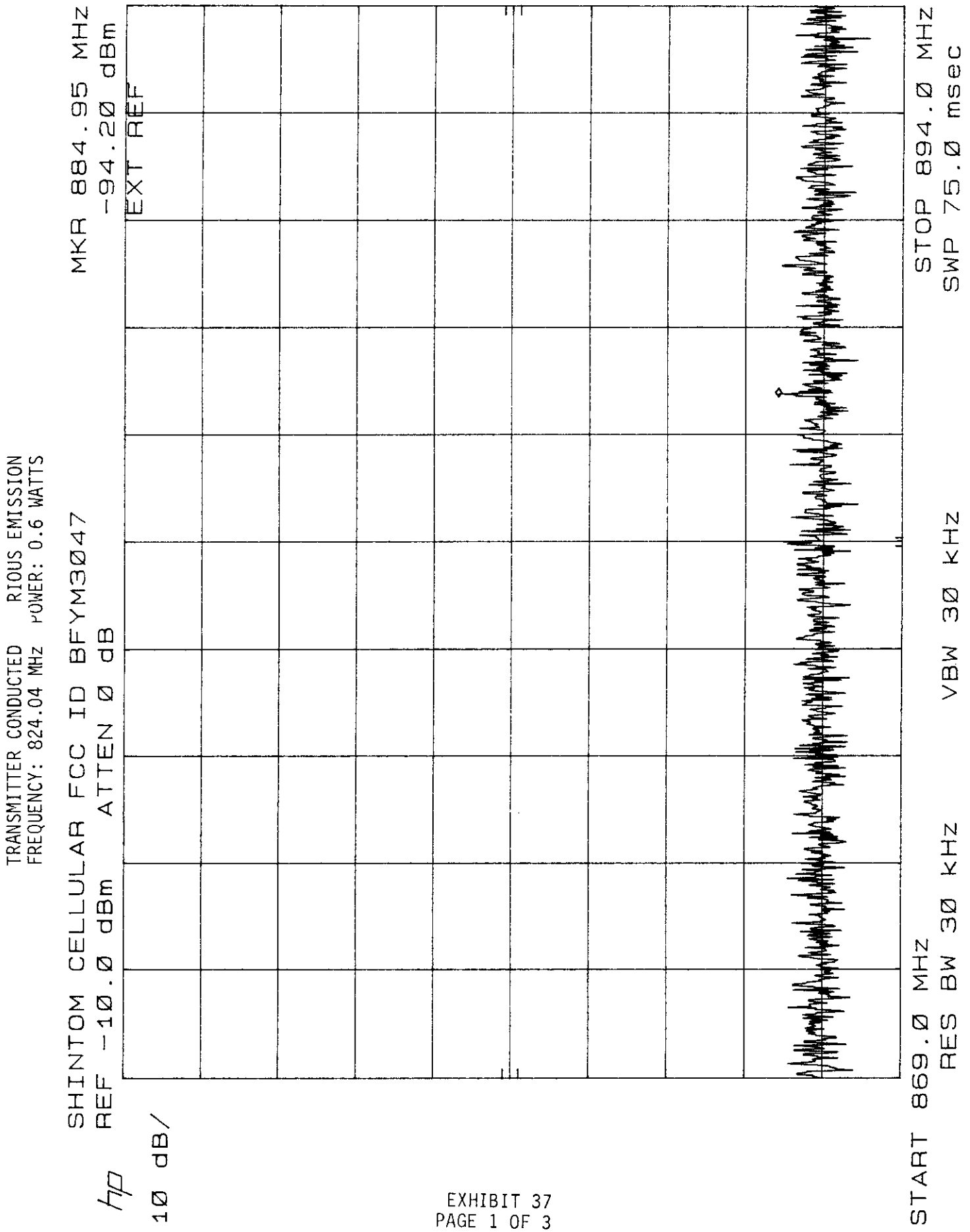

TRANSMITTER CONDUCTED JRIOUS EMISSION
FREQUENCY: 836.49 MHz POWER: 0.6 WATTS
SHINTOM CELLULAR FCC ID BFYM3047
REF -5.9 dBm ATTEN 10 dB
MKR Δ 840 MHz
-61.20 dB
EXT REF
10 dB/
START Ø Hz
RES BW 10 kHz
VBW 10 kHz
STOP 2.ØØ GHz
SWP 60.Ø sec

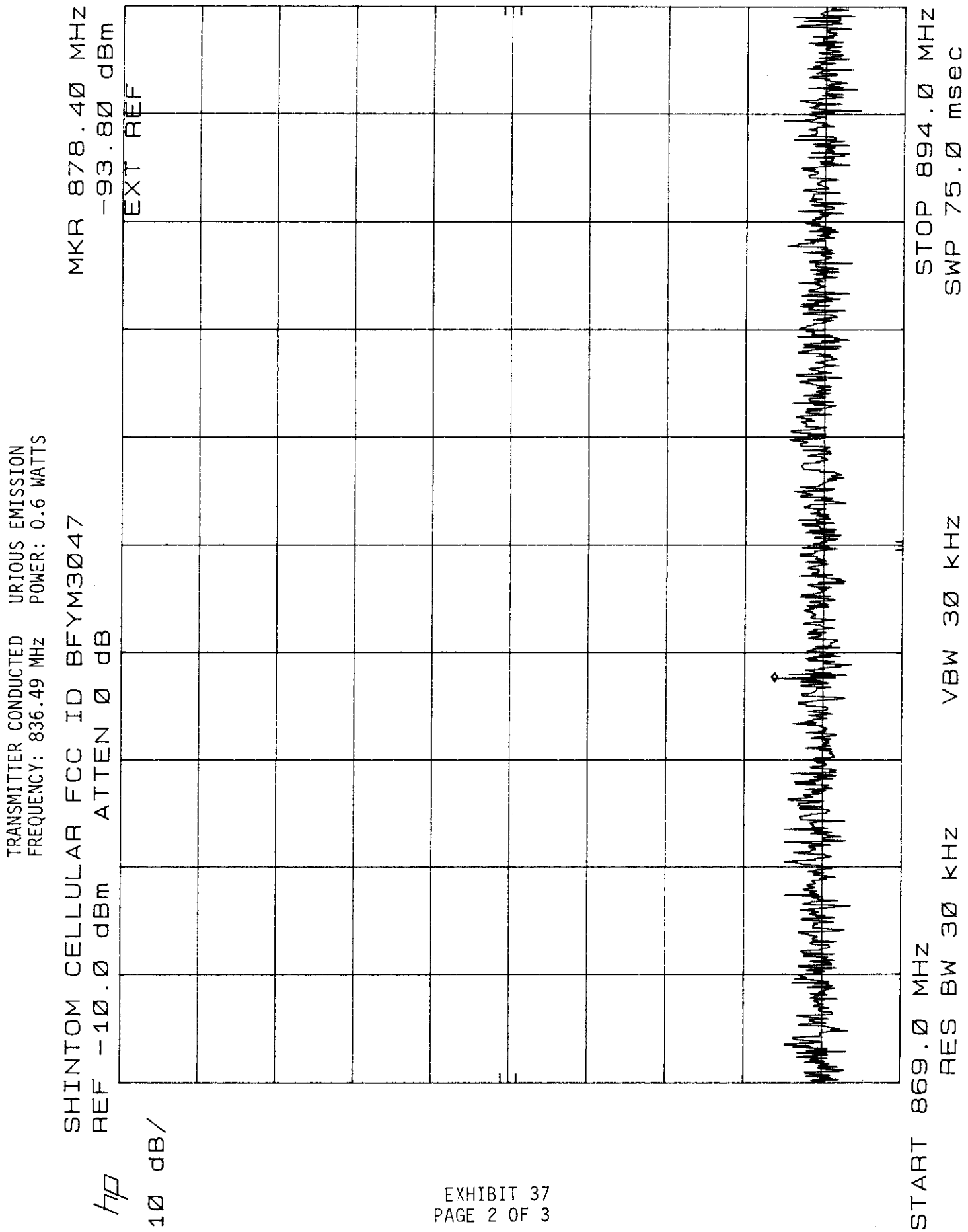

TRANSMITTER CONDUCTED JRIOUS EMISSION
FREQUENCY: 836.49 MHz POWER: 0.6WATTS
SHINTOM CELLULAR FCC ID BFYM3047
REF -5.9 dBm ATTEN 10 dB
MKR Δ-392 MHz
-80.60 dB
EXT REF
10 dB/
START 2.00 GHz
RES BW 10 kHz
VBW 10 kHz
STOP 4.00 GHz
SWP 60.0 sec

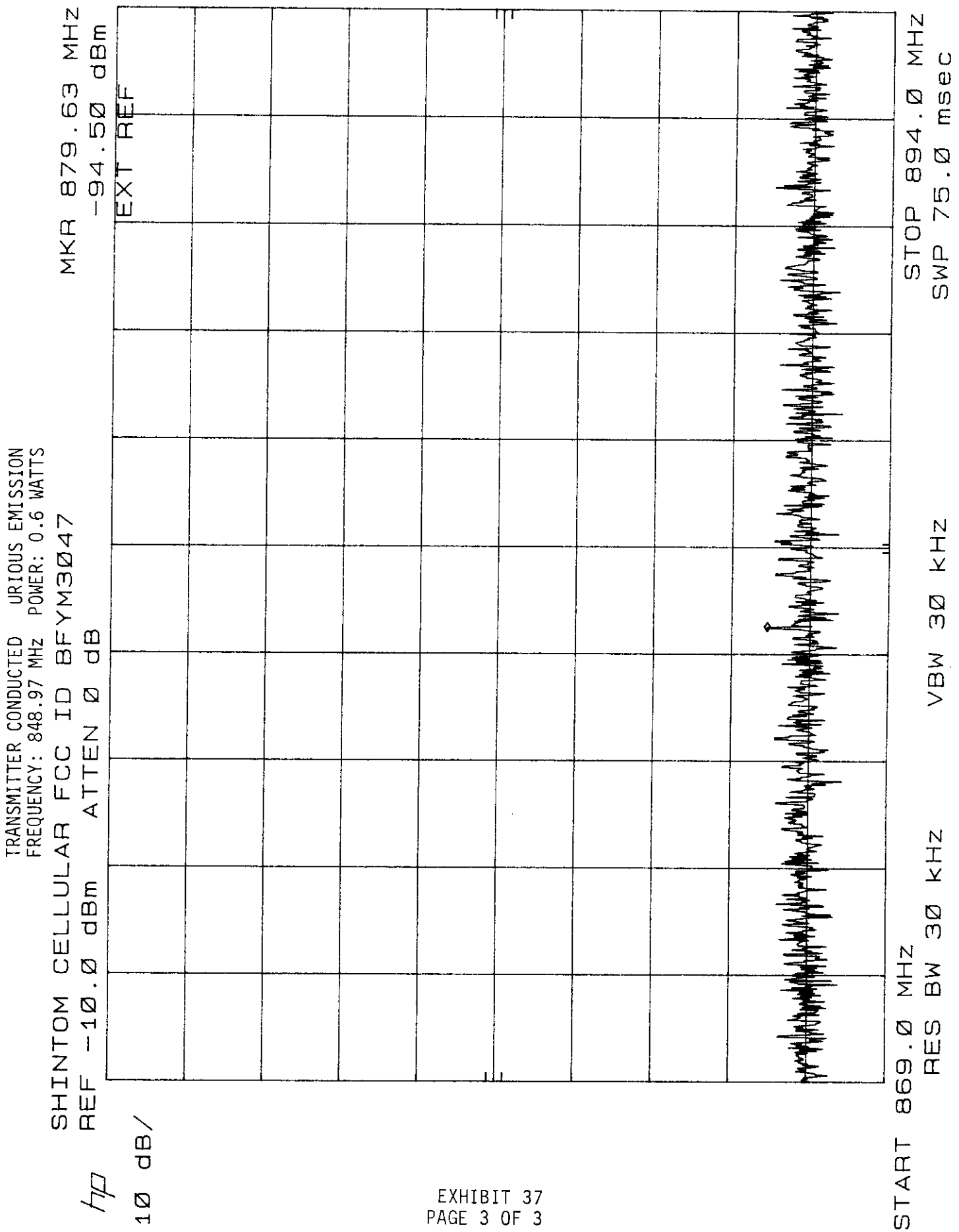

TRANSMITTER CONDUCTED SPURIOUS EMISSION
FREQUENCY: 836.49 MHz POWER: 0.6 WATTS
SHINTOM CELLULAR FCC ID BFYM3047
REF -5.9 dBm ATTEN 10 dB
MKR Δ 1.030 GHz
-74.90 dB
EXT REF
10 dB/
START 4.00 GHz
RES BW 10 kHz
VBW 10 kHz
STOP 6.00 GHz
SWP 60.0 sec


TRANSMITTER CONDUCTED JRIOUS EMISSION
FREQUENCY: 836.49 MHz POWER: 0.6 WATTS
SHINTOM CELLULAR FCC ID BFYM3047
REF -5.9 dBm ATTEN 10 dB
MKR Δ 820 MHz
-74.00 dB
EXT REF
10 dB/
START 6.00 GHz
RES BW 10 kHz
VBW 10 kHz
STOP 8.00 GHz
SWP 60.0 sec


TRANSMITTER CONDUCTED URIOUS EMISSION
FREQUENCY: 836.49 MHz POWER: 0.6 WATTS
SHINTOM CELLULAR FCC ID BFYM3047
REF -5.9 dBm ATTEN 10 dB
MKR Δ 888 MHz
-73.50 dB
EXT REF
10 dB/
START 8.00 GHz
RES BW 10 kHz
VBW 10 kHz
STOP 10.00 GHz
SWP 60.0 sec


TRANSMITTER CONDUCTED RIOUS EMISSION
FREQUENCY: 824.04 MHz POWER: 0.6 WATTS
SHINTOM CELLULAR FCC ID BFYM3047
REF -10.0 dBm ATTEN 0 dB
MKR 884.95 MHz
-94.20 dBm
EXT REF
10 dB/
START 869.0 MHz
RES BW 30 kHz
VBW 30 kHz
STOP 894.0 MHz
SWP 75.0 msec


TRANSMITTER CONDUCTED URIOUS EMISSION
FREQUENCY: 836.49 MHz POWER: 0.6 WATTS
SHINTOM CELLULAR FCC ID BFYM3047
REF -10.0 dBm ATTEN 0 dB
MKR 878.40 MHz
-93.80 dBm
EXT REF
10 dB/
START 869.0 MHz
RES BW 30 kHz
VBW 30 kHz
STOP 894.0 MHz
SWP 75.0 msec


TRANSMITTER CONDUCTED URIOUS EMISSION
FREQUENCY: 848.97 MHz POWER: 0.6 WATTS
SHINTOM CELLULAR FCC ID BFYM3047
REF -10.0 dBm ATTEN 0 dB
MKR 879.63 MHz
-94.50 dBm
EXT REF
10 dB/
START 869.0 MHz
RES BW 30 kHz
VBW 30 kHz
STOP 894.0 MHz
SWP 75.0 msec

Applicant: Shintom Co., Ltd.

Transmitter Type: BFYM3047

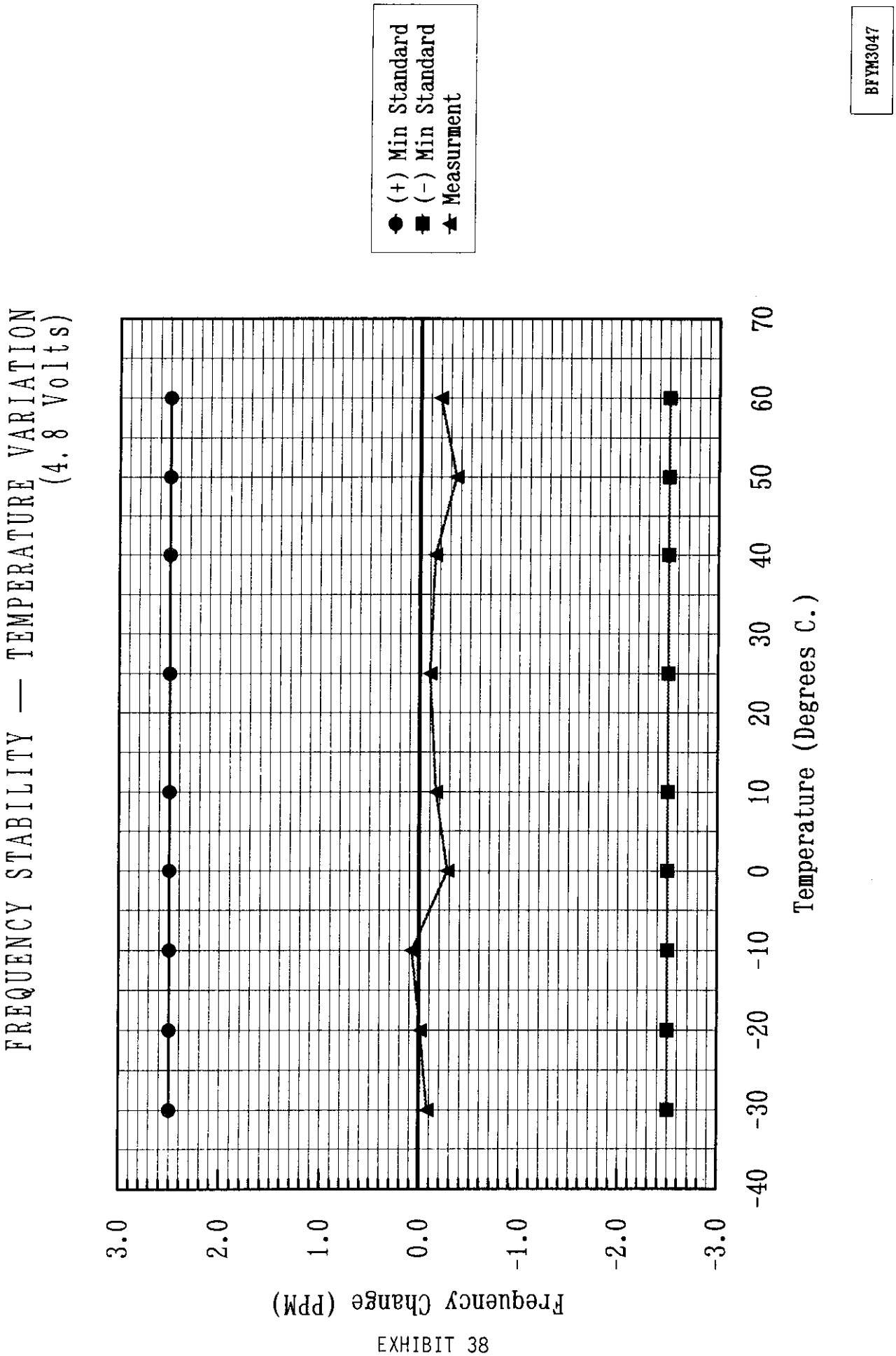


EXHIBIT 38

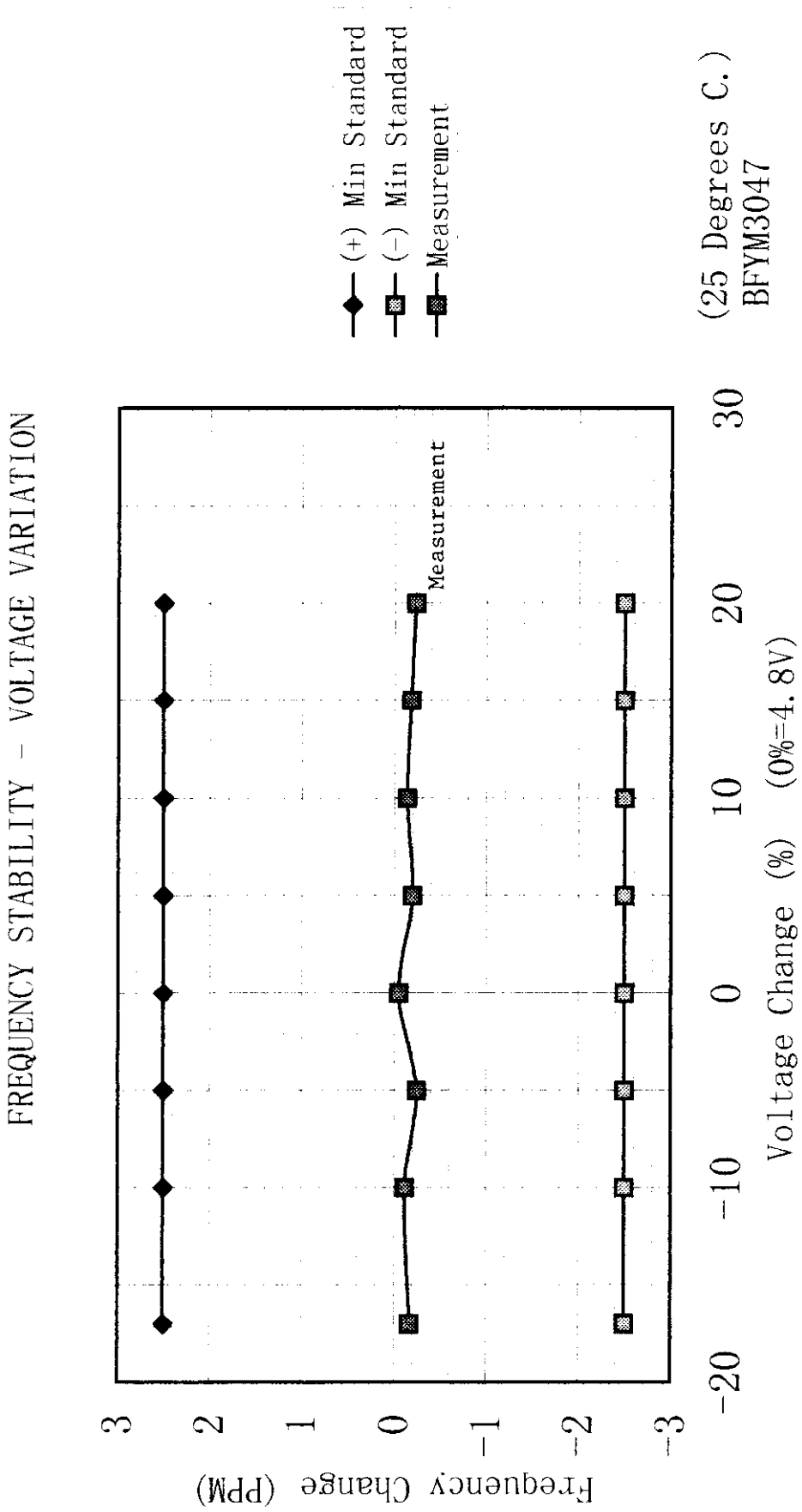

FREQUENCY STABILITY - VOLTAGE VARIATION
(+) Min Standard
(-) Min Standard
Measurement
(25 Degrees C.)
BFYM3047
Measurement
Frequency Change (PPM)
3
2
1
0
-1
-2
-3
-20
-10
0
10
20
30
Voltage Change (%) (0%=4.8V)

EXHIBIT 39