



Eurofins ETS Product Service (HK) Co., Ltd.

TEST - REPORT

47 CFR part 15.247

Test report no.: H1M20804-6775-P-15

FCC ID: LW3WC1000

Model Name: WC1000

Accredited Laboratory by:



Eurofins ETS Product Service (HK) Co., Ltd.
26/F., Tamson Plaza, 161 Wai Yip Street
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TEST REPORT

Summary | 47 CFR Part 15.247

Test Report No.: H1M20804-6775-P-15

Date of issue: 20.05.2008

Testing Laboratory name: Eurofins ETS Product Service (HK) Co., Ltd.Address: 26/F., Tamson Plaza, 161 Wai Yip Street,
Kwun Tong, Kowloon, Hong Kong**Applicant's name**: Active Control Technology INCAddress: 4-1800 APPLEBY LINE, BURLINGTON, ONTARIO,, CANADA L7L
6A1**Manufacturer's name**: Techwall Electronics Co., Ltd.Address: 24/F., Tower 1, Tern Center, 237 Queen's Road, Central,
Hong Kong

Test specification

Standard(s) applied: [47 CFR part 15.247](#)**Test item description**: DIGITAL WIRELESS DOORPHONE

Brand Name: DIGI-COMMANDOR

Model and/or type reference ...: WC1000

Rating(s): Handset Unit (4.8V rechargeable Ni-MH battery)
Handset charger stand (9VDC output 120V AC/DC adaptor)
Caller Unit (8 to 12V AC or DC supply)
Caller Unit (1.5V x 4 alkaline AA-size batteries) back-up voltage source

Summary of Test Results

Pass*The Summary of Test Results based on a technical opinion belongs to the applied standard(s).**Note: An independent engineer carried out the valuation of the test results (Opinion) and the opinion might be different to the verification results by a certification body.*

Disclaimer

*Further details of testing are provided in particular chapters of this Test Report.**This document base on General Terms and Conditions of Eurofins ETS Product Service (HK) Co., Ltd., which the applicant accepted with order confirmation.*

Emphasized conditions or project related conditions:

Released Test Reports apply only to the specific samples tested under stated test conditions. It is the applicant's responsibility to assure that additional production units of the tested model(s) are manufactured in same construction and with identical electrical and mechanical components to meet the same quality as tested model(s). The applicant/manufacturer/importer is responsible for any modifications made to the production units which result in non-compliance to the applied and/or relevant regulations. Eurofins ETS Product Service (HK) Co., Ltd. shall have no liability for any deductions, inferences or generalizations drawn by the client or others from any kind of issued reports. Reports are confidential property of the client. As a mutual protection to the applicant, the 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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Annex: B – RF power output conducted	Number of Pages	4
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Annex: H – Spurious emission conducted	Number of Pages	0
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Annex: J – Band-edge compliance	Number of Pages	4
Annex: K – AC power line conducted emissions	Number of Pages	4
Annex: L – Receiver radiated emissions	Number of Pages	40

1. General information

1.1 Tester

20.05.2008

Mr. Michael Ng



Date

Test Operator

Signature

Technical responsibility for area of testing:

20.05.2008

Mr. F. Schulz



Date

Name

Signature

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1.2 Testing laboratory

1.2.1 Location

Name : Eurofins ETS Product Service (HK) Co., Ltd.
Street : 26/F., Tamson Plaza, 161 Wai Yip Street
Town : Kwun Tong, Kowloon
Country : Hong Kong
Telephone : +852 2389 2200
Fax : +852 2389 3073

Note: Test environment and test equipment available in accordance to ISO/IEC/EN 17025 requirements. Accreditation certificates for confirmation can be shown on request.

1.2.2 Test location, where different (where different as specified in 1.2.1)

Name : Eurofins ETS Product Service GmbH
Street : Storkower Str. 38C
Town : D-15526 Reichenwalde b. Berlin
Country : Germany
Telephone : +49 33631 888 0
Fax : +49 33631 888 660

Note: Radiated emission tests were performed in accordance to the equivalent standard ANSI C63.4-2003 and under ISO/IEC/EN 17025 requirements. Accreditation certificates for confirmation can be shown on request.

1.2.3 Details of accreditation status

DAR Accredited Testing Laboratory

DAR-Registration number: DAT-P-201/96

A2LA Accredited Testing Laboratory

Testing Cert# 1983.03

FCC registered measurement facility

Reg. No. 96970

Conformity Assessment Body (USA)

B-NetzA-CAB-02/21-103

1.3 Details of applicant

Name : Active Control Technology INC
Street : 4-1800 APPLEBY LINE, BURLINGTON,

Town : ONTARIO,
Country : CANADA L7L 6A1
Telephone : 905-670-5500
Fax : 905-592-9691

Contact : MR DAVID ITO
Telephone : 905-670-5500

1.4 Application details

Date of receipt of application : 09.04.2008
Date of receipt of test item : 09.04.2008
Date of test : 09.04.2008 - 20.05.2008

1.5 Test item

1.5.1 Description of test item

Type of product : DIGITAL WIRELESS DOORPHONE
Type identification : WC1000
Brand name : DIGI-COMMANDOR

Caller Unit

Details of power supply : 1.5V x 4 alkaline AA-size batteries (back-up voltage source)
8 – 12V AC or DC supply

Handset Unit

Details of power supply : 4.8V rechargeable Ni-MH battery (Handset Unit)
120V (9V DC output AC/DC adaptor) (Charger Stand)

Antenna Type : Integral antenna

Operating mode : Full Duplex

Type of modulation : FHSS

Frequency band : 902 – 928 MHz

Low Frequency : 911 MHz

High Channel : 920.8 MHz

Remark: Total 50 channels, channel separation 200kHz

Photos : Please find in Appendix A.

1.6.2 Manufacturer

Name : Techwall Electronics Co., Ltd.

Street : 24/F., Tower 1, Tern Center, 237 Queen's Road

Town : Central

Country : Hong Kong

Contact : Mr. S.M. Wong

Phone : +852 2850 6860

1.7 Test standards

47 CFR part 15.247

2 Technical test

2.1 Summary of test results

No deviations from the technical specification(s) were ascertained in the course of the tests performed. ☒

or

The deviations as specified in 2.4 were ascertained in the course of the tests performed. ☐

2.2 Test environment

Temperature:	21 ... 25 °C
Relative humidity content	30 ... 60 %
Air pressure:	860 ... 1030 hPa

2.3 Test equipment utilized

No.	Test equipment	Type	Manufacturer
ETS 0012	Biconical Antenna	HK 116	R & S
ETS 0013	LPD Antenna	HL 223	R & S
ETS 0014	Log Periodical Antenna	HL 025	R & S
ETS 0015	Log Periodical Antenna	HL 025	R & S
ETS 0031	Turn table	DS 412	Heinrich Deisel
ETS 0032	Controller	HD 050	Heinrich Deisel
ETS 0046	Power supply	2224.7	Statron
ETS 0253	Spectrum Analyzer	FSIQ 26	R & S
ETS 0271	Spectrum Analyzer	FSEK 30	R & S
ETS 0288	Artificial mains	ESH2-Z5	R & S
ETS 0294	Biconical antenna	HK 116	R & S
ETS 0295	LPD antenna	HL 223	R & S
ETS 0310	Anechoic chamber	AC 3	Frankonia
ETS 0311	Anechoic chamber	AC 4	Frankonia
ETS 0355	high pass	H03G12G3	Microwave
ETS 0357	high pass	H08G18G3	Microwave
ETS 0416	Power Supply	EX752M	TTi
ETS 0420	Amplifier 0.1-1 GHz	M/N AM-1331	MITEQ
ETS 0421	Amplifier 1-4 GHz	AFD3-010040-15-LN	MITEQ
ETS 0422	Amplifier 4-8 GHz	DBS-0408N423	Narda
ETS 0423	Amplifier 8-18 GHz	DWT-18057	Narda
ETS 0424	Amplifier 18-26.5 GHz	DBS-1826N515	Narda
ETS 0474	EMI Test Receiver	ESCS 30	R&S
ETS 0484	Radio Communication Tester	CMU 200	R&S

2.4 Test results

☒ 1st test
 ☐ test after modification
 ☐ production test

SECTION	TEST	FCC 47CFR PART	Required	Test passed	Test failed
3	TRANSMITTER PARAMETERS				
3.1	RF power output conducted	15.247 (b)	☒	☒	☐
3.2	RF power output radiated (EIRP)	15.247 (b)	☐	☐	☐
3.3	20dB bandwidth	15.247 (a)(1)	☒	☒	☐
3.4	Time of occupancy (dwell time)	15.247 (a)(1)	☒	☒	☐
3.5	Number of hopping channels	15.247 (a)(1)	☒	☒	☐
3.6	Carrier frequency separation	15.247 (a)(1)	☒	☒	☐
3.7	Spurious emission conducted	15.247 (d)	☐	☐	☐
3.8	Spurious emission radiated	15.247 (d)	☒	☒	☐
3.9	Band-edge compliance	15.247 (d)	☒	☒	☐
3.10	AC power line conducted emissions	15.207	☒	☒	☐
4	RECEIVER PARAMETERS				
4.1	Radiated emissions	15.107	☒	☒	☐

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3 Transmitter parameters

3.1 RF power output, conducted

Reference

FCC	47 CFR part 15.247 (b)
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Method of measurement

This measurement applies to equipment with an integral antenna and to equipment with an antenna connector and equipped with an antenna as declared by the applicant. The power was measured with modulation (declared by the applicant).

Limits

Frequency band	FCC
902 - 928 MHz	1 Watt (30 dBm) for systems with ≥ 50 hopping channels 0.25 Watt (24 dBm) for all other hopping systems, but at least 25 hopping channels

Test results

Caller Unit

Test conditions	Low Channel	High Channel
	[dBm]	[dBm]
$T_{nom} = 24^{\circ}C$ $V_{nom} = 12V$ DC	0.49	-2.16
Measurement uncertainty	< 3 dB	

Handset unit

Test conditions	Low Channel	High Channel
	[dBm]	[dBm]
$T_{nom} = 24^{\circ}C$ $V_{nom} = 4.8V$ DC	-0.08	-0.33
Measurement uncertainty	< 3 dB	

Remark: see attached diagrams in Appendix B.

3.2 RF power output, radiated

Reference

FCC	47 CFR part 15.247 (b)
-----	------------------------

Method of measurement

This measurement applies to equipment with an integral antenna and to equipment with an antenna connector and equipped with an antenna as declared by the applicant. The power was measured with modulation (declared by the applicant).

Limits

Frequency band	FCC
902 - 928 MHz	4 Watt (36 dBm) for systems with ≥ 50 hopping channels 1.585 Watt (32 dBm) for all other hopping systems, but at least 25 hopping channels
FCC	The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Test Results

Test conditions	Low Channel	High Channel
	EIRP [dBm]	EIRP [dBm]
$T_{nom} = ^\circ C$ $V_{nom} = V$	--	--
Measurement uncertainty	< 3 dB	

Remark: not required.

3.3 20 dB bandwidth

Reference

FCC	CFR part 15.247 (a)(1)
-----	------------------------

Method of measurement

The 20 dB bandwidth is measured on the lowest and highest hopping channel.

For frequency hopping systems operating in the 902-928 MHz band: if the 20 dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 20 second period; if the 20 dB bandwidth of the hopping channel is 250 kHz or greater, the system shall use at least 25 hopping frequencies and the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period. The maximum allowed 20 dB bandwidth of the hopping channel is 500 kHz.

Limits

Frequency band	FCC
902 - 928 MHz	$< 250 \text{ kHz}$ for systems with ≥ 50 hopping channels $250 \text{ kHz} \leq 500 \text{ kHz}$ for all other hopping systems

Test results

Caller Unit

Test conditions	Low Channel	High Channel
	[kHz]	[kHz]
$T_{\text{nom}} = 24^{\circ} \text{ C}$ $V_{\text{nom}} = 12 \text{ V DC}$	214.8297	207.6152
Measurement uncertainty	$< 10 \text{ Hz}$	

Handset Unit

Test conditions	Low Channel	High Channel
	[kHz]	[kHz]
$T_{\text{nom}} = 24^{\circ} \text{ C}$ $V_{\text{nom}} = 4.8 \text{ V DC}$	220.2405	213.2265
Measurement uncertainty	$< 10 \text{ Hz}$	

Remark: see attached diagrams in Appendix D.

3.4 Time of occupancy (dwell time)

Reference

FCC	CFR part 15.247 (a)(1)
-----	------------------------

Method of measurement

The EUT has its hopping function enabled.

Spectrum analyzer settings:

Span: zero span, centered on hopping channel

RBW: >1 MHz

VBW: > RBW

Sweep: as necessary to capture the entire dwell time per hopping channel

Detector: peak

Trace: max hold

Limits

Frequency band	FCC
902 - 928 MHz	$\leq 0,4$ s at measurement period of 20 seconds for max 250 kHz 20 dB BW allowed
	$\leq 0,4$ s at measurement period of 10 seconds for max 500 kHz 20 dB BW allowed

Test results

Caller Unit

Test conditions	Operating mode	Measurement period	Time of occupancy
		[s]	[ms]
$T_{\text{nom}} = 24^{\circ}\text{C}$ $V_{\text{nom}} = 12\text{V DC}$	normal transmitting	20	$6 \times 26 = 156$
Measurement uncertainty	$< 1 \mu\text{s}$		

Test conditions	Description	Time taken
		[ms]
$T_{\text{nom}} = 24^{\circ}\text{C}$ $V_{\text{nom}} = 12\text{V DC}$	normal transmitting Duty cycle	734.9699
Measurement uncertainty	$< 1 \mu\text{s}$	

Handset Unit

Test conditions	Operating mode	Measurement period	Time of occupancy
		[s]	[ms]
$T_{\text{nom}} = 24^{\circ}\text{C}$ $V_{\text{nom}} = 4.8\text{V DC}$	normal transmitting	20	$5.6 \times 26 = 145.6$
Measurement uncertainty	$< 1 \mu\text{s}$		

Test conditions	Description	Time taken
		[ms]
$T_{\text{nom}} = 24^{\circ}\text{C}$ $V_{\text{nom}} = 4.8\text{V DC}$	normal transmitting Duty cycle	779.5691
Measurement uncertainty	$< 1 \mu\text{s}$	

Remark: see attached diagrams in Appendix E.

3.5 Number of hopping channels

Reference

FCC	CFR part 15.247 (a)(1)
-----	------------------------

Method of measurement

According to FCC rules part 15 subpart C §15.247 frequency hopping systems operating in the 902-928 MHz band: 1 watt for systems employing at least 50 hopping channels and 0.25 watts for systems employing less than 50 hopping channels, but at least 25 hopping channels

Limits

Frequency band	FCC
902 - 928 MHz	≥ 50 hopping channels for >0.25 Watt ≥ 25 hopping channels for ≤ 0.25 Watt

Test results

Caller Unit

Test conditions	Operating mode	Number of channel
$T_{nom} = 24^{\circ}C$ $V_{nom} = 12V$ DC	Normal transmitting	50

Handset Unit

Test conditions	Operating mode	Number of channel
$T_{nom} = 24^{\circ}C$ $V_{nom} = 4.8V$ DC	Normal transmitting	50

Remark: see attached diagrams in Appendix F.

3.6 Carrier frequency separation

Reference

FCC	CFR part 15.247 (a)(1)
-----	------------------------

Method of measurement

Carrier frequency separation was measured with modulation (declared by manufacturer)

Limits

Frequency band	FCC
902 - 928 MHz	minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater

Test results

Caller Unit

Test conditions	Channel 26 & 27	Channel Separation
	[MHz]	[kHz]
$T_{nom} = 24^{\circ}C$ $V_{nom} = 12V\ DC$	915.9& 916.1	200.8277
Measurement uncertainty	< 10 Hz	

Handset Unit

Test conditions	Channel 26 & 27	Channel Separation
	[MHz]	[kHz]
$T_{nom} = 25^{\circ}C$ $V_{nom} = 4.8V\ DC$	915.9 & 916.1	200.8277
Measurement uncertainty	< 10 Hz	

Remark: see attached diagram in Appendix G.

3.7 Spurious emission conducted

Reference

FCC	CFR part 15.247 (d)
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Method of measurement

The EUT is connected to the spectrum analyzer via a low loss cable. If the EUT is not equipped with an antenna connector, a temporary antenna connector has to be installed. The EUT is switched on, the hopping function is disabled.

The analyzer setting was as following:

Frequency range	RES bandwidth		Video bandwidth	
	Pk	Avg	Pk	Avg
f < 1 GHz	100 kHz	100 kHz	100 kHz	100 kHz
f > 1 GHz	1 MHz	1 MHz	1 MHz	1 MHz

Limits

FCC	20 dB below peak output power
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Test results

Frequency Marker [MHz]	Result [dBm]	Passed
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Remark: not required.

3.8 Spurious emission radiated

Reference

FCC	CFR part 15.247(d), 15.205, 15.209, 15.35
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Method of measurement

Spurious emission was measured with modulation (declared by manufacturer).

According to 47 CFR 15, Part 15.247 (d): In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required.

In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Limits for restricted bands

FCC	20 dB below peak output power, emissions which fall in the restricted bands (15.205(a)) must comply the following limits: Frequencies below 1GHz:		
	Frequency of emission	Field strength	Field strength
	[MHz]	[$\mu\text{V} / \text{m}$]	[dB $\mu\text{V} / \text{m}$]
	30 - 88	100	40.0
	88 - 216	150	43.5
	216 - 960	200	46.0
	Above 960	500	54.0
	For frequencies above 1 GHz (Avg measurements): 54.0 dB $\mu\text{V} / \text{m}$ For frequencies above 1 GHz (Pk measurements): Limit + 20 dB = 54.0 dB $\mu\text{V} / \text{m}$ + 20 dB = 74 dB $\mu\text{V} / \text{m}$		

Calculation of test results:

Such factors like antenna correction, cable loss, external attenuation etc. are already included in the provided measurement results.

The peak and average spurious emission plots was measured with the average limits. In the Table being listed the critical peak and average value an exhibit the compliance with the above calculated Limits.

If in the column's correction factor states a value then the max. Field strength in the same row is corrected by a value gained from the "Marker-Delta-Method" or the "Duty-Cycle Correction Factor".

15.35 (c) Duty cycle correction **average value**

When the radiated emission limits are expressed in terms of the average value of the emission, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds.

Duty cycle correction = $20 \log (\text{dwell time} / 100 \text{ ms or less})$

DA 00-705 Duty cycle correction **peak value**

The analyzer setting was as following:

Frequency range	RES bandwidth		Video bandwidth	
	Pk	Avg	Pk	Avg
$f < 1\text{GHz}$	100 kHz	100 kHz	10 Hz	10 Hz
$f > 1\text{GHz}$	1 MHz	1 MHz	10 Hz	10 Hz

Set the VBW to 10 Hz, while maintaining all of the other instrument settings. This peak level, once corrected, must comply with the limit specified in Section 15.209. If the dwell time per channel of the hopping signal is less than 100 ms, then the reading obtained with the 10 Hz VBW may be further adjusted by a "duty cycle correction factor", derived from $20 \log (\text{dwell time} / 100 \text{ ms})$, in an effort to demonstrate compliance with the 15.209 limit. Submit this data.

If the intentional radiator operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.

Test results

Summary table with radiated data of the test plots

Caller Unit, Tx, Low channel = 911.0MHz

Channel	Frequency Marker [MHz]	Polarization	Max. Field Strength [dBμV/m]	Detector	Passed
Low	194.890	H	33.05	Peak	☒
Low	200.000	V	33.43	Peak	☒
Low	911.824	H	90.87	Peak	☒
Low	911.824	V	90.89	Peak	☒
Low	2732	H	36.66	Average	☒
Low	1822	V	32.59	Average	☒
Low	7230	H	35.96	Average	☒
Low	7230	V	36.03	Average	☒
Low	9968	H	33.45	Average	☒
Low	9972	V	33.30	Average	☒

Caller Unit, Tx, High channel = 920.8MHz

Channel	Frequency Marker [MHz]	Polarization	Max. Field Strength [dBμV/m]	Detector	Passed
High	192.846	H	33.30	Peak	☒
High	197.615	V	33.39	Peak	☒
High	921.443	H	90.85	Peak	☒
High	921.443	V	90.85	Peak	☒
High	2762	H	36.30	Average	☒
High	2762	V	35.84	Average	☒
High	7687	H	36.11	Average	☒
High	7230	V	36.07	Average	☒
High	9964	H	33.38	Average	☒
High	9972	V	33.48	Average	☒

Handset Unit, Tx, Low channel = 911.0MHz

Channel	Frequency Marker [MHz]	Polarization	Max. Field Strength [dBμV/m]	Detector	Passed
Low	163.20	H	33.02	Peak	☒
Low	188.076	V	33.40	Peak	☒
Low	911.824	H	89.57	Peak	☒
Low	911.824	V	90.89	Peak	☒
Low	3646	H	33.94	Average	☒
Low	4000	V	30.56	Average	☒
Low	7230	H	35.89	Average	☒
Low	7230	V	35.91	Average	☒
Low	9972	H	33.48	Average	☒
Low	9972	V	33.48	Average	☒

Handset Unit, Tx, High channel = 920.8MHz

Channel	Frequency Marker [MHz]	Polarization	Max. Field Strength [dBμV/m]	Detector	Passed
High	198.637	H	33.01	Peak	☒
High	188.076	V	33.40	Peak	☒
High	921.443	H	88.02	Peak	☒
High	921.443	V	90.85	Peak	☒
High	3685	H	33.00	Average	☒
High	4000	V	30.56	Average	☒
High	7230	H	35.91	Average	☒
High	7230	V	35.94	Average	☒
High	9968	H	33.62	Average	☒
High	9972	V	33.48	Average	☒

All other not noted test plots do not contain significant test results in relation to the limits.
All emissions are less than 20 dB below carrier.

Remark: see attached diagrams in Appendix I. No emissions near by limit have been found.

3.9 Band edge compliance

Reference

FCC	CFR part 15.247 (d)
-----	---------------------

Method of measurement

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

Limits

FCC	20 dB below peak output power
-----	-------------------------------

Test results

Caller Unit

Test conditions	Level and frequency difference	
	Lower band-edge	Upper band-edge
T _{nom} = 24° C V _{nom} = 12V DC	49.56 dB 9.11823647 MHz	47.03 dB 7.0621245 MHz
Measurement uncertainty	< 100 Hz	

Handset Unit

Test conditions	Level and frequency difference	
	Lower band-edge	Upper band-edge
T _{nom} = 24° C V _{nom} = 4.8V DC	48.95 dB 9.07414830 MHz	47.70 dB 7.13426854 MHz
Measurement uncertainty	< 100 Hz	

Remark: see attached diagrams in Appendix J.

3.10 AC power line conducted emissions

Reference

FCC	CFR part 15.107
-----	-----------------

Method of measurement

For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed the limits. Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminals.

This measurement was transacted first with instrumentation using an average and peak detector and a 10 kHz bandwidth. If the peak detector achieves a calculated level, the measurement is repeated by an instrumentation using a quasi-peak detector.

Limits

FCC	Frequency of emission	Conducted limit field strength [dBμV]	
	[MHz]	Quasi Peak	AV
	0.15 - 0.5	66 to 56	56 - 46
	0.5 - 5	56	46
	5 - 30	60	50

Test results

Caller Unit (Normal operating, Tx, Input L & N)

Performed under a 110VAC (12VDC AC/DC adaptor)

Frequency	Level		Passed
	Quasi-peak	Average	
150 kHz – 500 kHz	66 to 56	56 - 46	☒
500 kHz – 5MHz	56	46	☒
150 kHz – 30 MHz	60	50	☒

Handset Unit (Charging handset battery, Rx, Input L & N)
Performed under a 110VAC (9VDC AC/DC adaptor)

Frequency	Level		Passed
	Quasi-peak	Average	
150 kHz – 500 kHz	66 to 56	56 - 46	☒
500 kHz – 5MHz	56	46	☒
150 kHz – 30 MHz	60	50	☒

Remark: see attached diagrams in Appendix K.

4 Receiver parameters

4.1 Radiated emissions

Reference

FCC	Part 15.109
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Method of measurement

The compliance of the EUT Receiver with the Limits of spurious emissions was performed according to the radiated measurement method.

The spectrum analyzer RBW was set to 100 kHz for measurements below 100 kHz and 1.0 MHz above 1.0 GHz.

Limits

	Frequency of emission	Field strength	Field strength
	[MHz]	[$\mu\text{V} / \text{m}$]	[dB $\mu\text{V} / \text{m}$]
FCC	30 - 88	100	40.0
	88 - 216	150	43.5
	216 - 960	200	46.0
	Above 960	500	54.0

Test Results

Caller Unit, Rx, Low channel = 911.0MHz

Channel	Frequency Marker [MHz]	Polarization	Max. Field Strength [dBμV/m]	Detector	Passed
Low	197.615	H	27.71	Peak	☒
Low	196.253	V	27.78	Peak	☒
Low	432.465	H	23.65	Peak	☒
Low	448.497	V	21.29	Peak	☒
Low	3651	H	38.33	Peak	☒
Low	3970	V	36.17	Peak	☒
Low	7687	H	42.39	Peak	☒
Low	7351	V	42.83	Peak	☒
Low	9964	H	39.88	Peak	☒
Low	9964	V	40.06	Peak	☒

Caller Unit, Rx, High channel = 920.8MHz

Channel	Frequency Marker [MHz]	Polarization	Max. Field Strength [dBμV/m]	Detector	Passed
High	188.076	H	27.89	Peak	☒
High	199.319	V	28.55	Peak	☒
High	432.465	H	24.02	Peak	☒
High	448.497	V	20.86	Peak	☒
High	3687	H	38.95	Peak	☒
High	3982	V	36.01	Peak	☒
High	7703	H	42.44	Peak	☒
High	7238	V	42.11	Peak	☒
High	9972	H	39.43	Peak	☒
High	9960	V	39.78	Peak	☒

Handset Unit, Rx, Low channel = 911.0MHz

Channel	Frequency Marker [MHz]	Polarization	Max. Field Strength [dB μ V/m]	Detector	Passed
Low	182.285	H	28.30	Peak	☒
Low	196.934	V	28.00	Peak	☒
Low	921.443	H	18.68	Peak	☒
Low	653.707	V	31.03	Peak	☒
Low	3681	H	39.35	Peak	☒
Low	4000	V	36.33	Peak	☒
Low	7190	H	42.01	Peak	☒
Low	6669	V	42.70	Peak	☒
Low	9972	H	39.83	Peak	☒
Low	9956	V	39.64	Peak	☒

Handset Unit, Rx, High channel = 920.8MHz

Channel	Frequency Marker [MHz]	Polarization	Max. Field Strength [dB μ V/m]	Detector	Passed
High	194.549	H	27.71	Peak	☒
High	199.319	V	27.99	Peak	☒
High	913.427	H	18.59	Peak	☒
High	632.866	V	31.08	Peak	☒
High	3687	H	39.09	Peak	☒
High	4000	V	36.13	Peak	☒
High	7246	H	42.34	Peak	☒
High	7960	V	42.34	Peak	☒
High	9968	H	40.05	Peak	☒
High	9908	V	40.10	Peak	☒

All other not noted test plots do not contain significant test results in relation to the limits.

Remark: see attached diagrams in Appendix L. No emissions near by limit have been found.

Manufacturer/ Approval holder Declaration

The following identical model(s):

Belong to the tested device:

Product description: **DIGITAL WIRELESS DOORPHONE**
Model name: **WC1000**

No additional models were tested.

Appendix

- A Pictures
- B RF power output conducted
- C RF power output radiated (EIRP)
- D 20 dB bandwidth
- E Time of occupancy (dwell time)
- F Number of hopping frequencies
- G Carrier frequency separation
- H Spurious emission conducted
- I Spurious emission radiated
- J Band-edge compliance
- K AC power line conducted emissions
- L Receiver radiated emissions

Appendix A

Picture

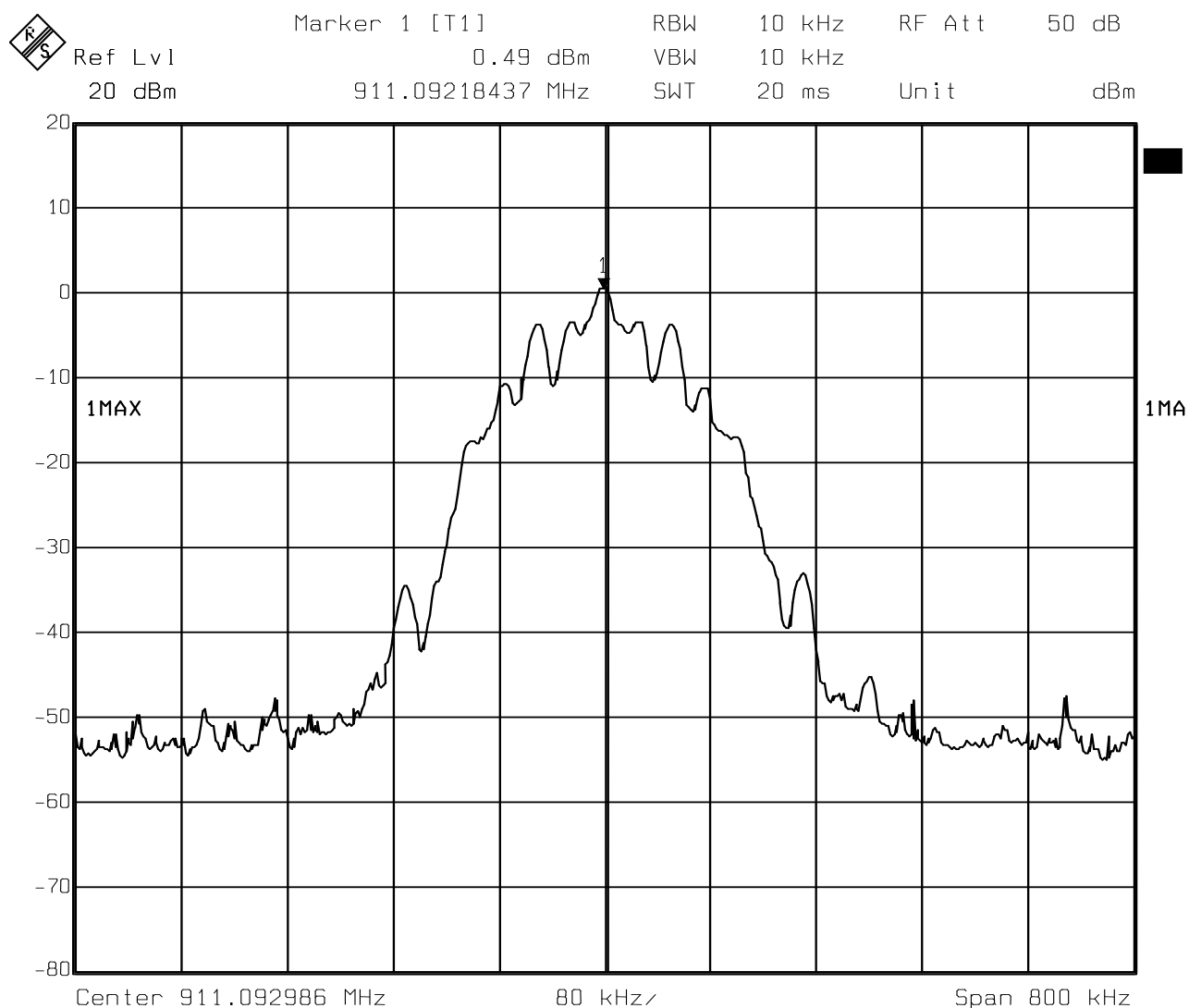
Test Report No.: H1M20804-6775-P-15

Appendix B

RF power output conducted

FCC part 15.247
Conducted Power Output

Test Report No.	H1M20804-6775
Temperature / Voltage	24°C
Test Site / Operator	ETSPS
Test Specification	FCC part 15 section 247
Comment 1	Marker-delta method
Comment 2	Caller Unit Transmit Low Channel

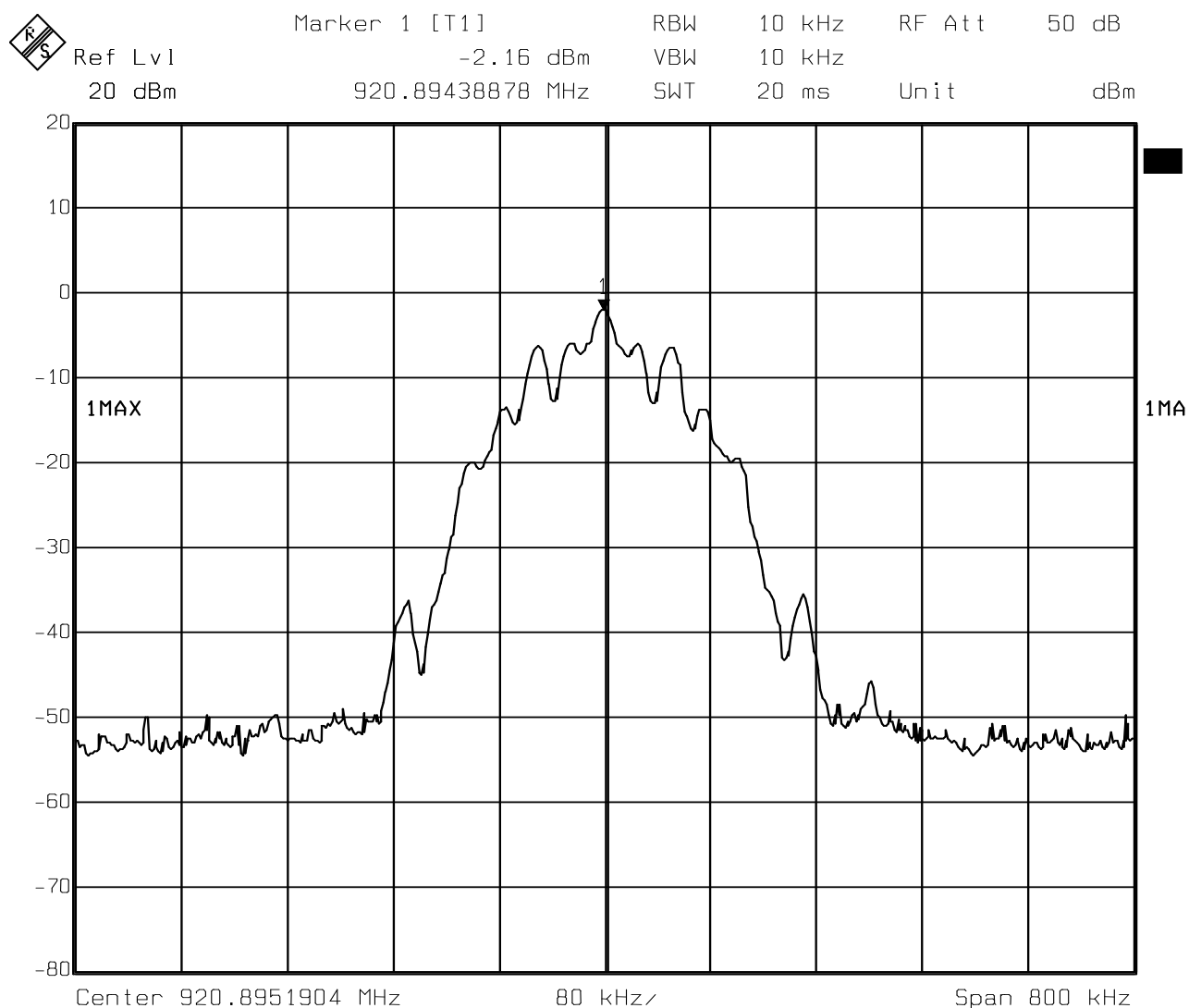


Date: 19.MAY 2008 07:27:14

Test Report No.: H1M20804-6775-P-15

FCC part 15.247 Conducted Power Output

Test Report No.	H1M20804-6775
Temperature / Voltage	24°C
Test Site / Operator	ETSPS
Test Specification	FCC part 15 section 247
Comment 1	Marker-delta method
Comment 2	Caller Unit Transmit High Channel

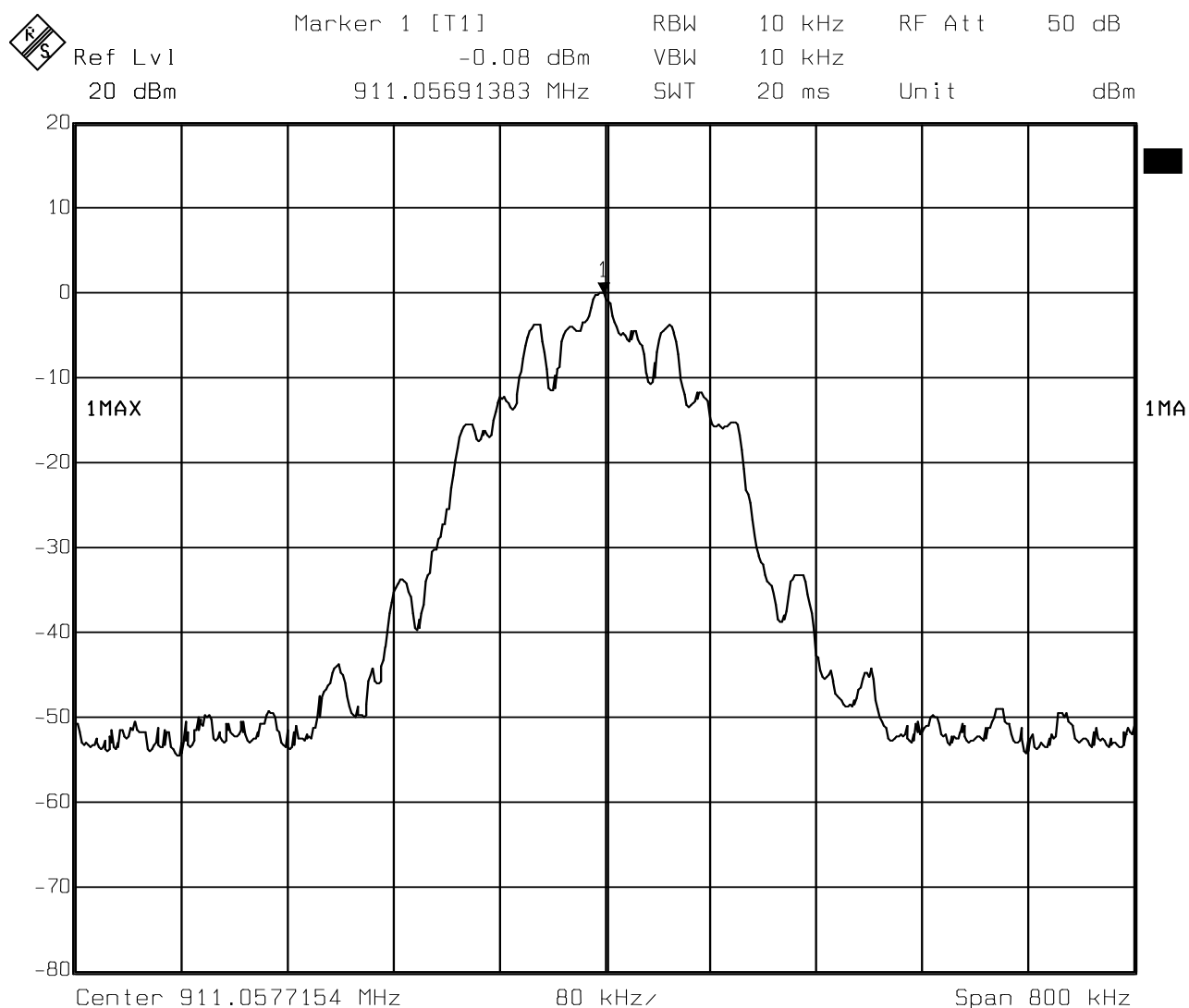


Date: 19.MAY 2008 07:14:54

Test Report No.: H1M20804-6775-P-15

FCC part 15.247
Conducted Power Output

Test Report No.	H1M20804-6775
Temperature / Voltage	24°C
Test Site / Operator	ETSPS
Test Specification	FCC part 15 section 247
Comment 1	Marker-delta method
Comment 2	Handset Unit Transmit Low Channel

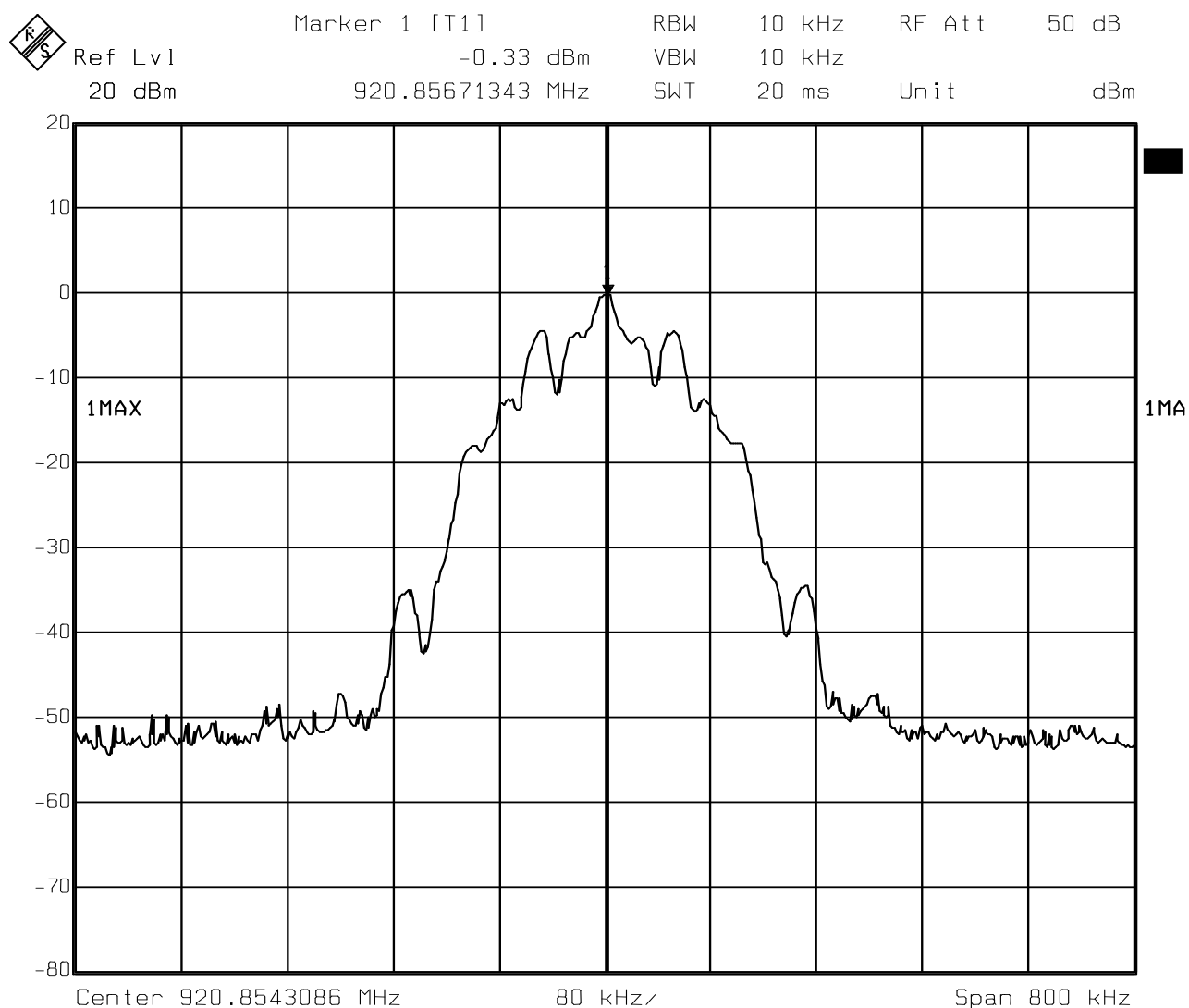


Date: 19.MAY 2008 07:25:17

Test Report No.: H1M20804-6775-P-15

FCC part 15.247
Conducted Power Output

Test Report No.	H1M20804-6775
Temperature / Voltage	24°C
Test Site / Operator	ETSPS
Test Specification	FCC part 15 section 247
Comment 1	Marker-delta method
Comment 2	Handset Unit Transmit High Channel



Date: 19.MAY 2008 07:19:41

Test Report No.: H1M20804-6775-P-15

Appendix C

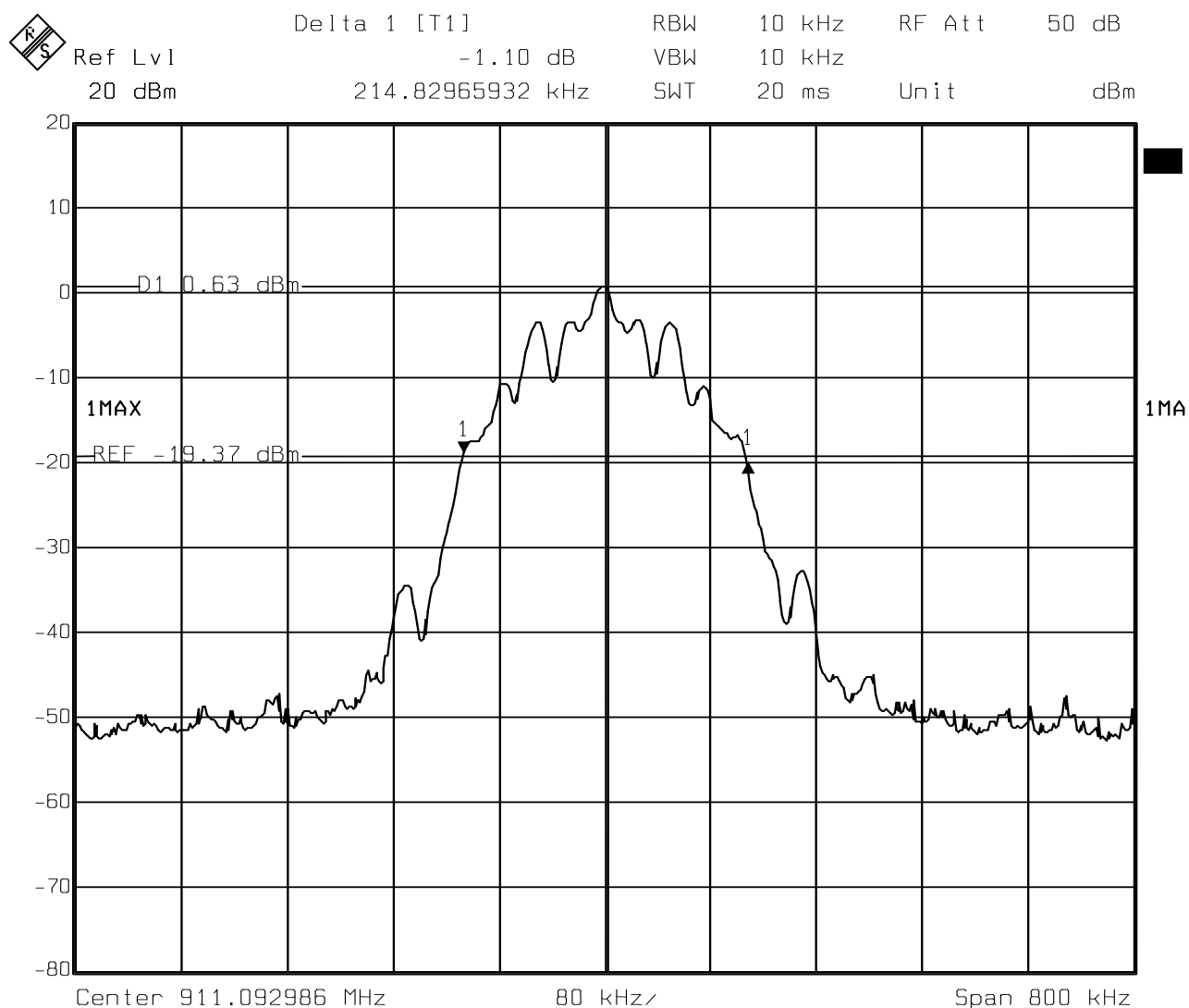
RF power output radiated (EIRP)

Appendix D

20 dB bandwidth

FCC part 15.247
20 dB Bandwidth

Test Report No.	H1M20804-6775
Temperature / Voltage	24°C
Test Site / Operator	ETSPS
Test Specification	FCC part 15 section 247
Comment 1	Marker-delta method
Comment 2	Caller Unit Transmit Low Channel

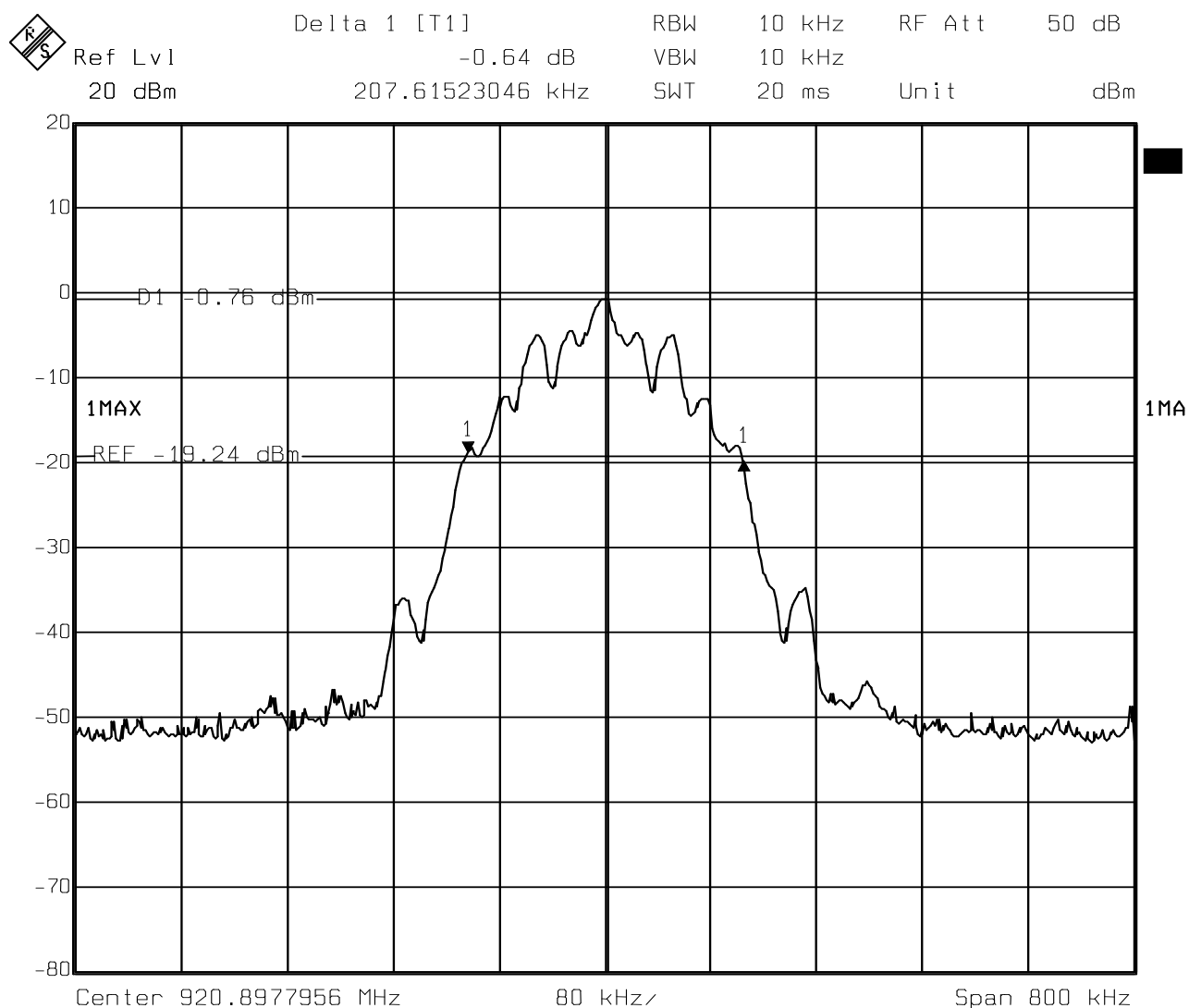


Date: 19.MAY 2008 07:32:59

Test Report No.: H1M20804-6775-P-15

FCC part 15.247
20 dB Bandwidth

Test Report No.	H1M20804-6775
Temperature / Voltage	24°C
Test Site / Operator	ETSPS
Test Specification	FCC part 15 section 247
Comment 1	Marker-delta method
Comment 2	Caller Unit Transmit High Channel

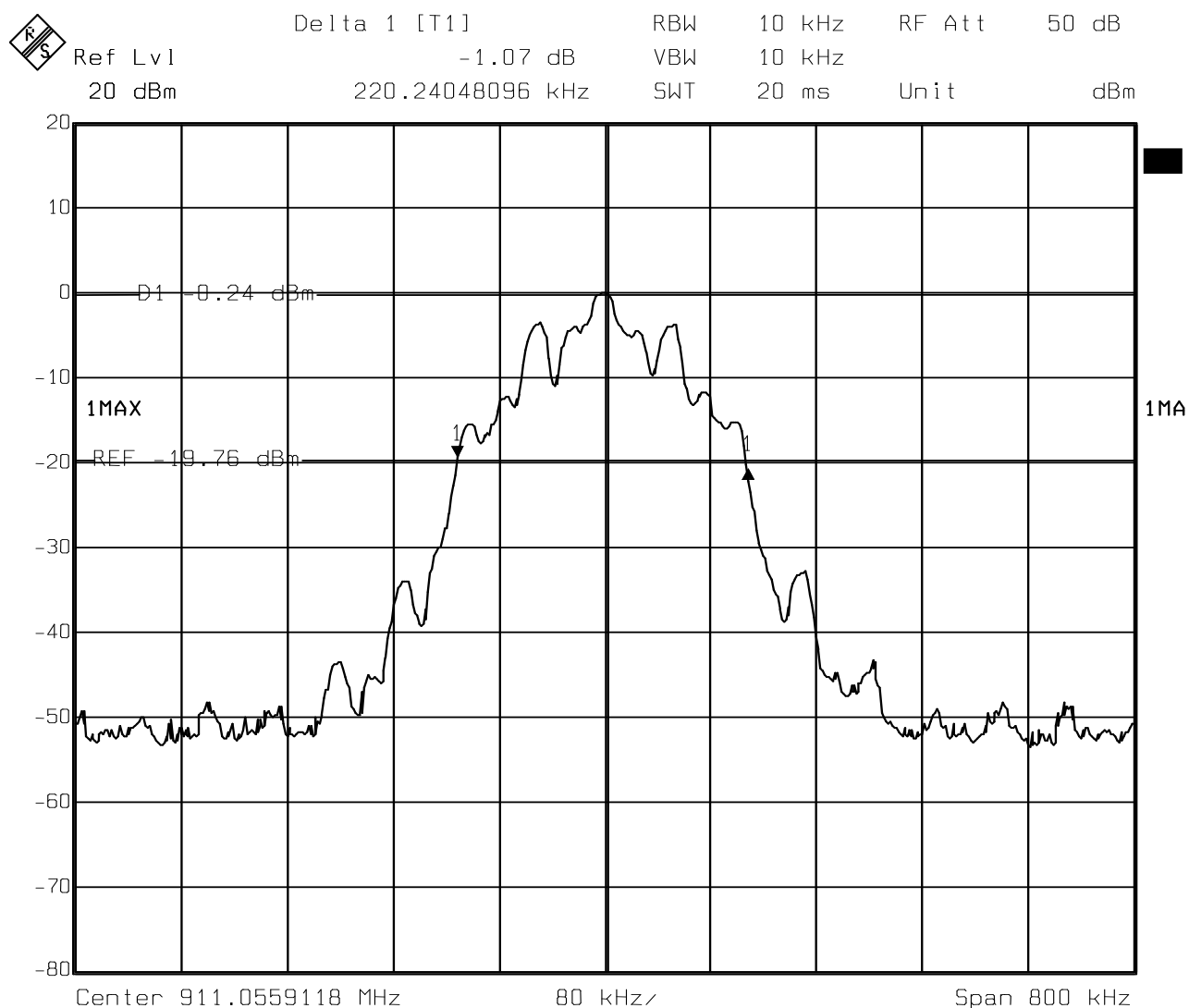


Date: 19.MAY 2008 07:47:50

Test Report No.: H1M20804-6775-P-15

FCC part 15.247
20 dB Bandwidth

Test Report No.	H1M20804-6775
Temperature / Voltage	24°C
Test Site / Operator	ETSPS
Test Specification	FCC part 15 section 247
Comment 1	Marker-delta method
Comment 2	Handset Unit Transmit Low Channel

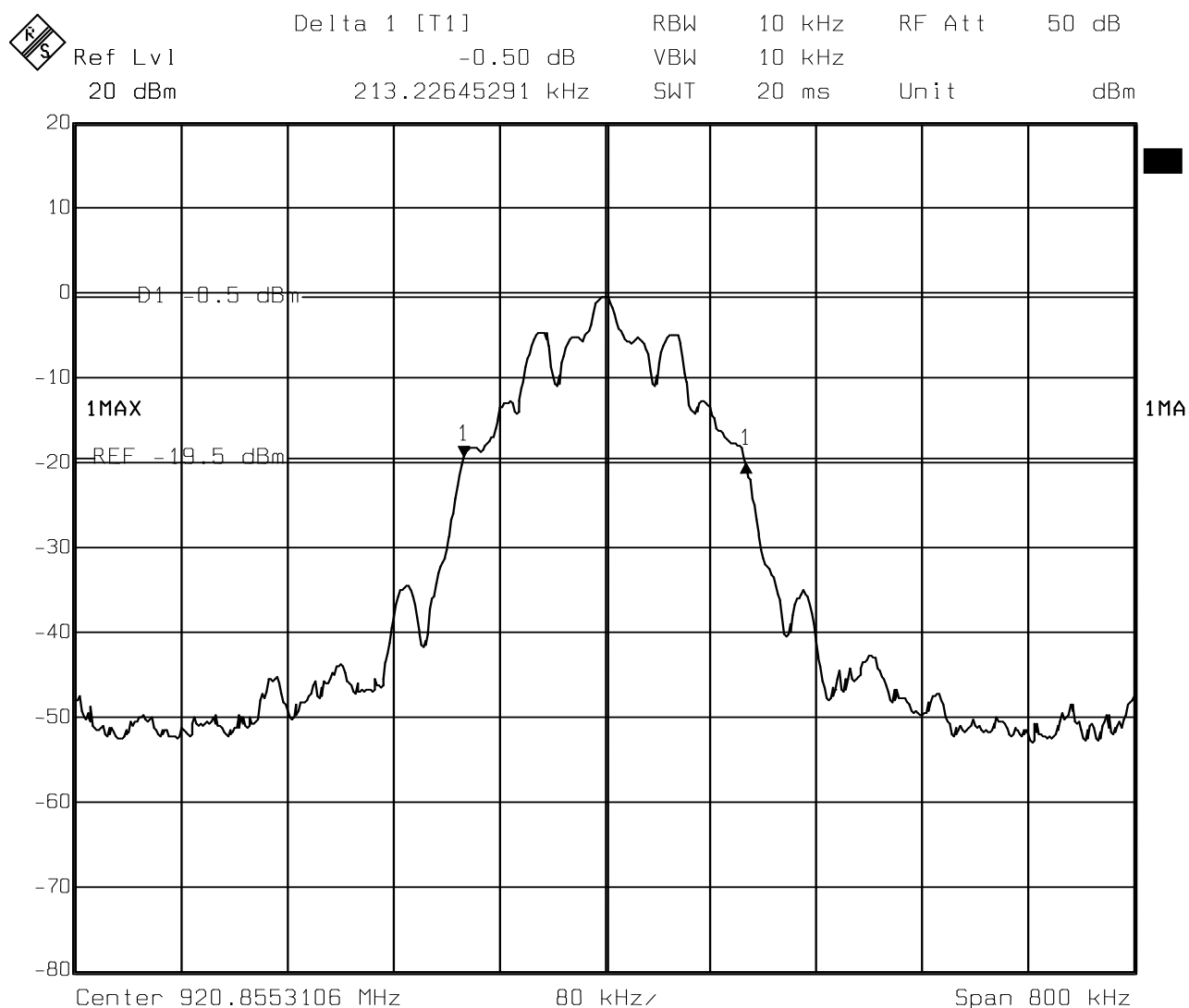


Date: 19.MAY 2008 07:39:55

Test Report No.: H1M20804-6775-P-15

FCC part 15.247
20 dB Bandwidth

Test Report No.	H1M20804-6775
Temperature / Voltage	24°C
Test Site / Operator	ETSPS
Test Specification	FCC part 15 section 247
Comment 1	Marker-delta method
Comment 2	Handset Unit Transmit High Channel



Date: 19.MAY 2008 07:44:25

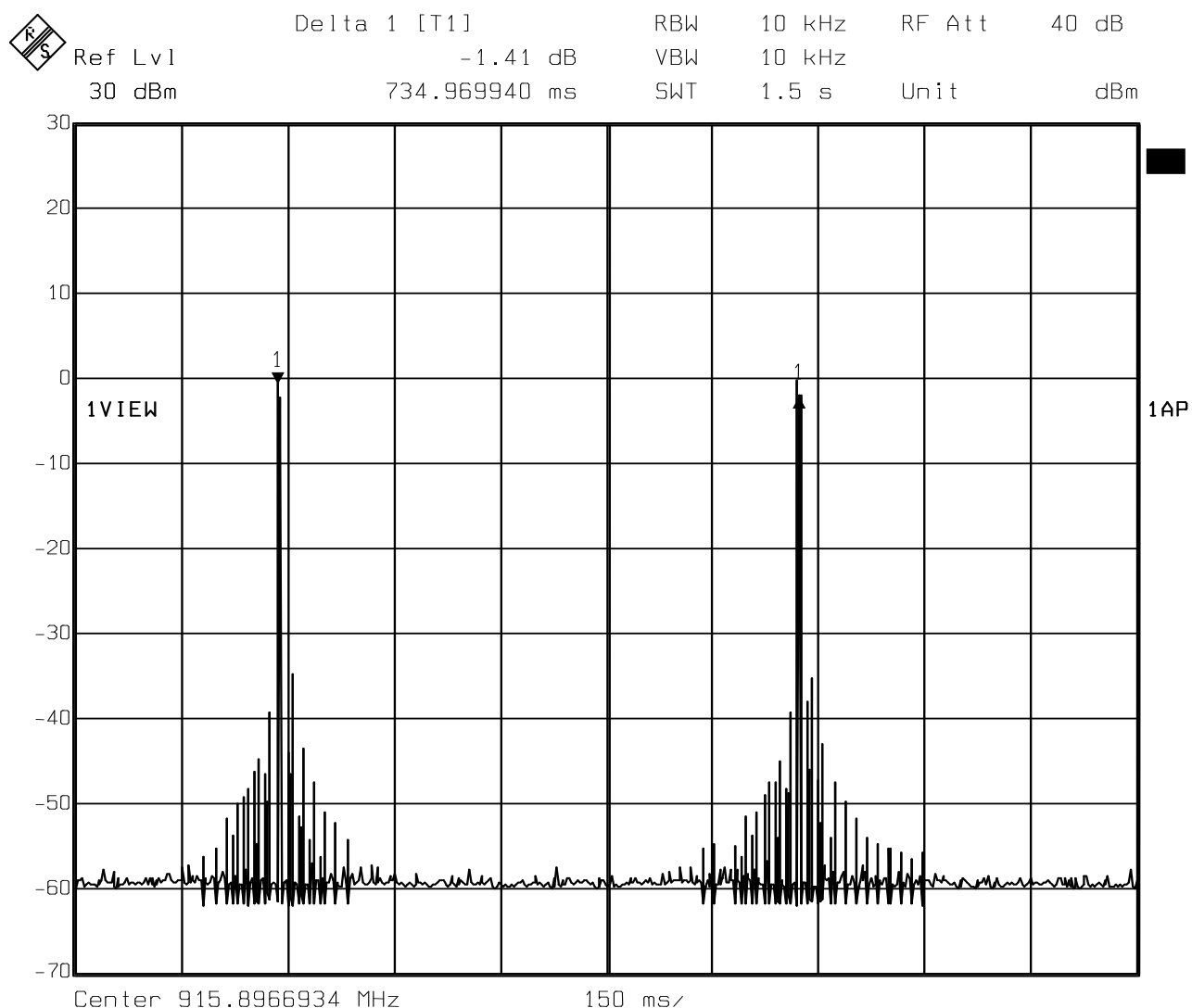
Test Report No.: H1M20804-6775-P-15

Appendix E

Time of occupancy (dwell time)

FCC part 15.247
Duty Cycle

Test Report No.	H1M20804-6775
Temperature / Voltage	24°C
Test Site / Operator	ETSPS
Test Specification	FCC part 15 section 247
Comment 1	Marker-delta method
Comment 2	Caller Unit

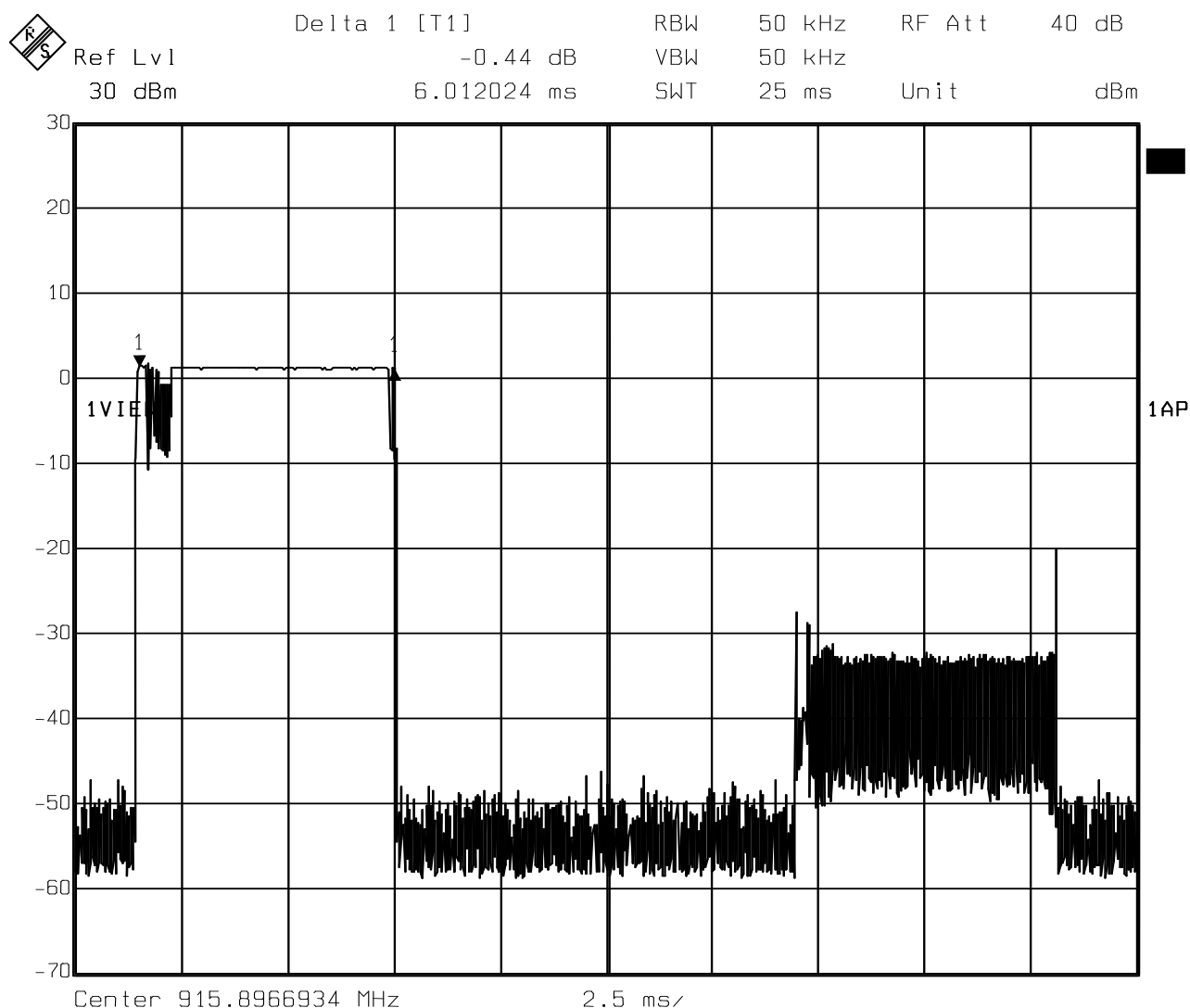


Date: 19.MAY 2008 10:11:13

Test Report No.: H1M20804-6775-P-15

FCC part 15.247
Dwell Time

Test Report No.	H1M20804-6775
Temperature / Voltage	24°C
Test Site / Operator	ETSPS
Test Specification	FCC part 15 section 247
Comment 1	Marker-delta method
Comment 2	Caller Unit



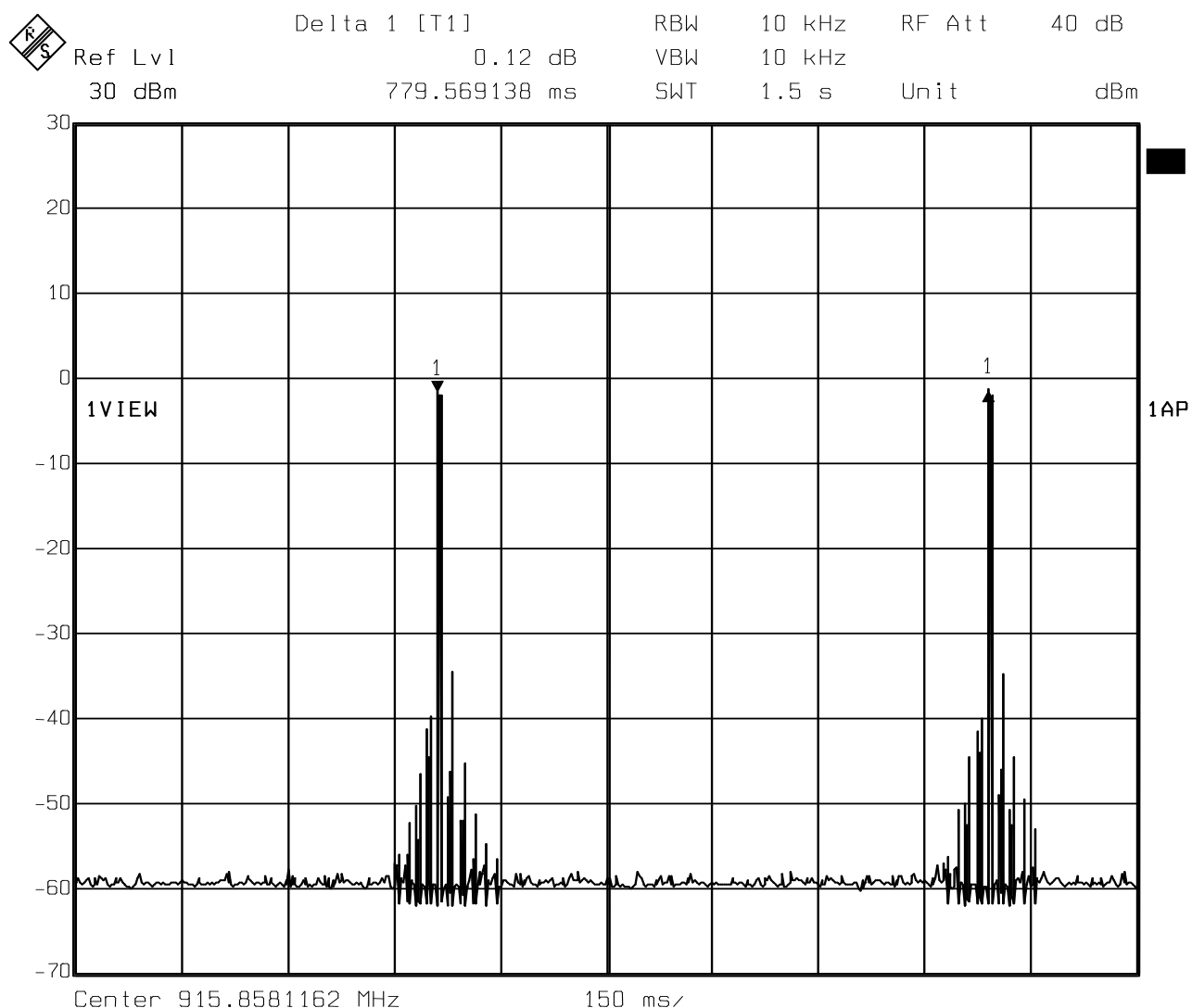
Date: 19.MAY 2008 10:03:36

6ms x 26 = 156ms in 20s

Test Report No.: H1M20804-6775-P-15

FCC part 15.247
Duty Cycle

Test Report No.	H1M20804-6775
Temperature / Voltage	24°C
Test Site / Operator	ETSPS
Test Specification	FCC part 15 section 247
Comment 1	Marker-delta method
Comment 2	Handset Unit



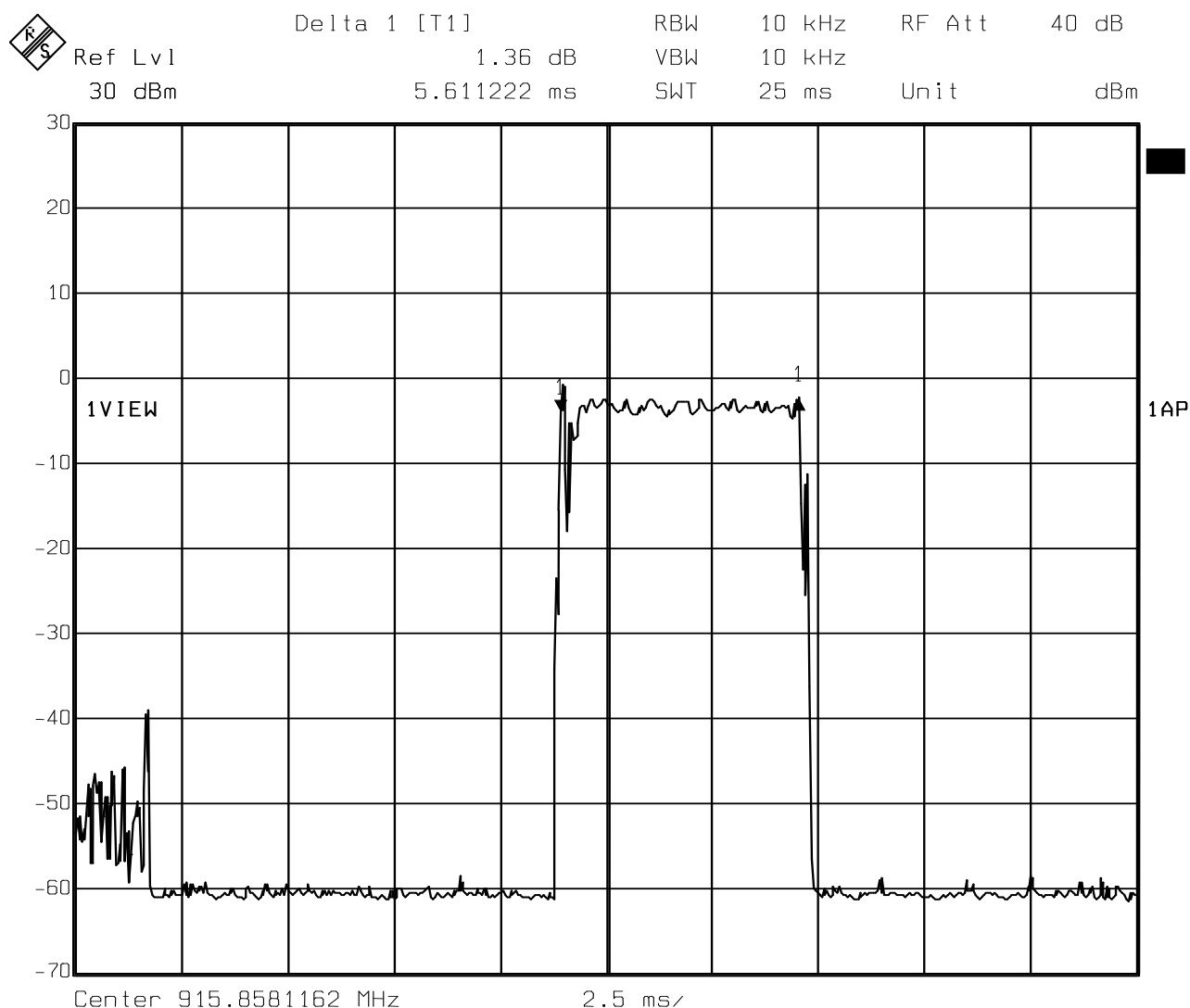
Date: 19.MAY 2008 10:16:15

Test Report No.: H1M20804-6775-P-15

FCC part 15.247

Dwell Time

Test Report No. H1M20804-6775
 Temperature / Voltage 24°C
 Test Site / Operator ETSPS
 Test Specification FCC part 15 section 247
 Comment 1 Marker-delta method
 Comment 2 Handset Unit



Date: 19.MAY 2008 10:18:48

5.6ms x 26 = 145.6ms in 20s

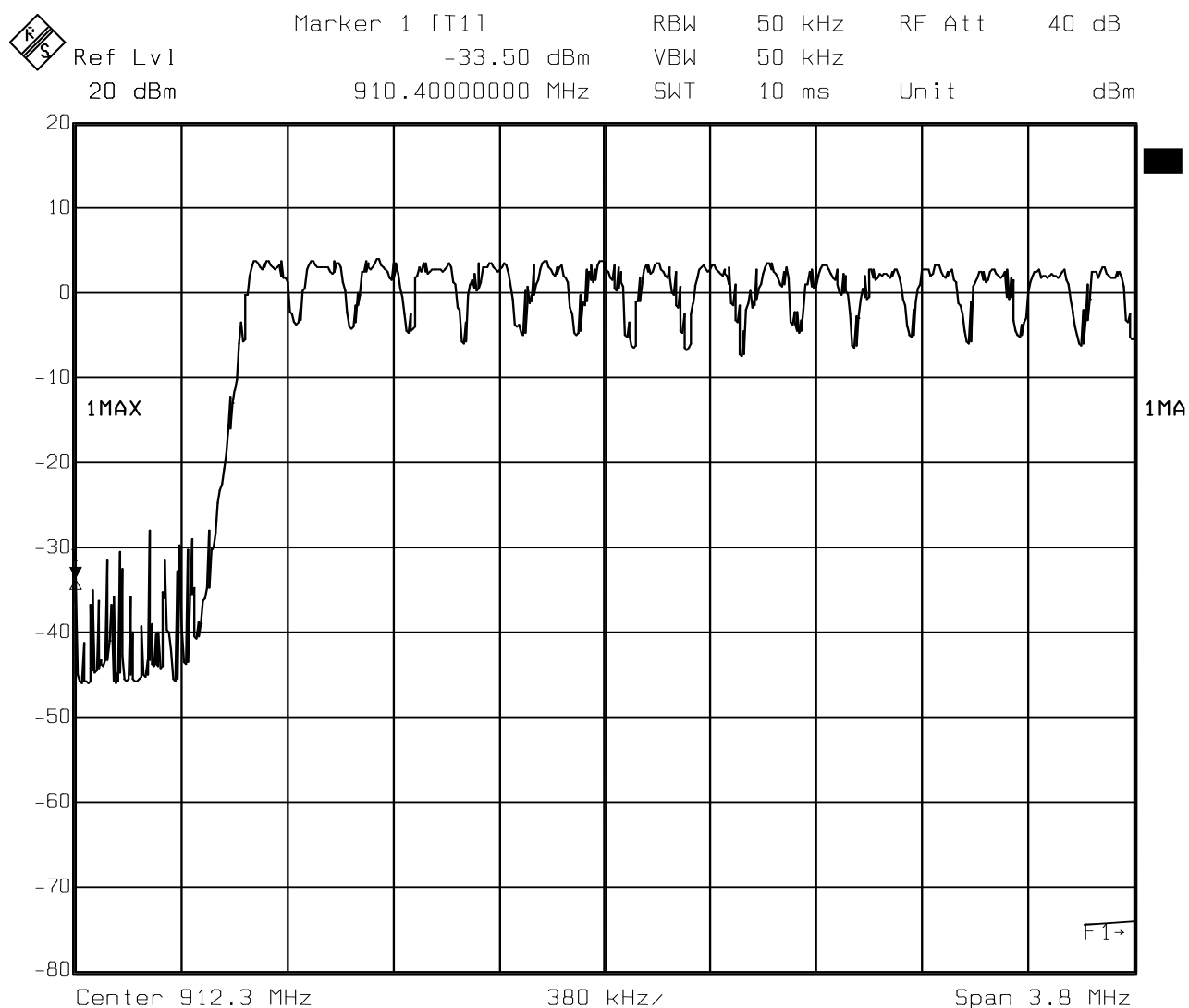
Test Report No.: H1M20804-6775-P-15

Appendix F

Number of hopping frequencies

FCC part 15.247
Number of Hopping Channels

Test Report No.	H1M20804-6775
Temperature / Voltage	24°C
Test Site / Operator	ETSPS
Test Specification	FCC part 15 section 247
Comment 1	Marker-delta method
Comment 2	Caller Unit Channel 1-16

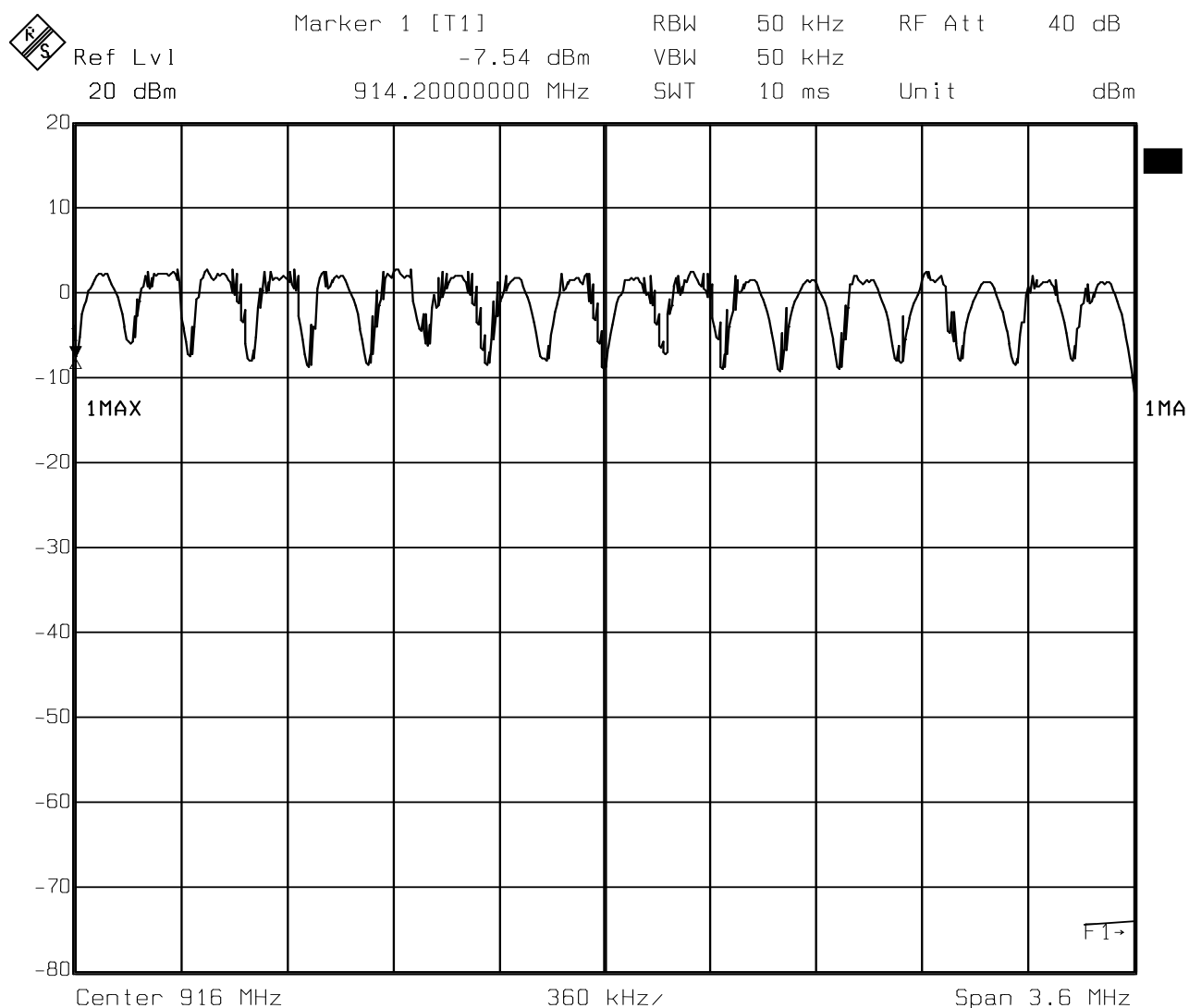


Date: 19.MAY 2008 08:31:19

Test Report No.: H1M20804-6775-P-15

FCC part 15.247
Number of Hopping Channels

Test Report No.	H1M20804-6775
Temperature / Voltage	24°C
Test Site / Operator	ETSPS
Test Specification	FCC part 15 section 247
Comment 1	Marker-delta method
Comment 2	Caller Unit Channel 17-34

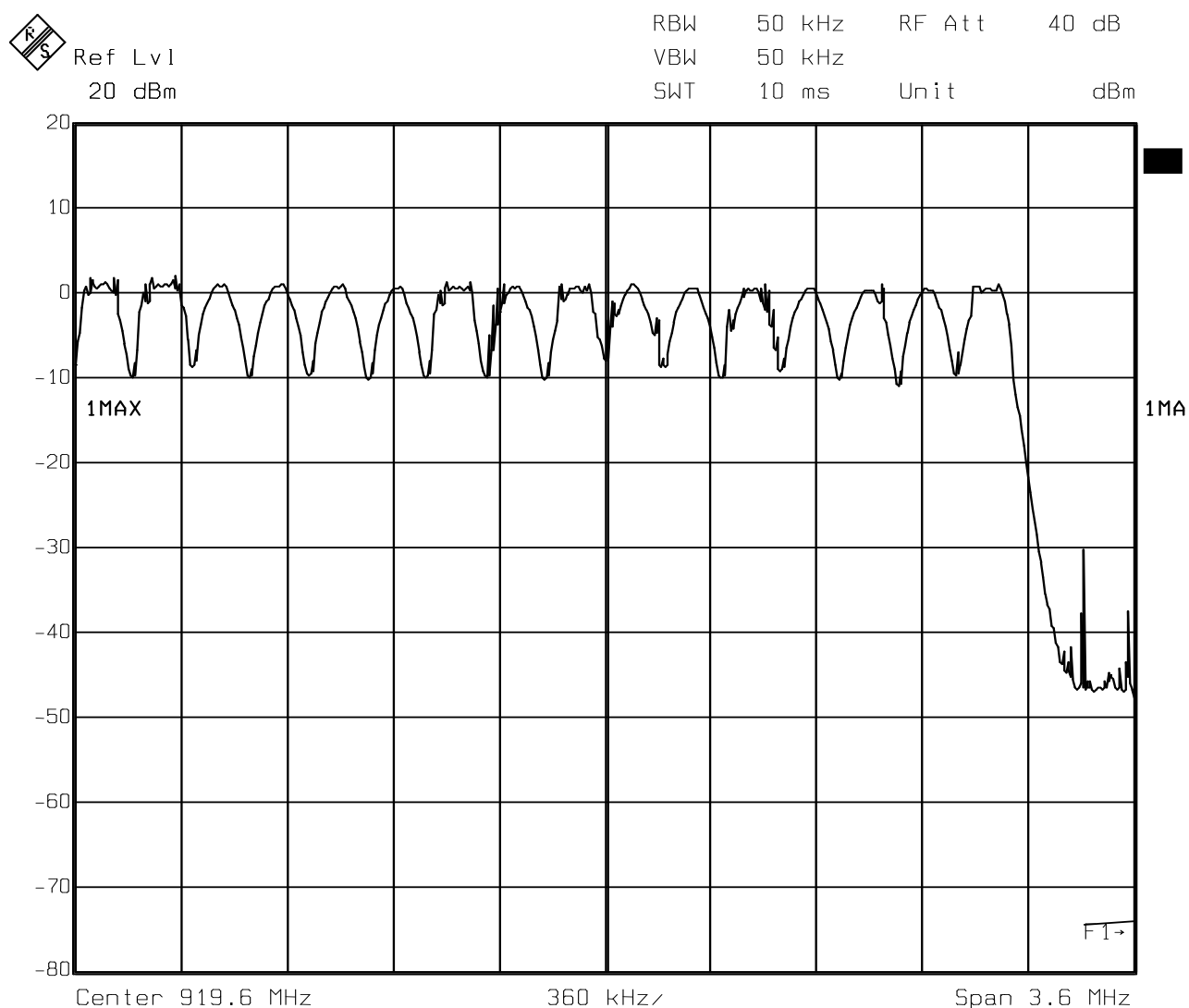


Date: 19.MAY 2008 08:43:28

Test Report No.: H1M20804-6775-P-15

FCC part 15.247
Number of Hopping Channels

Test Report No.	H1M20804-6775
Temperature / Voltage	24°C
Test Site / Operator	ETSPS
Test Specification	FCC part 15 section 247
Comment 1	Marker-delta method
Comment 2	Caller Unit Channel 35-50

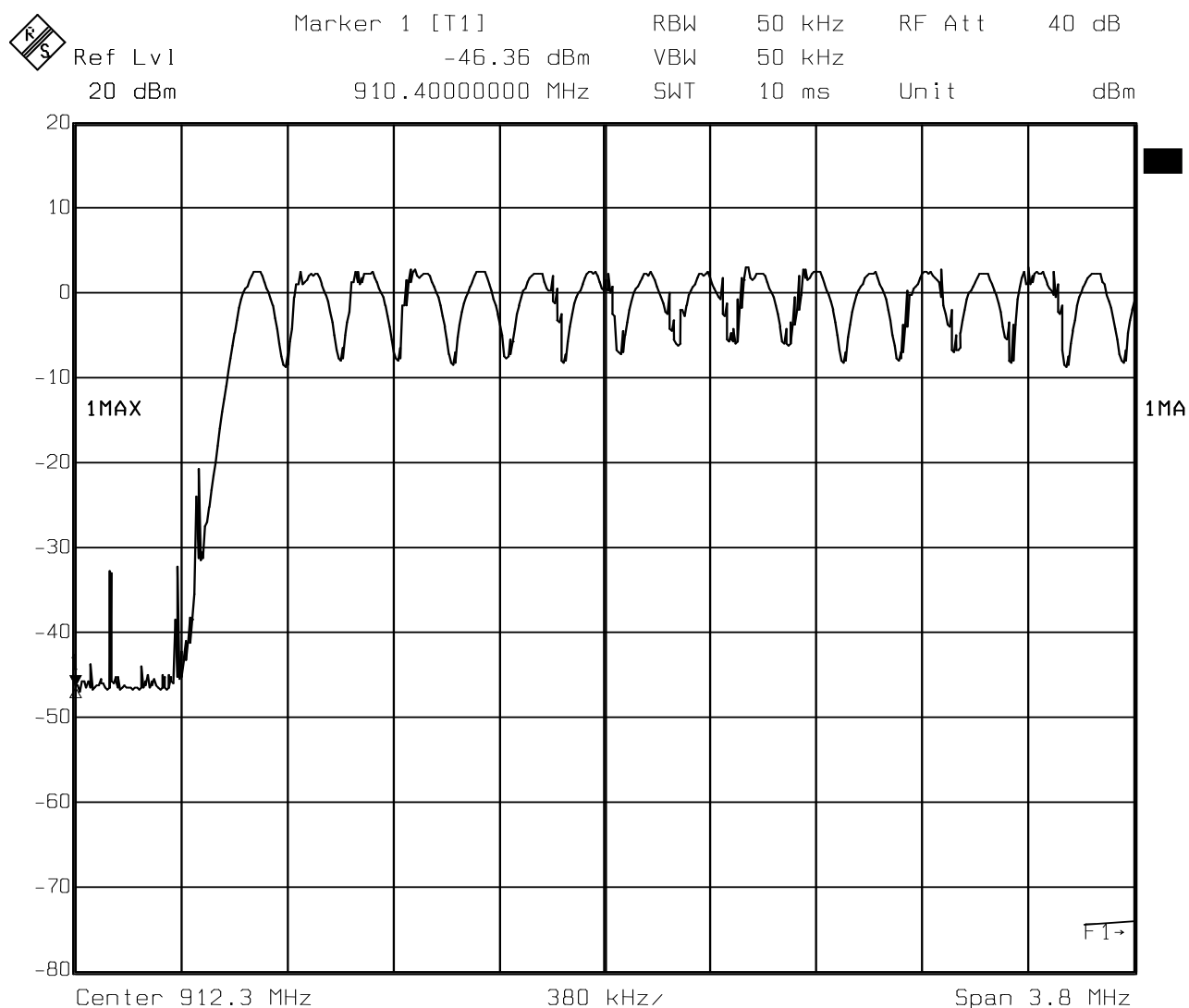


Date: 19.MAY 2008 08:45:17

Test Report No.: H1M20804-6775-P-15

FCC part 15.247
Number of Hopping Channels

Test Report No.	H1M20804-6775
Temperature / Voltage	24°C
Test Site / Operator	ETSPS
Test Specification	FCC part 15 section 247
Comment 1	Marker-delta method
Comment 2	Handset Unit Channel 1-16



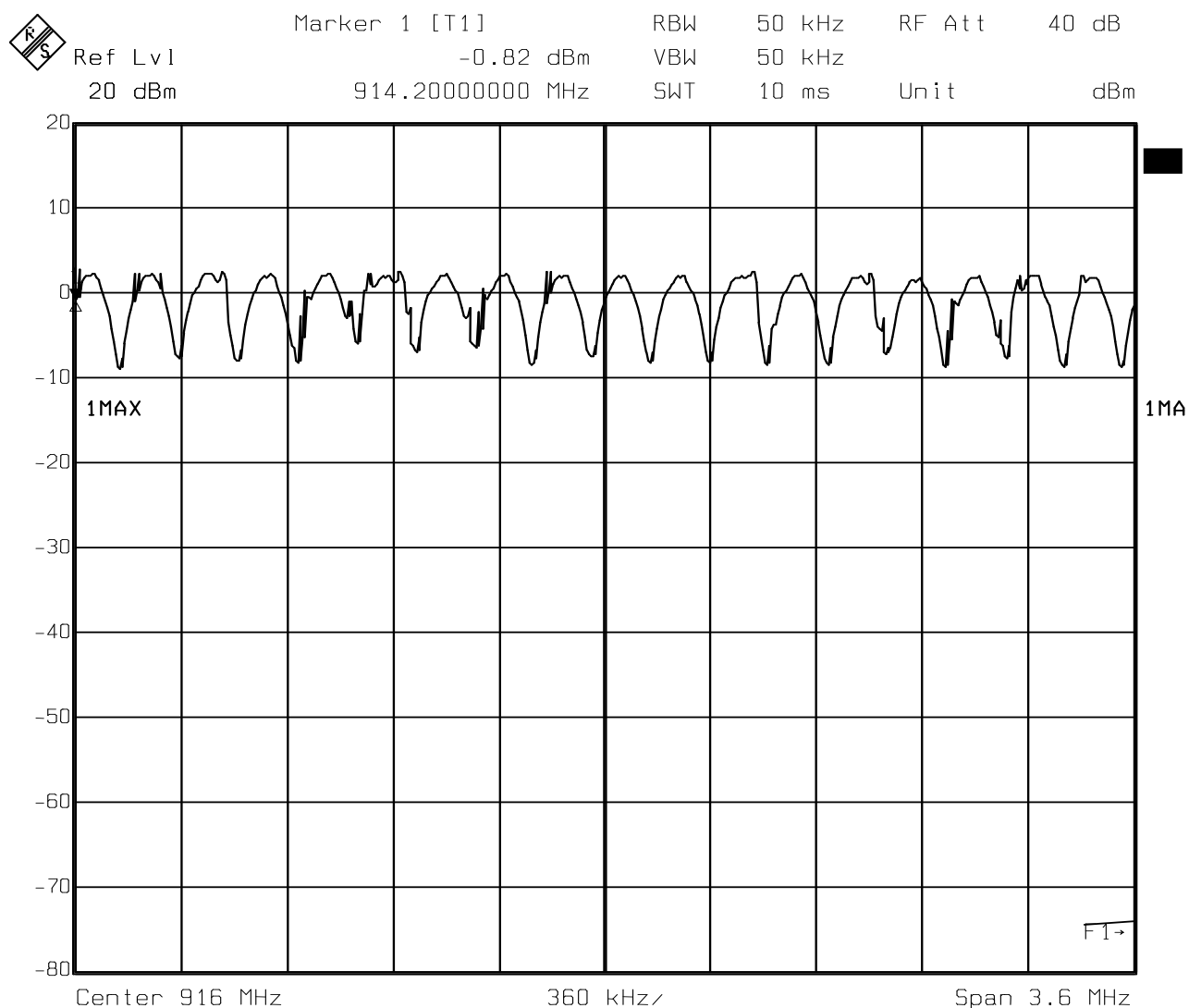
Date: 19.MAY 2008 08:33:55

Test Report No.: H1M20804-6775-P-15

FCC part 15.247

Number of Hopping Channels

Test Report No.	H1M20804-6775
Temperature / Voltage	24°C
Test Site / Operator	ETSPS
Test Specification	FCC part 15 section 247
Comment 1	Marker-delta method
Comment 2	Handset Unit Channel 17-34

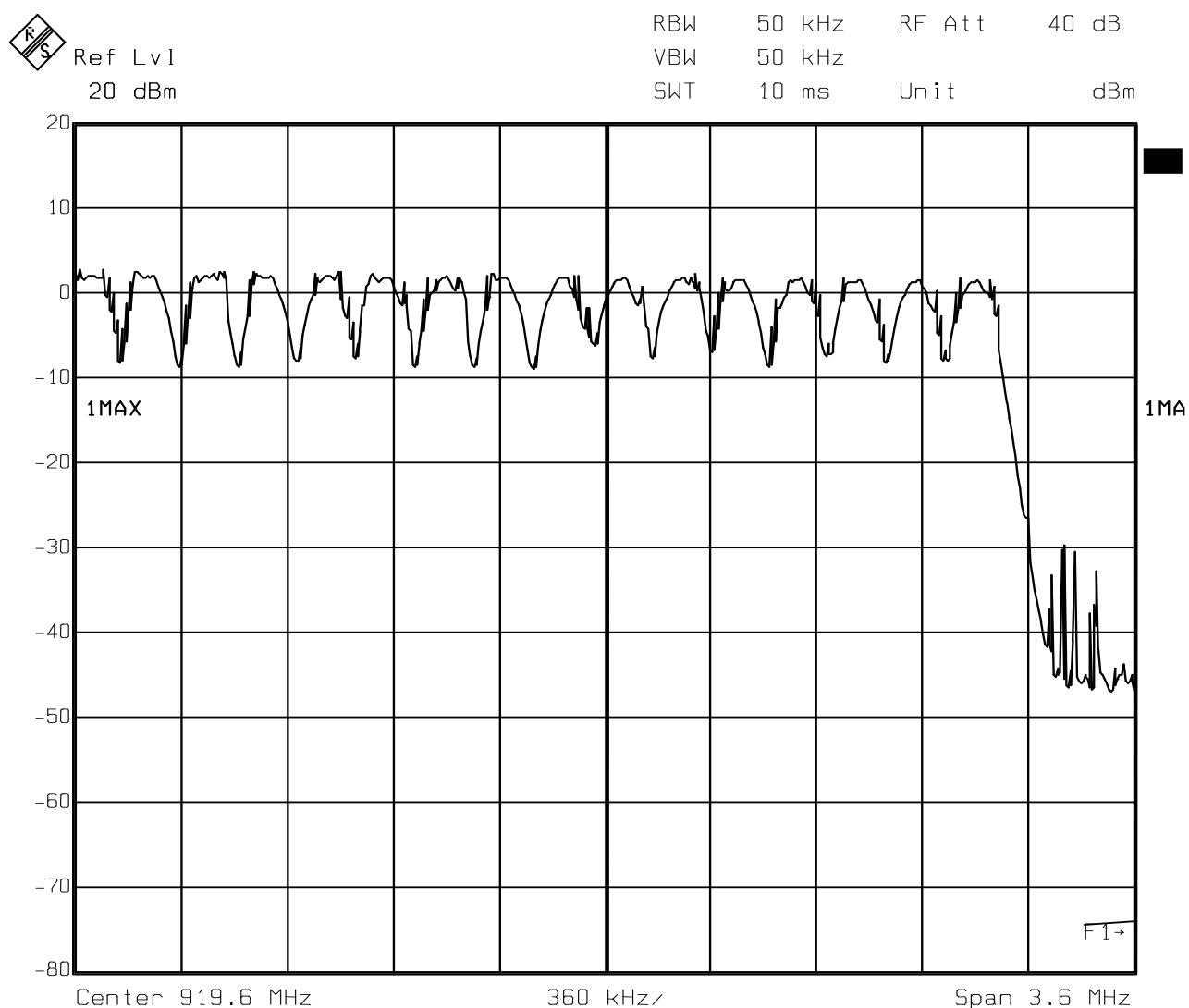


Date: 19.MAY 2008 08:41:00

Test Report No.: H1M20804-6775-P-15

FCC part 15.247
Number of Hopping Channels

Test Report No.	H1M20804-6775
Temperature / Voltage	24°C
Test Site / Operator	ETSPS
Test Specification	FCC part 15 section 247
Comment 1	Marker-delta method
Comment 2	Handset Unit Channel 35-50



Date: 19.MAY 2008 08:55:34

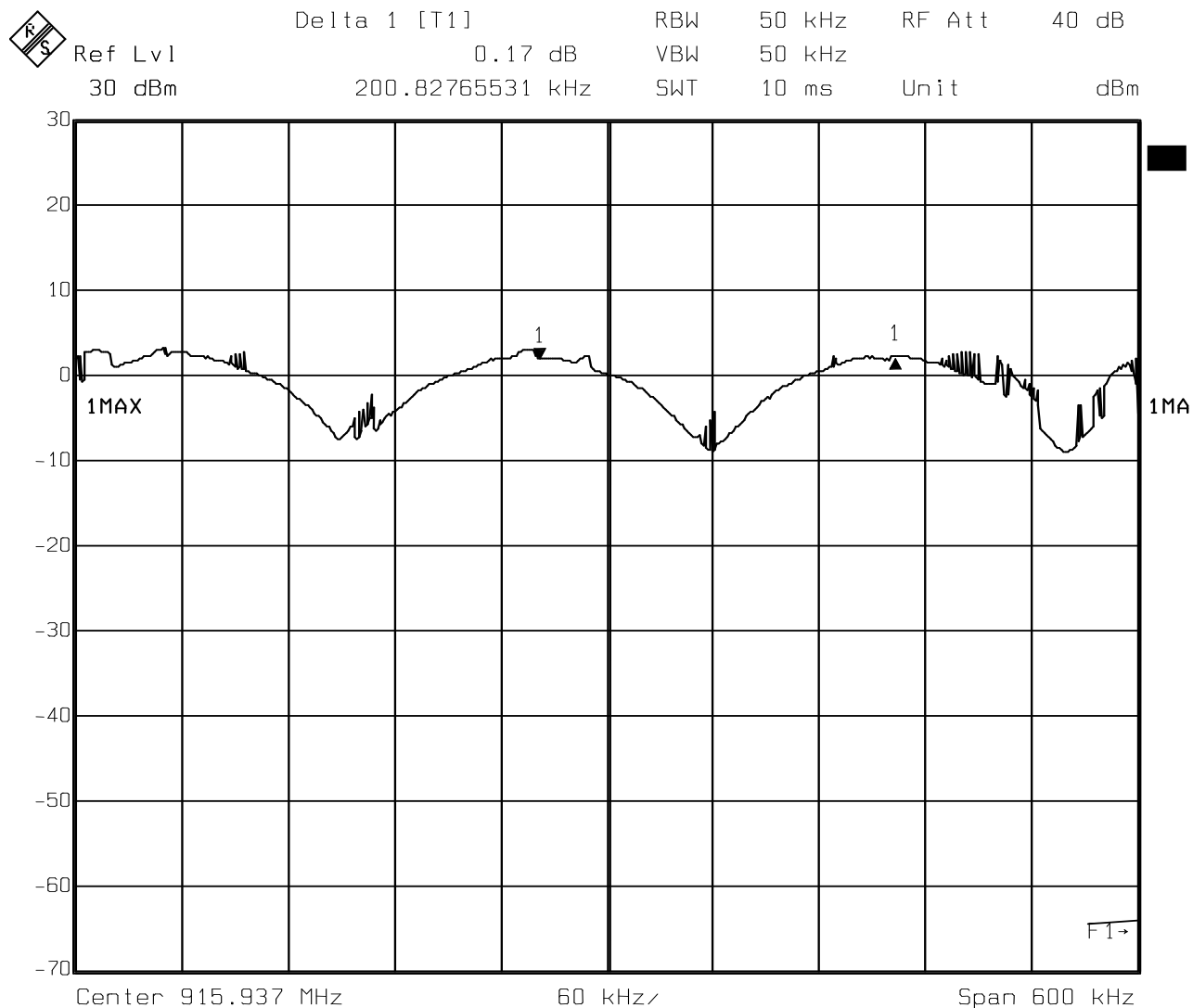
Test Report No.: H1M20804-6775-P-15

Appendix G

Carrier frequency separation

FCC part 15.247
Channel Separation

Test Report No.	H1M20804-6775
Temperature / Voltage	24°C
Test Site / Operator	ETSPS
Test Specification	FCC part 15 section 247
Comment 1	Marker-delta method
Comment 2	Caller Unit Channel 26 & 27

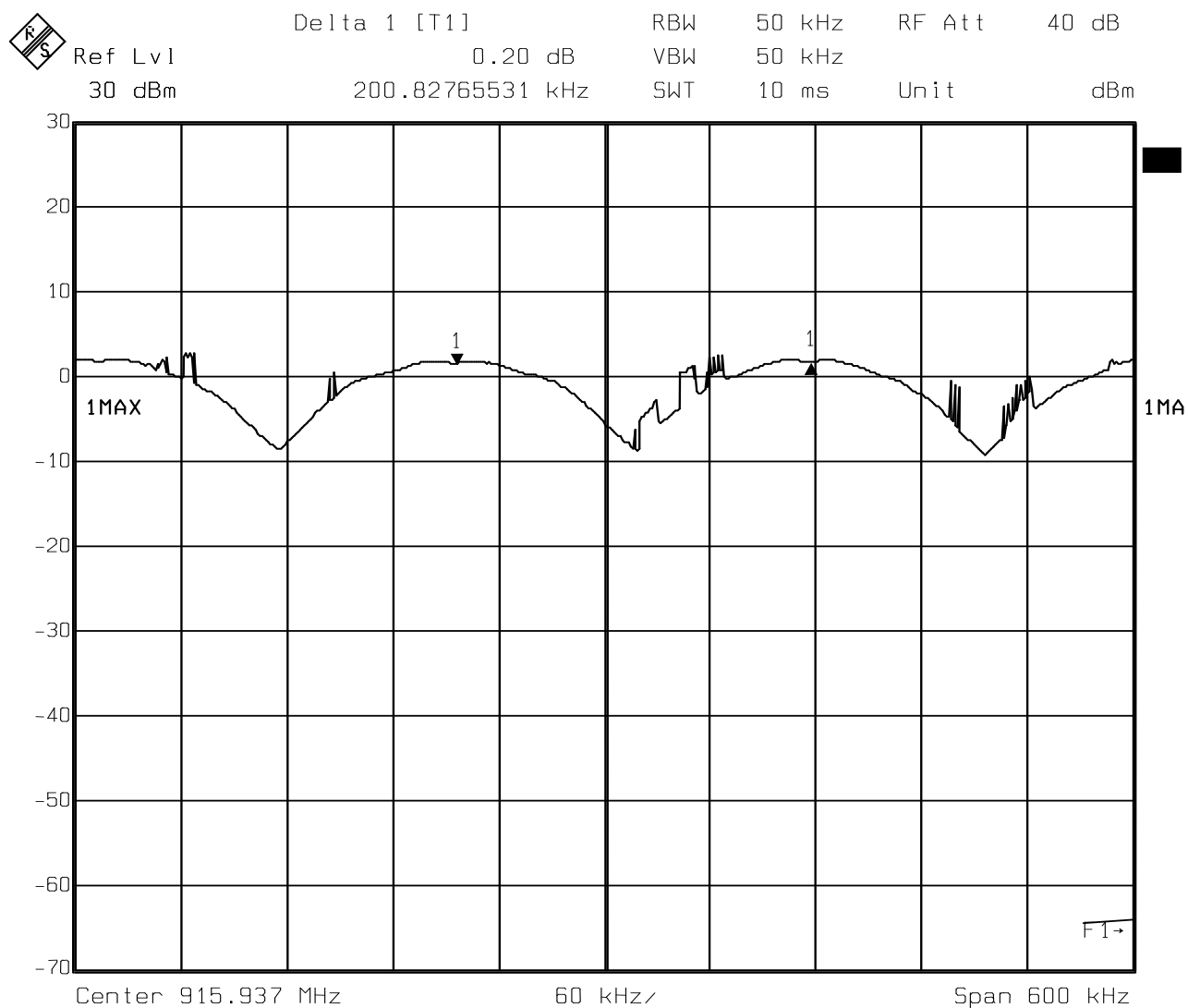


Date: 19.MAY 2008 09:14:55

Test Report No.: H1M20804-6775-P-15

FCC part 15.247
Channel Separation

Test Report No.	H1M20804-6775
Temperature / Voltage	24°C
Test Site / Operator	ETSPS
Test Specification	FCC part 15 section 247
Comment 1	Marker-delta method
Comment 2	Handset Unit Channel 26 & 27



Date: 19.MAY 2008 09:13:02

Test Report No.: H1M20804-6775-P-15

Appendix H

Spurious emission conducted

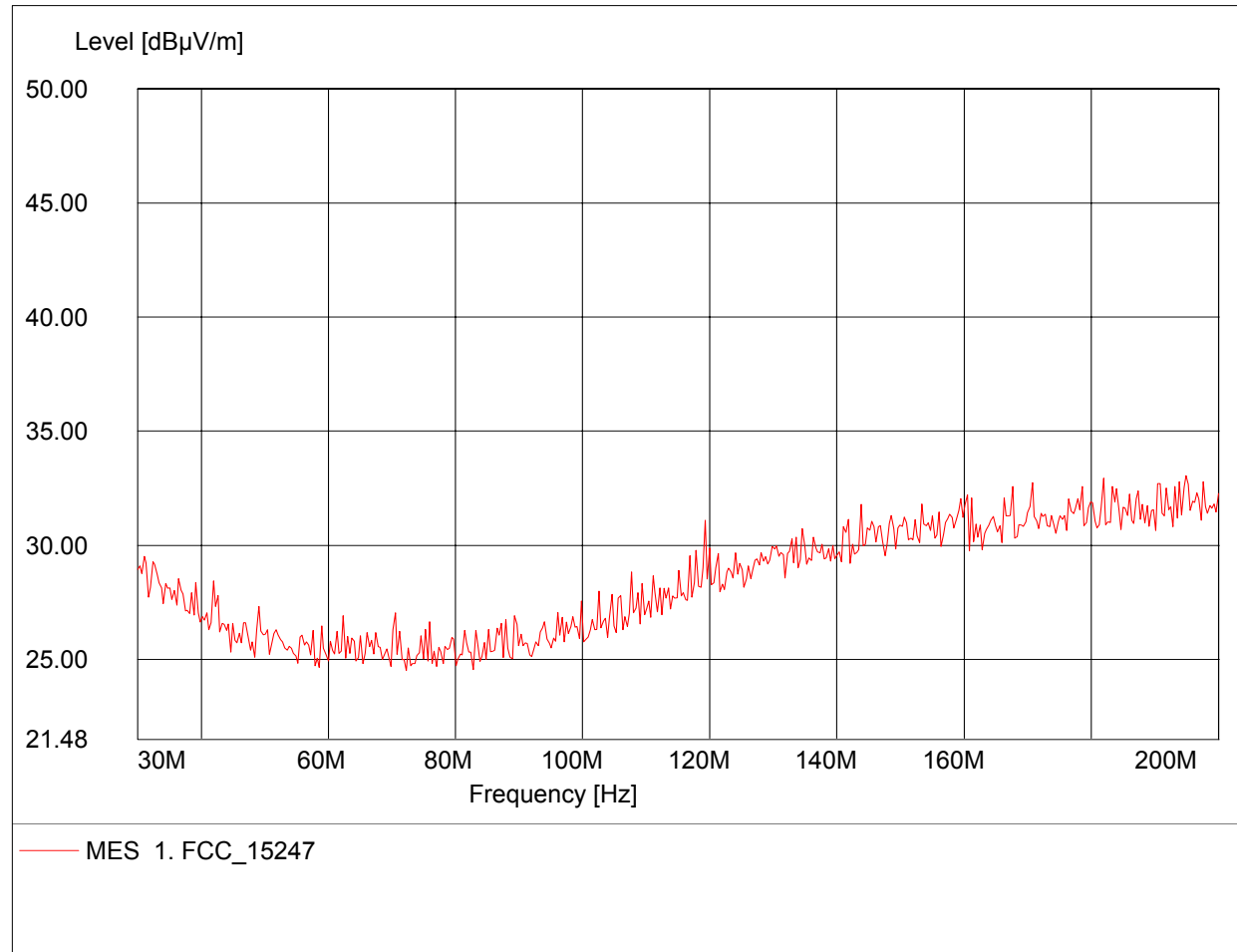
Appendix I

Spurious emission radiated

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to §15.247, peak detector
Comment 1: Caller Unit Transmit Low Channel: 911MHz
Dist.: 3m, Ant.: HK 116
Freq: 194.890MHz, Emax: 33.05dBµV/m, RBW: 100kHz

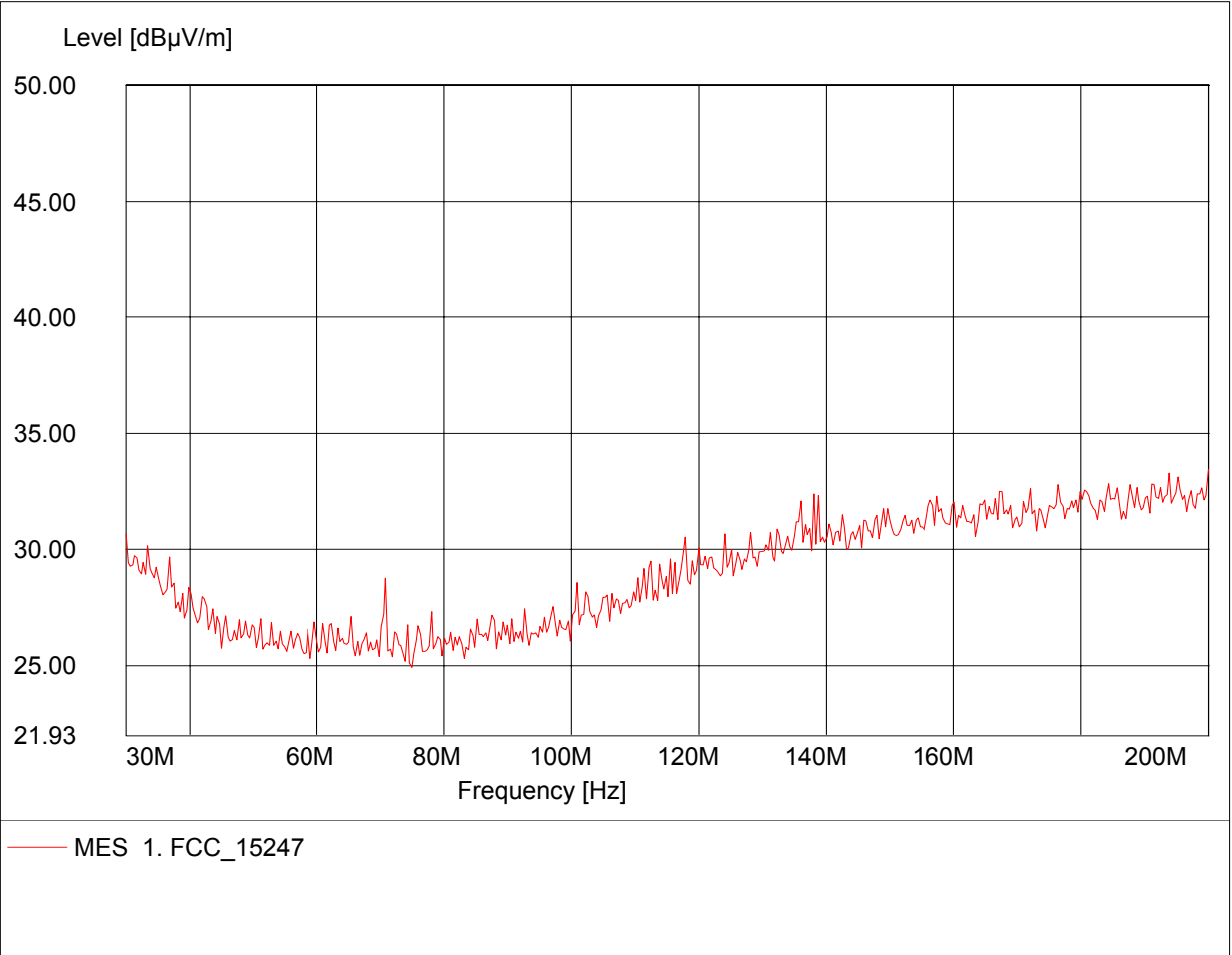


Antenna horizontal

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to §15.247, peak detector
Comment 1: Caller Unit Transmit Low Channel: 911MHz
Dist.: 3m, Ant.: HK 116
Freq: 200.000MHz, Emax: 33.43dBµV/m, RBW: 100kHz

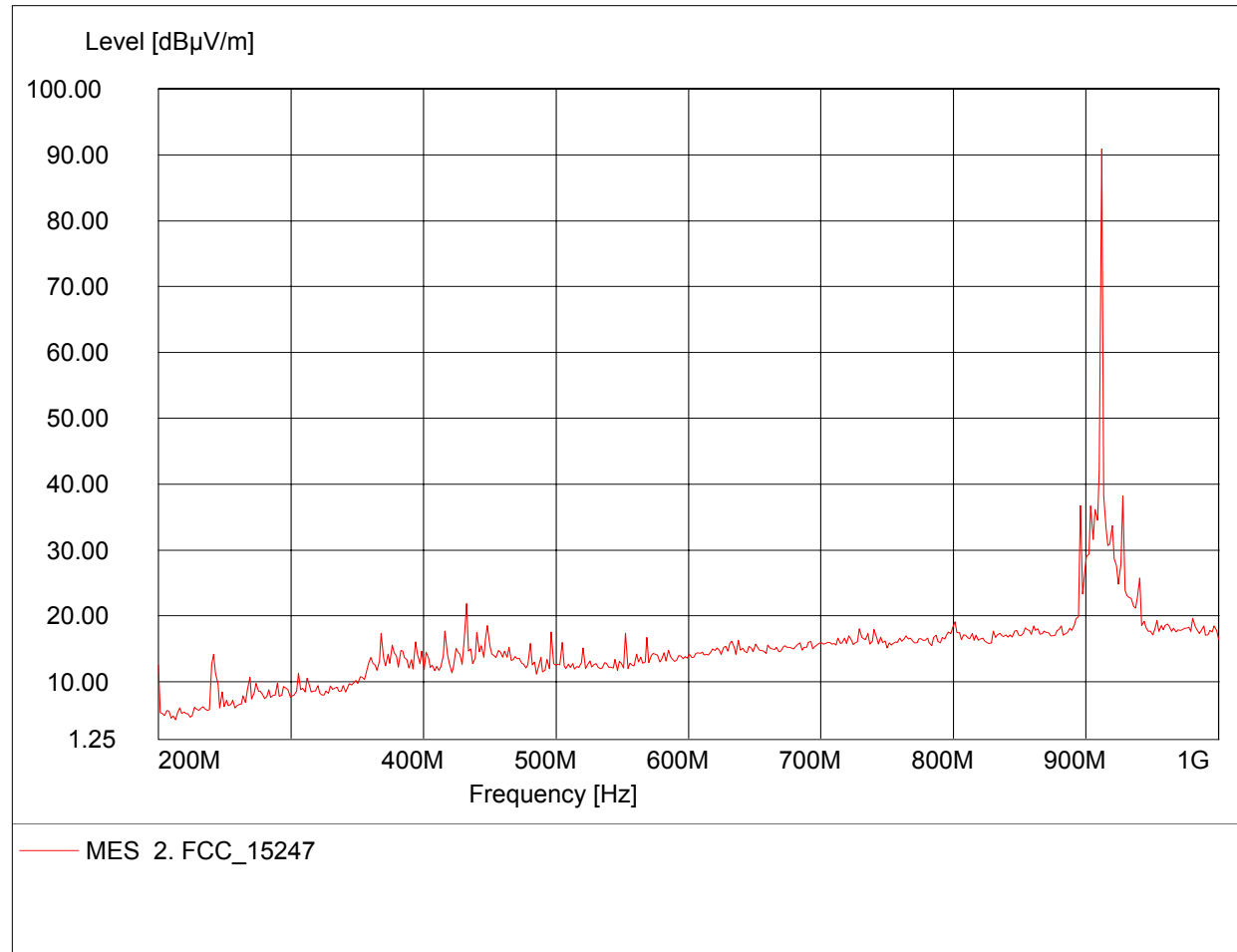


Antenna vertical

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to §15.247, peak detector
Comment 1: Caller Unit Transmit Low Channel: 911MHz
Dist.: 3m, Ant.: HL 223,
Freq: 911.824MHz, Emax: 90.87dBµV/m, RBW: 100kHz

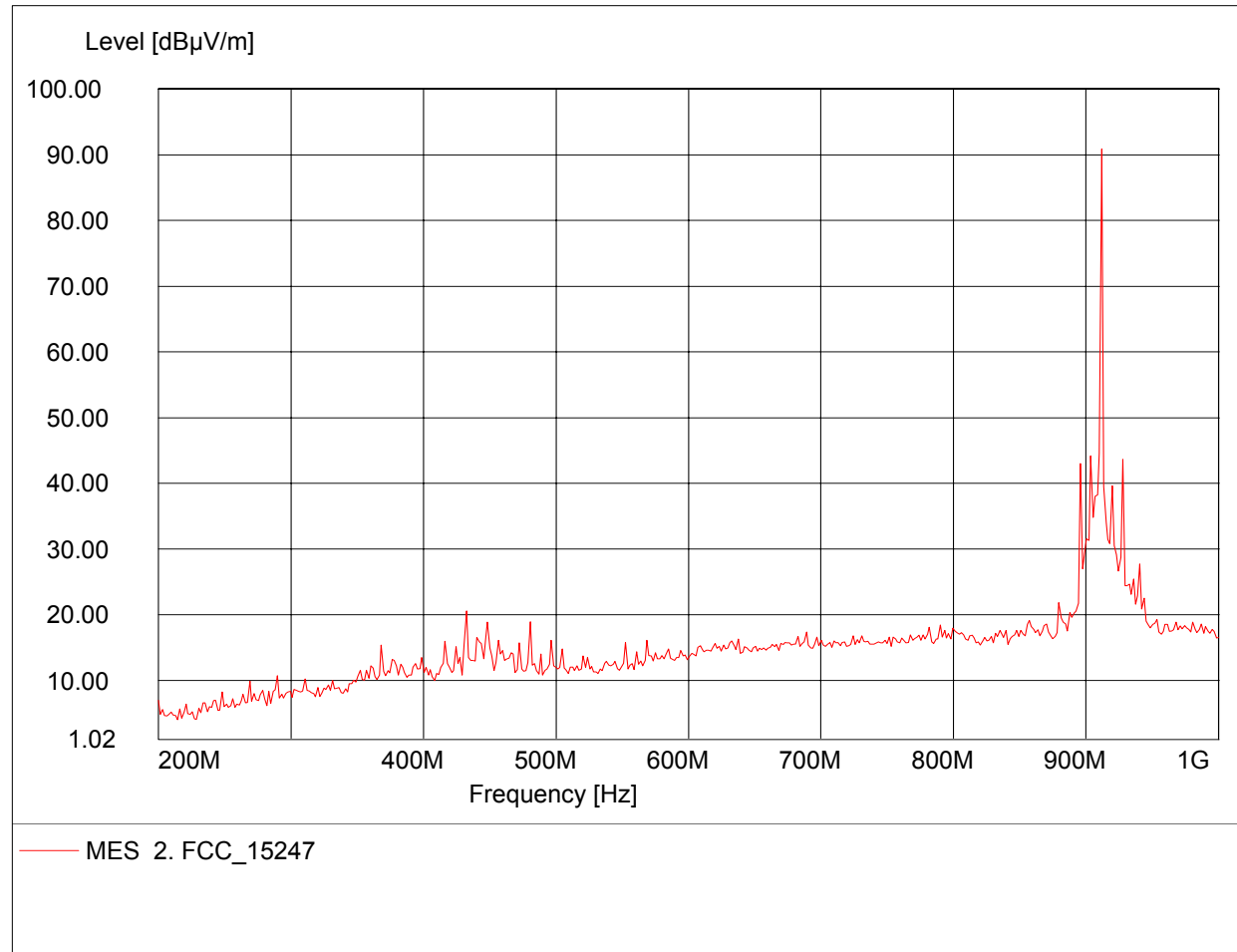


Antenna horizontal

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to §15.247, peak detector
Comment 1: Caller Unit Transmit Low Channel: 911MHz
Dist.: 3m, Ant.: HL 223,
Freq: 911.824MHz, Emax: 90.89dBμV/m, RBW: 100kHz

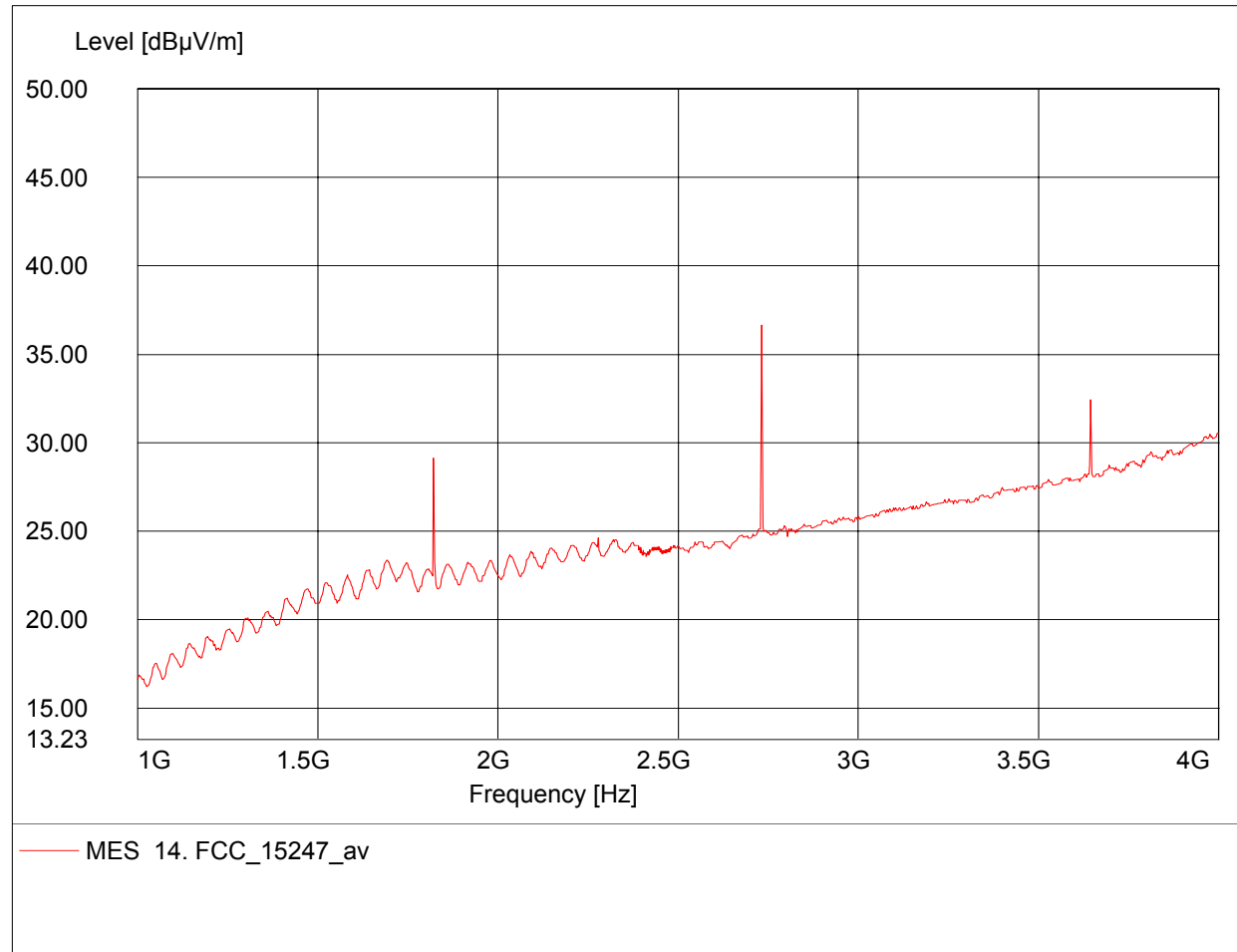


Antenna vertical

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to §15.247, average detector
Comment 1: Caller Unit Transmit Low Channel: 911MHz
Dist.: 3m, Ant.: HL025, amplif.
Freq: 2.732GHz, Emax: 36.66dBμV/m, RBW: 100kHz

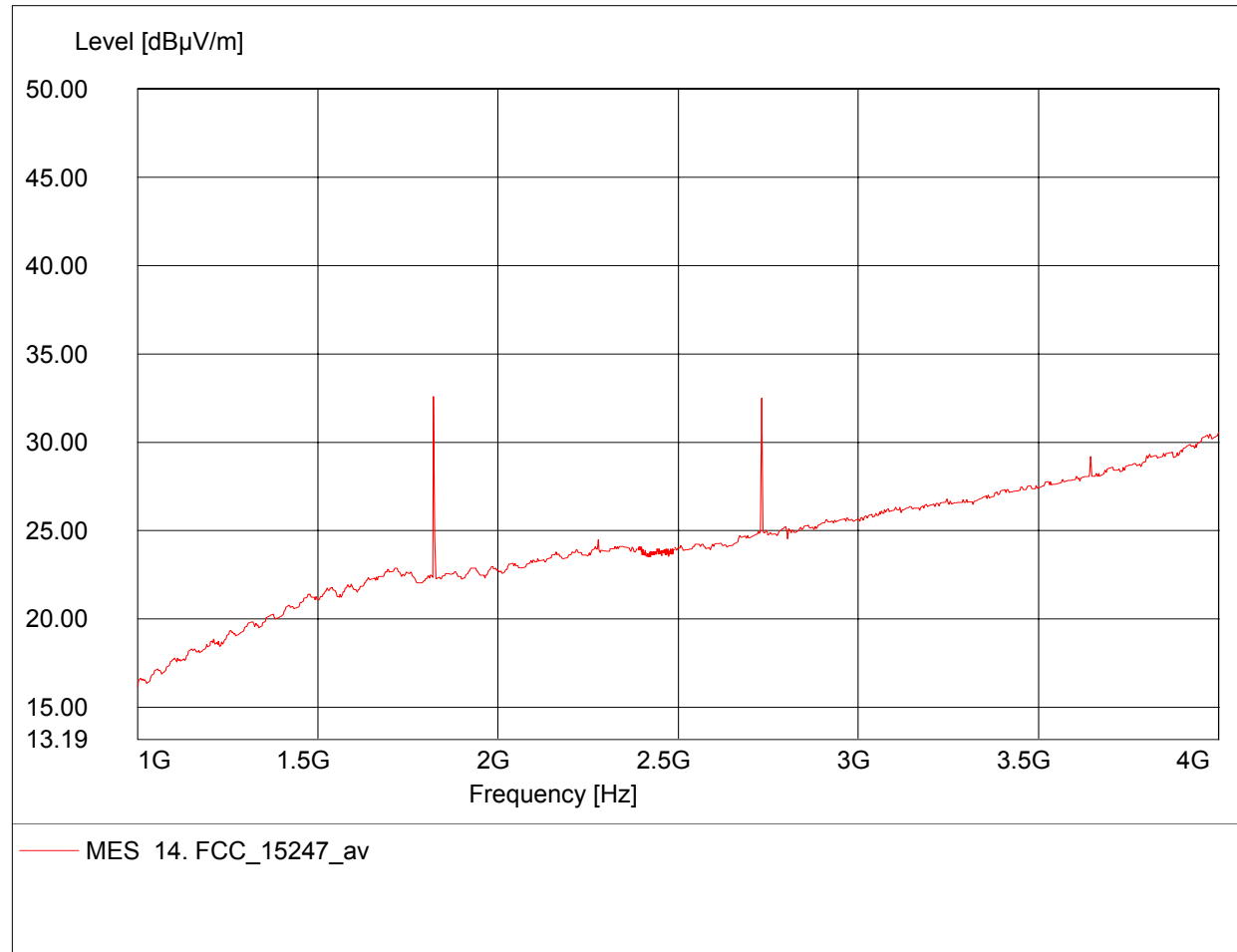


Antenna horizontal

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to §15.247, average detector
Comment 1: Caller Unit Transmit Low Channel: 911MHz
Dist.: 3m, Ant.: HL025, amplif.
Freq: 1.822GHz, Emax: 32.59dBμV/m, RBW: 100kHz

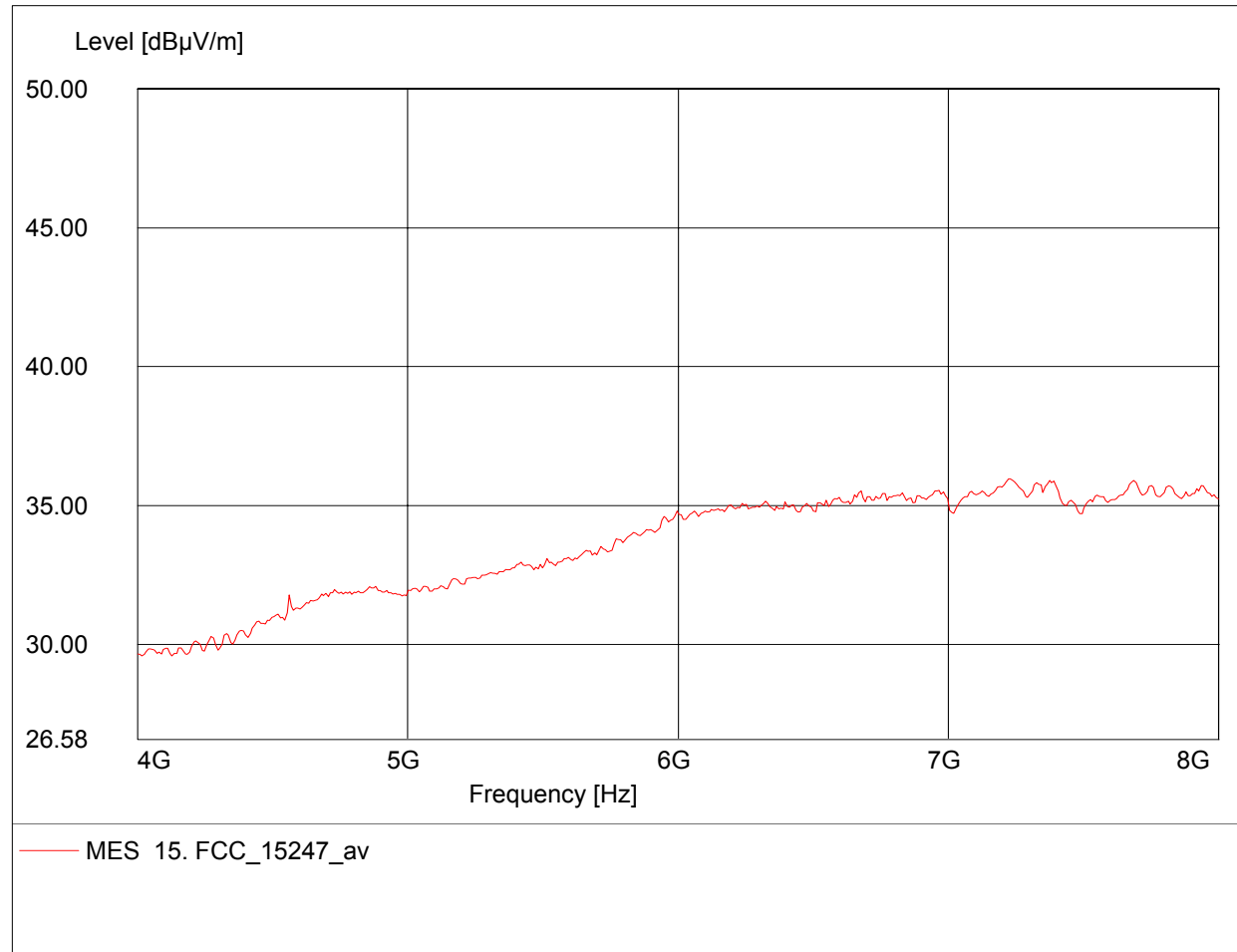


Antenna vertical

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to §15.247, average detector
Comment 1: Caller Unit Transmit Low Channel: 911MHz
Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 7.230GHz, Emax: 35.96dBµV/m, RBW: 100kHz

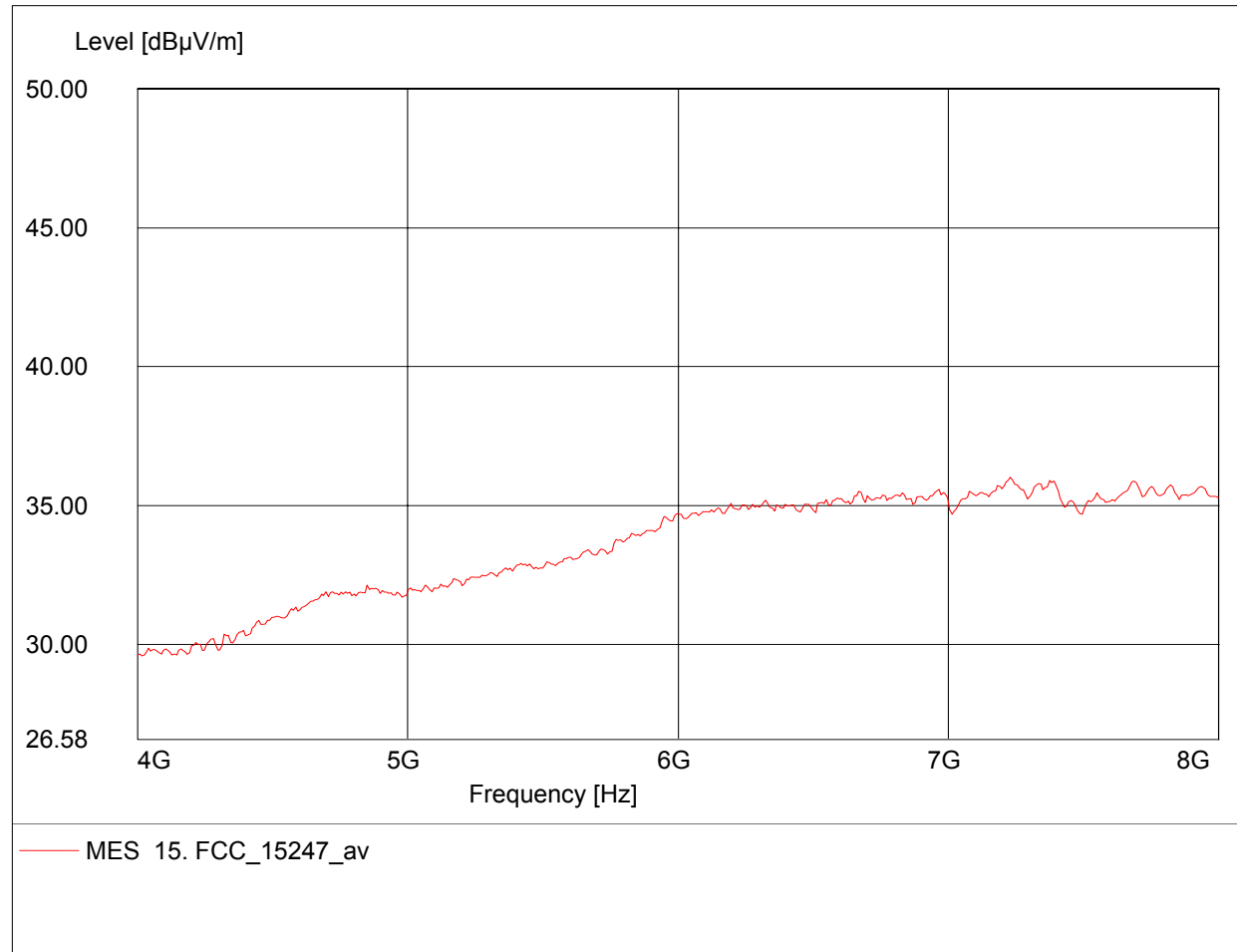


Antenna horizontal

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to §15.247, average detector
Comment 1: Caller Unit Transmit Low Channel: 911MHz
Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 7.230GHz, Emax: 36.03dBµV/m, RBW: 100kHz

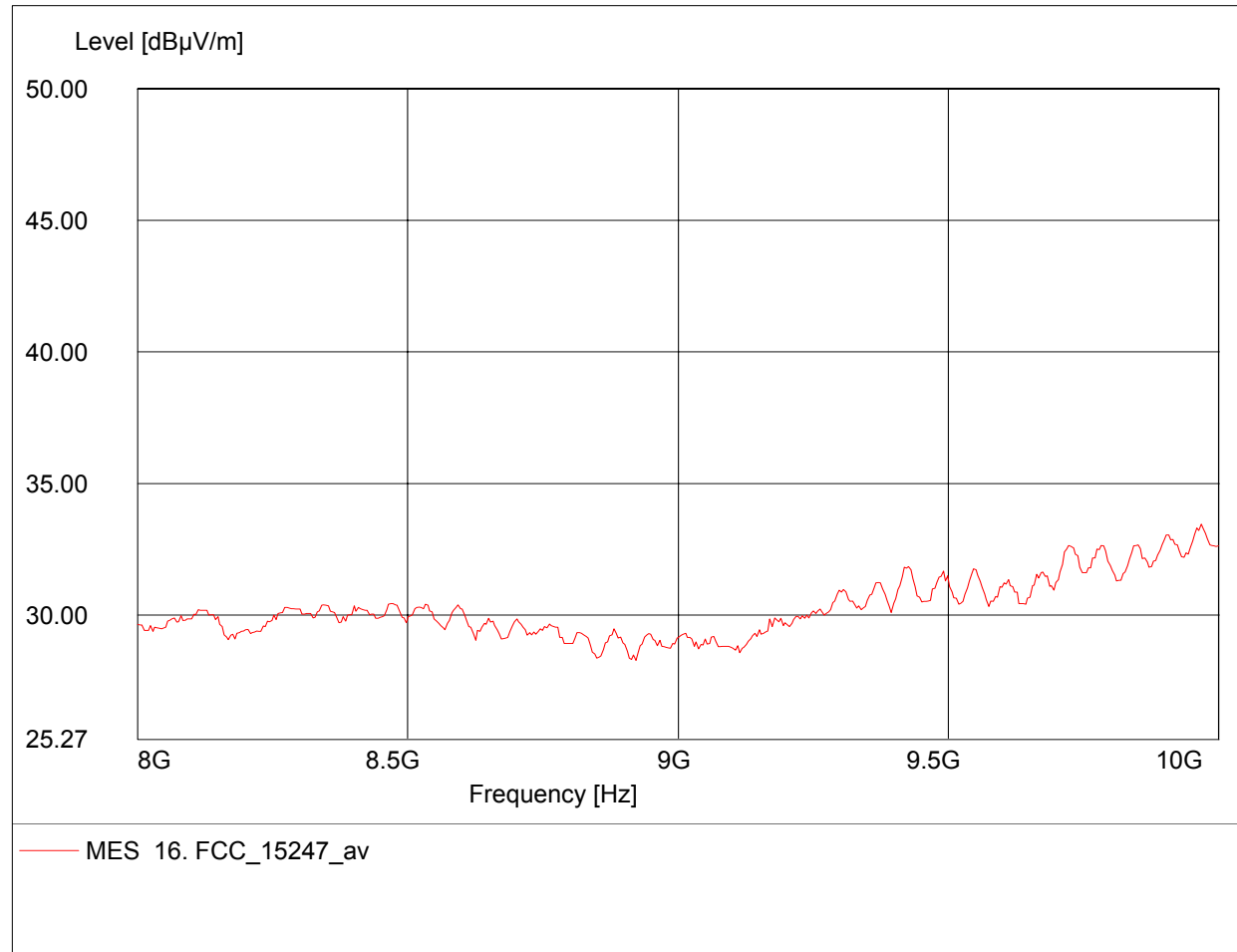


Antenna vertical

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to §15.247, average detector
Comment 1: Caller Unit Transmit Low Channel: 911MHz
Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 9.968GHz, Emax: 33.45dBµV/m, RBW: 100kHz

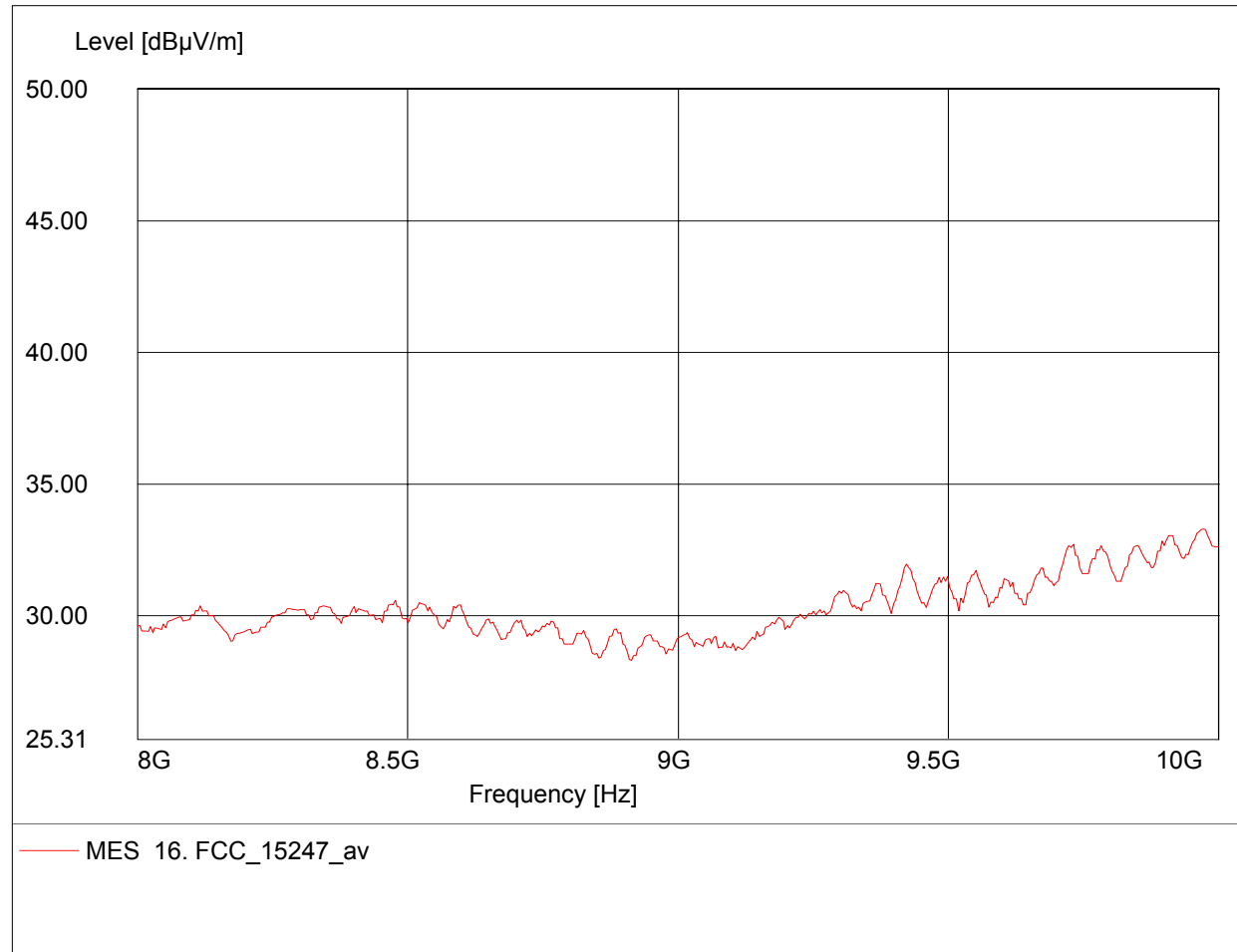


Antenna horizontal

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to §15.247, average detector
Comment 1: Caller Unit Transmit Low Channel: 911MHz
Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 9.972GHz, Emax: 33.30dBμV/m, RBW: 100kHz

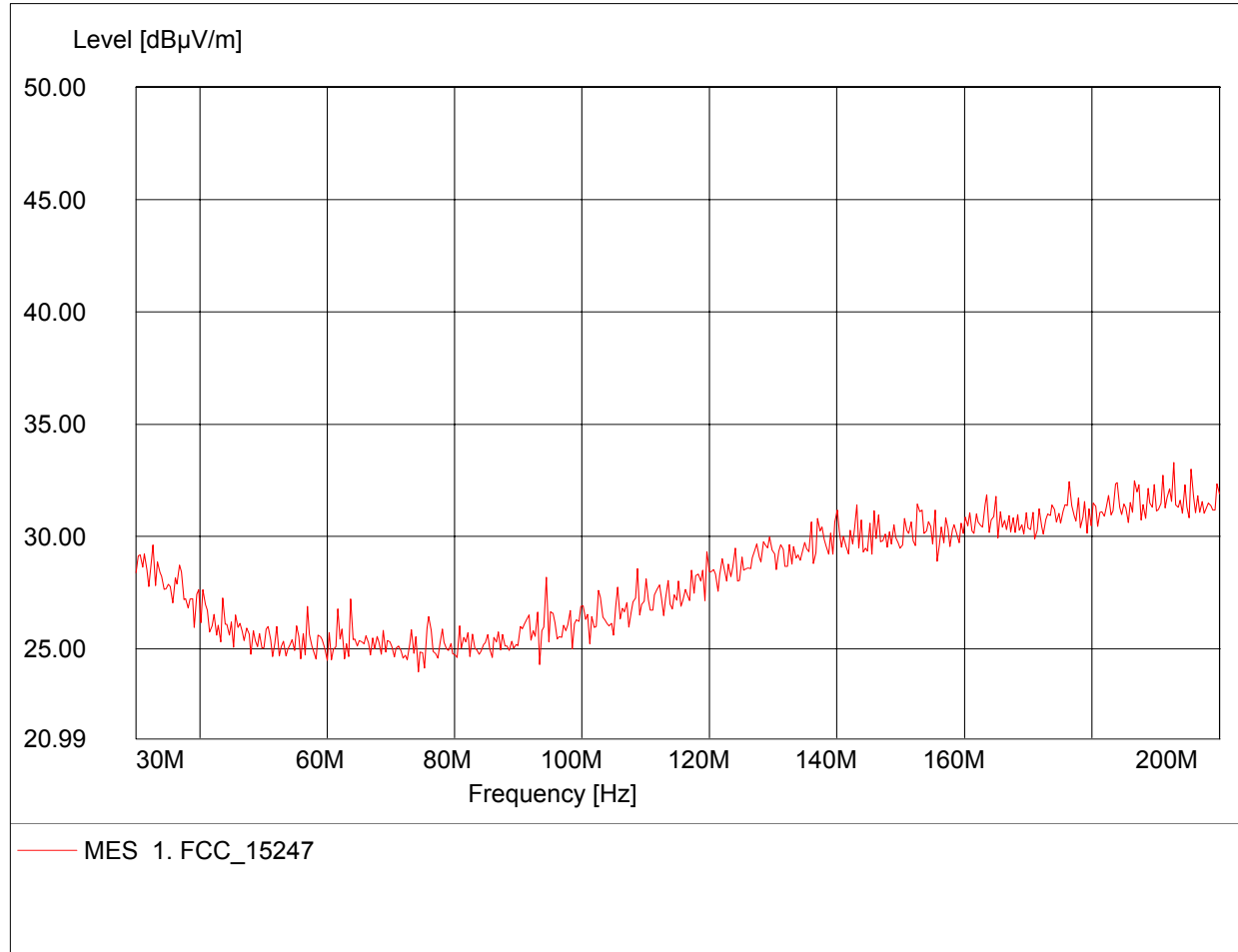


Antenna vertical

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to §15.247, peak detector
Comment 1: Caller Unit Transmit High Channel: 920.8MHz
Dist.: 3m, Ant.: HK 116
Freq: 192.846MHz, Emax: 33.30dBµV/m, RBW: 100kHz

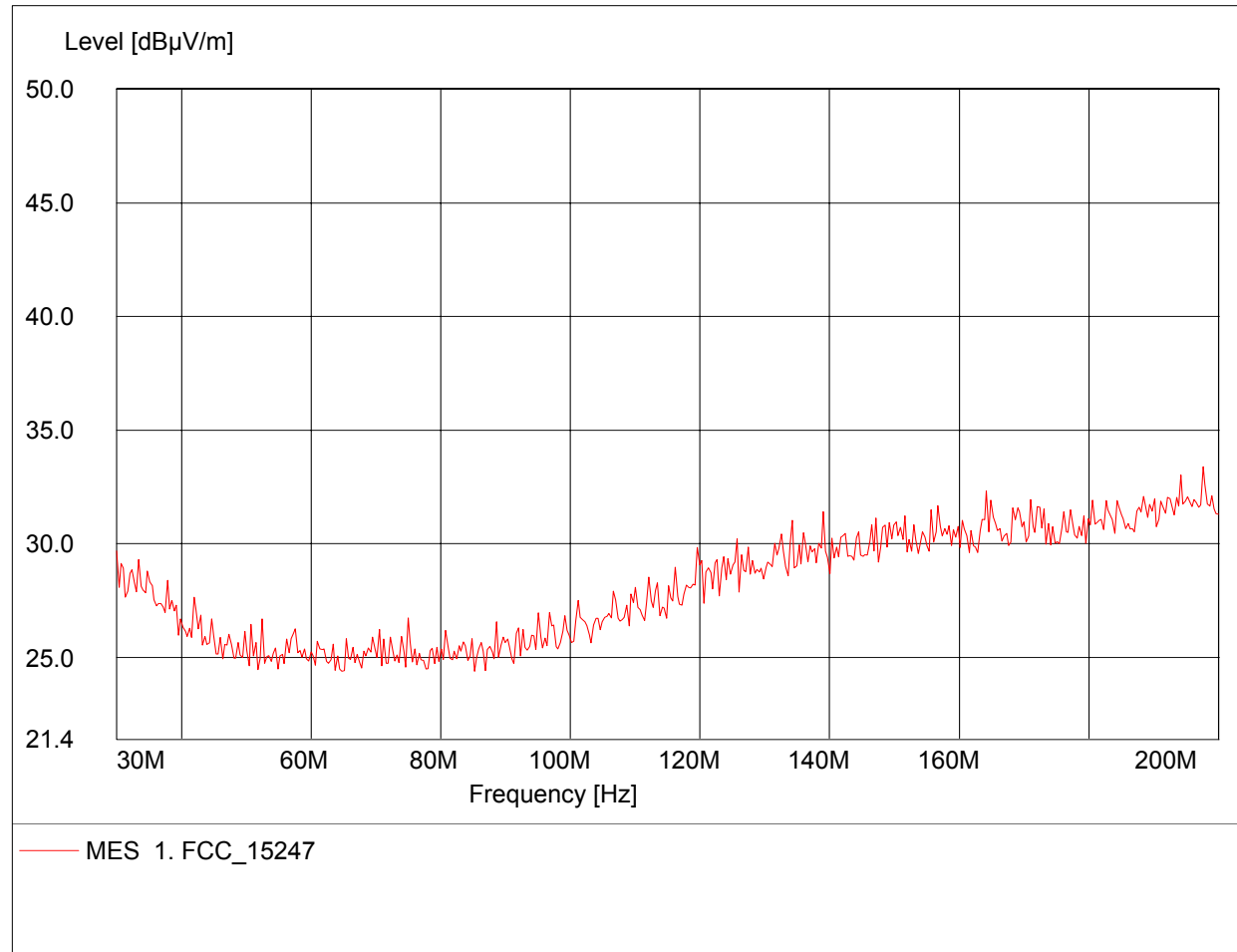


Antenna horizontal

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to §15.247, peak detector
Comment 1: Caller Unit Transmit High Channel: 920.8MHz
Dist.: 3m, Ant.: HK 116
Freq: 197.615MHz, Emax: 33.39dBμV/m, RBW: 100kHz

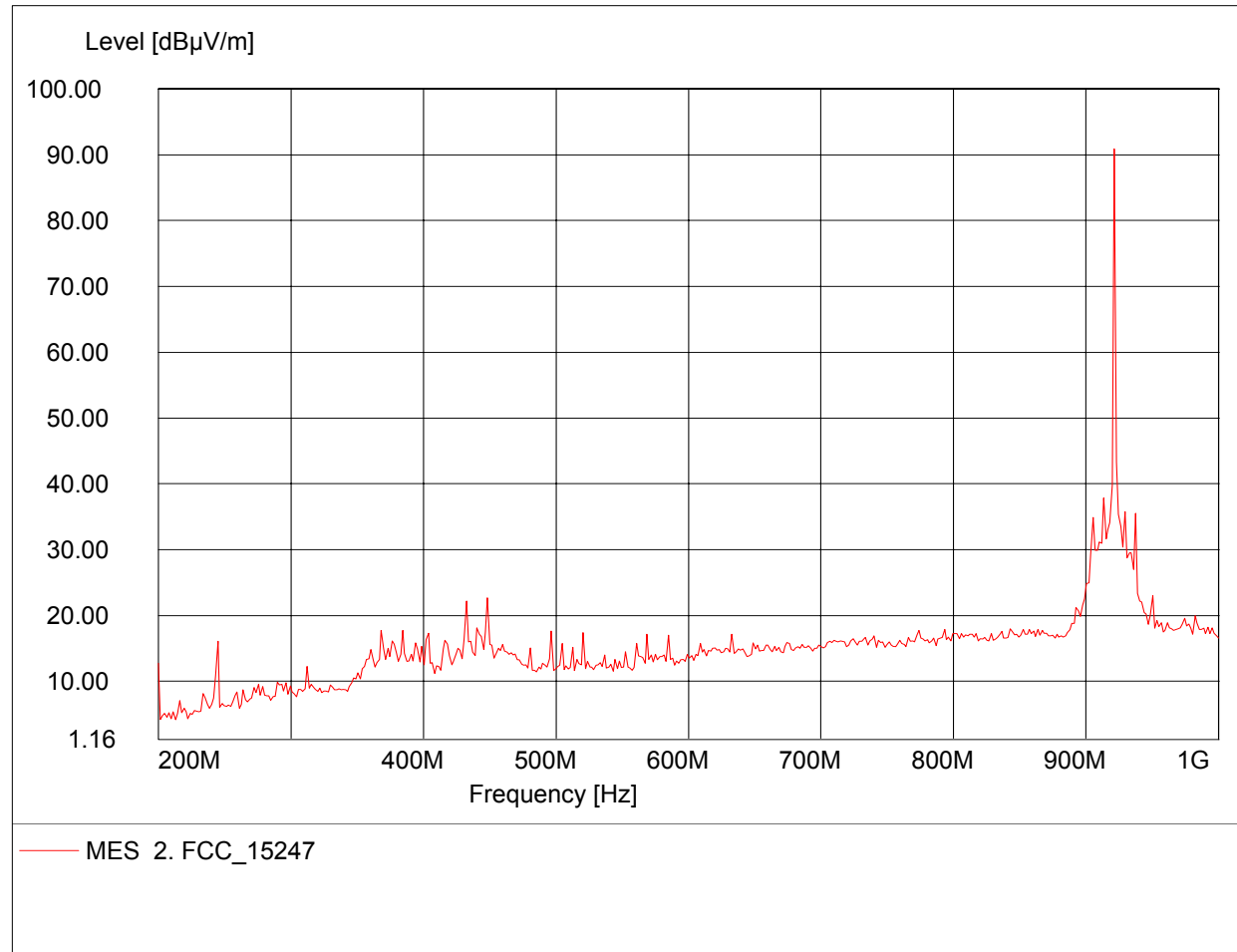


Antenna vertical

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to §15.247, peak detector
Comment 1: Caller Unit Transmit High Channel: 920.8MHz
Dist.: 3m, Ant.: HL 223,
Freq: 921.443MHz, Emax: 90.85dBµV/m, RBW: 100kHz

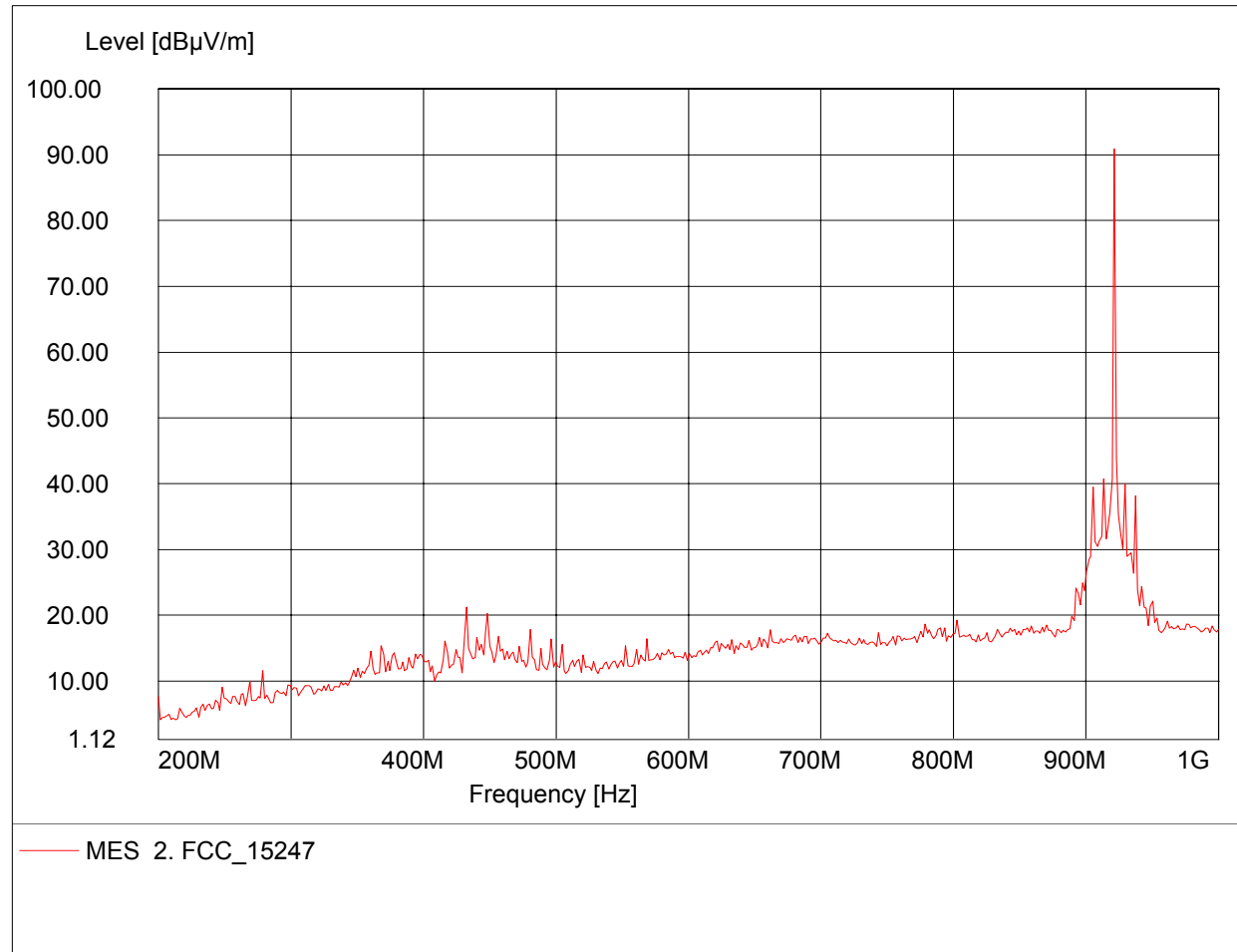


Antenna horizontal

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to §15.247, peak detector
Comment 1: Caller Unit Transmit High Channel: 920.8MHz
Dist.: 3m, Ant.: HL 223,
Freq: 921.443MHz, Emax: 90.85dBµV/m, RBW: 100kHz

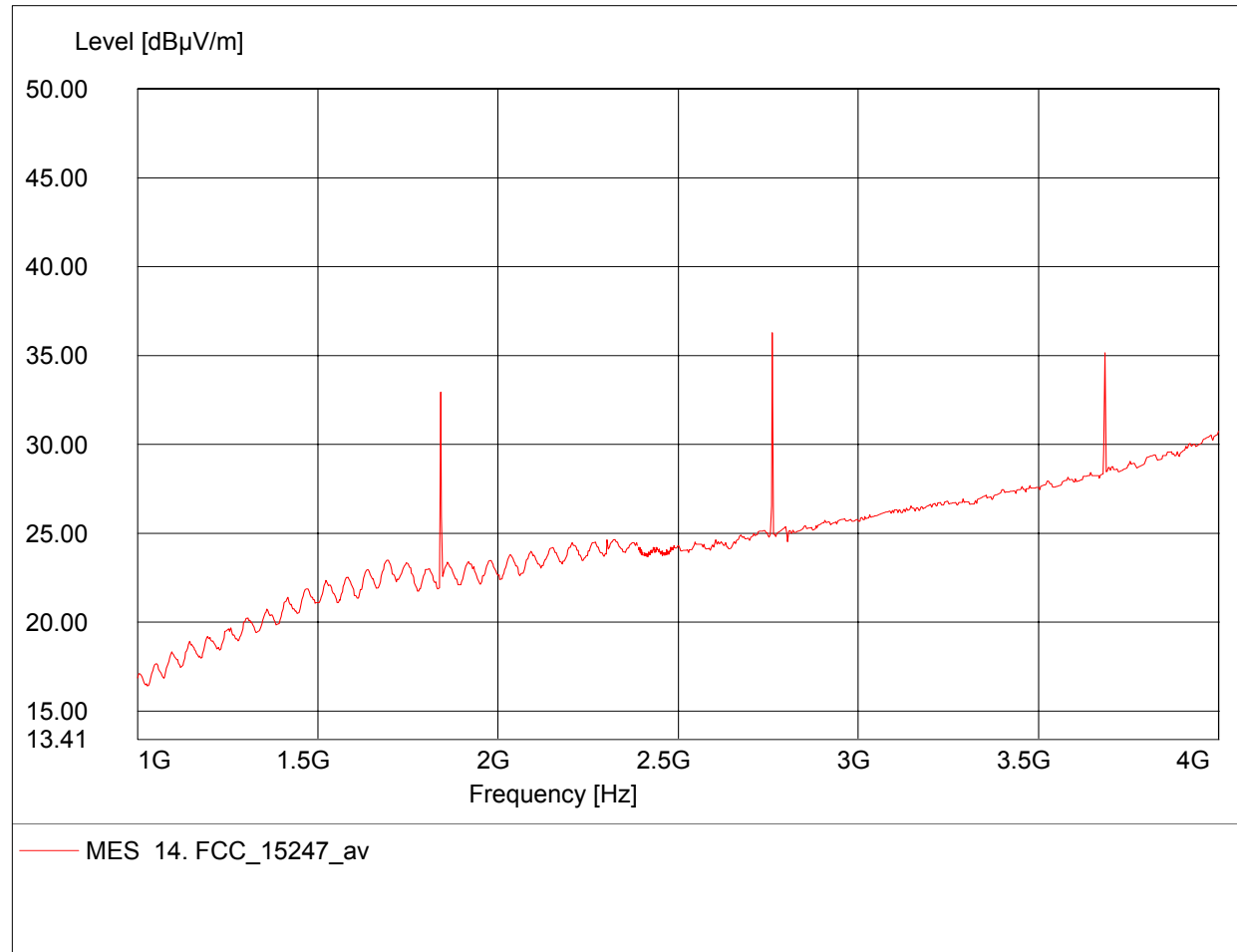


Antenna vertical

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to §15.247, average detector
Comment 1: Caller Unit Transmit High Channel: 920.8MHz
Dist.: 3m, Ant.: HL025, amplif.
Freq: 2.762GHz, Emax: 36.30dBµV/m, RBW: 100kHz

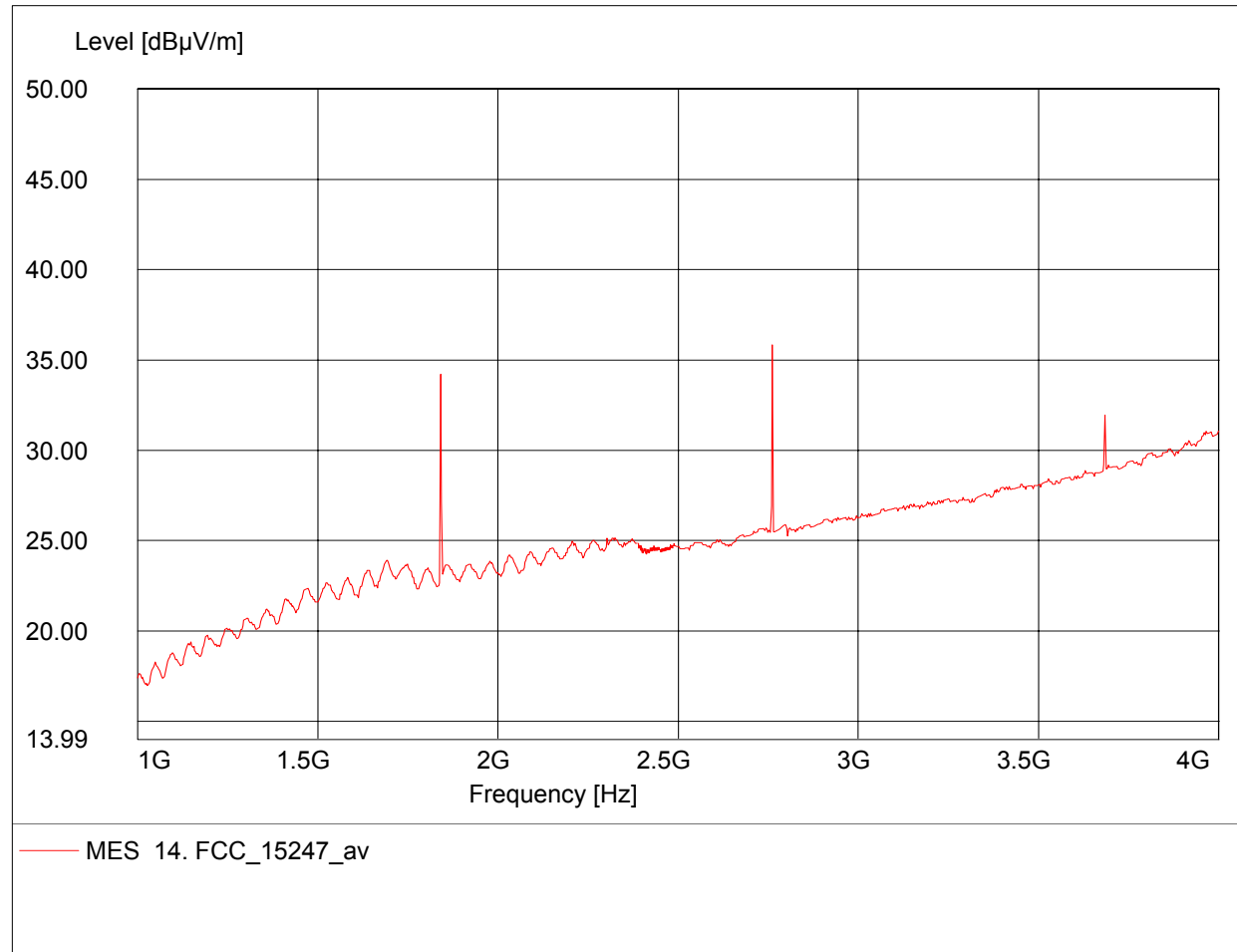


Antenna horizontal

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to §15.247, average detector
Comment 1: Caller Unit Transmit High Channel: 920.8MHz
Dist.: 3m, Ant.: HL025, amplif.
Freq: 2.762GHz, Emax: 35.84dBμV/m, RBW: 100kHz

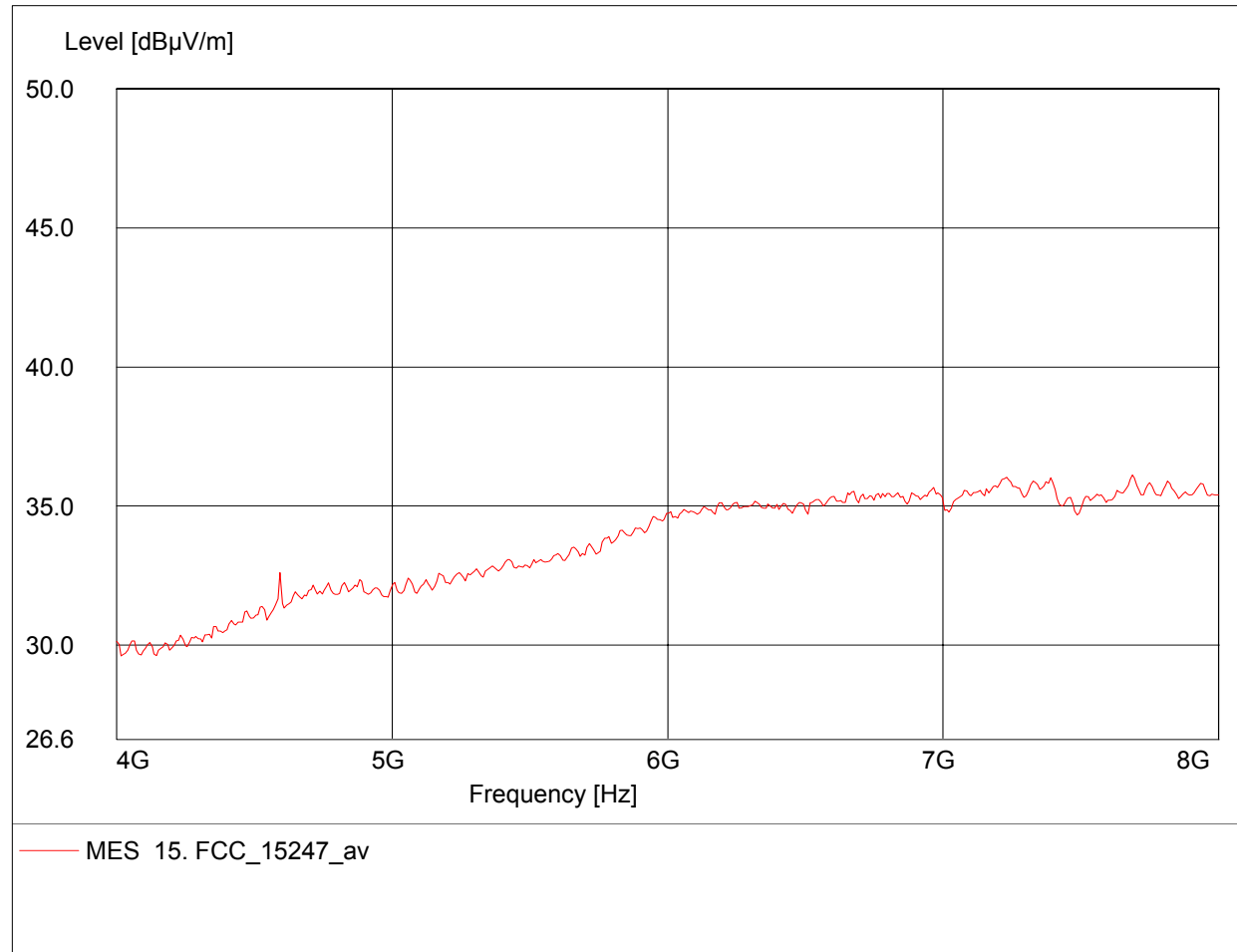


Antenna vertical

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to §15.247, average detector
Comment 1: Caller Unit Transmit High Channel: 920.8MHz
Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 7.687GHz, Emax: 36.11dBµV/m, RBW: 100kHz

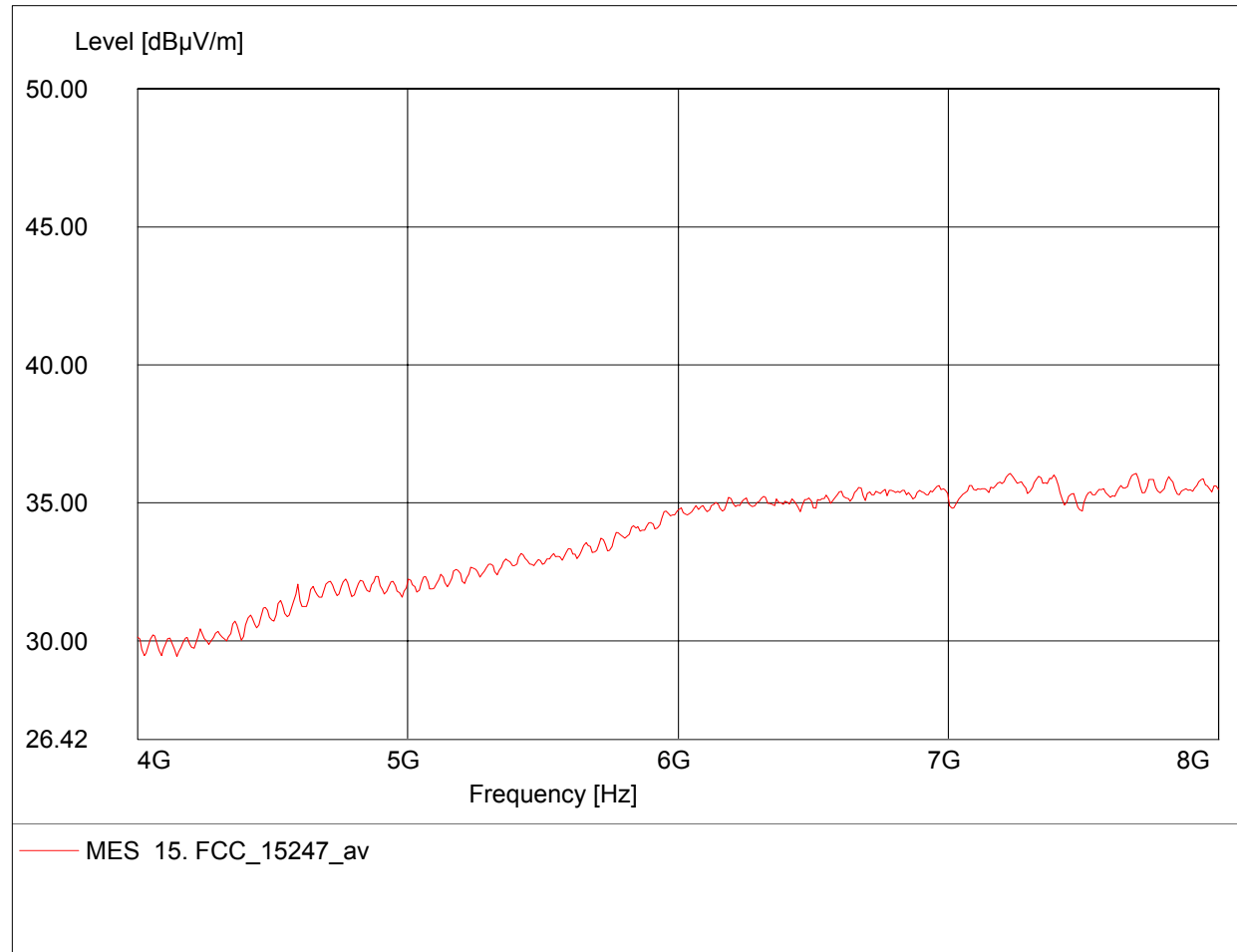


Antenna horizontal

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to §15.247, average detector
Comment 1: Caller Unit Transmit High Channel: 920.8MHz
Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 7.230GHz, Emax: 36.07dBμV/m, RBW: 100kHz

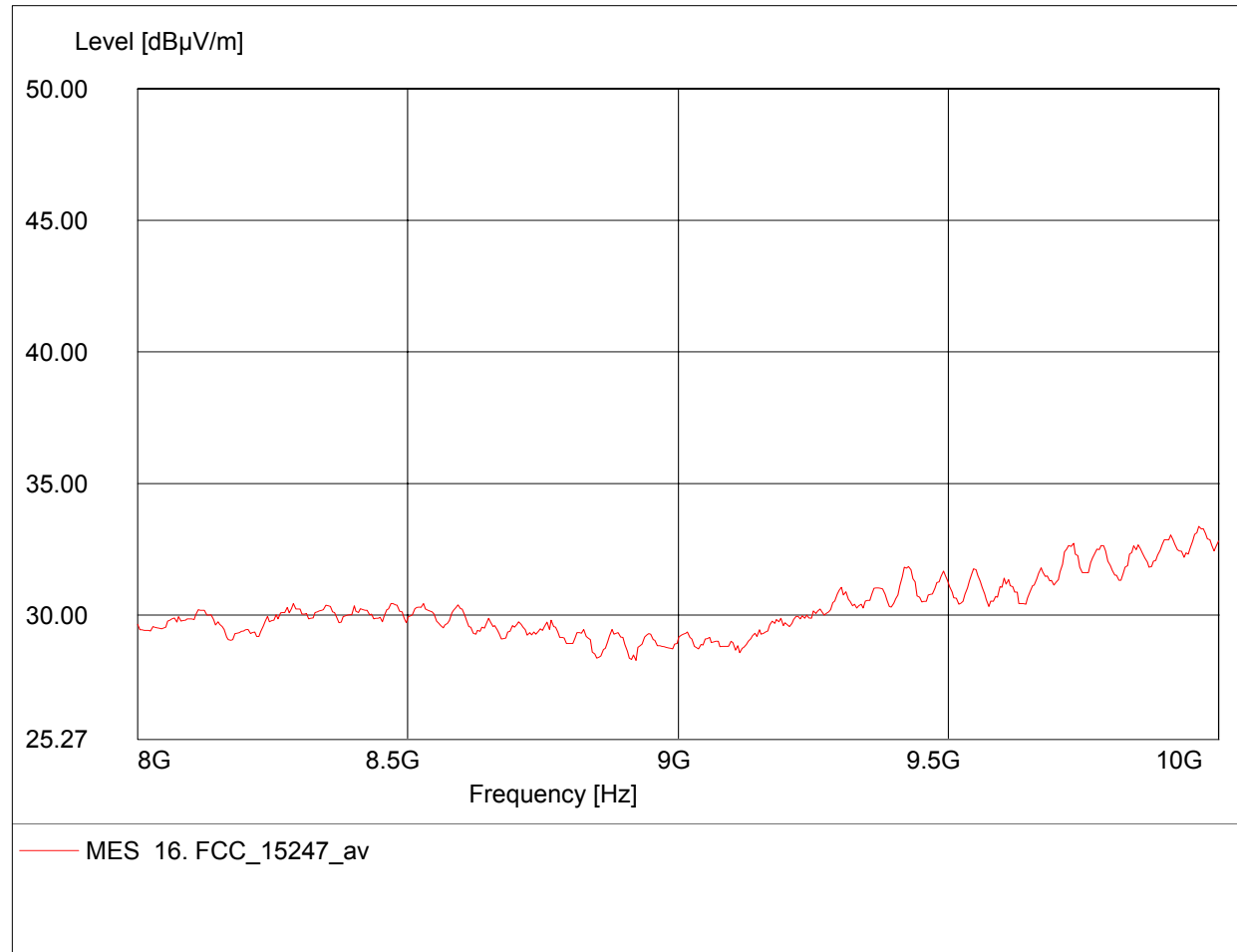


Antenna vertical

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to §15.247, average detector
Comment 1: Caller Unit Transmit High Channel: 920.8MHz
Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 9.964GHz, Emax: 33.38dBμV/m, RBW: 100kHz

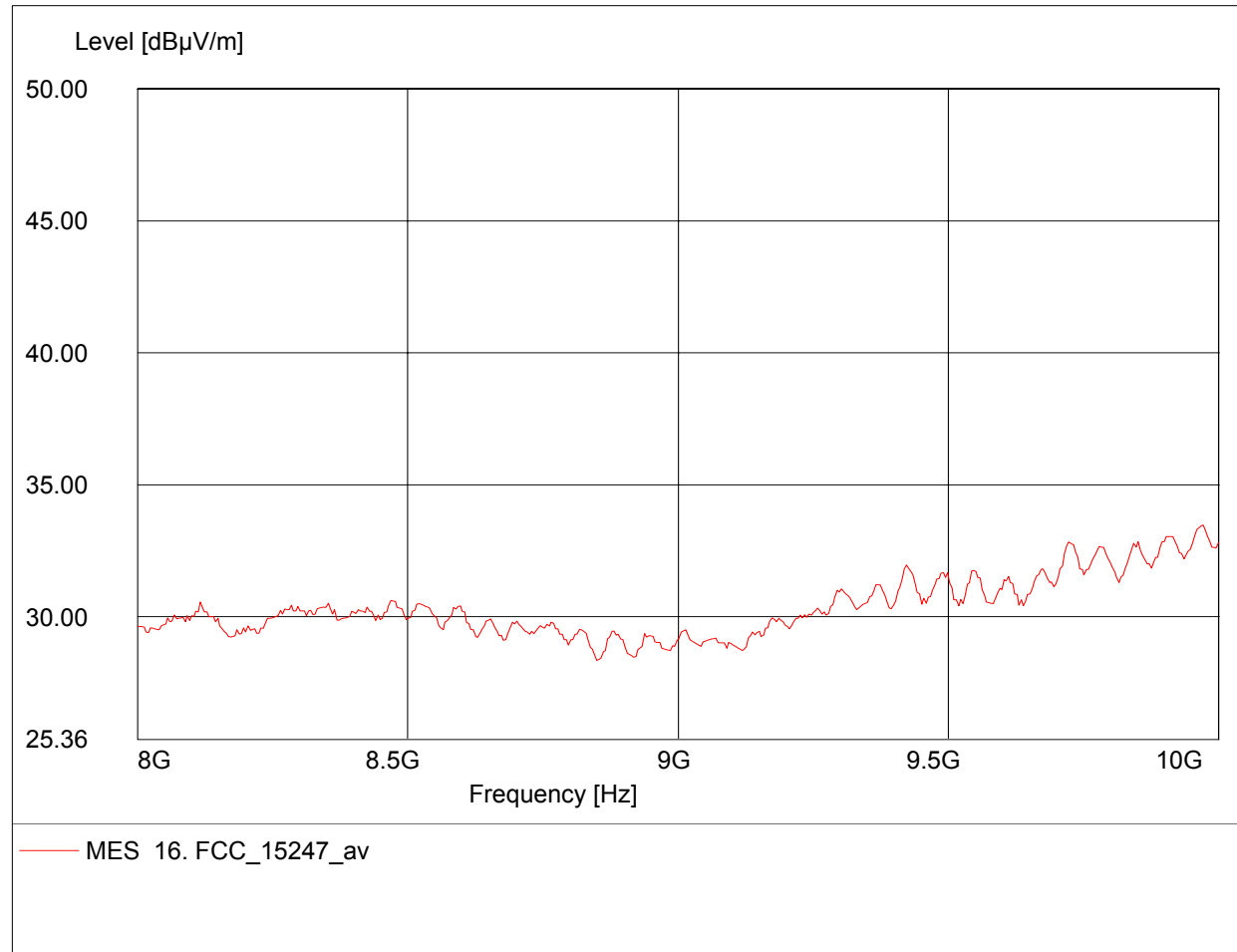


Antenna horizontal

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to §15.247, average detector
Comment 1: Caller Unit Transmit High Channel: 920.8MHz
Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 9.972GHz, Emax: 33.48dBµV/m, RBW: 100kHz

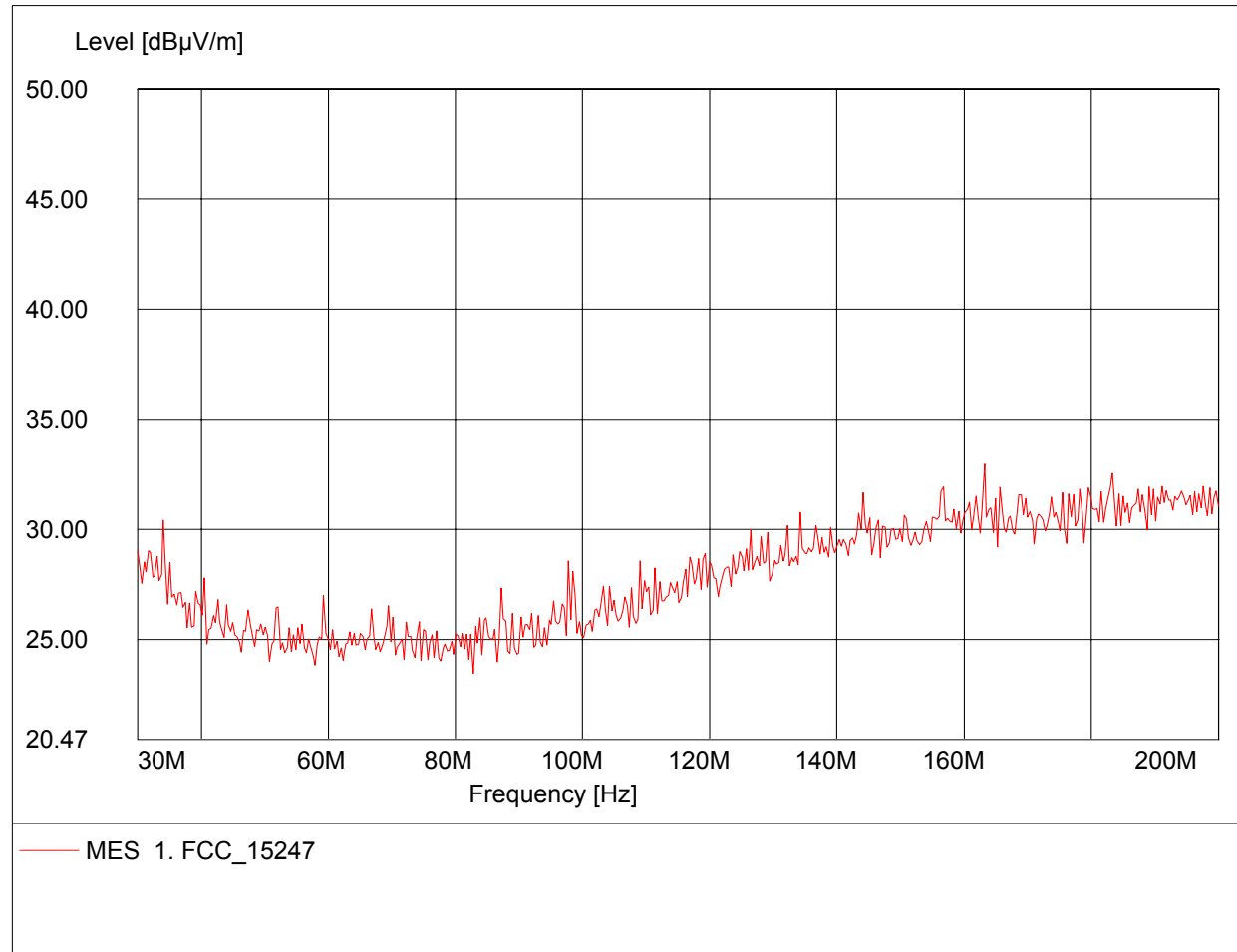


Antenna vertical

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to §15.247, peak detector
Comment 1: Handset Unit Transmit Low Channel: 911MHz
Dist.: 3m, Ant.: HK 116
Freq: 163.206MHz, Emax: 33.02dBμV/m, RBW: 100kHz

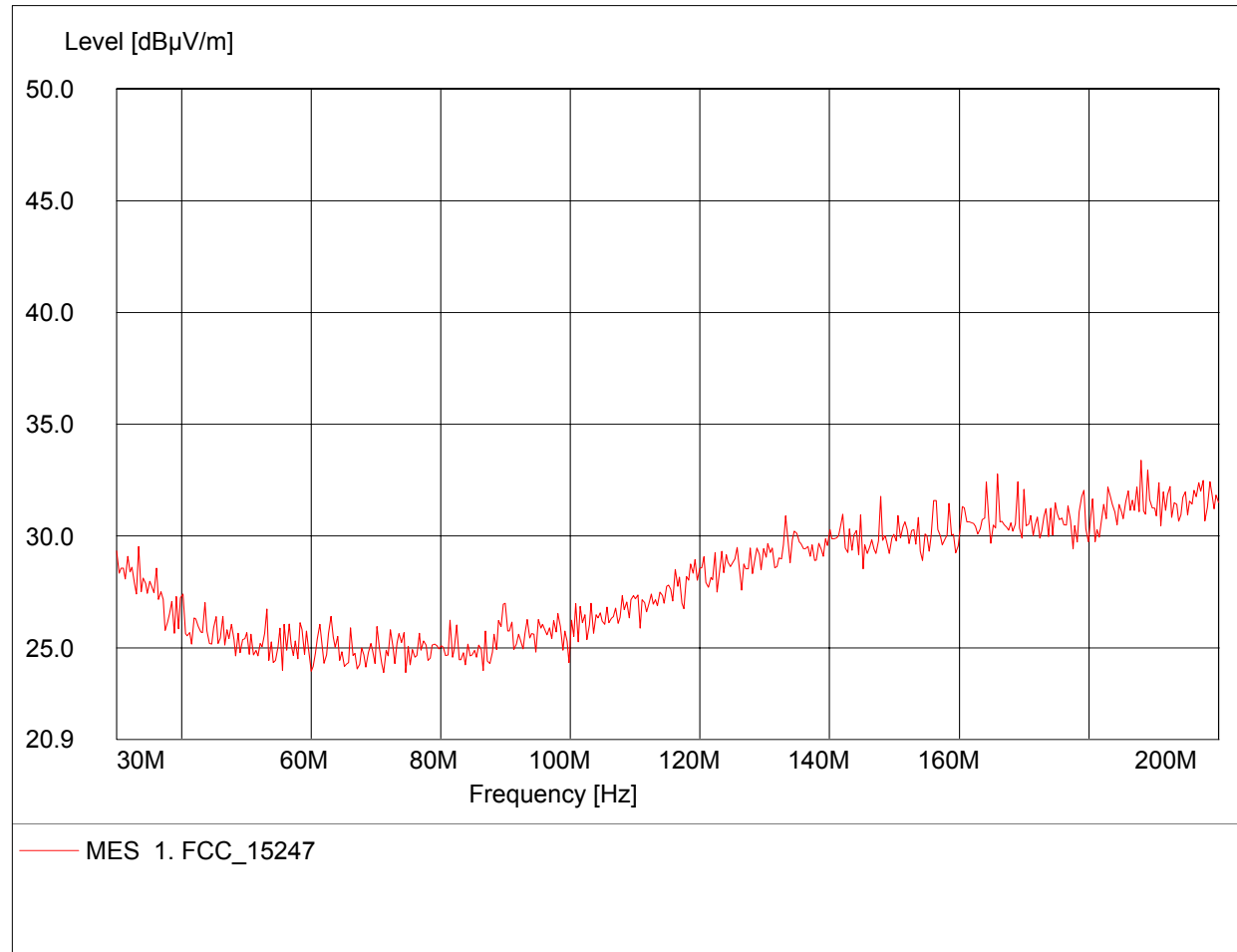


Antenna horizontal

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to §15.247, peak detector
Comment 1: Handset Unit Transmit Low Channel: 911MHz
Dist.: 3m, Ant.: HK 116
Freq: 188.076MHz, Emax: 33.40dBμV/m, RBW: 100kHz

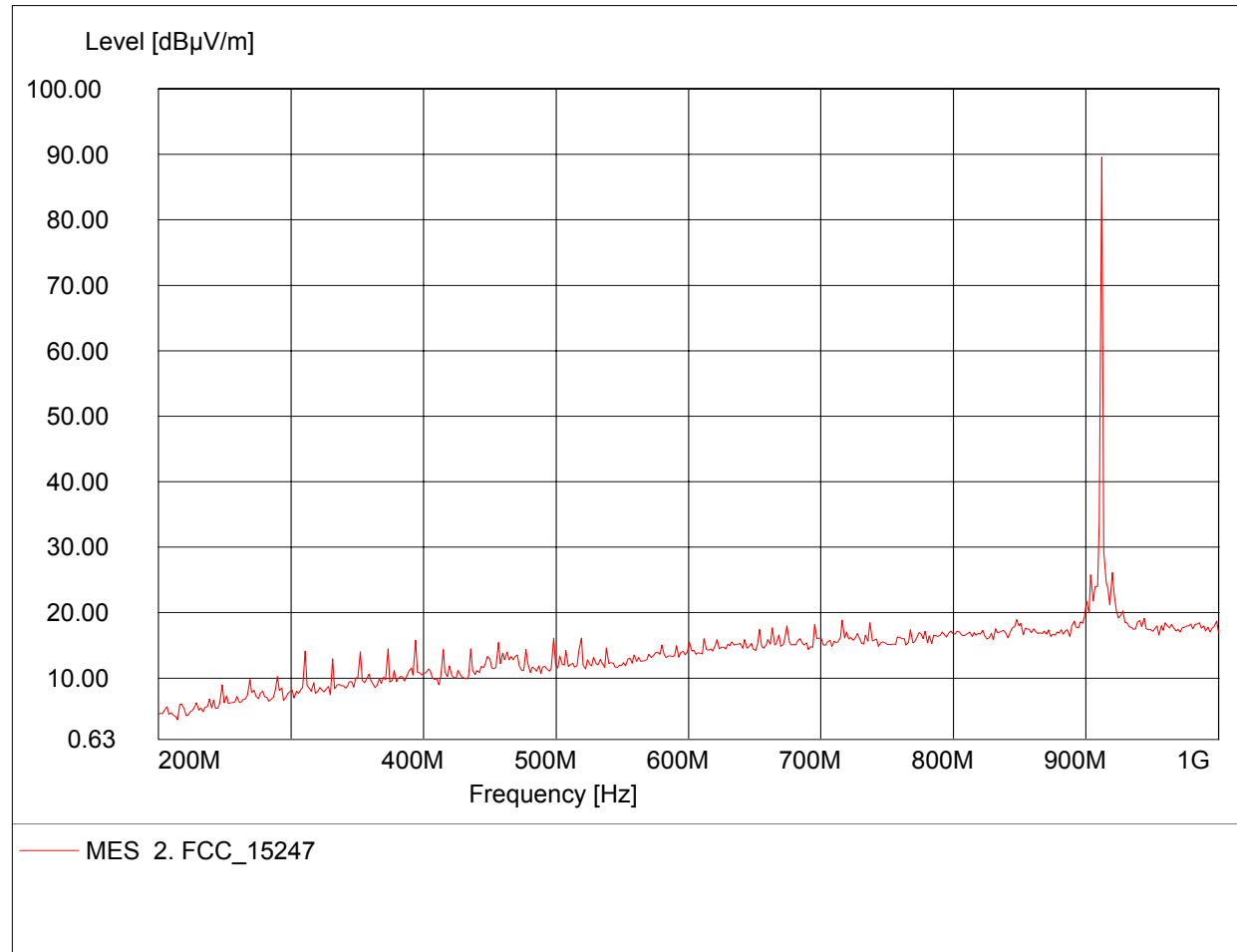


Antenna vertical

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to §15.247, peak detector
Comment 1: Handset Unit Transmit Low Channel: 911MHz
Dist.: 3m, Ant.: HL 223,
Freq: 911.824MHz, Emax: 89.57dBμV/m, RBW: 100kHz

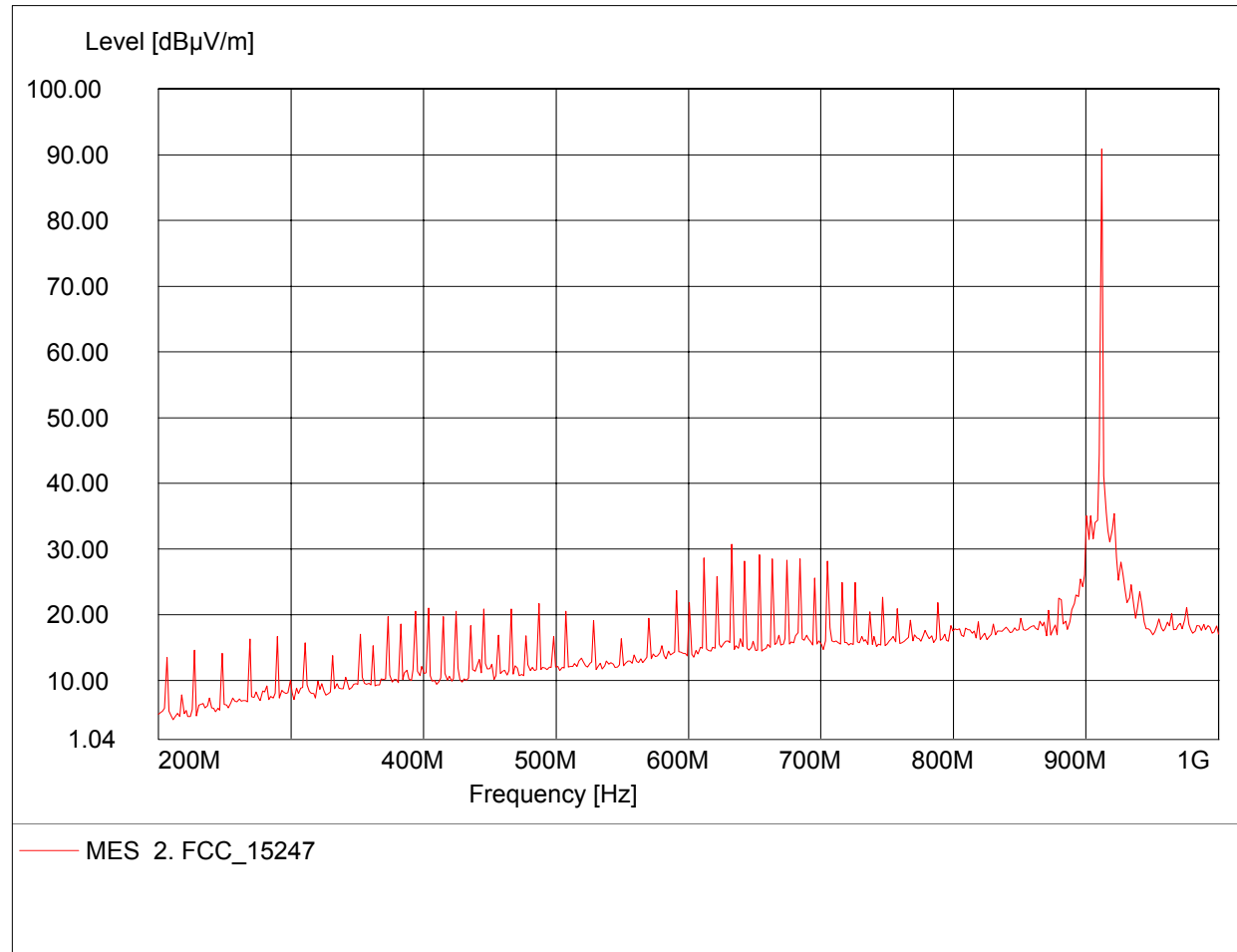


Antenna horizontal

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to §15.247, peak detector
Comment 1: Handset Unit Transmit Low Channel: 911MHz
Dist.: 3m, Ant.: HL 223,
Freq: 911.824MHz, Emax: 90.89dBμV/m, RBW: 100kHz

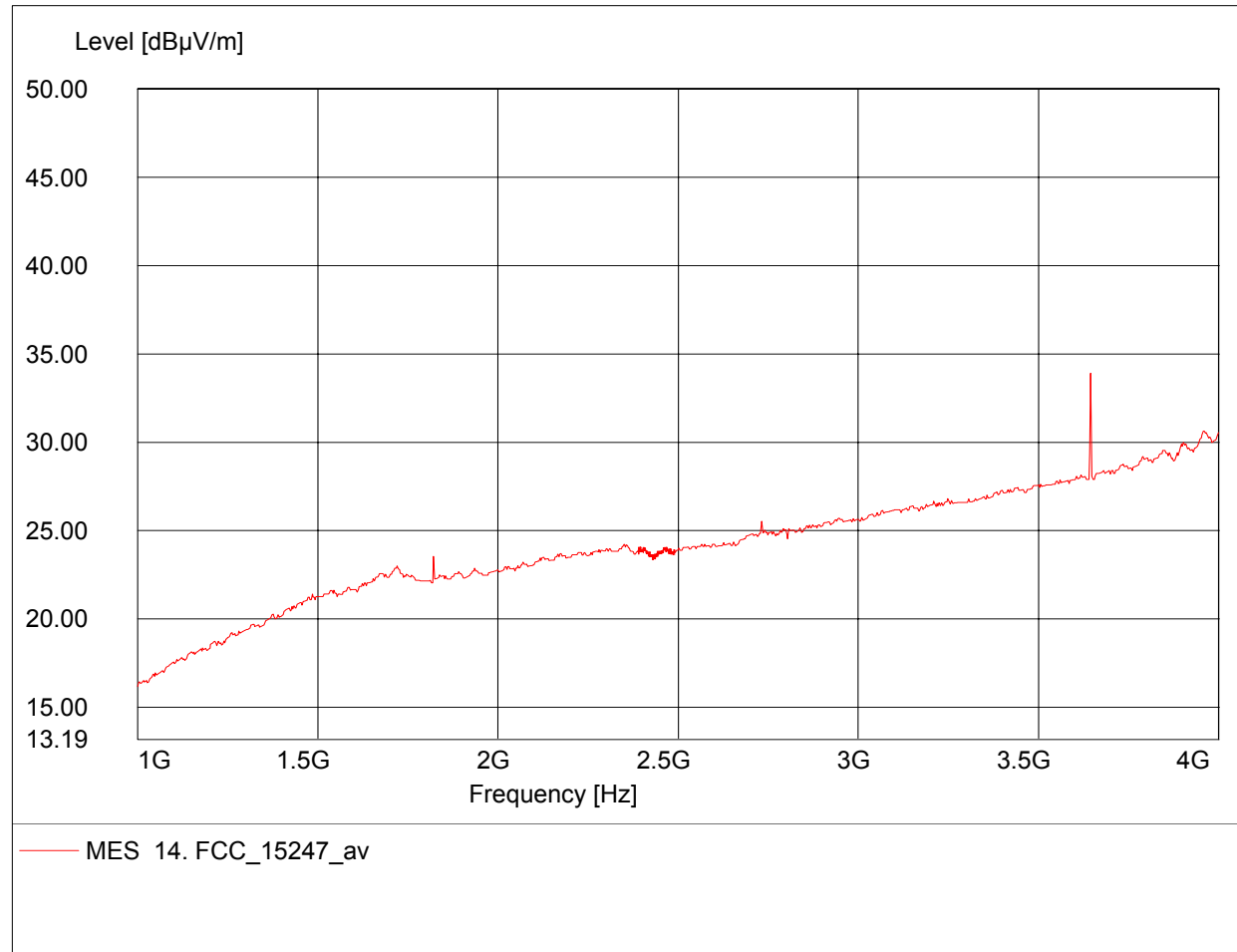


Antenna vertical

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to §15.247, average detector
Comment 1: Handset Unit Transmit Low Channel: 911MHz
Dist.: 3m, Ant.: HL025, amplif.
Freq: 3.646GHz, Emax: 33.94dBμV/m, RBW: 100kHz

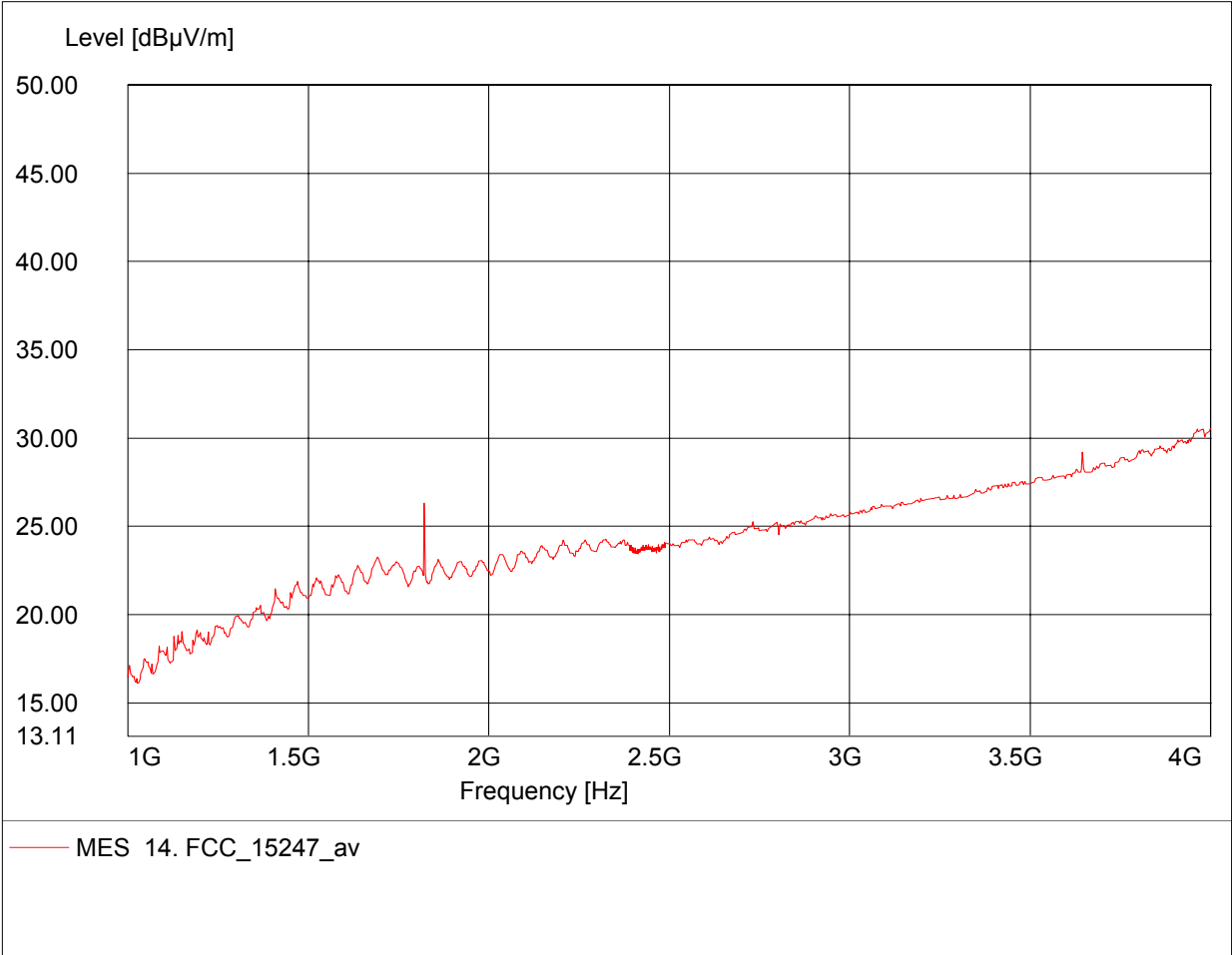


Antenna horizontal

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to §15.247, average detector
Comment 1: Handset Unit Transmit Low Channel: 911MHz
Dist.: 3m, Ant.: HL025, amplif.
Freq: 4.000GHz, Emax: 30.56dBµV/m, RBW: 100kHz

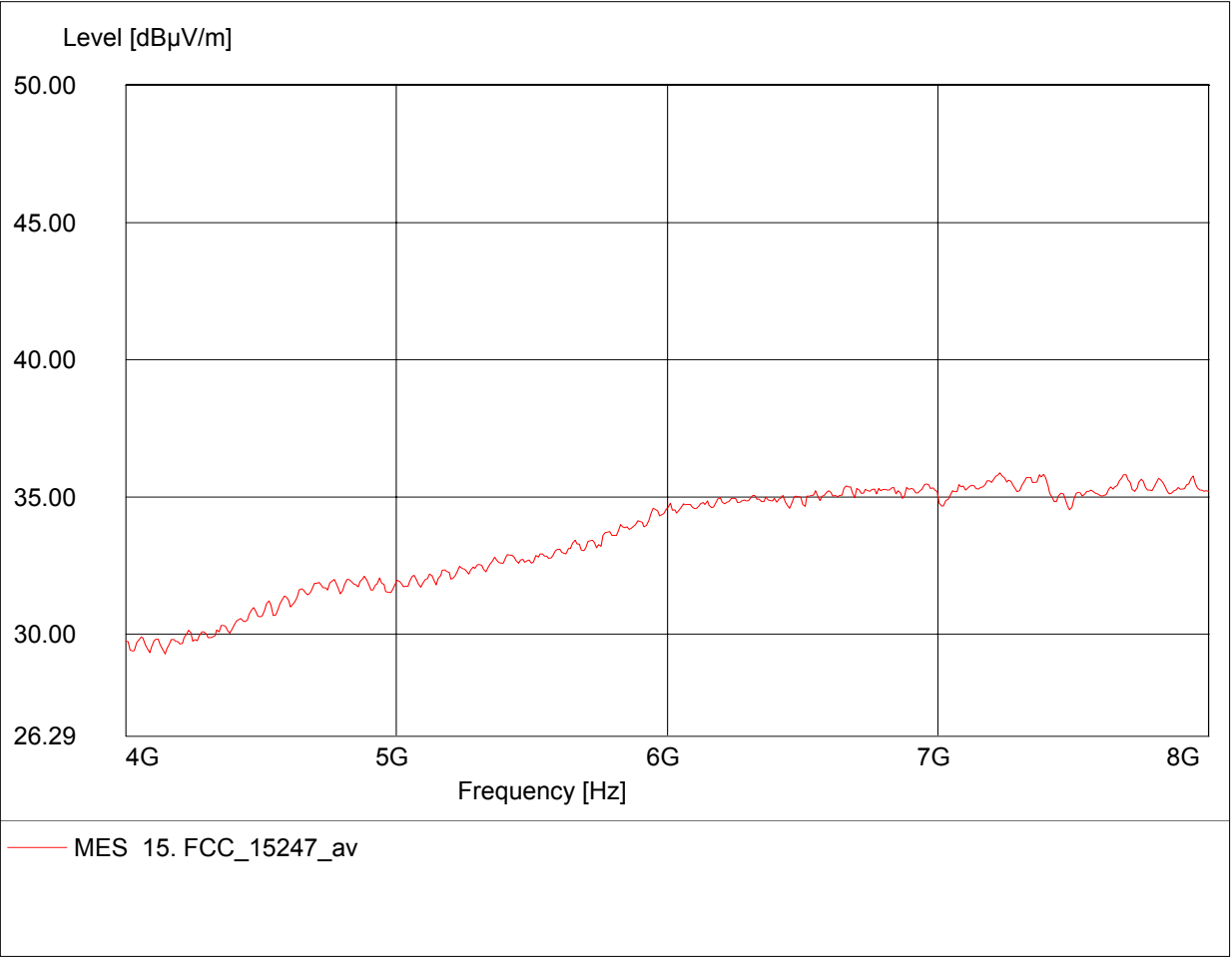


Antenna vertical

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

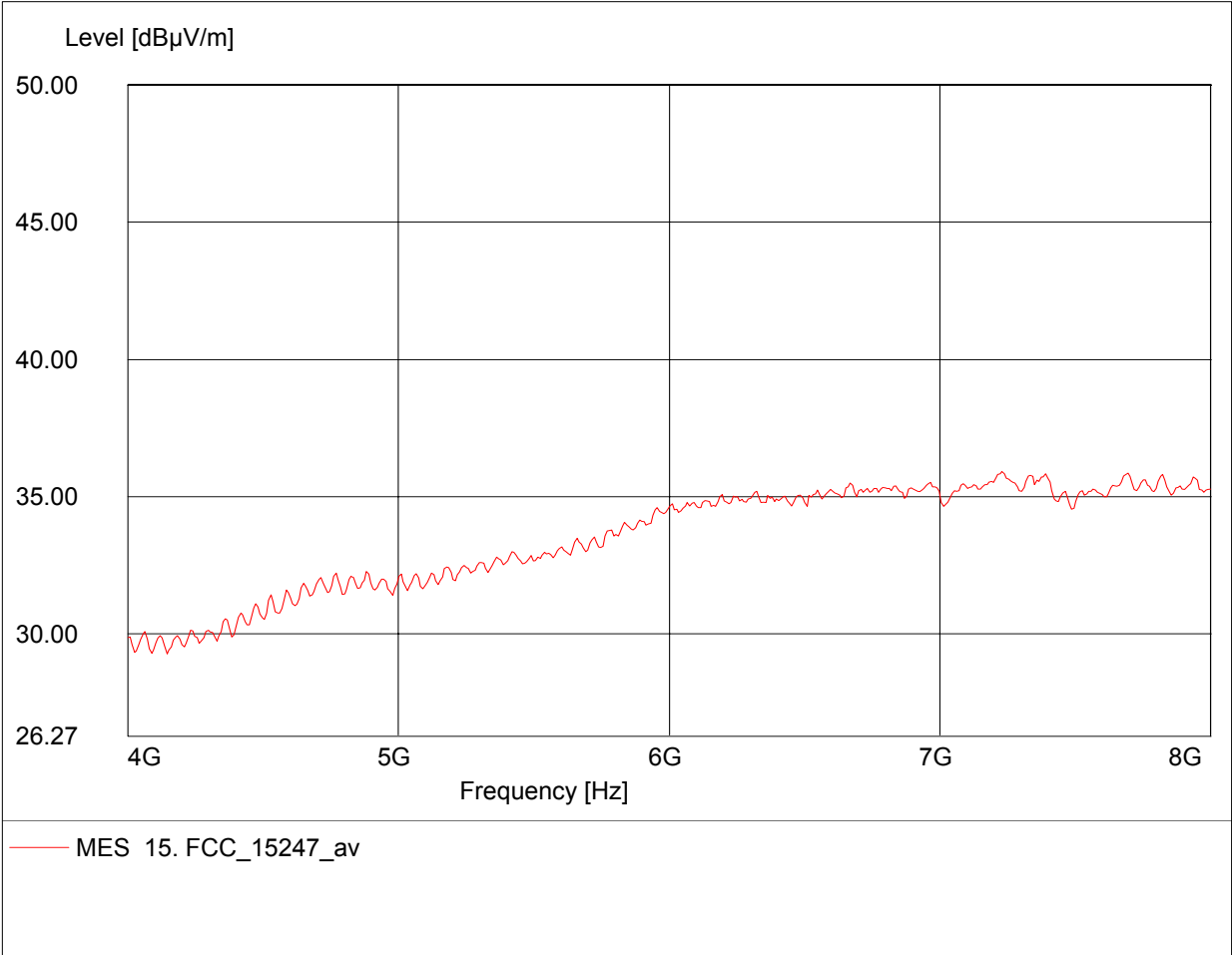
Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to §15.247, average detector
Comment 1: Handset Unit Transmit Low Channel: 911MHz
Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 7.230GHz, Emax: 35.89dBµV/m, RBW: 100kHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to §15.247, average detector
Comment 1: Handset Unit Transmit Low Channel: 911MHz
Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 7.230GHz, Emax: 35.91dBµV/m, RBW: 100kHz

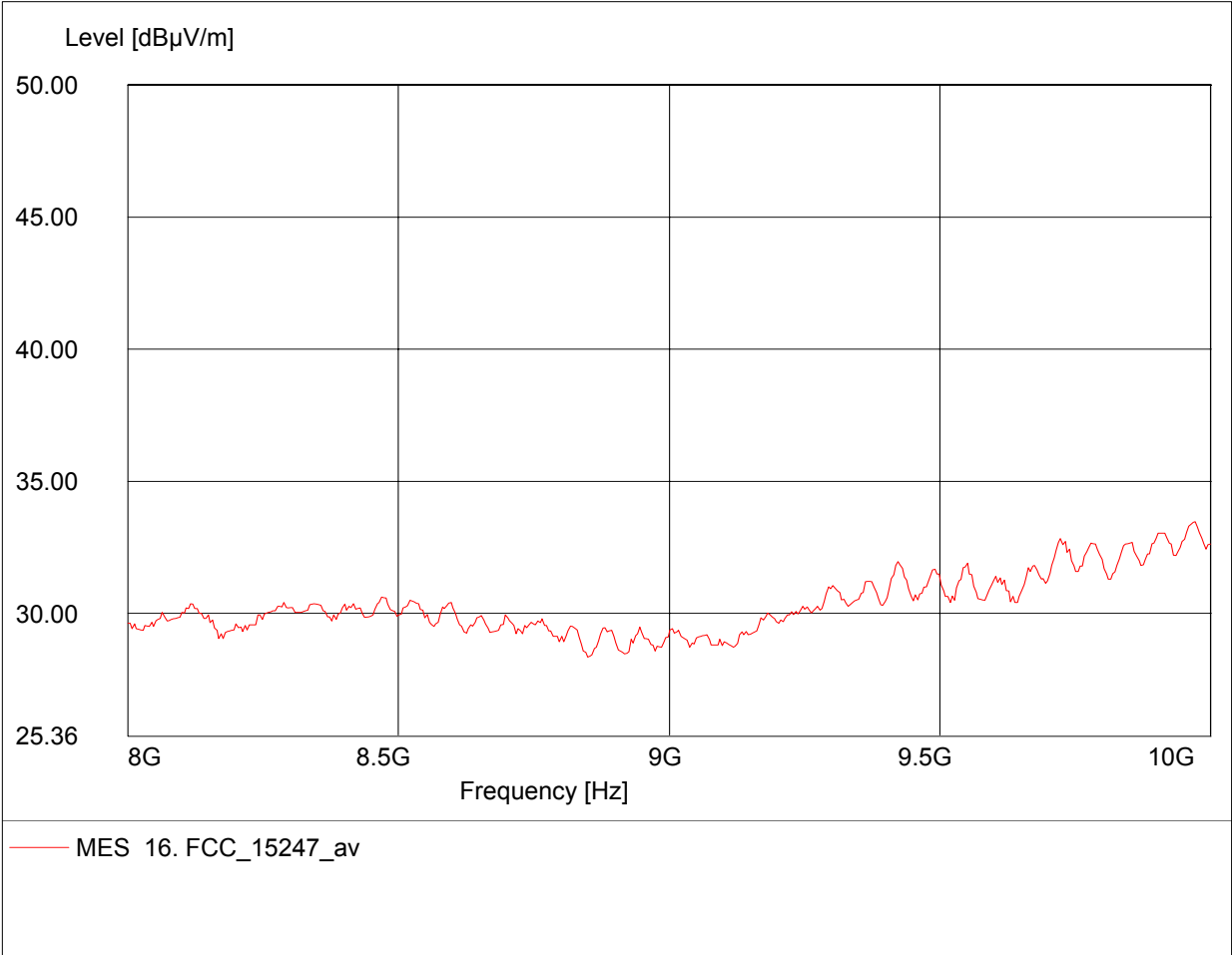


Antenna vertical

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to §15.247, average detector
Comment 1: Handset Unit Transmit Low Channel: 911MHz
Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 9.972GHz, Emax: 33.48dBµV/m, RBW: 100kHz

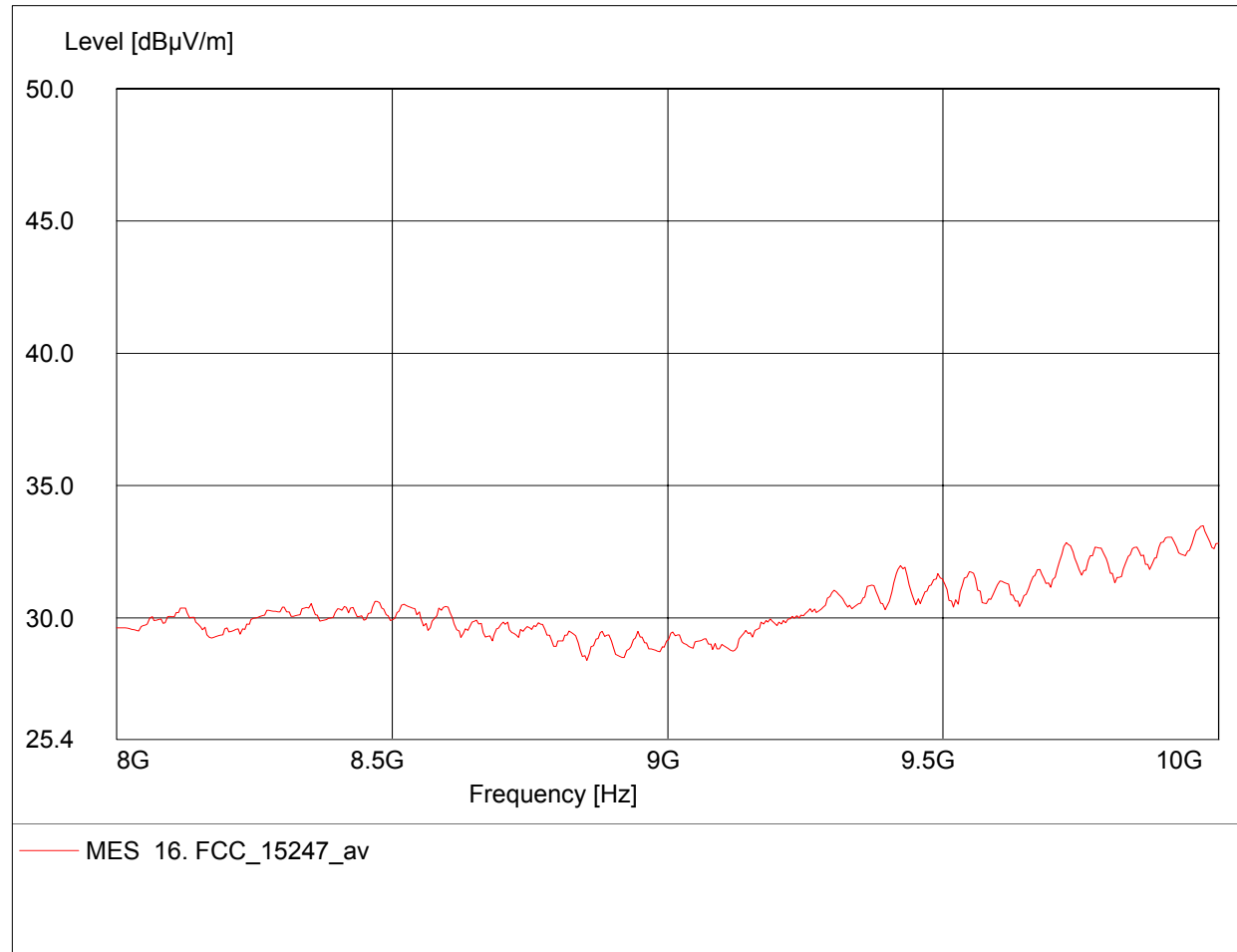


Antenna horizontal

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to §15.247, average detector
Comment 1: Handset Unit Transmit Low Channel: 911MHz
Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 9.972GHz, Emax: 33.48dBμV/m, RBW: 100kHz

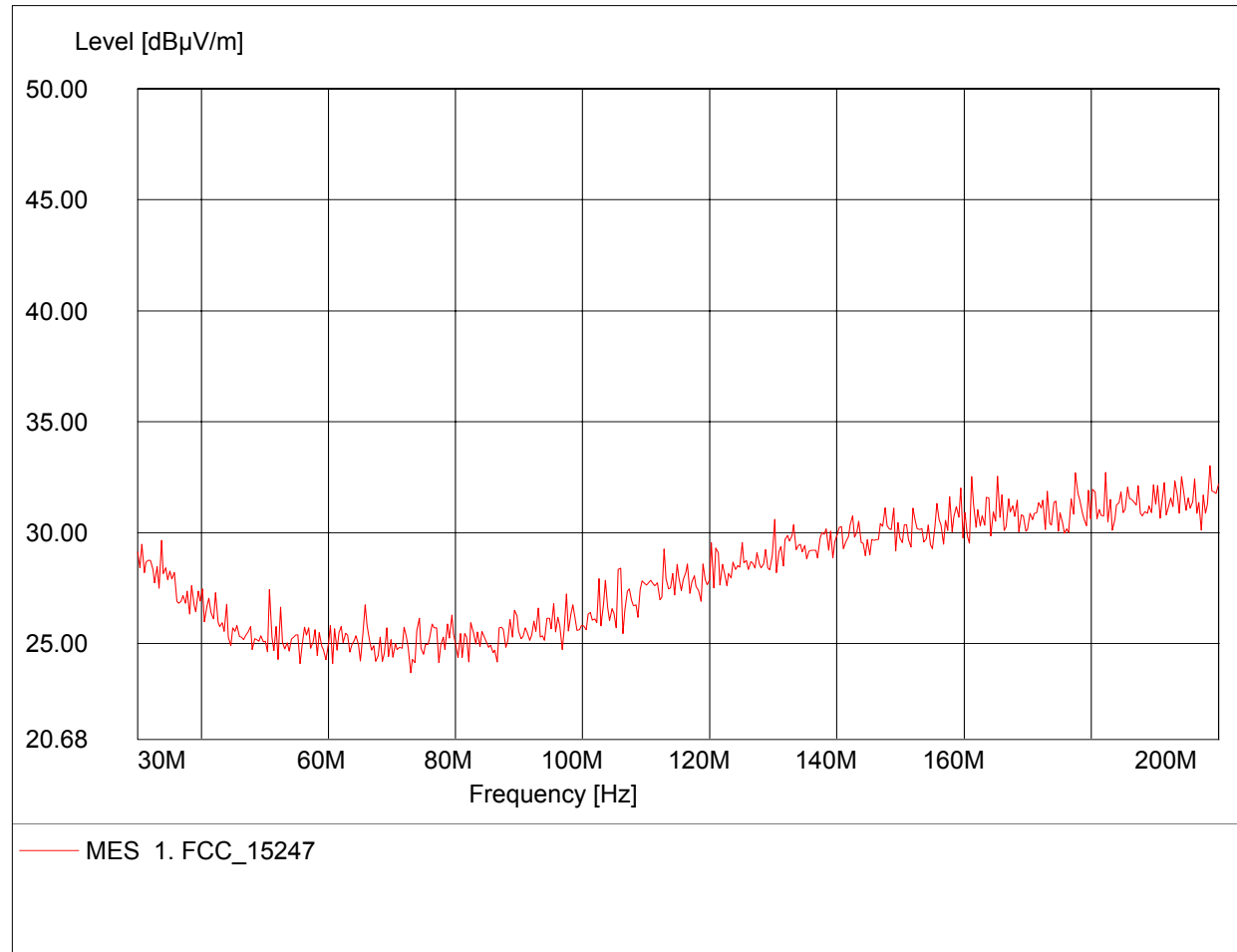


Antenna vertical

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to §15.247, peak detector
Comment 1: Handset Unit Transmit High Channel: 920.8MHz
Dist.: 3m, Ant.: HK 116
Freq: 198.637MHz, Emax: 33.01dBμV/m, RBW: 100kHz

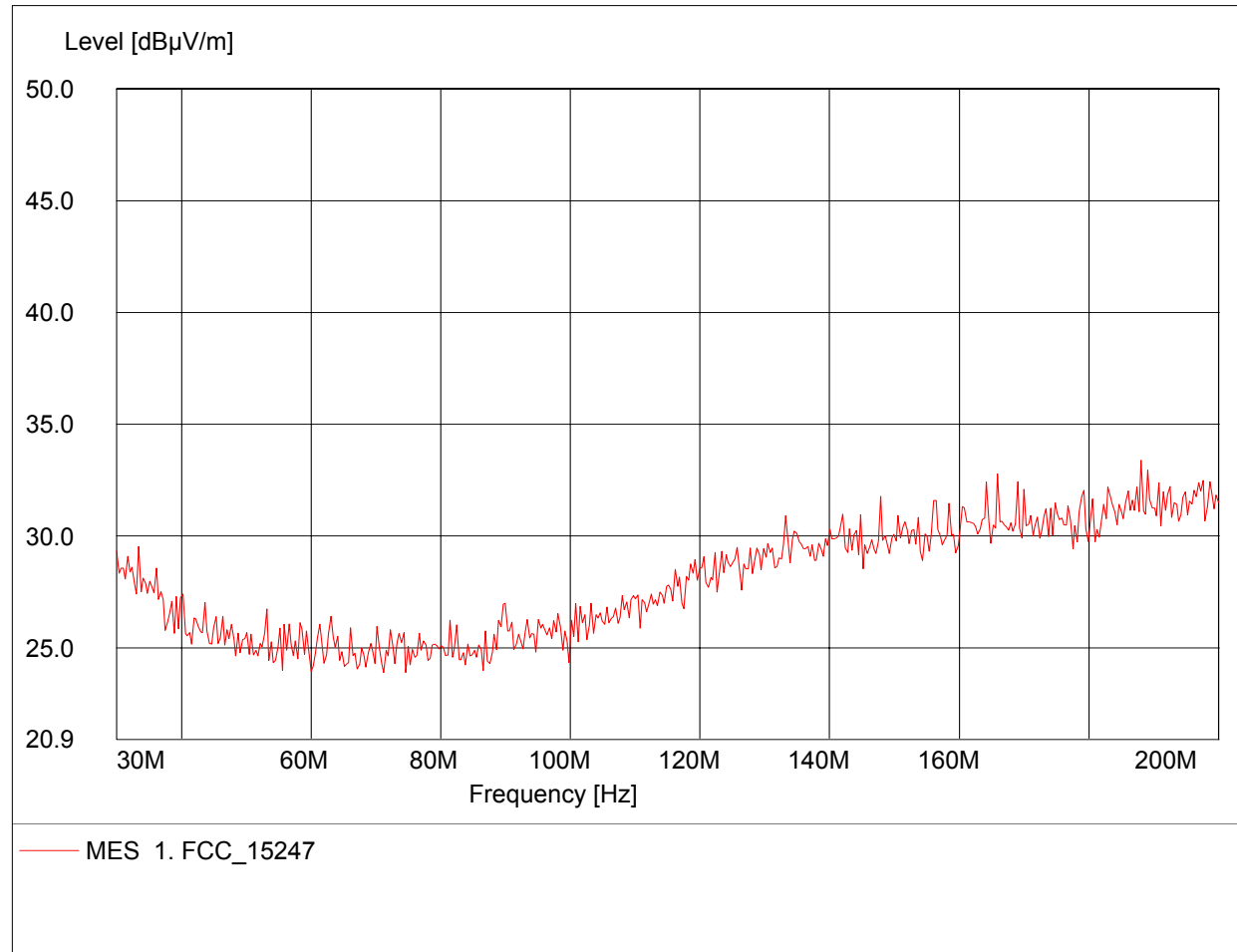


Antenna horizontal

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to §15.247, peak detector
Comment 1: Handset Unit Transmit High Channel: 920.8MHz
Dist.: 3m, Ant.: HK 116
Freq: 188.076MHz, Emax: 33.40dBμV/m, RBW: 100kHz

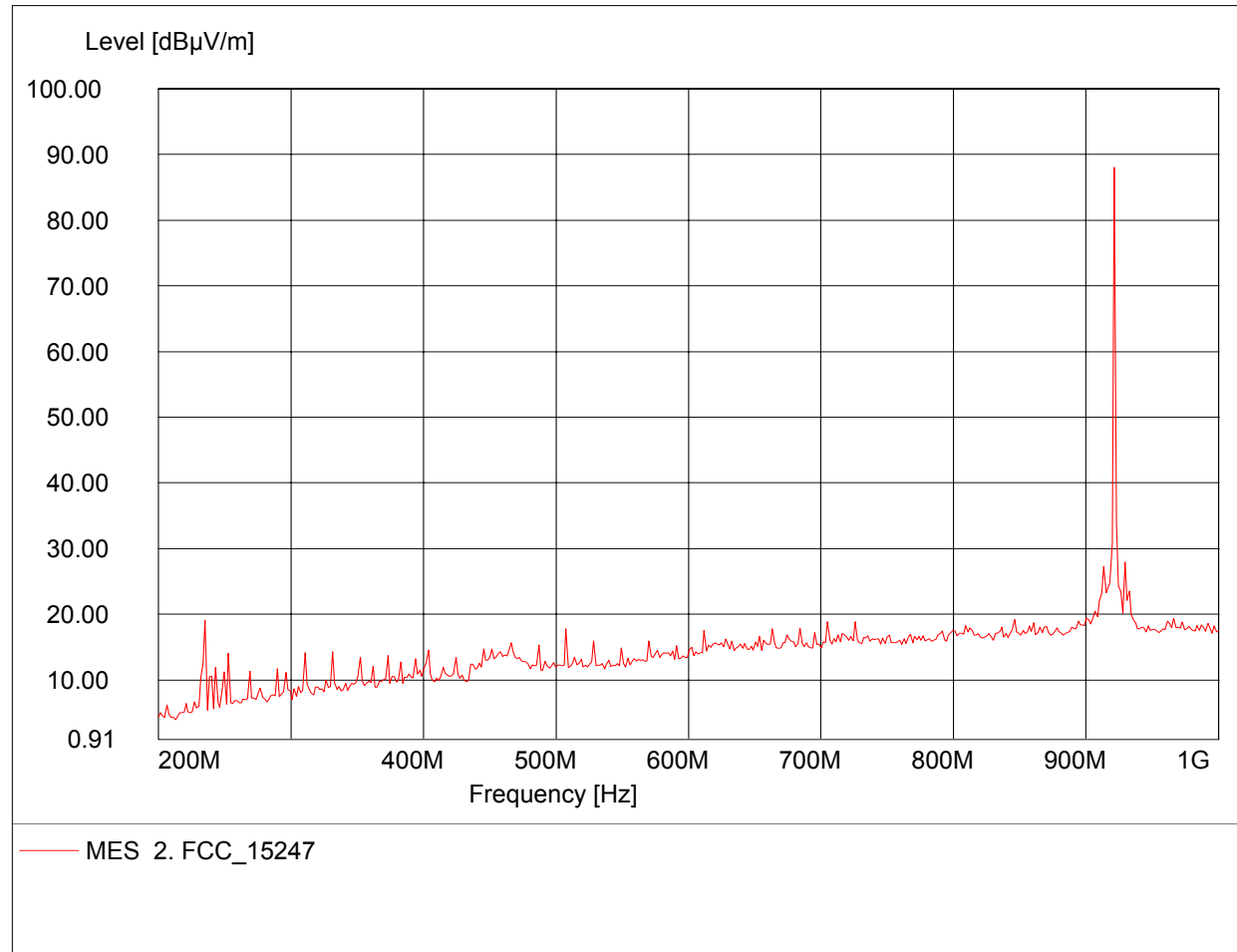


Antenna vertical

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to §15.247, peak detector
Comment 1: Handset Unit Transmit High Channel: 920.8MHz
Dist.: 3m, Ant.: HL 223,
Freq: 921.443MHz, Emax: 88.02dBμV/m, RBW: 100kHz

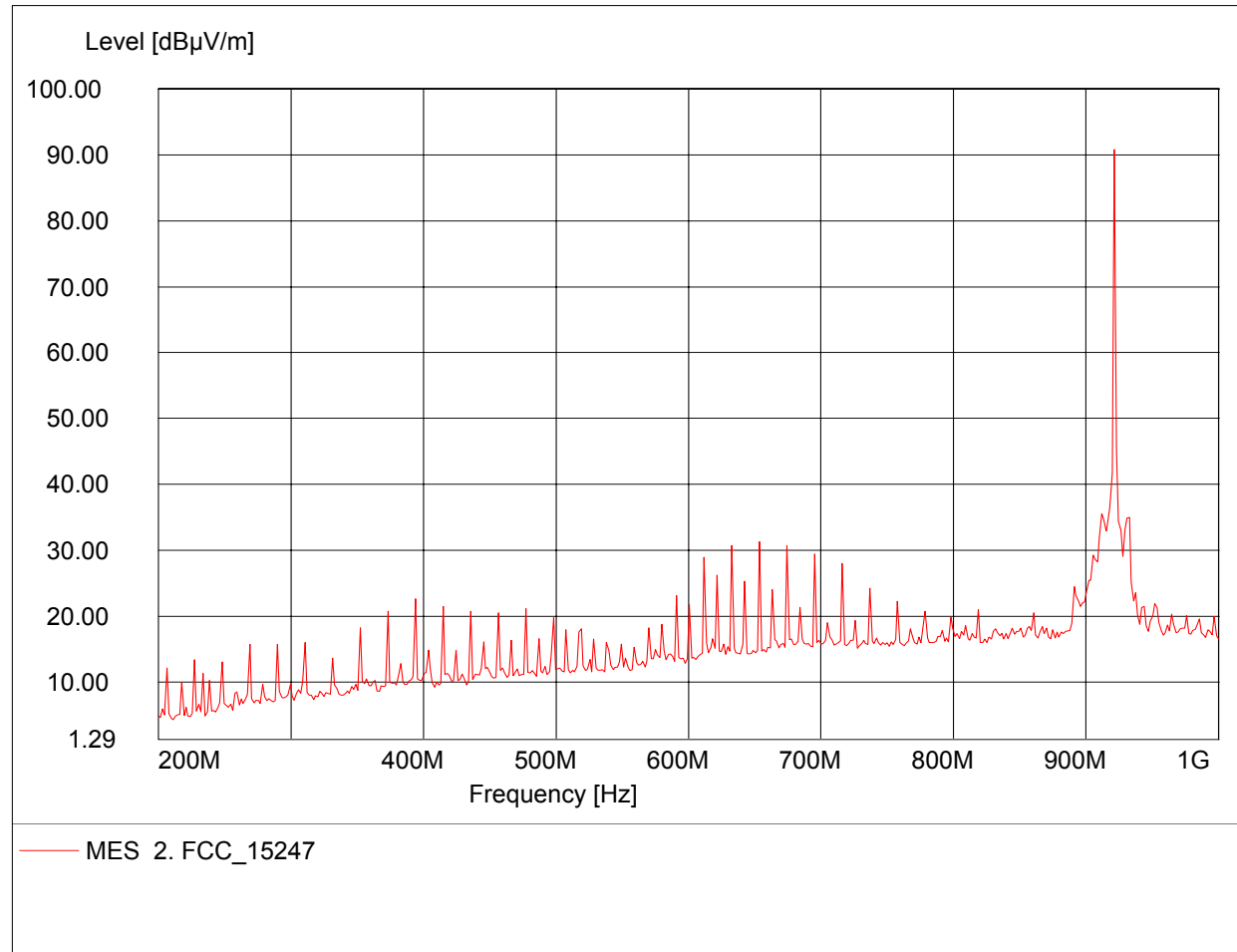


Antenna horizontal

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to §15.247, peak detector
Comment 1: Handset Unit Transmit High Channel: 920.8MHz
Dist.: 3m, Ant.: HL 223,
Freq: 921.443MHz, Emax: 90.85dBμV/m, RBW: 100kHz

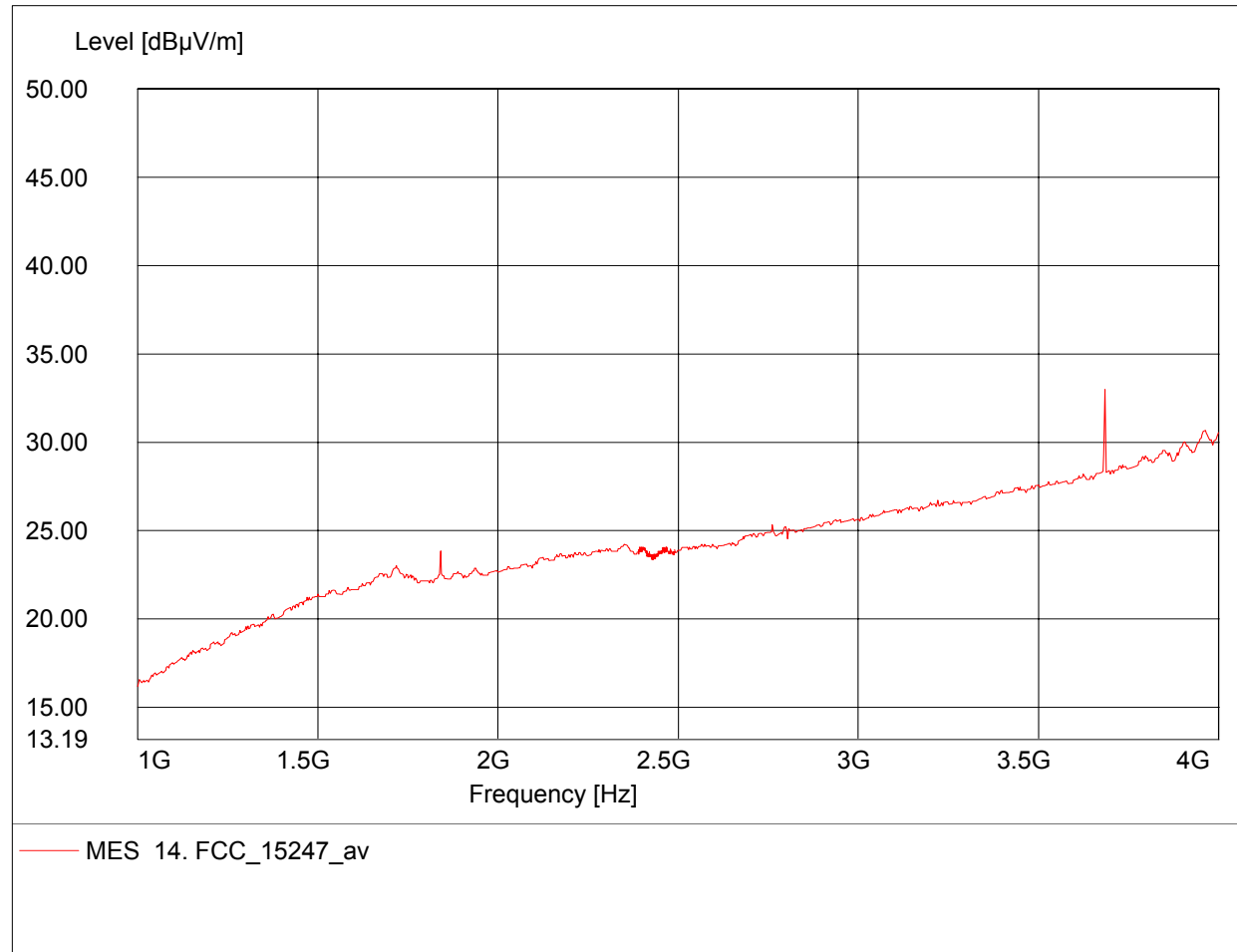


Antenna vertical

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to §15.247, average detector
Comment 1: Handset Unit Transmit High Channel: 920.8MHz
Dist.: 3m, Ant.: HL025, amplif.
Freq: 3.685GHz, Emax: 33.00dBμV/m, RBW: 100kHz

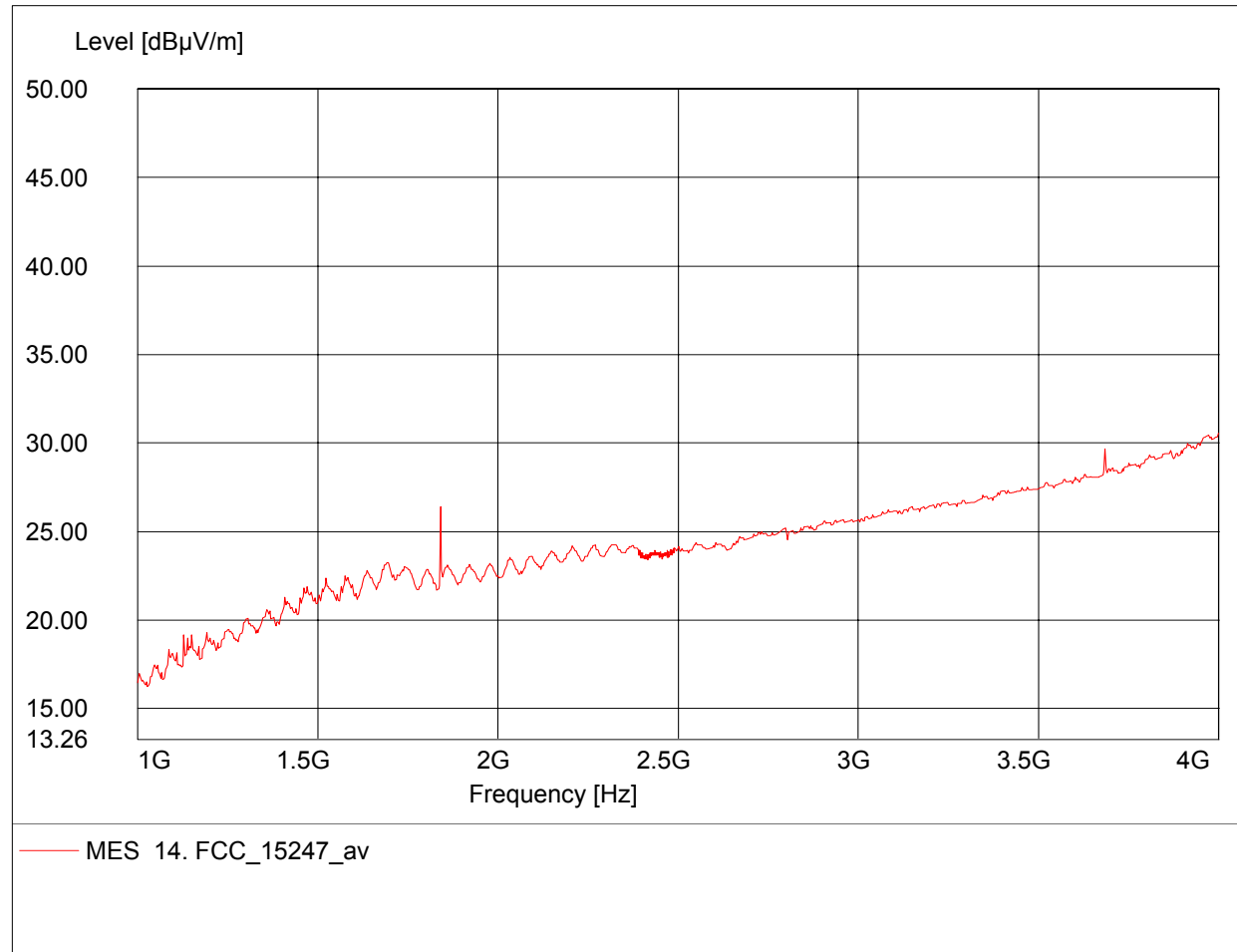


Antenna horizontal

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to §15.247, average detector
Comment 1: Handset Unit Transmit High Channel: 920.8MHz
Dist.: 3m, Ant.: HL025, amplif.
Freq: 4.000GHz, Emax: 30.56dBμV/m, RBW: 100kHz

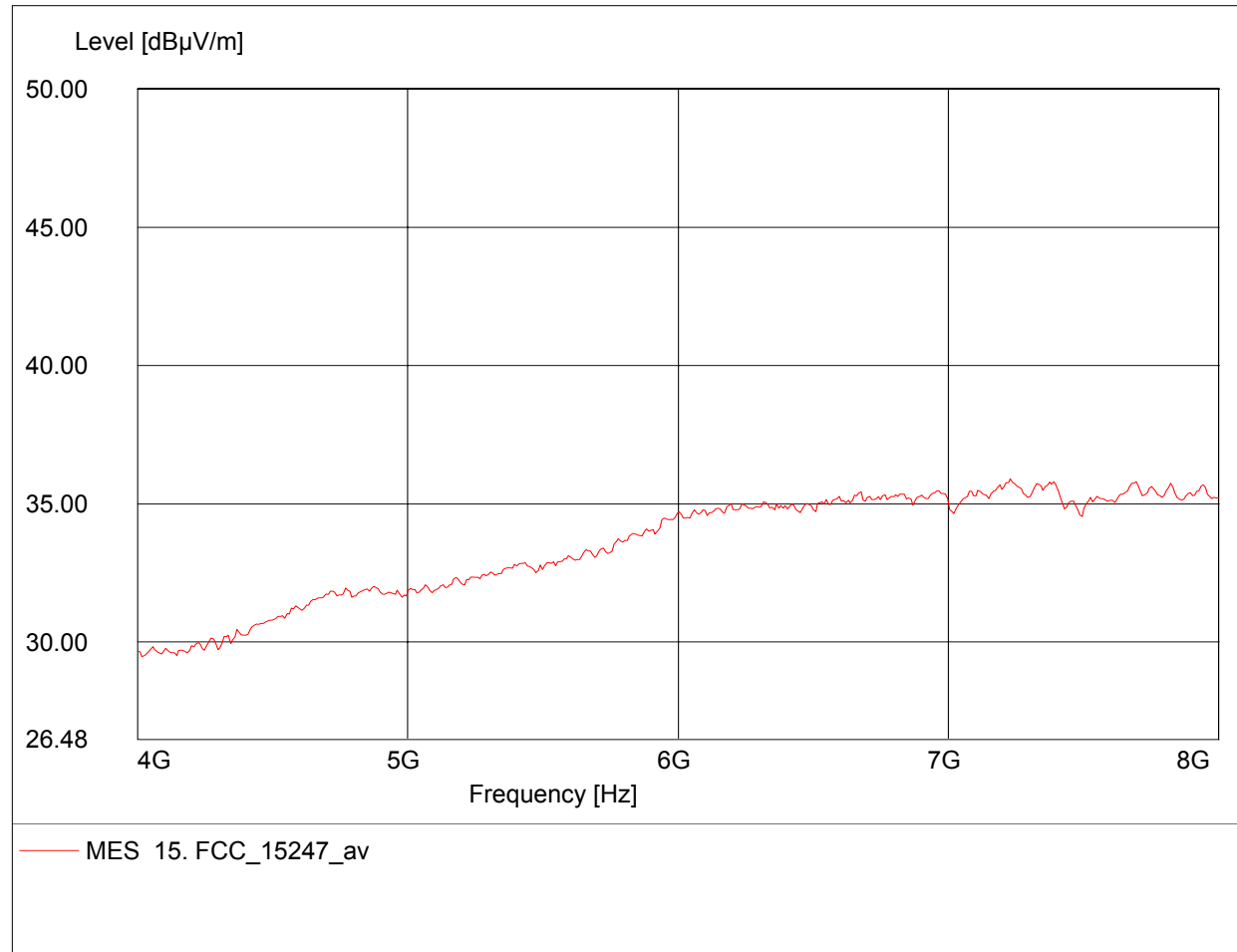


Antenna vertical

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to §15.247, average detector
Comment 1: Handset Unit Transmit High Channel: 920.8MHz
Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 7.230GHz, Emax: 35.91dBμV/m, RBW: 100kHz

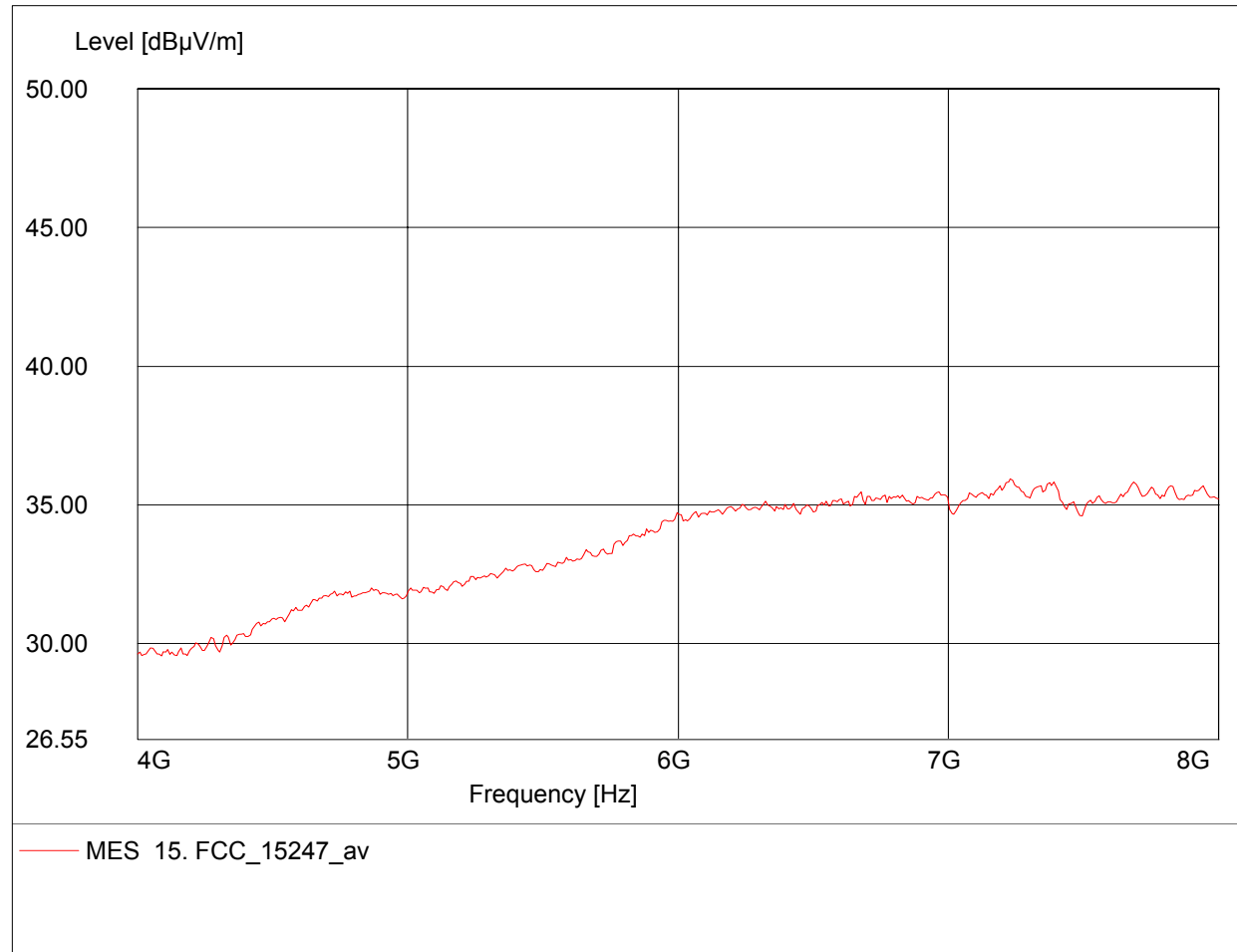


Antenna horizontal

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to §15.247, average detector
Comment 1: Handset Unit Transmit High Channel: 920.8MHz
Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 7.230GHz, Emax: 35.94dBμV/m, RBW: 100kHz

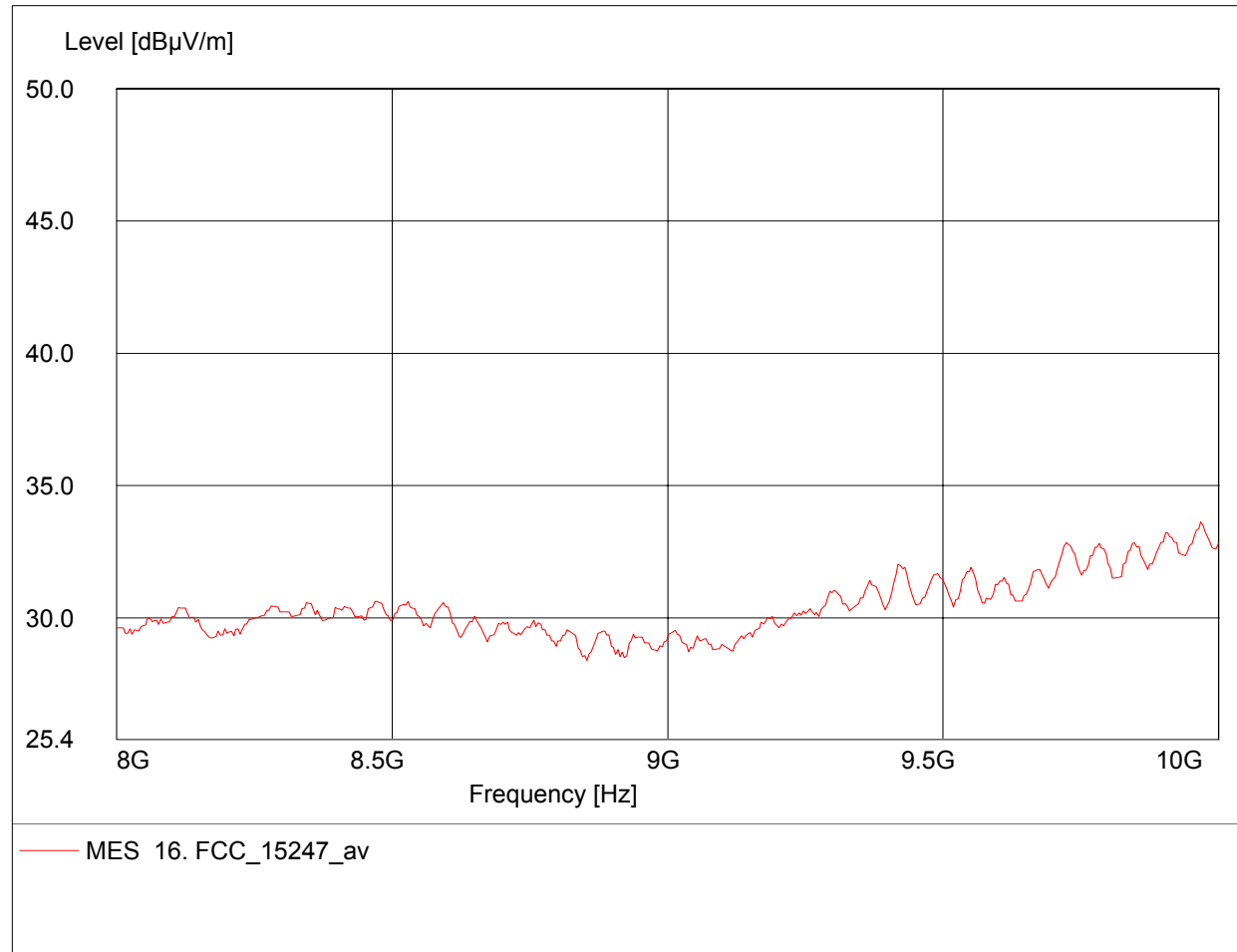


Antenna vertical

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to §15.247, average detector
Comment 1: Handset Unit Transmit High Channel: 920.8MHz
Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 9.968GHz, Emax: 33.62dBμV/m, RBW: 100kHz

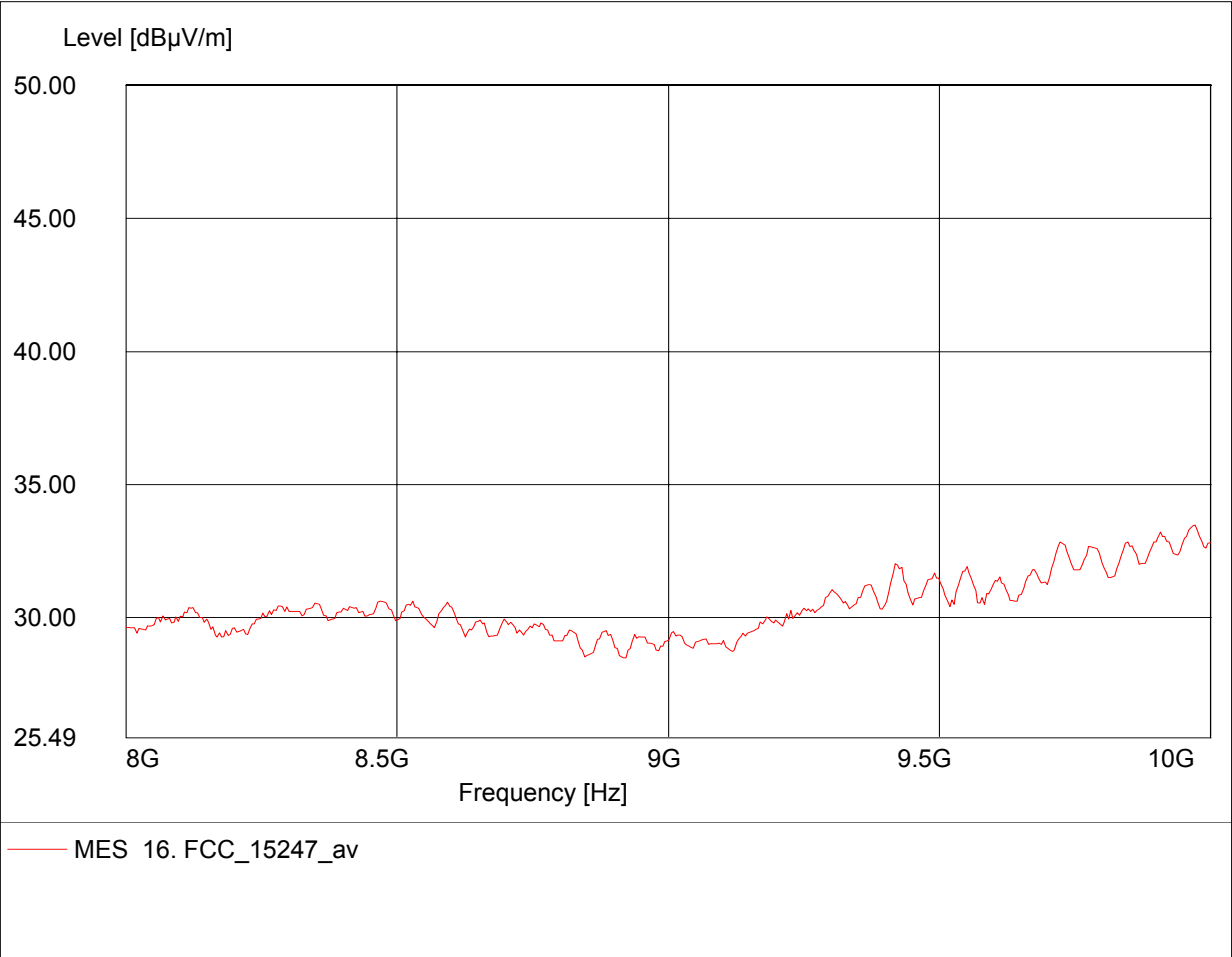


Antenna horizontal

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to §15.247, average detector
Comment 1: Handset Unit Transmit High Channel: 920.8MHz
Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 9.972GHz, Emax: 33.48dBµV/m, RBW: 100kHz



Antenna vertical

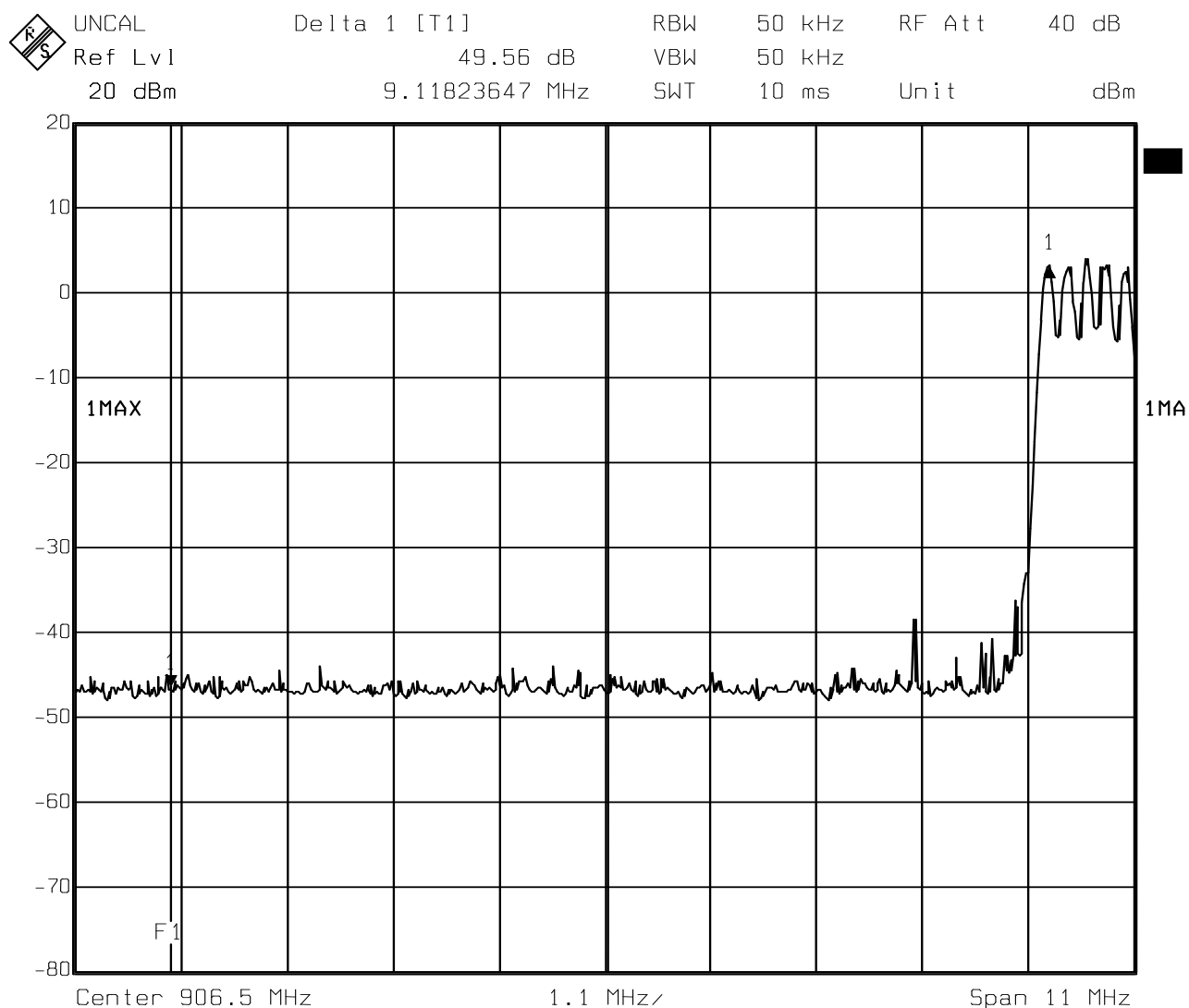
Appendix J

Band-edge compliance

Test Report No.: H1M20804-6775-P-15

FCC part 15.247
Band-edge Compliance

Test Report No.	H1M20804-6775
Temperature / Voltage	24°C
Test Site / Operator	ETSPS
Test Specification	FCC part 15 section 247
Comment 1	Marker-delta method
Comment 2	Caller Unit Transmit Low Channel

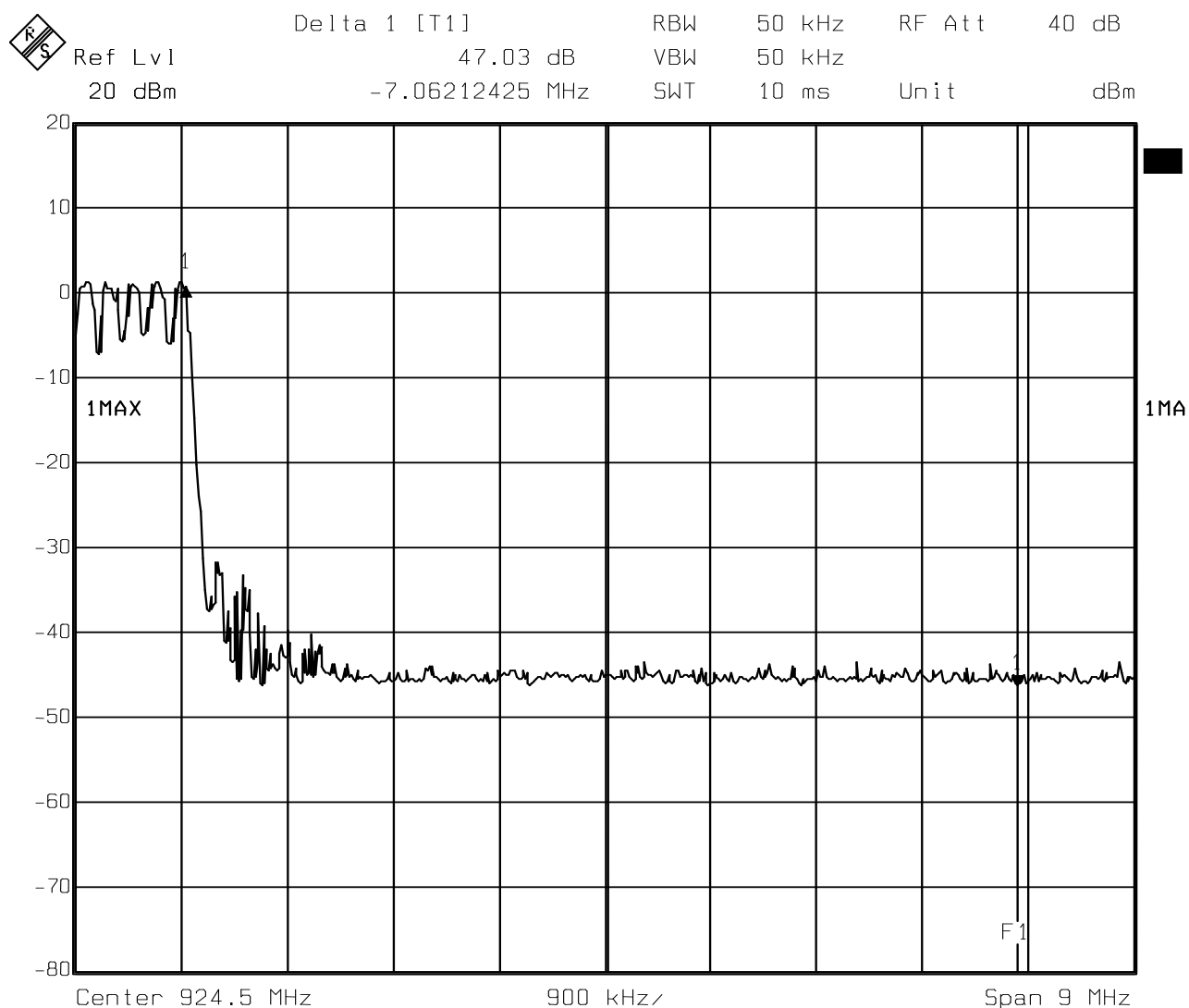


Date: 19.MAY 2008 08:11:25

Test Report No.: H1M20804-6775-P-15

FCC part 15.247
Band-edge Compliance

Test Report No.	H1M20804-6775
Temperature / Voltage	24°C
Test Site / Operator	ETSPS
Test Specification	FCC part 15 section 247
Comment 1	Marker-delta method
Comment 2	Caller Unit Transmit High Channel

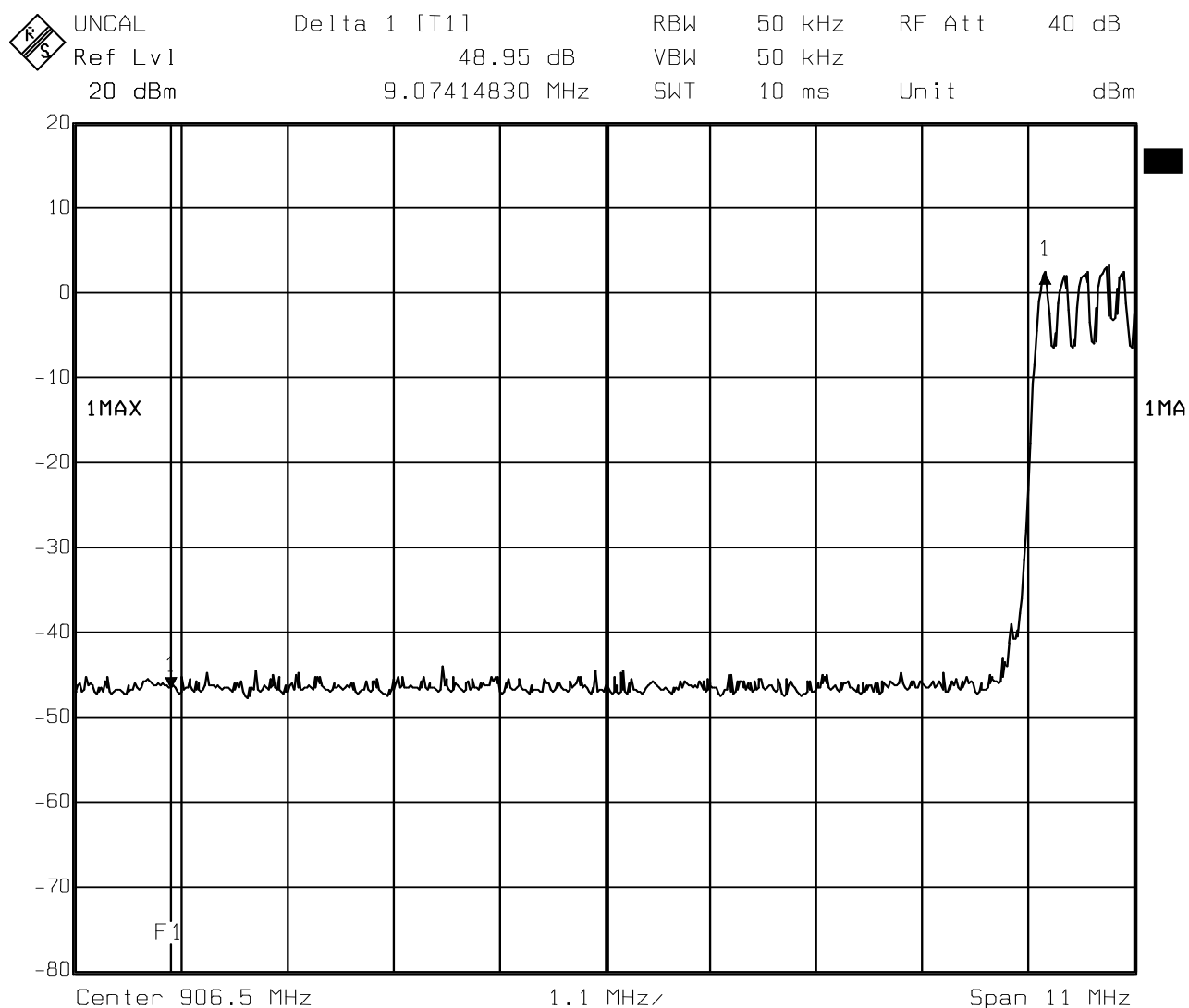


Date: 19.MAY 2008 08:21:48

Test Report No.: H1M20804-6775-P-15

FCC part 15.247
Band-edge Compliance

Test Report No.	H1M20804-6775
Temperature / Voltage	24°C
Test Site / Operator	ETSPS
Test Specification	FCC part 15 section 247
Comment 1	Marker-delta method
Comment 2	Hand Unit Transmit Low Channel

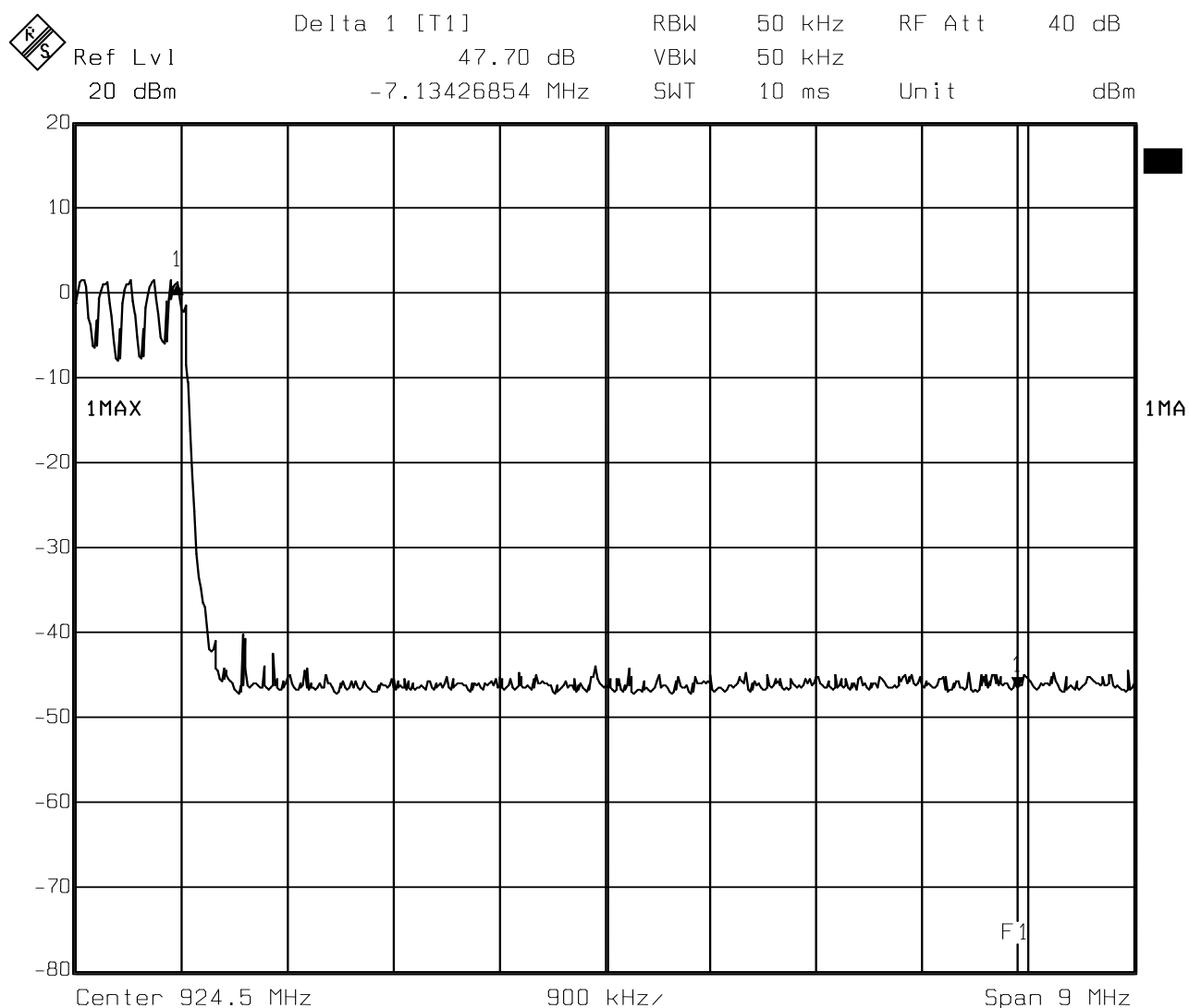


Date: 19.MAY 2008 08:14:09

Test Report No.: H1M20804-6775-P-15

FCC part 15.247
Band-edge Compliance

Test Report No.	H1M20804-6775
Temperature / Voltage	24°C
Test Site / Operator	ETSPS
Test Specification	FCC part 15 section 247
Comment 1	Marker-delta method
Comment 2	Handset Unit Transmit High Channel



Date: 19.MAY 2008 08:16:05

Test Report No.: H1M20804-6775-P-15

Appendix K

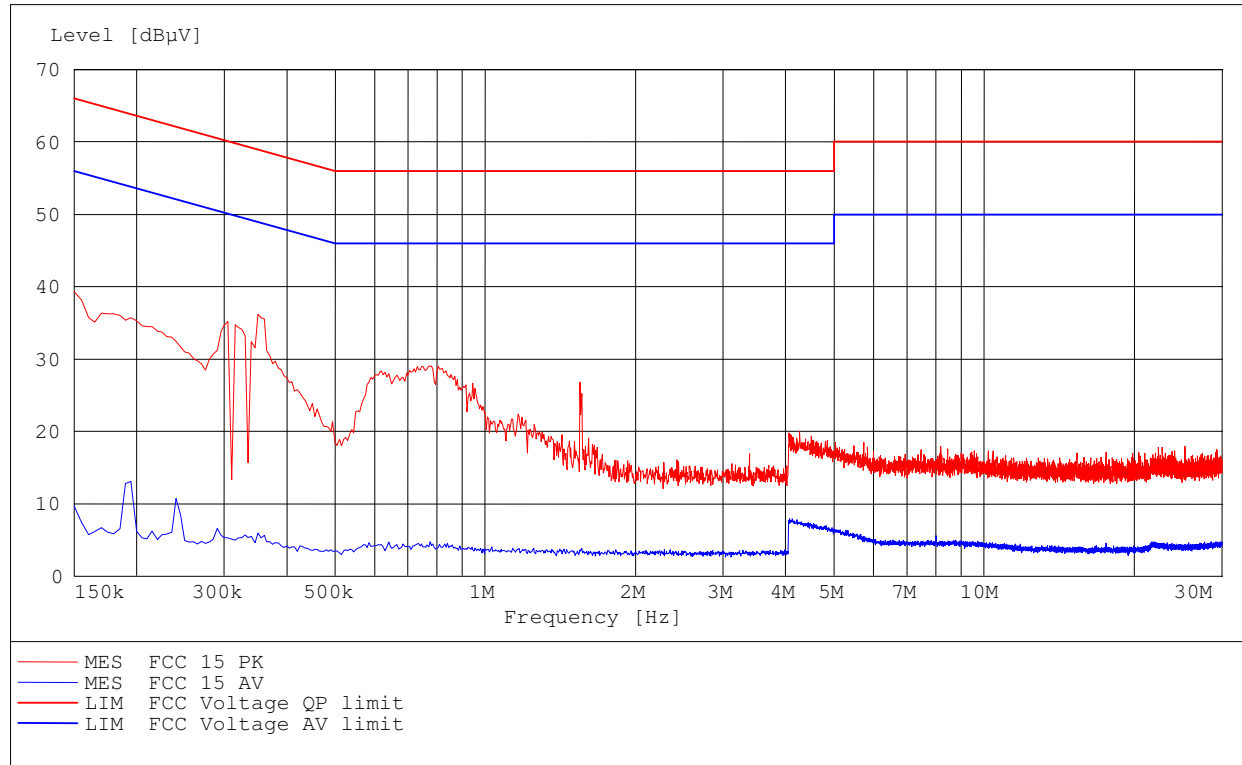
AC power line conducted emissions

Test Report No.: H1M20804-6775-P-15

Voltage mains

according to FCC Part 15

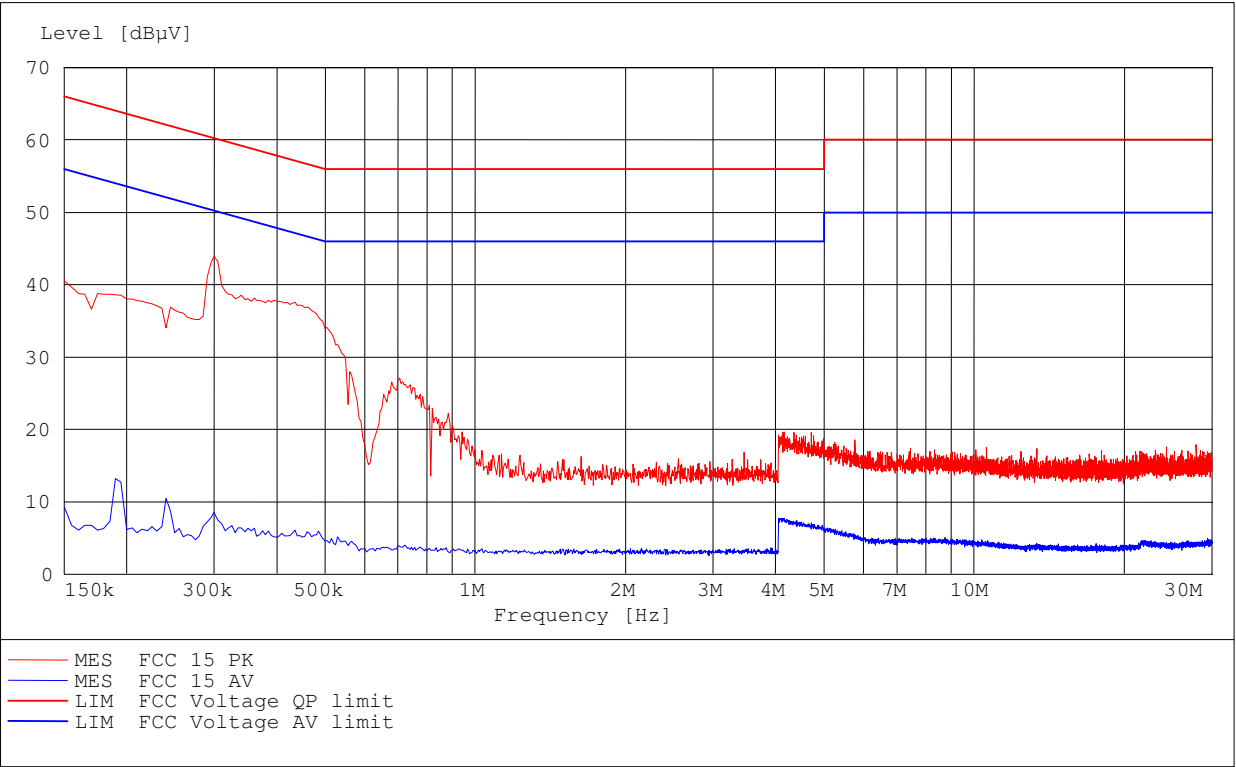
Test Report No.: H1M20804-6775
Operating Condition: 22°C / 110VAC (12VDC AC/DC adaptor)
Test Site: ETSPS
Operator: Mr. Michael
Test Specification: FCC Part 15.107
Comment: ESHS 10 / ESH3-Z5 (L)
Mode: Caller Unit Normal Operating



Voltage mains

according to FCC Part 15

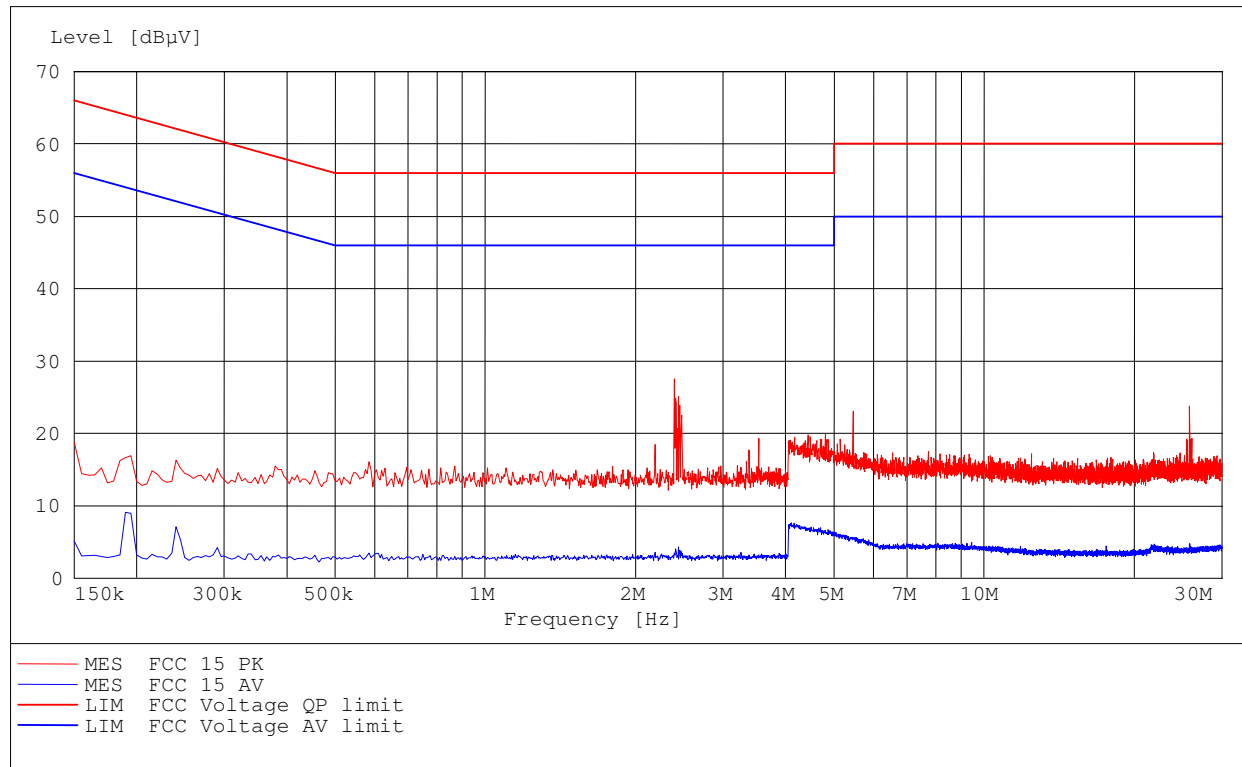
Test Report No.: H1M20804-6775
Operating Condition: 22°C / 110VAC (12VDC AC/DC adaptor)
Test Site: ETSPS
Operator: Mr. Michael
Test Specification: FCC Part 15.107
Comment: ESHS 10 / ESH3-Z5 (N)
Mode: Caller Unit Normal Operating



Voltage mains

according to FCC Part 15

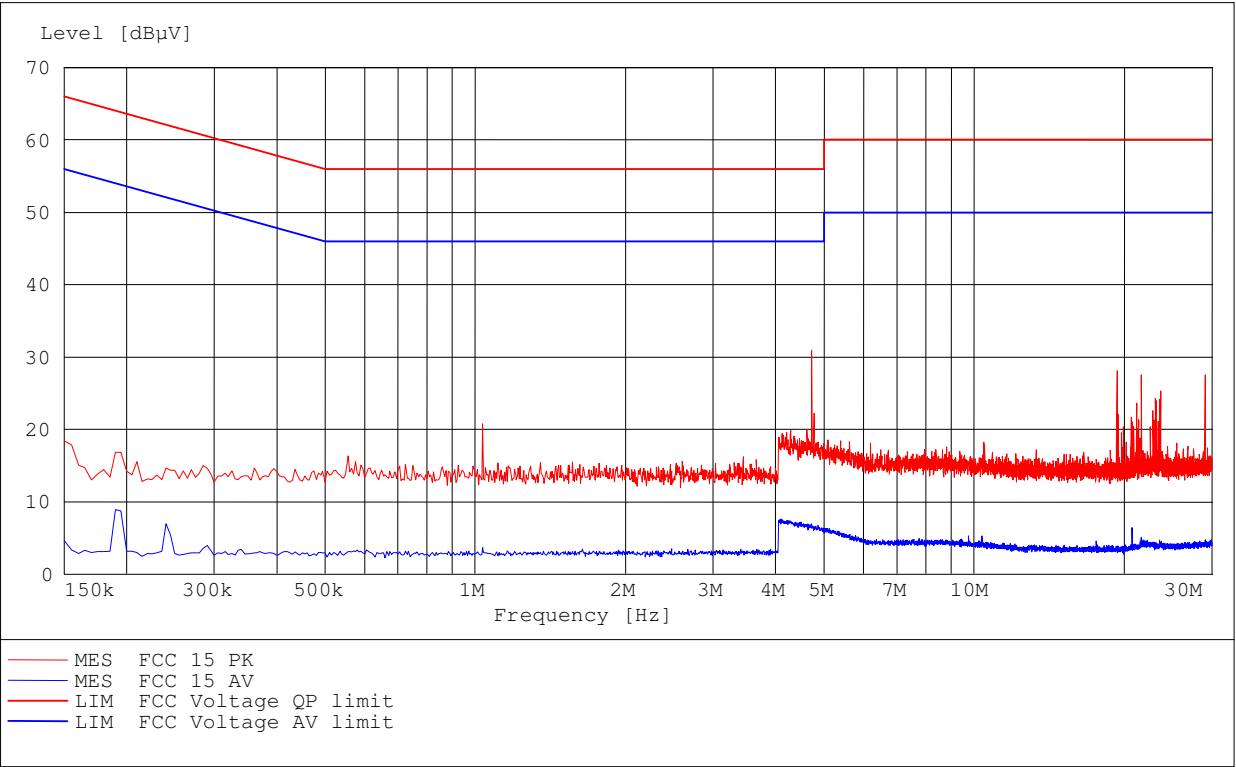
Test Report No.: H1M20804-6775
Operating Condition: 22°C / 110VAC (9VDC AC/DC adaptor)
Test Site: ETSPS
Operator: Mr. Michael
Test Specification: FCC Part 15.107
Comment: ESHS 10 / ESH3-Z5 (L)
Mode: Charging Handset Battery



Voltage mains

according to FCC Part 15

Test Report No.: H1M20804-6775
Operating Condition: 22°C / 110VAC (9VDC AC/DC adaptor)
Test Site: ETSPS
Operator: Mr. Michael
Test Specification: FCC Part 15.107
Comment: ESHS 10 / ESH3-Z5 (N)
Mode: Charging Handset Battery



Appendix L

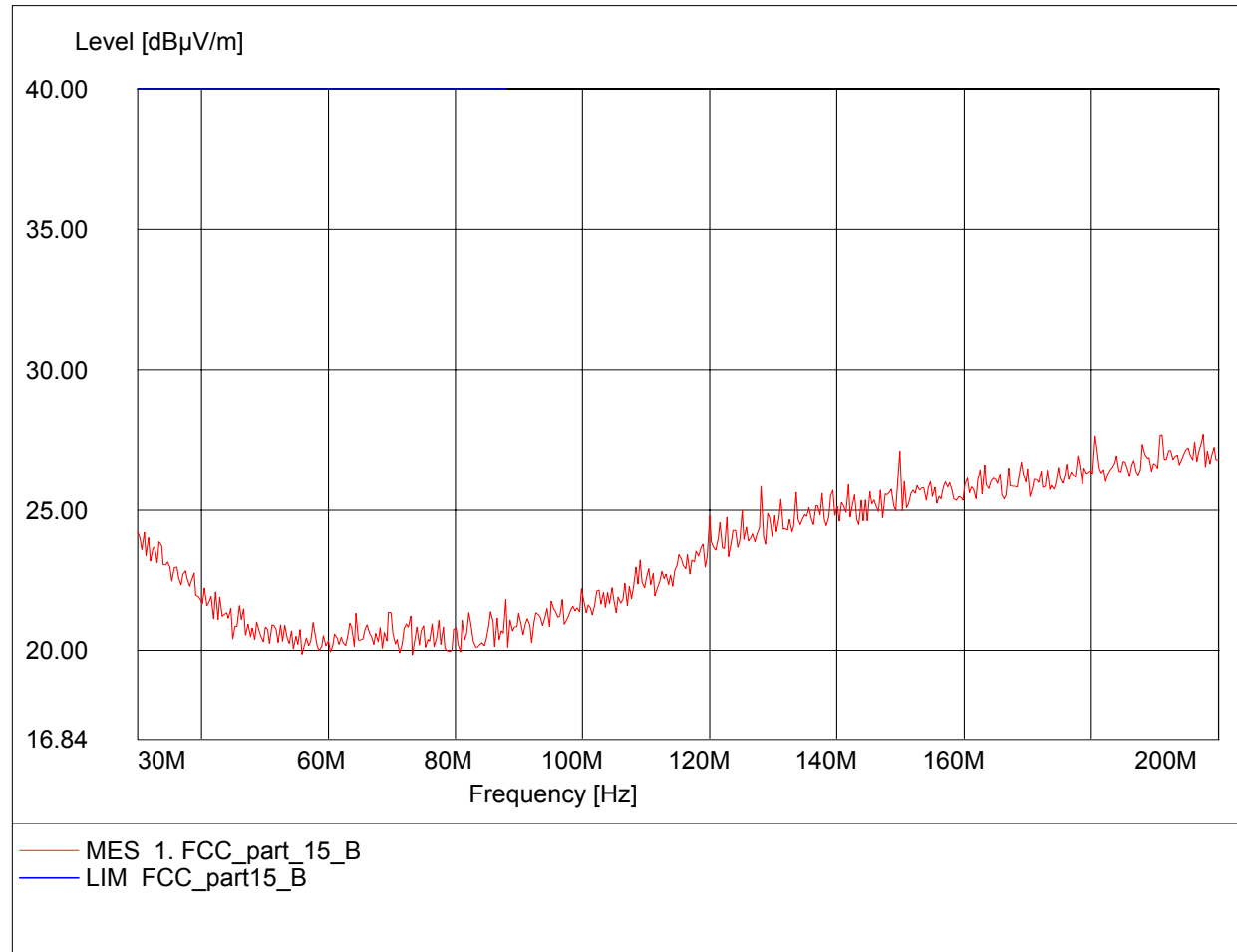
Receiver radiated emissions

Test Report No.: H1M20804-6775-P-15

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to subpart B
Comment 1: Caller Unit Receive Low Channel: 911MHz
Dist.: 3m, Ant.: HK 116
Freq:197.615MHz Emax:27.71dBμV/m RBW: 100 kHz

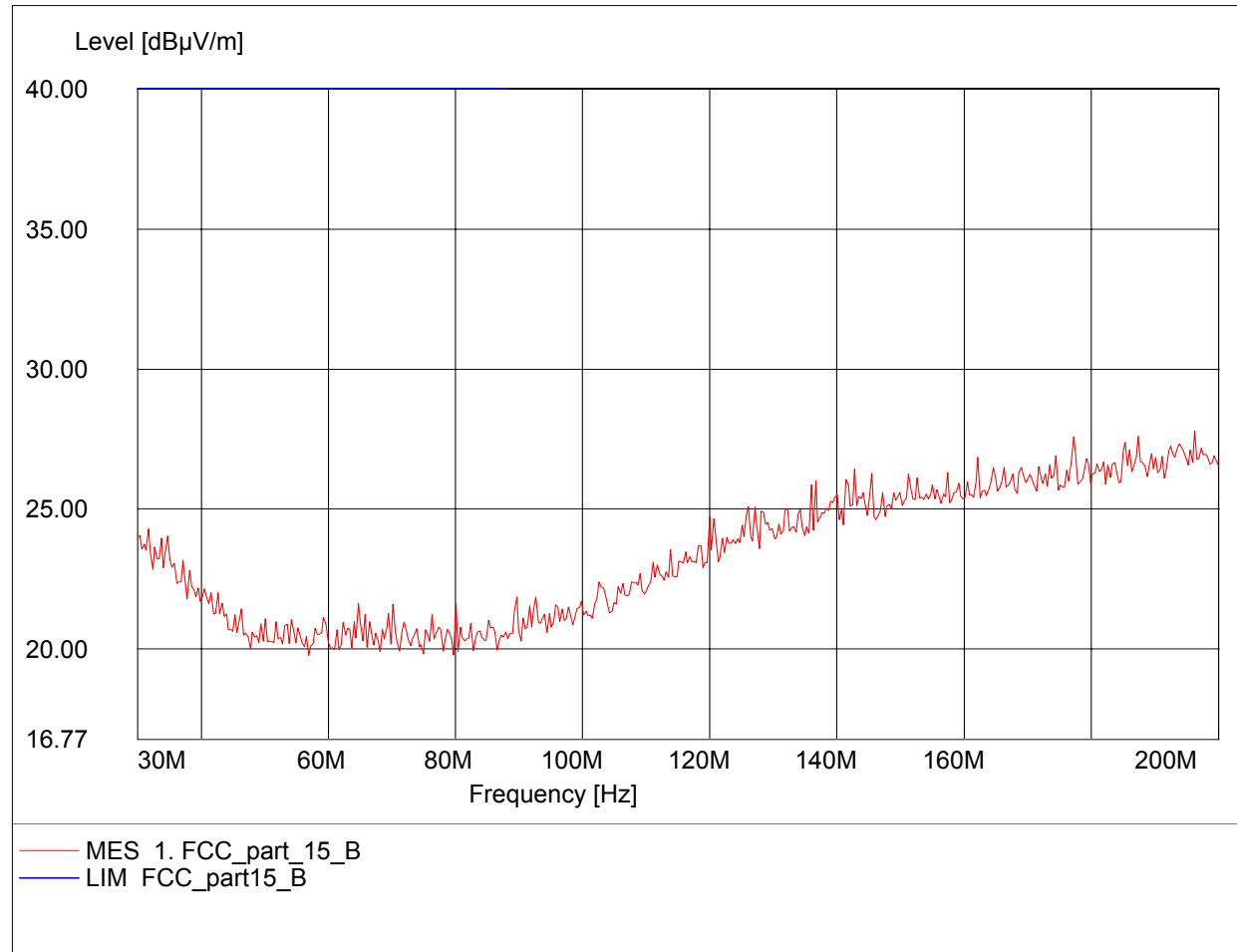


Antenna horizontal

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to subpart B
Comment 1: Caller Unit Receive Low Channel: 911MHz
Dist.: 3m, Ant.: HK 116
Freq:196.253MHz Emax:27.78dBμV/m RBW: 100 kHz

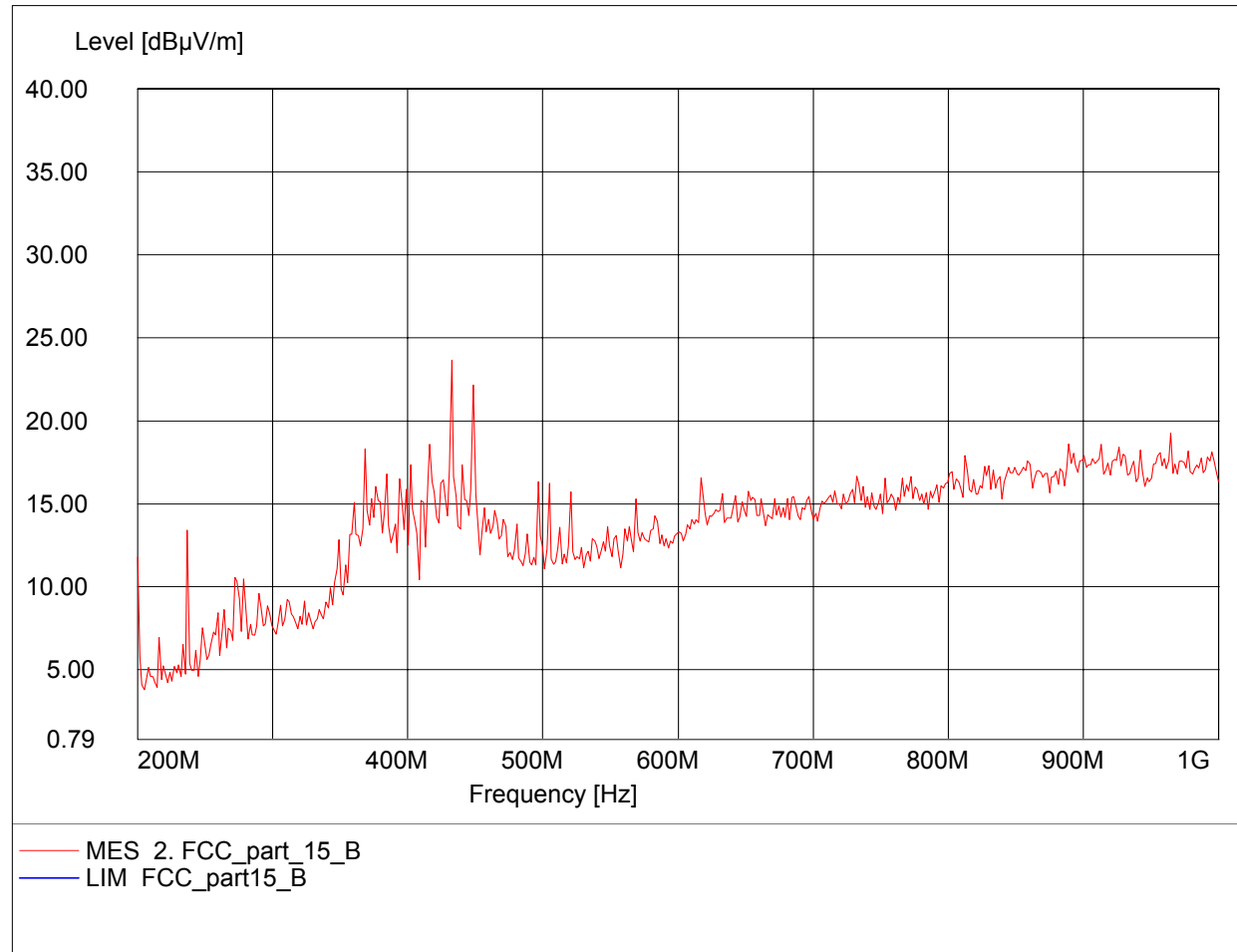


Antenna vertical

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to subpart B
Comment 1: Caller Unit Receive Low Channel: 911MHz
Dist.: 3m, Ant.: HL 223, ampl.
Freq:432.465MHz Emax:23.65dBμV/m RBW: 100 kHz

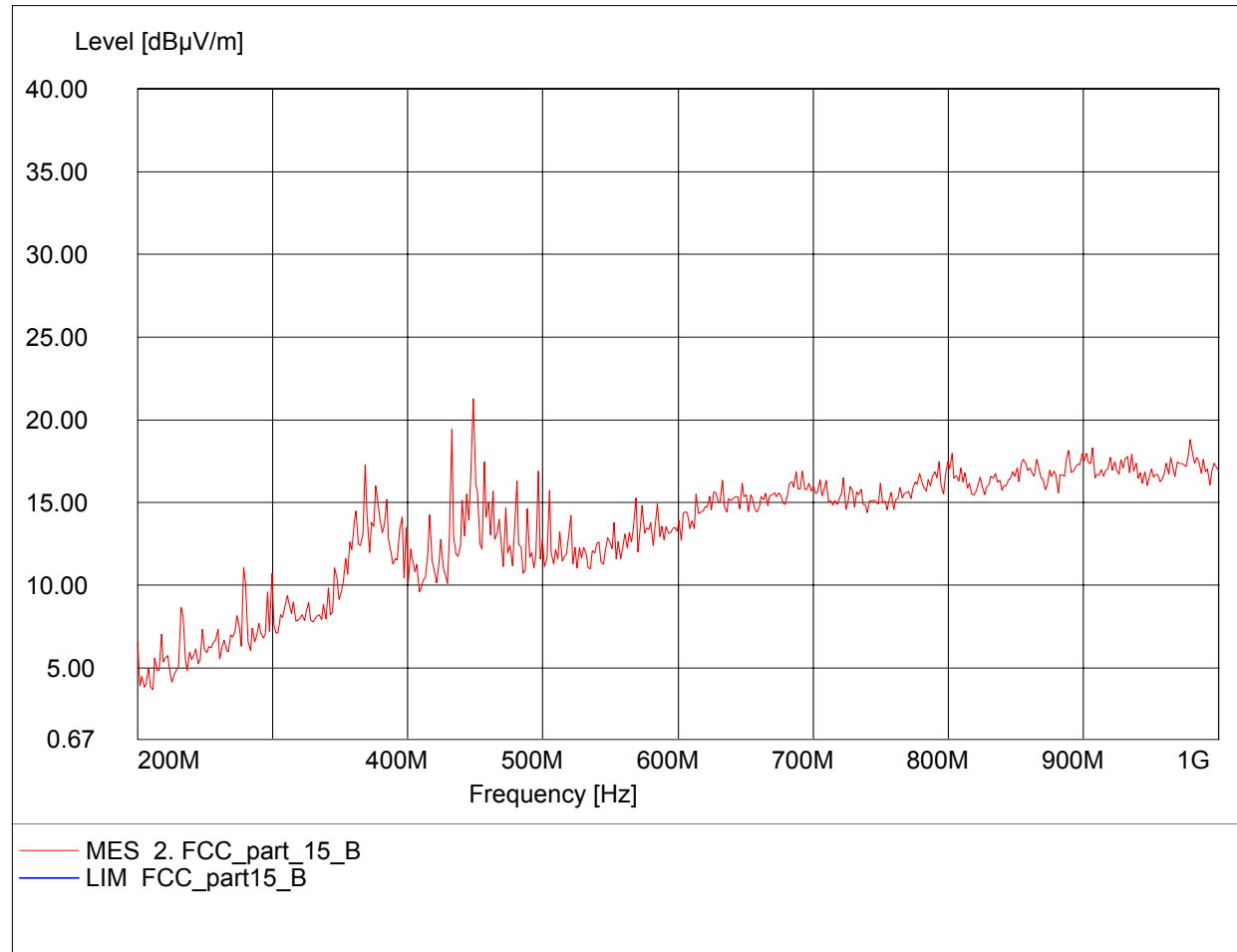


Antenna horizontal

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to subpart B
Comment 1: Caller Unit Receive Low Channel: 911MHz
Dist.: 3m, Ant.: HL 223, ampl.
Freq:448.497MHz Emax:21.29dBμV/m RBW: 100 kHz

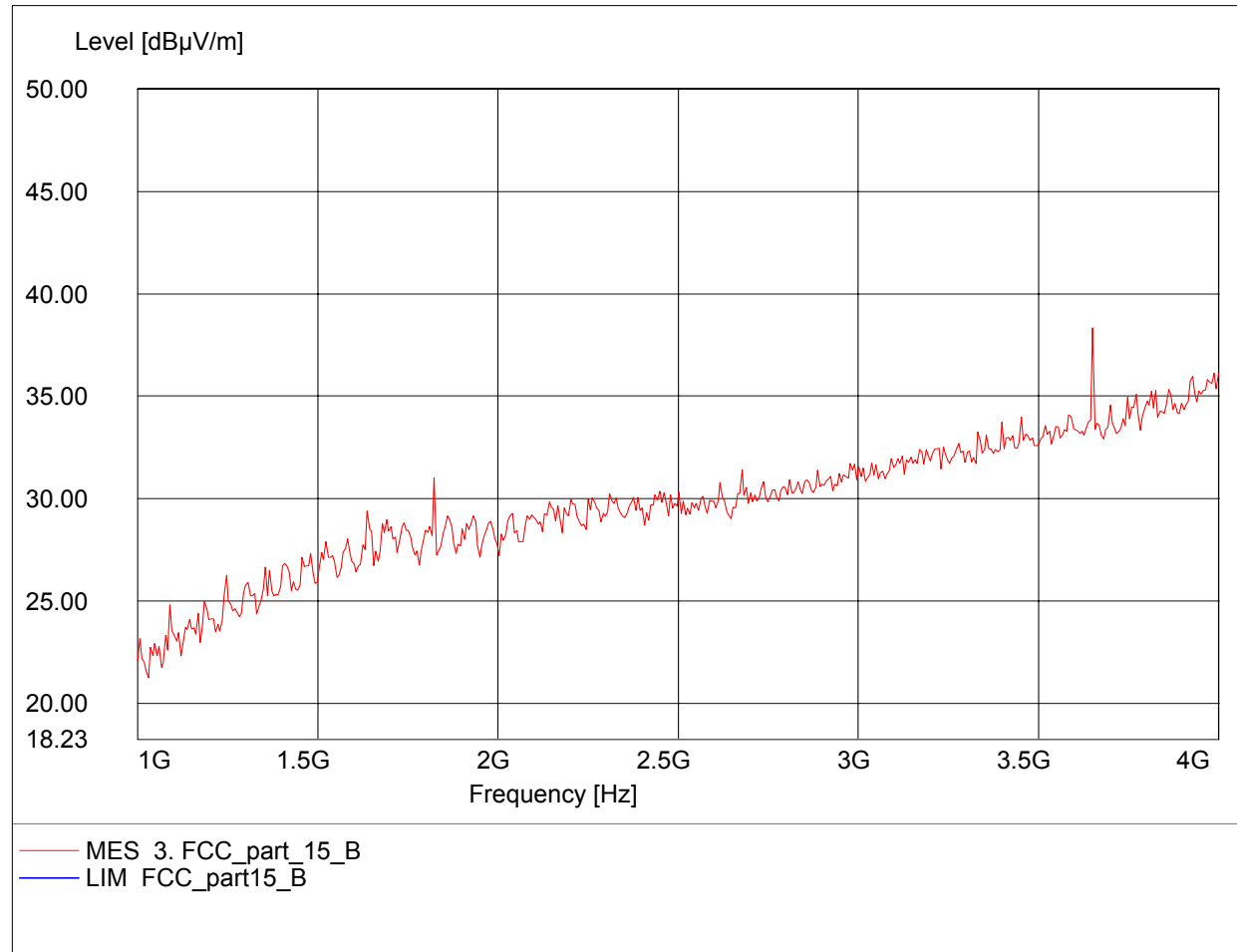


Antenna vertical

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to subpart B
Comment 1: Caller Unit Receive Low Channel: 911MHz
Dist.: 3m, Ant.: HL25, ampl.
Freq:3.651GHz Emax:38.33dBμV/m RBW: 1 MHz

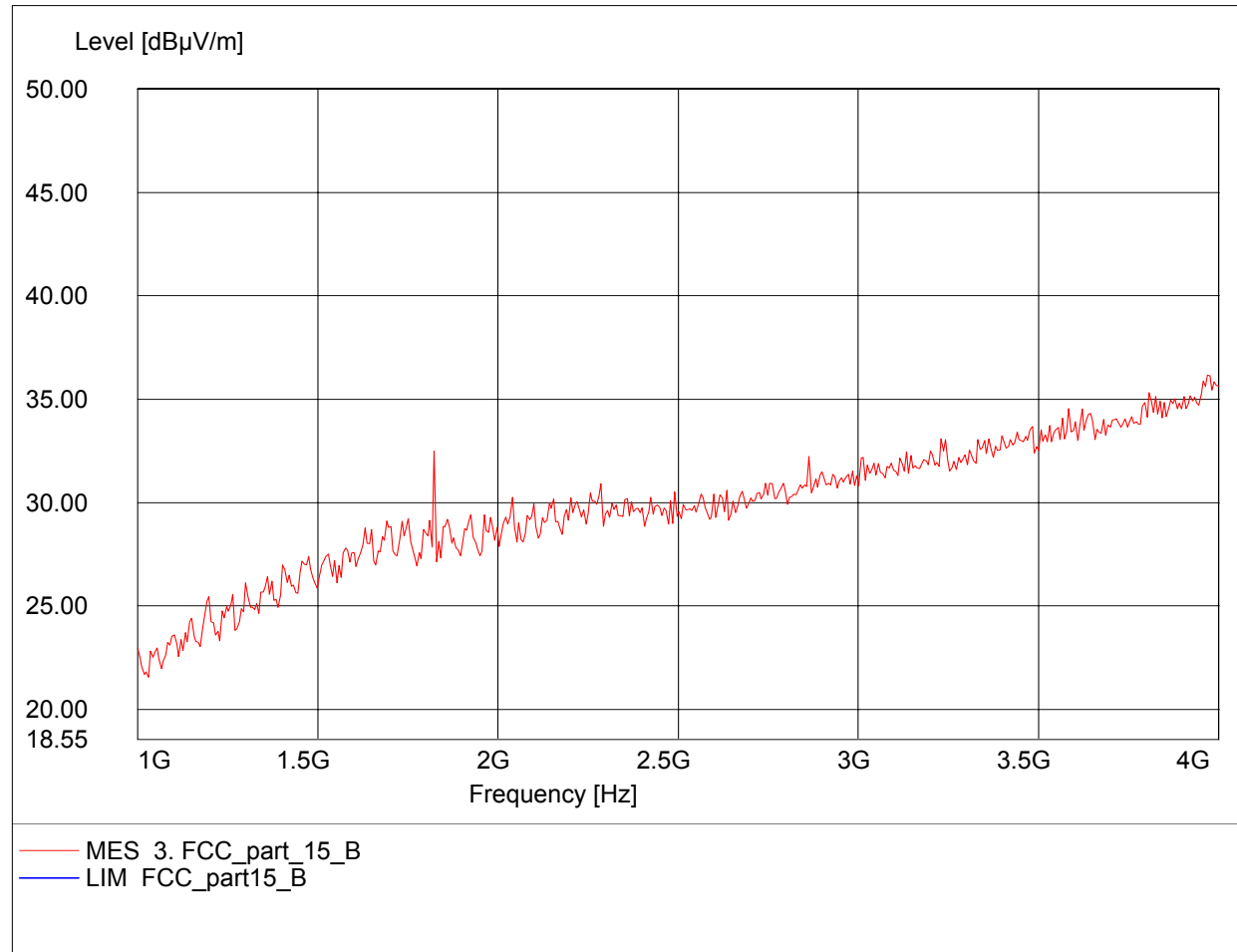


Antenna horizontal

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to subpart B
Comment 1: Caller Unit Receive Low Channel: 911MHz
Dist.: 3m, Ant.: HL25, ampl.
Freq:3.970GHz Emax:36.17dBμV/m RBW: 1 MHz

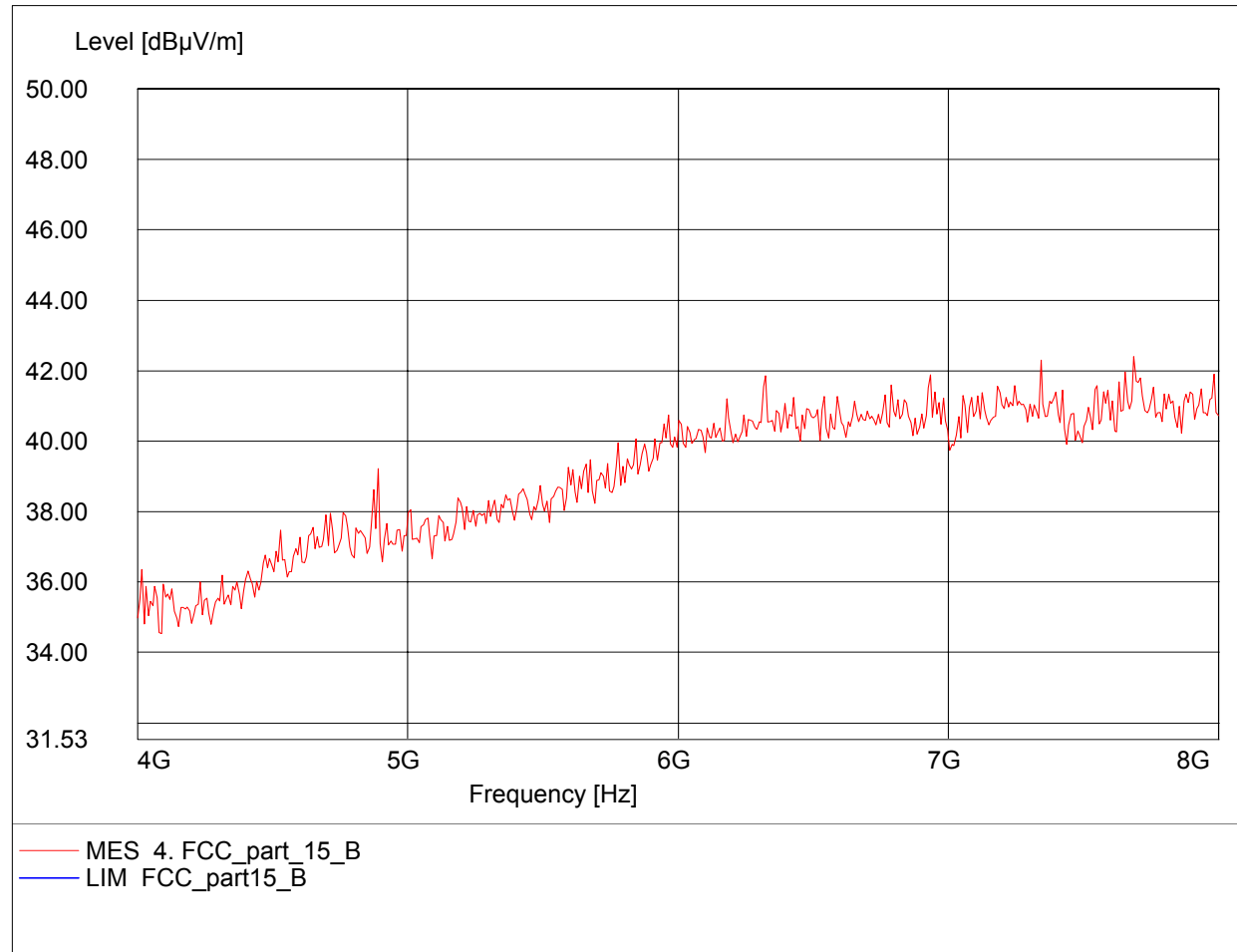


Antenna vertical

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to subpart B
Comment 1: Caller Unit Receive Low Channel: 911MHz
Dist.: 3m, Ant.: HL25, ampl.
Freq:7.687GHz Emax:42.39dBμV/m RBW: 1 MHz

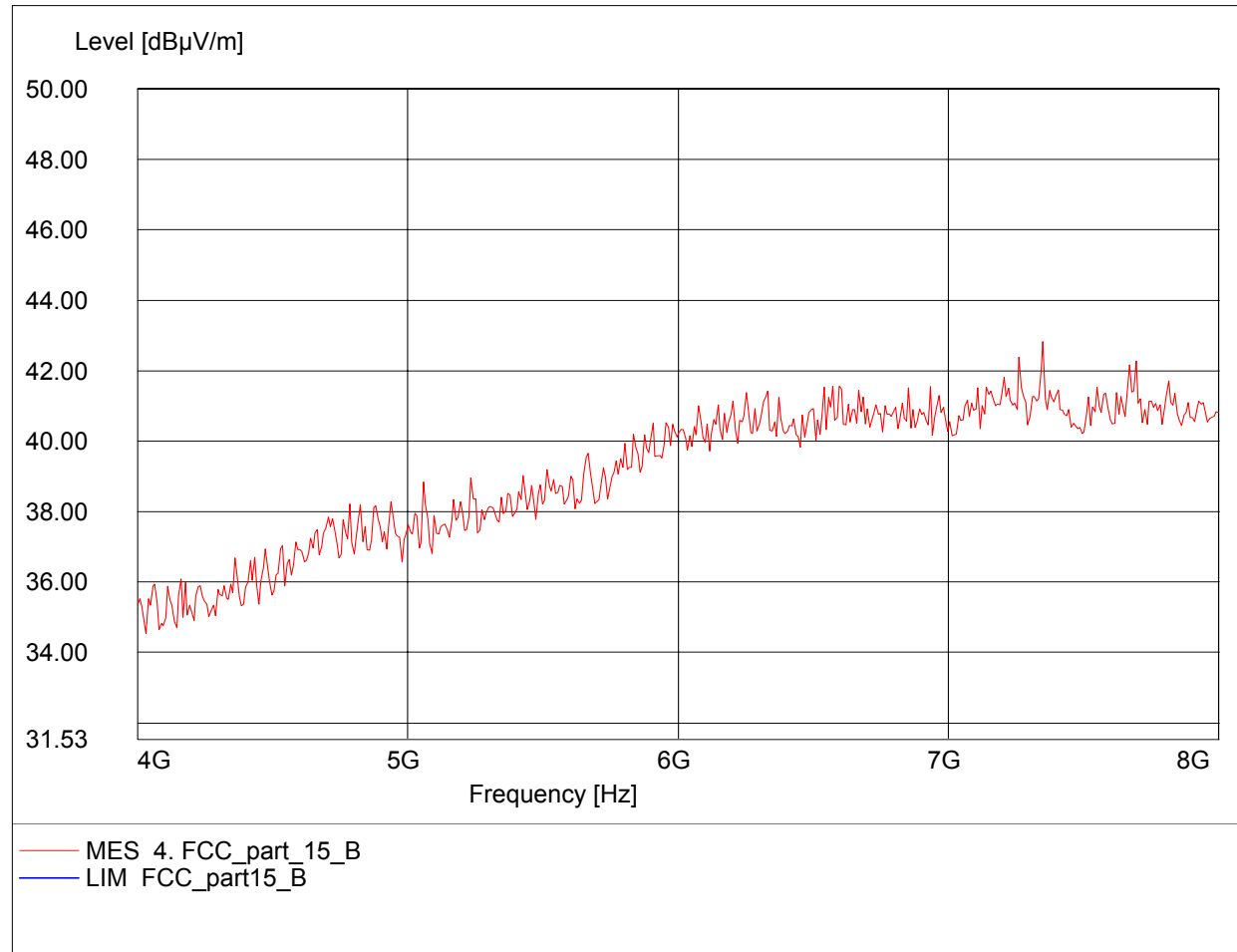


Antenna horizontal

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to subpart B
Comment 1: Caller Unit Receive Low Channel: 911MHz
Dist.: 3m, Ant.: HL25, ampl.
Freq:7.351GHz Emax:42.83dBμV/m RBW: 1 MHz

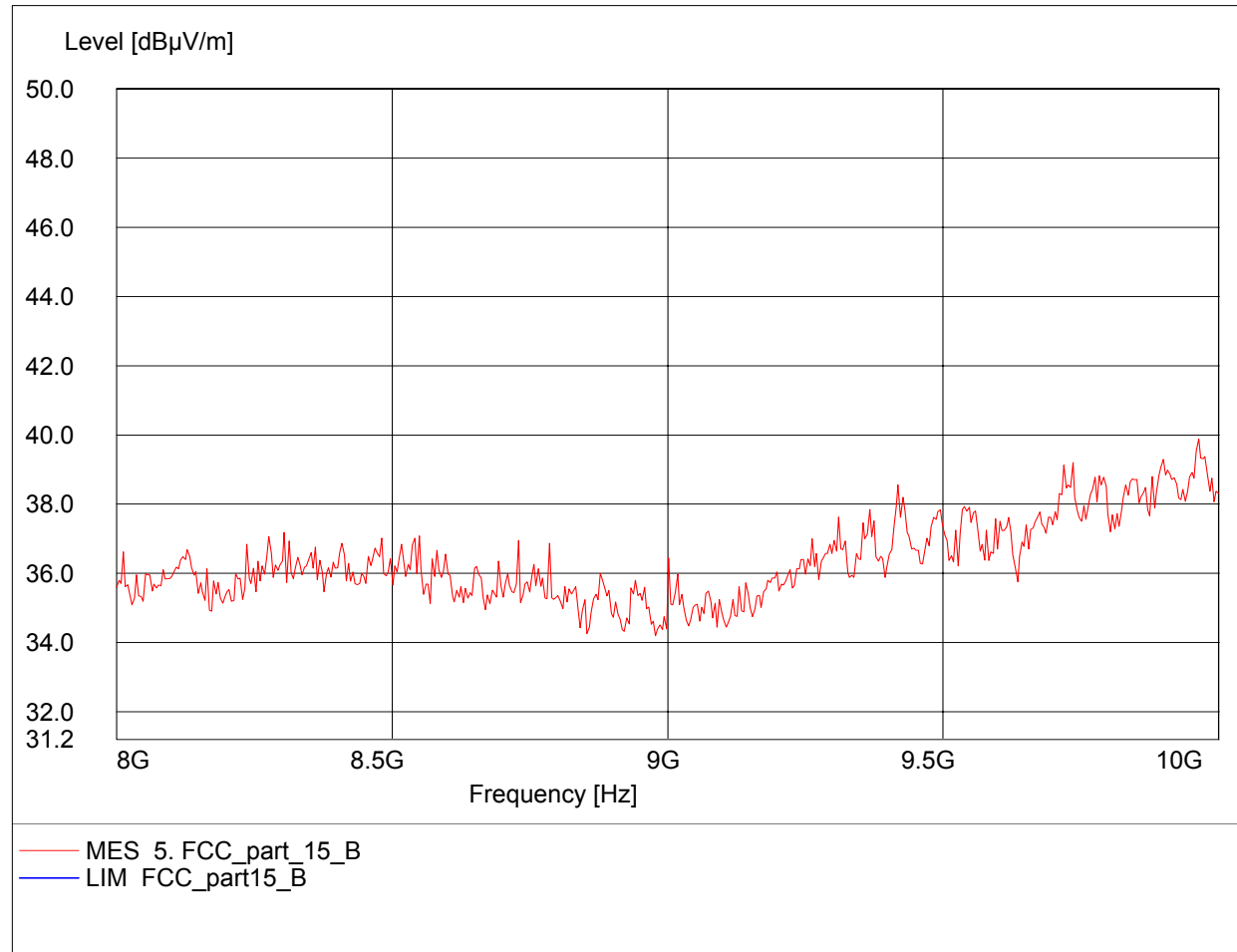


Antenna vertical

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to subpart B
Comment 1: Caller Unit Receive Low Channel: 911MHz
Dist.: 3m, Ant.: HL25, ampl.
Freq:9.964GHz Emax:39.88dBμV/m RBW: 1 MHz

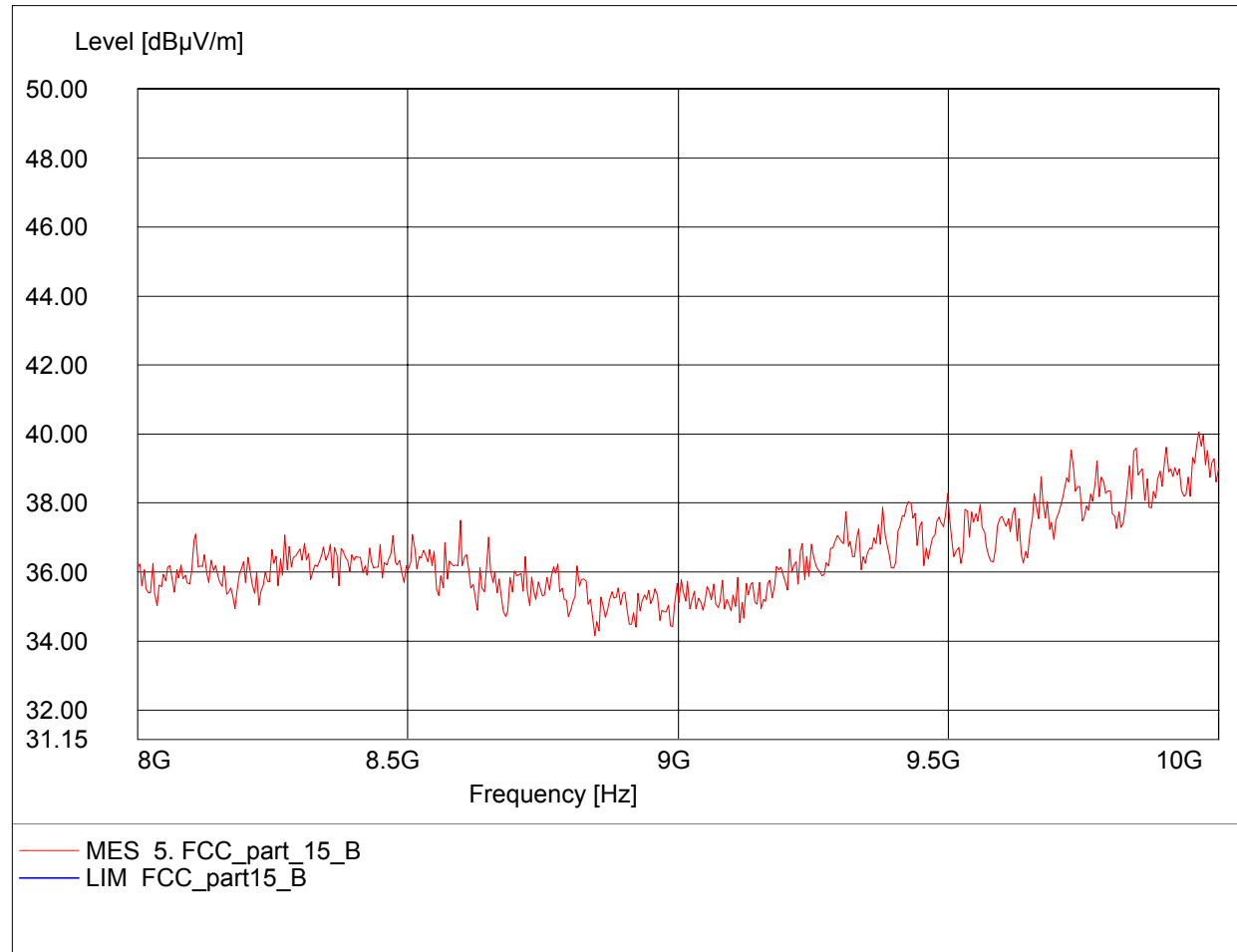


Antenna horizontal

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to subpart B
Comment 1: Caller Unit Receive Low Channel: 911MHz
Dist.: 3m, Ant.: HL25, ampl.
Freq:9.964GHz Emax:40.06dBμV/m RBW: 1 MHz

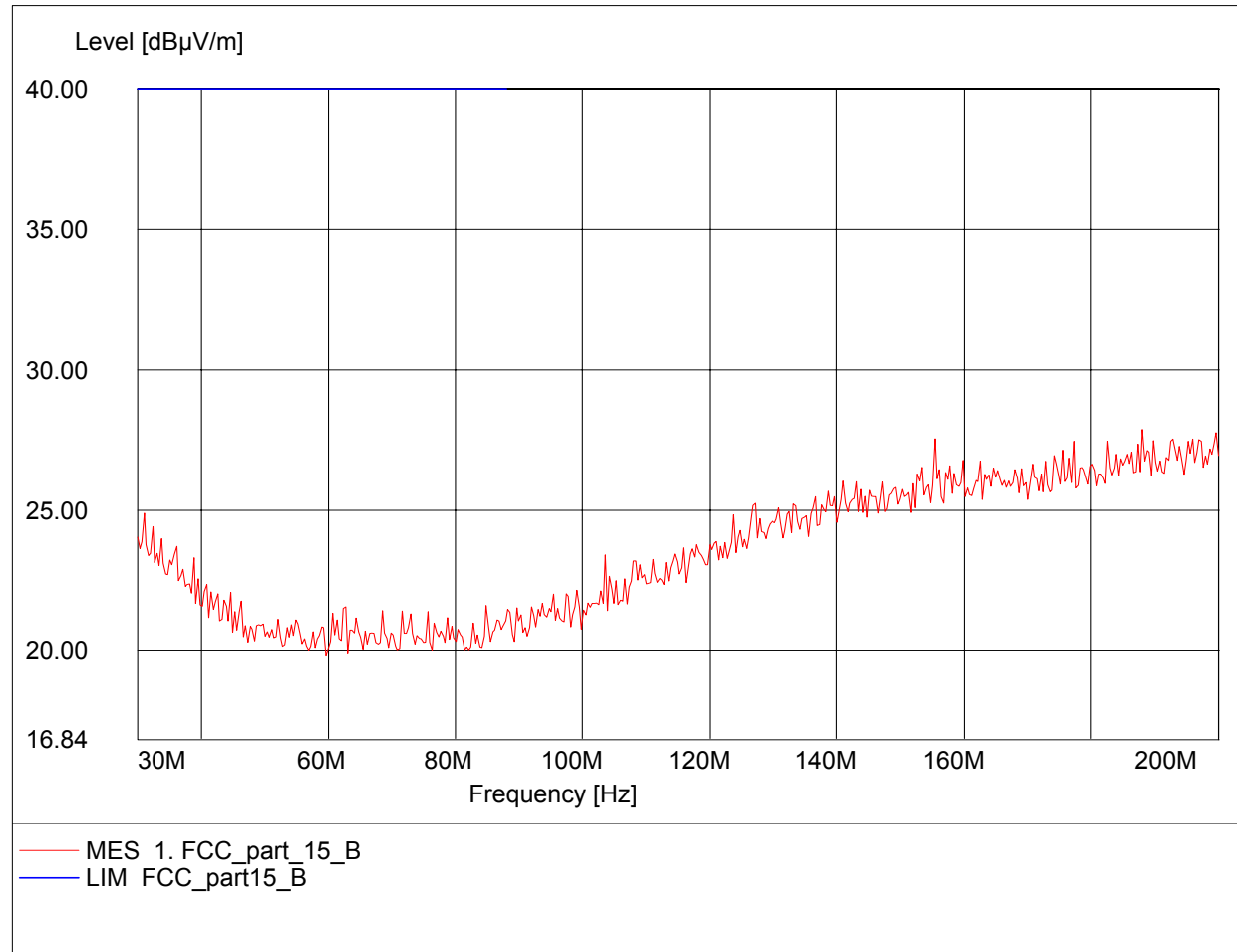


Antenna vertical

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to subpart B
Comment 1: Caller Unit Receive High Channel: 920.8MHz
Dist.: 3m, Ant.: HK 116
Freq:188.076MHz Emax:27.89dBμV/m RBW: 100 kHz

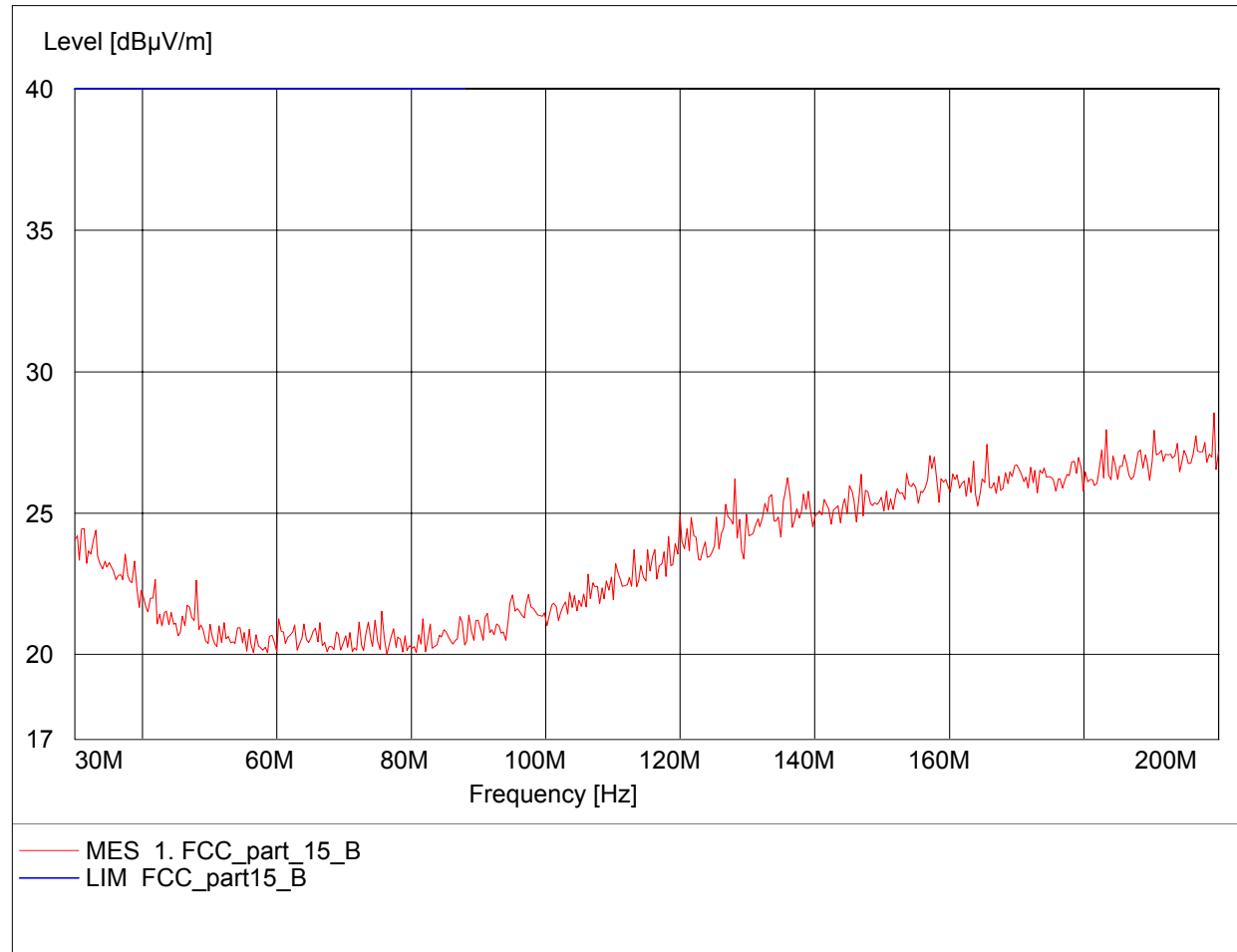


Antenna horizontal

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to subpart B
Comment 1: Caller Unit Receive High Channel: 920.8MHz
Dist.: 3m, Ant.: HK 116
Freq:199.319MHz Emax:28.55dBμV/m RBW: 100 kHz

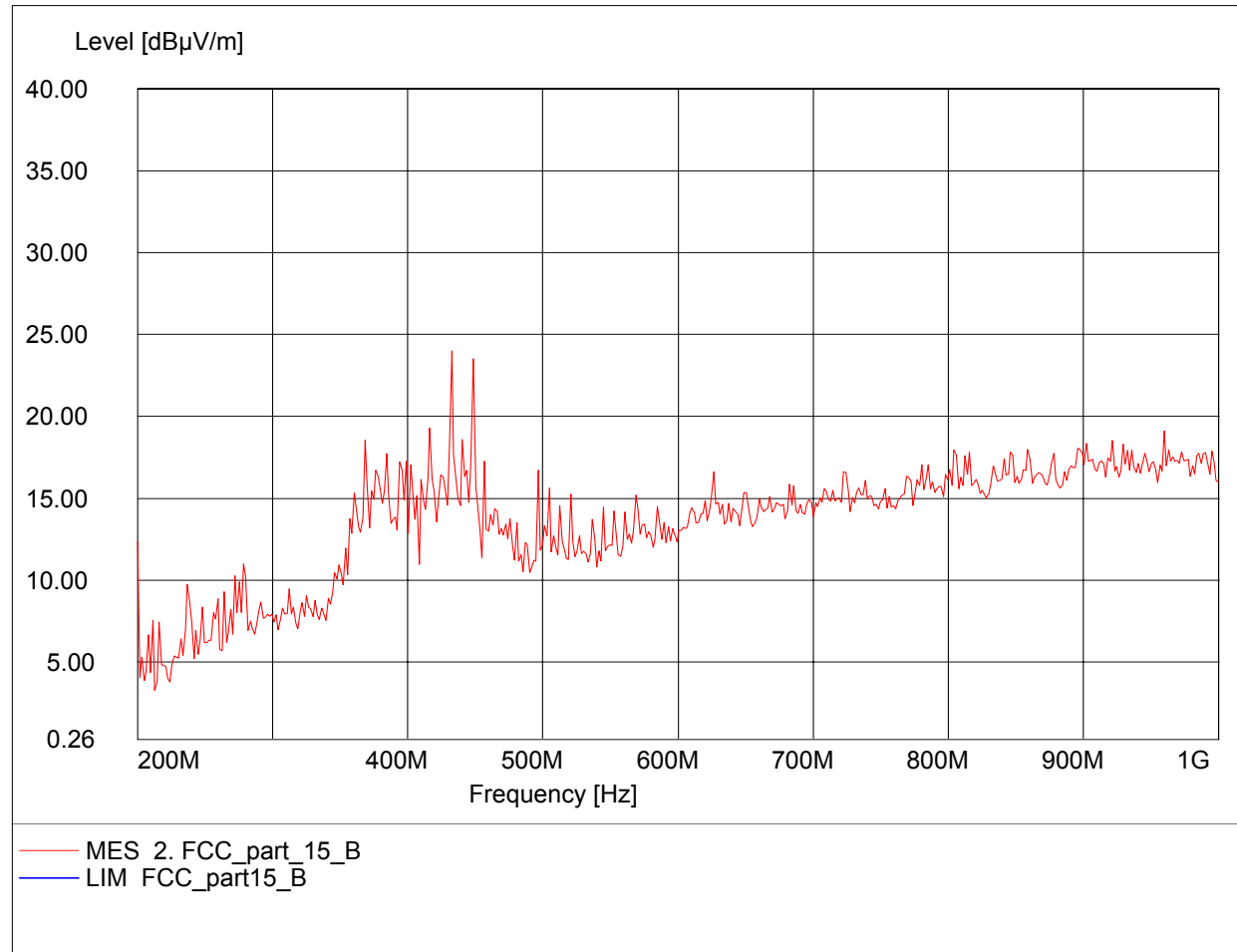


Antenna vertical

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to subpart B
Comment 1: Caller Unit Receive High Channel: 920.8MHz
Dist.: 3m, Ant.: HL 223, ampl.
Freq:432.465MHz Emax:24.02dBμV/m RBW: 100 kHz

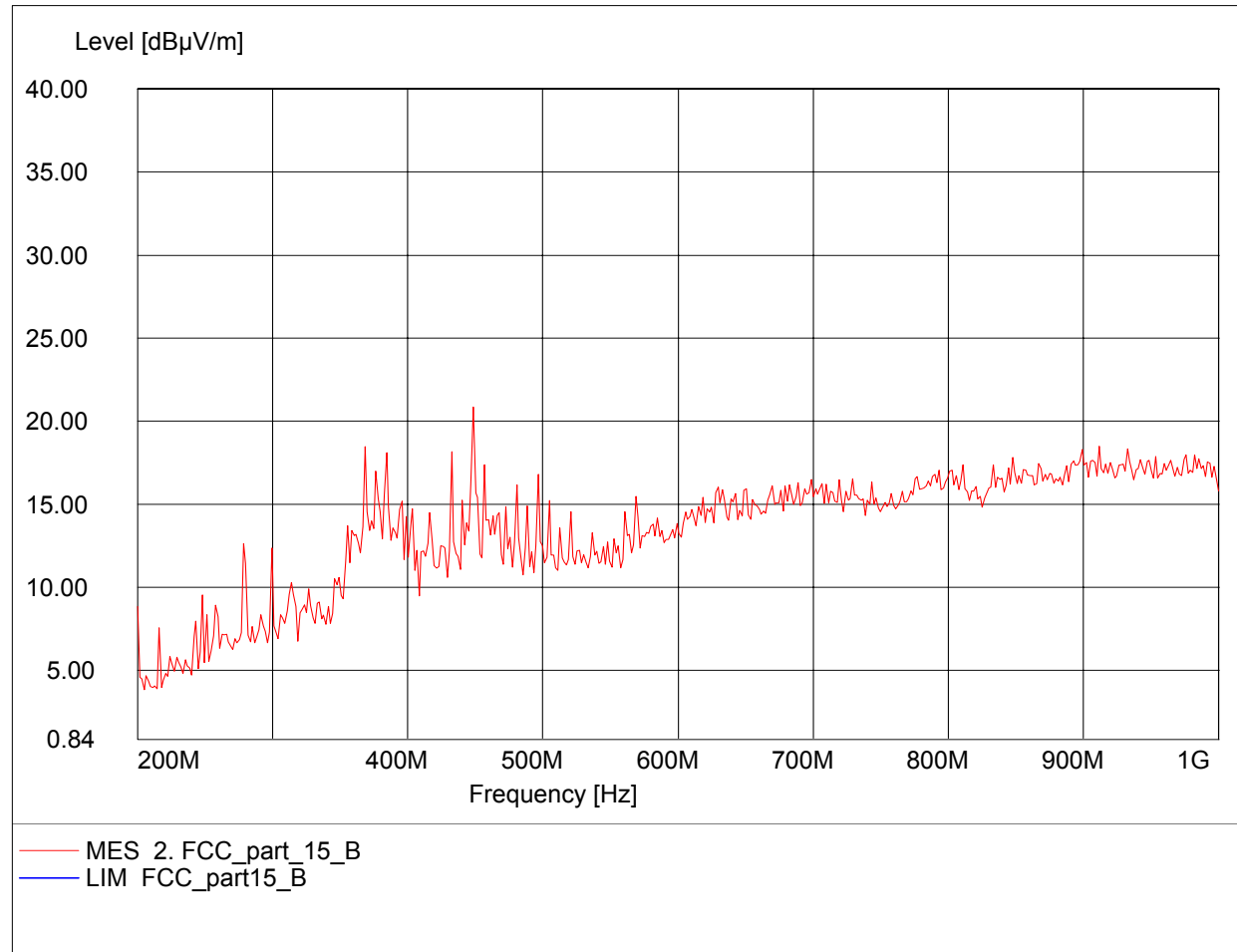


Antenna horizontal

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to subpart B
Comment 1: Caller Unit Receive High Channel: 920.8MHz
Dist.: 3m, Ant.: HL 223, ampl.
Freq:448.497MHz Emax:20.86dBμV/m RBW: 100 kHz

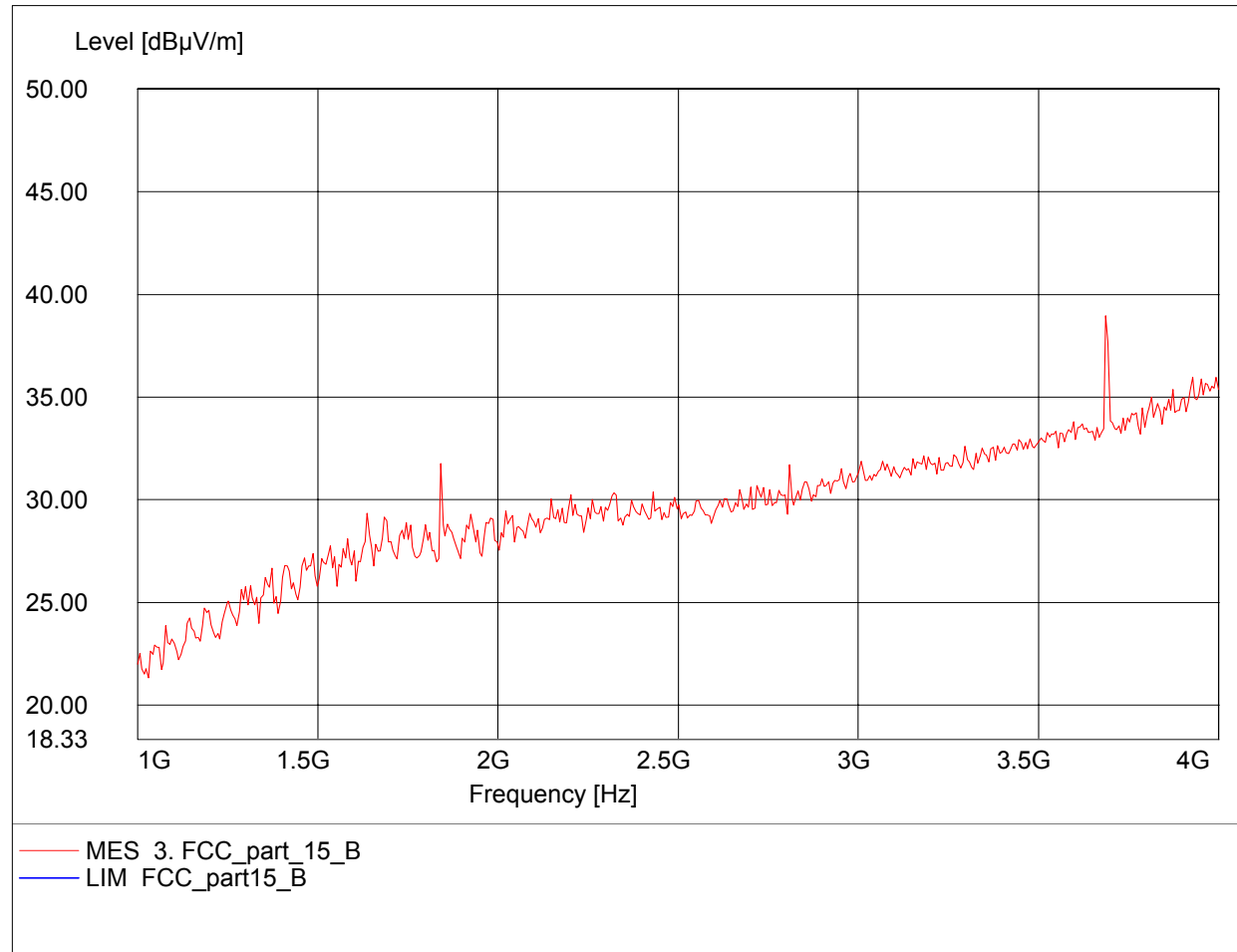


Antenna vertical

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to subpart B
Comment 1: Caller Unit Receive High Channel: 920.8MHz
Dist.: 3m, Ant.: HL25, ampl.
Freq:3.687GHz Emax:38.95dBμV/m RBW: 1 MHz

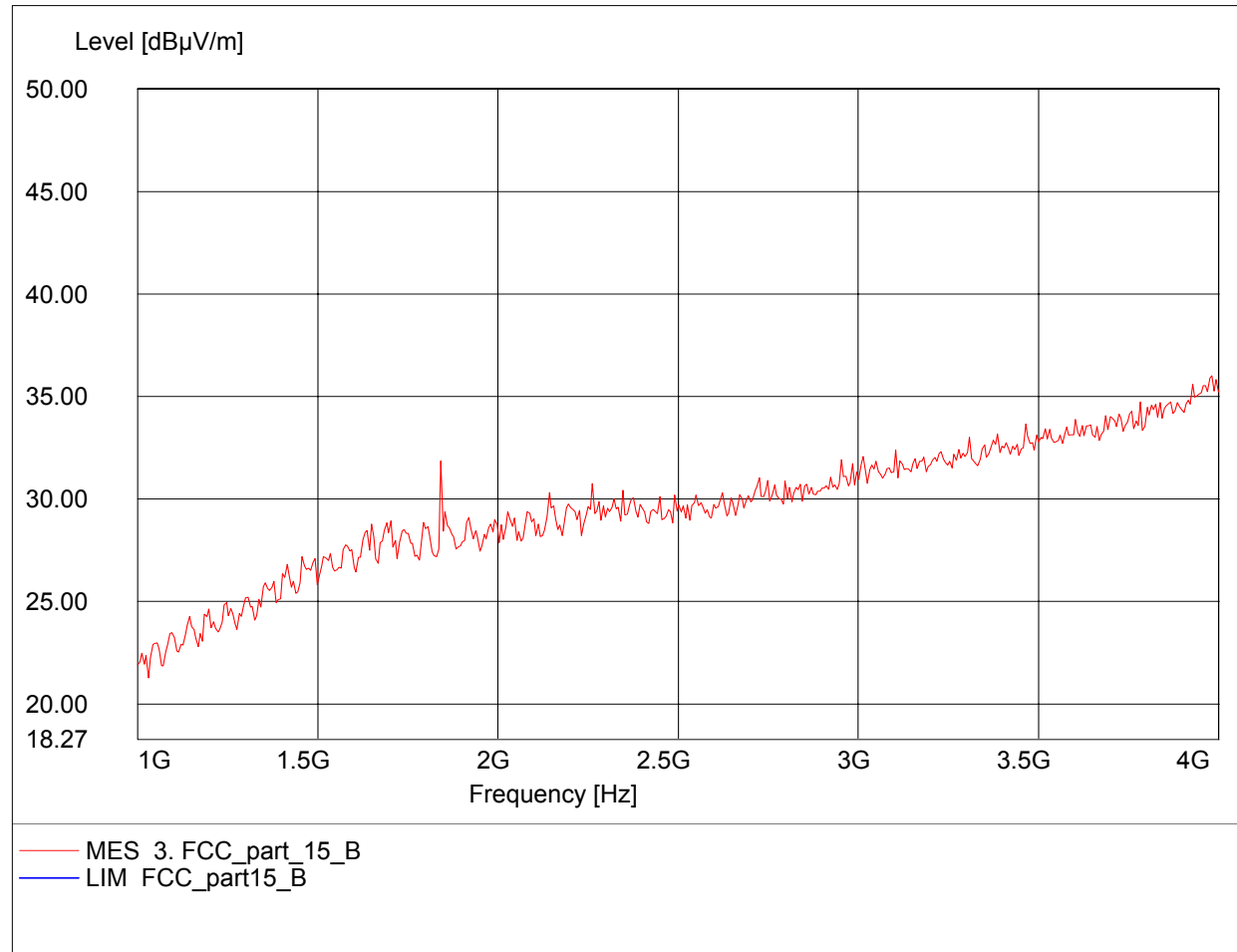


Antenna horizontal

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to subpart B
Comment 1: Caller Unit Receive High Channel: 920.8MHz
Dist.: 3m, Ant.: HL25, ampl.
Freq:3.982GHz Emax:36.01dBμV/m RBW: 1 MHz

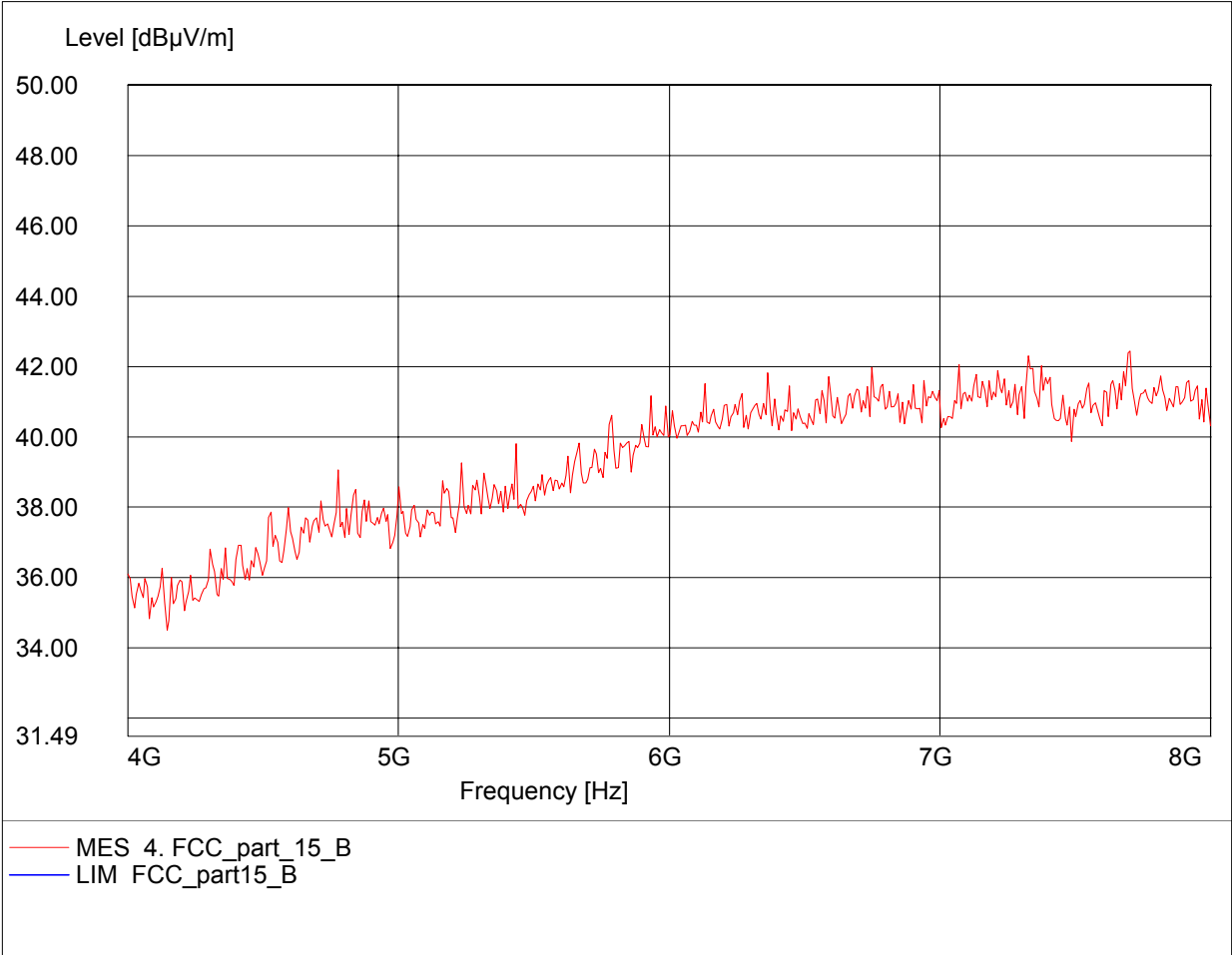


Antenna vertical

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to subpart B
Comment 1: Caller Unit Receive High Channel: 920.8MHz
Dist.: 3m, Ant.: HL25, ampl.
Freq:7.703GHz Emax:42.44dBμV/m RBW: 1 MHz

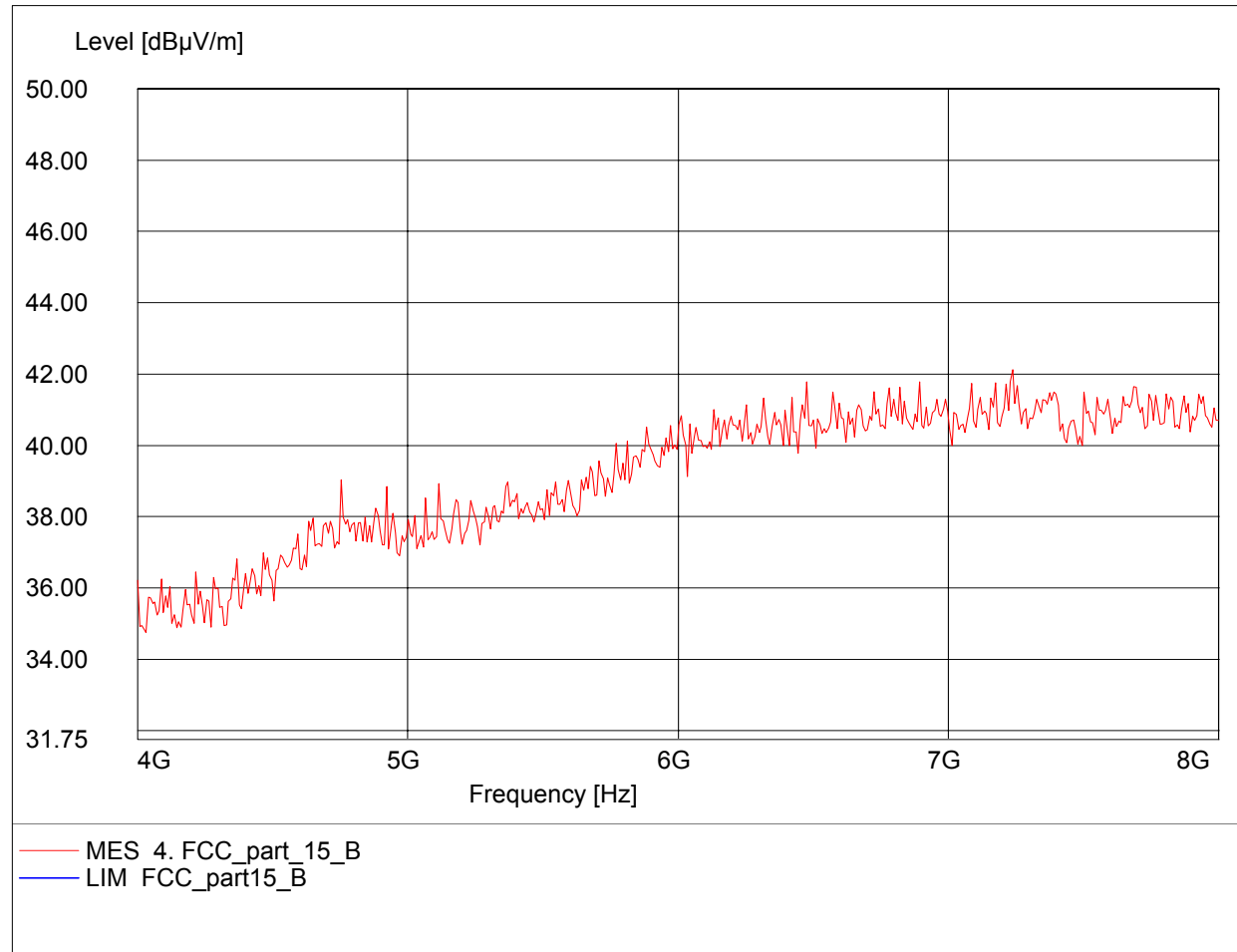


Antenna horizontal

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to subpart B
Comment 1: Caller Unit Receive High Channel: 920.8MHz
Dist.: 3m, Ant.: HL25, ampl.
Freq:7.238GHz Emax:42.11dBμV/m RBW: 1 MHz

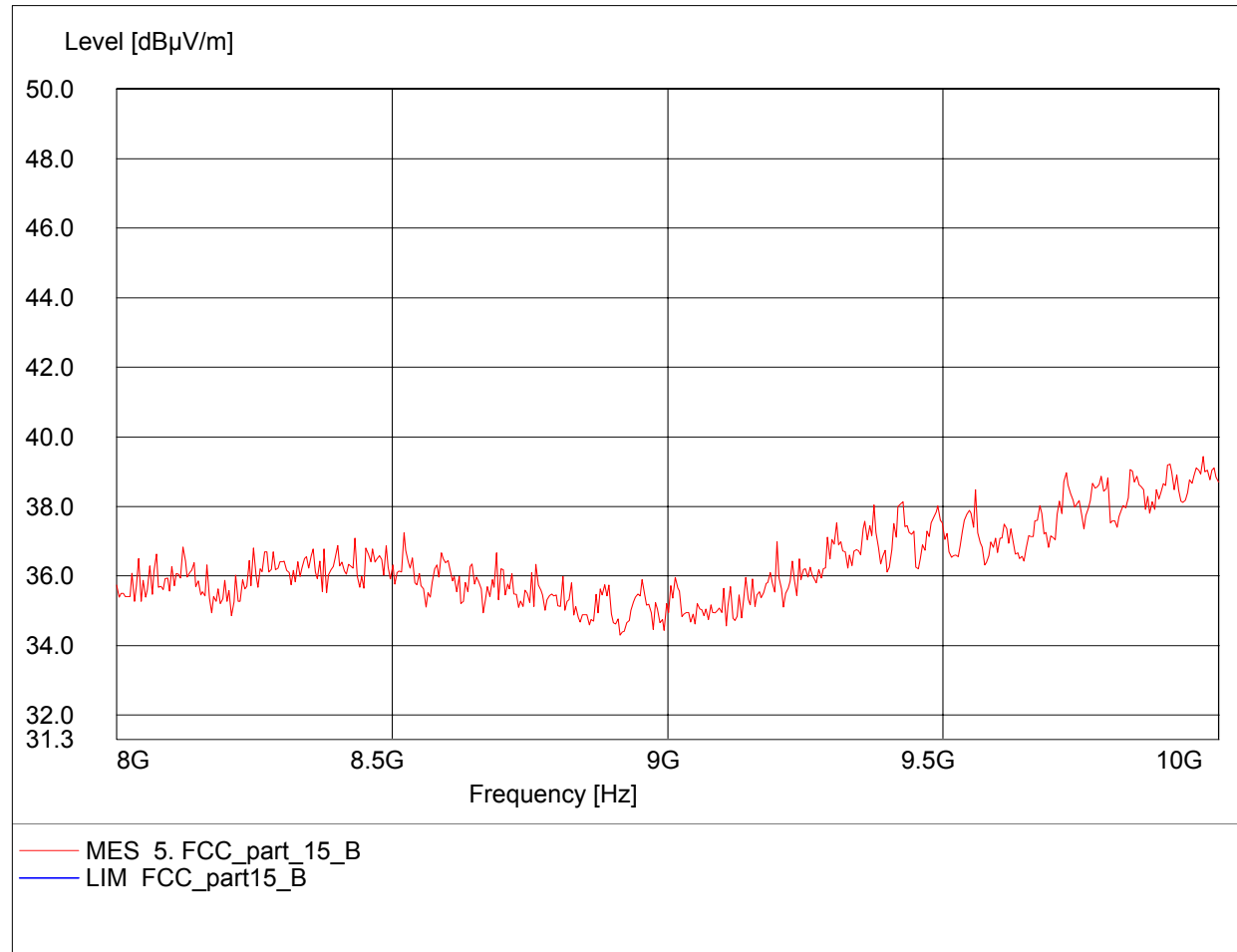


Antenna vertical

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to subpart B
Comment 1: Caller Unit Receive High Channel: 920.8MHz
Dist.: 3m, Ant.: HL25, ampl.
Freq:9.972GHz Emax:39.43dBμV/m RBW: 1 MHz

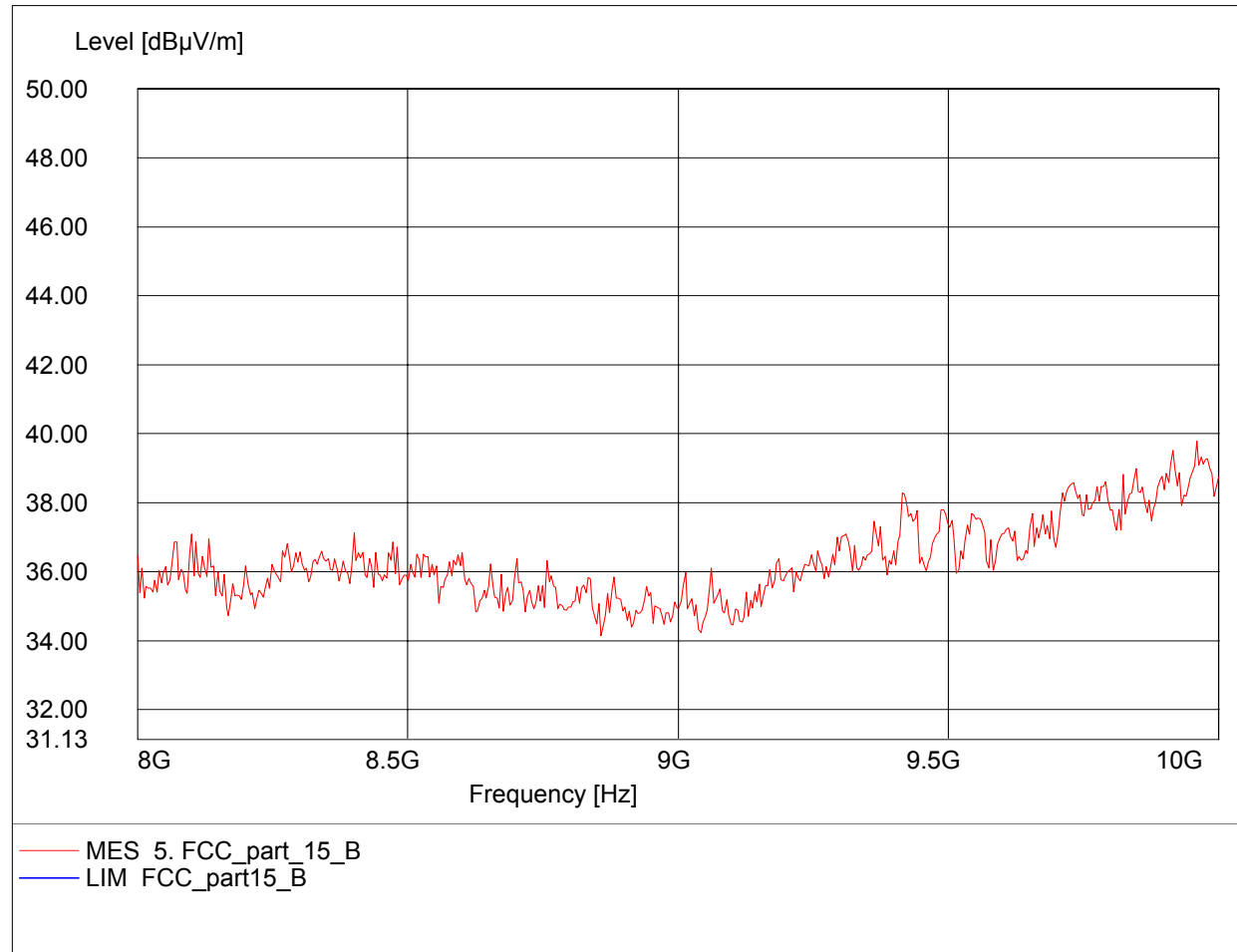


Antenna horizontal

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 110V (12VDC AC/DC adaptor)
Test Specification: according to subpart B
Comment 1: Caller Unit Receive High Channel: 920.8MHz
Dist.: 3m, Ant.: HL25, ampl.
Freq:9.960GHz Emax:39.78dBμV/m RBW: 1 MHz

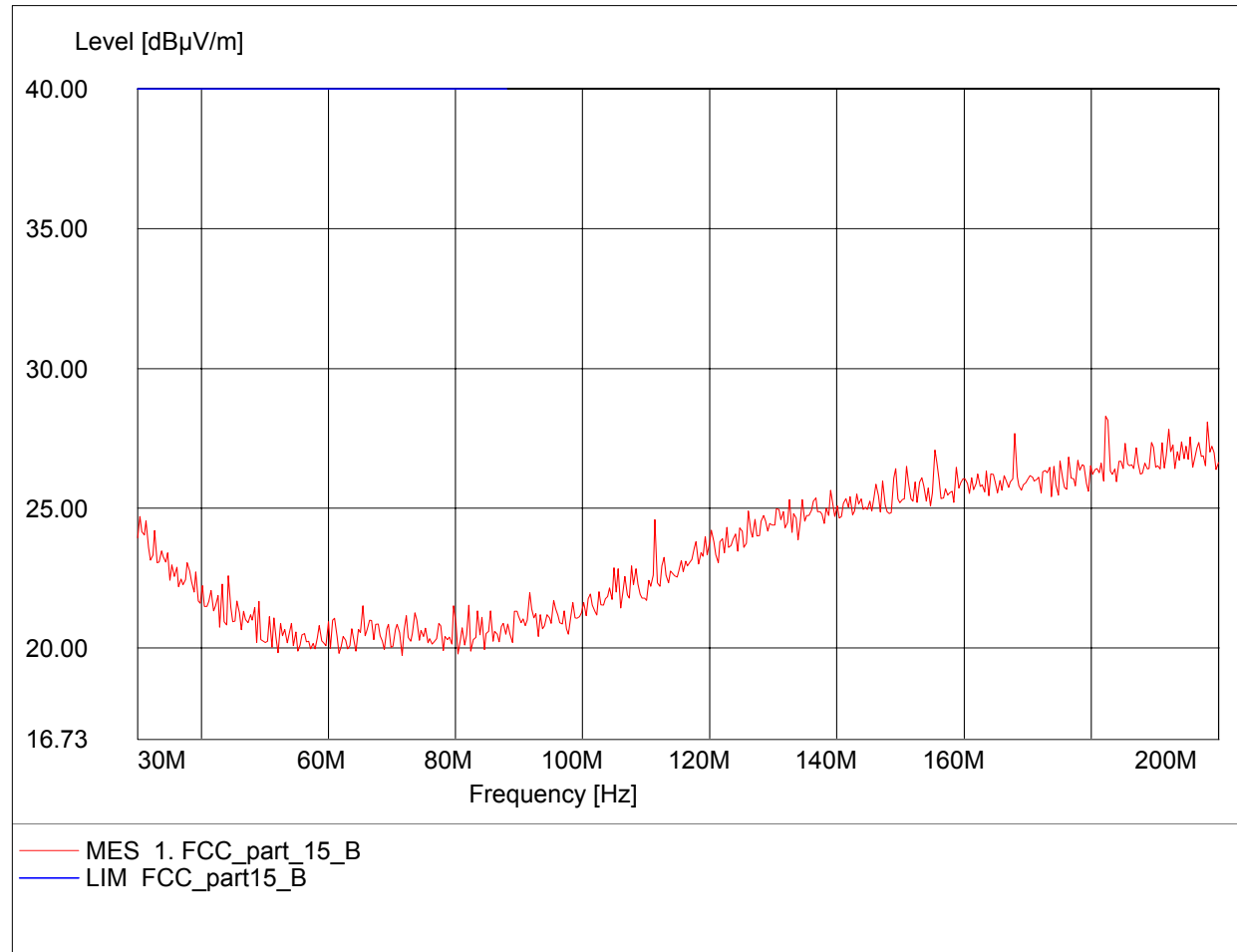


Antenna vertical

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to subpart B
Comment 1: Handset Unit Receive Low Channel: 911MHz
Dist.: 3m, Ant.: HK 116
Freq:182.285MHz Emax:28.30dBμV/m RBW: 100 kHz

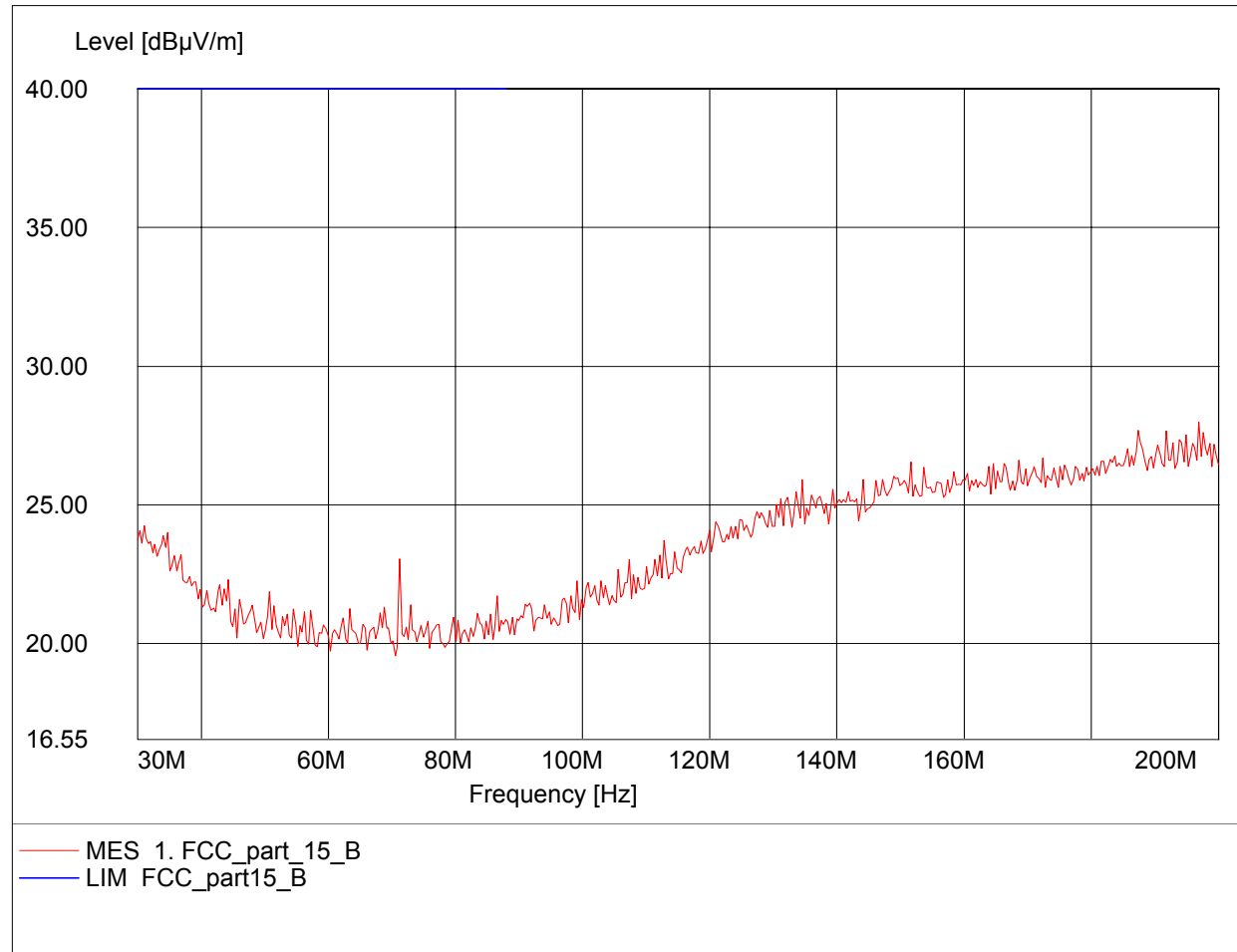


Antenna horizontal

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to subpart B
Comment 1: Handset Unit Receive Low Channel: 911MHz
Dist.: 3m, Ant.: HK 116
Freq:196.934MHz Emax:28.00dBμV/m RBW: 100 kHz

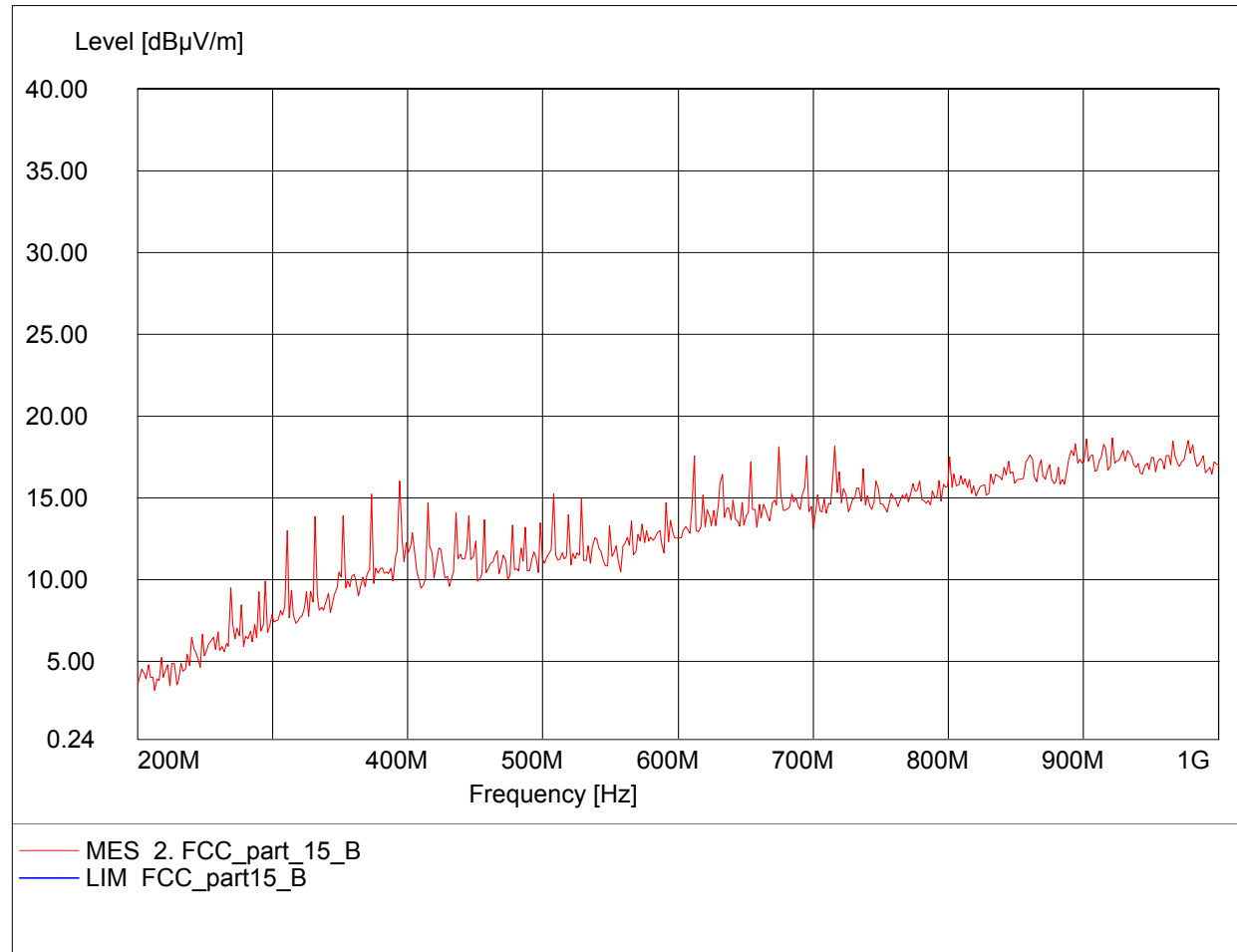


Antenna vertical

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to subpart B
Comment 1: Handset Unit Receive Low Channel: 911MHz
Dist.: 3m, Ant.: HL 223, ampl.
Freq:921.443MHz Emax:18.68dBμV/m RBW: 100 kHz

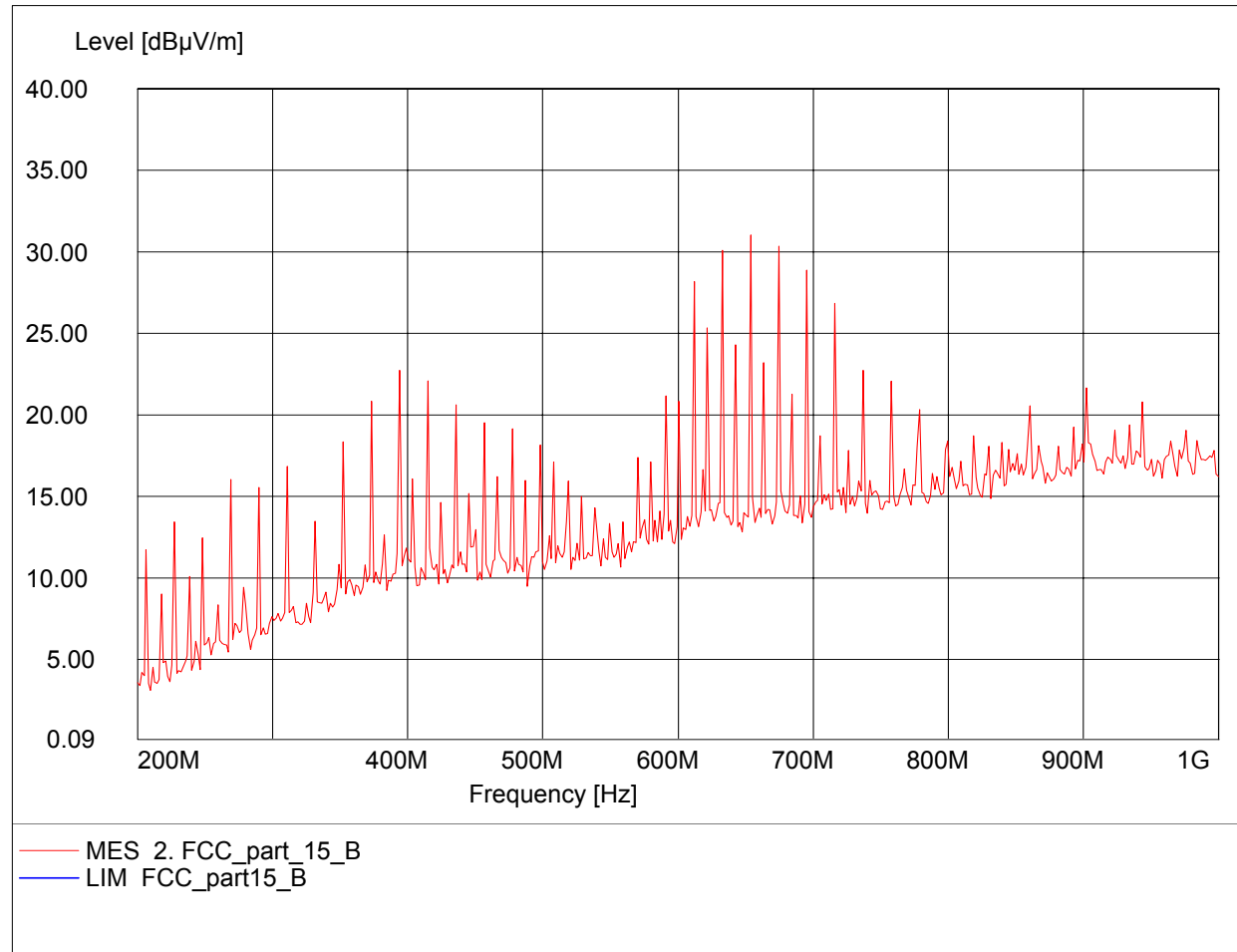


Antenna horizontal

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to subpart B
Comment 1: Handset Unit Receive Low Channel: 911MHz
Dist.: 3m, Ant.: HL 223, ampl.
Freq:653.707MHz Emax:31.03dBμV/m RBW: 100 kHz

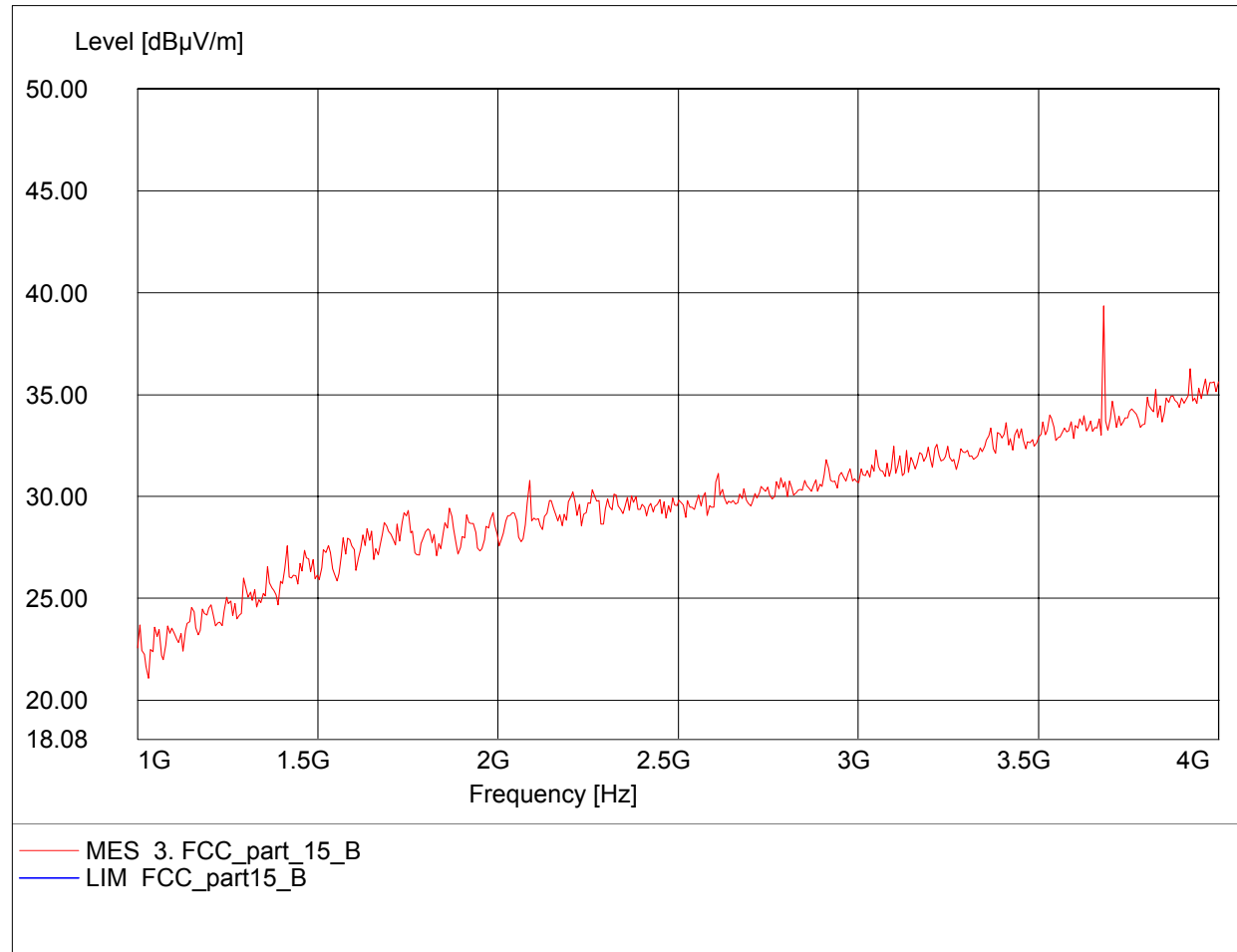


Antenna vertical

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to subpart B
Comment 1: Handset Unit Receive Low Channel: 911MHz
Dist.: 3m, Ant.: HL25, ampl.
Freq:3.681GHz Emax:39.35dBμV/m RBW: 1 MHz

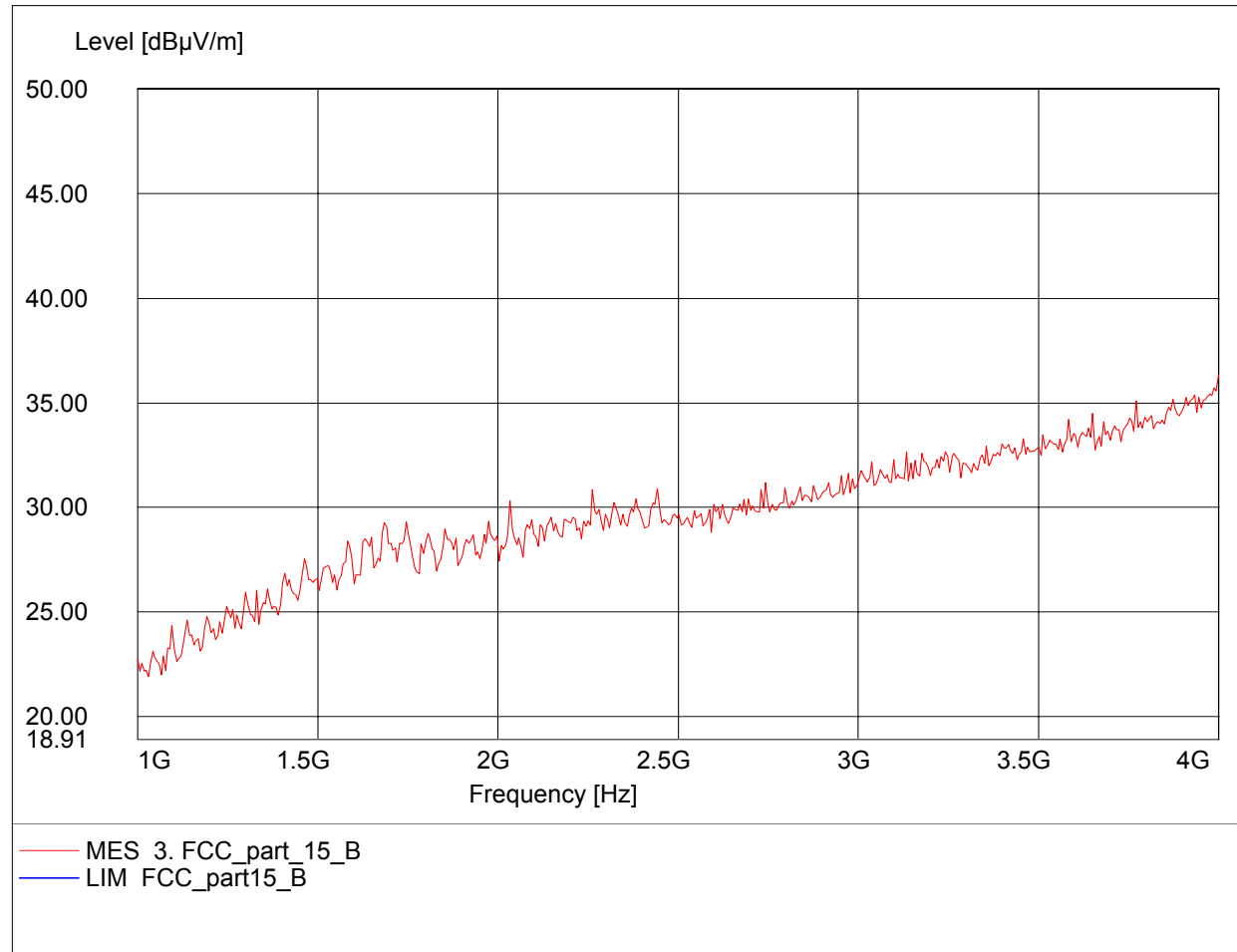


Antenna horizontal

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to subpart B
Comment 1: Handset Unit Receive Low Channel: 911MHz
Dist.: 3m, Ant.: HL25, ampl.
Freq:4.000GHz Emax:36.33dBμV/m RBW: 1 MHz

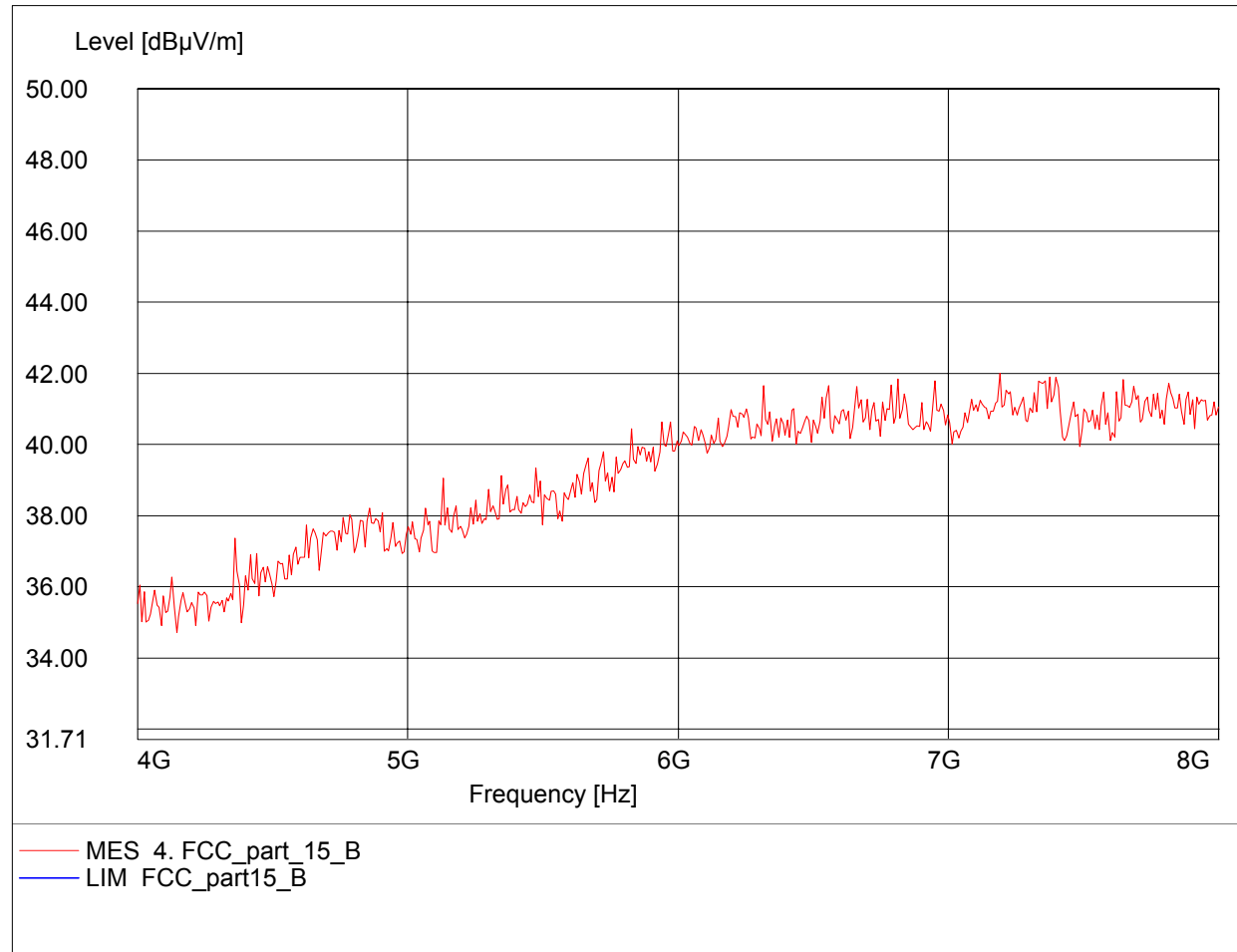


Antenna vertical

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to subpart B
Comment 1: Handset Unit Receive Low Channel: 911MHz
Dist.: 3m, Ant.: HL25, ampl.
Freq:7.190GHz Emax:42.01dBμV/m RBW: 1 MHz

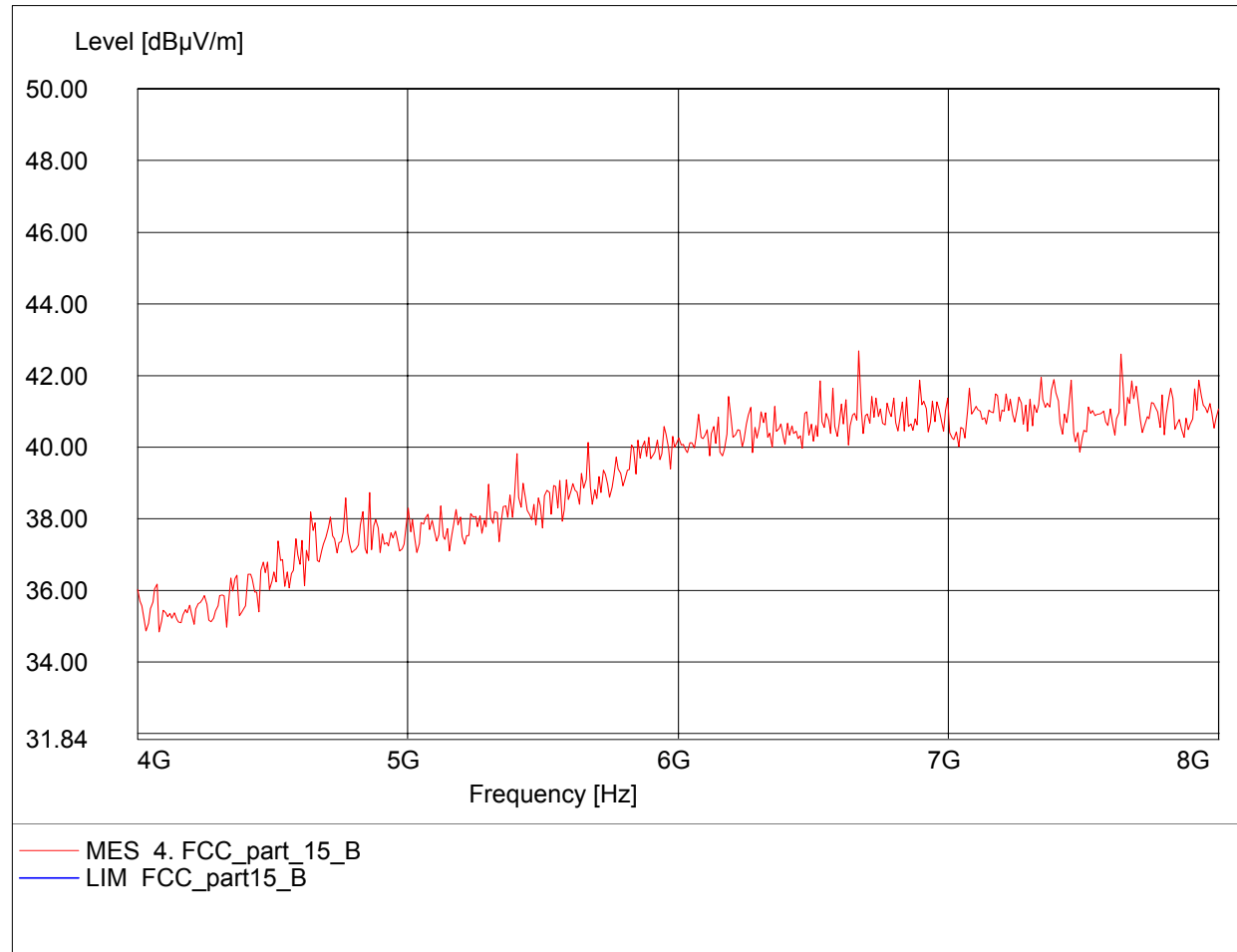


Antenna horizontal

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to subpart B
Comment 1: Handset Unit Receive Low Channel: 911MHz
Dist.: 3m, Ant.: HL25, ampl.
Freq:6.669GHz Emax:42.70dBμV/m RBW: 1 MHz

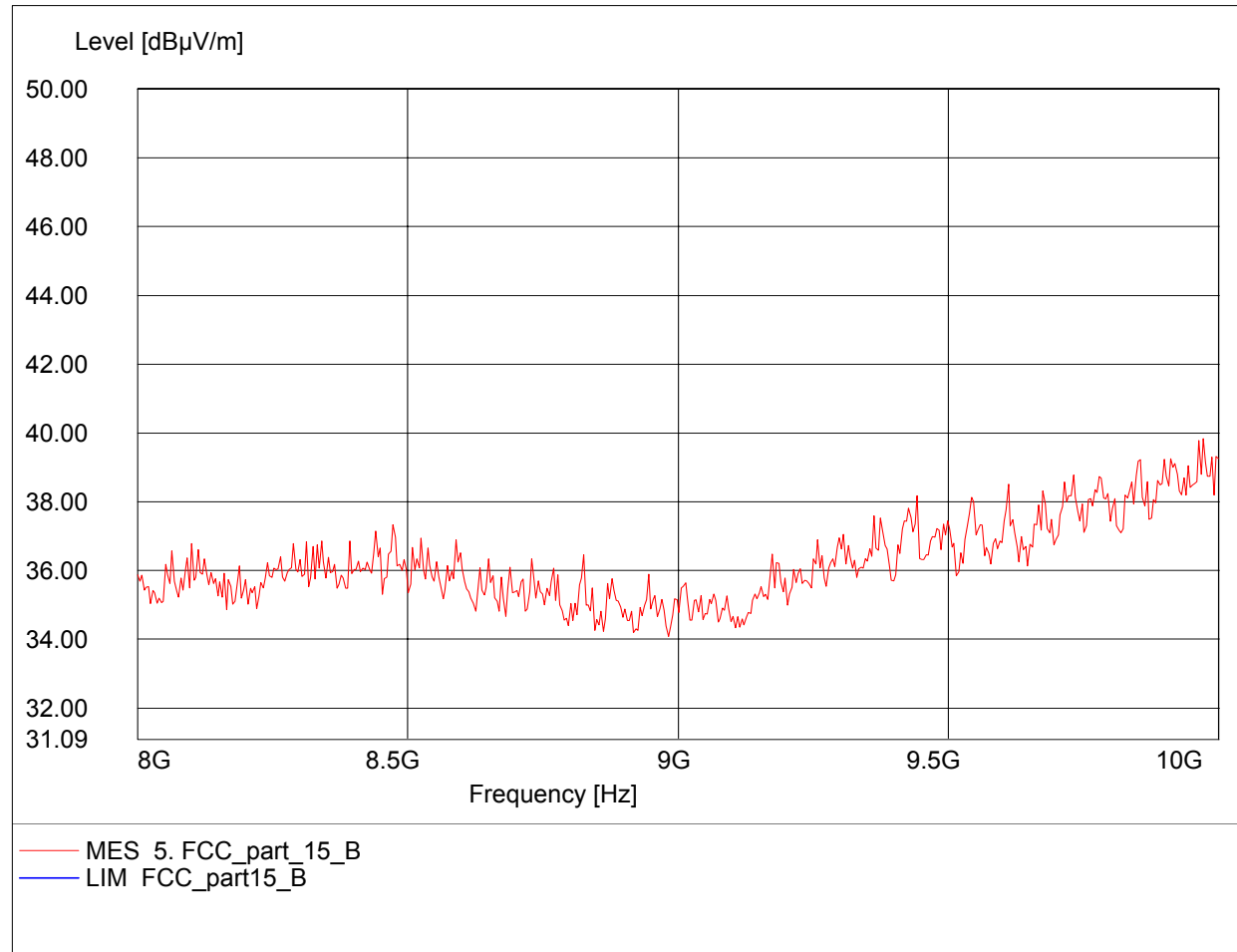


Antenna vertical

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to subpart B
Comment 1: Handset Unit Receive Low Channel: 911MHz
Dist.: 3m, Ant.: HL25, ampl.
Freq:9.972GHz Emax:39.83dBμV/m RBW: 1 MHz

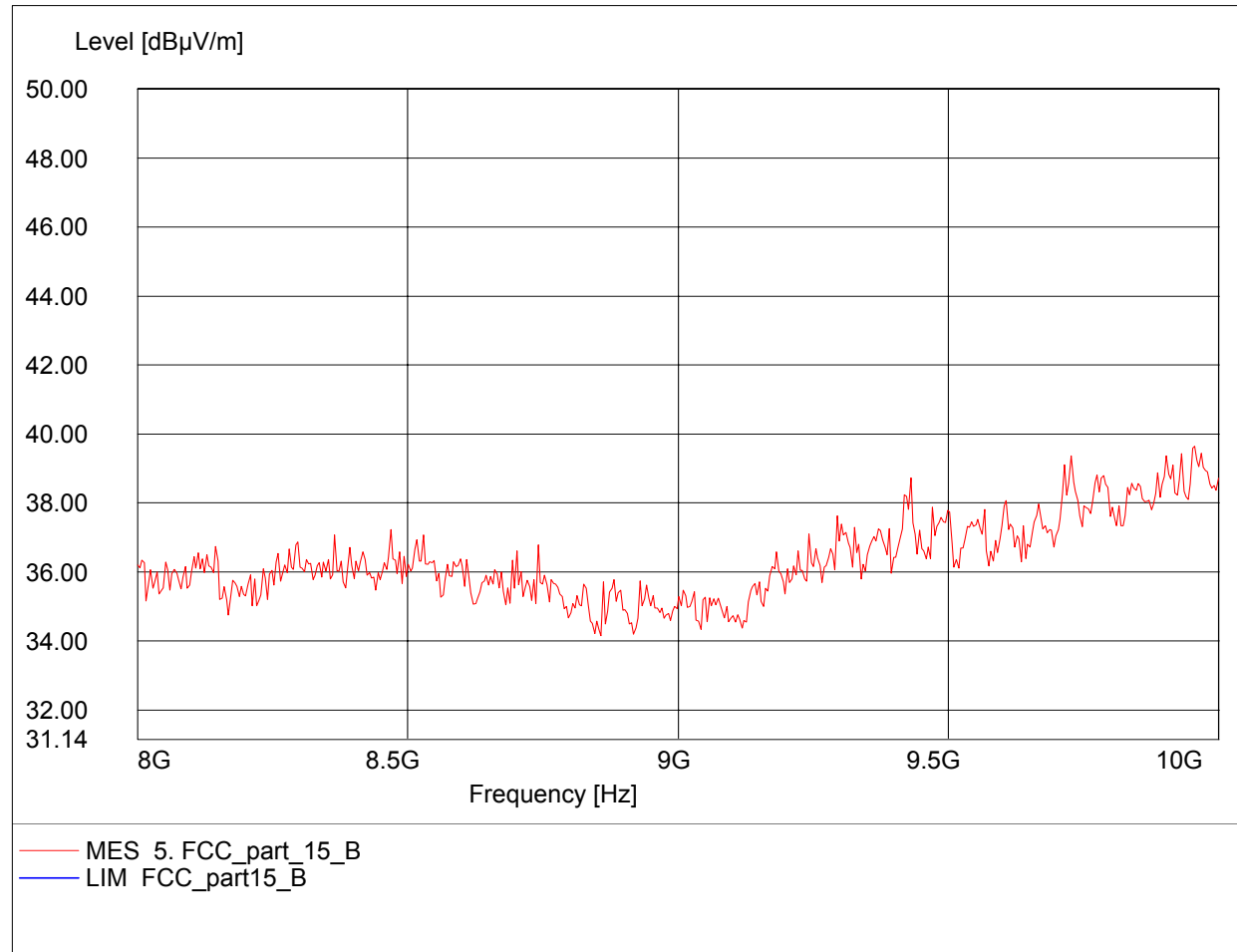


Antenna horizontal

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to subpart B
Comment 1: Handset Unit Receive Low Channel: 911MHz
Dist.: 3m, Ant.: HL25, ampl.
Freq:9.956GHz Emax:39.64dBμV/m RBW: 1 MHz

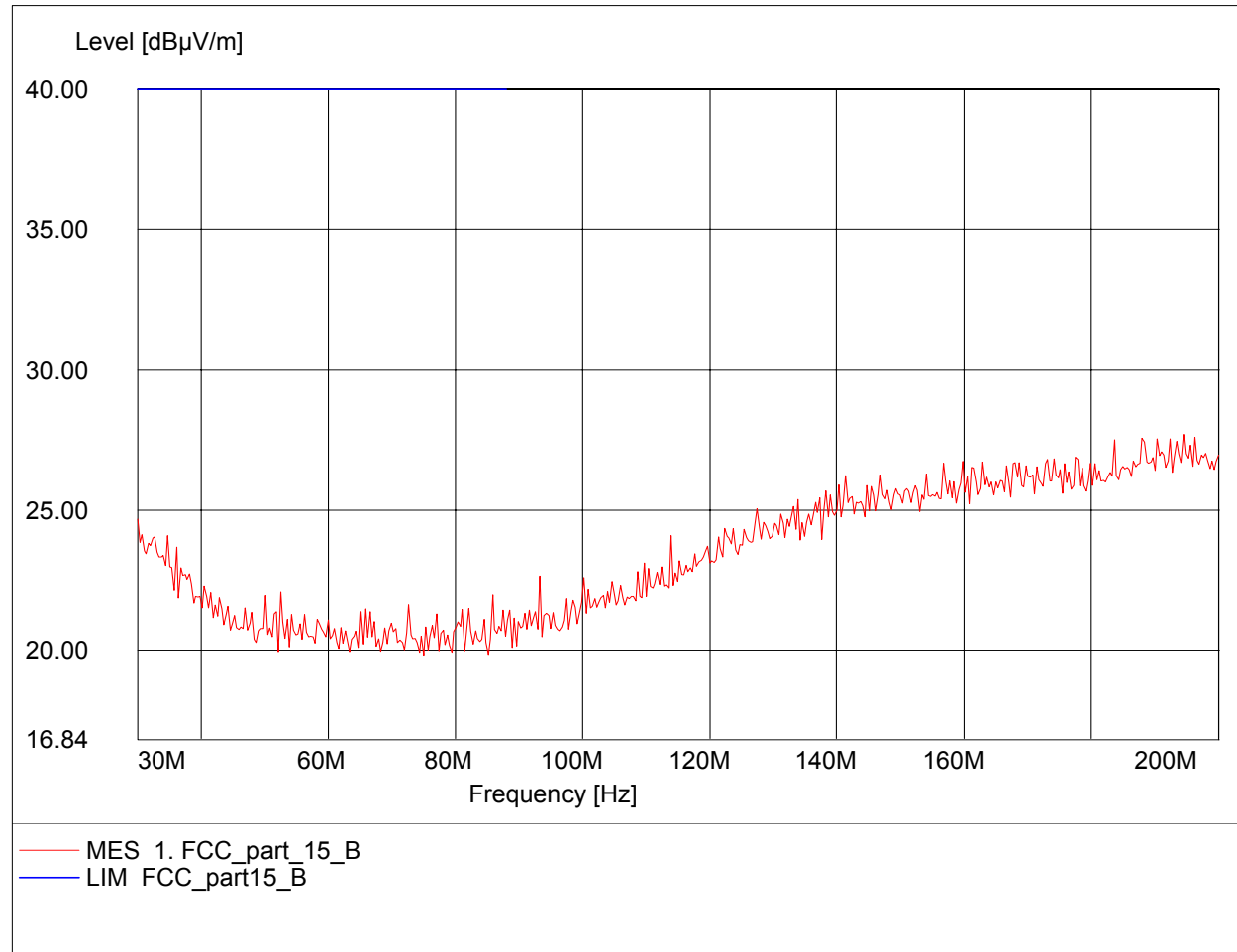


Antenna vertical

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to subpart B
Comment 1: Handset Unit Receive High Channel: 920.8MHz
Dist.: 3m, Ant.: HK 116
Freq:194.549MHz Emax:27.71dB μ V/m RBW: 100 kHz

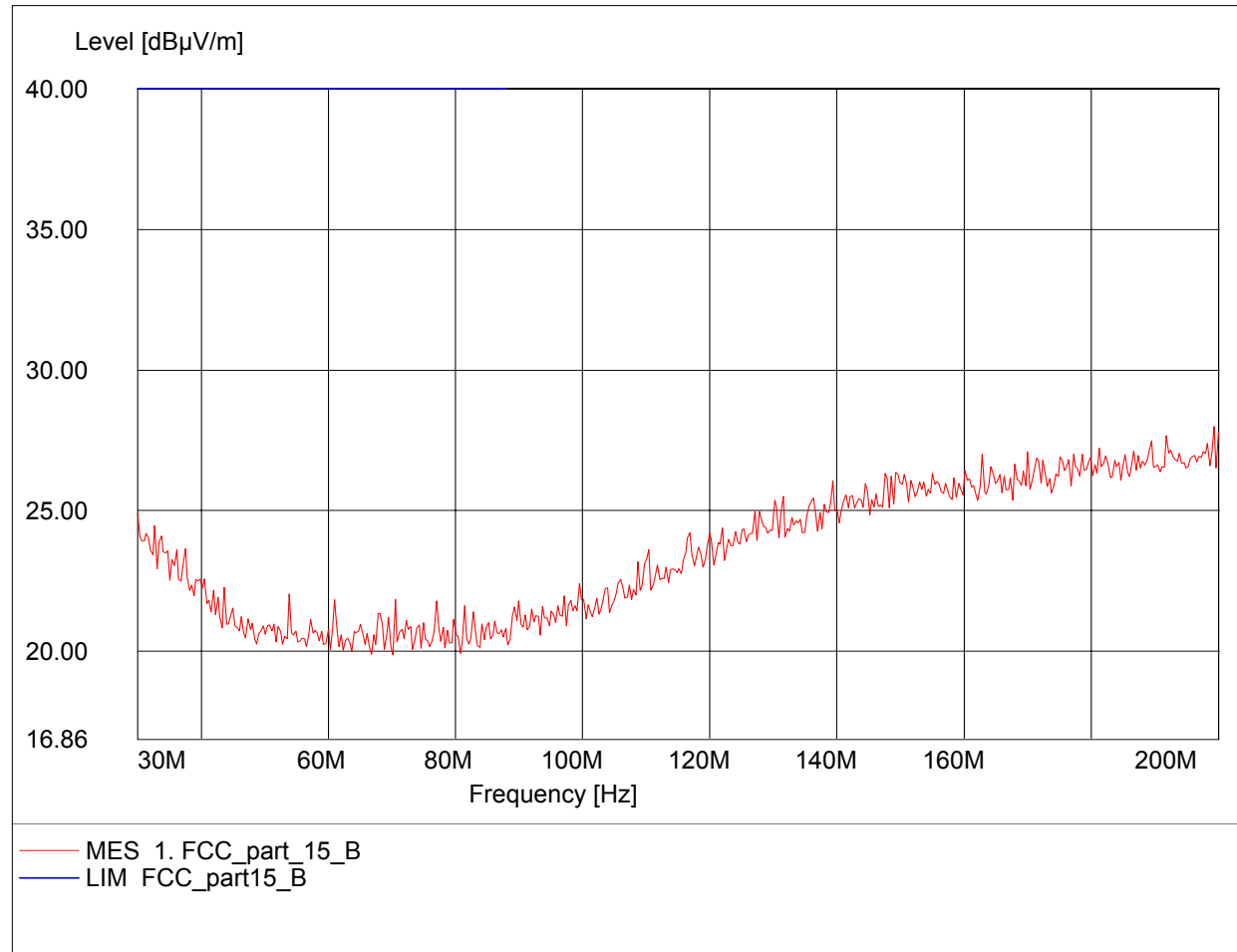


Antenna horizontal

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to subpart B
Comment 1: Handset Unit Receive High Channel: 920.8MHz
Dist.: 3m, Ant.: HK 116
Freq:199.319MHz Emax:27.99dBμV/m RBW: 100 kHz

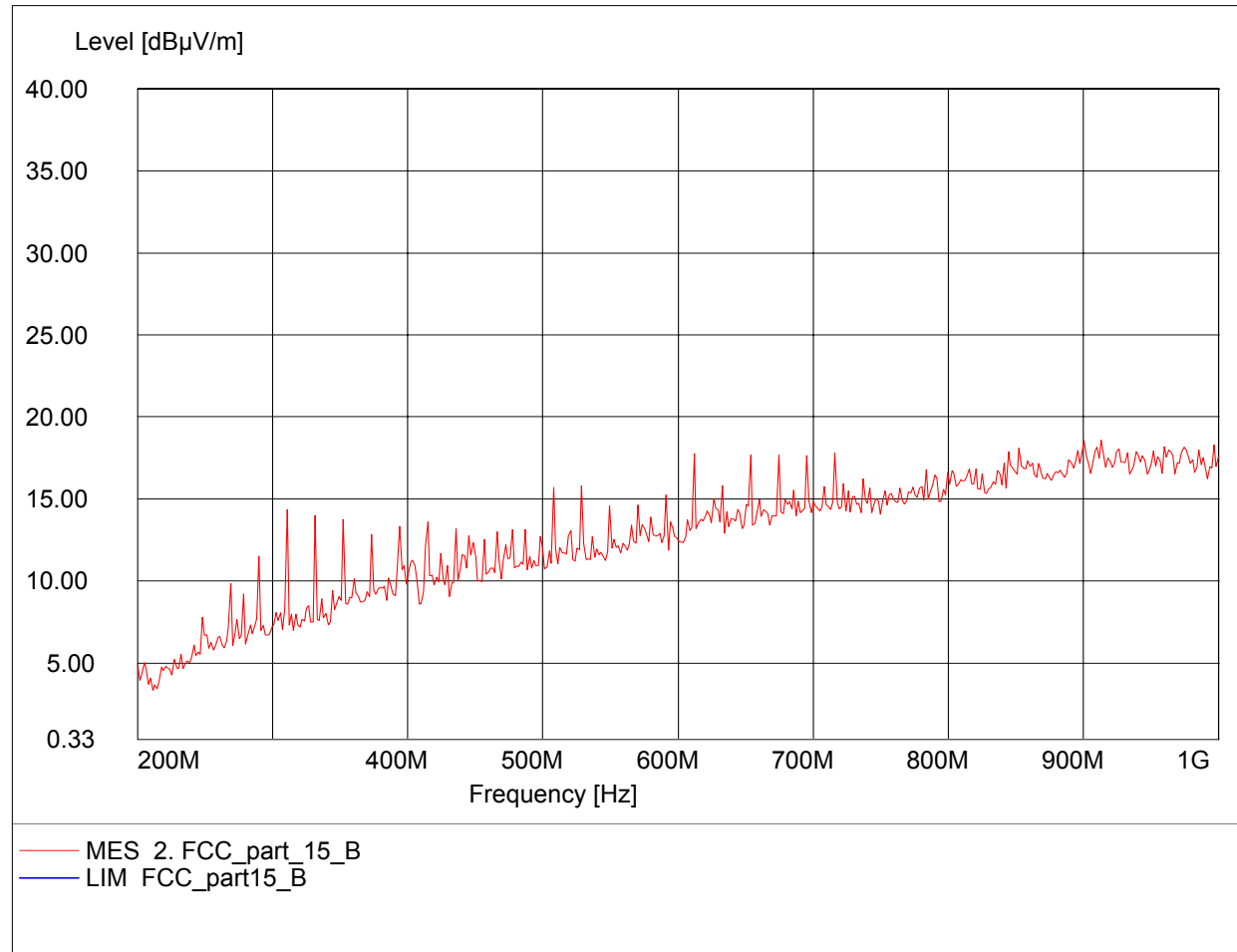


Antenna vertical

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to subpart B
Comment 1: Handset Unit Receive High Channel: 920.8MHz
Dist.: 3m, Ant.: HL 223, ampl.
Freq:913.427MHz Emax:18.59dBμV/m RBW: 100 kHz

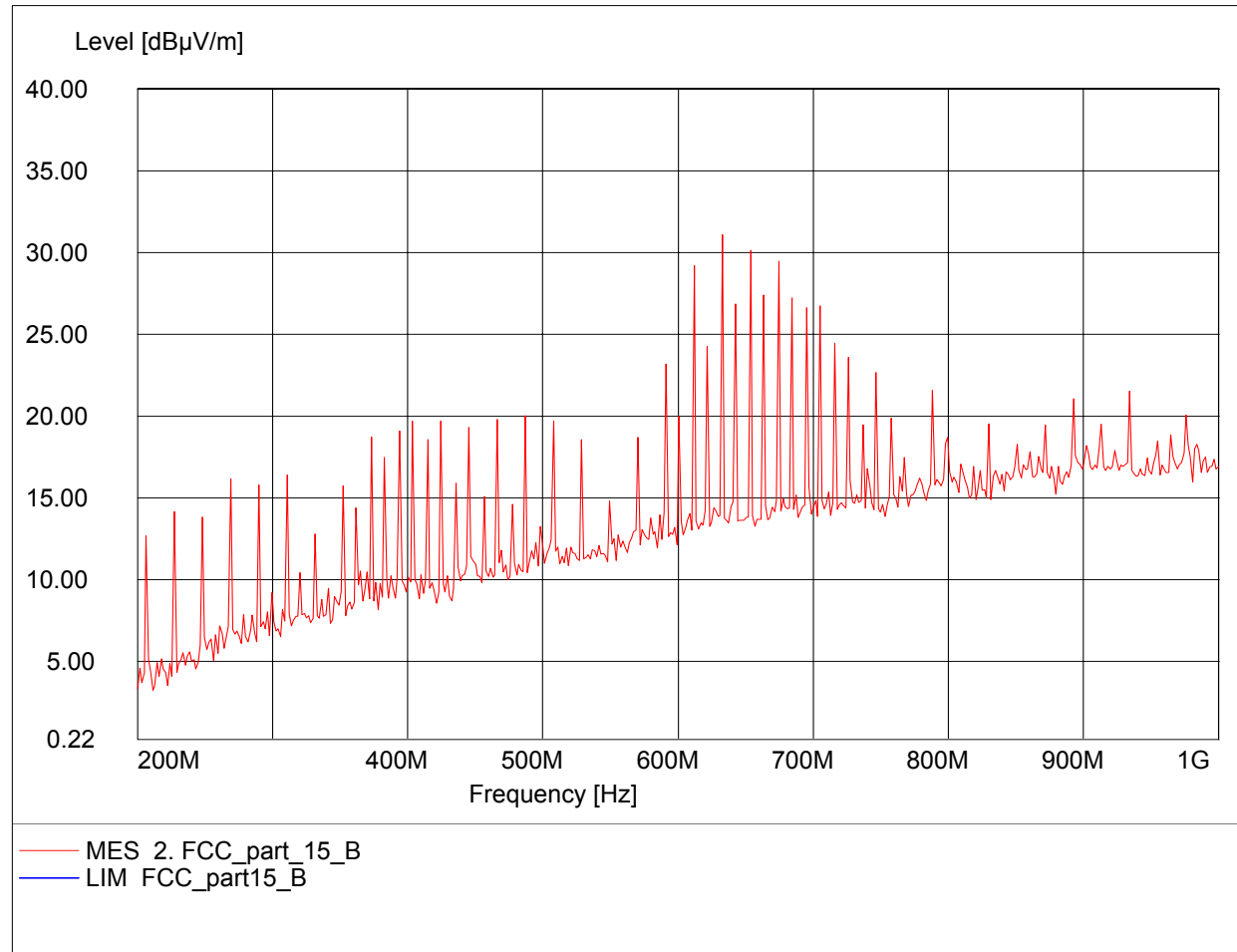


Antenna horizontal

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to subpart B
Comment 1: Handset Unit Receive High Channel: 920.8MHz
Dist.: 3m, Ant.: HL 223, ampl.
Freq:632.866MHz Emax:31.08dBμV/m RBW: 100 kHz

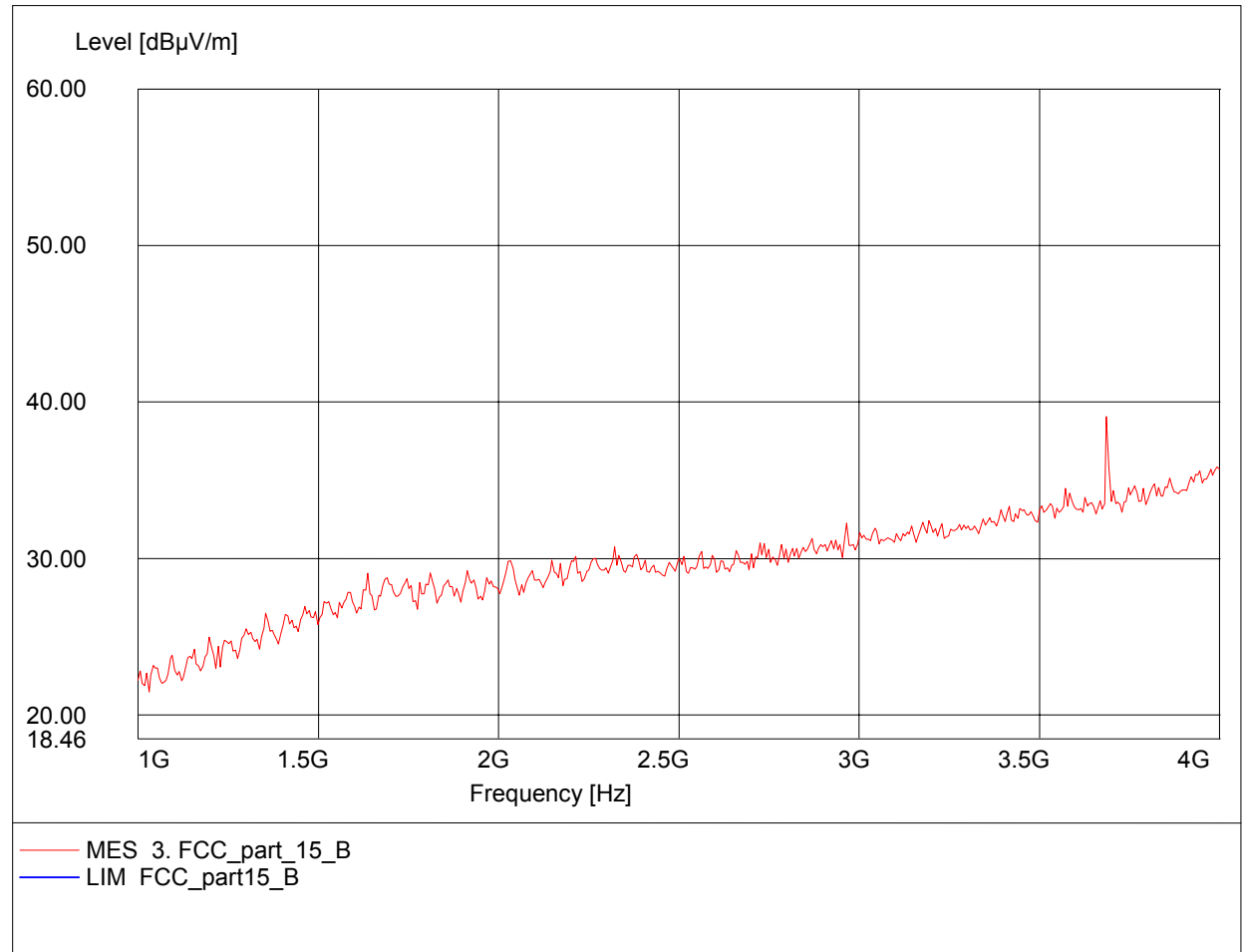


Antenna vertical

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to subpart B
Comment 1: Handset Unit Receive High Channel: 920.8MHz
Dist.: 3m, Ant.: HL25, ampl.
Freq:3.687GHz Emax:39.09dBμV/m RBW: 1 MHz

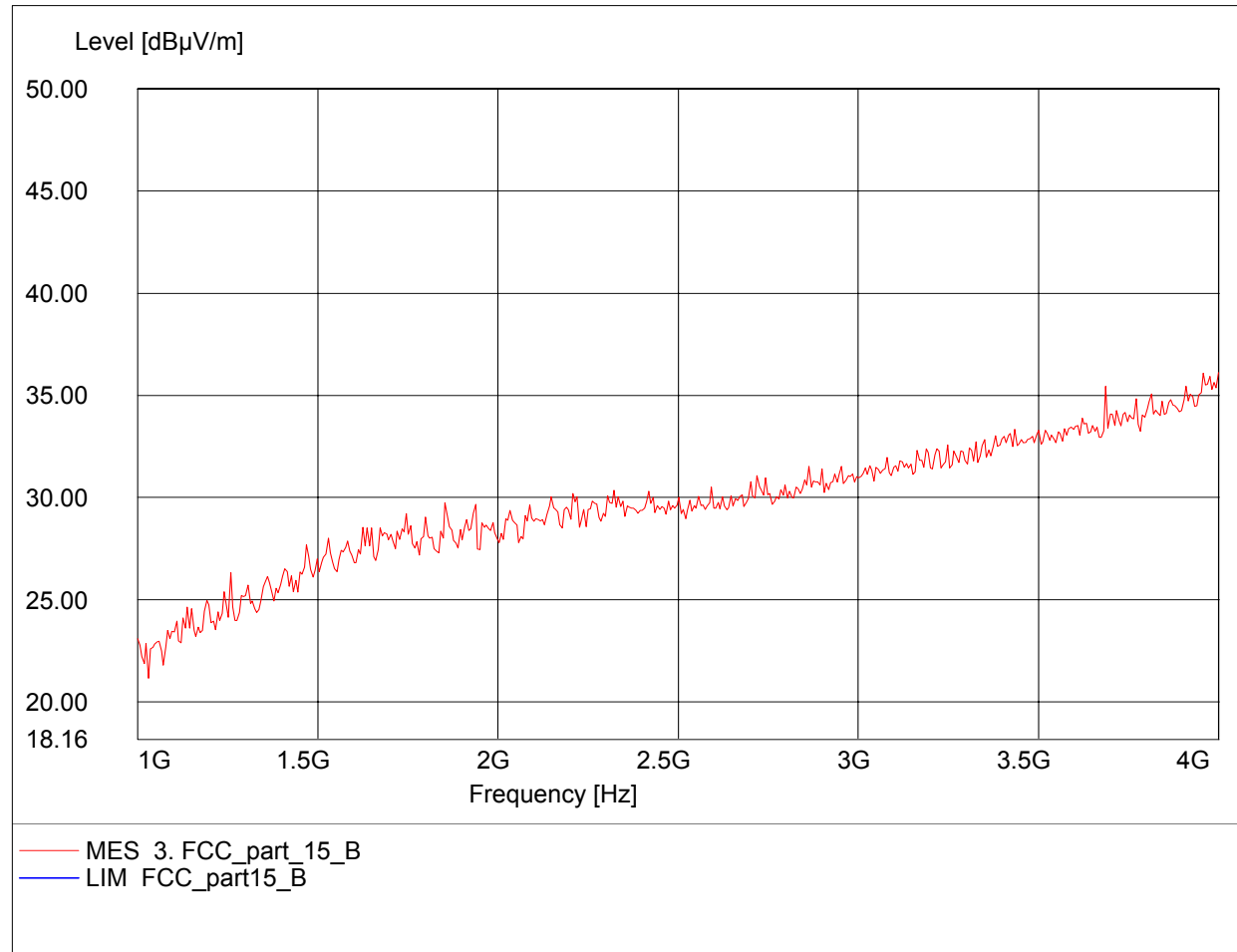


Antenna horizontal

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to subpart B
Comment 1: Handset Unit Receive High Channel: 920.8MHz
Dist.: 3m, Ant.: HL25, ampl.
Freq:4.000GHz Emax:36.13dBμV/m RBW: 1 MHz

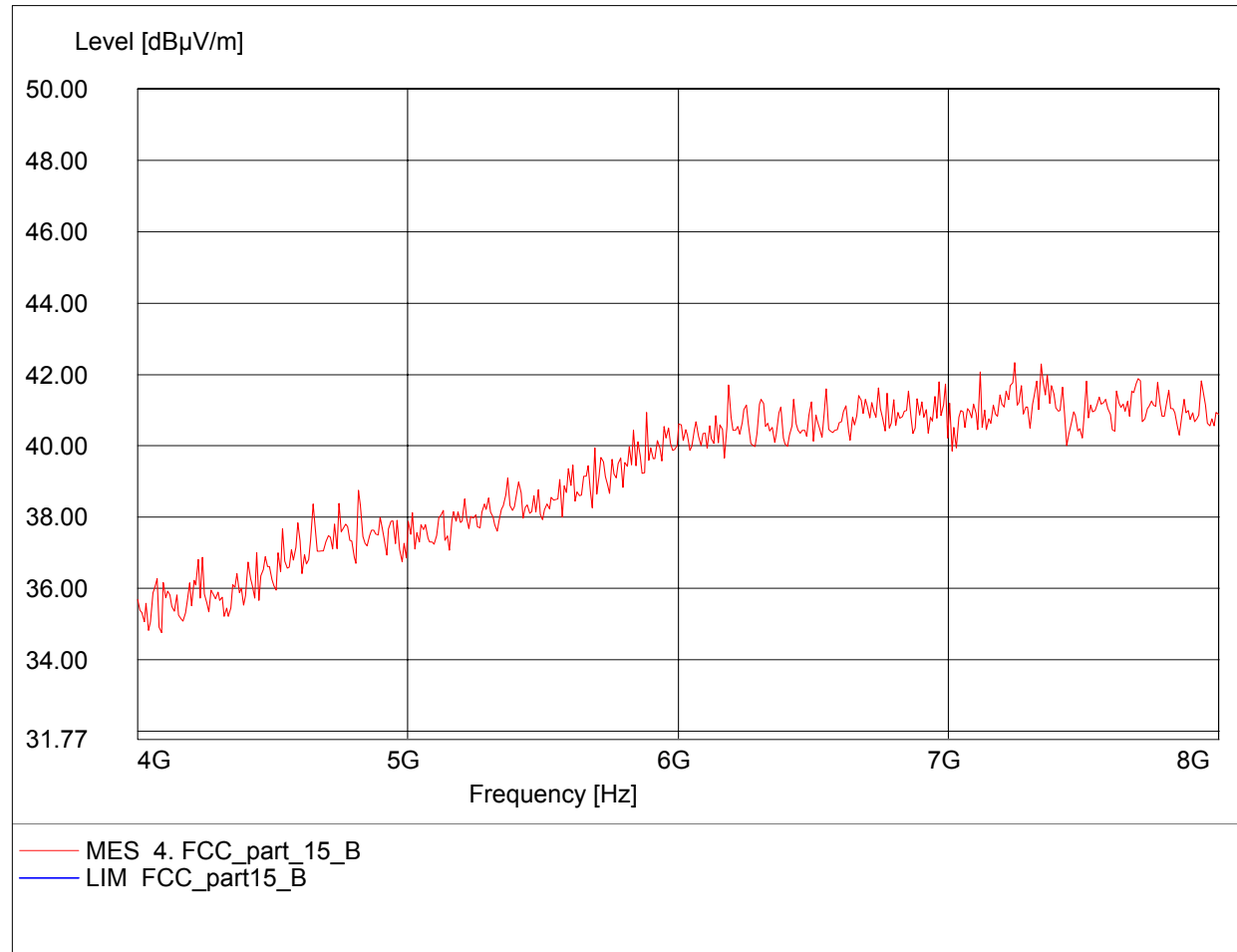


Antenna vertical

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to subpart B
Comment 1: Handset Unit Receive High Channel: 920.8MHz
Dist.: 3m, Ant.: HL25, ampl.
Freq:7.246GHz Emax:42.34dBμV/m RBW: 1 MHz

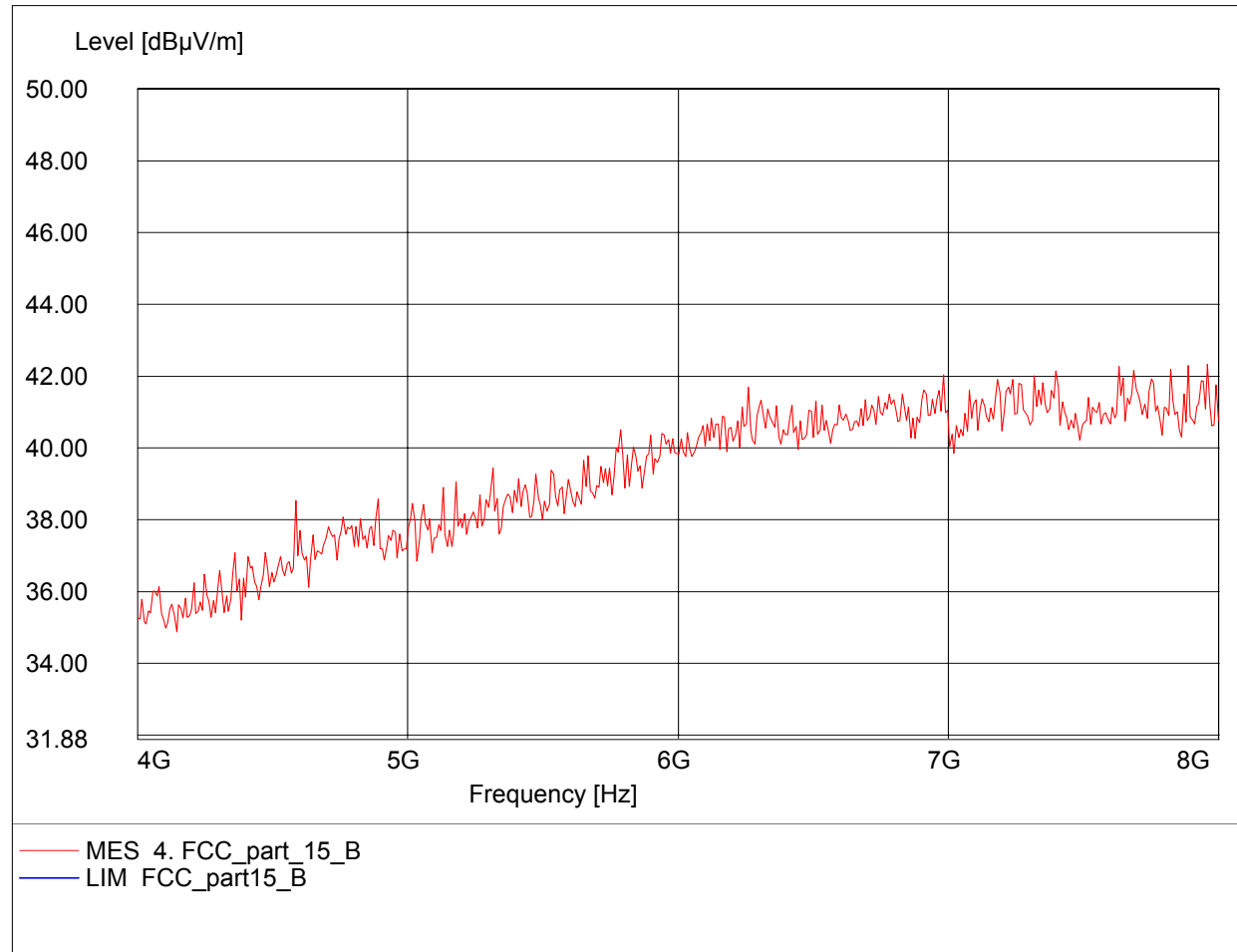


Antenna horizontal

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to subpart B
Comment 1: Handset Unit Receive High Channel: 920.8MHz
Dist.: 3m, Ant.: HL25, ampl.
Freq:7.960GHz Emax:42.34dBμV/m RBW: 1 MHz

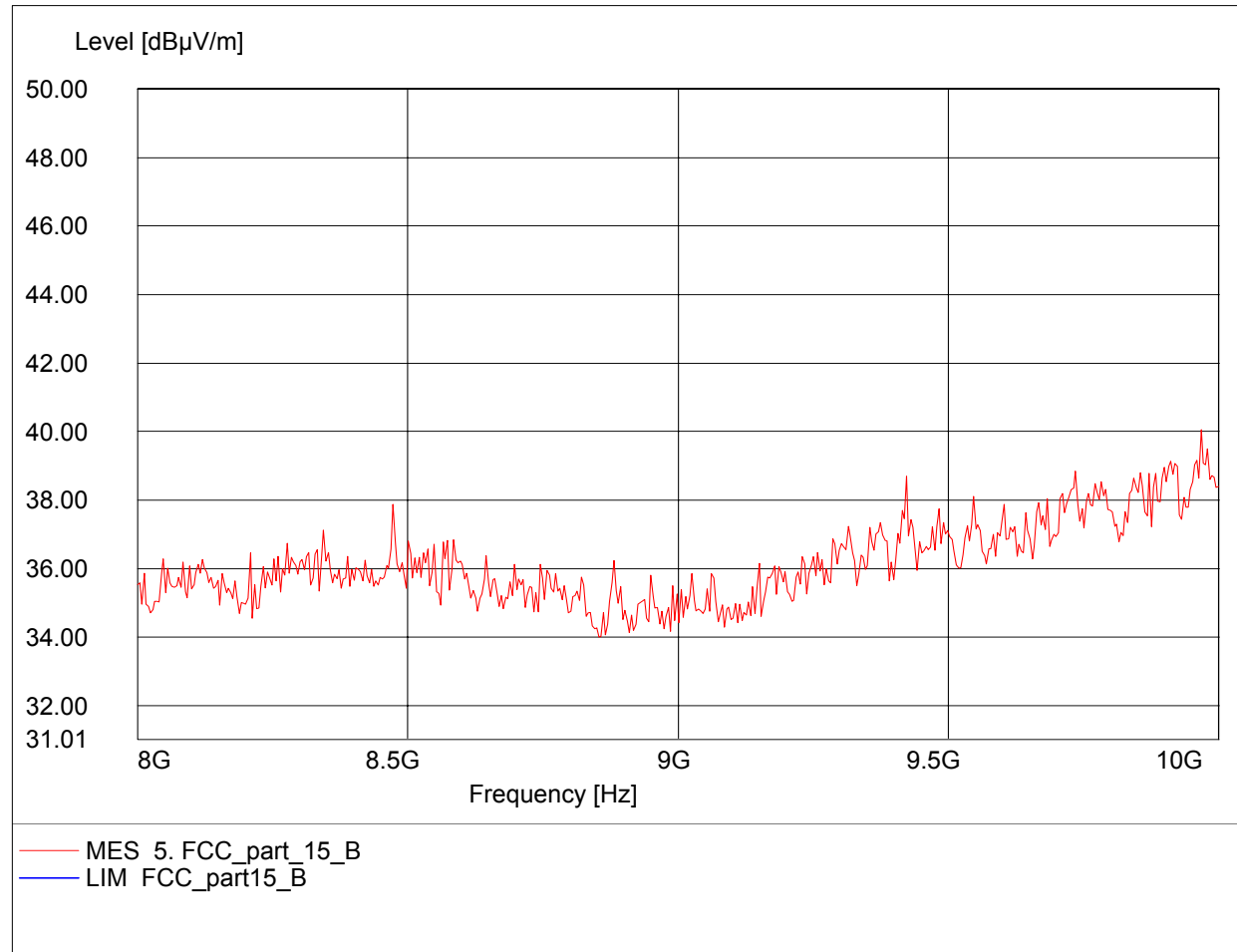


Antenna vertical

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to subpart B
Comment 1: Handset Unit Receive High Channel: 920.8MHz
Dist.: 3m, Ant.: HL25, ampl.
Freq:9.968GHz Emax:40.05dBμV/m RBW: 1 MHz

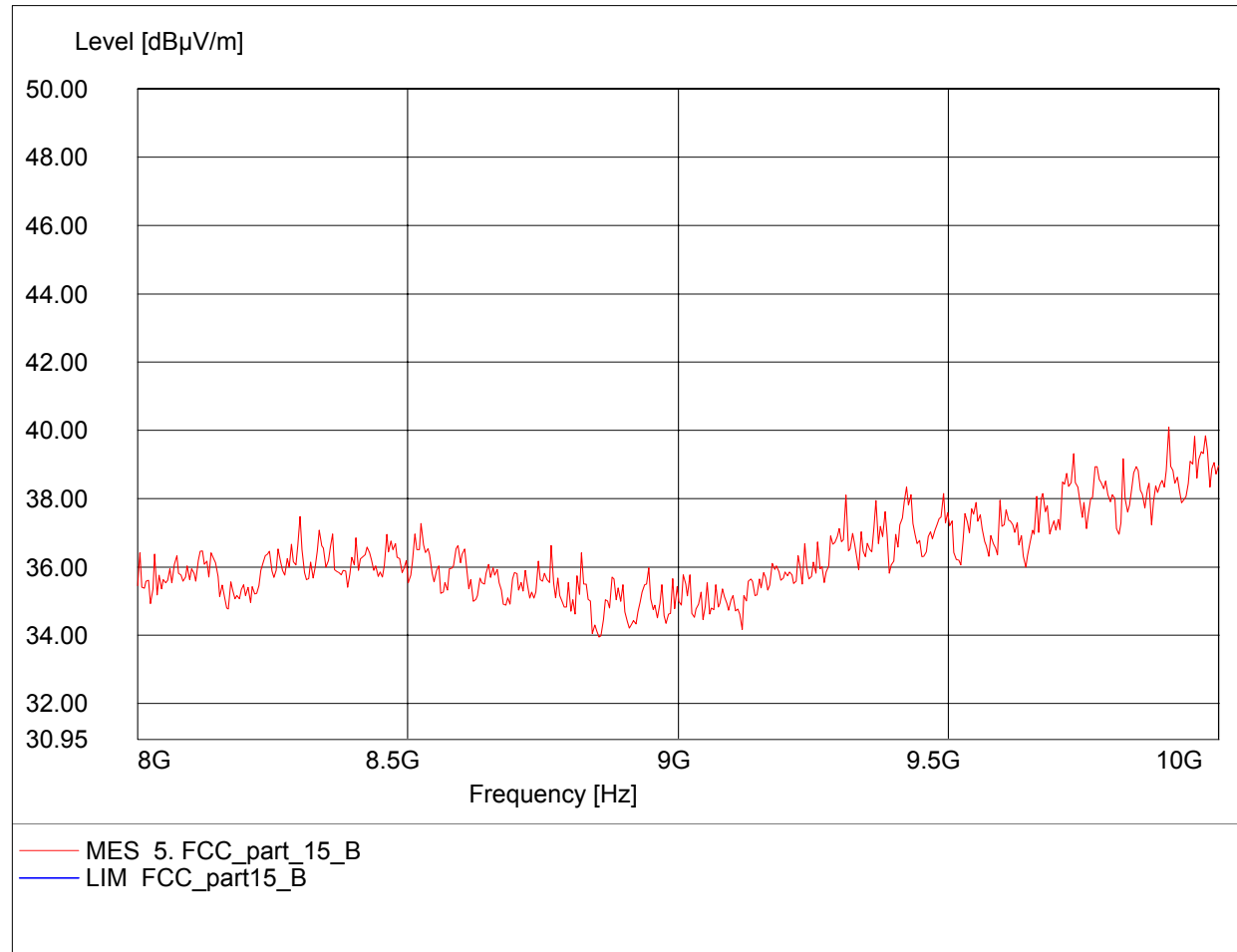


Antenna horizontal

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Test Report No.: H1M20804-6775
Test Site / Operator: ETSPS / Mr. Michael
Temperature/Voltage: Temp.: 23°C/ Unom.: 4.8V rechargeable Ni-MH battery
Test Specification: according to subpart B
Comment 1: Handset Unit Receive High Channel: 920.8MHz
Dist.: 3m, Ant.: HL25, ampl.
Freq:9.908GHz Emax:40.10dBμV/m RBW: 1 MHz



Antenna vertical