ETS Dr.Genz Taiwan PS Co., Ltd.

FCC Registration No.: 930600

Industry Canada filed test laboratory Reg. No. IC 5679

Accredited Testing Laboratory

A2LA Cert.No.: 2300.01

PTCRB Accredited Type Certification Test House

FCC

TEST - REPORT

FCC RULES PART 15 / SUBPART C § 15.249

FCC ID : UJ96570

Test report no.:

W6M20607-7129-P-15

ETS DR.GENZ TAIWAN PS CO., LTD.
6F, NO. 58, LANE 188, RUEY-KUANG RD., NEIHU, TAIPEI 114, TAIWAN, R.O.C.
PHONE 886-2-66068877 FAX 886-2-66068879

Registration number: W6M20607-7129-P-15
FCC ID: UJ96570

TABLE OF CONTENTS

Registration number: W6M20607-7129-P-15
FCC ID: UJ96570

1 General Information

1.1 Notes

The purpose of conformity testing is to increase the probability of adherence to the essential requirements or conformity specifications, as appropriate.
The complexity of the technical specifications, however, means that full and thorough testing is impractical for both technical and economic reasons.
Furthermore, there is no guarantee that a test sample which has Passed all the relevant tests conforms to a specification.
Neither is there any guarantee that such a test sample will interwork with other genuinely open systems.
The existence of the tests nevertheless provides the confidence that the test sample possesses the qualities as maintained and that is performance generally conforms to representative cases of communications equipment.

The test results of this test report relate exclusively to the item tested as specified in 1.5.
The test report may only be reproduced or published in full.
Reproduction or publication of extracts from the report requires the prior written approval of the ETS DR. GENZ TAIWAN PS CO., LTD.

Tester:

Sep 11, 2006		Jay Chaing	Jay Chaing
Date	ETS-Lab.	Name	Signature

Technical responsibility for area of testing:

Sep 11, 2006		Steven Chuang	Steven Chuang
Date	ETS	Name	Signature

Registration number: W6M20607-7129-P-15
FCC ID: UJ96570

1.2 Testing laboratory

1.2.1 Location

OATS
No.5-1, Shuang Sing Village,
LiShuei Rd., Wanli Township,
Taipei County 207, Taiwan (R.O.C.)

Company
ETS DR.GENZ TAIWAN PS CO., LTD
6F, NO. 58, LANE 188, RUEY-KUANG RD.
NEIHU, TAIPEI 114, TAIWAN R.O.C.
Tel : 886-2-66068877
Fax : 886-2-66068879

1.2.2 Details of accreditation status

Accredited testing laboratory

A2LA-registration number: 2300.01

FCC filed test laboratory Reg. No. 930600

Industry Canada filed test laboratory Reg. No. IC 5679

PTCRB Accredited Type Certification Test House

1.3 Details of approval holder

Name:	I-ROCKS TECHNOLOGY CO., LTD.
Street:	12F, No. 190, Chung-hsin Rd., Sec. 2, Hsin-tien City,
Town:	Taipei, 23146
Country:	Taiwan, R.O.C.
Telephone:	+886-2-2911-3080
Fax:	+886-2-2914-1712
Teletex:	./.

Registration number: W6M20607-7129-P-15
FCC ID: UJ96570

1.4 Application details

Date of receipt of application	:	July 03, 2006
Date of receipt of test item	:	Aug 29, 2006
Date of test	:	From Aug 30, 2006 to Sep 11, 2006

1.5 General information of Test item

Type of test item : X-Slim 2.4G Cordless Keyboard

Model Number : RF-6570

Serial number : RF-6590, RF-6510, RF-6520

Brand Name : I-ROCKS

Photos : see Annex

Technical data

Frequency band : 2.400-2.4835GHz

Operation Frequency : 2.410-2.473 GHz

Frequency 1 : 2.410 GHz

Frequency 2 : 2.437 GHz

Frequency 3 : 2.473 GHz

Operation modes : duplex

Modulation Type : FSK

Antenna type : PCB antenna

Power supply : 3 VDC (1.5V* 2 Batteries)

Registration number: W6M20607-7129-P-15
FCC ID: UJ96570

Manufacturer:
(if different from applicant)

Name : JING MOLD ELECTRONICS TECHNOLOGY CO., LTD
Street : XinQiao, 3rd Industrial Estate, Shajing Paoan,
Town : Shenzhen,
Country : China

Additional information: ./.

1.6 Test standards

Technical standard : FCC RULES PART 15 SUBPART B /
SUBPART C § 15.249 : September 2005

Registration number: W6M20607-7129-P-15
FCC ID: UJ96570

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 2.5 were ascertained in the course of the tests performed. ☐

2.2 Test environment

Temperature	: 23 °C
Relative humidity content	: 20 ... 75 %
Air pressure	: 86 ... 103 kPa
Details Power supply	: 3 VDC (1.5V* 2 Battery)
Extreme conditions parameters	: Not required

2.3 Test Equipment List

No.	Test equipment	Type	Serial No.	Manufacturer	Cal. Date	Next Cal. Date
ETSTW-CE 001	EMI TEST RECEIVER	ESHS10	842121/013	R&S	2005/10/27	2006/10/26
ETSTW-CE 003	AC POWER SOURCE	APS-9102	D161137	GW	Function Test	
ETSTW-CE 004	ZWEILEITER-V-NETZNACHBILDUNG TWO-LINE V-NETWORK	ESH3-Z5	840731/011	R&S	2005/10/25	2006/10/24
ETSTW-CE 005	Line-Impedance Stabilisation Network	NNBM 8126D	137	Schwarzbeck	2005/10/21	2006/10/20
ETSTW-CE 006	IMPULS-BEGRENZER PULSE LIMITER	ESH3-Z2	100226	R&S	2004/11/11	2006/11/10
ETSTW-CE 008	ABSORBING CLAMP	MDS 21	3469	ABSORPTIONS-MESSWANDLER-ZANGE	2005/10/24	2007/10/23
ETSTW-CE 009	TEMP.&HUMIDITY CHAMBER	GTH-225-40-1P-U	MAA0305-009	GIANT FORCE	2006/8/17	2007/8/16
ETSTW-CE 011	Power Line Conducted Emission Only	None	None	ETS	2005/10/25	2006/10/24
ETSTW-CE 012	Dual-Phase-V-Network	NNB-2/16Z	03/10201	Telemeter	2006/6/13	2007/6/12
ETSTW-RE 002	Function Generator	33220A	MY43004982	Agilent	2005/10/14	2007/10/13
ETSTW-RE 003	EMI TEST RECEIVER	ESI 26	831438/001	R&S	2005/10/24	2006/10/23
ETSTW-RE 004	EMI TEST RECEIVER	ESI 40	832427/004	R&S	2005/10/29	2006/10/30
ETSTW-RE 005	EMI TEST RECEIVER	ESVS10	843207/020	R&S	2005/10/16	2006/10/15
ETSTW-RE 010	PROGRAMMABLE LINEAR POWER SUPPLY	LPS-305	30503070181	MOTECH	Function Test	
ETSTW-RE 011	PROGRAMMABLE LINEAR POWER SUPPLY	LPS-305	30503070165	MOTECH	Function Test	
ETSTW-RE 017	ANTENNA	HL025	352886/001	R&S	2006/5/4	2008/5/3
ETSTW-RE 018	ANTENNA	AT4560	27212	AR	2004/11/8	2007/11/7
ETSTW-RE 021	SWEEP GENERATOR	SWM05	835130/010	R&S	2005/10/14	2006/10/13
ETSTW-RE 022	AMPLIFIER	8447D	2944A09837	Agilent	2005/10/14	2006/10/13
ETSTW-RE 027	Passive Loop Antenna	6512	34563	EMCO	2004/6/30	2007/6/29
ETSTW-RE 028	Log-Periodic DipoleArray Antenna	3148	34429	EMCO	2006/5/26	2008/5/25
ETSTW-RE 029	Biconical Antenna	3109	33524	EMCO	2006/5/26	2008/5/25
ETSTW-RE 030	Double-Ridged Waveguide Horm Antenna	3117	35224	EMCO	2006/5/3	2008/5/2
ETSTW-RE 032	Millivoltmeter	URV 55	849086/013	R&S	2005/10/17	2006/10/16
ETSTW-RE 033	4CH 1GHz 5GS/s DSO	WAVERUNNER 6100A	LCRY0604P14508	LeCory	2006/7/27	2007/7/26
ETSTW-RE 034	Power Sensor	URV5-Z4	839313/006	R&S	2005/10/17	2006/10/16
ETSTW-RE 037	Log-Periodic DipoleArray Antenna	3148	00034546	EMCO	2004/11/18	2006/11/17
ETSTW-RE 038	Log-Periodic DipoleArray Antenna	3148	00034547	EMCO	2004/11/18	2006/11/17
ETSTW-RE 039	Biconical Antenna	3110B	41760	EMCO	2004/11/18	2006/11/17
ETSTW-RE 040	Biconical Antenna	3110B	41761	EMCO	2004/11/18	2006/11/17
ETSTW-RE 042	ANTENNA	HK116	100172	R&S	2005/1/14	2007/1/13

Registration number: W6M20607-7129-P-15
FCC ID: UJ96570

ETSTW-RE 043	ANTENNA	HL223	100166	R&S	2006/5/8	2008/5/7
ETSTW-RE 044	ANTENNA	HL050	100094	R&S	2006/5/29	2008/5/28
ETSTW-RE 048	Triple Loop Antenna	HXYZ 9170	HXYZ 9170-134	Schwarzbeck	2005/3/22	2008/3/21
ETSTW-RE 049	TRILOG Super Broadband test Antenna	VULB 9160	9160-3185	Schwarzbeck	2005/5/19	2007/5/18
ETSTW-RE 055	SPECTRUM ANALYZER	FSU-26	200074	R&S	2006/7/28	2007/7/27
ETSTW-EMI 001	HARMONICS 1000	HAR1000-1P	93	EMC-PARTNER	2006/9/11	2007/9/10
ETSTW-EMS 002	Frequency Converter	YF-6020	0308014	T-Power	Function Test	
ETSTW-EMS 013	CISPR 22 TWO BALANCED TELECOM PAIRS IMPEDANCE STABILIZATION NETWORK	FCC-TLISN-T4-02	20242	FCC	2005/12/8	2006/12/8
ETSTW-EMS 014	CISPR 22 TWO BALANCED TELECOM PAIRS IMPEDANCE STABILIZATION NETWORK	FCC-TLISN-T2-02	20241	FCC	2005/12/7	2006/12/7
ETSTW-GSM 01	SIM Simulator	IT3	B2004-50106	ORGA	2006/7/26	2007/7/25
ETSTW-GSM 02	Universal Radio Communication Tester	CMU 200	103489	R&S	2005/11/15	2006/11/14
ETSTW-GSM 03	Agilent 8960 Test Set 1	E5515C	GB44052675	Agilent	2006/6/26	2008/6/25
ETSTW-GSM 04	Agilent 8960 Test Set 2	E5515C	GB44052665	Agilent	2006/7/13	2008/7/12
ETSTW-GSM 05	Agilent 8960 Test Set 3	E5515C	GB44052652	Agilent	2006/7/16	2008/7/15
ETSTW-GSM 06	Agilent 8960 Test Set 4	E5515C	GB44052684	Agilent	2006/7/4	2008/4/3
ETSTW-GSM 07	Agilent 8960 Test Set 5	E5515C	GB44052658	Agilent	2006/7/12	2008/7/11
ETSTW-GSM 08	Agilent 8960 Test Set 6	E5515C	GB44052666	Agilent	2006/7/6	2008/7/5
ETSTW-GSM 10	Combiner Wessex / Anite	B4605/100	053	Wessex / Anite	2006/7/13	2008/7/12
ETSTW-GSM 11	GSM 850,900,1800,1900 Test system	TS8950G		R&S	2005/11/1	2006/10/31
ETSTW-GSM 12	Acoustical Calibrator	4231	2463874	Brüel&Kjær	2005/10/31	2006/10/30
ETSTW-GSM 16	TEMP.&HUMIDITY CHAMBER	GTH-120-40-1P-U	MAA0501002	GIANT FORCE	2005/12/29	2006/12/28
ETSTW-GSM 18	AUDIO ANALYZER	UPL16	100173	R&S	2005/10/29	2006/10/28
ETSTW-GSM 24	Vibration Testing System	VS-100V	5494	Vibration	2005/12/20	2006/12/19

2.4 General Test Procedure

POWER LINE CONDUCTED INTERFERENCE: The procedure used was ANSI STANDARD C63.4-2003 using a 50µH LISN (if necessary). Both lines were observed. The bandwidth of the spectrum analyzer was 10 kHz with an appropriate sweep speed.

RADIATION INTERFERENCE: The test procedure used was according to ANSI STANDARD C63.4-2003 employing a spectrum analyzer. For investigated frequency is equal to or below 1GHz, the RBW and VBW of the spectrum analyzer was 100 kHz and 100kHz respectively with an appropriate sweep speed. For investigated frequency is above 1GHz, both of RBW and VBW of the spectrum analyzer were 1 MHz with an appropriate sweep speed. The analyzer was calibrated in dB above a microvolt at the output of the antenna. The ambient temperature of the EUT was 23°C with a humidity of 40 %.

FORMULA OF CONVERSION FACTORS: The Field Strength at 3m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of dBµV) to the antenna correction factor supplied by the antenna manufacturer. The antenna correction factors are stated in terms of dB.

Example:

Freq (MHz)	METER READING + ACF + CABLE LOSS (to the receiver) = FS
33	20 dBµV + 10.36 dB + 6 dB = 36.36 dBµV/m @3m

ANSI STANDARD C63.4-2003 10.1.7 MEASUREMENT PROCEDURES: The EUT was placed on a table 80 cm high and with dimensions of 1m by 1.5m (non metallic table). The EUT was placed in the center of the table. The table used for radiated measurements is capable of continuous rotation. The spectrum was scanned from 30 MHz to 10th harmonic of the fundamental.

Peak readings were taken in three (3) orthogonal planes and the highest readings.
Measurements were made by ETS Dr. Genz GmbH at the registered open field test site located at No.5-1, Shuang Sing Village, LiShuei Rd., Wanli Township, Taipei County 207, Taiwan (R.O.C.) The Registration Number: 930600.

When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1m to 4m. The antenna was placed in both the horizontal and vertical planes.

ANTENNA & GROUND:
This unit uses PCB antenna (see photo).

Registration number: W6M20607-7129-P-15
FCC ID: UJ96570

3 Test results (enclosure)

TEST CASE	Para. Number	Required	Test passed	Test failed
Peak Output Power	15.249 (b)	☒	☒	☐
Spurious Emissions radiated – Transmitter operating	15.249 (e)	☒	☒	☐
Spurious Emissions conducted – Transmitter operating	15.249 (e)	☐	☐	☐
Radiated Emission from Digital Part And Receiver L.O.	15.109	☒	☒	☐
Out of Band Spurious Emission, Band edge-Transmitter operating	15.249 (e)	☒	☒	☐
Power Line Conducted Emission	15.207	☐	☐	☐

The follows is intended to leave blank.

Registration number: W6M20607-7129-P-15
FCC ID: UJ96570

3.1 Peak Output Power (transmitter)

FCC Rule: 15.249 (b)

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).

Test conditions Frequency 1		Transmitter field strength of fundamental [dBµV/m]	Transmitter field strength of harmonics [dBµV/m]
T_{nom} = 23 ° C	V_{nom} = 3 V	90.61	--
Measurement uncertainty		< 3 dB	

Test conditions Frequency 2		Transmitter field strength of fundamental [dBµV/m]	Transmitter field strength of harmonics [dBµV/m]
T_{nom} = 23 ° C	V_{nom} = 3 V	90.29	--
Measurement uncertainty		< 3 dB	

Test conditions Frequency 3		Transmitter field strength of fundamental [dBµV/m]	Transmitter field strength of harmonics [dBµV/m]
T_{nom} = 23 ° C	V_{nom} = 3 V	89.21	--
Measurement uncertainty		< 3 dB	

Test equipment used: ETSTW-RE 003, ETSTW-RE 004, ETSTW-RE 030, ETSTW-RE 017
Remarks: The diagrams for the field strength measurements are included in appendix.

3.2 Equivalent isotropic radiated power

Because using an permanent antenna there are no deviations from the radiated test reauslts according 3.1.

3.2.1 Transmitter

Integral Antenna:
At the transmitter the measurement was transacted with the modulation declared by the manufacturer and the maximum available output power of the EUT.
In this arrangement the EUT fulfils the requirements of the FCC rules § 15.249, subpart C, This unit uses permanent antenna. There is no provision for an external antenna (see photo).

3.3 RF Exposure Compliance Requirements

Not applicable for this X-Slim 2.4G Cordless Keyboard for the low power level.

3.4 Out of Band Radiated Emissions

FCC Rule: 15.249 (d)(e), 15.35(b)
Emission radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in section 15.209, whichever is the lesser attenuation.
For frequency above 1000 MHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For point-to-point operation, the peak field strength shall not exceed 2500 millivolts/meter at 3 meters along the antenna azimuth.

Limits:

Frequency of Emission (MHz)	Field strength (microvolts/meter)	Field Strength (dB microvolts/meter)
30 - 88	100	40.0
88 – 216	150	43.5
216 – 960	200	46.5
Above 960	500	54.0

For frequencies above 1 GHz (Peak measurements).

Limit + 20 dB
54.0 dBµV/m + 20 dB= 74dBµV/m
Or
Must be antenuatted at least 50dB below the level of fundament

Test equipment used: ETSTW-RE 003, ETSTW-RE 004, ETSTW-RE 030, ETSTW-RE 017, ETSTW-RE 028, ETSTW-RE 029, ETSTW-RE 042, ETSTW-RE 043

Remark: see attached diagram

3.5 Spurious emission (tx)

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

Emission radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in section 15.209, whichever is the lesser attenuation.
For frequencies above 1000 MHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For point-to-point operation, the peak field strength shall not exceed 2500 millivolts/meter at 3 meters along the antenna azimuth.

SAMPLE CALCULATION OF LIMIT. ALL results will be updated by an automatic measuring system in accordance with point 2.3.

The peak and average spurious emission plots was measured with the average limits.
The critical peak value listed in the table agree with the above calculated limits.

Summary table with radiated data of the test plots

Low Channel

Antenna Polarization	Frequency Marker (MHz)	Corrected Reading (dBuv)	Correction Factor (dB)	Detector	Test Result (dBuV/m)	Compliance Limit (dBuV/m)	Margin (dB)	Table Azimuth (degree)	Antenna Height (cm)
H	1348.500	44.77	-8.35	PK	36.42	54.0	17.58	177	145
	1842.541	43.21	-4.67	PK	38.54	54.0	15.46	124	150
	4839.585	57.53	4.61	PK	62.14	74.0	11.86	99	140
	4839.585	42.95	4.61	AV	47.56	54.0	6.44	99	140

Antenna Polarization	Frequency Marker (MHz)	Corrected Reading (dBuv)	Correction Factor (dB)	Detector	Test Result (dBuV/m)	Compliance Limit (dBuV/m)	Margin (dB)	Table Azimuth (degree)	Antenna Height (cm)
V	1492.981	56.81	-7.28	PK	49.53	54.0	4.47	189	150
	1842.541	47.81	-4.67	PK	43.14	54.0	10.86	127	130
	4839.779	43.91	4.61	PK	48.52	54.0	5.48	230	160

Registration number: W6M20607-7129-P-15
FCC ID: UJ96570

Middle Channel

Antenna Polarization	Frequency Marker (MHz)	Corrected Reading (dBuv)	Correction Factor (dB)	Detector	Test Result (dBuV/m)	Compliance Limit (dBuV/m)	Margin (dB)	Table Azimuth (degree)	Antenna Height (cm)
H	1348.500	42.93	-8.35	PK	34.58	54.0	19.42	92	150
	1492.981	43.80	-7.28	PK	36.52	54.0	17.48	145	150
	4873.584	53.74	4.78	PK	58.52	74.0	15.48	270	160
	4873.584	42.73	4.78	AV	47.51	54.0	6.49	270	160

Antenna Polarization	Frequency Marker (MHz)	Corrected Reading (dBuv)	Correction Factor (dB)	Detector	Test Result (dBuV/m)	Compliance Limit (dBuV/m)	Margin (dB)	Table Azimuth (degree)	Antenna Height (cm)
V	1348.500	52.49	-8.35	PK	44.14	54.0	9.86	94	115
	1498.945	67.06	-7.22	PK	59.84	74.0	14.16	149	150
	1498.945	53.14	-7.22	AV	45.92	54.0	8.08	149	150
	4873.584	43.14	4.78	PK	47.92	54.0	6.08	275	160

High Channel

Antenna Polarization	Frequency Marker (MHz)	Corrected Reading (dBuv)	Correction Factor (dB)	Detector	Test Result (dBuV/m)	Compliance Limit (dBuV/m)	Margin (dB)	Table Azimuth (degree)	Antenna Height (cm)
H	1201.484	42.33	-7.79	PK	34.54	54.0	19.46	94	150
	1498.945	43.36	-7.22	PK	36.14	54.0	17.86	92	150
	4945.845	54.08	4.50	PK	58.58	74.0	15.42	200	145
	4945.845	45.52	4.50	AV	50.02	54.0	3.98	200	145

Antenna Polarization	Frequency Marker (MHz)	Corrected Reading (dBuv)	Correction Factor (dB)	Detector	Test Result (dBuV/m)	Compliance Limit (dBuV/m)	Margin (dB)	Table Azimuth (degree)	Antenna Height (cm)
V	1348.500	50.50	-8.35	PK	42.15	54.0	11.85	91	155
	1505.041	53.61	-7.19	PK	46.42	54.0	7.58	90	160
	4945.845	44.64	4.50	PK	49.14	54.0	4.86	210	150

Note
1. **Correction Factor = Antenna factor + Cable loss - Preamplifier**
2. **The formula of measured value as: Test Result = Corrected Reading + Correction Factor**
3. **Detector function in the form : P = Peak, QP = Quasi Peak, AV = Average**

Registration number: W6M20607-7129-P-15
FCC ID: UJ96570

Freq. – Frequency Range:

1:	30	-	200 MHz
2:	200	-	1000 MHz
3:	1	-	4 GHz
4:	4	-	8 GHz
5:	8	-	12 GHz
6:	12	-	17 GHz
7:	17	-	26.5 GHz

TEST RESULT (Transmitter): The unit DOES meet the FCC requirements.

Comment: see attached diagrams
Test equipment used: ETSTW-RE 003, ETSTW-RE 004, ETSTW-RE 030, ETSTW-RE 017, ETSTW-RE 028, ETSTW-RE 029, ETSTW-RE 042, ETSTW-RE 043

Registration number: W6M20607-7129-P-15
FCC ID: UJ96570

3.6 Radiated Emission from Digital Part And Receiver L.O.

Summary table with radiated data of the test plots

RX

Low Channel

Antenna Polarization	Frequency Marker (MHz)	Corrected Reading (dBuv)	Correction Factor (dB)	Detector	Test Result (dBuV/m)	Compliance Limit (dBuV/m)	Margin (dB)	Table Azimuth (degree)	Antenna Height (cm)
H	504.615	19.07	19.85	PK	38.92	46.0	7.08	92	265
	1901.815	42.65	-5.14	PK	37.51	54.0	16.49	111	150
	4839.585	44.63	4.61	PK	49.24	54.0	4.76	222	160

Antenna Polarization	Frequency Marker (MHz)	Corrected Reading (dBuv)	Correction Factor (dB)	Detector	Test Result (dBuV/m)	Compliance Limit (dBuV/m)	Margin (dB)	Table Azimuth (degree)	Antenna Height (cm)
V	660.142	14.07	22.84	PK	36.91	46.0	9.09	12	315
	1366.732	49.99	-8.46	PK	41.53	54.0	12.47	354	150
	4839.779	41.91	4.61	PK	46.52	54.0	7.48	214	160

Middle Channel

Antenna Polarization	Frequency Marker (MHz)	Corrected Reading (dBuv)	Correction Factor (dB)	Detector	Test Result (dBuV/m)	Compliance Limit (dBuV/m)	Margin (dB)	Table Azimuth (degree)	Antenna Height (cm)
H	467.682	21.94	19.31	PK	41.25	46.0	4.75	14	250
	1901.815	43.56	-5.14	PK	38.42	54.0	15.58	111	155
	4873.584	51.64	4.78	PK	56.42	74.0	17.58	97	145
	4873.584	37.79	4.78	AV	42.57	54.0	11.43	97	145

Antenna Polarization	Frequency Marker (MHz)	Corrected Reading (dBuv)	Correction Factor (dB)	Detector	Test Result (dBuV/m)	Compliance Limit (dBuV/m)	Margin (dB)	Table Azimuth (degree)	Antenna Height (cm)
V	165.473	17.31	15.23	PK	32.54	43.5	10.96	320	260
	716.185	16.08	23.84	PK	39.92	46.0	6.08	147	320
	4873.584	41.36	4.78	PK	46.14	54.0	7.86	99	150

Registration number: W6M20607-7129-P-15
FCC ID: UJ96570

High Channel

Antenna Polarization	Frequency Marker (MHz)	Corrected Reading (dBuv)	Correction Factor (dB)	Detector	Test Result (dBuV/m)	Compliance Limit (dBuV/m)	Margin (dB)	Table Azimuth (degree)	Antenna Height (cm)
H	467.589	21.70	19.31	PK	41.01	46.0	4.99	111	255
	870.423	13.22	25.70	PK	38.92	46.0	7.08	99	230
	4945.886	43.62	4.50	PK	48.12	54.0	5.88	49	160

Antenna Polarization	Frequency Marker (MHz)	Corrected Reading (dBuv)	Correction Factor (dB)	Detector	Test Result (dBuV/m)	Compliance Limit (dBuV/m)	Margin (dB)	Table Azimuth (degree)	Antenna Height (cm)
V	677.598	15.15	22.99	PK	38.14	46.0	7.86	145	310
	1366.732	51.04	-8.46	PK	42.58	54.0	11.42	312	150
	4945.886	38.04	4.50	PK	42.54	54.0	11.46	47	145

Note 1. Correction Factor = Antenna factor + Cable loss - Preamplifier
2. The formula of measured value as: Test Result = Corrected Reading + Correction Factor
3. Detector function in the form : P = Peak, QP = Quasi Peak, AV = Average

Registration number: W6M20607-7129-P-15
FCC ID: UJ96570

Digital

Antenna Polarization	Frequency Marker (MHz)	Corrected Reading (dBuV)		Correction Factor (dB)	Test Result (dBuV/m)		Compliance Limit (dBuV/m)	Margin (dB)		Table Azimuth (degree)	Antenna Height (cm)
		PK	QP		PK	QP		PK	QP		
H	156.412	9.42	--	14.70	24.12	--	30.0	--	3.00	41	310
	211.425	15.29	--	11.83	27.12	--	30.0	--	2.88	111	315
	562.142	7.94	--	21.48	29.42	--	37.0	--	7.58	222	255

Antenna Polarization	Frequency Marker (MHz)	Corrected Reading (dBuV)		Correction Factor (dB)	Test Result (dBuV/m)		Compliance Limit (dBuV/m)	Margin (dB)		Table Azimuth (degree)	Antenna Height (cm)
		PK	QP		PK	QP		PK	QP		
V	31.011	--	15.28	12.30	--	27.58	30.0	--	2.42	102	245
	196.412	--	8.72	12.01	--	25.12	30.0	--	4.88	359	250
	201.025	15.92	--	11.59	27.51	--	30.0	--	2.49	142	250
	700.111	7.63	--	23.91	31.54	--	37.0	--	5.46	99	325

Note 1. Correction Factor = Antenna factor + Cable loss - Preamplifier
2. The formula of measured value as: Test Result = Corrected Reading + Correction Factor
3. Detector function in the form : P = Peak, QP = Quasi Peak, AV = Average

Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency of Emission (MHz)	Field Strength (microvolts/meter)	Field Strength (dBmicrovolts/meter)
30 – 88	100	40.0
88 – 216	150	43.5
216 – 960	200	46.0
Above 960	500	54.0

Test equipment used: ETSTW-RE 003, ETSTW-RE 004, ETSTW-RE 028, ETSTW-CS 029, ETSTW-RE 042, ETSTW-RE 043

Comment: see attached diagram

3.7 Radiated Emission on the band edge

From the following plots, they show that the fundamental emissions are confined in the specified band and hey at least 50 dB below the carrier level at band edge (2400.0 and 2483.5 MHz). It meets the requirement of section 15.249(d).

Test conditions Tnom = 23°C, Vnom = 3V Frequency [MHz]	Transmitter field strength of Radiated Emission (Peak Detector) [dBμV/m]	Transmitter field strength of Radiated Emission (Average Detector) [dBμV/m]
2400.0	--	--
2483.5	--	--

Limit:

Frequency Range (MHz)	Limit (dBμV/m)	
	Peak	Average
902 – 928 2400 – 2483,5 5725 – 5875 24000 - 24250	74	54

Test equipment used: ETSTW-RE 003, ETSTW-RE 004, ETSTW-RE 017, ETSTW-RE 030

Comment: This test is not required because the bandwidth is 1.2 MHz.
Please see attached diagram as appendix D.

3.8 Power Line Conducted Emission

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 in the table bellows 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 transact 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.

Frequency	Level (dBµV)	
	quasi-peak	average
150 kHz	lower limit line	Lower limit line

Limits:

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi Peak	Average
0.15-0.5	66 to 56	56 to 46
0.5-5	56	46
5-30	60	50

Test equipment used: ETSTW-CE 001, ETSTW-CE 003, ETSTW-RE 004, ETSTW-RE 006

Comment: This is not required the sample is battery used.

Registration number: W6M20607-7129-P-15
FCC ID: UJ96570

Appendix

A Fundamental Field Strength
B Spurious Emissions radiated
C Radiated Emission from Digital Part And Receiver L.O.
D Bandwidth
E Power Line Conducted Emission
F Pictures

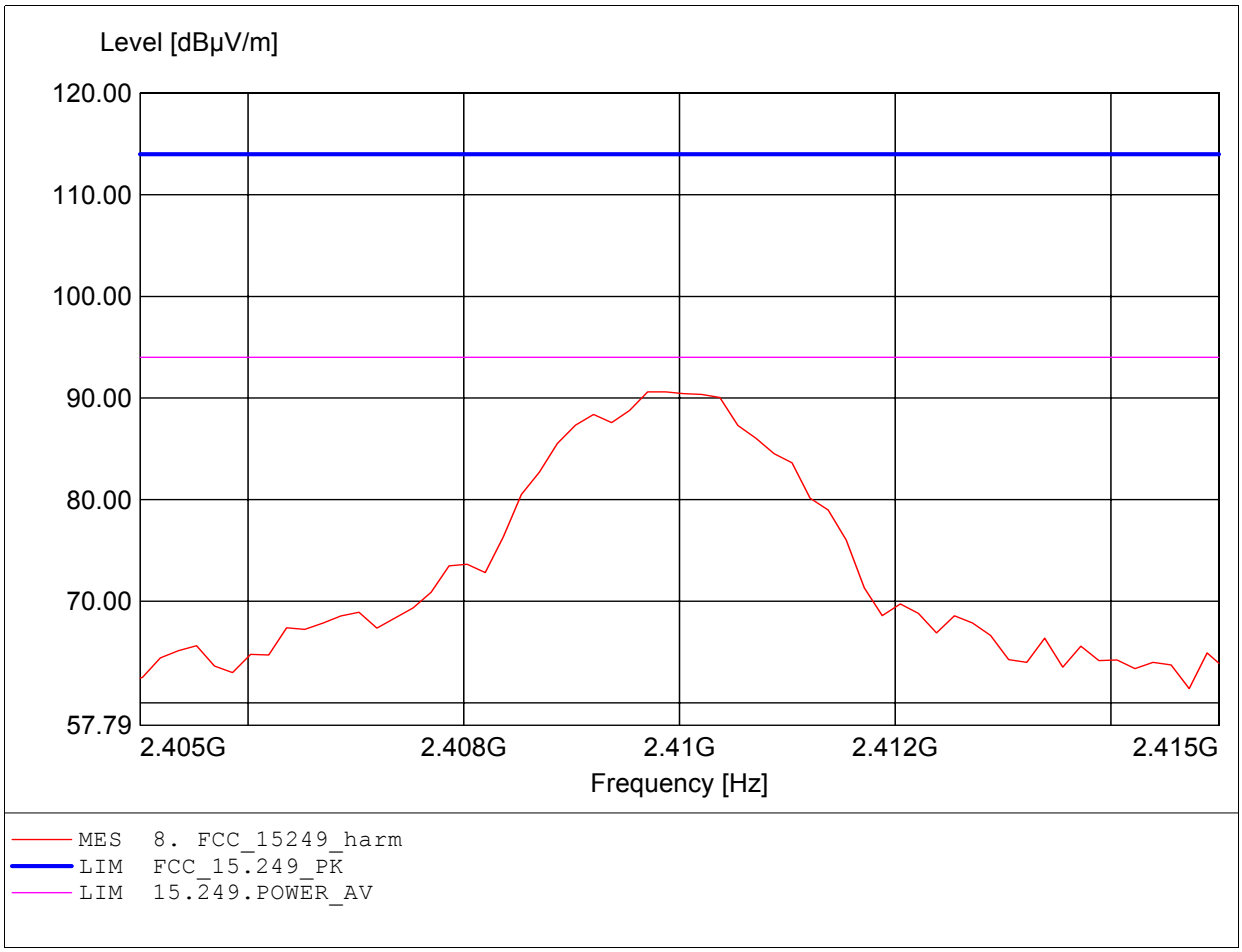
Appendix A

Fundamental Field Strength

Carrier power (Field Strength)

FCC RULES PART 15, SUBPART C / LP0002

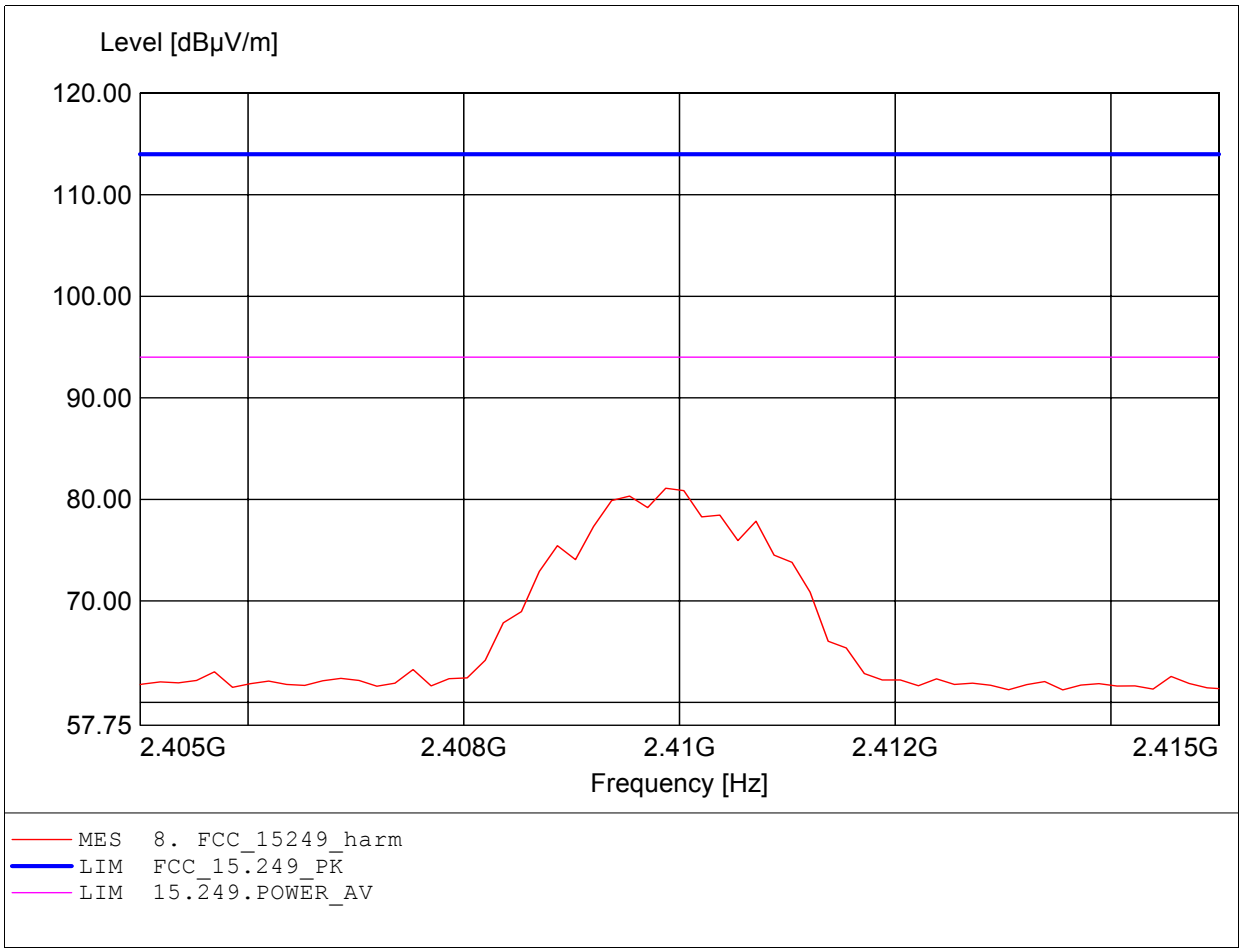
```
Order Number :          W6M20607-7129          ( low channel )
Test Site / Operator:   ETS / Michael
Temperature:            Temp.: 23.9°C
Test Specification:     according to §15.249, peak detector
Comment 1:              Dist.: 3m, Ant.: HL025
                        Freq: 2.410GHz, Emax: 90.61dBµV/m, RBW: 1MHz
```



Carrier power (Field Strength)

FCC RULES PART 15, SUBPART C / LP0002

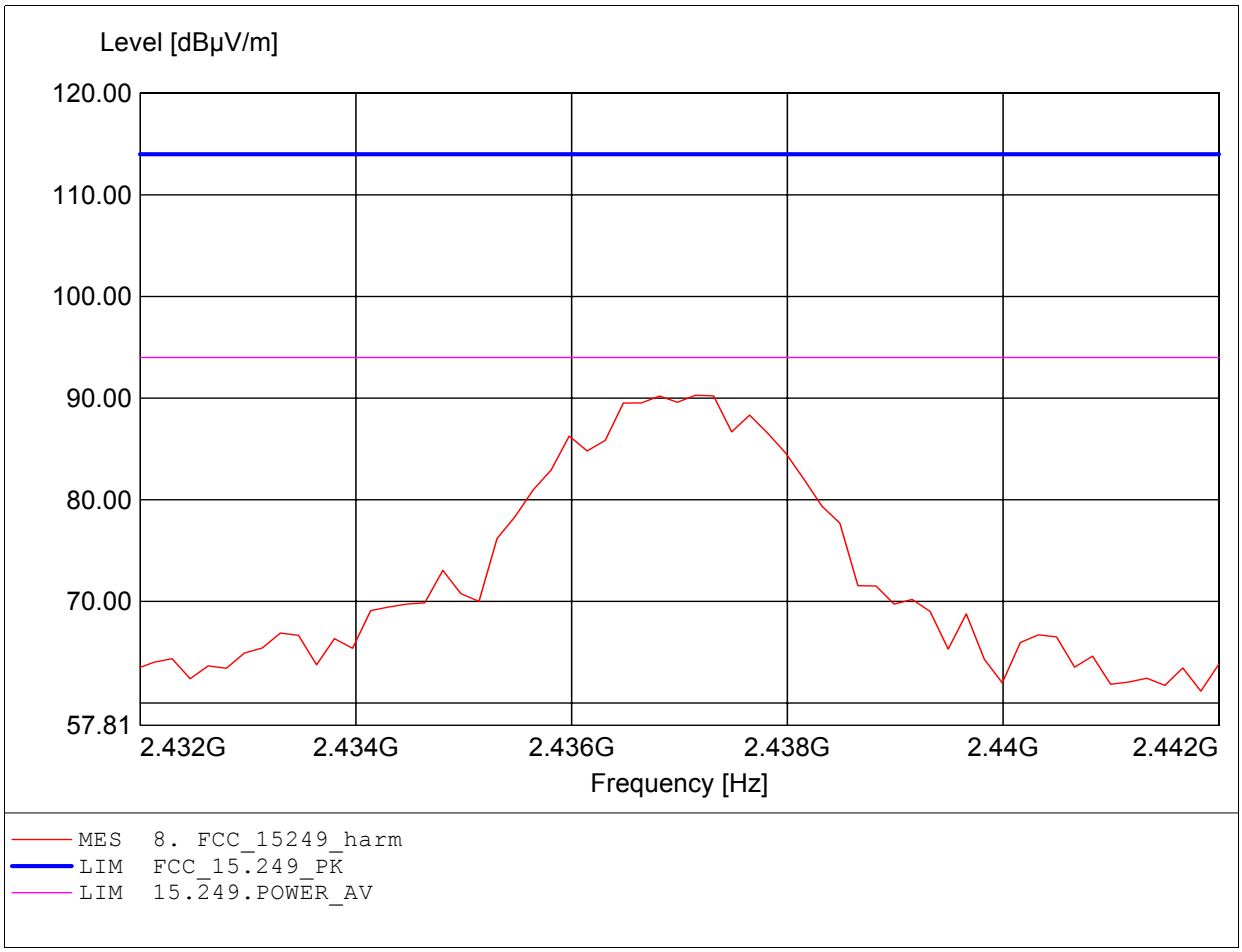
```
Order Number :          W6M20607-7129          ( low channel )
Test Site / Operator:   ETS / Michael
Temperature:            Temp.: 23.9°C
Test Specification:     according to §15.249, peak detector
Comment 1:              Dist.: 3m, Ant.: HL025
                        Freq: 2.410GHz, Emax: 81.10dBµV/m, RBW: 1MHz
```



Carrier power (Field Strength)

FCC RULES PART 15, SUBPART C / LP0002

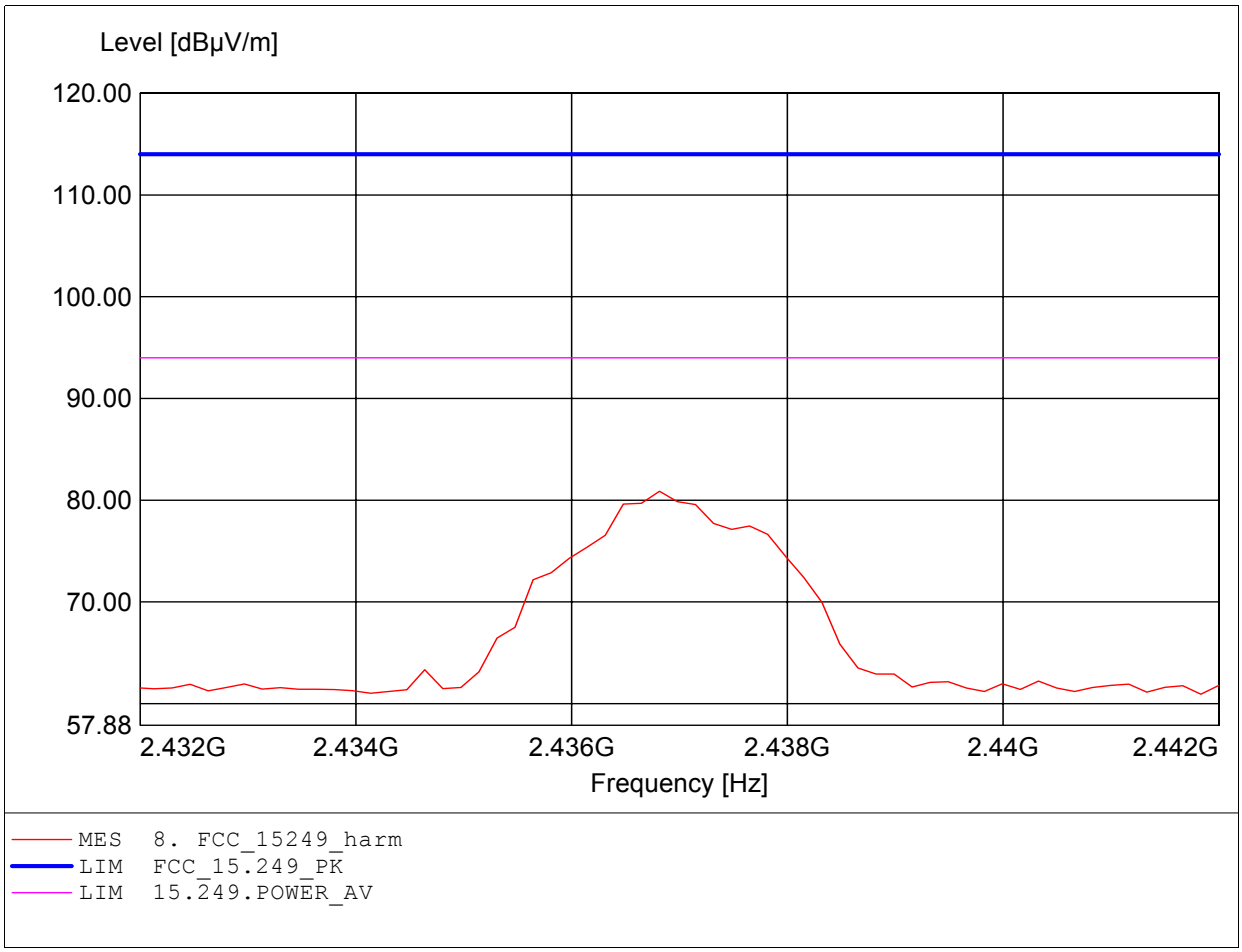
```
Order Number :          W6M20607-7129          ( middle channel )
Test Site / Operator:   ETS / Michael
Temperature:            Temp.: 23.9°C
Test Specification:     according to §15.249, peak detector
Comment 1:              Dist.: 3m, Ant.: HL025
                        Freq: 2.437GHz, Emax: 90.29dBµV/m, RBW: 1MHz
```



Carrier power (Field Strength)

FCC RULES PART 15, SUBPART C / LP0002

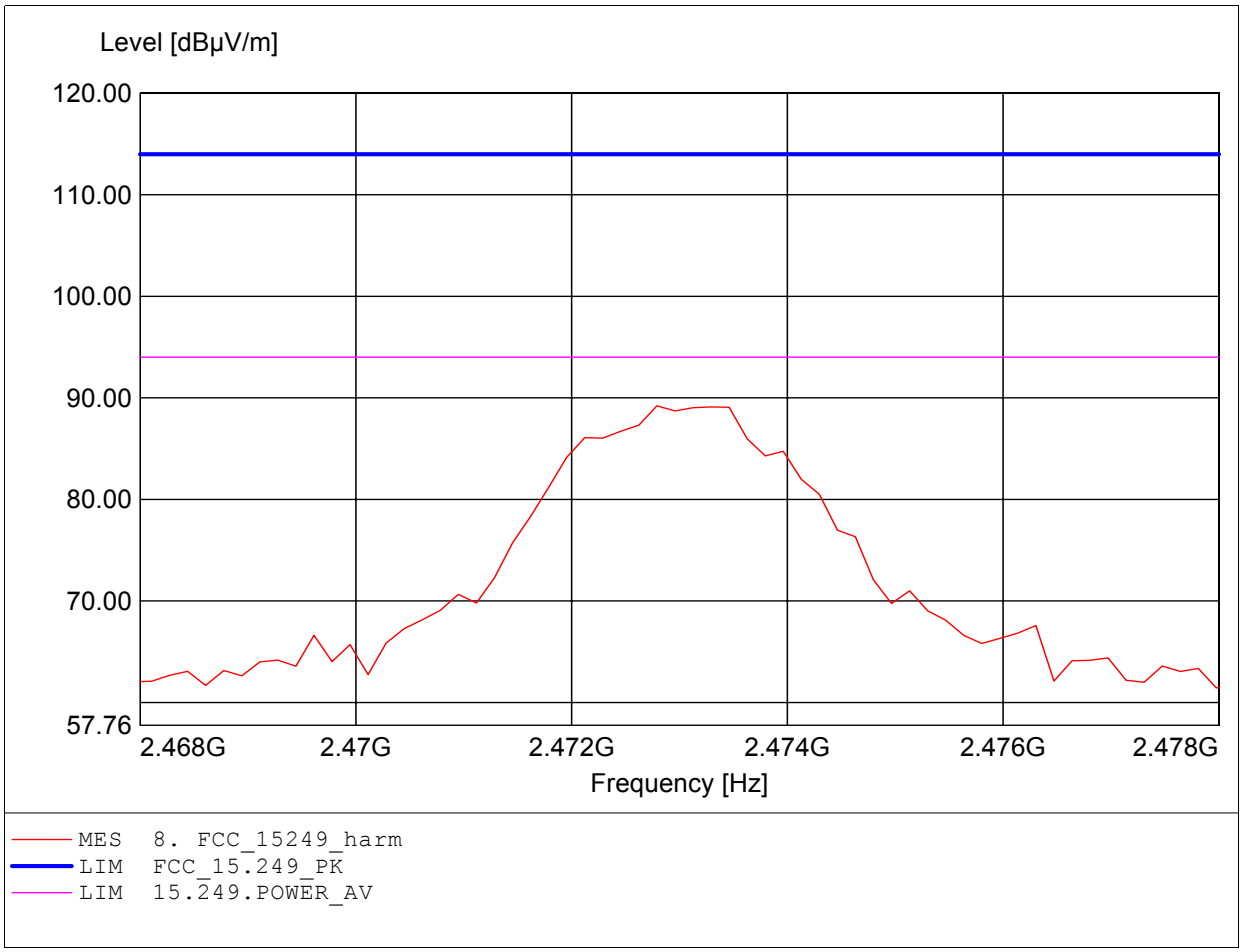
```
Order Number :          W6M20607-7129          ( middle channel )
Test Site / Operator:   ETS / Michael
Temperature:            Temp.: 23.9°C
Test Specification:     according to §15.249, peak detector
Comment 1:              Dist.: 3m, Ant.: HL025
                        Freq: 2.437GHz, Emax: 80.88dBµV/m, RBW: 1MHz
```



Carrier power (Field Strength)

FCC RULES PART 15, SUBPART C / LP0002

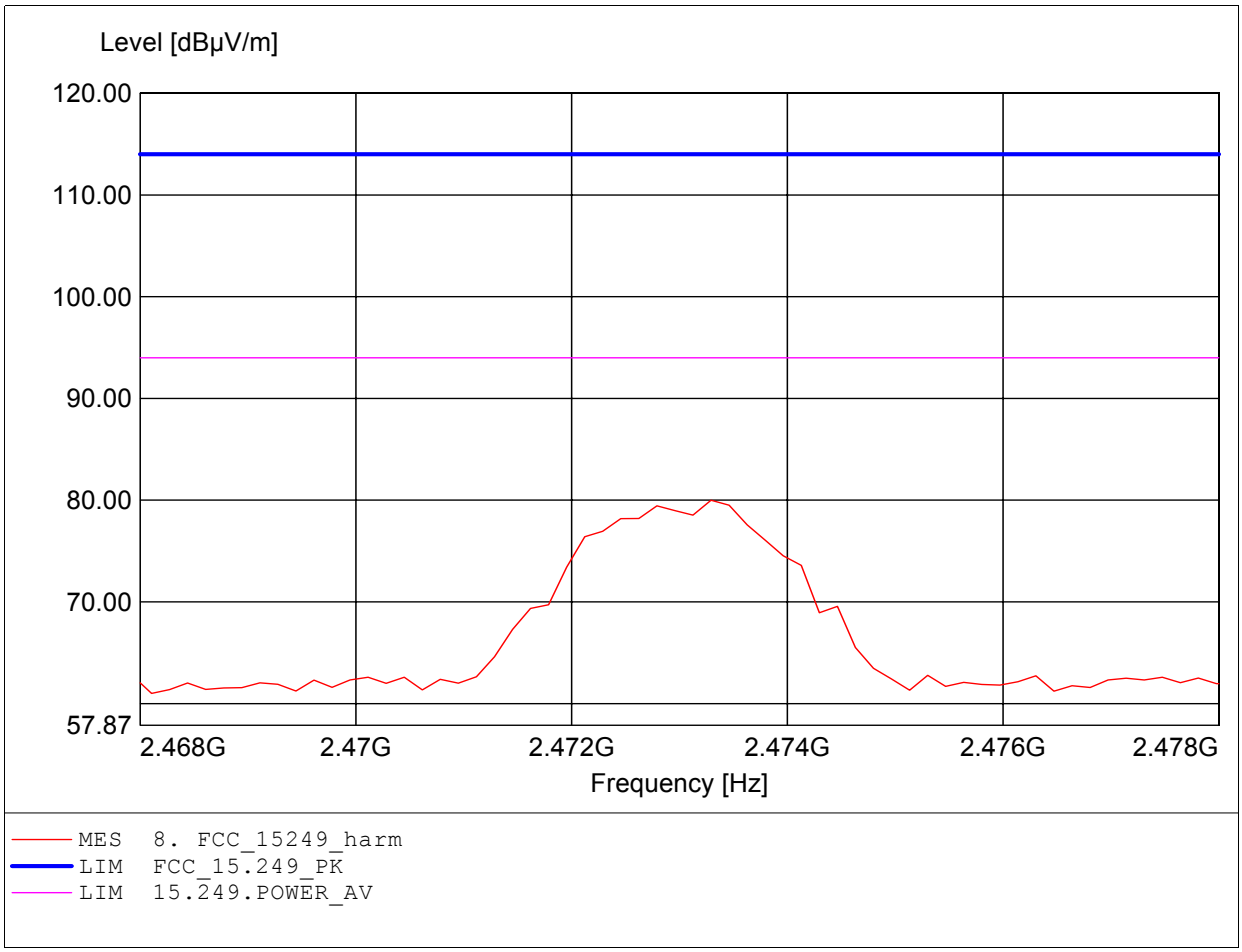
```
Order Number :          W6M20607-7129          ( high channel )
Test Site / Operator:   ETS / Michael
Temperature:            Temp.: 23.9°C
Test Specification:     according to §15.249, peak detector
Comment 1:              Dist.: 3m, Ant.: HL025
                        Freq: 2.473GHz, Emax: 89.21dBµV/m, RBW: 1MHz
```



Carrier power (Field Strength)

FCC RULES PART 15, SUBPART C / LP0002

```
Order Number :          W6M20607-7129          ( high channel )
Test Site / Operator:   ETS / Michael
Temperature:            Temp.: 23.9°C
Test Specification:     according to §15.249, peak detector
Comment 1:              Dist.: 3m, Ant.: HL025
                        Freq: 2.473GHz, Emax: 79.98dBµV/m, RBW: 1MHz
```



Appendix B

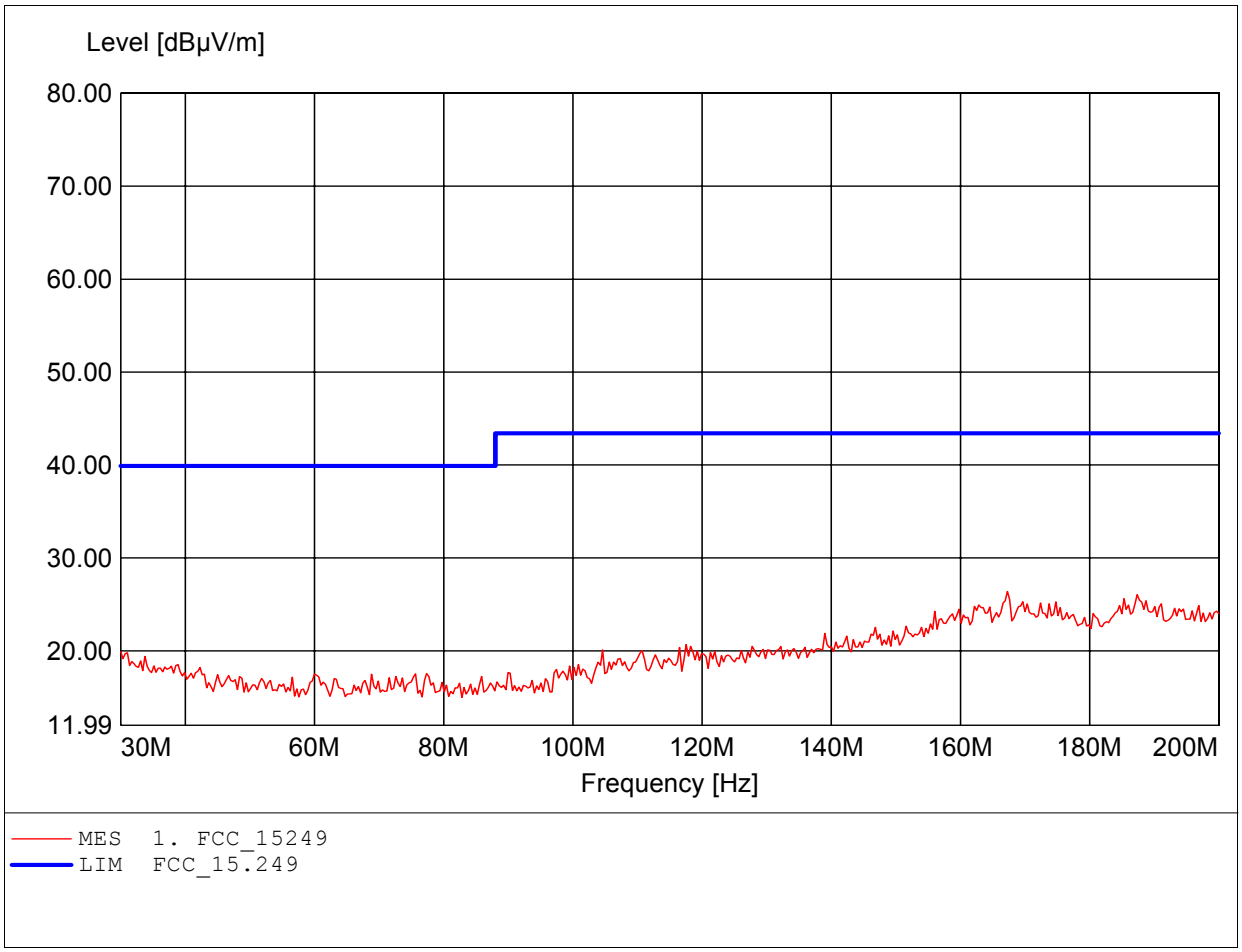
Spurious Emissions radiated

The measurement diagrams plots attached below are preliminary wideband scan with a peak detector for reference only. The final test results are listed on section 3.5

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

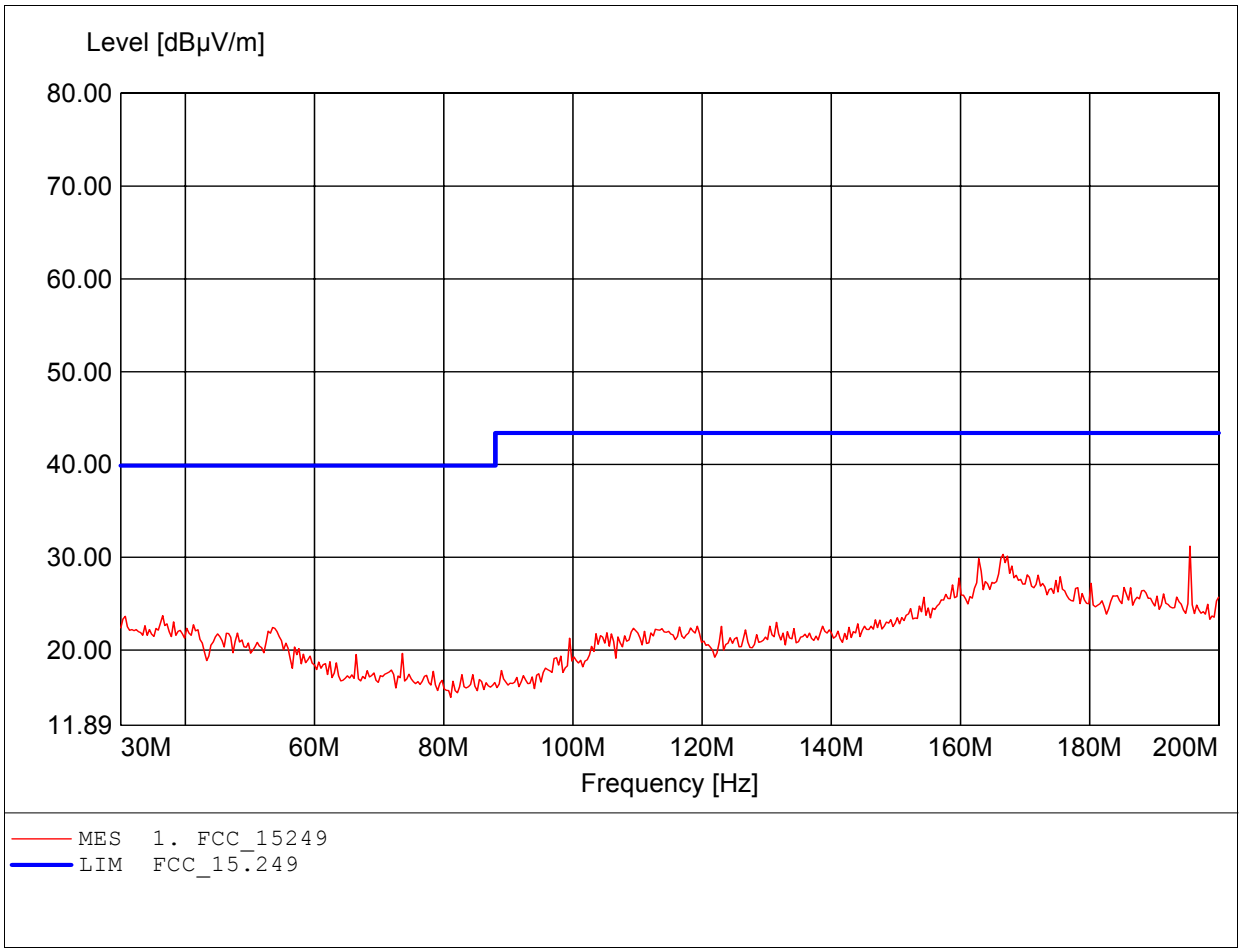
Order Number :	W6M20607-7129	(low channel)
Test Site / Operator:	ETS / Charles	
Temperature:	Temp.: 23.9°C	
Test Specification:	according to §15.249, peak detector	
Comment 1:	Dist.: 3m, Ant.: HK 116	
	Freq: 167.295MHz, Emax: 26.40dBµV/m, RBW: 100kHz	



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

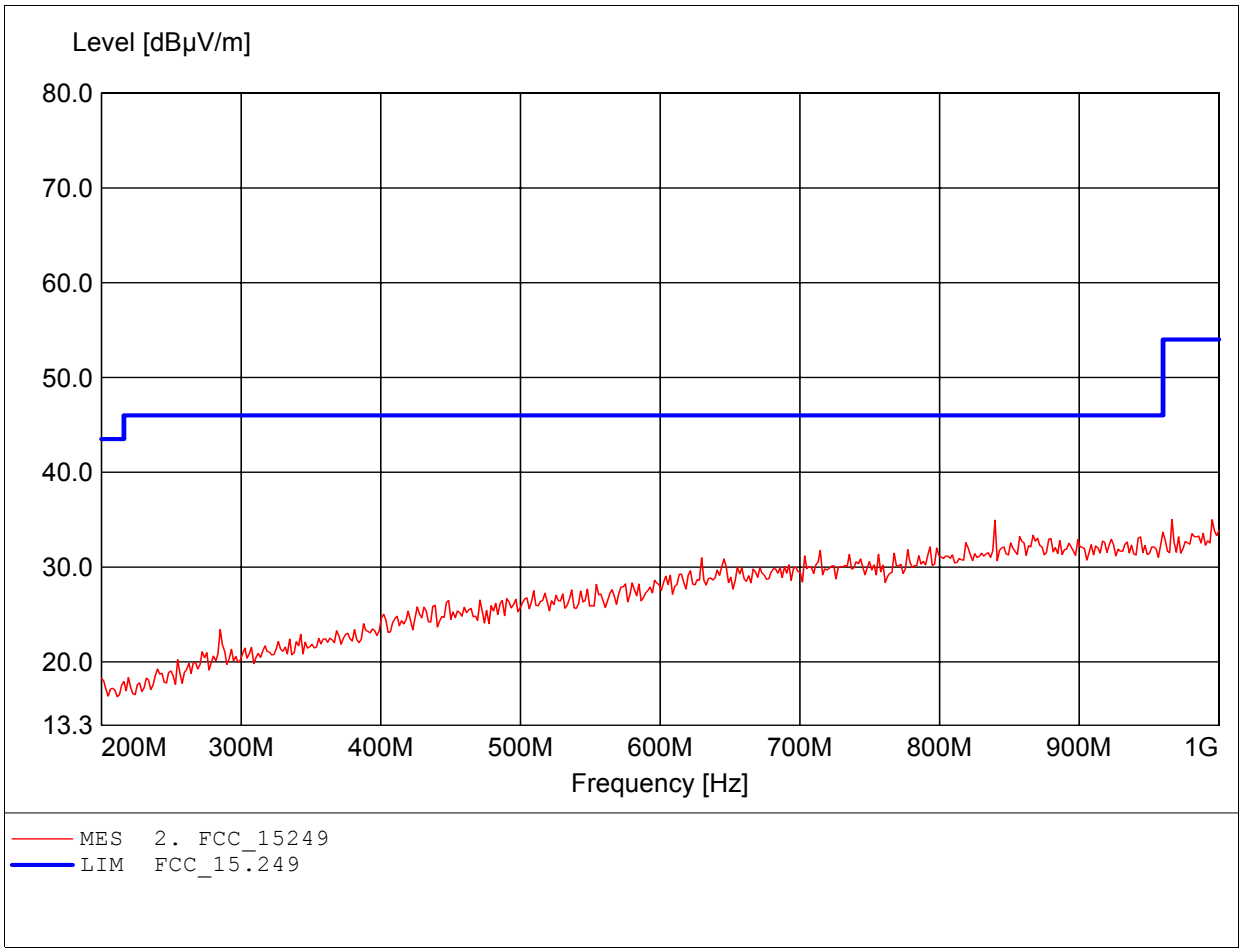
Order Number :	W6M20607-7129	(low channel)
Test Site / Operator:	ETS / Charles	
Temperature:	Temp.: 23.9°C	
Test Specification:	according to §15.249, peak detector	
Comment 1:	Dist.: 3m, Ant.: HK 116	
	Freq: 195.571MHz, Emax: 31.19dBµV/m, RBW: 100kHz	



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

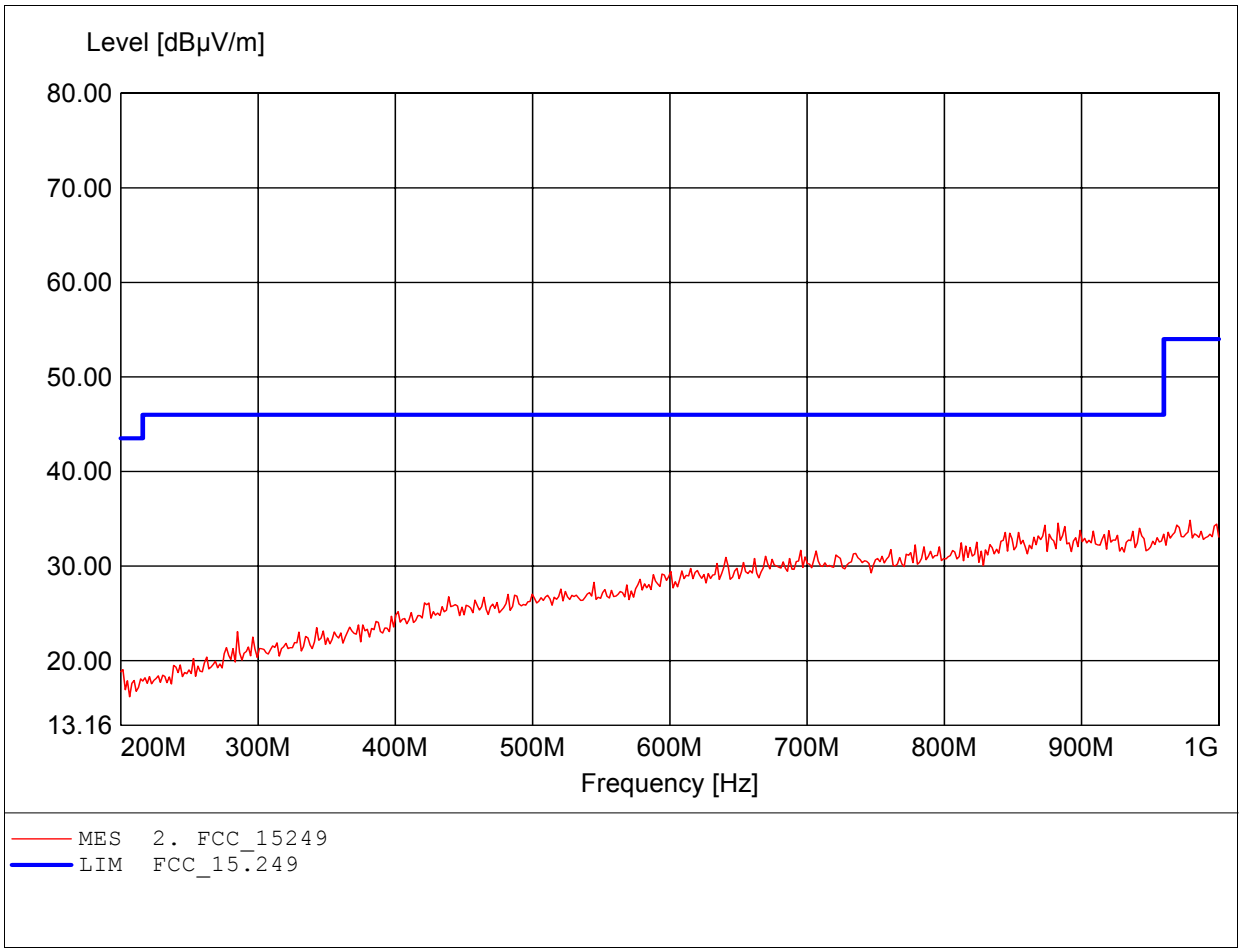
Order Number : W6M20607-7129 (low channel)
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL 223, amplif.
Freq: 966.333MHz, Emax: 35.01dBµV/m, RBW: 100kHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

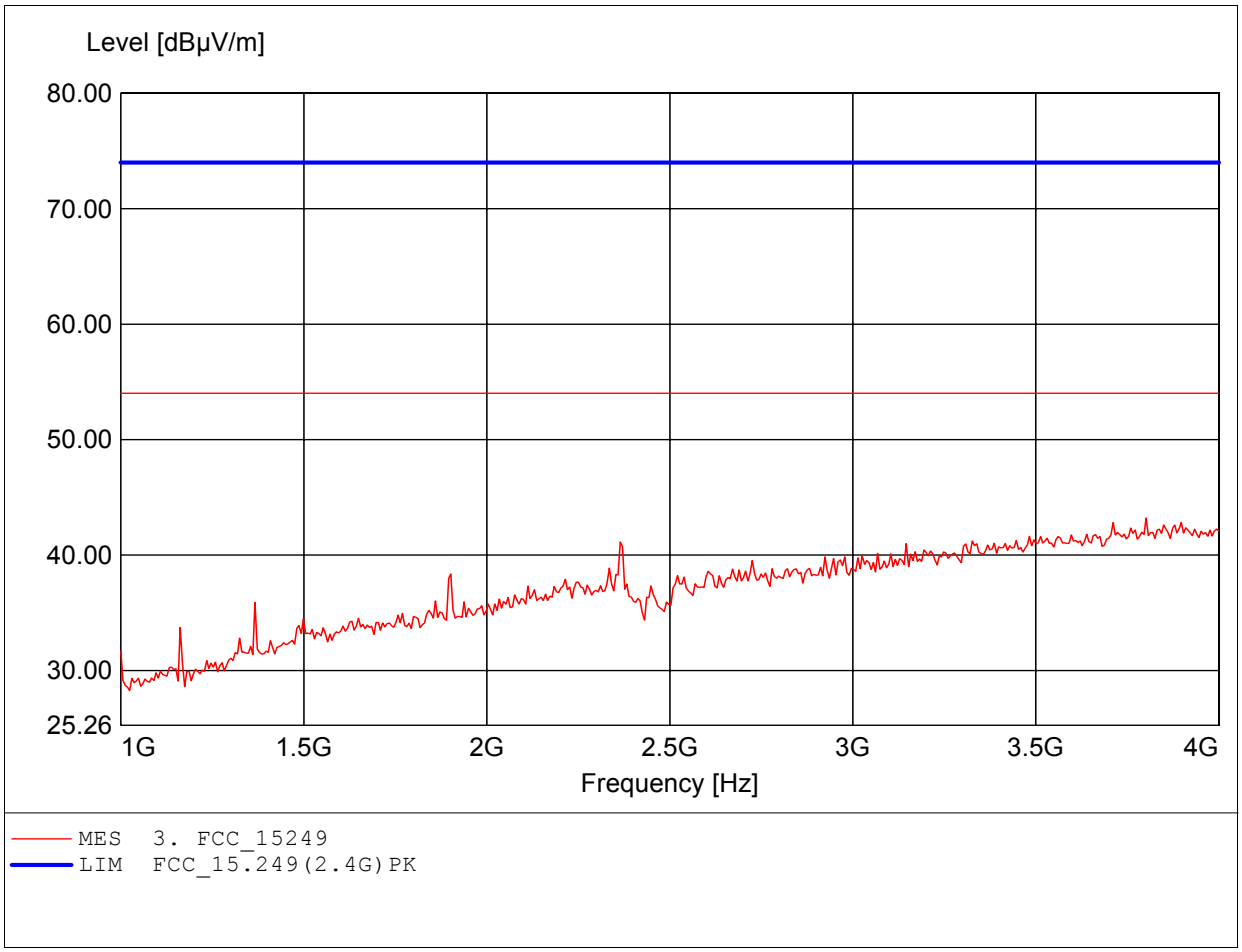
Order Number :	W6M20607-7129	(low channel)
Test Site / Operator:	ETS / Charles	
Temperature:	Temp.: 23.9°C	
Test Specification:	according to §15.249, peak detector	
Comment 1:	Dist.: 3m, Ant.: HL 223, amplif.	
	Freq: 979.158MHz, Emax: 34.84dBµV/m, RBW: 100kHz	



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

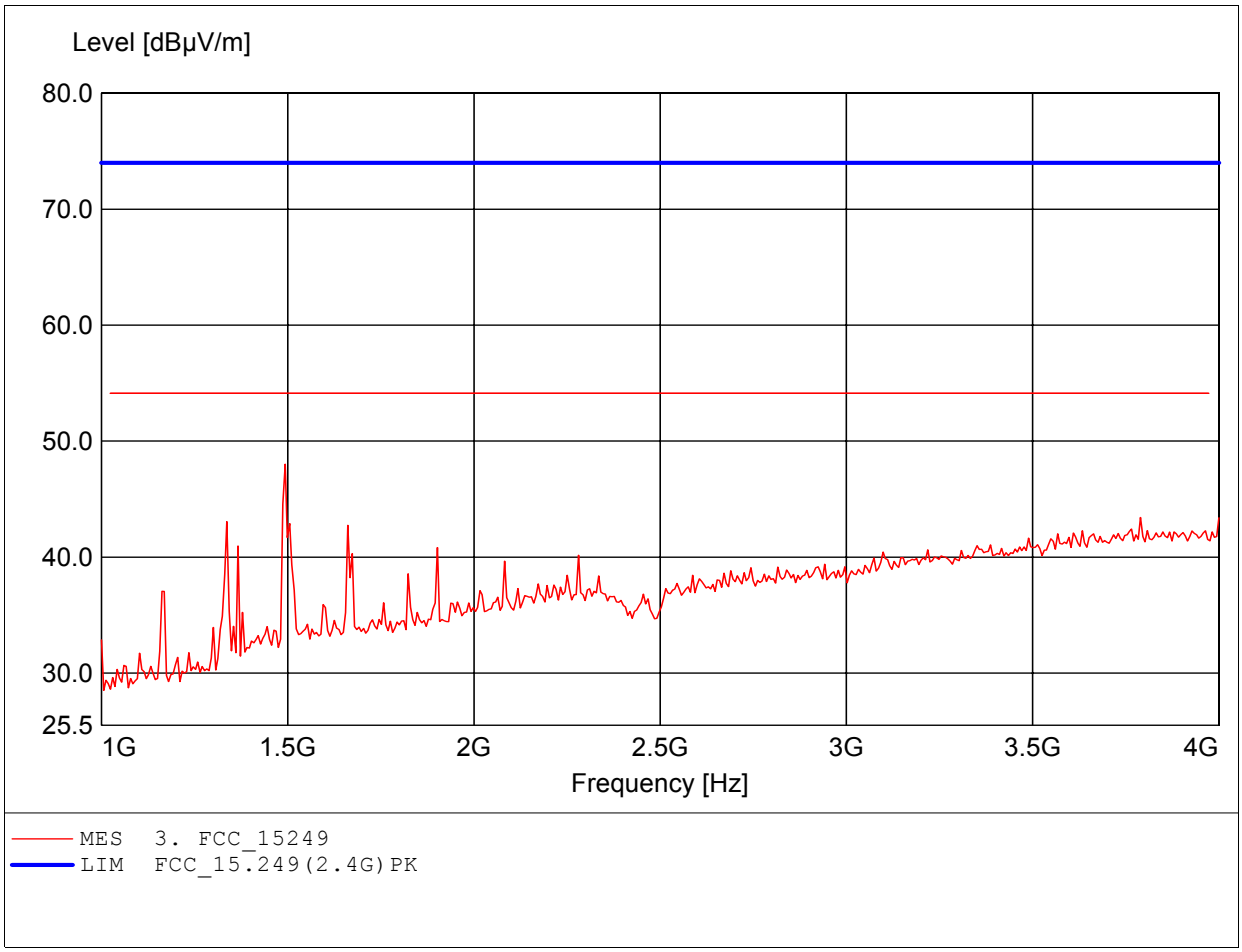
```
Order Number :          W6M20607-7129          ( low channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to §15.249, peak detector
Comment 1:              Dist.: 3m, Ant.: HL025, amplif.
                        Freq: 3.802GHz, Emax: 43.21dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

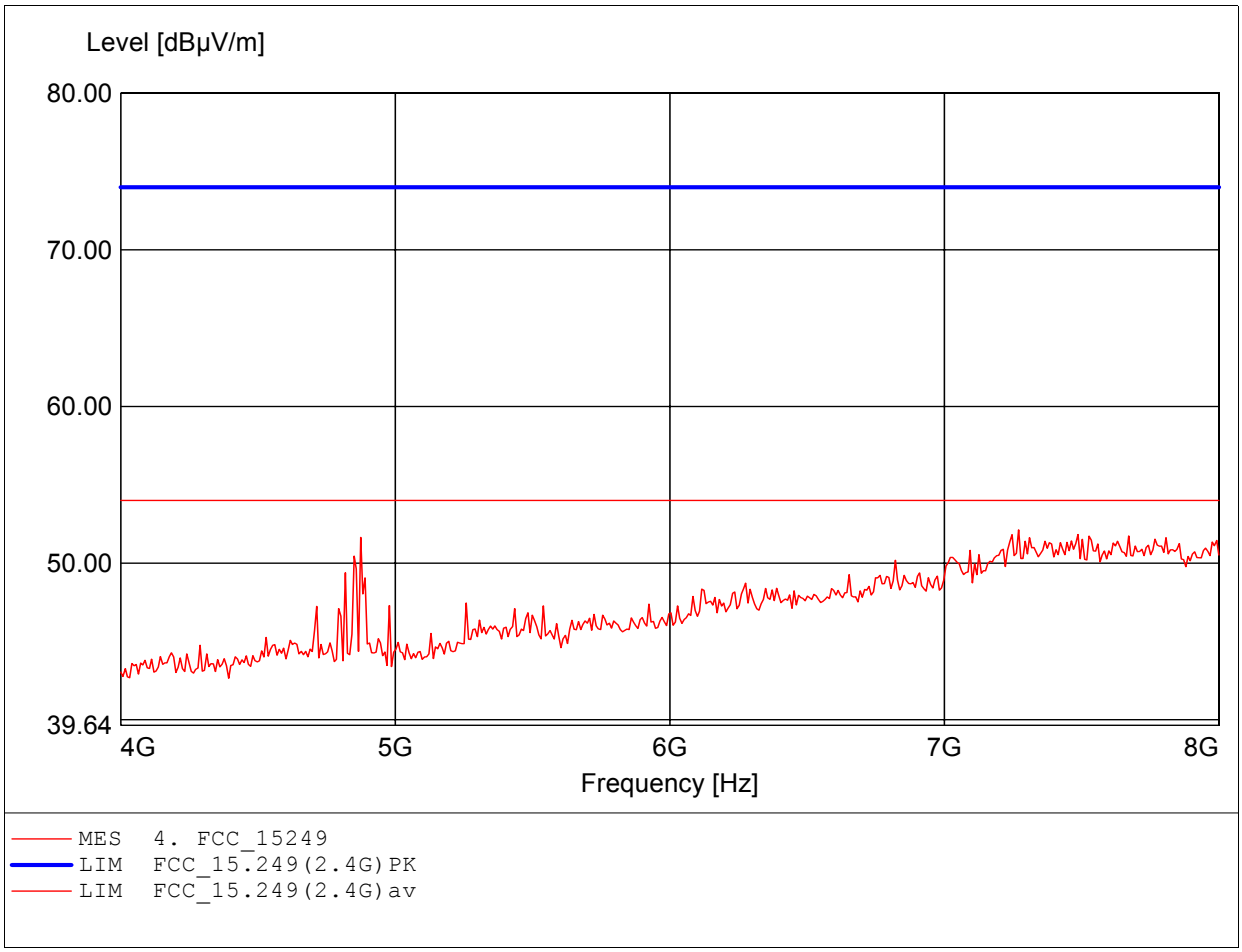
Order Number :	W6M20607-7129	(low channel)
Test Site / Operator:	ETS / Charles	
Temperature:	Temp.: 23.9°C	
Test Specification:	according to §15.249, peak detector	
Comment 1:	Dist.: 3m, Ant.: HL025, amplif.	
	Freq: 1.493GHz, Emax: 48.00dBµV/m, RBW: 1MHz	



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

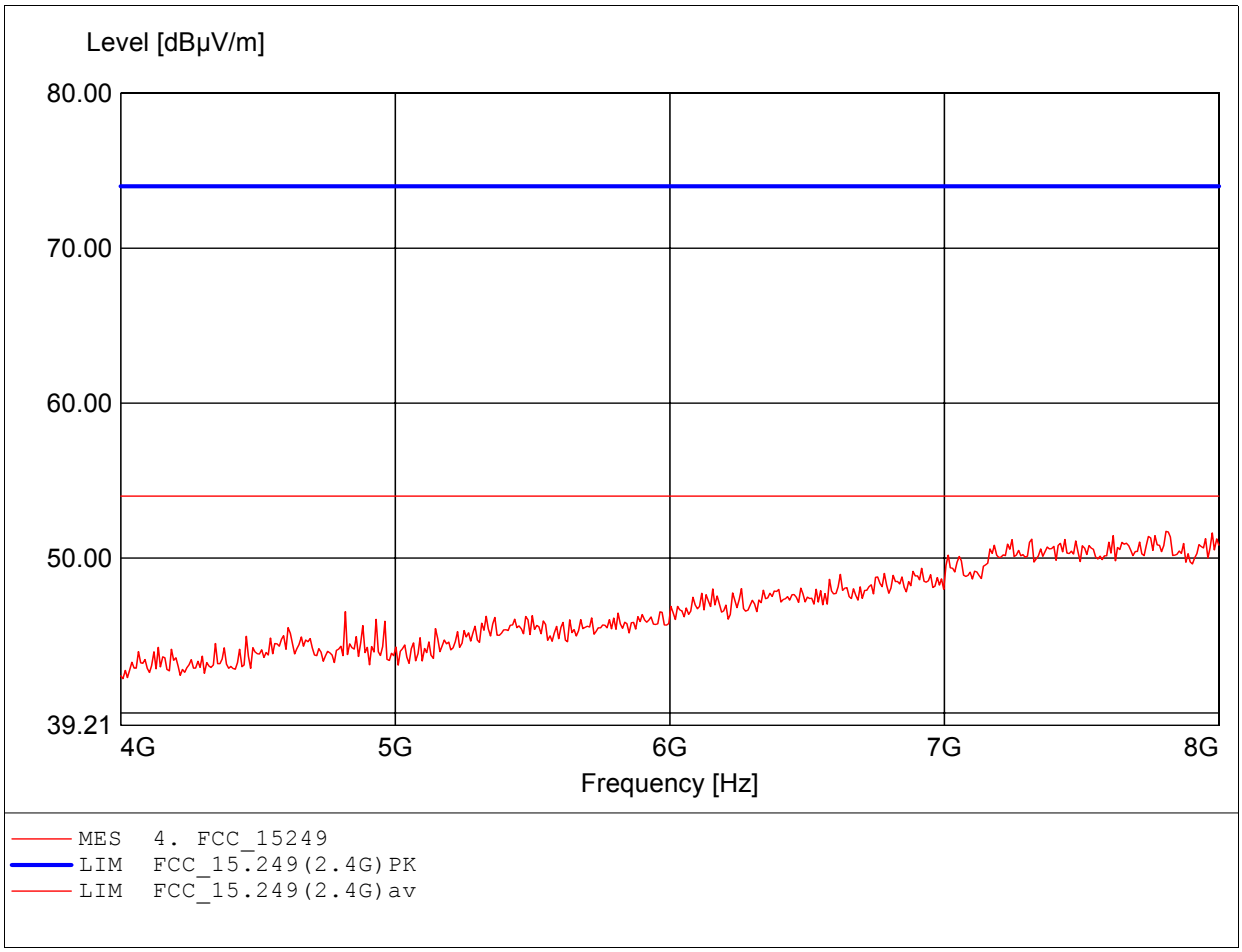
```
Order Number :          W6M20607-7129          ( low channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to §15.249, peak detector
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 7.271GHz, Emax: 52.12dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

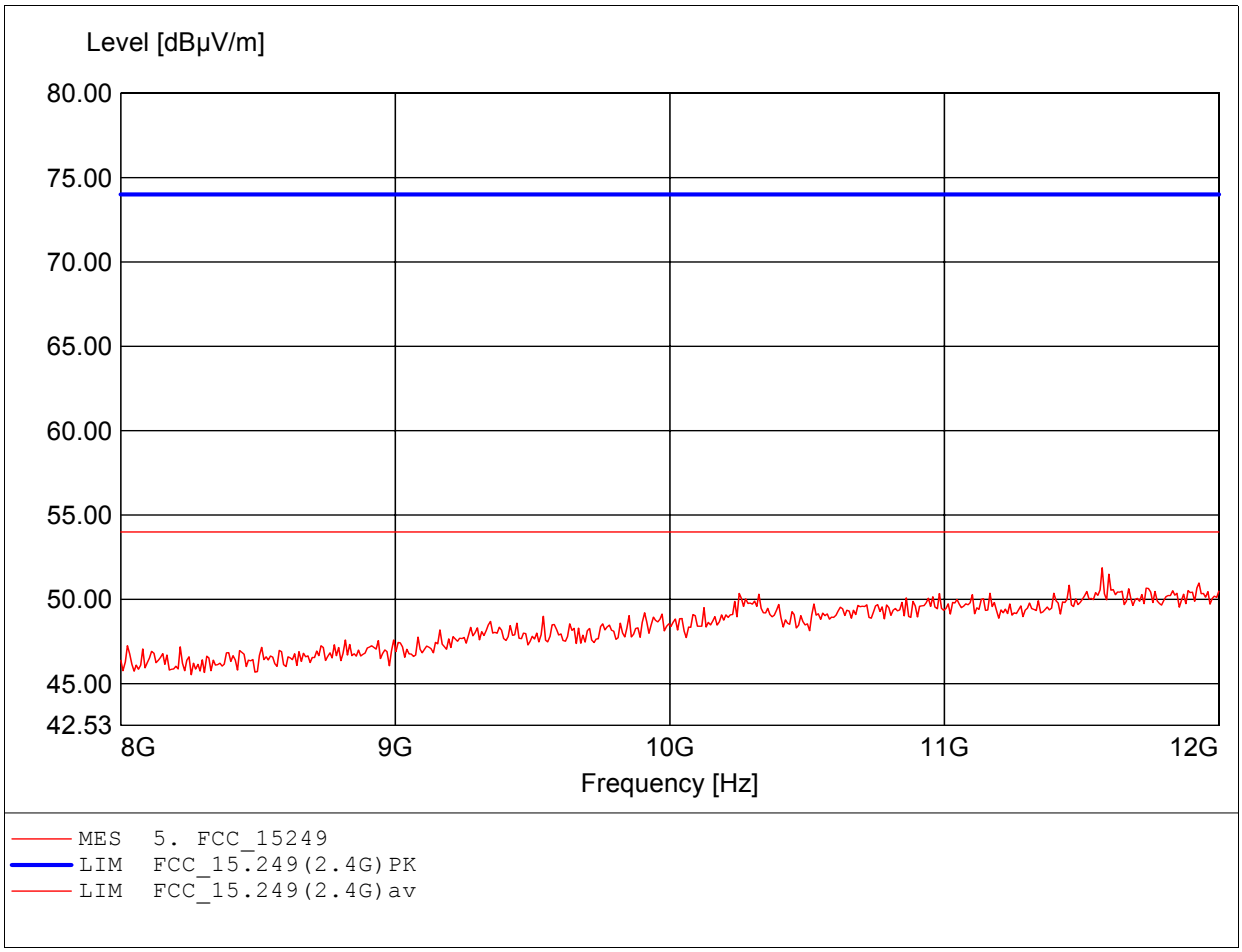
```
Order Number :          W6M20607-7129          ( low channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to §15.249, peak detector
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 7.808GHz, Emax: 51.73dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

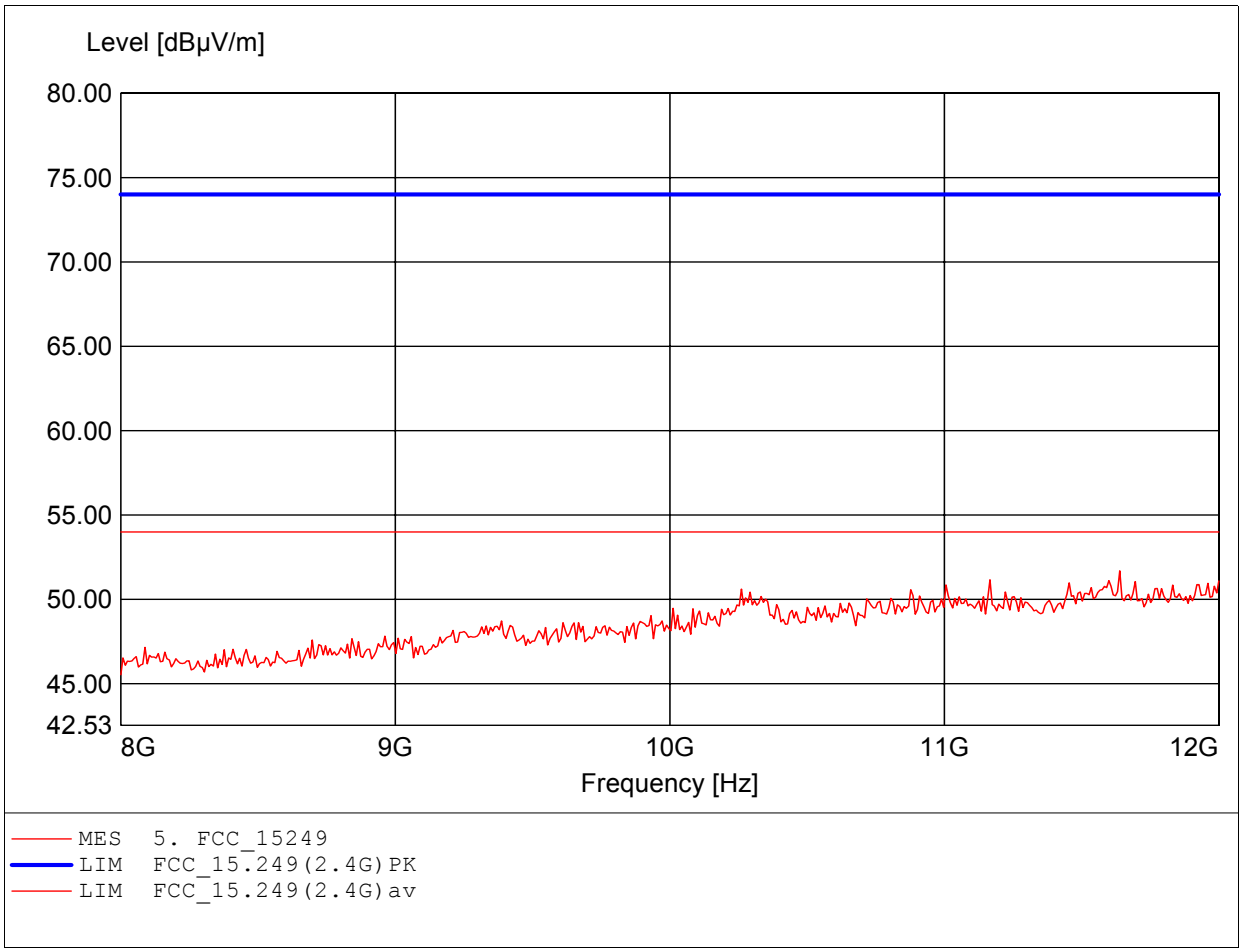
```
Order Number :          W6M20607-7129          ( low channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to §15.249, peak detector
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 11.575GHz, Emax: 51.87dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

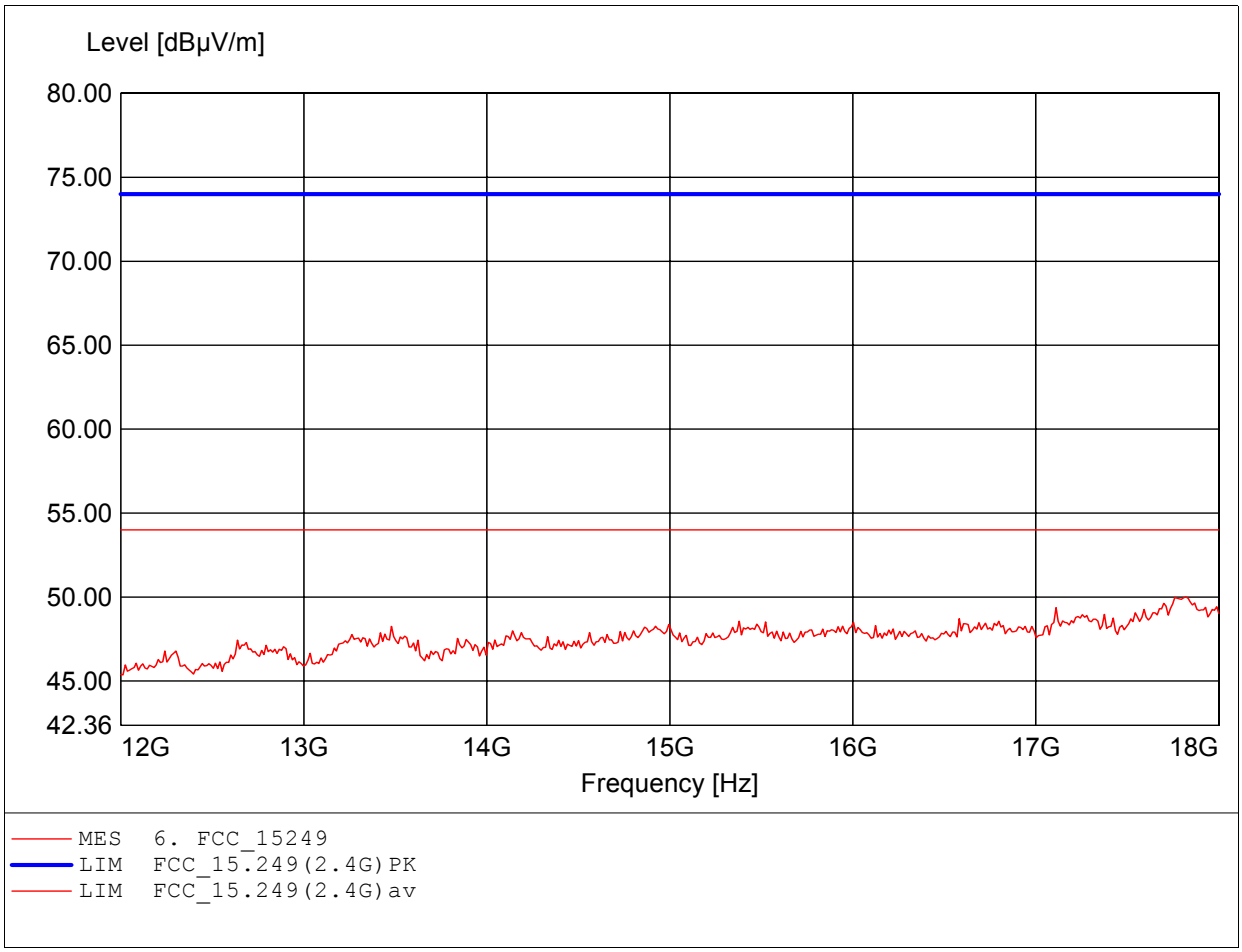
Order Number : W6M20607-7129 (low channel)
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 11.639GHz, Emax: 51.68dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

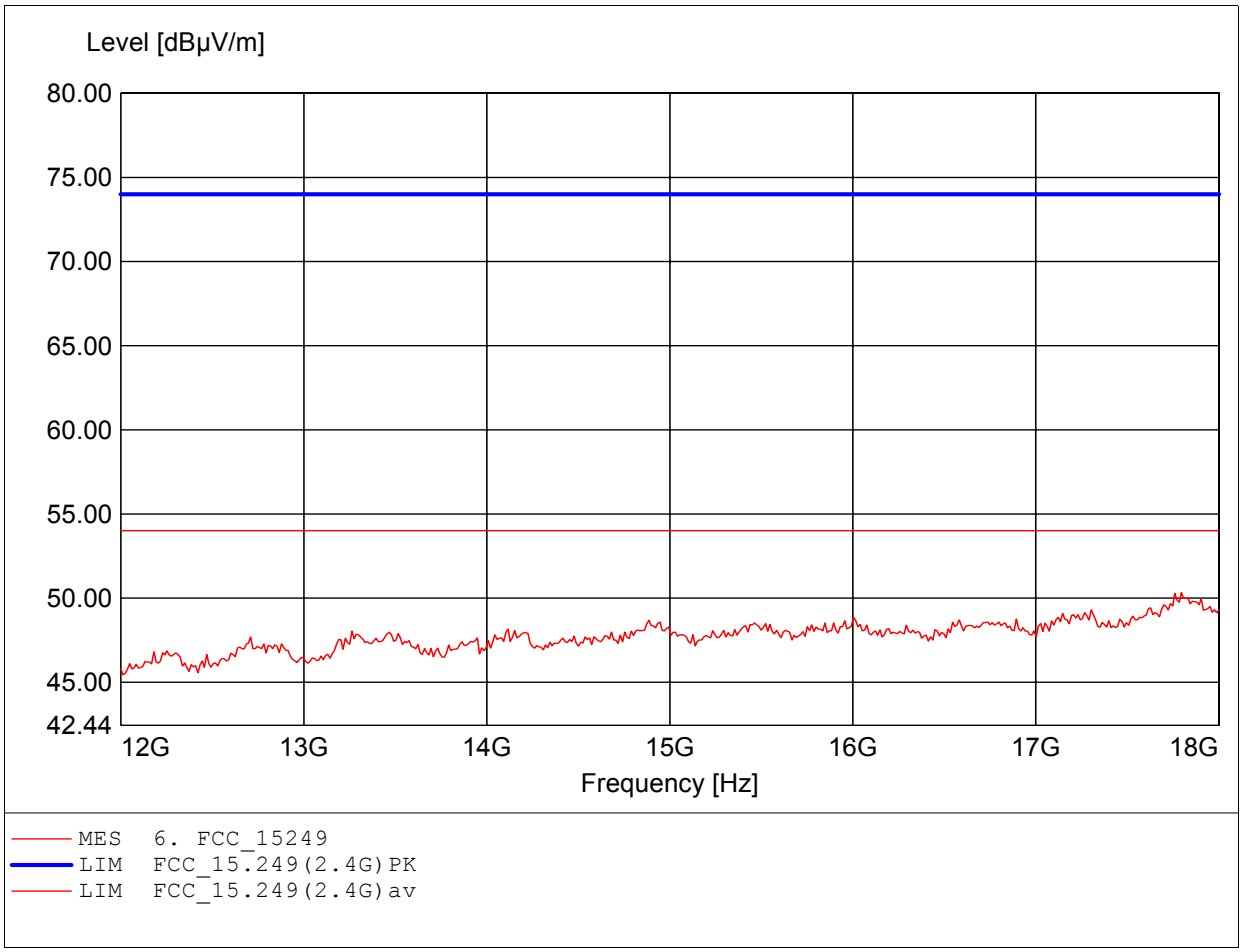
```
Order Number :          W6M20607-7129          ( low channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to §15.249, peak detector
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 17.820GHz, Emax: 49.99dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

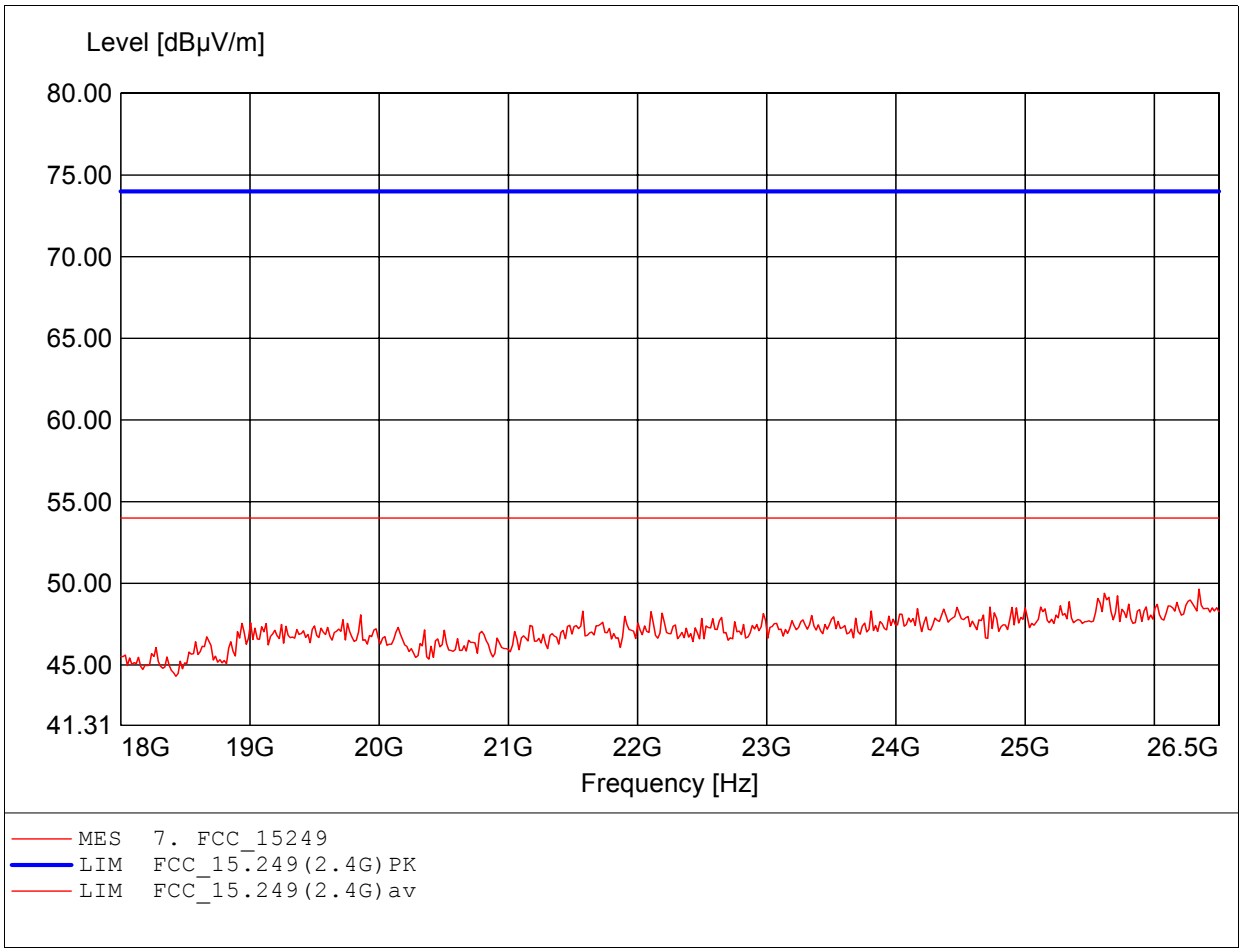
```
Order Number :          W6M20607-7129          ( low channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to §15.249, peak detector
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 17.796GHz, Emax: 50.33dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

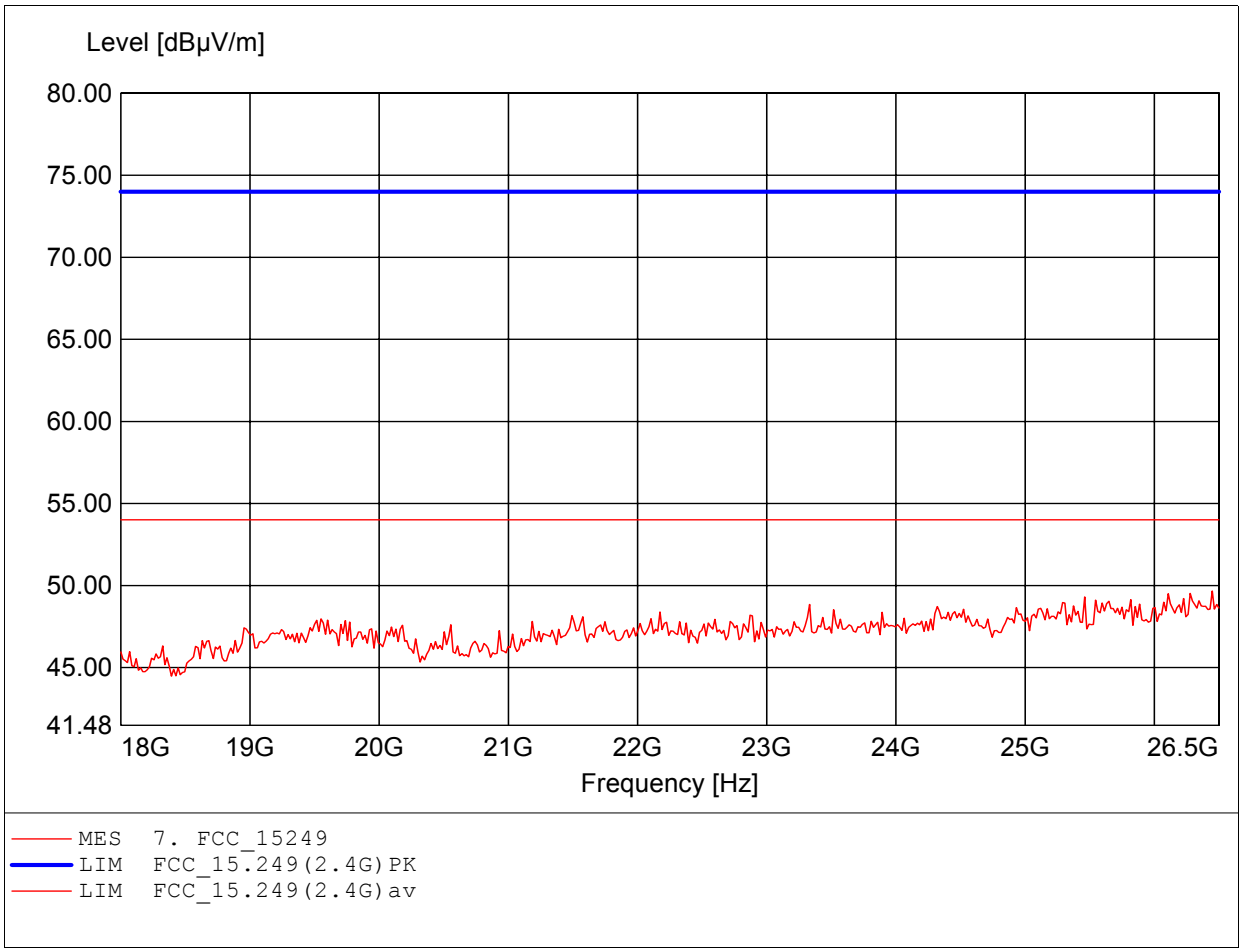
```
Order Number :          W6M20607-7129          ( low channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to §15.249, peak detector
Comment 1:              Dist.: 3m, Ant.: HL025, amplif.
                        Freq: 26.347GHz, Emax: 49.65dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

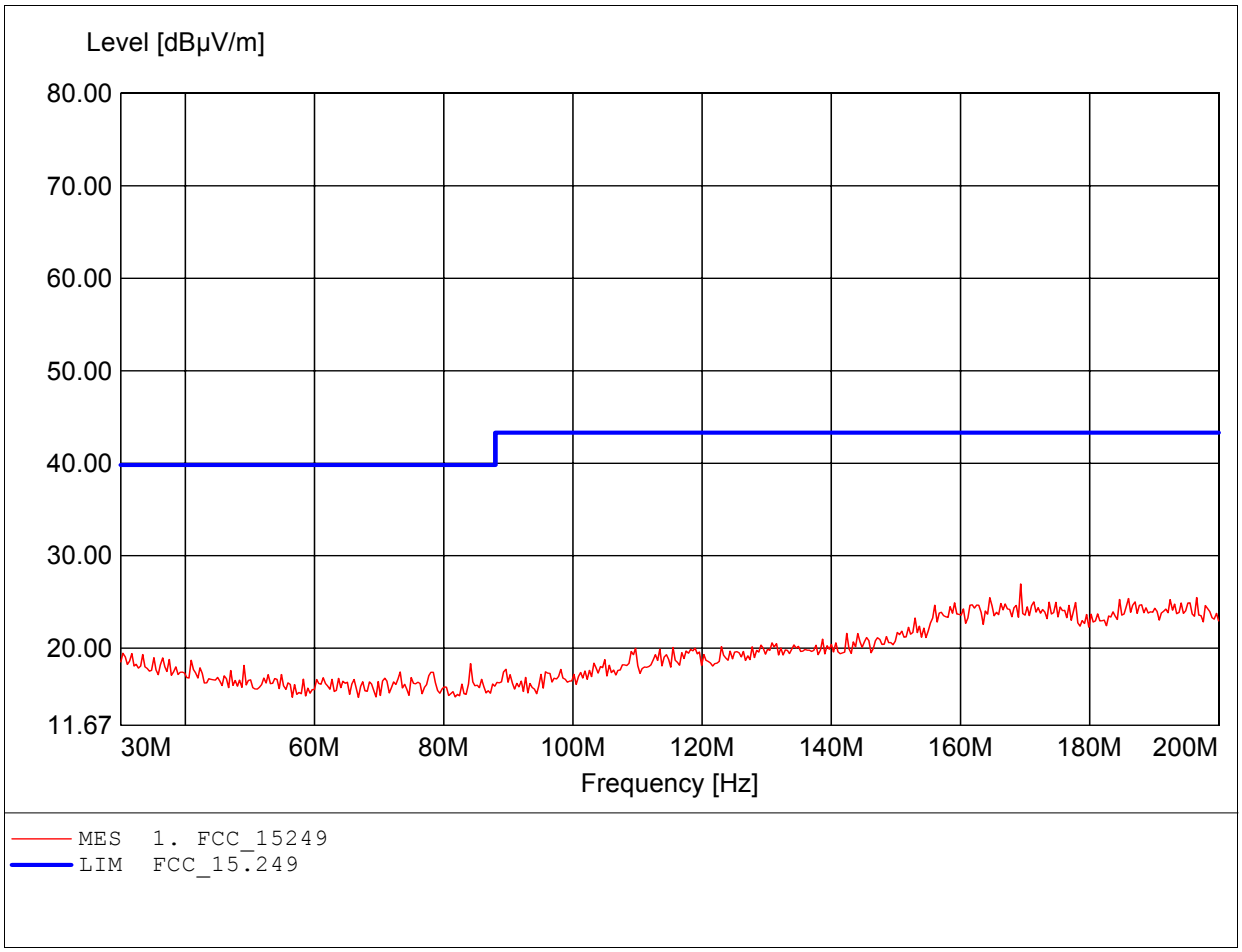
Order Number : W6M20607-7129 (low channel)
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 26.449GHz, Emax: 49.66dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

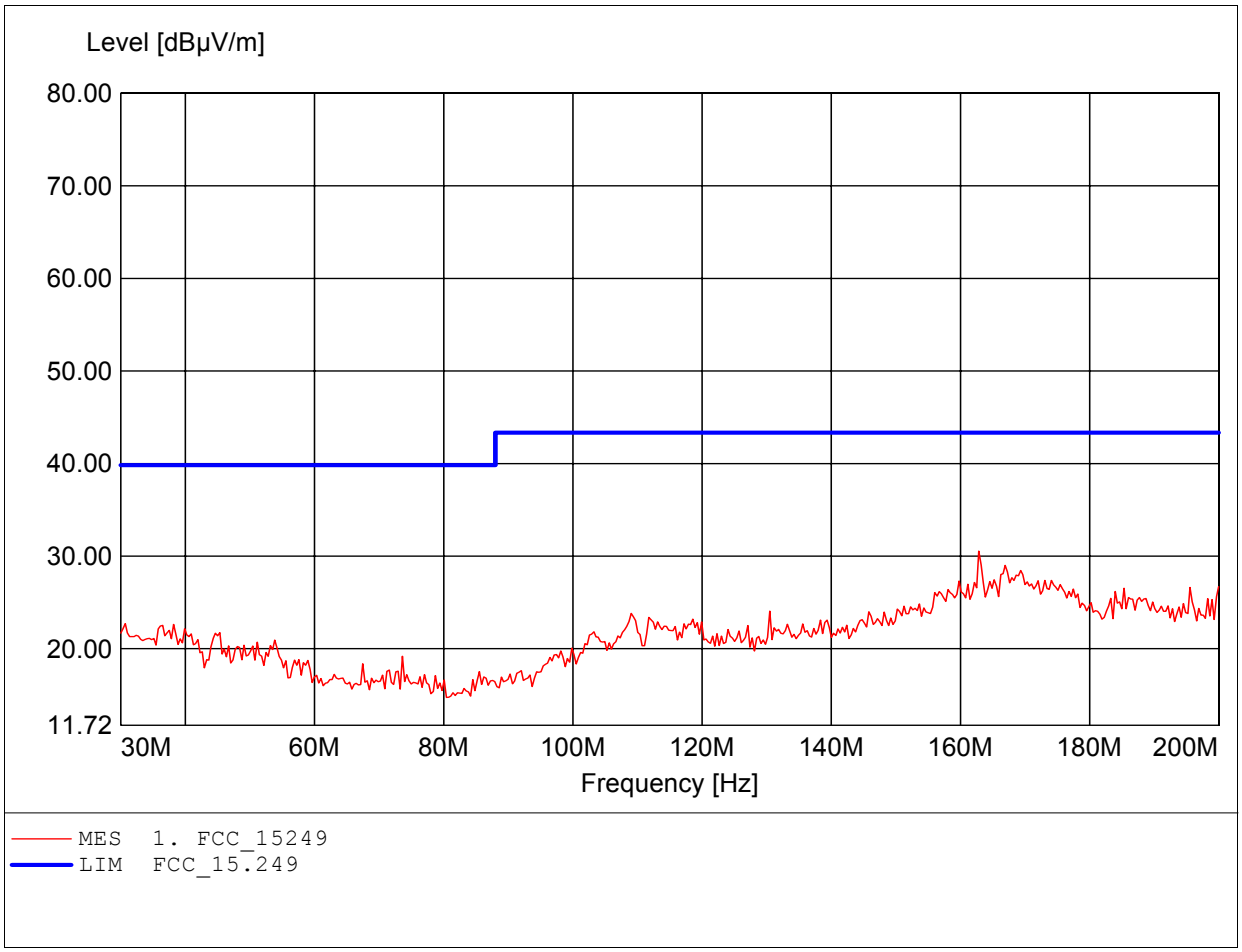
Order Number :	W6M20607-7129	(middle channel)
Test Site / Operator:	ETS / Charles	
Temperature:	Temp.: 23.9°C	
Test Specification:	according to §15.249, peak detector	
Comment 1:	Dist.: 3m, Ant.: HK 116	
	Freq: 169.339MHz, Emax: 26.94dBµV/m, RBW: 100kHz	



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

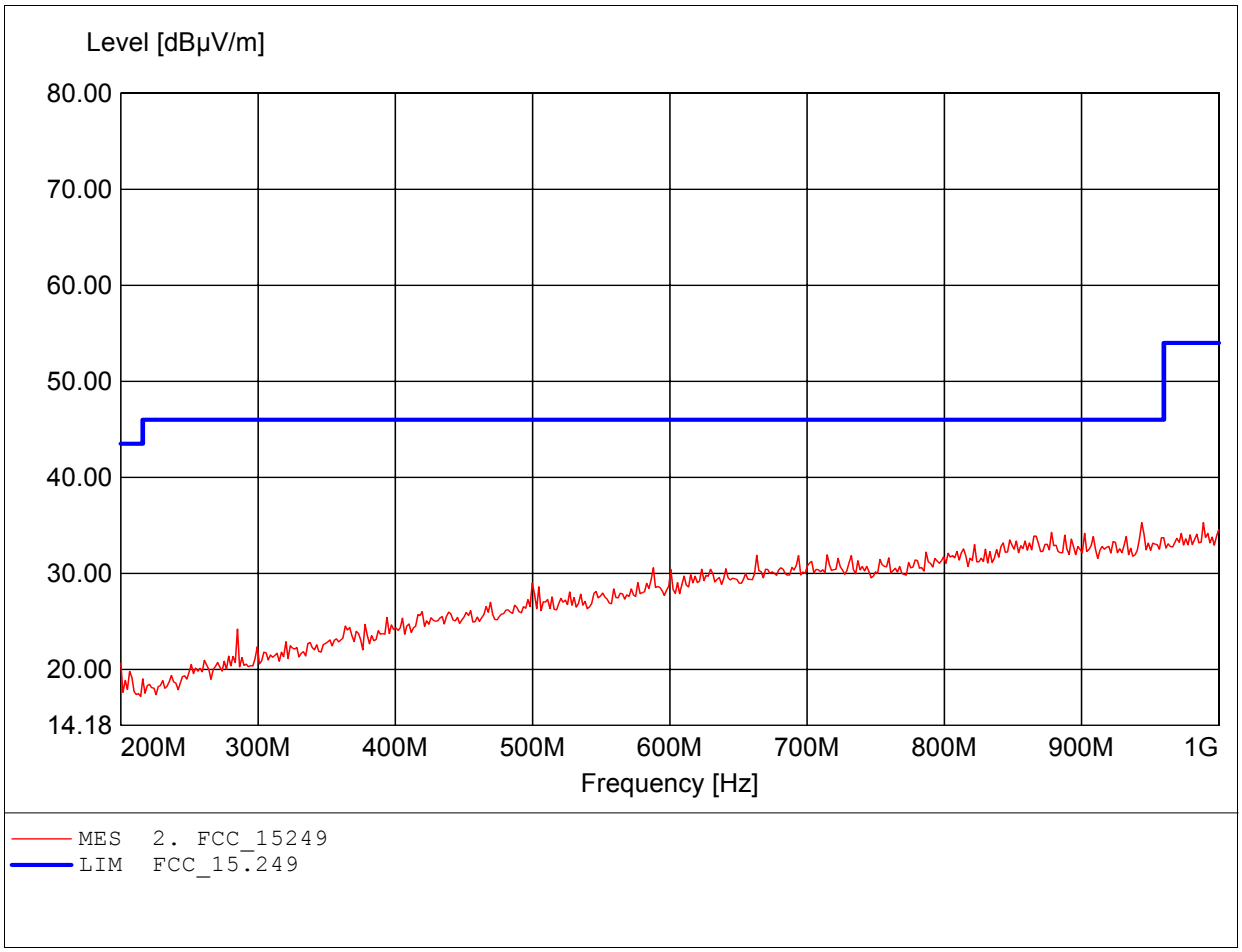
Order Number :	W6M20607-7129	(middle channel)
Test Site / Operator:	ETS / Charles	
Temperature:	Temp.: 23.9°C	
Test Specification:	according to §15.249, peak detector	
Comment 1:	Dist.: 3m, Ant.: HK 116	
	Freq: 162.866MHz, Emax: 30.53dBµV/m, RBW: 100kHz	



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

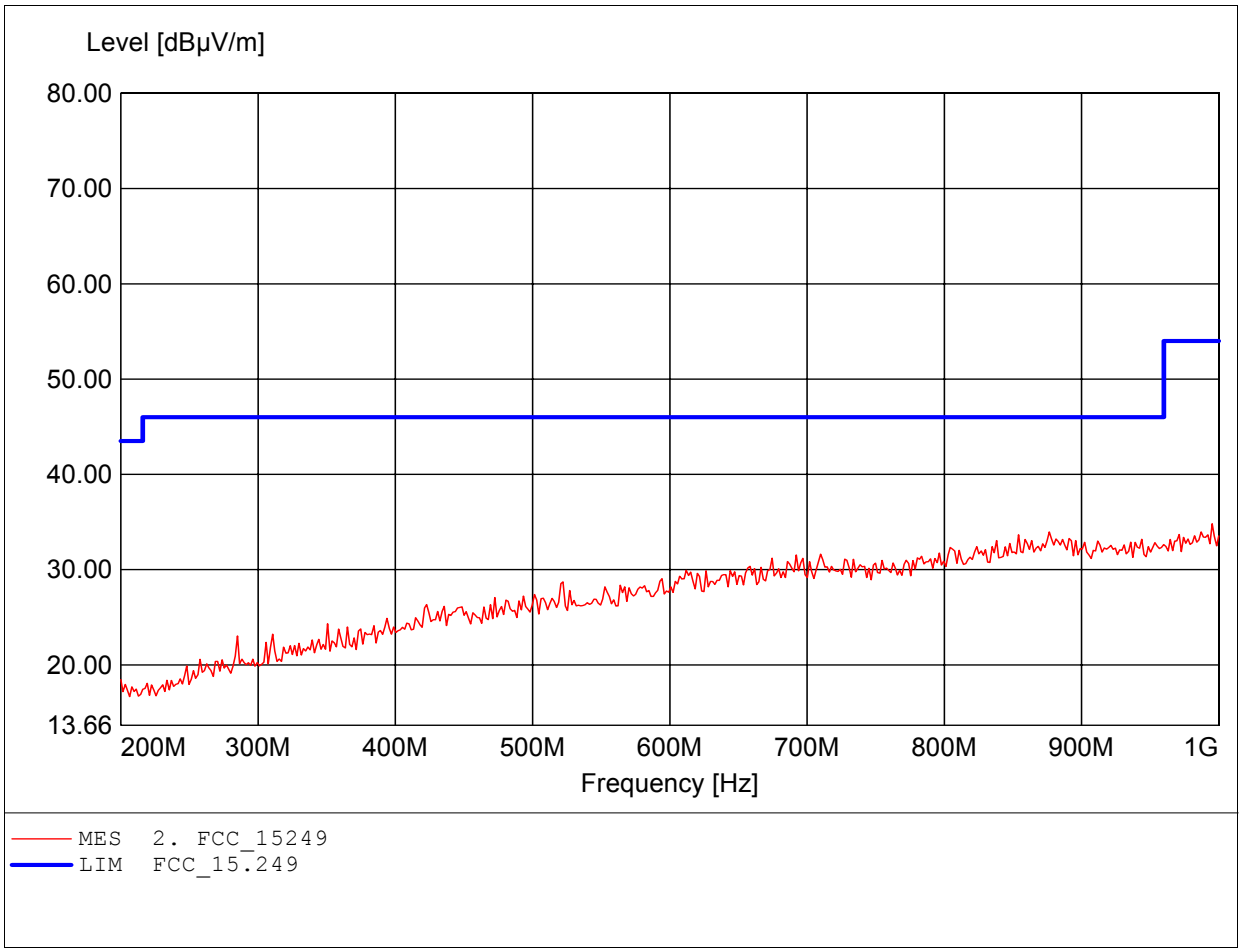
```
Order Number :          W6M20607-7129          ( middle channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to §15.249, peak detector
Comment 1:              Dist.: 3m, Ant.: HL 223, amplif.
                        Freq: 988.778MHz, Emax: 35.28dBµV/m, RBW: 100kHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

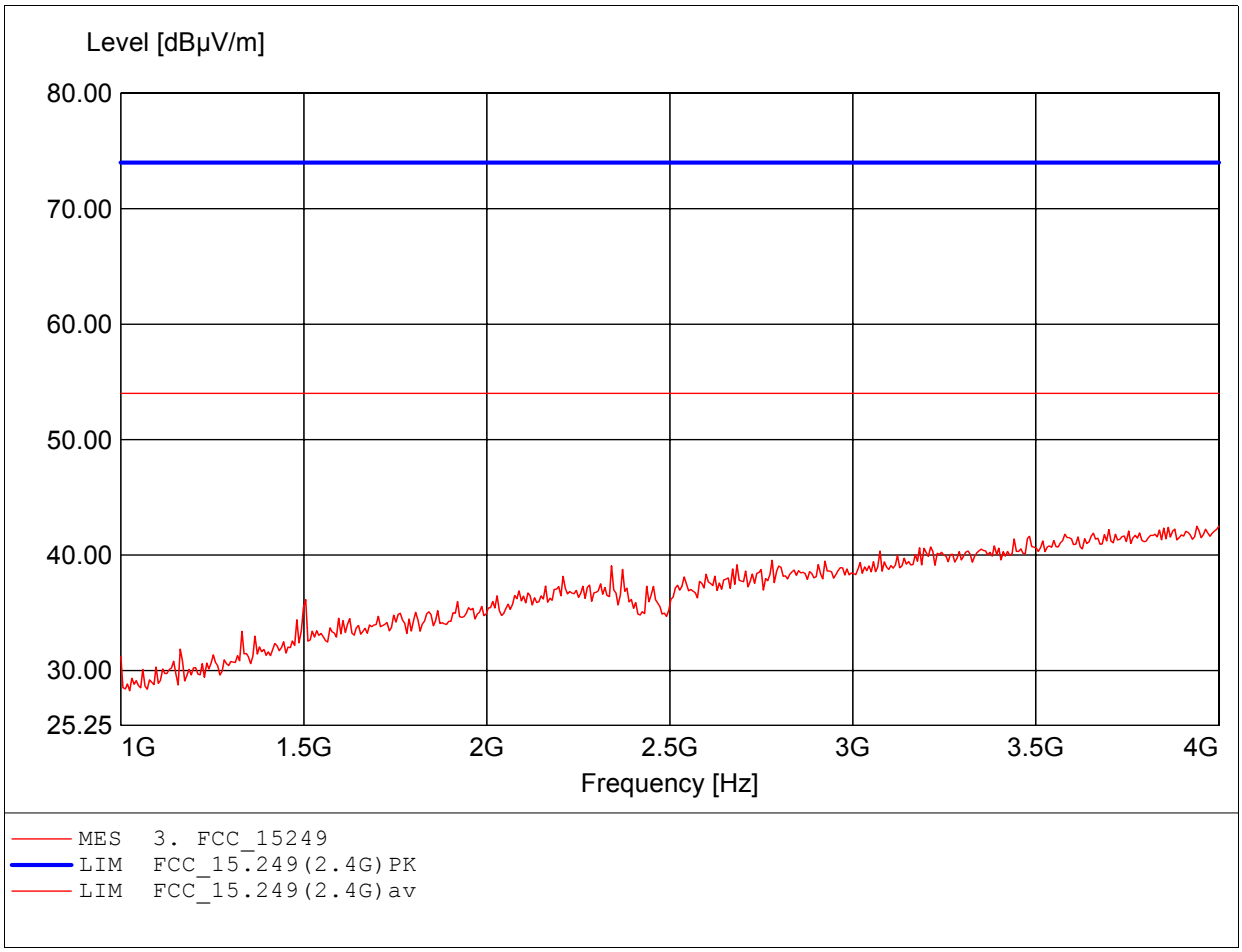
Order Number :	W6M20607-7129	(middle channel)
Test Site / Operator:	ETS / Charles	
Temperature:	Temp.: 23.9°C	
Test Specification:	according to §15.249, peak detector	
Comment 1:	Dist.: 3m, Ant.: HL 223, amplif.	
	Freq: 995.190MHz, Emax: 34.82dBµV/m, RBW: 100kHz	



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

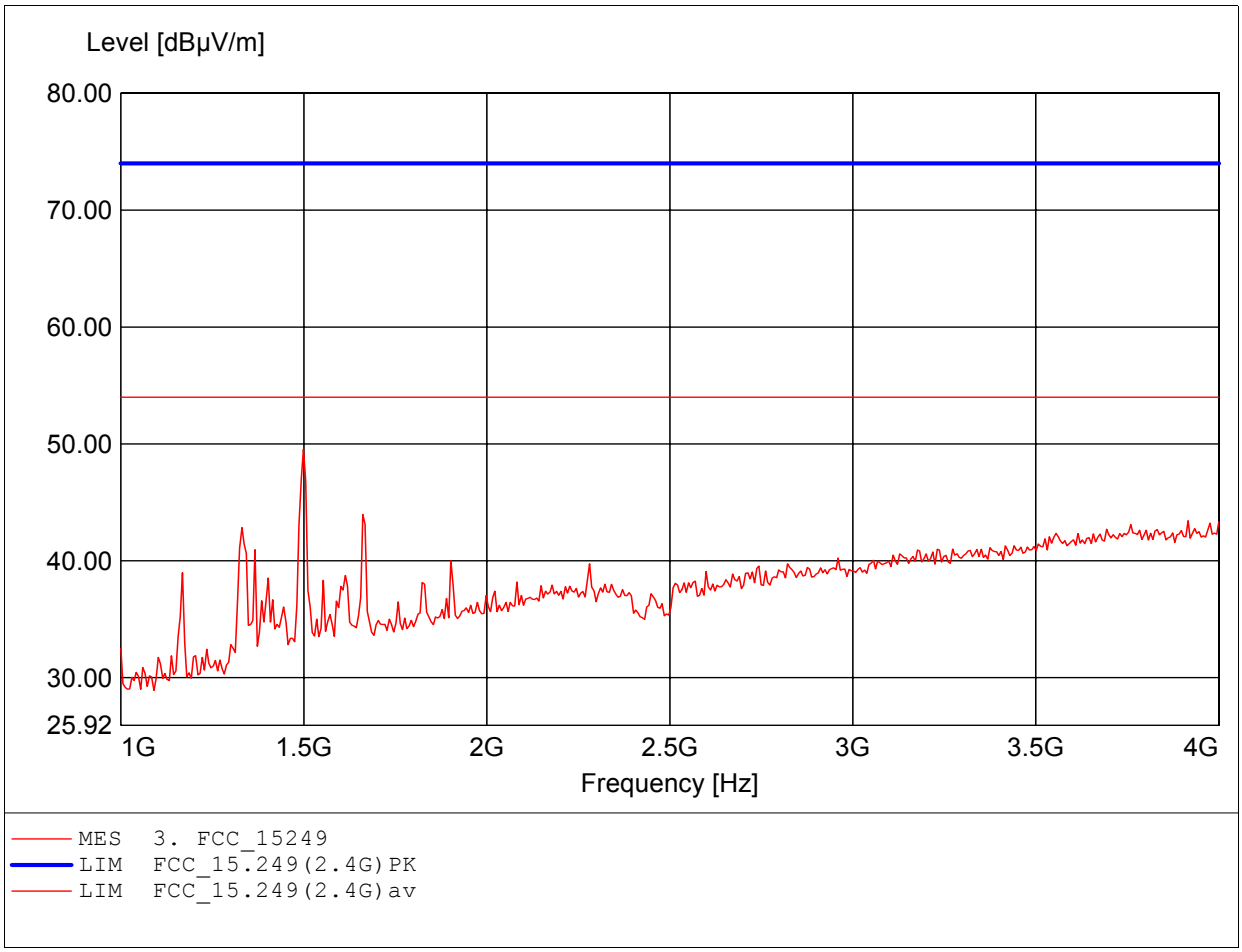
```
Order Number :          W6M20607-7129          ( middle channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to §15.249, peak detector
Comment 1:              Dist.: 3m, Ant.: HL025, amplif.
                        Freq: 4.000GHz, Emax: 42.50dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

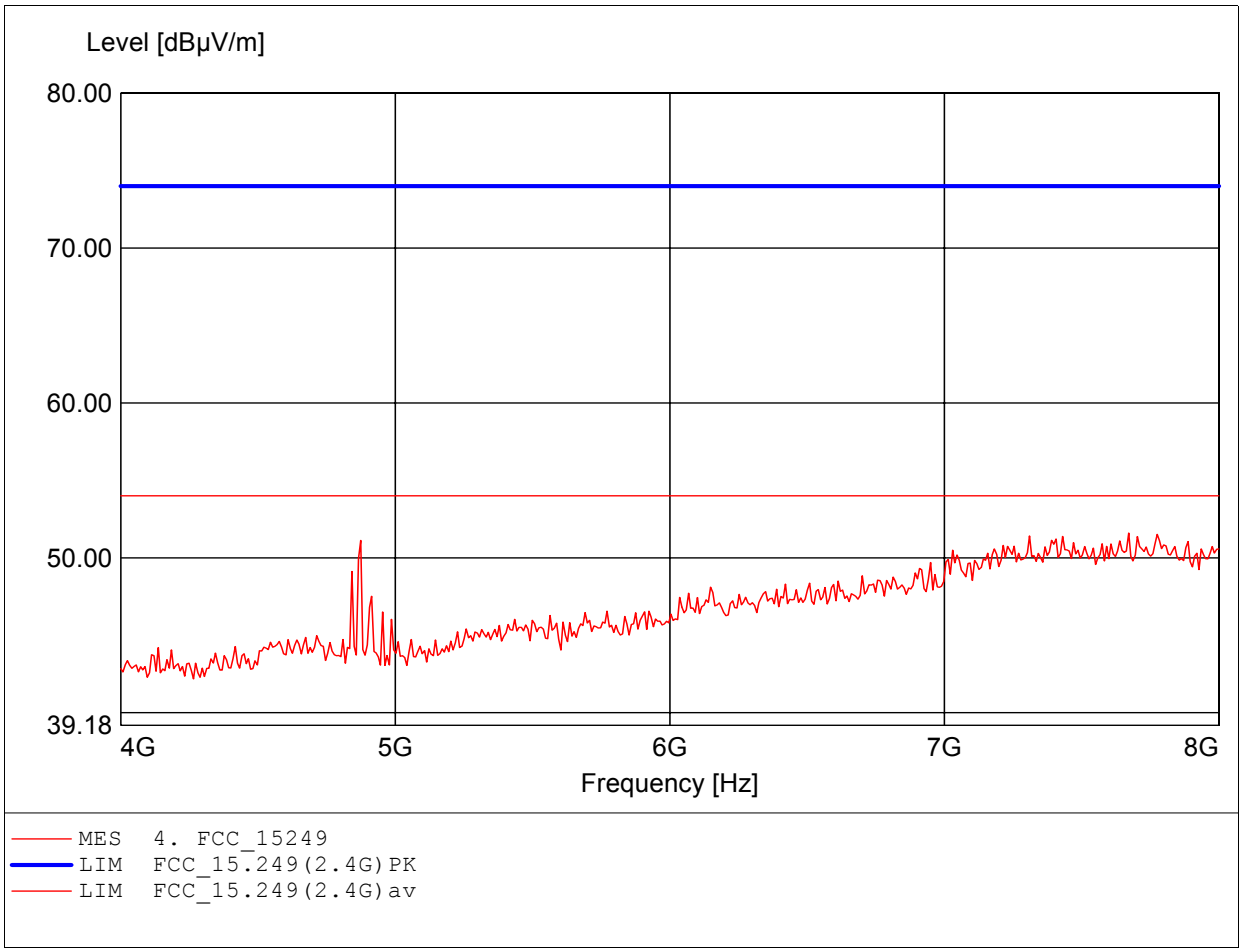
Order Number : W6M20607-7129 (middle channel)
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 1.499GHz, Emax: 49.55dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

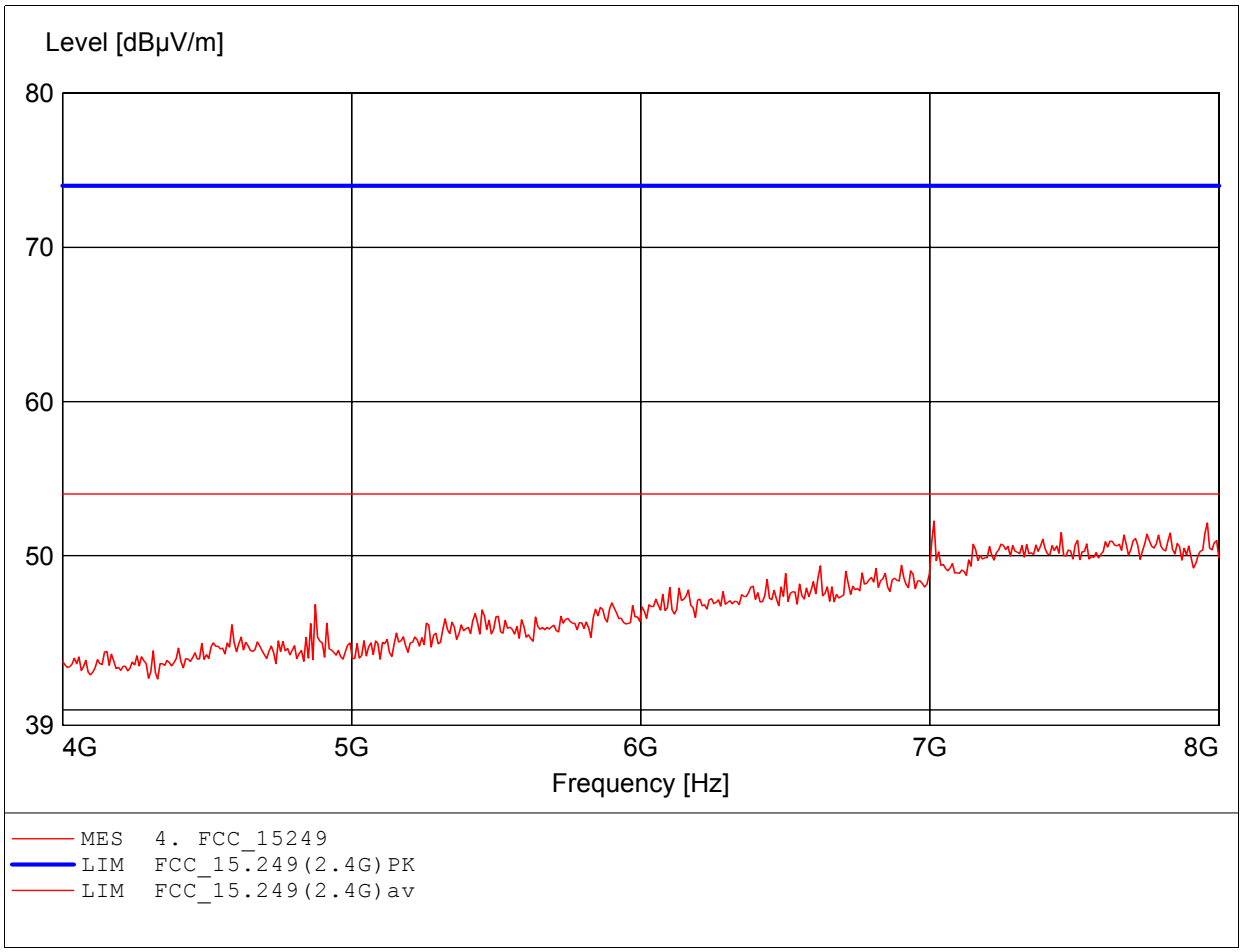
```
Order Number :          W6M20607-7129          ( middle channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to §15.249, peak detector
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 7.671GHz, Emax: 51.60dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

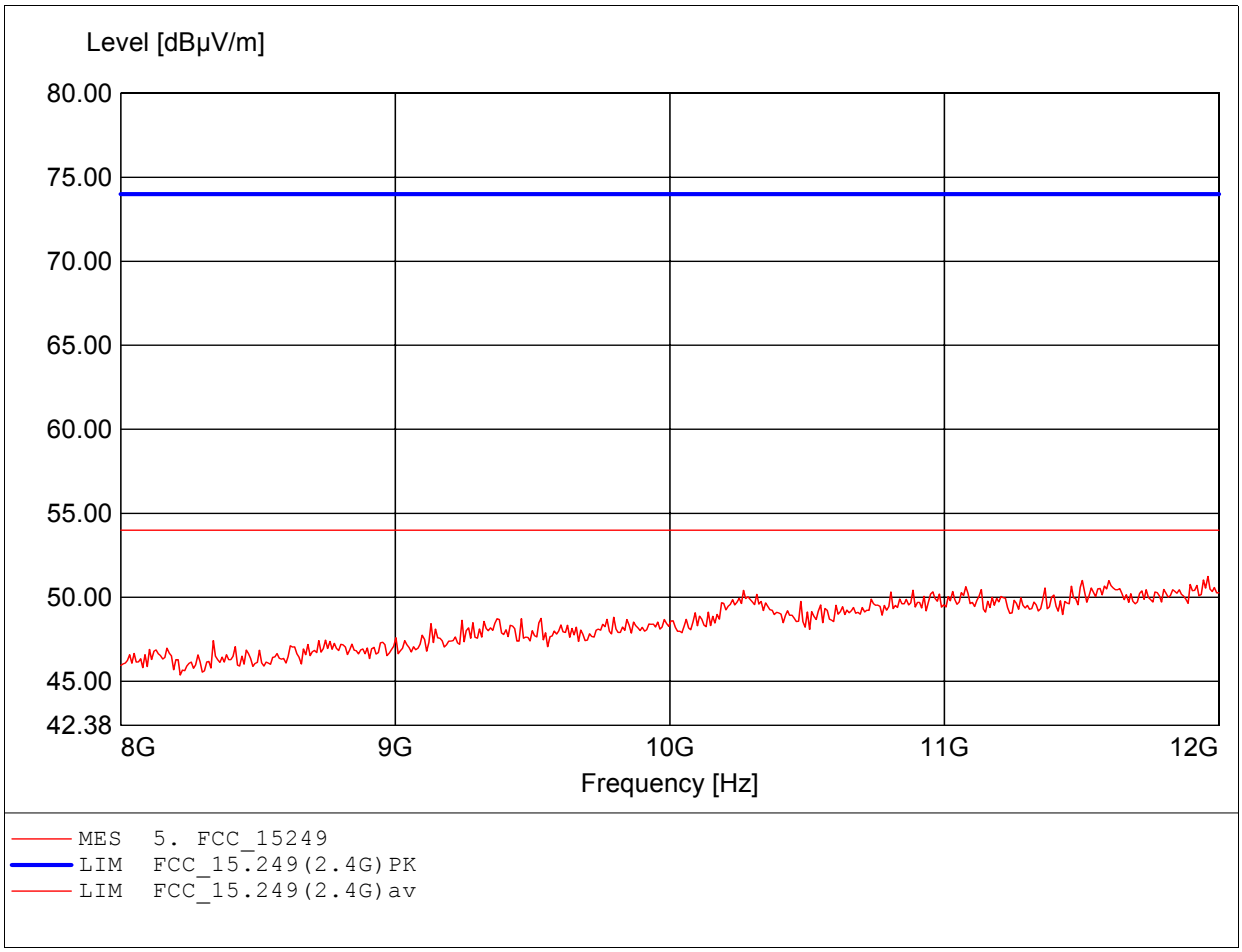
Order Number :	W6M20607-7129	(middle channel)
Test Site / Operator:	ETS / Charles	
Temperature:	Temp.: 23.9°C	
Test Specification:	according to §15.249, peak detector	
Comment 1:	Dist.: 3m, Ant.: HL025, ampl.+HP.	
	Freq: 7.014GHz, Emax: 52.25dBµV/m, RBW: 1MHz	



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

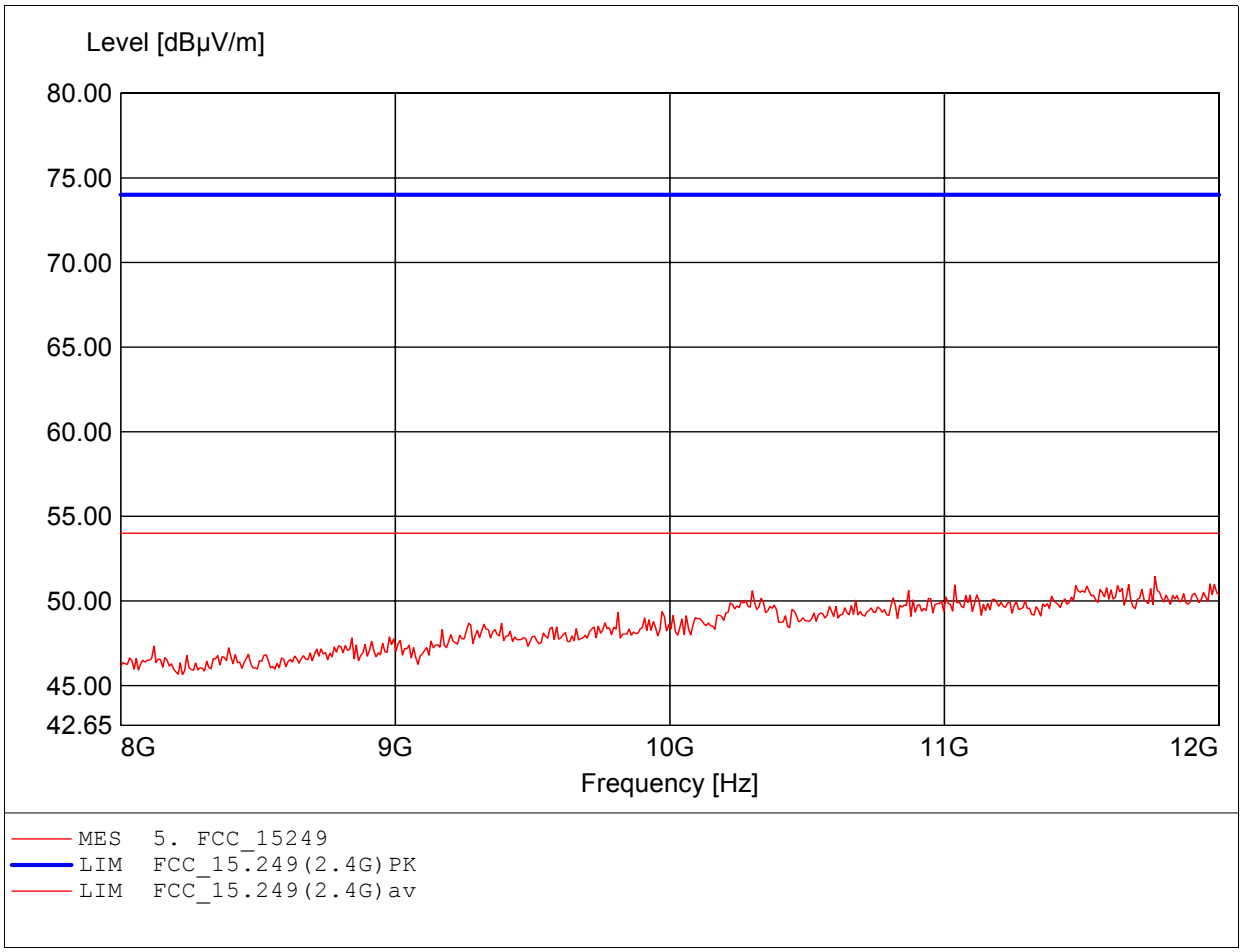
```
Order Number :          W6M20607-7129          ( middle channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to §15.249, peak detector
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 11.960GHz, Emax: 51.24dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

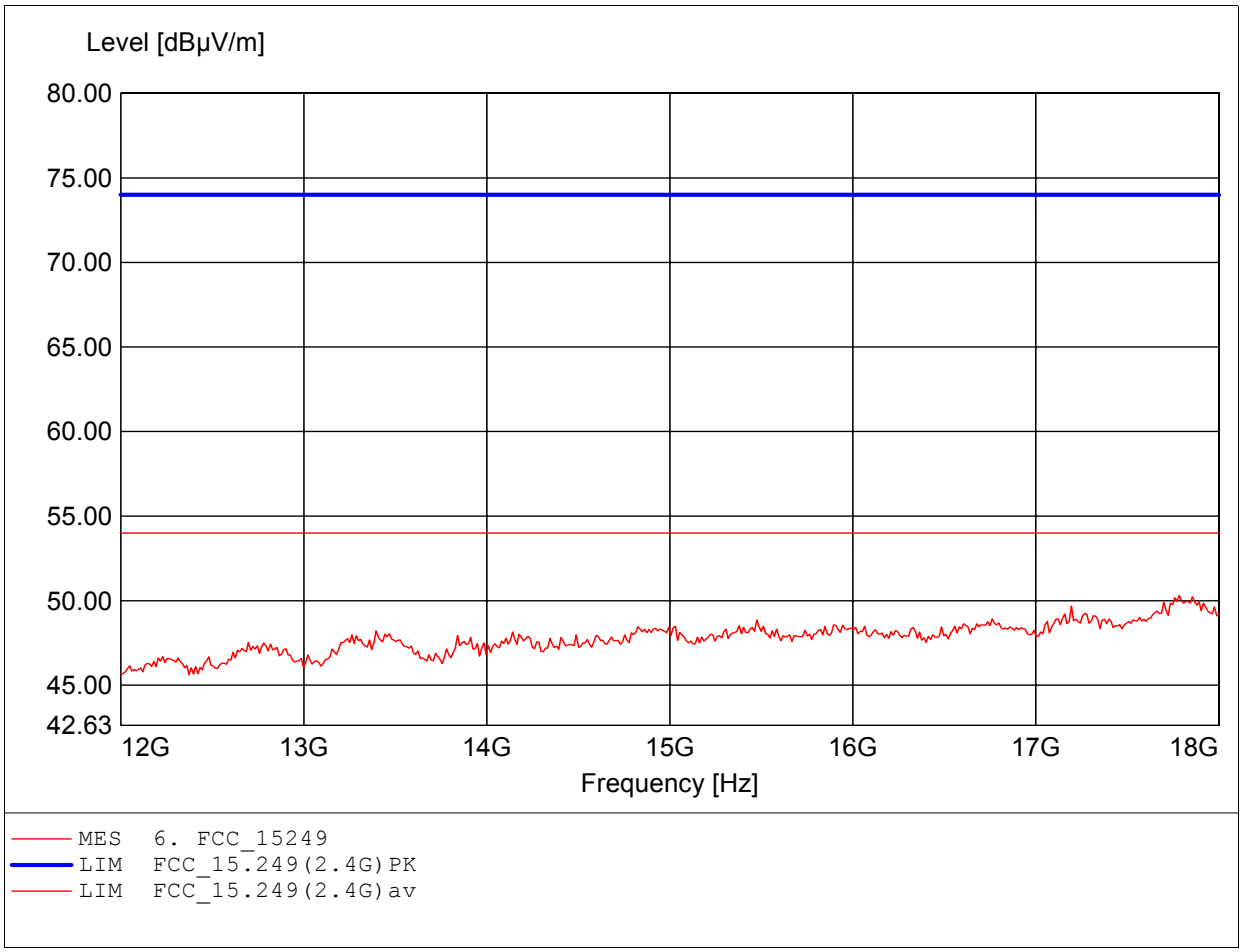
Order Number : W6M20607-7129 (middle channel)
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 11.768GHz, Emax: 51.45dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

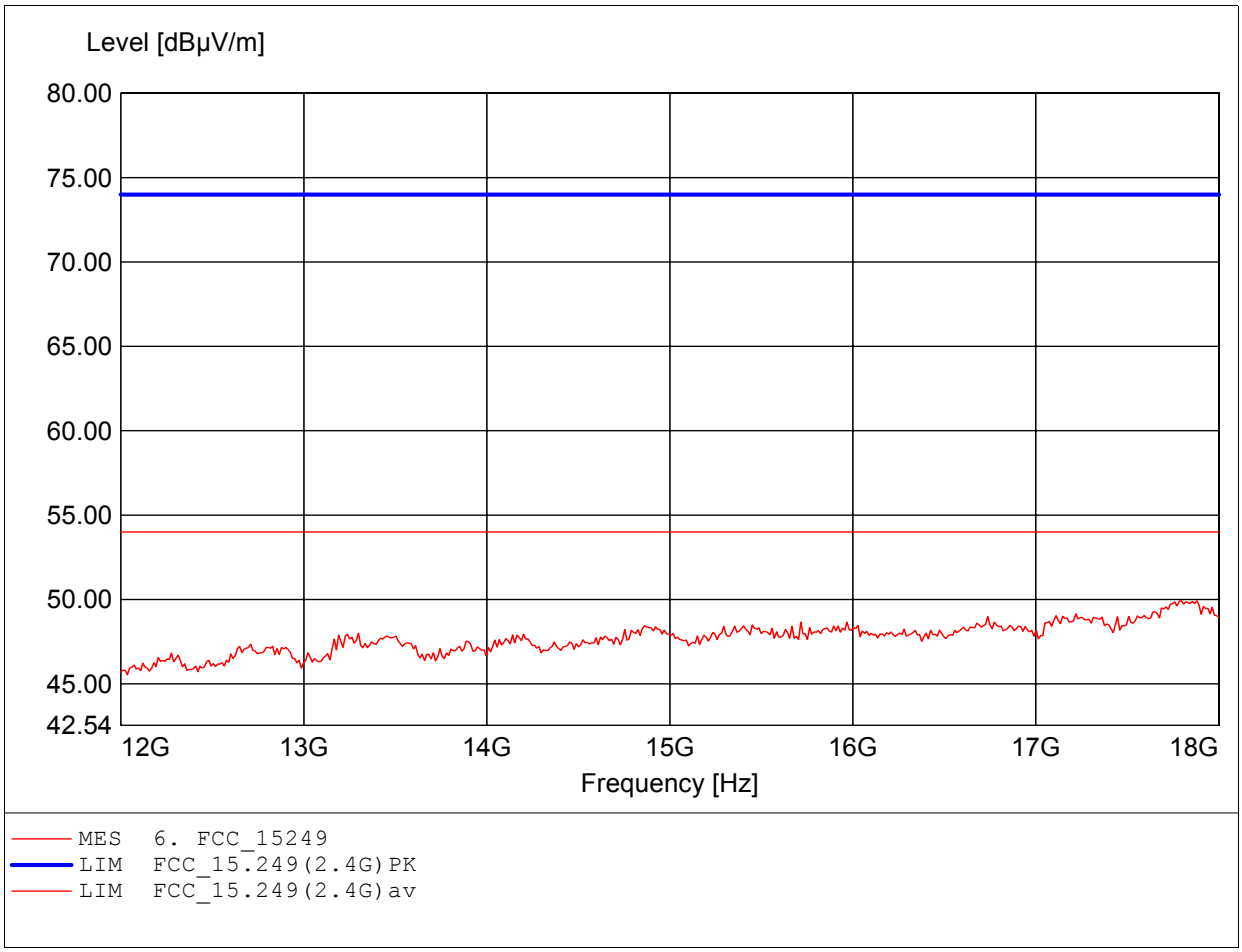
```
Order Number :          W6M20607-7129          ( middle channel )
Test Site / Operator: ETS / Charles
Temperature:          Temp.: 23.9°C
Test Specification:   according to §15.249, peak detector
Comment 1:            Dist.: 3m, Ant.: HL025, ampl.+HP.
                      Freq: 17.784GHz, Emax: 50.29dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

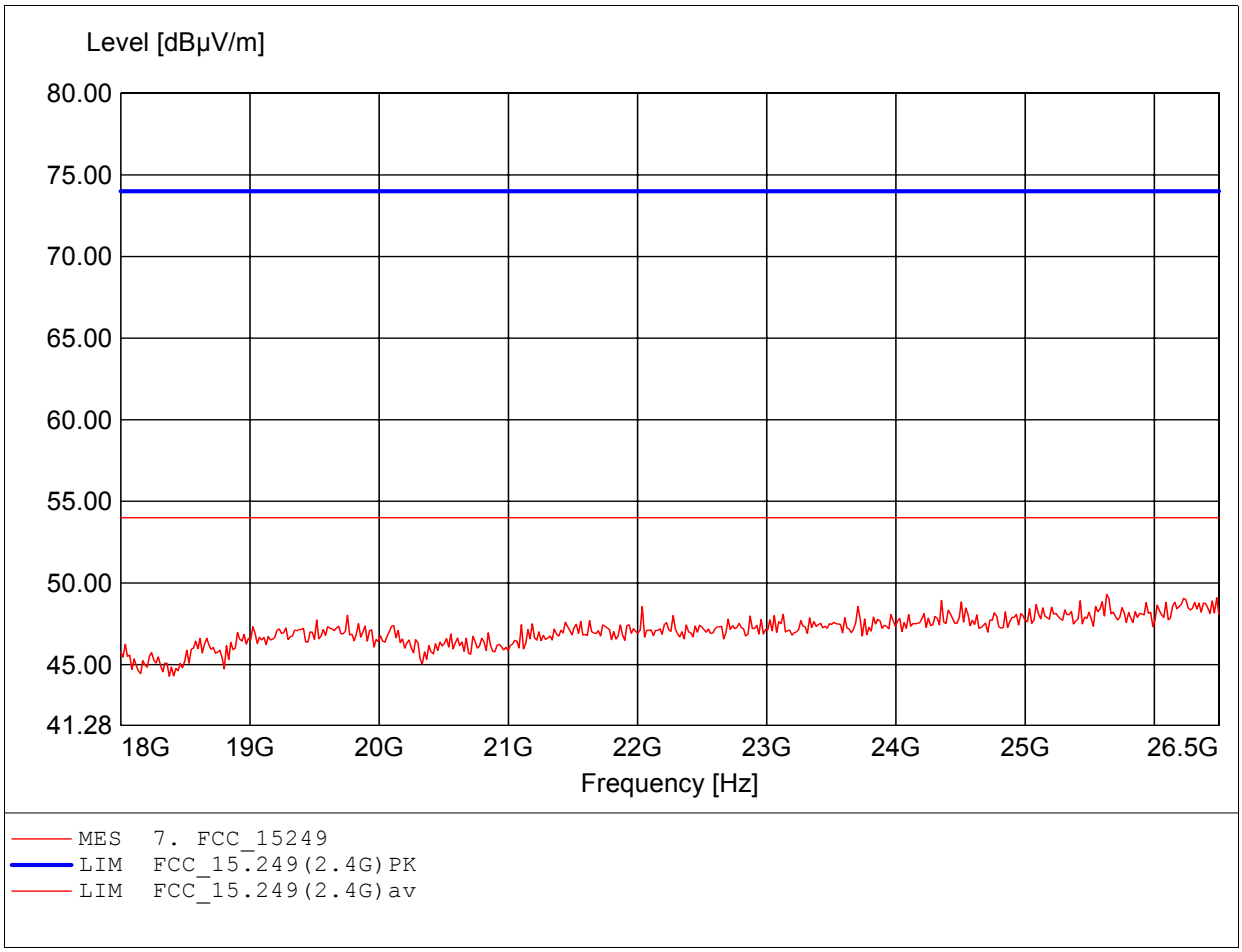
```
Order Number :          W6M20607-7129          ( middle channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to §15.249, peak detector
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 17.796GHz, Emax: 49.93dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

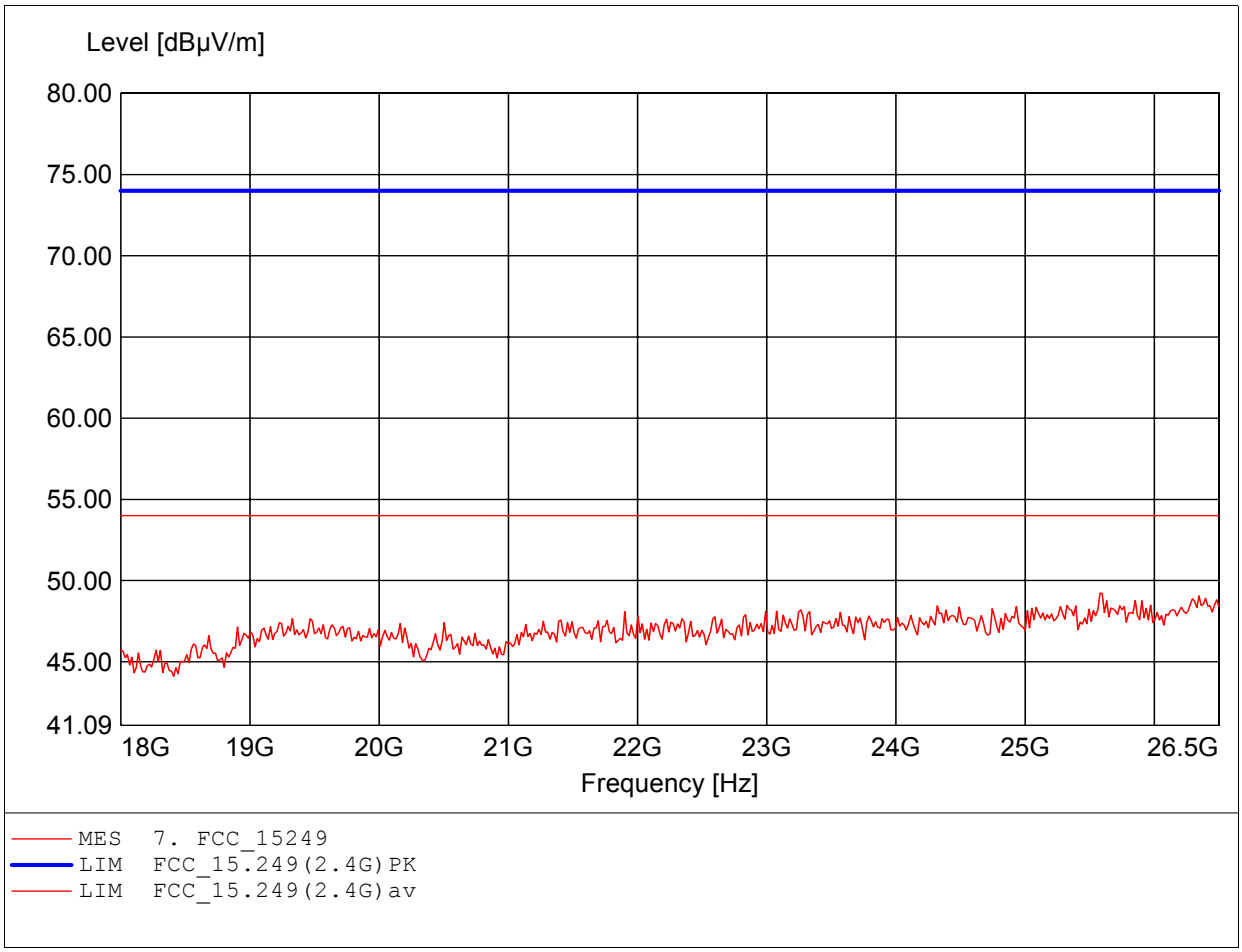
Order Number : W6M20607-7129 (middle channel)
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 25.631GHz, Emax: 49.30dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

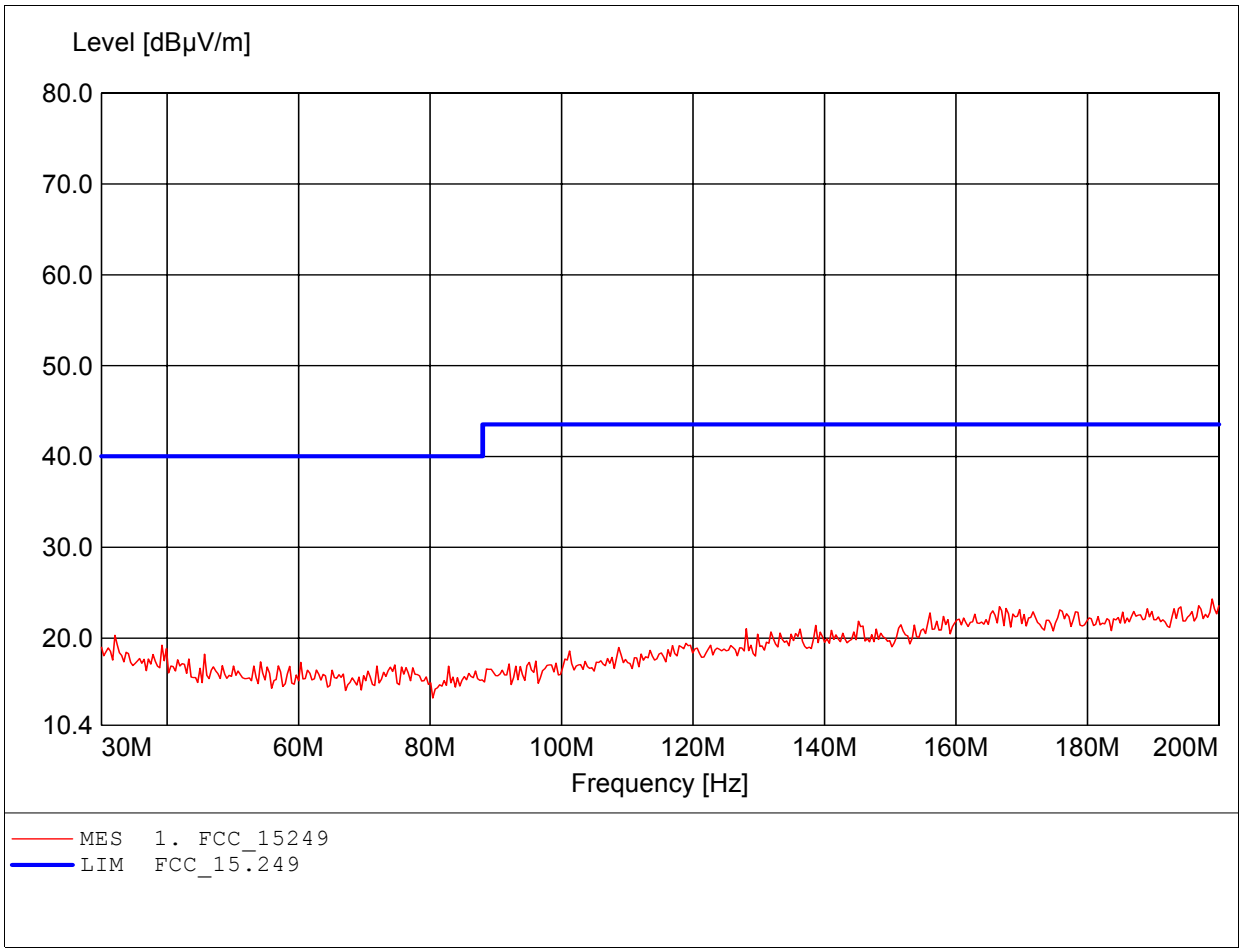
```
Order Number :          W6M20607-7129          ( middle channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to §15.249, peak detector
Comment 1:              Dist.: 3m, Ant.: HL025, amplif.
                        Freq: 25.580GHz, Emax: 49.23dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

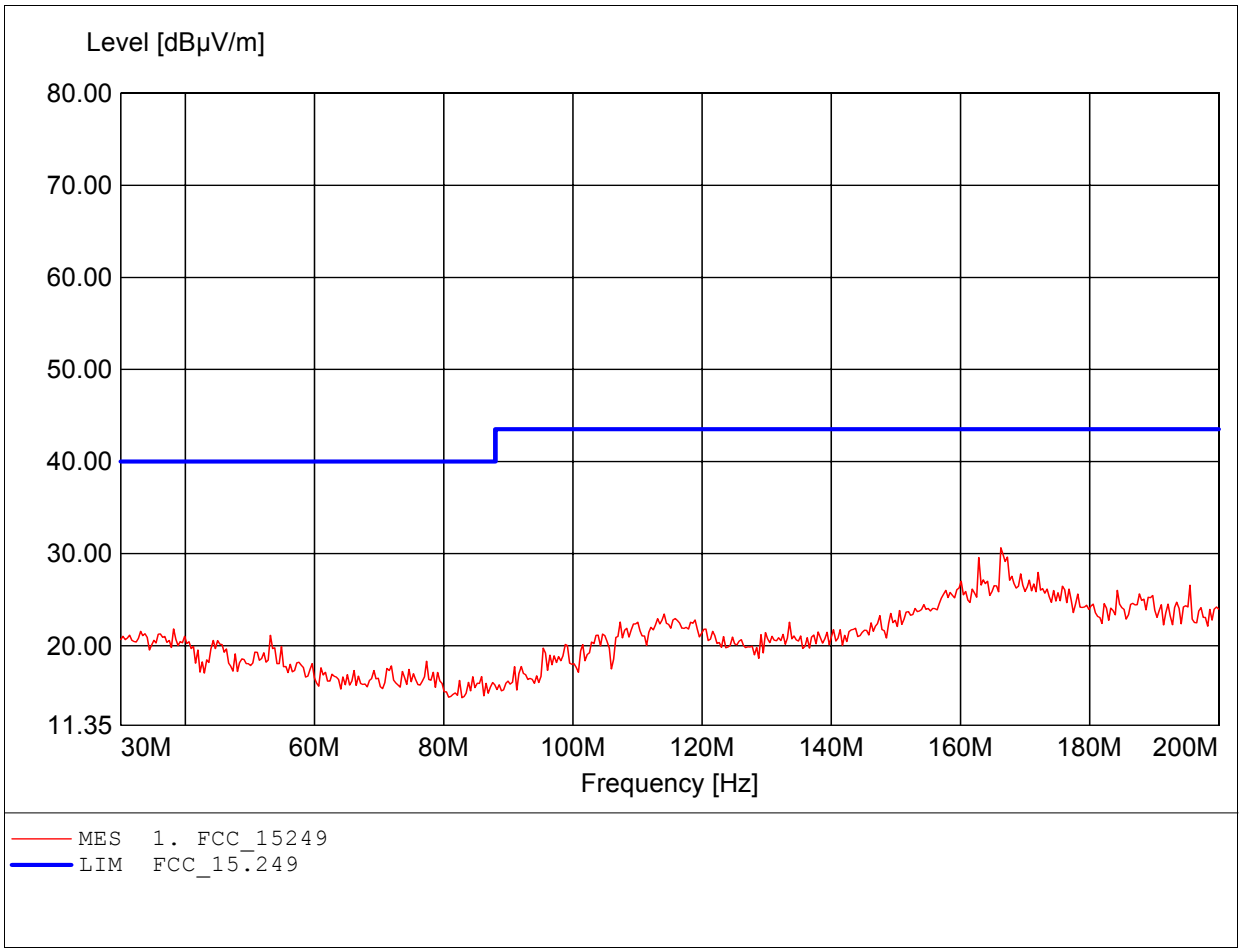
Order Number :	W6M20607-7129	(high channel)
Test Site / Operator:	ETS / Charles	
Temperature:	Temp.: 23.9°C	
Test Specification:	according to §15.249, peak detector	
Comment 1:	Dist.: 3m, Ant.: HK 116	
	Freq: 198.978MHz, Emax: 24.30dBµV/m, RBW: 100kHz	



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

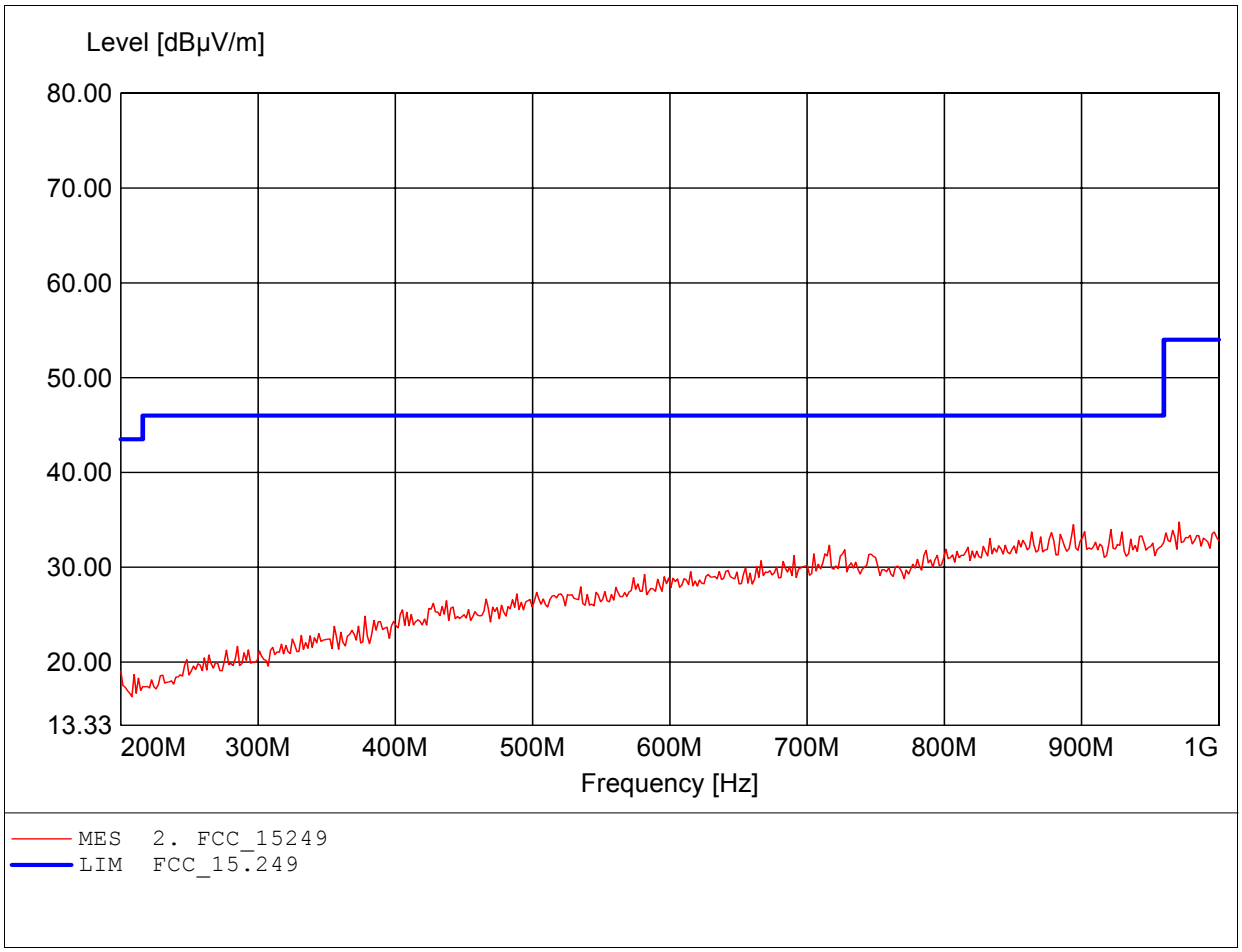
Order Number :	W6M20607-7129	(high channel)
Test Site / Operator:	ETS / Charles	
Temperature:	Temp.: 23.9°C	
Test Specification:	according to §15.249, peak detector	
Comment 1:	Dist.: 3m, Ant.: HK 116	
	Freq: 166.273MHz, Emax: 30.63dBµV/m, RBW: 100kHz	



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

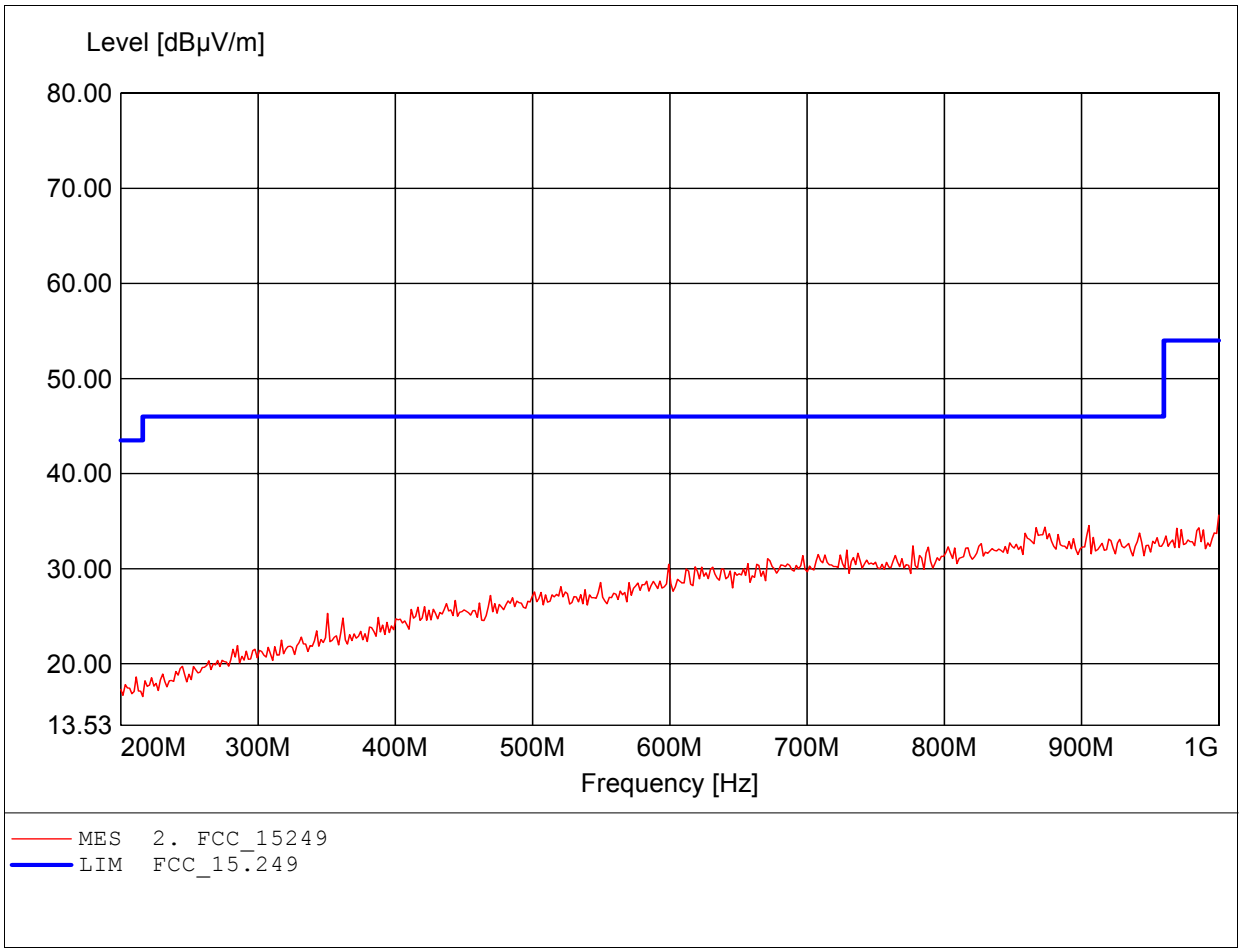
Order Number :	W6M20607-7129	(high channel)
Test Site / Operator:	ETS / Charles	
Temperature:	Temp.: 23.9°C	
Test Specification:	according to §15.249, peak detector	
Comment 1:	Dist.: 3m, Ant.: HL 223, amplif.	
	Freq: 971.142MHz, Emax: 34.77dBµV/m, RBW: 100kHz	



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

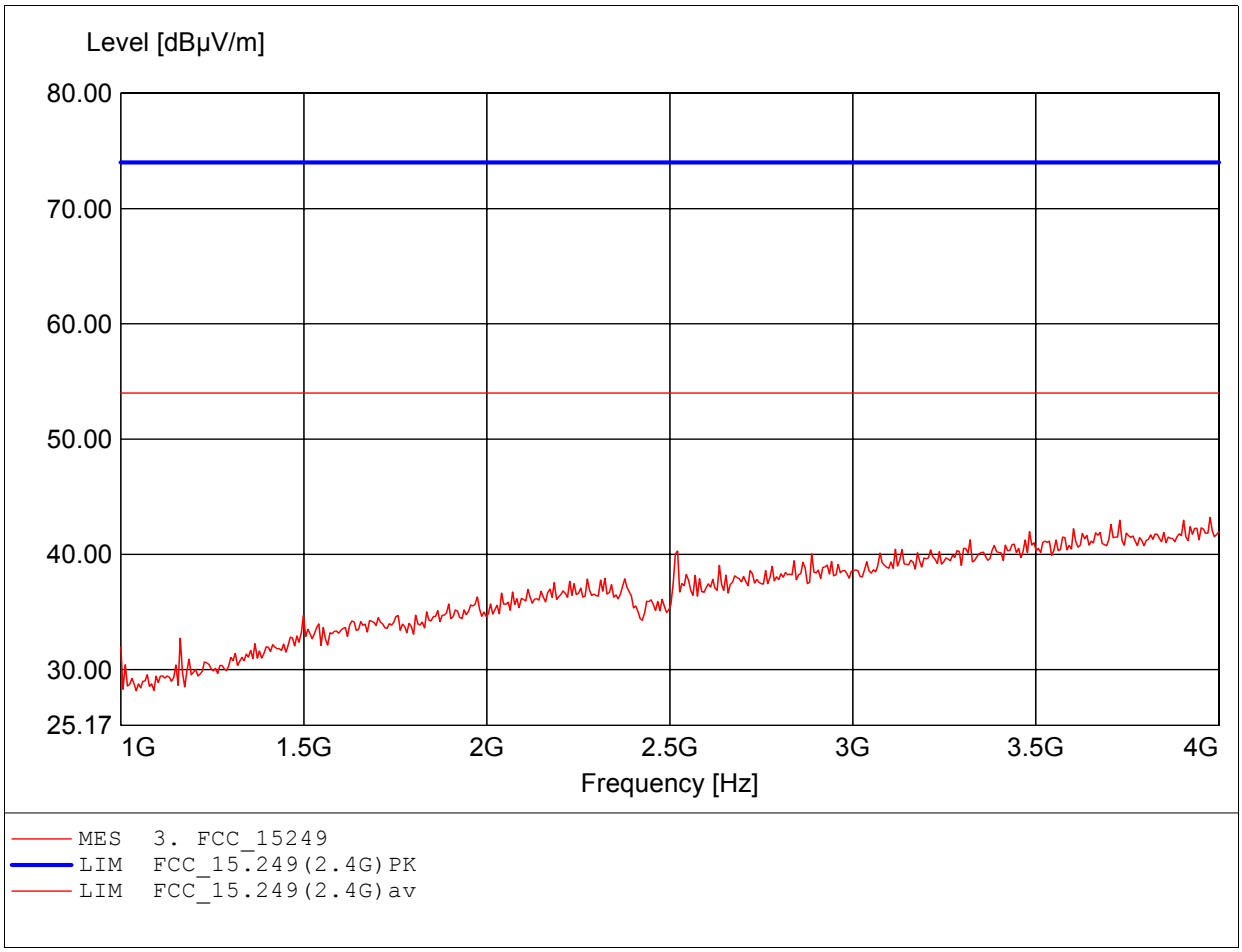
Order Number :	W6M20607-7129	(high channel)
Test Site / Operator:	ETS / Charles	
Temperature:	Temp.: 23.9°C	
Test Specification:	according to §15.249, peak detector	
Comment 1:	Dist.: 3m, Ant.: HL 223, amplif.	
	Freq: 1.000GHz, Emax: 35.63dBµV/m, RBW: 100kHz	



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

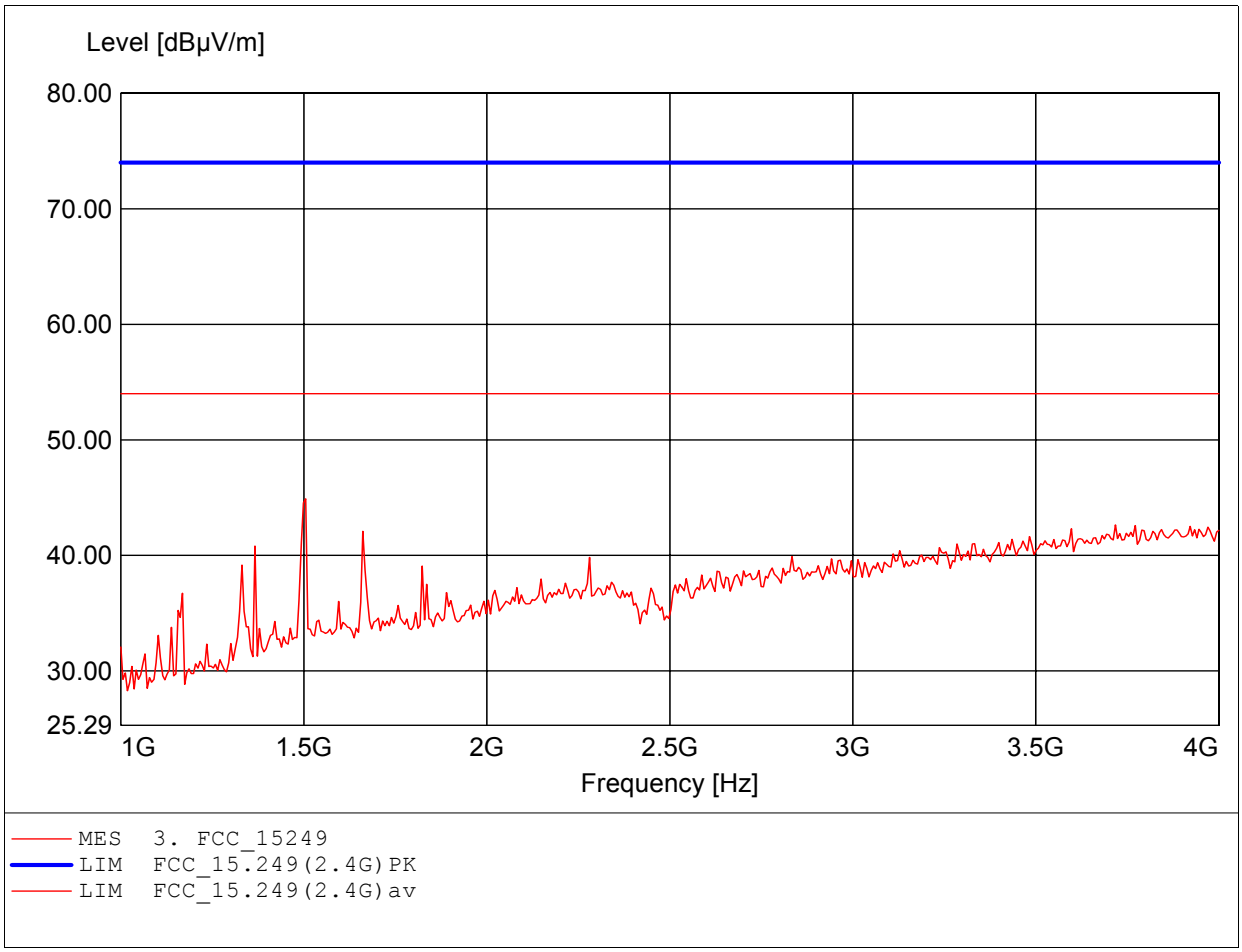
```
Order Number :          W6M20607-7129          ( high channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to §15.249, peak detector
Comment 1:              Dist.: 3m, Ant.: HL025, amplif.
                        Freq: 3.976GHz, Emax: 43.21dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

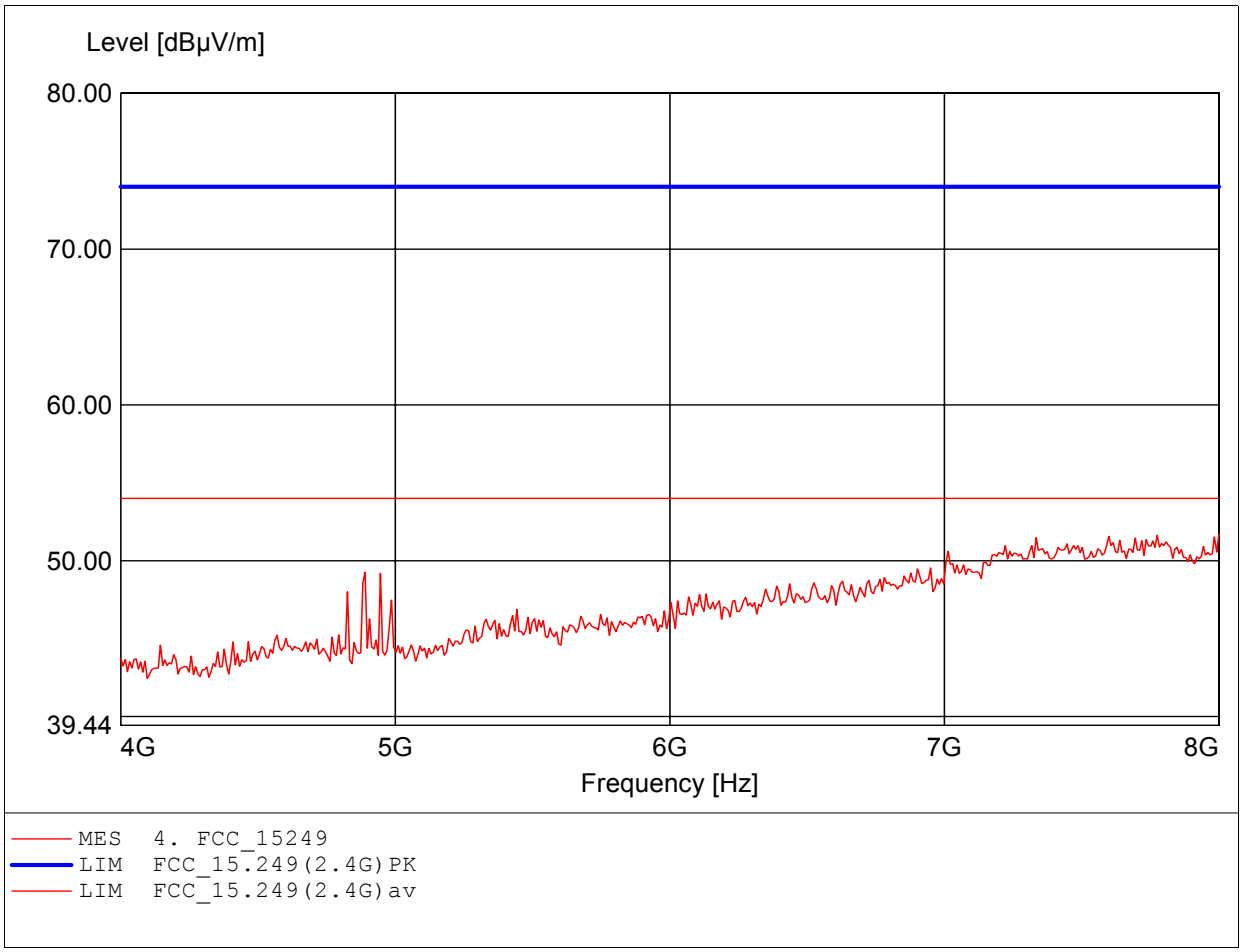
Order Number : W6M20607-7129 (high channel)
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 1.505GHz, Emax: 44.90dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

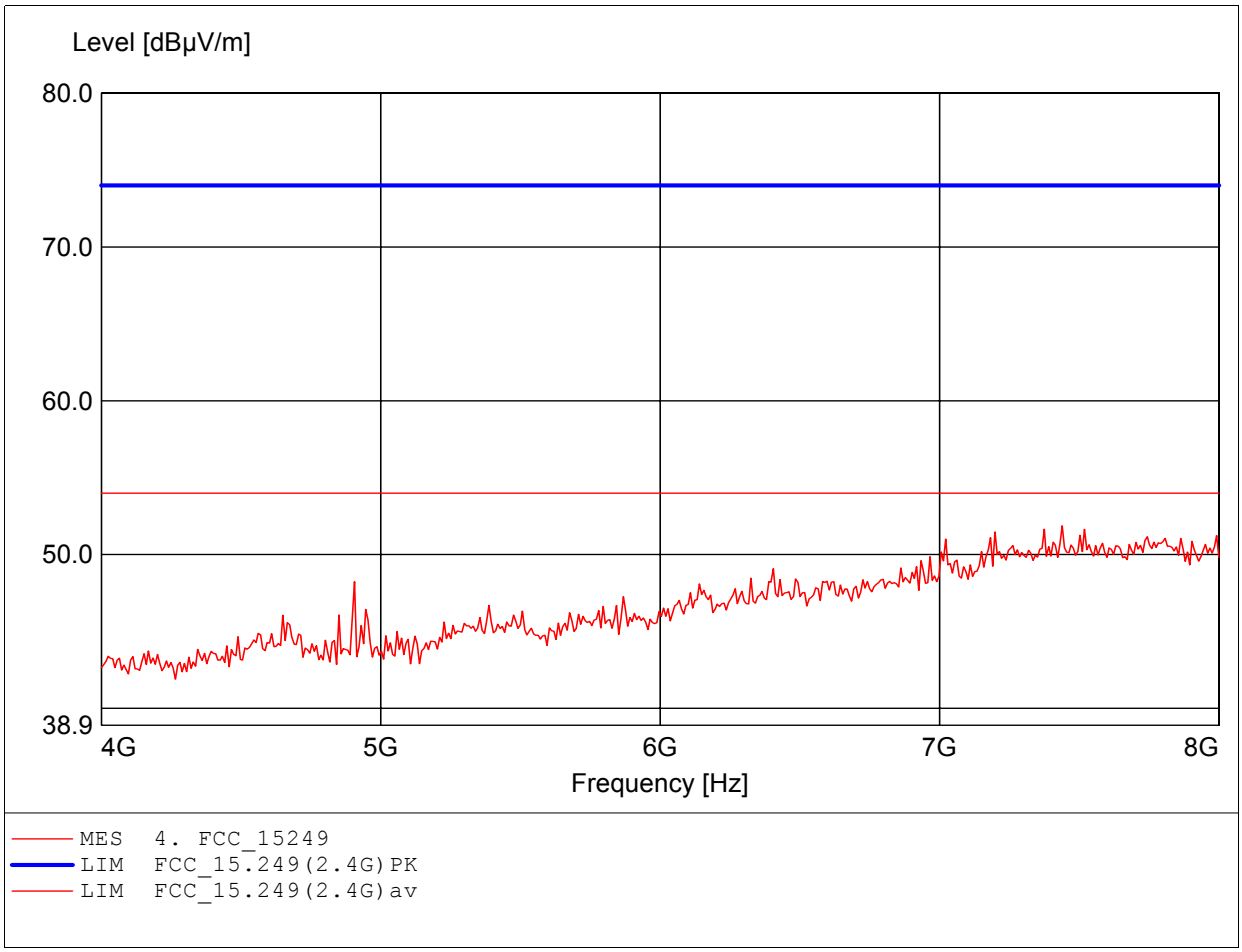
```
Order Number :          W6M20607-7129          ( high channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to §15.249, peak detector
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 8.000GHz, Emax: 51.70dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

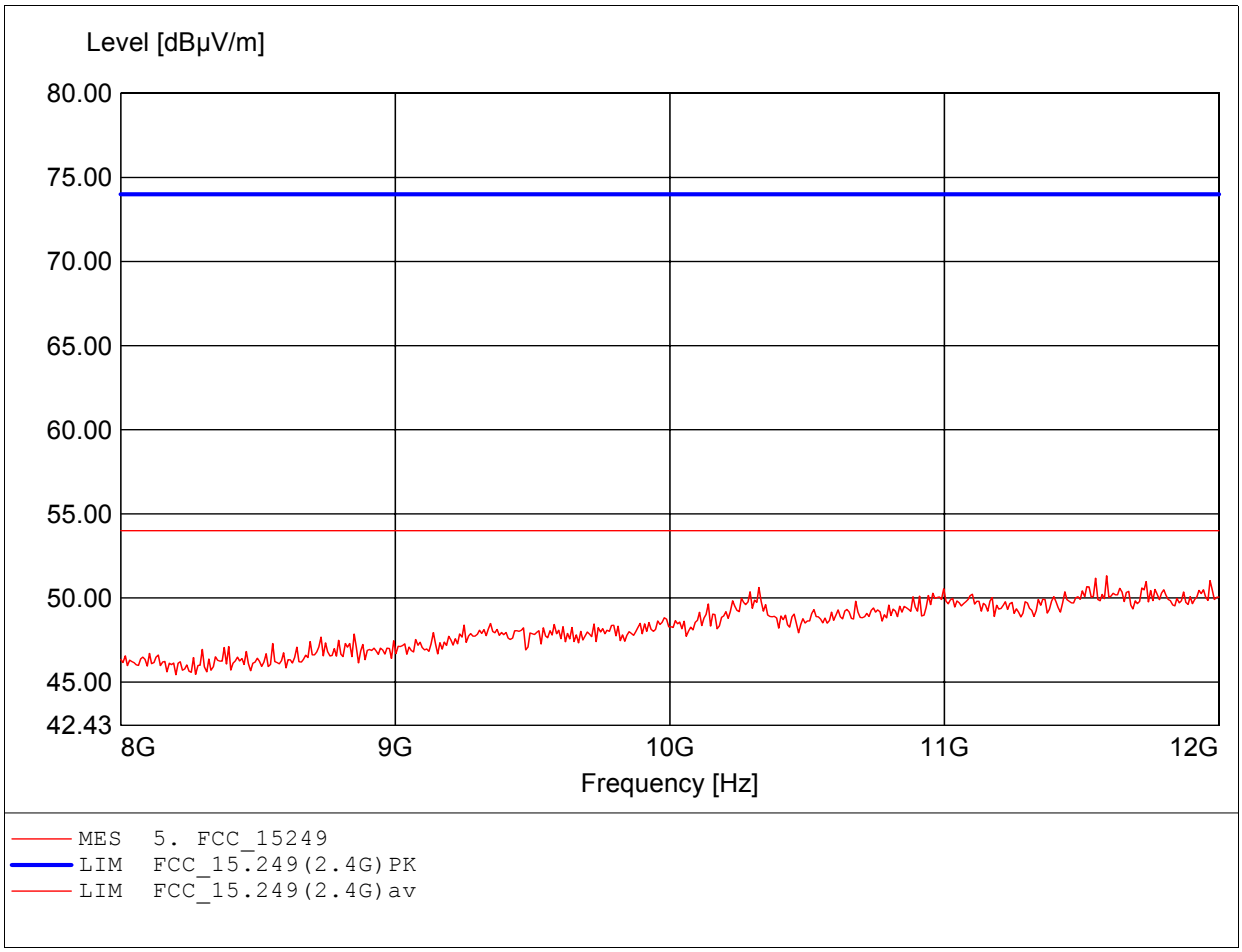
Order Number : W6M20607-7129 (high channel)
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 7.439GHz, Emax: 51.87dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

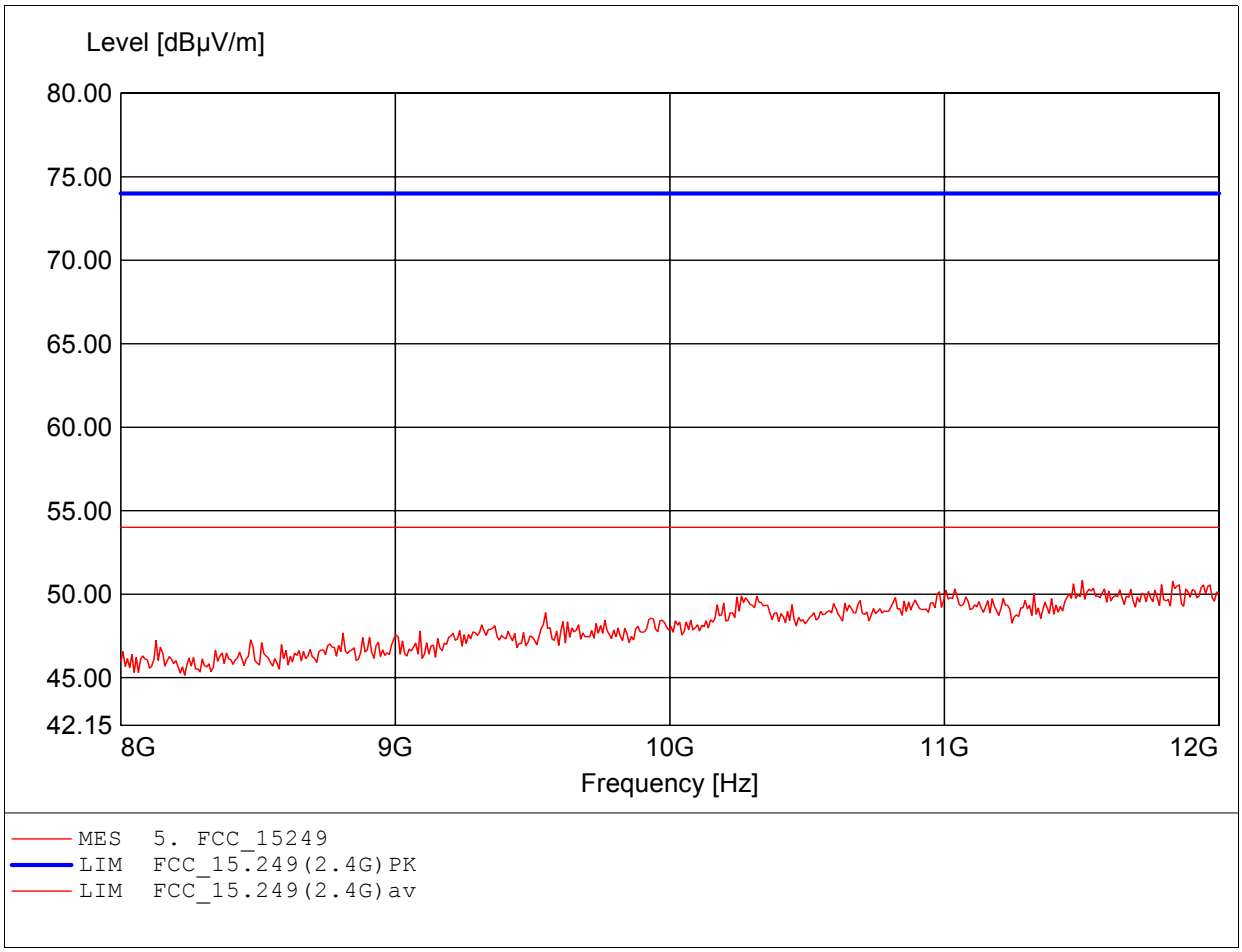
```
Order Number :          W6M20607-7129          ( high channel )
Test Site / Operator: ETS / Charles
Temperature:          Temp.: 23.9°C
Test Specification:   according to §15.249, peak detector
Comment 1:            Dist.: 3m, Ant.: HL025, ampl.+HP.
                      Freq: 11.591GHz, Emax: 51.31dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

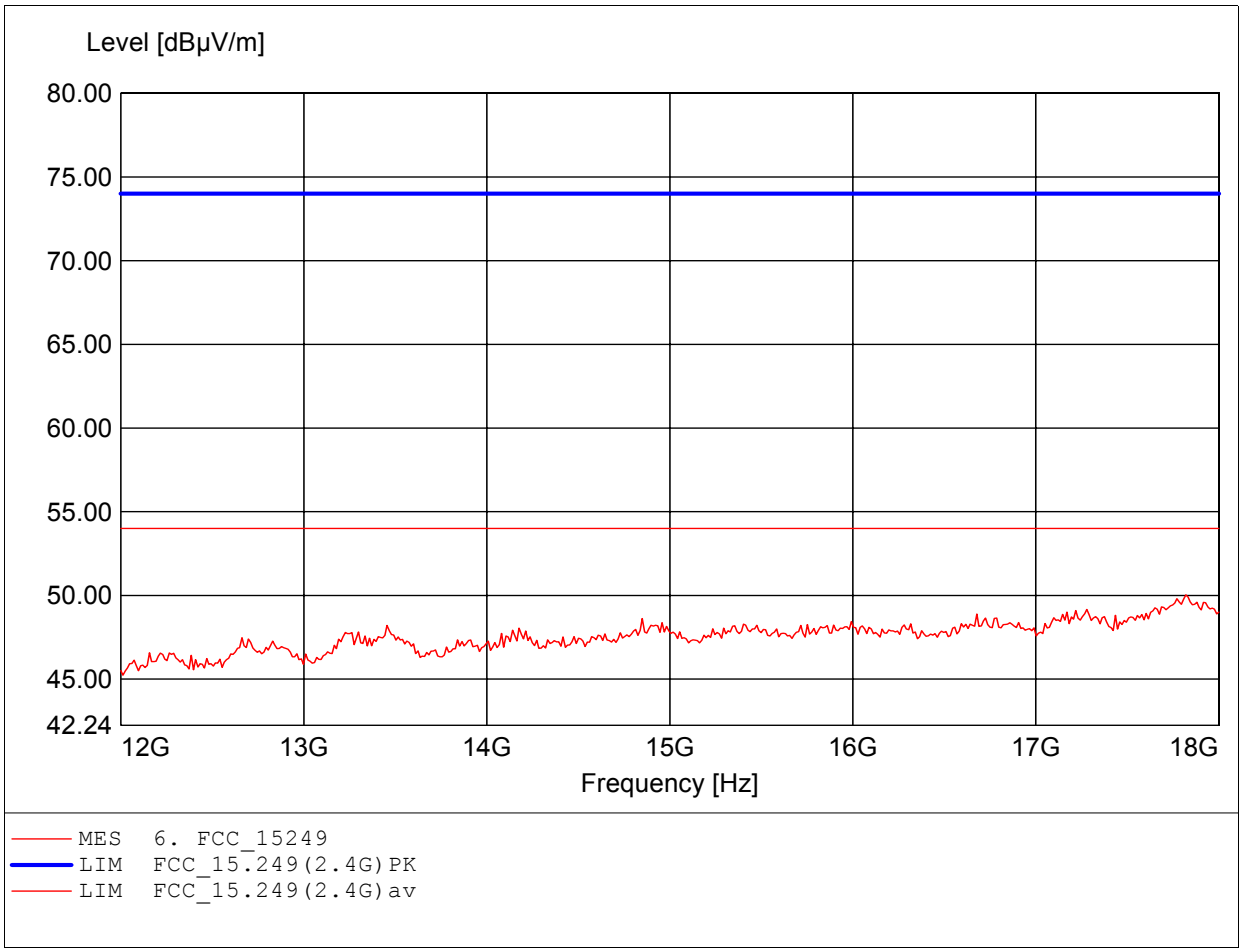
```
Order Number :          W6M20607-7129          ( high channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to §15.249, peak detector
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 11.503GHz, Emax: 50.82dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

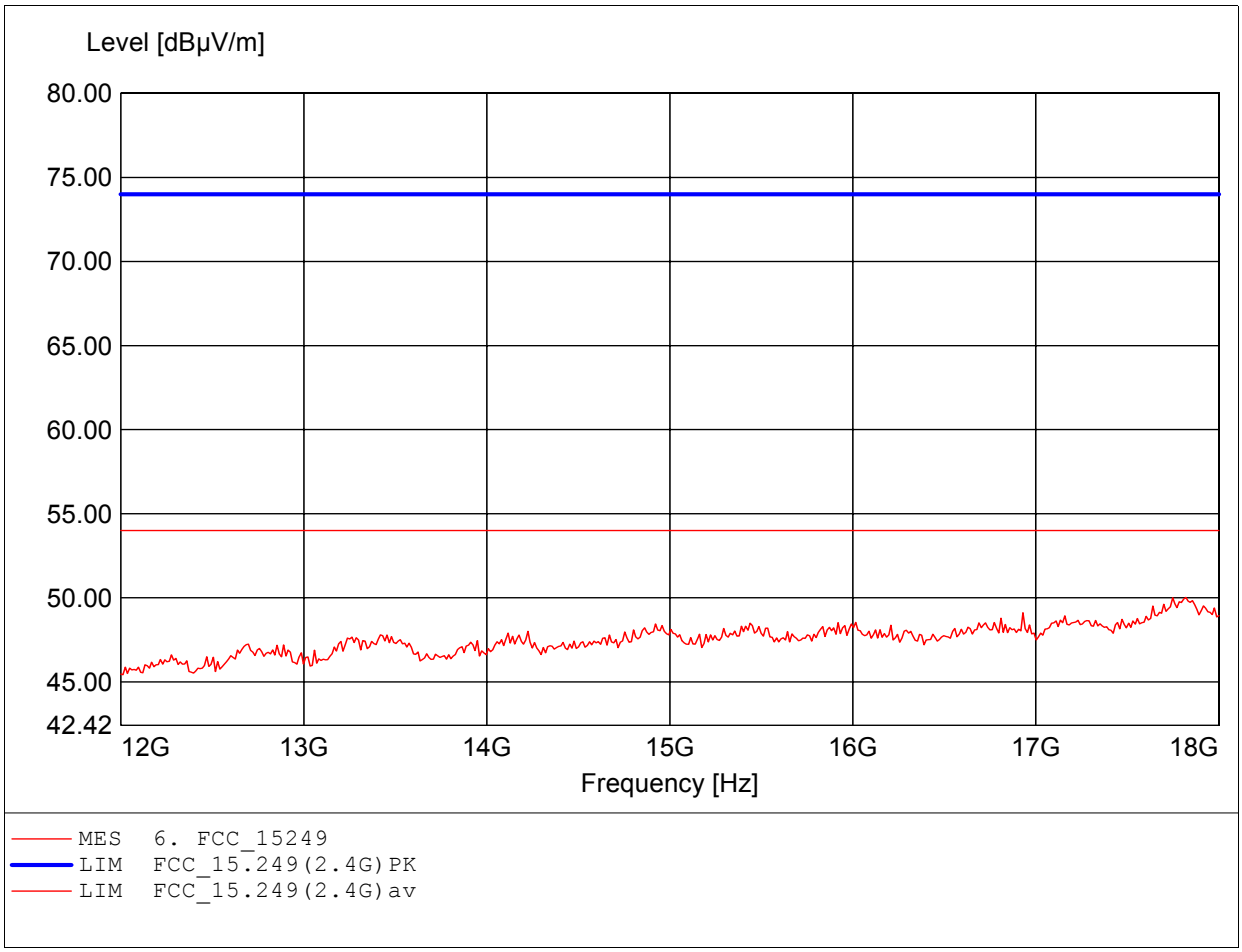
```
Order Number :          W6M20607-7129          ( high channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to §15.249, peak detector
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 17.820GHz, Emax: 50.03dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

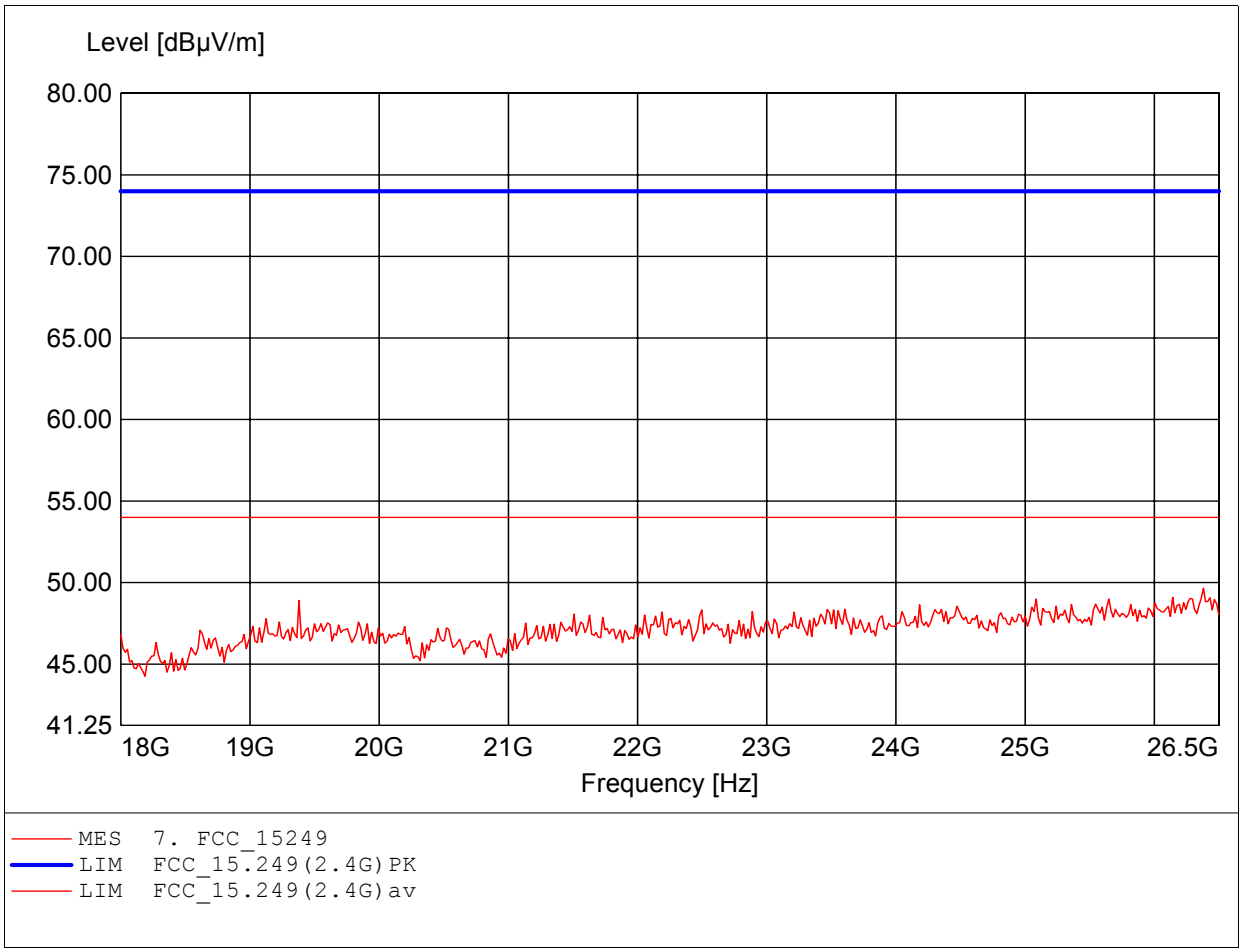
```
Order Number :          W6M20607-7129          ( high channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to §15.249, peak detector
Comment 1:              Dist.: 3m, Ant.: HL025, ampl.+HP.
                        Freq: 17.820GHz, Emax: 50.02dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

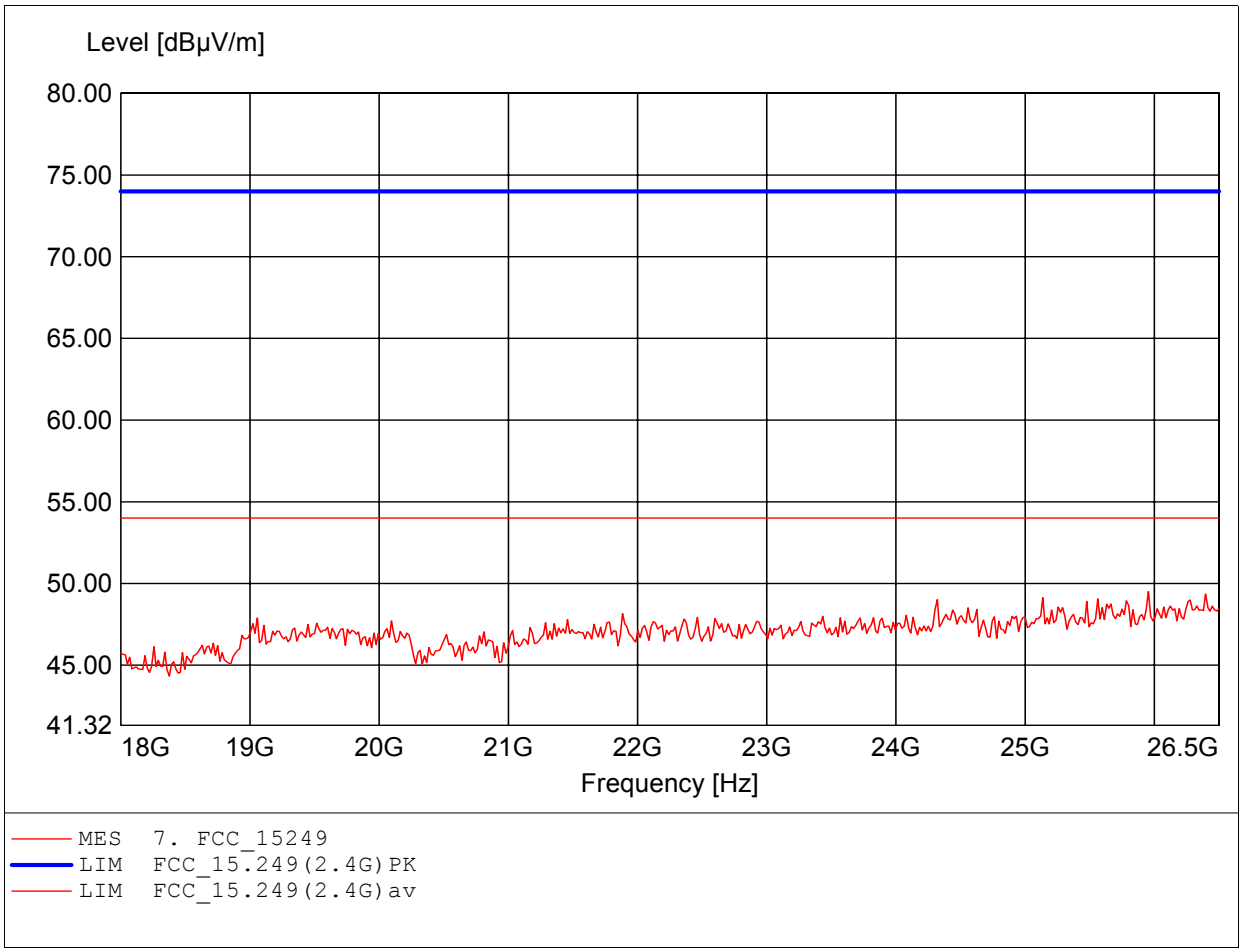
Order Number : W6M20607-7129 (high channel)
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 26.381GHz, Emax: 49.65dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

Order Number : W6M20607-7129 (high channel)
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 25.955GHz, Emax: 49.52dBµV/m, RBW: 1MHz



Appendix C

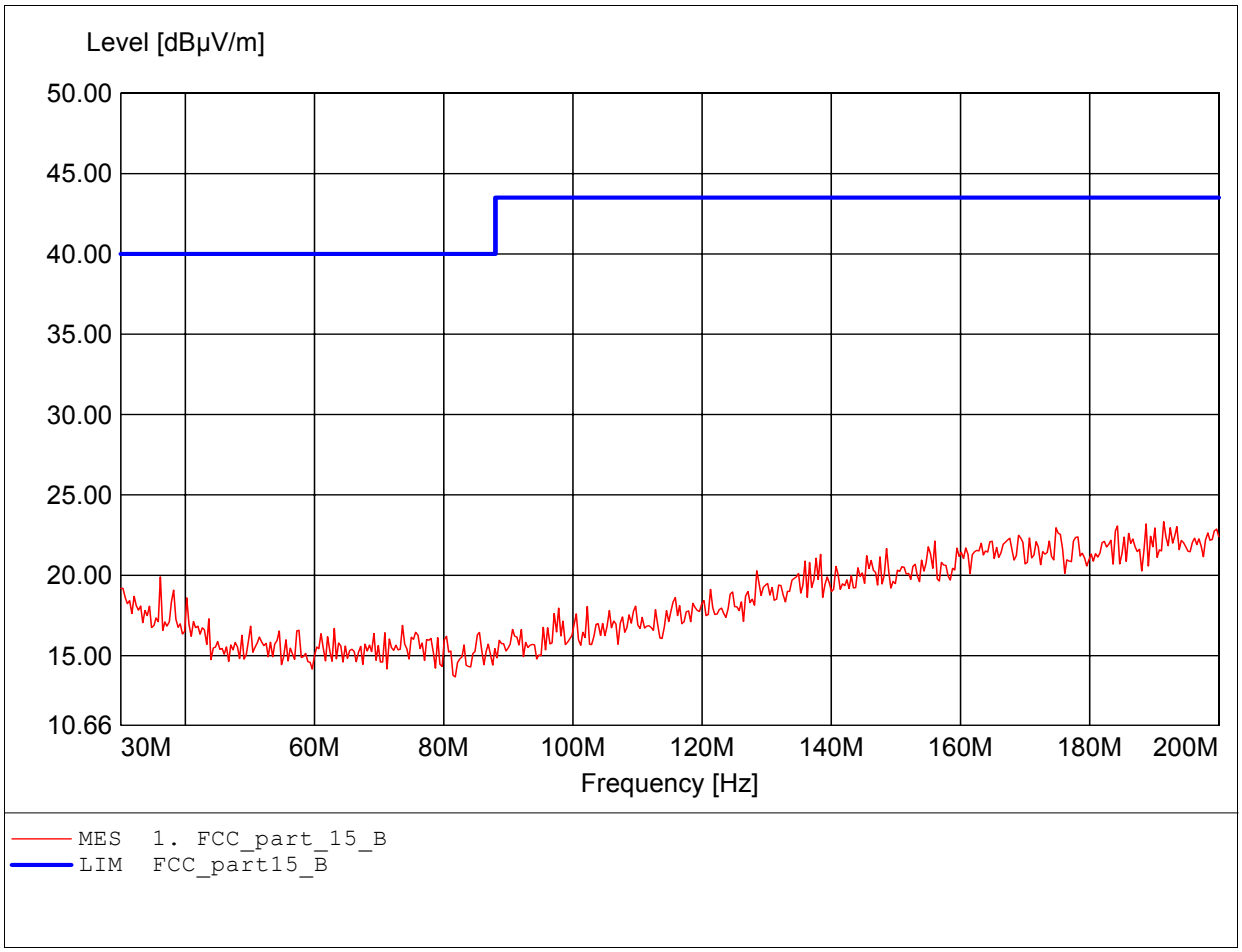
Radiated Emission from Digital Part And Receiver L.O.

The measurement diagrams plots attached below are preliminary wideband scan with a peak detector for reference only. The final test results are listed on section 3.6

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

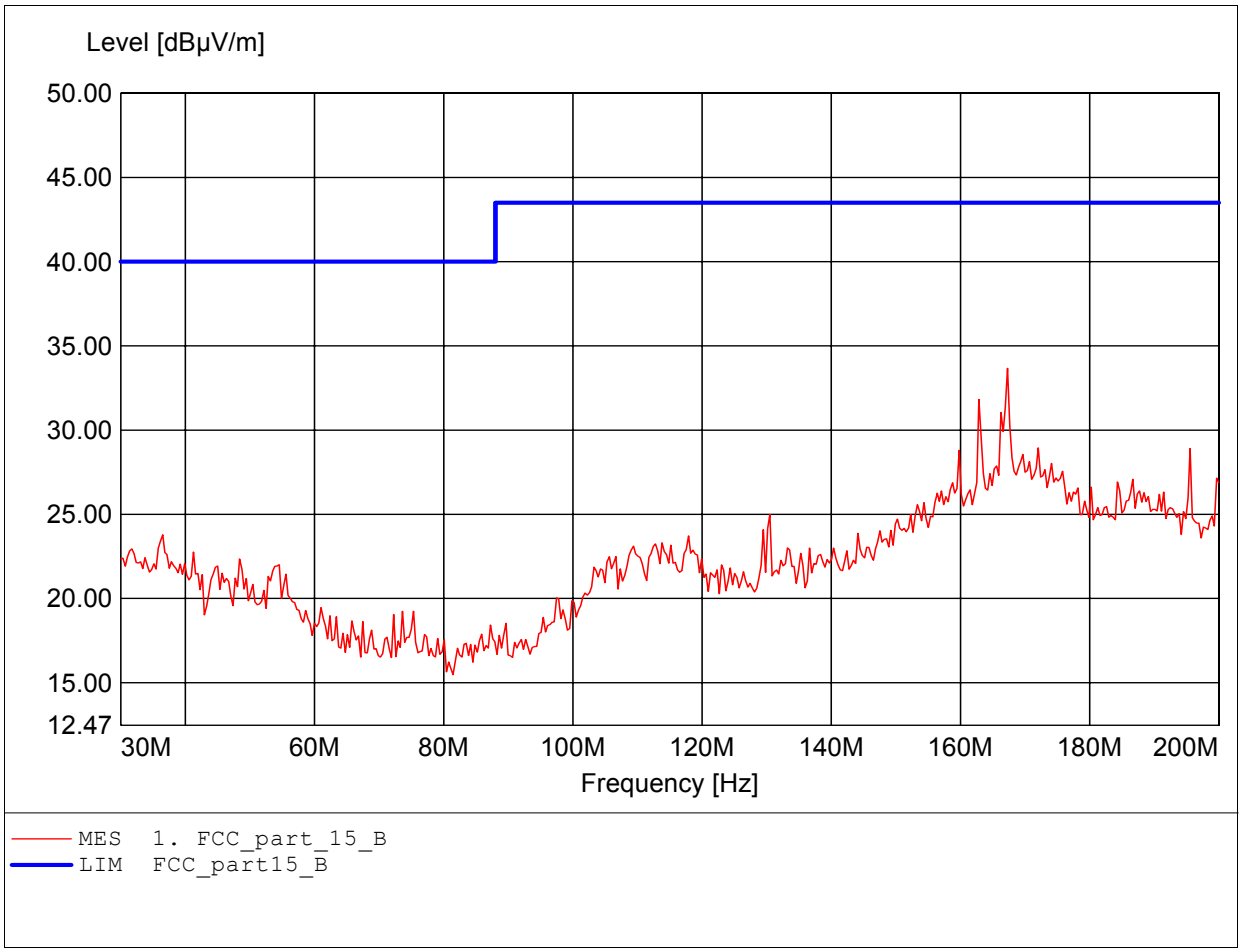
```
Order Number :          W6M20607-7129          ( low channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HK 116
                        Freq:191.483MHz Emax:23.33dBµV/m RBW: 100 kHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

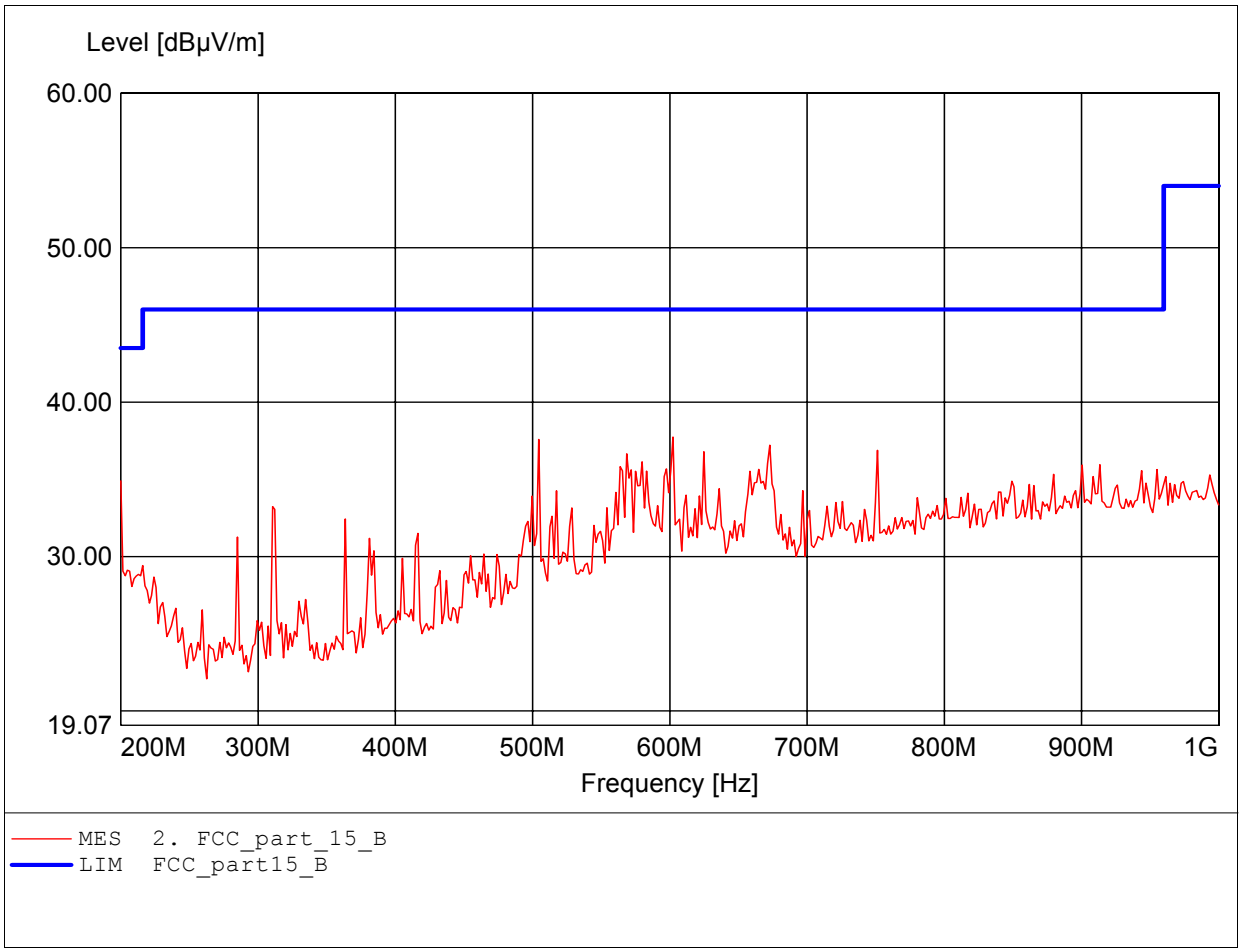
```
Order Number :          W6M20607-7129          ( low channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HK 116
                        Freq:167.295MHz Emax:33.66dBµV/m RBW: 100 kHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

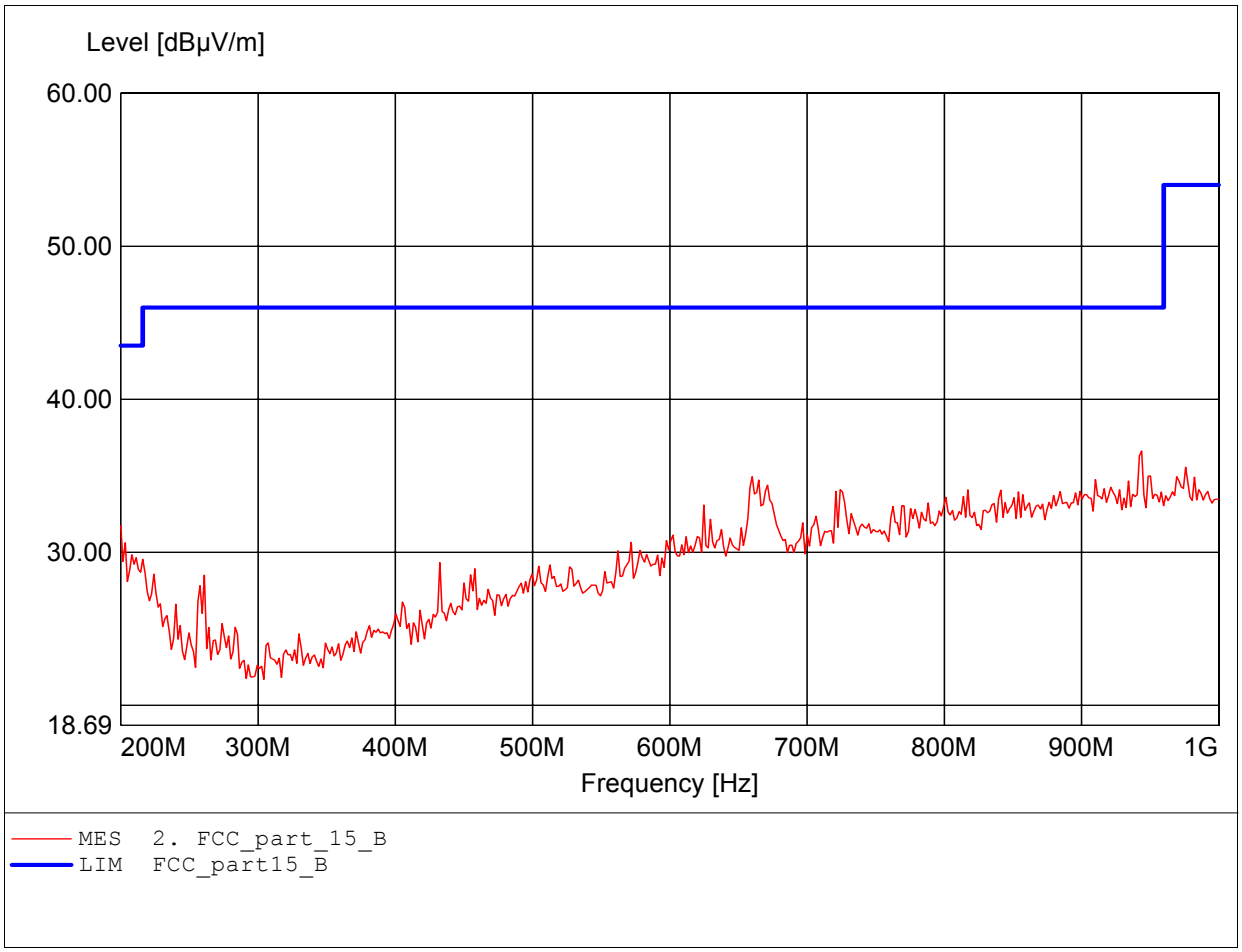
```
Order Number :          W6M20607-7129          ( low channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HL 223, ampl.
                        Freq:602.405MHz Emax:37.74dBµV/m RBW: 100 kHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

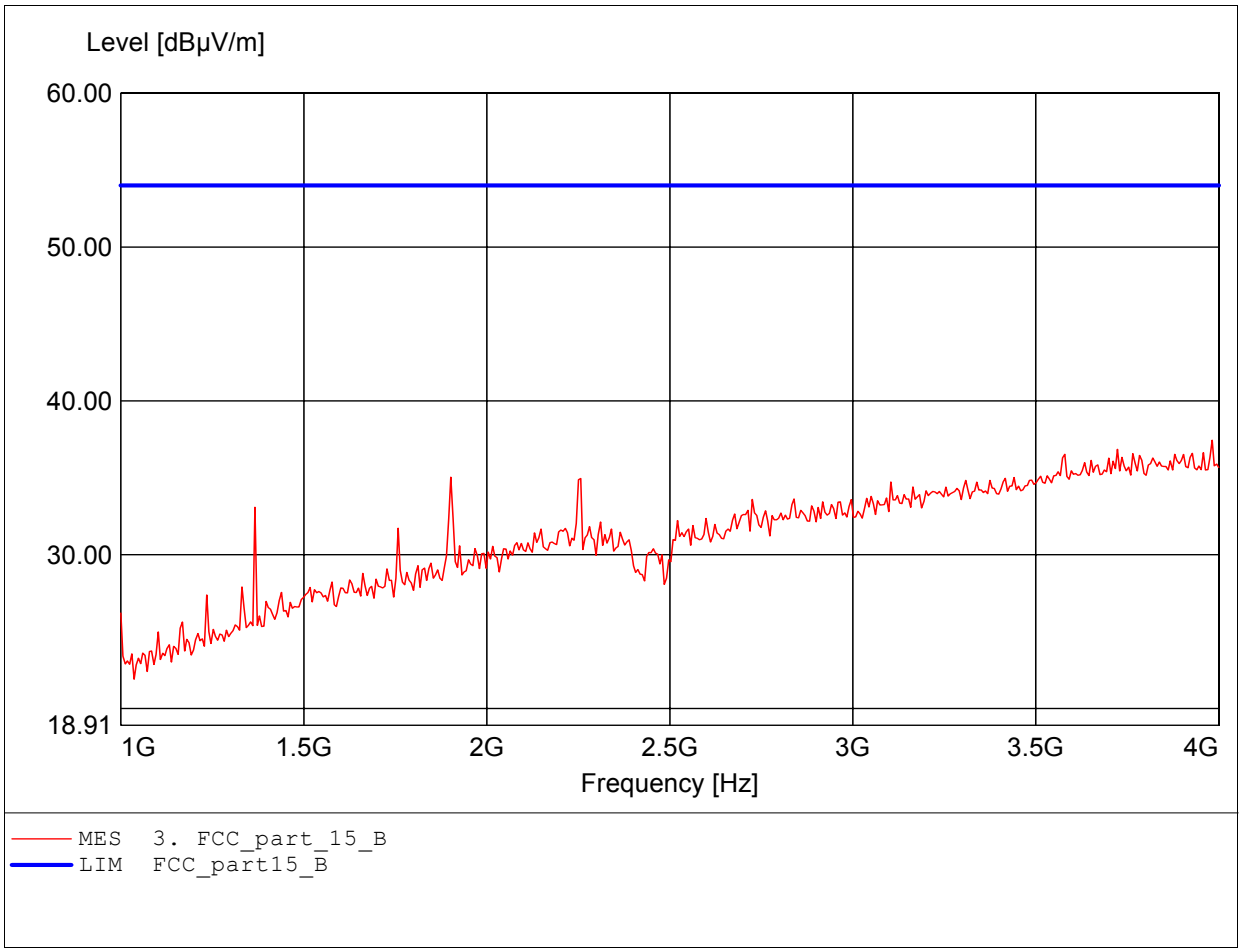
```
Order Number :          W6M20607-7129          ( low channel )
Test Site / Operator: ETS / Charles
Temperature:          Temp.: 23.9°C
Test Specification:   according to subpart B
Comment 1:            Dist.: 3m, Ant.: HL 223, ampl.
                      Freq:943.888MHz Emax:36.62dBµV/m RBW: 100 kHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

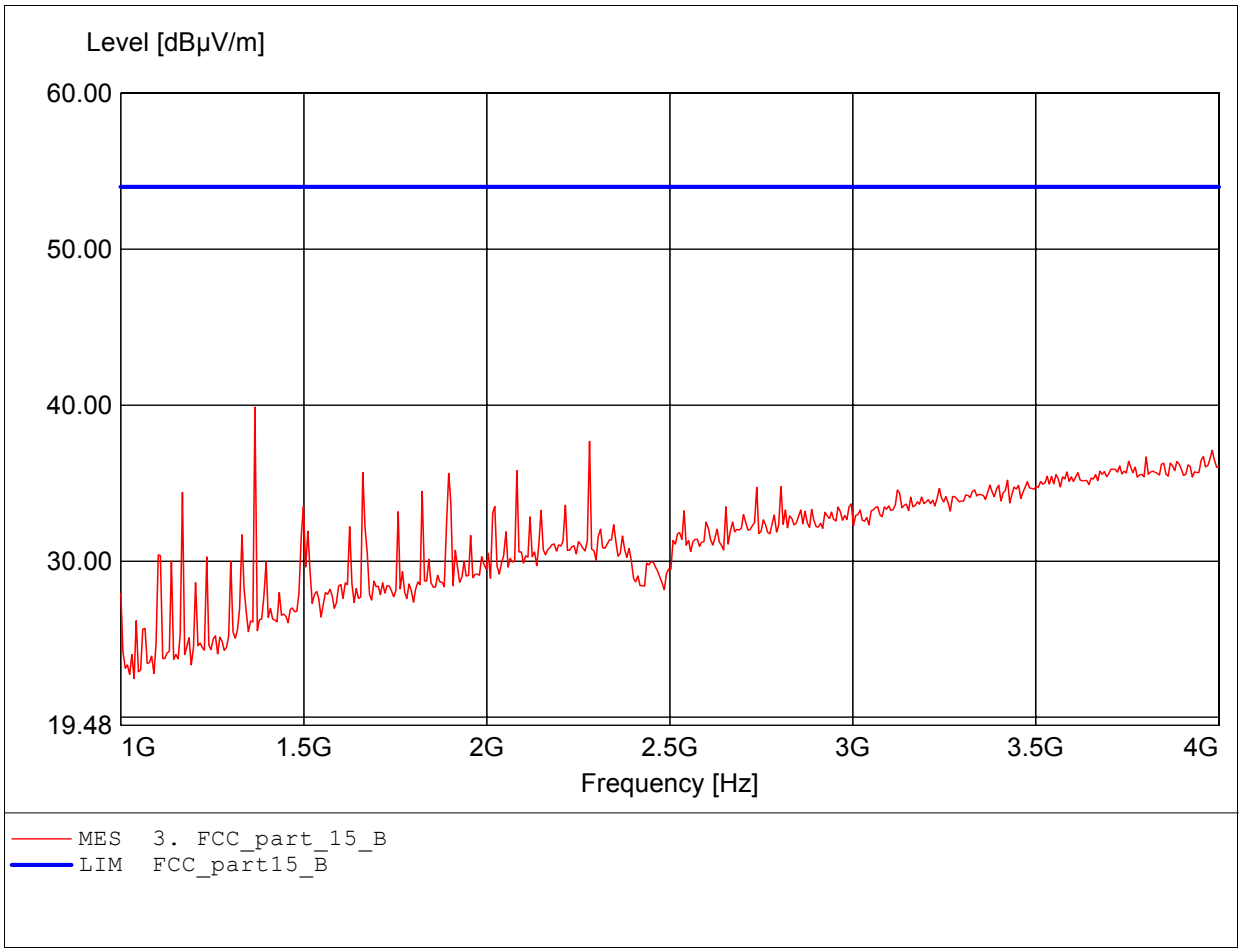
```
Order Number :          W6M20607-7129          ( low channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HL25, ampl.
                        Freq:3.982GHz Emax:37.44dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

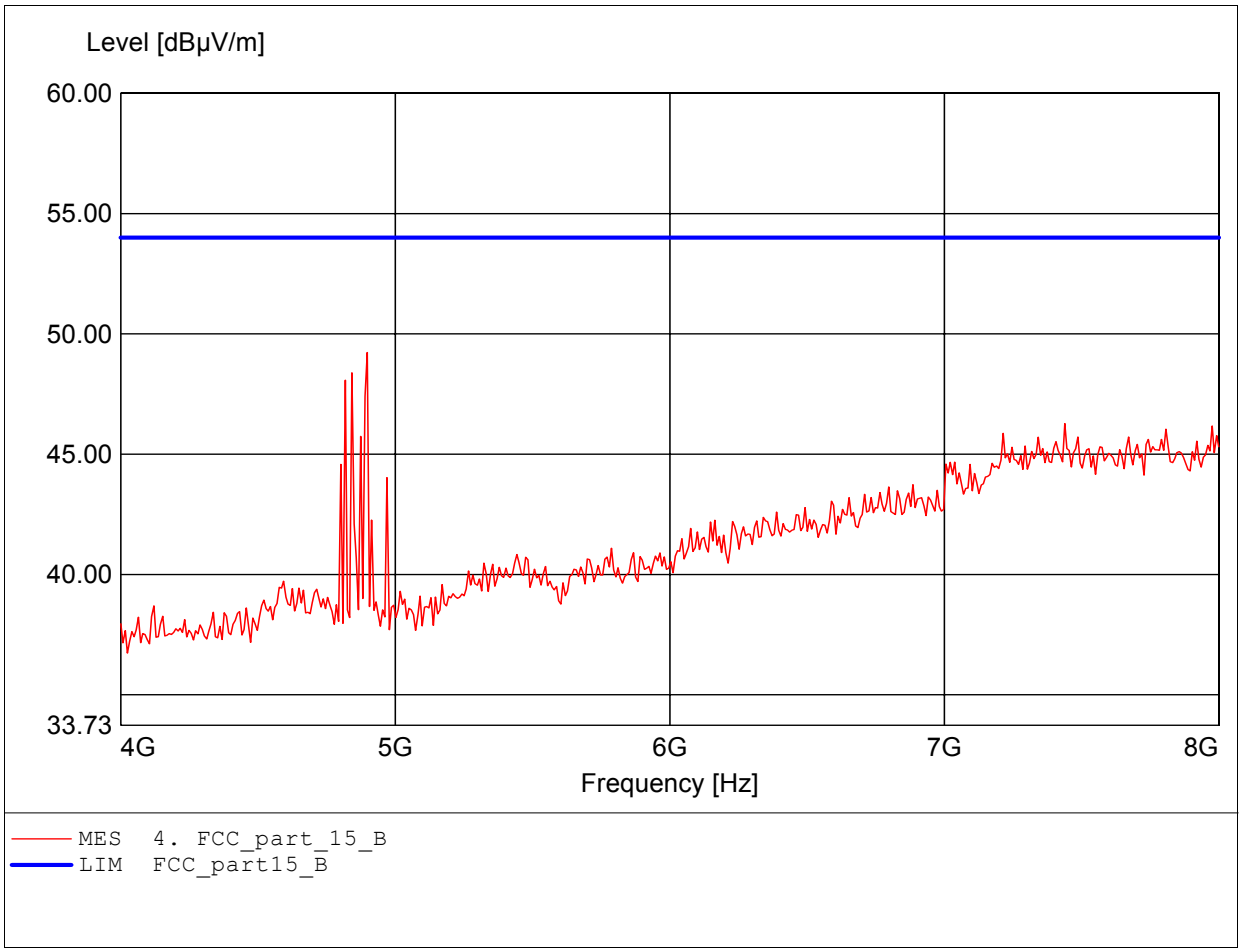
```
Order Number :          W6M20607-7129          ( low channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HL25, ampl.
                        Freq:1.367GHz Emax:39.88dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

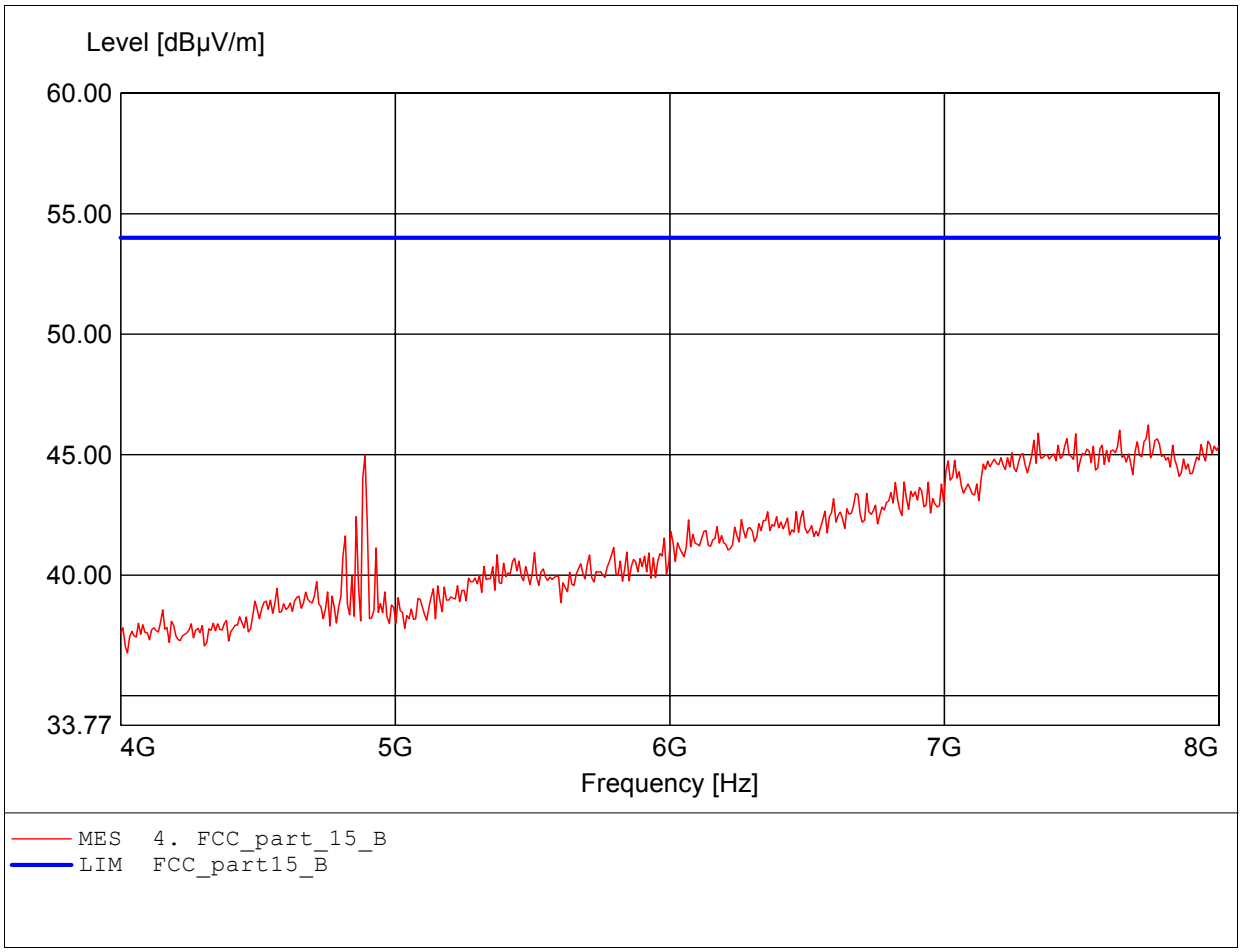
```
Order Number :          W6M20607-7129          ( low channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HL25, ampl.
                        Freq:4.898GHz Emax:49.22dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

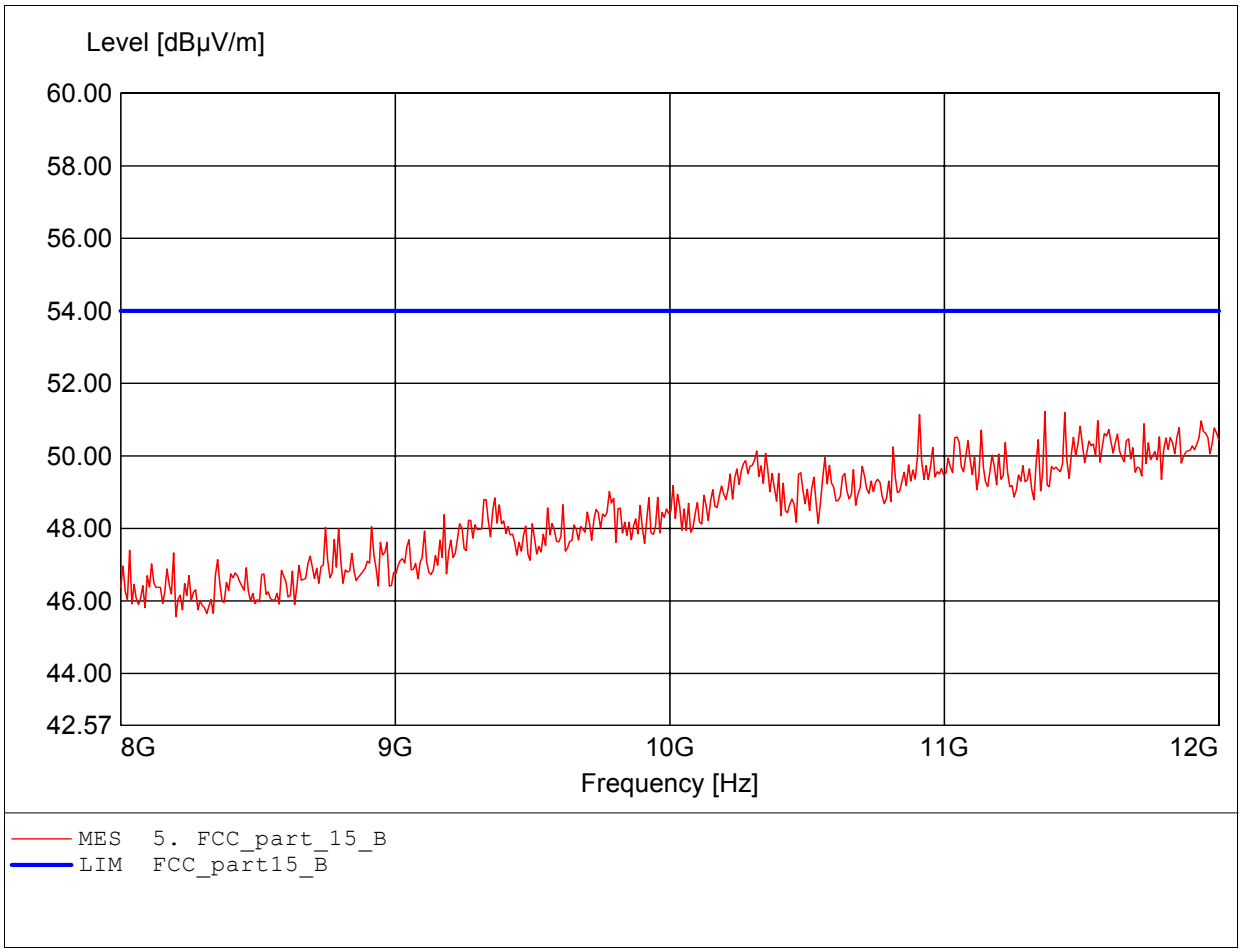
```
Order Number :          W6M20607-7129          ( low channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HL25, ampl.
                        Freq:7.743GHz Emax:46.23dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

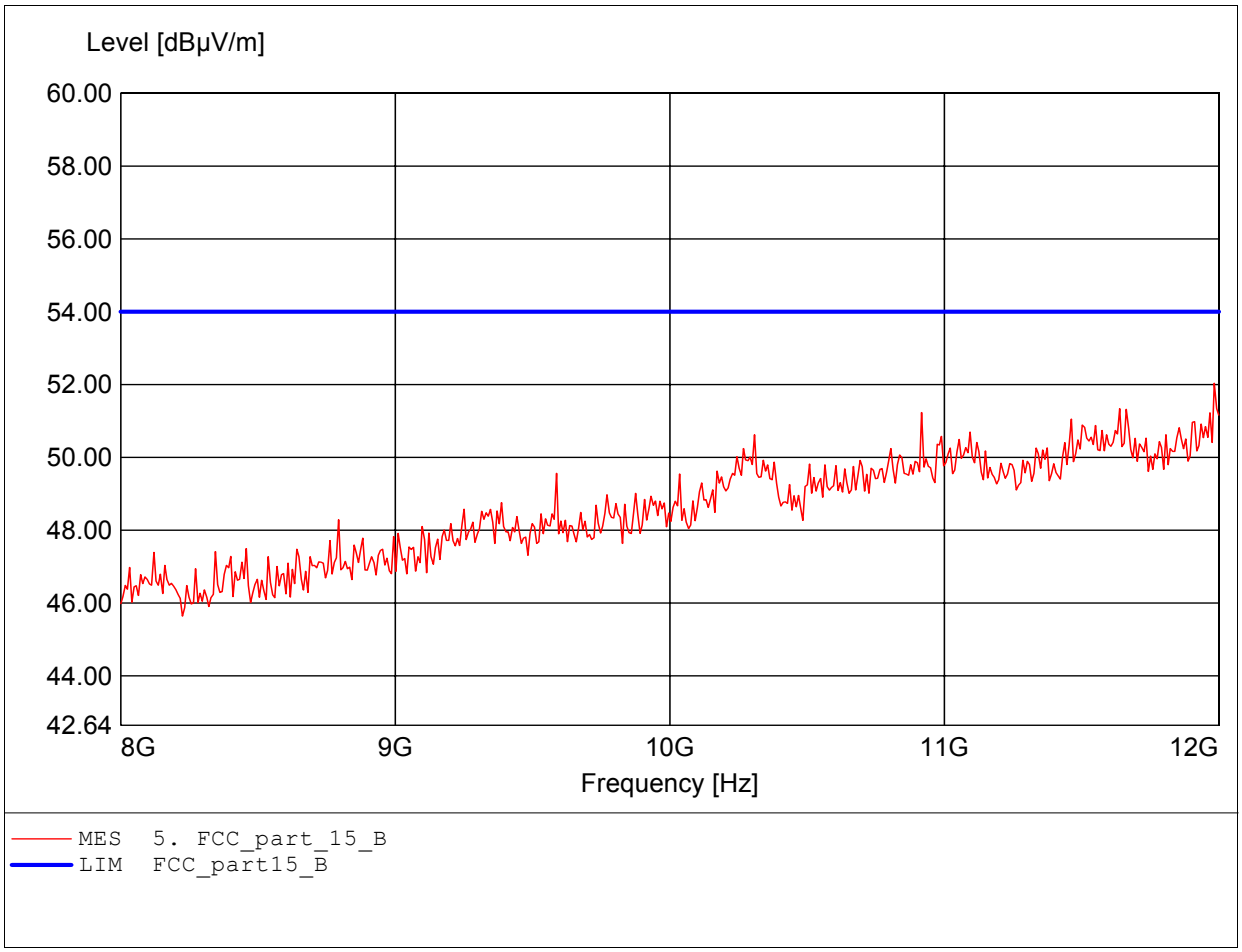
```
Order Number :          W6M20607-7129          ( low channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HL25, ampl.
                        Freq:11.367GHz Emax:51.22dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

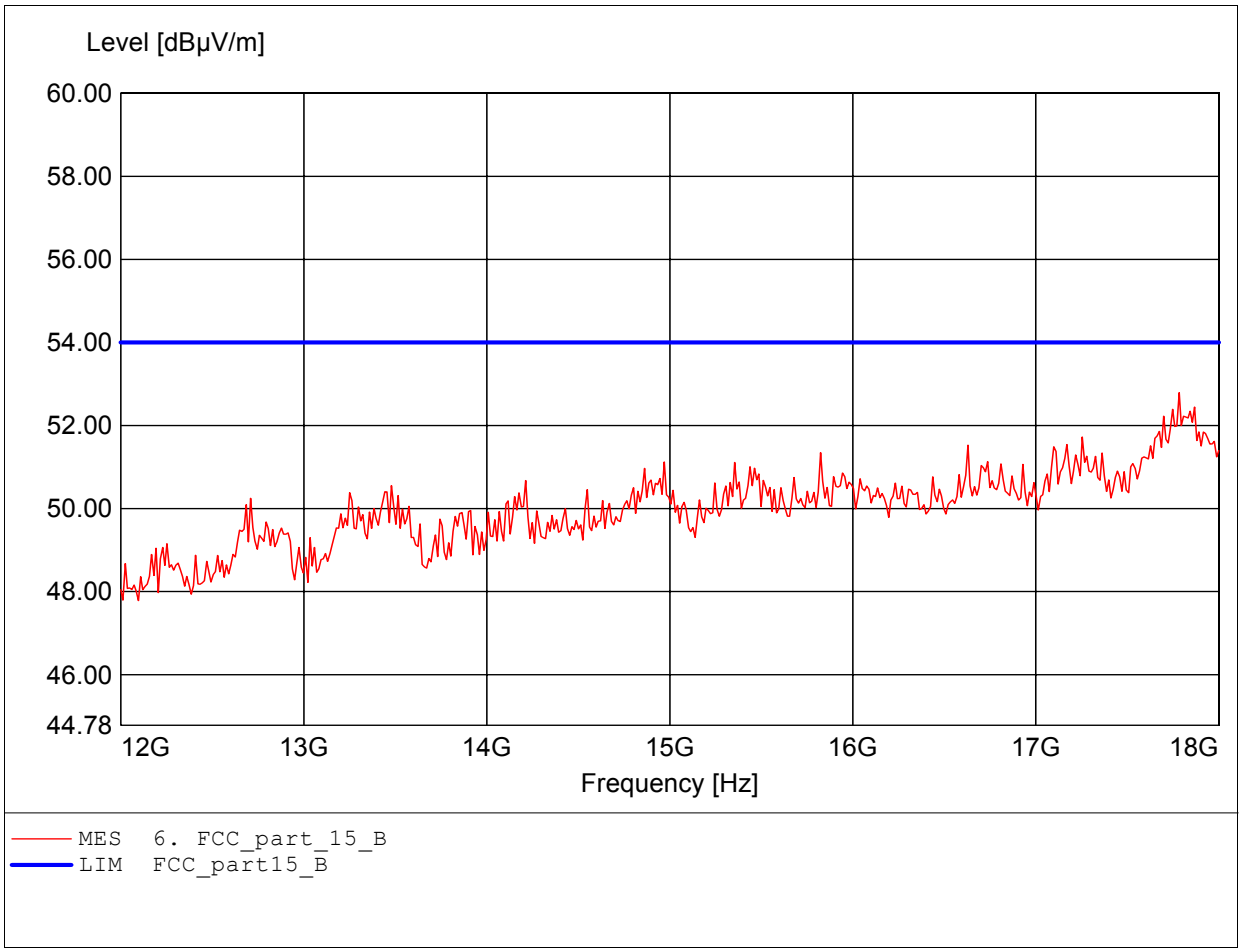
```
Order Number :         W6M20607-7129          ( low channel )
Test Site / Operator: ETS / Charles
Temperature:           Temp.: 23.9°C
Test Specification:    according to subpart B
Comment 1:             Dist.: 3m, Ant.: HL25, ampl.
                       Freq:11.984GHz Emax:52.03dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

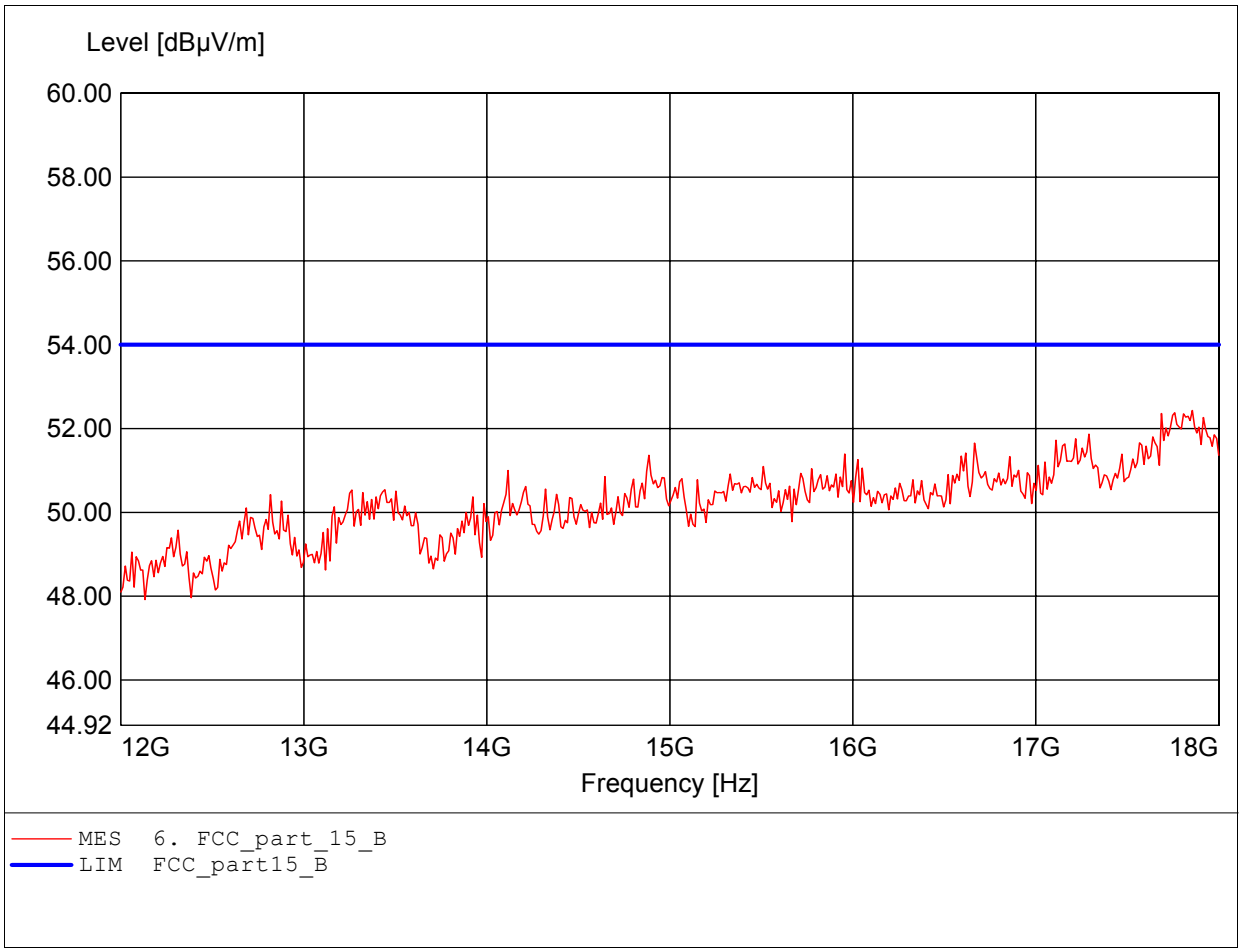
```
Order Number :          W6M20607-7129          ( low channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HL25, ampl.
                        Freq:17.784GHz Emax:52.79dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

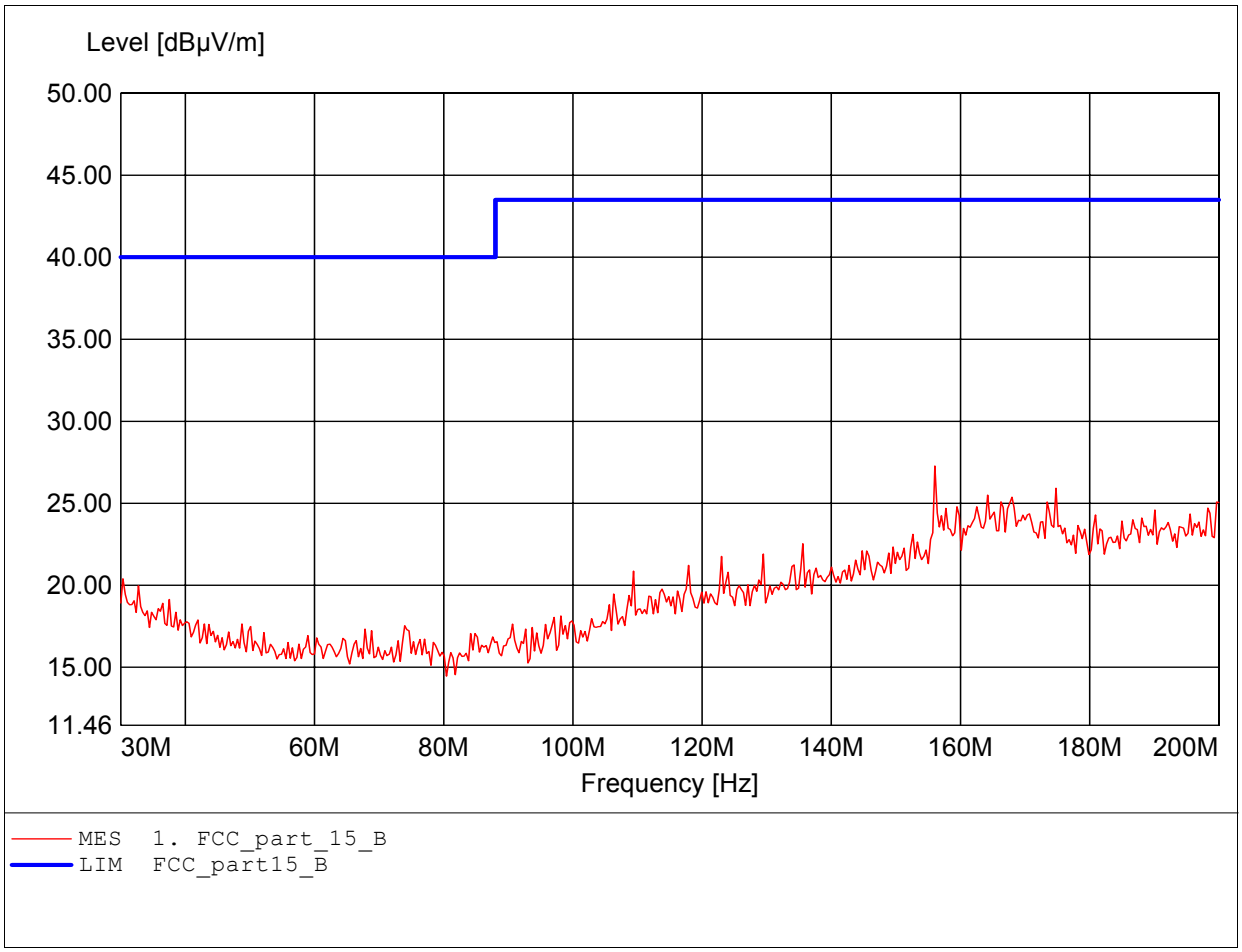
```
Order Number :          W6M20607-7129          ( low channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HL25, ampl.
                        Freq:17.856GHz Emax:52.43dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

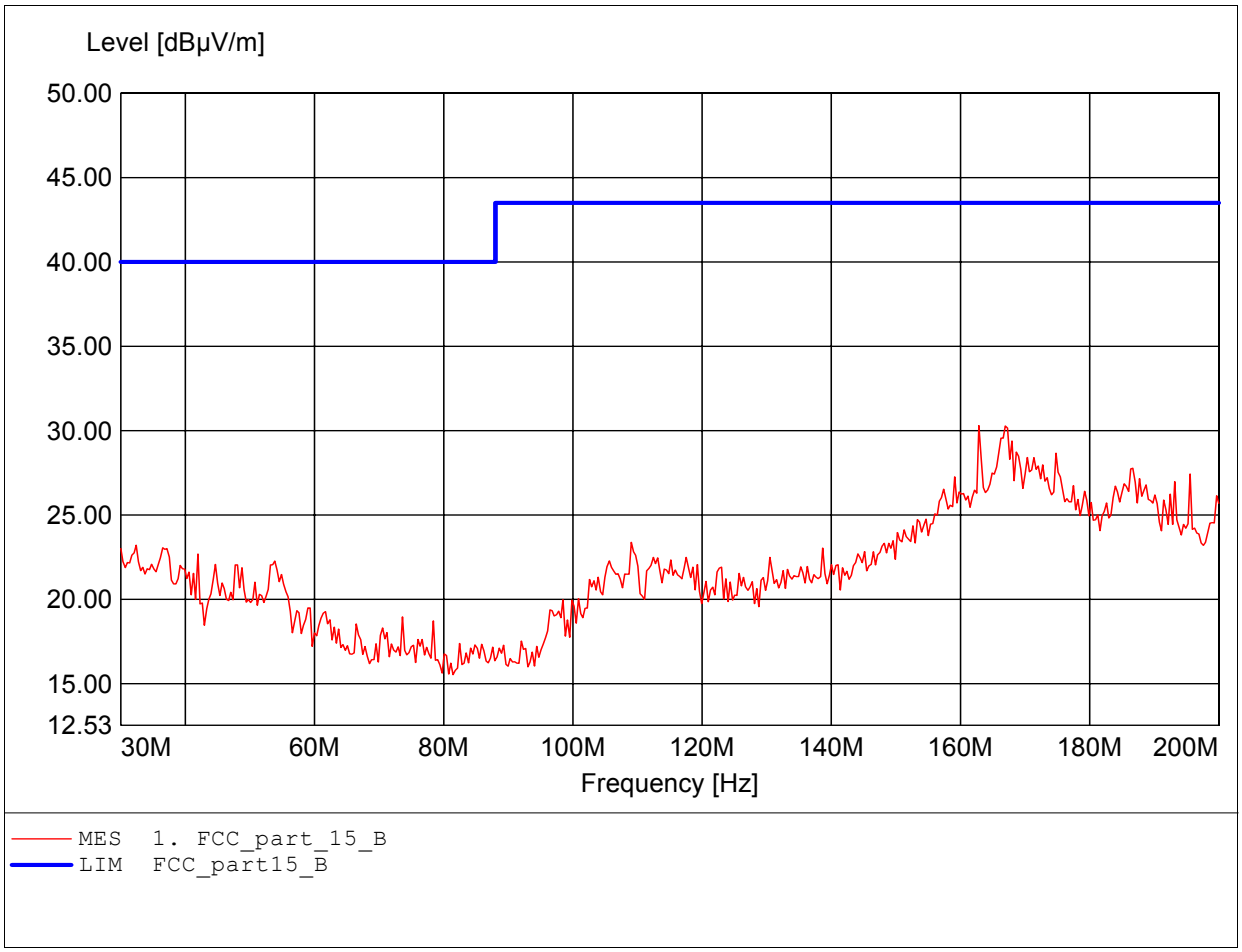
```
Order Number :          W6M20607-7129          ( middle channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HK 116
                        Freq:156.052MHz Emax:27.27dBµV/m RBW: 100 kHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

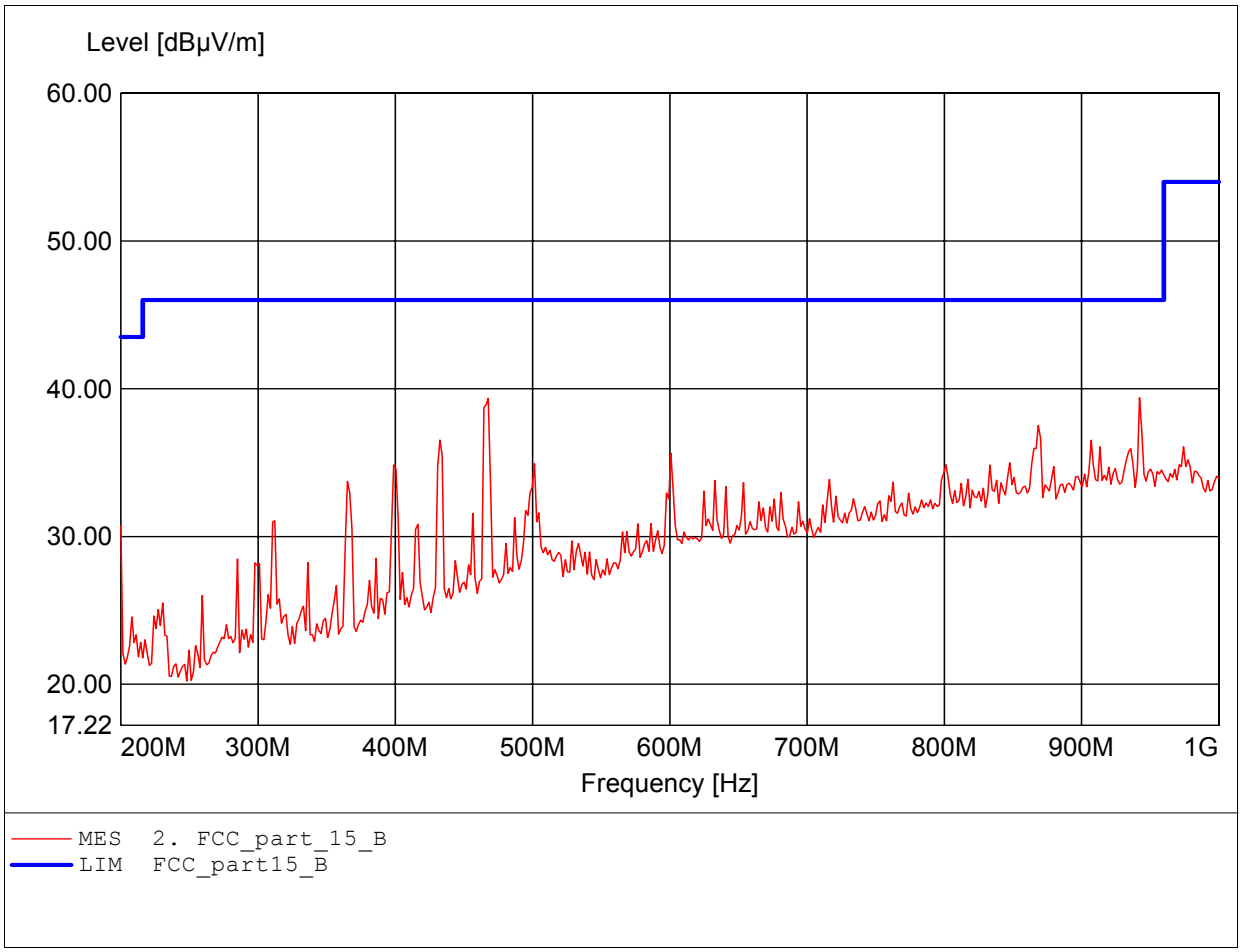
```
Order Number :          W6M20607-7129          ( middle channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HK 116
                        Freq:162.866MHz Emax:30.29dBµV/m RBW: 100 kHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

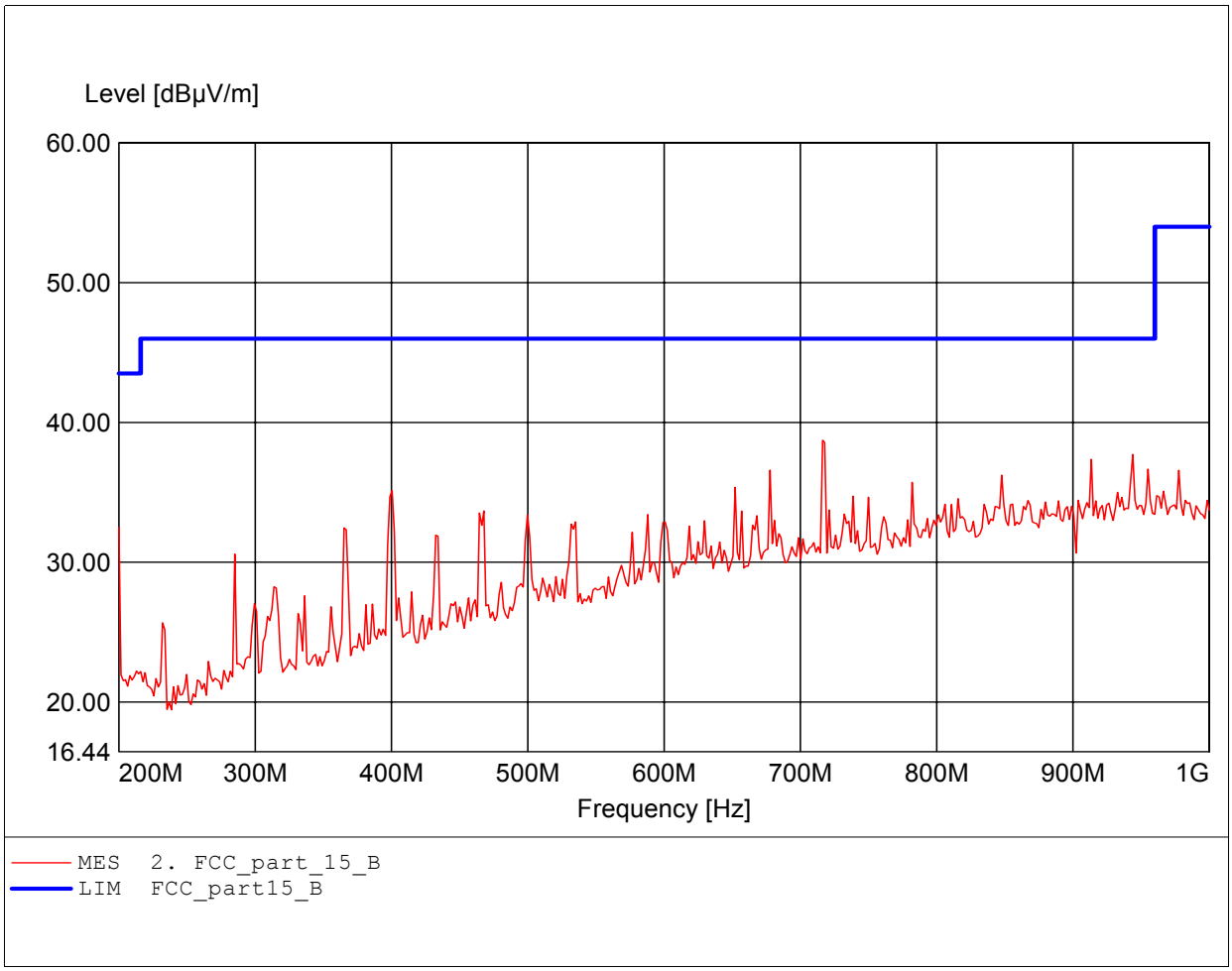
```
Order Number :          W6M20607-7129          ( middle channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HL 223, ampl.
                        Freq:942.285MHz Emax:39.38dBµV/m RBW: 100 kHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

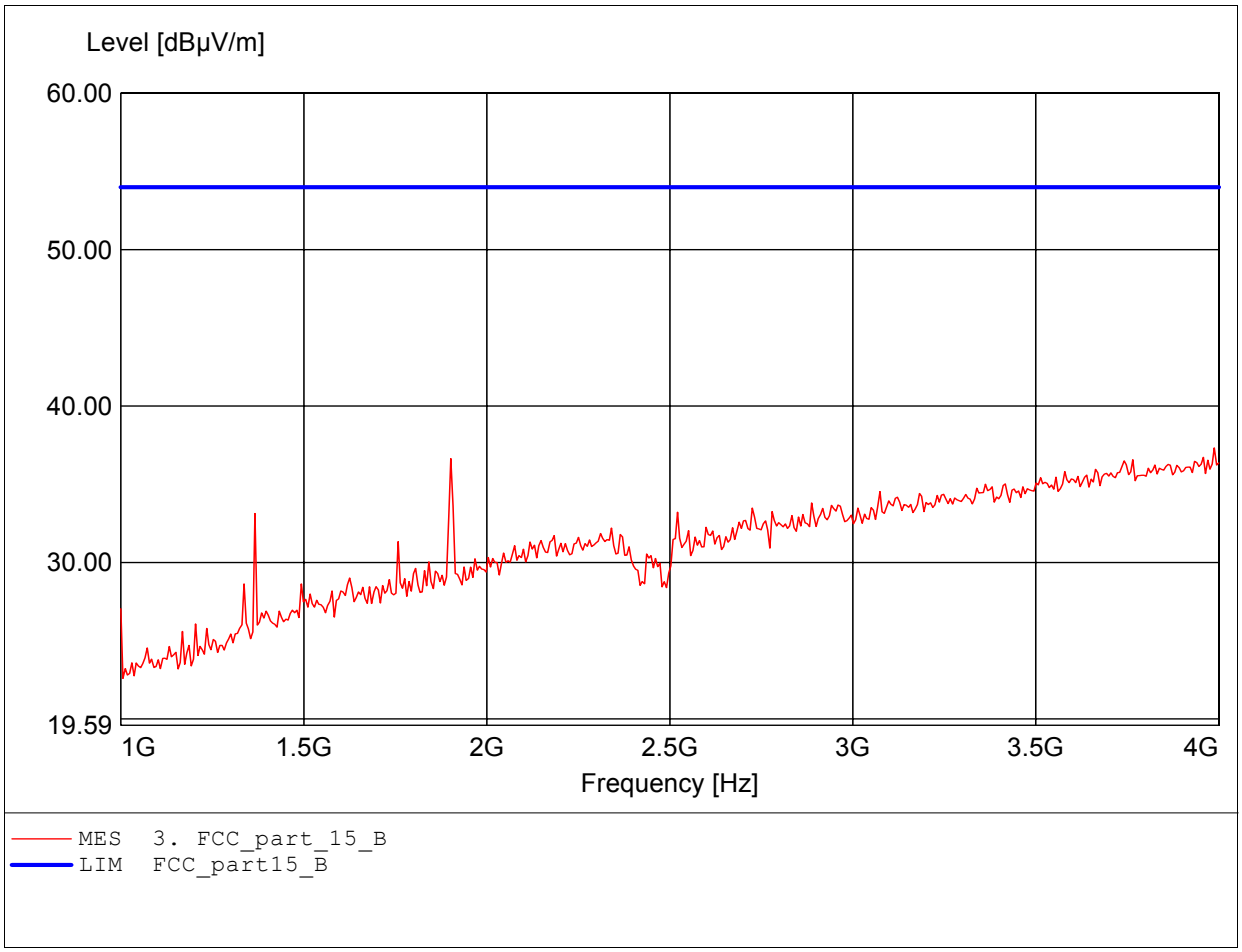
```
Order Number :          W6M20607-7129          ( middle channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HL 223, ampl.
                        Freq:716.232MHz Emax:38.73dBµV/m RBW: 100 kHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

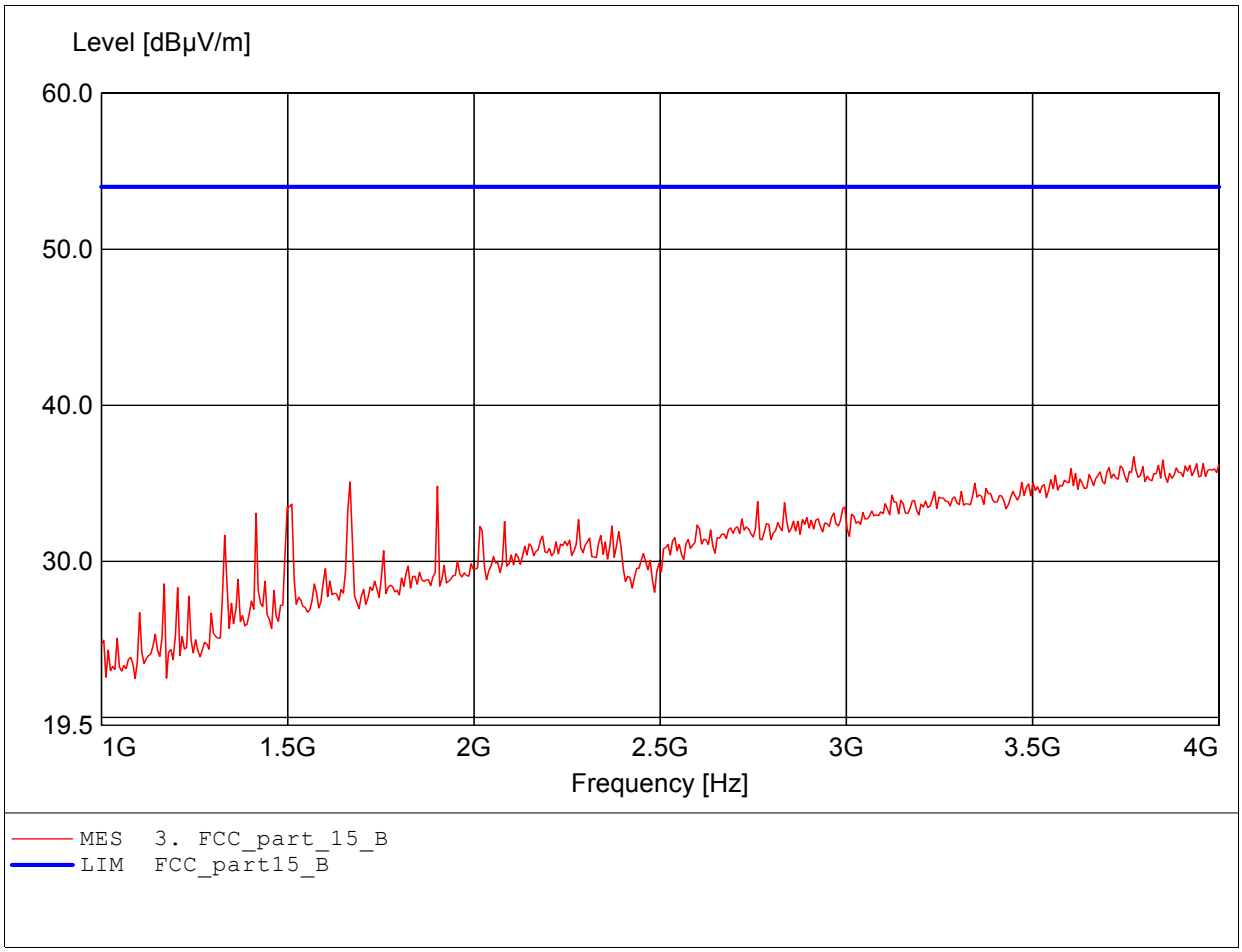
```
Order Number :          W6M20607-7129          ( middle channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HL25, ampl.
                        Freq:3.988GHz Emax:37.32dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

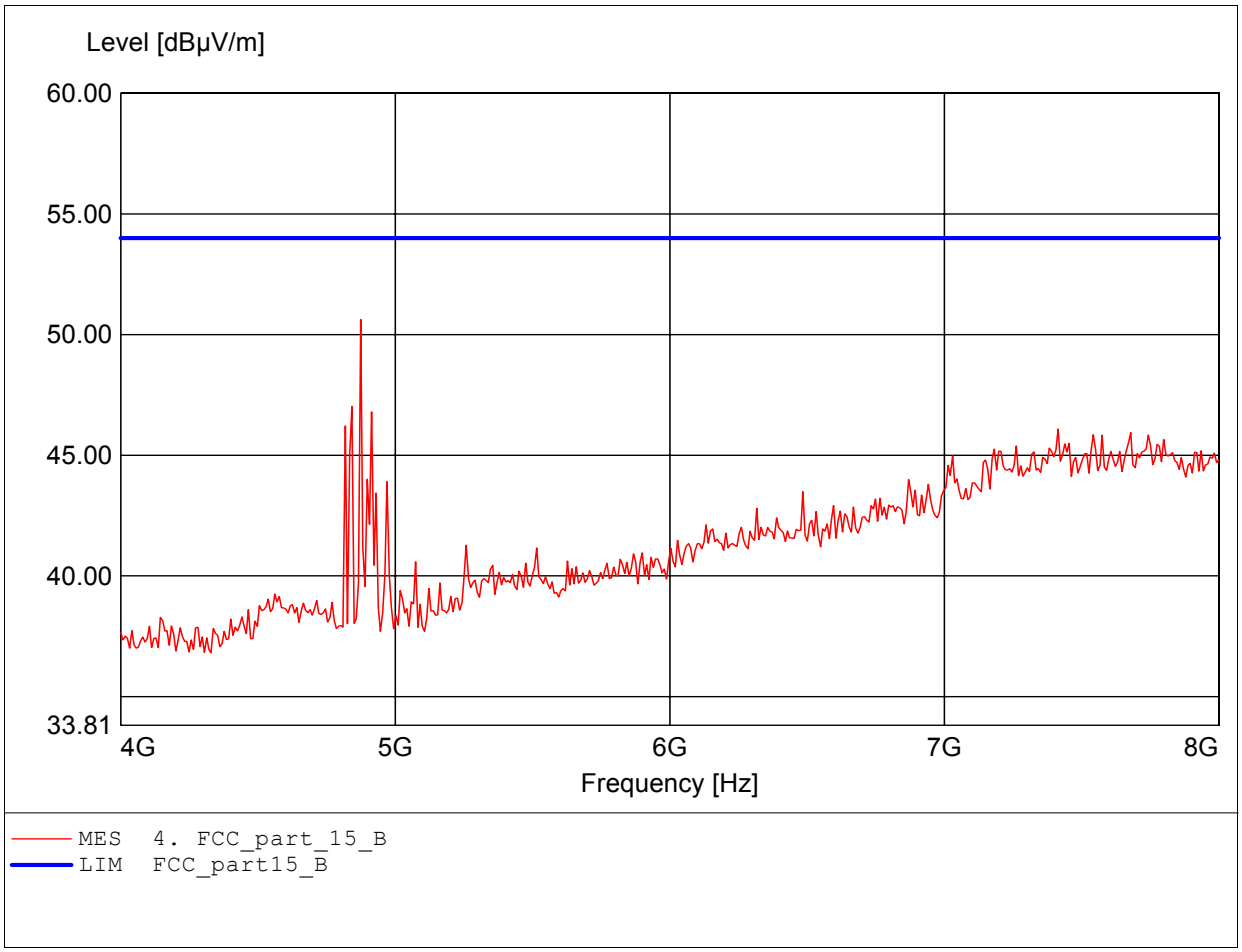
```
Order Number :          W6M20607-7129          ( middle channel )
Test Site / Operator: ETS / Charles
Temperature:          Temp.: 23.9°C
Test Specification:   according to subpart B
Comment 1:            Dist.: 3m, Ant.: HL25, ampl.
                      Freq:3.772GHz Emax:36.72dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

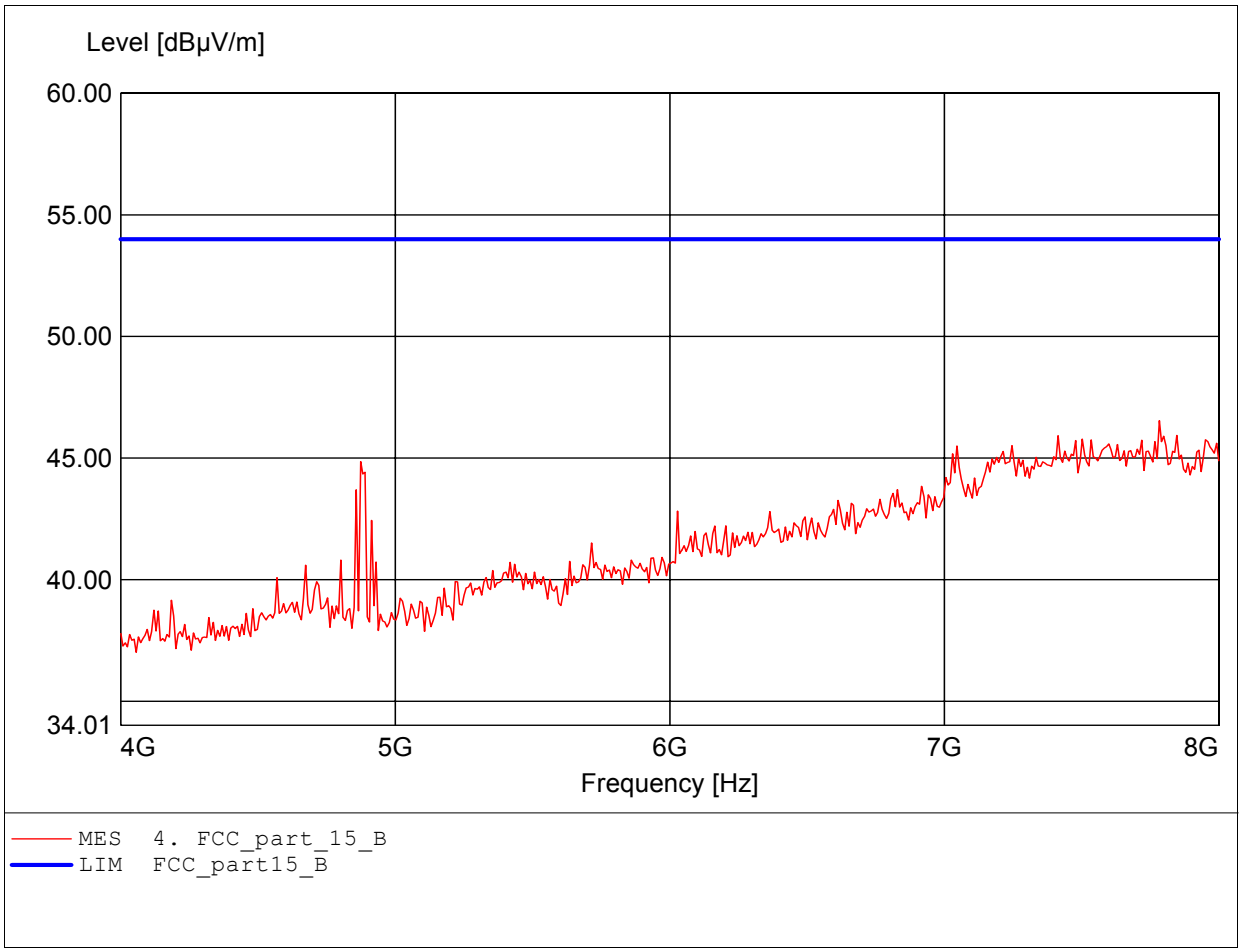
```
Order Number :          W6M20607-7129          ( middle channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HL25, ampl.
                        Freq:4.874GHz Emax:50.62dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

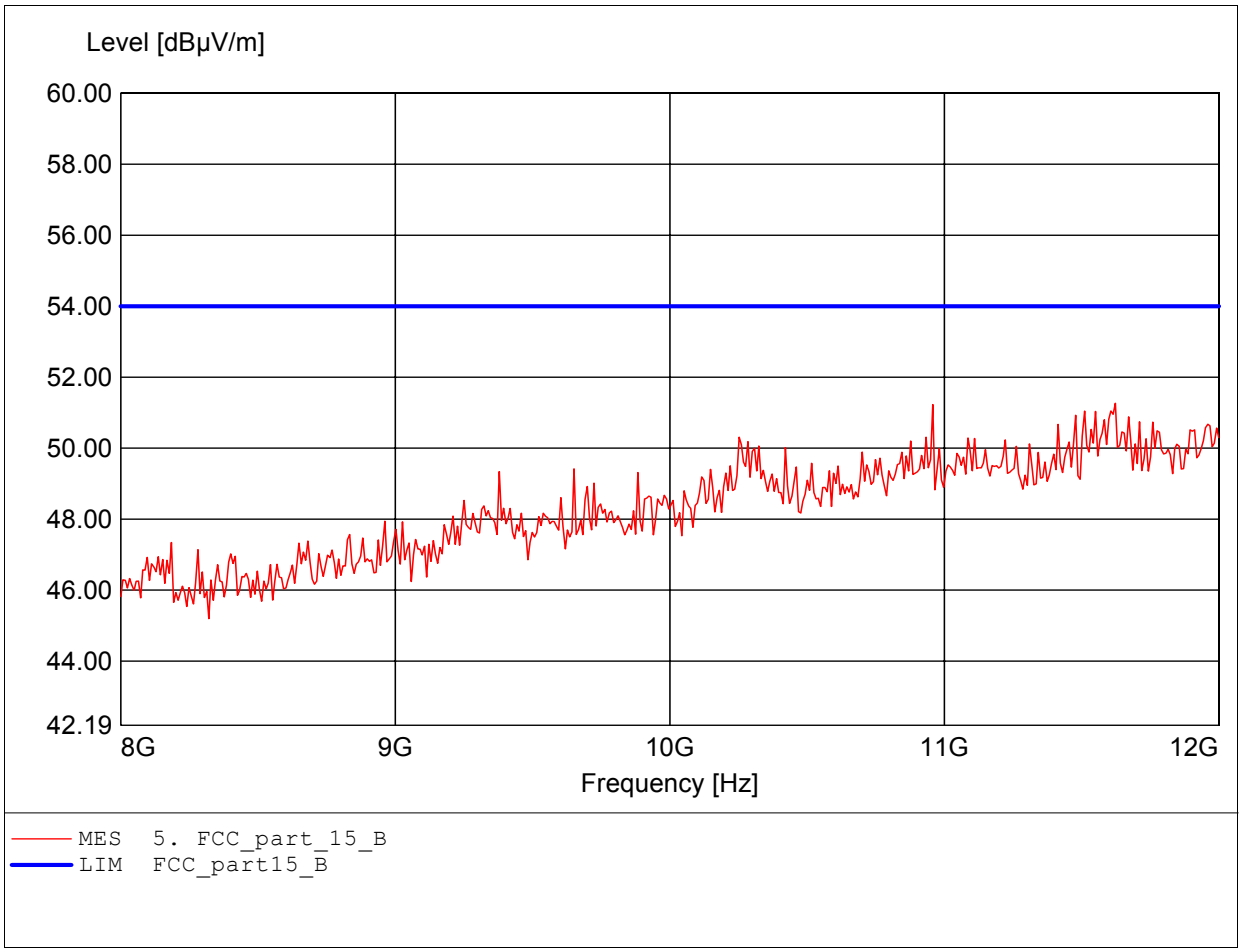
```
Order Number :          W6M20607-7129          ( middle channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HL25, ampl.
                        Freq:7.784GHz Emax:46.54dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

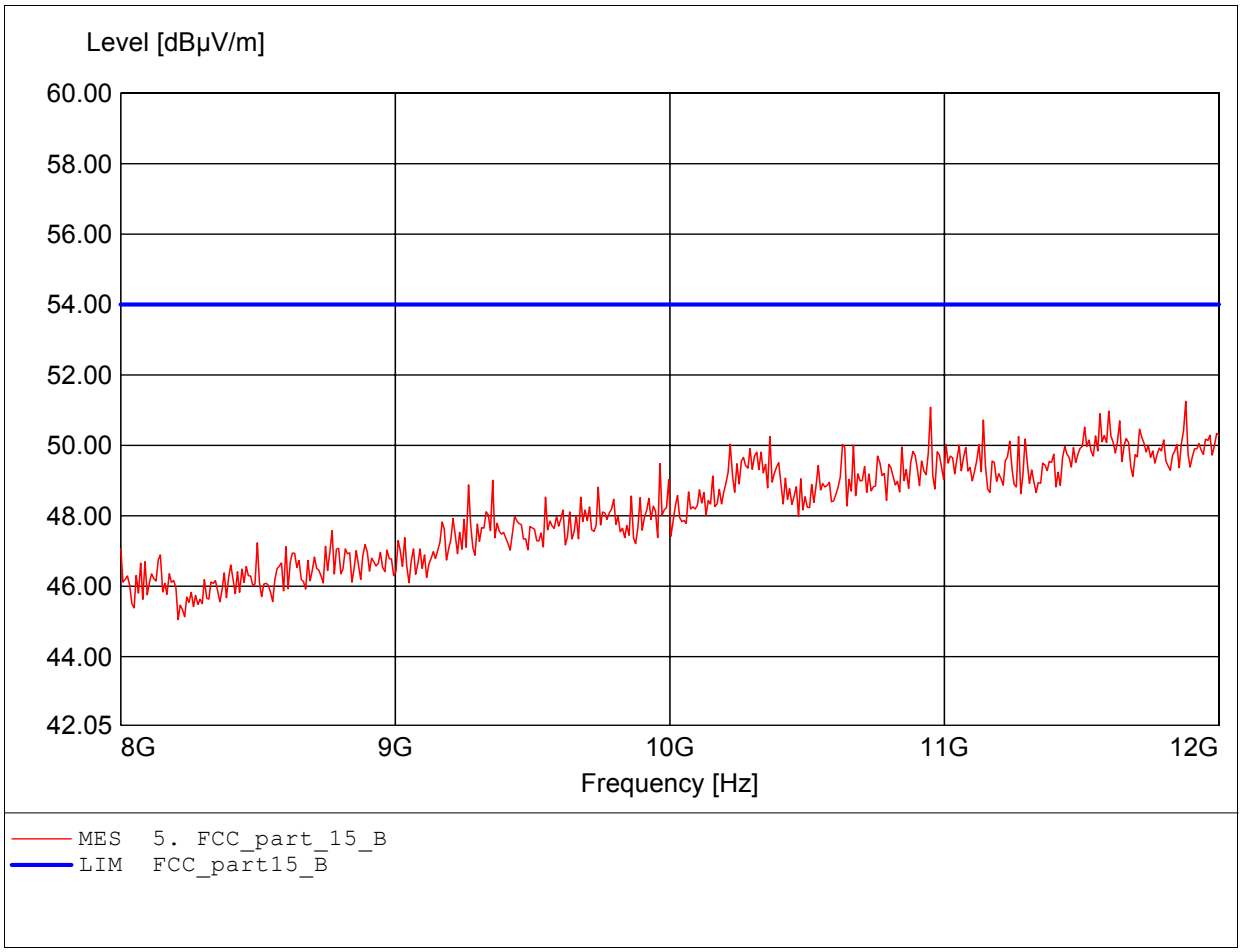
```
Order Number :          W6M20607-7129          ( middle channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HL25, ampl.
                        Freq:11.623GHz Emax:51.26dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

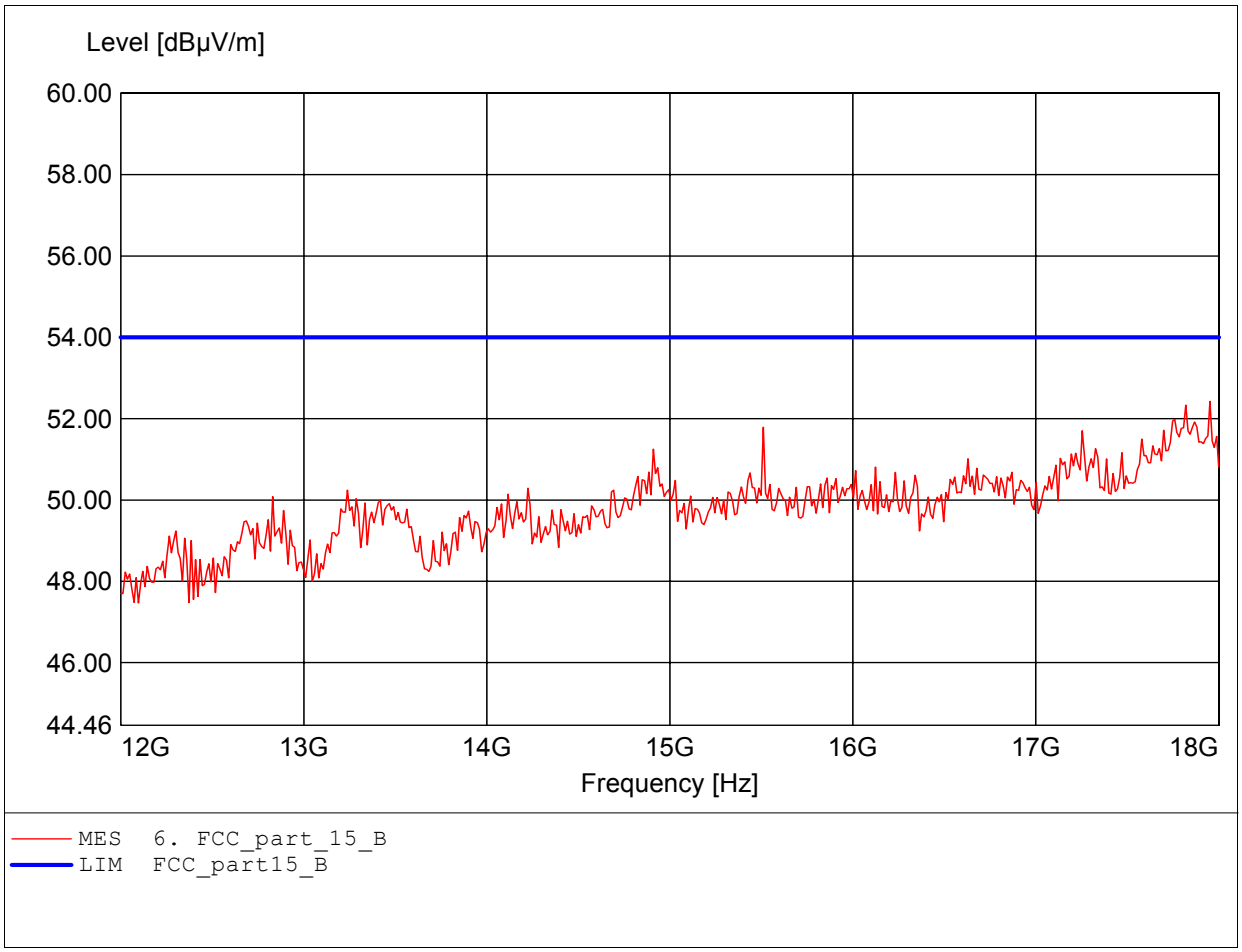
```
Order Number :          W6M20607-7129          ( middle channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HL25, ampl.
                        Freq:11.880GHz Emax:51.25dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

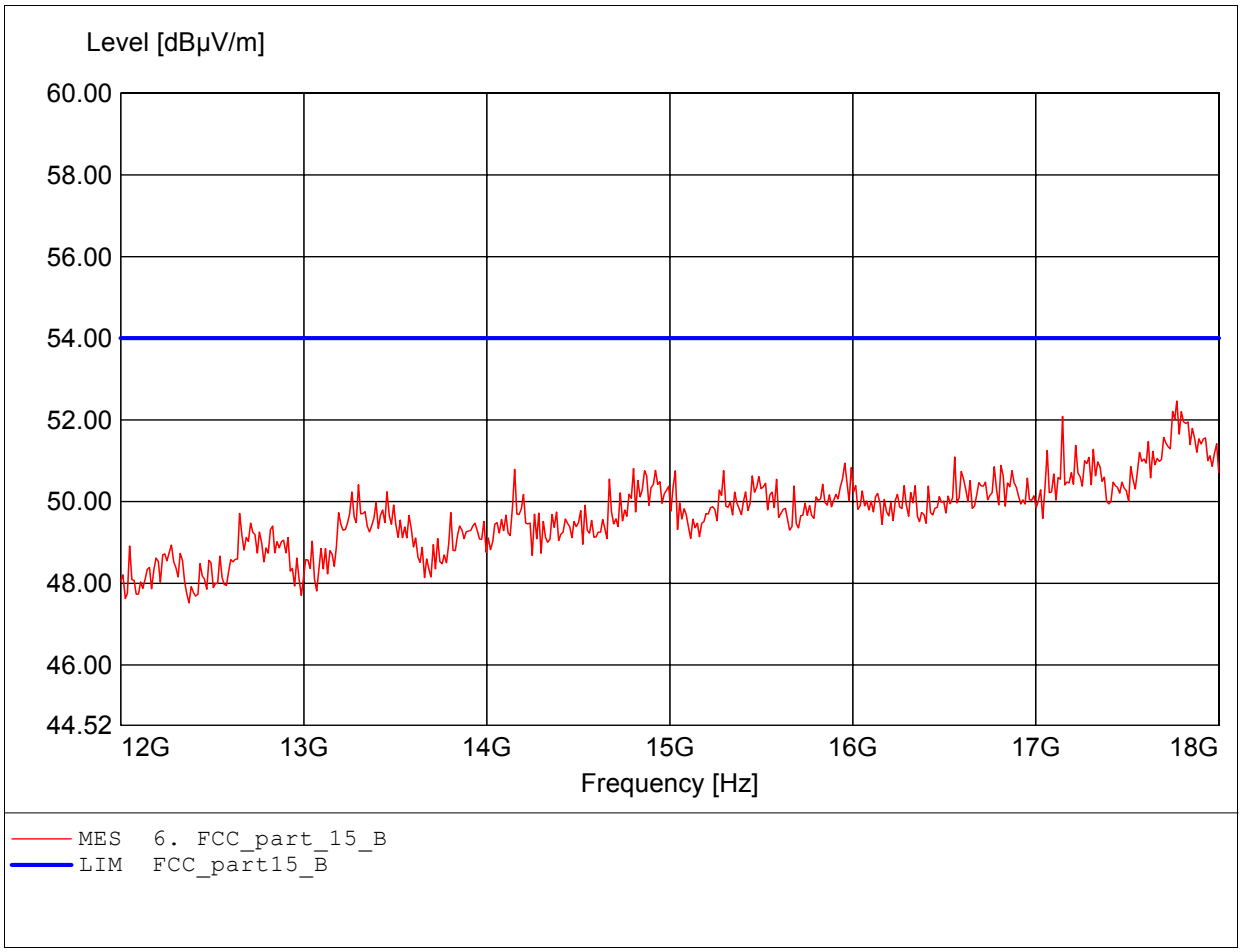
```
Order Number :          W6M20607-7129          ( middle channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HL25, ampl.
                        Freq:17.952GHz Emax:52.42dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

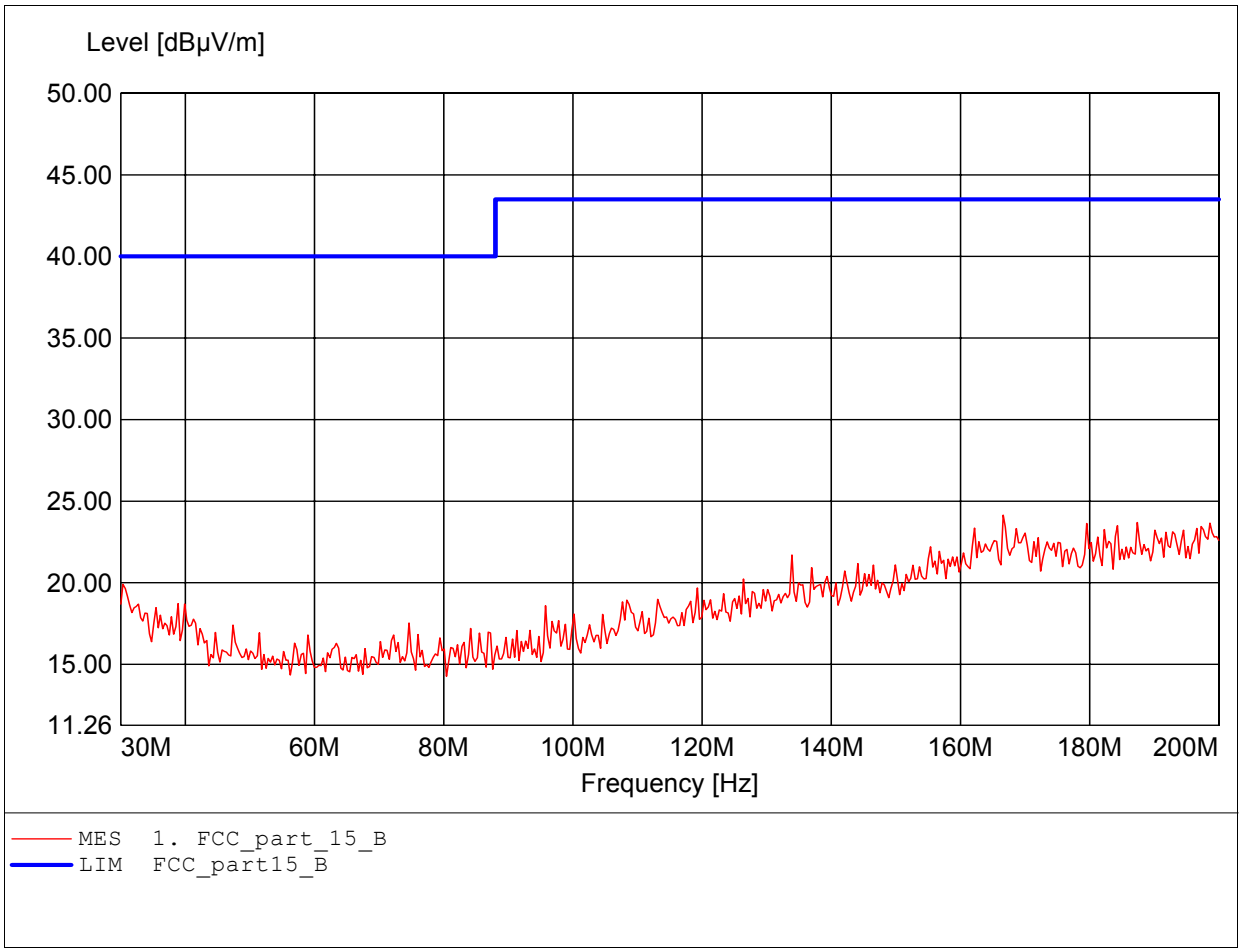
```
Order Number :          W6M20607-7129          ( middle channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HL25, ampl.
                        Freq:17.772GHz Emax:52.46dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

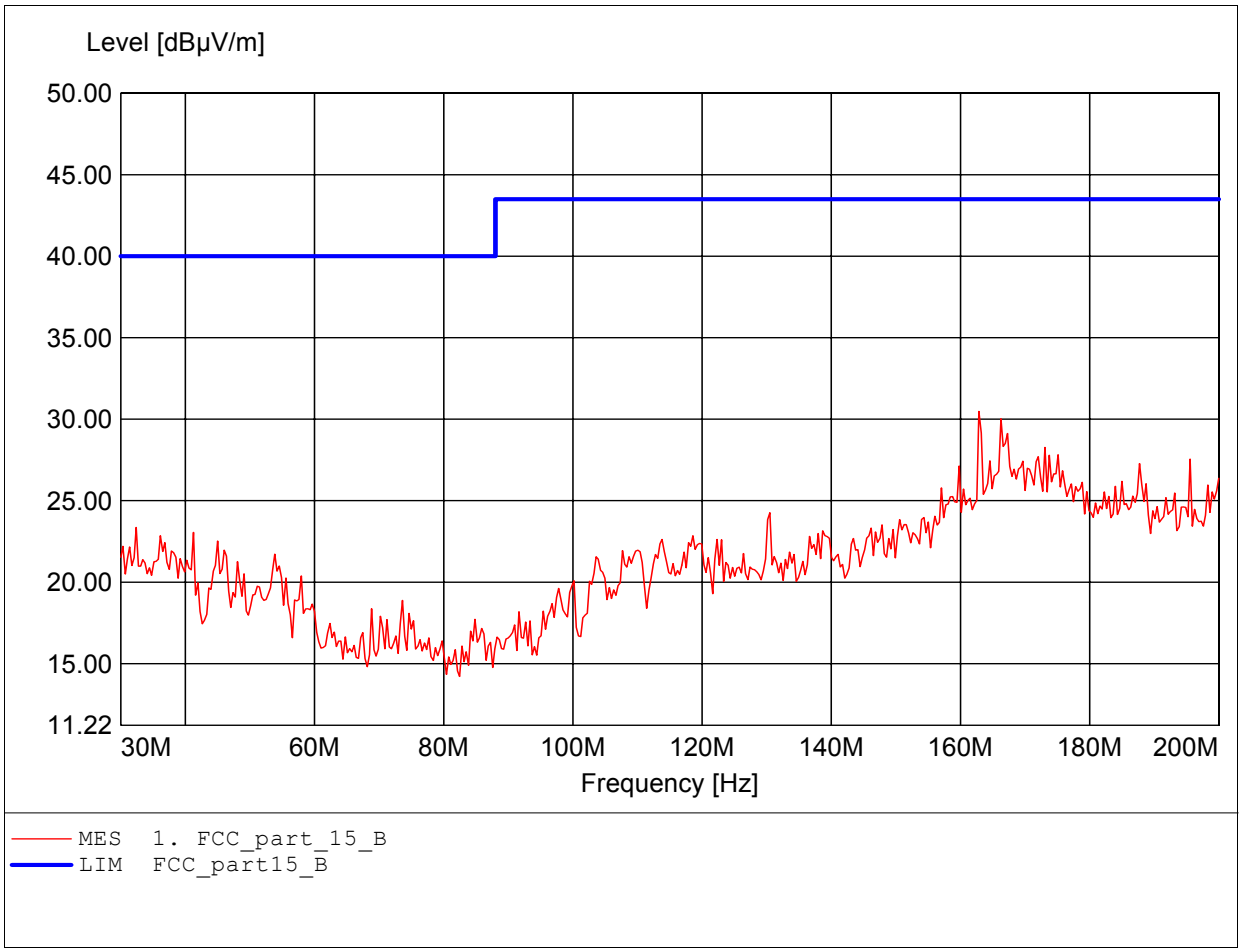
```
Order Number :          W6M20607-7129          ( high channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HK 116
                        Freq:166.613MHz Emax:24.14dBµV/m RBW: 100 kHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

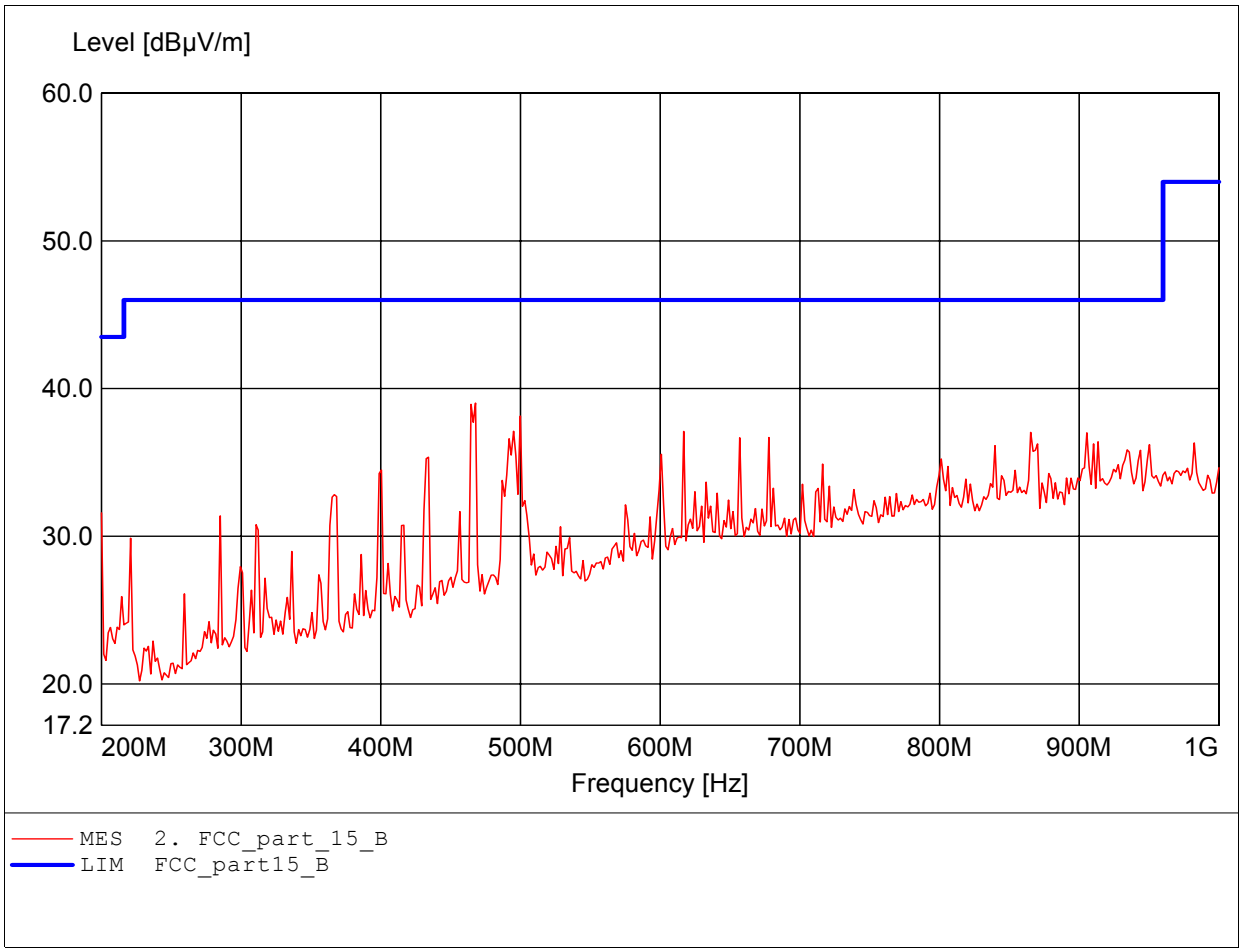
```
Order Number :          W6M20607-7129          ( high channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HK 116
                        Freq:162.866MHz Emax:30.48dBµV/m RBW: 100 kHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

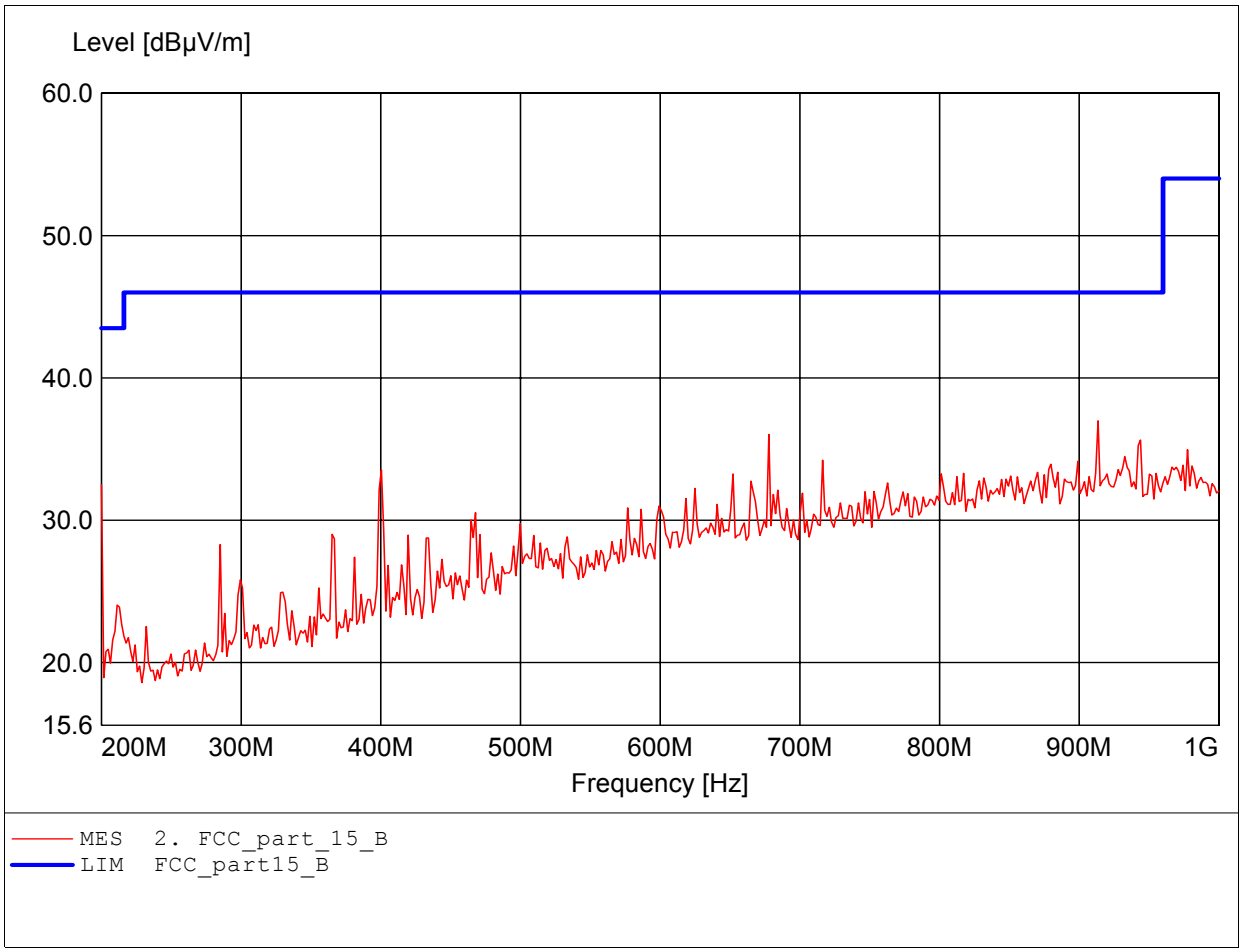
```
Order Number :          W6M20607-7129          ( high channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HL 223, ampl.
                        Freq:467.735MHz Emax:39.01dBµV/m RBW: 100 kHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

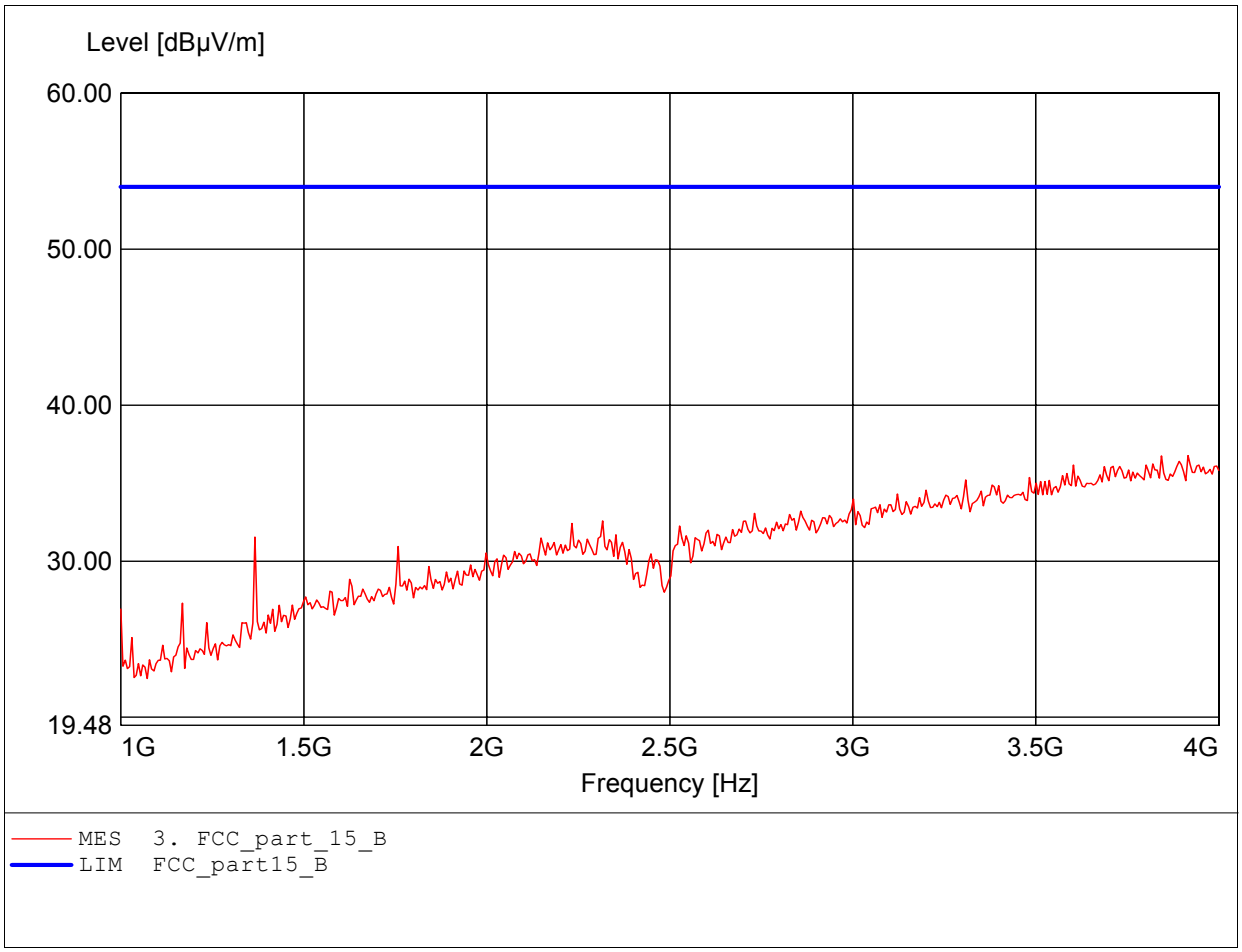
```
Order Number :          W6M20607-7129          ( high channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HL 223, ampl.
                        Freq:913.427MHz Emax:36.98dBµV/m RBW: 100 kHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

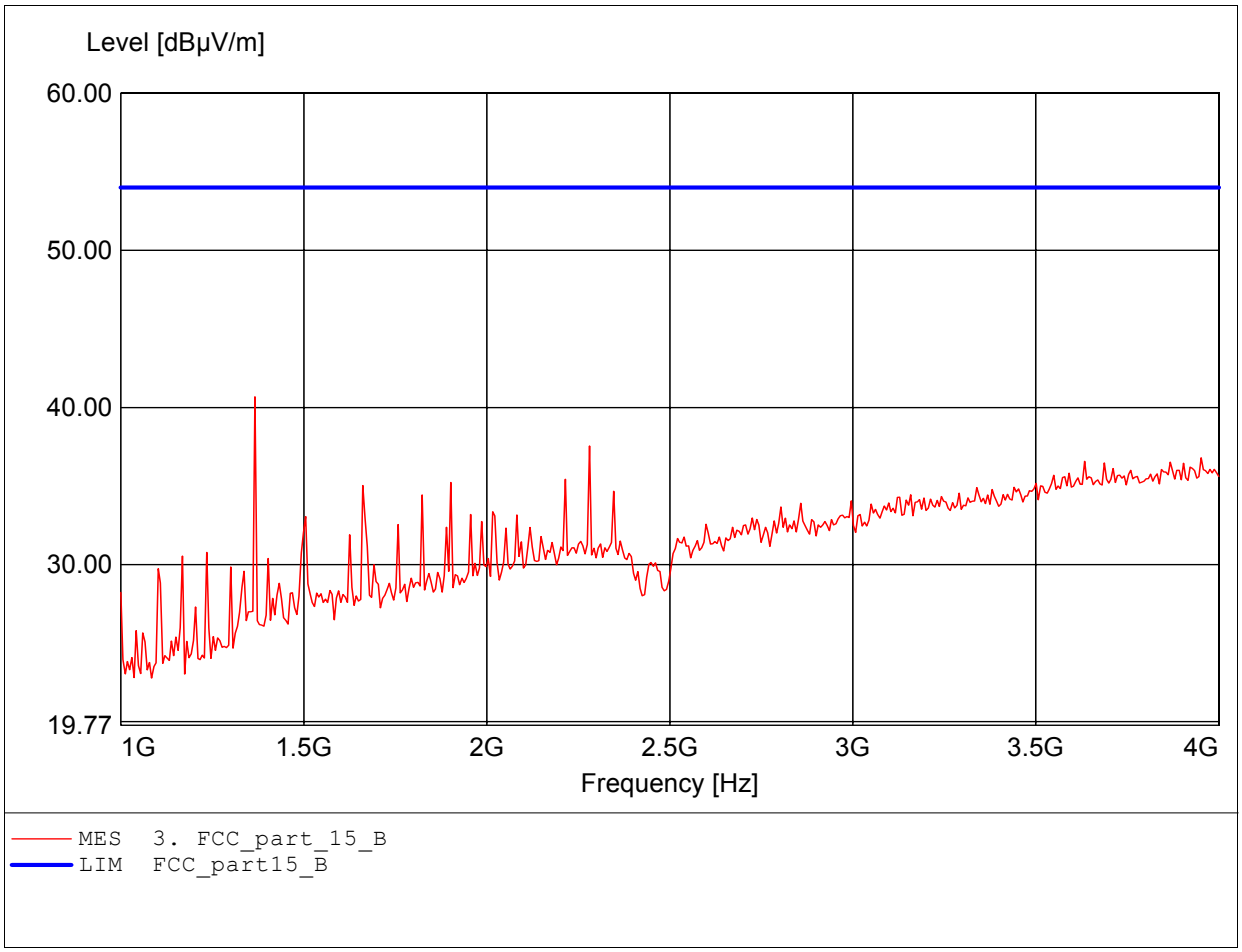
```
Order Number :          W6M20607-7129          ( high channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HL25, ampl.
                        Freq:3.916GHz Emax:36.77dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

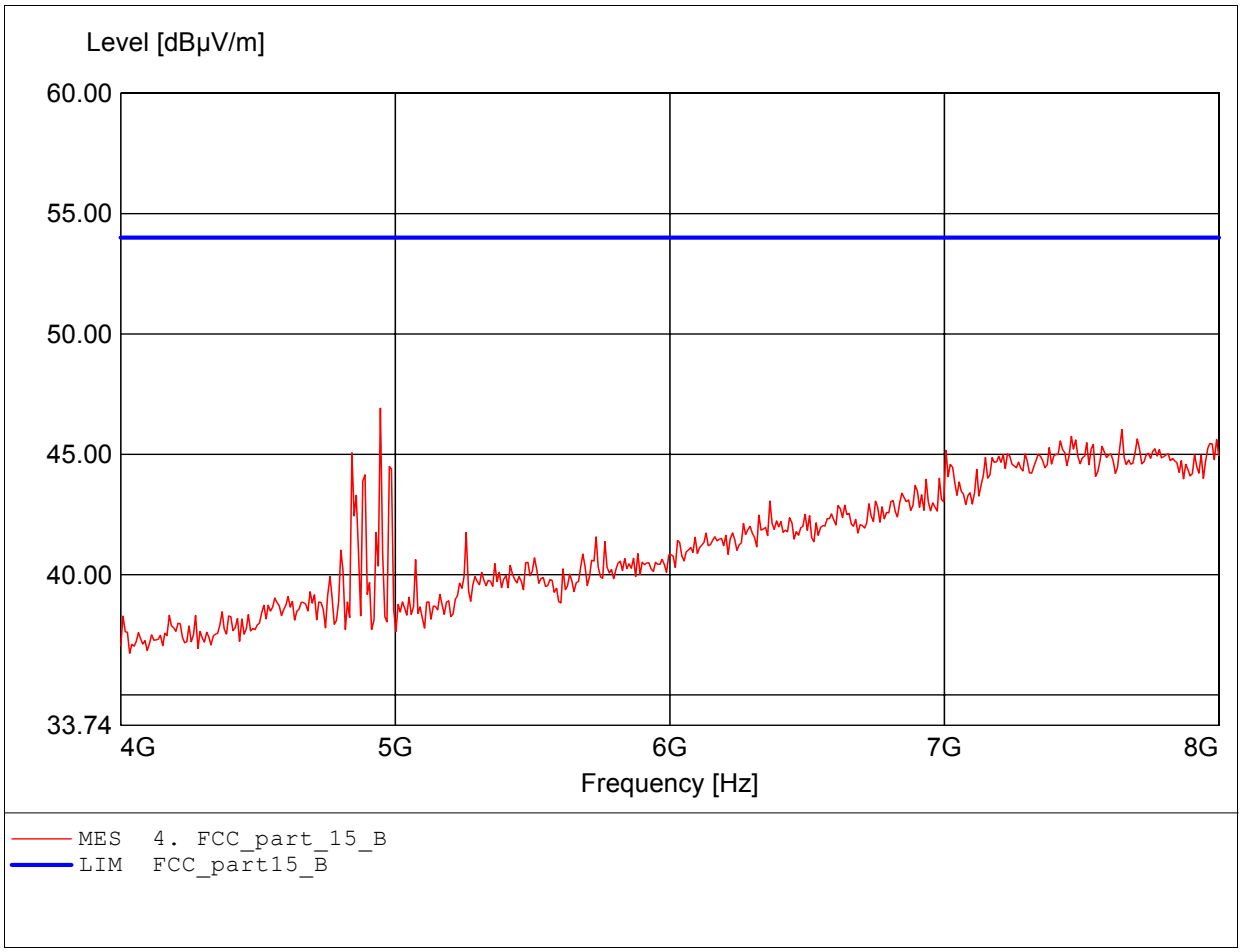
```
Order Number :          W6M20607-7129          ( high channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HL25, ampl.
                        Freq:1.367GHz Emax:40.68dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

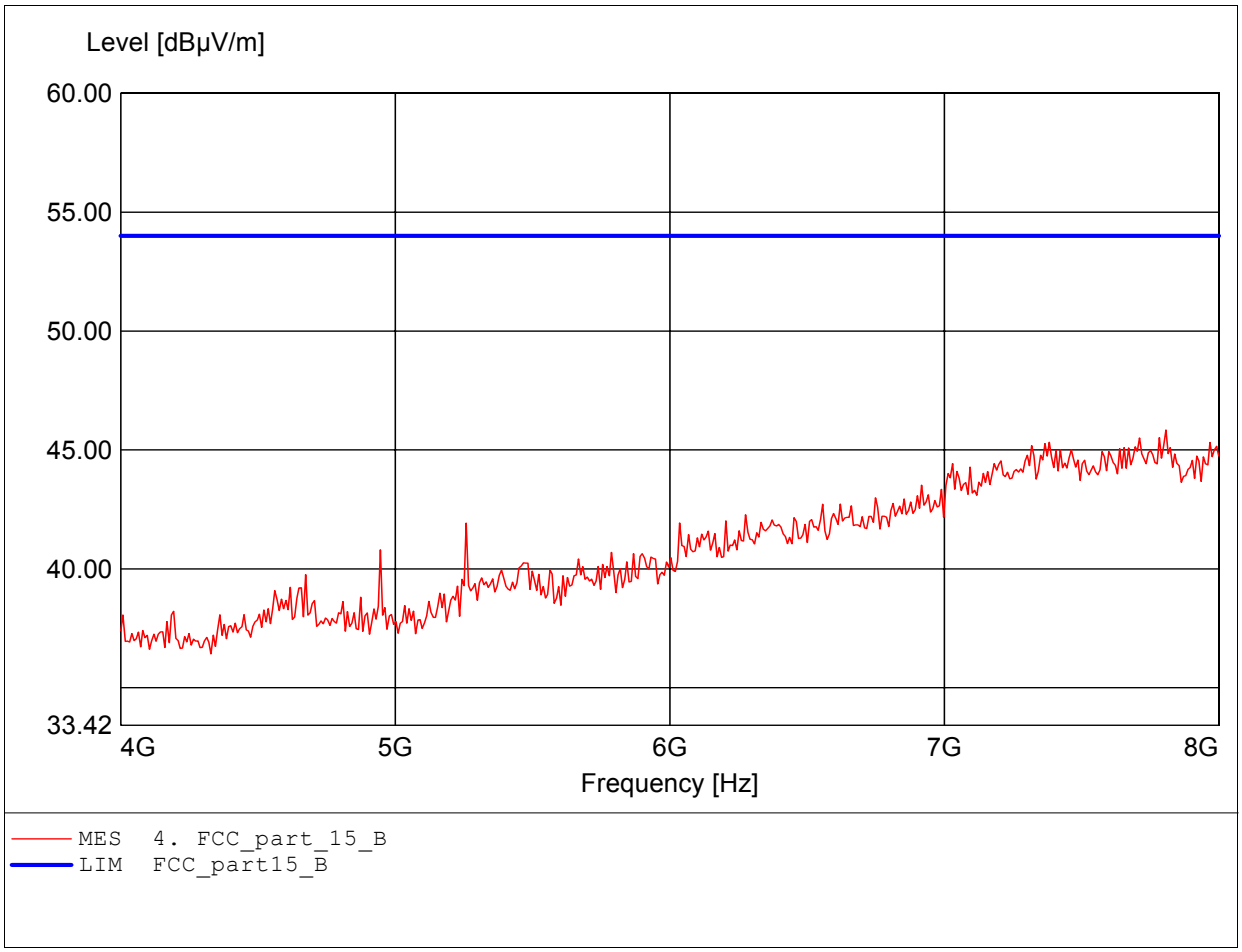
```
Order Number :          W6M20607-7129          ( high channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HL25, ampl.
                        Freq:4.946GHz Emax:46.91dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

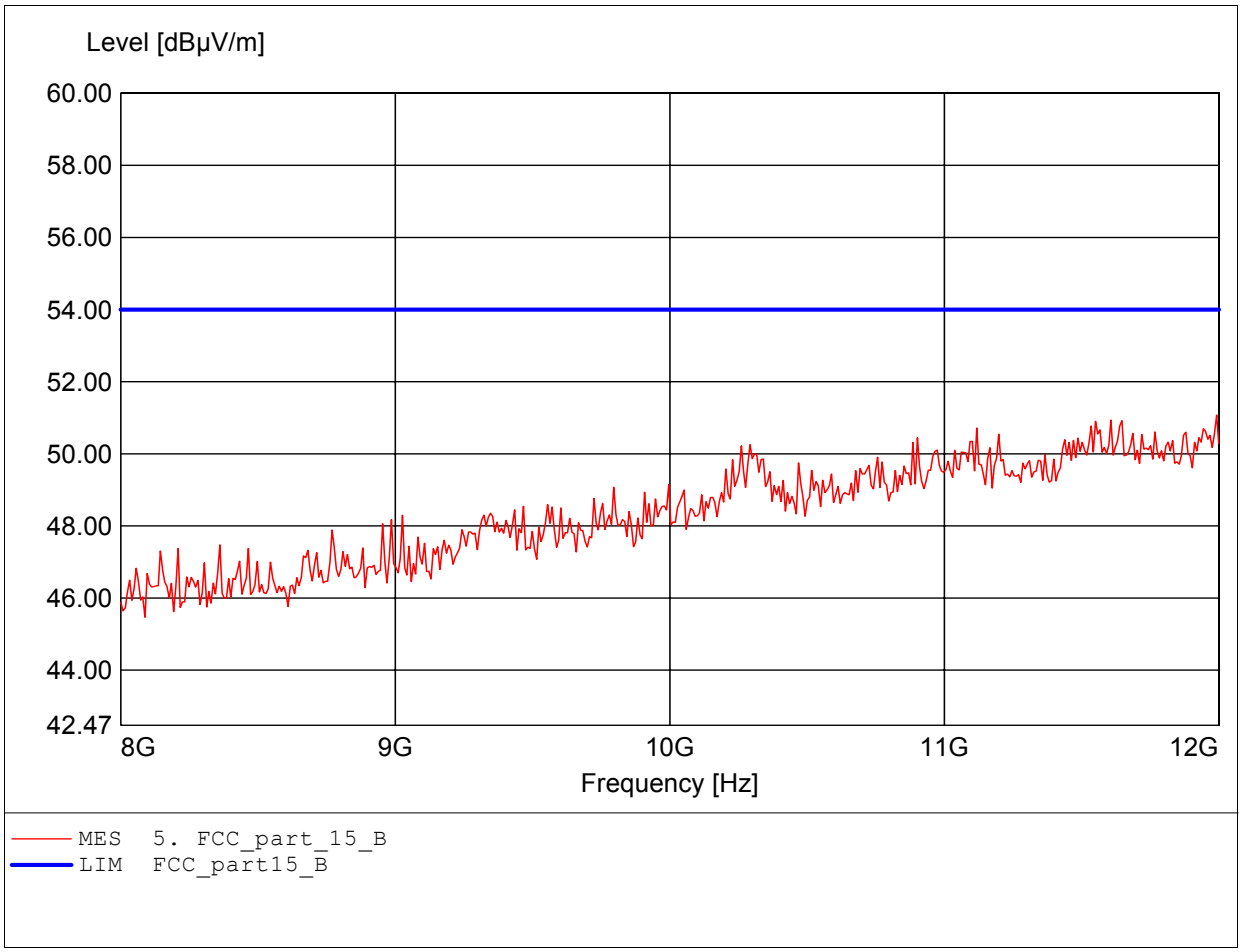
```
Order Number :          W6M20607-7129          ( high channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HL25, ampl.
                        Freq:7.808GHz Emax:45.84dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

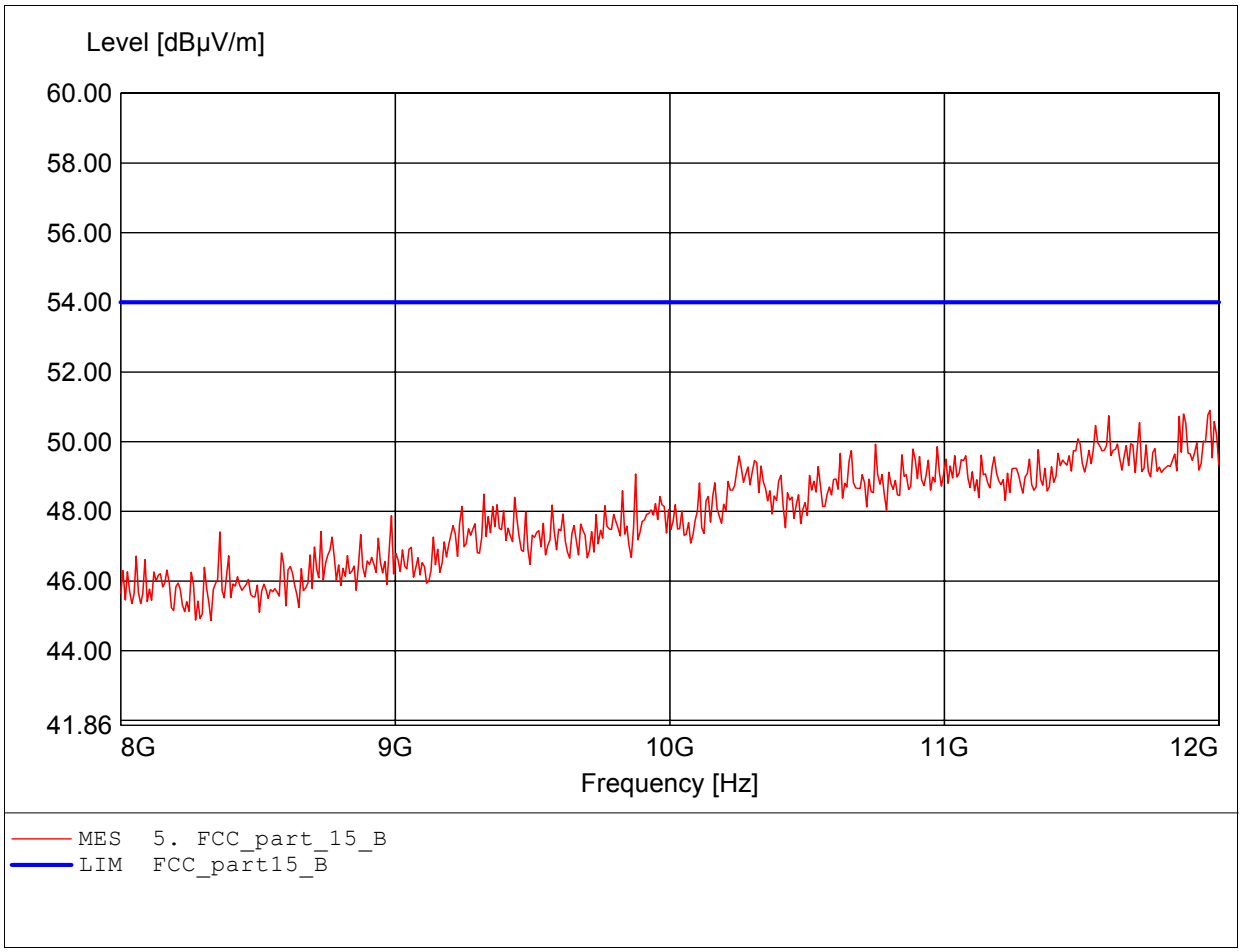
```
Order Number :          W6M20607-7129          ( high channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HL25, ampl.
                        Freq:11.992GHz Emax:51.07dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

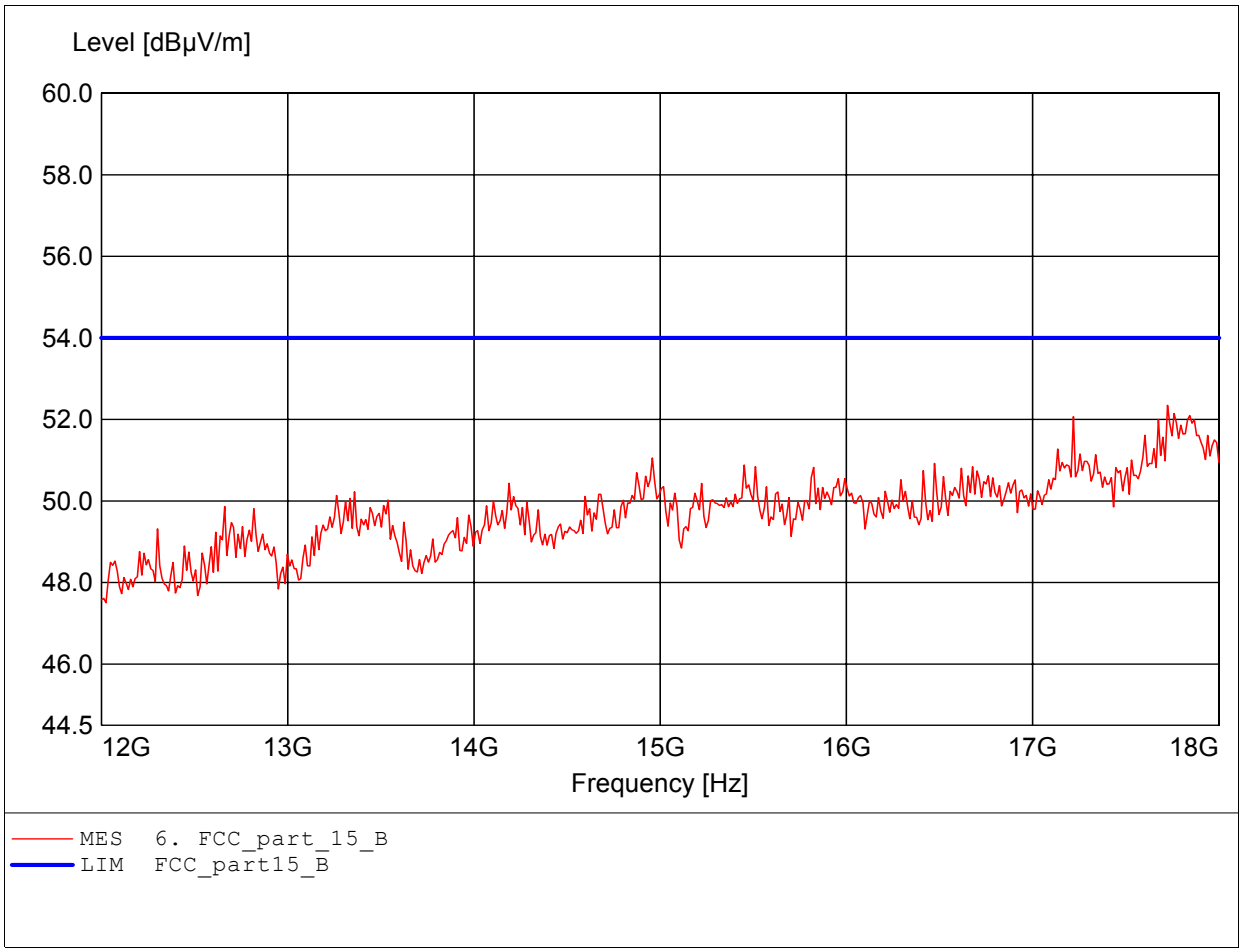
```
Order Number :          W6M20607-7129          ( high channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HL25, ampl.
                        Freq:11.968GHz Emax:50.90dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

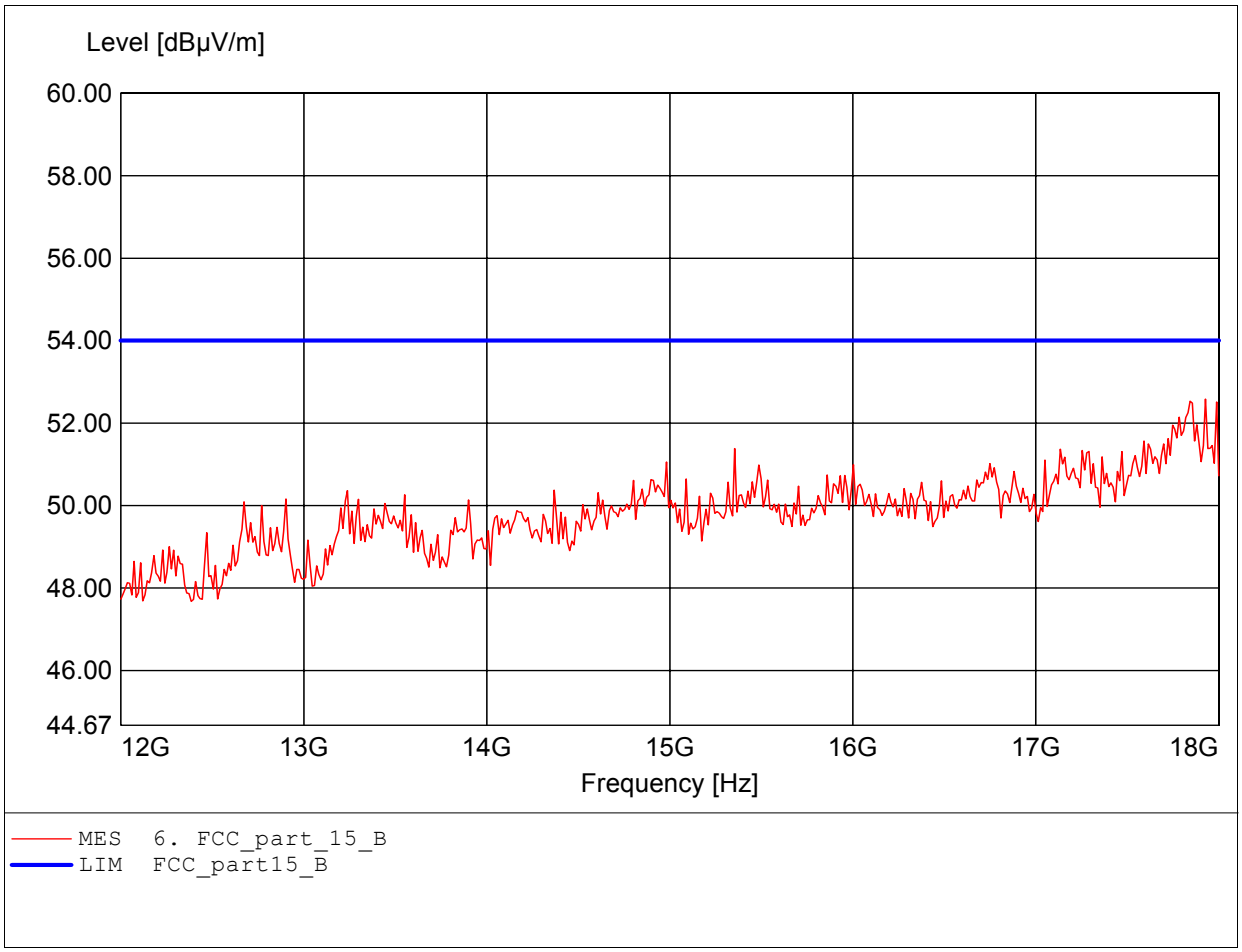
```
Order Number :          W6M20607-7129          ( high channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HL25, ampl.
                        Freq:17.723GHz Emax:52.35dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B / LP0002

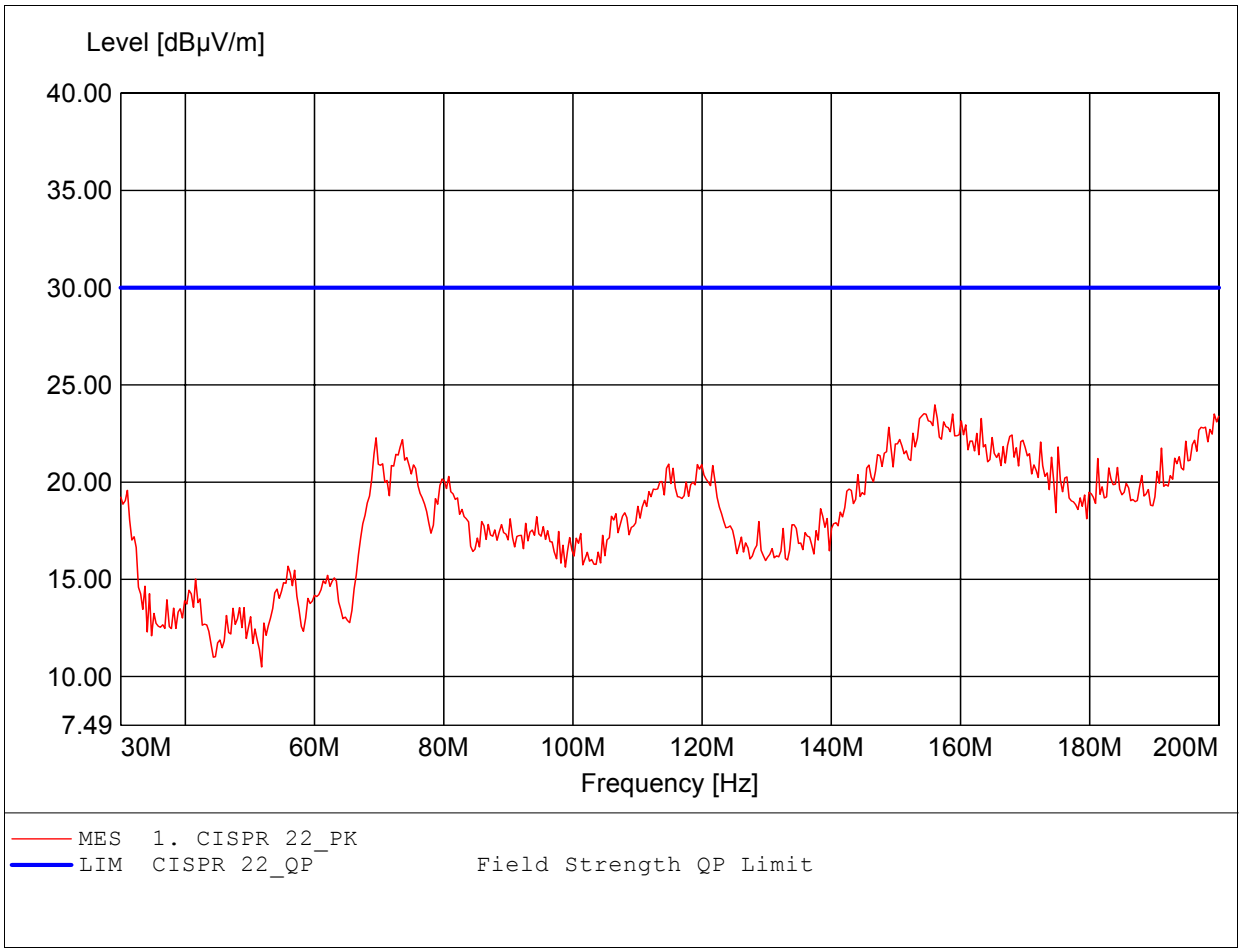
```
Order Number :          W6M20607-7129          ( high channel )
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     according to subpart B
Comment 1:              Dist.: 3m, Ant.: HL25, ampl.
                        Freq:17.928GHz Emax:52.58dBµV/m RBW: 1 MHz
```



Spurious emissions under normal conditions

in accordance to the CISPR 22 / LP0002

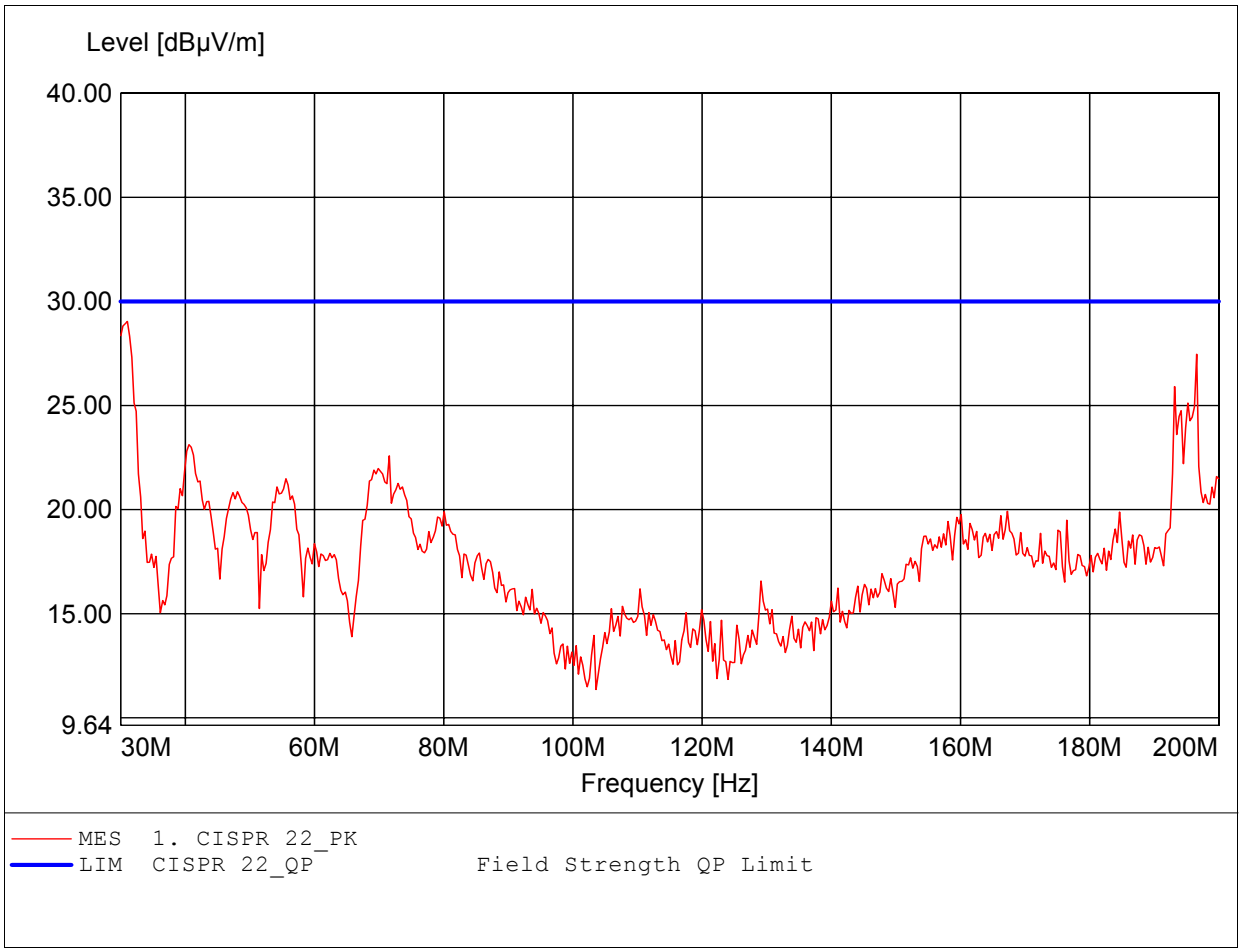
```
Order Number :          W6M20607-7129
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     Fully Anechoic Chamber
Comment 1:              Dist.: 3m, Ant.: HK 116
                        Freq:156.052MHz Emax:23.97dBµV/m RBW: 100 kHz
```



Spurious emissions under normal conditions

in accordance to the CISPR 22 / LP0002

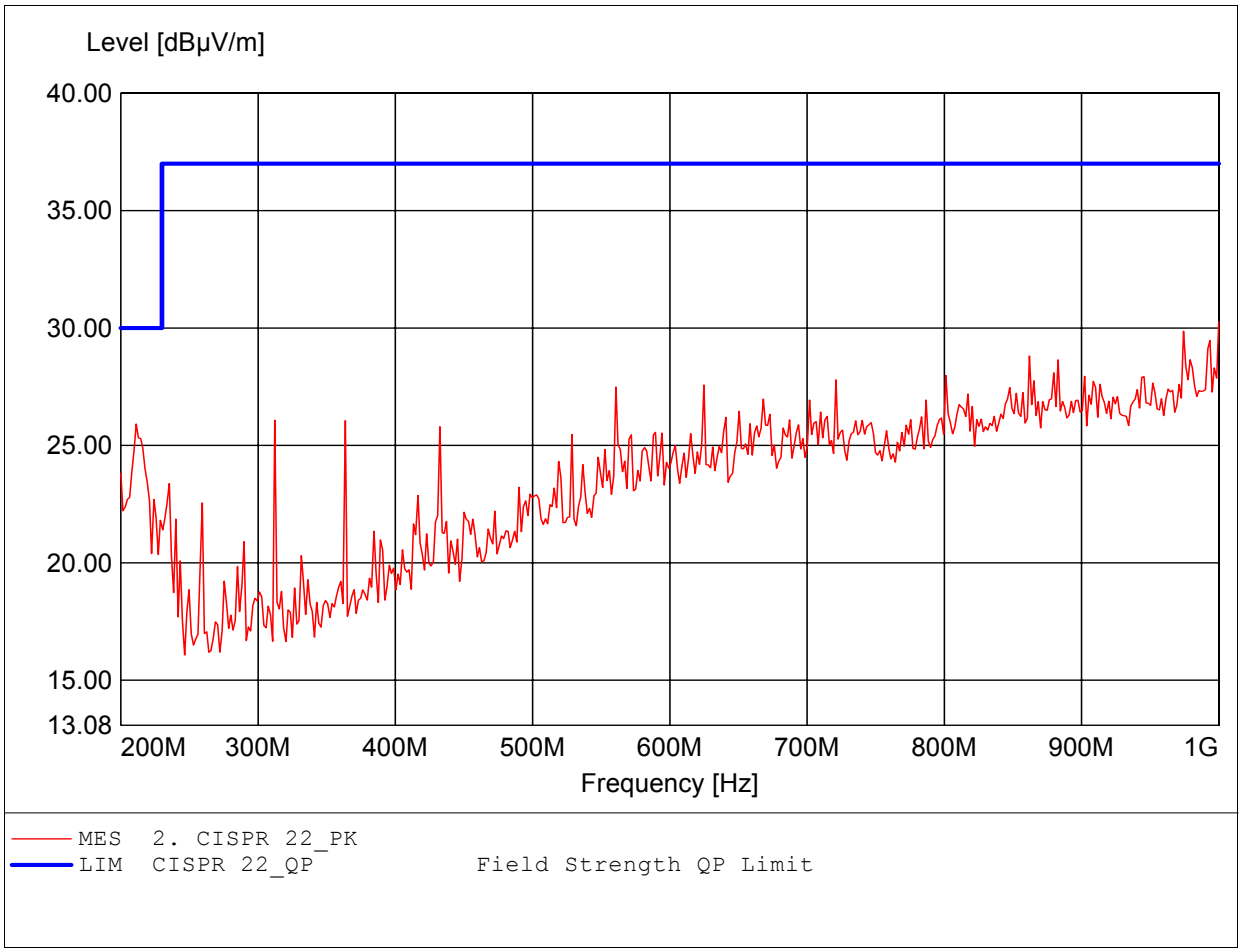
```
Order Number :          W6M20607-7129
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     Fully Anechoic Chamber
Comment 1:              Dist.: 3m, Ant.: HK 116
                        Freq:31.022MHz Emax:28.33dBµV/m RBW: 100 kHz
```



Spurious emissions under normal conditions

in accordance to the CISPR 22 / LP0002

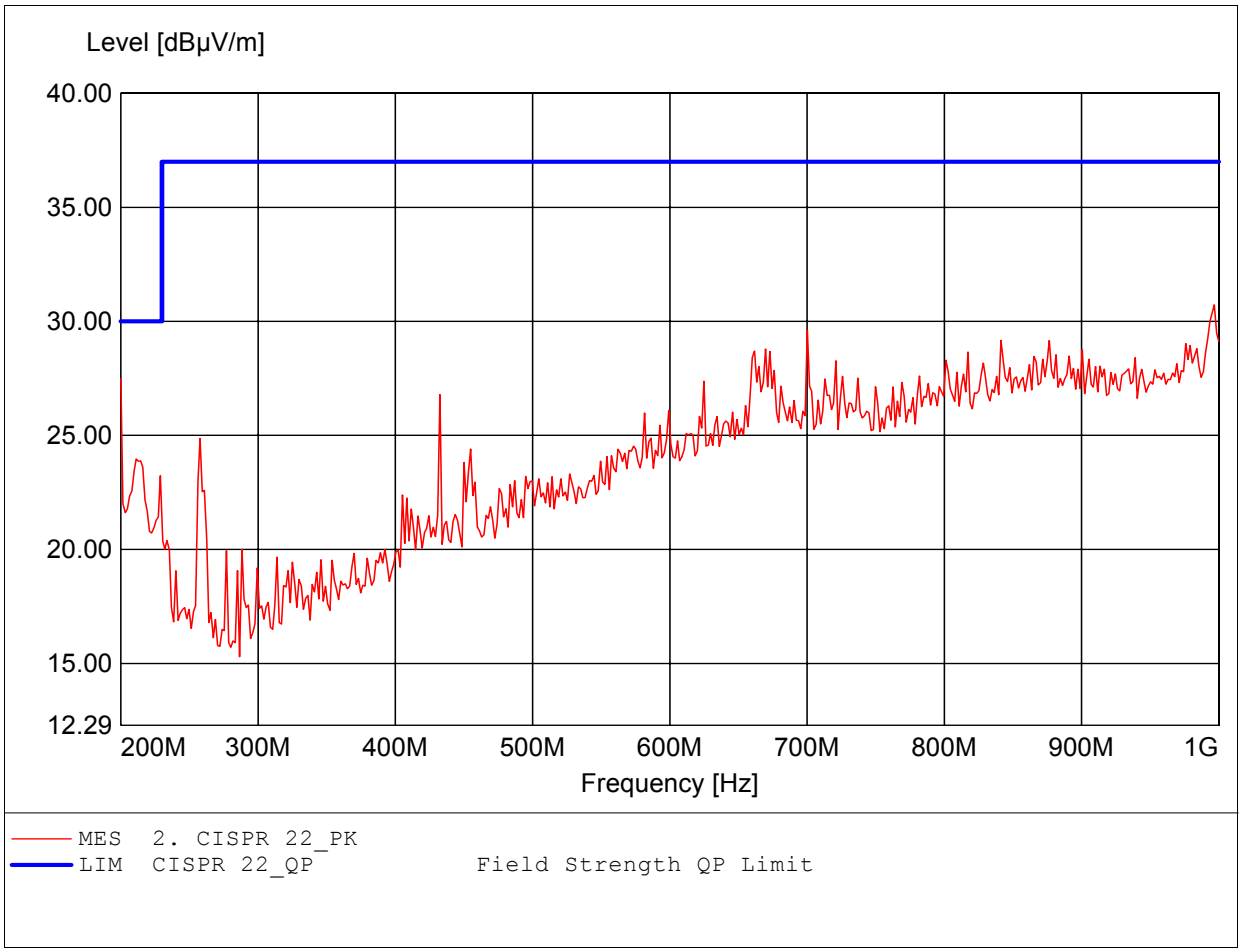
```
Order Number :          W6M20607-7129
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     Fully Anechoic Chamber
Comment 1:              Dist.: 3m, Ant.: HL 223
                        Freq:1.000GHz Emax:30.26dBµV/m RBW: 100 kHz
```



Spurious emissions under normal conditions

in accordance to the CISPR 22 / LP0002

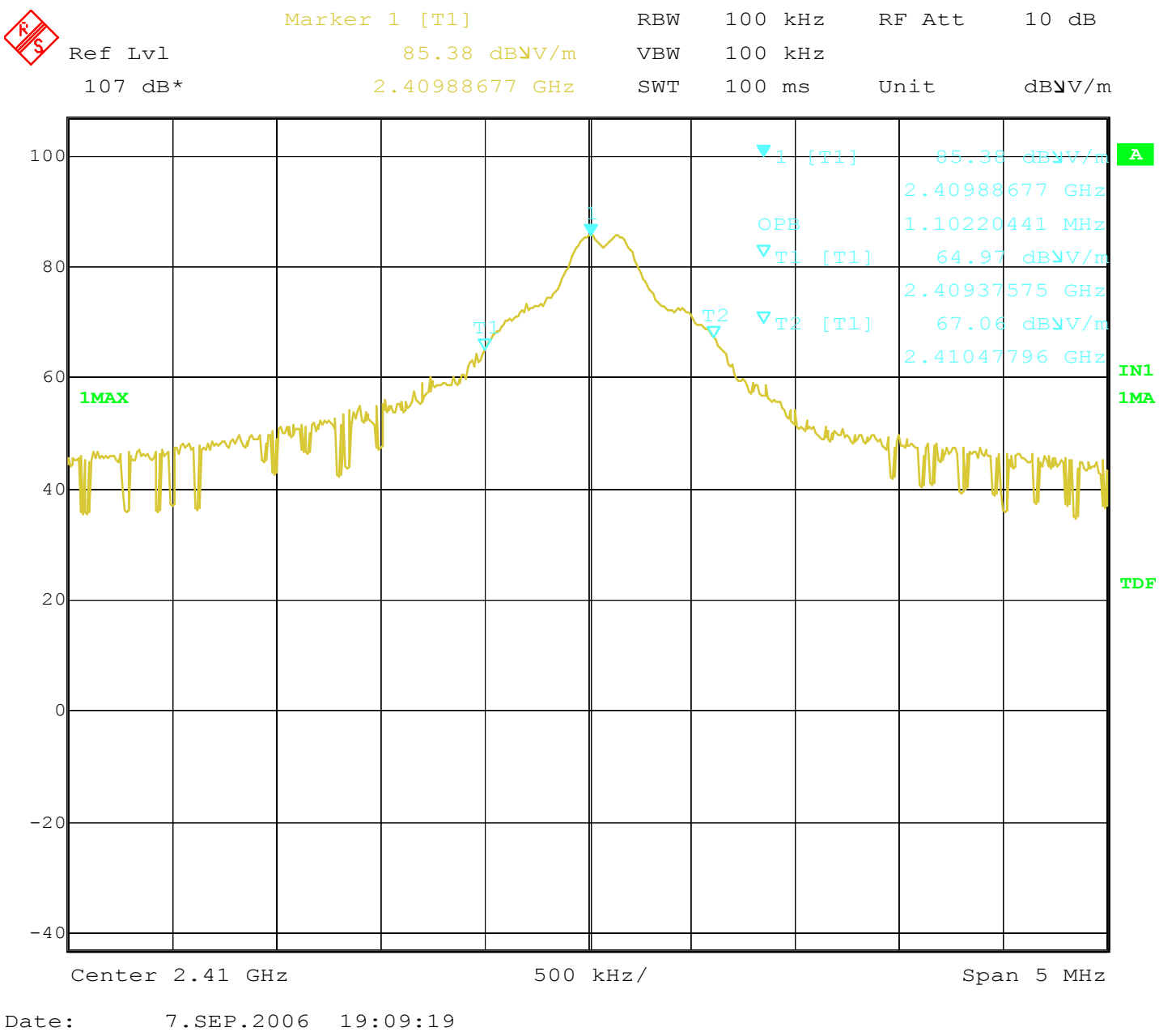
```
Order Number :          W6M20607-7129
Test Site / Operator:   ETS / Charles
Temperature:            Temp.: 23.9°C
Test Specification:     Fully Anechoic Chamber
Comment 1:              Dist.: 3m, Ant.: HL 223
                        Freq:996.794MHz Emax:30.73dBµV/m RBW: 100 kHz
```

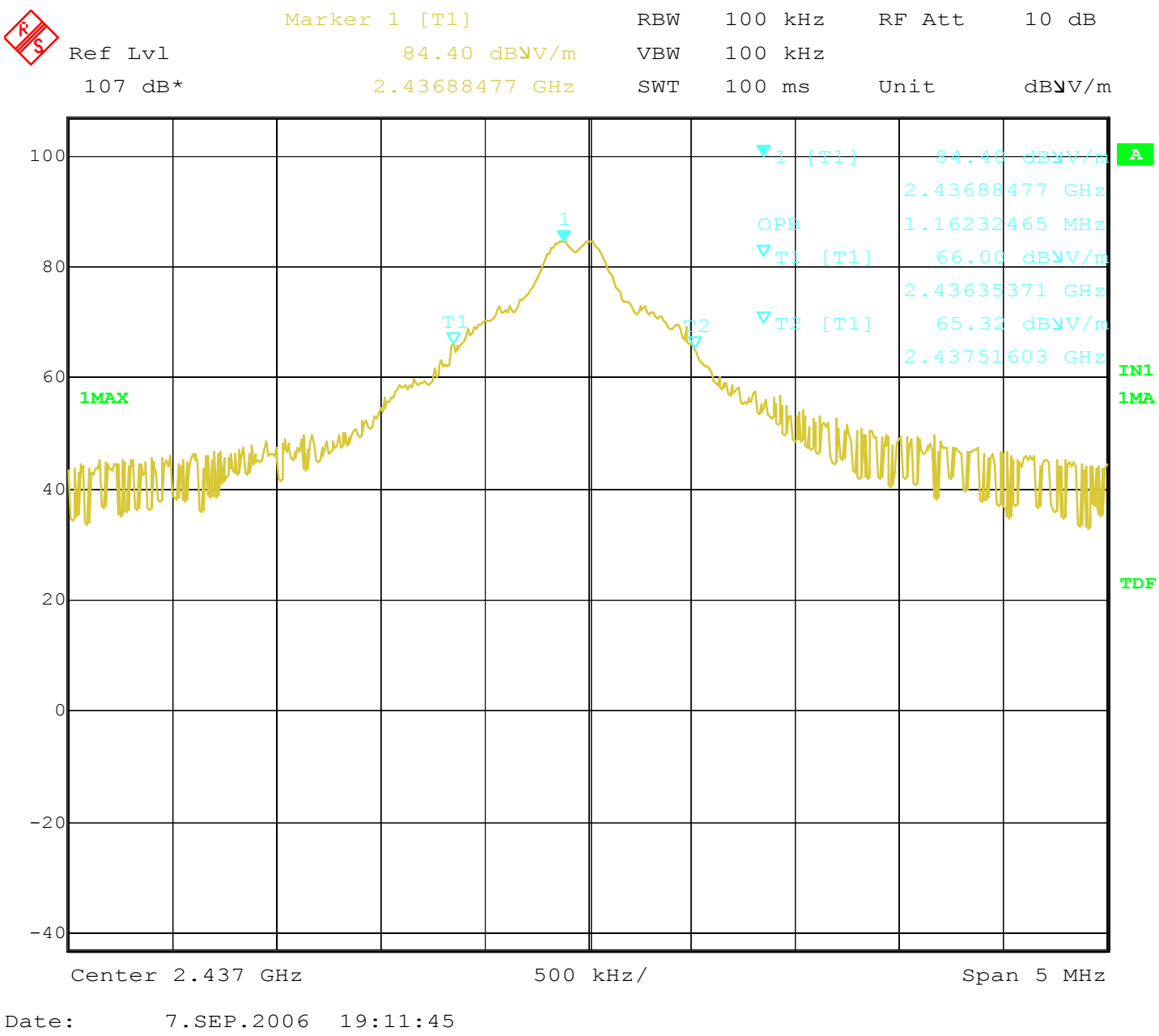


Registration number: W6M20607-7129-P-15
FCC ID: UJ96570

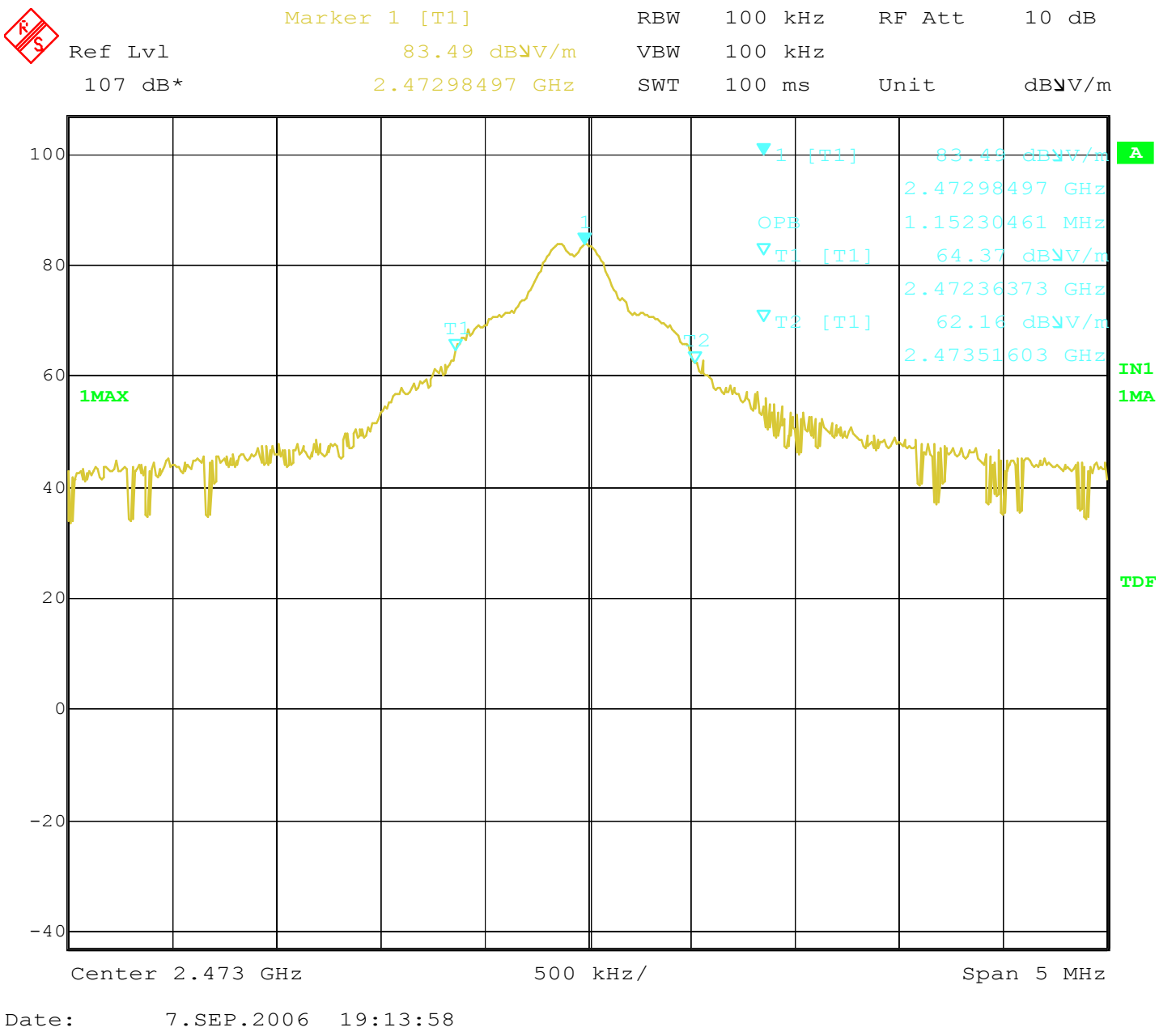
Appendix D

Bandwidth


Marker 1 [T1]
RBW 100 kHz
RF Att 10 dB
Ref Lvl
85.38 dBµV/m
VBW 100 kHz
107 dB*
2.40988677 GHz
SWT 100 ms
Unit dBµV/m
1 [T1] 85.38 dBµV/m
2.40988677 GHz
OPB 1.10220441 MHz
T1 [T1] 64.97 dBµV/m
2.40937575 GHz
T2 [T1] 67.06 dBµV/m
2.41047796 GHz
A
IN1
1MA
TDF
1MAX
T1
T2
100
80
60
40
20
0
-20
-40
Center 2.41 GHz
500 kHz/
Span 5 MHz
Date: 7.SEP.2006 19:09:19



Date: 7.SEP.2006 19:11:45



Date: 7.SEP.2006 19:13:58

Appendix E

Power Line Conducted Emission

This is not required the sample is battery used.

Appendix F

Pictures