

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 : TYNWV-3201D

Test report no.:

W6M20512-6462-P-15

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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 its 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:

Oct 03, 2006

Jay Chaing



Date

ETS-Lab.

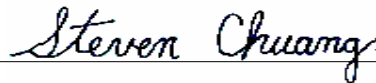
Name

Signature

Technical responsibility for area of testing:

Oct 03, 2006

Steven Chuang



Date

ETS

Name

Signature

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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:	SynerTech International Limited
Street:	1st Floor, Dah Way Industrial Building, 86 Hung To Road,
Town:	Kwun Tong,
Country:	Hong Kong
Telephone:	(852)2687-6828
Fax:	(852)2687-6936
Teletex:	./.

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1.4 Application details

Date of receipt of application : Dec 22, 2005
Date of receipt of test item : Sep 21, 2006
Date of test : From Sep 22, 2006 to Oct 03, 2006

1.5 General information of Test item

Type of test item : Wireless video door phone - Door Station Color

Model Number : WV-3201D

Serial number : without

Photos : see Annex

Technical data

Frequency band : 2.400-2.4835GHz

Operating frequency for audio TX : 2.474, 2.475, 2.476GHz
RX : 2.404, 2.405, 2.406GHz

Operating frequency for video : 2.432, 2.450GHz

Audio

Frequency 1 for TX : 2.474GHz
Frequency 2 for TX : 2.476GHz
Frequency 1 for RX : 2.404GHz
Frequency 2 for RX : 2.406GHz

Video

Frequency 1 : 2.432GHz
Frequency 2 : 2.450GHz

Operation modes : duplex

Modulation Type : FM

Antenna type : dipole antenna

Power supply : 6VDC (battery)



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Manufacturer:

(if different from applicant)

Name : SynerTech International Limited
Street : Industrial Zone 2 Qingxi Zhen, Dongguan City Province
Town : Guangdong
Country : China

Additional information : --

1.6 Test standards

Technical standard : FCC RULES PART 15 SUBPART B /
SUBPART C § 15.249 : February 2006

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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	: 6VDC (battery)
Extreme conditions parameters	: Not required

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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 Horn 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

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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

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2.4 General Test Procedure

POWER LINE CONDUCTED INTERFERENCE: The procedure used was ANSI STANDARD C63.4-2003 using a 50 μ H 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 UUT 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 dB μ V) 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 dB μ V + 10.36 dB + 6 dB = 36.36 dB μ V/m @3m

ANSI STANDARD C63.4-2003 10.1.7 MEASUREMENT PROCEDURES: The UUT was placed on a table 80 cm high and with dimensions of 1m by 1.5m (non metallic table). The UUT 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.)
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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 dipole antenna (see photo).

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3 Test results (enclosure)

TEST CASE	Para. Number	Required	Test passed	Test failed
Peak Output Power	15.249 (b)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Spurious Emissions radiated – Transmitter operating	15.249 (e)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Spurious Emissions conducted – Transmitter operating	15.249 (e)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Radiated Emission from Digital Part And Receiver L.O.	15.109	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Out of Band Spurious Emission, Band edge-Transmitter operating	15.249 (e)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Power Line Conducted Emission	15.207	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The follows is intended to leave blank.

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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).

Audio

Test conditions Frequency 1		Transmitter field strength of fundamental	Transmitter field strength of harmonics
		[dB μ V/m]	
T _{nom} = 23 °C	V _{nom} = 6 V	74.67	--
Measurement uncertainty		< 3 dB	

Test conditions Frequency 2		Transmitter field strength of fundamental	Transmitter field strength of harmonics
		[dB μ V/m]	
T _{nom} = 23 °C	V _{nom} = 6 V	74.85	--
Measurement uncertainty		< 3 dB	

Video

Test conditions Frequency 1		Transmitter field strength of fundamental	Transmitter field strength of harmonics
		[dB μ V/m]	
T _{nom} = 23 °C	V _{nom} = 6 V	103.59	--
Measurement uncertainty		< 3 dB	

Test conditions Frequency 2		Transmitter field strength of fundamental	Transmitter field strength of harmonics
		[dB μ V/m]	
T _{nom} = 23 °C	V _{nom} = 6 V	103.35	--
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.

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3.2 Equivalent isotropic radiated power

Because using an permanent antenna there are no deviations from the radiated test results 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 Wireless video door phone - Door Station Color 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

$$54.0 \text{ dB}\mu\text{V/m} + 20 \text{ dB} = 74 \text{ dB}\mu\text{V/m}$$

Or

Must be attenuated 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

Comment: 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)	Antenna Height (cm)	Table Azimuth (degree)
H	804.2080	17.71	25.17	QP	42.88	46	3.12	240	214
	825.4900	18.65	25.54	QP	44.19	46	1.81	280	92
	1823.9690	50.68	-4.64	PK	46.04	54	7.96	140	140
	7296.0714	48.47	6.45	PK	54.92	74	19.08	130	100
	7296.0714	42.06	6.45	AV	48.51	54	5.49	130	100

Antenna Polarization	Frequency Marker (MHz)	Corrected Reading (dBuV)	Correction Factor (dB)	Detector	Test Result (dBuV/m)	Compliance Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Azimuth (degree)
V	804.2080	19.65	25.17	QP	44.82	46	1.18	315	219
	825.4900	17.40	25.54	QP	42.94	46	3.06	305	97
	1823.9690	54.62	-4.64	PK	49.98	54	4.02	145	142
	7296.0714	48.27	6.45	PK	54.72	74	19.28	130	98
	7296.0714	41.52	6.45	AV	47.97	54	6.03	130	98

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High Channel

Antenna Polarization	Frequency Marker (MHz)	Corrected Reading (dBuV)	Correction Factor (dB)	Detector	Test Result (dBuV/m)	Compliance Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Azimuth (degree)
H	31.0220	11.01	13.03	QP	24.04	40	15.96	315	145
	804.2080	17.72	25.17	QP	42.89	46	3.11	245	314
	825.4900	18.61	25.54	QP	44.15	46	1.85	260	202
	1837.3860	49.67	-4.71	PK	44.96	54	9.04	145	145
	7350.0501	41.84	6.26	AV	48.1	54	5.9	150	111
	7350.0501	48.64	6.26	PK	54.9	74	19.1	150	111

Antenna Polarization	Frequency Marker (MHz)	Corrected Reading (dBuV)	Correction Factor (dB)	Detector	Test Result (dBuV/m)	Compliance Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Azimuth (degree)
V	31.0220	16.09	13.03	QP	29.12	40	10.88	255	141
	804.2080	19.81	25.17	QP	44.98	46	1.02	315	310
	825.4900	17.37	25.54	QP	42.91	46	3.09	305	200
	1837.3860	48.55	-4.71	PK	43.84	54	10.16	155	147
	7350.0501	47.84	6.26	PK	54.1	74	19.9	160	107
	7350.0501	41.14	6.26	AV	47.4	54	6.6	160	107

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.

- 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

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

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)	Antenna Height (cm)	Table Azimuth (degree)
H	156.8010	6.71	15.43	PK	22.14	46	23.86	315	270
	709.4080	8.63	23.74	PK	32.37	46	13.63	210	185
	1901.7982	39.71	-5.14	PK	34.57	54	19.43	140	92

Antenna Polarization	Frequency Marker (MHz)	Corrected Reading (dBuV)	Correction Factor (dB)	Detector	Test Result (dBuV/m)	Compliance Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Azimuth (degree)
V	156.8010	8.64	15.43	PK	24.07	46	21.93	285	276
	709.4080	8.53	23.74	PK	32.27	46	13.73	310	184
	1901.7982	39.22	-5.14	PK	34.08	54	19.92	145	94

High Channel

Antenna Polarization	Frequency Marker (MHz)	Corrected Reading (dBuV)	Correction Factor (dB)	Detector	Test Result (dBuV/m)	Compliance Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Azimuth (degree)
H	105.7080	6.94	11.86	PK	18.8	46	27.20	375	210
	406.1090	9.31	17.88	PK	27.19	46	18.81	240	148
	1901.7982	38.94	-5.14	PK	33.8	54	20.20	140	88

Antenna Polarization	Frequency Marker (MHz)	Corrected Reading (dBuV)	Correction Factor (dB)	Detector	Test Result (dBuV/m)	Compliance Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Azimuth (degree)
V	105.7080	8.31	11.86	PK	20.17	46	25.83	275	211
	406.1090	10.24	17.88	PK	28.12	46	17.88	340	146
	1907.7982	38.85	-5.14	PK	33.71	54	20.29	145	89

- 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: W6M20512-6462-P-15

FCC ID: TYNWV-3201D

Digital

Antenna Polarization	Frequency Marker (MHz)	Corrected Reading (dBuv)	Correction Factor (dB)	Detector	Test Result (dBuV/m)	Compliance Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Azimuth (degree)
H	172.4250	4.37	14.04	QP	18.41	30	11.59	315	92
	803.5470	9.18	25.71	QP	34.89	37	2.11	255	72
	825.4730	9.85	26.07	QP	35.92	37	1.08	250	309

Antenna Polarization	Frequency Marker (MHz)	Corrected Reading (dBuv)	Correction Factor (dB)	Detector	Test Result (dBuV/m)	Compliance Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Azimuth (degree)
V	159.1190	2.69	14.73	QP	17.42	30	12.58	245	111
	803.5470	10.23	25.71	QP	35.94	37	1.06	320	74
	825.4730	8.92	26.07	QP	34.99	37	2.01	325	315

- 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 they are at least 50 dB below the carrier level at band edge (--- MHz). It meets the requirement of section 15.249(d).

Test conditions Tnom = 23°C, Vnom = 6V Frequency [MHz]	Transmitter field strength of Radiated Emission (Peak Detector)	Transmitter field strength of Radiated Emission (Average Detector)
	[dBμV/m]	
--	--	--
--	--	--

Limit:

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

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

Remark: This test is not required. The frequency of video mode is far away from limit and bandwidth of audio mode is 360.72 kHz. Please see attached diagram as Appendix D.

Registration number: W6M20512-6462-P-15

FCC ID: TYNWV-3201D

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 (dB μ V)	
	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

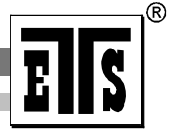
Comment: This device uses battery, so test is not required.



Registration number: W6M20512-6462-P-15
FCC ID: TYNWV-3201D

Appendix

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



Registration number: W6M20512-6462-P-15
FCC ID: TYNWV-3201D

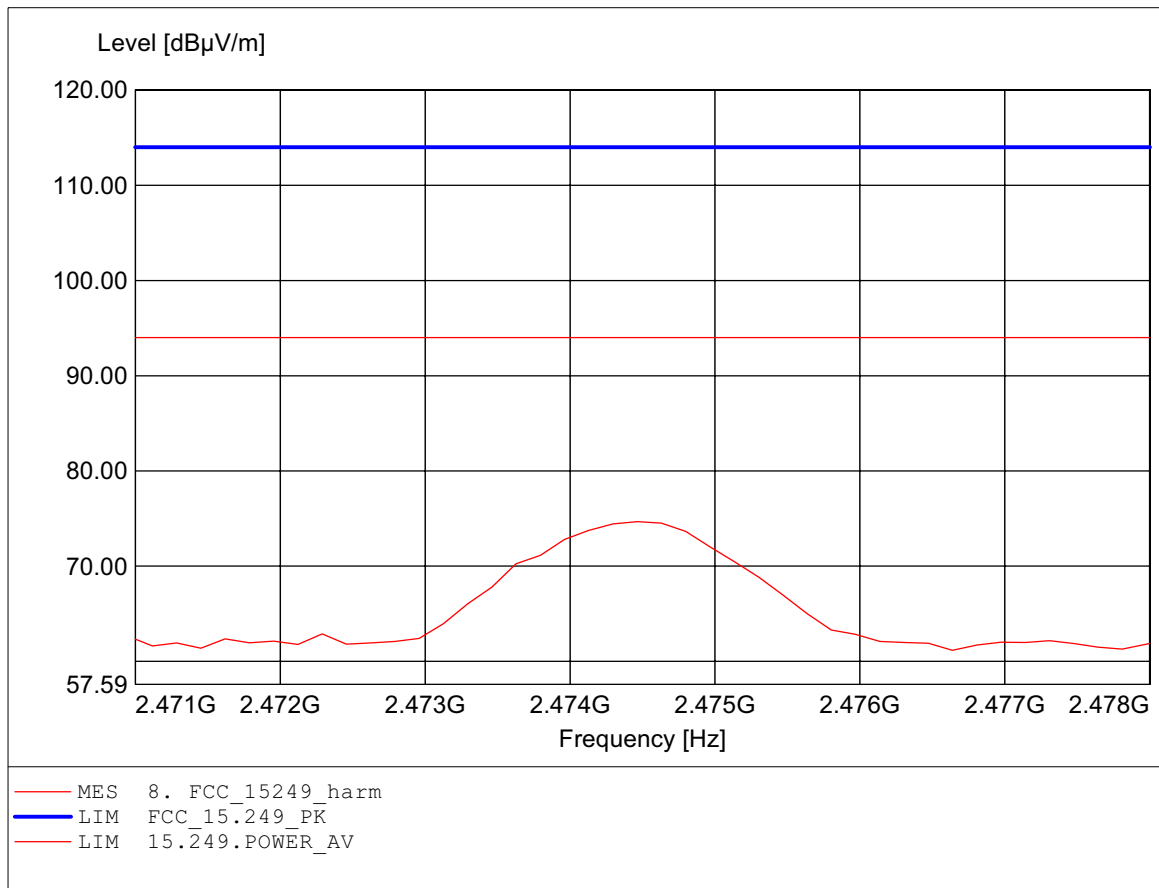
Appendix A

Fundamental Field Strength

Carrier power (Field Strength)

FCC RULES PART 15, SUBPART C / LP0002

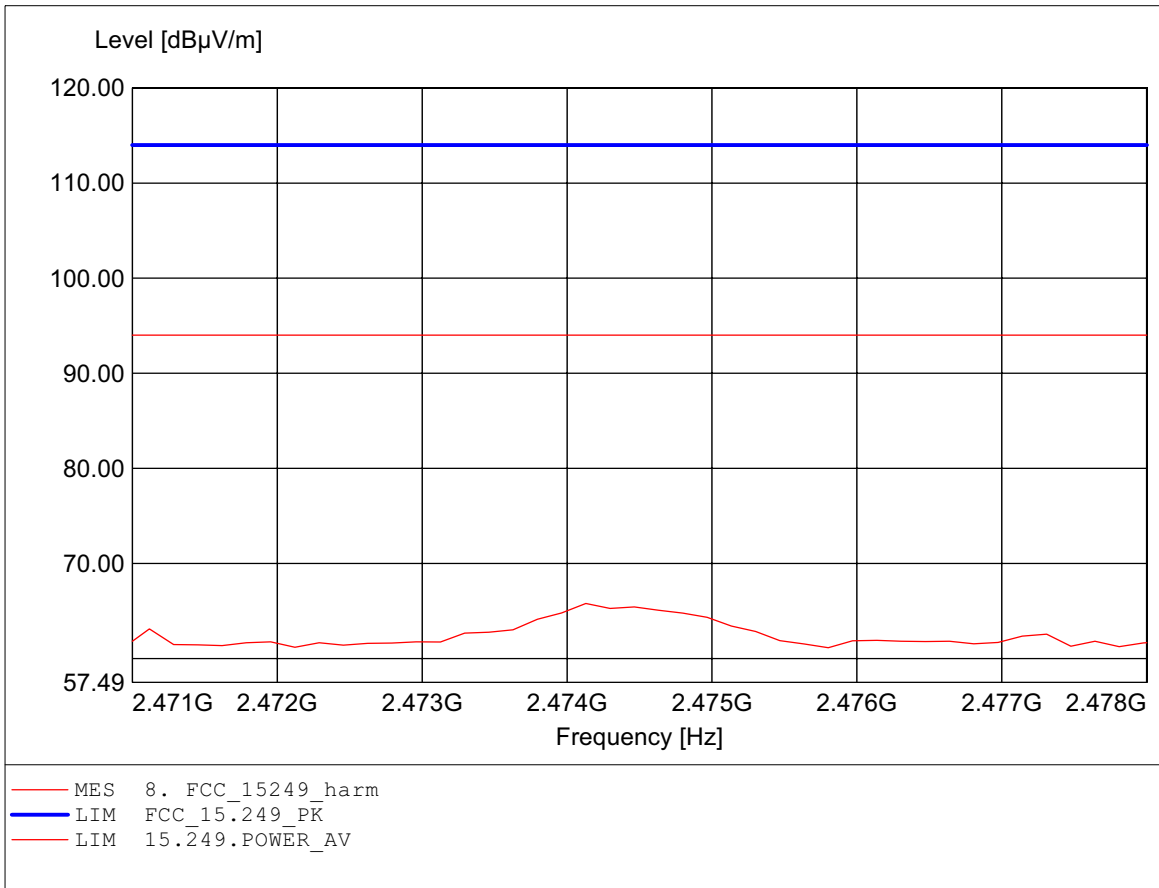
Order Number : W6M20512-6462 (low channel) audio mode
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025
Freq: 2.474GHz, Emax: 74.67dBμV/m, RBW: 1MHz



Carrier power (Field Strength)

FCC RULES PART 15, SUBPART C / LP0002

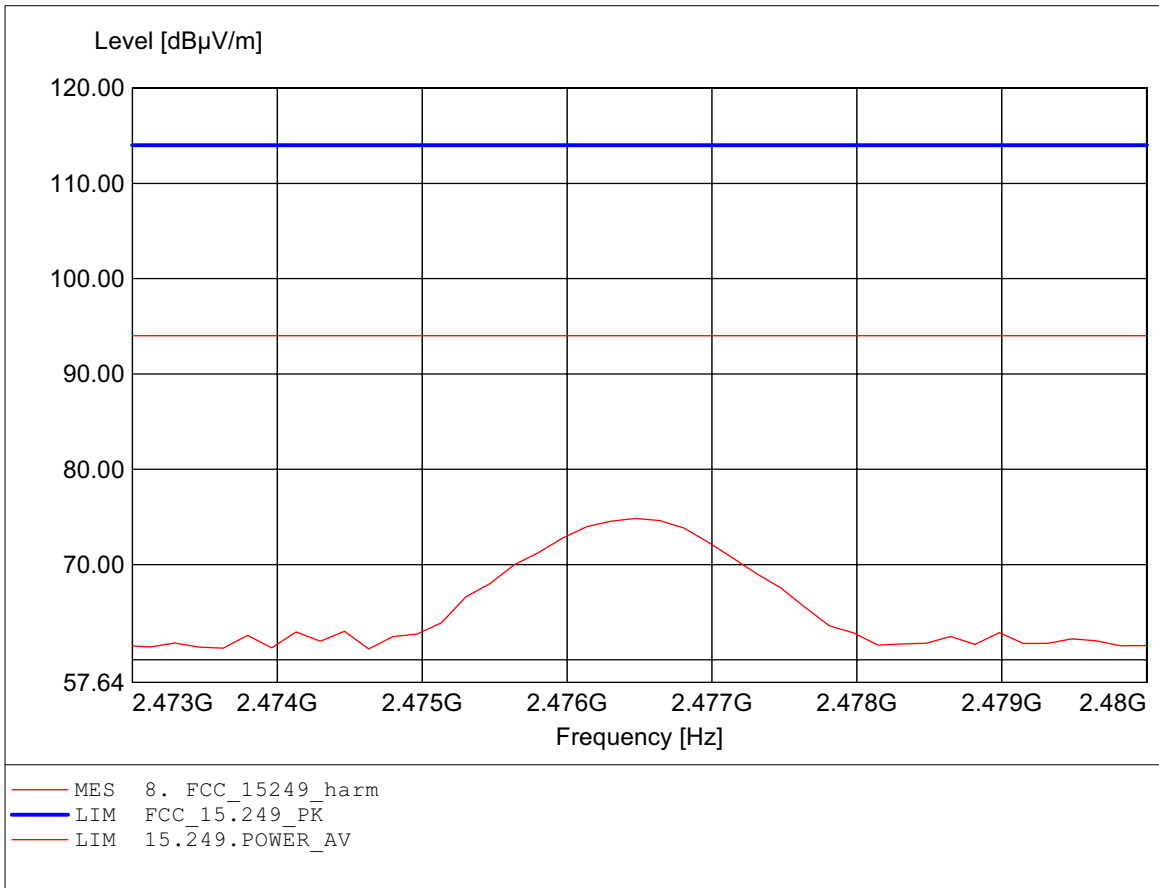
Order Number : W6M20512-6462 (low channel) audio mode
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025
Freq: 2.474GHz, Emax: 65.78dBμV/m, RBW: 1MHz



Carrier power (Field Strength)

FCC RULES PART 15, SUBPART C / LP0002

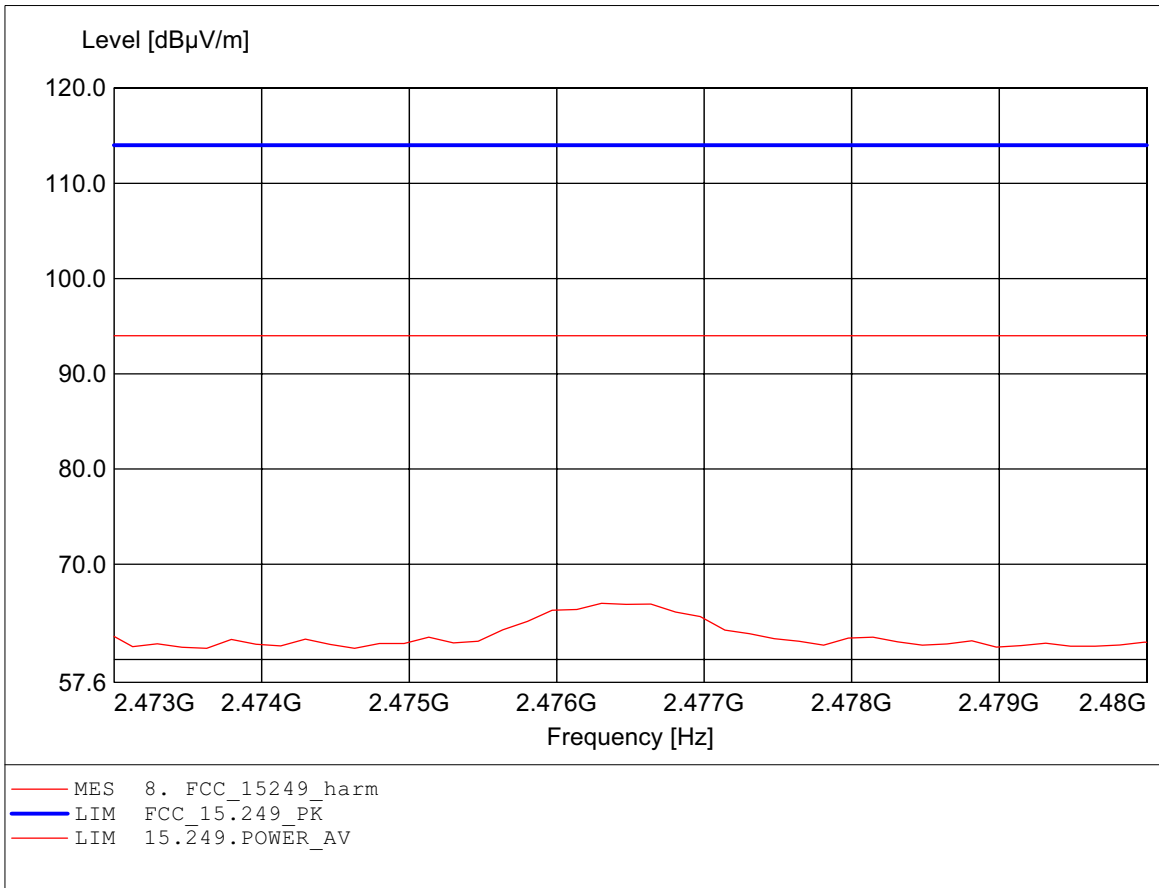
Order Number : W6M20512-6462 (high channel) audio mode
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025
Freq: 2.476GHz, Emax: 74.85 dBµV/m, RBW: 1MHz



Carrier power (Field Strength)

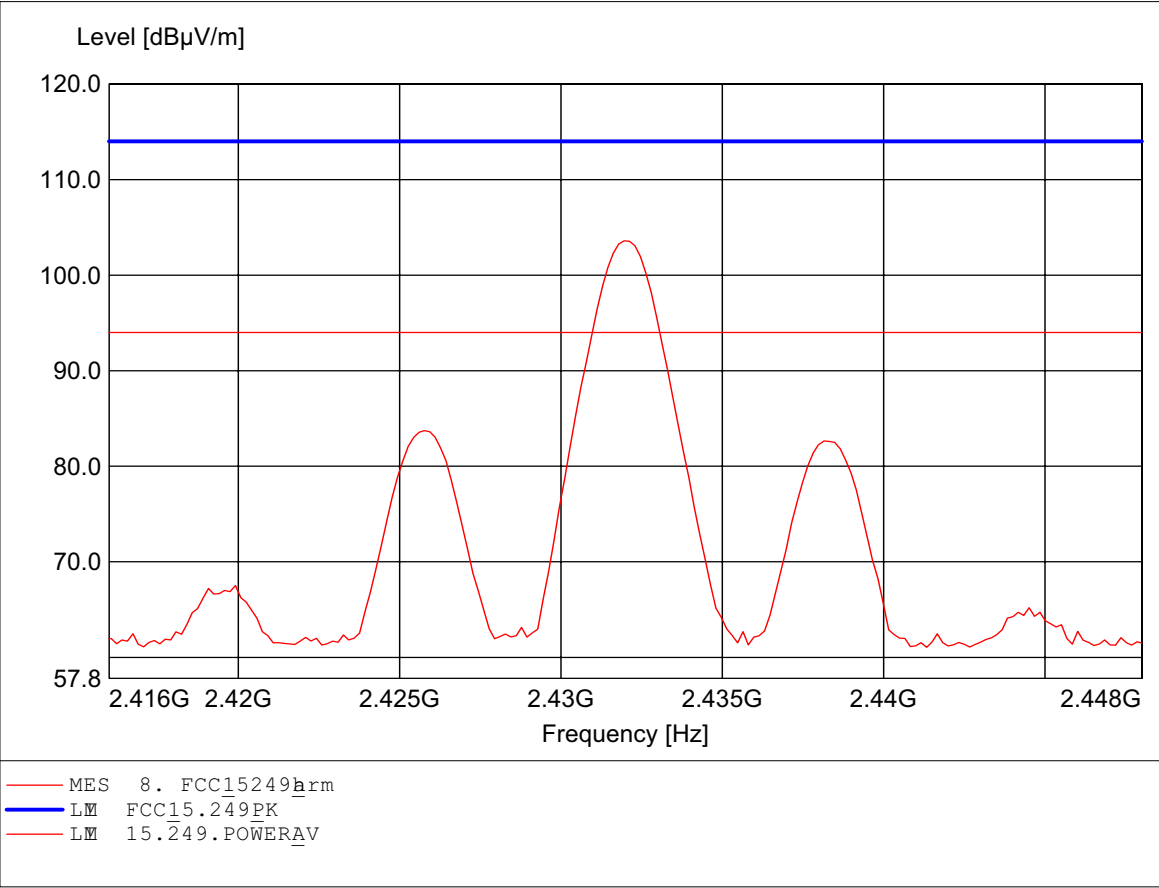
FCC RULES PART 15, SUBPART C / LP0002

Order Number : W6M20512-6462 (high channel) audio mode
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025
Freq: 2.476GHz, Emax: 65.9dBμV/m, RBW: 1MHz



Carrier power (Field Strength)
FCC RULES PART 15, SUBPART C / LP0002

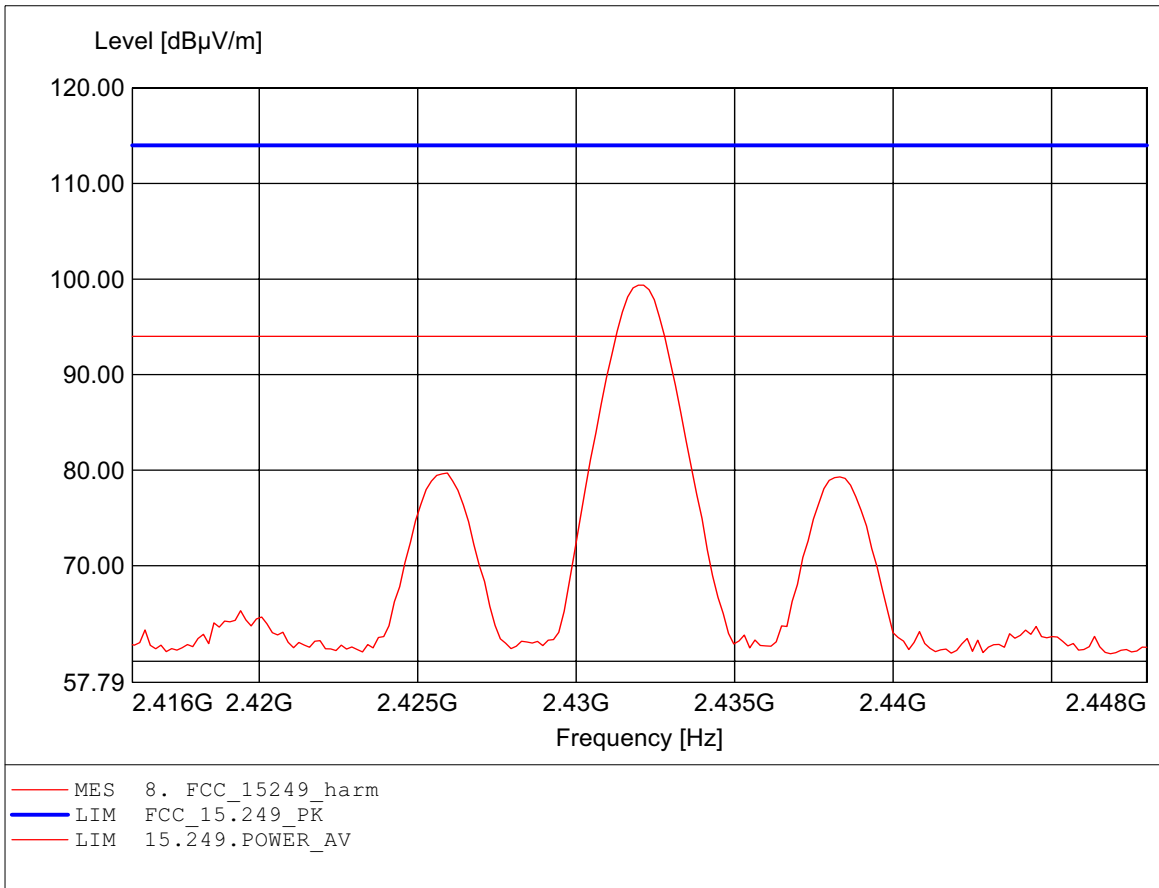
Order Nbr : W6M20512-6462 (low channel) vedio mode
Test Site / Operato: ETS / Charles
Temperatne: Temp.: 23.9C
Test Speffiatio: aaddingto\$5.249,peak detet
Cmment 1: Dist.: 3m,Ant.: HL025
Freq 2.432GHz,Emax 103.59dBW/m,RBW: 1MHz



Carrier power (Field Strength)

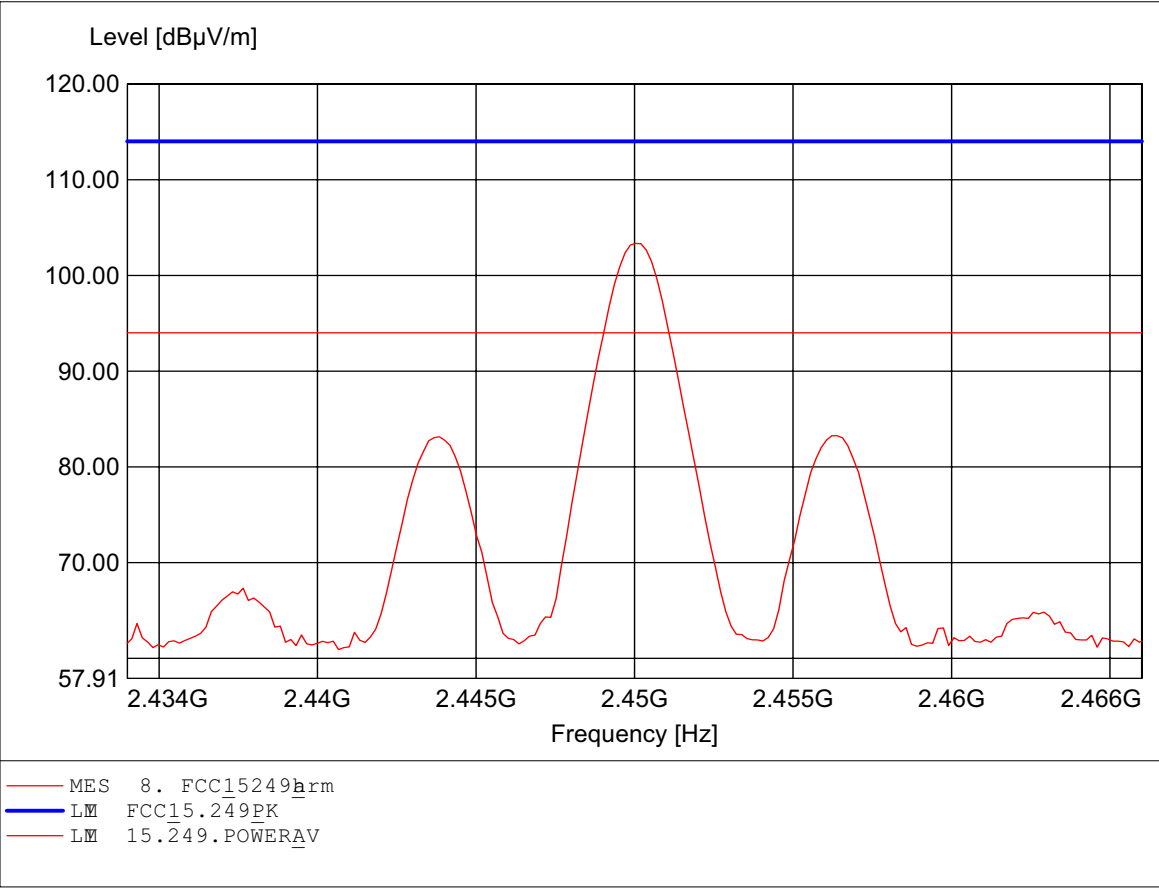
FCC RULES PART 15, SUBPART C / LP0002

Order Number : W6M20512-6462 (low channel) vedio mode
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025
Freq: 2.432GHz, Emax: 99.36dBμV/m, RBW: 1MHz



Carrier power (Field Strength)
FCC RULES PART 15, SUBPART C / LP0002

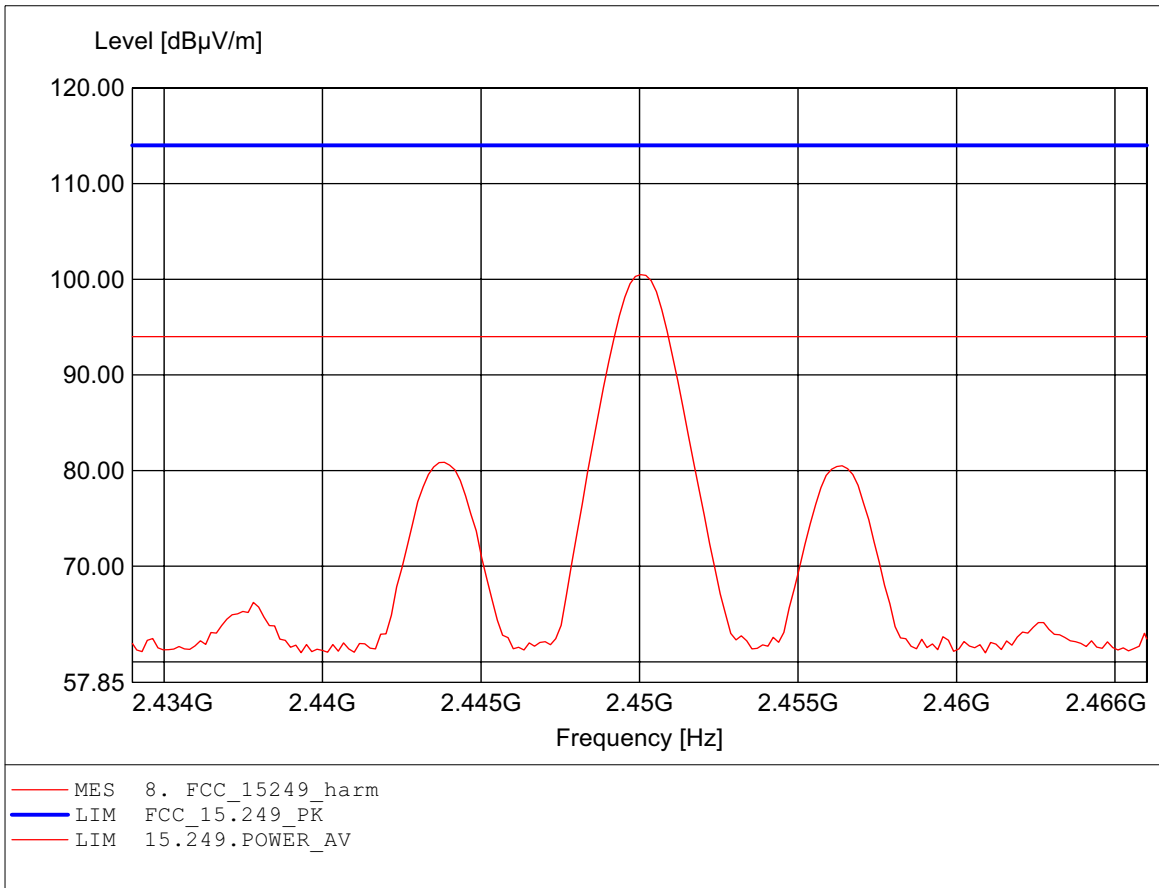
Order Nbr : W6M20512-6462 (high channel) vedio mode
Test Site / Operato: ETS / Charles
Temperatne: Temp.: 23.9C
Test Speđfiatio: aodingto\$5.249,peak deteto
Cmment 1: Dist.: 3m,Ant.: HL025
Freq 2.450GHz,Emax 103.35dBW/m,RBW: 1MHz



Carrier power (Field Strength)

FCC RULES PART 15, SUBPART C / LP0002

Order Number : W6M20512-6462 (high channel) vedio mode
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025
Freq: 2.450GHz, Emax: 100.49dBμV/m, RBW: 1MHz





Appendix B

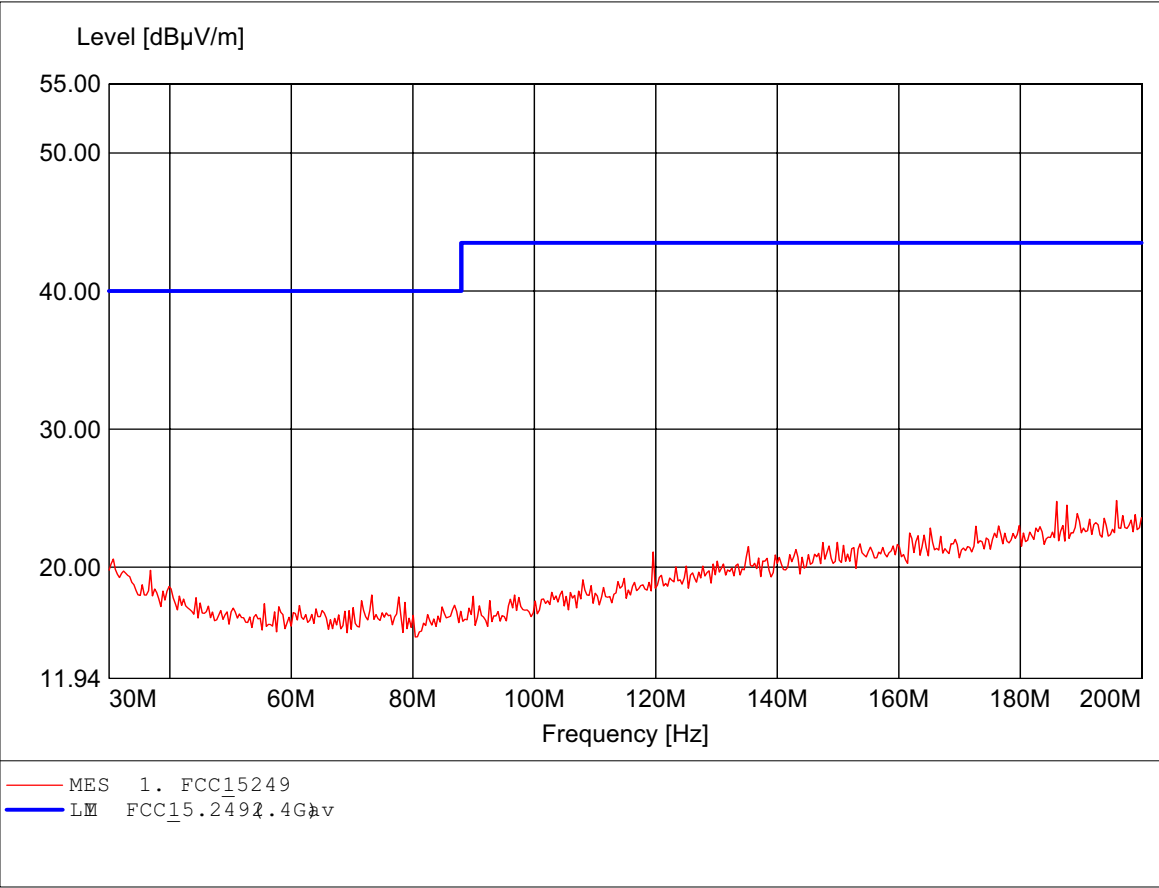
Spurious Emissions radiated

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

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

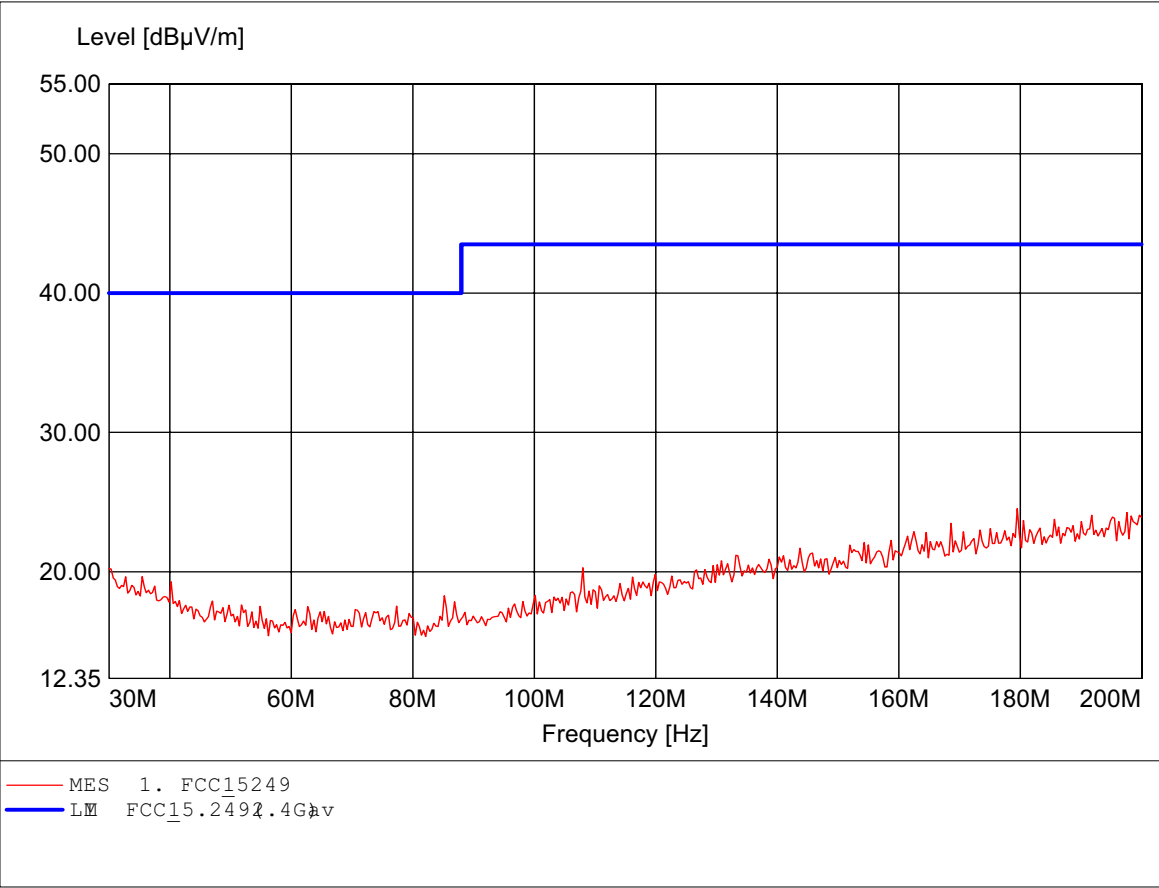
Order Nbr : W6M20512-6462 (1channel)TX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to 15.249, peak detection
Comment 1: Dist.: 3m, Ant.: HK116
Freq 195.912MHz, Emax 24.83dBV/m, RBW: 100kHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

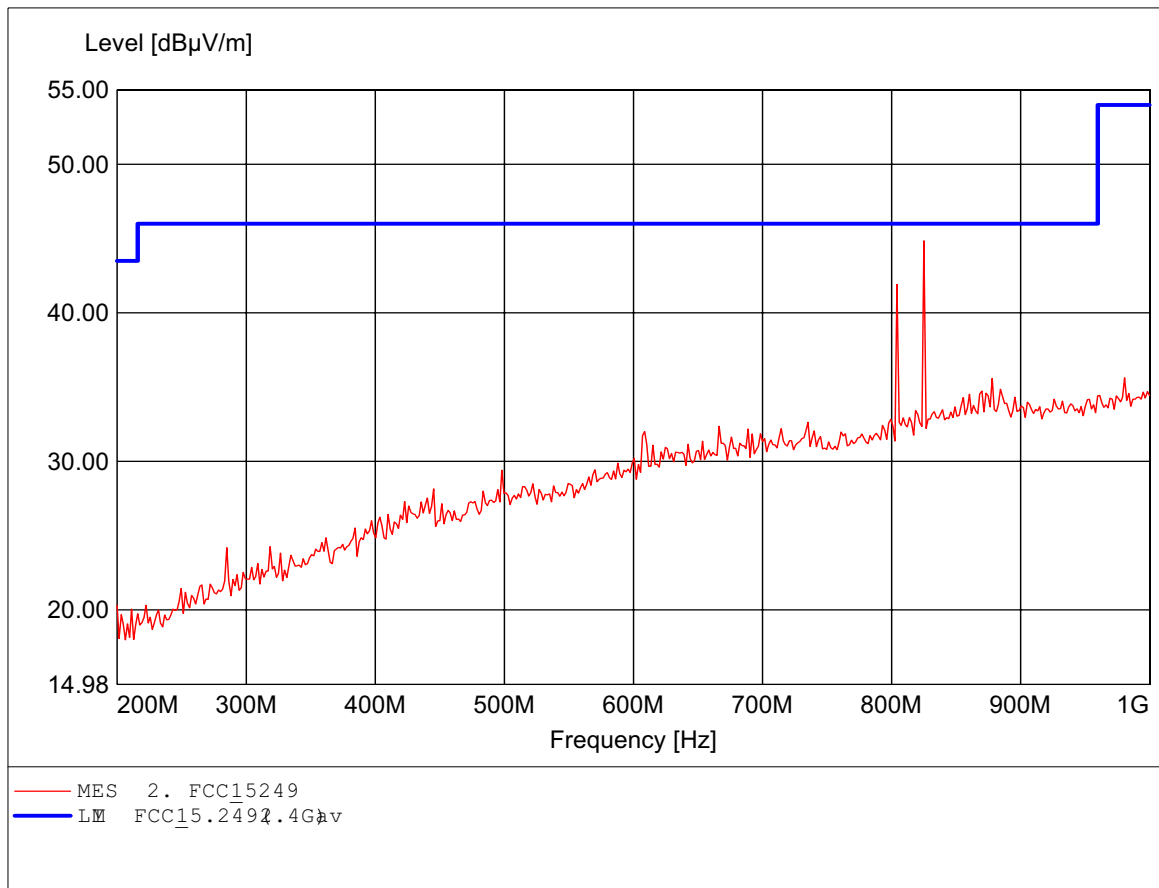
Order Nbr : W6M20512-6462 (1channel) TX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to 15.249, peak detection
Comment 1: Dist.: 3m, Ant.: HK116
Freq 179.559MHz, Emax 24.53dBV/m, RBW: 100kHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

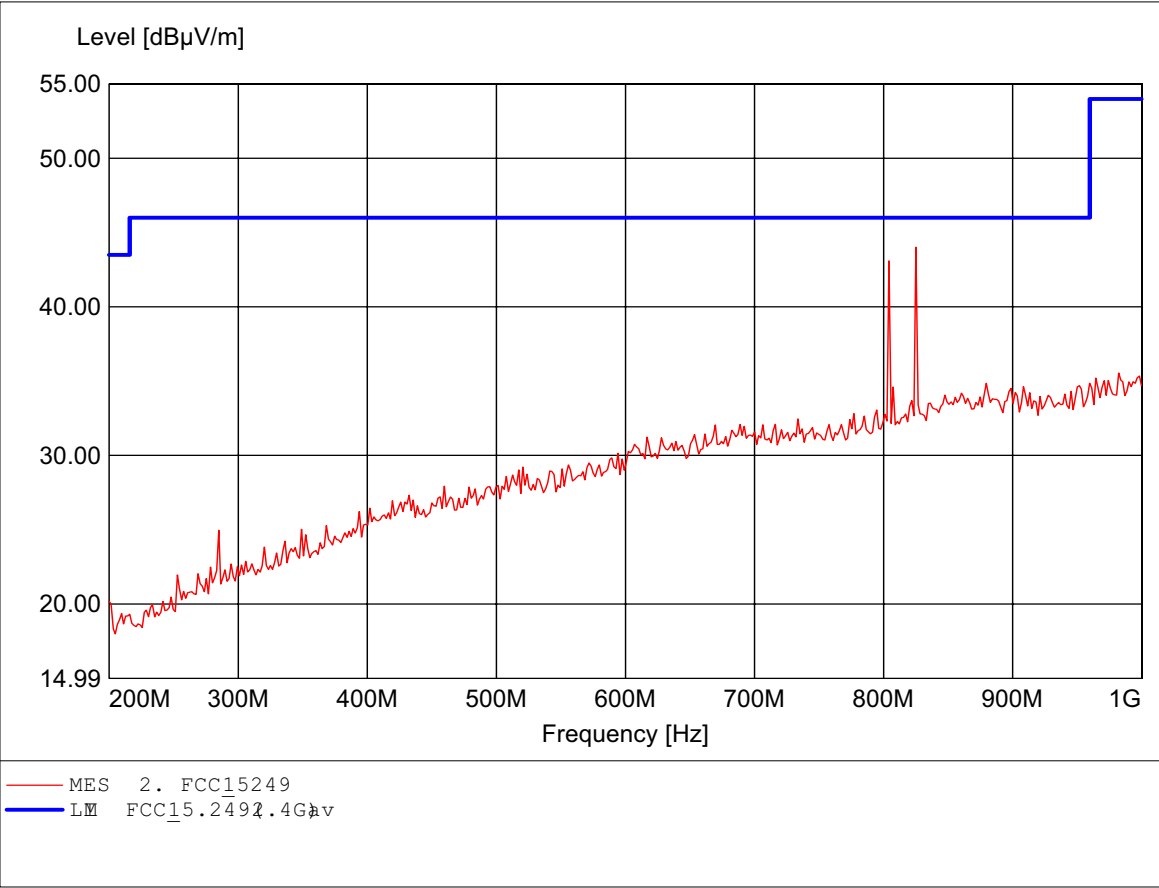
Order Nbr : W6M20512-6462 (1channel)TX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to FCC 15.249, peak detection
Comment 1: Dist.: 3m, Ant.: HL 223, amplifier.
Freq 825.251MHz, Emax 44.85dBμV/m, RBW: 100kHz



Spurious emissions Field Strength

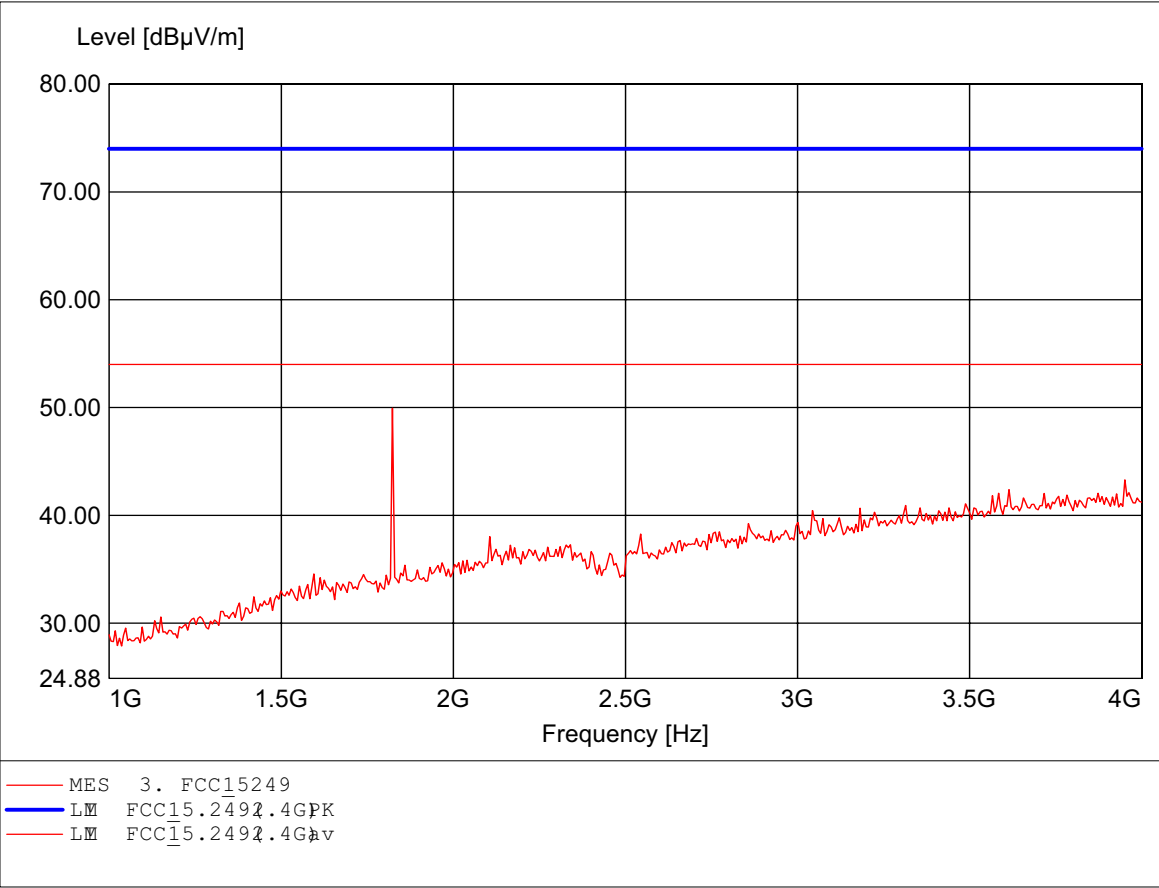
FCC RULES PART 15, SUBPART C / LP0002

Order Nbr : W6M20512-6462 (1channel)TX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to FCC 15.249, peak detection
Comment 1: Dist.: 3m, Ant.: HL 223, amplifier.
Freq 825.251MHz, Emax 44.02dBu/m, RBW: 100kHz



Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C / LP0002

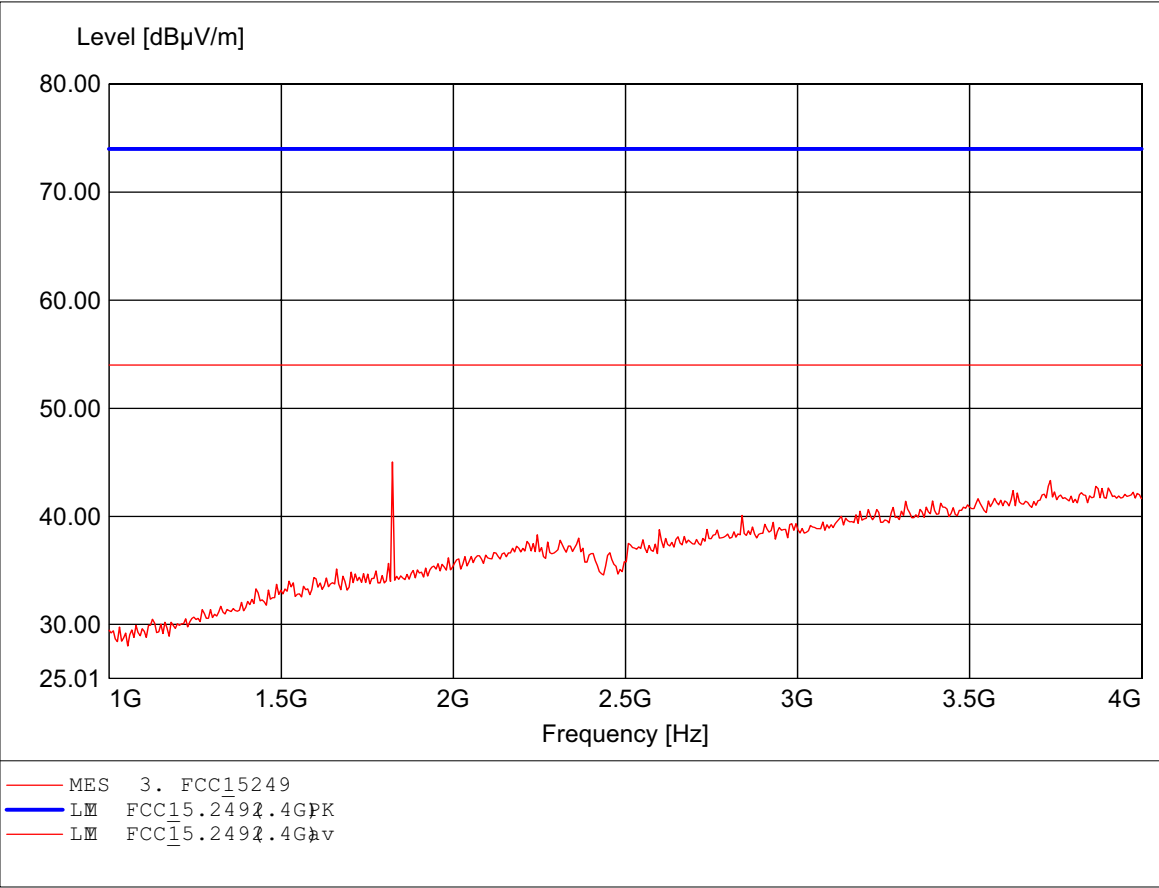
Order Nbr : W6M20512-6462 (1channel)TX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to 15.249, peak detection
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq 1.824GHz, Emax 49.93dBV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

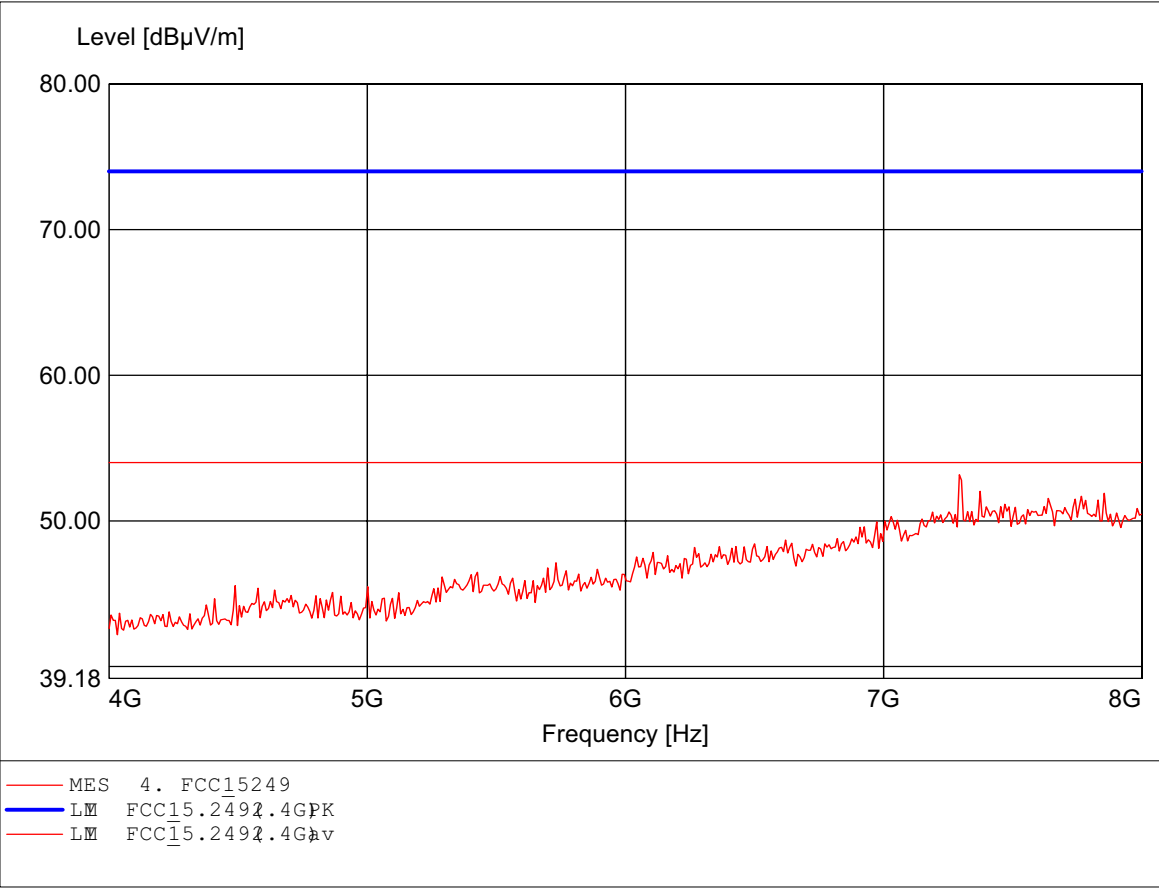
Order Nbr : W6M20512-6462 (1 channel) TX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to 15.249, peak detection
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq 1.824GHz, Emax 45.04dBu/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

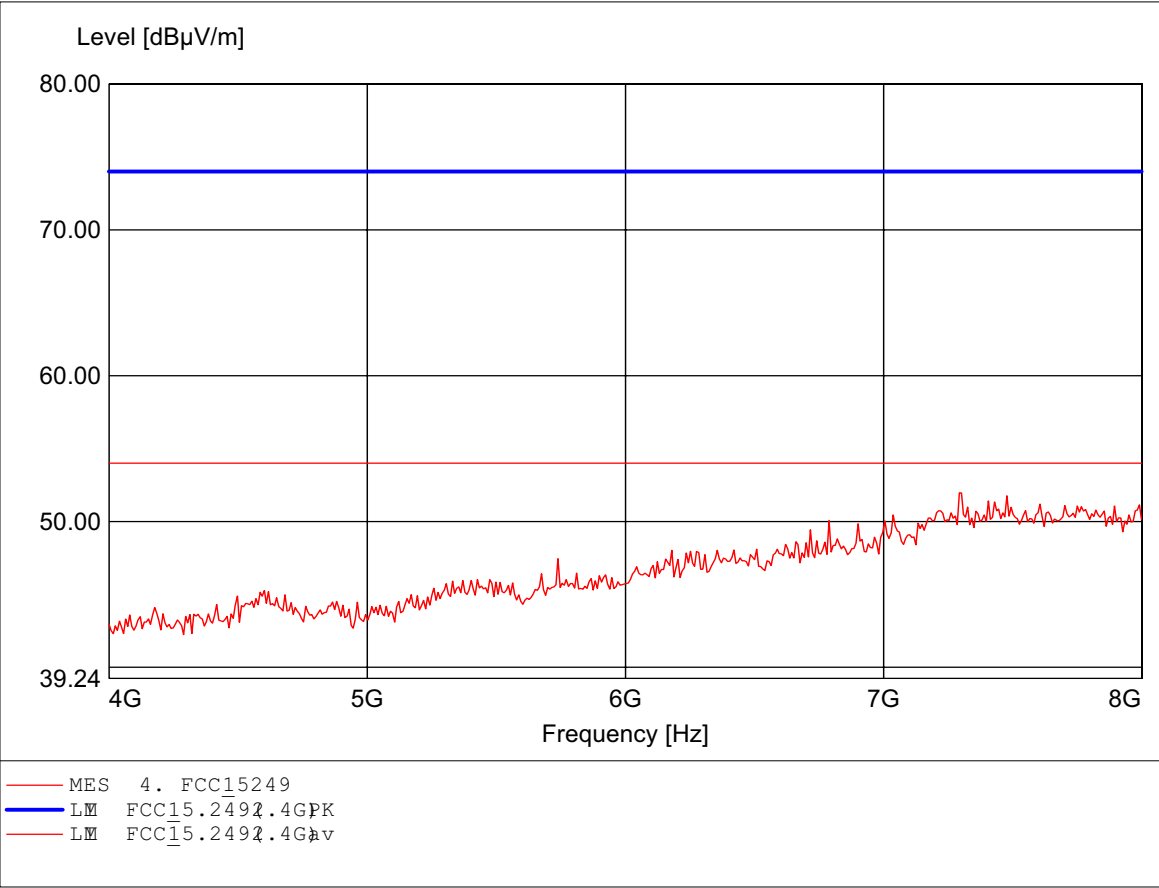
Order Nbr : W6M20512-6462 (1channel) TX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to FCC 15.249, peak detection
Comment 1: Dist.: 3m, Ant.: HL025, ampl. HP.
Freq 7.295GHz, Emax 53.16dBu/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

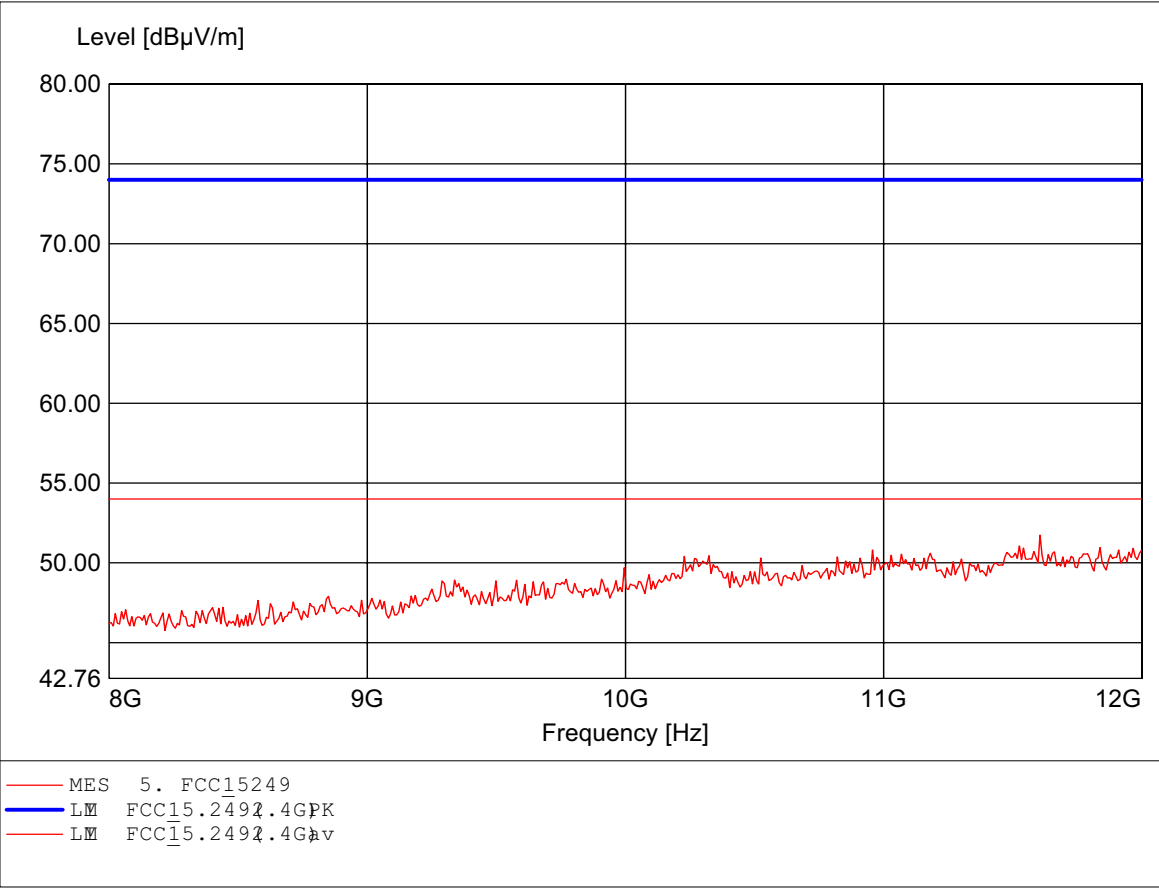
Order Nbr : W6M20512-6462 (1channel)TX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to 47CFR 15.249, peak detection
Comment 1: Dist.: 3m, Ant.: HL025, ampl. HP.
Freq 7.295GHz, Emax 51.96dBu/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

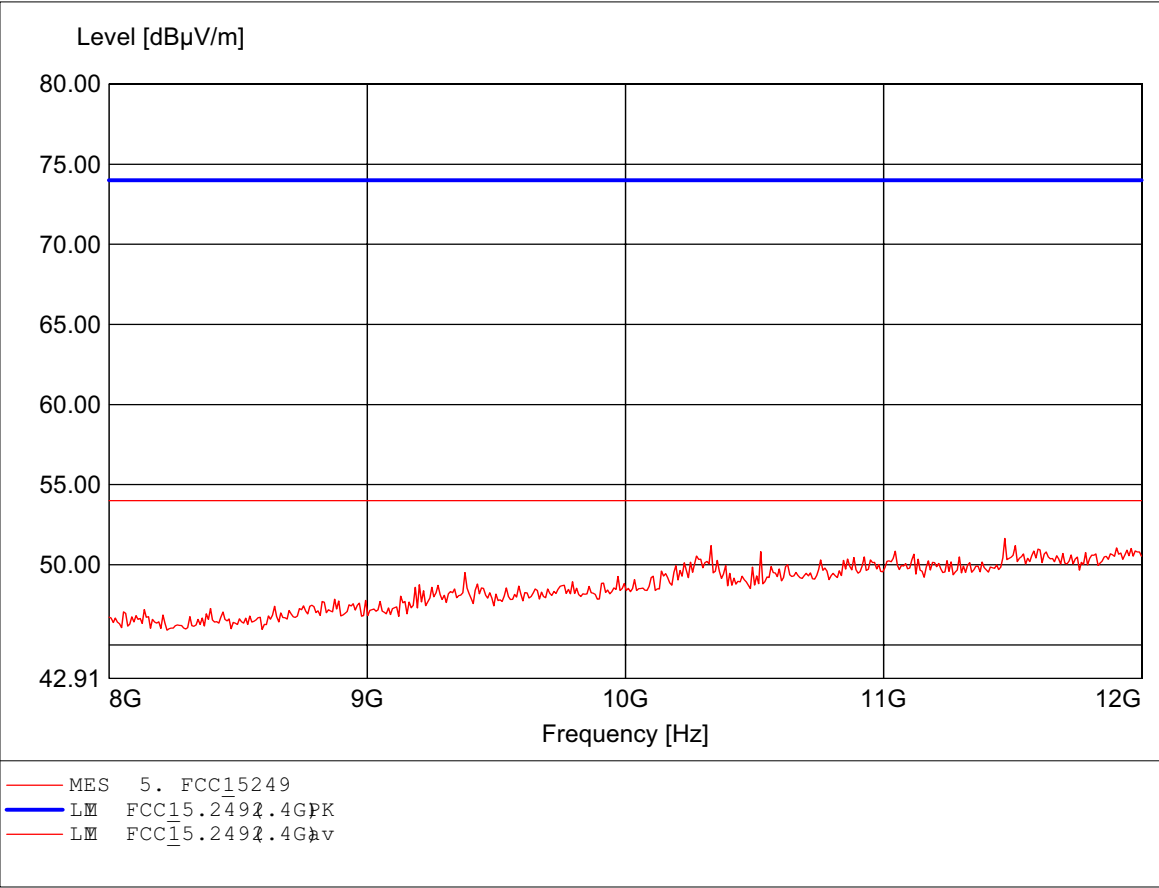
Order Nbr : W6M20512-6462 (1channel)TX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to FCC 15.249, peak detection
Comment 1: Dist.: 3m, Ant.: HL025, ampl. HP.
Freq 11.607GHz, Emax 51.73dBu/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

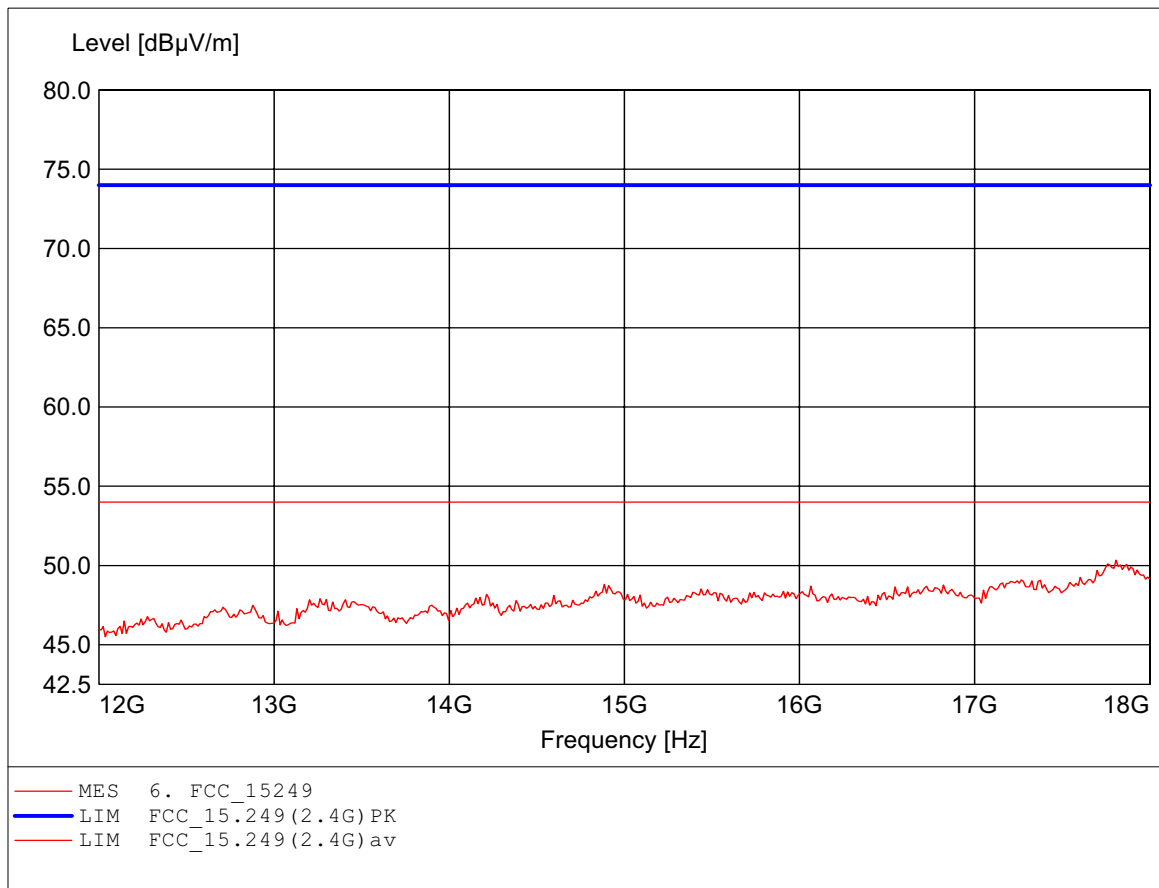
Order Nbr : W6M20512-6462 (1channel)TX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to FCC 15.249, peak detection
Comment 1: Dist.: 3m, Ant.: HL025, ampl. HP.
Freq 11.471GHz, Emax 51.64dBu/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

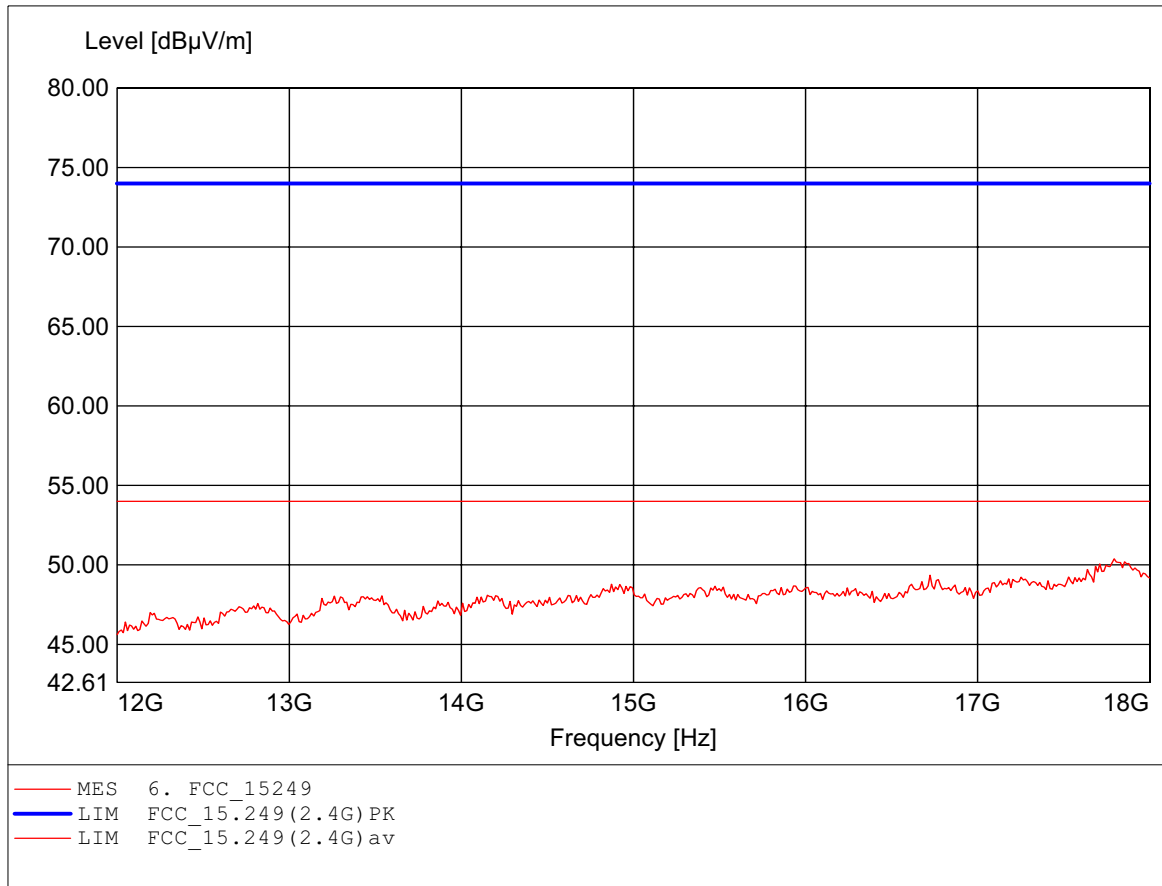
Order Number : W6M20512-6462 (low channel) TX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 17.808GHz, Emax: 50.34dBμV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

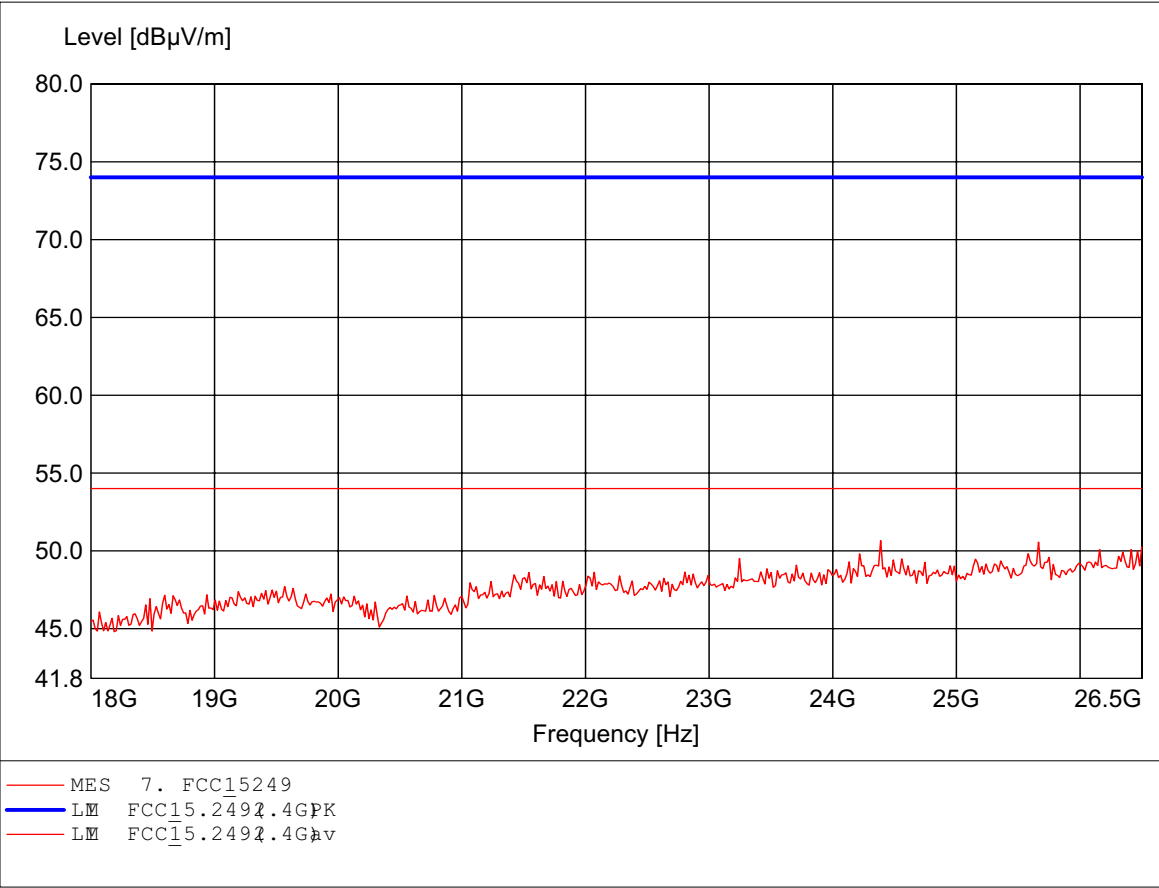
Order Number : W6M20512-6462 (low channel) TX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 17.796GHz, Emax: 50.38dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

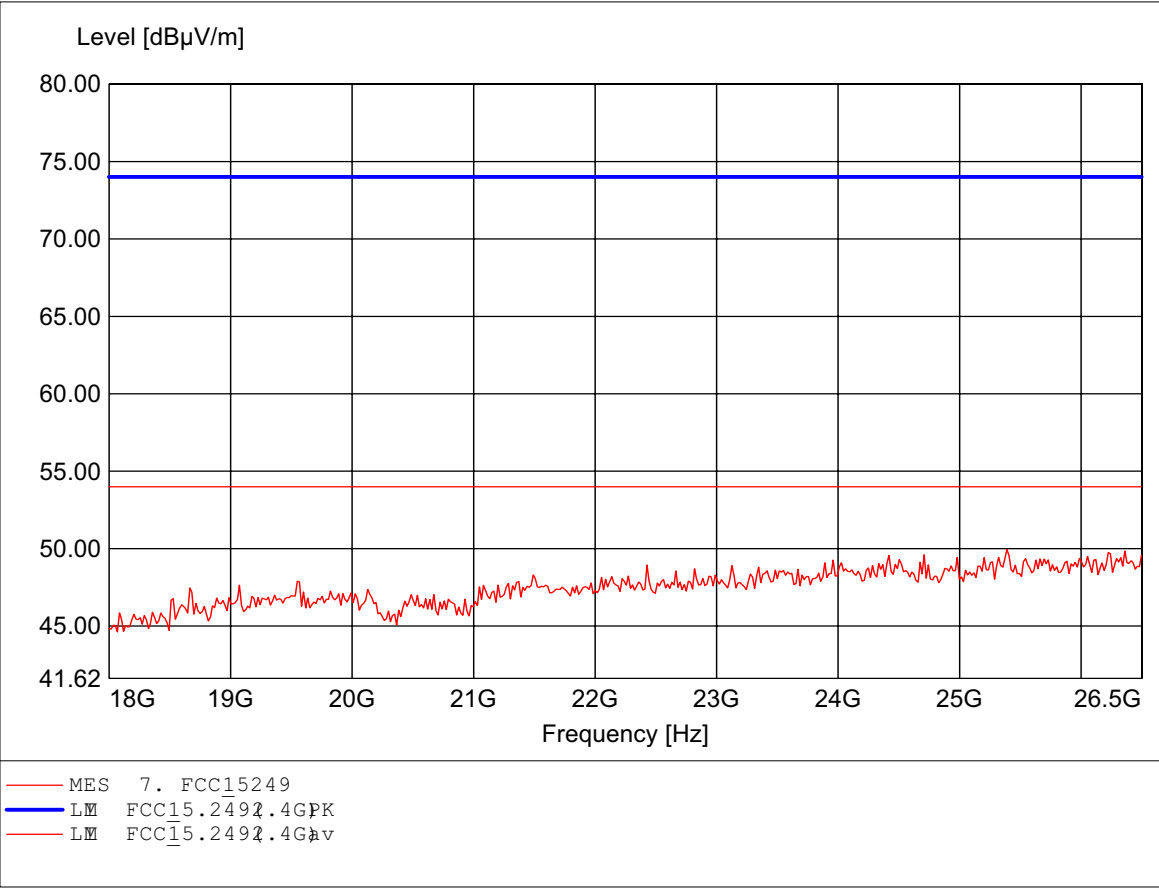
Order Nbr : W6M20512-6462 (1channel)TX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to FCC 15.249, peak detection
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq 24.388GHz, Emax 50.65dBu/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

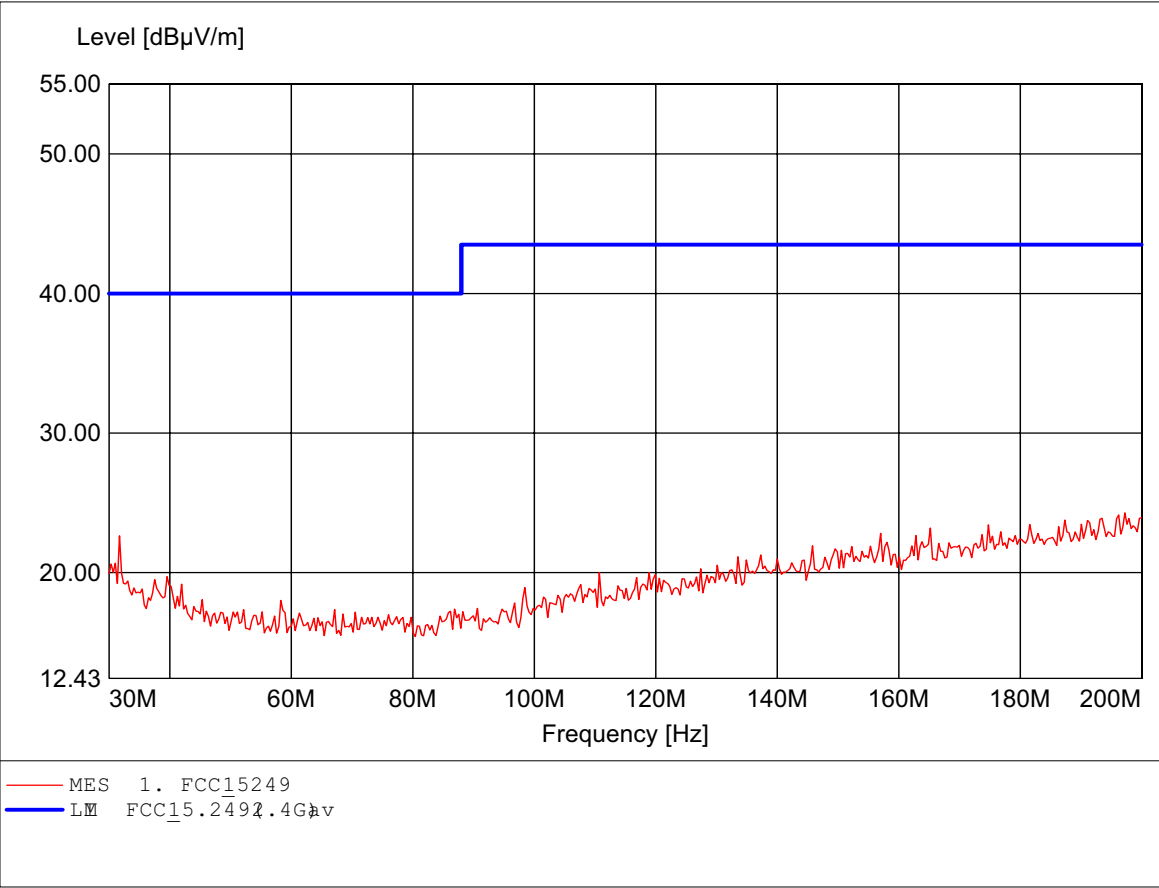
Order Nbr : W6M20512-6462 (1channel) TX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to FCC15.249, peak detection
Comment 1: Dist.: 3m, Ant.: HL025, amplifier.
Freq 25.393GHz, Emax 49.94dBu/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

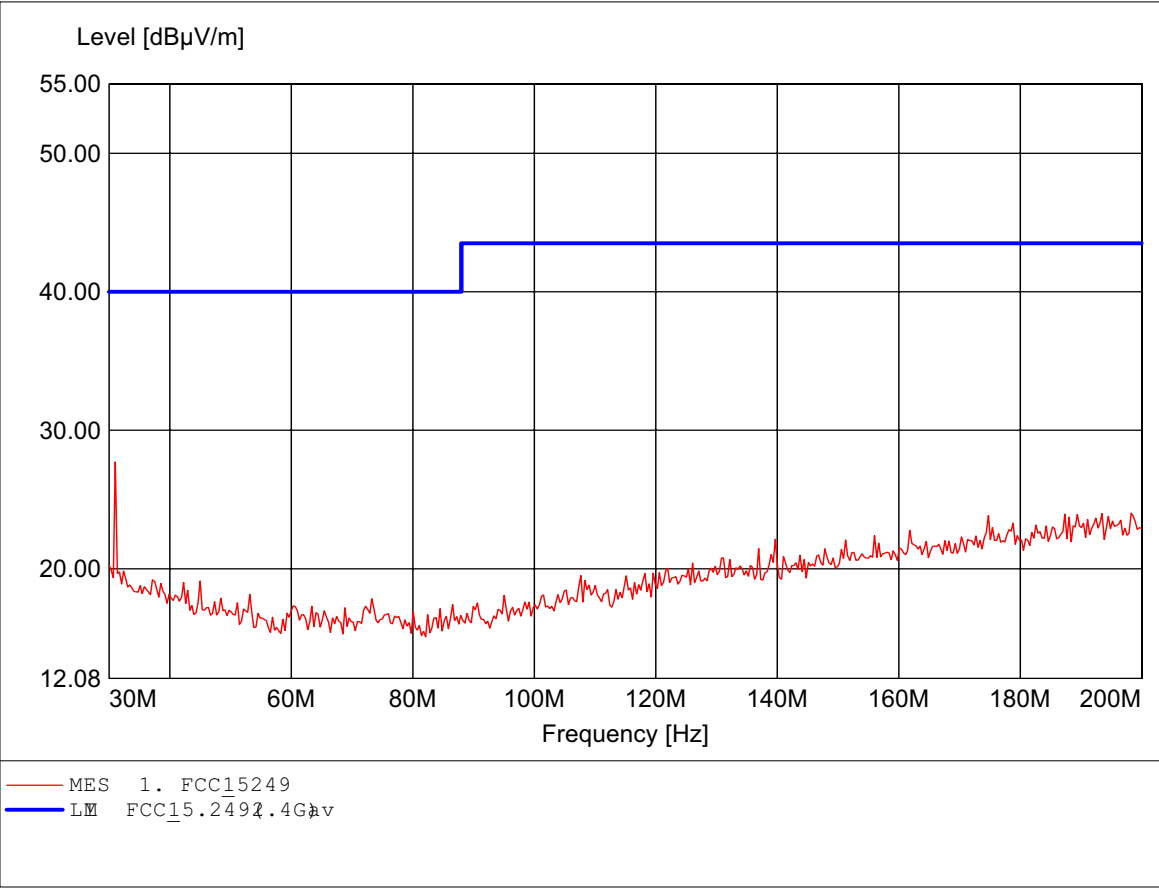
Order Nbr : W6M20512-6462 (1 channel) TX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to FCC 15.249, peak detection
Comment 1: Dist.: 3m, Ant.: HK116
Freq 197.275MHz, Emax 24.29dBV/m, RBW: 100kHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

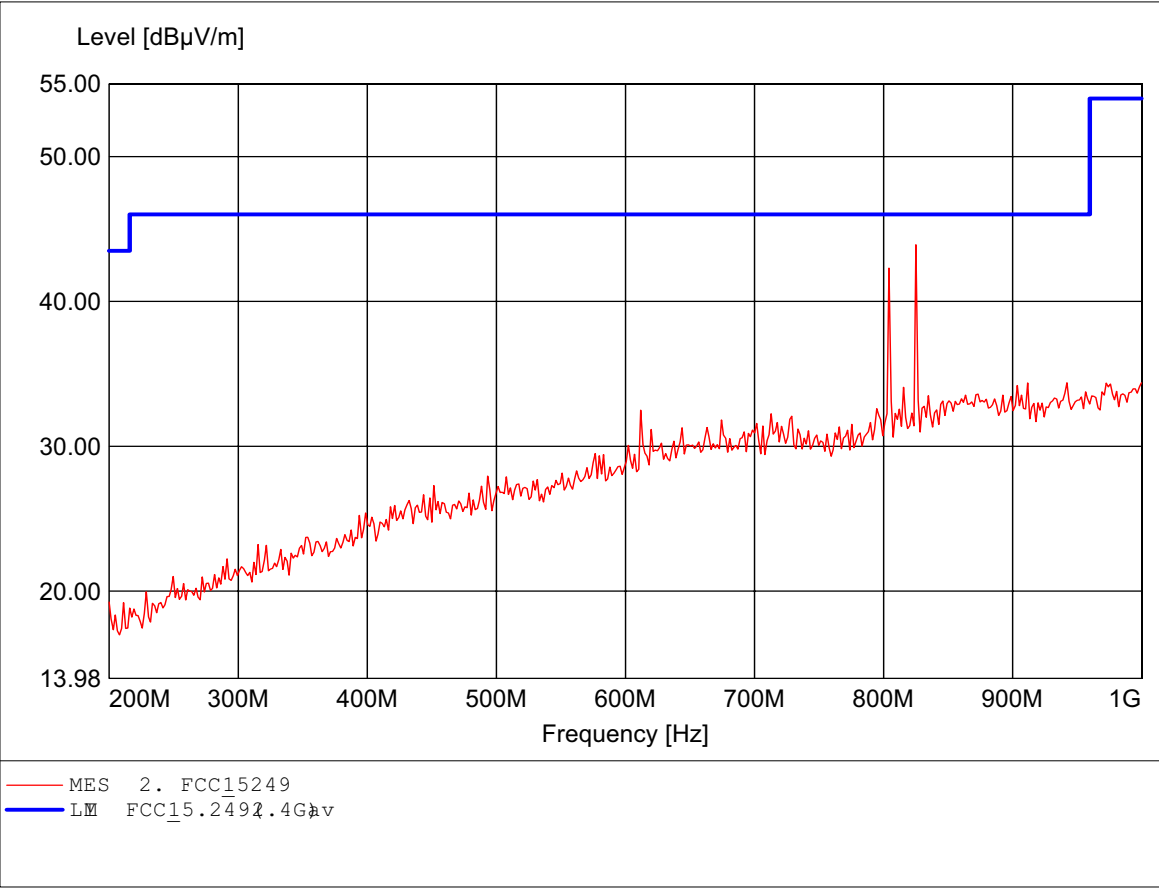
Order Nbr : W6M20512-6462 (hghannel)TX
Test Site / Operato: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to FCC15.249, peak detection
Comment 1: Dist.: 3m, Ant.: HK116
Freq 31.022MHz, Emax 27.71dBV/m, RBW: 100kHz



Spurious emissions Field Strength

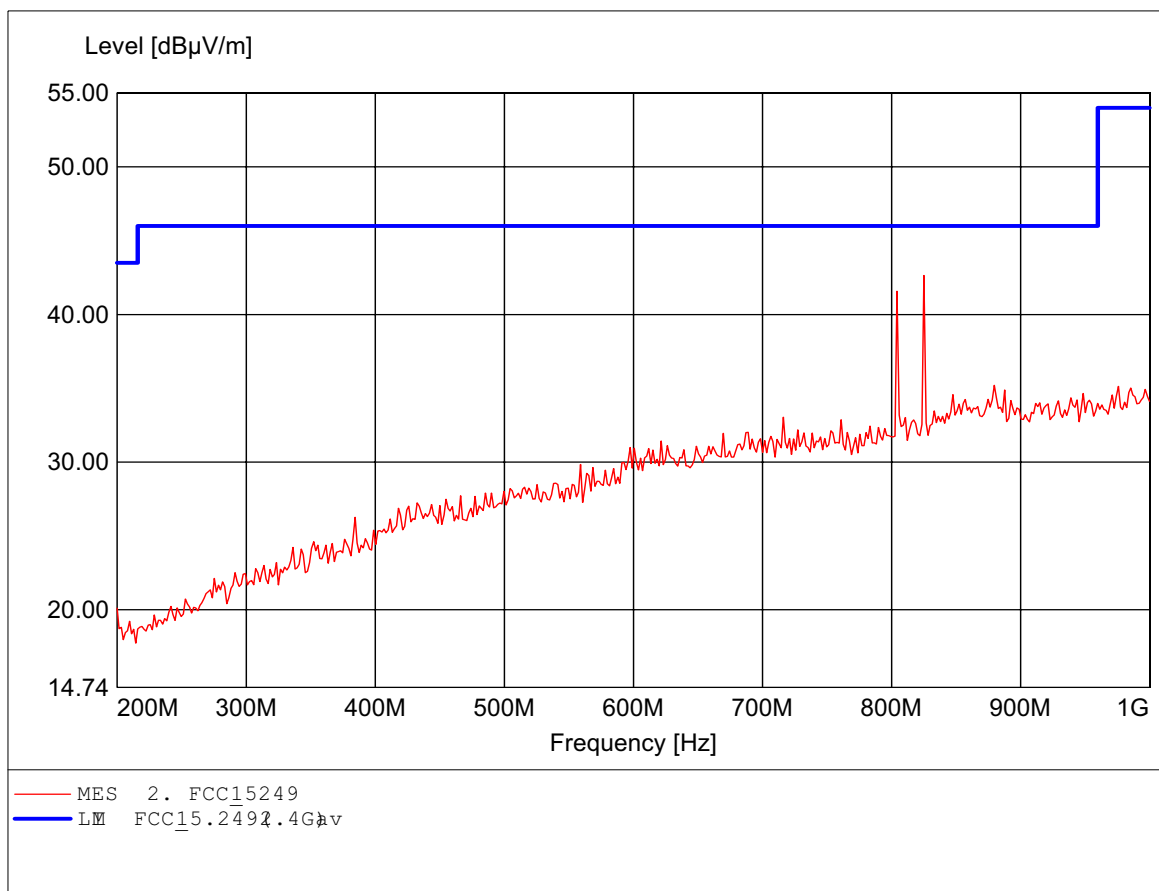
FCC RULES PART 15, SUBPART C / LP0002

Order Nbr : W6M20512-6462 (1 channel) TX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to FCC 15.249, peak detection
Comment 1: Dist.: 3m, Ant.: HL 223, amplifier.
Freq 825.251MHz, Emax 43.91dBu/m, RBW: 100kHz



Spurious emissions Field Strength
FCC RULES PART 15, SUBPART C / LP0002

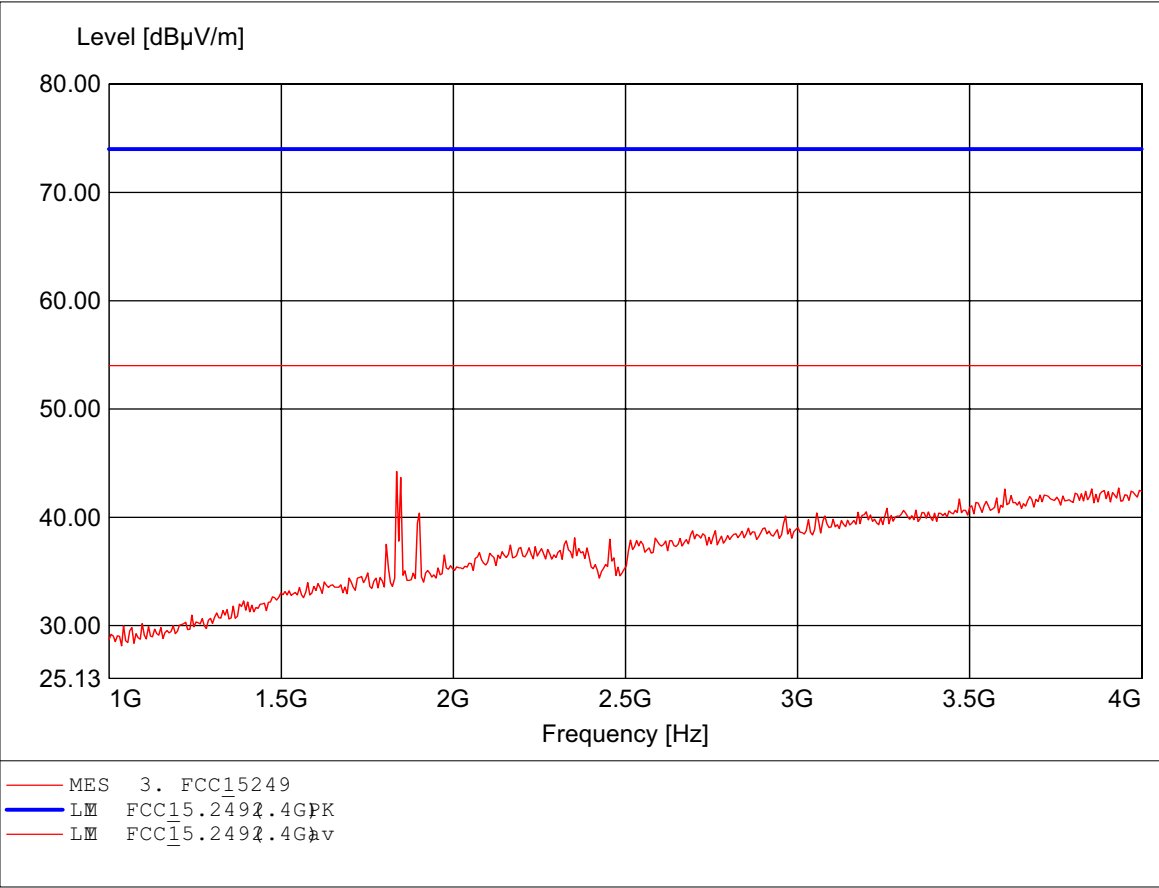
Order Nbr : W6M20512-6462 (1 channel)TX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to FCC 15.249, peak detection
Comment 1: Dist.: 3m, Ant.: HL 223, amplifier.
Freq 825.251MHz, Emax 42.64dBu/m, RBW: 100kHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

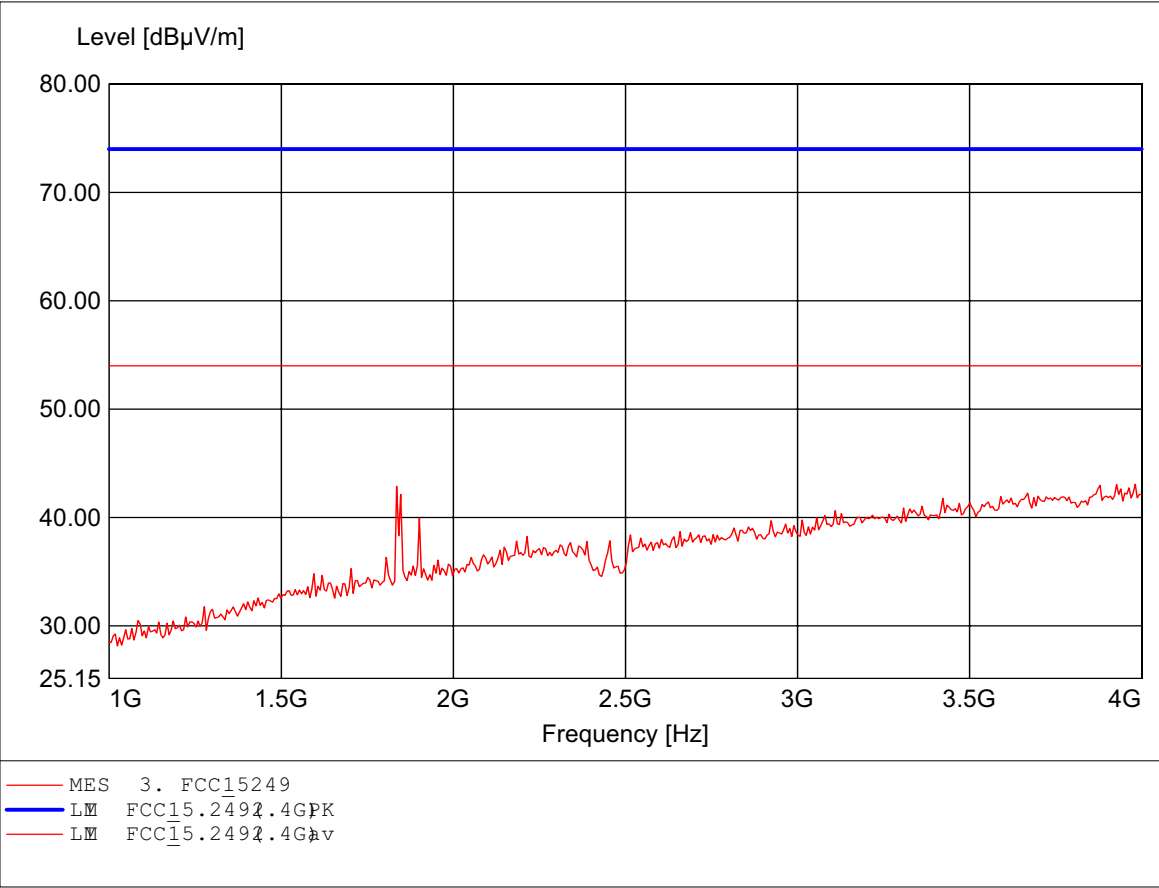
Order Nbr : W6M20512-6462 (1 channel) TX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to 15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq 1.836GHz, Emax 44.25dBu/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

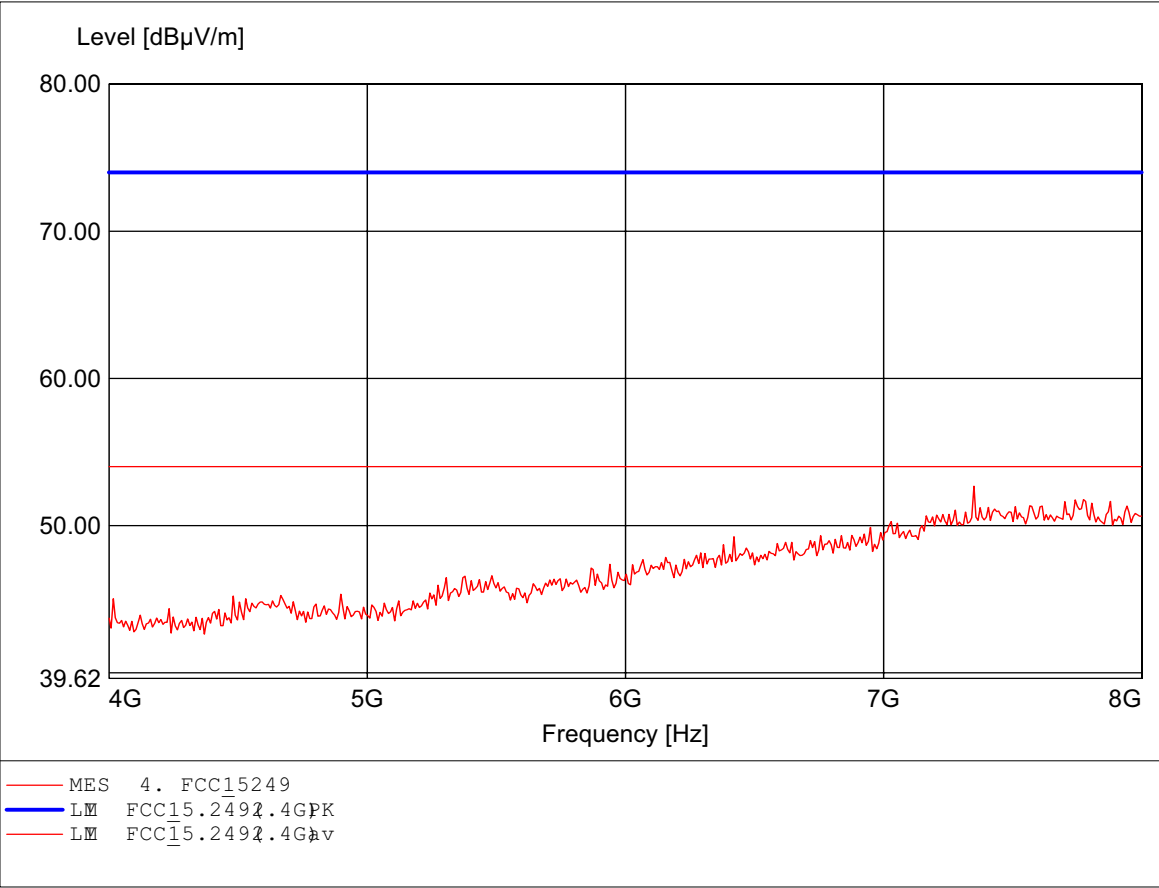
Order Nbr : W6M20512-6462 (1 channel)TX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to 15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq 3.982GHz, Emax 43.06dBu/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

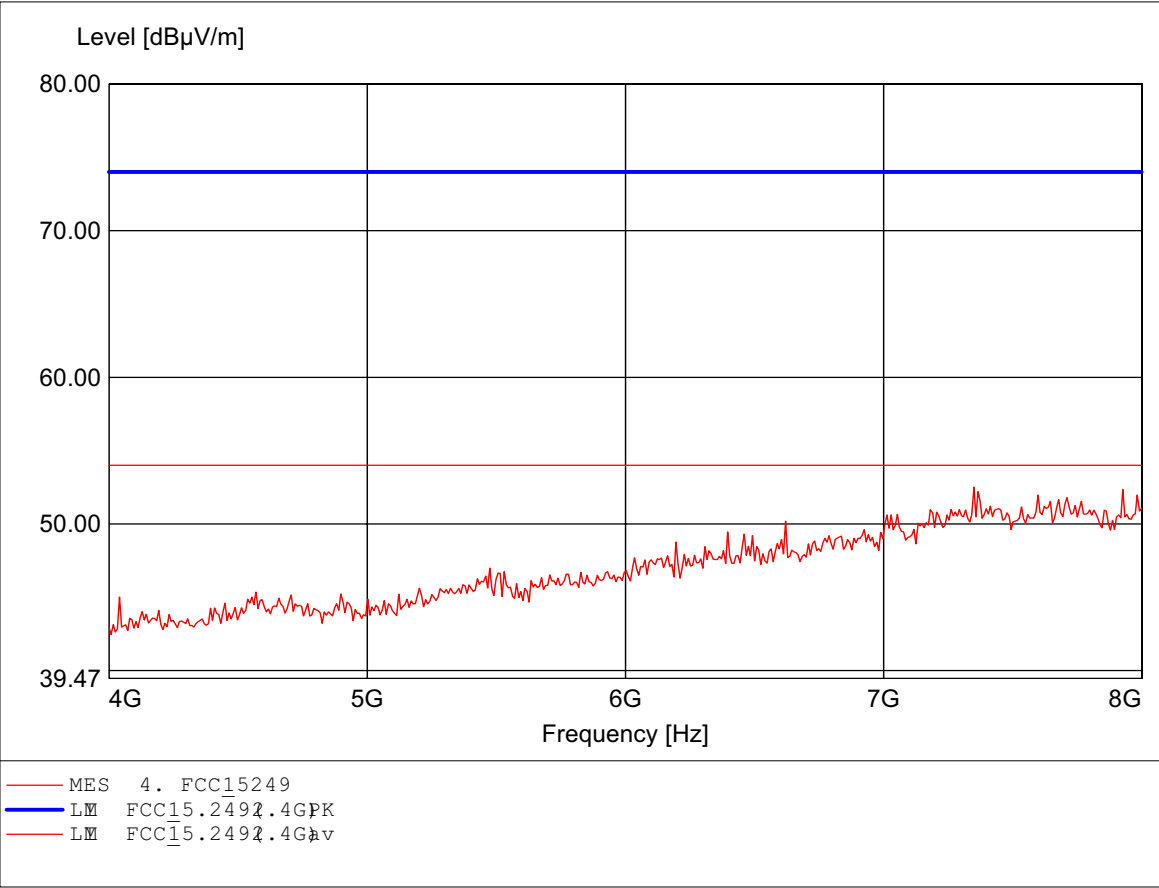
Order Nbr : W6M20512-6462 (1 channel) TX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to 15.249, peak detection
Comment 1: Dist.: 3m, Ant.: HL025, ampl. HP.
Freq 7.351GHz, Emax 52.68dBu/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

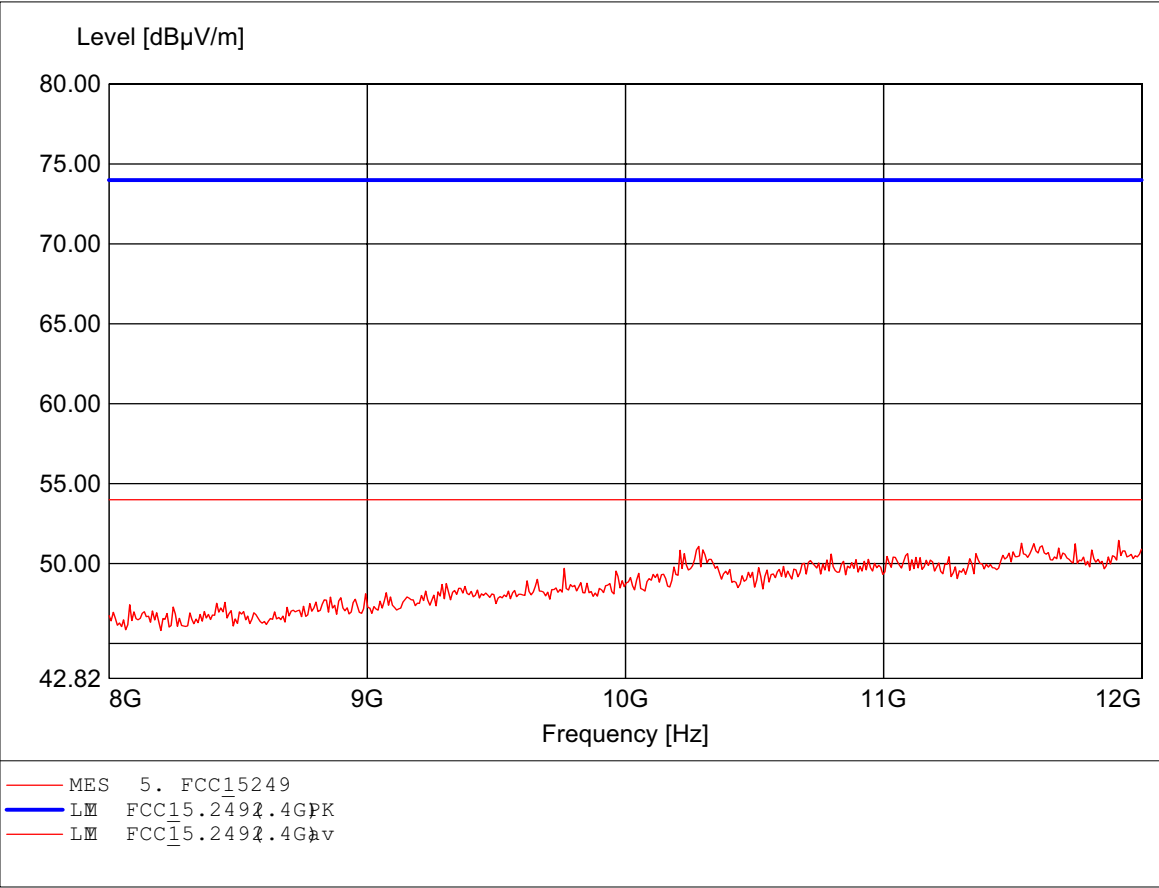
Order Nbr : W6M20512-6462 (1 channel) TX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to 5.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl. HP.
Freq 7.351GHz, Emax 52.52dBu/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

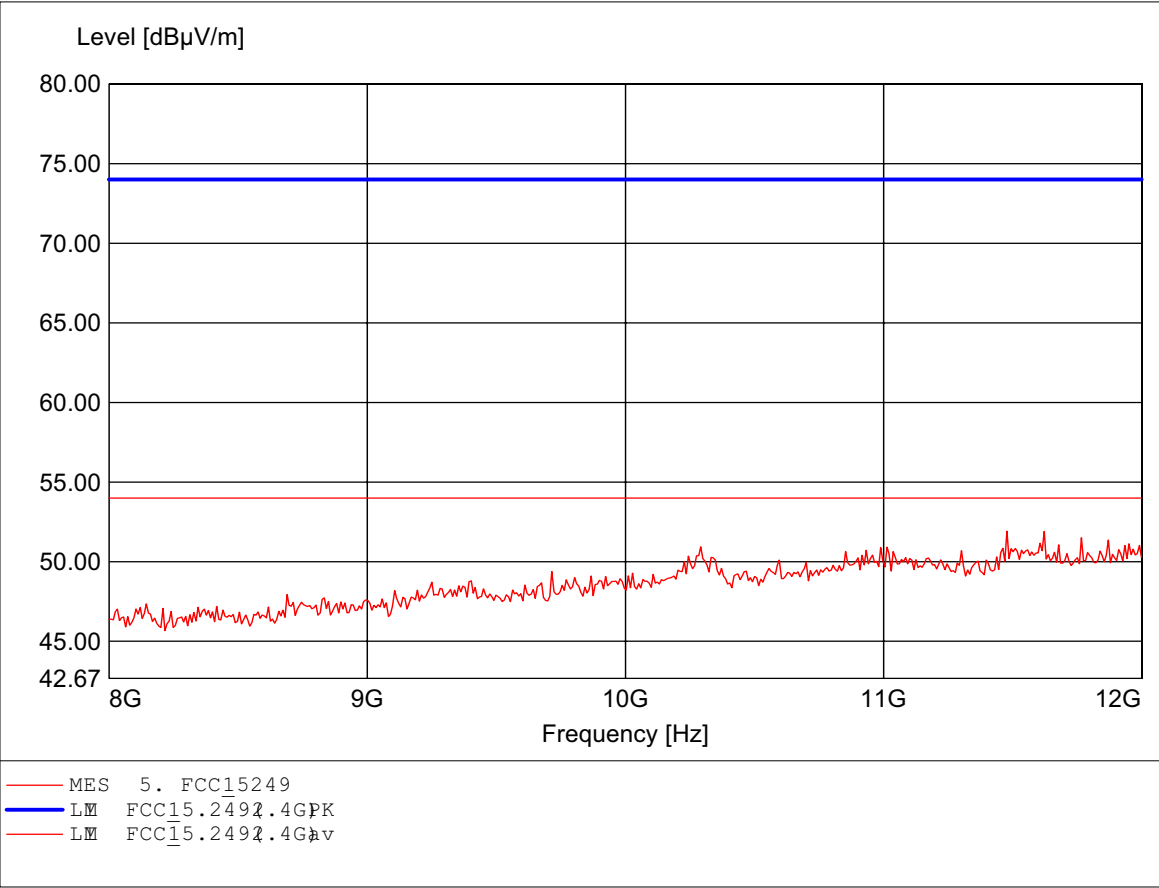
Order Nbr : W6M20512-6462 (1 channel) TX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to 5.249, peak detection
Comment 1: Dist.: 3m, Ant.: HL025, ampl. HP.
Freq 11.912GHz, Emax 51.46dBV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

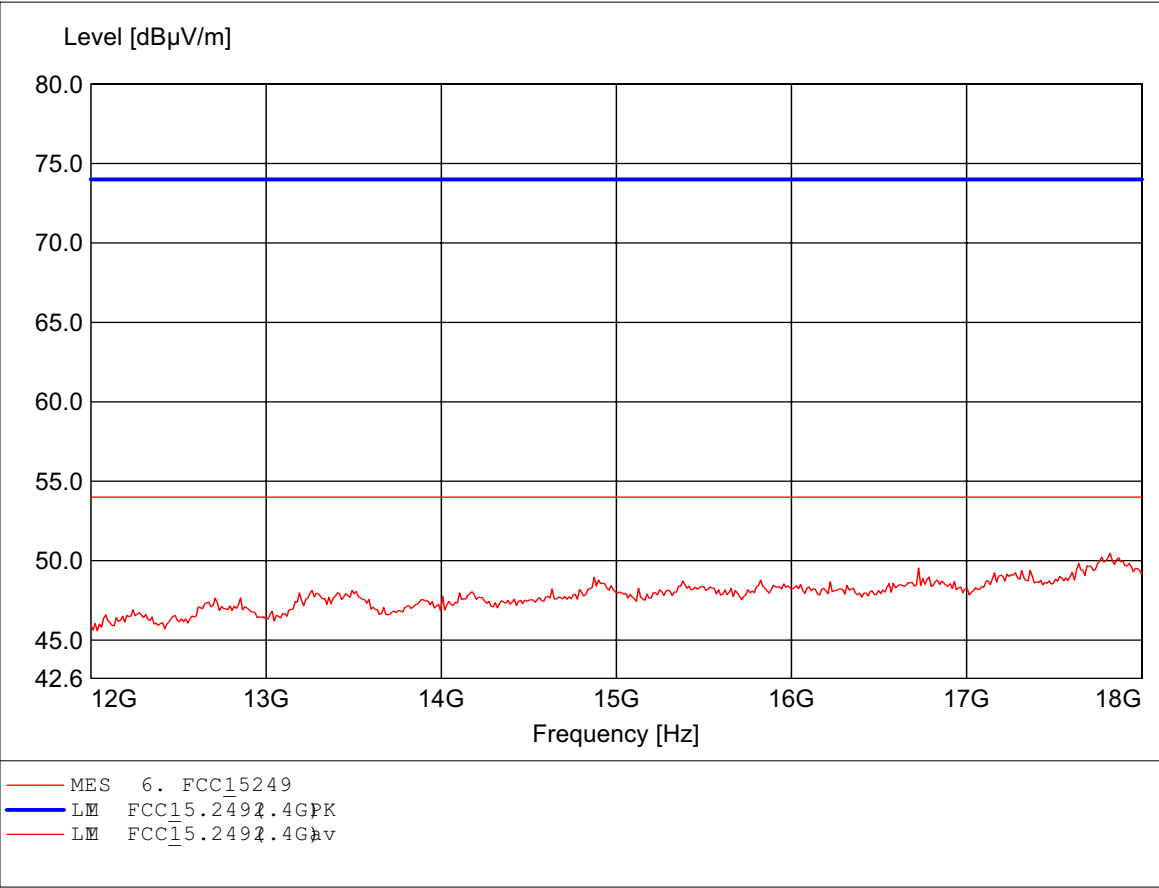
Order Nbr : W6M20512-6462 (1 channel) TX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to 5.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl. HP.
Freq 11.479GHz, Emax 51.92dBV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

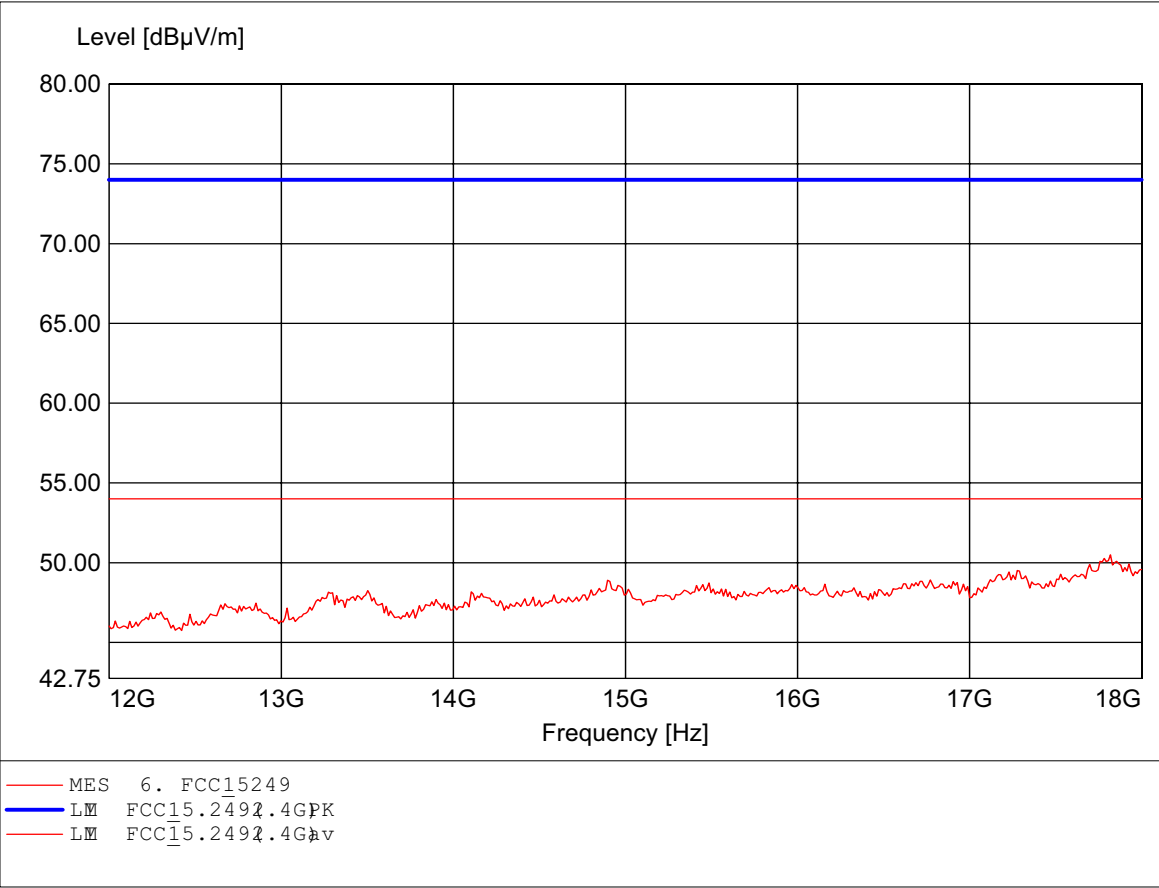
Order Nbr : W6M20512-6462 (1 channel) TX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to 15.249, peak detection
Comment 1: Dist.: 3m, Ant.: HL025, ampl. HP.
Freq 17.820GHz, Emax 50.47dBV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

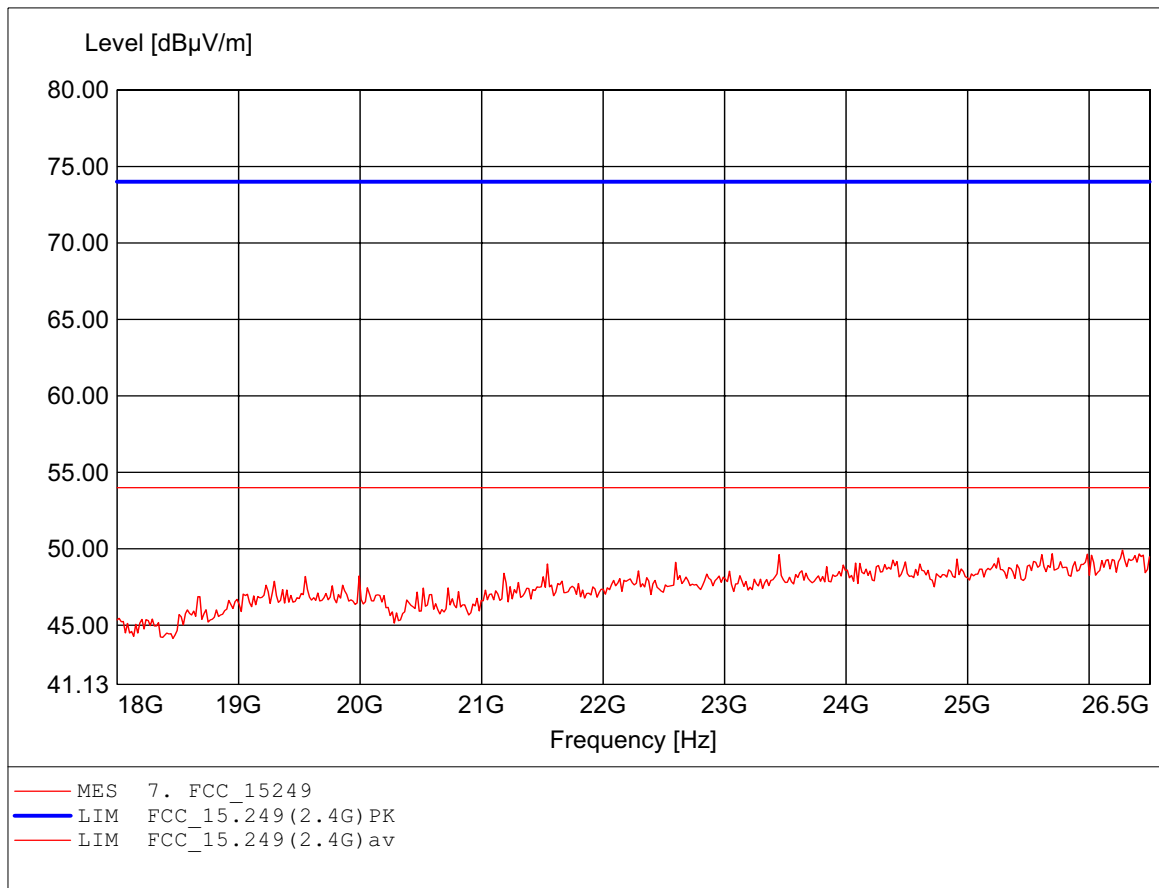
Order Nbr : W6M20512-6462 (1 channel)TX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to 15.249, peak detection
Comment 1: Dist.: 3m, Ant.: HL025, ampl. HP.
Freq 17.820GHz, Emax 50.49dBu/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

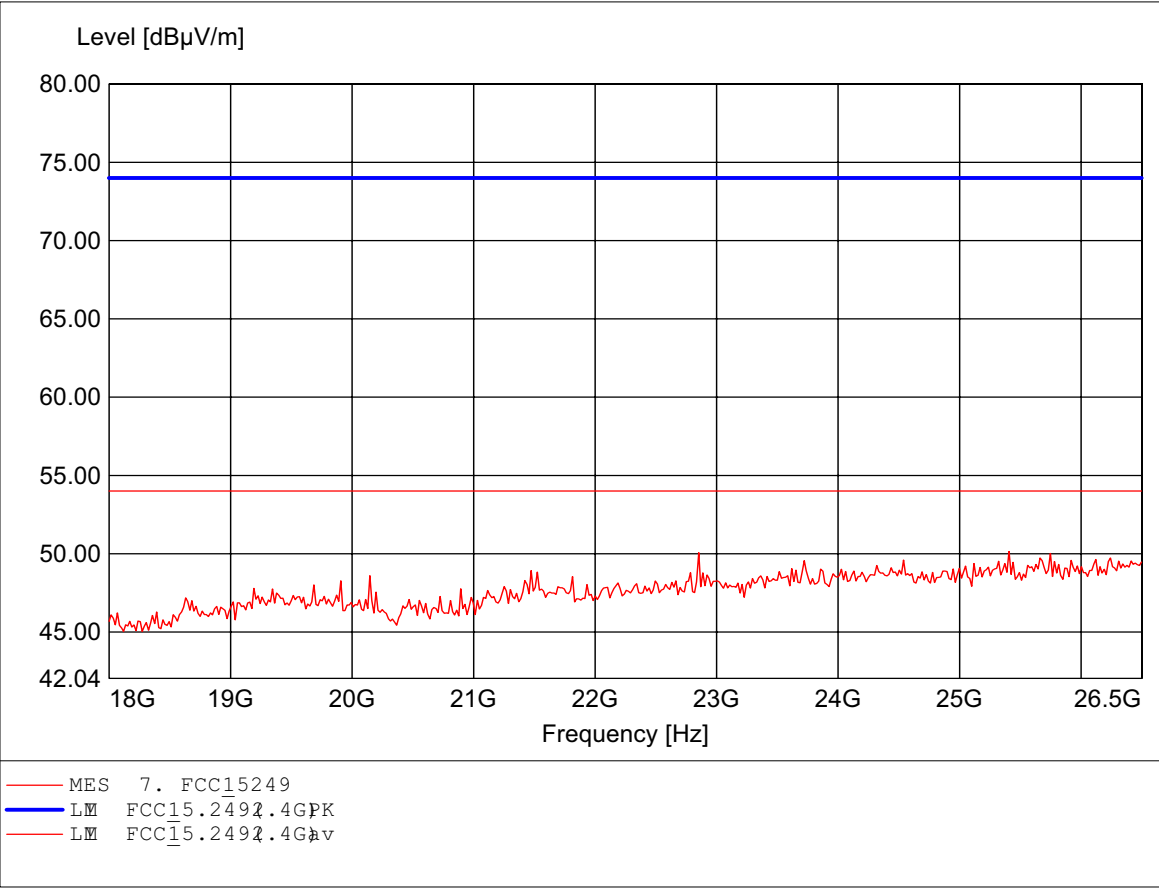
Order Number : W6M20512-6462 (high channel) TX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 26.279GHz, Emax: 49.91dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

Order Nbr : W6M20512-6462 (1 channel) TX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to FCC 15.249, peak detection
Comment 1: Dist.: 3m, Ant.: HL025, amplifier.
Freq 25.410GHz, Emax 50.14dBV/m, RBW: 1MHz





Appendix C

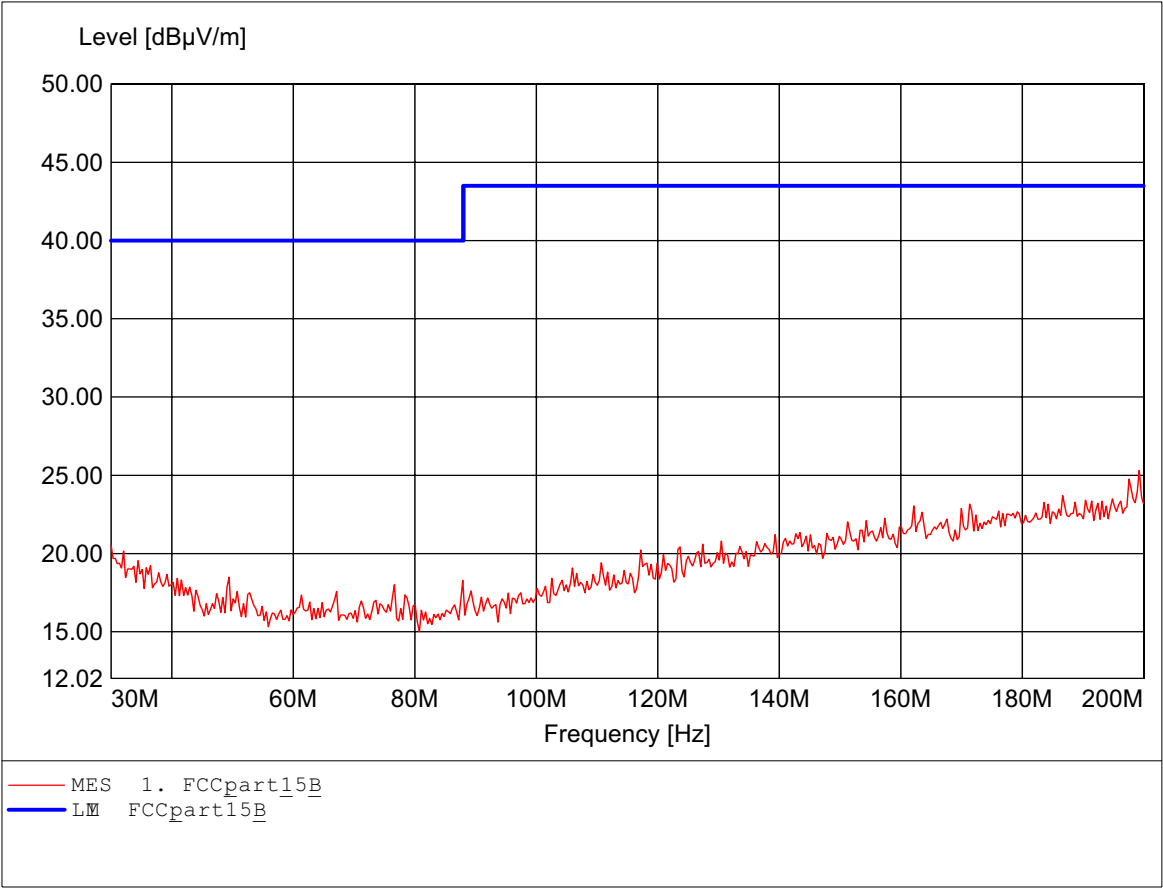
Radiated Emission from Digital Part And Receiver L.O.

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

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

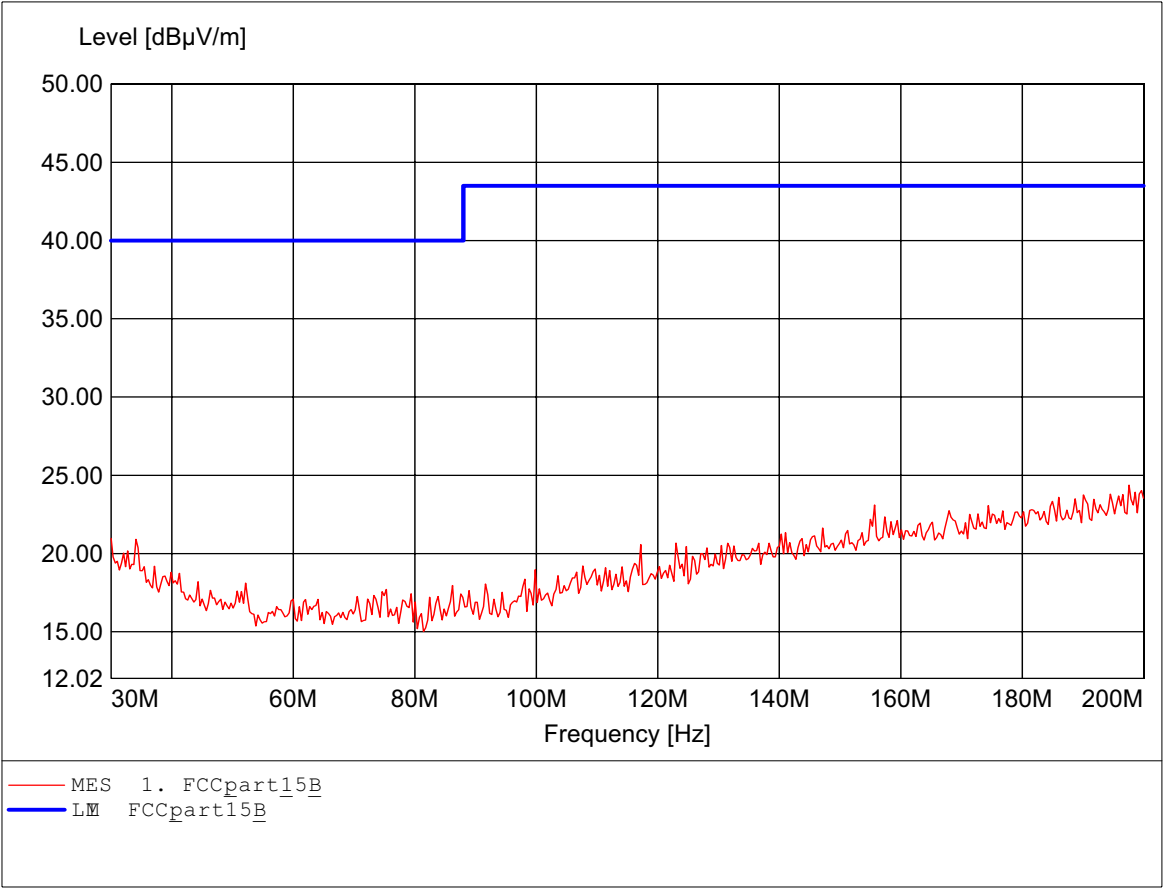
Order Nbr : W6M20512-6462 (1channel) RX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to part B
Comment 1: Dist.: 3m, Ant.: HK116
Frequency: 199.319MHz Emax: 25.31dBu/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

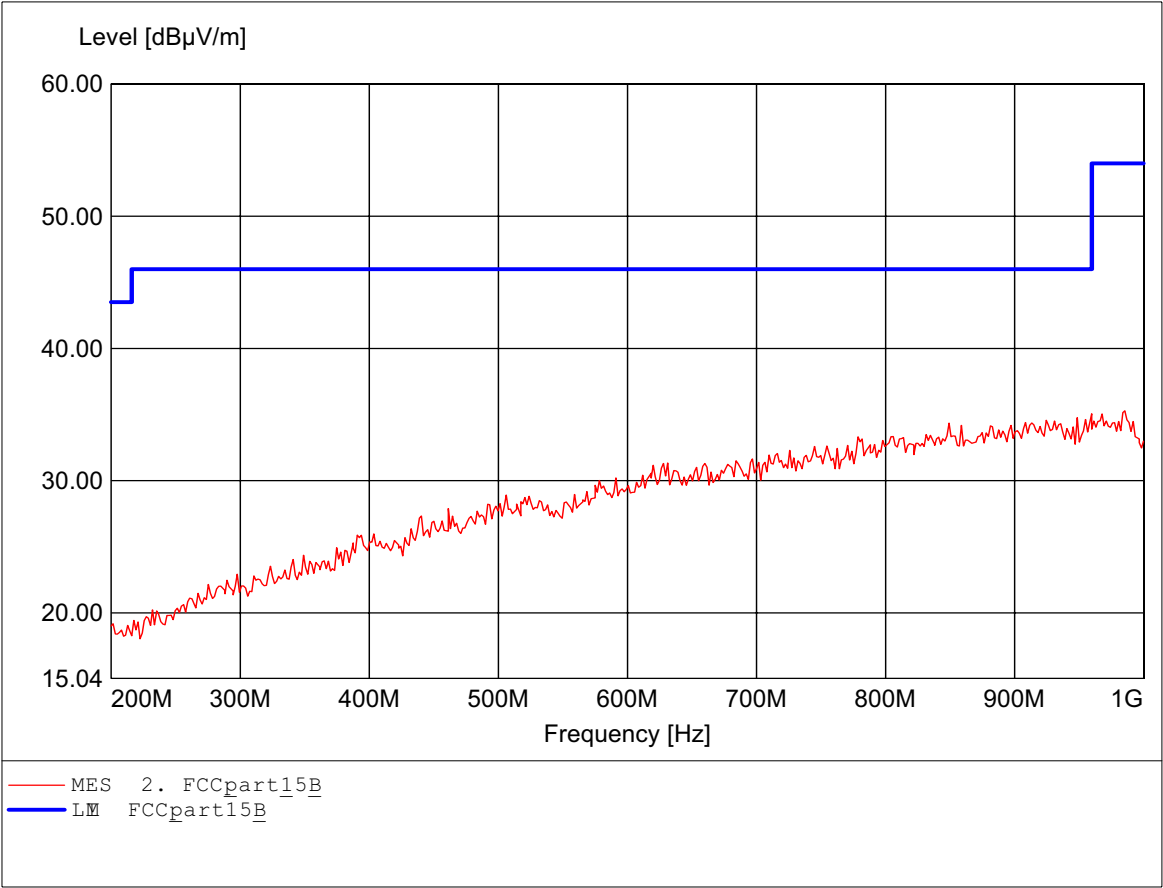
Order Nbr : W6M20512-6462 (1channel)RX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to part B
Comment 1: Dist.: 3m, Ant.: HK116
Frequency: 197.615MHz Emax: 24.37dBV/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

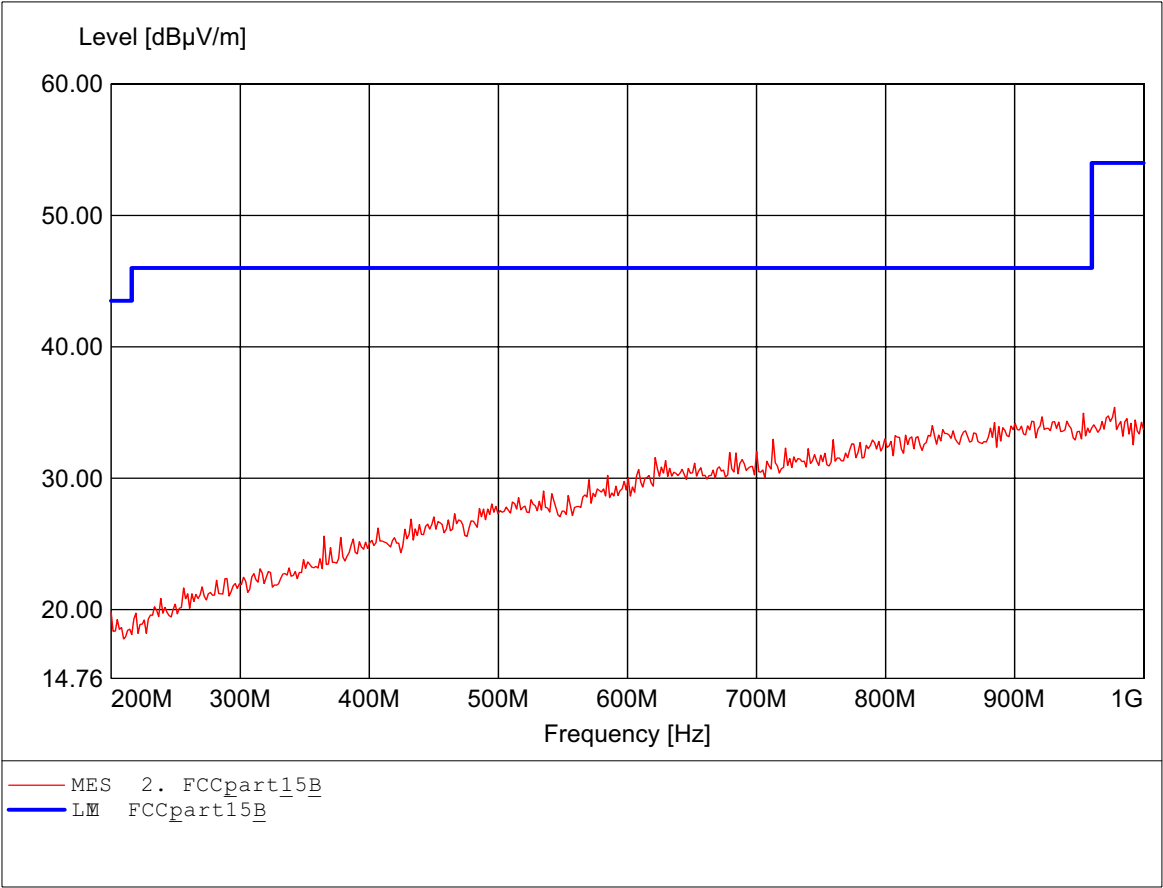
Order Nbr : W6M20512-6462 (1channel)RX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to part B
Comment 1: Dist.: 3m, Ant.: HL 223, ampl.
Frequency: 985.571MHz Emax: 35.28dBu/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

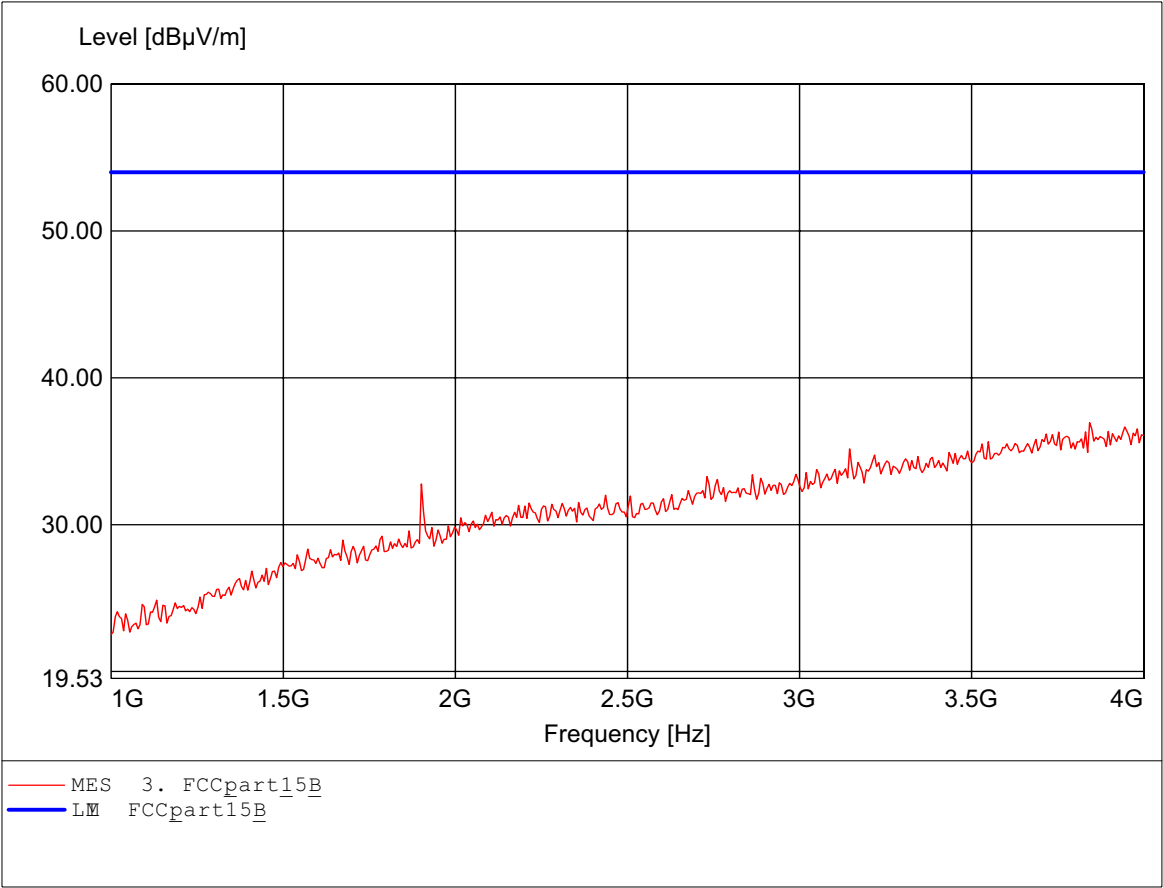
Order Nbr : W6M20512-6462 (1channel)RX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to part B
Comment 1: Dist.: 3m, Ant.: HL 223, ampl.
Frequency 977.555MHz Emax 35.39dBμV/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

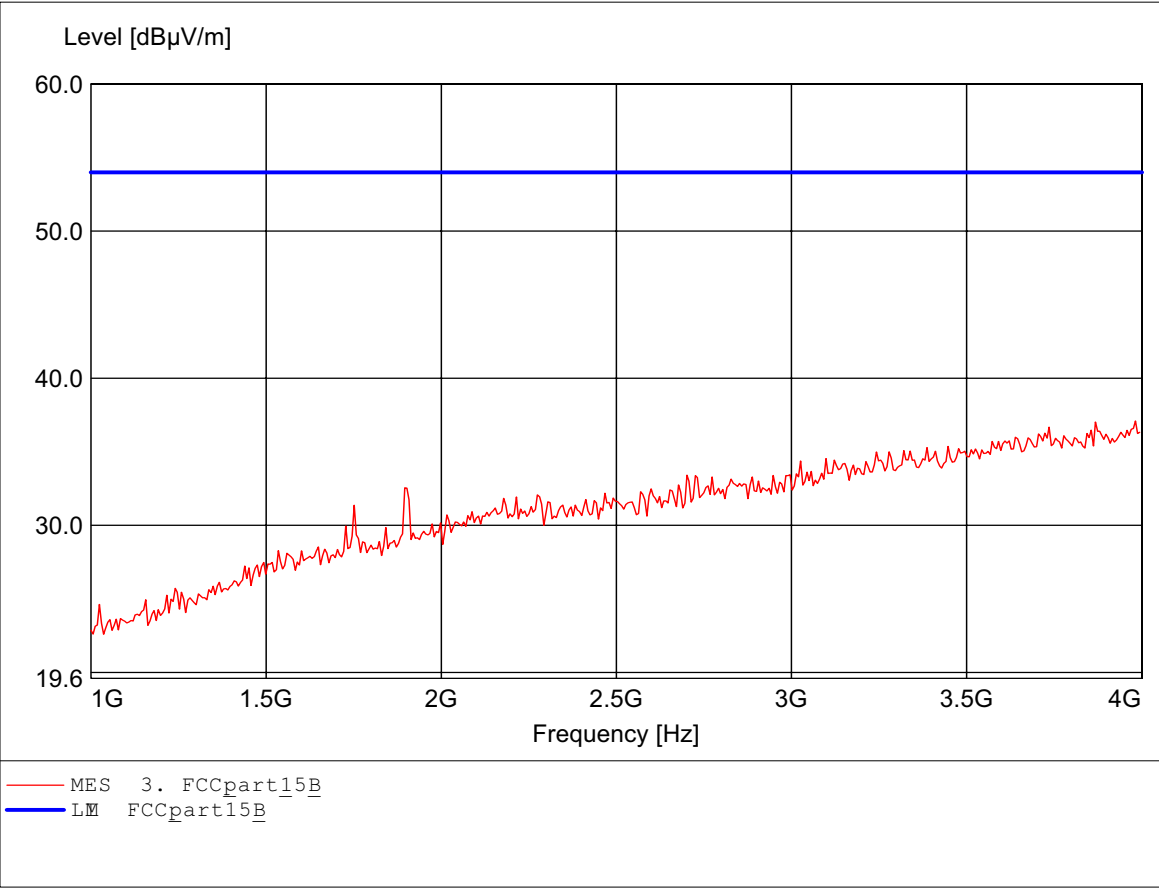
Order Nbr : W6M20512-6462 (1channel)RX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to part B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq 3.844GHz Emax 36.94dBu/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

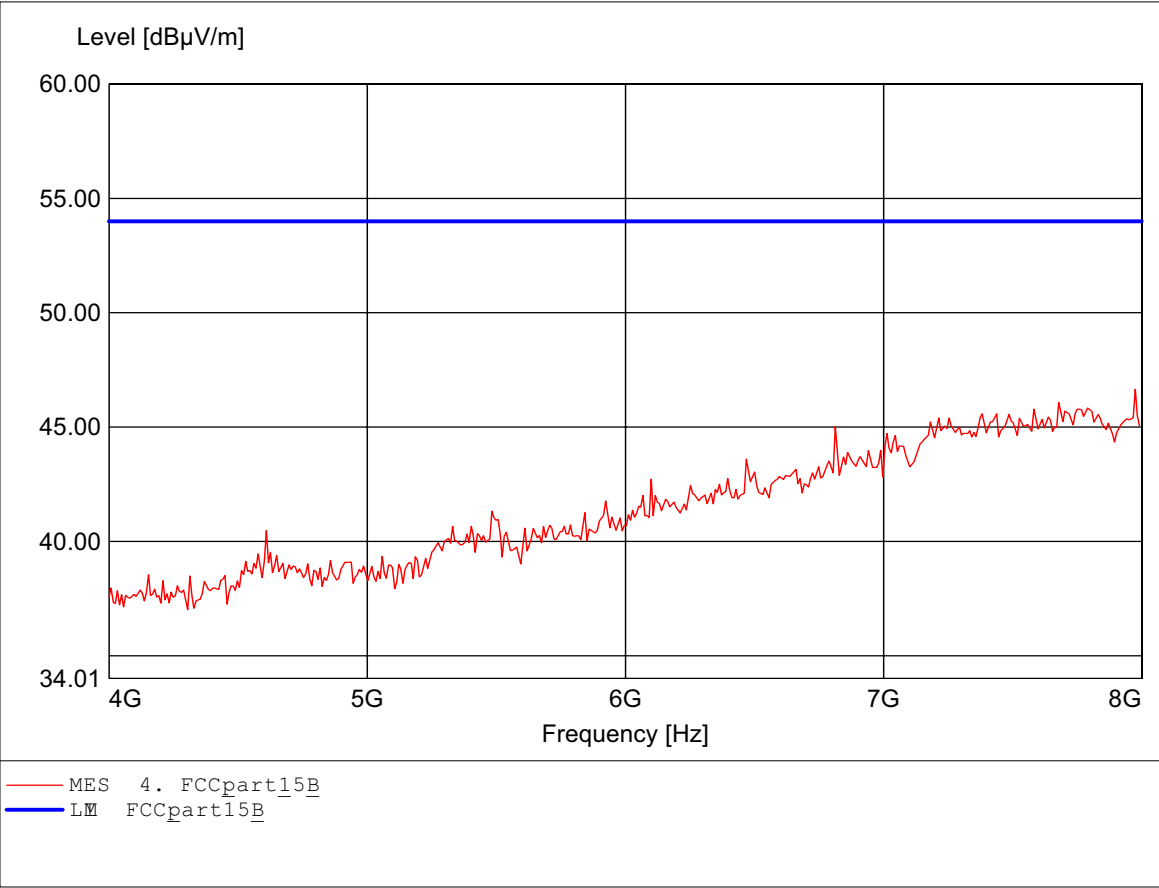
Order Nbr : W6M20512-6462 (1channel)RX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to part B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq 3.982GHz Emax 37.09dBµV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

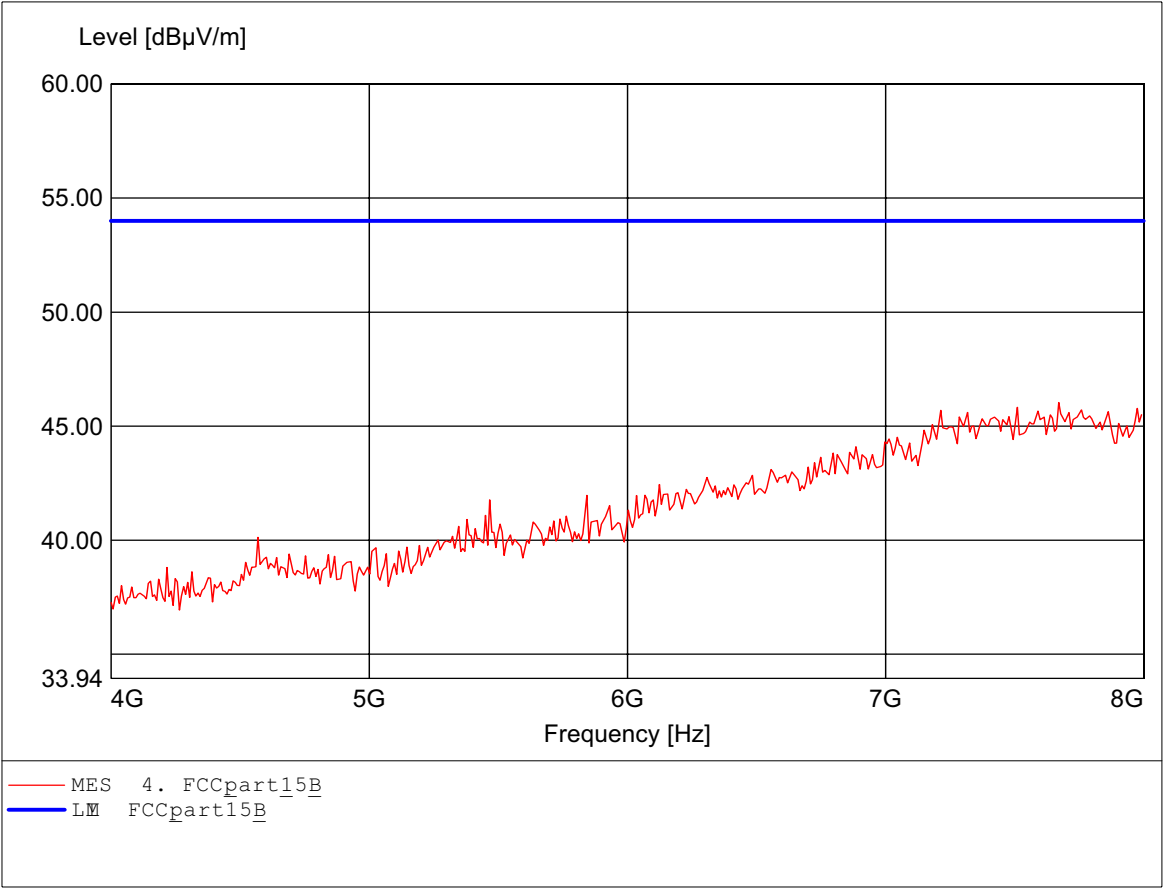
Order Nbr : W6M20512-6462 (1channel)RX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to part B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq: 7.976GHz Emax: 46.65dBµV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

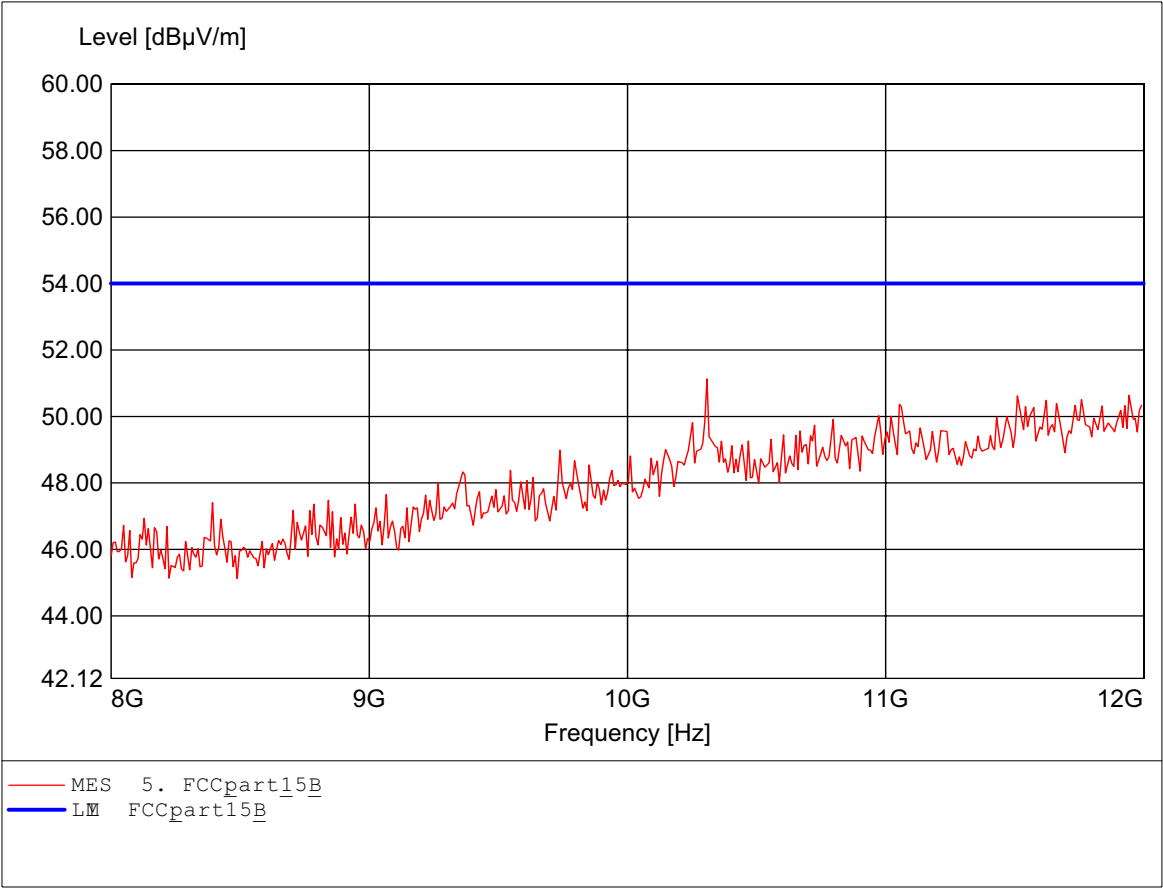
Order Nbr : W6M20512-6462 (1channel)RX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to part B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq 7.671GHz Emax 46.04dBu/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

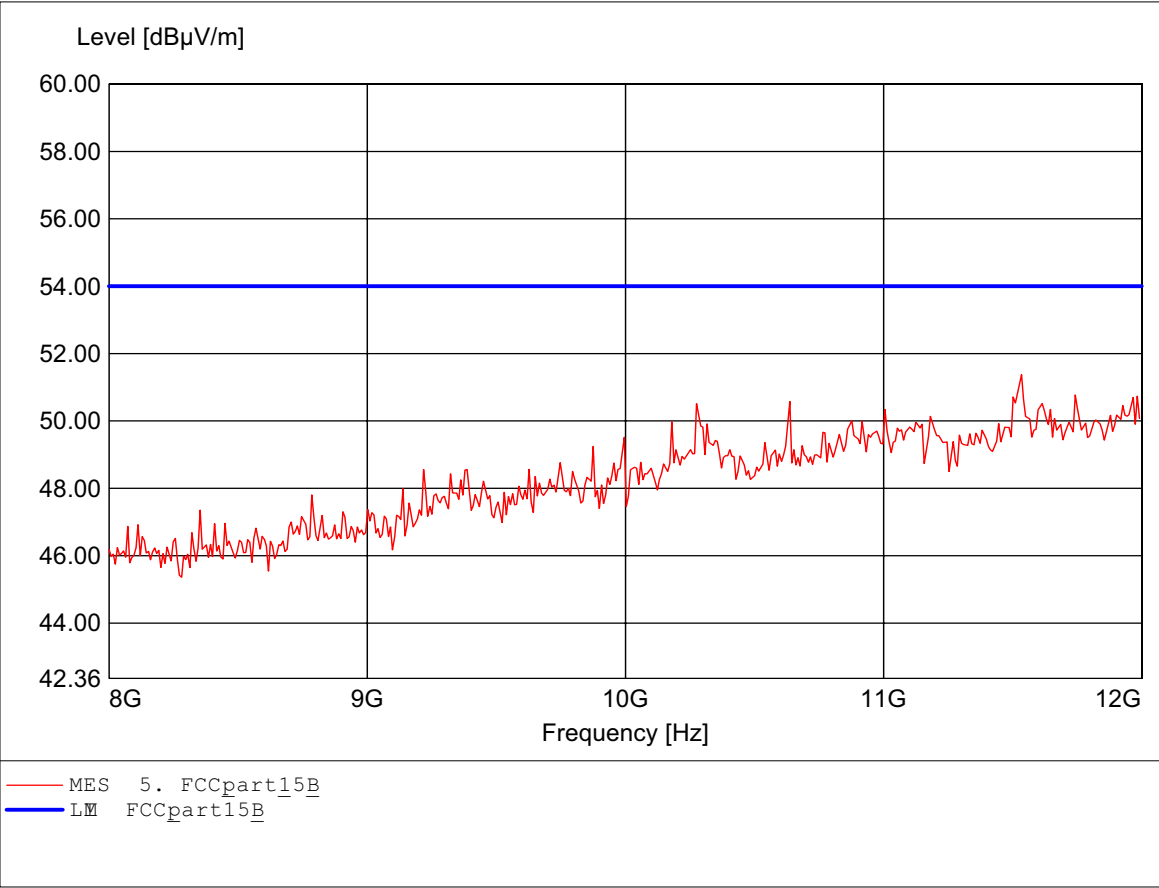
Order Nbr : W6M20512-6462 (1 channel) RX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to part B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq 10.309GHz Emax 51.13dBμV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

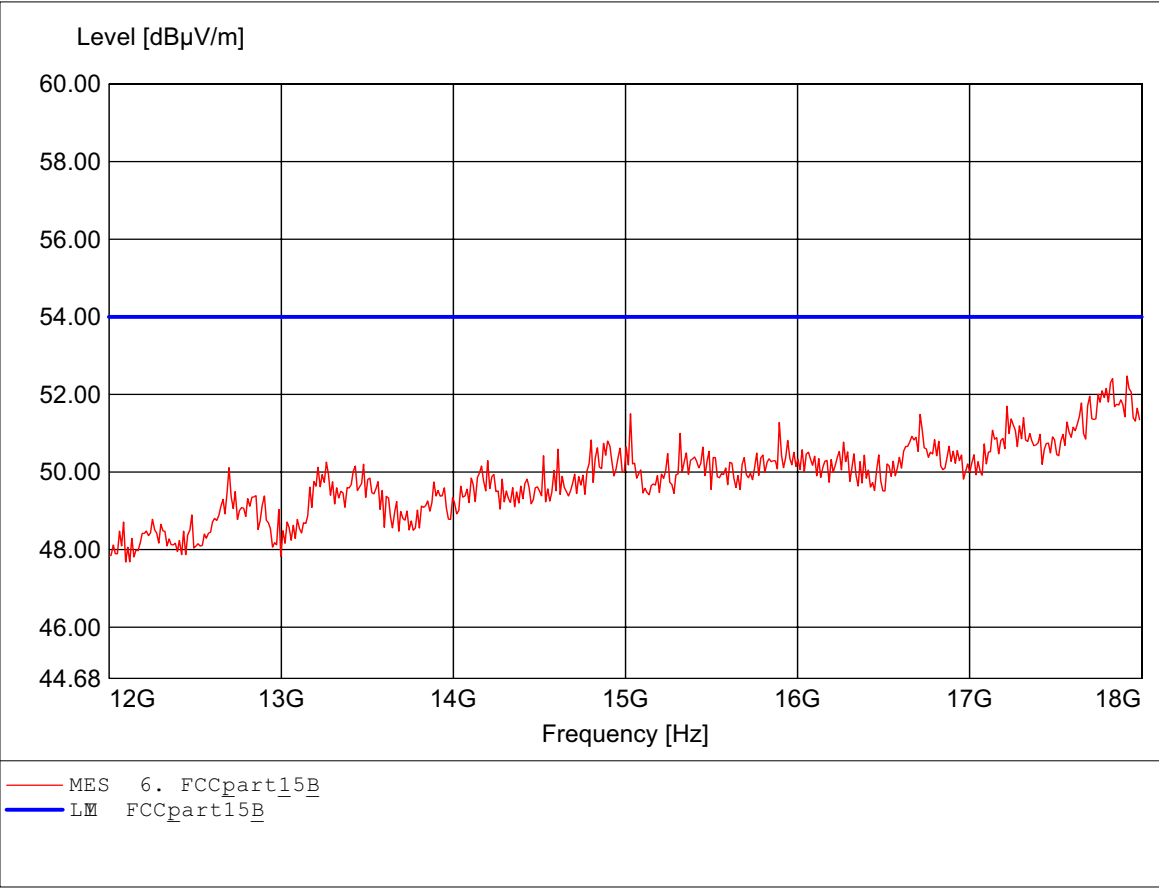
Order Nbr : W6M20512-6462 (1channel)RX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to part B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq: 11.535GHz Emax: 51.37dBµV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

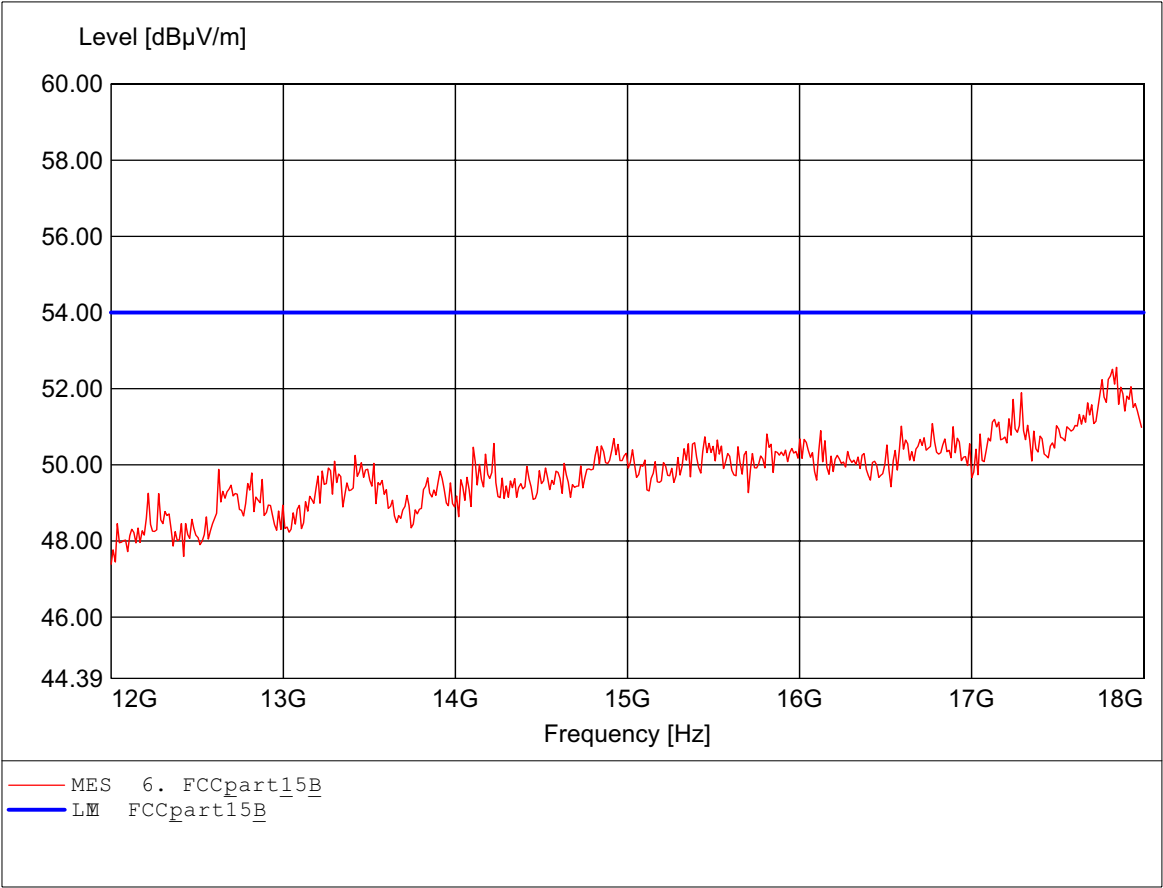
Order Nbr : W6M20512-6462 (1 channel) RX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to part B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq 17.916GHz Emax 52.47dBμV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

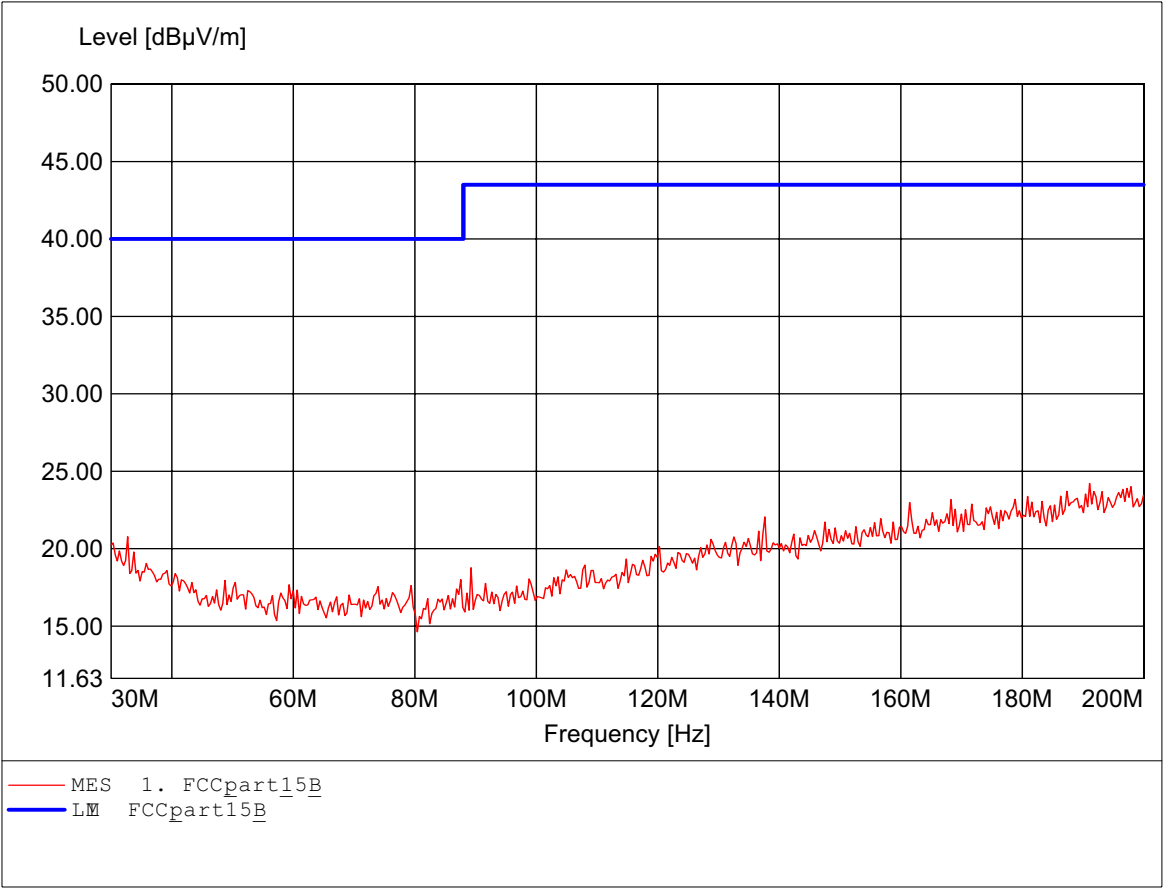
Order Nbr : W6M20512-6462 (1 channel) RX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to part B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Frequency 17.844GHz Emax 52.56dBμV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

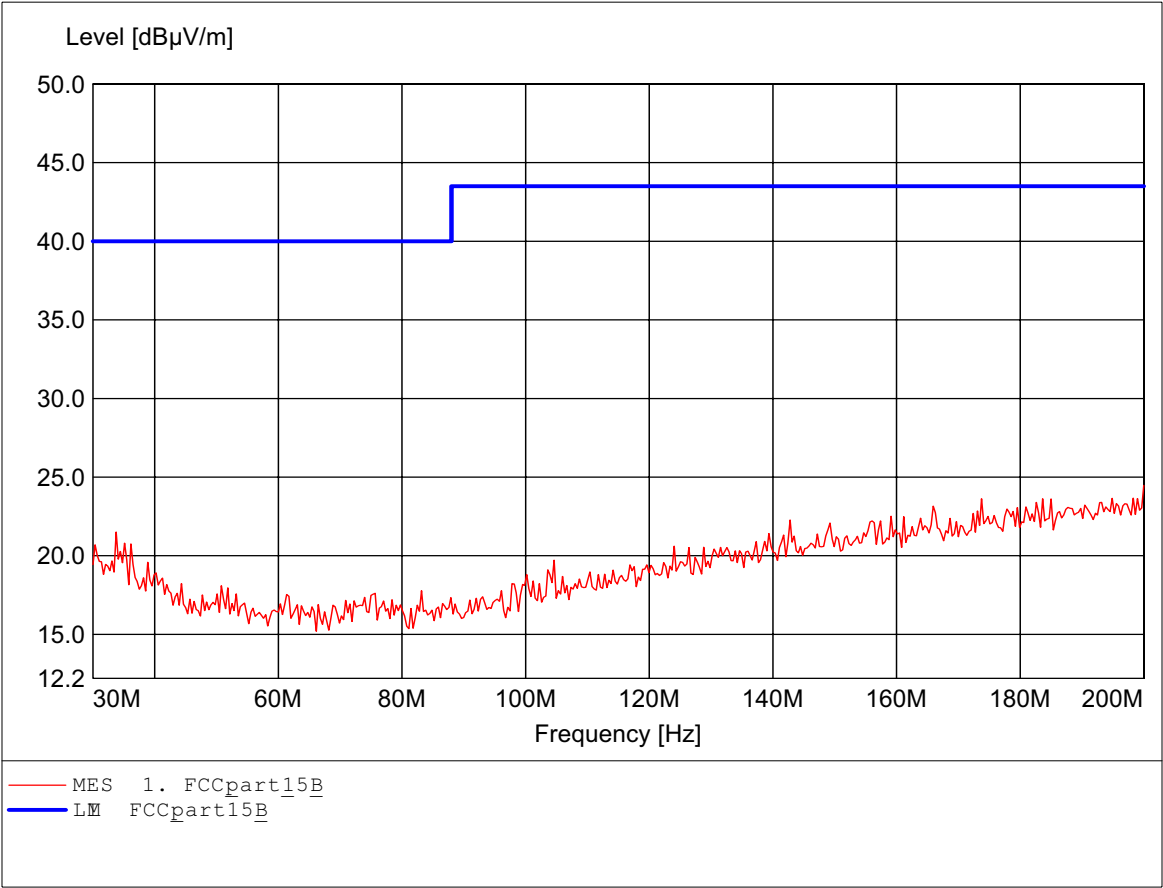
Order Nbr : W6M20512-6462 (1 channel) RX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to part B
Comment 1: Dist.: 3m, Ant.: HK116
Frequency: 191.142MHz Emax: 24.22dBu/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

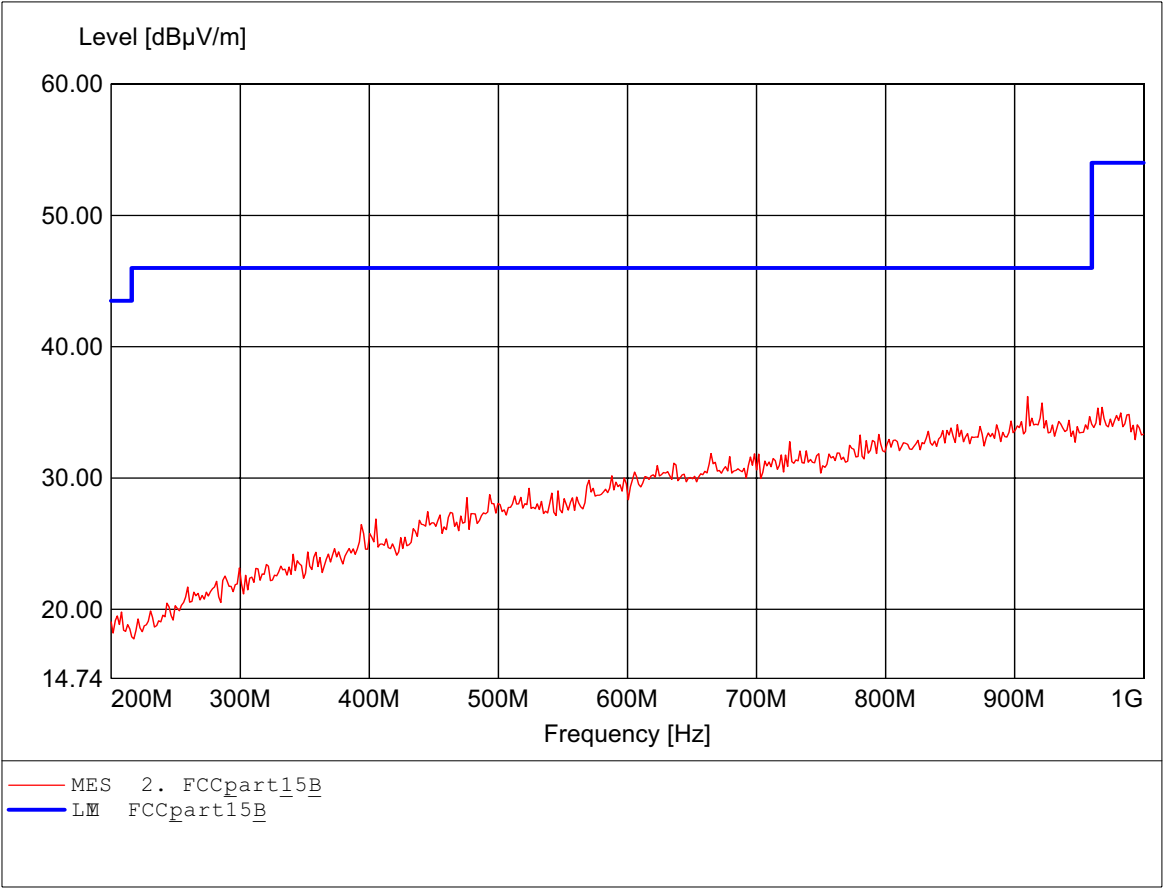
Order Nbr : W6M20512-6462 (1 channel)RX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to part B
Comment 1: Dist.: 3m, Ant.: HK116
Frequency: 200.000MHz Emax: 24.47dBµV/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

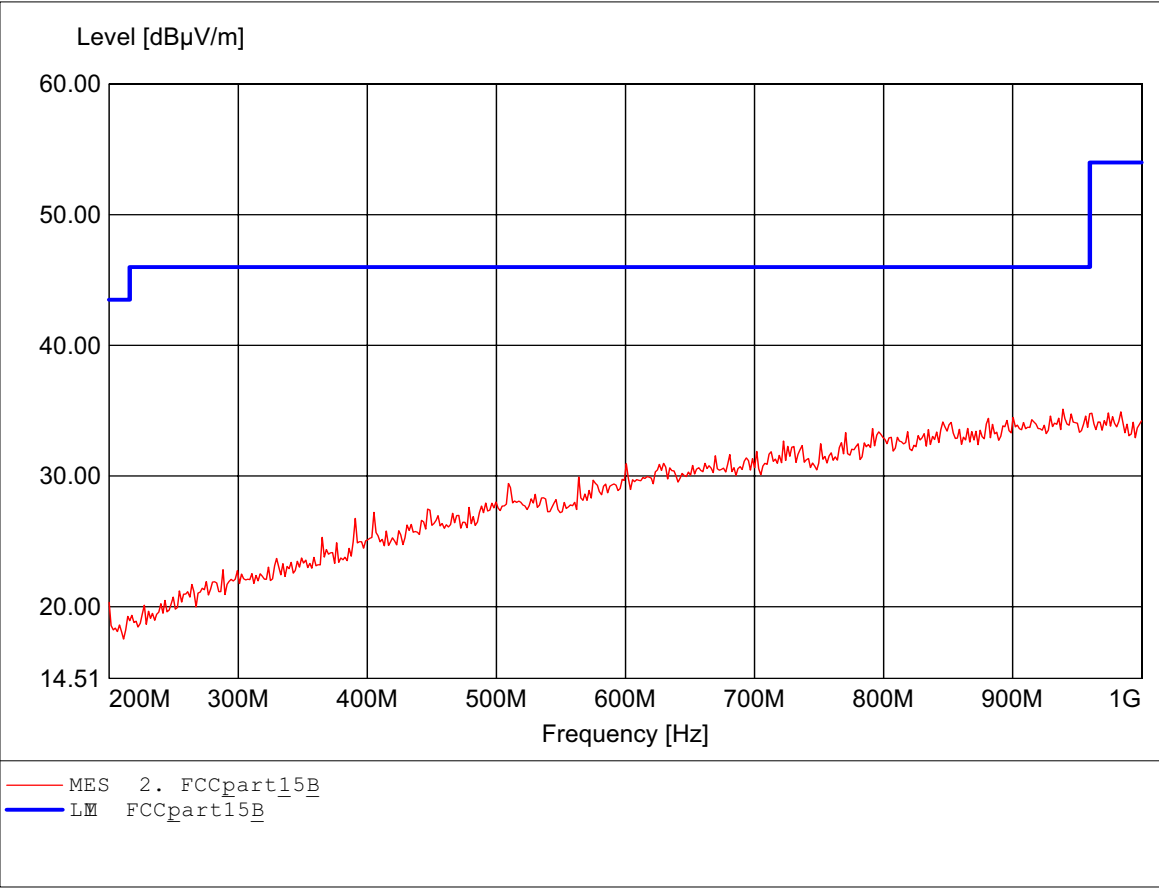
Order Nbr : W6M20512-6462 (1 channel) RX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to part B
Comment 1: Dist.: 3m, Ant.: HL 223, ampl.
Frequency: 910.220MHz Emax: 36.21dBV/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

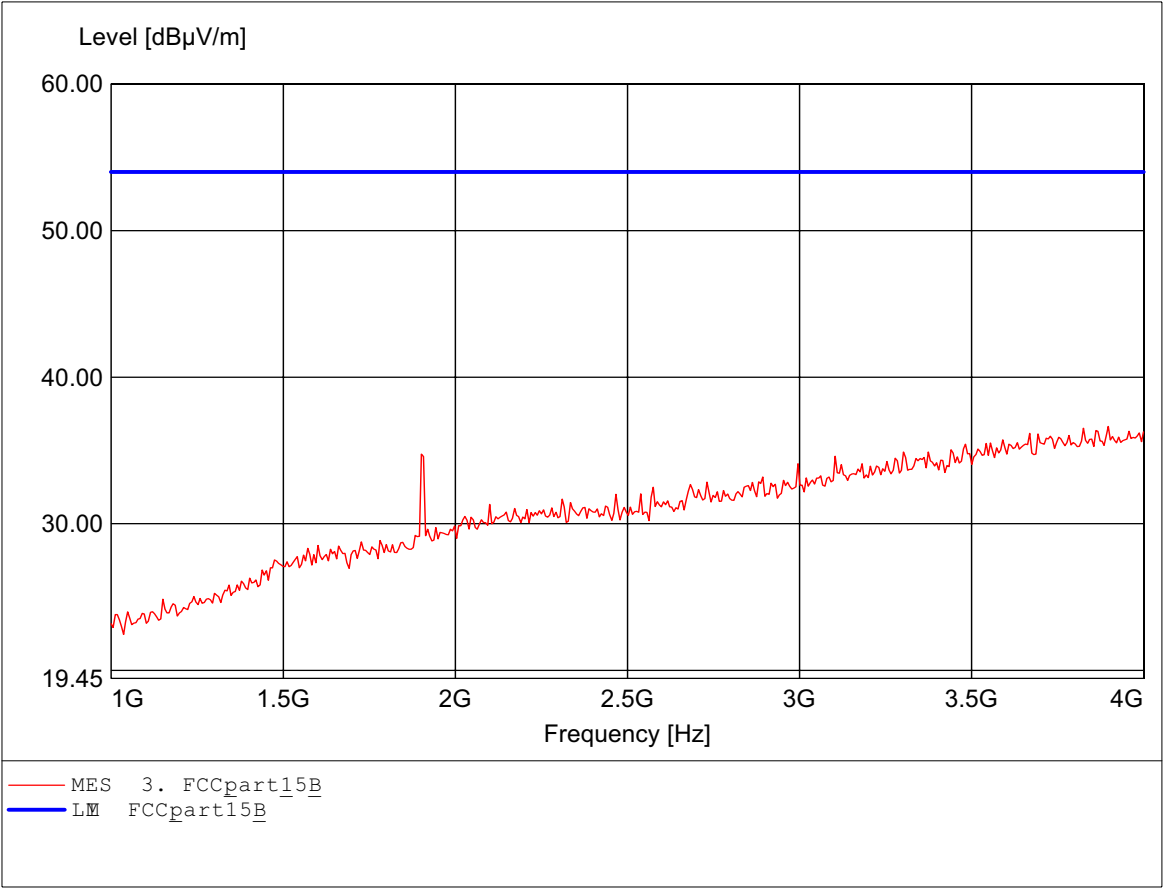
Order Nbr : W6M20512-6462 (1 channel) RX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to part B
Comment 1: Dist.: 3m, Ant.: HL 223, ampl.
Frequency: 939.078MHz Emax: 35.12dBµV/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

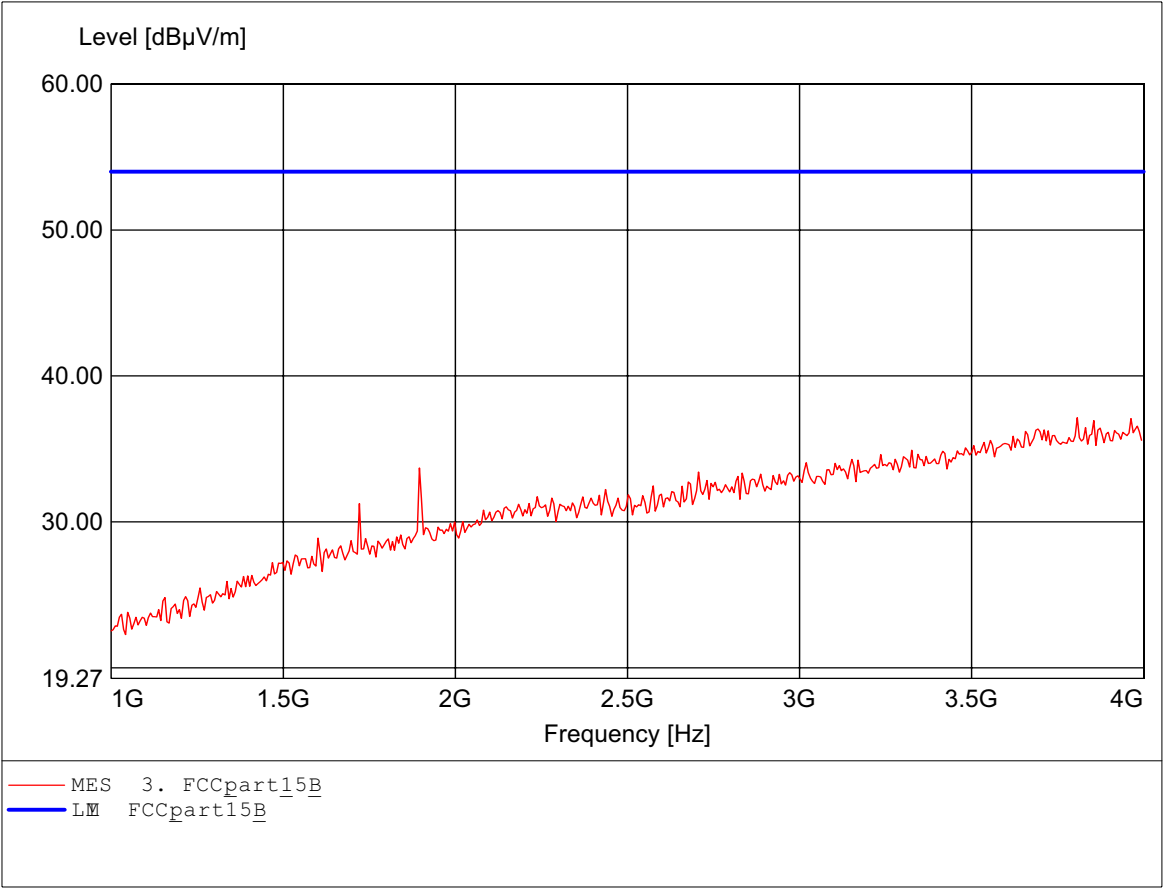
Order Nbr : W6M20512-6462 (1 channel) RX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to part B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq 3.898GHz Emax 36.64dBµV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

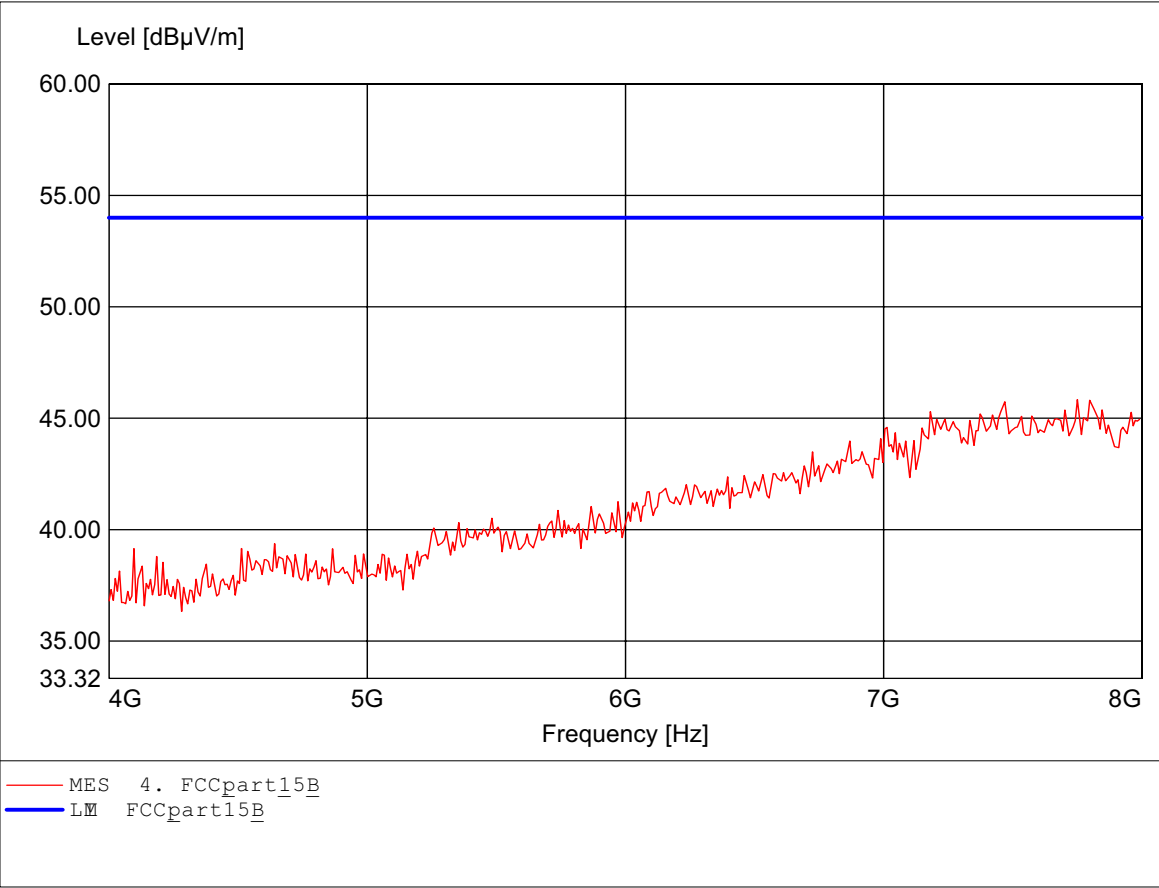
Order Nbr : W6M20512-6462 (1 channel)RX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to part B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq 3.808GHz Emax 37.13dBµV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

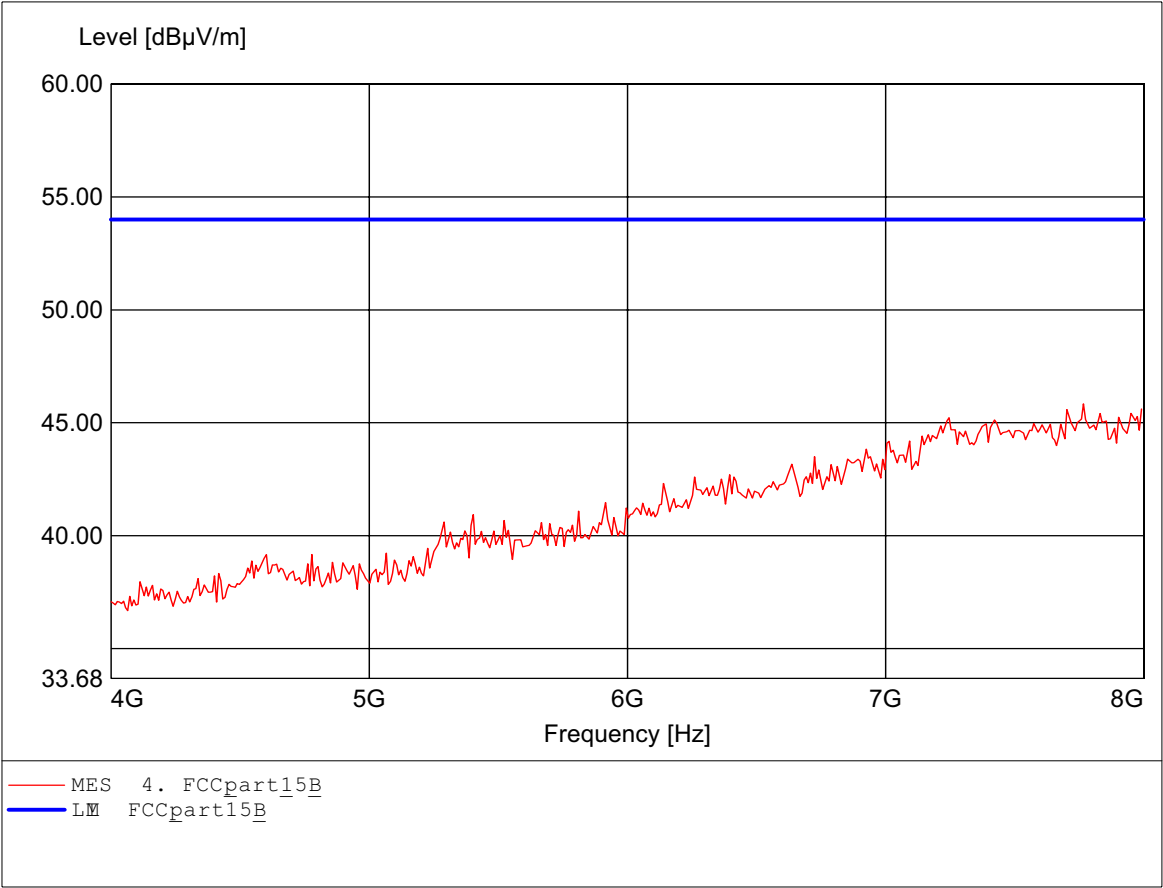
Order Nbr : W6M20512-6462 (1 channel) RX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to part B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq: 7.752GHz Emax: 45.83dBu/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

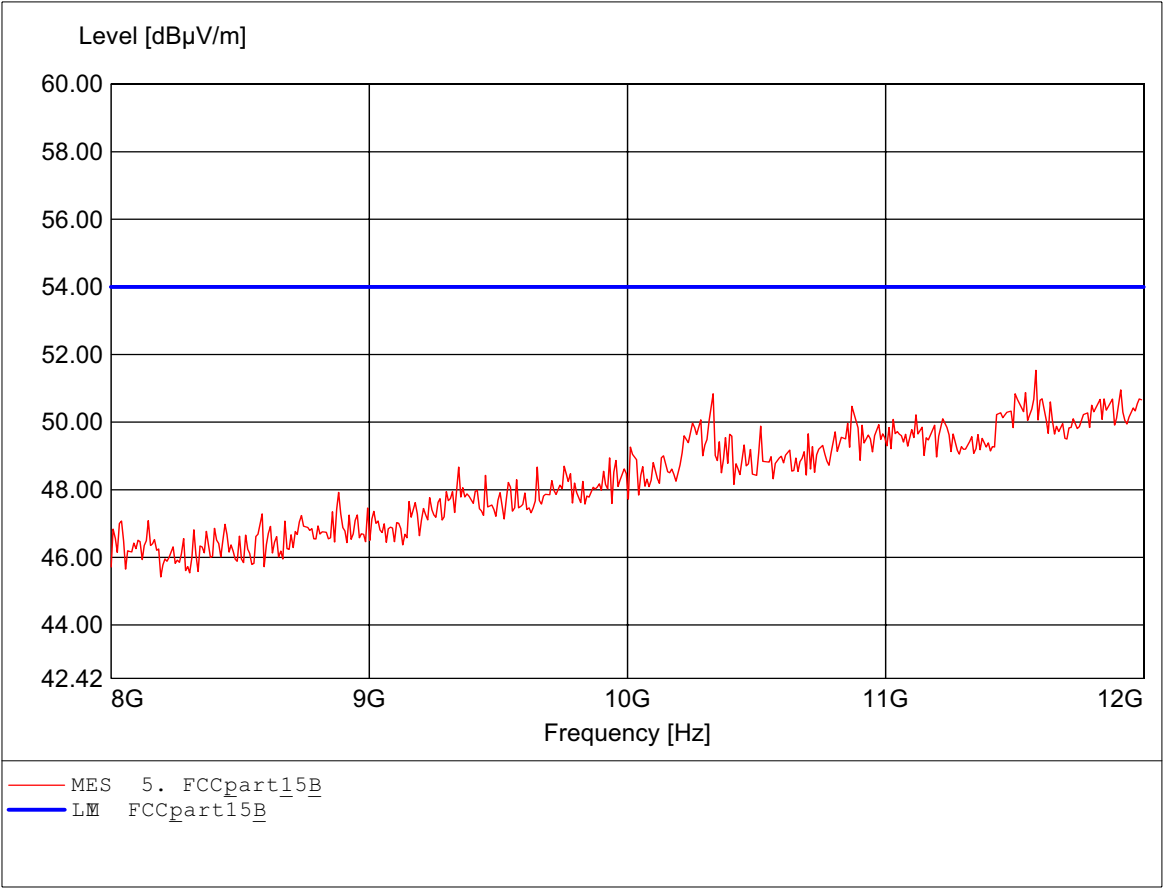
Order Nbr : W6M20512-6462 (1 channel)RX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: adding to part B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq 7.768GHz Emax 45.84dBu/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

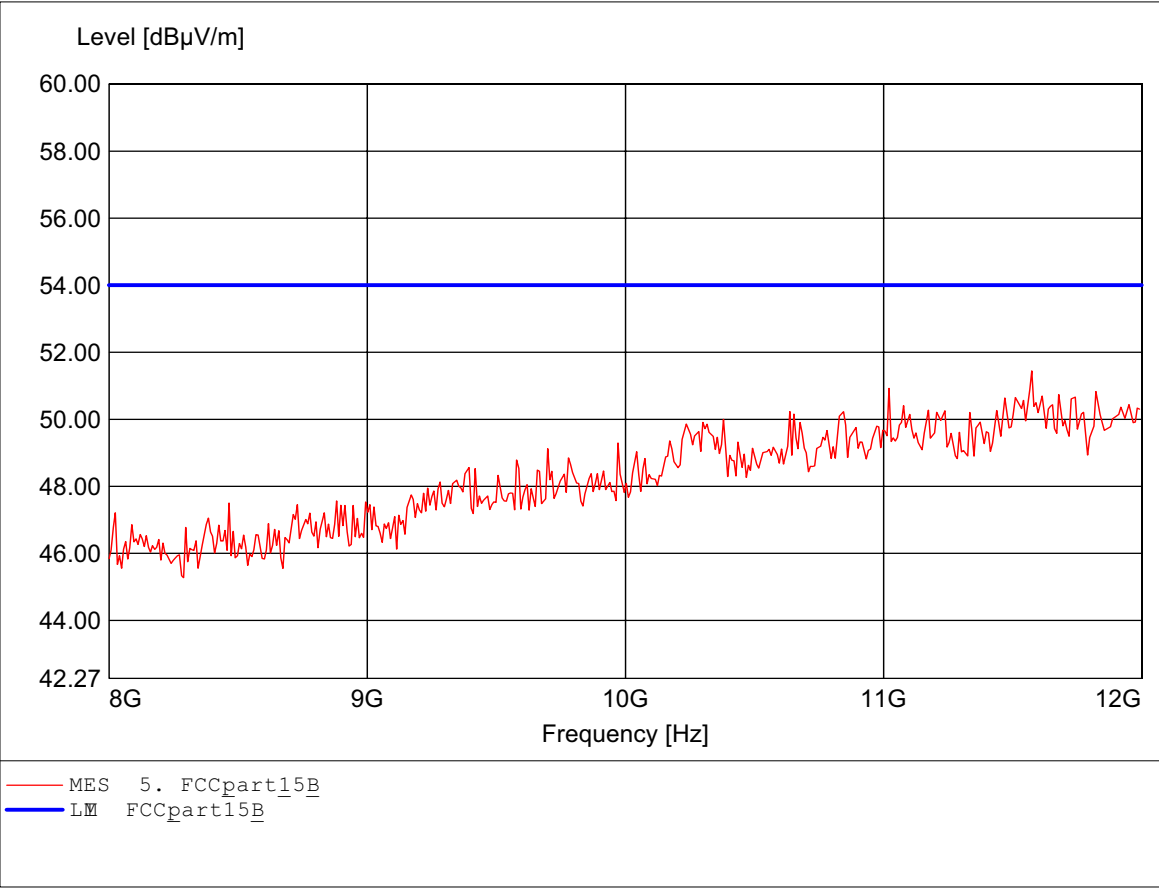
Order Nbr : W6M20512-6462 (1 channel) RX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to part B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq 11.583GHz Emax 51.53dBμV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

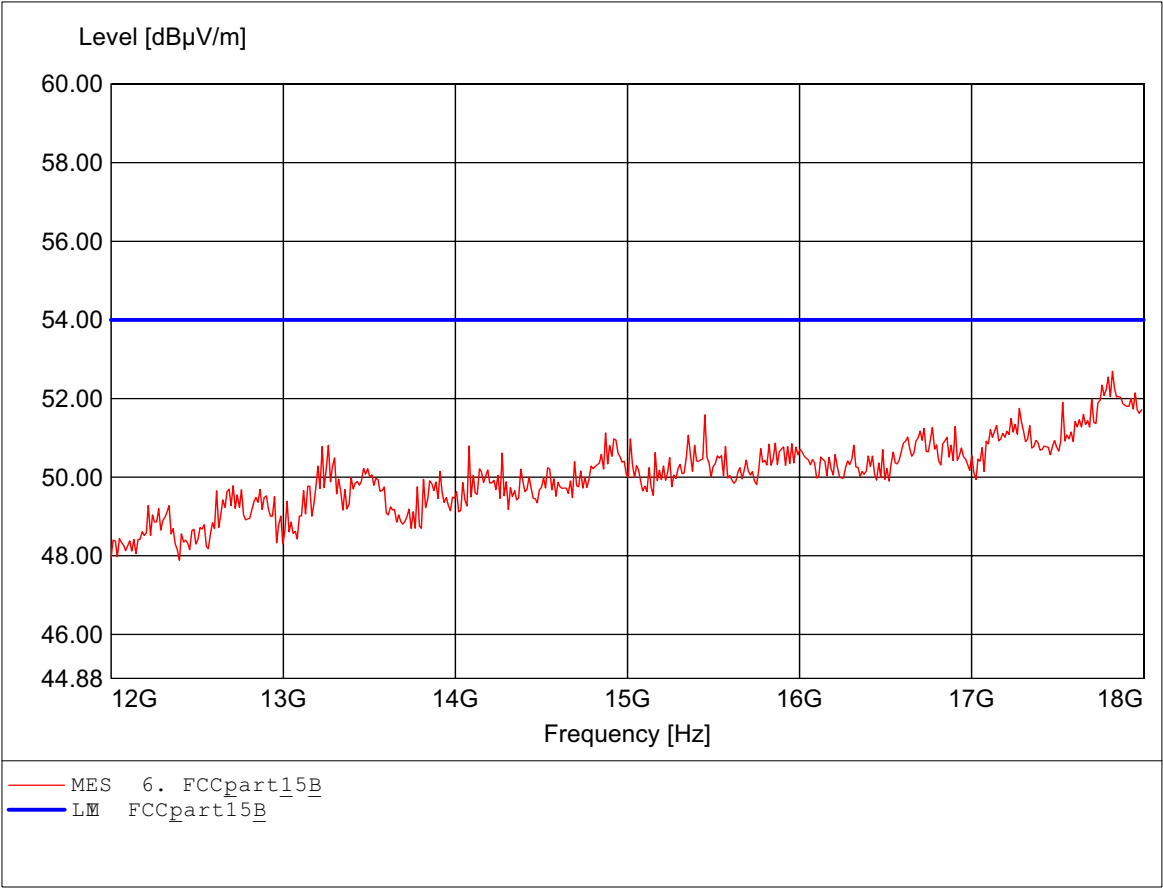
Order Nbr : W6M20512-6462 (1 channel) RX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to part B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq: 11.575GHz Emax: 51.44dBu/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

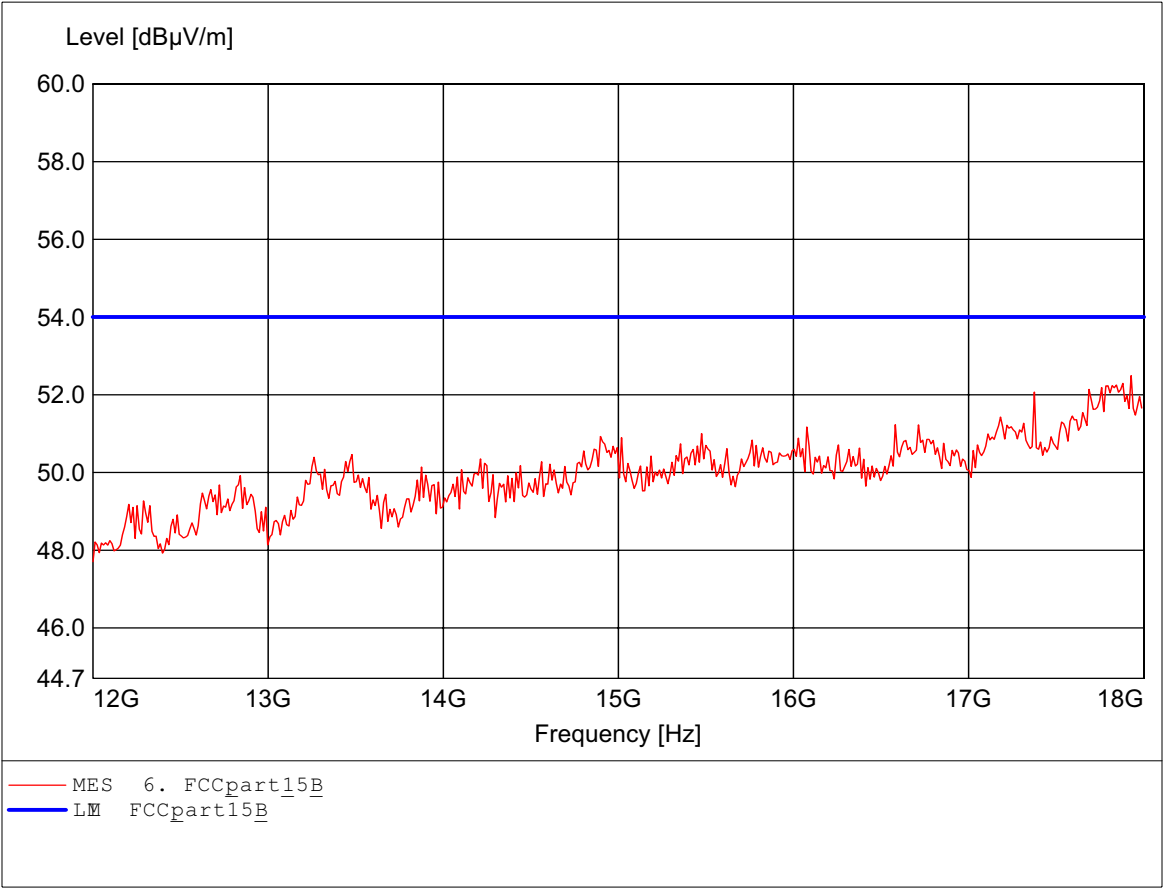
Order Nbr : W6M20512-6462 (1 channel)RX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to part B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Frequency 17.820GHz Emax 52.69dBu/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

Order Nbr : W6M20512-6462 (1 channel)RX
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9C
Test Specification: according to part B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Frequency 17.928GHz Emax 52.49dBµV/m RBW: 1 MHz



Spurious emissions under normal conditions
in accordance to the CISPR 22

Order n° : W6M20512-6462 Digital

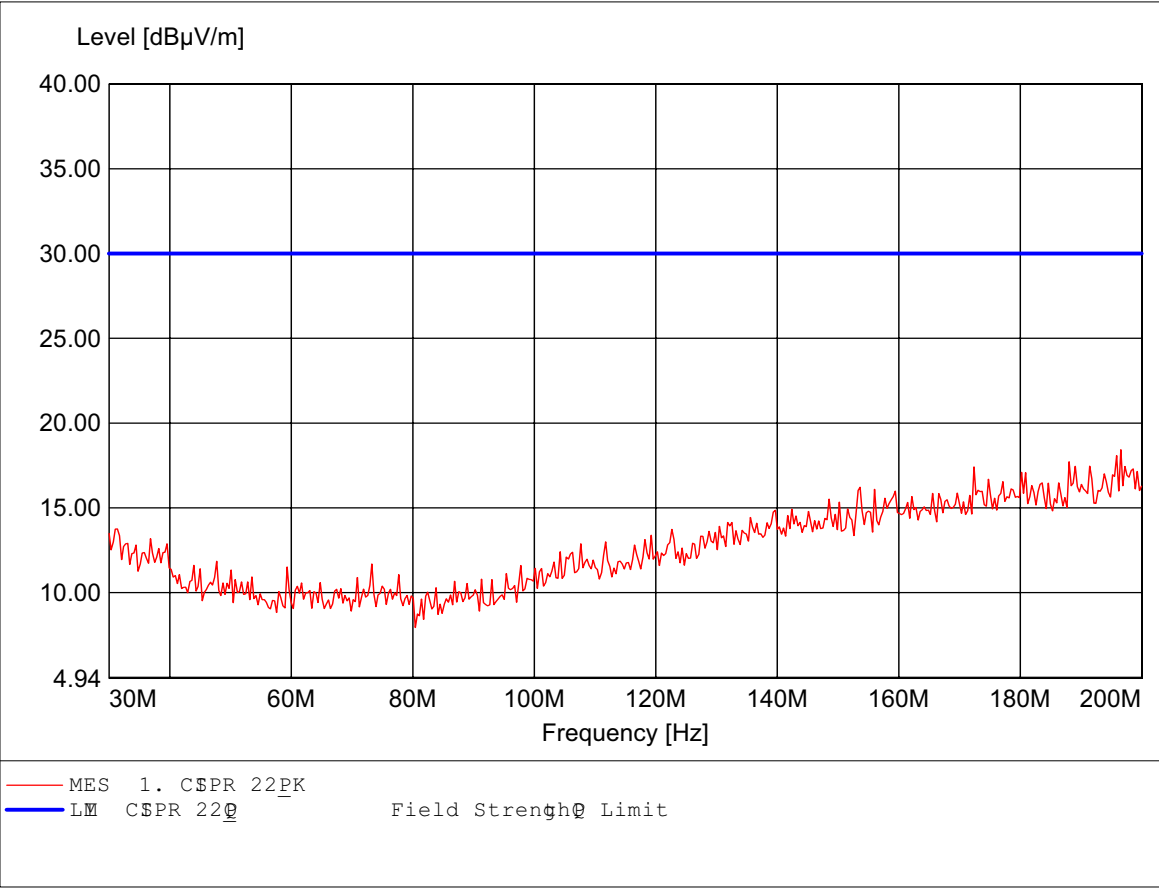
Test Site / Operator: ETS / Charles

Temperature: Temp.: 23.9°C

Test Specification: Fully Anechoic Chamber

Comment 1: Dist.: 3m, Ant.: HK116

Frequency: 196.593MHz Emax: 18.43dBµV/m RBW: 100 kHz



Spurious emissions under normal conditions
in accordance to the CISPR 22

Order Nbr : W6M20512-6462 Digital

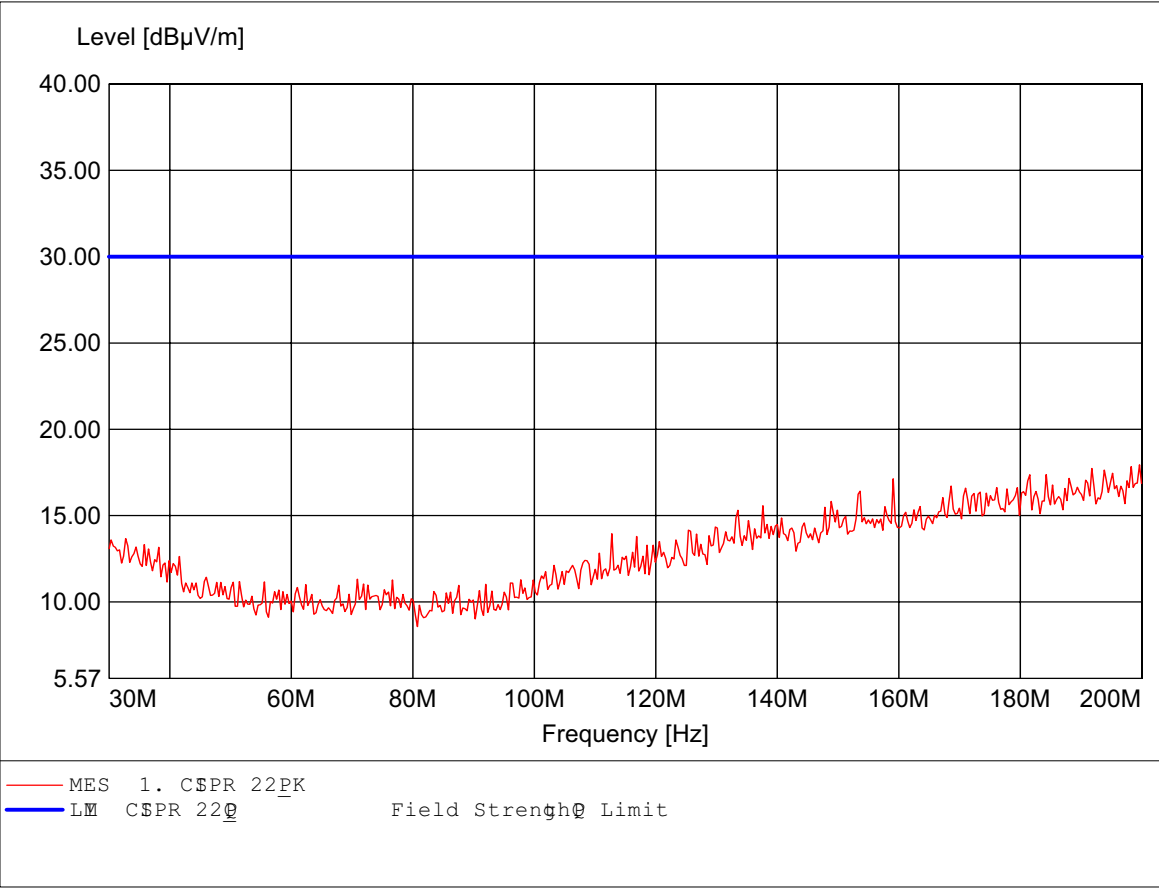
Test Site / Operator: ETS / Charles

Temperature: Temp.: 23.9C

Test Specification: Fully Anechoic Chamber

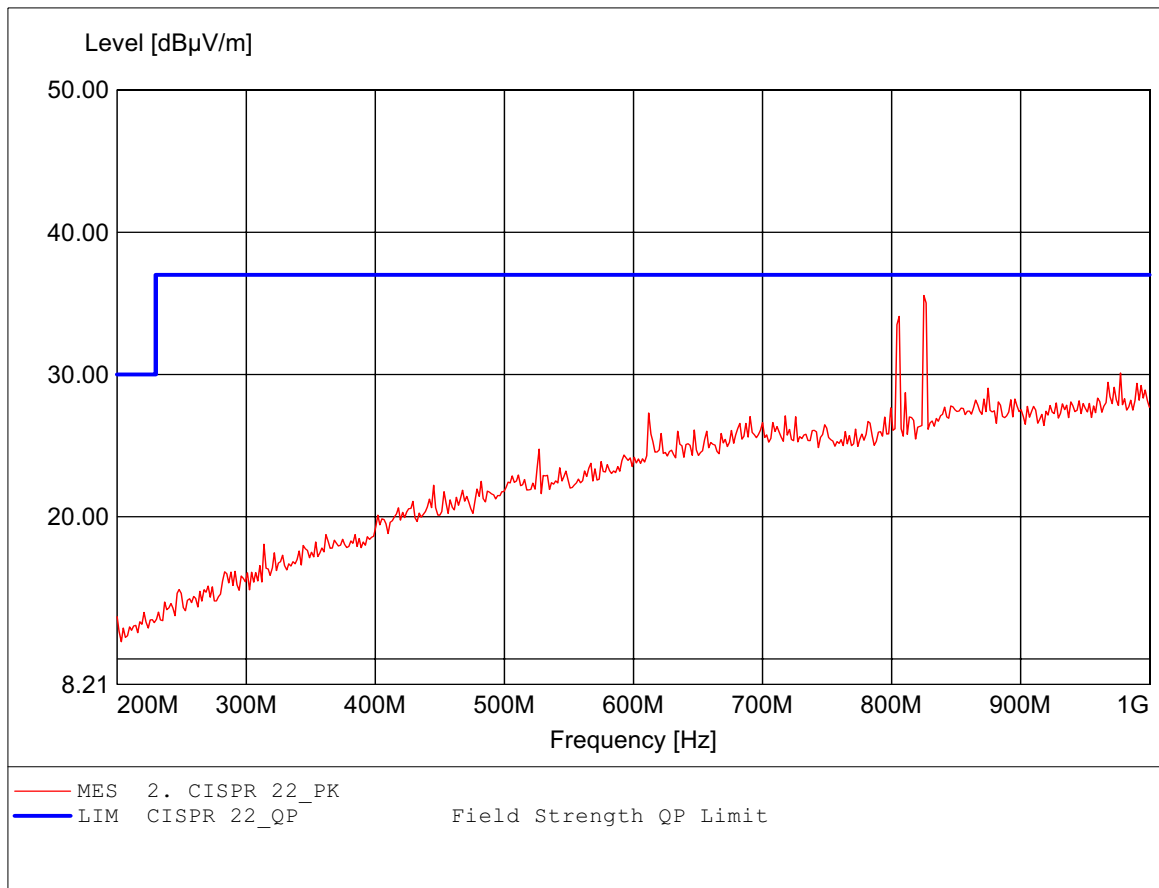
Comment 1: Dist.: 3m, Ant.: HK116

Frequency: 199.659MHz Emax: 17.94dBu/m RBW: 100 kHz



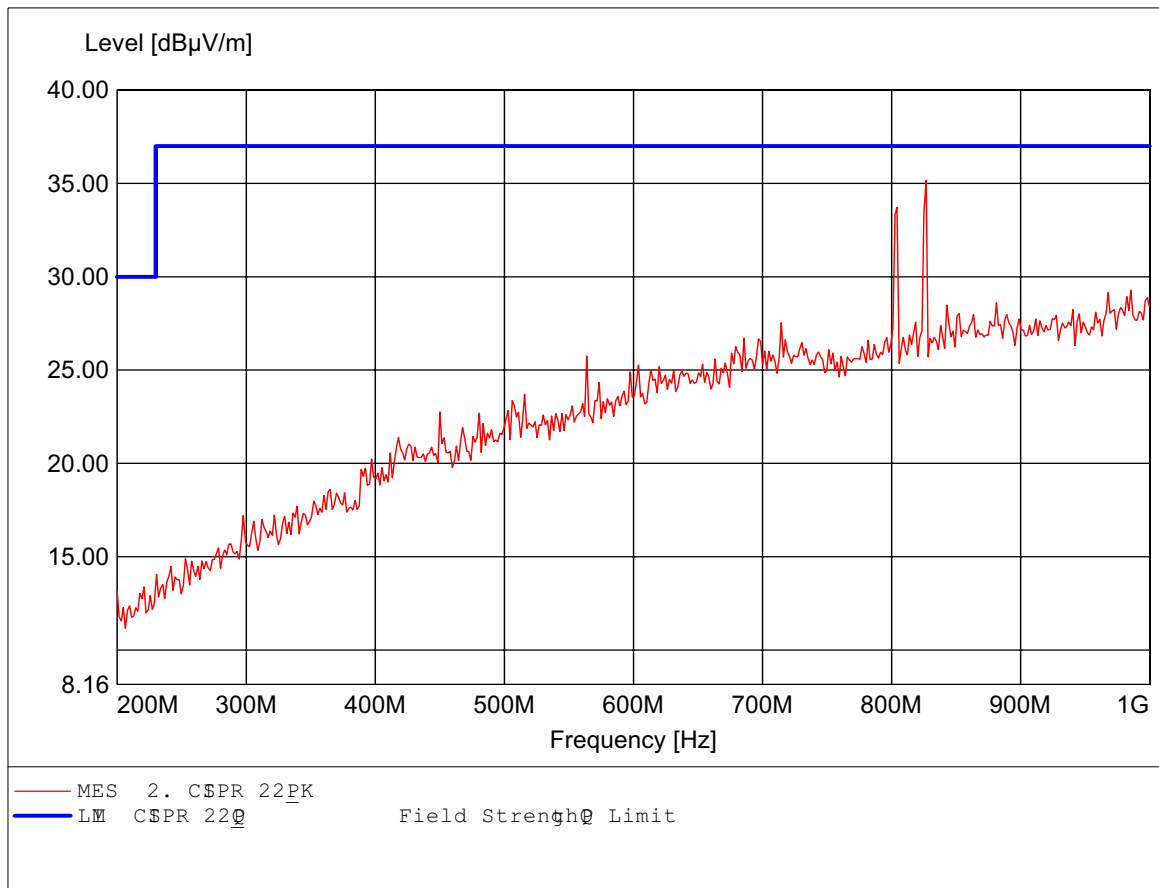
Spurious emissions under normal conditions
in accordance to the CISPR 22

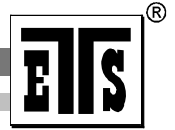
Order Number : W6M20512-6462 Digital
Test Site / Operator: ETS / Charles
Temperature: Temp.: 23.9°C
Test Specification: Fully Anechoic Chamber
Comment 1: Dist.: 3m, Ant.: HL 223
Freq:826.854MHz Emax:35.03dBμV/m RBW: 100 kHz



Spurious emissions under normal conditions
in accordance to the CISPR 22

Order n° :	W6M20512-6462	Digital
Test Site / Operator :	ETS / Charles	
Temperature :	Temp.: 23.9°C	
Test Specification :	Fully Aneco Chamber	
Comment 1 :	Dist.: 3m, Ant.: HL 223	
	Frequency: 826.854MHz Emax: 35.17dBμV/m RBW: 100 kHz	





Registration number: W6M20512-6462-P-15
FCC ID: TYNWV-3201D

Appendix D

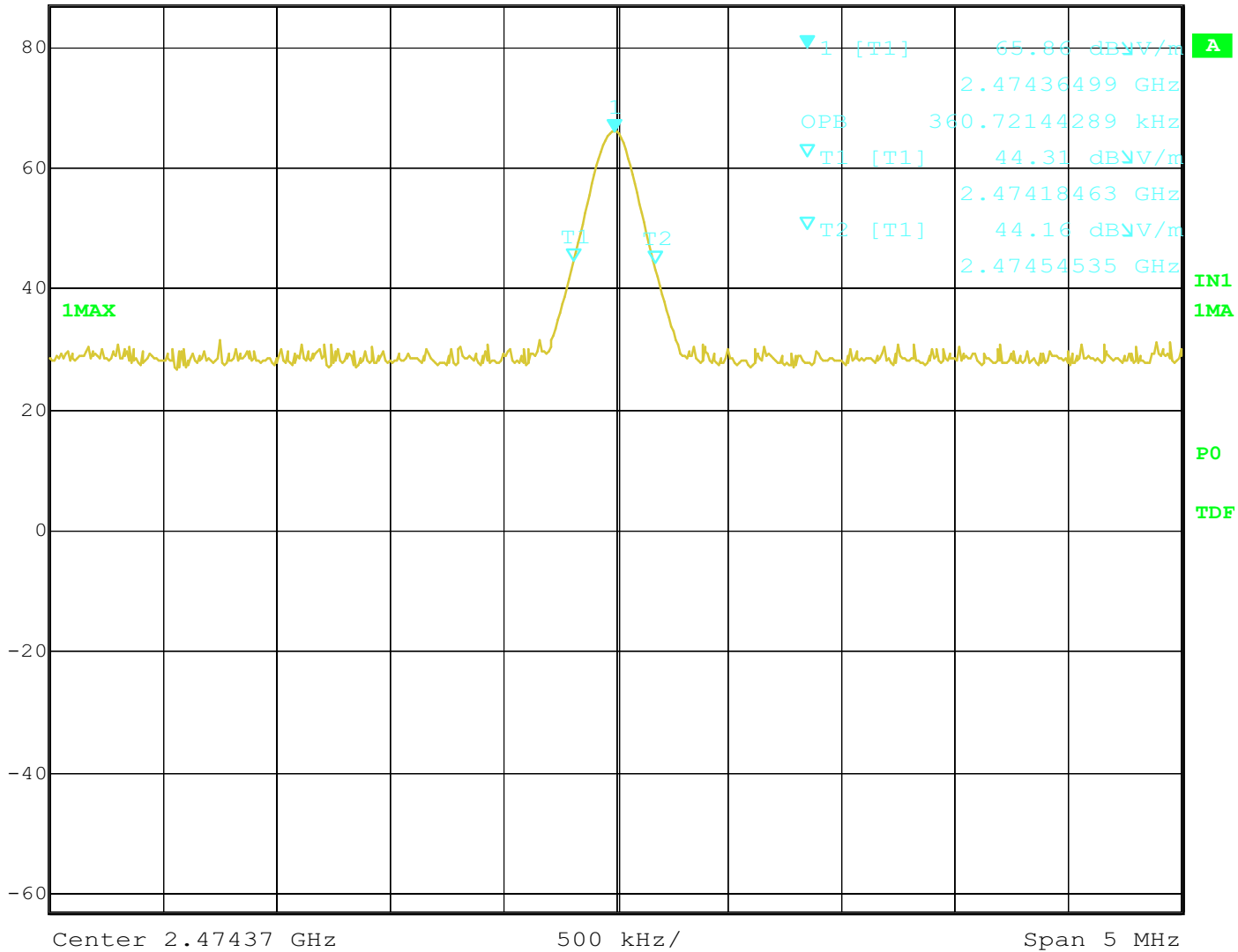
Bandwidth



Ref Lvl
87 dB*

Marker 1 [T1]
65.86 dBV/m
2.47436499 GHz

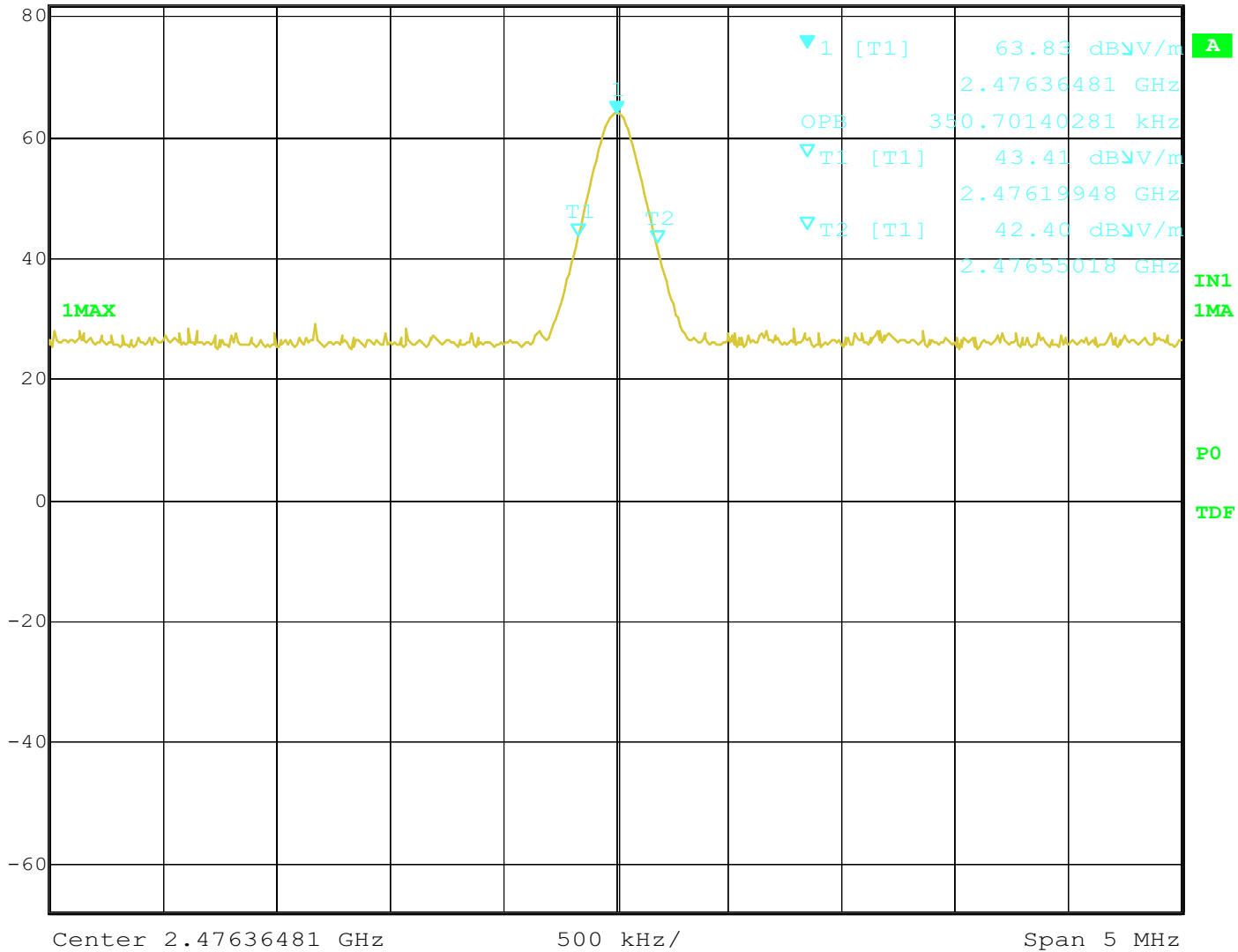
RBW 100 kHz RF Att 10 dB
VBW 100 kHz
SWT 200 ms Unit dBV/m



Date: 27.SEP.2006 10:21:32 audio mode



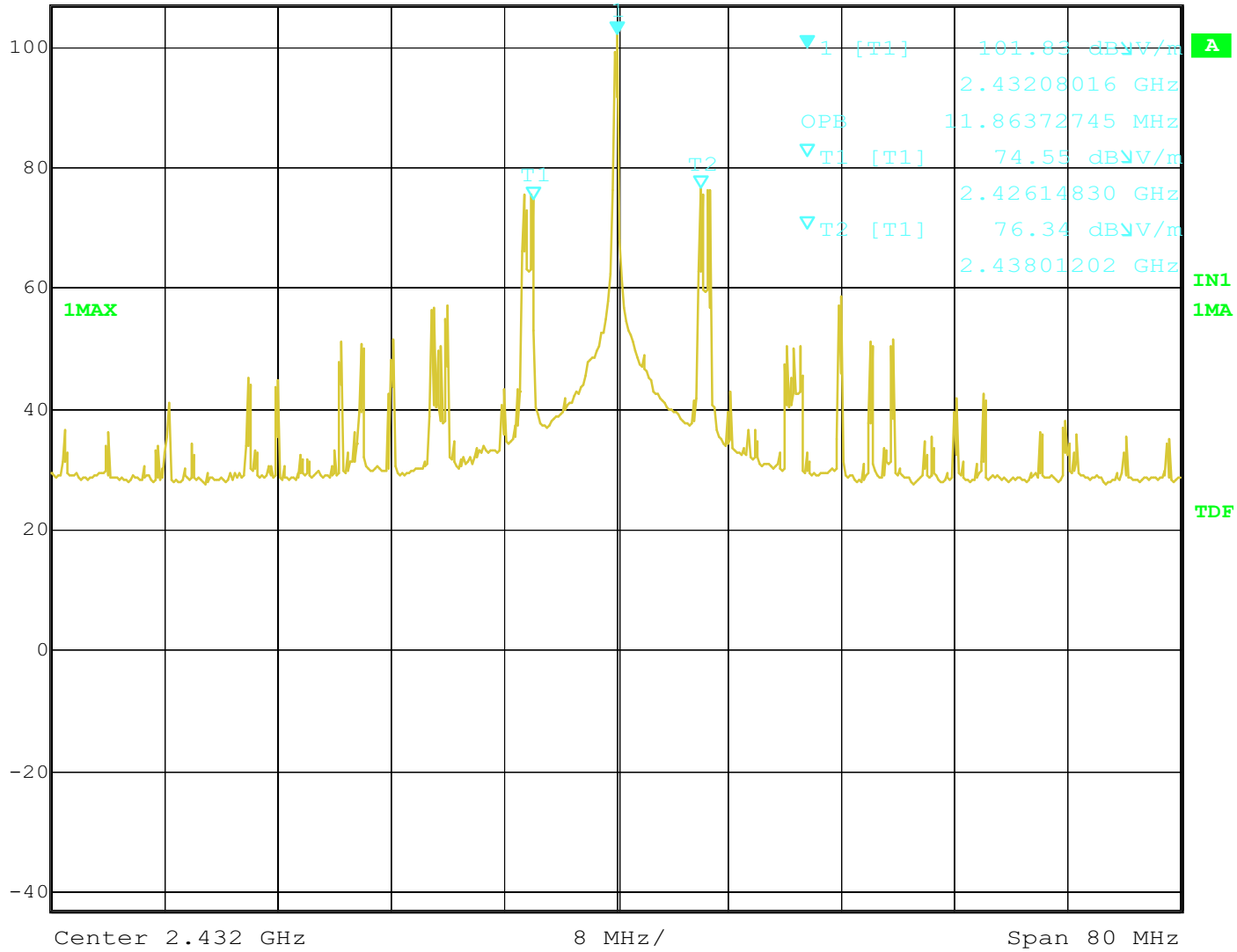
Ref Lvl 82 dB* Marker 1 [T1] RBW 100 kHz RF Att 10 dB
63.83 dBV/m VBW 100 kHz
2.47636481 GHz SWT 200 ms Unit dBV/m



Date: 27.SEP.2006 10:39:11 audio mode



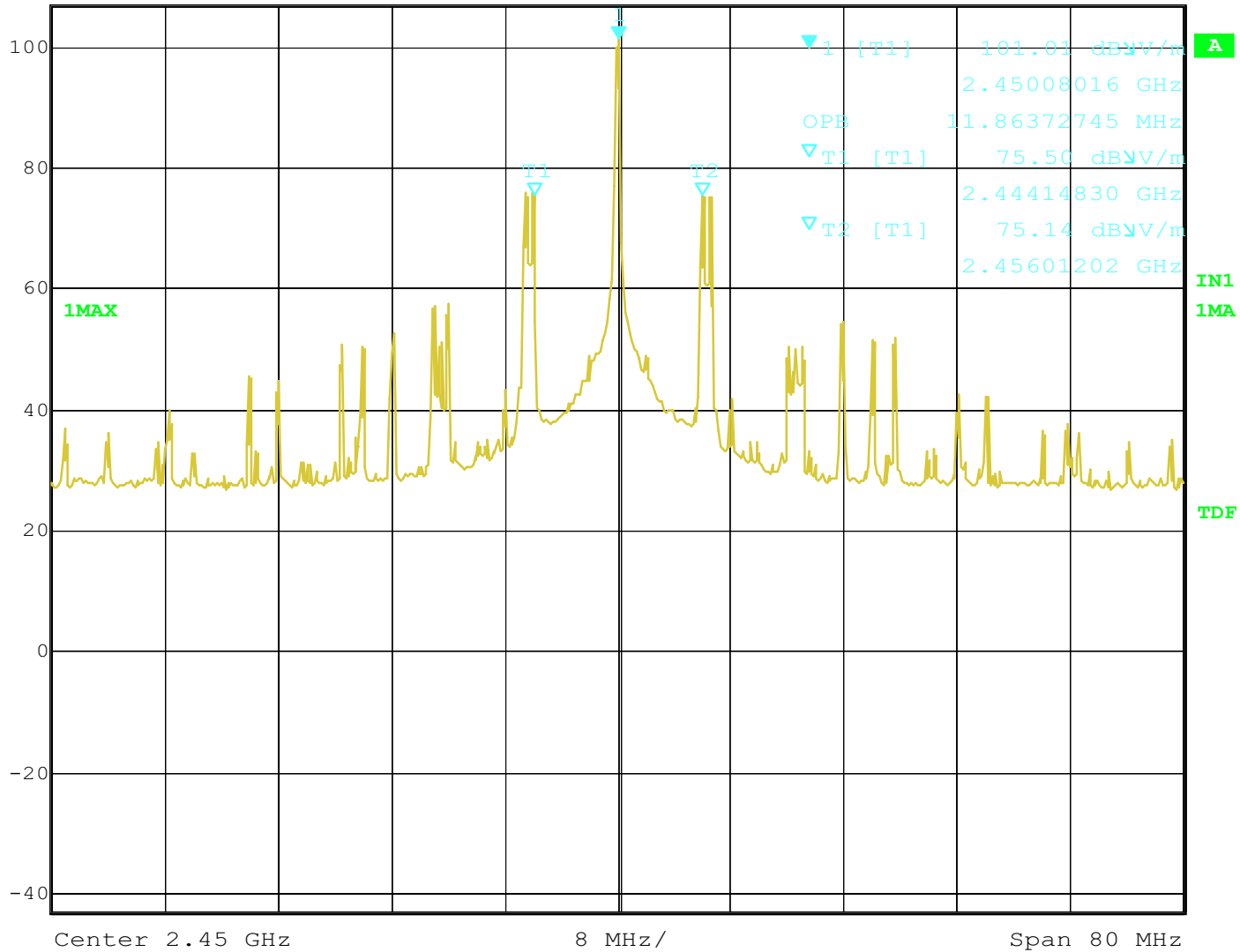
Marker 1 [T1] RBW 100 kHz RF Att 10 dB
Ref Lvl 101.83 dB μ V/m VBW 100 kHz
107 dB* 2.43208016 GHz SWT 200 ms Unit dB μ V/m



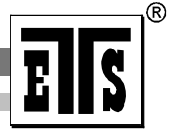
Date: 27.SEP.2006 09:58:36 video mode



Marker 1 [T1] RBW 100 kHz RF Att 10 dB
Ref Lvl 101.01 dBμV/m VBW 100 kHz
107 dB* 2.45008016 GHz SWT 200 ms Unit dBμV/m



Date: 27.SEP.2006 10:10:15 video mode



Registration number: W6M20512-6462-P-15
FCC ID: TYNWV-3201D

Appendix E

Pictures