

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 : ULUAT-6703T

Test report no.:

ETSTWM0608-00003-P-15

TABLE OF CONTENTS

1	GENERAL INFORMATION	2
1.1	NOTES	2
1.2	TESTING LABORATORY	3
1.2.1	Location	3
1.2.2	Details of accreditation status	3
1.3	DETAILS OF APPROVAL HOLDER	3
1.4	APPLICATION DETAILS	4
1.5	GENERAL INFORMATION OF TEST ITEM	4
1.6	TEST STANDARDS	5
2	TECHNICAL TEST	6
2.1	SUMMARY OF TEST RESULTS	6
2.2	TEST ENVIRONMENT	6
2.3	TEST EQUIPMENT LIST	7
2.4	GENERAL TEST PROCEDURE	9
3	TEST RESULTS (ENCLOSURE).....	10
3.1	PEAK OUTPUT POWER (TRANSMITTER)	11
3.2	EQUIVALENT ISOTROPIC RADIATED POWER	12
3.2.1	Transmitter	12
3.3	RF EXPOSURE COMPLIANCE REQUIREMENTS	12
3.4	OUT OF BAND RADIATED EMISSIONS	12
3.5	SPURIOUS EMISSION (TX)	13
3.6	RADIATED EMISSIONS FROM DIGITAL PART OF TRANSCEIVER	16
3.7	RADIATED EMISSION ON THE BAND EDGE	17
3.8	POWER LINE CONDUCTED EMISSION	18
	APPENDIX	19
	APPENDIX A	20
	APPENDIX B	21
	APPENDIX C	22
	APPENDIX D	23
	APPENDIX E	24
	APPENDIX F	25

Registration number: ETSTWM0608-00003-P-15
FCC ID: ULUAT-6703T

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:

Sept.22, 2006

Jay Chaing



Date

ETS-Lab.

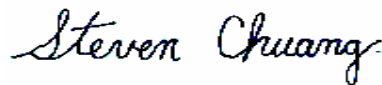
Name

Signature

Technical responsibility for area of testing:

Sept. 22, 2006

Steven Chuang



Date

ETS

Name

Signature

Registration number: ETSTWM0608-00003-P-15
FCC ID: ULUAT-6703T

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:	AROMA TECHNOLOGY CORPORATION
Street:	4F, No. 11, Lane 28, Sec.1 Huan-Shan Rd. Nei-Hu
Town:	Taipei
Country:	Taiwan, R.C.C.
Telephone:	+886-2 5559-1669
Fax:	+886-2 2658-7758
Teletex:	./.

Registration number: ETSTWM0608-00003-P-15

FCC ID: ULUAT-6703T

1.4 Application details

Date of receipt of application : Aug.31, 2006
Date of receipt of test item : Aug.31, 2006
Date of test : From Aug.31, 2006 to Sept.21, 2006

1.5 General information of Test item

Type of test item : Wireless Camera

Model Number : AT-6703T

Brand Name : AROMA

Serial number : AT-6103T, AT-6203T

Photos : see Annex

Technical data

Frequency band : 2.400-2.4835GHz

Operation Frequency : 2.414-2.468 GHz

Frequency 1 : 2.414 GHz

Frequency 2 : 2.432 GHz

Frequency 3 : 2.450 GHz

Frequency 4 : 2.468 GHz

Operation modes : simplex

Modulation Type : F8F

Antenna type : dipole antenna

Power supply Input : 100~240 VAC, 50~60Hz, 0.5A
 Output : 12VDC, 1A



Registration number: ETSTWM0608-00003-P-15
FCC ID: ULUAT-6703T

Manufacturer:

(if different from applicant)

Name : ./.
Street : ./.
Town : ./.
Country : ./.

Additional information : --

1.6 Test standards

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

Registration number: ETSTWM0608-00003-P-15

FCC ID: ULUAT-6703T

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 Input : 100~240 VAC, 50~60Hz, 0.5A
 Output : 12VDC, 1A

Extreme conditions parameters : Not required

Registration number: ETSTWM0608-00003-P-15

FCC ID: ULUAT-6703T

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
ETSTW-RE 043	ANTENNA	HL223	100166	R&S	2006/5/8	2008/5/7

Registration number: ETSTWM0608-00003-P-15

FCC ID: ULUAT-6703T

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

Registration number: ETSTWM0608-00003-P-15
FCC ID: ULUAT-6703T

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 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 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 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 integral antenna (see photo).

Registration number: ETSTWM0608-00003-P-15

FCC ID: ULUAT-6703T

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 checked="" type="checkbox"/>	<input checked="" 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.

Registration number: ETSTWM0608-00003-P-15

FCC ID: ULUAT-6703T

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		Transmitter field strength of fundamental	Transmitter field strength of harmonics
Frequency 1		[dB μ V/m]	
$T_{nom} = 23.9^{\circ} \text{ C}$	$V_{nom} = 120 \text{ V}$	69.29	--
Measurement uncertainty		< 3 dB	

Test conditions		Transmitter field strength of fundamental	Transmitter field strength of harmonics
Frequency 2		[dB μ V/m]	
$T_{nom} = 23.9^{\circ} \text{ C}$	$V_{nom} = 120 \text{ V}$	68.60	--
Measurement uncertainty		< 3 dB	

Test conditions		Transmitter field strength of fundamental	Transmitter field strength of harmonics
Frequency 3		[dB μ V/m]	
$T_{nom} = 23.9^{\circ} \text{ C}$	$V_{nom} = 120 \text{ V}$	68.96	--
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.

Registration number: ETSTWM0608-00003-P-15

FCC ID: ULUAT-6703T

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 Camera 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 fundamental

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: Please see attached diagram as appendix A.

Registration number: ETSTWM0608-00003-P-15

FCC ID: ULUAT-6703T

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 Hight (cm)
H	4827.935	49.68	4.50	PK	54.18	74	19.82	66	115
	4827.935	36.44	4.50	AV	40.94	54	13.06	66	115
	7242.204	46.05	7.20	PK	53.25	74	20.75	105	120

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 Hight (cm)
V	86.734	26.92	10.20	QP	37.12	40	2.88	275	208
	4828.567	52.70	4.50	PK	57.20	74	16.80	70	122
	4828.567	39.19	4.50	AV	43.69	54	10.31	70	122
	7242.645	48.43	7.20	PK	55.63	74	18.37	244	140
	7242.645	34.98	7.20	AV	42.18	54	11.82	244	140

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 Hight (cm)
H	4864.168	51.4	4.82	PK	56.22	74	17.78	72	118
	4864.168	38.05	4.82	AV	42.87	54	11.13	72	118
	7295.706	47.1	6.50	PK	53.6	74	20.4	108	122

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 Hight (cm)
V	86.422	27.00	10.20	QP	37.2	40	2.8	180	211
	4863.917	50.92	4.82	PK	55.74	74	18.26	90	120
	4863.917	37.39	4.82	AV	42.21	54	11.79	90	120
	7296.112	53.22	6.50	PK	59.72	74	14.28	250	138
	7296.112	39.58	6.50	AV	46.08	54	7.92	250	138

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 Hight (cm)
H	4936.312	51.43	4.79	PK	56.22	74	17.78	172	120
	4936.312	38.23	4.79	AV	43.02	54	10.98	172	120
	7398.739	47.40	6.20	PK	53.60	74	20.40	260	117

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 Hight (cm)
V	86.776	27.20	10.20	QP	37.40	40	2.60	200	201
	4935.801	50.11	4.79	PK	54.90	74	19.10	62	132
	4935.801	36.96	4.79	AV	41.75	54	12.25	62	132
	7404.491	51.46	6.14	PK	57.60	74	16.40	241	124
	7404.491	37.82	6.14	AV	43.96	54	10.04	241	124

- 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: ETSTWM0608-00003-P-15

FCC ID: ULUAT-6703T

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.

Remark: Please see attached diagram as appendix B.

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: ETSTWM0608-00003-P-15

FCC ID: ULUAT-6703T

3.6 Radiated Emissions from Digital Part

Summary table with radiated data of the test plots

Digital Part

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	85.959	16.95	9.16	QP	26.11	30.0	3.89	329	125
	127.094	14.82	13.10	QP	27.92	30.0	2.08	333	190
	146.513	8.06	14.43	QP	22.49	30.0	7.51	318	210
	228.857	3.61	12.52	QP	16.13	30.0	13.87	316	305
	515.831	4.02	20.33	QP	24.35	37.0	12.65	127	55
	943.887	4.24	27.72	QP	31.96	37.0	5.04	111	135

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	30.000	14.91	12.30	QP	27.21	30.0	2.79	110	210
	55.891	14.40	12.65	QP	27.05	30.0	2.95	105	295
	126.753	11.70	13.09	QP	24.79	30.0	5.21	132	310
	515.831	3.99	20.33	QP	24.32	37.0	12.68	314	355
	948.697	2.19	27.80	QP	29.99	37.0	7.01	308	90

- 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

Remark: Please see attached diagram as appendix C.

Registration number: ETSTWM0608-00003-P-15

FCC ID: ULUAT-6703T

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 (2400 and 2483.5 MHz). It meets the requirement of section 15.249(d).

Test conditions Tnom = 23°C, Vnom = 120V Frequency [MHz]	Transmitter field strength of Radiated Emission (Peak Detector)	Transmitter field strength of Radiated Emission (Average Detector)
	[dBμV/m]	
2400	24.63	--
2483.5	24.83	--

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: Please see attached diagram as appendix D.

Registration number: ETSTWM0608-00003-P-15

FCC ID: ULUAT-6703T

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

LISN type	Frequency Marker	Corrected Reading (dBuV)		Correction Factor	Test Result (dBuV)		Compliance Limit (dBuV)		Margin (dB)	
N	MHz	QP	AV	dB	QP	AV	QP	AV	QP	AV
	0.450	19.16	1.85	10.10	29.26	11.95	56.87	46.87	27.61	34.92
	0.730	11.29	2.64	10.10	21.39	12.74	56.00	46.00	34.61	33.26
	2.370	8.77	3.37	10.10	18.87	13.47	56.00	46.00	37.13	32.53

LISN type	Frequency Marker	Corrected Reading (dBuV)		Correction Factor	Test Result (dBuV)		Compliance Limit (dBuV)		Margin (dB)	
L1	MHz	QP	AV	dB	QP	AV	QP	AV	QP	AV
	0.470	22.69	2.28	10.10	32.79	12.38	56.51	46.51	23.72	34.13
	1.070	9.89	2.78	10.10	19.99	12.88	56.00	46.00	36.01	33.12
	1.640	8.11	1.46	10.10	18.21	11.56	56.00	46.00	37.79	34.44

Note: 1. The formula of measured value as: Test Result = Corrected Reading + Correction Factor

2. The Correction Factor = Cable Loss + LISN Insertion Loss + Pulse Limit Loss

3. Detector function in the form : P = Peak, QP = Quasi Peak, AV = Average

Limits:

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

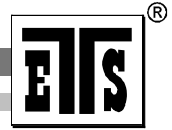
Test equipment used: ETSTW-CE 001, ETSTW-CE 003, ETSTW-RE 004, ETSTW-RE 006

Remark: Please see attached diagram as appendix E.

Registration number: ETSTWM0608-00003-P-15
FCC ID: ULUAT-6703T

Appendix

- A Fundamental Field Strength
- B Spurious Emissions radiated
- C Radiated Emission from Digital Part
- D Radiated Emission on the band edge
- E Power Line Conducted Emission
- F Pictures



Registration number: ETSTWM0608-00003-P-15
FCC ID: ULUAT-6703T

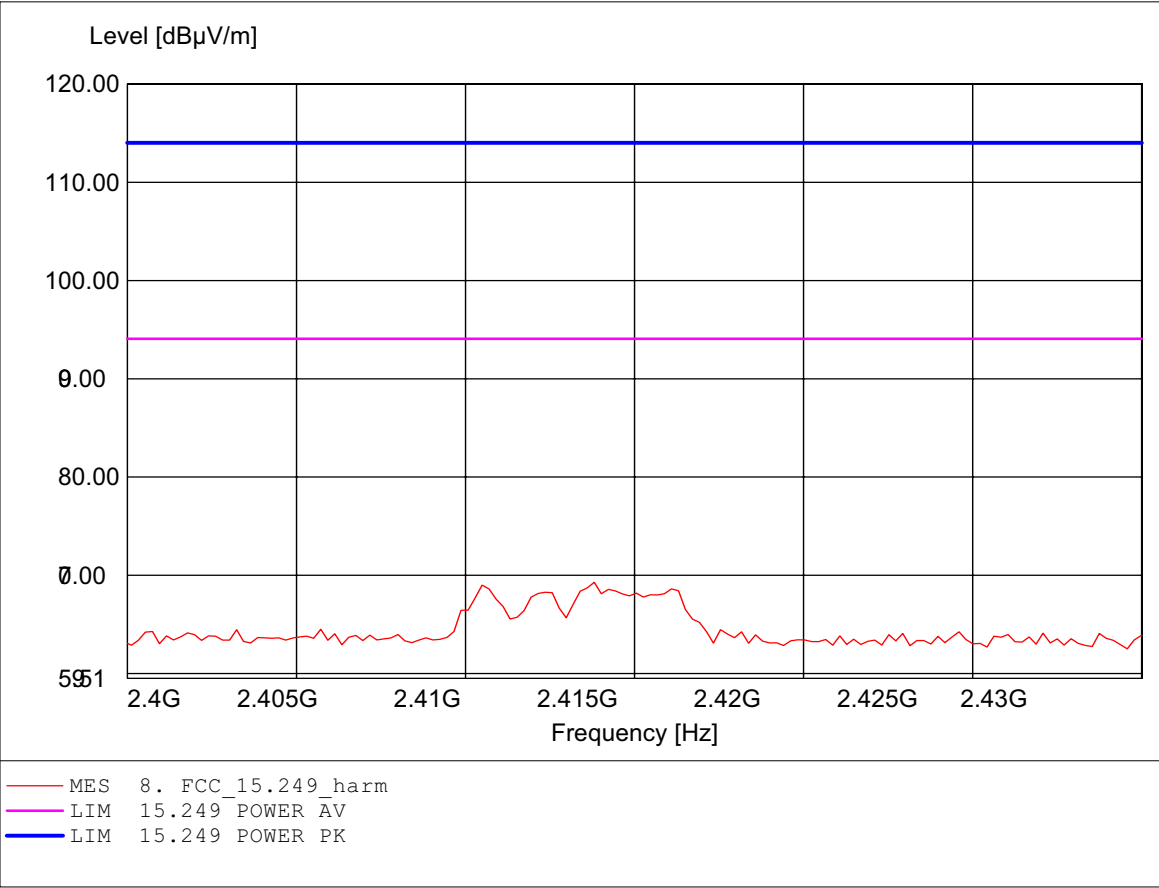
Appendix A

Fundamental Field Strength

Carrier power (Field Strength)

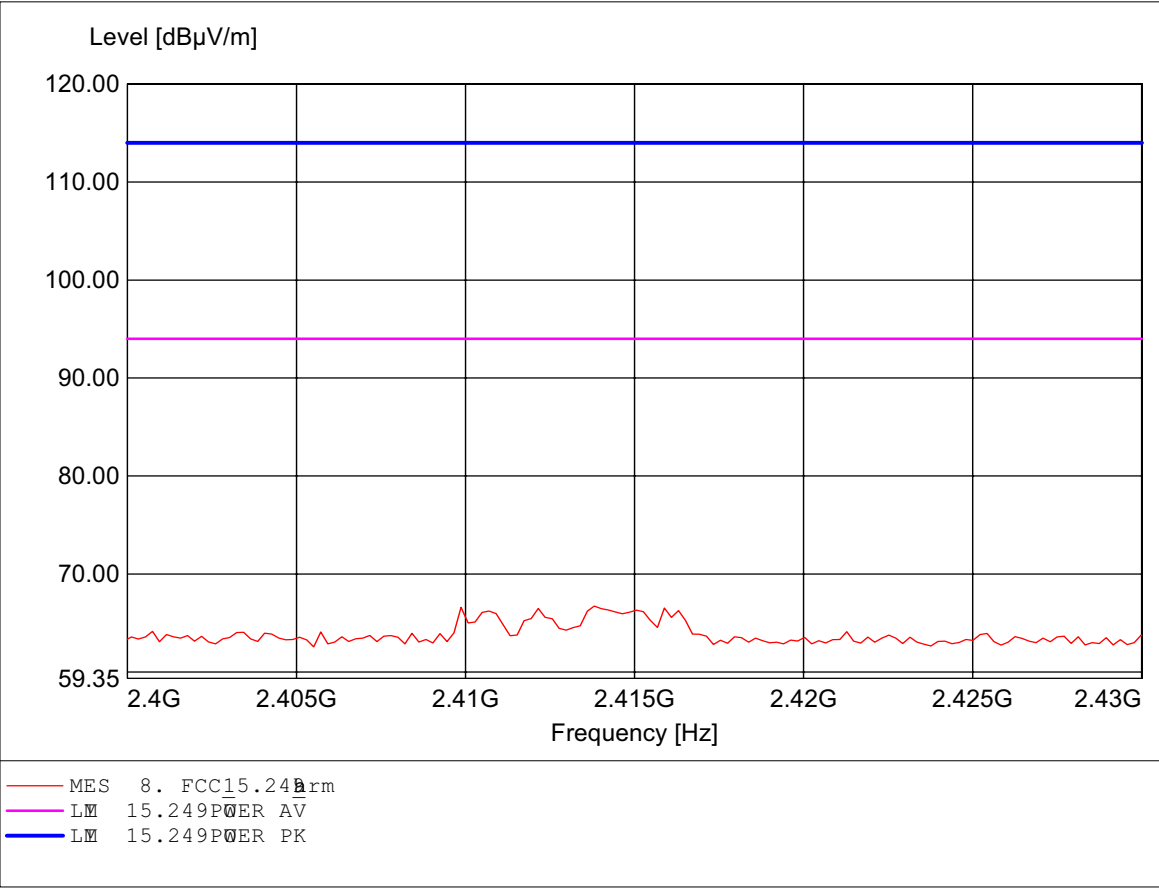
FCC RULES PART 15, SUBPART C / LP0002

Order Number: ETSTWM0608-00003 Low Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249
Comment 1: Dist.: 3m, Ant.: HL025
Freq: 2.414GHz, Emax: 69.29dBµV/m, RBW: 1MHz



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

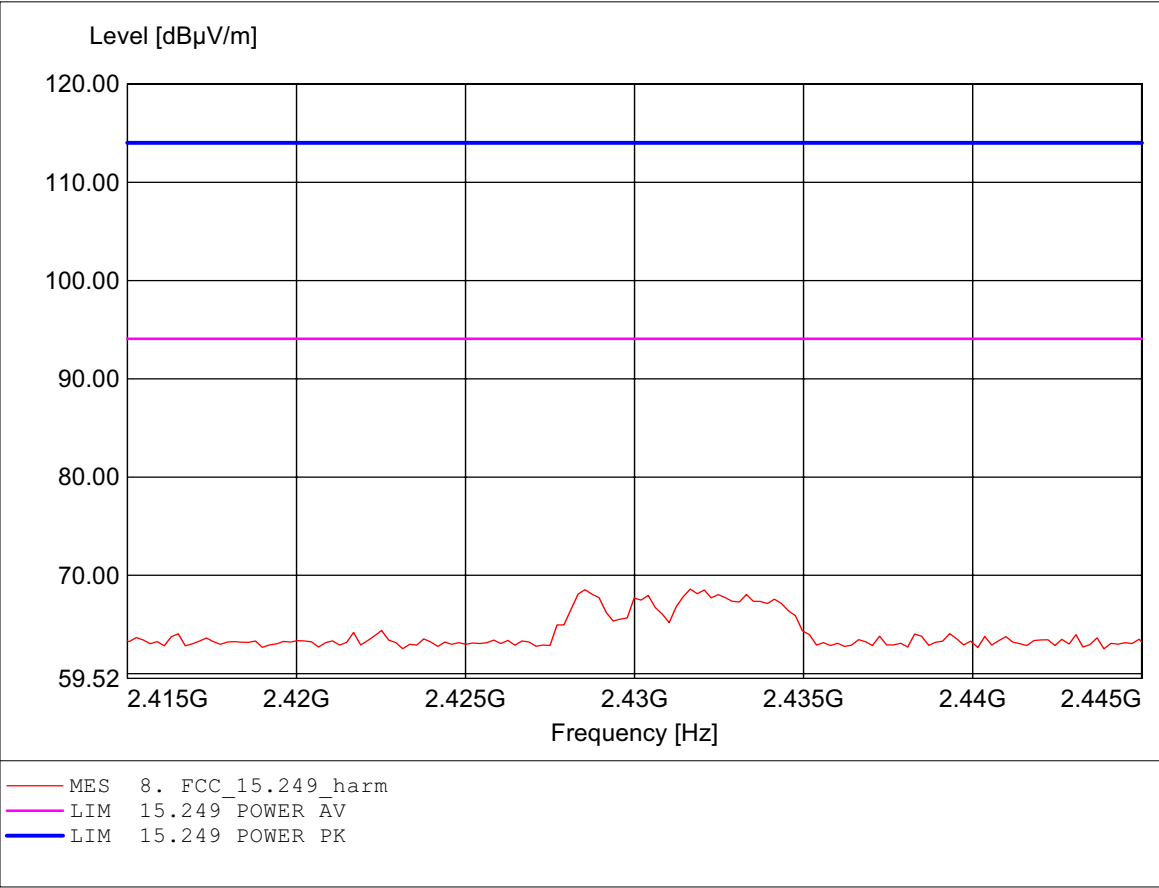
Order Number: ETSTWM0608-00003 Low Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249
Comment 1: Dist.: 3m, Ant.: HL025
Freq: 2.414GHz, Emax: 66.72dBµV/m, RBW: 1MHz



Carrier power (Field Strength)

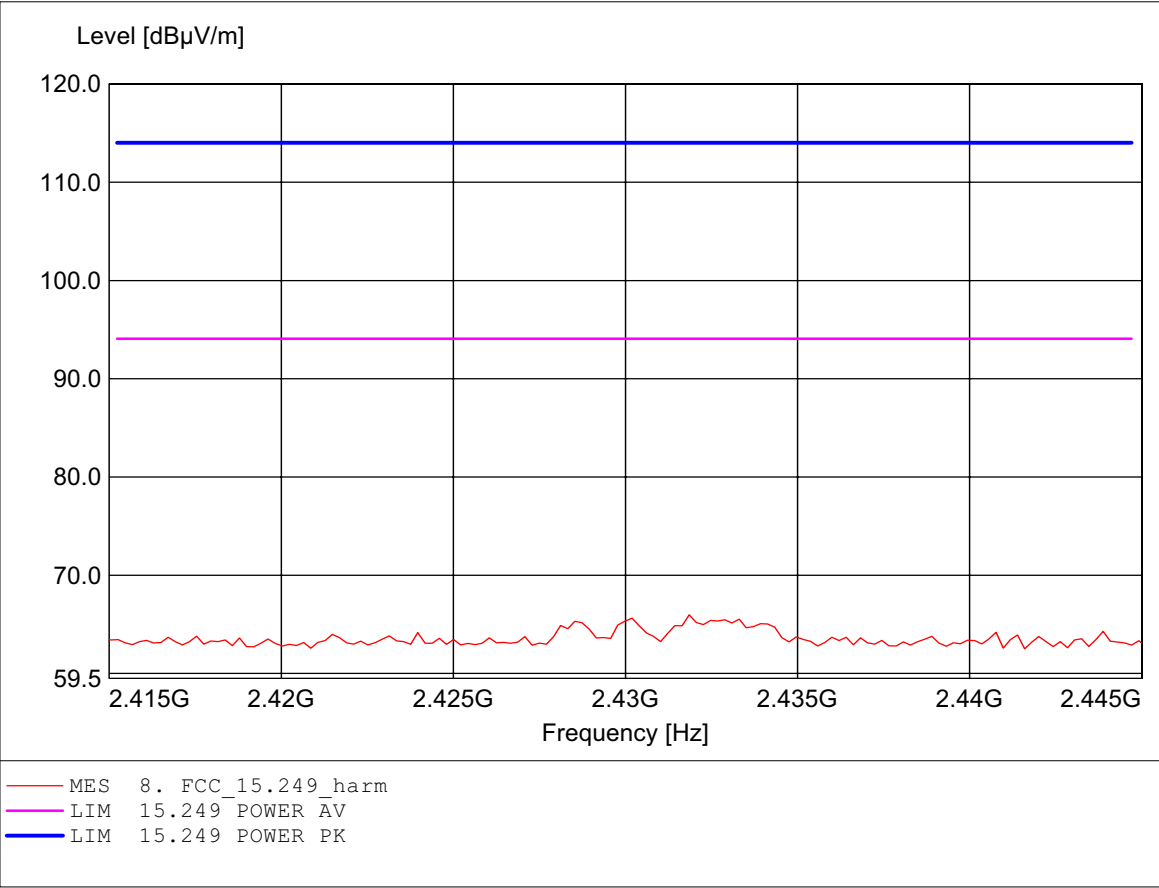
FCC RULES PART 15, SUBPART C / LP0002

Order Number: ETSTWM0608-00003 Middle Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249
Comment 1: Dist.: 3m, Ant.: HL025
Freq: 2.432GHz, Emax: 68.60dBµV/m, RBW: 1MHz



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

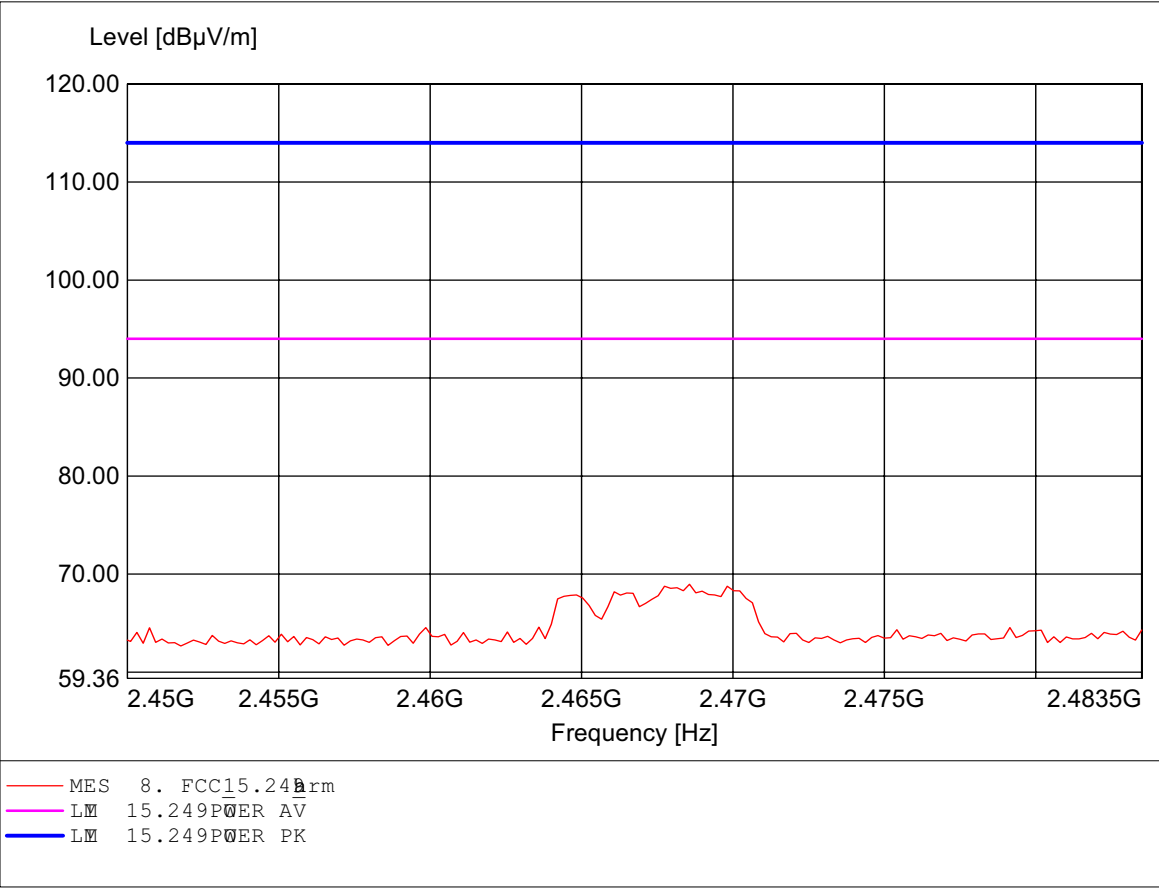
Order Number: ETSTWM0608-00003 Middle Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249
Comment 1: Dist.: 3m, Ant.: HL025
Freq: 2.432GHz, Emax: 65.97dBµV/m, RBW: 1MHz



Carrier power (Field Strength)

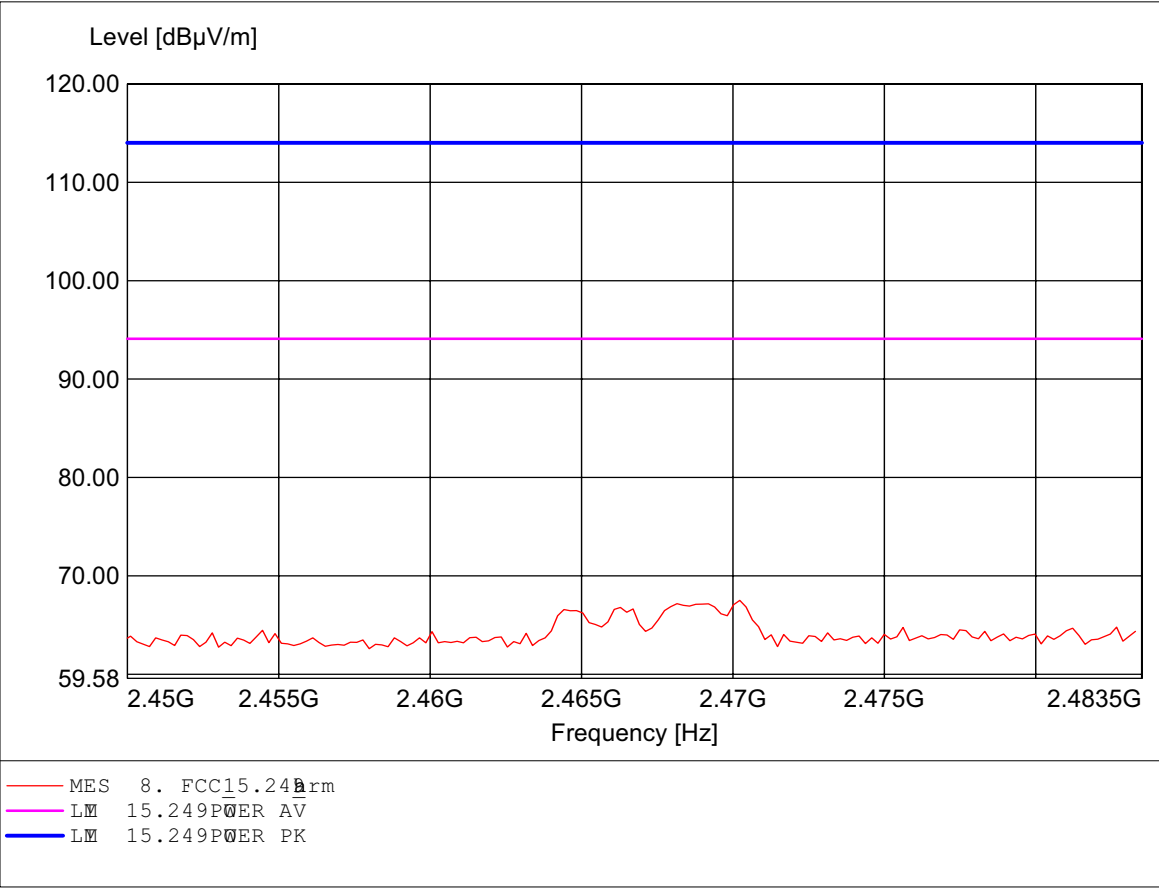
FCC RULES PART 15, SUBPART C / LP0002

Order Nbr: ETSTWM0608-00003 HighChannel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.0
Test Specification: according to 15.249
Comment 1: Dist.: 3m, Ant.: HL025
Freq 2.469Hz, Emax 68.0dBμV/m, RBW: 1MHz



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

Order Nbr: ETSTWM0608-00003 HighChannel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.0
Test Specification: according to 15.249
Comment 1: Dist.: 3m, Ant.: HL025
Freq 2.470GHz, Emax 67.50dBμV/m, RBW: 1MHz





Registration number: ETSTWM0608-00003-P-15
FCC ID: ULUAT-6703T

Appendix B

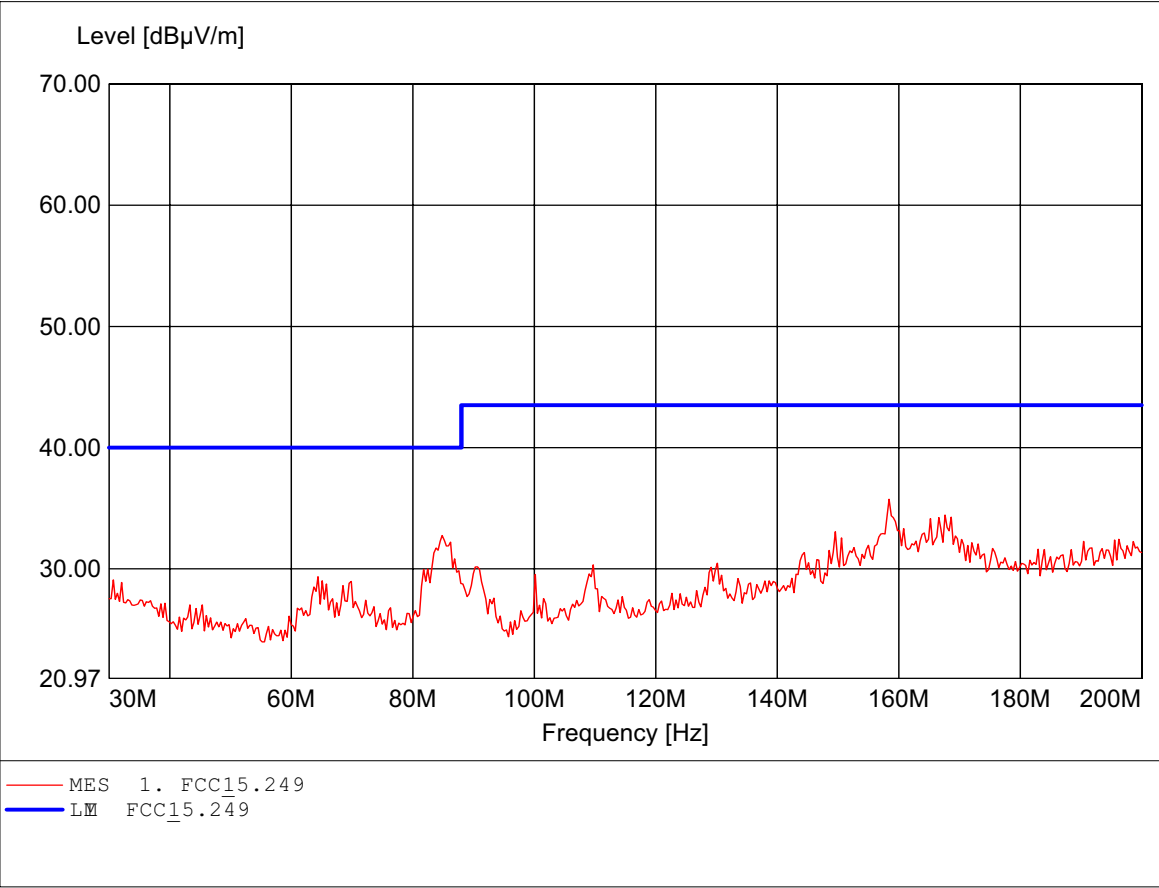
Spurious Emissions radiated

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

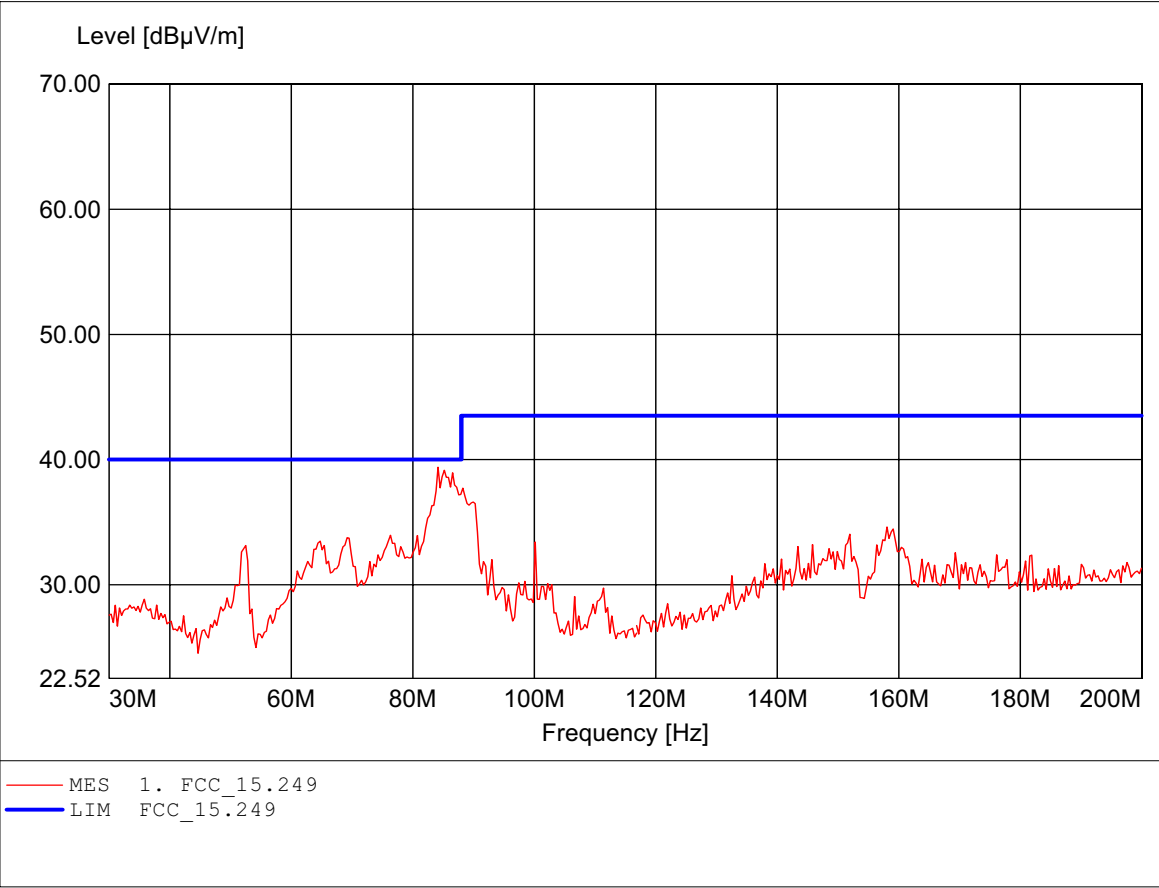
FCC RULES PART 15, SUBPART C / LP0002

Order No: ETSTWM0608-00003 LoChannel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.0
Test Specification: according to §5.249
Comment 1: Dist.: 3m, Ant.: HK116
Freq 158.437MHz, Emax 35.74dBµV/m, RBW: 100kHz



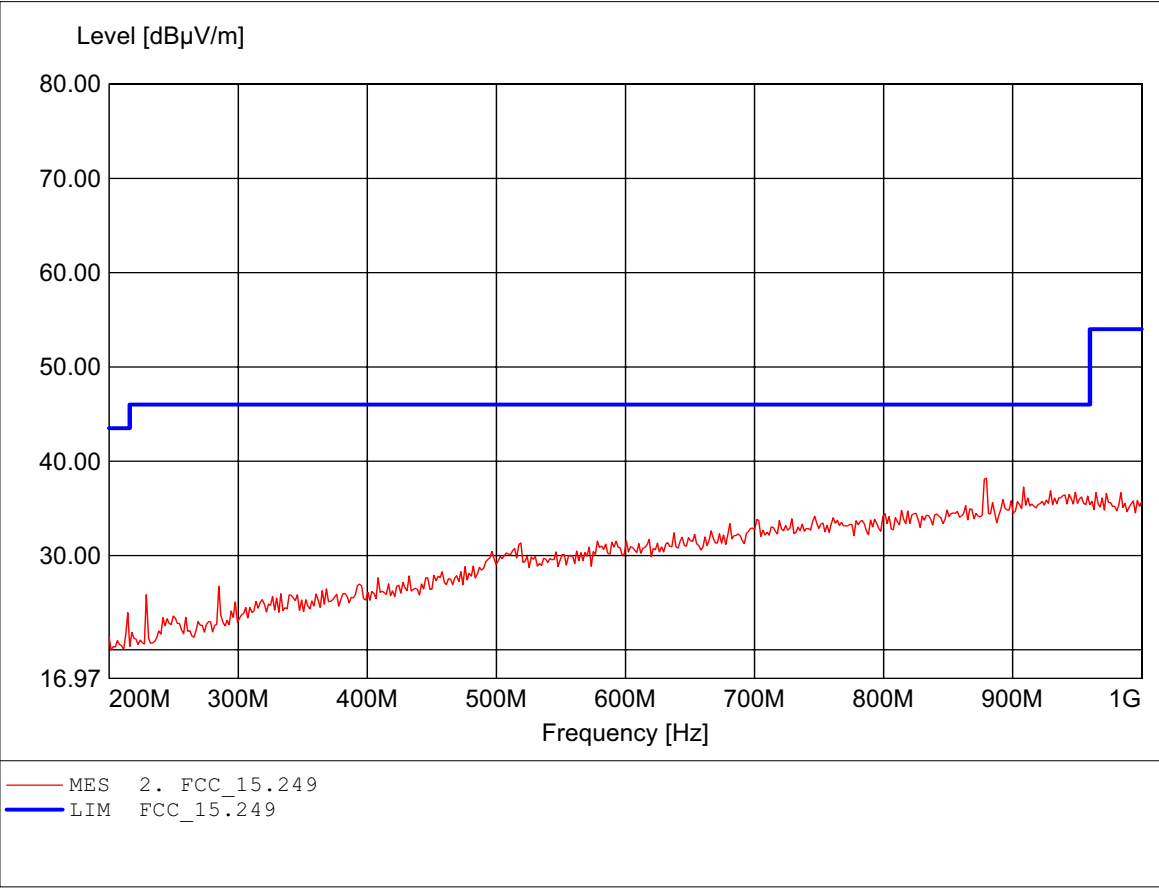
Spurious Emissions Field Strength
FCC RULES PART 15, SUBPART C / LP0002

Order Number: ETSTWM0608-00003 Low Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249
Comment 1: Dist.: 3m, Ant.: HK 116
Freq: 84.168MHz, Emax: 39.39dBµV/m, RBW: 100kHz



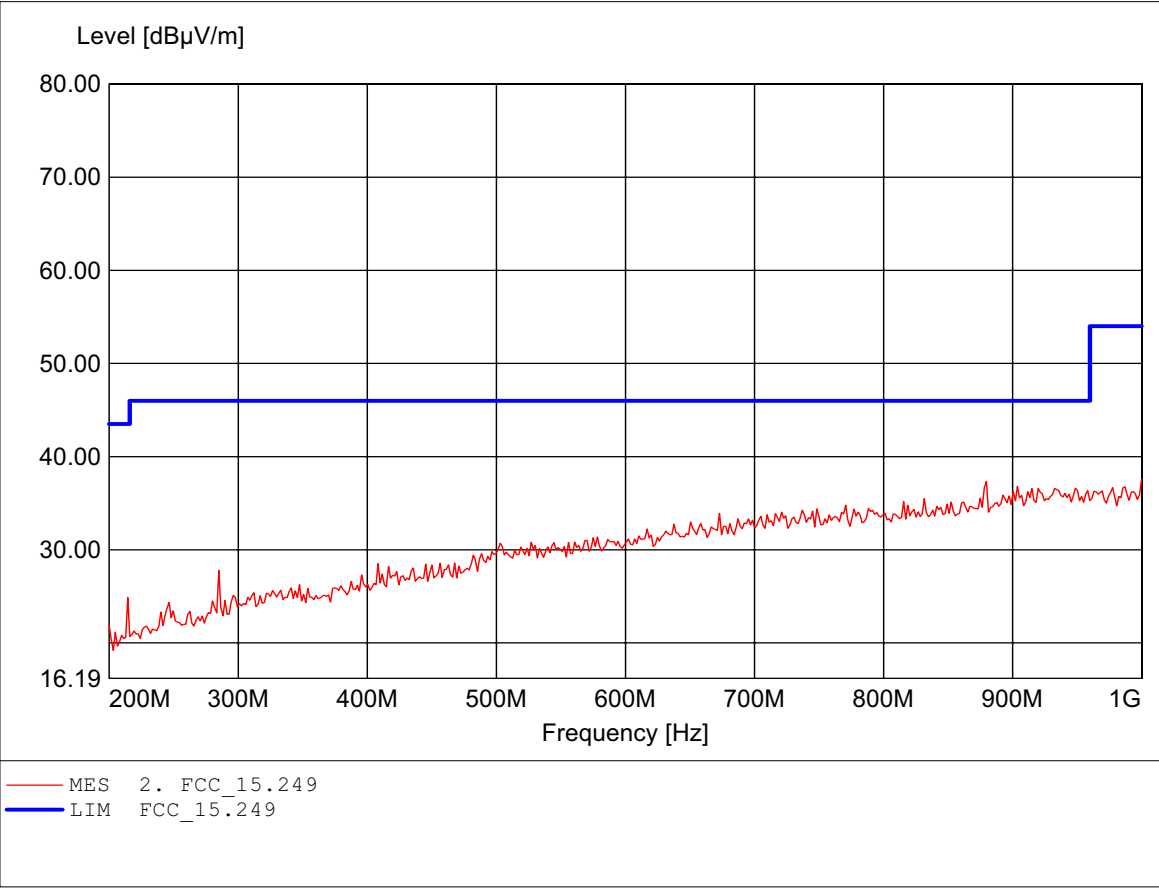
Spurious Emissions Field Strength
FCC RULES PART 15, SUBPART C / LP0002

Order Number: ETSTWM0608-00003 Low Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249
Comment 1: Dist.: 3m, Ant.: HL 223, amplif.
Freq: 879.760MHz, Emax: 38.19dBµV/m, RBW: 100kHz



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

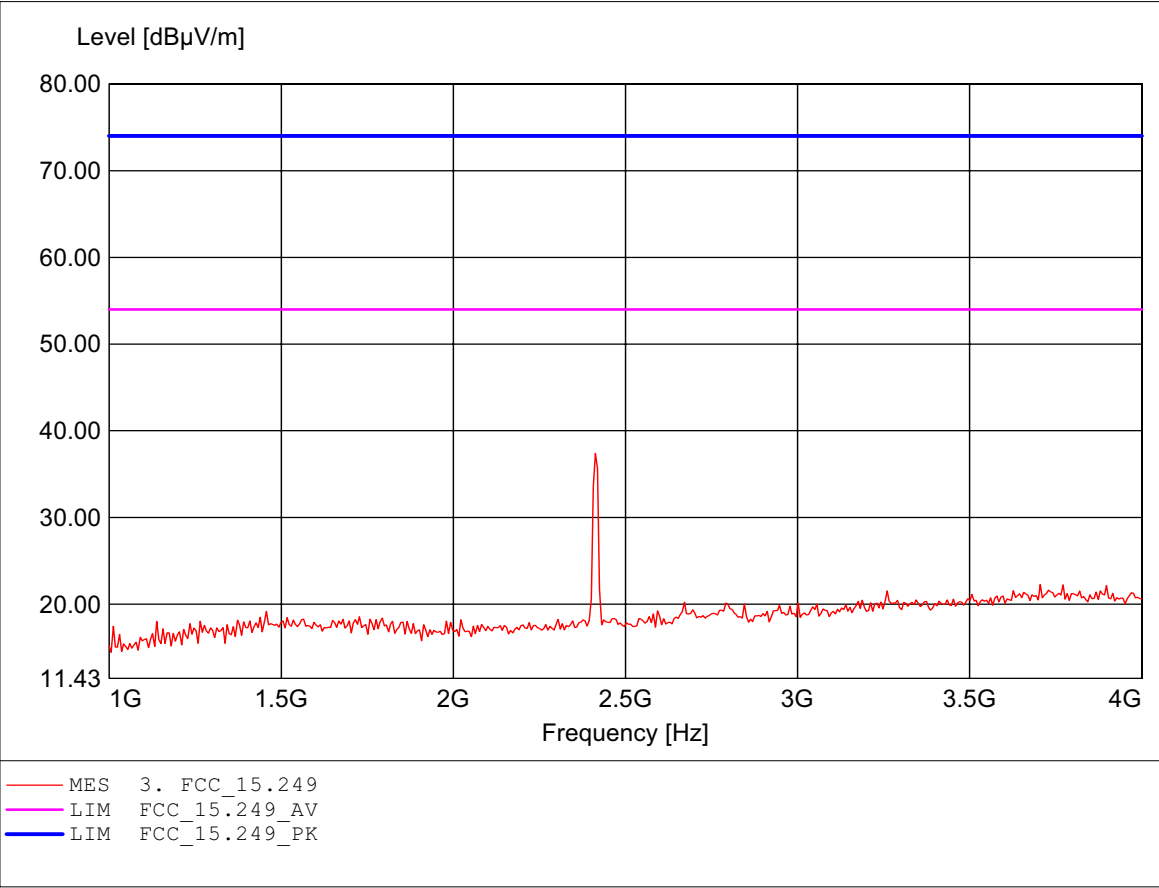
Order Number: ETSTWM0608-00003 Low Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249
Comment 1: Dist.: 3m, Ant.: HL 223, amplif.
Freq: 1.000GHz, Emax: 37.57dBµV/m, RBW: 100kHz



Spurious Emissions Field Strength

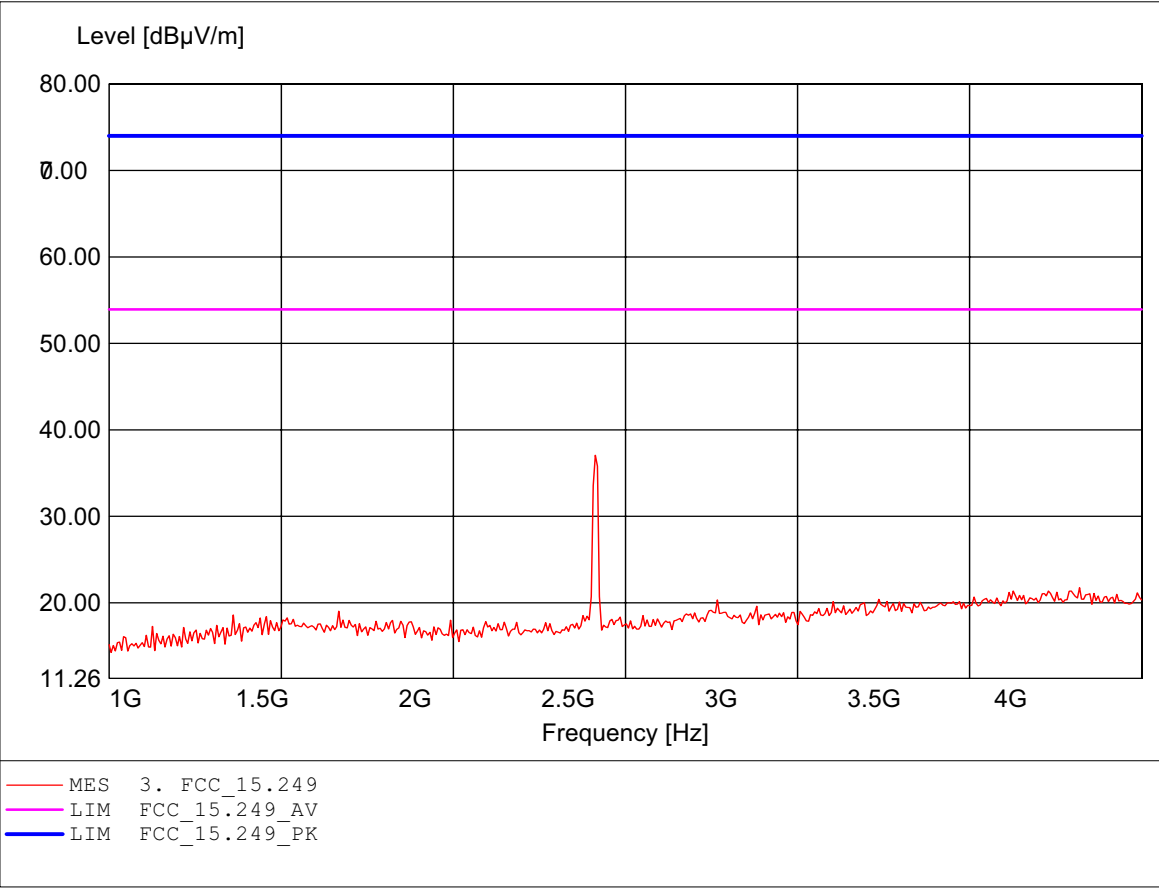
FCC RULES PART 15, SUBPART C / LP0002

Order Number: ETSTWM0608-00003 Low Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 2.413GHz, Emax: 37.38dBµV/m, RBW: 1MHz



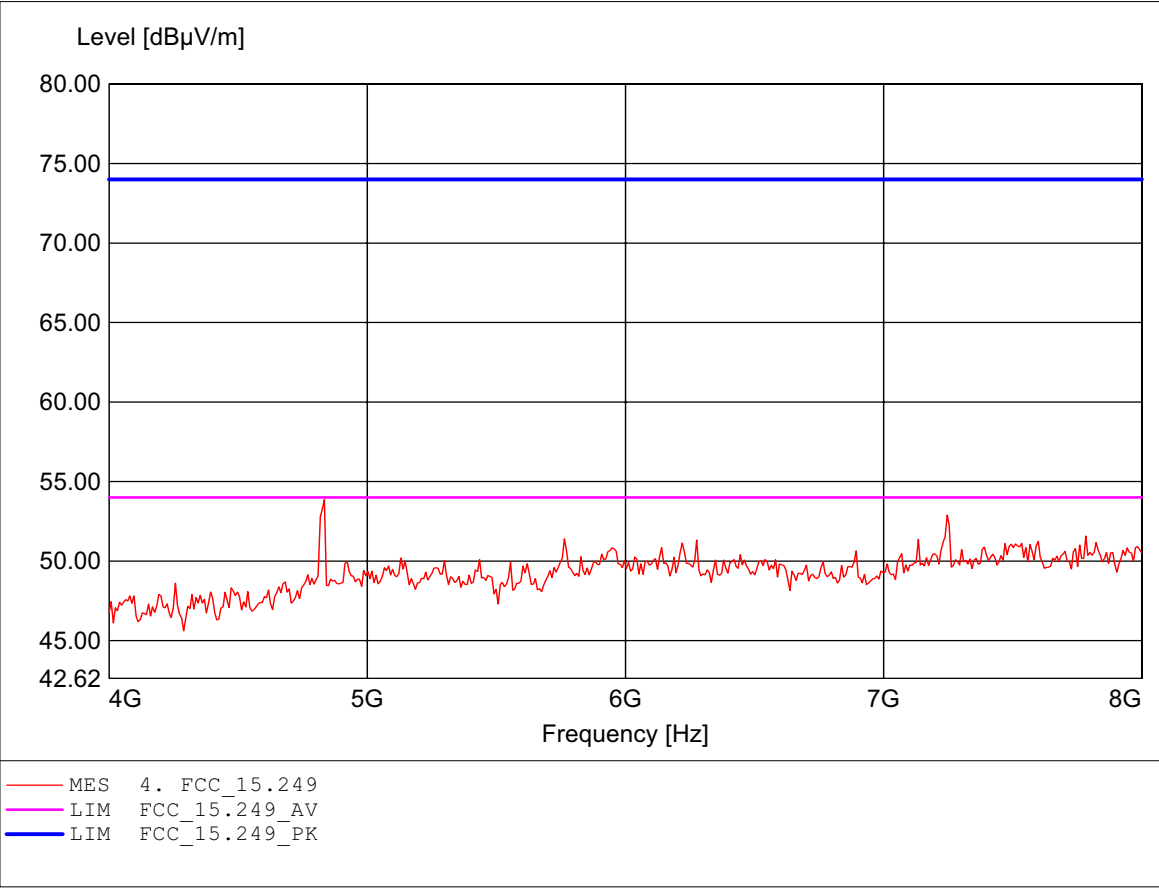
Spurious Emissions Field Strength
FCC RULES PART 15, SUBPART C / LP0002

Order Number: ETSTWM0608-00003 Low Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 2.413GHz, Emax: 37.06dBµV/m, RBW: 1MHz



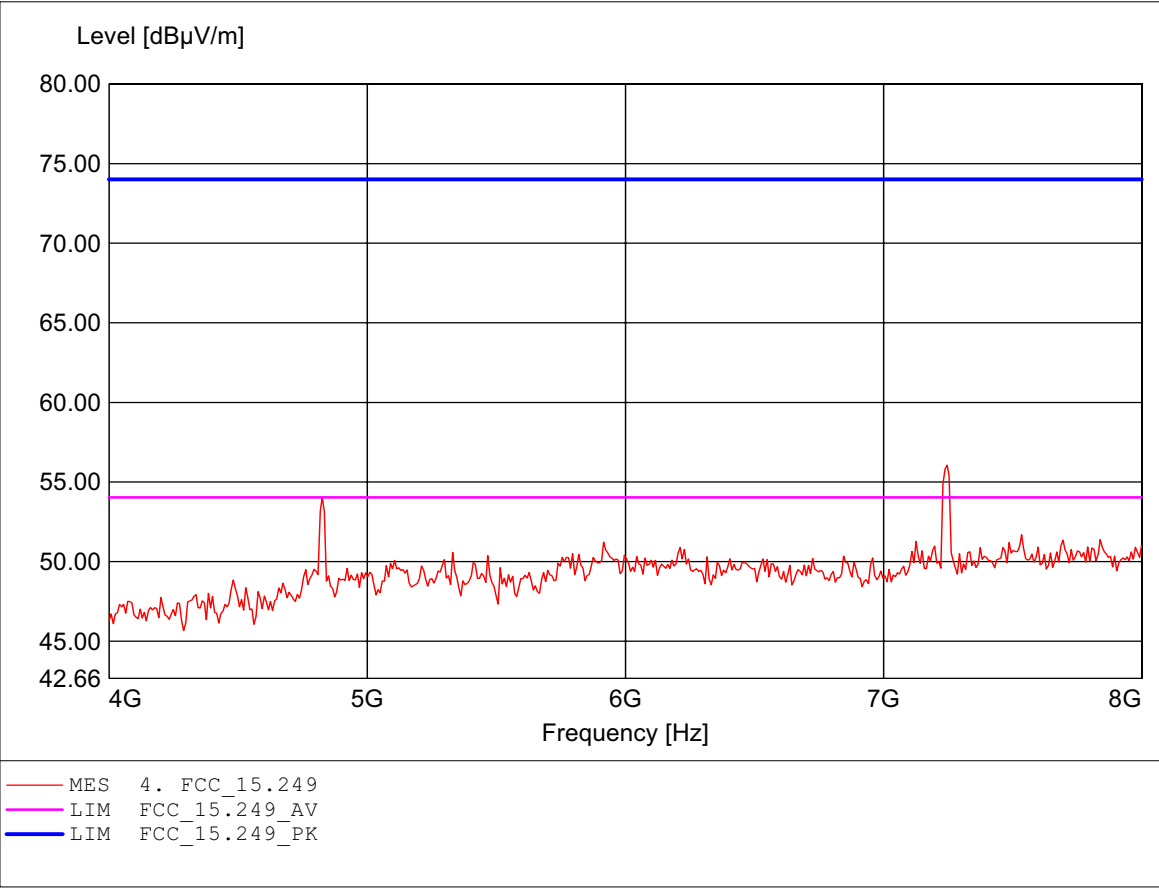
Spurious Emissions Field Strength
FCC RULES PART 15, SUBPART C / LP0002

Order Number: ETSTWM0608-00003 Low Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 4.834GHz, Emax: 53.85dBµV/m, RBW: 1MHz



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

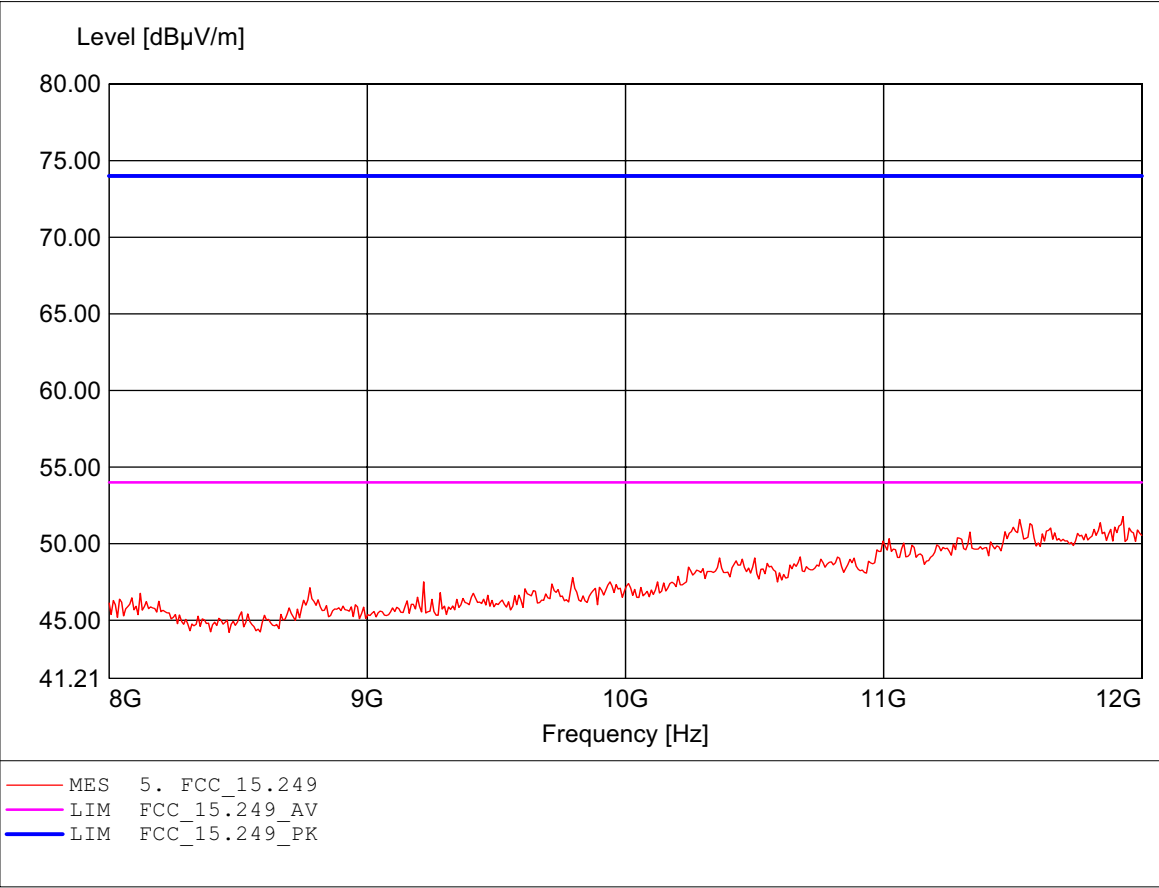
Order Number: ETSTWM0608-00003 Low Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 7.246GHz, Emax: 56.06dBµV/m, RBW: 1MHz



Spurious Emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

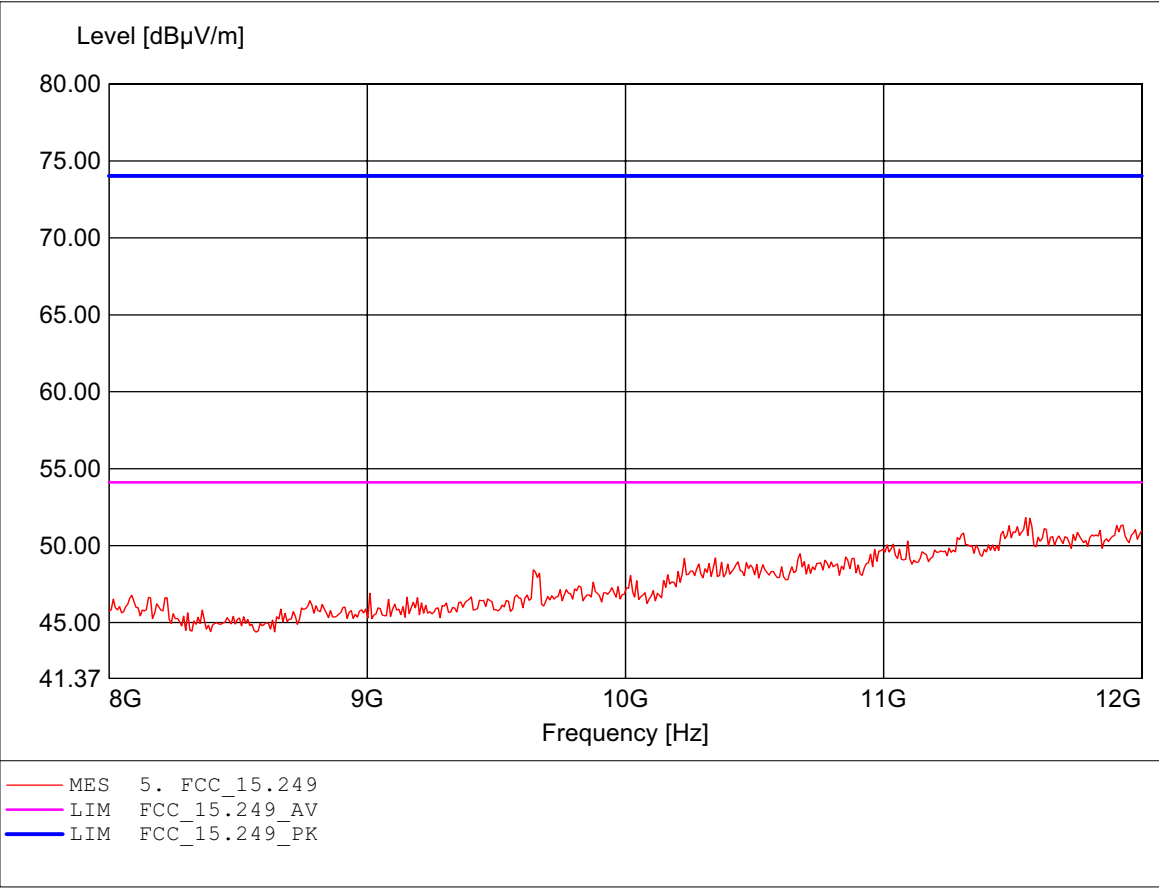
Order Number: ETSTWM0608-00003 Low Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 11.928GHz, Emax: 51.76dBµV/m, RBW: 1MHz



Spurious Emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

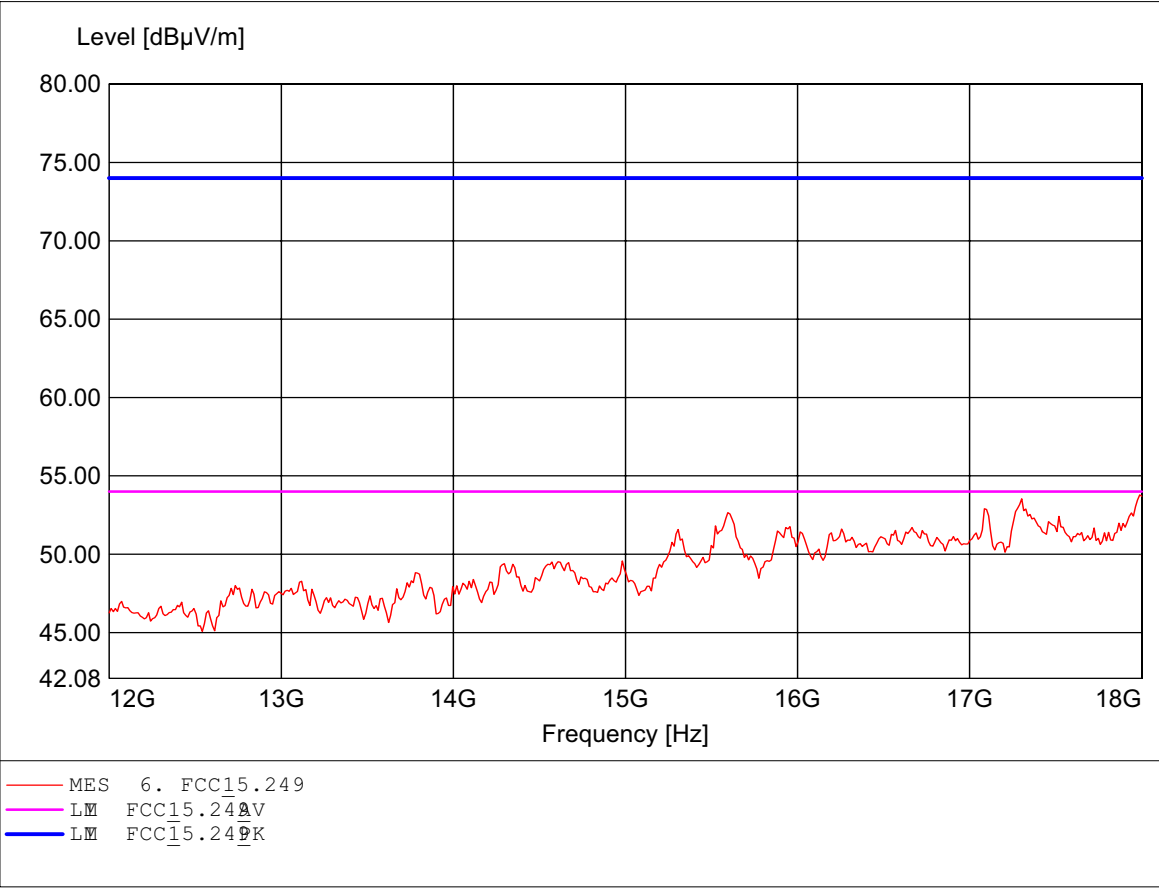
Order Number: ETSTWM0608-00003 Low Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 11.551GHz, Emax: 51.82dBµV/m, RBW: 1MHz



Spurious Emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

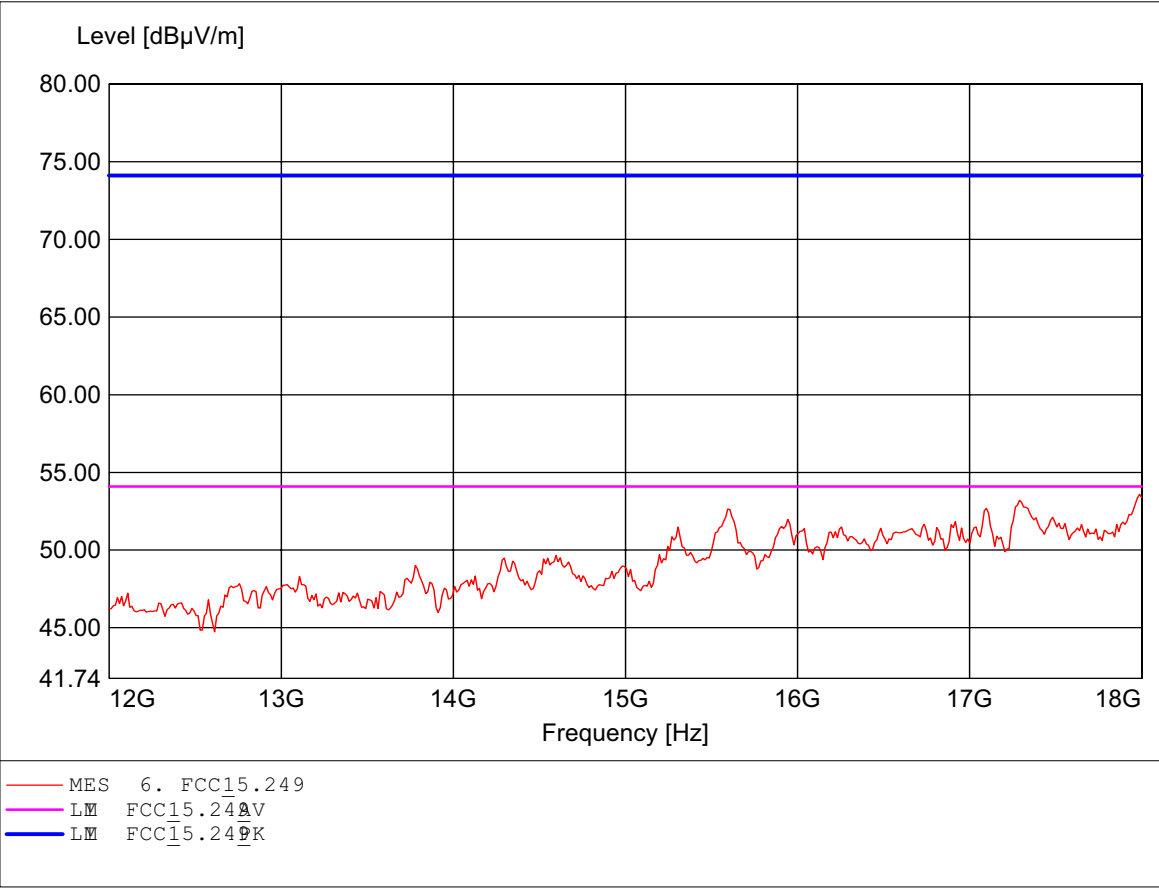
Order Nbr: ETSTWM0608-00003 LoChannel
Test Site / Operato: ETS / Catey
Temperature: Temp.: 23.0
Test Specification: according to 5.249 peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl. HP.
Freq 17.98GHz, Emax 53.78dBV/m, RBW: 1MHz



Spurious Emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

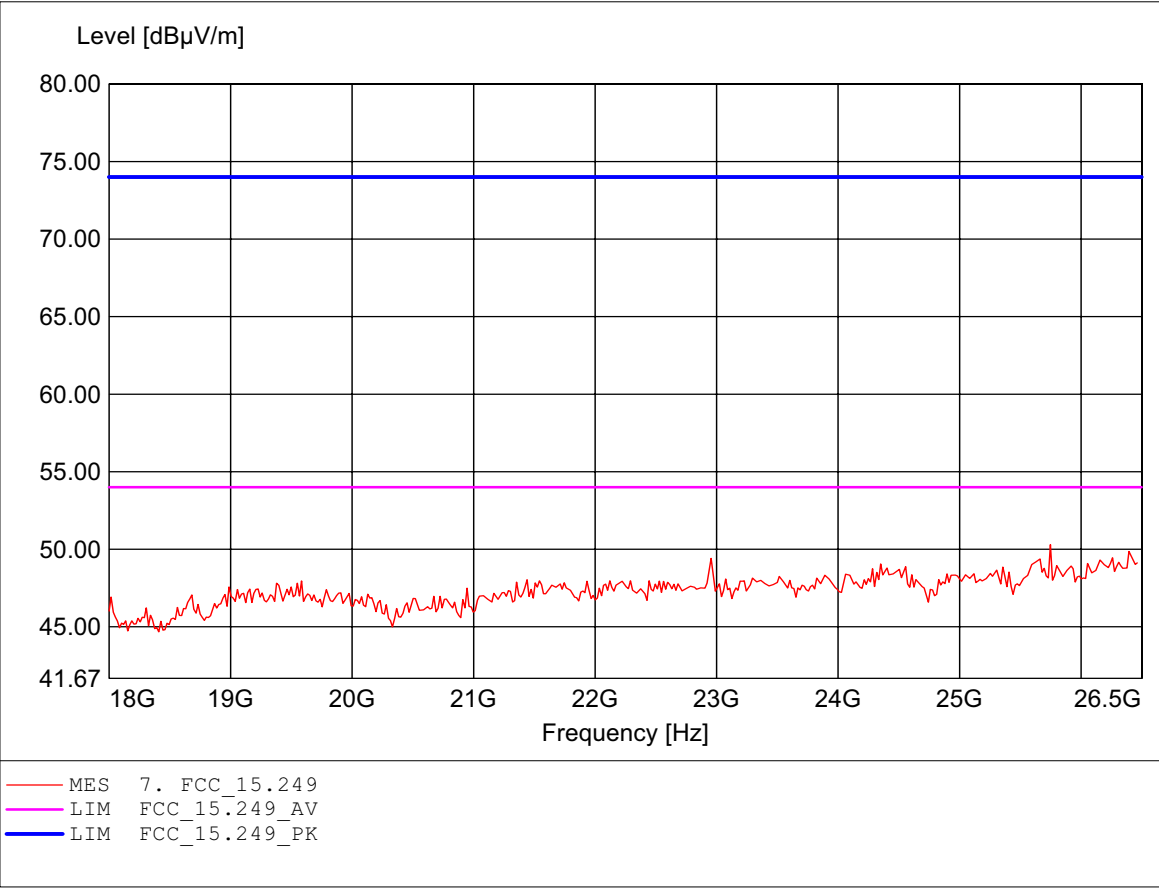
Order Nbr: ETSTWM0608-00003 LoChannel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.0
Test Specification: according to 5.249 peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl. HP.
Freq 17.98GHz, Emax 53.50dBμV/m, RBW: 1MHz



Spurious Emissions Field Strength

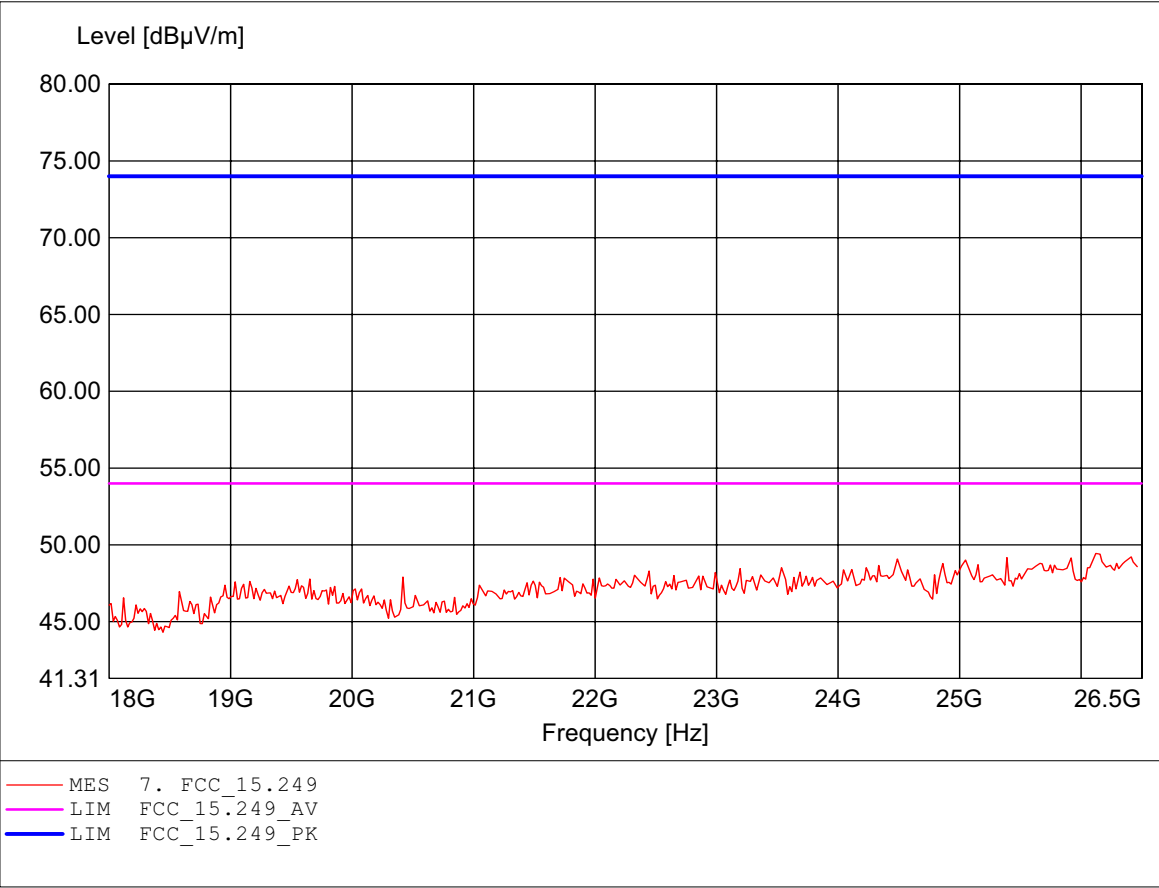
FCC RULES PART 15, SUBPART C / LP0002

Order Number: ETSTWM0608-00003 Low Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 25.751GHz, Emax: 50.29dBµV/m, RBW: 1MHz



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

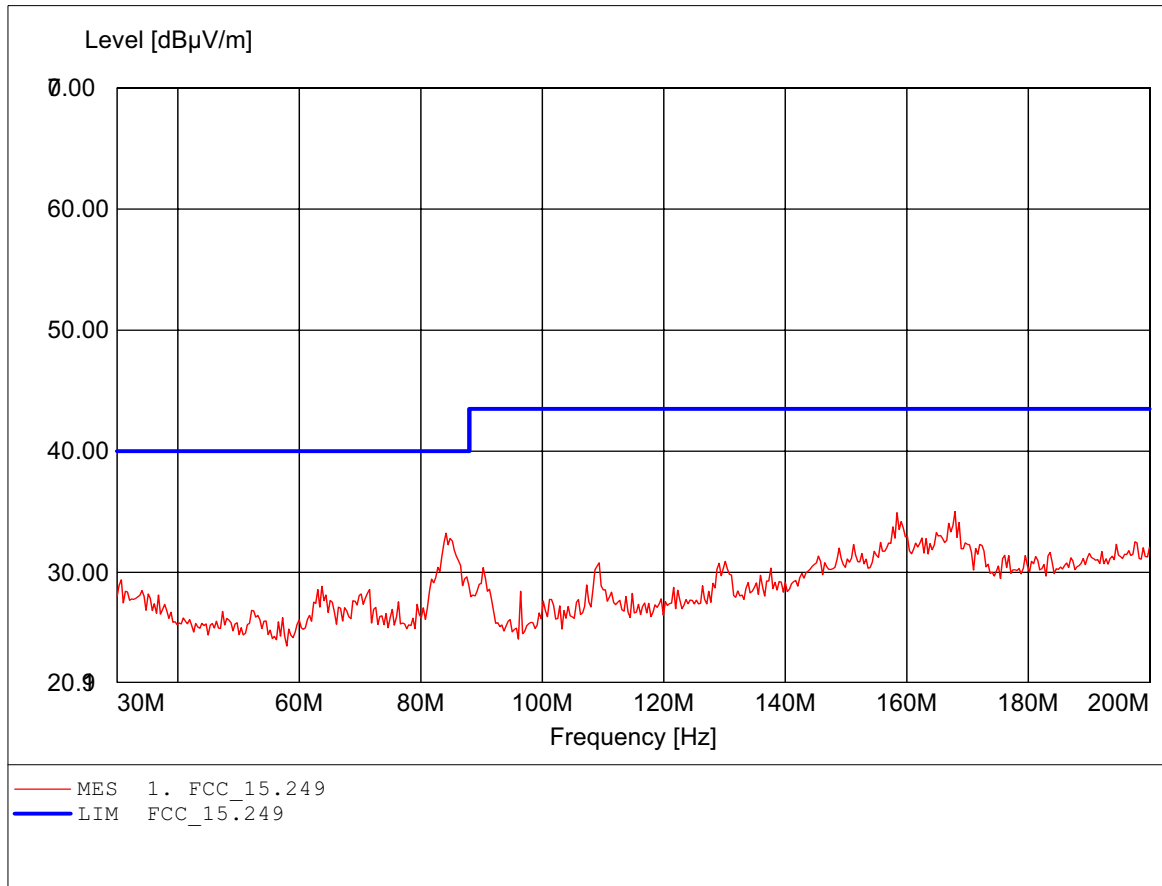
Order Number: ETSTWM0608-00003 Low Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 26.125GHz, Emax: 49.44dBµV/m, RBW: 1MHz



Spurious Emissions Field Strength

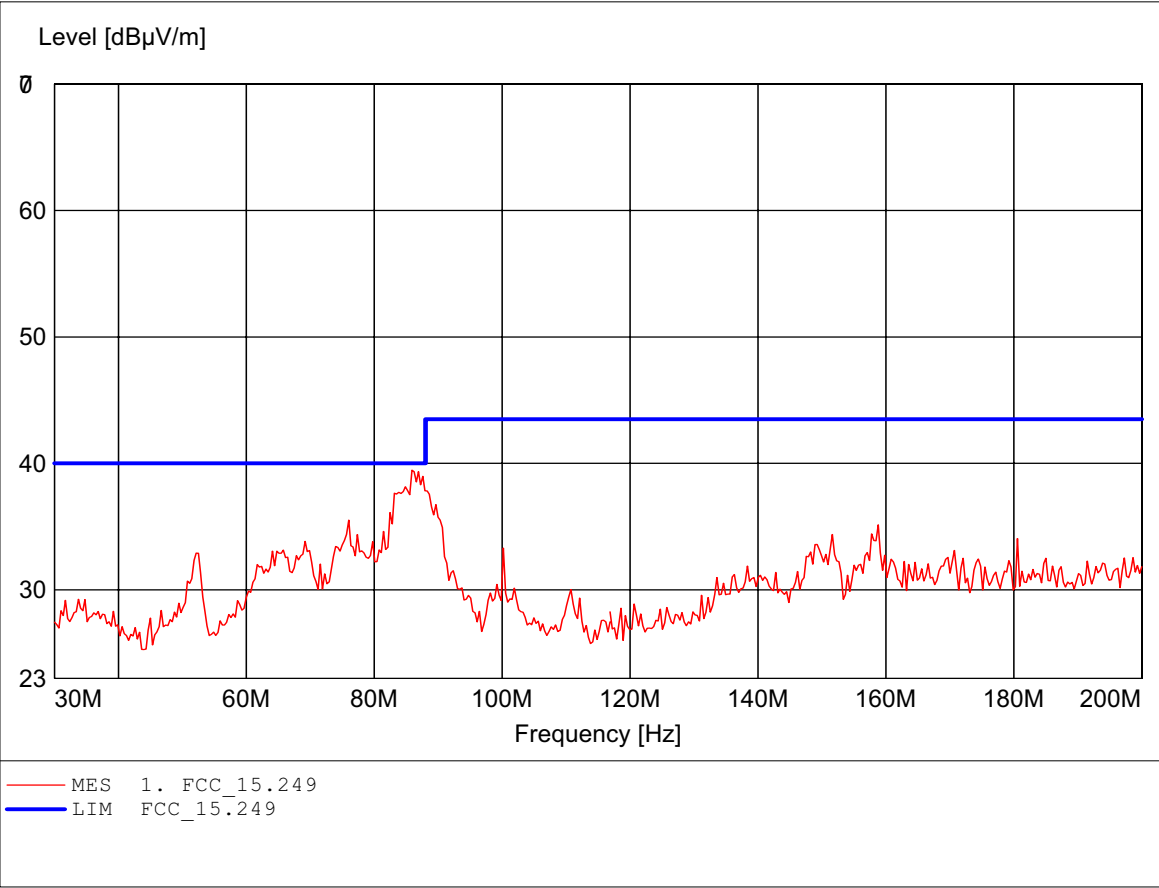
FCC RULES PART 15, SUBPART C / LP0002

Order Number: ETSTWM0608-00003 Middle Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249
Comment 1: Dist.: 3m, Ant.: HK 116
Freq: 167.976MHz, Emax: 35.02dBµV/m, RBW: 100kHz



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

Order Number: ETSTWM0608-00003 Middle Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249
Comment 1: Dist.: 3m, Ant.: HK 116
Freq: 85.872MHz, Emax: 39.26dBµV/m, RBW: 100kHz



Spurious Emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

Order No: ETSTWM0608-00003 Middle Channel

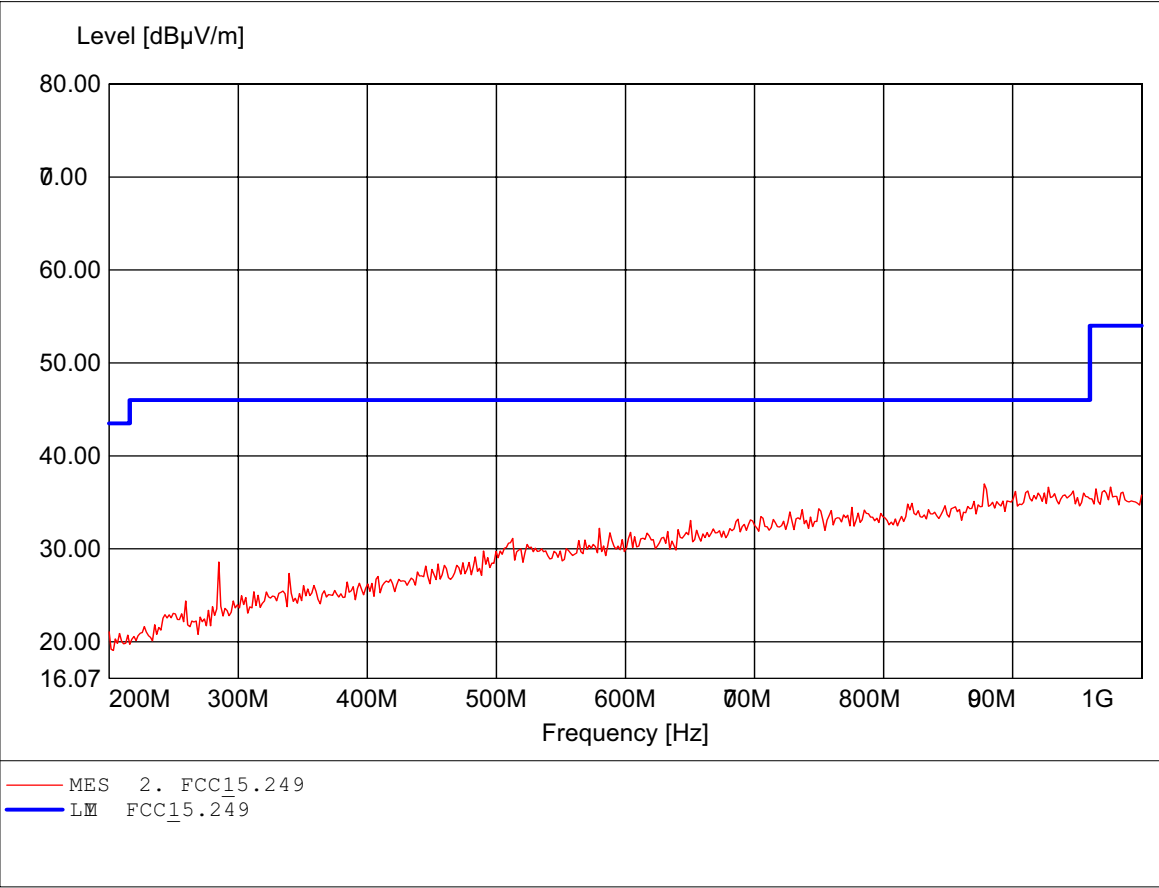
Test Site / Operator: ETS / Catey

Temperature: Temp.: 23.0

Test Specification: according to 5.249

Comment 1: Dist.: 3m, Ant.: HL 223, amplif.

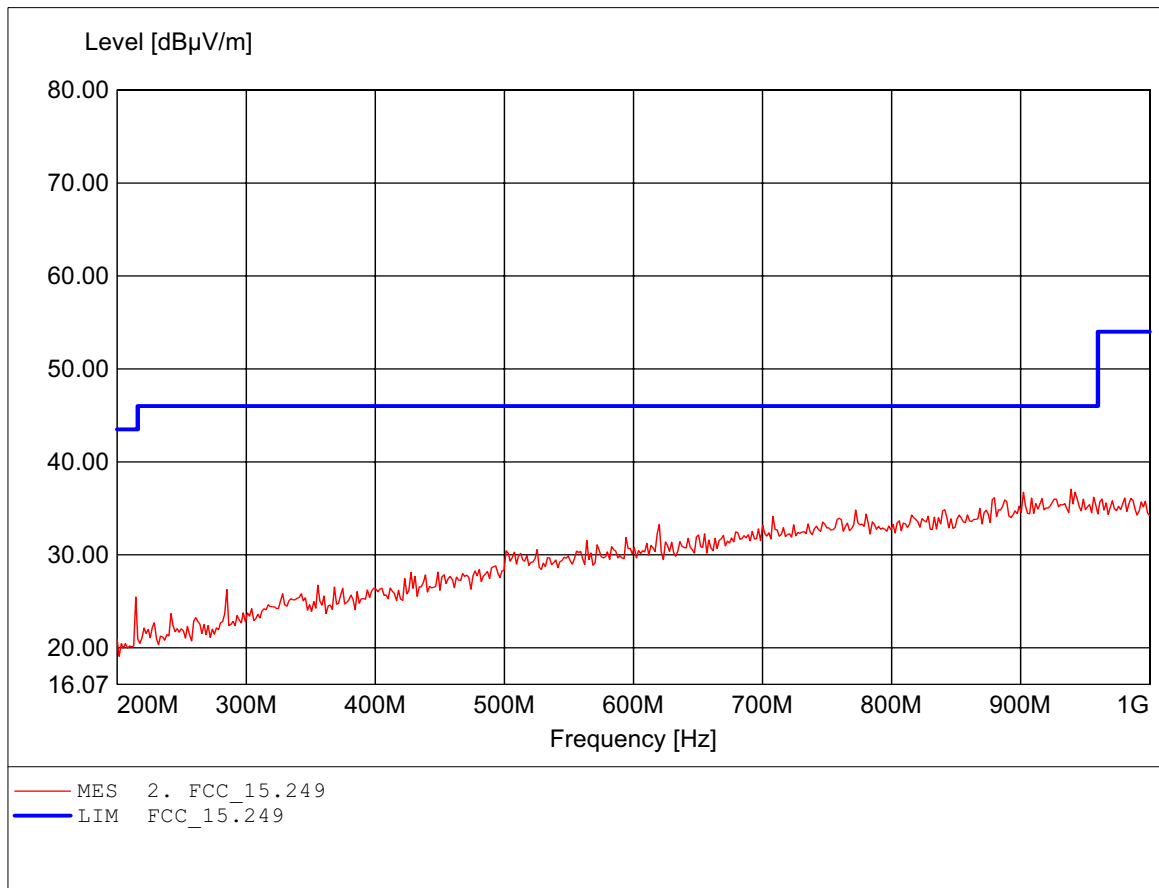
Frequency 878.156MHz, Emax 36.9dBμV/m, RBW: 100kHz



Spurious Emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

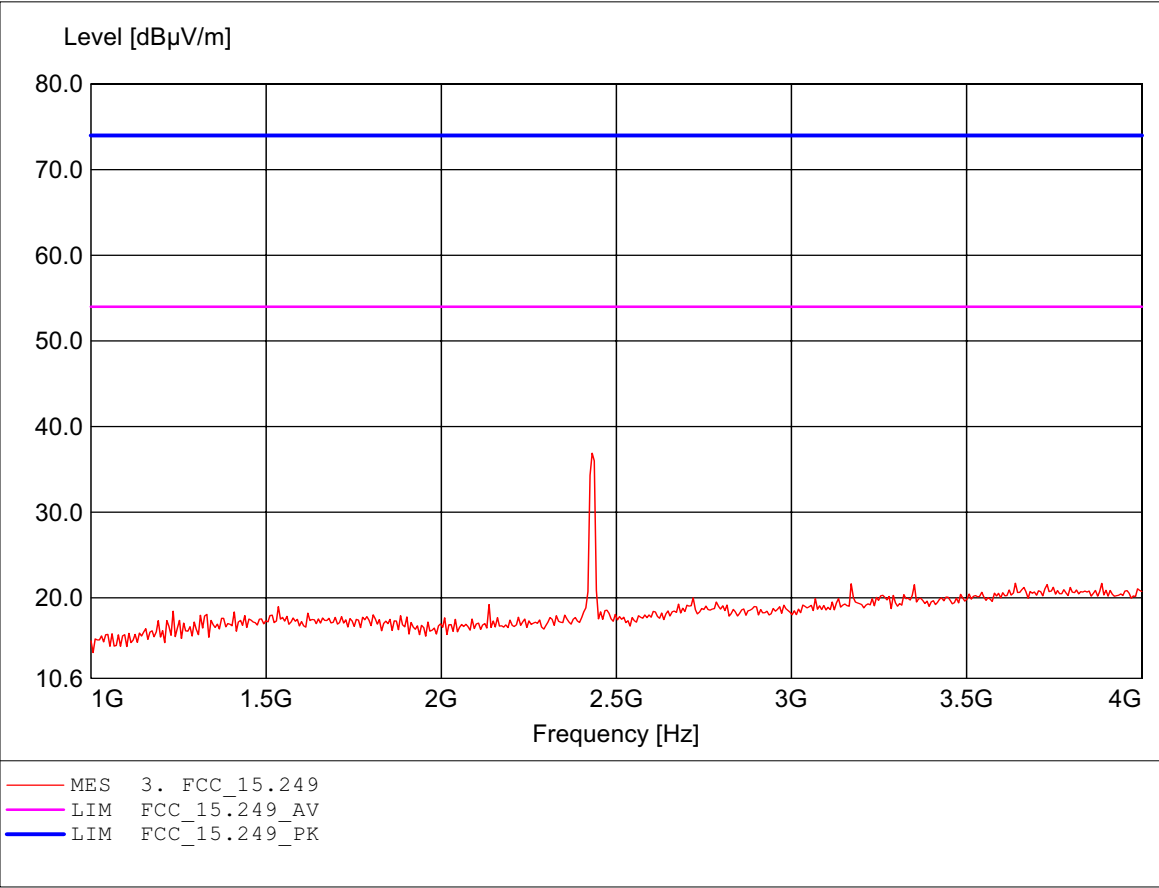
Order Number: ETSTWM0608-00003 Middle Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249
Comment 1: Dist.: 3m, Ant.: HL 223, amplif.
Freq: 939.078MHz, Emax: 37.07dBµV/m, RBW: 100kHz



Spurious Emissions Field Strength

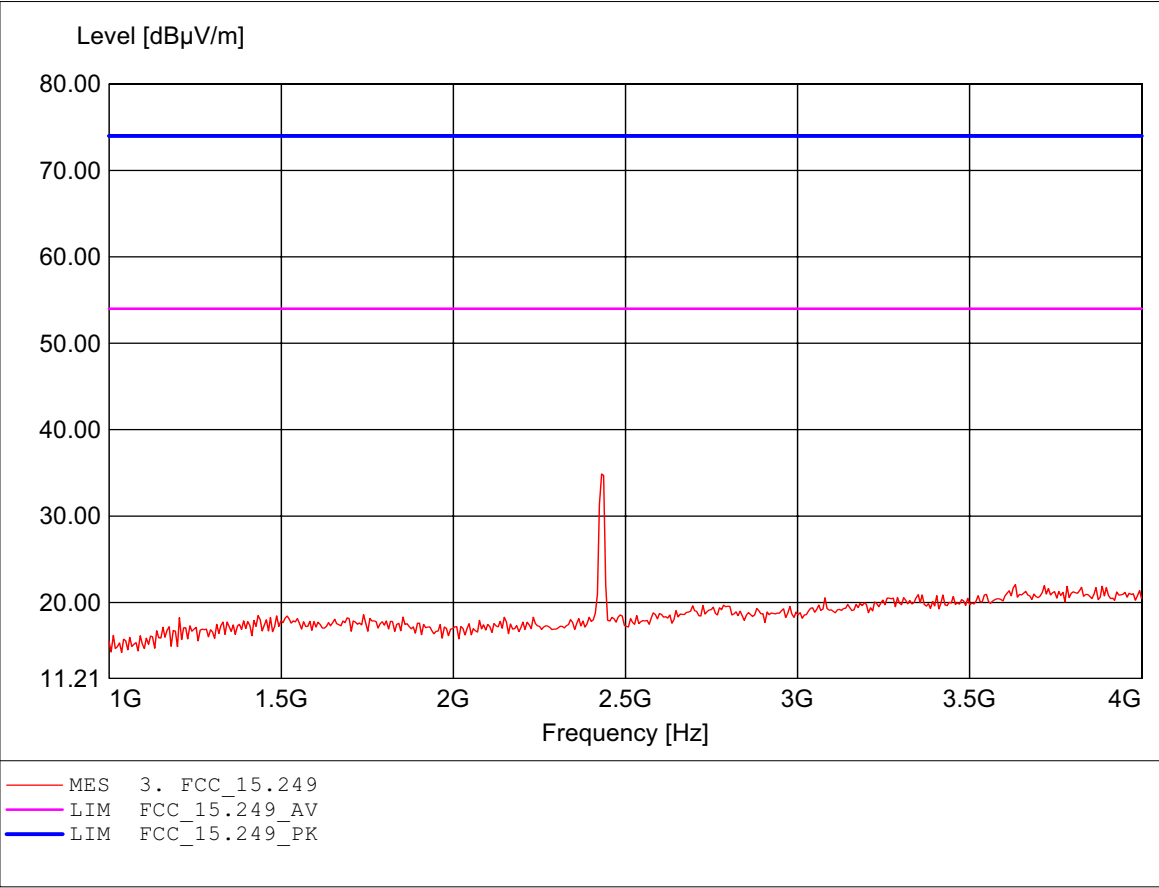
FCC RULES PART 15, SUBPART C / LP0002

Order Number: ETSTWM0608-00003 Middle Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 2.431GHz, Emax: 36.89dBµV/m, RBW: 1MHz



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

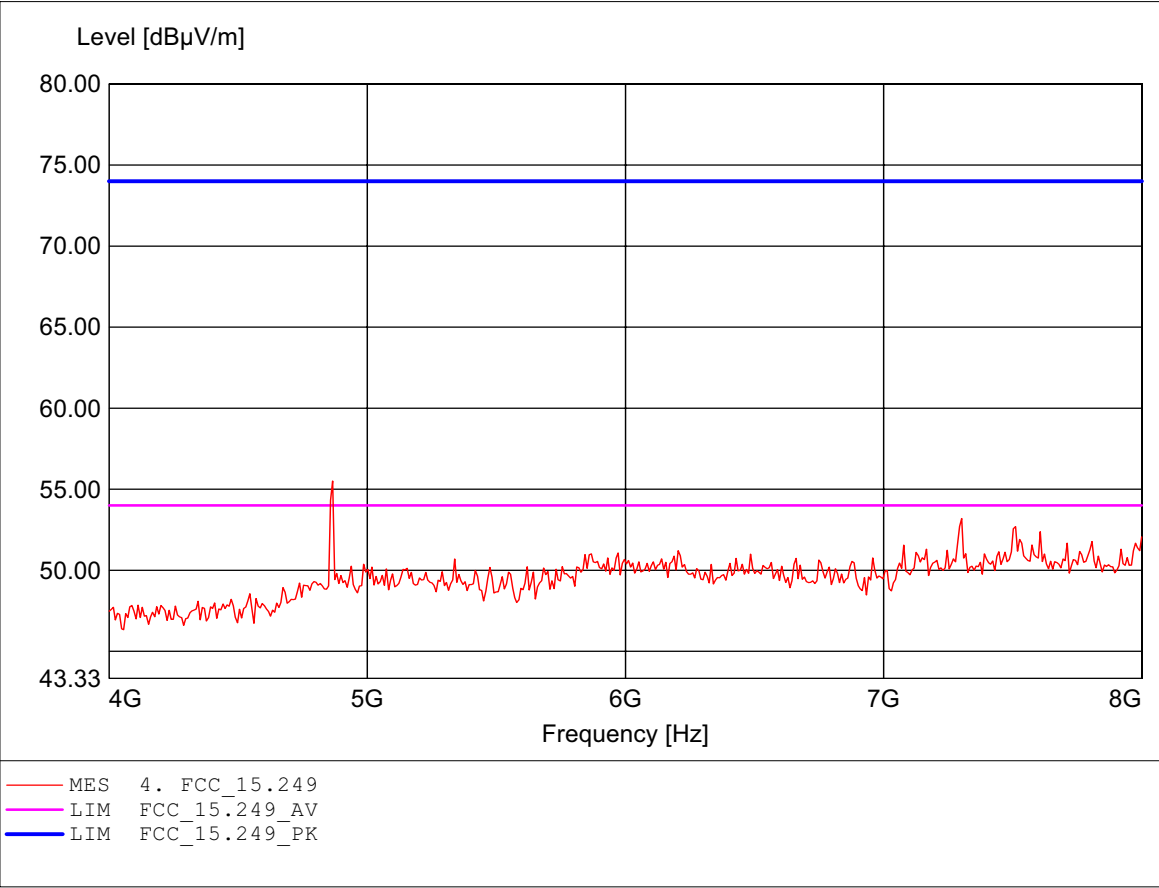
Order Number: ETSTWM0608-00003 Middle Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 2.431GHz, Emax: 34.86dBµV/m, RBW: 1MHz



Spurious Emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

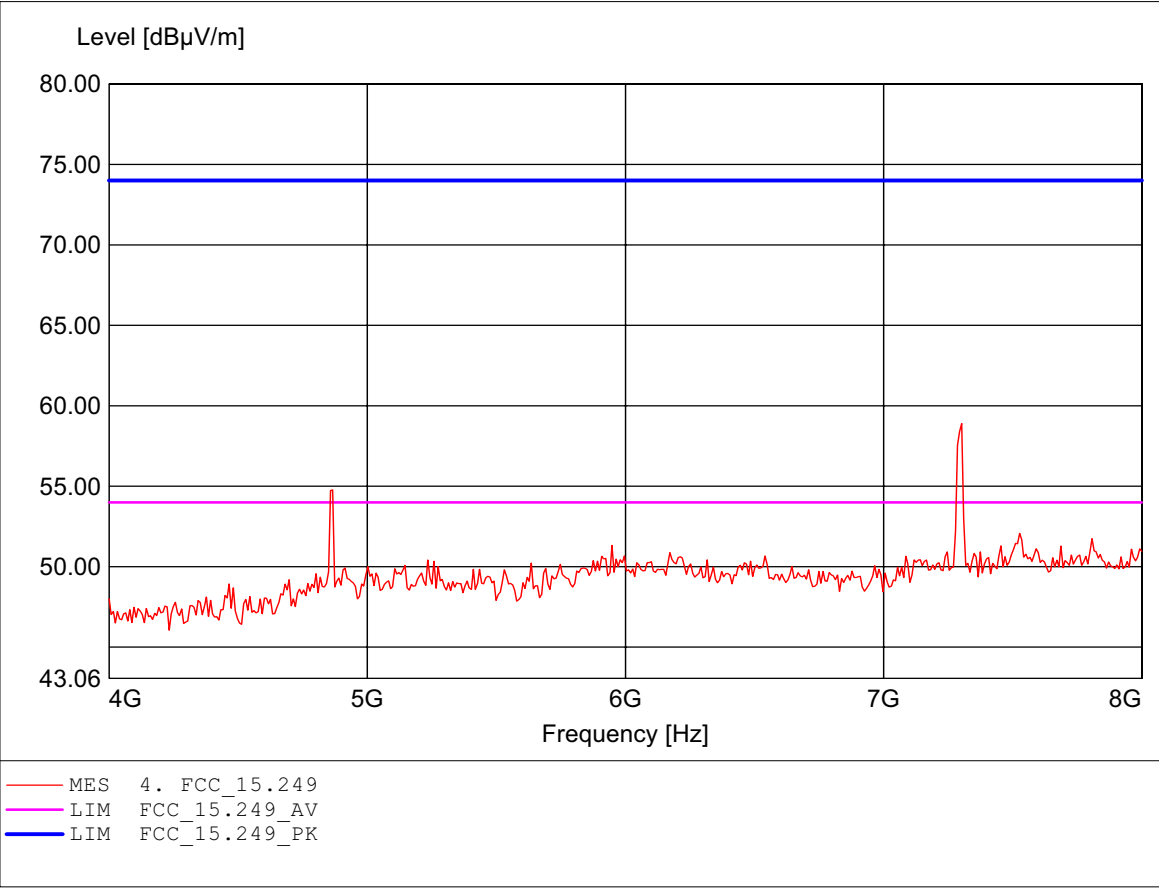
Order Number: ETSTWM0608-00003 Middle Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 4.866GHz, Emax: 55.50dBµV/m, RBW: 1MHz



Spurious Emissions Field Strength

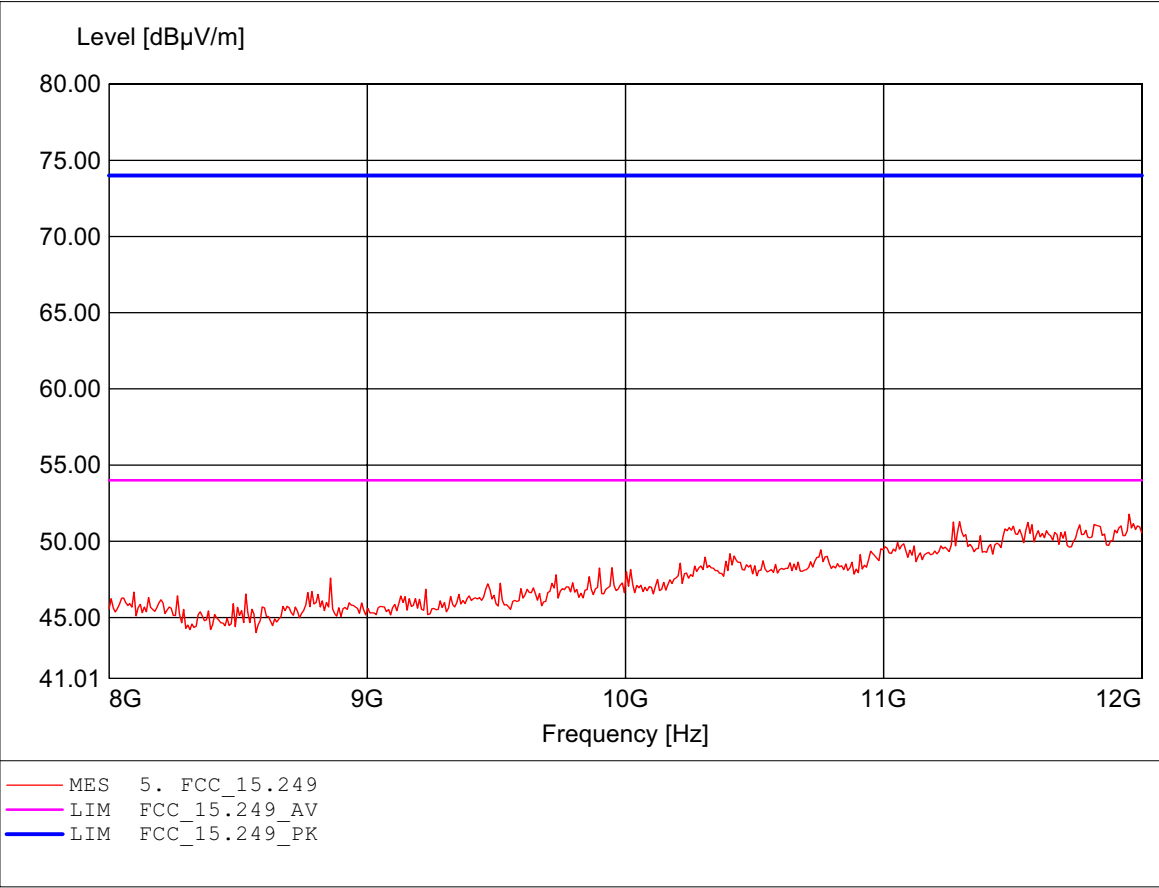
FCC RULES PART 15, SUBPART C / LP0002

Order Number: ETSTWM0608-00003 Middle Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 7.303GHz, Emax: 58.90dBµV/m, RBW: 1MHz



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

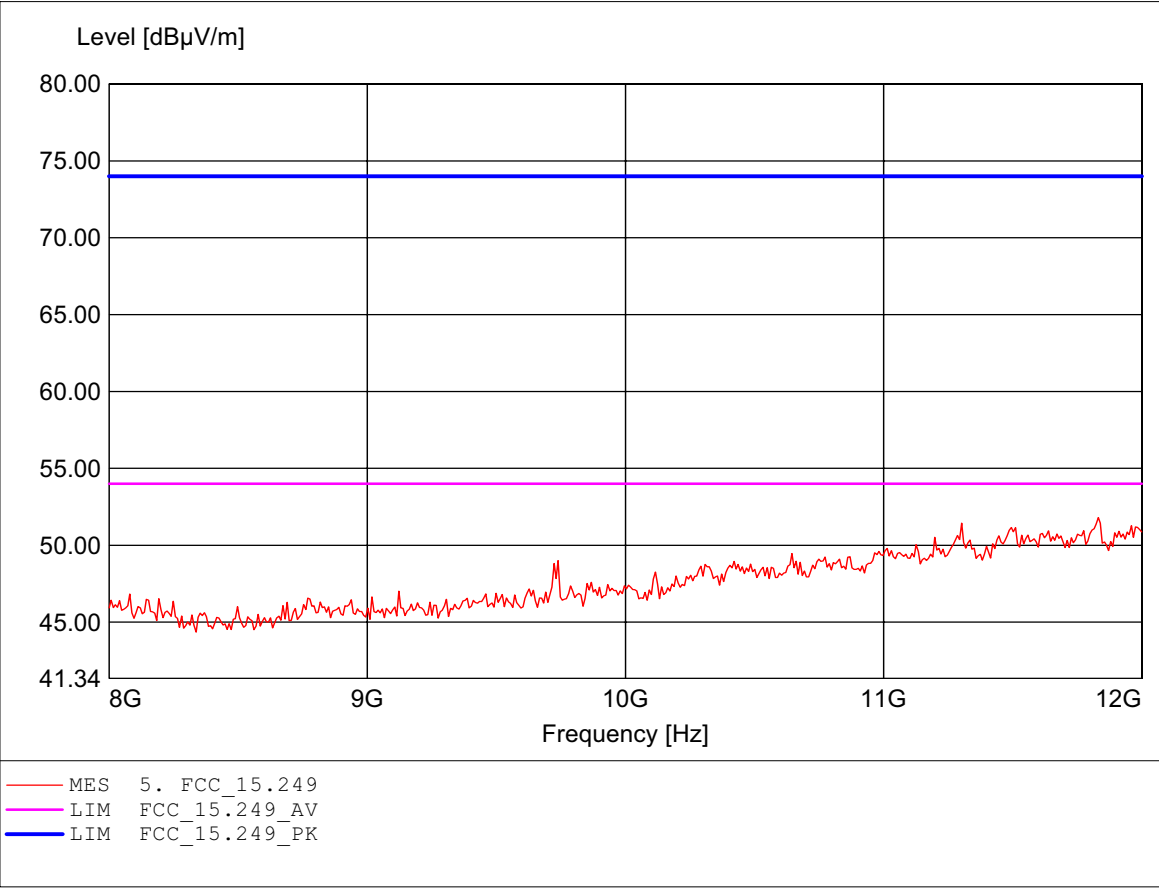
Order Number: ETSTWM0608-00003 Middle Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 11.952GHz, Emax: 51.78dBµV/m, RBW: 1MHz



Spurious Emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

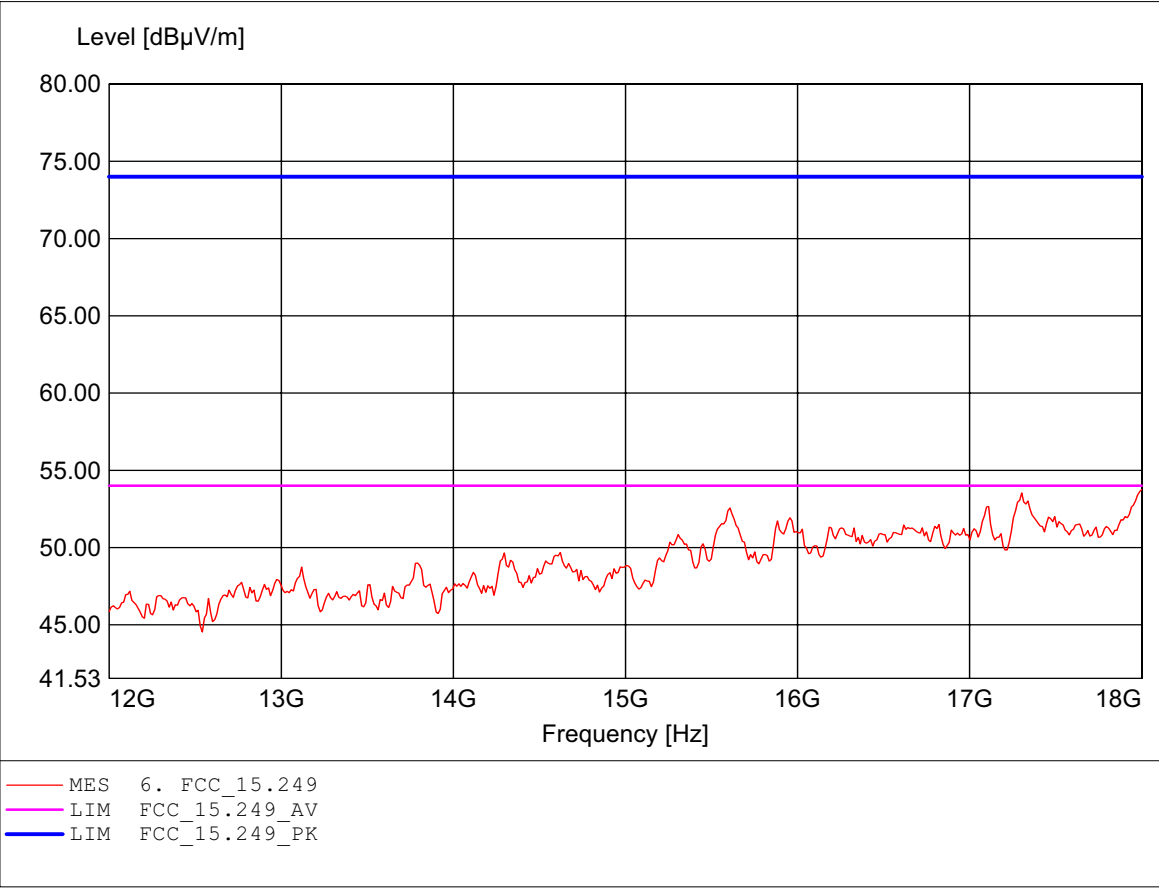
Order Number: ETSTWM0608-00003 Middle Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 11.832GHz, Emax: 51.80dBµV/m, RBW: 1MHz



Spurious Emissions Field Strength

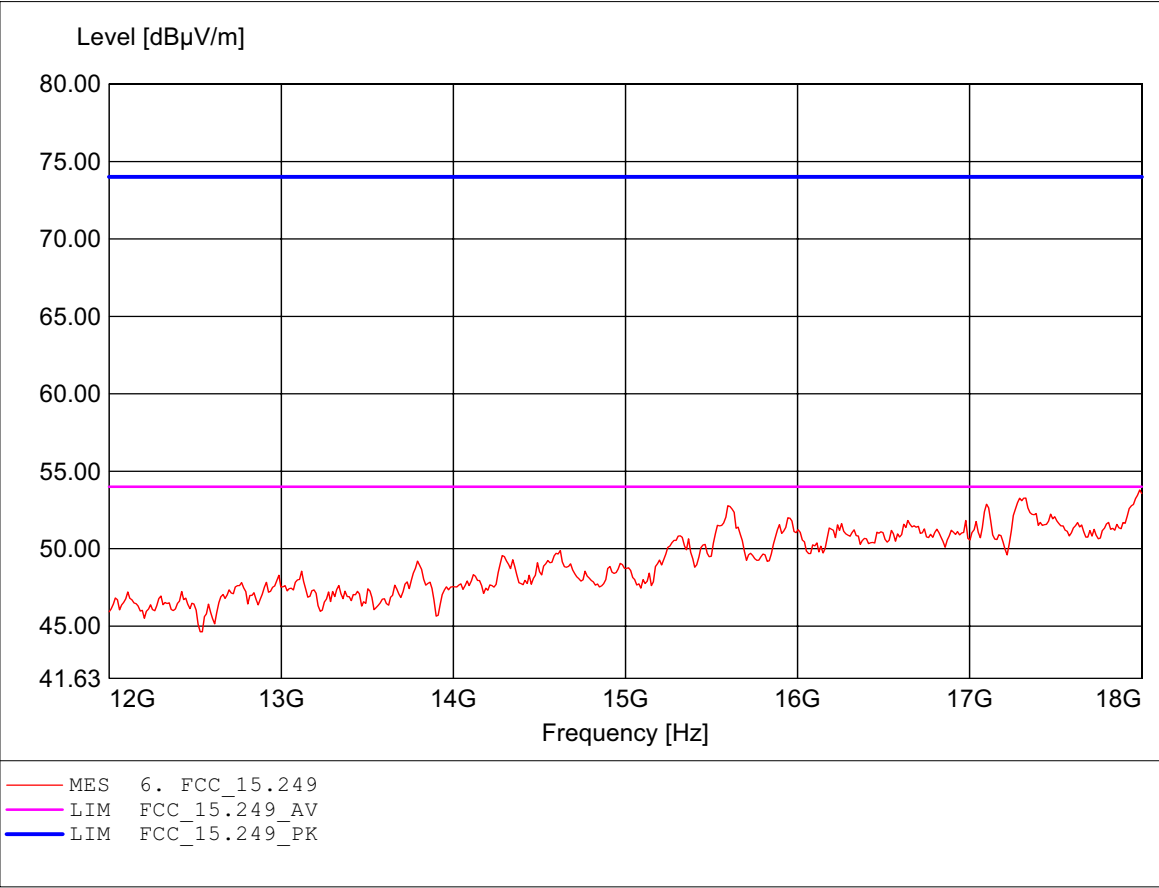
FCC RULES PART 15, SUBPART C / LP0002

Order Number: ETSTWM0608-00003 Middle Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 18.000GHz, Emax: 53.75dBµV/m, RBW: 1MHz



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

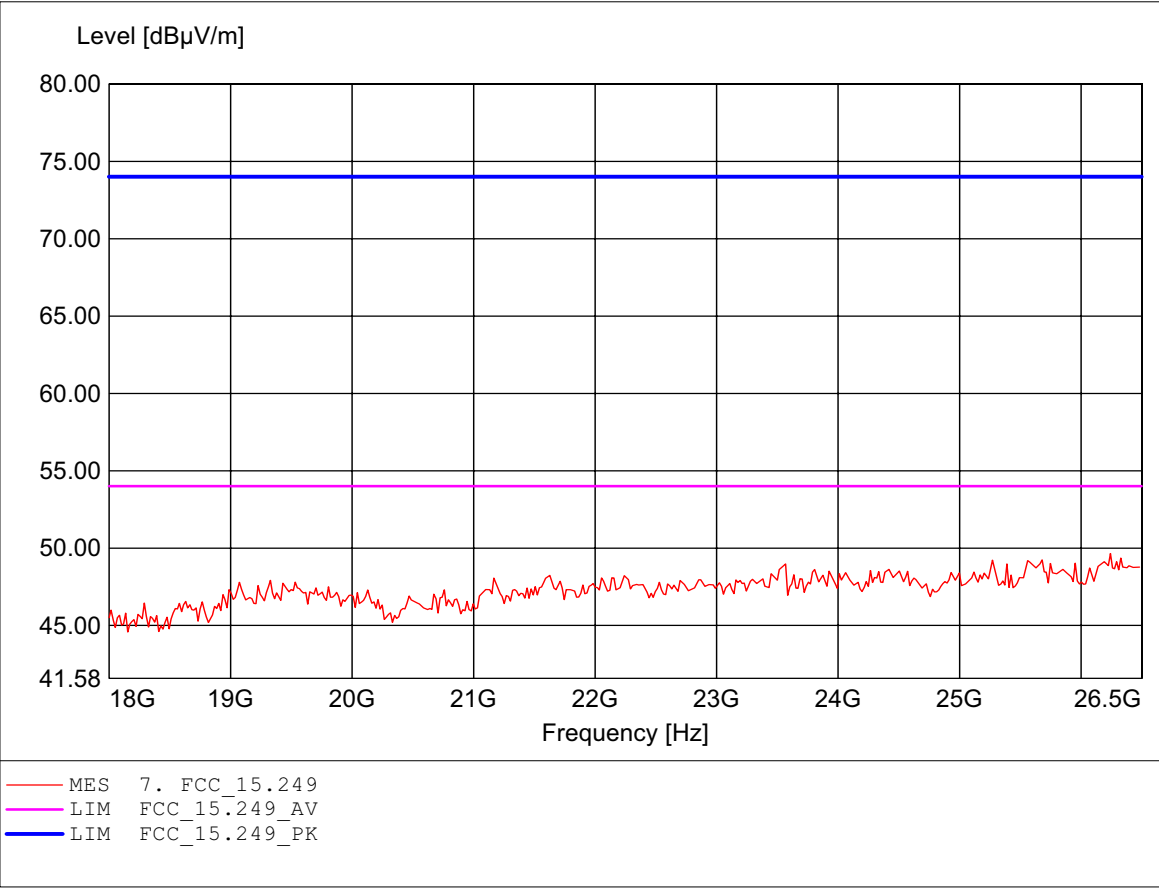
Order Number: ETSTWM0608-00003 Middle Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 17.988GHz, Emax: 53.80dBµV/m, RBW: 1MHz



Spurious Emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

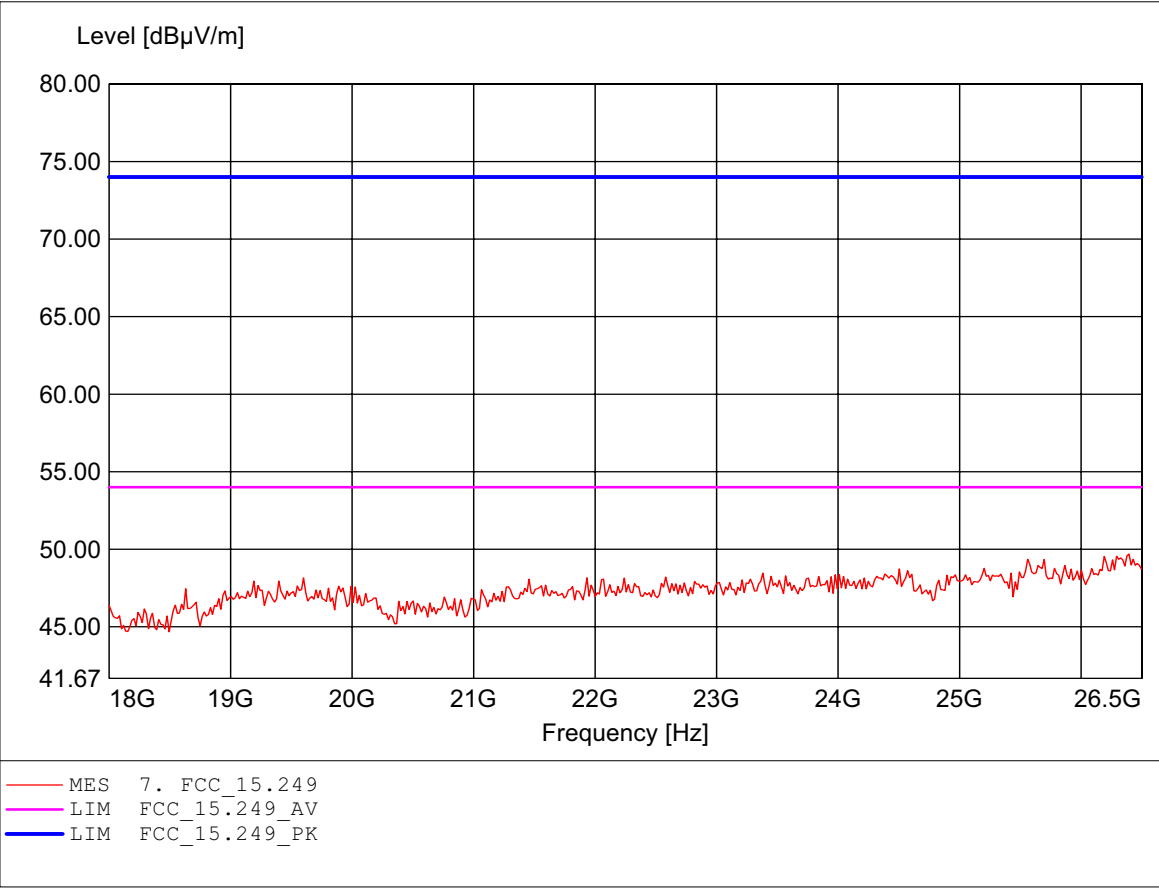
Order Number: ETSTWM0608-00003 Middle Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 26.244GHz, Emax: 49.65dBµV/m, RBW: 1MHz



Spurious Emissions Field Strength

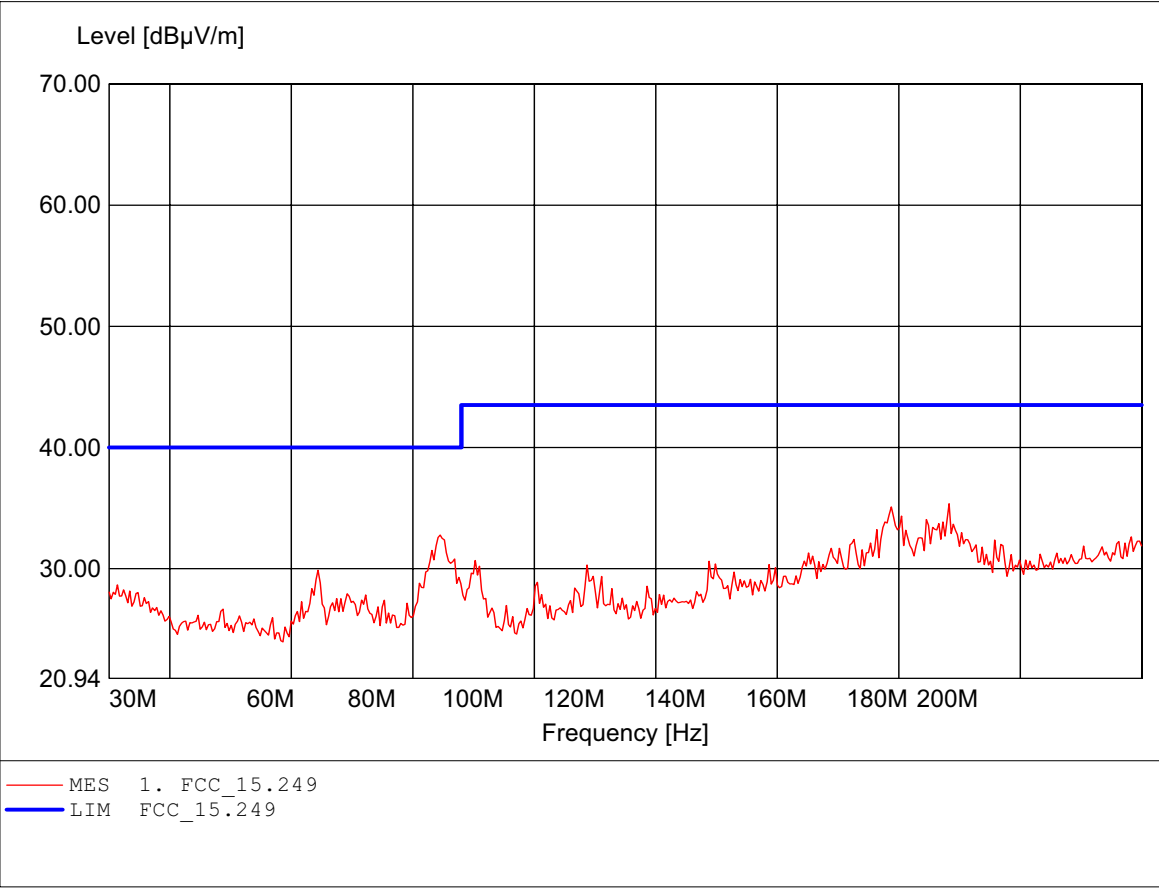
FCC RULES PART 15, SUBPART C / LP0002

Order Number: ETSTWM0608-00003 Middle Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 26.398GHz, Emax: 49.69dBµV/m, RBW: 1MHz



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

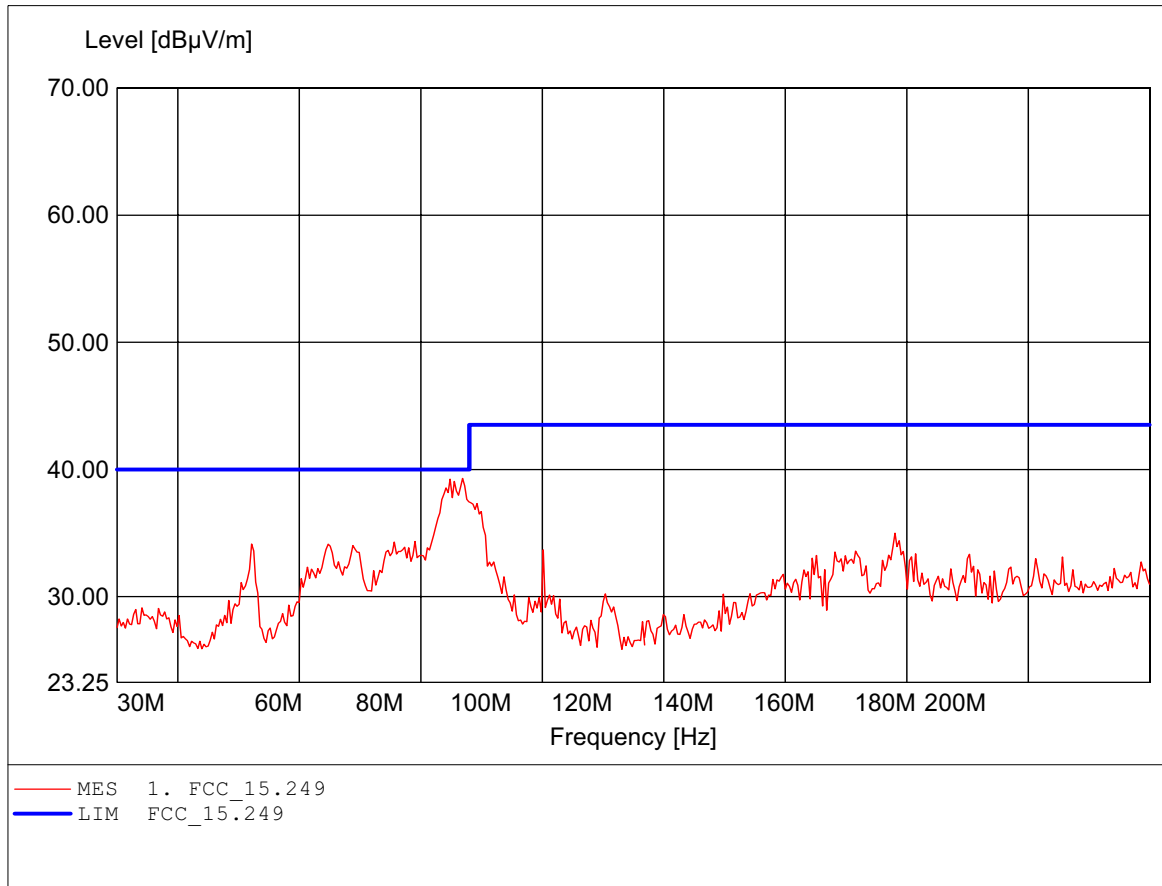
Order Number: ETSTWM0608-00003 High Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249
Comment 1: Dist.: 3m, Ant.: HK 116
Freq: 168.317MHz, Emax: 35.35dBµV/m, RBW: 100kHz



Spurious Emissions Field Strength

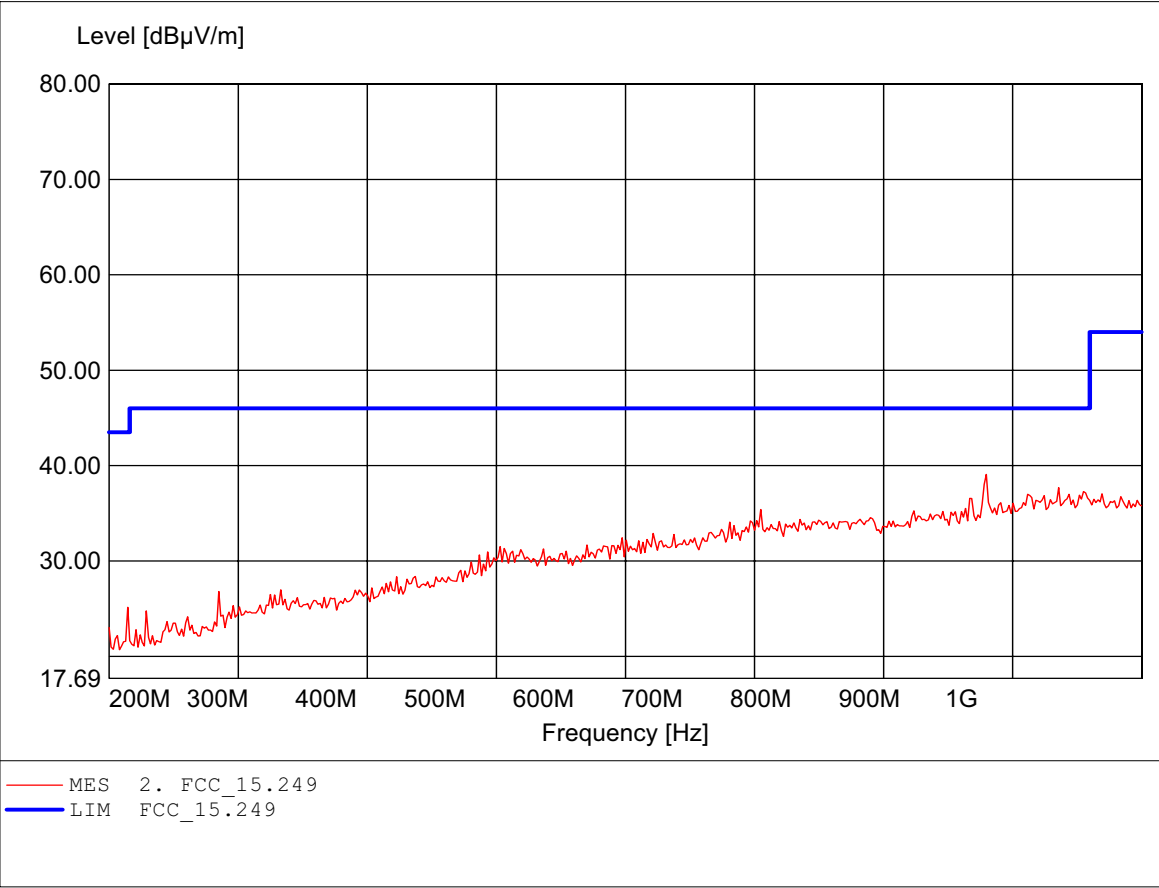
FCC RULES PART 15, SUBPART C / LP0002

Order Number: ETSTWM0608-00003 High Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249
Comment 1: Dist.: 3m, Ant.: HK 116
Freq: 86.894MHz, Emax: 39.88dBµV/m, RBW: 100kHz



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

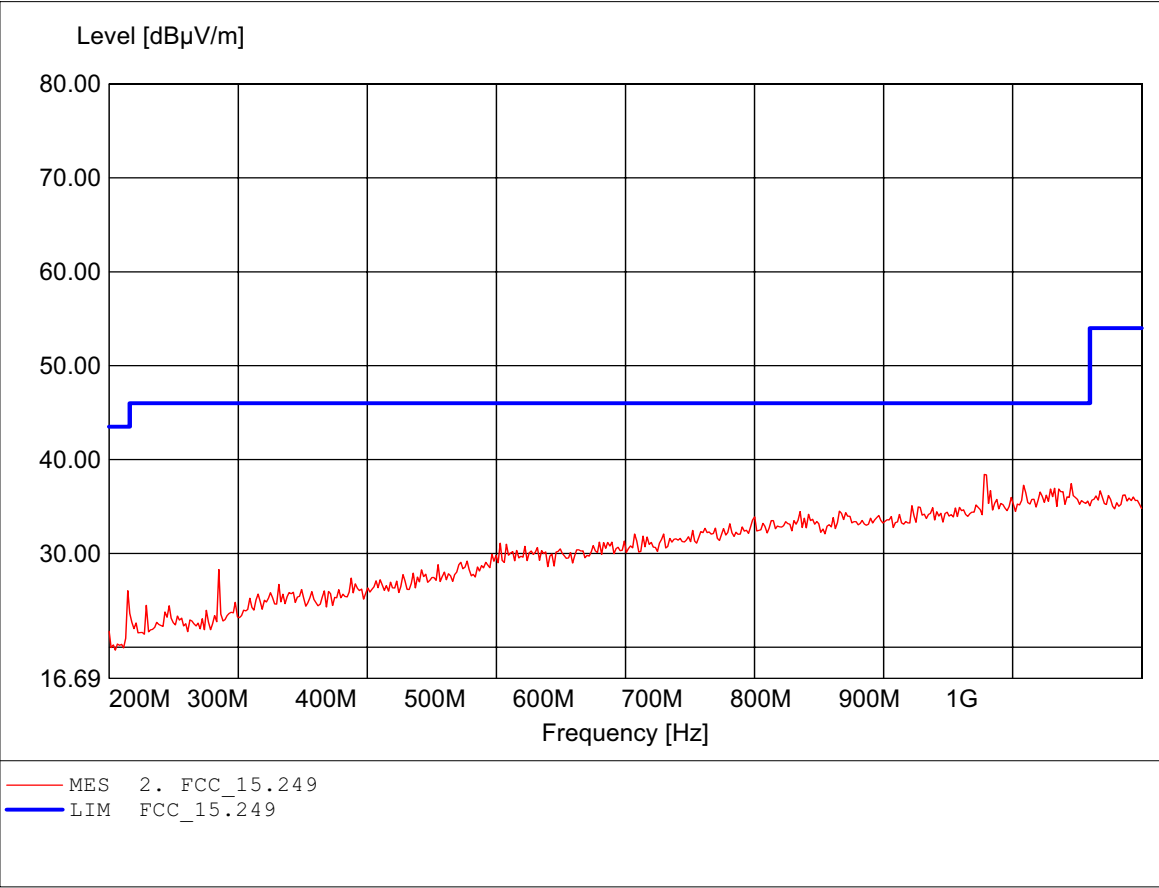
Order Number: ETSTWM0608-00003 High Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249
Comment 1: Dist.: 3m, Ant.: HL 223, amplif.
Freq: 879.760MHz, Emax: 39.07dBµV/m, RBW: 100kHz



Spurious Emissions Field Strength

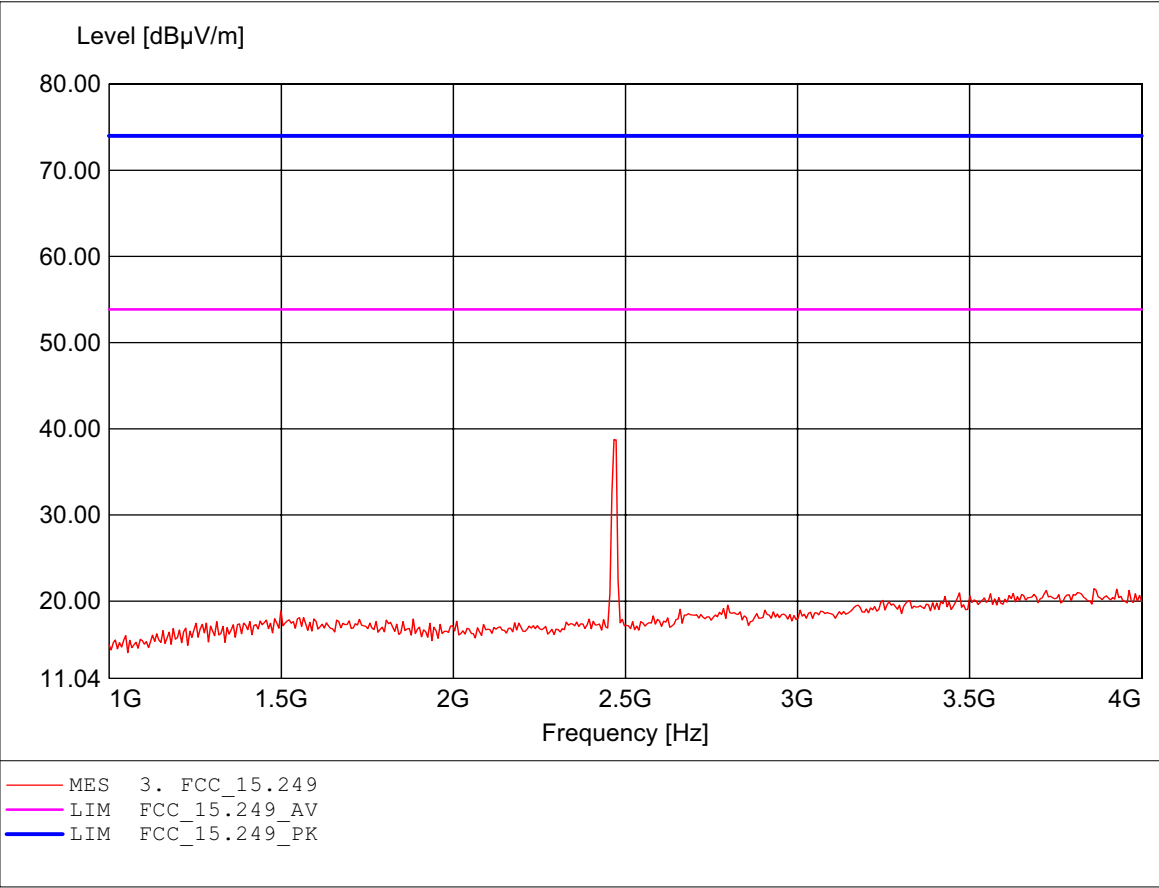
FCC RULES PART 15, SUBPART C / LP0002

Order Number: ETSTWM0608-00003 High Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249
Comment 1: Dist.: 3m, Ant.: HL 223, amplif.
Freq: 878.156MHz, Emax: 38.41dBµV/m, RBW: 100kHz



Spectrum Analyzer Field Strength
FCC RULES PART 15, SUBPART C / LP0002

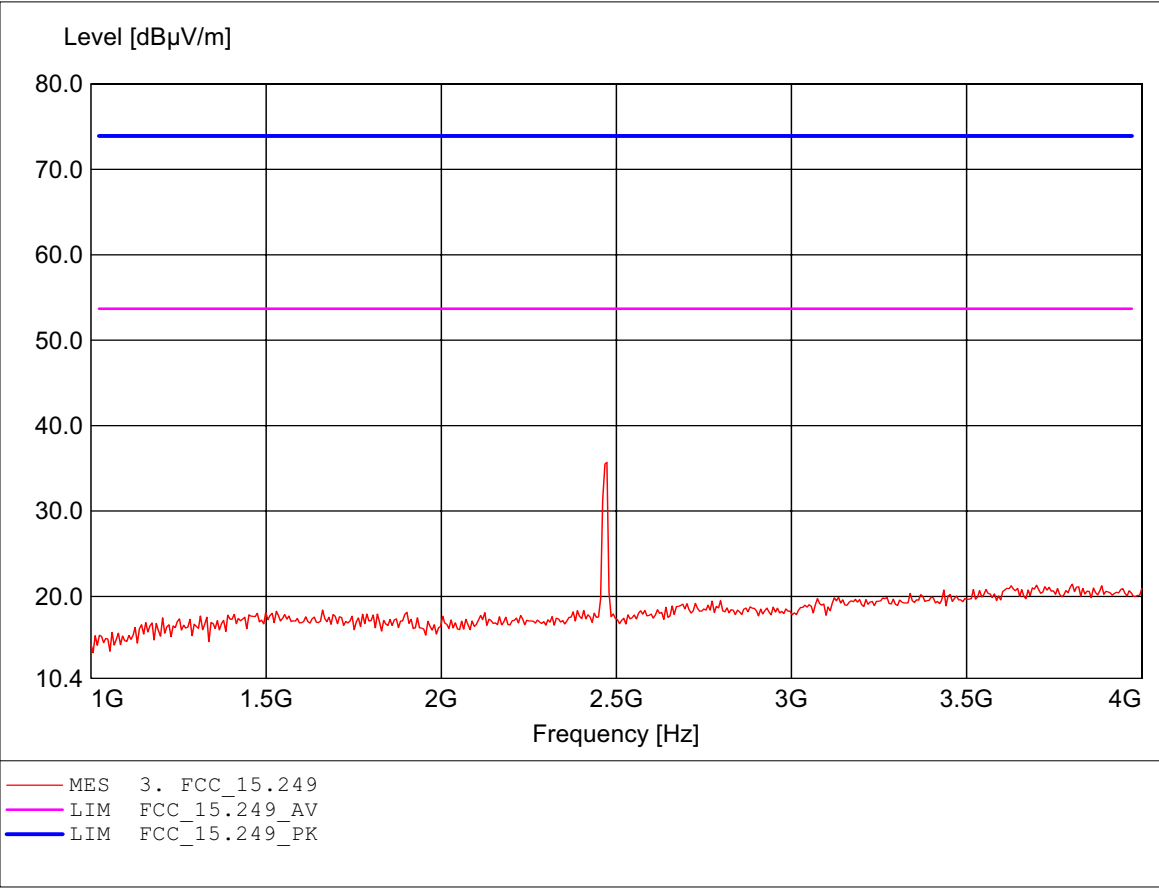
Order Number: ETSTWM0608-00003 High Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 2.467GHz, Emax: 38.75dBµV/m, RBW: 1MHz



Spurious Emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

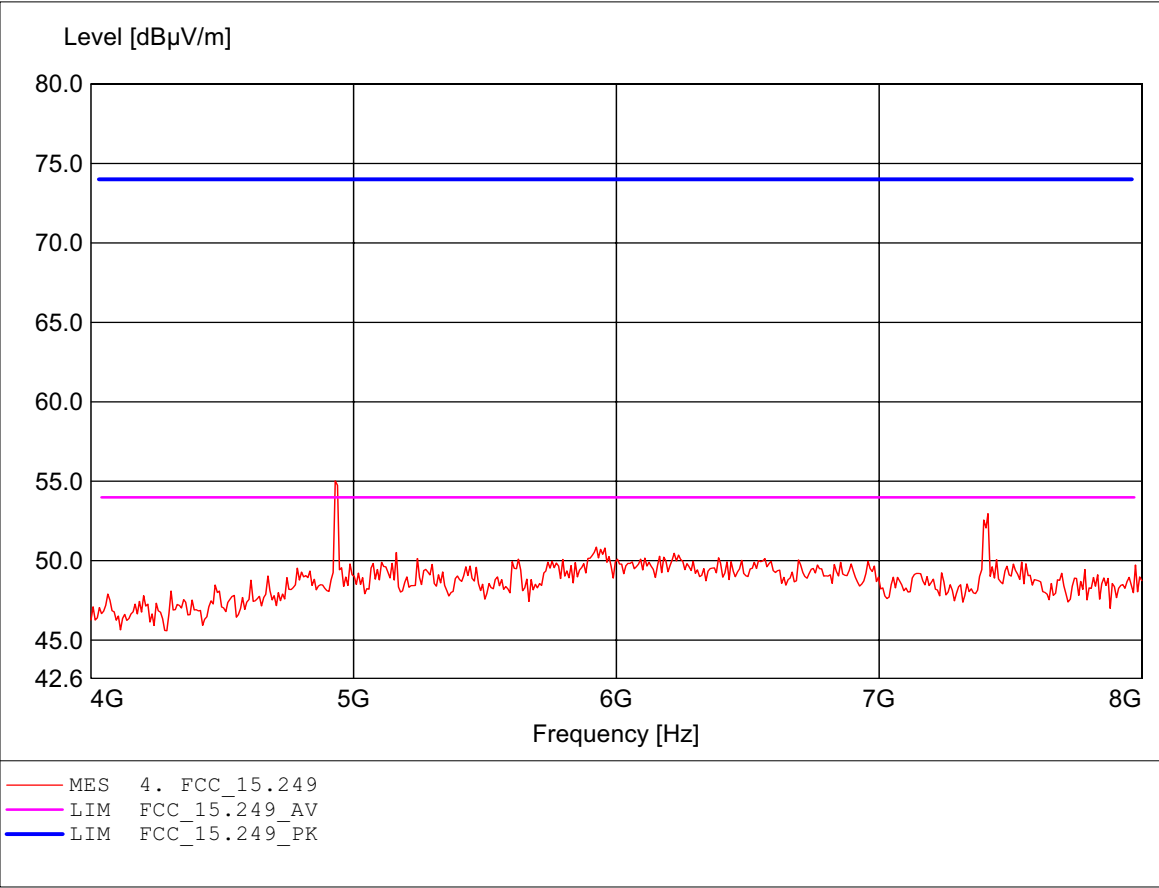
Order Number: ETSTWM0608-00003 High Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 2.473GHz, Emax: 35.69dBµV/m, RBW: 1MHz



Spurious Emissions Field Strength

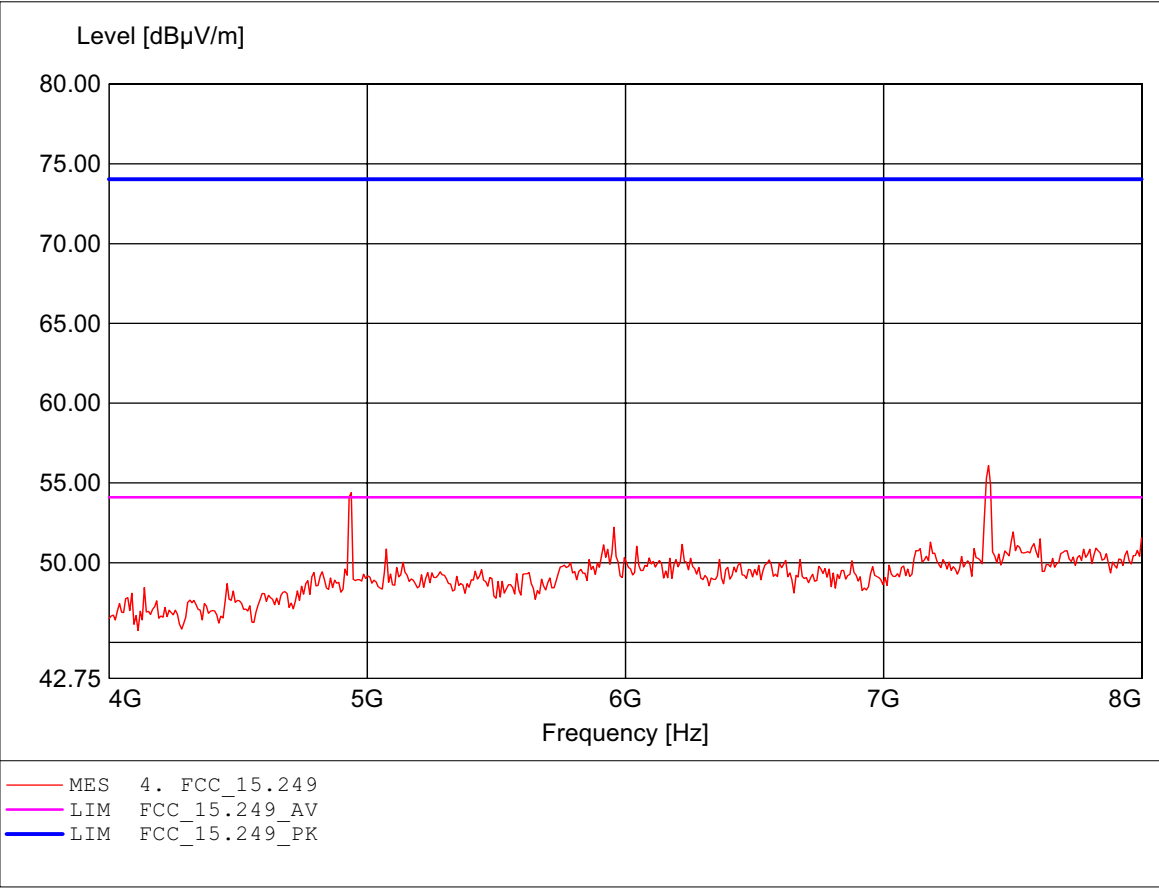
FCC RULES PART 15, SUBPART C / LP0002

Order Number: ETSTWM0608-00003 High Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 4.930GHz, Emax: 55.02dBµV/m, RBW: 1MHz



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

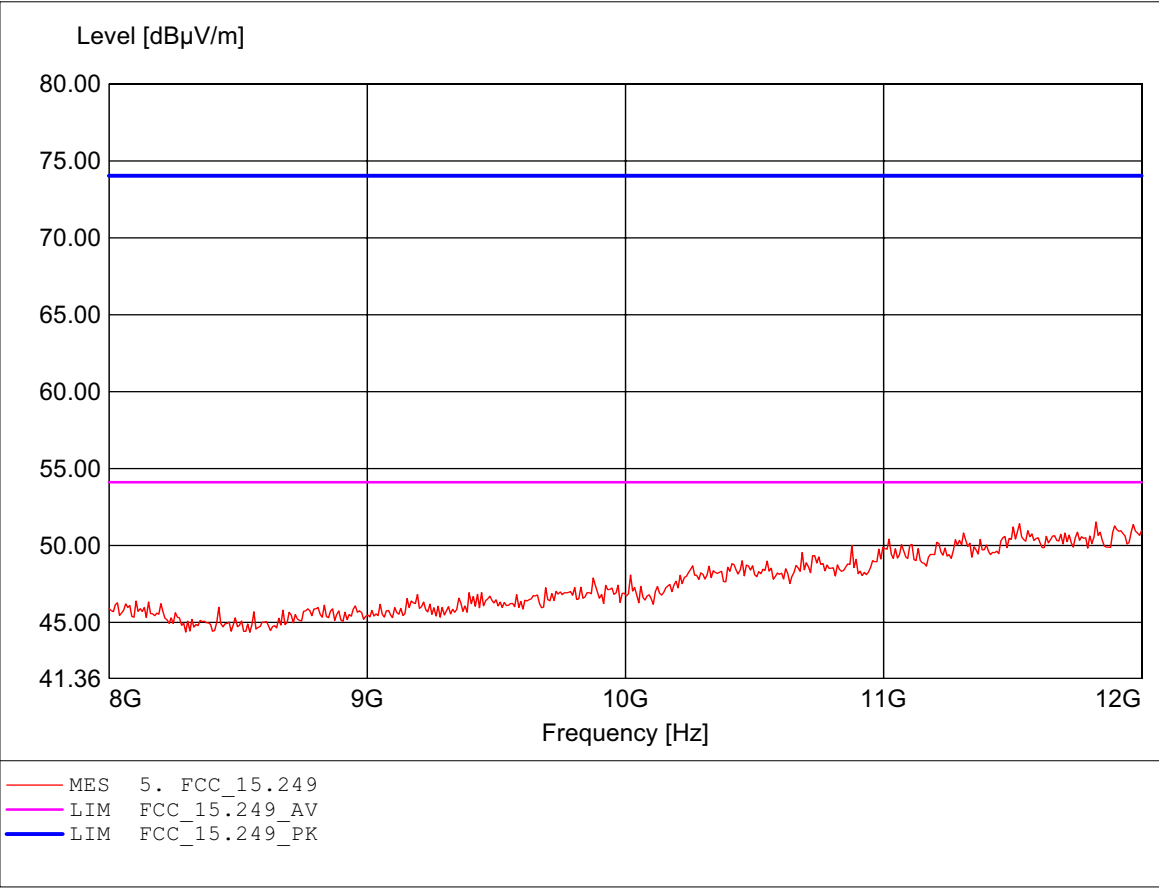
Order Number: ETSTWM0608-00003 High Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 7.407GHz, Emax: 56.10dBµV/m, RBW: 1MHz



Spurious Emissions Field Strength

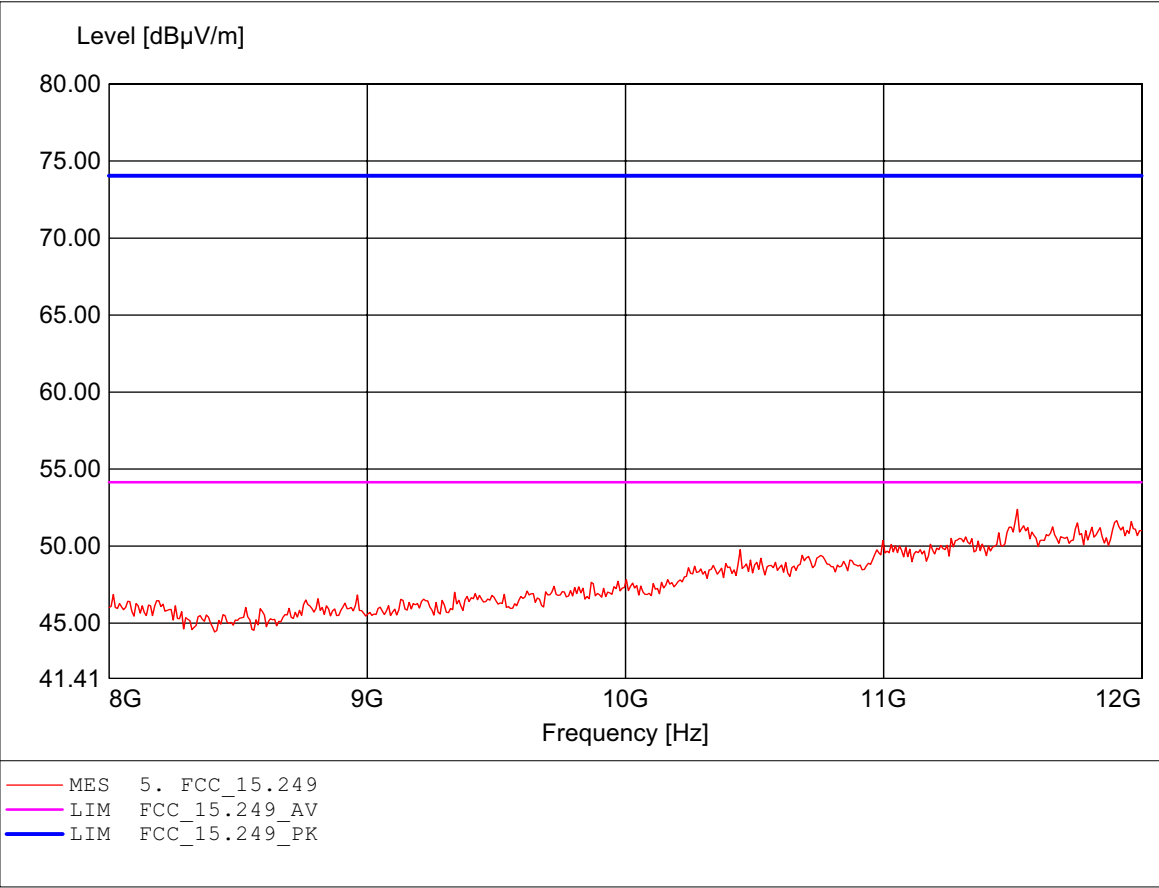
FCC RULES PART 15, SUBPART C / LP0002

Order Number: ETSTWM0608-00003 High Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 11.824GHz, Emax: 51.52dBµV/m, RBW: 1MHz



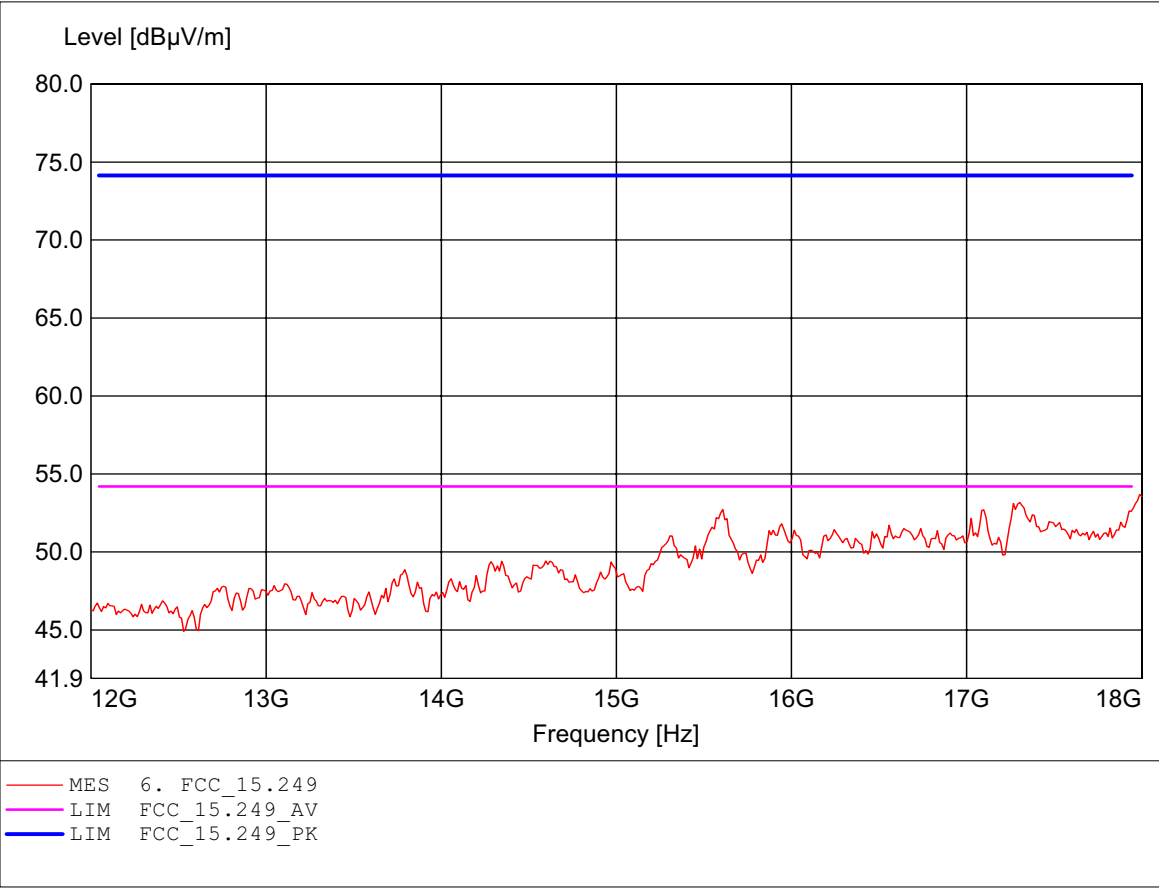
Spurious Emissions Field Strength
FCC RULES PART 15, SUBPART C / LP0002

Order Number: ETSTWM0608-00003 High Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 11.519GHz, Emax: 52.38dBµV/m, RBW: 1MHz



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

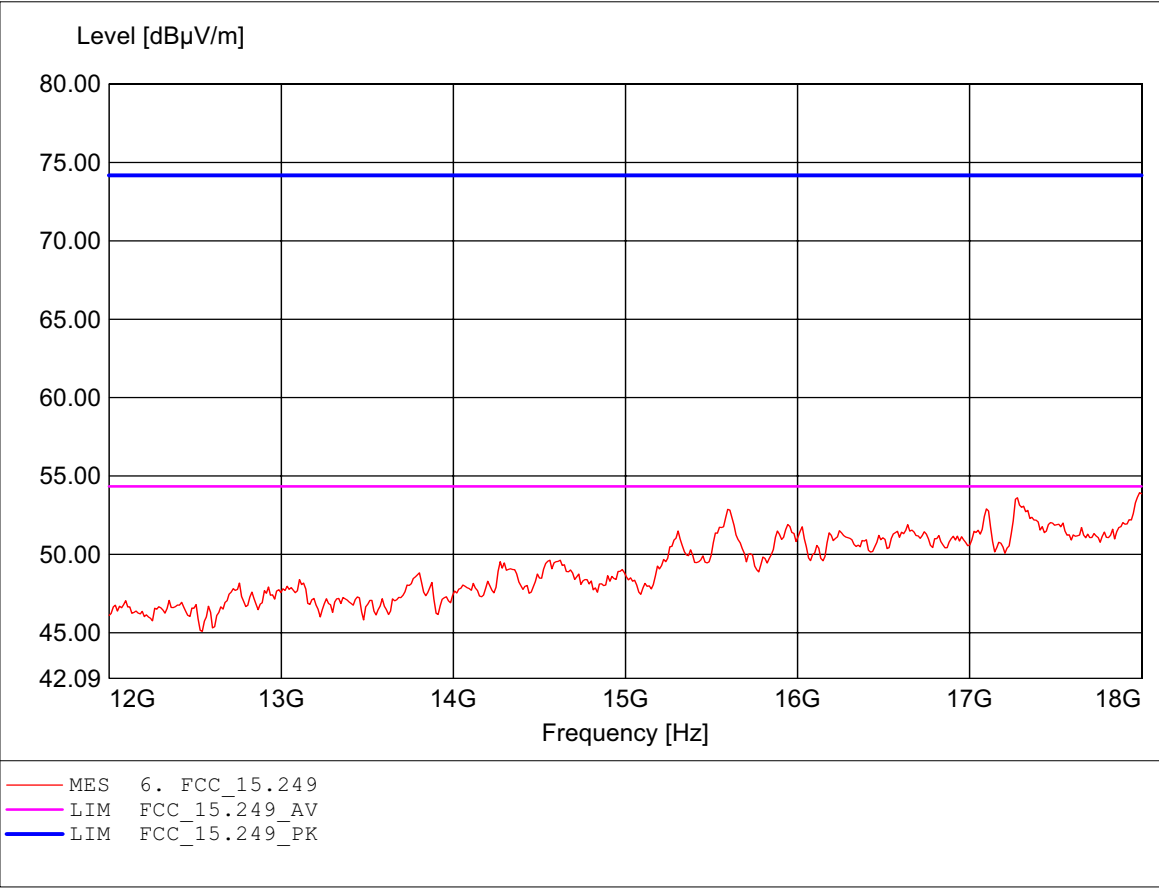
Order Number: ETSTWM0608-00003 High Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 17.988GHz, Emax: 53.68dBµV/m, RBW: 1MHz



Spurious Emissions Field Strength

FCC RULES PART 15, SUBPART C / LP0002

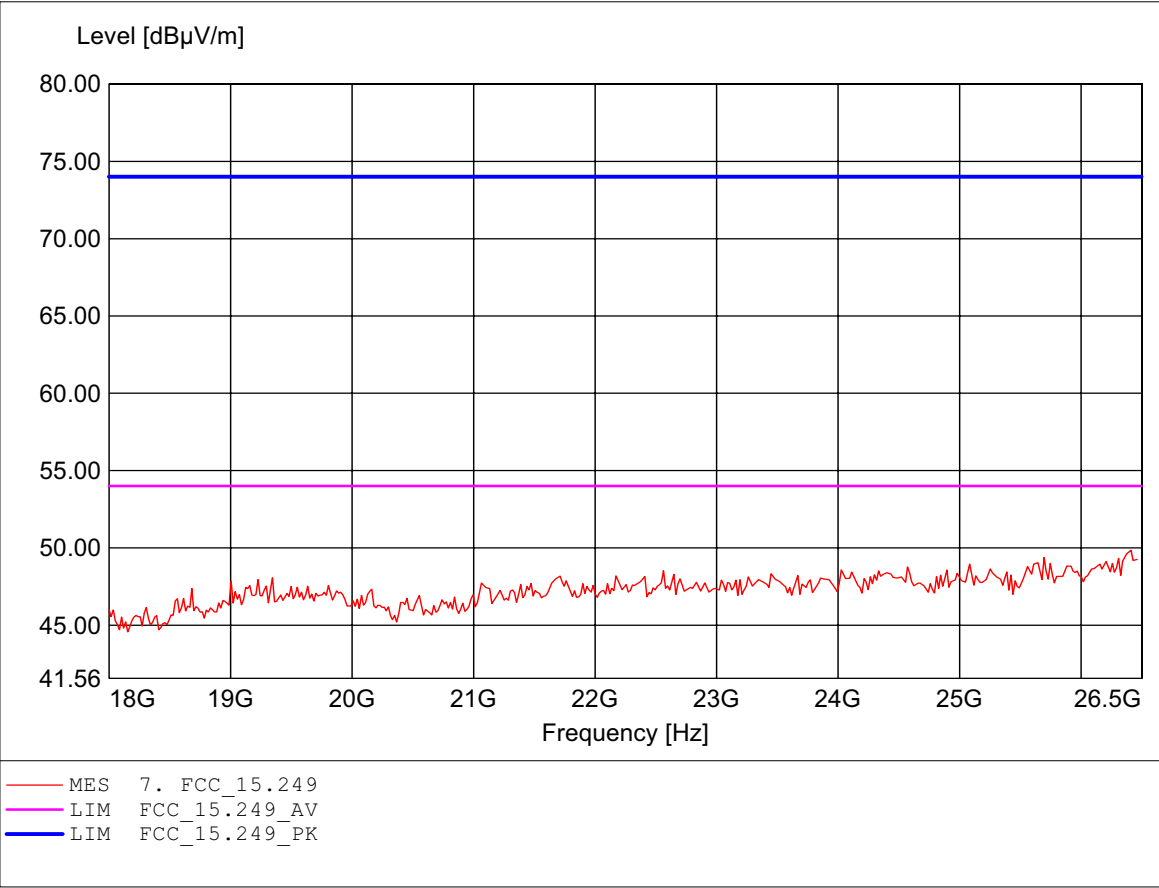
Order Number: ETSTWM0608-00003 High Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 17.988GHz, Emax: 53.94dBµV/m, RBW: 1MHz



Spurious Emissions Field Strength

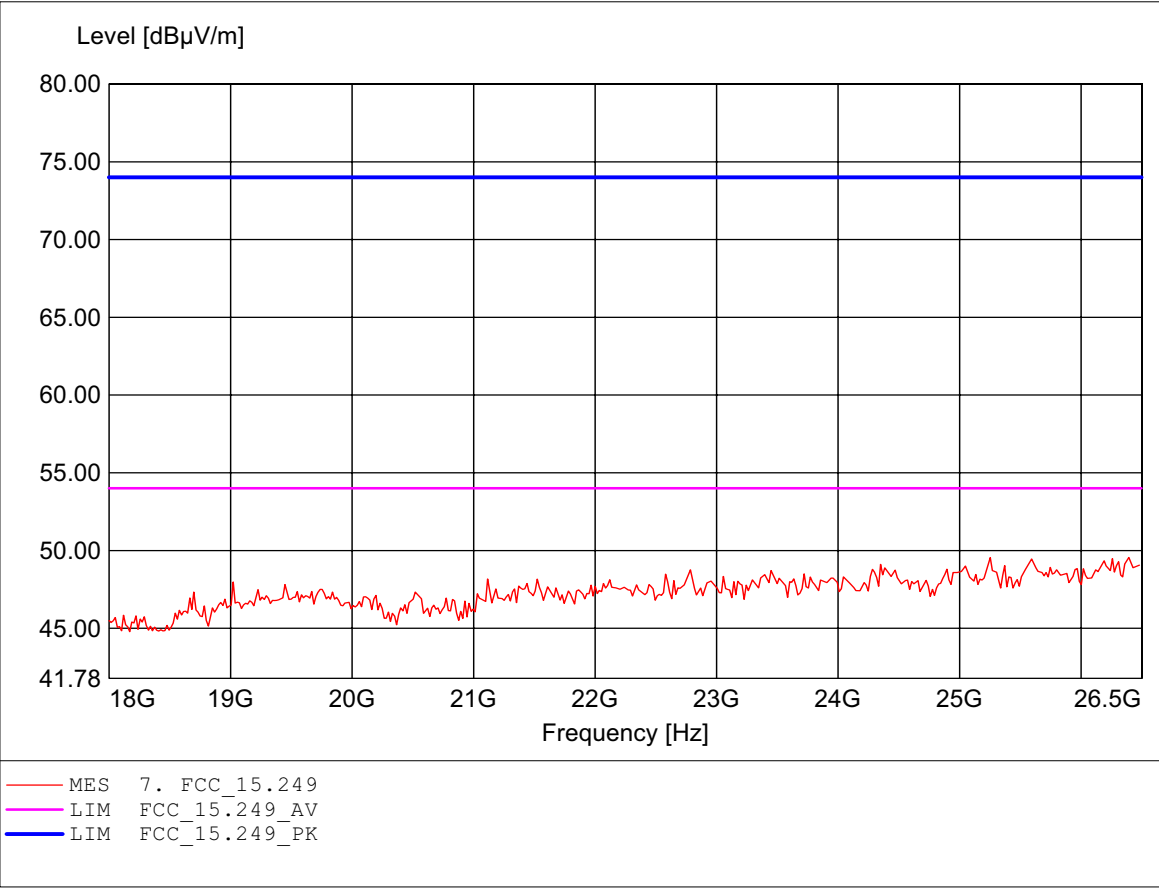
FCC RULES PART 15, SUBPART C / LP0002

Order Nbr: ETSTWM0608-00003 HighChannel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.0
Test Specification: according to 5.249 peak detection
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq 26.415GHz, Emax 4985dBμV/m, RBW: 1MHz



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

Order Number: ETSTWM0608-00003 High Channel
Test Site / Operator: ETS / Catey
Temperature: Temp.: 23.9°C
Test Specification: according to §15.249, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 26.398GHz, Emax: 49.55dBµV/m, RBW: 1MHz





Registration number: ETSTWM0608-00003-P-15
FCC ID: ULUAT-6703T

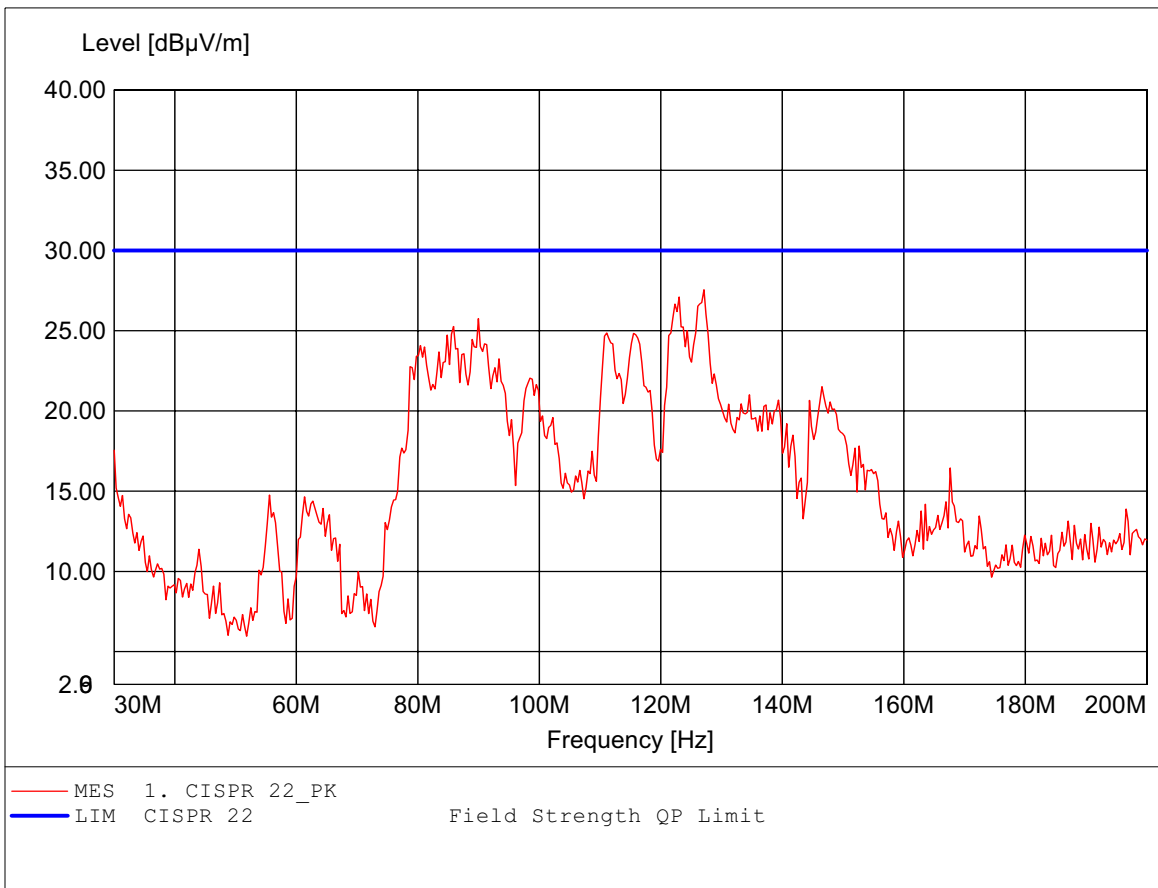
Appendix C

Radiated Emission from Digital Part

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

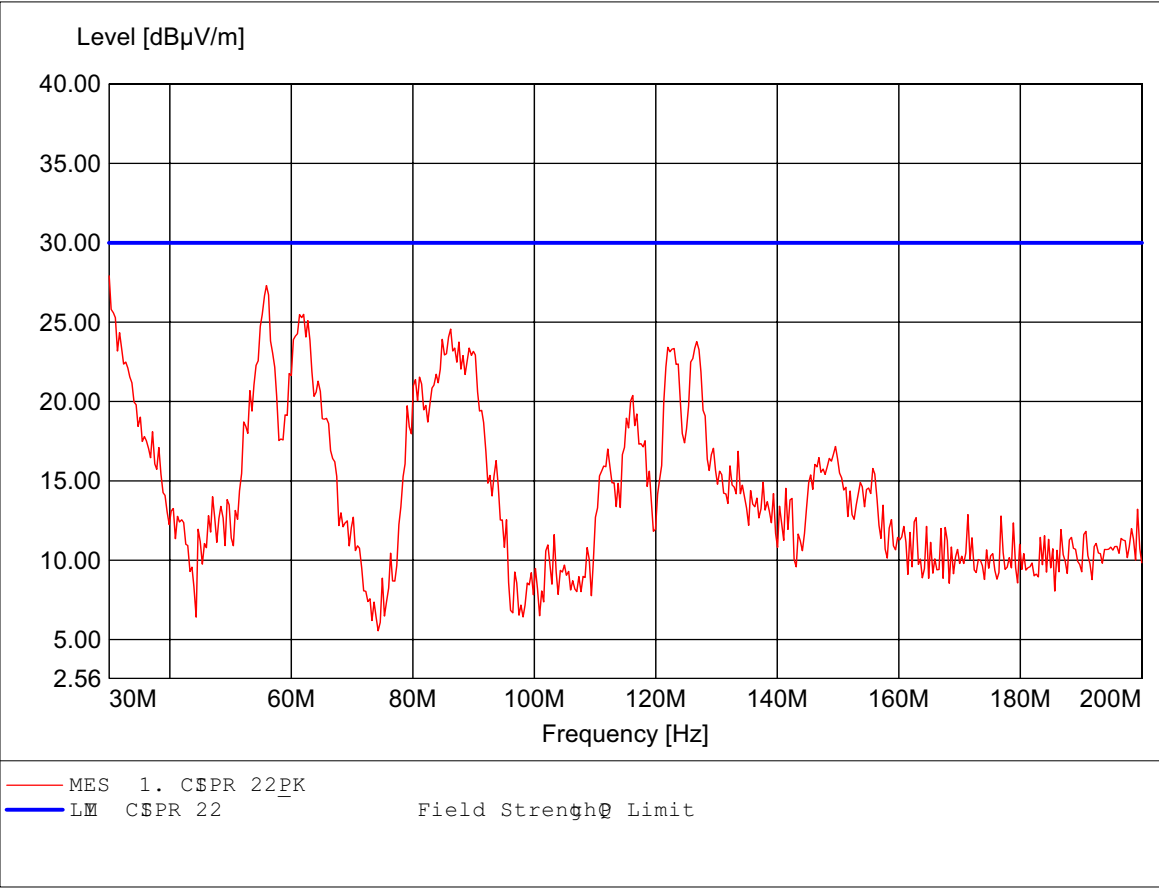
Spurious emissions under normal conditions
in accordance to the CISPR 22

Order Number: ETSTWM0608-00003
Test Site / Operator: ETS / Derek
Temperature: Temp.: 23.9°C
Test Specification: Fully Anechoic Chamber
Comment 1: Dist.: 3m, Ant.: HK 116 , Peak detector
Freq:127.094MHz Emax:27.56dBµV/m RBW: 100 kHz



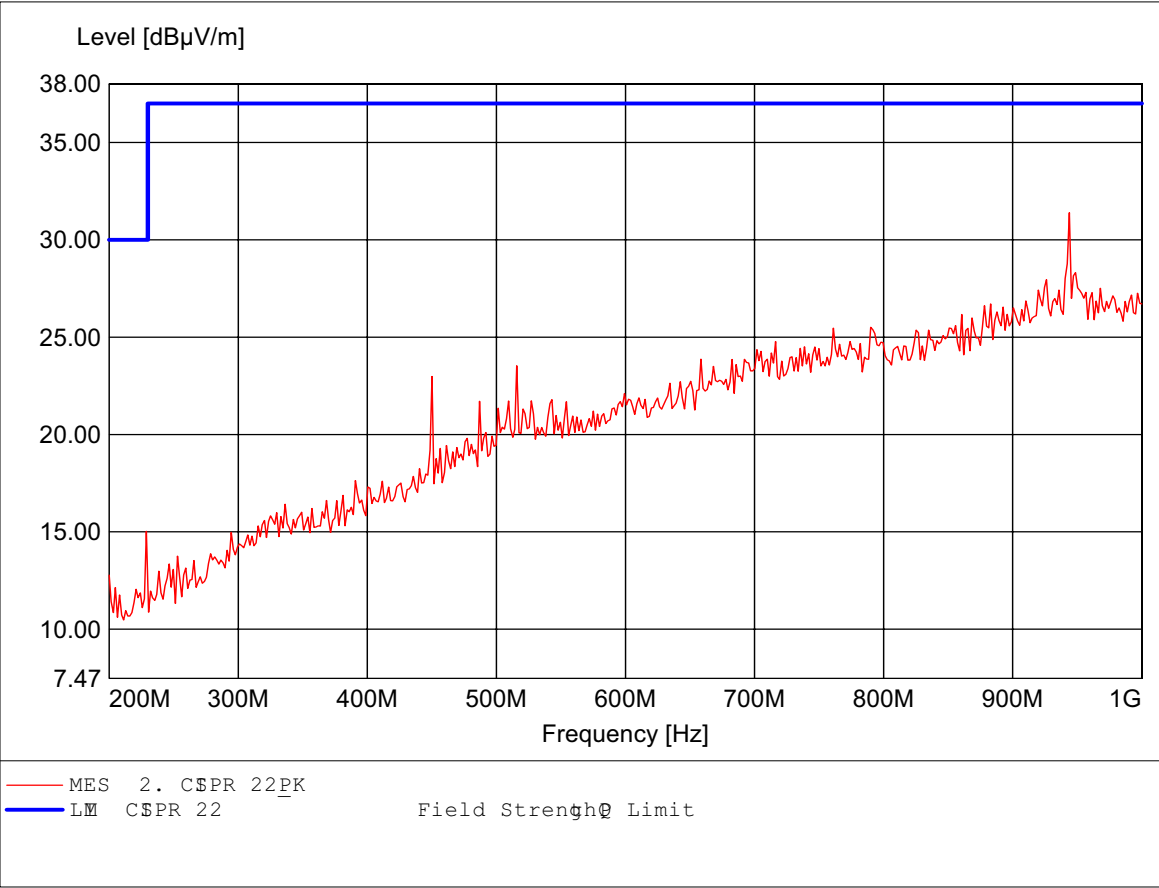
Spurious emissions under normal conditions
in accordance to the CISPR 22

Order Nr: ETSTWM0608-00003
Test Site / Operator: ETS / Derek
Temperature: Temp.: 23.0
Test Specification: Fully Anechoic Chamber
Comment 1: Dist.: 3m, Ant.: HK116 , Peak detector
Frequency 30.000MHz Emax 27.9dBµV/m RBW: 100 kHz



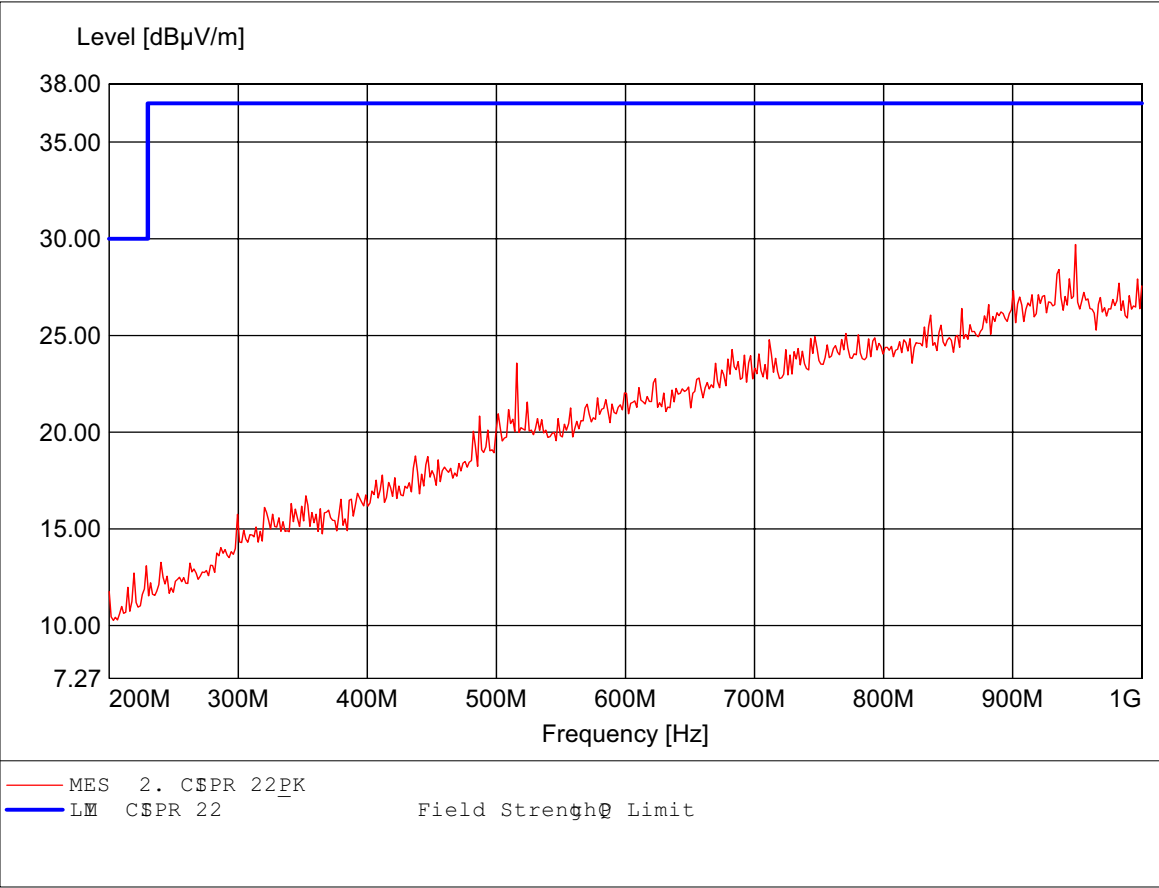
Spurious emissions under normal conditions
in accordance to the CISPR 22

Order No: ETSTWM0608-00003
Test Site / Operator: ETS / Derek
Temperature: Temp.: 23.0
Test Specification: Fully Anechoic Chamber
Comment 1: Dist.: 3m, Ant.: HL 223 , Peak detector
Frequency: 93.888MHz Emax: 31.40dBµV/m RBW: 100 kHz



Spurious emissions under normal conditions
in accordance to the CISPR 22

Order Nr: ETSTWM0608-00003
Test Site / Operatø: ETS / Derek
Temperature: Temp.: 23.0
Test Specification: Fully Aneco Chamber
Comment 1: Dist.: 3m, Ant.: HL 223 , Peak detector
Frequency: 98.69MHz Emax: 2970dBµ/m RBW: 100 kHz





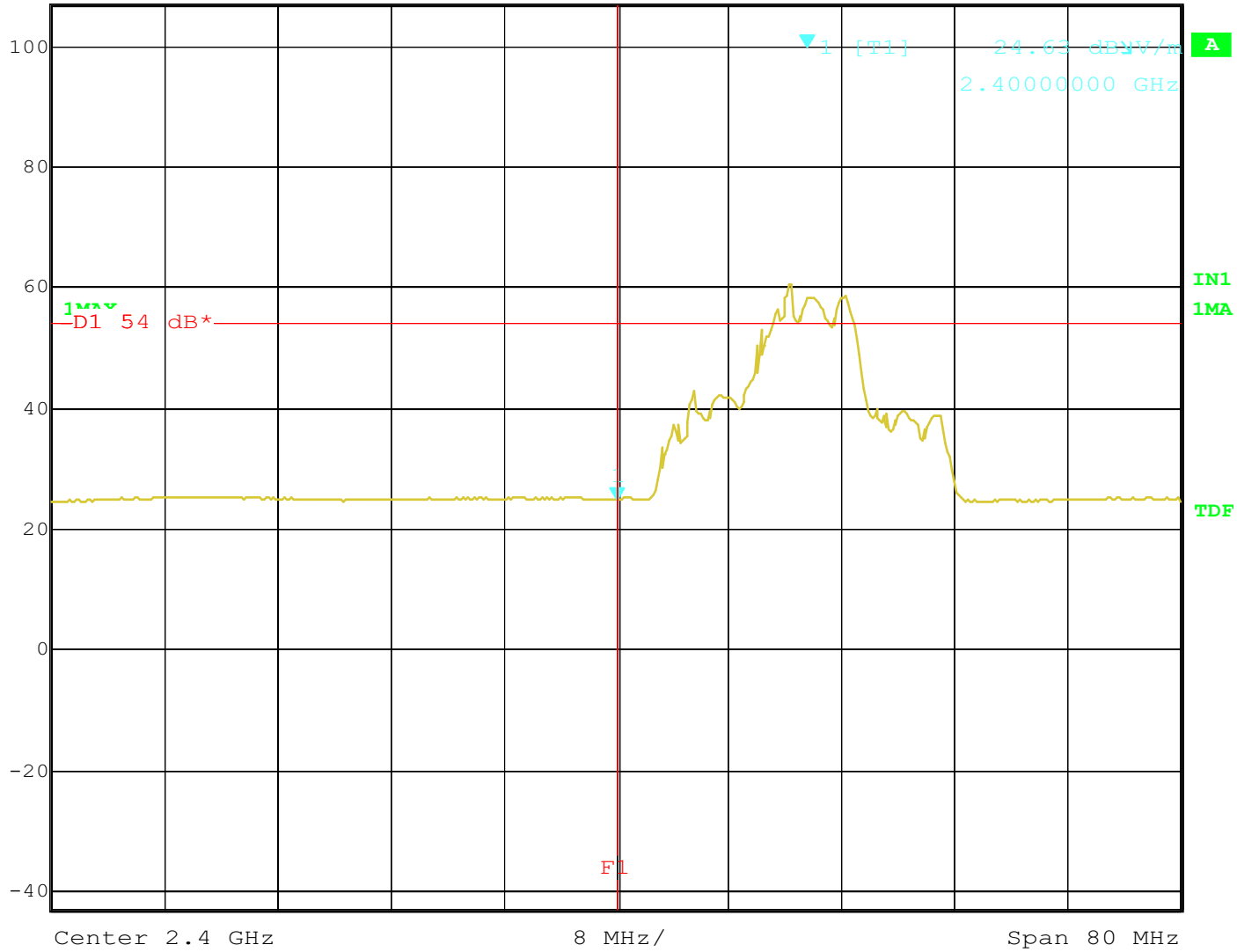
Registration number: ETSTWM0608-00003-P-15
FCC ID: ULUAT-6703T

Appendix D

Radiated Emission on the band edge



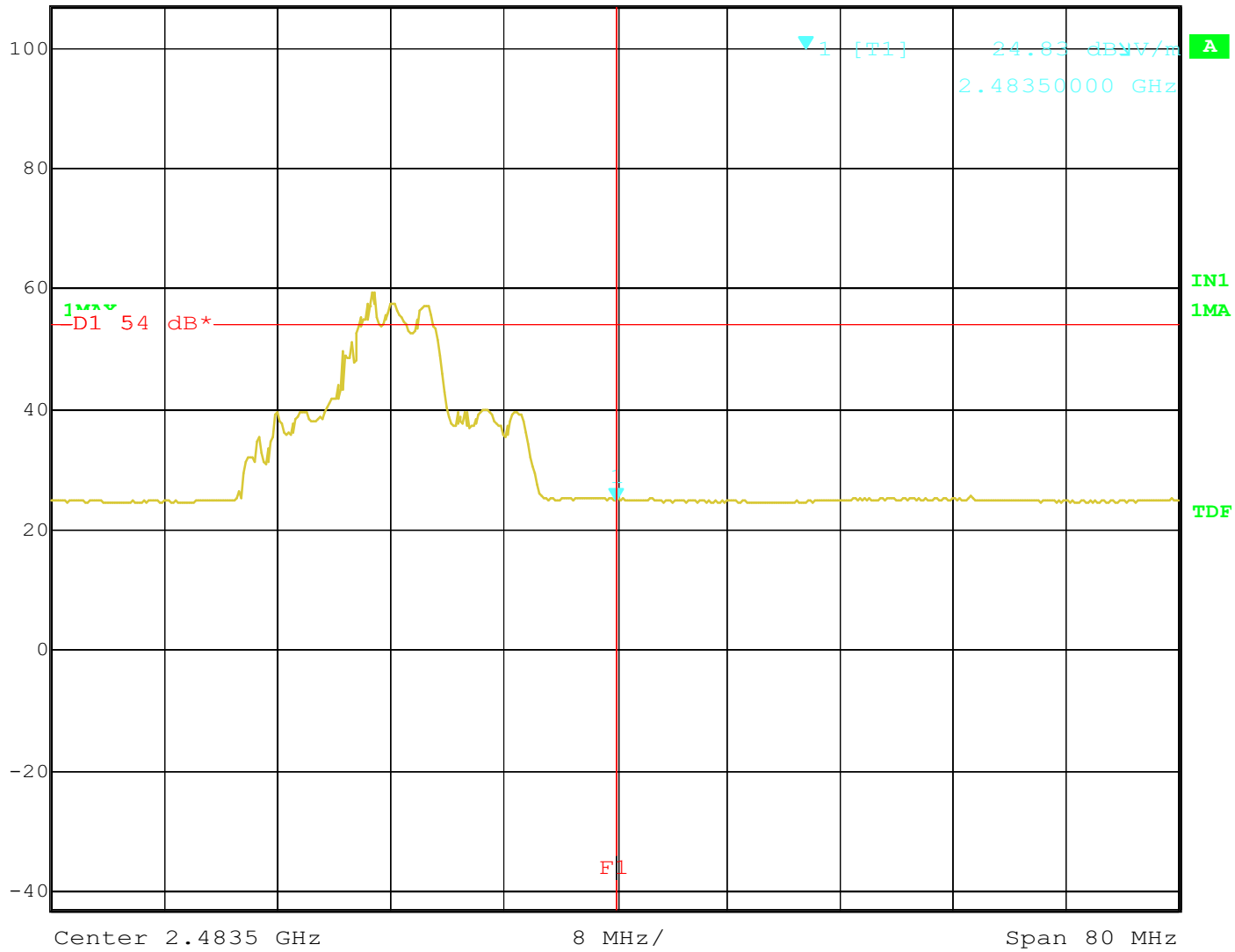
Ref Lvl	Marker 1 [T1]	RBW	1 MHz	RF Att	10 dB
107 dB*	24.63 dBV/m	VBW	1 kHz		
	2.40000000 GHz	SWT	200 ms	Unit	dBV/m



Date: 8.SEP.2006 12:12:14



Ref Lvl	Marker 1 [T1]	RBW	1 MHz	RF Att	10 dB
107 dB*	24.83 dBV/m	VBW	1 kHz		
	2.48350000 GHz	SWT	200 ms	Unit	dBV/m



Date: 8.SEP.2006 12:14:22



Appendix E

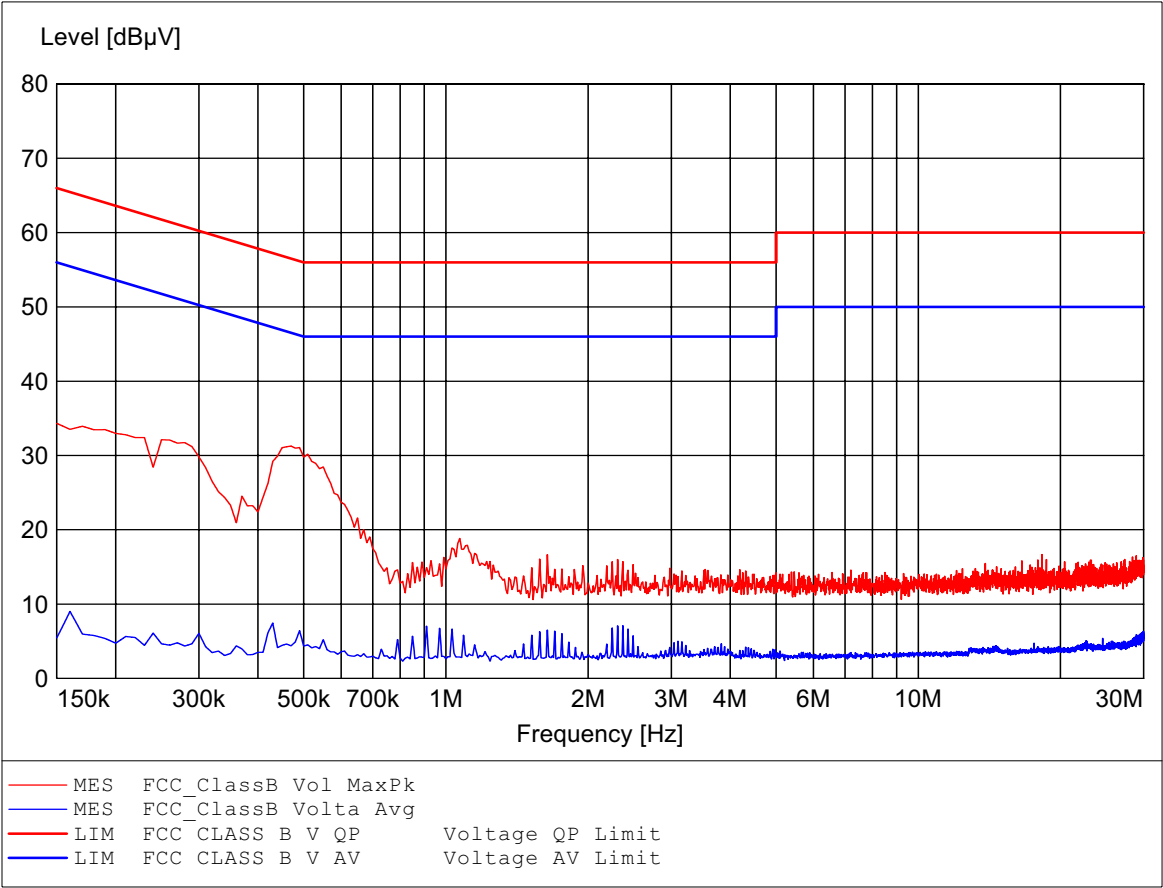
Power Line Conducted Emission

The measurement diagrams plots attached below are preliminary wideband scan with a peak and average detector for reference only. The final test results are listed on section 3.8

EMI voltage test in the ac-mains according to FCC PART 15

CLASS B

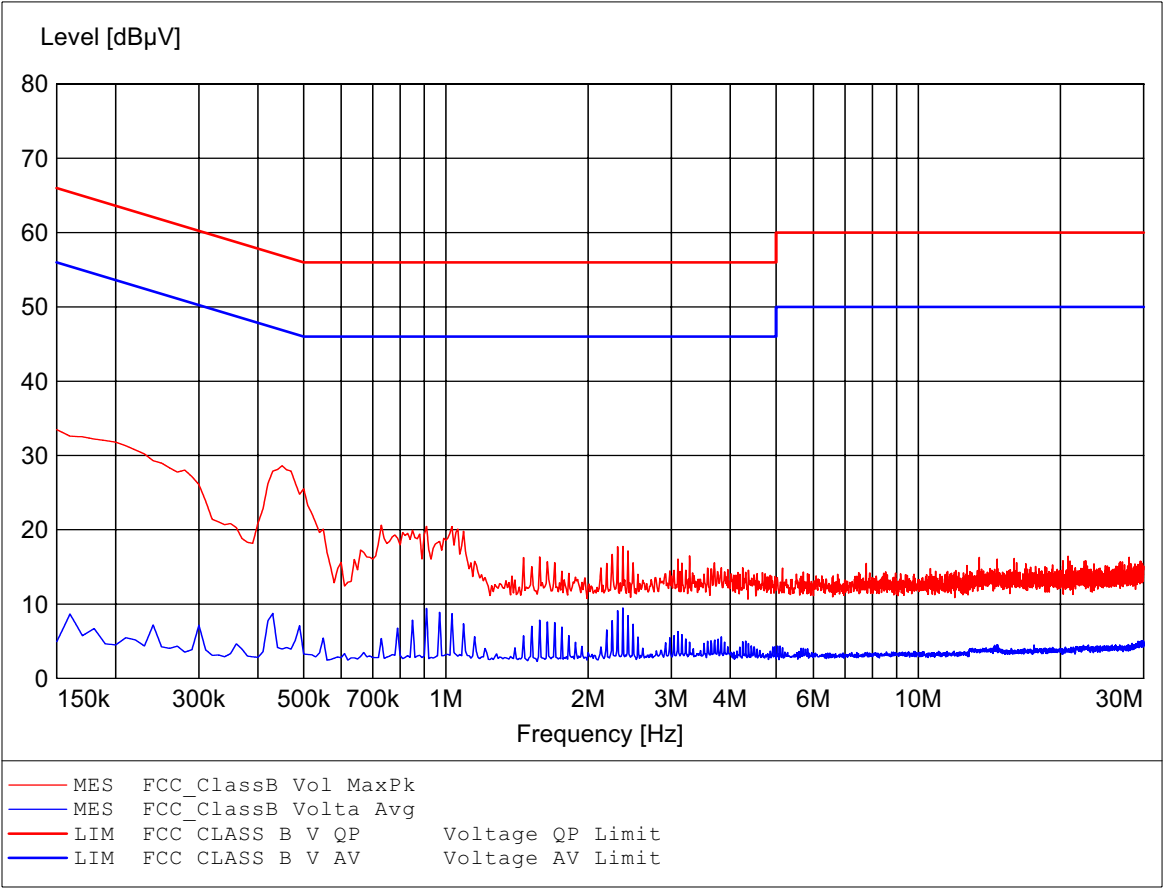
Order Number: ETSTWM0608-00003
Operating Condition: Tnom: 23.9°C
Test Site: ETS
Operator: Derek
Test Specification: V-network: ESH3-Z5 L1

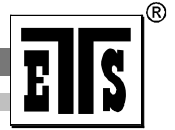


EMI voltage test in the ac-mains according to FCC PART 15

CLASS B

Order Number: ETSTWM0608-00003
Operating Condition: Tnom: 23.9°C
Test Site: ETS
Operator: Derek
Test Specification: V-network: ESH3-Z5 N





Registration number: ETSTWM0608-00003-P-15
FCC ID: ULUAT-6703T

Appendix F

Pictures