

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

PCTRB Accredited Type Certification Test House

FCC

TEST - REPORT

FCC RULES PART 15 / SUBPART C

FCC ID: QQGBU-2094-J

Test report no.: W6M20603-6691-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.

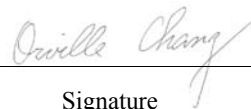
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Tester:

May 19, 2006

Orville Chang



Date

ETS-Lab.

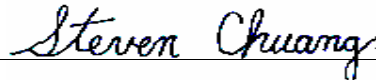
Name

Signature

Technical responsibility for area of testing:

May 19, 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

PCTRB Accredited Type Certification Test House

1.3 Details of approval holder

Name	: J-Three International Holding Co., Ltd.
Street	: No.23-7, Dungshyh 12 Lirn Dungshyh Lii Pingchien City
Town	: Taoyuan Hsien 324
Country	: Taiwan, R.O.C.
Telephone	: +886-3-4606755
Fax	: +886-3-4606761
Contact	: Mr. David Wu
Telephone	: +886-3-4606755

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1.4 Application details

Date of receipt of application : March 13, 2006
Date of receipt of test item : March 13, 2006
Date of test : from March 14, 2006 to May 15, 2006

1.5 General information of Test item

Type of test item : BLUETOOTH USB ADAPTER(Class I)
Model Number : BU-2094-J
Hardware : V1.0
Software : V1.0
Serial number : without
Photos : see Annex

Technical data

Frequency band : 2.4 GHz – 2.4835 GHz
Frequency (ch A) : 2.402 GHz
Frequency (ch B) : 2.441 GHz
Frequency (ch C) : 2.480 GHz

Transmitter Unom

Normal Mode
Power (ch A or ch 0) : **Conducted: 5.95 dBm**
Power (ch B or ch 39) : **Conducted: 5.77 dBm**
Power (ch C or ch 78) : **Conducted: 4.93 dBm**

EDR Mode
Power (ch A or ch 0) : **Conducted: 8.15 dBm**
Power (ch B or ch 39) : **Conducted: 6.99 dBm**
Power (ch C or ch 78) : **Conducted: 6.25 dBm**

Power supply : 120 VAC(power on pc)

Operation modes : duplex

Modulation Type : GFSK

Antenna Type : PCB Antenna

Antenna gain : -2.83 dBi

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Host device : none

Classification :

Fixed Device	☒
Mobile Device (Human Body distance > 20cm)	☐
Portable Device (Human Body distance < 20cm)	☐

Manufacturer:

(if applicable)

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

Additional information : The test sample is designed as BU-2094-J device. Its pseudorandom hopping scheme, authentication, receiver parameters, synchronization procedure and other parameters are determined by BU-2094-J Specification.

1.6 Test standards

Technical standard : FCC RULES PART 15 SUBPART B /
SUBPART C § 15.247 : September 2005

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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 of power supply	: 120 VAC(power on PC)
Extreme conditions parameters	: test voltage : -- extreme min :-- V max :-- V

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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 002	PREREULATOR MODE DC POWER SUPPLY	None	None			
ETSTW-CE 003	AC POWER SOURCE	APS-9102	D161137	GW		
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	2005/8/18	2006/8/17
ETSTW-CE 012	Dual-Phase-V-Network	NNB-2/16Z	03/10201	Telemeter		
ETSTW-CS 001	SIGNAL GENERATOR	SMX	849254/003	R&S	2005/10/14	2006/10/13
ETSTW-CS 002	COUPLING AND DECOUPLING NETWORK	CDN S751	19263	SCHAFFNER	2005/10/14	2006/10/13
ETSTW-CS 003	COUPLING AND DECOUPLING NETWORK	CDN T400	19820	SCHAFFNER	2005/10/14	2006/10/13
ETSTW-CS 004	COUPLING AND DECOUPLING NETWORK	CDN M016	20053	SCHAFFNER	2005/10/27	2006/10/26
ETSTW-CS 005	RF Power Amplifier	100A250A	306547	AR	2005/10/14	2006/10/13
ETSTW-CS 004	6 dB Attenuator	HFP-5100-3/06 N M/F	2010876106			
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 018	ANTENNA	AT4560	27212	AR	2004/11/8	2007/11/7
ETSTW-RE 019	ANTENNA , HORN	22240-25	121074	FM		

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ETSTW-RE 020	MICROWAVE HORN ANTENNA	AT4002A	306915	AR		
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	2004/6/15	2006/6/14
ETSTW-RE 029	Biconical Antenna	3109	33524	EMCO	2004/6/17	2006/6/16
ETSTW-RE 030	Double-Ridged Waveguide Horn Antenna	3117	35224	EMCO	2006/5/4	2008/5/3
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	2005/8/11	2006/8/10
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		
ETSTW-RE 044	ANTENNA	HL050	100094	R&S		
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 004	Attenuator 6dB	50HF-006	None	JFW		
ETSTW-RE 055	SPECTRUM ANALYZER	FSU-26	200074	R&S	2005/9/6	2006/9/5
ETSTW-EMI 001	HARMONICS 1000	HAR1000-1P	93	EMC-PARTNER	2005/9/12	2006/9/11
ETSTW-EMS 001	Clamp BASELSTRASSE 160 CH-4242 LAUFEN	CN-EFT1000	354	EMC-PARTNER	2004/11/2	2006/11/1
ETSTW-EMS 002	Frequency Converter	YF-6020	0308014			
ETSTW-EMS 003	EMC Immunity Test System	TRA2000IN6	579	EMC-PARTNER	2005/10/27	2006/10/26
ETSTW-EMS 004	ESD generator minizap	ESD2000	016	EMC-PARTNER	2005/10/27	2006/10/26
ETSTW-EMS 008	Safety Test Solutions	ELT-400	E-0039	Narda	2005/5/4	2007/5/3

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ETSTW-EMS 009	Magnetic Field Antenna	MF1000-1	104	EMC-PARTNER	2004/12/3	2007/12/2
ETSTW-EMS 010	Coupling De-coupling Network	CDN-UTP8	014	EMC-PARTNER	2005/9/1	2008/8/31
ETSTW-EMS 011	Calibration Fixture	F-2031-CF-23MM	451	FCC	2005/8/11	2007/8/11
ETSTW-EMS 012	EM Injection Clamp	F-2031-23MM	476	FCC	2005/8/11	2007/8/10
ETSTW-RS 003	RF Power Amplifier	30S1G3	306933	AR		
ETSTW-RS 004	RF Power Amplifier	150W1000	307009	AR	2005/10/21	2006/10/20
ETSTW-RS 005	Electric Field Probe Type 8.3	EMR-20	BN 2244/20	Narda	2005/9/7	2007/9/6
ETSTW-RS 006	SIGNAL GENERATOR	SML03	101551	R&S	2005/10/21	2006/10/20
ETSTW-GSM 01	SIM Simulator	IT3	B2004-50106	ORGA	2005/9/15	2006/9/14
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	2004/7/14	2006/7/13
ETSTW-GSM 04	Agilent 8960 Test Set 2	E5515C	GB44052665	Agilent	2004/7/14	2006/7/13
ETSTW-GSM 05	Agilent 8960 Test Set 3	E5515C	GB44052652	Agilent	2004/7/17	2006/7/16
ETSTW-GSM 06	Agilent 8960 Test Set 4	E5515C	GB44052684	Agilent	2004/7/16	2006/7/15
ETSTW-GSM 07	Agilent 8960 Test Set 5	E5515C	GB44052658	Agilent	2004/7/14	2006/7/13
ETSTW-GSM 08	Agilent 8960 Test Set 6	E5515C	GB44052666	Agilent	2004/7/16	2006/7/15
ETSTW-GSM 10	Combiner Wessex / Anite	B4605/100	053	Wessex / Anite	2004/7/14	2006/7/13
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 13	Conditioning Amplifier	2690--0S2	2437856	Brüel&Kjær		
ETSTW-GSM 14	Telephone Test Head	4602B	2465324	Brüel&Kjær		
ETSTW-GSM 15	Mouth Simulator	4227	2462516	Brüel&Kjær		
ETSTW-GSM 16	TEMP.&HUMIDITY CHAMBER	GTH-120-40-1P-U	MAA0501002	GIANT FORCE	2005/12/29	2006/12/28
ETSTW-GSM 17	ANTENNT COPLER	CMU-Z10	100988	R&S		
ETSTW-GSM 18	AUDIO ANALYZER	UPL16	100173	R&S	2005/10/29	2006/10/28
ETSTW-GSM 23	SPLITTER	4901.19.A	None	SUHNER		
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

The UUT was placed on a table 80 cm high and with dimensions of 1m by 1.5m (non metallic table) and arranged according to ANSI C63.4-2003 Section 13.1.2. The table used for radiated measurements is capable of continuous rotation. The spectrum was scanned from 30 MHz to the frequency specified as follows:

- (1) If the intentional radiator operates below 10 GHz: to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower.
- (2) If the intentional radiator operates at or above 10 GHz and below 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 100 GHz, whichever is lower.
- (3) If the intentional radiator operates at or above 30 GHz: to the fifth harmonic of the highest fundamental frequency or to 200 GHz, whichever is lower, unless specified otherwise elsewhere in the rules.
- (4) If the intentional radiator contains a digital device, regardless of whether this digital device controls the functions of the intentional radiator or the digital device is used for additional control or function purposes other than to enable the operation of the intentional radiator, the frequency range shall be investigated up to the range specified in paragraphs (a)(1)-(a)(3) of this section or the range applicable to the digital device, as shown in paragraph (b)(1) of this Section, whichever is the higher frequency range of investigation.

For hand-held devices, a exploratory test was performed with three (3) orthogonal planes to determine the highest emissions.

Measurements were made by ETS Dr. Genz Taiwan PS Co., Ltd. at the registered open field test site located No.5-1, Shuang Sing Village, LiShuei Rd., Wanli Township, Taipei County 207, Taiwan (R.O.C.). The Registration Number: 930600.

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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.

When the radiated emission limits are expressed in terms of the average value of the emission, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum value.

The formula is as follows:

Average = Peak + Duty Factor

Duty Factor = $20 \log (\text{dwell time}/T)$

T = 100ms when the pulse train period is over 100 ms or the period of the pulse train.

Modified Limits for peak according to 15.35 (b) = Max Permitted average Limits + 20dB

ANTENNA & GROUND:

This unit uses PCB Antenna.

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3 Test results (enclosure)

TEST CASE	Para. Number	Required	Test passed	Test failed
Peak Output Power	15.247(b)	☒	☒	☐
Equivalent radiated Power	15.247(b)	☒	☒	☐
Spurious Emissions radiated – Transmitter operating	15.247(c)	☒	☒	☐
Spurious Emissions conducted – Transmitter operating	15.247	☐	☐	☐
Carrier Frequency Separation	15.247(a) (1)	☒	☒	☐
Number of Hopping Frequencies	15.247(a) (1)(i)	☒	☒	☐
Time of Occupancy (Dwell Time)	15.247(a) (1)(i)	☒	☒	☐
20 dB Bandwidth	15.247(a) (1)(i)	☒	☒	☐
Band-edge Compliance of RF Emission	15.247(c)	☒	☒	☐
Radiated Emission from Digital Part And Receiver L.O.	15.109	☒	☒	☐
Power Line Conducted Emission	15.207(a)	☒	☒	☐

The follows is intended to leave blank.

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3.1 Peak Output Power (transmitter)

FCC Rule: 15.247

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).

(Normal Mode)

Test conditions		Conducted Power		
		Channel A [dBm]	Channel B [dBm]	Channel C [dBm]
$T_{\text{nom}} = 23^{\circ}\text{C}$	$V_{\text{nom}} = 120\text{ V}$	5.95	5.77	4.93
Measurement uncertainty		< 3 dB		

(EDR Mode)

Test conditions		Conducted Power		
		Channel A [dBm]	Channel B [dBm]	Channel C [dBm]
$T_{\text{nom}} = 23^{\circ}\text{C}$	$V_{\text{nom}} = 120\text{ V}$	8.15	6.99	6.25
Measurement uncertainty		< 3 dB		

Test conditions		Radiated Power		
		Channel A [dBm]	Channel B [dBm]	Channel C [dBm]
$T_{\text{nom}} = 23^{\circ}\text{C}$	$V_{\text{nom}} = 120\text{ V}$	--	--	--
Measurement uncertainty		< 3 dB		

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Test conditions $T_{nom} = 23^{\circ}\text{C}$, $V_{nom} = 120\text{ V}$ Frequency[MHz]	Signal Field strength TX highest power mode dB $\mu\text{V/m}$
2480	95.04
Measurement uncertainty	< 3 dB

The diagrams for the field strength measurements are included in Appendix.

Maximum Peak Output Power

Limits:

Frequency MHz	Number of hopping channels			
	≥ 75	≥ 50	$49 \geq 25$	$74 \geq 15$
902-928		30 dBm	24 dBm	
2400-2483.5 MHz	30 dBm	-		21 dbm
5725-5850 MHz	30 dBm	-		

In case of employing transmitter antennas having antenna gain >dBi and using fixed poin-to point operation consider §15.247 (b)(4).

Test equipment used: ETSTW-RE 003, ETSTW-RE 004, ETSTW-RE 055

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3.2 Equivalent isotropic radiated power

FCC Rule: 15.239(b), 15.35

Because using an internal 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 § 15.247, subpart C, section b. This unit uses an internal antenna. There is no provision for an external antenna (see photo).

3.3 RF Exposure Compliance Requirements

According to Supplement C, Edition 01-01 to OET Bulletin 65, Edition 97-01 this spread spectrum transmitter is categorically excluded from routine environmental evaluation because of the low power level, where there is a high likelihood of compliance with RF exposure standards.

The antenna used for this Bluetooth transceiver module must not be co-located or operating in conjunction with any other antenna or transmitter.

3.4 Out of Band Radiated Emissions

FCC Rule: 15.247(c) , 15.35

For out of band emissions that are close to or that exceed the 20 dB attenuation requirement described in the specification, radiated measurements were performed at a 3 m separation distance to determine whether these emissions complied with the general radiated emission requirement.

Limits:

For frequencies below 1GHz :

Max. reading – 20 dB

$95.04 \text{ dB}\mu\text{V/m} - 20 \text{ dB} = 75.04 \text{ dB}\mu\text{V/m}$

Guidance on Measurement of FHSS Systems:

“If the emission is pulsed, modify the unit for continuous operation , use the settings shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation.” Here the correction was added to the limit instead subtracted from the reading.

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

For frequencies above 1GHz (Peak measurements).

Limit = max. aver. reading-20dB +20dB(because Peak detector is used)

$75.04 \text{ dB}\mu\text{V/m}$

For frequencies above 1GHz (Average measurements).

Max. reading – 20 dB - duty cycle correction:

No duty cycle correction was added to the reading

$95.04 \text{ dB}\mu\text{V/m} - 20 \text{ dB} = 75.04 \text{ dB}\mu\text{V/m}$

Remarks: See attached diagrams.

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

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3.5 Transmitter Radiated Emissions in restricted Bands

FCC Rules: 15.247 (c), 15.205, 15.209, 15.35

Radiated emission measurements were performed from 30 MHz to 26000 MHz.

For radiated emission tests, the analyzer setting was as followings:

RES BW VID BW

Frequency <1 GHz 100 kHz 100 kHz (Peak measurements)

Frequency >1 GHz 1 MHz 1 MHz (Peak measurements)

1 MHz 1 MHz (Average measurements)

Limits:

For frequencies below 1GHz :

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	46.0
Above 960	500	54.0

For frequencies above 1GHz (Average measurements).

Guidance on Measurement of FHSS Systems:

“If the emission is pulsed, modify the unit for continues operation , use the settings shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation.” Here the correction was added to the limit instead subtracted from the reading.

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

For frequencies above 1GHz (Average measurements).

Limit – duty cycle correction

No duty cycle correction was added to the reading.

54.0dB μ V/m

For frequencies above 1GHz (Peak measurements).

Limit + 20dB

54.0dB μ V/m + 20 dB= 74 dB μ V/m

Remarks: See attached diagrams.

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

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3.6 Spurious emissions (tx)

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

In any 100 kHz bandwidth outside the frequency band in which the intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in § 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c))

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

Calculation of test results:

Such factors like antenna correction, cable loss, external attenuation etc. are already included in the provided measurement results. This is done by using validated test software and calibrated test system according the accreditation requirements.

The peak and average spurious emission plots was measured with the average limits.

In the Table being listed the critical peak and average value an exhibit the compliance with the above calculated Limits.

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

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)
H	159.799	12.4	15.43	PK	27.83	75.8	47.97	109
	400.4	14.44	17.79	PK	32.23	46	13.77	86
	2386.372	43.92	2.08	PK	46	54	8	308
	2400	67	2.06	PK	69.06	74	4.94	316
	2390	38.13	2.05	PK	40.18	74	33.82	214
	2390	23.27	2.05	AV	25.32	54	28.68	214
	4801.603	48.52	4.47	PK	52.99	54	1.01	145
	7206.412	50.02	7.1	PK	57.12	75.79	18.67	154

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)
V	167.294	17.12	15.12	PK	35.24	75.8	40.56	118
	400.4	15.97	17.79	PK	33.76	46	12.24	92
	1501.002	54.97	-7.18	PK	47.79	54	6.21	168
	2390	35.17	2.05	PK	37.22	74	36.78	211
	2390	21.97	2.05	AV	24.02	54	29.98	211
	2400	58	2.06	PK	60.06	74	13.94	317
	4801.603	44.97	4.47	PK	49.44	54	4.56	147

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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)
H	167.635	12.52	15.08	PK	27.6	75.8	48.2	105
	400.4	15.48	17.79	PK	33.27	46	12.73	89
	2488.675	45.89	-1.28	PK	44.61	54	9.39	314
	4881.992	49.85	4.86	PK	54.71	74	19.29	149
	4881.992	41.89	4.86	AV	46.75	54	7.25	149
	7322.902	51.09	6.33	PK	57.42	74	16.58	152
	7322.902	40	6.33	AV	46.33	54	7.67	152

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)
V	400.4	15.5	17.79	PK	33.29	46	12.71	89
	167.294	18.51	15.12	PK	33.63	75.8	42.17	111
	1494.989	55.68	-7.29	PK	48.39	54	5.61	48
	4881.763	46.64	4.86	PK	51.5	54	2.5	19

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)
H	166.613	14.1	15.17	PK	29.27	43.5	14.23	121
	400.4	14.06	17.79	PK	31.85	46	14.15	83
	2483.5	43.47	-1.09	PK	42.38	74	31.62	317
	2483.5	30.35	-1.09	AV	29.26	54	24.74	317
	2495.92	49.4	-1.55	PK	47.85	54	6.15	325
	4959.669	49.14	3.99	PK	53.13	74	20.87	360
	4959.669	40.87	3.99	AV	44.86	54	9.14	360
	7439.814	50.55	6.41	PK	56.96	74	17.04	263
	7439.814	38.72	6.41	AV	45.13	54	8.87	263

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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)
V	166.272	20.42	15.14	PK	35.56	43.5	7.94	118
	400.4	15.16	17.79	PK	32.95	46	13.05	84
	1498.997	53.51	-7.23	PK	46.28	54	7.72	42
	2483.5	45.41	-1.09	PK	44.32	74	29.68	319
	2483.5	25.76	-1.09	AV	24.67	54	29.33	319
	4953.907	46.65	4.42	PK	51.07	54	2.93	12

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

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

Comment: see attached diagrams

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

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3.7 Carrier Frequency Separation

Carrier Frequency Separation was measured with modulation (declared by manufacturer).

According to FCC rules part 15 subpart C §15.247 frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or 20 dB bandwidth of the hopping channel, whichever is greater.

Test conditions		Channel Separation	
		Channel B	Channel B+1
$T_{nom} = 23^{\circ}\text{C}$	$V_{nom} = 120\text{ V}$	1.000000000 MHz	
Measurement uncertainty		< 10 Hz	

Limits:

Frequency Range MHz	Limits	
	20 dB bandwidth < 25 kHz	20 dB bandwidth > 25 kHz
902-928	25 kHz	20 dB bandwidth
2400-2483.5 5725-5850.0	25 kHz	20 dB bandwidth

Test equipment used: ETSTW-RE 003, ETSTW-RE 004, ETSTW-RE 055

Comment: see attached diagram

3.8 Number of Hopping Frequencies

According to FCC rules part 15 subpart C §15.247 frequency hopping systems operating in the 2400-2483.5 MHz band shall use at least 15 hopping frequencies. Frequency hopping systems in 5725-5850 MHz bands shall use least 75 hopping frequencies.

For frequency hopping systems operating in the 902-928 MHz band: if the 20dB bandwidth of the hopping channel is less than 250 kHz, the system shall use at least 50 hopping frequencies; if the 20dB bandwidth of the hopping channel 250 kHz or greater, the system shall use at least 25 hopping frequencies.

Test conditions		Operating Mode	Number of Channels
$T_{nom} = 23^{\circ}\text{C}$	$V_{nom} = 120\text{ V}$	normal transmitting	79
$T_{nom} = 23^{\circ}\text{C}$	$V_{nom} = 120\text{ V}$	Inquiry mode	32

Limits:

Frequency Range MHz	Limit			
	20dB Bandwidth		20dB Bandwidth < 250 kHz	20dB Bandwidth ≥ 250 kHz
	≤ 1MHz			
902-928 MHz			≥ 50	≥ 25
2400-2483.5	≥ 15	≥ 15		
5725-5850.0 MHz	≥ 75			

Test equipment used: ETSTW-RE 003, ETSTW-RE 004, ETSTW-RE 055

Comment: see attached diagrams

3.8.1 Pseudorandom Frequency Hopping Sequence

The generation of the hopping sequence is determined by the Bluetooth cord specification and complies with the FCC requirements.

3.8.2 Coordination of hopping sequences to other transmitters

According to the Bluetooth core specification V1.1 such a coordination is not possible. During scatternet function only one of the two hopping sequences will be used at a definite moment.

3.8.3 System Receiver Hopping Capability

According to the Bluetooth core specification. The system receivers shift frequencies in synchronization with the transmitted signals.

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3.9 Time of Occupancy (Dwell Time)

Frequency hopping systems operating in the 5725-5850 MHz band shall use an average time of occupancy on any frequency not greater than 0.4 seconds within a 30 second period.

In 2400-2483,5 MHz band the average time of occupancy on any channel shall not be greater than 0,4 seconds multiplied by the number of hopping channels employed.

For frequency hopping systems operating in the 902-928 MHz band: if the 20dB bandwidth of the hopping channel is less than 250 kHz, the average time of occupancy on any frequency shall not greater than 0.4 seconds within a 20 second period; if the 20dB bandwidth of the hopping channel is 250 kHz or greater, the average time of occupancy on any frequency shall not be greater than 0.4 seconds within a 10 second period.

Test conditions	Operating mode	Measurement periode	Time of Occupancy
$T_{nom} = 23^{\circ}\text{C}$ $V_{nom} = 120\text{ V}$ Channel B	normal transmitting		133.4 ms
	inquiry mode		--
Measurement uncertainty	< 1 μs		

Limits and measurement periods:

Frequency MHz	Number of channels	Measurement Periode	Limit
902 – 928	≥ 50	20 s	0,4 s
	$49 \geq 25$	10 s	0,4 s
2400 – 2483,5	≥ 15	0,4 s * number of used channels	0,4 s
5725- 5850	≥ 75	30 s	0,4s

Test equipment used: ETSTW-RE 003, ETSTW-RE 004, ETSTW-RE 055

Comment: See attached diagram, which show the On-time and the number of counted events during the measurement period

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3.10 20dB Bandwidth

Frequency hopping systems operating in the 5725-5850 MHz bands shall use a maximum 20dB bandwidth of 1 MHz.

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

For frequency hopping systems operating in the 902-928 MHz band the maximum 20dB bandwidth of the hopping channel is 500 kHz.

(Normal Mode)

Test conditions		20 dB Bandwidth		
		Channel A	Channel B	Channel C
$T_{\text{nom}} = 23^{\circ}\text{C}$	$V_{\text{nom}} = 120 \text{ V}$	949.89979960 kHz	955.91182365 kHz	955.91182365 kHz
Measurement uncertainty		< 10 Hz		

(EDR Mode)

Test conditions		20 dB Bandwidth		
		Channel A	Channel B	Channel C
$T_{\text{nom}} = 23^{\circ}\text{C}$	$V_{\text{nom}} = 120 \text{ V}$	1.35270541 MHz	1.35270541 MHz	1.35270541 MHz
Measurement uncertainty		< 10 Hz		

Limits:

Frequency Range / MHz	Number of channels	Limit
902-928	< 50	< 250 kHz
	$49 \geq 25$	$500 \text{ kHz} \geq 250 \text{ kHz}$
2400-2483.5	≥ 15	not determined
5725-5850	75	$\leq 1 \text{ MHz}$

Test equipment used: ETSTW-RE 003, ETSTW-RE 004, ETSTW-RE 055

Comment: see attached diagram

3.10.1 System Receiver Input Bandwidth

It is determined in the Bluetooth core specification. The value matches to the bandwidth of transmitter signal.

3.11 Band-edge Compliance of RF Emissions

According to FCC rules part 15 subpart C §15.247(c) in any 100 kHz bandwidth outside the frequency band in which the intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. Attenuation below the general limits specified in § 15.209(a) is not required.

In addition radiated emission which fall in the restricted bands, as defined in section 15.205(a), must also with the radiated emission limits.

(Normal Mode)

Test conditions		Attenuation at or outside band-edges Single Frequency	
		Lower Band-edge	Upper Band-edge
$T_{nom} = 23^{\circ}\text{C}$	$V_{nom} = 120 \text{ V}$	52.74 dB	52.18 dB
Measurement uncertainty		< 100 Hz	

Test conditions		Attenuation at or outside band-edges Hopping Frequency	
		Lower Band-edge	Upper Band-edge
$T_{nom} = 23^{\circ}\text{C}$	$V_{nom} = 120 \text{ V}$	47.16 dB	45.58 dB
Measurement uncertainty		< 100 Hz	

(EDR Mode)

Test conditions		Attenuation at or outside band-edges Single Frequency	
		Lower Band-edge	Upper Band-edge
$T_{nom} = 23^{\circ}\text{C}$	$V_{nom} = 120 \text{ V}$	--	--
Measurement uncertainty		< 100 Hz	

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Test conditions		Attenuation at or outside band-edges Hopping Frequency	
		Lower Band-edge	Upper Band-edge
$T_{nom} = 23^{\circ}\text{C}$	$V_{nom} = 120 \text{ V}$	44.27 dB	42.29 dB
Measurement uncertainty		< 100 Hz	

Limits:

Frequency Range / MHz	Limit
902 – 928	- 20 dB
2400 – 2483.5	
5725 - 5850	

Test equipment used: ETSTW-RE 003, ETSTW-RE 004, ETSTW-RE 055

Comment: see attached diagrams

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3.12 Radiated Emissions from Receiver Section of Transceiver

FCC Rule: 15.109

Summary table with radiated data of the test plots

(RX)

Low Channel

Antenna Polarization	Frequency Marker (MHz)	Corrected Reading (dBuv)	Correction Factor (dB)	Detector	Test Result (dBuV/m)	Compliance Limit (dBuV/m)	Margin (dB)	Table Azimuth (degree)
H	172.064	15.3	14.86	PK	30.16	43.5	13.34	125
	467.735	18.19	19.28	PK	37.47	46	8.53	77
	1601.202	41.07	-7.43	PK	33.64	54	20.36	172
	2400.801	35.57	2.04	PK	37.63	54	16.37	317
	2466.933	38.68	-0.45	PK	38.23	54	15.77	308

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)
V	166.613	21.22	15.17	PK	36.39	43.5	7.11	143
	716.232	14.89	23.87	PK	38.76	46	7.24	243
	1366.733	45.11	-8.47	PK	36.64	54	17.36	178
	1498.997	42.25	-7.23	PK	35.02	54	18.98	151
	2082.164	43.66	-3.24	PK	40.42	54	13.58	296

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)
H	167.294	19.07	15.12	PK	34.19	43.5	9.31	151
	467.735	17.49	19.28	PK	36.77	46	9.23	79
	1625.25	41.67	-6.92	PK	34.75	54	19.25	179
	2442.885	36.51	0.46	PK	36.97	54	17.03	315

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)
V	178.196	19.48	14.19	PK	33.67	43.5	9.83	164
	749.899	12.23	24.66	PK	36.89	46	9.11	241
	1366.733	47.44	-8.47	PK	38.97	54	15.03	181
	1823.647	40.59	-4.57	PK	36.02	54	17.98	192
	2214.428	39.14	-1.99	PK	37.15	54	16.85	308

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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)	Table Azimuth (degree)
H	166.272	14	15.14	PK	29.14	43.5	14.36	161
	467.735	17.63	19.28	PK	36.91	46	9.09	87
	1655.31	42.32	-6.78	PK	35.54	54	18.46	188
	2484.969	37.38	-1.13	PK	36.25	54	17.75	322

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)
V	166.613	17.91	15.17	PK	33.08	43.5	10.42	154
	716.232	16.9	23.87	PK	40.77	46	5.23	247
	1366.733	42.65	-8.47	PK	34.18	54	19.82	169
	1505.01	41.54	-7.19	PK	34.35	54	19.65	174
	2082.164	38.2	-3.24	PK	34.96	54	19.04	319

- 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**

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Summary table with radiated data of the test plots
(Digital)

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	129.138	2.38	14.07	PK	16.45	43.5	27.05	245	296
	167.294	14.66	15.12	PK	29.78	43.5	13.72	237	311
	366.733	15.29	16.87	PK	32.16	46	13.84	97	112
	400.4	15.05	17.81	PK	32.86	46	13.14	101	158
	467.735	19.94	19.28	PK	39.22	46	6.78	142	171

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	73.607	9.88	11.45	PK	21.33	40	18.67	29	241
	163.206	15.31	15.31	PK	30.62	43.5	12.88	233	365
	166.953	18.65	15.17	PK	33.82	43.5	9.68	241	309
	366.733	17	16.87	PK	33.87	46	12.13	94	122
	464.529	18.02	19.24	PK	37.26	46	8.74	108	174
	684.168	15.19	23.02	PK	38.21	46	7.79	296	296

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-RE 029, ETSTW-RE 042, ETSTW-RE 043

Comment: see attached diagram

3.13 Power Line Conducted Emission

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

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

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

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
	24.87	45.6	39.4	10.1	55.7	49.5	60	50	4.3	0.5
	25.17	44.6	37.8	10.1	54.7	47.9	60	50	5.3	2.1
	0.57	42.1	33.3	10.1	52.2	43.4	56	46	3.8	2.6
	4.08	34.4	18.1	10.1	44.5	28.2	56	46	11.5	17.8

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
	0.58	38.3	28.2	10.1	48.9	38.3	56	46	7.1	7.7
	4.1	32.7	17.2	10.1	42.8	27.3	56	46	13.2	18.7
	24.84	44.14	36.7	10.1	54.2	46.8	60	50	5.8	3.2
	25.18	44.6	37.2	10.1	54.7	47.3	60	50	5.3	2.7

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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-CE 004, ETSTW-CE 006
Comment: see attached diagram

Appendix

- A Peak Output Power
- B Spurious Emissions radiated
- C Carrier Frequency Separation
- D Number of Hopping Frequencies
- E Time of Occupancy (Dwell Time)
- F 20dB Bandwidth
- G Band-edge Compliance of RF Conducted Emissions
- H Radiated Emissions from Receiver Section of Transceiver
- I Power Line Conducted Emission
- J Pictures



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Appendix A

Peak Output Power

The measurement diagram are wideband pre-scan results; only for reference.



Marker 1 [T1]

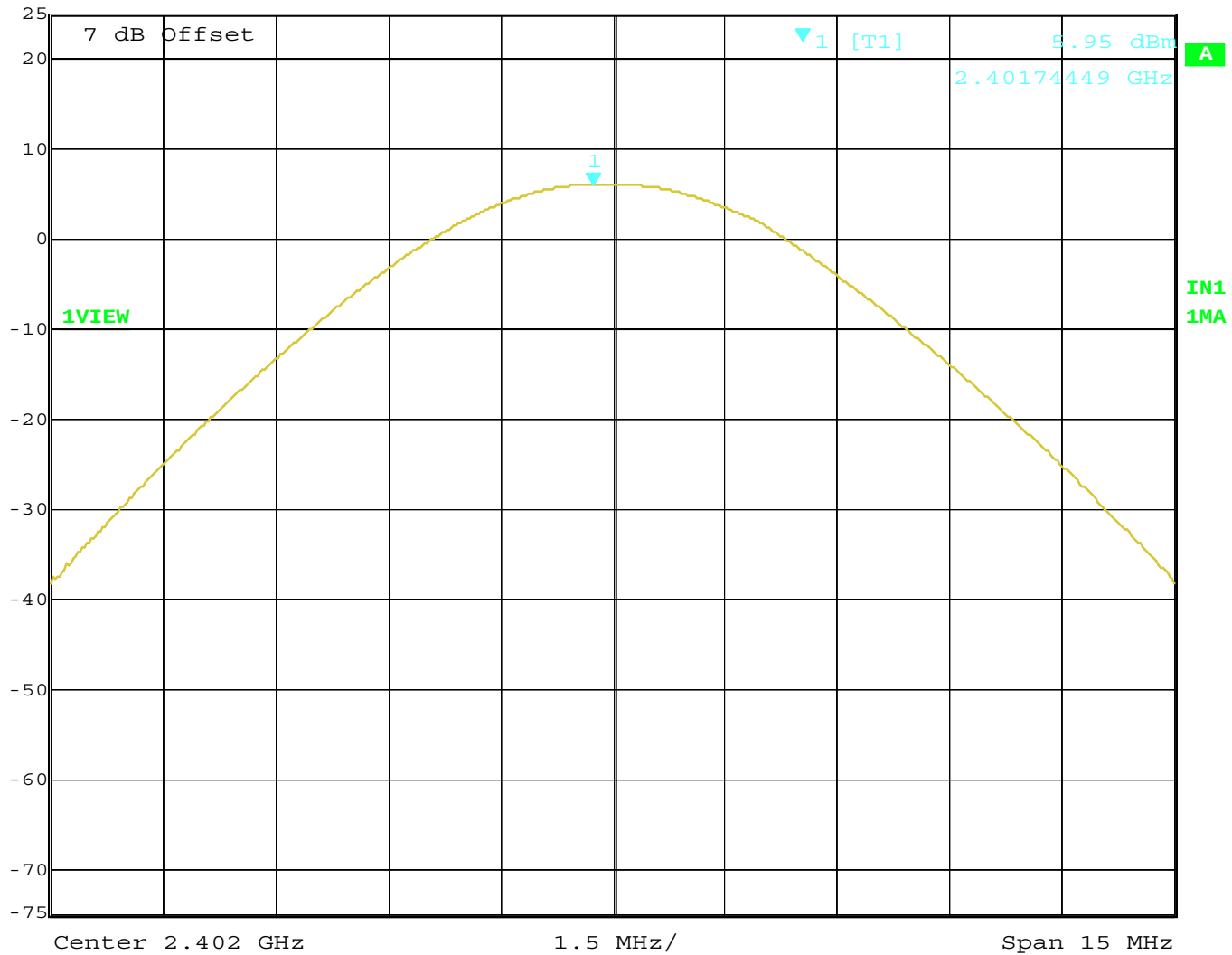
RBW 3 MHz RF Att 30 dB

Ref Lvl 5.95 dBm

VBW 3 MHz

25 dBm 2.40174449 GHz

SWT 200 ms Unit dBm

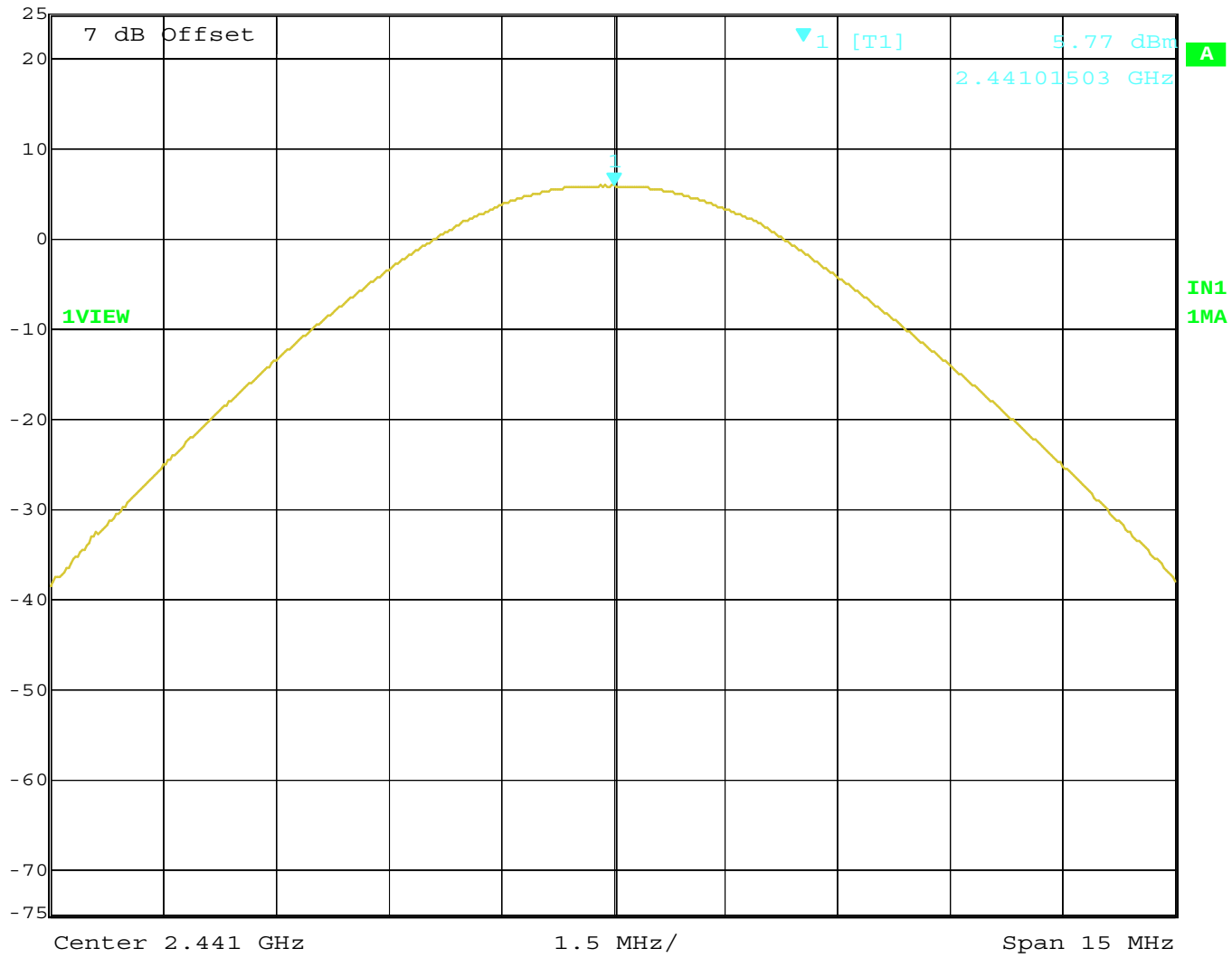


Title: Output Power Conducted Ch.0

Date: 18.APR.2006 19:32:32



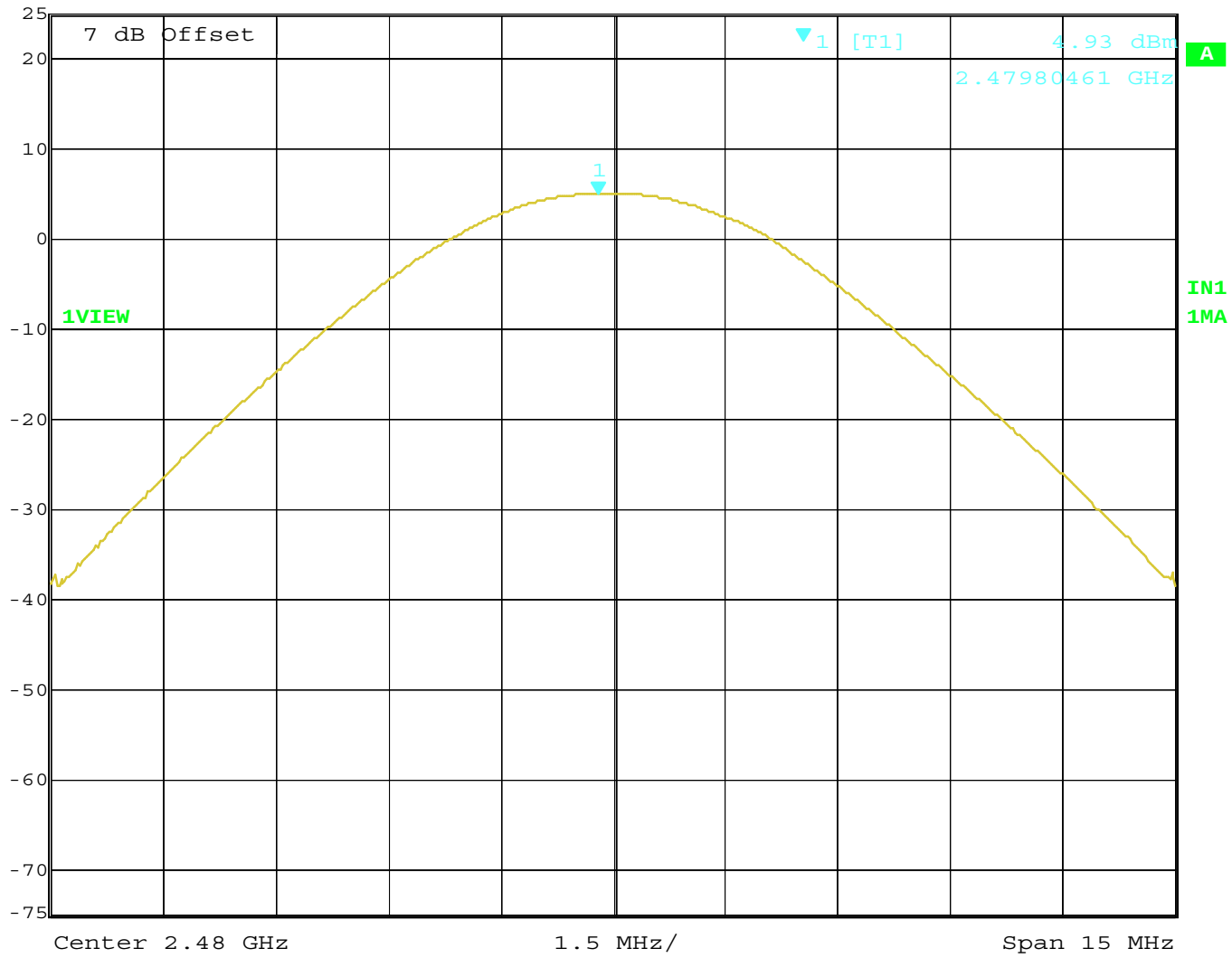
Marker 1 [T1] RBW 3 MHz RF Att 30 dB
Ref Lvl 5.77 dBm VBW 3 MHz
25 dBm 2.44101503 GHz SWT 200 ms Unit dBm



Title: Output Power Conducted Ch. 39
Date: 18.APR.2006 19:37:46



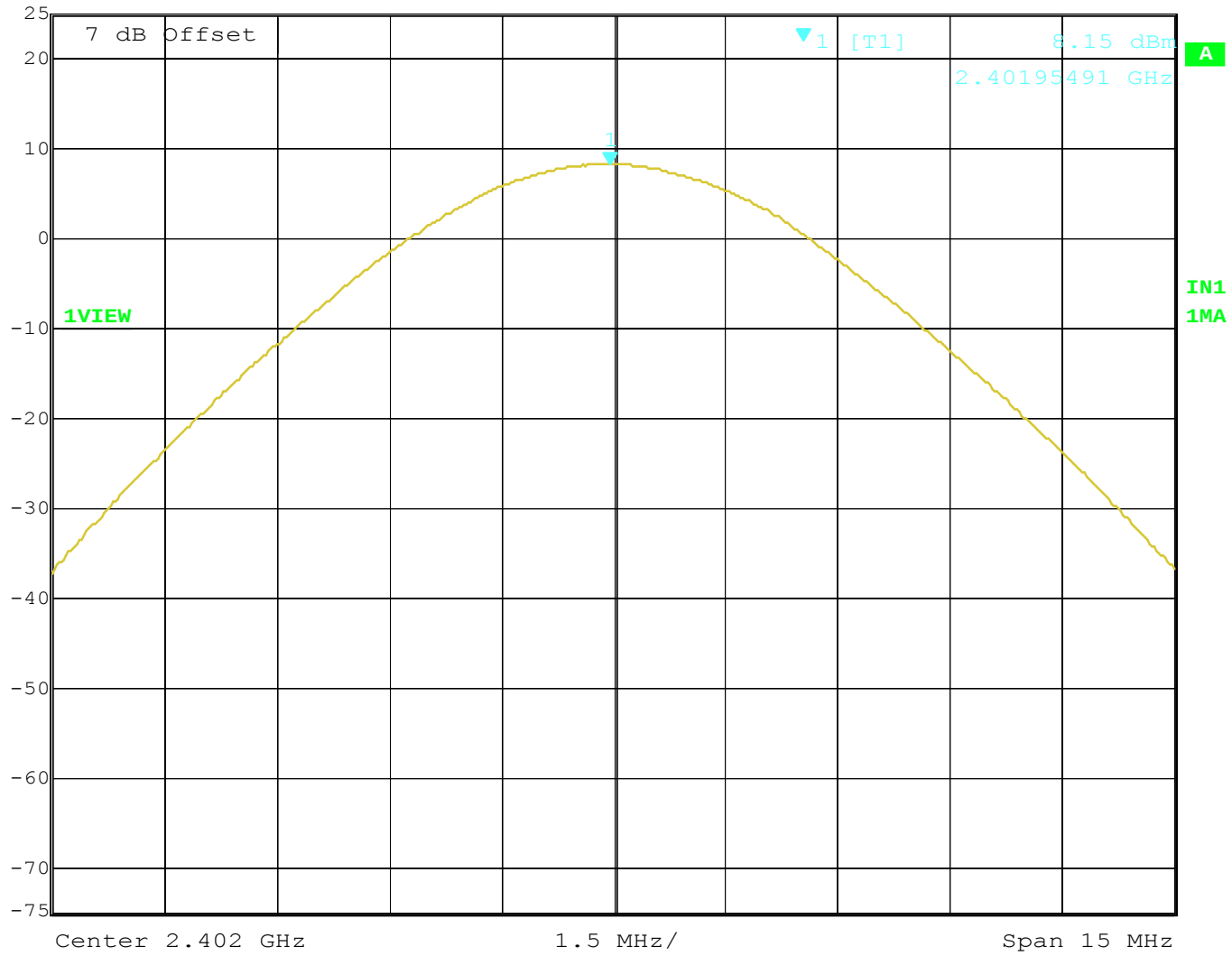
Marker 1 [T1] RBW 3 MHz RF Att 30 dB
Ref Lvl 4.93 dBm VBW 3 MHz
25 dBm 2.47980461 GHz SWT 200 ms Unit dBm



Title: Output Power Conducted Ch. 78
Date: 18.APR.2006 21:10:24



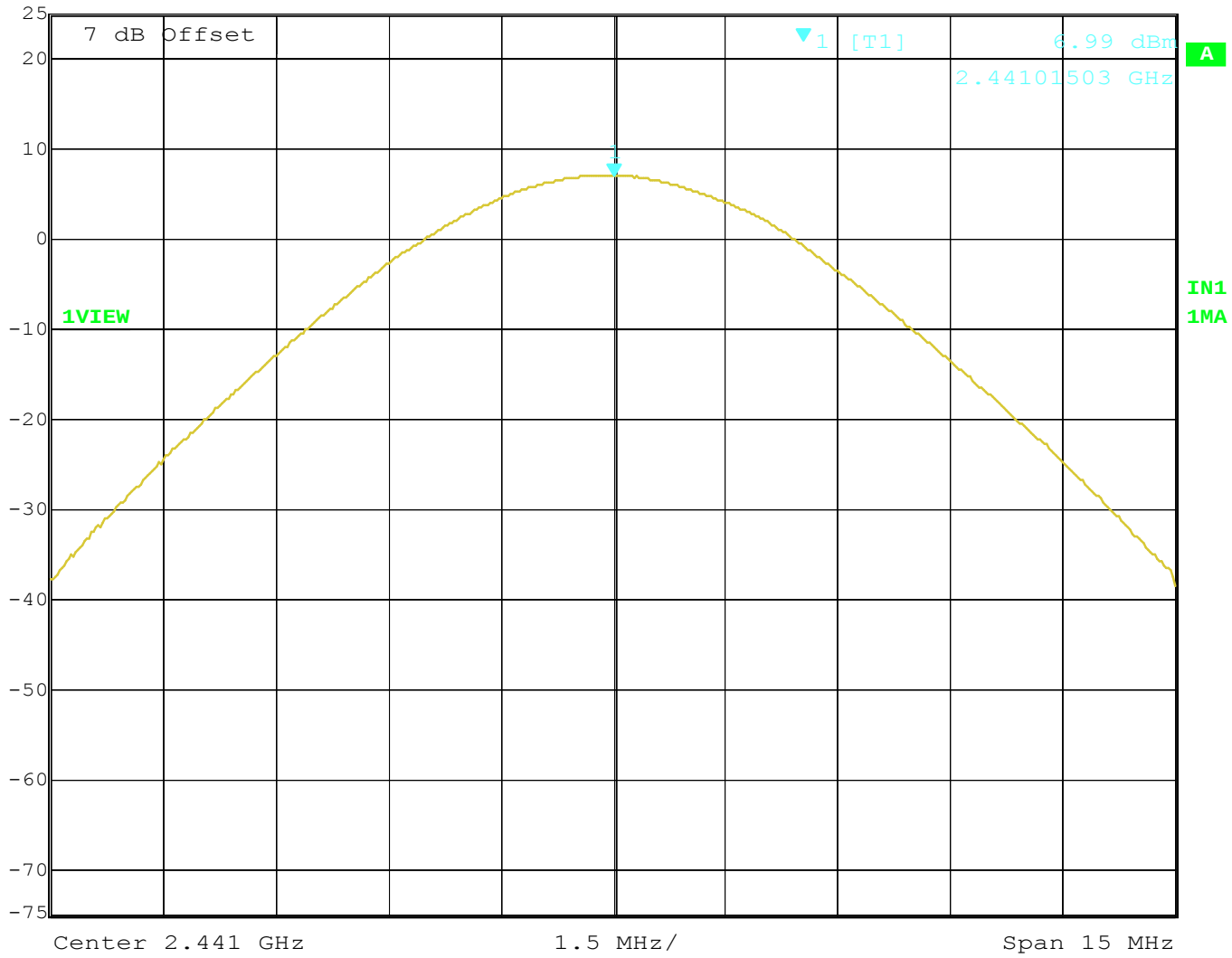
Marker 1 [T1] RBW 3 MHz RF Att 30 dB
Ref Lvl 8.15 dBm VBW 3 MHz
25 dBm 2.40195491 GHz SWT 200 ms Unit dBm



Title: EDR Mode Output Power Conducted Ch.0
Date: 25.APR.2006 10:48:19



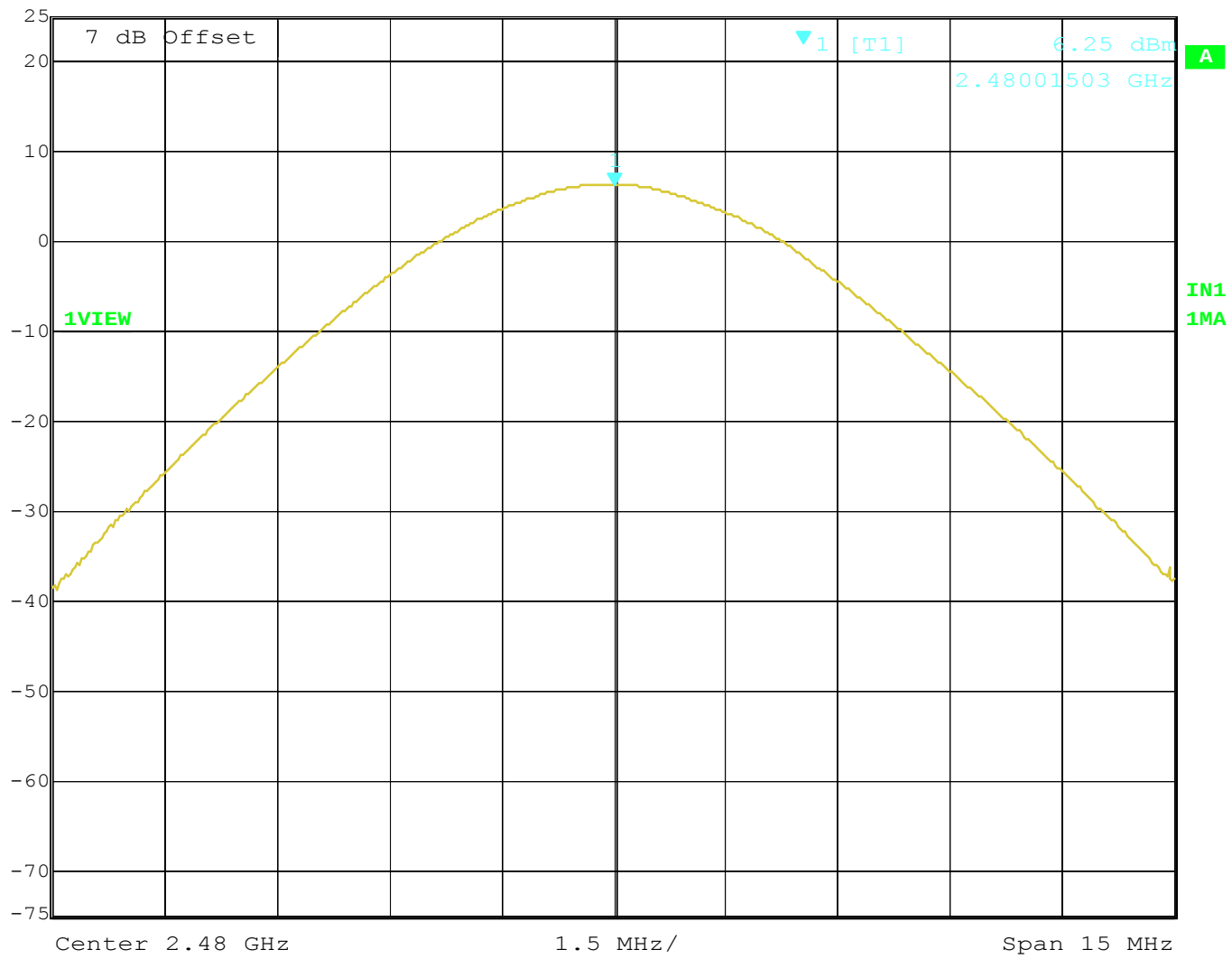
Marker 1 [T1] RBW 3 MHz RF Att 30 dB
Ref Lvl 6.99 dBm VBW 3 MHz
25 dBm 2.44101503 GHz SWT 200 ms Unit dBm



Title: EDR Mode Output Power Conducted Ch.39
Date: 25.APR.2006 10:31:25



Marker 1 [T1] RBW 3 MHz RF Att 30 dB
Ref Lvl 6.25 dBm VBW 3 MHz
25 dBm 2.48001503 GHz SWT 200 ms Unit dBm

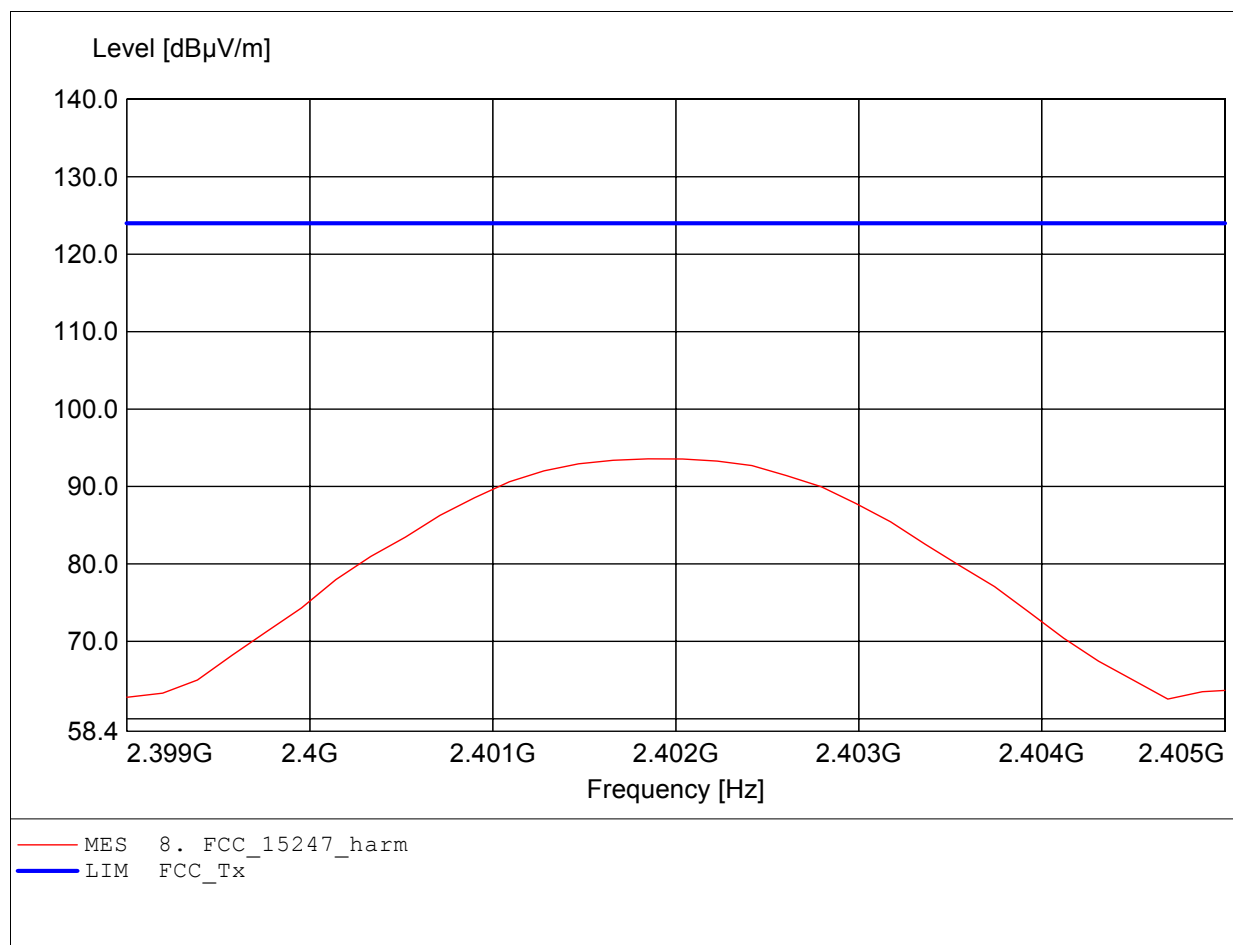


Title: EDR Mode Output Power Conducted Ch.78
Date: 25.APR.2006 10:39:51

Carrier power (Field Strength)

FCC RULES PART 15, SUBPART C

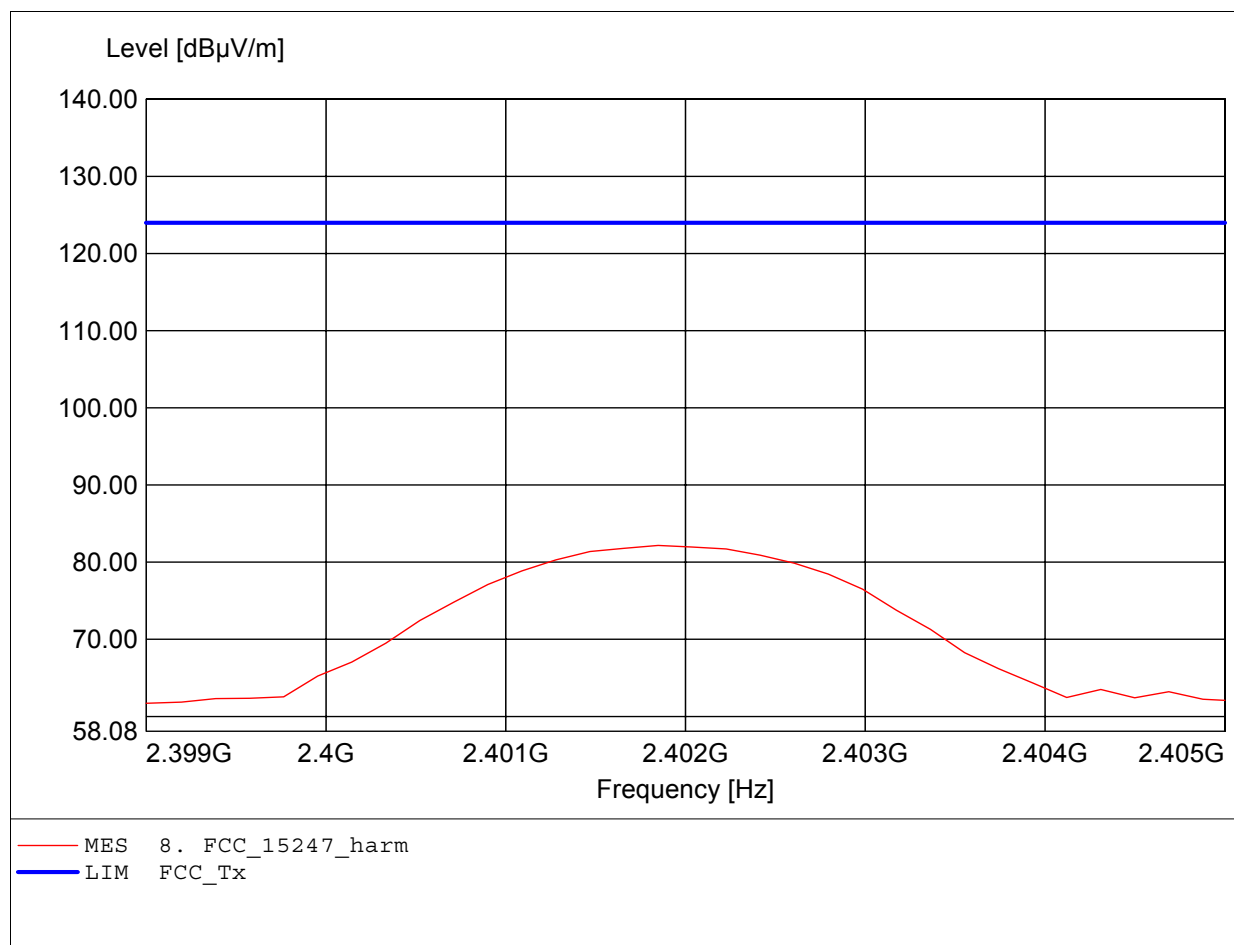
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J low channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: HL025
Freq: 2.402GHz, Emax: 93.57dBµV/m, RBW: 1MHz



Carrier power (Field Strength)

FCC RULES PART 15, SUBPART C

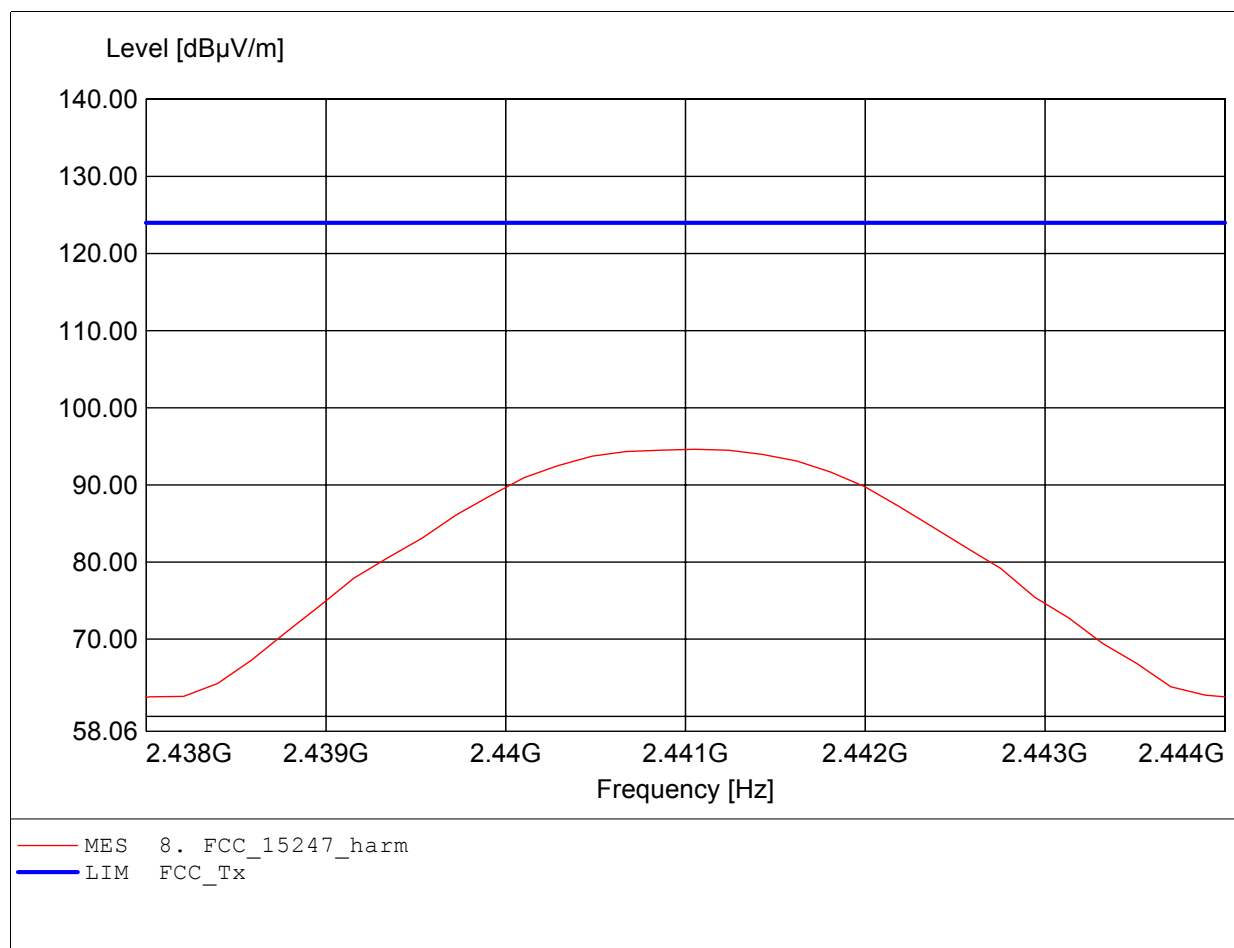
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J low channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: HL025
Freq: 2.402GHz, Emax: 82.52dBµV/m, RBW: 1MHz



Carrier power (Field Strength)

FCC RULES PART 15, SUBPART C

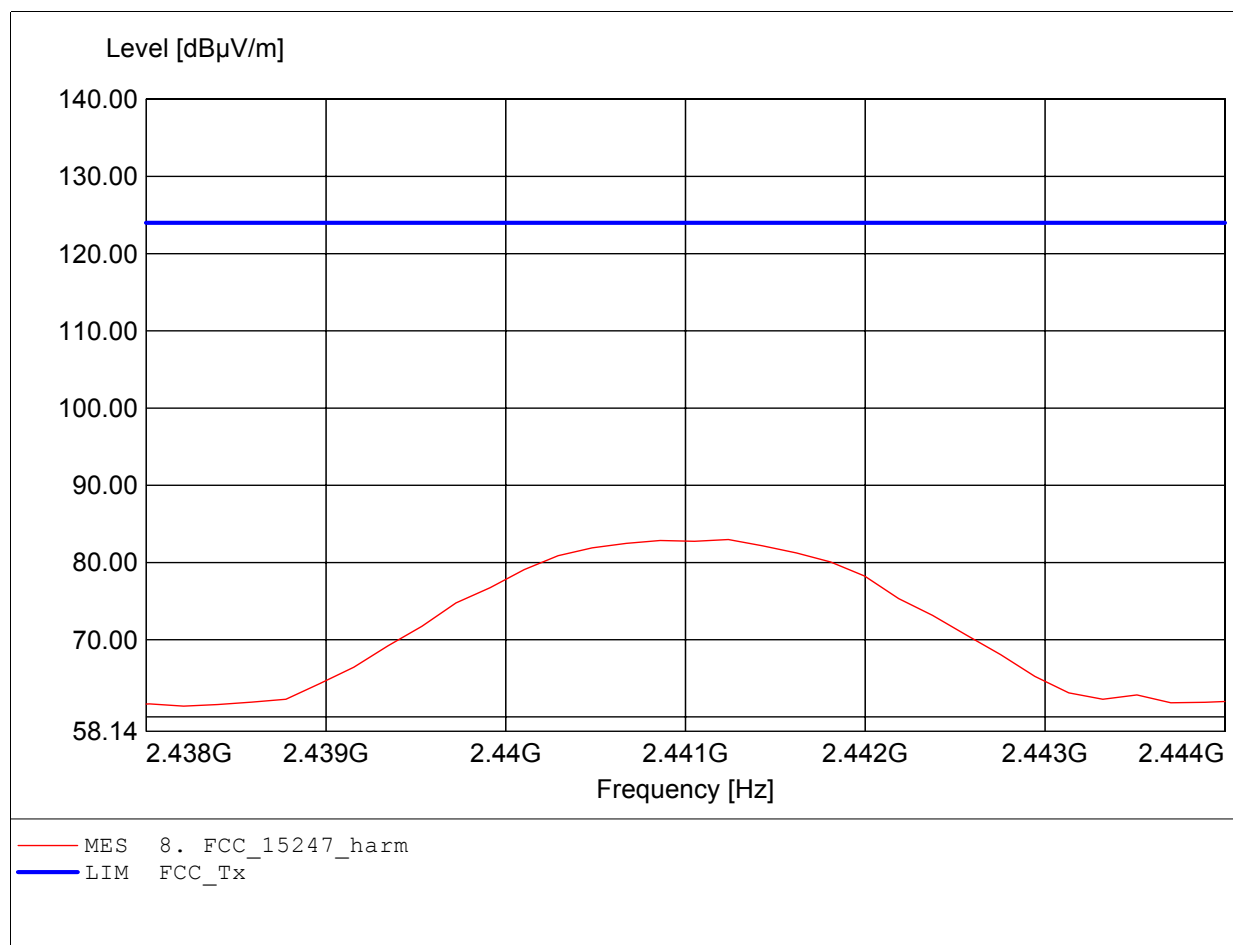
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J middle channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: HL025
Freq: 2.441GHz, Emax: 94.63dBµV/m, RBW: 1MHz



Carrier power (Field Strength)

FCC RULES PART 15, SUBPART C

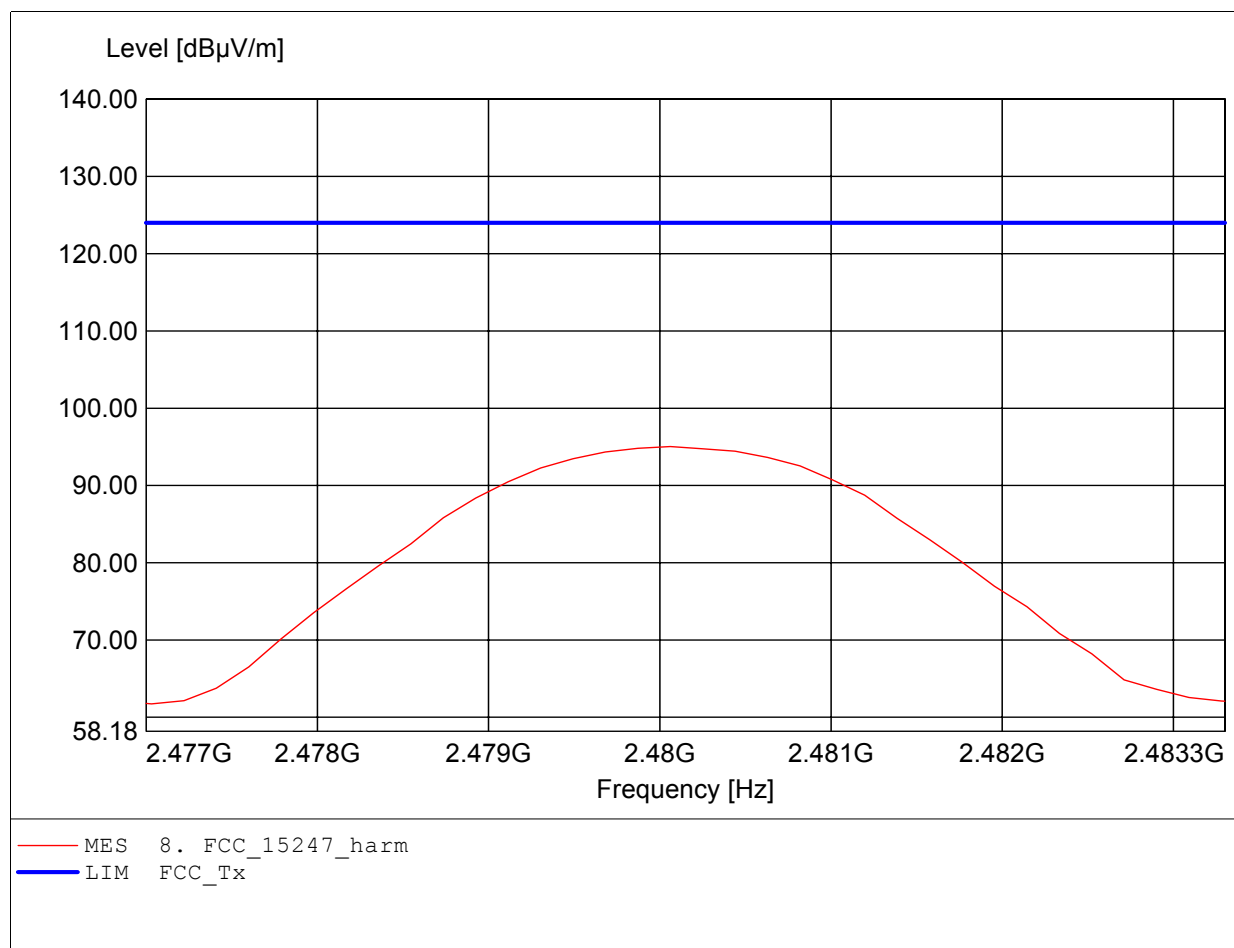
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J middle channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: HL025
Freq: 2.441GHz, Emax: 82.98dBµV/m, RBW: 1MHz



Carrier power (Field Strength)

FCC RULES PART 15, SUBPART C

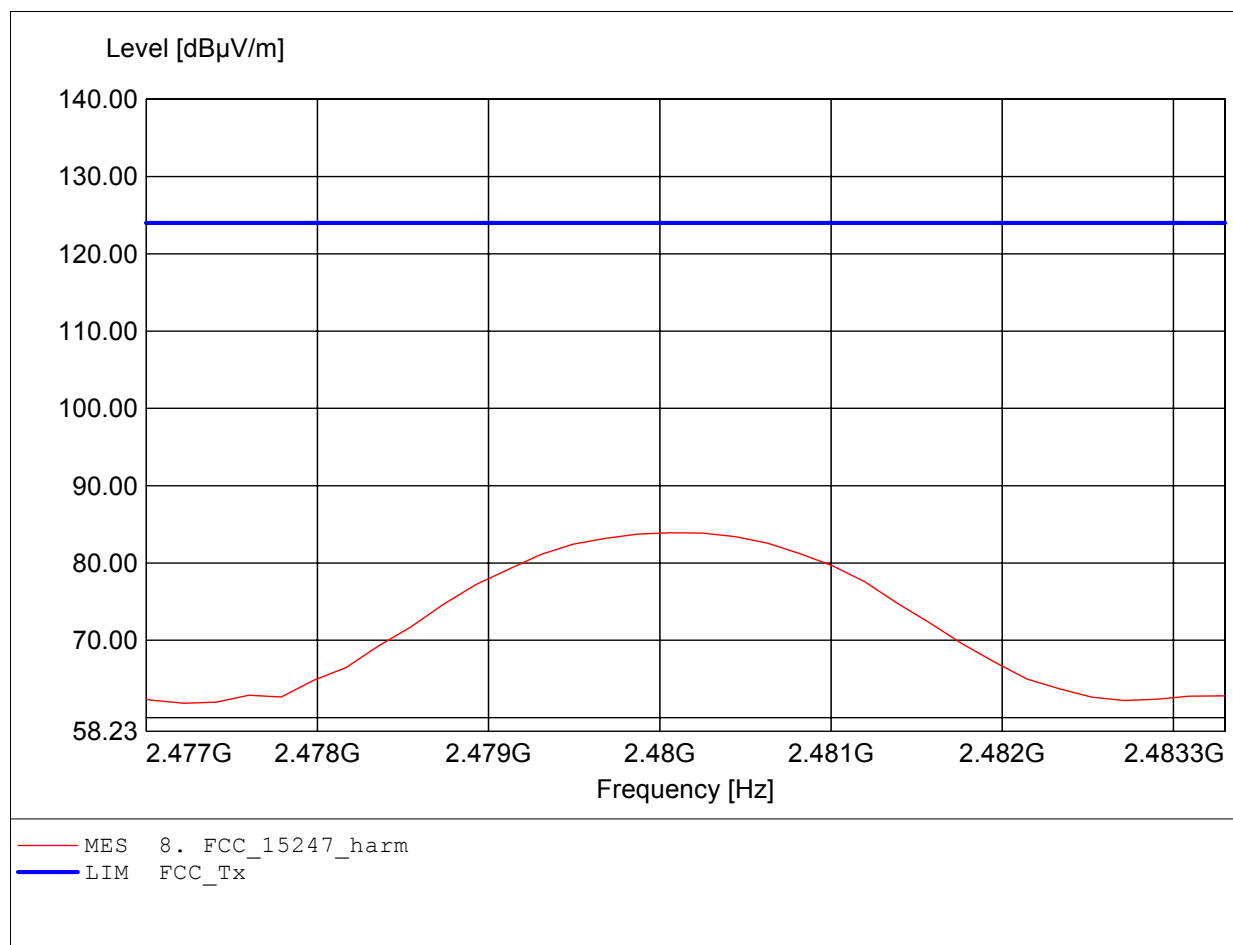
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J high channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: HL025
Freq: 2.480GHz, Emax: 95.04dBµV/m, RBW: 1MHz



Carrier power (Field Strength)

FCC RULES PART 15, SUBPART C

EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J high channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: HL025
Freq: 2.480GHz, Emax: 85.79dBµV/m, RBW: 1MHz





Registration number: W6M20603-6691-P-15
FCC ID : QQGBU-2094-J

Appendix B

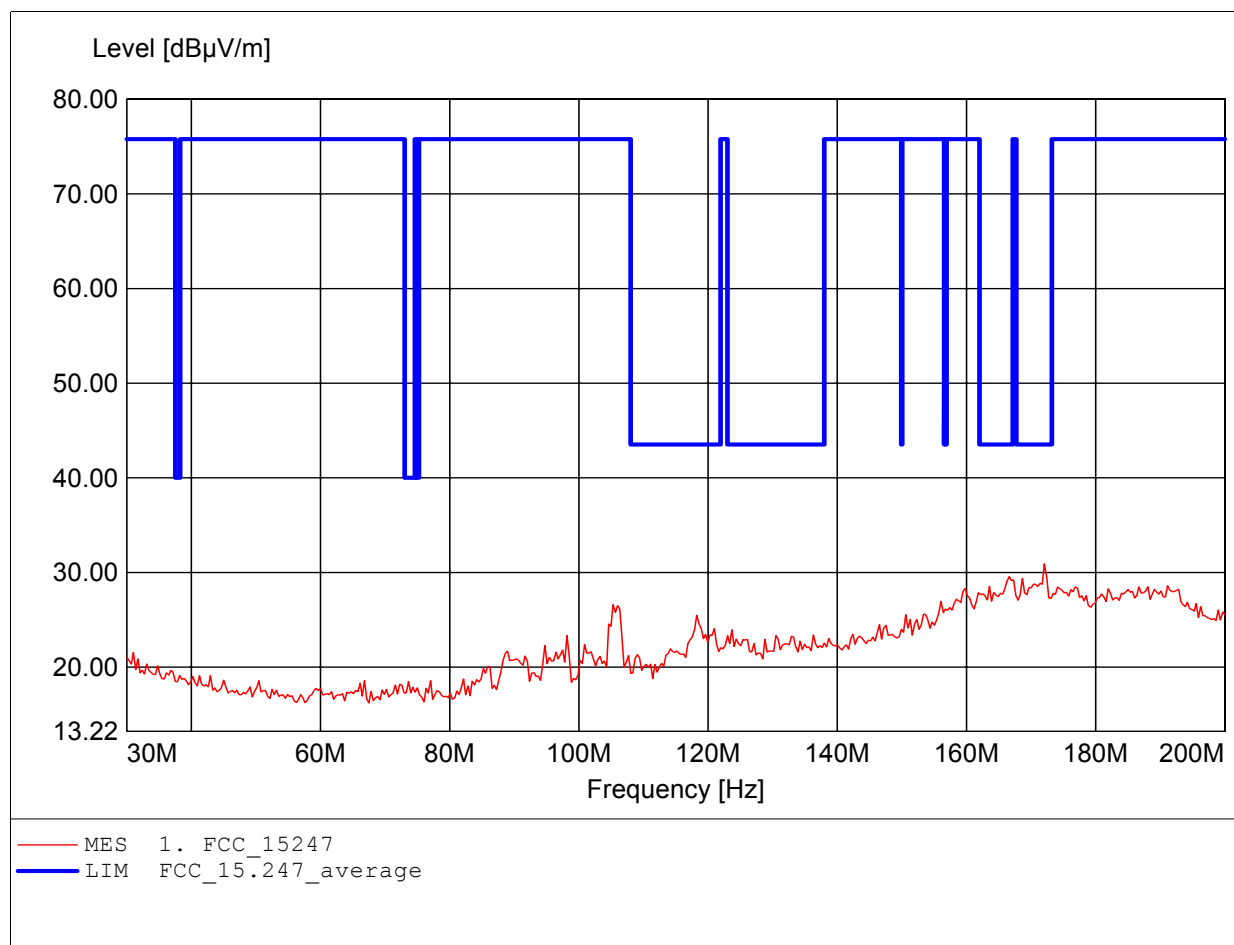
Spurious Emissions radiated

The measurement diagram are wideband pre-scan results; only for reference.

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

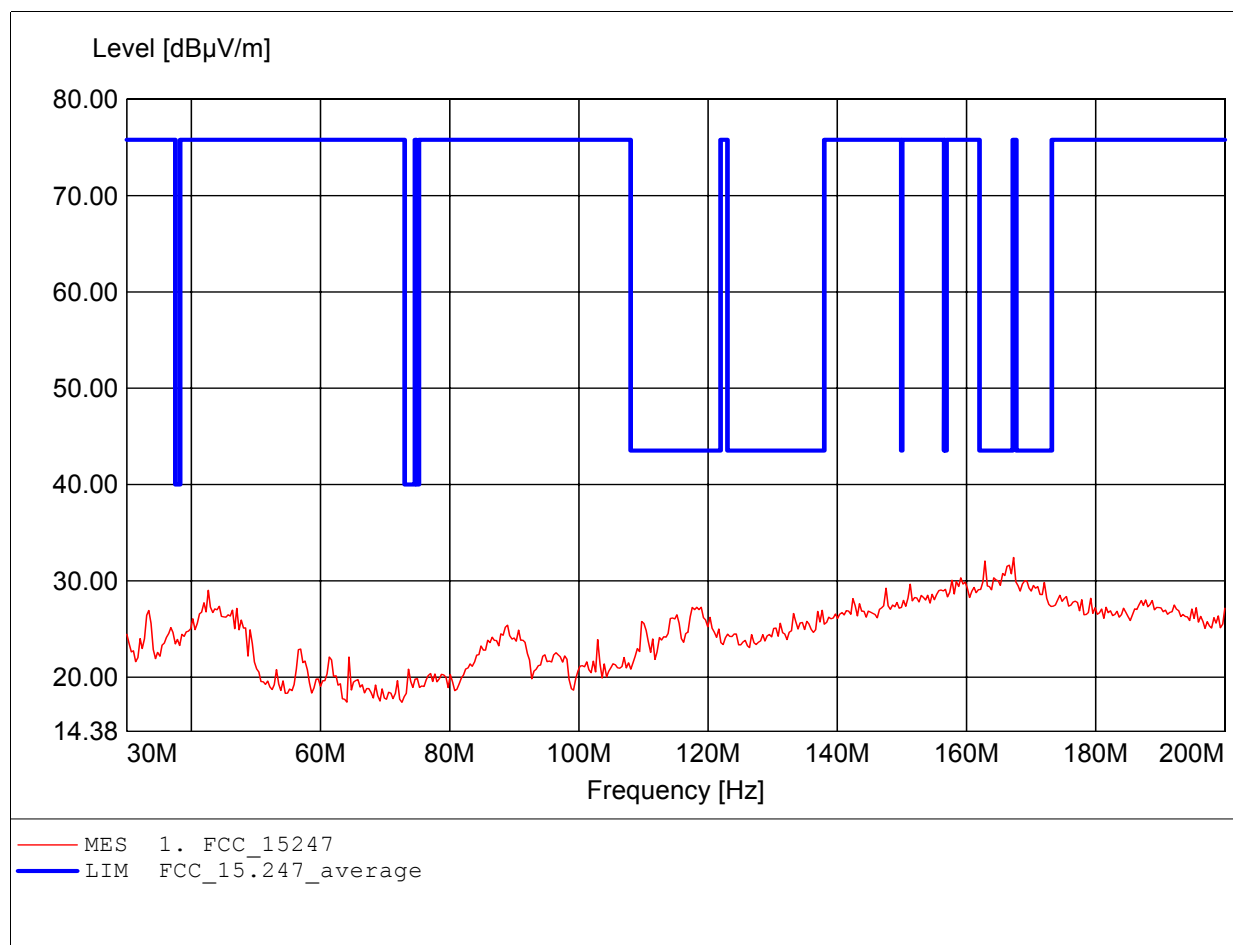
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J low channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: HK 116
Freq: 172.064MHz, Emax: 30.90dBμV/m, RBW: 100kHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

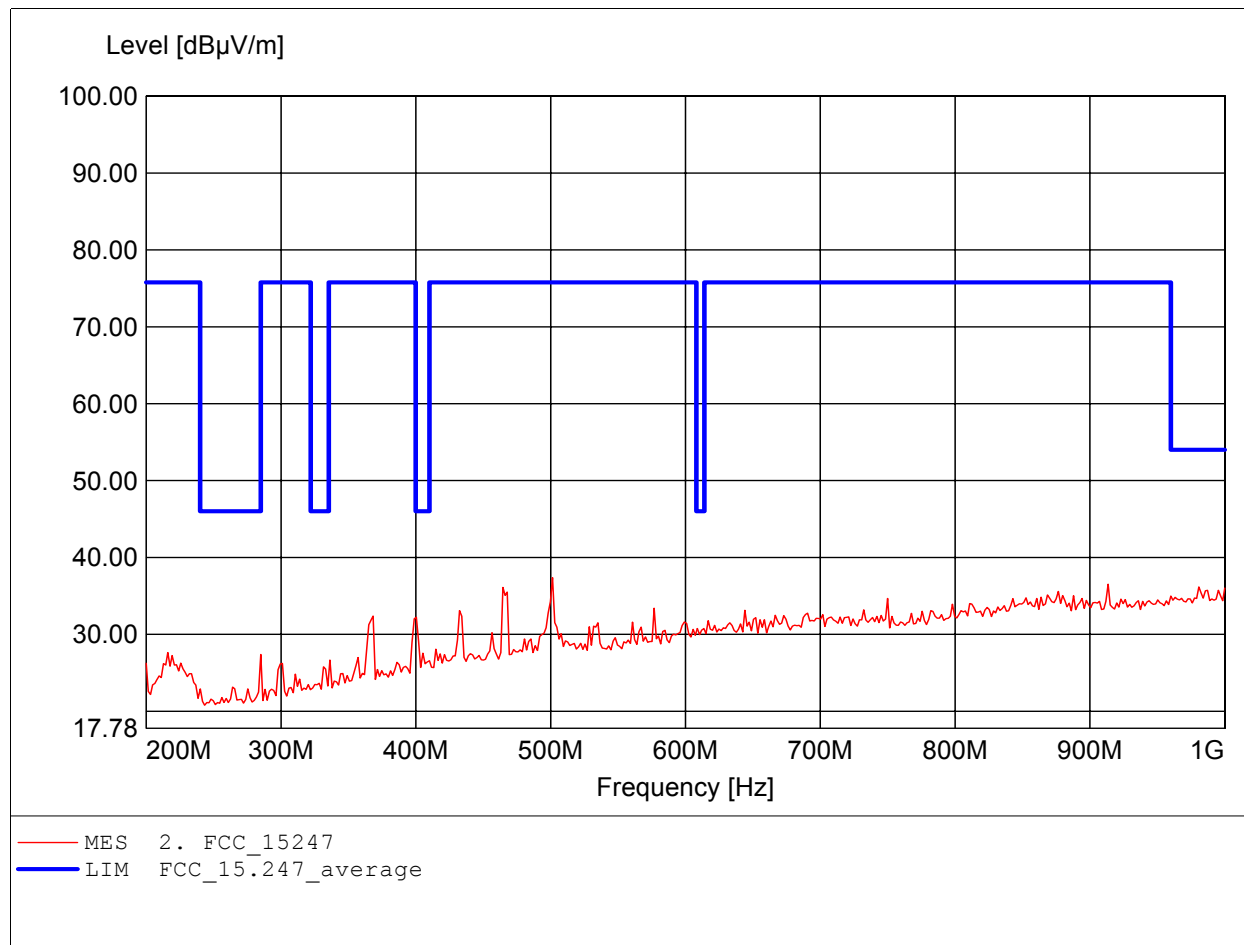
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J low channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: HK 116
Freq: 167.295MHz, Emax: 32.43dBμV/m, RBW: 100kHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

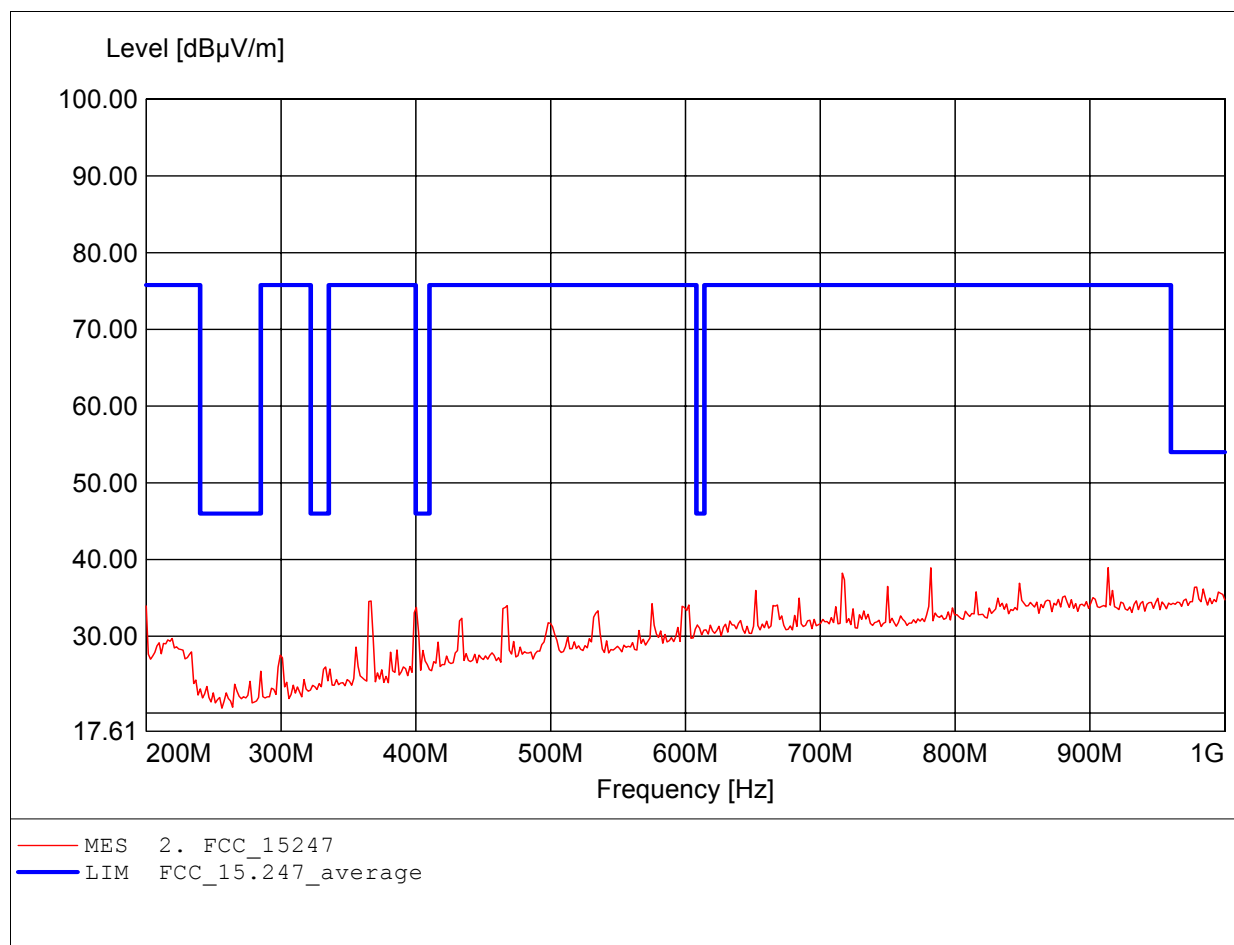
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J low channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: HL 223,
Freq: 501.403MHz, Emax: 37.37dBµV/m, RBW: 100kHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

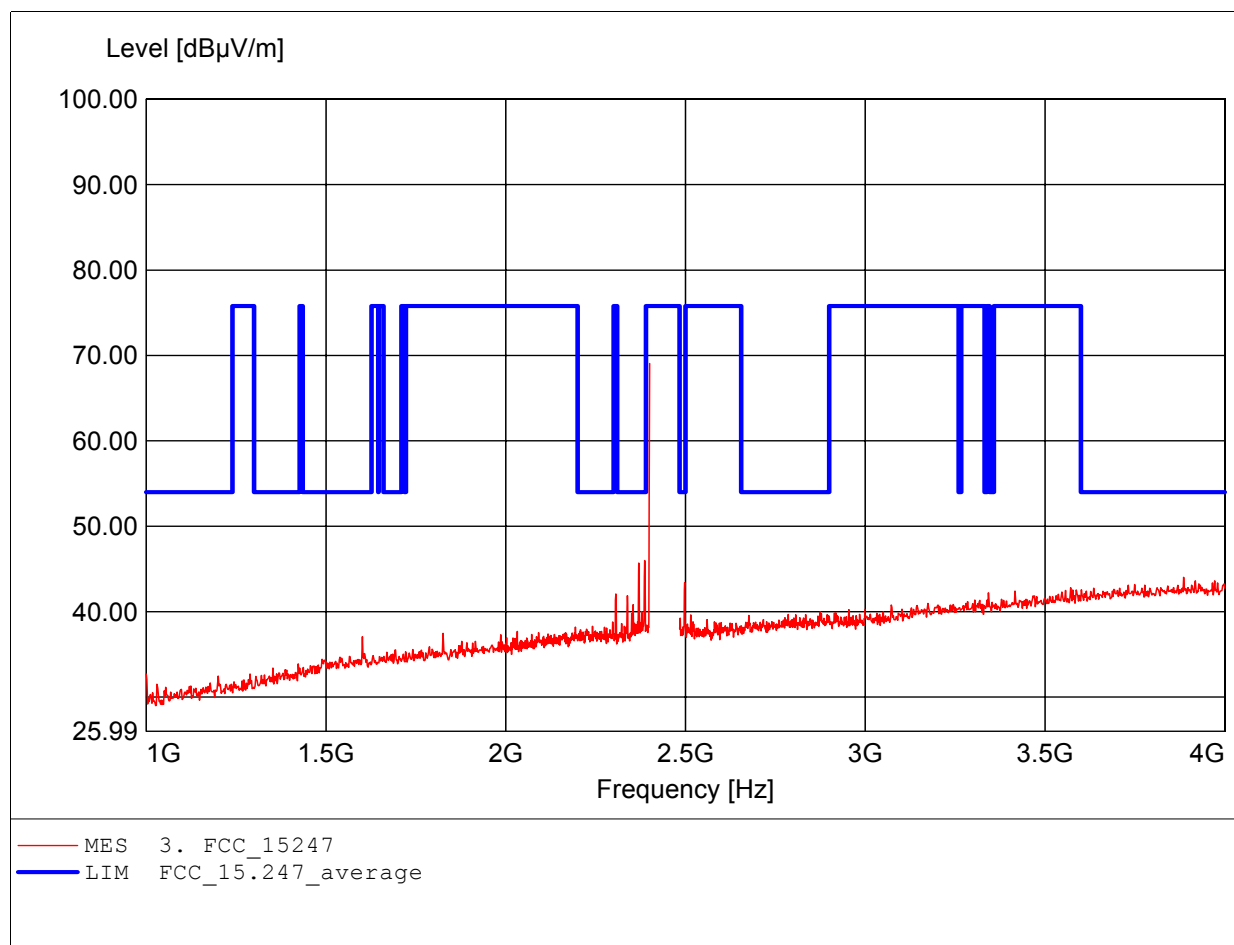
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J low channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: HL 223,
Freq: 913.427MHz, Emax: 38.93dBµV/m, RBW: 100kHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

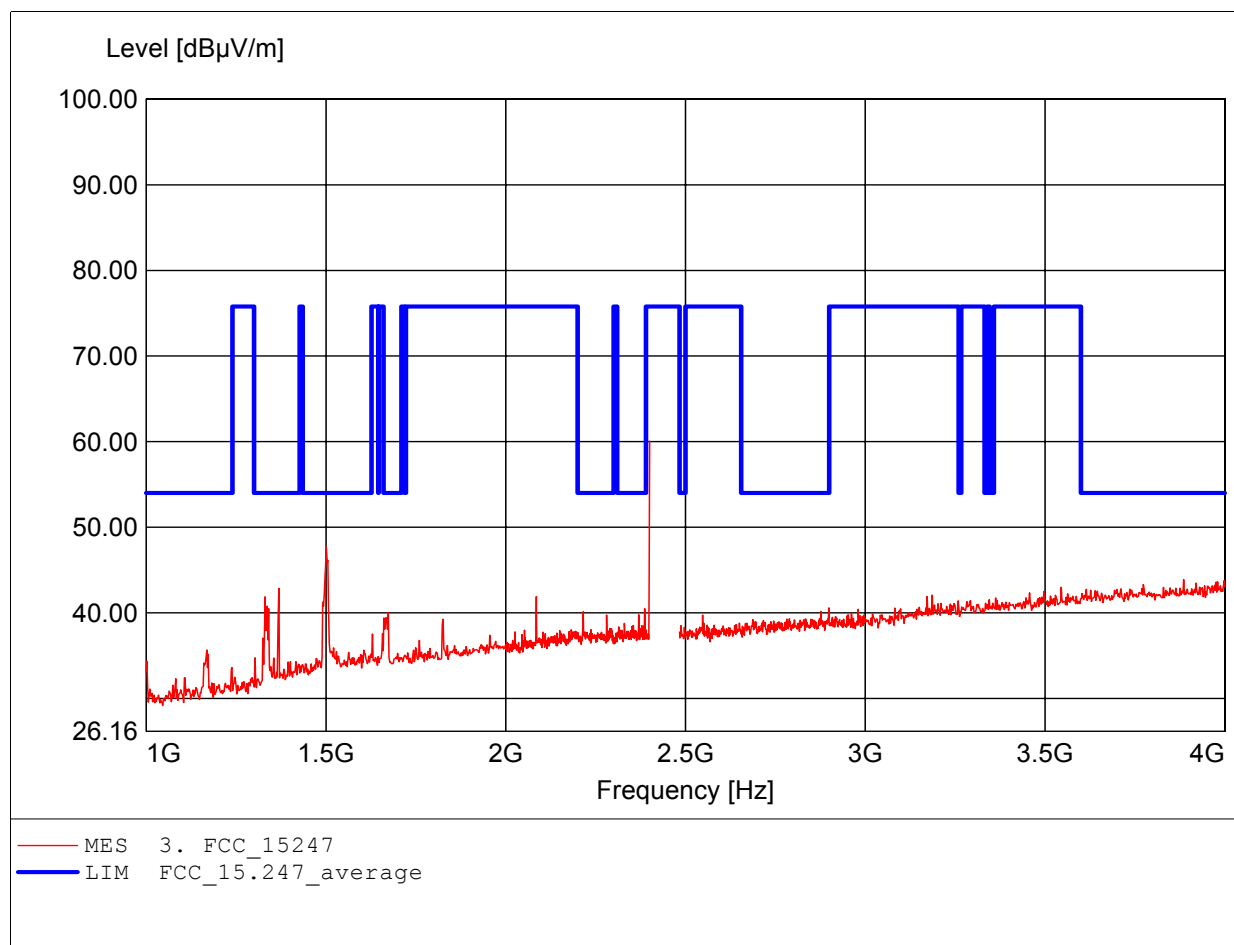
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J low channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 2.400GHz, Emax: 69.06dBμV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

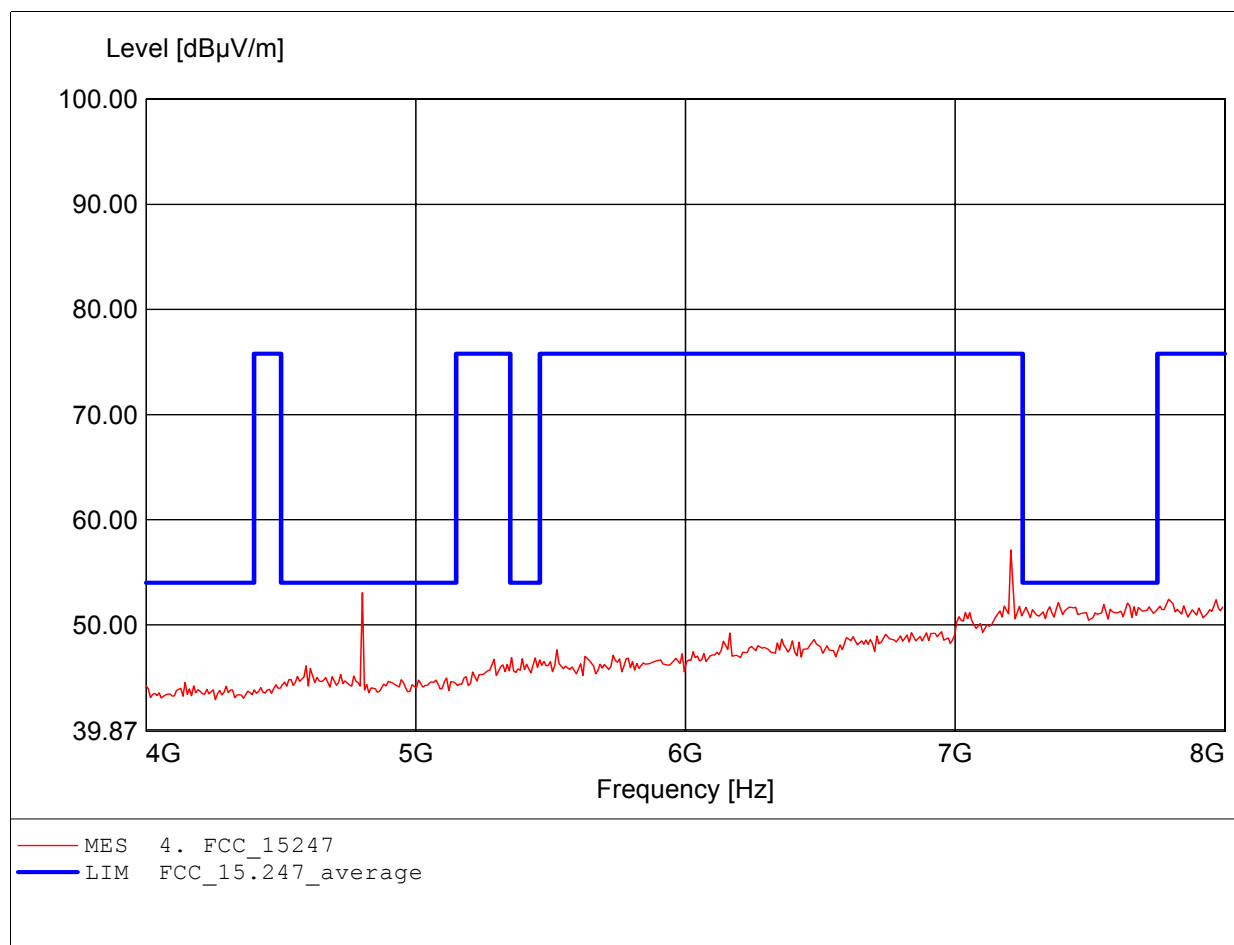
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J low channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 2.400GHz, Emax: 60.06dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

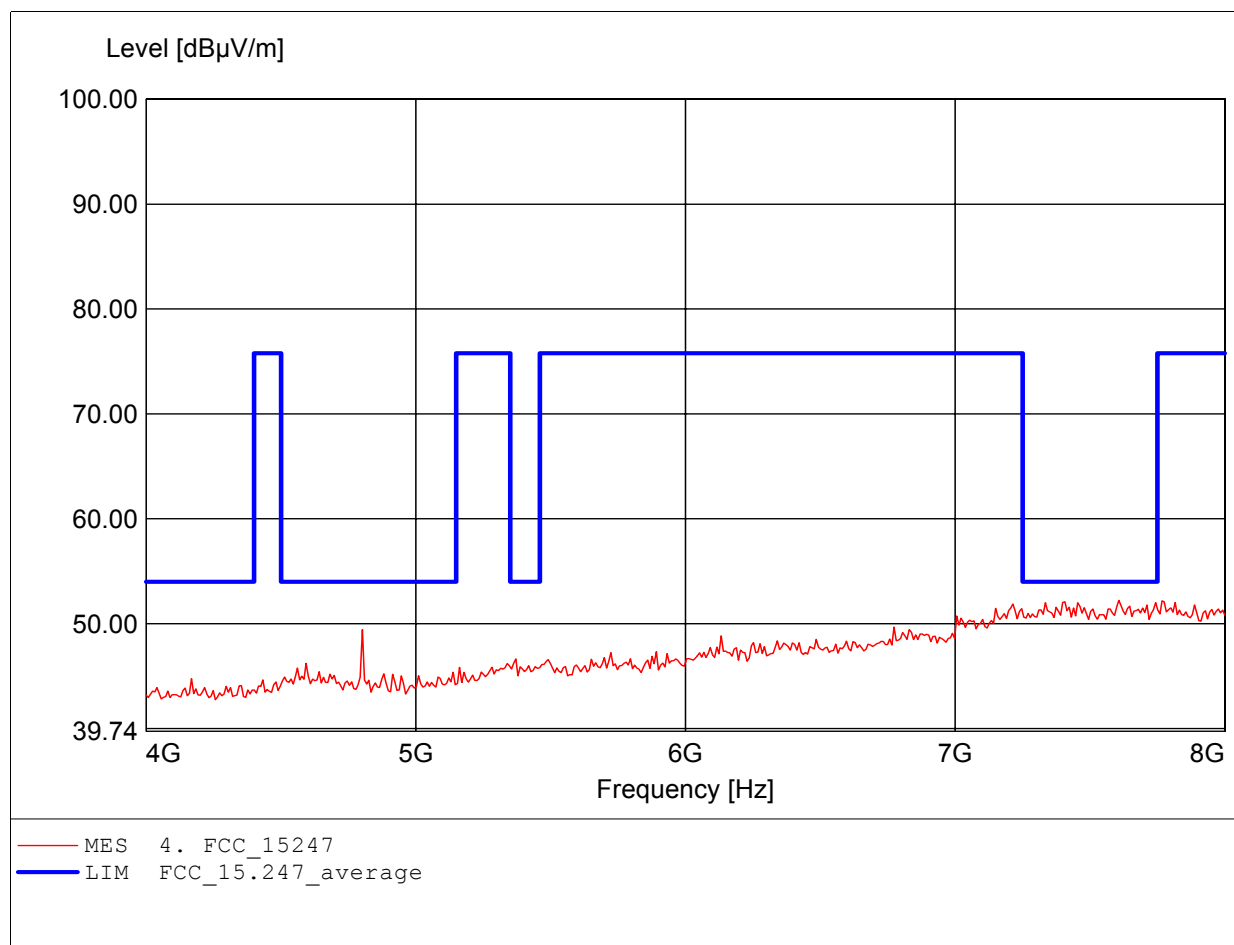
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J low channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 7.206GHz, Emax: 57.12dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

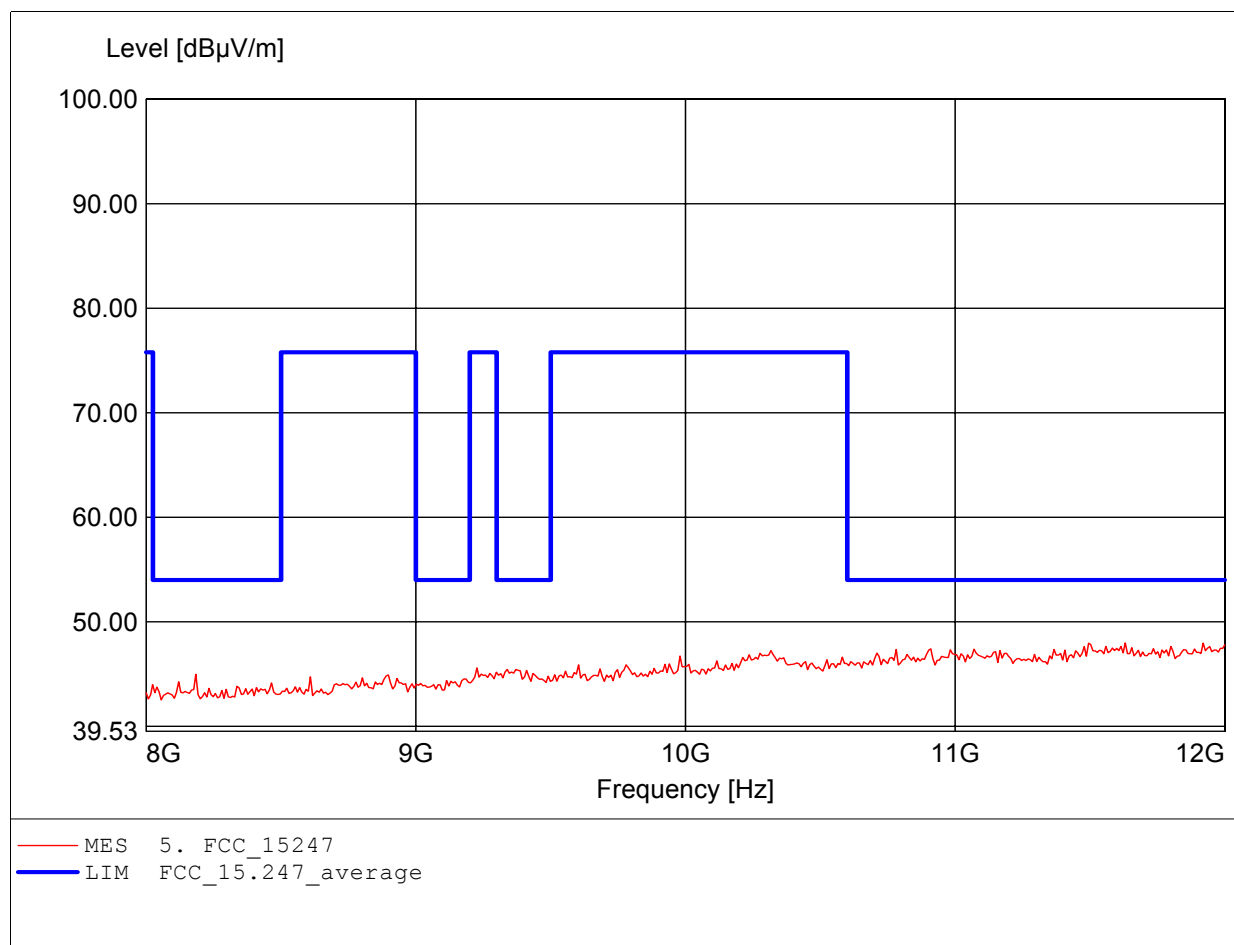
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J low channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 7.607GHz, Emax: 52.22dBμV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

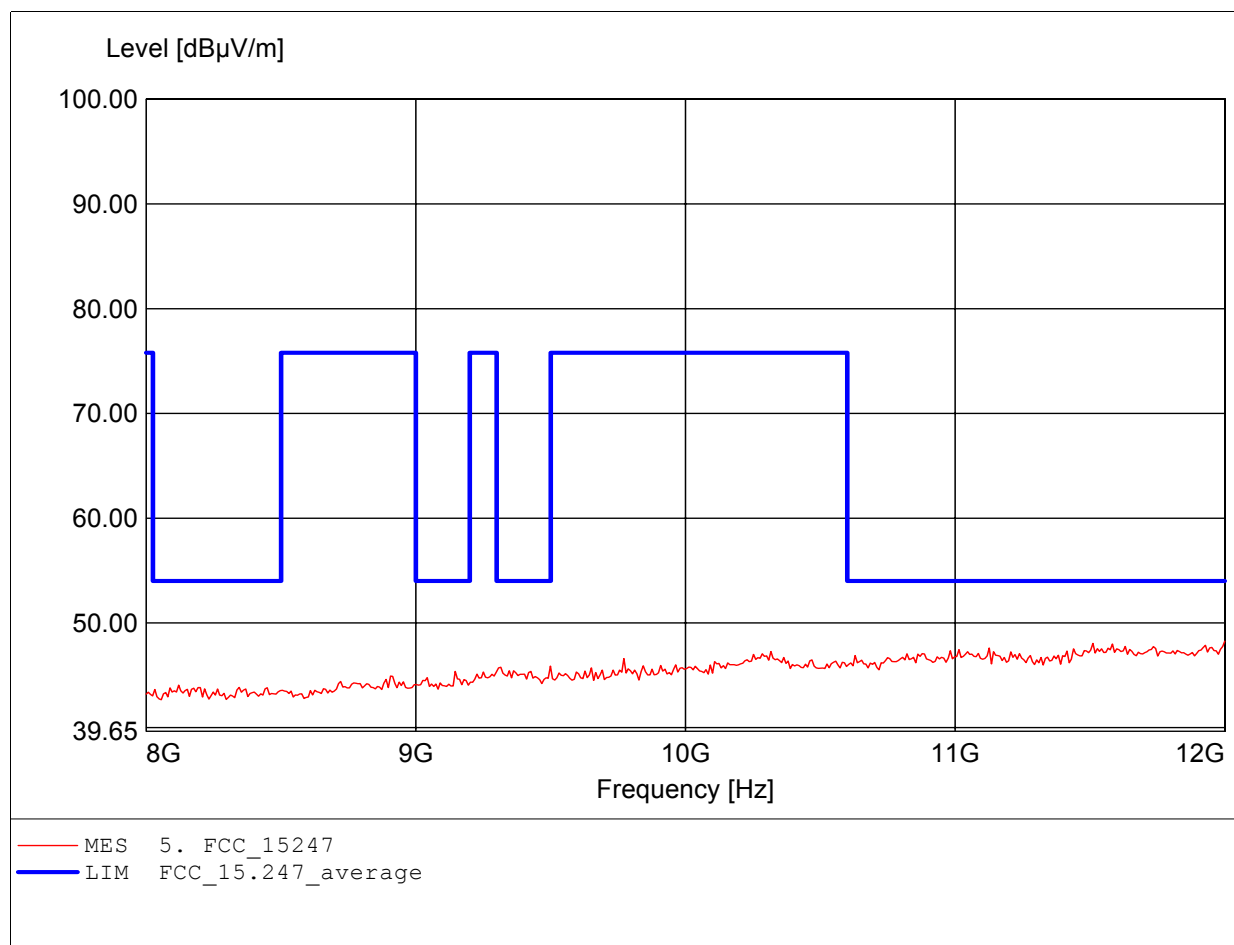
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J low channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 11.631GHz, Emax: 47.99dBμV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

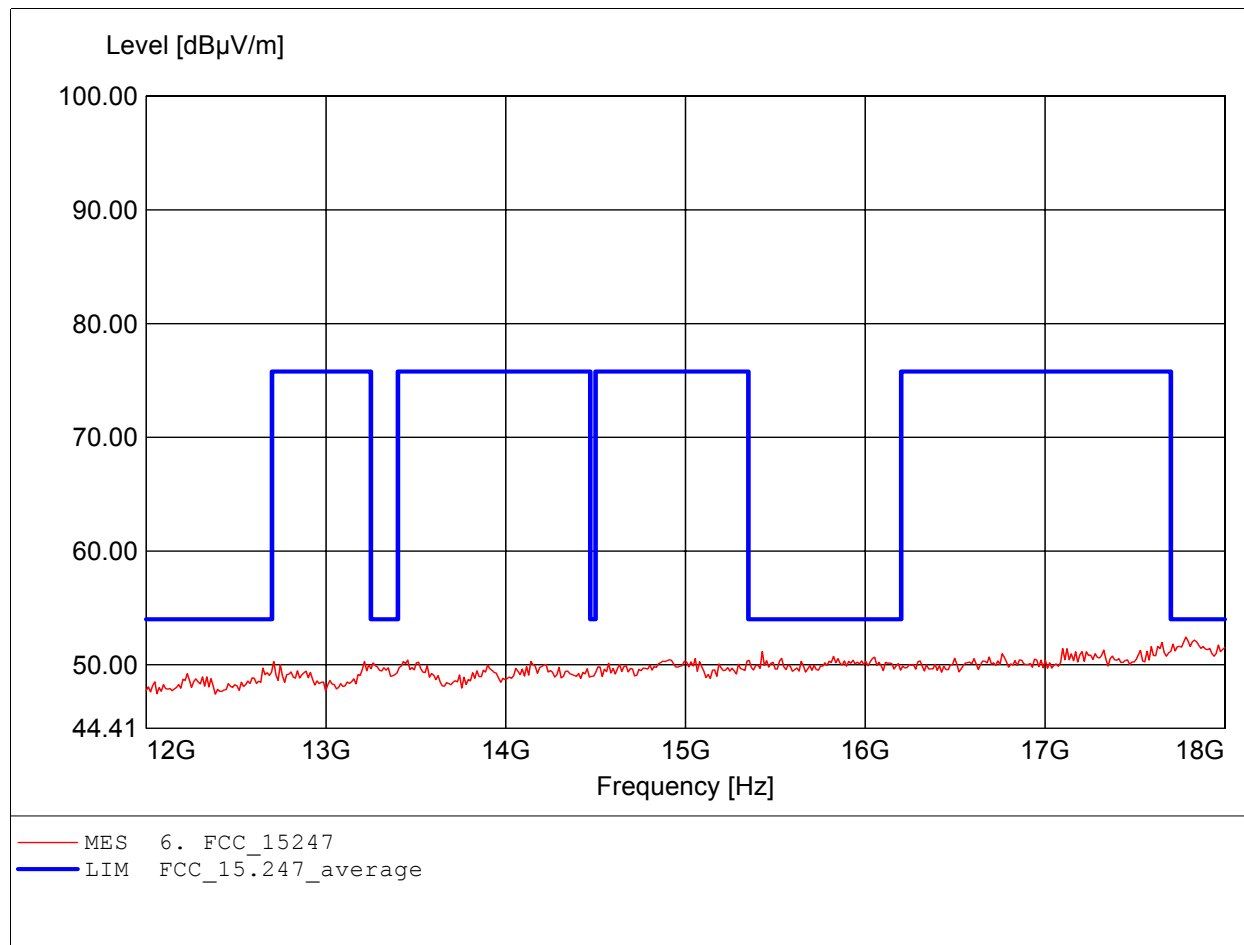
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J low channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 12.000GHz, Emax: 48.26dBμV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

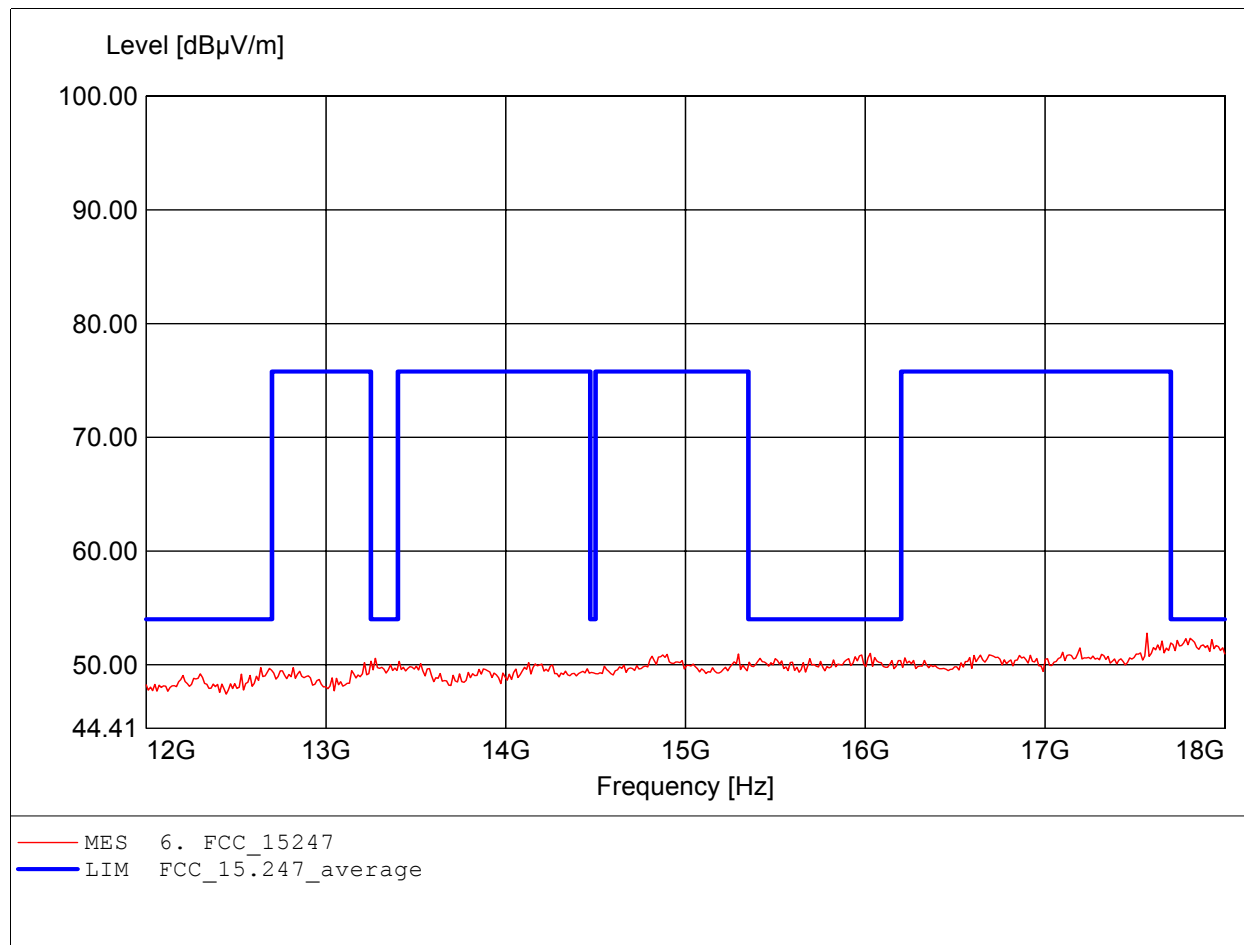
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J low channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 17.784GHz, Emax: 52.44dBμV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

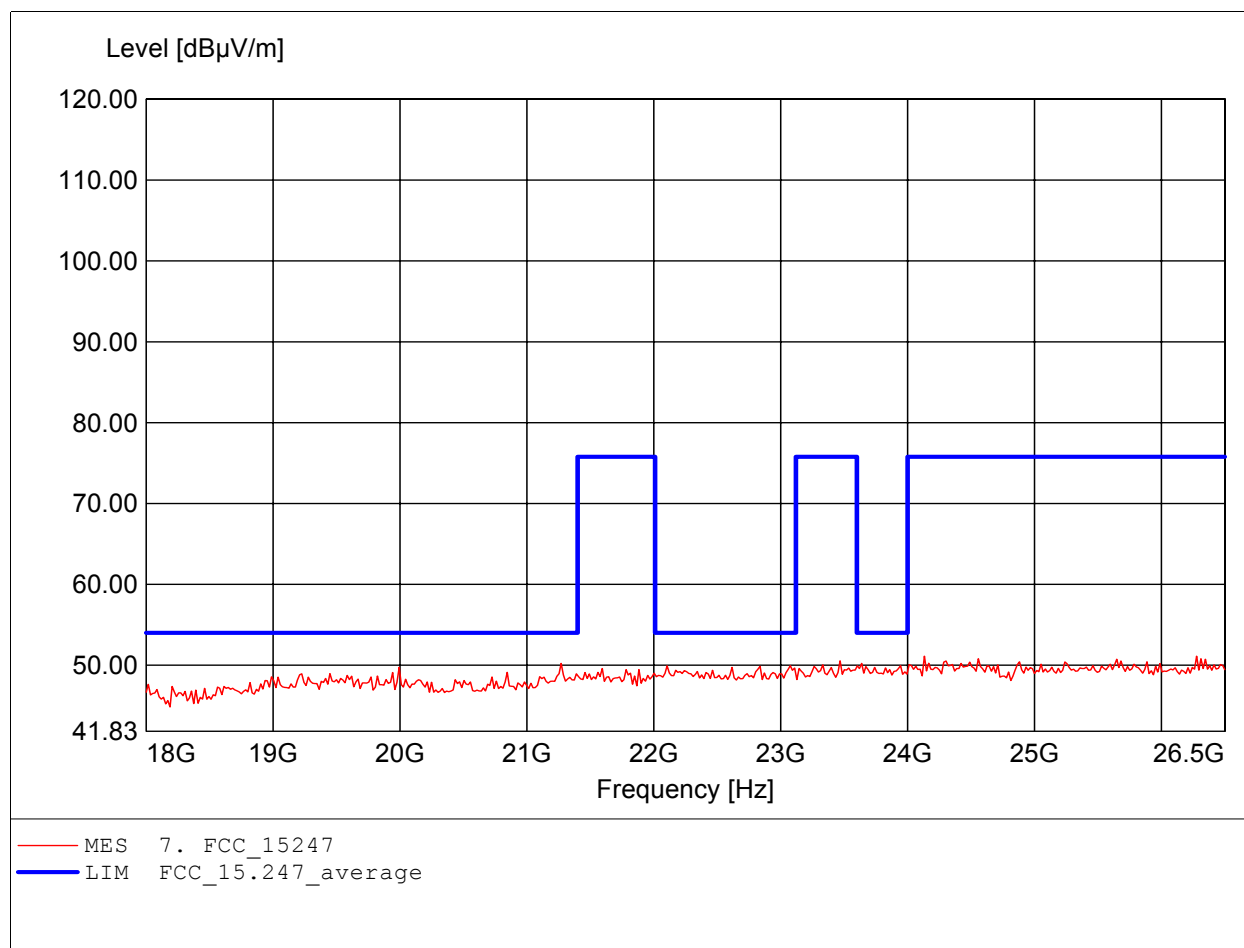
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J low channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 17.567GHz, Emax: 52.77dBμV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

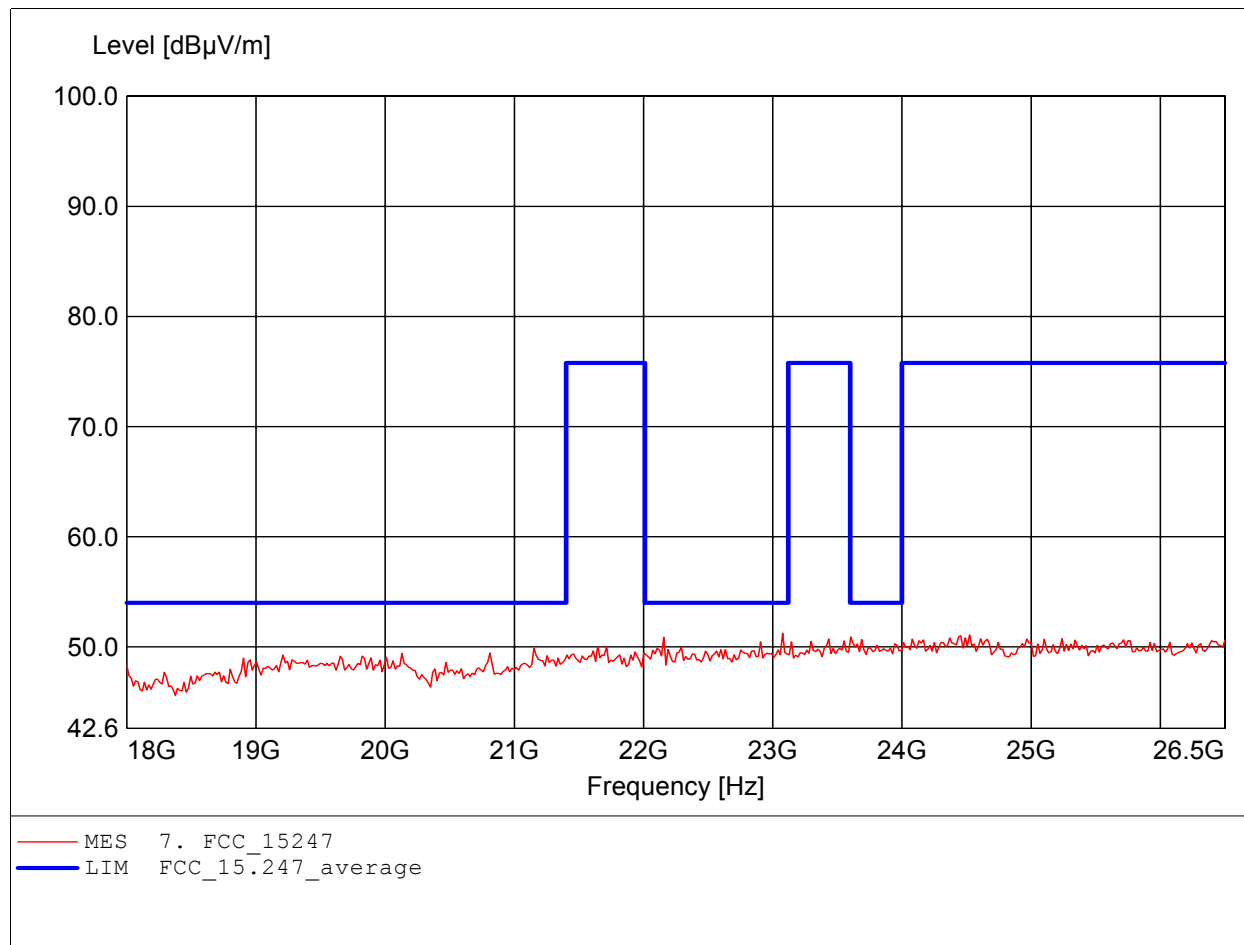
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J low channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 26.279GHz, Emax: 51.12dBμV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

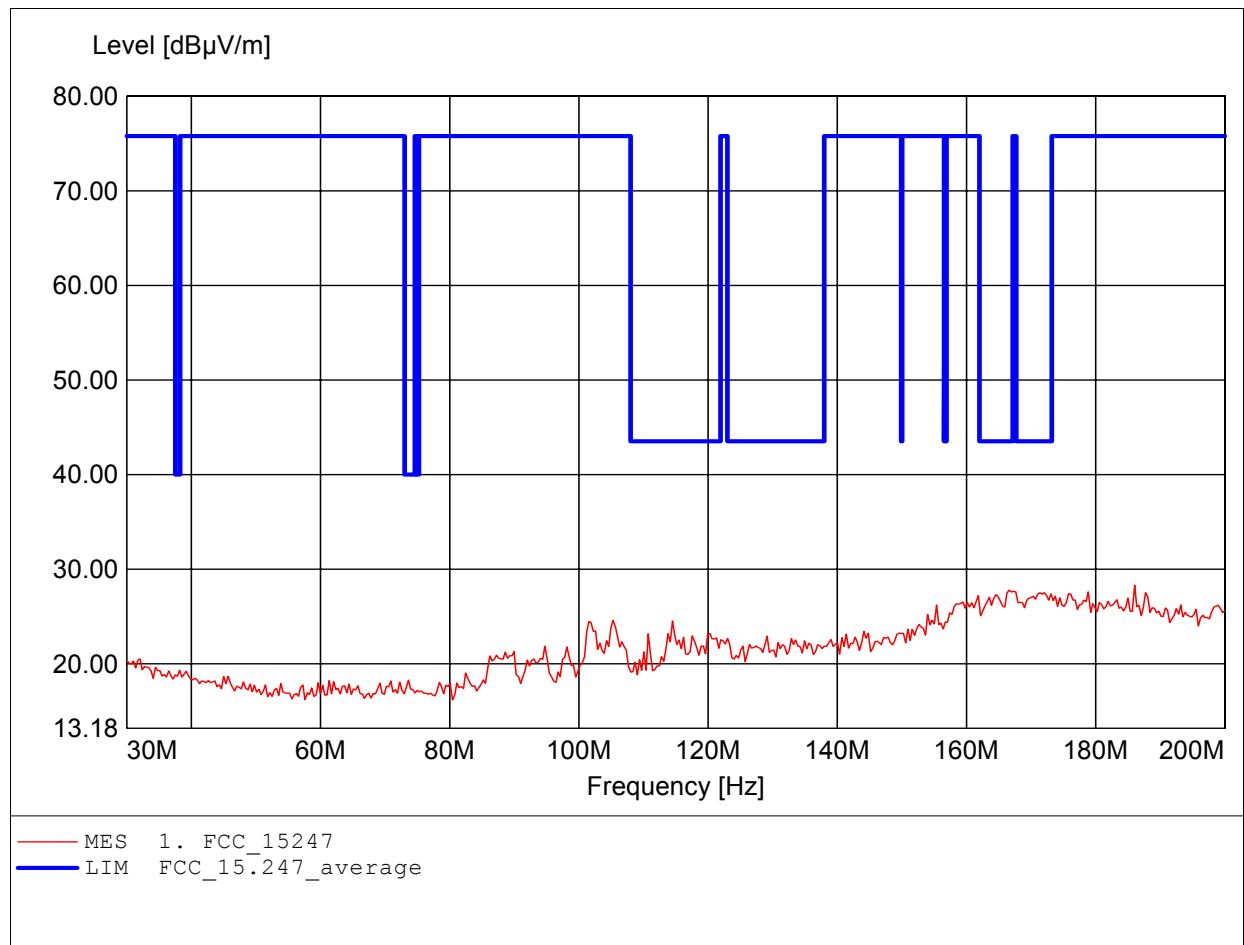
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J low channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 23.076GHz, Emax: 51.24dBμV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

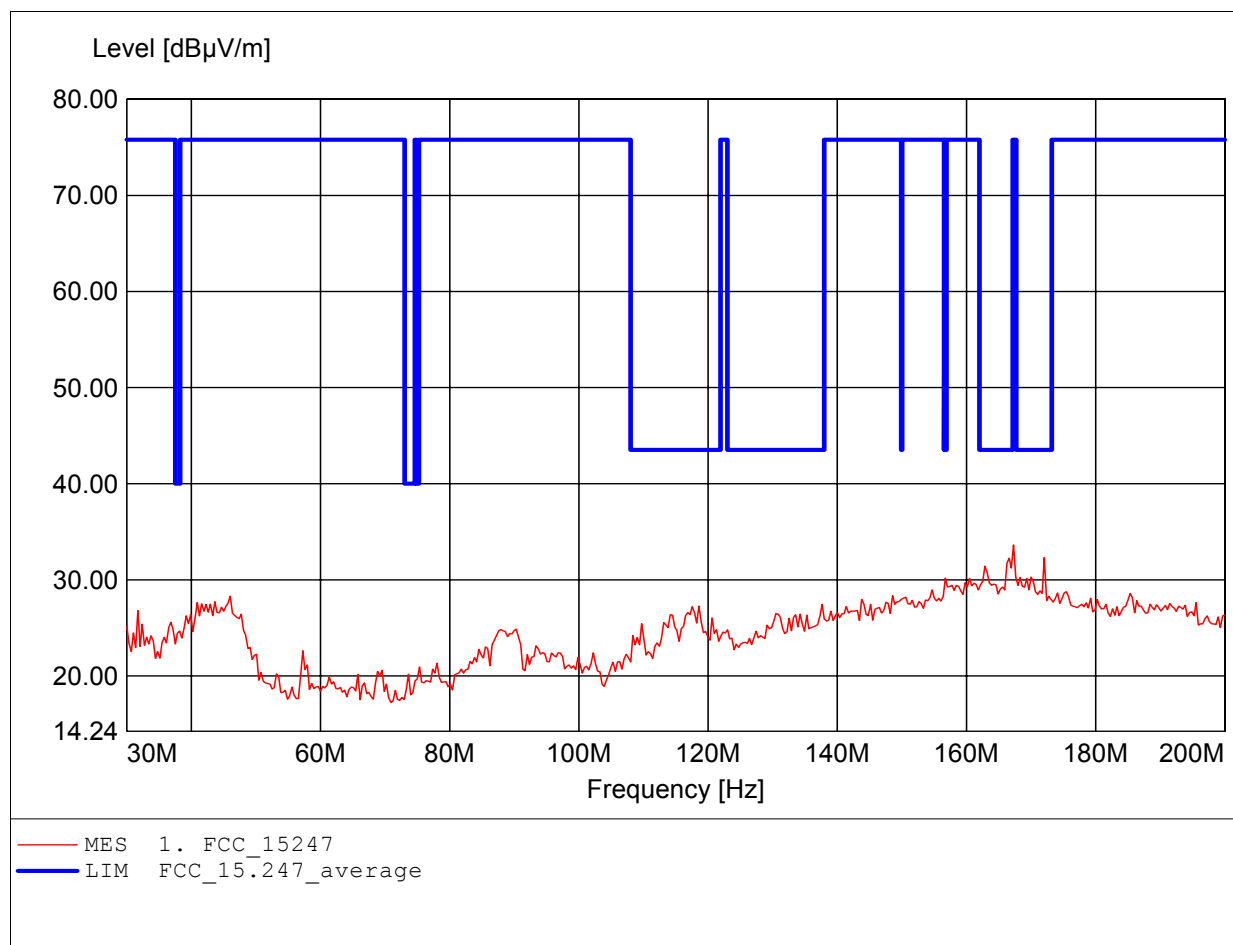
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J middle channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: HK 116
Freq: 186.032MHz, Emax: 28.32dBµV/m, RBW: 100kHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

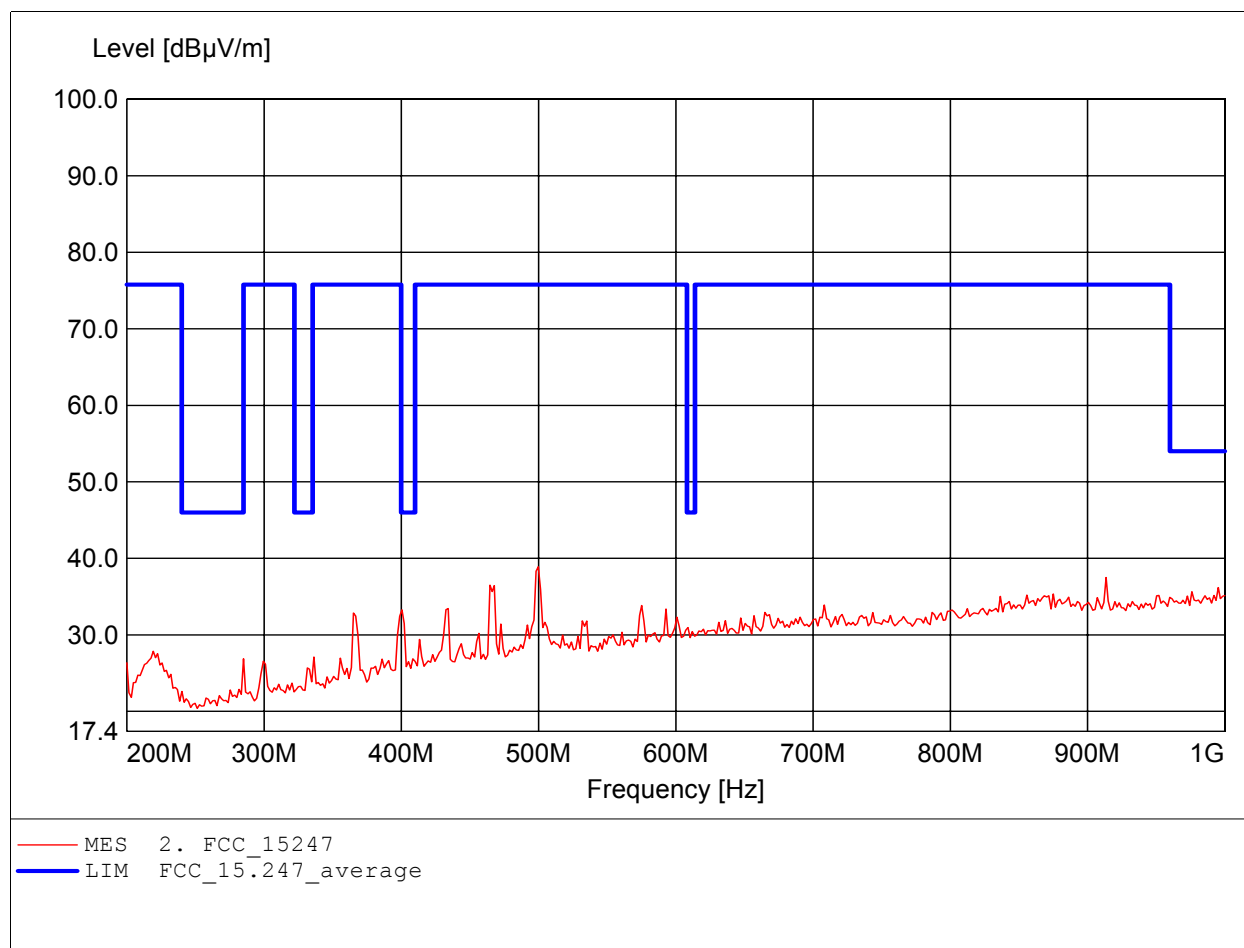
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J middle channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: HK 116
Freq: 167.295MHz, Emax: 33.63dBμV/m, RBW: 100kHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

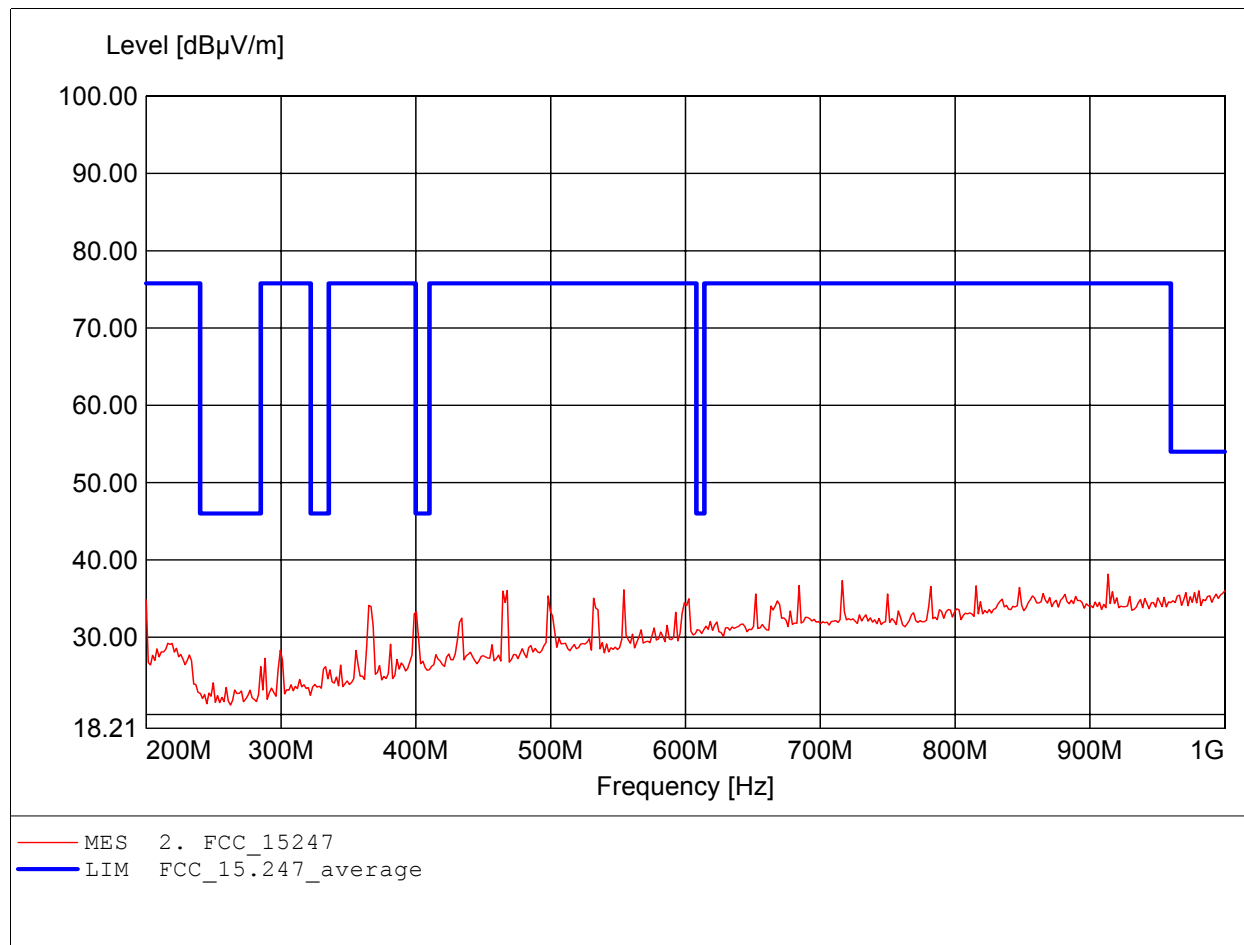
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J middle channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: HL 223,
Freq: 499.800MHz, Emax: 38.91dBμV/m, RBW: 100kHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

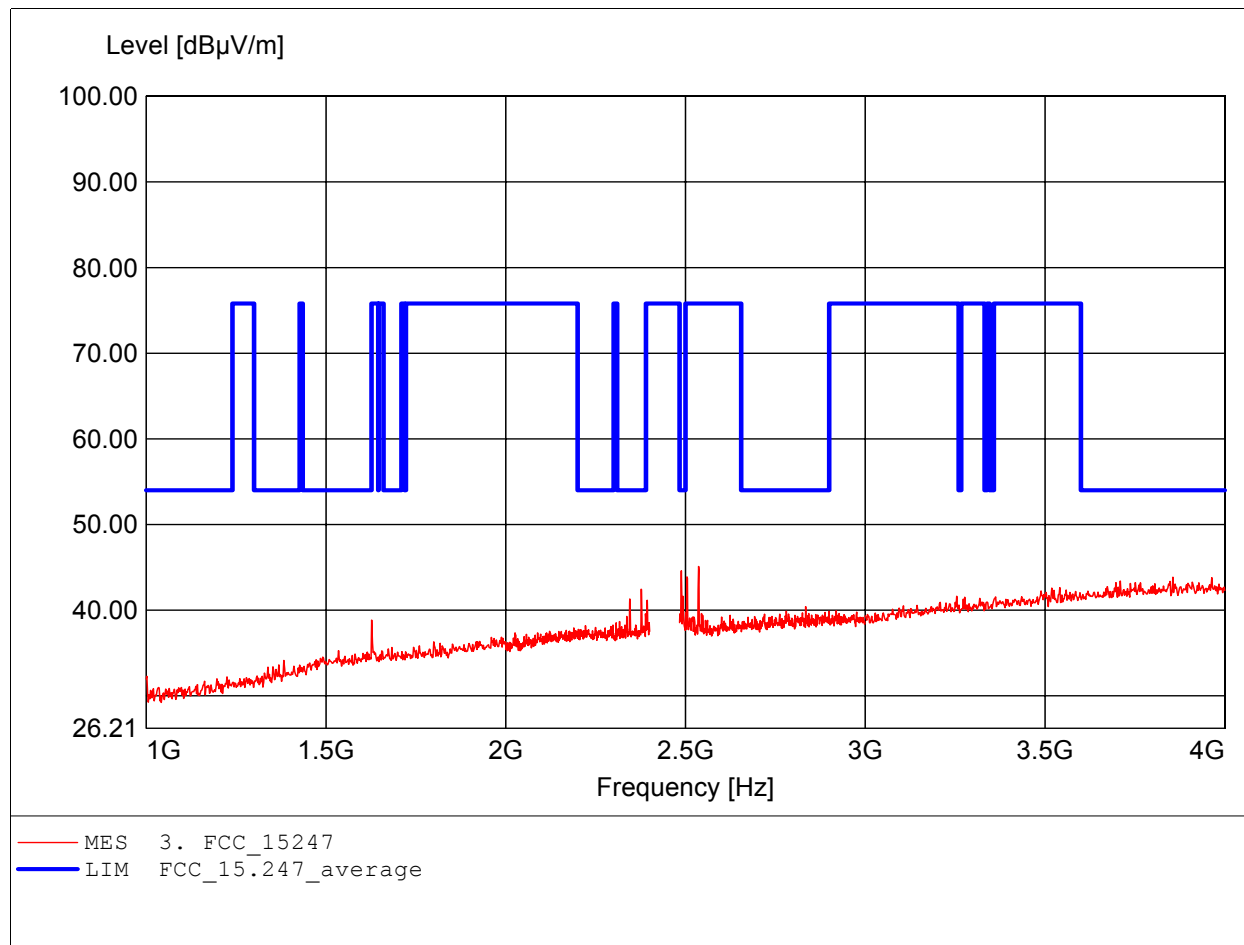
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J middle channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: HL 223,
Freq: 913.427MHz, Emax: 38.15dBμV/m, RBW: 100kHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

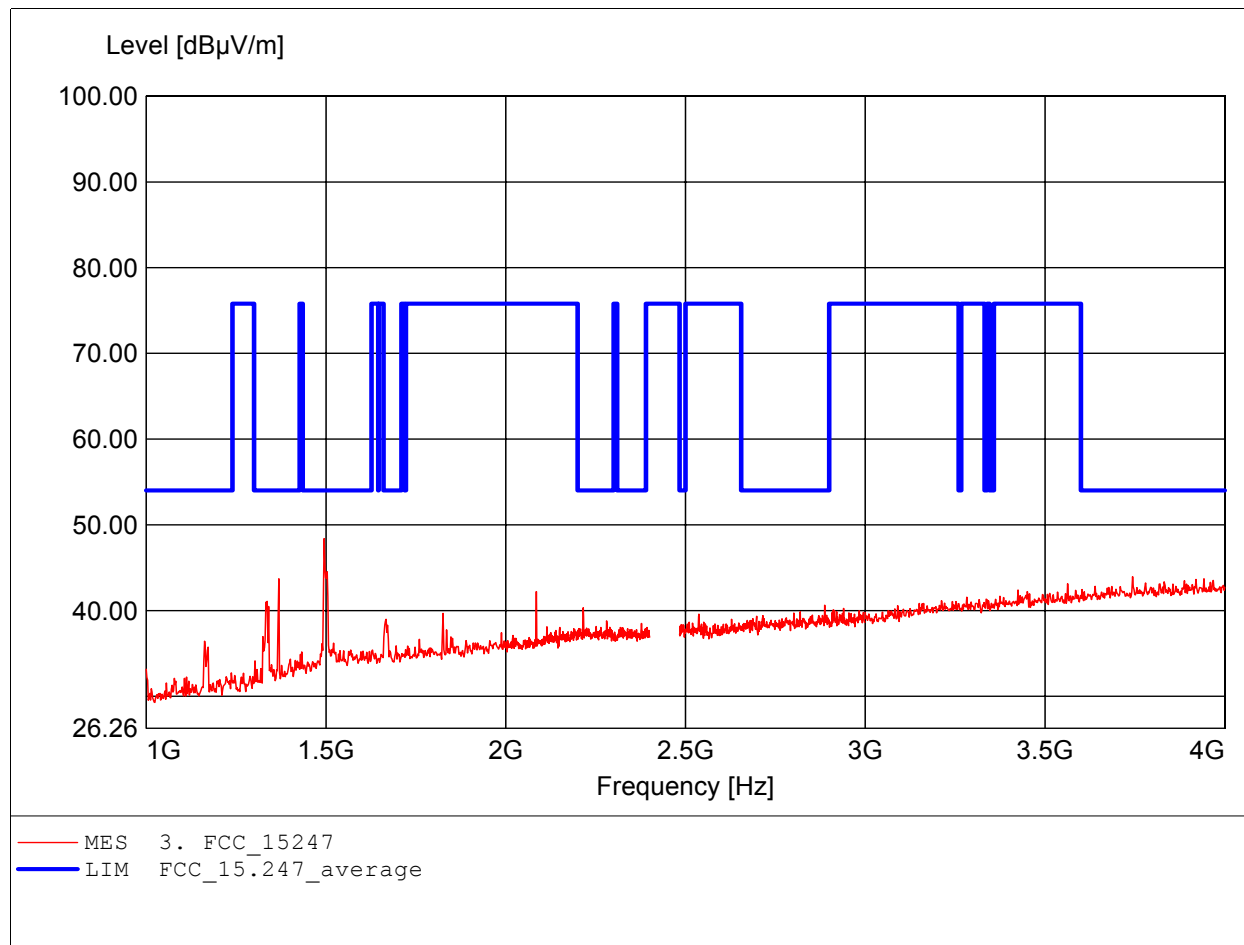
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J middle channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 2.536GHz, Emax: 45.10dBμV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

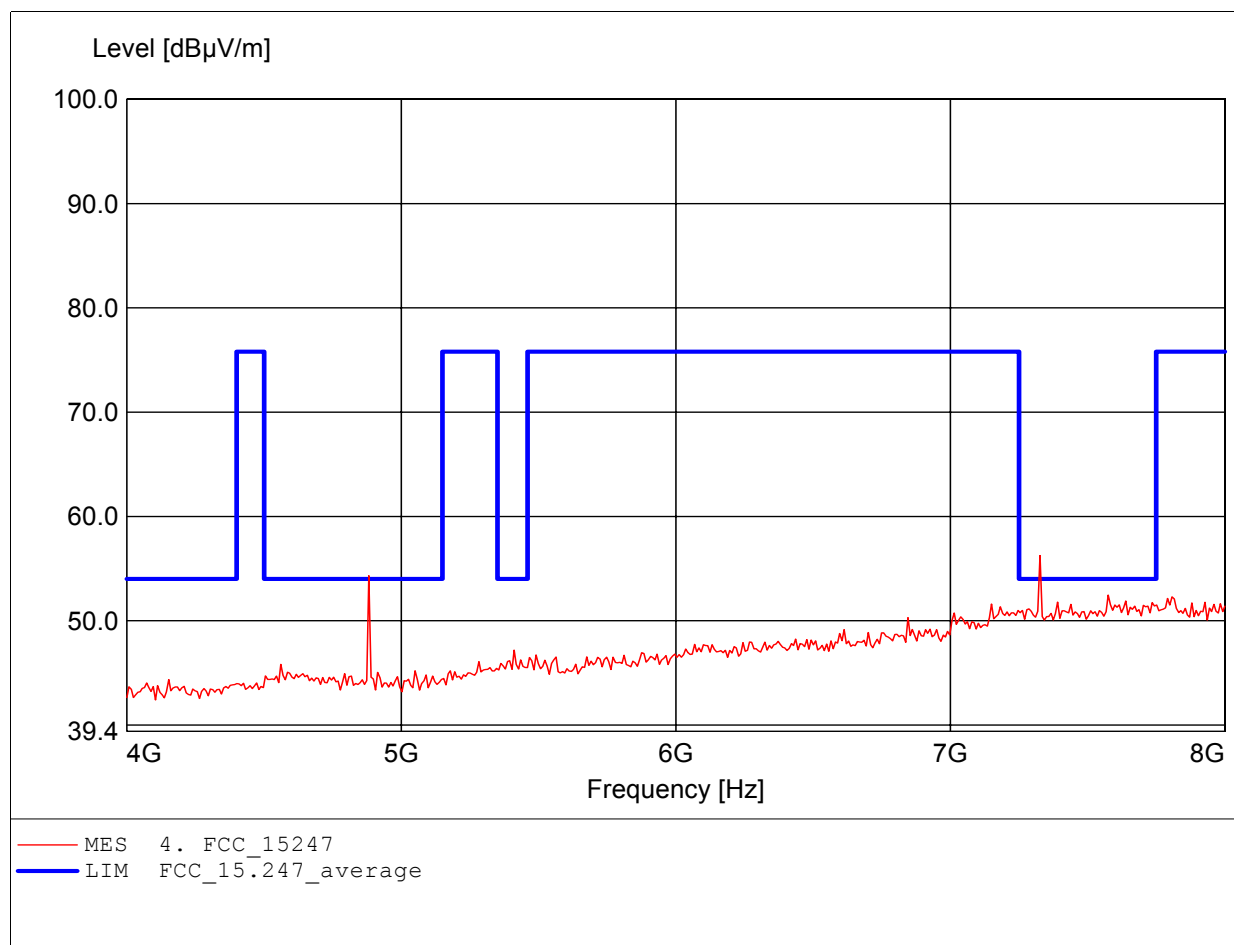
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J middle channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 1.495GHz, Emax: 48.39dBμV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

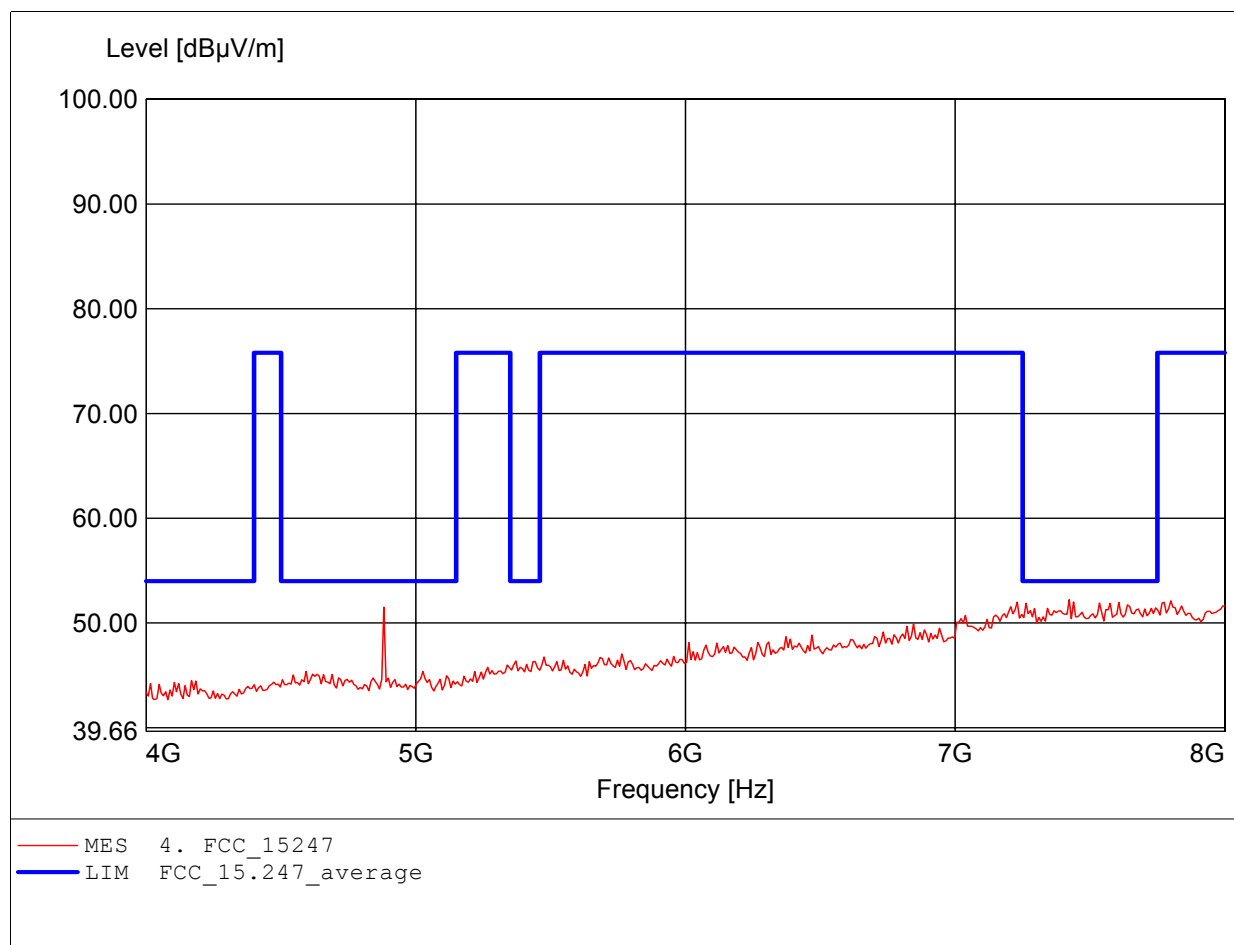
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J middle channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 7.327GHz, Emax: 56.25dBμV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

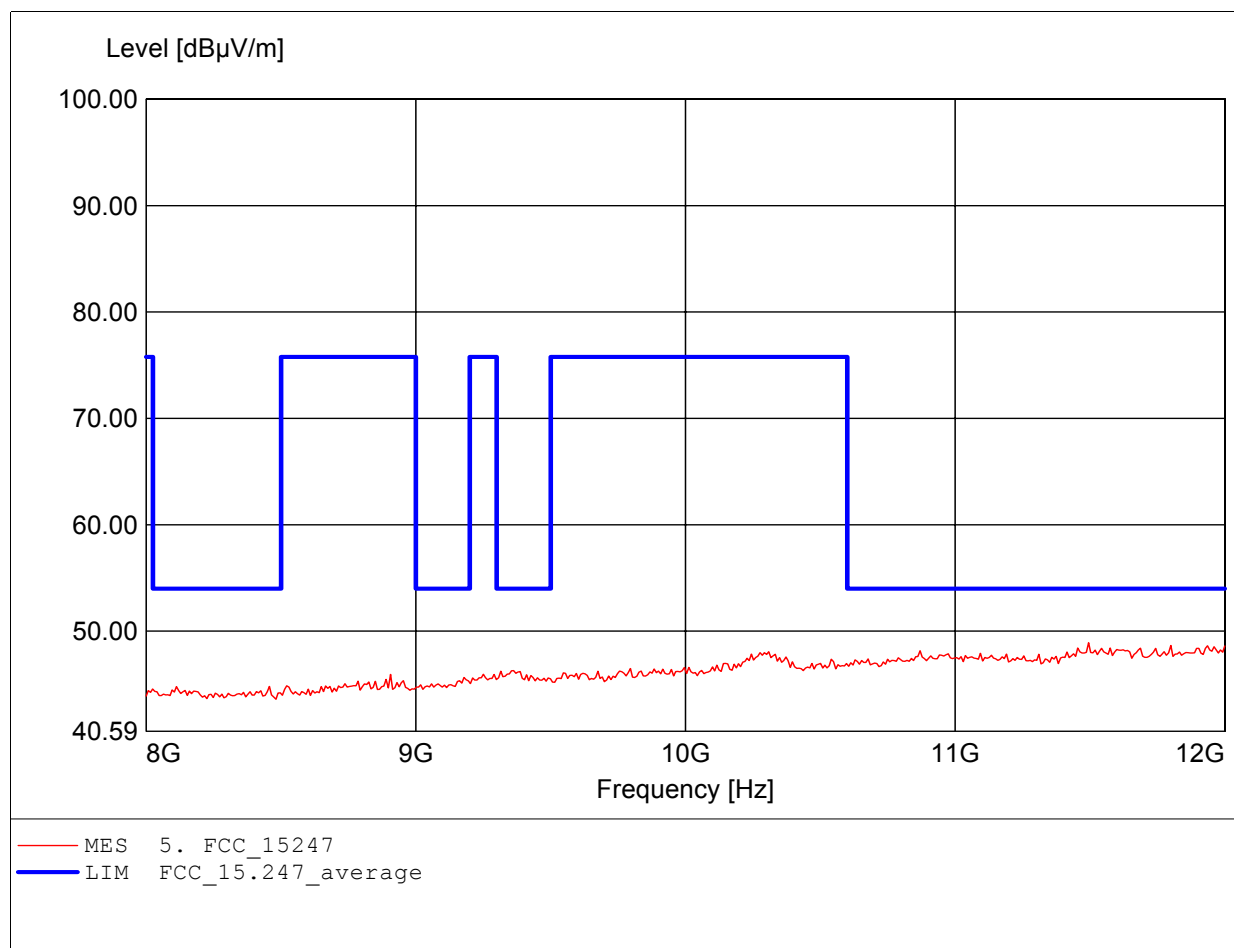
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J middle channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 7.423GHz, Emax: 52.22dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

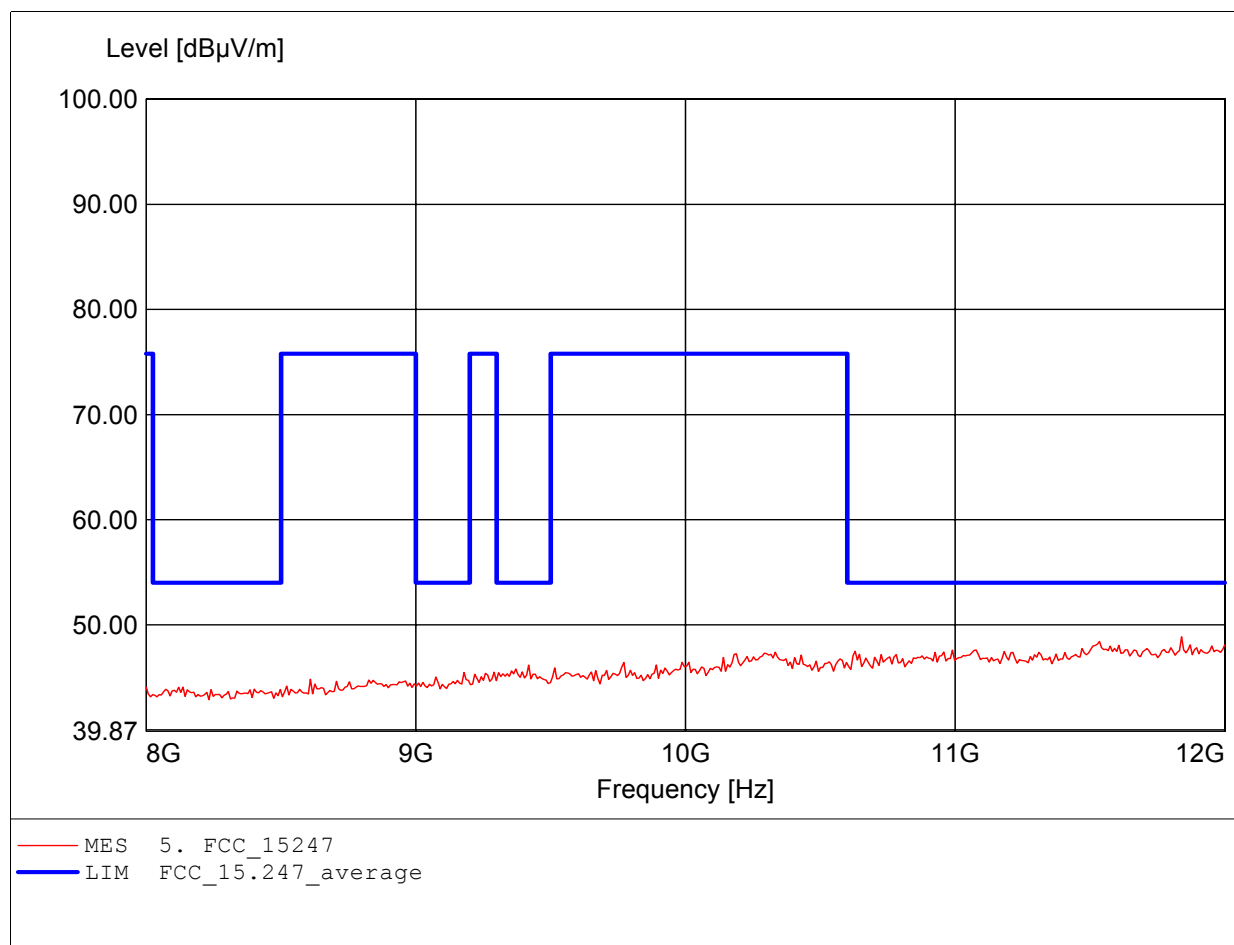
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J middle channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 11.495GHz, Emax: 48.91dBμV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

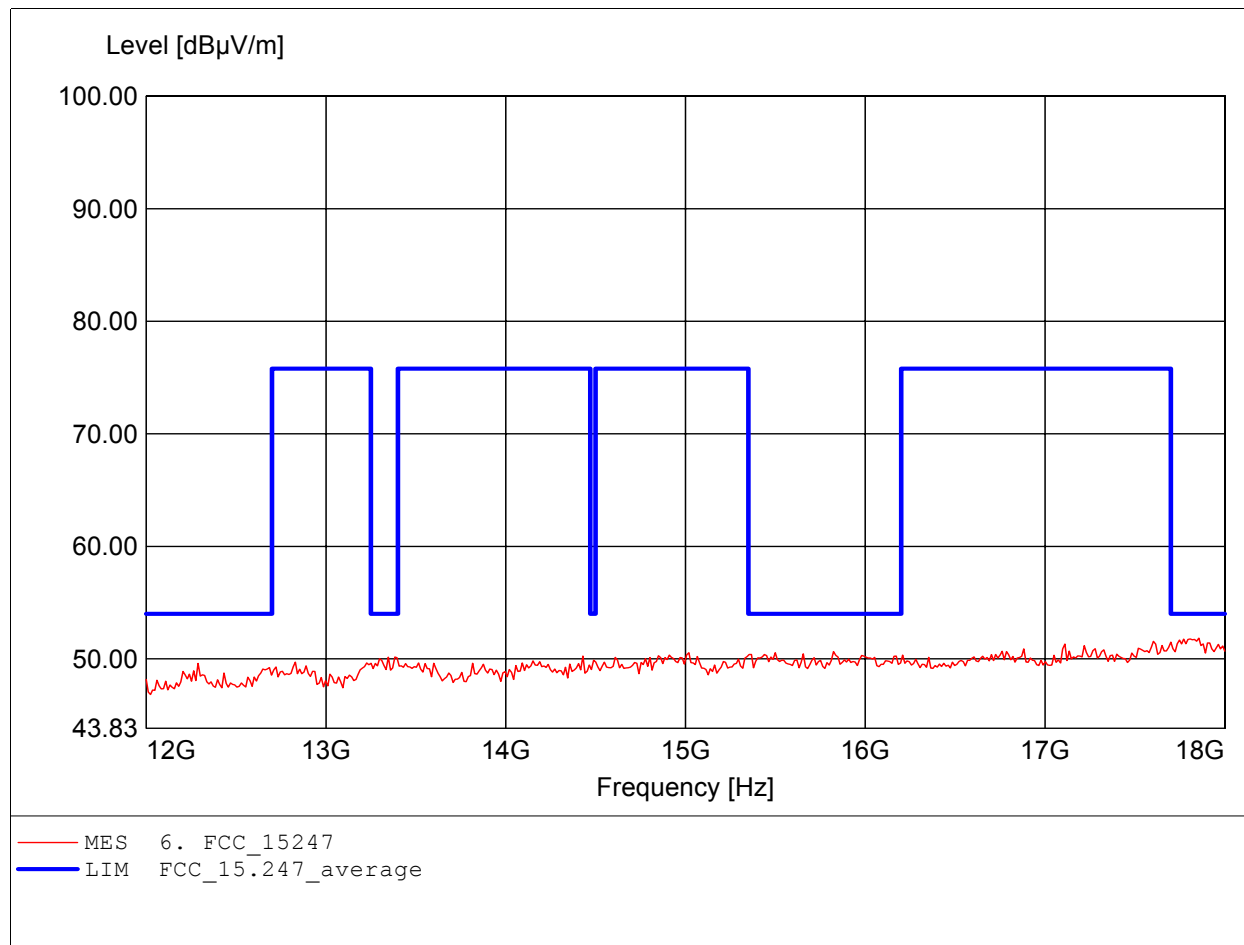
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J middle channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 11.840GHz, Emax: 48.85dBμV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

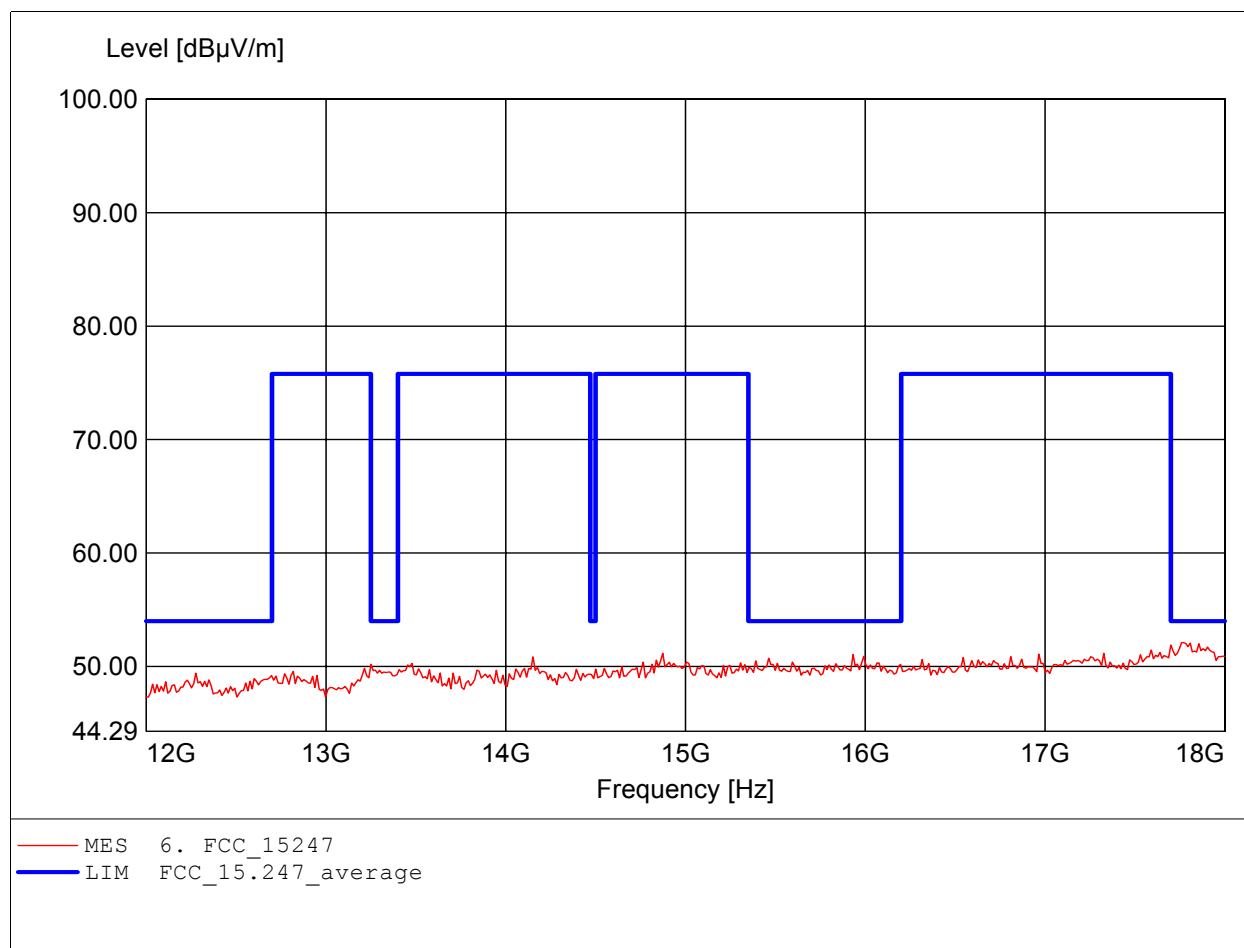
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J middle channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 17.856GHz, Emax: 51.83dBμV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

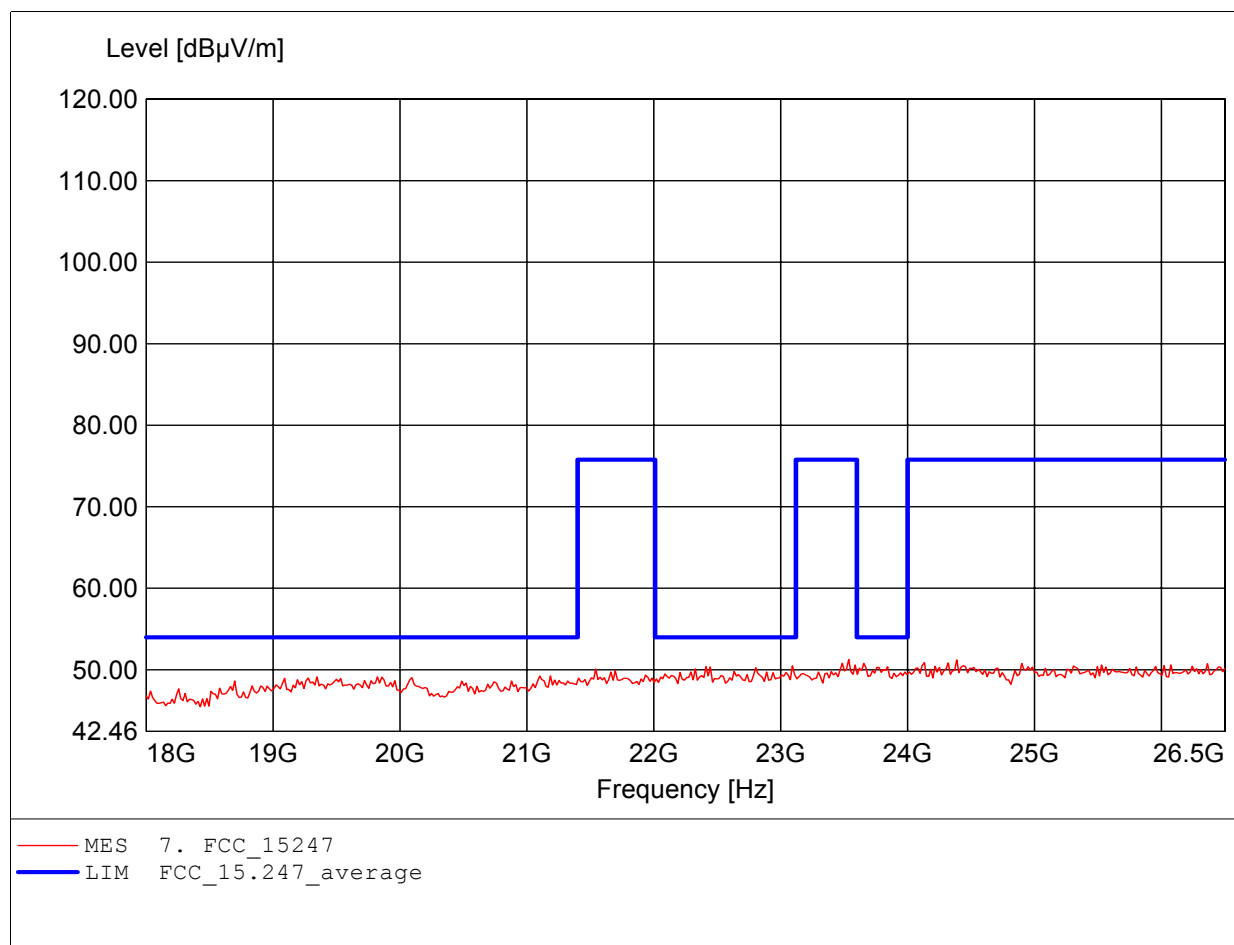
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J middle channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 17.760GHz, Emax: 52.12dBμV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

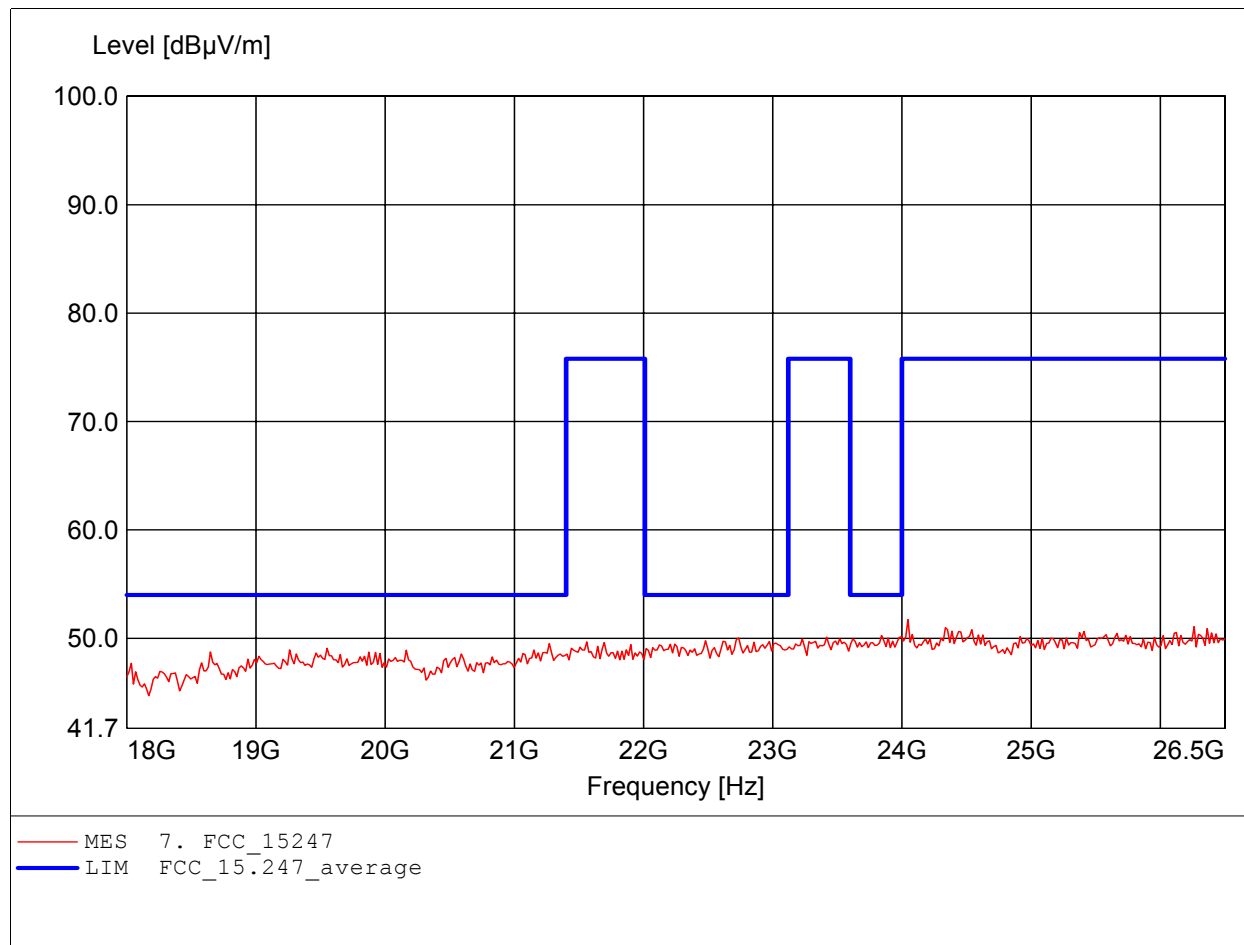
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J middle channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 23.536GHz, Emax: 51.27dBμV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

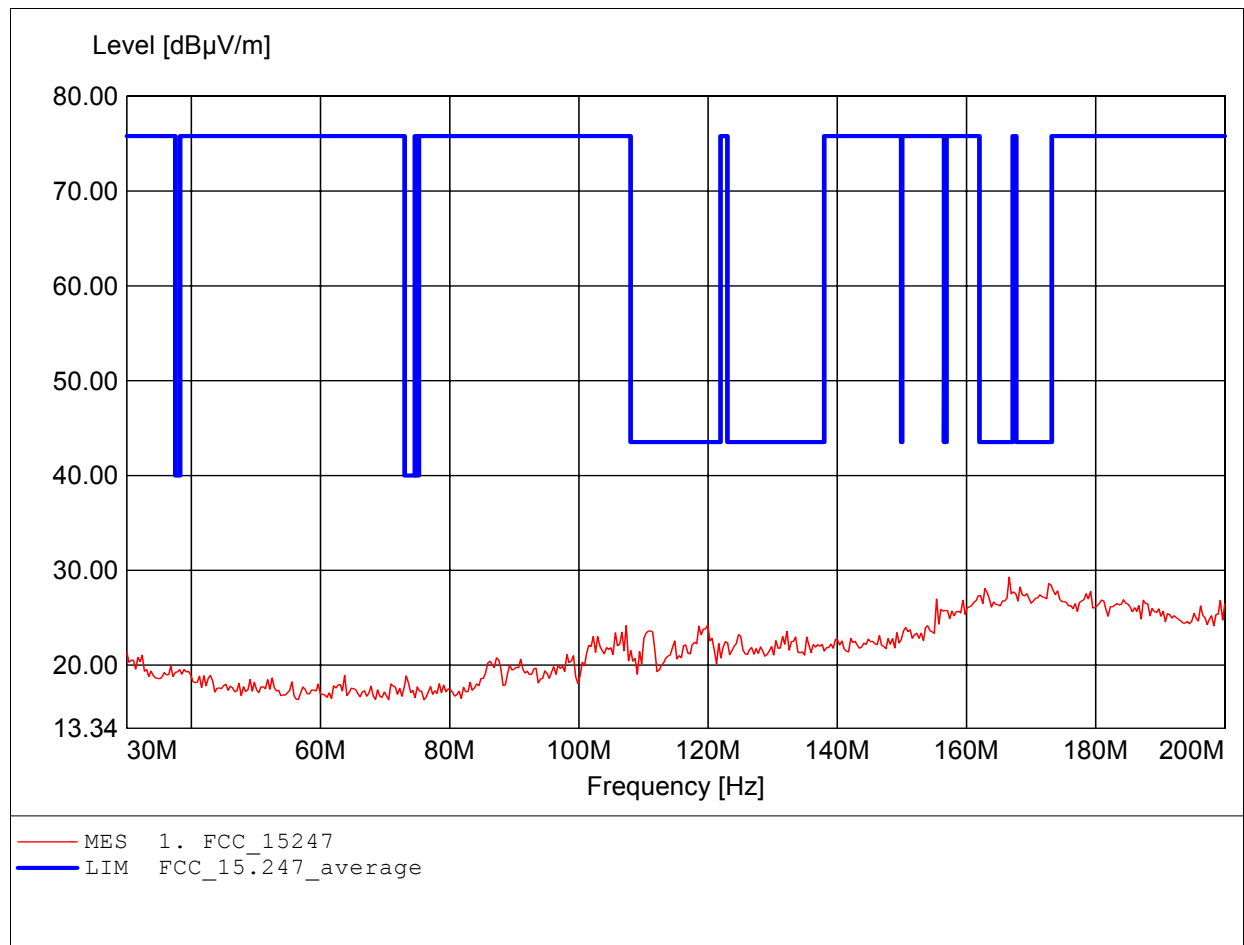
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J middle channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 24.047GHz, Emax: 51.73dBμV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

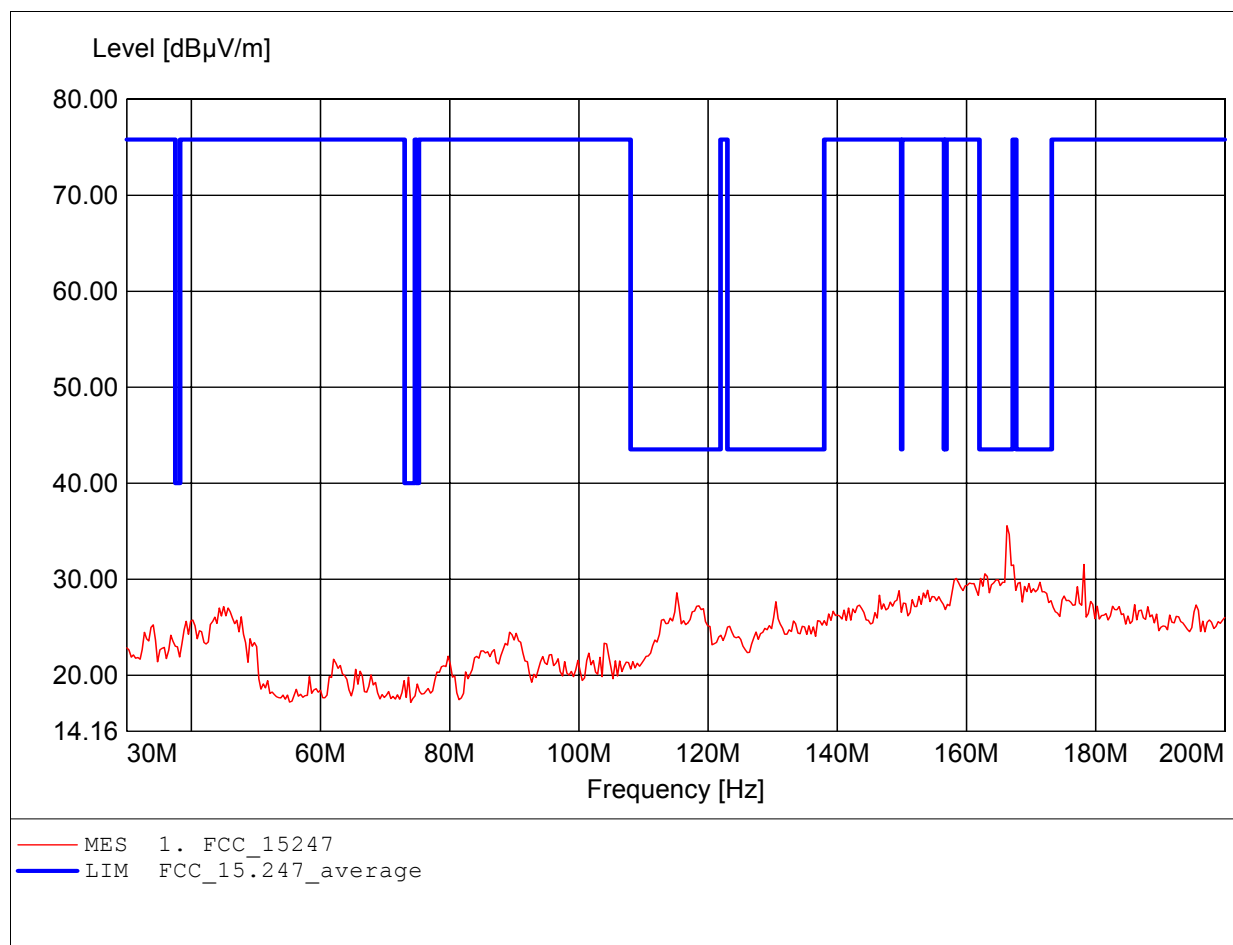
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J high channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: HK 116
Freq: 166.613MHz, Emax: 29.27dBμV/m, RBW: 100kHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

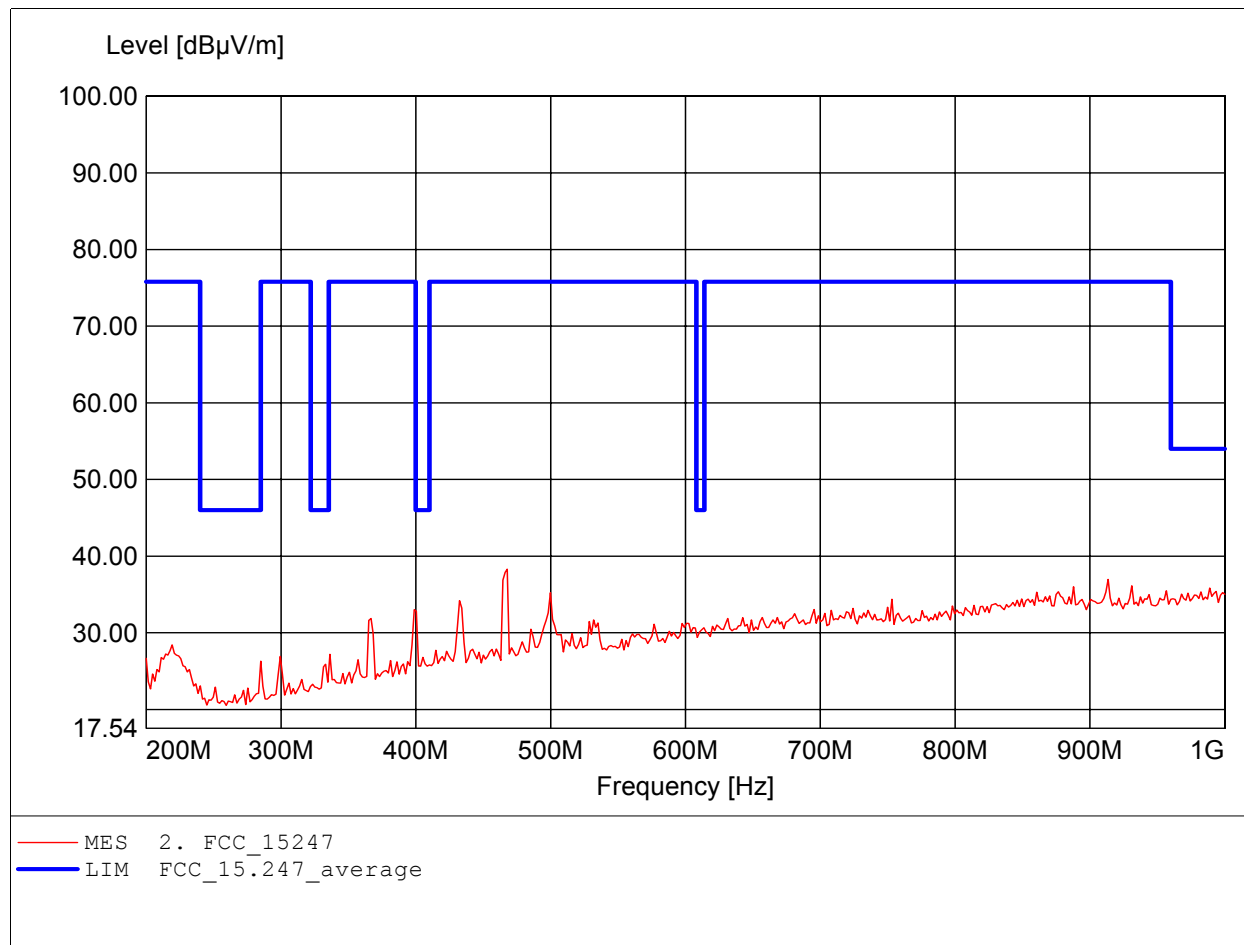
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J high channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: HK 116
Freq: 166.273MHz, Emax: 35.56dBµV/m, RBW: 100kHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

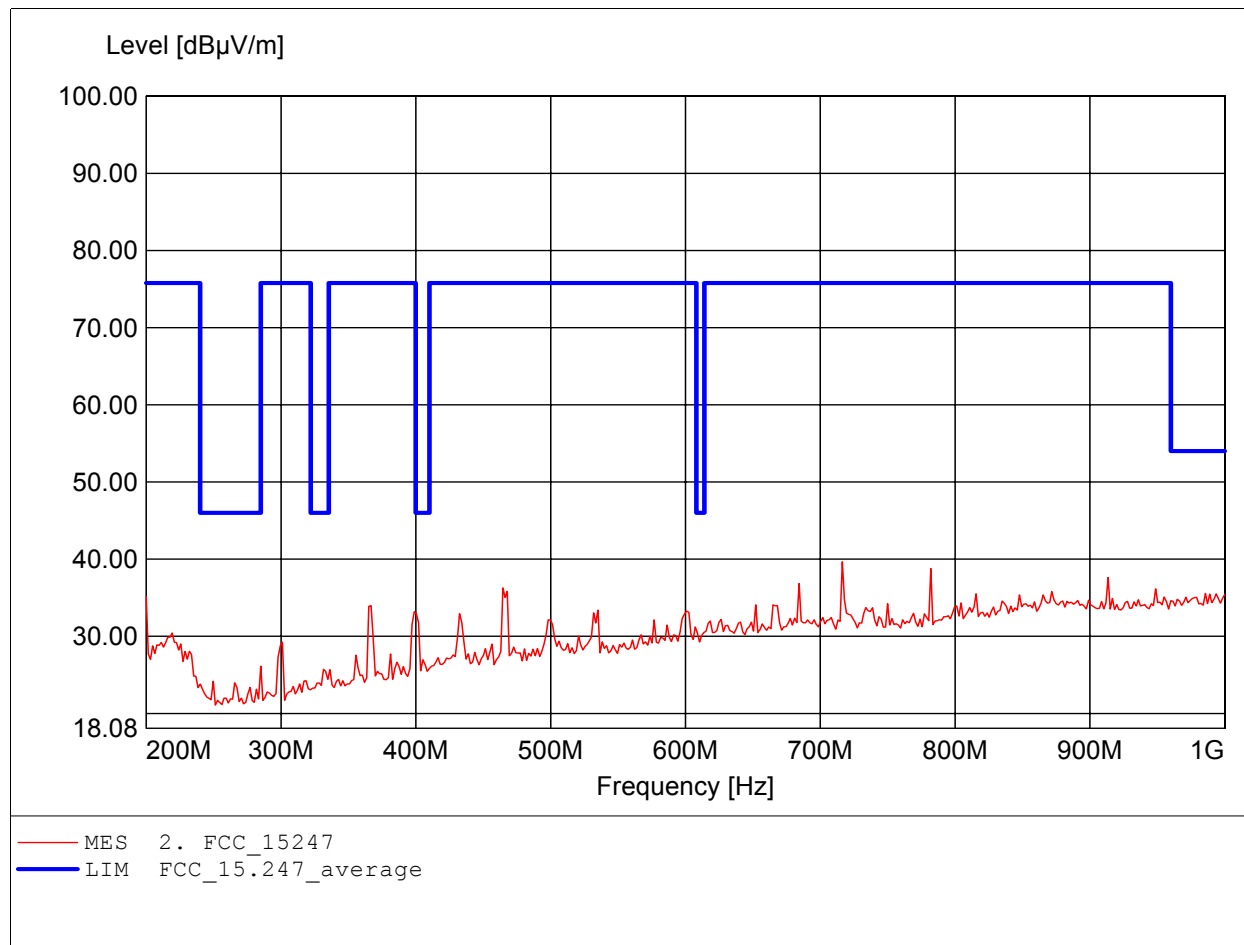
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J high channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: HL 223,
Freq: 467.735MHz, Emax: 38.30dBµV/m, RBW: 100kHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

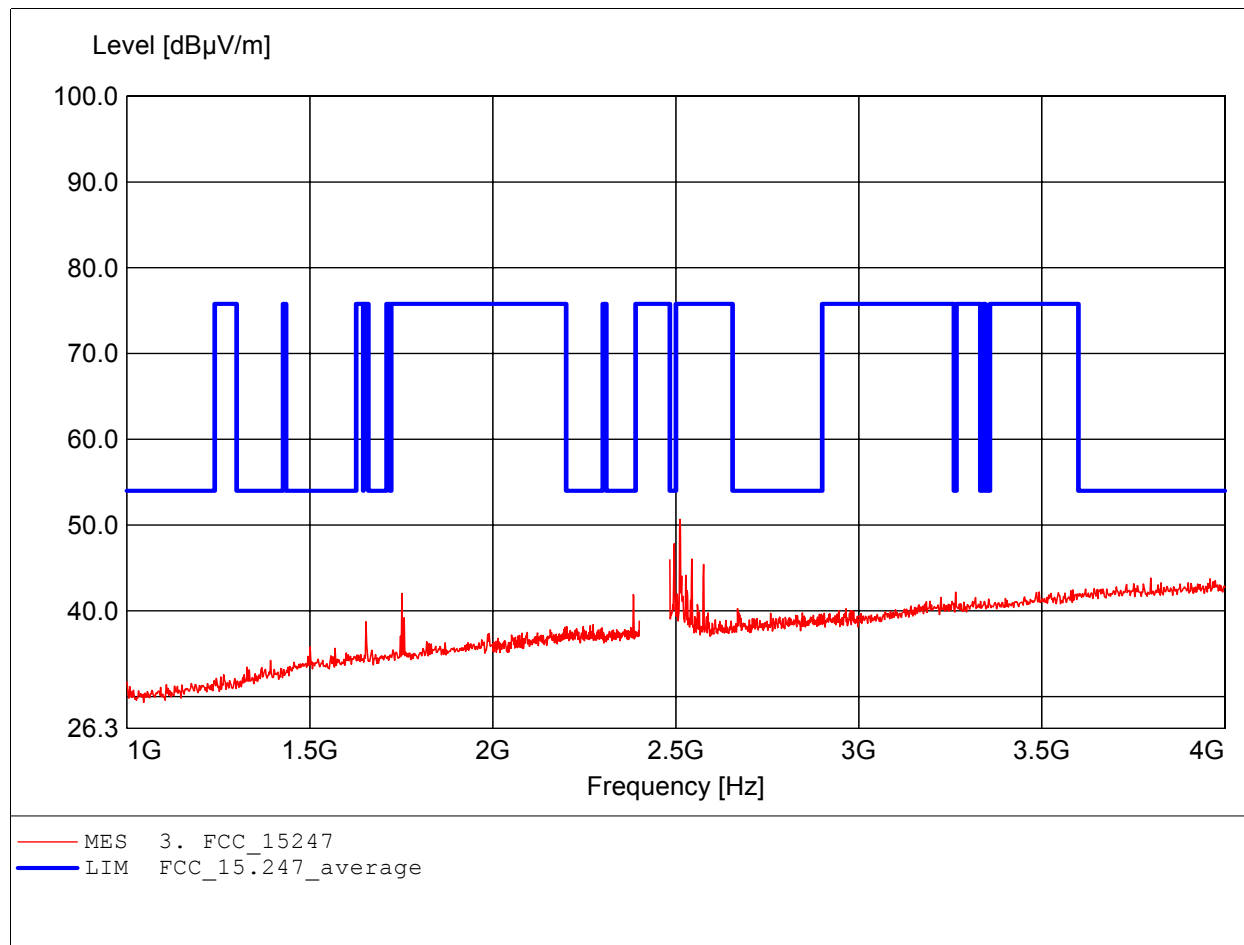
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J high channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247
Comment 1: Dist.: 3m, Ant.: HL 223,
Freq: 716.232MHz, Emax: 39.66dBμV/m, RBW: 100kHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

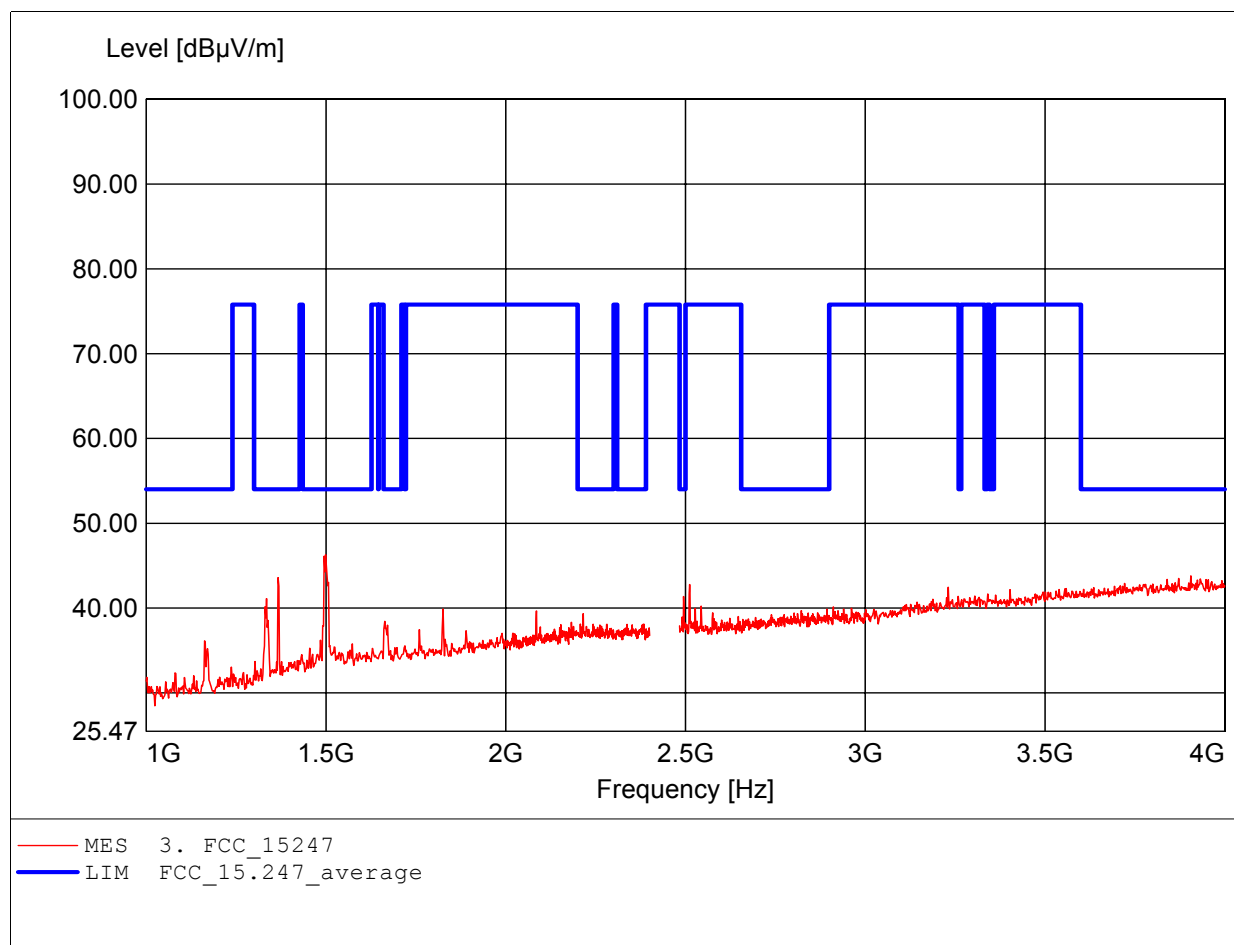
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J high channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 2.511GHz, Emax: 50.68dBμV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

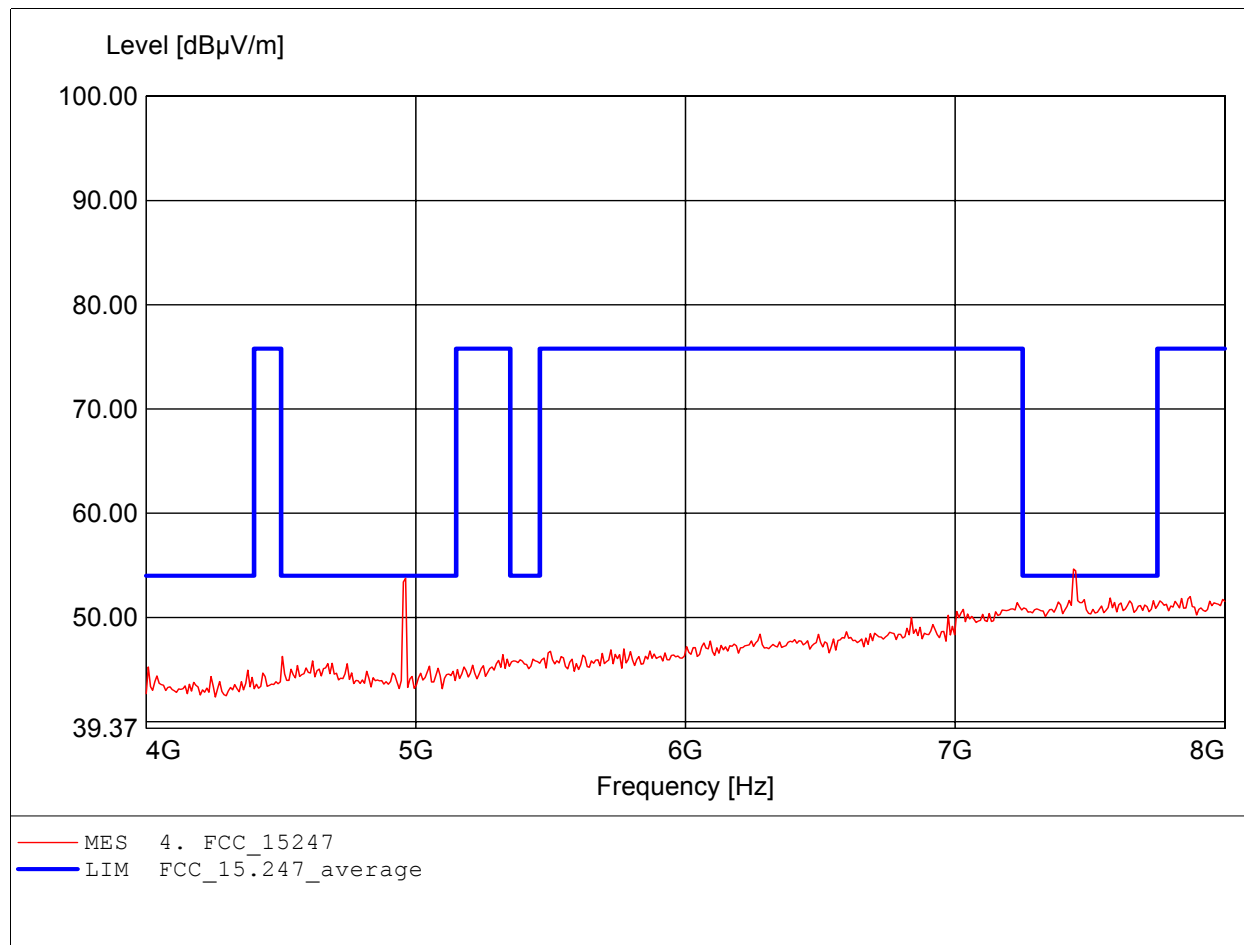
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J high channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 1.499GHz, Emax: 46.28dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

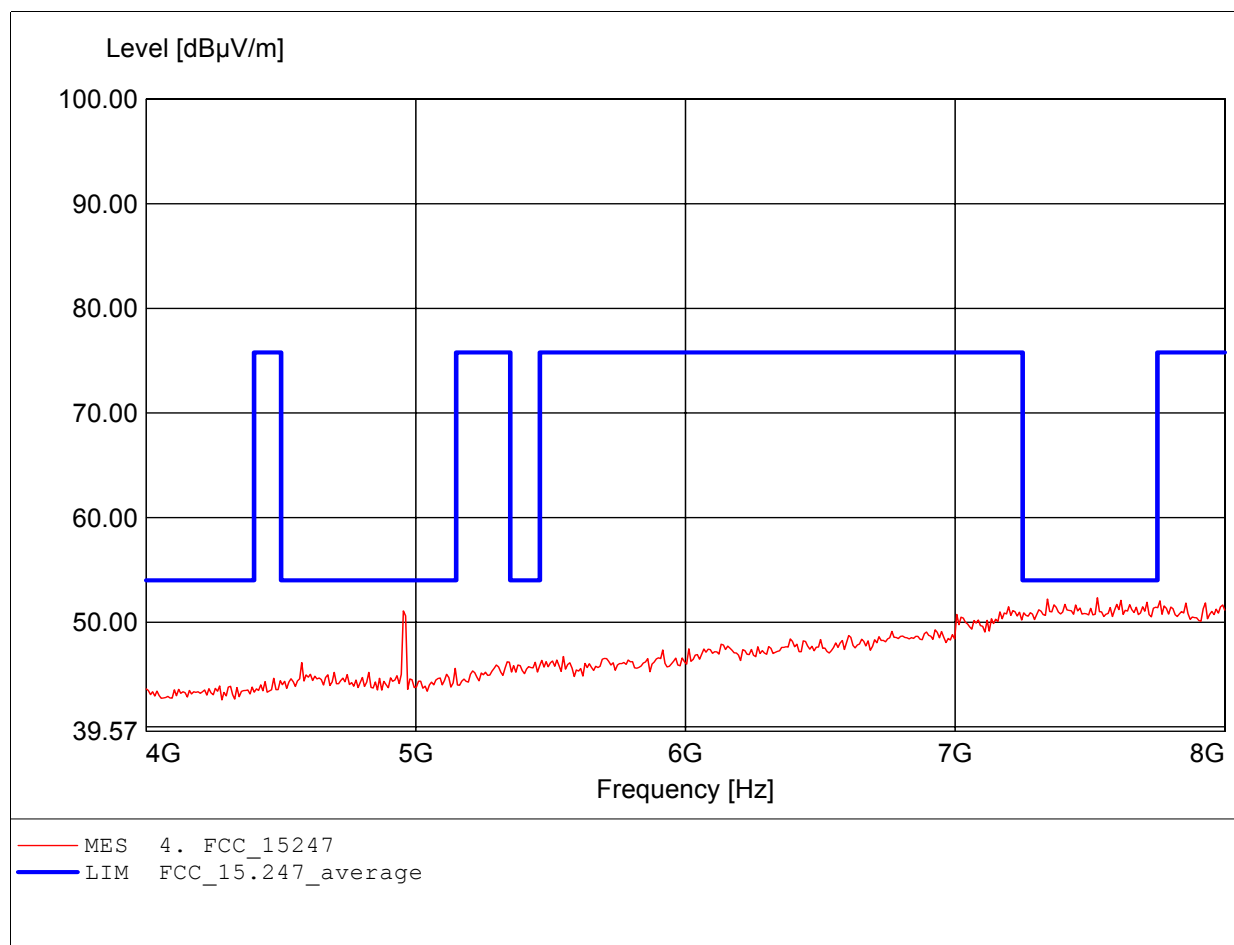
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J high channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 7.439GHz, Emax: 54.66dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

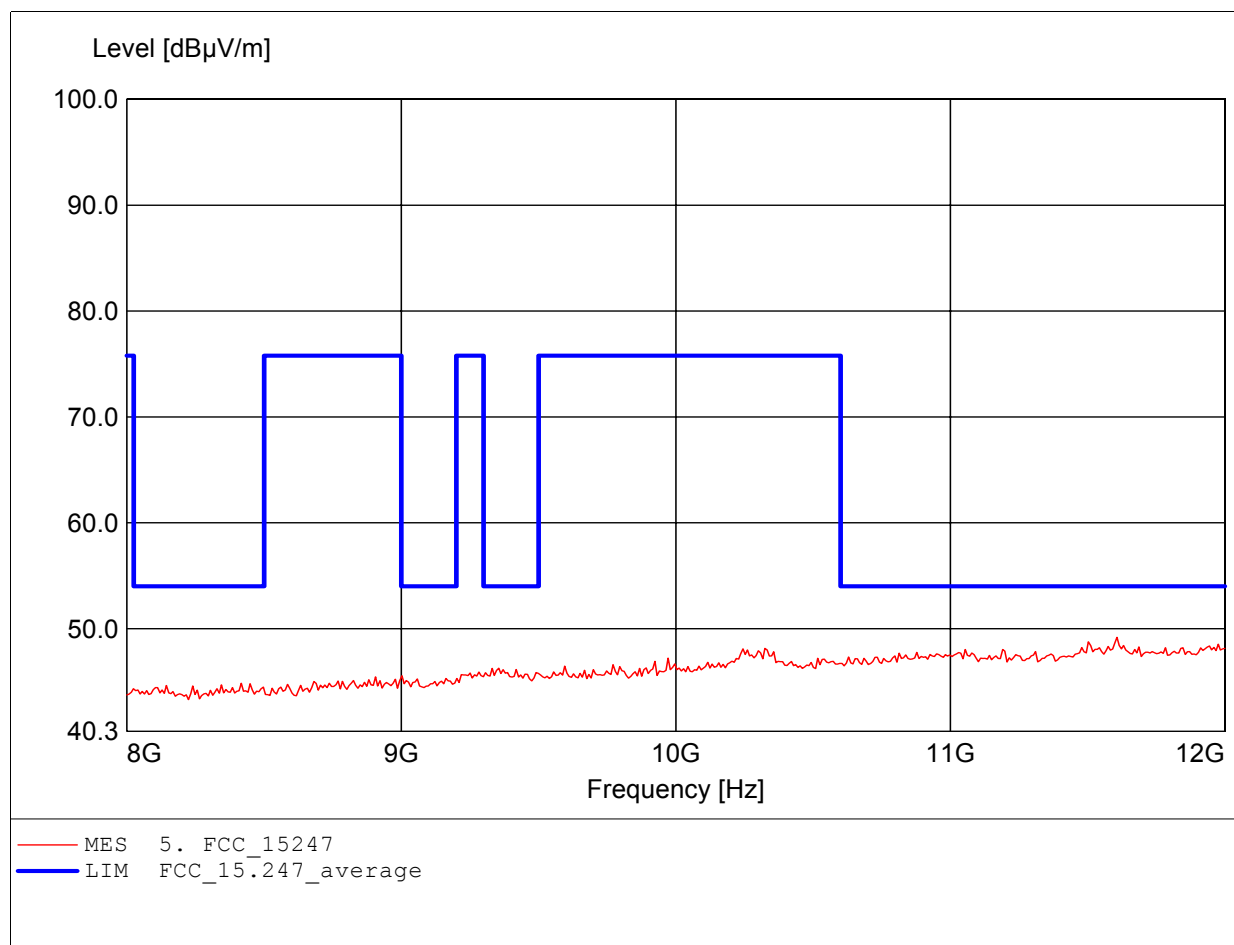
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J high channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 7.527GHz, Emax: 52.33dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

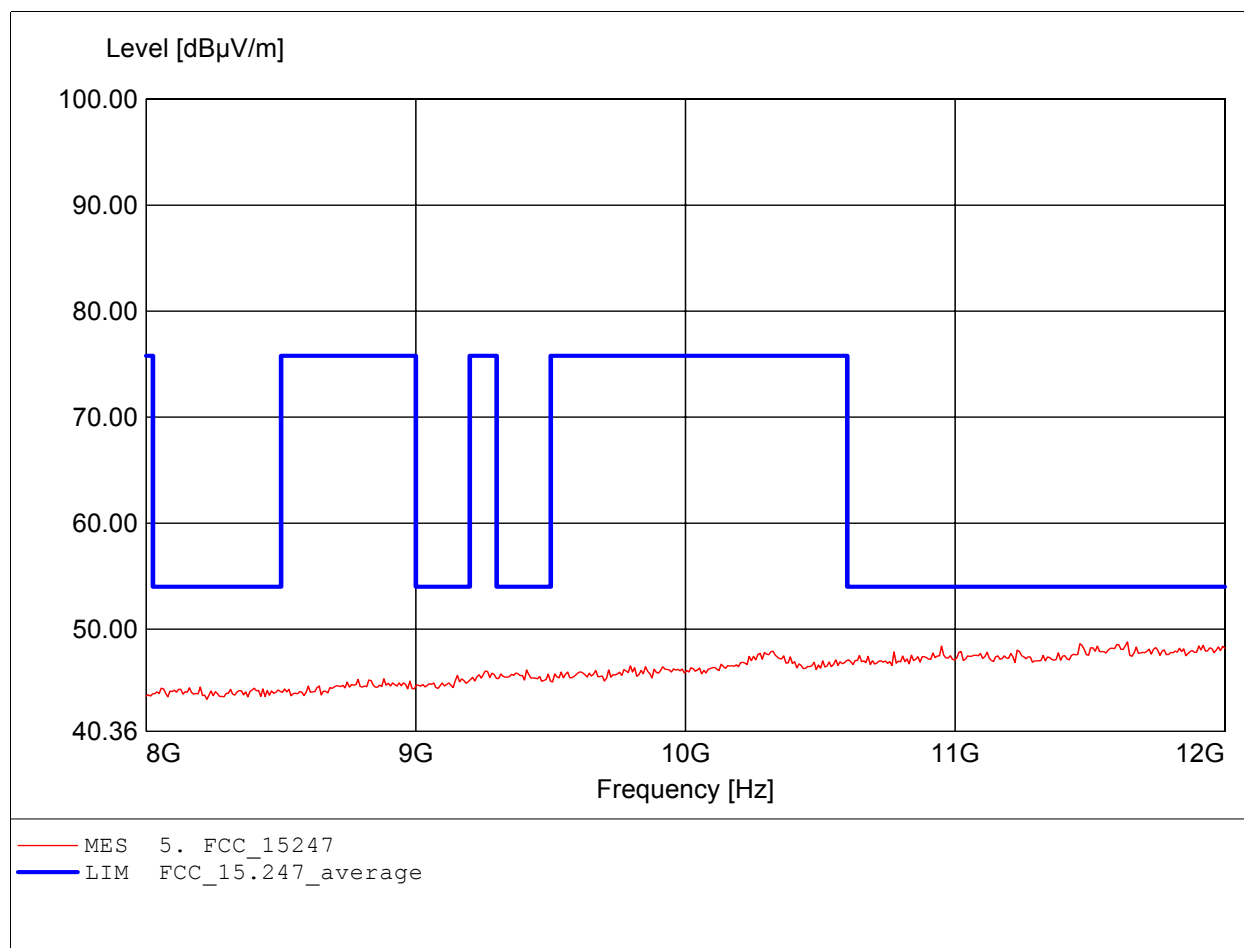
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J high channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 11.607GHz, Emax: 49.18dBμV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

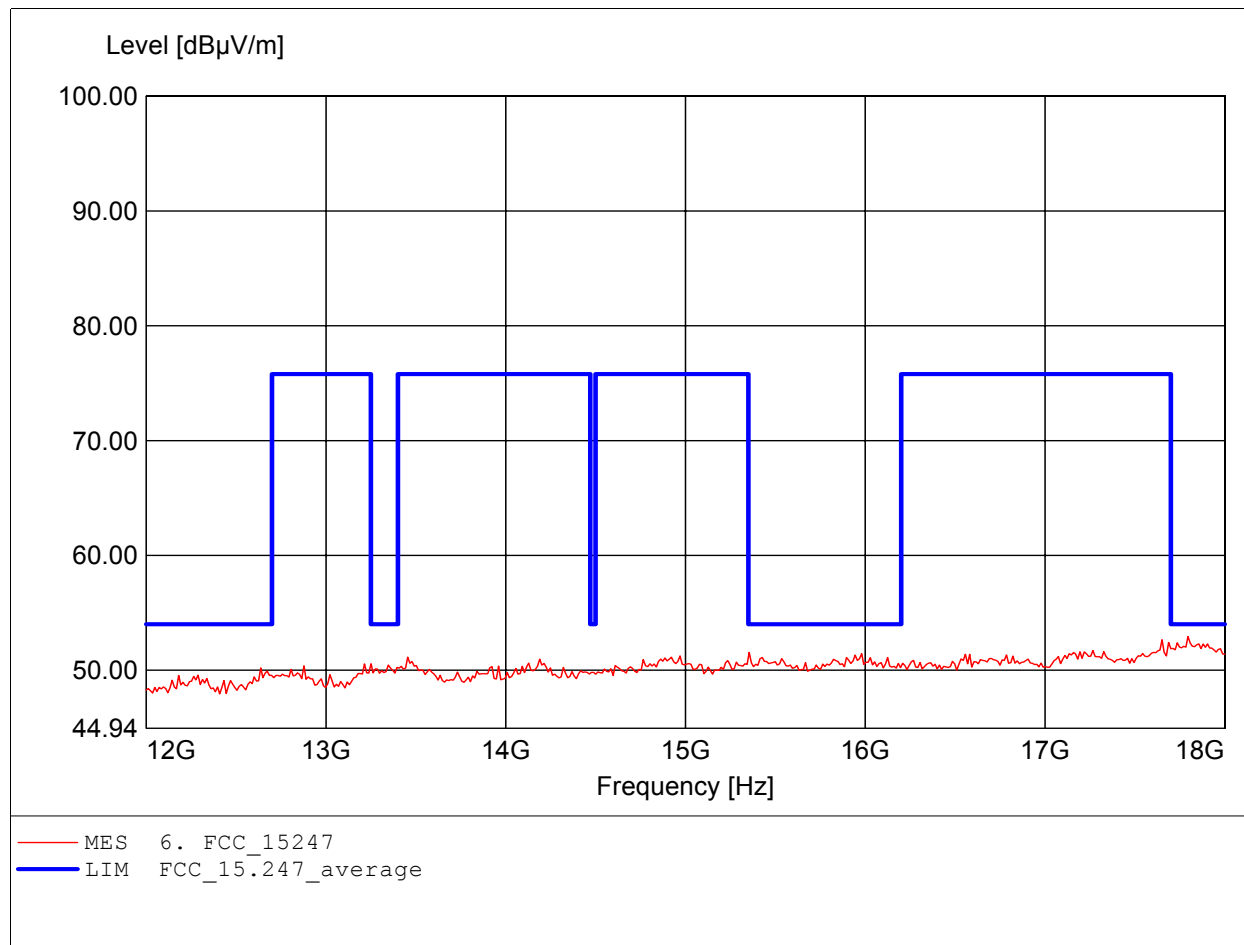
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J high channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 11.639GHz, Emax: 48.79dBμV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

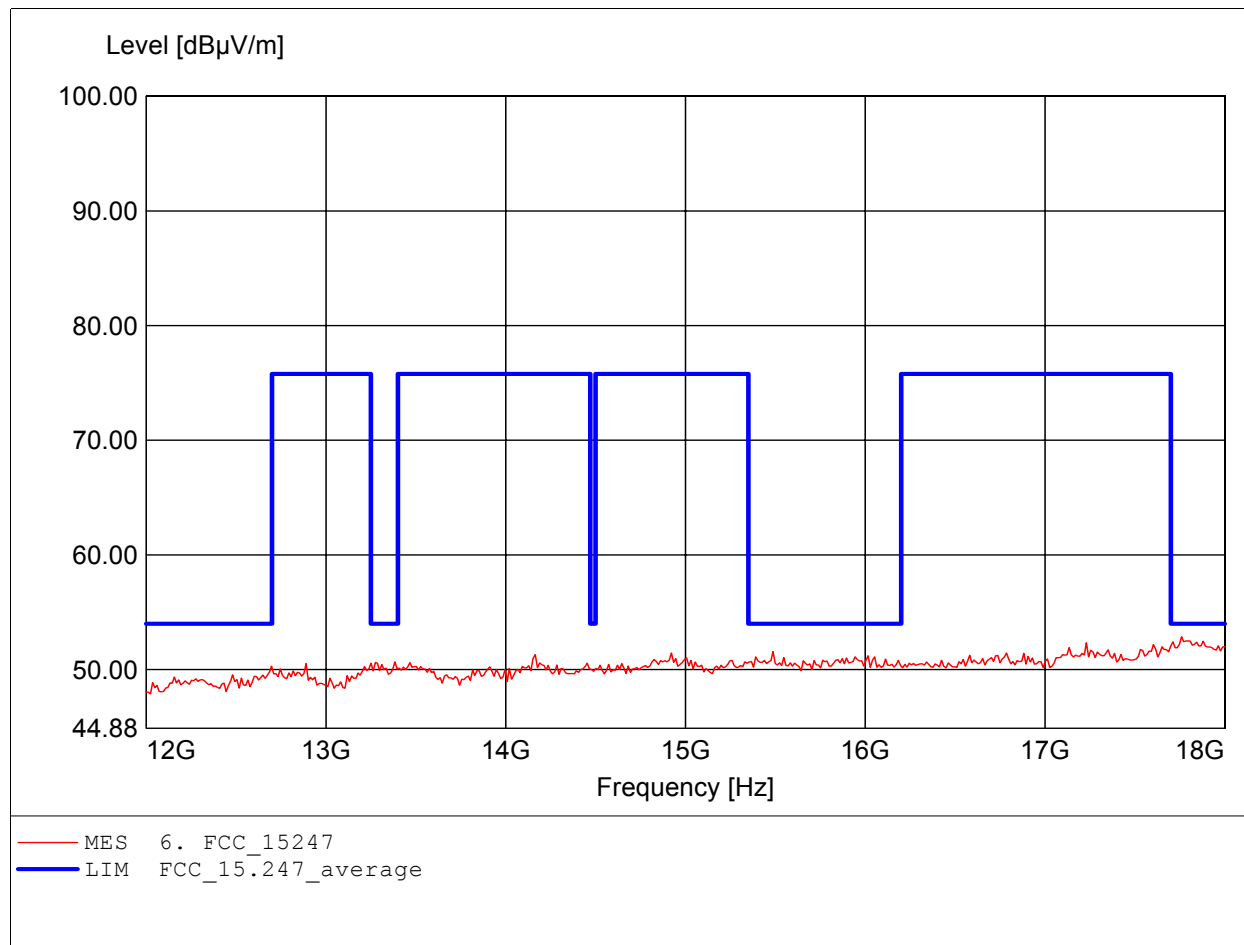
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J high channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 17.796GHz, Emax: 52.93dBμV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

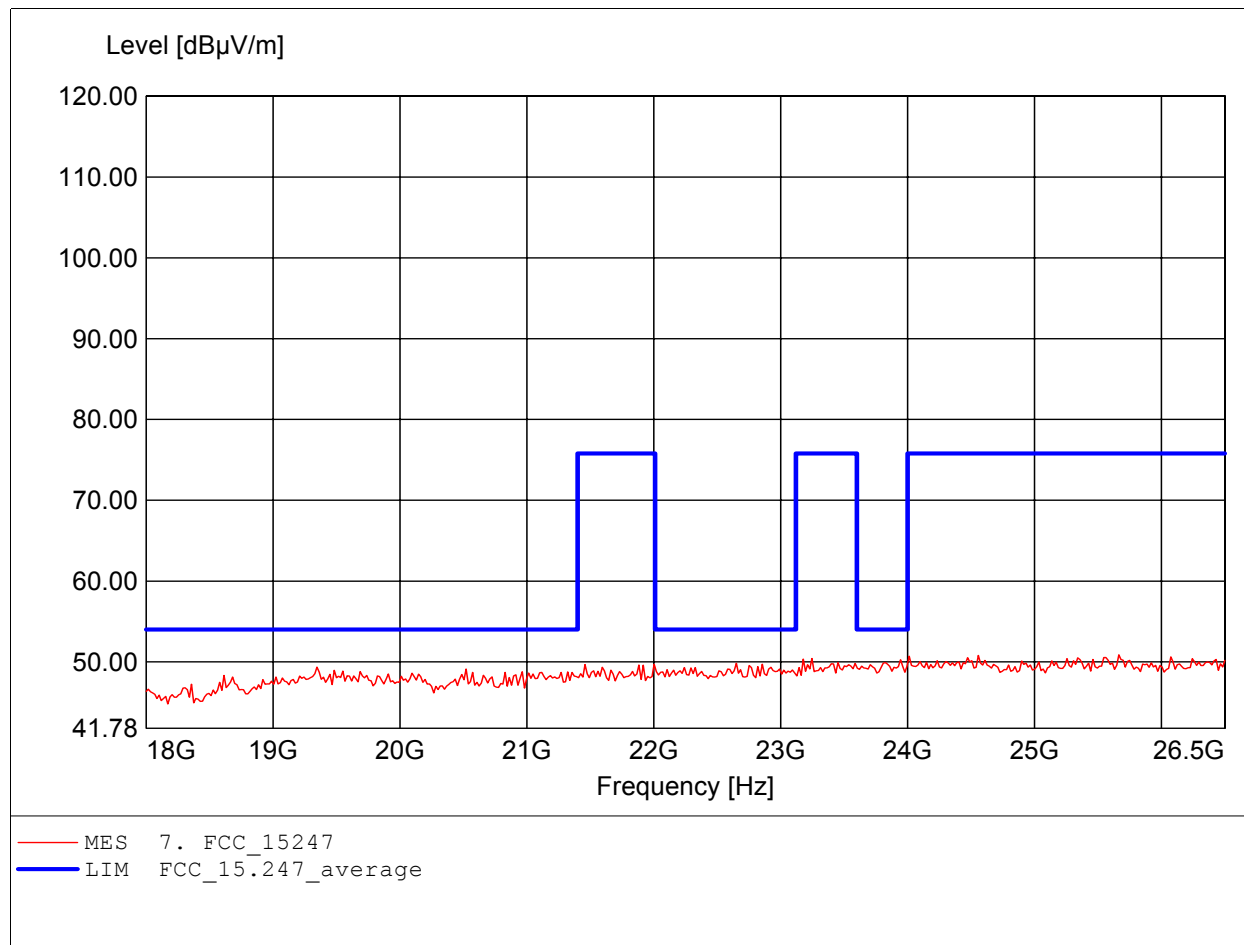
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J high channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 17.760GHz, Emax: 52.86dBμV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

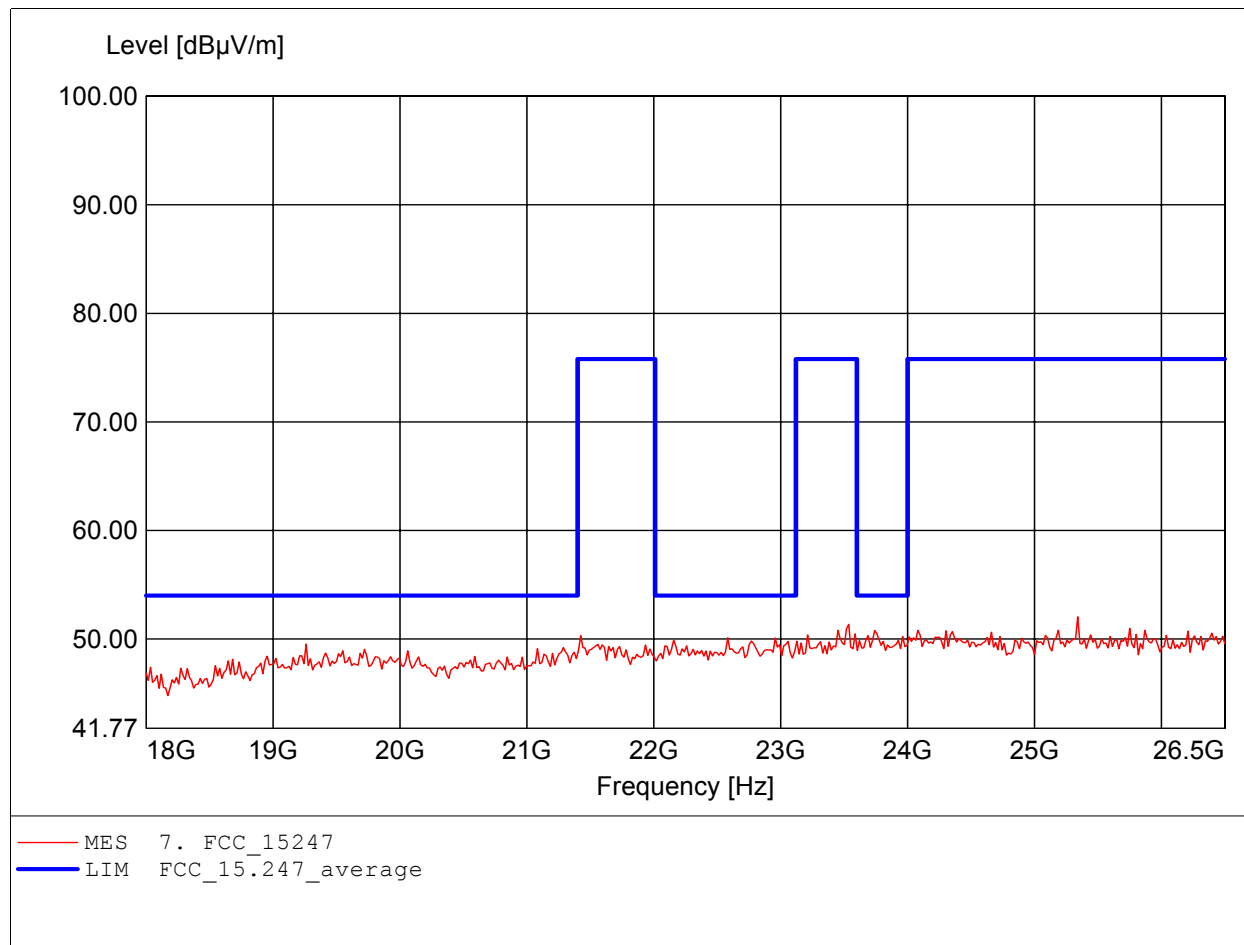
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J high channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 25.665GHz, Emax: 50.87dBμV/m, RBW: 1MHz

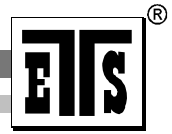


Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J high channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, amplif.
Freq: 25.342GHz, Emax: 52.03dBμV/m, RBW: 1MHz





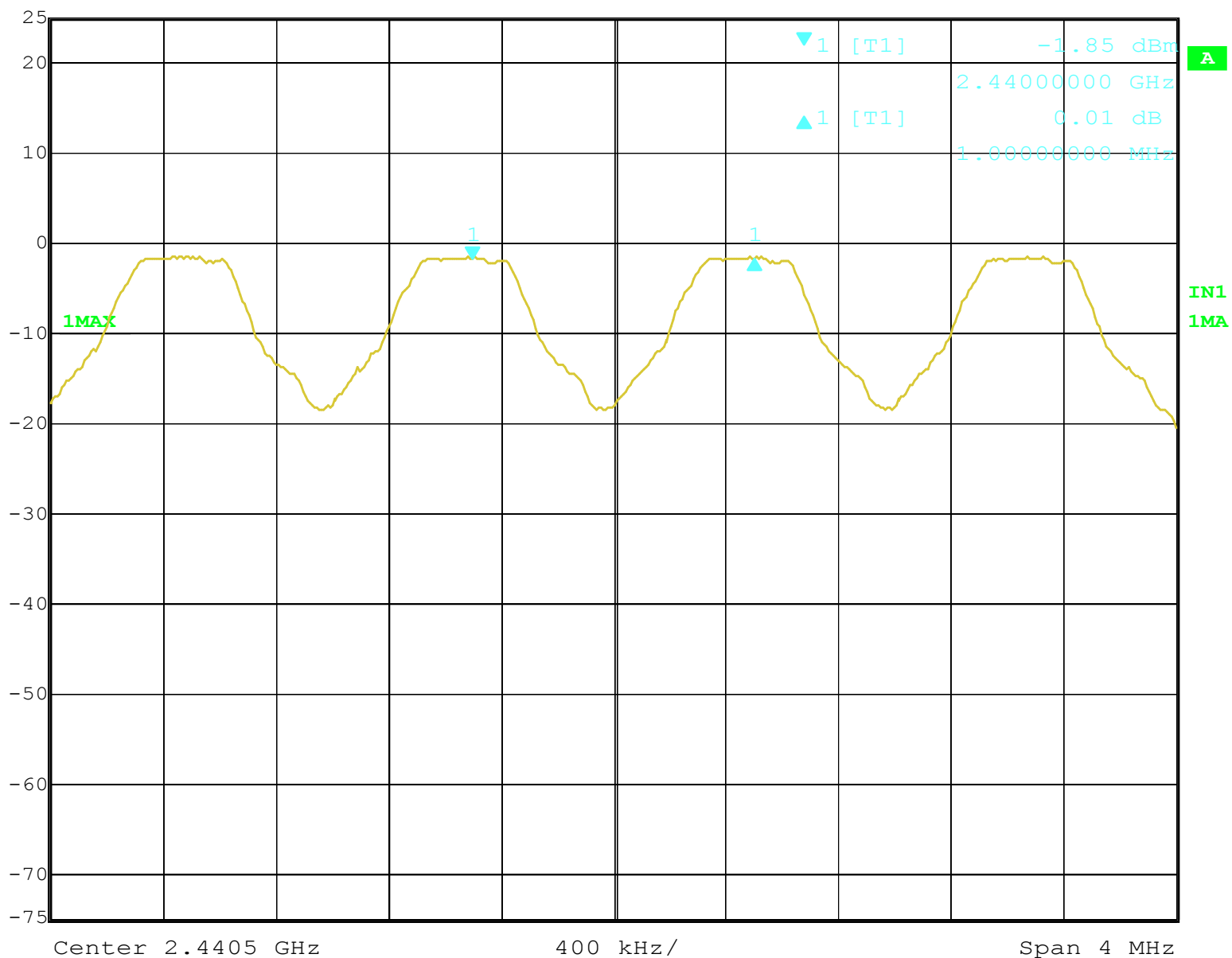
Registration number: W6M20603-6691-P-15
FCC ID : QQGBU-2094-J

Appendix C

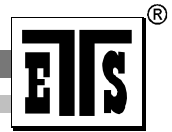
Carrier Frequency Separation



Delta 1 [T1] RBW 100 kHz RF Att 50 dB
Ref Lvl 0.01 dB VBW 100 kHz
25 dBm 1.00000000 MHz SWT 200 ms Unit dBm



Title: Frequency Separation Ch38 & Ch39
Date: 18.APR.2006 21:15:09



Registration number: W6M20603-6691-P-15
FCC ID : QQGBU-2094-J

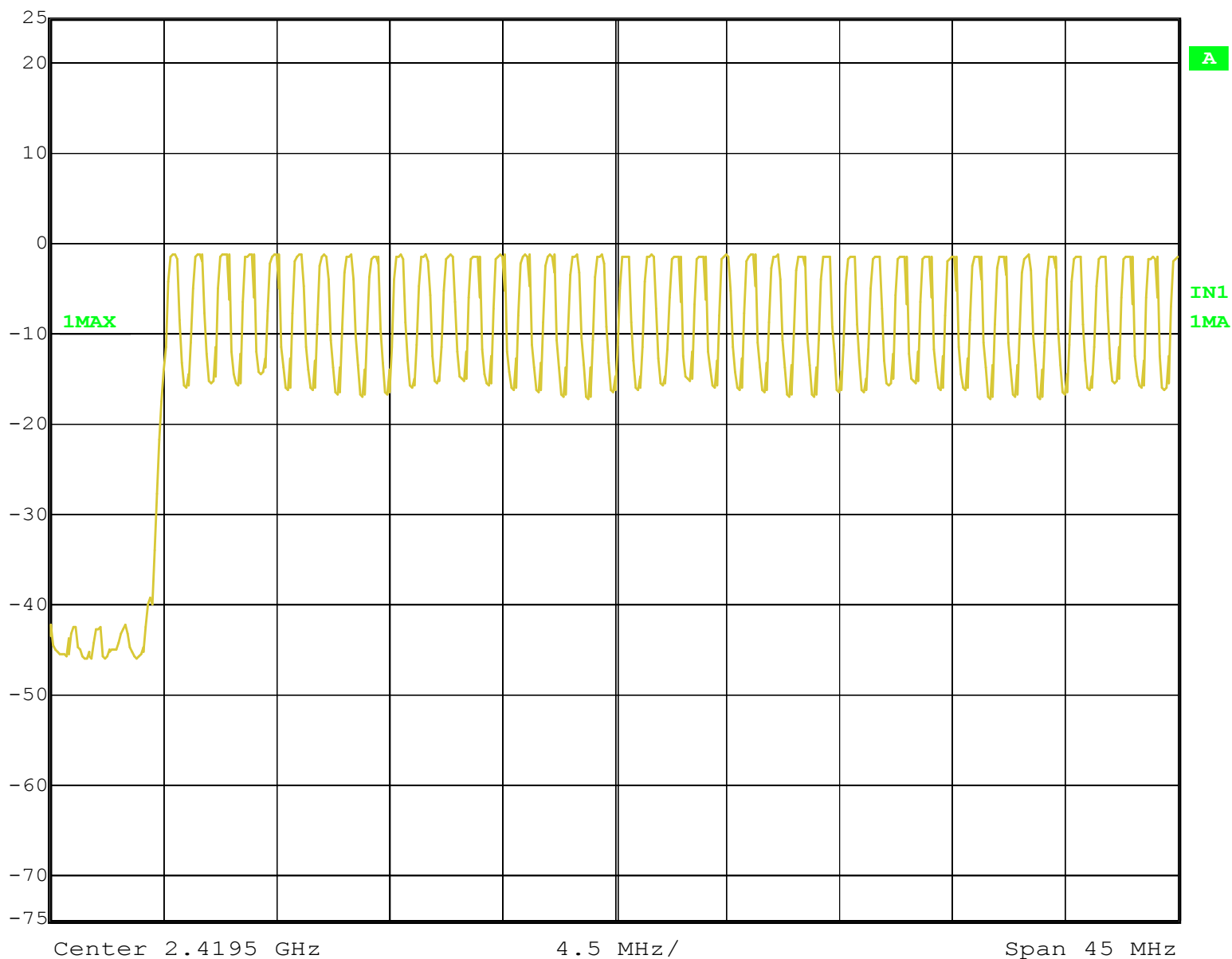
Appendix D

Number of Hopping Frequencies



Ref Lvl
25 dBm

RBW 100 kHz RF Att 40 dB
VBW 300 kHz
SWT 200 ms Unit dBm

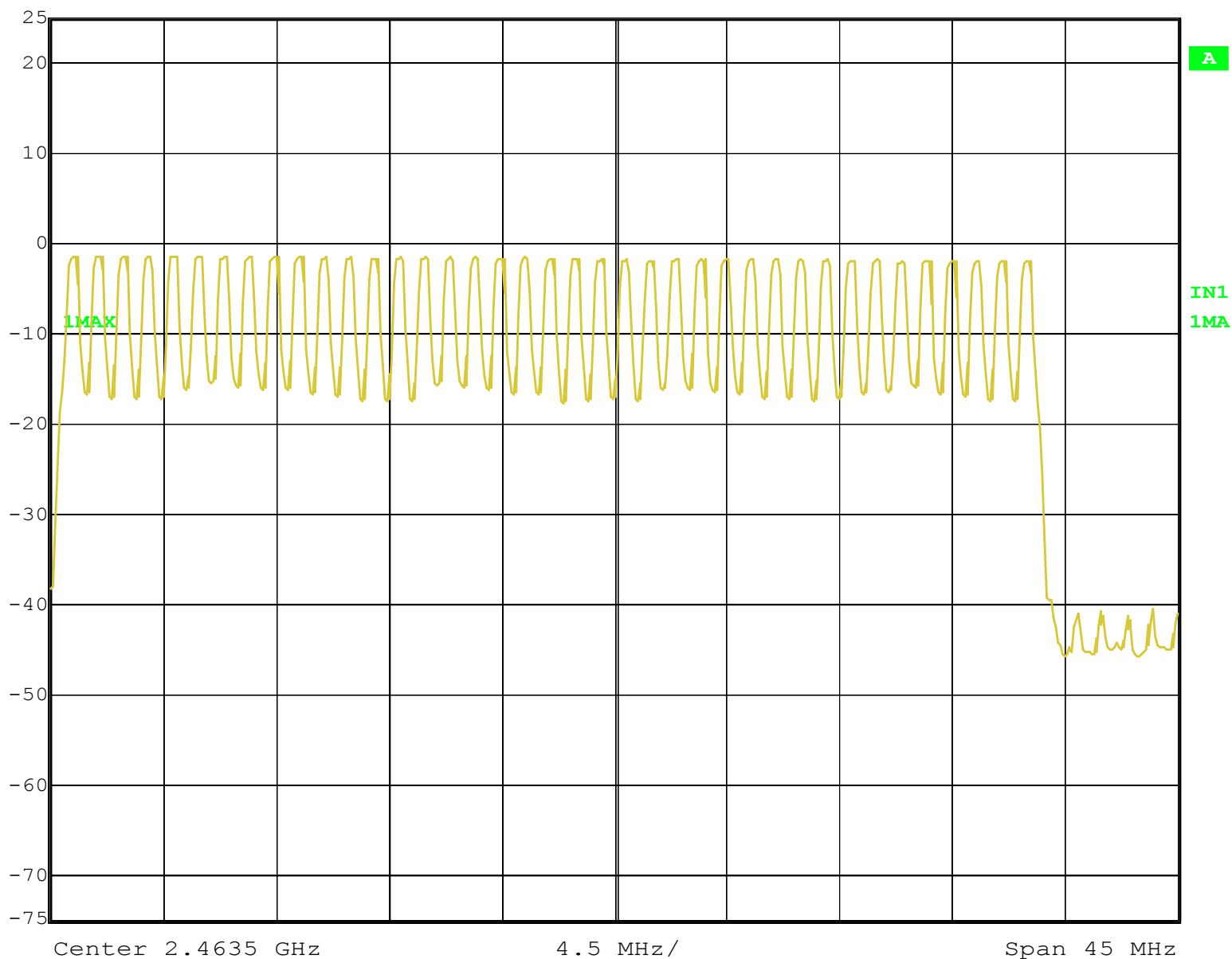


Title: Number of hopping frequencies Ch. 0-39
Date: 18.APR.2006 21:18:45



Ref Lvl
25 dBm

RBW 100 kHz RF Att 40 dB
VBW 300 kHz
SWT 200 ms Unit dBm



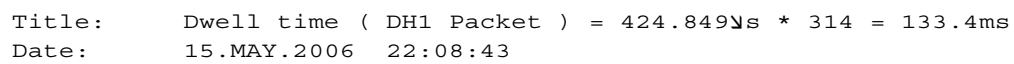
Title: Number of hopping frequencies Ch. 40-79
Date: 18.APR.2006 21:21:58



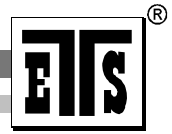
Registration number: W6M20603-6691-P-15
FCC ID : QQGBU-2094-J

Appendix E

Time of Occupancy (Dwell Time)



Title: Dwell time (DH1 Packet) = 424.849Ns * 314 = 133.4ms
Date: 15.MAY.2006 22:08:43



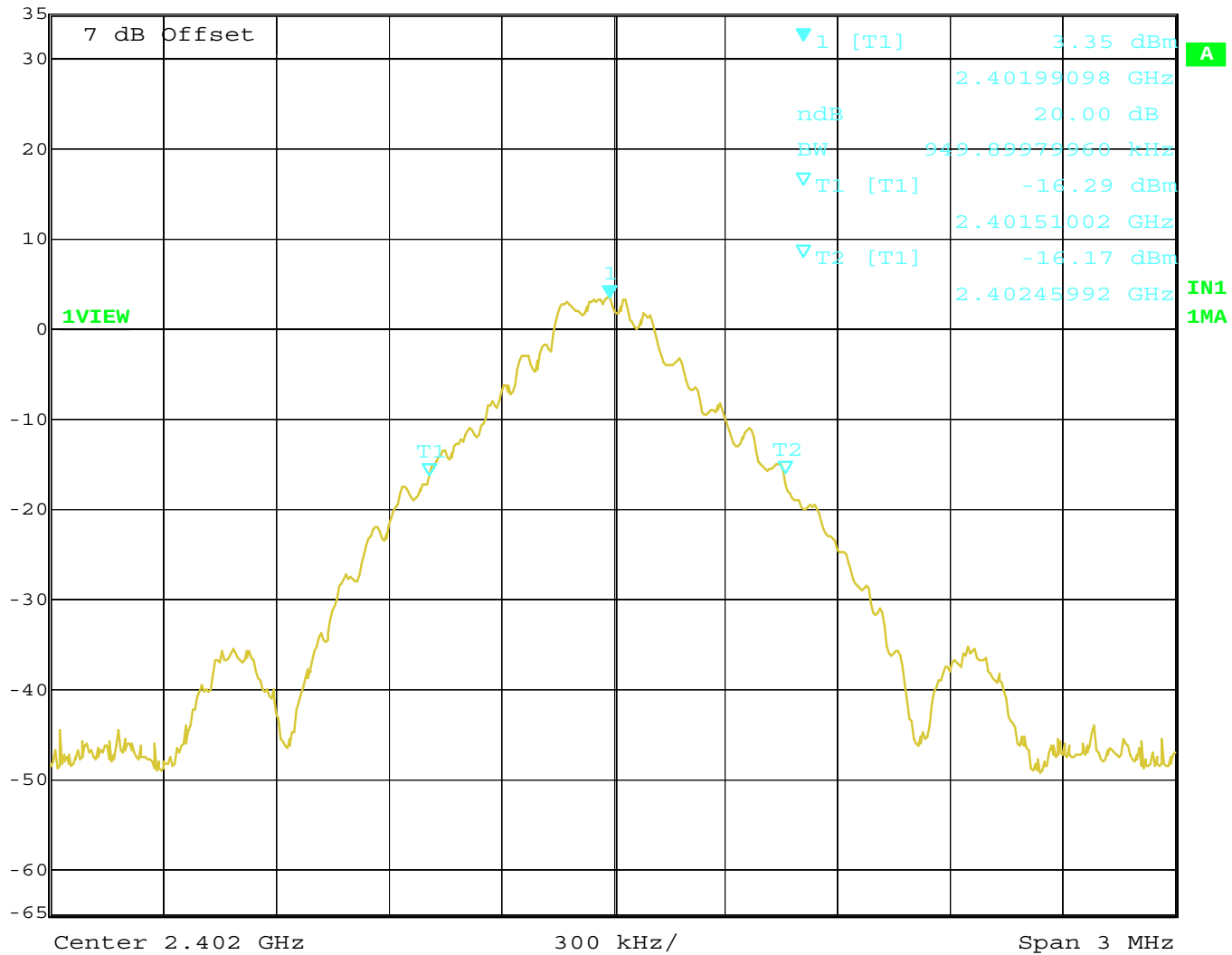
Registration number: W6M20603-6691-P-15
FCC ID : QQGBU-2094-J

Appendix F

20dB Bandwidth



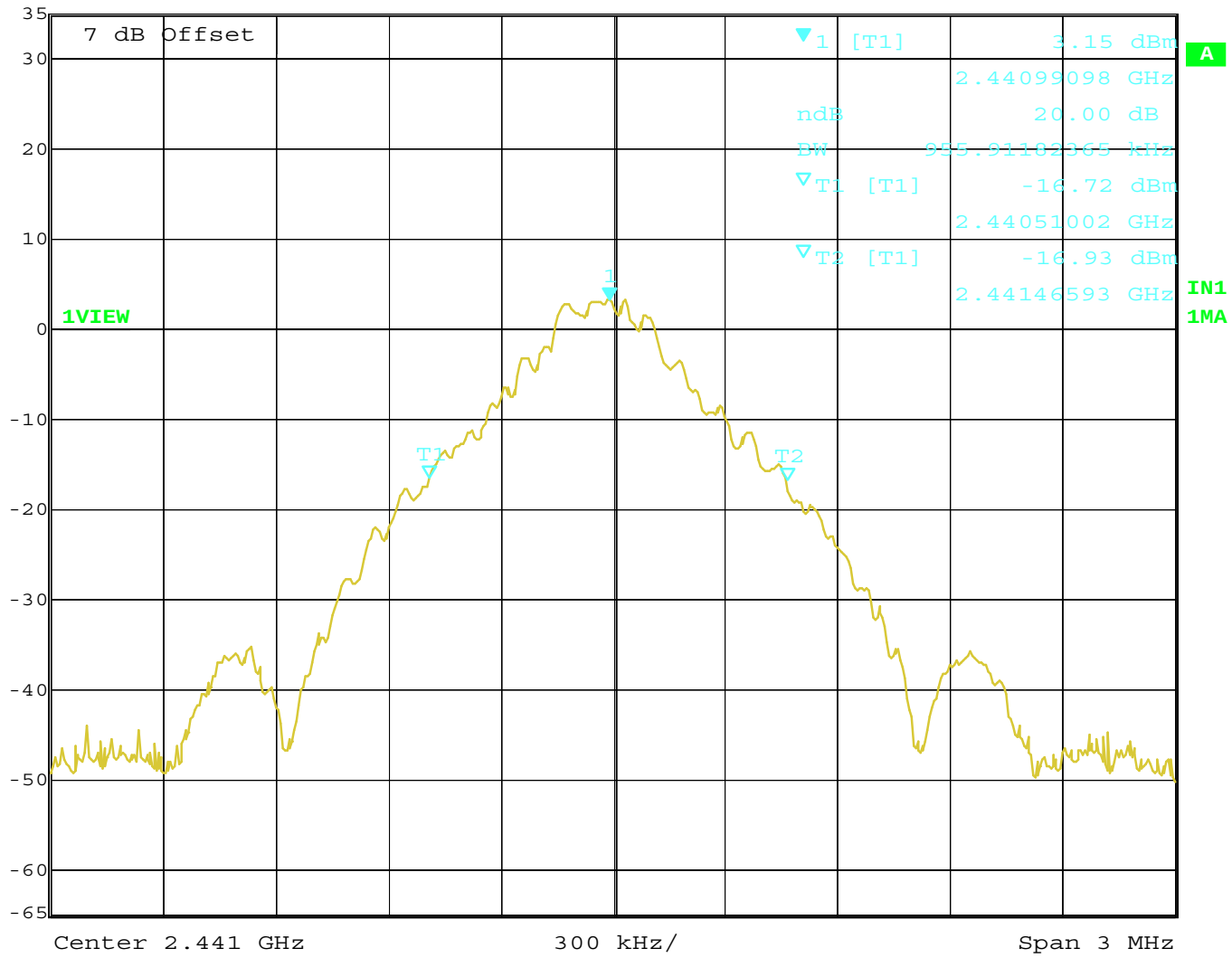
Ref Lvl	Marker 1 [T1 ndB]	RBW	30 kHz	RF Att	40 dB
35 dBm	ndB 20.00 dB	VBW	50 kHz		
	BW 949.89979960 kHz	SWT	200 ms	Unit	dBm



Title: 20 dB Bandwidth Ch.: 0
Date: 18.APR.2006 19:31:49



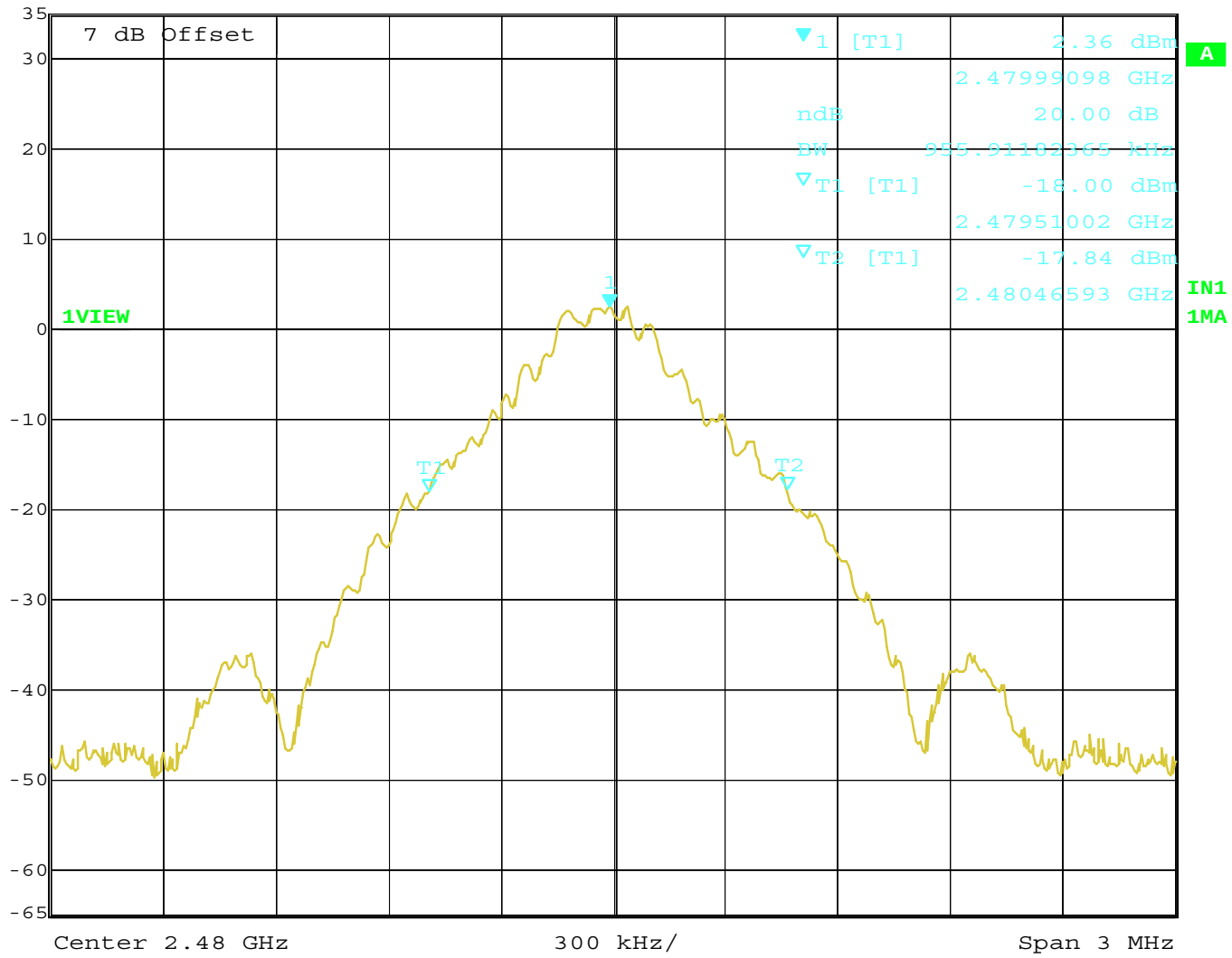
Marker 1 [T1 ndB] RBW 30 kHz RF Att 40 dB
Ref Lvl ndB 20.00 dB VBW 50 kHz
35 dBm BW 955.91182365 kHz SWT 200 ms Unit dBm



Title: 20 dB Bandwidth Ch.: 39
Date: 18.APR.2006 19:37:23



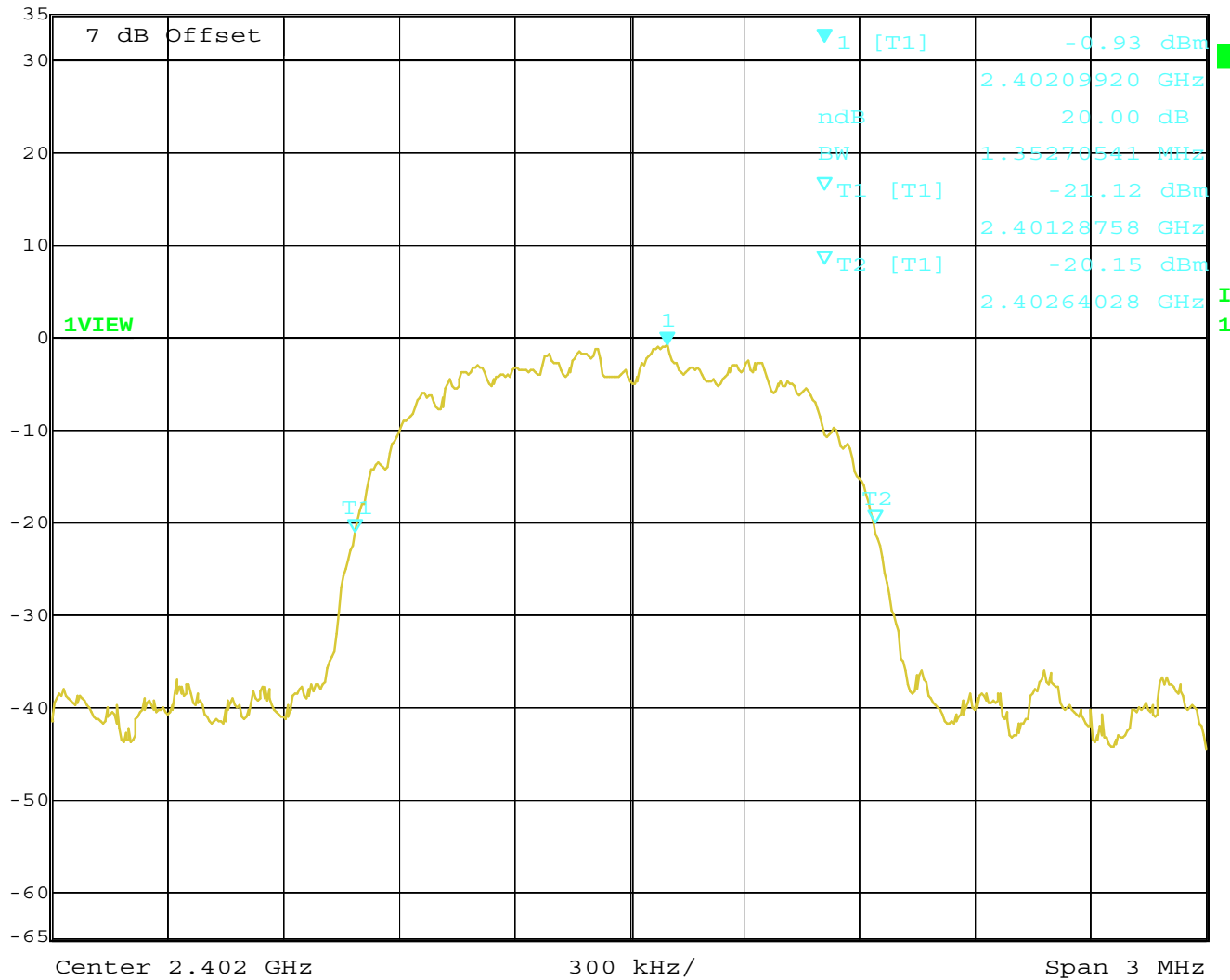
Marker 1 [T1 ndB] RBW 30 kHz RF Att 40 dB
Ref Lvl ndB 20.00 dB VBW 50 kHz
35 dBm BW 955.91182365 kHz SWT 200 ms Unit dBm



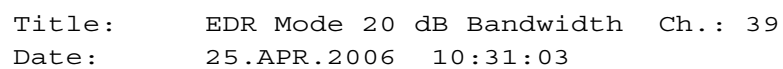
Title: 20 dB Bandwidth Ch.: 78
Date: 18.APR.2006 21:10:04



Marker 1 [T1 ndB] RBW 30 kHz RF Att 40 dB
Ref Lvl ndB 20.00 dB VBW 50 kHz
35 dBm BW 1.35270541 MHz SWT 200 ms Unit dBm

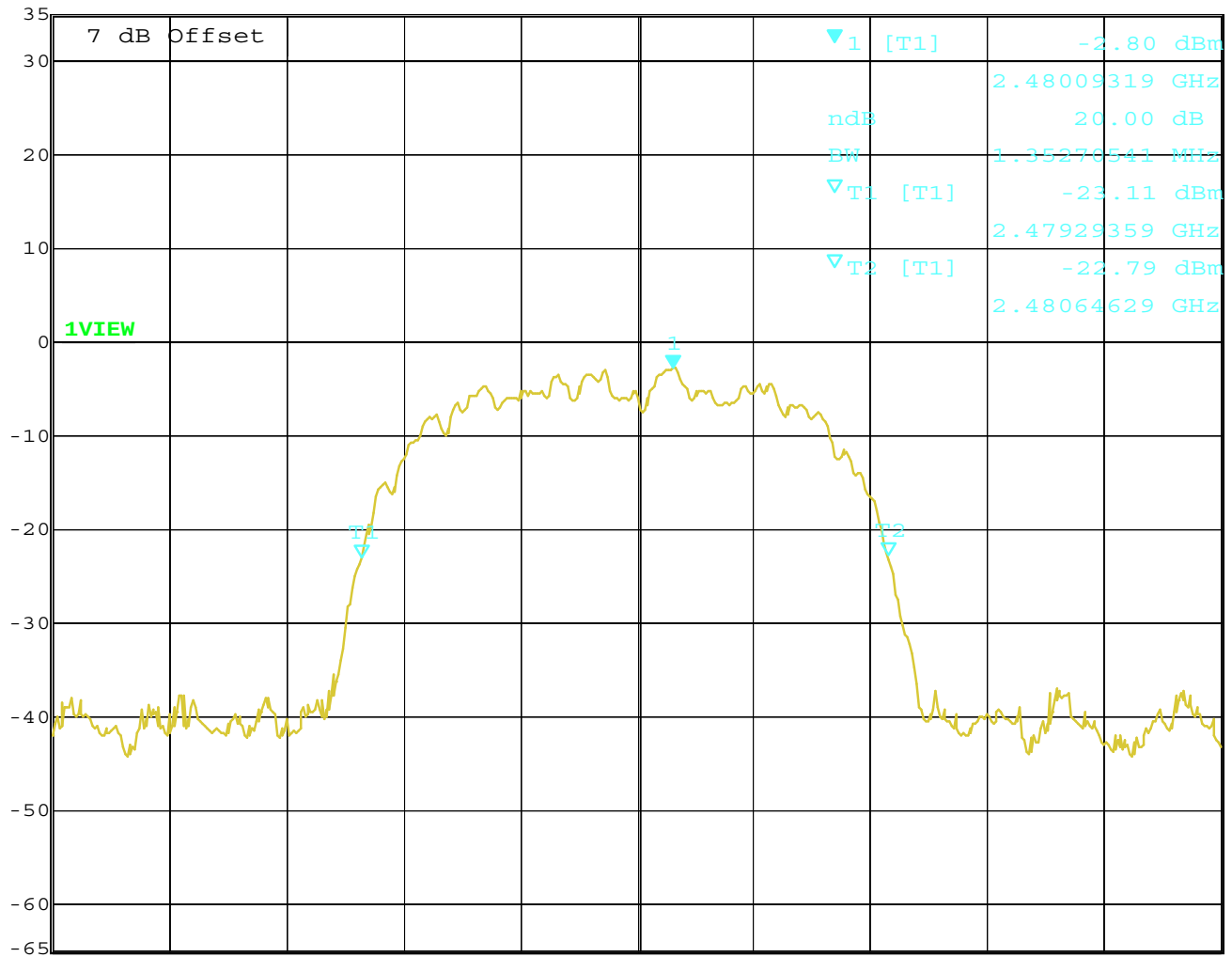


Title: EDR Mode 20 dB Bandwidth Ch.: 0
Date: 25.APR.2006 10:29:12



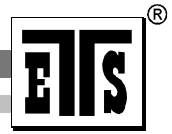


Ref Lvl	Marker 1 [T1 ndB]	RBW	30 kHz	RF Att	40 dB
35 dBm	ndB 20.00 dB	VBW	50 kHz		
	BW 1.35270541 MHz	SWT	200 ms	Unit	dBm



Center 2.48 GHz 300 kHz/ Span 3 MHz

Title: EDR Mode 20 dB Bandwidth Ch.: 78
Date: 25.APR.2006 10:38:22



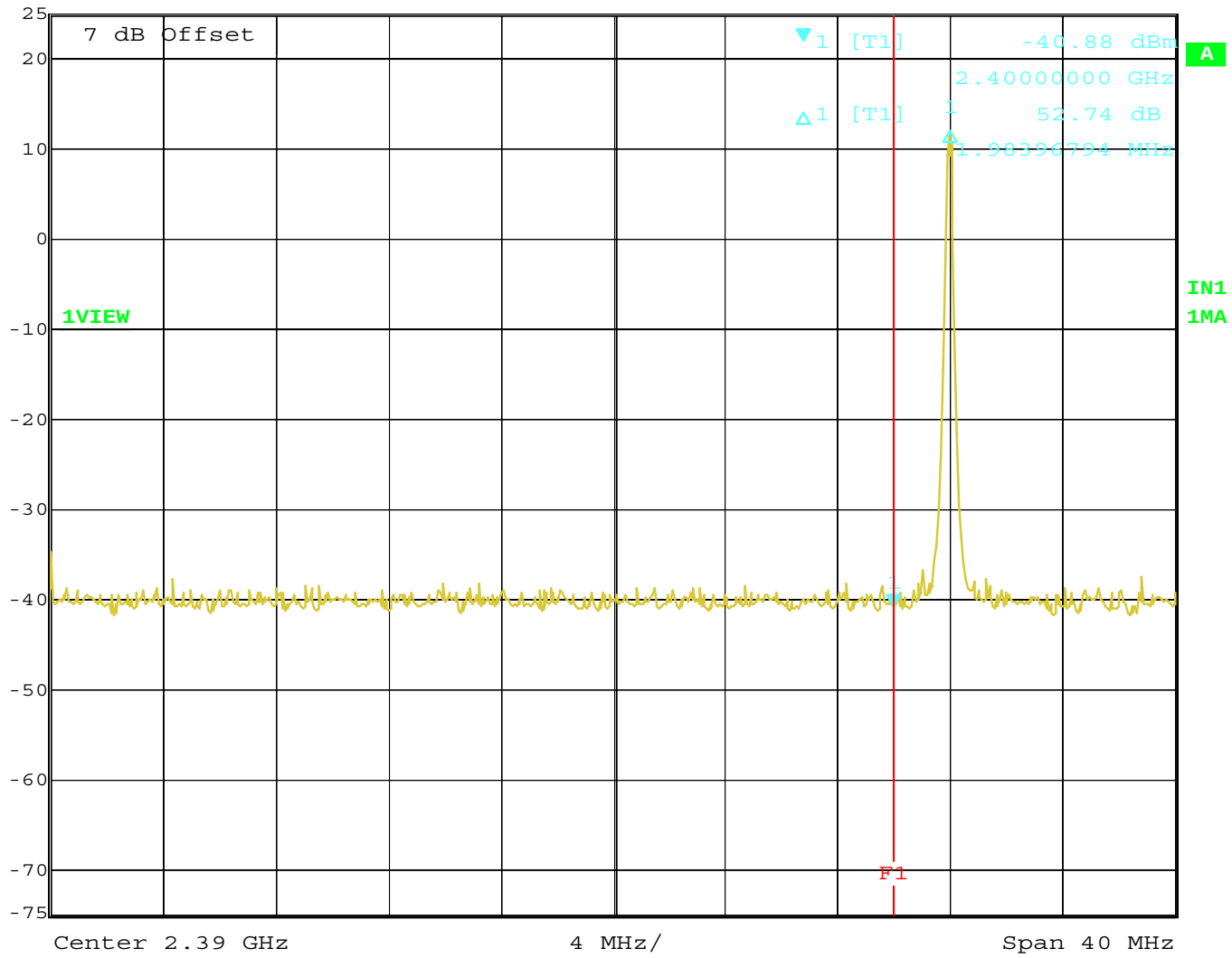
Registration number: W6M20603-6691-P-15
FCC ID : QQGBU-2094-J

Appendix G

Band-edge Compliance of RF Conducted Emissions



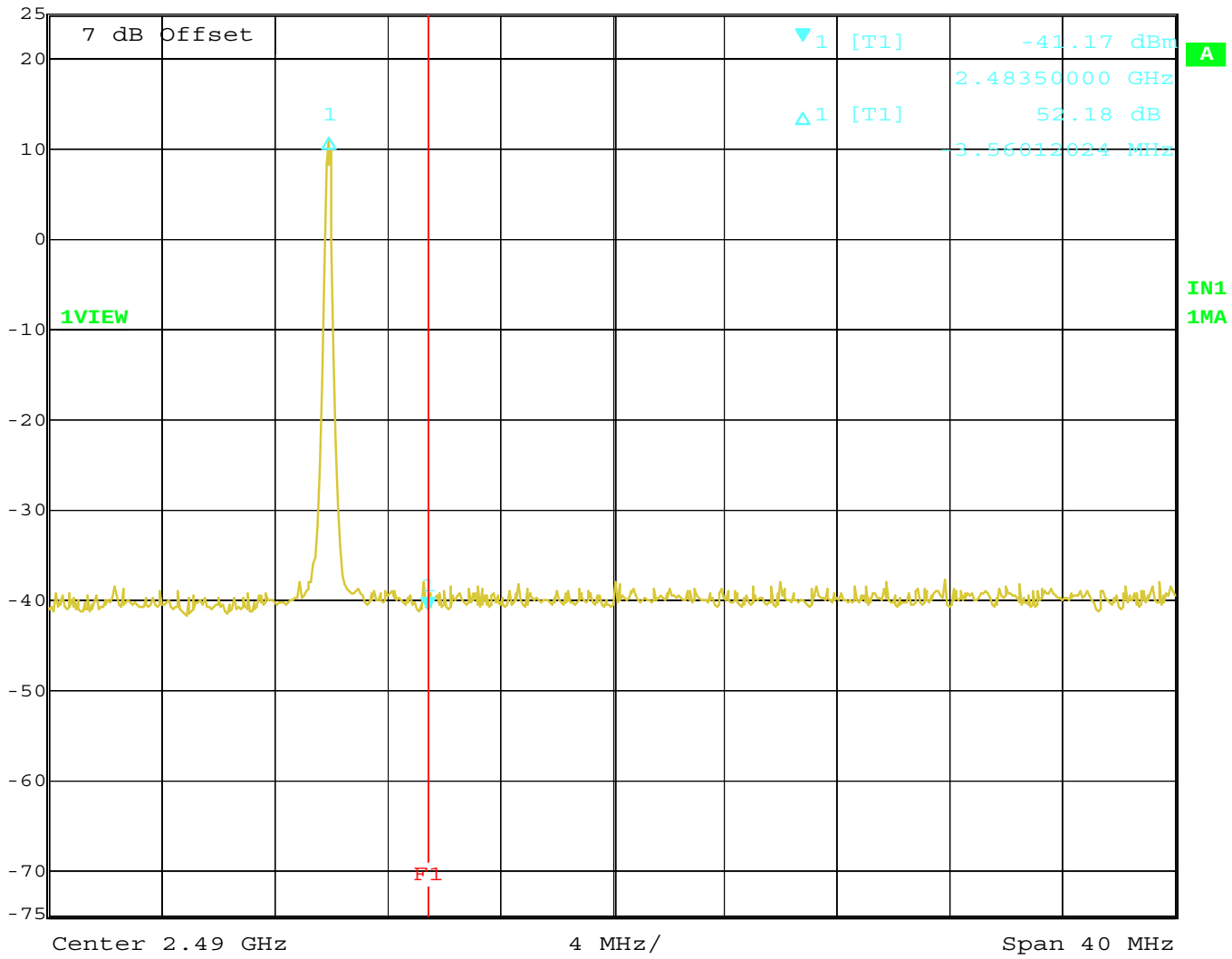
Marker 1 [T1] RBW 100 kHz RF Att 40 dB
Ref Lvl -40.88 dBm VBW 300 kHz
25 dBm 2.40000000 GHz SWT 200 ms Unit dBm



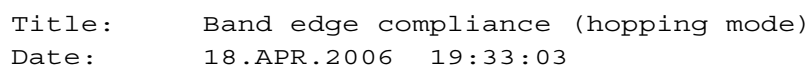
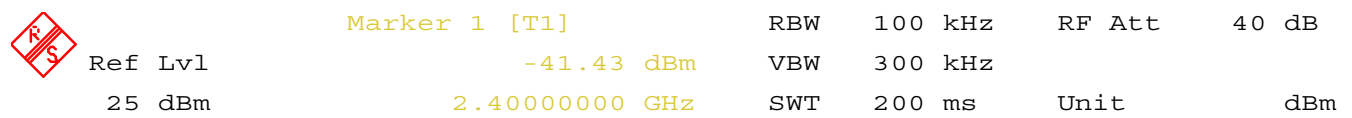
Title: Band edge compliance (single frequency)
Date: 18.APR.2006 19:33:26



Marker 1 [T1] RBW 100 kHz RF Att 40 dB
Ref Lvl -41.17 dBm VBW 300 kHz
25 dBm 2.48350000 GHz SWT 200 ms Unit dBm



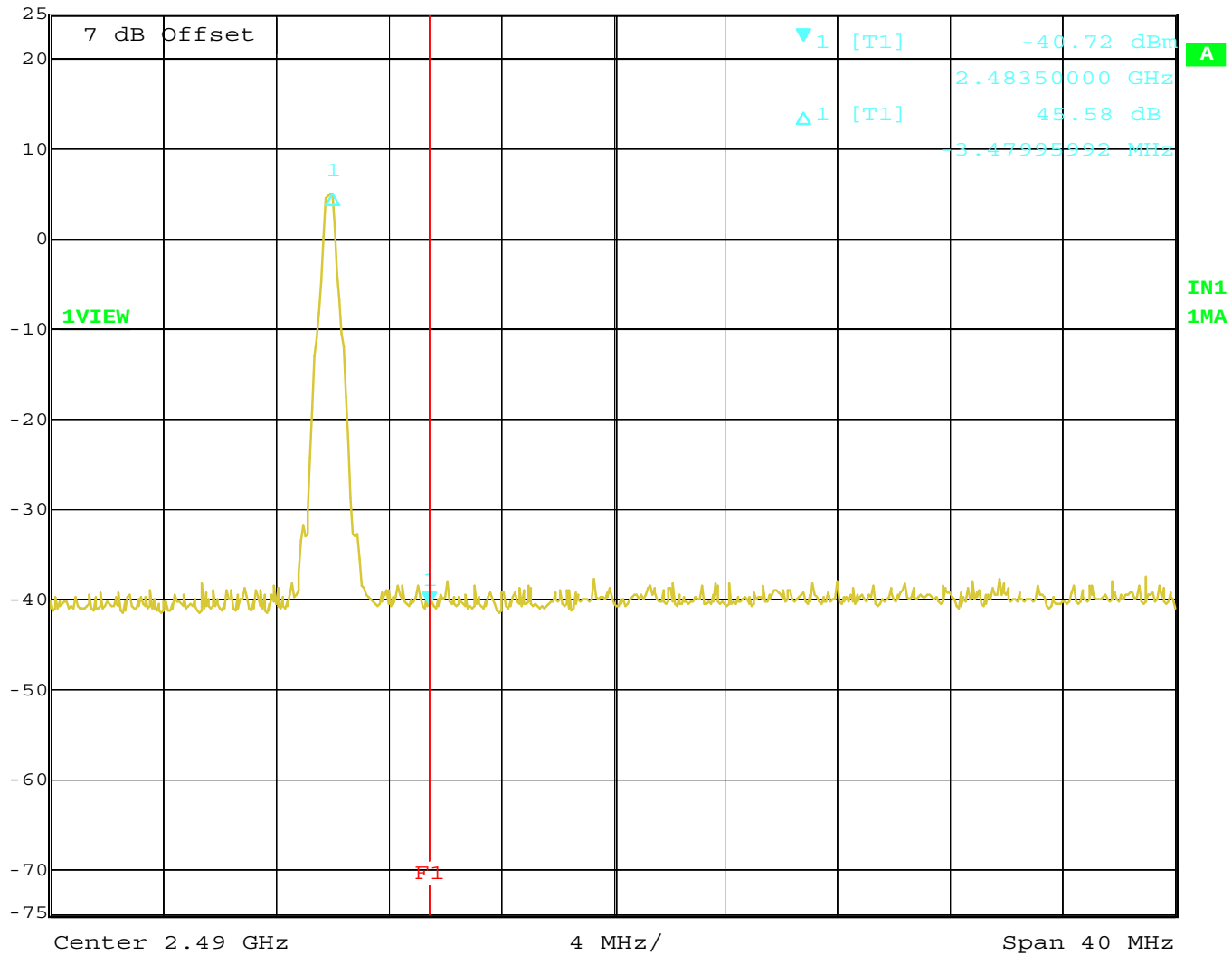
Title: Band edge compliance (single frequency)
Date: 18.APR.2006 21:11:14



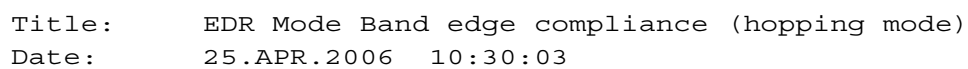
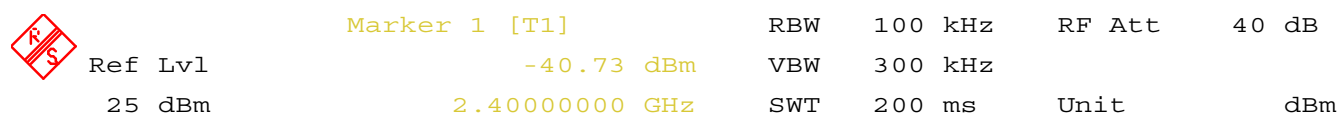
Title: Band edge compliance (hopping mode)
Date: 18.APR.2006 19:33:03



Marker 1 [T1] RBW 100 kHz RF Att 40 dB
Ref Lvl -40.72 dBm VBW 300 kHz
25 dBm 2.48350000 GHz SWT 200 ms Unit dBm



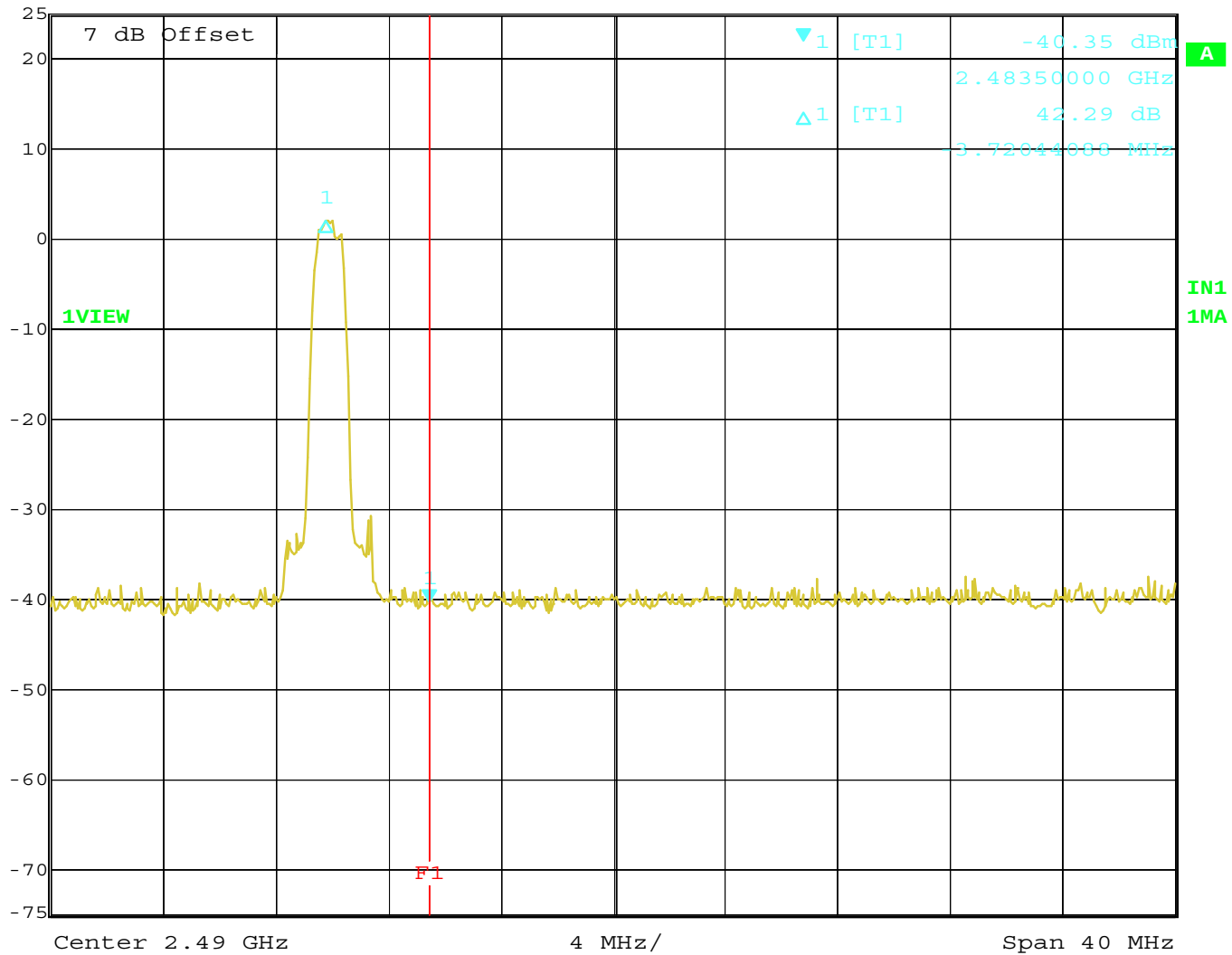
Title: Band edge compliance (hopping mode)
Date: 18.APR.2006 21:10:54



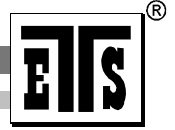
Title: EDR Mode Band edge compliance (hopping mode)
Date: 25.APR.2006 10:30:03



Marker 1 [T1] RBW 100 kHz RF Att 40 dB
Ref Lvl -40.35 dBm VBW 300 kHz
25 dBm 2.48350000 GHz SWT 200 ms Unit dBm



Title: EDR Mode Bandedge compliance (hopping mode)
Date: 25.APR.2006 10:40:30



Registration number: W6M20603-6691-P-15
FCC ID : QQGBU-2094-J

Appendix H

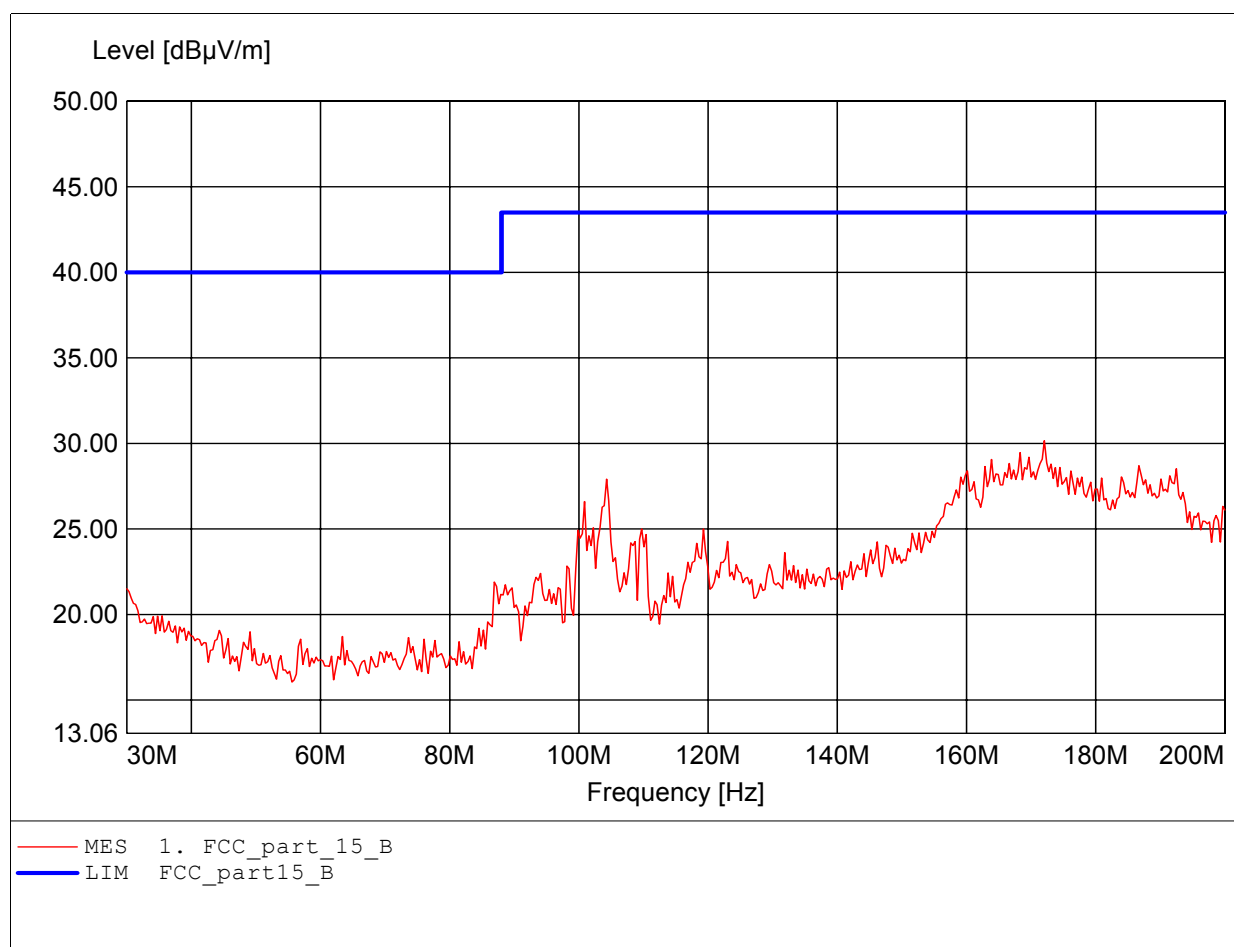
Radiated Emissions from Receiver Section of Transceiver

The measurement diagram are wideband pre-scan results; only for reference.

Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

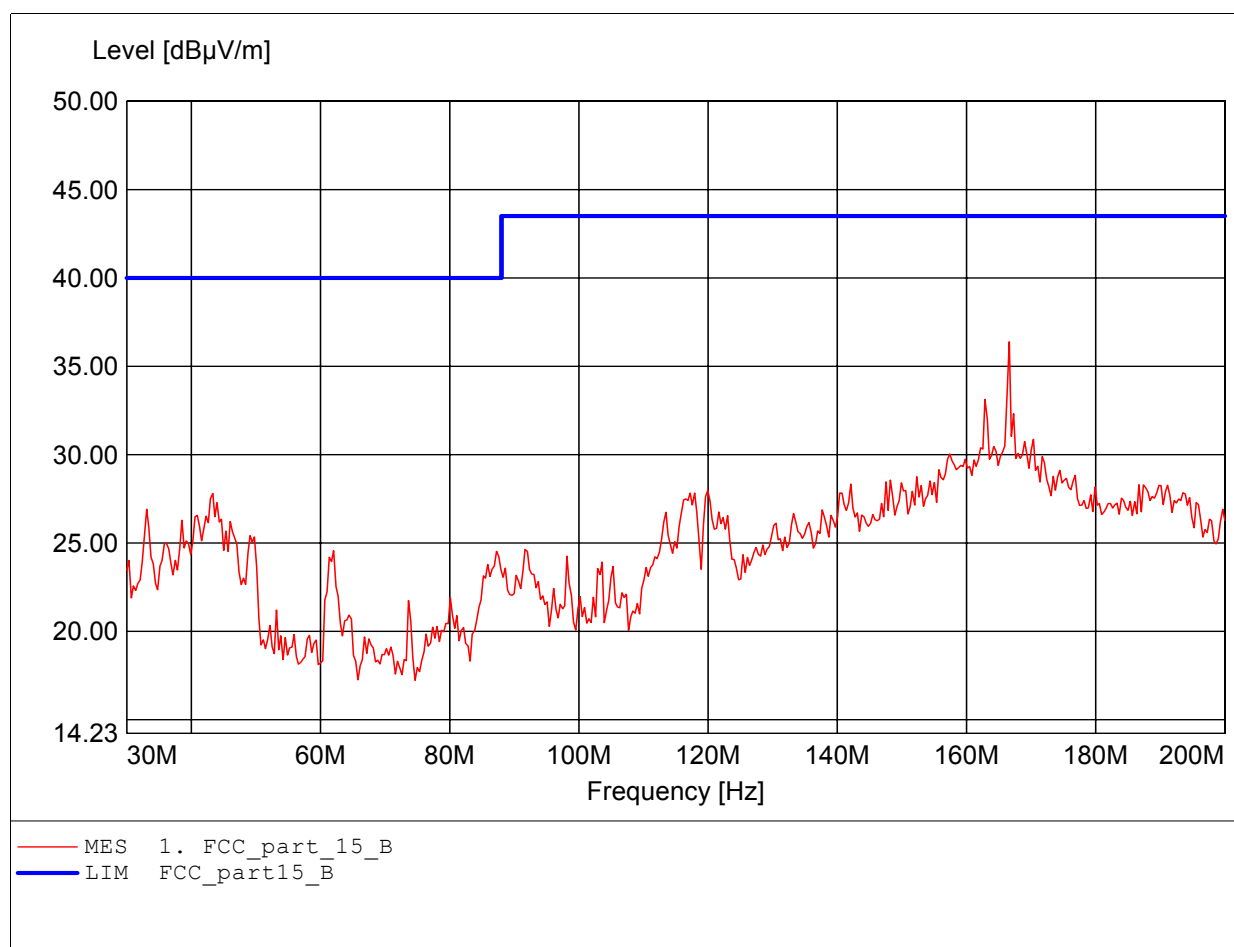
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J low channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HK 116
Freq:172.064MHz Emax:30.16dBμV/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

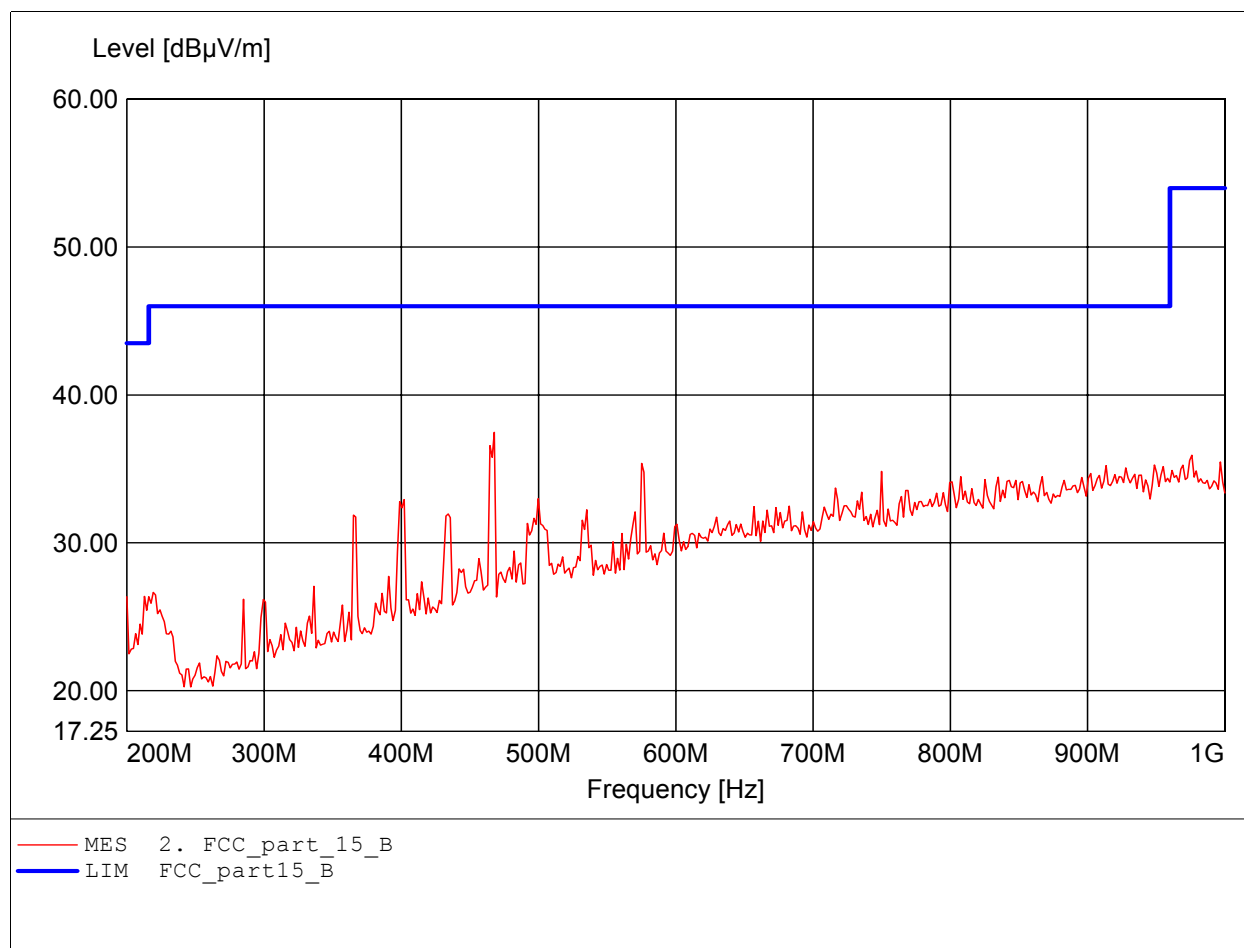
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J low channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HK 116
Freq:166.613MHz Emax:36.39dBμV/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

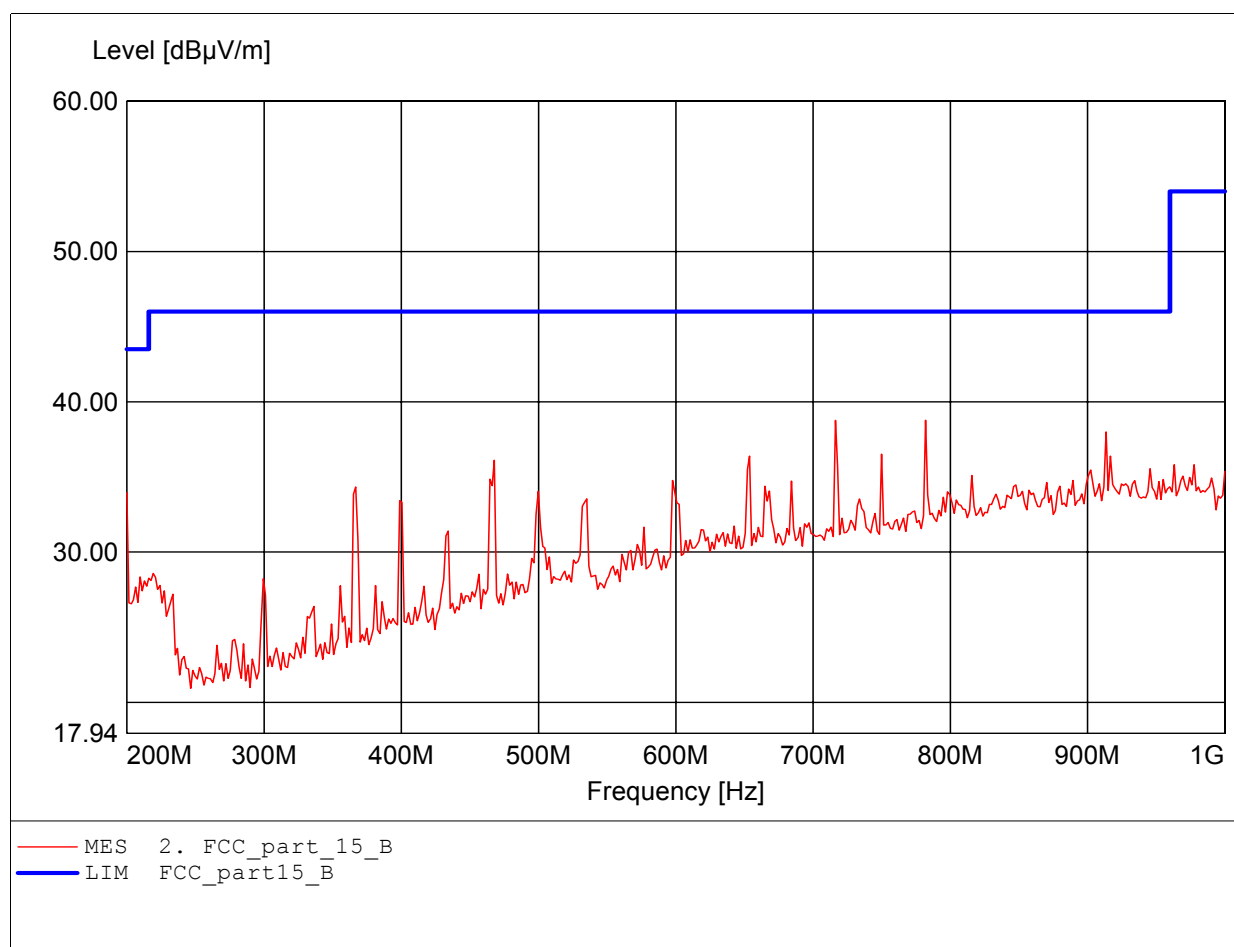
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J low channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL 223, ampl.
Freq:467.735MHz Emax:37.47dBμV/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

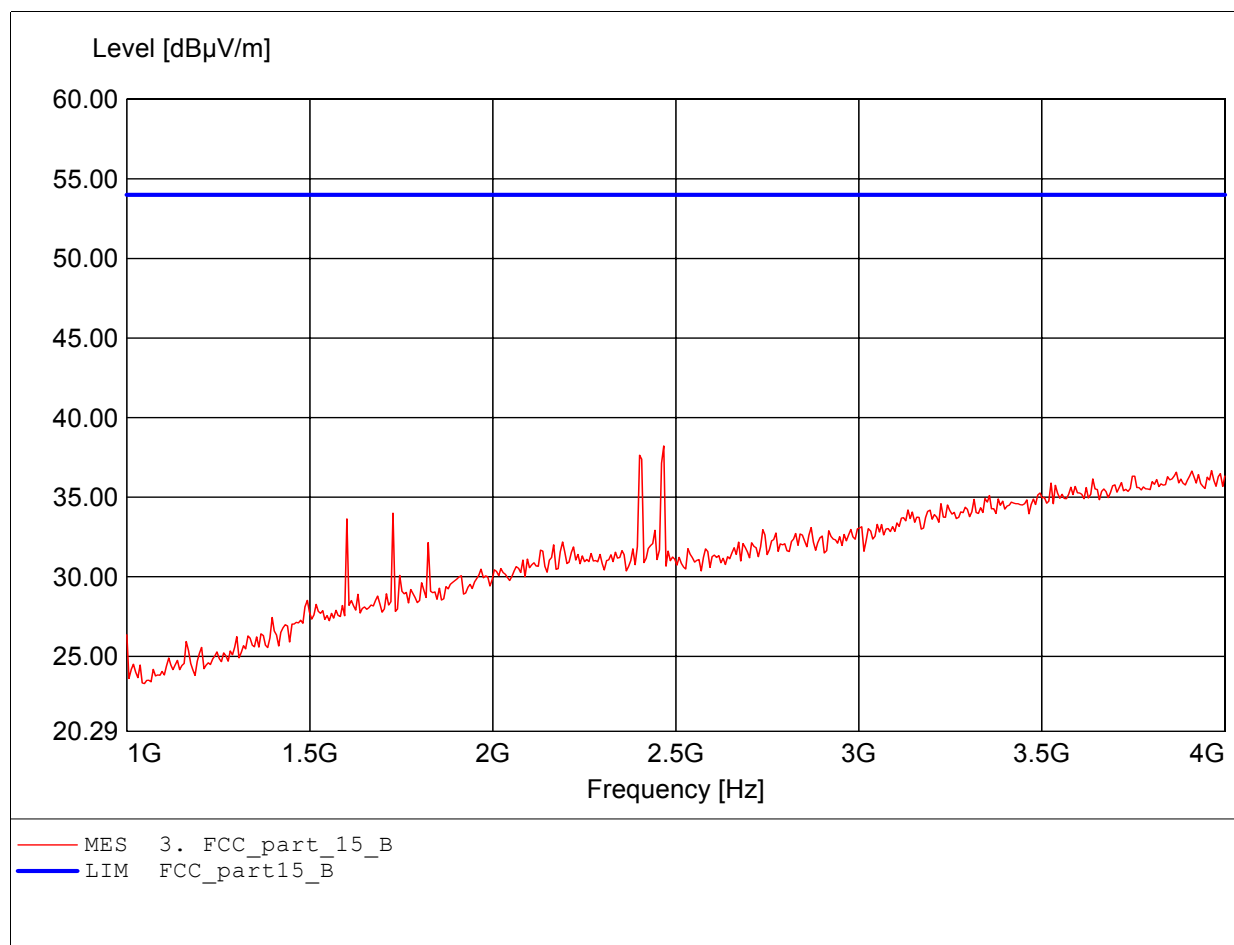
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J low channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL 223, ampl.
Freq:781.964MHz Emax:38.77dBμV/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

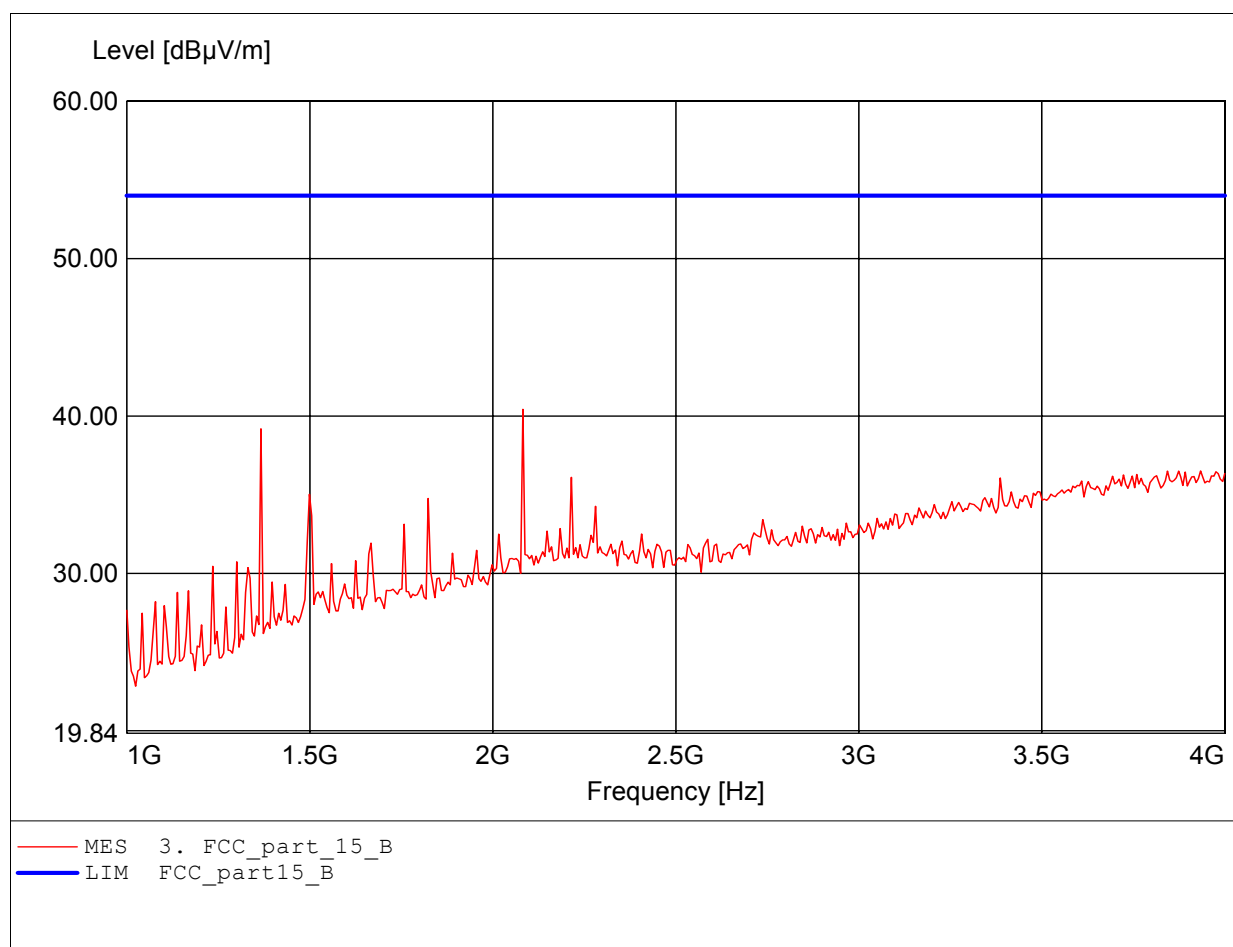
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J low channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq:2.467GHz Emax:38.23dBμV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

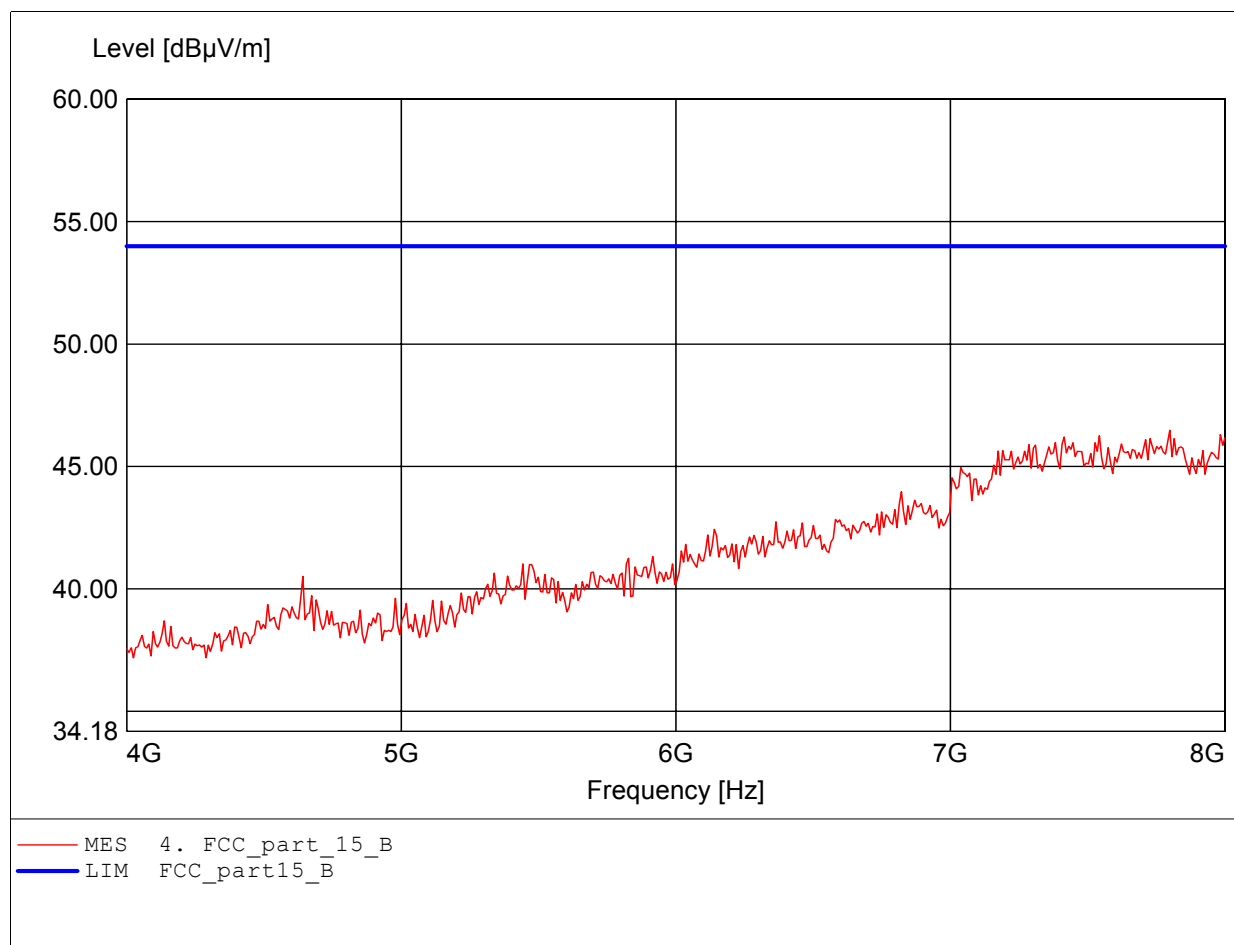
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J low channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq:2.082GHz Emax:40.42dBμV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

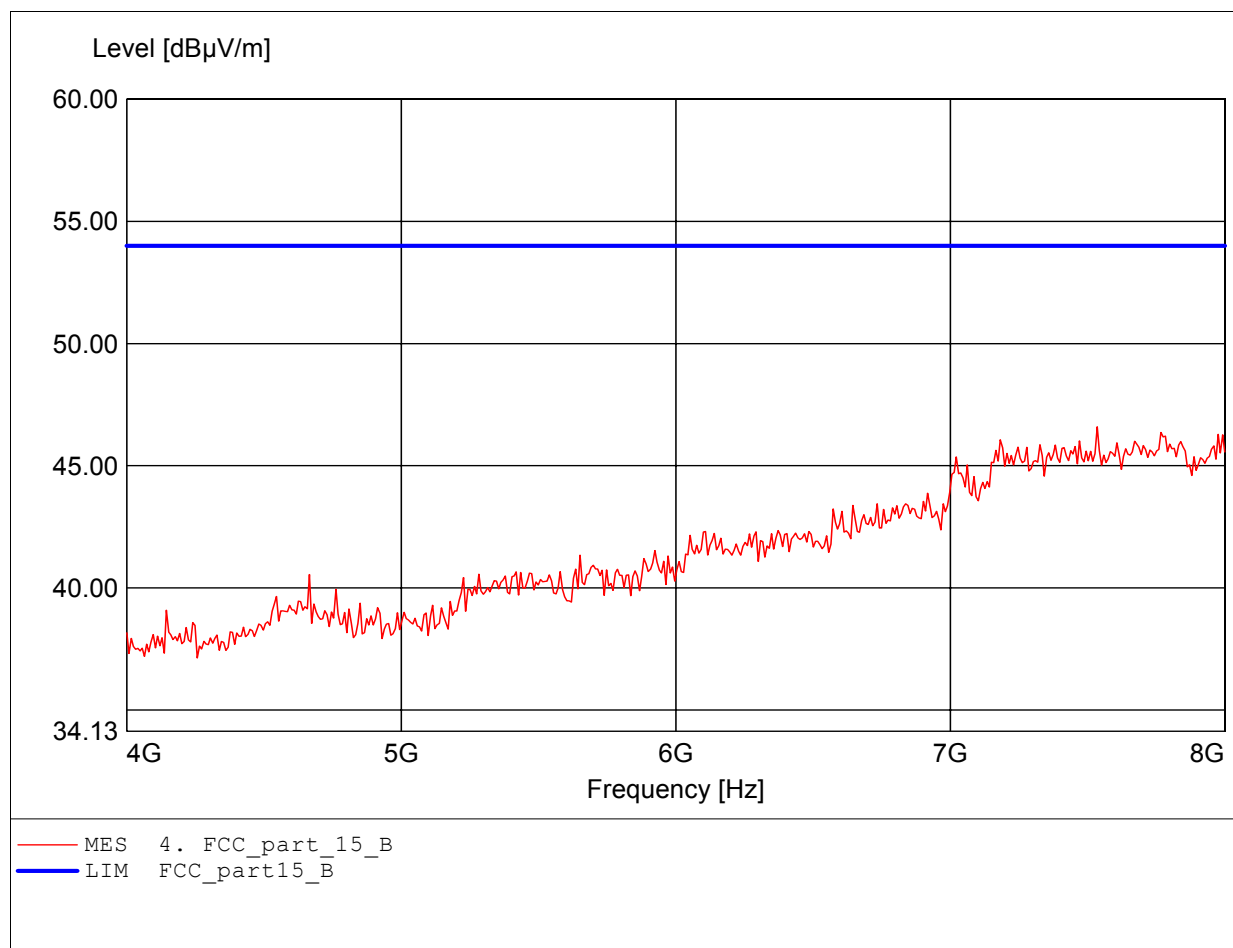
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J low channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq:7.800GHz Emax:46.48dBμV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

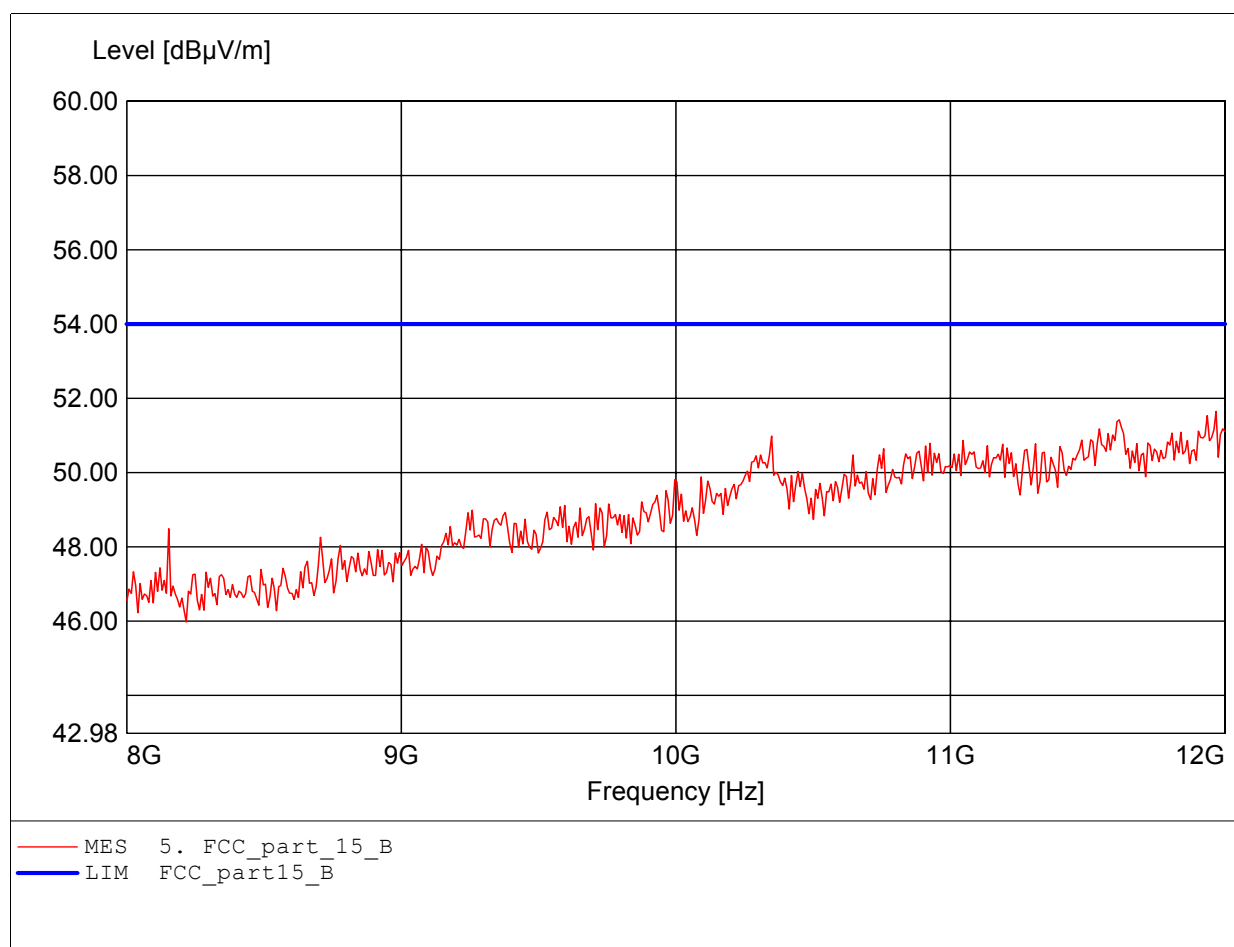
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J low channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq:7.535GHz Emax:46.59dBμV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

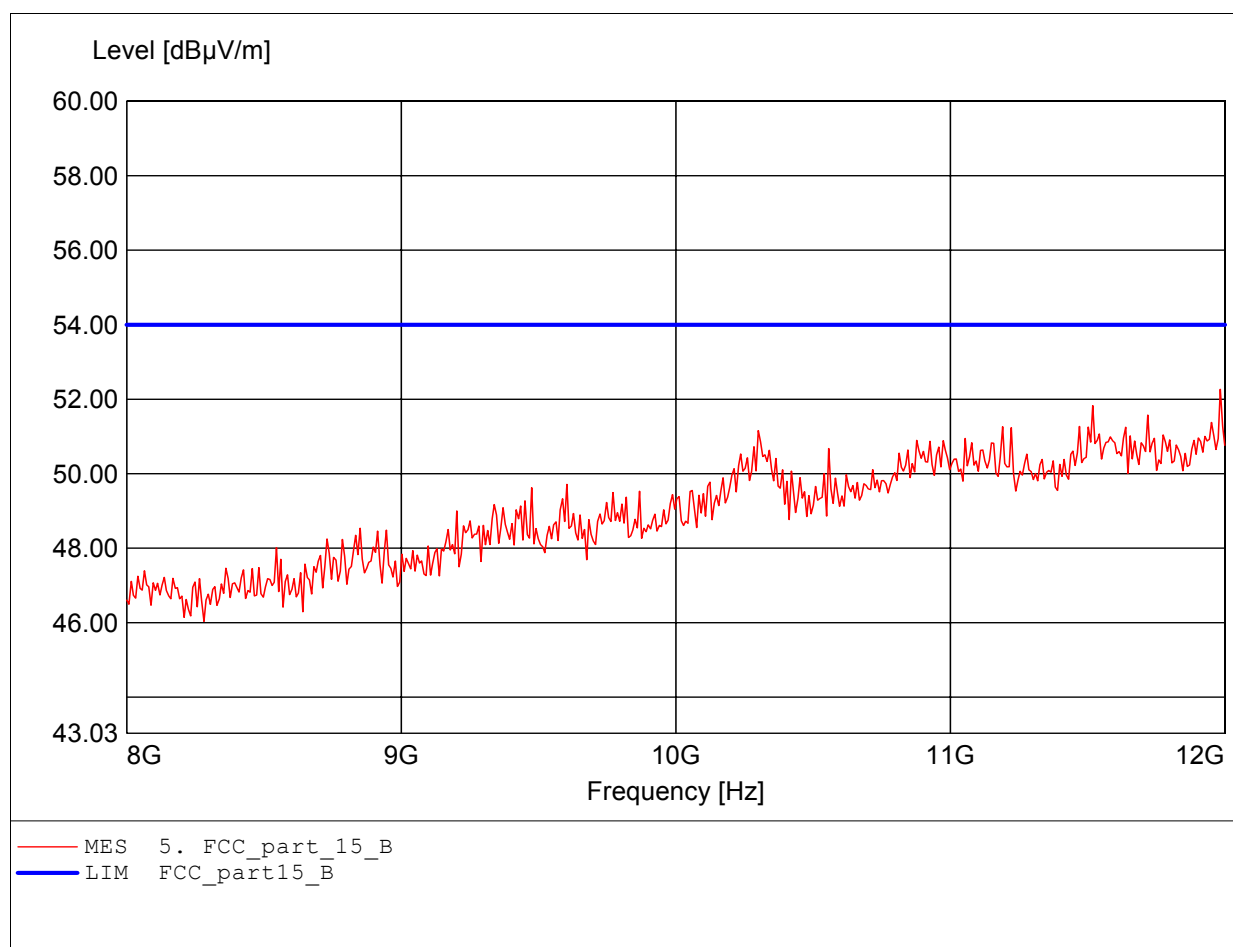
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J low channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq:11.968GHz Emax:51.65dBμV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

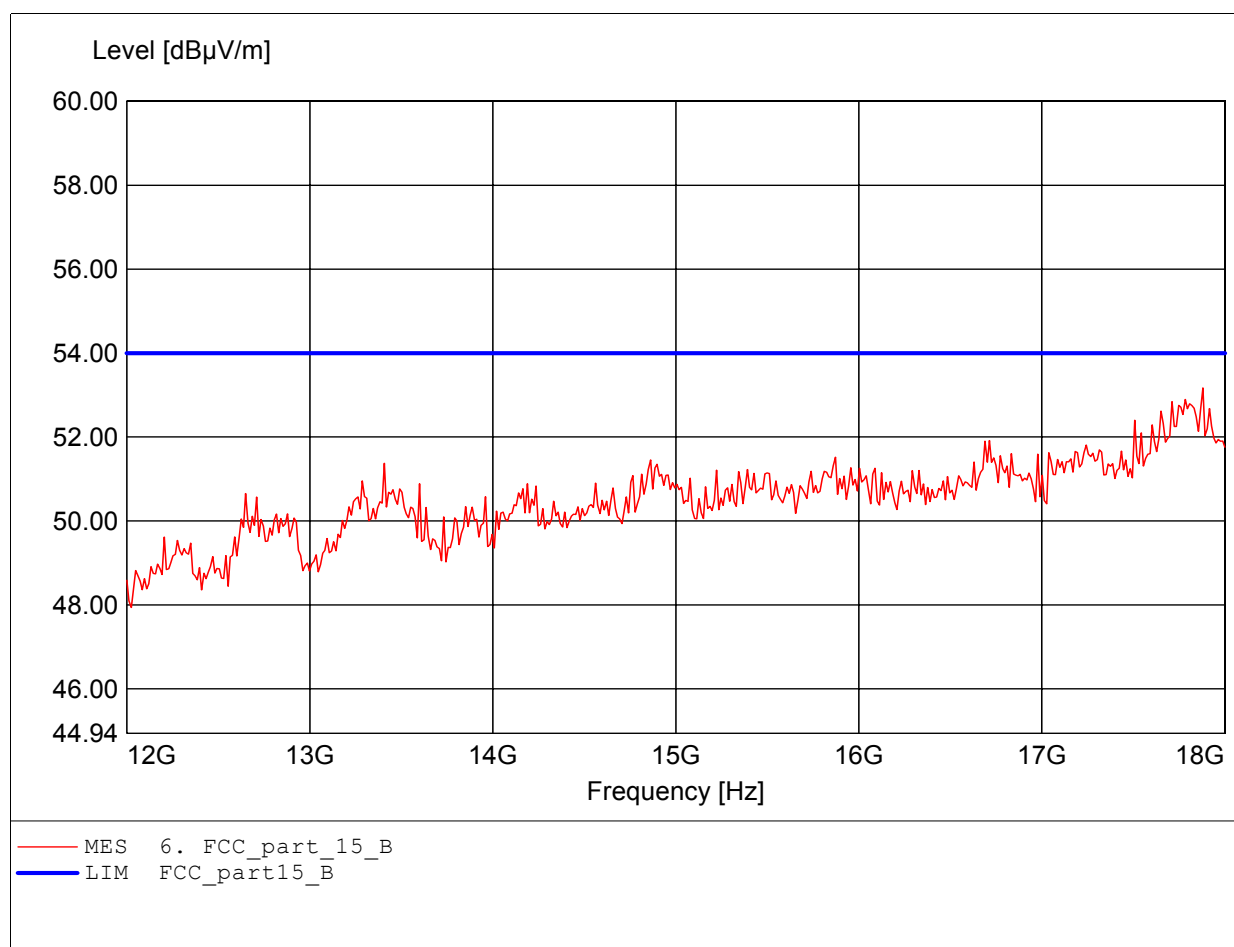
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J low channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq:11.984GHz Emax:52.27dBμV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

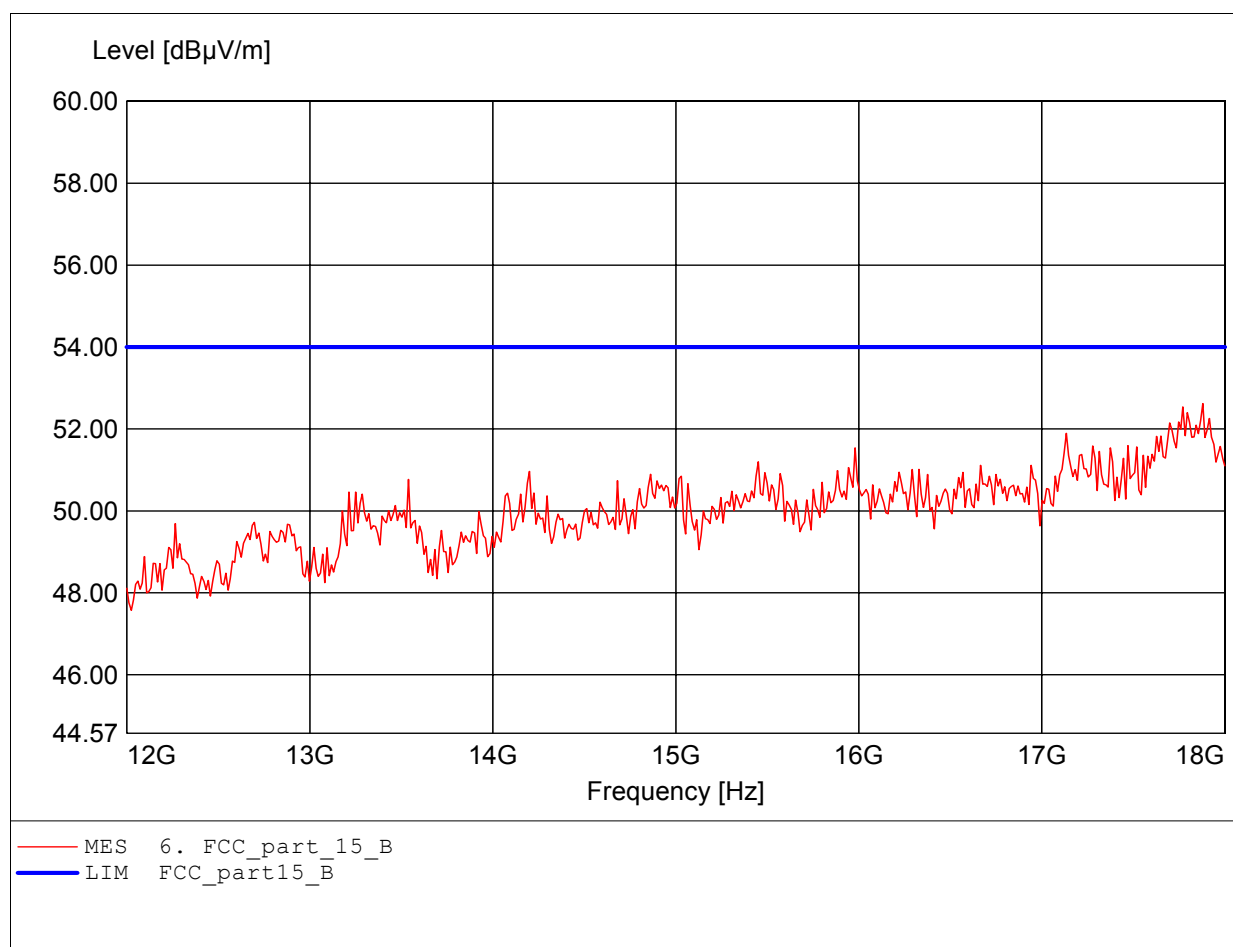
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J low channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq:17.880GHz Emax:53.17dBμV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

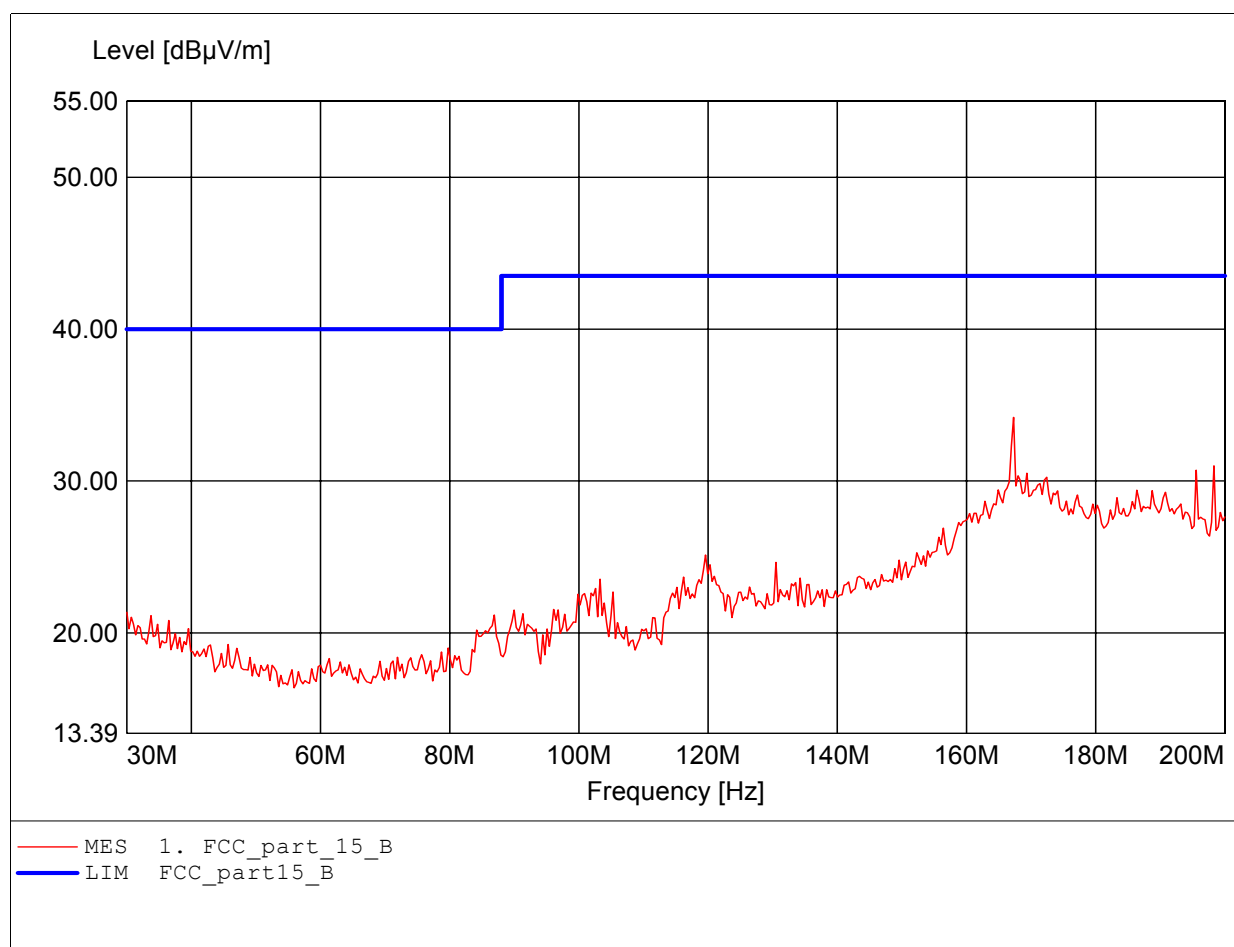
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J low channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq:17.880GHz Emax:52.62dBμV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

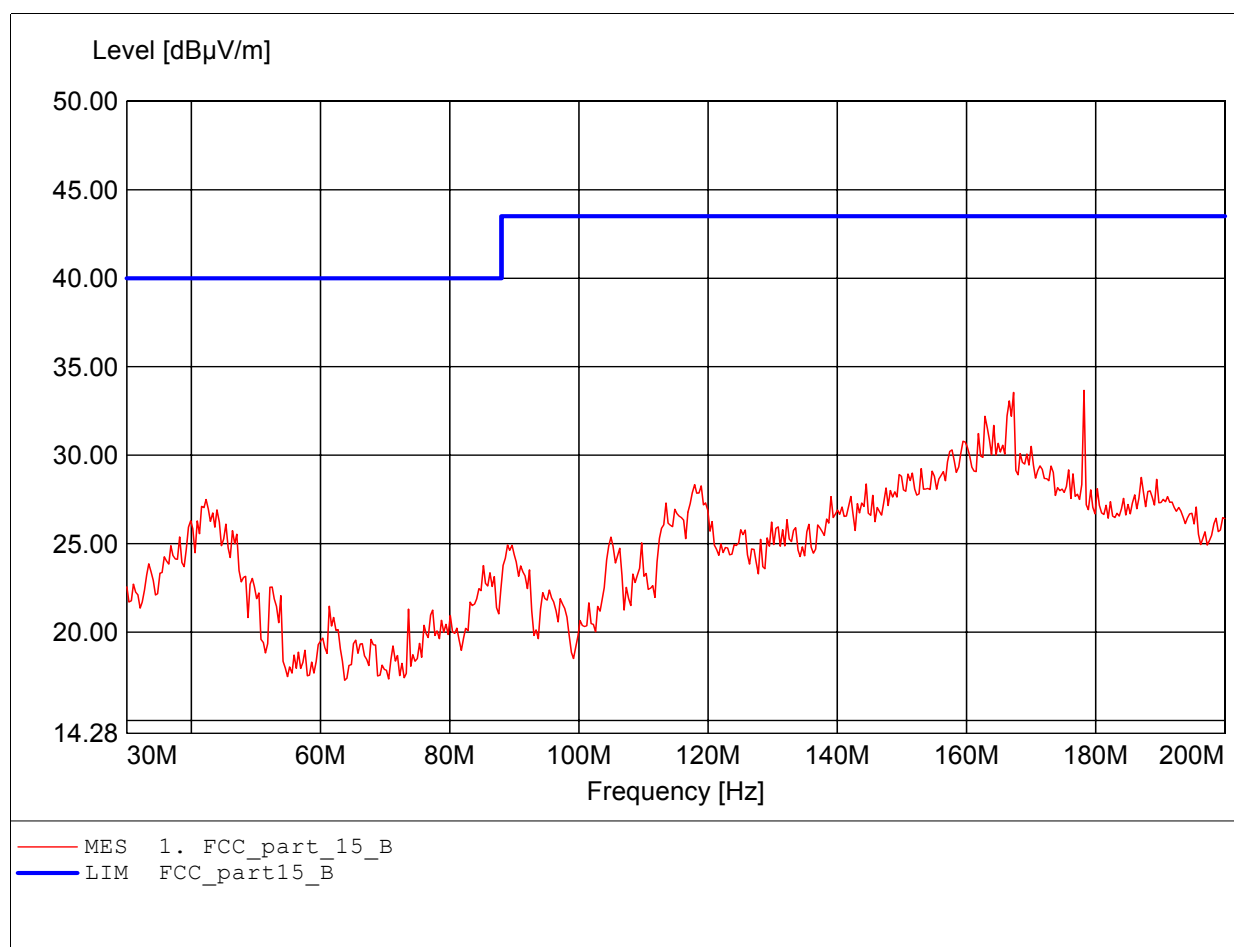
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J middle channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HK 116
Freq:167.295MHz Emax:34.19dBμV/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

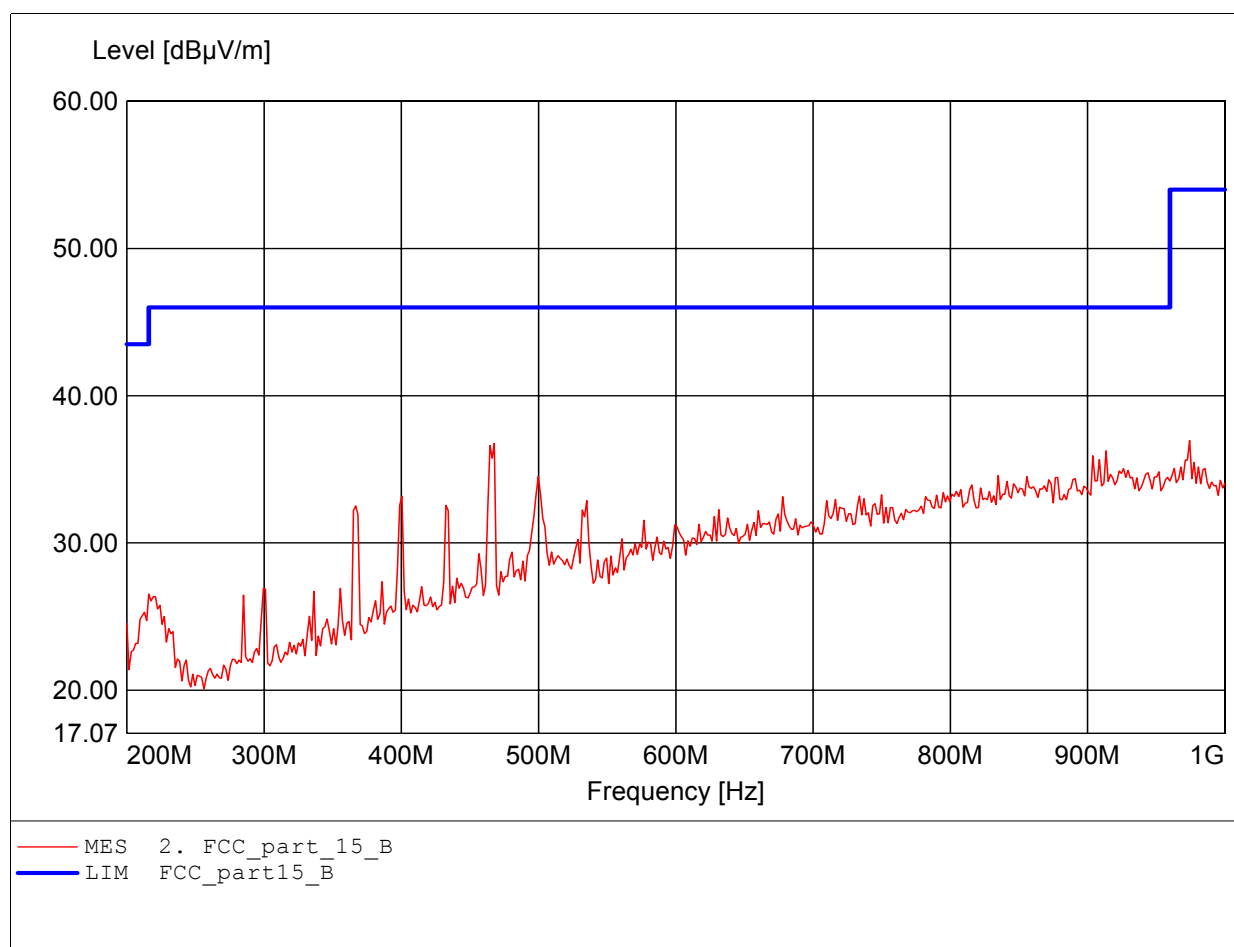
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J middle channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HK 116
Freq:178.196MHz Emax:33.67dBμV/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

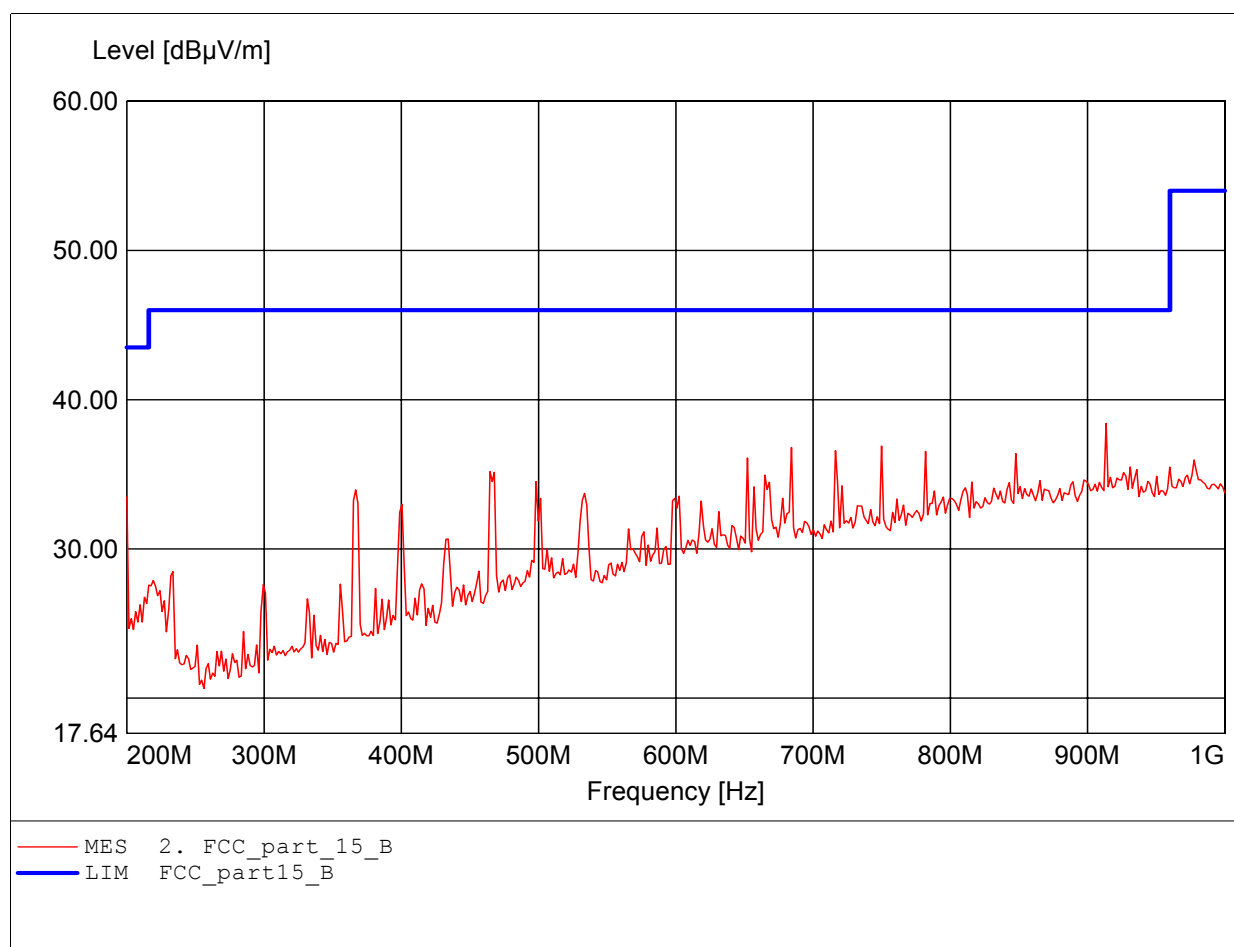
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J middle channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL 223, ampl.
Freq:974.349MHz Emax:36.95dBμV/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

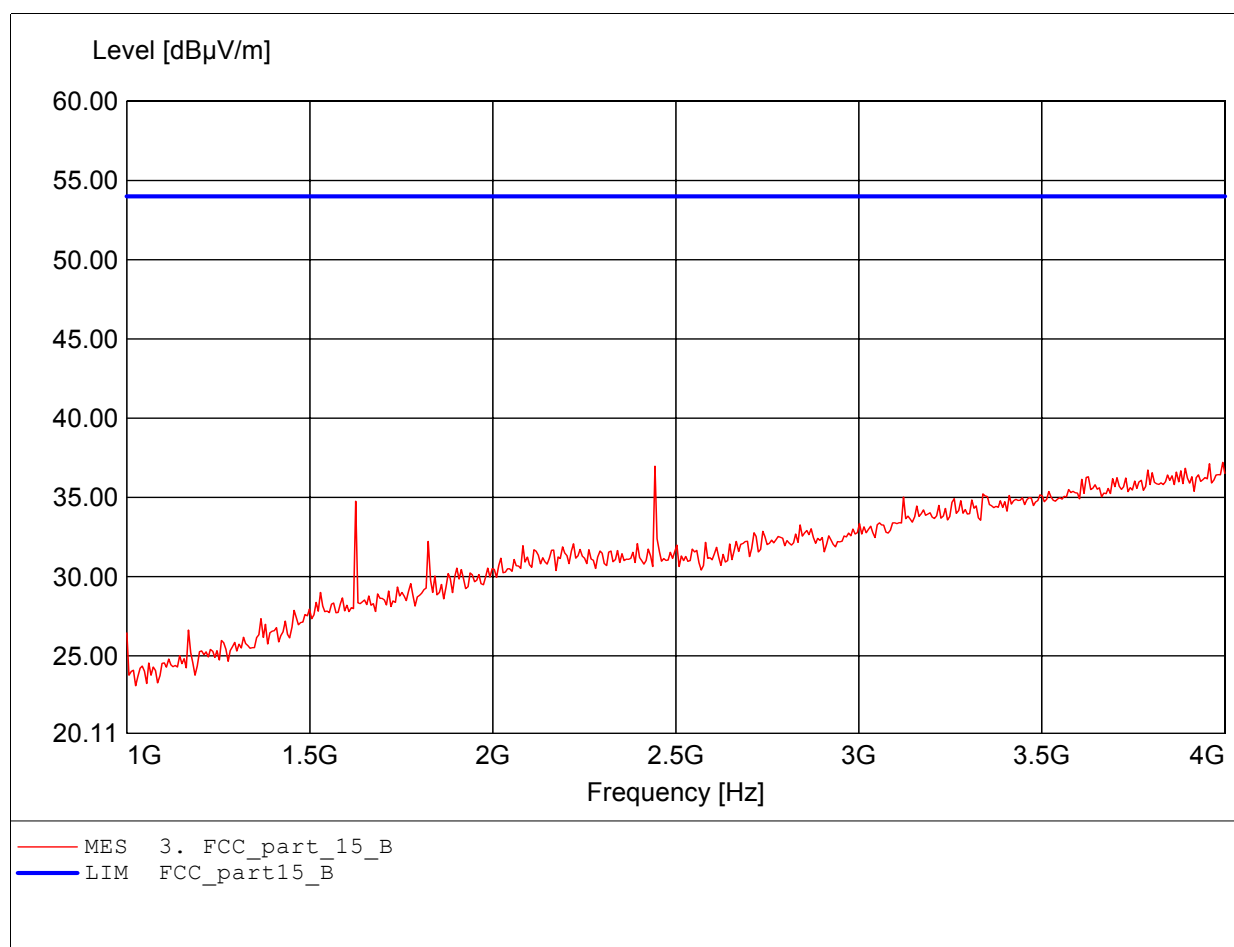
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J middle channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL 223, ampl.
Freq:913.427MHz Emax:38.41dBμV/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

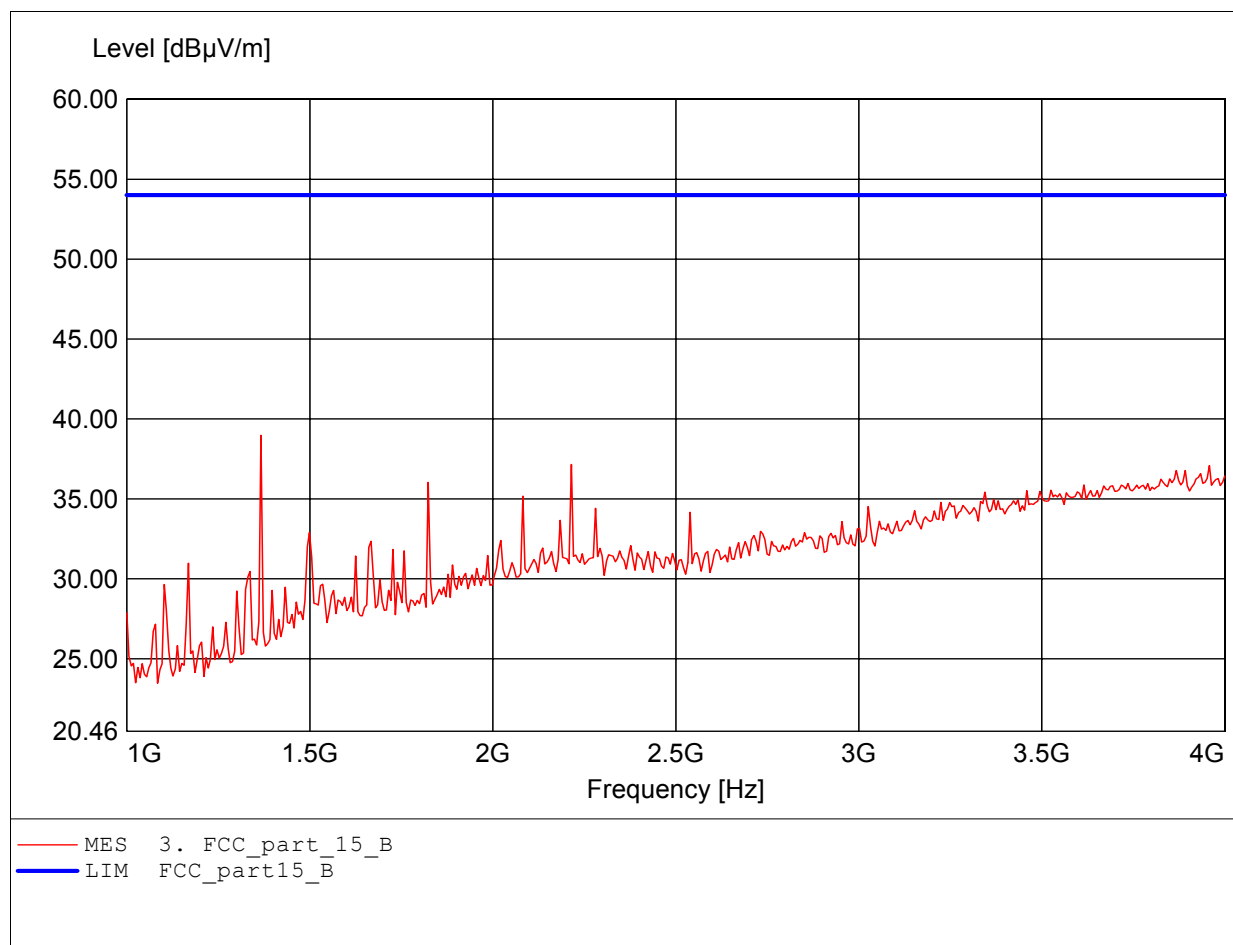
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J middle channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq:3.994GHz Emax:37.21dBμV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

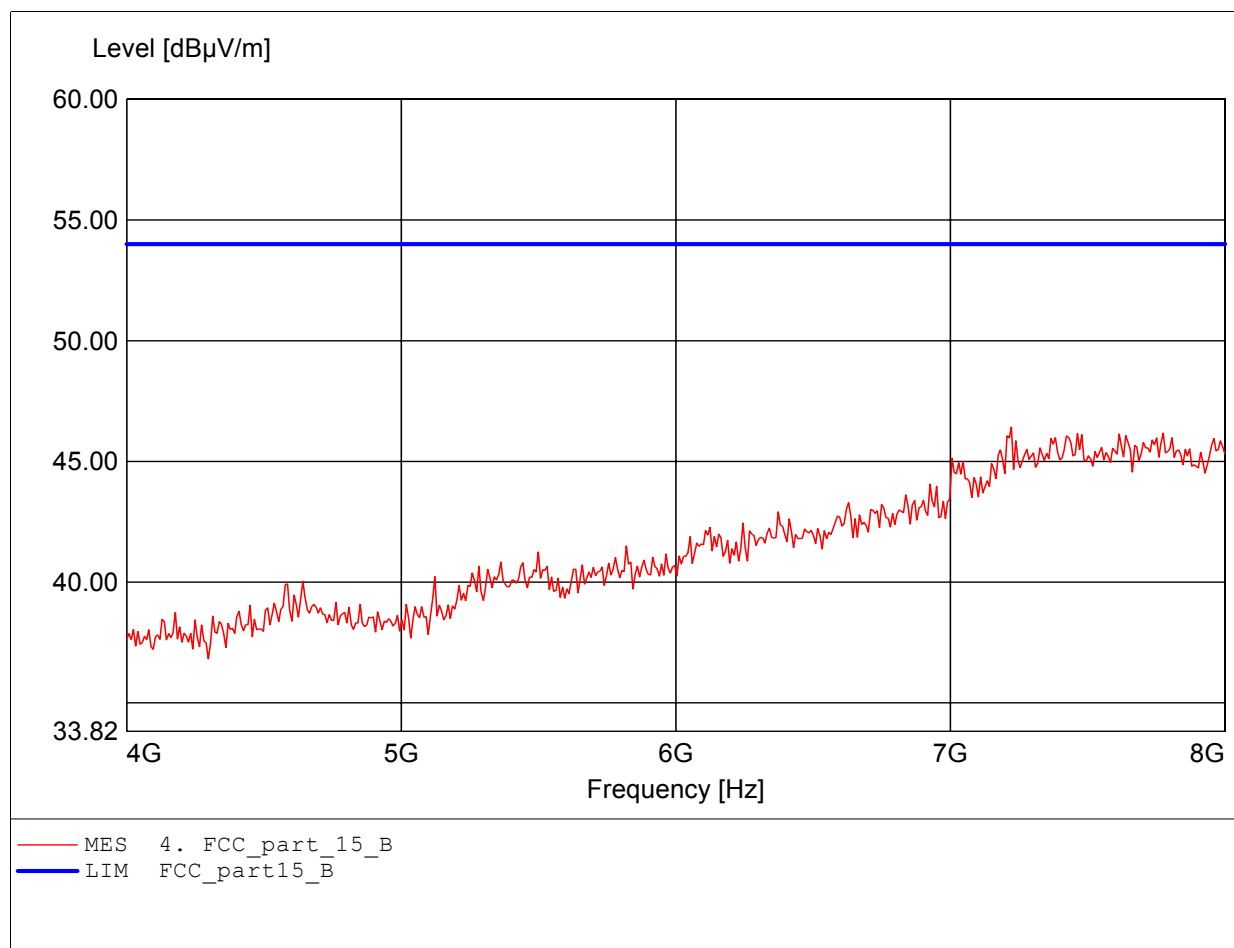
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J middle channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq:1.367GHz Emax:38.97dBμV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

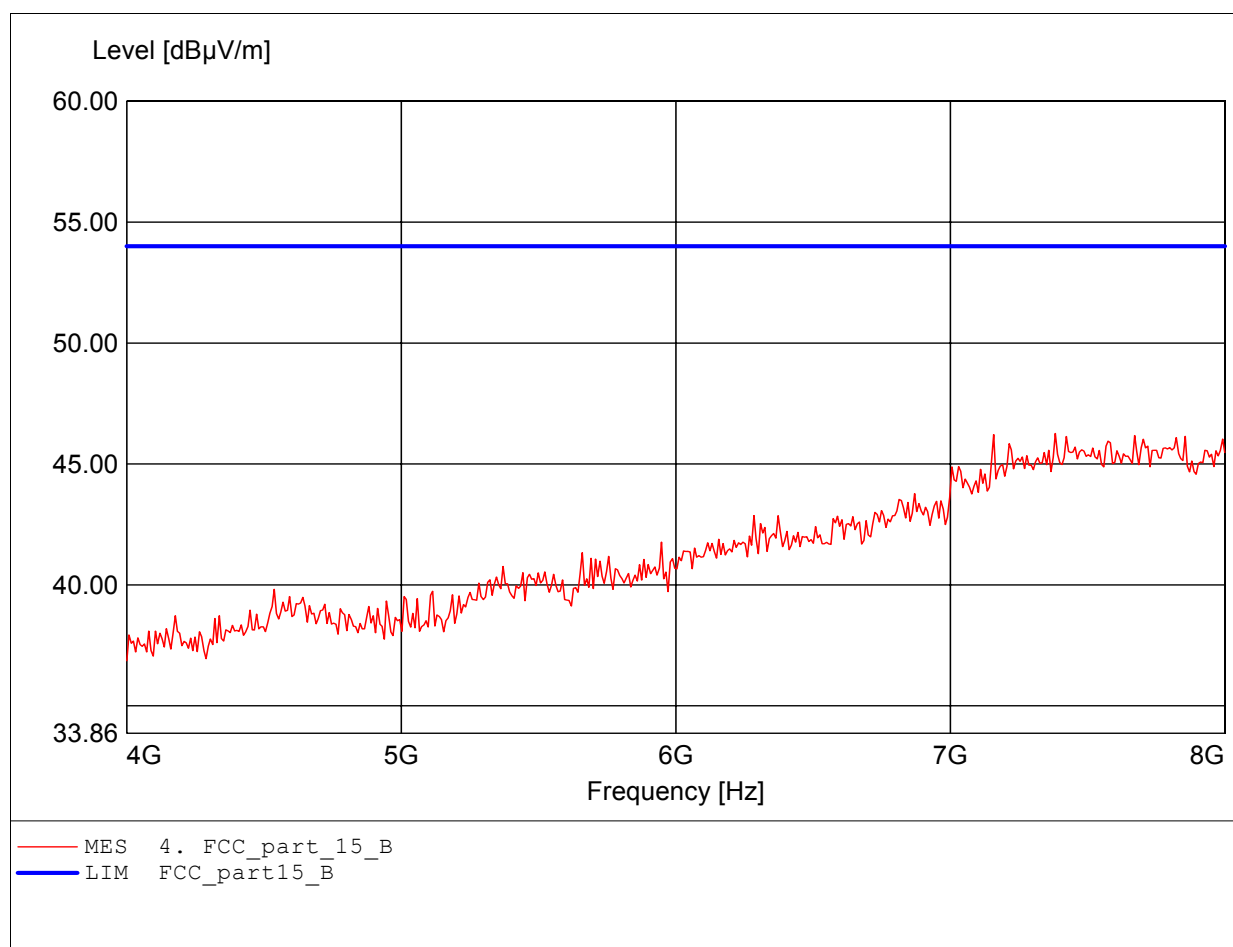
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J middle channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq:7.222GHz Emax:46.42dBμV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

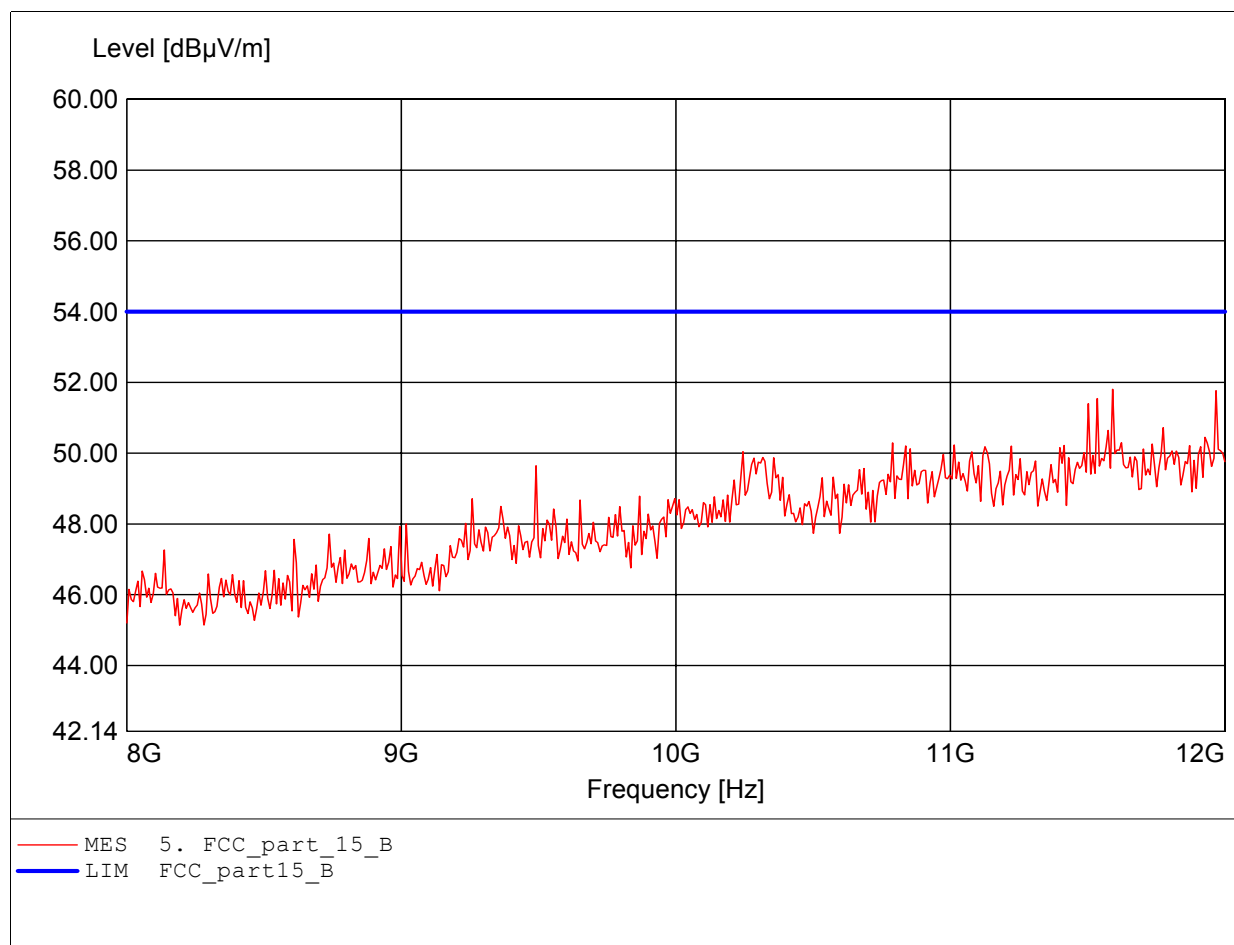
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J middle channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq:7.383GHz Emax:46.26dBμV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

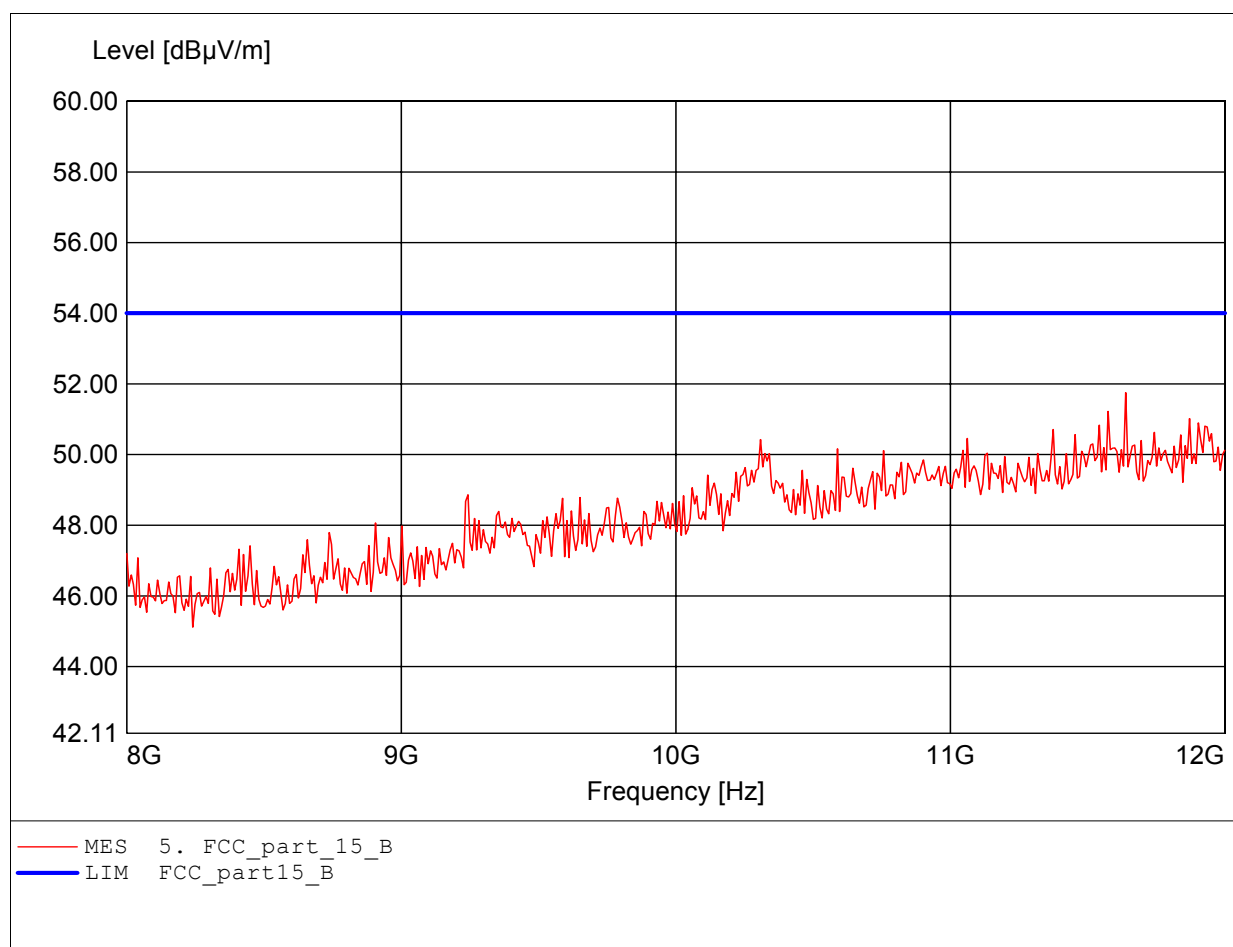
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J middle channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq:11.591GHz Emax:51.80dBμV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

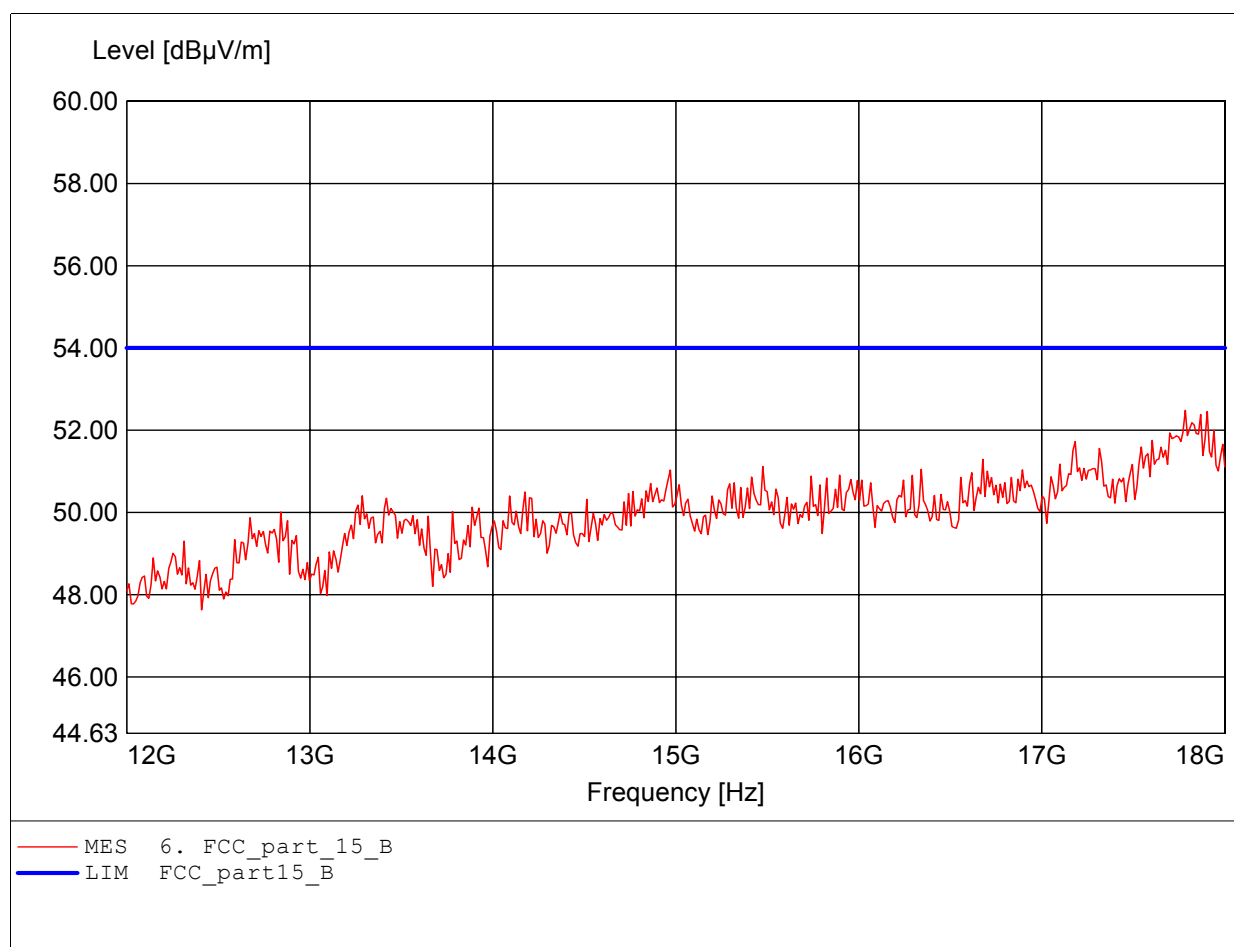
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J middle channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq:11.639GHz Emax:51.75dBμV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

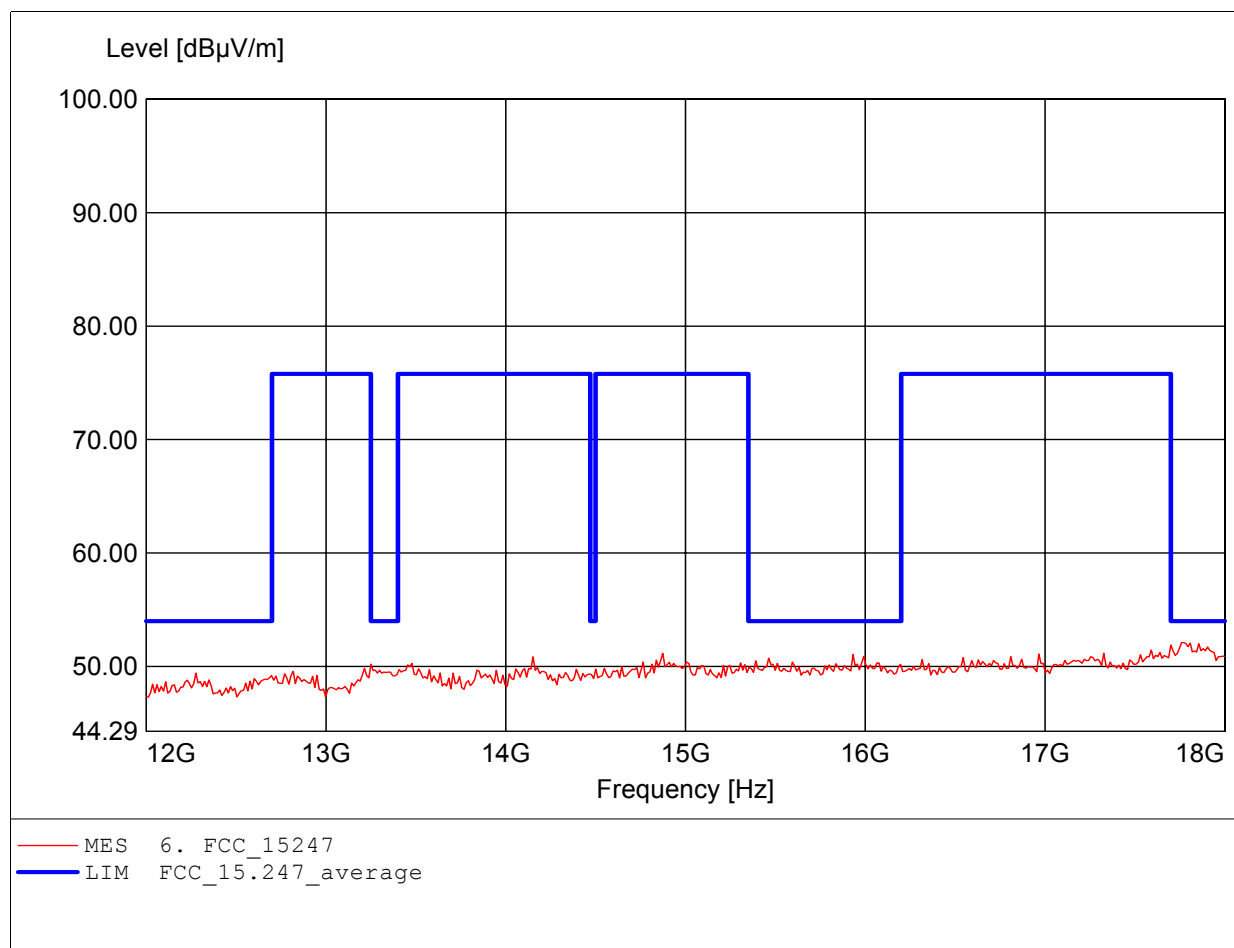
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J middle channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq:17.784GHz Emax:52.48dBμV/m RBW: 1 MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

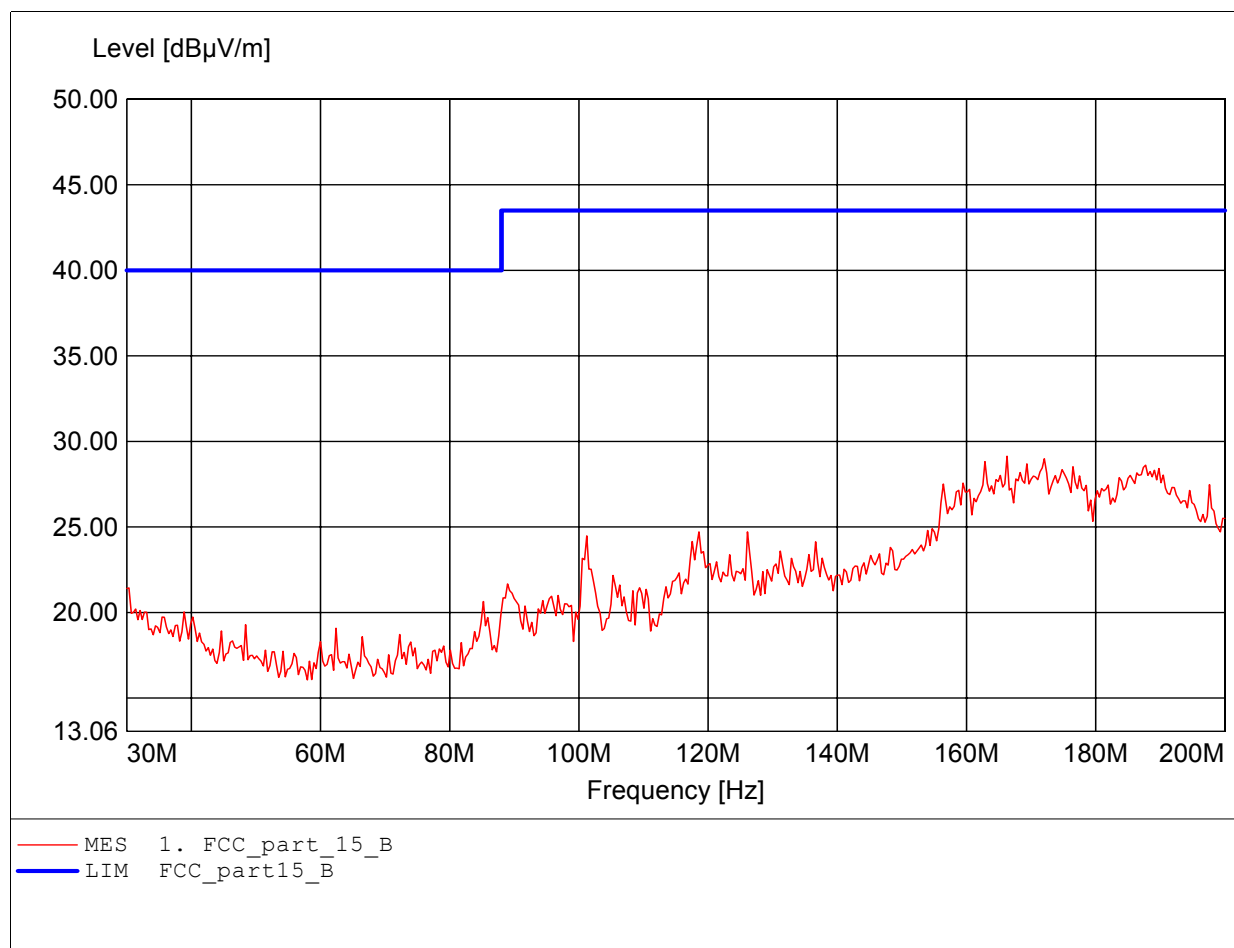
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J middle channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to §15.247, peak detector
Comment 1: Dist.: 3m, Ant.: HL025, ampl.+HP.
Freq: 17.760GHz, Emax: 52.12dBμV/m, RBW: 1MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

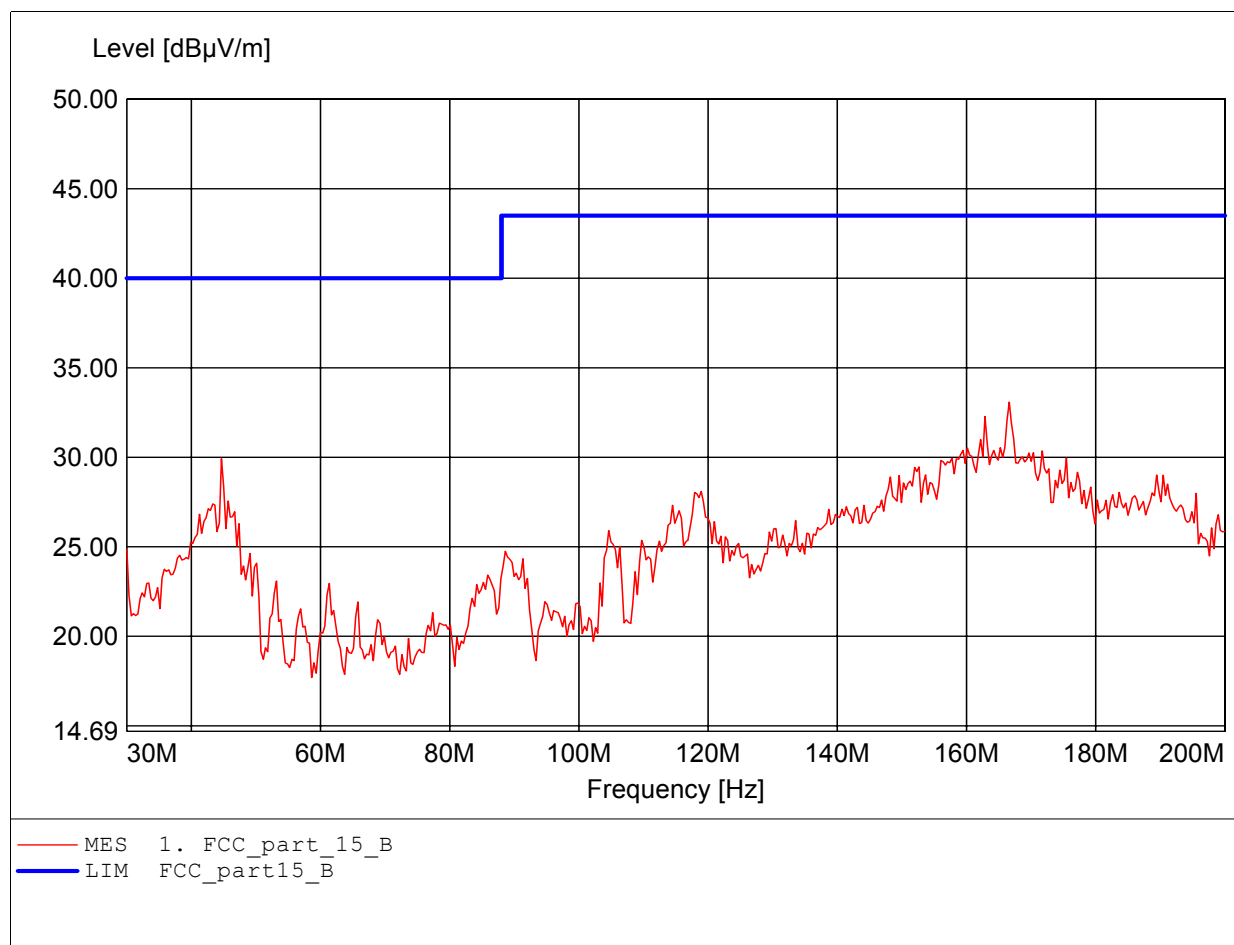
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J high channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HK 116
Freq:166.273MHz Emax:29.14dBμV/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

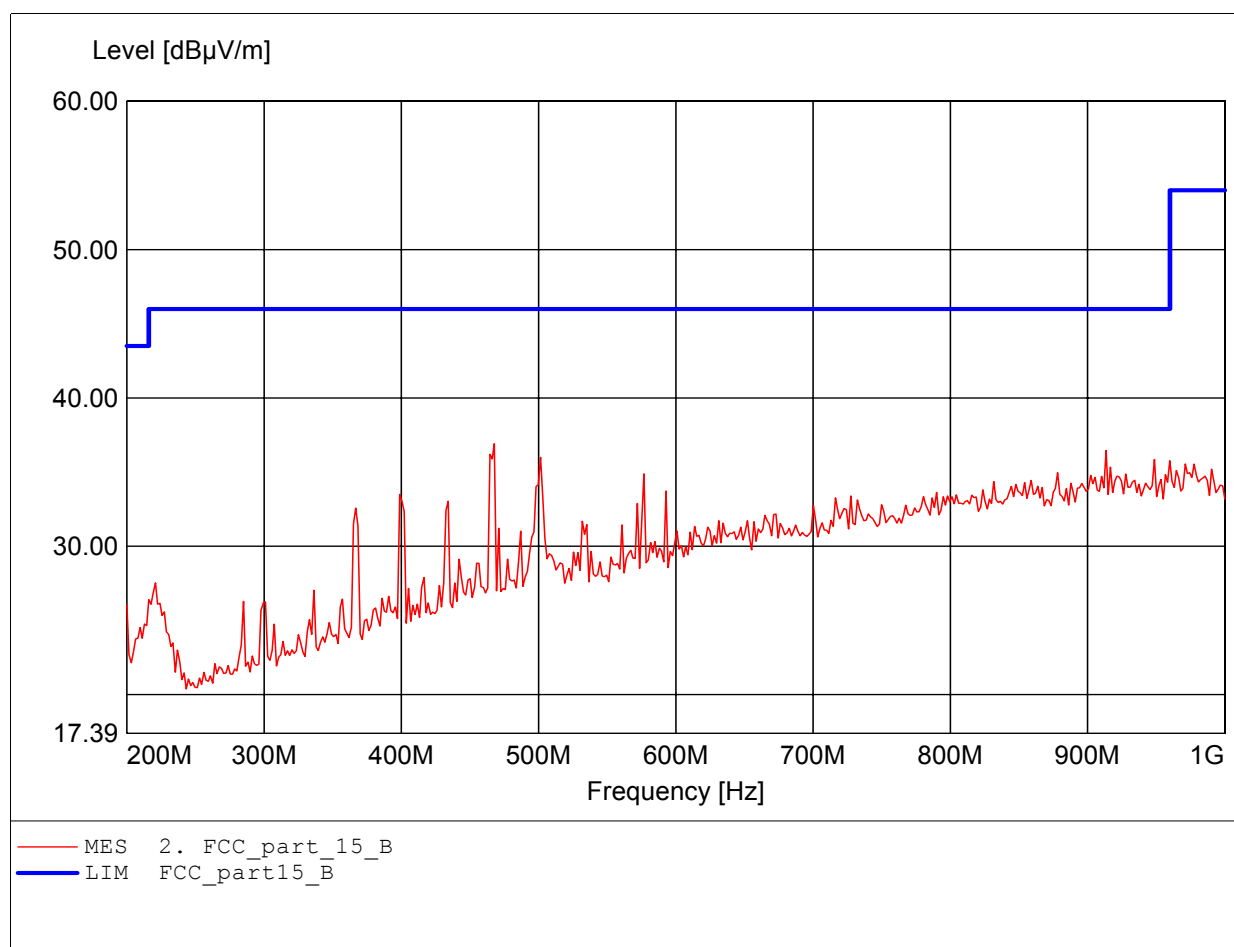
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J high channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HK 116
Freq:166.613MHz Emax:33.08dBμV/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

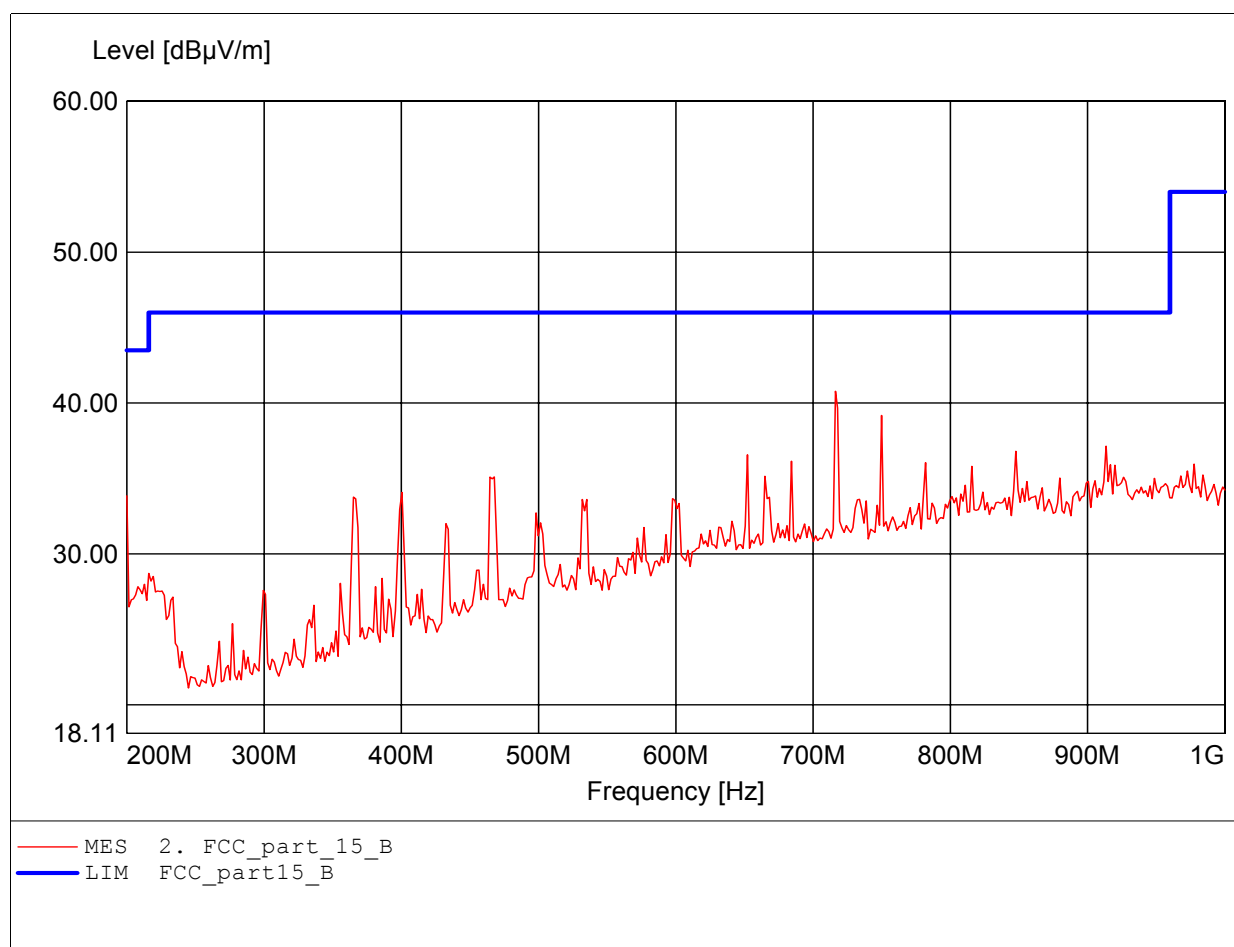
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J high channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL 223, ampl.
Freq:467.735MHz Emax:36.91dBμV/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

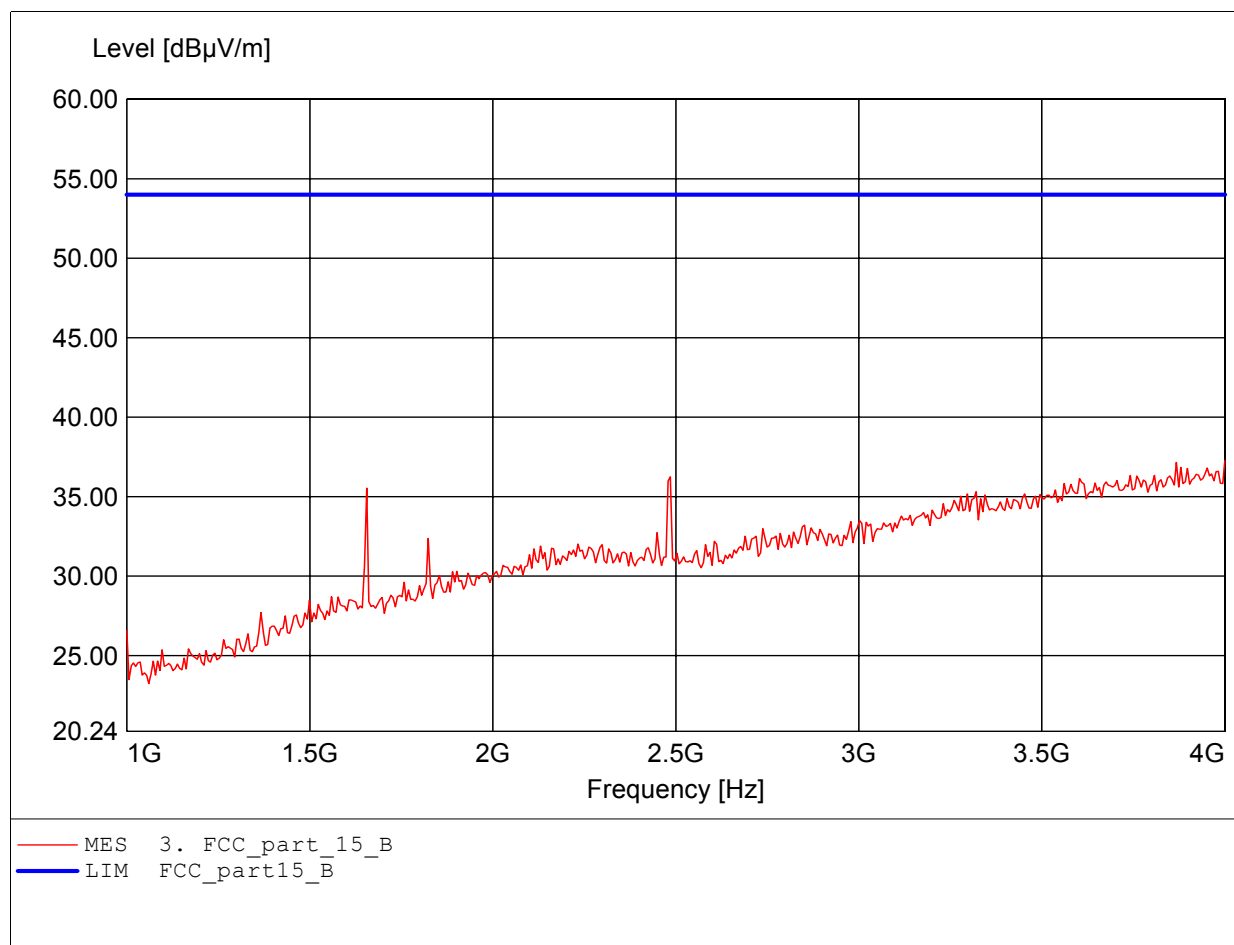
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J high channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL 223, ampl.
Freq:716.232MHz Emax:40.77dBμV/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

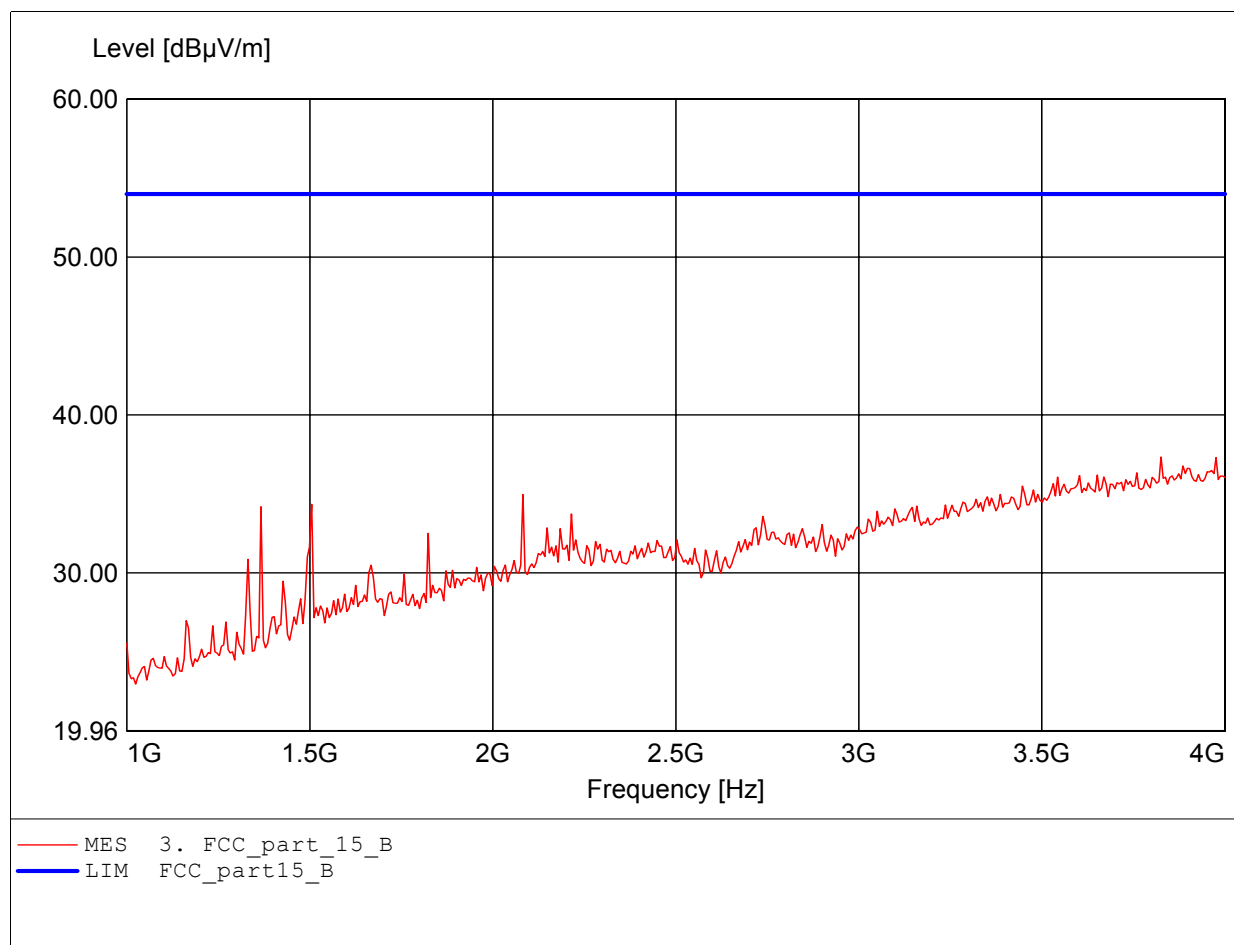
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J high channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq:4.000GHz Emax:37.27dBμV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

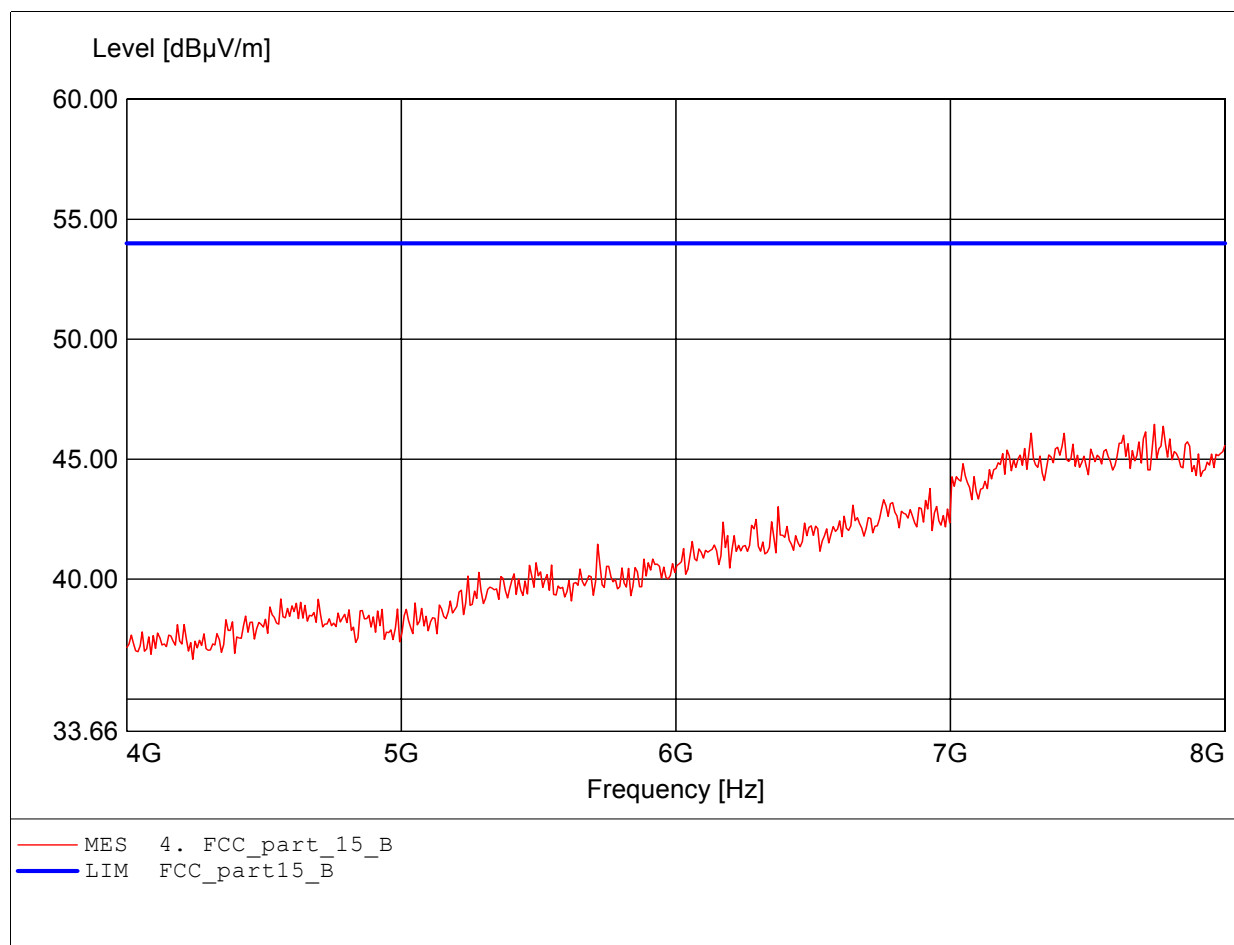
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J high channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq:3.826GHz Emax:37.34dBμV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

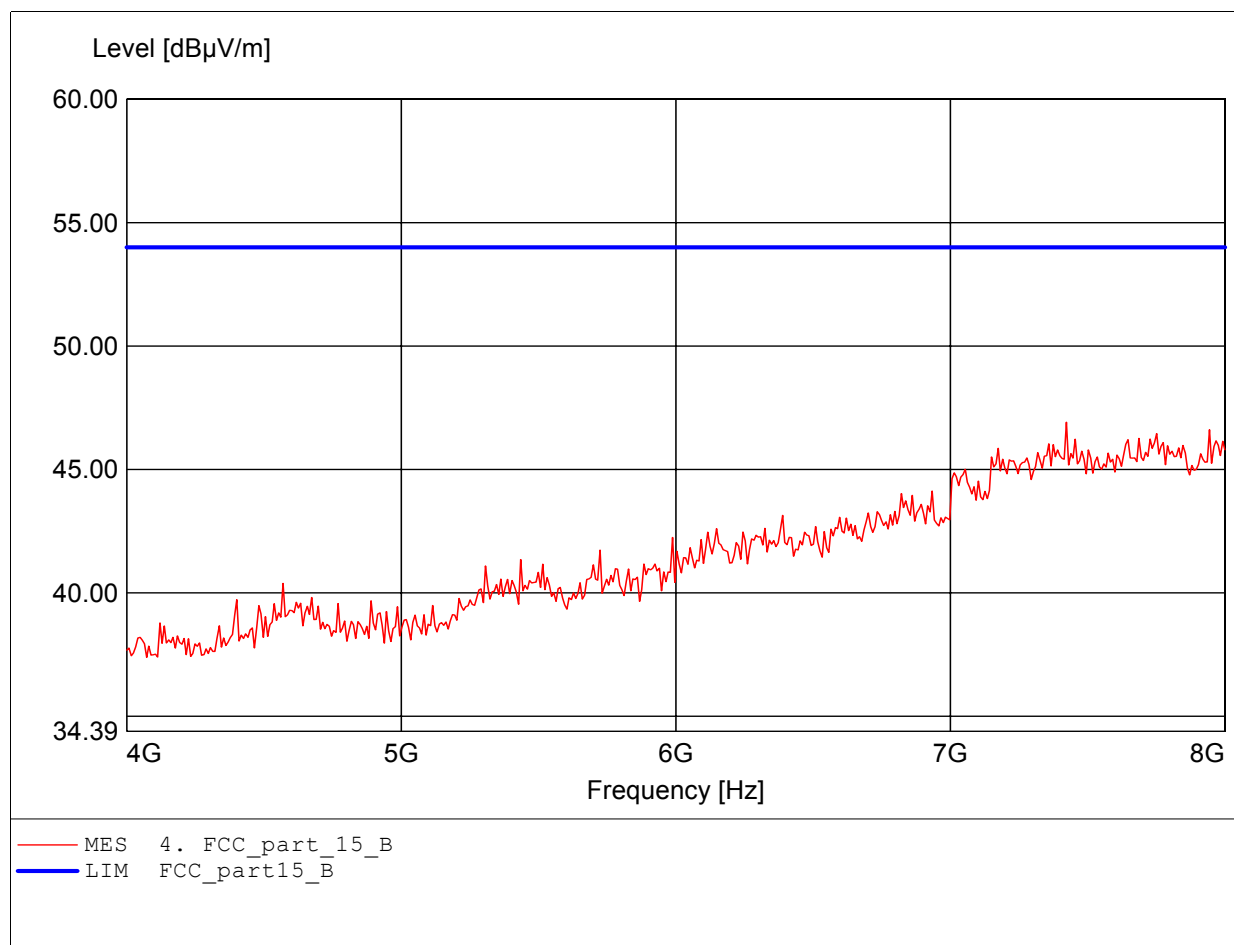
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J high channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq:7.743GHz Emax:46.45dBμV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

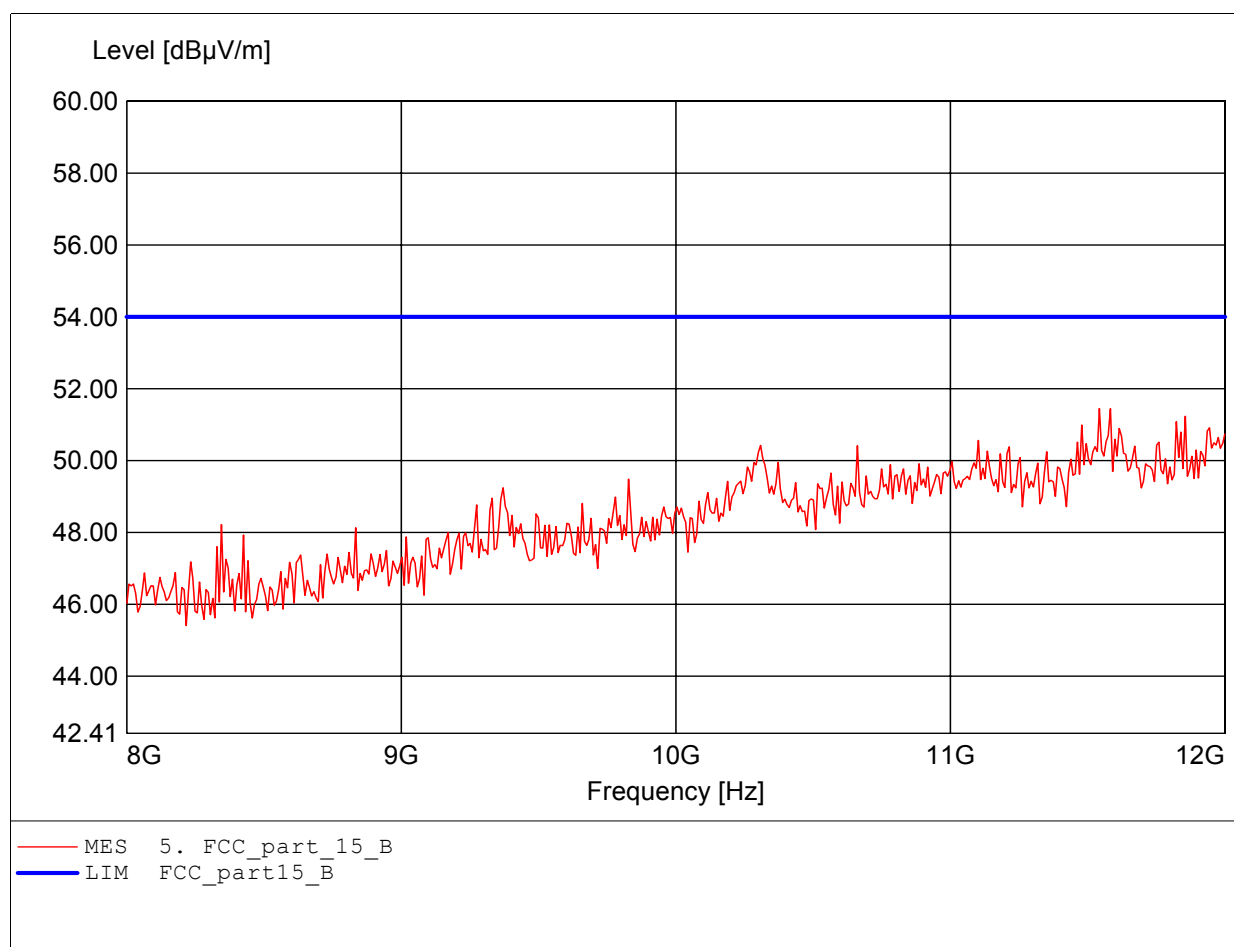
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J high channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq:7.423GHz Emax:46.91dBμV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

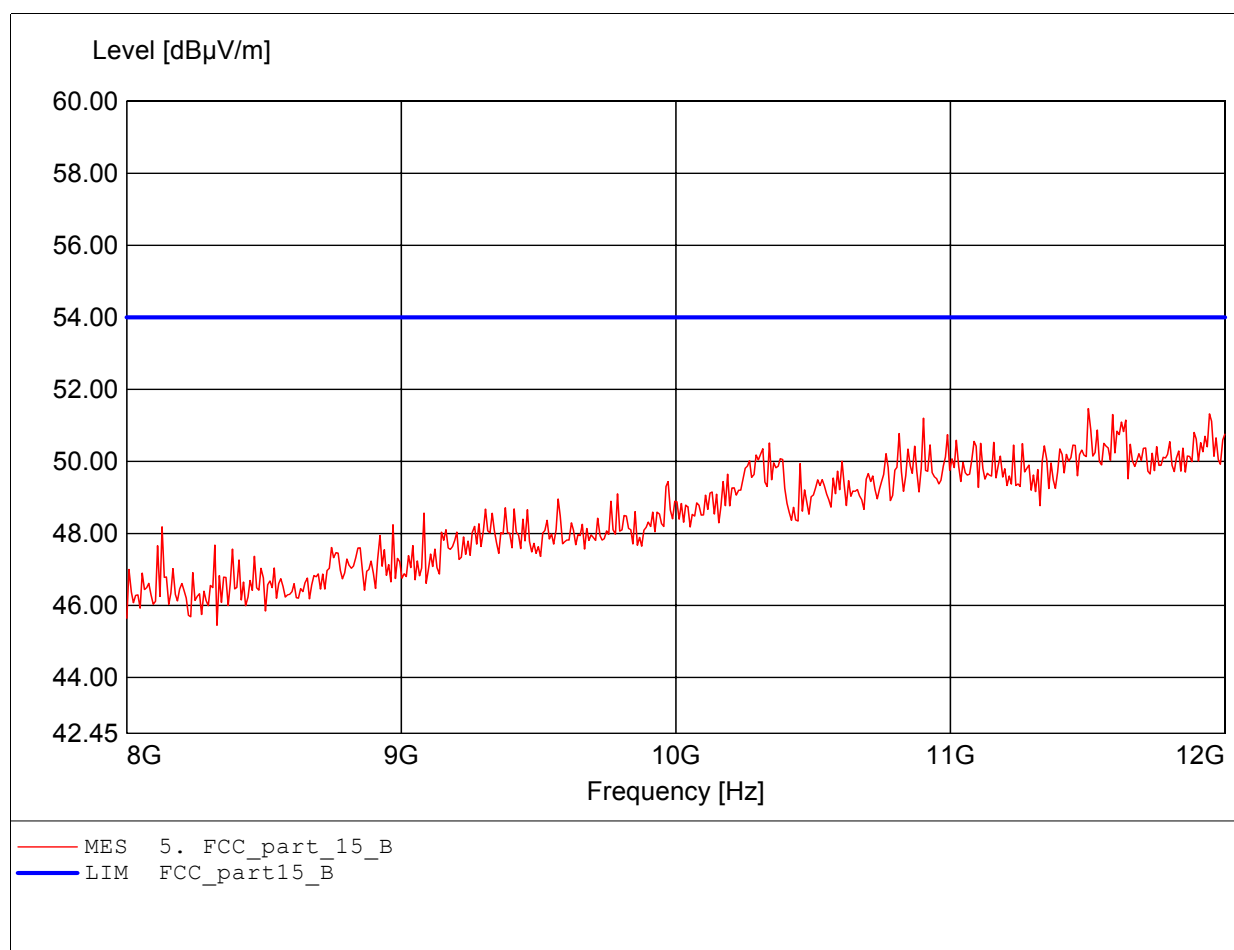
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J high channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq:11.543GHz Emax:51.45dBμV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

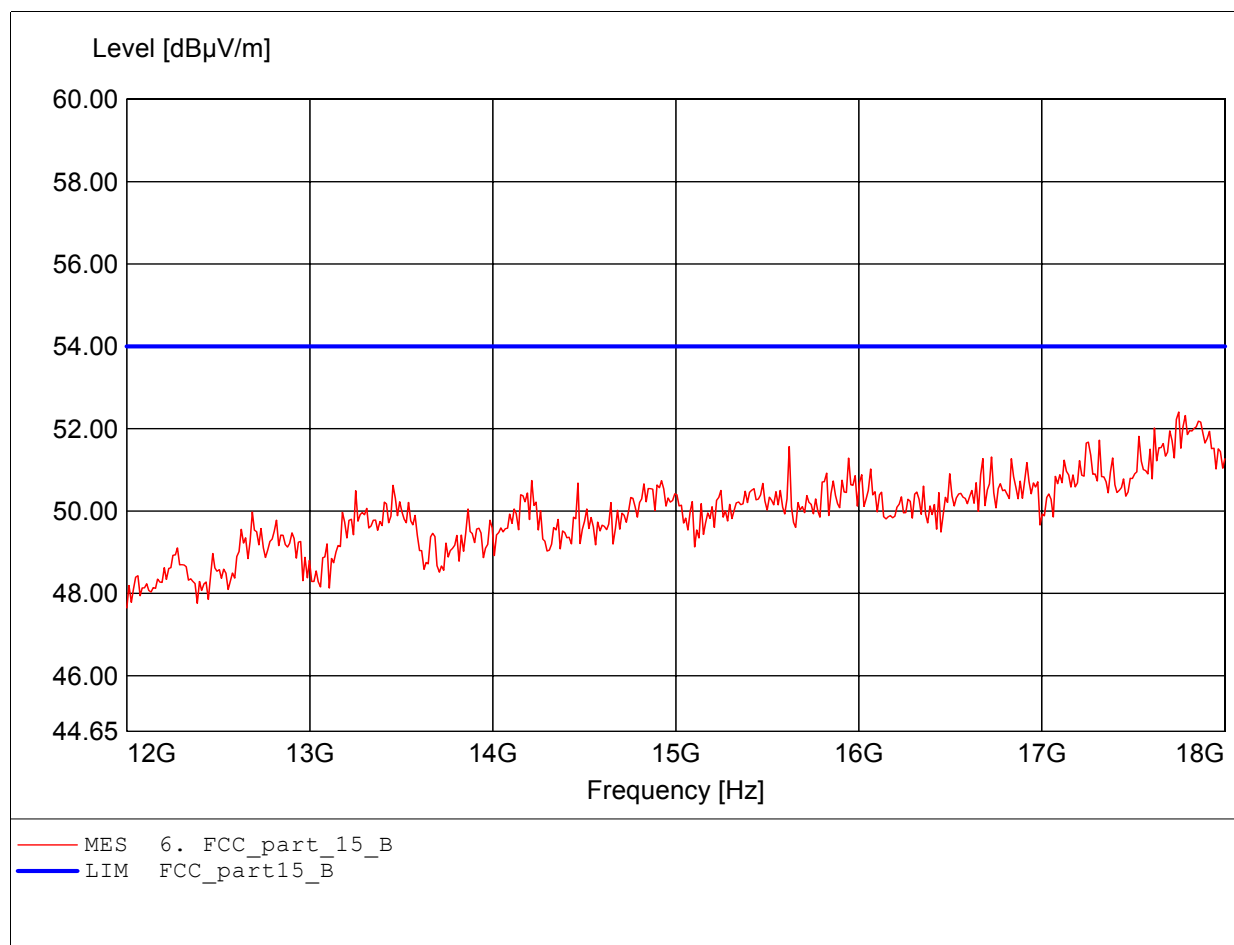
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J high channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq:11.503GHz Emax:51.47dBμV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

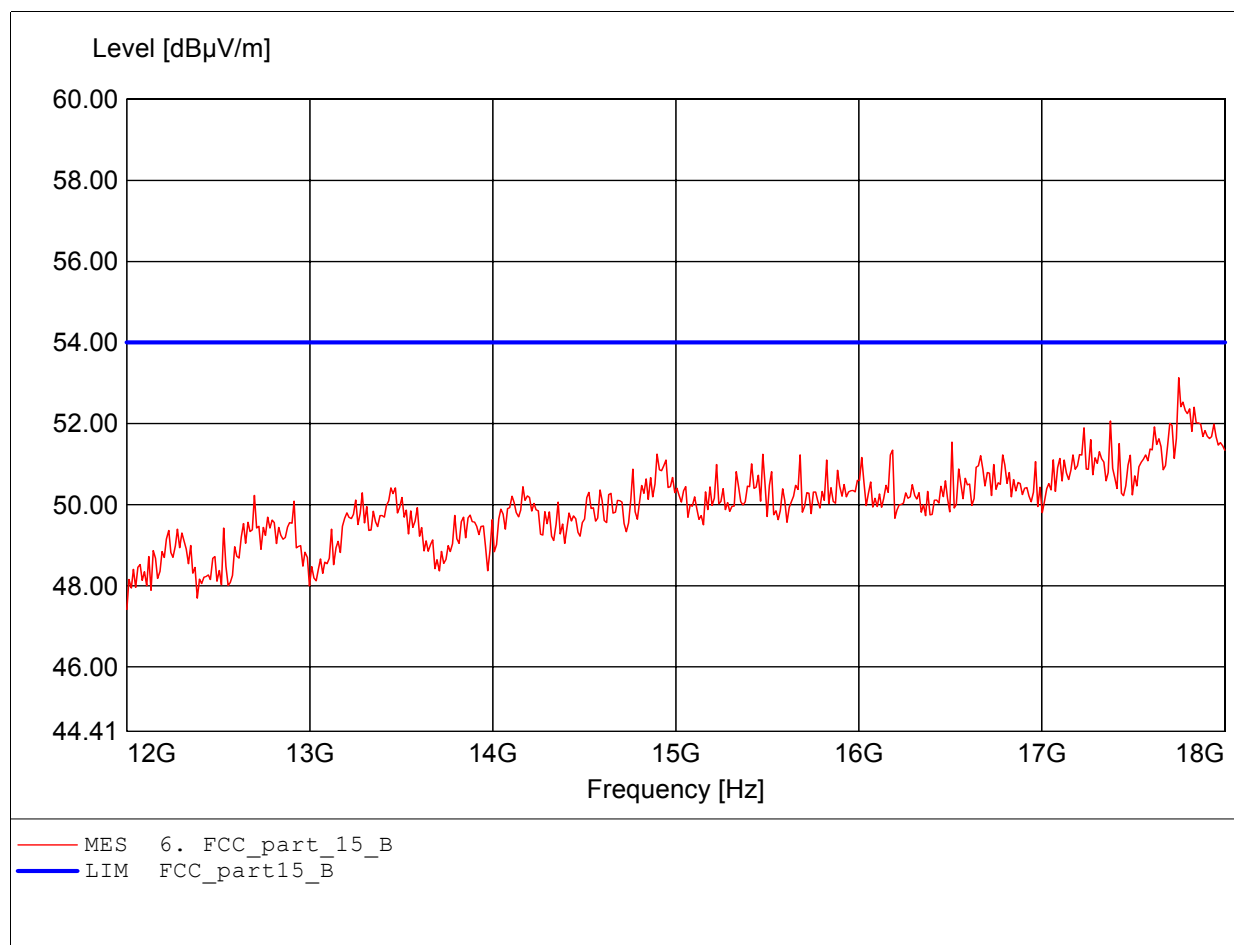
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J high channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq:17.747GHz Emax:52.40dBμV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

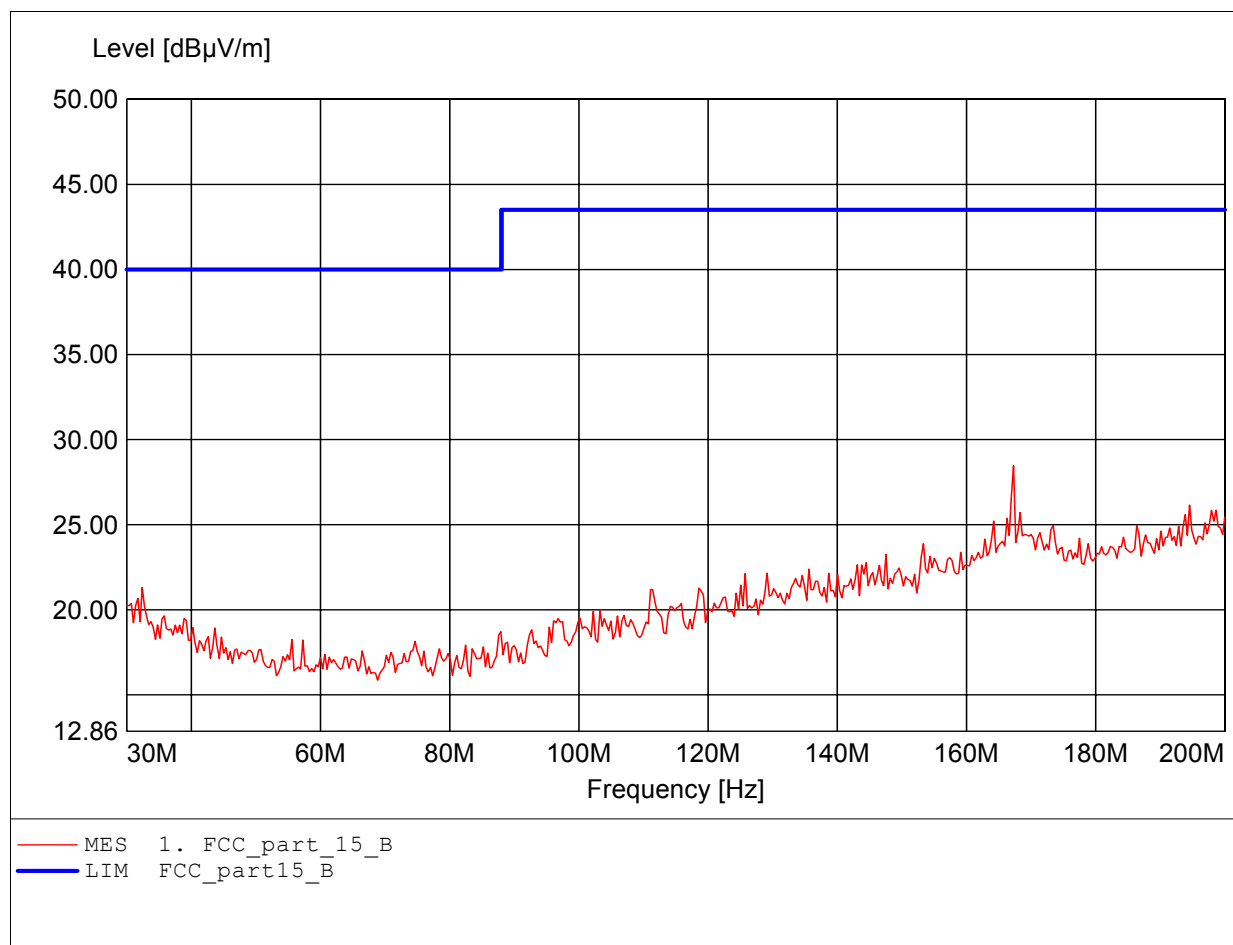
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J high channel
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL25, ampl.
Freq:17.747GHz Emax:53.13dBμV/m RBW: 1 MHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

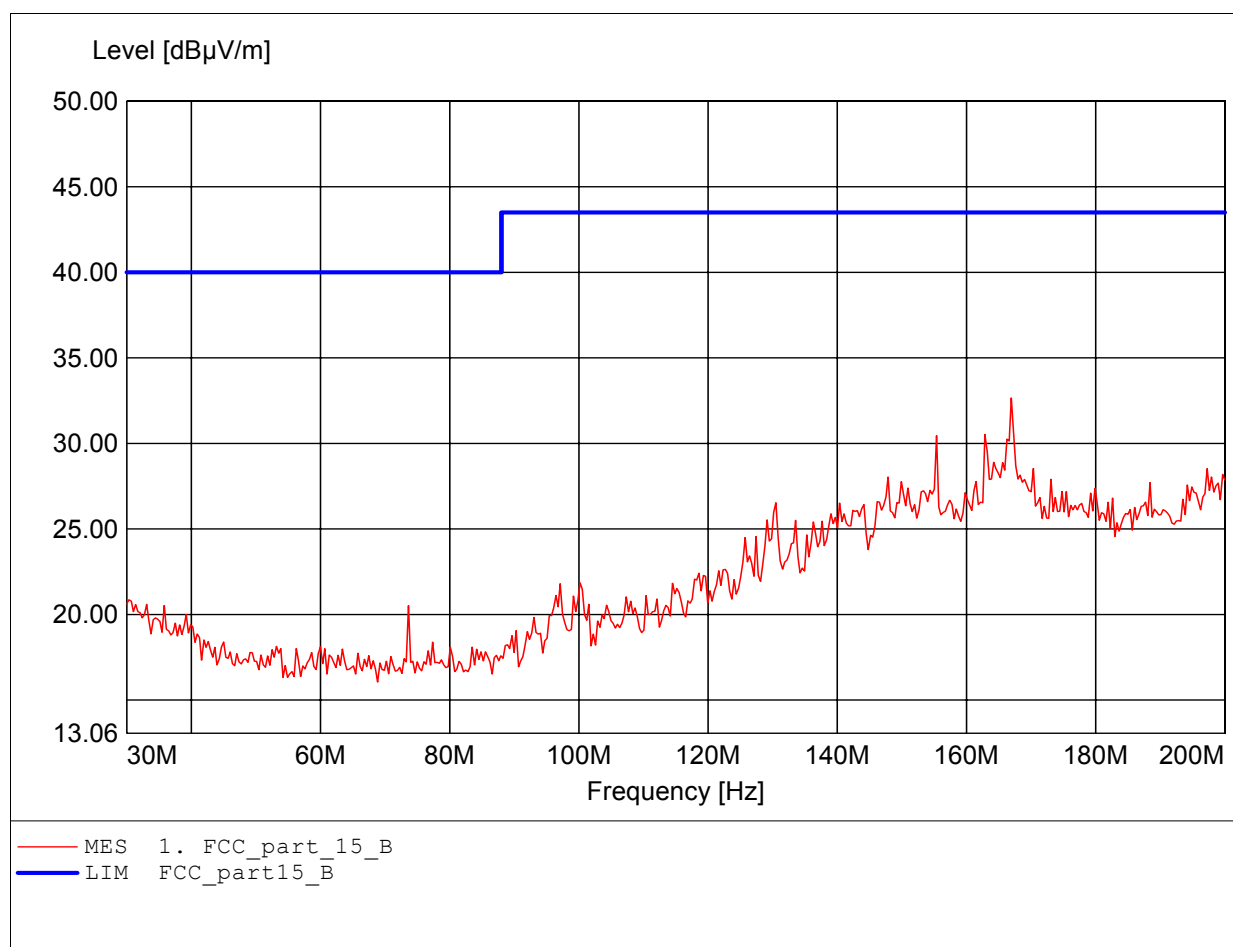
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HK 116
Freq:167.295MHz Emax:28.46dBμV/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

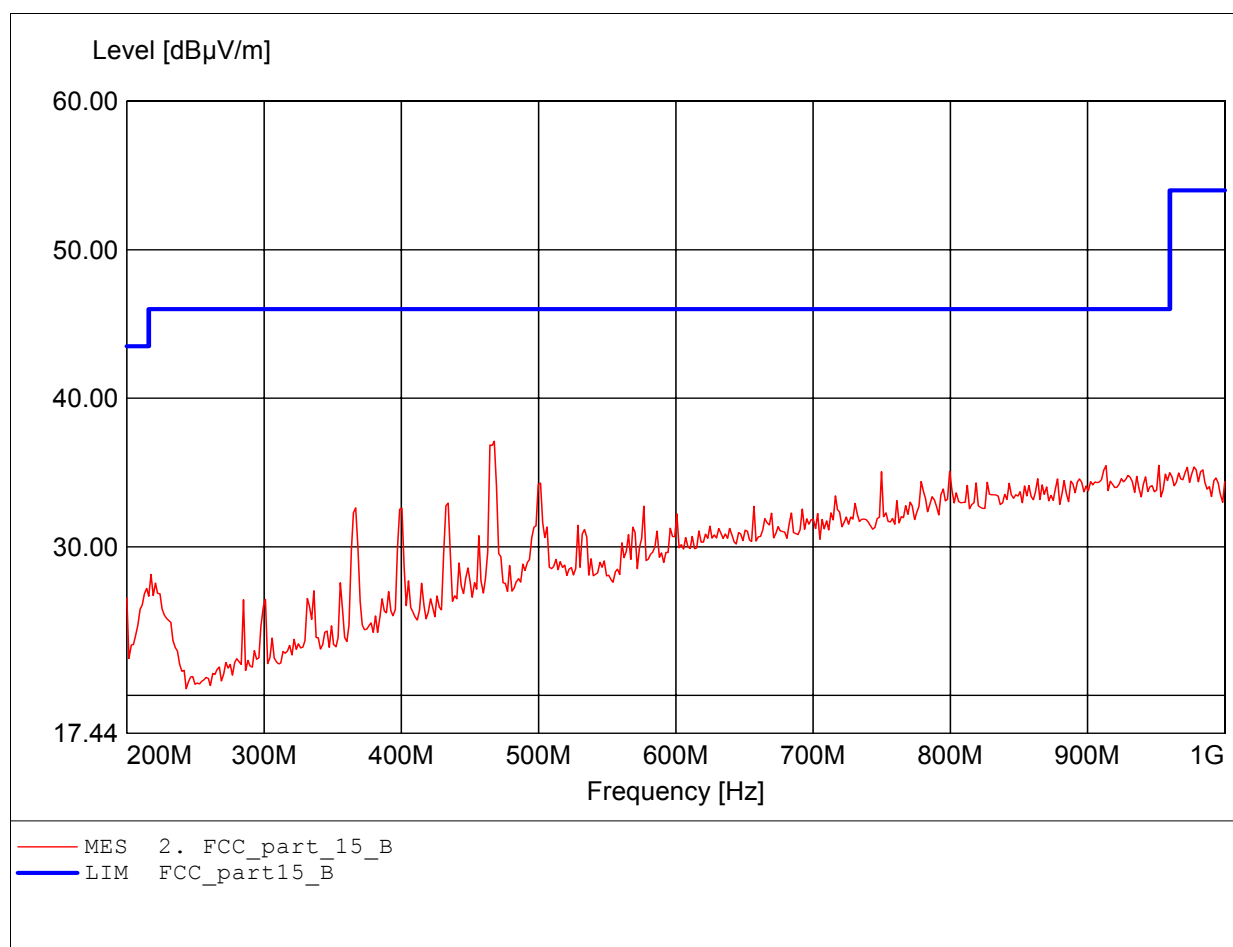
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HK 116
Freq:166.954MHz Emax:32.66dBμV/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

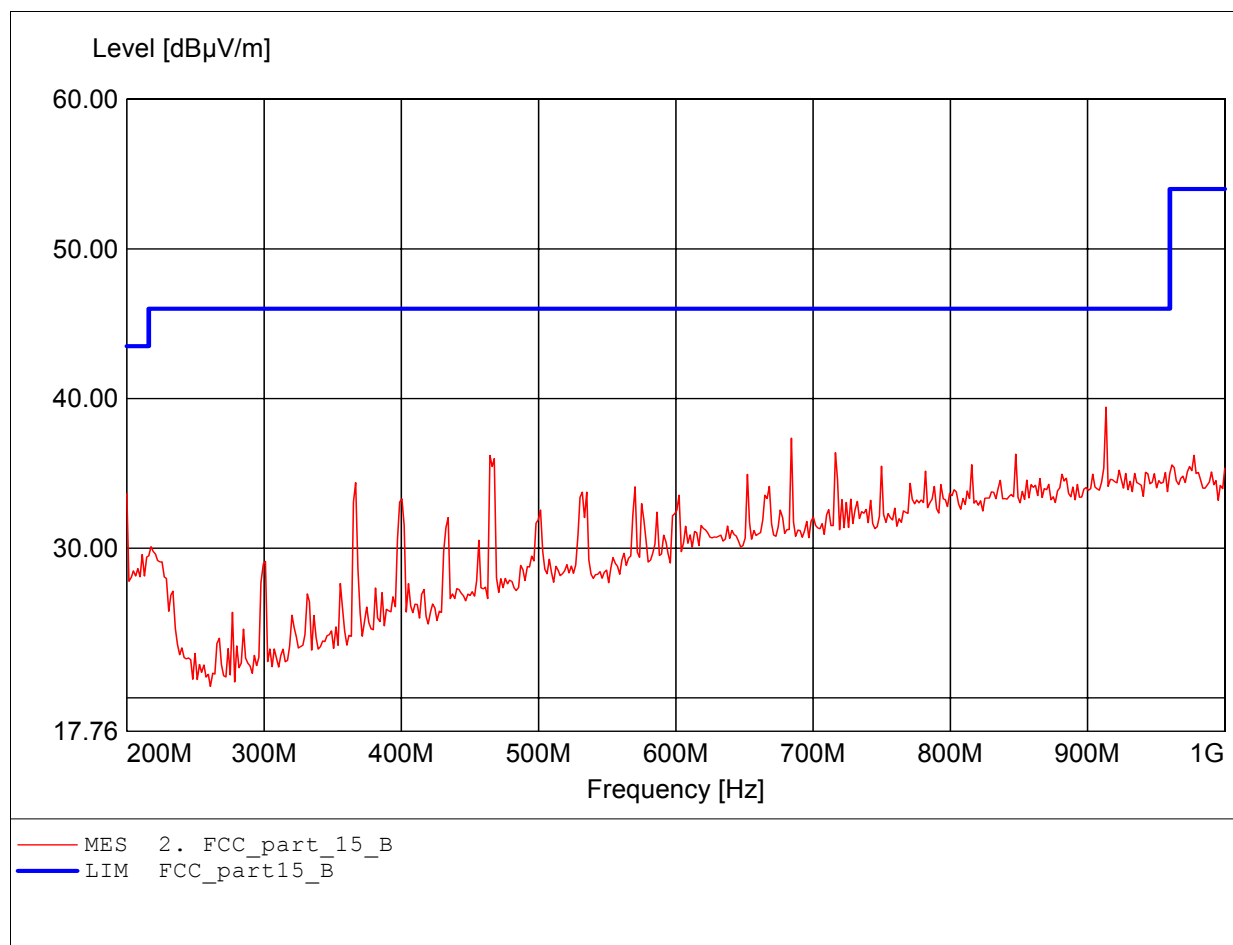
EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL 223, ampl.
Freq:467.735MHz Emax:37.11dBμV/m RBW: 100 kHz



Field Strength under normal conditions

FCC RULES PART 15, SUBPART B

EUT: BLUETOOTH USB ADAPTER(Class I)
MODEL NO.: BU-2094-J
Approval Holder: J-Three International Holding Co., Ltd.
Test Site / Operator: ETS / Dennis
Temperature/Voltage: Temp.: 25.6°C/ Unom.: 120 VAC (power on pc)
Test Specification: according to subpart B
Comment 1: Dist.: 3m, Ant.: HL 223, ampl.
Freq:913.427MHz Emax:39.42dBμV/m RBW: 100 kHz





Registration number: W6M20603-6691-P-15
FCC ID : QQGBU-2094-J

Appendix I

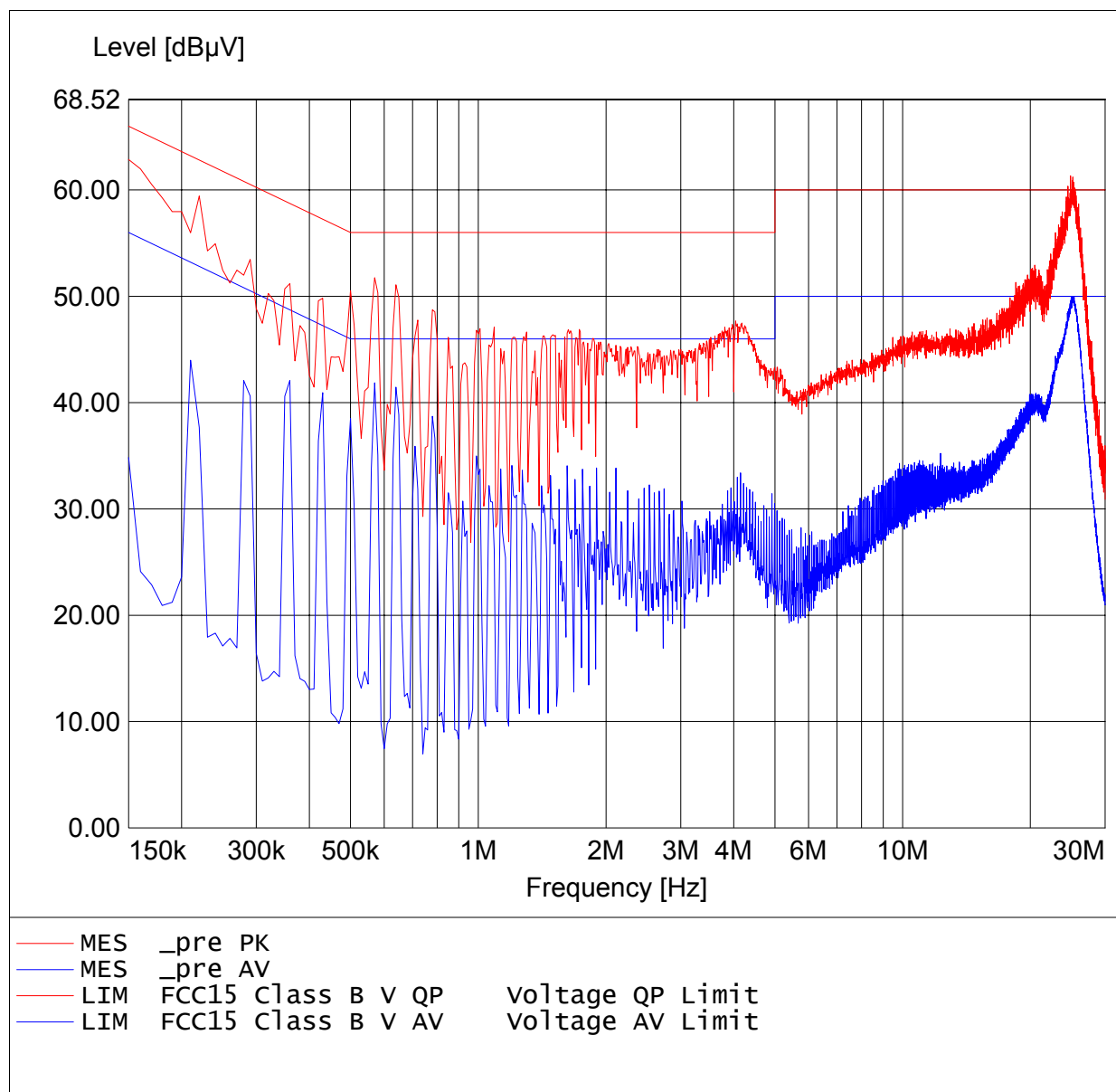
Power Line Conducted Emission

The measurement diagram are wideband pre-scan results; only for reference.

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

Class B

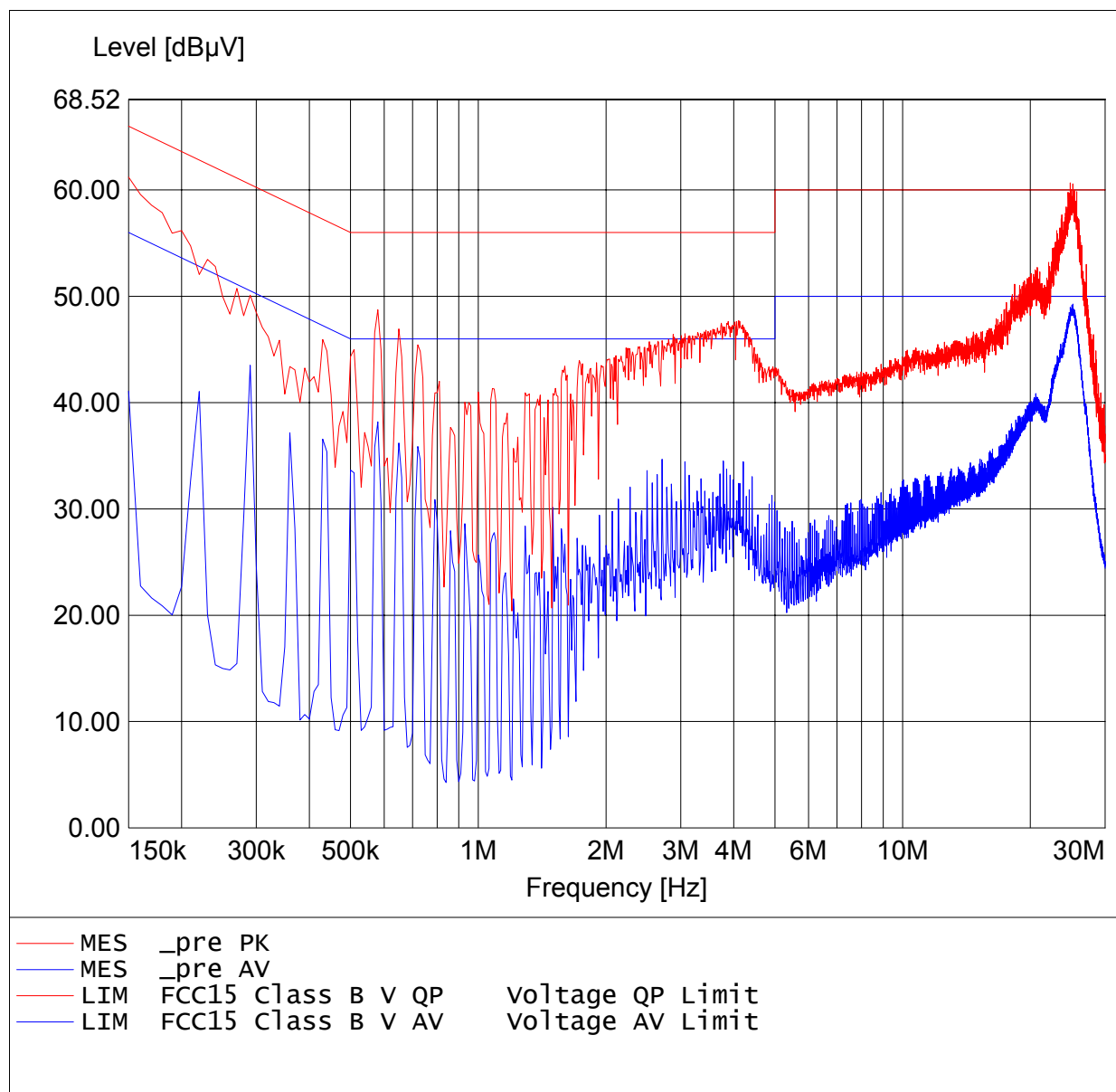
EUT: BLUETOOTH USB ADAPTER (Class 1)
Approval Holder: J-Three International Holding Co.,Ltd.
Operating Condition: Unom : 120 VAC (Power on PC) , Tnom : 24.2°C
Test Site: ETS
Operator: Daren
Test Specification: V-network: ESH3-Z5 N
Comment: model: BU-2094-J mode: active

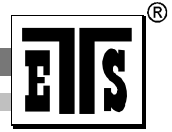


EMI voltage test in the ac-mains according to FCC Part 15

Class B

EUT: BLUETOOTH USB ADAPTER (Class 1)
Approval Holder: J-Three International Holding Co.,Ltd.
Operating Condition: Unom : 120 VAC (Power on PC) , Tnom : 24.2°C
Test Site: ETS
Operator: Daren
Test Specification: V-network: ESH3-Z5 L1
Comment: model: BU-2094-J mode: active





Registration number: W6M20603-6691-P-15
FCC ID : QQGBU-2094-J

Appendix J

Pictures