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FCC TEST REPORT

FCC 47 CFR Part 15C
Industry Canada RSS-210

Digital transmission systems operating within the 2400 – 2483.5MHz band

Report Reference No. ..... :	G0M-1111-1506-TFC247W-V01
Testing Laboratory ..... :	Eurofins Product Service GmbH
Address ..... :	Storkower Str. 38c 15526 Reichenwalde Germany
Accreditation ..... :	A2LA Accredited Testing Laboratory, Certificate No.: 1983.01 FCC Filed Test Laboratory, Reg.-No.: 96970 IC OATS Filing assigned code: 3470A
Applicant's name ..... :	lesswire AG
Address ..... :	Rudower Chaussee 30 12489 Berlin GERMANY
Test specification:	
Standard..... :	47 CFR Part 15C RSS-210, Issue 8, 2010-12 RSS-Gen, Issue 3, 2010-12 ANSI C63.4:2009
Equipment under test (EUT):	
Product description	WLAN/Bluetooth Module
Model No.	AN00K73535 / AN00K77421
Hardware version	2.3
Firmware / Software version	Test FW 10.0.3.63
	FCC-ID: PV7-WIBEAR-SF-UAP IC: 7738A-WIBEARSFUAP
Test result	**Passed**

Possible test case verdicts:	
- neither assessed nor tested ..... :	N/N
- required by standard but not appl. to test object ..... :	N/A
- required by standard but not tested ..... :	N/T
- not required by standard for the test object ..... :	N/R
- test object does meet the requirement ..... :	P (Pass)
- test object does not meet the requirement ..... :	F (Fail)

Testing:

Date of receipt of test item ..... :	2011-11-21
Date (s) of performance of tests ..... :	2011-12-01 - 2011-12-05
Compiled by ..... :	Christian Weber
Tested by (+ signature) ..... :	Wilfried Treffke
Approved by (+ signature) ..... :	Jens Zimmermann
Date of issue ..... :	2012-04-16
Total number of pages ..... :	127

General remarks:

The test results presented in this report relate only to the object tested.

The results contained in this report reflect the results for this particular model and serial number. It is the responsibility of the manufacturer to ensure that all production models meet the intent of the requirements detailed within this report.

Additional comments:

Class II permissive change tests are performed to show compliance of the modular transmitter with the FCC rules taking into account the changes stated in the class II permissive change letter.

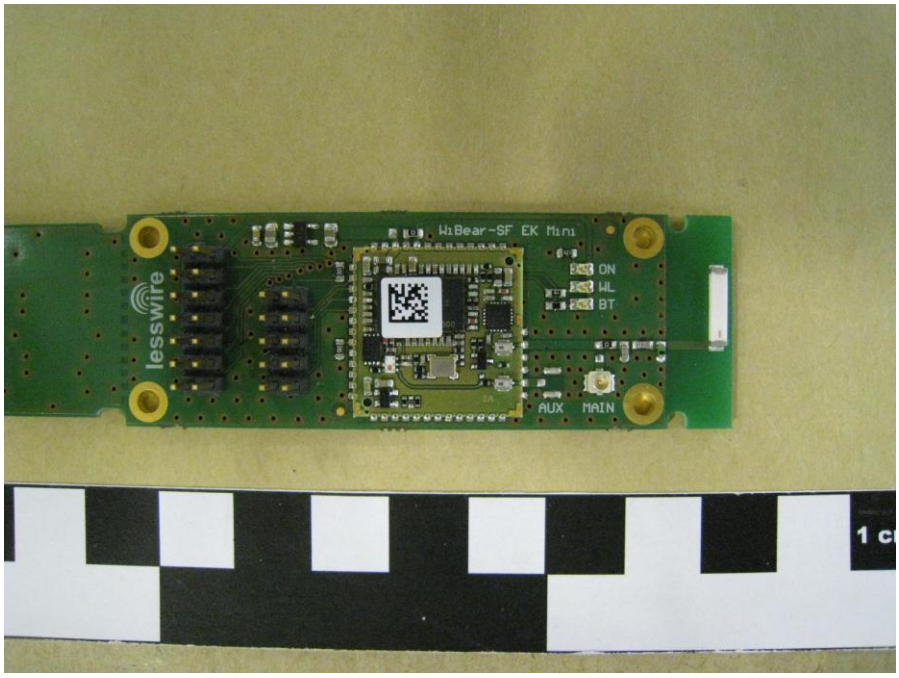
REPORT INDEX

1 Equipment (Test item) Description:

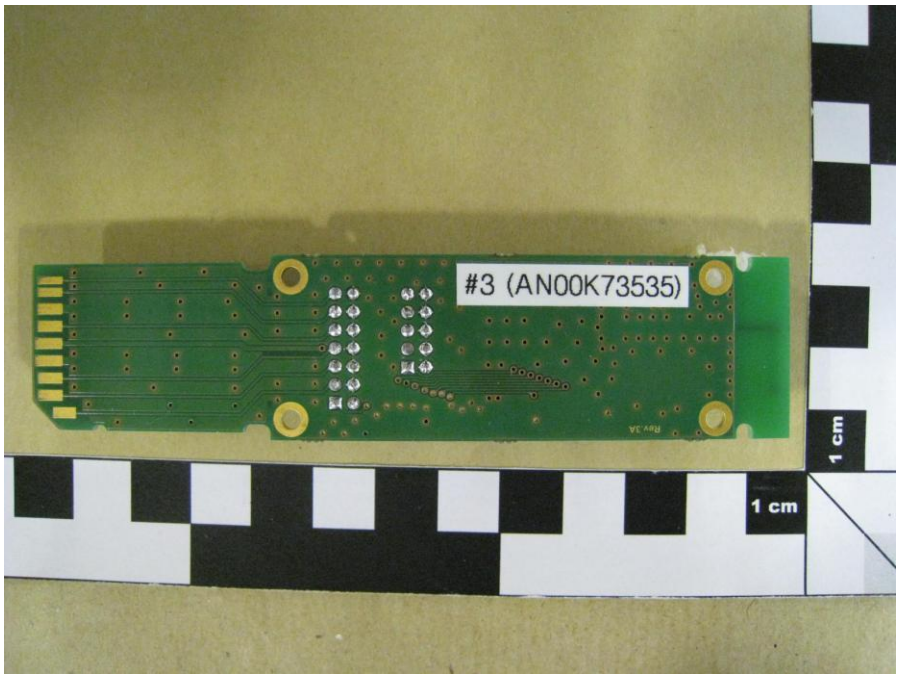
Description	WLAN/Bluetooth Module	
Model	AN00K73535 / AN00K77421	
Brand Name	Wibear-SF2	
Serial number	None	
Hardware version	2.3	
Software / Firmware version	Test FW 10.0.3.63	
FCC-ID	PV7-WIBEAR-SF-UAP	
IC	7738A-WIBEARSFUAP	
Equipment type	Radio module	
Radio type	Transceiver	
Radio technology	IEEE 802.11b/g Wireless LAN	
Operating frequency range	2412 - 2462MHz	
Assigned frequency band	2400 - 2483.5MHz	
Main test frequencies	F_{LOW}	2412MHz
	F_{MID}	2437MHz
	F_{HIGH}	2462MHz
Spreading	CCK, DSSS, OFDM	
Modulations	BPSK, QPSK, 16-QAM, 64-QAM	
Number of channels	11	
Channel spacing	5MHz	
Number of antennas	1	
Antenna 1	Type	external dedicated Half wave dipole, RF-SMA connector
	Model	WiMo 17010.10REV
	Manufacturer	WiMo
	Gain	3.14dBi
Antenna 2	Type	integrated Ceramic chip antenna, soldered into the PCB
	Model	7488910245
	Manufacturer	Würth Elektronik
	Gain	3.0dBi
Manufacturer	PRETTL Electronics AG Robert-Bosch-Straße 10 01454 Radeberg GERMANY	
Power supply	V_{NOM}	3.3VDC
	V_{MIN}	-
	V_{MIN}	-

1.1 Photos – Equipment

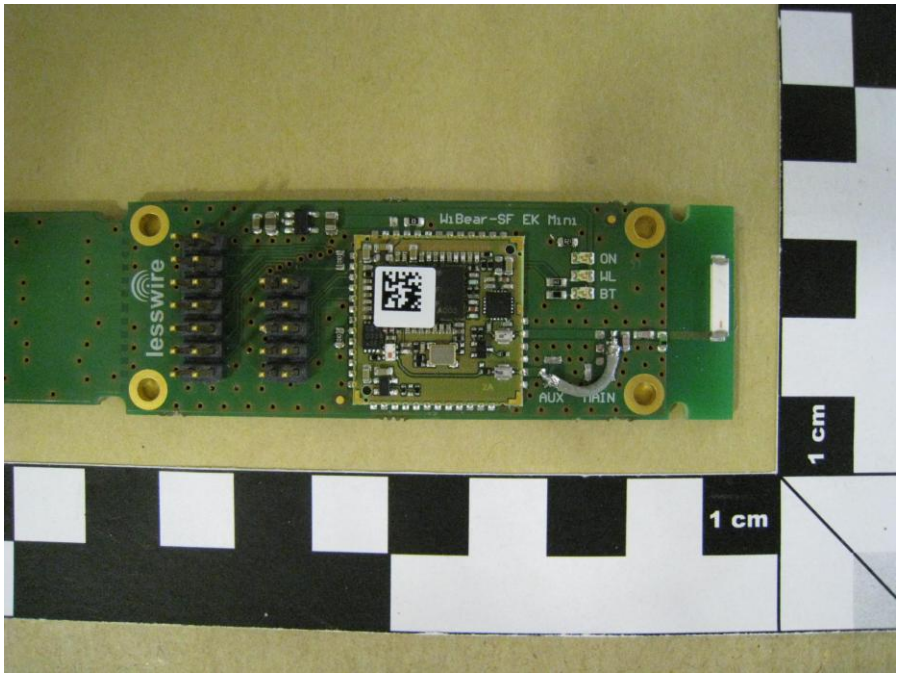
EUT (AN00K73535) TOP



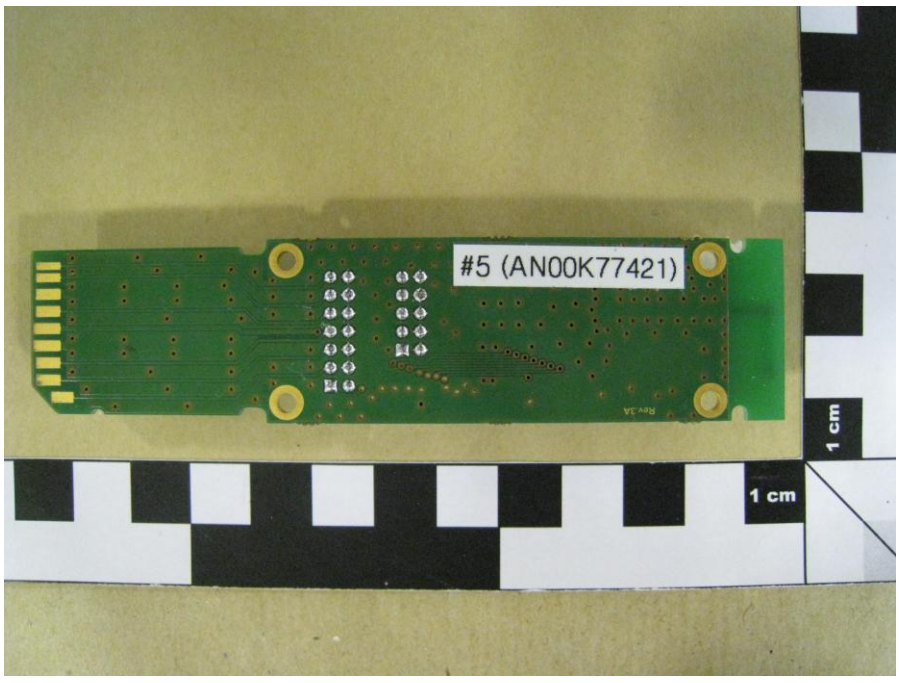
EUT (AN00K73535) BOTTOM



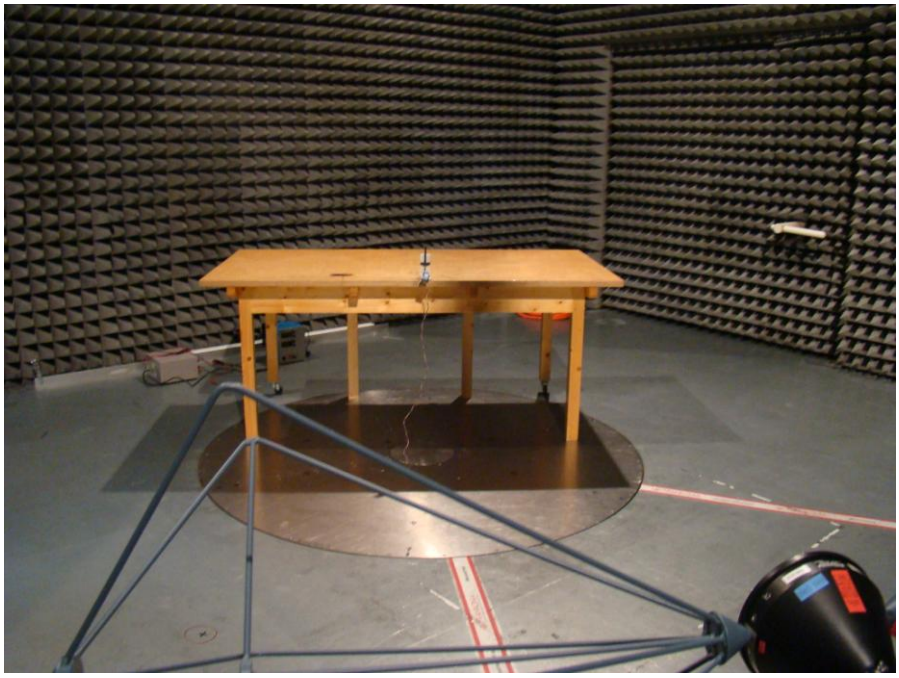
EUT (AN00K77421) TOP



EUT (AN00K77421) BOTTOM



1.2 Photos – Test setup

RADIATED MEASUREMENTS


1.3 Supporting Equipment Used During Testing

Product Type*	Device	Manufacturer	Model No.	Comments
none				

***Note:** Use the following abbreviations:

AE : Auxiliary/Associated Equipment, or

SIM : Simulator (Not Subjected to Test)

CABL : Connecting cables

1.4 Test Modes

Mode #	Description	
DSSS	General conditions:	EUT powered by laboratory power supply.
	Radio conditions:	Mode = standalone transmit Spreading = Direct Sequence Spread Spectrum Modulation = BPSK Data rate = 1Mbps Bandwidth = 20MHz Duty cycle = 100% Power level = Maximum
OFDM	General conditions:	EUT powered by laboratory power supply.
	Radio conditions:	Mode = standalone transmit Spreading = Multi-Carrier Operation Modulation = QPSK Data rate = 6Mbps Bandwidth = 20MHz Duty cycle = 100% Power level = Maximum
Receive	General conditions:	EUT powered by laboratory power supply.
	Radio conditions:	Mode = standalone receive Spreading = DSSS / OFDM

1.5 Test Equipment Used During Testing

Occupied Bandwidth					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSP 30	Inv. No. 0496	Aug 10	Aug 12

Maximum peak conducted power					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSP 30	Inv. No. 0496	Aug 10	Aug 12

Band edge compliance					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSP 30	Inv. No. 0496	Aug 10	Aug 12

Conducted spurious emissions					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Spectrum Analyzer	R&S	FSP 30	Inv. No. 0496	Aug 10	Aug 12

Radiated spurious emissions					
Description	Manufacturer	Model	Identifier	Cal. Date	Cal. Due
Semi-anechoic chamber	Frankonia	AC 5	Inv. No. 0583		
Spectrum Analyzer	R&S	FSIQ26	Inv. No. 0413	Apr. 11	Apr. 12
Biconical Antenna	R&S	HK 116	Inv. No. 0012	Jan 10	Jan 13
LPD Antenna	R&S	HL 223	Inv. No. 0295	Feb 11	Feb 13
LPD Antenna	R&S	HL 025	Inv. No. 0512	Feb 10	Feb 13

1.6 Sample emission level calculation

The following is a description of terms and a sample calculation, as appears in the radiated emissions data table. The numbers used in the calculation are for example only. There is no direct correlation to the specific data taken for the product described in this document:

Reading:

This is the reading obtained on the spectrum analyzer in dBµV. Any external preamplifiers used are taken into account through internal analyzer settings.

A.F.:

This is the antenna factor for the receiving antenna. It is a conversion factor, which converts electric fields strengths to voltages, which can be measured directly on the spectrum analyzer. It is treated as a loss in dB. Cable losses have been included with the A.F. to simplify the calculations. The antenna factor is used in calculations as follows:

Reading on Analyzer (dBµV) + A.F. (dB) = Net field strength (dBµV/m)

Net:

This is the net field strength measurement (as shown above).

Limit:

This is the FCC Class B radiated emission limit (in units of dBµV/m). The FCC limits are given in units of µV/m. The following formula is used to convert the units of µV/m to dBµV/m:

Limit (dBµV/m) = 20*log (µV/m)

Margin:

This is the margin of compliance below the FCC limit. The units are given in dB. A negative margin indicates the emission was below the limit. A positive margin indicates that the emission exceeds the limit.

Example only:

Reading	+	AF	=	Net Reading	:	Net reading - FCC limit	= Margin
21.5 dBµV	+	26 dB	=	47.5 dBµV/m	:	47.5 dBµV/m - 57.0 dBµV/m	= -9.5 dB

2 Result Summary

FCC 47 CFR Part 15C, IC RSS-210				
Product Specific Standard Section	**Requirement – Test**	**Reference Method**	**Result**	**Remarks**
RSS-Gen 4.6.1	Occupied Bandwidth	RSS-Gen 4.6.1	N/A	Informational only
FCC § 15.247(a)(2) IC RSS-210 § A8.2	6dB Bandwidth	KDB Publication No. 558074	N/A	Not included in Class II permission change
FCC § 15.247(b)(3) IC RSS-210 § A8.4	Maximum peak conducted power	KDB Publication No. 558074	PASS	
FCC § 15.247(e) IC RSS-210 § A8.2	Power spectral density	KDB Publication No. 558074	N/A	Not included in Class II permission change
47 CFR 15.207 RSS-Gen 7.2.4	AC power line conducted emissions	KDB Publication No. 558074 / ANSI C63.4	N/A	Not included in Class II permission change
FCC § 15.247(d) IC RSS-210 § A8.5	Band edge compliance	KDB Publication No. 558074	PASS	
FCC § 15.247(d) IC RSS-210 § A8.5	Conducted spurious emissions	KDB Publication No. 558074	PASS	
FCC § 15.247(d) FCC § 15.209 IC RSS-210 A8.5 IC RSS-Gen 4.9 IC RSS-Gen 7.2.5	Transmitter radiated spurious emissions	KDB Publication No. 558074 / ANSI C 63.4	PASS	
IC RSS-Gen 4.10 IC RSS-Gen 6.1	Receiver radiated spurious emissions	ANSI C 63.4	PASS	
Remarks:				

3 Test Conditions and Results

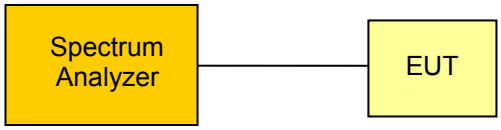
3.1 Test Conditions and Results – Occupied Bandwidth

Occupied Bandwidth acc. IC RSS-Gen	**Verdict: PASS**
Test according to measurement reference	Reference Method
	RSS-Gen 4.6.1
Test frequency range	Tested frequencies
	F_{LOW} / F_{MID} / F_{HIGH}

Limits

None (Informational only)

Test setup



Test procedure

1. EUT set to test mode (Communication tester is used if needed)
2. Span set to at least twice the emission spectrum
3. Resolution bandwidth set to 1% of span
4. Occupied Bandwidth (99%) measurement with spectrum analyzer built in measurement function

Test results

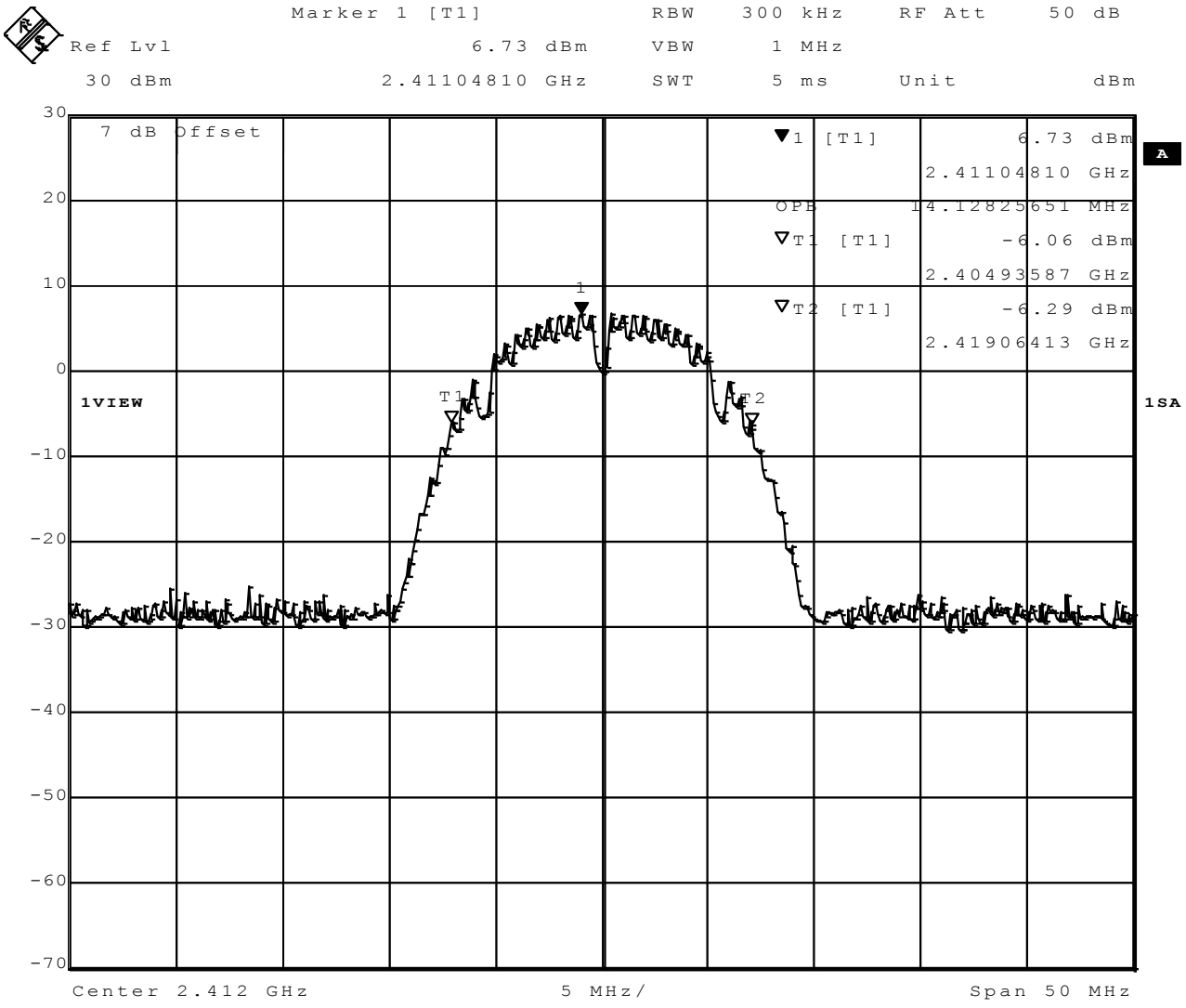
Channel	Frequency [MHz]	Mode	Occupied Bandwidth [MHz]
F_{LOW}	2412	DSSS	14.128
F_{MID}	2437	DSSS	14.028
F_{HIGH}	2462	DSSS	14.028
F_{LOW}	2412	OFDM	17.134
F_{MID}	2437	OFDM	17.034
F_{HIGH}	2462	OFDM	17.134

Comments:

Occupied Bandwidth – DSSS F_{LOW}

RSS Gen
Occupied Bandwidth

EUT	WLAN/Bluetooth Module / WiBear SF2 UAP
Model	AN00K73535 #3
Approval Holder	lesswire AG / Ord.: G0M-1111-1506
Temperature / Voltage	25°C, Vnom
Test Site / Operator	Eurofins Product Service GmbH, Mr. Treffke
Test Specification	4.4.1 Occupied Bandwidth
Comment 1	Channel.: 2412 MHz
Comment 2	A spectrum analyzer with an integrated 99% power bandwidth function is used
Comment 3	DSSS / 1 Mbit/s, power level 16

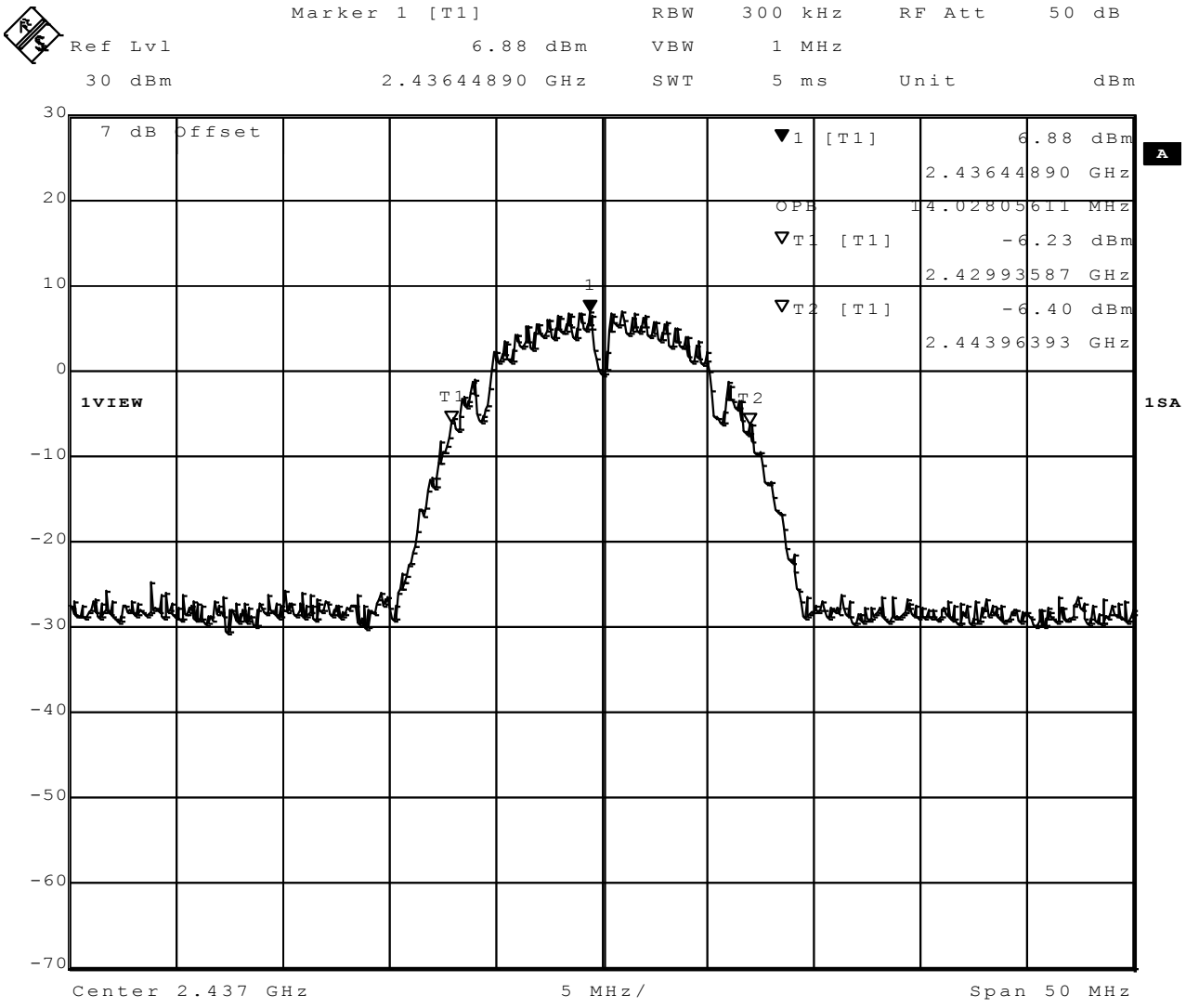


Comment A: Occupied bandwidth: 14128.3 KHz
Date: 5.DEC.2011 13:31:55

Occupied Bandwidth – DSSS F_{MID}

RSS Gen
Occupied Bandwidth

EUT	WLAN/Bluetooth Module / WiBear SF2 UAP
Model	AN00K73535 #3
Approval Holder	lesswire AG / Ord.: G0M-1111-1506
Temperature / Voltage	25°C, Vnom
Test Site / Operator	Eurofins Product Service GmbH, Mr. Treffke
Test Specification	4.4.1 Occupied Bandwidth
Comment 1	Channel.: 2437 MHz
Comment 2	A spectrum analyzer with an integrated 99% power bandwidth function is used
Comment 3	DSSS / 1 Mbit/s, power level 16

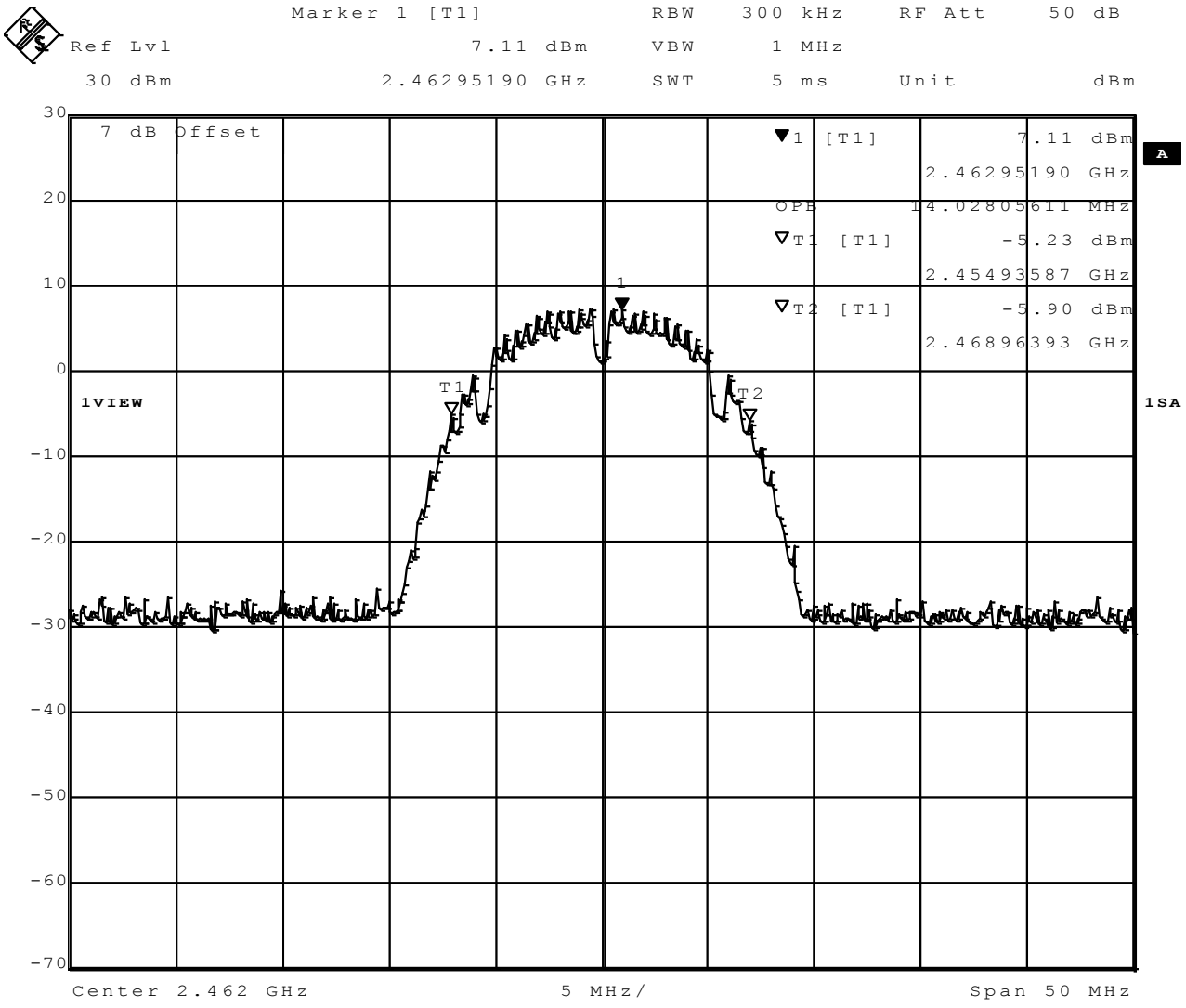


Comment A: Occupied bandwidth: 14028.1 KHz
Date: 5.DEC.2011 13:35:06

Occupied Bandwidth – DSSS F_{HIGH}

RSS Gen
Occupied Bandwidth

EUT	WLAN/Bluetooth Module / WiBear SF2 UAP
Model	AN00K73535 #3
Approval Holder	lesswire AG / Ord.: G0M-1111-1506
Temperature / Voltage	25°C, Vnom
Test Site / Operator	Eurofins Product Service GmbH, Mr. Treffke
Test Specification	4.4.1 Occupied Bandwidth
Comment 1	Channel.: 2462 MHz
Comment 2	A spectrum analyzer with an integrated 99% power bandwidth function is used
Comment 3	DSSS / 1 Mbit/s, power level 16

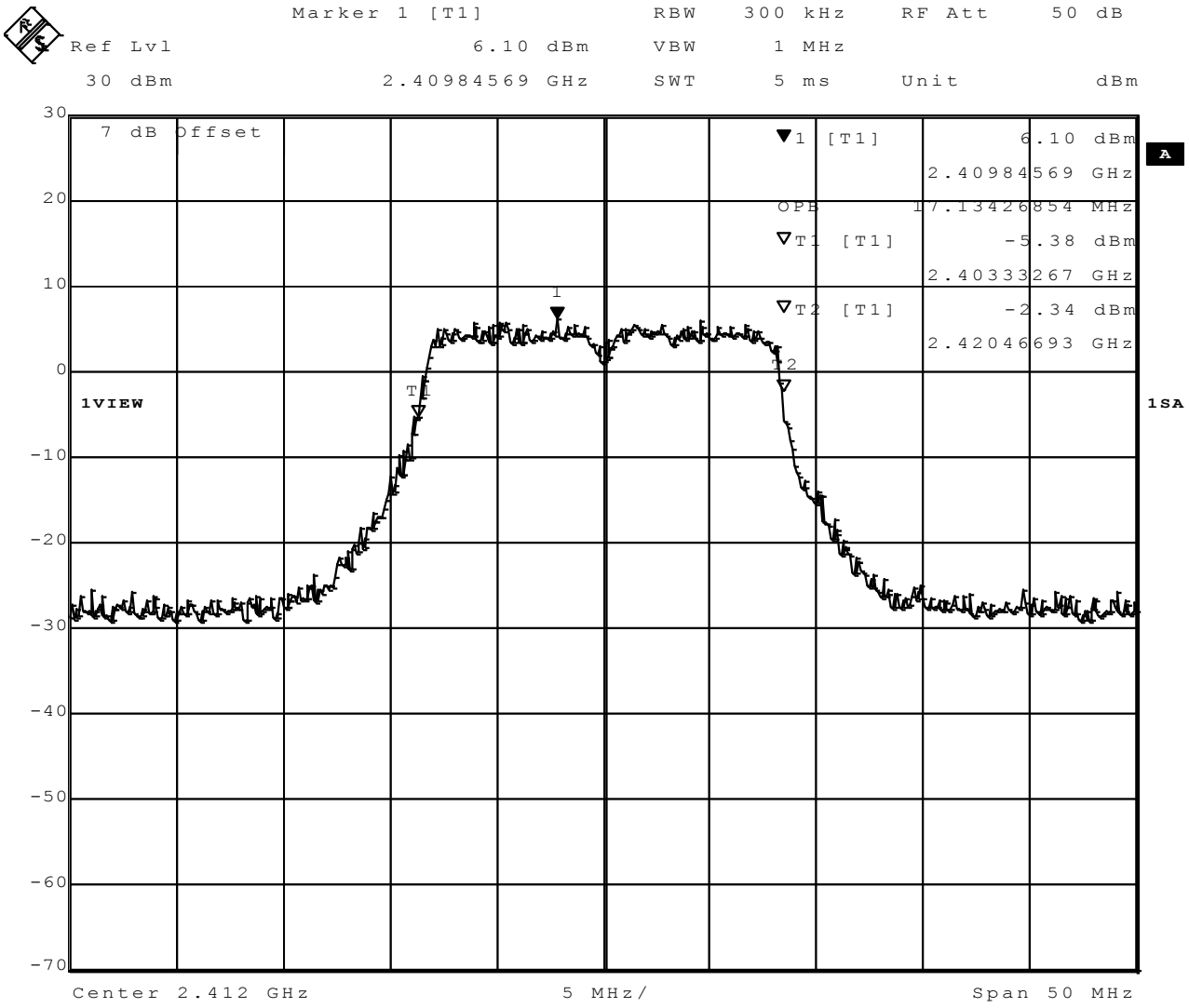


Comment A: Occupied bandwidth: 14028.1 KHz
Date: 5.DEC.2011 13:36:37

Occupied Bandwidth – OFDM F_{LOW}

RSS Gen
Occupied Bandwidth

EUT	WLAN/Bluetooth Module / WiBear SF2 UAP
Model	AN00K73535 #3
Approval Holder	lesswire AG / Ord.: G0M-1111-1506
Temperature / Voltage	25°C, Vnom
Test Site / Operator	Eurofins Product Service GmbH, Mr. Treffke
Test Specification	4.4.1 Occupied Bandwidth
Comment 1	Channel.: 2412 MHz
Comment 2	A spectrum analyzer with an integrated 99% power bandwidth function is used
Comment 3	OFDM / 6 Mbit/s, power level 15

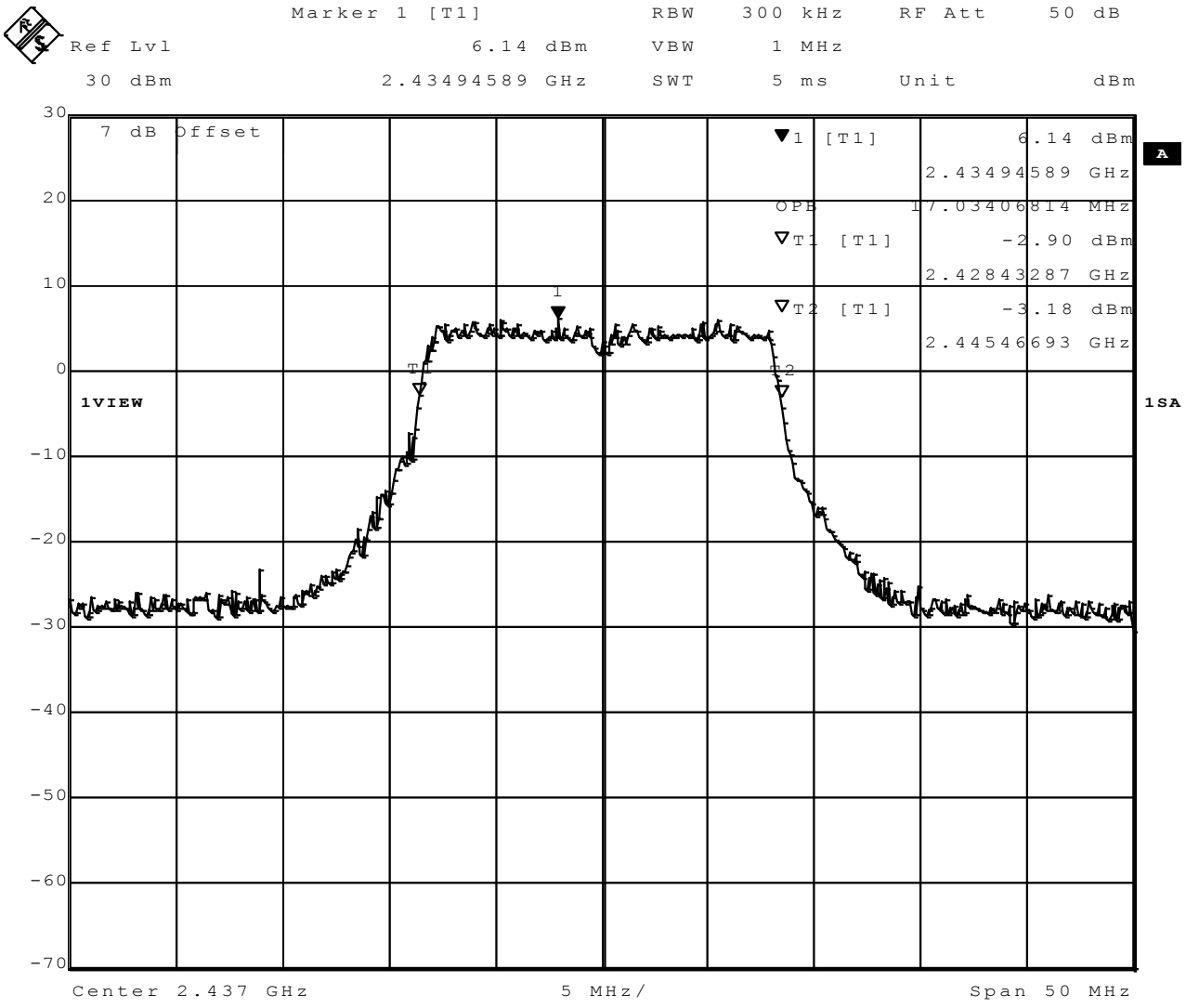


Comment A: Occupied bandwidth: 17134.3 KHz
Date: 5.DEC.2011 13:44:30

Occupied Bandwidth – OFDM F_{MID}

RSS Gen
Occupied Bandwidth

EUT	WLAN/Bluetooth Module / WiBear SF2 UAP
Model	AN00K73535 #3
Approval Holder	lesswire AG / Ord.: G0M-1111-1506
Temperature / Voltage	25°C, Vnom
Test Site / Operator	Eurofins Product Service GmbH, Mr. Treffke
Test Specification	4.4.1 Occupied Bandwidth
Comment 1	Channel.: 2437 MHz
Comment 2	A spectrum analyzer with an integrated 99% power bandwidth function is used
Comment 3	OFDM / 6 Mbit/s, power level 15

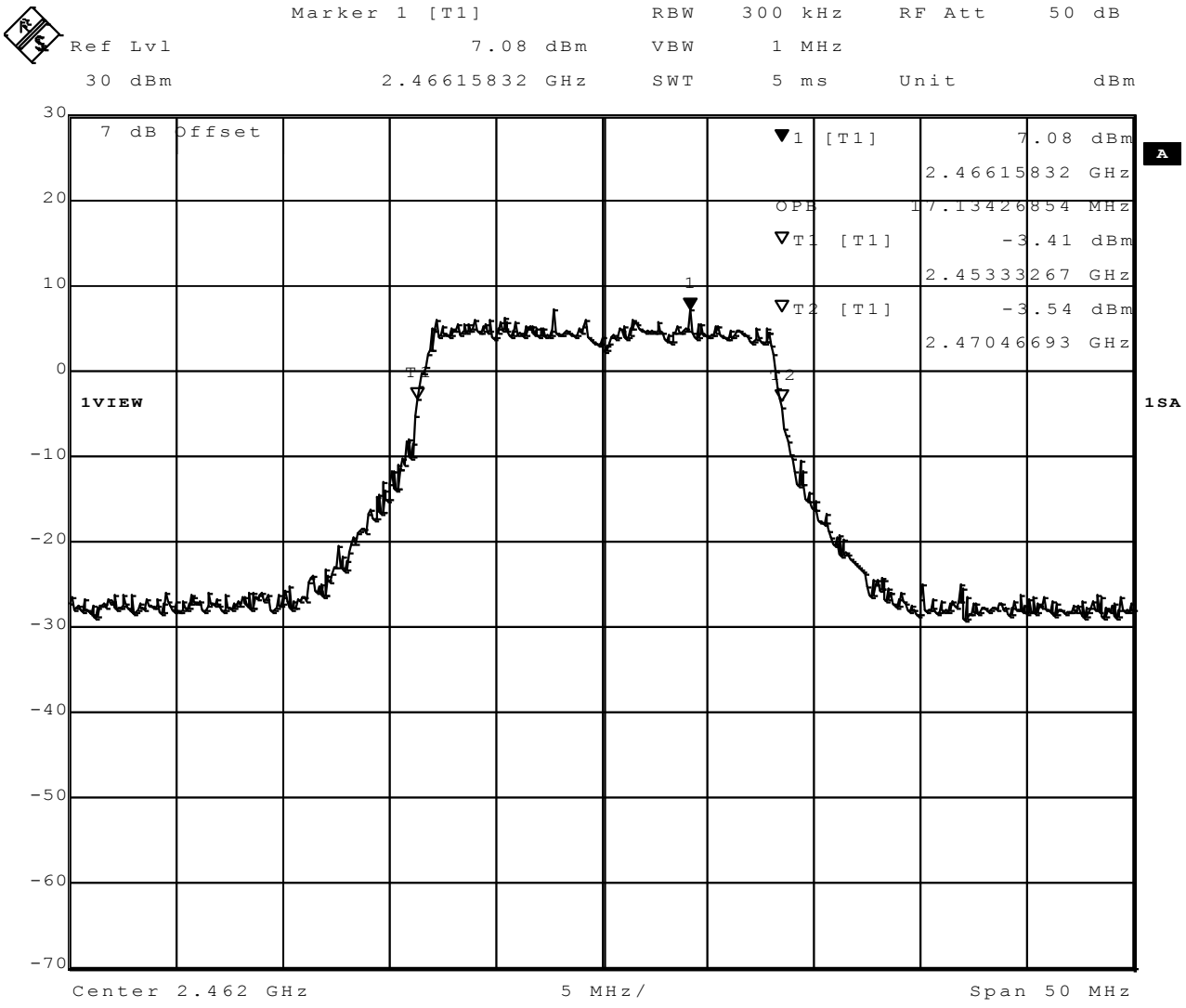


Comment A: Occupied bandwidth: 17034.1 KHz
Date: 5.DEC.2011 13:47:46

Occupied Bandwidth – OFDM FHigh

RSS Gen
Occupied Bandwidth

EUT	WLAN/Bluetooth Module / WiBear SF2 UAP
Model	AN00K73535 #3
Approval Holder	lesswire AG / Ord.: G0M-1111-1506
Temperature / Voltage	25°C, Vnom
Test Site / Operator	Eurofins Product Service GmbH, Mr. Treffke
Test Specification	4.4.1 Occupied Bandwidth
Comment 1	Channel.: 2462 MHz
Comment 2	A spectrum analyzer with an integrated 99% power bandwidth function is used
Comment 3	OFDM / 6 Mbit/s, power level 15



Comment A: Occupied bandwidth: 17134.3 KHz
Date: 5.DEC.2011 13:49:31

3.2 Test Conditions and Results – Maximum peak conducted power

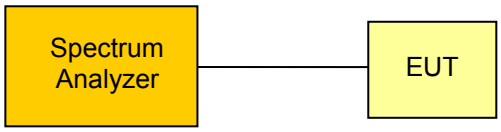
Maximum peak conducted power acc. FCC 15.247 / IC RSS-210	**Verdict: PASS**
EUT requirement rule parts and clause	Reference
	FCC 15.247(b)(3) / IC RSS-210 A8.4
Test according to measurement reference	Reference Method
	FCC KDB Publication No. 558074
Test frequency range	Tested frequencies
	F_{LOW} / F_{MID} / F_{HIGH}
Measurement mode	Peak
Maximum antenna gain	3.14dBi ⇒ Limit correction = 0dB

Limits

Limit	Condition
1W (30dBm)	Number of hopping channels ≥ 75
0.125W (21dBm)	75 > Number of hopping channels ≥ 15

The conducted output power limit specified above is based on the use of antennas with directional gains that do not exceed 6dBi. If transmitting antennas of directional gain greater than 6dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in the table, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6dBi.

Test setup



Test procedure

1. EUT set to test mode (Communication tester is used if needed)
2. Center frequency set to test channel center frequency
3. Span set to twice the 20dB bandwidth and detector to peak and max hold
4. Resolution bandwidth is set to 3MHz
5. Peak conducted power is determined from peak of spectrum envelope

Test results								
Channel	Frequency [MHz]	Voltage	Mode	Peak power [dbm]	Peak power [W]	Limit [dBm]	Margin [dB]	Result
F_{LOW}	2412	3.3VDC	DSSS	17.3	0.054	30	-12.70	PASS
F_{MID}	2437	3.3VDC	DSSS	17.1	0.051	30	-12.90	PASS
F_{HIGH}	2462	3.3VDC	DSSS	17.1	0.051	30	-12.90	PASS
F_{LOW}	2412	3.3VDC	OFDM	19.8	0.096	30	-10.20	PASS
F_{MID}	2437	3.3VDC	OFDM	19.8	0.096	30	-10.20	PASS
F_{HIGH}	2462	3.3VDC	OFDM	19.9	0.098	30	-10.10	PASS
Comments:								

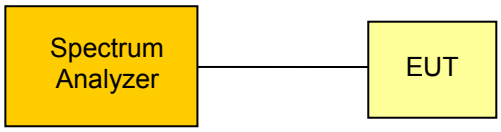
3.3 Test Conditions and Results – Band edge compliance

Band-edge compliance acc. FCC 15.247 / IC RSS-210	**Verdict: PASS**
EUT requirement rule parts and clause	Reference
	FCC 15.247(d) / IC RSS-210 A8.5
Test according to measurement reference	Reference Method
	FCC KDB Publication No. 558074
Test frequency range	Tested frequencies
	F_{LOW} / F_{MID} / F_{HIGH}
Measurement mode	Peak

Limits

Limit	Condition
≤ -20dB/100kHz	Peak power measurement detector = Peak
≤ -30dB/100kHz	Peak power measurement detector = RMS

Test setup



Test procedure

1. EUT set to test mode (Communication tester is used if needed)
2. Span set around lower band edge and detector is set to peak and max hold
3. Resolution bandwidth is set to 100kHz
4. Markers are set to peak emission levels within frequency band and outside frequency band
5. Band edge attenuation is determined from level difference

Test results

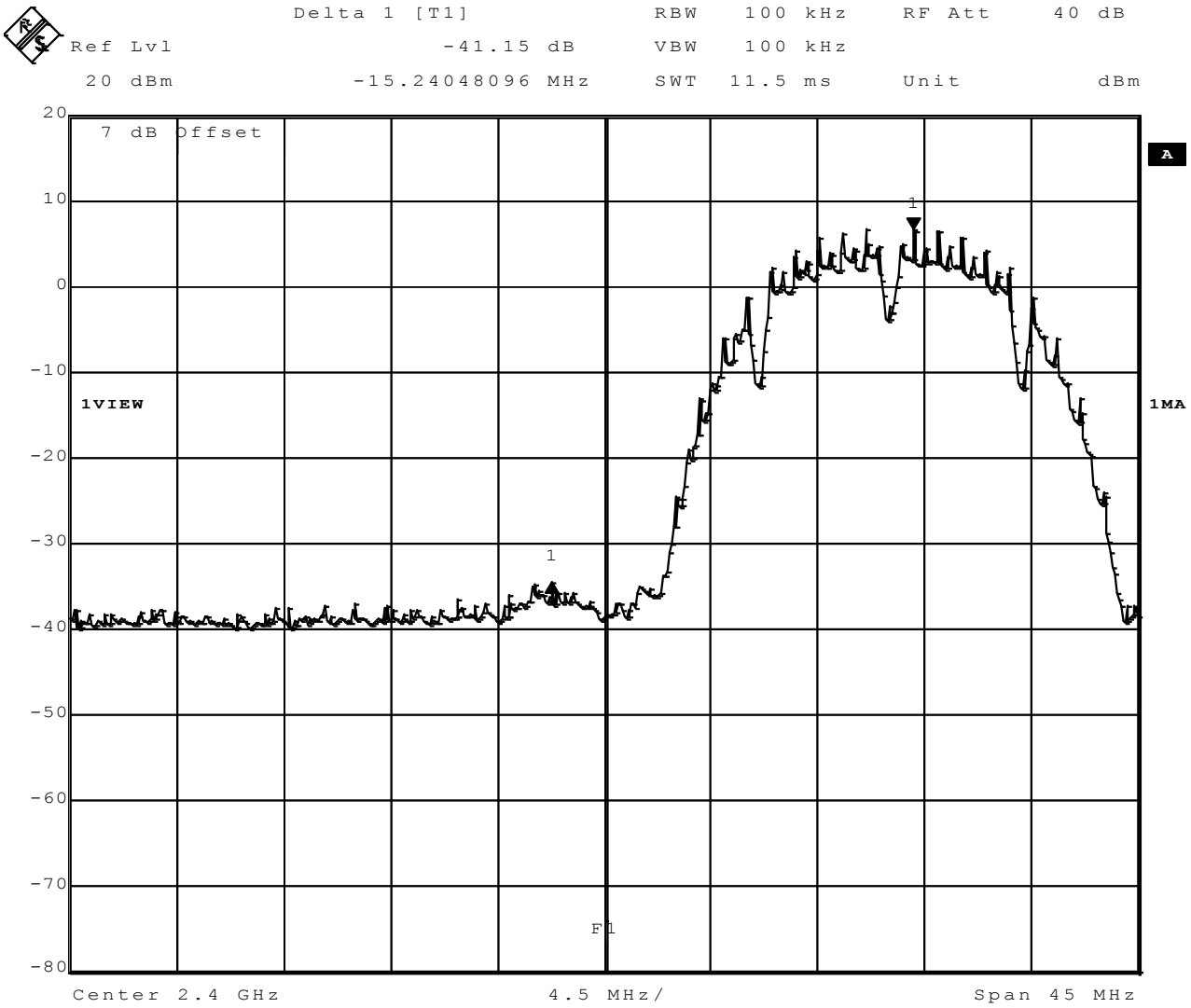
Channel	Frequency [MHz]	Mode	Level [dBc]	Limit [dBc]	Margin [dB]	Result
F_{LOW}	2412	DSSS	-41.15	-20	-21.15	PASS
F_{HIGH}	2462	DSSS	-45.70	-20	-25.70	PASS
F_{LOW}	2412	OFDM	-32.70	-20	-12.70	PASS
F_{HIGH}	2462	OFDM	-39.60	-20	-19.60	PASS

Comments:

Band-edge compliance – DSSS F_{LOW}

FCC part 15.247
Band-edge compliance of RF conducted emissions

EUT	WLAN/Bluetooth Module / WiBear SF2 UAP
Model	AN00K73535 #3
Approval Holder	lesswire AG / Ord.: G0M-1111-1506
Temperature / Voltage	25°C, Vnom
Test Site / Operator	Eurofins Product Service GmbH, Mr. Treffke
Test Specification	FCC part 15 section 247(c)
Comment 1	Band-edge compliance
Comment 2	Channel.: 2412 MHz
Comment 3	DSSS, 1Mbit/s, power level 16

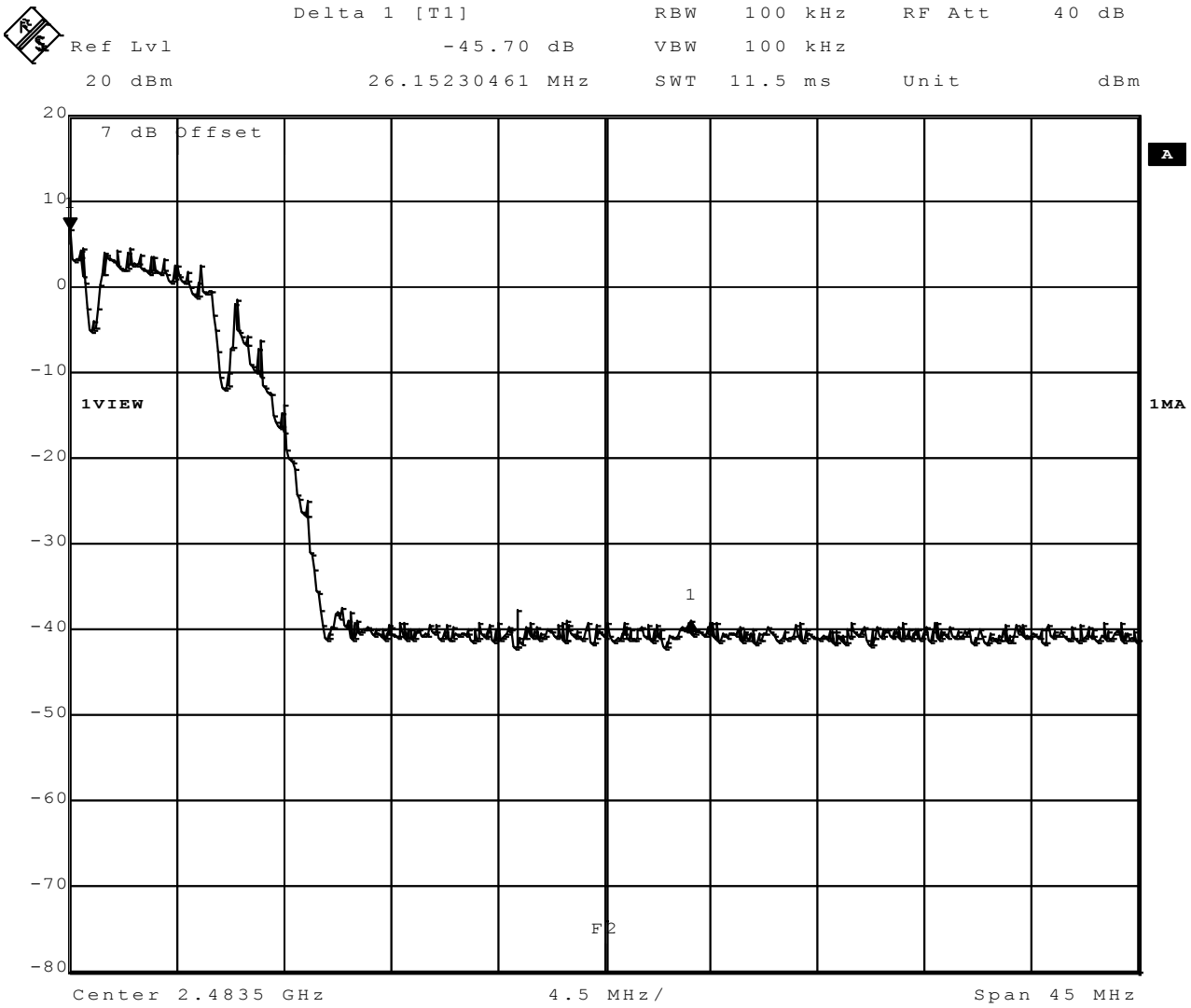


Comment A: Limit: Marker Delta value >20 dB; Result: PASS
Date: 5.DEC.2011 13:12:02

Band-edge compliance – DSSS F_{HIGH}

FCC part 15.247
Band-edge compliance of RF conducted emissions

EUT	WLAN/Bluetooth Module / WiBear SF2 UAP
Model	AN00K73535 #3
Approval Holder	lesswire AG / Ord.: G0M-1111-1506
Temperature / Voltage	25°C, Vnom
Test Site / Operator	Eurofins Product Service GmbH, Mr. Treffke
Test Specification	FCC part 15 section 247(c)
Comment 1	Band-edge compliance
Comment 2	Channel.: 2462 MHz
Comment 3	DSSS, 1Mbit/s, power level 16

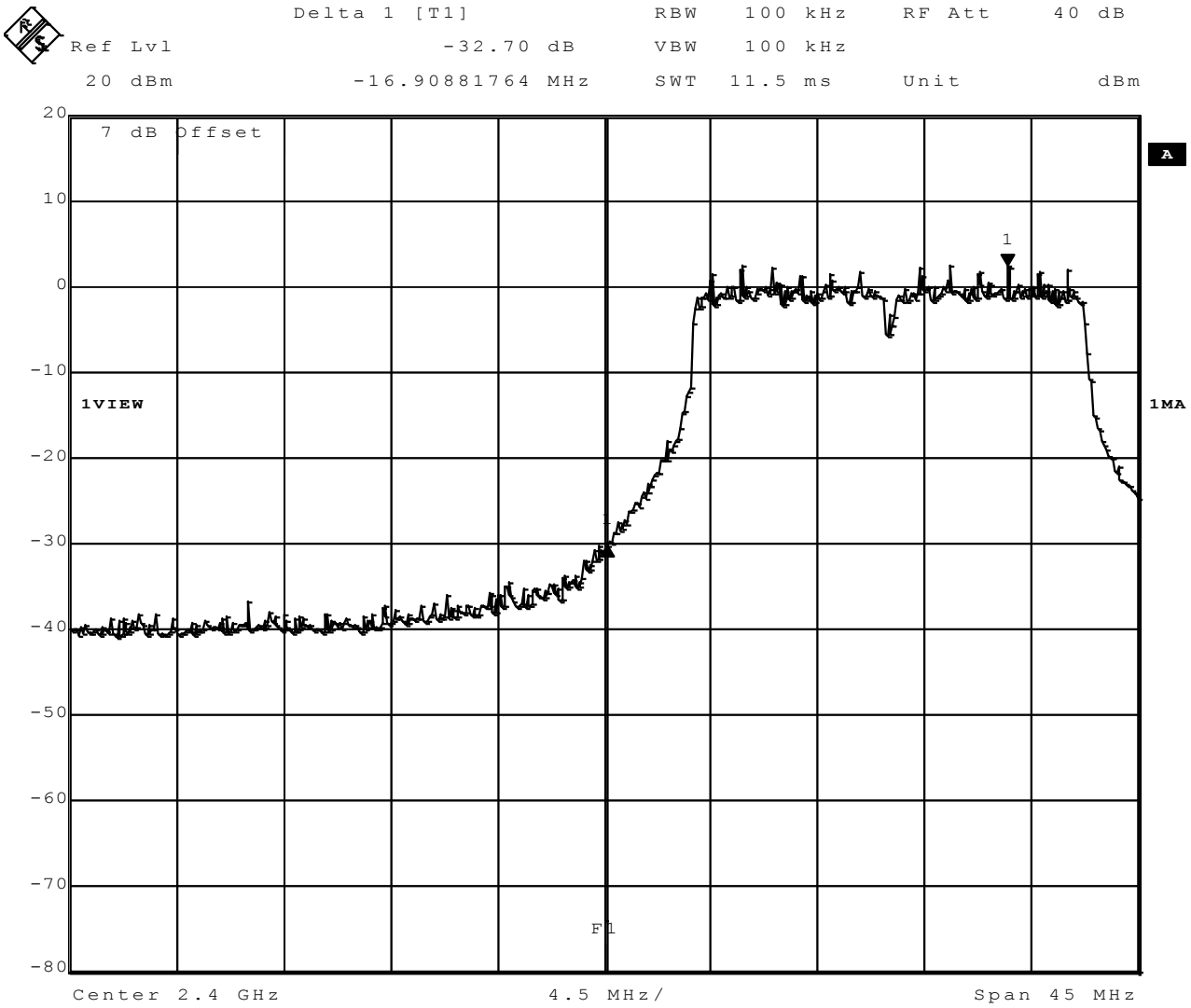


Comment A: Limit: Marker Delta value >20 dB; Result: PASS
Date: 5.DEC.2011 13:24:55

Band-edge compliance – OFDM F_{Low}

FCC part 15.247
Band-edge compliance of RF conducted emissions

EUT	WLAN/Bluetooth Module / WiBear SF2 UAP
Model	AN00K73535 #3
Approval Holder	lesswire AG / Ord.: G0M-1111-1506
Temperature / Voltage	25°C, Vnom
Test Site / Operator	Eurofins Product Service GmbH, Mr. Treffke
Test Specification	FCC part 15 section 247(c)
Comment 1	Band-edge compliance
Comment 2	Channel.: 2412 MHz
Comment 3	OFDM, 6Mbit/s, power level 15

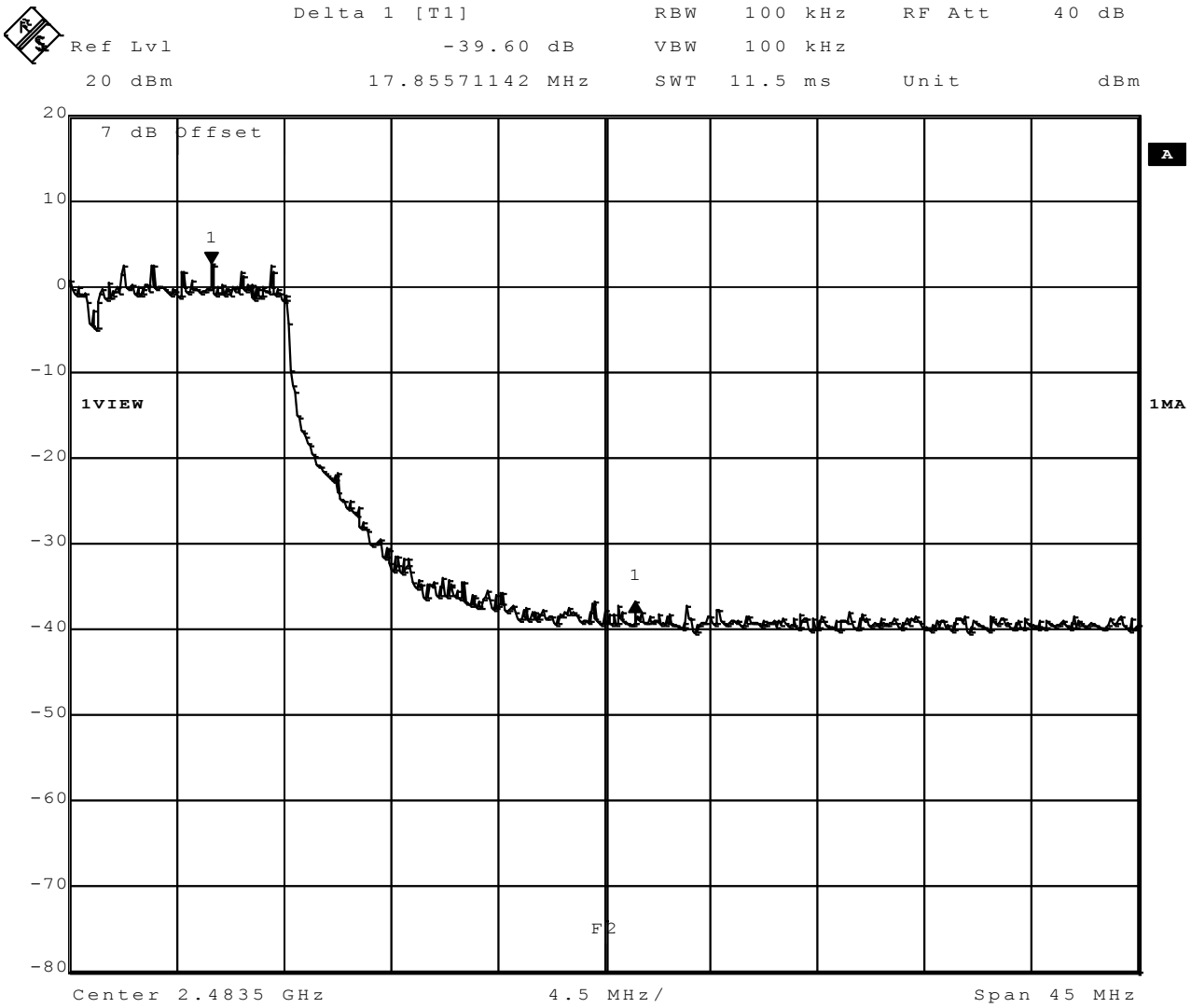


Comment A: Limit: Marker Delta value >20 dB; Result: PASS
Date: 5.DEC.2011 13:06:35

Band-edge compliance – OFDM F_{HIGH}

FCC part 15.247
Band-edge compliance of RF conducted emissions

EUT	WLAN/Bluetooth Module / WiBear SF2 UAP
Model	AN00K73535 #3
Approval Holder	lesswire AG / Ord.: G0M-1111-1506
Temperature / Voltage	25°C, Vnom
Test Site / Operator	Eurofins Product Service GmbH, Mr. Treffke
Test Specification	FCC part 15 section 247(c)
Comment 1	Band-edge compliance
Comment 2	Channel.: 2462 MHz
Comment 3	OFDM, 6Mbit/s, power level 15



Comment A: Limit: Marker Delta value >20 dB; Result: PASS
Date: 5.DEC.2011 12:55:24

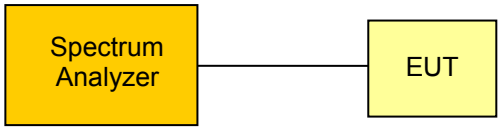
3.4 Test Conditions and Results – Conducted spurious emissions

Conducted spurious emissions acc. FCC 15.247 / IC RSS-210	**Verdict: PASS**
EUT requirement rule parts and clause	Reference
	FCC 15.247(d) / IC RSS-210 A8.5
Test according to measurement reference	Reference Method
	FCC KDB Publication No. 558074
Test frequency range	Tested frequencies
	10MHz – 10th Harmonic
Measurement mode	Peak

Limits

Limit	Condition
≤ -20dB/100kHz	Peak power measurement detector = Peak
≤ -30dB/100kHz	Peak power measurement detector = RMS

Test setup



Test procedure

1. EUT set to test mode (Communication tester is used if needed)
2. Span it set according to measurement range
3. Resolution bandwidth is set to 100kHz and detector to peak and max hold
4. Markers are set to peak emission levels within frequency band
5. Emission level is determined by second marker on emission peak
6. Attenuation is determined from level difference

Test results

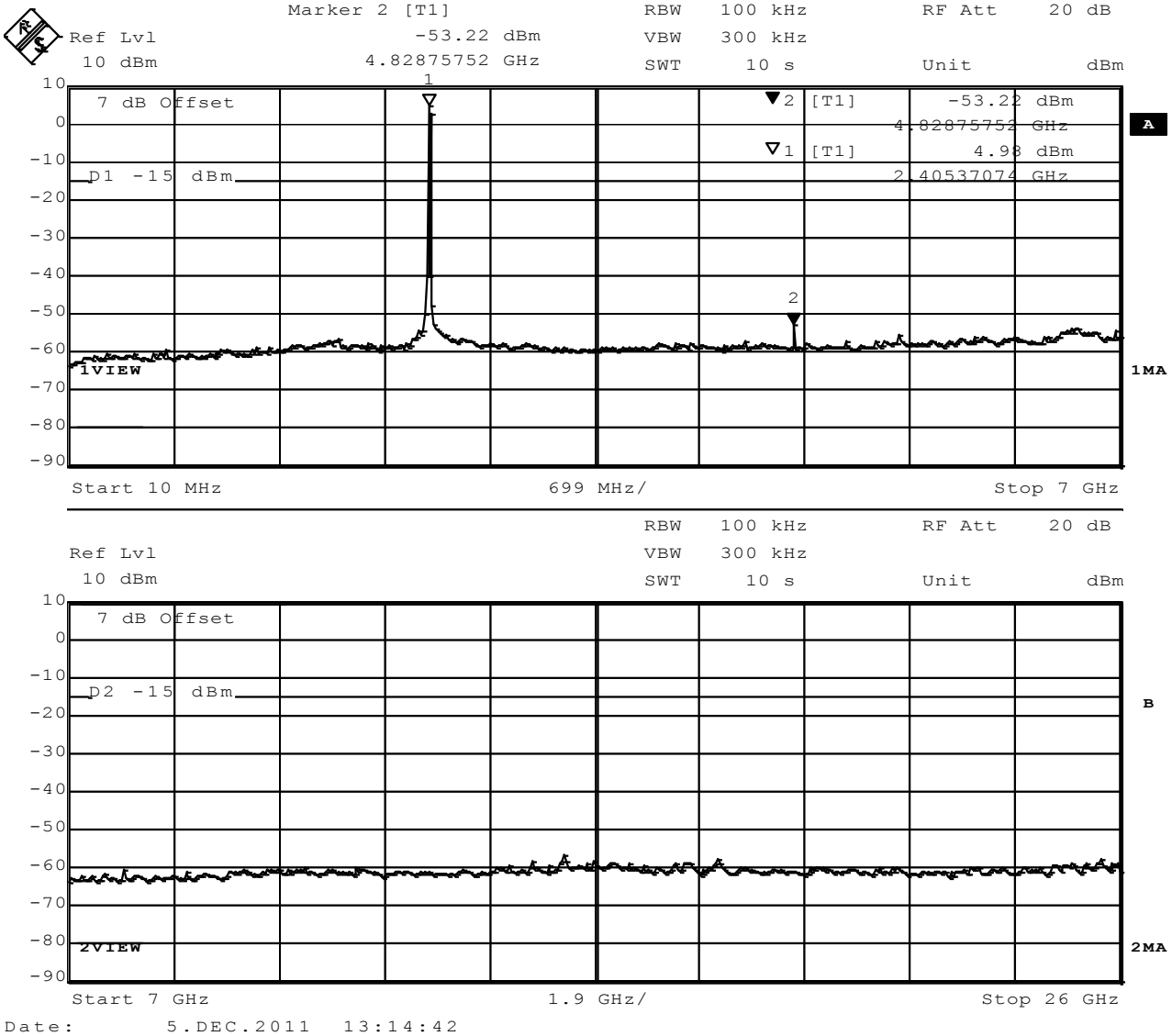
Channel	Frequency [MHz]	Mode	Emission [MHz]	Emission Level [dbm]	Peak power [dBm]	Limit [dBm]	Margin [dB]	Result
F_{LOW}	2412	DSSS	4828	-53.22	4.98	-15.02	-38.20	PASS
F_{HIGH}	2462	DSSS	4926	-56.32	5.20	-14.80	-41.52	PASS

Comments:

Conducted spurious emissions – DSSS F_{LOW}

FCC part 15.247 (d)
Spurious Emissions

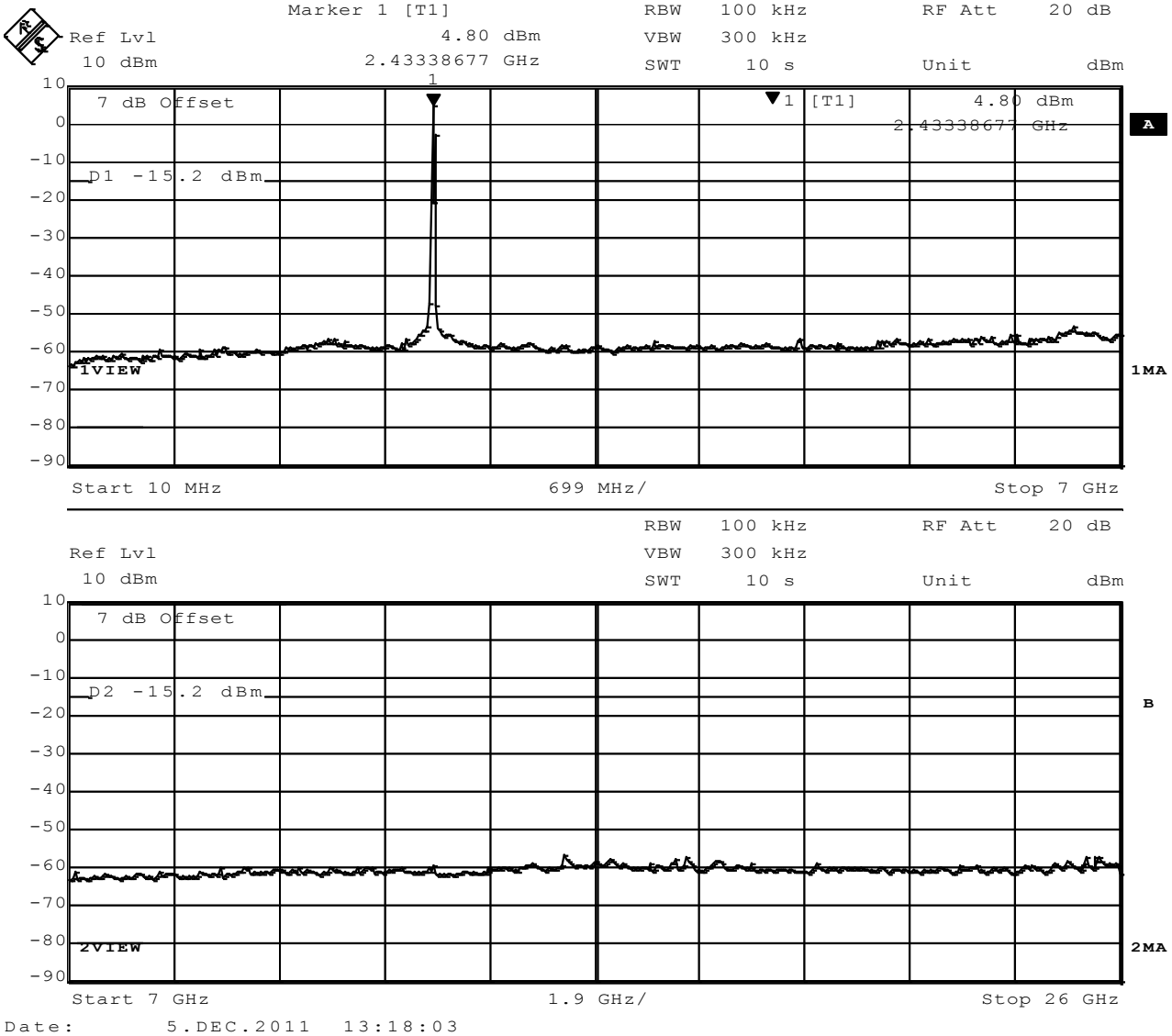
EUT	WLAN/Bluetooth Module / WiBear SF2 UAP
Model	AN00K73535 #3
Approval Holder	lesswire AG / Ord.: G0M-1111-1506
Temperature / Voltage	25°C, Vnom
Test Site / Operator	Eurofins Product Service GmbH, Mr. Treffke
Test Specification	FCC part 15.247 (d)
Comment 1	Spurious Emissions conducted
Comment 2	Channel : 2412 MHz
Comment 3	DSSS / 1 MBit/s / power level 16



Conducted spurious emissions – DSSS F_{MID}

FCC part 15.247 (d)
Spurious Emissions

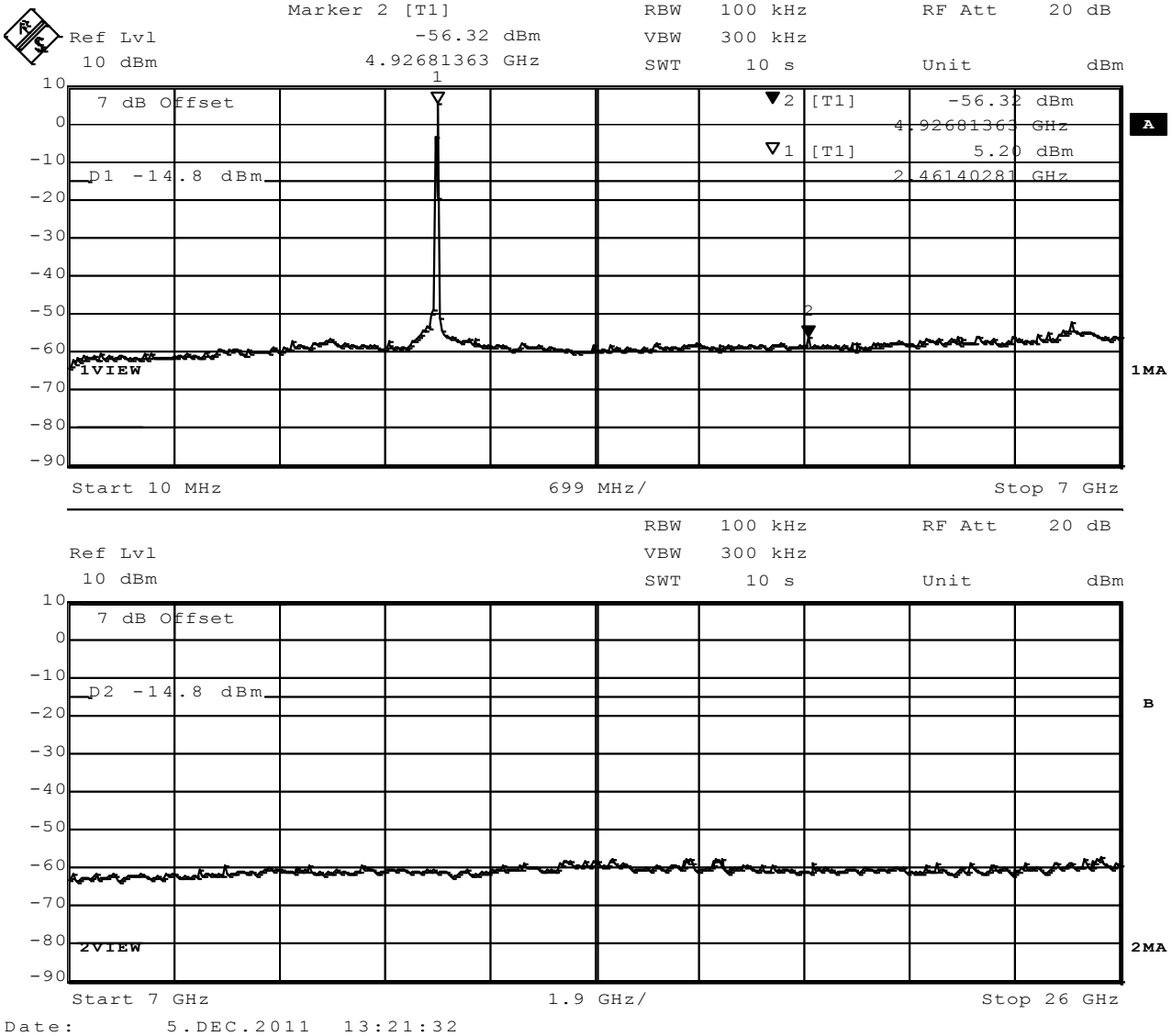
EUT	WLAN/Bluetooth Module / WiBear SF2 UAP
Model	AN00K73535 #3
Approval Holder	lesswire AG / Ord.: G0M-1111-1506
Temperature / Voltage	25°C, Vnom
Test Site / Operator	Eurofins Product Service GmbH, Mr. Treffke
Test Specification	FCC part 15.247 (d)
Comment 1	Spurious Emissions conducted
Comment 2	Channel : 2437 MHz
Comment 3	DSSS / 1 MBit/s / power level 16



Conducted spurious emissions – DSSS F_{HIGH}

FCC part 15.247 (d)
Spurious Emissions

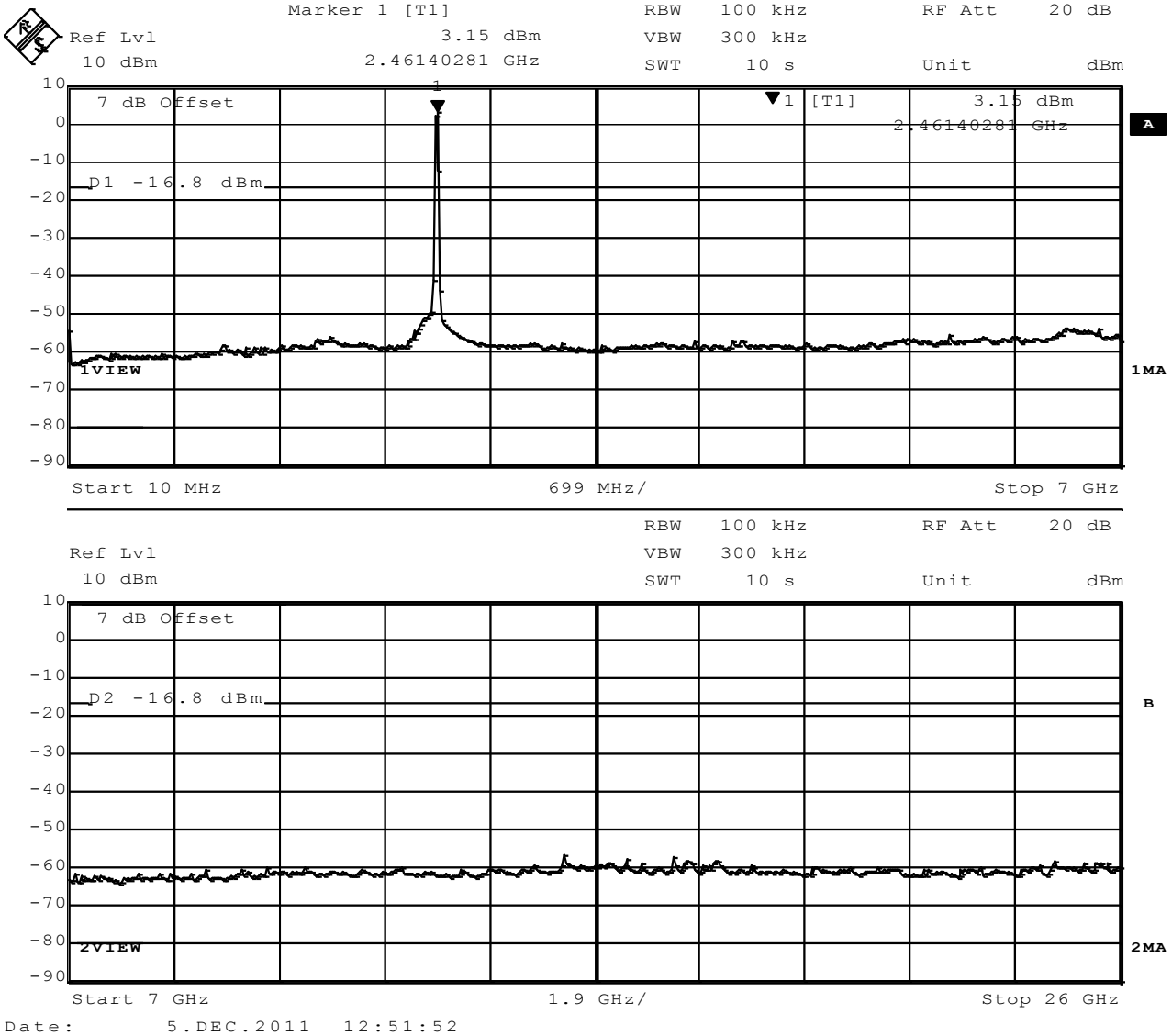
EUT	WLAN/Bluetooth Module / WiBear SF2 UAP
Model	AN00K73535 #3
Approval Holder	lesswire AG / Ord.: G0M-1111-1506
Temperature / Voltage	25°C, Vnom
Test Site / Operator	Eurofins Product Service GmbH, Mr. Treffke
Test Specification	FCC part 15.247 (d)
Comment 1	Spurious Emissions conducted
Comment 2	Channel : 2462 MHz
Comment 3	DSSS / 1 MBit/s / power level 16



Conducted spurious emissions – OFDM F_{HIGH}

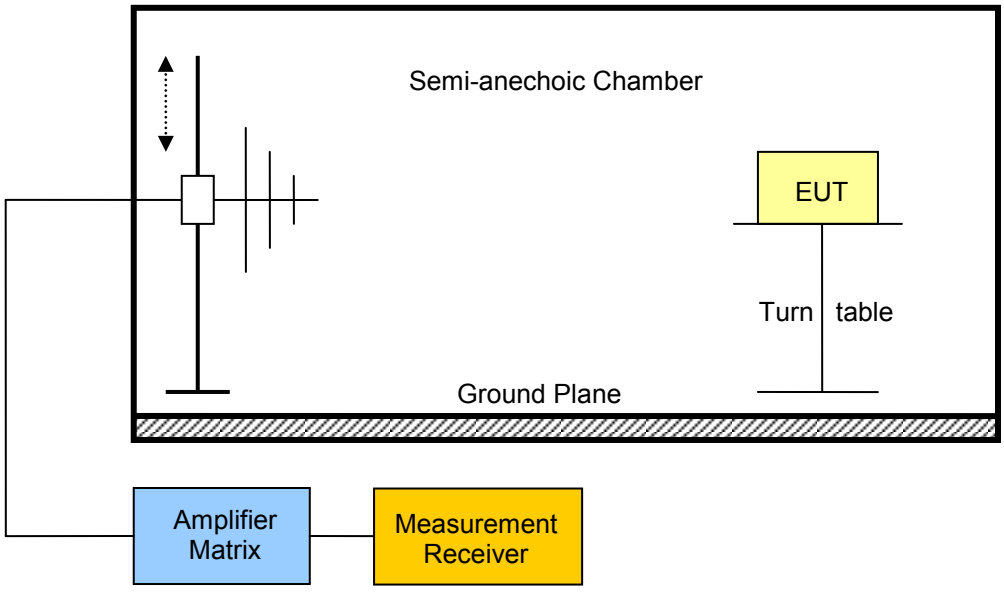
FCC part 15.247 (d)
Spurious Emissions

EUT	WLAN/Bluetooth Module / WiBear SF2 UAP
Model	AN00K73535 #3
Approval Holder	lesswire AG / Ord.: G0M-1111-1506
Temperature / Voltage	25°C, Vnom
Test Site / Operator	Eurofins Product Service GmbH, Mr. Treffke
Test Specification	FCC part 15.247 (d)
Comment 1	Spurious Emissions conducted
Comment 2	Channel : 2462 MHz
Comment 3	OFDM / 6 MBit/s / power level 15



3.5 Test Conditions and Results – Transmitter radiated emissions

Transmitter radiated emissions acc. FCC 47 CFR 15.247 / IC RSS-210				**Verdict: PASS**
Test according referenced standards		Reference Method		
		FCC 15.247(d) / IC RSS-210 A8.5		
Test according to measurement reference		Reference Method		
		FCC KDB Publication No. 558074 / ANSI C63.4		
Test frequency range		Tested frequencies		
		30MHz – 10th Harmonic		
Limits				
Frequency range [MHz]	Detector	Limit [µV/m]	Limit [dBµV/m]	Limit Distance [m]
30 – 88	Quasi-Peak	100	40	3
88 – 216	Quasi-Peak	150	43.5	3
216 – 960	Quasi-Peak	200	46	3
960 – 1000	Quasi-Peak	500	54	3
> 1000	Average	500	54	3
Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)). When average radiated emission measurements are specified, including average emission measurements below 1000 MHz, there also is a limit on the peak level of the radio frequency emissions. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit applicable to the equipment under test.				
Test setup				



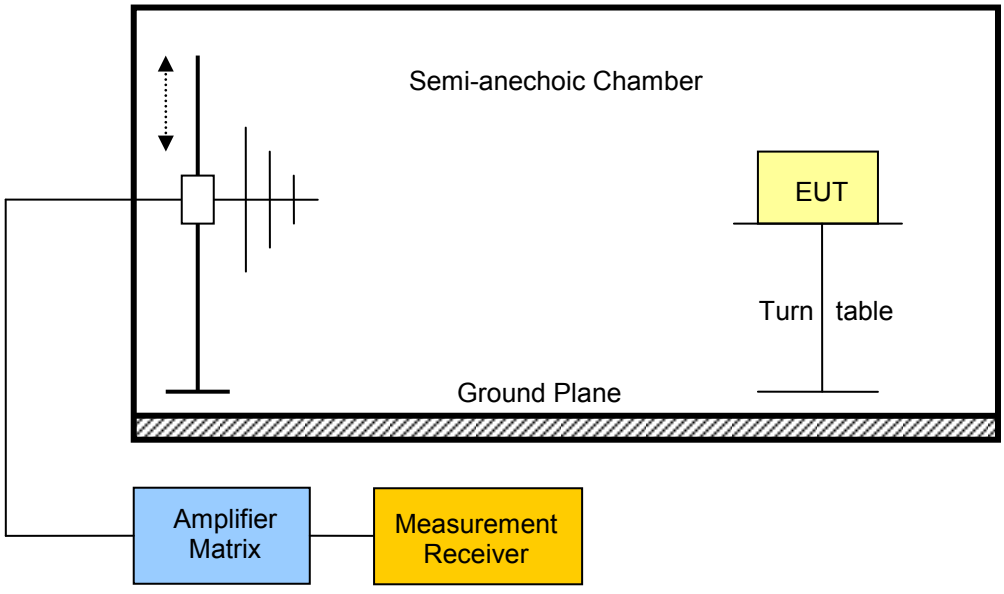
Test procedure
1. EUT set to test mode (Communication tester is used if needed) 2. Span it set according to measurement range 3. Resolution bandwidth below 1GHz is set according to CISPR 16 with peak/quasi-peak detector and RBW of 1MHz with peak/average detector is used above 1GHz 4. Markers are set to peak emission levels within restricted bands

Test results – Internal Antenna - DSSS									
Channel	Frequency [MHz]	Mode	Emission [MHz]	Level [dbµV/m]	Det.	Pol.	Limit [dbµV/m]	Limit dist. [m]*	Margin [dB]
F_{LOW}	2412	DSSS	2390	62.67	pk	hor	74	3	-11.33
F_{LOW}	2412	DSSS	2390	42.95	av	hor	54	3	-11.05
F_{LOW}	2412	DSSS	2389	56.08	pk	ver	74	3	-17.92
F_{MID}	2437	DSSS	2389	36.83	av	ver	54	3	-17.17
F_{MID}	2437	DSSS	2484	59.06	pk	hor	74	3	-14.94
F_{MID}	2437	DSSS	2484	34.07	av	hor	54	3	-19.93
Test results – Internal Antenna - OFDM									
F_{LOW}	2412	OFDM	2389	67.10	pk	hor	74	3	-6.90
F_{LOW}	2412	OFDM	2389	46.62	av	hor	54	3	-7.38
F_{LOW}	2412	OFDM	2484	56.27	pk	hor	74	3	-17.73
F_{LOW}	2412	OFDM	2484	35.74	av	hor	54	3	-18.26
F_{LOW}	2412	OFDM	2389	58.69	pk	ver	74	3	-15.31
F_{LOW}	2412	OFDM	2389	41.12	av	ver	54	3	-12.88
F_{MID}	2437	OFDM	2385	54.83	pk	hor	74	3	-19.17
F_{MID}	2437	OFDM	2385	38.19	av	hor	54	3	-15.81
F_{HIGH}	2462	OFDM	2389	62.14	pk	hor	74	3	-11.86
F_{HIGH}	2462	OFDM	2389	39.24	av	hor	54	3	-14.76
F_{HIGH}	2462	OFDM	2484	69.12	pk	hor	74	3	-4.88
F_{HIGH}	2462	OFDM	2484	51.12	av	hor	54	3	-2.88
F_{HIGH}	2462	OFDM	2484	59.17	pk	ver	74	3	-14.83
F_{HIGH}	2462	OFDM	2484	38.19	av	ver	54	3	-15.81
Test results – External Antenna - DSSS									
F_{LOW}	2412	DSSS	2390	57.17	pk	hor	74	3	-16.83
F_{LOW}	2412	DSSS	2390	35.43	av	hor	54	3	-18.57
F_{LOW}	2412	DSSS	2389	65.90	pk	ver	74	3	-8.10
F_{MID}	2437	DSSS	2389	43.22	av	ver	54	3	-10.78

F_{MID}	2437	DSSS	2389	56.18	pk	ver	74	3	-17.82
F_{MID}	2437	DSSS	2389	41.01	av	ver	54	3	-12.99
F_{HIGH}	2462	DSSS	2484	56.49	pk	hor	74	3	-17.51
F_{HIGH}	2462	DSSS	2484	36.76	av	hor	54	3	-17.24
F_{HIGH}	2462	DSSS	2372	55.05	pk	ver	74	3	-18.95
F_{HIGH}	2462	DSSS	2372	40.37	av	ver	54	3	-13.63
F_{HIGH}	2462	DSSS	2486	62.95	pk	ver	74	3	-11.05
F_{HIGH}	2462	DSSS	2486	44.62	av	ver	54	3	-9.38
Test results – External Antenna - OFDM									
F_{LOW}	2412	OFDM	2389	61.58	pk	hor	74	3	-12.42
F_{LOW}	2412	OFDM	2389	43.56	av	hor	54	3	-10.44
F_{LOW}	2412	OFDM	2389	63.33	pk	ver	74	3	-10.67
F_{LOW}	2412	OFDM	2389	49.88	av	ver	54	3	-4.12
F_{LOW}	2412	OFDM	2495	54.95	pk	ver	74	3	-19.05
F_{LOW}	2412	OFDM	2495	37.90	av	ver	54	3	-16.10
F_{MID}	2437	OFDM	2389	59.75	pk	ver	74	3	-14.25
F_{MID}	2437	OFDM	2389	40.54	av	ver	54	3	-13.46
F_{MID}	2437	OFDM	2484	60.04	pk	ver	74	3	-13.96
F_{MID}	2437	OFDM	2484	38.66	av	ver	54	3	-15.34
F_{HIGH}	2462	OFDM	2484	64.02	pk	hor	74	3	-9.98
F_{HIGH}	2462	OFDM	2484	44.37	av	hor	54	3	-9.63
F_{HIGH}	2462	OFDM	2389	55.96	pk	ver	74	3	-18.04
F_{HIGH}	2462	OFDM	2389	40.29	av	ver	54	3	-13.71
F_{HIGH}	2462	OFDM	2484	67.34	pk	ver	74	3	-6.66
F_{HIGH}	2462	OFDM	2484	50.51	av	ver	54	3	-3.49
Comments: * Physical distance between EUT and measurement antenna.									

3.6 Test Conditions and Results – Receiver radiated emissions

Receiver radiated emissions acc. IC RSS-210				**Verdict: PASS**
Test according referenced standards	Reference Method			
	IC RSS-210 A8.5			
Test according to measurement reference	Reference Method			
	ANSI C63.4			
Test frequency range	Tested frequencies			
	30MHz – 3th Harmonic			
EUT test mode	Receive			
Limits				
Frequency range [MHz]	Detector	Limit [µV/m]	Limit [dBµV/m]	Limit Distance [m]
30 – 88	Quasi-Peak	100	40	3
88 – 216	Quasi-Peak	150	43.5	3
216 – 960	Quasi-Peak	200	46	3
960 – 1000	Quasi-Peak	500	54	3
> 1000	Average	500	54	3
Test setup				



Test procedure
1. EUT set to receive mode (Communication tester is used if needed) 2. Span it set according to measurement range 3. Resolution bandwidth below 1GHz is set according to CISPR 16 with peak/quasi-peak detector and RBW of 1MHz with peak/average detector is used above 1GHz 4. Markers are set to peak emission levels

Test results – Internal Antenna

Channel	Frequency [MHz]	Emission [MHz]	Emission Level [dbµV/m]	Emission Level [µV/m]	Det.	Limit [µV/m]	Margin [µV/m]
F_{MID}	2437	484	26.87	22.05	pk	200.00	-177.95

Test results – Internal Antenna

Channel	Frequency [MHz]	Emission [MHz]	Emission Level [dbµV/m]	Emission Level [µV/m]	Det.	Limit [µV/m]	Margin [µV/m]
F_{MID}	2437	995	23.67	15.26	pk	500.00	-484.74

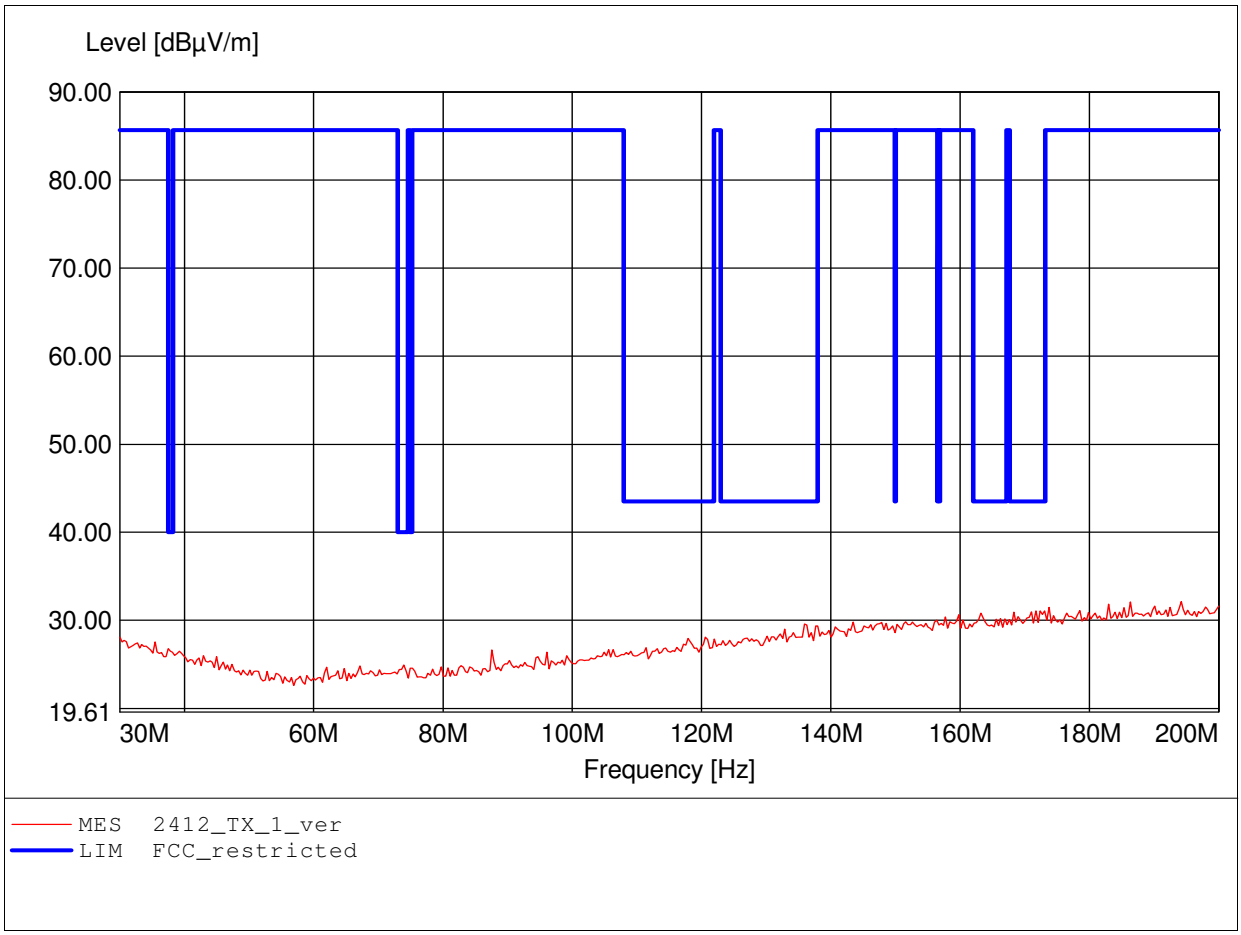
Comments:
* Physical distance between EUT and measurement antenna.
** Emission level corresponds to ambient noise floor

ANNEX A Transmitter radiated spurious emissions

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

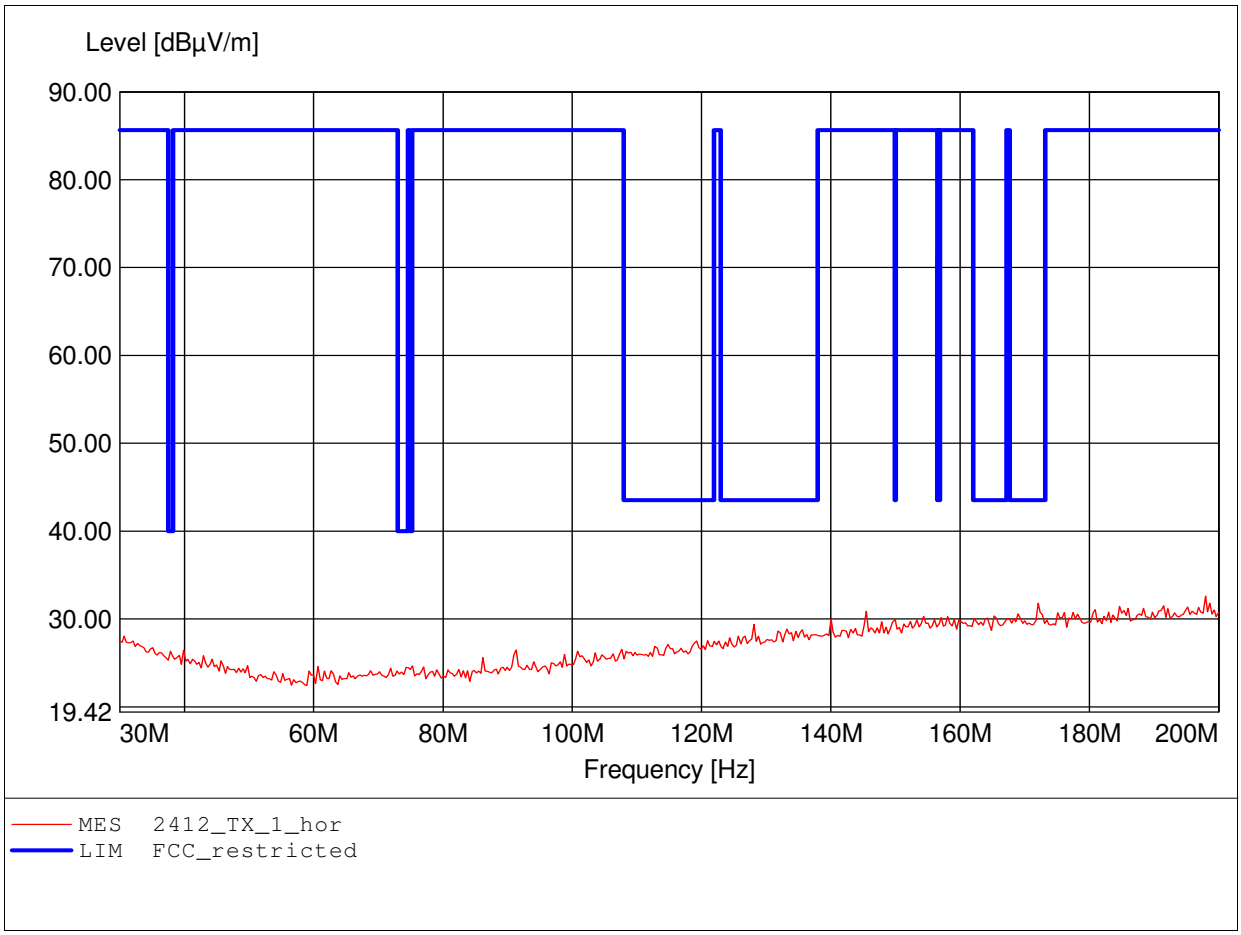
Approval Holder:	lesswire AG / G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module / WiBear SF2 UAP #6 Ceramic Ant
Setup:	CH 1 / DSSS / 1Mbit/s / Powerlevel 18dBm / y-axis
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:	Freq. / CH: 2412
Comment 1:	Dist.: 3m, Ant.: HK 116
Comment 2:	Freq: 194.208MHz, Emax: 32.12dBµV/m, RBW: 100kHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

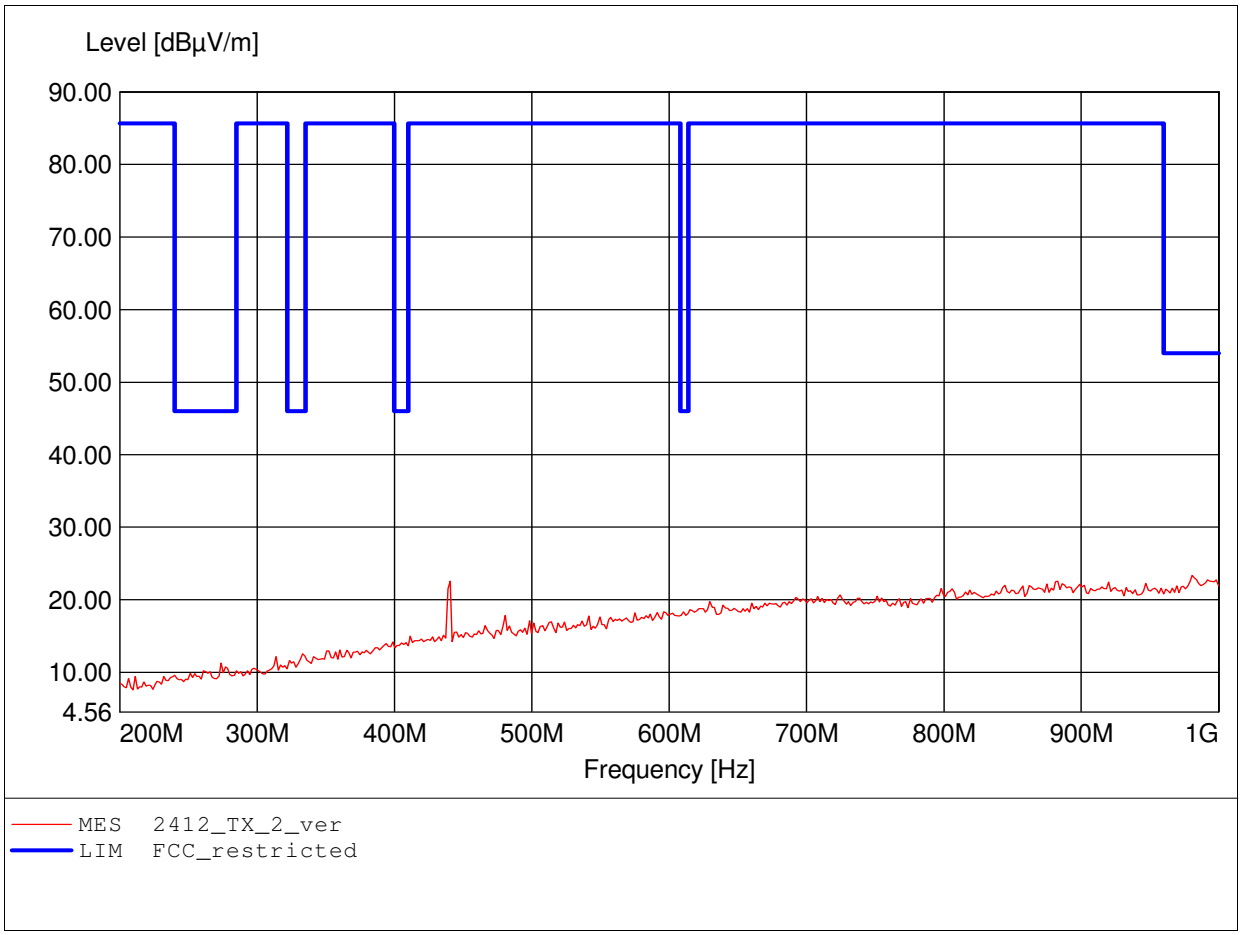
Approval Holder:	lesswire AG / G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module / WiBear SF2 UAP #6 Ceramic Ant
Setup:	CH 1 / DSSS / 1Mbit/s / Powerlevel 18dBm / y-axis
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:	Freq. / CH: 2412
Comment 1:	Dist.: 3m, Ant.: HK 116
Comment 2:	Freq: 197.956MHz, Emax: 32.58dBµV/m, RBW: 100kHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

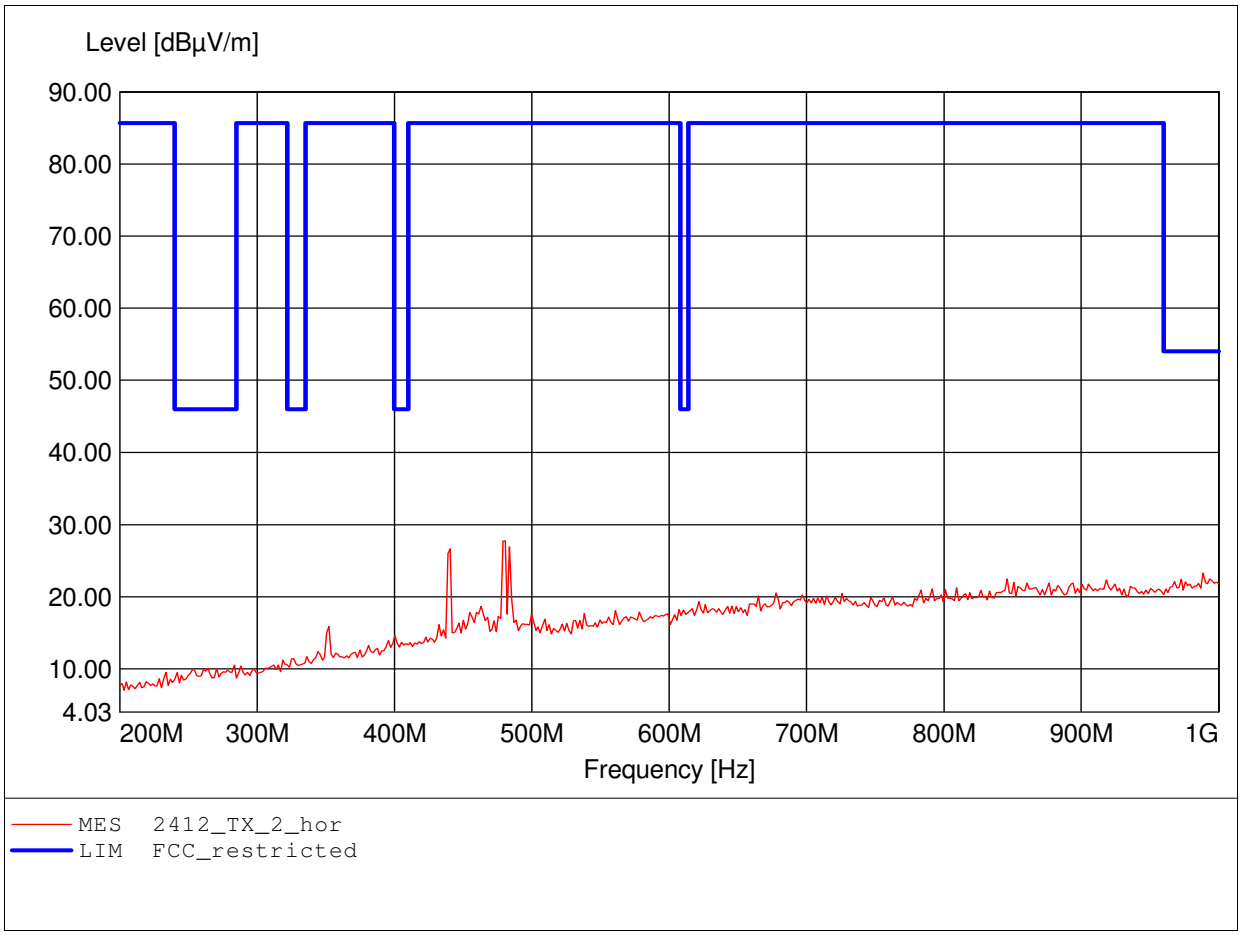
Approval Holder:	lesswire AG / G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module / WiBear SF2 UAP #6 Ceramic Ant
Setup:	CH 1 / DSSS / 1Mbit/s / Powerlevel 18dBm / y-axis
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:	Freq. / CH: 2412
Comment 1:	Dist.: 3m, Ant.: HL 223, amplif.
Comment 2:	Freq: 980.762MHz, Emax: 23.39dBµV/m, RBW: 100kHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

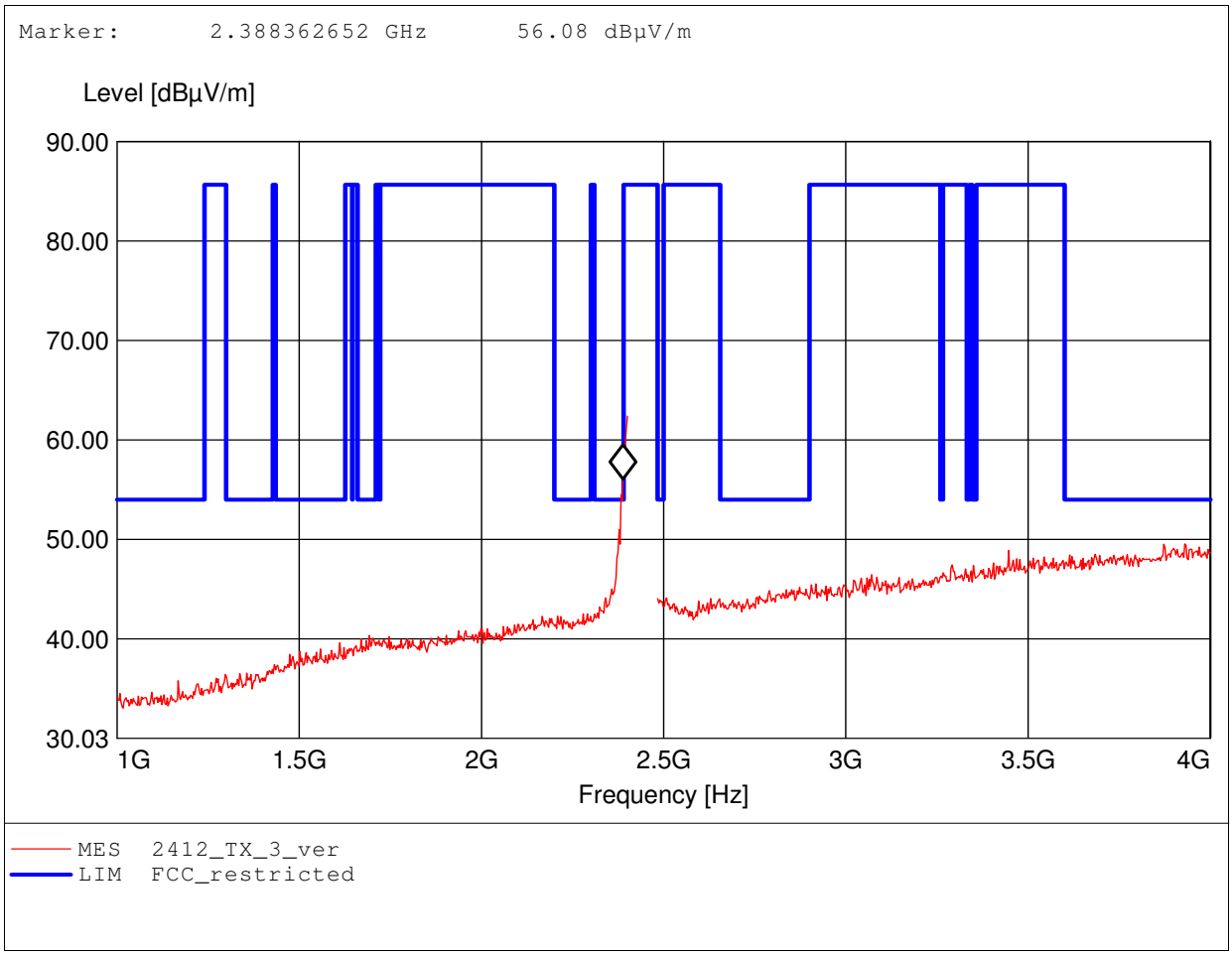
Approval Holder:	lesswire AG / G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module / WiBear SF2 UAP #6 Ceramic Ant
Setup:	CH 1 / DSSS / 1Mbit/s / Powerlevel 18dBm / y-axis
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:	Freq. / CH: 2412
Comment 1:	Dist.: 3m, Ant.: HL 223, amplif.
Comment 2:	Freq: 480.561MHz, Emax: 27.73dBµV/m, RBW: 100kHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

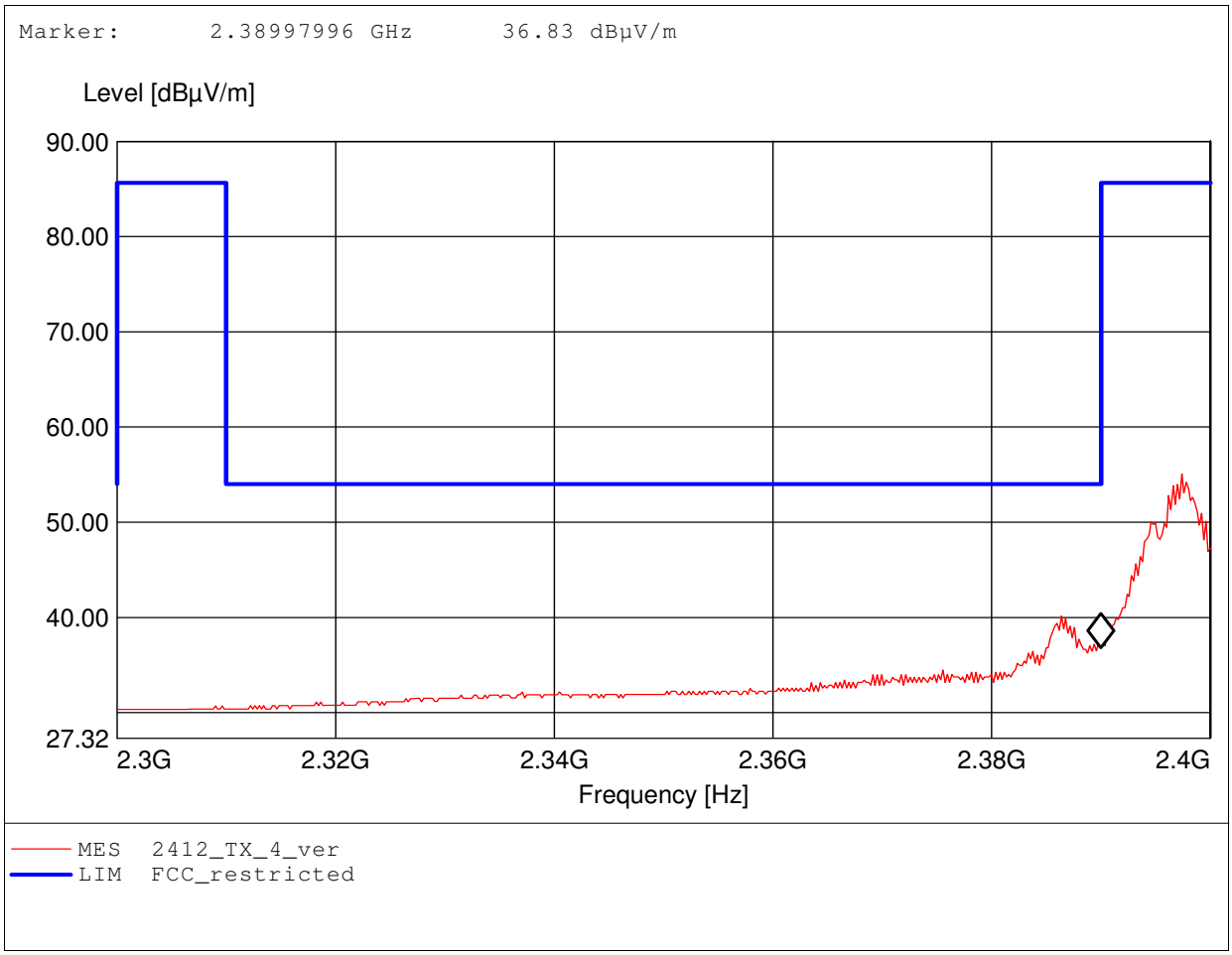
Approval Holder:	lesswire AG	/	G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module	/	WiBear SF2 UAP #6 Ceramic Ant
Setup:	CH 1 / DSSS / 1Mbit/s / Powerlevel 18dBm / y-axis		
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell		
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC		
Test Specification:	Freq. / CH: 2412		
Comment 1:	Dist.: 3m, Ant.: HL 025, amplif.		
Comment 2:	Freq: 2.400GHz, Emax: 62.41dBµV/m, RBW: 1MHz		



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

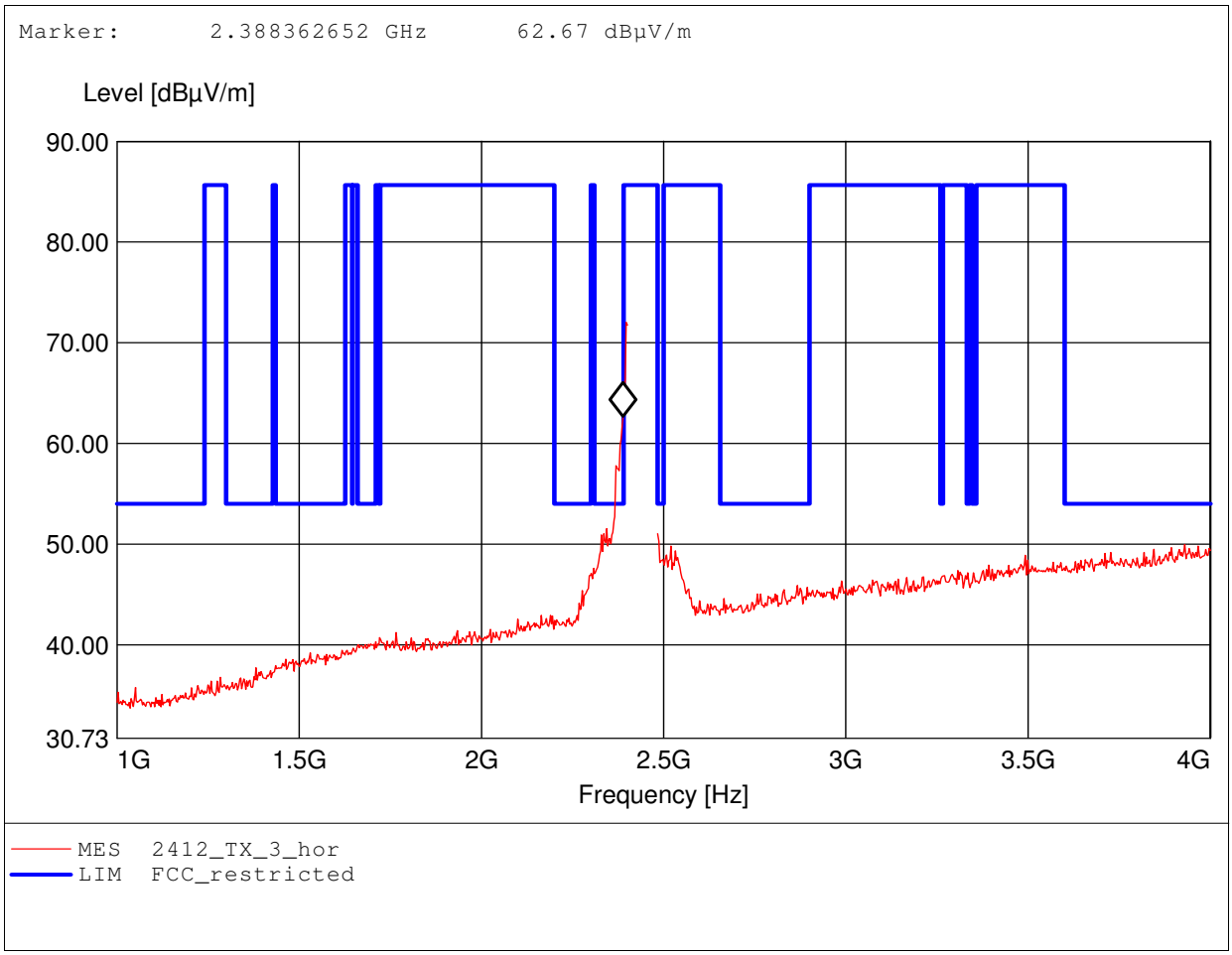
Approval Holder:	lesswire AG	/	G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module	/	WiBear SF2 UAP #6 Ceramic Ant
Setup:	CH 1 / DSSS / 1Mbit/s / Powerlevel 18dBm / y-axis		
Test Site / Operator:	Eurofins Product Service GmbH	/	Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC		
Test Specification:	Freq. / CH: 2412		
Comment 1:	Dist.: 3m, Ant.: HL025, ampl.+HP., Average Detector		
Comment 2:	Freq: 2.397GHz, Emax: 55.07dBµV/m, RBW: 1MHz		



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

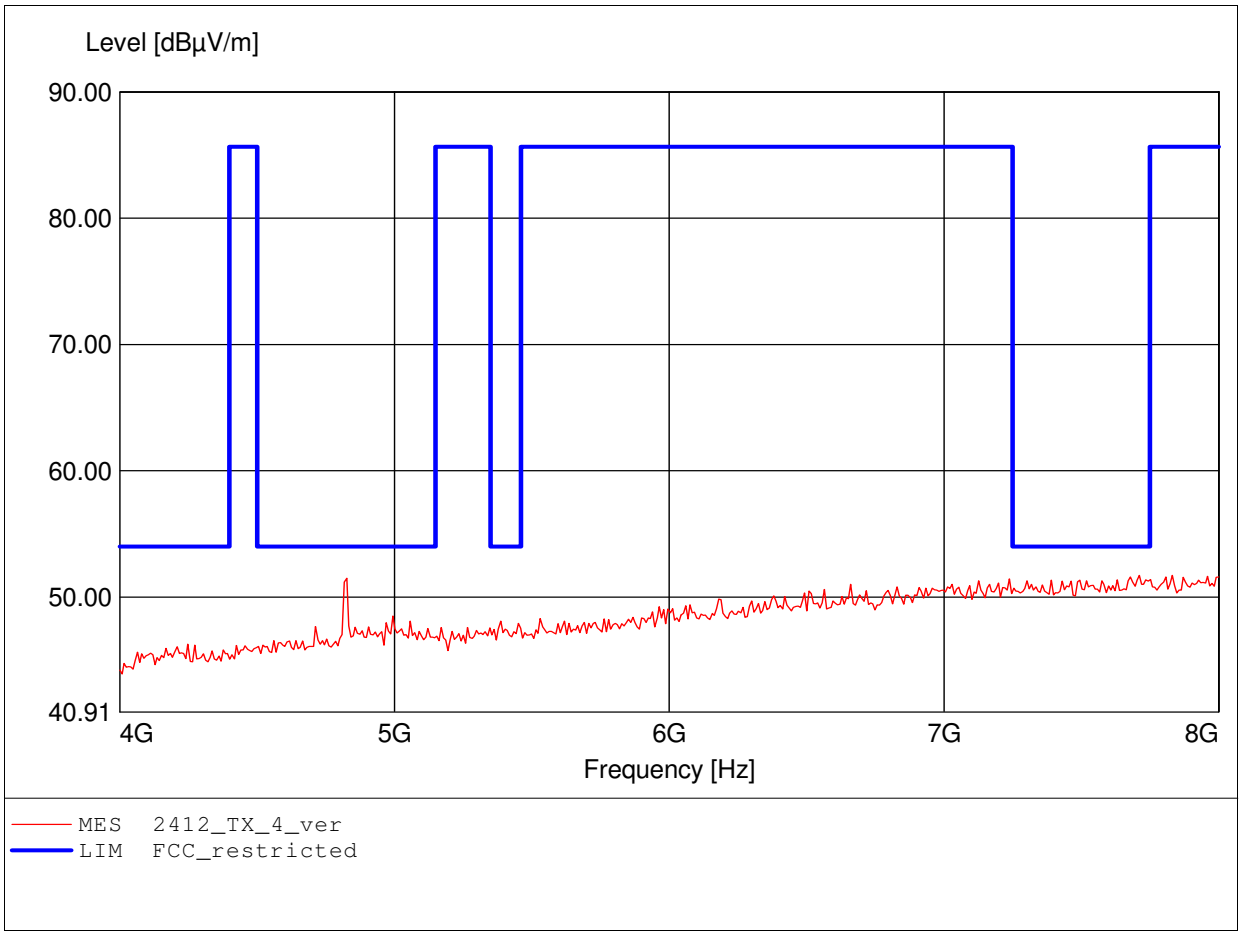
Approval Holder:	lesswire AG	/	G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module	/	WiBear SF2 UAP #6 Ceramic Ant
Setup:	CH 1 / DSSS / 1Mbit/s / Powerlevel 18dBm / y-axis		
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell		
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC		
Test Specification:	Freq. / CH: 2412		
Comment 1:	Dist.: 3m, Ant.: HL 025, amplif.		
Comment 2:	Freq: 2.397GHz, Emax: 72.01dBµV/m, RBW: 1MHz		



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

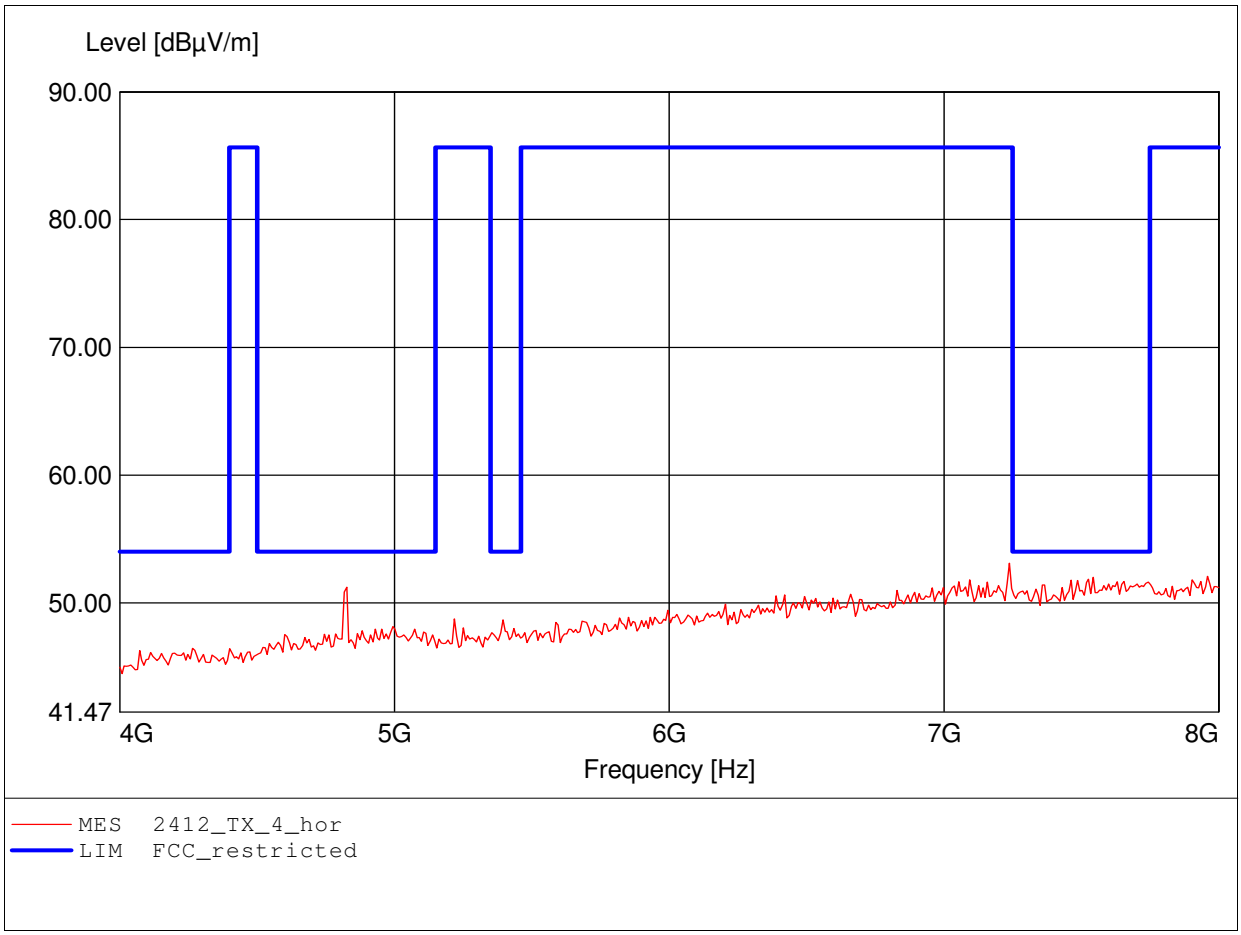
```
Approval Holder:       lesswire AG              /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module   /  WiBear SF2 UAP #6 Ceramic Ant
Setup:                 CH 1  /  DSSS  /  1Mbit/s  /  Powerlevel 18dBm  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2412
Comment 1:             Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:             Freq: 7.711GHz, Emax: 51.73dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

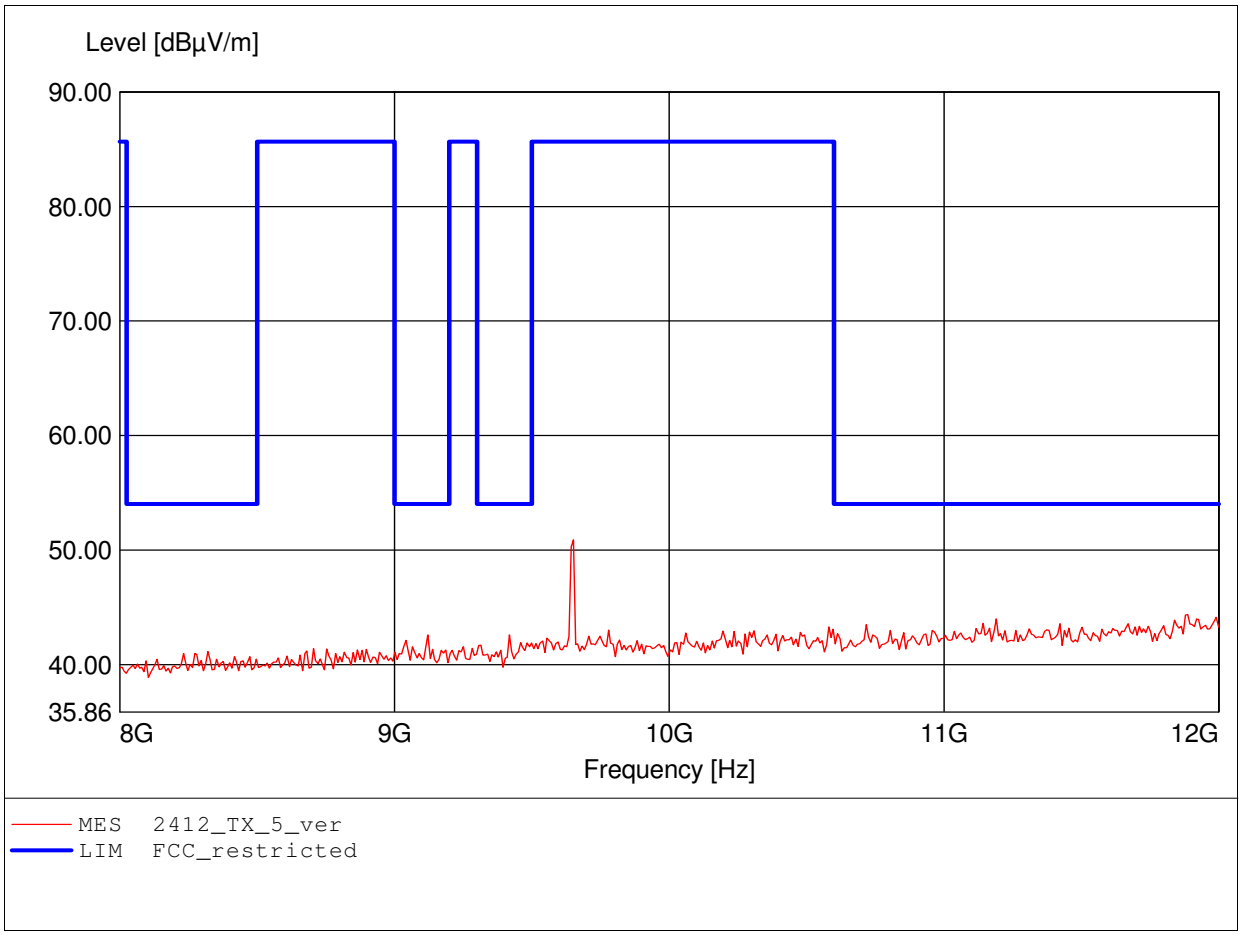
```
Approval Holder:       lesswire AG                /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module  /  WiBear SF2 UAP #6 Ceramic Ant
Setup:                 CH 1  /  DSSS  /  1Mbit/s  /  Powerlevel 18dBm  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2412
Comment 1:             Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:             Freq: 7.238GHz, Emax: 53.11dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

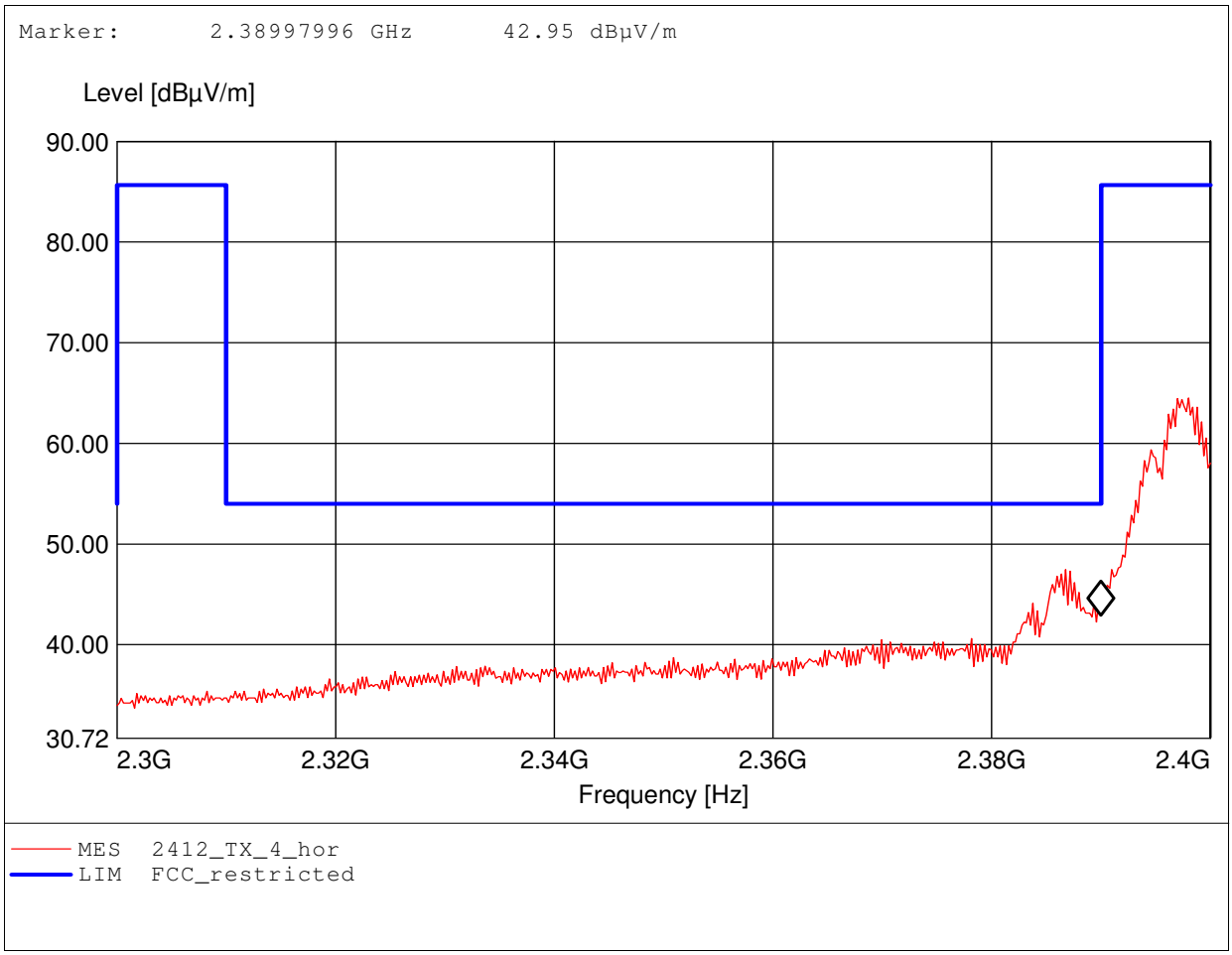
```
Approval Holder:       lesswire AG              /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module   /  WiBear SF2 UAP #6 Ceramic Ant
Setup:                 CH 1  /  DSSS  /  1Mbit/s  /  Powerlevel 18dBm  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2412
Comment 1:             Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:             Freq: 9.651GHz, Emax: 50.88dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

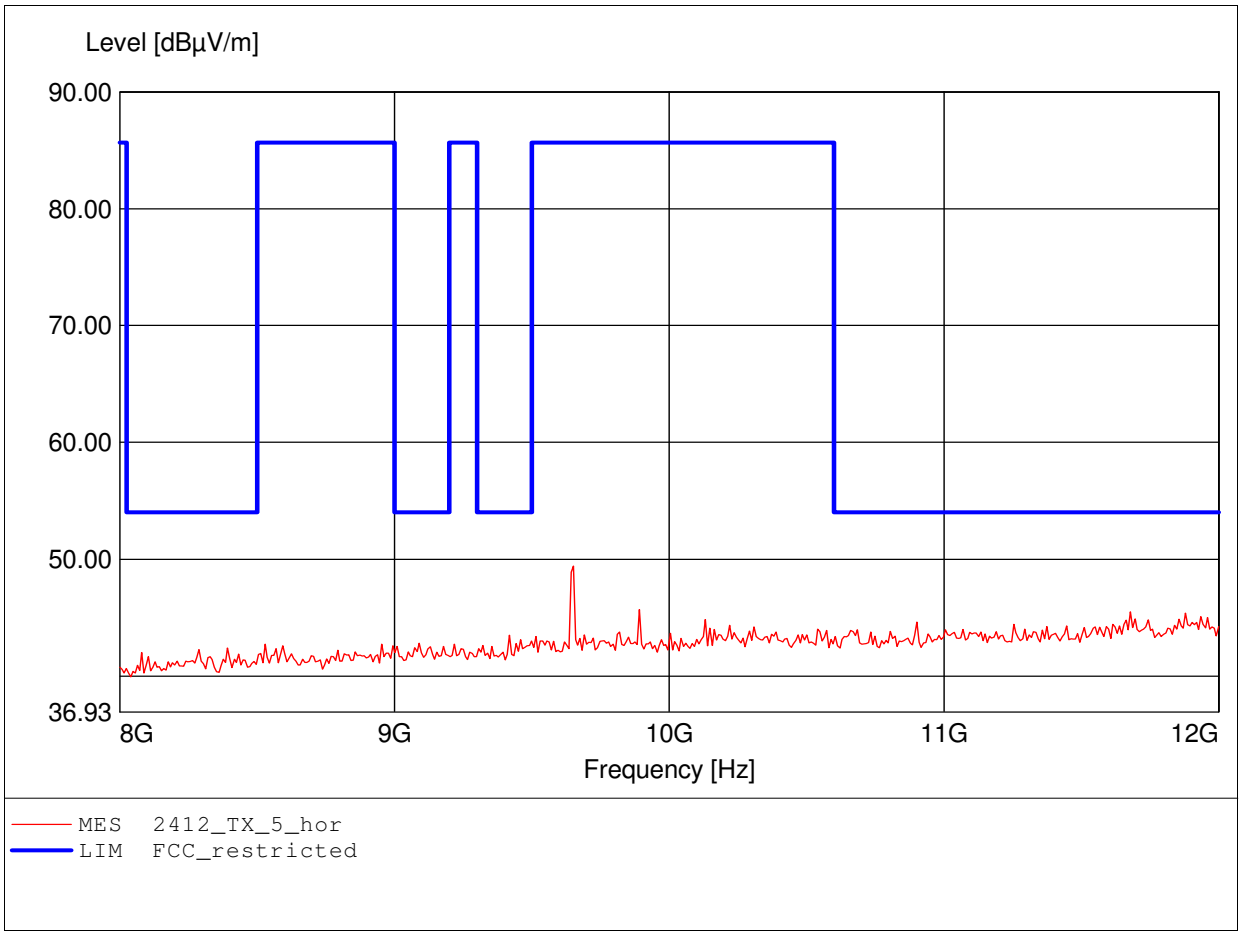
Approval Holder:	lesswire AG	/	G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module	/	WiBear SF2 UAP #6 Ceramic Ant
Setup:	CH 1 / DSSS / 1Mbit/s / Powerlevel 18dBm / y-axis		
Test Site / Operator:	Eurofins Product Service GmbH	/	Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC		
Test Specification:	Freq. / CH: 2412		
Comment 1:	Dist.: 3m, Ant.: HL025, ampl.+HP., Average Detector		
Comment 2:	Freq: 2.398GHz, Emax: 64.52dBµV/m, RBW: 1MHz		



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

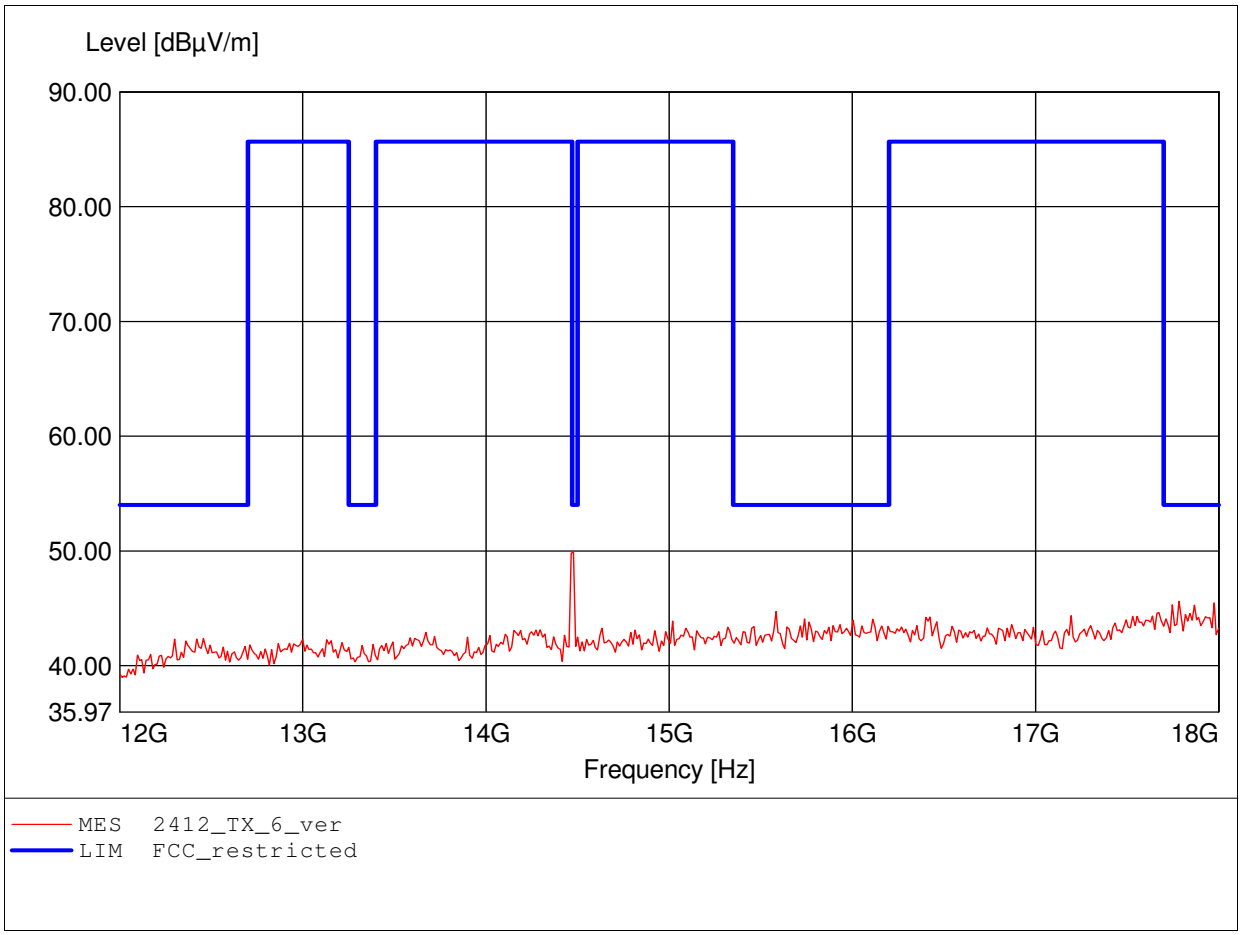
```
Approval Holder:       lesswire AG              /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module   /  WiBear SF2 UAP #6 Ceramic Ant
Setup:                 CH 1  /  DSSS  /  1Mbit/s  /  Powerlevel 18dBm  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2412
Comment 1:             Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:             Freq: 9.651GHz, Emax: 49.40dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

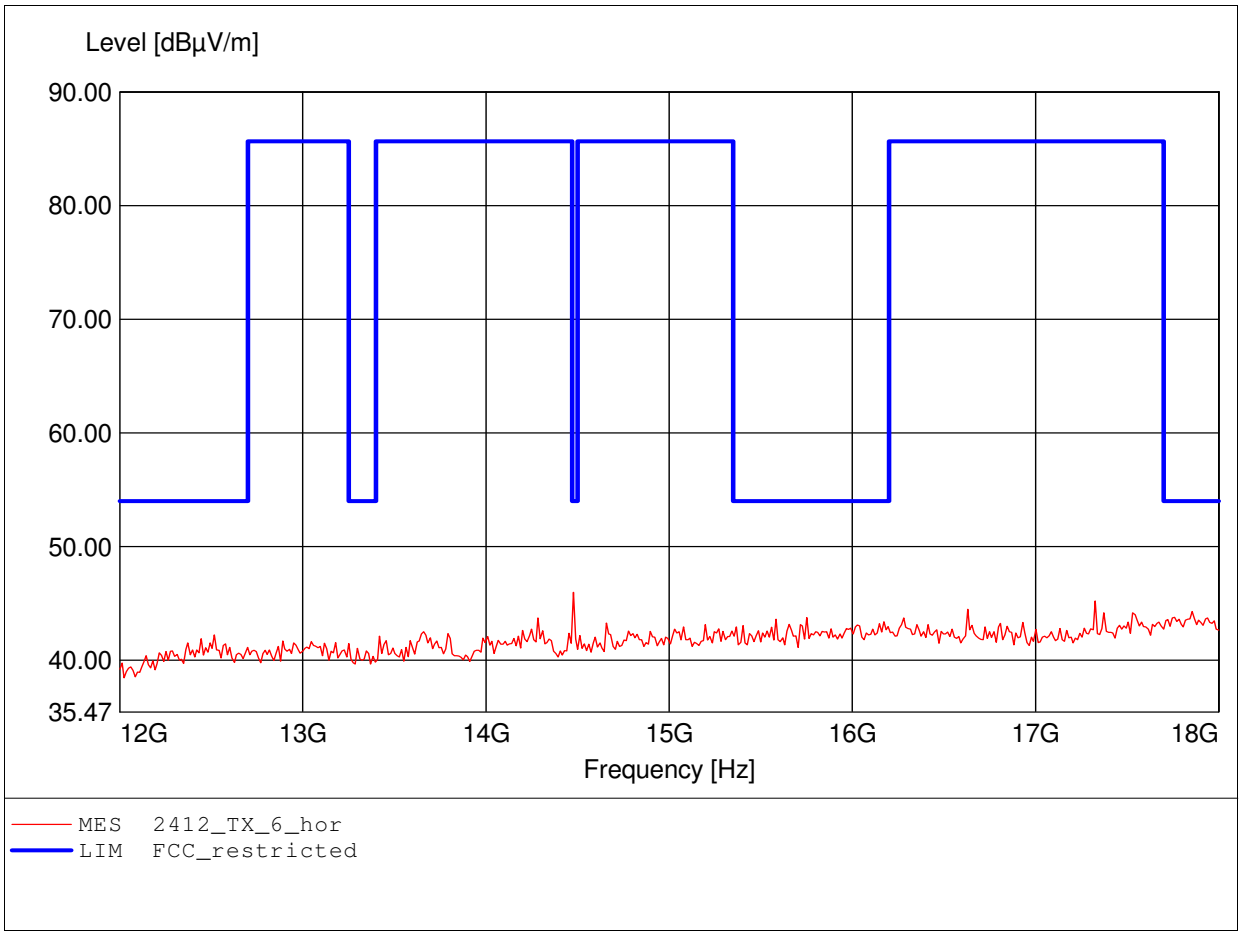
Approval Holder:	lesswire AG / G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module / WiBear SF2 UAP #6 Ceramic Ant
Setup:	CH 1 / DSSS / 1Mbit/s / Powerlevel 18dBm / y-axis
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:	Freq. / CH: 2412
Comment 1:	Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:	Freq: 14.477GHz, Emax: 49.87dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

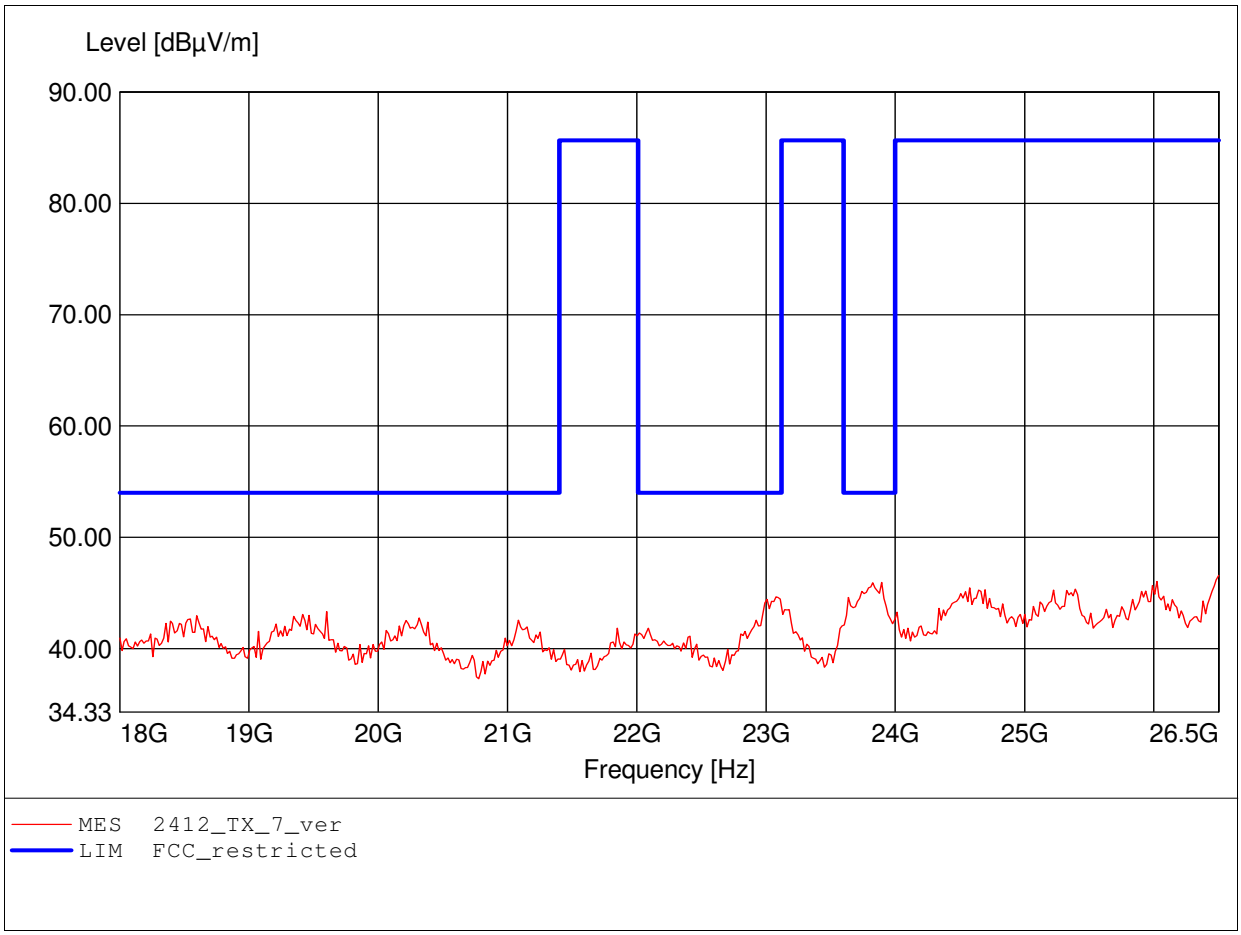
Approval Holder:	lesswire AG	/	G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module	/	WiBear SF2 UAP #6 Ceramic Ant
Setup:	CH 1 / DSSS / 1Mbit/s / Powerlevel 18dBm / y-axis		
Test Site / Operator:	Eurofins Product Service GmbH	/	Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC		
Test Specification:	Freq. / CH: 2412		
Comment 1:	Dist.: 3m, Ant.: HL 025, ampl.+HP.		
Comment 2:	Freq: 14.477GHz, Emax: 45.99dBµV/m, RBW: 1MHz		



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

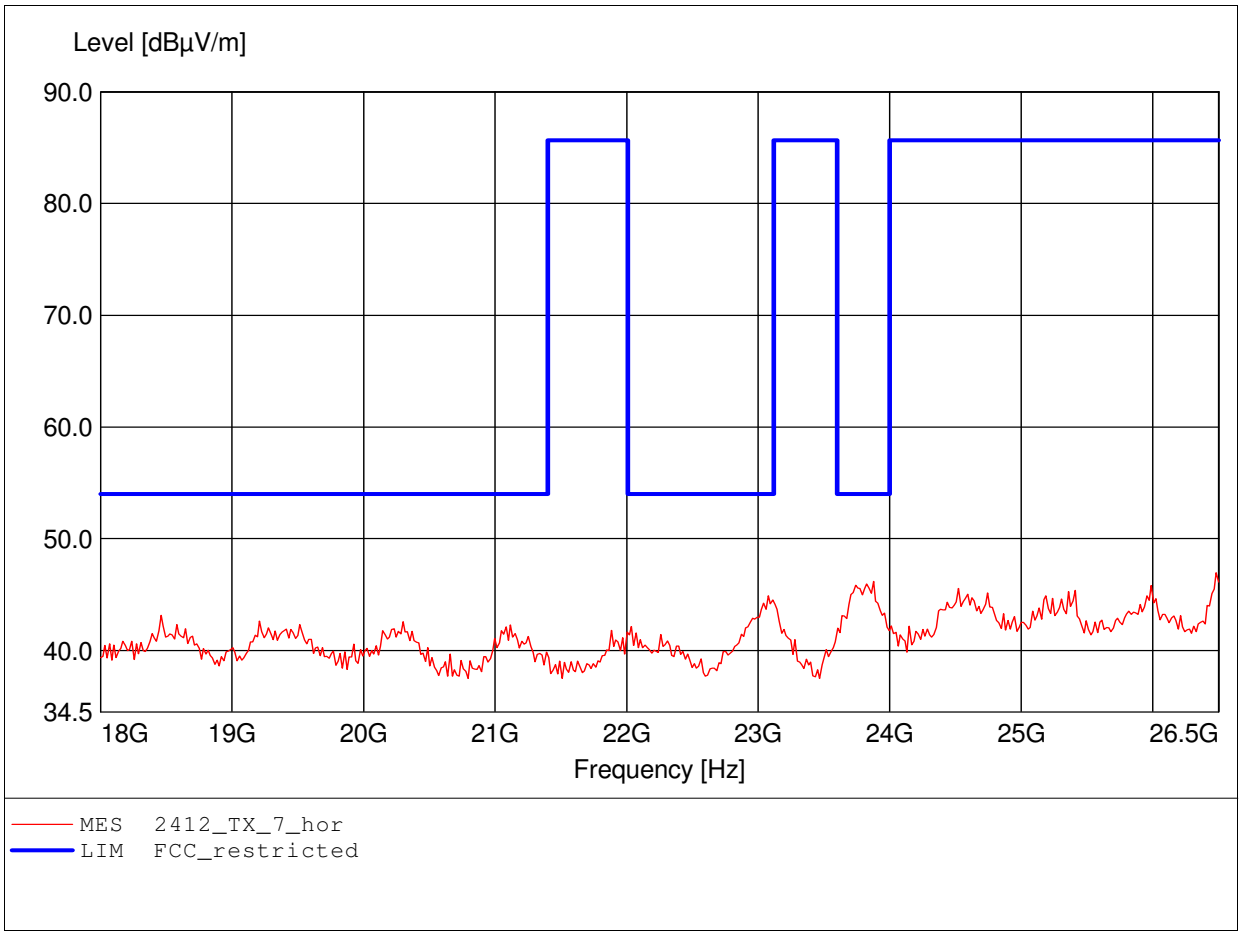
Approval Holder:	lesswire AG	/	G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module	/	WiBear SF2 UAP #6 Ceramic Ant
Setup:	CH 1 / DSSS / 1Mbit/s / Powerlevel 18dBm	/	y-axis
Test Site / Operator:	Eurofins Product Service GmbH	/	Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC		
Test Specification:	Freq. / CH: 2412		
Comment 1:	Dist.: 3m, Ant.: HL025, amplif.		
Comment 2:	Freq: 26.500GHz, Emax: 46.61dBµV/m, RBW: 1MHz		



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Approval Holder:	lesswire AG / G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module / WiBear SF2 UAP #6 Ceramic Ant
Setup:	CH 1 / DSSS / 1Mbit/s / Powerlevel 18dBm / y-axis
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:	Freq. / CH: 2412
Comment 1:	Dist.: 3m, Ant.: HL025, amplif.
Comment 2:	Freq: 26.483GHz, Emax: 46.95dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

```
Approval Holder:       lesswire AG              /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module   /  WiBear SF2 UAP #6 Ceramic Ant
Setup:                 CH 6  /  DSSS  /  1Mbit/s  /  Powerlevel 18dBm  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2437
Comment 1:             Dist.: 3m, Ant.: HL 025, amplif.
Comment 2:             Freq: 3.927GHz, Emax: 50.10dBµV/m, RBW: 1MHz
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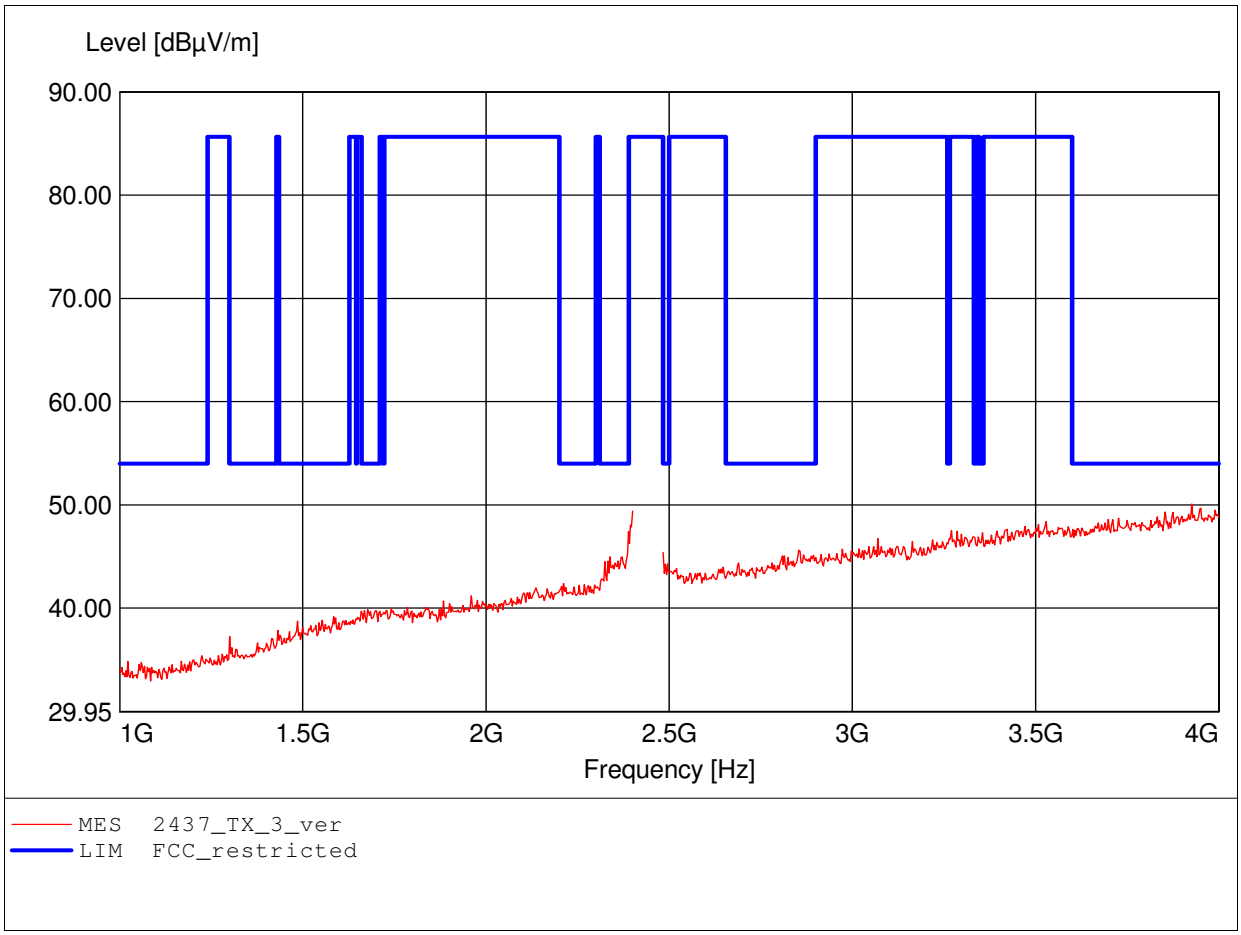
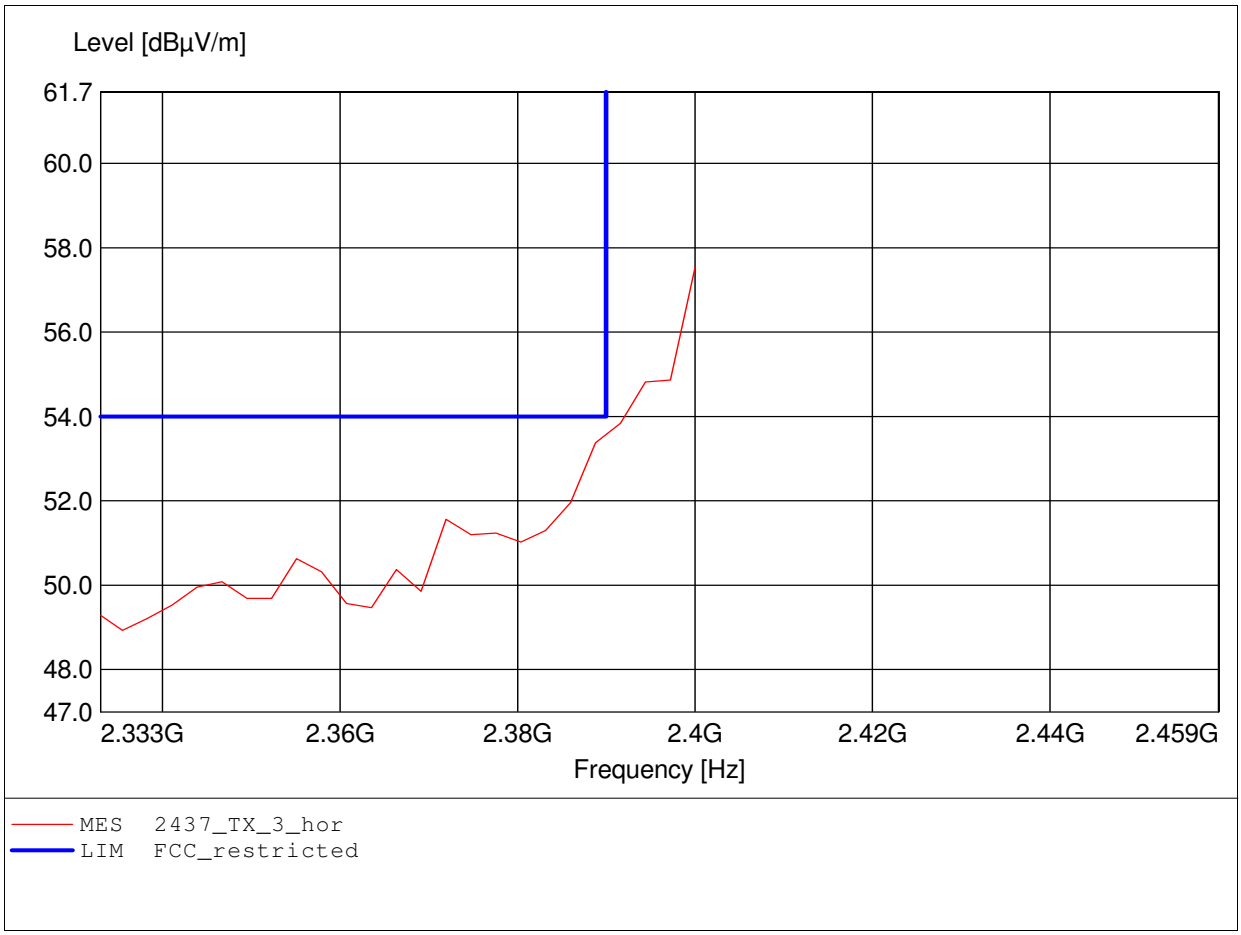


Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

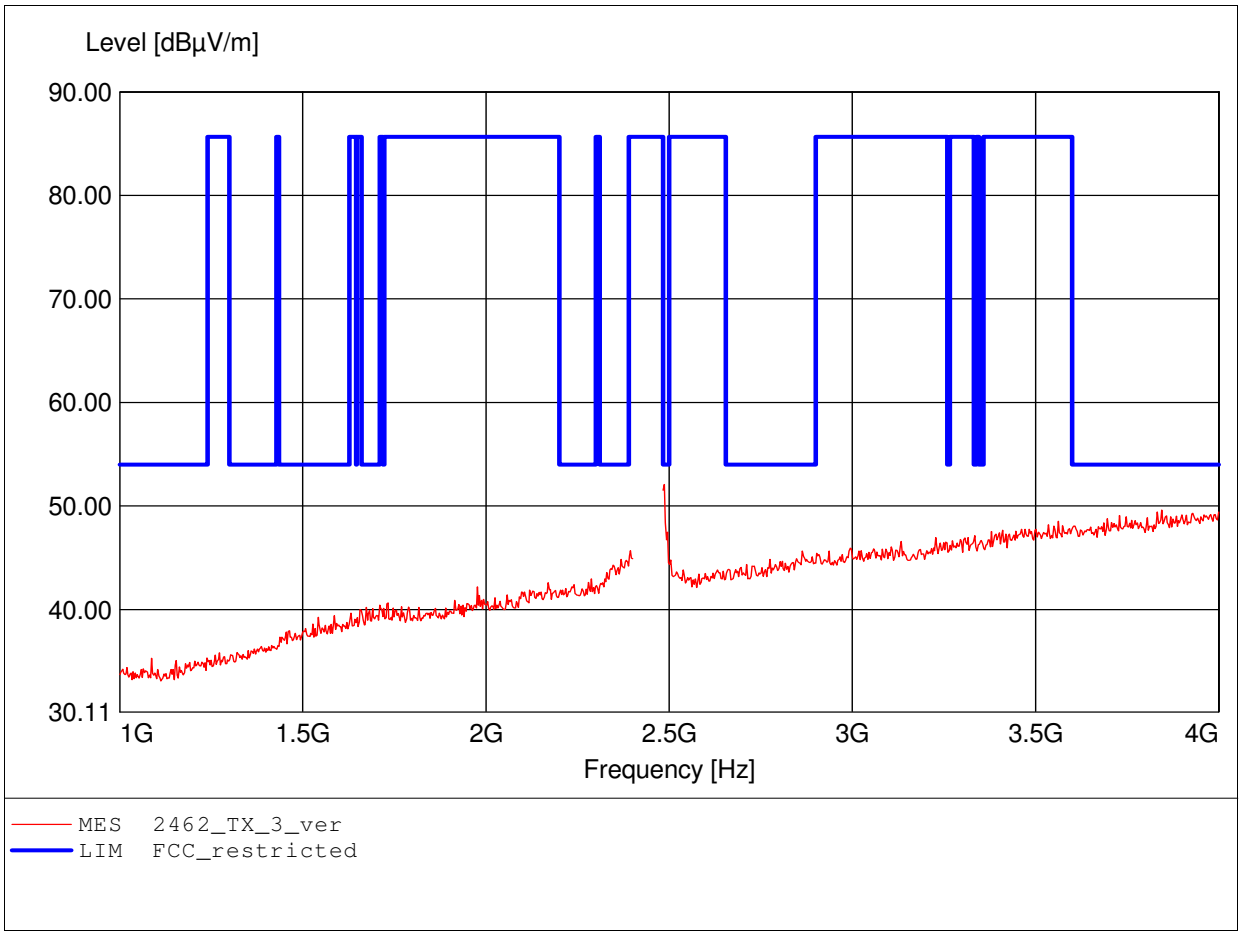
```
Approval Holder:       lesswire AG              /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module   /  WiBear SF2 UAP #6 Ceramic Ant
Setup:                 CH 6  /  DSSS  /  1Mbit/s  /  Powerlevel 18dBm  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2437
Comment 1:             Dist.: 3m, Ant.: HL 025, amplif.
Comment 2:             Freq: 2.400GHz, Emax: 57.54dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

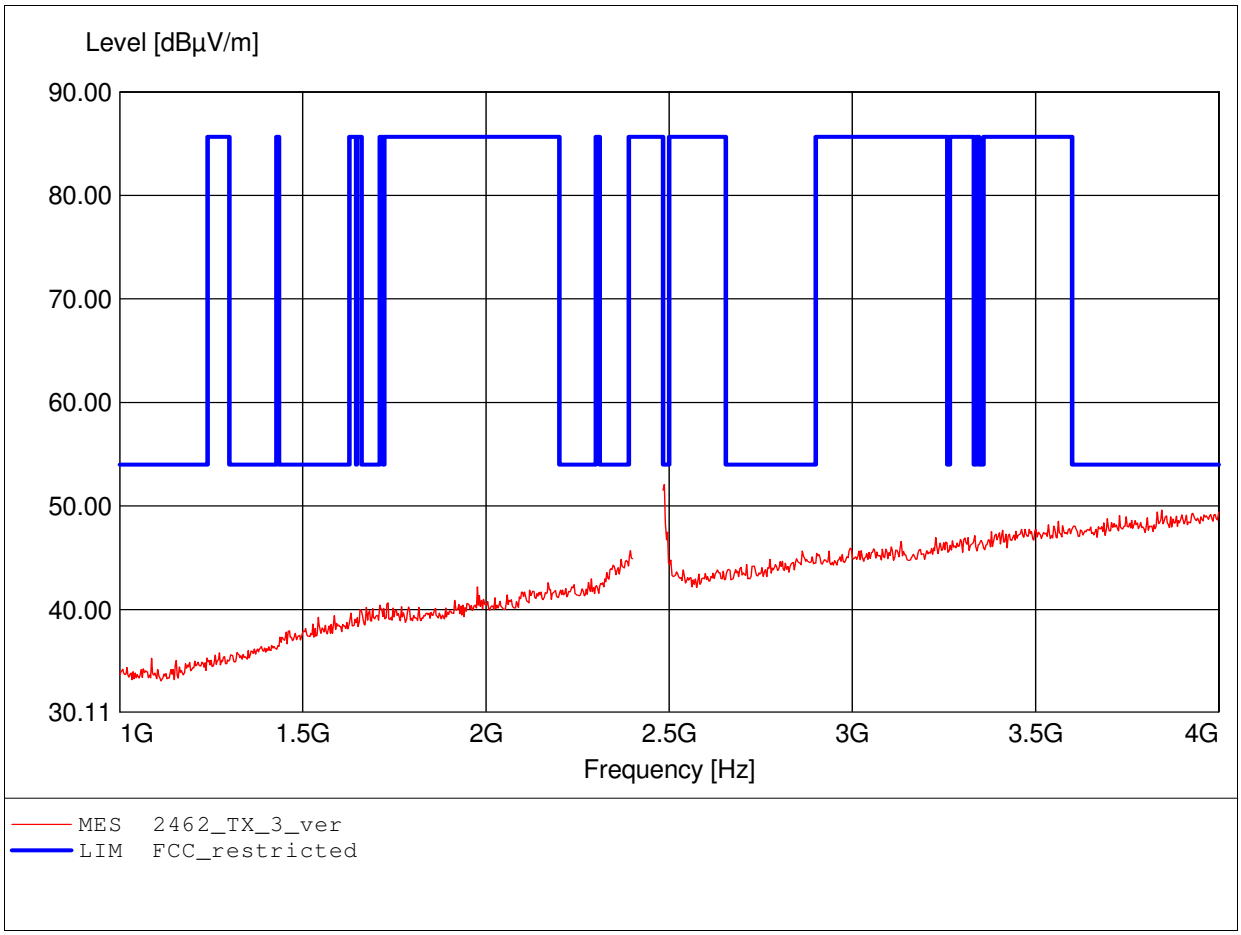
Approval Holder:	lesswire AG / G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module / WiBear SF2 UAP #6 Ceramic Ant
Setup:	CH 11 / DSSS / 1Mbit/s / Powerlevel 18dBm / y-axis
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:	Freq. / CH: 2462
Comment 1:	Dist.: 3m, Ant.: HL 025, amplif.
Comment 2:	Freq: 2.487GHz, Emax: 52.09dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

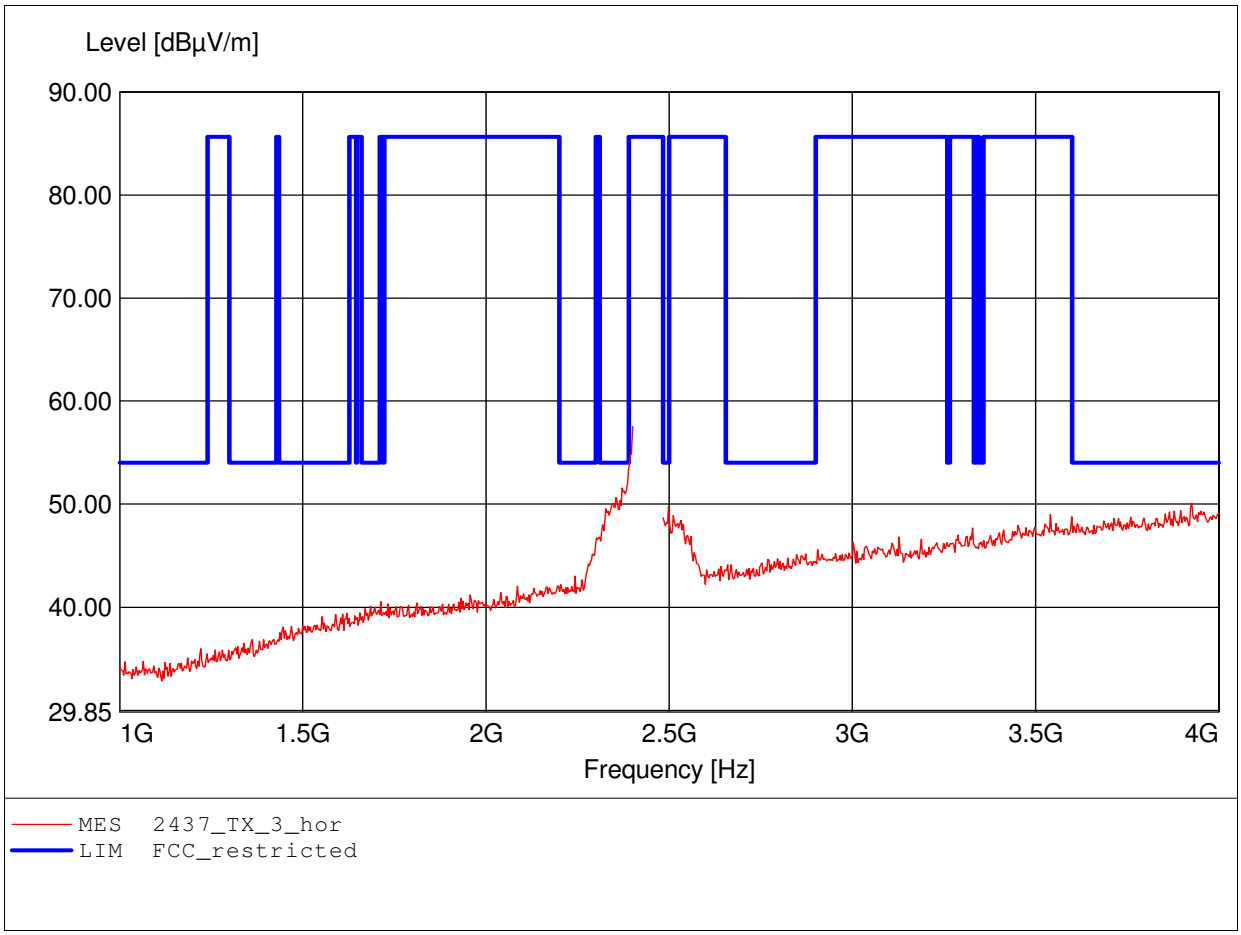
```
Approval Holder:       lesswire AG              /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module   /  WiBear SF2 UAP #6 Ceramic Ant
Setup:                 CH 11  /  DSSS  /  1Mbit/s  /  Powerlevel 18dBm  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2462
Comment 1:             Dist.: 3m, Ant.: HL 025, amplif.
Comment 2:             Freq: 2.487GHz, Emax: 52.09dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

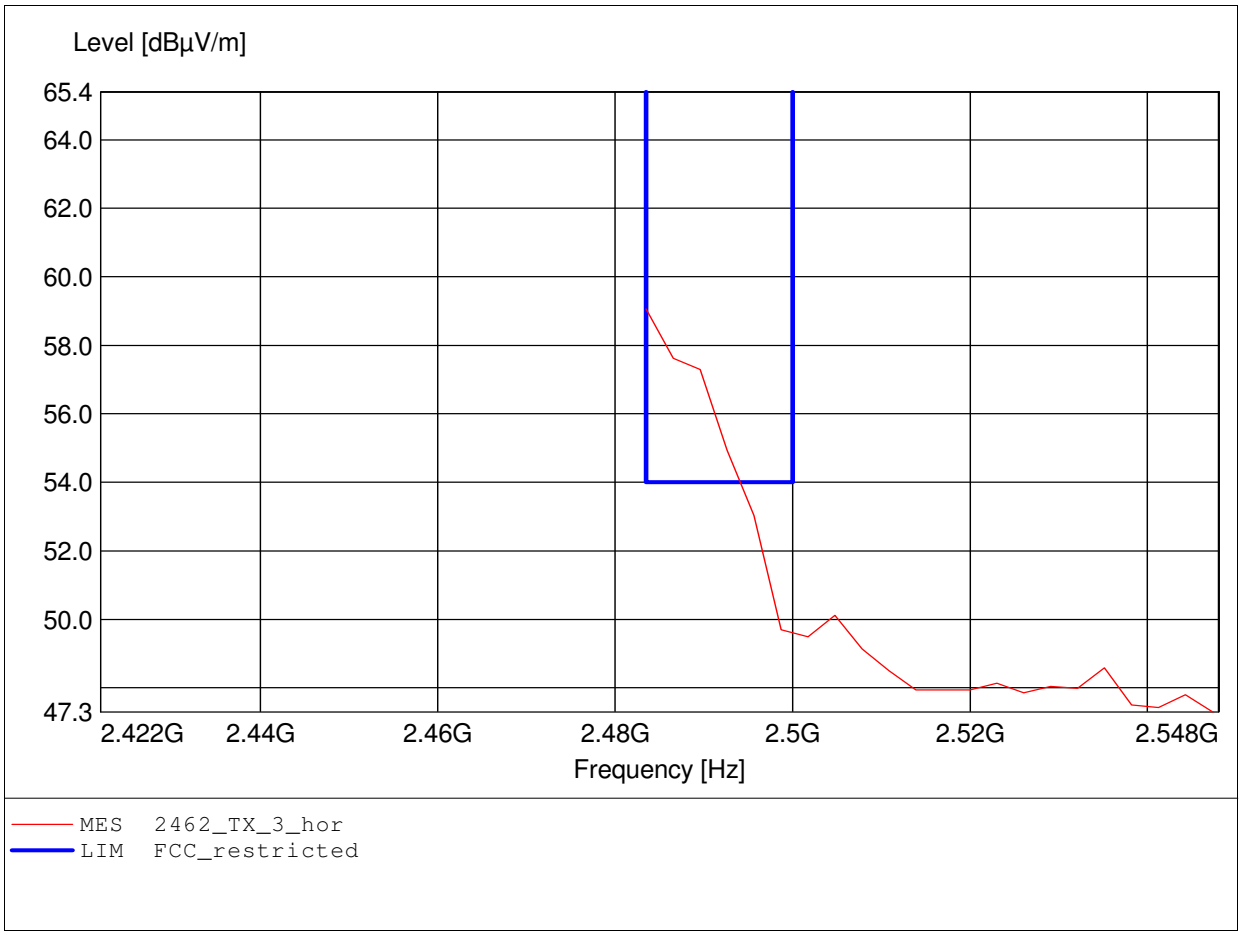
Approval Holder:	lesswire AG / G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module / WiBear SF2 UAP #6 Ceramic Ant
Setup:	CH 6 / DSSS / 1Mbit/s / Powerlevel 18dBm / y-axis
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:	Freq. / CH: 2437
Comment 1:	Dist.: 3m, Ant.: HL 025, amplif.
Comment 2:	Freq: 2.400GHz, Emax: 57.54dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

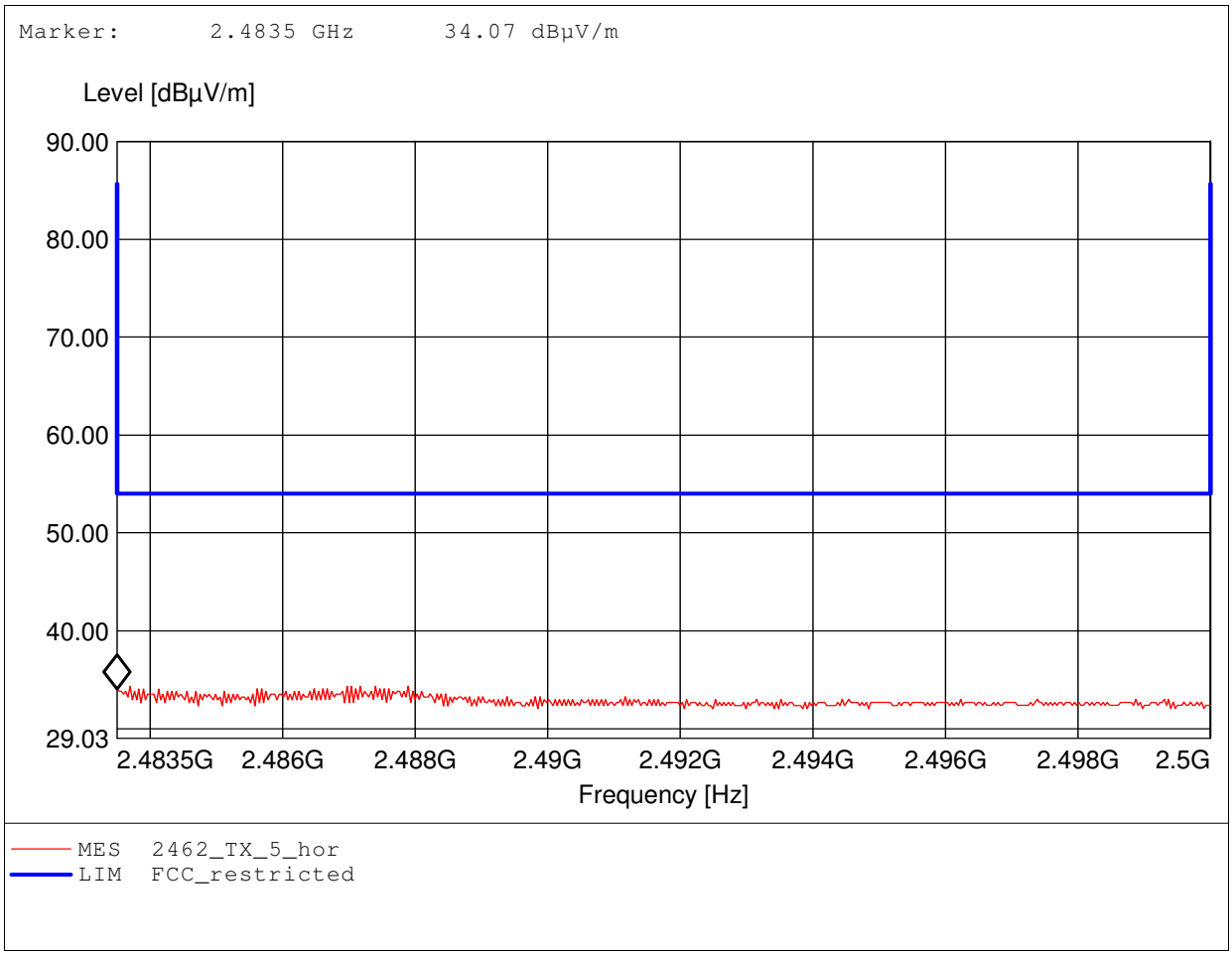
```
Approval Holder:       lesswire AG              /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module   /  WiBear SF2 UAP #6 Ceramic Ant
Setup:                 CH 11  /  DSSS  /  1Mbit/s  /  Powerlevel 18dBm  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2462
Comment 1:             Dist.: 3m, Ant.: HL 025, amplif.
Comment 2:             Freq: 2.484GHz, Emax: 59.06dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

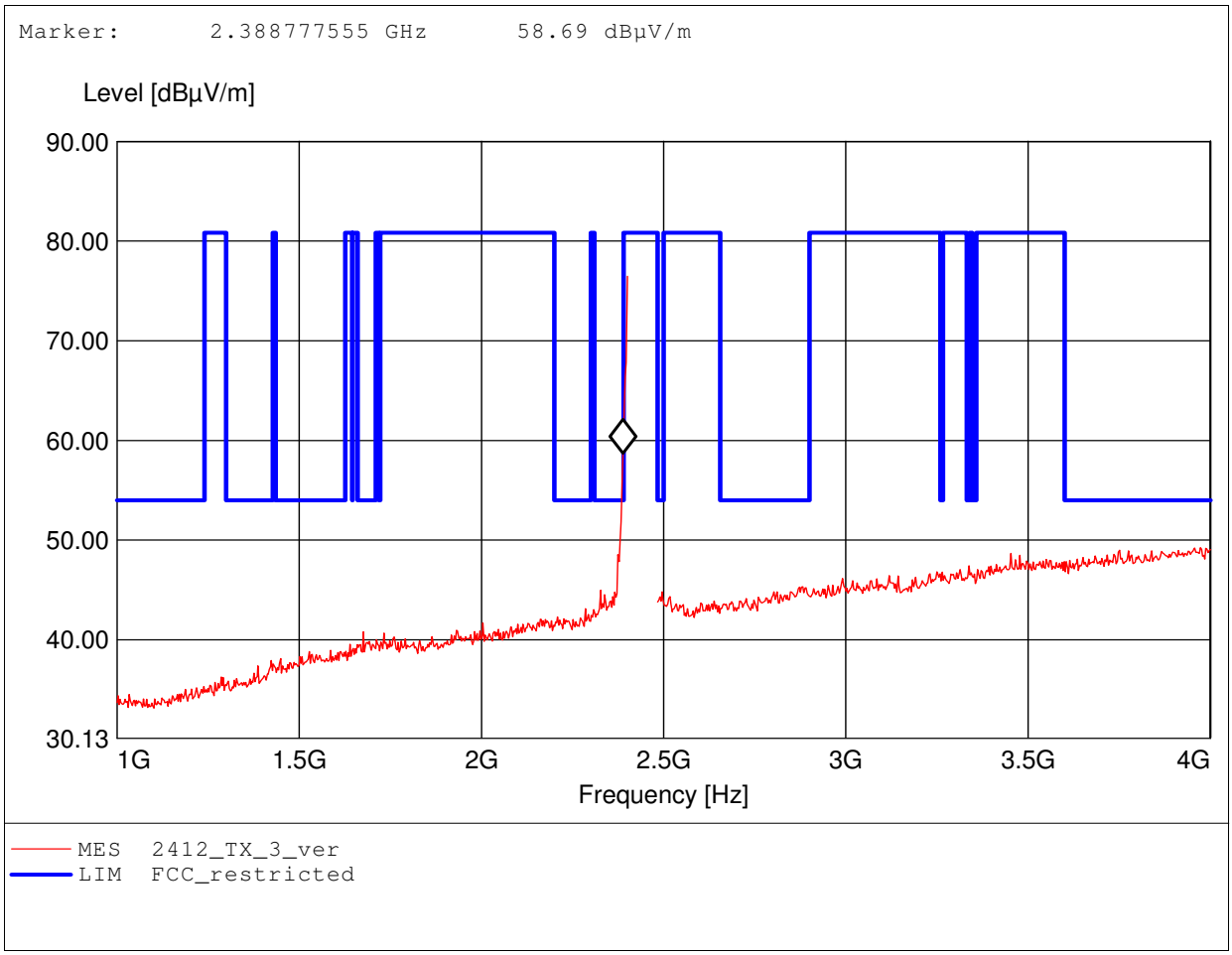
Approval Holder:	lesswire AG / G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module / WiBear SF2 UAP #6 Ceramic Ant
Setup:	CH 11 / DSSS / 1Mbit/s / Powerlevel 18dBm / y-axis
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:	Freq. / CH: 2462
Comment 1:	Dist.: 3m, Ant.: HL025, ampl.+HP., Average Detector
Comment 2:	Freq: 2.488GHz, Emax: 34.35dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

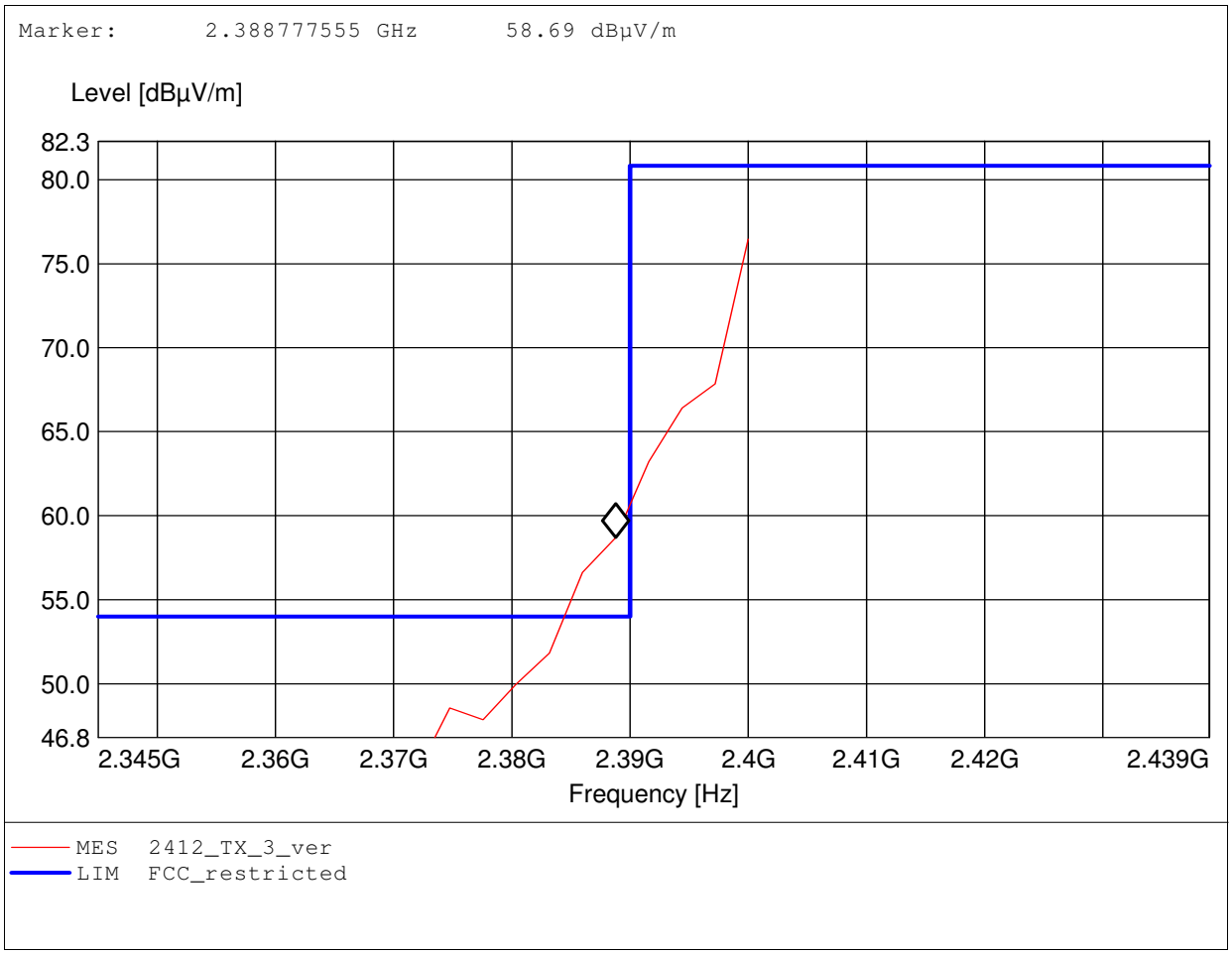
Approval Holder:	lesswire AG	/	G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module	/	WiBear SF2 UAP #6 Ceramic Ant
Setup:	CH 1 / OFDM / 6Mbit/s / Powerlevel 16dBm / y-axis		
Test Site / Operator:	Eurofins Product Service GmbH	/	Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC		
Test Specification:	Freq. / CH: 2412		
Comment 1:	Dist.: 3m, Ant.: HL 025, amplif.		
Comment 2:	Freq: 2.400GHz, Emax: 76.47dBµV/m, RBW: 1MHz		



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

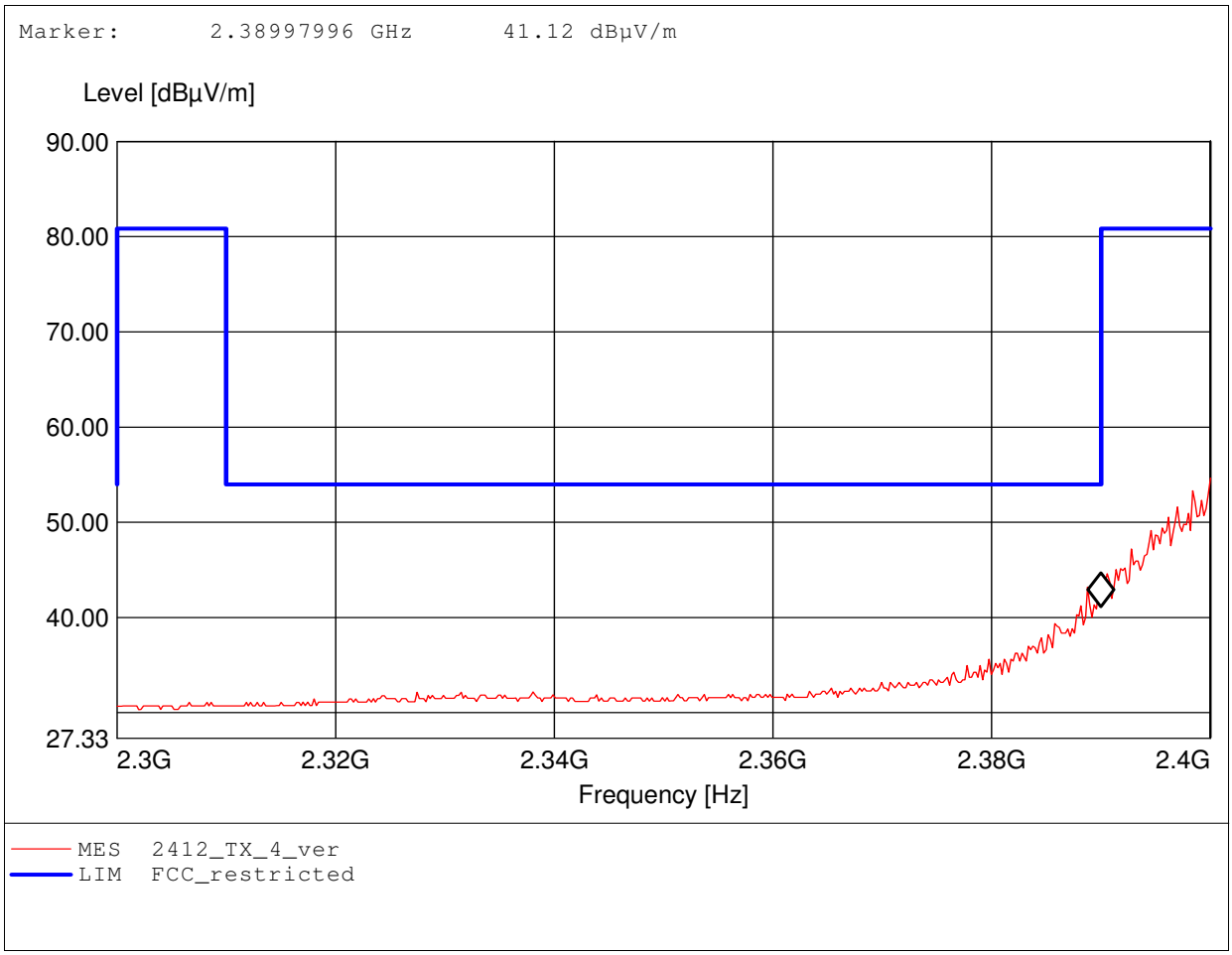
```
Approval Holder:       lesswire AG              /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module   /  WiBear SF2 UAP #6 Ceramic Ant
Setup:                 CH 1  /  OFDM  /  6Mbit/s  /  Powerlevel 16dBm  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2412
Comment 1:             Dist.: 3m, Ant.: HL 025, amplif.
Comment 2:             Freq: 2.400GHz, Emax: 76.47dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

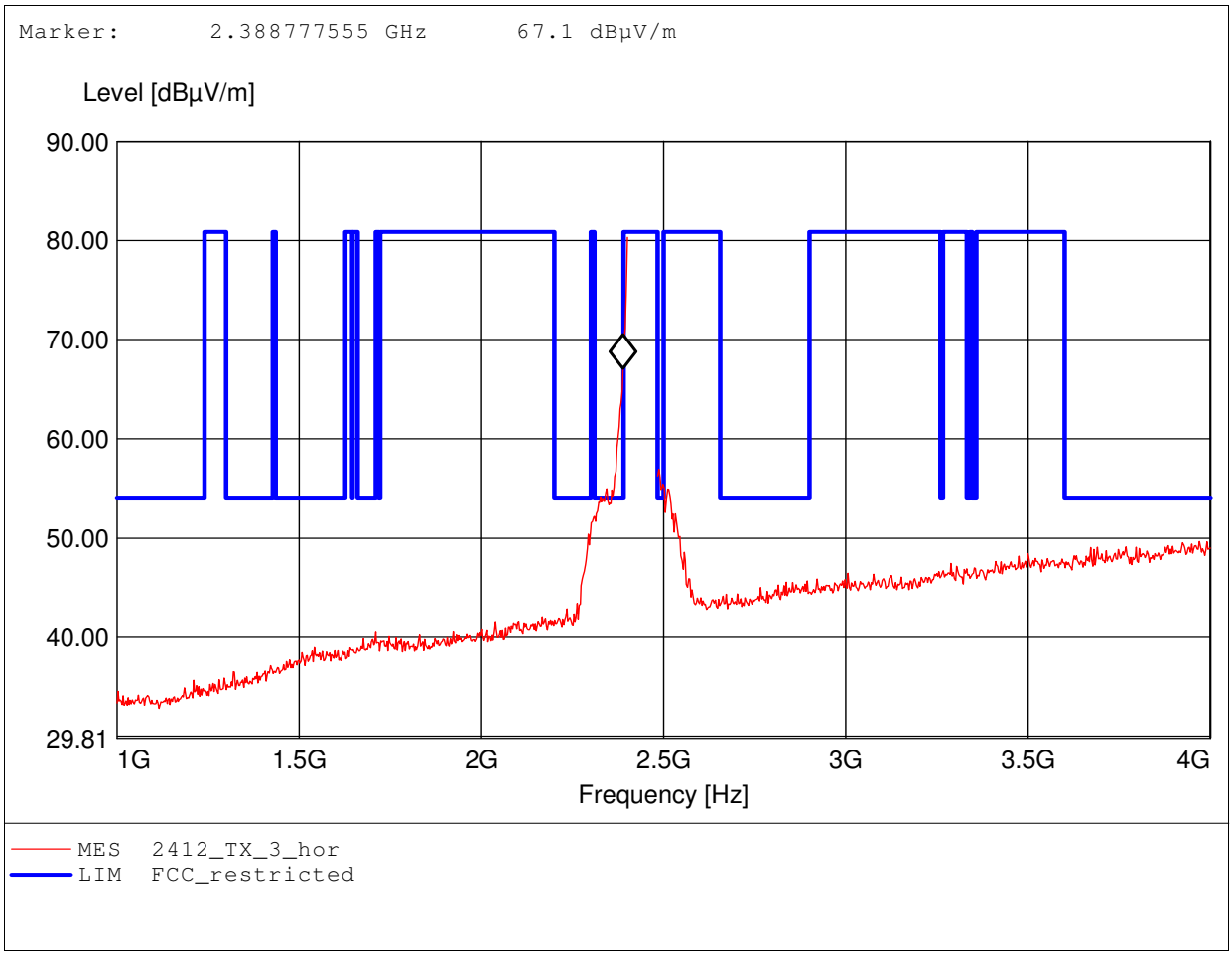
Approval Holder:	lesswire AG	/	G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module	/	WiBear SF2 UAP #6 Ceramic Ant
Setup:	CH 1 / OFDM / 6Mbit/s / Powerlevel 16dBm / y-axis		
Test Site / Operator:	Eurofins Product Service GmbH	/	Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC		
Test Specification:	Freq. / CH: 2412		
Comment 1:	Dist.: 3m, Ant.: HL025, ampl.+HP., Average Detector		
Comment 2:	Freq: 2.400GHz, Emax: 54.64dBµV/m, RBW: 1MHz		



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

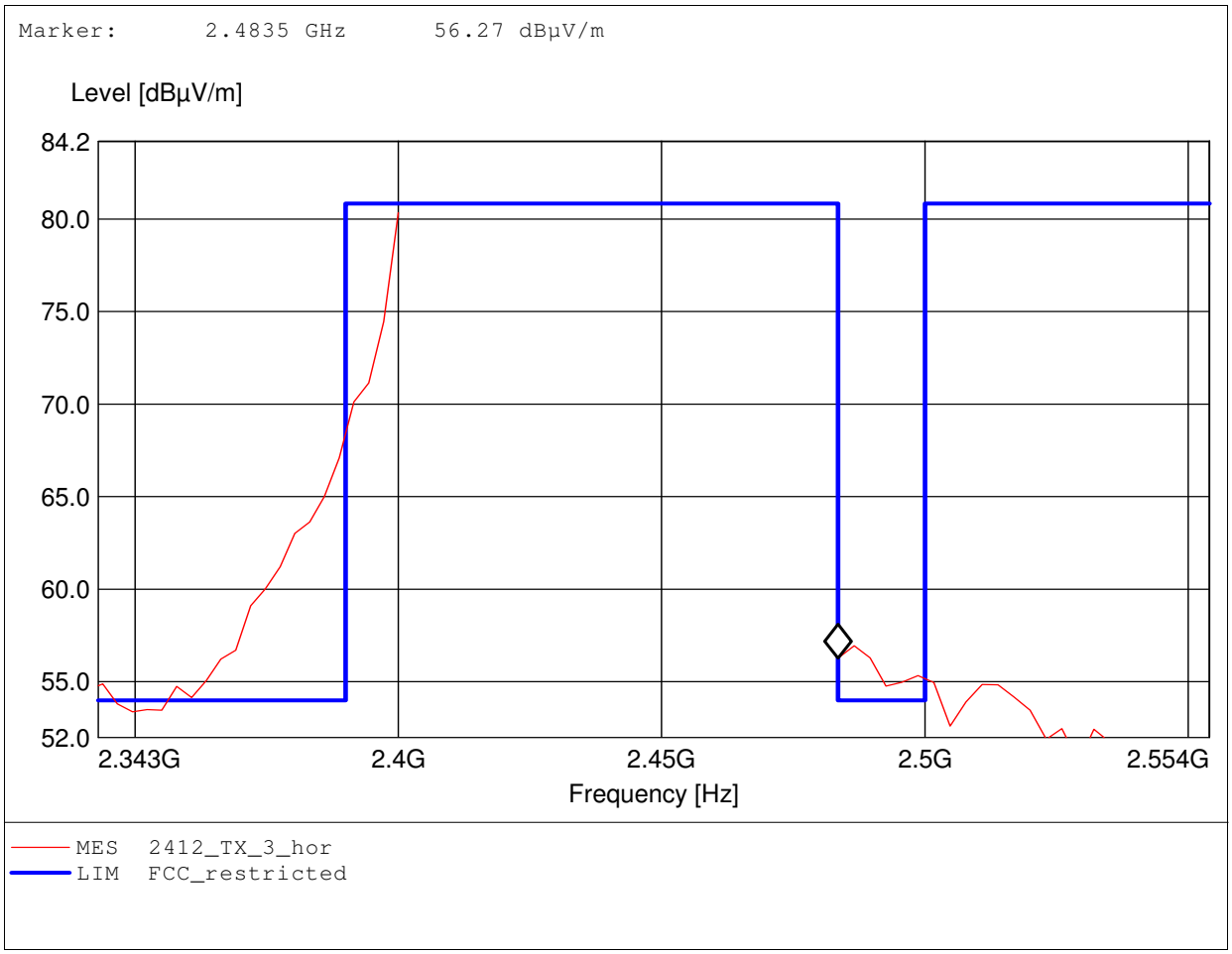
Approval Holder:	lesswire AG / G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module / WiBear SF2 UAP #6 Ceramic Ant
Setup:	CH 1 / OFDM / 6Mbit/s / Powerlevel 16dBm / y-axis
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:	Freq. / CH: 2412
Comment 1:	Dist.: 3m, Ant.: HL 025, amplif.
Comment 2:	Freq: 2.400GHz, Emax: 80.33dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

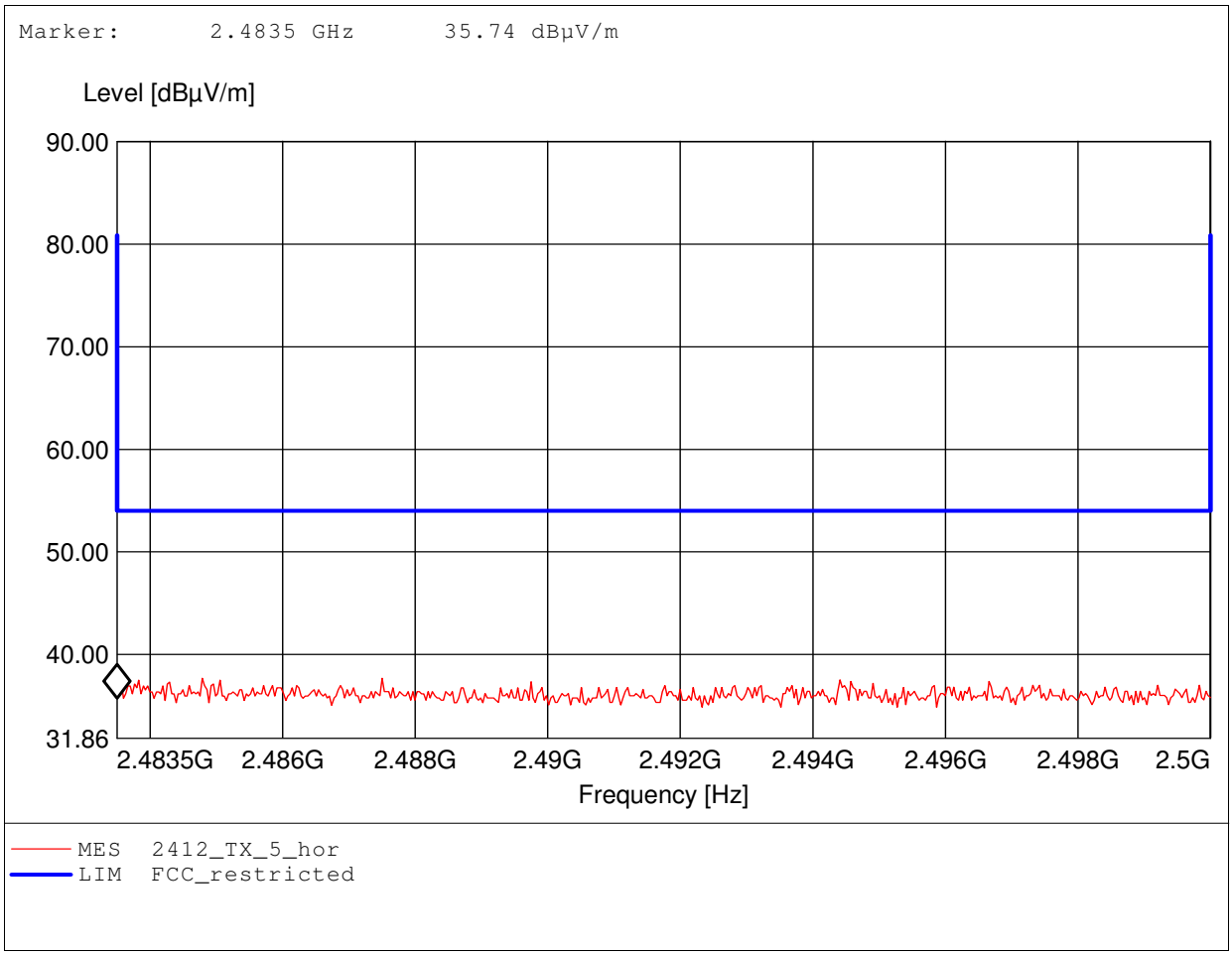
Approval Holder:	lesswire AG	/	G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module	/	WiBear SF2 UAP #6 Ceramic Ant
Setup:	CH 1 / OFDM / 6Mbit/s / Powerlevel 16dBm / y-axis		
Test Site / Operator:	Eurofins Product Service GmbH	/	Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC		
Test Specification:	Freq. / CH: 2412		
Comment 1:	Dist.: 3m, Ant.: HL 025, amplif.		
Comment 2:	Freq: 2.400GHz, Emax: 80.33dBµV/m, RBW: 1MHz		



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

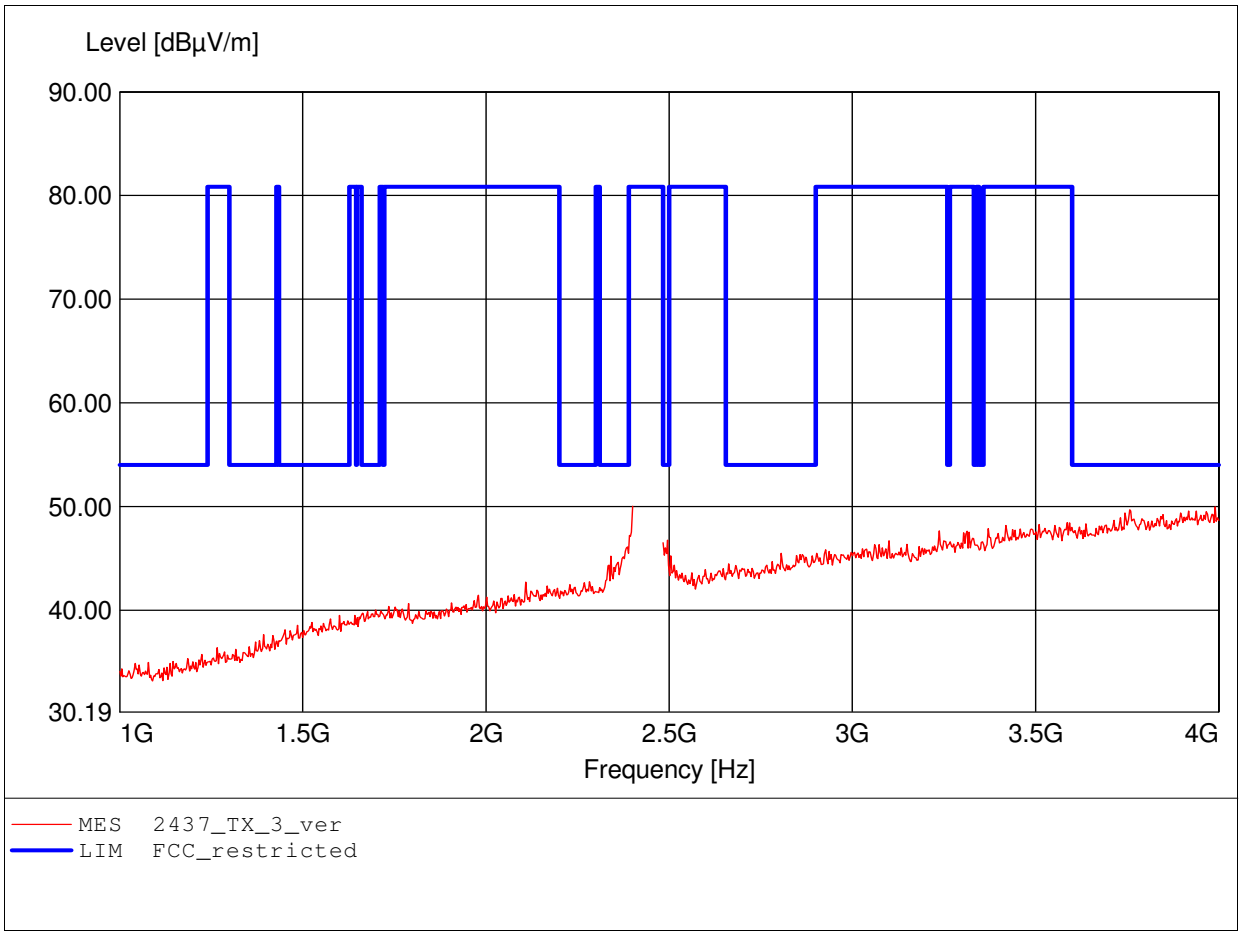
Approval Holder:	lesswire AG	/	G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module	/	WiBear SF2 UAP #6 Ceramic Ant
Setup:	CH 1 / OFDM / 6Mbit/s / Powerlevel 16dBm	/	y-axis
Test Site / Operator:	Eurofins Product Service GmbH	/	Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC		
Test Specification:	Freq. / CH: 2412		
Comment 1:	Dist.: 3m, Ant.: HL025, ampl.+HP., Average Detector		
Comment 2:	Freq: 2.488GHz, Emax: 37.70dBµV/m, RBW: 1MHz		



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

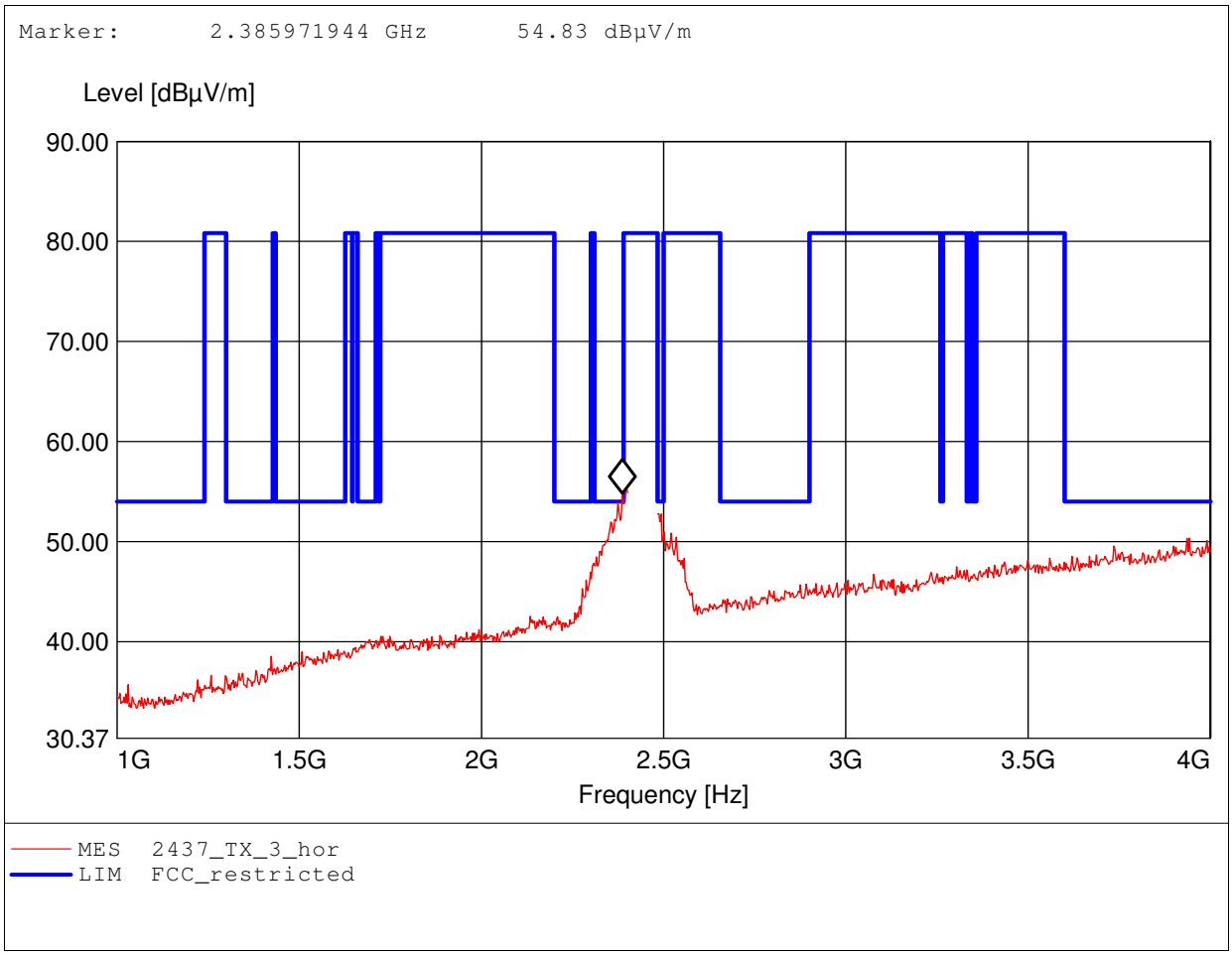
```
Approval Holder:       lesswire AG              /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module   /  WiBear SF2 UAP #6 Ceramic Ant
Setup:                 CH 6  /  OFDM  /  6Mbit/s  /  Powerlevel 16dBm  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2437
Comment 1:             Dist.: 3m, Ant.: HL 025, amplif.
Comment 2:             Freq: 2.400GHz, Emax: 50.03dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

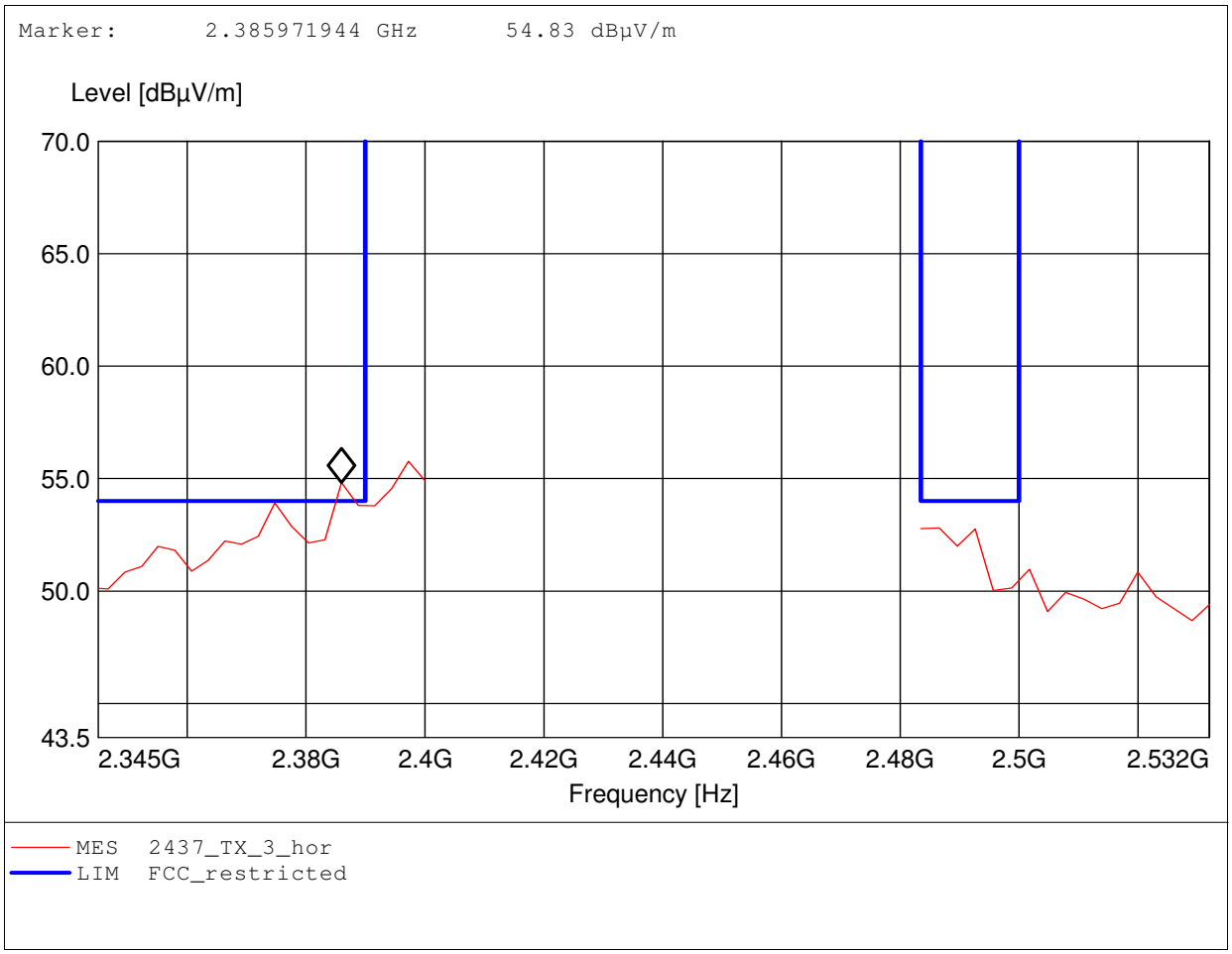
Approval Holder:	lesswire AG	/	G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module	/	WiBear SF2 UAP #6 Ceramic Ant
Setup:	CH 6 / OFDM / 6Mbit/s / Powerlevel 16dBm / y-axis		
Test Site / Operator:	Eurofins Product Service GmbH	/	Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC		
Test Specification:	Freq. / CH: 2437		
Comment 1:	Dist.: 3m, Ant.: HL 025, amplif.		
Comment 2:	Freq: 2.397GHz, Emax: 55.77dBµV/m, RBW: 1MHz		



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

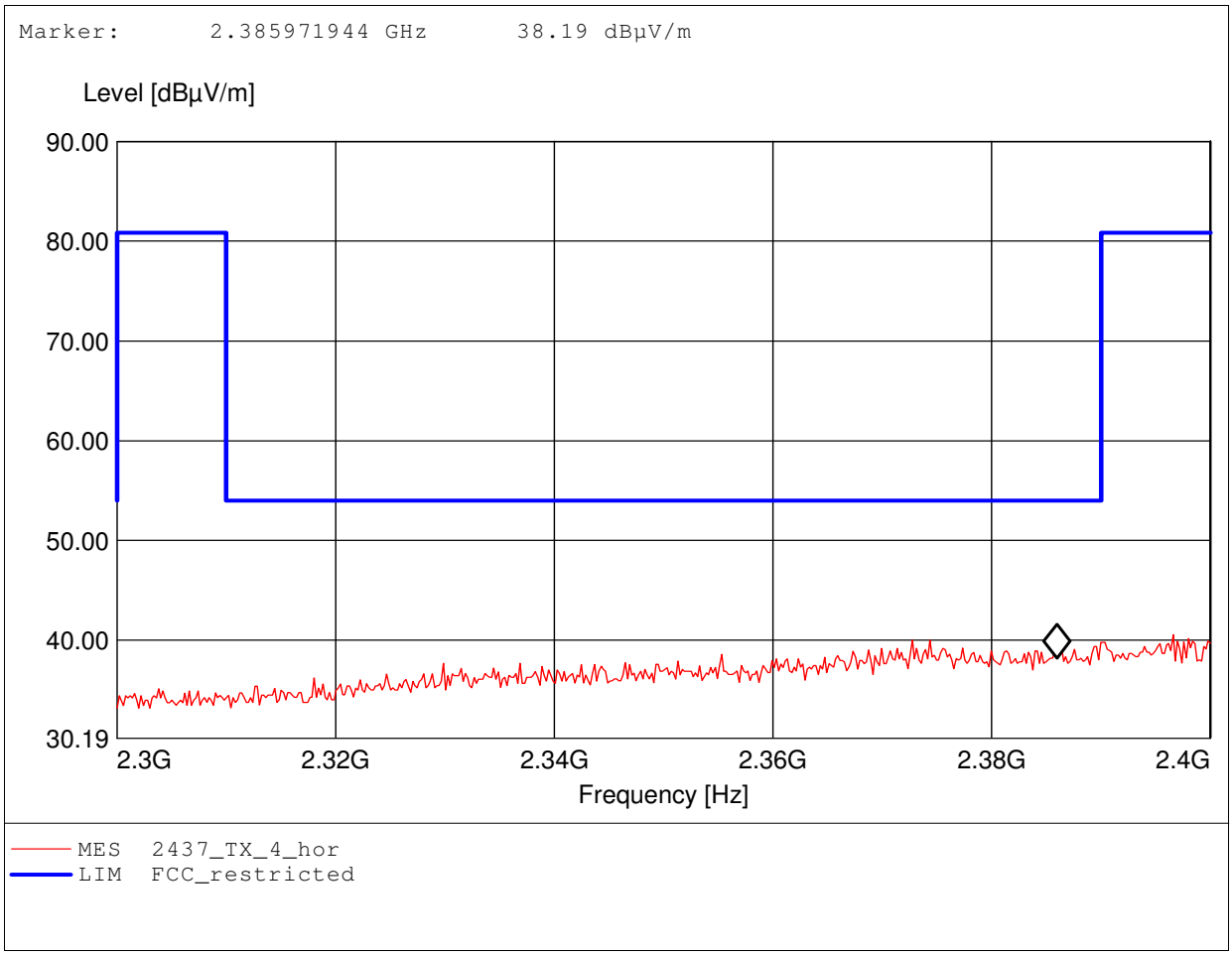
Approval Holder:	lesswire AG	/	G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module	/	WiBear SF2 UAP #6 Ceramic Ant
Setup:	CH 6 / OFDM / 6Mbit/s / Powerlevel 16dBm / y-axis		
Test Site / Operator:	Eurofins Product Service GmbH	/	Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC		
Test Specification:	Freq. / CH: 2437		
Comment 1:	Dist.: 3m, Ant.: HL 025, amplif.		
Comment 2:	Freq: 2.397GHz, Emax: 55.77dBµV/m, RBW: 1MHz		



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

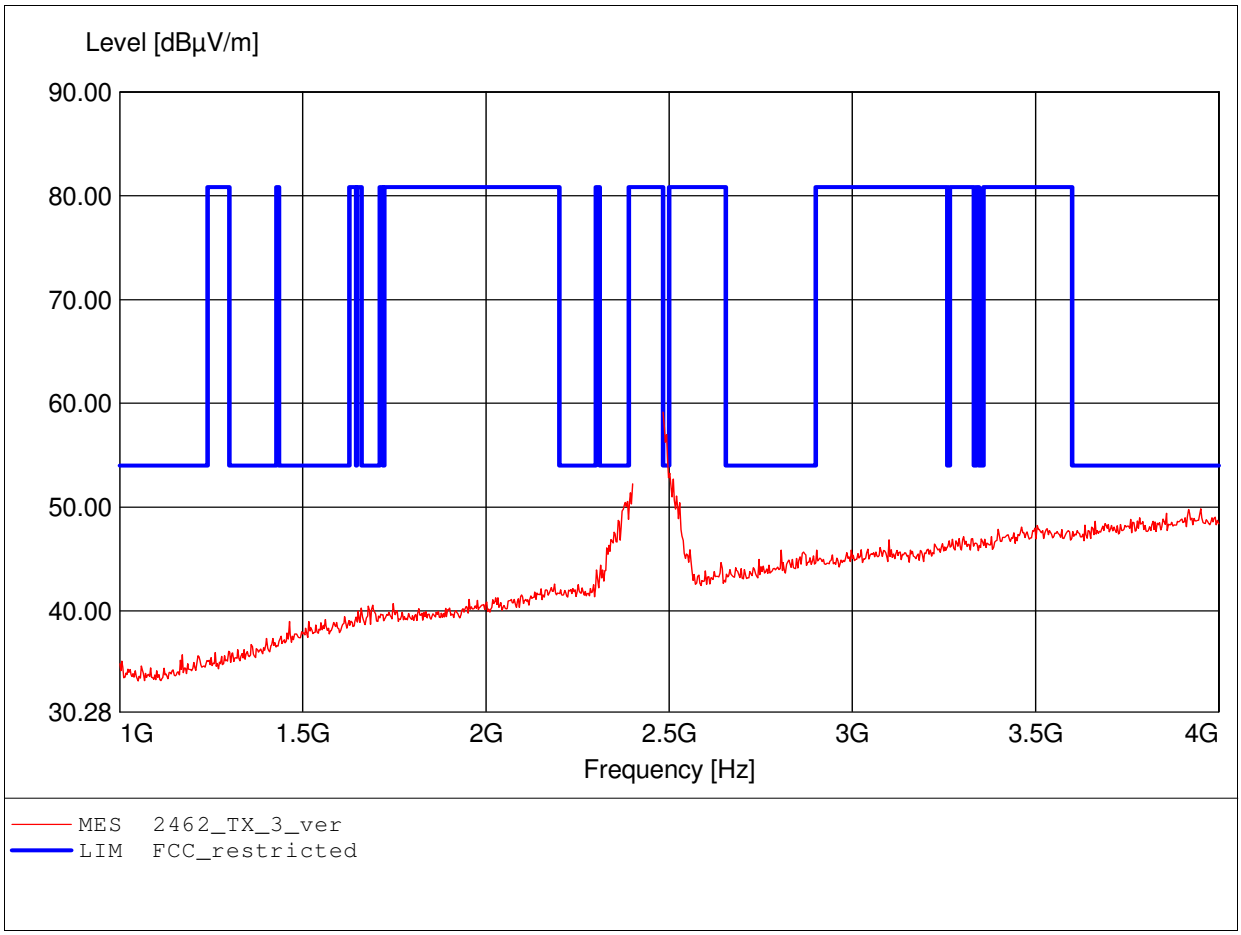
Approval Holder:	lesswire AG	/	G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module	/	WiBear SF2 UAP #6 Ceramic Ant
Setup:	CH 6 / OFDM / 6Mbit/s / Powerlevel 16dBm / y-axis		
Test Site / Operator:	Eurofins Product Service GmbH	/	Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC		
Test Specification:	Freq. / CH: 2437		
Comment 1:	Dist.: 3m, Ant.: HL025, ampl.+HP., Average Detector		
Comment 2:	Freq: 2.397GHz, Emax: 40.55dBµV/m, RBW: 1MHz		



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

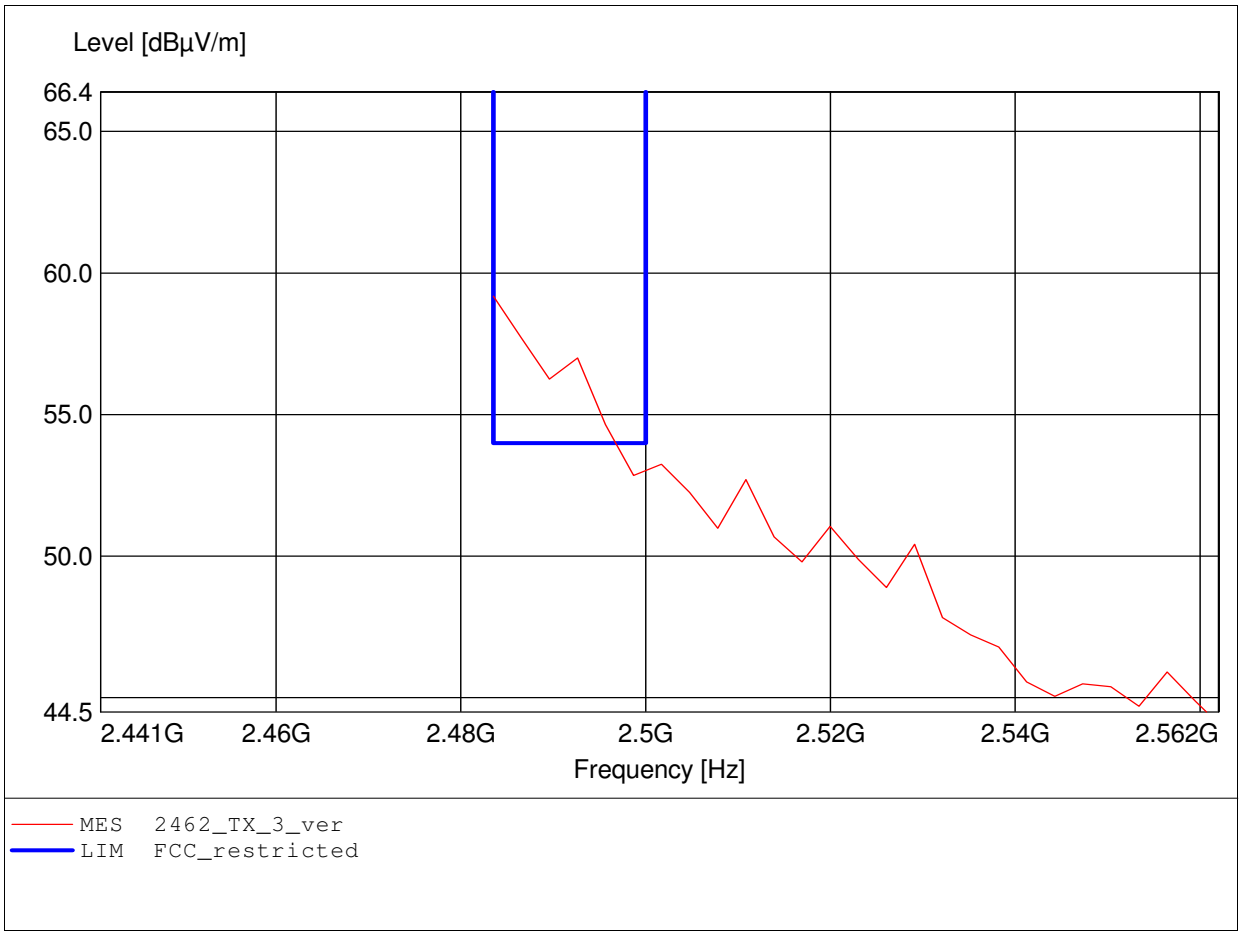
Approval Holder:	lesswire AG / G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module / WiBear SF2 UAP #6 Ceramic Ant
Setup:	CH 11 / OFDM / 6Mbit/s / Powerlevel 16dBm / y-axis
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:	Freq. / CH: 2462
Comment 1:	Dist.: 3m, Ant.: HL 025, amplif.
Comment 2:	Freq: 2.484GHz, Emax: 59.17dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

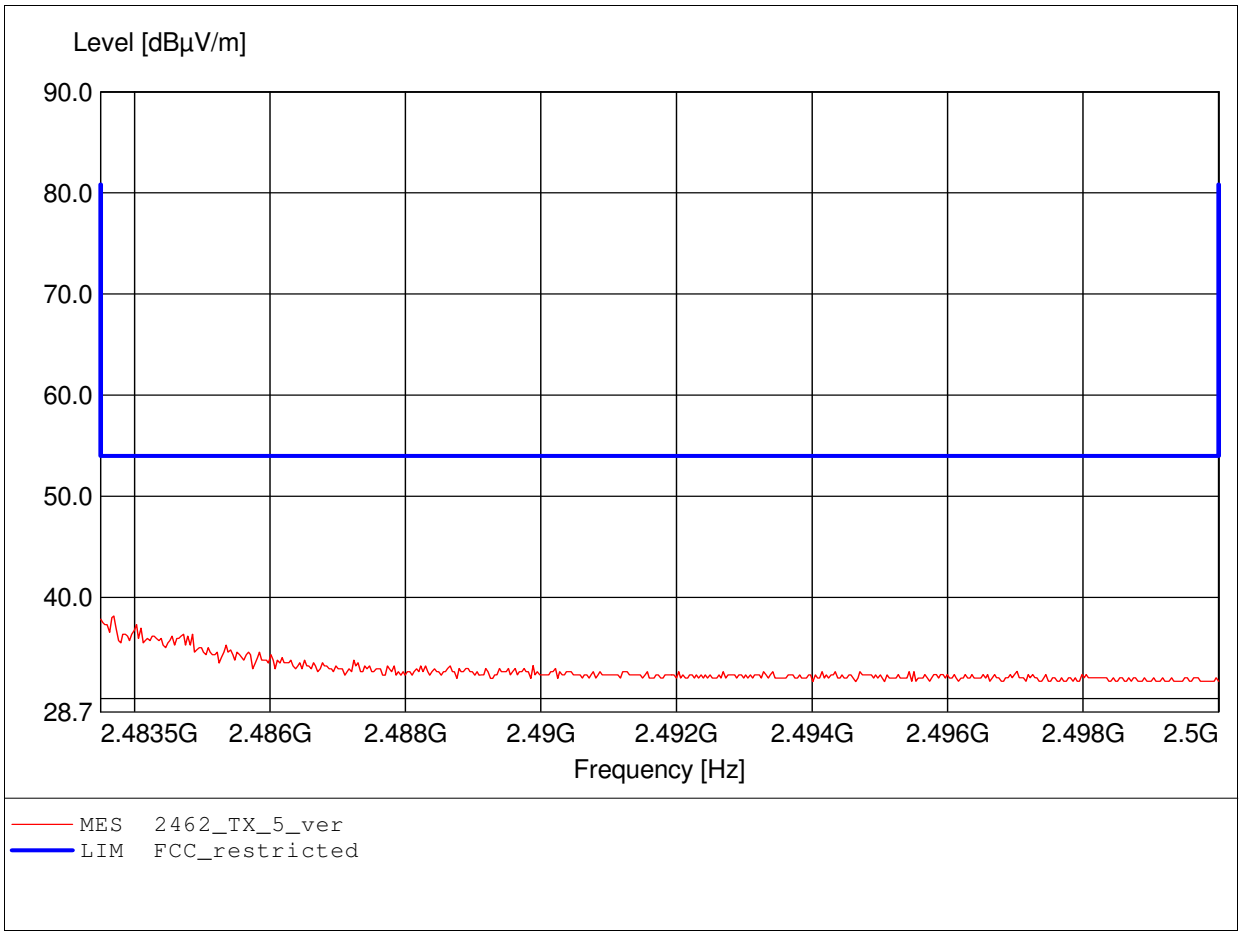
```
Approval Holder:       lesswire AG              /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module   /  WiBear SF2 UAP #6 Ceramic Ant
Setup:                 CH 11  /  OFDM  /  6Mbit/s  /  Powerlevel 16dBm  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2462
Comment 1:             Dist.: 3m, Ant.: HL 025, amplif.
Comment 2:             Freq: 2.484GHz, Emax: 59.17dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

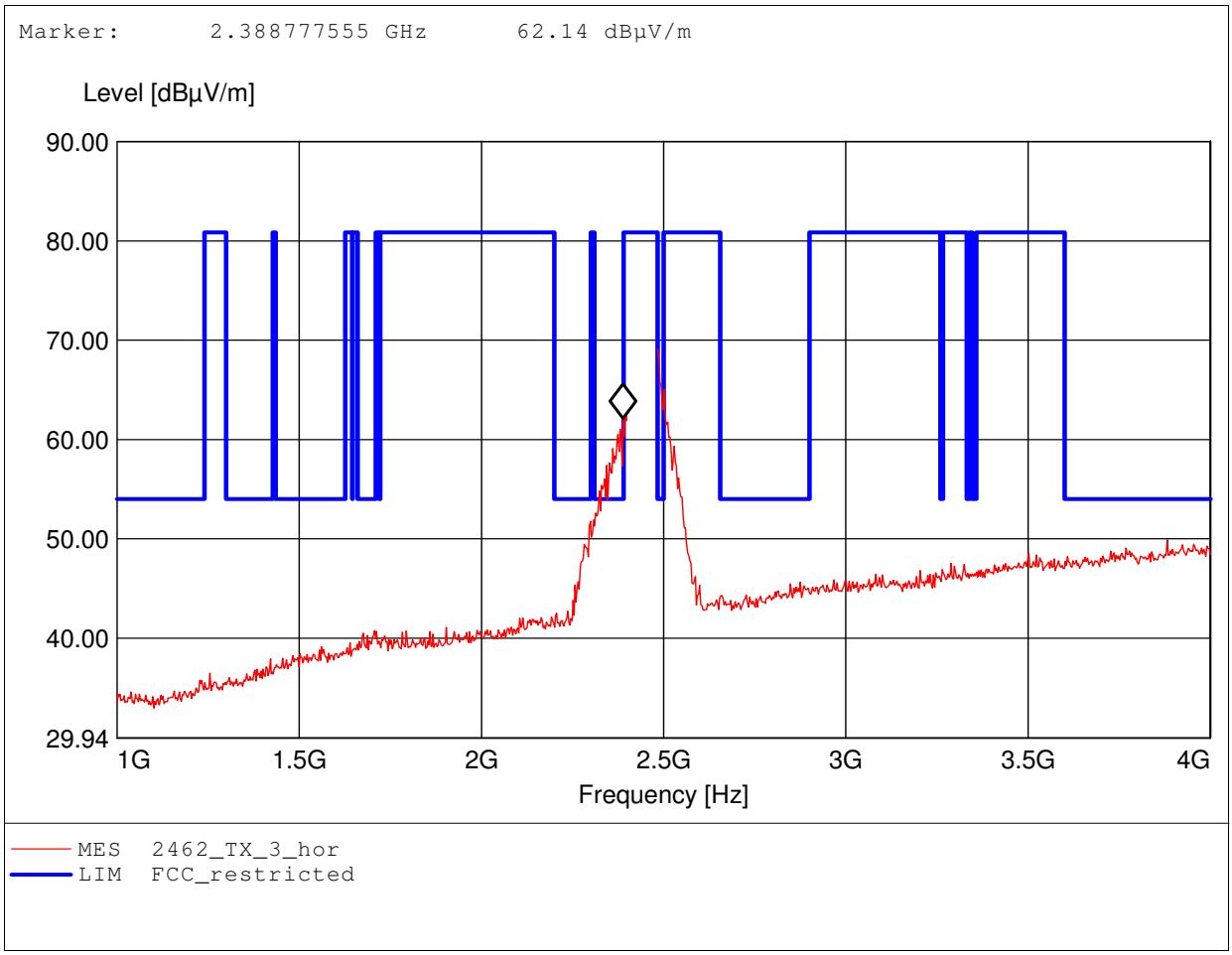
```
Approval Holder:       lesswire AG              /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module   /  WiBear SF2 UAP #6 Ceramic Ant
Setup:                 CH 11  /  OFDM  /  6Mbit/s  /  Powerlevel 16dBm  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2462
Comment 1:             Dist.: 3m, Ant.: HL025, ampl.+HP., Average Detector
Comment 2:             Freq: 2.484GHz, Emax: 38.19dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

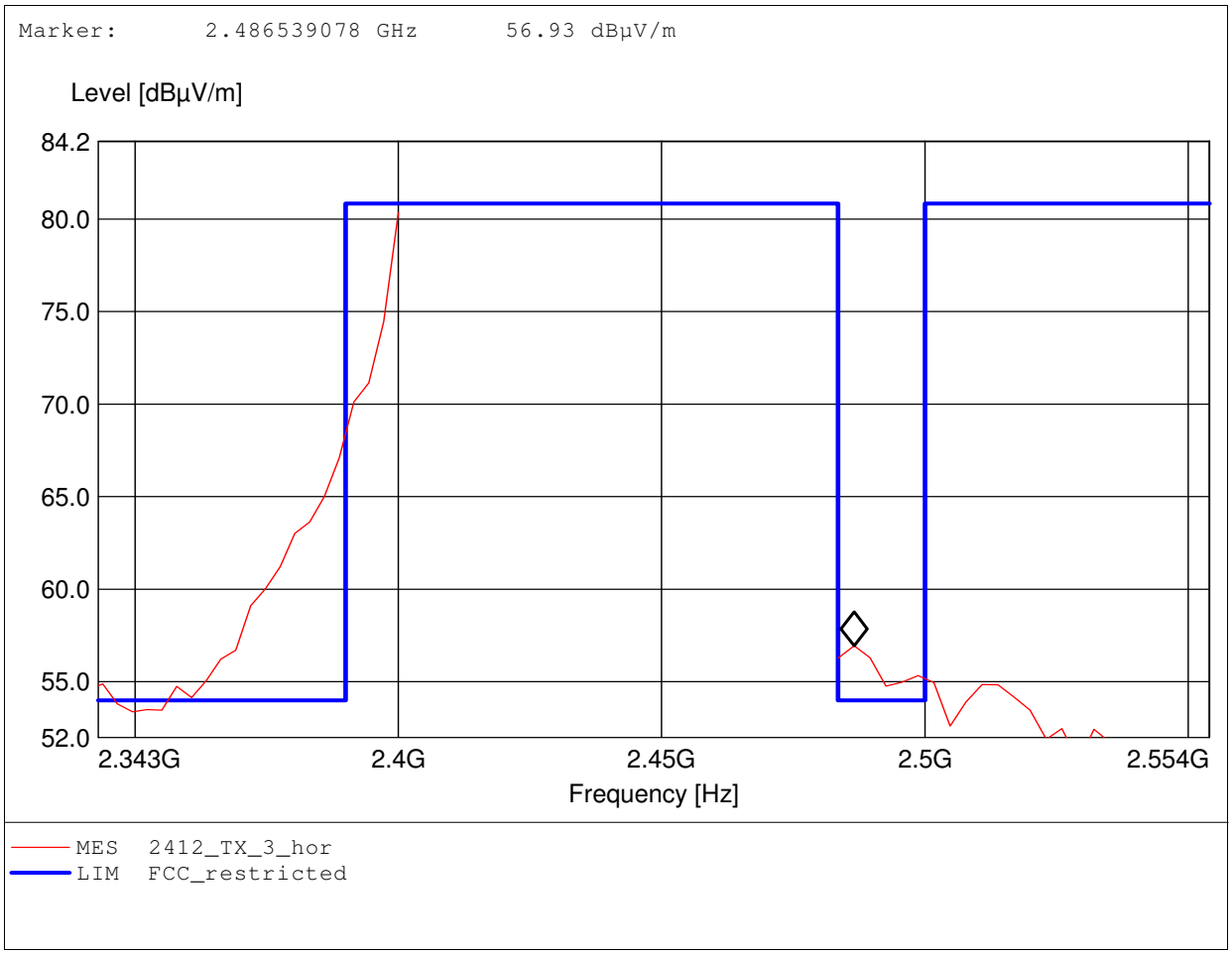
Approval Holder:	lesswire AG	/	G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module	/	WiBear SF2 UAP #6 Ceramic Ant
Setup:	CH 11 / OFDM / 6Mbit/s	/	Powerlevel 16dBm / y-axis
Test Site / Operator:	Eurofins Product Service GmbH	/	Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC		
Test Specification:	Freq. / CH: 2462		
Comment 1:	Dist.: 3m, Ant.: HL 025, amplif.		
Comment 2:	Freq: 2.484GHz, Emax: 69.12dBµV/m, RBW: 1MHz		



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

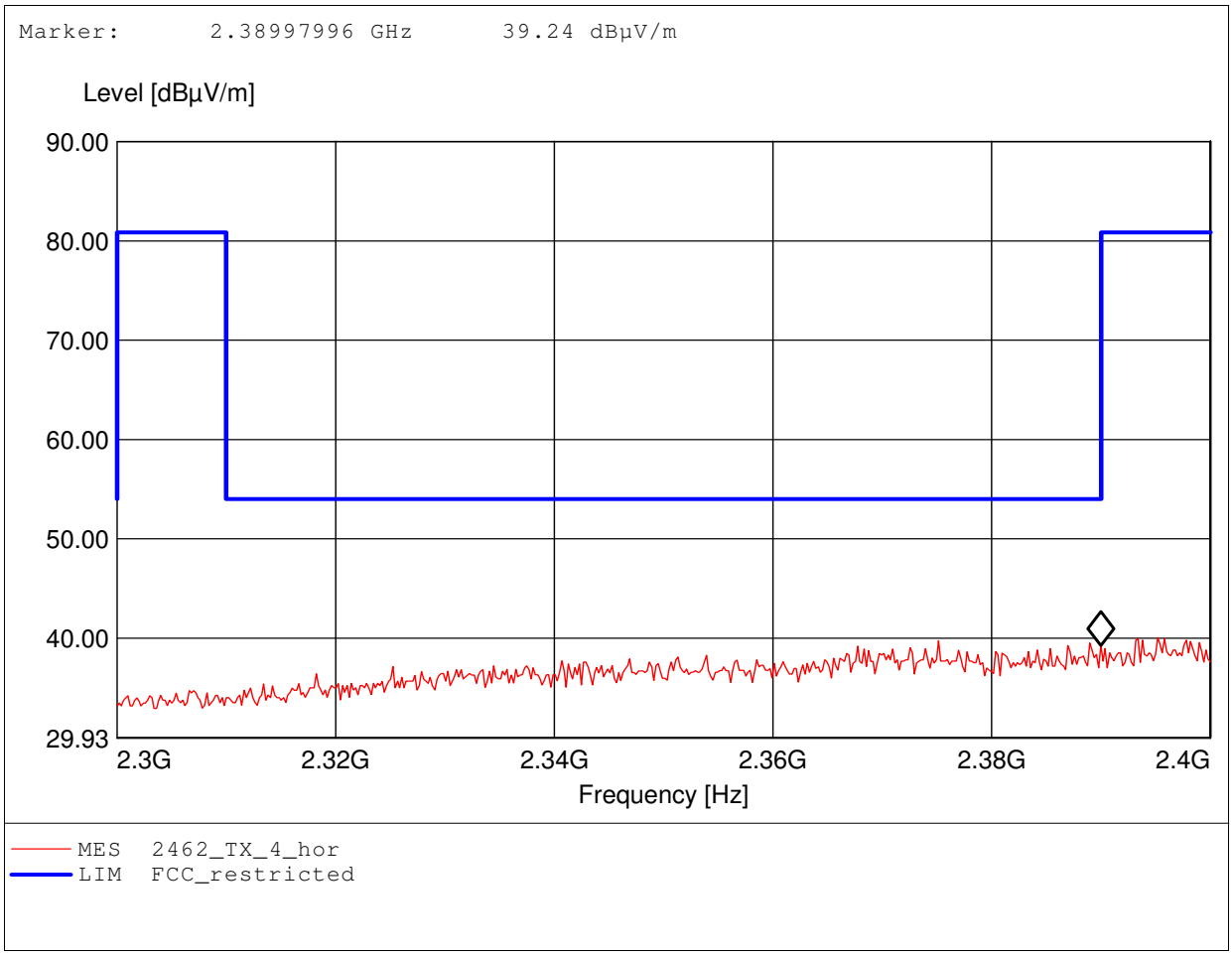
Approval Holder:	lesswire AG / G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module / WiBear SF2 UAP #6 Ceramic Ant
Setup:	CH 1 / OFDM / 6Mbit/s / Powerlevel 16dBm / y-axis
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:	Freq. / CH: 2412
Comment 1:	Dist.: 3m, Ant.: HL 025, amplif.
Comment 2:	Freq: 2.400GHz, Emax: 80.33dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

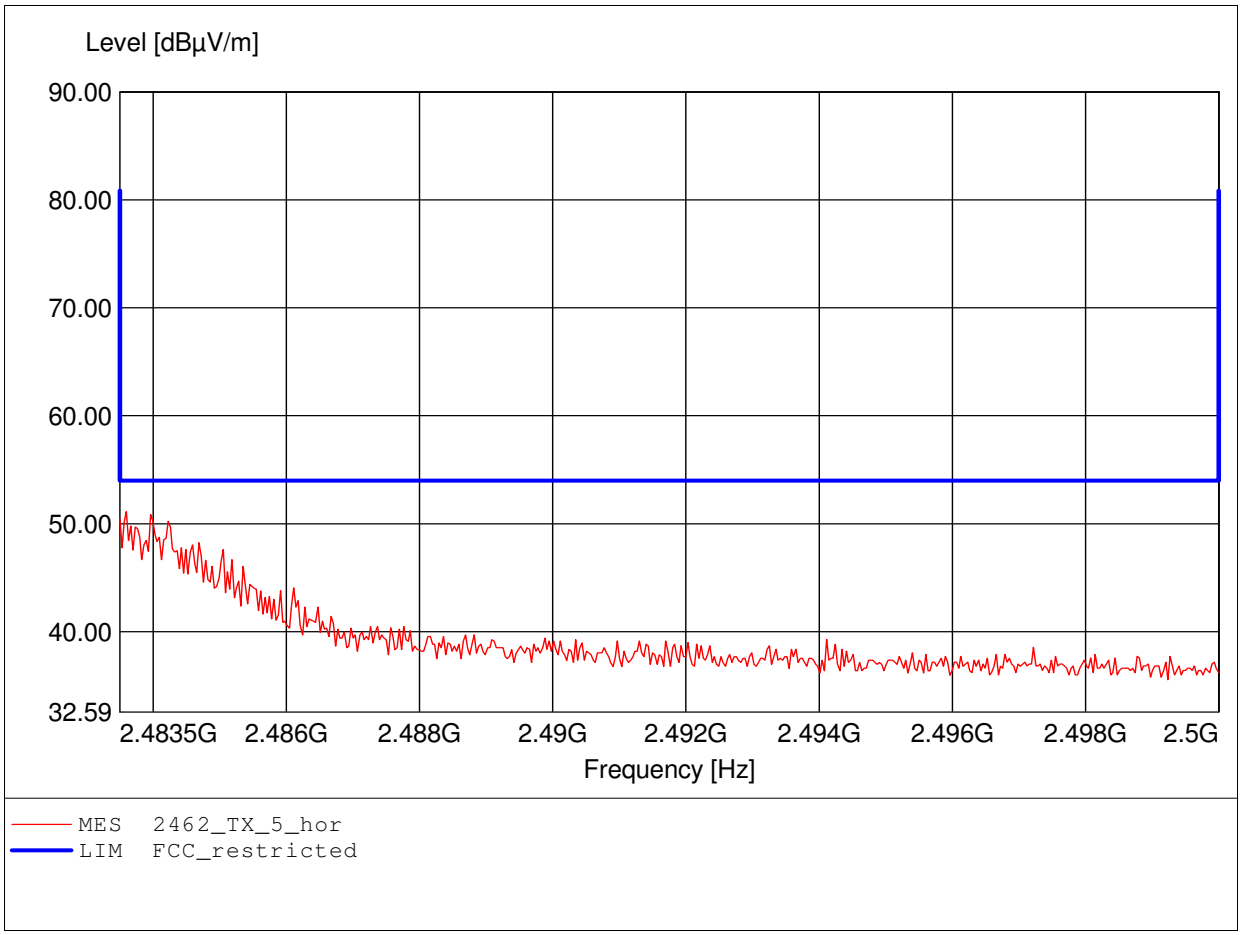
Approval Holder:	lesswire AG / G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module / WiBear SF2 UAP #6 Ceramic Ant
Setup:	CH 11 / OFDM / 6Mbit/s / Powerlevel 16dBm / y-axis
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:	Freq. / CH: 2462
Comment 1:	Dist.: 3m, Ant.: HL025, ampl.+HP., Average Detector
Comment 2:	Freq: 2.395GHz, Emax: 40.05dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

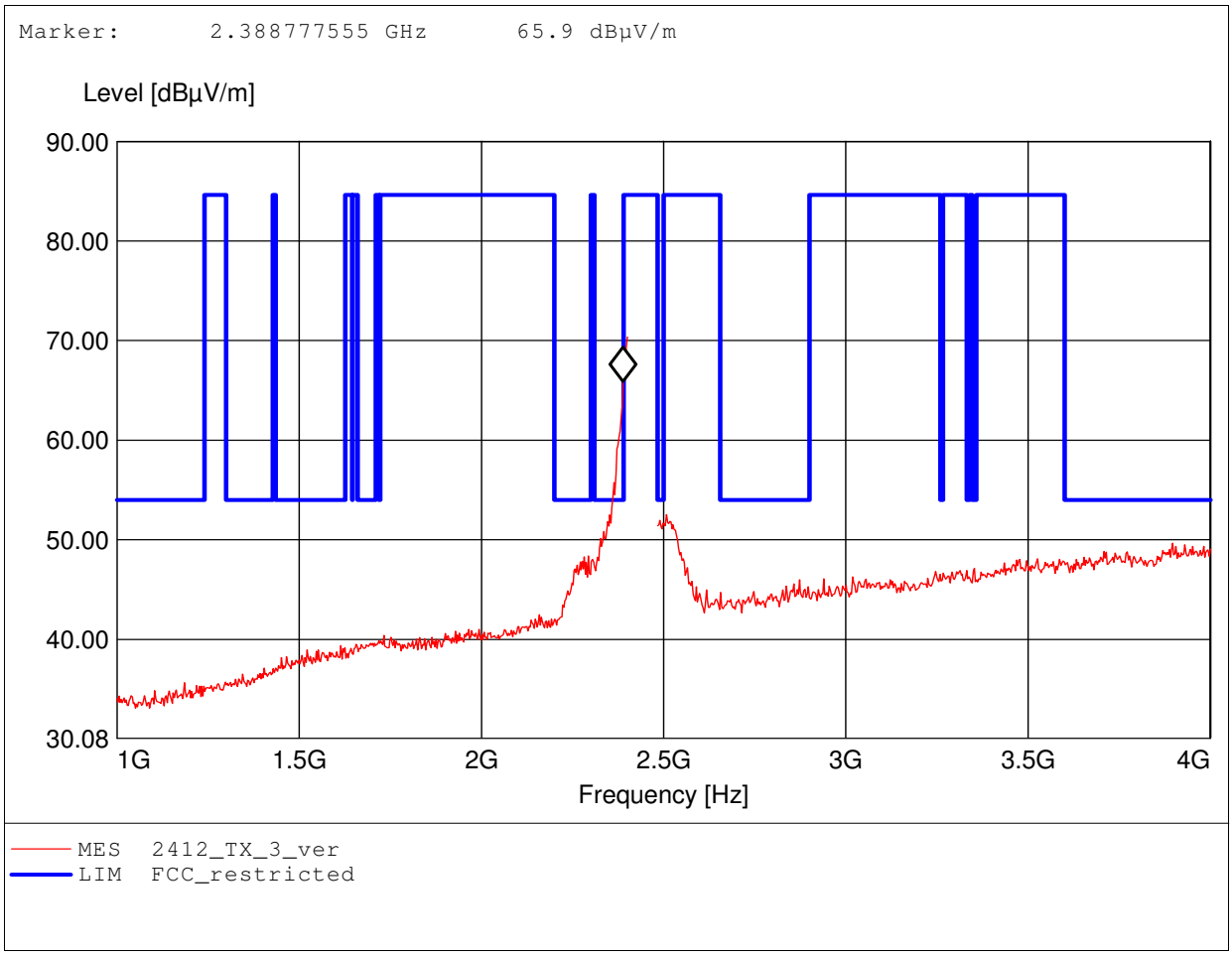
Approval Holder:	lesswire AG / G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module / WiBear SF2 UAP #6 Ceramic Ant
Setup:	CH 11 / OFDM / 6Mbit/s / Powerlevel 16dBm / y-axis
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:	Freq. / CH: 2462
Comment 1:	Dist.: 3m, Ant.: HL025, ampl.+HP., Average Detector
Comment 2:	Freq: 2.484GHz, Emax: 51.12dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

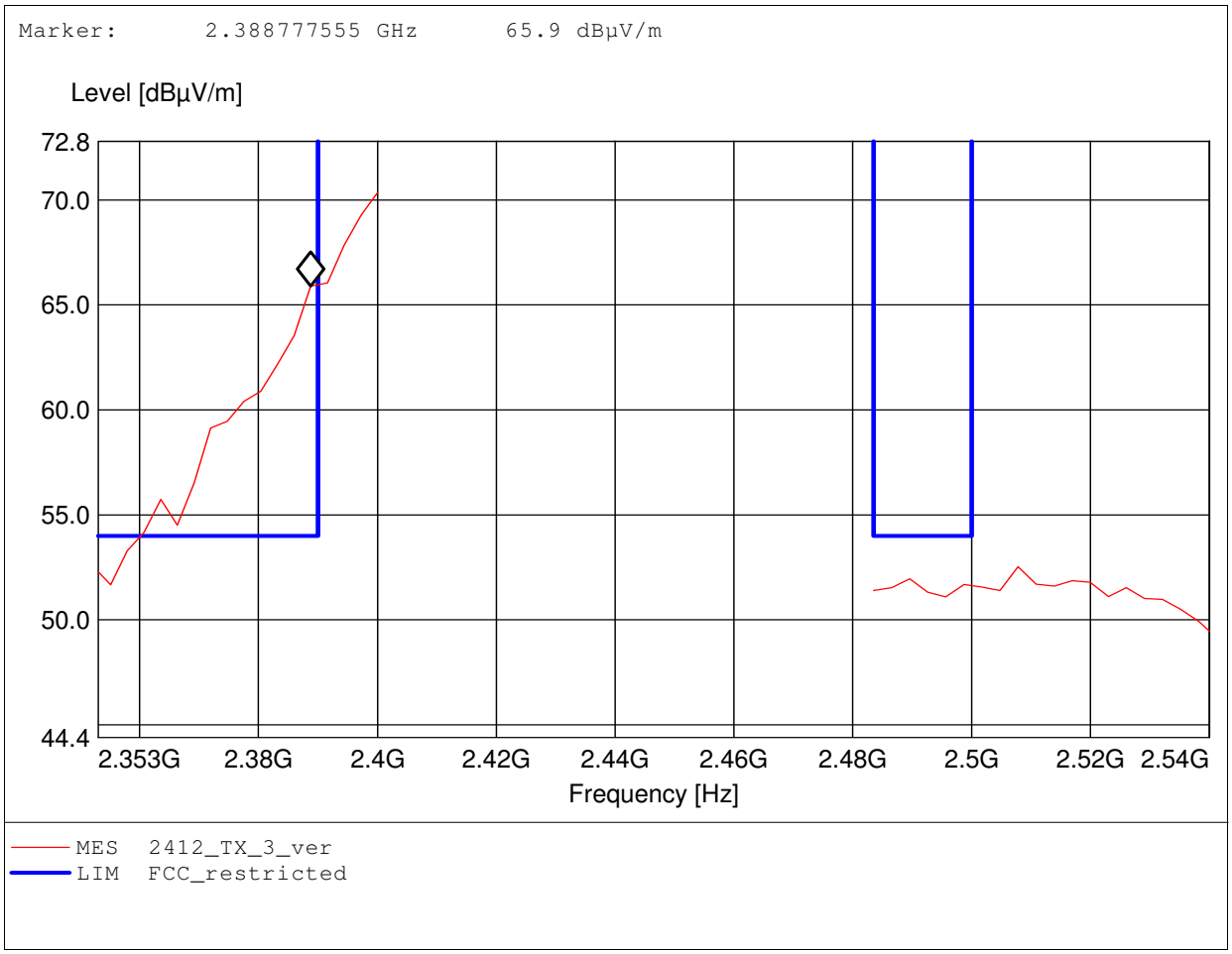
```
Approval Holder:       lesswire AG                /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module  /  WiBear SF2 UAP #4 Ant ext - ver
Setup:                 CH 1  /  DSSS  /  1Mbit/s  /  Powerlevel 18dBm  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2412
Comment 1:             Dist.: 3m, Ant.: HL 025, amplif.
Comment 2:             Freq: 2.400GHz, Emax: 70.36dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

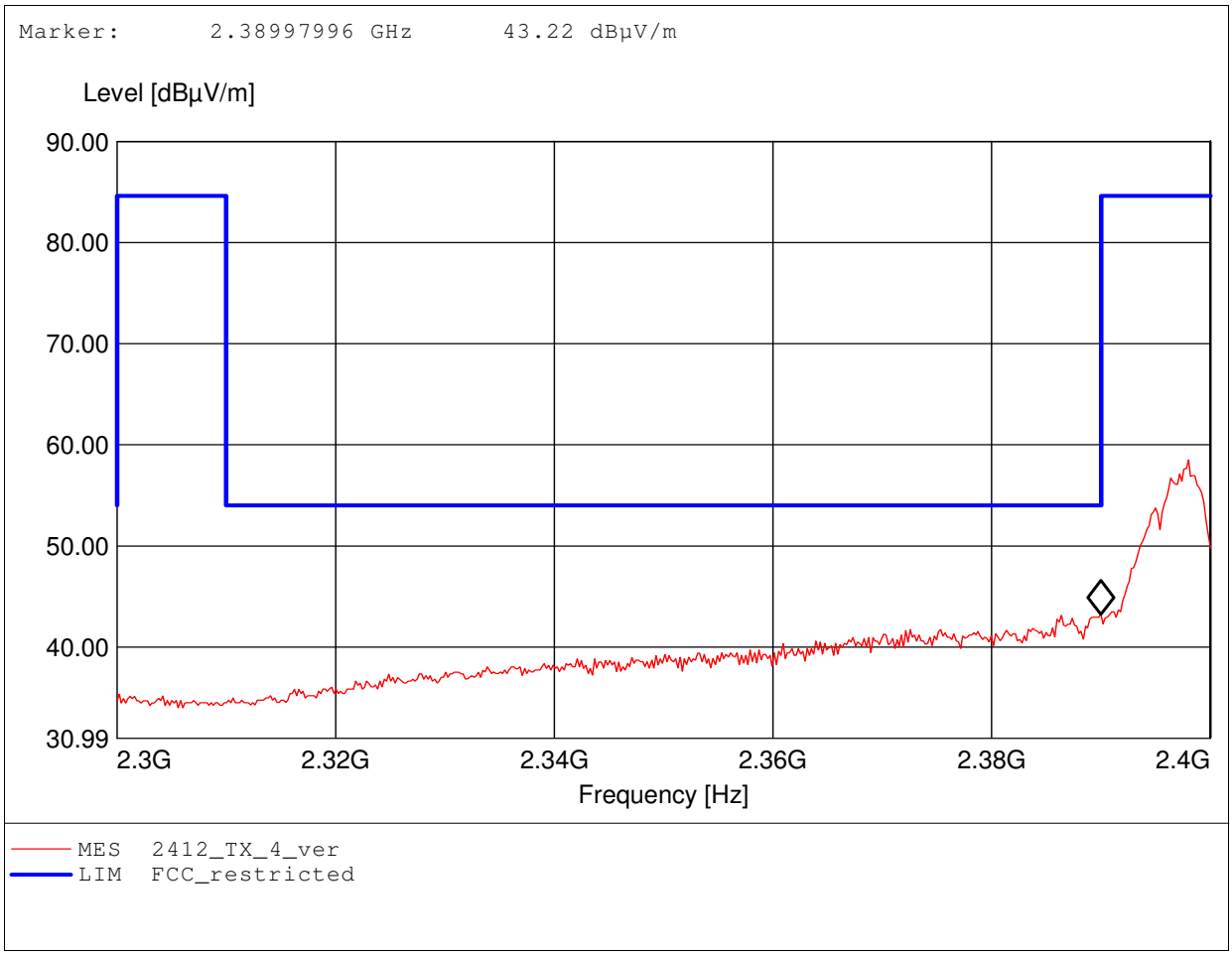
Approval Holder:	lesswire AG / G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module / WiBear SF2 UAP #4 Ant ext - ver
Setup:	CH 1 / DSSS / 1Mbit/s / Powerlevel 18dBm / y-axis
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:	Freq. / CH: 2412
Comment 1:	Dist.: 3m, Ant.: HL 025, amplif.
Comment 2:	Freq: 2.400GHz, Emax: 70.36dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

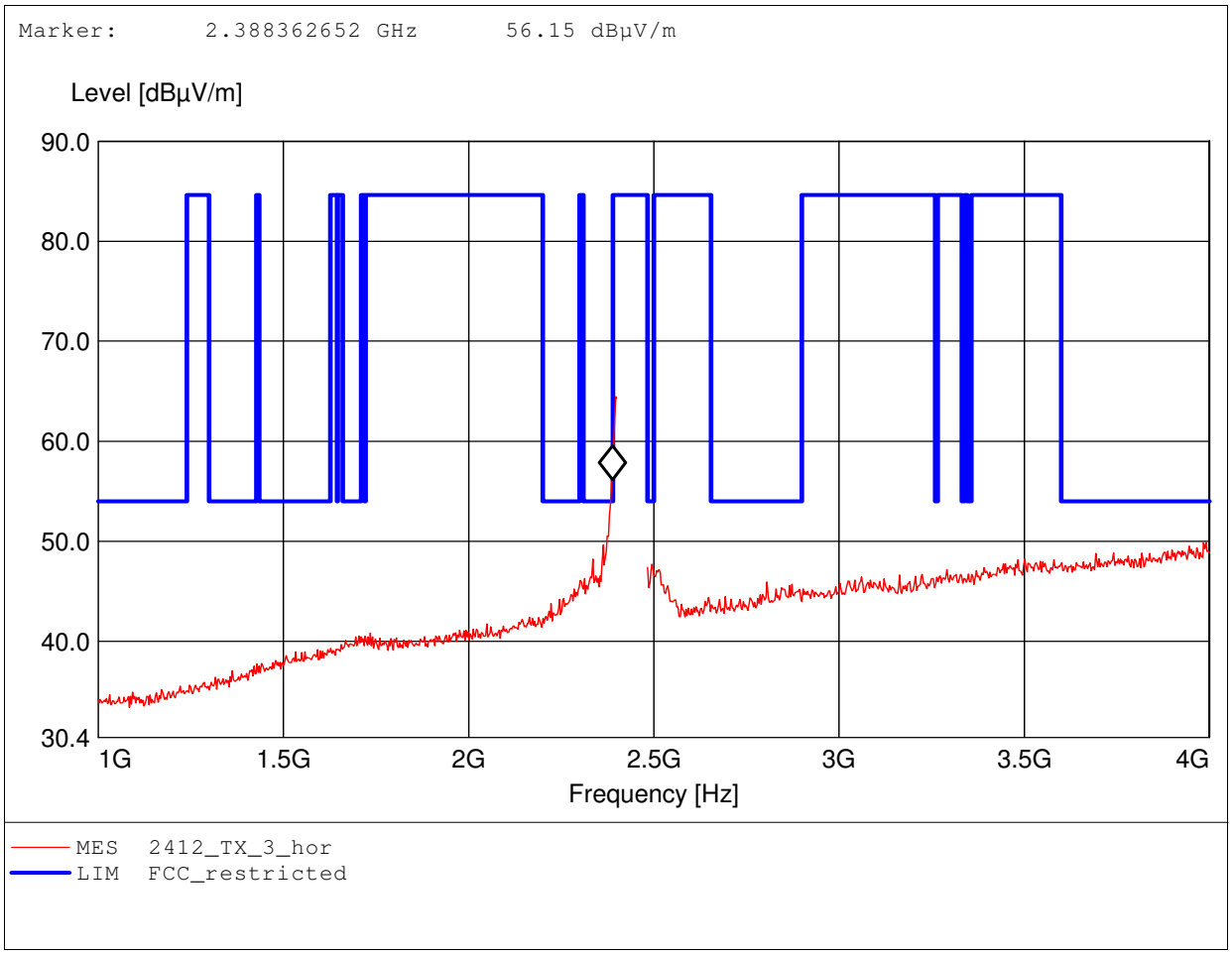
Approval Holder:	lesswire AG	/	G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module	/	WiBear SF2 UAP #4 Ant ext - ver
Setup:	CH 1 / DSSS / 1Mbit/s / Powerlevel 18dBm	/	y-axis
Test Site / Operator:	Eurofins Product Service GmbH	/	Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC		
Test Specification:	Freq. / CH: 2412		
Comment 1:	Dist.: 3m, Ant.: HL025, ampl.+HP., Average Detector		
Comment 2:	Freq: 2.398GHz, Emax: 58.48dBµV/m, RBW: 1MHz		



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

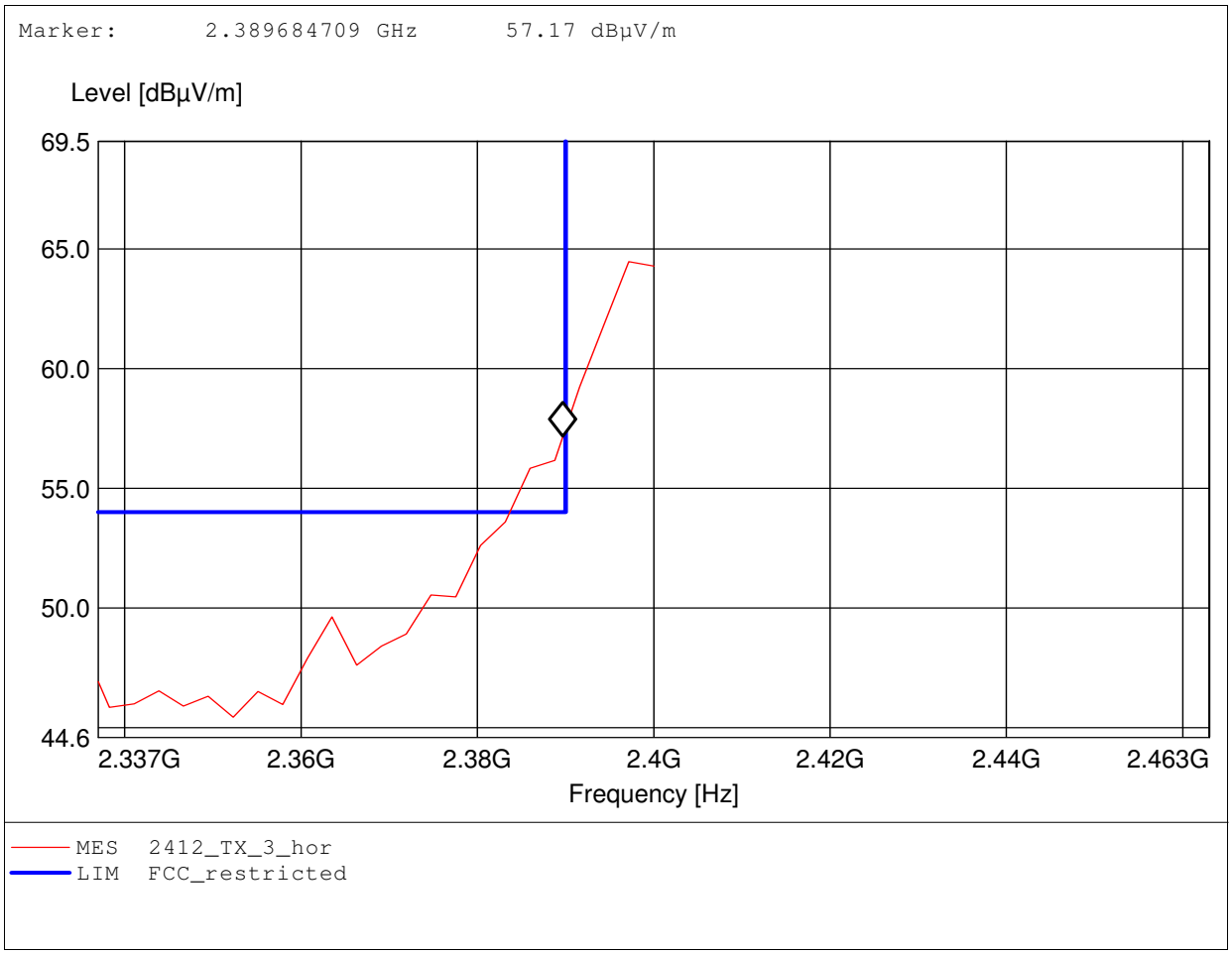
Approval Holder:	lesswire AG	/	G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module	/	WiBear SF2 UAP #4 Ant ext - ver
Setup:	CH 1 / DSSS / 1Mbit/s / Powerlevel 18dBm / y-axis		
Test Site / Operator:	Eurofins Product Service GmbH	/	Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC		
Test Specification:	Freq. / CH: 2412		
Comment 1:	Dist.: 3m, Ant.: HL 025, amplif.		
Comment 2:	Freq: 2.397GHz, Emax: 64.46dBµV/m, RBW: 1MHz		



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

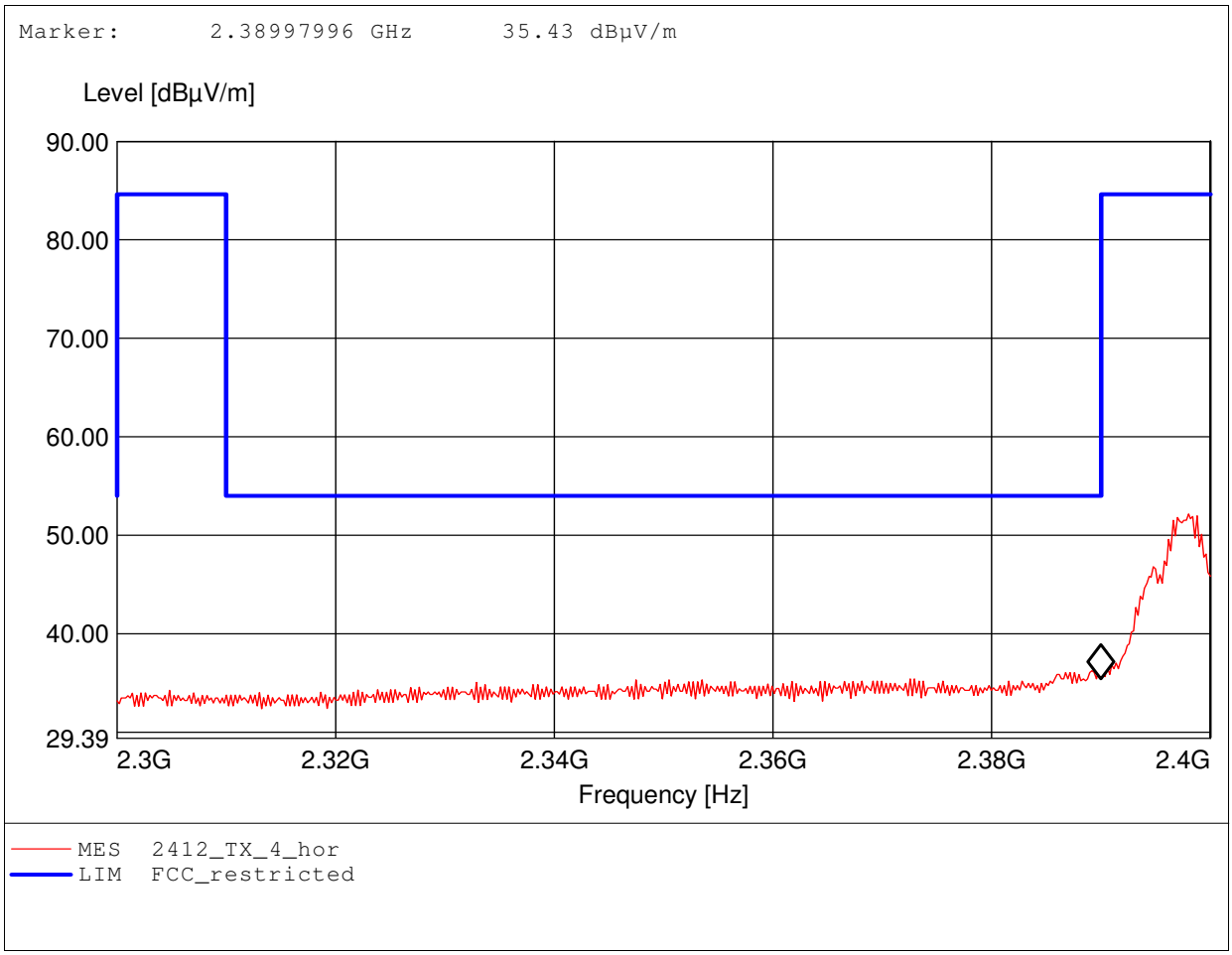
Approval Holder:	lesswire AG	/ G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module	/ WiBear SF2 UAP #4 Ant ext - ver
Setup:	CH 1 / DSSS / 1Mbit/s	/ Powerlevel 18dBm / y-axis
Test Site / Operator:	Eurofins Product Service GmbH	/ Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC	
Test Specification:	Freq. / CH: 2412	
Comment 1:	Dist.: 3m, Ant.: HL 025, amplif.	
Comment 2:	Freq: 2.397GHz, Emax: 64.46dBµV/m, RBW: 1MHz	



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

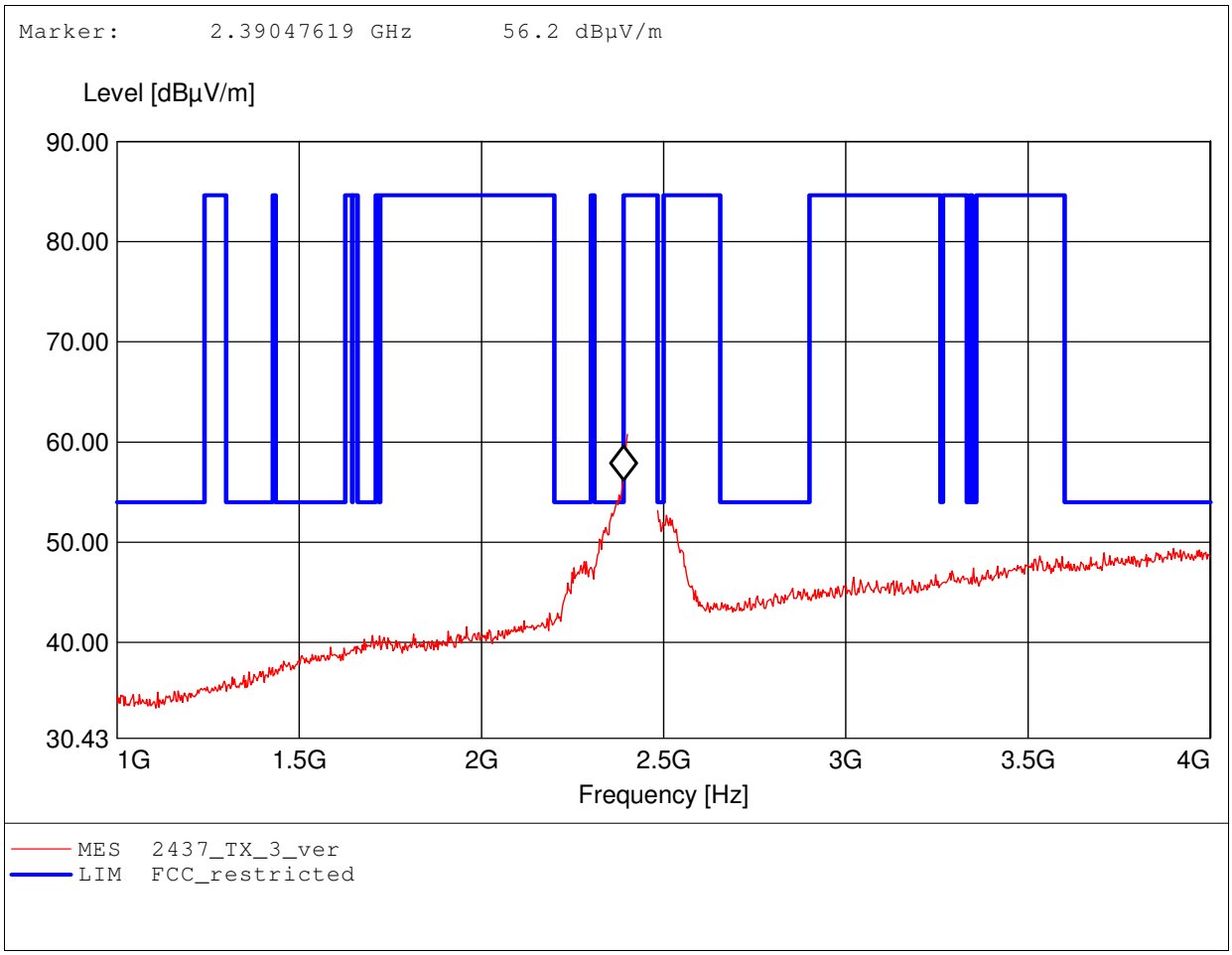
Approval Holder:	lesswire AG	/	G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module	/	WiBear SF2 UAP #4 Ant ext - ver
Setup:	CH 1 / DSSS / 1Mbit/s / Powerlevel 18dBm	/	y-axis
Test Site / Operator:	Eurofins Product Service GmbH	/	Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC		
Test Specification:	Freq. / CH: 2412		
Comment 1:	Dist.: 3m, Ant.: HL025, ampl.+HP., Average Detector		
Comment 2:	Freq: 2.398GHz, Emax: 52.17dBµV/m, RBW: 1MHz		



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

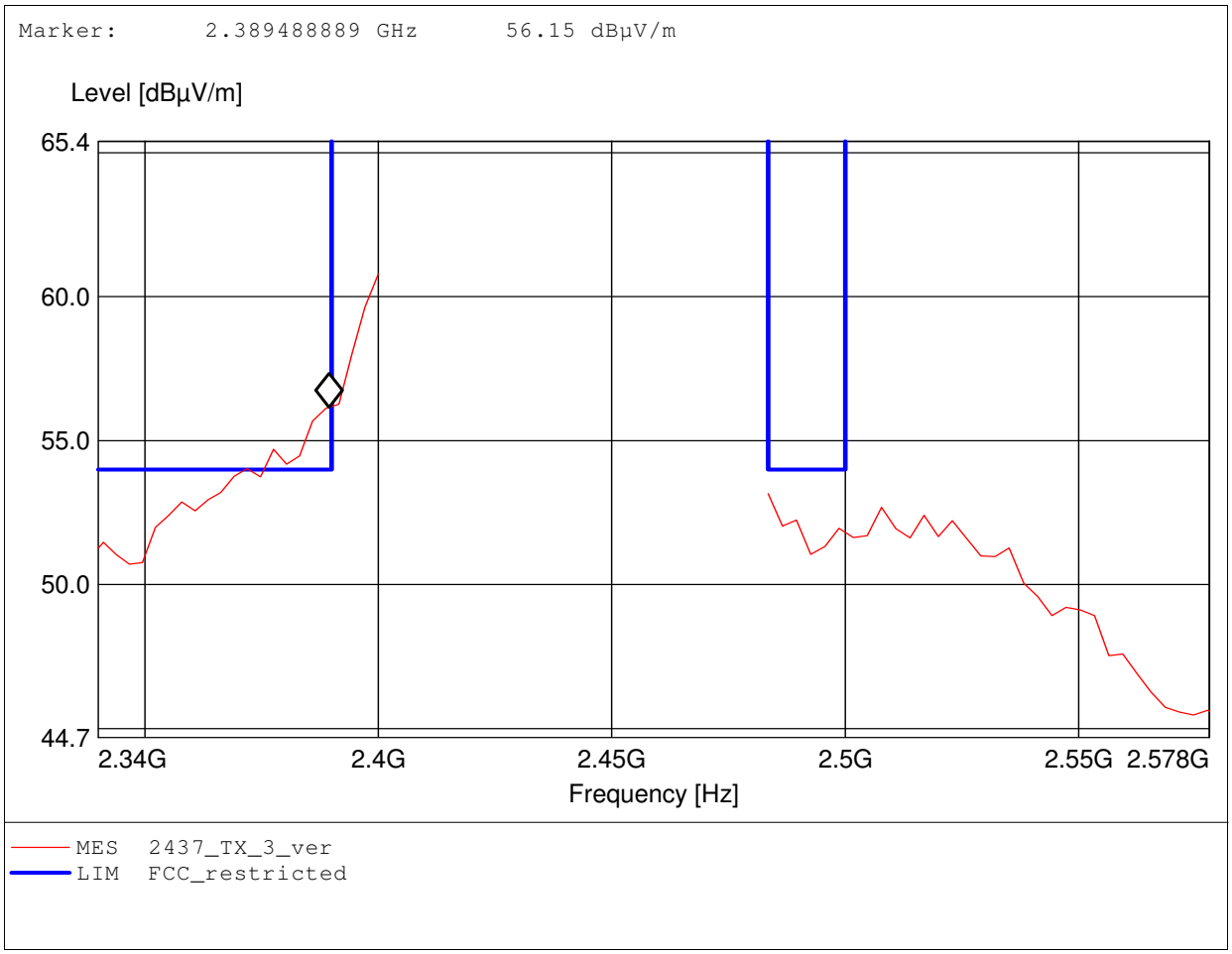
```
Approval Holder:       lesswire AG                /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module  /  WiBear SF2 UAP #4 Ant ext - ver
Setup:                 CH 6  /  DSSS  /  1Mbit/s  /  Powerlevel 18dBm  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2437
Comment 1:             Dist.: 3m, Ant.: HL 025, amplif.
Comment 2:             Freq: 2.400GHz, Emax: 60.78dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

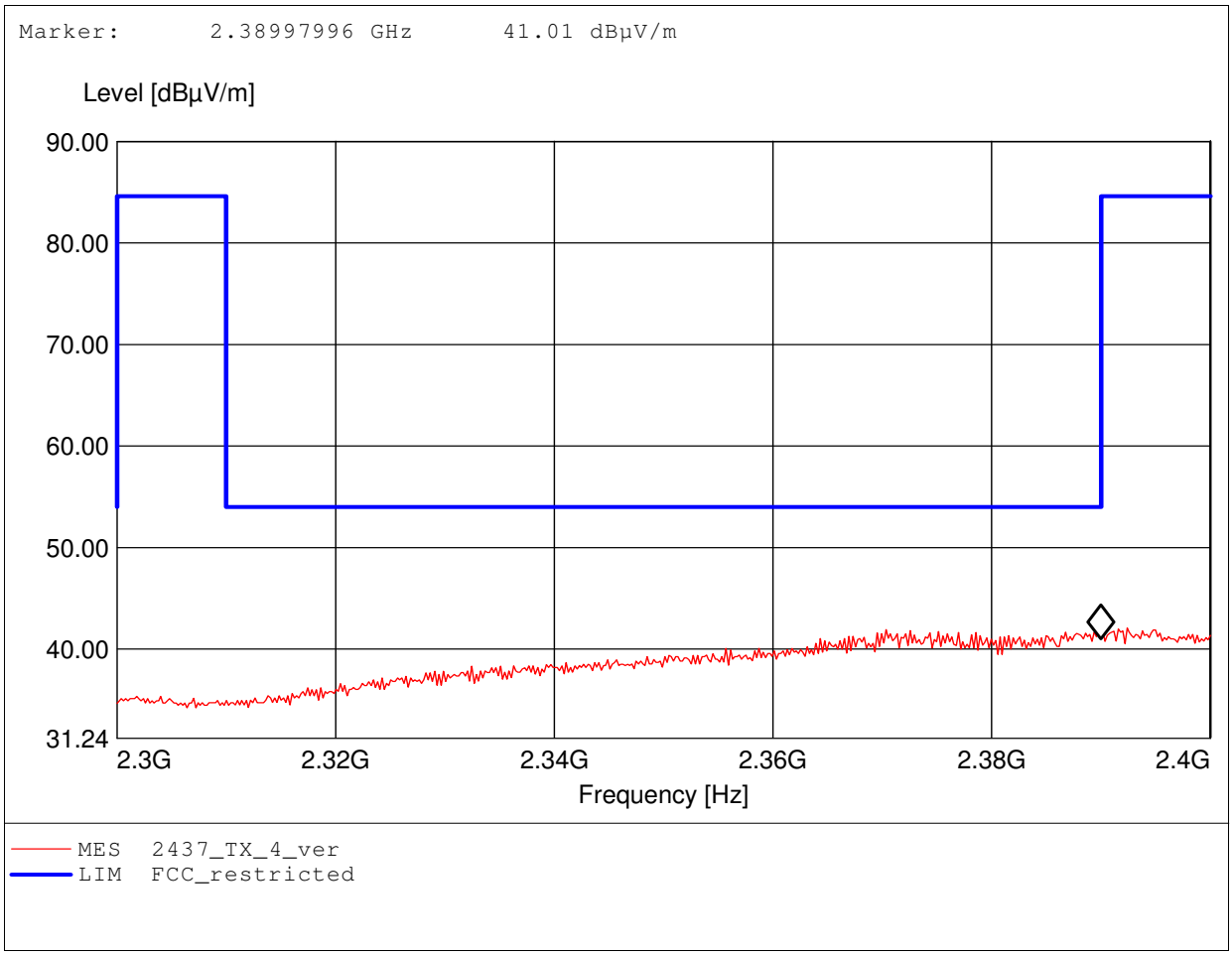
Approval Holder:	lesswire AG	/	G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module	/	WiBear SF2 UAP #4 Ant ext - ver
Setup:	CH 6 / DSSS / 1Mbit/s / Powerlevel 18dBm	/	y-axis
Test Site / Operator:	Eurofins Product Service GmbH	/	Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC		
Test Specification:	Freq. / CH: 2437		
Comment 1:	Dist.: 3m, Ant.: HL 025, amplif.		
Comment 2:	Freq: 2.400GHz, Emax: 60.78dBµV/m, RBW: 1MHz		



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

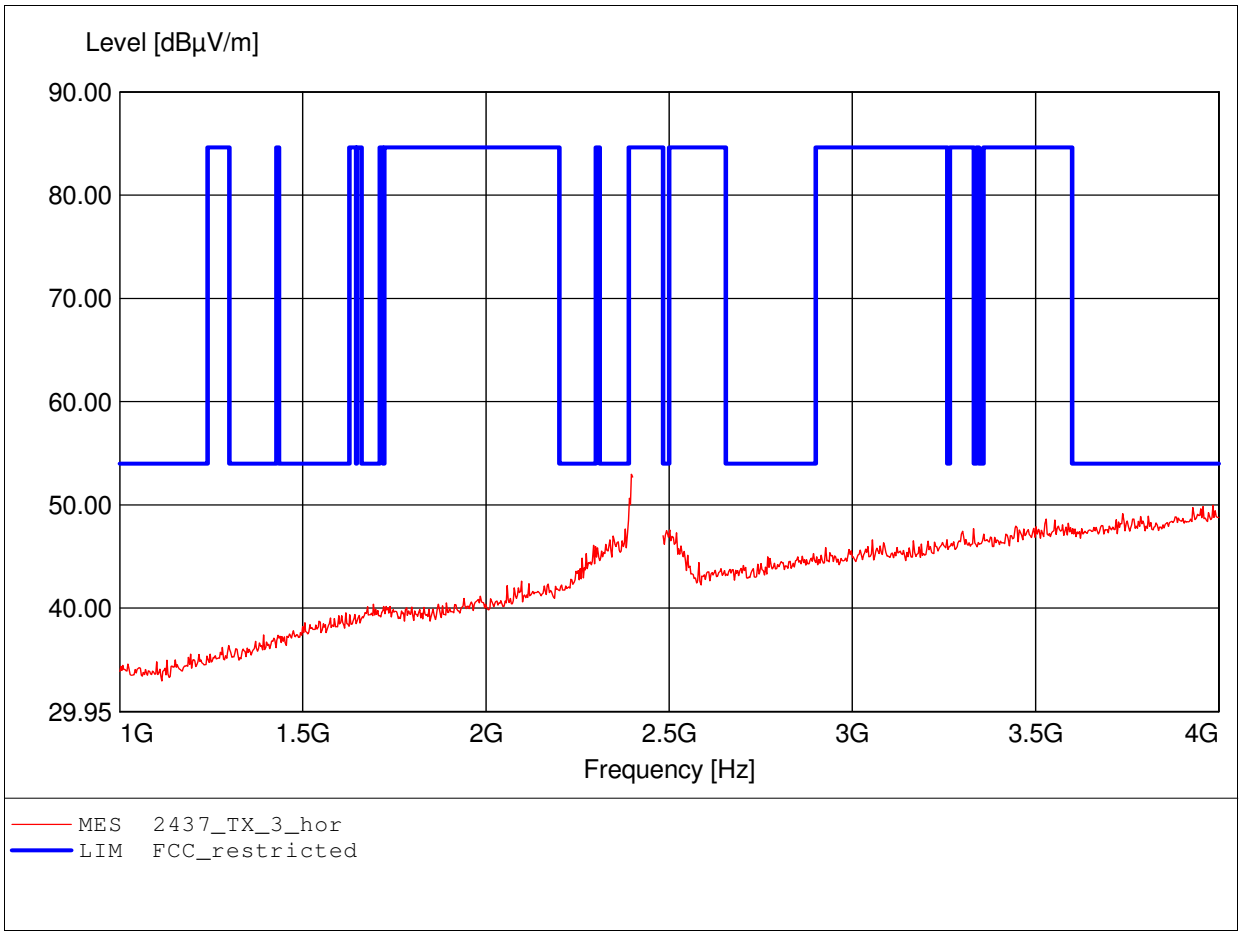
Approval Holder:	lesswire AG	/	G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module	/	WiBear SF2 UAP #4 Ant ext - ver
Setup:	CH 6 / DSSS / 1Mbit/s / Powerlevel 18dBm / y-axis		
Test Site / Operator:	Eurofins Product Service GmbH	/	Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC		
Test Specification:	Freq. / CH: 2437		
Comment 1:	Dist.: 3m, Ant.: HL025, ampl.+HP., Average Detector		
Comment 2:	Freq: 2.390GHz, Emax: 42.28dBµV/m, RBW: 1MHz		



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

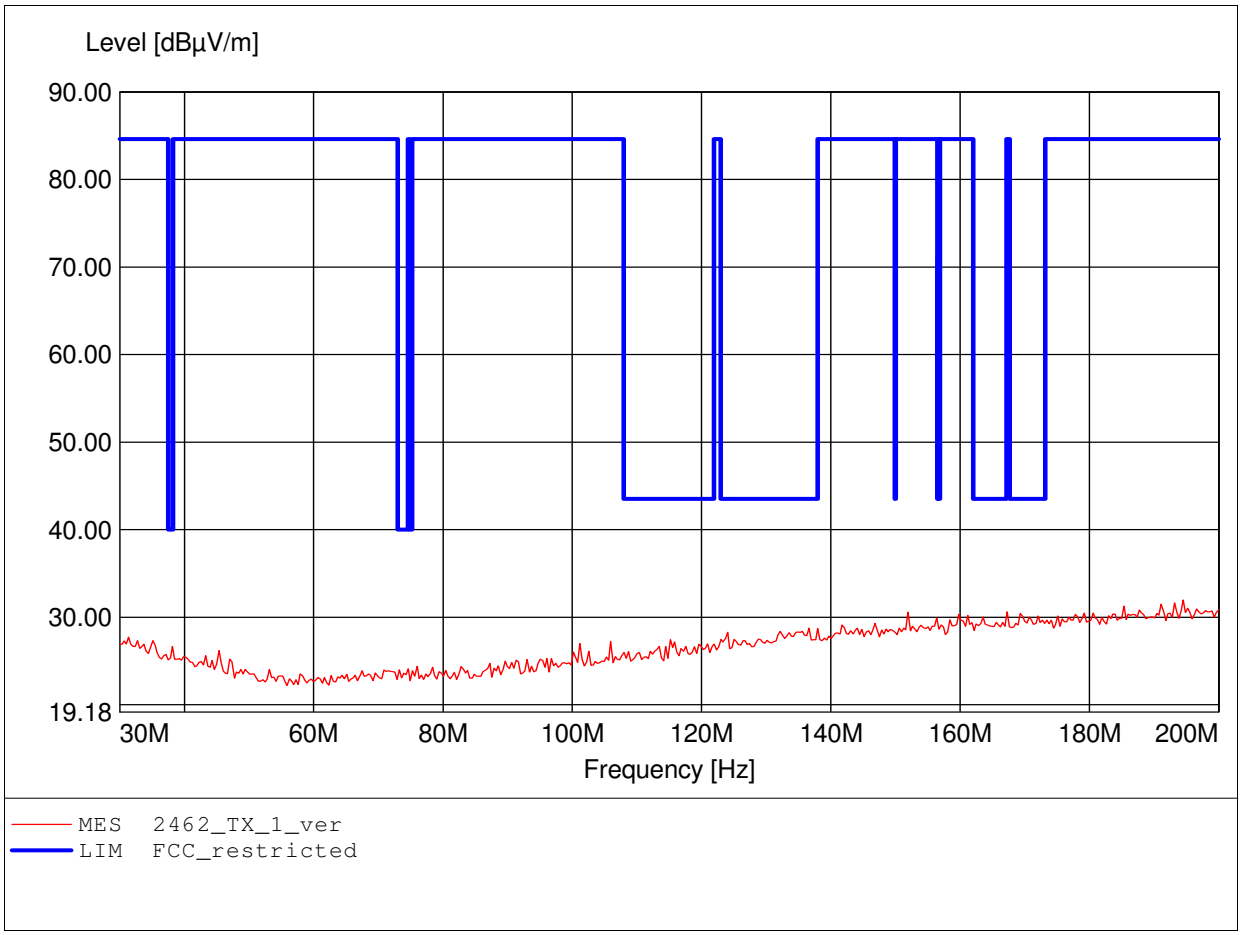
Approval Holder:	lesswire AG / G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module / WiBear SF2 UAP #4 Ant ext - ver
Setup:	CH 6 / DSSS / 1Mbit/s / Powerlevel 18dBm / y-axis
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:	Freq. / CH: 2437
Comment 1:	Dist.: 3m, Ant.: HL 025, amplif.
Comment 2:	Freq: 2.397GHz, Emax: 52.95dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

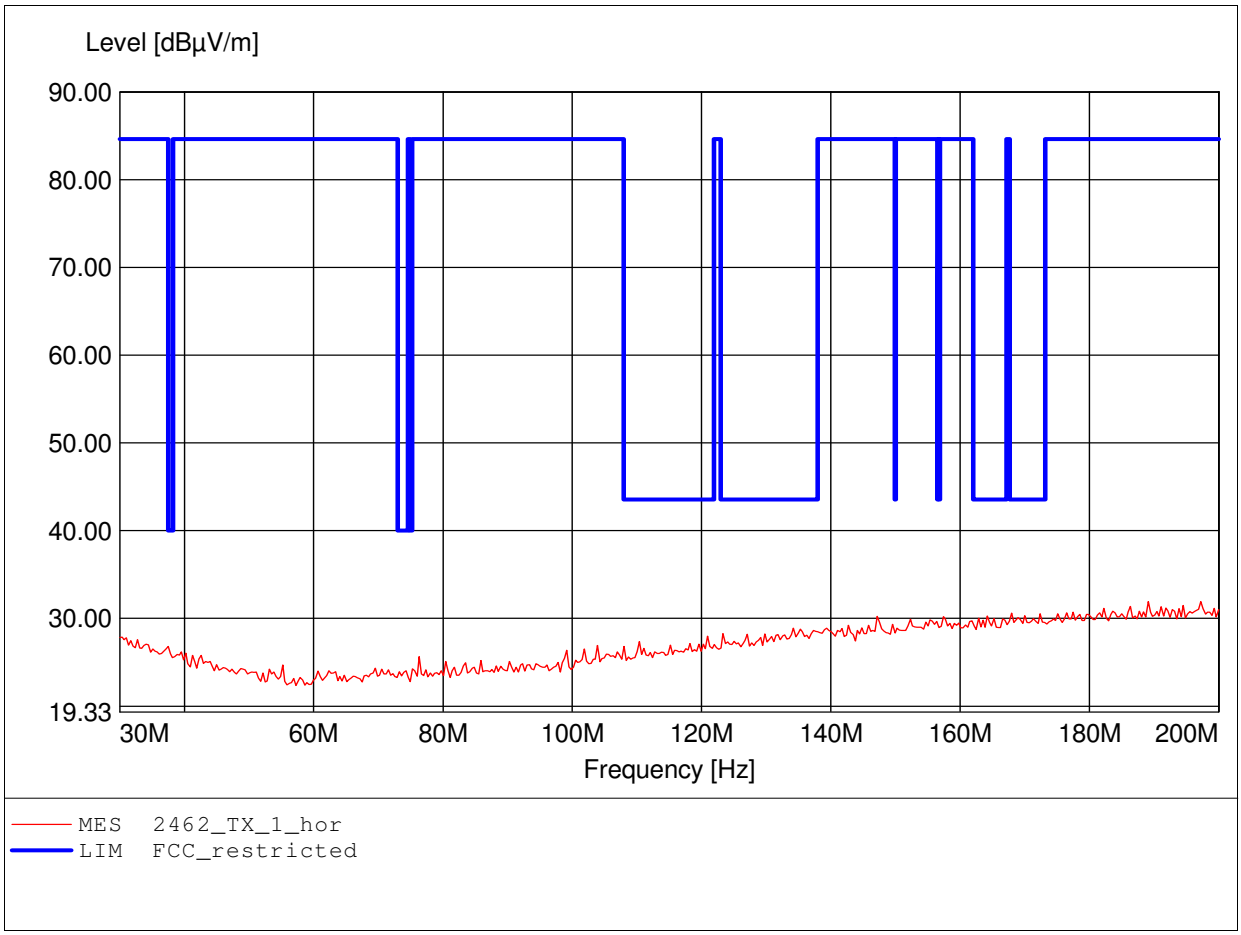
Approval Holder:	lesswire AG / G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module / WiBear SF2 UAP #4 Ant ext - ver
Setup:	CH 11 / DSSS / 1Mbit/s / Powerlevel 18dBm / y-axis
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:	Freq. / CH: 2462
Comment 1:	Dist.: 3m, Ant.: HK 116
Comment 2:	Freq: 194.549MHz, Emax: 31.95dBµV/m, RBW: 100kHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Approval Holder:	lesswire AG / G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module / WiBear SF2 UAP #4 Ant ext - ver
Setup:	CH 11 / DSSS / 1Mbit/s / Powerlevel 18dBm / y-axis
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:	Freq. / CH: 2462
Comment 1:	Dist.: 3m, Ant.: HK 116
Comment 2:	Freq: 189.098MHz, Emax: 31.89dBµV/m, RBW: 100kHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

```
Approval Holder:       lesswire AG              /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module   /  WiBear SF2 UAP #4 Ant ext - ver
Setup:                 CH 11  /  DSSS  /  1Mbit/s  /  Powerlevel 18dBm  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2462
Comment 1:             Dist.: 3m, Ant.: HL 223, amplif.
Comment 2:             Freq: 987.174MHz, Emax: 23.29dBµV/m, RBW: 100kHz
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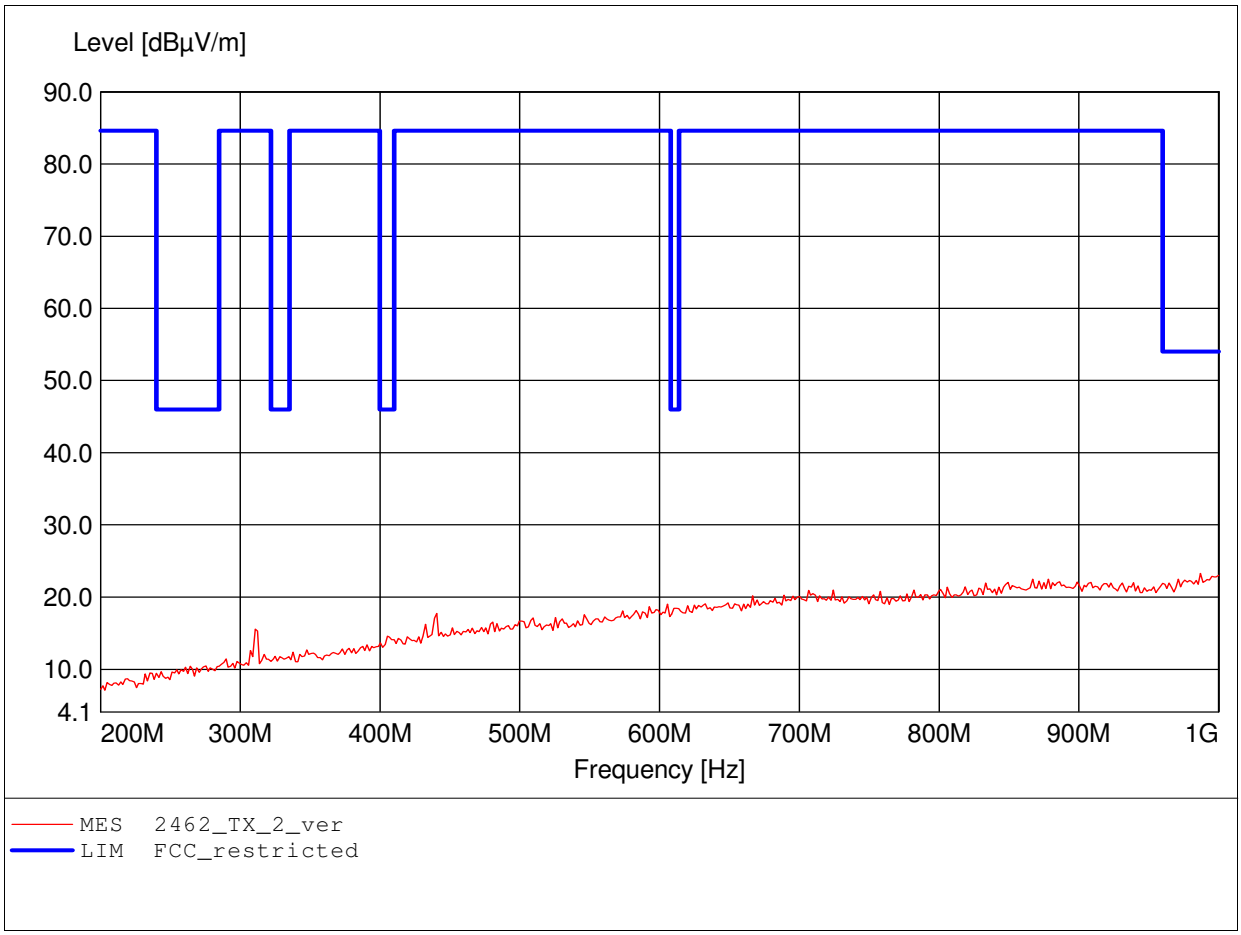

Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

```
Approval Holder:       lesswire AG              /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module   /  WiBear SF2 UAP #4 Ant ext - ver
Setup:                 CH 11  /  DSSS  /  1Mbit/s  /  Powerlevel 18dBm  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2462
Comment 1:             Dist.: 3m, Ant.: HL 223, amplif.
Comment 2:             Freq: 483.768MHz, Emax: 25.81dBµV/m, RBW: 100kHz
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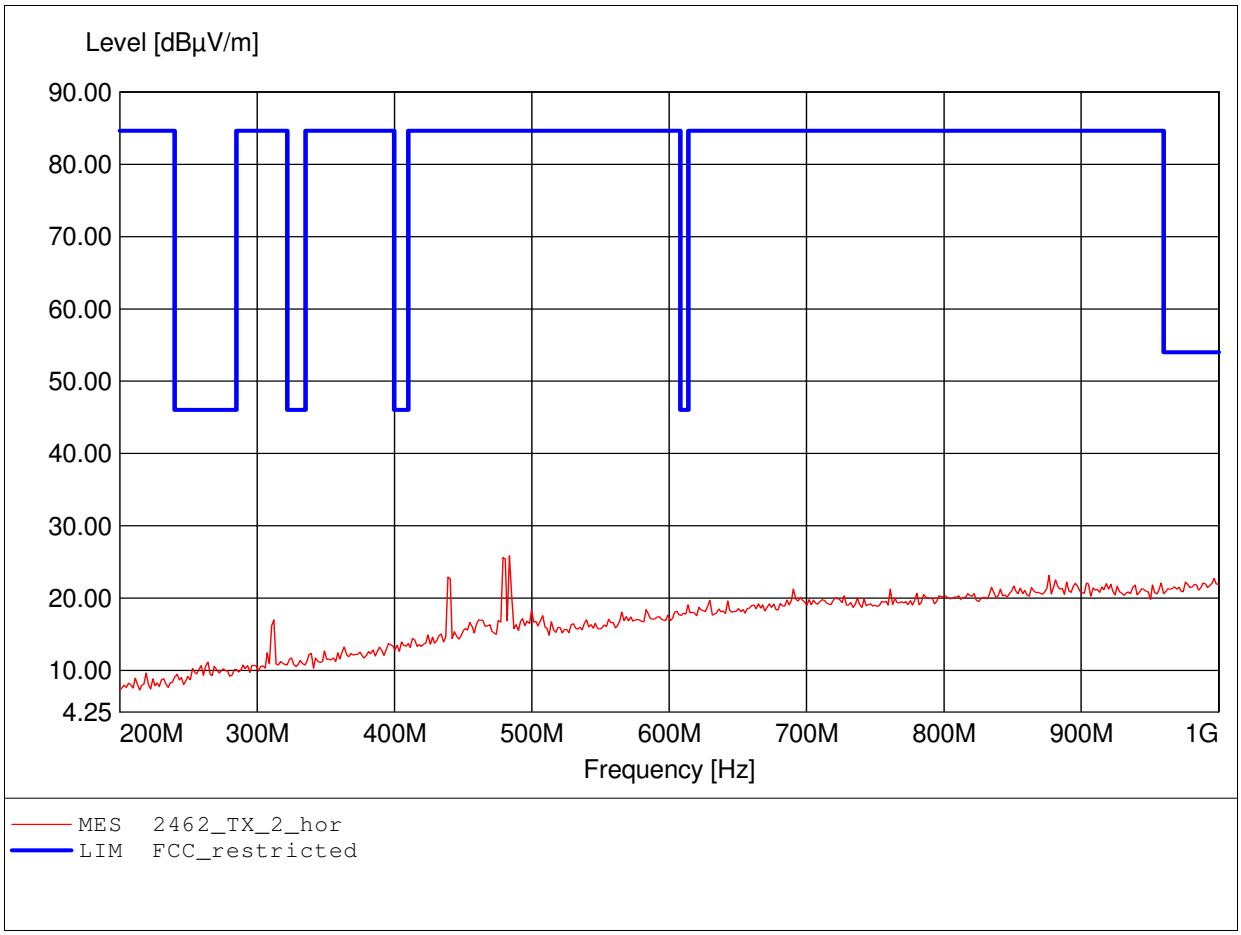
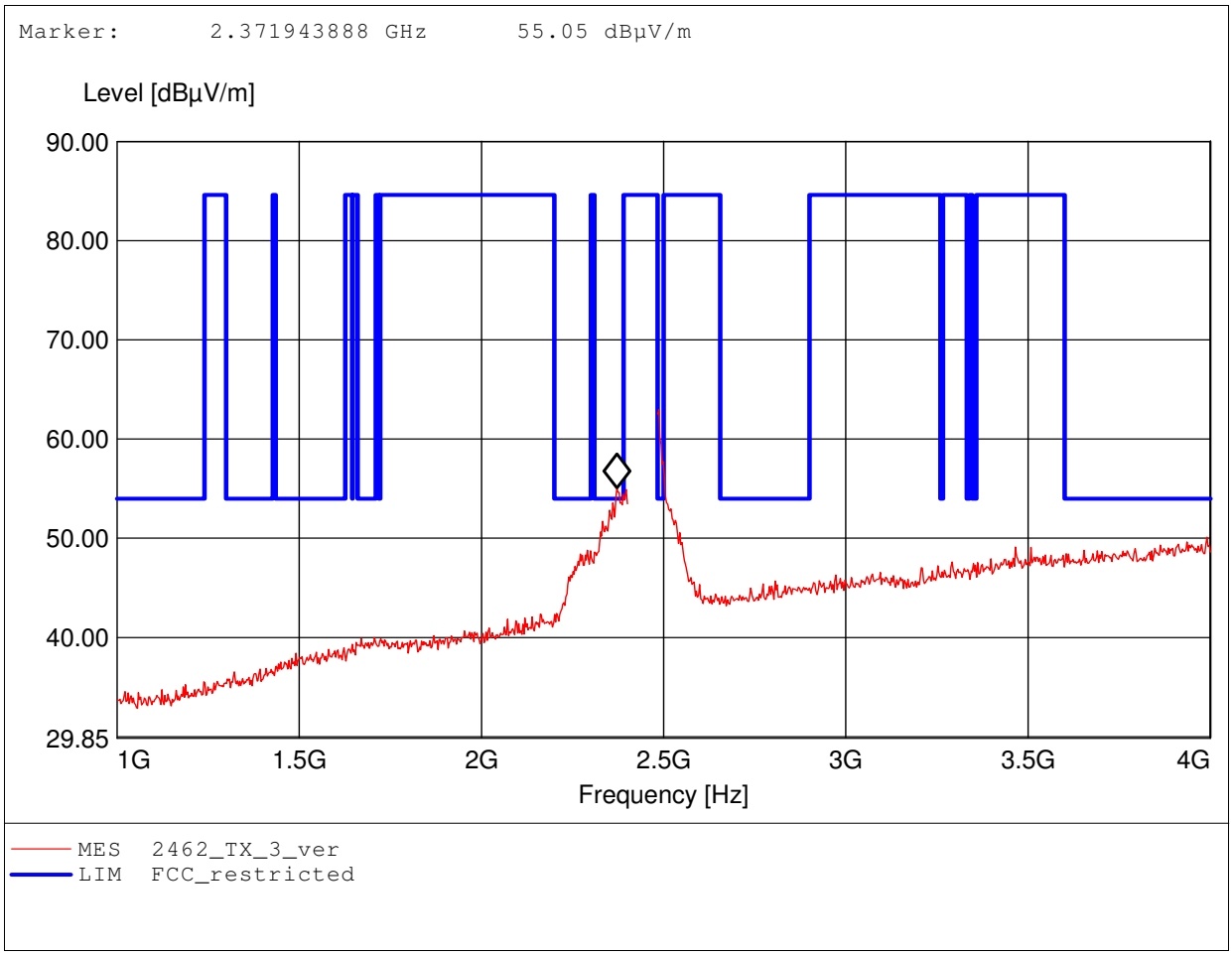


Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

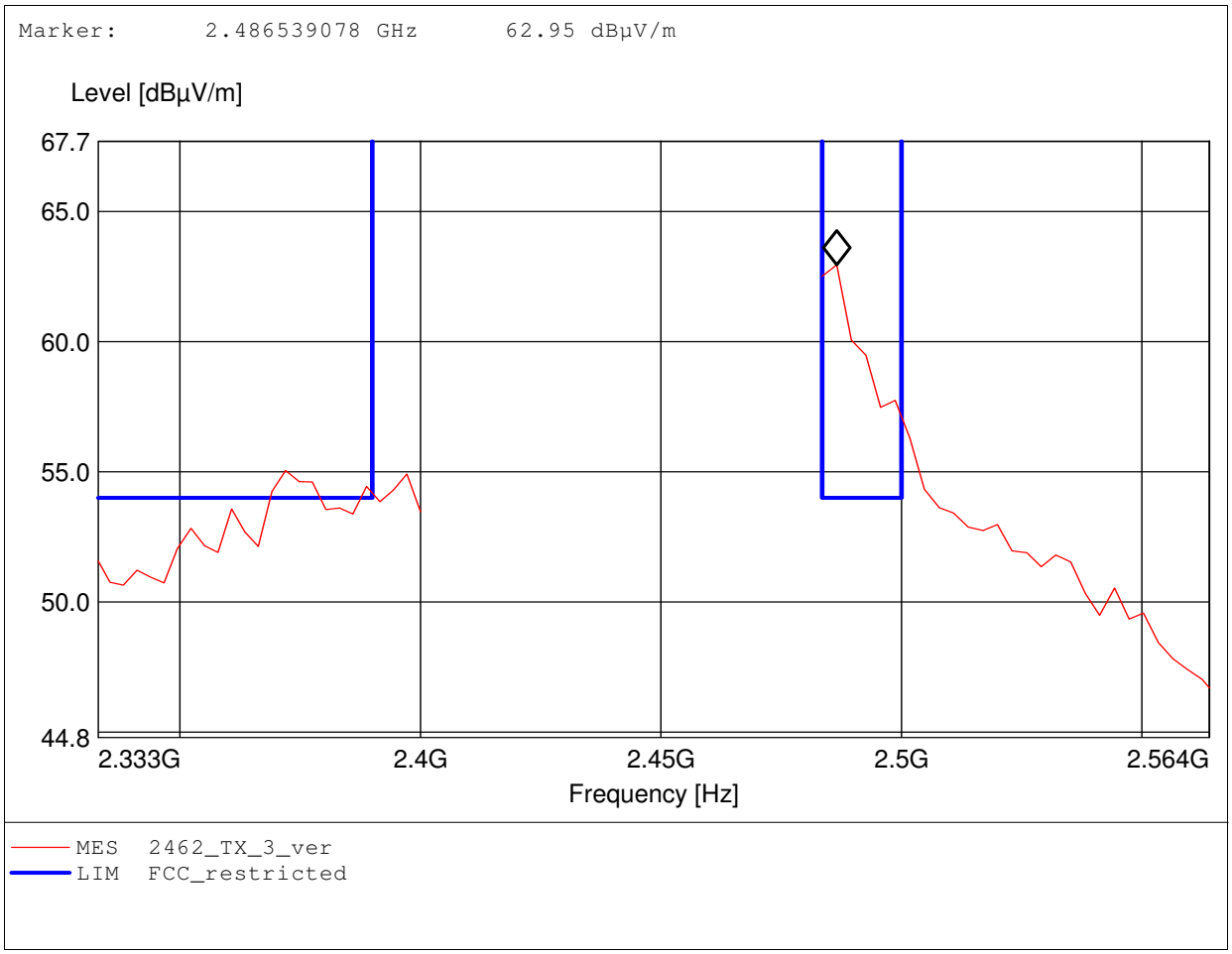
Approval Holder:	lesswire AG	/	G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module	/	WiBear SF2 UAP #4 Ant ext - ver
Setup:	CH 11 / DSSS / 1Mbit/s	/	Powerlevel 18dBm / y-axis
Test Site / Operator:	Eurofins Product Service GmbH	/	Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC		
Test Specification:	Freq. / CH: 2462		
Comment 1:	Dist.: 3m, Ant.: HL 025, amplif.		
Comment 2:	Freq: 2.487GHz, Emax: 62.95dBµV/m, RBW: 1MHz		



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

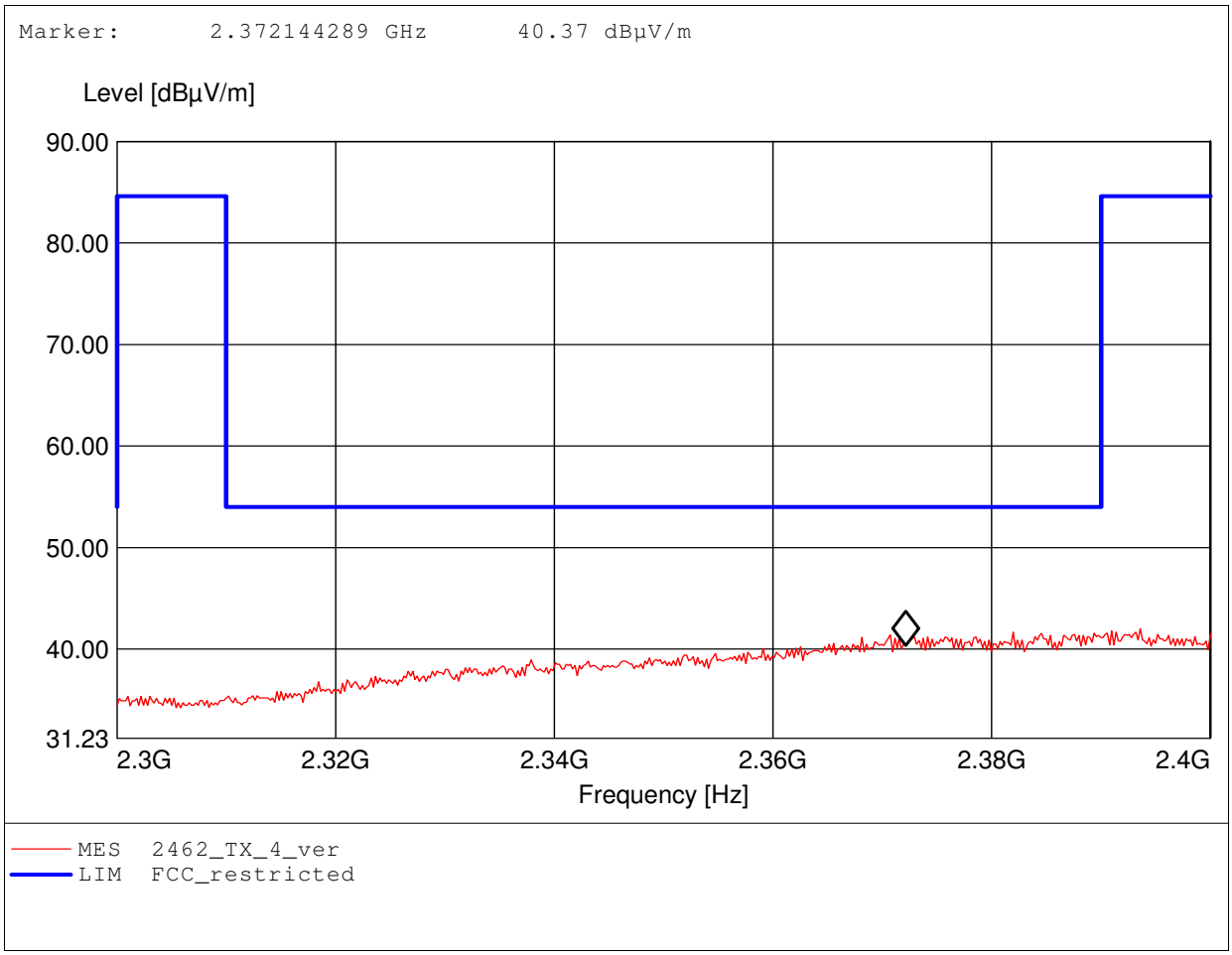
Approval Holder:	lesswire AG / G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module / WiBear SF2 UAP #4 Ant ext - ver
Setup:	CH 11 / DSSS / 1Mbit/s / Powerlevel 18dBm / y-axis
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:	Freq. / CH: 2462
Comment 1:	Dist.: 3m, Ant.: HL 025, amplif.
Comment 2:	Freq: 2.487GHz, Emax: 62.95dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

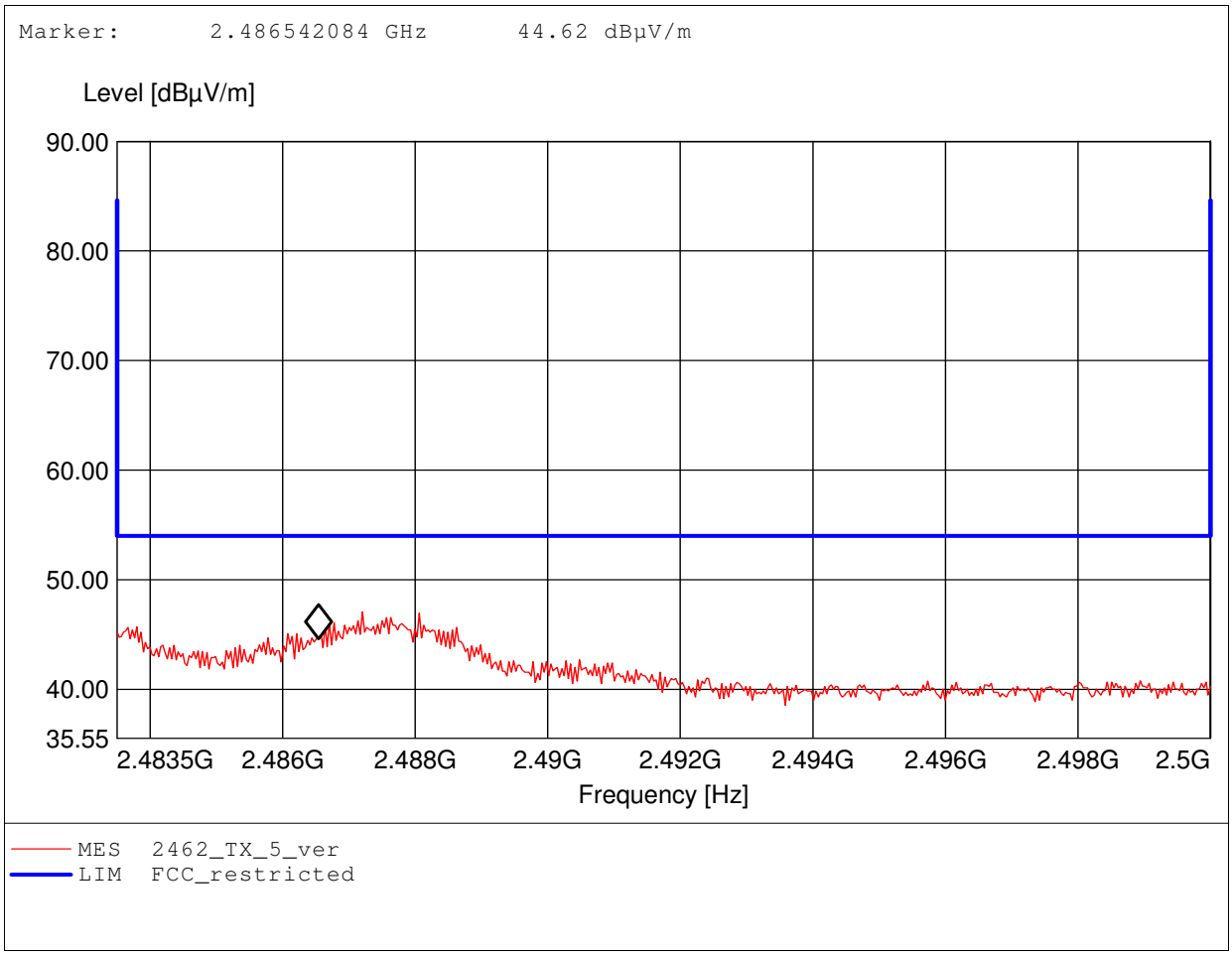
Approval Holder:	lesswire AG / G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module / WiBear SF2 UAP #4 Ant ext - ver
Setup:	CH 11 / DSSS / 1Mbit/s / Powerlevel 18dBm / y-axis
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:	Freq. / CH: 2462
Comment 1:	Dist.: 3m, Ant.: HL025, ampl.+HP., Average Detector
Comment 2:	Freq: 2.394GHz, Emax: 41.99dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

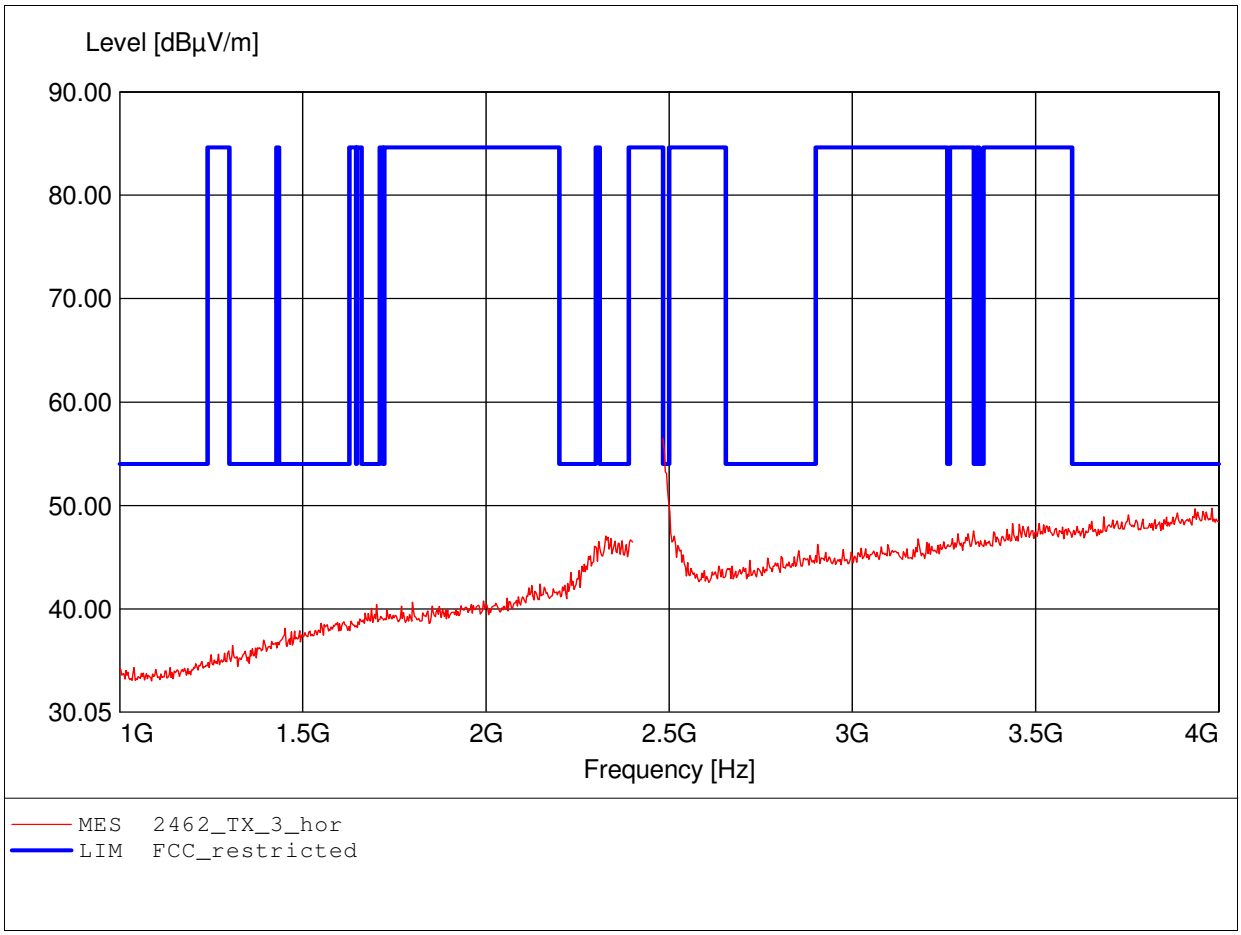
Approval Holder:	lesswire AG / G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module / WiBear SF2 UAP #4 Ant ext - ver
Setup:	CH 11 / DSSS / 1Mbit/s / Powerlevel 18dBm / y-axis
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:	Freq. / CH: 2462
Comment 1:	Dist.: 3m, Ant.: HL025, ampl.+HP., Average Detector
Comment 2:	Freq: 2.487GHz, Emax: 47.06dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

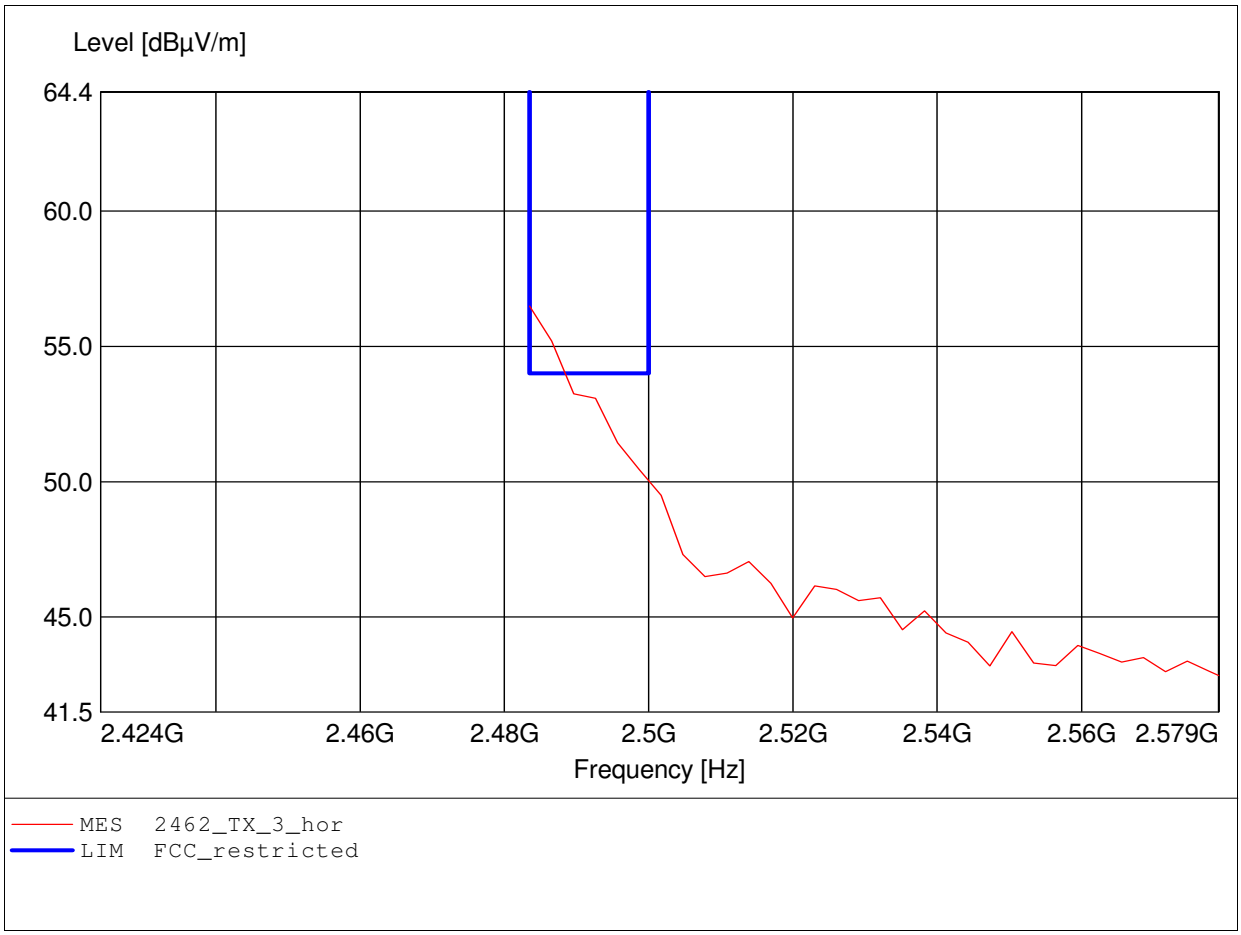
```
Approval Holder:       lesswire AG              /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module   /  WiBear SF2 UAP #4 Ant ext - ver
Setup:                 CH 11  /  DSSS  /  1Mbit/s  /  Powerlevel 18dBm  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2462
Comment 1:             Dist.: 3m, Ant.: HL 025, amplif.
Comment 2:             Freq: 2.484GHz, Emax: 56.49dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

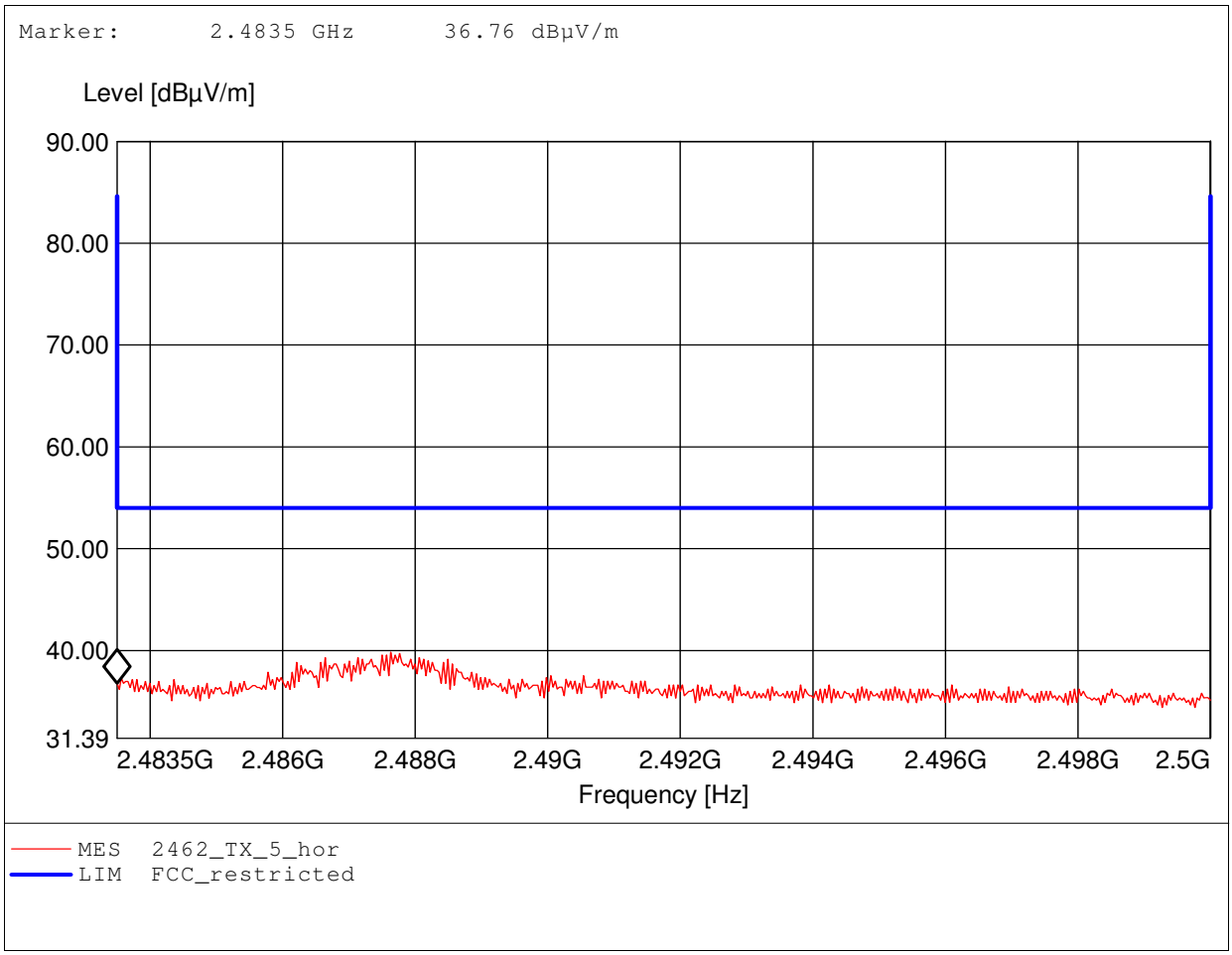
```
Approval Holder:       lesswire AG              /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module   /  WiBear SF2 UAP #4 Ant ext - ver
Setup:                 CH 11  /  DSSS  /  1Mbit/s  /  Powerlevel 18dBm  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2462
Comment 1:             Dist.: 3m, Ant.: HL 025, amplif.
Comment 2:             Freq: 2.484GHz, Emax: 56.49dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

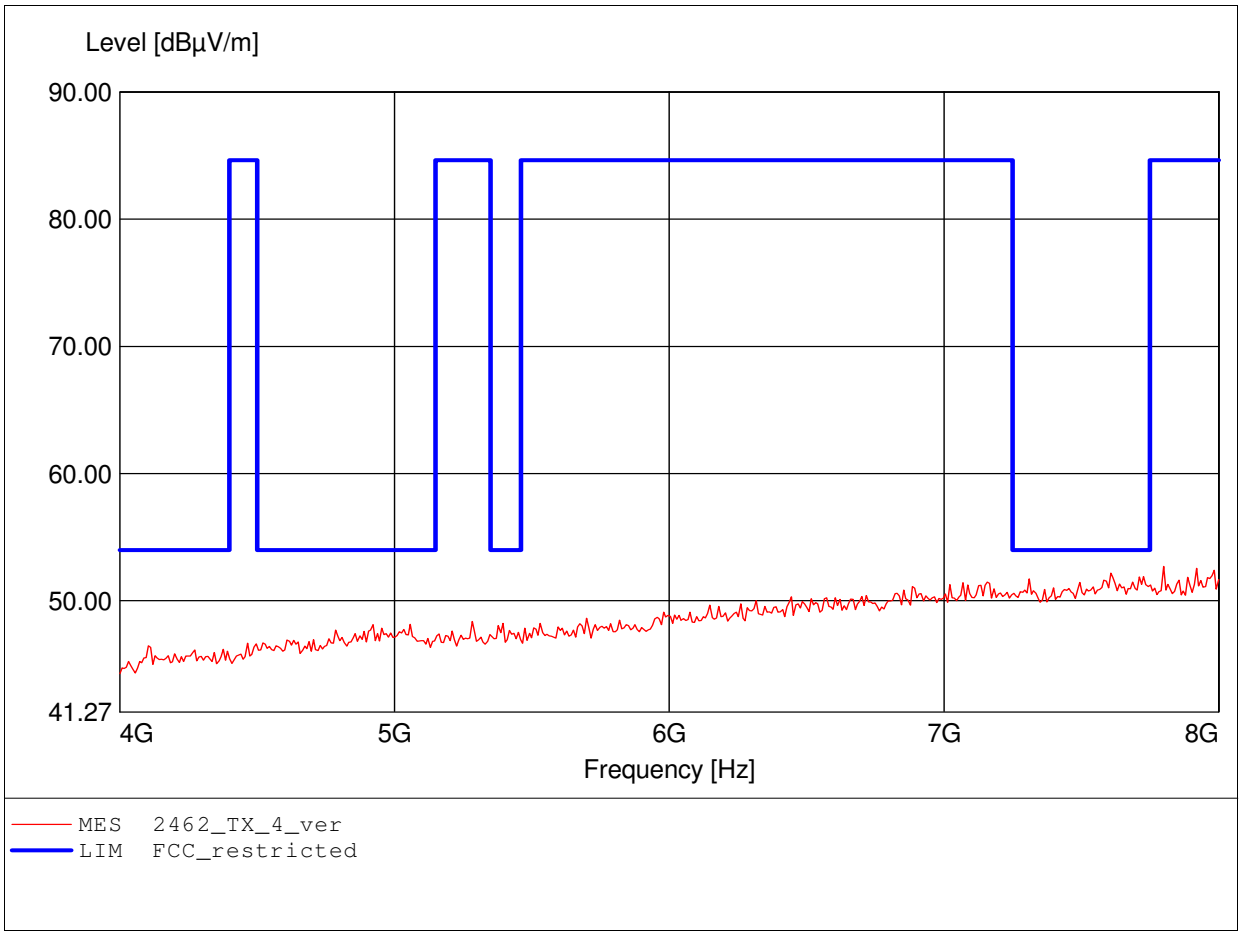
Approval Holder:	lesswire AG / G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module / WiBear SF2 UAP #4 Ant ext - ver
Setup:	CH 11 / DSSS / 1Mbit/s / Powerlevel 18dBm / y-axis
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:	Freq. / CH: 2462
Comment 1:	Dist.: 3m, Ant.: HL025, ampl.+HP., Average Detector
Comment 2:	Freq: 2.488GHz, Emax: 39.84dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

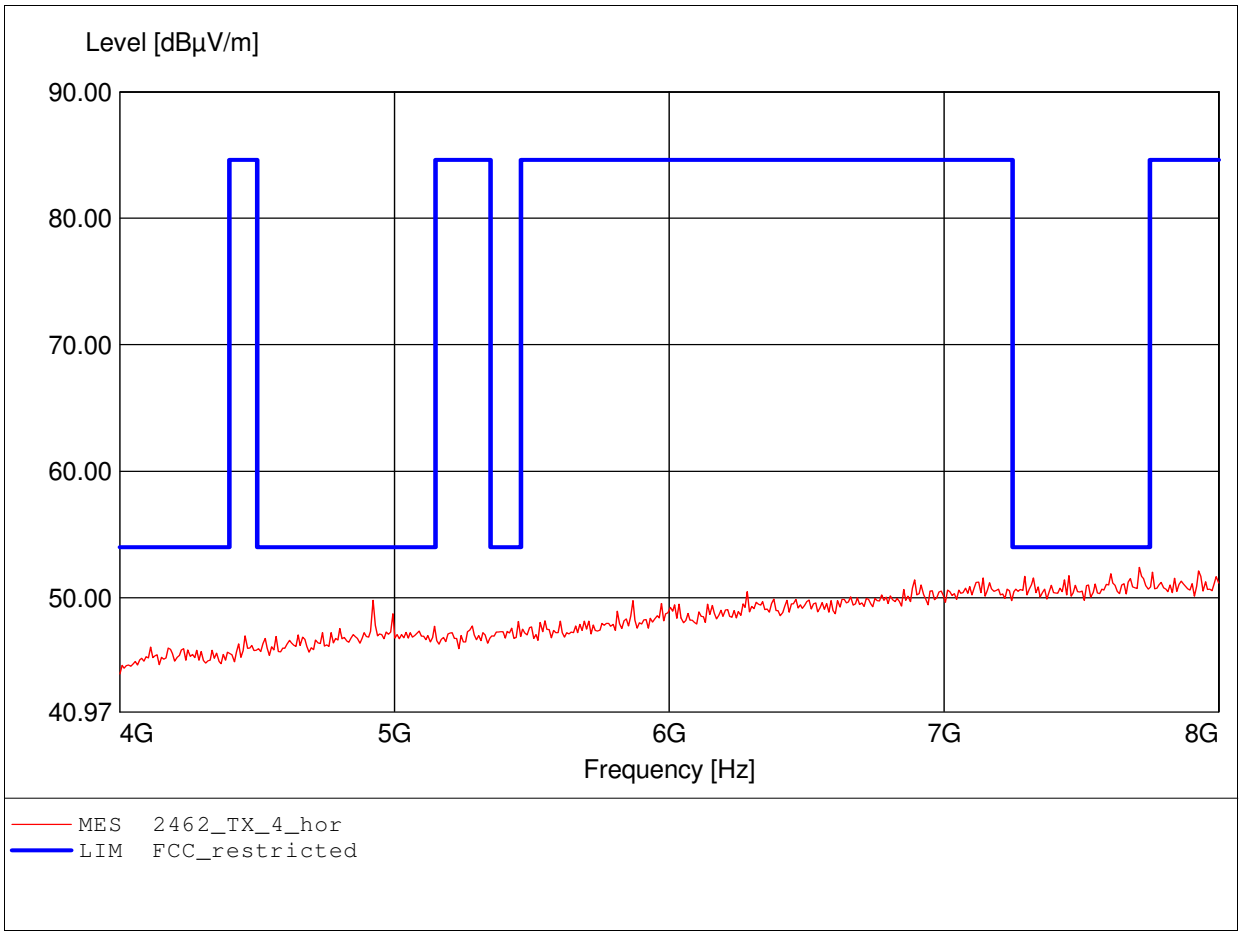
```
Approval Holder:       lesswire AG              /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module   /  WiBear SF2 UAP #4 Ant ext - ver
Setup:                 CH 11  /  DSSS  /  1Mbit/s  /  Powerlevel 18dBm  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2462
Comment 1:             Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:             Freq: 7.800GHz, Emax: 52.69dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

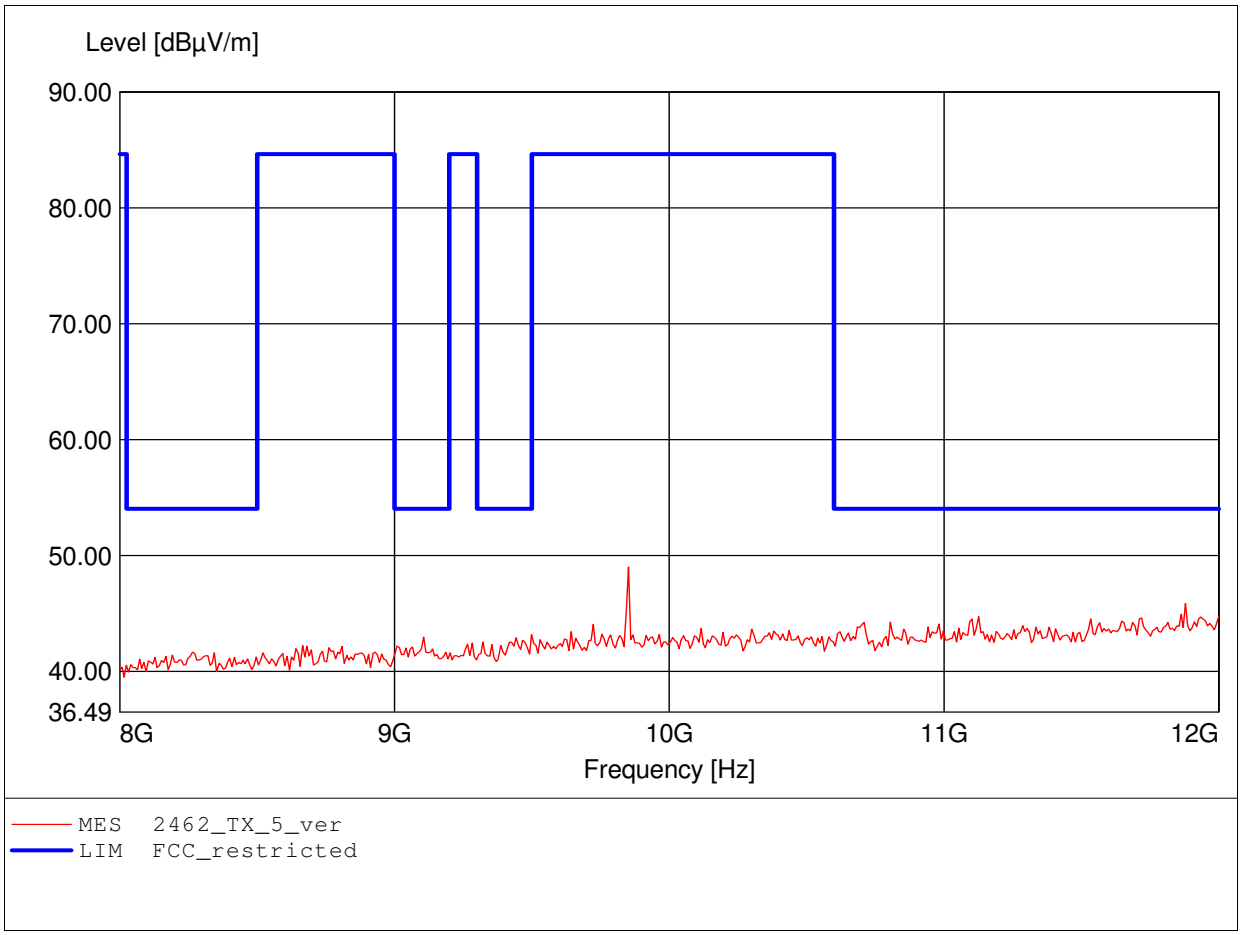
```
Approval Holder:       lesswire AG              /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module   /  WiBear SF2 UAP #4 Ant ext - ver
Setup:                 CH 11  /  DSSS  /  1Mbit/s  /  Powerlevel 18dBm  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2462
Comment 1:             Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:             Freq: 7.711GHz, Emax: 52.40dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

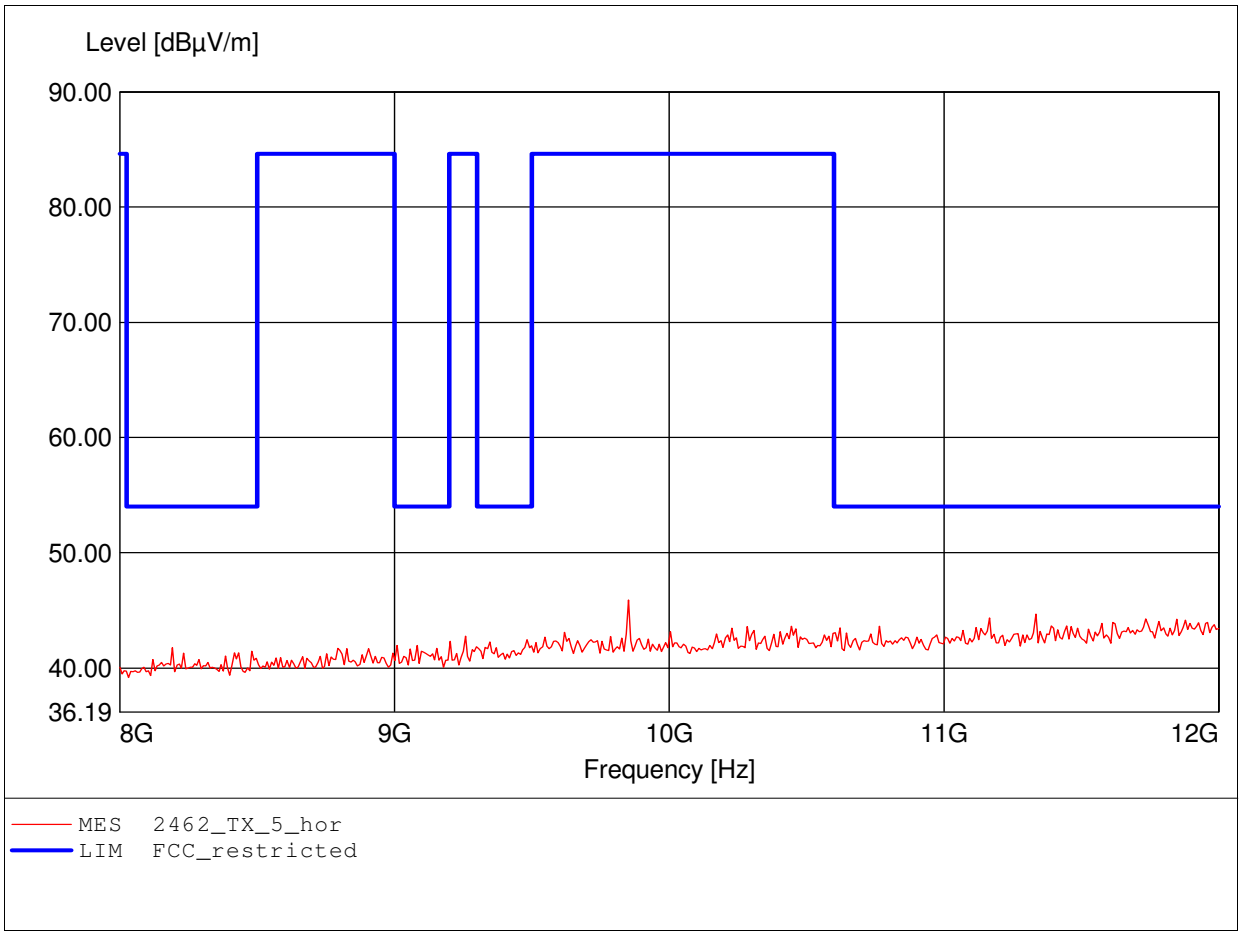
```
Approval Holder:       lesswire AG              /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module   /  WiBear SF2 UAP #4 Ant ext - ver
Setup:                 CH 11  /  DSSS  /  1Mbit/s  /  Powerlevel 18dBm  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2462
Comment 1:             Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:             Freq: 9.852GHz, Emax: 48.99dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

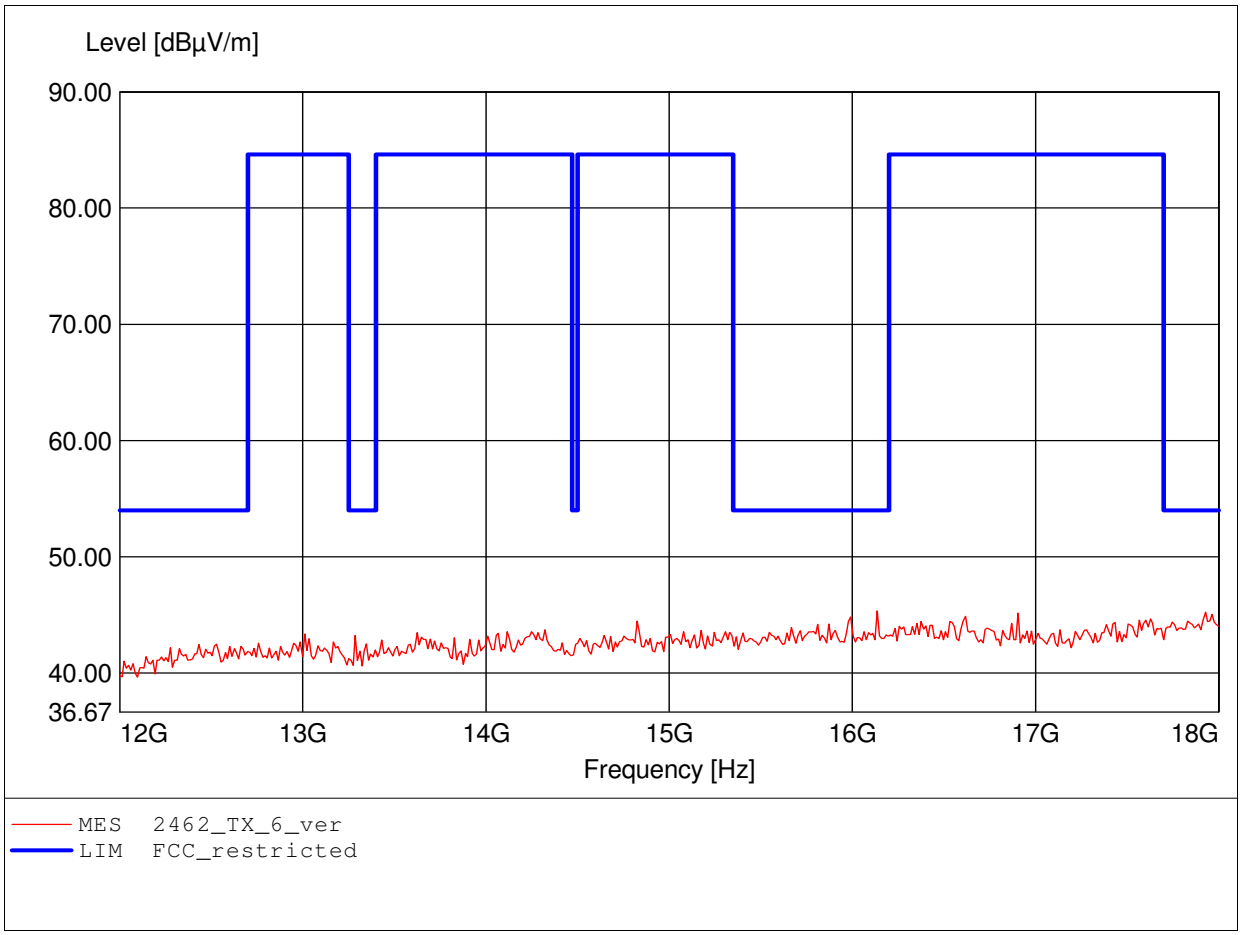
```
Approval Holder:       lesswire AG              /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module   /  WiBear SF2 UAP #4 Ant ext - ver
Setup:                 CH 11  /  DSSS  /  1Mbit/s  /  Powerlevel 18dBm  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2462
Comment 1:             Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:             Freq: 9.852GHz, Emax: 45.90dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

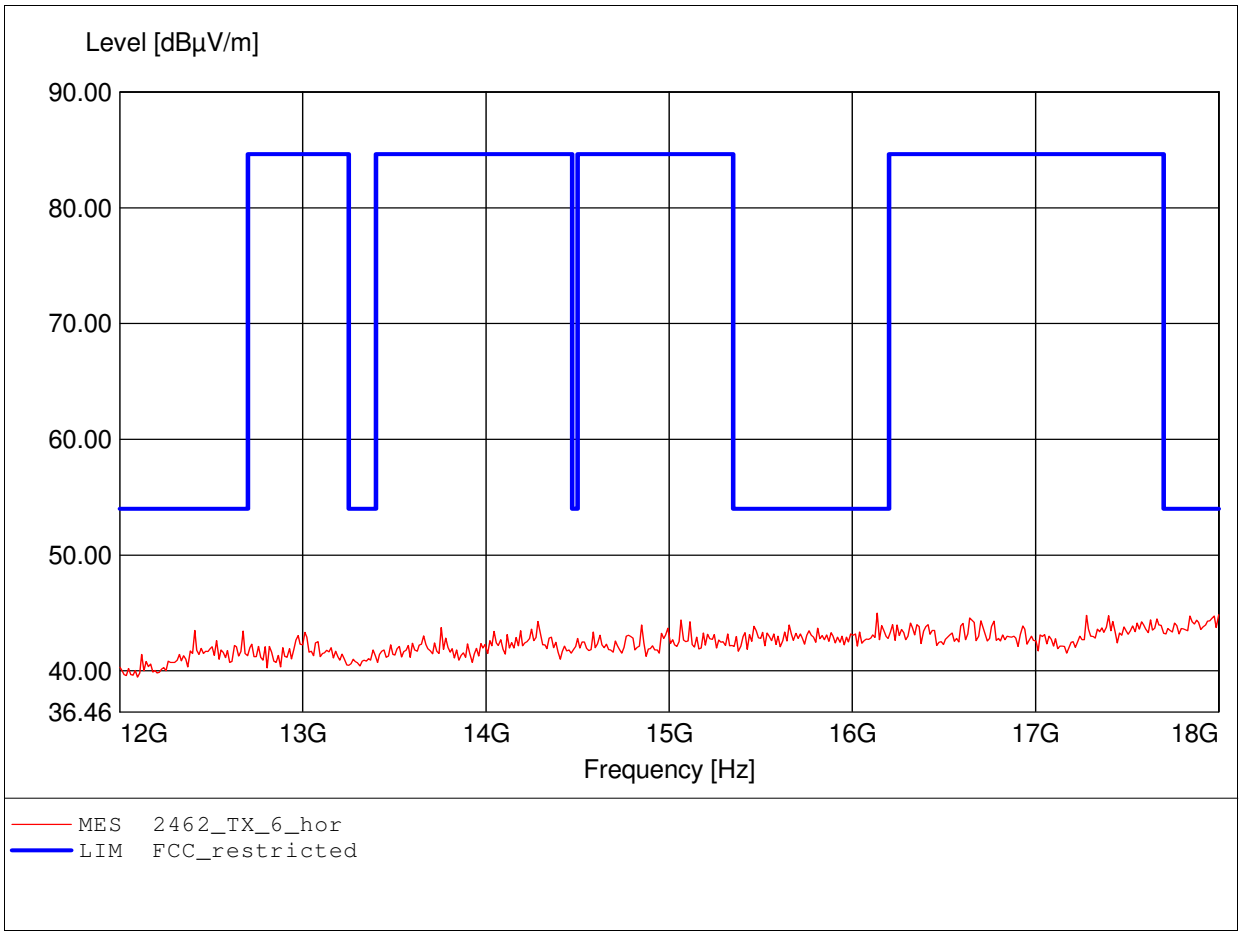
```
Approval Holder:       lesswire AG              /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module   /  WiBear SF2 UAP #4 Ant ext - ver
Setup:                 CH 11  /  DSSS  /  1Mbit/s  /  Powerlevel 18dBm  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2462
Comment 1:             Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:             Freq: 16.136GHz, Emax: 45.37dBµV/m, RBW: 1MHz
```



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

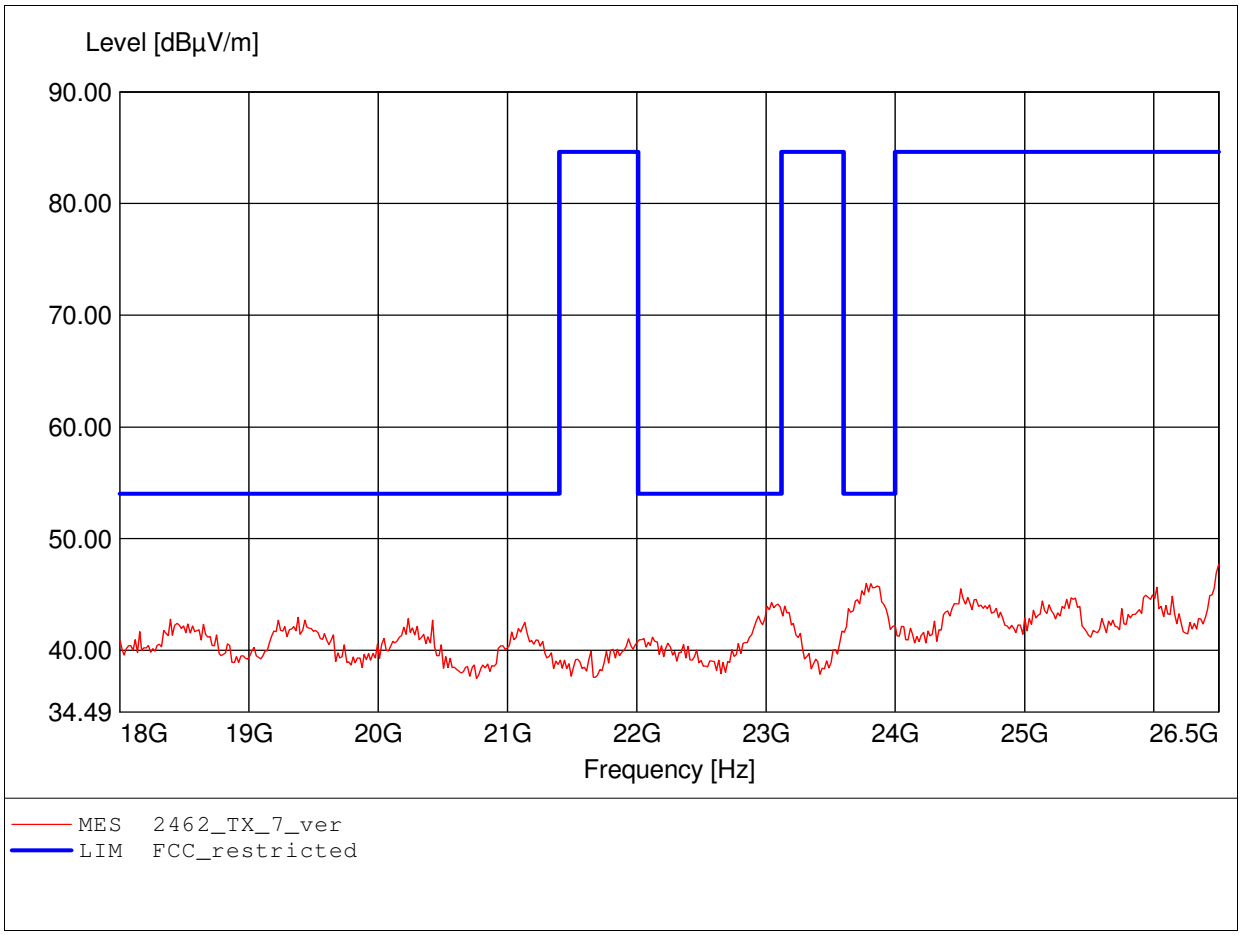
Approval Holder:	lesswire AG / G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module / WiBear SF2 UAP #4 Ant ext - ver
Setup:	CH 11 / DSSS / 1Mbit/s / Powerlevel 18dBm / y-axis
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:	Freq. / CH: 2462
Comment 1:	Dist.: 3m, Ant.: HL 025, ampl.+HP.
Comment 2:	Freq: 16.136GHz, Emax: 44.97dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

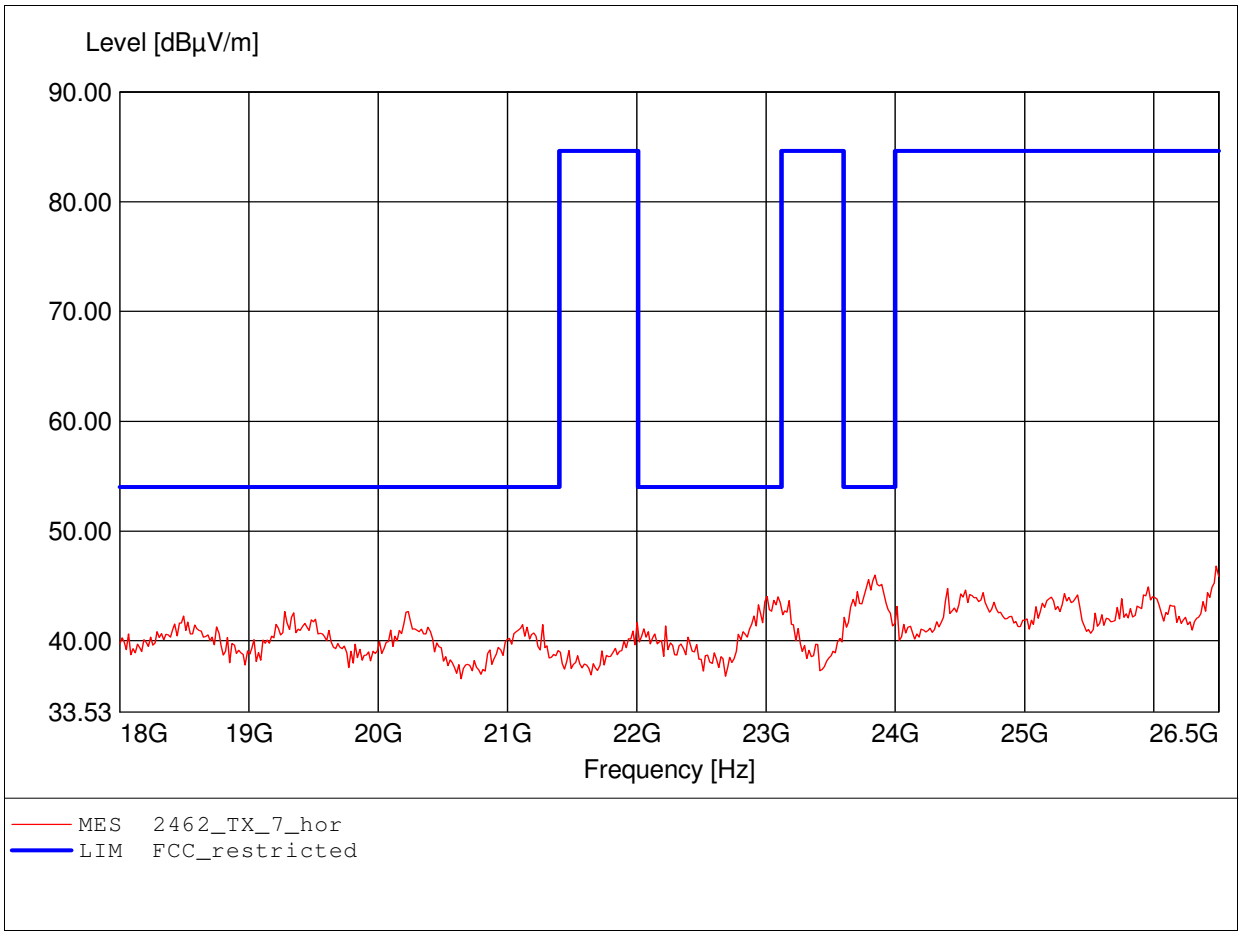
Approval Holder:	lesswire AG / G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module / WiBear SF2 UAP #4 Ant ext - ver
Setup:	CH 11 / DSSS / 1Mbit/s / Powerlevel 18dBm / y-axis
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:	Freq. / CH: 2462
Comment 1:	Dist.: 3m, Ant.: HL025, amplif.
Comment 2:	Freq: 26.500GHz, Emax: 47.71dBµV/m, RBW: 1MHz



Spurious emissions Field Strength

FCC RULES PART 15, SUBPART C

Approval Holder:	lesswire AG / G0M-1111-1506
EUT / Model:	WLAN- Bluetooth module / WiBear SF2 UAP #4 Ant ext - ver
Setup:	CH 11 / DSSS / 1Mbit/s / Powerlevel 18dBm / y-axis
Test Site / Operator:	Eurofins Product Service GmbH / Mr. Pudell
Test Condition:	Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:	Freq. / CH: 2462
Comment 1:	Dist.: 3m, Ant.: HL025, amplif.
Comment 2:	Freq: 26.483GHz, Emax: 46.82dBµV/m, RBW: 1MHz

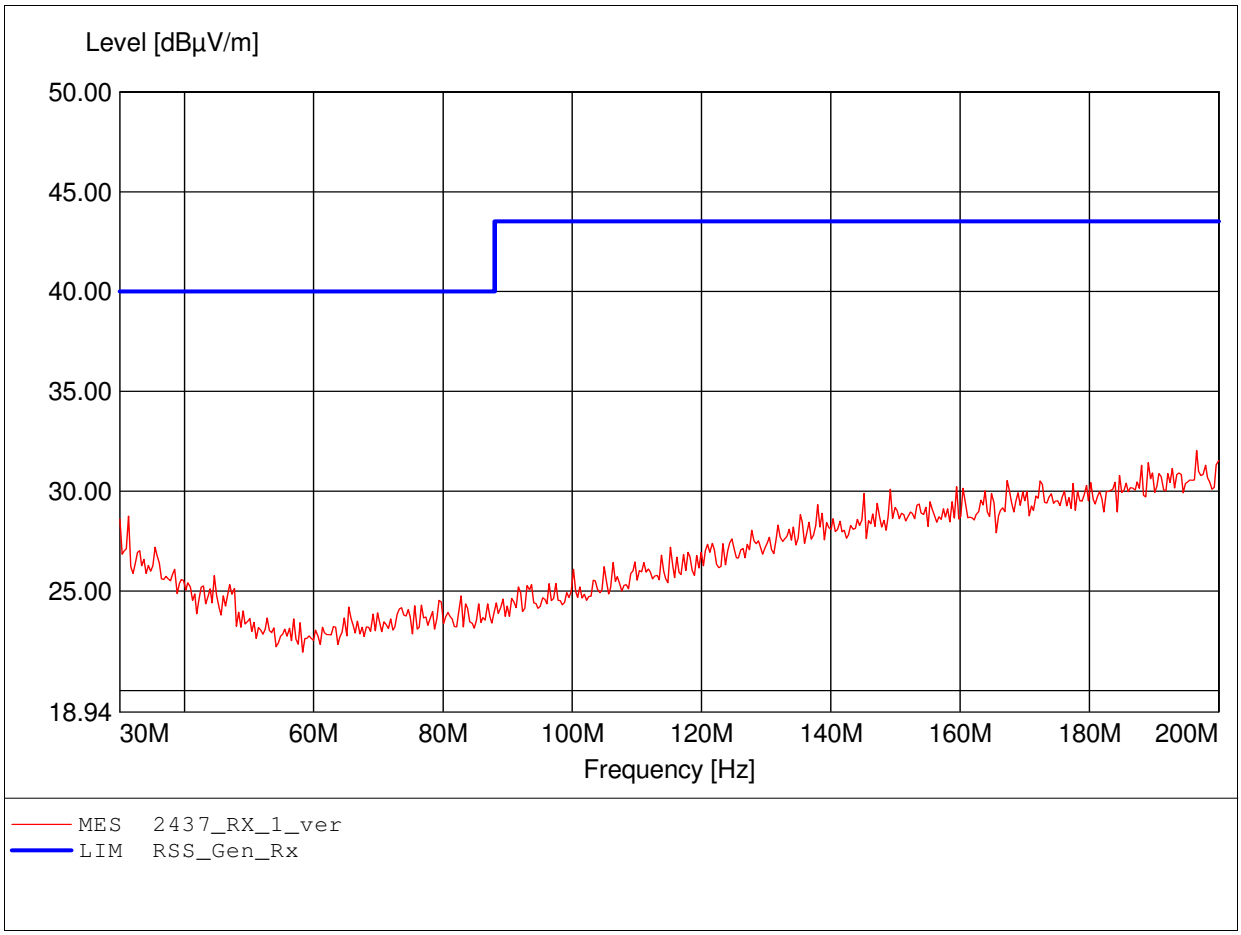


ANNEX B Receiver radiated spurious emissions

Field Strength under normal conditions

Standards Industry Canada, RSS-GEN

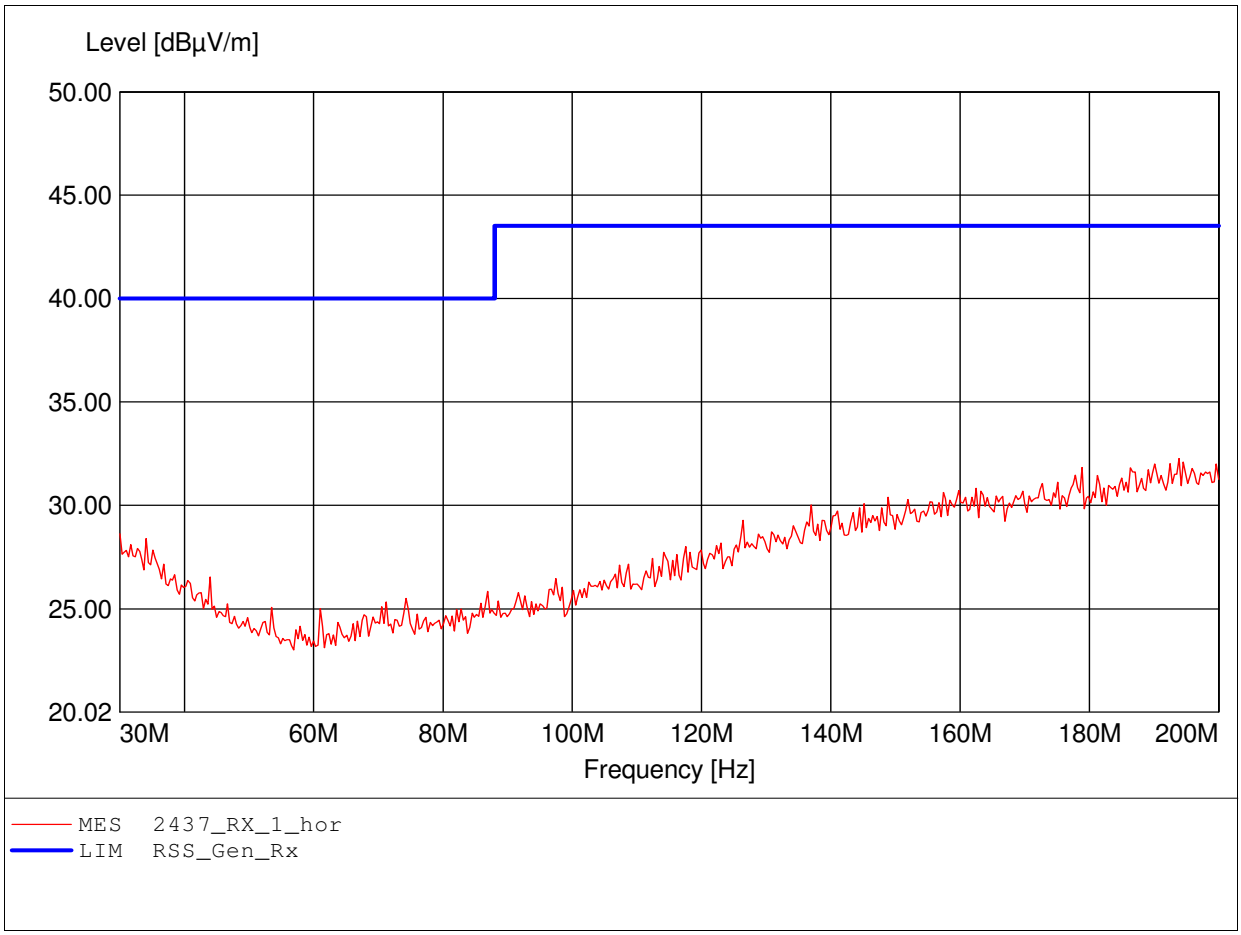
```
Approval Holder:       lesswire AG              /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module   /  WiBear SF2 UAP #6 Ceramic Ant
Setup:                 CH 6  /  RX-Idle  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2437
Comment 1:             Dist.: 3m, Ant.: HK 116
Comment 2:             Freq:196.593MHz Emax:32.03dBµV/m RBW: 100 kHz
```



Field Strength under normal conditions

Standards Industry Canada, RSS-GEN

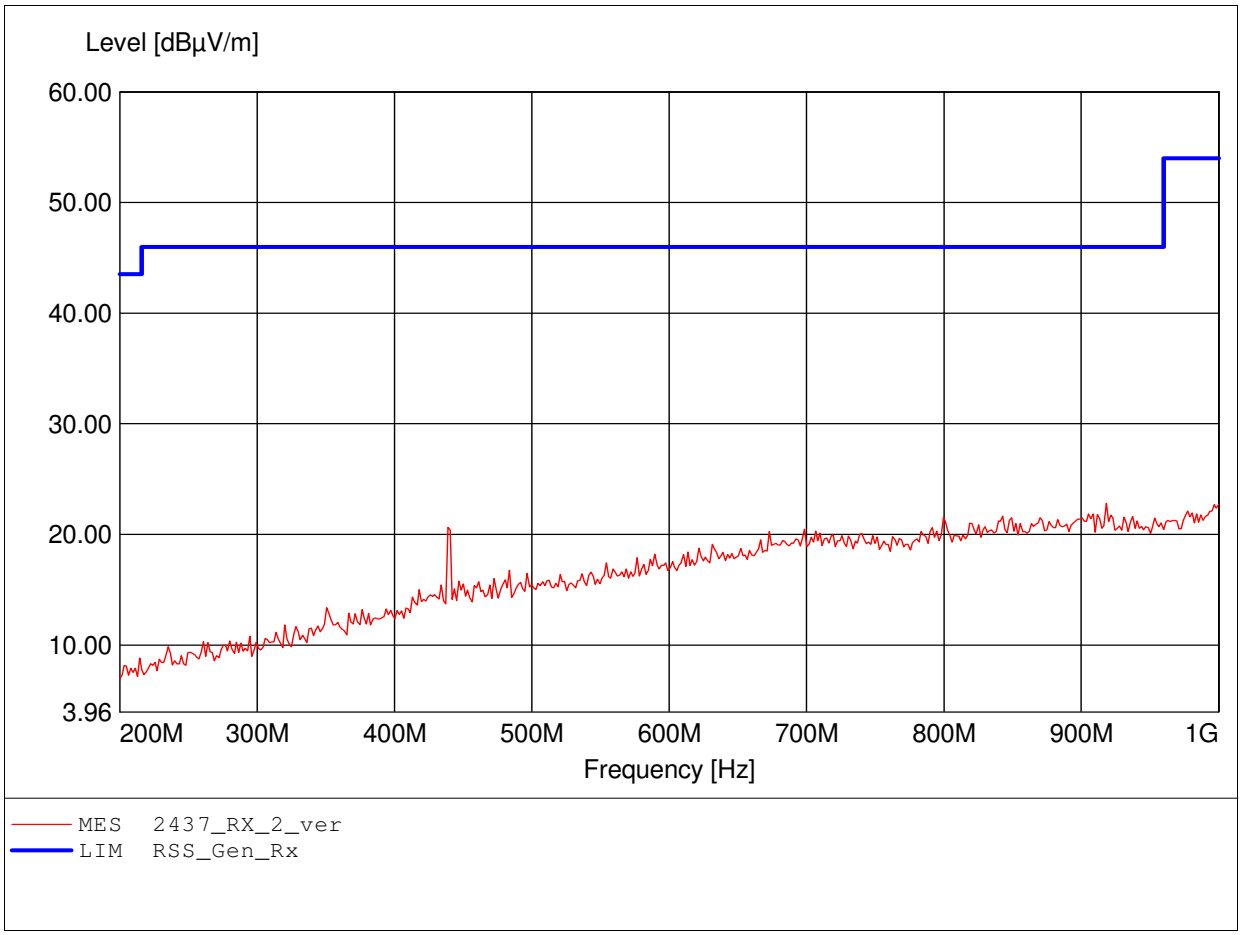
```
Approval Holder:       lesswire AG              /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module   /  WiBear SF2 UAP #6 Ceramic Ant
Setup:                 CH 6  /  RX-Idle  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2437
Comment 1:             Dist.: 3m, Ant.: HK 116
Comment 2:             Freq:193.868MHz Emax:32.27dBµV/m RBW: 100 kHz
```



Field Strength under normal conditions

Standards Industry Canada, RSS-GEN

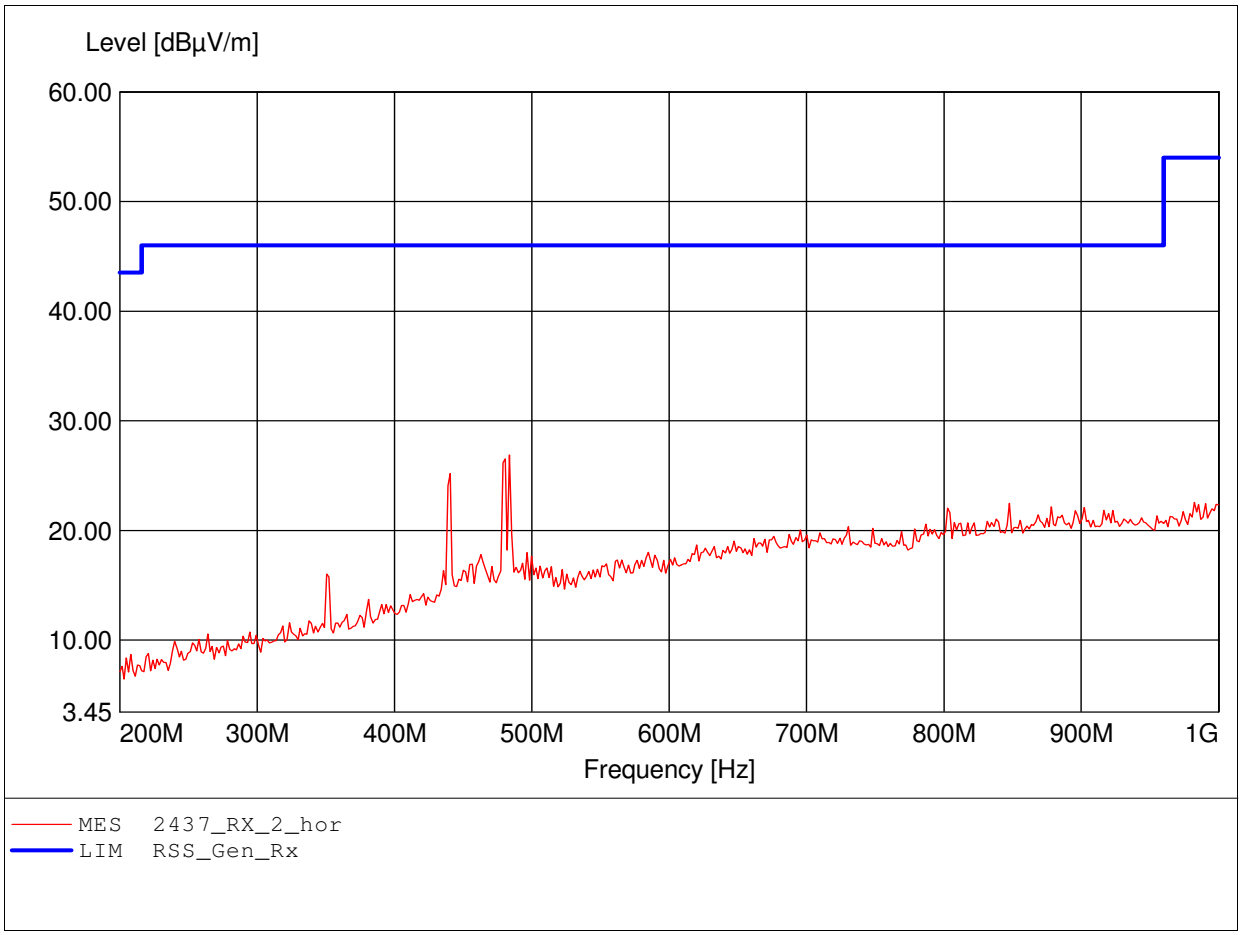
```
Approval Holder:       lesswire AG             /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module  /  WiBear SF2 UAP #6 Ceramic Ant
Setup:                 CH 6  /  RX-Idle  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2437
Comment 1:             Dist.: 3m, Ant.: HL 223, ampl.
Comment 2:             Freq:918.236MHz Emax:22.81dBµV/m RBW: 100 kHz
```



Field Strength under normal conditions

Standards Industry Canada, RSS-GEN

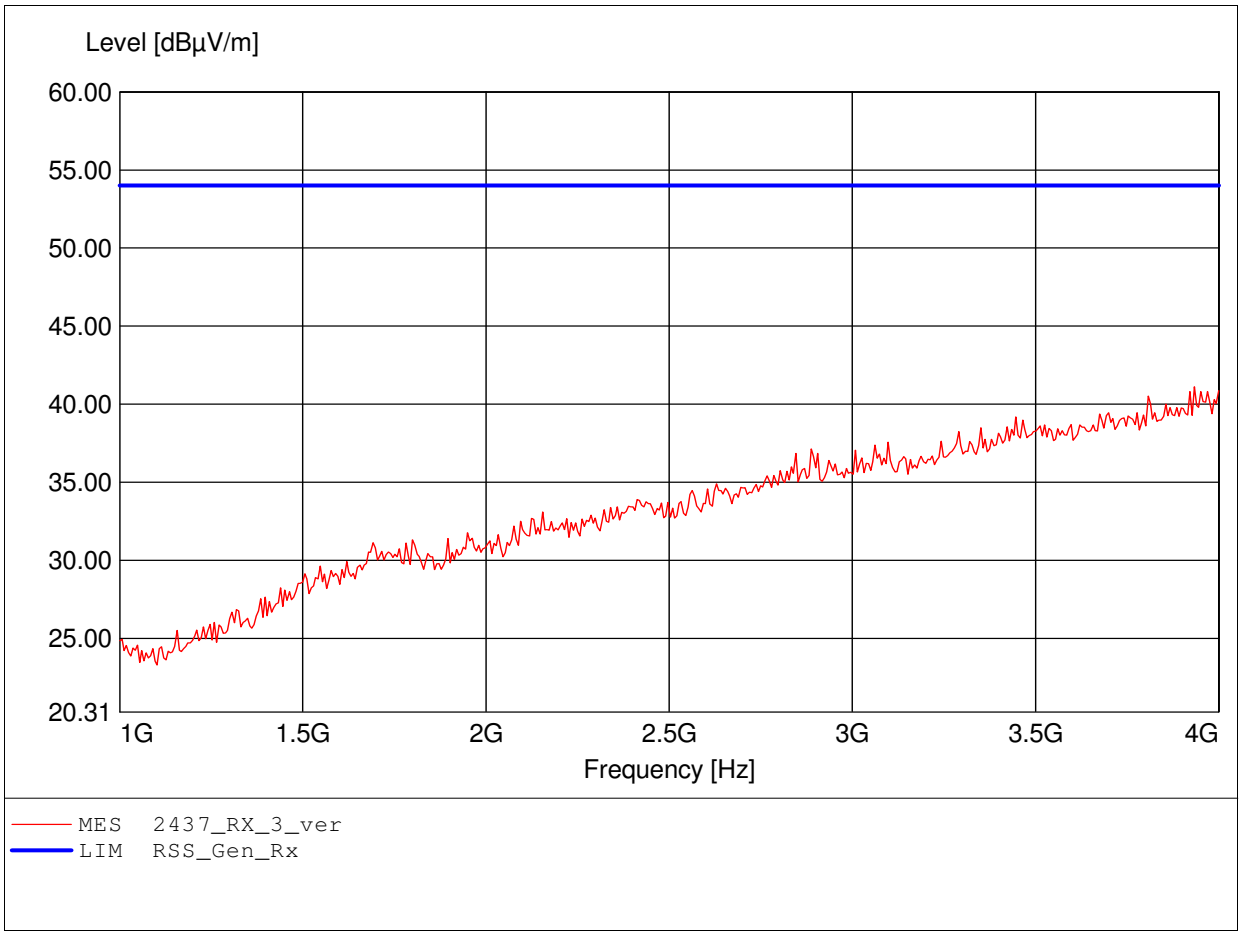
```
Approval Holder:       lesswire AG             /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module  /  WiBear SF2 UAP #6 Ceramic Ant
Setup:                 CH 6  /  RX-Idle  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2437
Comment 1:             Dist.: 3m, Ant.: HL 223, ampl.
Comment 2:             Freq:483.768MHz Emax:26.87dBµV/m RBW: 100 kHz
```



Field Strength under normal conditions

Standards Industry Canada, RSS-GEN

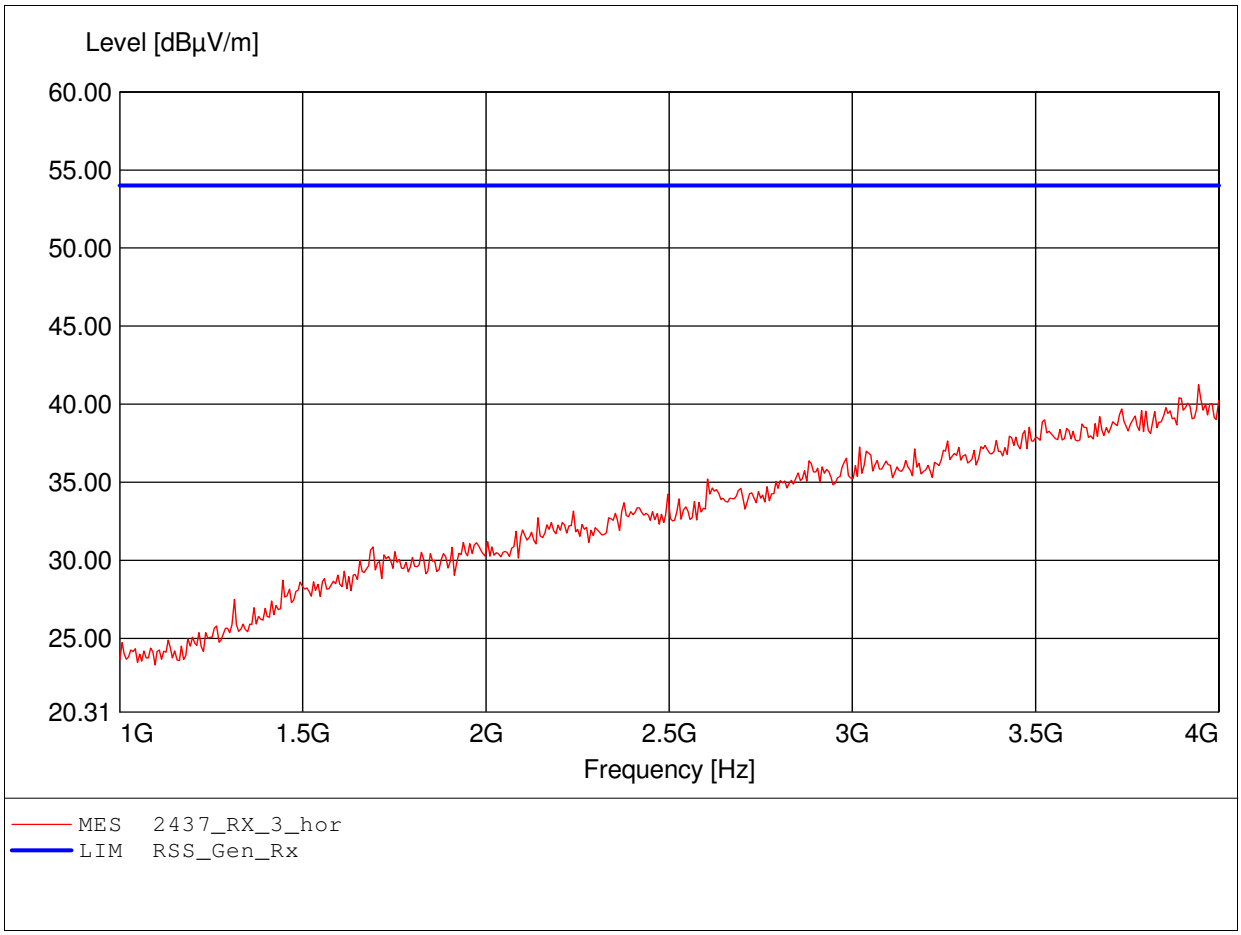
```
Approval Holder:       lesswire AG             /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module  /  WiBear SF2 UAP #6 Ceramic Ant
Setup:                 CH 6  /  RX-Idle  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2437
Comment 1:             Dist.: 3m, Ant.: HL025, ampl.
Comment 2:             Freq:3.934GHz Emax:41.13dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

Standards Industry Canada, RSS-GEN

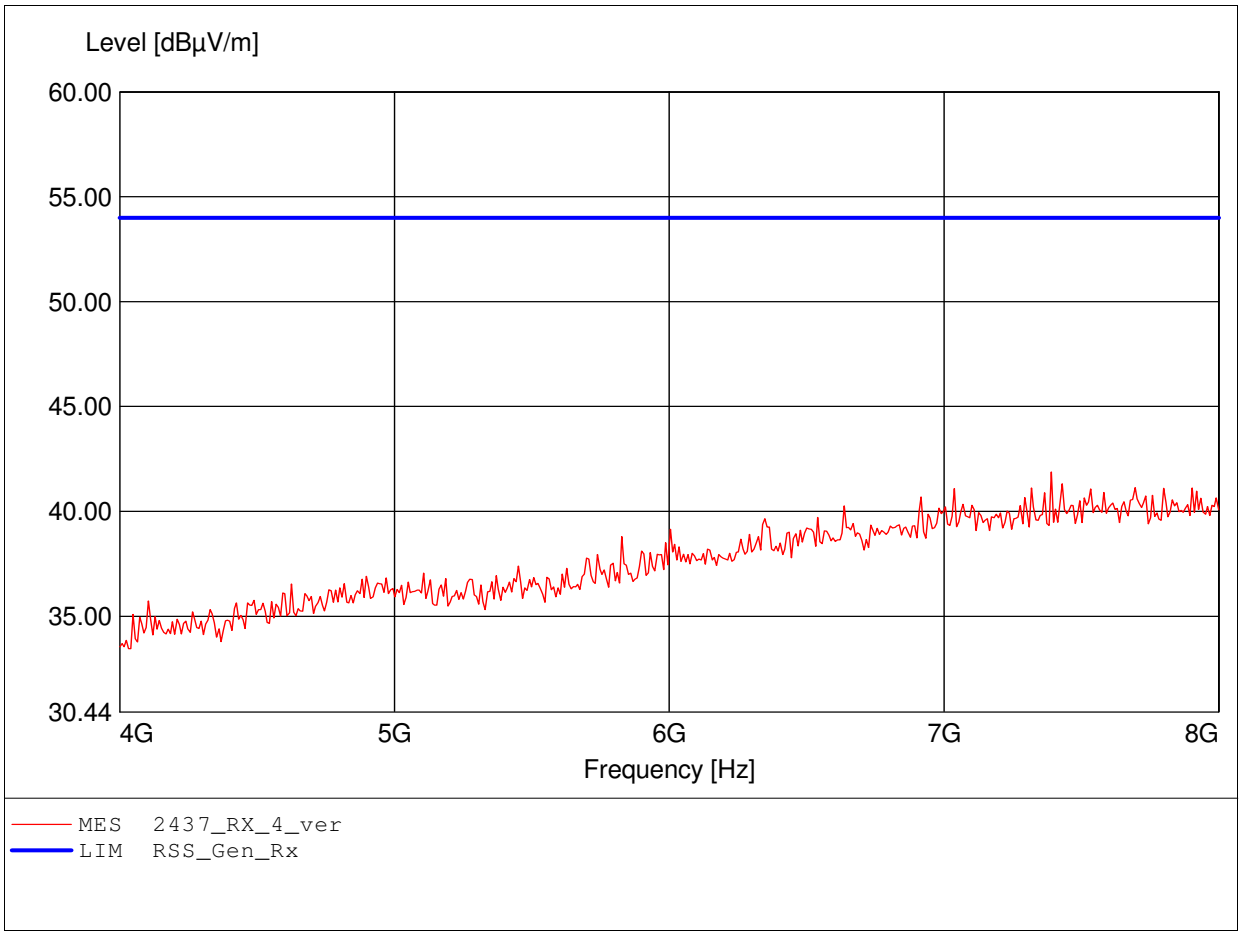
```
Approval Holder:       lesswire AG             /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module  /  WiBear SF2 UAP #6 Ceramic Ant
Setup:                 CH 6  /  RX-Idle  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2437
Comment 1:             Dist.: 3m, Ant.: HL025, ampl.
Comment 2:             Freq:3.946GHz Emax:41.27dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

Standards Industry Canada, RSS-GEN

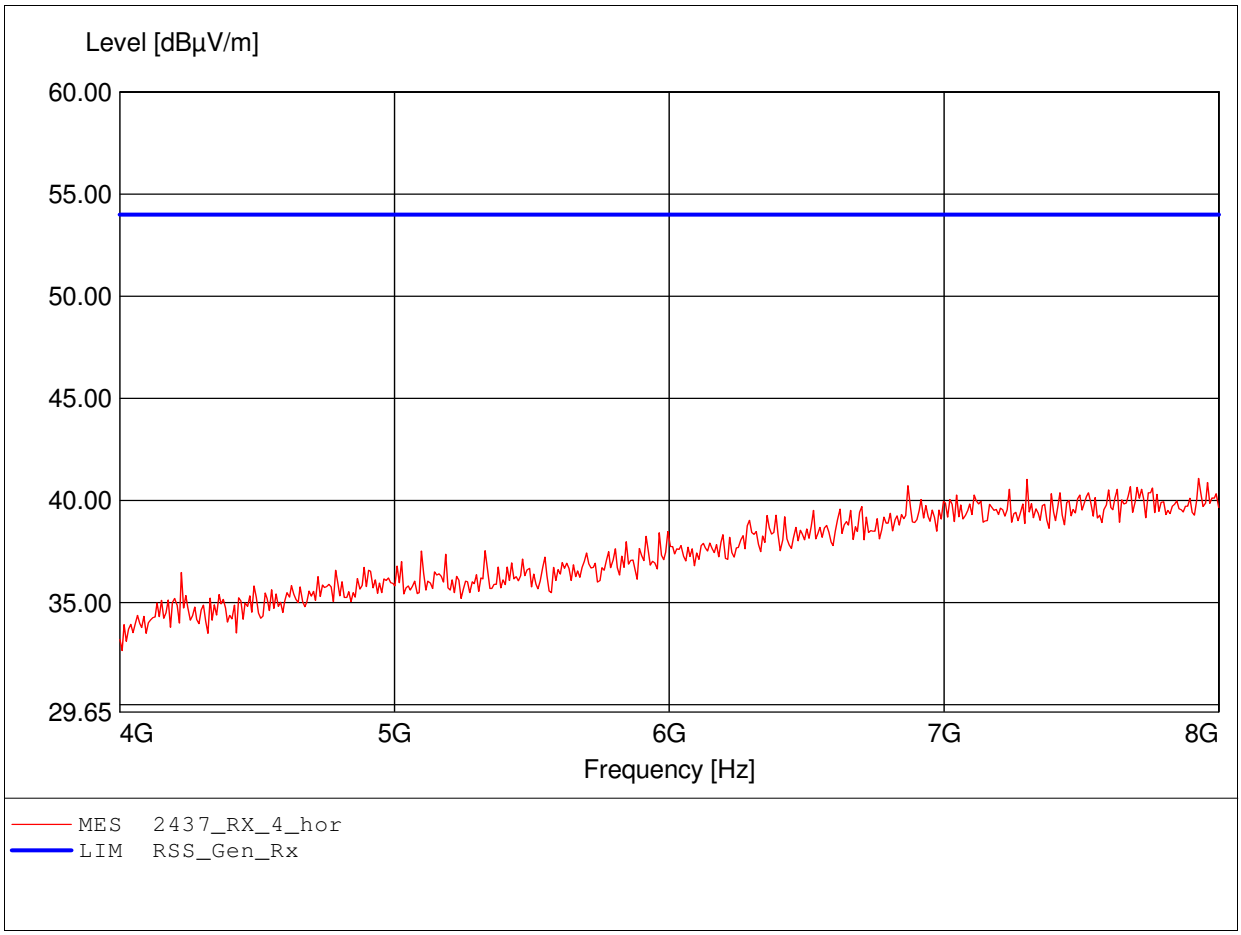
```
Approval Holder:       lesswire AG             /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module  /  WiBear SF2 UAP #6 Ceramic Ant
Setup:                 CH 6  /  RX-Idle  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2437
Comment 1:             Dist.: 3m, Ant.: HL025, ampl.
Comment 2:             Freq:7.391GHz Emax:41.88dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

Standards Industry Canada, RSS-GEN

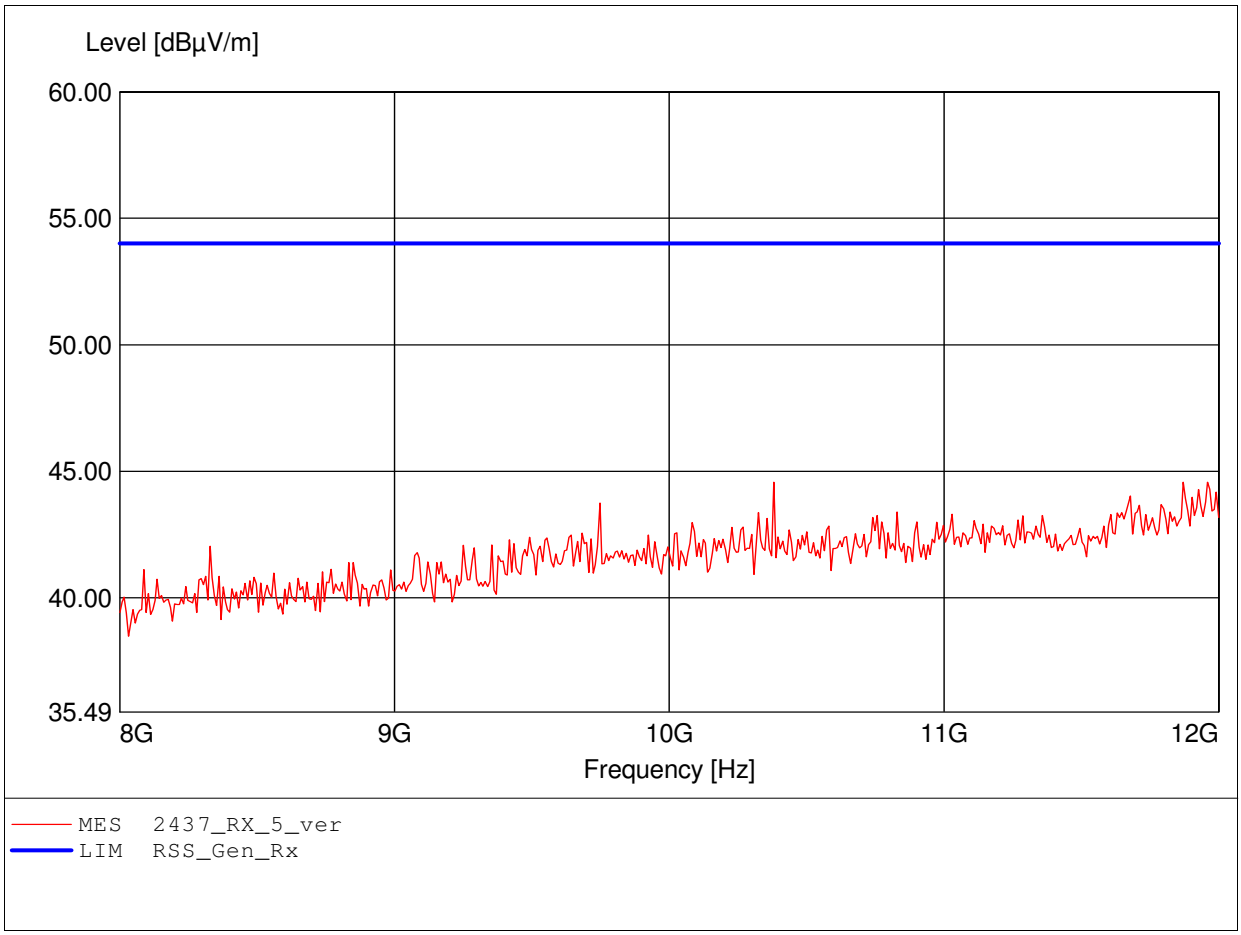
```
Approval Holder:       lesswire AG             /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module  /  WiBear SF2 UAP #6 Ceramic Ant
Setup:                 CH 6  /  RX-Idle  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2437
Comment 1:             Dist.: 3m, Ant.: HL025, ampl.
Comment 2:             Freq:7.928GHz Emax:41.09dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

Standards Industry Canada, RSS-GEN

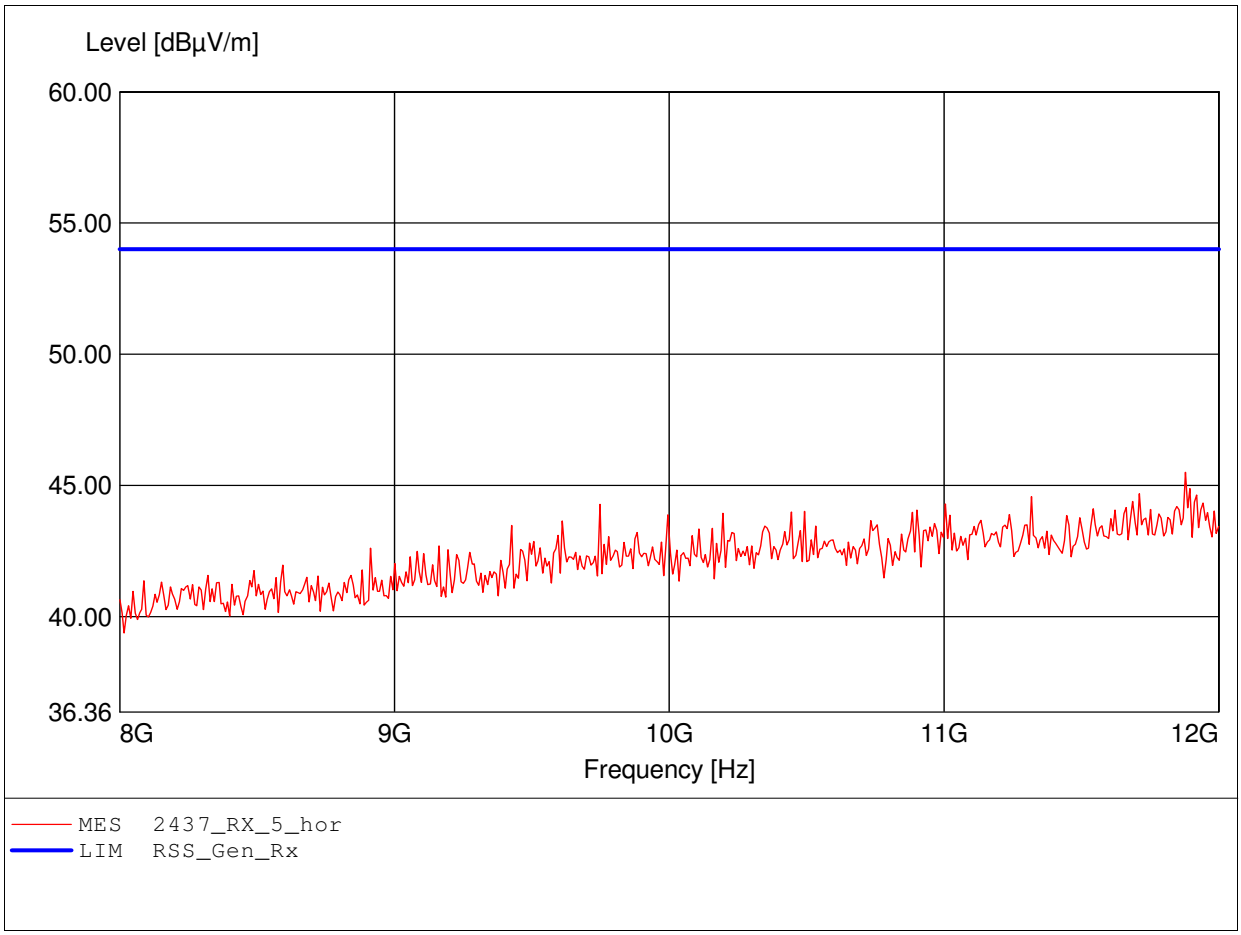
```
Approval Holder:       lesswire AG             /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module  /  WiBear SF2 UAP #6 Ceramic Ant
Setup:                 CH 6  /  RX-Idle  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2437
Comment 1:             Dist.: 3m, Ant.: HL025, ampl.
Comment 2:             Freq:11.960GHz Emax:44.58dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

Standards Industry Canada, RSS-GEN

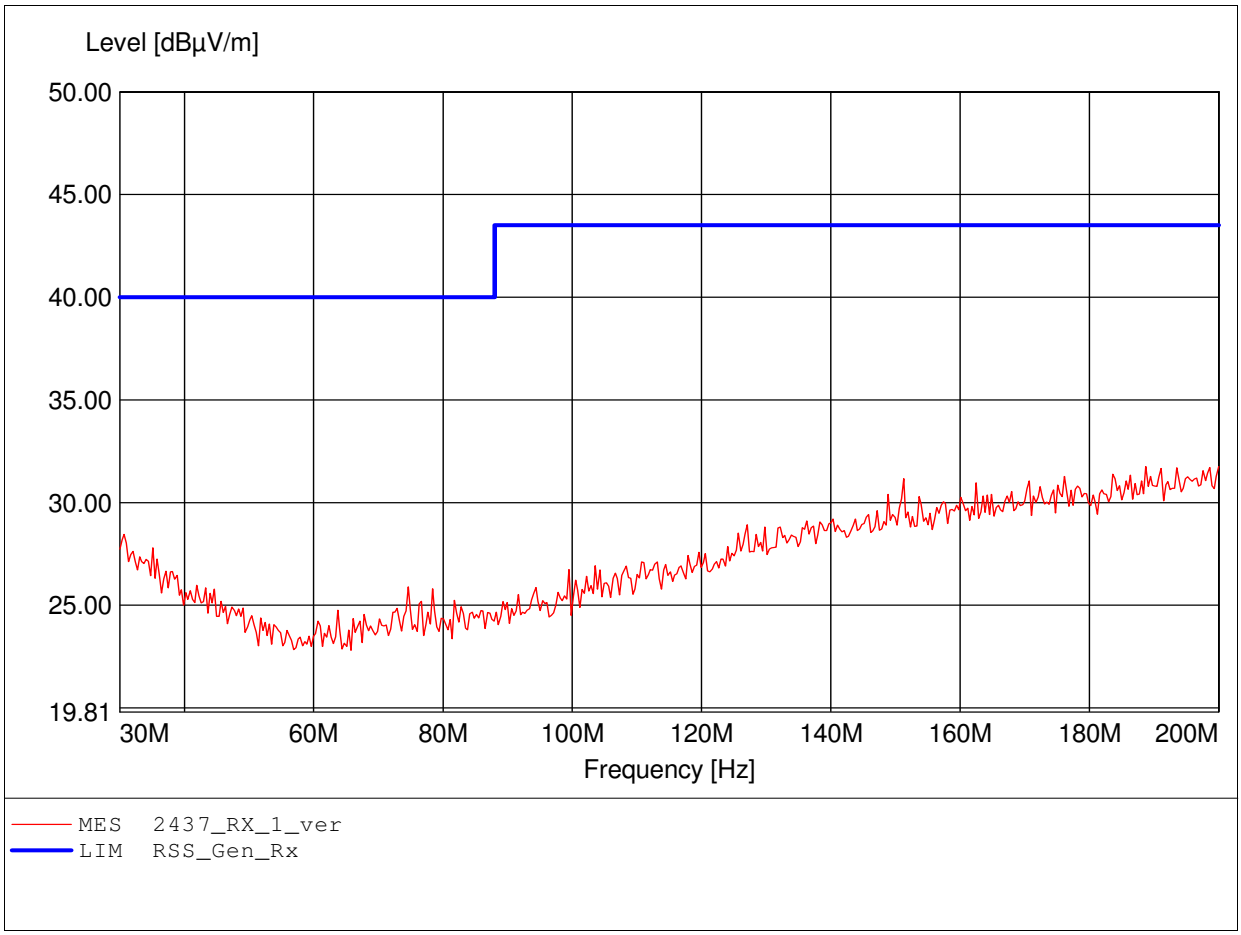
```
Approval Holder:       lesswire AG             /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module  /  WiBear SF2 UAP #6 Ceramic Ant
Setup:                 CH 6  /  RX-Idle  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2437
Comment 1:             Dist.: 3m, Ant.: HL025, ampl.
Comment 2:             Freq:11.880GHz Emax:45.49dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

Standards Industry Canada, RSS-GEN

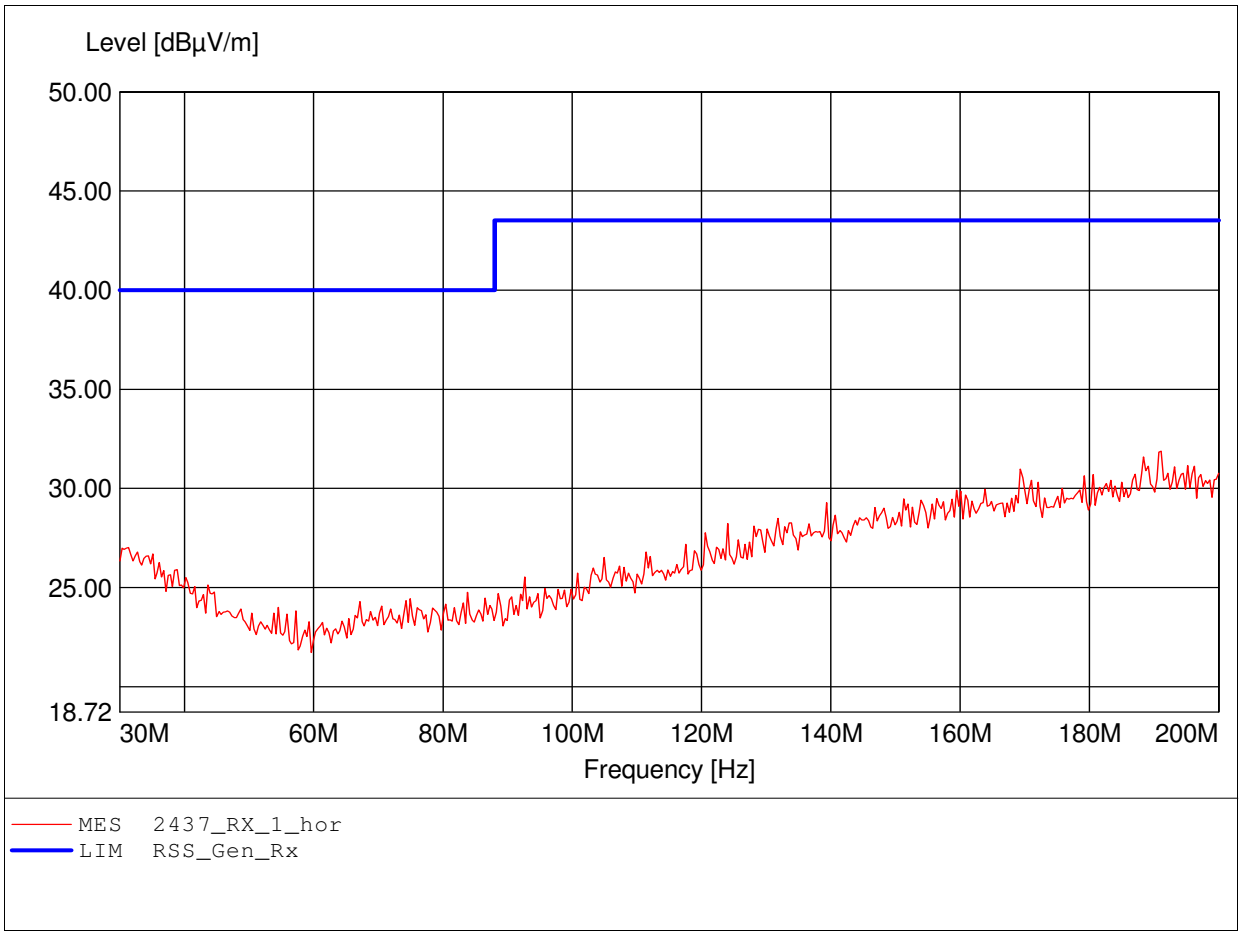
```
Approval Holder:       lesswire AG             /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module  /  WiBear SF2 UAP #4 Ant ext - ver
Setup:                 CH 6  /  RX-Idle  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2437
Comment 1:             Dist.: 3m, Ant.: HK 116
Comment 2:             Freq:188.758MHz Emax:31.76dBµV/m RBW: 100 kHz
```



Field Strength under normal conditions

Standards Industry Canada, RSS-GEN

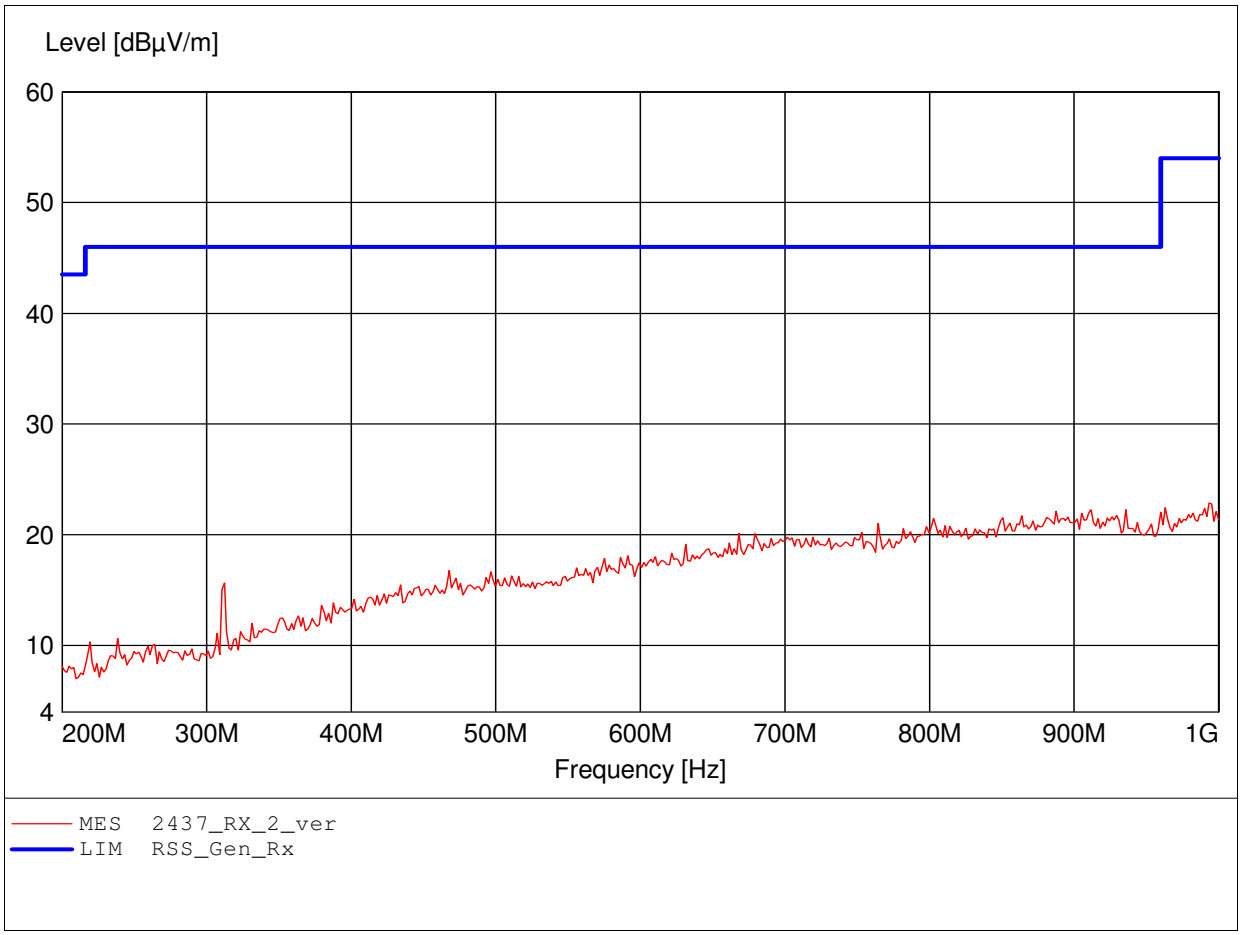
```
Approval Holder:       lesswire AG              /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module   /  WiBear SF2 UAP #4 Ant ext - ver
Setup:                 CH 6  /  RX-Idle  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2437
Comment 1:             Dist.: 3m, Ant.: HK 116
Comment 2:             Freq:191.142MHz Emax:31.86dBµV/m RBW: 100 kHz
```



Field Strength under normal conditions

Standards Industry Canada, RSS-GEN

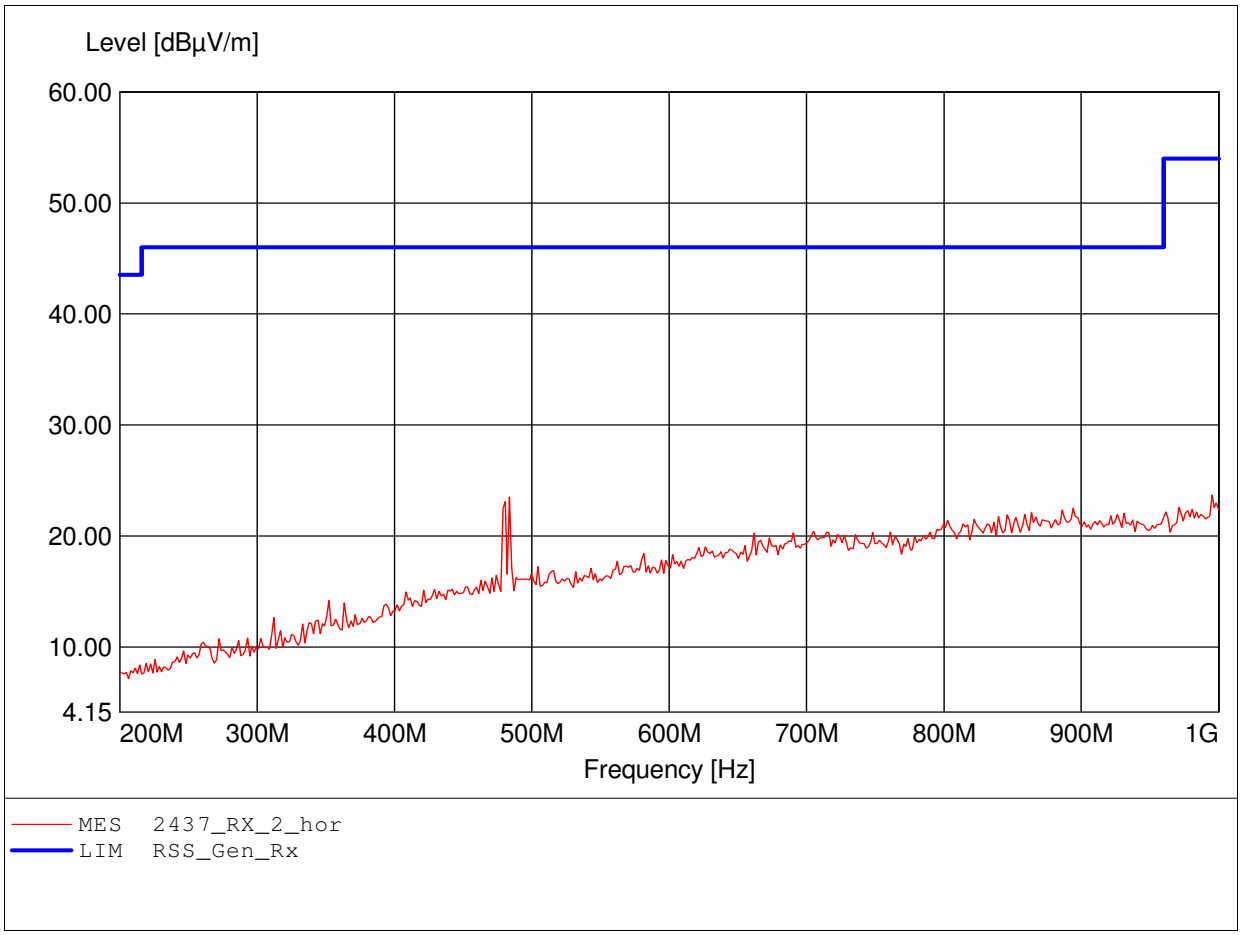
```
Approval Holder:       lesswire AG             /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module  /  WiBear SF2 UAP #4 Ant ext - ver
Setup:                 CH 6  /  RX-Idle  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2437
Comment 1:             Dist.: 3m, Ant.: HL 223, ampl.
Comment 2:             Freq:993.587MHz Emax:22.87dBµV/m RBW: 100 kHz
```



Field Strength under normal conditions

Standards Industry Canada, RSS-GEN

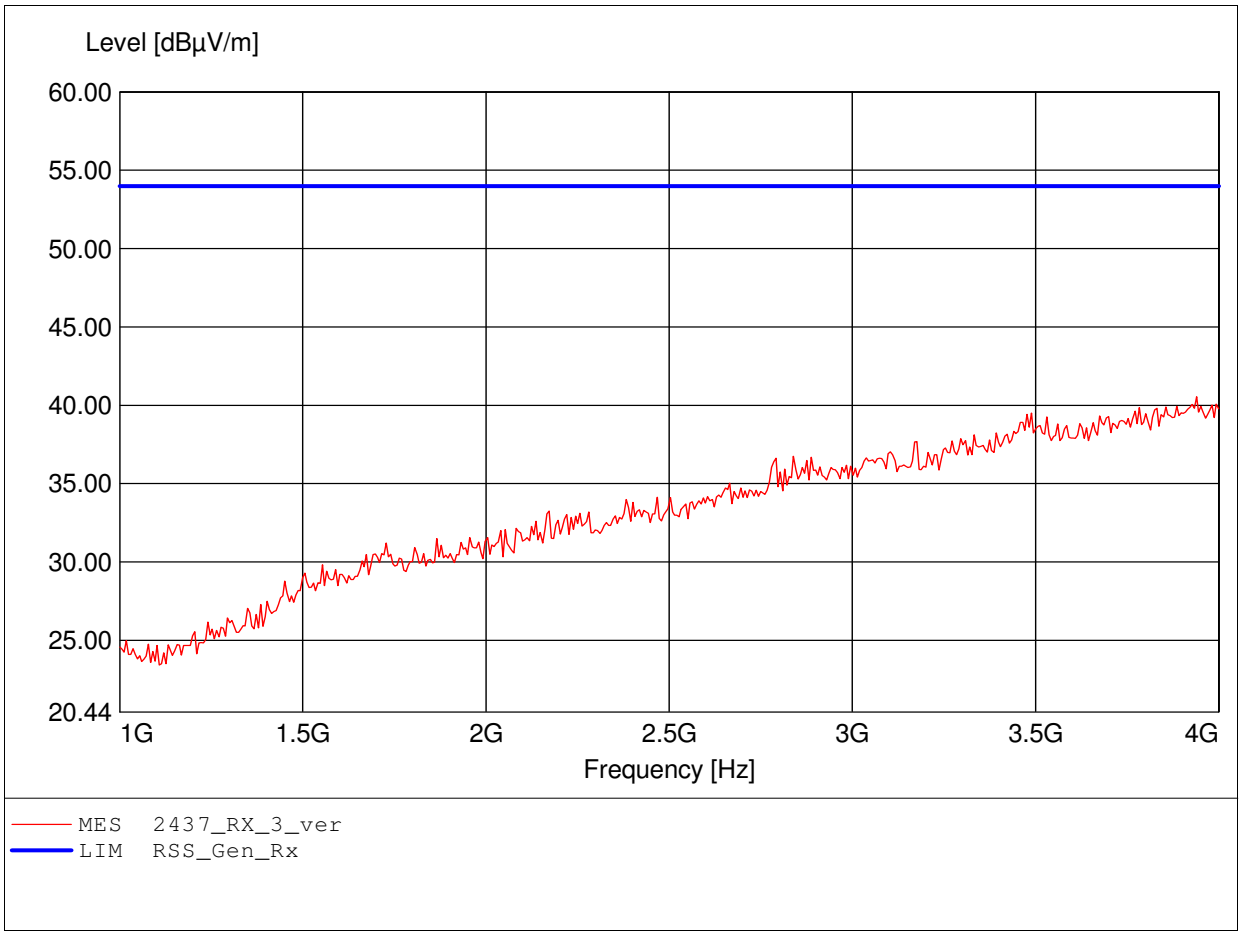
```
Approval Holder:       lesswire AG             /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module  /  WiBear SF2 UAP #4 Ant ext - ver
Setup:                 CH 6  /  RX-Idle  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2437
Comment 1:             Dist.: 3m, Ant.: HL 223, ampl.
Comment 2:             Freq:995.190MHz Emax:23.67dBµV/m RBW: 100 kHz
```



Field Strength under normal conditions

Standards Industry Canada, RSS-GEN

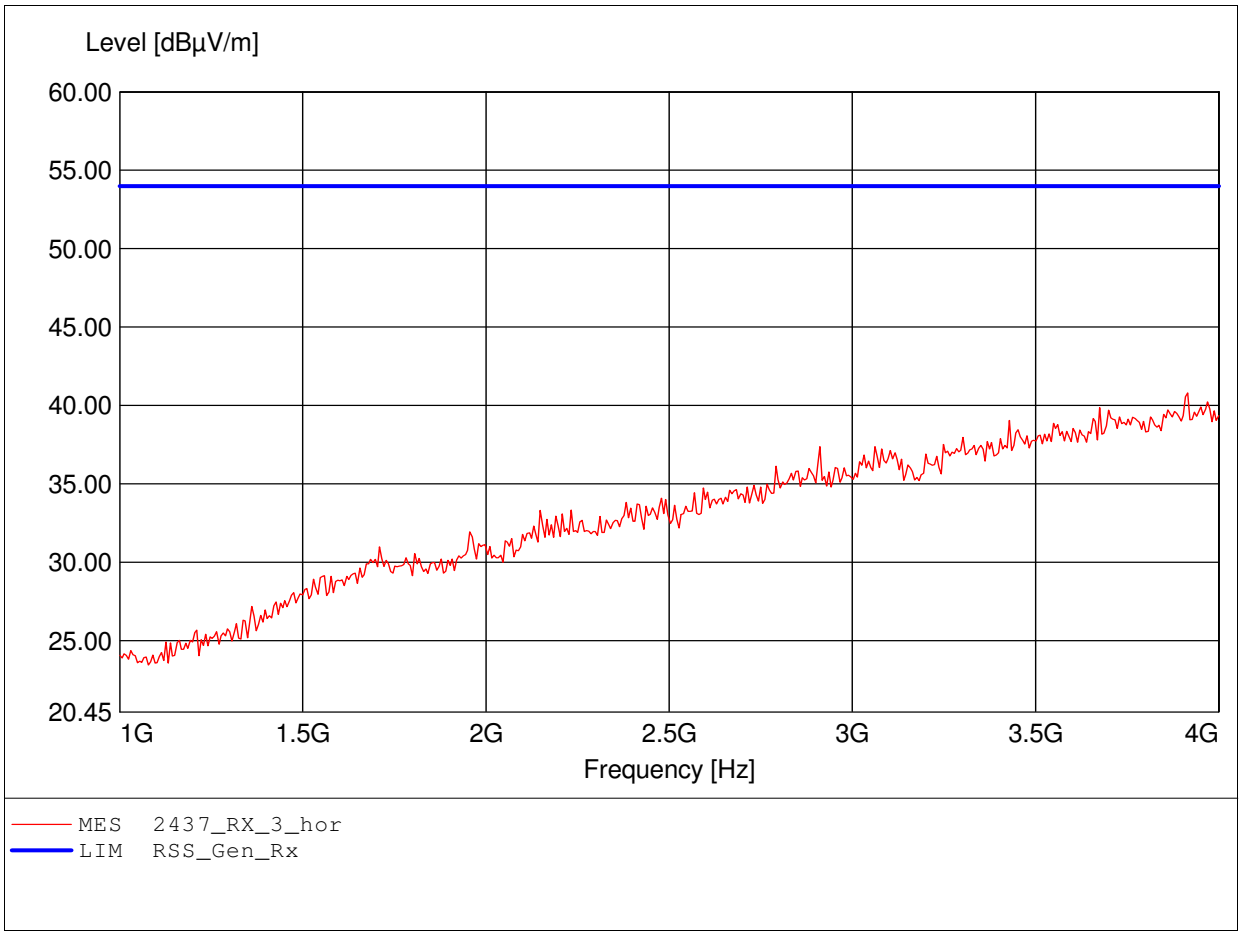
```
Approval Holder:       lesswire AG              /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module   /  WiBear SF2 UAP #4 Ant ext - ver
Setup:                 CH 6  /  RX-Idle  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2437
Comment 1:             Dist.: 3m, Ant.: HL025, ampl.
Comment 2:             Freq:3.940GHz Emax:40.54dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

Standards Industry Canada, RSS-GEN

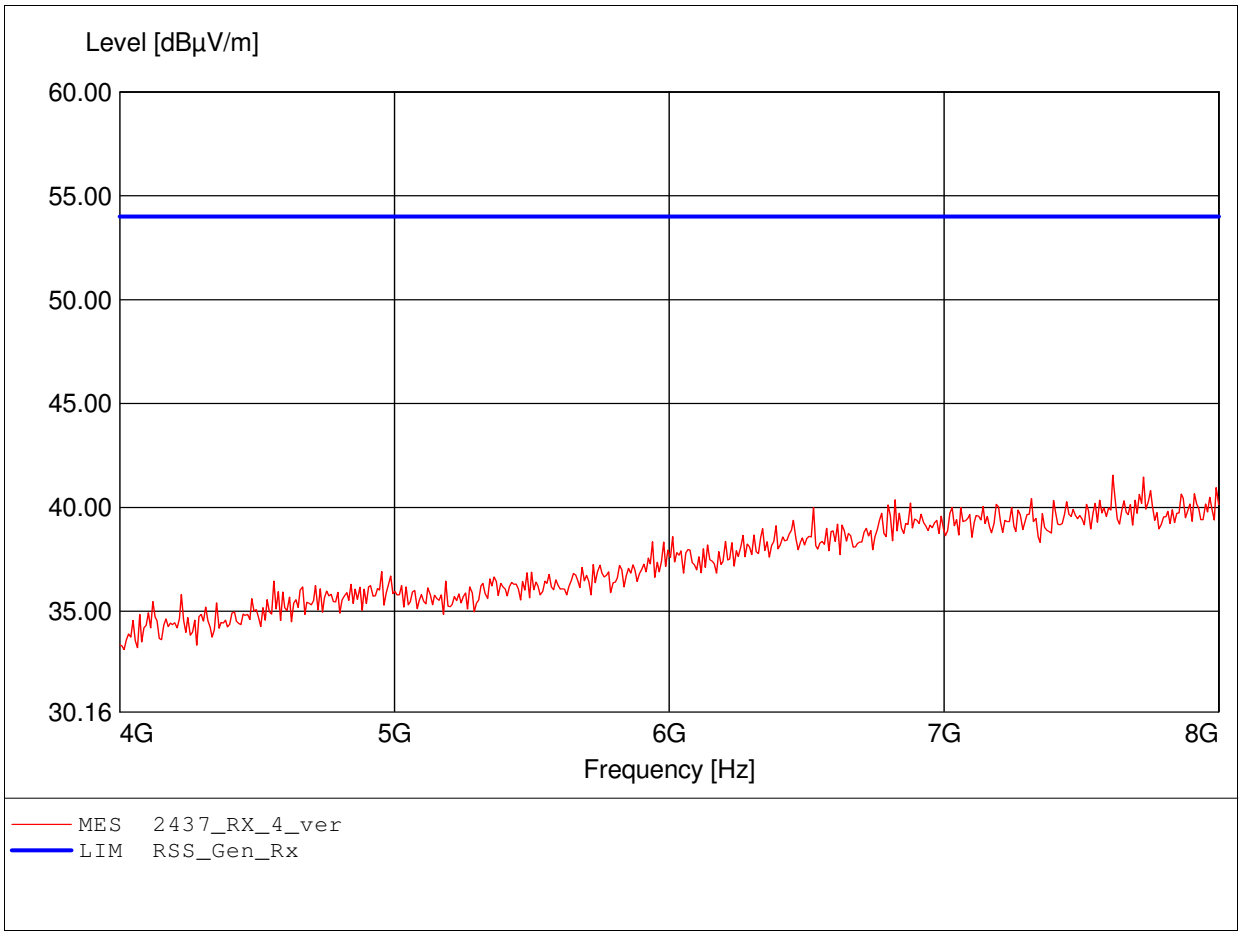
```
Approval Holder:       lesswire AG              /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module   /  WiBear SF2 UAP #4 Ant ext - ver
Setup:                 CH 6  /  RX-Idle  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2437
Comment 1:             Dist.: 3m, Ant.: HL025, ampl.
Comment 2:             Freq:3.916GHz Emax:40.79dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

Standards Industry Canada, RSS-GEN

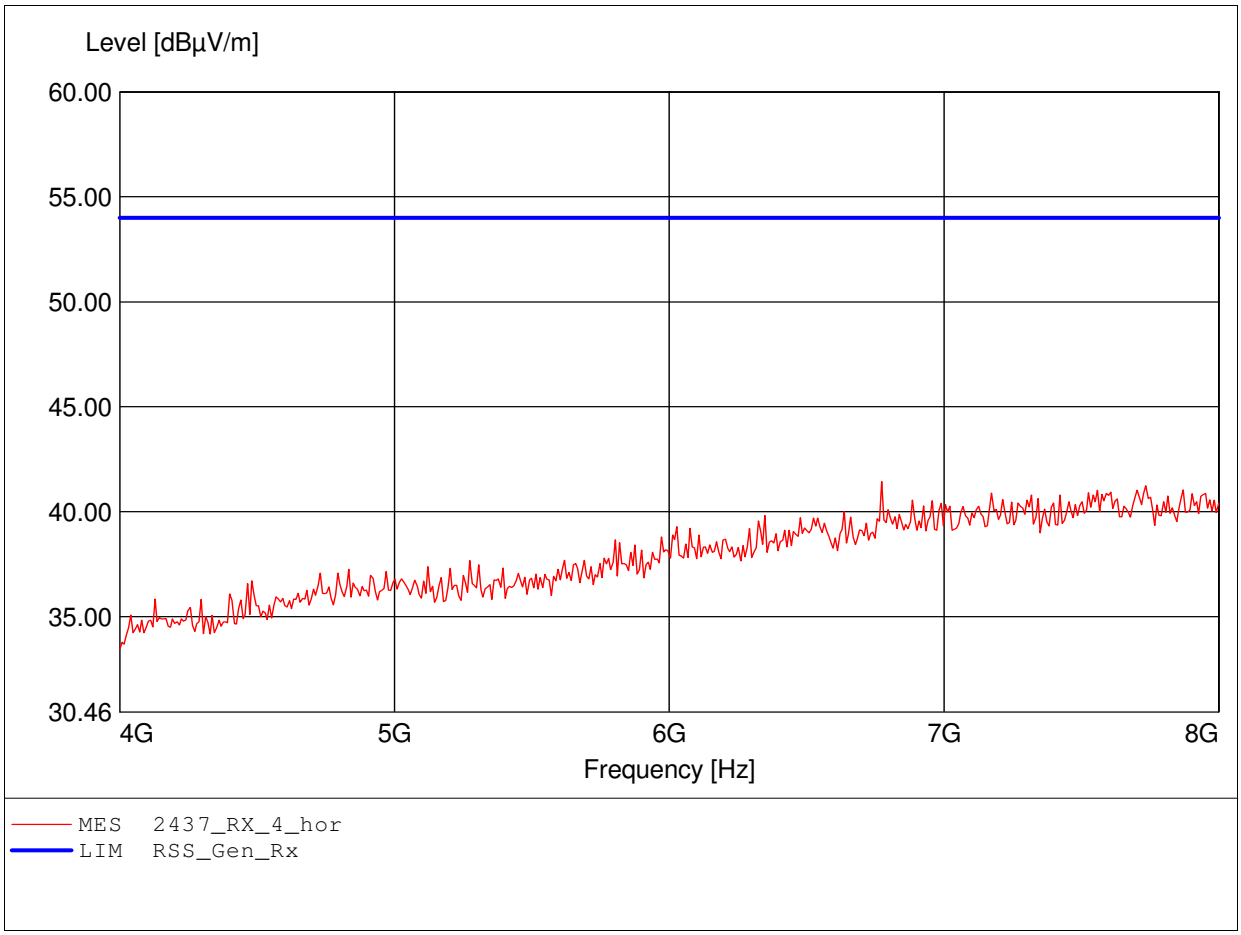
```
Approval Holder:       lesswire AG             /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module  /  WiBear SF2 UAP #4 Ant ext - ver
Setup:                 CH 6  /  RX-Idle  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2437
Comment 1:             Dist.: 3m, Ant.: HL025, ampl.
Comment 2:             Freq:7.615GHz Emax:41.56dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

Standards Industry Canada, RSS-GEN

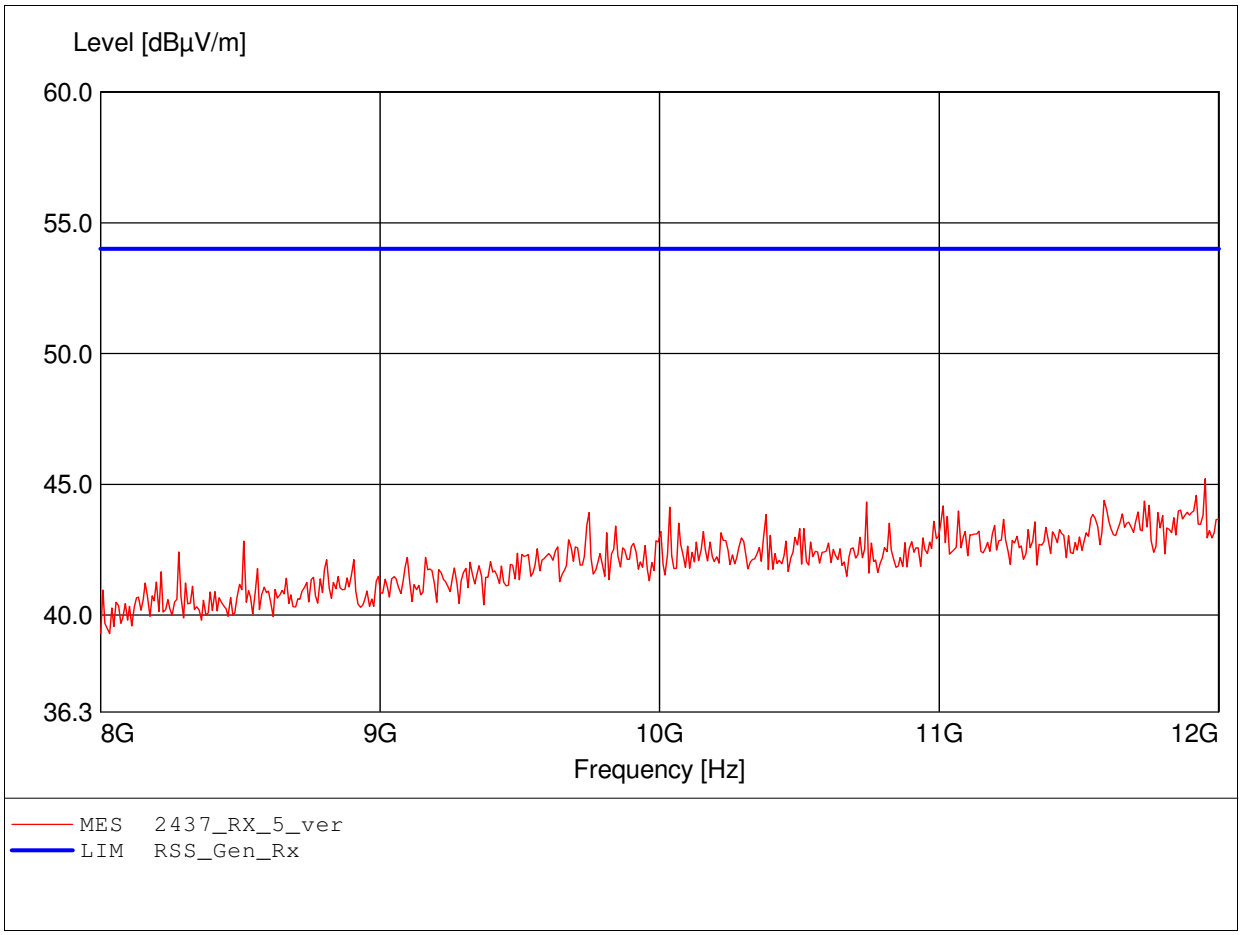
```
Approval Holder:       lesswire AG             /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module  /  WiBear SF2 UAP #4 Ant ext - ver
Setup:                 CH 6  /  RX-Idle  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2437
Comment 1:             Dist.: 3m, Ant.: HL025, ampl.
Comment 2:             Freq:6.774GHz Emax:41.43dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

Standards Industry Canada, RSS-GEN

```
Approval Holder:       lesswire AG             /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module  /  WiBear SF2 UAP #4 Ant ext - ver
Setup:                 CH 6  /  RX-Idle  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2437
Comment 1:             Dist.: 3m, Ant.: HL025, ampl.
Comment 2:             Freq:11.952GHz Emax:45.22dBµV/m RBW: 1 MHz
```



Field Strength under normal conditions

Standards Industry Canada, RSS-GEN

```
Approval Holder:       lesswire AG             /  G0M-1111-1506
EUT / Model:           WLAN- Bluetooth module  /  WiBear SF2 UAP #4 Ant ext - ver
Setup:                 CH 6  /  RX-Idle  /  y-axis
Test Site / Operator:  Eurofins Product Service GmbH  /  Mr. Pudell
Test Condition:        Tnom: 24°C / Vnom.: 3.3V DC
Test Specification:    Freq. / CH: 2437
Comment 1:             Dist.: 3m, Ant.: HL025, ampl.
Comment 2:             Freq:11.976GHz Emax:45.21dBµV/m RBW: 1 MHz
```