

FCC TEST REPORT

For

EMV Android Validator

Model Number: FX925F PM, FX925F WM

FCC ID: 2AGQIFX925F

Report Number : WT198005841

Test Laboratory : Shenzhen Academy of Metrology and Quality Inspection
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TEST REPORT DECLARATION

Applicant : FAMOCO SAS
Address : 59 avenue Victor Hugo Paris, France
Manufacturer : FAMOCO SAS
Address : 59 avenue Victor Hugo Paris, France
EUT Description : EMV Android Validator
Model No : FX925F PM, FX925F WM
Trade mark : FAMOCO
Serial Number : /
FCC ID : 2AGQIFX925F

Test Standards:

FCC Part 15 15.209, 15.247(2018)

The EUT described above is tested by Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory to determine the maximum emissions from the EUT. Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory is assumed full responsibility for the accuracy of the test results. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.10 (2013) and the energy emitted by the sample EUT tested as described in this report is in compliance with FCC Rules Part 15.207, 15.209, 15.247 .

The test report is valid for above tested sample only and shall not be reproduced in part without written approval of the laboratory.

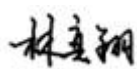
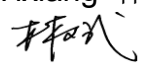
Project Engineer:	 (Chen Silin 陈司林)	Date:	Nov.08, 2019
Checked by:	 (Lin Yixiang 林奕翔)	Date:	Nov.08, 2019
Approved by:	 (Lin Bin 林斌)	Date:	Nov.08, 2019

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1. TEST RESULTS SUMMARY

Table 1 Test Results Summary

Test Items	FCC Rules	Test Results
6dB DTS bandwidth measurement	15.247 (a) (2)	Pass
Maximum Peak Conducted Power	15.247 (b) (3)	Pass
Maximum Power Spectral Density Level	15.247 (3)	Pass
Conducted Bandedge and Spurious	15.247 (d)	Pass
Radiated Bandedge and Spurious	15.247 (d) 15.209 15.205	Pass
Antenna Requirment	15.203	Pass

Remark: "N/A" means "Not applicable."

2. GENERAL INFORMATION

2.1. Report information

This report is not a certificate of quality; it only applies to the sample of the specific product/equipment given at the time of its testing. The results are not used to indicate or imply that they are application to the similar items. In addition, such results must not be used to indicate or imply that SMQ approves recommends or endorses the manufacture, supplier or use of such product/equipment, or that SMQ in any way guarantees the later performance of the product/equipment.

The sample/s mentioned in this report is/are supplied by Applicant, SMQ therefore assumes no responsibility for the accuracy of information on the brand name, model number, origin of manufacture or any information supplied.

Additional copies of the report are available to the Applicant at an additional fee. No third part can obtain a copy of this report through SMQ, unless the applicant has authorized SMQ in writing to do so.

2.2. Laboratory Accreditation and Relationship to Customer

The testing report were performed by the Shenzhen Academy of Metrology and quality Inspection EMC Laboratory (Guangdong EMC compliance testing center), in their facilities located at NETC Building, No.4 Tongfa Rd., Xili, Nanshan, Shenzhen, China. At the time of testing, Laboratory is accredited by the following organizations:

China National Accreditation Service for Conformity Assessment (CNAS) accredits the Laboratory for conformance to FCC standards, EMC international standards and EN standards. The Registration Number is CNAS L0579.

The Laboratory is Accredited Testing Laboratory of FCC with Designation number CN1165 and Site registration number 582918.

The Laboratory is registered to perform emission tests with Innovation, Science and Economic Development (ISED), and the registration number is 11177A.

2.3.Measurement Uncertainty

Conducted Emission
9kHz~30MHz 3.5dB

Radiated Emission
30MHz~1000MHz 4.5dB
1GHz~26.5GHz 4.6dB

3. PRODUCT DESCRIPTION

3.1.EUT Description

Description : EMV Android Validator

Manufacturer : FAMOCO SAS

Model Number : FX925F PM, FX925F WM

Operate : 2.412GHz~2.462GHz
Frequency

Antenna : PIFA antenna:1.3 dBi
Designation

Operating voltage : DC: 12V

Remark: FX925F PM compared with FX925F WM, only have different model number and appearance. All of the models' circuit theory, electrical design and the Critical Components are the same. The differences do not affect the RF performance. Unless otherwise specified, the model FX925F PM was chosen as representative model to perform all the tests.

This is test report is for application of FCC ID: 2AGQIFX925F, which consists of reuse data of FCC ID: 2AGQIFX205. The FX925F PM adds scanner and USB HUB function, changes NFC operation on hardware and software.

The WWAN, WLAN and Bluetooth's circuit theory, electrical design and the critical components are the same. Considering above changes, in this test report, only conducted power, 6dB DTS bandwidth measurement, Radiated Bandedge and Spurious was re-tested, test data from Test Report: WT198003466 are reused in this report to cover other test items.

WLAN:

Table 2 Working Frequency List(802.11b, 802.11g,802.11n HT20)

Channel	Frequency	Channel	Frequency
1	2412MHz	8	2447MHz
2	2417MHz	9	2452MHz
3	2422MHz	10	2457MHz
4	2427MHz	11	2462MHz
5	2432MHz	---	---
6	2437MHz	---	---
7	2442MHz	---	---

Table 3 Working Frequency List(802.11n HT40)

Channel	Frequency	Channel	Frequency
3	2422MHz	8	2447MHz
4	2427MHz	9	2452MHz
5	2432MHz	---	---
6	2437MHz	---	---
7	2442MHz	---	---

3.2.Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended for FCC ID: **2AGQIFX925F** filing to comply with Section 15.209, 15.247 of the FCC Part 15, Subpart C Rules.

3.3.Block Diagram of EUT Configuration

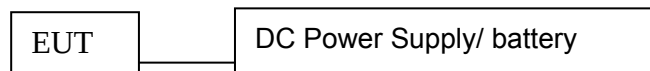


Figure 1 EUT setup

3.4.Operating Condition of EUT

The Radiated spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range, and EUT is rotated on three test planes to find out the worst emission (X plane).
Worst-case mode and channel used for 30-1000 MHz radiated and power line conducted emissions was the mode and channel with the highest output power.
Worst-case data rates as provided by the client were:
802.11b mode: 1 Mbps
802.11g mode: 6 Mbps
802.11n HT20 mode: MCS0
802.11n HT40 mode: MCS0
802.11b and 802.11g operates in SISO mode. For SISO conducted measurements, the modes tested in this report will be considered as a worst case mode.
802.11n operate in SISO mode. For SISO conducted measurements, the modes tested in this report will be considered as a worst case mode.

3.5.Directiona Antenna Gain

Directional gain need NOT to be considered.

3.6.Support Equipment List

Table 4 Support Equipment List

Name	Model No	S/N	Manufacturer
Mouse	MS111-L	--	DELL Inc

3.7.Test Conditions

Date of test : Oct.15, 2019 - Nov.07, 2019

Date of EUT Receive : Oct.15, 2019

Temperature: 21 ~ 25 °C

Relative Humidity: 42-53%

3.8.Special Accessories

Not available for this EUT intended for grant.

3.9.Equipment Modifications

Not available for this EUT intended for grant.

4. TEST EQUIPMENT USED

Table 5 Test Equipment

No.	Equipment	Manufacturer	Model No.	Last Cal.	Cal. Interval
SB9054/04	EMI Test Receiver	Rohde & Schwarz	ESU8	Sep.03, 2018	1 Year
SB8501/09	EMI Test Receiver	Rohde & Schwarz	ESU40	Mar.11, 2019	1 Year
SB8501/04	Bilog Antenna	Schwarzbeck	VULB9163	Jun.01, 2019	1 Year
SB5472/02	Bilog Antenna	Schwarzbeck	VULB9163	Jun.01, 2019	1 Year
SB3435	Horn Antenna	Rohde & Schwarz	HF906	Jan.01, 2018	1 Year
SB8501/11	Horn Antenna	ETS-Lindgren	3160-09	Jan.21,2017	3 Years
SB3345	Loop Antenna	Schwarzbeck	FMZB1516	Feb.20, 2019	1 Year
SB8501/17	Preamplifier	Rohde & Schwarz	SCU-18	Feb.20, 2019	1 Year
SB8501/16	Preamplifier	Rohde & Schwarz	SCU-26	Feb.18, 2019	1 Year
SB8501/14	Preamplifier	Rohde & Schwarz	SCU-03	Feb.20, 2019	1 Year
SB11873/01	Power Sensor	Rohde & Schwarz	OSP120+OSP-B157	Feb.21, 2019	1 Year
SB9060	Signal Analyzer	Rohde & Schwarz	FSQ40	Feb.21, 2019	1 Year
--	Radiated Test Software	Rohde & Schwarz	EMC 32 8.50.0	--	--

5. DUTY CYCLE

5.1.LIMITS OF DUTY CYCLE

None; for reporting purposes only

5.2.TEST PROCEDURE

1. Set span = Zero
2. RBW = 10MHz
3. VBW = 10MHz,
4. Detector = Peak

5.3.TEST SETUP

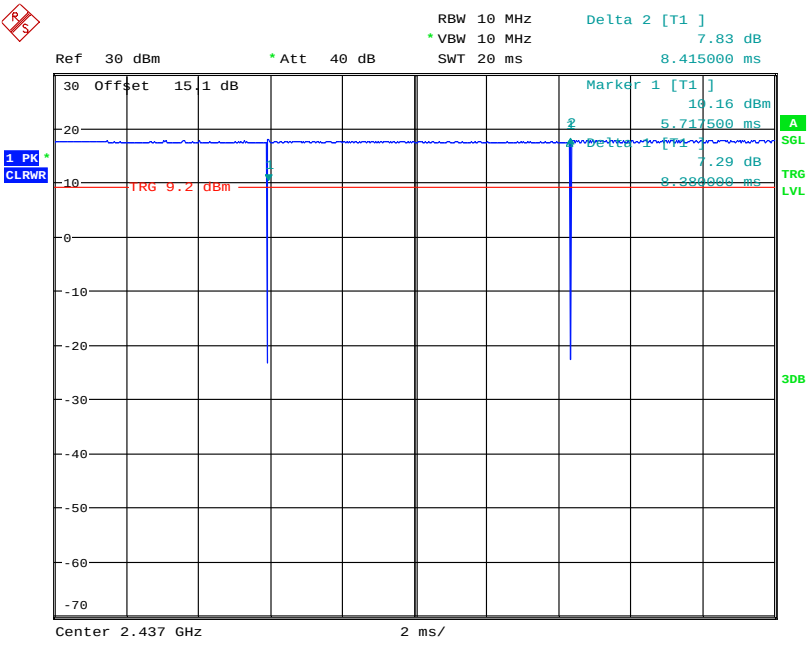


5.4.TEST DATA

Table 6 Duty Cycle Test Data

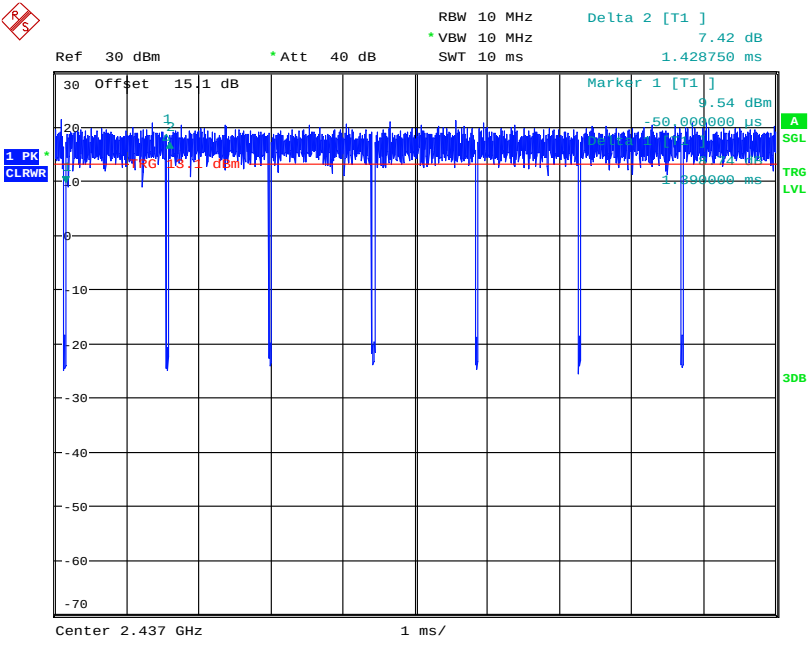
Mode	On Time (ms)	Duty Cycle(%)	Duty Factor	1/T Minimum VBW (kHz)
802.11b	8.38	99.6	0.02	0.01
802.11g	1.39	97.3	0.1	1
802.11n HT20	1.30	97.2	0.1	1
802.11N HT40	0.65	94.7	0.24	1

802.11b



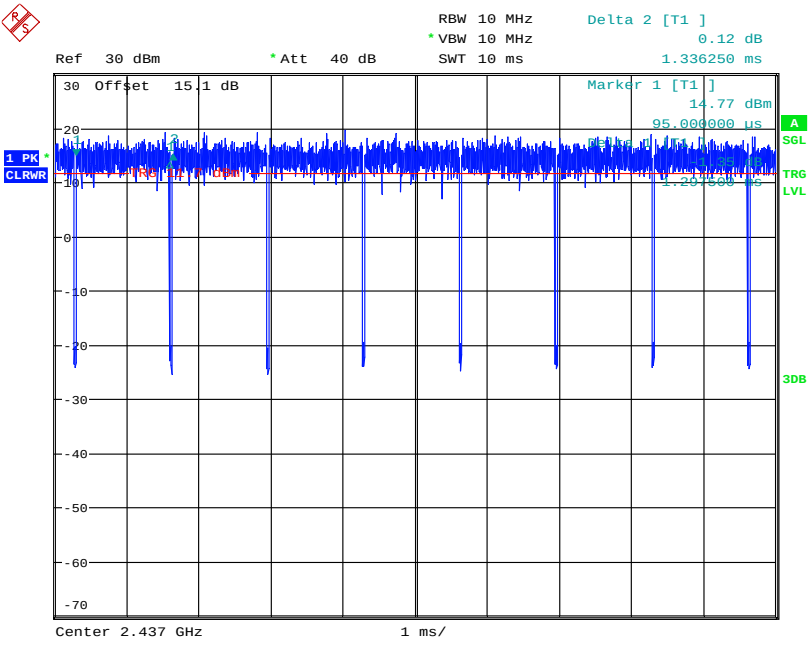
Date: 4.NOV.2019 10:02:36

802.11g



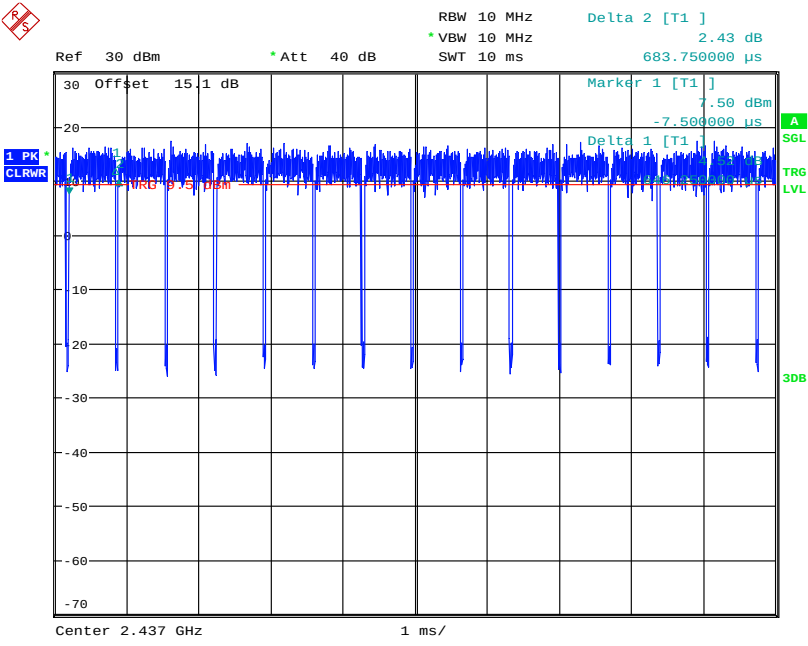
Date: 4.NOV.2019 10:13:06

802.11n HT20



Date: 4.NOV.2019 10:20:00

802.11n HT40



Date: 4.NOV.2019 10:24:51

6. 6DB BANDWIDTH MEASUREMENT

6.1.LIMITS OF 6dB BANDWIDTH MEASUREMENT

CFR 47 (FCC) part 15.247 (a) (2)

6.2.TEST PROCEDURE

ANSI C63.10-2013 Clause 11.8

The transmitter output was connected to the spectrum analyzer.

a) Set RBW = 100 kHz.

b) Set the VBW $\geq$ $[3 \times \text{RBW}]$.

c)Detector = Peak.

d)Trace mode = max hold.

e)Sweep = auto couple.

f)Allow the trace to stabilize.

g)Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission

6.3.TEST SETUP

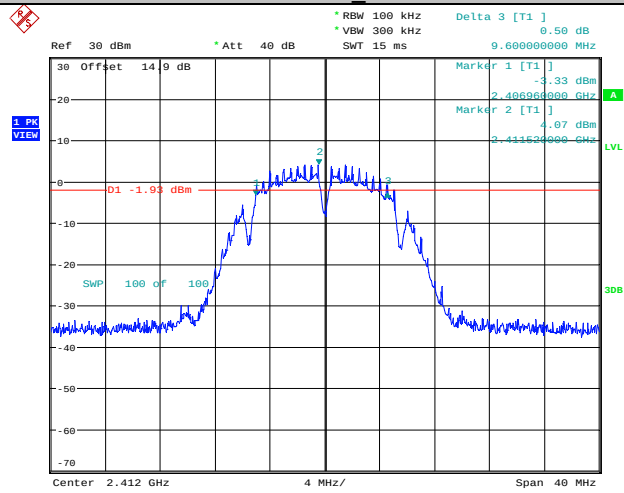


6.4. Test Data

Table 7 6dB Bandwidth Test Data

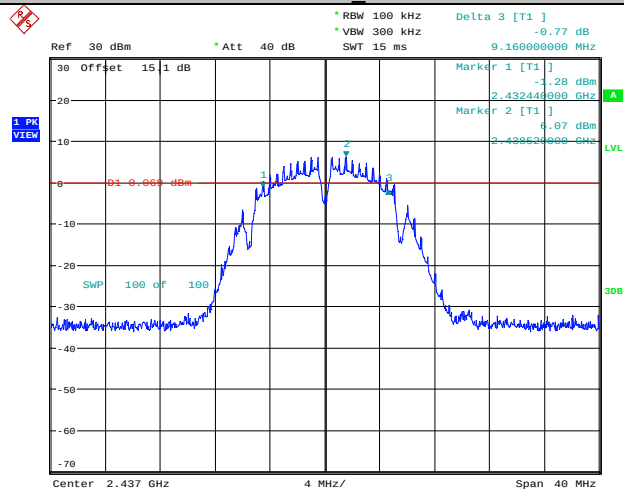
TestMode	Channel	6dB Bandwidth [MHz]	Verdict
802.11b	2412	9.600	PASS
	2437	9.160	PASS
	2462	9.600	PASS
802.11g	2412	15.800	PASS
	2437	15.160	PASS
	2462	16.080	PASS
802.11n HT20	2412	17.240	PASS
	2437	15.160	PASS
	2462	16.400	PASS
802.11n HT40	2422	35.600	PASS
	2437	27.760	PASS
	2452	35.360	PASS

11B_2412



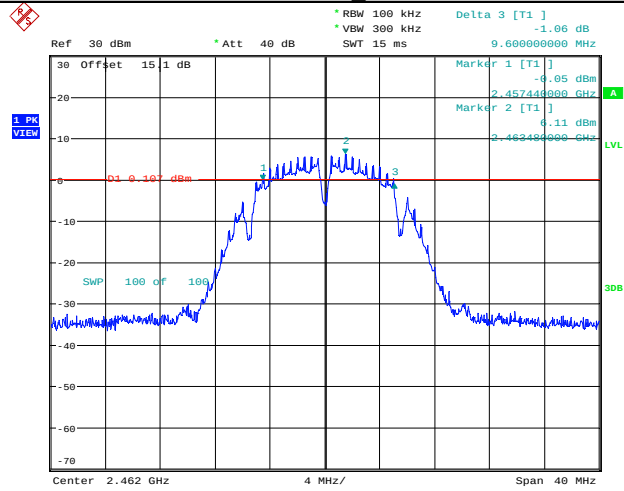
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11B_2437



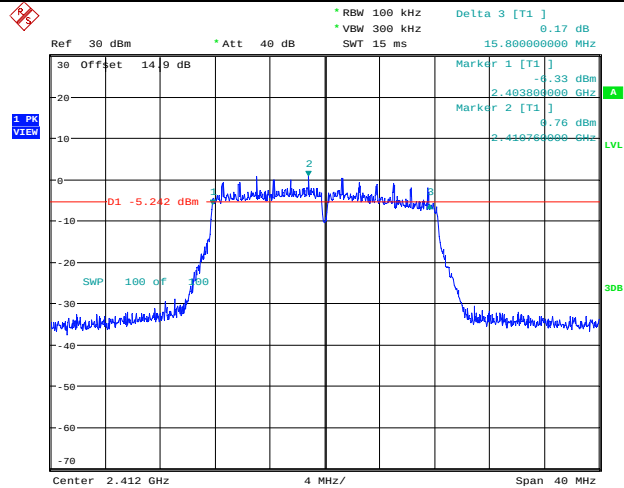
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11B_2462



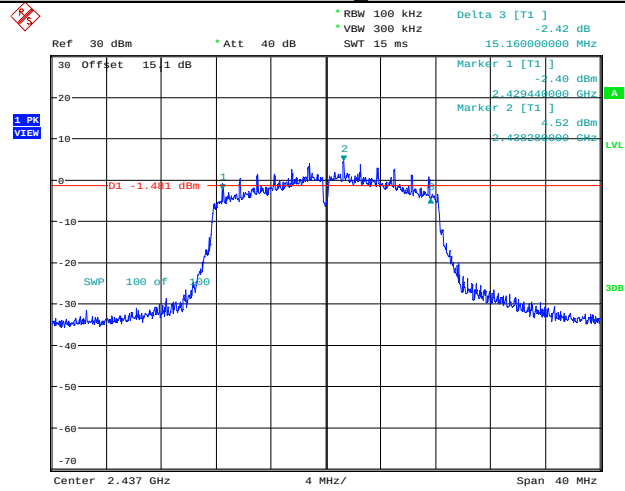
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11G_2412



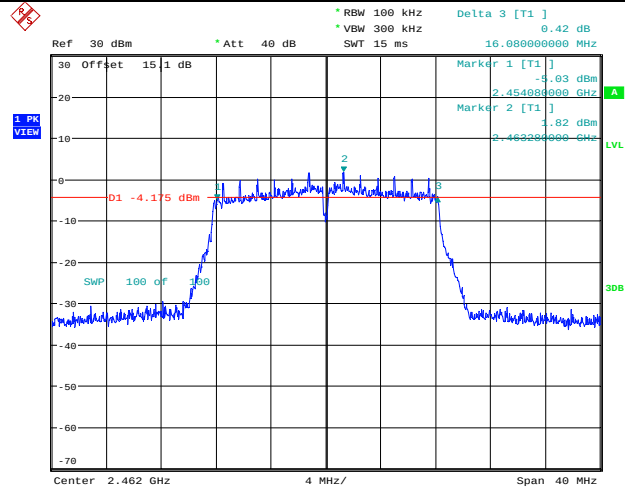
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11G_2437



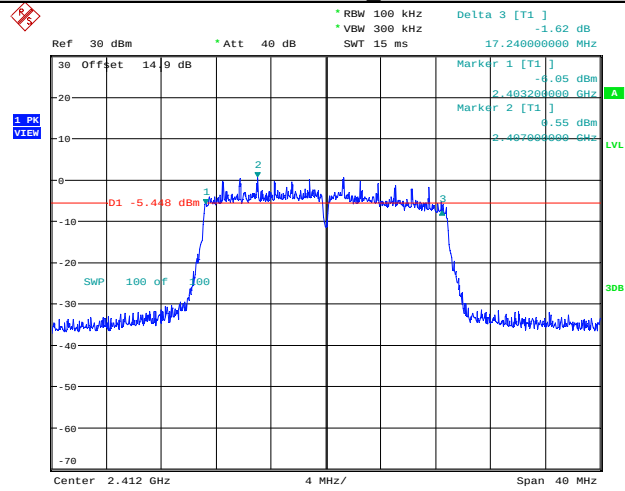
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11G_2462



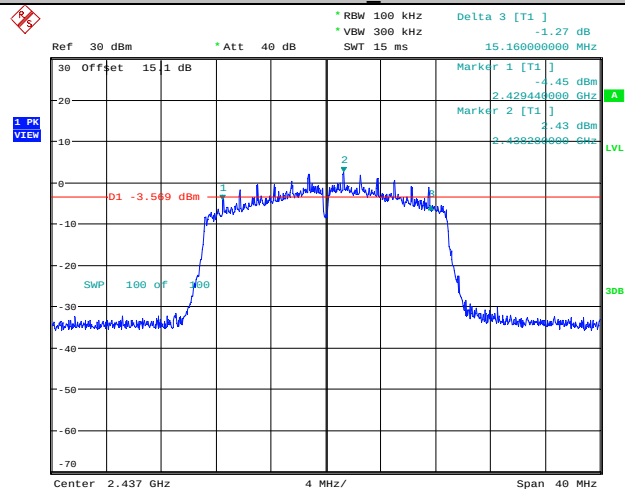
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11N20_2412



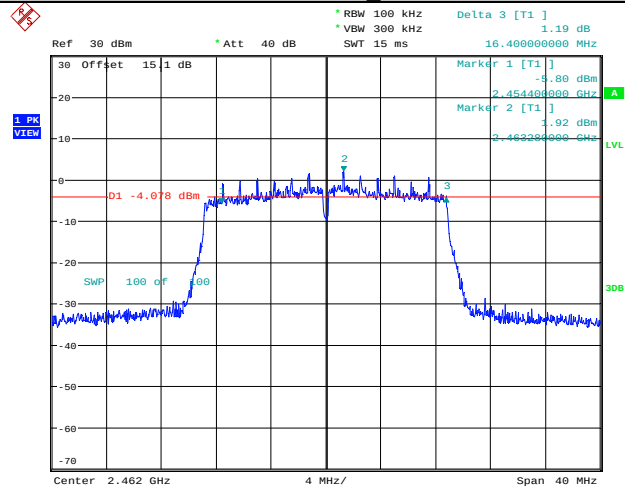
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11N20_2437



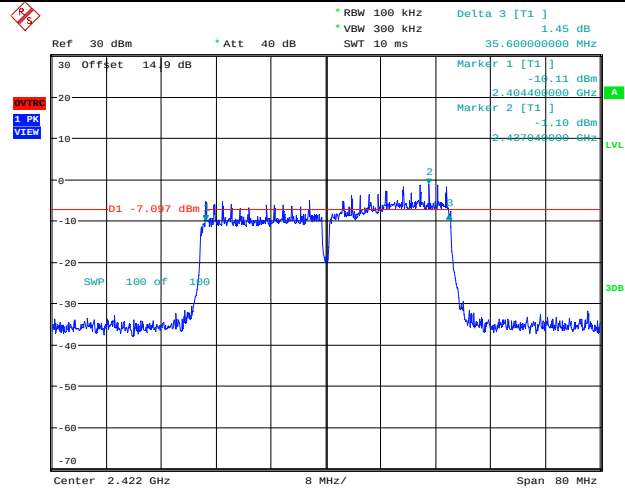
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11N20_2462



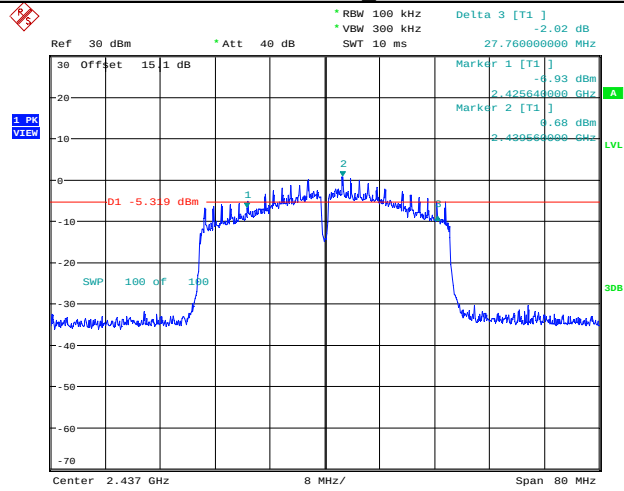
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11N40_2422



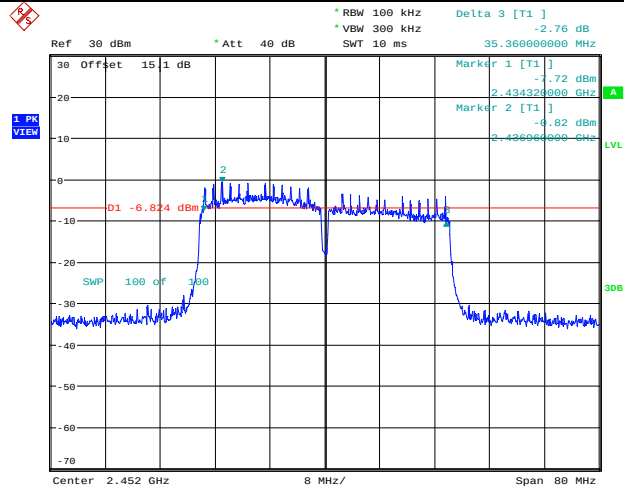
Date: 4.NOV.2019 10:23:05

11N40_2437



Date: 4.NOV.2019 10:25:12

11N40_2452



Date: 4.NOV.2019 10:26:33

7. MAXIMUM CONDUCTED OUTPUT POWER MEASUREMENT

7.1.LIMITS OF Maximum Conducted Output Power Measurement

CFR 47 (FCC) part 15.247 (b) (3)

7.2.TEST PROCEDURE

ANSI C63.10-2013 Clause 11.9

The following procedure can be used when the maximum available RBW of the instrument is less than the DTS bandwidth:

a) Set the RBW = 1 MHz.

b) Set the VBW $\geq$ $[3 \times \text{RBW}]$.

c) Set the span $\geq$ $[1.5 \times \text{DTS bandwidth}]$.

d) Detector = peak.

e) Sweep time = auto couple.

f) Trace mode = max hold.

g) Allow trace to fully stabilize.

h) Use the instrument's band/channel power measurement function with the band limits set equal to the DTS bandwidth edges (for some instruments, this may require a manual override to select the peak detector). If the instrument does not have a band power function, then sum the spectrum levels (in linear power units) at intervals equal to the RBW extending across the DTS channel bandwidth.

7.3.TEST SETUP

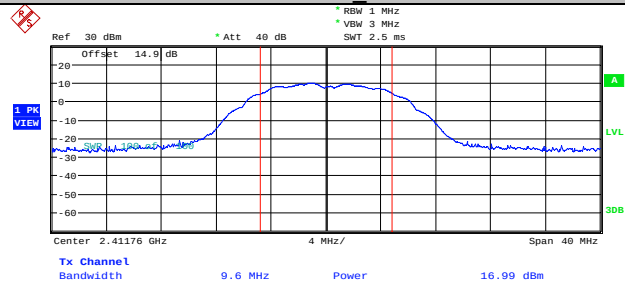


7.4.TEST DATA

Table 8 Maximum Conducted Output Power

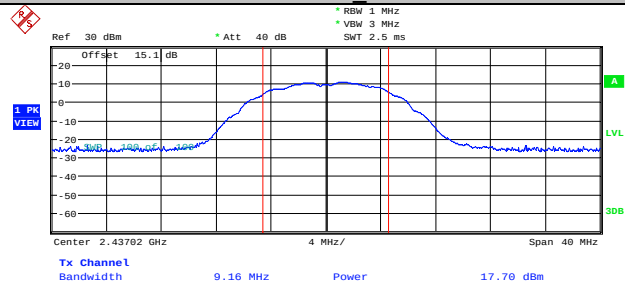
TestMode	Channel	Meas.Level [dBm]	Limit [dBm]	Verdict
802.11b	2412	16.99	30	PASS
	2437	17.70	30	PASS
	2462	17.94	30	PASS
802.11g	2412	17.64	30	PASS
	2437	20.08	30	PASS
	2462	20.15	30	PASS
802.11n HT20	2412	17.84	30	PASS
	2437	19.91	30	PASS
	2462	20.19	30	PASS
802.11n HT40	2422	19.04	30	PASS
	2437	20.31	30	PASS
	2452	20.23	30	PASS

11B_2412



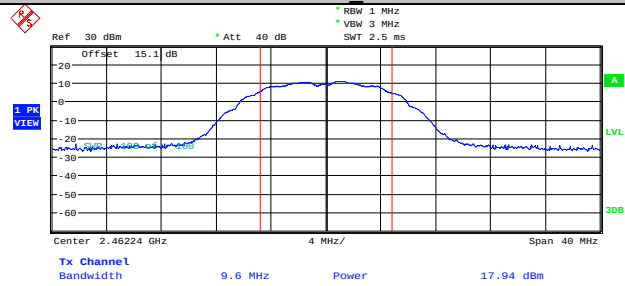
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11B_2437



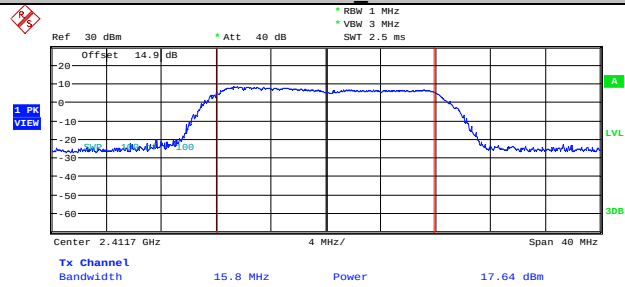
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11B_2462



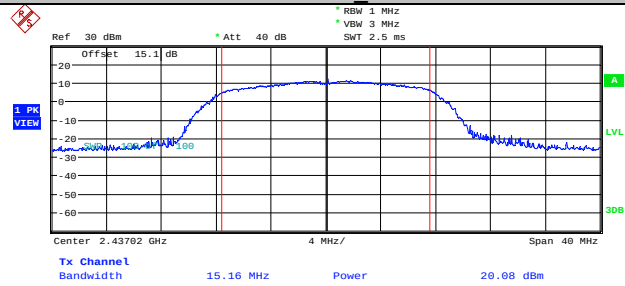
Date: 4.NOV.2019 10:05:42

11G_2412



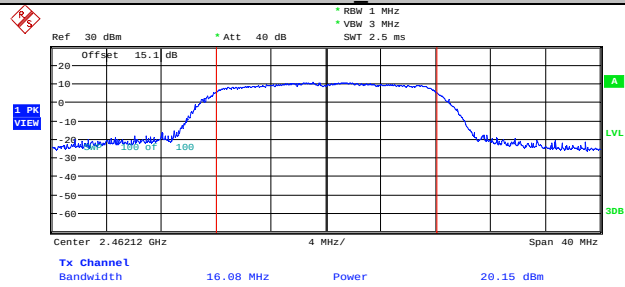
Date: 4.NOV.2019 10:12:21

11G_2437



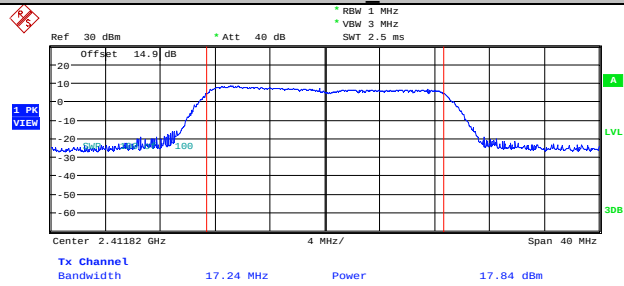
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11G_2462



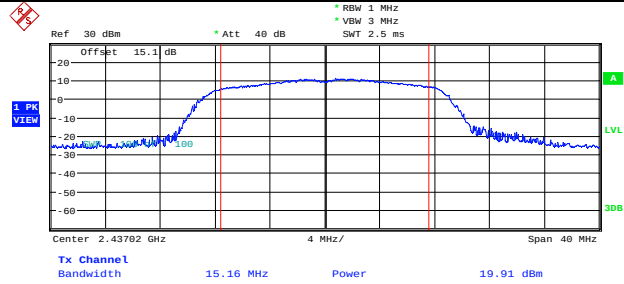
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11N20_2412



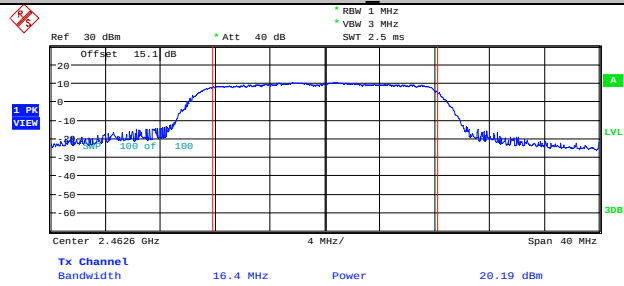
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11N20_2437



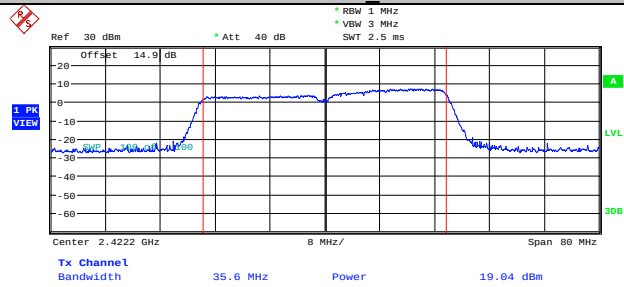
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11N20_2462



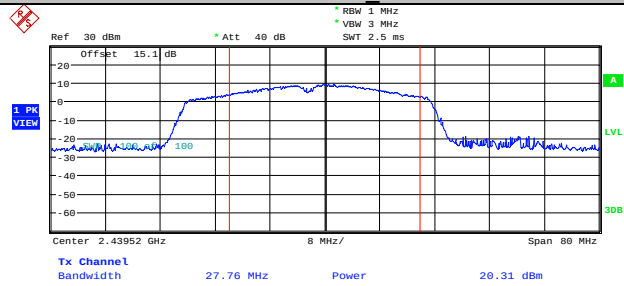
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11N40_2422



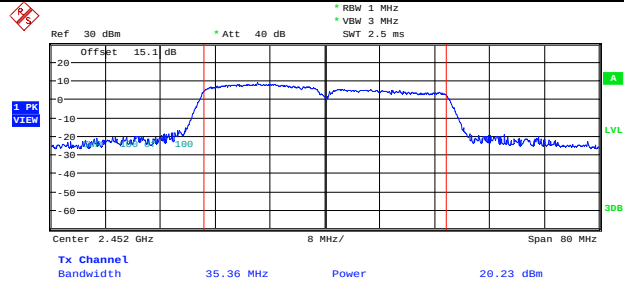
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11N40_2437



Date: 4.NOV.2019 10:25:30

11N40_2452



Date: 4.NOV.2019 10:26:51

8. MAXIMUM POWER SPECTRAL DENSITY LEVEL MEASUREMENT

8.1.LIMITS OF Maximum Power Spectral Density Level Measurement

CFR 47 (FCC) part 15.247 (e)

8.2.TEST PROCEDURE

ANSI C63.10-2013 Clause 11.10

The transmitter output was connected to the spectrum analyzer.

a)Set analyzer center frequency to DTS channel center frequency.

b) Set the span to 1.5 times the DTS bandwidth.

c) Set RBW to: $3\text{kHz} \leq \text{RBW} \leq 100\text{ kHz}$.

d) Set VBW $\geq 3 \times \text{RBW}$.

e) Detector = peak.

f) Sweep time = auto couple.

g) Trace mode = max hold.

h)Allow trace to fully stabilize.

i)Use the peak marker function to determine the maximum amplitude level within the RBW.

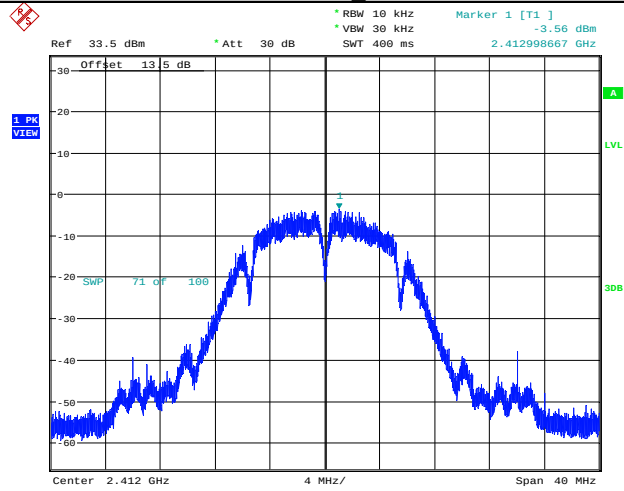
j)If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.

8.3.TEST DATA

Table 9 Maximum Power Spectral Density Level

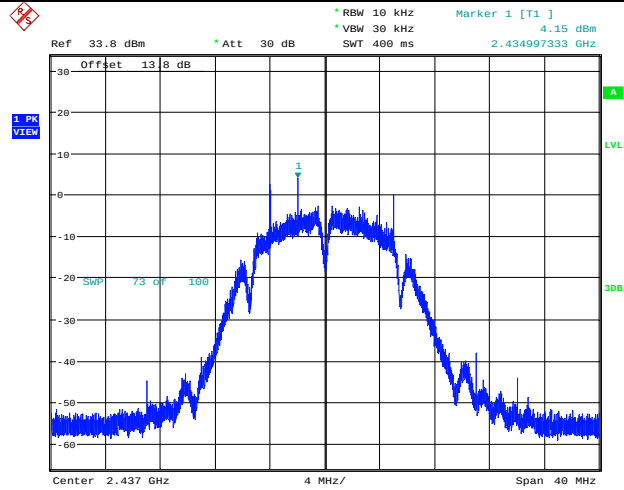
TestMode	Channel	Maximum Power Spectral Density Level [dBm]	Limit [dBm]	Verdict
802.11b	2412	-3.56	8	PASS
	2437	4.15	8	PASS
	2462	-3.19	8	PASS
802.11g	2412	-7.66	8	PASS
	2437	-5.99	8	PASS
	2462	-6.51	8	PASS
802.11n HT20	2412	-8.91	8	PASS
	2437	-3.86	8	PASS
	2462	-6.5	8	PASS
802.11n HT40	2422	-7.96	8	PASS
	2437	-7.43	8	PASS
	2452	-8.56	8	PASS

11B_2412



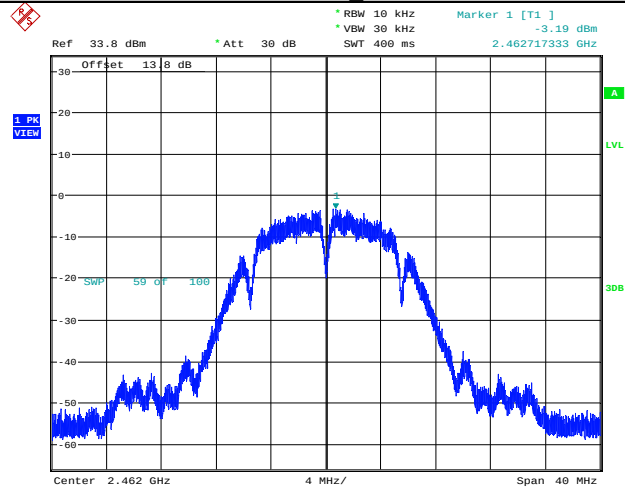
Date: 1.JUL.2019 14:47:36

11B_2437



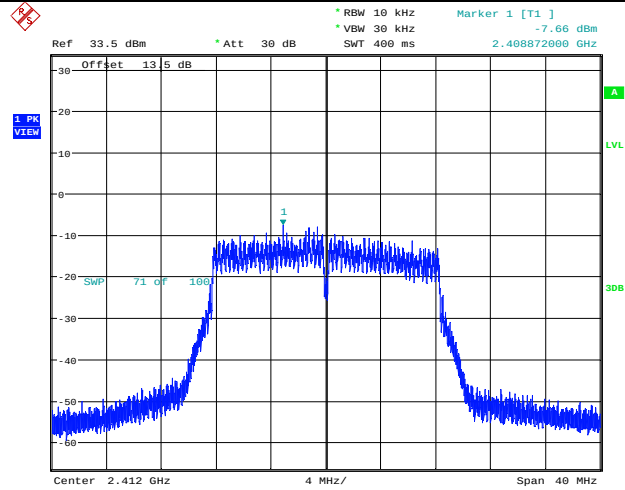
Date: 1.JUL.2019 13:04:53

11B_2462



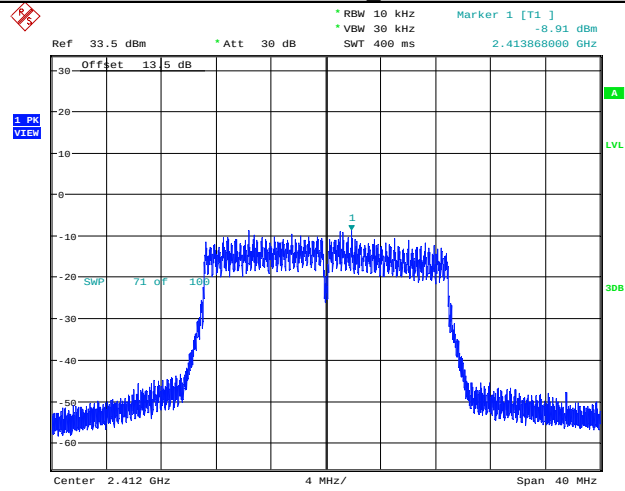
Date: 1.JUL.2019 14:50:54

11G_2412



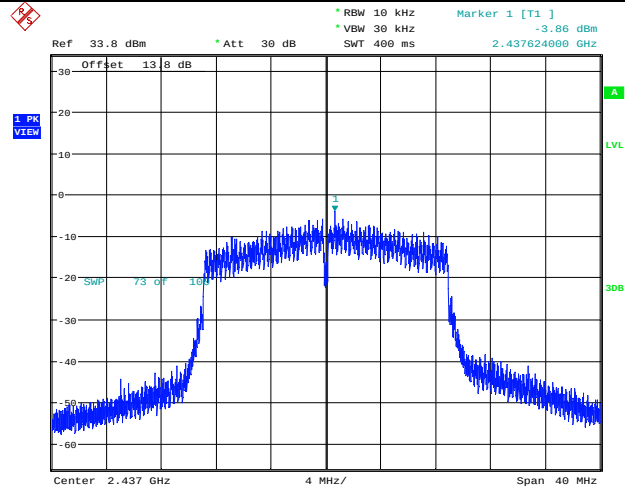
Date: 2.JUL.2019 11:19:26

11N20_2412



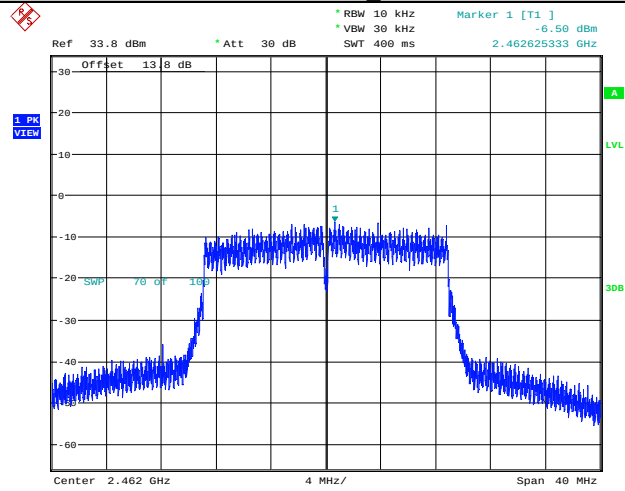
Date: 2.JUL.2019 11:49:45

11N20_2437



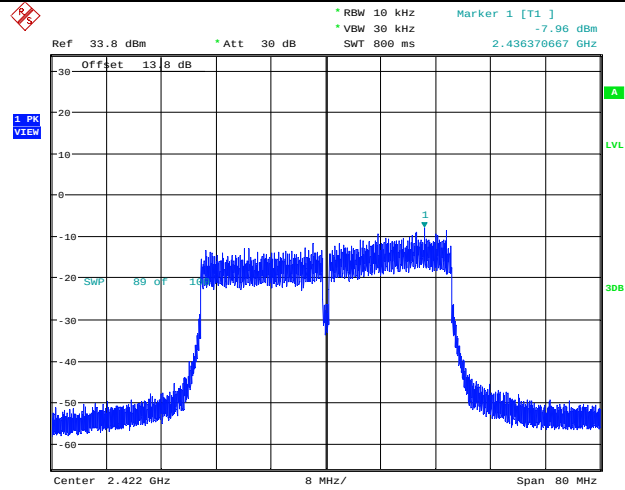
Date: 2.JUL.2019 11:56:59

11N20_2462



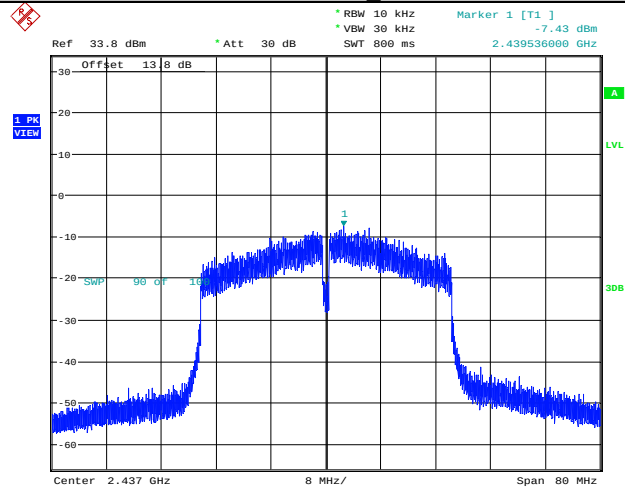
Date: 2.JUL.2019 12:03:03

11N40_2422



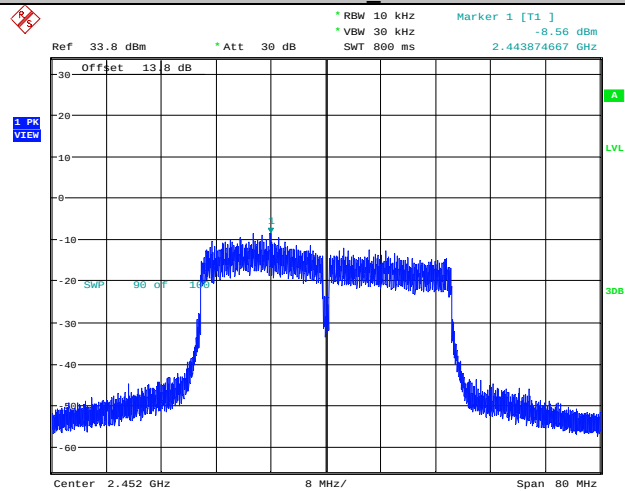
Date: 2.JUL.2019 12:17:25

11N40_2437



Date: 2.JUL.2019 12:38:54

11N40_2452



Date: 2.JUL.2019 12:37:29

9. CONDUCTED BANDEDGE AND SPURIOUS MEASUREMENT

9.1. LIMITS OF Conducted Bandedge and Spurious Measurement

CFR 47 (FCC) part 15.247 (d)

9.2. TEST PROCEDURE

ANSI C63.10-2013 Clause 11.11

The transmitter output was connected to the spectrum analyzer.

Establish a reference level by using the following procedure:

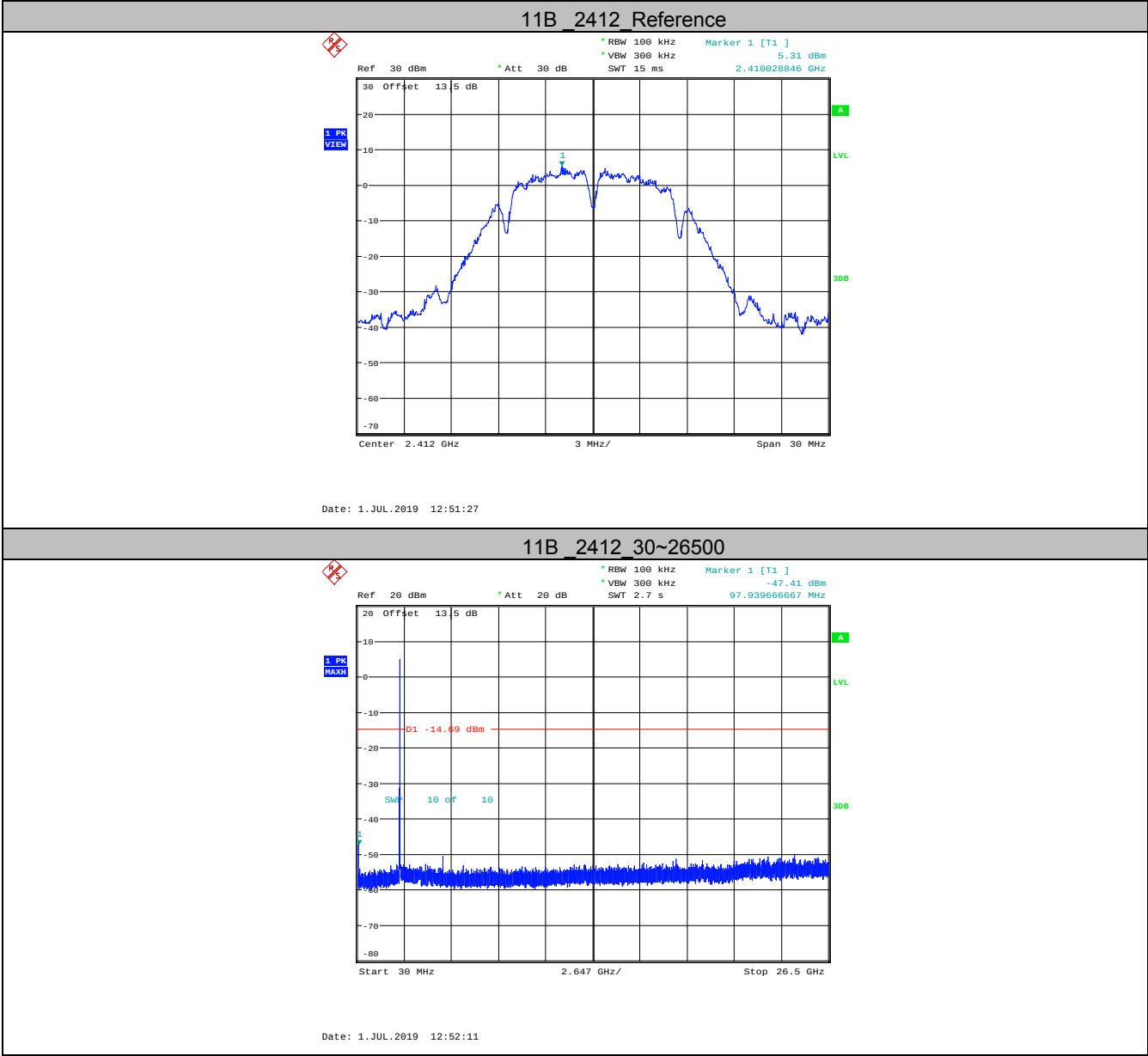
- a) Set instrument center frequency to DTS channel center frequency.
- b) Set the span to ≥ 1.5 times the DTS bandwidth.
- c) Set the RBW = 100 kHz.
- d) Set the VBW $\geq 3 \times$ RBW.
- e) Detector = peak.
- f) Sweep time = auto couple.
- g) Trace mode = max hold.
- h) Allow trace to fully stabilize.
- i) Use the peak marker function to determine the maximum PSD level.

Emission level measurement

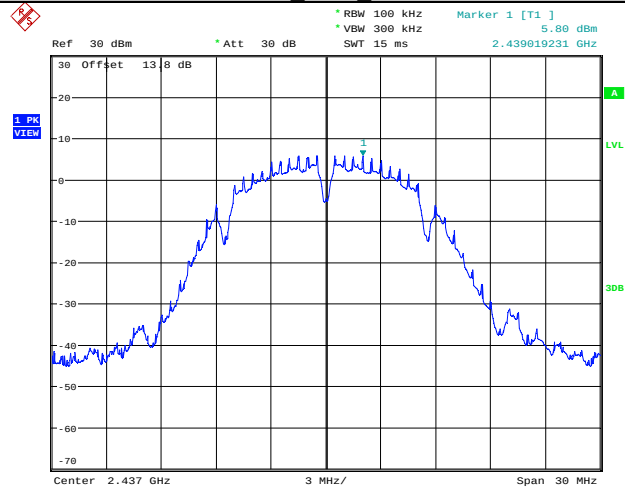
- a) Set the center frequency and span to encompass frequency range to be measured.
- b) Set the RBW = 100 kHz.
- c) Set the VBW $\geq 3 \times$ RBW.
- d) Detector = peak.
- e) Sweep time = auto couple.
- f) Trace mode = max hold.
- g) Allow trace to fully stabilize.
- h) Use the peak marker function to determine the maximum amplitude level.

Test Result : ALL emission outside of 2400-2483.5 are lower at least 20dB than fundamental frequency.

9.3.TEST DATA

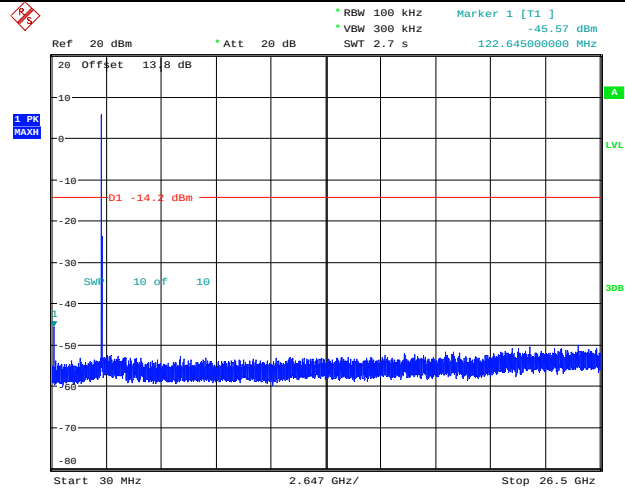


11B_2437_Reference



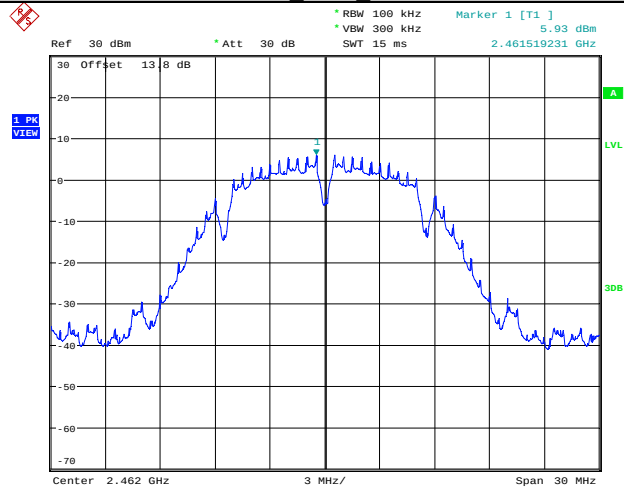
Date: 1.JUL.2019 13:06:18

11B_2437_30~26500



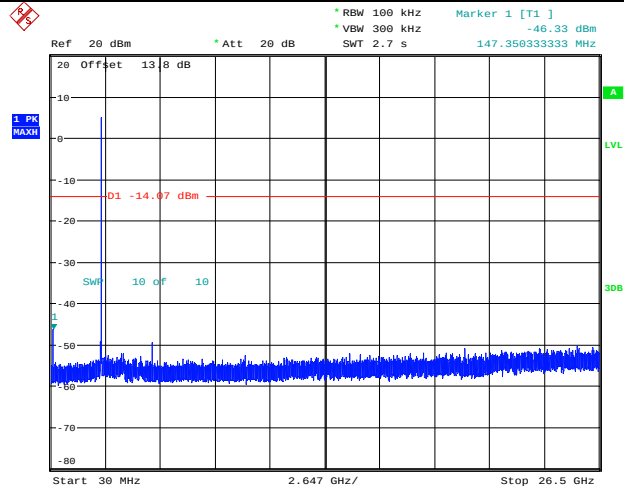
Date: 1.JUL.2019 13:07:02

11B_2462_Reference



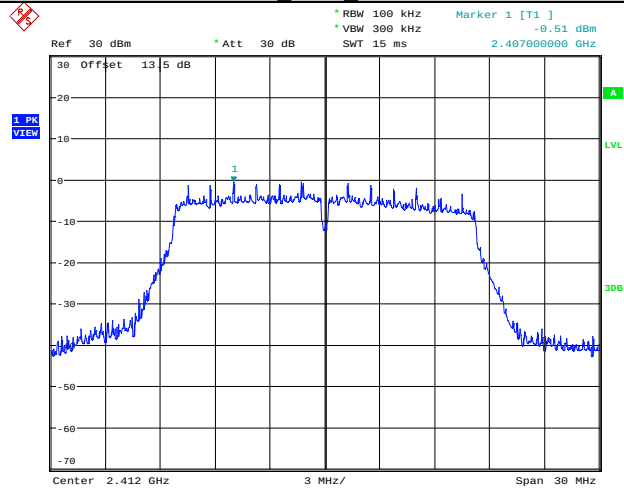
Date: 1.JUL.2019 14:52:20

11B_2462_30~26500



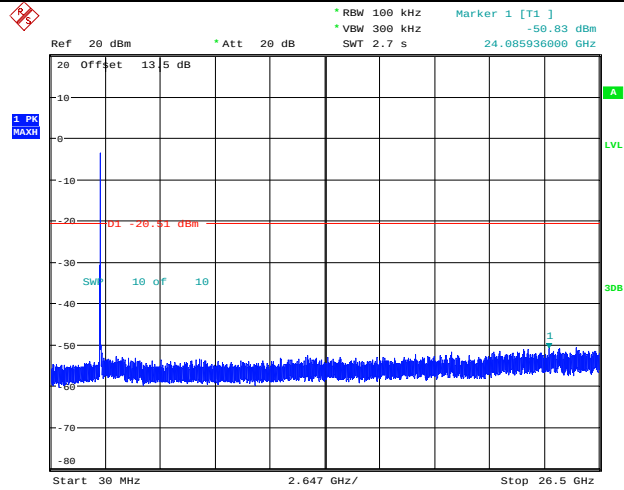
Date: 1.JUL.2019 14:53:04

11G_2412_0~Reference



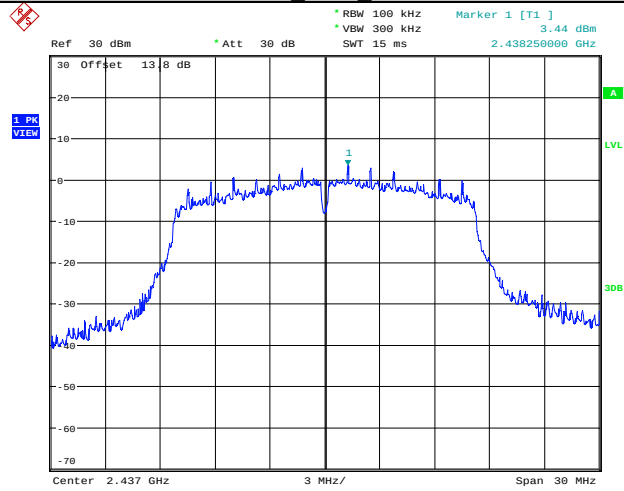
Date: 2.JUL.2019 11:20:59

11G_2412_30~26500



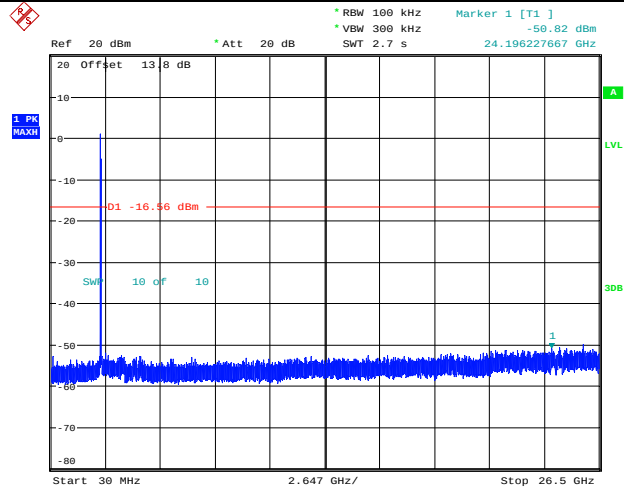
Date: 2.JUL.2019 11:21:43

11G_2437_Reference



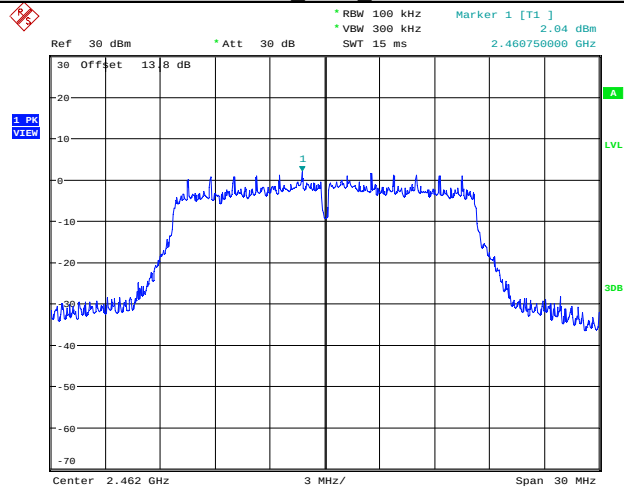
Date: 2.JUL.2019 11:32:36

11G_2437 30~26500



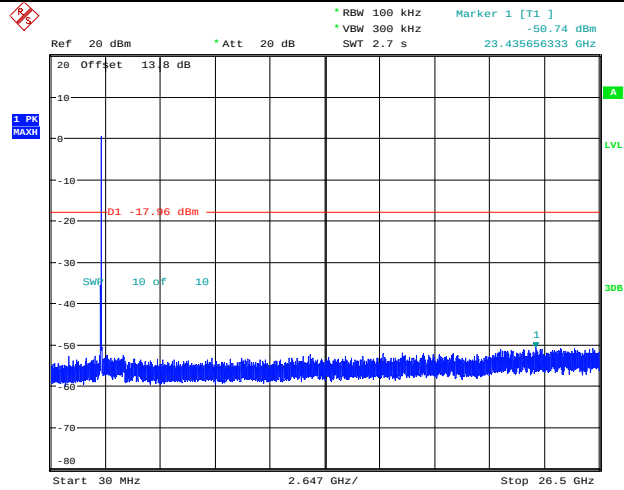
Date: 2.JUL.2019 11:33:20

11G_2462_Reference



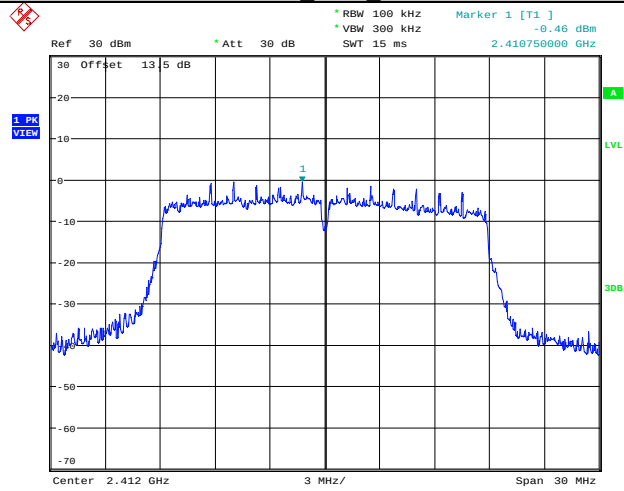
Date: 2.JUL.2019 11:37:27

11G_2462_30~26500



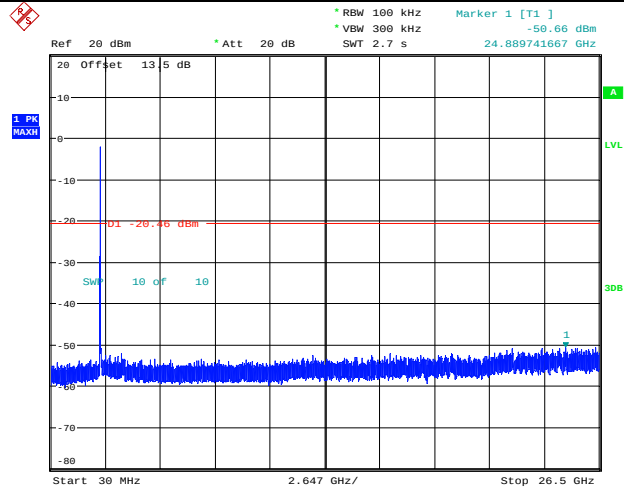
Date: 2.JUL.2019 11:38:11

11N20_2412_Reference



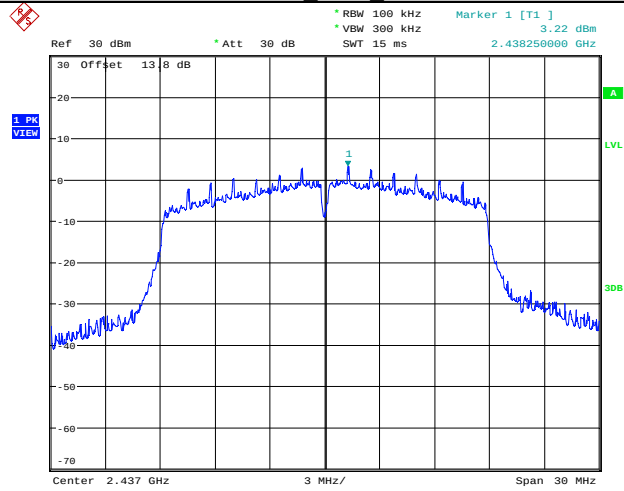
Date: 2.JUL.2019 11:53:17

11N20_2412_30~26500



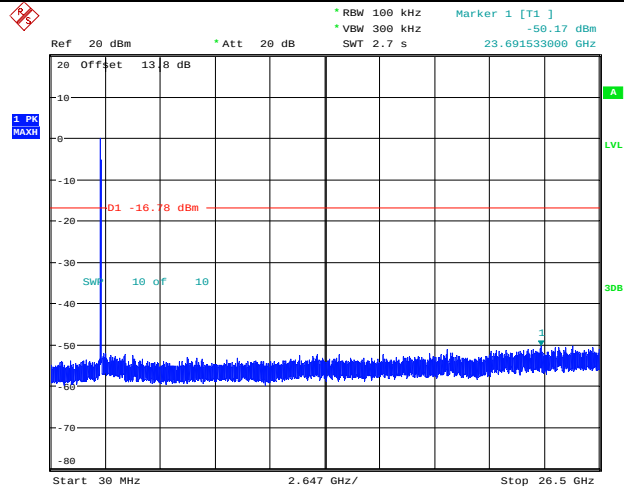
Date: 2.JUL.2019 11:54:01

11N20_2437_Reference



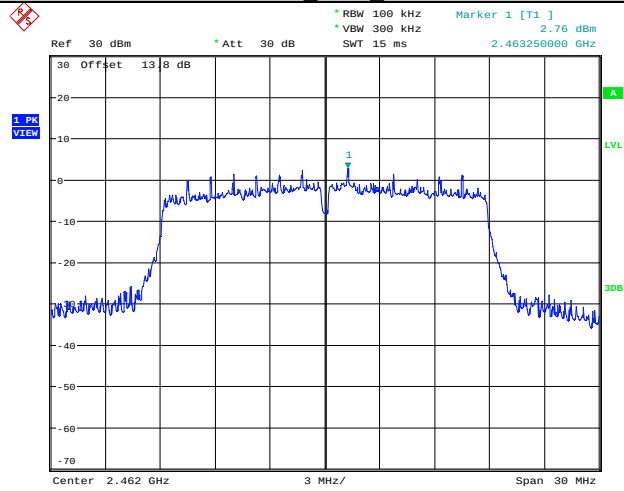
Date: 2.JUL.2019 11:59:23

11N20_2437_30~26500



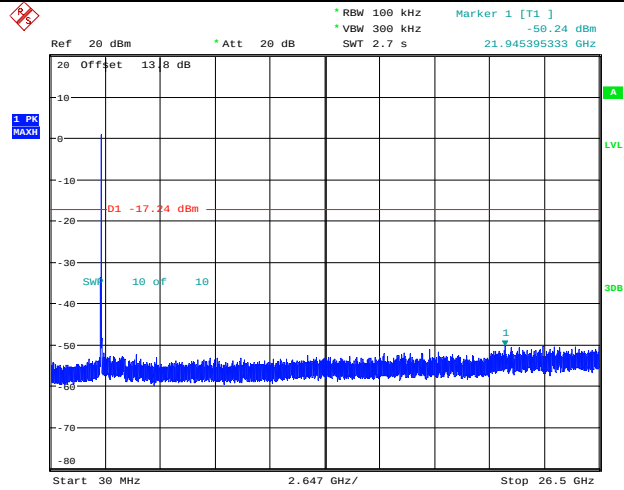
Date: 2.JUL.2019 12:00:07

11N20_2462_Reference



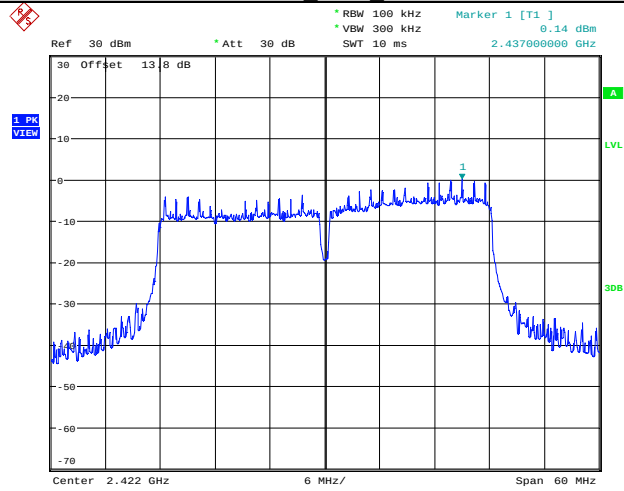
Date: 2.JUL.2019 12:04:33

11N20_2462_30~26500



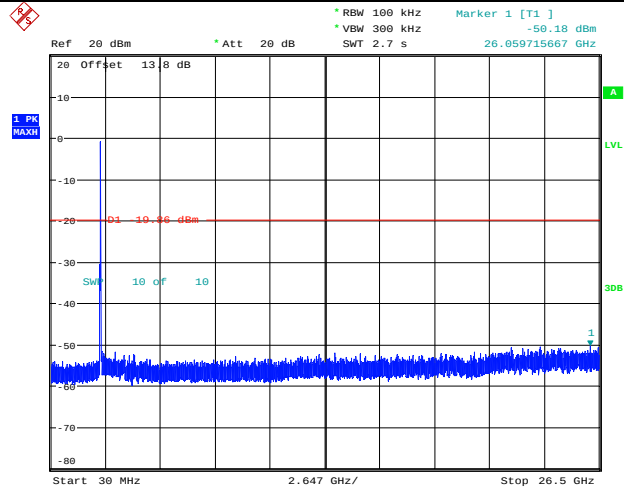
Date: 2.JUL.2019 12:05:17

11N40_2422_Reference



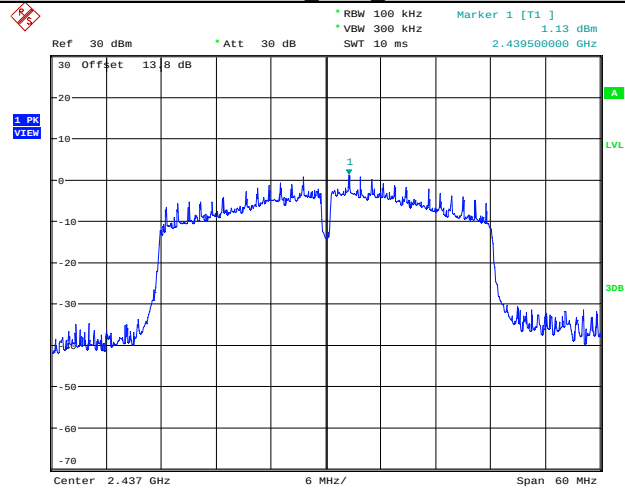
Date: 2.JUL.2019 12:24:02

11N40_2422_30~26500



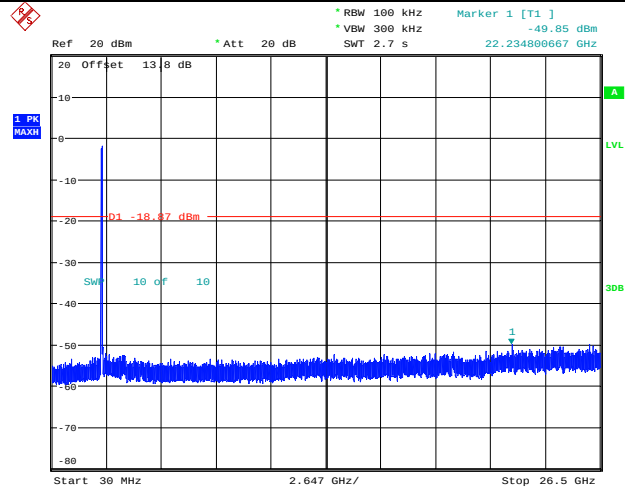
Date: 2.JUL.2019 12:24:46

11N40_2437_Reference



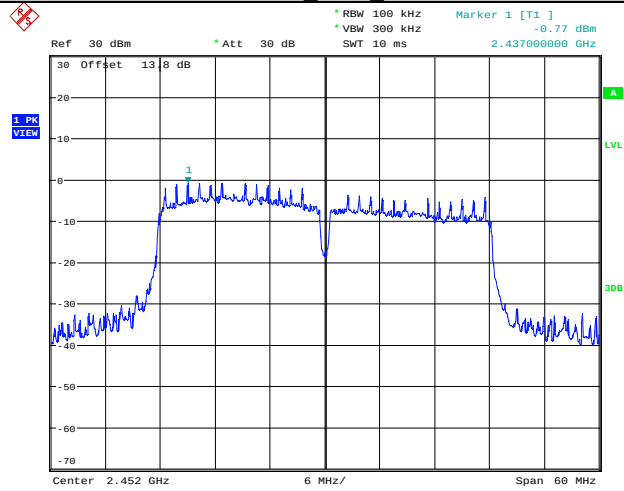
Date: 2.JUL.2019 12:33:06

11N40_2437_30~26500



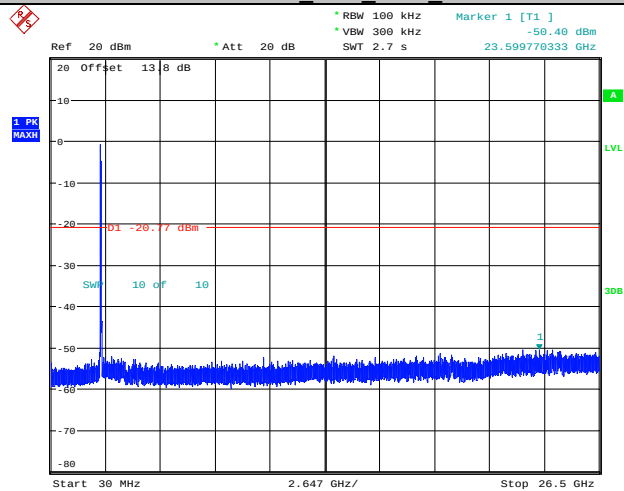
Date: 2.JUL.2019 12:33:50

11N40_2452_Reference



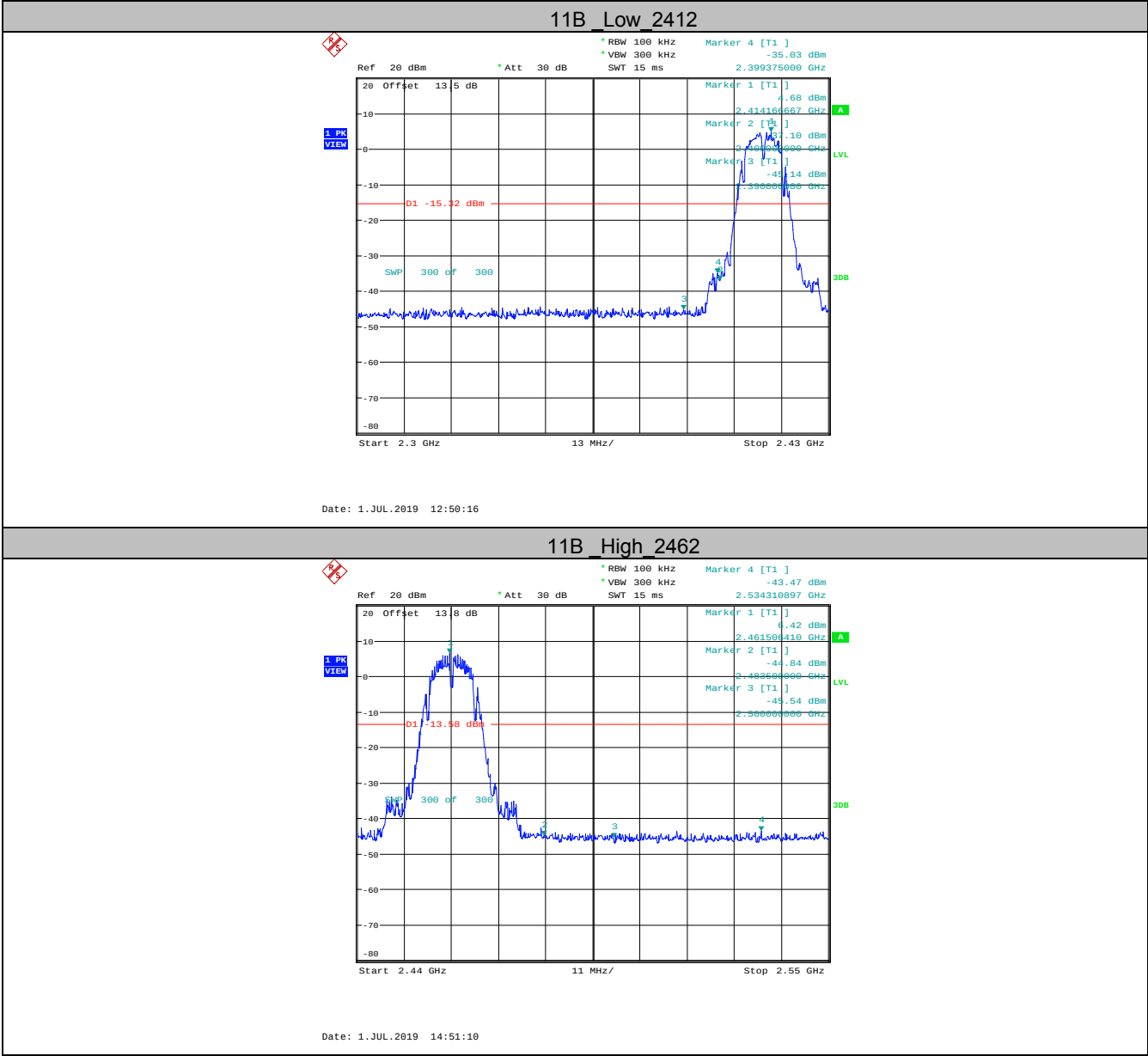
Date: 2.JUL.2019 12:40:25

11N40SISO_Ant1_2452_30~26500

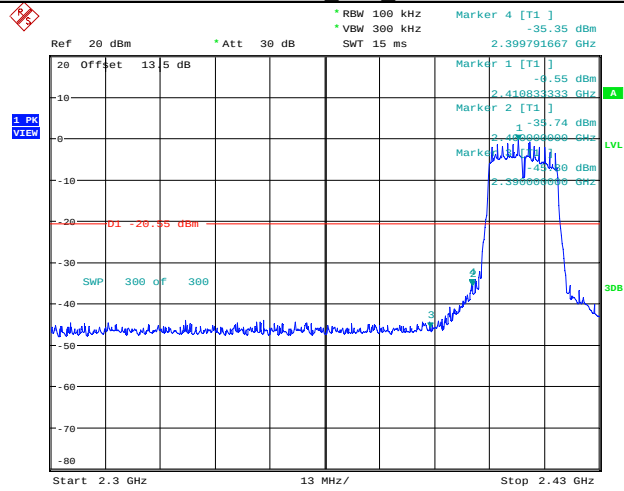


Date: 2.JUL.2019 12:41:09

Band-edge for RF Conducted Emissions

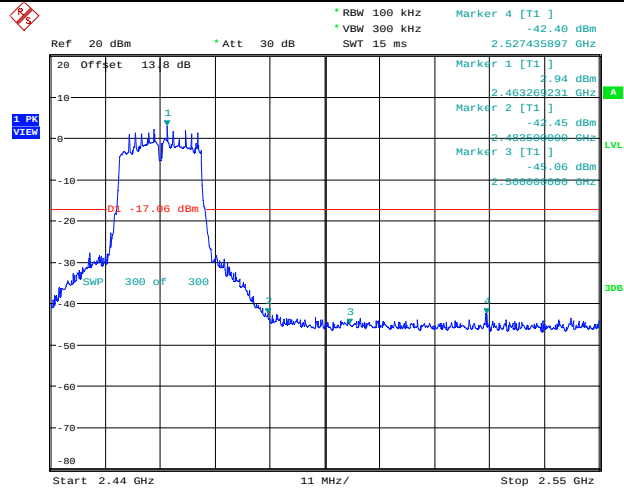


11G_Low_2412



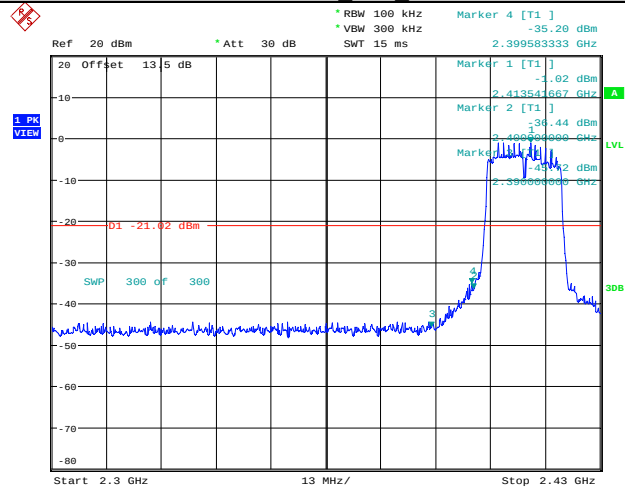
Date: 2.JUL.2019 11:19:42

11G_High_2462



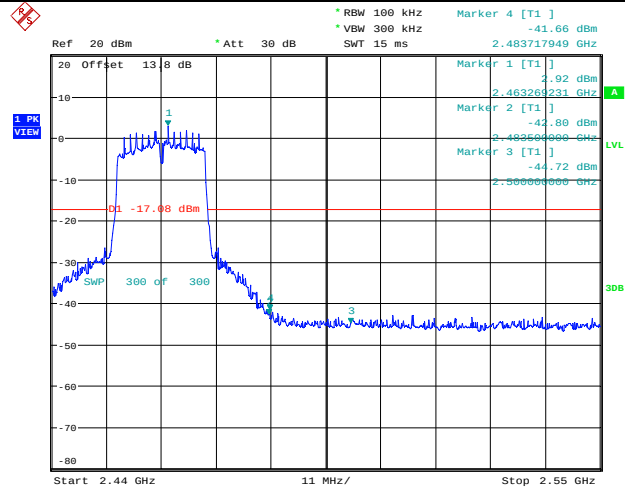
Date: 2.JUL.2019 11:36:12

11N20_Low_2412



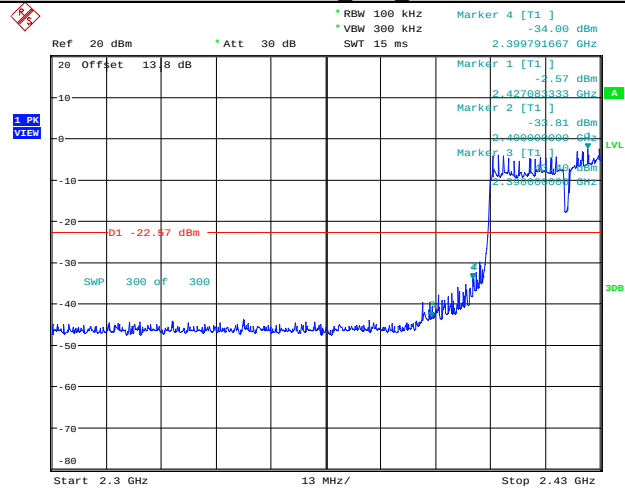
Date: 2.JUL.2019 11:50:01

11N20_High_2462



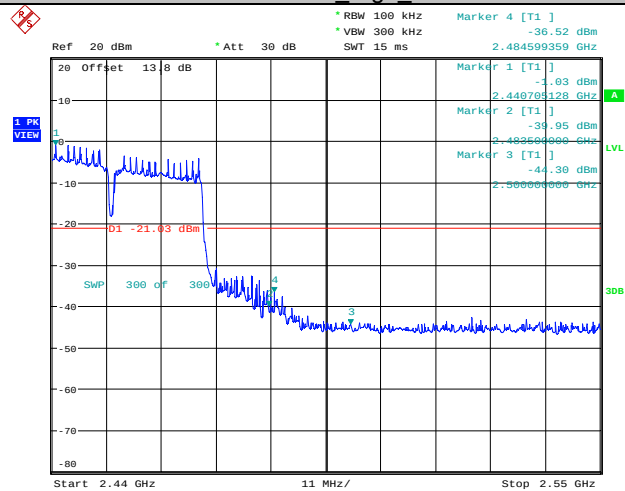
Date: 2.JUL.2019 12:03:19

11N40 Low 2422



Date: 2.JUL.2019 12:17:41

11N40 High 2452



Date: 2.JUL.2019 12:37:44

10. RADIATED BANDEDGE AND SPURIOUS MEASUREMENT

10.1. LIMITS OF Radiated Bandedge and Spurious Measurement

Table 10 Radiation Emission Test Limit for FCC (9KHz-1GHz)

Frequency (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
960~1000	500	3

Table 11 Radiation Emission Test Limit for FCC (Above 1G)

Frequency (MHz)	(dBuV/m) (at 3 meters)	
	PEAK	AVERAGE
Above 1000	74	54

* The lower limit shall apply at the transition frequency.

* The test distance is 3m.

10.2. TEST PROCEDURE

ANSI C63.10-2013 Clause 11.12

1. The testing follows the guidelines in ANSI C63.10-2013.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. For measurement below 1GHz, the EUT was placed on a turntable with 0.8 meter, above ground. For measurement above 1 GHz, test at FAR, the EUT is placed on a non-conductive table, which is 1.5 meter above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
6. For measurement below 1GHz, If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
7. Use the following spectrum analyzer settings:
 - (1) Span shall wide enough to fully capture the emission being measured;
 - (2) Set RBW=100 kHz for $f < 1$ GHz; VBW $\geq$ RBW; Sweep = auto; Detector

function = peak; Trace = max hold;
 (3) Set RBW = 1 MHz, VBW= 3MHz for f > 1 GHz for peak measurement.
 Set RBW = 1 MHz, and 1/T (on time) for average measurement.

10.3.TEST DATA

9kHz-30MHz

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not reported.

Table 12 Radiated Emission Test Data 9k Hz-30MHz

Frequency MHz	Cable Loss(dB)	Antenna Factor(dB)	Readings(dBμV/m)	Level(dBμV/m)	Polarity(H/V)	Turntable Angle(deg)	Antenna Height(m)	Limits(dBμV/m)	Margin(dB)
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--

30MHz-1GHz

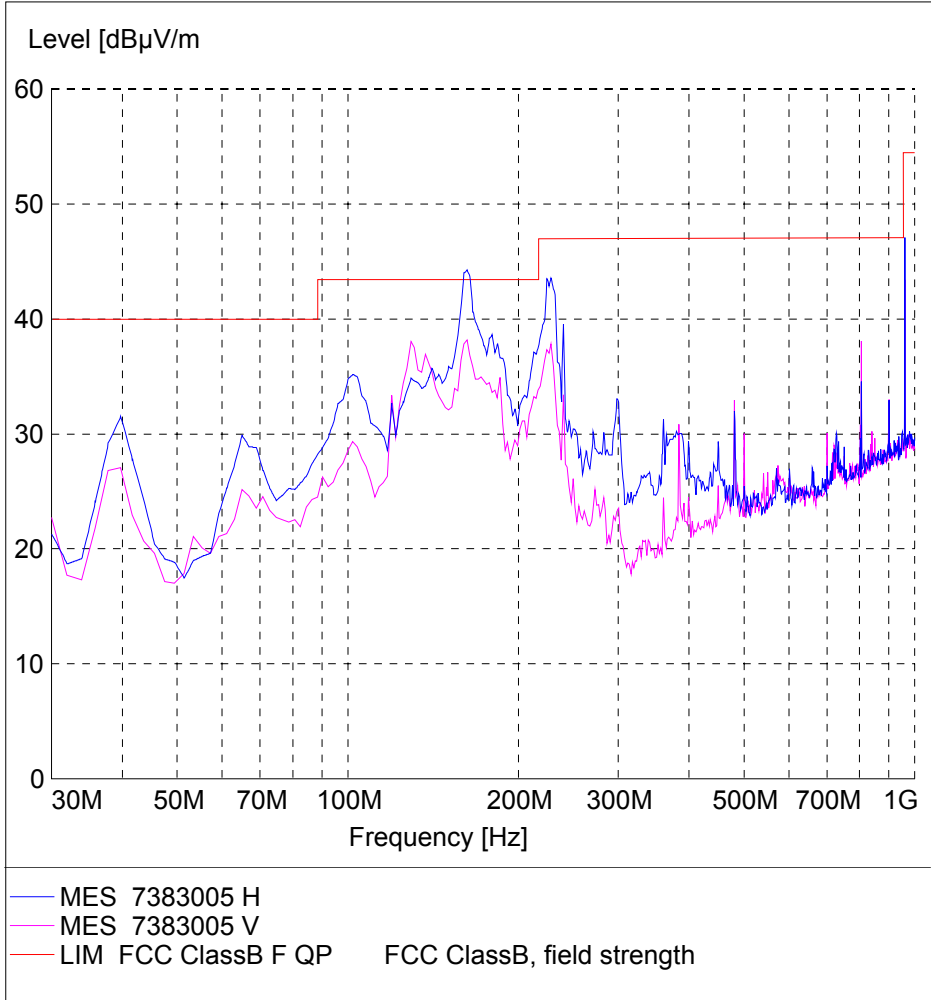
Worst case is shown below for 30MHz-1GHz only.

The emissions don't show in following result tables are more than 20dB below the limits.

Table 13 Radiated Emission Test Data 30MHz-1GHz

Frequency (MHz)	Cable Loss +preamp (dB)	Antenna Factor (dB)	Readings (dBμV/m)	Level (dBμV/m)	Polarity (H/V)	Limits (dBμV/m)	Margin (dB)	Height (cm)	Azimuth (Degs)
39.384	0.6	12.3	10.6	23.5	V	40	16.5	100	140
104.299	1.3	13.2	11.6	26.1	V	43.5	17.4	100	51
131.099	1.3	8.9	26.4	36.6	V	43.5	6.9	100	129
162.426	1.5	8.7	25.0	35.2	V	43.5	8.3	100	242
227.063	1.7	11.2	22.2	35.1	V	46	10.9	100	260
960.424	3.9	21.1	17.6	42.6	V	54	11.3	100	291
39.636	0.6	12.3	13.0	25.9	H	40	14.1	300	243
63.263	0.9	12.7	10.5	24.1	H	40	15.9	300	190
102.937	1.2	13.2	19.7	34.1	H	43.5	9.4	200	119
162.967	1.5	8.7	32.4	42.6	H	43.5	0.9	200	310
227.634	1.7	11.2	27.5	40.4	H	46	5.6	100	240
960.404	3.9	21.1	22.7	47.7	H	54	6.2	100	96

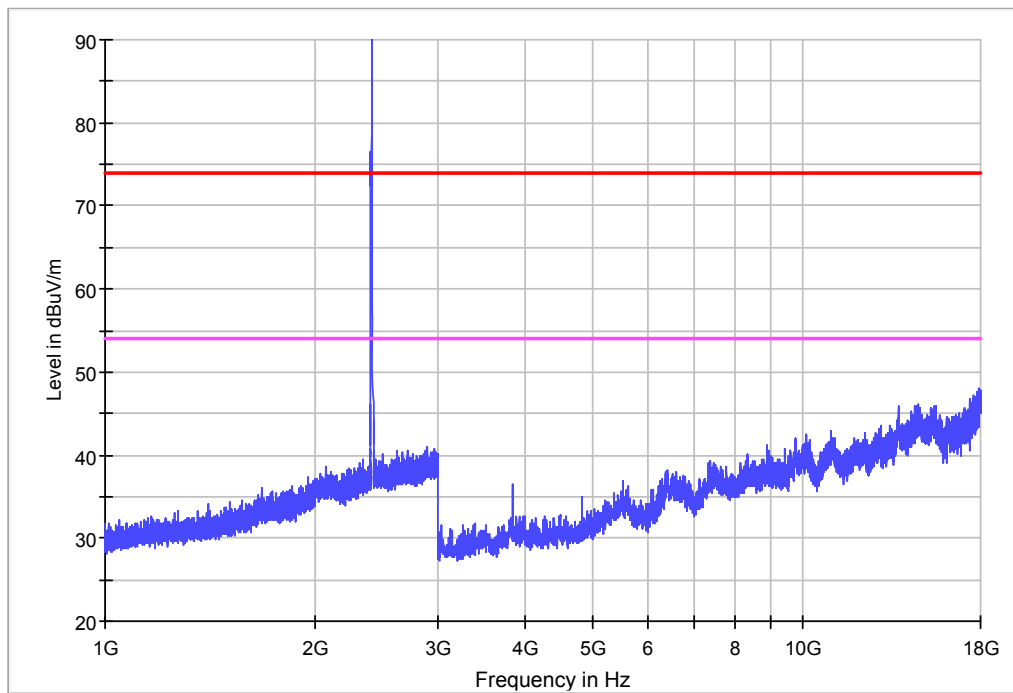
30MHz-1GHz



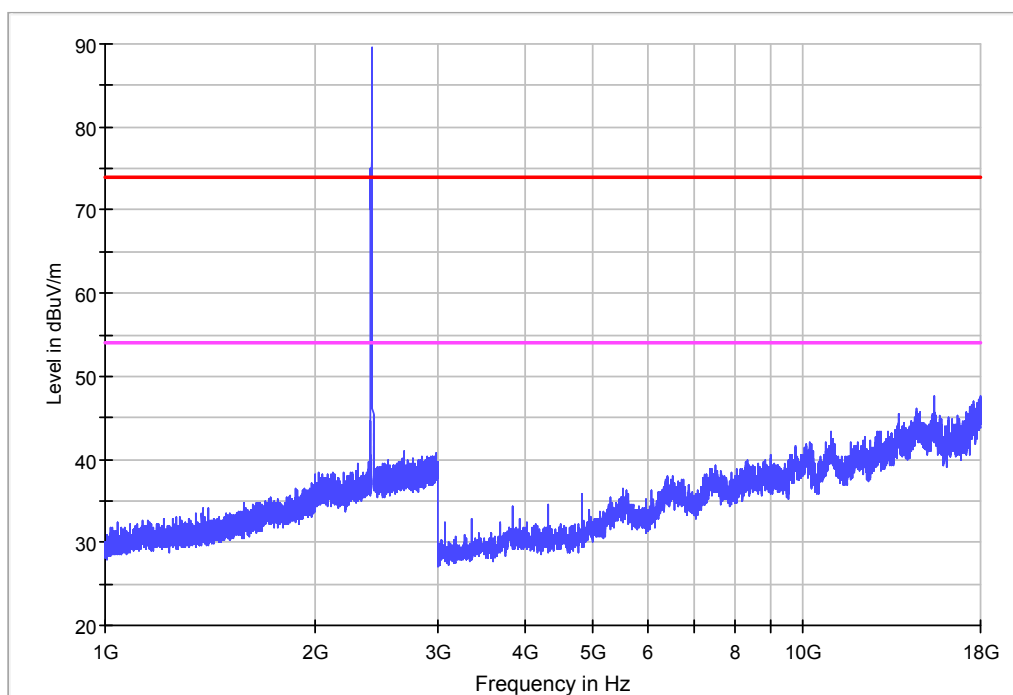
1-18G

11b

Ch1



Horizontal

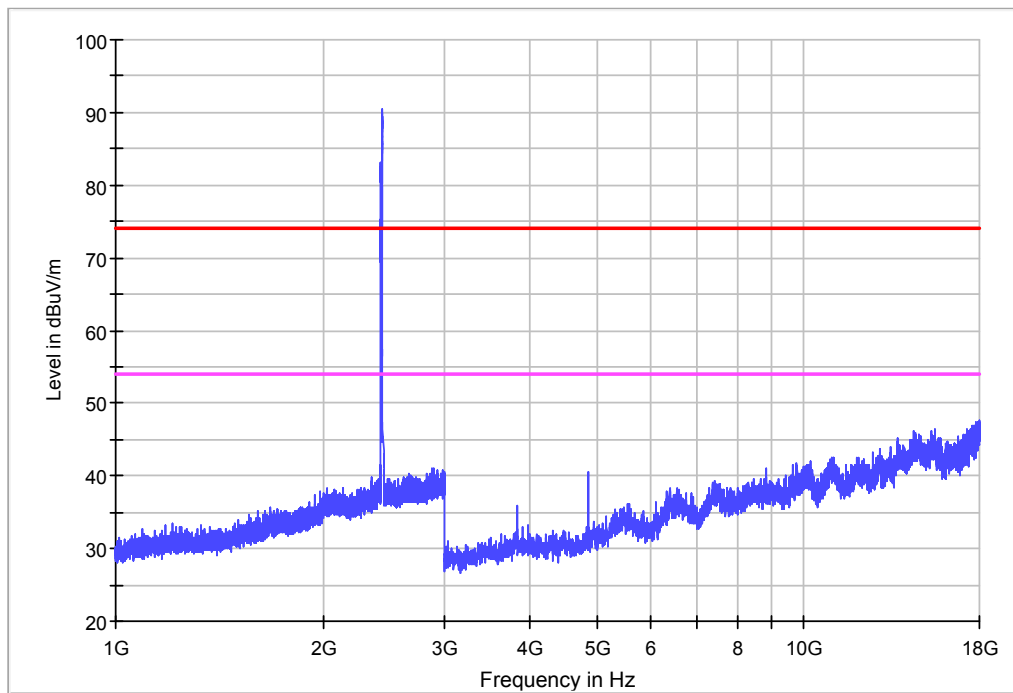


Vertical

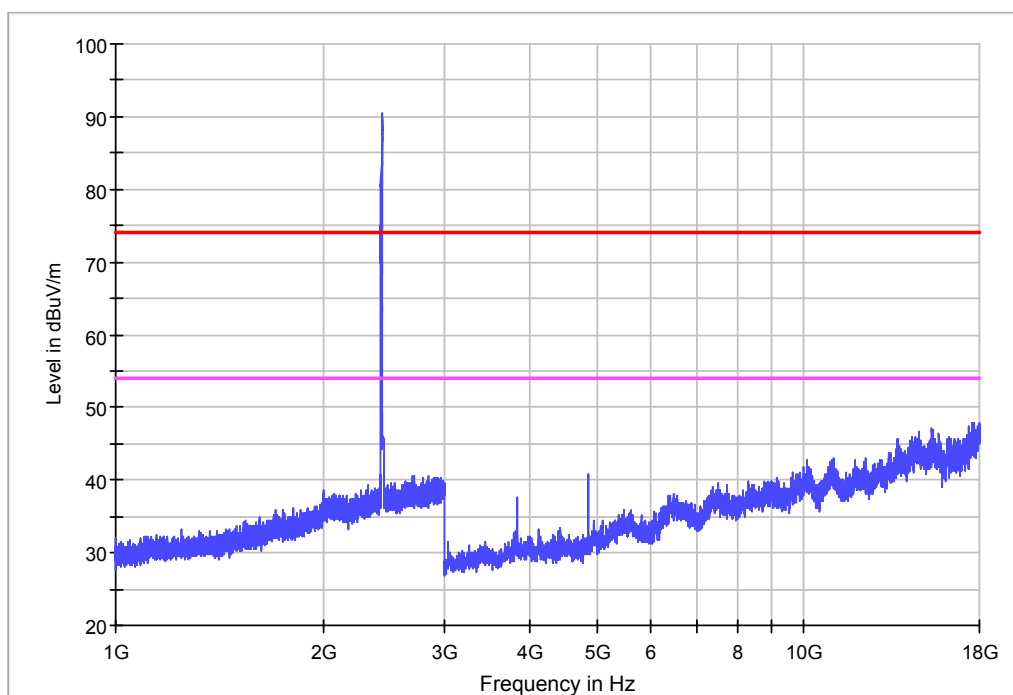
1-18G

11b

Ch6



Horizontal

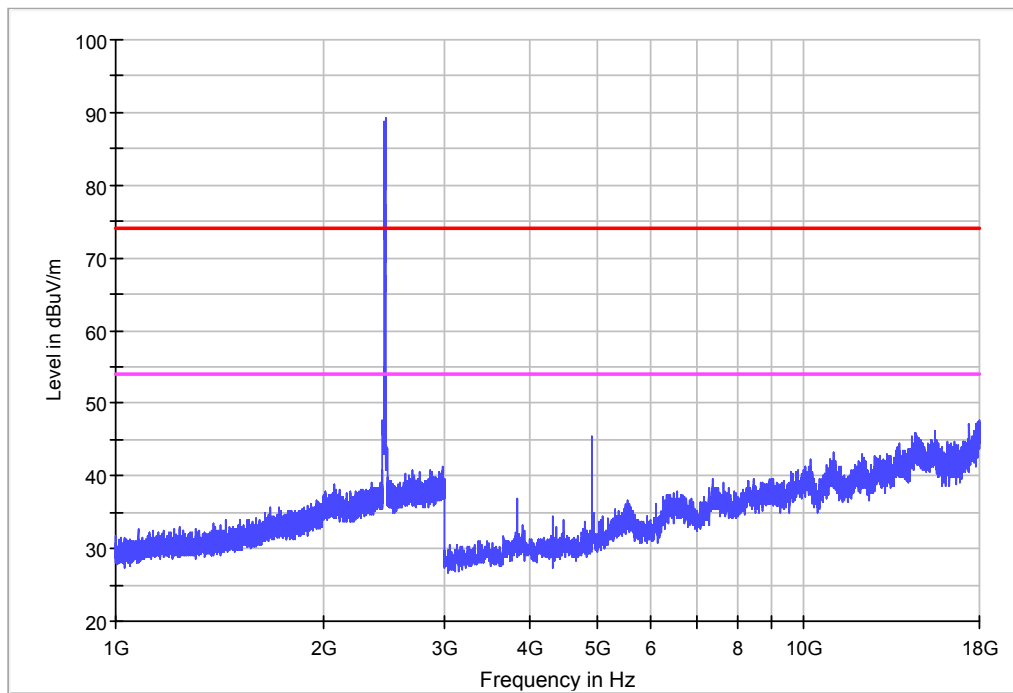


Vertical

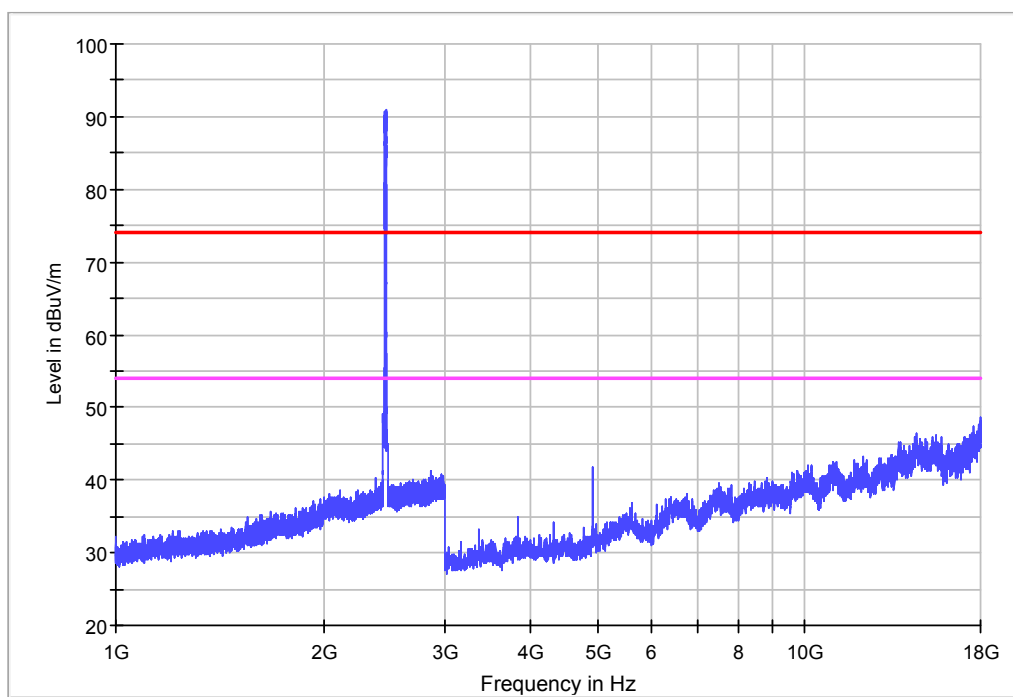
1-18G

11b

Ch11



Horizontal

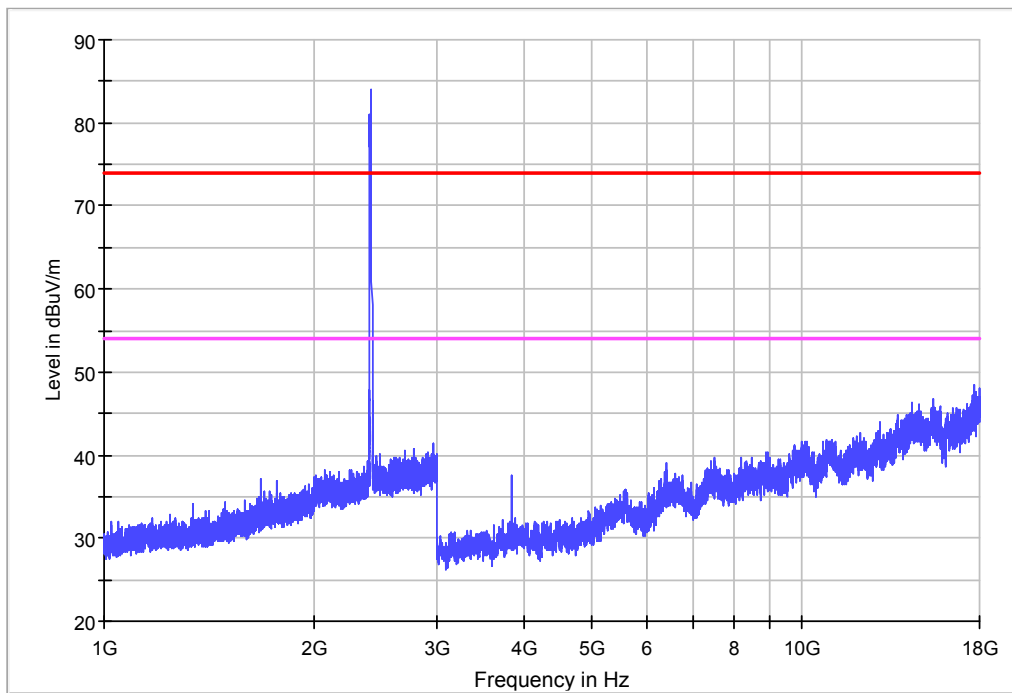


Vertical

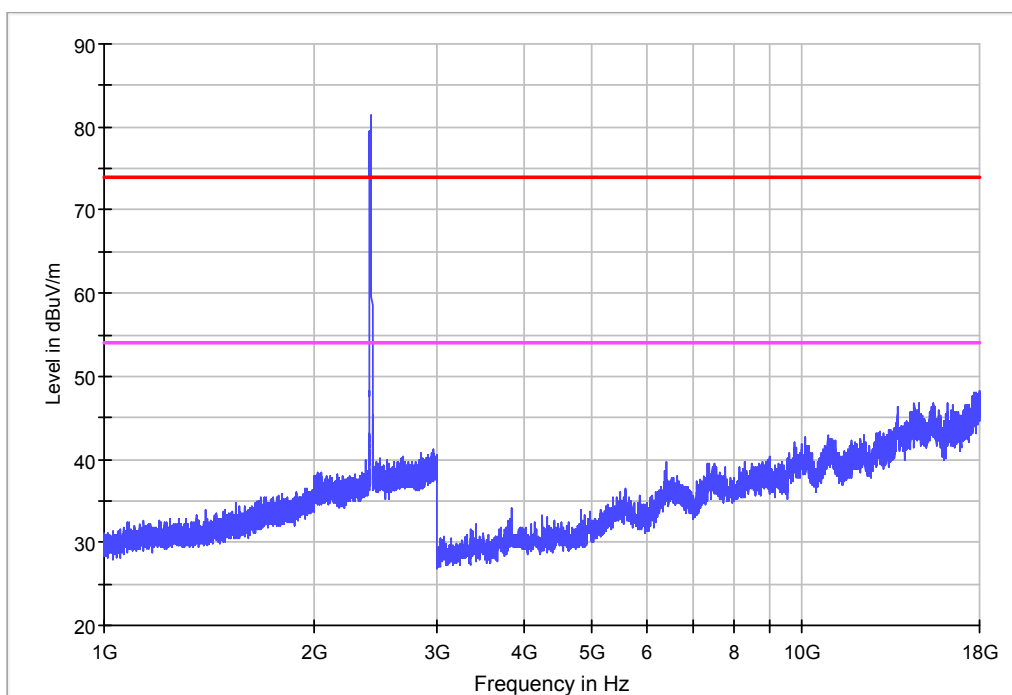
1-18G

11g

Ch1



Horizontal

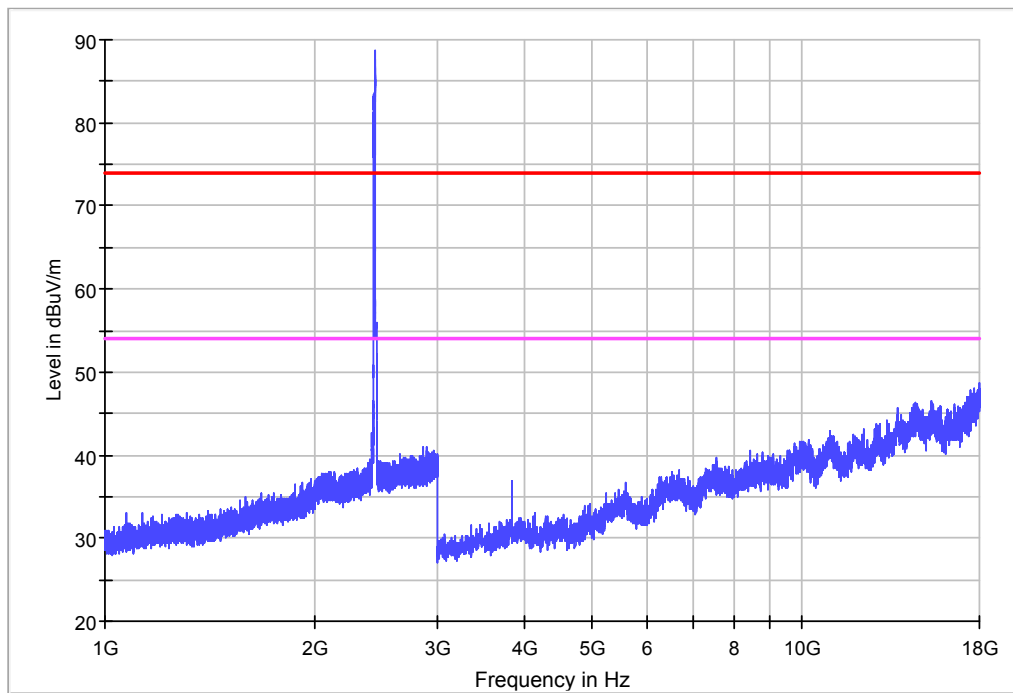


Vertical

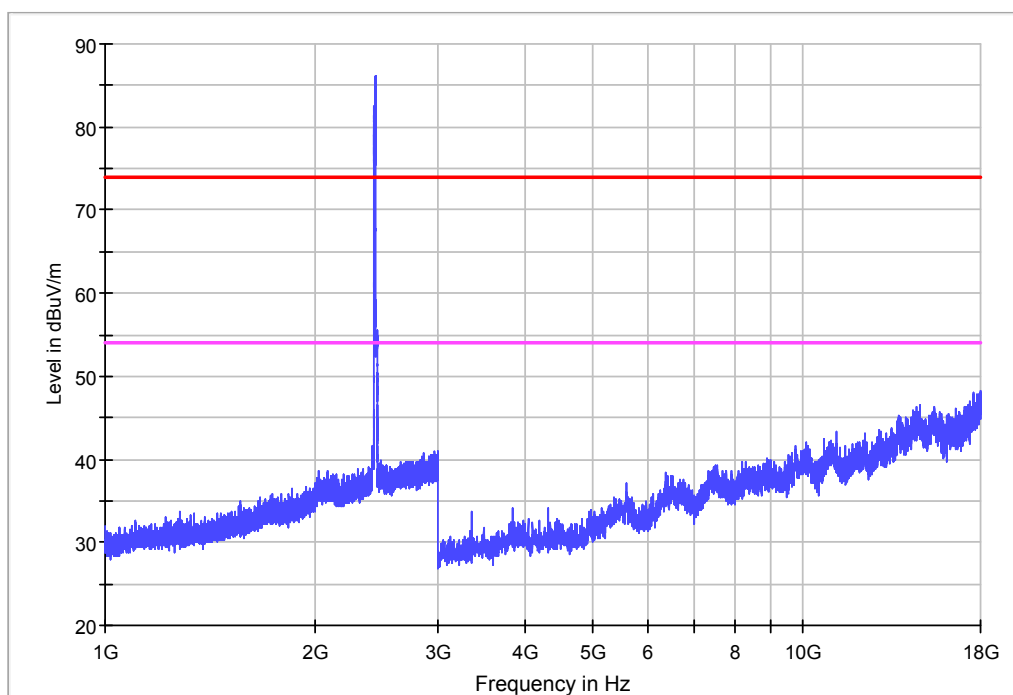
1-18G

11g

Ch6



Horizontal

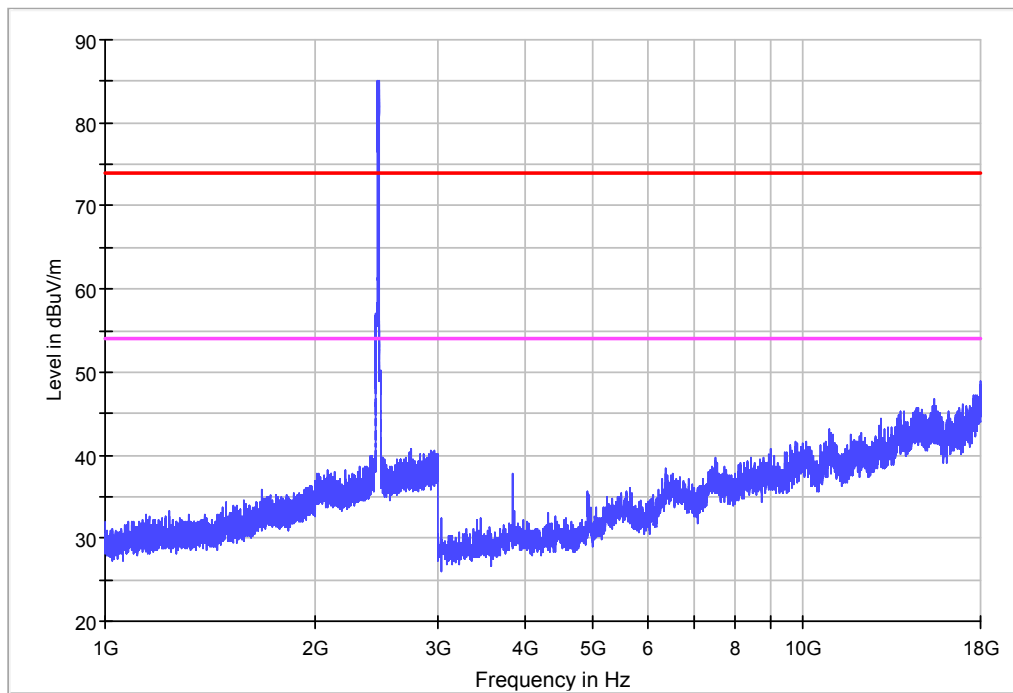


Vertical

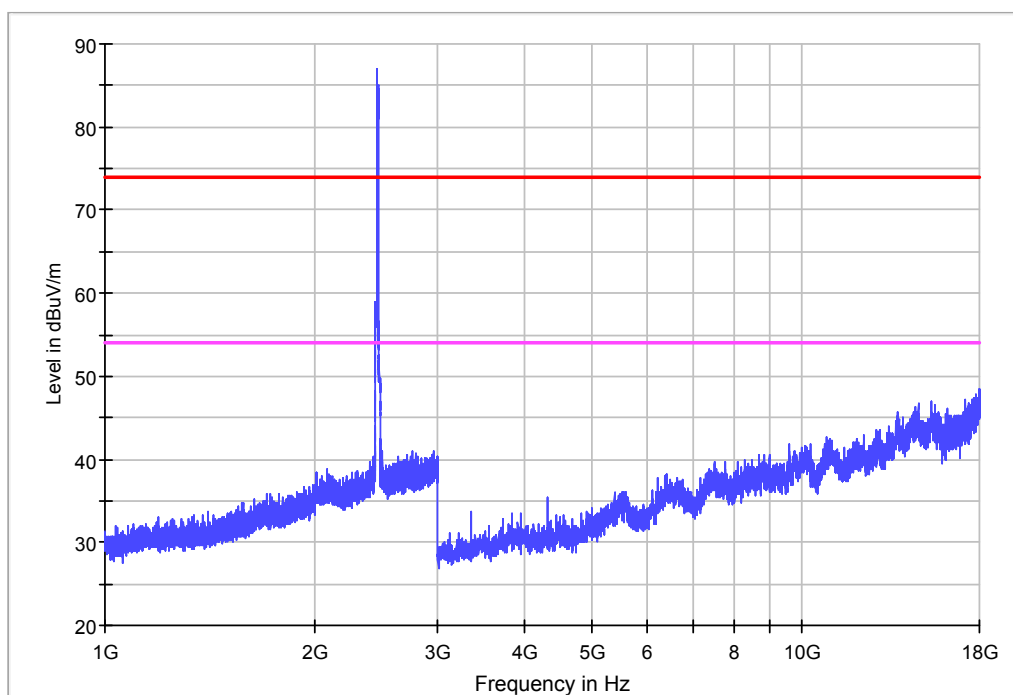
1-18G

11g

Ch11



Horizontal

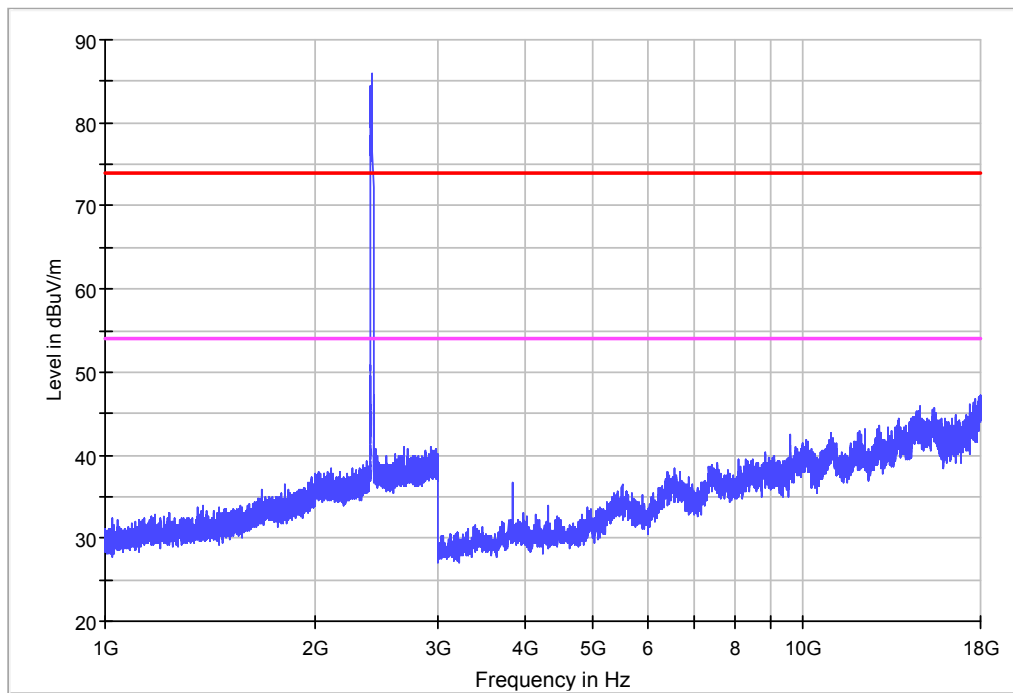


Vertical

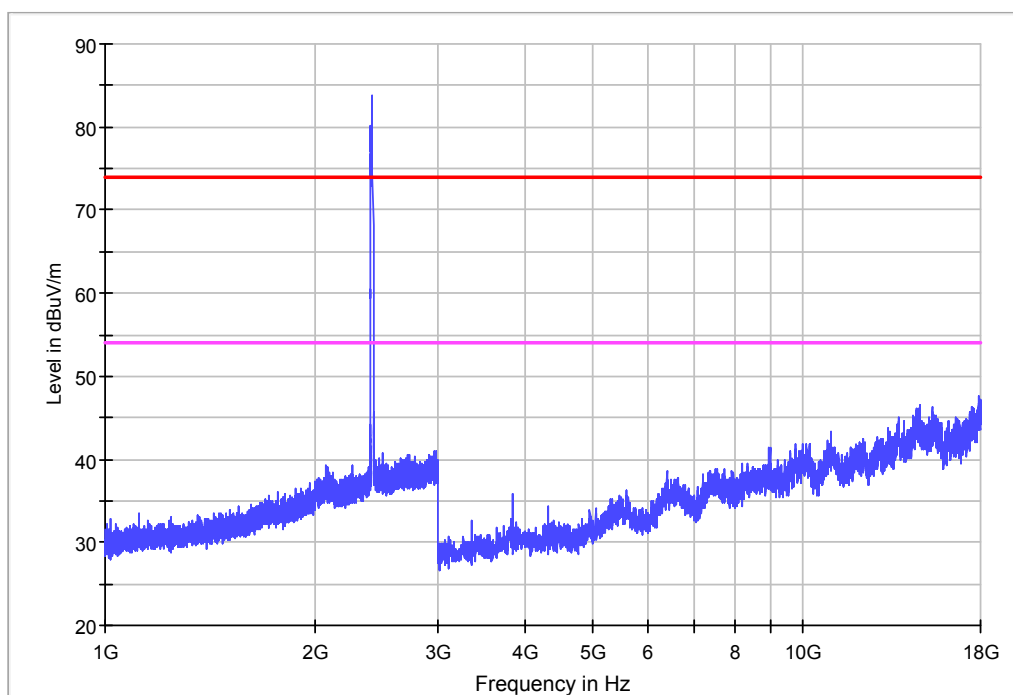
1-18G

11n HT20

Ch1



Horizontal

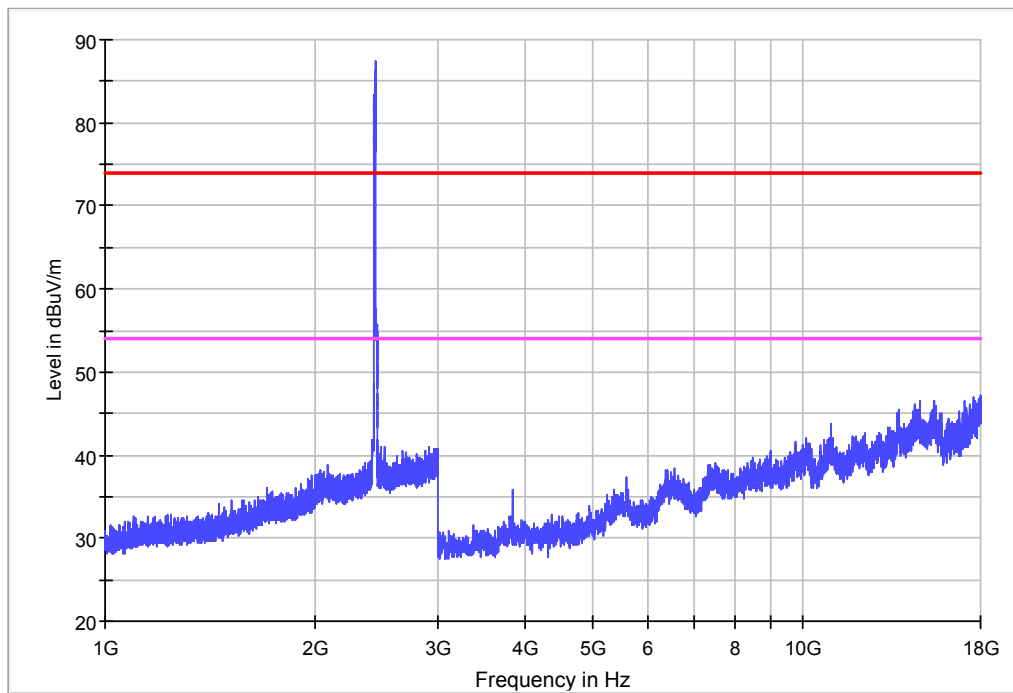


Vertical

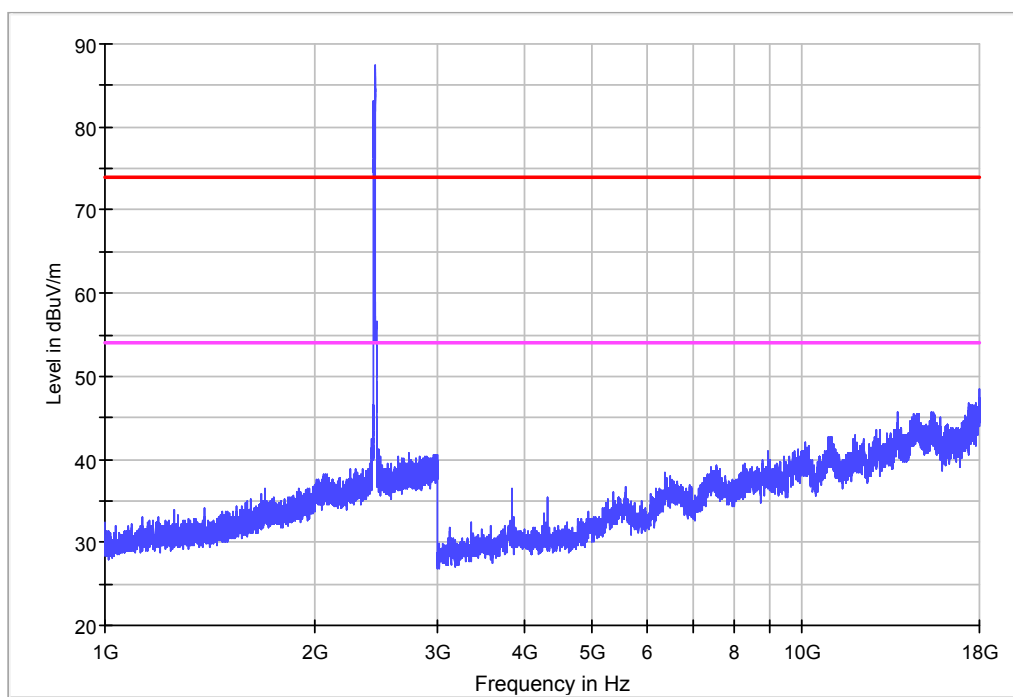
1-18G

11n HT20

Ch6



Horizontal

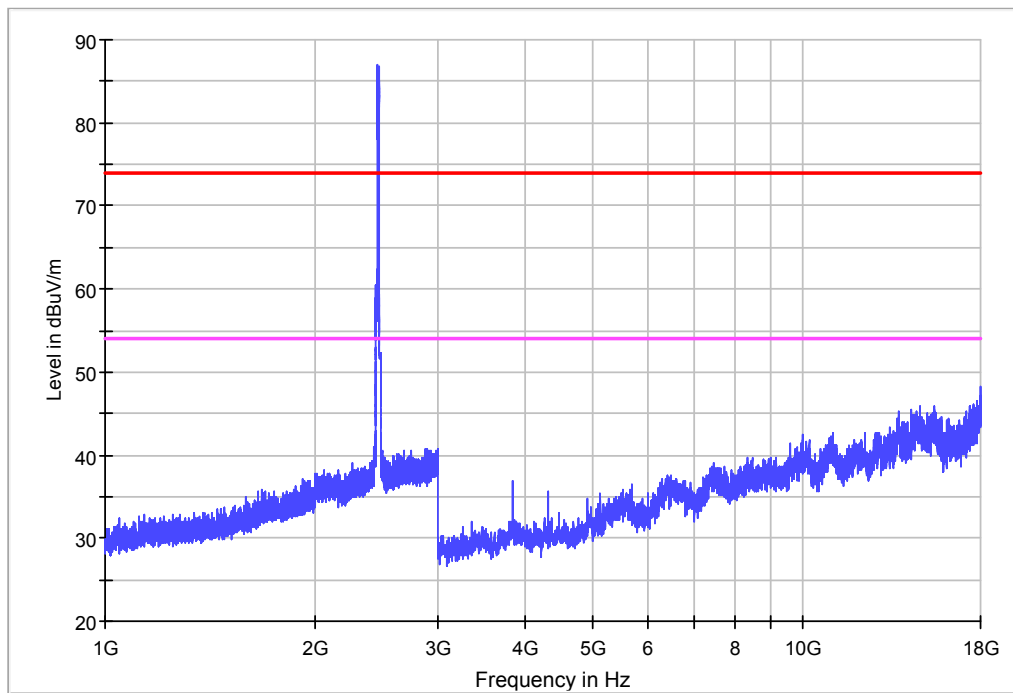


Vertical

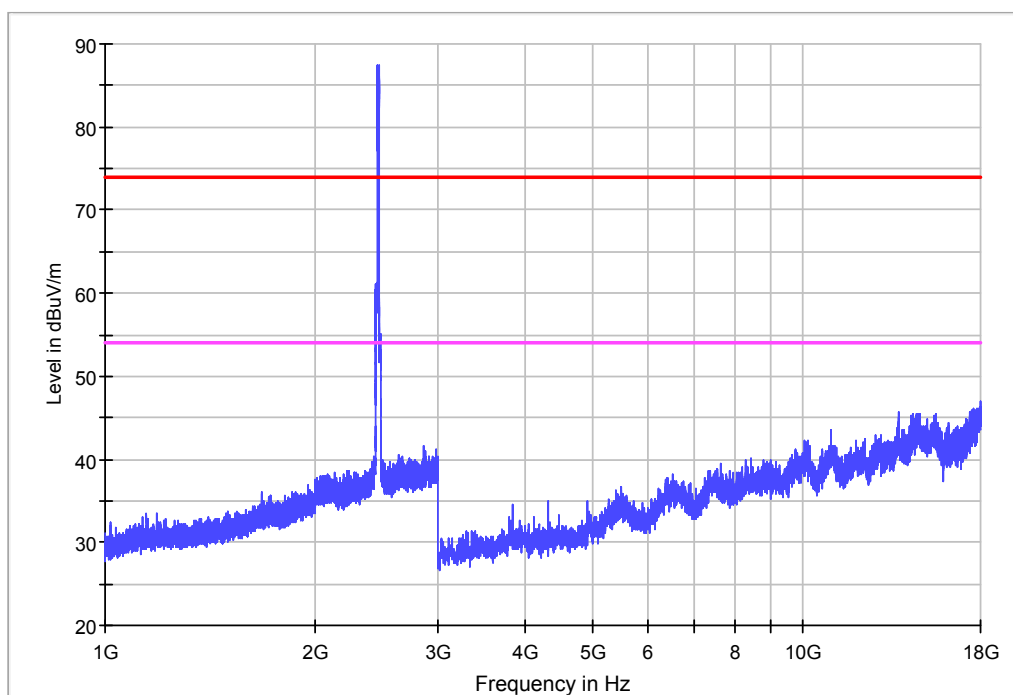
1-18G

11n HT20

Ch11



Horizontal

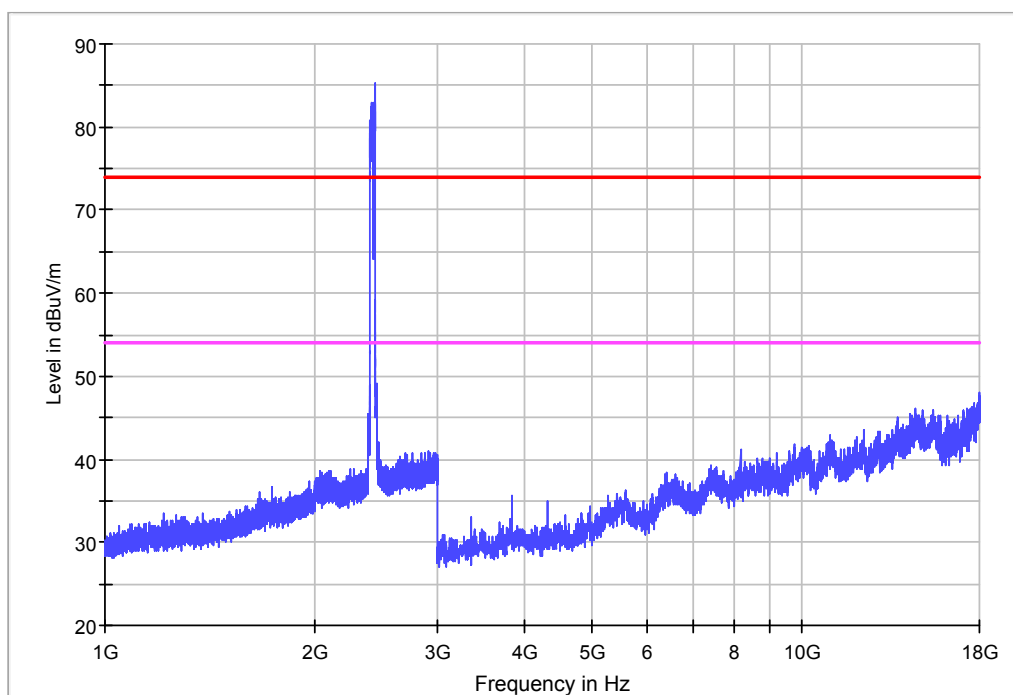
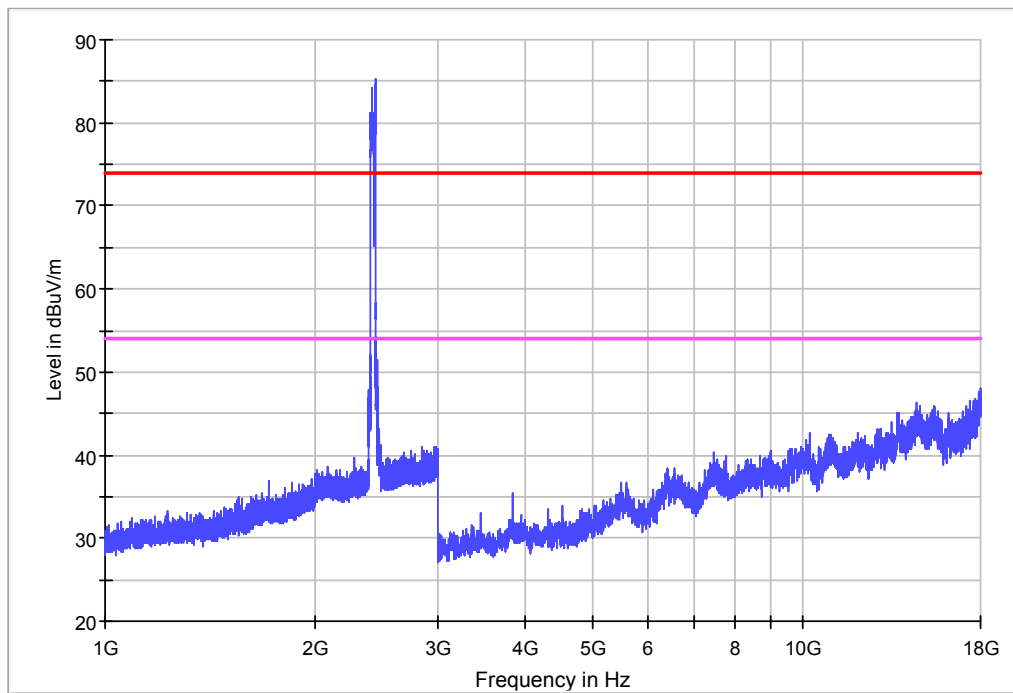


Vertical

1-18G

11n HT40

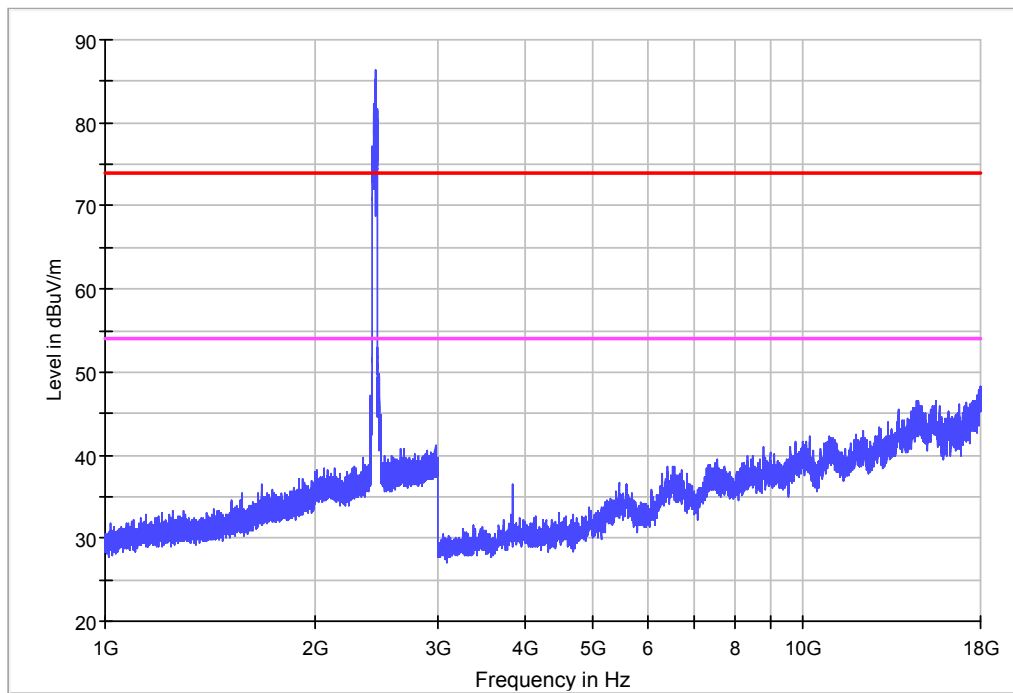
Ch3



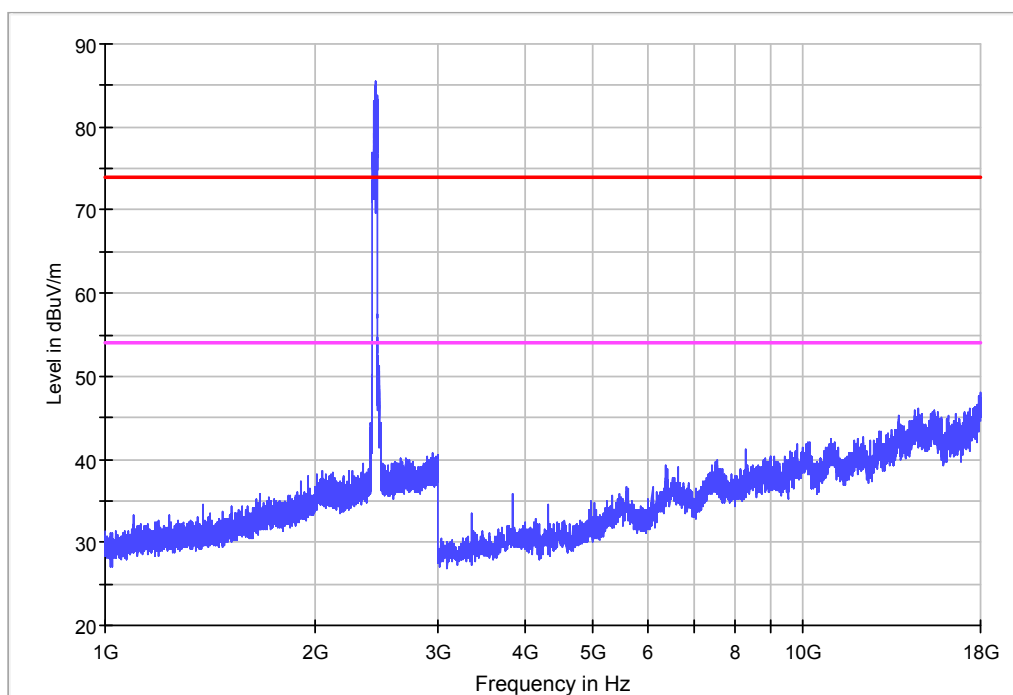
1-18G

11n HT40

Ch6



Horizontal

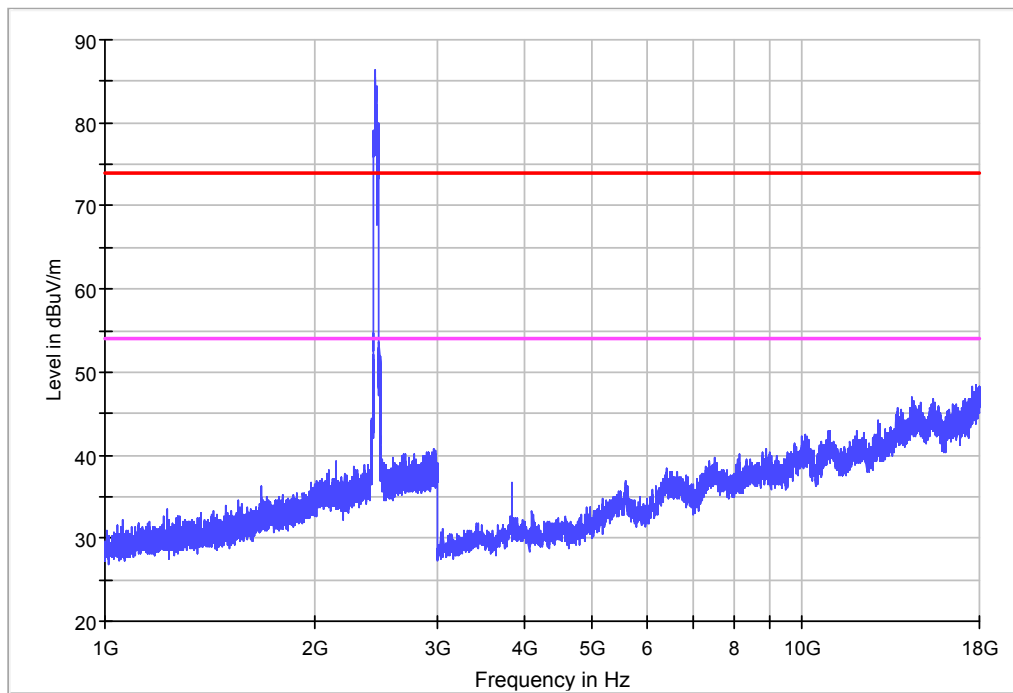


Vertical

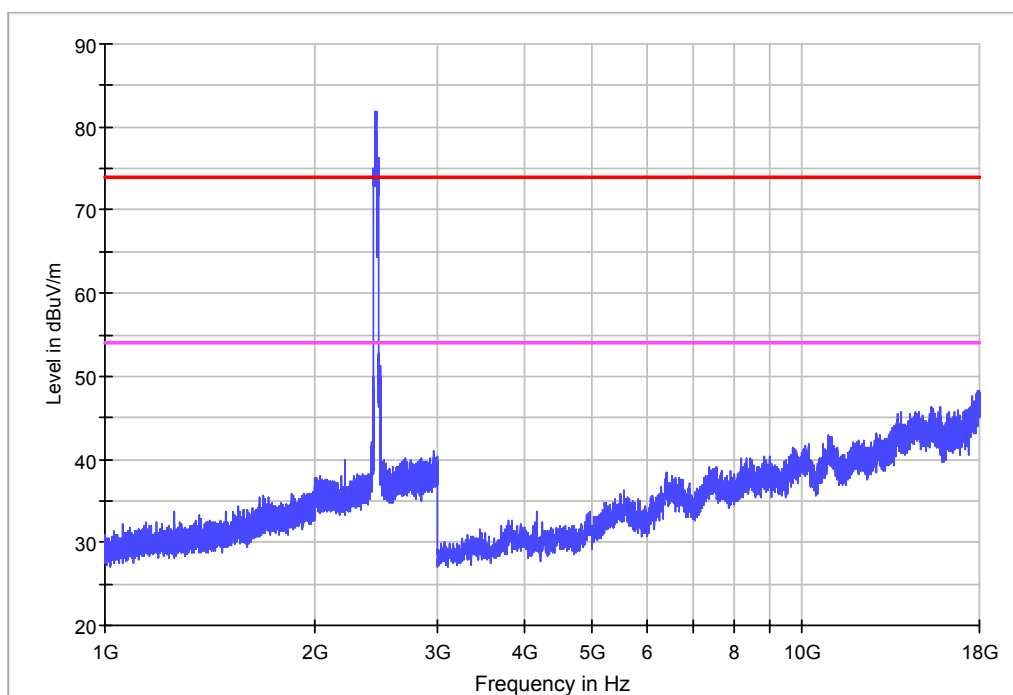
1-18G

11n HT40

Ch9

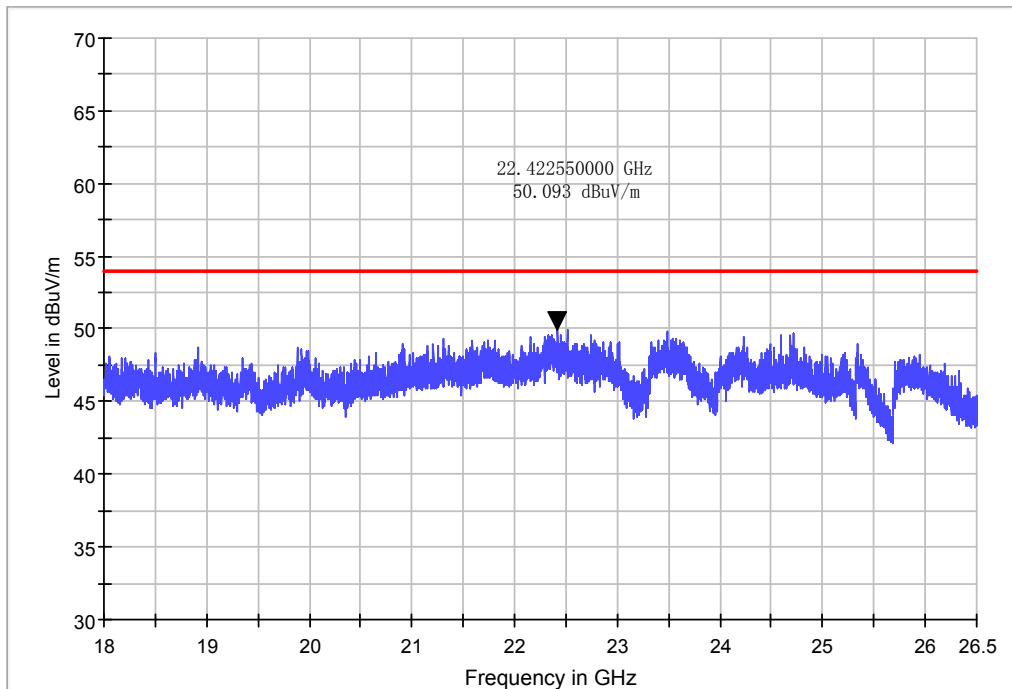


Horizontal

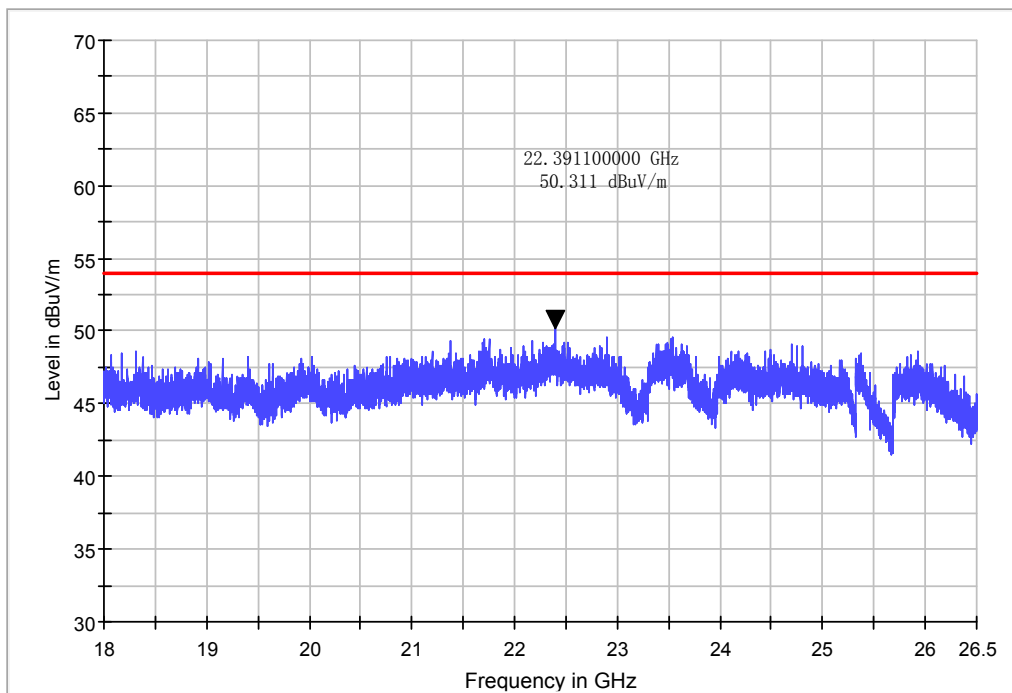


Vertical

18-26.5G
Worst Case



Horizontal



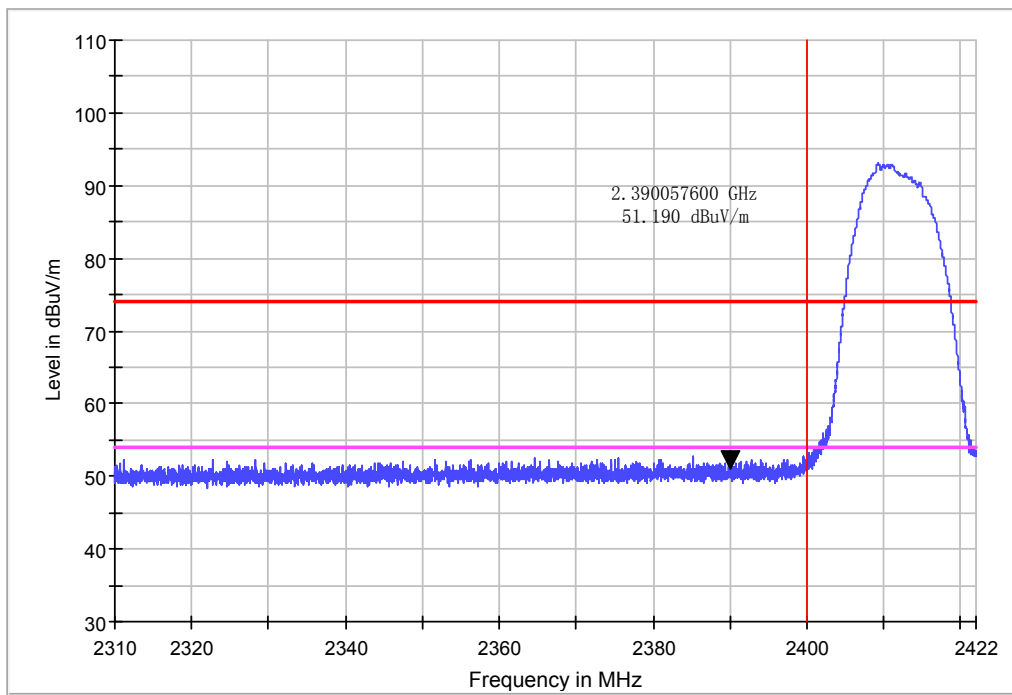
Vertical

Band edge

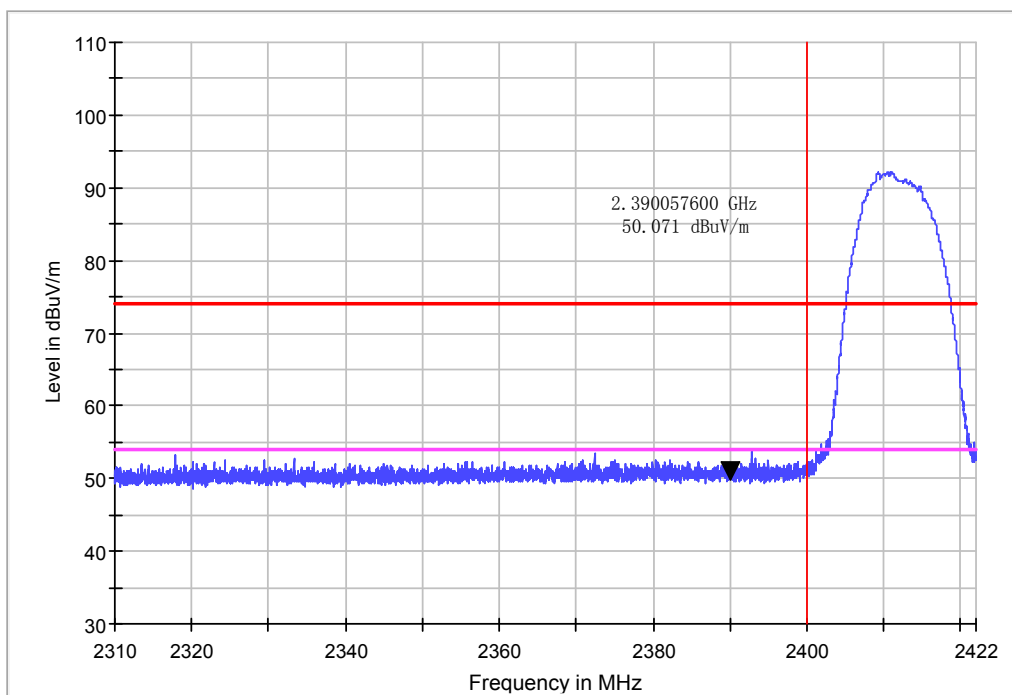
11b

CH1

PK



Horizontal



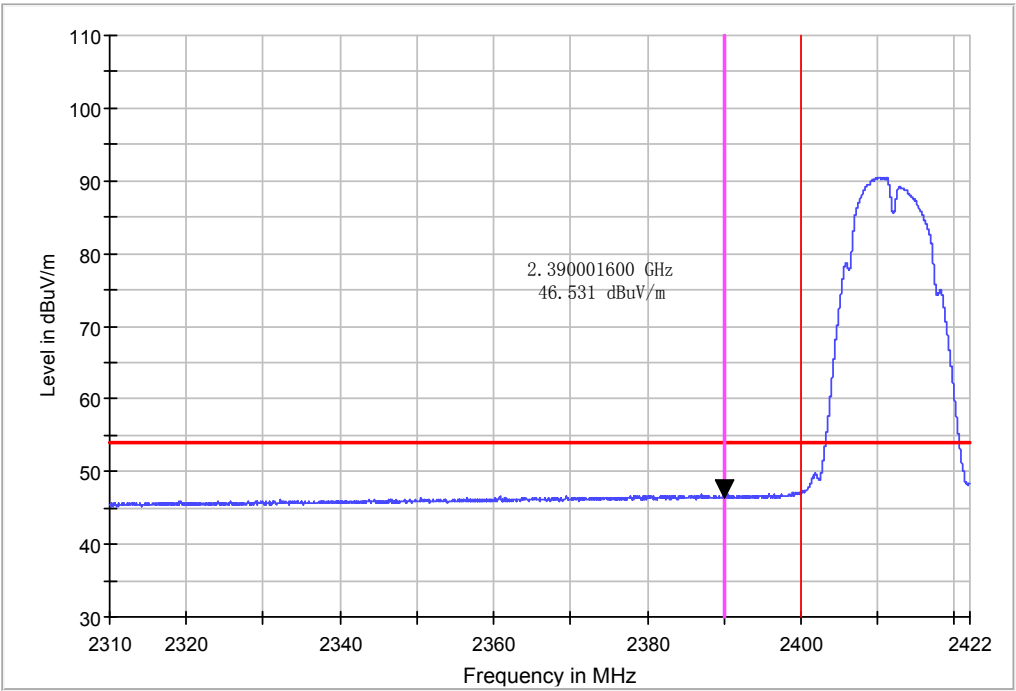
Vertical

Band edge

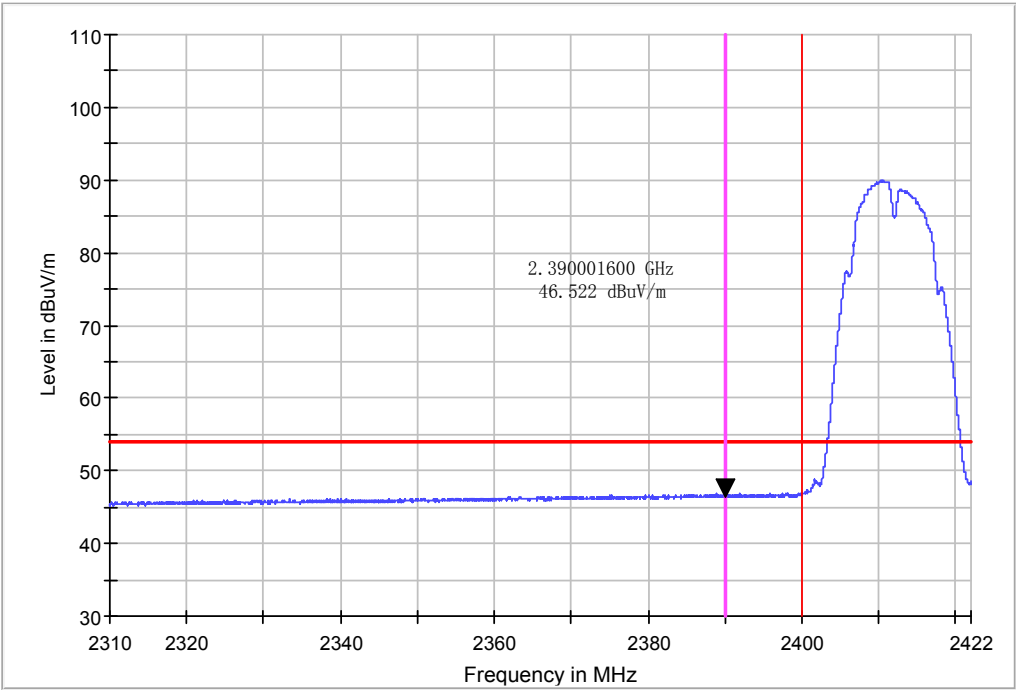
11b

CH1

AV



Horizontal



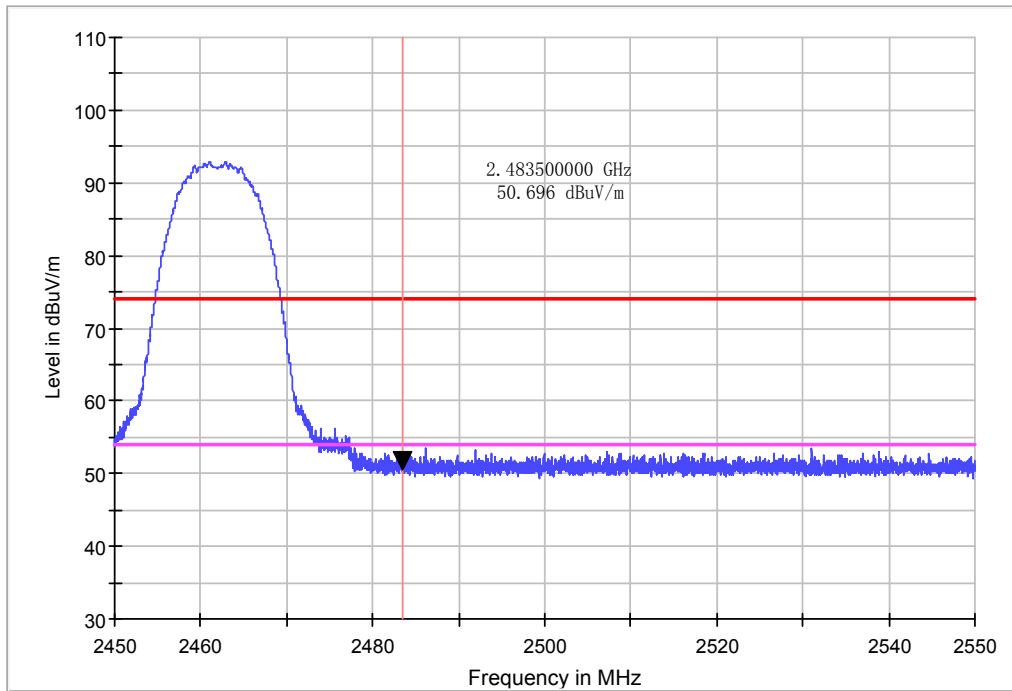
Vertical

Band edge

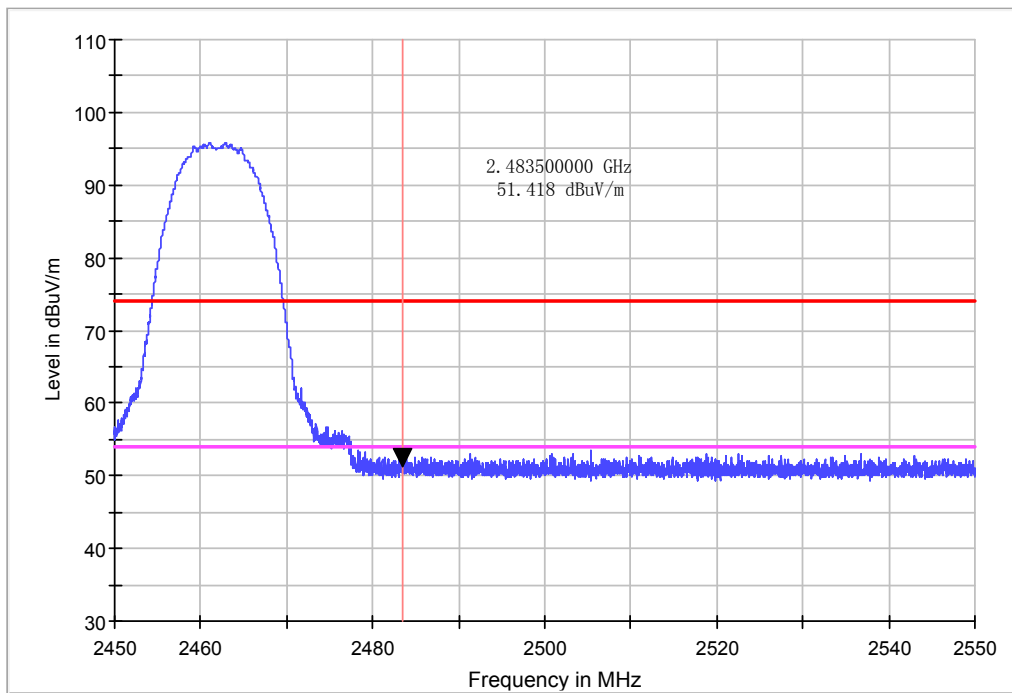
11b

CH11

PK



Horizontal



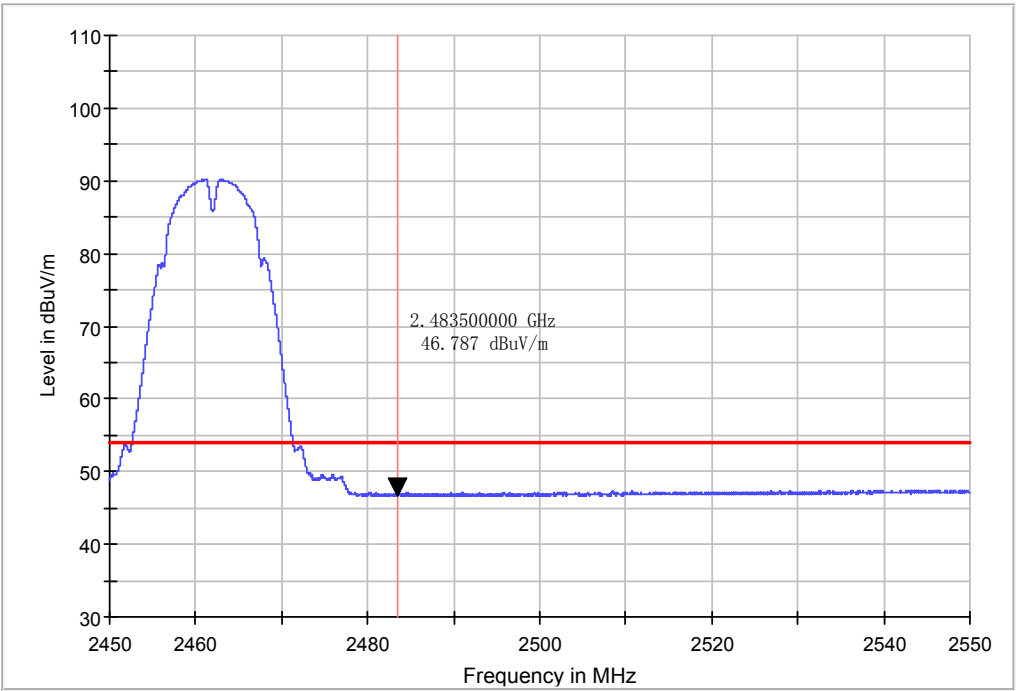
Vertical

Band edge

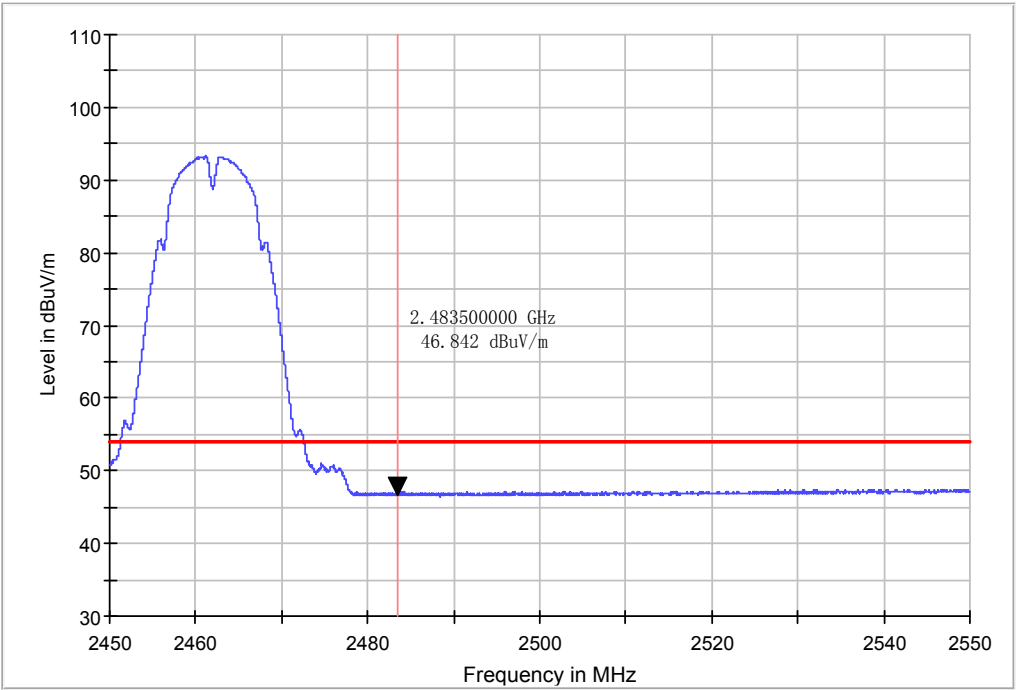
11b

CH11

AV



Horizontal



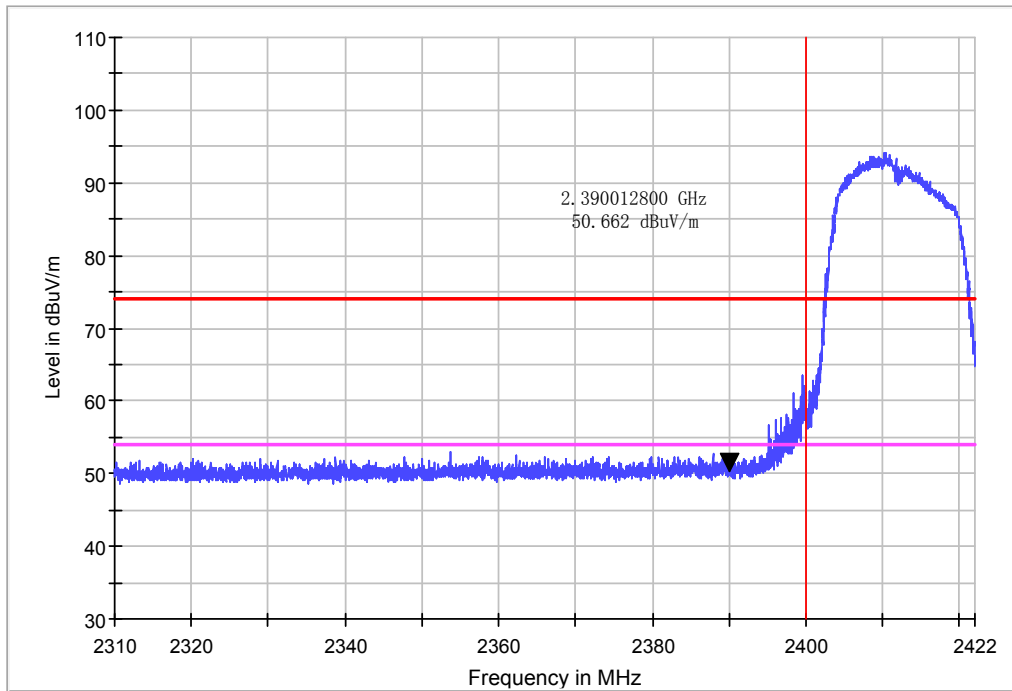
Vertical

Band edge

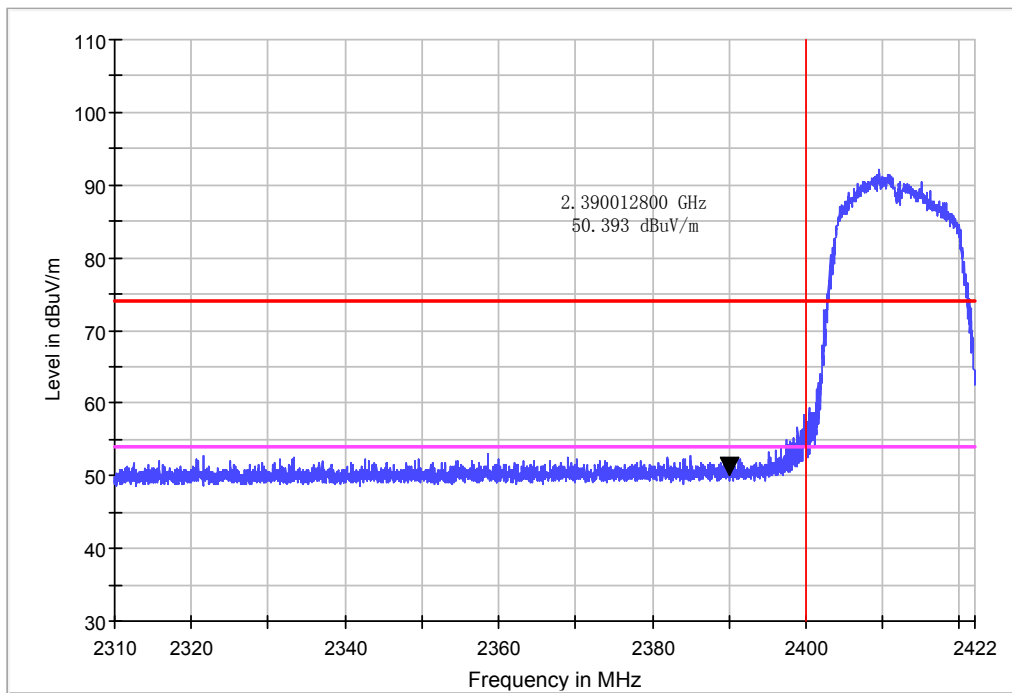
11g

CH1

PK



Horizontal



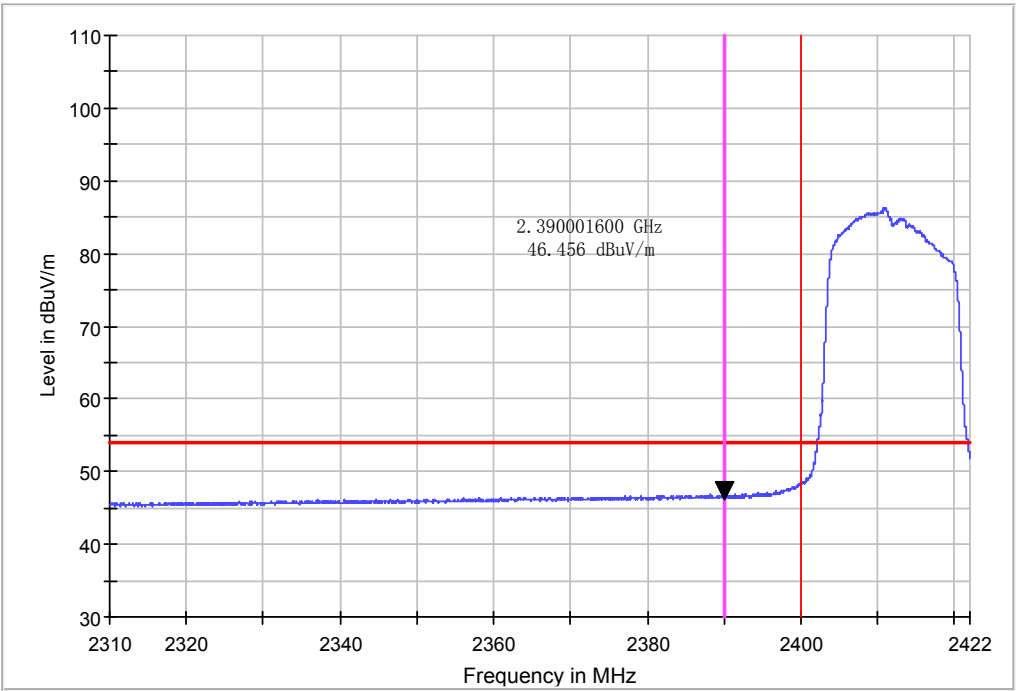
Vertical

Band edge

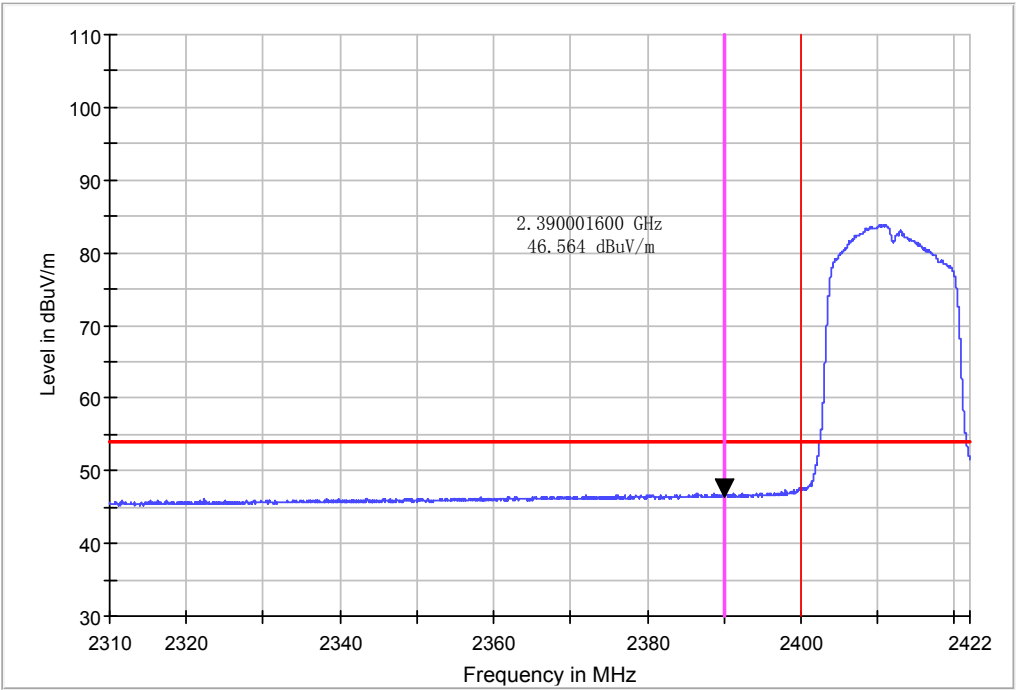
11g

CH1

AV



Horizontal



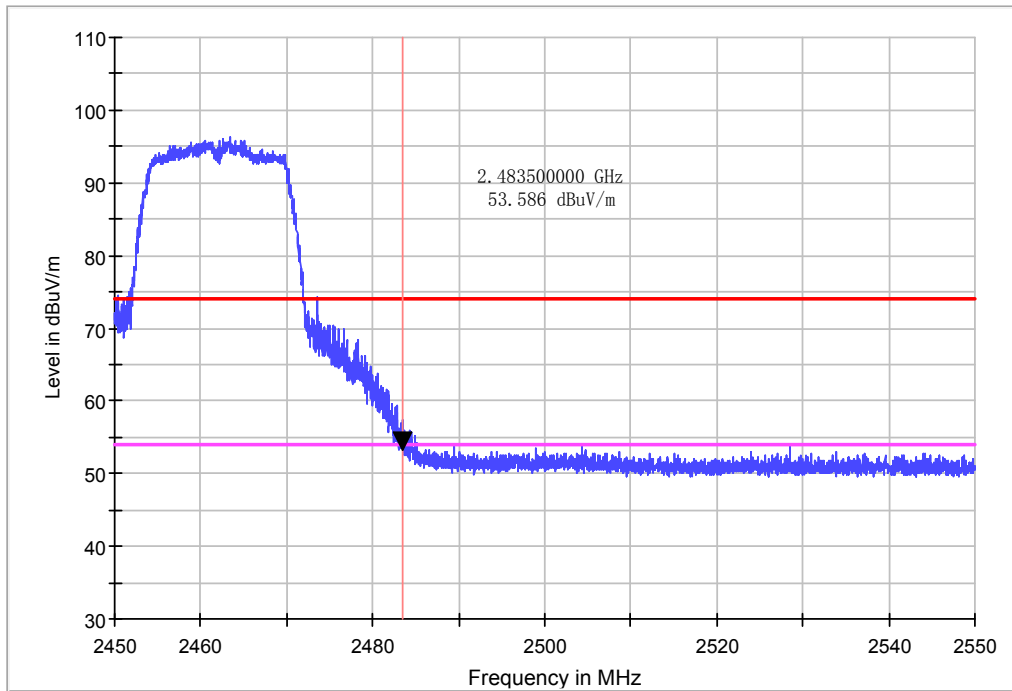
Vertical

Band edge

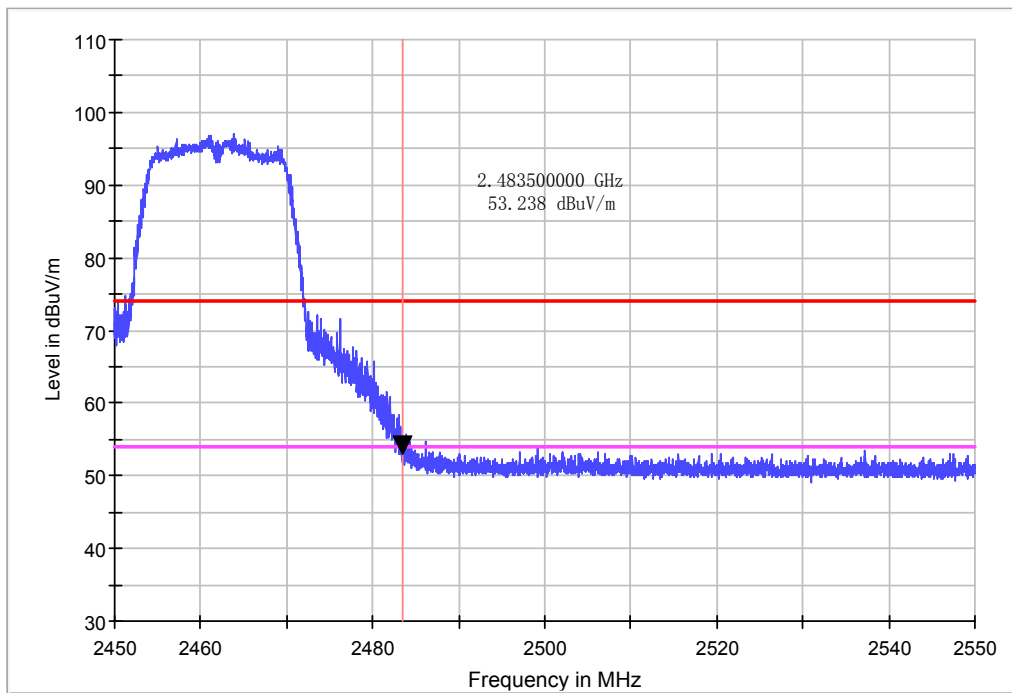
11g

CH11

PK



Horizontal



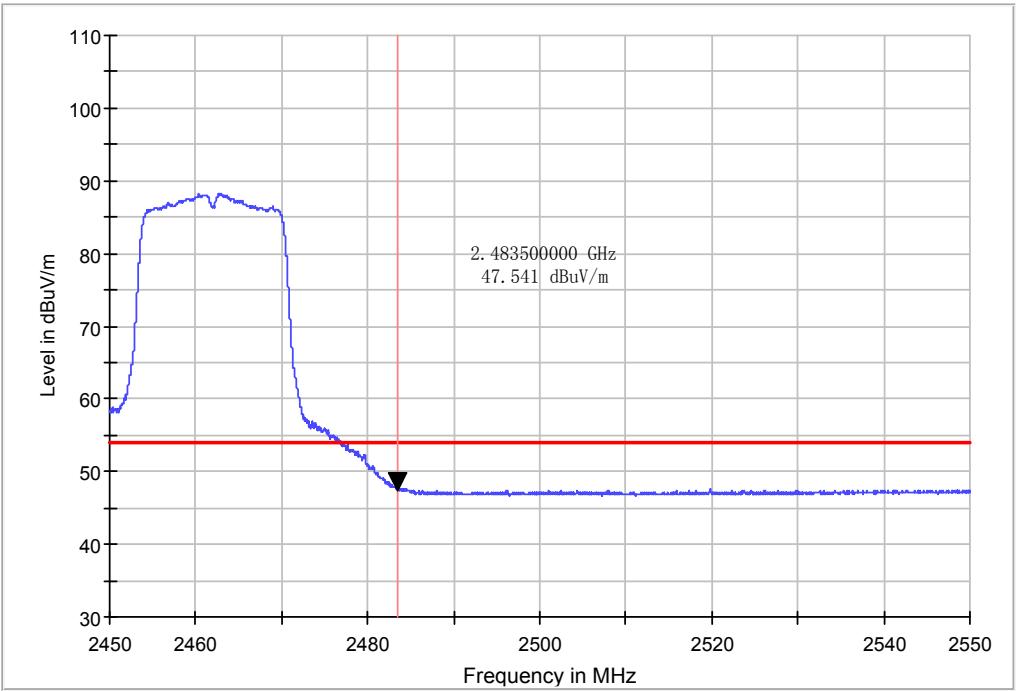
Vertical

Band edge

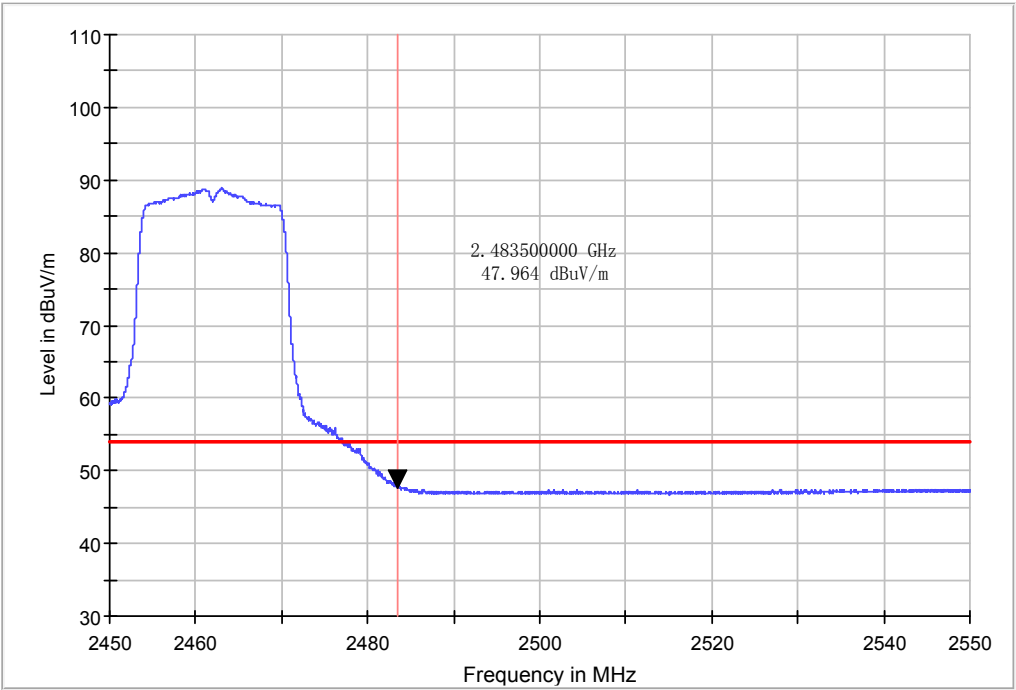
11g

CH11

AV



Horizontal



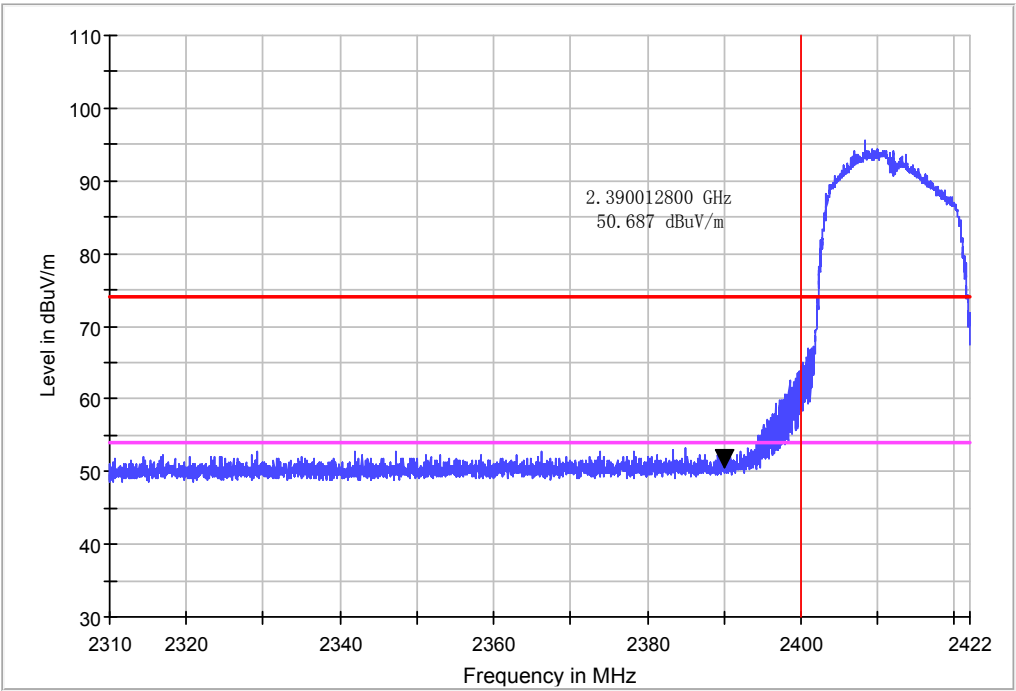
Vertical

Band edge

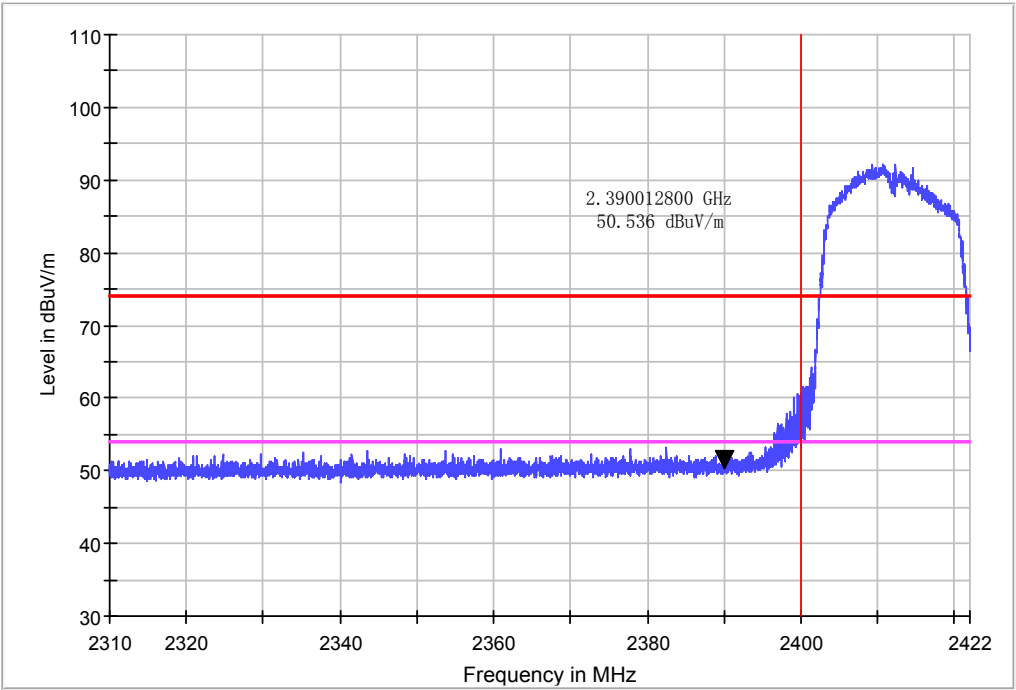
11n HT20

CH1

PK



Horizontal



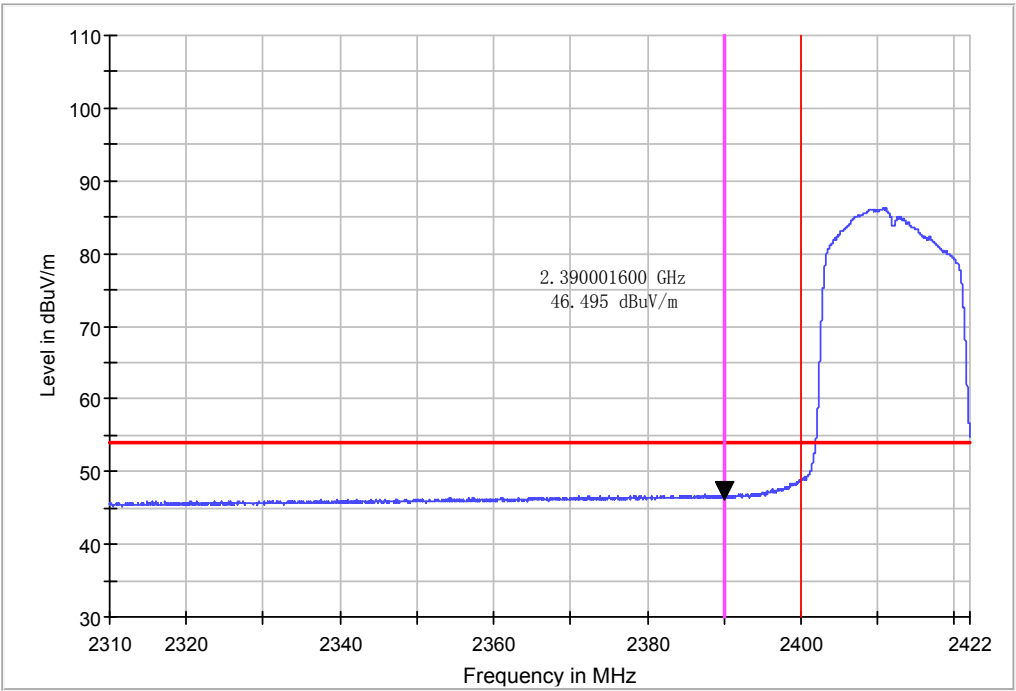
Vertical

Band edge

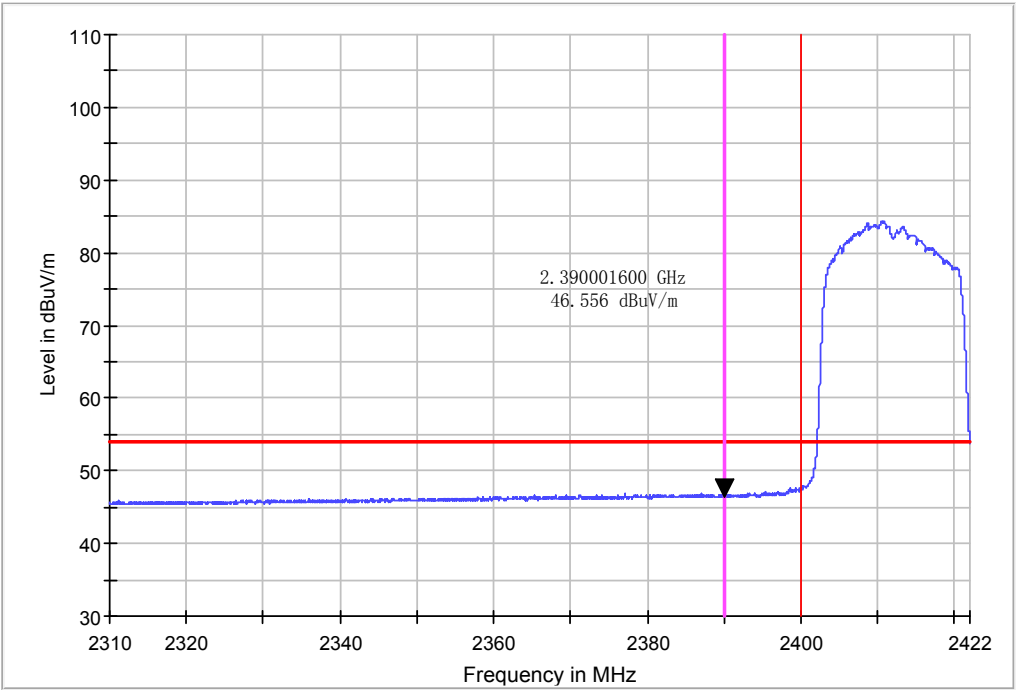
11n HT20

CH1

AV



Horizontal



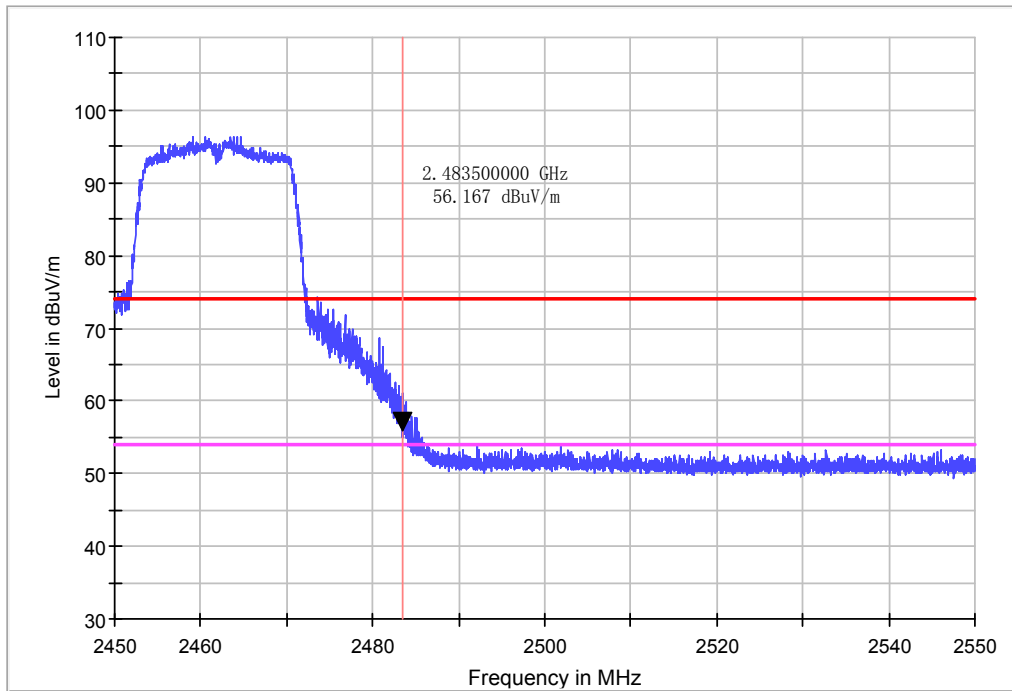
Vertical

Band edge

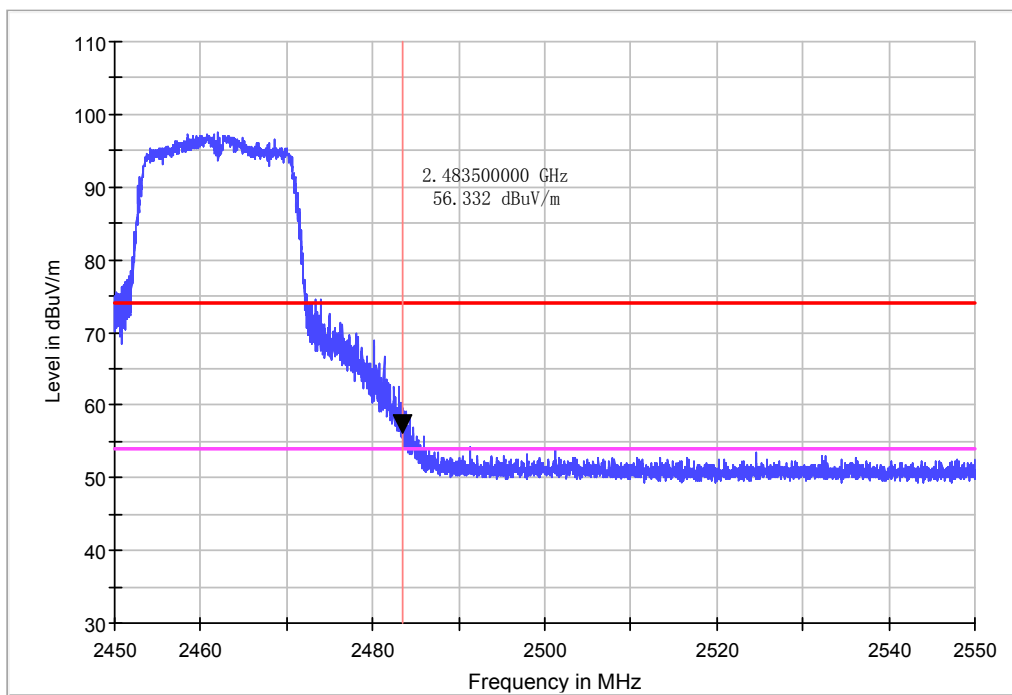
11n HT20

CH11

PK



Horizontal



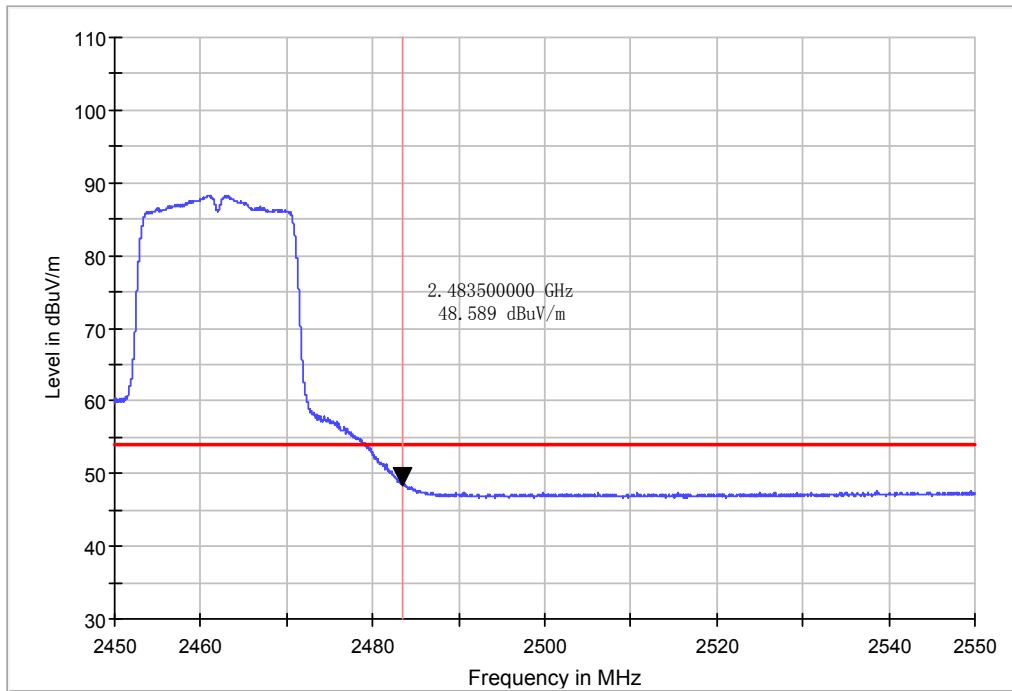
Vertical

Band edge

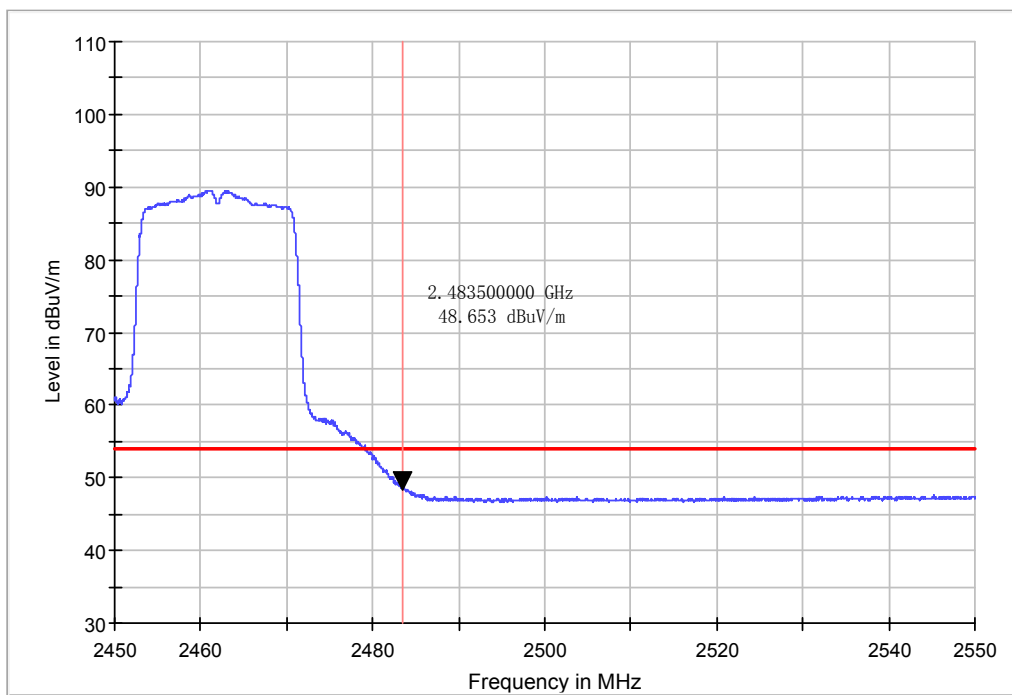
11n HT20

CH11

AV



Horizontal



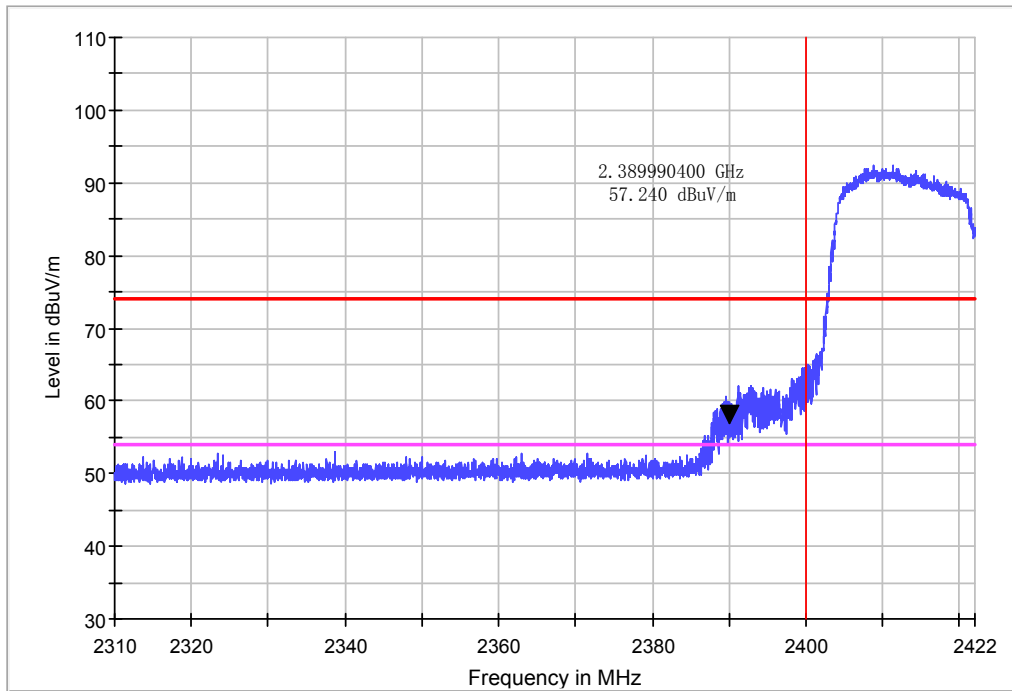
Vertical

Band edge

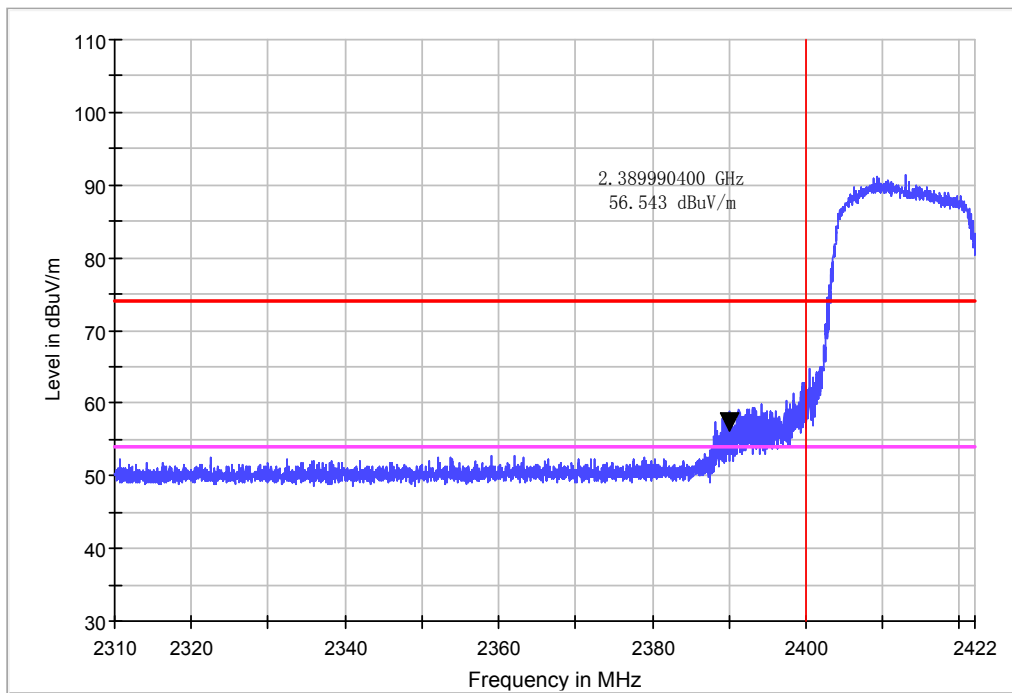
11n HT40

CH3

PK



Horizontal



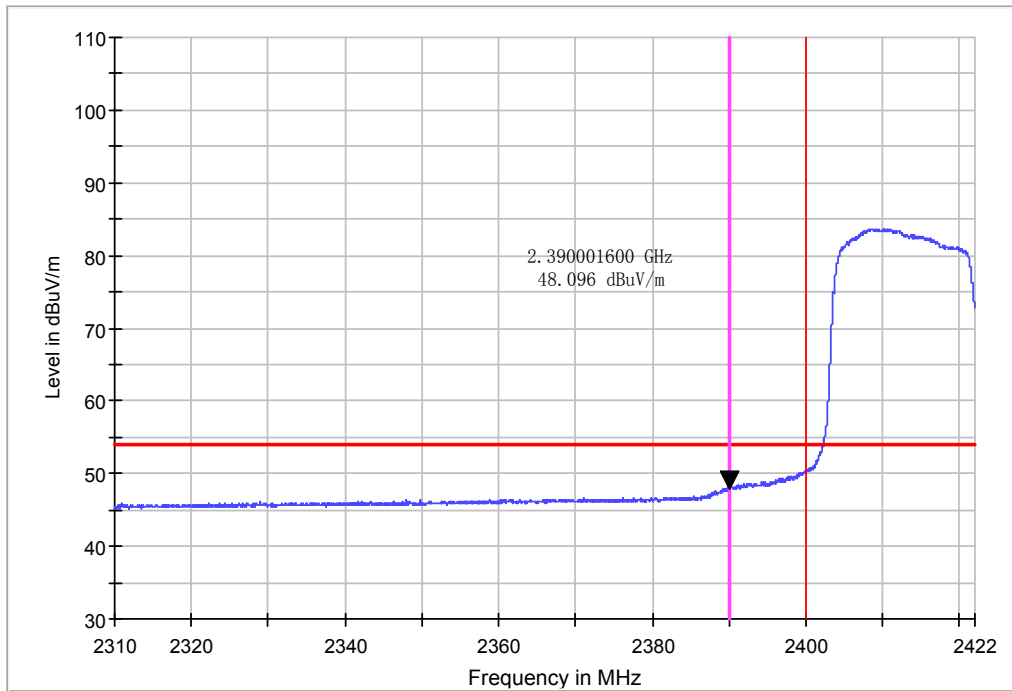
Vertical

Band edge

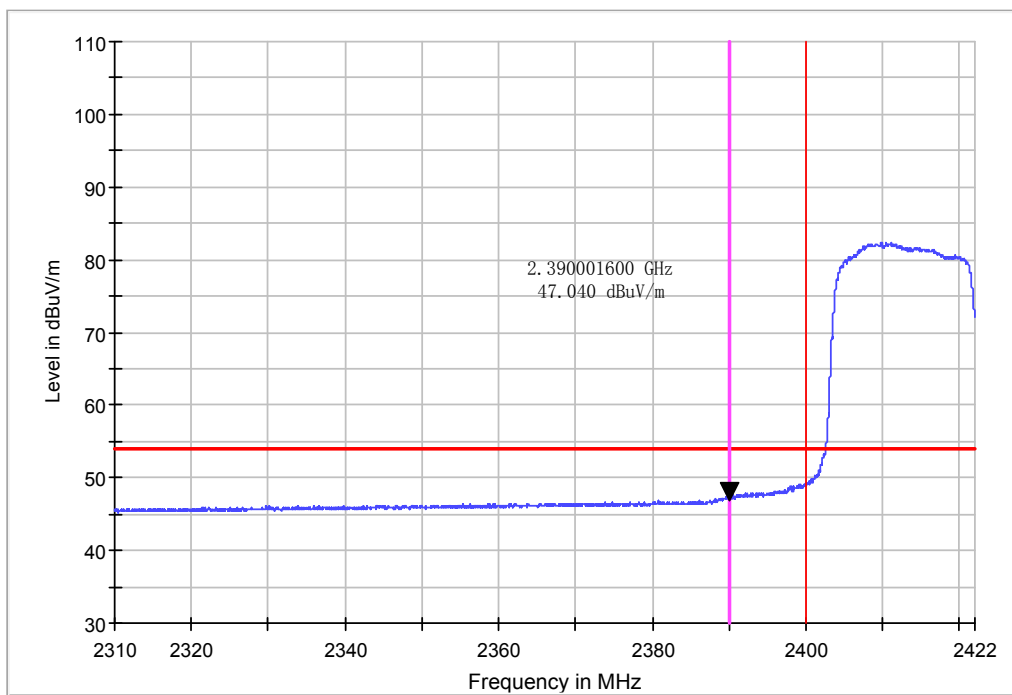
11n HT40

CH3

AV



Horizontal



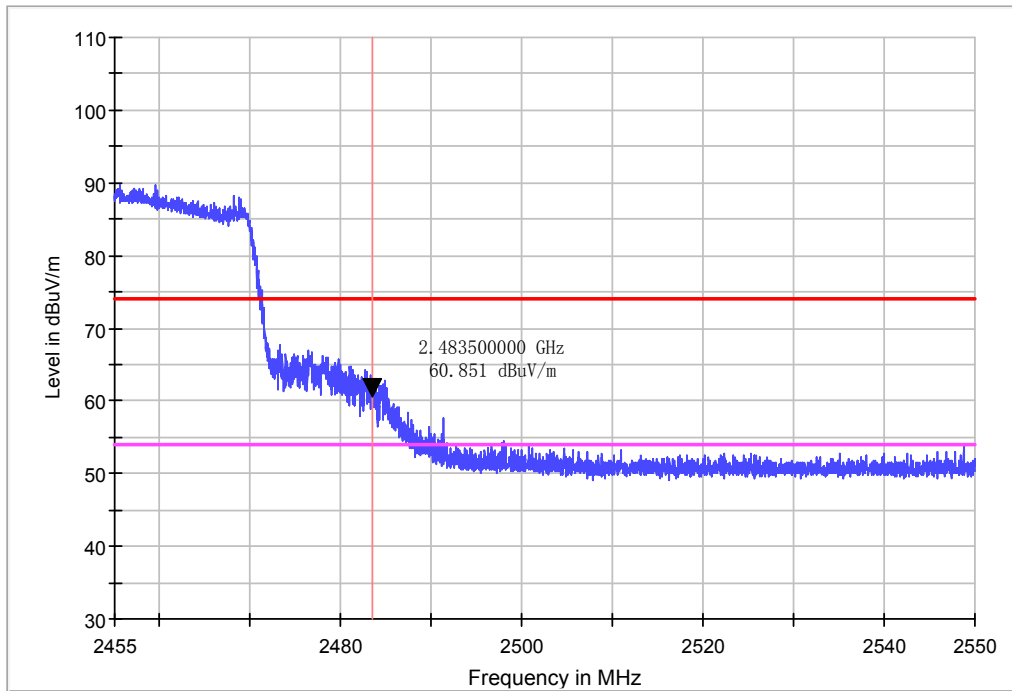
Vertical

Band edge

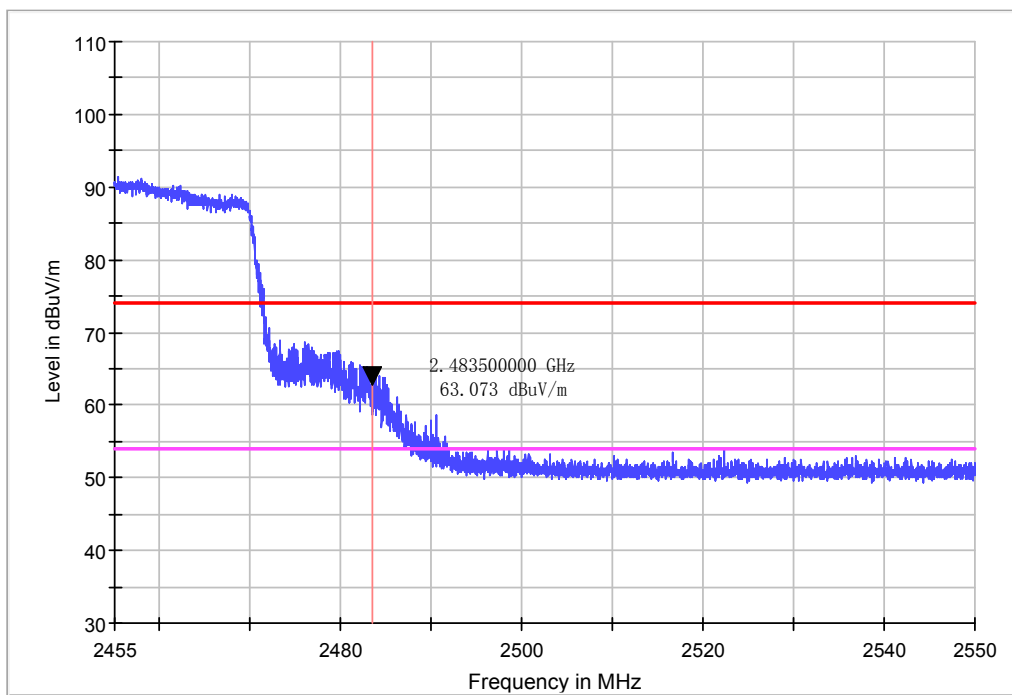
11n HT40

CH9

PK



Horizontal



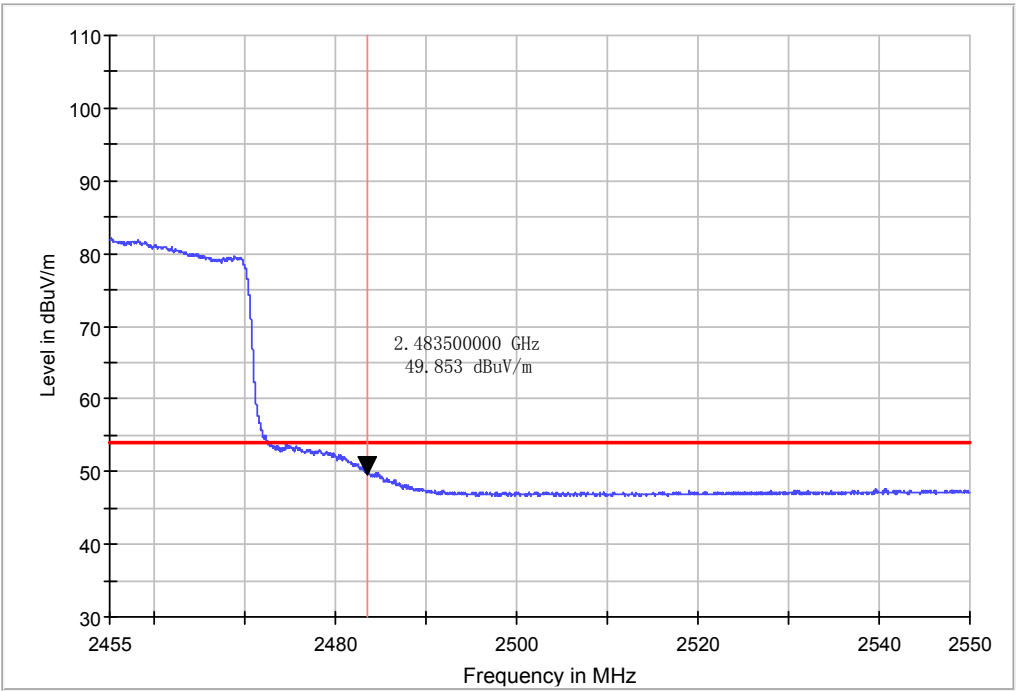
Vertical

Band edge

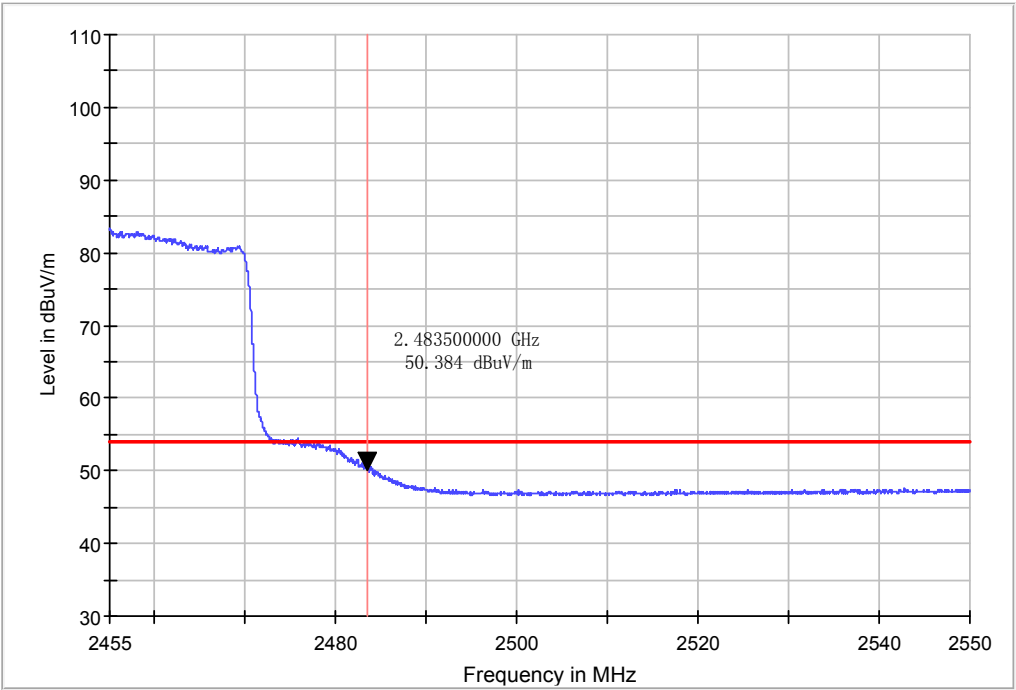
11n HT40

CH9

AV



Horizontal



Vertical

11.ANTENNA REQUIREMENTS

According to Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

The EUT has a built in antenna which is integrated inside the enclosure, this is permanently attached antenna and meets the requirements of this section.

END OF REPORT