

TECHNICAL REPORT



Report No.:  
File reference No.:

TW2010177-02E  
2020-12-15

Applicant: Shenzhen Jingwah Information Technology Co., Ltd.

Product: Laptop

Model No.: NP11A-C, N11250,N11260

Trademark: PACKARD BELL

Test Standards: FCC Part 15.247

Test result: It is herewith confirmed and found to comply with the requirements set up by ANSI C63.10, FCC Part 15.247 for the evaluation of electromagnetic compatibility



Dated: December 15, 2020

**Results appearing herein relate only to the sample tested  
The technical reports is issued errors and omissions exempt and is subject to withdrawal at**

**SHENZHEN TIMEWAY TESTING LABORATORIES**

Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le Village, Nanshan District, Shenzhen, China

Tel (755) 83448688, Fax (755) 83442996, E-Mail:info@timeway-lab.com



## **Special Statement:**

The testing quality ability of our laboratory meet with "Quality Law of People's Republic of China" Clause 19.

The testing quality system of our laboratory meet with ISO/IEC-17025 requirements, which is approved by CNAL. This approval result is accepted by MRA of APLAC.

Our test facility is recognized, certified, or accredited by the following organizations:

### **CNAL-LAB Code: L2292**

The EMC Laboratory has been assessed and in compliance with CNAL/AC01:2002 accreditation criteria for testing Laboratories (identical to ISO/IEC 17025:2005 General Requirements) for the Competence of testing Laboratories.

### **FCC-Registration No.: 744189**

The EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 744189.

### **Industry Canada (IC) —Registration No.:5205A**

The EMC Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 5205A.

### **A2LA (Certification Number:5013.01)**

The EMC Laboratory has been accredited by the American Association for Laboratory Accreditation (A2LA). Certification Number:5013.01

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## Test Report Conclusion

### Content

<b>1.0</b>	<b>General Details</b>	4
1.1	Test Lab Details	4
1.2	Applicant Details	4
1.3	Description of EUT	4
1.4	Submitted Sample	5
1.5	Test Duration	5
1.6	Test Uncertainty	5
1.7	Test By	5
<b>2.0</b>	<b>List of Measurement Equipment</b>	6
<b>3.0</b>	<b>Technical Details</b>	7
3.1	Summary of Test Results	7
3.2	Test Standards	7
<b>4.0</b>	<b>EUT Modification</b>	7
<b>5.0</b>	<b>Power Line Conducted Emission Test</b>	8
5.1	Schematics of the Test	8
5.2	Test Method and Test Procedure	8
5.3	Configuration of the EUT	8
<b>5.4</b>	<b>EUT Operating Condition</b>	9
<b>5.5</b>	<b>Conducted Emission Limit</b>	9
<b>5.6</b>	<b>Test Result</b>	9
<b>6.0</b>	<b>Radiated Emission test</b>	12
6.1	Test Method and Test Procedure	12
6.2	Configuration of the EUT	13
6.3	EUT Operation Condition	13
6.4	Radiated Emission Limit	13
7.0	6dB Bandwidth Measurement Bandwidth	23
8.0	Maximum Peak Output Power	28
9.0	Power Spectral Density Measurement	30
10.0	Out of Band Measurement	35
11.0	Antenna Requirement	42
12.0	FCC ID Label	43
13.0	Photo of Test Setup and EUT View	44

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## 1.0 General Details

### 1.1 Test Lab Details

Name : SHENZHEN TIMEWAY TESTING LABORATORIES.  
Address: Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le Village, Nanshan District, Shenzhen, China  
Telephone: (755) 83448688  
Fax: (755) 83442996  
Site Listed with Federal Communications commission (FCC)  
Registration Number: 744189  
For 3m Anechoic Chamber  
Site Listed with Industry Canada of Ottawa, Canada  
Registration Number: IC: 5205A  
For 3m Anechoic Chamber

### 1.2 Applicant Details

Applicant: Shenzhen Jingwah Information Technology Co., Ltd.  
Address: 6F, Bldg.4, Jinghua Square, No. 168, Zhenzhong Rd., Fuqiang Community, Huaqiangbei, Futian District, Shenzhen  
Telephone: 0755-84688843  
Fax: --

### 1.3 Description of EUT

Product: Laptop  
Manufacturer: Shenzhen Jingwah Information Technology Co., Ltd.  
Address: 6F, Bldg.4, Jinghua Square, No. 168, Zhenzhong Rd., Fuqiang Community, Huaqiangbei, Futian District, Shenzhen  
Brand Name: PACKARD BELL  
Additional Brand Name: N/A  
Model Number: NP11A-C, N11250, N11260  
Test Model No.: NP11A-C

Remark: These models are identical in interior structure, electrical circuits and components, different model names for the marketing requirement.

Hardware Version: EM\_IA118\_200B\_ENE\_V1.0R

Software Version: windows

Serial No.: 112502011000001~112502011005080

Type of Modulation GFSK (Bluetooth BLE)

Frequency range 2402-2480MHz

Frequency Selection By software

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Channel Number 40  
Test Voltage: DC12V, 2A  
Power Adapter Model: FJ-SW1202000U;  
Input: 100-240V~50/60Hz 0.6A Max; Output: DC12V, 2000mA

1.4 Submitted Sample: 1 Samples

1.5 Test Duration

2020-10-27 to 2020-12-15

1.6 Test Uncertainty

Conducted Emissions Uncertainty =3.6dB

Radiated Emissions below 1GHz Uncertainty =4.7dB

Radiated Emissions above 1GHz Uncertainty =6.0dB

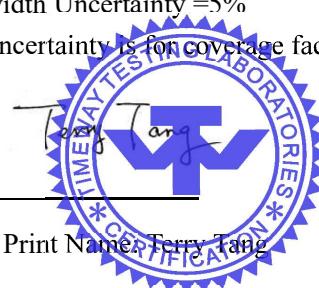
Conducted Power Uncertainty =6.0dB

Occupied Channel Bandwidth Uncertainty =5%

Note: The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.

1.7 Test Engineer

The sample tested by \_\_\_\_\_



Print Name: Terry Tang

Remark:

Bluetooth Test Software:

Name: RTLBTAPP

Power Setting: Level 3

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2.0 Test Equipment					
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date
ESPI Test Receiver	R&S	ESPI 3	100379	2020-06-23	2021-06-22
TWO Line-V-NETW	R&S	EZH3-Z5	100294	2020-06-23	2021-06-22
TWO Line-V-NETW	R&S	EZH3-Z5	100253	2020-06-23	2021-06-22
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2020-06-23	2021-06-22
Loop Antenna	EMCO	6507	00078608	2020-06-23	2021-06-22
Spectrum	R&S	FSIQ26	100292	2020-06-23	2021-06-22
Horn Antenna	A-INFO	LB-180400-KF	J211060660	2020-06-23	2021-06-22
Horn Antenna	R&S	BBHA 9120D	9120D-631	2018-07-09	2021-07-08
Power meter	Anritsu	ML2487A	6K00003613	2020-06-23	2021-06-22
Power sensor	Anritsu	MA2491A	32263	2020-06-23	2021-06-22
Bilog Antenna	Schwarebeck	VULB9163	9163/340	2018-07-04	2021-07-03
9*6*6 Anechoic	--	--	N/A	2018-02-07	2021-02-06
EMI Test Receiver	RS	ESVB	826156/011	2020-06-23	2021-06-22
EMI Test Receiver	RS	ESH3	860904/006	2020-06-23	2021-06-22
Spectrum	HP/Agilent	ESA-L1500A	US37451154	2020-06-23	2021-06-22
Spectrum	HP/Agilent	E4407B	MY50441392	2020-06-23	2021-06-22
Spectrum	RS	FSP	1164.4391.38	2020-01-18	2021-01-17
RF Cable	Zhengdi	ZT26-NJ-NJ-8 M/FA	--	2020-06-23	2021-06-22
RF Cable	Zhengdi	7m	--	2020-06-23	2021-06-22
RF Switch	EM	EMSW18	060391	2020-06-23	2021-06-22
Pre-Amplifier	Schwarebeck	BBV9743	#218	2020-06-23	2021-06-22
Pre-Amplifier	HP/Agilent	8449B	3008A00160	2020-06-23	2021-06-22
LISN	SCHAFFNER	NNB42	00012	2020-01-07	2021-01-06

## 2.2 Automation Test Software

### For Conducted Emission Test

Name	Version
EZ-EMC	Ver.EMC-CON 3A1.1

### For Radiated Emissions

Name	Version
EMI Test Software BL410-EV18.91	V18.905
EMI Test Software BL410-EV18.806 High Frequency	V18.06

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### 3.0 Technical Details

#### 3.1 Summary of test results

<b>The EUT has been tested according to the following specifications:</b>			
<b>Standard</b>	<b>Test Type</b>	<b>Result</b>	<b>Notes</b>
<b>FCC Part 15, Paragraph 15.107 &amp; 15.207</b>	<b>Conducted Emission Test</b>	<b>PASS</b>	<b>Complies</b>
<b>FCC Part 15 Subpart C Paragraph 15.247(a)(2) Limit</b>	<b>Spectrum bandwidth of a Orthogonal Frequency Division Multiplex System Limit: 6dB bandwidth&gt;500kHz</b>	<b>PASS</b>	<b>Complies</b>
<b>FCC Part 15, Paragraph 15.247(b)</b>	<b>Maximum peak output power Limit: max. 30dBm</b>	<b>PASS</b>	<b>Complies</b>
<b>FCC Part 15, Paragraph 15.109,15.205 &amp; 15.209</b>	<b>Transmitter Radiated Emission Limit: Table 15.209</b>	<b>PASS</b>	<b>Complies</b>
<b>FCC Part 15, Paragraph 15.247(e)</b>	<b>Power Spectral Density Limit: max. 8dBm</b>	<b>PASS</b>	<b>Complies</b>
<b>FCC Part 15, Paragraph 15.247(d)</b>	<b>Out of Band Emission and Restricted Band Radiation Limit: 20dB less than peak value of fundamental frequency Restricted band limit: Table 15.209</b>	<b>PASS</b>	<b>Complies</b>

#### 3.2 Test Standards

**FCC Part 15 Subpart & Subpart C, Paragraph 15.247**

#### 4.0 EUT Modification

**No modification by SHENZHEN TIMEWAY TESTING LABORATORIES.**

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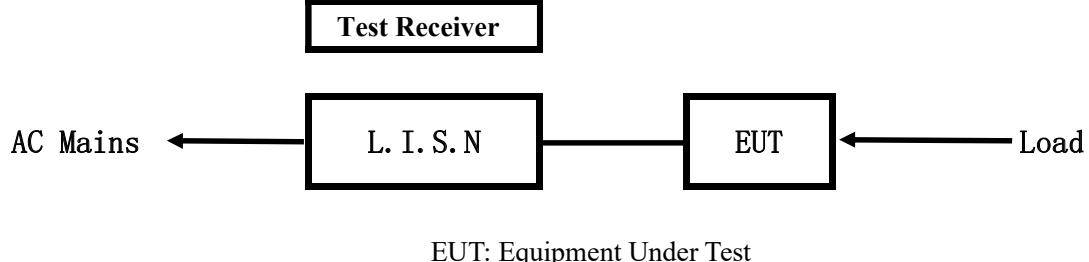
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## 5. Power Line Conducted Emission Test

### 5.1 Schematics of the test

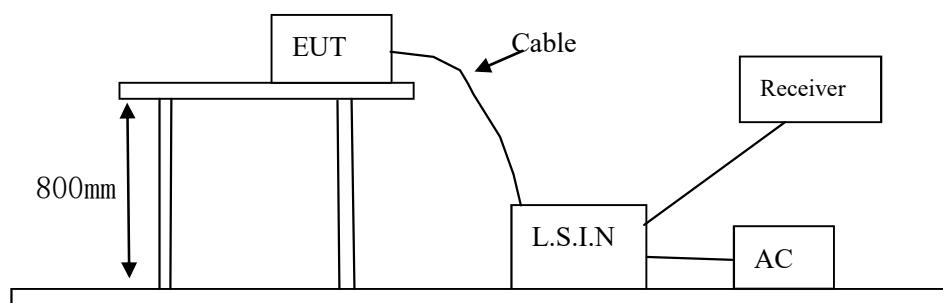


### 5.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.10-2013. The Frequency spectrum From 0.15MHz to 30MHz was investigated. The LISN used was 50ohm/50uH as specified by section 5.1 of ANSI C63.10 –2013.

Test Voltage: 120V~, 60Hz

Block diagram of Test setup



### 5.3 Configuration of The EUT

The EUT was configured according to ANSI C63.10-2013. All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below.

#### A. EUT

Device	Manufacturer	Model	FCC ID
Laptop	Shenzhen Jingwah Information Technology Co., Ltd.	NP11A-C, N11250, N11260	RBD-NP11AC

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B. Internal Device

Device	Manufacturer	Model	Rating

C. Peripherals

Device	Manufacturer	Model	Rating

5.4 EUT Operating Condition

Operating condition is according to ANSI C63.10-2013.

A Setup the EUT and simulators as shown on follow  
B Enable AF signal and confirm EUT active to normal condition

5.5 Power line conducted Emission Limit according to Paragraph 15.207

Frequency (MHz)	Class B Limits (dB $\mu$ V)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66.0~56.0*	56.0~46.0*
0.50 ~ 5.00	56.0	46.0
5.00 ~ 30.00	60.0	50.0

Notes: 1. \*Decreasing linearly with logarithm of frequency.  
2. The tighter limit shall apply at the transition frequencies

5.6 Test Results

The frequency spectrum from 0.15MHz to 30MHz was investigated. All reading are quasi-peak values with a resolution bandwidth of 9kHz.

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**A: Conducted Emission on Live Terminal (150kHz to 30MHz)**

**EUT Operating Environment**

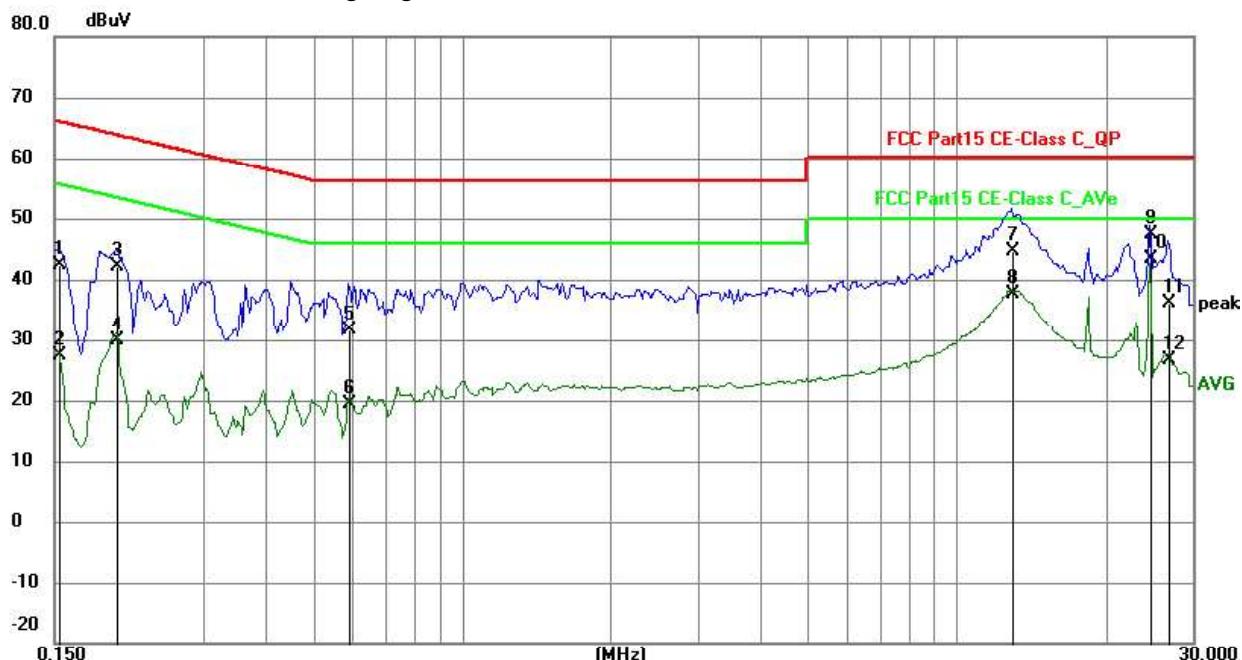
Temperature: 26°C      Humidity: 65%RH      Atmospheric Pressure: 101 KPa

**EUT set Condition: Keep Bluetooth Transmitting**

**Equipment Level: Class B**

**Results: PASS**

Please refer to following diagram for individual



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1539	32.65	9.78	42.43	65.79	-23.36	QP	P
2	0.1539	17.66	9.78	27.44	55.79	-28.35	AVG	P
3	0.2007	32.42	9.75	42.17	63.58	-21.41	QP	P
4	0.2007	20.24	9.75	29.99	53.58	-23.59	AVG	P
5	0.5907	21.86	9.77	31.63	56.00	-24.37	QP	P
6	0.5907	9.58	9.77	19.35	46.00	-26.65	AVG	P
7	12.9216	34.39	10.29	44.68	60.00	-15.32	QP	P
8	12.9216	27.44	10.29	37.73	50.00	-12.27	AVG	P
9	24.5748	36.44	10.96	47.40	60.00	-12.60	QP	P
10	24.5748	32.33	10.96	43.29	50.00	-6.71	AVG	P
11	26.7861	24.99	11.10	36.09	60.00	-23.91	QP	P
12	26.7861	15.43	11.10	26.53	50.00	-23.47	AVG	P

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**B: Conducted Emission on Neutral Terminal (150kHz to 30MHz)**

**EUT Operating Environment**

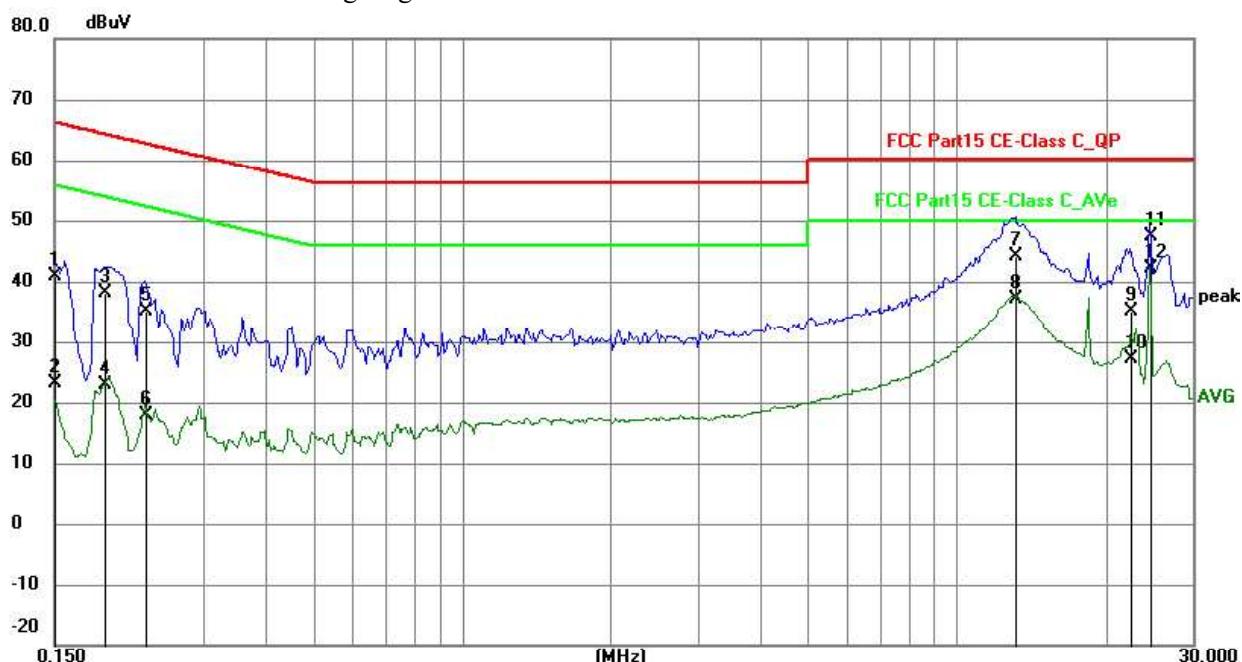
Temperature: 26°C      Humidity: 65%RH      Atmospheric Pressure: 101 KPa

**EUT set Condition: Keep Bluetooth Transmitting**

**Equipment Level: Class B**

**Results: Pass**

Please refer to following diagram for individual



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1500	31.01	9.79	40.80	66.00	-25.20	QP	P
2	0.1500	13.39	9.79	23.18	56.00	-32.82	AVG	P
3	0.1890	28.37	9.76	38.13	64.08	-25.95	QP	P
4	0.1890	13.10	9.76	22.86	54.08	-31.22	AVG	P
5	0.2280	25.34	9.75	35.09	62.52	-27.43	QP	P
6	0.2280	8.13	9.75	17.88	52.52	-34.64	AVG	P
7	13.1322	33.81	10.30	44.11	60.00	-15.89	QP	P
8	13.1322	26.92	10.30	37.22	50.00	-12.78	AVG	P
9	22.4961	24.41	10.83	35.24	60.00	-24.76	QP	P
10	22.4961	16.24	10.83	27.07	50.00	-22.93	AVG	P
11	24.5748	36.46	10.96	47.42	60.00	-12.58	QP	P
12	24.5748	31.16	10.96	42.12	50.00	-7.88	AVG	P

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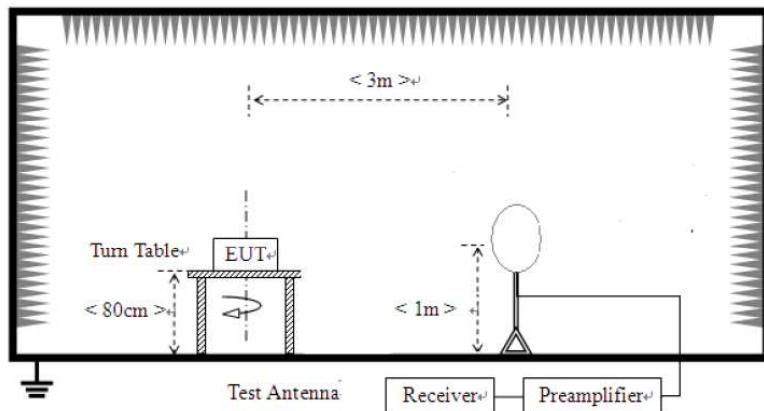
## 6 Radiated Emission Test

### 6.1 Test Method and test Procedure:

- (1) The EUT was tested according to ANSI C63.10-2013. The radiated test was performed at Timeway EMC Laboratory. This site is on file with the FCC laboratory division, Registration No.744189
- (2) The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up is according to ANSI C63.10-2013.
- (3) The frequency spectrum from 30 MHz to 25 GHz was investigated. All readings from 30 MHz to 1 GHz are Quasi-peak values with a resolution bandwidth of 120 kHz. For measurement above 1GHz, peak values with RBW=1MHz VBW=3MHz and PK detector. AV value with RBW=1MHz, VBW=3MHz and RMS detector. Measurements were made at 3 meters.
- (4) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (5) Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance is with all installation combinations. All data was recorded in the peak detection mode. Quasi-peak readings was performed only when an emission was found to be marginal (within -4 dB of specification limit), and are distinguished with a “QP” in the data table.
- (6) The antenna polarization : Vertical polarization and Horizontal polarization.

### Block diagram of Test setup

For radiated emissions from 9kHz to 30MHz



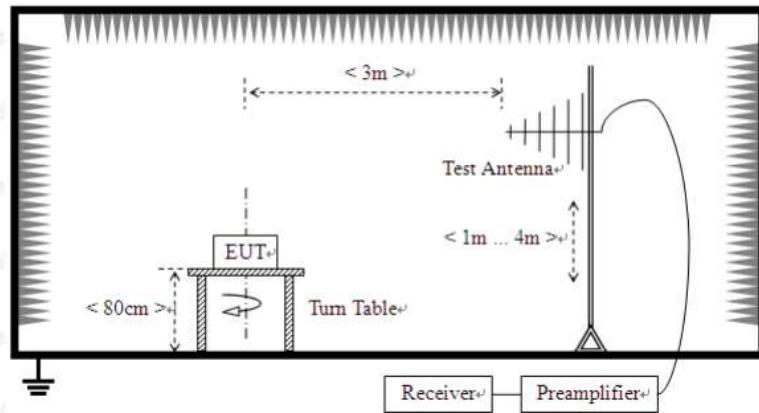
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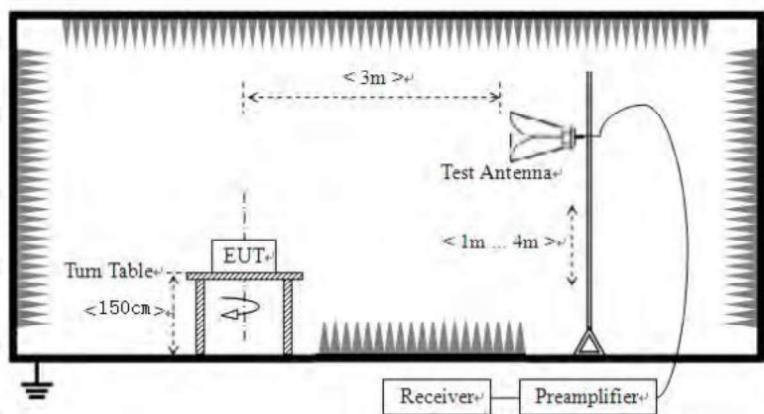
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For radiated emissions from 30MHz to 1GHz



For radiated emissions above 1GHz



## 6.2 Configuration of The EUT

Same as section 5.3 of this report

## 6.3 EUT Operating Condition

Same as section 5.4 of this report.

## 6.4 Radiated Emission Limit

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below:

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**Frequencies in restricted band are complied to limit on Paragraph 15.209 and 15.109**

Frequency Range (MHz)	Distance (m)	Field strength (dB $\mu$ V/m)
30-88	3	40.0
88-216	3	43.5
216-960	3	46.0
Above 960	3	54.0

Note:

1. RF Voltage (dB $\mu$ V) =  $20 \log_{10}$  RF Voltage (uV)
2. In the Above Table, the higher limit applies at the band edges.
3. Distance refers to the distance in meters between the measuring instrument antenna and the EUT

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### Test result

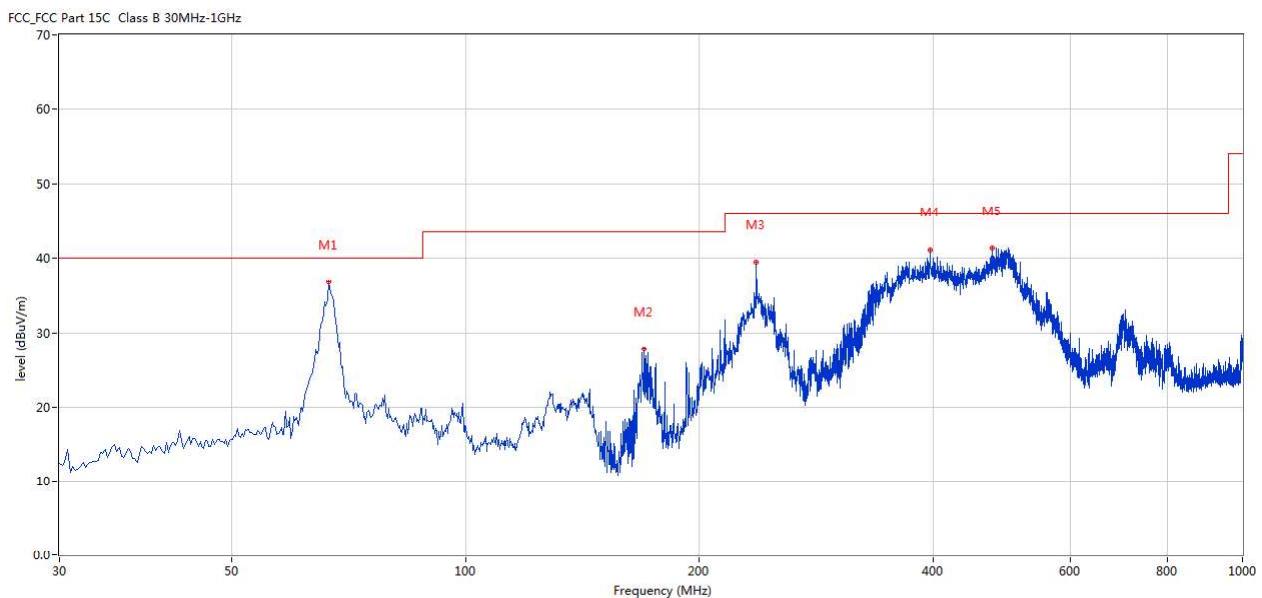
### General Radiated Emission Data and Harmonics Radiated Emission Data

#### Radiated Emission In Horizontal (30MHz---1000MHz)

EUT set Condition: **Keep Bluetooth Transmitting**

**Results:** **Pass**

Test Figure:



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	66.608	36.82	-14.16	40.0	-3.18	Peak	91.00	200	Horizontal	Pass
2	169.645	27.81	-16.06	43.5	-15.69	Peak	0.00	200	Horizontal	Pass
3	236.801	39.50	-12.34	46.0	-6.50	Peak	97.00	100	Horizontal	Pass
4	396.083	41.15	-8.72	46.0	-4.85	Peak	93.00	100	Horizontal	Pass
5	476.816	41.44	-7.46	46.0	-4.56	Peak	336.00	200	Horizontal	Pass

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### Test result

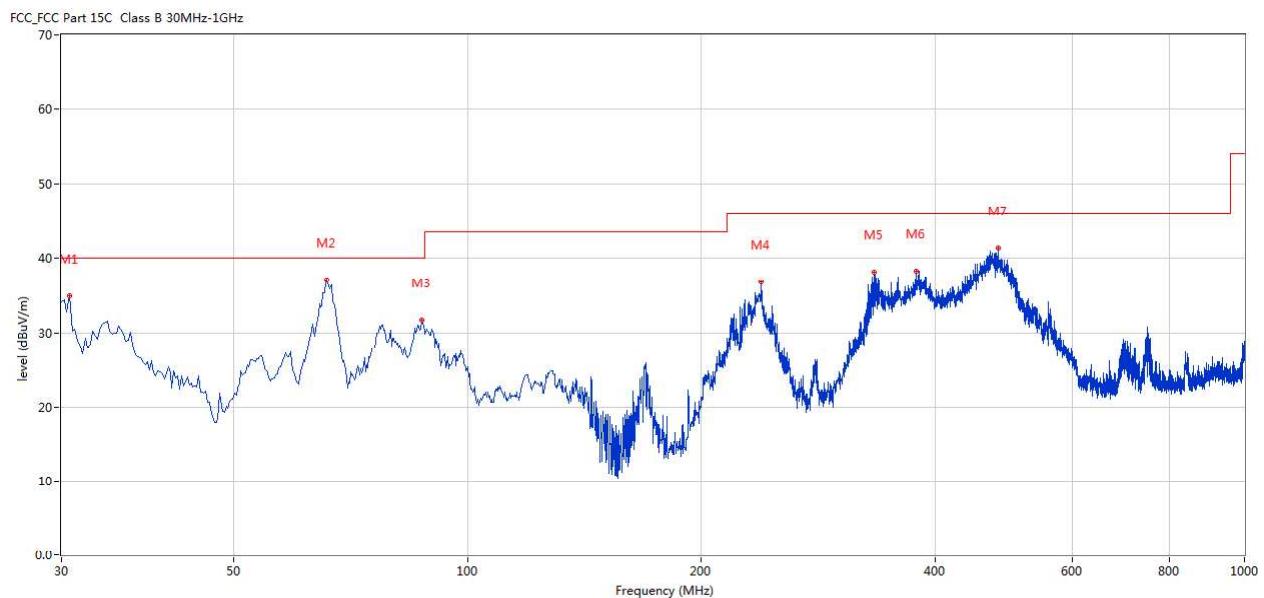
### General Radiated Emission Data and Harmonics Radiated Emission Data

#### Radiated Emission In Vertical (30MHz---1000MHz)

EUT set Condition: **Keep Transmitting**

**Results:** **Pass**

Test Figure:



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
1	30.727	34.94	-14.51	40.0	-5.06	Peak	353.00	100	Vertical	Pass
2	65.881	37.09	-13.87	40.0	-2.91	Peak	360.00	200	Vertical	Pass
3	87.216	31.74	-15.78	40.0	-8.26	Peak	17.00	100	Vertical	Pass
4	238.740	36.82	-12.43	46.0	-9.18	Peak	360.00	200	Vertical	Pass
5	334.019	38.11	-10.04	46.0	-7.89	Peak	113.00	200	Vertical	Pass
6	378.143	38.28	-9.32	46.0	-7.72	Peak	360.00	200	Vertical	Pass
7	482.149	41.41	-7.35	46.0	-4.59	Peak	18.00	200	Vertical	Pass

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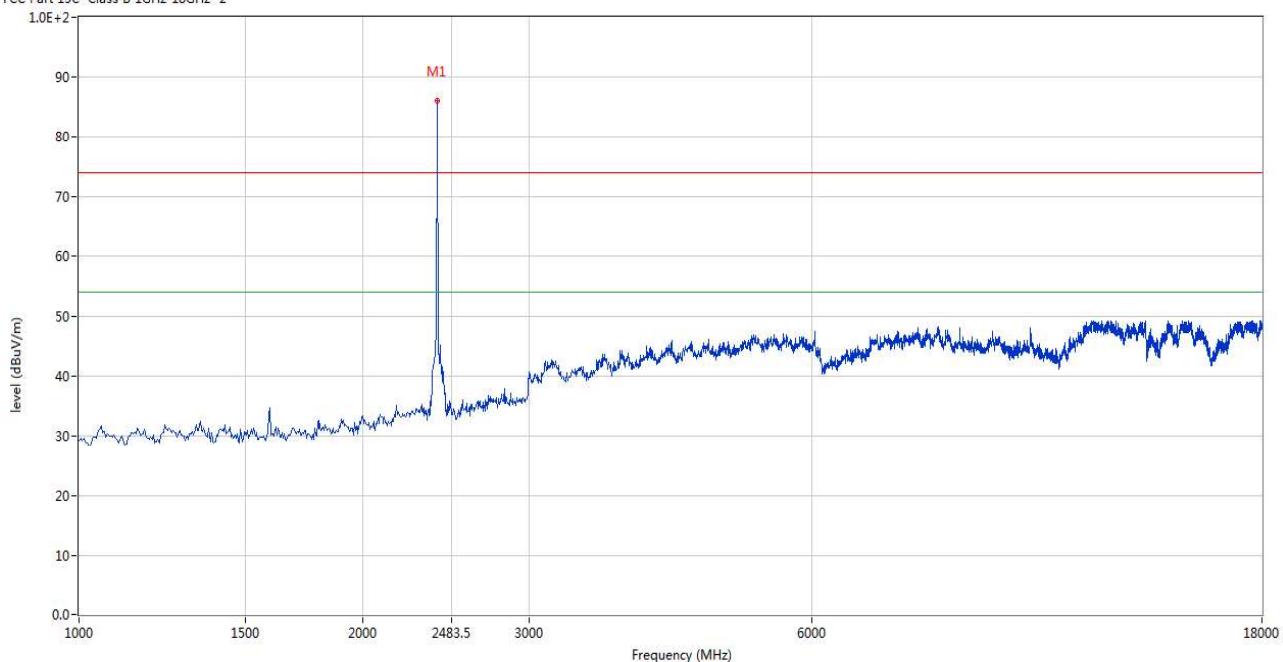
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Please refer to the following test plots for details:

**Low Channel: Vertical**

FCC Part 15C Class B 1GHz-18GHz -2



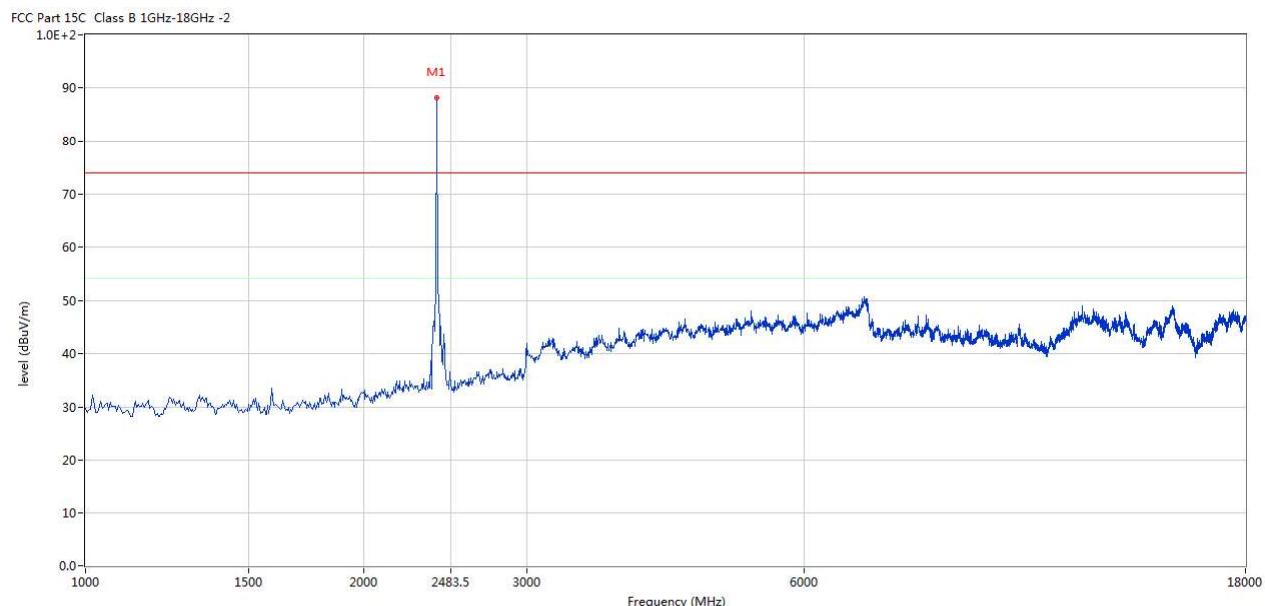
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### Low Channel : Horizontal



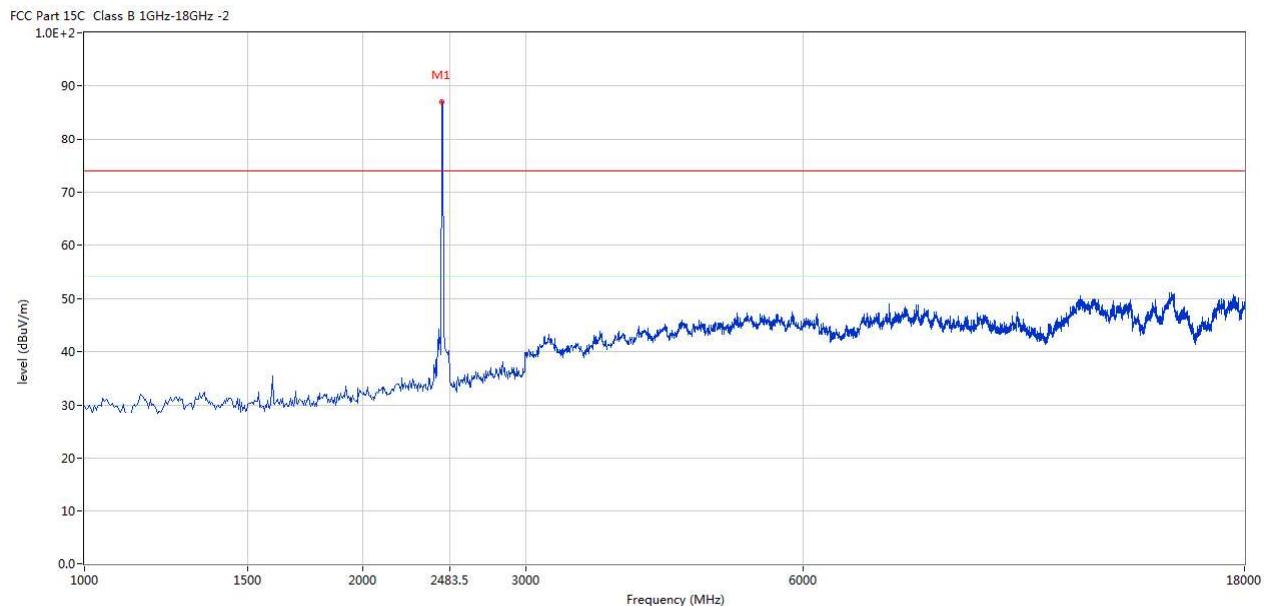
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### Middle Channel : Vertical



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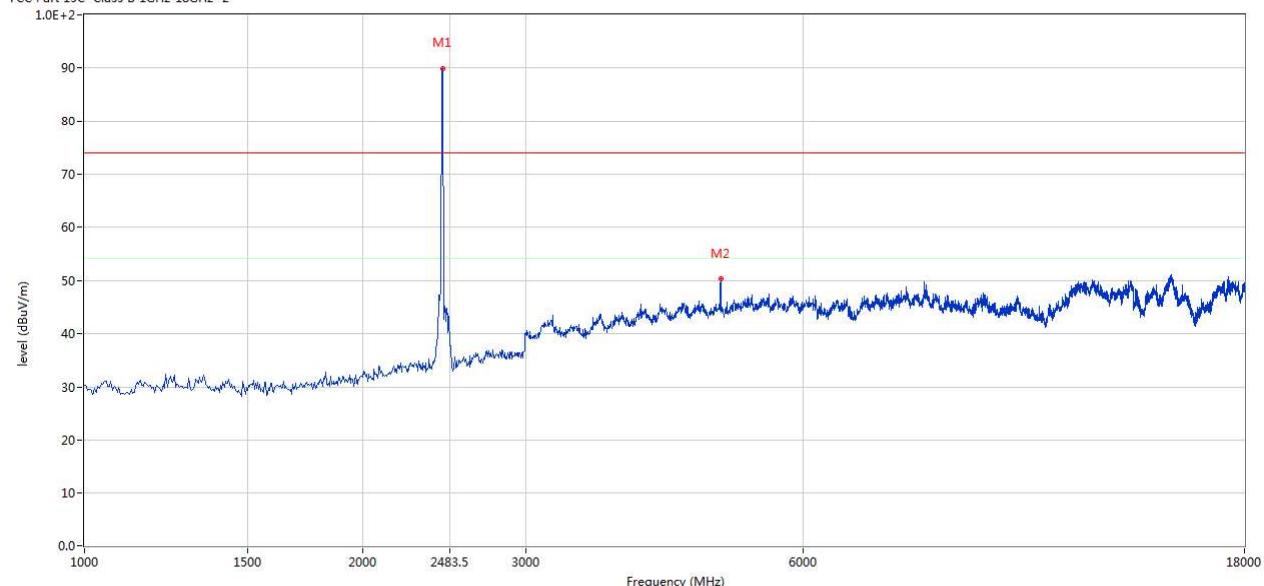
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### Middle Channel : Horizontal

FCC Part 15C Class B 1GHz-18GHz -2



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
2	4880.250	50.23	3.20	54.0	-3.77	Peak	314.00	100	Horizontal	Pass

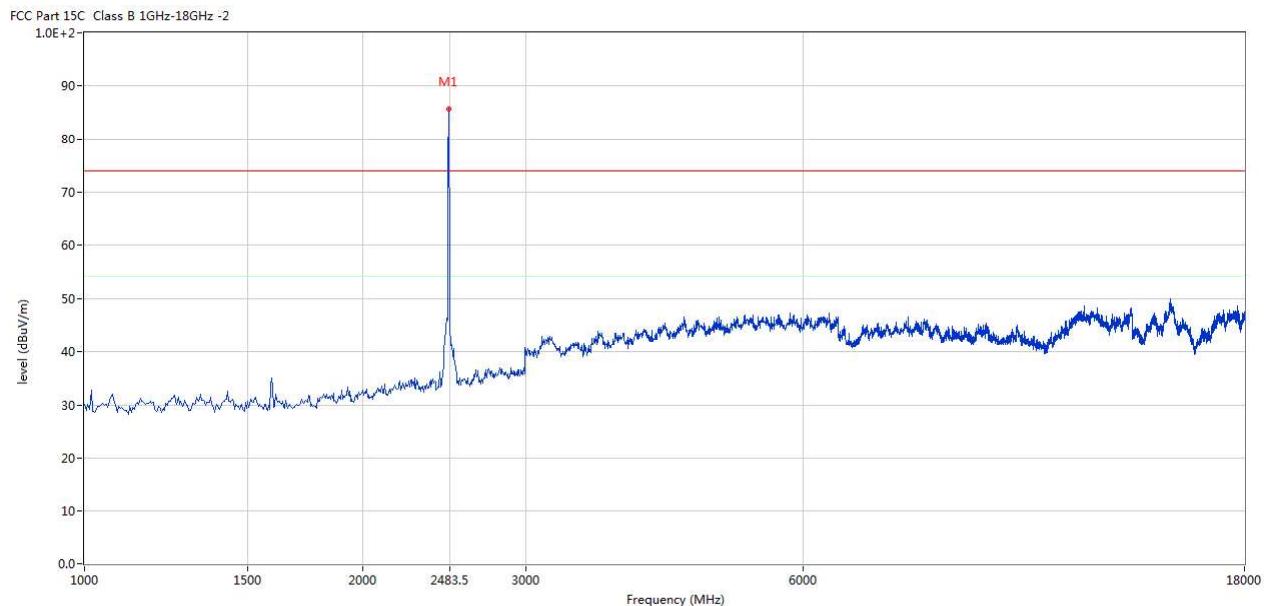
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### High Channel : Vertical



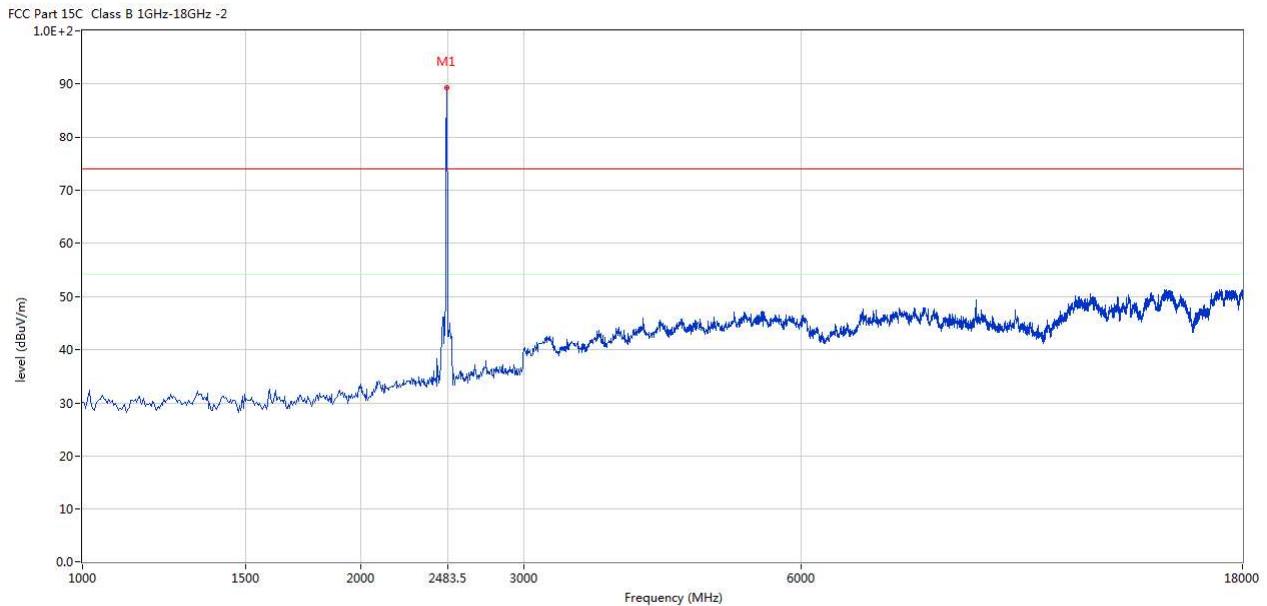
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### High Channel : Horizontal



Note:

1. Result Level = Reading + Factor
2. Factor= AF + Cable Loss- Preamp
3. Margin = Result- Limit
4. For radiated Emissions from 18-25GHz and below 30MHz, it is only the floor noise.
5. The peak value less than the AV limit, no necessary to take down the AV measurement result.

The report refers only to the sample tested and does not apply to the bulk.

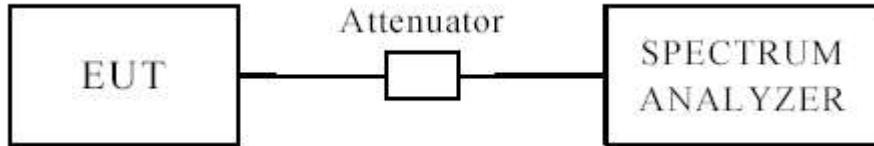
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## 7.0 6dB Bandwidth Measurement

### 7.1 Test Setup



### 7.2 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is >500 kHz

### 7.3 Test Procedure

1. Set resolution bandwidth (RBW) = 100 kHz
2. Set the video bandwidth (VBW)  $\geq 3 \times$  RBW.
3. Detector = Peak.
4. Trace mode = max hold.
5. Sweep = auto couple.
6. Allow the trace to stabilize.
7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

### 7.4 Test Result

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## 6dB BW

EUT		Laptop	Model	NP11A-C
Mode		Keep Transmitting	Test Voltage	DC7.6V
Temperature		24 deg. C,	Humidity	56% RH
Channel	Channel Frequency (MHz)	6 dB Bandwidth (kHz)	Minimum Limit (MHz)	Pass/ Fail
Low	2402	553	0.5	Pass
Middle	2440	553	0.5	Pass
High	2480	559	0.5	Pass

The report refers only to the sample tested and does not apply to the bulk.

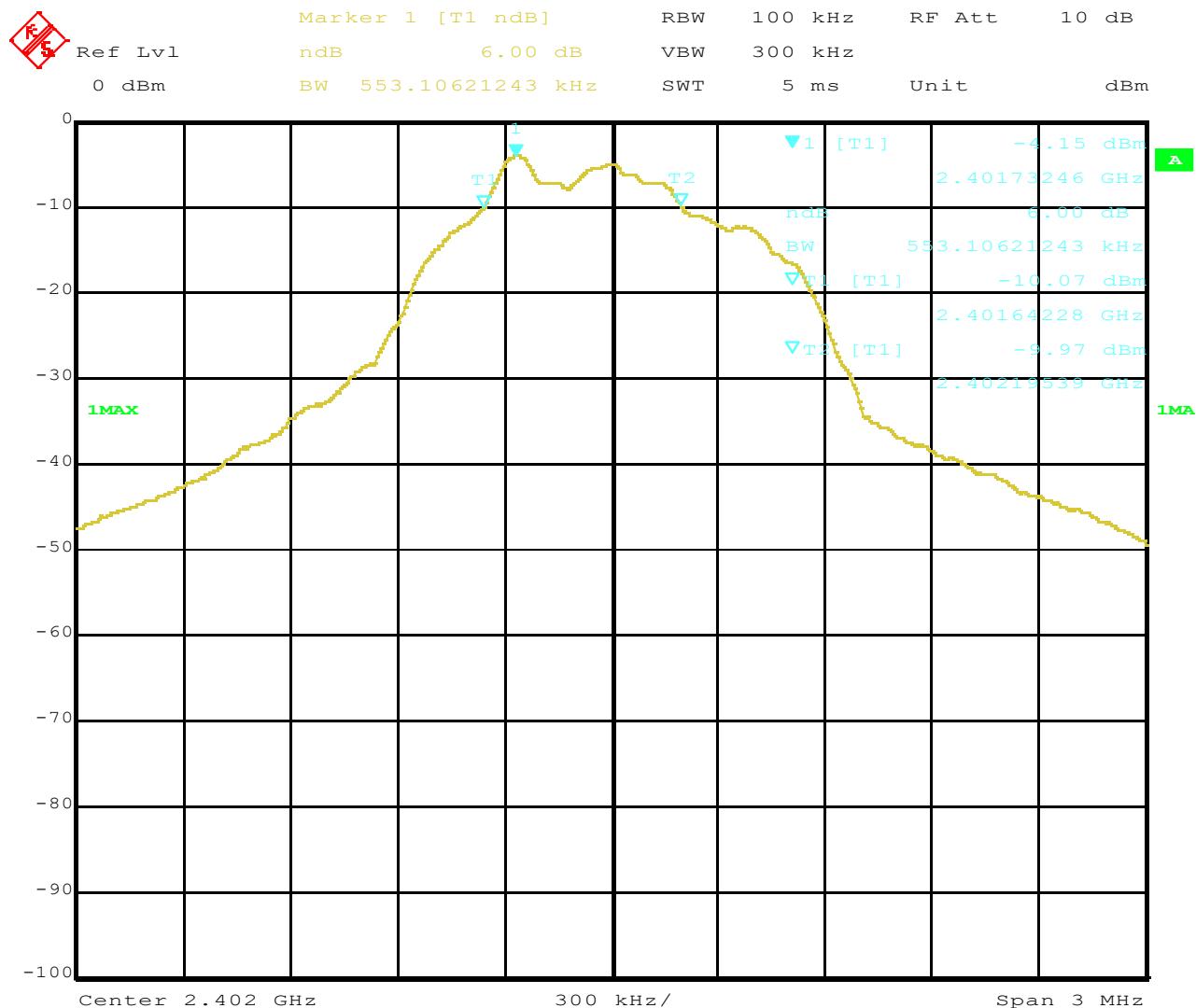
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### Test Figure:

## 1. Condition: Low Channel



Date: 26.NOV.2020 16:40:41

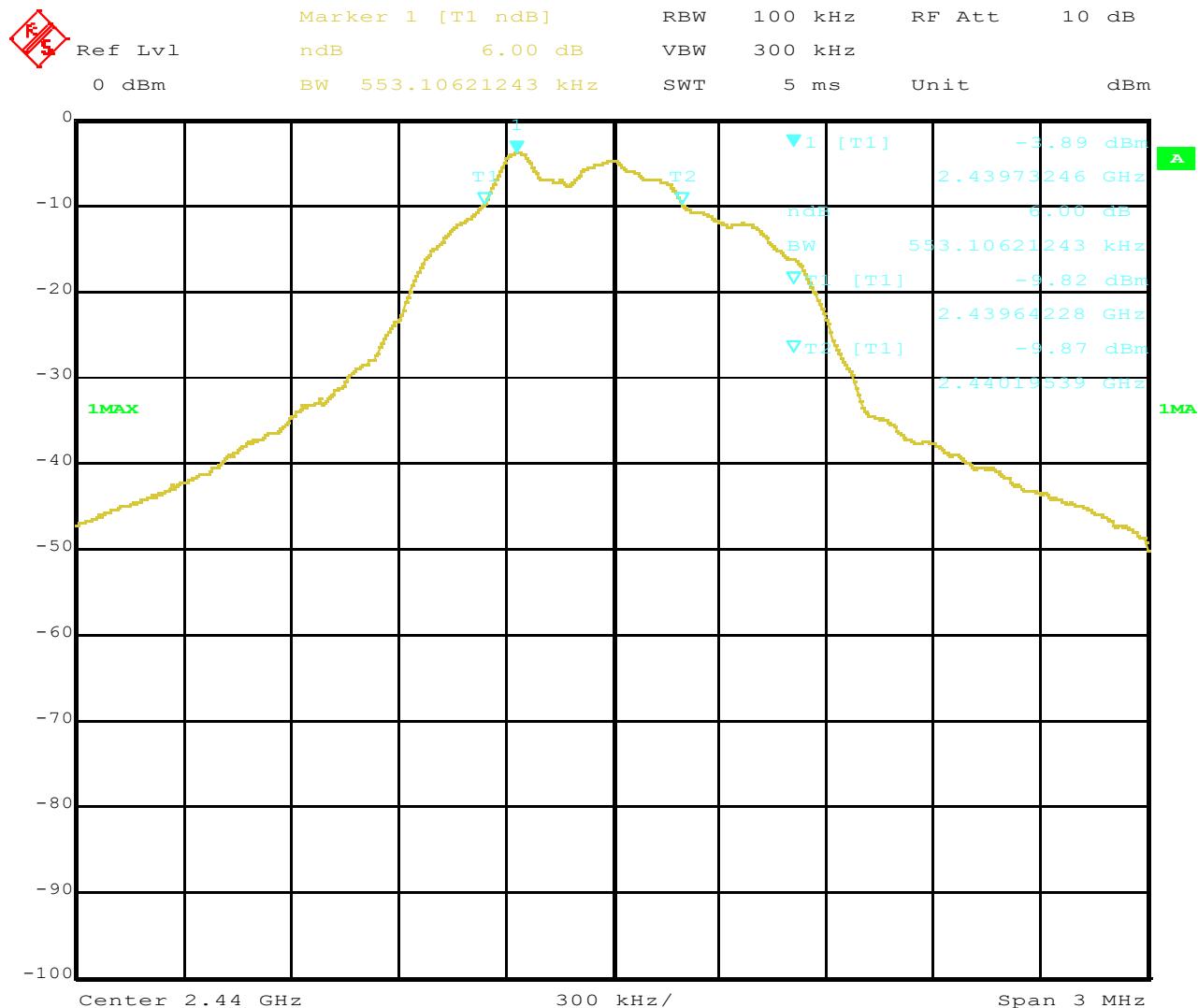
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## 2. Condition: Middle Channel



Date: 26.NOV.2020 16:41:32

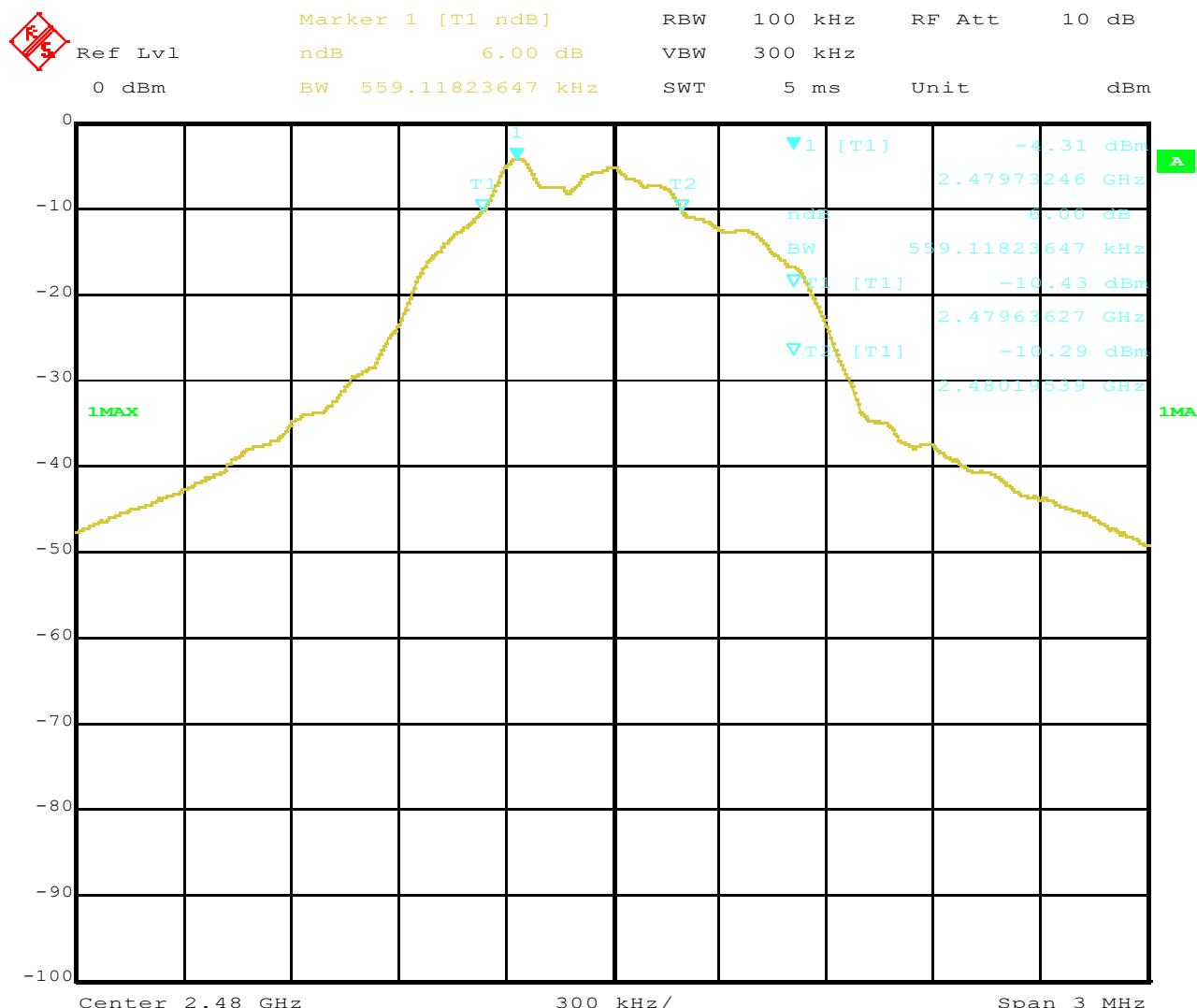
The report refers only to the sample tested and does not apply to the bulk

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### 3. High Channel



Date: 26.NOV.2020 16:42:22

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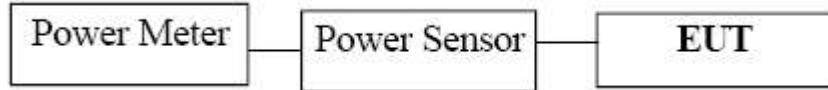
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## 8. Maximum Output Power

### 8.1 Test Setup



### 8.2 Limits of Maximum Output Power

The Maximum Output Power Measurement is 30dBm.

### 8.3 Test Procedure

The RF power output was measured with a Power meter connected to the RF Antenna connector (conducted measurement) while EUT was operating in transmit mode at the appropriate centre frequency.

**Note: the Peak power were measured.**

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#### 8.4 Test Results

EUT		Laptop	Model	NP11A-C	
Mode		Keep Transmitting	Test Voltage	DC7.6V	
Temperature		24 deg. C,	Humidity	56% RH	
Channel	Channel Frequency (MHz)	Max. Power Output (dBm)		Peak Power Limit (dBm)	Pass/ Fail
		Peak			
Low	2402	-3.48		30	Pass
Middle	2440	-3.20		30	Pass
High	2480	-3.72		30	Pass

Note: 1. the result basic equation calculation as follow:

$$\text{Max. Power Output} = \text{Power Reading} + \text{Cable loss} + \text{Attenuator}$$

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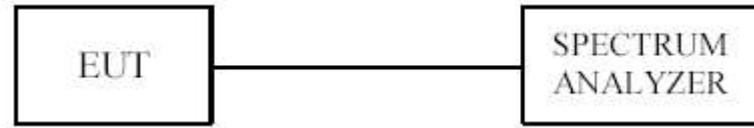
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## 9. Power Spectral Density Measurement

### 9.1 Test Setup



### 9.2 Limits of Power Spectral Density Measurement

The Maximum Power Spectral Density Measurement is 8dBm/3kHz.

### 9.3 Test Procedure

1. Use this procedure when the maximum peak conducted output power in the fundamental emission is used to demonstrate compliance.
2. Set the RBW = 10 kHz.
3. Set the VBW  $\geq$  30 kHz.
4. Set the span to 1.5 times the DTS channel bandwidth.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.
11. The resulting peak PSD level must be  $\leq$  8 dBm/3kHz.

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#### 9.4 Test Result

EUT		Laptop		Model		NP11A-C
Mode		Keep Transmitting		Test Voltage		DC7.6V
Temperature		24 deg. C,		Humidity		56% RH
Channel	Peak Power Reading (dBm)	Cable Loss (dB)	Final Power Spectral Density (dBm/10kHz)		Maximum Limit (dBm/3kHz)	Pass/ Fail
Low	-14.63	0.2	-14.43		8	Pass
Middle	-14.37	0.2	-14.17		8	Pass
High	-14.78	0.2	-14.58		8	Pass

Note: The result basic equation calculation as follow:

Peak Power Output = Peak Power Reading + Cable loss

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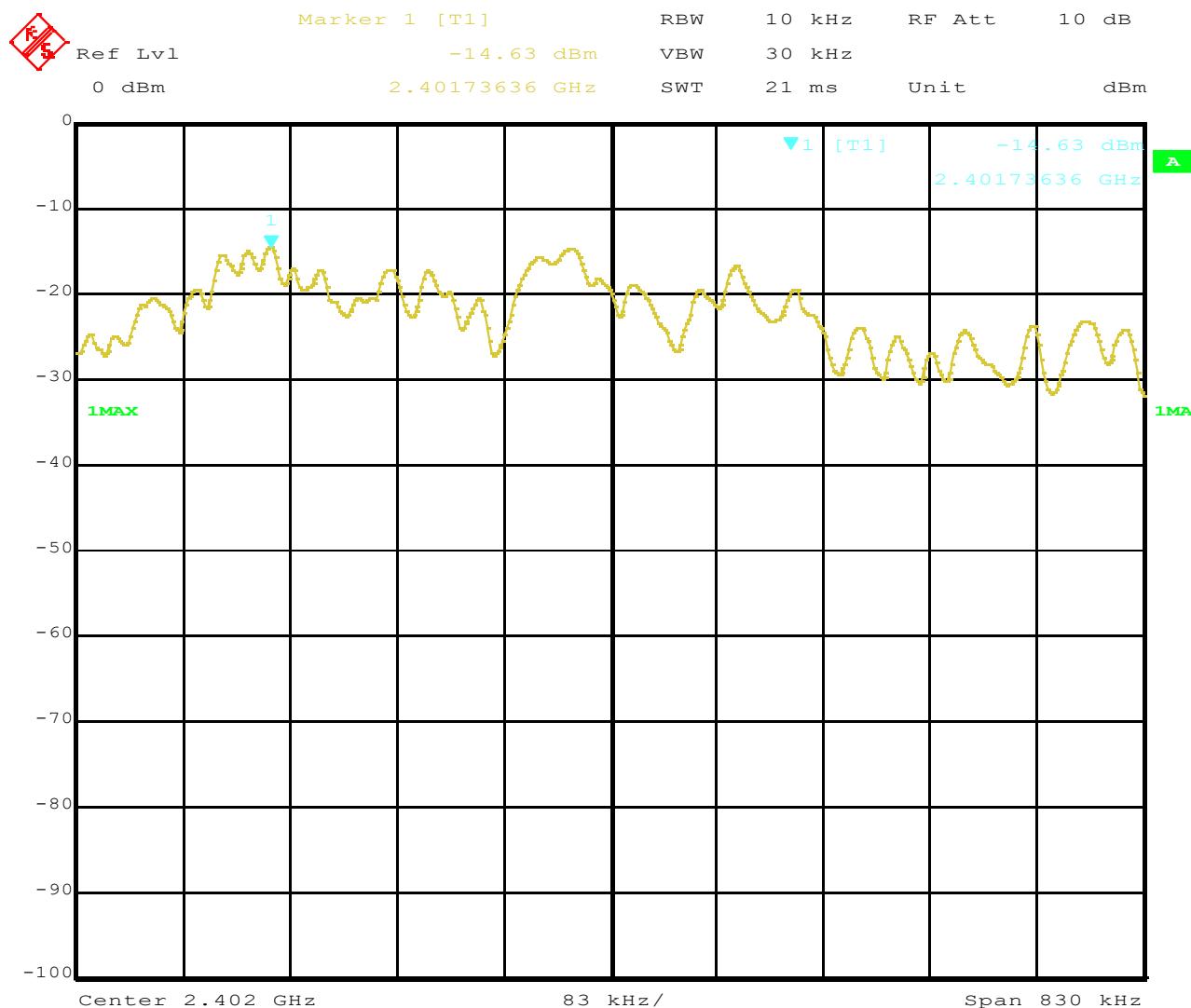
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Test Figure:

### 1. Condition: Low Channel



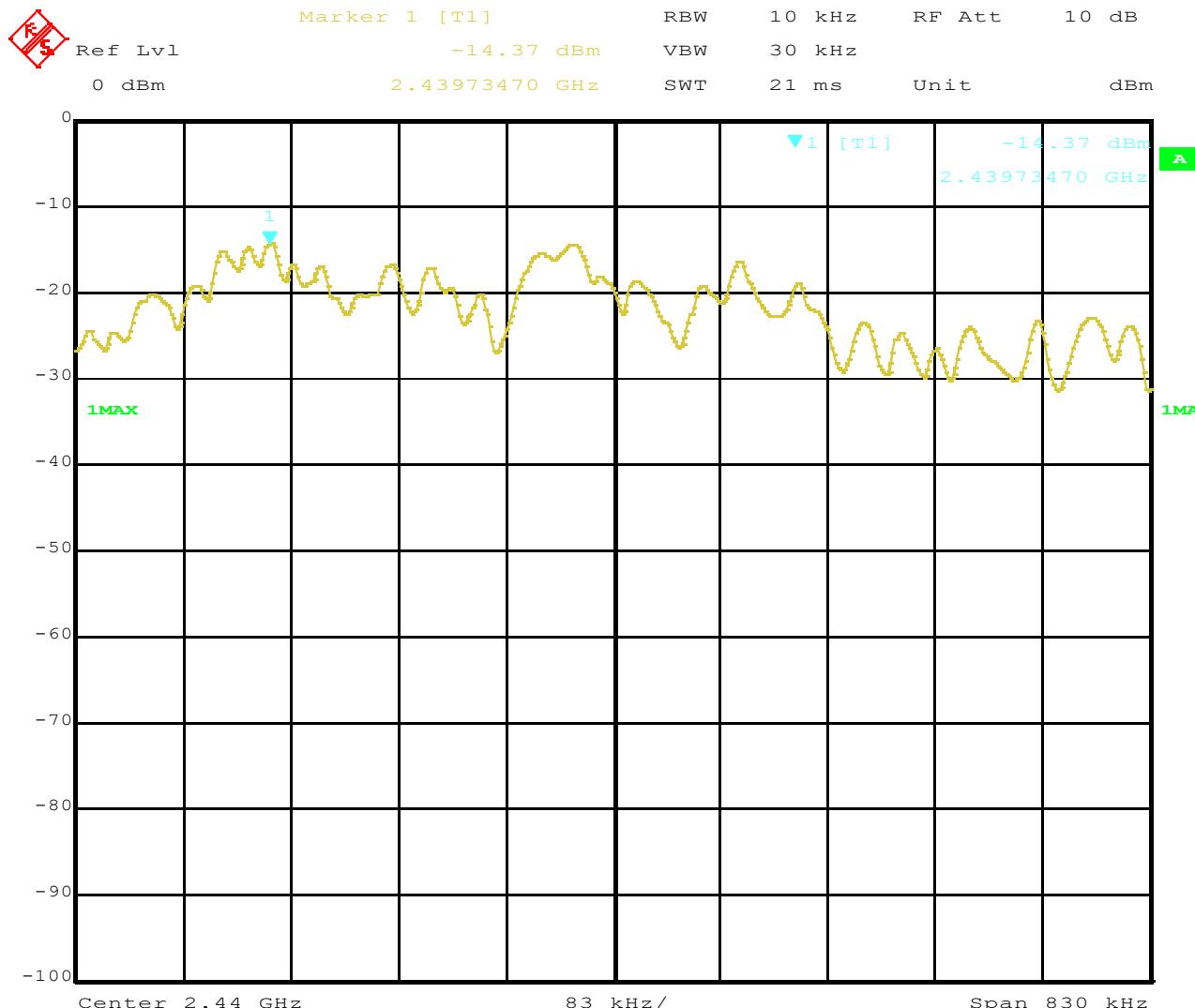
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## 2. Condition: Middle Channel



Date: 26.NOV.2020 16:53:11

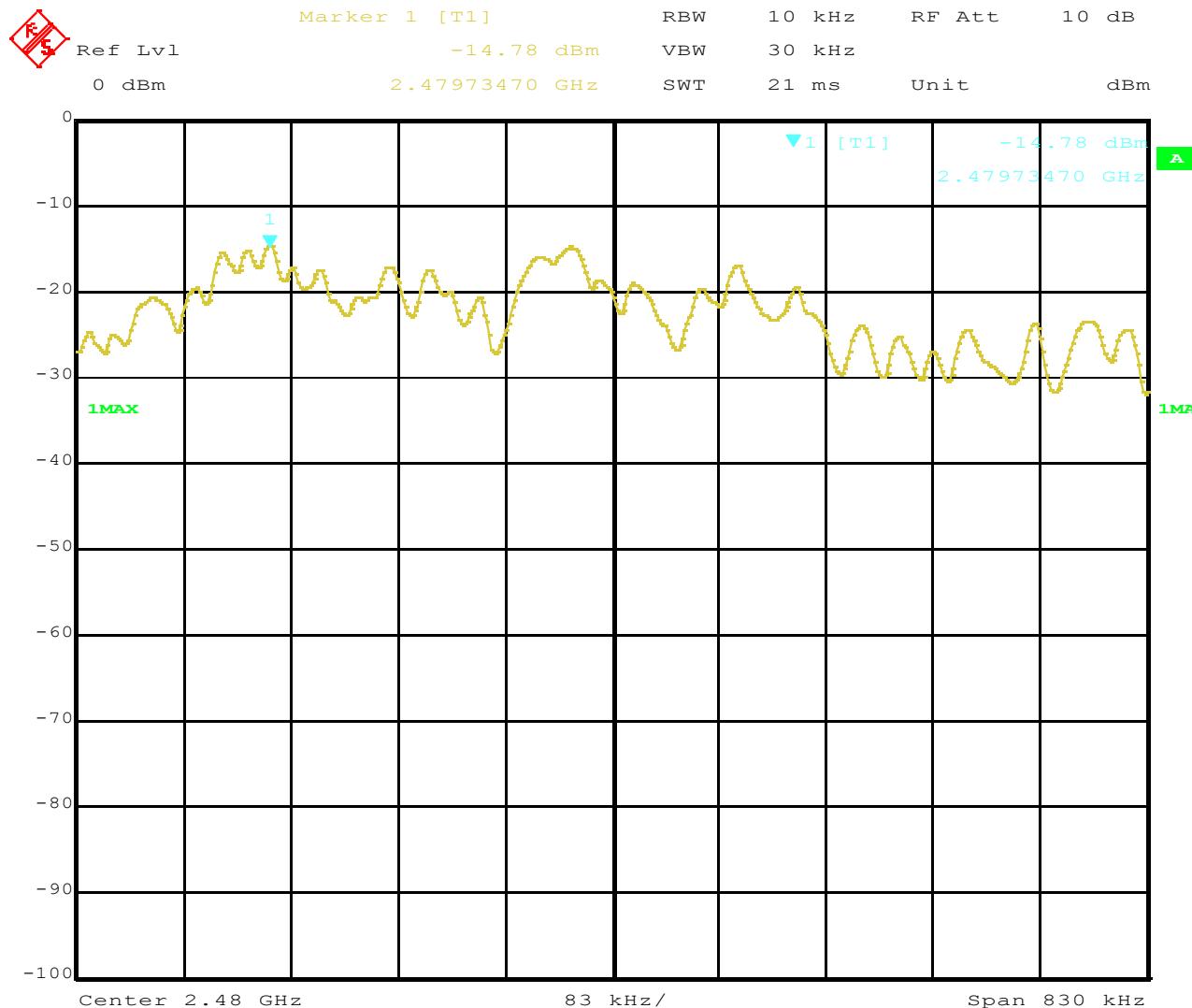
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### 3. High Channel



Date: 26.NOV.2020 16:54:22

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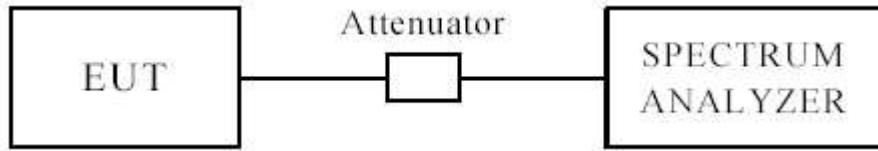
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## 10 Out of Band Measurement

### 10.1 Test Setup for band edge



**The restricted band requirement based on radiated emission test; please see the clause 6 for the test setup**

### 10.2 Limits of Out of Band Emissions Measurement

1. Below -20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).
2. Fall in the restricted bands listed in section 15.205. The maximum permitted average field strength is listed in section 15.209.

### 10.3 Test Procedure

For signals in the restricted bands above and below the 2.4-2.483GHz allocated band a measurement was made of Radiated emission test. (Peak values with RBW=1MHz, VBW=3MHz and PK detector. AV value with RBW=1MHz, VBW=3MHz and RMS detector)

For bandage test, the spectrum set as follows: RBW=100 kHz, VBW=300 kHz. A conducted measurement used

### 10.4 Test Result

Please see next pages

Note: 1. For band-edge measurement, the frequency from 30MHz-25GHz was tested. And It met the FCC rule.

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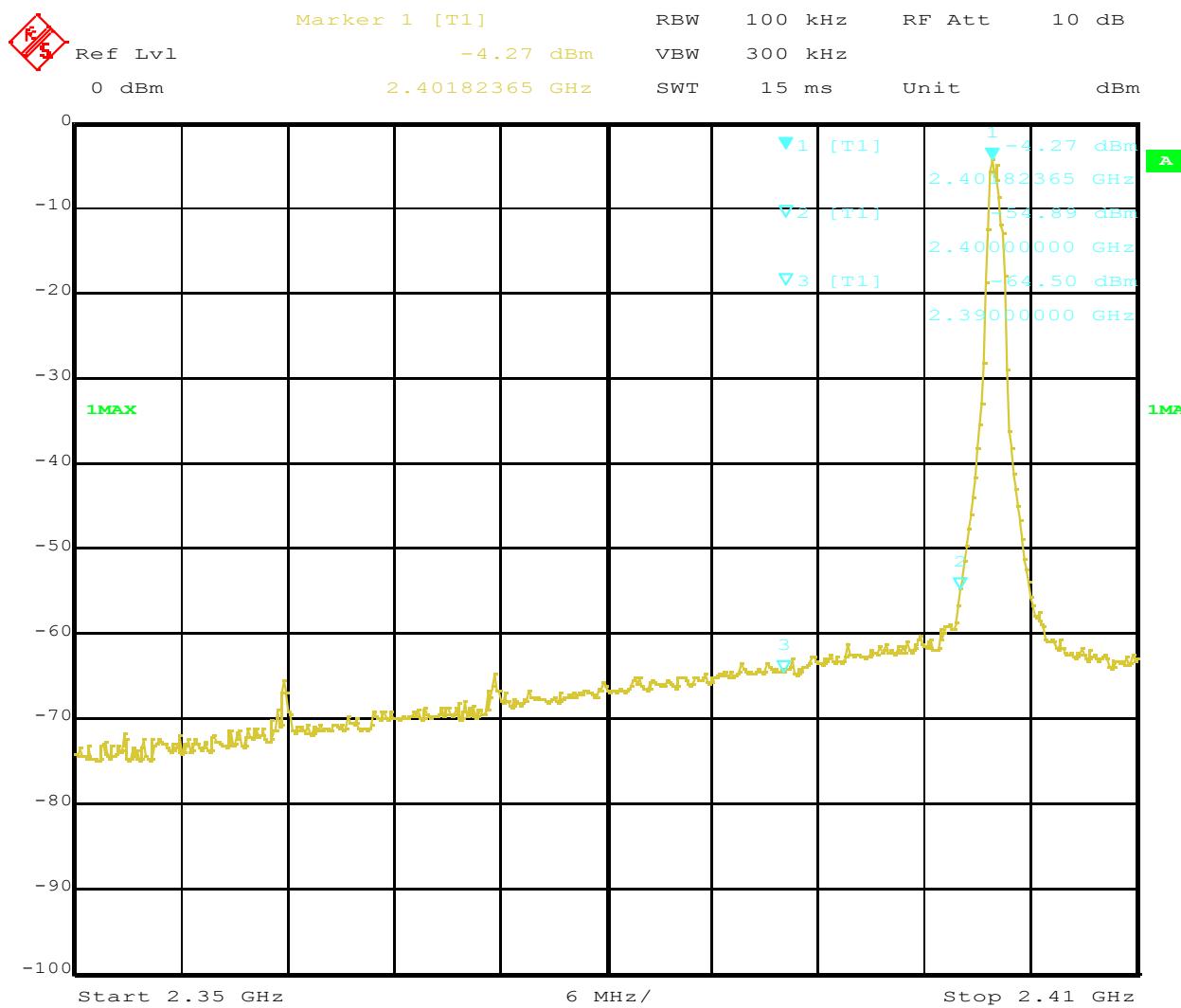
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#### 10.4 Band-edge Measurement

EUT	Laptop	Model	NP11A-C
Mode	Keep Transmitting	Test Voltage	DC7.6V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

#### Test Figure:



Date: 26.NOV.2020 16:39:47

Note: The Max. FS in Restrict Band are measured in conventional method.

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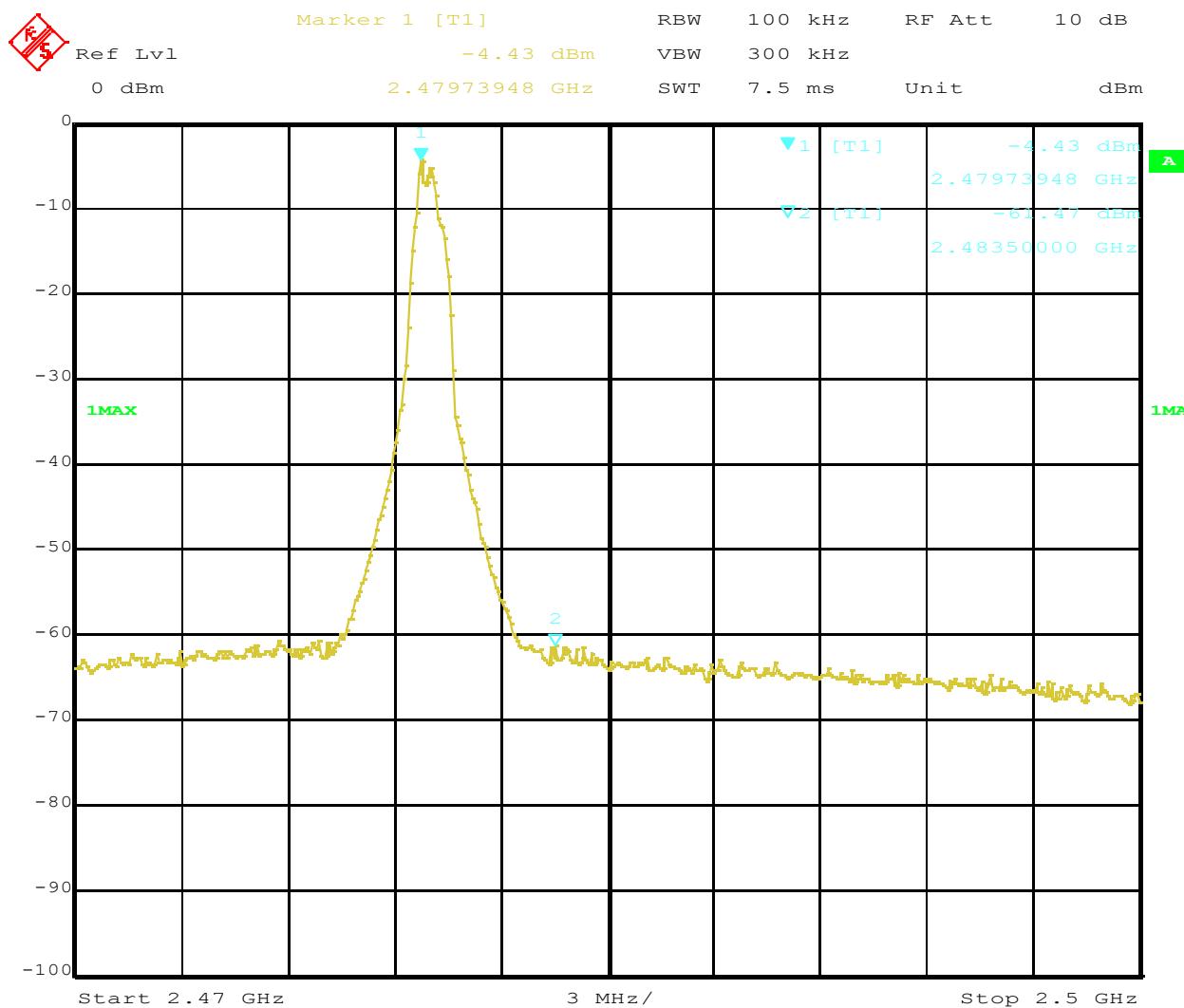
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#### 10.4 Band-edge Measurement

EUT	Laptop	Model	NP11A-C
Mode	Keeping Transmitting	Test Voltage	DC7.6V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

#### Test Figure:



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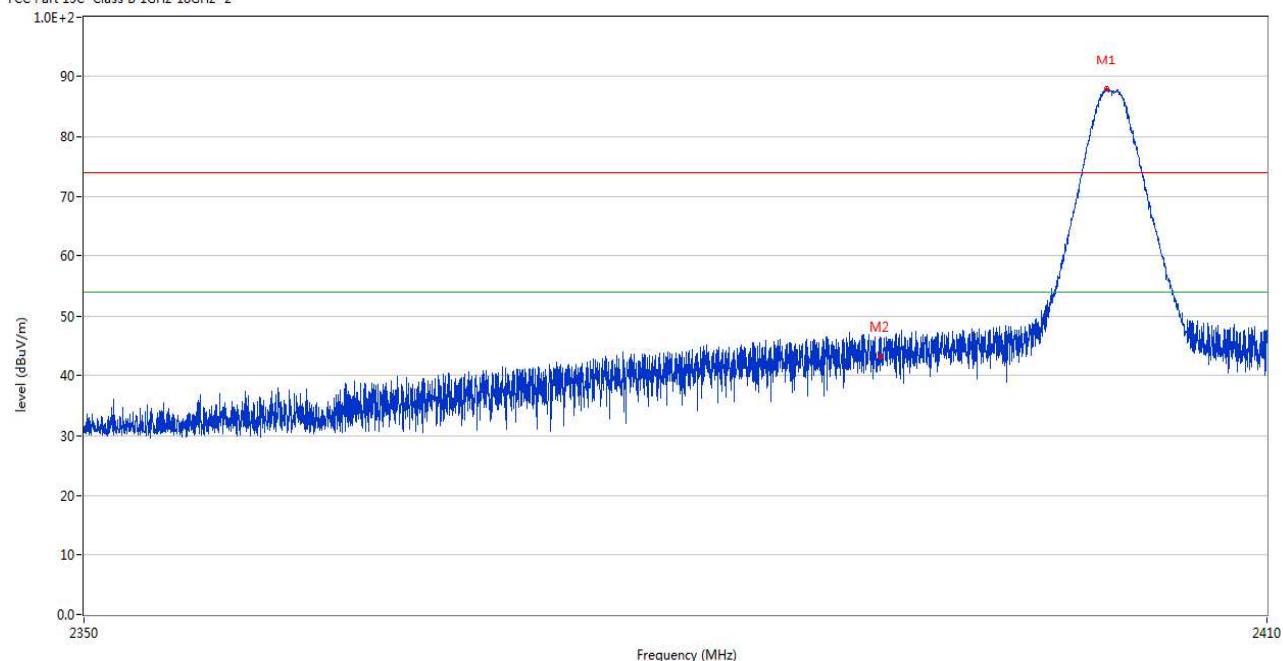
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#### 10.4 Restrict Band Measurement

EUT	Laptop	Model	NP11A-C
Mode	Keep Transmitting	Test Voltage	DC7.6V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass		

FCC Part 15C Class B 1GHz-18GHz -2



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
2	2390.200	47.46	-3.53	54.0	-6.54	Peak	318.00	100	Horizontal	Pass

The report refers only to the sample tested and does not apply to the bulk.

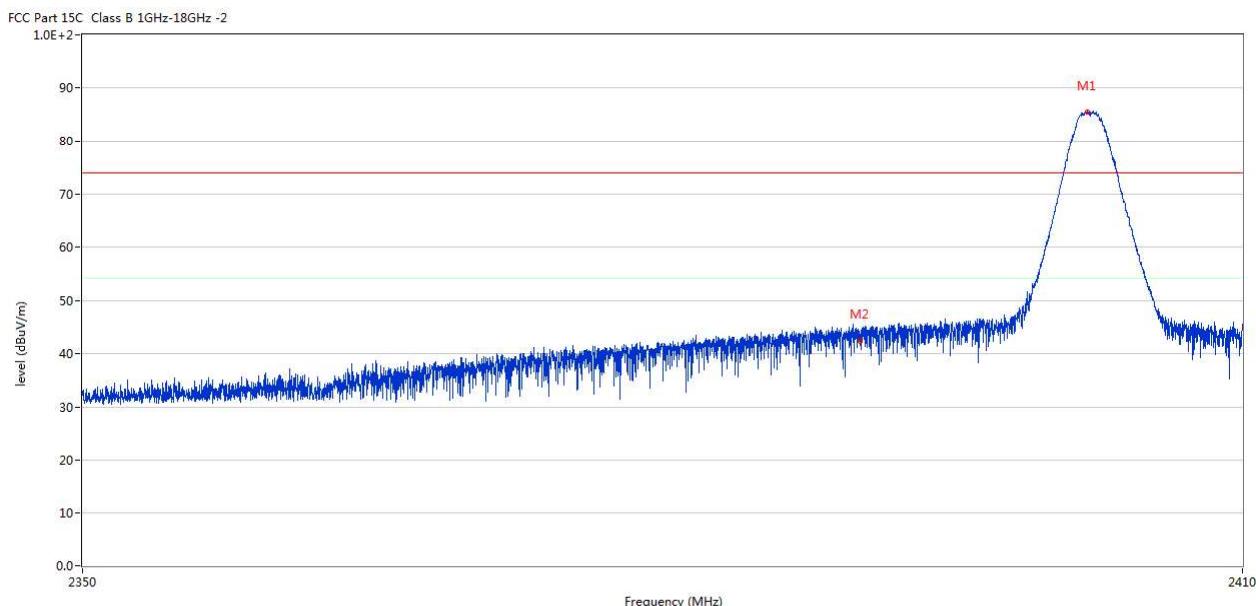
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#### 10.4 Restrict Band Measurement

EUT	Laptop	Model	NP11A-C
Mode	Keep Transmitting	Test Voltage	DC7.6V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass		



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
2	2390.170	44.82	-3.53	54.0	-9.18	Peak	251.00	100	Vertical	Pass

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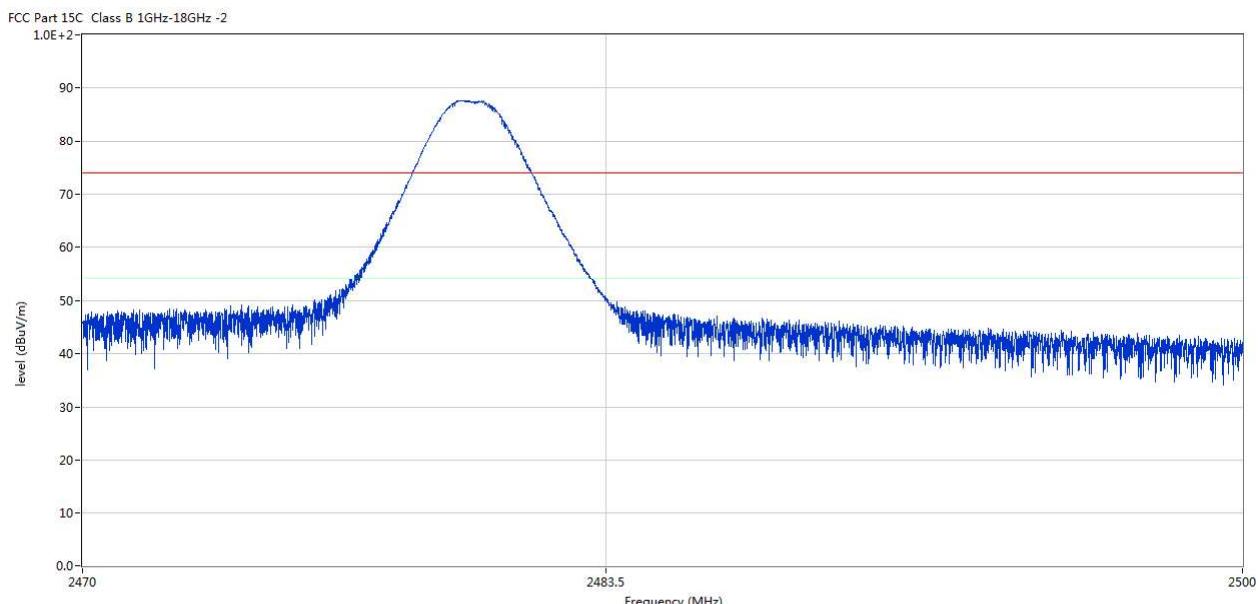
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#### 10.4 Restrict Band Measurement

EUT	Laptop	Model	NP11A-C
Mode	Keep Transmitting	Test Voltage	DC7.6V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass		



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
2	2483.282	50.38	-3.57	54.0	-3.62	Peak	317.00	100	Horizontal	Pass

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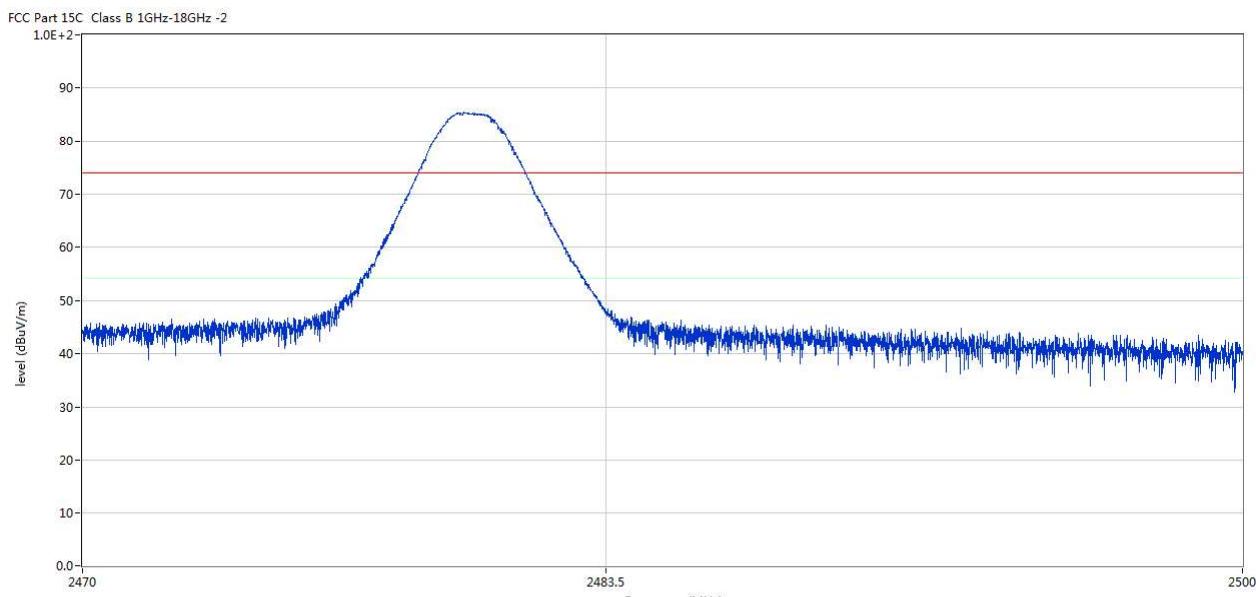
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#### 10.4 Restrict Band Measurement

EUT	Laptop	Model	NP11A-C
Mode	Keep Transmitting	Test Voltage	DC7.6V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass		



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (o)	Height (cm)	ANT	Verdict
2	2483.553	50.37	-3.57	54.0	-3.63	Peak	145.00	100	Vertical	Pass

Note: The peak value less than the AV limit, no necessary to take down the AV measurement result.

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## 11.0 Antenna Requirement

### 11.1 Standard Applicable

For intentional device, according to FCC 47 CFR 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.

And according to FCC 47 CFR Section 15.247 (b), if transmitter antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the mount in dB that the directional gain of the antenna exceeds 6 dBi.

### 11.2 Antenna Connected construction

FPC antennas used. The gain of the antennas is 0dBi. (get from the antenna specification provided the applicant)

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## 12.0 FCC ID Label

### FCC ID: RBD-NP11AC

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The label must not be a stick-on paper label. The label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

#### Mark Location:



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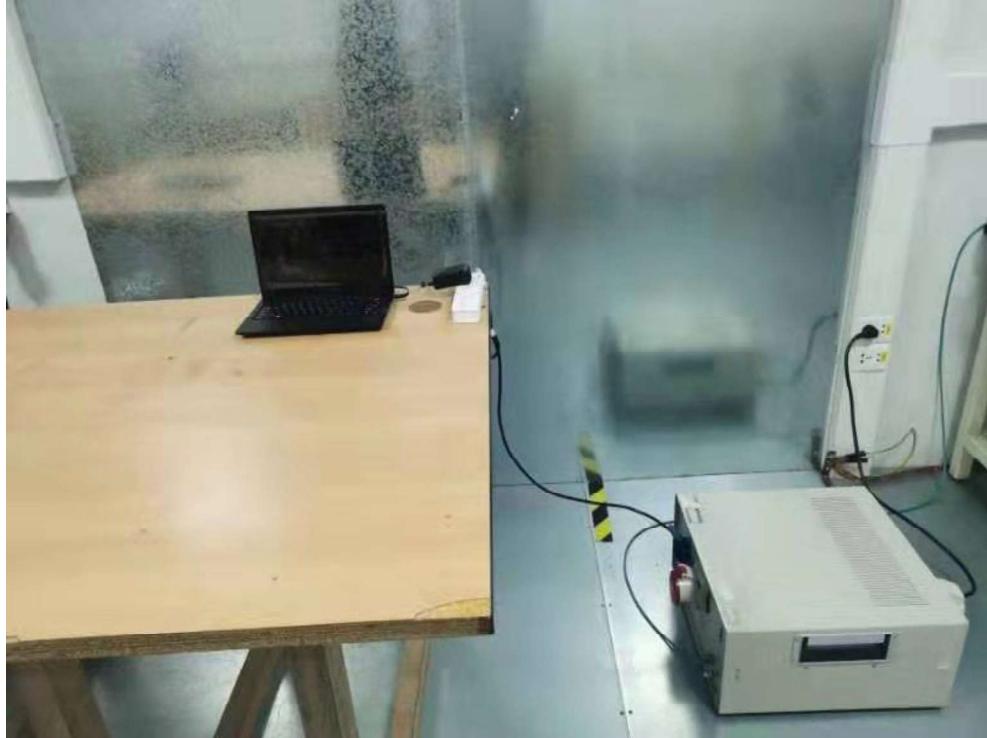
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### 13.0 Photo of testing

Conducted Emission Test Setup:



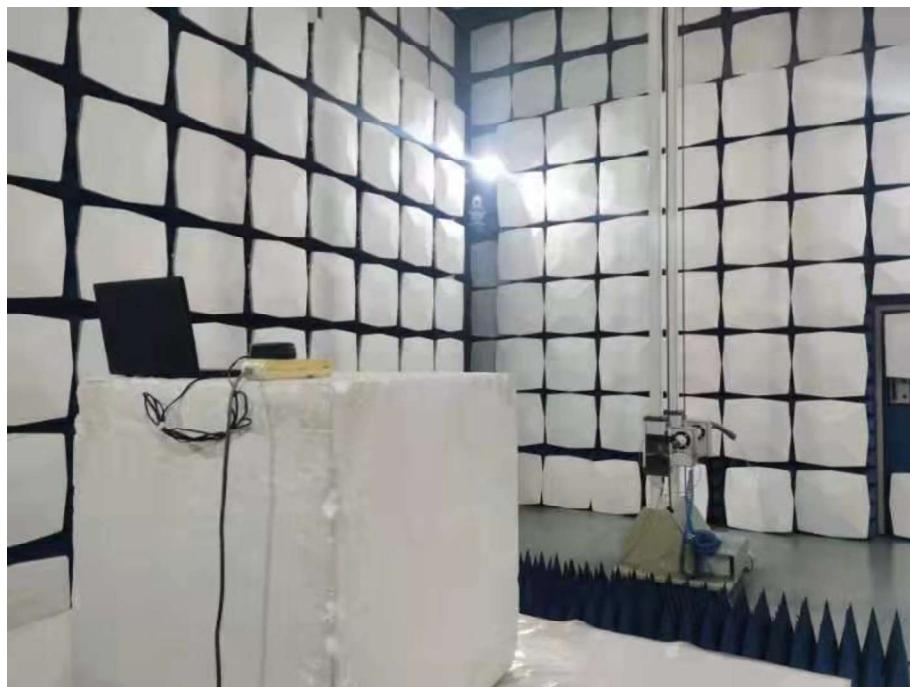
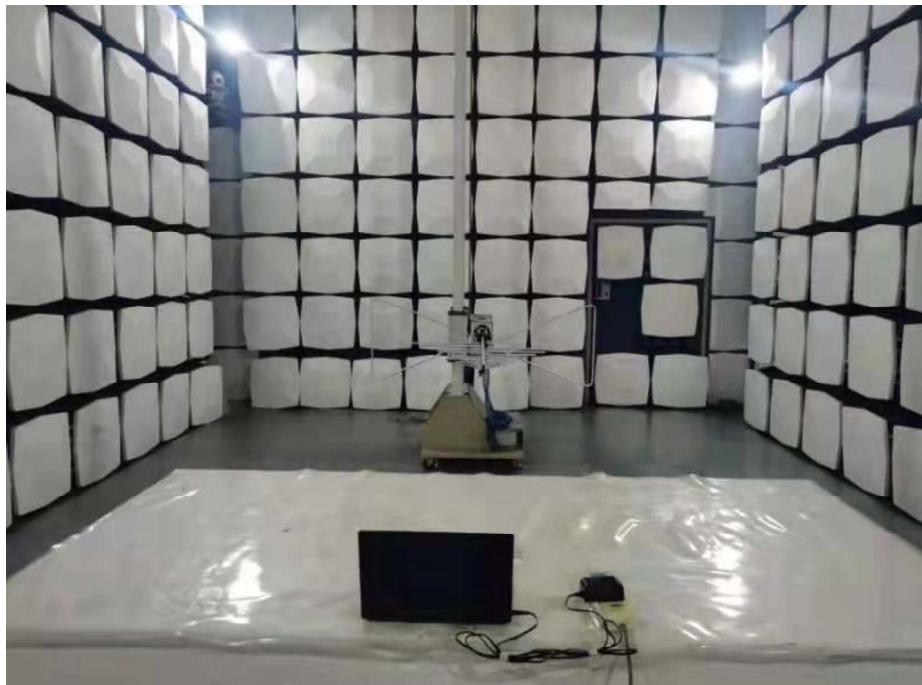
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Radiated Emission Test Setup:



### Photographs – EUT

Please see test report TW2010177-01E

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