



TEST REPORT

Report No. CTC2025317101
FCC ID XGB-250508WH
IC 3879A-WHEKD3T
FCC Applicant/Manufacturer Voyetra Turtle Beach, Inc.
Address 44 South Broadway, 4th Floor WHITE PLAINS, NEW YORK 10601
USA
IC Applicant/Manufacturer Voyetra Turtle Beach, Inc.
Address 44 South Broadway, 4th Floor WHITE PLAINS, NEW YORK 10601
USA
Product Name VelocityOne Race KD3 Rim
Trade Mark TURTLE BEACH
Model/Type reference VelocityOne Race KD3 Rim
Listed Model(s) /
Standard FCC CFR Title 47 Part 15 Subpart C Section 15.249
RSS-210 Issue 11
Test Report Form No CTC-TR-060_A2
Master TRF Dated 2025-05-12
Date of receipt of test sample....: May 13, 2025
Date of testing: May 13, 2025 ~ May 27, 2025
Date of issue: Jun. 16, 2025
Result **PASS**

Compiled by:
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Supervised by:
(Printed name+signature) Eric Zhang

Approved by:
(Printed name+signature) Totti Zhao

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1. TEST SUMMARY

1.1. Test Standards

The tests were performed according to following standards:

[FCC Rules Part 15.249](#): Operation within the bands 902-928 MHz, 2400-2483.5 MHz, 5725-5875 MHz, and 24.0-24.25 GHz.

[RSS-210 Issue 11](#): Licence-Exempt Radio Apparatus: Category I Equipment

[ANSI C63.10-2013](#): American National Standard for Testing Unlicensed Wireless Devices.

1.2. Report Version

Revised No.	Report No.	Date of issue	Description
01	CTC2025317101	Jun. 16, 2025	Original

1.3. Test Description

Test Item	Section in CFR 47	RSS-210	Result	Test Engineer
AC Power Line Conducted Emissions	15.207	RSS-Gen 8.8	PASS	Marrow
20dB Occupied Bandwidth	15.215/15.249	/	PASS	Marrow
Field strength of the Fundamental signal	15.249(a)	RSS-210 F.1.a	PASS	Marrow
Spurious Emissions	15.209/15.249(a)	RSS-210 F.1.e	PASS	Marrow
Band edge Emissions	15.205/15.249(d)	/	PASS	Marrow
Antenna requirement	15.203	/	PASS	Marrow

Note: "N/A" is not applicable.

The measurement uncertainty is not included in the test result.



1.4. Test Facility

Address of the report laboratory

CTC Laboratories, Inc.

Address: Room 107, 108, 207, 208, 303 of Building A, Room 101 of Building B, No.7, Lanqing 1st Road, Luhu Community, Guanhua Subdistrict, Longhua District, Shenzhen, Guangdong, China

Laboratory accreditation

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

A2LA-Lab Cert. No.: 4340.01

CTC Laboratories, Inc. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

Industry Canada (Registration No.: 9783A, CAB Identifier: CN0029)

CTC Laboratories, Inc. EMC Laboratory has been registered by Certification and Engineer Bureau of Industry Canada for the performance of with Registration NO.: 9783A on Jan, 2016.

FCC (Registration No.: 951311, Designation Number CN1208)

CTC Laboratories, Inc. 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 951311, Aug 26, 2017.

1.5. Measurement Uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to TR-100028-01 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 1" and TR-100028-02 "Electromagnetic compatibility and Radio spectrum Matters (ERM);Uncertainties in the measurement of mobile radio equipment characteristics; Part 2" and is documented in the CTC Laboratories, Inc. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Below is the best measurement capability for CTC Laboratories, Inc.



Test Items	Measurement Uncertainty	Notes
DTS Bandwidth	±0.0196%	(1)
Maximum Conducted Output Power	±0.686 dB	(1)
Maximum Power Spectral Density Level	±0.743 dB	(1)
Band-edge Compliance	±1.328 dB	(1)
Unwanted Emissions In Non-restricted Freq Bands	9kHz-1GHz: ±0.746dB 1GHz-26GHz: ±1.328dB	(1)
Conducted Emissions 9kHz~30MHz	±3.08 dB	(1)
Radiated Emissions 30~1000MHz	±4.51 dB	(1)
Radiated Emissions 1~18GHz	±5.84 dB	(1)
Radiated Emissions 18~40GHz	±6.12 dB	(1)

Note (1): This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

1.6. Environmental Conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	21°C ~ 27°C
Relative Humidity:	40% ~ 60%
Air Pressure:	101kPa



2. GENERAL INFORMATION

2.1. Client Information

FCC Applicant/ Manufacturer:	Voyetra Turtle Beach, Inc.
Address:	44 South Broadway, 4th Floor WHITE PLAINS, NEW YORK 10601 USA
IC Applicant/ Manufacturer:	Voyetra Turtle Beach, Inc.
Address:	44 South Broadway, 4th Floor WHITE PLAINS, NEW YORK 10601 USA

2.2. General Description of EUT

Product Name:	VelocityOne Race KD3 Rim
Trade Mark:	TURTLE BEACH
Model/Type reference:	VelocityOne Race KD3 Rim
Listed Model(s):	/
Model Difference:	/
Power supply:	DC24.0V 3.0A from AC/DC Adapter
Sample ID:	CTC250509-006-S004
Hardware version:	A3
Software version:	V0.22

2.4GHz Transmitter

Operation Frequency:	2402MHz-2480MHz
Channel Separation:	/
Receiver Categories:	Receiver category 3
Modulation:	GFSK
Antenna Type:	PCB layout antenna
Antenna Gain:	1.26dBi



2.3. Description of Test Modes

The EUT has been tested under test mode condition. The Applicant provides software to control the EUT for staying in continuous transmitting and receiving mode for testing.

Operation Frequency List:

Channel	Frequency (MHz)
00	2402
01	2403
:	:
38	2440
39	2441
40	2442
:	:
77	2479
78	2480

Test Mode

For RF test items
The engineering test program was provided and enabled to make EUT continuous transmit. The base firmware of this product supports both BLE and 2.4G customization. The BLE and 2.4G customization functions are implemented on the same chip, sharing the same working frequency band and channels. During the RF transmission test, the same frequency setting software is used. Therefore, for this test, we chose to conduct the test using either BLE or 2.4G customization.
For AC power line conducted emissions:
The EUT was set to connect with large package sizes transmission.
For Radiated spurious emissions test item:
The engineering test program was provided and enabled to make EUT continuous transmit. The EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.



2.4. Accessory Equipment Information

Equipment Information			
Name	Model	S/N	Manufacturer
Notebook	ThinkPad T460s	/	Lenovo
AC ADAPTOR	CW2403000RE	/	/
Cable Information			
Name	Shielded Type	Ferrite Core	Length
USB Cable	Unshielded	NO	100cm
Test Software Information			
Name	Version	/	/
JS1120-3	V3.3.38	/	/
RFTest_0901_boxed	/	/	/

CTC Laboratories, Inc.

Room 107, 108, 207, 208, 303 of Building A, Room 101 of Building B, No.7, Lanqing 1st Road, Luhu Community, Guanhу Subdistrict, Longhua District, Shenzhen, Guangdong, China Tel.: (86)755-27521059 Fax: (86)755-27521011 [Http://www.sz-ctc.org.cn](http://www.sz-ctc.org.cn)

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TRF No: CTC-TR-060_A2

Society : [vz.cncaq.com](http://www.vz.cncaq.com)



2.5. Measurement Instruments List

RF Test System - SRD					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Calibrated Until
1	Spectrum Analyzer	R&S	FSV40-N	101654	Dec. 12,2025
2	Test Software	Tonscend	JS1120-3	V3.3.38	/

Radiated emission					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Calibrated Until
1	Trilog-Broadband Antenna	Schwarzbeck	VULB 9168	9168-1013	Dec. 07, 2025
2	Horn Antenna	Schwarzbeck	BBHA 9120D	9120D-648	Dec. 07, 2025
3	Spectrum Analyzer	R&S	FSV40-N	101654	Dec. 12,2025
4	Pre-Amplifier	SONOMA	310	186194	Dec. 12, 2025
5	Low Noise Pre-Amplifier	EMCI	EMC051835	980075	Dec. 12, 2025
6	Test Receiver	R&S	ESCI7	100967	Dec. 12, 2025
7	3m chamber 2	Frankonia	EE025	/	Oct. 23, 2025
8	Test Software	FARA	EZ-EMC	FA-03A2	/

Conducted Emission					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Calibrated Until
1	LISN	R&S	ENV216	101112	Dec. 12, 2025
2	LISN	R&S	ENV216	101113	Dec. 12, 2025
3	EMI Test Receiver	R&S	ESCS30	100353	Dec. 12, 2025
4	ISN CAT6	Schwarzbeck	NTFM 8158	CAT6-8158-0046	Dec. 12, 2025
5	ISN CAT5	Schwarzbeck	NTFM 8158	CAT5-8158-0046	Dec. 12, 2025
6	Test Software	R&S	EMC32	6.10.10	/

Note: 1. The Cal. Interval was one year.
2. The Cal. Interval was three year of the chamber
3. The cable loss has calculated in test result which connection between each test instruments..

3. TEST ITEM AND RESULTS

3.1. AC Power Line Conducted Emissions

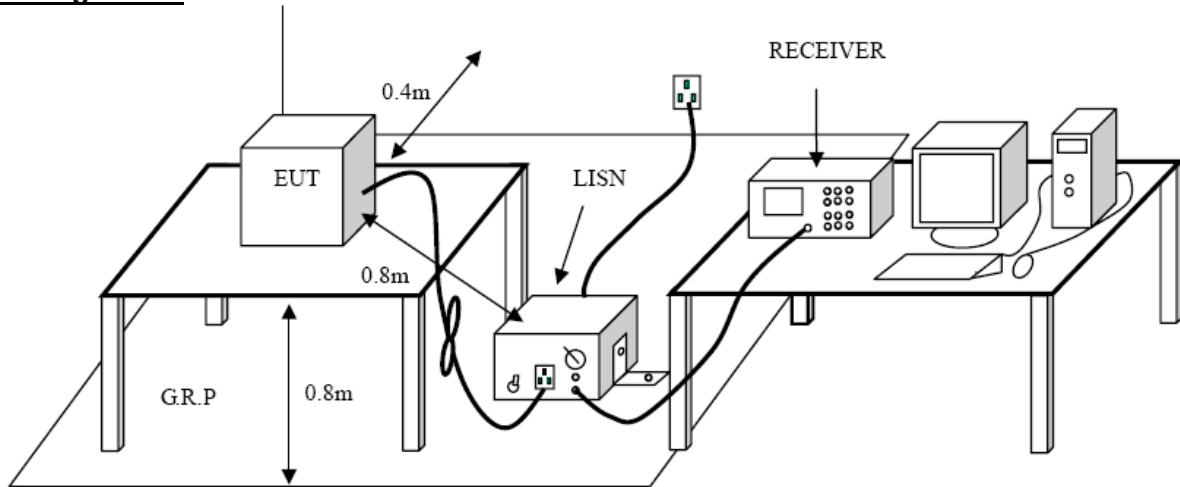
Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.207/ RSS - Gen 8.8

Frequency range (MHz)	Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

Test Configuration



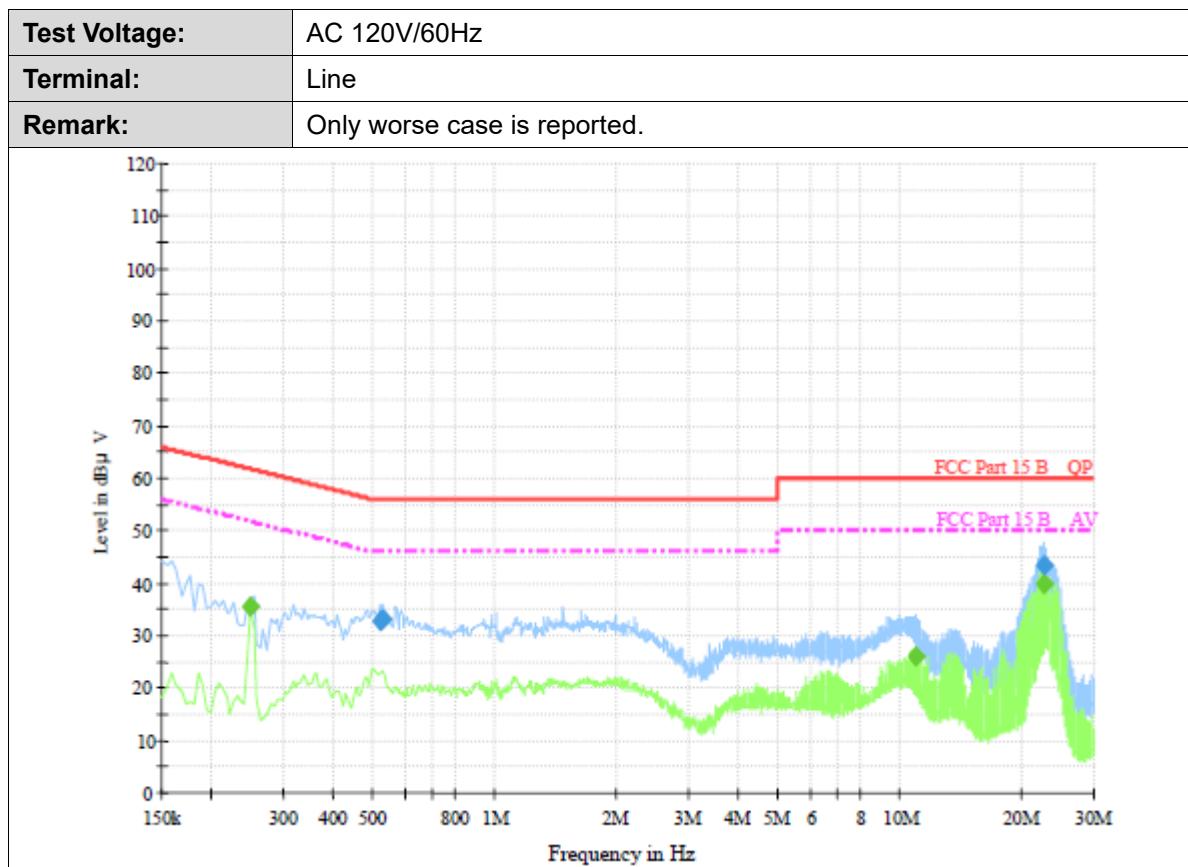
Test Procedure

1. The EUT was setup according to ANSI C63.10:2013 requirements.
2. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 10 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 10 cm from any other grounded conducting surface.
3. The EUT and simulators are connected to the main power through a line impedances stabilization network (LISN). The LISN provides a 50ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)
4. Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.
5. The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.
6. Conducted Emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.
7. During the above scans, the emissions were maximized by cable manipulation.

Test Mode

Please refer to the clause 2.3

Test Results



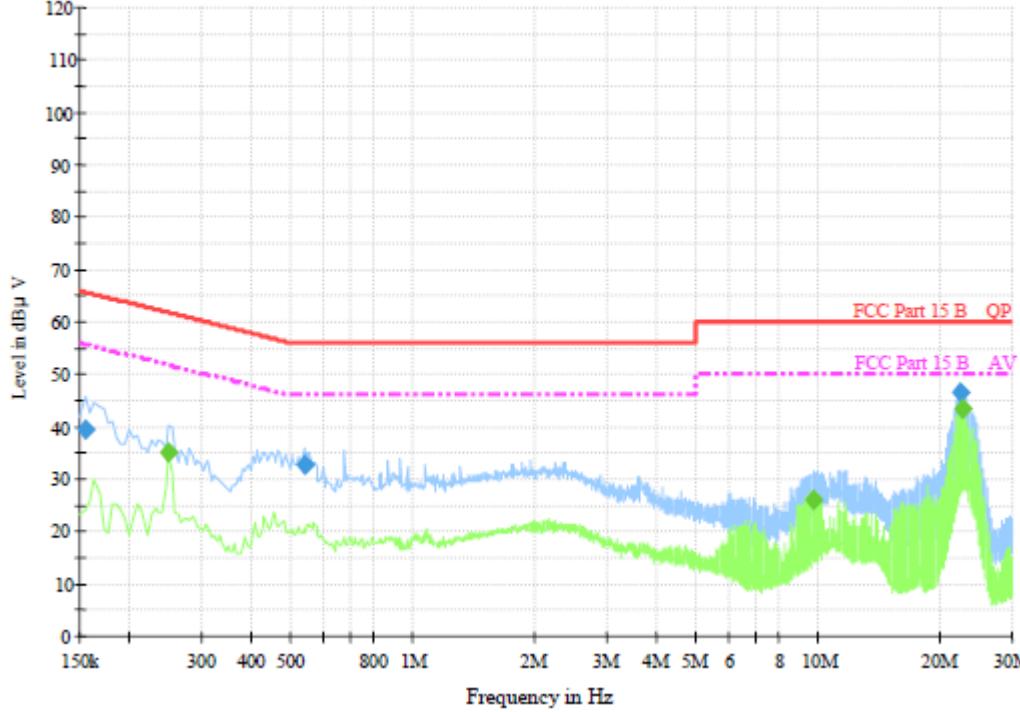
Final Measurement Detector 1

Frequency (MHz)	QuasiPeak (dB μ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)	Comment
0.519000	32.8	1000.00	9.000	On	L1	9.4	23.2	56.0	
0.528000	33.1	1000.00	9.000	On	L1	9.4	22.9	56.0	
22.510500	43.4	1000.00	9.000	On	L1	9.7	16.6	60.0	

Final Measurement Detector 2

Frequency (MHz)	Average (dB μ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)	Comment
0.249000	35.3	1000.00	9.000	On	L1	9.5	16.5	51.8	
10.864500	26.0	1000.00	9.000	On	L1	9.6	24.0	50.0	
22.510500	39.9	1000.00	9.000	On	L1	9.7	10.1	50.0	

Emission Level = Read Level + Correct Factor

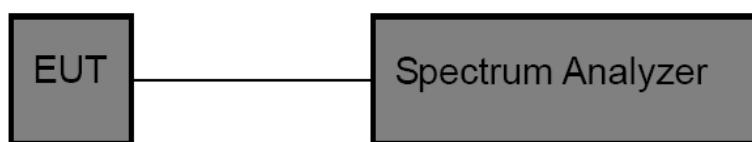
Test Voltage:	AC 120V/60Hz																																																	
Terminal:	Neutral																																																	
Remark:	Only worse case is reported.																																																	
																																																		
Final Measurement Detector 1 <table border="1"> <thead> <tr> <th>Frequency (MHz)</th> <th>QuasiPeak (dBμ V)</th> <th>Meas. Time (ms)</th> <th>Bandwidth (kHz)</th> <th>Filter</th> <th>Line</th> <th>Corr. (dB)</th> <th>Margin (dB)</th> <th>Limit (dBμ V)</th> <th>Comment</th> </tr> </thead> <tbody> <tr> <td>0.154500</td> <td>39.3</td> <td>1000.00</td> <td>9.000</td> <td>On</td> <td>N</td> <td>9.4</td> <td>26.5</td> <td>65.8</td> <td></td> </tr> <tr> <td>0.537000</td> <td>32.8</td> <td>1000.00</td> <td>9.000</td> <td>On</td> <td>N</td> <td>9.5</td> <td>23.2</td> <td>56.0</td> <td></td> </tr> <tr> <td>22.479000</td> <td>46.7</td> <td>1000.00</td> <td>9.000</td> <td>On</td> <td>N</td> <td>9.6</td> <td>13.3</td> <td>60.0</td> <td></td> </tr> </tbody> </table>											Frequency (MHz)	QuasiPeak (dB μ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)	Comment	0.154500	39.3	1000.00	9.000	On	N	9.4	26.5	65.8		0.537000	32.8	1000.00	9.000	On	N	9.5	23.2	56.0		22.479000	46.7	1000.00	9.000	On	N	9.6	13.3	60.0	
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Final Measurement Detector 2 <table border="1"> <thead> <tr> <th>Frequency (MHz)</th> <th>Average (dBμ V)</th> <th>Meas. Time (ms)</th> <th>Bandwidth (kHz)</th> <th>Filter</th> <th>Line</th> <th>Corr. (dB)</th> <th>Margin (dB)</th> <th>Limit (dBμ V)</th> <th>Comment</th> </tr> </thead> <tbody> <tr> <td>0.249000</td> <td>35.0</td> <td>1000.00</td> <td>9.000</td> <td>On</td> <td>N</td> <td>9.4</td> <td>16.8</td> <td>51.8</td> <td></td> </tr> <tr> <td>9.663000</td> <td>26.2</td> <td>1000.00</td> <td>9.000</td> <td>On</td> <td>N</td> <td>9.6</td> <td>23.8</td> <td>50.0</td> <td></td> </tr> <tr> <td>22.659000</td> <td>43.3</td> <td>1000.00</td> <td>9.000</td> <td>On</td> <td>N</td> <td>9.6</td> <td>6.7</td> <td>50.0</td> <td></td> </tr> </tbody> </table>											Frequency (MHz)	Average (dB μ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)	Comment	0.249000	35.0	1000.00	9.000	On	N	9.4	16.8	51.8		9.663000	26.2	1000.00	9.000	On	N	9.6	23.8	50.0		22.659000	43.3	1000.00	9.000	On	N	9.6	6.7	50.0	
Frequency (MHz)	Average (dB μ V)	Meas. Time (ms)	Bandwidth (kHz)	Filter	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)	Comment																																									
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22.659000	43.3	1000.00	9.000	On	N	9.6	6.7	50.0																																										
Emission Level = Read Level + Correct Factor																																																		

3.2. Bandwidth

Limit

Operation frequency range 2400MHz~2483.5MHz.

Test Configuration



Test Procedure

1. The transmitter output was connected to the spectrum analyzer through an attenuator, the path loss was compensated to the results for each measurement.
2. Set to the maximum power setting and enable the EUT transmit continuously
3. Use the following spectrum analyzer settings:
Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a test channel
RBW \geq 1% of the 20 dB bandwidth, VBW \geq RBW
Sweep = auto, Detector function = peak, Trace = max hold
4. Measure and record the results in the test report.

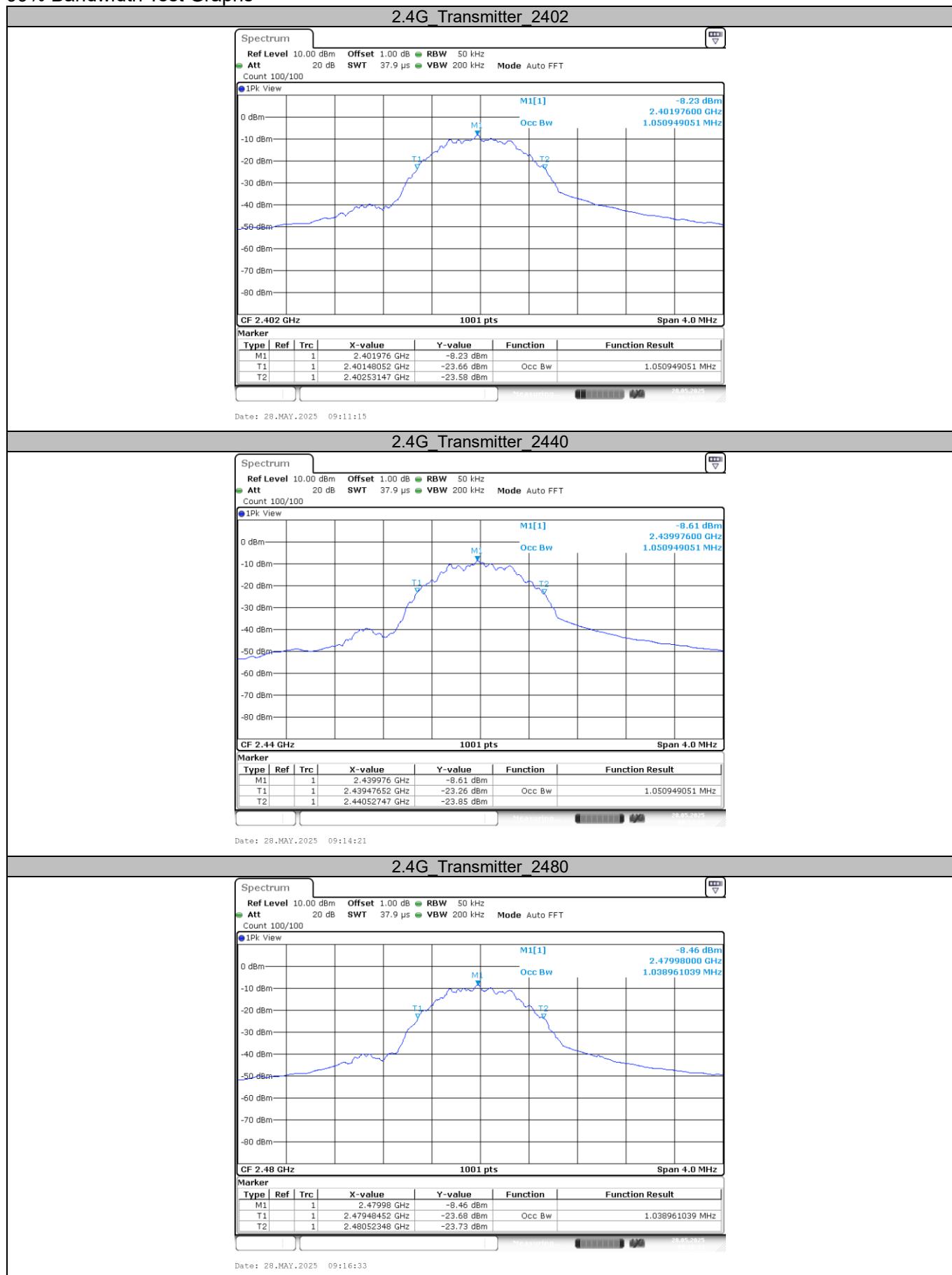
Test Mode

Please refer to the clause 2.3

Test Results

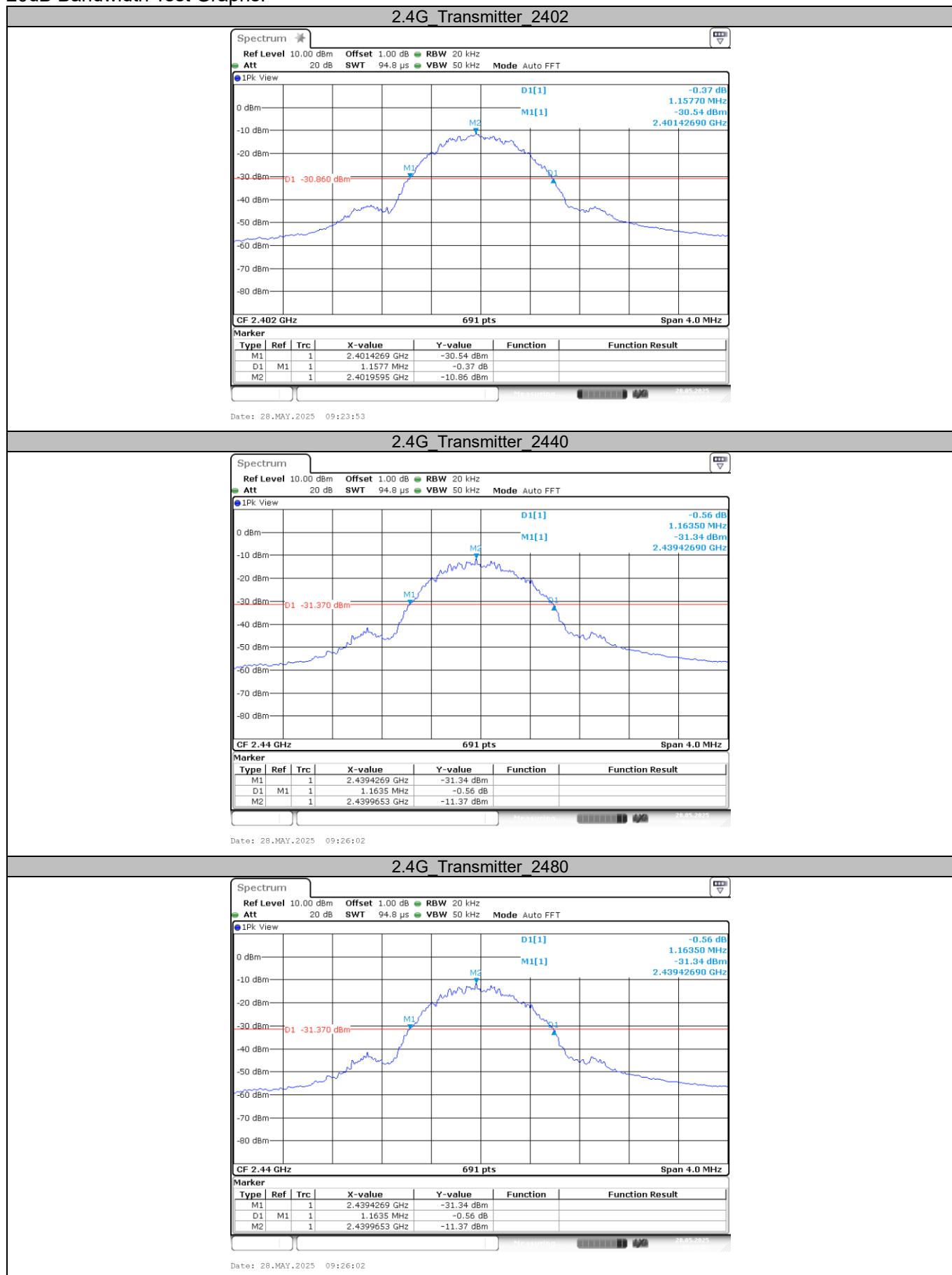
Channel	20dB Bandwidth (MHz)	99% Bandwidth (MHz)	Result
00	1.158	1.051	Pass
19	1.164	1.051	Pass
39	1.152	1.039	Pass

99% Bandwidth Test Graphs





20dB Bandwidth Test Graphs:



CTC Laboratories, Inc.

Room 107, 108, 207, 208, 303 of Building A, Room 101 of Building B, No.7, Lanqing 1st Road, Luhu Community, Guanhua Subdistrict, Longhua District, Shenzhen, Guangdong, China Tel.: (86)755-27521059 Fax: (86)755-27521011 [Http://www.sz-ctc.org.cn](http://www.sz-ctc.org.cn)

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Society : www.ctc-cnaq.com

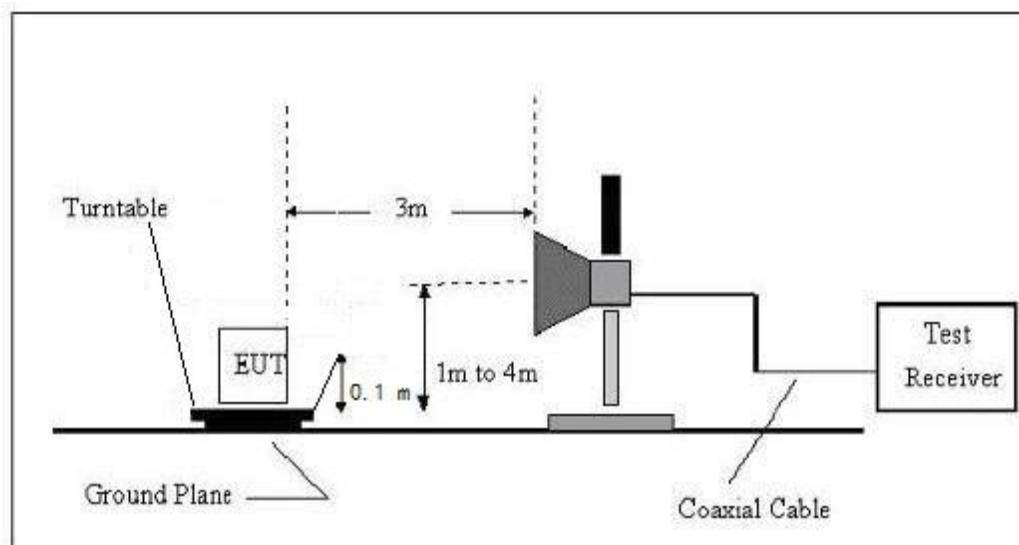
3.3. Radiated field strength of the fundamental signal

Limit

Fundamental frequency	Field strength of fundamental (millivolts/meter/ AVG)	Field strength of harmonics (microvolts/meter/ AVG)
902-928 MHz	50 (94dBuV/m @3m)	500 (54dBuV/m @3m)
2400-2483.5 MHz	50 (94dBuV/m @3m)	500 (54dBuV/m @3m)
5725-5875 MHz	50 (94dBuV/m @3m)	500 (54dBuV/m @3m)
24.0-24.25 GHz	250 (108dBuV/m @3m)	2500 (68dBuV/m @3m)

Frequencies above 1000 MHz, the field strength limits are based on average limits

Test Configuration



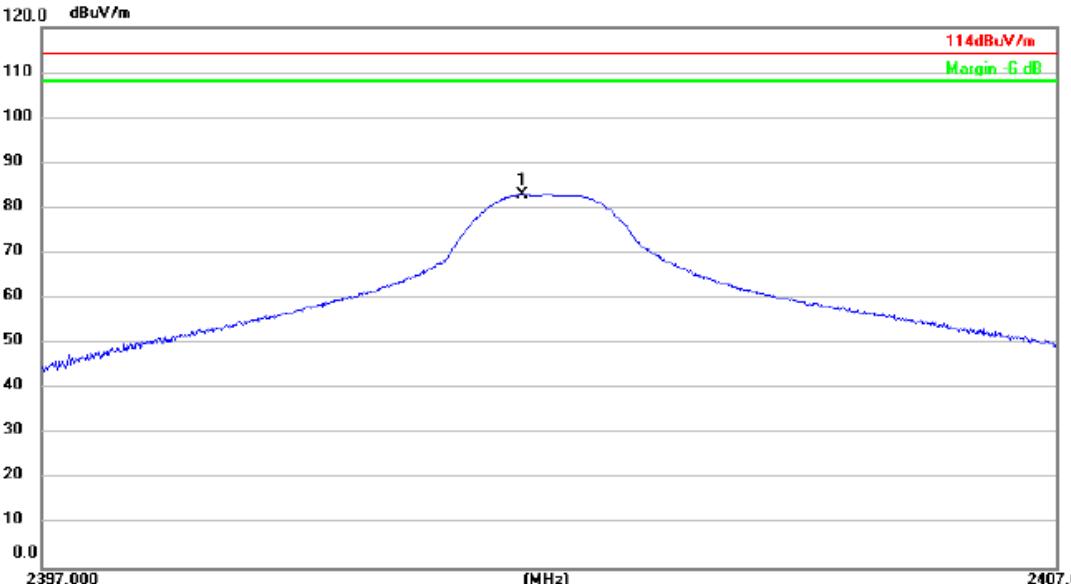
Test Procedure

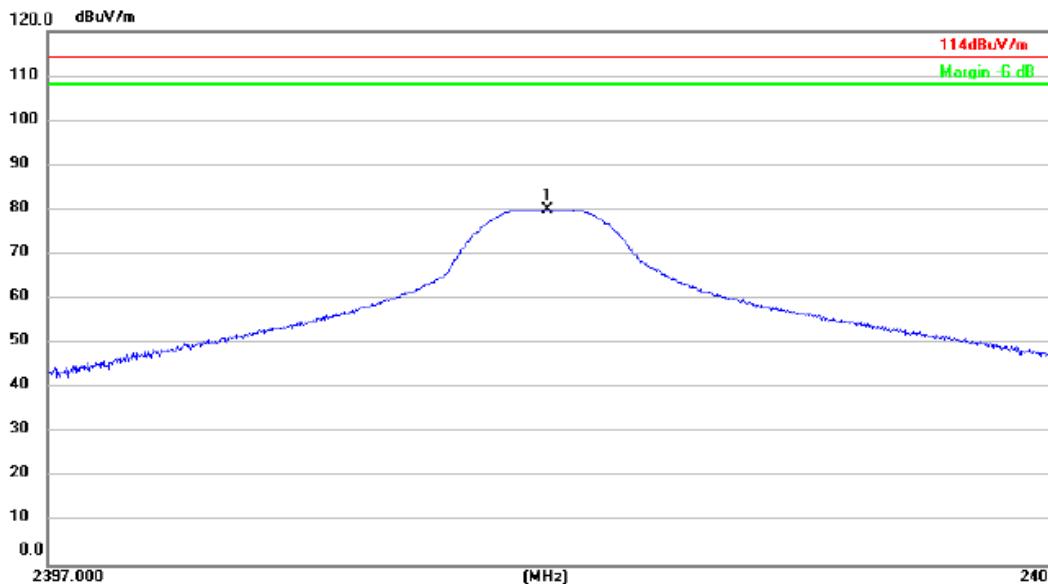
1. The EUT was setup and tested according to ANSI C63.10:2013 requirements.
2. The EUT is placed on a turn table which is 0.1 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
3. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.
4. The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10:2013 on radiated measurement.
5. The receiver set as follow:
RBW=1MHz, VBW=3MHz Peak detector for Peak value.

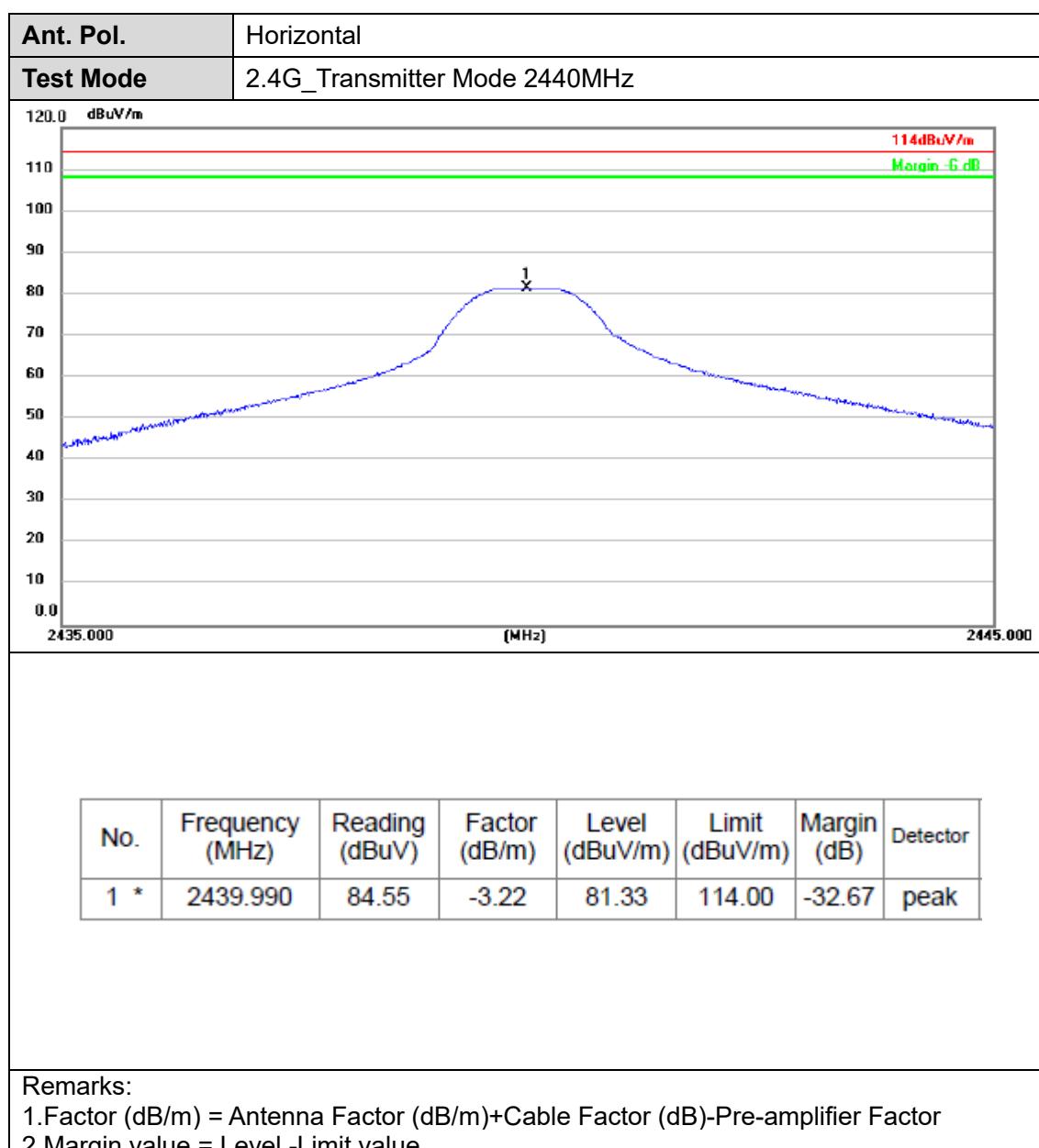
Test Mode

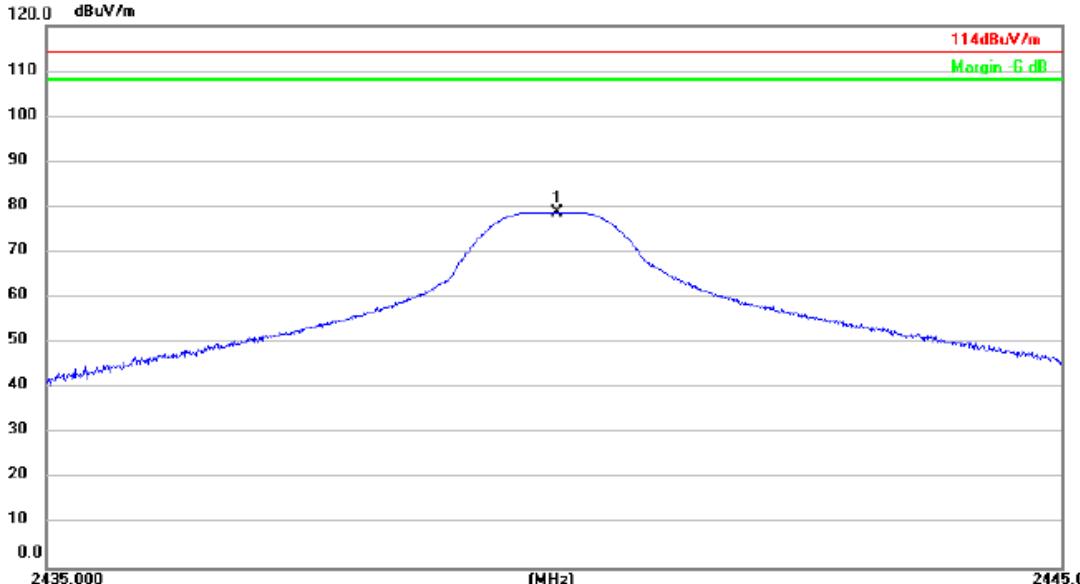
Please refer to the clause 2.3

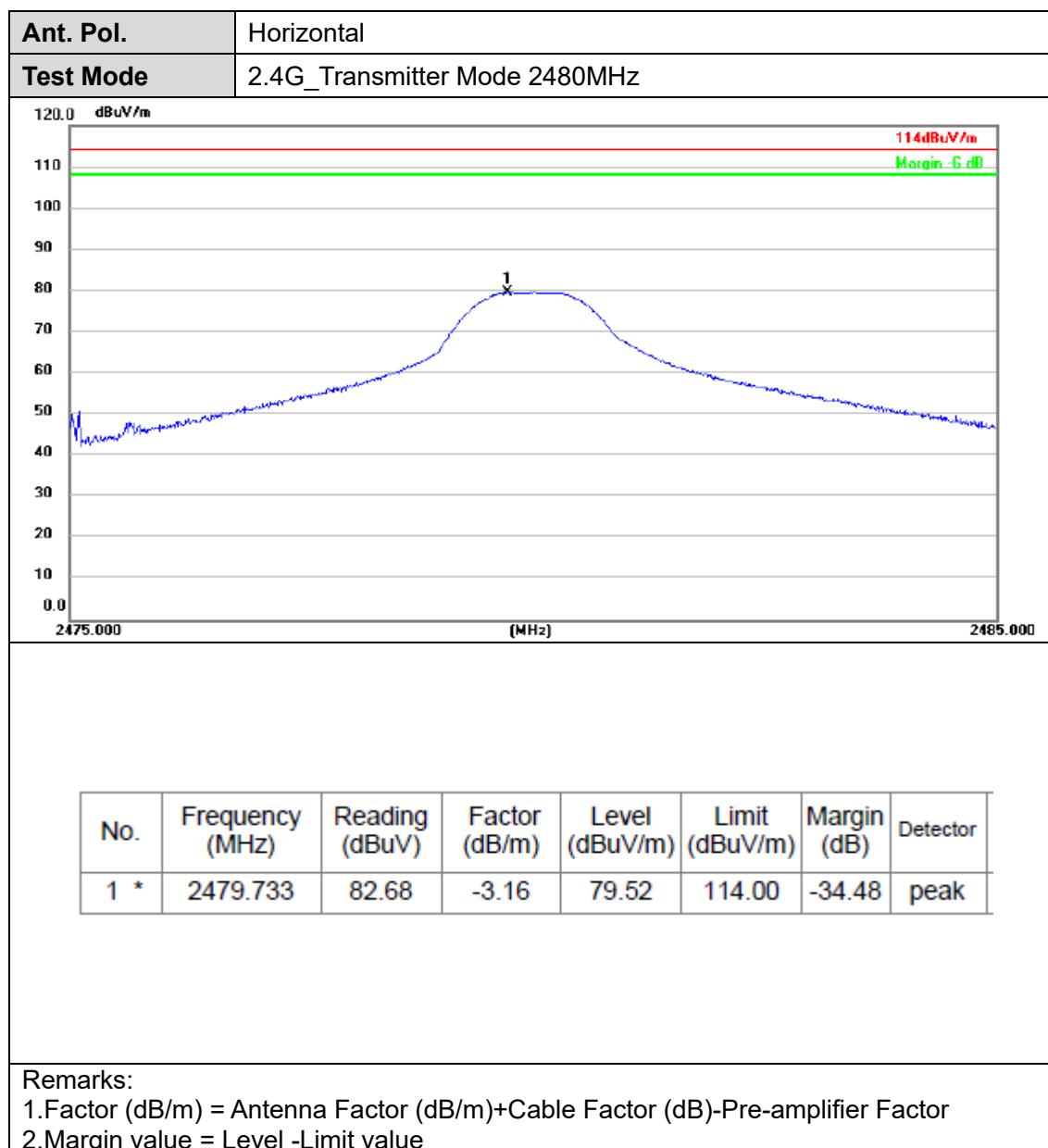
Test Results

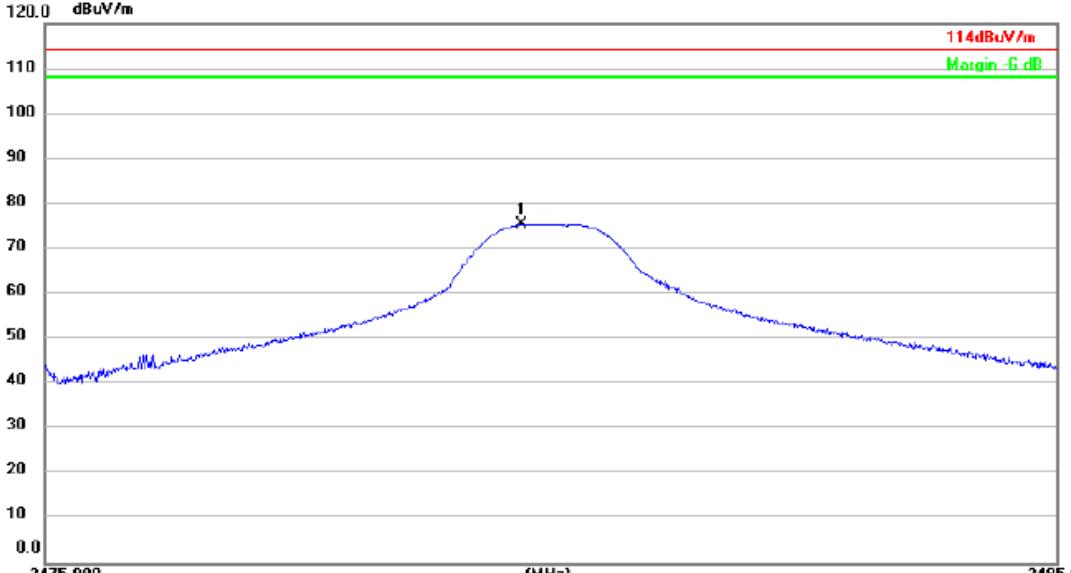
Ant. Pol.	Horizontal													
Test Mode	2.4G_Transmitter Mode 2402MHz													
														
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector							
1 *	2401.737	86.21	-3.34	82.87	114.00	-31.13	peak							
Remarks: 1. Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2. Margin value = Level -Limit value														

Ant. Pol.	Vertical																						
Test Mode	2.4G_Transmitter Mode 2402MHz																						
																							
<table border="1"> <thead> <tr> <th>No.</th><th>Frequency (MHz)</th><th>Reading (dBuV)</th><th>Factor (dB/m)</th><th>Level (dBuV/m)</th><th>Limit (dBuV/m)</th><th>Margin (dB)</th><th>Detector</th></tr> </thead> <tbody> <tr> <td>1 *</td><td>2401.987</td><td>83.25</td><td>-3.34</td><td>79.91</td><td>114.00</td><td>-34.09</td><td>peak</td></tr> </tbody> </table>								No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	1 *	2401.987	83.25	-3.34	79.91	114.00	-34.09	peak
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<p>Remarks:</p> <p>1. Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor</p> <p>2. Margin value = Level -Limit value</p>																							



Ant. Pol.	Vertical																						
Test Mode	2.4G_Transmitter Mode 2440MHz																						
																							
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Ant. Pol.	Vertical						
Test Mode	2.4G_Transmitter Mode 2480MHz						
							
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	2479.723	78.67	-3.16	75.51	114.00	-38.49	peak
Remarks: 1. Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor 2. Margin value = Level -Limit value							

3.4. Radiated Spurious Emissions and Bandedge Emission

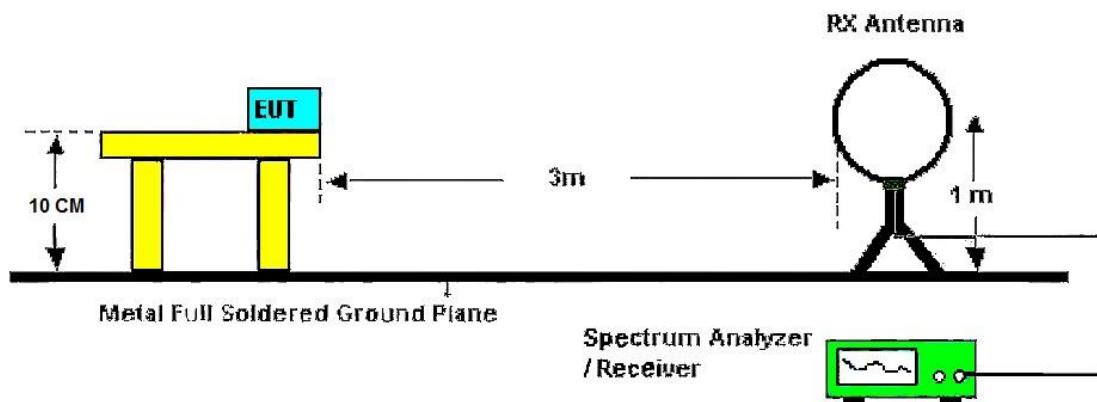
Limit

FCC CFR Title 47 Part 15 Subpart C Section 15.209

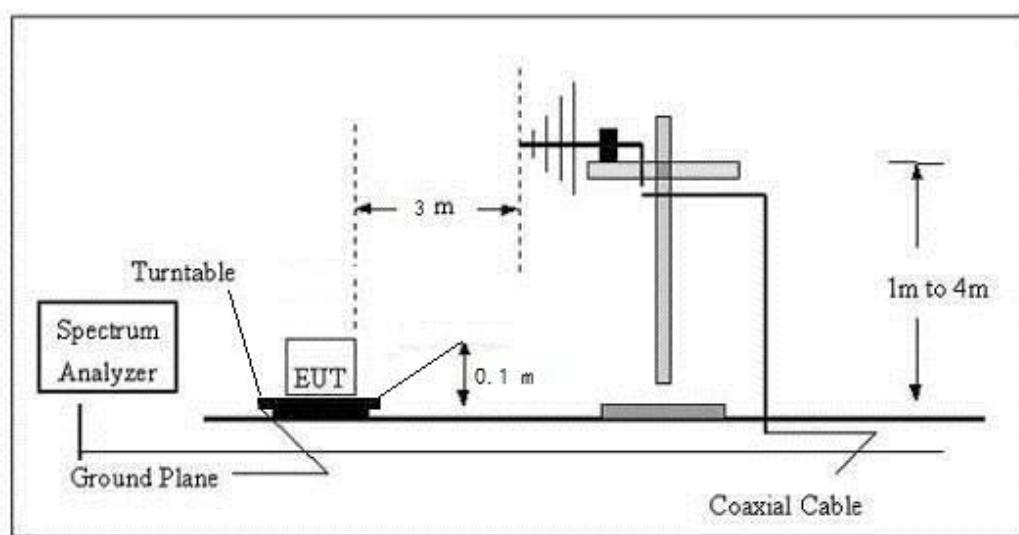
Frequency	Limit (dBuV/m @3m)	Value
30MHz~88MHz	40.00	Quasi-peak
88MHz~216MHz	43.50	Quasi-peak
216MHz~960MHz	46.00	Quasi-peak
960MHz~1GHz	54.00	Quasi-peak
Above 1GHz	54.00	Average
	74.00	Peak

Test Configuration

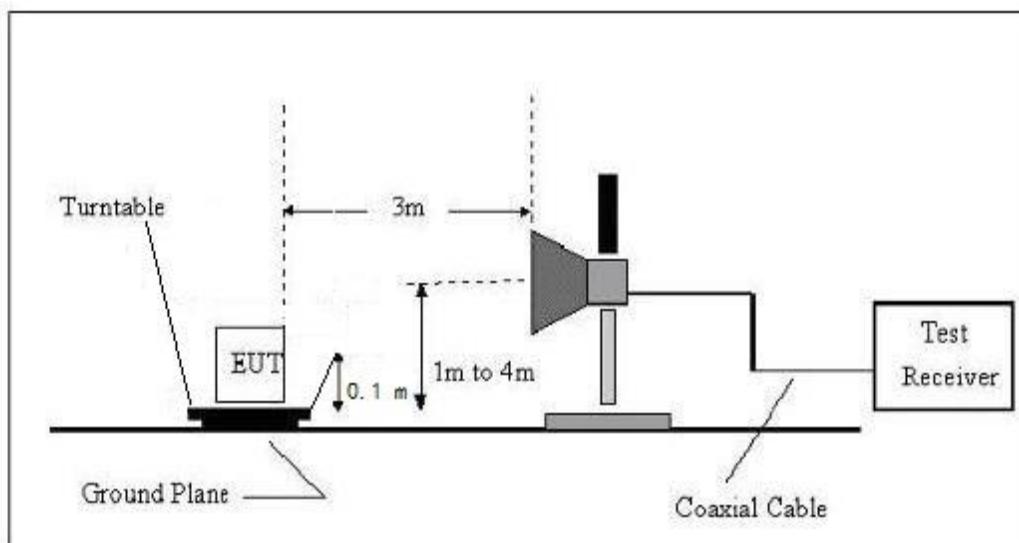
- 9 kHz ~ 30 MHz



- 30 MHz ~ 1 GHz



- Above 1 GHz



Test Procedure

1. The EUT was setup and tested according to ANSI C63.10:2013 requirements.
2. The EUT is placed on a turn table which is 0.1 meter above ground for below 1 GHz, and 0.1 m for above 1 GHz. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
3. The EUT was set 3 meters from the receiving antenna, which was mounted on the top of a variable height antenna tower. For each suspected emission, 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 to comply with the guidelines.
4. Set to the maximum power setting and enable the EUT transmit continuously.
5. Use the following spectrum analyzer settings

Span shall wide enough to fully capture the emission being measured;

(1)Below 1 GHz:

RBW=120 kHz, VBW=300 kHz, Sweep=auto, Detector function=peak, Trace=max hold;

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.

(2)From 1 GHz to 10th harmonic:

CTC Laboratories, Inc.

Room 107, 108, 207, 208, 303 of Building A, Room 101 of Building B, No.7, Lanqing 1st Road, Luhu Community, Guanhua Subdistrict, Longhua District, Shenzhen, Guangdong, China Tel.: (86)755-27521059 Fax: (86)755-27521011 [Http://www.sz-ctc.org.cn](http://www.sz-ctc.org.cn)

For anti-fake verification, please visit the official website of China Inspection And Testing

TRF No: CTC-TR-060_A2

Society : www.ctc-cqc.com



RBW=1MHz, VBW=3MHz Peak detector for Peak value.
RBW=1MHz, VBW=3MHz RMS detector for Average value.

Test Mode

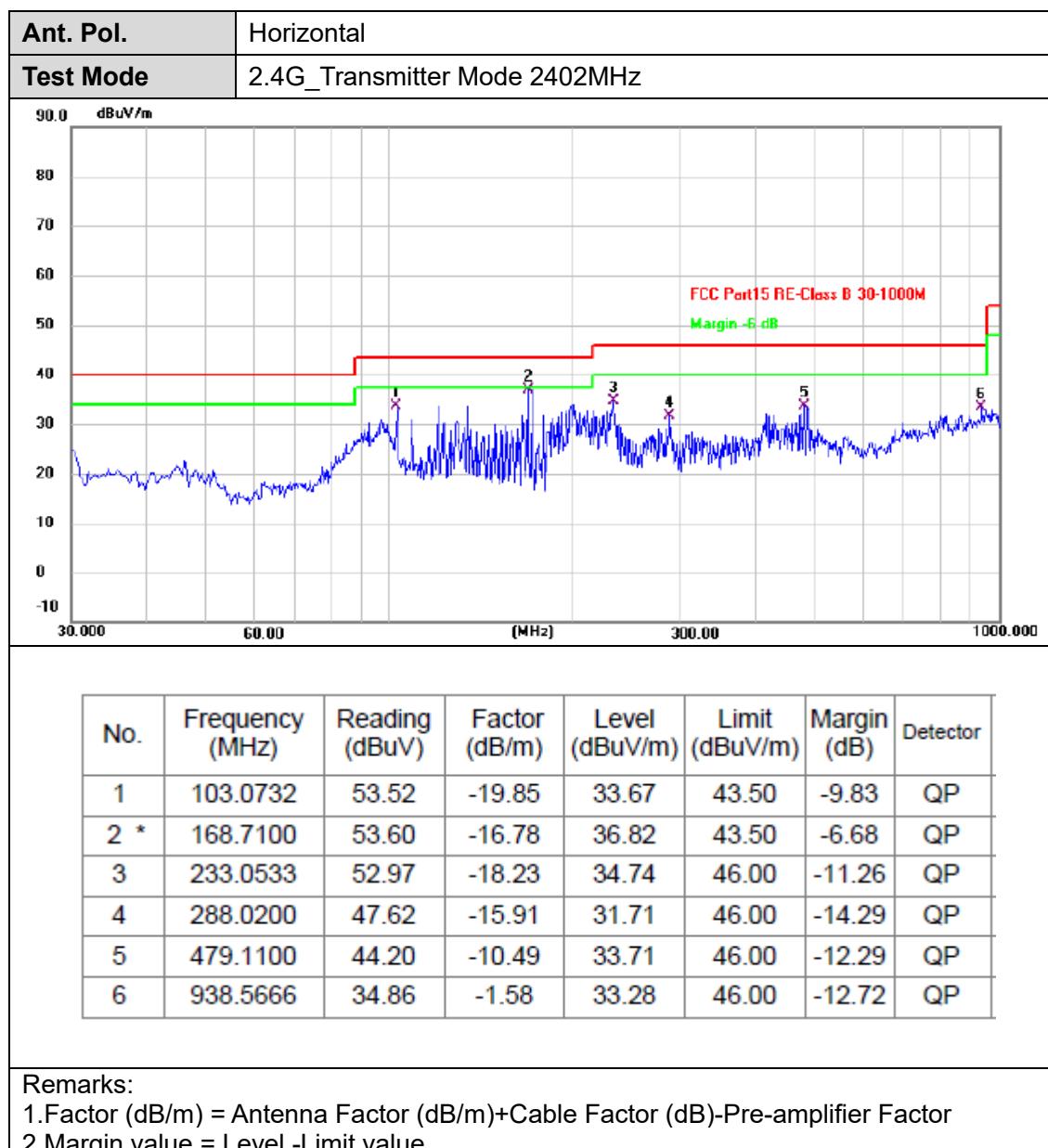
Please refer to the clause 2.3

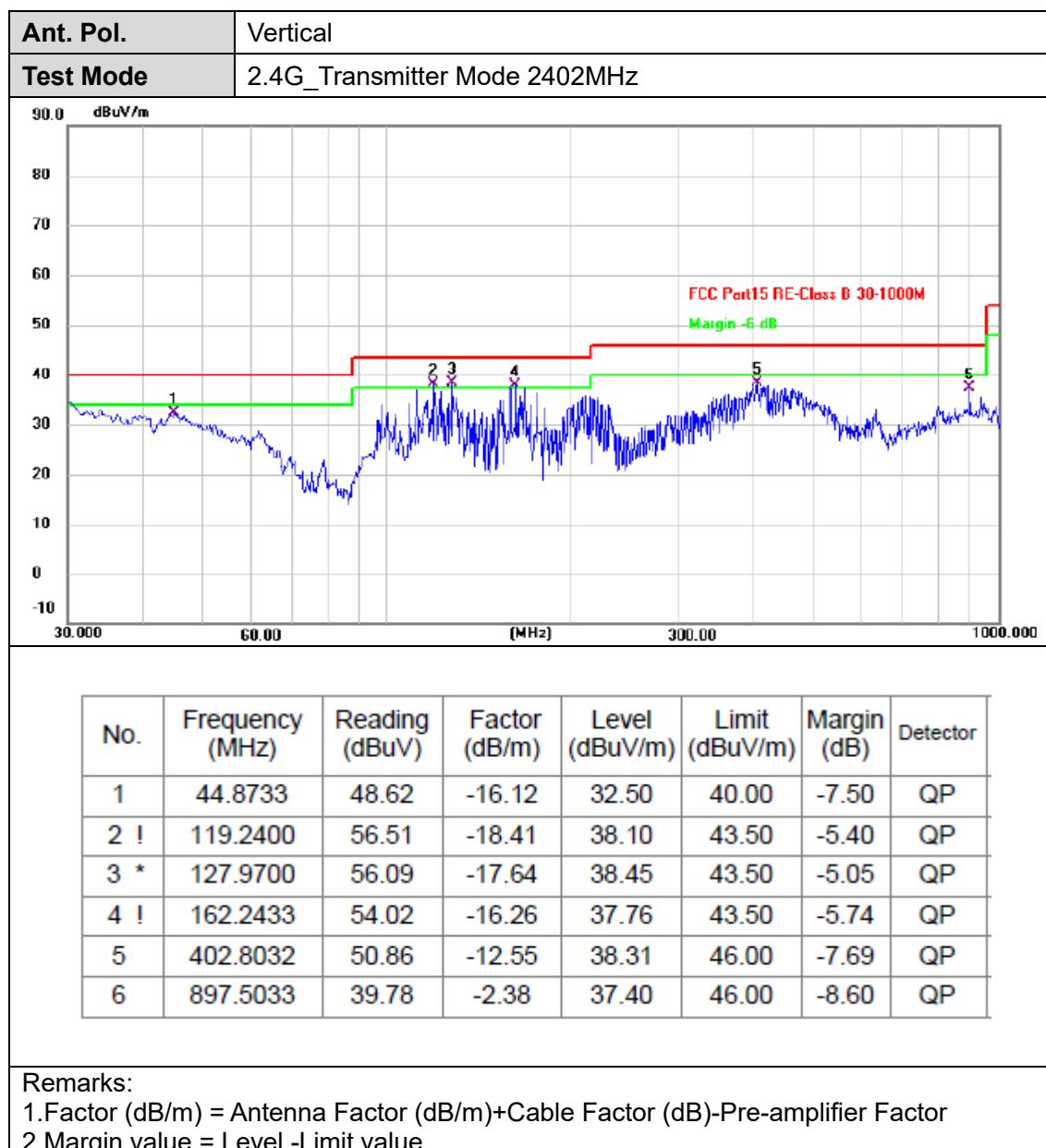
Test Results

■ 9 kHz ~ 30 MHz

The EUT was pre-scanned the frequency band (9 kHz ~ 30 MHz), found the radiated level lower than the limit, so don't show on the report.

■ 30 MHz ~ 1 GHz





■ Above 1 GHz

Ant. Pol.	Horizontal						
Test Mode	2.4G_Transmitter Mode 2402MHz						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	4803.685	29.97	1.84	31.81	54.00	-22.19	AVG
2	4803.750	42.60	1.84	44.44	74.00	-29.56	peak

Remarks:

1. Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2. Margin value = Level -Limit value

Ant. Pol.	Vertical						
Test Mode	2.4G_Transmitter Mode 2402MHz						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	4803.928	34.81	1.84	36.65	54.00	-17.35	AVG
2	4804.087	43.82	1.84	45.66	74.00	-28.34	peak

Remarks:

1. Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2. Margin value = Level -Limit value

Ant. Pol.	Horizontal						
Test Mode	2.4G_Transmitter Mode 2440MHz						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	4879.914	40.60	1.96	42.56	74.00	-31.44	peak
2 *	4880.497	26.78	1.96	28.74	54.00	-25.26	AVG

Ant. Pol.	Vertical						
Test Mode	2.4G_Transmitter Mode 2440MHz						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	4879.923	31.88	1.96	33.84	54.00	-20.16	AVG
2	4880.309	42.68	1.96	44.64	74.00	-29.36	peak

Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

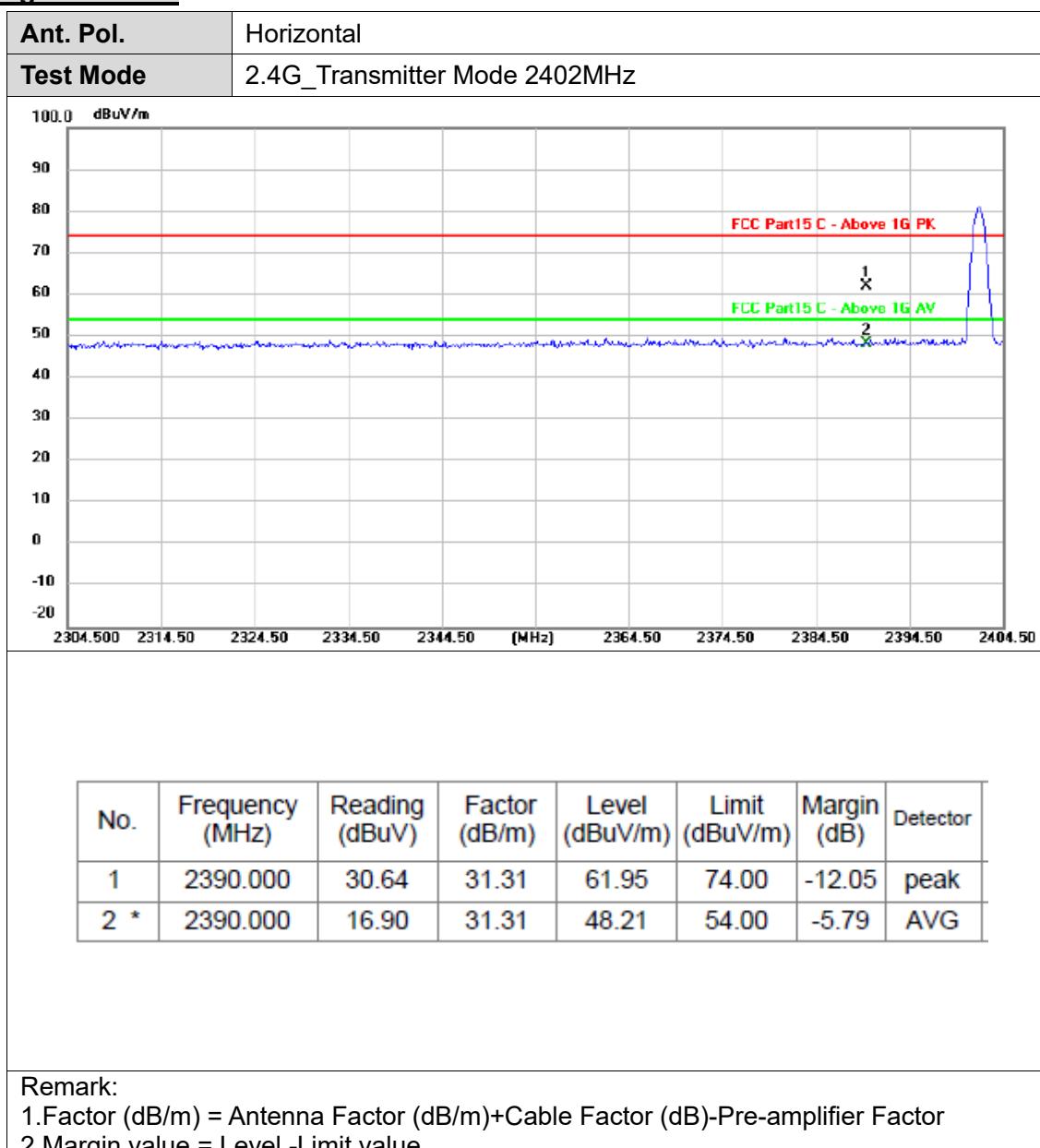


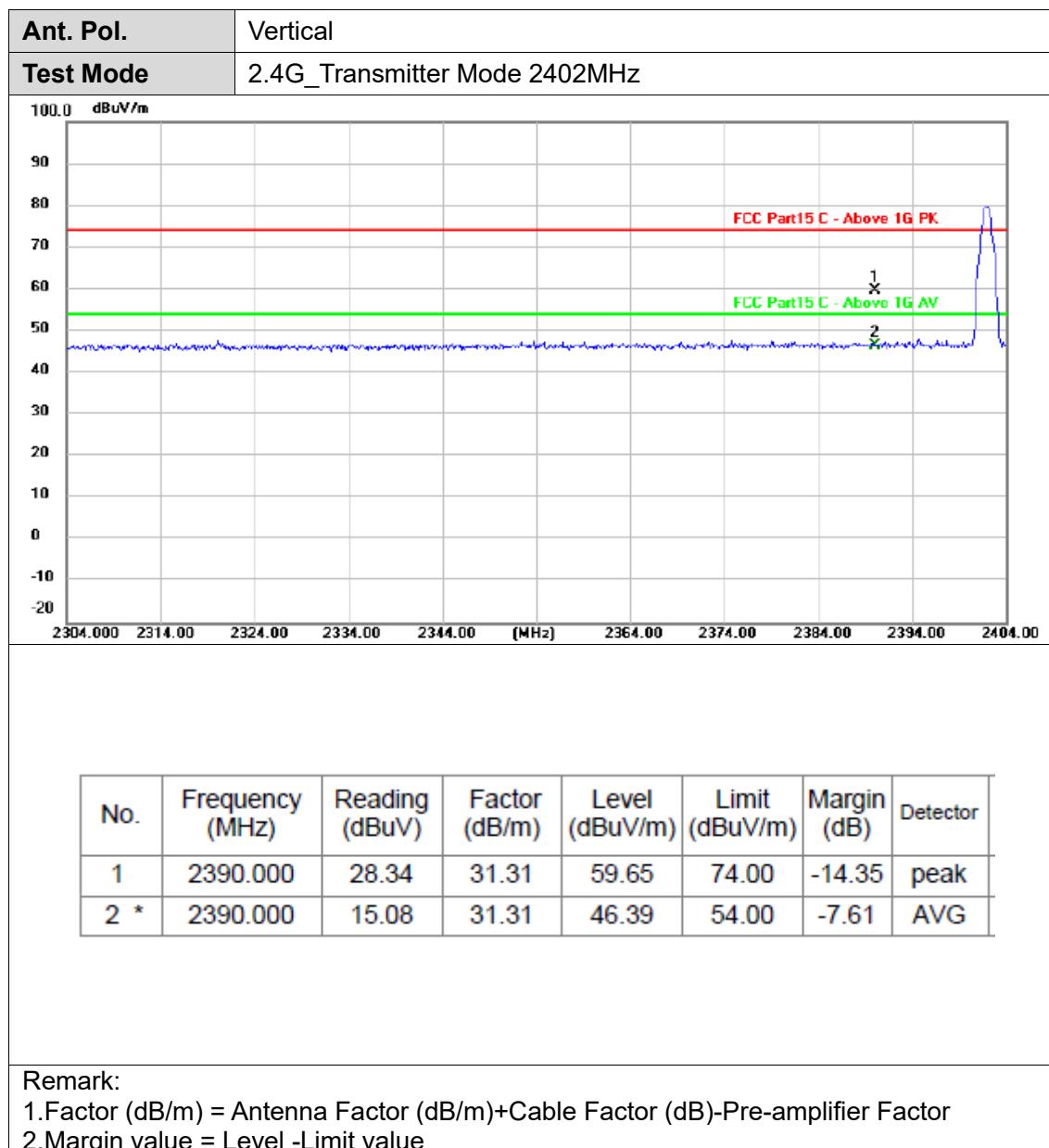
Ant. Pol.	Horizontal						
Test Mode	2.4G_Transmitter Mode 2480MHz						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1 *	4959.951	28.40	2.08	30.48	54.00	-23.52	AVG
2	4960.021	42.21	2.08	44.29	74.00	-29.71	peak

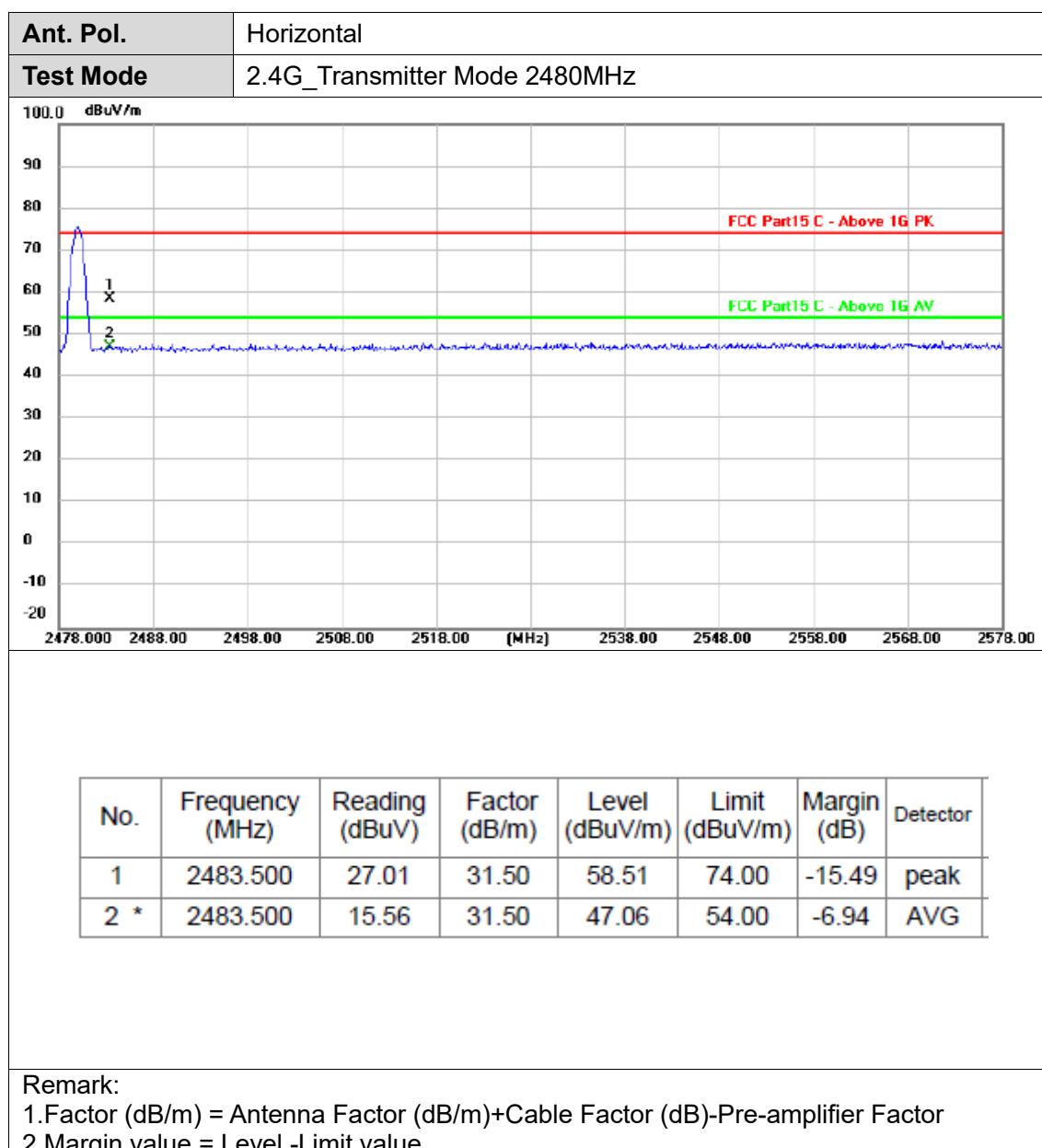
Ant. Pol.	Vertical						
Test Mode	2.4G_Transmitter Mode 2480MHz						
Remark:	No report for the emission which more than 20 dB below the prescribed limit.						
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	4959.512	41.56	2.08	43.64	74.00	-30.36	peak
2 *	4959.982	29.55	2.08	31.63	54.00	-22.37	AVG

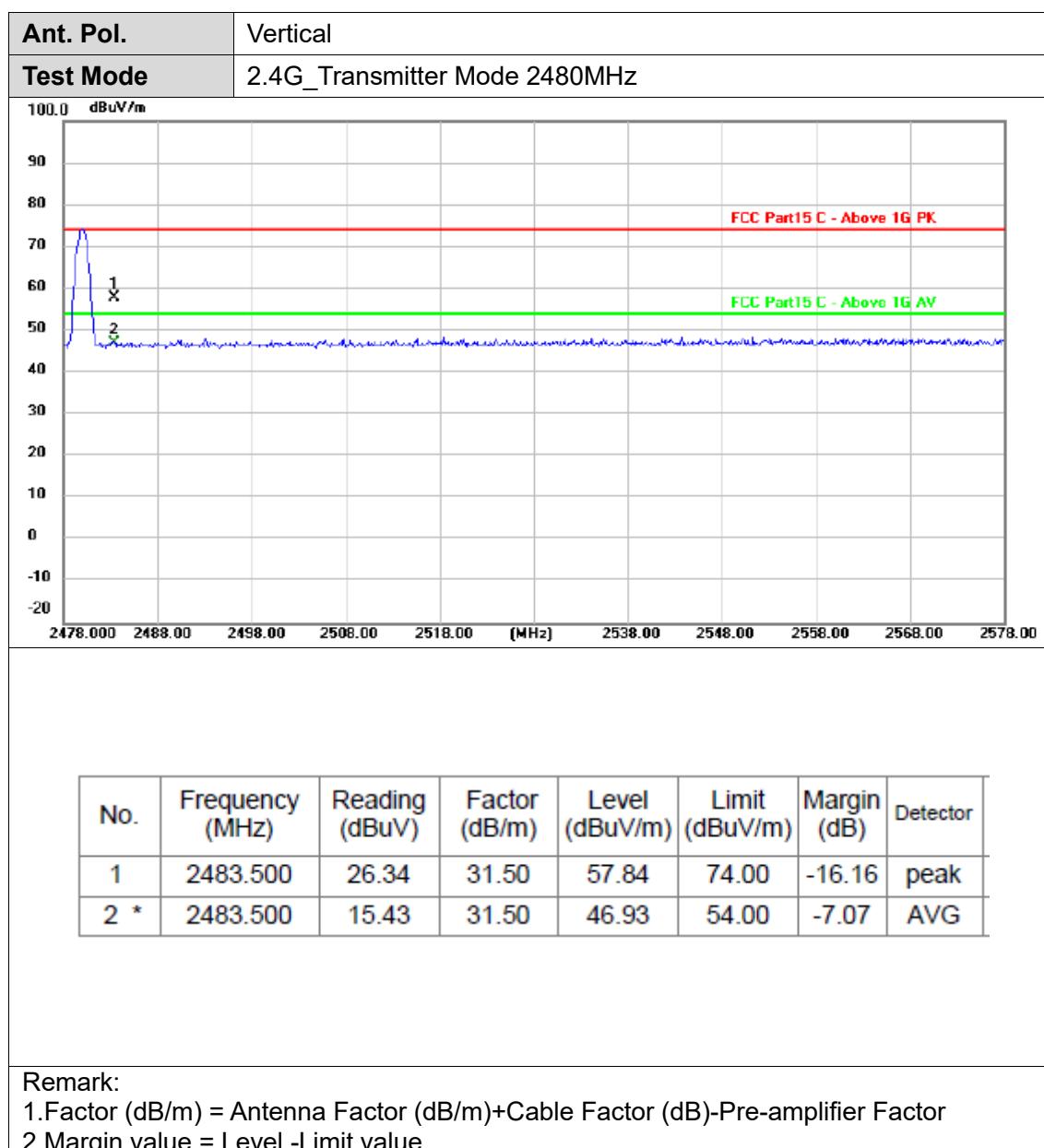
Remarks:
1.Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
2.Margin value = Level -Limit value

Bandedge Emission











3.5. Antenna Requirement

Requirement

FCC CFR Title 47 Part 15 Subpart C 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 use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

(i) Systems operating in the 2400~2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

Test Result

The directional gain of the antenna less than 6dBi, please refer to the EUT internal photographs antenna photo.

*****THE END*****