

TEST REPORT

Product : Single mode Bluetooth(5.0) Module
Trade mark : Richmat
Model/Type reference : HJ8258
Serial Model : /
Report Number : EED39O81104001
FCC ID : 2AJJGHJ8258
Date of Issue : Aug 11, 2022

Test Standards	Result
☒ 47 CFR Part 15 Subpart C	PASS

Prepared for:

Qingdao Richmat Intelligence Technology Inc
NO. 78 Kongquehe 4th Road Qingdao Clothing Industry park Jimo,
Qingdao, Shandong Province 266000, China



Prepared by:
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Authorized Signatory
Check No.: 6637220722

Modification Record

No.	Last Report No.	Modification Description
1	EED39O81104001	First report

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1. Test Summary

Test item	Test Requirement	Test method	Result
Antenna Requirement*	47 CFR Part 15Subpart C Section 15.203/15.247 (c)	ANSI C63.10-2013	PASS
AC Power Line Conducted Emission*	47 CFR Part 15Subpart C Section 15.207	ANSI C63.10-2013	N/A
Maximum conducted output power*	47 CFR Part 15Subpart C Section 15.247 (b)(3)	ANSI C63.10-2013	PASS
DTS Bandwidth*	47 CFR Part 15Subpart C Section 15.247 (a)(2)	ANSI C63.10-2013	PASS
Maximum Power Spectral Density*	47 CFR Part 15Subpart C Section 15.247 (e)	ANSI C63.10-2013	PASS
Band-edge for RF Conducted Emissions*	47 CFR Part 15Subpart C Section 15.247(d)	ANSI C63.10-2013	PASS
RF Conducted Spurious Emissions*	47 CFR Part 15Subpart C Section 15.247(d)	ANSI C63.10-2013	PASS
Radiated Spurious Emissions	47 CFR Part 15Subpart C Section 15.205/15.209	ANSI C63.10-2013	PASS
Restricted bands around fundamental frequency (Radiated Emission)	47 CFR Part 15Subpart C Section 15.205/15.209	ANSI C63.10-2013	PASS

Remark:

1. The product is supplied by DC power.
2. Test according to ANSI C63.4-2014 & ANSI C63.10-2013.
3. Company Name and Address shown on Report, the sample(s) and sample Information was/ were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.
4. "*" Detailed test results, please reference reported EED32M00310701

2. Test Requirement

2.1. Test Environment

Operating Environment:	
Temperature:	24.9°C
Humidity:	48.4% RH
Atmospheric Pressure:	1006mbar

2.2. Test Condition

Test channel:

Test Mode	Tx/Rx	RF Channel		
		Low(L)	Middle(M)	High(H)
GFSK	2402MHz ~2480 MHz	Channel 1	Channel 20	Channel 40
		2402MHz	2440MHz	2480MHz
Transmitting mode:	Keep the EUT in transmitting mode with all kind of modulation and all kind of data rate.			

3. General Information

3.1. Client Information

Applicant:	Qingdao Richmat Intelligence Technology Inc
Address of Applicant:	NO. 78 Kongquehe 4th Road Qingdao Clothing Industry park Jimo, Qingdao, Shandong Province 266000, China
Manufacturer:	Qingdao Richmat Intelligence Technology Inc
Address of Manufacturer:	NO. 78 Kongquehe 4th Road Qingdao Clothing Industry park Jimo, Qingdao, Shandong Province 266000, China
Factory:	Qingdao Richmat Intelligence Technology Inc
Address of Factory:	NO. 78 Kongquehe 4th Road Qingdao Clothing Industry park Jimo, Qingdao, Shandong Province 266000, China

3.2. General Description of EUT

Product Name:	Single mode Bluetooth(5.0) Module
Model No.(EUT)*:	HJ8258
Trade Mark:	Richmat
EUT Supports Radios application:	Bluetooth V5.0 BLE
Power Supply:	Model No: ZB-H290020-B Input: AC100-240V 1.6A, 50/60Hz Output: DC 29.0V 2.0A 58W
Sample Received Date:	Jul 25, 2022
Sample Tested Date:	Jul 30, 2022 ~ Aug 9, 2022

3.3. Product Specification subjective to this standard

Operation Frequency:	2402MHz~2480MHz
Bluetooth Version:	BLE 5.0
Modulation Type:	GFSK
Number of Channel:	40
Sample Type:	Mobile production
Test Software of EUT:	EMI Tool (manufacturer declare)
Antenna Type:	PCB Antenna

Report No. : EED39081104001

Antenna Gain ^① :	5.3dBi
Test Voltage:	AC 120V/60Hz

Note: 1 The antenna gain is provided by the client and we Centre Testing International (Suzhou) CO., LTD. test lab is not responsible for the accuracy of the antenna gain information.

Operation Frequency each of channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2402MHz	11	2422MHz	21	2442MHz	31	2462MHz
2	2404MHz	12	2424MHz	22	2444MHz	32	2464MHz
3	2406MHz	13	2426MHz	23	2446MHz	33	2466MHz
4	2408MHz	14	2428MHz	24	2448MHz	34	2468MHz
5	2410MHz	15	2430MHz	25	2450MHz	35	2470MHz
6	2412MHz	16	2432MHz	26	2452MHz	36	2472MHz
7	2414MHz	17	2434MHz	27	2454MHz	37	2474MHz
8	2416MHz	18	2436MHz	28	2456MHz	38	2476MHz
9	2418MHz	19	2438MHz	29	2458MHz	39	2478MHz
10	2420MHz	20	2440MHz	30	2460MHz	40	2480MHz

3.4. Tested System Details

Product	Manufacturer	Model No.
Handset	Richmat	Model Name.: HJH158 Ble, HJH159 Ble , HJSR69 Ble,HJSR69B Ble,HJSR69C Ble,HJSR69D Ble,HJSR69E Ble,HJSR69F Ble
Among them, HJSR69 Ble, HJSR69B Ble, HJSR69C Ble, HJSR69D Ble, HJSR69E Ble,HJSR69F Ble use the same PCB, the circuit design, layout, components and wiring are exactly the same, but the number of backlights used is different. HJH158 Ble, HJH159 Ble differ from their circuit design, layout, component usage, internal wiring and external decoration.		

3.5. Description of Support Units

The EUT has been tested with associated equipment below.

1) support equipment

Description	Manufacturer	Model No.	Certification	Supplied by
NB	ThinkPad	E490	FCC ID and DOC	CTI

3.6. Test Location

All test facilities used to collect the test data are located at Building 18, Zhihui New Town Ecological Industrial Park, No. 1206, Jinyang East Road, Lujia Town, Kunshan, Jiangsu, China.

3.7. Test Facility

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

A2LA-Lab Cert. No. 5734.01

Centre Testing International (Suzhou) CO., LTD. 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: 2005 General Requirements for the Competence of Testing and Calibration. Laboratories and any additional program requirements in the identified field of testing.

FCC-Designation No.:CN1290

Centre Testing International Group Co., Ltd EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The American association for Centre Testing International Group Co., Ltd. EMC laboratory accreditation Designation No.:CN1290

3.8. Deviation from Standards

None.

3.9. Abnormalities from Standard Conditions

None.

3.10. Other Information Requested by the Customer

None.

3.11. Measurement Uncertainty (95% confidence levels, k=2)

No.	Item	Measurement Uncertainty
1	Occupied Bandwidth	0.56%
2	RF Power conducted	0.59 dB
3	Power Spectral Density, conducted	2.37 dB
4	Unwanted Emission, conducted	2.68 dB
5	All Emission, radiated	4.41 dB(30MHz-1GHz)
		4.99 dB(1GHz-18GHz)
		5.307 dB(18GHz-40GHz)
6	Temperature test	0.54°C
7	Humidity test	1.62%
8	DC and low frequency voltages test	1.14%

4. Equipment List

966 Semi-anechoic Chamber					
Equipment	Manufacturer	Mode No.	Serial Number	Cal. Date (yyyy-mm-dd)	Cal. Due date (yyyy-mm-dd)
Receiver	R&S	ESU8	100537	2021-12-06	2022-12-05
Spectrum analyzer	R&S	FSV40	101185	2021-12-06	2022-12-05
Preamplifier (30MHz~1GHz)	R&S	SCU-08	100748	2022-05-24	2023-05-23
Preamplifier (1GHz~18GHz)	R&S	SCU-18D	1987397	2021-12-09	2022-12-08
Preamplifier (18GHz~40GHz)	/	MTLNA1804003 0235	12009007	2021-10-23	2022-10-22
Loop Antenna (9kHz~30MHz)	TESEQ	HLA6121	54575	2022-02-26	2023-02-25
Antenna (30MHz~1GHz)	SCHWARZBEC K	VULB9163	9163-965	2021-10-15	2022-10-14
Antenna (1GHz~18GHz)	R&S	HF907	102524	2021-12-14	2022-12-13
Antenna (18GHz~40GHz)	R&S	BBHA9170	1032	2021-10-23	2022-10-22
Band rejection filter	Xi'an xingbo	XBLBQ-DZA81	200827-1-02	/	/

5. Radio Technical Requirements Specification

5.1. Reference Documents for Testing

No.	Identity	Document Title
1	FCC Part15C	Subpart C-Intentional Radiators
2	ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless Devices

5.2. Test Results List

Test requirement	Test method	Test item	Verdict	Note
Part15C Section 15.205/15.209	ANSI C63.10 Section 6.10.5	Restricted bands around fundamental frequency (Radiated Emission)	PASS	Appendix A)
Part15C Section 15.205/15.209	ANSI C63.10 Section 6.4,6.5,6.6	Radiated Spurious Emissions	PASS	Appendix B)

Appendix A): Restricted bands around fundamental frequency (Radiated)

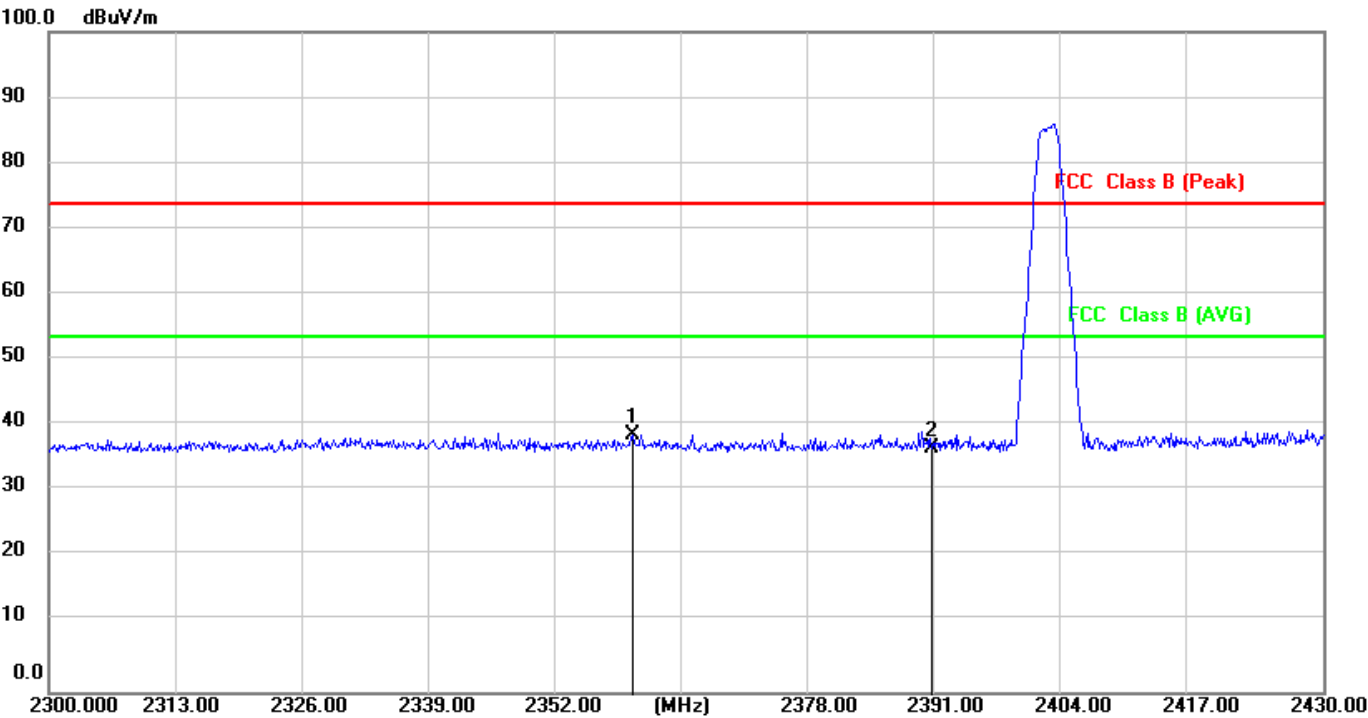
Receiver Setup:	<table><tr><td>Frequency</td><td>Detector</td><td>RBW</td><td>VBW</td><td>Remark</td></tr><tr><td>30MHz-1GHz</td><td>Quasi-peak</td><td>120kHz</td><td>300kHz</td><td>Quasi-peak</td></tr><tr><td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak</td></tr><tr><td>Peak</td><td>1MHz</td><td>1/T</td><td>Average</td></tr></table>	Frequency	Detector	RBW	VBW	Remark	30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak	Above 1GHz	Peak	1MHz	3MHz	Peak	Peak	1MHz	1/T	Average	
Frequency	Detector	RBW	VBW	Remark																	
30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak																	
Above 1GHz	Peak	1MHz	3MHz	Peak																	
	Peak	1MHz	1/T	Average																	
Test Procedure:	Below 1GHz test procedure as below: a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation. b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable was turned from 0 degrees to 360 degrees to find the maximum reading. e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. f. Place a marker at the end of the restricted band closest to the transmit frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for each power and modulation for lowest and highest channel Above 1GHz test procedure as below: a. Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber change form table 0.8 meter to 1.5 meter(Above 18GHz the distance is 1 meter and table is 1.5 meter). b. Test the EUT in the lowest channel , the Highest channel c. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is worse case. d. Repeat above procedures until all frequencies measured was complete.																				
Limit:	<table><tr><td>Frequency</td><td>Limit (dBμV/m @3m)</td><td>Remark</td></tr><tr><td>30MHz-88MHz</td><td>40.0</td><td>Quasi-peak Value</td></tr><tr><td>88MHz-216MHz</td><td>43.5</td><td>Quasi-peak Value</td></tr><tr><td>216MHz-960MHz</td><td>46.0</td><td>Quasi-peak Value</td></tr><tr><td>960MHz-1GHz</td><td>54.0</td><td>Quasi-peak Value</td></tr><tr><td rowspan="2">Above 1GHz</td><td>54.0</td><td>Average Value</td></tr><tr><td>74.0</td><td>Peak Value</td></tr></table>	Frequency	Limit (dBμV/m @3m)	Remark	30MHz-88MHz	40.0	Quasi-peak Value	88MHz-216MHz	43.5	Quasi-peak Value	216MHz-960MHz	46.0	Quasi-peak Value	960MHz-1GHz	54.0	Quasi-peak Value	Above 1GHz	54.0	Average Value	74.0	Peak Value
Frequency	Limit (dBμV/m @3m)	Remark																			
30MHz-88MHz	40.0	Quasi-peak Value																			
88MHz-216MHz	43.5	Quasi-peak Value																			
216MHz-960MHz	46.0	Quasi-peak Value																			
960MHz-1GHz	54.0	Quasi-peak Value																			
Above 1GHz	54.0	Average Value																			
	74.0	Peak Value																			

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Test plot as follows:

Mode:	BLE_1M	Channel:	2402
Remark:	Horizontal	Test model No.:	HJH158 Ble

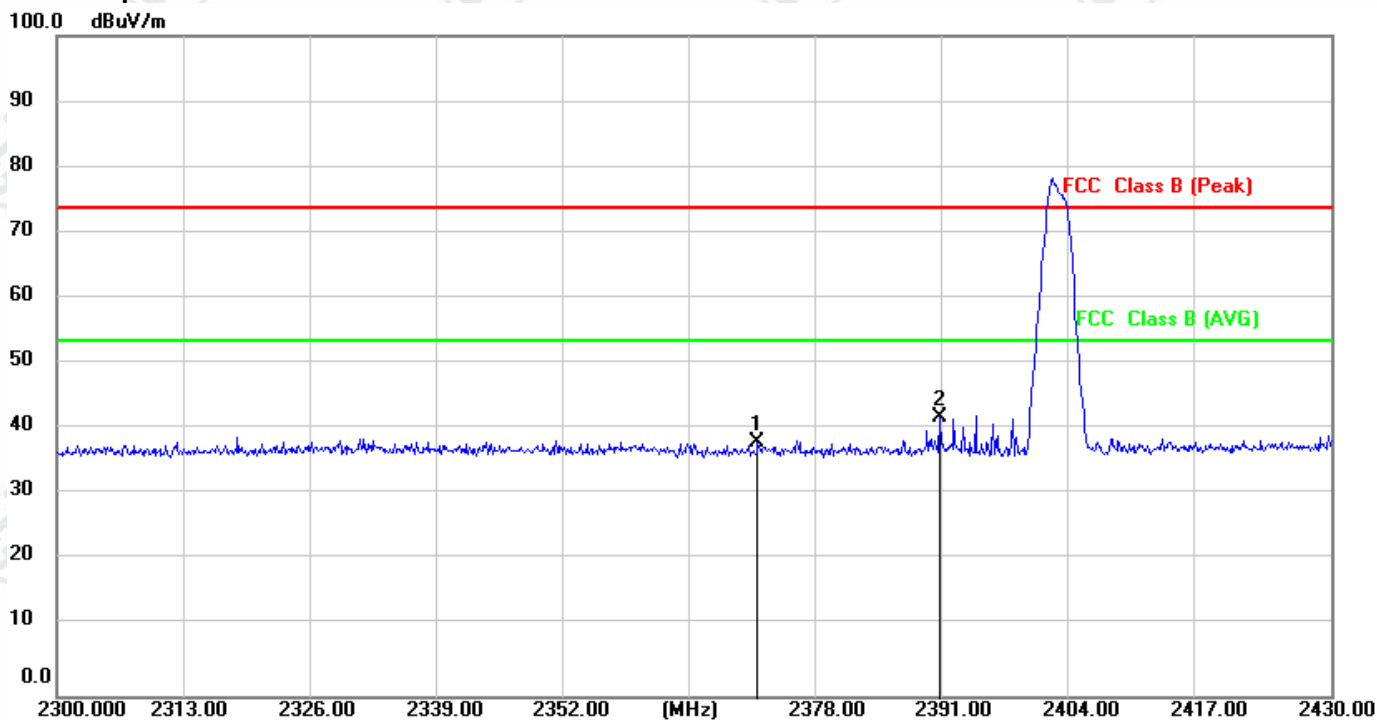
Test Graph



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2359.540	36.48	2.63	39.11	74.00	-34.89	100	319	peak
2	2390.000	34.25	2.71	36.96	74.00	-37.04	170	360	peak

Mode:	BLE_1M	Channel:	2402
Remark:	Vertical	Test model No.:	HJH158 Ble

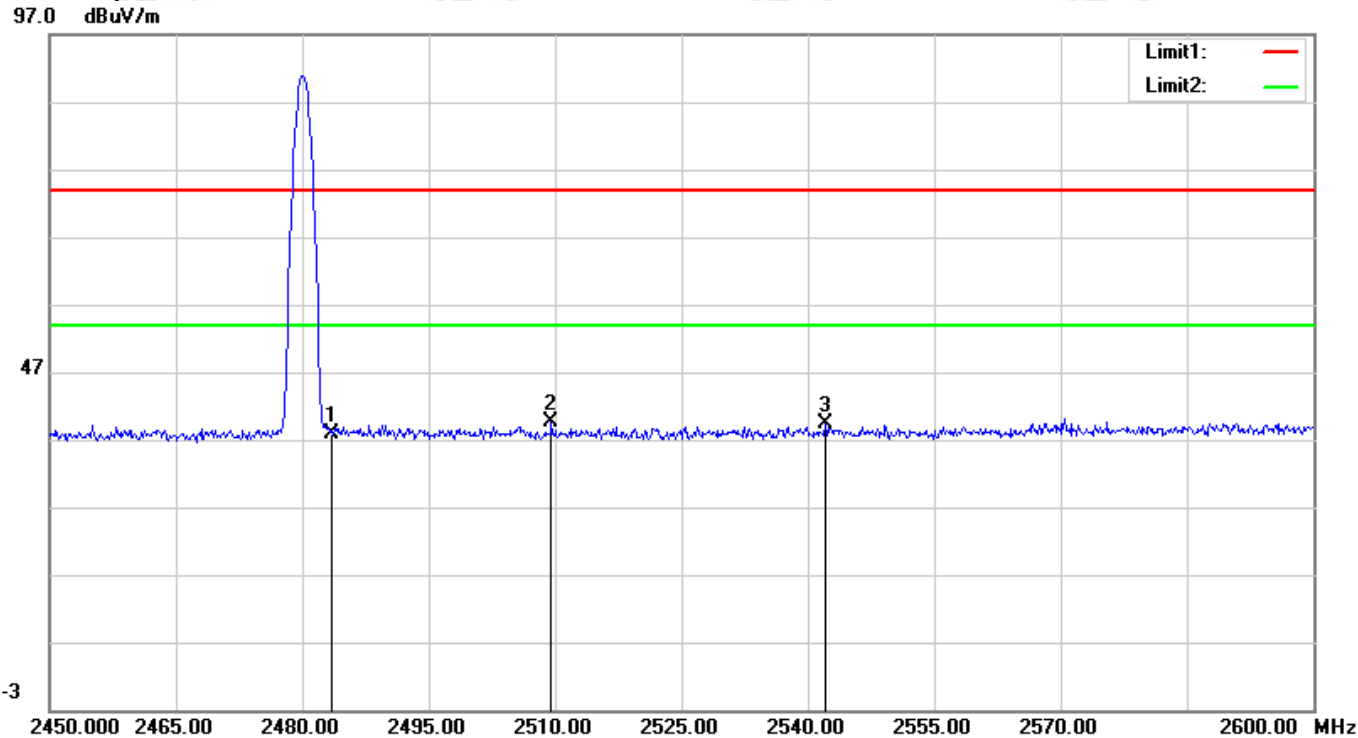
Test Graph



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2371.500	35.84	2.66	38.50	74.00	-35.50	200	341	peak
2	2390.000	39.62	2.71	42.33	74.00	-31.67	100	357	peak

Mode:	BLE_1M	Channel:	2480
Remark:	Horizontal	Test model No.:	HJH158 Ble

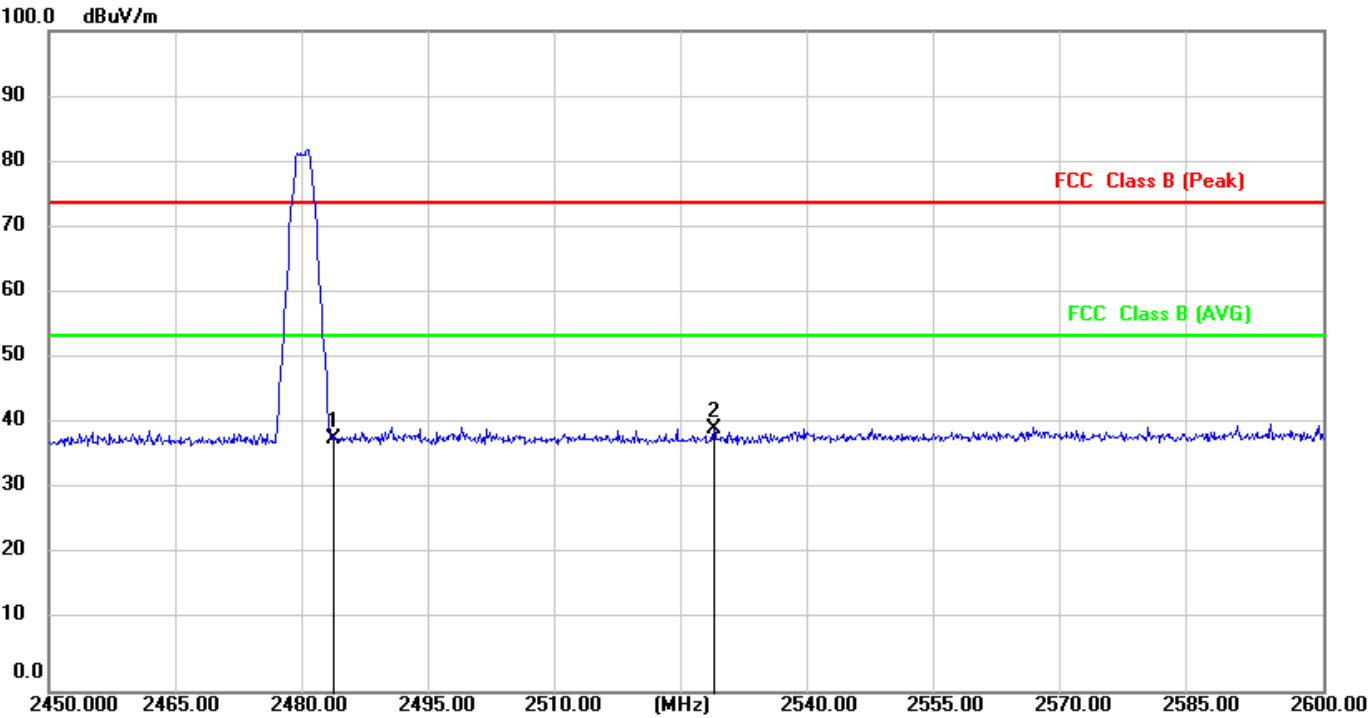
Test Graph



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2483.500	37.01	2.92	39.93	74.00	-34.07	100	0	peak
2	2507.900	39.55	2.97	42.52	74.00	-31.48	118	0	peak

Mode:	BLE_1M	Channel:	2480
Remark:	Vertical	Test model No.:	HJH158 Ble

Test Graph

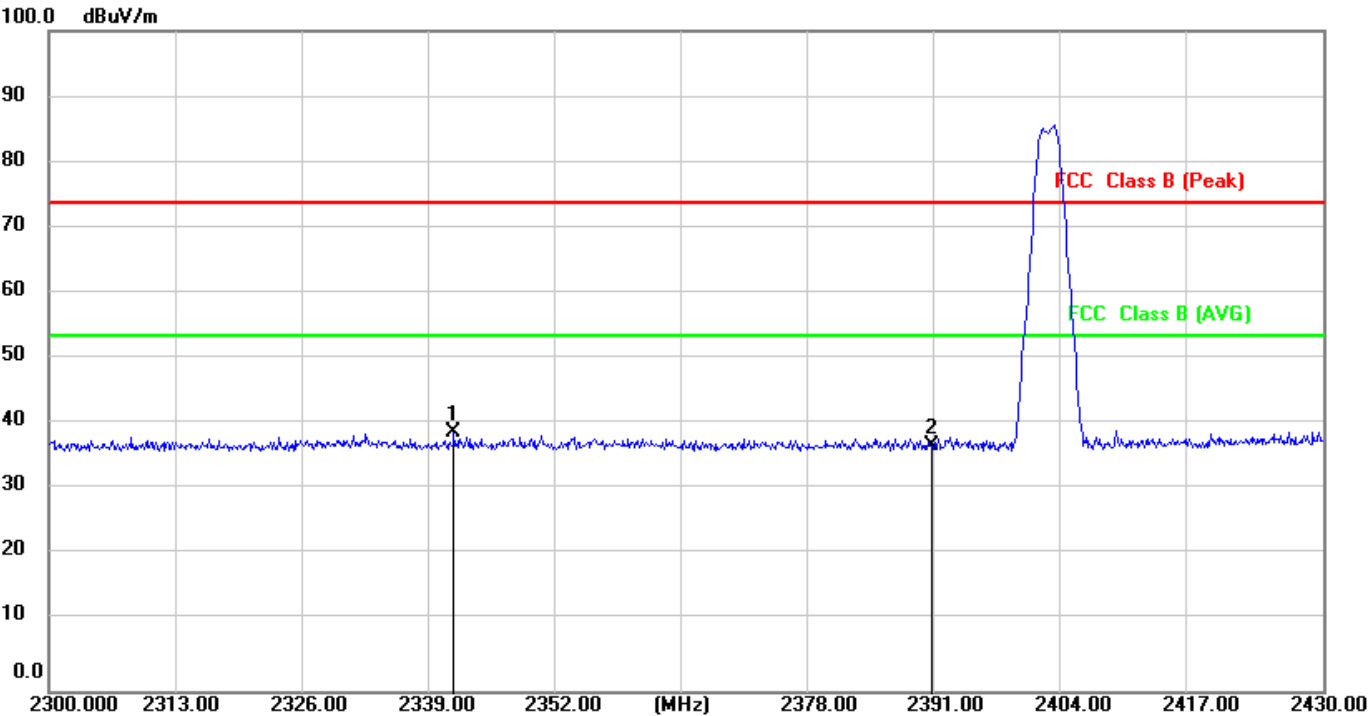


No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2483.500	35.35	2.92	38.27	74.00	-35.73	141	0	peak
2	2528.300	36.93	3.01	39.94	74.00	-34.06	200	125	peak

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Mode:	BLE_2M	Channel:	2402
Remark:	Horizontal	Test model No.:	HJH158 Ble

Test Graph

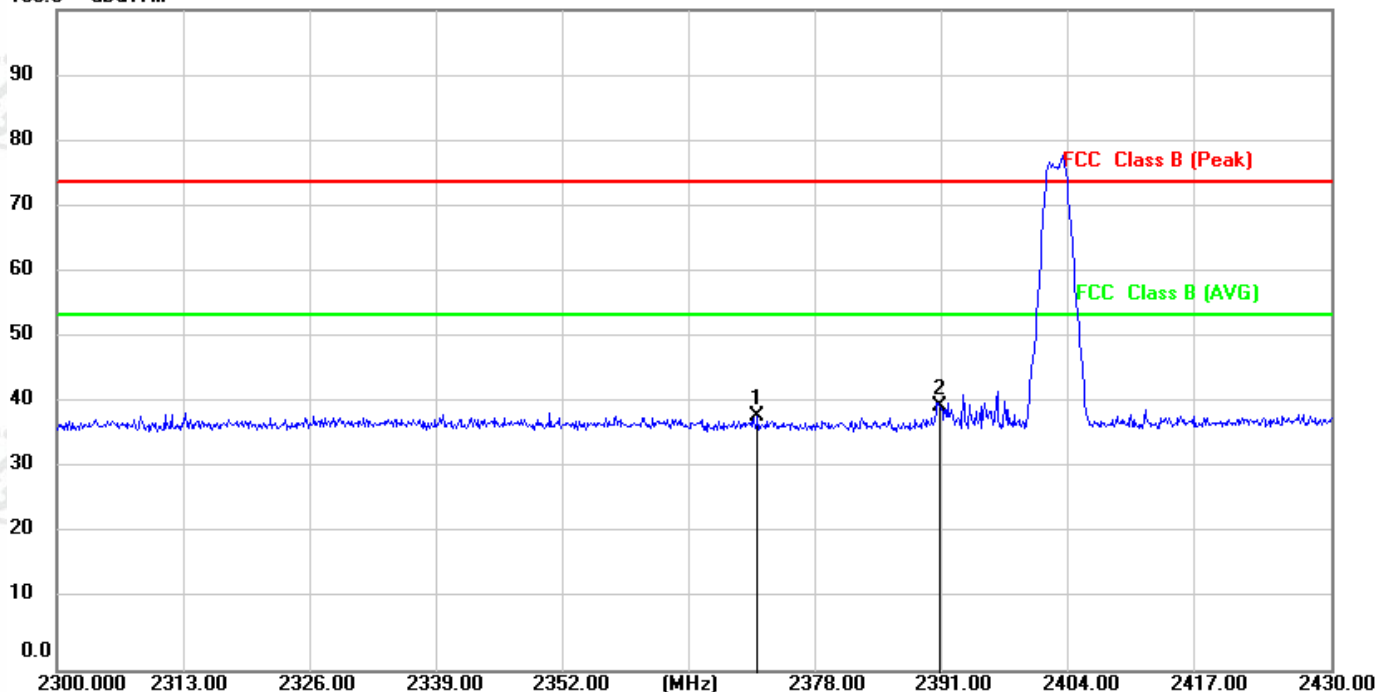


No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2341.340	36.85	2.58	39.43	74.00	-34.57	100	323	peak
2	2390.000	34.62	2.71	37.33	74.00	-36.67	166	0	peak

Mode:	BLE_2M	Channel:	2402
Remark:	Vertical	Test model No.:	HJH158 Ble

Test Graph

100.0 dBuV/m

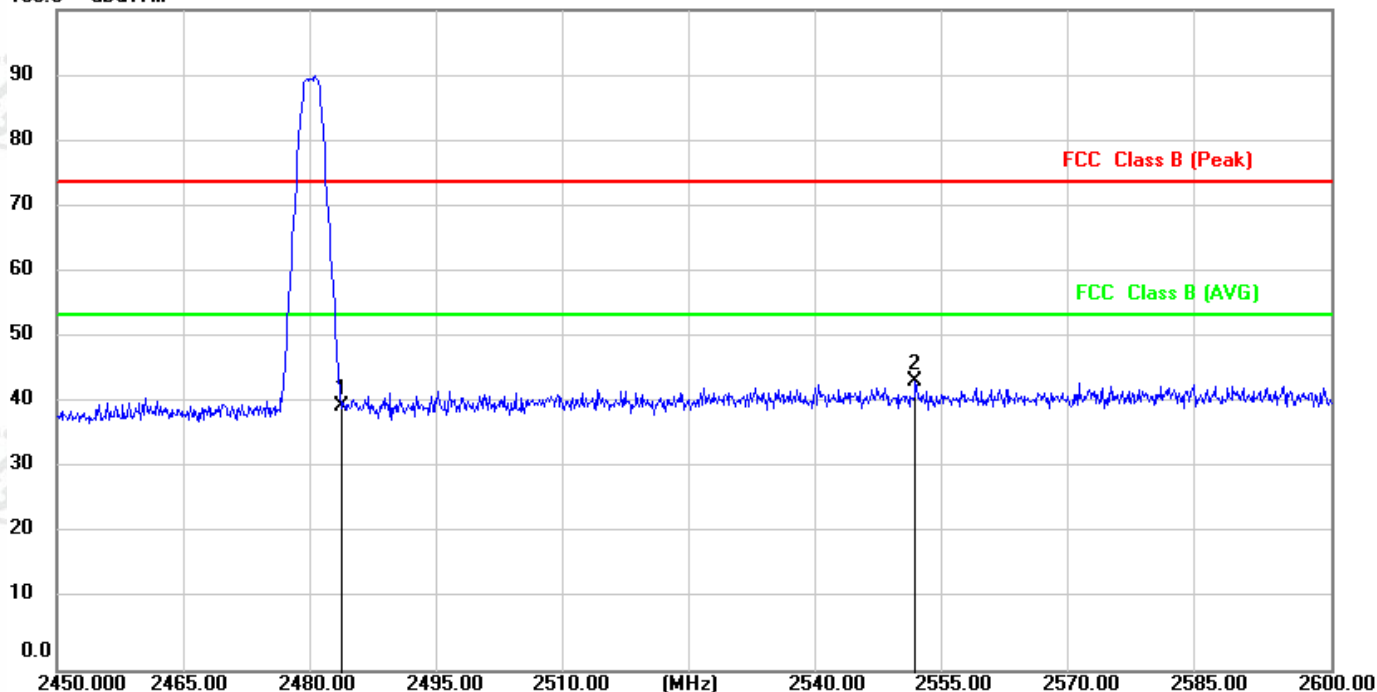


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2371.500	35.80	2.66	38.46	74.00	-35.54	100	316	peak
2	2390.000	37.47	2.71	40.18	74.00	-33.82	100	348	peak

Mode:	BLE_2M	Channel:	2480
Remark:	Horizontal	Test model No.:	HJH158 Ble

Test Graph

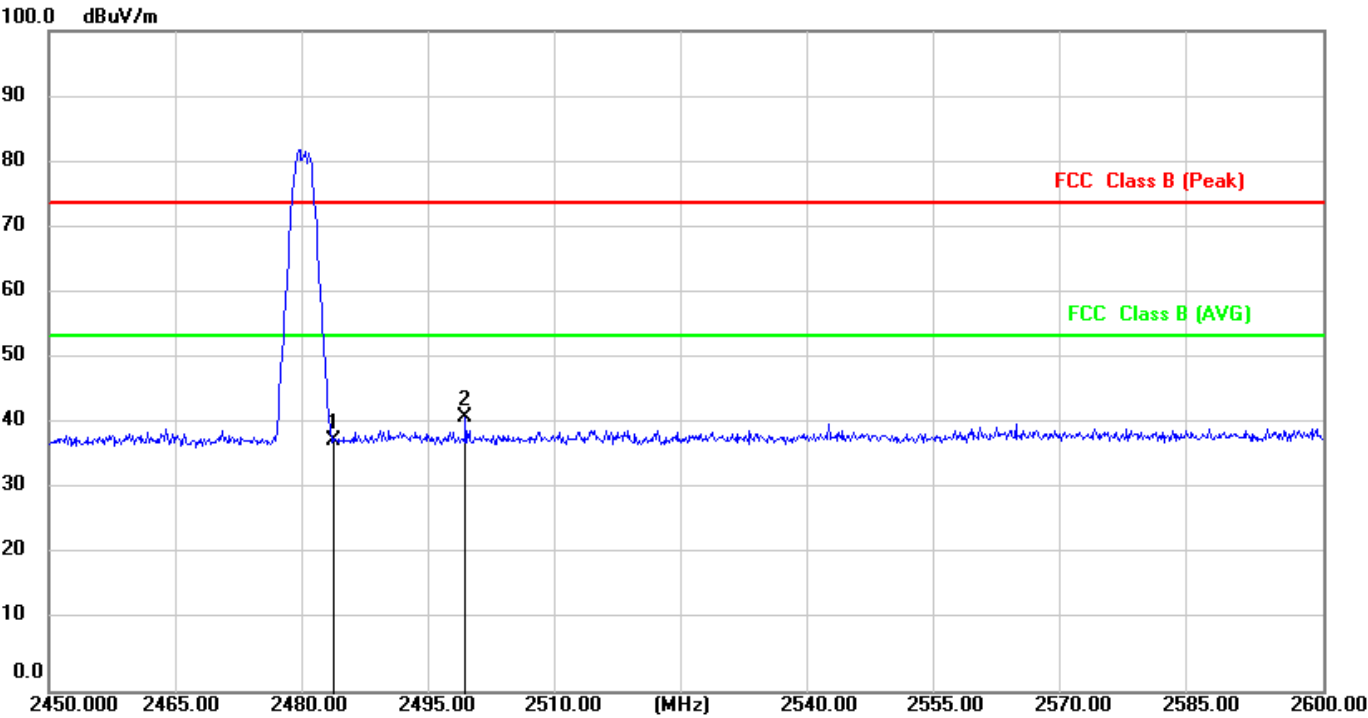
100.0 dBuV/m



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	37.14	2.92	40.06	74.00	-33.94	176	0	peak
2	2551.100	40.72	3.06	43.78	74.00	-30.22	100	14	peak

Mode:	BLE_2M	Channel:	2480
Remark:	Vertical	Test model No.:	HJH158 Ble

Test Graph

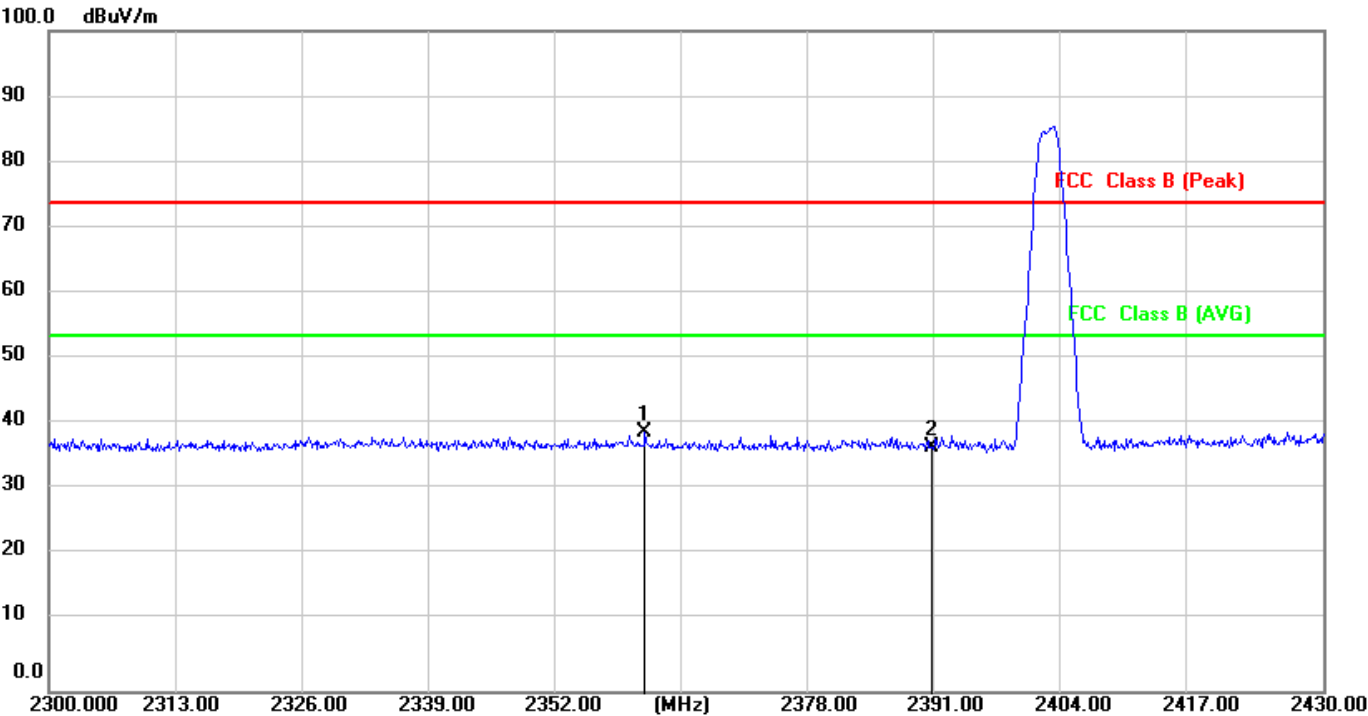


No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2483.500	35.20	2.92	38.12	74.00	-35.88	113	0	peak
2	2499.050	38.74	2.95	41.69	74.00	-32.31	200	286	peak

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Mode:	BLE_125kbps	Channel:	2402
Remark:	Horizontal	Test model No.:	HJH158 Ble

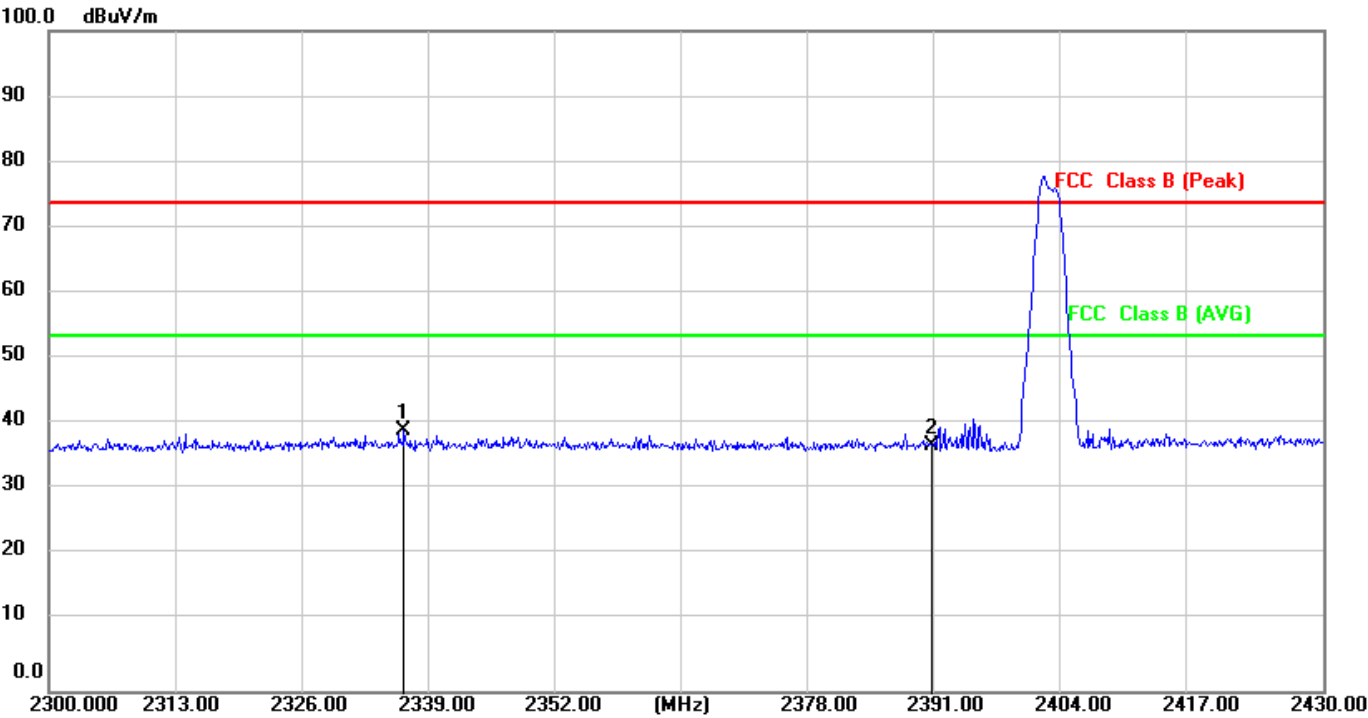
Test Graph



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2360.840	36.61	2.63	39.24	74.00	-34.76	100	118	peak
2	2390.000	34.25	2.71	36.96	74.00	-37.04	100	109	peak

Mode:	BLE_125kbps	Channel:	2402
Remark:	Vertical	Test model No.:	HJH158 Ble

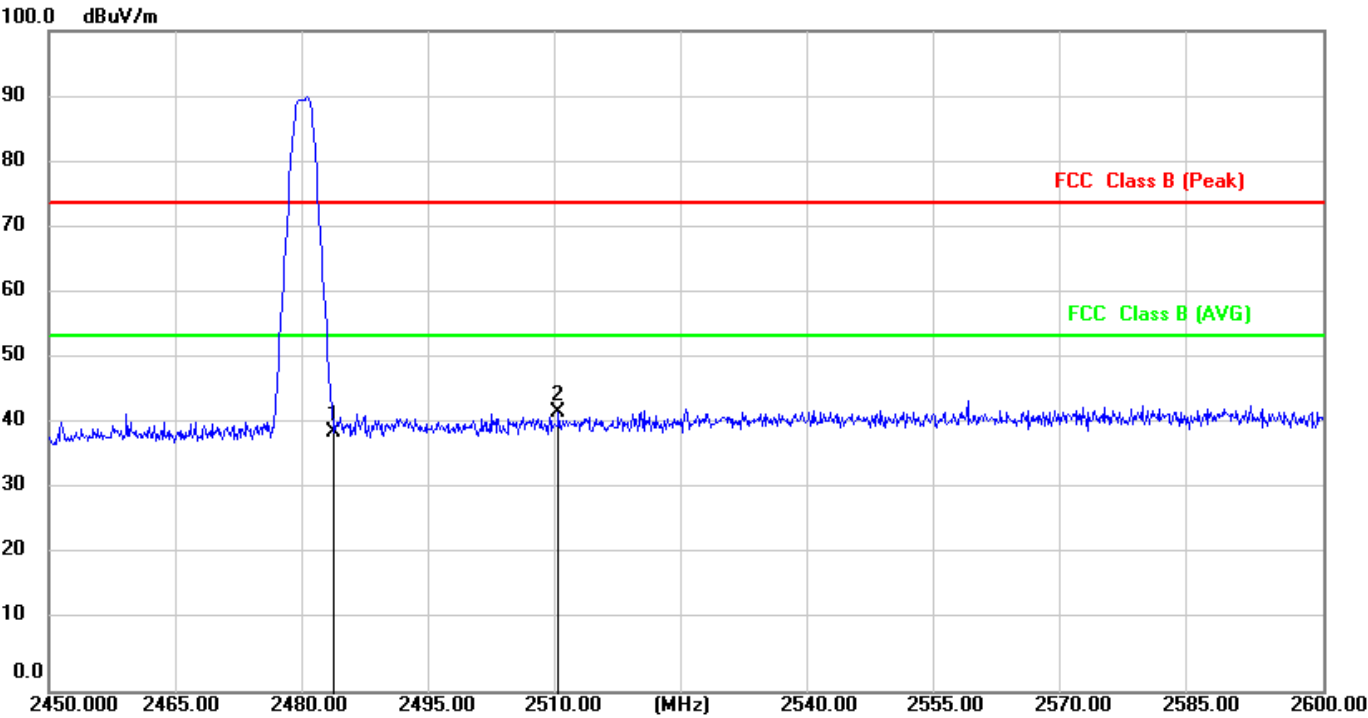
Test Graph



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2336.270	36.89	2.57	39.46	74.00	-34.54	100	309	peak
2	2390.000	34.52	2.71	37.23	74.00	-36.77	200	346	peak

Mode:	BLE_125kbps	Channel:	2480
Remark:	Horizontal	Test model No.:	HJH158 Ble

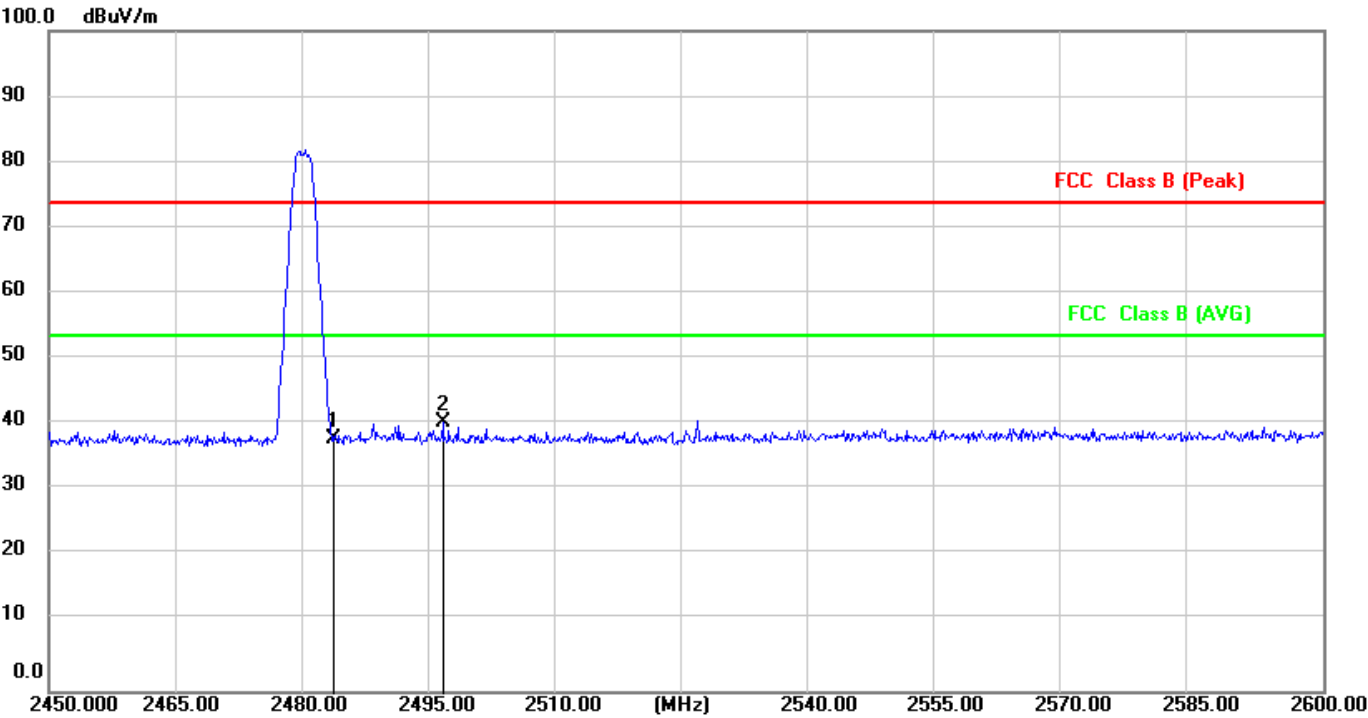
Test Graph



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2483.500	36.50	2.92	39.42	74.00	-34.58	200	295	peak
2	2510.000	39.28	2.97	42.25	74.00	-31.75	200	68	peak

Mode:	BLE_125kbps	Channel:	2480
Remark:	Vertical	Test model No.:	HJH158 Ble

Test Graph

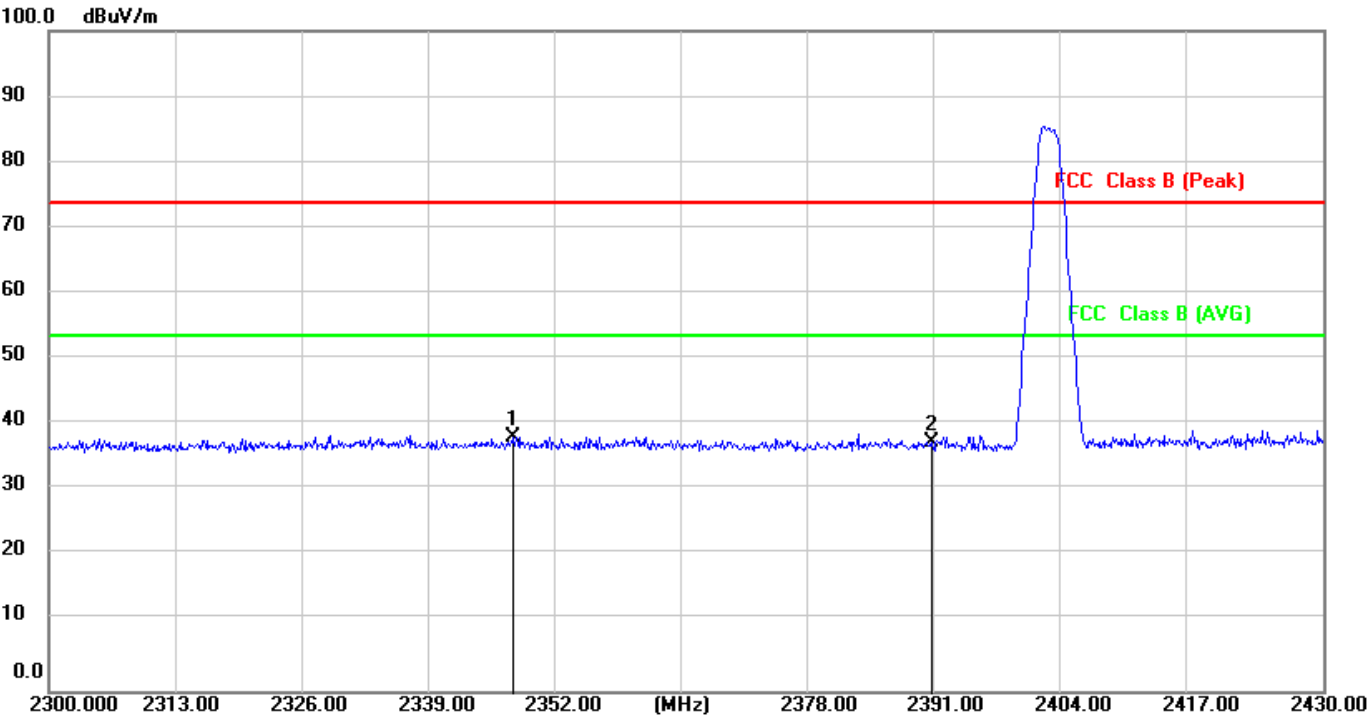


No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2483.500	35.52	2.92	38.44	74.00	-35.56	200	259	peak
2	2496.350	37.84	2.94	40.78	74.00	-33.22	200	286	peak

Report No. : EED39O81104001

Mode:	BLE_500kbps	Channel:	2402
Remark:	Horizontal	Test model No.:	HJH158 Ble

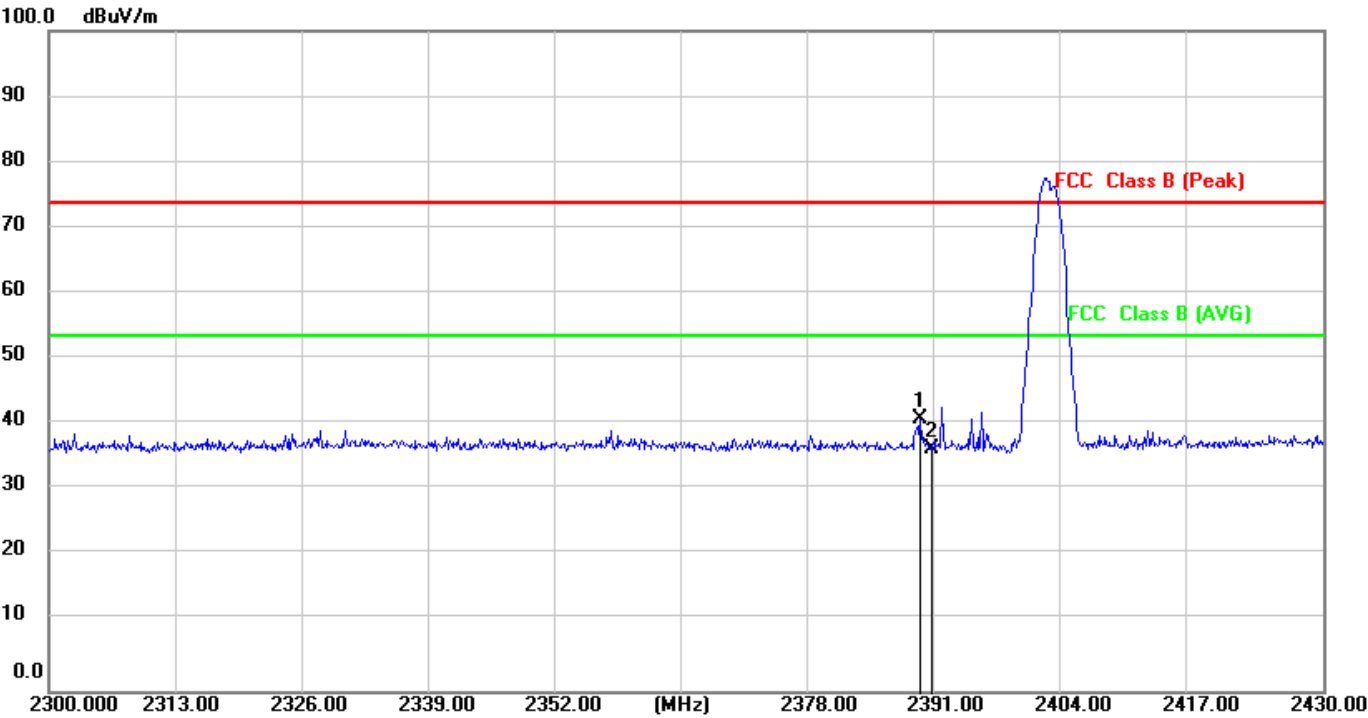
Test Graph



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2347.450	36.07	2.60	38.67	74.00	-35.33	100	166	peak
2	2390.000	34.99	2.71	37.70	74.00	-36.30	147	0	peak

Mode:	BLE_500kbps	Channel:	2402
Remark:	Vertical	Test model No.:	HJH158 Ble

Test Graph

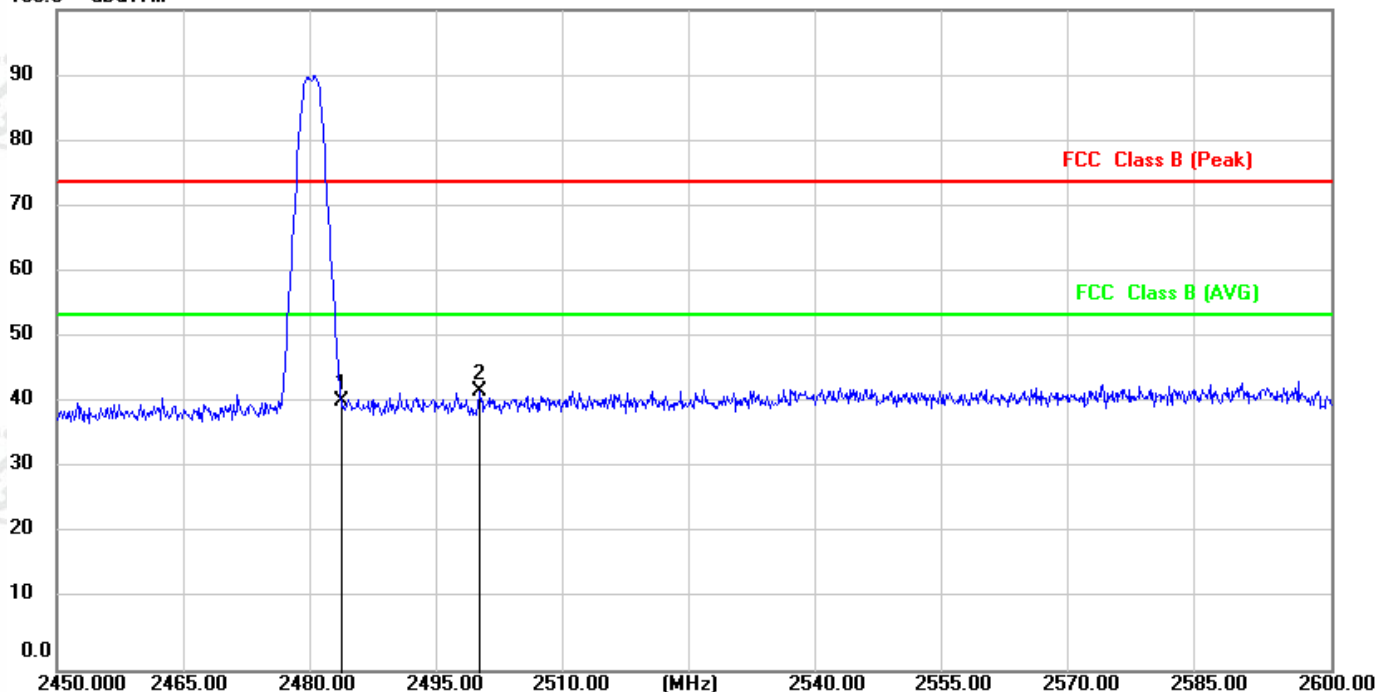


No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2388.920	38.51	2.71	41.22	74.00	-32.78	200	110	peak
2	2390.000	34.10	2.71	36.81	74.00	-37.19	200	300	peak

Mode:	BLE_500kbps	Channel:	2480
Remark:	Horizontal	Test model No.:	HJH158 Ble

Test Graph

100.0 dBuV/m

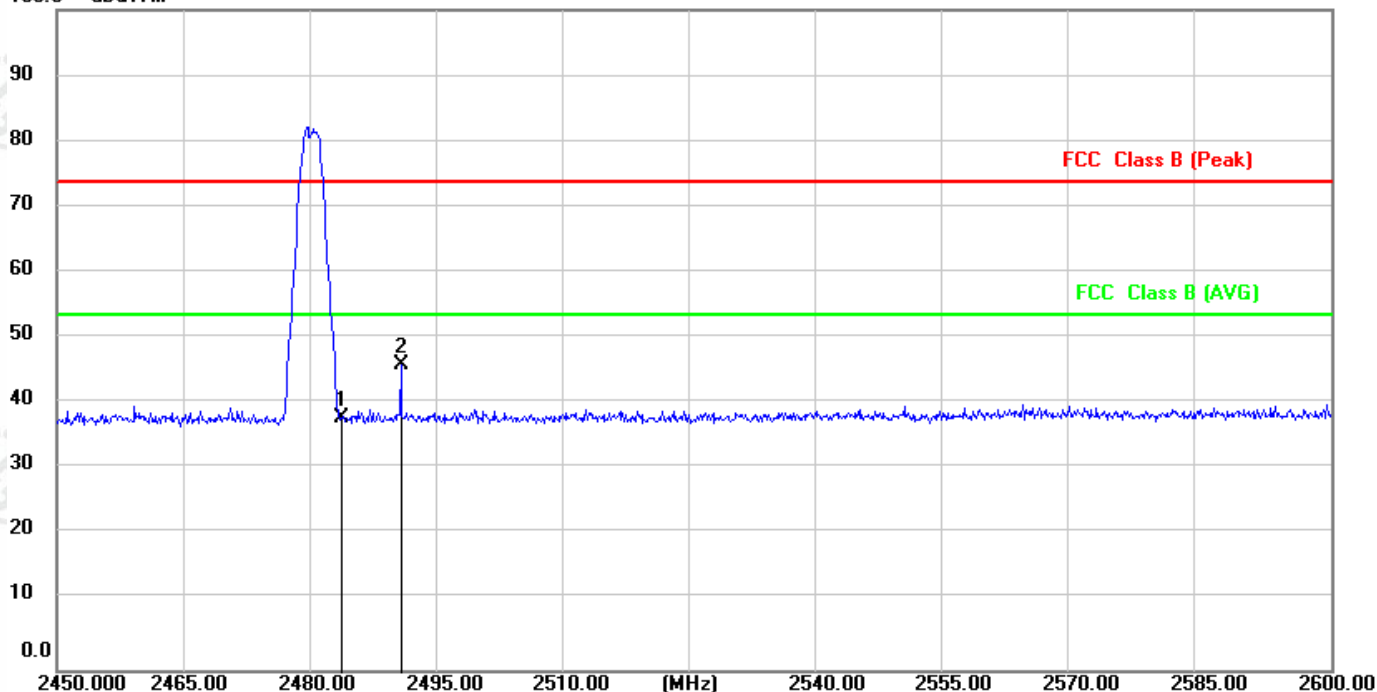


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	37.82	2.92	40.74	74.00	-33.26	100	60	peak
2	2499.800	39.34	2.95	42.29	74.00	-31.71	200	58	peak

Mode:	BLE_500kbps	Channel:	2480
Remark:	Vertical	Test model No.:	HJH158 Ble

Test Graph

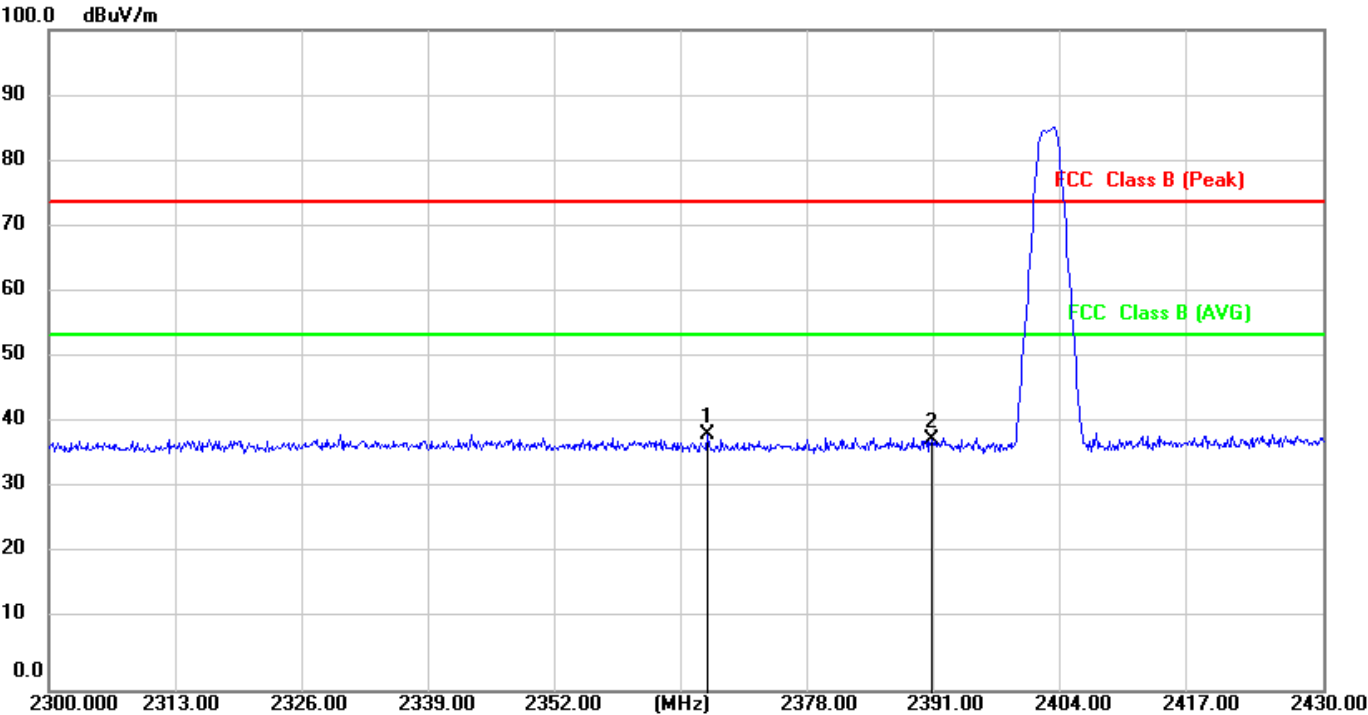
100.0 dBuV/m



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	35.43	2.92	38.35	74.00	-35.65	100	338	peak
2	2490.500	43.35	2.93	46.28	74.00	-27.72	200	285	peak

BLE_1M	Channel:	2402
Horizontal	Test model No.:	HJH159 Ble

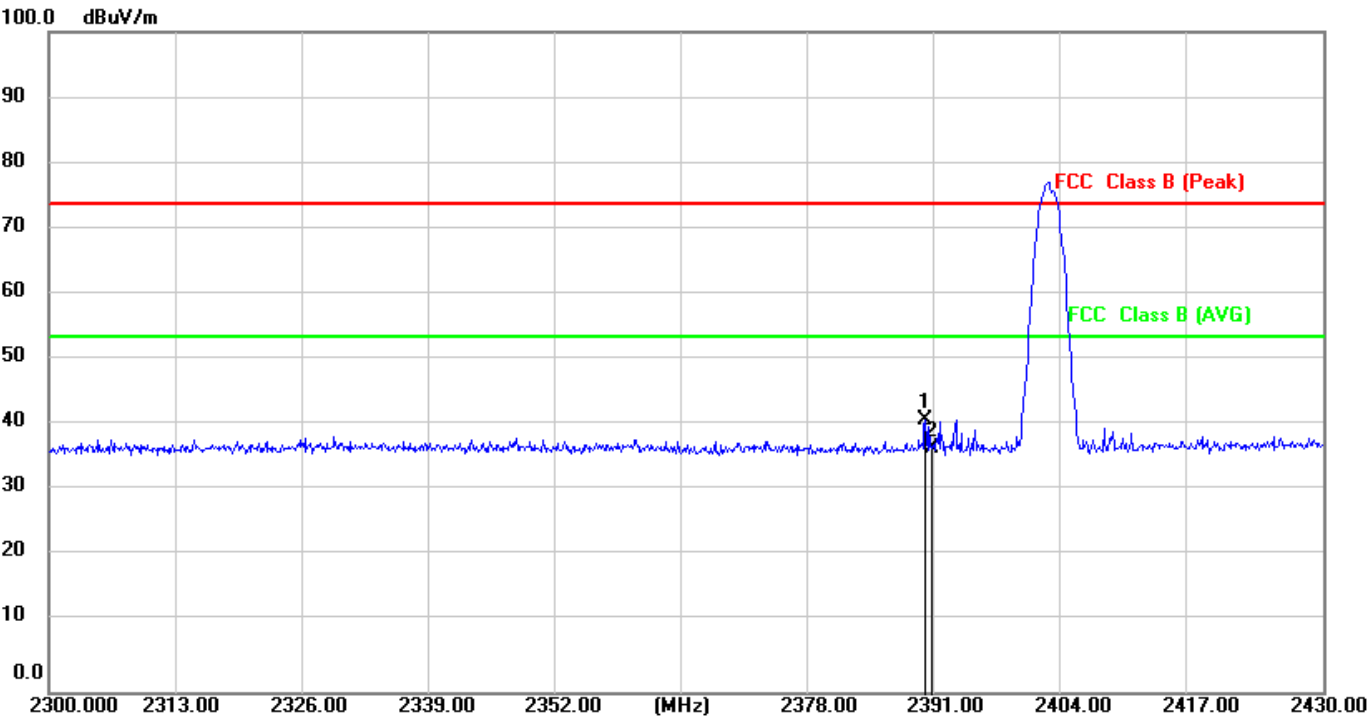
Test Graph



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2367.210	36.14	2.65	38.79	74.00	-35.21	136	0	peak
2	2390.000	35.24	2.71	37.95	74.00	-36.05	200	319	peak

Mode:	BLE_1M	Channel:	2402
Remark:	Vertical	Test model No.:	HJH159 Ble

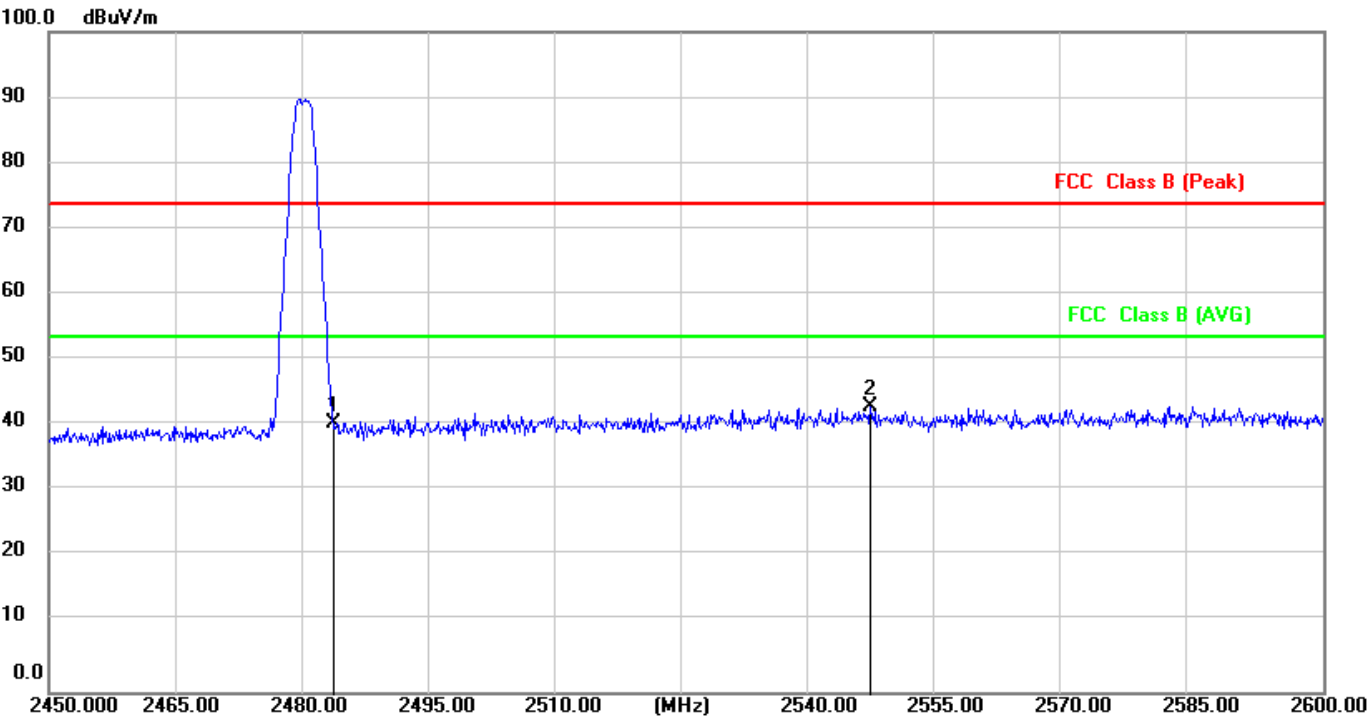
Test Graph



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2389.440	38.59	2.71	41.30	74.00	-32.70	196	0	peak
2	2390.000	34.36	2.71	37.07	74.00	-36.93	199	0	peak

Mode:	BLE_1M	Channel:	2480
Remark:	Horizontal	Test model No.:	HJH159 Ble

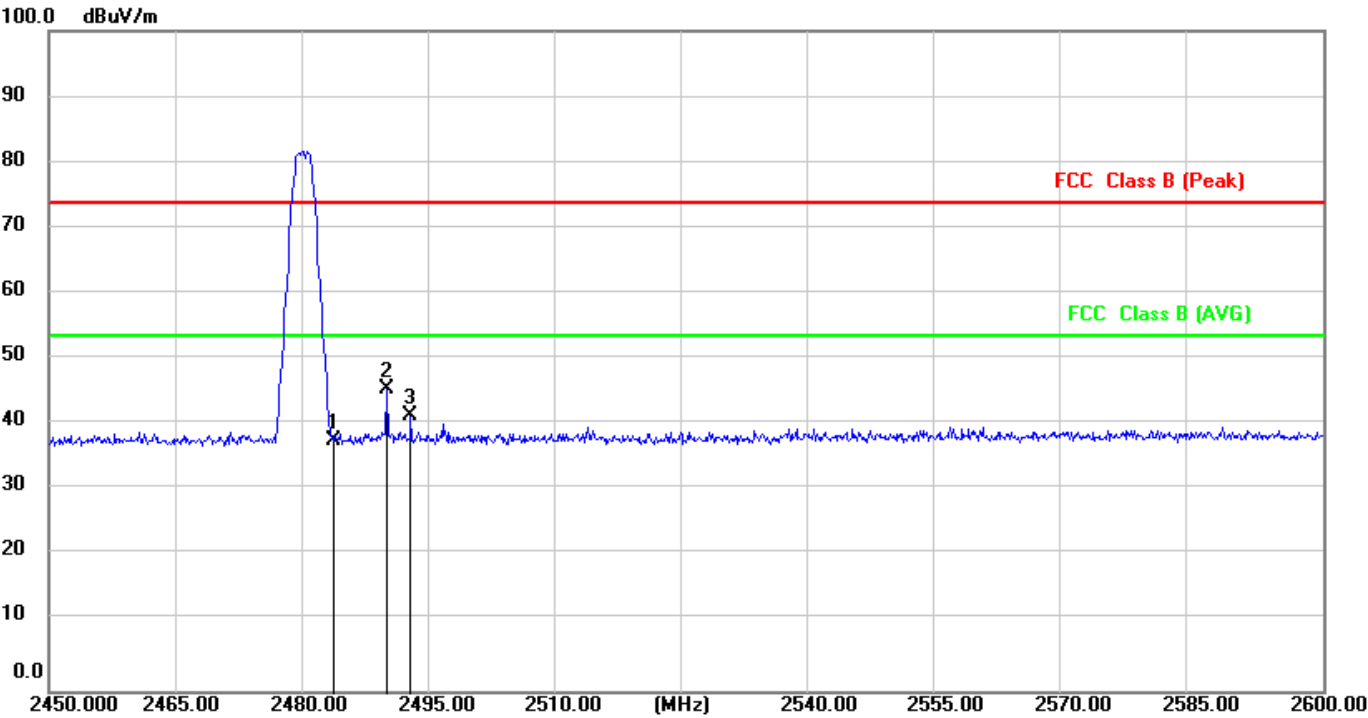
Test Graph



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2483.500	38.03	2.92	40.95	74.00	-33.05	100	302	peak
2	2546.750	40.22	3.05	43.27	74.00	-30.73	100	14	peak

Mode:	BLE_1M	Channel:	2480
Remark:	Vertical	Test model No.:	HJH159 Ble

Test Graph

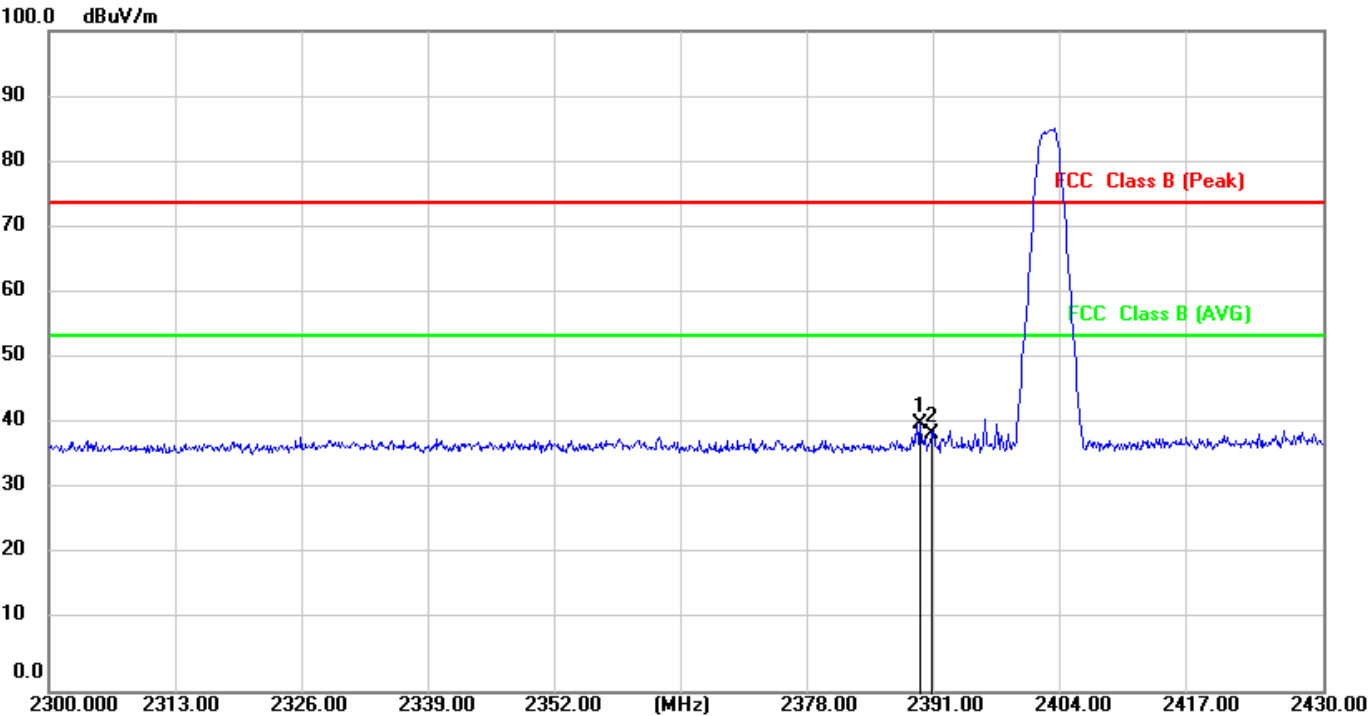


No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2483.500	35.10	2.92	38.02	74.00	-35.98	200	209	peak
2	2489.750	43.02	2.93	45.95	74.00	-28.05	200	291	peak
3	2492.600	38.80	2.93	41.73	74.00	-32.27	199	0	peak

Report No. : EED39O81104001

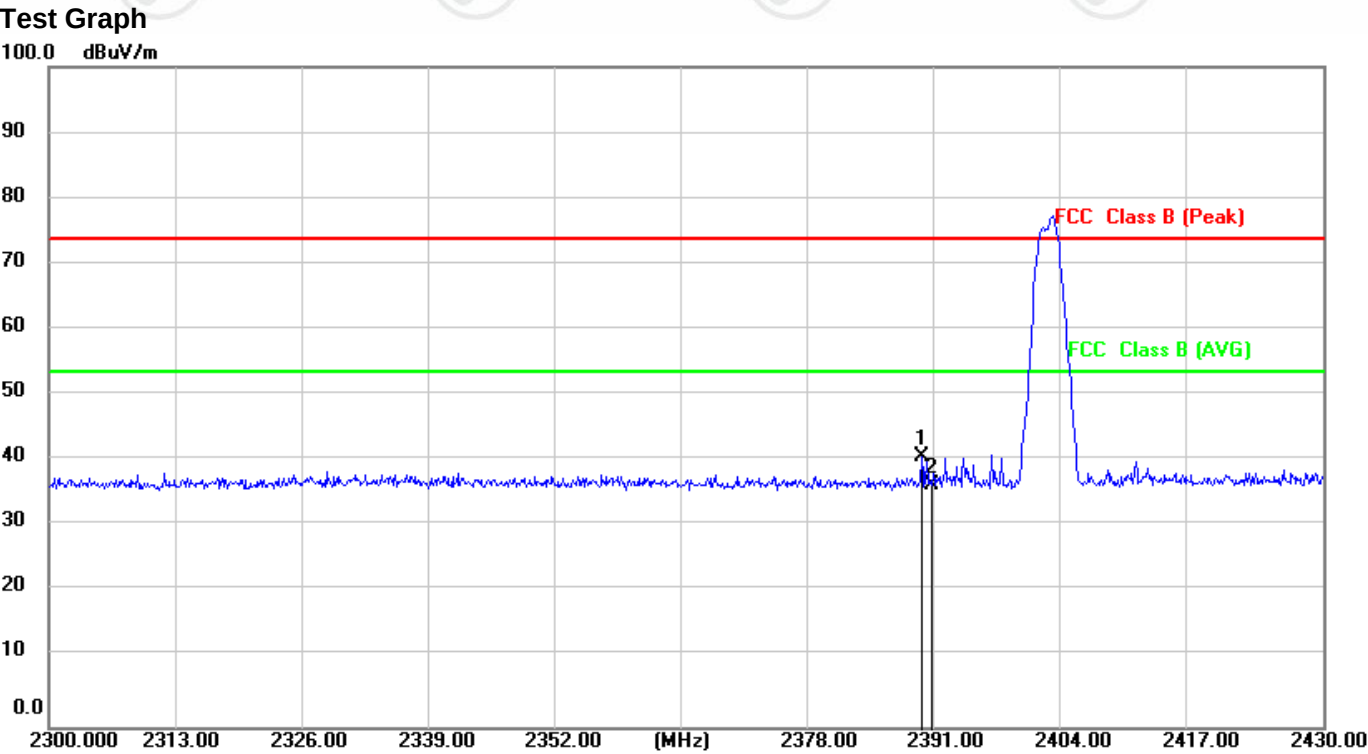
Mode:	BLE_2M	Channel:	2402
Remark:	Horizontal	Test model No.:	HJH159 Ble

Test Graph



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2388.920	37.81	2.71	40.52	74.00	-33.48	100	310	peak
2	2390.000	36.26	2.71	38.97	74.00	-35.03	100	310	AVG

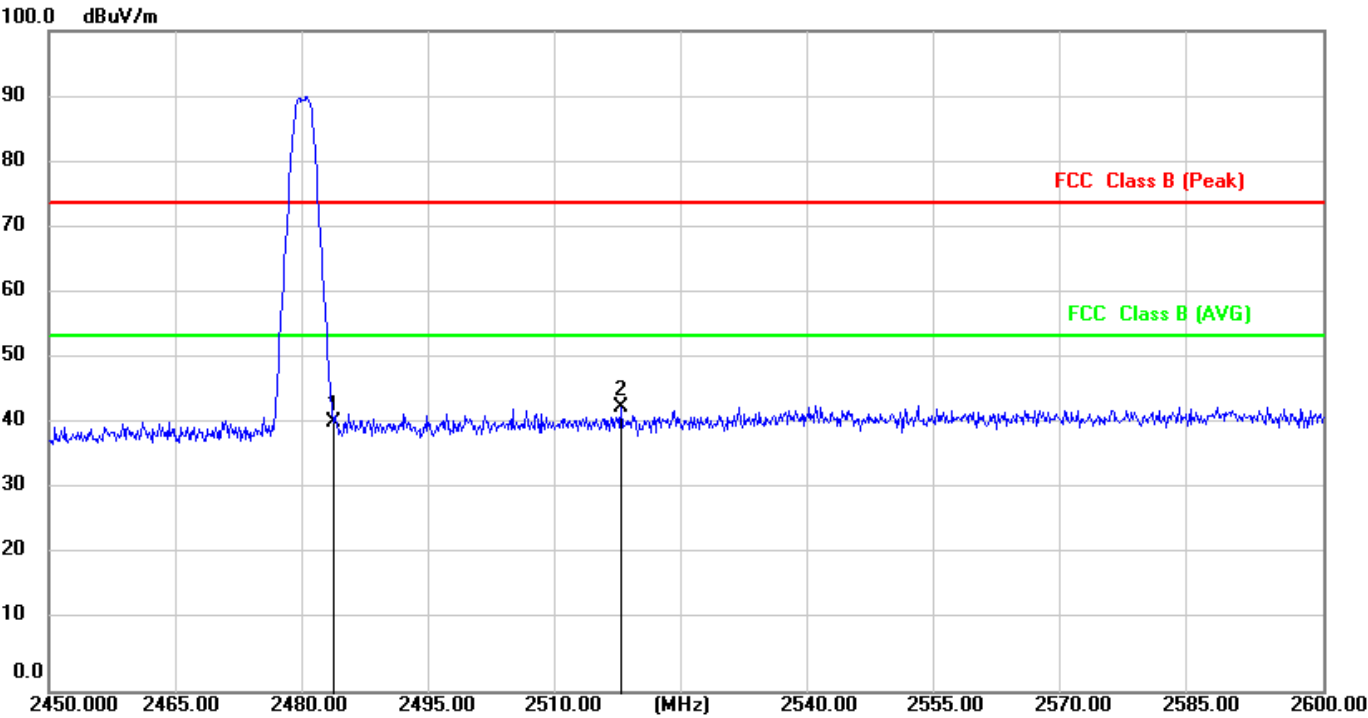
Mode:	BLE_2M	Channel:	2402
Remark:	Vertical	Test model No.:	HJH159 Ble



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2389.050	38.32	2.71	41.03	74.00	-32.97	198	0	peak
2	2390.000	34.10	2.71	36.81	74.00	-37.19	100	196	peak

Mode:	BLE_2M	Channel:	2480
Remark:	Horizontal	Test model No.:	HJH159 Ble

Test Graph

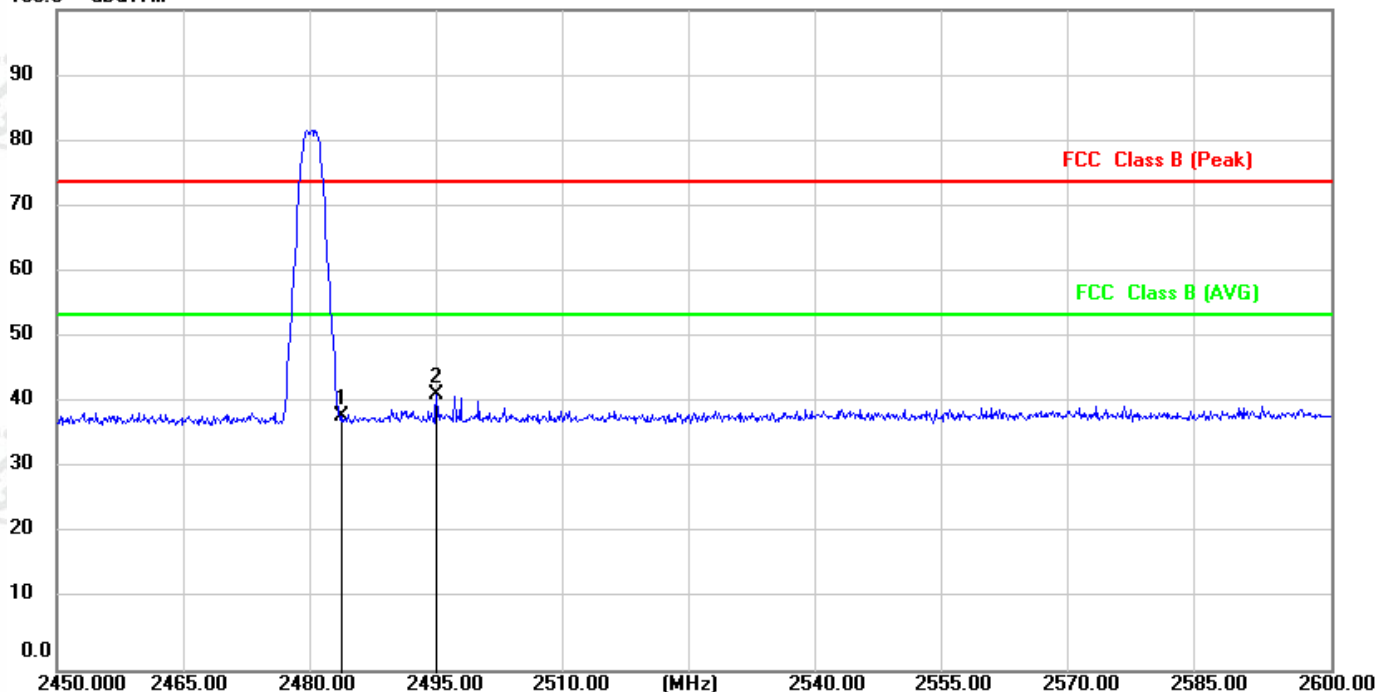


No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2483.500	37.87	2.92	40.79	74.00	-33.21	126	0	peak
2	2517.350	40.20	2.99	43.19	74.00	-30.81	100	315	peak

Mode:	BLE_2M	Channel:	2480
Remark:	Vertical	Test model No.:	HJH159 Ble

Test Graph

100.0 dBuV/m

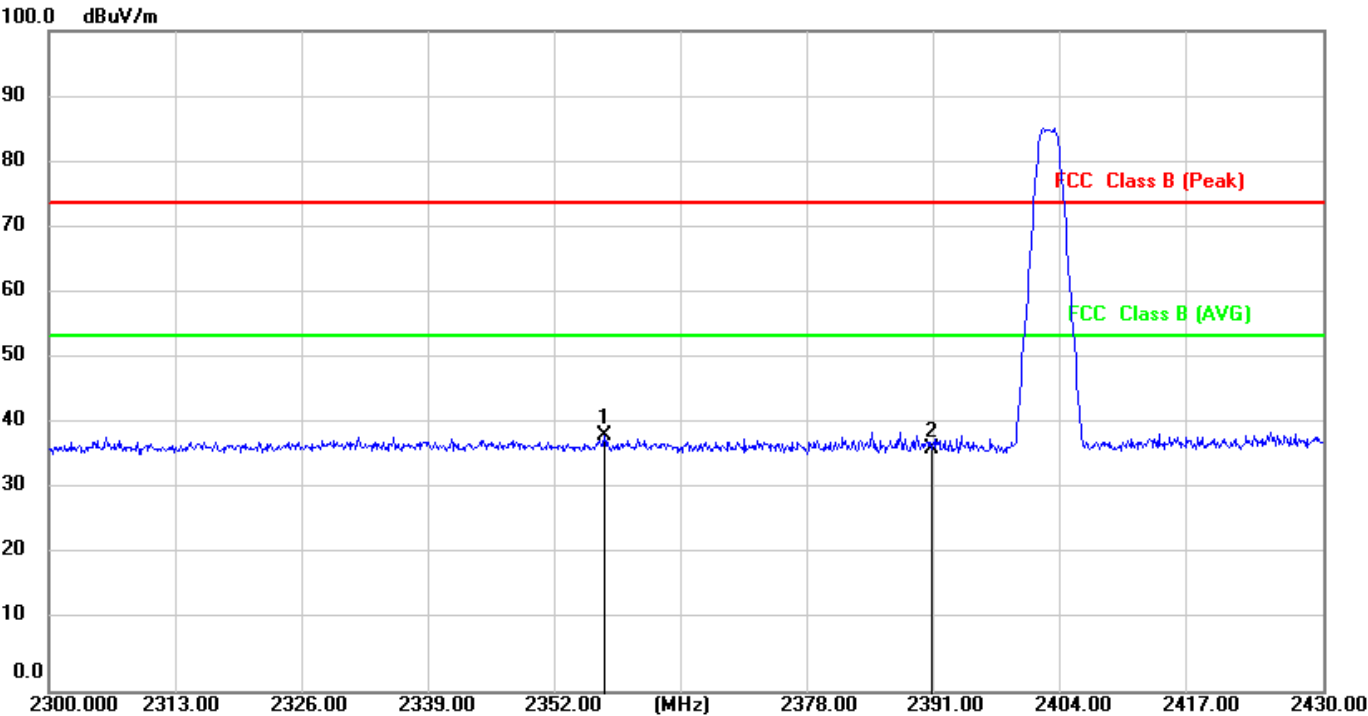


No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	35.56	2.92	38.48	74.00	-35.52	100	37	peak
2	2494.700	38.97	2.94	41.91	74.00	-32.09	200	71	peak

Report No. : EED39O81104001

Mode:	BLE_125kbps	Channel:	2402
Remark:	Horizontal	Test model No.:	HJH159 Ble

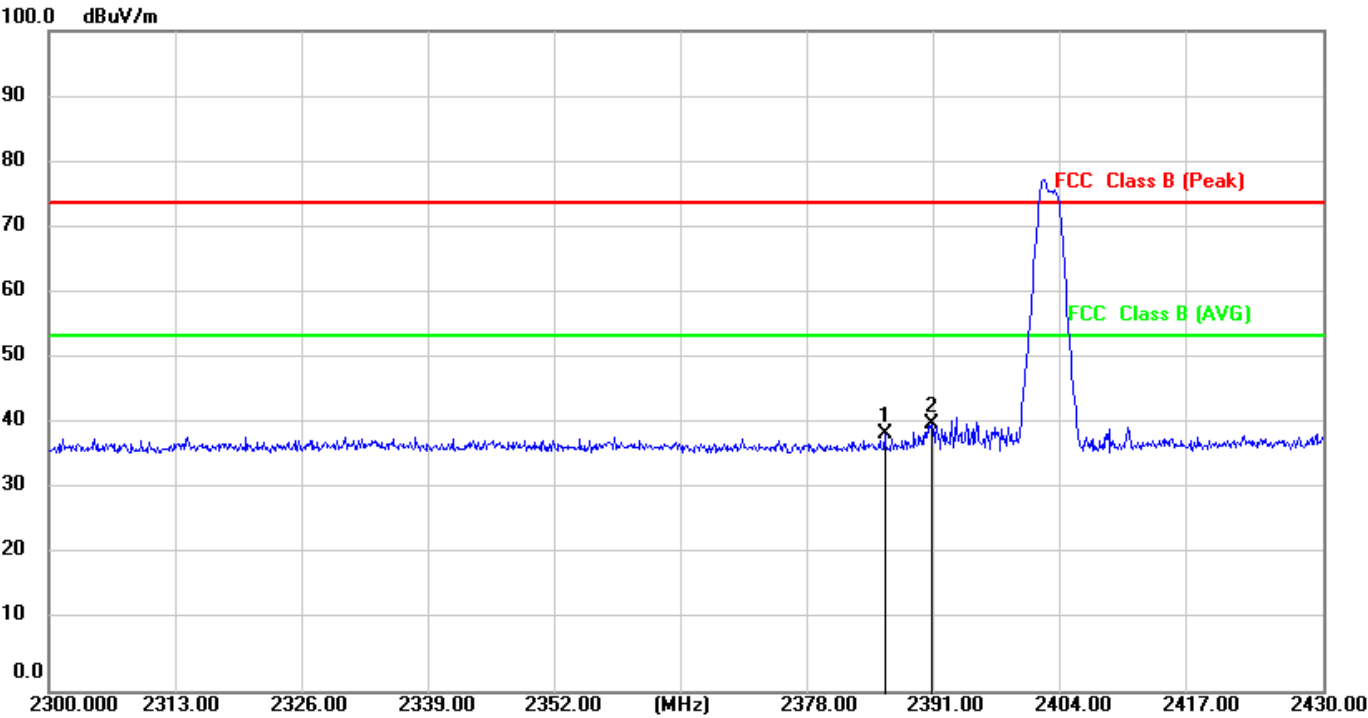
Test Graph



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2356.680	36.15	2.62	38.77	74.00	-35.23	100	204	peak
2	2390.000	34.09	2.71	36.80	74.00	-37.20	171	0	peak

Mode:	BLE_125kbps	Channel:	2402
Remark:	Vertical	Test model No.:	HJH159 Ble

Test Graph

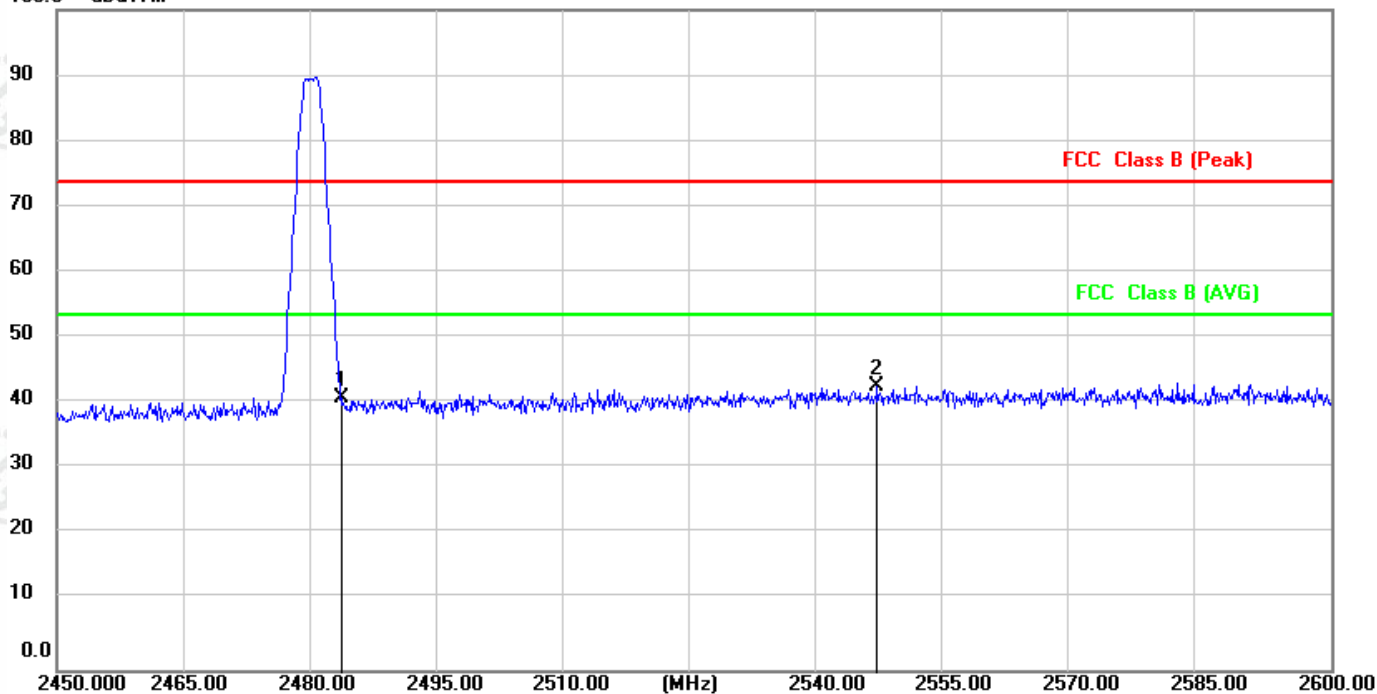


No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2385.280	36.34	2.70	39.04	74.00	-34.96	200	52	peak
2	2390.000	37.83	2.71	40.54	74.00	-33.46	172	0	peak

Mode:	BLE_125kbps	Channel:	2480
Remark:	Horizontal	Test model No.:	HJH159 Ble

Test Graph

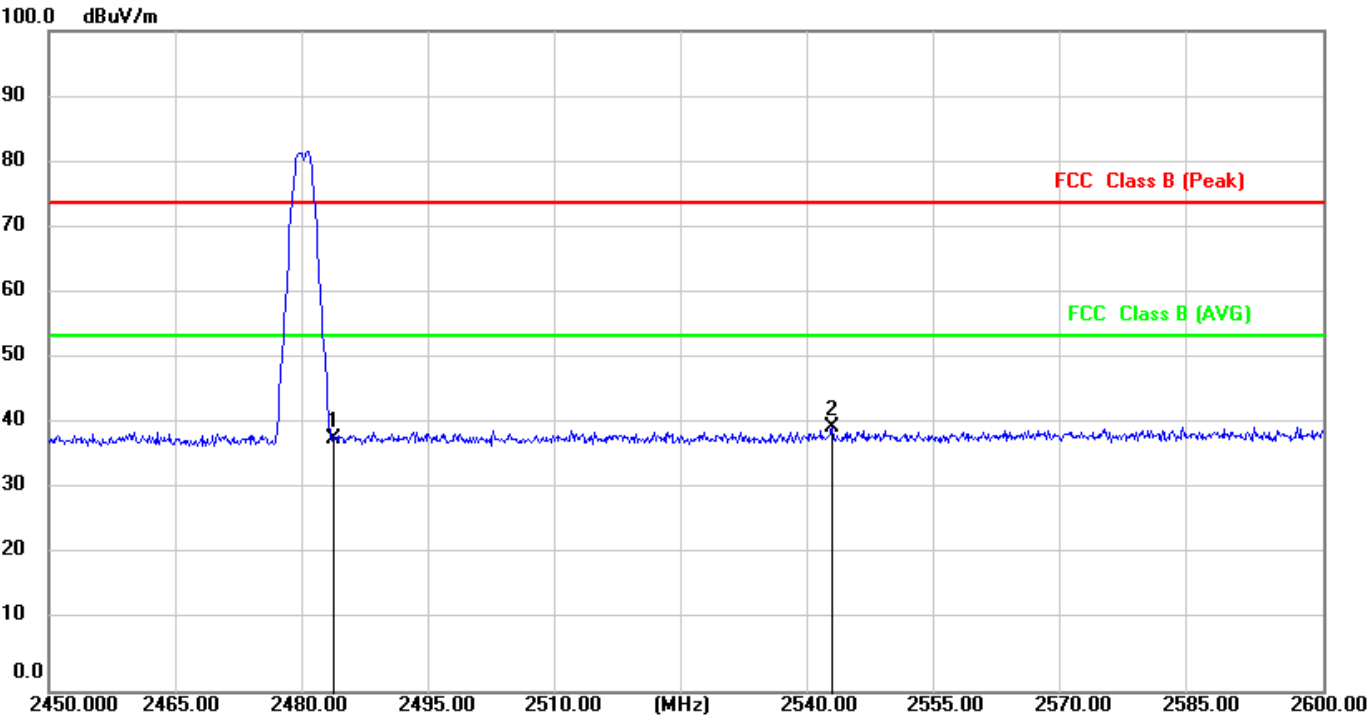
100.0 dBuV/m



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	38.39	2.92	41.31	74.00	-32.69	129	0	peak
2	2546.600	39.99	3.05	43.04	74.00	-30.96	135	0	peak

Mode:	BLE_125kbps	Channel:	2480
Remark:	Vertical	Test model No.:	HJH159 Ble

Test Graph

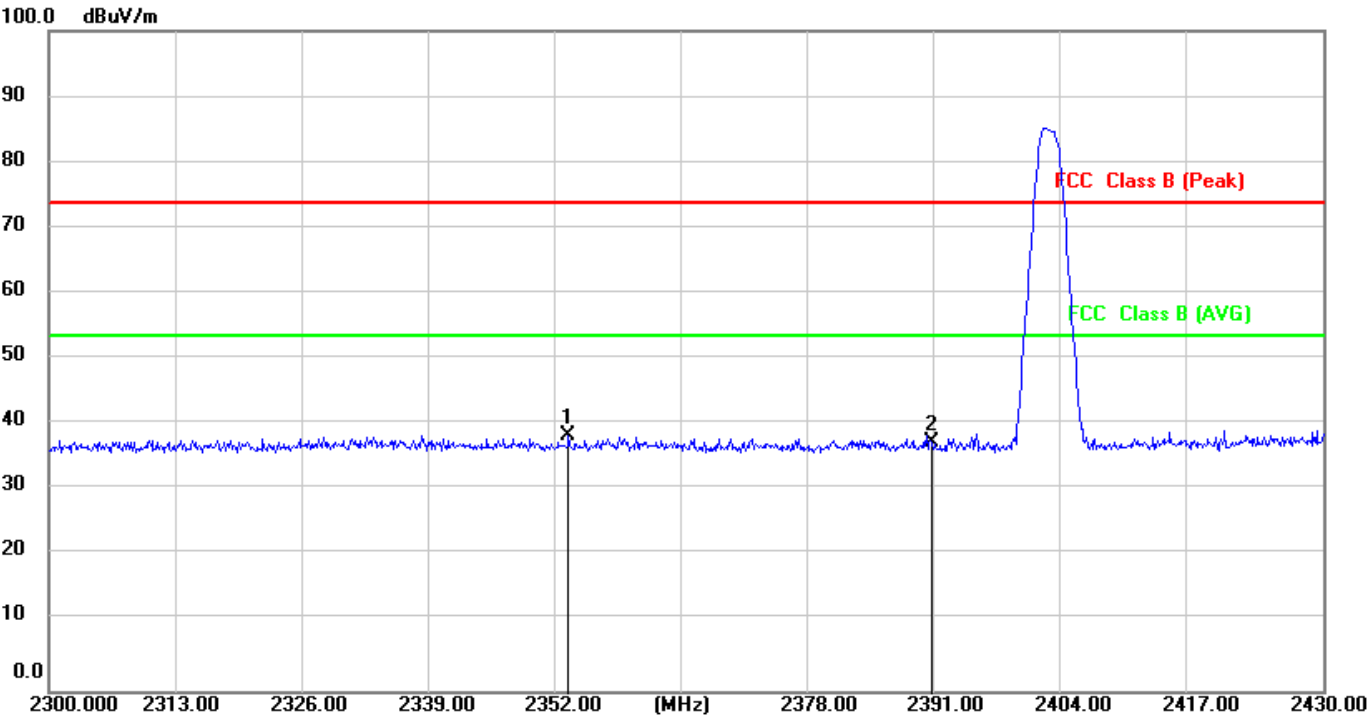


No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2483.500	35.30	2.92	38.22	74.00	-35.78	100	351	peak
2	2542.250	36.94	3.04	39.98	74.00	-34.02	156	0	peak

Report No. : EED39O81104001

Mode:	BLE_500kbps	Channel:	2402
Remark:	Horizontal	Test model No.:	HJH159 Ble

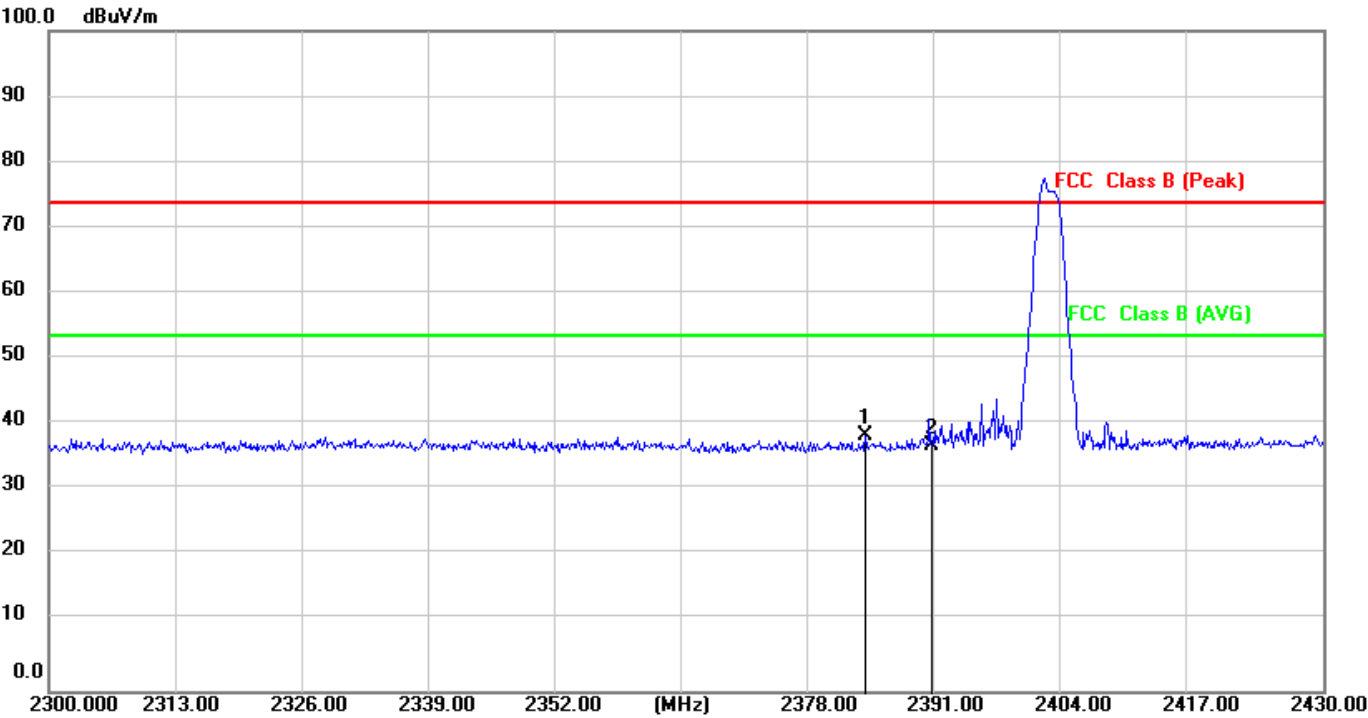
Test Graph



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2353.040	36.22	2.61	38.83	74.00	-35.17	200	154	peak
2	2390.000	35.21	2.71	37.92	74.00	-36.08	183	0	peak

Mode:	BLE_500kbps	Channel:	2402
Remark:	Vertical	Test model No.:	HJH159 Ble

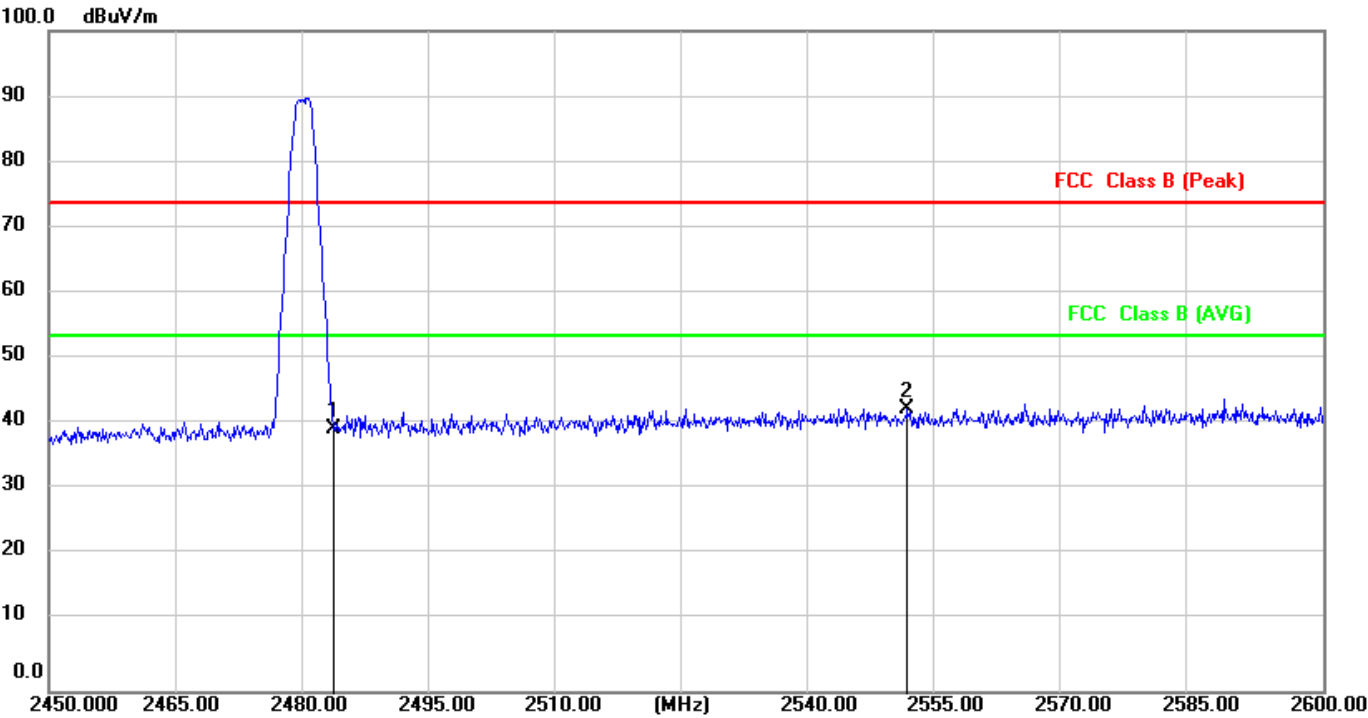
Test Graph



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2383.330	36.09	2.69	38.78	74.00	-35.22	161	0	peak
2	2390.000	34.58	2.71	37.29	74.00	-36.71	200	310	peak

Mode:	BLE_500kbps	Channel:	2480
Remark:	Horizontal	Test model No.:	HJH159 Ble

Test Graph

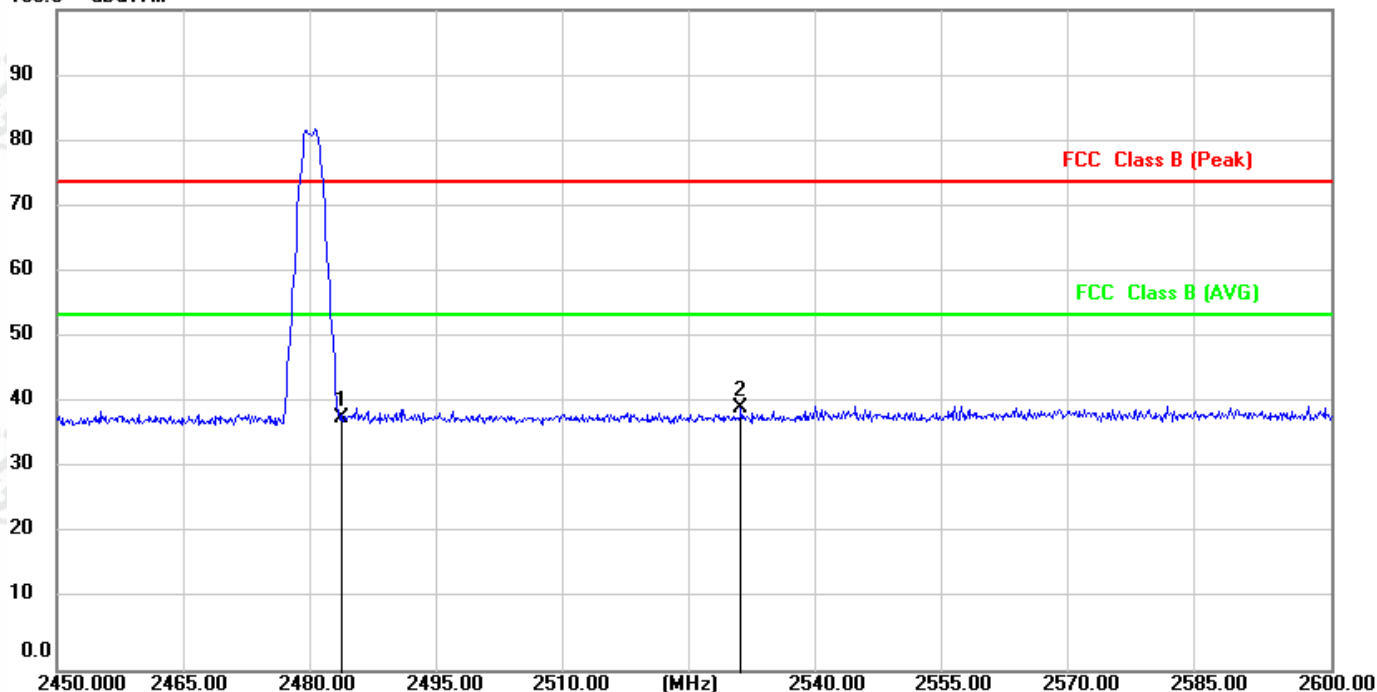


No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2483.500	36.99	2.92	39.91	74.00	-34.09	200	63	peak
2	2551.100	39.85	3.06	42.91	74.00	-31.09	105	0	peak

Mode:	BLE_500kbps	Channel:	2480
Remark:	Vertical	Test model No.:	HJH159 Ble

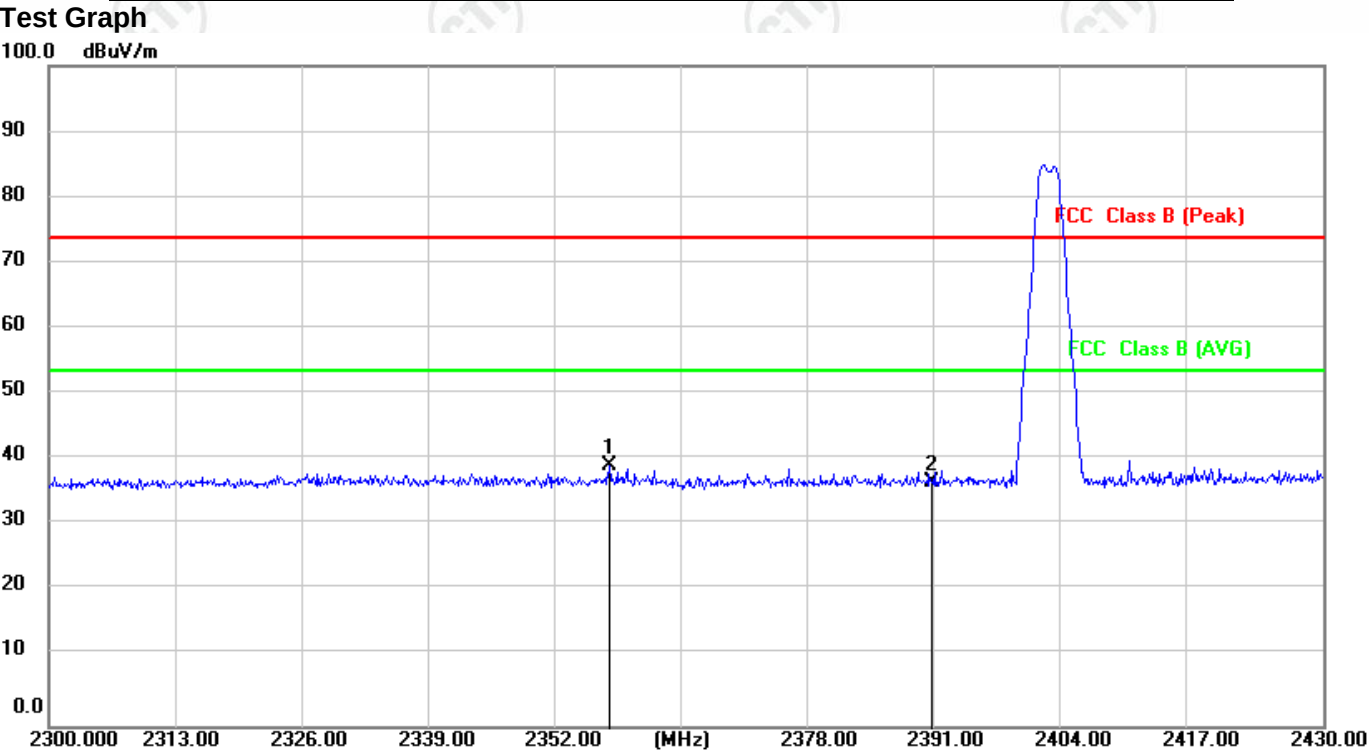
Test Graph

100.0 dBuV/m



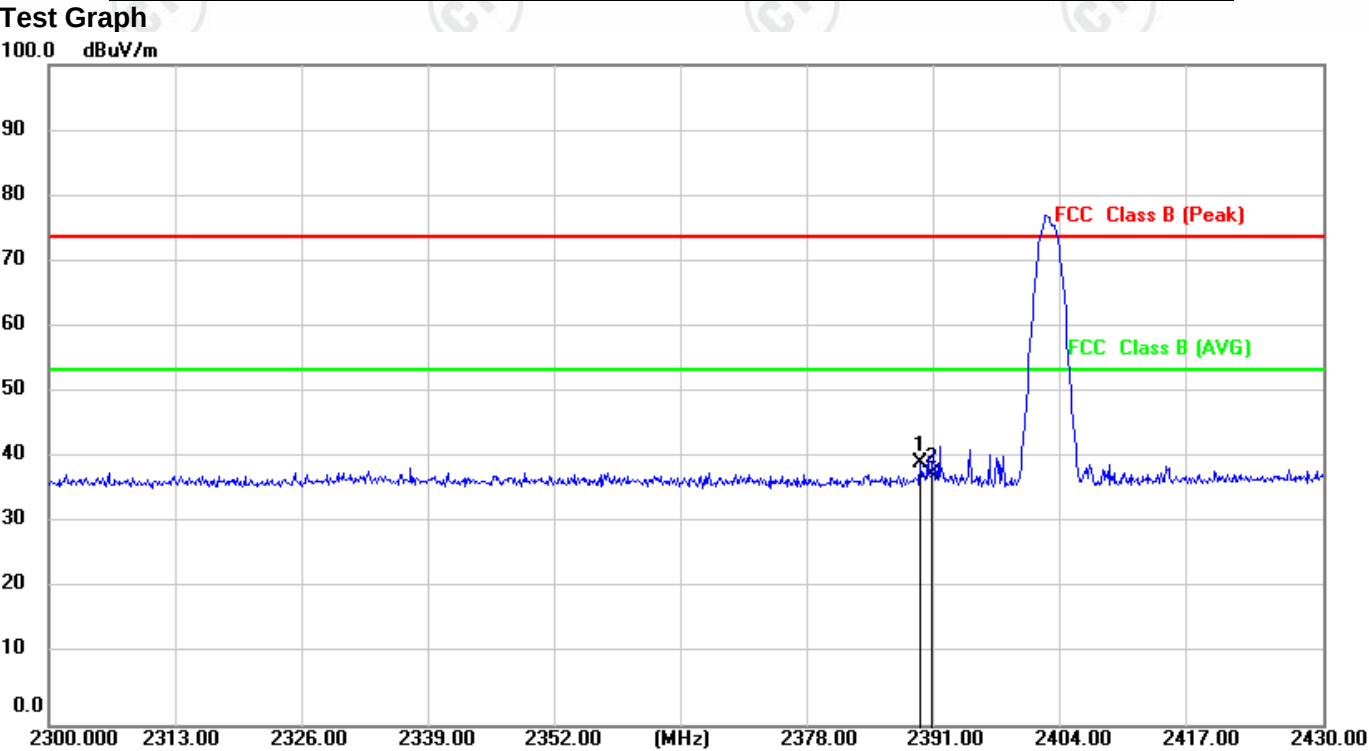
No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	35.36	2.92	38.28	74.00	-35.72	100	189	peak
2	2530.550	36.80	3.01	39.81	74.00	-34.19	100	13	peak

Mode:	BLE_1M	Channel:	2402
Remark:	Horizontal	Test model No.:	HJSR69 Ble



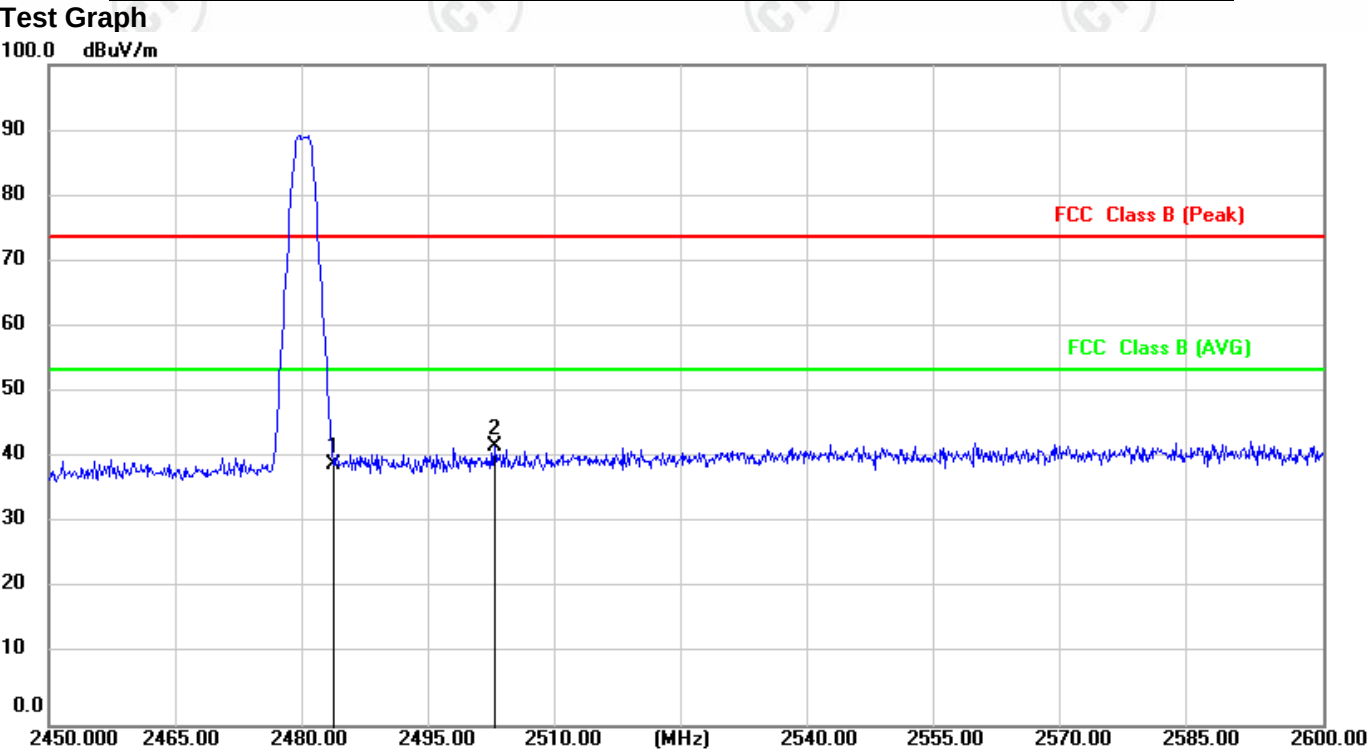
No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2357.200	37.00	2.62	39.62	74.00	-34.38	200	284	peak
2	2390.000	34.34	2.71	37.05	74.00	-36.95	131	0	peak

Mode:	BLE_1M	Channel:	2402
Remark:	Vertical	Test model No.:	HJSR69 Ble



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2388.920	37.05	2.71	39.76	74.00	-34.24	199	0	peak
2	2390.000	35.29	2.71	38.00	74.00	-36.00	165	0	peak

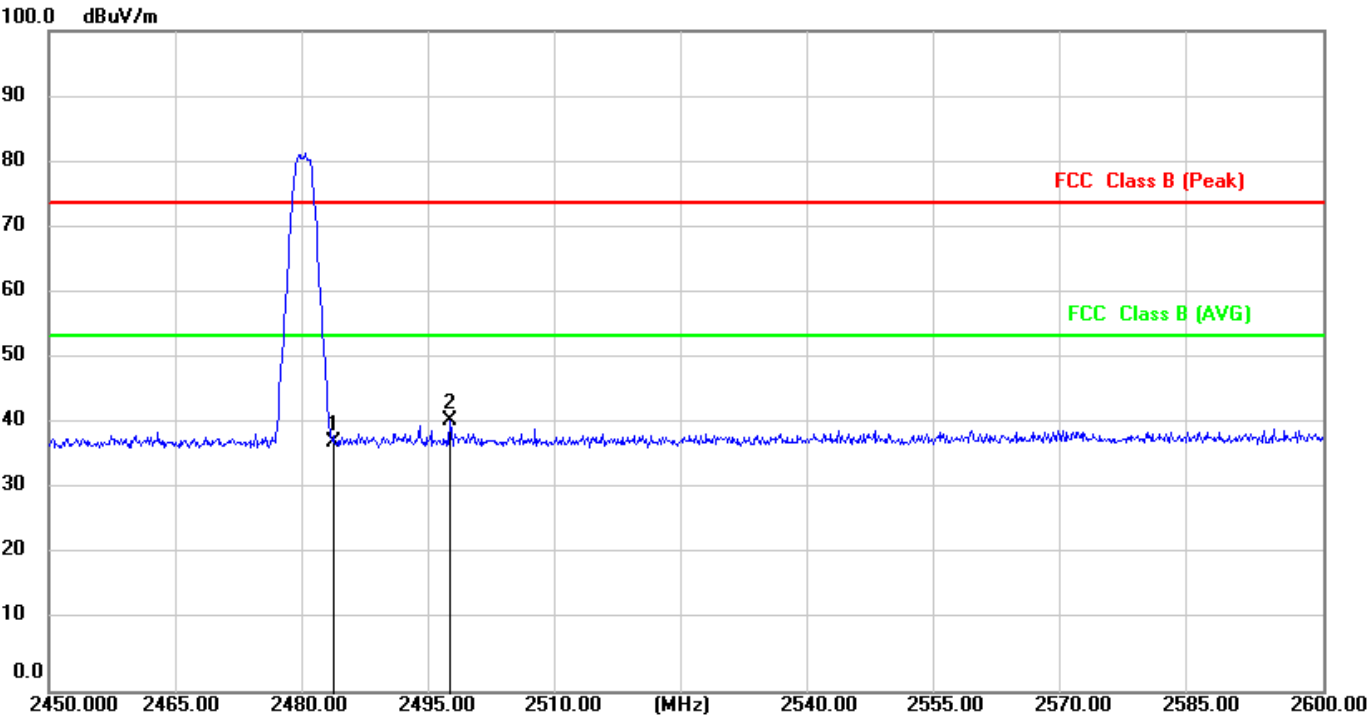
Mode:	BLE_1M	Channel:	2480
Remark:	Horizontal	Test model No.:	HJSR69 Ble



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2483.500	36.59	2.92	39.51	74.00	-34.49	100	0	peak
2	2502.500	39.34	2.96	42.30	74.00	-31.70	200	54	peak

Mode:	BLE_1M	Channel:	2480
Remark:	Vertical	Test model No.:	HJSR69 Ble

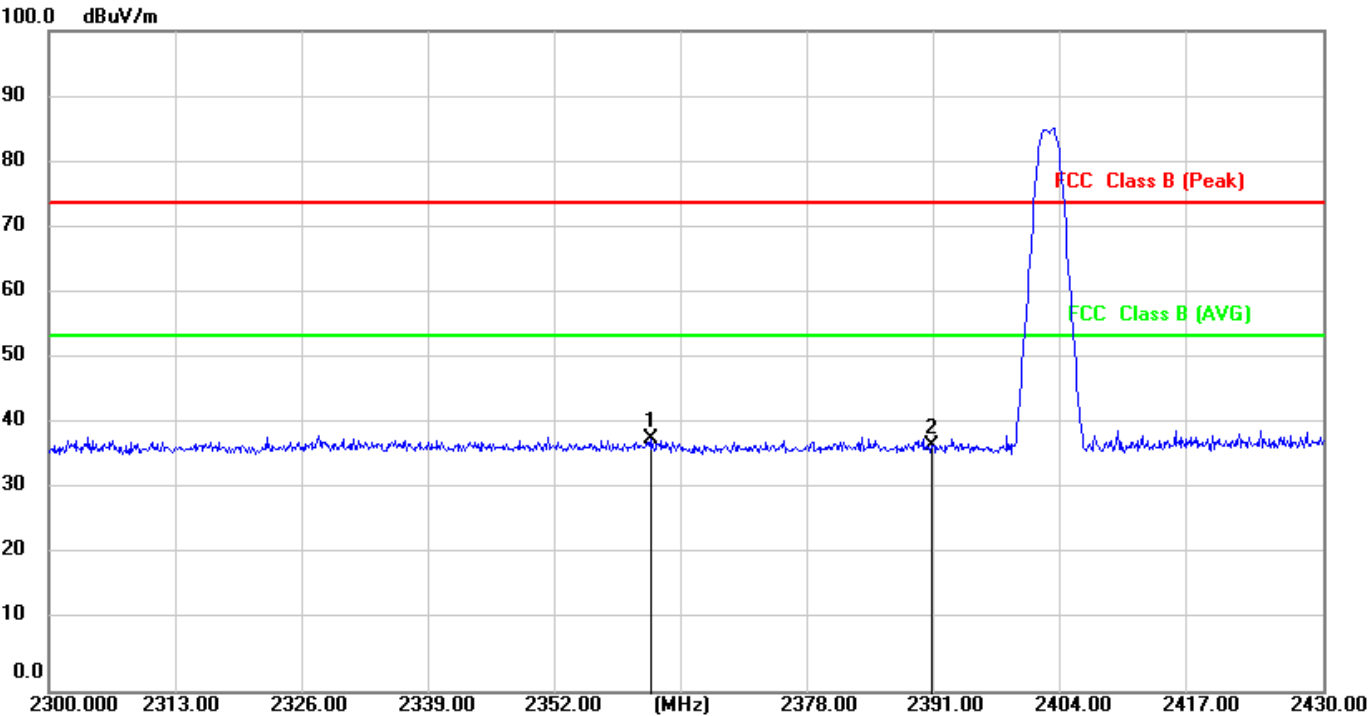
Test Graph



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	35.00	2.92	37.92	74.00	-36.08	100	237	peak
2	2497.250	38.07	2.94	41.01	74.00	-32.99	200	282	peak

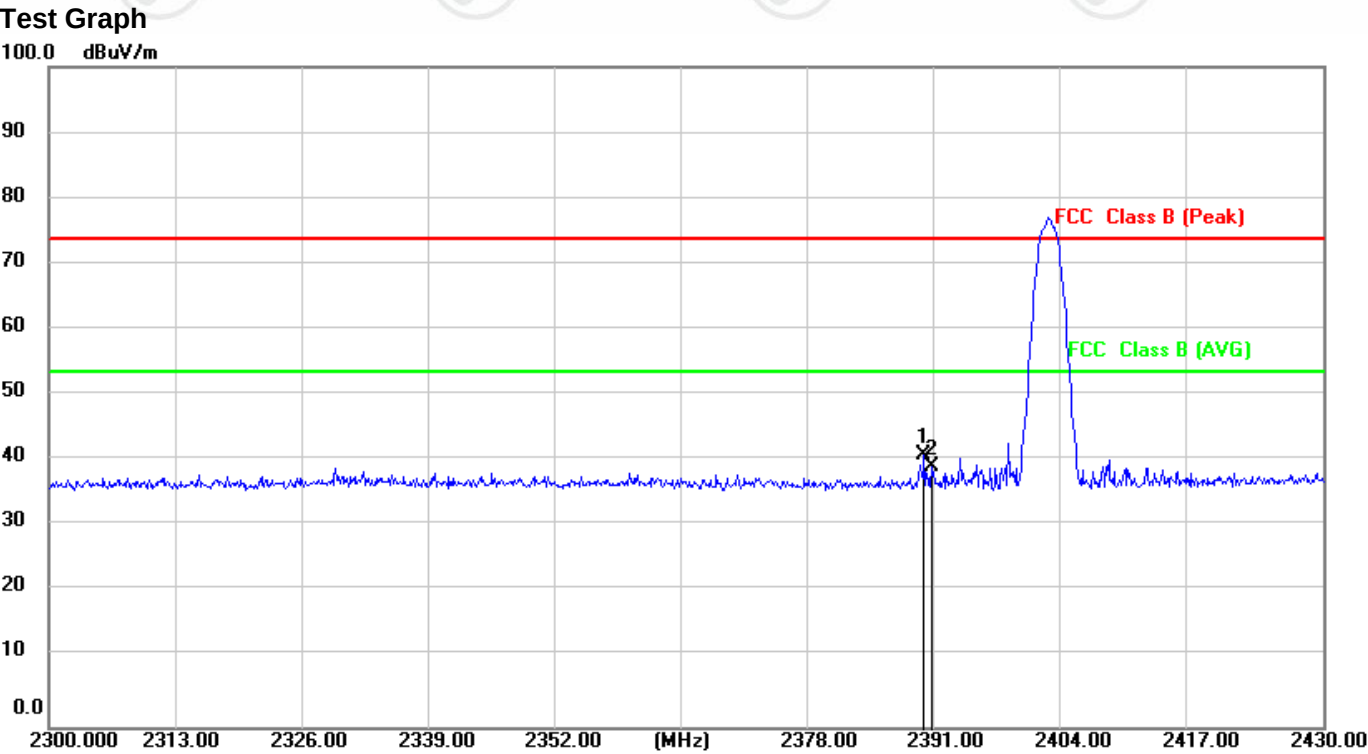
Mode:	BLE_2M	Channel:	2402
Remark:	Horizontal	Test model No.:	HJSR69 Ble

Test Graph



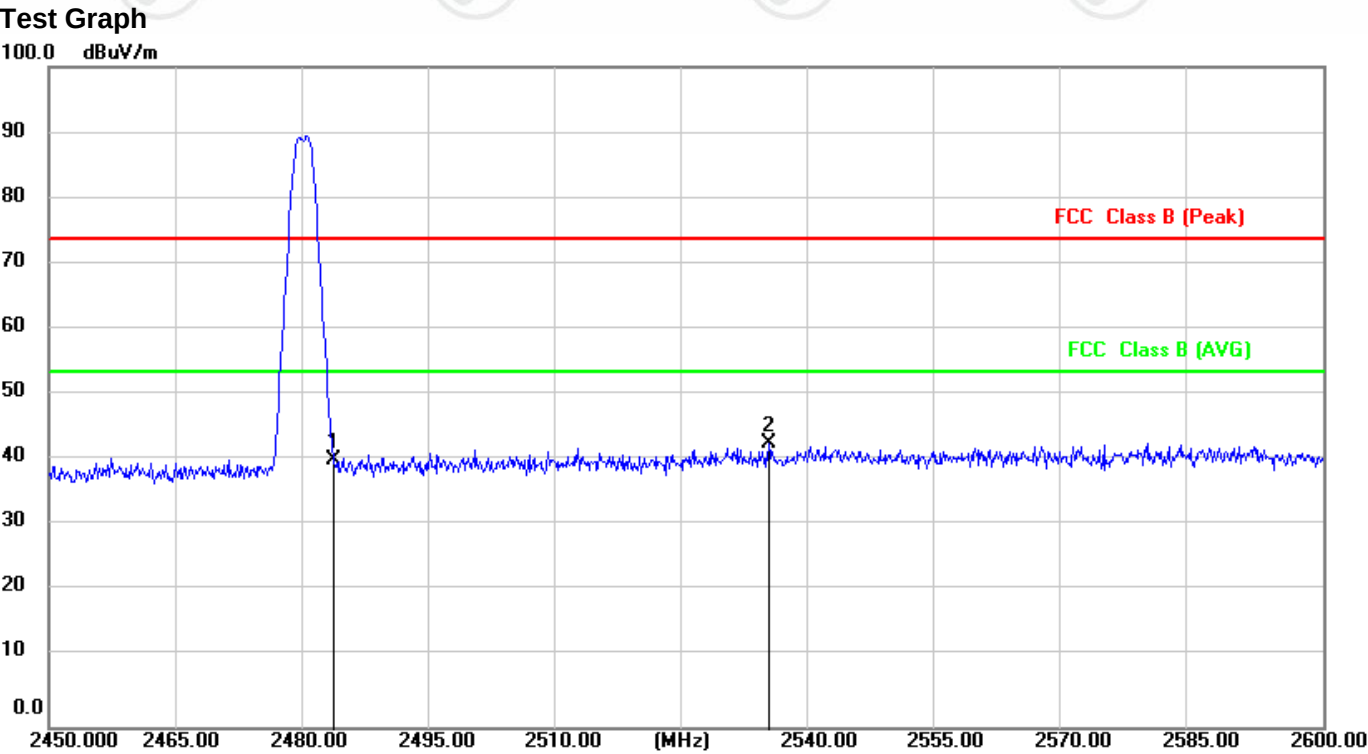
No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2361.360	35.60	2.64	38.24	74.00	-35.76	123	0	peak
2	2390.000	34.48	2.71	37.19	74.00	-36.81	141	0	peak

Mode:	BLE_2M	Channel:	2402
Remark:	Vertical	Test model No.:	HJSR69 Ble



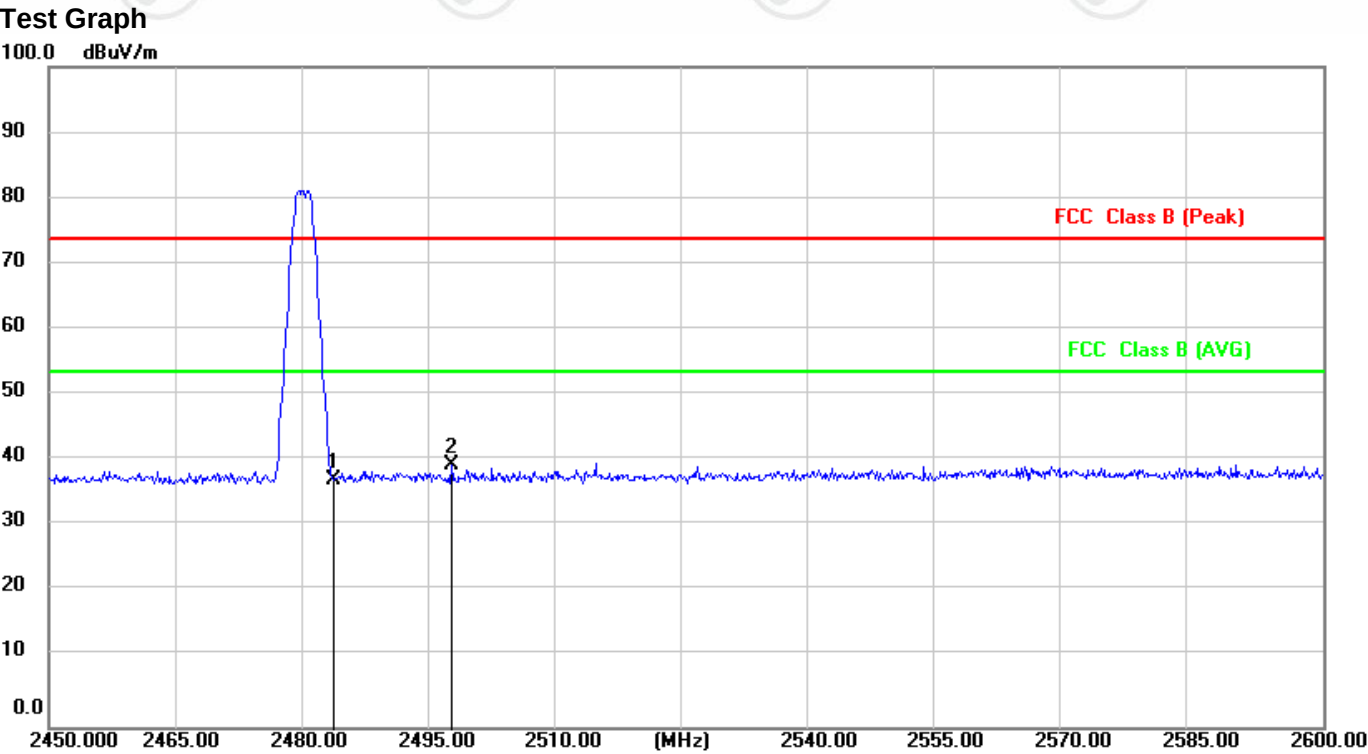
No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2389.310	38.70	2.71	41.41	74.00	-32.59	100	68	peak
2	2390.000	36.88	2.71	39.59	74.00	-34.41	100	68	peak

Mode:	BLE_2M	Channel:	2480
Remark:	Horizontal	Test model No.:	HJSR69 Ble



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2483.500	37.68	2.92	40.60	74.00	-33.40	100	56	peak
2	2534.750	39.96	3.02	42.98	74.00	-31.02	100	74	peak

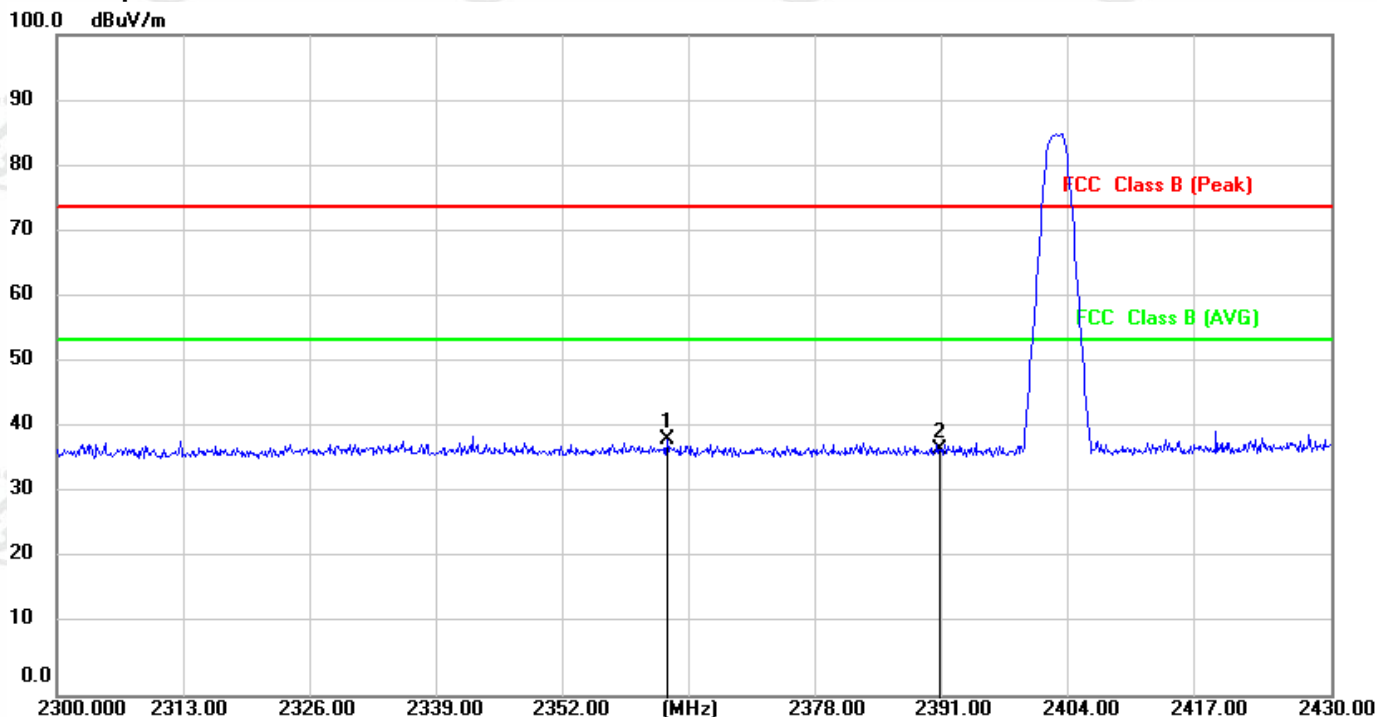
Mode:	BLE_2M	Channel:	2480
Remark:	Vertical	Test model No.:	HJSR69 Ble



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2483.500	34.52	2.92	37.44	74.00	-36.56	200	107	peak
2	2497.400	36.98	2.94	39.92	74.00	-34.08	200	273	peak

Mode:	BLE_125kbps	Channel:	2402
Remark:	Horizontal	Test model No.:	HJSR69 Ble

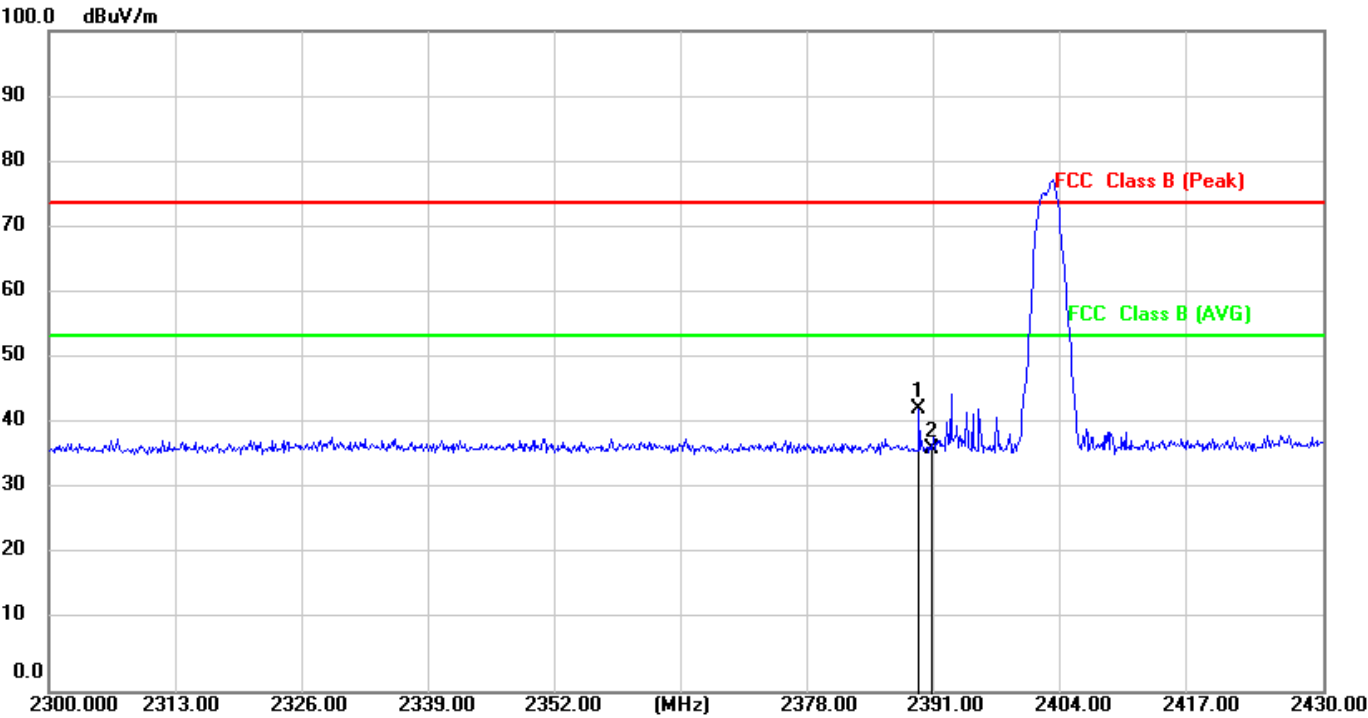
Test Graph



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2362.270	36.17	2.64	38.81	74.00	-35.19	200	176	peak
2	2390.000	34.65	2.71	37.36	74.00	-36.64	200	176	peak

Mode:	BLE_125kbps	Channel:	2402
Remark:	Vertical	Test model No.:	HJSR69 Ble

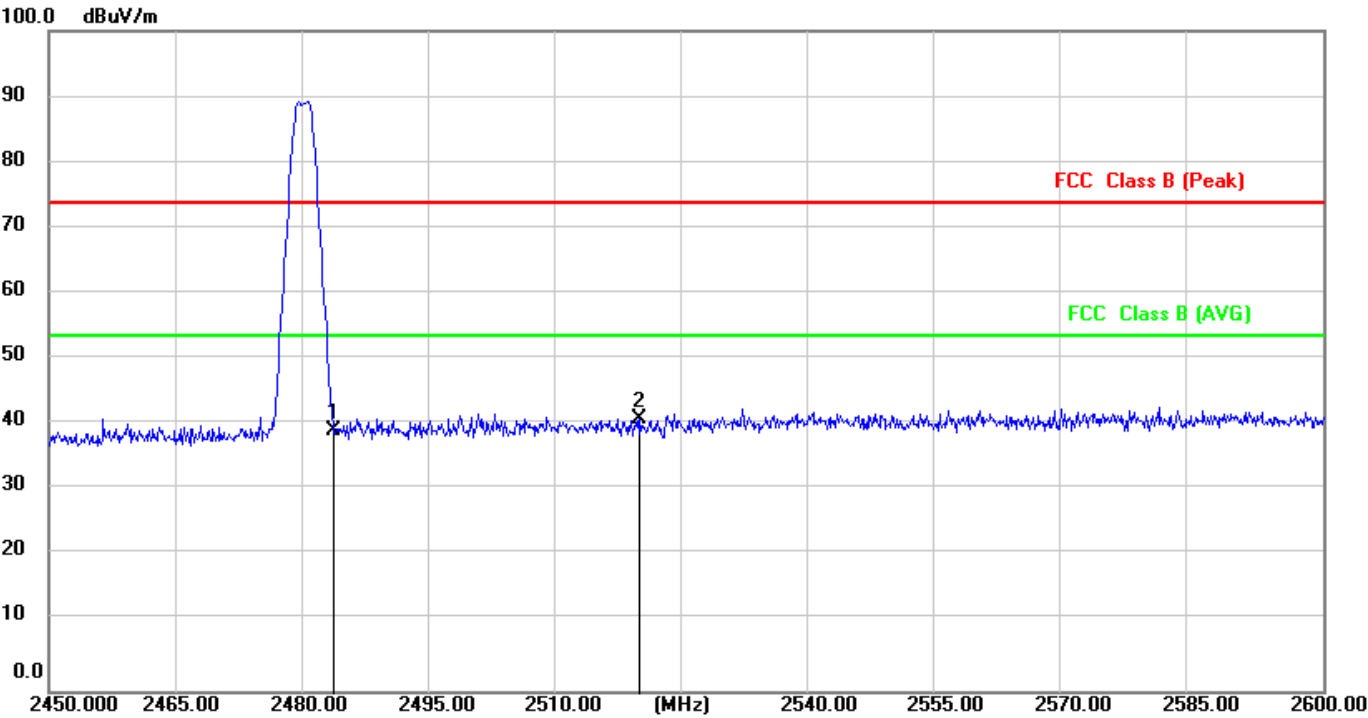
Test Graph



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2388.790	40.13	2.71	42.84	74.00	-31.16	200	48	peak
2	2390.000	34.14	2.71	36.85	74.00	-37.15	200	39	peak

Mode:	BLE_125kbps	Channel:	2480
Remark:	Horizontal	Test model No.:	HJSR69 Ble

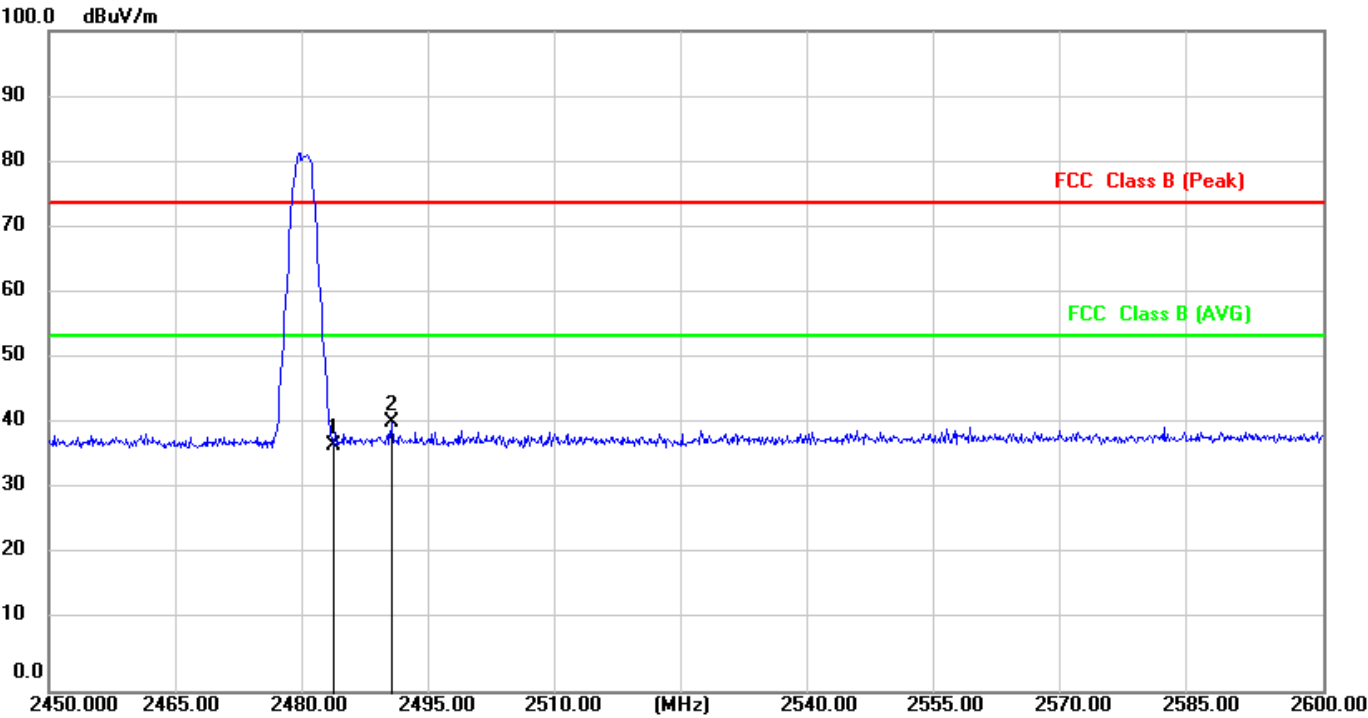
Test Graph



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	36.75	2.92	39.67	74.00	-34.33	200	308	peak
2	2519.600	38.46	2.99	41.45	74.00	-32.55	200	317	peak

Mode:	BLE_125kbps	Channel:	2480
Remark:	Vertical	Test model No.:	HJSR69 Ble

Test Graph

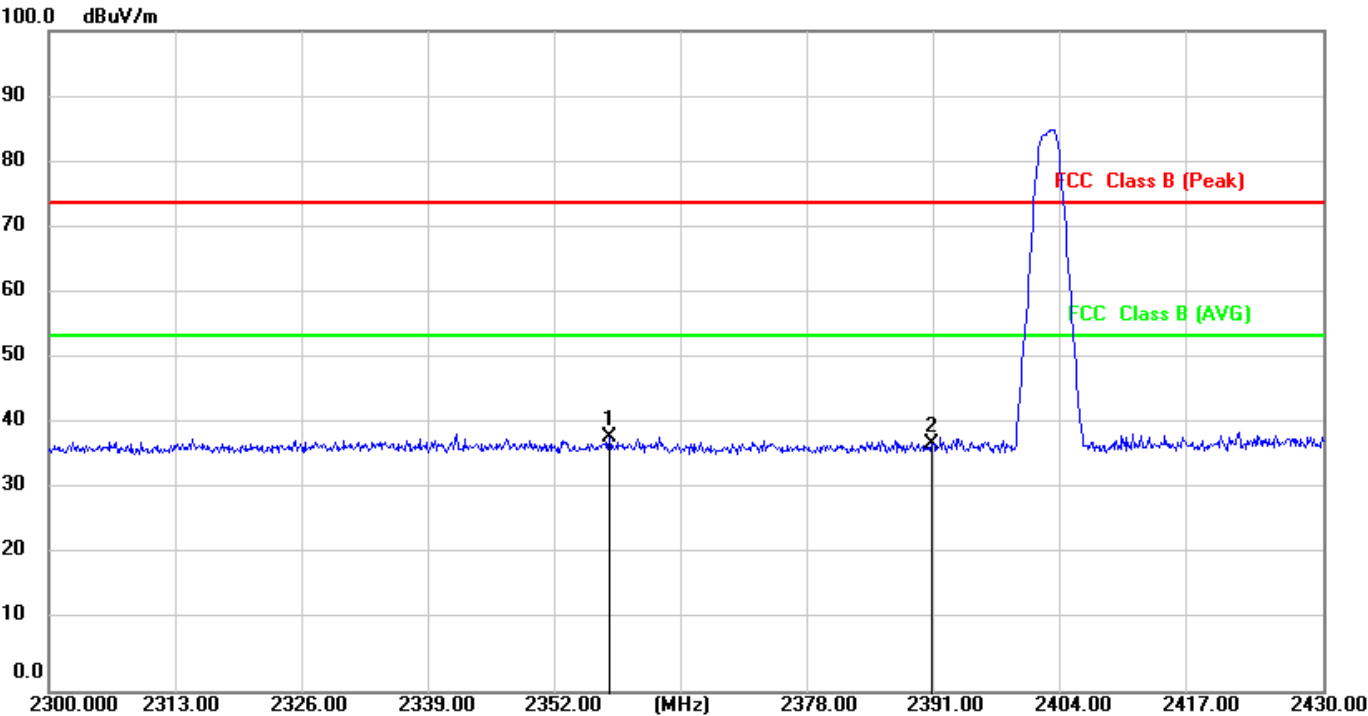


No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2483.500	34.50	2.92	37.42	74.00	-36.58	200	163	peak
2	2490.350	37.99	2.93	40.92	74.00	-33.08	100	360	peak

Report No. : EED39O81104001

Mode:	BLE_500kbps	Channel:	2402
Remark:	Horizontal	Test model No.:	HJSR69 Ble

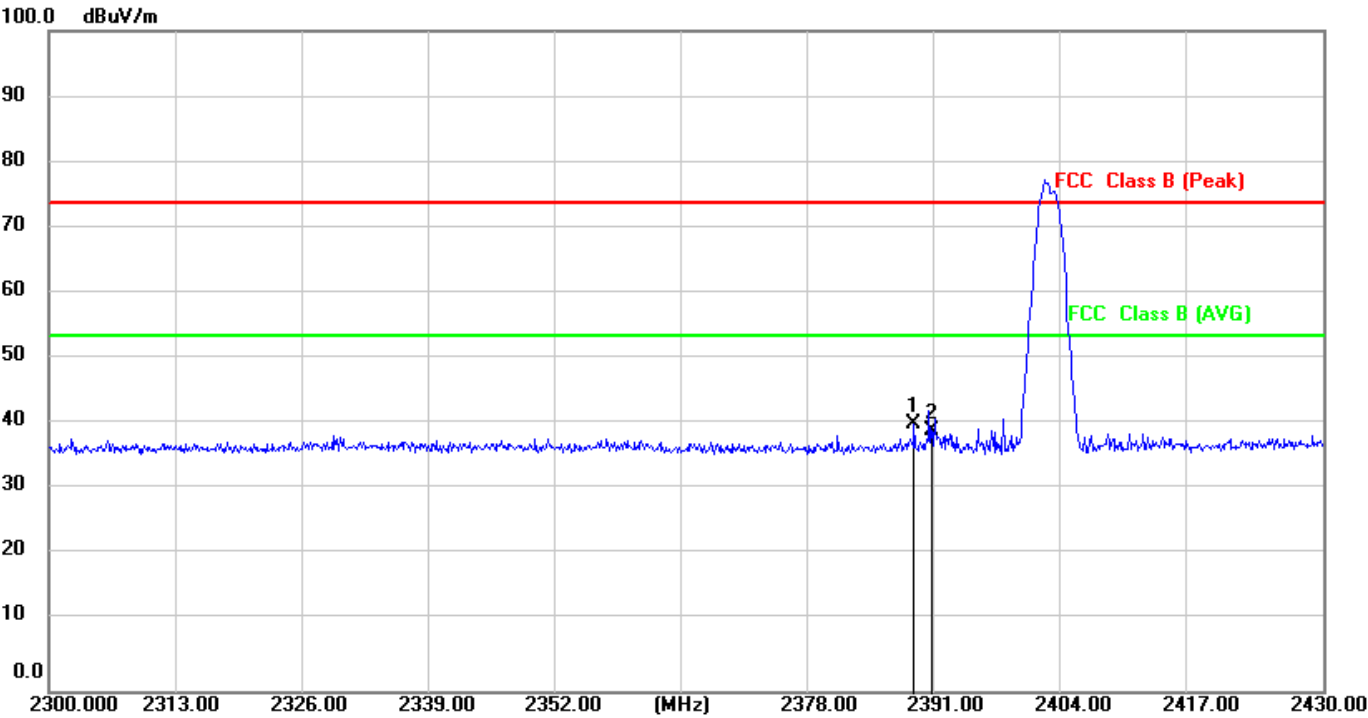
Test Graph



No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2357.200	35.99	2.62	38.61	74.00	-35.39	100	150	peak
2	2390.000	34.78	2.71	37.49	74.00	-36.51	200	119	peak

Mode:	BLE_500kpbs	Channel:	2402
Remark:	Vertical	Test model No.:	HJSR69 Ble

Test Graph

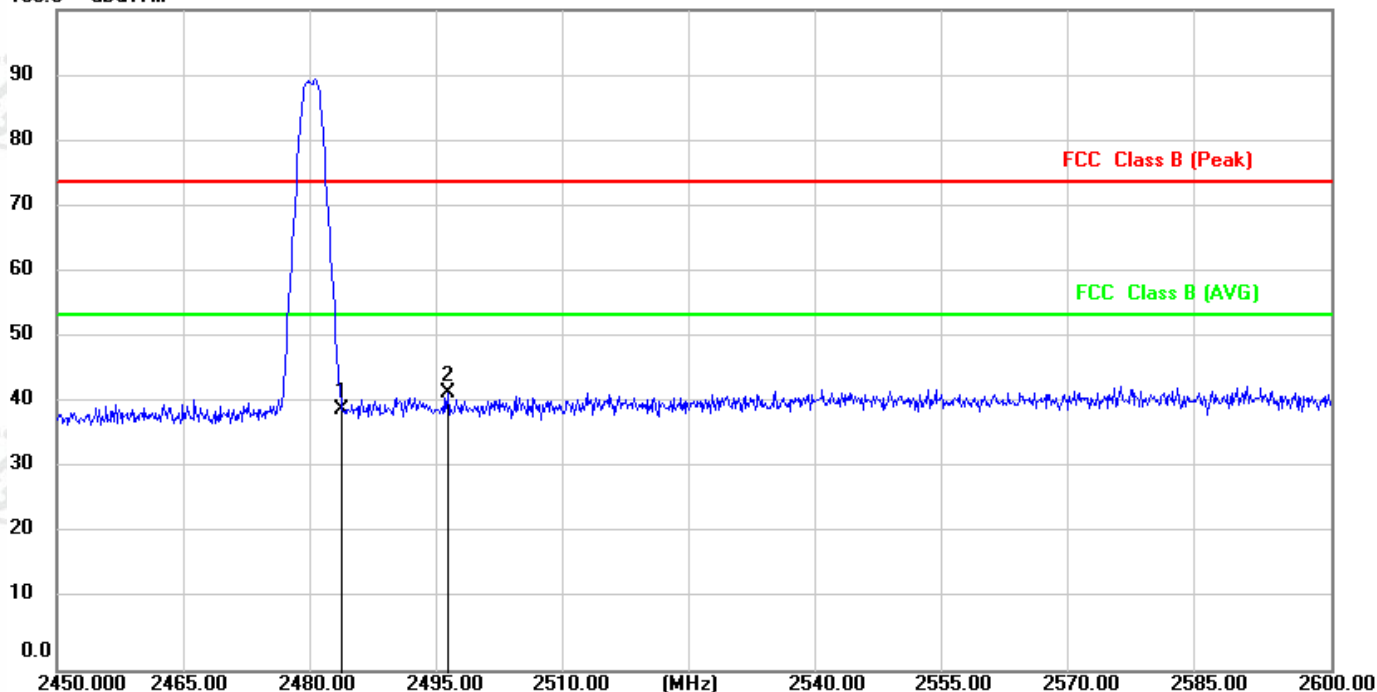


No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2388.270	37.84	2.71	40.55	74.00	-33.45	132	0	peak
2	2390.000	36.93	2.71	39.64	74.00	-34.36	100	0	peak

Mode:	BLE_500kbps	Channel:	2480
Remark:	Horizontal	Test model No.:	HJSR69 Ble

Test Graph

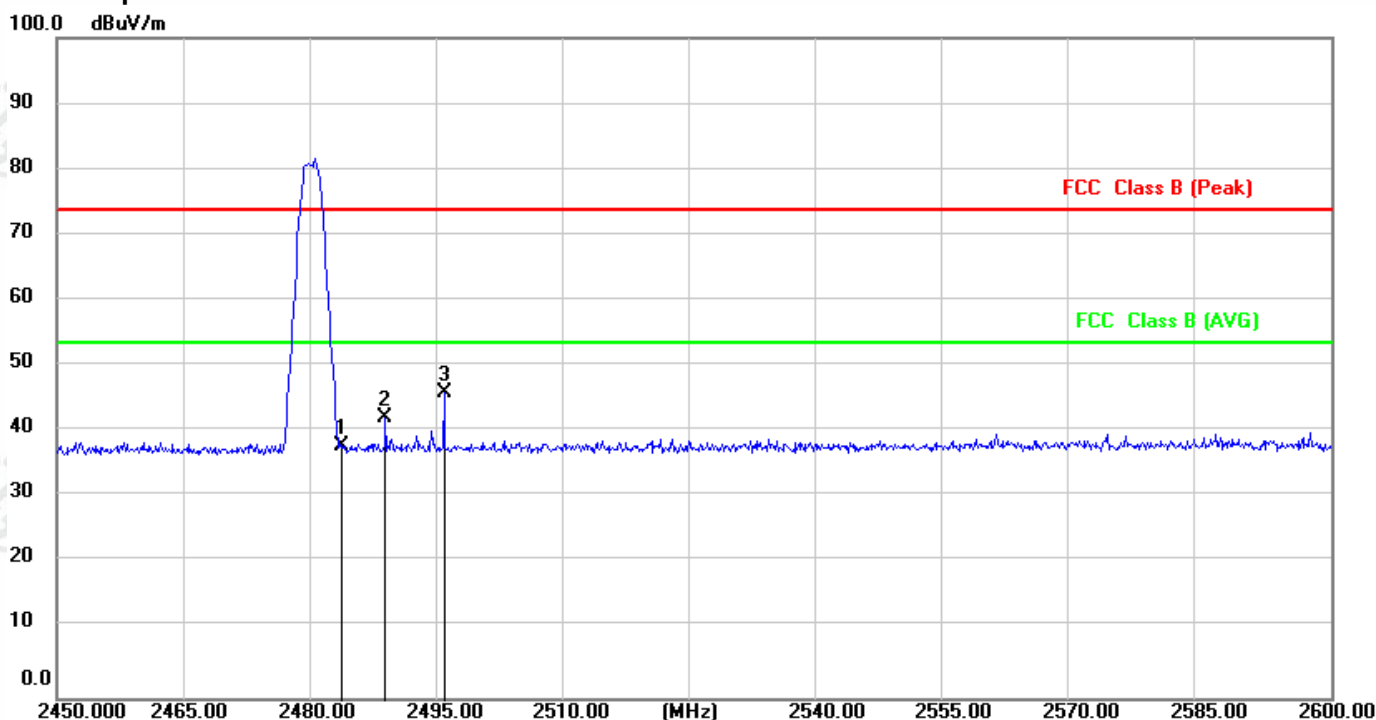
100.0 dBuV/m



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	36.69	2.92	39.61	74.00	-34.39	189	0	peak
2	2496.050	39.03	2.94	41.97	74.00	-32.03	200	54	peak

Mode:	BLE_500kbps	Channel:	2480
Remark:	Vertical	Test model No.:	HJSR69 Ble

Test Graph



No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2483.500	35.41	2.92	38.33	74.00	-35.67	200	219	peak
2	2488.700	39.55	2.93	42.48	74.00	-31.52	189	0	peak
3	2495.600	43.41	2.94	46.35	74.00	-27.65	200	278	peak

Note:

1)As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20dB under any condition of modulation. So, only the peak values are measured:

2) The field strength is calculated by adding the correct Factor. The basic equation with a sample calculation is as follows:

Final Test Level = Reading +Correct Factor

Correct Factor = Preamplifier Factor– Antenna Factor–Cable Factor

Appendix B): Radiated Spurious Emissions

Receiver Setup:	<table><tr><th>Frequency</th><th>Detector</th><th>RBW</th><th>VBW</th><th>Remark</th></tr><tr><td>0.009MHz-0.090MHz</td><td>Peak</td><td>10kHz</td><td>30kHz</td><td>Peak</td></tr><tr><td>0.009MHz-0.090MHz</td><td>Average</td><td>10kHz</td><td>30kHz</td><td>Average</td></tr><tr><td>0.090MHz-0.110MHz</td><td>Quasi-peak</td><td>10kHz</td><td>30kHz</td><td>Quasi-peak</td></tr><tr><td>0.110MHz-0.490MHz</td><td>Peak</td><td>10kHz</td><td>30kHz</td><td>Peak</td></tr><tr><td>0.110MHz-0.490MHz</td><td>Average</td><td>10kHz</td><td>30kHz</td><td>Average</td></tr><tr><td>0.490MHz -30MHz</td><td>Quasi-peak</td><td>10kHz</td><td>30kHz</td><td>Quasi-peak</td></tr><tr><td>30MHz-1GHz</td><td>Quasi-peak</td><td>120kHz</td><td>300kHz</td><td>Quasi-peak</td></tr><tr><td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak</td></tr><tr><td>Peak</td><td>1MHz</td><td>1/T</td><td>Average</td></tr></table>	Frequency	Detector	RBW	VBW	Remark	0.009MHz-0.090MHz	Peak	10kHz	30kHz	Peak	0.009MHz-0.090MHz	Average	10kHz	30kHz	Average	0.090MHz-0.110MHz	Quasi-peak	10kHz	30kHz	Quasi-peak	0.110MHz-0.490MHz	Peak	10kHz	30kHz	Peak	0.110MHz-0.490MHz	Average	10kHz	30kHz	Average	0.490MHz -30MHz	Quasi-peak	10kHz	30kHz	Quasi-peak	30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak	Above 1GHz	Peak	1MHz	3MHz	Peak	Peak	1MHz	1/T	Average
Frequency	Detector	RBW	VBW	Remark																																														
0.009MHz-0.090MHz	Peak	10kHz	30kHz	Peak																																														
0.009MHz-0.090MHz	Average	10kHz	30kHz	Average																																														
0.090MHz-0.110MHz	Quasi-peak	10kHz	30kHz	Quasi-peak																																														
0.110MHz-0.490MHz	Peak	10kHz	30kHz	Peak																																														
0.110MHz-0.490MHz	Average	10kHz	30kHz	Average																																														
0.490MHz -30MHz	Quasi-peak	10kHz	30kHz	Quasi-peak																																														
30MHz-1GHz	Quasi-peak	120kHz	300kHz	Quasi-peak																																														
Above 1GHz	Peak	1MHz	3MHz	Peak																																														
	Peak	1MHz	1/T	Average																																														
Test Procedure:	Below 1GHz test procedure as below: a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation. b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable was turned from 0 degrees to 360 degrees to find the maximum reading. e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. Above 1GHz test procedure as below: a. Different between above is the test site, change from Semi- Anechoic Chamber to fully Anechoic Chamber and change form table 0.8 meter to 1.5 meter (Above 18GHz the distance is 1 meter and table is 1.5 meter). b. Test the EUT in the lowest channel, the middle channel, the Highest channel c. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is worse case. d. Repeat above procedures until all frequencies measured was complete.																																																	
Limit:	<table><tr><th>Frequency</th><th>Field strength microvolt/meter</th><th>Limit (dBµV/m)</th><th>Remark</th><th>Measurement distance (m)</th></tr><tr><td>0.009MHz-0.490MHz</td><td>2400/F(kHz)</td><td>-</td><td>-</td><td>300</td></tr><tr><td>0.490MHz-1.705MHz</td><td>24000/F(kHz)</td><td>-</td><td>-</td><td>30</td></tr><tr><td>1.705MHz-30MHz</td><td>30</td><td>-</td><td>-</td><td>30</td></tr><tr><td>30MHz-88MHz</td><td>100</td><td>40.0</td><td>Quasi-peak</td><td>3</td></tr><tr><td>88MHz-216MHz</td><td>150</td><td>43.5</td><td>Quasi-peak</td><td>3</td></tr><tr><td>216MHz-960MHz</td><td>200</td><td>46.0</td><td>Quasi-peak</td><td>3</td></tr><tr><td>960MHz-1GHz</td><td>500</td><td>54.0</td><td>Quasi-peak</td><td>3</td></tr><tr><td>Above 1GHz</td><td>500</td><td>54.0</td><td>Average</td><td>3</td></tr></table> Note: 15.35(b), Unless otherwise specified, the limit on peak radio frequency emissions is 20dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device.	Frequency	Field strength microvolt/meter	Limit (dBµV/m)	Remark	Measurement distance (m)	0.009MHz-0.490MHz	2400/F(kHz)	-	-	300	0.490MHz-1.705MHz	24000/F(kHz)	-	-	30	1.705MHz-30MHz	30	-	-	30	30MHz-88MHz	100	40.0	Quasi-peak	3	88MHz-216MHz	150	43.5	Quasi-peak	3	216MHz-960MHz	200	46.0	Quasi-peak	3	960MHz-1GHz	500	54.0	Quasi-peak	3	Above 1GHz	500	54.0	Average	3				
Frequency	Field strength microvolt/meter	Limit (dBµV/m)	Remark	Measurement distance (m)																																														
0.009MHz-0.490MHz	2400/F(kHz)	-	-	300																																														
0.490MHz-1.705MHz	24000/F(kHz)	-	-	30																																														
1.705MHz-30MHz	30	-	-	30																																														
30MHz-88MHz	100	40.0	Quasi-peak	3																																														
88MHz-216MHz	150	43.5	Quasi-peak	3																																														
216MHz-960MHz	200	46.0	Quasi-peak	3																																														
960MHz-1GHz	500	54.0	Quasi-peak	3																																														
Above 1GHz	500	54.0	Average	3																																														

Radiated Spurious Emissions test Data:

Radiated Emission below 1GHz:

Mode:	BLE_2M	Channel:	2402
Test model No.:	HJH158 Ble		

Frequency (MHz)	Ant. Pol. (H/V)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
37.51	V	47.82	-19.93	27.89	40.00	-12.11	QP
51.13	V	46.46	-18.09	28.37	40.00	-11.63	QP
48.67	V	49.69	-20.18	29.51	43.50	-13.99	QP
47.54	V	51.08	-22.69	28.39	43.50	-15.11	QP
48.29	V	50.33	-18.46	31.87	46.00	-14.13	QP
42.89	V	42.33	-17.24	25.09	46.00	-20.91	QP
39.7000	H	37.51	-18.11	19.40	40.00	-20.60	QP
114.3900	H	51.13	-19.98	31.15	43.50	-12.35	QP
150.2800	H	48.67	-22.72	25.95	43.50	-17.55	QP
237.5800	H	47.54	-18.70	28.84	46.00	-17.16	QP
252.1300	H	48.29	-18.46	29.83	46.00	-16.17	QP
317.1200	H	42.89	-17.22	25.67	46.00	-20.33	QP

Notes:

- 1) Through Pre-scan then find the BLE_2M -CH1 is the worst case mode and only the worst data was recorded.

Transmitter Emission above 1GHz:

Mode:	BLE_1M	Channel:	2402
Test model No.:	HJH158 Ble		

Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1391.000	36.81	-2.51	34.30	74.00	-39.70	100	360	peak
2	1986.000	37.43	0.96	38.39	74.00	-35.61	100	62	peak
3	4791.000	33.34	9.12	42.46	74.00	-31.54	100	277	peak
4	7324.000	28.30	12.20	40.50	74.00	-33.50	100	333	peak
5	8769.000	26.91	13.87	40.78	74.00	-33.22	200	219	peak
6	11268.000	25.46	16.93	42.39	74.00	-31.61	200	114	peak

Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1323.000	40.46	-2.82	37.64	74.00	-36.36	100	57	peak
2	1646.000	40.96	-0.86	40.10	74.00	-33.90	198	0	peak
3	3108.000	36.50	5.05	41.55	74.00	-32.45	163	0	peak
4	3992.000	40.32	7.83	48.15	74.00	-25.85	200	28	peak
5	6933.000	30.98	11.62	42.60	74.00	-31.40	185	0	peak
6	10469.000	29.81	15.65	45.46	74.00	-28.54	158	0	peak

Mode:	BLE_1M	Channel:	2440
Test model No.:	HJH158 Ble		

Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1323.000	41.71	-2.82	38.89	74.00	-35.11	100	235	peak
2	1986.000	36.56	0.96	37.52	74.00	-36.48	200	337	peak
3	4791.000	33.40	9.12	42.52	74.00	-31.48	200	285	peak
4	5811.000	32.93	10.12	43.05	74.00	-30.95	200	325	peak
5	7239.000	29.99	12.06	42.05	74.00	-31.95	136	0	peak
6	14158.000	22.69	21.72	44.41	74.00	-29.59	100	175	peak

Vertical

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	1323.000	43.24	-2.82	40.42	74.00	-33.58	200	75	peak
2	1986.000	38.23	0.96	39.19	74.00	-34.81	200	17	peak
3	2785.000	37.67	4.20	41.87	74.00	-32.13	200	22	peak
4	3975.000	39.49	7.75	47.24	74.00	-26.76	100	225	peak
5	4978.000	34.68	9.55	44.23	74.00	-29.77	100	0	peak
6	7936.000	29.82	12.89	42.71	74.00	-31.29	100	228	peak

Mode:	BLE_1M	Channel:	2480
Test model No.:	HJH158 Ble		

Horizontal

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	1323.000	38.89	-2.82	36.07	74.00	-37.93	100	231	peak
2	2156.000	37.56	1.94	39.50	74.00	-34.50	100	323	peak
3	4791.000	33.76	9.12	42.88	74.00	-31.12	200	290	peak
4	6967.000	30.83	11.65	42.48	74.00	-31.52	100	360	peak
5	10486.000	27.94	15.69	43.63	74.00	-30.37	103	0	peak
6	14447.000	21.20	22.26	43.46	74.00	-30.54	100	53	peak

Vertical

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	1323.000	42.32	-2.82	39.50	74.00	-34.50	100	46	peak
2	1646.000	41.15	-0.86	40.29	74.00	-33.71	199	0	peak
3	3312.000	36.38	5.53	41.91	74.00	-32.09	200	349	peak
4	3975.000	40.78	7.75	48.53	74.00	-25.47	200	346	peak
5	8565.000	27.76	13.75	41.51	74.00	-32.49	134	0	peak
6	13971.000	23.16	21.46	44.62	74.00	-29.38	200	13	peak

Mode:	BLE_2M	Channel:	2402
Test model No.:	HJH158 Ble		

Horizontal

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	1833.000	36.96	0.47	37.43	74.00	-36.57	100	264	peak
2	3737.000	34.01	6.86	40.87	74.00	-33.13	200	39	peak
3	4791.000	33.51	9.12	42.63	74.00	-31.37	100	259	peak
4	6933.000	30.45	11.62	42.07	74.00	-31.93	200	159	peak
5	12577.000	24.31	18.39	42.70	74.00	-31.30	200	118	peak
6	13954.000	23.16	21.43	44.59	74.00	-29.41	200	70	peak

Vertical

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	1153.000	43.09	-3.61	39.48	74.00	-34.52	100	157	peak
2	2156.000	37.93	1.94	39.87	74.00	-34.13	100	283	peak
3	2411.000	37.73	2.76	40.49	74.00	-33.51	100	0	peak
4	3975.000	39.18	7.75	46.93	74.00	-27.07	200	289	peak
5	7358.000	29.69	12.25	41.94	74.00	-32.06	200	22	peak
6	14158.000	21.82	21.72	43.54	74.00	-30.46	200	161	peak

Mode:	BLE_2M	Channel:	2440
Test model No.:	HJH158 Ble		

Horizontal

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2156.000	39.17	1.94	41.11	74.00	-32.89	200	333	peak
2	3975.000	34.26	7.75	42.01	74.00	-31.99	200	105	peak
3	4791.000	32.83	9.12	41.95	74.00	-32.05	100	257	peak
4	7239.000	29.72	12.06	41.78	74.00	-32.22	192	0	peak
5	8497.000	27.72	13.66	41.38	74.00	-32.62	100	314	peak
6	13682.000	22.94	20.81	43.75	74.00	-30.25	140	0	peak

Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1153.000	43.36	-3.61	39.75	74.00	-34.25	114	0	peak
2	1323.000	42.40	-2.82	39.58	74.00	-34.42	100	36	peak
3	1646.000	40.27	-0.86	39.41	74.00	-34.59	142	0	peak
4	2156.000	38.31	1.94	40.25	74.00	-33.75	200	346	peak
5	3992.000	38.93	7.83	46.76	74.00	-27.24	200	356	peak
6	14532.000	21.67	22.29	43.96	74.00	-30.04	143	0	peak

Mode:	BLE_2M	Channel:	2480
Test model No.:	HJH158 Ble		

Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2156.000	35.58	1.94	37.52	74.00	-36.48	200	0	peak
2	4791.000	34.63	9.12	43.75	74.00	-30.25	100	294	peak
3	6644.000	31.33	11.38	42.71	74.00	-31.29	100	250	peak
4	8361.000	28.44	13.46	41.90	74.00	-32.10	100	344	peak
5	13767.000	23.11	21.05	44.16	74.00	-29.84	100	180	peak
6	14889.000	21.12	22.95	44.07	74.00	-29.93	100	104	peak

Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1153.000	44.57	-3.61	40.96	74.00	-33.04	100	176	peak
2	3975.000	37.54	7.75	45.29	74.00	-28.71	100	290	peak
3	6644.000	31.23	11.38	42.61	74.00	-31.39	165	0	peak
4	8854.000	26.98	13.93	40.91	74.00	-33.09	200	280	peak
5	11625.000	31.13	17.25	48.38	74.00	-25.62	196	0	peak
6	14447.000	21.66	22.26	43.92	74.00	-30.08	144	0	peak

Mode:	BLE_125kbps	Channel:	2402
Test model No.:	HJH158 Ble		

Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1323.000	39.60	-2.82	36.78	74.00	-37.22	100	221	peak
2	3499.000	35.04	6.15	41.19	74.00	-32.81	200	146	peak
3	4791.000	34.66	9.12	43.78	74.00	-30.22	100	282	peak
4	6950.000	30.95	11.64	42.59	74.00	-31.41	200	0	peak
5	8939.000	27.36	14.02	41.38	74.00	-32.62	181	0	peak
6	14073.000	22.86	21.61	44.47	74.00	-29.53	100	360	peak

Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1323.000	42.37	-2.82	39.55	74.00	-34.45	200	344	peak
2	1646.000	42.32	-0.86	41.46	74.00	-32.54	200	347	peak
3	3992.000	42.54	7.83	50.37	74.00	-23.63	200	344	peak
4	6644.000	32.41	11.38	43.79	74.00	-30.21	100	143	peak
5	12458.000	24.77	18.20	42.97	74.00	-31.03	186	0	peak
6	15671.000	23.76	22.87	46.63	74.00	-27.37	100	145	peak

Mode:	BLE_125kbps	Channel:	2440
Test model No.:	HJH158 Ble		

Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1323.000	42.86	-2.82	40.04	74.00	-33.96	200	224	peak
2	2156.000	36.08	1.94	38.02	74.00	-35.98	200	18	peak
3	4791.000	34.58	9.12	43.70	74.00	-30.30	200	288	peak
4	5828.000	32.69	10.13	42.82	74.00	-31.18	100	3	peak
5	6950.000	31.44	11.64	43.08	74.00	-30.92	141	0	peak
6	14787.000	21.48	22.81	44.29	74.00	-29.71	100	261	peak

Vertical

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	1323.000	42.58	-2.82	39.76	74.00	-34.24	200	343	peak
2	1663.000	42.61	-0.73	41.88	74.00	-32.12	200	0	peak
3	3992.000	40.74	7.83	48.57	74.00	-25.43	200	13	peak
4	7137.000	29.46	11.90	41.36	74.00	-32.64	163	0	peak
5	8837.000	27.41	13.92	41.33	74.00	-32.67	200	297	peak
6	14158.000	22.11	21.72	43.83	74.00	-30.17	200	349	peak

Mode:	BLE_125kbps	Channel:	2480
Test model No.:	HJH158 Ble		

Horizontal

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	1323.000	42.71	-2.82	39.89	74.00	-34.11	100	227	peak
2	1986.000	39.11	0.96	40.07	74.00	-33.93	200	67	peak
3	4791.000	35.19	9.12	44.31	74.00	-29.69	200	249	peak
4	7341.000	28.85	12.23	41.08	74.00	-32.92	200	0	peak
5	10401.000	32.55	15.47	48.02	74.00	-25.98	200	215	peak
6	14719.000	20.92	22.63	43.55	74.00	-30.45	100	227	peak

Vertical

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	1646.000	40.29	-0.86	39.43	74.00	-34.57	194	0	peak
2	1986.000	39.12	0.96	40.08	74.00	-33.92	199	0	peak
3	3975.000	35.81	7.75	43.56	74.00	-30.44	120	0	peak
4	4978.000	36.00	9.55	45.55	74.00	-28.45	100	356	peak
5	10911.000	27.21	16.39	43.60	74.00	-30.40	200	187	peak
6	15535.000	22.63	22.75	45.38	74.00	-28.62	199	0	peak

Mode:	BLE_500kbps	Channel:	2402
Test model No.:	HJH158 Ble		

Horizontal

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2156.000	39.76	1.94	41.70	74.00	-32.30	200	61	peak
2	4791.000	34.35	9.12	43.47	74.00	-30.53	100	282	peak
3	7239.000	29.74	12.06	41.80	74.00	-32.20	200	107	peak
4	8004.000	29.50	12.96	42.46	74.00	-31.54	200	143	peak
5	13818.000	22.53	21.18	43.71	74.00	-30.29	200	130	peak
6	15042.000	19.58	23.08	42.66	74.00	-31.34	100	138	peak

Vertical

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	1323.000	43.37	-2.82	40.55	74.00	-33.45	100	205	peak
2	1663.000	43.70	-0.73	42.97	74.00	-31.03	200	14	peak
3	3975.000	42.02	7.75	49.77	74.00	-24.23	200	14	peak
4	5233.000	36.39	9.51	45.90	74.00	-28.10	100	88	peak
5	10129.000	28.12	14.92	43.04	74.00	-30.96	200	48	peak
6	14158.000	21.65	21.72	43.37	74.00	-30.63	100	82	peak

Mode:	BLE_500kbps	Channel:	2440
Test model No.:	HJH158 Ble		

Horizontal

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2649.000	39.42	3.43	42.85	74.00	-31.15	200	90	peak
2	4791.000	34.30	9.12	43.42	74.00	-30.58	100	281	peak
3	6950.000	31.95	11.64	43.59	74.00	-30.41	200	129	peak
4	8480.000	28.09	13.63	41.72	74.00	-32.28	200	145	peak
5	11251.000	24.54	16.91	41.45	74.00	-32.55	200	77	peak
6	13512.000	23.25	20.29	43.54	74.00	-30.46	100	235	peak

Vertical

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	1646.000	42.51	-0.86	41.65	74.00	-32.35	200	9	peak
2	3975.000	37.73	7.75	45.48	74.00	-28.52	200	32	peak
3	6627.000	32.14	11.36	43.50	74.00	-30.50	100	142	peak
4	10469.000	27.52	15.65	43.17	74.00	-30.83	200	2	peak
5	13767.000	22.28	21.05	43.33	74.00	-30.67	200	32	peak
6	14889.000	20.36	22.95	43.31	74.00	-30.69	200	344	peak

Mode:	BLE_500kbps	Channel:	2480
Test model No.:	HJH158 Ble		

Horizontal

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	1663.000	37.85	-0.73	37.12	74.00	-36.88	100	127	peak
2	2462.000	35.38	2.87	38.25	74.00	-35.75	160	0	peak
3	4791.000	34.35	9.12	43.47	74.00	-30.53	100	255	peak
4	8582.000	28.33	13.77	42.10	74.00	-31.90	144	0	peak
5	13818.000	22.98	21.18	44.16	74.00	-29.84	100	249	peak
6	15433.000	19.57	22.80	42.37	74.00	-31.63	160	0	peak

Vertical

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	1646.000	40.92	-0.86	40.06	74.00	-33.94	200	360	peak
2	3992.000	36.72	7.83	44.55	74.00	-29.45	200	38	peak
3	6644.000	31.77	11.38	43.15	74.00	-30.85	100	146	peak
4	8497.000	29.54	13.66	43.20	74.00	-30.80	200	356	peak
5	10401.000	34.39	15.47	49.86	74.00	-24.14	167	0	peak
6	14804.000	21.44	22.84	44.28	74.00	-29.72	200	360	peak

Report No. : EED39O81104001

Radiated Emission below 1GHz:

Mode:	BLE_1M	Channel:	2402
Test model No.:	HJH159 Ble		

Frequency (MHz)	Ant. Pol. (H/V)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
38.57	V	47.18	-19.57	27.61	40.00	-12.39	QP
50.52	V	45.12	-17.99	27.13	40.00	-12.87	QP
49.33	V	48.67	-20.18	28.49	43.50	-15.01	QP
49.70	V	51.75	-22.68	29.07	43.50	-14.43	QP
48.39	V	51.08	-18.40	32.68	46.00	-13.32	QP
42.28	V	42.87	-17.29	25.58	46.00	-20.42	QP
41.6400	H	38.57	-17.97	20.60	40.00	-19.40	QP
115.3600	H	50.52	-20.18	30.34	43.50	-13.16	QP
155.1300	H	49.33	-22.68	26.65	43.50	-16.85	QP
216.2400	H	49.70	-19.63	30.07	46.00	-15.93	QP
252.1300	H	48.39	-18.46	29.93	46.00	-16.07	QP
315.1800	H	42.28	-17.27	25.01	46.00	-20.99	QP

Notes:

1) Through Pre-scan then find the BLE_1M -CH1 is the worst case mode and only the worst data was recorded.

Transmitter Emission above 1GHz:

Mode:	BLE_1M	Channel:	2402
Test model No.:	HJH159 Ble		

Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1323.000	41.47	-2.82	38.65	74.00	-35.35	100	216	peak
2	2156.000	37.45	1.94	39.39	74.00	-34.61	179	0	peak
3	4791.000	34.87	9.12	43.99	74.00	-30.01	200	251	peak
4	5743.000	32.63	9.98	42.61	74.00	-31.39	100	70	peak
5	8361.000	28.78	13.46	42.24	74.00	-31.76	111	0	peak
6	14600.000	21.37	22.31	43.68	74.00	-30.32	115	0	peak

Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1986.000	38.45	0.96	39.41	74.00	-34.59	200	26	peak
2	3992.000	41.31	7.83	49.14	74.00	-24.86	200	23	peak
3	6644.000	32.10	11.38	43.48	74.00	-30.52	108	0	peak
4	8480.000	28.17	13.63	41.80	74.00	-32.20	182	0	peak
5	10231.000	27.28	15.18	42.46	74.00	-31.54	100	350	peak
6	14056.000	22.69	21.59	44.28	74.00	-29.72	200	360	peak

Mode:	BLE_1M	Channel:	2440
Test model No.:	HJH159 Ble		

Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2768.000	36.03	4.10	40.13	74.00	-33.87	125	0	peak
2	3839.000	34.65	7.18	41.83	74.00	-32.17	200	222	peak
3	4791.000	34.45	9.12	43.57	74.00	-30.43	100	176	peak
4	6644.000	31.69	11.38	43.07	74.00	-30.93	100	360	peak
5	9755.000	27.86	14.75	42.61	74.00	-31.39	200	0	peak
6	13971.000	21.74	21.46	43.20	74.00	-30.80	200	270	peak

Vertical

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	1663.000	42.66	-0.73	41.93	74.00	-32.07	199	0	peak
2	3159.000	36.38	5.15	41.53	74.00	-32.47	200	1	peak
3	3975.000	37.36	7.75	45.11	74.00	-28.89	200	57	peak
4	4995.000	33.40	9.59	42.99	74.00	-31.01	192	0	peak
5	7137.000	30.16	11.90	42.06	74.00	-31.94	100	18	peak
6	11625.000	27.47	17.25	44.72	74.00	-29.28	200	92	peak

Mode:	BLE_1M	Channel:	2480
Test model No.:	HJH159 Ble		

Horizontal

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2156.000	36.65	1.94	38.59	74.00	-35.41	183	0	peak
2	3992.000	37.25	7.83	45.08	74.00	-28.92	100	115	peak
3	6746.000	31.95	11.46	43.41	74.00	-30.59	100	295	peak
4	8497.000	28.07	13.66	41.73	74.00	-32.27	200	273	peak
5	10520.000	26.59	15.78	42.37	74.00	-31.63	100	179	peak
6	14532.000	21.36	22.29	43.65	74.00	-30.35	181	0	peak

Vertical

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	1323.000	43.39	-2.82	40.57	74.00	-33.43	100	110	peak
2	1663.000	41.77	-0.73	41.04	74.00	-32.96	199	0	peak
3	1986.000	39.48	0.96	40.44	74.00	-33.56	199	0	peak
4	3329.000	36.51	5.58	42.09	74.00	-31.91	109	0	peak
5	4808.000	34.05	9.16	43.21	74.00	-30.79	100	167	peak
6	7137.000	29.58	11.90	41.48	74.00	-32.52	200	246	peak

Mode:	BLE_2M	Channel:	2402
Test model No.:	HJH159 Ble		

Horizontal

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	1799.000	37.00	0.36	37.36	74.00	-36.64	197	0	peak
2	4791.000	34.20	9.12	43.32	74.00	-30.68	100	252	peak
3	6950.000	30.88	11.64	42.52	74.00	-31.48	100	360	peak
4	8225.000	28.11	13.27	41.38	74.00	-32.62	100	79	peak
5	11098.000	26.25	16.68	42.93	74.00	-31.07	100	20	peak
6	14158.000	22.91	21.72	44.63	74.00	-29.37	164	0	peak

Vertical

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	1663.000	42.51	-0.73	41.78	74.00	-32.22	200	171	peak
2	3125.000	37.47	5.08	42.55	74.00	-31.45	109	0	peak
3	3312.000	36.37	5.53	41.90	74.00	-32.10	178	0	peak
4	3975.000	38.91	7.75	46.66	74.00	-27.34	200	38	peak
5	6831.000	31.81	11.54	43.35	74.00	-30.65	200	237	peak
6	13818.000	23.33	21.18	44.51	74.00	-29.49	185	0	peak

Mode:	BLE_2M	Channel:	2440
Test model No.:	HJH159 Ble		

Horizontal

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	1663.000	38.41	-0.73	37.68	74.00	-36.32	100	73	peak
2	4791.000	34.57	9.12	43.69	74.00	-30.31	100	253	peak
3	6661.000	31.43	11.39	42.82	74.00	-31.18	200	339	peak
4	8480.000	28.50	13.63	42.13	74.00	-31.87	100	349	peak
5	11812.000	26.30	17.00	43.30	74.00	-30.70	100	233	peak
6	13699.000	23.04	20.86	43.90	74.00	-30.10	100	342	peak

Vertical

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	1323.000	42.84	-2.82	40.02	74.00	-33.98	100	128	peak
2	3992.000	38.51	7.83	46.34	74.00	-27.66	100	36	peak
3	6950.000	31.14	11.64	42.78	74.00	-31.22	200	360	peak
4	8854.000	27.33	13.93	41.26	74.00	-32.74	200	346	peak
5	11523.000	34.73	17.21	51.94	74.00	-22.06	200	146	peak
6	15535.000	21.33	22.75	44.08	74.00	-29.92	100	138	peak

Mode:	BLE_2M	Channel:	2480
Test model No.:	HJH159 Ble		

Horizontal

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2156.000	38.25	1.94	40.19	74.00	-33.81	200	62	peak
2	4791.000	35.18	9.12	44.30	74.00	-29.70	200	253	peak
3	6967.000	30.09	11.65	41.74	74.00	-32.26	200	246	peak
4	9109.000	27.05	14.21	41.26	74.00	-32.74	100	48	peak
5	11625.000	25.51	17.25	42.76	74.00	-31.24	100	349	peak
6	14158.000	23.59	21.72	45.31	74.00	-28.69	200	359	peak

Vertical

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	1323.000	43.22	-2.82	40.40	74.00	-33.60	100	118	peak
2	1663.000	41.04	-0.73	40.31	74.00	-33.69	100	2	peak
3	3312.000	37.86	5.53	43.39	74.00	-30.61	199	0	peak
4	3992.000	40.88	7.83	48.71	74.00	-25.29	100	218	peak
5	7137.000	30.94	11.90	42.84	74.00	-31.16	100	0	peak
6	14464.000	21.81	22.26	44.07	74.00	-29.93	100	47	peak

Mode:	BLE_125kbps	Channel:	2402
Test model No.:	HJH159 Ble		

Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2156.000	36.71	1.94	38.65	74.00	-35.35	200	0	peak
2	3975.000	34.87	7.75	42.62	74.00	-31.38	200	53	peak
3	4791.000	34.41	9.12	43.53	74.00	-30.47	100	288	peak
4	6831.000	31.36	11.54	42.90	74.00	-31.10	100	346	peak
5	11829.000	25.80	17.00	42.80	74.00	-31.20	200	76	peak
6	13495.000	23.65	20.24	43.89	74.00	-30.11	100	306	peak

Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1646.000	44.80	-0.86	43.94	74.00	-30.06	200	9	peak
2	3975.000	38.61	7.75	46.36	74.00	-27.64	200	74	peak
3	5216.000	34.52	9.49	44.01	74.00	-29.99	100	106	peak
4	6627.000	31.38	11.36	42.74	74.00	-31.26	118	0	peak
5	10401.000	26.26	15.47	41.73	74.00	-32.27	100	10	peak
6	12458.000	24.79	18.20	42.99	74.00	-31.01	105	0	peak

Mode:	BLE_125kbps	Channel:	2440
Test model No.:	HJH159 Ble		

Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2156.000	37.93	1.94	39.87	74.00	-34.13	200	326	peak
2	4791.000	34.30	9.12	43.42	74.00	-30.58	200	293	peak
3	5216.000	33.40	9.49	42.89	74.00	-31.11	200	344	peak
4	7341.000	28.30	12.23	40.53	74.00	-33.47	196	0	peak
5	8480.000	28.80	13.63	42.43	74.00	-31.57	124	0	peak
6	11098.000	25.46	16.68	42.14	74.00	-31.86	100	234	peak

Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1663.000	40.45	-0.73	39.72	74.00	-34.28	143	0	peak
2	3975.000	39.53	7.75	47.28	74.00	-26.72	100	194	peak
3	5794.000	31.66	10.10	41.76	74.00	-32.24	200	274	peak
4	6644.000	32.04	11.38	43.42	74.00	-30.58	100	141	peak
5	10129.000	28.34	14.92	43.26	74.00	-30.74	200	80	peak
6	13699.000	23.75	20.86	44.61	74.00	-29.39	199	0	peak

Mode:	BLE_125kbps	Channel:	2480
Test model No.:	HJH159 Ble		

Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2156.000	36.93	1.94	38.87	74.00	-35.13	167	0	peak
2	3992.000	35.76	7.83	43.59	74.00	-30.41	100	80	peak
3	4791.000	33.73	9.12	42.85	74.00	-31.15	100	253	peak
4	6950.000	30.65	11.64	42.29	74.00	-31.71	100	36	peak
5	12458.000	24.60	18.20	42.80	74.00	-31.20	200	0	peak
6	14158.000	23.33	21.72	45.05	74.00	-28.95	108	0	peak

Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1646.000	42.38	-0.86	41.52	74.00	-32.48	200	3	peak
2	2989.000	36.98	4.83	41.81	74.00	-32.19	132	0	peak
3	3975.000	40.67	7.75	48.42	74.00	-25.58	100	229	peak
4	4791.000	34.85	9.12	43.97	74.00	-30.03	100	95	peak
5	7630.000	28.09	12.52	40.61	74.00	-33.39	100	155	peak
6	8497.000	28.93	13.66	42.59	74.00	-31.41	197	0	peak

Mode:	BLE_500kbps	Channel:	2402
Test model No.:	HJH159 Ble		

Horizontal

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	1323.000	39.91	-2.82	37.09	74.00	-36.91	100	228	peak
2	2156.000	39.17	1.94	41.11	74.00	-32.89	200	336	peak
3	3312.000	35.52	5.53	41.05	74.00	-32.95	100	35	peak
4	4791.000	34.38	9.12	43.50	74.00	-30.50	200	305	peak
5	6933.000	31.22	11.62	42.84	74.00	-31.16	100	360	peak
6	11421.000	26.27	17.11	43.38	74.00	-30.62	109	0	peak

Vertical

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	1323.000	41.34	-2.82	38.52	74.00	-35.48	200	318	peak
2	1663.000	41.90	-0.73	41.17	74.00	-32.83	122	0	peak
3	2156.000	38.64	1.94	40.58	74.00	-33.42	100	273	peak
4	3992.000	40.37	7.83	48.20	74.00	-25.80	100	56	peak
5	10214.000	26.90	15.15	42.05	74.00	-31.95	138	0	peak
6	13767.000	23.56	21.05	44.61	74.00	-29.39	200	33	peak

Mode:	BLE_500kbps	Channel:	2440
Test model No.:	HJH159 Ble		

Horizontal

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	1816.000	38.74	0.42	39.16	74.00	-34.84	200	289	peak
2	2156.000	37.84	1.94	39.78	74.00	-34.22	200	18	peak
3	4791.000	34.55	9.12	43.67	74.00	-30.33	100	279	peak
4	7528.000	29.04	12.42	41.46	74.00	-32.54	176	0	peak
5	11098.000	25.97	16.68	42.65	74.00	-31.35	200	280	peak
6	14056.000	22.46	21.59	44.05	74.00	-29.95	200	38	peak

Vertical

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	1663.000	40.47	-0.73	39.74	74.00	-34.26	200	360	peak
2	1986.000	38.34	0.96	39.30	74.00	-34.70	200	355	peak
3	3992.000	39.17	7.83	47.00	74.00	-27.00	100	222	peak
4	6644.000	31.28	11.38	42.66	74.00	-31.34	131	0	peak
5	9415.000	28.20	14.59	42.79	74.00	-31.21	199	0	peak
6	14141.000	24.39	21.70	46.09	74.00	-27.91	132	0	peak

Mode:	BLE_500kbps	Channel:	2480
Test model No.:	HJH159 Ble		

Horizontal

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	1986.000	37.67	0.96	38.63	74.00	-35.37	100	65	peak
2	2156.000	37.70	1.94	39.64	74.00	-34.36	200	2	peak
3	4791.000	33.58	9.12	42.70	74.00	-31.30	200	276	peak
4	6950.000	31.70	11.64	43.34	74.00	-30.66	100	273	peak
5	8225.000	29.50	13.27	42.77	74.00	-31.23	100	38	peak
6	10911.000	27.55	16.39	43.94	74.00	-30.06	114	0	peak

Vertical

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	1323.000	45.59	-2.82	42.77	74.00	-31.23	200	343	peak
2	1663.000	41.54	-0.73	40.81	74.00	-33.19	200	355	peak
3	3975.000	37.69	7.75	45.44	74.00	-28.56	100	219	peak
4	4995.000	37.31	9.59	46.90	74.00	-27.10	100	70	peak
5	6542.000	32.15	11.20	43.35	74.00	-30.65	199	0	peak
6	14889.000	21.81	22.95	44.76	74.00	-29.24	100	336	peak

Radiated Emission below 1GHz:

Mode:	BLE_2M	Channel:	2402
Test model No.:	HJSR69 Ble		

Frequency (MHz)	Ant. Pol. (H/V)	Reading (dBuV)	Correction Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
30.9700	V	49.71	-19.75	29.96	40.00	-10.04	QP
55.2200	V	44.74	-18.09	26.65	40.00	-13.35	QP
116.3300	V	50.15	-20.37	29.78	43.50	-13.72	QP
154.1600	V	52.80	-22.69	30.11	43.50	-13.39	QP
235.6400	V	46.30	-18.80	27.50	46.00	-18.50	QP
256.9800	V	52.92	-18.42	34.50	46.00	-11.50	QP
47.18	H	37.53	-17.99	19.54	40.00	-20.46	QP
45.12	H	50.76	-20.18	30.58	43.50	-12.92	QP
48.67	H	49.97	-22.69	27.28	43.50	-16.22	QP
51.75	H	46.96	-18.75	28.21	46.00	-17.79	QP
51.08	H	49.02	-18.43	30.59	46.00	-15.41	QP
42.87	H	43.67	-17.27	26.40	46.00	-19.60	QP

Notes:

- 1) Through Pre-scan then find the BLE_2M -CH1 is the worst case mode and only the worst data was recorded.

Transmitter Emission above 1GHz:

Mode:	BLE_1M	Channel:	2402
Test model No.:	HJSR69 Ble		

Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2819.000	35.20	4.34	39.54	74.00	-34.46	100	38	peak
2	4791.000	35.95	9.12	45.07	74.00	-28.93	200	314	peak
3	7205.000	39.82	12.01	51.83	74.00	-22.17	200	62	peak
4	10996.000	31.25	16.50	47.75	74.00	-26.25	100	119	peak
5	14158.000	30.42	21.72	52.14	74.00	-21.86	100	331	peak
6	16079.000	28.73	23.66	52.39	74.00	-21.61	100	268	peak

Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1663.000	40.39	-0.73	39.66	74.00	-34.34	199	0	peak
2	3992.000	39.68	7.83	47.51	74.00	-26.49	200	33	peak
3	4808.000	35.42	9.16	44.58	74.00	-29.42	200	21	peak
4	7205.000	39.79	12.01	51.80	74.00	-22.20	100	104	peak
5	10996.000	30.24	16.50	46.74	74.00	-27.26	200	264	peak
6	13767.000	30.89	21.05	51.94	74.00	-22.06	200	161	peak

Mode:	BLE_1M	Channel:	2440
Test model No.:	HJSR69 Ble		

Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2547.000	36.44	3.05	39.49	74.00	-34.51	200	238	peak
2	4791.000	37.09	9.12	46.21	74.00	-27.79	100	311	peak
3	7205.000	39.20	12.01	51.21	74.00	-22.79	200	62	peak
4	11098.000	30.93	16.68	47.61	74.00	-26.39	129	0	peak
5	14379.000	29.60	22.19	51.79	74.00	-22.21	100	0	peak
6	14889.000	30.02	22.95	52.97	74.00	-21.03	200	306	peak

Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1663.000	43.48	-0.73	42.75	74.00	-31.25	182	0	peak
2	3992.000	38.87	7.83	46.70	74.00	-27.30	100	214	peak
3	7205.000	36.18	12.01	48.19	74.00	-25.81	100	93	peak
4	12016.000	31.56	17.08	48.64	74.00	-25.36	100	106	peak
5	14736.000	30.12	22.67	52.79	74.00	-21.21	100	267	peak
6	16929.000	27.88	25.43	53.31	74.00	-20.69	100	0	peak

Mode:	BLE_1M	Channel:	2480
Test model No.:	HJSR69 Ble		

Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1646.000	39.96	-0.86	39.10	74.00	-34.90	200	19	peak
2	4791.000	37.13	9.12	46.25	74.00	-27.75	100	1	peak
3	7205.000	38.67	12.01	50.68	74.00	-23.32	100	276	peak
4	9602.000	31.46	14.87	46.33	74.00	-27.67	200	233	peak
5	10996.000	30.94	16.50	47.44	74.00	-26.56	125	0	peak
6	14651.000	31.02	22.45	53.47	74.00	-20.53	121	0	peak

Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1663.000	41.95	-0.73	41.22	74.00	-32.78	200	360	peak
2	3992.000	39.47	7.83	47.30	74.00	-26.70	200	211	peak
3	4995.000	36.31	9.59	45.90	74.00	-28.10	136	0	peak
4	7205.000	37.99	12.01	50.00	74.00	-24.00	100	111	peak
5	9738.000	29.72	14.76	44.48	74.00	-29.52	106	0	peak
6	12016.000	31.05	17.08	48.13	74.00	-25.87	100	104	peak

Mode:	BLE_2M	Channel:	2402
Test model No.:	HJSR69 Ble		

Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2513.000	37.22	2.98	40.20	74.00	-33.80	200	147	peak
2	4808.000	35.91	9.16	45.07	74.00	-28.93	191	0	peak
3	7205.000	39.06	12.01	51.07	74.00	-22.93	100	199	peak
4	9483.000	30.07	14.69	44.76	74.00	-29.24	100	136	peak
5	11404.000	29.10	17.09	46.19	74.00	-27.81	100	319	peak
6	14056.000	30.24	21.59	51.83	74.00	-22.17	100	114	peak

Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1663.000	42.62	-0.73	41.89	74.00	-32.11	164	0	peak
2	2411.000	39.12	2.76	41.88	74.00	-32.12	200	243	peak
3	4978.000	36.16	9.55	45.71	74.00	-28.29	100	346	peak
4	7205.000	38.95	12.01	50.96	74.00	-23.04	100	92	peak
5	9602.000	32.45	14.87	47.32	74.00	-26.68	100	275	peak
6	14532.000	30.16	22.29	52.45	74.00	-21.55	200	209	peak

Mode:	BLE_2M	Channel:	2440
Test model No.:	HJSR69 Ble		

Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2156.000	39.46	1.94	41.40	74.00	-32.60	200	25	peak
2	4264.000	35.10	8.26	43.36	74.00	-30.64	102	0	peak
3	4791.000	35.09	9.12	44.21	74.00	-29.79	100	256	peak
4	6950.000	32.92	11.64	44.56	74.00	-29.44	100	128	peak
5	11013.000	30.46	16.53	46.99	74.00	-27.01	100	360	peak
6	14158.000	29.84	21.72	51.56	74.00	-22.44	100	0	peak

Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1646.000	42.16	-0.86	41.30	74.00	-32.70	200	350	peak
2	4145.000	34.70	8.21	42.91	74.00	-31.09	100	9	peak
3	4910.000	34.38	9.39	43.77	74.00	-30.23	173	0	peak
4	8446.000	30.38	13.58	43.96	74.00	-30.04	200	261	peak
5	10588.000	29.51	15.96	45.47	74.00	-28.53	199	0	peak
6	14073.000	29.73	21.61	51.34	74.00	-22.66	100	5	peak

Mode:	BLE_2M	Channel:	2480
Test model No.:	HJSR69 Ble		

Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1884.000	40.67	0.63	41.30	74.00	-32.70	182	0	peak
2	4791.000	33.53	9.12	42.65	74.00	-31.35	100	252	peak
3	9415.000	26.27	14.59	40.86	74.00	-33.14	100	172	peak
4	10571.000	26.42	15.91	42.33	74.00	-31.67	100	121	peak
5	14464.000	19.53	22.26	41.79	74.00	-32.21	100	160	peak
6	16912.000	16.33	25.37	41.70	74.00	-32.30	172	0	peak

Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1153.000	44.45	-3.61	40.84	74.00	-33.16	106	0	peak
2	1663.000	40.64	-0.73	39.91	74.00	-34.09	100	358	peak
3	2258.000	36.70	2.36	39.06	74.00	-34.94	200	2	peak
4	3992.000	38.83	7.83	46.66	74.00	-27.34	200	353	peak
5	6967.000	30.56	11.65	42.21	74.00	-31.79	100	13	peak
6	14651.000	22.32	22.45	44.77	74.00	-29.23	100	125	peak

Mode:	BLE_125kbps	Channel:	2402
Test model No.:	HJSR69 Ble		

Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1986.000	38.17	0.96	39.13	74.00	-34.87	100	62	peak
2	4791.000	34.53	9.12	43.65	74.00	-30.35	200	252	peak
3	5760.000	32.05	10.02	42.07	74.00	-31.93	200	327	peak
4	7647.000	27.80	12.54	40.34	74.00	-33.66	200	309	peak
5	11098.000	26.45	16.68	43.13	74.00	-30.87	100	108	peak
6	14889.000	21.78	22.95	44.73	74.00	-29.27	100	24	peak

Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1153.000	43.70	-3.61	40.09	74.00	-33.91	109	0	peak
2	1646.000	42.00	-0.86	41.14	74.00	-32.86	200	360	peak
3	2666.000	36.37	3.53	39.90	74.00	-34.10	200	255	peak
4	3312.000	36.44	5.53	41.97	74.00	-32.03	199	0	peak
5	3992.000	38.13	7.83	45.96	74.00	-28.04	100	58	peak
6	14872.000	21.43	22.93	44.36	74.00	-29.64	200	301	peak

Mode:	BLE_125kbps	Channel:	2440
Test model No.:	HJSR69 Ble		

Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1153.000	41.50	-3.61	37.89	74.00	-36.11	100	163	peak
2	1663.000	38.80	-0.73	38.07	74.00	-35.93	100	72	peak
3	3975.000	33.92	7.75	41.67	74.00	-32.33	200	136	peak
4	4791.000	33.04	9.12	42.16	74.00	-31.84	200	254	peak
	6746.000	30.21	11.46	41.67	74.00	-32.33	200	108	peak
	13954.000	23.00	21.43	44.43	74.00	-29.57	159	0	peak

Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1323.000	43.35	-2.82	40.53	74.00	-33.47	100	208	peak
2	1663.000	41.28	-0.73	40.55	74.00	-33.45	200	1	peak
3	3975.000	38.64	7.75	46.39	74.00	-27.61	100	31	peak
4	5709.000	31.11	9.91	41.02	74.00	-32.98	200	359	peak
5	8429.000	28.10	13.56	41.66	74.00	-32.34	200	198	peak
6	14804.000	22.83	22.84	45.67	74.00	-28.33	100	160	peak

Mode:	BLE_125kbps	Channel:	2480
Test model No.:	HJSR69 Ble		

Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1323.000	39.14	-2.82	36.32	74.00	-37.68	100	222	peak
2	3992.000	33.98	7.83	41.81	74.00	-32.19	100	135	peak
3	4791.000	34.11	9.12	43.23	74.00	-30.77	100	285	peak
4	5743.000	36.19	9.98	46.17	74.00	-27.83	125	0	peak
5	11166.000	26.15	16.79	42.94	74.00	-31.06	111	0	peak
6	15909.000	21.09	23.42	44.51	74.00	-29.49	146	0	peak

Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1323.000	41.34	-2.82	38.52	74.00	-35.48	200	168	peak
2	1986.000	38.12	0.96	39.08	74.00	-34.92	200	16	peak
3	3975.000	37.63	7.75	45.38	74.00	-28.62	200	341	peak
4	6661.000	31.53	11.39	42.92	74.00	-31.08	100	219	peak
5	13699.000	23.79	20.86	44.65	74.00	-29.35	119	0	peak
6	14447.000	22.07	22.26	44.33	74.00	-29.67	200	8	peak

Mode:	BLE_500kbps	Channel:	2402
Test model No.:	HJSR69 Ble		

Horizontal

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	2156.000	35.74	1.94	37.68	74.00	-36.32	100	22	peak
2	3465.000	33.65	6.02	39.67	74.00	-34.33	200	115	peak
3	4791.000	33.69	9.12	42.81	74.00	-31.19	200	56	peak
4	6542.000	31.84	11.20	43.04	74.00	-30.96	100	52	peak
5	8480.000	27.39	13.63	41.02	74.00	-32.98	200	261	peak
6	11098.000	26.48	16.68	43.16	74.00	-30.84	183	0	peak

Vertical

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	1663.000	39.79	-0.73	39.06	74.00	-34.94	195	0	peak
2	1986.000	38.90	0.96	39.86	74.00	-34.14	200	17	peak
3	3992.000	40.17	7.83	48.00	74.00	-26.00	200	22	peak
4	4978.000	37.42	9.55	46.97	74.00	-27.03	100	199	peak
5	7358.000	30.19	12.25	42.44	74.00	-31.56	100	117	peak
6	14787.000	22.47	22.81	45.28	74.00	-28.72	100	224	peak

Mode:	BLE_500kbps	Channel:	2440
Test model No.:	HJSR69 Ble		

Horizontal

No.	Frequency	Reading	Correct	Result	Limit	Margin	Height	Degree	Remark
	(MHz)	(dBuV)	Factor(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	(cm)	(deg.)	
1	1323.000	41.19	-2.82	38.37	74.00	-35.63	200	131	peak
2	2156.000	36.88	1.94	38.82	74.00	-35.18	200	333	peak
3	2632.000	35.69	3.34	39.03	74.00	-34.97	200	2	peak
4	6644.000	31.60	11.38	42.98	74.00	-31.02	100	28	peak
5	7528.000	28.92	12.42	41.34	74.00	-32.66	196	0	peak
6	15535.000	24.92	22.75	47.67	74.00	-26.33	200	133	peak

Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1323.000	41.24	-2.82	38.42	74.00	-35.58	200	64	peak
2	1663.000	44.30	-0.73	43.57	74.00	-30.43	184	0	peak
3	3992.000	40.51	7.83	48.34	74.00	-25.66	200	14	peak
4	6661.000	31.58	11.39	42.97	74.00	-31.03	100	144	peak
5	10996.000	25.96	16.50	42.46	74.00	-31.54	200	51	peak
6	13988.000	23.77	21.49	45.26	74.00	-28.74	100	322	peak

Mode:	BLE_500kbps	Channel:	2480
Test model No.:	HJSR69 Ble		

Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	1986.000	37.31	0.96	38.27	74.00	-35.73	200	321	peak
2	4094.000	33.23	8.09	41.32	74.00	-32.68	200	141	peak
3	4791.000	33.30	9.12	42.42	74.00	-31.58	200	294	peak
4	6644.000	31.27	11.38	42.65	74.00	-31.35	100	32	peak
5	14158.000	23.41	21.72	45.13	74.00	-28.87	200	0	peak
6	14889.000	21.68	22.95	44.63	74.00	-29.37	200	34	peak

Vertical

No.	Frequency (MHz)	Reading (dBuV)	Correct Factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (cm)	Degree (deg.)	Remark
1	2581.000	41.65	3.12	44.77	74.00	-29.23	100	166	peak
2	3975.000	38.39	7.75	46.14	74.00	-27.86	100	16	peak
3	6746.000	34.92	11.46	46.38	74.00	-27.62	200	156	peak
4	6967.000	36.07	11.65	47.72	74.00	-26.28	200	156	peak
5	9653.000	31.87	14.83	46.70	74.00	-27.30	200	156	peak
6	14651.000	21.87	22.45	44.32	74.00	-29.68	105	0	peak

Note:

1)As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. So, only the peak values are measured:

2) The field strength is calculated by adding the correct Factor. The basic equation with a sample calculation is as follows:

Final Test Level = Reading +Correct Factor

Correct Factor = Preamplifier Factor– Antenna Factor–Cable Factor

3) Scan from 9kHz to 25GHz, the disturbance above 18GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.