AUDIX Technology Corp.
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FCC 15.249
2.4 GHz Report

for

Fanimation Inc.

10983 Bennett Pkwy, Zionsville, Indiana, United States, 46077

Product Name : Ceiling Fan Remote Controller
Model Name : (1)JY1004 (2)RC205QBT-D1
FCC ID : 2ABGUJY1004

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TEST REPORT CERTIFICATION

Applicant	:	Fanimation Inc.
Manufacturer #1	:	Satellite Electronic (Zhongshan)., Ltd.
Manufacturer #2	:	Chungear Industrial Co., Ltd.
Manufacturer #3	:	Zhongshan Amity Electronic Ltd.
Product Name	:	Ceiling Fan Remote Controller
Model No.	:	(1)JY1004 (2)RC205QBT-D1
Serial No.	:	N/A
Power Supply	:	AC 120V/60Hz

Rules of Compliance and Measurement Standards:

FCC CFR 47 Part 15 Subpart C/Oct. 2014
ANSI C63.4-2003
ANSI C63.10-2009

AUDIX Technology Corp. tested the equipment mentioned in accordance with the requirements set forth in the above standards. Test results indicate that the equipment tested is capable of demonstrating compliance with the requirements as documented within this report. ***AUDIX Technology Corp.*** does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens and samples.

Date of Test: 2015. 12. 02 ~ 07 Date of Report: 2015. 12. 08

Producer: Sabrina Wang
(Sabrina Wang/Administrator)

Signatory: Ben Cheng
(Ben Cheng/Manager)

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1. REPORT HISTORY

Revision	Date	Revision Summary	Report Number
0	2015. 12. 08	Original Report.	EM-F150776

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2. SUMMARY OF TEST RESULTS

Rule	Description	Results
15.207	Conducted Emission	**PASS**
15.205/15.209/ 15.249(a)	Radiated Band Edge and Radiated Spurious Emission Fundamental Frequency	**PASS**
----	Occupied Bandwidth 99% Power	**Reference only**
15.203	Antenna Requirement	**PASS**

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3. GENERAL INFORMATION

3.1. Description of EUT

Product	Ceiling Fan Remote Controller
Model Number	(1)JY1004 (2)RC205QBT-D1 Above all models have the same circuit and hardware. The differences are in marketing. The M/N RC205QBT-D1 was tested in this report.
Serial Number	N/A
Applicant	Fanimation Inc. 10983 Bennett Parkway, Zionsville, Indonesia 46077, U.S.A.
Manufacture#1	Satellite Electronic (Zhongshan)., Ltd. 8 Chuang Ye Rd. Torch Development Zone.. Zhongshan. Guangdong. 528437 China
Manufacture#2	Chungear Industrial Co., Ltd. 106 Kanho Rd,Taichung ,Taiwan
Manufacture#3	Zhongshan Amity Electronic Ltd. No.16, Torch Hi-Tech Industrial Development Zone, Zhongshan City Guangdong Province China
RF Features	Bluetooth Low Energy (BLE)
Transmit Type	1T1R
Power Wire	Non-Shielded, Undetachable, 0.1m*2
Date of Receipt of Sample	2015. 11. 25

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3.2. EUT Specifications Assessed in Current Report

Mode	Fundamental Range (MHz)	Channel Number	Modulation	Data Rate (Mbps)
BLE	2402-2480	40	GFSK	1

Channel List			
BLE			
Channel Number	Frequency (MHz)	Channel Number	Frequency (MHz)
00	2402	20	2442
01	2404	21	2444
02	2406	22	2446
03	2408	23	2448
04	2410	24	2450
05	2412	25	2452
06	2414	26	2454
07	2416	27	2456
08	2418	28	2458
09	2420	29	2460
10	2422	30	2462
11	2424	31	2464
12	2426	32	2466
13	2428	33	2468
14	2430	34	2470
15	2432	35	2472
16	2434	36	2474
17	2436	37	2476
18	2438	38	2478
19	2440	39	2480

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3.3. Antenna Information

Antenna Part Number	Manufacture	Antenna Type	Frequency	Max Gain (dBi)
---	---	PCB Antenna	2.4GHz	4.33

3.4. Test Configuration

Mode	Duty Cycle (x)	T (ms)	Duty Cycle Factor (dB)
BLE	1	N/A	N/A

Note: When duty cycle is less than 98% (0.98) that duty cycle factor 10log(1/x) is needed to add in conducted test items measured in average detector.

AC Conduction	
Test Case	Normal operation

Item		Mode	Data Rate	Test Channel
Radiated Test Case	Radiated Band Edge Note1	BLE	1Mbps	00/39
	Radiated Spurious Emission Note1	BLE	1Mbps	00/19/39
	Fundamental Frequency	BLE	1Mbps	00/19/39
	Occupied Bandwidth 99% Power	BLE	1Mbps	00/19/39

Note 1:
■Mobile Device
□Portable Device, and 3 axis were assessed. The worst scenario for Radiated Spurious Emission as follow:
- □ Lie
- □ Side
- □ Stand

3.5. Setup Configuration

3.5.1. EUT Configuration for Power Line and Radiated Emission

3.6. Operating Condition of EUT

To set EUT RF function under continues transmitting and choosing channel.

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3.7. Description of Test Facility

Test Firm Name	:	**AUDIX Technology Corporation** **EMC Department** No. 53-11, Dingfu, Linkou Dist., New Taipei City 244, Taiwan
Test Location & Facility	:	**No. 8 Shielded Room** No. 53-11, Dingfu, Linkou Dist., New Taipei City 244, Taiwan **Semi-Anechoic Chamber** No. 53-11, Dingfu, Linkou Dist., New Taipei City 244, Taiwan **Fully Anechoic Chamber** No. 53-11, Dingfu, Linkou Dist., New Taipei City 244, Taiwan
NVLAP Lab. Code	:	200077-0
TAF Accreditation No	:	1724

3.8. Measurement Uncertainty

Test Item	Frequency Range	Uncertainty
Conduction Test	150kHz~30MHz	±3.5dB
Radiation Test (Distance: 3m)	30MHz~300MHz	± 2.91dB
	300MHz~1000MHz	± 2.74dB
	Above 1GHz	± 5.02dB

Remark：Uncertainty = $ku_c(y)$

Test Item	Uncertainty
Occupied Bandwidth 99% Power	± 1kHz

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4. MEASUREMENT EQUIPMENT LIST

4.1. Conducted Emission Measurement

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Test Receiver	R&S	ESR3	101774	2015. 02. 06	1 Year
2.	A.M.N.	R&S	ENV4200	100169	2015. 05. 08	1 Year
3.	L.I.S.N.	Kyoritsu	KNW-407	8-855-9	2014. 12. 26	1 Year
4.	Pulse Limiter	R&S	ESH3-Z2	100354	2015. 01. 17	1 Year

4.2. Radiated Emission Measurement

4.2.1. Frequency Range 30MHz~1000MHz (Semi-Anechoic Chamber)

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Spectrum Analyzer	Agilent	N9010A-526	MY53400071	2015. 09. 14	1 Year
2.	Test Receiver	R & S	ESCS30	100338	2015. 06. 24	1 Year
3.	Amplifier	HP	8447D	2944A06305	2015. 02. 12	1 Year
4.	Bilog Antenna	CHASE	CBL6112D	33821	2015. 02. 27	1 Year

4.2.2. Above 1000MHz (Fully Anechoic Chamber)

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300366	2015. 08. 20	1 Year
2.	Test Receiver	R & S	ESCS30	100338	2015. 06. 24	1 Year
3.	Amplifier	Agilent	8449B	3008A02676	2015. 02. 11	1 Year
4.	2.4GHz Notch Filter	K&L	7NSL10-2441.5E130.5-00	1	2015. 07. 22	1 Year
5.	3G High Pass Filter	Microware Circuits	H3G018G1	484796	2015. 08. 24	1 Year
6.	Horn Antenna	EMCO	3115	9609-4927	2015. 06. 22	1 Year
7.	Horn Antenna	EMCO	3116	2653	2015. 10. 20	1 Year

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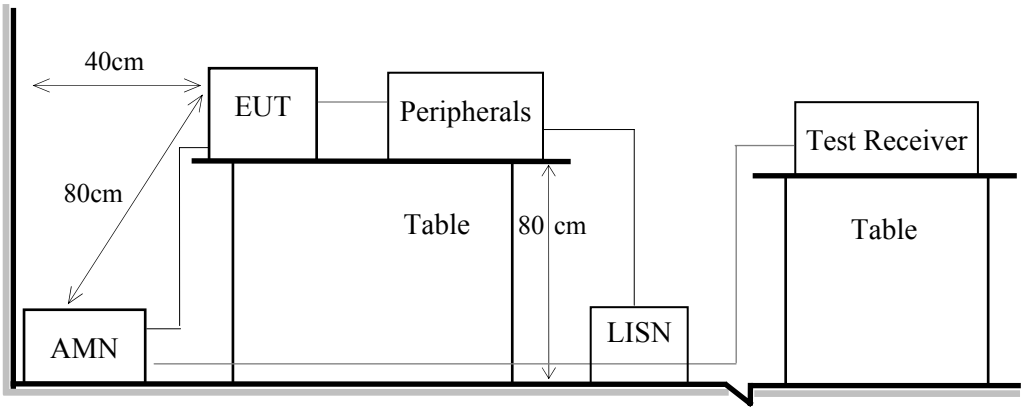
5. CONDUCTED EMISSION MEASUREMET

5.1. Block Diagram of Test Setup

Shielded Room Setup Diagram



Ground Plane

5.2. Power Line Conducted Emission Limit

Frequency	Conducted Limit	
	Quasi-Peak Level	Average Level
150kHz ~ 500kHz	66 ~ 56 dBμV	56 ~ 46 dBμV
500kHz ~ 5MHz	56 dBμV	46 dBμV
5MHz ~ 30MHz	60 dBμV	50 dBμV

Remark 1.: If the average limit is met when using a Quasi-Peak detector, the measurement using the average detector is not required.
2.: The lower limit applies to the band edges.

5.3. Test Procedure

5.3.1. To set up the EUT as indicated in ANSI C 63.4. The EUT was placed on the table which has 80 cm height to the ground and 40 cm distance to the conducting wall.

5.3.2. Power supplier of the EUT was connected to the AC mains through an Artificial Mains Network (A.M.N.).

5.3.3. The AC power supplies to all peripheral devices must be provided through line impedance stabilization network (L.I.S.N.)

5.3.4. Checking frequency range from 150 kHz to 30 MHz and record the emission which does not have 20 dB below limit.

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5.4. Conducted Emission Measurement Results

PASSED.

Test Date	2015/12/07	Temp./Hum.	26℃/50%
Test Voltage	AC 120V, 60Hz		

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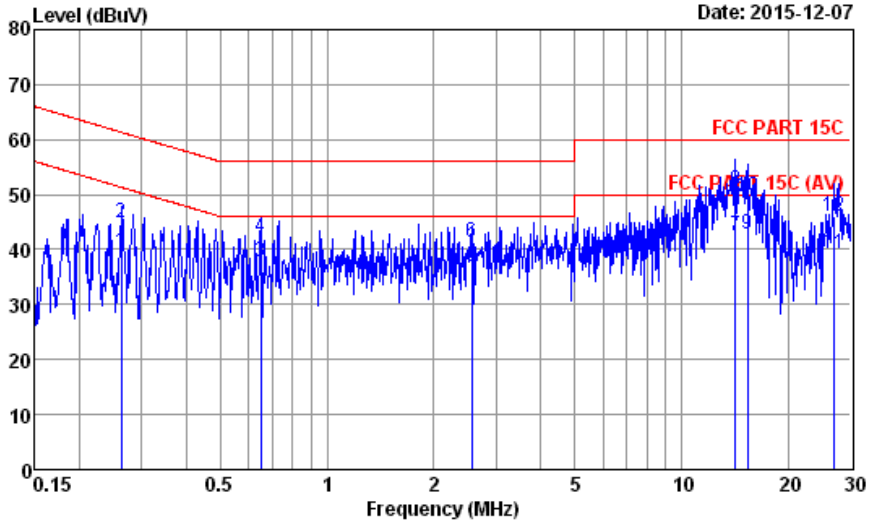
Data: 2 File: D:\test data\REPORT\2015\C1M1511XXX\C1M1511309-C-D-RF.EM6 (2)



Site no. : No.8 Shielded Room
Condition : ENV4200 358 (H)
Limit : FCC PART 15C
Env. / Ins. : 26°C / 50% ESR3 (1774)
EUT : RC205QBT-D1
Power Rating : 120Vac/60Hz
Test Mode : Operating

Data no. : 2
Phase : NEUTRAL

Engineer : Tim

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBµV)	Emission Level (dBµV)	Limits (dBµV)	Margin (dB)	Remark
1	0.263	10.25	0.03	9.87	19.40	39.55	51.34	11.79	Average
2	0.263	10.25	0.03	9.87	24.74	44.89	61.34	16.45	QP
3	0.651	10.19	0.04	9.88	17.80	37.91	46.00	8.09	Average
4	0.651	10.19	0.04	9.88	22.10	42.21	56.00	13.79	QP
5	2.554	10.19	0.10	9.88	16.66	36.83	46.00	9.17	Average
6	2.554	10.19	0.10	9.88	21.30	41.47	56.00	14.53	QP
7	14.138	10.15	0.24	9.92	22.11	42.42	50.00	7.58	Average
8	14.138	10.15	0.24	9.92	30.47	50.78	60.00	9.22	QP
9	15.307	10.14	0.25	9.92	22.50	42.81	50.00	7.19	Average
10	15.307	10.14	0.25	9.92	29.33	49.64	60.00	10.36	QP
11	26.900	10.35	0.30	9.99	18.55	39.19	50.00	10.81	Average
12	26.900	10.35	0.30	9.99	25.54	46.18	60.00	13.82	QP

Remarks: 1. Emission Level= AMN Factor + Cable Loss + Pulse Att. + Reading.

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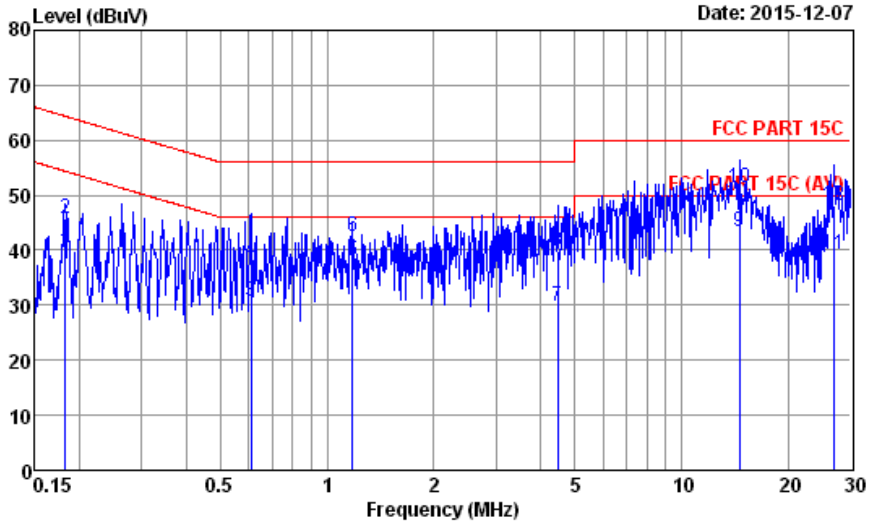

Site no. : No.8 Shielded Room
Data no. : 1
Condition : ENV4200 358 (H)
Phase : LINE
Limit : FCC PART 15C
Env. / Ins. : 26°C / 50% ESR3 (1774)
Engineer : Tim
EUT : RC205QBT-D1
Power Rating : 120Vac/60Hz
Test Mode : Operating

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBµV)	Emission Level (dBµV)	Limits (dBµV)	Margin (dB)	Remark
1	0.182	10.28	0.03	9.87	19.81	39.99	54.37	14.38	Average
2	0.182	10.28	0.03	9.87	25.50	45.68	64.37	18.69	QP
3	0.611	10.22	0.04	9.88	10.68	30.82	46.00	15.18	Average
4	0.611	10.22	0.04	9.88	18.00	38.14	56.00	17.86	QP
5	1.178	10.20	0.06	9.87	18.06	38.19	46.00	7.81	Average
6	1.178	10.20	0.06	9.87	22.38	42.51	56.00	13.49	QP
7	4.478	10.21	0.14	9.89	9.70	29.94	46.00	16.06	Average
8	4.478	10.21	0.14	9.89	19.54	39.78	56.00	16.22	QP
9	14.540	10.13	0.25	9.92	23.22	43.52	50.00	6.48	Average
10	14.540	10.13	0.25	9.92	31.08	51.38	60.00	8.62	QP
11	26.984	10.53	0.30	9.99	18.44	39.26	50.00	10.74	Average
12	26.984	10.53	0.30	9.99	27.26	48.08	60.00	11.92	QP

Remarks: 1. Emission Level= AMN Factor + Cable Loss + Pulse Att. + Reading.

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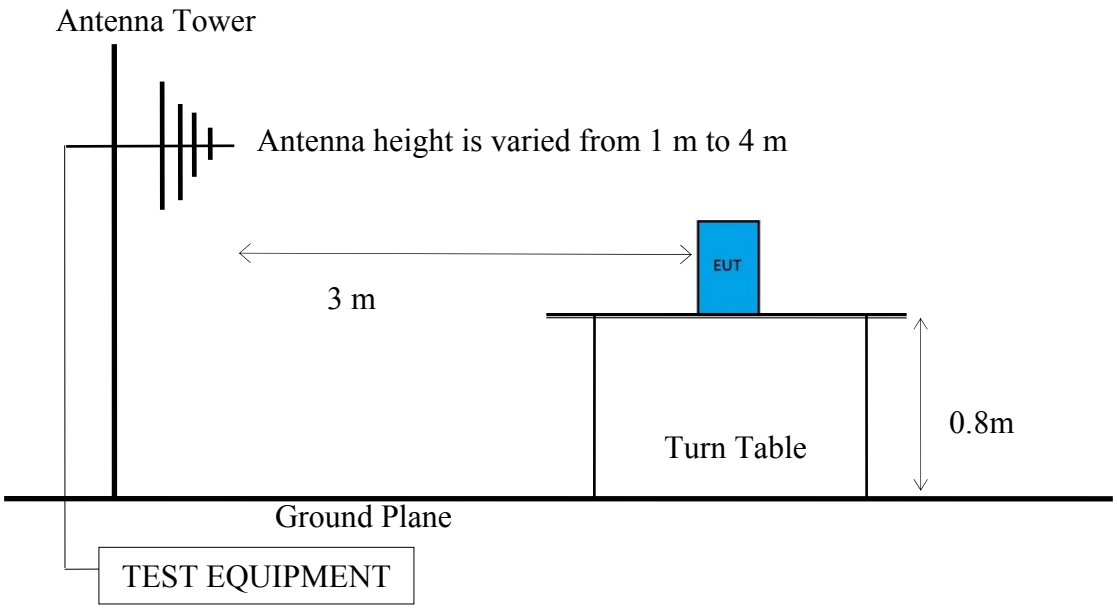
6. RADIATED EMISSION MEASUREMENT

6.1. Block Diagram of Test Setup

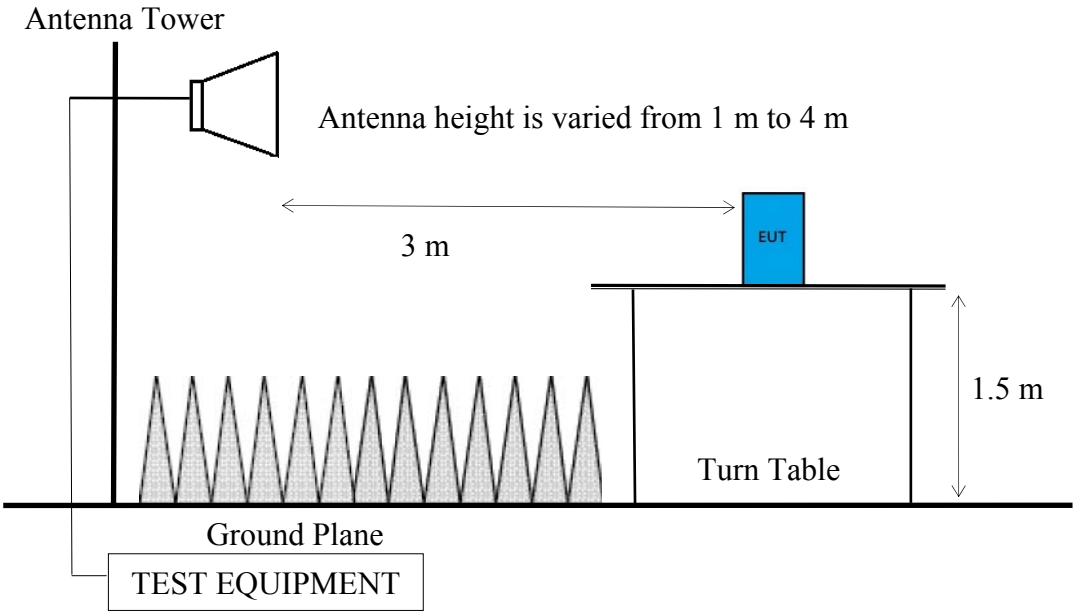
6.1.1. Block Diagram of EUT

Indicated as section 3.6

6.1.2. Semi-Anechoic Chamber (3m) Setup Diagram for 30-1000 MHz



6.1.3. Fully Anechoic Chamber (3m) Setup Diagram for above 1GHz



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6.2. Radiated Emission Limits

6.2.1. General Limit

The field strength of emissions from intentional radiators operated within these frequency bands shall comply with section 6.2.2. Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

Frequency (MHz)	Distance (m)	Field Strengths Limits	
		μV/m	dBμV/m
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
Above 960	3	500	54.0
Above 1000	3	74.0 dBμV/m (Peak) 54.0 dBμV/m (Average)	

Remark：(1) dBμV/m = 20 log (μV/m)
(2) The tighter limit applies to the edge between two frequency bands.
(3) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
(4) Fundamental and emission fall within operation band are exempted from this section.
(5) Pursuant to ANSI 63.4: 8.3.1.2, if the maximized peak measured value complies with the average limit, then it is unnecessary to perform an average measurement.

6.2.2. Limite for Fundamental & Harmonics Frequency

Fundamental Frequency	Field strength of fundamental		Field strength of harmonics	
	mV/m	dBμV/m	μV/m	dBμV/m
902-928MHz	50	114 (Peak)	500	74 (Peak)
		94 (Average)		54 (Average)
2400-2483.5MHz	50	114 (Peak)	500	74 (Peak)
		94 (Average)		54 (Average)
5725-5875MHz	50	114 (Peak)	500	74 (Peak)
		94 (Average)		54 (Average)
24.0-24.25GHz	250	128 (Peak)	2500	88 (Peak)
		108 (Average)		68 (Average)

Remark: mV/m=1000μV/m; dBμV/m = 20 log (μV/m)

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6.3. Test Procedure

The EUT setup on the turn table which has 0.8 m height to the ground. The turn table rotated 360 degrees and antenna varied from 1 m to 4 m to find the maximum emission level. Both horizontal and vertical polarization are required. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.4-2003 regulation.

Frequency below 1 GHz:
Spectrum Analyzer is used for pre-testing with following setting:

(1) RBW = 120KHz
(2) VBW ≥ 3 x RBW.
(3) Detector = Peak.
(4) Sweep time = auto.
(5) Trace mode = max hold.
(6) Allow sweeps to continue until the trace stabilizes.
(7) When peak-detected value is lower than limit that the measurement using the Q.P. detector is not required. Otherwise using Q.P. for finally measurement.

Frequency above 1GHz to 10th harmonic:

Peak Detector:

(1) RBW = 1MHz
(2) VBW ≥ 3 x RBW.
(3) Detector = Peak.
(4) Sweep time = auto.
(5) Trace mode = max hold.
(6) Allow sweeps to continue until the trace stabilizes.
(7) When peak-detected value is lower than limit that the measurement using the average detector is not required. Otherwise using average for finally measurement.

Average Measurement:

■Option 1:

(1) RBW = 1 MHz
(2) VBW =1/T, where T is Tx-on presented in Appendix A.3.
(3) Detector = Peak.
(4) Sweep time = auto.
(5) Trace mode = max hold.
(6) Allow sweeps to continue until the trace stabilizes.

□Option 2:

Average Emission Level= Peak Emission Level+ D.C.C.F.

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6.4. Measurement Result Explanation

■Peak Emission Level=Antenna Factor + Cable Loss + Meter Reading

■Average Emission Level l=Antenna Factor + Cable Loss + Meter Reading

□Average Emission Level= Peak Emission Level+ DCCF

Duty Cycle Correction Factor (DCCF)= 20log (TX_{on}/TX_{on+off}) presented in section 3.4

6.5. Test Results

PASSED.

Test Date	2015/12/07	Temp./Hum.	24℃/56%
Test Voltage	AC 120V, 60Hz		

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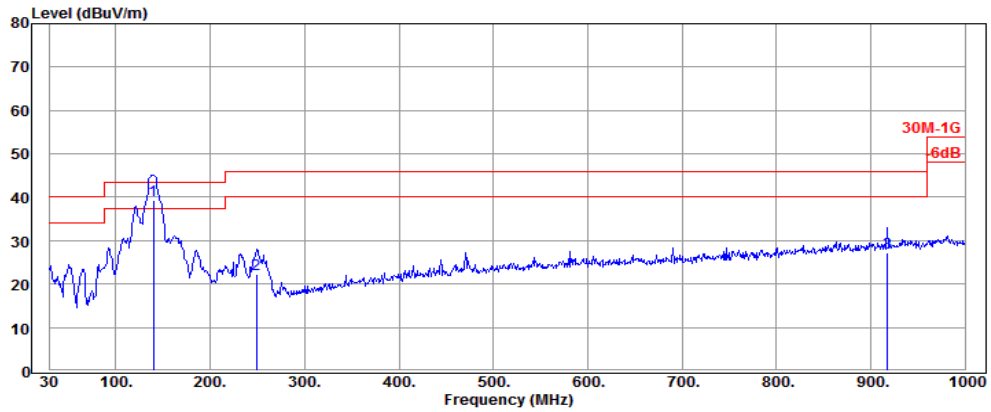
6.5.1. Emissions within Restricted Frequency Bands

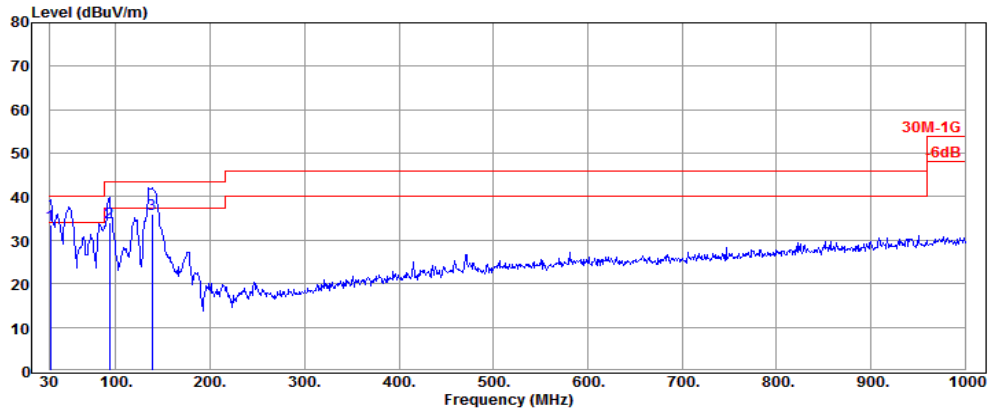
6.5.1.1. Frequency Below 1 GHz

Mode	BLE	Frequency	TX 2402MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
139.61	11.25	3.52	24.53	39.30	43.50	4.20	Peak
249.22	12.35	4.32	5.61	22.28	46.00	23.72	Peak
917.55	20.67	7.64	-1.17	27.14	46.00	18.86	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
30.97	18.07	2.34	13.18	33.59	40.00	6.41	Peak
93.05	9.67	3.17	21.21	34.05	43.50	9.45	Peak
138.64	11.30	3.51	21.29	36.10	43.50	7.40	Peak

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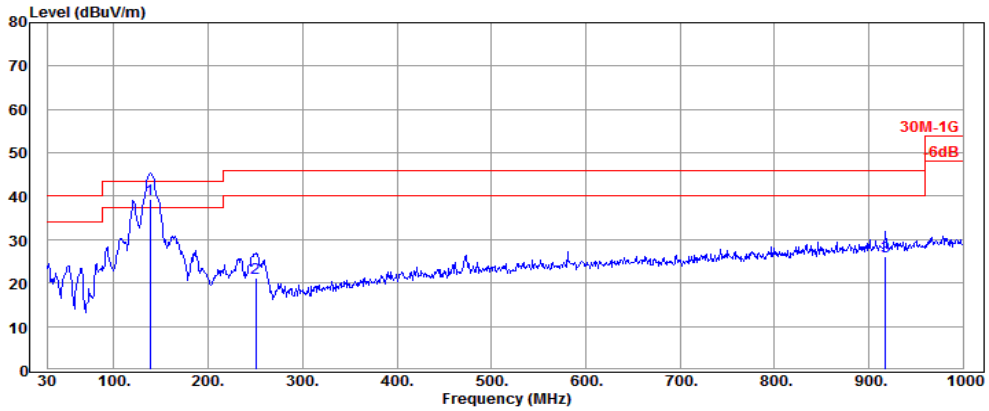
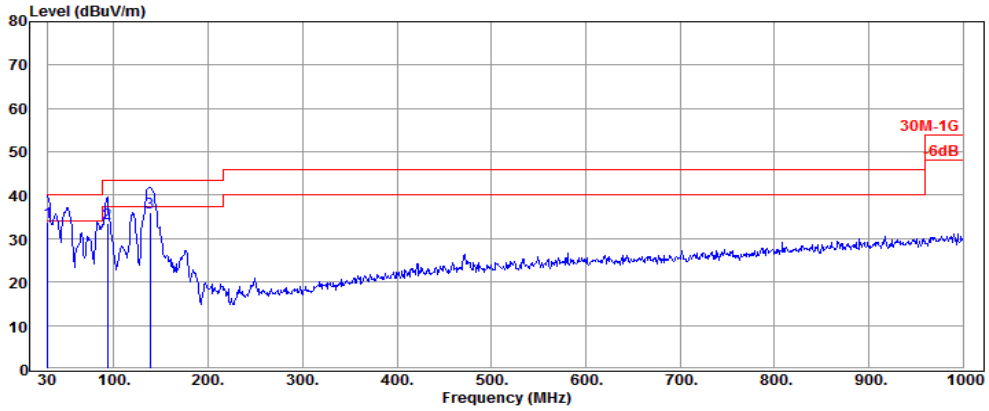
Mode	BLE	Frequency	TX 2440MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
138.64	11.30	3.51	24.60	39.41	43.50	4.09	Peak
250.19	12.40	4.33	4.54	21.27	46.00	24.73	Peak
917.55	20.67	7.64	-2.30	26.01	46.00	19.99	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
30.00	18.62	2.32	12.96	33.90	40.00	6.10	Peak
93.05	9.67	3.17	20.79	33.63	43.50	9.87	Peak
138.64	11.30	3.51	21.12	35.93	43.50	7.57	Peak

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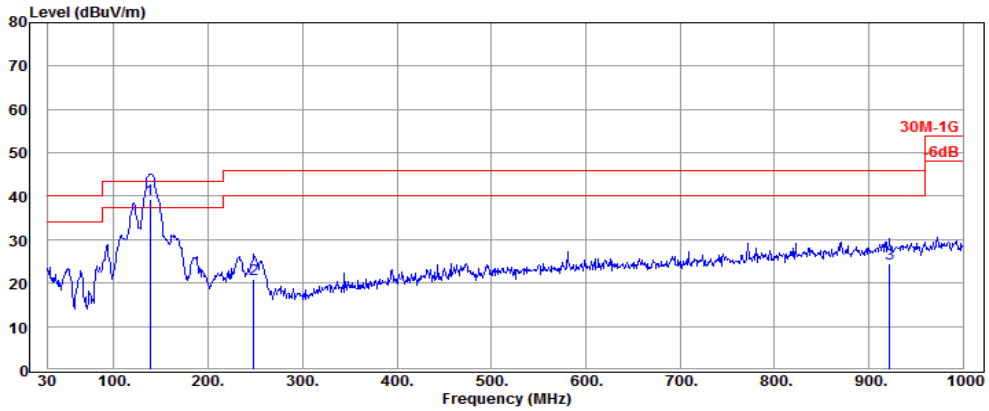
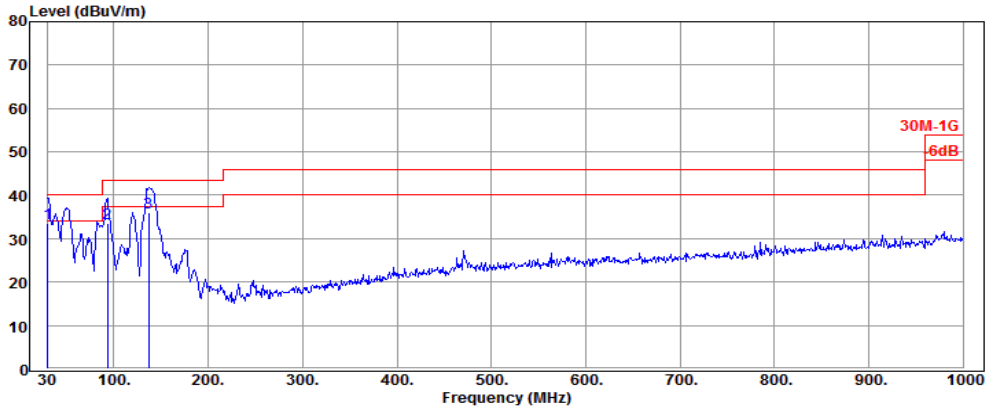
Mode	BLE	Frequency	TX 2480MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
138.64	11.30	3.51	24.49	39.30	43.50	4.20	Peak
248.25	12.30	4.32	4.20	20.82	46.00	25.18	Peak
922.40	20.70	7.67	-3.90	24.47	46.00	21.53	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
30.00	18.62	2.32	12.59	33.53	40.00	6.47	Peak
93.05	9.67	3.17	20.57	33.41	43.50	10.09	Peak
136.70	11.39	3.50	21.00	35.89	43.50	7.61	Peak

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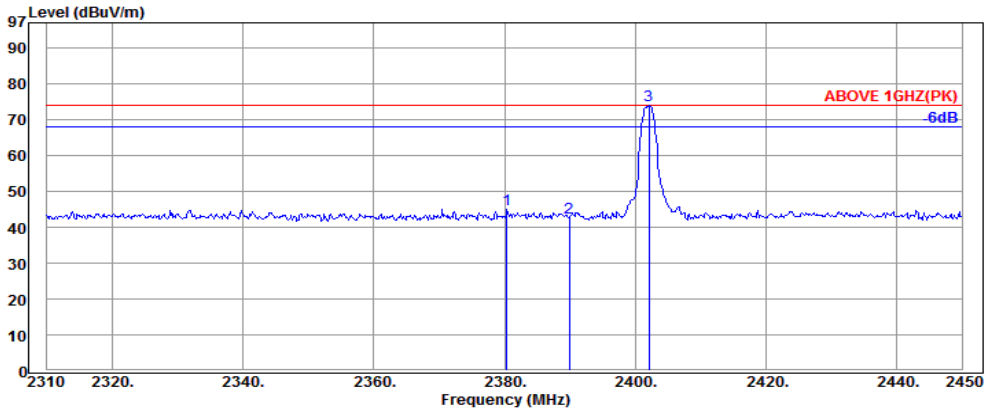
6.5.1.2. Frequency Above 1 GHz to 10th harmonics

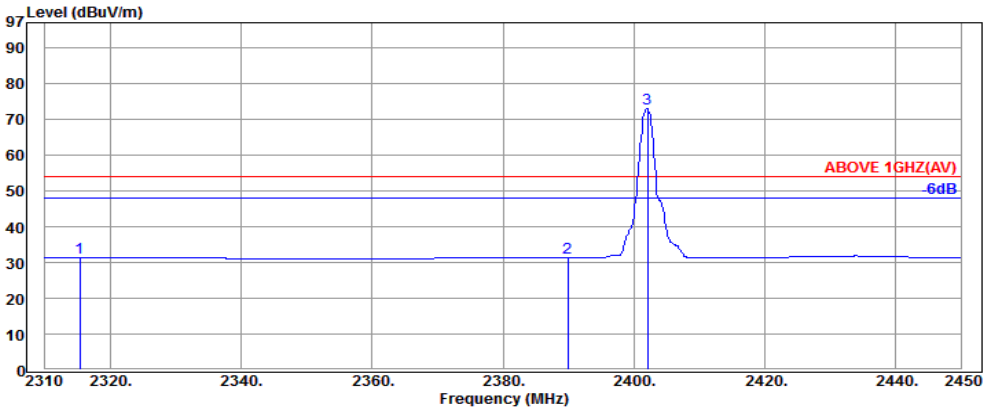
Band Edge:

Mode	BLE	Frequency	TX 2402MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2380.42	32.13	5.71	7.10	44.94	74.00	29.06	Peak
2389.94	32.16	5.72	4.83	42.71	74.00	31.29	Peak
2402.12	32.16	5.72	36.10	73.98	---	---	Peak



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2315.32	32.03	5.65	-6.30	31.38	54.00	22.62	Average
2389.94	32.16	5.72	-6.59	31.29	54.00	22.71	Average
2402.12	32.16	5.72	35.03	72.91	---	---	Average

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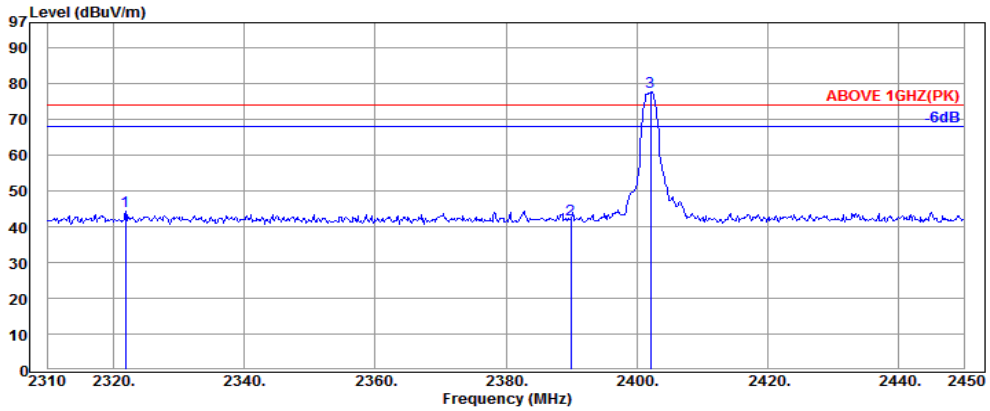
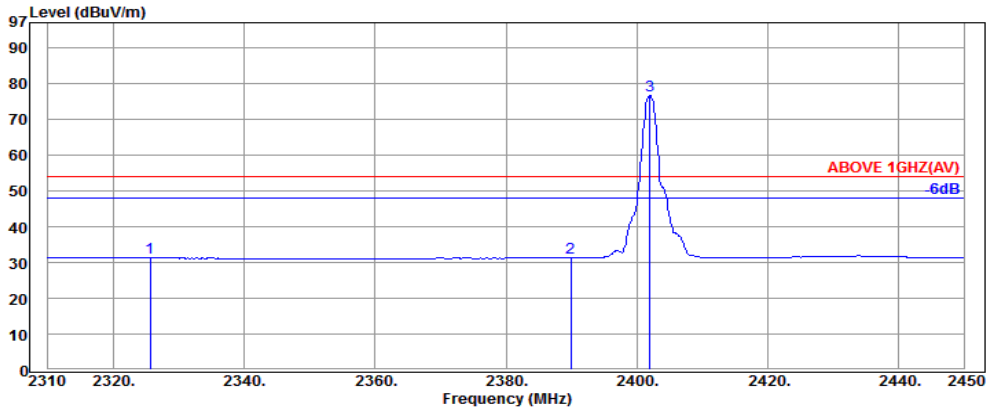
Mode	BLE	Frequency	TX 2402MHz



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2321.90	32.06	5.67	6.63	44.36	74.00	29.64	Peak
2389.94	32.16	5.72	3.97	41.85	74.00	32.15	Peak
2402.12	32.16	5.72	39.70	77.58	---	---	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2325.68	32.06	5.67	-6.41	31.32	54.00	22.68	Average
2389.94	32.16	5.72	-6.60	31.28	54.00	22.72	Average
2401.98	32.16	5.72	38.80	76.68	---	---	Average

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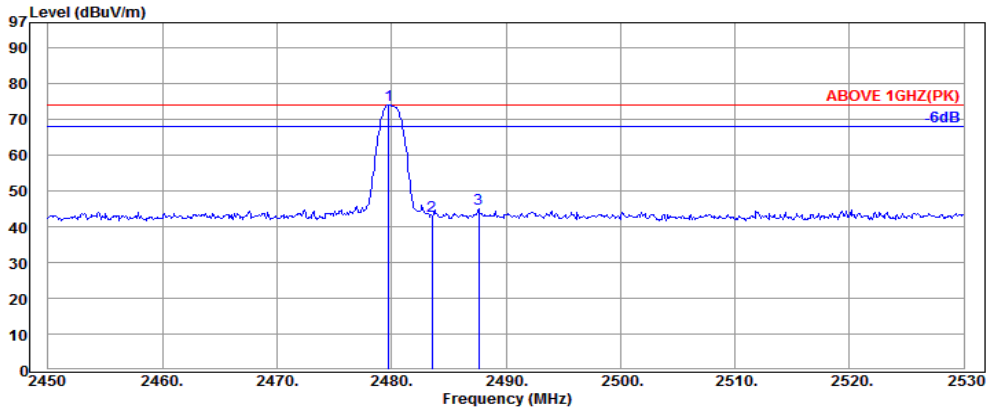
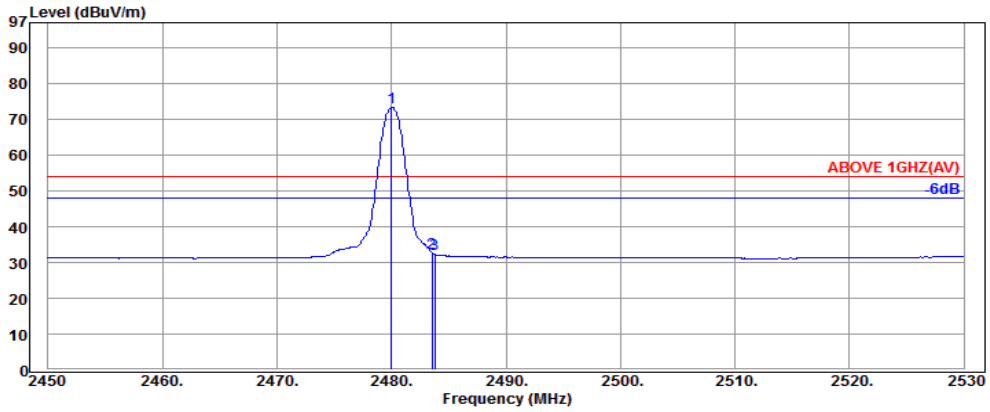
Mode	BLE	Frequency	TX 2480MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2479.76	32.28	5.82	35.98	74.08	---	---	Peak
2483.52	32.28	5.82	5.00	43.10	74.00	30.90	Peak
2487.60	32.30	5.84	6.78	44.92	74.00	29.08	Peak



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2480.00	32.28	5.82	35.11	73.21	---	---	Average
2483.52	32.28	5.82	-5.30	32.80	54.00	21.20	Average
2483.76	32.28	5.82	-5.80	32.30	54.00	21.70	Average

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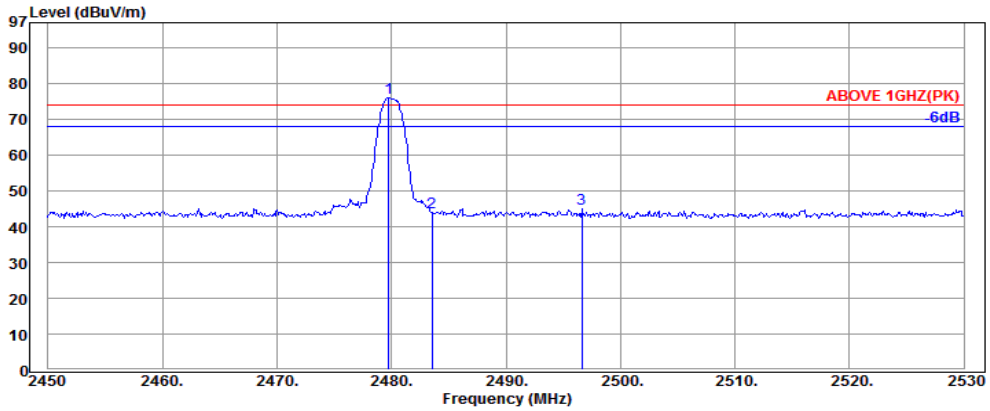
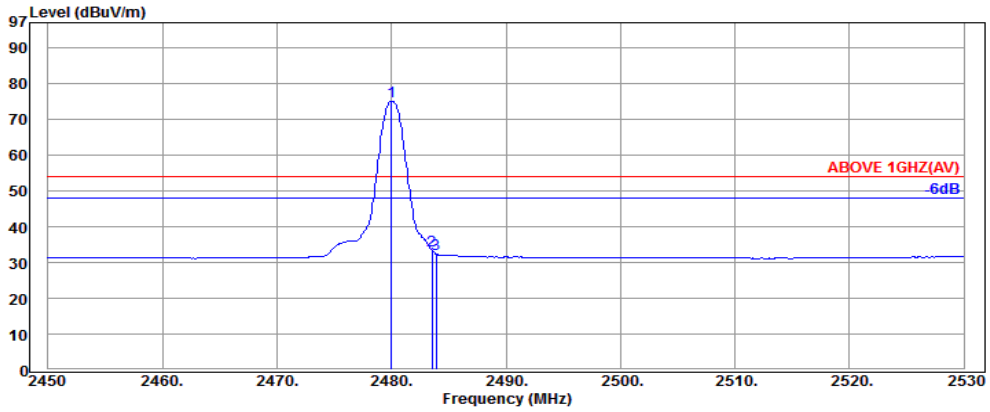
Mode	BLE	Frequency	TX 2480MHz



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2479.76	32.28	5.82	37.91	76.01	---	---	Peak
2483.52	32.28	5.82	5.83	43.93	74.00	30.07	Peak
2496.64	32.30	5.84	7.00	45.14	74.00	28.86	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2480.00	32.28	5.82	36.95	75.05	---	---	Average
2483.52	32.28	5.82	-4.71	33.39	54.00	20.61	Average
2483.92	32.28	5.82	-5.82	32.28	54.00	21.72	Average

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6.5.2. Emissions outside the frequency band:

The emissions (up to 25GHz) not reported for there is no emission be found.

Mode	BLE	Frequency	TX 2402MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4810.00	34.22	7.86	5.52	47.60	54.00	6.40	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4810.00	34.22	7.86	6.82	48.90	54.00	5.10	Peak

Mode	BLE	Frequency	TX 2440MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4885.00	34.26	8.47	5.79	48.52	54.00	5.48	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4885.00	34.26	8.47	6.15	48.88	54.00	5.12	Peak

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Mode	BLE	Frequency	TX 2480MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4960.00	34.29	8.68	4.29	47.26	54.00	6.74	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
4960.00	34.29	8.68	5.85	48.82	54.00	5.18	Peak

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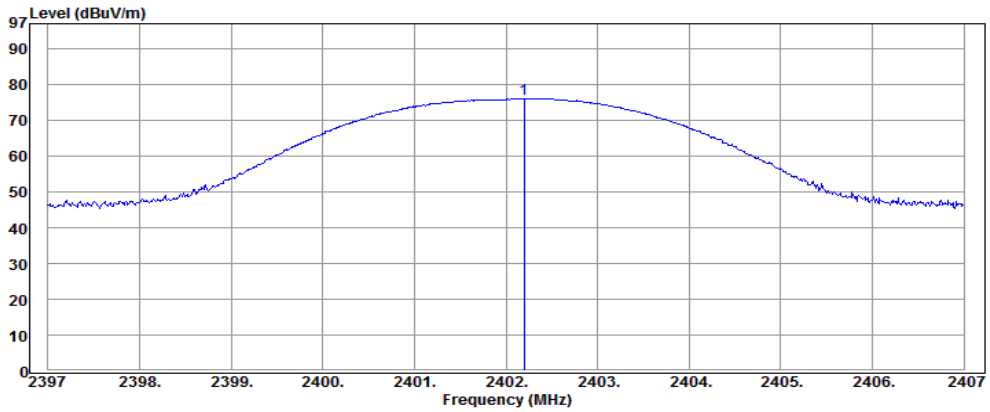
6.5.3. Fundamental Frequency:

Mode	BLE	Frequency	TX 2402MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2402.20	32.16	5.72	38.17	76.05	94.00	17.95	Peak

Remark: Horizontal is the strongest polarization and peak value has complied with limit, so vertical won't be listed in test report.

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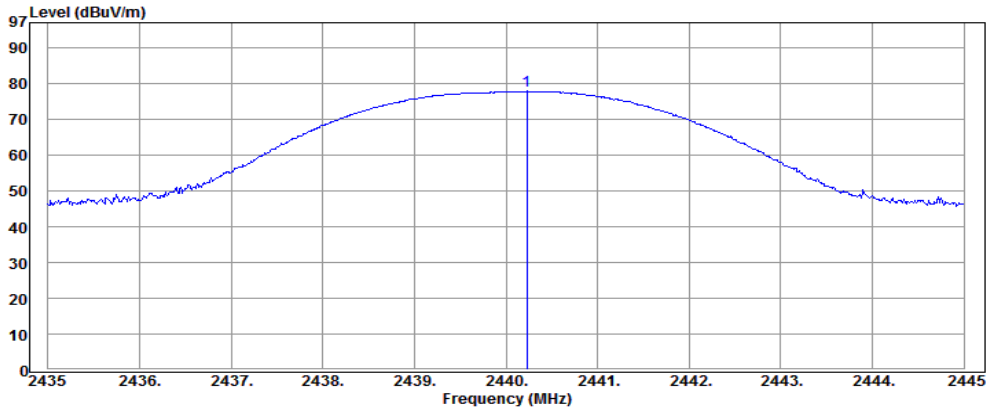
Mode	BLE	Frequency	TX 2440MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2440.23	32.23	5.78	39.85	77.86	94.00	16.14	Peak

Remark: Horizontal is the strongest polarization and peak value has complied with limit, so vertical won't be listed in test report.

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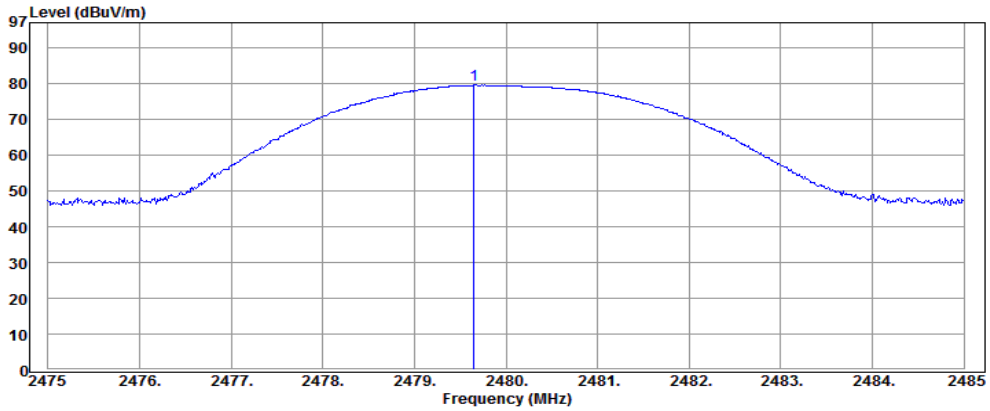
Mode	BLE	Frequency	TX 2480MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
2479.65	32.28	5.82	41.50	79.60	94.00	14.40	Peak

Remark: Horizontal is the strongest polarization and peak value has complied with limit, so vertical won't be listed in test report.

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7. OCCUPIED BANDWIDTH 99% POWER MEASUREMENT

Test Date	2015/12/02	Temp./Hum.	23℃/52%
Cable Loss	---	Test Voltage	AC 120V, 60Hz

7.1.1. Occupied Bandwidth 99% Power Result

Modulation Type	Centre Frequency (MHz)	Occupied Bandwidth 99% Power (MHz)
BLE	2402	1.0861
	2440	1.2070
	2480	1.0786

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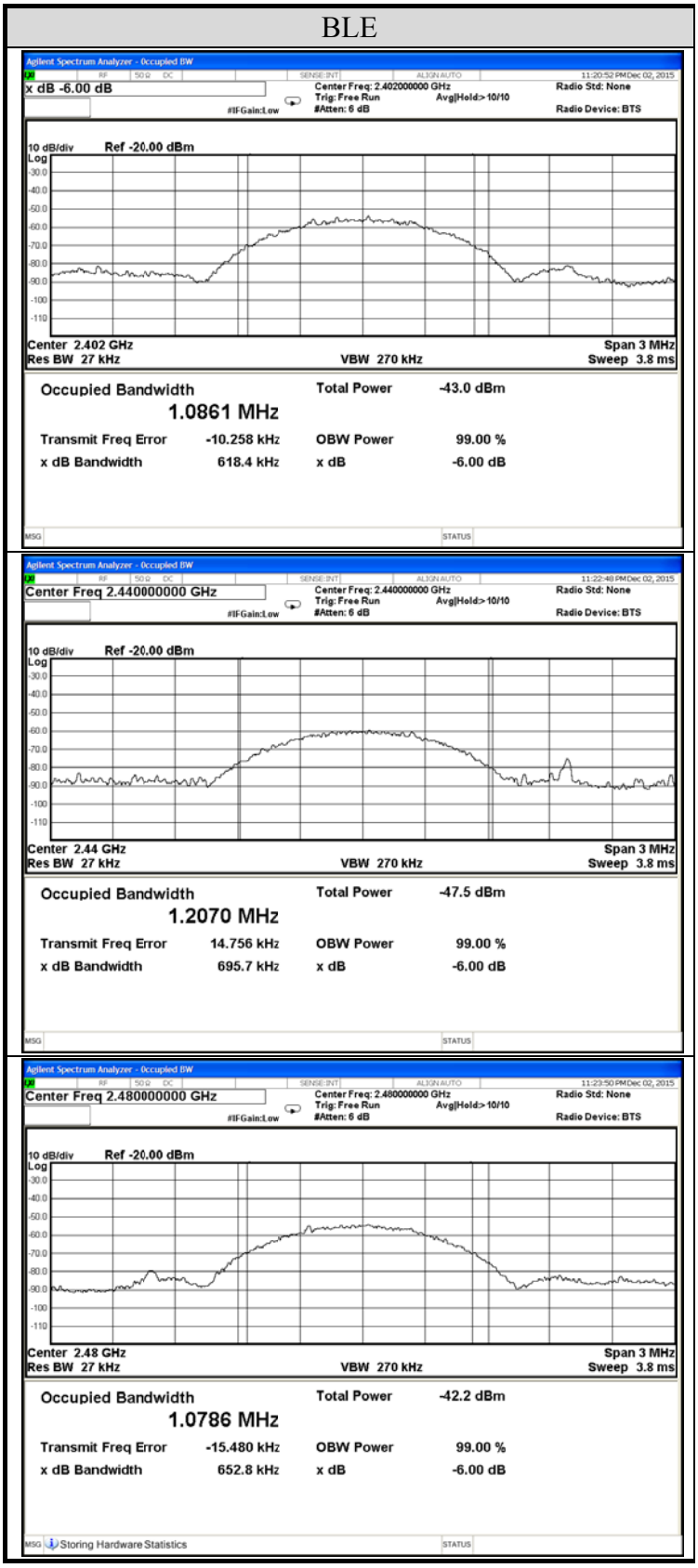
7.1.2. Measurement Plots

BLE



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8. DEVIATION TO TEST SPECIFICATIONS

【NONE】