

FCC Radio Test Report

FCC ID: 2APB4-FTS20CW

FCC Class II Permissive Change

Report No. : TB-FCC159719
Applicant : Cooper Lighting, LLC
Equipment Under Test (EUT)
EUT Name : LED FIXED LUMINAIRE
Model No. : FTS20CW
Serial Model No. : FTS20CB
Brand Name : N/A
Receipt Date : 2018-05-03
Test Date : 2018-05-04 to 2018-05-08
Issue Date : 2018-05-09
Standards : FCC Part 15: 2016, Subpart C(15.247)
Test Method : ANSI C63.10: 2013
Conclusions : **PASS**

In the configuration tested, the EUT complied with the standards specified above,

**Test/Witness
Engineer** :

Ivan Su

**Approved &
Authorized** :

Ray Lai



This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in the report.

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Revision History

Report No.	Version	Description	Issued Date
TB-FCC159719	Rev.01	Initial issue of report	2018-05-09

1. General Information about EUT

1.1 Client Information

Applicant : Cooper Lighting, LLC
Address : 1121 Highway 74 South Peachtree City, GA 30269, USA.
Manufacturer : Cooper Lighting, LLC
Address : 1121 Highway 74 South Peachtree City, GA 30269, USA.

1.2 General Description of EUT (Equipment Under Test)

EUT Name	:	LED FIXED LUMINAIRE	
Models No.	:	FTS20CW, FTS20CB	
Model Difference	:	All these models are identical in the same PCB, layout and electrical circuit, the only difference is appearance and color.	
Product Description	:	Operation Frequency:	Bluetooth 4.2(BLE): 2402MHz~2480MHz
		Number of Channel:	40 channels see note(3)
		RF Output Power:	-1.224dBm Conducted Power
		Antenna Gain:	2dBi Internal Antenna
		Modulation Type:	GFSK
		Bit Rate of Transmitter:	1Mbps(GFSK)
Power Supply	:	AC Voltage supplied	
Power Rating	:	Input: AC 120~277V, 50/60Hz	
Software Version	:	N/A	
Hardware Version	:	N/A	
Connecting I/O Port(S)	:	Please refer to the User's Manual	

Note:

This Test Report is FCC Part 15.247 for Bluetooth BLE, the test procedure follows the FCC KDB 558074 D01 DTS Means Guidance v04.

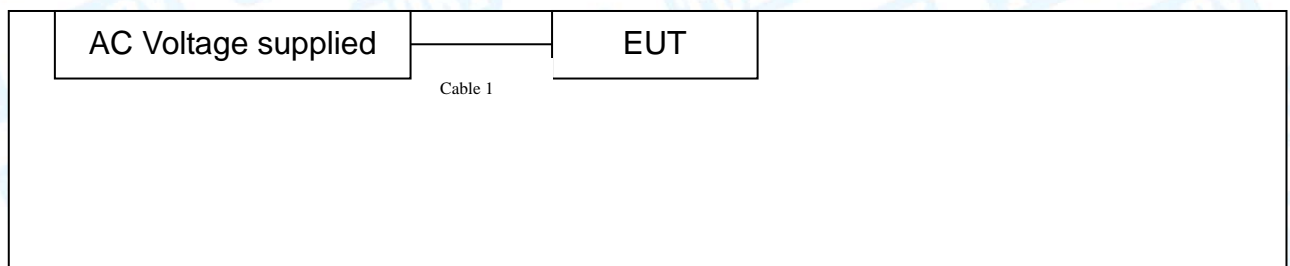
- (1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
- (2) Antenna information provided by the applicant.

(3) Channel List:

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

1.3 Block Diagram Showing the Configuration of System Tested

TX Mode



1.4 Description of Support Units

Equipment Information				
Name	Model	FCC ID/VOC	Manufacturer	Used “√”
/	/	/	/	/
Cable Information				
Number	Shielded Type	Ferrite Core	Length	Note
Cable 1	N0	N0	1.2M	/

1.5 Description of Test Mode

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned follow was evaluated respectively.

For Radiated Test	
Final Test Mode	Description
Mode 1	TX Mode
Mode 2	TX Mode (Channel 00/20/39)

Note:

- (1) For all test, we have verified the construction and function in typical operation. And all the test modes were carried out with the EUT in transmitting operation in maximum power with all kinds of data rate.

According to ANSI C63.10 standards, the measurements are performed at the highest, middle, lowest available channels, and the worst case data rate as follows:

BLE Mode: GFSK Modulation Transmitting mode.

- (2) During the testing procedure, the continuously transmitting with the maximum power mode was programmed by the customer.
- (3) The EUT is considered a portable unit; in normal use it was positioned on X-plane. The worst case was found positioned on X-plane. Therefore only the test data of this X-plane was used for radiated emission measurement test.

1.6 Description of Test Software Setting

During testing channel & Power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of RF setting.

Test Software Version	56317_InstalluEnergyTools_2_5_0_108 exe		
Frequency	2402 MHz	2440MHz	2480 MHz
BLE GFSK	DEF	DEF	DEF

1.7 Measurement Uncertainty

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

Test Item	Parameters	Expanded Uncertainty (U_{Lab})
Conducted Emission	Level Accuracy: 9kHz~150kHz	± 3.42 dB
	150kHz to 30MHz	± 3.42 dB
Radiated Emission	Level Accuracy: 9kHz to 30 MHz	± 4.60 dB
Radiated Emission	Level Accuracy: 30MHz to 1000 MHz	± 4.40 dB
Radiated Emission	Level Accuracy: Above 1000MHz	± 4.20 dB

1.8 Test Facility

The testing was performed by the Shenzhen Toby Technology Co., Ltd., in their facilities located at:1A/F., Bldg.6, Yusheng Industrial Zone, The National Road No.107 Xixiang Section 467, Xixiang, Bao'an, Shenzhen, Guangdong, China.

At the time of testing, the following bodies accredited the Laboratory:

CNAS (L5813)

The Laboratory has been accredited by CNAS to ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories for the competence in the field of testing. And the Registration No.: CNAS L5813.

A2LA Certificate No.: 4750.01

The laboratory has been accredited by American Association for Laboratory Accreditation(A2LA) to ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories for the technical competence in the field of Electrical Testing. And the A2LA Certificate No.: 4750.01.

IC Registration No.: (11950A-1)

The Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing. The site registration: Site# 11950A-1.

2. Test Summary

FCC Part 15 Subpart C(15.247)/RSS 247 Issue 2				
Standard Section		Test Item	Judgment	Remark
FCC	IC			
15.203		Antenna Requirement	PASS	N/A
15.207(a)	RSS-GEN 7.2.4	Conducted Emission	PASS	N/A
15.205&15.247(d)	RSS-GEN 7.2.2	Band-Edge & Unwanted Emissions into Restricted Frequency	PASS	N/A Note(3)
15.247(a)(2)	RSS 247 5.2 (1)	6dB Bandwidth	PASS	N/A Note(3)
15.247(b)(3)	RSS 247 5.4 (4)	Conducted Max Output Power	PASS	N/A Note(3)
15.247(e)	RSS 247 5.2 (2)	Power Spectral Density	PASS	N/A Note(3)
15.205, 15.209&15.247(d)	RSS 247 5.5	Transmitter Radiated Spurious & Unwanted Emissions into Restricted Frequency	PASS	N/A

Note: (1): "/" for no requirement for this test item.
 (2): N/A is an abbreviation for Not Applicable.
 (3): This report is Class II change report for the original equipment have changed, the transmitter module itself has not changed. More information about the test data please refer to the original test report.

3. Test Equipment

Conducted Emission Test					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
EMI Test Receiver	Rohde & Schwarz	ESCI	100321	Jul. 20, 2017	Jul. 19, 2018
RF Switching Unit	Compliance Direction Systems Inc	RSU-A4	34403	Jul. 20, 2017	Jul. 19, 2018
AMN	SCHWARZBECK	NNBL 8226-2	8226-2/164	Jul. 20, 2017	Jul. 19, 2018
LISN	Rohde & Schwarz	ENV216	101131	Jul. 20, 2017	Jul. 19, 2018
Radiation Emission Test					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul. 20, 2017	Jul. 19, 2018
EMI Test Receiver	Rohde & Schwarz	ESPI	100010/007	Jul. 20, 2017	Jul. 19, 2018
Bilog Antenna	ETS-LINDGREN	3142E	00117537	Mar.16, 2018	Mar. 15, 2019
Bilog Antenna	ETS-LINDGREN	3142E	00117542	Mar.16, 2018	Mar. 15, 2019
Horn Antenna	ETS-LINDGREN	3117	00143207	Mar.16, 2018	Mar. 15, 2019
Horn Antenna	ETS-LINDGREN	3117	00143209	Mar.16, 2018	Mar. 15, 2019
Loop Antenna	Laplace instrument	RF300	0701	Mar.16, 2018	Mar. 15, 2019
Pre-amplifier	Sonoma	310N	185903	Mar.16, 2018	Mar. 15, 2019
Pre-amplifier	HP	8449B	3008A00849	Mar.16, 2018	Mar. 15, 2019
Cable	HUBER+SUHNER	100	SUCOFLEX	Mar.16, 2018	Mar. 15, 2019
Positioning Controller	ETS-LINDGREN	2090	N/A	N/A	N/A
Antenna Conducted Emission					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul. 20, 2017	Jul. 19, 2018
Spectrum Analyzer	Rohde & Schwarz	ESCI	100010/007	Jul. 20, 2017	Jul. 19, 2018
MXA Signal Analyzer	Agilent	N9020A	MY49100060	Oct. 26, 2017	Oct. 25, 2018
Vector Signal Generator	Agilent	N5182A	MY50141294	Oct. 26, 2017	Oct. 25, 2018
Analog Signal Generator	Agilent	N5181A	MY50141953	Oct. 26, 2017	Oct. 25, 2018
RF Power Sensor	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO26	Oct. 26, 2017	Oct. 25, 2018
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO29	Oct. 26, 2017	Oct. 25, 2018
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO31	Oct. 26, 2017	Oct. 25, 2018
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO33	Oct. 26, 2017	Oct. 25, 2018

4. Conducted Emission Test

4.1 Test Standard and Limit

4.1.1 Test Standard

FCC Part 15.207

4.1.2 Test Limit

Conducted Emission Test Limit

Frequency	Maximum RF Line Voltage (dB μ V)	
	Quasi-peak Level	Average Level
150kHz~500kHz	66 ~ 56 *	56 ~ 46 *
500kHz~5MHz	56	46
5MHz~30MHz	60	50

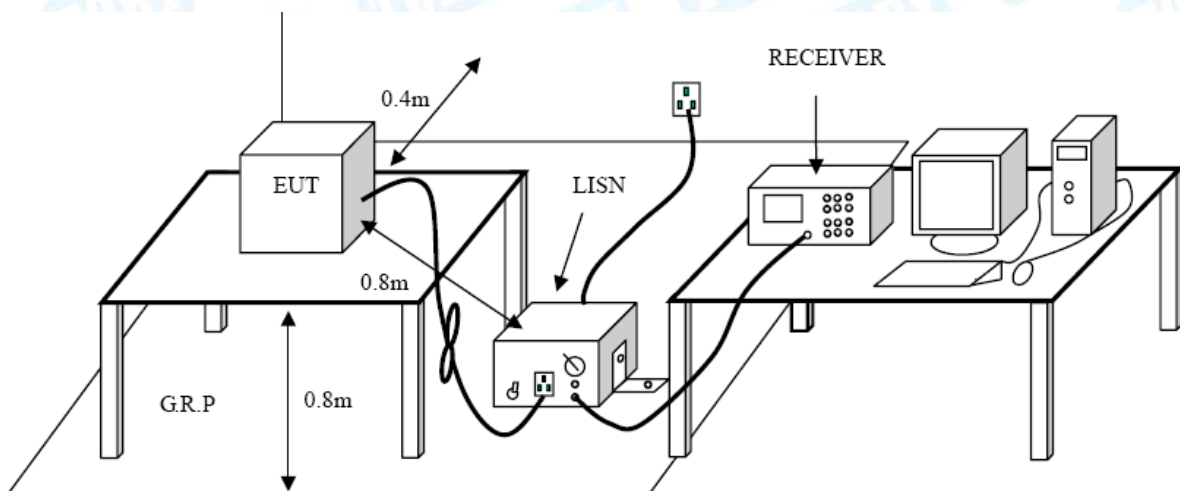
Notes:

(1) *Decreasing linearly with logarithm of the frequency.

(2) The lower limit shall apply at the transition frequencies.

(3) The limit decrease in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.2 Test Setup



4.3 Test Procedure

The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

LISN at least 80 cm from nearest part of EUT chassis.

The bandwidth of EMI test receiver is set at 9 kHz, and the test frequency band is from 0.15MHz to 30MHz.

4.4 EUT Operating Mode

Please refer to the description of test mode.

4.5 Test Da5ta

Please refer to the Attachment A.

5. Radiated Emission Test

5.1 Test Standard and Limit

5.1.1 Test Standard

FCC Part 15.247(d)

5.1.2 Test Limit

Radiated Emission Limits (9kHz~1000MHz)

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

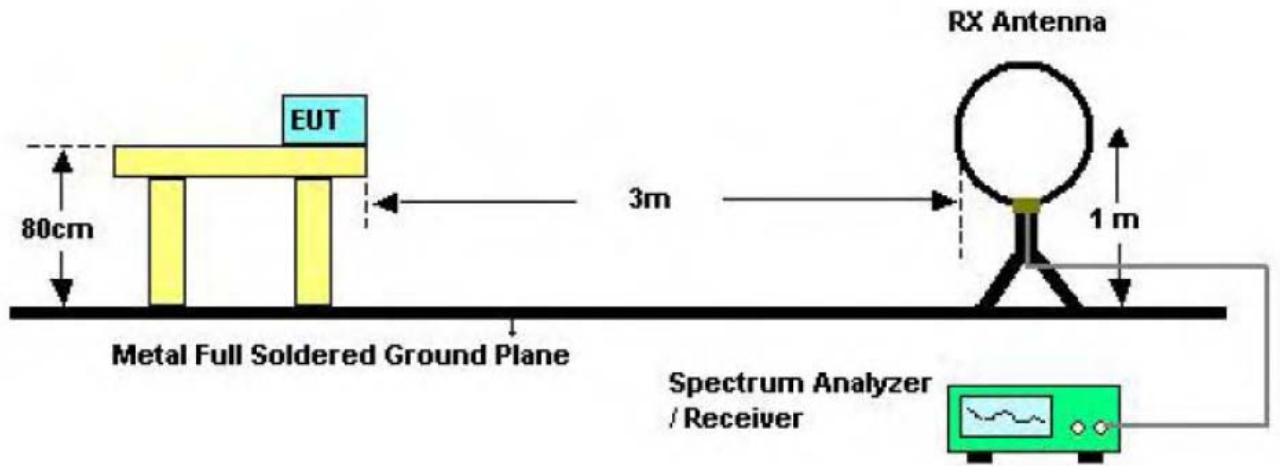
Radiated Emission Limit (Above 1000MHz)

Frequency (MHz)	Distance Meters(at 3m)	
	Peak (dBuV/m)	Average (dBuV/m)
Above 1000	74	54

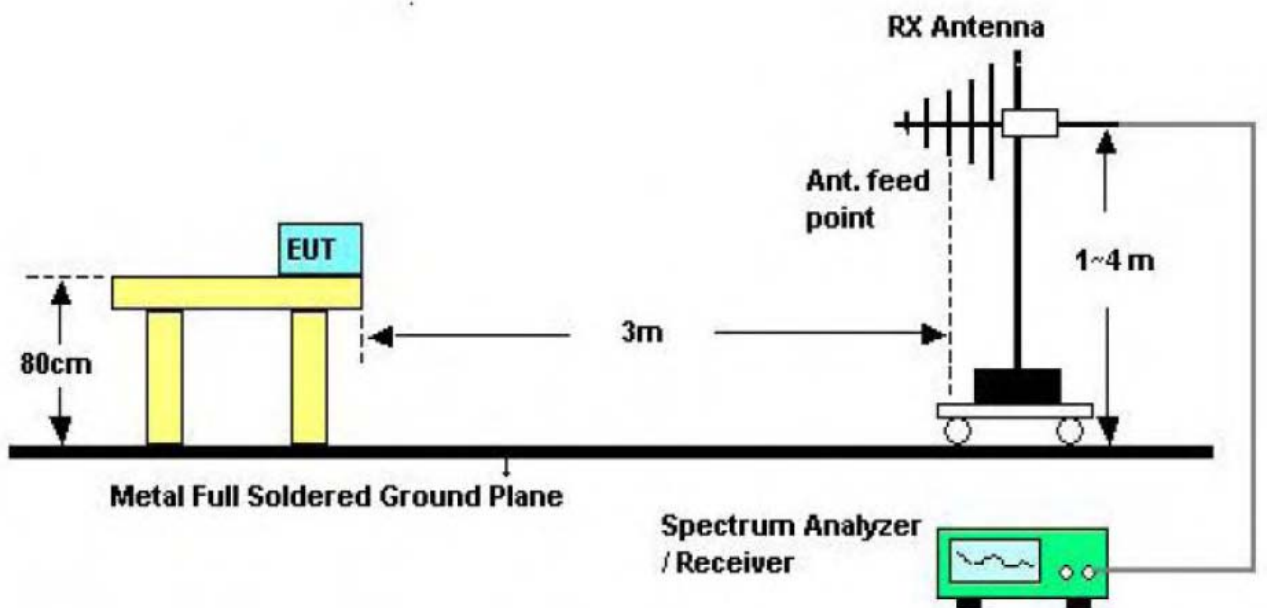
Note:

- (1) The tighter limit applies at the band edges.
- (2) Emission Level (dBuV/m)=20log Emission Level (uV/m)

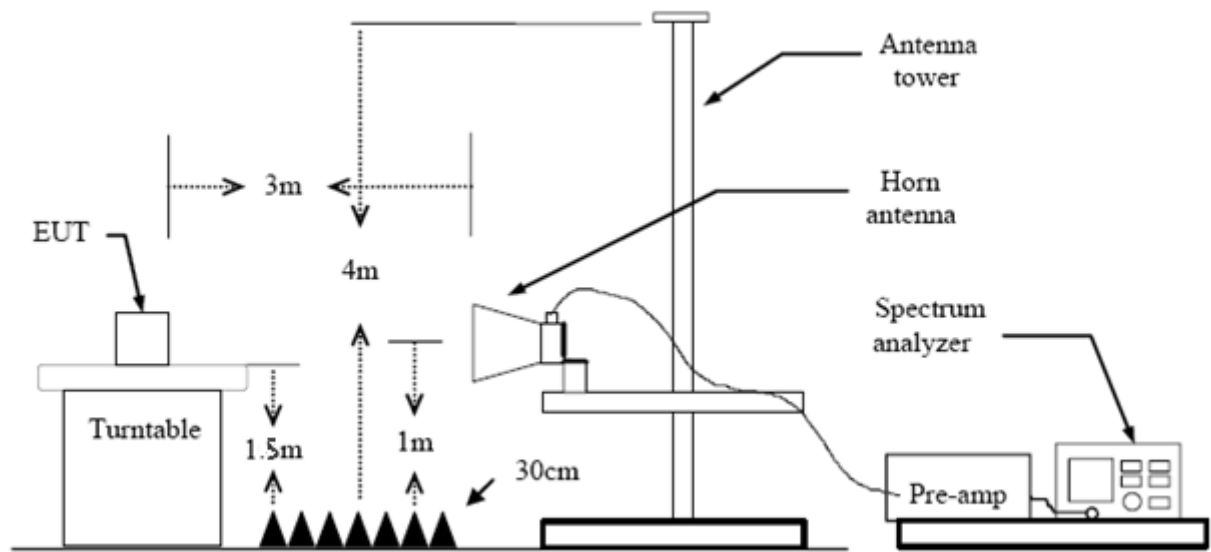
5.2 Test Setup



Below 30MHz Test Setup



Below 1000MHz Test Setup



Above 1GHz Test Setup

5.3 Test Procedure

- (1) The measuring distance of 3m shall be used for measurements at frequency up to 1GHz and above 1 GHz. The EUT was placed on a rotating 0.8m high above ground, the table was rotated 360 degrees to determine the position of the highest radiation.
- (2) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.
- (3) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.
- (4) The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- (5) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.
- (6) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.
- (7) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.
- (8) For the actual test configuration, please see the test setup photo.

5.4 EUT Operating Condition

The Equipment Under Test was set to Continual Transmitting in maximum power.

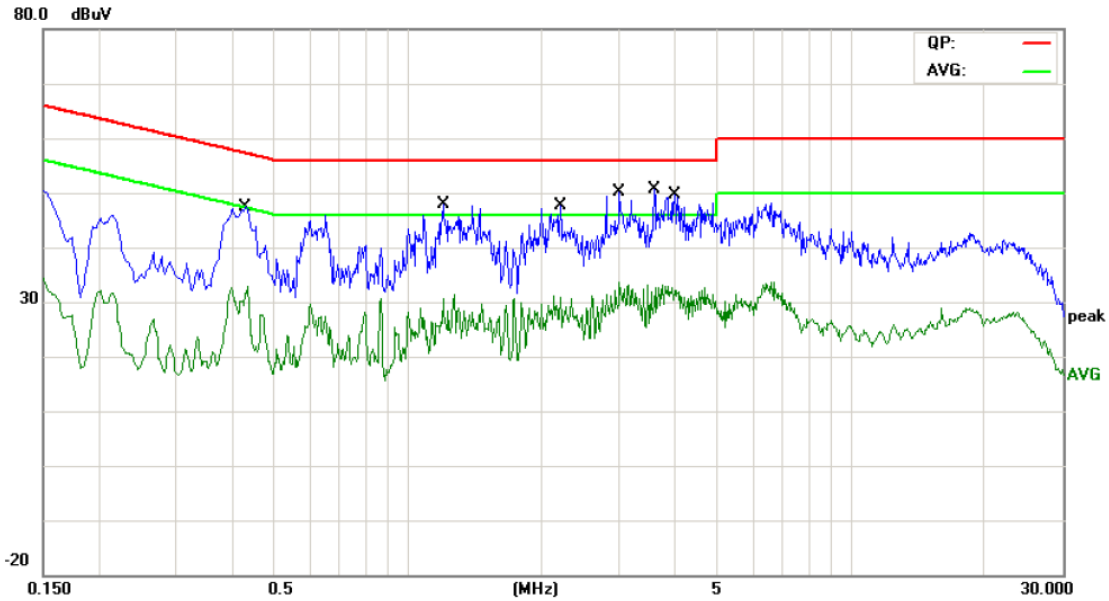
5.5 Test Data

Remark: During testing above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.

Please refer to the Attachment B.

Attachment A-- Conducted Emission Test Data

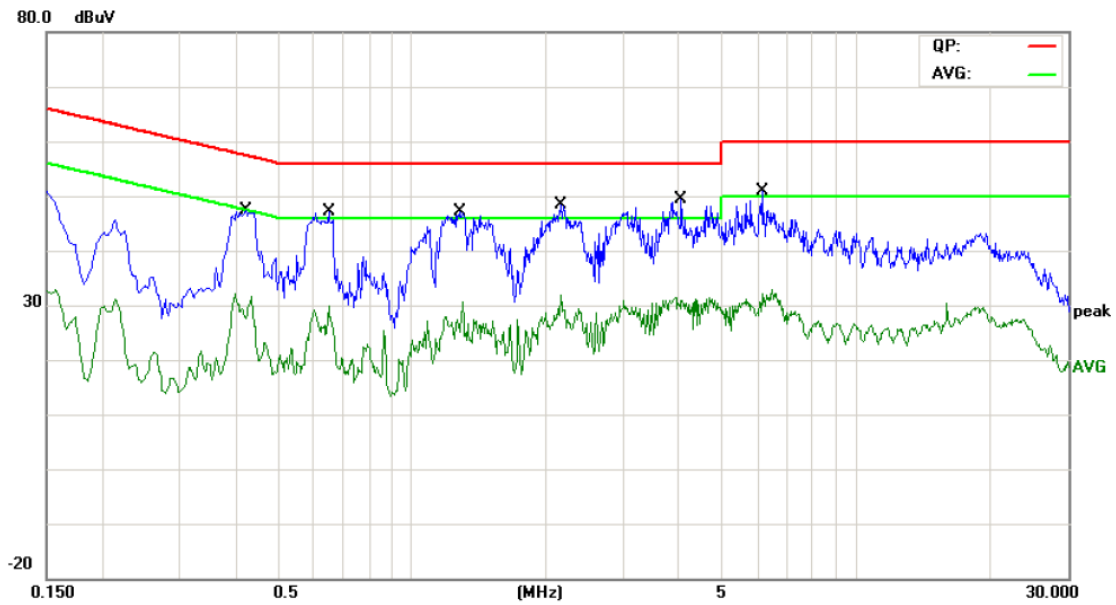
Temperature:	25°C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Terminal:	Line		
Test Mode:	TX GFSK Mode 2402 MHz		
Remark:	Only worse case is reported		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1		0.4300	34.83	9.60	44.43	57.25	-12.82	QP
2		0.4300	21.87	9.60	31.47	47.25	-15.78	AVG
3	*	1.2020	33.72	9.60	43.32	56.00	-12.68	QP
4		1.2020	19.81	9.60	29.41	46.00	-16.59	AVG
5		2.2060	29.18	9.62	38.80	56.00	-17.20	QP
6		2.2060	19.30	9.62	28.92	46.00	-17.08	AVG
7		3.0059	32.30	9.65	41.95	56.00	-14.05	QP
8		3.0059	22.10	9.65	31.75	46.00	-14.25	AVG
9		3.5940	30.31	9.67	39.98	56.00	-16.02	QP
10		3.5940	18.96	9.67	28.63	46.00	-17.37	AVG
11		4.0060	32.90	9.68	42.58	56.00	-13.42	QP
12		4.0060	22.19	9.68	31.87	46.00	-14.13	AVG

Emission Level= Read Level+ Correct Factor

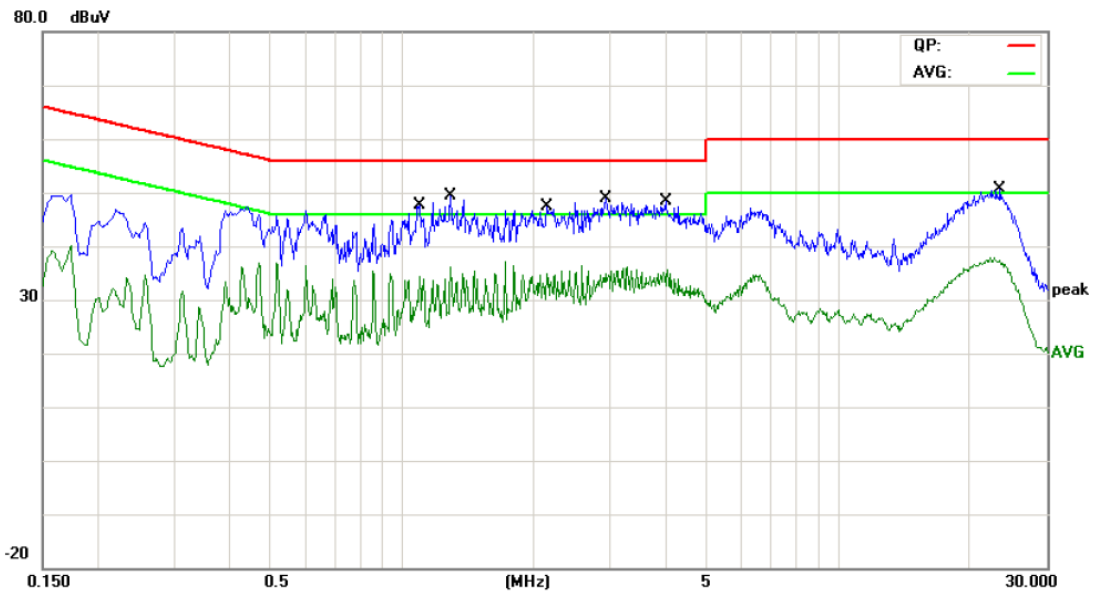
Temperature:	25°C	Relative Humidity:	55%
Test Voltage:	AC 120V/60 Hz		
Terminal:	Neutral		
Test Mode:	TX GFSK Mode 2402 MHz		
Remark:	Only worse case is reported		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1		0.4220	34.52	9.58	44.10	57.41	-13.31	QP
2		0.4220	18.43	9.58	28.01	47.41	-19.40	AVG
3	*	0.6500	34.72	9.59	44.31	56.00	-11.69	QP
4		0.6500	19.46	9.59	29.05	46.00	-16.95	AVG
5		1.2860	31.56	9.60	41.16	56.00	-14.84	QP
6		1.2860	15.81	9.60	25.41	46.00	-20.59	AVG
7		2.1660	34.22	9.62	43.84	56.00	-12.16	QP
8		2.1660	21.11	9.62	30.73	46.00	-15.27	AVG
9		4.0460	31.44	9.73	41.17	56.00	-14.83	QP
10		4.0460	19.85	9.73	29.58	46.00	-16.42	AVG
11		6.1380	28.57	10.13	38.70	60.00	-21.30	QP
12		6.1380	19.43	10.13	29.56	50.00	-20.44	AVG

Emission Level= Read Level+ Correct Factor

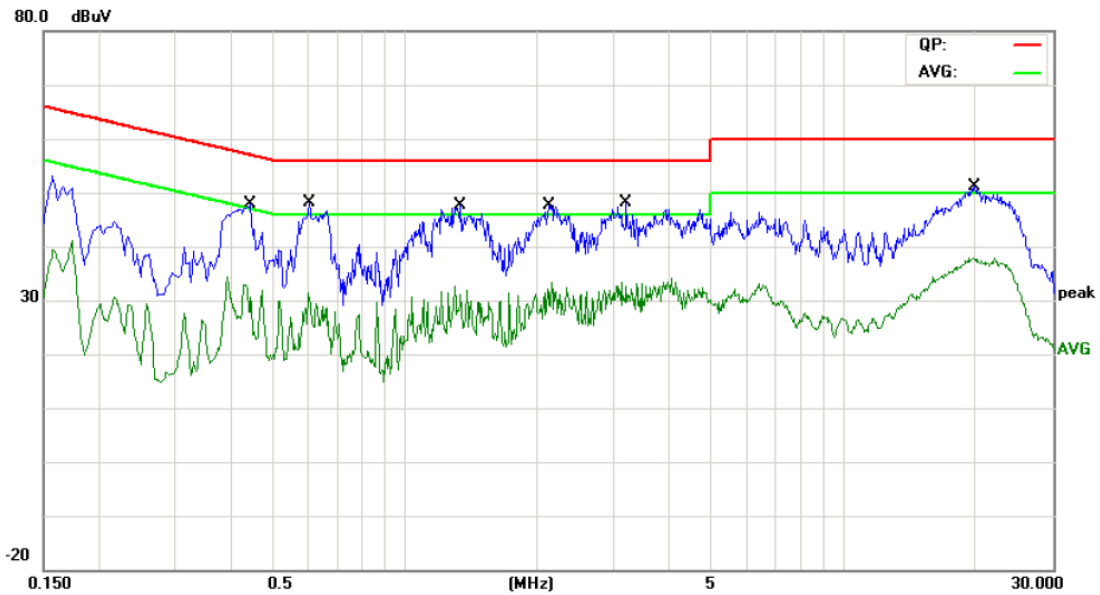
Temperature:	25°C	Relative Humidity:	55%
Test Voltage:	AC 240V/60 Hz		
Terminal:	Line		
Test Mode:	TX GFSK Mode 2402 MHz		
Remark:	Only worse case is reported		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1		1.0940	33.99	9.60	43.59	56.00	-12.41	QP
2		1.0940	23.62	9.60	33.22	46.00	-12.78	AVG
3		1.2900	34.32	9.60	43.92	56.00	-12.08	QP
4	*	1.2900	25.60	9.60	35.20	46.00	-10.80	AVG
5		2.1500	34.24	9.62	43.86	56.00	-12.14	QP
6		2.1500	24.90	9.62	34.52	46.00	-11.48	AVG
7		2.9260	34.29	9.64	43.93	56.00	-12.07	QP
8		2.9260	24.84	9.64	34.48	46.00	-11.52	AVG
9		4.0180	31.68	9.68	41.36	56.00	-14.64	QP
10		4.0180	22.03	9.68	31.71	46.00	-14.29	AVG
11		23.4260	32.76	10.62	43.38	60.00	-16.62	QP
12		23.4260	24.57	10.62	35.19	50.00	-14.81	AVG

Emission Level= Read Level+ Correct Factor

Temperature:	25°C	Relative Humidity:	55%
Test Voltage:	AC 240V/60 Hz		
Terminal:	Neutral		
Test Mode:	TX GFSK Mode 2402 MHz		
Remark:	Only worse case is reported		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1		0.4460	34.75	9.58	44.33	56.95	-12.62	QP
2		0.4460	18.11	9.58	27.69	46.95	-19.26	AVG
3	*	0.6060	34.97	9.59	44.56	56.00	-11.44	QP
4		0.6060	21.36	9.59	30.95	46.00	-15.05	AVG
5		1.3380	33.92	9.60	43.52	56.00	-12.48	QP
6		1.3380	20.70	9.60	30.30	46.00	-15.70	AVG
7		2.1380	30.79	9.62	40.41	56.00	-15.59	QP
8		2.1380	18.62	9.62	28.24	46.00	-17.76	AVG
9		3.2060	29.80	9.68	39.48	56.00	-16.52	QP
10		3.2060	20.44	9.68	30.12	46.00	-15.88	AVG
11		19.8819	33.67	10.65	44.32	60.00	-15.68	QP
12		19.8819	24.98	10.65	35.63	50.00	-14.37	AVG

Emission Level= Read Level+ Correct Factor

Attachment B-- Radiated Emission Test Data

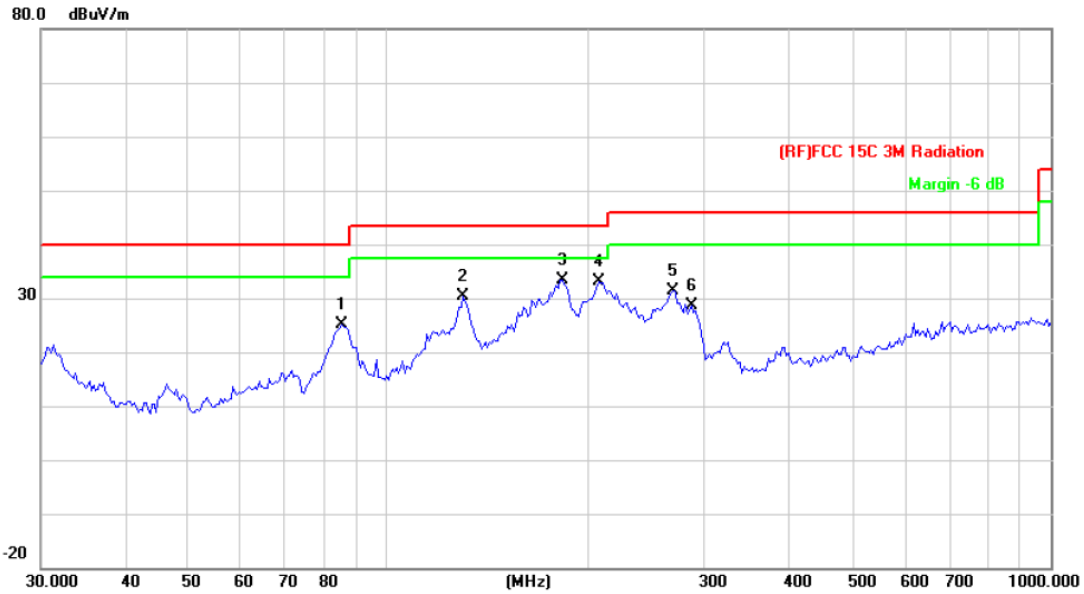
9 KHz~30 MHz

From 9 KHz to 30 MHz: Conclusion: PASS

Note: The amplitude of spurious emissions which are attenuated by more than 20dB Below the permissible value has no need to be reported.

30MHz~1GHz

Temperature:	25°C	Relative Humidity:	55%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Horizontal		
Test Mode:	BLE TX 2402 Mode		
Remark:	Only worse case is reported		

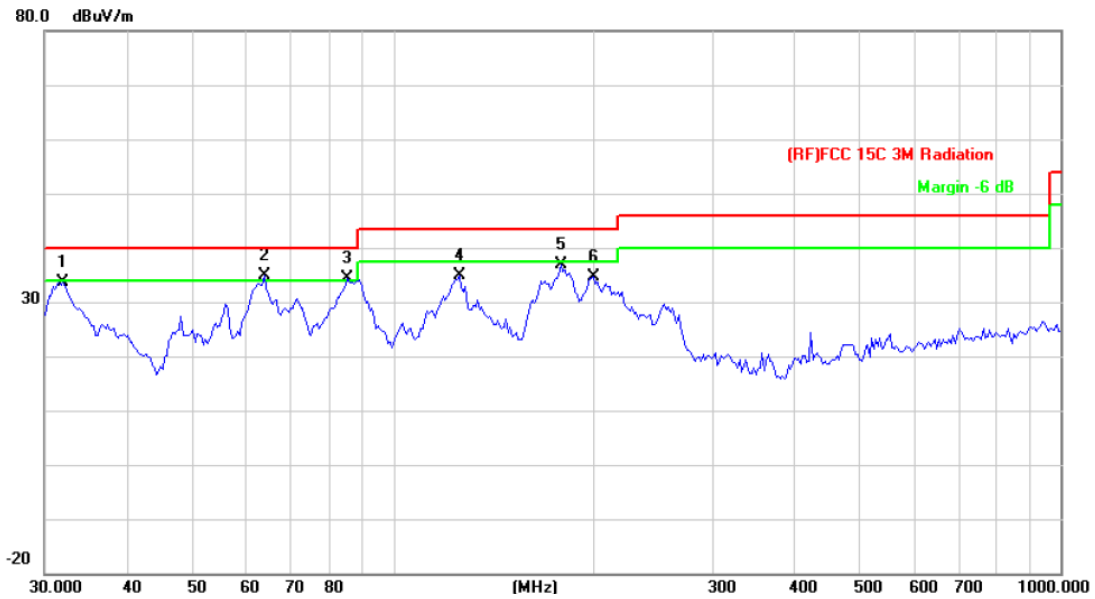


No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1		85.2980	47.52	-22.42	25.10	40.00	-14.90	peak
2		129.9226	51.94	-21.55	30.39	43.50	-13.11	peak
3	*	183.2005	53.24	-19.83	33.41	43.50	-10.09	peak
4		207.8501	52.32	-19.10	33.22	43.50	-10.28	peak
5		269.4284	47.89	-16.60	31.29	46.00	-14.71	peak
6		286.9823	44.82	-16.21	28.61	46.00	-17.39	peak

*:Maximum data x:Over limit !:over margin

Emission Level= Read Level+ Correct Factor

Temperature:	25°C	Relative Humidity:	55%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Vertical		
Test Mode:	BLE TX 2402 Mode		
Remark:	Only worse case is reported		



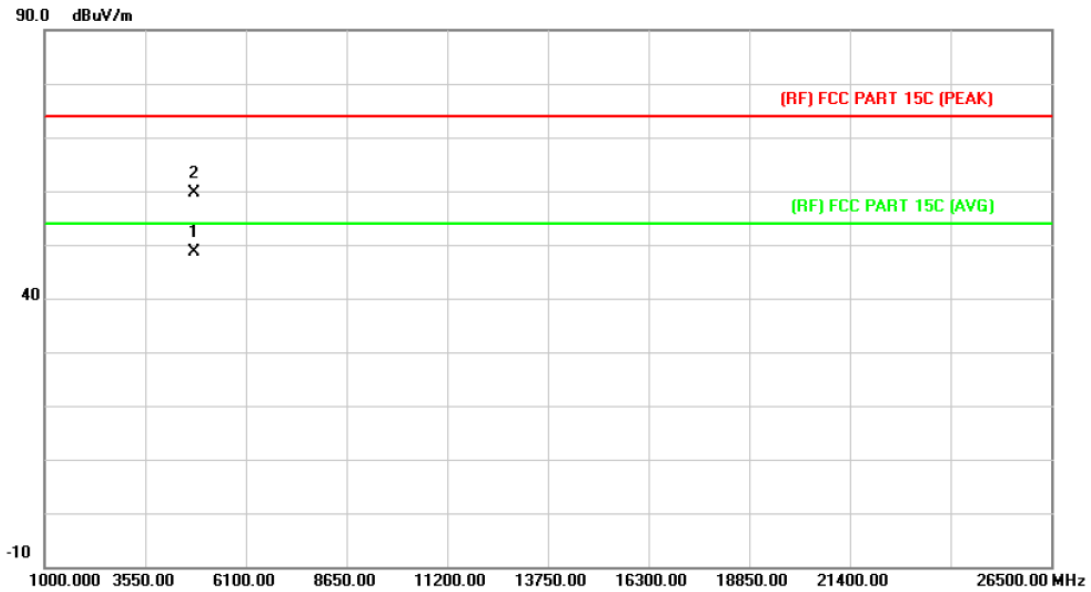
No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1		31.9546	48.30	-14.66	33.64	40.00	-6.36	peak
2	*	63.9828	58.65	-23.70	34.95	40.00	-5.05	peak
3	!	85.2980	56.96	-22.57	34.39	40.00	-5.61	peak
4		125.4457	56.67	-21.91	34.76	43.50	-8.74	peak
5		178.1327	56.94	-20.14	36.80	43.50	-6.70	peak
6		199.2855	54.36	-19.83	34.53	43.50	-8.97	peak

*:Maximum data x:Over limit !:over margin

Emission Level= Read Level+ Correct Factor

Above 1GHz

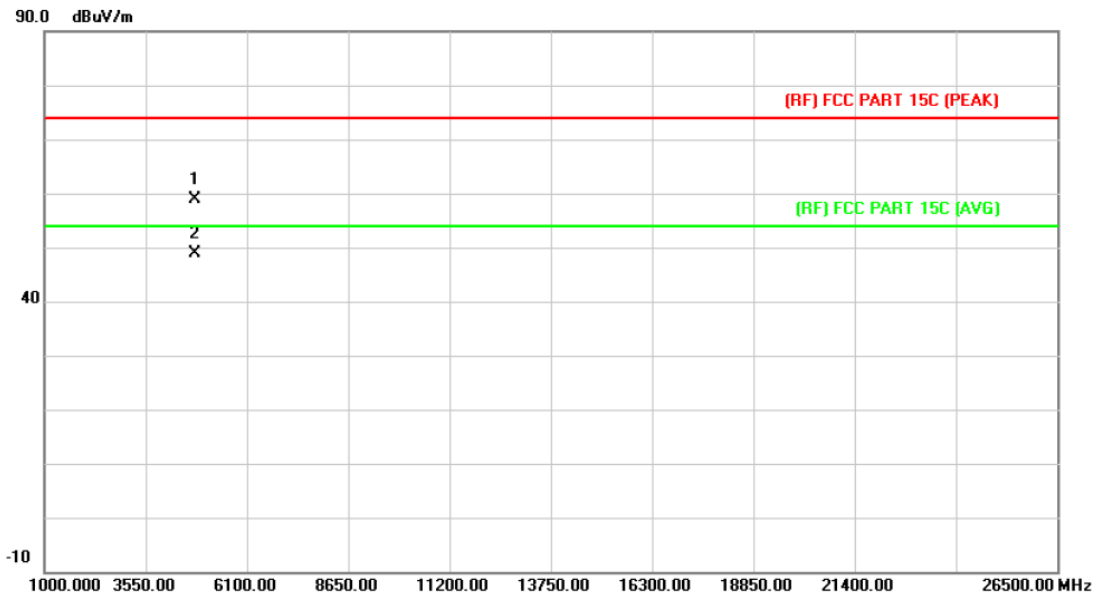
Temperature:	25°C	Relative Humidity:	55%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Horizontal		
Test Mode:	BLE Mode TX 2402 MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	
1	*	4803.874	34.24	14.43	48.67	54.00	-5.33	AVG
2		4804.151	45.21	14.43	59.64	74.00	-14.36	peak

Emission Level= Read Level+ Correct Factor

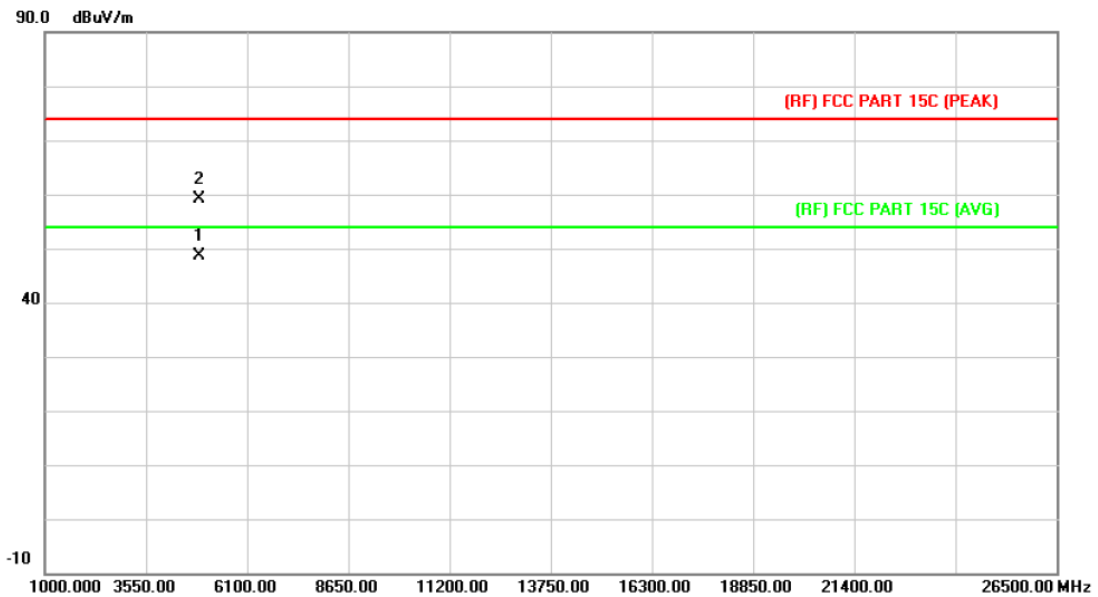
Temperature:	25°C	Relative Humidity:	55%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Vertical		
Test Mode:	BLE Mode TX 2402 MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		4804.125	44.51	14.43	58.94	74.00	-15.06	peak
2	*	4804.221	34.55	14.43	48.98	54.00	-5.02	AVG

Emission Level= Read Level+ Correct Factor

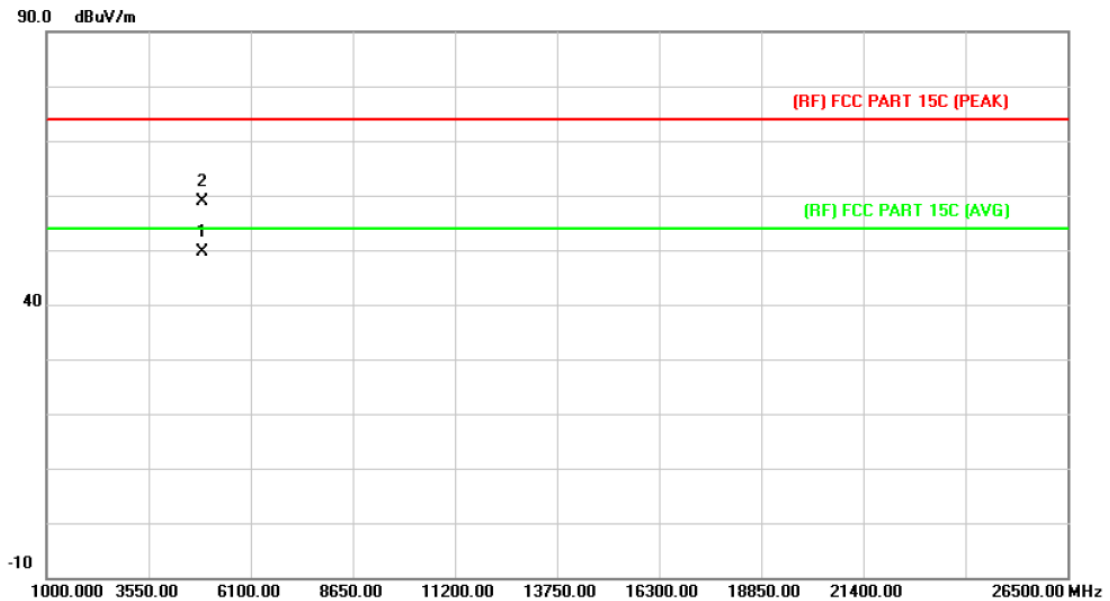
Temperature:	25°C	Relative Humidity:	55%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Horizontal		
Test Mode:	BLE Mode TX 2442 MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1	*	4884.214	33.73	14.92	48.65	54.00	-5.35	AVG
2		4884.274	44.22	14.92	59.14	74.00	-14.86	peak

Emission Level= Read Level+ Correct Factor

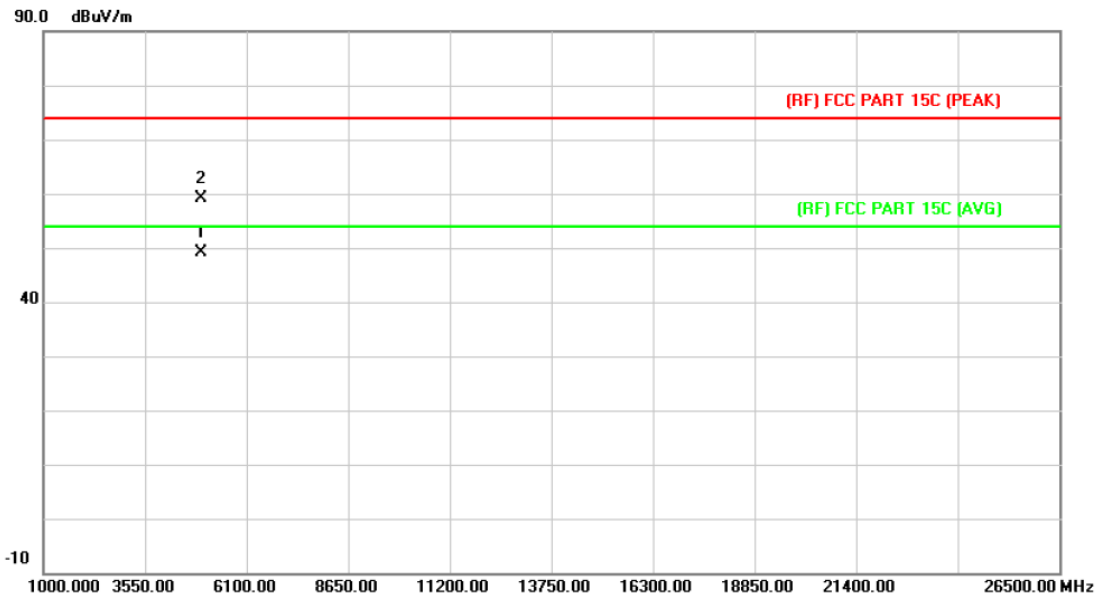
Temperature:	25°C	Relative Humidity:	55%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Vertical		
Test Mode:	BLE Mode TX 2442 MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4883.874	34.73	14.92	49.65	54.00	-4.35	AVG
2		4883.951	44.05	14.92	58.97	74.00	-15.03	peak

Emission Level= Read Level+ Correct Factor

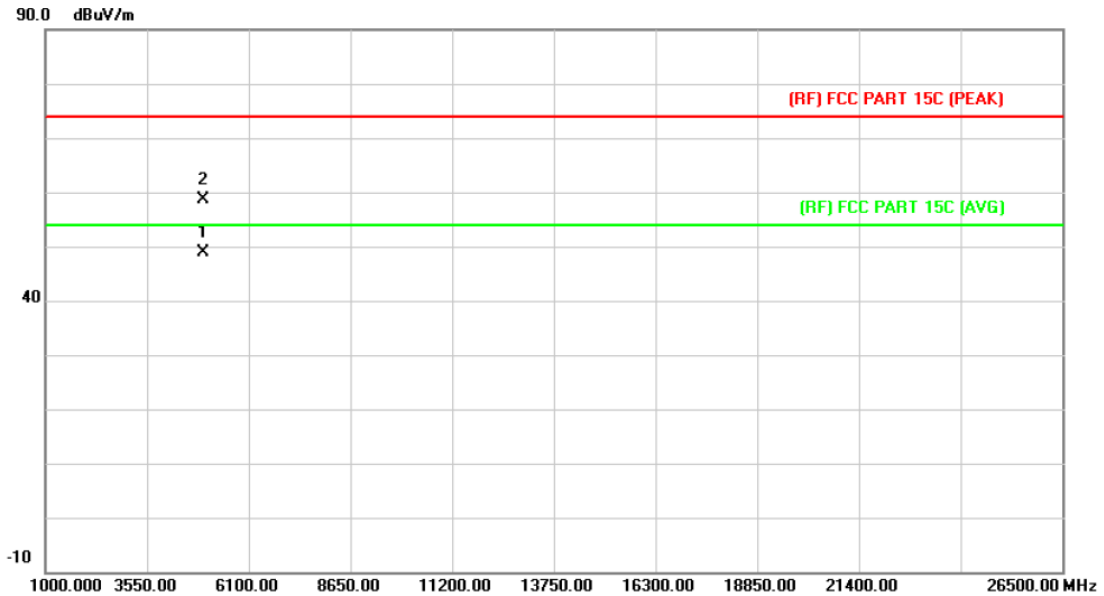
Temperature:	25°C	Relative Humidity:	55%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Horizontal		
Test Mode:	BLE Mode TX 2480 MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1	*	4959.687	33.82	15.39	49.21	54.00	-4.79	AVG
2		4960.321	43.73	15.39	59.12	74.00	-14.88	peak

Emission Level= Read Level+ Correct Factor

Temperature:	25°C	Relative Humidity:	55%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Vertical		
Test Mode:	BLE Mode TX 2480 MHz		
Remark:	No report for the emission which more than 10 dB below the prescribed limit.		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1	*	4960.124	33.37	15.39	48.76	54.00	-5.24	AVG
2		4960.321	43.28	15.39	58.67	74.00	-15.33	peak

Emission Level= Read Level+ Correct Factor

-----END OF REPORT-----