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TEST REPORT

Product Name	:	WIFI Motion Sensor
Brand Mark	:	Globe
Model No.	:	35872
FCC ID	:	2AQUQGB35872
Report Number	:	BLA-EMC-202205-A9401
Date of Sample Receipt	:	2022/5/31
Date of Test	:	2022/5/31 to 2022/6/14
Date of Issue	:	2022/6/14
Test Standard	:	47 CFR Part 15, Subpart C 15.247
Test Result	:	Pass

Prepared for:

Globe Electric Company Inc. 150 Oneida, Montreal, Quebec, Canada, H9R 1A8

Prepared by:

BlueAsia of Technical Services(Shenzhen) Co.,Ltd. Building C, No. 107, Shihuan Road, Shiyan Sub-District, Baoan District, Shenzhen, Guangdong Province, China TEL: +86-755-23059481

Compiled by: Approved by:

Jozu Blue Thong

Review by: Date:







REPORT REVISE RECORD

Version No. Date		Description		
00 2022/6/14		Original		



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1 TEST SUMMARY

Test item	Test Requirement	Test Method	Class/Severity	Result
Radiated Emissions which fall in the restricted bands	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 6.10.5	47 CFR Part 15, Subpart C 15.209 & 15.247(d)	Pass
Conducted Spurious Emissions	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 7.8.6 & Section 11.11	47 CFR Part 15, Subpart C 15.247(d)	Pass
Power Spectrum Density	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 11.10.2	47 CFR Part 15, Subpart C 15.247(e)	Pass
Conducted Peak Output Power	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 7.8.5	47 CFR Part 15, Subpart C 15.247(b)(3)	Pass
Minimum 6dB Bandwidth	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 11.8.1	47 CFR Part 15, Subpart C 15.247a(2)	Pass
Antenna Requirement	47 CFR Part 15, Subpart C 15.247	N/A	47 CFR Part 15, Subpart C 15.203 & 15.247(c)	Pass
Conducted Emissions at AC Power Line (150kHz-30MHz)	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 6.2	47 CFR Part 15, Subpart C 15.207	Pass
Conducted Band Edges Measurement	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 7.8.8 & Section 11.13.3.2	47 CFR Part 15, Subpart C 15.247(d)	Pass
Radiated Spurious Emissions	47 CFR Part 15, Subpart C 15.247	ANSI C63.10 (2013) Section 6.4,6.5,6.6	47 CFR Part 15, Subpart C 15.209 & 15.247(d)	Pass



2 GENERAL INFORMATION

Applicant	Globe Electric Company Inc.
Address	150 Oneida, Montreal, Quebec, Canada, H9R 1A8
Manufacturer	Hangzhou Sky-Lighting Co.,Ltd
Address	No.161, North Star-bridge Road, Linping, Hangzhou,China, 311100
Factory	Hangzhou Sky-Lighting Co.,Ltd
Address	No.161, North Star-bridge Road, Linping, Hangzhou,China, 311100
Product Name	WIFI Motion Sensor
Test Model No.	35872

3 GENERAL DESCRIPTION OF E.U.T.

Hardware Version	1.0.0
Software Version	1.0.10
Supply power	AC120V
Operation Frequency:	2402MHz-2480MHz
Modulation Type:	GFSK
Channel Spacing:	2MHz
Number of Channels:	40
Antenna Type:	Internal Antenna
Antenna Gain:	2.2dBi(Provided by the applicant)



4 TEST ENVIRONMENT

Environment	Temperature	Voltage		
Normal	25°C	AC120V		

5 TEST MODE

TEST MODE	TEST MODE DESCRIPTION
Transmitting mode	Keep the EUT in continuously transmitting mode with modulation.

6 MEASUREMENT UNCERTAINTY

Parameter	Expanded Uncertainty (Confidence of 95%)		
Radiated Emission(9kHz-30MHz)	±4.34dB		
Radiated Emission(30Mz-1000MHz)	±4.24dB		
Radiated Emission(1GHz-18GHz)	±4.68dB		
AC Power Line Conducted Emission(150kHz-30MHz)	±3.45dB		



7 DESCRIPTION OF SUPPORT UNIT

Device Type	Manufacturer	Model Name	Serial No.	Remark		
Note:						
"" means no any support device during testing.						

8 LABORATORY LOCATION

All tests were performed at:

BlueAsia of Technical Services(Shenzhen) Co., Ltd.

Building C, No. 107, Shihuan Road, Shiyan Sub-District, Baoan District, Shenzhen, Guangdong Province, China

Telephone: TEL: +86-755-28682673 FAX: +86-755-28682673

No tests were sub-contracted.



9 TEST INSTRUMENTS LIST

Test Equipment Of Radiated Emissions which fall in the restricted bands					
Equipment	Manufacturer	Model	S/N	Cal.Date	Cal.Due
Chamber	SKET	966	N/A	10/11/2020	9/11/2023
Spectrum	R&S	FSP40	100817	24/9/2021	23/9/2022
Receiver	R&S	ESR7	101199	24/9/2021	23/9/2022
broadband Antenna	Schwarzbeck	VULB9168	00836 P:00227	26/9/2020	25/9/2022
Horn Antenna	Schwarzbeck	9120D	01892 P:00331	26/9/2020	25/9/2022
Amplifier	SKET	LNPA-0118-45	N/A	24/9/2021	23/9/2022
EMI software	EZ	EZ-EMC	N/A	N/A	N/A
Loop antenna	SCHNARZBECK	FMZB1519B	00102	26/9/2020	25/9/2022

Test Equipment Of Conducted Spurious Emissions									
Equipment	Manufacturer	Model	S/N	Cal.Date	Cal.Due				
Spectrum	R&S	FSP40	100817	24/9/2021	23/9/2022				
Spectrum	Agilent	N9020A	MY49100060	24/9/2021	23/9/2022				
Signal Generator	Agilent	N5182A	MY49060650	24/9/2021	23/9/2022				
Signal Generator	Agilent	E8257D	MY44320250	24/9/2021	23/9/2022				

Test Equipment Of Power Spectrum Density									
Equipment Manufacturer Model S/N Cal.Date Cal.									
Spectrum	R&S	FSP40	100817	24/9/2021	23/9/2022				
Spectrum	Agilent	N9020A	MY49100060	24/9/2021	23/9/2022				



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Signal Generator	Agilent	N5182A	MY49060650	24/9/2021	23/9/2022
Signal Generator	Agilent	E8257D	MY44320250	24/9/2021	23/9/2022

Test Equipment Of Conducted Peak Output Power								
Equipment	Manufacturer	Model	S/N	Cal.Date	Cal.Due			
Spectrum	R&S	FSP40	100817	24/9/2021	23/9/2022			
Spectrum	Agilent	N9020A	MY49100060	24/9/2021	23/9/2022			
Signal Generator	Agilent	N5182A	MY49060650	24/9/2021	23/9/2022			
Signal Generator	Agilent	E8257D	MY44320250	24/9/2021	23/9/2022			

Test Equipment Of Minimum 6dB Bandwidth								
Equipment	Manufacturer	Model	S/N	Cal.Date	Cal.Due			
Spectrum	R&S	FSP40	100817	24/9/2021	23/9/2022			
Spectrum	Agilent	N9020A	MY49100060	24/9/2021	23/9/2022			
Signal Generator	Agilent	N5182A	MY49060650	24/9/2021	23/9/2022			
Signal Generator	Agilent	E8257D	MY44320250	24/9/2021	23/9/2022			
		7	· · · · · ·					

Test Equipment Of Conducted Emissions at AC Power Line (150kHz-30MHz)									
Equipment	Manufacturer	Model	S/N	Cal.Date	Cal.Due				
Shield room	SKET	833	N/A	25/11/2020	24/11/2023				
Receiver	Receiver R&S		ESPI3 101082		23/9/2022				
LISN	R&S	ENV216	3560.6550.15	24/9/2021	23/9/2022				
LISN	AT	AT166-2	AKK1806000003	26/9/2021	25/9/2022				
EMI software	EZ	EZ-EMC	N/A	N/A	N/A				



Test Equipment Of Conducted Band Edges Measurement

rest Equipment of conducted band Edges medsurement									
Equipment Manufacturer		Model S/N		Cal.Date	Cal.Due				
Spectrum	R&S	FSP40	100817	24/9/2021	23/9/2022				
Spectrum	Agilent	N9020A	MY49100060	24/9/2021	23/9/2022				
Signal Generator	Agilent	N5182A MY49060	MY49060650	24/9/2021	23/9/2022				
Signal Generator	Agilent	E8257D	MY44320250	24/9/2021	23/9/2022				

Test Equipment Of Radiated Spurious Emissions								
Equipment	Manufacturer	Model	S/N	Cal.Date	Cal.Due			
Chamber	SKET	966	N/A	10/11/2020	9/11/2023			
Spectrum	R&S	FSP40	100817	24/9/2021	23/9/2022			
Receiver	R&S	ESR7 101199		24/9/2021	23/9/2022			
broadband Antenna	Schwarzbeck	VULB9168 00836 P:00227		26/9/2020	25/9/2022			
Horn Antenna	orn Antenna Schwarzbeck		01892 P:00331	26/9/2020	25/9/2022			
Amplifier	SKET	LNPA-0118-45	N/A	24/9/2021	23/9/2022			
EMI software	EZ	EZ-EMC	N/A	N/A	N/A			
Loop antenna	SCHNARZBECK	FMZB1519B	00102	26/9/2020	25/9/2022			



10 RADIATED EMISSIONS WHICH FALL IN THE RESTRICTED BANDS

Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	ANSI C63.10 (2013) Section 6.10.5
Test Mode (Pre-Scan)	ТХ
Test Mode (Final Test)	ТХ
Tester	Jozu
Temperature	25 ℃
Humidity	60%

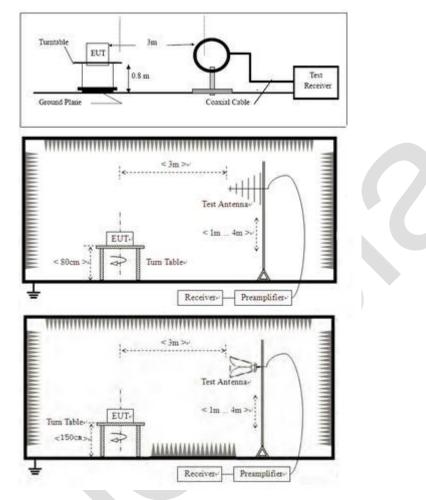
10.1 LIMITS

Frequency(MHz)	Field strength(microvolts/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		

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, 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.



10.2 BLOCK DIAGRAM OF TEST SETUP



10.3 PROCEDURE

a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

d. 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.

e. 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 table was turned from 0 degrees to 360 degrees to find the maximum reading.

f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

g. 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.



h. Test the EUT in the lowest channel, the middle channel, the Highest channel.

i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.

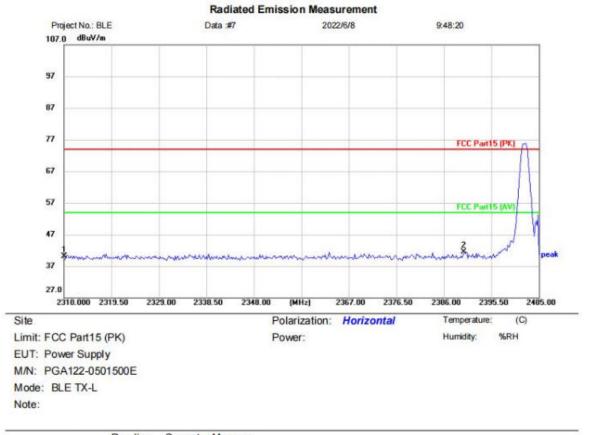
j. Repeat above procedures until all frequencies measured was complete.

Remark 1: Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor

Remark 2: 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. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.



10.4 TEST DATA



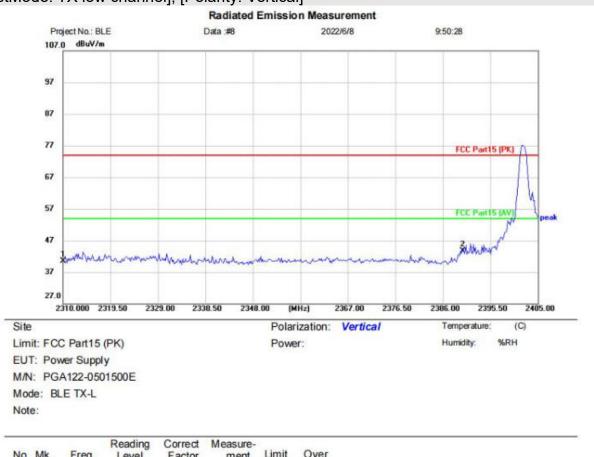
[TestMode: TX low channel]; [Polarity: Horizontal]

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment		Over			
		MHz	dBuN	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment	
1		2310.000	44.03	-3.93	40.10	74.00	-33.90	peak		
2	*	2390.000	45.13	-3.58	41.55	74.00	-32.45	peak		

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

(Reference Only

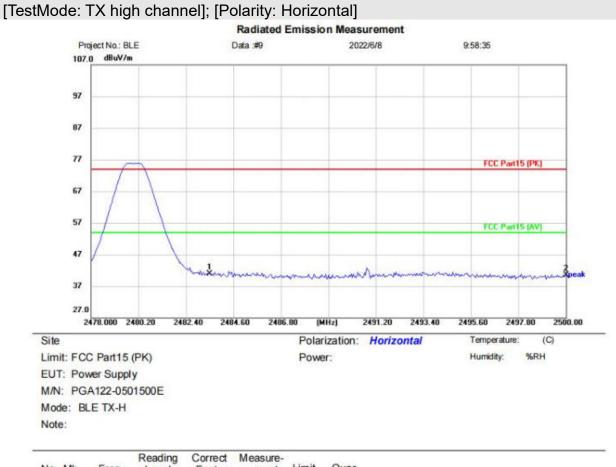




No. Mł	Mk.	Freq.	Reading Level	Factor	Measure- ment	Limit	Over			
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment	
1		2310.000	44.42	-3.93	40.49	74.00	-33.51	peak		
2	*	2390.000	47.32	-3.58	43.74	74.00	-30.26	peak		

(Reference Only

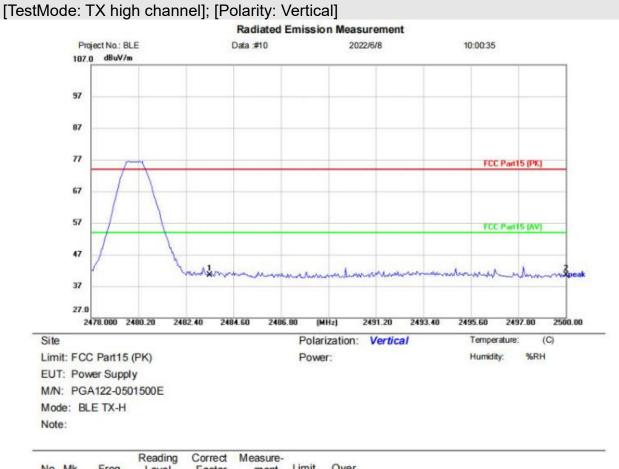




No.	Mk.	Freq.	Level	Factor	ment	Limit	Over			
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	2483.500	43.99	-3.14	40.85	74.00	-33.15	peak		
2		2500.000	43.55	-3.08	40.47	74.00	-33.53	peak		

(Reference Only





No.	Mk.	Freq.	Level	Factor	Measure- ment		Over			
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment	
1	*	2483.500	43.73	-3.14	40.59	74.00	-33.41	peak		
2		2500.000	43.53	-3.08	40.45	74.00	-33.55	peak		

(Reference Only



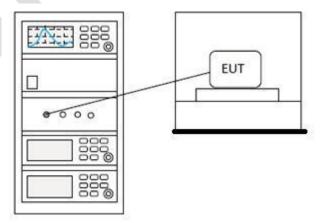
11 CONDUCTED SPURIOUS EMISSIONS

Test Standard	47 CFR Part 15, Subpart C 15.247					
Test Method	ANSI C63.10 (2013) Section 7.8.6 & Section 11.11					
Test Mode (Pre-Scan)	ТХ					
Test Mode (Final Test)	ТХ					
Tester	Jozu					
Temperature	25°C					
Humidity	60%					

11.1 LIMITS

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

11.2 BLOCK DIAGRAM OF TEST SETUP





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11.3 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details



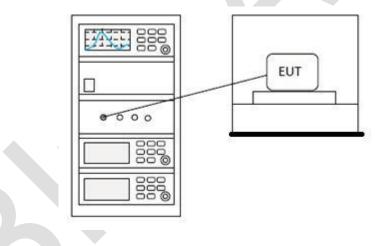
12 POWER SPECTRUM DENSITY

Test Standard	47 CFR Part 15, Subpart C 15.247				
Test Method	ANSI C63.10 (2013) Section 11.10.2				
Test Mode (Pre-Scan)	ТХ				
Test Mode (Final Test)	ТХ				
Tester	Jozu				
Temperature	25 ℃				
Humidity	60%				

12.1 LIMITS

Limit: ≤ 8 dBm in any 3 kHz band during any time interval of continuous transmission

12.2 BLOCK DIAGRAM OF TEST SETUP



12.3 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details



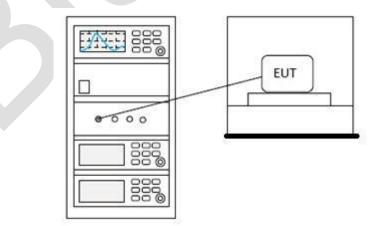
13 CONDUCTED PEAK OUTPUT POWER

Test Standard	47 CFR Part 15, Subpart C 15.247					
Test Method	ANSI C63.10 (2013) Section 7.8.5					
Test Mode (Pre-Scan)	ТХ					
Test Mode (Final Test)	ТХ					
Tester	Jozu					
Temperature	25 ℃					
Humidity	60%					

13.1 LIMITS

Frequency range(MHz)	Output power of the intentional radiator(watt)				
	1 for \geq 50 hopping channels				
902-928	0.25 for $25 \le$ hopping channels < 50				
	1 for digital modulation				
	1 for \geq 75 non-overlapping hopping channels				
2400-2483.5	0.125 for all other frequency hopping systems				
	1 for digital modulation				
5725 5050	1 for frequency hopping systems and digital				
5725-5850	modulation				

13.2 BLOCK DIAGRAM OF TEST SETUP





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13.3 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details



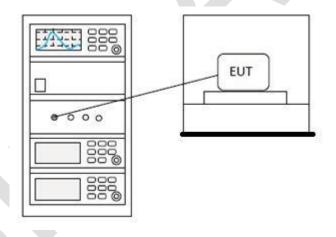
14 MINIMUM 6DB BANDWIDTH

Test Standard	47 CFR Part 15, Subpart C 15.247				
Test Method	ANSI C63.10 (2013) Section 11.8.1				
Test Mode (Pre-Scan)	ТХ				
Test Mode (Final Test)	ТХ				
Tester	Jozu				
Temperature	25 ℃				
Humidity	60%				

14.1 LIMITS

Limit: $\geq 500 \text{ kHz}$

14.2 BLOCK DIAGRAM OF TEST SETUP



14.3 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details



15 ANTENNA REQUIREMENT

Test Standard	47 CFR Part 15, Subpart C 15.247				
Test Method	N/A				

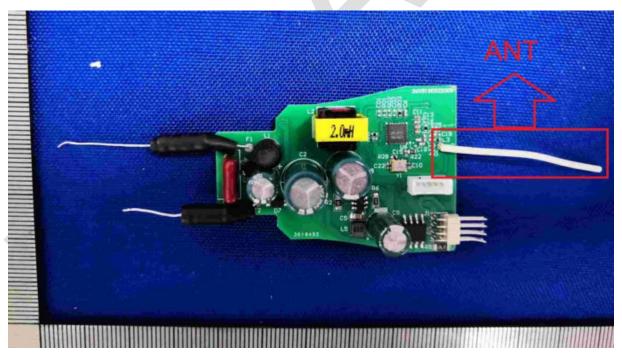
15.1 CONCLUSION

Standard Requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit permanently attached antenna or of an so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

EUT Antenna:

The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 2.2dBi.





16 CONDUCTED EMISSIONS AT AC POWER LINE (150KHZ-30MHZ)

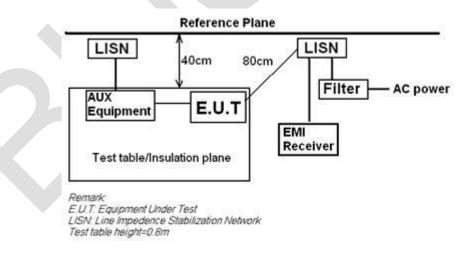
Test Standard	47 CFR Part 15, Subpart C 15.247
Test Method	ANSI C63.10 (2013) Section 6.2
Test Mode (Pre-Scan)	ТХ
Test Mode (Final Test)	ТХ
Tester	Jozu
Temperature	25°C
Humidity	60%

16.1 LIMITS

Frequency of	Conducted limit(dBµV)							
emission(MHz)	Quasi-peak	Average						
0.15-0.5	66 to 56*	56 to 46*						
0.5-5	56	46						
5-30	60	50						

*Decreases with the logarithm of the frequency.

16.2 BLOCK DIAGRAM OF TEST SETUP



16.3 PROCEDURE

1) The mains terminal disturbance voltage test was conducted in a shielded room.

2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50ohm/50H + 5ohm linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.



3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,

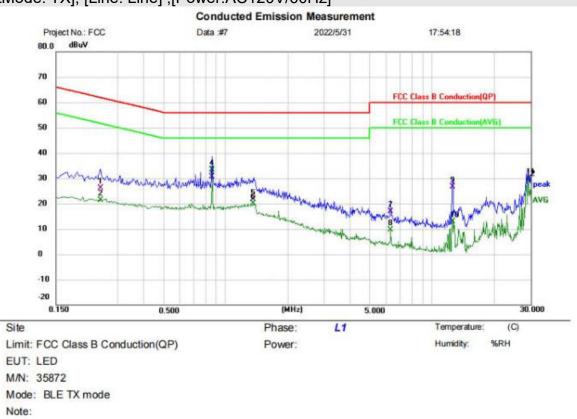
4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.

5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

Remark: LISN=Read Level+ Cable Loss+ LISN Factor



16.4 TEST DATA



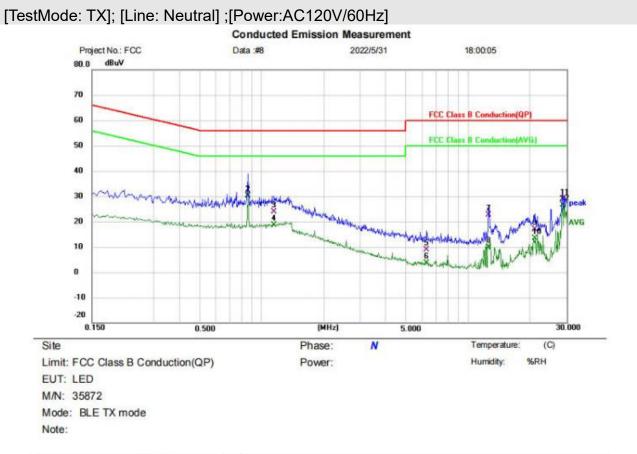
[TestMode: TX]; [Line: Line] ;[Power:AC120V/60Hz]

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuN	dB	dBuV	dBuV	dB	Detector	Comment
1		0.2460	15.75	10.34	26.09	61.89	-35.80	QP	
2		0.2460	11.14	10.34	21.48	51.89	-30.41	AVG	
3		0.8580	20.71	9.91	30.62	56.00	-25.38	QP	
4	*	0.8580	23.58	9.91	33.49	46.00	-12.51	AVG	
5		1.3619	11.61	9.93	21.54	56.00	-34.46	QP	
6		1.3619	10.12	9.93	20.05	46.00	-25.95	AVG	
7		6.3060	6.82	10.06	16.88	60.00	-43.12	QP	
8		6.3060	-0.41	10.06	9.65	50.00	-40.35	AVG	
9		12.5700	16.32	10.26	26.58	60.00	-33.42	QP	
10		12.5700	2.70	10.26	12.96	50.00	-37.04	AVG	
11		29.2380	19.30	10.48	29.78	60.00	-30.22	QP	
12		29.2380	18.56	10.48	29.04	50.00	-20.96	AVG	

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

(Reference Only





No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuN	dB	dBuV	dBuV	dB	Detector	Comment
1		0.8540	20.43	9.83	30.26	56.00	-25.74	QP	
2	*	0.8540	20.42	9.83	30.25	46.00	-15.75	AVG	
3		1.1460	13.93	9.84	23.77	56.00	-32.23	QP	
4		1.1460	8.85	9.84	18.69	46.00	-27.31	AVG	
5		6.2860	-1.09	10.00	8.91	60.00	-51.09	QP	
6		6.2860	-6.42	10.00	3.58	50.00	-46.42	AVG	
7		12.5820	12.45	10.24	22.69	60.00	-37.31	QP	
8		12.5820	-0.39	10.24	9.85	50.00	-40.15	AVG	
9		21.0540	6.49	10.41	16.90	60.00	-43.10	QP	
10		21.0540	2.94	10.41	13.35	50.00	-36.65	AVG	
11		28.6860	18.32	10.47	28.79	60.00	-31.21	QP	
12		28.6860	16.09	10.47	26.56	50.00	-23.44	AVG	

(Reference Only



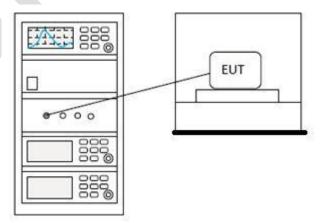
Test Standard	47 CFR Part 15, Subpart C 15.247				
Test Method	ANSI C63.10 (2013) Section 7.8.8 & Section 11.13.3.2				
Test Mode (Pre-Scan)	ТХ				
Test Mode (Final Test)	ТХ				
Tester	Jozu				
Temperature	25 ℃				
Humidity	60%				

17 CONDUCTED BAND EDGES MEASUREMENT

17.1 LIMITS

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

17.2 BLOCK DIAGRAM OF TEST SETUP





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17.3 TEST DATA

Pass: Please Refer To Appendix: Appendix1 For Details



18 RADIATED SPURIOUS EMISSIONS

Test Standard	47 CFR Part 15, Subpart C 15.247				
Test Method	ANSI C63.10 (2013) Section 6.4,6.5,6.6				
Test Mode (Pre-Scan)	ТХ				
Test Mode (Final Test)	ТХ				
Tester	Jozu				
Temperature	25℃				
Humidity	60%				

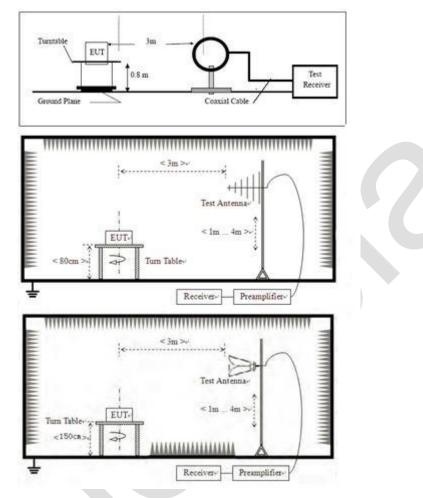
18.1 LIMITS

Frequency(MHz)	Field strength(microvolts/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	

Remark: The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90kHz, 110-490kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector, 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.



18.2 BLOCK DIAGRAM OF TEST SETUP



18.3 PROCEDURE

a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

d. 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.

e. 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 table was turned from 0 degrees to 360 degrees to find the maximum reading.

f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

g. 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.



h. Test the EUT in the lowest channel, the middle channel, the Highest channel.

i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst case.

j. Repeat above procedures until all frequencies measured was complete.

Remark:

1) For emission below 1GHz, through pre-scan found the worst case is the lowest channel. Only the worst case is recorded in the report.

2) The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

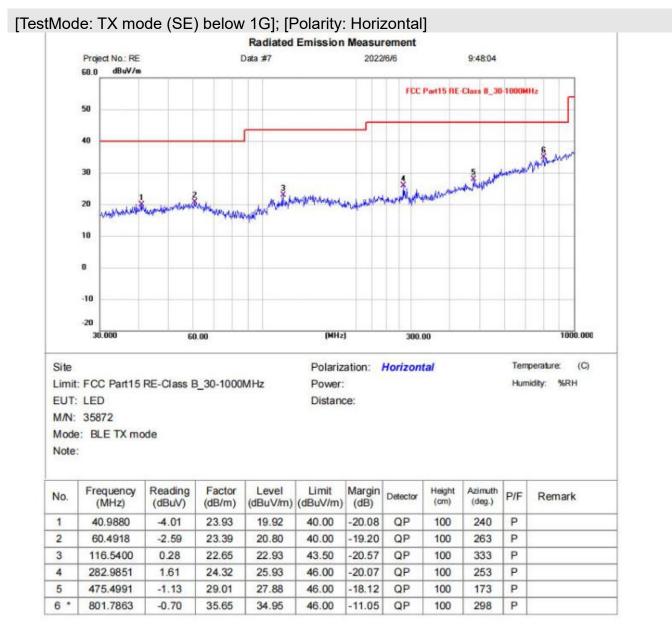
Final Test Level = Receiver Reading + Antenna Factor + Cable Factor - Preamplifier Factor

3) Scan from 9kHz to 25GHz, the disturbance above 12.75GHz and below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported. fundamental frequency is blocked by filter, and only spurious emission is shown.

4) 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. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

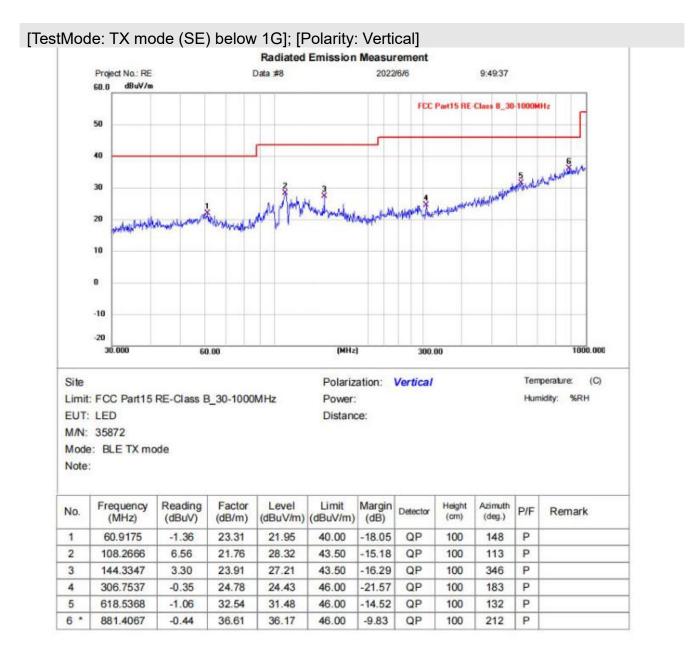


18.4 TEST DATA



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









No.	Mk.	Freq.	Level	Factor	ment	Limit	Over			
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment	
1		3726.000	42.33	7.70	50.03	74.00	-23.97	peak		
2		4804.000	40.65	3.71	44.36	74.00	-29.64	peak		
3		7206.000	39.60	5.96	45.56	74.00	-28.44	peak		
4		8167.500	41.11	8.17	49.28	74.00	-24.72	peak		
5		9608.000	38.47	9.29	47.76	74.00	-26.24	peak		
6	*	11269.500	39.51	11.94	51.45	74.00	-22.55	peak		

(Reference Only





Mk.	Freq.	Level	Factor	ment	Limit	Over			
	MHz	dBuW	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment	
	3843.500	42.01	7.12	49.13	74.00	-24.87	peak		
	4804.000	39.30	3.71	43.01	74.00	-30.99	peak		
	7206.000	39.10	5.96	45.06	74.00	-28.94	peak		
	8026.500	40.89	7.98	48.87	74.00	-25.13	peak		
	9608.000	38.23	9.29	47.52	74.00	-26.48	peak		
*	11387.000	38.81	11.78	50.59	74.00	-23.41	peak		
		MHz 3843.500 4804.000 7206.000 8026.500 9608.000	Mk. Freq. Level MHz dBuV 3843.500 42.01 4804.000 39.30 7206.000 39.10 8026.500 40.89 9608.000 38.23	Mk. Freq. Level Factor MHz dBuV dB/m 3843.500 42.01 7.12 4804.000 39.30 3.71 7206.000 39.10 5.96 8026.500 40.89 7.98 9608.000 38.23 9.29	Mk. Freq. Level Factor ment MHz dBuV dB/m dBuV/m 3843.500 42.01 7.12 49.13 4804.000 39.30 3.71 43.01 7206.000 39.10 5.96 45.06 8026.500 40.89 7.98 48.87 9608.000 38.23 9.29 47.52	Mk. Freq. Level Factor ment Limit MHz dBuV dB/m dBuV/m dBuV/m 3843.500 42.01 7.12 49.13 74.00 4804.000 39.30 3.71 43.01 74.00 7206.000 39.10 5.96 45.06 74.00 8026.500 40.89 7.98 48.87 74.00 9608.000 38.23 9.29 47.52 74.00	Mk. Freq. Level Factor ment Limit Over MHz dBuV dB/m dBuV/m dBuV/m dB 3843.500 42.01 7.12 49.13 74.00 -24.87 4804.000 39.30 3.71 43.01 74.00 -30.99 7206.000 39.10 5.96 45.06 74.00 -28.94 8026.500 40.89 7.98 48.87 74.00 -25.13 9608.000 38.23 9.29 47.52 74.00 -26.48	Mk. Freq. Level Factor ment Limit Over MHz dBu// dBu// dBu//m dBu//m dBu//m dBu//m dB Detector 3843.500 42.01 7.12 49.13 74.00 -24.87 peak 4804.000 39.30 3.71 43.01 74.00 -30.99 peak 7206.000 39.10 5.96 45.06 74.00 -28.94 peak 8026.500 40.89 7.98 48.87 74.00 -25.13 peak 9608.000 38.23 9.29 47.52 74.00 -26.48 peak	Mk. Freq. Level Factor ment Limit Over MHz dBu// dB/m dBu//m dBu//m dB Detector Comment 3843.500 42.01 7.12 49.13 74.00 -24.87 peak 4804.000 39.30 3.71 43.01 74.00 -30.99 peak 7206.000 39.10 5.96 45.06 74.00 -28.94 peak 8026.500 40.89 7.98 48.87 74.00 -26.48 peak 9608.000 38.23 9.29 47.52 74.00 -26.48 peak

(Reference Only

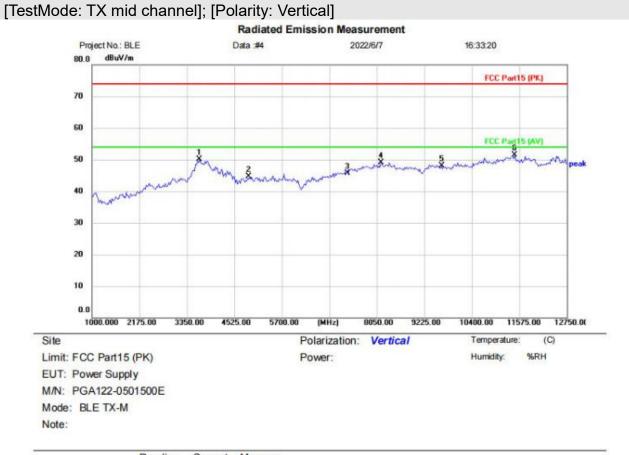




No.	Mk.	Freq.	Level	Factor	ment	Limit	Over			
		MHz	dBuN	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment	
1		3655.500	42.23	7.76	49.99	74.00	-24.01	peak		
2		4884.000	40.13	3.34	43.47	74.00	-30.53	peak		
3		7326.000	38.92	6.44	45.36	74.00	-28.64	peak		
4		8332.000	40.43	8.26	48.69	74.00	-25.31	peak		
5		9648.000	38.05	9.37	47.42	74.00	-26.58	peak		
6	*	11457.500	39.53	11.84	51.37	74.00	-22.63	peak		
		and the second second								

(Reference Only





Mk.	Freq.	Level	Correct Factor	Measure- ment	Limit	Over			
	MHz	dBuW	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment	
	3655.500	42.30	7.76	50.06	74.00	-23.94	peak		
	4884.000	41.39	3.34	44.73	74.00	-29.27	peak		
	7326.000	39.32	6.44	45.76	74.00	-28.24	peak		
	8144.000	40.97	8.13	49.10	74.00	-24.90	peak		
	9648.000	38.78	9.37	48.15	74.00	-25.85	peak		
*	11457.500	39.65	11.84	51.49	74.00	-22.51	peak		
		MHz 3655.500 4884.000 7326.000 8144.000 9648.000	MHz dBu/ 3655.500 42.30 4884.000 41.39 7326.000 39.32 8144.000 40.97 9648.000 38.78	Mk. Freq. Level Factor MHz dBuV dB/m 3655.500 42.30 7.76 4884.000 41.39 3.34 7326.000 39.32 6.44 8144.000 40.97 8.13 9648.000 38.78 9.37	Mk. Freq. Level Factor ment MHz dBuV dB/m dBuV/m 3655.500 42.30 7.76 50.06 4884.000 41.39 3.34 44.73 7326.000 39.32 6.44 45.76 8144.000 40.97 8.13 49.10 9648.000 38.78 9.37 48.15	Mk. Freq. Level Factor ment Limit MHz dBuV dB/m dBuV/m dBuV/m 3655.500 42.30 7.76 50.06 74.00 4884.000 41.39 3.34 44.73 74.00 7326.000 39.32 6.44 45.76 74.00 8144.000 40.97 8.13 49.10 74.00 9648.000 38.78 9.37 48.15 74.00	Mk. Freq. Level Factor ment Limit Over MHz dBuV dB/m dBuV/m dBuV/m dB 3655.500 42.30 7.76 50.06 74.00 -23.94 4884.000 41.39 3.34 44.73 74.00 -29.27 7326.000 39.32 6.44 45.76 74.00 -28.24 8144.000 40.97 8.13 49.10 74.00 -24.90 9648.000 38.78 9.37 48.15 74.00 -25.85	Mk. Freq. Level Factor ment Limit Over MHz dBu// dBu// dBu//m dBu//m dBu//m dBu//m dB Detector 3655.500 42.30 7.76 50.06 74.00 -23.94 peak 4884.000 41.39 3.34 44.73 74.00 -29.27 peak 7326.000 39.32 6.44 45.76 74.00 -28.24 peak 8144.000 40.97 8.13 49.10 74.00 -24.90 peak 9648.000 38.78 9.37 48.15 74.00 -25.85 peak	Mk. Freq. Level Factor ment Limit Over MHz dBu// dB/m dBu//m dBu//m dB Detector Comment 3655.500 42.30 7.76 50.06 74.00 -23.94 peak 4884.000 41.39 3.34 44.73 74.00 -29.27 peak 7326.000 39.32 6.44 45.76 74.00 -28.24 peak 8144.000 40.97 8.13 49.10 74.00 -24.90 peak 9648.000 38.78 9.37 48.15 74.00 -25.85 peak

(Reference Only





Mk.	Freq.	Level	Factor	ment	Limit	Over			
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment	
	3702.500	41.96	7.72	49.68	74.00	-24.32	peak		
	4960.000	40.75	3.75	44.50	74.00	-29.50	peak		
	7440.000	39.52	6.86	46.38	74.00	-27.62	peak		
	8238.000	40.91	8.22	49.13	74.00	-24.87	peak		
	9920.000	37.01	10.16	47.17	74.00	-26.83	peak		
*	11763.000	39.34	11.63	50.97	74.00	-23.03	peak		
		MHz 3702.500 4960.000 7440.000 8238.000 9920.000	Mk. Freq. Level MHz dBuV 3702.500 41.96 4960.000 40.75 7440.000 39.52 8238.000 40.91 9920.000 37.01	Mk. Freq. Level Factor MHz dBuV dB/m 3702.500 41.96 7.72 4960.000 40.75 3.75 7440.000 39.52 6.86 8238.000 40.91 8.22 9920.000 37.01 10.16	Mk. Freq. Level Factor ment MHz dBuV dB/m dBuV/m 3702.500 41.96 7.72 49.68 4960.000 40.75 3.75 44.50 7440.000 39.52 6.86 46.38 8238.000 40.91 8.22 49.13 9920.000 37.01 10.16 47.17	Mk. Freq. Level Factor ment Limit MHz dBuV dB/m dBuV/m dBuV/m 3702.500 41.96 7.72 49.68 74.00 4960.000 40.75 3.75 44.50 74.00 7440.000 39.52 6.86 46.38 74.00 8238.000 40.91 8.22 49.13 74.00 9920.000 37.01 10.16 47.17 74.00	Mk. Freq. Level Factor ment Limit Over MHz dBuV dB/m dBuV/m dBuV/m dB 3702.500 41.96 7.72 49.68 74.00 -24.32 4960.000 40.75 3.75 44.50 74.00 -29.50 7440.000 39.52 6.86 46.38 74.00 -27.62 8238.000 40.91 8.22 49.13 74.00 -24.87 9920.000 37.01 10.16 47.17 74.00 -26.83	Mk. Freq. Level Factor ment Limit Over MHz dBu// dBu// dBu//m dBu//m dBu//m dBu//m dB Detector 3702.500 41.96 7.72 49.68 74.00 -24.32 peak 4960.000 40.75 3.75 44.50 74.00 -29.50 peak 7440.000 39.52 6.86 46.38 74.00 -27.62 peak 8238.000 40.91 8.22 49.13 74.00 -24.87 peak 9920.000 37.01 10.16 47.17 74.00 -26.83 peak	Mk. Freq. Level Factor ment Limit Over MHz dBuV dB/m dBuV/m dBuV/m dB Detector Comment 3702.500 41.96 7.72 49.68 74.00 -24.32 peak 4960.000 40.75 3.75 44.50 74.00 -29.50 peak 7440.000 39.52 6.86 46.38 74.00 -27.62 peak 8238.000 40.91 8.22 49.13 74.00 -24.87 peak 9920.000 37.01 10.16 47.17 74.00 -26.83 peak

(Reference Only





Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
	MHz	dBuN	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment	
	3608.500	41.47	7.80	49.27	74.00	-24.73	peak		
	4960.000	39.91	3.75	43.66	74.00	-30.34	peak		
	7440.000	39.76	6.86	46.62	74.00	-27.38	peak		
	7791.500	40.74	7.68	48.42	74.00	-25.58	peak		
	9920.000	36.87	10.16	47.03	74.00	-26.97	peak		
*	11269.500	38.71	11.94	50.65	74.00	-23.35	peak		
		MHz 3608.500 4960.000 7440.000 7791.500 9920.000	Mk. Freq. Level MHz dBuV 3608.500 41.47 4960.000 39.91 7440.000 39.76 7791.500 40.74 9920.000 36.87	Mk. Freq. Level Factor MHz dBuV dB/m 3608.500 41.47 7.80 4960.000 39.91 3.75 7440.000 39.76 6.86 7791.500 40.74 7.68 9920.000 36.87 10.16	Mk. Freq. Level Factor ment MHz dBuV dB/m dBuV/m 3608.500 41.47 7.80 49.27 4960.000 39.91 3.75 43.66 7440.000 39.76 6.86 46.62 7791.500 40.74 7.68 48.42 9920.000 36.87 10.16 47.03	Mk. Freq. Level Factor ment Limit MHz dBuV dB/m dBuV/m dBuV/m 3608.500 41.47 7.80 49.27 74.00 4960.000 39.91 3.75 43.66 74.00 7440.000 39.76 6.86 46.62 74.00 7791.500 40.74 7.68 48.42 74.00 9920.000 36.87 10.16 47.03 74.00	Mk. Freq. Level Factor ment Limit Over MHz dBuV dB/m dBuV/m dBuV/m dB 3608.500 41.47 7.80 49.27 74.00 -24.73 4960.000 39.91 3.75 43.66 74.00 -30.34 7440.000 39.76 6.86 46.62 74.00 -27.38 7791.500 40.74 7.68 48.42 74.00 -25.58 9920.000 36.87 10.16 47.03 74.00 -26.97	Mk. Freq. Level Factor ment Limit Over MHz dBu// dBu// dBu//m dBu//m dBu//m dBu//m dB Detector 3608.500 41.47 7.80 49.27 74.00 -24.73 peak 4960.000 39.91 3.75 43.66 74.00 -30.34 peak 7440.000 39.76 6.86 46.62 74.00 -27.38 peak 7791.500 40.74 7.68 48.42 74.00 -25.58 peak 9920.000 36.87 10.16 47.03 74.00 -26.97 peak	Mk. Freq. Level Factor ment Limit Over MHz dBu// dB/m dBu//m dBu//m dB Detector Comment 3608.500 41.47 7.80 49.27 74.00 -24.73 peak 4960.000 39.91 3.75 43.66 74.00 -30.34 peak 7440.000 39.76 6.86 46.62 74.00 -27.38 peak 7791.500 40.74 7.68 48.42 74.00 -25.58 peak 9920.000 36.87 10.16 47.03 74.00 -26.97 peak

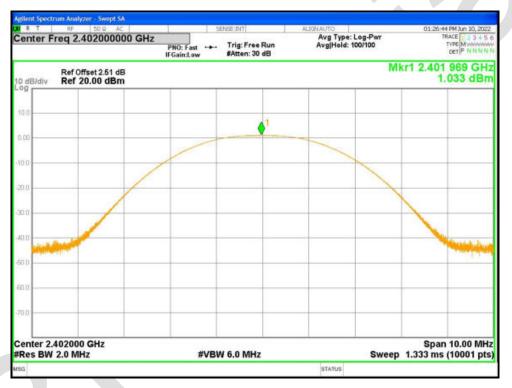
(Reference Only



19 APPENDIX

Maximum Conducted Output Power

Condition	Mode	Frequency (MHz)	Antenna	Conducted Power (dBm)	Limit (dBm)	Verdict
NVNT	BLE	2402	Ant1	1.033	30	Pass
NVNT	BLE	2440	Ant1	2.043	30	Pass
NVNT	BLE	2480	Ant1	3.156	30	Pass



Power NVNT BLE 2402MHz Ant1

Power NVNT BLE 2440MHz Ant1





Power NVNT BLE 2480MHz Ant1





-6dB Bandwidth

Condition	Mode	Frequency	Antenna	-6 dB Bandwidth	Limit -6 dB	Verdict
		(MHz)		(MHz)	Bandwidth (MHz)	
NVNT	BLE	2402	Ant1	0.683	0.5	Pass
NVNT	BLE	2440	Ant1	0.662	0.5	Pass
NVNT	BLE	2480	Ant1	0.669	0.5	Pass

-6dB Bandwidth NVNT BLE 2402MHz Ant1



-6dB Bandwidth NVNT BLE 2440MHz Ant1



R T RF 200 AC Center Freq 2.440000000	GHz	SENSE:INT Center Freq: 2.440000 Trig: Free Run #Atten: 30 dB	ALIGNAUTO 0000 GHz AvgjHeld: 100/100	19	01:29:11 PM Jun 10, 202 dio Std: None dio Device: BTS
Ref Offset 2.53 d	в			Mkr3	2.440323 GH -5.0563 dBr
Log 12.5					
2.53	A2				
7.47	-V		man		
17.5	-			man and a second	
17.5 mm					Management
17.5					
47 D. 57 G					
67.5					
Center 2.44 GHz #Res BW 100 kHz		#VBW 300	(Hz		Span 2 MH Sweep 1.333 m
Occupied Bandwidt 1.	^ь 0385 MHz	Total Power	7.80 dBm		
Transmit Freq Error	-8.112 kHz	OBW Power	99.00 %		
x dB Bandwidth	662.1 kHz	x dB	-6.00 dB		
ISG.			STATUS		

-6dB Bandwidth NVNT BLE 2480MHz Ant1





Occupied Channel Bandwidth

Condition	Mode	Frequency (MHz)	Antenna	99% OBW (MHz)
NVNT	BLE	2402	Ant1	1.035328314
NVNT	BLE	2440	Antl	1.034353722
NVNT	BLE	2480	Antl	1.035344464

OBW NVNT BLE 2402MHz Ant1



OBW NVNT BLE 2440MHz Ant1





OBW NVNT BLE 2480MHz Ant1





Maximum Power Spectral Density Level

Condition	Mode	Frequency (MHz)	Antenna	Max PSD (dBm)	Limit (dBm)	Verdict
NVNT	BLE	2402	Ant1	-8.838	8	Pass
NVNT	BLE	2440	Ant1	-7.731	8	Pass
NVNT	BLE	2480	Ant1	-6.704	8	Pass

PSD NVNT BLE 2402MHz Ant1



PSD NVNT BLE 2440MHz Ant1





PSD NVNT BLE 2480MHz Ant1





Band Edge

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE	2402	Ant1	-56.02	-30	Pass
NVNT	BLE	2480	Antl	-54.79	-30	Pass

Adjoint Spectrum Analyzer. Swept SA Discrete State ALDENDITIO O1.2709 MAX 10,202 Center Freq 2.402000000 GHz PHO: Wide +++ Trig: Free Run BAtten: 30 dB Avg Type: Log-Pwr Avg|Hold: 100100 Mkr1 2.402 072 GHz 0.000 dBm 10 dB/div Ref Offset 2.51 dB 0.000 dBm 0.000 dBm 10 dB/div Ref 20.00 dBm 0.000 dBm 0.000 dBm 10 dB/div Ref 20.00 dBm 0.000 dBm 0.000 dBm 10 dB/div Ref 20.00 dBm 0.000 dBm 0.000 dBm 10 dB/div Ref 20.00 dBm 0.000 dBm 0.000 dBm 10 dB/div Ref 20.00 dBm 0.000 dBm 0.000 dBm 10 dB/div Ref 20.00 dBm 0.000 dBm 0.000 dBm 10 dB/div Ref 20.00 dBm 0.000 dBm 0.000 dBm 10 div Ref 20.00 dBm 0.000 dBm 0.000 dBm 10 div Ref 20.00 dBm 0.000 dBm 0.000 dBm 10 div Ref 20.00 dKz Span 8.000 MHz Span 8.000 MHz 20 div #VEW 300 KHz Strate Span 8.000 MHz </tabular>

Band Edge NVNT BLE 2402MHz Ant1 Ref

Band Edge NVNT BLE 2402MHz Ant1 Emission



B T	um Analyzar RF	Swept SA	SENSE 1	NT	ALIGNAUTO		01:27:12	PM Jun 10, 2022
enter F	req 2.356		0: East +++ Tri	g: Free Run ten: 30 dB	Avg Type: I Avg Hold: 1		TF	ACE 2345
0 dB/div	Ref Offse Ref 20.0						Mkr1 2.40 0.	02 0 GHz 169 dBm
0.0								A1-
00	_							- <u>7</u>
0.0								
0.0							-	- 11-
0.0								-30.00 45%
0.0								
0.0		and the second		0			13	
0.0	dest. south and	Stander Manual Streets		and many and a series	with most contain	an the arms	Mar Verterer	
0.0								
	600 GHz 100 kHz		#VBW 30	0 kHz		Swee	Stop 2.4 p 9.600 ms	40600 GHz (1001 pts)
SR NODE TR		×	X	FUNCTION	FUNCTION WIDTH		UNCTION VALUE	-
2 N 2 N 3 N 5 6 7 8 9 0	f f f	2.402 0 GHz 2.400 0 GHz 2.390 0 GHz 2.353 2 GHz	0.169 dBm -55.198 dBm -59.132 dBm -56.026 dBm					
57								
1								
a					STATUS			

Band Edge NVNT BLE 2480MHz Ant1 Ref



Band Edge NVNT BLE 2480MHz Ant1 Emission



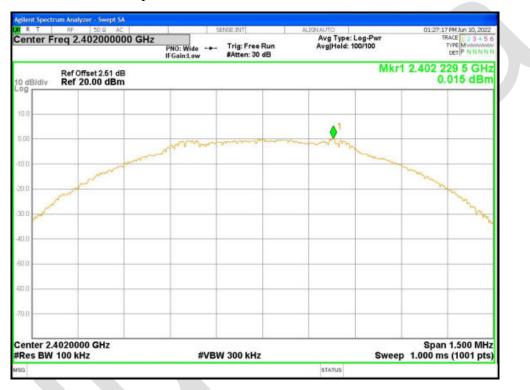
R T		AC	SENSE:1	NT	ALIGNAUTO			PM Jun 10, 2022
enter Fr	req 2.5260):Fast ↔ Tri in:Low #At	g: Free Run ten: 30 dB	Avg Type Avg Hold:		1	ACE 2 2 3 4 5 0 YPE M WANNAGE
0 dB/div	Ref Offset 2. Ref 20.00					1	Mkr1 2.48 2.4	0 2 GHz 135 dBm
	•0							
								-27.01 00
0								
1.0	034	2						
1.0 000	Wayson	0			atrand Mary	114		Can Berlin
10				Press and				A CONTRACTOR
1.0								
	600 GHz 100 kHz		#VBW 30	0 kHz		Sweep	Stop 2.5 9.600 ms	7600 GHz (1001 pts)
R NODE TR	10 SCL	×	Y	FUNCTION	EUNCTION WIDTH	FI.	INCTION VALUE	
N 1 2 N	1	2.480 2 GHz 2.483 5 GHz	2.435 dBm -53.097 dBm					
N	ł	2.500 0 GHz	-57.899 dBm					
N 1	'	2.484 5 GHz	-52.603 dBm					
5								
3								



Conducted RF Spurious Emission

Condition	Mode	Frequency (MHz)	Antenna	Max Value (dBc)	Limit (dBc)	Verdict
NVNT	BLE	2402	Ant1	-45.37	-30	Pass
NVNT	BLE	2440	Ant1	-45.39	-30	Pass
NVNT	BLE	2480	Ant1	-46.92	-30	Pass

Tx. Spurious NVNT BLE 2402MHz Ant1 Ref



Tx. Spurious NVNT BLE 2402MHz Ant1 Emission



Agilent Spect										
Center F		65000000	PN	0: Fast +++	Trig: Fre #Atten: 3		ALIGNAUTO Avg Type: Avg Hold: 1		1	PM Jun 10, 2022 RACE 2 3 4 5 6 TYPE M Watatatata DET P N N N N N
10 dB/div		et 2.51 dB 00 dBm								.412 GHz 041 dBm
10.0	41	_					_			
0.00						-	_			
10.0						-				
-20.0	-			-			_			100000
-30.0		_				-				-29.99.dBm
40.0	-	A3	A4	.5						Q.
-50.0	_ lan	Q.	0	25	man	when	man and the states	-	-	
-70.0										
Start 30 I #Res BW				#VB	N 300 kH	iz		Sw	Stop eep 2.530 s	26.50 GHz (1001 pts)
MAR MODE T		×		Y		UNCTION	EUNCTION WIDTH	_	FUNCTION VALUE	-
1 N 2 N 3 N	f	25. 4.	412 GHz 335 GHz 980 GHz	-0.041 -45.359 -55.463	dBm dBm					
4 N 5 N	f		018 GHz 797 GHz	-55.670 -56.209						
2 3 4 5 6 7 8 9										
10 11										
/ISG							STATUS			





Tx. Spurious NVNT BLE 2440MHz Ant1 Emission



gilent Spectr	um Analyza	r - Swept SA								
enter F	req 13.2	50 0 AC 265000000	PN	D: Fast +++	Trig: Free #Atten: 30		ALIGNAUTO Avg Type: Avg Hold: 1	Log-Pwr 0/10	19	ACE 23450 TYPE MUNICIPALITY
0 dB/div		set 2.53 dB .00 dBm								439 GHz 792 dBm
0.0	1					-			-	
00	- Y									
0.0	-								-	
10	-				-	-				-25.00.000
3.0						-				A2
3.0.	-		64						1000	0
10	the	Q.	- Qui	Q	men	have	mur	and the state of t		
0.0										
0.0										
tart 30 M Res BW	AHz 100 kHz			#VB\	V 300 kHz			Sw	Stop eep 2.530 s	26.50 GHz (1001 pts
A NODE T		×	_	X		CTION .	UNCTION WIDTH	_	FUNCTION VALUE	
1 N 2 N	f		.439 GHz .859 GHz	0.792						
3 N 4 N	1	4	.980 GHz .124 GHz	-55.833	iBm					
5 N	ł		903 GHz	-56.445						
5										
8										
2 N 3 N 5 N 67 89 01										
										2
a.							STATUS			





Tx. Spurious NVNT BLE 2480MHz Ant1 Emission



RT		RF	50.9			1		ENSE:INT		AL	IGNAUTO				3 PM Jun 10, 2022
ente	r Fr	eq 1:	3.2650	00000		PNO: F IFGain:] ast ⊶⊷ Low	Trig: F #Atten	ree Run 30 dB		Avg Typ Avg Hold	e: Log-Pwr I: 10/10		,	TYPE Multitude
0 dB/d	Rv.		offset 2.6 20.00 d										1		.492 GHz .380 dBm
°º [
0.0		•													
100						-									
0.0				-		-			-				-		
0.0				-					-			-			-27.67 mbm
30.0		-				-			-			-	-		
0.0			_				1.5.00		-	-		-			arr and arr arr arr arr arr arr arr arr arr ar
50.0				\bigcirc	- (×	05		and a second		-	Jan	we and	and and	gemtera.
50.0	-theo	And and a second	my	-Y-	man	a martin	warder	-M	State Barbarra	-	1111				_
70.0									_						
Res E			Hz				#VB\	N 300 K	Hz			5	Sweep	Stop 2.530	o 26.50 GHz s (1001 pts)
KR NOD		SCL		×			Y	-	FUNCTION	FUNC	TION WIDTH		FUNCT	ION VALUE	
1 N 2 N		1			2.492 GH		1.380	dBm							
3 N		f		4	1.953 GH	z	-54.487	dBm							
234567890		1			.574 GH		-55.293								
6				i.	.009 GH	-	-00.500	ubili							
7															
9															
0															
											STATUS				

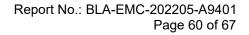


APPENDIX A: PHOTOGRAPHS OF TEST SETUP











APPENDIX B: PHOTOGRAPHS OF EUT











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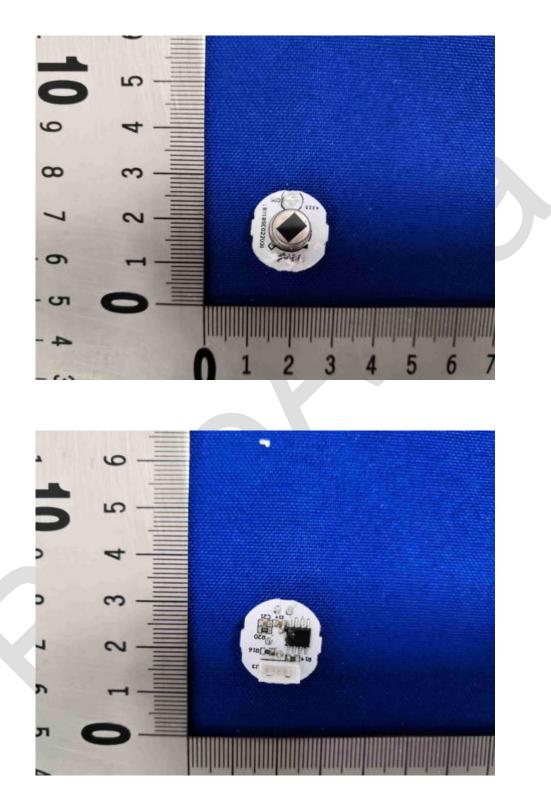




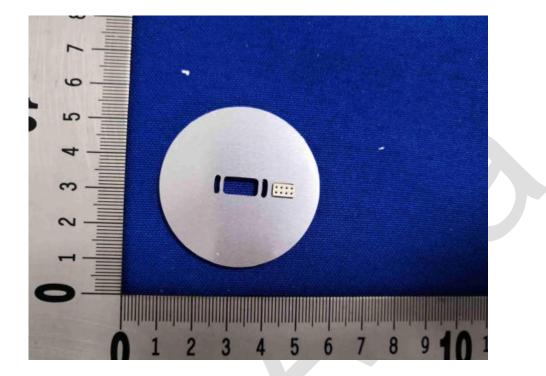
Report No.: BLA-EMC-202205-A9401 Page 63 of 67

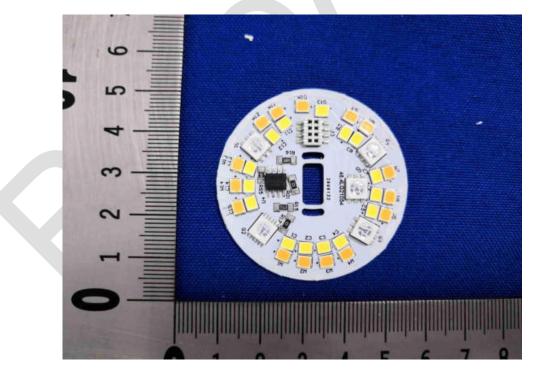




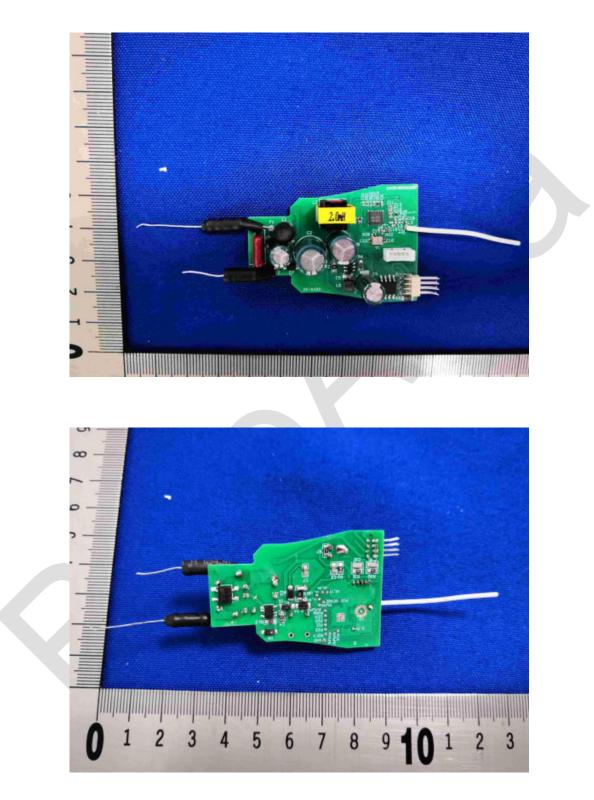














----END OF REPORT----

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