



FCC TEST REPORT

Test report

On Behalf of

Maiori Design Company Limited

For

Solar Hybird Module

Model No.: 6506 Solar Hybird Module S

9137 La Lampe Pose1, 9136 La Lampe Pose2,

9138 La Lampe Pose3, 9225 La Lampe pose4,

Serial Model: 9223 La Lampe Parabole, 9731 La Lampe Couture-S,

6505 La Lampe PopUp

FCC ID: 2ARYR-SLS-S

Prepared for: Maiori Design Company Limited

3rd Building, No.9 Jinying Road, 3rd Industry Zone, Tanzhou Town, Zhongshan

China

Prepared By: Shenzhen HUAK Testing Technology Co., Ltd.

1F, B2 Building, Junfeng Zhongcheng Zhizao Innovation Park, Fuhai Street,

Bao'an District, Shenzhen City, China

Date of Test: Nov. 20, 2018 ~ Dec. 02, 2018

Date of Report: Dec. 03, 2018
Report Number: HK1812031779-E



TEST RESULT CERTIFICATION

Applicant's name:						
Addroso	3rd Building, No.9 Jinying Road, 3rd Industry Zone, Tanzhou Town,					
Address:	Zhongshan China					
Manufacture's Name:	Maiori Design Company Limited					
	3rd Building, No.9 Jinying Road, 3rd Industry Zone, Tanzhou Town,					
Address:	Zhongshan China					
Product description						
Trade Mark:	N/A					
Product name:	Solar Hybird Module					
	6506 Solar Hybird Module S, 9137 La Lampe Pose1,					
Madal and/or type reference	9136 La Lampe Pose2, 9138 La Lampe Pose3,					
Model and/or type reference :	9225 La Lampe pose4, 9223 La Lampe Parabole,					
	9731 La Lampe Couture-S, 6505 La Lampe PopUp					
Standards:	FCC Rules and Regulations Part 15 Subpart C Section 15.249 ANSI C63.10: 2013					
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Date (s) of performance of tests .						
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Date of Issue	2 00. 00, 20 10					
Test Result	: Pass					
Testing Engine	eer: Good Dian					

Technical Manager: Edan Hu (Eden Hu)

Authorized Signatory: Jason 2Nou

(Jason Zhou)

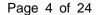
(Gary Qian)





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1. TEST SUMMARY

1.1 TEST PROCEDURES AND RESULTS

DESCRIPTION OF TEST	RESULT
CONDUCTED EMISSIONS TEST	COMPLIANT
RADIATED EMISSION TEST	COMPLIANT
BAND EDGE	COMPLIANT
OCCUPIED BANDWIDTH MEASUREMENT	COMPLIANT
ANTENNA REQUIREMENT	COMPLIANT

1.2 TEST FACILITY

Test Firm : Shenzhen HUAK Testing Technology Co., Ltd.

Address 1F, B2 Building, Junfeng Zhongcheng Zhizao Innovation Park, Fuhai

Street, Bao'an District, Shenzhen City, China

1.3 MEASUREMENT UNCERTAINTY

Measurement Uncertainty

Conducted Emission Expanded Uncertainty = 2.23dB, k=2 Radiated emission expanded uncertainty(9kHz-30MHz) = 3.08dB, k=2 Radiated emission expanded uncertainty(30MHz-1000MHz) = 4.42dB, k=2 Radiated emission expanded uncertainty(Above 1GHz) = 4.06dB, k=2





2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Solar Hybird Module
Model Name	6506 Solar Hybird Module S
Serial No.	9137 La Lampe Pose1, 9136 La Lampe Pose2, 9138 La Lampe Pose3, 9225 La Lampe pose4, 9223 La Lampe Parabole, 9731 La Lampe Couture-S, 6505 La Lampe PopUp
Trade Mark	N/A
Model Difference	All model's the function, software and electric circuit are the same, only with a product color and model named different. Test sample model: 6506 Solar Hybird Module S.
FCC ID	2ARYR-SLS-S
Antenna Type	PCB Antenna
Antenna Gain	1.95dBi
BT Operation frequency	2402-2480MHz
Number of Channels	40CH
Modulation Type	GFSK
Battery	3.6V 2600mAh
Power Source	 DC 3.6V from Battery DC 5V from adapter with AC 120/240V 60Hz Solar 4.2V
Adapter Model	M/N: HW-059200CHQ Input: AC 100~240V, 50/60Hz, 0.5A Output: DC 5V, 2A



2.2 Carrier Frequency of Channels

Channel List										
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)			
0	2402	10	2422	20	2442	30	2462			
1	2404	11	2424	21	2444	31	2464			
2	2406	12	2426	22	2446	32	2466			
3	2408	13	2428	23	2448	33	2468			
4	2410	14	2430	24	2450	34	2470			
5	2412	15	2432	25	2452	35	2472			
6	2414	16	2434	26	2454	36	2474			
7	2416	17	2436	27	2456	37	2476			
8	2418	18	2438	28	2458	38	2478			
9	2420	19	2440	29	2460	39	2480			

2.3 Operation of EUT during testing

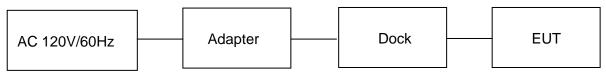
Operating Mode

The mode is used: Transmitting mode

Low Channel: 2402MHz Middle Channel: 2440MHz High Channel: 2480MHz

2.4 DESCRIPTION OF TEST SETUP

Operation of EUT during Conducted testing:



Note: Dock is only a connector, there is no extra circuit.

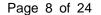
Operation of EUT during Radiation and Above1GHz Radiation testing:

EUT



2.5 MEASUREMENT INSTRUMENTS LIST

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.
1.	L.I.S.N. Artificial Mains Network	R&S	ENV216	HKE-002	Dec. 28, 2017	1 Year
2.	Receiver	R&S	ESCI 7	HKE-010	Dec. 28, 2017	1 Year
3.	RF automatic control unit	Tonscend	JS0806-2	HKE-060	Dec. 28, 2017	1 Year
4.	Spectrum analyzer	R&S	FSP40	HKE-025	Dec. 28, 2017	1 Year
5.	Spectrum analyzer	Agilent	N9020A	HKE-048	Dec. 28, 2017	1 Year
6.	Preamplifier	Schwarzbeck	BBV 9743	HKE-006	Dec. 28, 2017	1 Year
7.	EMI Test Receiver	Rohde & Schwarz	ESCI 7	HKE-010	Dec. 28, 2017	1 Year
8.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	HKE-012	Dec. 28, 2017	1 Year
9.	Loop Antenna	Schwarzbeck	FMZB 1519 B	HKE-014	Dec. 28, 2017	1 Year
10.	Horn Antenna	Schewarzbeck	9120D	HKE-013	Dec. 28, 2017	1 Year
11.	Pre-amplifier	EMCI	EMC051845 SE	HKE-015	Dec. 28, 2017	1 Year
12.	Pre-amplifier	Agilent	83051A	HKE-016	Dec. 28, 2017	1 Year
13.	EMI Test Software EZ-EMC	Tonscend	JZOZtheBO T120-B Version	HKE-083	Dec. 28, 2017	N/A
14.	Power Sensor	Agilent	E9300A	HKE-086	Dec. 28, 2017	1 Year
15.	Spectrum analyzer	Agilent	N9020A	HKE-048	Dec. 28, 2017	1 Year
16.	Signal generator	Agilent	N5182A	HKE-029	Dec. 28, 2017	1 Year
17.	Signal Generator	Agilent	83630A	HKE-028	Dec. 28, 2017	1 Year
18.	Shielded room	Shiel Hong	4*3*3	HKE-039	Dec. 28, 2017	3 Year





CONDUCTED EMISSIONS TEST

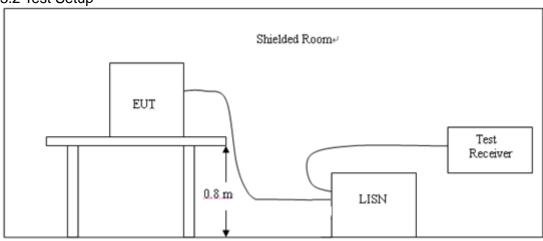
3.1 Conducted Power Line Emission Limit

For unintentional device, according to § 15.107(a) Line Conducted Emission Limits is as following

Fraguenav	Maximum RF Line Voltage (dBμV)					
Frequency (MHz)	CLAS	SS A	CLASS B			
(11112)	Q.P.	Ave.	Q.P.	Ave.		
0.15 - 0.50	79	66	66-56*	56-46*		
0.50 - 5.00	73	60	56	46		
5.00 - 30.0	73	60	60	50		

^{*} Decreasing linearly with the logarithm of the frequency
For intentional device, according to §15.207(a) Line Conducted Emission Limit is same as above table.

3.2 Test Setup



3.3 Test Procedure

- 1, The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10.
- 2, Support equipment, if needed, was placed as per ANSI C63.10.
- 3, All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
- 4, If a EUT received DC power from the USB Port of Notebook PC, the PC's adapter received AC120V/60Hz power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
- 5, All support equipments received AC power from a second LISN, if any.
- 6, The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- 7, Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.

3.4 Test Result

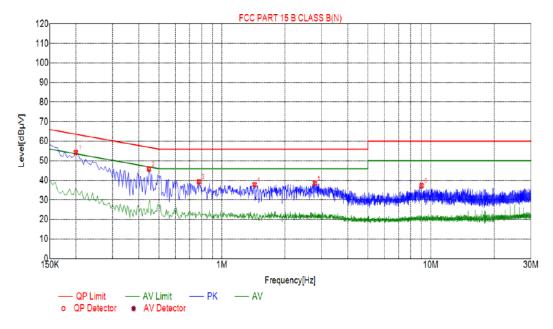
PASS

- 1. All modes were tested at AC 120V and 240V, only the worst result of AC 120V was reported.
- 2. All modes of Low, Middle, and High channel were tested, only the worst result of Low Channel was reported as below:



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Test Specification: Neutral

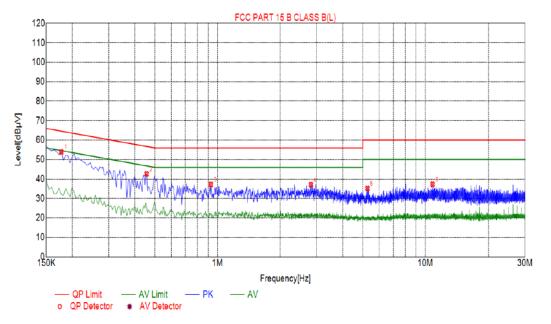


Suspected List										
NO.	Freq.	Level	Factor	Limit	Margin					
NO.	[MHz]	[dBµ∨]	[dB]	[dBµ∨]	[dB]	Detector				
1	0.1995	54.30	10.03	63.63	9.33	PK				
2	0.4470	45.88	10.04	56.93	11.05	PK				
3	0.7755	39.33	10.05	56.00	16.67	PK				
4	1.4325	37.85	10.10	56.00	18.15	PK				
5	2.7870	38.60	10.21	56.00	17.40	PK				
6	9.0330	37.37	10.11	60.00	22.63	PK				

Remark: Transd = Cableloss + Antenna factor - Pre-amplifier; Margin = Limit – Level



Test Specification: Line



Suspected List										
NO.	Freq.	Level [dBμV]	Factor	Limit [dBμV]	Margin [dB]	Detector				
1	0.1770	53.93	10.05	64.63	10.70	PK				
2	0.4560	42.65	10.04	56.77	14.12	PK				
3	0.9285	37.24	10.06	56.00	18.76	PK				
4	2.8140	37.09	10.21	56.00	18.91	PK				
5	5.2620	35.23	10.26	60.00	24.77	PK				
6	10.8240	37.33	10.02	60.00	22.67	PK				

Remark: Transd = Cableloss + Antenna factor - Pre-amplifier; Margin = Limit – Level



4 RADIATED EMISSION TEST

4.1 Radiation Limit

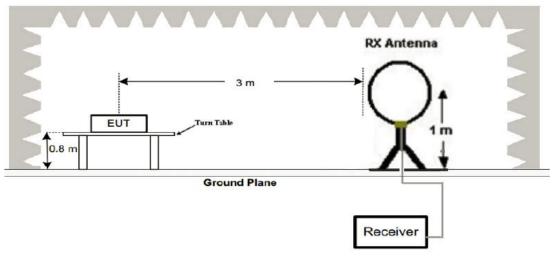
For unintentional device, according to § 15.109(a), except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:

Frequency (MHz)	Distance (Meters)	Radiated (dBµV/m)	Radiated (µV/m)
30-88	3	40	100
88-216	3	43.5	150
216-960	3	46	200
Above 960	3	54	500

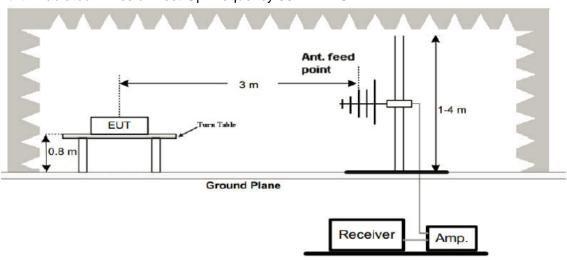
For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emissions from intentional radiators at a distance of 3 meters shall not exceed the above table.

4.2 Test Setup

(1) Radiated Emission Test-Up Frequency Below 30MHz

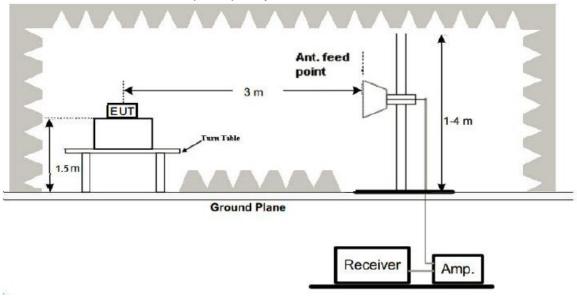


(2) Radiated Emission Test-Up Frequency 30MHz~1GHz





(3) Radiated Emission Test-Up Frequency Above 1GHz



4.3 Test Procedure

- 1. Below 1GHz measurement the EUT is placed on turntable which is 0.8m above ground plane. And above 1GHz measurement EUT was placed on low permittivity and low tangent turn table which is 1.5m above ground plane.
- 2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
- 3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
- 4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
- 5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- 6. Repeat above procedures until the measurements for all frequencies are complete.
- 7. The test frequency range from 9KHz to 25GHz per FCC PART 15.33(a).

Note:

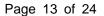
For battery operated equipment, the equipment tests shall be performed using a new battery.

4.4 Test Result

PASS

Remark:

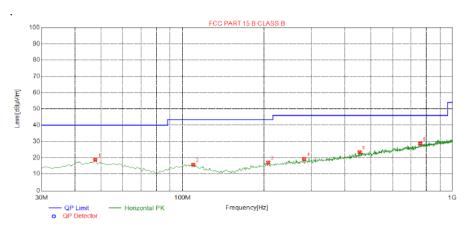
- 1. All the test modes completed for test. The worst case of Radiated Emission is Low channel, the test data of this mode was reported.
- 2. By preliminary testing and verifying three axis (X, Y and Z) position of EUT transmitted status, it was found that "Z axis" position was the worst, and test data recorded in this report.
- 3. Radiated emission test from 9KHz to 10th harmonic of fundamental was verified, and no emission found except system noise floor in 9KHz to 30MHz and not recorded in this report.





Below 1GHz Test Results:

Antenna polarity: H

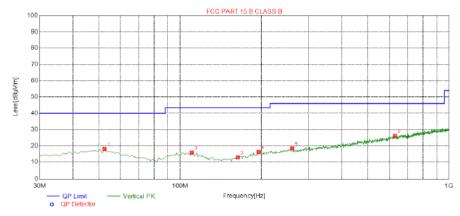


Suspected List

Susp	Suspected List								
NO.	Freq.	Level	Factor	Limit	Margin	Height	Angle	Dolority	
NO.	[MHz]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	Polarity	
1	47.4600	18.67	-13.65	40.00	21.33	100	260	Horizontal	
2	109.540	15.74	-15.43	43.50	27.76	100	294	Horizontal	
3	207.510	17.06	-14.86	43.50	26.44	100	40	Horizontal	
4	282.200	19.19	-13.16	46.00	26.81	100	348	Horizontal	
5	452.920	23.43	-8.90	46.00	22.57	100	176	Horizontal	
6	759.440	28.74	-3.50	46.00	17.26	100	27	Horizontal	

 $\label{eq:Remark: Transd = Cableloss + Antenna factor - Pre-amplifier; Margin = Limit - Level$

Antenna polarity: V



Suspected List

Susp	Suspected List								
NO.	Freq.	Level	Factor	Limit	Margin	Height	Angle	Dolority	
NO.	[MHz]	[dBµV/m]	[dB]	[dBµV/m]	[dBµV/m] [dB] [cm] [°]	[°]	Polarity		
1	52.3100	18.09	-14.00	40.00	21.91	100	264	Vertical	
2	110.510	15.86	-15.52	43.50	27.64	100	354	Vertical	
3	163.860	12.93	-17.86	43.50	30.57	100	360	Vertical	
4	195.870	16.26	-15.45	43.50	27.24	100	47	Vertical	
5	260.860	18.46	-13.54	46.00	27.54	100	345	Vertical	
6	629.460	26.22	-5.48	46.00	19.78	100	144	Vertical	

Remark: Transd = Cableloss + Antenna factor - Pre-amplifier; Margin = Limit – Level

Remark:

- (1) Measuring frequencies from 9 KHz to the 1 GHz, radiated emission test from 9KHz to 30MHz was verified, and no any emission was found except system noise floor.
- (2) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.
- (3) The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120KHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10KHz.



Above 1 GHz Test Results: CH Low (2402MHz)

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Datastan	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type	
2402	108.85	-5.84	103.01	114	-10.99	peak	
2402	95.63	-5.84	89.79	94	-4.21	AVG	
4804	56.42	-3.64	52.78	74	-21.22	peak	
4804	47.59	-3.64	43.95	54	-10.05	AVG	
7206	58.71	-0.95	57.76	74	-16.24	peak	
7206	48.14	-0.95	47.19	54	-6.81	AVG	
Remark: Facto	Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Datastan		
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type		
2402	109.03	-5.84	103.19	114	-10.81	peak		
2402	96.22	-5.84	90.38	94	-3.62	AVG		
4804	57	-3.64	53.36	74	-20.64	peak		
4804	48.36	-3.64	44.72	54	-9.28	AVG		
7206	59.41	-0.95	58.46	74	-15.54	peak		
7206	49.38	-0.95	48.43	54	-5.57	AVG		
Remark: Facto	temark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.							



CH Middle (2440MHz)

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Dotootor	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type	
2440	107.44	-5.71	101.73	114	-12.27	peak	
2440	93.83	-5.71	88.12	94	-5.88	AVG	
4880	57.61	-3.51	54.1	74	-19.9	peak	
4880	49.22	-3.51	45.71	54	-8.29	AVG	
7320	58.15	-0.82	57.33	74	-16.67	peak	
7320	48.63	-0.82	47.81	54	-6.19	AVG	
Remark: Facto	Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2440	108.21	-5.71	102.5	114	-11.5	peak
2440	93.17	-5.71	87.46	94	-6.54	AVG
4880	56.33	-3.51	52.82	74	-21.18	peak
4880	47.62	-3.51	44.11	54	-9.89	AVG
7320	58.43	-0.82	57.61	74	-16.39	peak
7320	48.55	-0.82	47.73	54	-6.27	AVG



CH High (2480MHz)

Horizontal:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Datastan
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2480	108.30	-5.65	102.65	114	-11.35	peak
2480	93.30	-5.65	87.65	94	-6.35	AVG
4960	56.28	-3.43	52.85	74	-21.15	peak
4960	47.69	-3.43	44.26	54	-9.74	AVG
7440	57.41	-0.75	56.66	74	-17.34	peak
7440	47.74	-0.75	46.99	54	-7.01	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

	Meter					
Frequency	Reading	Factor	Emission Level	Limits	Margin	
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2480	107.35	-5.65	101.7	114	-12.3	peak
2480	92.77	-5.65	87.12	94	-6.88	AVG
4960	56.12	-3.43	52.69	74	-21.31	peak
4960	48.56	-3.43	45.13	54	-8.87	AVG
7440	57.02	-0.75	56.27	74	-17.73	peak
7440	47.54	-0.75	46.79	54	-7.21	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Remark:

- (1) Measuring frequencies from 1 GHz to the 25 GHz •
- (2) "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency.
- (3) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.
- (4) Data of measurement within this frequency range shown "--- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120KHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10KHz. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for peak measurement with peak detector at frequency above 1GHz. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 10Hz for Average measurement with peak detection at frequency above 1GHz.
- (6) When the test results of Peak Detected below the limits of Average Detected, the Average Detected is not need completed. For example: Top Channel at Fundamental 73.16dBuV/m(PK Value) <93.98(AV Limit), at harmonic 53.20 dBuV/m(PK Value) <54 dBuV/m(AV Limit), the Average Detected not need to completed.
- (7)All modes of operation were investigated and the worst-case emissions are reported.





5.1 Limits

FCC PART 15.249(d) 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 §15.209, whichever is the lesser attenuation.

5.2 Test Procedure

The band edge compliance of RF radiated emission should be measured by following the guidance in ANSI C63.10 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT is situated in three orthogonal planes (if appropriate), adjusting the measurement antenna height and polarization etc. Set RBW to 100KHz and VBM to 300KHz to measure the peak field strength and set RBW to 1MHz and VBW to 10Hz to measure the average radiated field strength. The conducted RF band edge was measured by using a spectrum analyzer. Set span wide enough to capture the highest in-band emission and the emission at the band edge. Set RBW to 100 KHz and VBW to 300 KHz, to measure the conducted peak band edge.

5.3 Test Result

PASS

Radiated Band Edge Test:

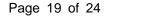
Operation Mode: TX CH Low (2402MHz)

Horizontal (Worst case)

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
2310	53.55	-5.81	47.74	74	-26.26	peak
2310	/	-5.81	/	54	/	AVG
2390	51.44	-5.84	45.6	74	-28.4	peak
2390	/	-5.84	/	54	/	AVG
2400	52.68	-5.84	46.84	74	-27.16	peak
2400	/	-5.84	/	54	/	AVG

Vertical:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре
2310	54.62	-5.81	48.81	74	-25.19	peak
2310	/	-5.81	/	54	/	AVG
2390	52.86	-5.84	47.02	74	-26.98	peak
2390	/	-5.84	/	54	/	AVG
2400	53.33	-5.84	47.49	74	-26.51	peak
2400	/	-5.84	/	54	/	AVG





Operation Mode: TX CH High (2480MHz)

Horizontal (Worst case)

Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
56.79	-5.65	51.14	74	-22.86	peak
/	-5.65	/	54	/	AVG
53.15	-5.65	47.5	74	-26.5	peak
/	-5.65	/	54	/	AVG
	(dBµV) 56.79	(dBµV) (dB) 56.79 -5.65 / -5.65 53.15 -5.65	(dBμV) (dB) (dBμV/m) 56.79 -5.65 51.14 / -5.65 / 53.15 -5.65 47.5	(dBμV) (dB) (dBμV/m) (dBμV/m) 56.79 -5.65 51.14 74 / -5.65 / 54 53.15 -5.65 47.5 74	(dBμV) (dB) (dBμV/m) (dBμV/m) (dBμV/m) 56.79 -5.65 51.14 74 -22.86 / -5.65 / 54 / 53.15 -5.65 47.5 74 -26.5

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Detector Type
2483.50	54.88	-5.65	49.23	74	-24.77	peak
2483.50	/	-5.65	1	54	/	AVG
2500.00	52.14	-5.65	46.49	74	-27.51	peak
2500.00	/	-5.65	/	54	/	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.



6 OCCUPIED BANDWIDTH MEASUREMENT

6.1 Test Setup

Same as Radiated Emission Measurement

6.2 Test Procedure

- 1. The EUT was placed on a turn table which is 0.8m above ground plane.
- 2. Set EUT as normal operation.
- 3. Based on ANSI C63.10 section 6.9.2: RBW= 30KHz. VBW= 100 KHz, Span=3MHz.
- 4. The useful radiated emission from the EUT was detected by the spectrum analyser with peak detector.

6.3 Measurement Equipment Used

Same as Radiated Emission Measurement

6.4 Test Result

PASS

Frequency	20dB Bandwidth (MHz)	Result
2402 MHz	1.118	PASS
2440 MHz	1.122	PASS
2480 MHz	1.125	PASS

CH: 2402MHz





CH: 2440MHz



CH: 2480MHz







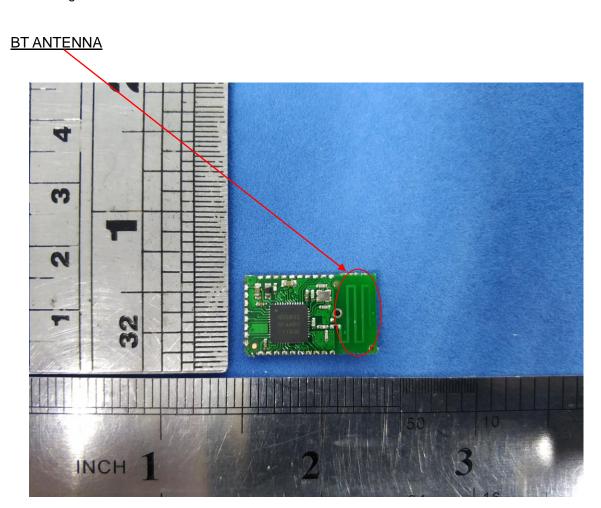
7 ANTENNA REQUIREMENT

Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.249, if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

Antenna Connected Construction

The antenna used in this product is a PCB Antenna, the directional gains of antenna used for transmitting is 1.95dBi.





8 PHOTOGRAPH OF TEST

Radiated Emission





Conducted Emission



End of Report