FCC Test Report

Report No.: AGC01629150801FE03

FCC ID : 2ADXEWMD410U04SR6A0

APPLICATION PURPOSE : Original Equipment

PRODUCT DESIGNATION: BlueTooth Multi Color Lamp

BRAND NAME : Tunercom

MODEL NAME : WMD410U04SR6A0, WLA417117SR6A0-1

CLIENT: Shenzhen Sheng Run Technology Co., Ltd

DATE OF ISSUE : Sep.09,2015

STANDARD(S)

TEST PROCEDURE(S) : FCC Part 15 Rules

REPORT VERSION: V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd

CAUTION:

This report shall not be reproduced except in full without the written permission of the test laboratory and shall not be quoted out of context.



Page 2 of 51

REPORT REVISE RECORD

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	1	Sep.09,2015	Valid	Original Report

TABLE OF CONTENTS

1. VERIFICATION OF CONFORMITY	5
2. GENERAL INFORMATION	6
2.1. PRODUCT DESCRIPTION	6
2.2. TABLE OF CARRIER FREQUENCYS	6
3. MEASUREMENT UNCERTAINTY	7
4. DESCRIPTION OF TEST MODES	
5. SYSTEM TEST CONFIGURATION	8
5.1. CONFIGURATION OF EUT SYSTEM	8
5.2. EQUIPMENT USED IN EUT SYSTEM	8
5.3. SUMMARY OF TEST RESULTS	
6. TEST FACILITY	9
7 ALL TEST EQUIPMENT LIST	g
8. RADIATED EMISSION	
8.1TEST LIMIT	10
8.2. MEASUREMENT PROCEDURE	11
8.3. TEST SETUP	
8.4. TEST RESULT	
9. BAND EDGE EMISSION	28
9.1. MEASUREMENT PROCEDURE	28
9.2 TEST SETUP	28
9.3 RADIATED TEST RESULT	29
10 20DB BANDWIDTH	33
10.1. MEASUREMENT PROCEDURE	33
10.2. TEST SET-UP	33
10.3. LIMITS AND MEASUREMENT RESULTS	
11. FCC LINE CONDUCTED EMISSION TEST	

Page 4 of 51

Α	PPENDIX B: PHOTOGRAPHS OF EUT	. 42
Α	PPENDIX A: PHOTOGRAPHS OF TEST SETUP	. 40
	11.5. TEST RESULT OF LINE CONDUCTED EMISSION TEST	. 38
	11.4. FINAL PROCEDURE OF LINE CONDUCTED EMISSION TEST	. 37
	11.3. PRELIMINARY PROCEDURE OF LINE CONDUCTED EMISSION TEST	. 37
	11.2. BLOCK DIAGRAM OF LINE CONDUCTED EMISSION TEST	. 36
	11.1. LIMITS OF LINE CONDUCTED EMISSION TEST	. 36

Page 5 of 51

1. VERIFICATION OF CONFORMITY

Shenzhen Sheng Run Technology Co., Ltd
6th floor, Gate No 3 of Huaqiang Logistics Building, 3rd Road of Longzhu, Nanshan Dist. Shenzhen, PRC
Shenzhen Sheng Run Technology Co., Ltd
6th floor, Gate No 3 of Huaqiang Logistics Building, 3rd Road of Longzhu, Nanshan Dist. Shenzhen, PRC
BlueTooth Multi Color Lamp
Tunercom
WMD410U04SR6A0
WLA417117SR6A0-1
All the same except for the power panel
Aug.29,2015 to Sep.01,2015
None
Normal
AGCRT-US-BR/RF

We hereby certify that:

The above equipment was tested by Compliance Certification Service(Shenzhen) Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4 (2009) and the energy emitted by the sample EUT tested as described in this report is in compliance with radiated emission limits of FCC Rules Part 15.249.

Tested By	Vinne Unan	9
•	Time Huang(Huang Nanhui)	Sep.09,2015
Reviewed By	Foresto cei	
	Forrest Lei(Lei Yonggang)	Sep.09,2015
Approved By	solga shong	
-	Solger Zhang(Zhang Hongyi) Authorized Officer	Sep.09,2015

Page 6 of 51

2. GENERAL INFORMATION

2.1. PRODUCT DESCRIPTION

A major technical description of EUT is described as following

Operation Frequency	2.402 GHz to 2.480GHz
RF Output Power	-5.85dBm(Max)
Bluetooth Version	V4.0
Modulation	GFSK
Number of channels	40
Hardware Version	HY-254104 V7
Software Version	transparently Transmit V1.8_1119 MCU: 71AS Checksum(91DB)
Antenna Designation	Wire Antenna (Met 15.203 Antenna requirement)
Antenna Gain	1.66dBi
Power Supply	AC 120V

2.2. TABLE OF CARRIER FREQUENCYS

Frequency Band	Channel Number	Frequency
	0	2402MHZ
	1	2404MHZ
	:	:
2400 2402 5MUZ	19	2440 MHZ
2400~2483.5MHZ	20	2442 MHZ
	:	:
	38	2478 MHZ
	39	2480 MHZ

Page 7 of 51

3. MEASUREMENT UNCERTAINTY

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

No.	Item	Uncertainty
1	Conducted Emission Test	±3.18dB
2	All emissions,radiated	±3.91dB
3	Temperature	±0.5°C
4	Humidity	±2%

4. DESCRIPTION OF TEST MODES

NO.	TEST MODE DESCRIPTION	
1	Low channel GFSK	
2	Middle channel GFSK	
3	High channel GFSK	
4	Normal operation (BT)	

Note:

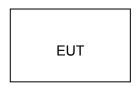
- 1. Only the result of the worst case was recorded in the report, if no other cases.
- 2. Both of two models have been tested on different part (CONDUCTED EMISSION), only the worse data recorded.

Page 8 of 51

5. SYSTEM TEST CONFIGURATION

5.1. CONFIGURATION OF EUT SYSTEM

Configure 1: (Normal hopping)



Configure 2: (Control continuous TX)



5.2. EQUIPMENT USED IN EUT SYSTEM

Item	Equipment	Model No.	ID or Specification	Remark
1	BlueTooth Multi Color Lamp	Tunercom	WMD410U04SR6A0	EUT
2	Control box	N/A	N/A	A.E
3	PC	Dell	INSPIRON	A.E

5.3. SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§15.249	Radiated Emission	Compliant
§15.249	Band Edges	Compliant
§15.207	Conduction Emission	Compliant
N/A	BANDWITH	Compliant

Report No.: AGC01629150801FE03 Page 9 of 51

6. TEST FACILITY

Site	Compliance Certification Service(Shenzhen) Inc.		
Location	No.10-1 Mingkeda Logistics Park, No.18 Huanguan South RD. Guan lan Town,Baoan Distr		
FCC Registration No.	441872		
Description	The test site is constructed and calibrated to meet the FCC requirements in documents ANSI C63.4:2009.		

7 ALL TEST EQUIPMENT LIST

Radiated Emission Test Site 966(2)						
Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration	
PSA Series Spectrum Analyzer	Agilent	E4446A	US44300399	03/01/2015	03/01/2016	
EMI TEST RECEIVER	ROHDE&SCHWAR Z	ESCI	100783	03/09/2015	03/08/2016	
Amplifier	MITEQ	AM-1604-3000	1123808	03/18/2015	03/17/2016	
High Noise Amplifier	Agilent	8449B	3008A01838	03/18/2015	03/17/2016	
Board-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170-497	07/10/2015	07/09/2016	
Bilog Antenna	SCHAFFNER	CBL6143	5082	03/01/2015	03/01/2016	
Horn Antenna	SCHWARZBECK	BBHA9120	D286	03/01/2015	03/01/2016	
Loop Antenna	COM-POWER	AL-130	121044	09/27/2014	09/26/2015	
Turn Table	N/A	N/A	N/A	N.C.R	N.C.R	
Controller	Sunol Sciences	SC104V	022310-1	N.C.R	N.C.R	
Controller	CT	N/A	N/A	N.C.R	N.C.R	
Temp. / Humidity Meter	Anymetre	JR913	N/A	02/28/2015	02/27/2016	
Antenna Tower	SUNOL	TLT2	N/A	N.C.R	N.C.R	
Test S/W	FARAD	LZ-RF / CCS-SZ-3A2				

Conducted Emission Test Site						
Name of Equipment	Manufacturer	Model Number	Serial Number	Last Calibration	Due Calibration	
EMI TEST RECEIVER	ROHDE&SCHWA RZ	ESCI	100783	03/09/2015	03/08/2016	
LISN(EUT)	ROHDE&SCHWA RZ	ENV216	101543-WX	03/09/2015	03/08/2016	
LISN	EMCO	3825/2	8901-1459	03/09/2015	03/08/2016	
Temp. / Humidity Meter	VICTOR	HTC-1	N/A	03/04/2015	03/03/2016	
Test S/W	FARAD	EZ-EMC/ CCS-3A1-CE				

Page 10 of 51

8. RADIATED EMISSION

8.1TEST LIMIT

Standard FCC15.249

Fundamental Frequency	Field Strength of Fundamental	Field Strength of Harmonics
	(millivolts/meter)	(microvolts/meter)
900-928MHz	50	500
2400-2483.5MHz	50	500
5725-5875MHz	50	500
24.0-24.25GHz	250	2500

Standard FCC 15.209

Frequency	Distance	Field	l Strengths Limit		
(MHz)	Meters	μ V/m	dB(μV)/m		
0.009 ~ 0.490	300	2400/F(kHz)			
0.490 ~ 1.705	30	24000/F(kHz)			
1.705 ~ 30	30	30			
30 ~ 88	3	100	40.0		
88 ~ 216	3	150	43.5		
216 ~ 960	3	200	46.0		
960 ~ 1000	3	500	54.0		
Above 1000	3	Other:74.0 dB(µV)/m	Other:74.0 dB(µV)/m (Peak) 54.0 dB(µV)/m (Average)		

Remark:

- (1) Emission level dB μ V = 20 log Emission level μ V/m
- (2) The smaller limit shall apply at the cross point between two frequency bands.
- (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

Report No.: AGC01629150801FE03 Page 11 of 51

8.2. MEASUREMENT PROCEDURE

1. Configure the EUT according to ANSI C63.4. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.

- 2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
- 3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
- 4. For each suspected emissions, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
- 5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
- 6. For emissions above 1GHz, use 1.5MHz VBW and RBW for peak reading. Then 1.5MHz RBW and 10Hz VBW for average reading in spectrum analyzer.
- 7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.
- 8.If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
- 9. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
- 10. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High Low scan is not required in this case.

Report No.: AGC01629150801FE03 Page 12 of 51

The following table is the setting of spectrum analyzer and receiver.

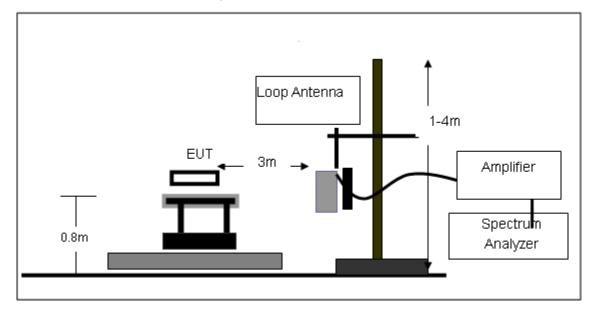
Spectrum Parameter	Setting
Start ~Stop Frequency	9KHz~150KHz/RB 200Hz for QP
Start ~Stop Frequency	150KHz~30MHz/RB 9KHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RB 120KHz for QP
Start ~Stop Frequency	1GHz~26.5GHz
	1.5MHz/1.5MHz for Peak, 1.5MHz/10Hz for Average

Receiver Parameter	Setting
Start ~Stop Frequency	9KHz~150KHz/RB 200Hz for QP
Start ~Stop Frequency	150KHz~30MHz/RB 9KHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RB 120KHz for QP

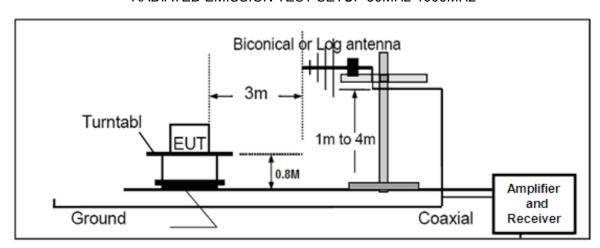
Page 13 of 51

8.3. TEST SETUP

Radiated Emission Test-Setup Frequency Below 30MHz

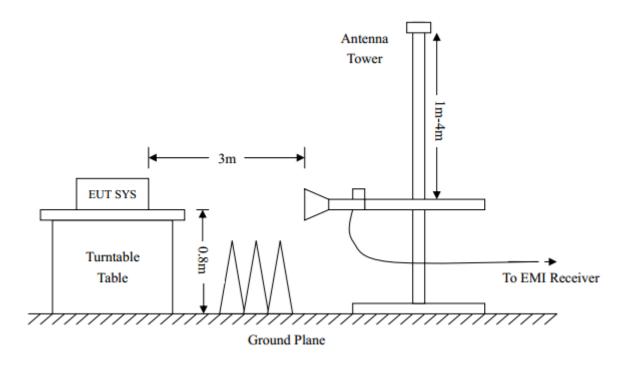


RADIATED EMISSION TEST SETUP 30MHz-1000MHz



Page 14 of 51

RADIATED EMISSION TEST SETUP ABOVE 1000MHz



Page 15 of 51

8.4. TEST RESULT

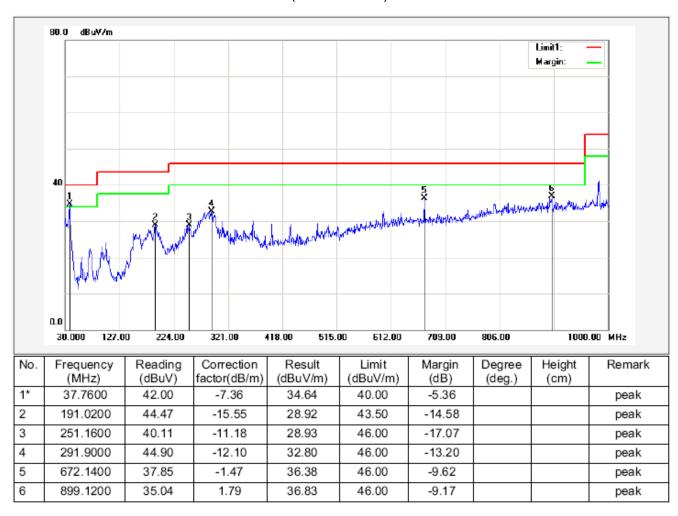
(Modulation:GFSK)

RADIATED EMISSION BELOW 30MHZ

No emission found between lowest internal used/generated frequencies to 30MHz.

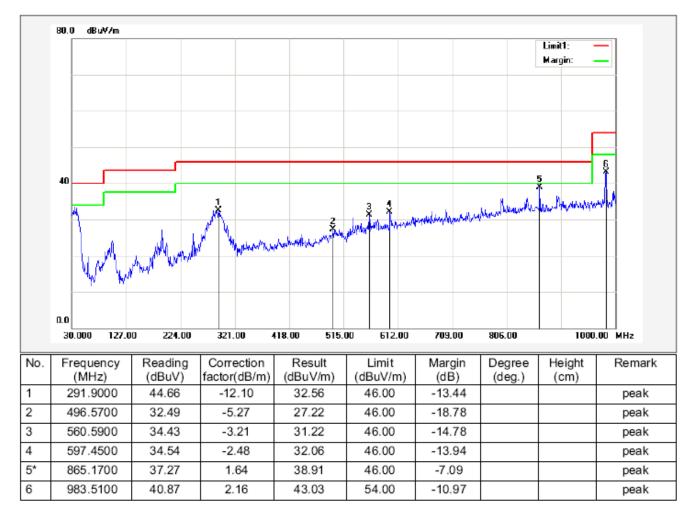
RADIATED EMISSION BELOW 1GHZ

RADIATED EMISSION TEST- (30MHZ-1GHZ)-LOW CHANNEL-HORIZONTAL



Page 16 of 51

RADIATED EMISSION TEST- (30MHZ-1GHZ)-LOW CHANNEL -VERTICAL



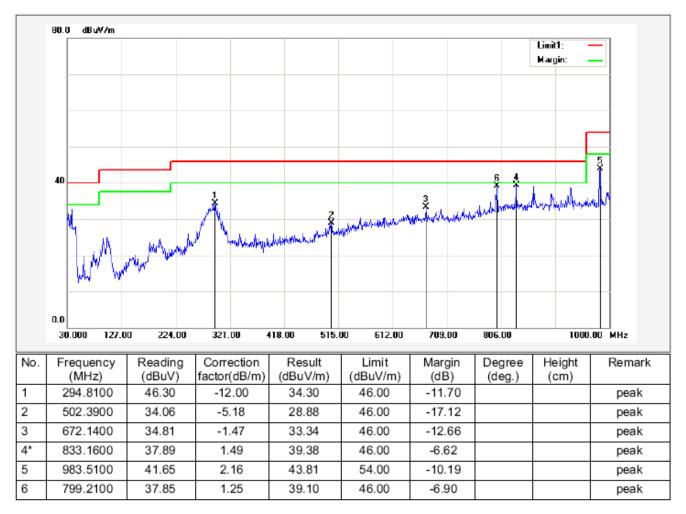
RESULT: PASS

Note: 1. Factor=Antenna Factor + Cable loss, Margin=Measurement-Limit.

2. The "Factor" value can be calculated automatically by software of measurement system.

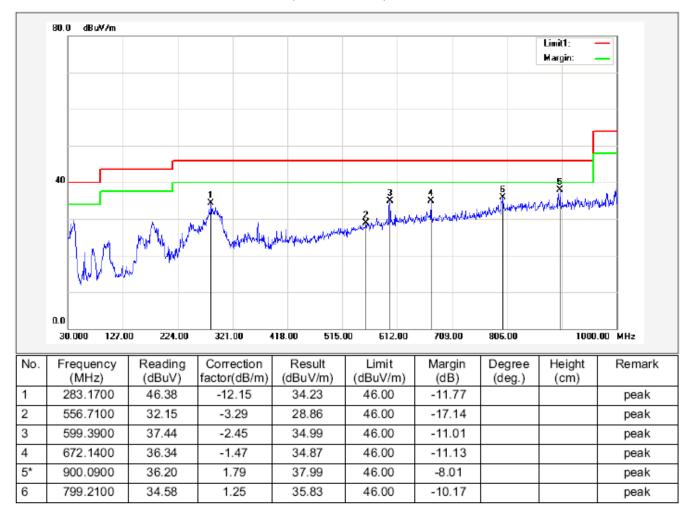
Page 17 of 51

RADIATED EMISSION TEST- (30MHZ-1GHZ)-MIDDLE CHANNEL-HORIZONTAL



Page 18 of 51

RADIATED EMISSION TEST- (30MHZ-1GHZ)- MIDDLE CHANNEL -VERTICAL



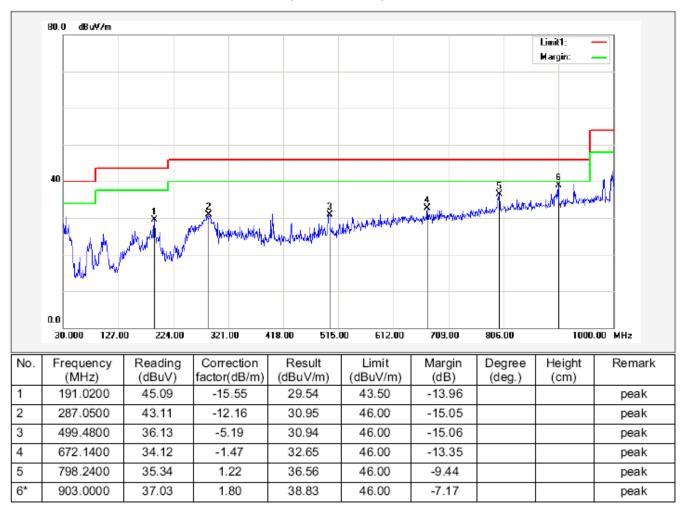
RESULT: PASS

Note: 1. Factor=Antenna Factor + Cable loss, Margin=Measurement-Limit.

2. The "Factor" value can be calculated automatically by software of measurement system.

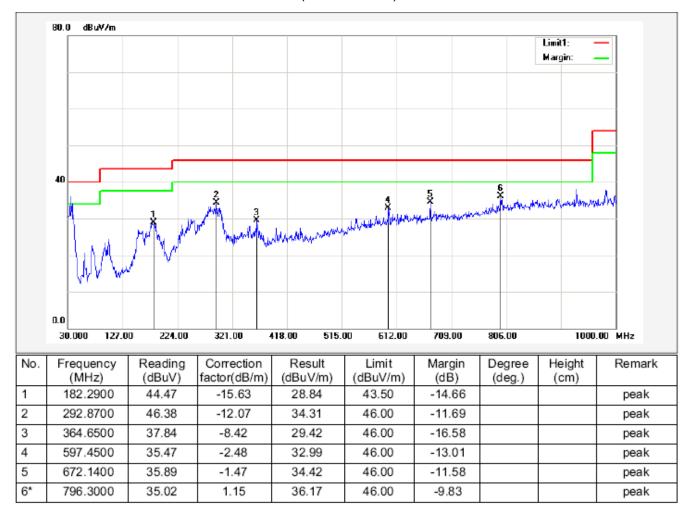
Page 19 of 51

RADIATED EMISSION TEST- (30MHZ-1GHZ)-HIGH CHANNEL-HORIZONTAL



Page 20 of 51

RADIATED EMISSION TEST- (30MHZ-1GHZ)-HIGH CHANNEL -VERTICAL



RESULT: PASS

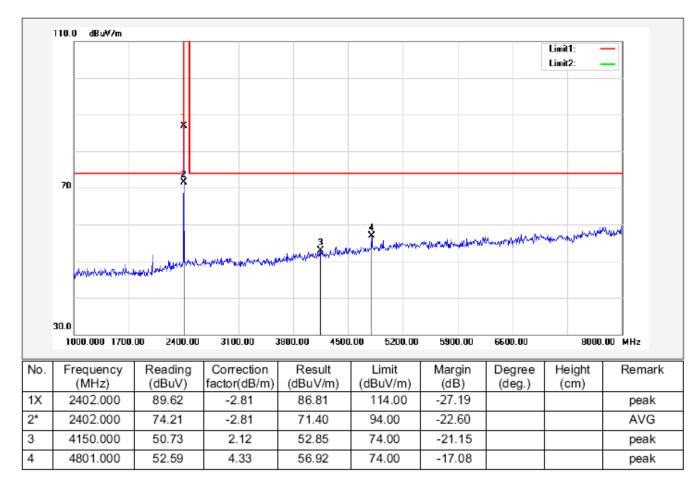
Note: 1. Factor=Antenna Factor + Cable loss, Margin=Measurement-Limit.

2. The "Factor" value can be calculated automatically by software of measurement system.

Page 21 of 51

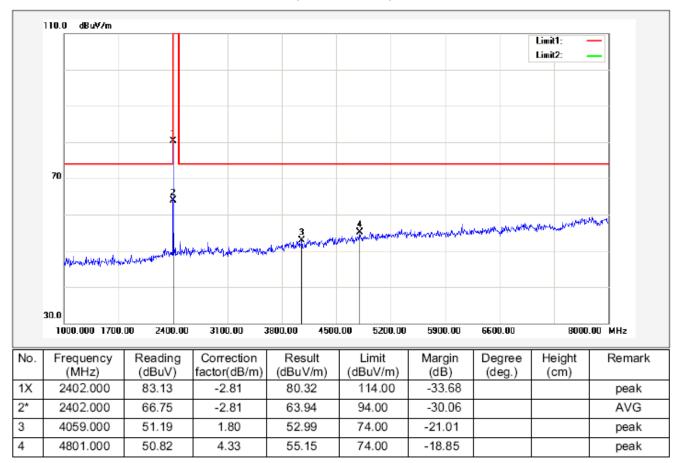
RADIATED EMISSION ABOVE 1GHZ

RADIATED EMISSION TEST- (ABOVE 1GHZ)-LOW CHANNEL-HORIZONTAL



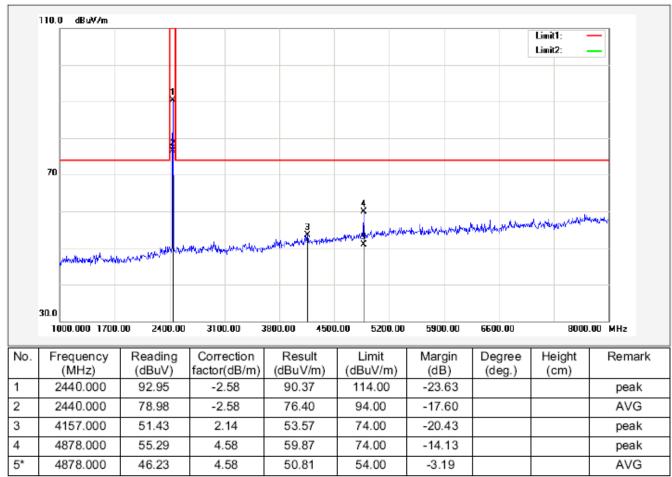
Page 22 of 51

RADIATED EMISSION TEST- (ABOVE 1GHZ)-LOW CHANNEL- VERTICAL



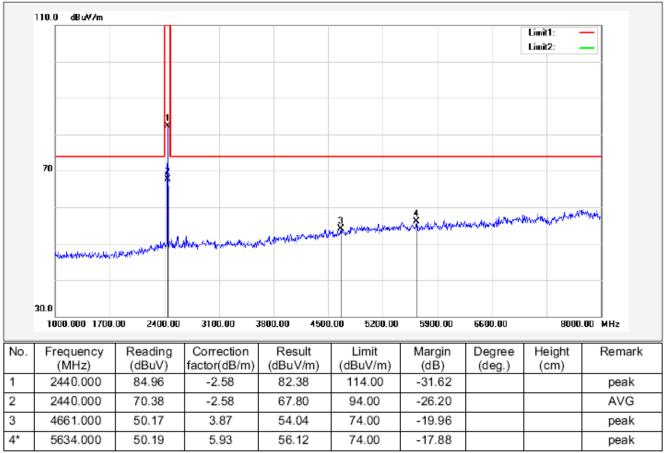
Page 23 of 51

RADIATED EMISSION TEST- (ABOVE 1GHZ)-MIDDLE CHANNEL-HORIZONTAL



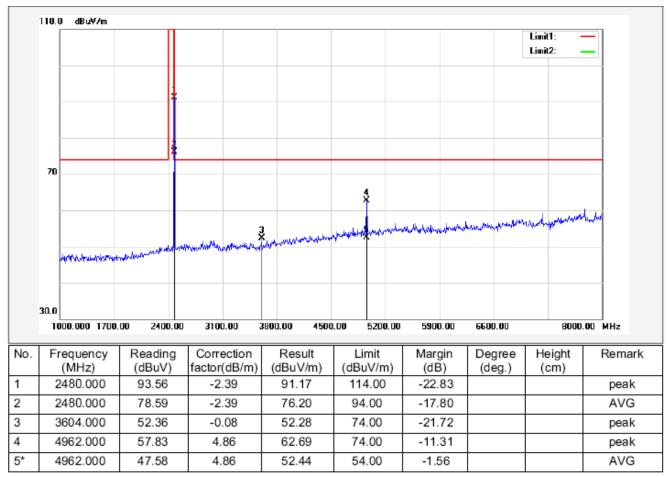
Page 24 of 51

RADIATED EMISSION TEST- (ABOVE 1GHZ)-MIDDLE CHANNEL- VERTICAL



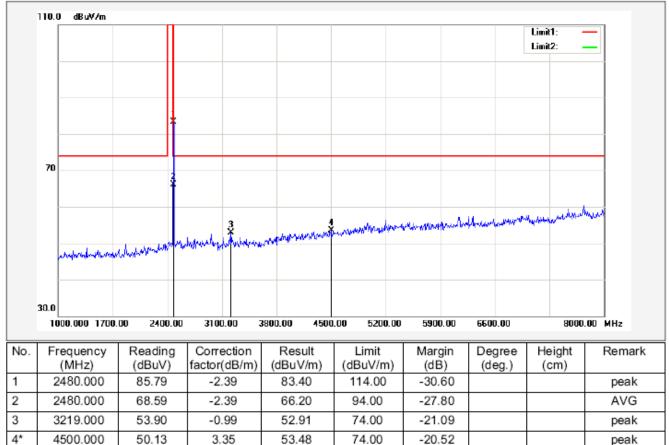
Page 25 of 51

RADIATED EMISSION TEST- (ABOVE 1GHZ)-HIGH CHANNEL-HORIZONTAL



Page 26 of 51

RADIATED EMISSION TEST- (ABOVE 1GHZ)-HIGH CHANNEL- VERTICAL



RESULT: PASS

Note: 8~25GHz at least have 20dB margin. No recording in the test report.

Factor=Antenna Factor + Cable loss - Amplifier gain, Margin=Measurement-Limit.

The "Factor" value can be calculated automatically by software of measurement system.

Page 27 of 51

Field strength of the fundamental signal

Peak value

Frequency	Reading Level	Factor	Measurement	Limit	Over	Antenna
(MHz)	(dBuv)	(dB/m)	(dBuv/m)	(dBuv/m)	(dB)	Polarization
2402	89.62	-2.81	86.81	114	-27.19	Horizontal
2402	83.13	-2.81	80.32	114	-33.68	Vertical
2440	92.95	-2.58	90.37	114	-23.63	Horizontal
2440	84.96	-2.58	82.38	114	-31.62	Vertical
2480	93.56	-2.39	91.17	114	-22.83	Horizontal
2480	85.79	-2.39	83.40	114	-30.60	Vertical

Average value

Frequency	Reading Level	Factor	Measurement	Limit	Over	Antenna
(MHz)	(dBuv)	(dB/m)	(dBuv/m)	(dBuv/m)	(dB)	Polarization
2402	74.21	-2.81	71.40	94	-22.60	Horizontal
2402	66.75	-2.81	63.94	94	-30.06	Vertical
2440	78.98	-2.58	76.40	94	-17.60	Horizontal
2440	70.38	-2.58	67.80	94	-26.20	Vertical
2480	78.59	-2.39	76.20	94	-17.80	Horizontal
2480	68.59	-2.39	66.20	94	-27.80	Vertical

Page 28 of 51

9. BAND EDGE EMISSION

9.1. MEASUREMENT PROCEDURE

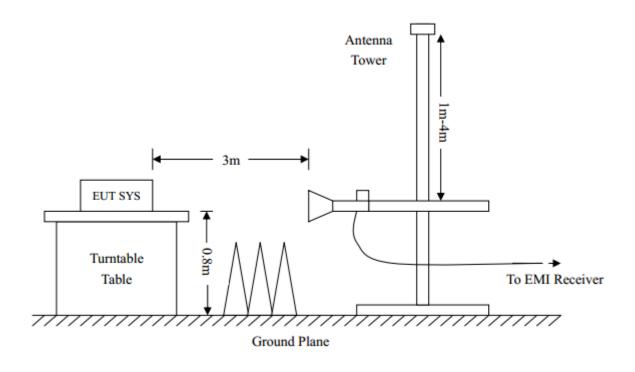
1The EUT operates at hopping-off test mode. The lowest or highest channels are tested to verify the largest transmission and spurious emissions power at the continuous transmission mode.

2Max hold the trace of the setp 1,and the EUT operates at hopping-on test mode to verify the largest spurious emissions power.

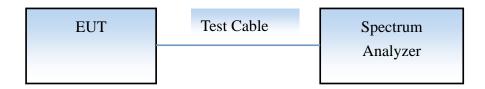
3Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission: (a) PEAK: RBW=VBW=1.5MHz / Sweep=AUTO

9.2 TEST SETUP

RADIATED EMISSION TEST SETUP



CONDUCTED TEST SETUP

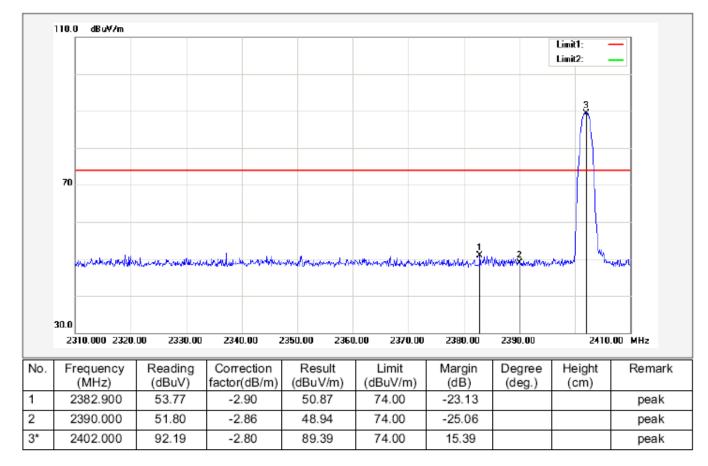


Page 29 of 51

9.3 RADIATED TEST RESULT

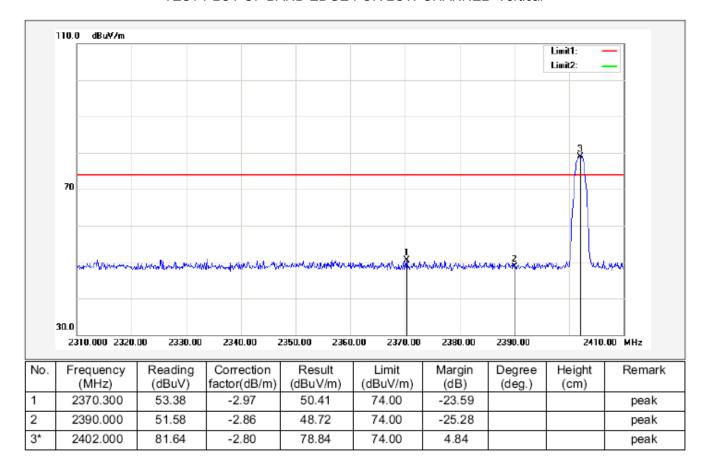
(Modulation:GFSK)

TEST PLOT OF BAND EDGE FOR LOW CHANNEL-Horizontal



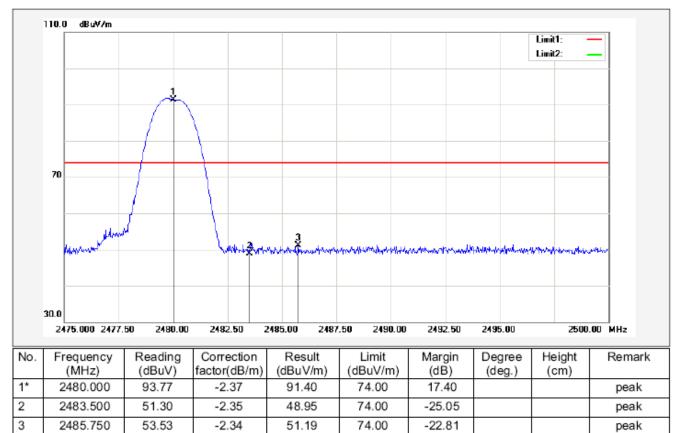
Page 30 of 51

TEST PLOT OF BAND EDGE FOR LOW CHANNEL -Vertical



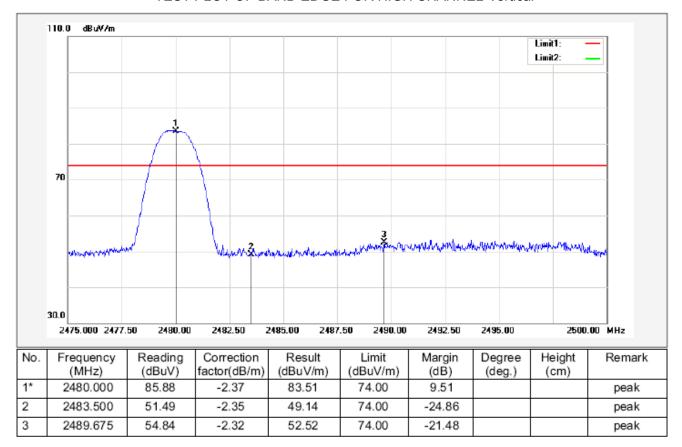
Page 31 of 51

TEST PLOT OF BAND EDGE FOR HIGH CHANNEL -Horizontal



Page 32 of 51

TEST PLOT OF BAND EDGE FOR HIGH CHANNEL-Vertical



RESULT: PASS

Note: The other modes radiation emission have enough 20dB margin.

Factor=Antenna Factor + Cable loss - Amplifier gain, Over=Measure-Limit.

The "Factor" value can be calculated automatically by software of measurement system.

Page 33 of 51

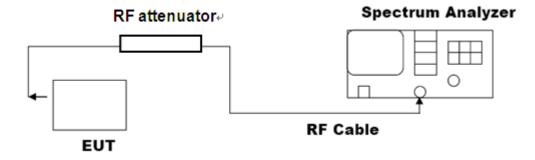
10 20DB BANDWIDTH

10.1. MEASUREMENT PROCEDURE

- 1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- 2, Set the EUT Work on the top, the middle and the bottom operation frequency individually.
- 3. Set Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hoping channel RBW ≥ 1% of the 20 dB bandwidth, VBW ≥ RBW; Sweep = auto; Detector function = peak
- 4. Set SPA Trace 1 Max hold, then View.

10.2. TEST SET-UP

(BLOCK DIAGRAM OF CONFIGURATION)

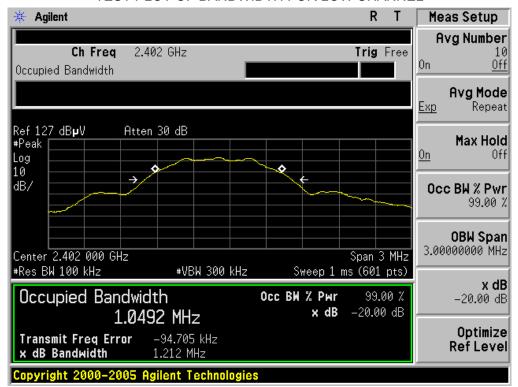


10.3. LIMITS AND MEASUREMENT RESULTS

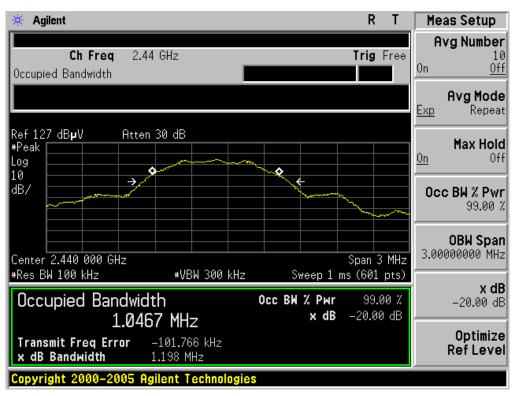
BLUETOOTH 1MBPS LIMITS AND MEASUREMENT RESUL					
Annliaghla Limita	Measurement Result				
Applicable Limits	Test Data (MHz)		Criteria		
	Low Channel	1.212	PASS		
N/A	Middle Channel	1.198	PASS		
	High Channel	1.204	PASS		

Page 34 of 51

TEST PLOT OF BANDWIDTH FOR LOW CHANNEL

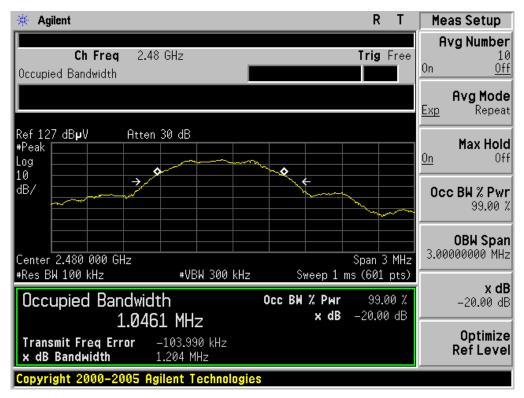


TEST PLOT OF BANDWIDTH FOR MIDDLE CHANNEL



Page 35 of 51

TEST PLOT OF BANDWIDTH FOR HIGH CHANNEL



Page 36 of 51

11. FCC LINE CONDUCTED EMISSION TEST

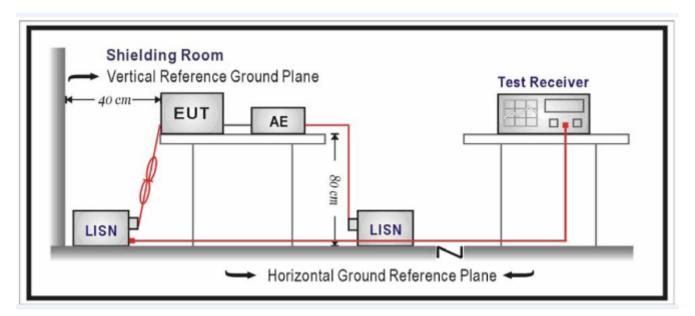
11.1. LIMITS OF LINE CONDUCTED EMISSION TEST

Francisco	Maximum RF Line Voltage		
Frequency	Q.P.(dBuV)	Average(dBuV)	
150kHz~500kHz	66-56	56-46	
500kHz~5MHz	56	46	
5MHz~30MHz	60	50	

Note:

- 1. The lower limit shall apply at the transition frequency.
- 2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

11.2. BLOCK DIAGRAM OF LINE CONDUCTED EMISSION TEST



Page 37 of 51

11.3. PRELIMINARY PROCEDURE OF LINE CONDUCTED EMISSION TEST

1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When 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 C63.4 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.

- 2. Support equipment, if needed, was placed as per ANSI C63.4.
- 3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.
- 4. All support equipments received AC120V/60Hz power from a LISN, if any.
- 5. The EUT received 120V/60Hzpower by a LISN.
- 6. The 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.
- 8. During the above scans, the emissions were maximized by cable manipulation.
- 9. The test mode(s) were scanned during the preliminary test.

Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

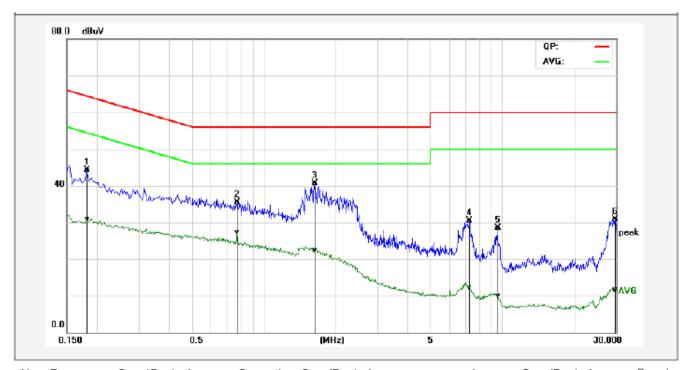
11.4. FINAL PROCEDURE OF LINE CONDUCTED EMISSION TEST

- EUT and support equipment was set up on the test bench as per step 2 of the preliminary test.
- 2. A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less –2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.
- 3. The test data of the worst case condition(s) was reported on the Summary Data page.

Page 38 of 51

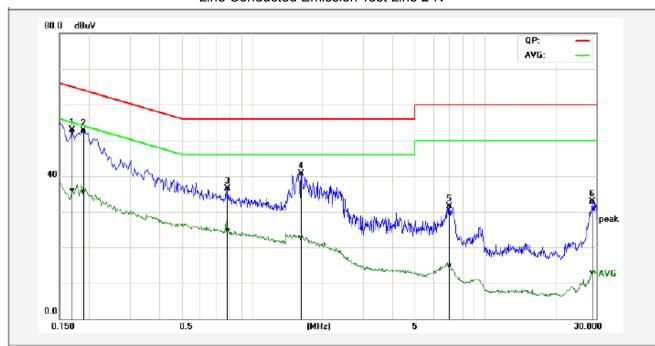
11.5. TEST RESULT OF LINE CONDUCTED EMISSION TEST

Line Conducted Emission Test Line 1-L



No.	Frequency	QuasiPeak	Average	Correction	QuasiPeak	Average	QuasiPeak	Average	QuasiPeak	Average	Remark
		reading	reading	factor	result	result	limit	limit	margin	margin	
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1P	0.1819	34.58	21.21	9.65	44.23	30.86	64.39	54.40	-20.16	-23.54	Pass
2P	0.7780	25.79	17.52	9.77	35.56	27.29	56.00	46.00	-20.44	-18.71	Pass
3*	1.6420	31.07	12.82	9.72	40.79	22.54	56.00	46.00	-15.21	-23.46	Pass
4P	7.2980	20.77	2.49	9.79	30.56	12.28	60.00	50.00	-29.44	-37.72	Pass
5P	9.5700	18.66	0.00	9.86	28.52	9.86	60.00	50.00	-31.48	-40.14	Pass
6P	29.6860	20.93	1.63	9.99	30.92	11.62	60.00	50.00	-29.08	-38.38	Pass

Line Conducted Emission Test Line 2-N



No.	Frequency	QuasiPeak	Average	Correction	QuasiPeak	Average	QuasiPeak	Average	QuasiPeak	Average	Remark
		reading	reading	factor	result	result	limit	limit	margin	margin	
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)	
1P	0.1700	43.02	26.22	9.78	52.80	36.00	64.96	54.96	-12.16	-18.96	Pass
	0.1900	43.01	25.70	9.79	52.80	35.49	64.03	54.04	-11.23	-18.55	Pass
ЗP	0.7860	26.81	15.04	9.73	36.54	24.77	56.00	46.00	-19.46	-21.23	Pass
4P	1.6340	30.89	12.94	9.76	40.65	22.70	56.00	46.00	-15.35	-23.30	Pass
5P	7.0340	21.67	5.15	9.78	31.45	14.93	60.00	50.00	-28.55	-35.07	Pass
6P	28.7780	23.05	2.93	9.88	32.93	12.81	60.00	50.00	-27.07	-37.19	Pass

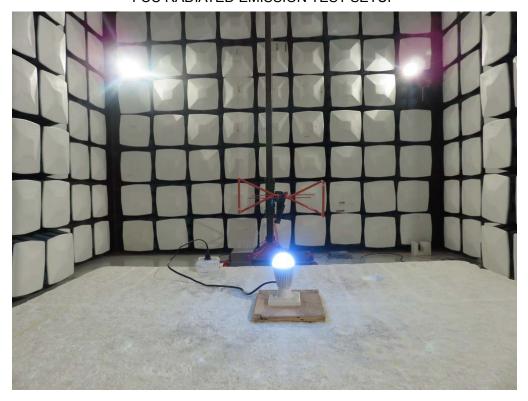
Page 40 of 51

APPENDIX A: PHOTOGRAPHS OF TEST SETUP

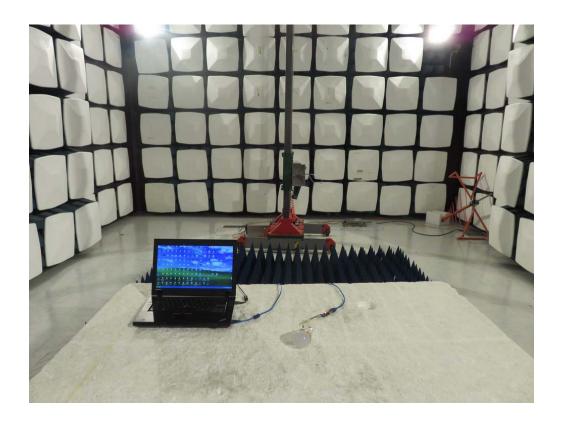
FCC LINE CONDUCTED EMISSION TEST SETUP



FCC RADIATED EMISSION TEST SETUP



Report No.: AGC01629150801FE03 Page 41 of 51



Page 42 of 51

APPENDIX B: PHOTOGRAPHS OF EUT

Test Model

TOP VIEW OF EUT



BOTTOM VIEW OF EUT



Page 43 of 51

FRONT VIEW OF EUT



BACK VIEW OF EUT



Page 44 of 51

LEFT VIEW OF EUT

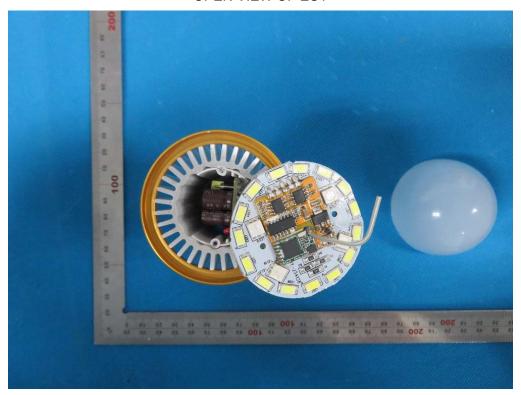


RIGHT VIEW OF EUT

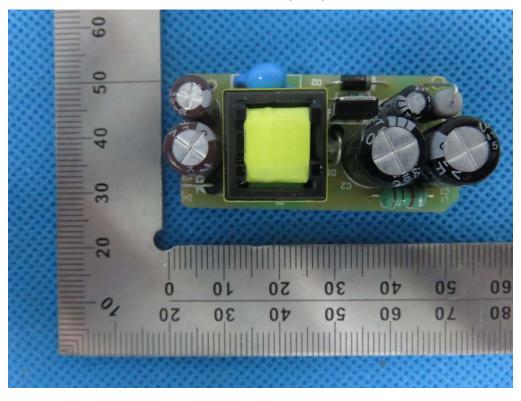


Page 45 of 51

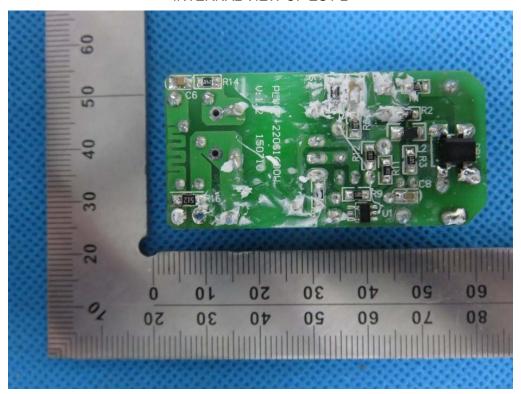
OPEN VIEW OF EUT



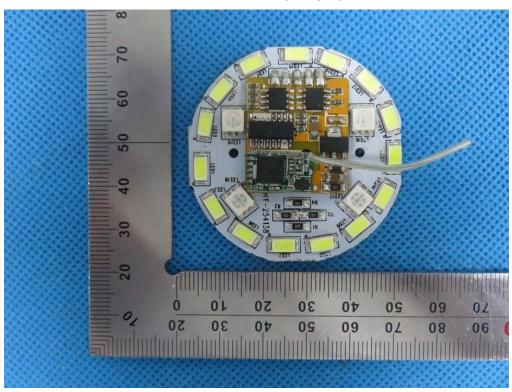
INTERNAL VIEW OF EUT-1



INTERNAL VIEW OF EUT-2

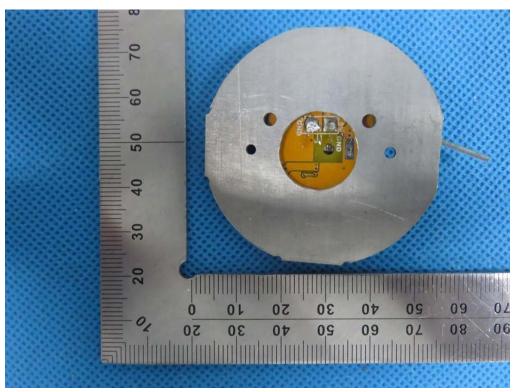


INTERNAL VIEW OF EUT-3

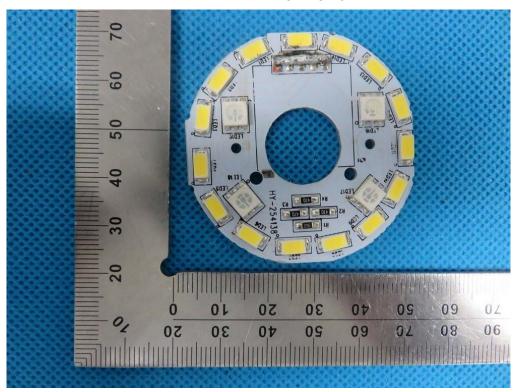


Page 47 of 51

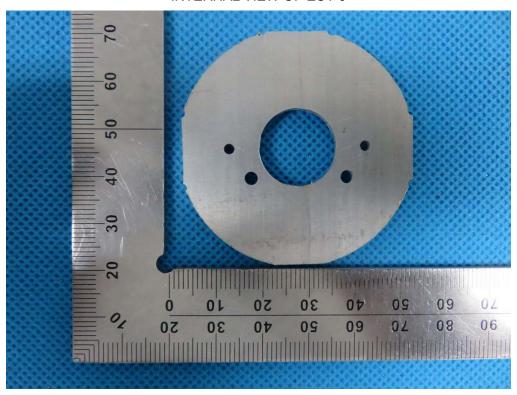
INTERNAL VIEW OF EUT-4



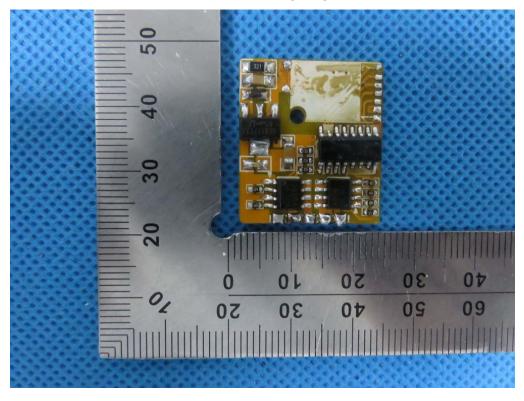
INTERNAL VIEW OF EUT-5



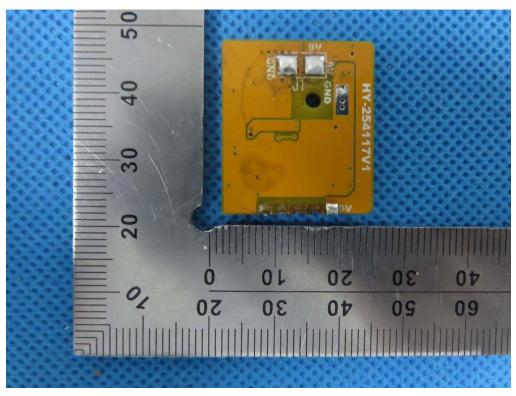
INTERNAL VIEW OF EUT-6



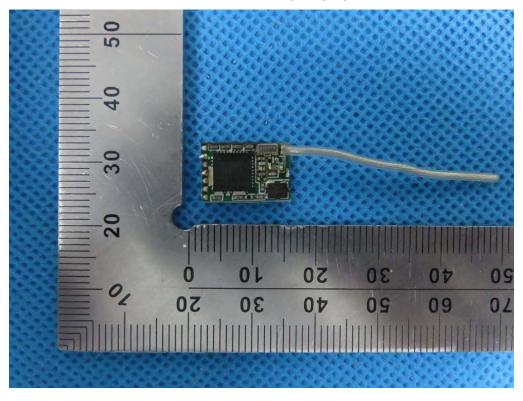
INTERNAL VIEW OF EUT-7



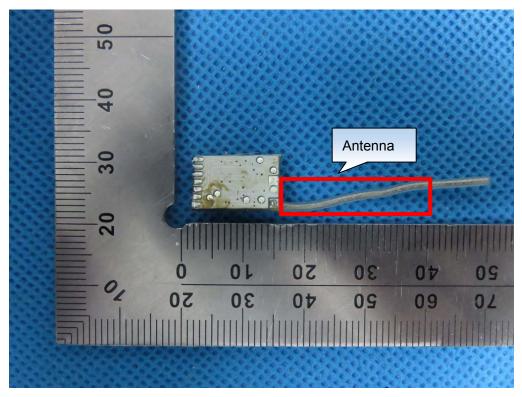
INTERNAL VIEW OF EUT-8



INTERNAL VIEW OF EUT-9

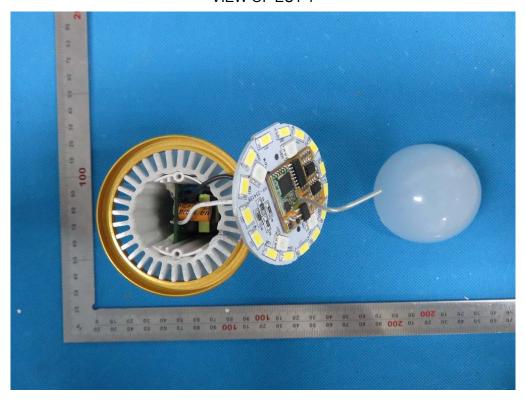


INTERNAL VIEW OF EUT-10

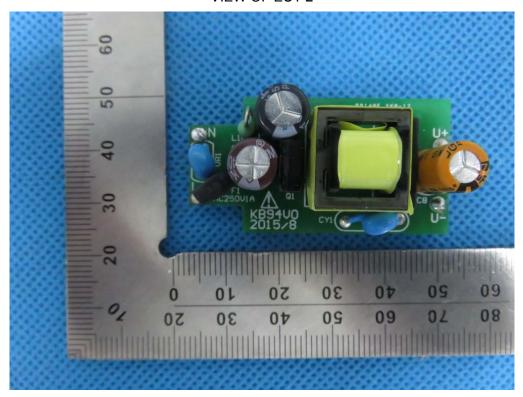


Series Model (Different Part)

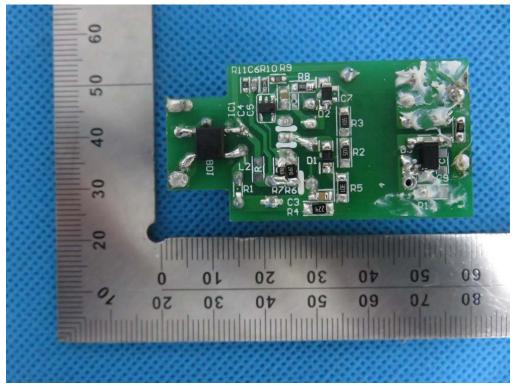
VIEW OF EUT-1



VIEW OF EUT-2



VIEW OF EUT-3



----END OF REPORT----