FCC RADIO TEST REPORT

FCC ID	:	Q87-EA8300
Equipment	:	Linksys Tri-Band Wireless-AC Router
Brand Name	:	Linksys
Model Name	:	EA8300, EA8250, MR8300, MR8250
Applicant	:	Linksys LLC 121 Theory, Irvine CA 92617, United States
Standard	:	47 CFR FCC Part 15 Subpart C § 15.249

The product was received on Jul. 27, 2018, and testing was started from Jul. 31, 2018 and completed on Aug. 28, 2018. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 , 47 CFR FCC Part 15 Subpart C and shown compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this variant report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Approved by: Sam Chen

SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory
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Table of Contents

History of this test report

Report No.	Version	Description	Issued Date
FR710901-03AC	01	Initial issue of report	Aug. 31, 2018

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
2.1	15.207	AC Power Line Conducted Emissions	PASS	-
2.2	15.249(a)/(d)	Radiated Emissions	PASS	-
2.3	15.203	Antenna Requirements	PASS	-

Reviewed by: Sam Chen

Report Producer: Sandy Chuang

1. General Information

1.1. Product Details

Items	Description
Power Type	From power adapter
Modulation	FHSS (GFSK / π/4-DQPSK / 8DPSK)
Data Rate (Mbps)	GFSK: 1 ; π/4-DQPSK: 2 ; 8DPSK: 3
Frequency Range	2402 ~ 2480MHz
Channel Number	79
Carrier Frequencies	Please refer to section 1.6
Antenna	Please refer to section 1.3

1.2. Accessories

Power	Brand	Model	Rating
Adapter 1	LEI	MU24-Y120200-A1	Input: 100-240V~50/60Hz, 0.7A Output: 12V, 2.0A
Adapter 2	DVE	DSA-24PFM-12 FUS 120200	Input: 100-240V~50/60Hz, 0.8A Output: +12V, 2A
Adapter 3	DVE	DSA-24PFM-12 FCA 120200	Input: 100-240V, 50/60Hz, 0.8A Output: 12V, 2A
Adapter 4	Ktec	KSA-24W-120200HU	Input: 100-240V~50/60Hz, 0.6A Output: 12V, 2.0A
Others			
Plug*1 (for adapter 3 use only)			
RJ-45 Cable*1: Non-Shielded, 0.9m			

1.3. Table for Filed Antenna

Ant.	Brand	P/N	Type	Connector	Gain (dBi)	
					2.4GHz	5GHz Band 3, 4
1	ARISTOTLE	RFA-52-F90S-240-165	Dipole	I-PEX	2.70	3.14
2	ARISTOTLE	RFA-52-F90-195-105	Dipole	I-PEX	2.06	3.47
Ant.	**Brand**	**P/N**	**Type**	**Connector**	**5GHz Band 1, 2**	
3	ARISTOTLE	RFA-05-F90-120	Dipole	I-PEX	3.59	
4	ARISTOTLE	RFA-05-F90S-165	Dipole	I-PEX	3.49	
Ant.	**Brand**	**P/N**	**Type**	**Connector**	**Bluetooth**	
5	PSA	RFMTA271200NNAB003	PIFA	N/A	2.54	

Note: The EUT has five antennas.

For WLAN 2.4GHz (2TX/2RX):

Ant. 1 (Port 1) and Ant. 2 (Port 2) could transmit/receive simultaneously.

For WLAN 5GHz (2TX/2RX):

For 5GHz Band 3, 4: Ant. 1 (Port 1) and Ant. 2 (Port 2) could transmit/receive simultaneously.

For 5GHz Band 1, 2: Ant. 3 (Port 1) and Ant. 4 (Port 2) could transmit/receive simultaneously.

For Bluetooth (1TX/1RX):

Only Ant. 5 (Port 1) can be used as transmitting/receiving antenna.

1.4. Table for Multiple Listing

The EUT has four model names which are identical to each other in all aspects except for the following table:

EUT	Model name	Support 256QAM	Software Versions	Equip Adapter	LED design	Support Function	Description
1	EA8300	Yes	1.1.1.179884	Adapter 1~4	Please refer to the Photographs of EUT	AP, Bridge	All models are identical except for the EA8300 supports 256QAM and the EA8250 disable 256QAM.
2	EA8250	No			Same as EUT 1	AP, Bridge	
3	MR8300	Yes	1.1.1.189701	Adapter 1~4	Please refer to the Photographs of EUT	AP	All models are identical; different models serve as marketing strategy.
4	MR8250				Same as EUT 3	AP	

From the above models, model: EA8300 (EUT 1) and MR8300 (EUT 3) were selected as representative model for the test and its data was recorded in this report.

1.5. Table for Class II Change

This product is an extension of original one reported under Sporton project number: FR710901AC

Below is the table for the change of the product with respect to the original one.

Modifications	Performance Checking
1. Change the software version to "1.1.1.189701" for the two new model names: MR8300 and MR8250. 2. Removing the bridge Mode for the two new model names: MR8300 and MR8250.	Do not effect the test results.
3. Adding a new adapter 4 (Model: KSA-24W-120200HU). 4. Change the LED design for the two new model names: MR8300 and MR8250. 5. Adding two model names: MR8300 and MR8250. The difference between old and new model names, please refer to section 1.4 Table for Multiple Listing.	1. Conducted Emissions 2. Radiated Emissions Measurement (Below 1GHz)

1.6. Table for Carrier Frequencies

Frequency Band	Channel No.	Frequency	Channel No.	Frequency
2400~2483.5MHz	0	2402 MHz	39	2441 MHz
	1	2403 MHz	40	2442 MHz
	:	:	:	:
	37	2439 MHz	77	2479 MHz
	38	2440 MHz	78	2480 MHz

1.7. Table for Test Modes

The following table is a list of the test modes shown in this test report.

Test Items	Mode	Data Rate	Channel	Antenna
AC Power Line Conducted Emissions	Normal Link	-	-	-
Radiated Emissions 30MHz ~ 1GHz	Normal Link	-	-	-

The following test modes were performed for all tests:

AC Power Line Conducted Emissions	
Test Mode	Description
1	EUT 1 with Adapter 4
2	EUT 3 with Adapter 1
3	EUT 3 with Adapter 2
4	EUT 3 with Adapter 3
5	EUT 3 with Adapter 4
Mode 2 generated the worst test result, so it was recorded in this report.	

Radiated Emissions 30MHz ~ 1GHz	
Test Mode	Description
1	Place EUT 1 in Z axis with Adapter 4
2	Place EUT 1 in Y axis with Adapter 4
Mode 1 has been evaluated to be the worst case among Mode 1~2, thus measurement for Mode 3~6 will follow this same test mode.	
3	Place EUT 3 in Z axis with Adapter 1
4	Place EUT 3 in Z axis with Adapter 2
5	Place EUT 3 in Z axis with Adapter 3
6	Place EUT 3 in Z axis with Adapter 4
Mode 1 generated the worst test result, so it was recorded in this report.	

Note: The customer designated the AP mode to perform all test and its test result was written in the report.

1.8. Table for Testing Locations

Test Site Location					
Address:	No.8, Lane 724, Bo-ai St., Jhubei City, Hsinchu County 302, Taiwan, R.O.C.				
TEL:	886-3-656-9065				
FAX:	886-3-656-9085				
Test Site No.	**Site Category**	**Location**	**FCC Designation No.**	**IC File No.**	**VCCI Reg. No**
03CH01-CB	SAC	Hsin Chu	TW0006	IC 4086D	-
CO01-CB	Conduction	Hsin Chu	TW0006	IC 4086D	-

Open Area Test Site (OATS); Semi Anechoic Chamber (SAC); Fully Anechoic Chamber (FAC).

1.9. Table for Supporting Units

For Test Site No: CO01-CB

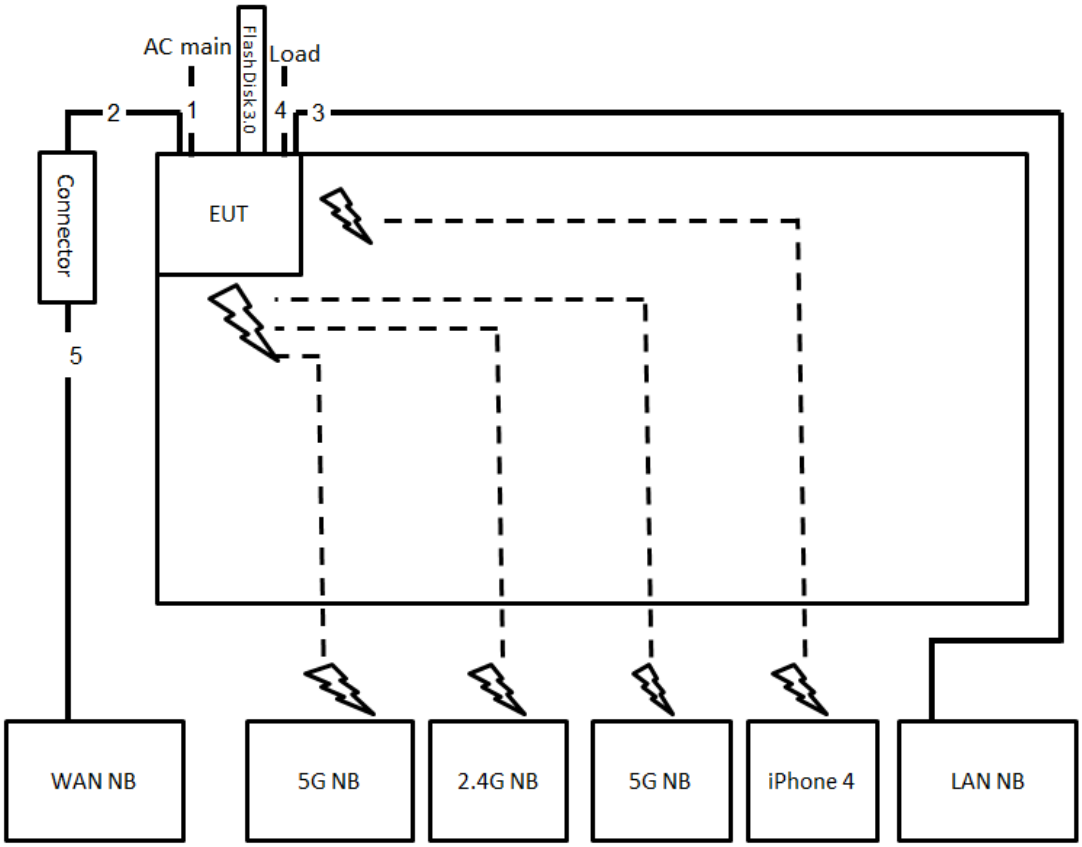
Support Unit	Brand	Model	FCC ID
NB*5	DELL	E6430	N/A
iPhone 4	Apple	A1332	N/A
Flash disk3.0	Transcend	JetFlash-700	N/A

For Test Site No: 03CH01-CB

Support Unit	Brand	Model	FCC ID
NB*2	DELL	E4300	N/A
NB*3	Apple	Mac Book	N/A
iPad	Apple	A1430	N/A
Flash disk3.0	Transcend	JetFlash-700	N/A

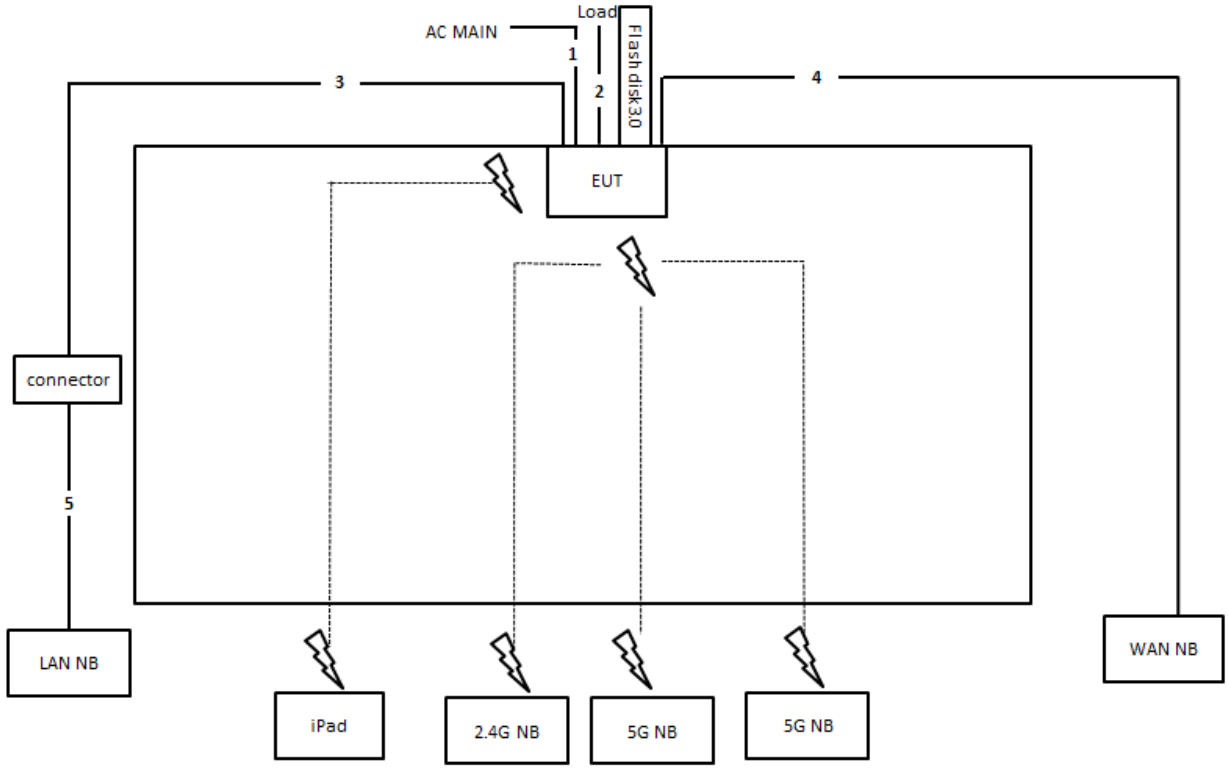
1.10. Test Configurations

1.10.1. AC Power Line Conduction Emissions Test Configuration



Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-45 cable	No	0.9m
3	RJ-45 cable	No	10m
4	RJ-45 cable*3	No	1.5m
5	RJ-45 cable	No	10m

1.10.2. Radiation Emissions Test Configuration



Item	Connection	Shielded	Length
1	Power cable	No	1.5m
2	RJ-45 cable*3	No	1.5m
3	RJ-45 cable	No	0.9m
4	RJ-45 cable	No	10m
5	RJ-45 cable	No	10m

2. Test Result

2.1. AC Power Line Conducted Emissions Measurement

2.1.1. Limit

For this product which is designed to be connected to the AC power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed below limits table.

Frequency (MHz)	QP Limit (dBuV)	AV Limit (dBuV)
0.15~0.5	66~56	56~46
0.5~5	56	46
5~30	60	50

2.1.2. Measuring Instruments and Setting

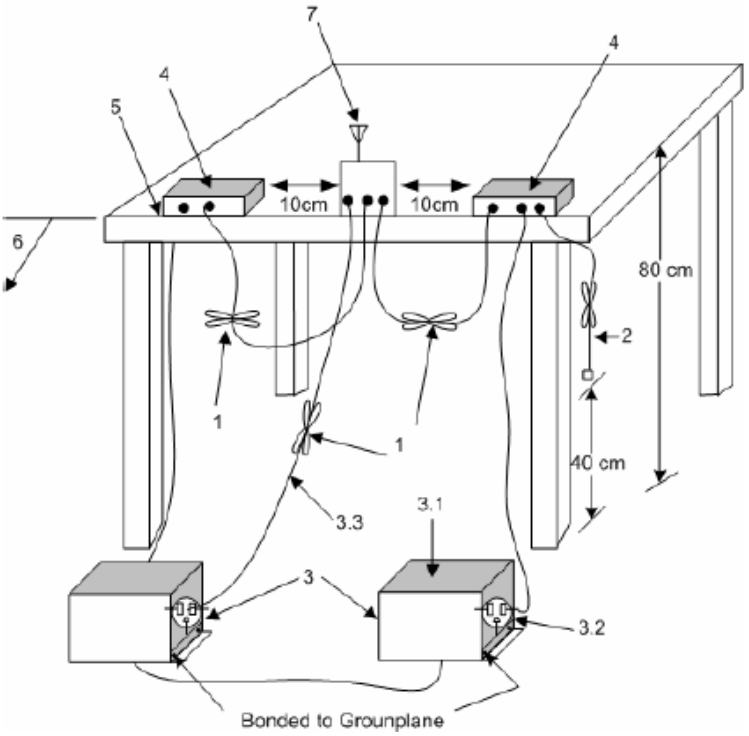
Refer a test equipment and calibration data table in this test report. The following table is the setting of the receiver.

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

2.1.3. Test Procedures

1. Configure the EUT according to ANSI C63.10. The EUT or host of EUT has to be placed 0.4 meter far from the conducting wall of the shielding room and at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT or host of EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connected to the other LISNs. The LISN should provide 50uH/50ohms coupling impedance.
4. The frequency range from 150 kHz to 30 MHz was searched.
5. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. The measurement has to be done between each power line and ground at the power terminal.

2.1.4. Test Setup Layout



1—Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 cm to 40 cm long.
2—The I/O cables that are not connected to an accessory shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
3—EUT connected to one LISN. Unused LISN measuring port connectors shall be terminated in 50 Ω loads. LISN may be placed on top of, or immediately beneath, reference ground plane.
3.1—All other equipment powered from additional LISN(s).
3.2—A multiple-outlet strip may be used for multiple power cords of non-EUT equipment.
3.3—LISN at least 80 cm from nearest part of EUT chassis.
4—Non-EUT components of EUT system being tested.
5—Rear of EUT, including peripherals, shall all be aligned and flush with edge of tabletop.
6—Edge of tabletop shall be 40 cm removed from a vertical conducting plane that is bonded to the ground plane.
7—Antenna can be integral or detachable. If detachable, then the antenna shall be attached for this test.

2.1.5. Test Deviation

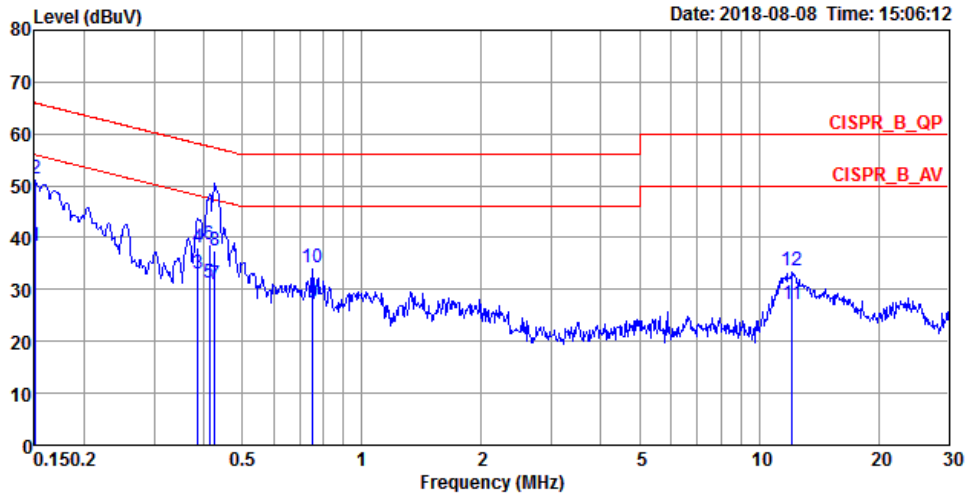
There is no deviation with the original standard.

2.1.6. EUT Operation during Test

The EUT was placed on the test table and programmed in normal function.

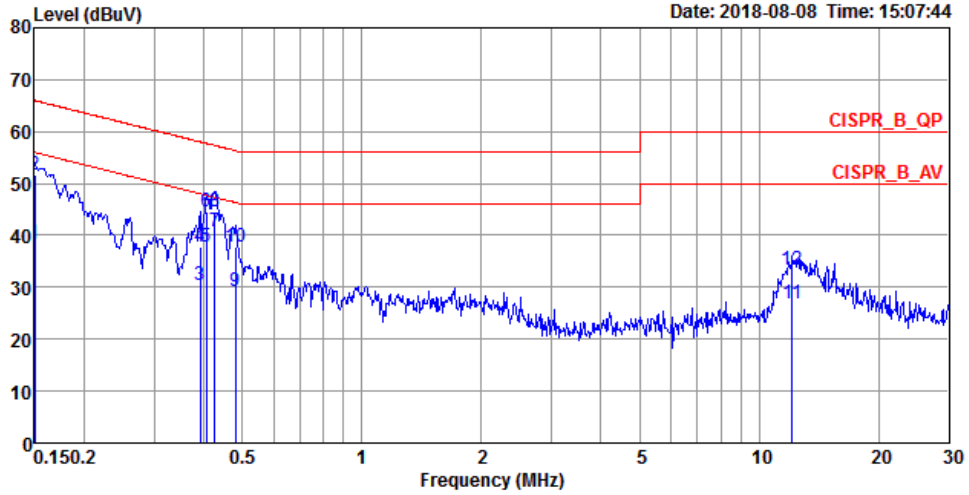
2.1.7. Results of AC Power Line Conducted Emissions Measurement

Temperature	23℃	Humidity	60%
Test Engineer	Deven Huang	Phase	Line
Test Mode	Mode 2		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark	Pol/Phase
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.1508	38.40	-17.56	55.96	28.33	9.91	0.16	Average	LINE
2	0.1508	51.45	-14.51	65.96	41.38	9.91	0.16	QP	LINE
3	0.3872	33.12	-15.00	48.12	23.09	9.91	0.12	Average	LINE
4	0.3872	38.14	-19.98	58.12	28.11	9.91	0.12	QP	LINE
5	0.4127	31.16	-16.43	47.59	21.13	9.91	0.12	Average	LINE
6	0.4127	38.74	-18.85	57.59	28.71	9.91	0.12	QP	LINE
7	0.4260	31.01	-16.32	47.33	20.97	9.91	0.13	Average	LINE
8	0.4260	37.41	-19.92	57.33	27.37	9.91	0.13	QP	LINE
9	0.7509	27.43	-18.57	46.00	17.34	9.92	0.17	Average	LINE
10	0.7509	34.18	-21.82	56.00	24.09	9.92	0.17	QP	LINE
11	12.1240	27.16	-22.84	50.00	16.78	10.20	0.18	Average	LINE
12	12.1240	33.53	-26.47	60.00	23.15	10.20	0.18	QP	LINE

Temperature	23℃	Humidity	60%
Test Engineer	Deven Huang	Phase	Neutral
Test Mode	Mode 2		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Remark	Pol/Phase
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.1500	38.26	-17.74	56.00	28.18	9.92	0.16	Average	NEUTRAL
2	0.1500	51.51	-14.49	66.00	41.43	9.92	0.16	QP	NEUTRAL
3	0.3914	30.52	-17.51	48.03	20.48	9.92	0.12	Average	NEUTRAL
4	0.3914	37.66	-20.37	58.03	27.62	9.92	0.12	QP	NEUTRAL
5	0.4061	37.90	-9.83	47.73	27.86	9.92	0.12	Average	NEUTRAL
6	0.4061	44.58	-13.15	57.73	34.54	9.92	0.12	QP	NEUTRAL
7	0.4260	40.70	-6.63	47.33	30.65	9.92	0.13	Average	NEUTRAL
8	0.4260	44.60	-12.73	57.33	34.55	9.92	0.13	QP	NEUTRAL
9	0.4812	29.33	-16.99	46.32	19.27	9.92	0.14	Average	NEUTRAL
10	0.4812	37.65	-18.67	56.32	27.59	9.92	0.14	QP	NEUTRAL
11	12.1240	26.93	-23.07	50.00	16.61	10.14	0.18	Average	NEUTRAL
12	12.1240	33.45	-26.55	60.00	23.13	10.14	0.18	QP	NEUTRAL

Note:

Level = Read Level + LISN Factor + Cable Loss

2.2. Radiated Emissions Measurement

2.2.1. Limit

Harmonic emissions limits comply with below 54 dBuV/m at 3m. Other 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 comply with the radiated emissions limits specified in section 15.209(a) limit in the table below has to be followed.

Frequencies (MHz)	Field Strength (micorvolts/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

2.2.2. Measuring Instruments and Setting

Refer a test equipment and calibration data table in this test report. The following table is the setting of the spectrum analyzer and receiver.

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RBW / VBW (Emission in restricted band)	1MHz / 3MHz for Peak, 1 MHz / 1/T for Average
RBW / VBW (Emission in non-restricted band)	100kHz/300kHz for Peak

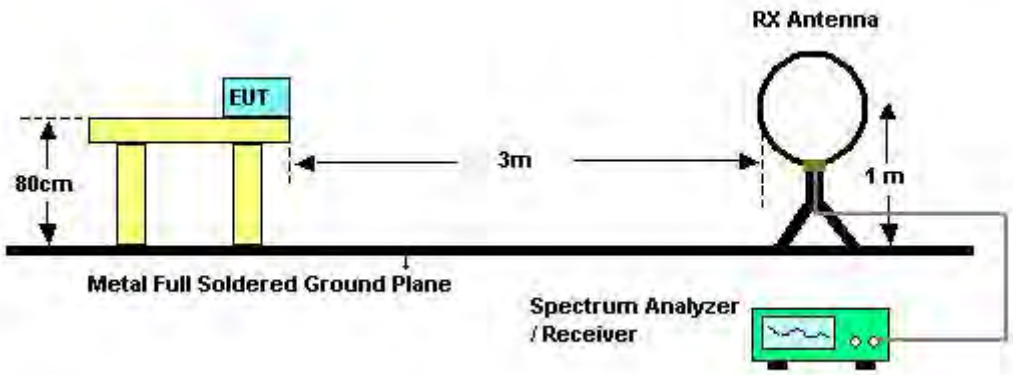
Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RBW 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RBW 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RBW 120kHz for QP

2.2.3. Test Procedures

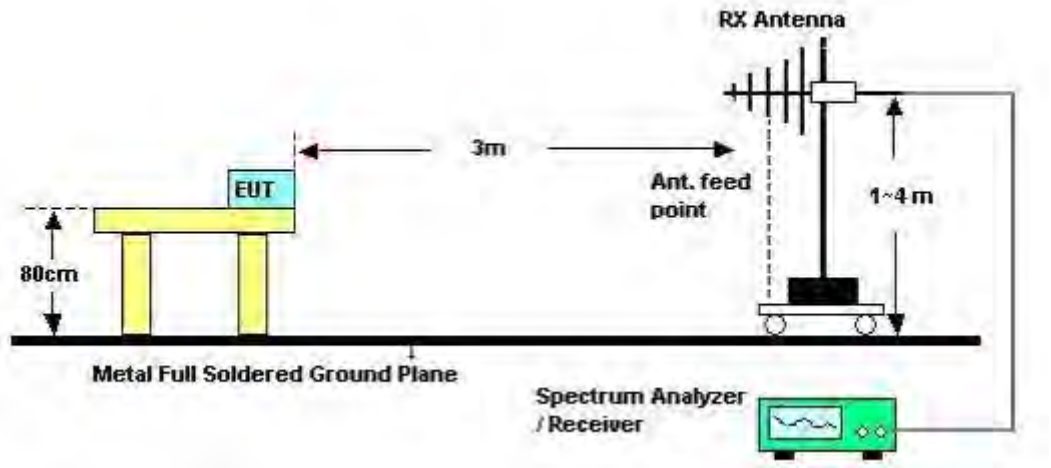
1. Configure the EUT according to ANSI C63.10. The EUT was placed on the top of the turntable 0.8 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
2. Power on the EUT and all the supporting 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 1MHz VBW and 3MHz RBW for peak reading. Then 1MHz RBW and 1/T 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 value.
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.

2.2.4. Test Setup Layout

For Radiated Emissions: 9kHz ~30MHz



For Radiated Emissions: 30MHz~1GHz



2.2.5. Test Deviation

There is no deviation with the original standard.

2.2.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

2.2.7. Results of Radiated Emissions (9kHz~30MHz)

Temperature	22℃	Humidity	54%
Test Engineer	Lance Wu	Test Date	Jul. 31, 2018
Test Mode	Mode 1		

Freq. (MHz)	Level (dBuV)	Over Limit (dB)	Limit Line (dBuV)	Remark
-	-	-	-	See Note

Note:

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

The radiated emissions were investigated from 9 kHz or the lowest frequency generated within the device, up to the 10 harmonic or 40 GHz, whichever is appropriate.

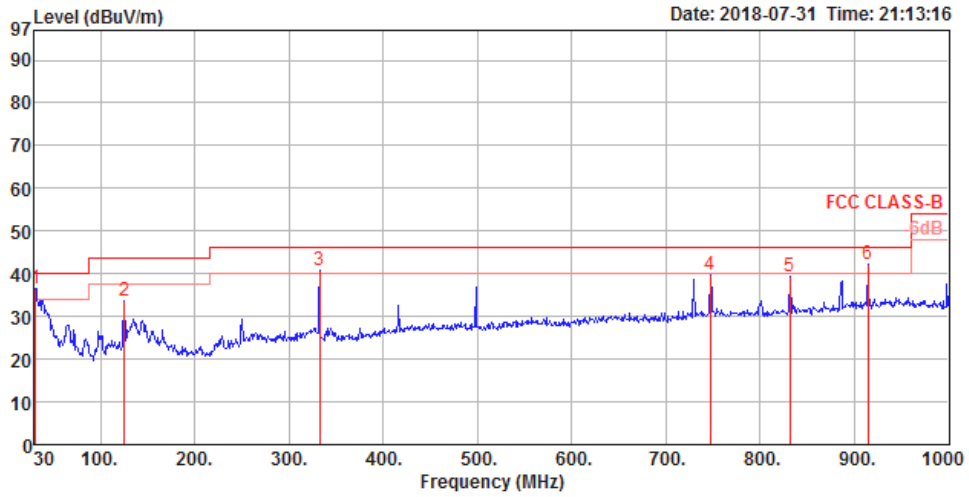
Distance extrapolation factor = 40 log (specific distance / test distance) (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor.

2.2.8. Results of Radiated Emissions (30MHz~1GHz)

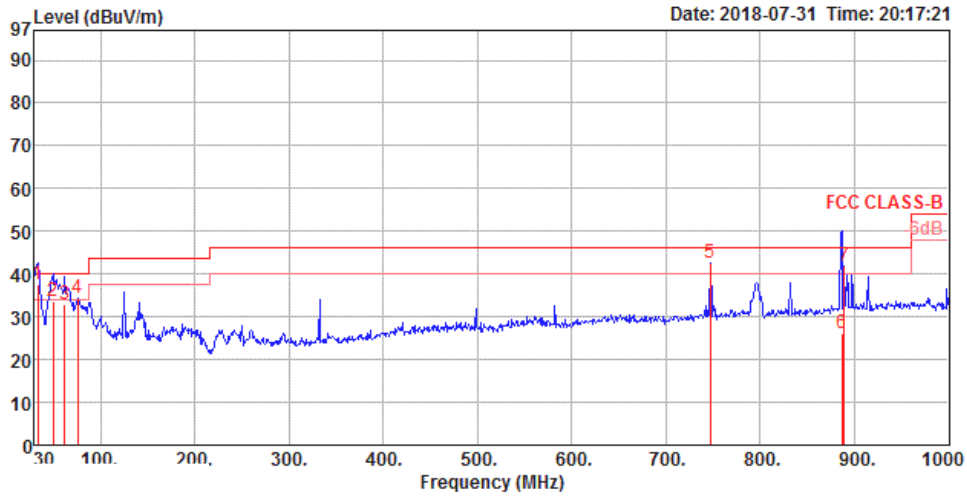
Temperature	22℃	Humidity	54%
Test Engineer	Lance Wu	Test Mode	Mode 1

Horizontal



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	30.97	36.63	40.00	-3.37	39.81	0.98	24.38	28.54	300	0	Peak	HORIZONTAL
2	125.06	33.81	43.50	-9.69	43.12	1.15	17.88	28.34	300	0	Peak	HORIZONTAL
3	332.64	40.78	46.00	-5.22	47.79	1.79	19.32	28.12	300	0	Peak	HORIZONTAL
4	746.83	39.84	46.00	-6.16	39.94	3.75	25.39	29.24	300	0	Peak	HORIZONTAL
5	831.22	39.53	46.00	-6.47	39.81	2.85	25.91	29.04	300	0	Peak	HORIZONTAL
6	914.64	42.36	46.00	-3.64	40.28	4.52	26.33	28.77	300	0	Peak	HORIZONTAL

Vertical



	Freq	Level	Limit Line	Over Limit	Read Level	Cable Loss	Antenna Factor	Preamp Factor	A/Pos	T/Pos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV/m	dB	dBuV	dB	dB/m	dB	cm	deg		
1	33.88	37.73	40.00	-3.27	42.50	1.00	22.77	28.54	261	163	QP	VERTICAL
2	49.40	33.54	40.00	-6.46	46.10	1.43	14.55	28.54	100	338	QP	VERTICAL
3	62.01	32.83	40.00	-7.17	48.01	1.21	12.13	28.52	120	148	QP	VERTICAL
4	75.59	34.37	40.00	-5.63	49.41	0.85	12.60	28.49	300	360	Peak	VERTICAL
5	746.83	42.61	46.00	-3.39	42.71	3.75	25.39	29.24	300	360	Peak	VERTICAL
6	886.51	25.97	46.00	-20.03	24.41	4.18	26.24	28.86	100	0	QP	VERTICAL
7	889.42	41.87	46.00	-4.13	40.14	4.33	26.25	28.85	300	360	Peak	VERTICAL

Note:

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

Emission level (dBuV/m) = 20 log Emission level (uV/m).

Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.

2.3. Antenna Requirements

2.3.1. Limit

Except for special regulations, the Low-power Radio-frequency Devices must not be equipped with any jacket for installing an antenna with extension cable. 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 permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited.

2.3.2. Antenna Connector Construction

The antenna connector complied with the requirements.

3. List of Measuring Equipments

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Calibration Due Date	Remark
EMI Receiver	Agilent	N9038A	My52260123	9kHz ~ 8.45GHz	Jan. 31, 2018	Jan. 30, 2019	Conduction (CO01-CB)
LISN	F.C.C.	FCC-LISN-50-16-2	04083	150kHz ~ 100MHz	Dec. 20, 2017	Dec. 19, 2018	Conduction (CO01-CB)
LISN	Schwarzbeck	NSLK 8127	8127647	9kHz ~ 30MHz	Dec. 29, 2017	Dec. 28, 2018	Conduction (CO01-CB)
COND Cable	Woken	Cable	Low cable-CO01	150kHz ~ 30MHz	May 22, 2018	May 21, 2019	Conduction (CO01-CB)
Software	Audix	E3	6.120210n	-	N.C.R.	N.C.R.	Conduction (CO01-CB)
BILOG ANTENNA with 6dB Attenuator	TESEQ & EMCI	CBL6112D & N-6-06	37880 & AT-N0609	20MHz ~ 2GHz	Aug. 30, 2017	Aug. 29, 2018	Radiation (03CH01-CB)
Loop Antenna	Teseq	HLA 6120	24155	9kHz - 30 MHz	Mar. 16, 2018	Mar. 15, 2019	Radiation (03CH01-CB)
Pre-Amplifier	EMCI	EMC330N	980332	20MHz ~ 3GHz	May 02, 2018	May 01, 2019	Radiation (03CH01-CB)
Spectrum Analyzer	R&S	FSP40	100056	9kHz ~ 40GHz	Nov. 23, 2017	Nov. 22, 2018	Radiation (03CH01-CB)
EMI Test	R&S	ESCS	100354	9kHz ~ 2.75GHz	Dec. 08, 2017	Dec. 07, 2018	Radiation (03CH01-CB)
RF Cable-low	Woken	Low Cable-16+17	N/A	30 MHz ~ 1 GHz	Oct. 11, 2017	Oct. 10, 2018	Radiation (03CH01-CB)

Note: Calibration Interval of instruments listed above is one year.

N.C.R. means Non-Calibration required.

4. Measurement Uncertainty

Test Items	Uncertainty	Remark
Conducted Emission (150kHz ~ 30MHz)	3.2 dB	Confidence levels of 95%
Radiated Emission (30MHz ~ 1,000MHz)	3.6 dB	Confidence levels of 95%