Shenzhen CTL Testing Technology Co., Ltd.
Tel: +86-755-89486194 E-mail: ctl@ctl-lab.com

TEST REPORT

FCC PART 15.247

Report Reference No. .....: **CTL1702156501-WF06**

Compiled by: (position+printed name+signature)	Allen Wang (File administrators)	Allen Wang
Tested by: (position+printed name+signature)	Nice Nong (Test Engineer)	Nice Nong
Approved by: (position+printed name+signature)	Ivan Xie (Manager)	Ivan Xie

Product Name.....:	8 inch 4G Tablet
Model/Type reference .....:	TT800Q
List Model(s).....:	N/A
Trade Mark.....:	N/A
FCC ID.....:	2AGCDJACS800Q
Applicant's name .....:	**JACS SOLUTIONS LLC**
Address of applicant .....:	8808 Centre Park Drive Suite 305 Columbia, MD 21045, USA
Test Firm .....:	**Shenzhen CTL Testing Technology Co., Ltd.**
Address of Test Firm .....:	Floor 1-A, Baisha Technology Park, No.3011, Shahexi Road, Nanshan District, Shenzhen, China 518055
Test specification.....:	
Standard.....:	**FCC Part 15.247:** Operation within the bands 902-928 MHz, 2400-2483.5 MHz and 5725-5850 MHz.
TRF Originator .....:	Shenzhen CTL Testing Technology Co., Ltd.
Master TRF .....:	Dated 2011-01
Date of Receipt.....:	Jun. 15, 2017
Date of Test Date.....:	Jun. 16, 2017–Jul. 11, 2017
Data of Issue.....:	Jul. 12, 2017
Result.....:	Pass

TEST REPORT

Test Report No. :	CTL1702156501-WF06	Jul. 12, 2017 Date of issue

Equipment under Test	:	8 inch 4G Tablet
Model /Type	:	TT800Q
Listed Models	:	N/A
Applicant	:	**JACS SOLUTIONS LLC**
Address	:	8808 Centre Park Drive Suite 305 Columbia, MD 21045, USA
Manufacturer	:	**SHENZHEN JIZHAO INFORMATION TECHNOLOGY CO., LTD.**
Address	:	BUILDING NO.1 ZHONGKENUO INDUSTRIAL PARK HEZHOU ROAD XIXIANG STREET BAOAN DISTRICT SHENZHEN ,CHINA

Test result	Pass *

* In the configuration tested, the EUT complied with the standards specified page 5.

The test report merely corresponds to the test sample.
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

** Modified History **

Revisions	Description	Issued Data	Report No.	Remark
Version 1.0	Initial Test Report Release	2017-07-12	CTL1702156501-WF06	Tracy Qi

Table of Contents Page

1. SUMMARY 5

1.1. TEST STANDARDS 5
1.2. TEST DESCRIPTION 5
1.3. TEST FACILITY 6
1.4. STATEMENT OF THE MEASUREMENT UNCERTAINTY 6

2. GENERAL INFORMATION 7

2.1. ENVIRONMENTAL CONDITIONS 7
2.2. GENERAL DESCRIPTION OF EUT 7
2.3. DESCRIPTION OF TEST MODES AND TEST FREQUENCY 7
2.4. EQUIPMENTS USED DURING THE TEST 8
2.5. RELATED SUBMITTAL(S) / GRANT (S) 9
2.6. MODIFICATIONS 9

3. TEST CONDITIONS AND RESULTS 10

3.1. CONDUCTED EMISSIONS TEST 10
3.2. RADIATED EMISSIONS AND BAND EDGE 13
3.3. MAXIMUM CONDUCTED OUTPUT POWER 20
3.4. POWER SPECTRAL DENSITY 21
3.5. 6DB BANDWIDTH 24
3.6. OUT-OF-BAND EMISSIONS 27
3.7. ANTENNA REQUIREMENT 34

4. TEST SETUP PHOTOS OF THE EUT 35

5. PHOTOS OF THE EUT 36

1. SUMMARY

1.1. TEST STANDARDS

The tests were performed according to following standards:

FCC Rules Part 15.247: Frequency Hopping, Direct Spread Spectrum and Hybrid Systems that are in operation within the bands of 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz

ANSI C63.10: 2013: American National Standard for Testing Unlicensed Wireless Devices

ANSI C63.4: 2014: –American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40GHz Range of 9 kHz to 40GHz

KDB558074 D01 V03r05: Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247

1.2. Test Description

FCC PART 15.247		
FCC Part 15.207	AC Power Conducted Emission	PASS
FCC Part 15.247(a)(2)	6dB Bandwidth	PASS
FCC Part 15.247(d)	Spurious RF Conducted Emission	PASS
FCC Part 15.247(b)	Maximum Conducted Output Power	PASS
FCC Part 15.247(e)	Power Spectral Density	PASS
FCC Part 15.109/ 15.205/ 15.209	Radiated Emissions	PASS
FCC Part 15.247(d)	Band Edge	PASS
FCC Part 15.203/15.247 (b)	Antenna Requirement	PASS

1.3. Test Facility

1.3.1 Address of the test laboratory

Shenzhen CTL Testing Technology Co., Ltd.
Floor 1-A, Baisha Technology Park, No. 3011, Shahexi Road, Nanshan, Shenzhen 518055 China

There is one 3m semi-anechoic chamber and two line conducted labs for final test. The Test Sites meet the requirements in documents ANSI C63.4 and CISPR 32/EN 55032 requirements.

1.3.2 Laboratory accreditation

The test facility is recognized, certified, or accredited by the following organizations:

IC Registration No.: 9618B

The 3m alternate test site of Shenzhen CTL Testing Technology Co., Ltd. EMC Laboratory has been registered by Certification and Engineer Bureau of Industry Canada for the performance of with Registration No.: 9618B on November 13, 2013.

FCC-Registration No.: 970318

Shenzhen CTL Testing Technology Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 970318, December 19, 2013.

1.4. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 “Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements“ and is documented in the Shenzhen CTL Testing Technology Co., Ltd. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Hereafter the best measurement capability for CTL laboratory is reported:

Test	Measurement Uncertainty	Notes
Transmitter power conducted	±0.57 dB	(1)
Transmitter power Radiated	±2.20 dB	(1)
Conducted spurious emission 9KHz-40 GHz	±2.20 dB	(1)
Occupied Bandwidth	±0.01ppm	(1)
Radiated Emission 30~1000MHz	±4.10dB	(1)
Radiated Emission Above 1GHz	±4.32dB	(1)
Conducted Disturbance0.15~30MHz	±3.20dB	(1)

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

2. GENERAL INFORMATION

2.1. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Normal Temperature:	25°C
Relative Humidity:	55 %
Air Pressure:	101 kPa

2.2. General Description of EUT

Product Name:	8 inch 4G Tablet
Model/Type reference:	TT800Q
Power supply:	DC 3.7V from battery
WIFI :	
Supported type:	802.11b/802.11g/802.11n(H20)
Modulation:	802.11b: DSSS 802.11g/802.11n(H20): OFDM
Operation frequency:	802.11b/802.11g/802.11n(H20): 2412MHz~2462MHz
Channel number:	802.11b/802.11g/802.11n(H20): 11
Channel separation:	5MHz
Antenna type:	PIFA antenna
Antenna gain:	1.0dBi

Note: For more details, please refer to the user's manual of the EUT.

2.3. Description of Test Modes and Test Frequency

The Applicant provides communication tools software to control the EUT for staying in continuous transmitting (Duty Cycle more than 98%) and receiving mode for testing.

There are 11 channels provided to the EUT and Channel 01/06/11 were selected for WIFI test.

Operation Frequency WIFI：

Channel	Frequency(MHz)	Channel	Frequency(MHz)
1	**2412**	8	2447
2	2417	9	2452
3	2422	10	2457
4	2427	**11**	**2462**
5	2432		
6	**2437**		
7	2442		

Note: The line display in grey were the channel selected for testing

Data Rate Used:

Preliminary tests were performed in different data rate to find the worst radiated emission. The data rate shown in the table below is the worst-case rate with respect to the specific test item. Investigation has been done on all the possible configurations for searching the worst cases. The following table is a list of the test modes shown in this test report.

Test Items	Mode	Data Rate	Channel
Maximum Conducted Output Power Power Spectral Density 6dB Bandwidth Spurious RF conducted emission Radiated Emission 9kHz~1GHz& Radiated Emission 1GHz~10th Harmonic	11b/DSSS	1 Mbps	1/6/11
	11g/OFDM	6 Mbps	1/6/11
	11n(20MHz)/OFDM	6.5Mbps	1/6/11
Band Edge	11b/DSSS	1 Mbps	1/11
	11g/OFDM	6 Mbps	1/11
	11n(20MHz)/OFDM	6.5Mbps	1/11

2.4. Equipments Used during the Test

Test Equipment	Manufacturer	Model No.	Serial No.	Calibration Date	Calibration Due Date
LISN	R&S	ENV216	3560.6550.12	2017/06/02	2018/06/01
LISN	R&S	ESH2-Z5	860014/010	2017/06/02	2018/06/01
Bilog Antenna	Sunol Sciences Corp.	JB1	A061713	2017/06/02	2018/06/01
EMI Test Receiver	R&S	ESCI	103710	2017/06/02	2018/06/01
Spectrum Analyzer	Agilent	E4407B	MY41440676	2017/05/21	2018/05/20
Spectrum Analyzer	Agilent	N9020	US46220290	2017/01/17	2018/01/16
Power Meter	Anritsu	ML2487B	110553	2017/06/02	2018/06/01
Power Sensor	Anritsu	MA2411B	100345	2017/05/21	2018/05/20
Controller	EM Electronics	Controller EM 1000	N/A	2017/05/21	2018/05/20
Horn Antenna	Sunol Sciences Corp.	DRH-118	A062013	2017/05/19	2018/05/18
Active Loop Antenna	SCHWARZBECK	FMZB1519	1519-037	2017/05/19	2018/05/18
Amplifier	Agilent	8349B	3008A02306	2017/05/19	2018/05/18
Amplifier	Agilent	8447D	2944A10176	2017/05/19	2018/05/18
Temperature/Humidity Meter	Gangxing	CTH-608	02	2017/05/20	2018/05/19
High-Pass Filter	K&L	9SH10-2700/X12750-O/O	N/A	2017/05/20	2018/05/19
High-Pass Filter	K&L	41H10-1375/U12750-O/O	N/A	2017/05/20	2018/05/19
Coaxial Cables	HUBER+SUHN	SUCOFLEX	10m	2017/06/02	2018/06/01

	ER	104PEA-10M			
Coaxial Cables	HUBER+SUHNER	SUCOFLEX 104PEA-3M	3m	2017/06/02	2018/06/01
Coaxial Cables	HUBER+SUHNER	SUCOFLEX 104PEA-3M	3m	2017/06/02	2018/06/01
RF Cable	Megalon	RF-A303	N/A	2017/06/02	2018/06/01

The calibration interval was one year

2.5. Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended to comply with Section 15.247 of the FCC Part 15, Subpart C Rules.

2.6. Modifications

No modifications were implemented to meet testing criteria.

3. TEST CONDITIONS AND RESULTS

3.1. Conducted Emissions Test

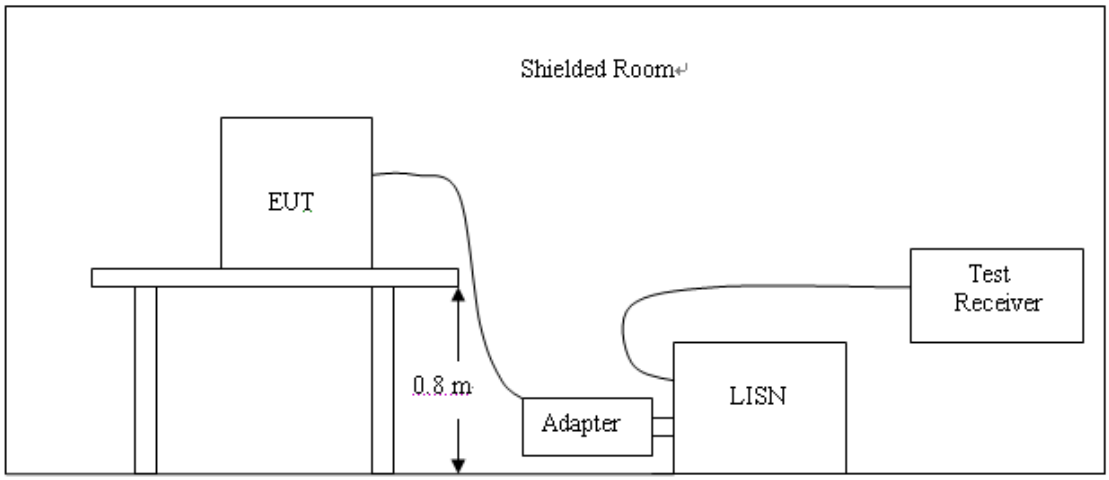
LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.207

Frequency range (MHz)	Limit (dBuV)	
	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.

TEST CONFIGURATION



TEST PROCEDURE

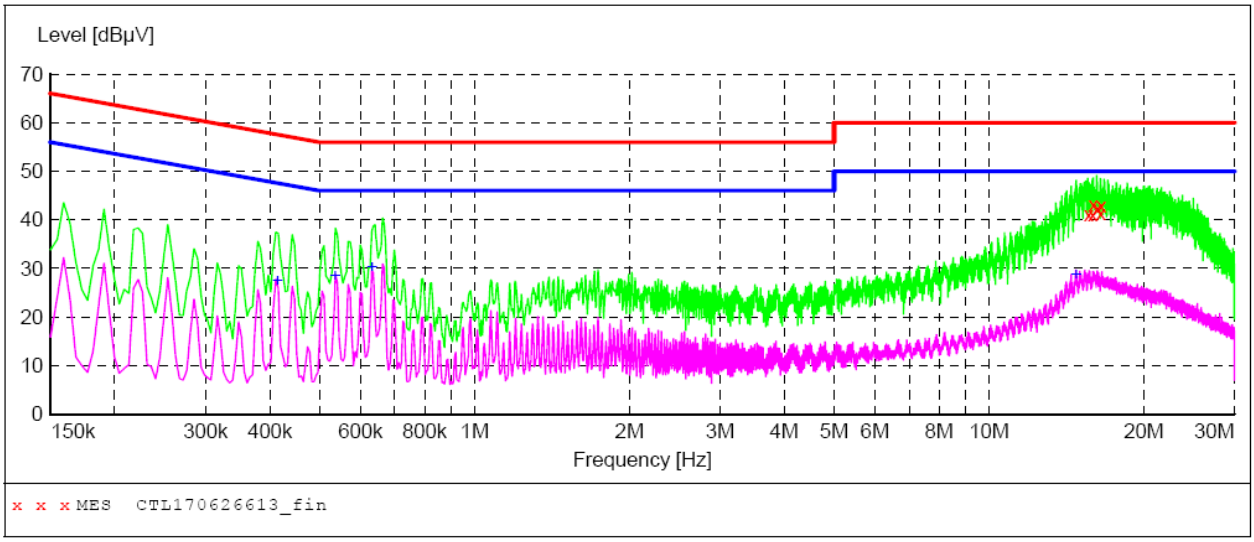
1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system; a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10:2013.
2. Support equipment, if needed, was placed as per ANSI C63.10:2013.
3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10:2013.
4. The 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.
8. During the above scans, the emissions were maximized by cable manipulation.

TEST RESULTS

Remark:802.11b/802.11g/802.11n(H20) mode all have been tested ,only worse case of 802.11b High Channel was reported.

Test Mode	WIFI	Line:	L

SCAN TABLE: "Voltage (9K-30M)FIN"
Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "CTL170626613_fin"

6/26/2017 6:12PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
15.608000	41.20	10.7	60	18.8	QP	L1	GND
15.908000	41.20	10.7	60	18.8	QP	L1	GND
15.950000	43.10	10.7	60	16.9	QP	L1	GND
16.244000	42.40	10.7	60	17.6	QP	L1	GND
16.490000	41.30	10.8	60	18.7	QP	L1	GND
16.520000	42.90	10.8	60	17.1	QP	L1	GND

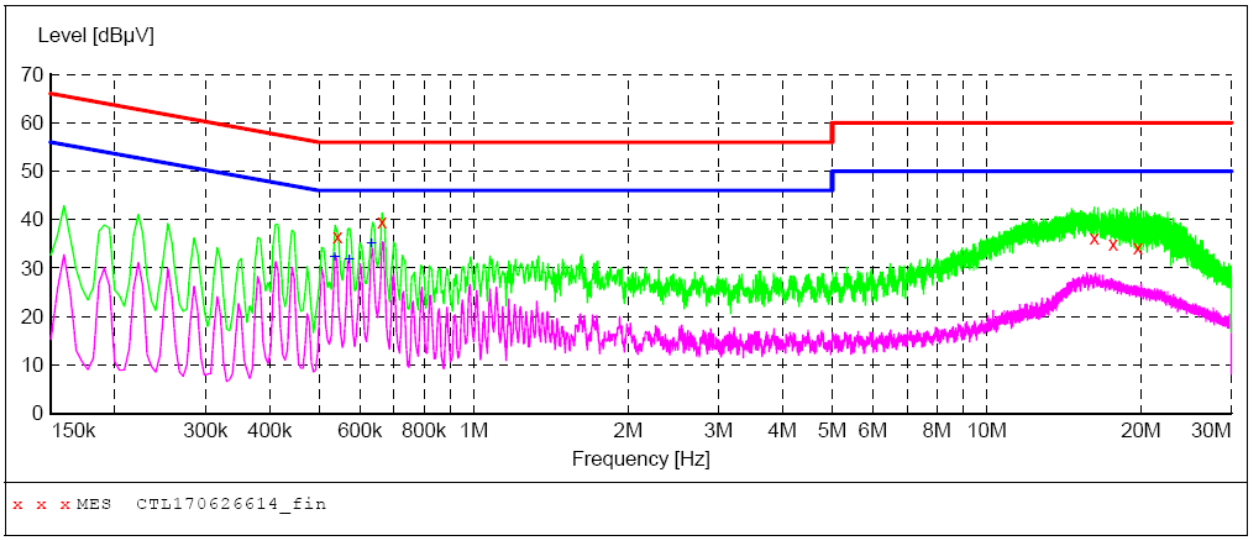
MEASUREMENT RESULT: "CTL170626613_fin2"

6/26/2017 6:12PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.414000	27.30	10.2	48	20.3	AV	L1	GND
0.536000	28.30	10.2	46	17.7	AV	L1	GND
0.632000	30.20	10.2	46	15.8	AV	L1	GND
14.786000	28.70	10.7	50	21.3	AV	L1	GND

Test Mode	WIFI	Line:	N

SCAN TABLE: "Voltage (9K-30M)FIN"
Short Description: 150K-30M Voltage



MEASUREMENT RESULT: "CTL170626614_fin"

6/26/2017 6:15PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.542000	36.60	10.2	56	19.4	QP	N	GND
0.662000	39.50	10.2	56	16.5	QP	N	GND
16.202000	36.40	10.7	60	23.6	QP	N	GND
17.636000	35.10	10.8	60	24.9	QP	N	GND
19.694000	34.30	10.9	60	25.7	QP	N	GND

MEASUREMENT RESULT: "CTL170626614_fin2"

6/26/2017 6:15PM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.536000	32.30	10.2	46	13.7	AV	N	GND
0.572000	31.60	10.2	46	14.4	AV	N	GND
0.632000	35.10	10.2	46	10.9	AV	N	GND

3.2. Radiated Emissions and Band Edge

Limit

For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emission out of authorized band shall not exceed the following table at a 3 meters measurement distance.

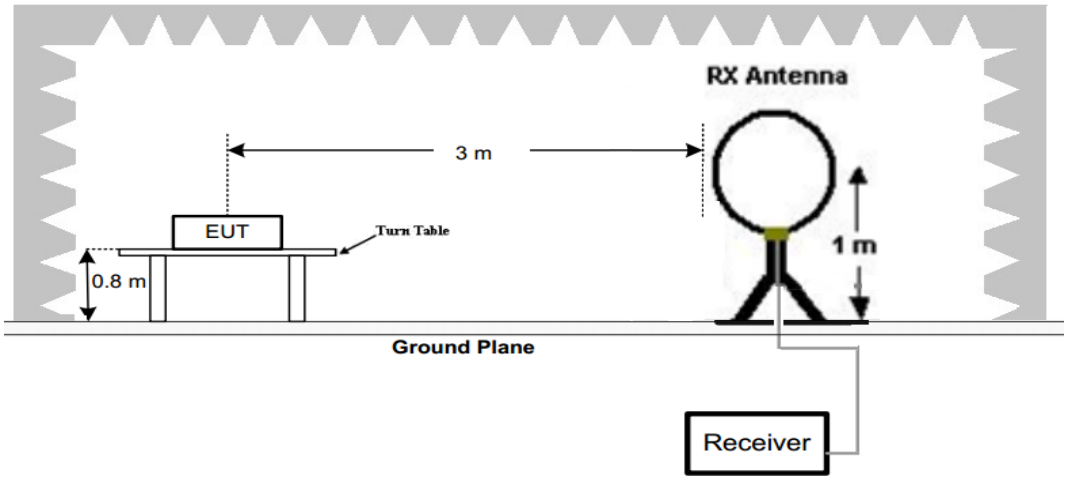
In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a)

Radiated emission limits

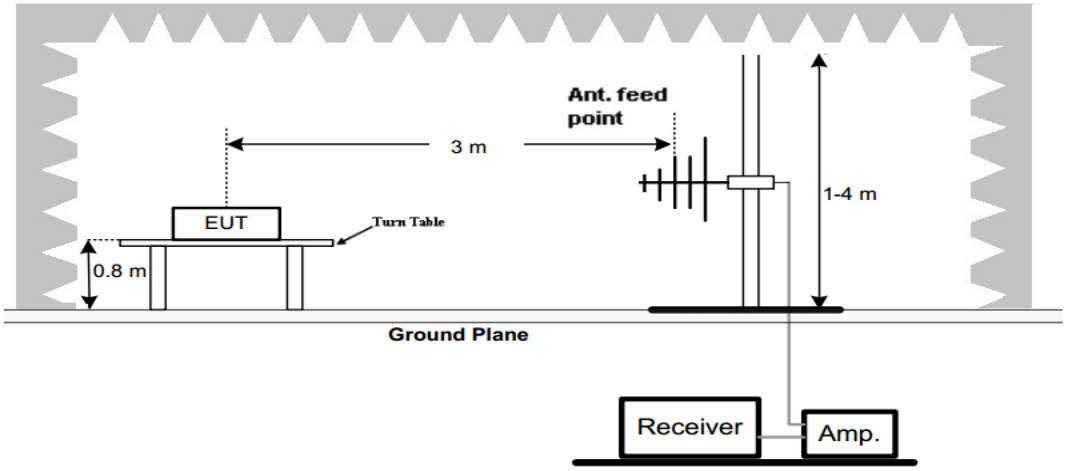
Frequency (MHz)	Distance (Meters)	Radiated (dBμV/m)	Radiated (μV/m)
0.009-0.49	3	20log(2400/F(KHz))+40log(300/3)	2400/F(KHz)
0.49-1.705	3	20log(24000/F(KHz))+ 40log(30/3)	24000/F(KHz)
1.705-30	3	20log(30)+ 40log(30/3)	30
30-88	3	40.0	100
88-216	3	43.5	150
216-960	3	46.0	200
Above 960	3	54.0	500

TEST CONFIGURATION

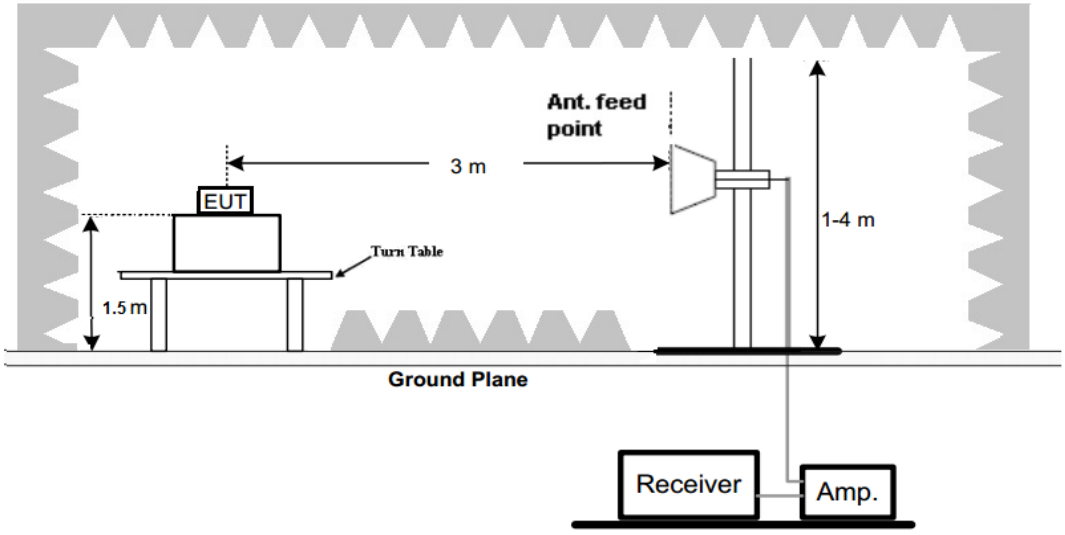
(A) Radiated Emission Test Set-Up, Frequency Below 30MHz



(B) Radiated Emission Test Set-Up, Frequency below 1000MHz



(C) Radiated Emission Test Set-Up, Frequency above 1000MHz



Test Procedure

1. Below 1GHz measurement the EUT is placed on a turntable which is 0.8m above ground plane, and above 1GHz measurement EUT was placed on a low permittivity and low loss tangent turn table which is 1.5m above ground plane.
2. Maximum procedure was performed by raising the receiving antenna from 1m to 4m and rotating the turn table from 0℃ to 360℃ to acquire the highest emissions from EUT
3. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
4. Repeat above procedures until all frequency measurements have been completed.

TEST RESULTS

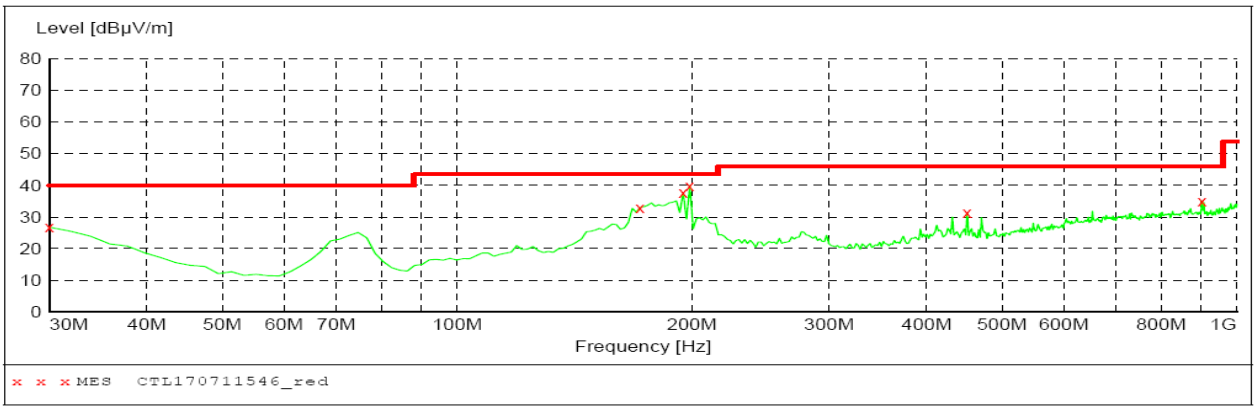
Remark:
1. All three channels (lowest/middle/highest) of each mode were measured below 1GHz and recorded worst case at 802.11b low channel.
2. All three channels (lowest/middle/highest) of each mode were measured above1GHz and recorded worst case at 802.11b mode.
3. Radiated emission test from 9 KHz to 10th harmonic of fundamental was verified, and no emission found except system noise floor in 9 KHz to 30MHz and not recorded in this report.

For 30MHz-1GHz

Test mode:	WIFI	Polarization:	Horizontal

SWEEP TABLE: "test (30M-1G)"

Short Description:			Field Strength		
Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
30.0 MHz	1.0 GHz	MaxPeak	300.0 ms	120 kHz	JB1



MEASUREMENT RESULT: "CTL170711546_red"

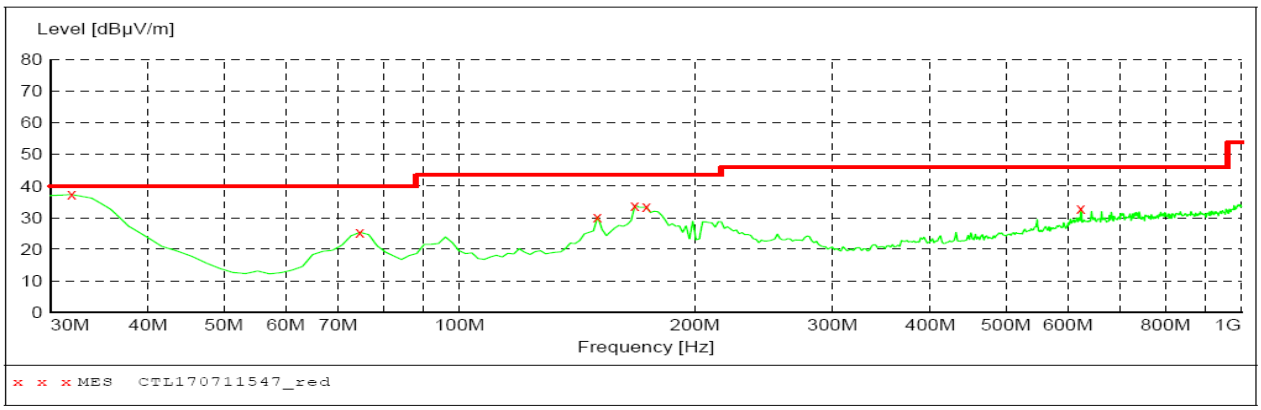
7/11/2017 5:02PM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
30.000000	26.80	22.1	40.0	13.2	---	0.0	0.00	HORIZONTAL
171.620000	33.00	14.5	43.5	10.5	---	0.0	0.00	HORIZONTAL
194.900000	37.60	14.6	43.5	5.9	---	0.0	0.00	HORIZONTAL
198.780000	40.00	14.7	43.5	3.5	---	0.0	0.00	HORIZONTAL
450.980000	31.30	19.5	46.0	14.7	---	0.0	0.00	HORIZONTAL
903.000000	35.10	26.3	46.0	10.9	---	0.0	0.00	HORIZONTAL

Test mode:	WIFI	Polarization:	Vertical

SWEEP TABLE: "test (30M-1G)"

Short Description:			Field Strength		
Start Frequency	Stop Frequency	Detector	Meas. Time	IF Bandw.	Transducer
30.0 MHz	1.0 GHz	MaxPeak	300.0 ms	120 kHz	JB1



MEASUREMENT RESULT: "CTL170711547_red"

7/11/2017 5:04PM

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
31.940000	37.30	20.9	40.0	2.7	---	0.0	0.00	VERTICAL
74.620000	25.40	9.0	40.0	14.6	---	0.0	0.00	VERTICAL
150.280000	30.30	14.4	43.5	13.2	---	0.0	0.00	VERTICAL
167.740000	33.90	14.5	43.5	9.6	---	0.0	0.00	VERTICAL
173.560000	33.40	14.5	43.5	10.1	---	0.0	0.00	VERTICAL
623.640000	33.00	23.3	46.0	13.0	---	0.0	0.00	VERTICAL

For 1GHz to 25GHz

802.11b Mode (above 1GHz)

Note: 802.11b/802.11g/802.11n (H20) all have been tested, only worse case 802.11b is reported

Frequency(MHz):			2412		Polarity:			HORIZONTAL	
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
4824.00	49.50	PK	74	24.50	44.95	33.52	6.92	35.89	4.55
4824.00	--	AV	54	--	--	--	--	--	--
5025.50	43.22	PK	74	30.78	36.34	34.07	7.05	34.24	6.88
5025.50	--	AV	54	--	--	--	--	--	--
7236.00	45.30	PK	74	28.70	34.03	37.10	9.19	35.02	11.27
7236.00	--	AV	54	--	--	--	--	--	--

Frequency(MHz):			2412		Polarity:			VERTICAL	
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
4824.00	49.66	PK	74	24.34	45.11	33.52	6.92	35.89	4.55
4824.00	--	AV	54	--	--	--	--	--	--
5025.50	43.58	PK	74	30.42	36.70	34.07	7.05	34.24	6.88
5025.50	--	AV	54	--	--	--	--	--	--
7236.00	45.98	PK	74	28.02	34.71	37.10	9.19	35.02	11.27
7236.00	--	AV	54	--	--	--	--	--	--

Frequency(MHz):			2437		Polarity:			HORIZONTAL	
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
4874.00	48.55	PK	74	25.45	43.91	33.59	6.95	35.90	4.64
4874.00	--	AV	54	--	--	--	--	--	--
5115.75	43.47	PK	74	30.53	36.28	34.36	7.10	34.27	7.19
5115.75	--	AV	54	--	--	--	--	--	--
7311.00	45.88	PK	74	28.12	34.22	37.44	9.22	35.00	11.66
7311.00	--	AV	54	--	--	--	--	--	--

Frequency(MHz):			2437		Polarity:			VERTICAL	
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
4874.00	48.98	PK	74	25.02	44.34	33.59	6.95	35.90	4.64
4874.00	--	AV	54	--	--	--	--	--	--
5115.75	43.54	PK	74	30.46	36.35	34.36	7.10	34.27	7.19
5115.75	--	AV	54	--	--	--	--	--	--
7311.00	45.21	PK	74	28.79	33.55	37.44	9.22	35.00	11.66
7311.00	--	AV	54	--	--	--	--	--	--

Frequency(MHz):			2462		Polarity:			HORIZONTAL	
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
4924.00	47.35	PK	74	26.65	42.57	33.71	6.98	35.91	4.78
4924.00	--	AV	54	--	--	--	--	--	--
5311.25	42.55	PK	74	31.45	35.03	34.65	7.21	34.34	7.52
5311.25	--	AV	54	--	--	--	--	--	--
7386.00	45.10	PK	74	28.90	33.22	37.61	9.25	34.98	11.88
7386.00	--	AV	54	--	--	--	--	--	--

Frequency(MHz):			2462		Polarity:			VERTICAL	
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
4924.00	47.87	PK	74	26.13	43.09	33.71	6.98	35.91	4.78
4924.00	--	AV	54	--	--	--	--	--	--
5311.25	43.12	PK	74	30.88	35.60	34.65	7.21	34.34	7.52
5311.25	--	AV	54	--	--	--	--	--	--
7386.00	45.66	PK	74	28.34	33.78	37.61	9.25	34.98	11.88
7386.00	--	AV	54	--	--	--	--	--	--

REMARKS:

1. Emission level (dBuV/m) =Raw Value (dBuV)+Correction Factor (dB/m)
2. Correction Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
3. Margin value = Limit value- Emission level.
4. -- Mean the PK detector measured value is below average limit.
5. The other emission levels were very low against the limit.
6. RBW1MHz VBW3MHz Peak detector is for PK value; RBW 1MHz VBW10Hz Peak detector is for AV value.

Results of Band Edges Test (Radiated)

Note: 802.11b/802.11g/802.11n (H20) all have been tested, only worse case 802.11b is reported

Frequency(MHz):			2412		Polarity:			HORIZONTAL	
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
2412.00	103.44	PK	--	--	70.02	28.80	4.62	0.00	33.42
2412.00	94.52	AV	--	--	61.10	28.80	4.62	0.00	33.42
2355.25	46.50	PK	74	27.50	13.44	28.50	4.56	0.00	33.06
2355.25	--	AV	54	--	--	--	--	--	--
2390.00	56.50	PK	74	17.50	23.18	28.72	4.60	0.00	33.32
2390.00	48.33	AV	54	5.67	15.01	28.72	4.60	0.00	33.32
2400.00	59.80	PK	74	14.20	26.41	28.78	4.61	0.00	33.39
2400.00	50.30	AV	54	3.70	16.91	28.78	4.61	0.00	33.39

Frequency(MHz):			2412		Polarity:			VERTICAL	
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
2412.00	103.59	PK	--	--	70.17	28.80	4.62	0.00	33.42
2412.00	94.63	AV	--	--	61.21	28.80	4.62	0.00	33.42
2355.25	46.41	PK	74	27.59	13.35	28.50	4.56	0.00	33.06
2355.25	--	AV	54	--	--	--	--	--	--
2390.00	56.65	PK	74	17.35	23.33	28.72	4.60	0.00	33.32
2390.00	48.89	AV	54	5.11	15.57	28.72	4.60	0.00	33.32
2400.00	59.93	PK	74	14.07	26.54	28.78	4.61	0.00	33.39
2400.00	50.46	AV	54	3.54	17.07	28.78	4.61	0.00	33.39

Frequency(MHz):			2462		Polarity:			HORIZONTAL	
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
2462.00	103.11	PK	--	--	69.54	28.89	4.68	0.00	33.57
2462.00	94.78	AV	--	--	61.21	28.89	4.68	0.00	33.57
2483.50	54.23	PK	74	19.77	20.60	28.93	4.70	0.00	33.63
2483.50	47.30	AV	54	6.70	13.67	28.93	4.70	0.00	33.63
2488.75	53.40	PK	74	20.60	19.75	28.94	4.71	0.00	33.65
2488.75	--	AV	54	--	--	--	--	--	--
2500.00	44.25	PK	74	29.75	10.57	28.96	4.72	0.00	33.68
2500.00	--	AV	54	--	--	--	--	--	--

Frequency(MHz):			2462		Polarity:			VERTICAL	
Frequency (MHz)	Emission Level (dBuV/m)		Limit (dBuV/m)	Margin (dB)	Raw Value (dBuV)	Antenna Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)
2462.00	103.36	PK	--	--	69.79	28.89	4.68	0.00	33.57
2462.00	94.89	AV	--	--	61.32	28.89	4.68	0.00	33.57
2483.50	54.41	PK	74	19.59	20.78	28.93	4.70	0.00	33.63
2483.50	47.52	AV	54	6.48	13.89	28.93	4.70	0.00	33.63
2488.75	53.66	PK	74	20.34	20.01	28.94	4.71	0.00	33.65
2488.75	--	AV	54	--	--	--	--	--	--
2500.00	44.39	PK	74	29.61	10.71	28.96	4.72	0.00	33.68
2500.00	--	AV	54	--	--	--	--	--	--

REMARKS:

1. Emission level (dBuV/m) =Raw Value (dBuV)+Correction Factor (dB/m)
2. Correction Factor (dB/m) = Antenna Factor (dB/m)+Cable Factor (dB)-Pre-amplifier Factor
3. Margin value = Limit value- Emission level.
4. -- Mean the PK detector measured value is below average limit.
5. The other emission levels were very low against the limit.
6. RBW1MHz VBW3MHz Peak detector is for PK value; RBW 1MHz VBW10Hz Peak detector is for AV value.
7. For fundamental frequency, RBW 3MHz VBW 3MHz Peak detector is for PK Value; RMS detector is for AV value.

3.3. Maximum Conducted Output Power

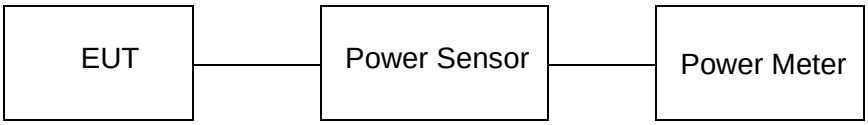
Limit

The Maximum Peak Output Power Measurement is 30dBm.

Test Procedure

Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the power sensor.

Test Configuration



Test Results

WIFI

Type	Channel	Output power PK (dBm)	Limit (dBm)	Result
802.11b	01	21.30	30.00	Pass
	06	22.38		
	11	22.84		
802.11g	01	22.93	30.00	Pass
	06	23.15		
	11	23.55		
802.11n(HT20)	01	22.37	30.00	Pass
	06	23.10		
	11	23.48		

Note: 1.The test results including the cable lose.