FCC REPORT

Applicant:	Trane US, Inc.
Address of Applicant:	6200 Troup Highway Tyler TX 75707

Equipment Under Test (EUT)

Product Name:	COLOR WIFI Z-WAVE THERMOSTAT
Model No.:	AZON1050AC52ZAA, TZON1050AC52ZAA
FCC ID:	XVRZON1050
Applicable standards:	FCC CFR Title 47 Part 15 Subpart C Section 15.249:2015
Date of sample receipt:	September 14, 2016
Date of Test:	September 14-20, 2016
Date of report issued:	September 20, 2016
Test Result :	PASS *

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

Authorized Signature:

Robinson Lo
Laboratory Manager

2 Version

Version No.	Date	Description
00	*September 20, 2016*	*Original*

Prepared By: *Yang Liu* ***Date:*** *September 20, 2016*

Project Engineer

Check By: *Andy Wu* ***Date:*** *September 20, 2016*

Reviewer

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4 Test Summary

Test Item	Section in CFR 47	Result
Antenna requirement	15.203	Pass
AC Power Line Conducted Emission	15.207	Pass
Field strength of the fundamental signal	15.249 (a)	Pass
Spurious emissions	15.249 (a) (d)/15.209	Pass
Band edge	15.249 (d)/15.205	Pass
20dB Occupied Bandwidth	15.215 (c)	Pass

Pass: The EUT complies with the essential requirements in the standard.

Remark: Test according to ANSI C63.10 2013 and ANSI C63.4: 2014

4.1 Measurement Uncertainty

Test Item	Frequency Range	Measurement Uncertainty	Notes
Radiated Emission	9kHz ~ 30MHz	± 4.34dB	(1)
Radiated Emission	30MHz ~ 1000MHz	± 4.24dB	(1)
Radiated Emission	1GHz ~ 26.5GHz	± 4.68dB	(1)
AC Power Line Conducted Emission	0.15MHz ~ 30MHz	± 3.45dB	(1)
Note (1): The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.			

5 General Information

5.1 Client Information

Applicant:	Trane US, Inc.
Address of Applicant:	6200 Troup Highway Tyler TX 75707
Manufacturer:	Computime Limited
Address of Manufacturer	9/F, Tower One, Lippo Centre, 89 Queensway, Hong Kong
Factory:	Computime Electronics (shenzhen) Company Limited
Address of Factory:	Yuekenguangyu Industrial Park,Kangqiao Road 88#, Danzhutou Community, Nanwan Street Office Longgang District, Shenzhen, China

5.2 General Description of EUT

Product Name:	COLOR WIFI Z-WAVE THERMOSTAT
Model No.:	AZON1050AC52ZAA, TZON1050AC52ZAA
Test Model No. :	AZON1050AC52ZAA
Remark: All above models are identical in the same PCB layout, interior structure and electrical circuits. The only difference is the model name for commercial purpose.	
Operation Frequency:	908.4MHz 916 MHz
Modulation type:	GFSK
Antenna Type:	Integral antenna
Antenna gain:	0dBi(declare by Applicant)
Power supply:	AC 24V

5.3 Test mode

Transmitting mode	Keep the EUT in continuously transmitting mode.
Remark: During the test, the test voltage was tuned from 85% to 115% of the nominal rated supply voltage, and found that the worst case was under the nominal rated supply condition. So the report just shows that condition's data.	

Pre-test mode.

We have verified the construction and function in typical operation, The EUT was placed on three different polar directions; i.e. X axis, Y axis, Z axis. which was shown in this test report and defined as follows:

Axis	X	Y	Z
Field Strength(dBuV/m)	92.10	92.33	91.89

Final Test Mode:

According to ANSI C63.4 standards, the test results are both the "worst case" and "worst setup":

Y axis (see the test setup photo)

5.4 Description of Support Units

None

5.5 Test Facility

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

● **FCC —Registration No.: 600491**

Global United Technology Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fuly described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in files. Registration 600491, June 22, 2016

● **Industry Canada (IC) —Registration No.: 9079A-2**

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 9079A-2, August 15, 2016.

5.6 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.

Address: No. 301-309, 3/F., Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102

Tel: 0755-27798480

Fax: 0755-27798960

5.7 Other Information Requested by the Customer

None.

6 Test Instruments list

Radiated Emission:						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Date (mm-dd-yy)**	**Cal.Due date (mm-dd-yy)**
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	July. 03 2015	July. 02 2020
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	Spectrum Analyzer	Agilent	E4440A	GTS533	June 29 2016	June 28 2017
4	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	June 29 2016	June 28 2017
5	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	June 29 2016	June 28 2017
6	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	9120D-829	GTS208	June 29 2016	June 28 2017
7	Horn Antenna	ETS-LINDGREN	3160	GTS217	June 29 2016	June 28 2017
8	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
9	Coaxial Cable	GTS	N/A	GTS213	June 29 2016	June 28 2017
10	Coaxial Cable	GTS	N/A	GTS211	June 29 2016	June 28 2017
11	Coaxial cable	GTS	N/A	GTS210	June 29 2016	June 28 2017
12	Coaxial Cable	GTS	N/A	GTS212	June 29 2016	June 28 2017
13	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	June 29 2016	June 28 2017
14	Amplifier(2GHz-20GHz)	HP	8349B	GTS206	June 29 2016	June 28 2017
15	Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June 29 2016	June 28 2017
16	Band filter	Amindeon	82346	GTS219	June 29 2016	June 28 2017

Conducted Emission:

Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Shielding Room	ZhongYu Electron	7.3(L)x3.1(W)x2.9(H)	GTS252	May 16 2014	May 15 2019
2	EMI Test Receiver	R&S	ESCI 7	GTS552	June 29 2016	June 28 2017
3	Pulse Limiter	R&S	ESH3-Z2	GTS224	June 29 2016	June 28 2017
4	Coaxial Switch	ANRITSU CORP	MP59B	GTS225	June 29 2016	June 28 2017
5	Artificial Mains Network	SCHWARZBECK MESS	NSLK8127	GTS226	June 29 2016	June 28 2017
6	Coaxial Cable	GTS	N/A	GTS227	June 29 2016	June 28 2017
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
8	Thermo meter	KTJ	TA328	GTS233	June 29 2016	June 28 2017

General used equipment:

Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Barometer	ChangChun	DYM3	GTS257	June 29 2016	June 28 2017

7 Test results and Measurement Data

7.1 Antenna requirement:

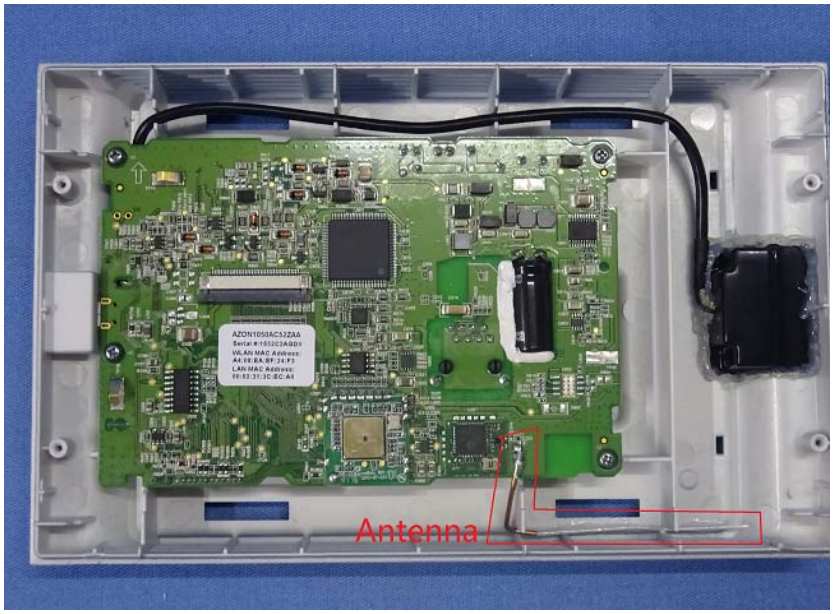
Standard requirement:	FCC Part15 C Section 15.203

15.203 requirement:

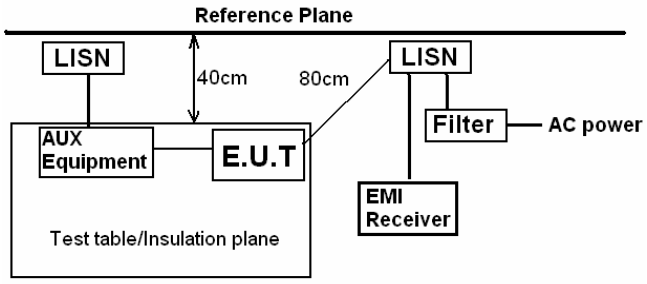
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit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

EUT Antenna:

The antenna is integral antenna, the best case gain of the antenna is 0dBi

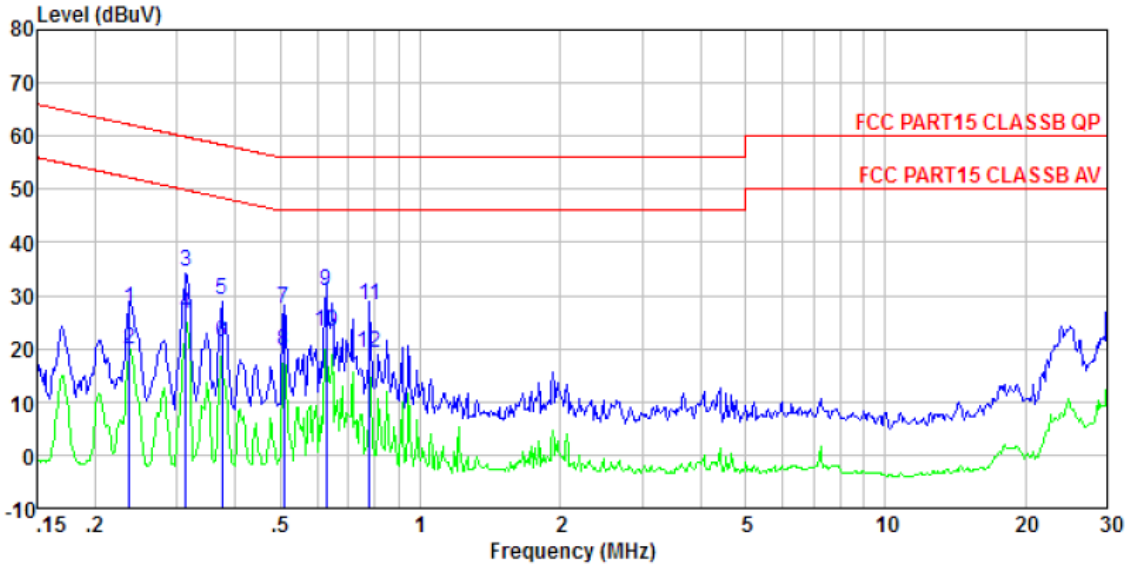


7.2 Conducted Emissions

Test Requirement:	FCC Part15 C Section 15.207
Test Method:	ANSI C63.10:2013
Test Frequency Range:	150KHz to 30MHz
Class / Severity:	Class B
Receiver setup:	RBW=9KHz, VBW=30KHz, Sweep time=auto
Limit:	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 setup:	 *Remark:* *E.U.T: Equipment Under Test* *LISN: Line Impedence Stabilization Network* *Test table height=0.8m*
Test procedure:	1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment. 2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). 3. Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10:2013 on conducted measurement.
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass

Measurement data:

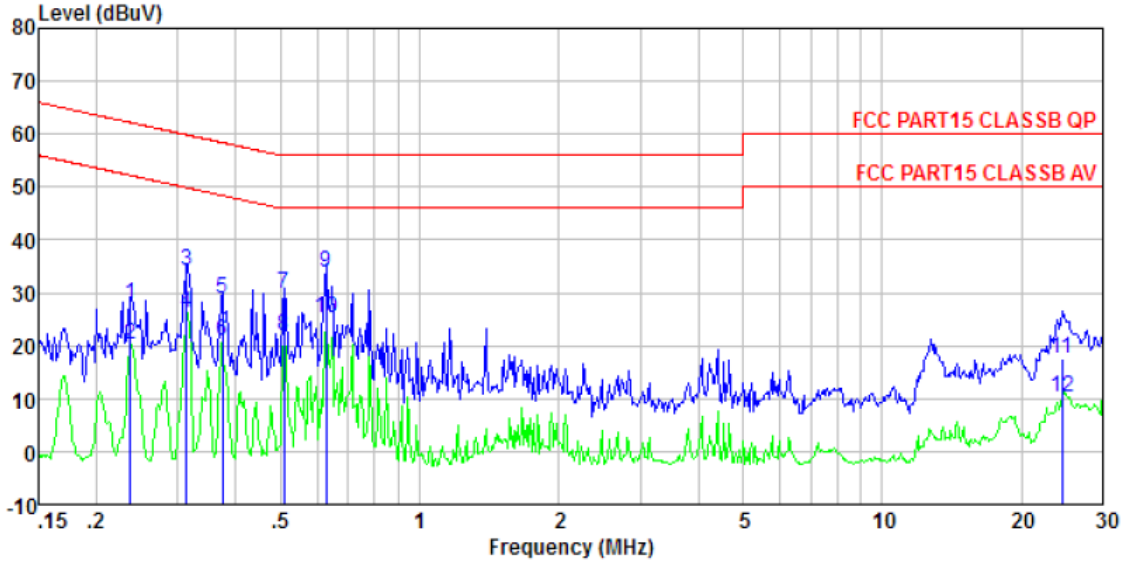
Line:



Site : Shielded room
Condition : FCC PART15 CLASSB QP LISN-2013 LINE
Job No. : 018
Test Mode : Transmitting mode
Test Engineer: Boy

	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dBuV	dBuV	dB	
1	0.237	27.38	0.12	0.12	27.62	62.22	-34.60	QP
2	0.237	19.72	0.12	0.12	19.96	52.22	-32.26	Average
3	0.313	34.36	0.11	0.10	34.57	59.88	-25.31	QP
4	0.313	26.22	0.11	0.10	26.43	49.88	-23.45	Average
5	0.375	28.90	0.11	0.10	29.11	58.39	-29.28	QP
6	0.375	21.05	0.11	0.10	21.26	48.39	-27.13	Average
7	0.510	27.29	0.12	0.11	27.52	56.00	-28.48	QP
8	0.510	19.34	0.12	0.11	19.57	46.00	-26.43	Average
9	0.627	30.73	0.13	0.12	30.98	56.00	-25.02	QP
10	0.627	22.84	0.13	0.12	23.09	46.00	-22.91	Average
11	0.779	28.03	0.14	0.13	28.30	56.00	-27.70	QP
12	0.779	19.10	0.14	0.13	19.37	46.00	-26.63	Average

Neutral:



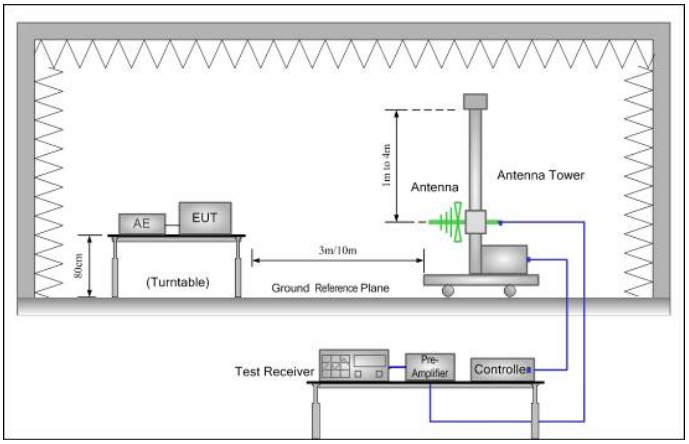
Site : Shielded room
Condition : FCC PART15 CLASSB QP LISN-2013 NEUTRAL
Job No. : 018
Test Mode : Transmitting mode
Test Engineer: Boy

	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB	dBuV	dBuV	dB	
1	0.237	27.58	0.06	0.12	27.76	62.22	-34.46	QP
2	0.237	19.91	0.06	0.12	20.09	52.22	-32.13	Average
3	0.313	34.05	0.06	0.10	34.21	59.88	-25.67	QP
4	0.313	25.94	0.06	0.10	26.10	49.88	-23.78	Average
5	0.375	28.72	0.06	0.10	28.88	58.39	-29.51	QP
6	0.375	20.88	0.06	0.10	21.04	48.39	-27.35	Average
7	0.510	29.63	0.06	0.11	29.80	56.00	-26.20	QP
8	0.510	21.76	0.06	0.11	21.93	46.00	-24.07	Average
9	0.627	33.49	0.07	0.12	33.68	56.00	-22.32	QP
10	0.627	24.90	0.07	0.12	25.09	46.00	-20.91	Average
11	24.529	16.45	1.01	0.23	17.69	60.00	-42.31	QP
12	24.529	9.12	1.01	0.23	10.36	50.00	-39.64	Average

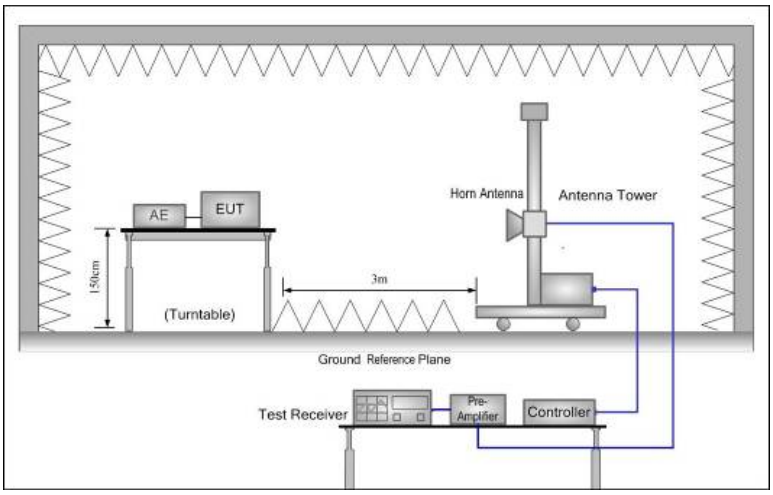
Notes:

1. An initial pre-scan was performed on the line and neutral lines with peak detector.
2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
3. Final Level =Receiver Read level + LISN Factor + Cable Loss

7.3 Radiated Emission Method

<table>
<tr><td>Test Requirement:</td><td>FCC Part15 C Section 15.209</td></tr>
<tr><td>Test Method:</td><td>ANSI C63.4:2014</td></tr>
<tr><td>Test Frequency Range:</td><td>30MHz to 10GHz</td></tr>
<tr><td>Test site:</td><td>Measurement Distance: 3m</td></tr>
<tr><td>Receiver setup:</td><td>
<table>
<tr><th>Frequency</th><th>Detector</th><th>RBW</th><th>VBW</th><th>Remark</th></tr>
<tr><td>30MHz-1GHz</td><td>Quasi-peak</td><td>120KHz</td><td>300KHz</td><td>Quasi-peak Value</td></tr>
<tr><td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak Value</td></tr>
<tr><td>Peak</td><td>1MHz</td><td>10Hz</td><td>Average Value</td></tr>
</table>
</td></tr>
<tr><td>Limit:
(Field strength of the fundamental signal)</td><td>
<table>
<tr><th>Frequency</th><th>Limit (dBuV/m @3m)</th><th>Remark</th></tr>
<tr><td>902MHz-928MHz</td><td>94.00</td><td>Quasi-peak Value</td></tr>
</table>
</td></tr>
<tr><td>Limit:
(Spurious Emissions)</td><td>
<table>
<tr><th>Frequency</th><th>Limit (dBuV/m @3m)</th><th>Remark</th></tr>
<tr><td>30MHz-88MHz</td><td>40.00</td><td>Quasi-peak Value</td></tr>
<tr><td>88MHz-216MHz</td><td>43.50</td><td>Quasi-peak Value</td></tr>
<tr><td>216MHz-960MHz</td><td>46.00</td><td>Quasi-peak Value</td></tr>
<tr><td>960MHz-1GHz</td><td>54.00</td><td>Quasi-peak Value</td></tr>
<tr><td rowspan="2">Above 1GHz</td><td>54.00</td><td>Average Value</td></tr>
<tr><td>74.00</td><td>Peak Value</td></tr>
</table>
</td></tr>
<tr><td>Limit:
(band edge)</td><td>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 Section 15.209, whichever is the lesser attenuation.</td></tr>
<tr><td>Test setup:</td><td>Below 1GHz
 

Above 1GHz</td></tr>
</table>

	
Test Procedure:	1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. 4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass

Measurement data:

7.3.1 Field Strength of The Fundamental Signal

Quasi-peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
908.40	89.30	23.15	4.88	29.10	88.23	94.00	-5.77	Vertical
908.40	89.30	23.15	4.88	29.10	88.23	94.00	-5.77	Horizontal
916.00	92.71	23.21	4.91	29.10	91.73	94.00	-2.27	Vertical
916.00	91.11	23.21	4.91	29.10	90.13	94.00	-3.87	Horizontal

7.3.2 Spurious emissions

■ Below 1GHz

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
41.13	42.64	15.57	0.67	30.04	28.84	40.00	-11.16	Vertical
53.13	45.91	15.10	0.80	29.97	31.84	40.00	-8.16	Vertical
105.64	51.22	14.63	1.24	29.66	37.43	43.50	-6.07	Vertical
112.13	52.80	13.83	1.30	29.62	38.31	43.50	-5.19	Vertical
191.75	44.52	12.56	1.80	29.23	29.65	43.50	-13.85	Vertical
264.75	43.20	14.22	2.19	29.75	29.86	46.00	-16.14	Vertical
93.44	47.09	14.58	1.14	29.73	33.08	43.50	-10.42	Horizontal
108.27	50.69	14.39	1.26	29.64	36.70	43.50	-6.80	Horizontal
191.07	52.91	12.56	1.80	29.23	38.04	43.50	-5.46	Horizontal
211.53	50.61	12.93	1.91	29.31	36.14	43.50	-7.36	Horizontal
264.75	47.60	14.22	2.19	29.75	34.26	46.00	-11.74	Horizontal
302.48	44.72	15.08	2.37	29.98	32.19	46.00	-13.81	Horizontal

■ **Above 1GHz**

908.4MHz

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
1816.80	36.68	25.37	4.87	34.14	32.78	74.00	-41.22	Vertical
2725.20	36.39	28.21	5.69	33.64	36.65	74.00	-37.35	Vertical
3633.60	33.62	29.17	7.21	32.60	37.40	74.00	-36.60	Vertical
4542.00	31.58	31.42	8.38	31.96	39.42	74.00	-34.58	Vertical
5450.40	28.78	31.89	9.45	32.41	37.71	74.00	-36.29	Vertical
1816.80	36.58	25.37	4.87	34.14	32.68	74.00	-41.32	Horizontal
2725.20	37.08	28.21	5.69	33.64	37.34	74.00	-36.66	Horizontal
3633.60	32.95	29.17	7.21	32.60	36.73	74.00	-37.27	Horizontal
4542.00	32.22	31.42	8.38	31.96	40.06	74.00	-33.94	Horizontal
5450.40	29.46	31.89	9.45	32.41	38.39	74.00	-35.61	Horizontal

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
1816.80	26.42	25.37	4.87	34.14	22.52	54.00	-31.48	Vertical
2725.20	26.93	28.21	5.69	33.64	27.19	54.00	-26.81	Vertical
3633.60	23.97	29.17	7.21	32.60	27.75	54.00	-26.25	Vertical
4542.00	21.41	31.42	8.38	31.96	29.25	54.00	-24.75	Vertical
5450.40	18.46	31.89	9.45	32.41	27.39	54.00	-26.61	Vertical
1816.80	26.18	25.37	4.87	34.14	22.28	54.00	-31.72	Horizontal
2725.20	27.26	28.21	5.69	33.64	27.52	54.00	-26.48	Horizontal
3633.60	22.35	29.17	7.21	32.60	26.13	54.00	-27.87	Horizontal
4542.00	22.68	31.42	8.38	31.96	30.52	54.00	-23.48	Horizontal
5450.40	19.73	31.89	9.45	32.41	28.66	54.00	-25.34	Horizontal

916MHz

Peak value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
1832.00	37.33	25.42	4.87	34.17	33.45	74.00	-40.55	Vertical
2748.00	37.99	28.24	5.71	33.61	38.33	74.00	-35.67	Vertical
3664.00	33.29	29.20	7.27	32.56	37.20	74.00	-36.80	Vertical
4580.00	31.07	31.49	8.40	31.98	38.98	74.00	-35.02	Vertical
5496.00	28.88	31.98	9.51	32.42	37.95	74.00	-36.05	Vertical
1832.00	37.07	25.42	4.87	34.17	33.19	74.00	-40.81	Horizontal
2748.00	38.17	28.24	5.71	33.61	38.51	74.00	-35.49	Horizontal
3664.00	33.32	29.20	7.27	32.56	37.23	74.00	-36.77	Horizontal
4580.00	31.78	31.49	8.40	31.98	39.69	74.00	-34.31	Horizontal
5496.00	29.92	31.98	9.51	32.42	38.99	74.00	-35.01	Horizontal

Average value:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	polarization
1832.00	27.79	25.42	4.87	34.17	23.91	54.00	-30.09	Vertical
2748.00	27.23	28.24	5.71	33.61	27.57	54.00	-26.43	Vertical
3664.00	23.71	29.20	7.27	32.56	27.62	54.00	-26.38	Vertical
4580.00	21.27	31.49	8.40	31.98	29.18	54.00	-24.82	Vertical
5496.00	18.56	31.98	9.51	32.42	27.63	54.00	-26.37	Vertical
1832.00	26.96	25.42	4.87	34.17	23.08	54.00	-30.92	Horizontal
2748.00	28.05	28.24	5.71	33.61	28.39	54.00	-25.61	Horizontal
3664.00	23.16	29.20	7.27	32.56	27.07	54.00	-26.93	Horizontal
4580.00	21.94	31.49	8.40	31.98	29.85	54.00	-24.15	Horizontal
5496.00	19.88	31.98	9.51	32.42	28.95	54.00	-25.05	Horizontal

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *The emission levels of other frequencies are very lower than the limit and not show in test report.*

7.3.3 Bandedge emissions

All of the restriction bands were tested, and only the data of worst case was exhibited.

Quasi-peak value:

908.4MHz:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
902.00	24.83	23.12	4.87	29.10	23.72	46.00	-22.28	Vertical
928.00	36.52	23.28	4.96	29.10	35.66	46.00	-10.34	Vertical
960.00	42.38	23.49	5.08	29.10	41.85	46.00	-4.15	Vertical
902.00	26.81	23.12	4.87	29.10	25.70	46.00	-20.30	Horizontal
928.00	33.95	23.28	4.96	29.10	33.09	46.00	-12.91	Horizontal
960.00	40.81	23.49	5.08	29.10	40.28	46.00	-5.72	Horizontal

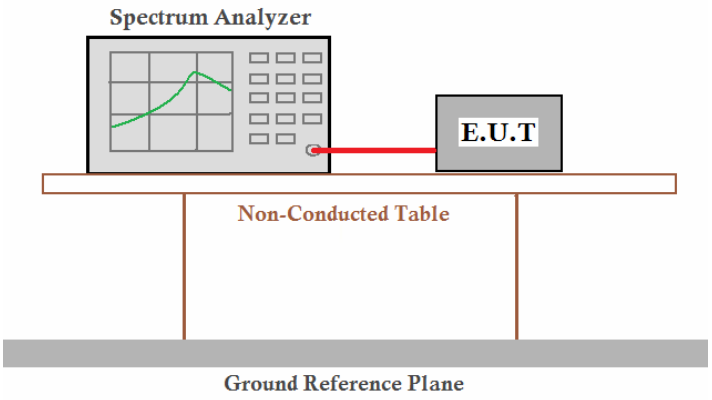
916MHz:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
902.00	24.96	23.12	4.87	29.10	23.85	46.00	-22.15	Vertical
928.00	37.00	23.28	4.96	29.10	36.14	46.00	-9.86	Vertical
960.00	42.60	23.49	5.08	29.10	42.07	46.00	-3.93	Vertical
902.00	27.04	23.12	4.87	29.10	25.93	46.00	-20.07	Horizontal
928.00	34.30	23.28	4.96	29.10	33.44	46.00	-12.56	Horizontal
960.00	41.10	23.49	5.08	29.10	40.57	46.00	-5.43	Horizontal

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *If the average limit is met when using a quasi-peak detector receiver, the EUT shall be deemed to meet both limits and measurement with the average detector receiver is unnecessary.*

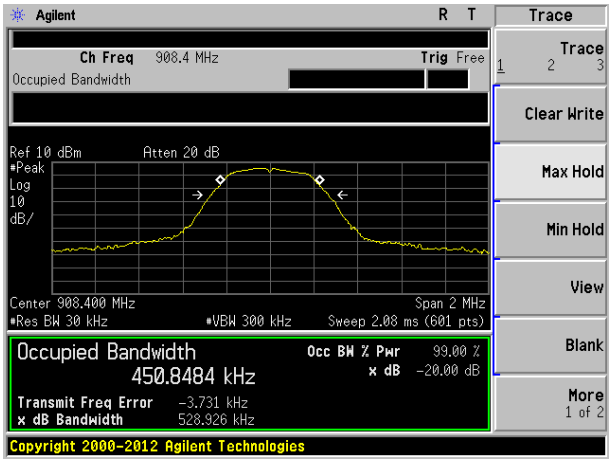
7.4 20dB Occupy Bandwidth

Test Requirement:	FCC Part15 C Section 15.249/15.215
Test Method:	ANSI C63.10:2013
Limit:	Operation Frequency range 2400MHz~2483.5MHz
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass

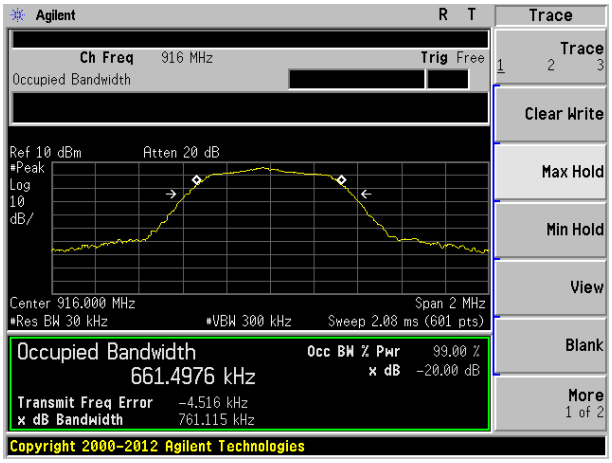
Measurement Data

Test channel	20dB bandwidth(kHz)	Result
908.40MHz	528.93	Pass
916.00MHz	761.12	Pass

Test plot as follows:



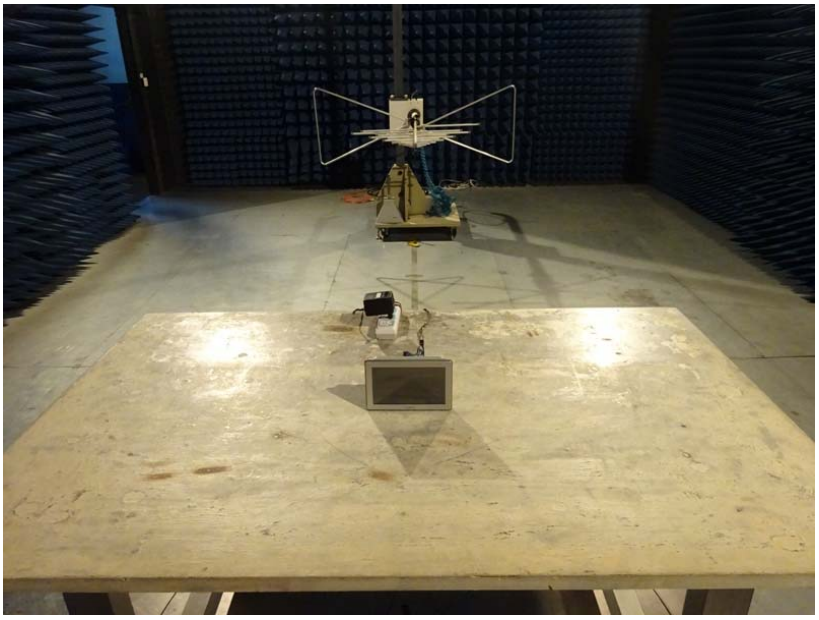
908.40MHz

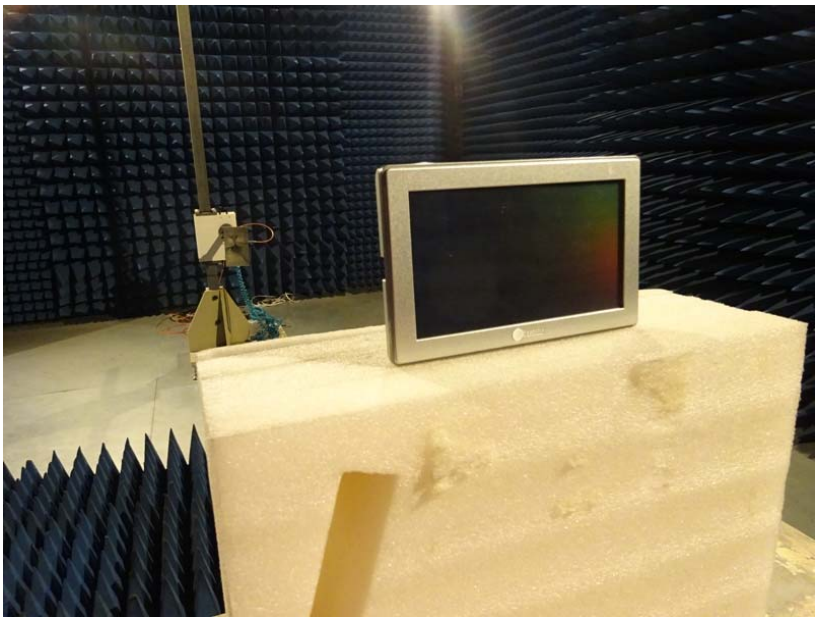


916.00MHz

8 Test Setup Photo

Radiated Emission





Conducted Emission

9 EUT Constructional Details

Reference to the test report No. GTS201609000018E01

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