Report No.: GTS201708000145F01

FCC REPORT

Applicant:	Autel Intelligent Tech. Corp., Ltd.
Address of Applicant:	6th - 10th Floor, Bldg. B1, Zhiyuan, Xueyuan Rd., Xili, Nanshan, Shenzhen, China
Manufacturer/Factory:	Autel Intelligent Tech. Corp., Ltd.
Address of Manufacturer/Factory:	6th - 10th Floor, Bldg. B1, Zhiyuan, Xueyuan Rd., Xili, Nanshan, Shenzhen, China

Equipment Under Test (EUT)

Product description:	PROFESSIONAL SCAN TOOL(Model: MaxiCheck MX808TS), AUTOMOTIVE DIAGNOSIS & ANALYSIS SYSTEM (Model: MaxiCOM MK808TS), AUTOMOTIVE DIAGNOSIS & ANALYSIS SYSTEM (Model: MaxiDAS DS808TS), AUTOMOTIVE DIAGNOSIS & ANALYSIS SYSTEM (Model: MaxiPRO MP808TS), COMPREHENSIVE TPMS TOOL(Model: MaxiTPMS TS608)
Trade Mark:	AUTEL
FCC ID:	WQ8MX808TS-17
Applicable standards:	FCC CFR Title 47 Part 15 Subpart C Section 15.231:2016
Date of sample receipt:	June 21, 2017
Date of Test:	June 22-27, 2017
Date of report issued:	June 28, 2017
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	*June 28, 2017*	*Original*

Prepared By:  ***Date:*** *June 28, 2017*

Project Engineer

Check By:  ***Date:*** *June 28, 2017*

Reviewer

3 Contents

Page

4 Test Summary

Test Item	Section in CFR 47	Result
Antenna requirement	15.203	Pass
Conduction Emission	15.207	Pass
Field strength of the fundamental signal	15.231(e)	Pass
Spurious emissions	15.231(e) &15.209	Pass
20dB Bandwidth	15.231(c)	Pass
Dwell time	15.231(e)	Pass

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

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 General Description of EUT

Product description:	PROFESSIONAL SCAN TOOL(Model: MaxiCheck MX808TS), AUTOMOTIVE DIAGNOSIS & ANALYSIS SYSTEM (Model: MaxiCOM MK808TS), AUTOMOTIVE DIAGNOSIS & ANALYSIS SYSTEM (Model: MaxiDAS DS808TS), AUTOMOTIVE DIAGNOSIS & ANALYSIS SYSTEM (Model: MaxiPRO MP808TS), COMPREHENSIVE TPMS TOOL(Model: MaxiTPMS TS608)
Test Model:	MaxiTPMS TS608
Remark:	*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:	433.94MHz, 315.0MHz
Modulation technology:	ASK
Antenna Type:	Integral Antenna
Antenna gain:	0dBi (declare by Manufacturer)
Power supply:	Adapter: Model:GME10C-050200FUu Input: AC 100-240V, 50-60Hz, 0.28A Output: DC 5V, 2A DC 3.7V 5000mAh Lithium Battery

5.2 Test mode

Transmitting mode	Keep the EUT in transmitting mode.

Per-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:

433.94MHz	Axis	X	Y	Z
	Field Strength(dBuV/m)	75.31	76.10	75.95

315MHz	Axis	X	Y	Z
	Field Strength(dBuV/m)	73.35	73.98	73.59

Final Test Mode:

According to ANSI C63.10 standards, the test results are both the “worst case” and “worst setup”:

Y axis (see the test setup photo)

5.3 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 fully 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.

5.4 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.
No. 301-309, 3/F., Jinyuan Business Building, No.2, Laodong Industrial Zone,
Xixiang Road, Baoan District, Shenzhen, Guangdong, China
Tel: 0755-27798480
Fax: 0755-27798960

5.5 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
17	Power Meter	Anritsu	ML2495A	GTS540	June 29 2016	June 28 2017
18	Power Sensor	Anritsu	MA2411B	GTS541	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	Coaxial Switch	ANRITSU CORP	MP59B	GTS225	June 29 2016	June 28 2017
4	Artificial Mains Network	SCHWARZBECK MESS	NSLK8127	GTS226	June 29 2016	June 28 2017
5	Coaxial Cable	GTS	N/A	GTS227	N/A	N/A
6	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
7	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

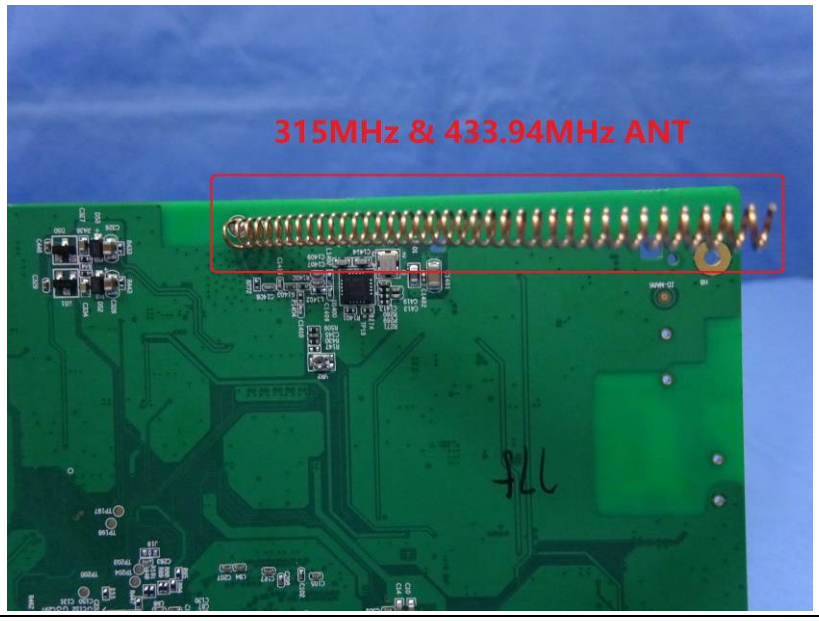
Standard requirement:	FCC Part15 C Section 15.203

15.203 requirement:

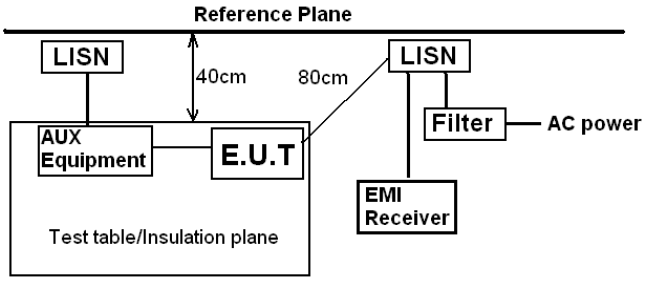
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit 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



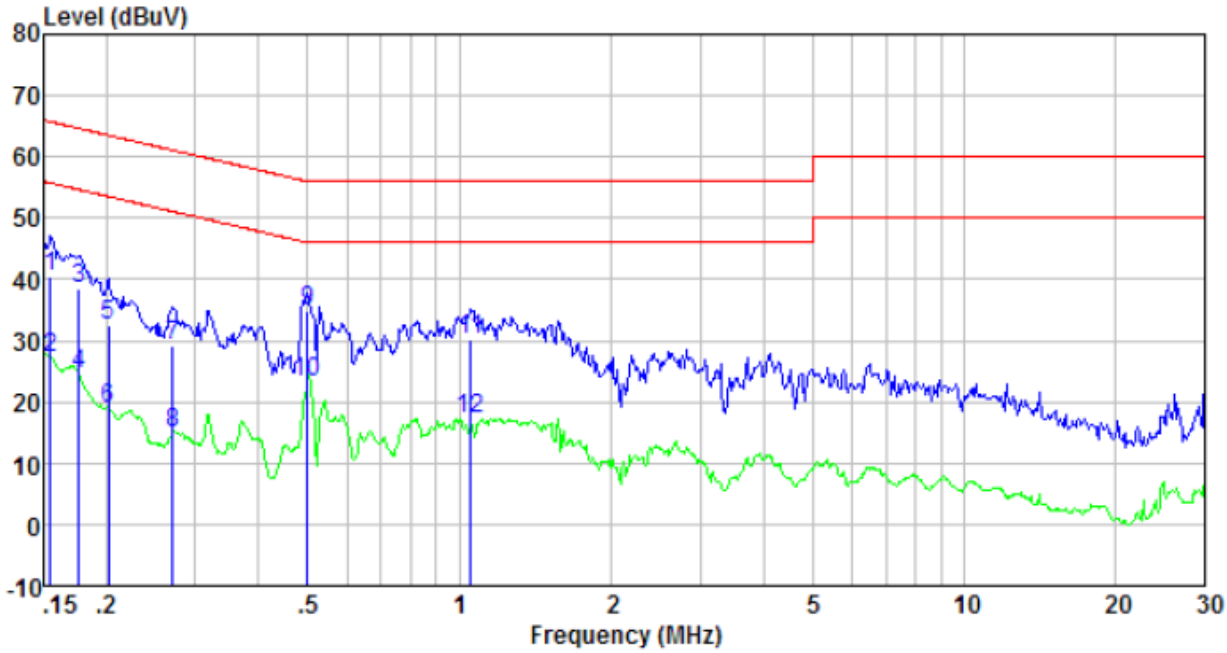
7.2 Conducted Emissions

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:

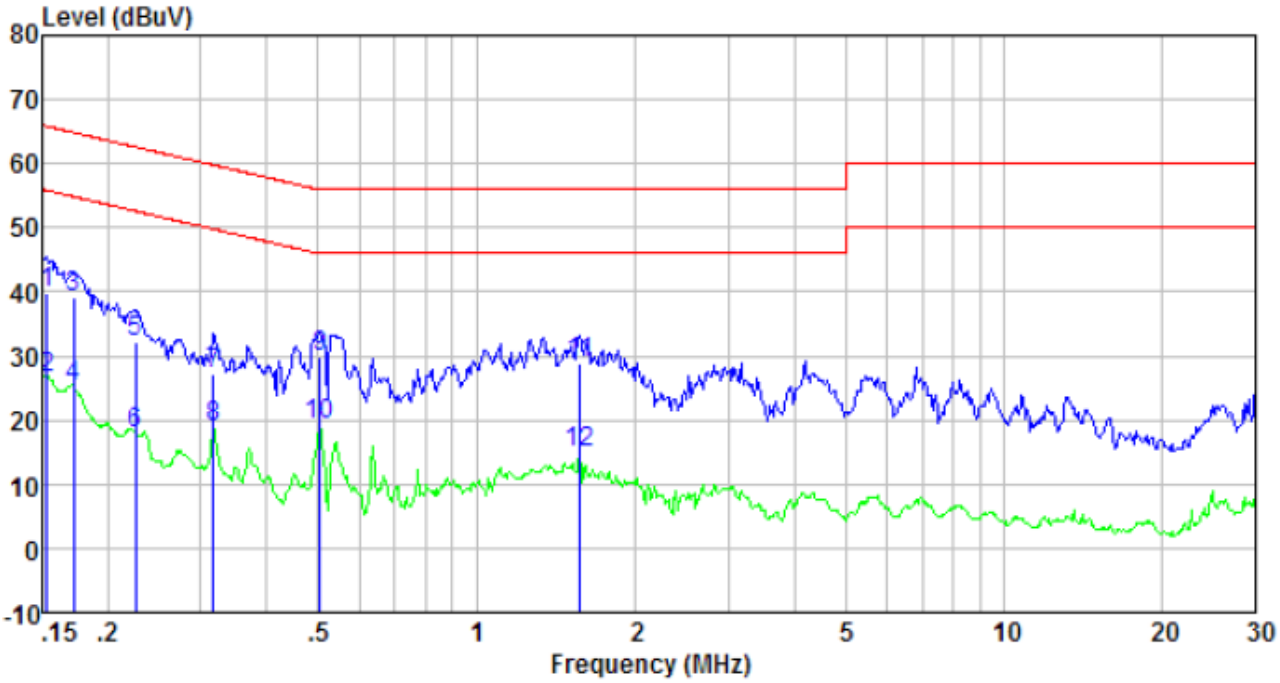
433.94MHz

Line:



Freq MHz	Reading level dBuV	lISN/ISN factor dB	Cable loss dB	level dBuV	Limit level dBuV	Over limit dB	Remark
0.155	39.91	0.42	0.12	40.45	65.74	-25.29	QP
0.155	26.51	0.42	0.12	27.05	55.74	-28.69	Average
0.176	37.82	0.42	0.13	38.37	64.68	-26.31	QP
0.176	23.89	0.42	0.13	24.44	54.68	-30.24	Average
0.202	31.87	0.43	0.13	32.43	63.54	-31.11	QP
0.202	18.31	0.43	0.13	18.87	53.54	-34.67	Average
0.270	28.47	0.44	0.11	29.02	61.12	-32.10	QP
0.270	14.34	0.44	0.11	14.89	51.12	-36.23	Average
0.499	34.29	0.38	0.11	34.78	56.01	-21.23	QP
0.499	22.71	0.38	0.11	23.20	46.01	-22.81	Average
1.054	29.84	0.25	0.13	30.22	56.00	-25.78	QP
1.054	16.83	0.25	0.13	17.21	46.00	-28.79	Average

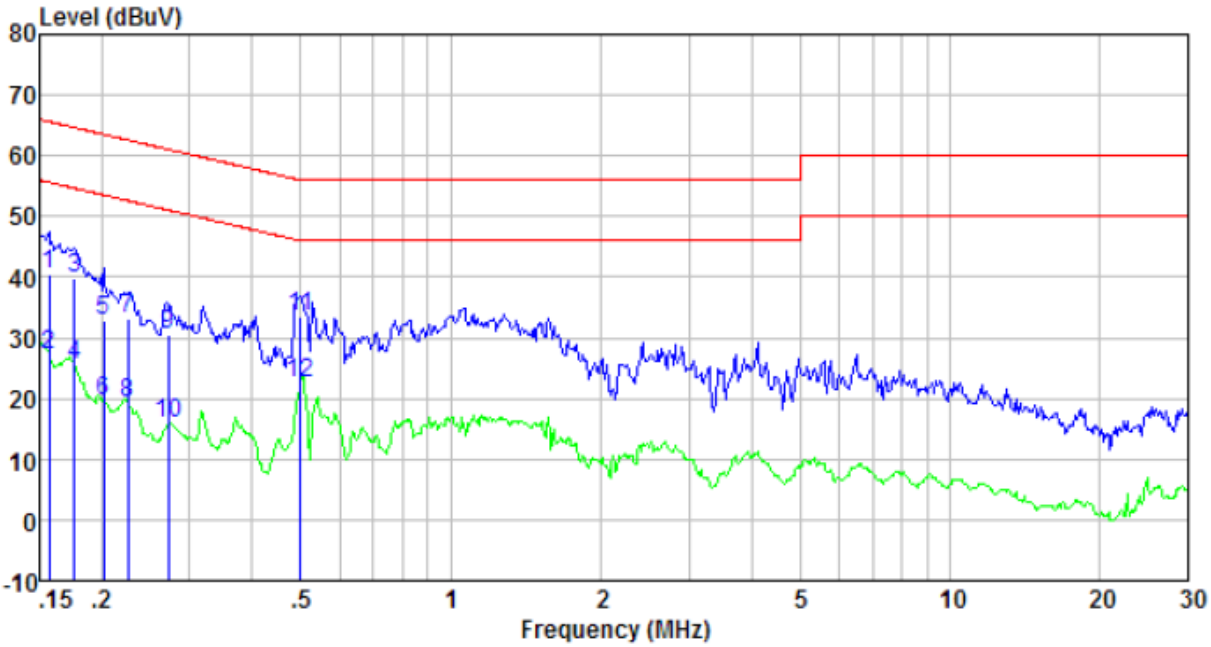
Neutral:



Freq MHz	Reading level dBuV	lISN/ISN factor dB	Cable loss dB	level dBuV	Limit level dBuV	Over limit dB	Remark
0.153	39.21	0.41	0.12	39.74	65.82	-26.08	QP
0.153	26.00	0.41	0.12	26.53	55.82	-29.29	Average
0.172	38.49	0.41	0.12	39.02	64.86	-25.84	QP
0.172	24.63	0.41	0.12	25.16	54.86	-29.70	Average
0.226	31.65	0.42	0.12	32.19	62.61	-30.42	QP
0.226	17.38	0.42	0.12	17.92	52.61	-34.69	Average
0.317	26.61	0.42	0.10	27.13	59.80	-32.67	QP
0.317	18.34	0.42	0.10	18.86	49.80	-30.94	Average
0.505	29.53	0.35	0.11	29.99	56.00	-26.01	QP
0.505	18.92	0.35	0.11	19.38	46.00	-26.62	Average
1.568	28.59	0.20	0.14	28.93	56.00	-27.07	QP
1.568	14.72	0.20	0.14	15.06	46.00	-30.94	Average

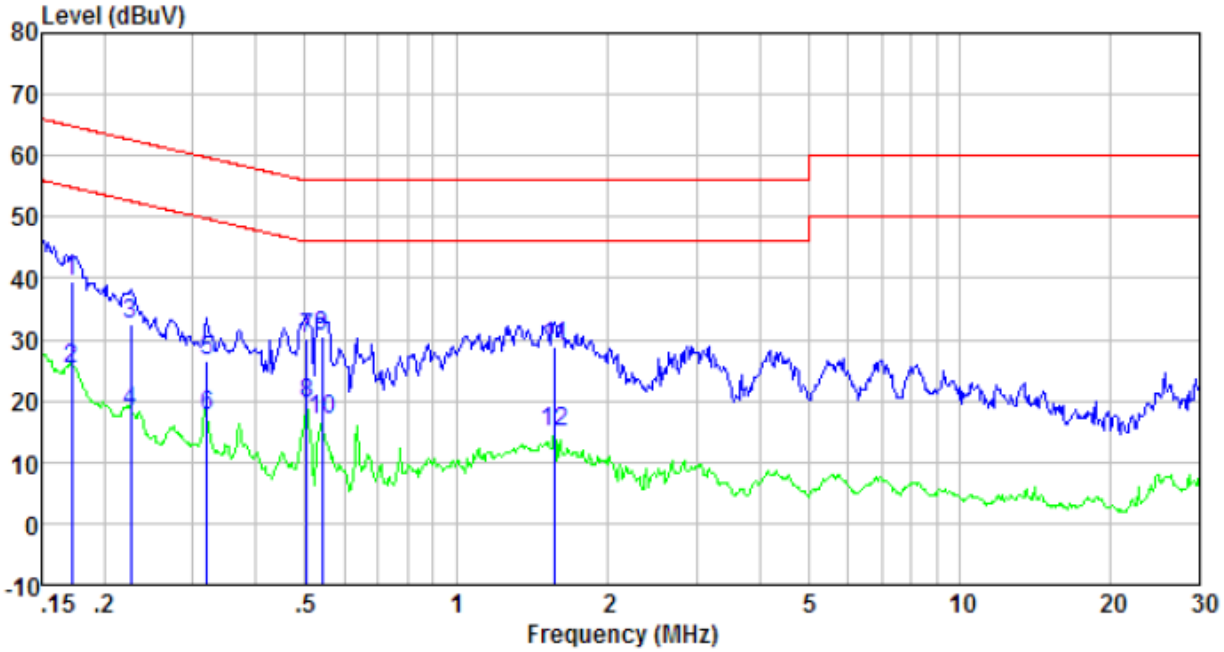
315MHz

Line:



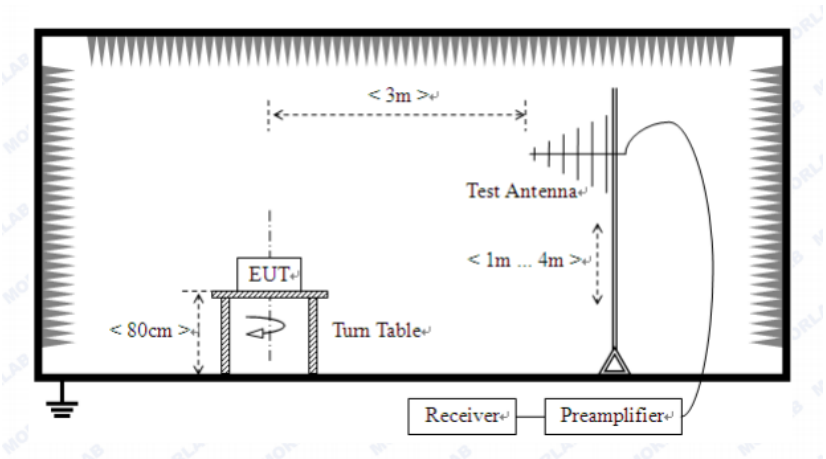
Freq MHz	Reading level dBuV	lISN/ISN factor dB	Cable loss dB	level dBuV	Limit level dBuV	Over limit dB	Remark
0.156	40.09	0.42	0.12	40.63	65.65	-25.02	QP
0.156	26.56	0.42	0.12	27.10	55.65	-28.55	Average
0.176	39.14	0.42	0.13	39.69	64.68	-24.99	QP
0.176	24.85	0.42	0.13	25.40	54.68	-29.28	Average
0.202	32.30	0.43	0.13	32.86	63.54	-30.68	QP
0.202	18.89	0.43	0.13	19.45	53.54	-34.09	Average
0.226	32.56	0.43	0.12	33.11	62.61	-29.50	QP
0.226	18.58	0.43	0.12	19.13	52.61	-33.48	Average
0.272	29.88	0.44	0.11	30.43	61.07	-30.64	QP
0.272	15.32	0.44	0.11	15.87	51.07	-35.20	Average
0.499	32.94	0.38	0.11	33.43	56.01	-22.58	QP
0.499	21.91	0.38	0.11	22.40	46.01	-23.61	Average

Neutral:

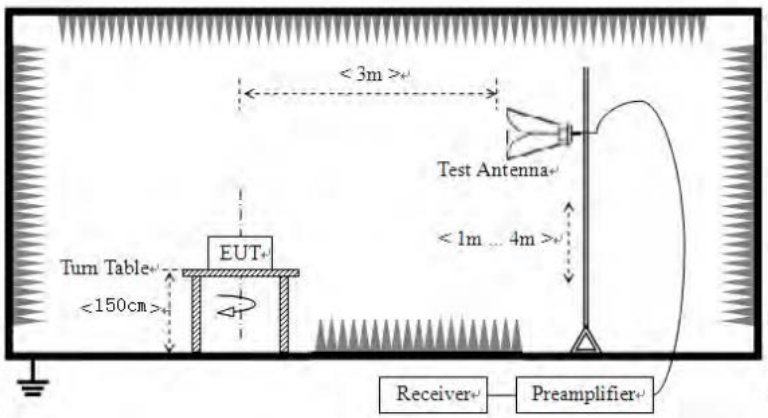


Freq MHz	Reading level dBuV	lISN/ISN factor dB	Cable loss dB	level dBuV	Limit level dBuV	Over limit dB	Remark
0.172	38.85	0.41	0.12	39.38	64.86	-25.48	QP
0.172	24.83	0.41	0.12	25.36	54.86	-29.50	Average
0.226	32.02	0.42	0.12	32.56	62.61	-30.05	QP
0.226	17.81	0.42	0.12	18.35	52.61	-34.26	Average
0.320	25.96	0.42	0.10	26.48	59.71	-33.23	QP
0.320	16.99	0.42	0.10	17.51	49.71	-32.20	Average
0.505	29.57	0.35	0.11	30.03	56.00	-25.97	QP
0.505	18.93	0.35	0.11	19.39	46.00	-26.61	Average
0.541	30.09	0.32	0.11	30.52	56.00	-25.48	QP
0.541	16.37	0.32	0.11	16.80	46.00	-29.20	Average
1.568	28.48	0.20	0.14	28.82	56.00	-27.18	QP
1.568	14.71	0.20	0.14	15.05	46.00	-30.95	Average

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 C63.10:2013</td></tr>
<tr><td>Test Frequency Range:</td><td>30MHz to 5000MHz</td></tr>
<tr><td>Test site:</td><td>Measurement Distance: 3m</td></tr>
<tr><td>Receiver setup:</td><td>
<table>
<tr><td>Frequency</td><td>Detector</td><td>RBW</td><td>VBW</td><td>Remark</td></tr>
<tr><td>30MHz-1GHz</td><td>Quasi-peak</td><td>120KHz</td><td>300KHz</td><td>Quasi-peak Value</td></tr>
<tr><td>Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak Value</td></tr>
</table>
</td></tr>
<tr><td>Limit:
(Field strength of the fundamental signal)</td><td>
<table>
<tr><td>Frequency</td><td>Limit (dBuV/m @3m)</td><td>Remark</td></tr>
<tr><td rowspan="2">433.94MHz</td><td>72.87</td><td>Average Value</td></tr>
<tr><td>92.87</td><td>Peak Value</td></tr>
<tr><td rowspan="2">315MHz</td><td>67.66</td><td>Average Value</td></tr>
<tr><td>87.66</td><td>Peak Value</td></tr>
</table>
</td></tr>
<tr><td>Limit:
(Spurious Emissions)</td><td>
<table>
<tr><td>Frequency</td><td>Limit (dBuV/m @3m)</td><td>Remark</td></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>
Or The maximum permitted unwanted emission level is 20 dB below the maximum permitted fundamental level whichever limit permits a higher field strength.
</td></tr>
<tr><td>Test setup:</td><td>Below 1GHz
 

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

	
Test Procedure:	1. During the test, the New Battery was used. 2. The EUT was placed on the top of a rotating table (0.8 meters for below 1GHz and 1.5 meters for above 1GHz) above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 3. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 4. 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. 5. 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. 6. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 7. 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

433.94MHz:

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
433.94	83.27	17.53	3.02	29.43	74.39	92.87	-18.48	Horizontal
433.94	81.54	17.53	3.02	29.43	72.66	92.87	-20.21	Vertical

Average value:

Frequency (MHz)	Peak Value (dBuV/m)	Duty cycle factor	Average value (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
433.94	74.39	-20.26	54.13	72.87	-18.74	Horizontal
433.94	72.66	-20.26	52.40	72.87	-20.47	Vertical

315MHz:

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
315.00	82.12	15.28	2.44	29.29	70.55	87.66	-17.11	Horizontal
315.00	79.17	15.28	2.44	29.91	66.98	87.66	-20.68	Vertical

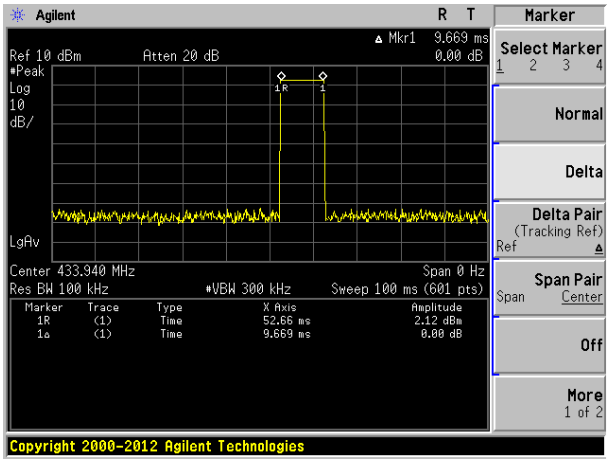
Average value:

Frequency (MHz)	Peak Value (dBuV/m)	Duty cycle factor	Average value (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
315.00	70.55	-20.00	50.55	67.66	-17.11	Horizontal
315.00	66.98	-20.00	46.98	67.66	-20.68	Vertical

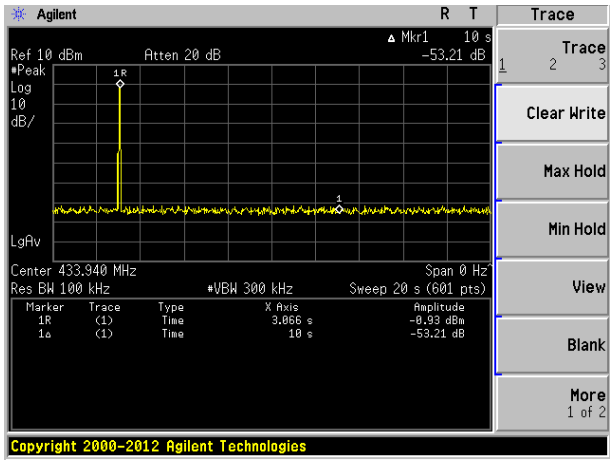
433.94MHz:

Average value:	
Calculate Formula:	Average value=Peak value + Duty Cycle Factor
	Duty cycle factor=20 log(Duty cycle)
	Duty cycle=on time/100 milliseconds or period, whichever is less
Test data:	T on time =9.669(ms)
	T period >10（s）
	Duty cycle=0.097
	duty cycle factor=-20.26

Test plot as follows:
Ton time:



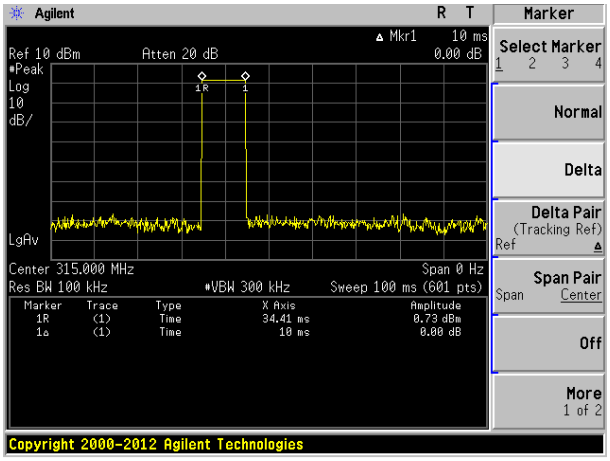
T period:



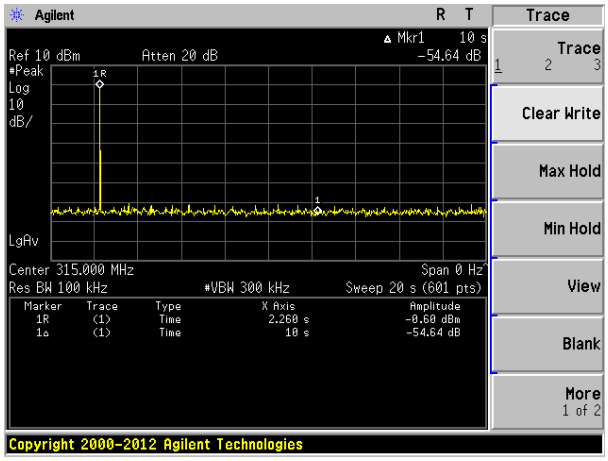
315MHz:

Average value:	
Calculate Formula:	Average value=Peak value + Duty Cycle Factor
	Duty cycle factor=20 log(Duty cycle)
	Duty cycle=on time/100 milliseconds or period, whichever is less
Test data:	T on time =10(ms)
	T period >10（s）
	Duty cycle=0.1
	duty cycle factor=-20.00

Test plot as follows:
Ton time:



T period:



7.3.2 Spurious emissions

Quasi-peak Value

433.94MHz:

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
43.66	35.05	12.25	0.70	30.03	17.97	40.00	-22.03	Vertical
53.88	32.58	11.93	0.81	29.97	15.35	40.00	-24.65	Vertical
79.52	47.54	7.30	1.02	29.80	26.06	40.00	-13.94	Vertical
114.92	50.83	10.00	1.32	29.60	32.55	43.50	-10.95	Vertical
187.10	40.76	9.40	1.78	29.25	22.69	43.50	-20.81	Vertical
271.33	42.24	12.53	2.23	29.81	27.19	46.00	-18.81	Vertical
40.70	28.08	12.27	0.67	30.04	10.98	40.00	-29.02	Horizontal
66.03	36.37	8.73	0.91	29.88	16.13	40.00	-23.87	Horizontal
82.36	42.42	8.40	1.05	29.78	22.09	40.00	-17.91	Horizontal
114.11	38.48	10.60	1.31	29.60	20.79	43.50	-22.71	Horizontal
148.44	44.39	7.50	1.56	29.41	24.04	43.50	-19.46	Horizontal
272.28	41.94	12.63	2.24	29.81	27.00	46.00	-19.00	Horizontal

315MHz:

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
43.66	35.05	12.25	0.70	30.03	17.97	40.00	-22.03	Vertical
79.52	47.54	7.30	1.02	29.80	26.06	40.00	-13.94	Vertical
114.92	49.84	10.00	1.32	29.60	31.56	43.50	-11.94	Vertical
121.13	50.25	9.07	1.37	29.56	31.13	43.50	-12.37	Vertical
148.44	48.55	7.50	1.56	29.41	28.20	43.50	-15.30	Vertical
271.33	40.24	12.53	2.23	29.81	25.19	46.00	-20.81	Vertical
66.03	36.37	8.73	0.91	29.88	16.13	40.00	-23.87	Horizontal
82.36	42.42	8.40	1.05	29.78	22.09	40.00	-17.91	Horizontal
121.12	40.61	9.07	1.37	29.56	21.49	43.50	-22.01	Horizontal
172.00	45.43	8.50	1.70	29.31	26.32	43.50	-17.18	Horizontal
214.51	42.61	10.69	1.93	29.35	25.88	43.50	-17.62	Horizontal
297.22	43.79	13.40	2.35	29.99	29.55	46.00	-16.45	Horizontal

Harmonic emissions

Peak value: (433.94MHz)

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
867.88	42.33	22.78	4.74	29.13	40.72	72.87	-32.15	Vertical
1301.82	37.02	25.63	4.54	33.27	33.92	74.00	-40.08	Vertical
1735.76	38.98	25.05	4.82	34.00	34.85	74.00	-39.15	Vertical
2169.70	38.87	27.74	5.15	34.27	37.49	74.00	-36.51	Vertical
2603.64	38.21	27.82	5.58	33.78	37.83	74.00	-36.17	Vertical
3037.58	36.77	28.56	6.00	33.28	38.05	74.00	-35.95	Vertical
3471.52	35.50	28.87	6.89	32.79	38.47	74.00	-35.53	Vertical
3905.46	33.14	29.52	7.69	32.29	38.06	74.00	-35.94	Vertical
4339.40	33.26	30.88	8.19	31.86	40.47	74.00	-33.53	Vertical
867.88	42.34	22.78	4.74	29.13	40.73	72.87	-32.14	Horizontal
1301.82	38.25	25.63	4.54	33.27	35.15	74.00	-38.85	Horizontal
1735.76	39.12	25.05	4.82	34.00	34.99	74.00	-39.01	Horizontal
2169.70	37.85	27.74	5.15	34.27	36.47	74.00	-37.53	Horizontal
2603.64	37.86	27.82	5.58	33.78	37.48	74.00	-36.52	Horizontal
3037.58	35.47	28.56	6.00	33.28	36.75	74.00	-37.25	Horizontal
3471.52	36.29	28.87	6.89	32.79	39.26	74.00	-34.74	Horizontal
3905.46	33.79	29.52	7.69	32.29	38.71	74.00	-35.29	Horizontal
4339.40	33.63	30.88	8.19	31.86	40.84	74.00	-33.16	Horizontal

Average value:

Frequency (MHz)	Level (dBuV/m)	Duty cycle factor	Average value (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
867.84	40.72	-20.26	20.46	52.87	-32.41	Vertical
1301.76	33.92	-20.26	13.66	54.00	-40.34	Vertical
1735.68	34.85	-20.26	14.59	54.00	-39.41	Vertical
2169.60	37.49	-20.26	17.23	54.00	-36.77	Vertical
2603.52	37.83	-20.26	17.57	54.00	-36.43	Vertical
3037.44	38.05	-20.26	17.79	54.00	-36.21	Vertical
3471.36	38.47	-20.26	18.21	54.00	-35.79	Vertical
3905.28	38.06	-20.26	17.80	54.00	-36.20	Vertical
4339.20	40.47	-20.26	20.21	54.00	-33.79	Vertical
867.84	40.73	-20.26	20.47	52.87	-32.40	Horizontal
1301.76	35.15	-20.26	14.89	54.00	-39.11	Horizontal
1735.68	34.99	-20.26	14.73	54.00	-39.27	Horizontal
2169.60	36.47	-20.26	16.21	54.00	-37.79	Horizontal
2603.52	37.48	-20.26	17.22	54.00	-36.78	Horizontal
3037.44	36.75	-20.26	16.49	54.00	-37.51	Horizontal
3471.36	39.26	-20.26	19.00	54.00	-35.00	Horizontal
3905.28	38.71	-20.26	18.45	54.00	-35.55	Horizontal
4339.20	40.84	-20.26	20.58	54.00	-33.42	Horizontal

Peak value: (315MHz)

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
630.00	46.38	20.57	3.84	29.27	41.52	67.66	-26.14	Vertical
945.00	40.25	23.40	5.03	29.10	39.58	67.66	-28.08	Vertical
1260.00	35.57	25.55	4.51	33.18	32.45	74.00	-41.55	Vertical
1575.00	35.66	25.02	4.73	33.74	31.67	74.00	-42.33	Vertical
1890.00	35.69	25.70	4.90	34.26	32.03	74.00	-41.97	Vertical
2205.00	35.72	27.96	5.19	34.23	34.64	74.00	-39.36	Vertical
2520.00	35.83	27.58	5.51	33.88	35.04	74.00	-38.96	Vertical
2835.00	34.29	28.39	5.79	33.51	34.96	74.00	-39.04	Vertical
3150.00	34.97	28.87	6.25	33.16	36.93	74.00	-37.07	Vertical
630.00	46.24	20.57	3.84	29.27	41.38	67.66	-26.28	Horizontal
945.00	36.31	23.40	5.03	29.10	35.64	67.66	-32.02	Horizontal
1260.00	39.23	25.55	4.51	33.18	36.11	74.00	-37.89	Horizontal
1575.00	39.19	25.02	4.73	33.74	35.20	74.00	-38.80	Horizontal
1890.00	39.28	25.70	4.90	34.26	35.62	74.00	-38.38	Horizontal
2205.00	38.03	27.96	5.19	34.23	36.95	74.00	-37.05	Horizontal
2520.00	37.56	27.58	5.51	33.88	36.77	74.00	-37.23	Horizontal
2835.00	36.13	28.39	5.79	33.51	36.80	74.00	-37.20	Horizontal
3150.00	35.81	28.87	6.25	33.16	37.77	74.00	-36.23	Horizontal

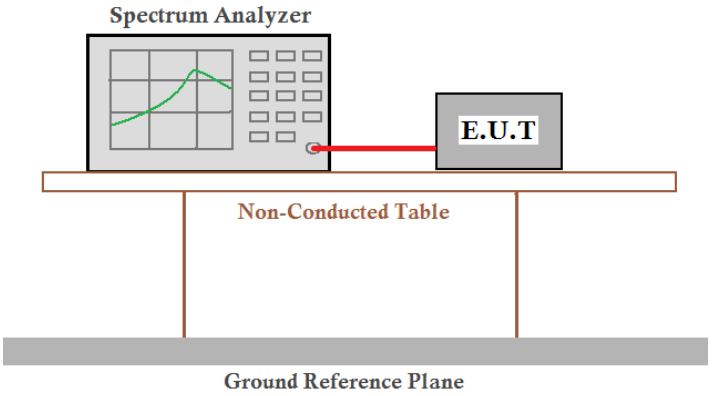
Average value:

Frequency (MHz)	Level (dBuV/m)	Duty cycle factor	Average value (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
630.00	41.52	-20.00	21.52	47.66	-26.14	Vertical
945.00	39.58	-20.00	19.58	47.66	-28.08	Vertical
1260.00	32.45	-20.00	12.45	54.00	-41.55	Vertical
1575.00	31.67	-20.00	11.67	54.00	-42.33	Vertical
1890.00	32.03	-20.00	12.03	54.00	-41.97	Vertical
2205.00	34.64	-20.00	14.64	54.00	-39.36	Vertical
2520.00	35.04	-20.00	15.04	54.00	-38.96	Vertical
2835.00	34.96	-20.00	14.96	54.00	-39.04	Vertical
3150.00	36.93	-20.00	16.93	54.00	-37.07	Vertical
630.00	41.38	-20.00	21.38	47.66	-26.28	Horizontal
945.00	35.64	-20.00	15.64	47.66	-32.02	Horizontal
1260.00	36.11	-20.00	16.11	54.00	-37.89	Horizontal
1575.00	35.20	-20.00	15.20	54.00	-38.80	Horizontal
1890.00	35.62	-20.00	15.62	54.00	-38.38	Horizontal
2205.00	36.95	-20.00	16.95	54.00	-37.05	Horizontal
2520.00	36.77	-20.00	16.77	54.00	-37.23	Horizontal
2835.00	36.80	-20.00	16.80	54.00	-42.15	Horizontal
3150.00	37.77	-20.00	17.77	54.00	-41.29	Horizontal

Remark:

1. *Final Level =Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor*
2. *Average value=Peak value + Duty cycle factor*

7.4 20dB Occupy Bandwidth

Test Requirement:	FCC Part15 C Section 15.231 (c)
Test Method:	ANSI C63.10:2013
Limit:	The bandwidth of the emission shall be no wider than 0.25% of the center frequency for devices operating above 70 MHz and below 900MHz. For devices operating above 900 MHz, the emission shall be no wider than 0.5% of the center frequency. Bandwidth is determined at the points 20 dB down from the modulated carrier.
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

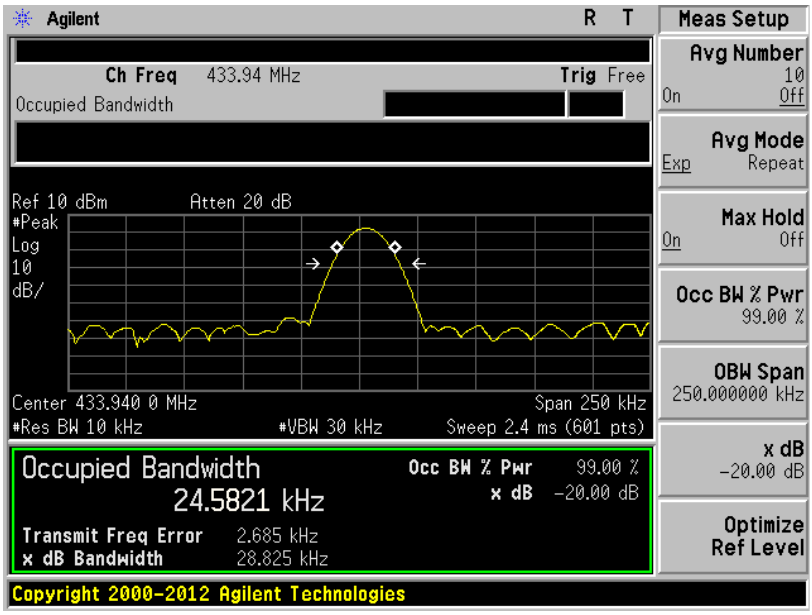
Test Frequency (MHz)	20dB bandwidth (MHz)	Limit (MHz)	Result
433.94	0.0288	1.0849	Pass
315	0.0287	0.7875	Pass

Note: Limit(433.94MHz)= Fundamental frequency×0.25%=433.94×0.25%=1.0849MHz

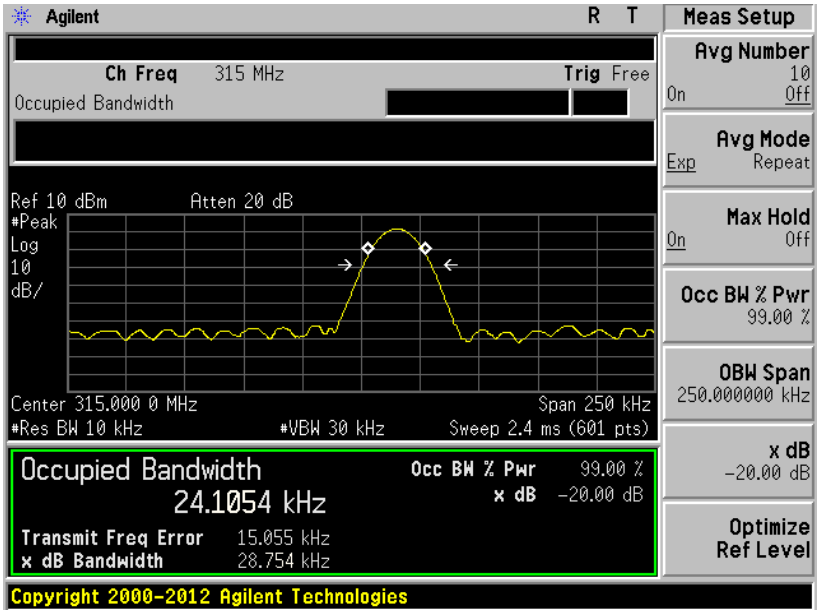
Limit(315MHz)= Fundamental frequency×0.25%=315×0.25%=0.7875MHz

Test plot as follows:

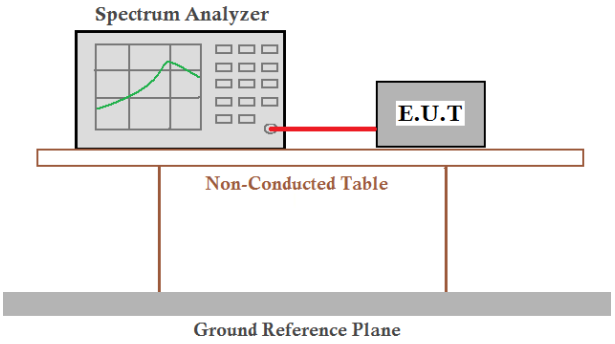
433.94MHz



315MHz:



7.5 Dwell time

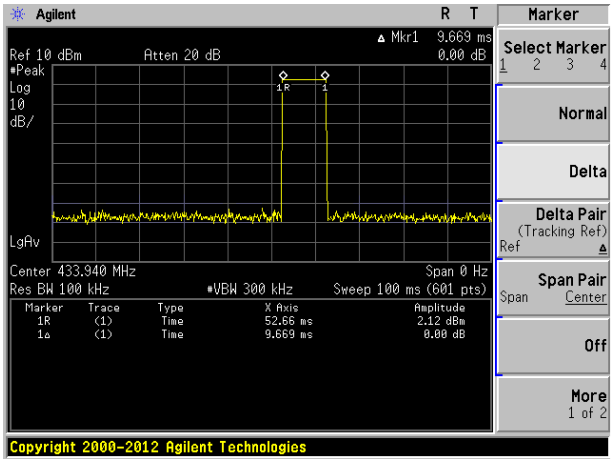
Test Requirement:	FCC Part15 C Section 15.231 (e)
Test Method:	ANSI C63.10:2013
Receiver setup:	RBW=100KHz, VBW=300KHz, span=0Hz, detector: Peak
Limit:	Not more than 1 seconds
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass

Measurement data:

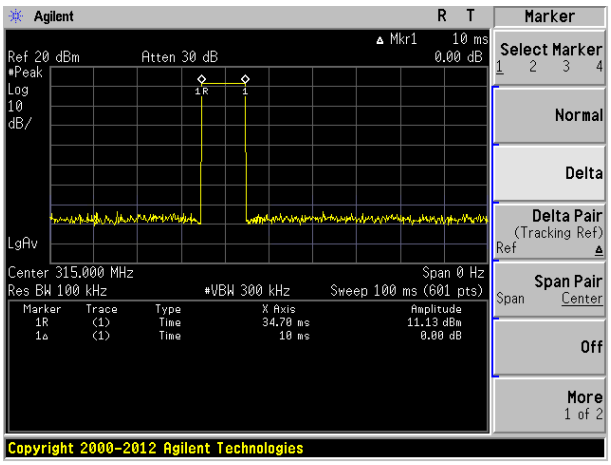
Test Frequency (MHz)	Duration of each TX (second)	Limit (second)	Result
433.94	0.0097	<1.0	Pass
315	0.0100	<1.0	Pass

Test plot as follows:

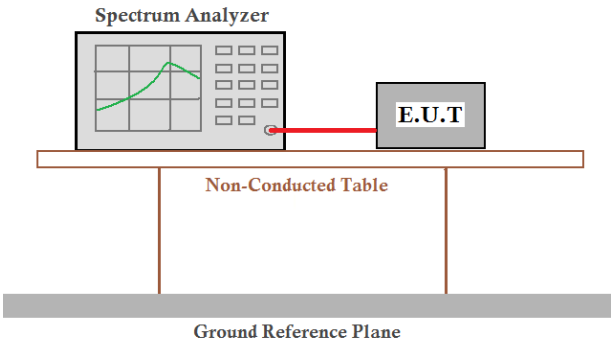
433.94MHz:



315MHz:



7.6 Silent period

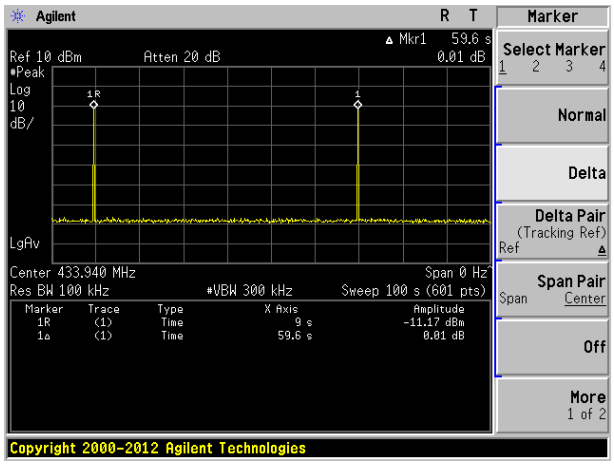
Test Requirement:	FCC Part15 C Section 15.231 (e)
Test Method:	ANSI C63.10:2013
Receiver setup:	RBW=100KHz, VBW=300KHz, span=0Hz, detector: Peak
Limit:	at least 30 times the duration of the transmission or more than 10 seconds
Test Procedure:	1. According to the follow Test-setup, keep the relative position between the artificial antenna and the EUT. 2. Set the EUT to proper test channel. 3. Single scan the transmit, and read the transmission time.
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:

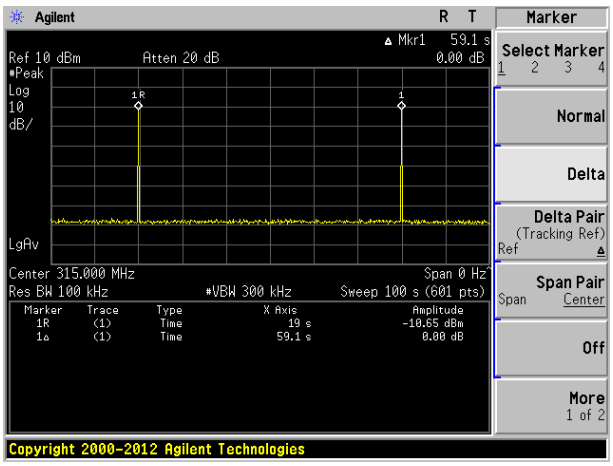
Test Frequency (MHz)	Silent period (second)	Limit (second)	Result
433.94	59.6	>10	Pass
315	59.1	>10	Pass
Remark	The manufacturer declared that the silent time is 1 minutes in normal working condition.		

Test plot as follows:

433.94MHz:

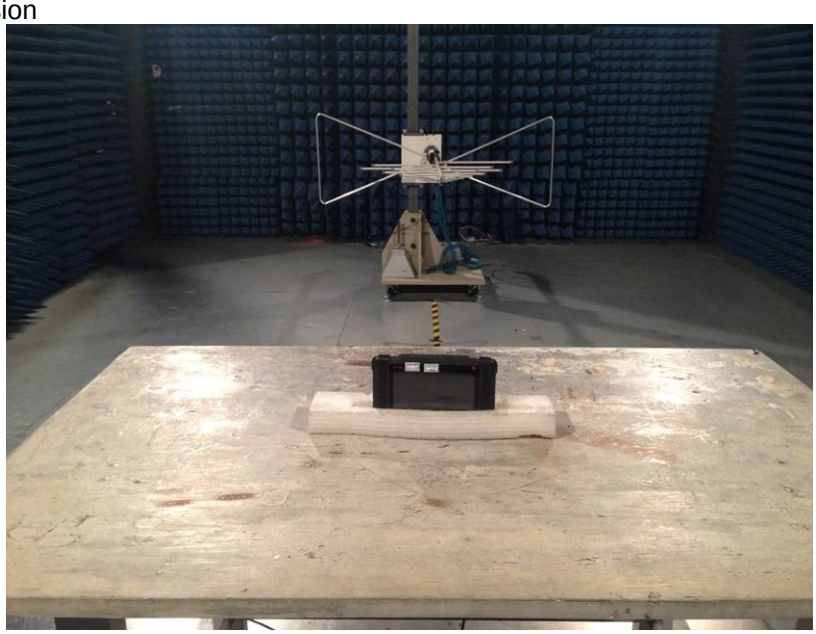


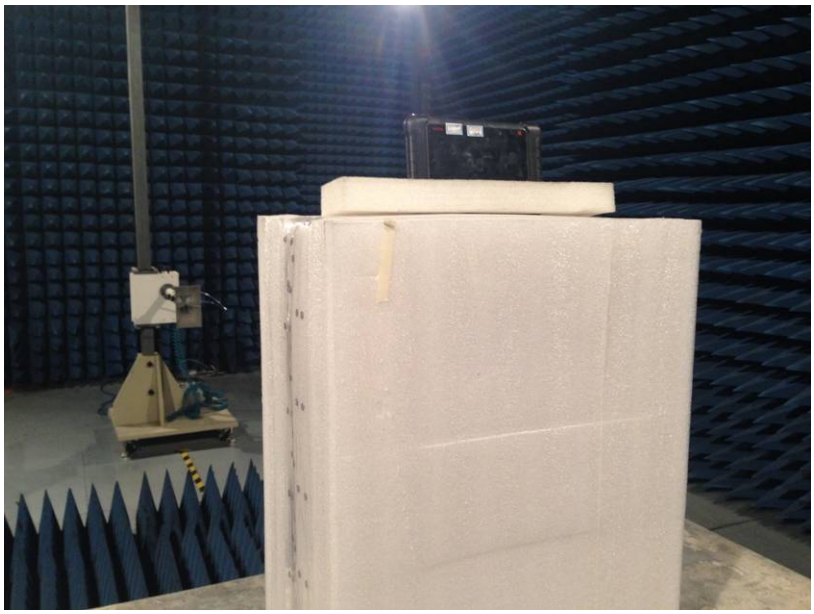
315MHz:



8 Test Setup Photo

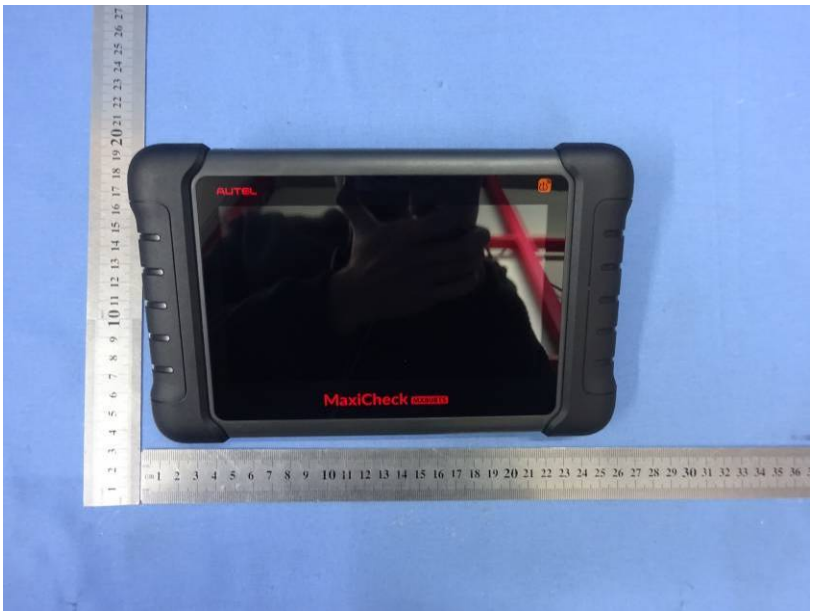
Radiated Emission

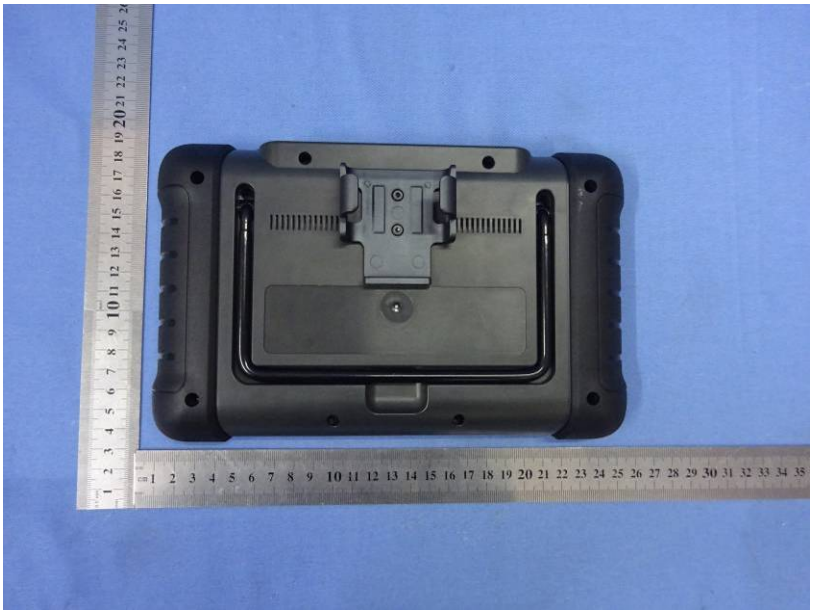


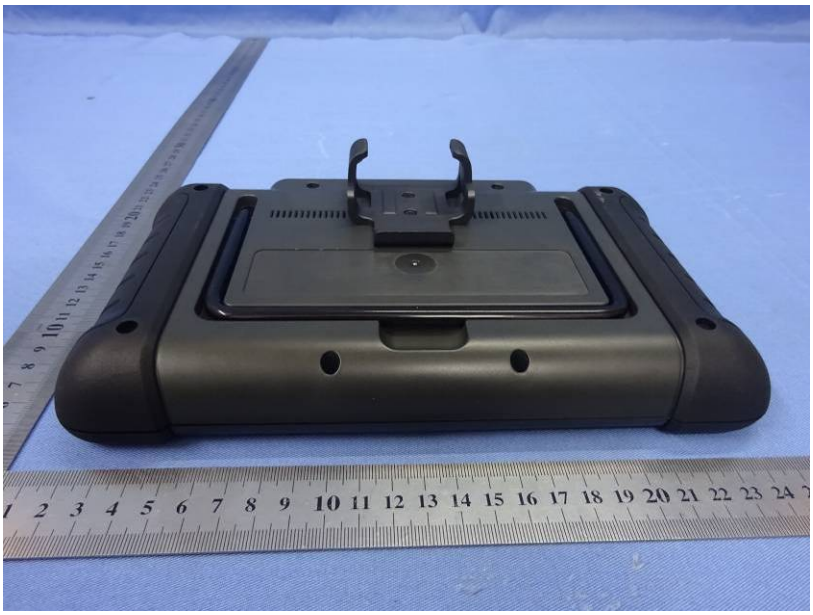


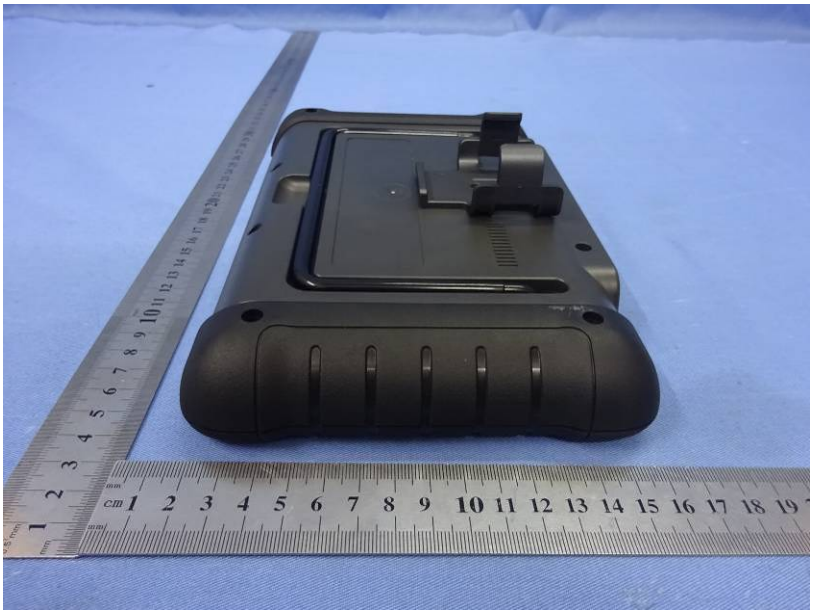
Conduction Emission

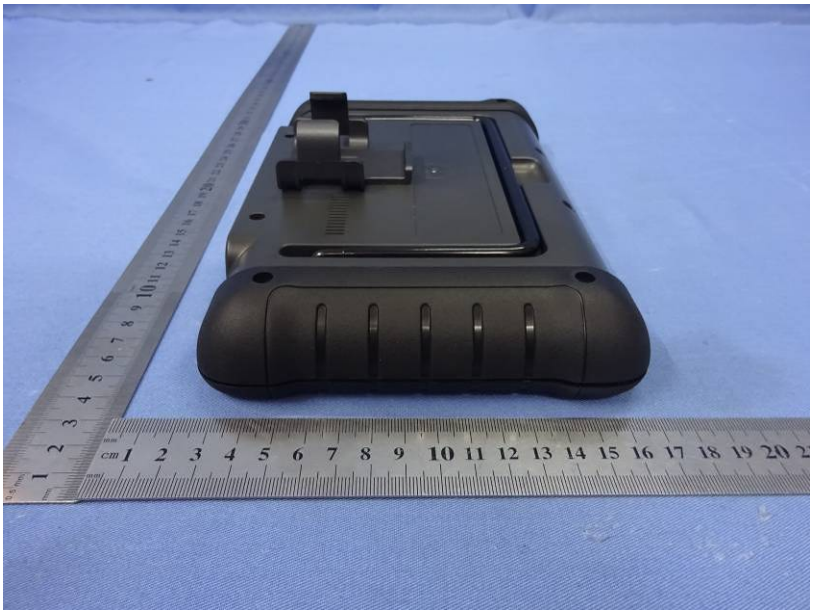
9 EUT Constructional Details

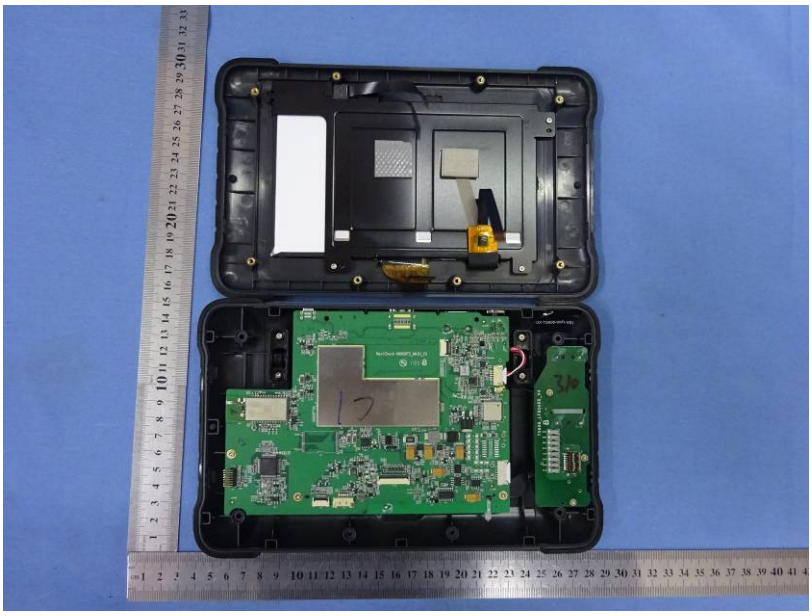


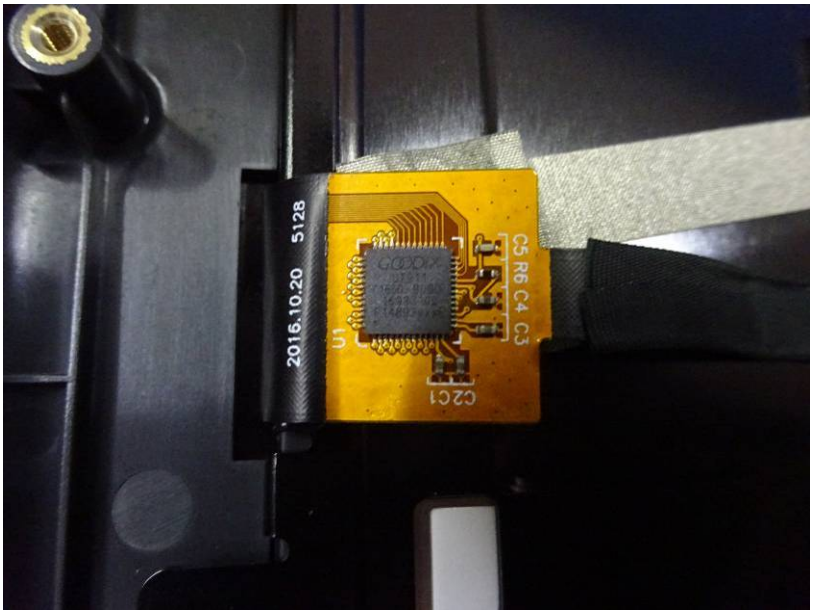


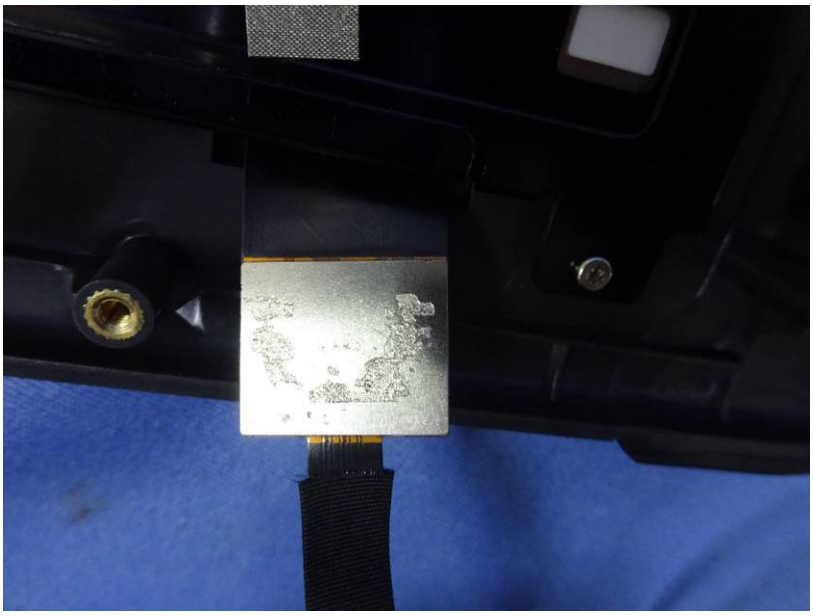


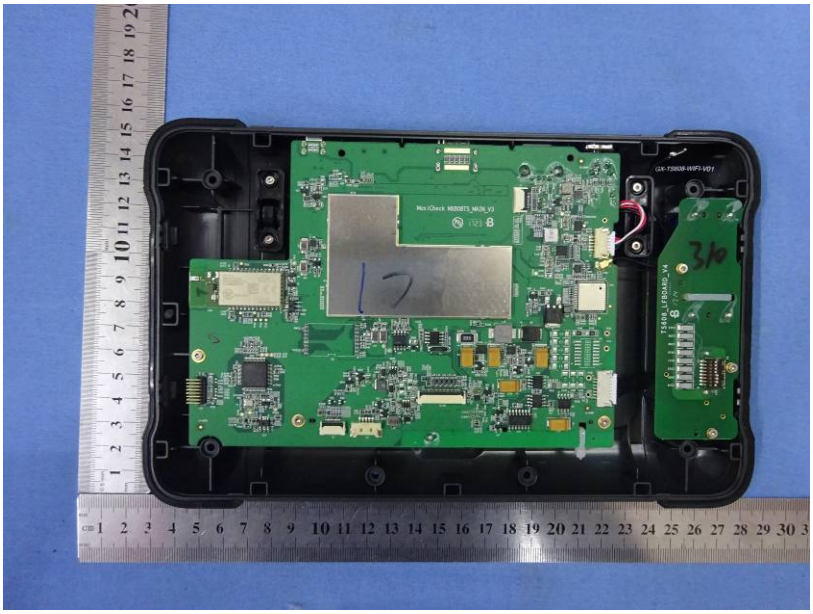






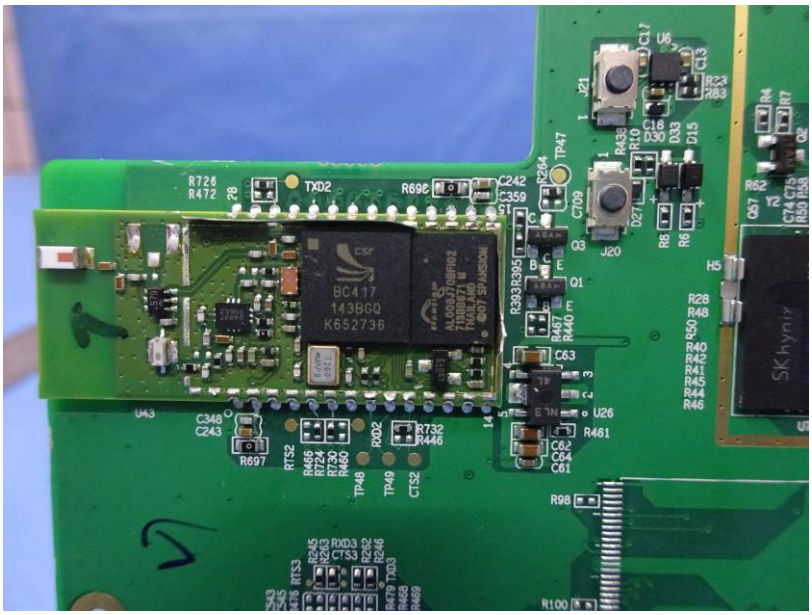

5128
2016.10.20
U1
C5 R6 C4 C3
C2C1






MaxiCheck MX808TS_MAIN_V3


MaxiCheck MX808TS_MAIN_V3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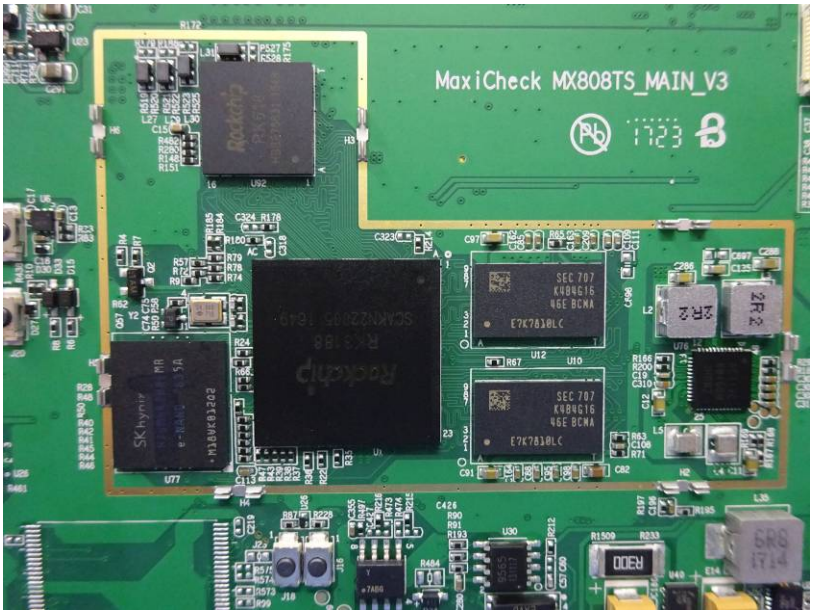
K652736
TXD2
SKhynix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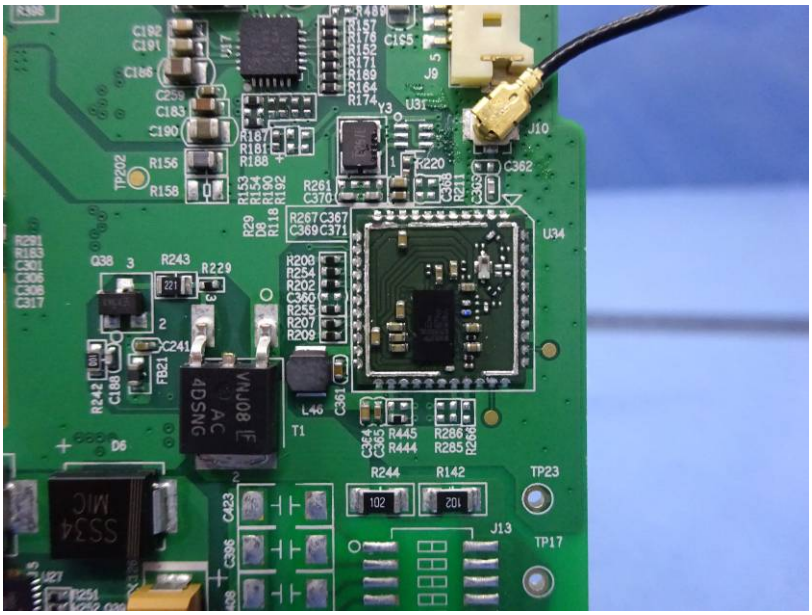
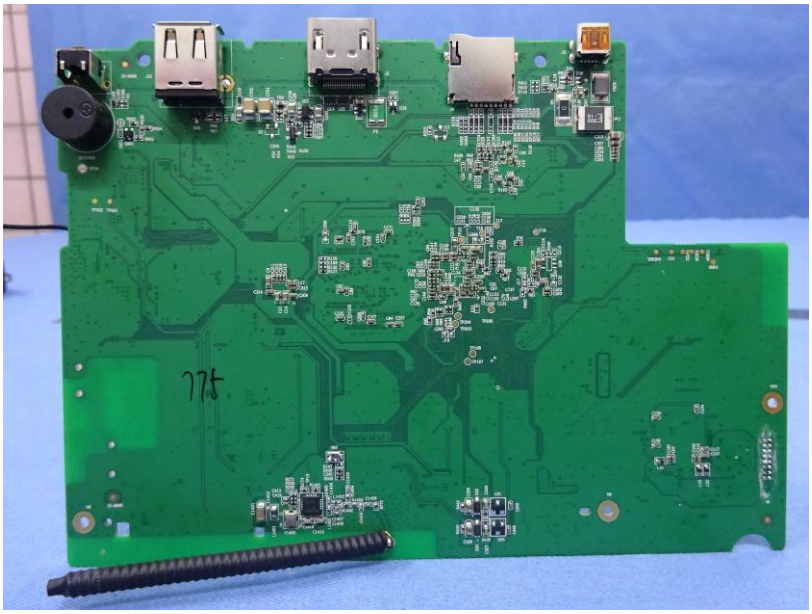
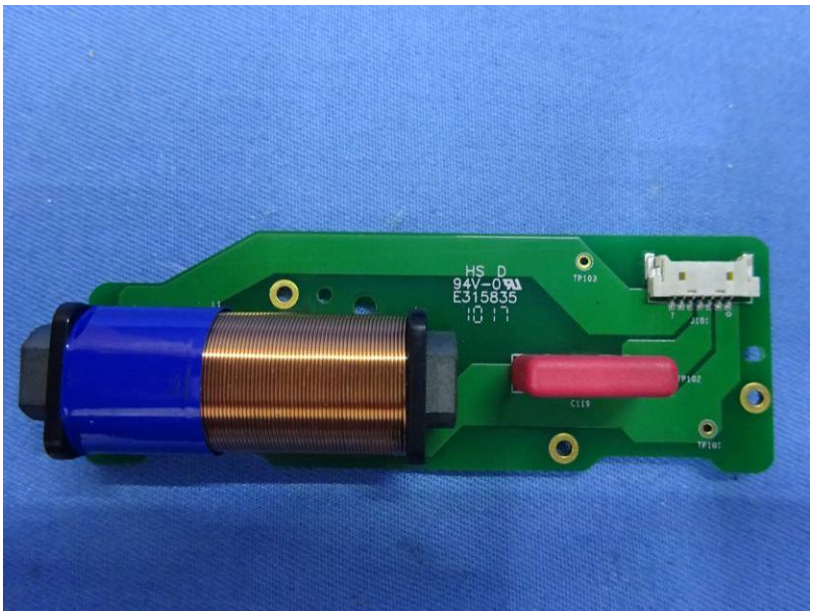
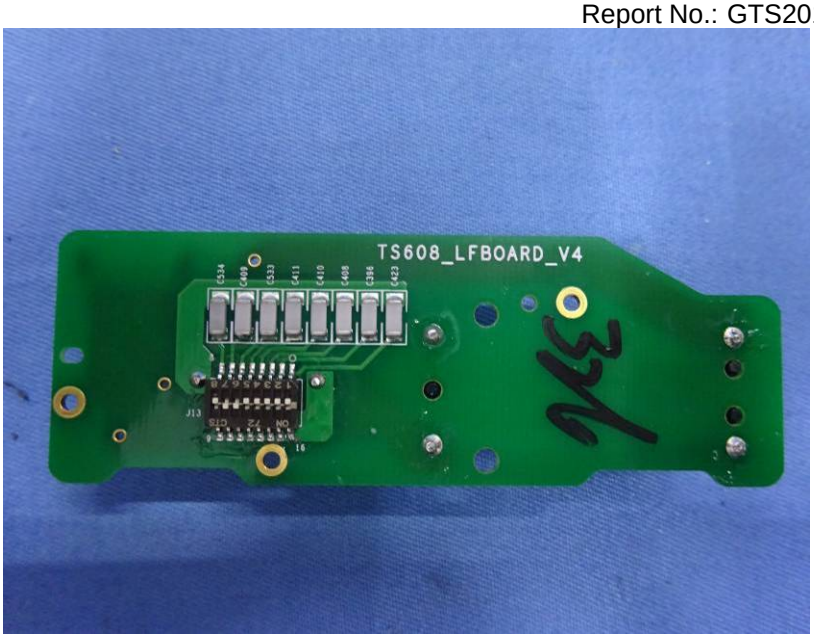
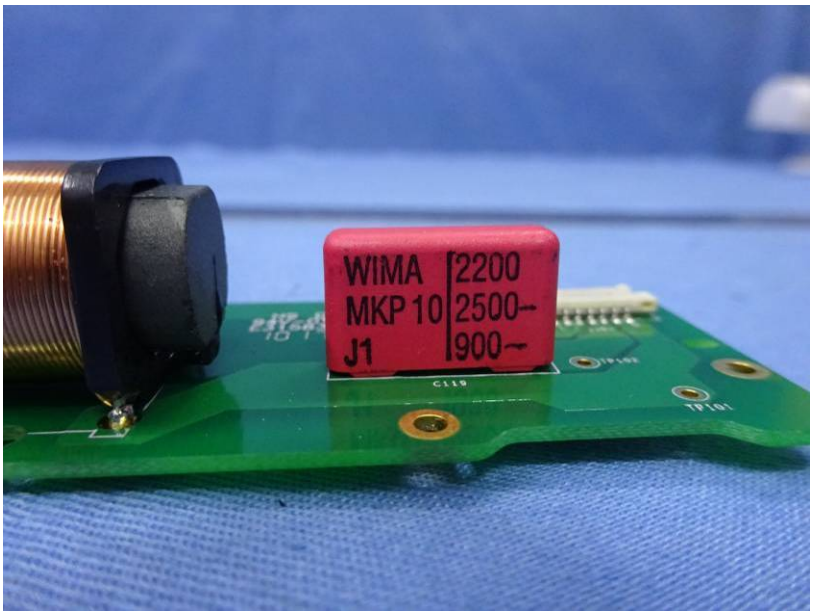
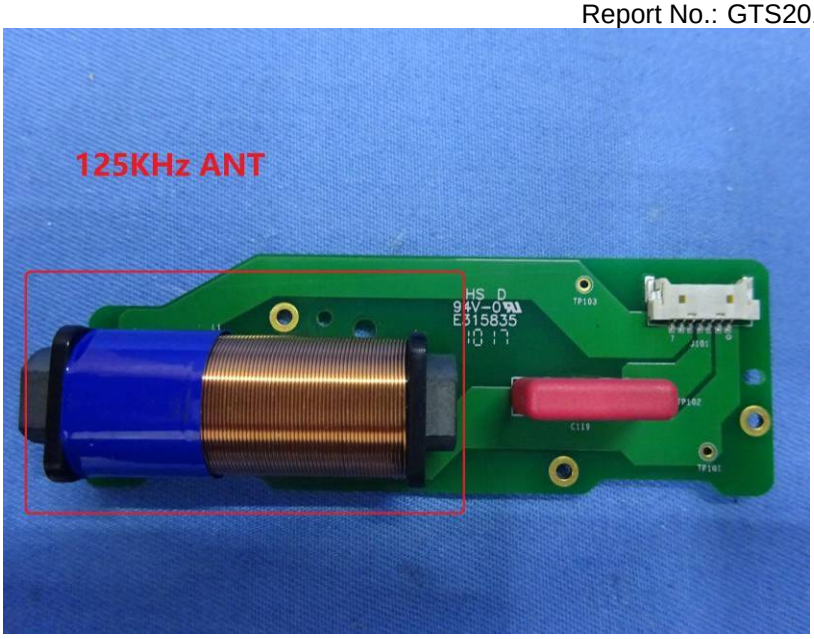


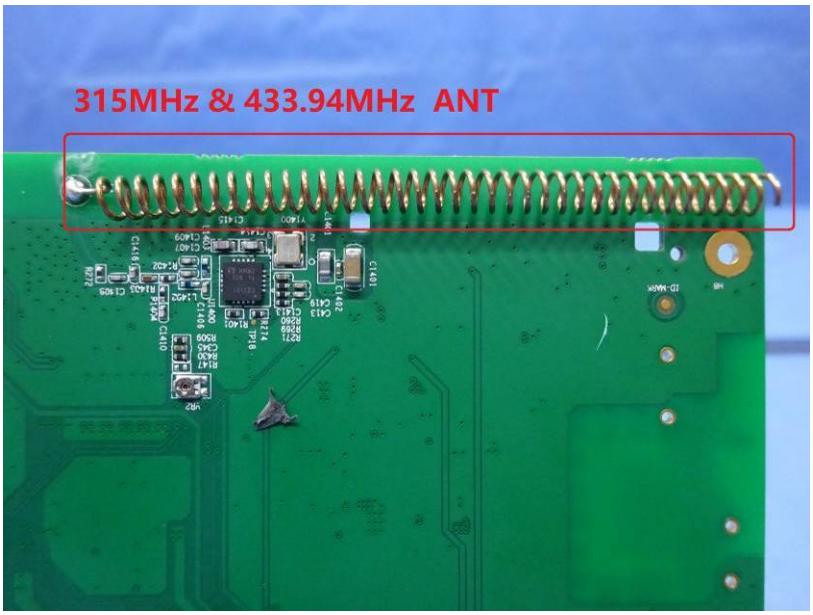


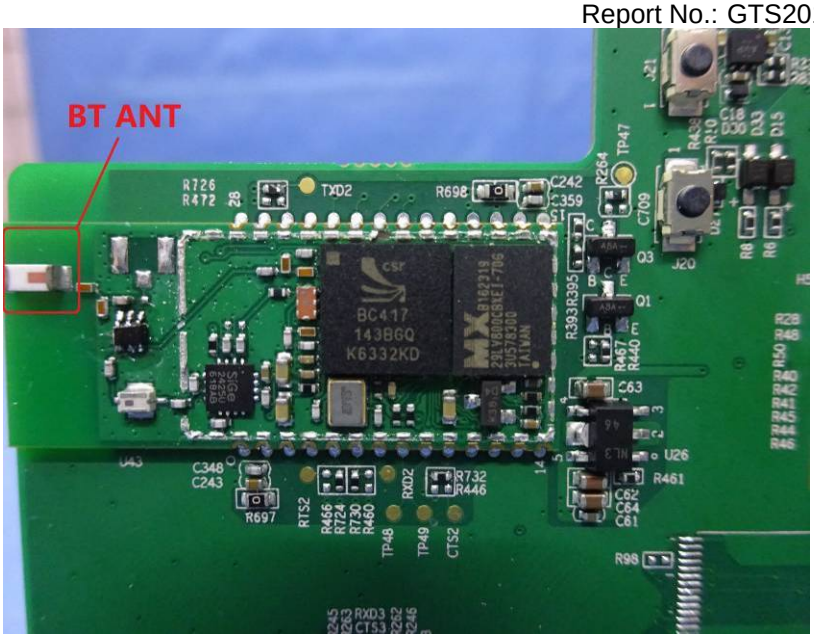

HS D
94V-0
E315835

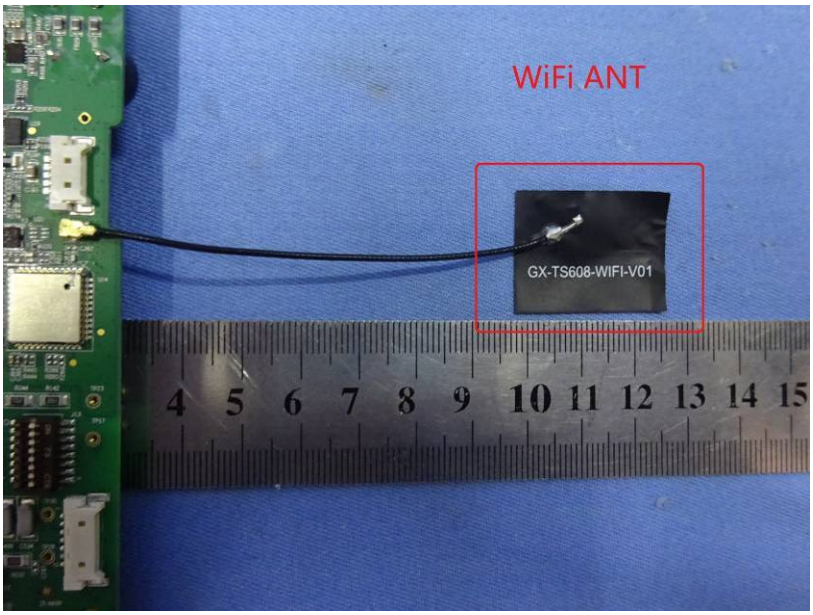

TS608_LFBOARD_V4


WIMA
MKP 10
J1
2200
2500~
900~


125KHz ANT


315MHz & 433.94MHz ANT


BT ANT
BC417
143B6Q
K6332KD


WiFi ANT
GX-TS608-WIFI-V01


AUTEL
AUTEL BATTERY MODULE
RECHARGEABLE LI-ION BATTERY
CAUTION / ATTENTION
/ ATTENZIONE / ACHTUNG


MLP5070111
5000mAh 3.7V 18.5Wh

------ End ------