FCC TEST REPORT
for
SHANGHAI KYEE TECHNOLOGY CO.,LTD.

Bedside Interactive Terminal
Model No.: KY-END-BC300W

Prepared For	:	SHANGHAI KYEE TECHNOLOGY CO.,LTD.
Address	:	Room 104, 1/F, Building 4, No.76, Bole Road Jiading Town, Jiading District Shanghai China

Prepared By	:	Shenzhen Anbotek Compliance Laboratory Limited
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Report Number	:	SZAWW180111005-05
Date of Test	:	Jan. 11~Mar. 15, 2018
Date of Report	:	Mar. 15, 2018

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TEST REPORT VERIFICATION

Applicant	:	SHANGHAI KYEE TECHNOLOGY CO.,LTD.
Manufacturer	:	SHANGHAI KYEE TECHNOLOGY CO.,LTD.
EUT	:	Bedside Interactive Terminal
Model No.	:	KY-END-BC300W
Trade Mark	:	N/A
Rating	:	Input: DC 5V, 3A

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart C 15.225 & FCC / ANSI C63.10-2013

The device described above is tested by Shenzhen Anbotek Compliance Laboratory Limited To determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C limits both radiated and conducted emissions. The measurement results are contained in this test report and Shenzhen Anbotek Compliance Laboratory Limited Is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Shenzhen Anbotek Compliance Laboratory Limited.

Date of Test : Jan. 11~Mar. 15, 2018

Prepared by : (Tested Engineer / Winkey Wang)

Reviewer : (Project Manager / Tangcy. T)

Approved & Authorized Signer : (Manager / Tom Chen)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Description	:	Bedside Interactive Terminal
Model Number	:	KY-END-BC300W
Test Power Supply	:	DC 12V
Frequency	:	13.56MHz
Number of Channel	:	1 Channels
Modulation Type	:	ASK
Antenna Gain	:	-3.5 dBi
Antenna Type	:	PIFA Antenna
Applicant	:	SHANGHAI KYEE TECHNOLOGY CO.,LTD.
Address	:	Room 104, 1/F, Building 4, No.76, Bole Road Jiading Town, Jiading District Shanghai China
Manufacturer	:	SHANGHAI KYEE TECHNOLOGY CO.,LTD.
Address	:	Room 104, 1/F, Building 4, No.76, Bole Road Jiading Town, Jiading District Shanghai China
Date of Sample received	:	Jun. 11, 2018
Date of Test	:	Jan. 11~Mar. 15, 2018
Remark	:	This report is for 13.56MHz

1.2. Auxiliary Equipment Used during Test

N/A :

1.3. Description of Test Facility

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

FCC-Registration No.: 184111
Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registed 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 No. 184111, July 31, 2017.

ISED-Registration No.: 8058A-1
Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (ISED) Innovation, Science and Economic Development Canada. The acceptance letter from the ISED is maintained in our files. Registration 8058A-1, June 13, 2016.

Test Location
All Emissions tests were performed
Shenzhen Anbotek Compliance Laboratory Limited.
at 1/F, Building D, Sogood Science and Technology Park, Sanwei community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.518102

1.4. Measurement Uncertainty

Radiation Uncertainty	:	Ur = 4.3dB (Vertical)
Radiation Uncertainty	:	Ur = 4.1dB (Horizontal)
Conduction Uncertainty	:	Uc = 3.4dB

2. Test Procedure

GENERAL: This report shall NOT be reproduced except in full without the written approval of Shenzhen Anbotek Compliance Laboratory Limited. The EUT was transmitting a test signal during the testing.

RADIATION INTERFERENCE: The test procedure used was ANSI STANDARD C63.10-2013 using a spectrum analyzer with a pre-selector. The analyzer was calibrated in dB above a microvolt at the output of the antenna. The resolution bandwidth was 100KHz and the video bandwidth was 300KHz up to 1.0GHz and 1.0MHz with a video BW of 3.0MHz above 1.0GHz. The ambient temperature of the EUT was 74.3oF with a humidity of 69%.

FORMULA OF CONVERSION FACTORS: The Field Strength at 3m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of dBuV) to the antenna correction factor supplied by the antenna manufacturer. The antenna correction factors are stated in terms of dB. The gain of the Preselector was accounted for in the Spectrum Analyzer Meter Reading.

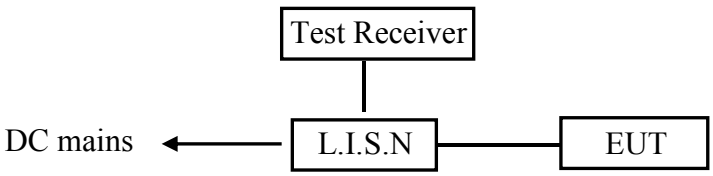
Example:
Freq (MHz) METER READING + ACF = FS
33 20 dBuV + 10.36 dB = 30.36 dBuV/m @ 3m

ANSI STANDARD C63.10-2013 10.1.7 MEASUREMENT PROCEDURES: The EUT was placed on a table 80 cm high and with dimensions of 1m by 1.5m. The EUT was placed in the center of the table (1.5m side). The table used for radiated measurements is capable of continuous rotation.
When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1m to 4m. The antenna was placed in both the horizontal and vertical planes.

3. POWER LINE CONDUCTED measurement

3.1 Block Diagram of Test Setup

3.1.1. Block diagram of connection between the EUT and simulators



3.2 Power Line Conducted Emission Measurement Limits (15.207)

Frequency MHz	Limits dB(μV)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66 ~ 56*	56 ~ 46*
0.50 ~ 5.00	56	46
5.00 ~ 30.00	60	50

Notes: 1. *Decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies.

3.3 Configuration of EUT on Measurement

The following equipments are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

3.4 Operating Condition of EUT

3.4.1. Setup the EUT and simulator as shown as Section 3.1.

3.4.2. Turn on the power of all equipment.

3.4.3. Let the EUT work in test mode (Video Mode) and measure it.

3.5 Test Procedure

The EUT system is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to FCC ANSI C63.10 on Conducted Emission Measurement.

The bandwidth of test receiver (ESCI) set at 9KHz.

The frequency range from 150KHz to 30MHz is checked.

The test results are reported on Section 3.6.

3.6 Test equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	L.I.S.N. Artificial Mains Network	Rohde & Schwarz	ENV216	100055	Nov.17, 2017	1 Year
2.	EMI Test Receiver	Rohde & Schwarz	ESCI	100627	Nov.17, 2017	1 Year
3.	RF Switching Unit	Compliance Direction	RSU-M2	38303	Nov.17, 2017	1 Year
4.	Software Name EZ-EMC	Ferrari Tcchnology	ANB-03A	N/A	N/A	N/A

3.7 Power Line Conducted Emission Measurement Results

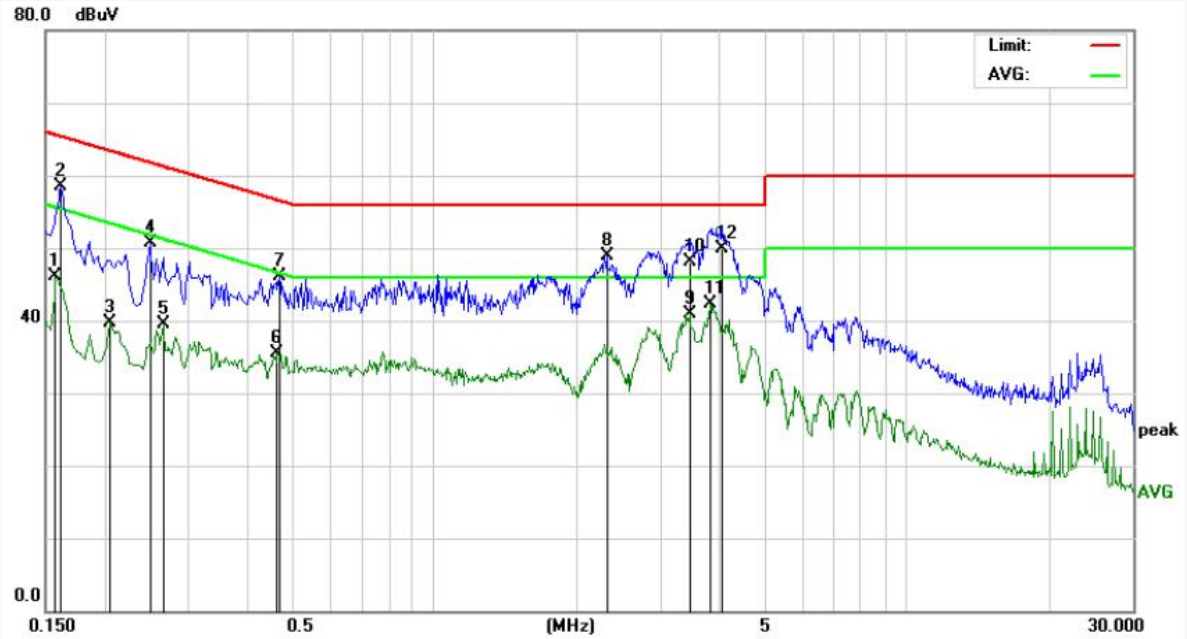
PASS.

The frequency range from 150KHz to 30 MHz is investigated.

Please refer the following pages.

CONDUCTED EMISSION TEST DATA

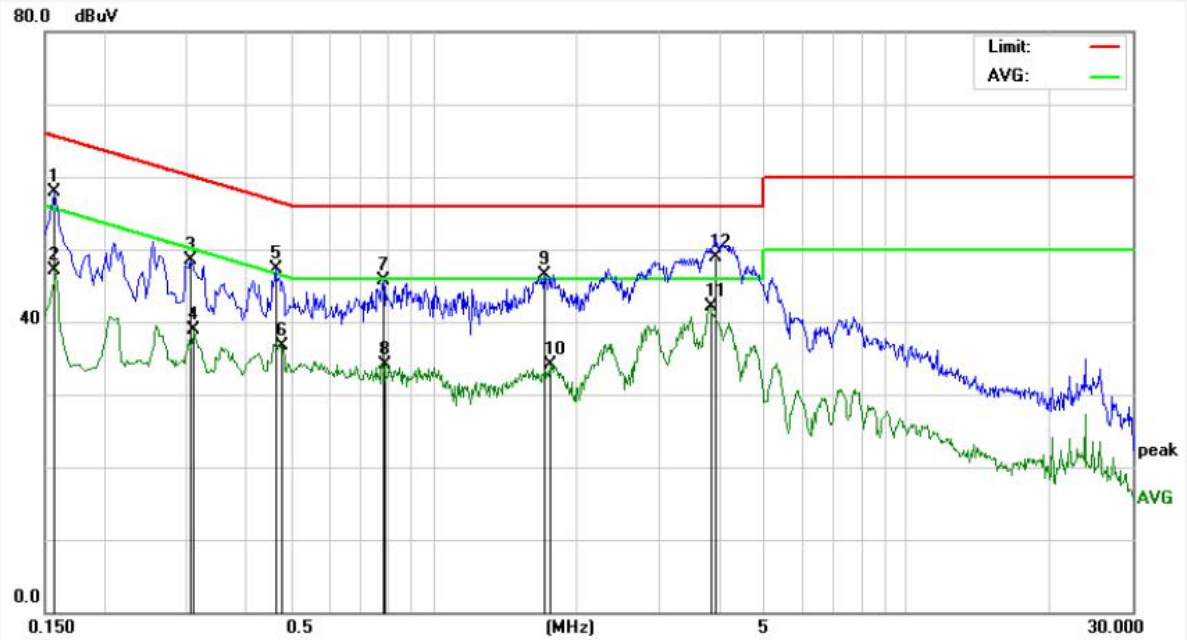
Test Site:	1# Shielded Room
Operating Condition:	Video Mode
Test Specification:	DC 12V
Comment:	Live Line
	Tem.:25℃ Hum.:50%



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Over Limit (dB)	Detector	Remark
1	0.1580	28.14	17.90	46.04	55.56	-9.52	AVG	
2	0.1620	40.59	17.90	58.49	65.36	-6.87	QP	
3	0.2058	21.83	17.90	39.73	53.37	-13.64	AVG	
4	0.2500	32.85	17.89	50.74	61.75	-11.01	QP	
5	0.2660	21.67	17.89	39.56	51.24	-11.68	AVG	
6	0.4660	17.51	17.96	35.47	46.58	-11.11	AVG	
7	0.4697	28.12	17.97	46.09	56.52	-10.43	QP	
8	2.3100	30.68	18.15	48.83	56.00	-7.17	QP	
9	3.4580	22.77	18.17	40.94	46.00	-5.06	AVG	
10	3.4860	29.88	18.17	48.05	56.00	-7.95	QP	
11	3.8260	24.18	18.18	42.36	46.00	-3.64	AVG	
12	4.0499	31.64	18.18	49.82	56.00	-6.18	QP	

CONDUCTED EMISSION TEST DATA

Test Site:	1# Shielded Room
Operating Condition:	Video Mode
Test Specification:	DC 12V
Comment:	Neutral Line
	Tem.:25℃ Hum:50%



No.	Freq. (MHz)	Reading (dBuV)	Factor (dB)	Result (dBuV)	Limit dBuV	Over Limit (dB)	Detector	Remark
1	0.1580	40.01	17.90	57.91	65.56	-7.65	QP	
2	0.1580	29.26	17.90	47.16	55.56	-8.40	AVG	
3	0.3059	30.61	17.89	48.50	60.08	-11.58	QP	
4	0.3099	20.96	17.89	38.85	49.97	-11.12	AVG	
5	0.4620	29.25	17.96	47.21	56.66	-9.45	QP	
6	0.4778	18.79	17.97	36.76	46.38	-9.62	AVG	
7	0.7820	27.67	18.06	45.73	56.00	-10.27	QP	
8	0.7860	16.12	18.06	34.18	46.00	-11.82	AVG	
9	1.7096	28.40	18.13	46.53	56.00	-9.47	QP	
10	1.7620	16.01	18.14	34.15	46.00	-11.85	AVG	
11	3.8420	23.95	18.18	42.13	46.00	-3.87	AVG	
12	3.9620	30.78	18.18	48.96	56.00	-7.04	QP	

4. RADIATED EMISSION MEASUREMENT

4.1. Radiated Emission Limits

(a) The field strength of any emissions within the band 13.553–13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters.
(b) Within the bands 13.410–13.553 MHz and 13.567–13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters.
(c) Within the bands 13.110–13.410 MHz and 13.710–14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.
(d) The field strength of any emissions appearing outside of the 13.110–14.010 MHz band shall not exceed the general radiated emission limits in §15.209.

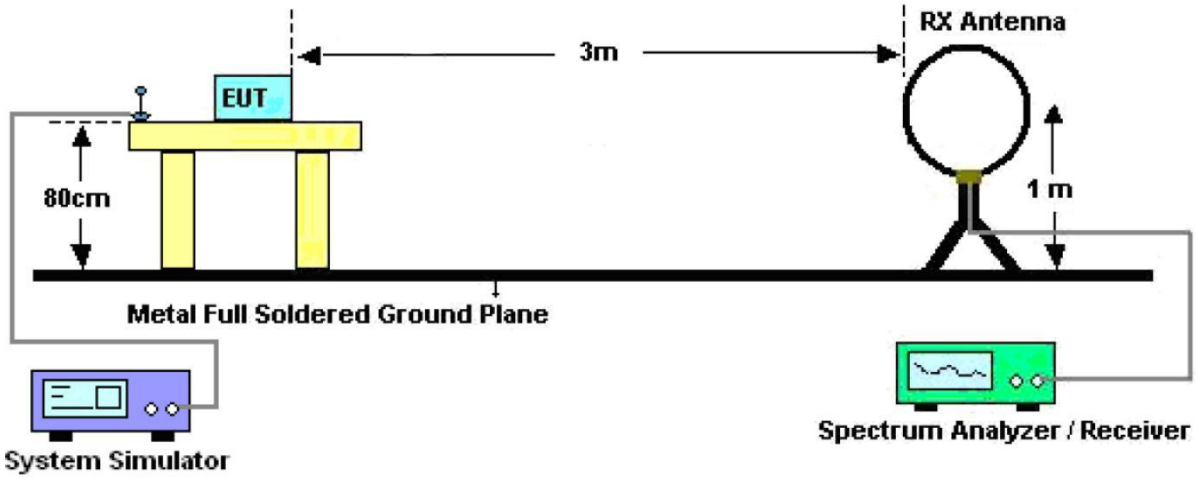
Note:
(1) The tighter limit shall apply at the boundary between two frequency range.
(2) Limitation expressed in dBuV/m is calculated by 20log Emission Level (uV/m).
(3) If measurement is made at 3m distance, then F.S Limitation at 3m distance is adjusted by using the formula of $Ld1 = Ld2 * (d2/d1)^2$.
Example:
F.S Limit at 30m distance is 30uV/m , then F.S Limitation at 3m distance is adjusted as
$Ld1 = L1 = 30uV/m * (10)^2 = 100 * 30$ uV/m

4.2. Test Procedure

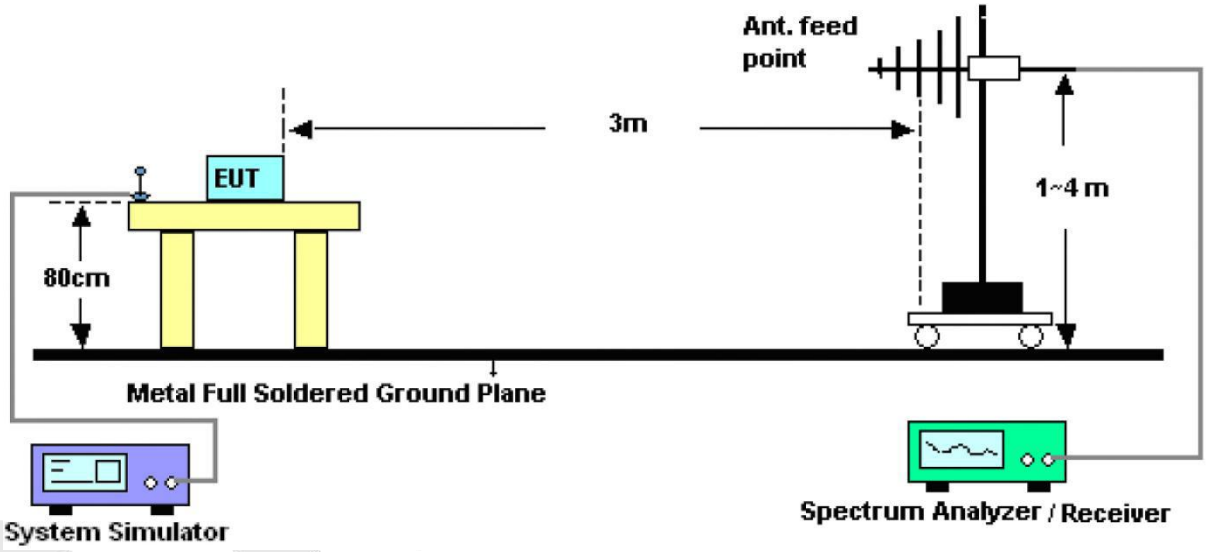
a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3m meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
f. For the actual test configuration, please refer to the related Item –EUT Test Photos.
g. The device is evaluated in xyz orientation.

4.3. Test Setup

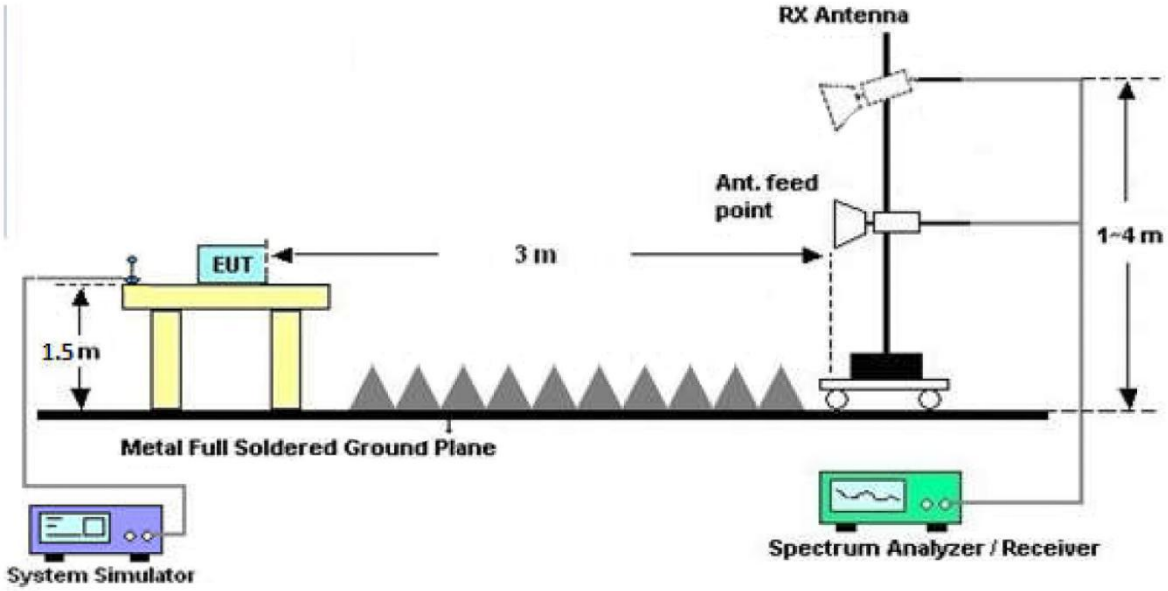
(A)Radiated Emission Test Set-Up, Frequency below 30MHz



(B)Radiated Emission Test Set-Up, Frequency 30-1000MHz



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



Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	L.I.S.N. Artificial Mains Network	Rohde & Schwarz	ENV216	100055	Nov. 17, 2017	1 Year
2.	EMI Test Receiver	Rohde & Schwarz	ESCI	100627	Nov. 17, 2017	1 Year
3.	RF Switching Unit	Compliance Direction	RSU-M2	38303	Nov. 17, 2017	1 Year
4.	Spectrum Analysis	Agilent	E4407B	US39390582	Nov. 17, 2017	1 Year
5.	Spectrum Analysis	Agilent	N9038A	MY53227295	Nov. 17, 2017	1 Year
6.	Preamplifier	SKET Electronic	BK1G18G30 D	KD17503	Nov. 17, 2017	1 Year
7.	EMI Test Receiver	Rohde & Schwarz	ESPI	101604	Nov. 17, 2017	1 Year
8.	Double Ridged Horn Antenna	Instruments corporation	GTH-0118	351600	Nov. 20, 2017	1 Year
9.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	VULB 9163-289	Nov. 20, 2017	1 Year
10.	Loop Antenna	Schwarzbeck	HFH2-Z2	100047	Nov. 17, 2017	1 Year
11.	Horn Antenna	Schewarzbeck	BBHA9170	9170-375	Nov. 17, 2017	1 Year
12.	Pre-amplifier	SONOMA	310N	186860	Nov. 17, 2017	1 Year
13.	EMI Test Software EZ-EMC	SHURPLE	N/A	N/A	N/A	N/A
14.	RF Test Control System	YIHENG	YH3000	2017430	Nov. 18, 2017	1 Year
15.	Power Sensor	DAER	RPR3006W	15I00041SN045	Nov. 17, 2017	1 Year
16.	Power Sensor	DAER	RPR3006W	15I00041SN046	Nov. 17, 2017	1 Year

17.	MXA Spectrum Analysis	Agilent	N9020A	MY51170037	Nov. 18, 2017	1 Year
18.	MXG RF Vector Signal Generator	Agilent	N5182A	MY48180656	Nov. 18, 2017	1 Year
19.	Signal Generator	Agilent	E4421B	MY41000743	Nov. 18, 2017	1 Year
20.	DC Power Supply	LW	TPR-6410D	349315	Nov. 01, 2017	1 Year
21.	Constant Temperature Humidity Chamber	Sertep	ZJ-HWHS80 B	ZJ-17042804	Nov. 01, 2017	1 Year

4.4. Test Results (Field Strength within the band of operation)

Freq.(MHz)	Ant. Orientation	Result at 3m (dBuV/m)	Limitation Converted 3m dist. (dBuV/m)	Margin dB
13.110	Front	57.68	80.5	-22.82
13.410	Front	62.15	80.5	-18.35
13.553	Front	73.96	90.5	-16.54
13.560	Front	85.63	124	-38.37
13.567	Front	63.57	90.5	-26.93
13.710	Front	62.42	80.5	-18.08
14.010	Front	56.31	80.5	-24.19
--	--	--	--	--
13.110	Side	54.22	80.5	-26.28
13.410	Side	59.99	80.5	-20.51
13.553	Side	70.64	90.5	-19.86
13.560	Side	85.73	124	-38.27
13.567	Side	66.08	90.5	-24.42
13.710	Side	54.33	80.5	-26.17
14.010	Side	63.37	80.5	-17.13
--	--	--	--	--

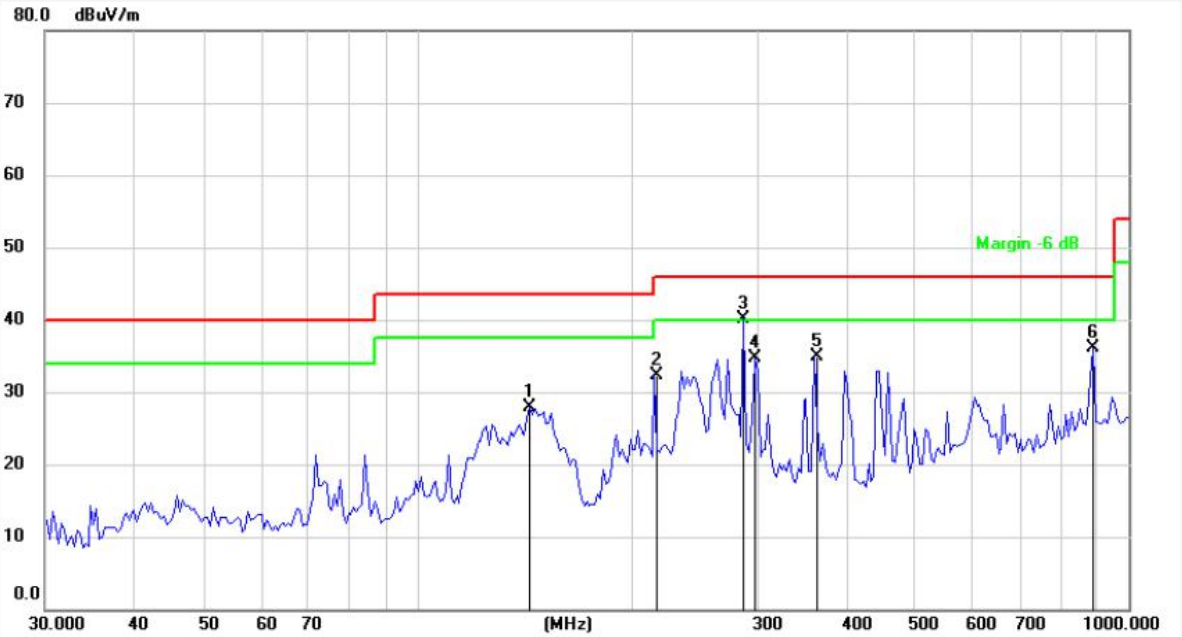
Remark：
(1) Spectrum Setting:
150 K Hz – 30 MHz, RBW= 9 KHz, VBW=9 KHz, Sweep time = 200 ms.
(2) The Log-Bicon Antenna will use to test frequency range from 30MHz to 1000MHz and the Loop Antenna will use to test frequency below 30MHz.
(3) If the peak scan value lower limit more than 20dB, then this signal data does not show in table.
(4) Only the worst case (x orientation).

4.5. Test Results (Field strength outside of the band of operation)

PASS.

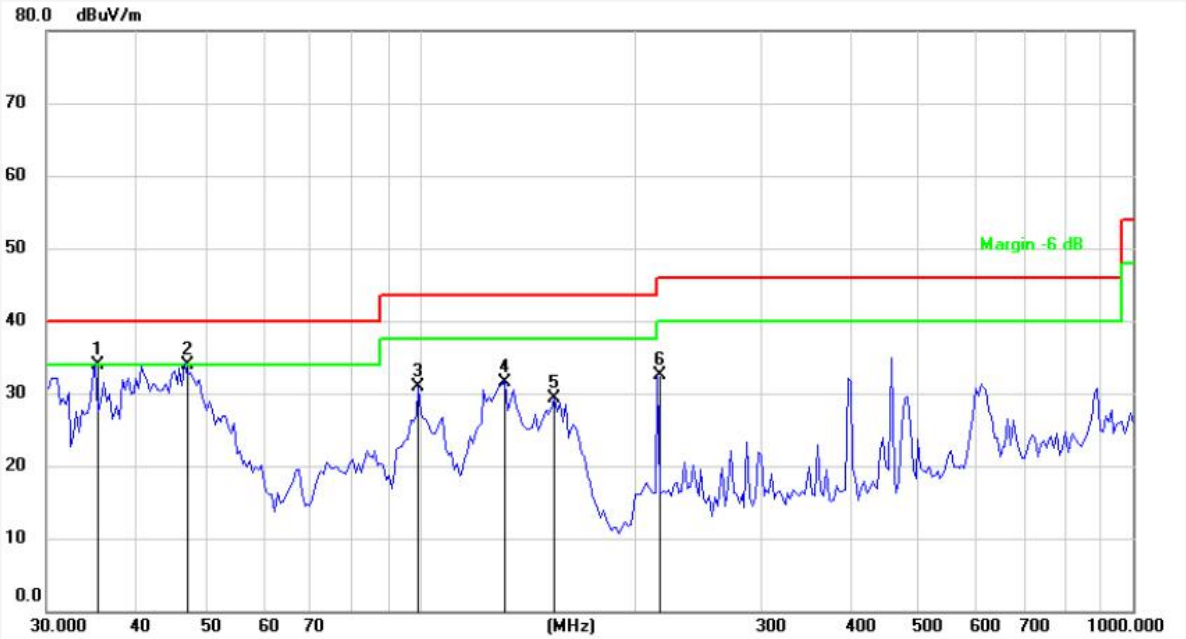
Please refer the following pages. Only the worst case (x orientation).

Job No.:	**SZAWW180111005-05**	**Plarization:**	**Horizontal**
Standard:	**(RE)FCC PART 15C _3m**	**Power Source:**	**DC 12V**
Test item:	**Radiation Test (30~1000MHz)**	**Temp.(C)/Hum.(%RH):**	**24.3(C)/55%RH**
Test Mode:	**On**	**Distance:**	**3m**



No.	Freq. (MHz)	Reading (dBuV/m)	Factor ()	Result (dBuV/m)	Limit (dBuV/	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	144.0817	47.89	-20.03	27.86	43.50	-15.64	QP	300	0	
2	215.6456	48.08	-15.70	32.38	43.50	-11.12	QP	300	124	
3	287.9904	53.95	-13.85	40.10	46.00	-5.90	QP	300	135	
4	298.2681	48.44	-13.65	34.79	46.00	-11.21	QP	300	245	
5	361.7139	47.06	-12.23	34.83	46.00	-11.17	QP	300	265	
6	892.2907	39.54	-3.44	36.10	46.00	-9.90	QP	300	360	

Job No.:	**SZAWW180111005-05**	**Plarization:**	**Vertical**
Standard:	**(RE)FCC PART 15C _3m**	**Power Source:**	**DC 12V**
Test item:	**Radiation Test (30~1000MHz)**	**Temp.(C)/Hum.(%RH):**	**24.3(C)/55%RH**
Test Mode:	**On**	**Distance:**	**3m**



No.	Freq. (MHz)	Reading (dBuV/m)	Factor ()	Result (dBuV/m)	Limit (dBuV/	Over Limit (dB)	Detector	Height (cm)	degree (deg)	Remark
1	35.1278	51.36	-17.51	33.85	40.00	-6.15	QP	300	0	
2	46.9125	48.92	-14.92	34.00	40.00	-6.00	QP	300	124	
3	99.7026	47.53	-16.72	30.81	43.50	-12.69	QP	300	156	
4	131.9889	51.45	-19.85	31.60	43.50	-11.90	QP	300	235	
5	154.5491	48.94	-19.54	29.40	43.50	-14.10	QP	300	256	
6	215.6456	48.29	-15.70	32.59	43.50	-10.91	QP	300	360	

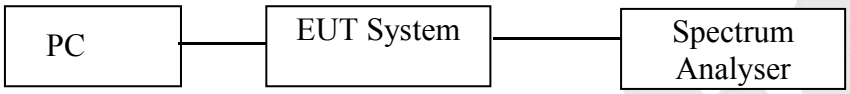
5. Frequency Tolerance

5.1. Frequency Tolerance Limits

The frequency tolerance of the carrier signal shall be maintained within ±0.01% of the operating frequency.

Fundamental Frequency (MHz)	Limit of Tolerance Bandwidth (Hz)
13.56	13.56*1000*1000*0.01%=1356

5.2. Test Setups



Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
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2.	EMI Test Receiver	Rohde & Schwarz	ESCI	100627	Nov. 17, 2017	1 Year
3.	RF Switching Unit	Compliance Direction	RSU-M2	38303	Nov. 17, 2017	1 Year
4.	Spectrum Analysis	Agilent	E4407B	US39390582	Nov. 17, 2017	1 Year
5.	Spectrum Analysis	Agilent	N9038A	MY53227295	Nov. 17, 2017	1 Year
6.	Preamplifier	SKET Electronic	BK1G18G30 D	KD17503	Nov. 17, 2017	1 Year
7.	EMI Test Receiver	Rohde & Schwarz	ESPI	101604	Nov. 17, 2017	1 Year
8.	Double Ridged Horn Antenna	Instruments corporation	GTH-0118	351600	Nov. 20, 2017	1 Year
9.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	VULB 9163-289	Nov. 20, 2017	1 Year
10.	Loop Antenna	Schwarzbeck	HFH2-Z2	100047	Nov. 17, 2017	1 Year
11.	Horn Antenna	Schewarzbeck	BBHA9170	9170-375	Nov. 17, 2017	1 Year
12.	Pre-amplifier	SONOMA	310N	186860	Nov. 17, 2017	1 Year
13.	EMI Test Software EZ-EMC	SHURPLE	N/A	N/A	N/A	N/A
14.	RF Test Control System	YIHENG	YH3000	2017430	Nov. 18, 2017	1 Year
15.	Power Sensor	DAER	RPR3006W	15I00041SN045	Nov. 17, 2017	1 Year

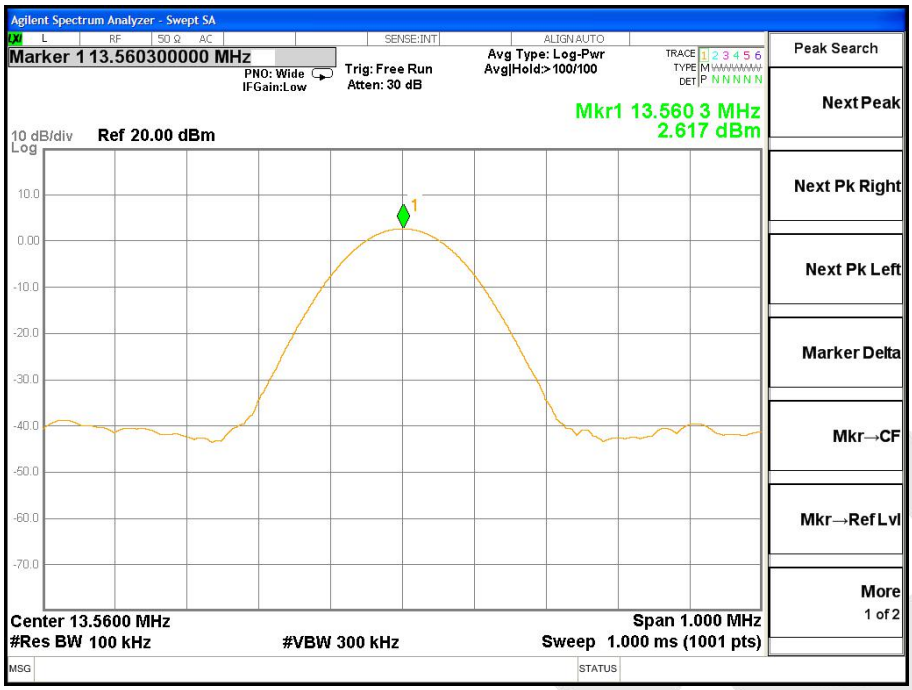
16.	Power Sensor	DAER	RPR3006W	15I00041SN046	Nov. 17, 2017	1 Year
17.	MXA Spectrum Analysis	Agilent	N9020A	MY51170037	Nov. 18, 2017	1 Year
18.	MXG RF Vector Signal Generator	Agilent	N5182A	MY48180656	Nov. 18, 2017	1 Year
19.	Signal Generator	Agilent	E4421B	MY41000743	Nov. 18, 2017	1 Year
20.	DC Power Supply	LW	TPR-6410D	349315	Nov. 01, 2017	1 Year
21.	Constant Temperature Humidity Chamber	Sertep	ZJ-HWHS80 B	ZJ-17042804	Nov. 01, 2017	1 Year

5.3. Test Procedure

Let the EUT works on temperature variation of −20 degrees to +50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C. For battery operated equipment, the equipment tests shall be performed using a new battery.

5.4. Test Results

Test Condition				
	Voltage (V)	Temperature (℃)	Test Result (Hz)	Limit (Hz)
Normal Condition	DC 12.0V	-20	36	1356
		+20	30	1356
		+50	35	1356
Extreme Condition	DC 10.8V	+20	41	1356
	DC 13.2V	+20	42	1356

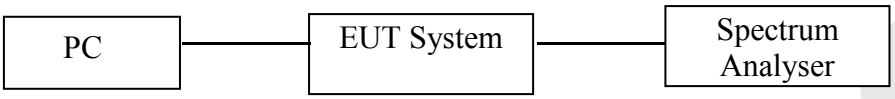

Agilent Spectrum Analyzer - Swept SA
Marker 1 13.560300000 MHz
PNO: Wide
IFGain:Low
Trig: Free Run
Atten: 30 dB
Avg Type: Log-Pwr
Avg|Hold:>100/100
Mkr1 13.560 3 MHz
2.617 dBm
10 dB/div
Log
Ref 20.00 dBm
Center 13.5600 MHz
#Res BW 100 kHz
#VBW 300 kHz
Span 1.000 MHz
Sweep 1.000 ms (1001 pts)
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2

6. 20dB Bandwidth

6.1. Limits

According to 15.215 (c):
Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§15.217 through 15.257 and in Subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.

6.2. Test Setups



Test Equipment

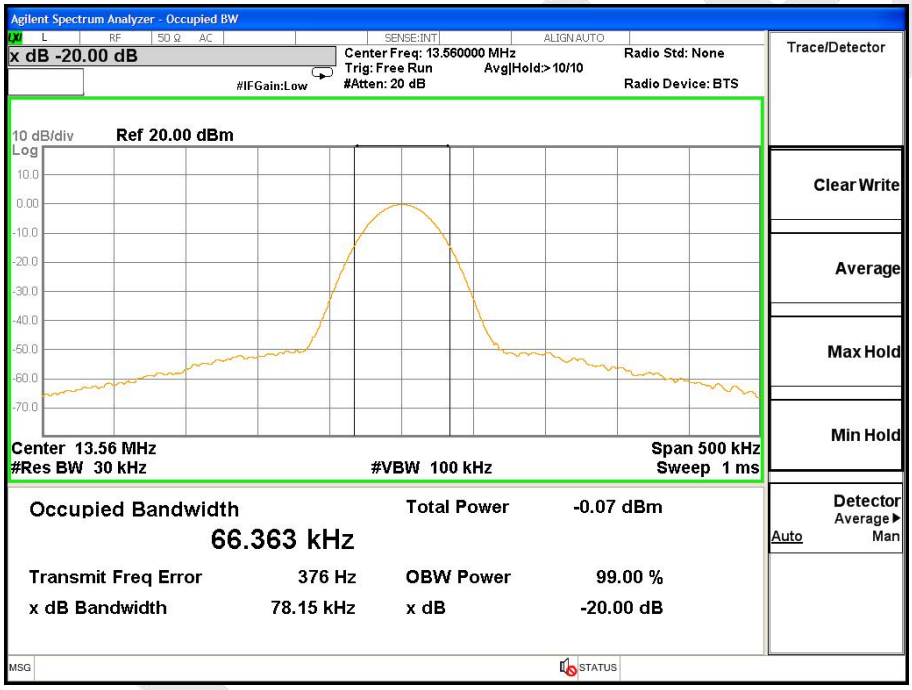
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	L.I.S.N. Artificial Mains Network	Rohde & Schwarz	ENV216	100055	Nov. 17, 2017	1 Year
2.	EMI Test Receiver	Rohde & Schwarz	ESCI	100627	Nov. 17, 2017	1 Year
3.	RF Switching Unit	Compliance Direction	RSU-M2	38303	Nov. 17, 2017	1 Year
4.	Spectrum Analysis	Agilent	E4407B	US39390582	Nov. 17, 2017	1 Year
5.	Spectrum Analysis	Agilent	N9038A	MY53227295	Nov. 17, 2017	1 Year
6.	Preamplifier	SKET Electronic	BK1G18G30 D	KD17503	Nov. 17, 2017	1 Year
7.	EMI Test Receiver	Rohde & Schwarz	ESPI	101604	Nov. 17, 2017	1 Year
8.	Double Ridged Horn Antenna	Instruments corporation	GTH-0118	351600	Nov. 20, 2017	1 Year
9.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	VULB 9163-289	Nov. 20, 2017	1 Year
10.	Loop Antenna	Schwarzbeck	HFH2-Z2	100047	Nov. 17, 2017	1 Year
11.	Horn Antenna	Schewarzbeck	BBHA9170	9170-375	Nov. 17, 2017	1 Year
12.	Pre-amplifier	SONOMA	310N	186860	Nov. 17, 2017	1 Year
13.	EMI Test Software EZ-EMC	SHURPLE	N/A	N/A	N/A	N/A
14.	RF Test Control System	YIHENG	YH3000	2017430	Nov. 18, 2017	1 Year
15.	Power Sensor	DAER	RPR3006W	15I00041SN045	Nov. 17, 2017	1 Year
16.	Power Sensor	DAER	RPR3006W	15I00041SN046	Nov. 17, 2017	1 Year
17.	MXA Spectrum Analysis	Agilent	N9020A	MY51170037	Nov. 18, 2017	1 Year
18.	MXG RF Vector Signal Generator	Agilent	N5182A	MY48180656	Nov. 18, 2017	1 Year
19.	Signal Generator	Agilent	E4421B	MY41000743	Nov. 18, 2017	1 Year
20.	DC Power Supply	LW	TPR-6410D	349315	Nov. 01, 2017	1 Year
21.	Constant Temperature Humidity Chamber	Sertep	ZJ-HWHS80 B	ZJ-17042804	Nov. 01, 2017	1 Year

6.3. Test Procedure

The bandwidth of the fundamental frequency was measured by spectrum analyzer with 30kHz RBW and 100kHz VBW. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

6.4. Test Results

Frequency (MHz)	20dB BW (kHz)
13.56	78.15



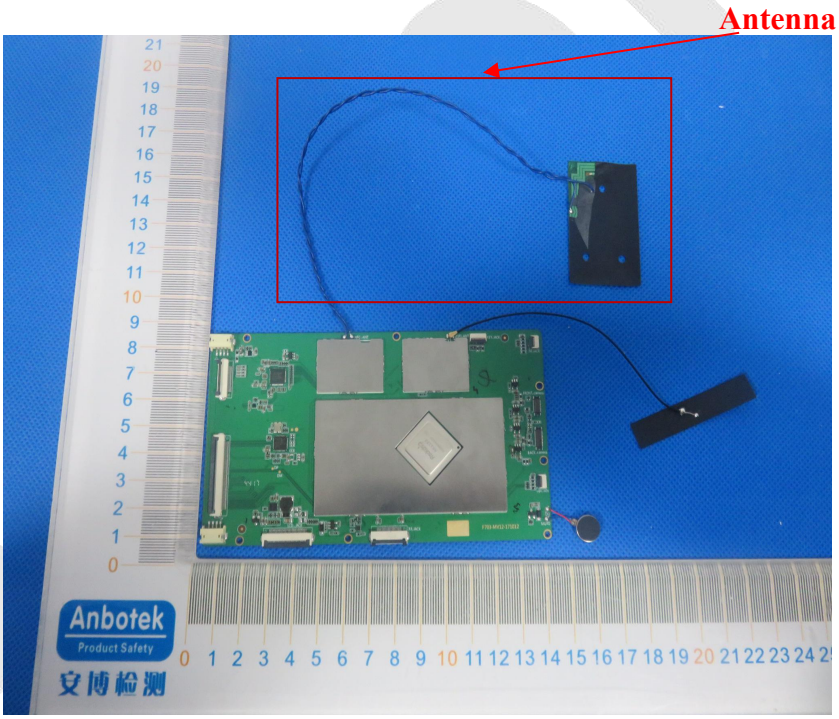
7. Antenna Application

7.1. Antenna Requirement

The EUT'S antenna should met the requirement of FCC part 15C section 15.203.
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.
Antenna requirement must meet at least one of the following:
1) Antenna must be permanently attached to device.
2) The antenna must use a unique type of connector to attach to the device.
3) Device must be professionally installed. The installer shall be responsible for ensuring that the correct antenna is employed by the device.

7.2. Result

The PIFA antenna is integral to the PIFA board permanently to the device with glue which meets the requirement, see the below:



8. PHOTOGRAPH

Please see the test report of SZAWW180111005-01

APPENDIX II -- EXTERNAL PHOTOGRAPH

Please see the test report of SZAWW180111005-01

APPENDIX III -- INTERNAL PHOTOGRAPH

Please see the test report of SZAWW180111005-01

End of report