

FCC PART 15E TEST REPORT FOR CERTIFICATION
On Behalf of

Hunan Greatwall Computer System CO., LTD

8" Android Tablet

Model Number: ONA19TB002

Additional Model: ONA19TB010, 100005207

FCC ID: 2APUQW8165

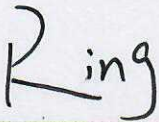
Prepared for:	Hunan Greatwall Computer System CO., LTD
	Hunan GreatWall Industrial Park, Tianyi Science and Technology City,
	Xiangyun Middle Road, Tianyuan District, Zhuzhou, Hunan
Prepared By:	EST Technology Co., Ltd.
	Chilingxiang, Qishantou, Santun, Houjie, Dongguan, Guangdong, China
Tel: 86-769-83081888-808	

Report Number:	ESTE-R1901015-3
Date of Test:	Aug. 07~17, 2019
Date of Report:	Aug. 19, 2019

TABLE OF CONTENTS

Description	Page
TEST REPORT VERIFICATION.....	3
1. GENERAL INFORMATION.....	4
1.1. Description of Device (EUT)	4
2. SUMMARY OF TEST	6
2.1. Test methodology.....	6
2.2. Summary of test result.....	6
2.3. Test Facilities	7
2.4. Measurement uncertainty for EST Technology Co., Ltd.	8
2.5. Assistant equipment used for test.....	8
2.6. Block Diagram	9
2.7. Test mode	10
2.8. Channel List	11
2.9. Test Equipment For EST Technology Co., Ltd.....	12
3. RADIATED SPURIOUS EMISSIONS	14
3.1. Limit	14
3.2. Block Diagram of Test setup	15
3.3. Test Procedure	16
3.4. Test Result.....	16
3.5. Test Data	17
4. ANTENNA REQUIREMENTS	20
4.1. Limit	20
4.2. Result.....	20
5. TEST SETUP PHOTO	21
6. PHOTO OF EUT	22

EST Technology Co., Ltd.

Applicant:	Hunan Greatwall Computer System CO., LTD		
Address:	Hunan GreatWall Industrial Park, Tianyi Science and Technology City, Xiangyun Middle Road, Tianyuan District, Zhuzhou, Hunan		
Manufacturer:	Hunan Greatwall Computer System CO., LTD		
Address:	Hunan GreatWall Industrial Park, Tianyi Science and Technology City, Xiangyun Middle Road, Tianyuan District, Zhuzhou, Hunan		
E.U.T:	8" Android Tablet		
Model Number:	ONA19TB002		
Additional Model:	ONA19TB010, 100005207 (They are identical except model name only)		
Power Supply:	DC 5V From Adapter Input AC 100~240V, 50/60Hz, 0.3A DC 3.7V From battery		
Test Voltage:	DC 5V From Adapter Input AC 120V/60Hz, 0.3A DC 5V From Adapter Input AC 240V/50Hz, 0.3A		
Trade Name:	onn.	Serial No.:	-----
Date of Receipt:	Aug. 07, 2019	Date of Test:	Aug. 07~17, 2019
Test Specification:	FCC Rules and Regulations Part 15 Subpart E:2018 ANSI C63.10:2013		
Test Result:	The device described above is tested by EST Technology Co., Ltd. The measurement results were contained in this test report and EST Technology Co., Ltd. was assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliance with the FCC Rules and Regulations Part 15 Subpart E requirements. This report applies to above tested sample only and shall not be reproduced in part without written approval of EST Technology Co., Ltd.		
Prepared by:	Reviewed by:	Date: Aug. 10, 2019	
 _____ Ring / Assistant	 _____ Tony / Engineer	 _____ Iceman Hu / Manager	
Other Aspects:			
1.This report base on the previous report with report number: ESTE-R1901015-2, a new screen is add in this report and change applicant. 2.Because only the add screen, so just re-tested Radiated Emissions (30-1000Mhz), other test item needn't re-tested.			
<i>Abbreviations: OK/P=passed fail/F=failed n.a/N=not applicable E.U.T=equipment under tested</i>			
<i>This test report is based on a single evaluation of one sample of above mentioned products ,It is not permitted to be duplicated in extracts without written approval of EST Technology Co., Ltd.</i>			

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Product Name	:	8" Android Tablet
FCC ID	:	2APUQW8165
Model Number	:	ONA19TB002
Operation frequency	:	UNII Band I: IEEE 802.11a: 5180 ~ 5240MHz; IEEE 802.11n HT20: 5180 ~ 5240MHz; IEEE 802.11n HT40: 5190 ~ 5230MHz; UNII Band II: IEEE 802.11a: 5260 ~ 5320MHz; IEEE 802.11n HT20: 5260 ~ 5320MHz; IEEE 802.11n HT40: 5270 ~ 5310MHz; UNII Band III: IEEE 802.11a: 5500 ~ 5700MHz; IEEE 802.11n HT20: 5500 ~ 5700MHz; IEEE 802.11n HT40: 5510 ~ 5670MHz; UNII Band IV: IEEE 802.11a: 5745 ~ 5825MHz; IEEE 802.11n HT20: 5745 ~ 5825MHz; IEEE 802.11n HT40: 5755 ~ 5795MHz;
Number of channel	:	UNII Band I: IEEE 802.11a / n HT20 IEEE 802.11n HT40 UNII Band II: IEEE 802.11a / n HT20 IEEE 802.11n HT40 UNII Band III: IEEE 802.11a / n HT20 IEEE 802.11n HT40 UNII Band IV: IEEE 802.11a / n HT20 IEEE 802.11n HT40

Modulation	:	OFDM(QPSK, BPSK, 16-QAM, 64-QAM, 256-QAM)	
Transmit Data Rate	:	IEEE 802.11a: 54, 48, 36, 24, 18, 12, 9, 6Mbps; IEEE 802.11n HT20: 14.4, 28.9, 43.3, 57.8, 86.7, 115.6, 130.0, 144.4 Mbps; IEEE 802.11n HT40: 30, 60, 90, 120, 180, 240, 270, 300 Mbps;	
Channels Spacing	:	IEEE 802.11a: 20MHz; IEEE 802.11n HT20: 20MHz; IEEE 802.11n HT40: 40MHz;	
Antenna	:	Internal antenna	
		Frequency Range	Antenna
		5150~5875 MHz	1.27 dBi
		Note: Bluetooth uses Antenna 11a,b,g,n, uses Antenna	
Transmit Power	:	UNII Band I: IEEE 802.11a: 4 Channels; IEEE 802.11n HT20: 4 Channels; IEEE 802.11n HT40: 2 Channels. UNII Band II: IEEE 802.11a: 4 Channels; IEEE 802.11n HT20: 4 Channels; IEEE 802.11n HT40: 2 Channels. UNII Band III: IEEE 802.11a: 8 Channels; IEEE 802.11n HT20: 8 Channels; IEEE 802.11n HT40: 3 Channels. UNII Band IV: IEEE 802.11a: 5 Channels; IEEE 802.11n HT20: 5 Channels; IEEE 802.11n HT40: 2 Channels.	
Sample Type	:	Prototype production	

2. SUMMARY OF TEST

2.1. Test methodology.

Both conducted and radiated testing was performed according to the procedures in ANSI C63.10. Radiated testing was performed at an antenna to EUT distance 3 meters. The tests documented in this report were performed in accordance with ANSI C63.10: 2013 and FCC CFR 47 Part 15.207, 15.209, 15.407 and FCC 14-30. Radio testing was performed according to KDB DA 02-2138, KDB 789033 D02, KDB 905462 D06.

2.2. Summary of test result

Description of Test Item	Standard	Results
99%, 6dB and 26dB Bandwidth	FCC Part 15: 407(a) FCC Part 15: 407(e)	N/A
Maximum Conducted Output Power	FCC Part 15: 407(a)	N/A
Peak Power Spectral Density	FCC Part 15: 407(a)	N/A
Radiated Spurious Emissions	FCC Part 15: 407(b)	PASS
Conducted Unwanted Emissions	FCC Part 15: 407(b)	N/A
Band Edge Measurement	FCC Part 15: 407(b)	N/A
Frequency Stability	FCC Part 15: 407(g)	N/A
Power Line Conducted Emissions	FCC Part 15: 207 FCC Part 15: 407(b)(6)	N/A
Antenna requirement	FCC Part 15: 203 FCC Part 15: 407(a)	N/A

2.3. Test Facilities

EMC Lab

: Certificated by CNAS, CHINA
Registration No.: L5288
Date of registration: November 13, 2017

Certificated by FCC, USA
Designation Number: CN1215
Test Firm Registration Number: 722932
Date of registration: November 21, 2017

Certificated by A2LA, USA
Registration No.: 4366.01
Date of registration: November 07, 2017

Certificated by Industry Canada
CAB identifier No.: CN0035
Date of registration: January 04, 2019

Certificated by VCCI, Japan
Registration No.: R-13663; C-14103
Date of registration: July 25, 2017
This Certificate is valid until: July 24, 2020

Certificated by TUV Rheinland, Germany
Registration No.: UA 50413872 0001
Date of registration: July 31, 2018

Certificated by TUV/PS, Shenzhen
Registration No.: SCN1017
Date of registration: January 27, 2011

Certificated by Intertek ETL SEMKO
Registration No.: 2011-RTL-L2-64
Date of registration: April 28, 2011

Certificated by Nemko, Hong Kong
Registration No.: 175193
Date of registration: May 4, 2011

Name of Firm : EST Technology Co., Ltd.

Site Location : Chilingxiang, Qishantou, Santun, Houjie, Dongguan, Guangdong, China

2.4. Measurement uncertainty for EST Technology Co., Ltd.

Test Item	Uncertainty
Uncertainty for Conduction emission test	2.54dB
Uncertainty for Radiation Emission test (30MHz-1GHz)	3.62
Uncertainty for Radiation Emission test (1GHz to 18GHz)	4.86
Uncertainty for spurious emissions test (18GHz to 40GHz)	4.67
Uncertainty for radio frequency	7×10^{-8}
Uncertainty for conducted RF Power	0.20dB
Uncertainty for Power density test	0.26dB
Temperature	$\pm 0.6^{\circ}\text{C}$
Humidity	$\pm 4.0 \%$
Volatage DC	$\pm 1.0\%$
Volatage (AC, <10KHz)	$\pm 1.5\%$

Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

2.5. Assistant equipment used for test

2.5.1. Router (Master)

Manufacturer : LINKSYS
 M/N : WRT3200ACM
 FCC ID : Q87-WRT3200ACM
 IC : 3839A-WRT3200ACM
 S/N : 1981060A621419
 MAC : 6038E0B87B20

2.5.2. Notebook

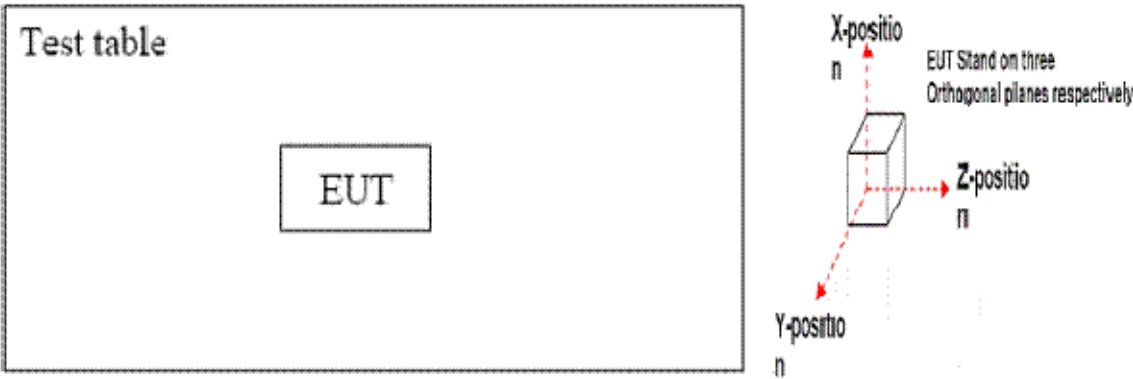
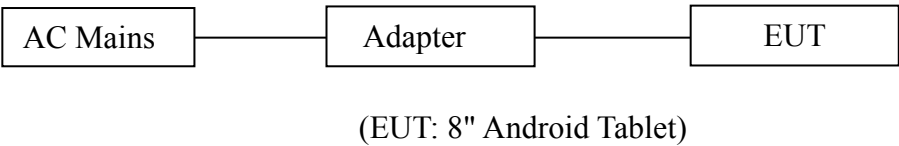
Manufacturer : DELL
 M/N : Laititude E6420
 Adapter : M/N: DA90PM111

2.5.3. Adapter

Manufacturer : onn
 M/N : BSY01J3050200U U
 Input : AC 100-240V, 50/60Hz, 0.3A
 Output : DC 5.0V, 2.0A

2.6. Block Diagram

For radiated emissions test: EUT was placed on a turn table, which is 0.8 (or 1.5) meter high above ground. EUT was be set into TX test mode by software before test.



Note: We test X-axis, Y-axis, and Z-axis,. The Y-axis is the worst mode, so only theworst mode test data was included in the report.

2.7. Test mode

The test software was used to control EUT work in Continuous TX mode, and select test channel, wireless mode

Band	Mode	Channel	Frequency (MHz)	Data rate (Mbps)
UNII Band I	IEEE 802.11a & n HT20 VHT20: 5180-5240MHz	Low	5180	6
		Middle	5200	6
		High	5240	6
	IEEE 802.11n HT40 : 5180-5240MHz	Low	5190	13.5
		High	5230	13.5
UNII Band II	IEEE 802.11a & n HT20: 5260-5320MHz	Low	5260	6
		Middle	5300	6
		High	5320	6
	IEEE 802.11n HT40: 5270-5310MHz	Low	5270	13.5
		High	5310	13.5
UNII Band III	IEEE 802.11a & n HT20: 5500-5700MHz	Low	5500	6
		Middle	5580	6
		High	5700	6
	IEEE 802.11n HT40: 5510-5670	Low	5510	13.5
		High	5670	13.5
UNII Band IV	IEEE 802.11a & n HT20: 5745-5825MHz	Low	5745	6
		Middle	5785	6
		High	5825	6
	IEEE 802.11n HT40: 5755-5795MHz	Low	5755	13.5
		High	5795	13.5

2.8. Channel List

Band	Mode	Channel	Frequency (MHz)	
UNII Band I	IEEE 802.11a & n HT20: 5180-5240MHz	36	5180	
		40	5200	
		44	5220	
		48	5240	
	IEEE 802.11n HT40: 5180-5240MHz	38	5190	
		46	5230	
UNII Band II	IEEE 802.11a & n HT20: 5260-5320MHz	52	5260	
		56	5280	
		60	5300	
		64	5320	
	IEEE 802.11n HT40: 5270-5310MHz	54	5270	
		62	5310	
UNII Band III	IEEE 802.11a & n HT20: 5500-5700MHz	100	5500	
		104	5520	
		108	5540	
		112	5560	
		116	5580	
		132	5660	
		136	5680	
		140	5700	
	IEEE 802.11n HT40: 5510-5670	102	5510	
		110	5550	
		134	5670	
UNII Band IV	IEEE 802.11a & n HT20: 5745-5825MHz	149	5745	
		153	5765	
		157	5785	
		161	5805	
		165	5825	
	IEEE 802.11n HT40: 5755-5795MHz	151	5755	
		159	5795	

2.9. Test Equipment For EST Technology Co., Ltd.

2.9.1. For conducted emission test

Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESHS30	832354	CEPREI	June 14,19	1 Year
Artificial Mains Network	Rohde & Schwarz	ENV216	101260	CEPREI	June 14,19	1 Year
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	101100	CEPREI	June 14,19	1 Year
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A

2.9.2. For radiated emission test(9 kHz-30MHz)

Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESR7	101780	CEPREI	June 14,19	1 Year
Active Loop Antenna	SCHWARZB ECK	FMZB 1519B	1519B-088	N/A	June 14,19	1 Year
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A

2.9.3. For radiated emissions test (30-1000MHz)

Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
EMI Test Receiver	Rohde & Schwarz	ESR7	101780	CEPREI	June 14,19	1 Year
Bilog Antenna	Teseq	CBL 6111D	27090	CEPREI	June 14,19	1 Year
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A

2.9.4. For radiated emission test(above 1GHz)

Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
Horn Antenna	SCHWARZB ECK	BBHA 9120 D	BBHA912 0D1002	CEPREI	June 14,19	1 Year
Horn Antenna	SCHWARZB ECK	BBHA9170	BBHA917 0242	CEPREI	June 14,19	1 Year
Signal Amplifier	SCHWARZB ECK	BBV9718	9718-212	CEPREI	June 14,19	1 Year
Spectrum Analyzer	Rohde & Schwarz	FSV	103173	CEPREI	June 14,19	1 Year
PSA Series Spectrum Analyzer	Agilent	E4447A	MY50180 031	CEPREI	June 14,19	1 Year
Test Software	Audix	e3-6.111221a	N/A	N/A	N/A	N/A

2.9.5. For DFS and connect EUT antenna terminal test

Equipment	Manufacturer	Model No.	Serial No.	Calibration Body	Last Cal.	Next Cal.
TS 8997	Rohde & Schwarz	/	/	/	/	/
Open Switch and Control Unit	Rohde & Schwarz	OSP-B157WB	101309	CEPREI	June 14,19	1 Year
Signal and Spectrum Analyzer	Rohde & Schwarz	FSV	103173	CEPREI	June 14,19	1 Year
Signal Generator	Rohde & Schwarz	SMB100A	108752	CEPREI	June 14,19	1 Year
Vector Signal Generator	Rohde & Schwarz	SMBV100A	260753	CEPREI	June 14,19	1 Year
Test Software	Rohde & Schwarz	WMS32	V10.40.00	N/A	N/A	N/A
Spectrum Analyzer	Agilent	E4408B	MY44211139	CEPREI	June 14,19	1 Year
Temperature controller	DK	DK70A	006562	Tiansu	June 14,19	1 Year
AC Source	CHANGJIAN	3KV	EST215-007	N/A	N/A	N/A

3. RADIATED SPURIOUS EMISSIONS

3.1. Limit

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209&15.407(b), all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 &15.407(b)limits.

15.205 Restricted frequency band

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)

15.209 &15.407(b) Limit

Frequency (MHz)	Field Strength(μ V/m)	Distance(m)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

Remark : (1) Emission level $\text{dB}\mu\text{V} = 20 \log \text{Emission level } \mu\text{V/m}$

(2) The smaller limit shall apply at the cross point between two frequency bands.

(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

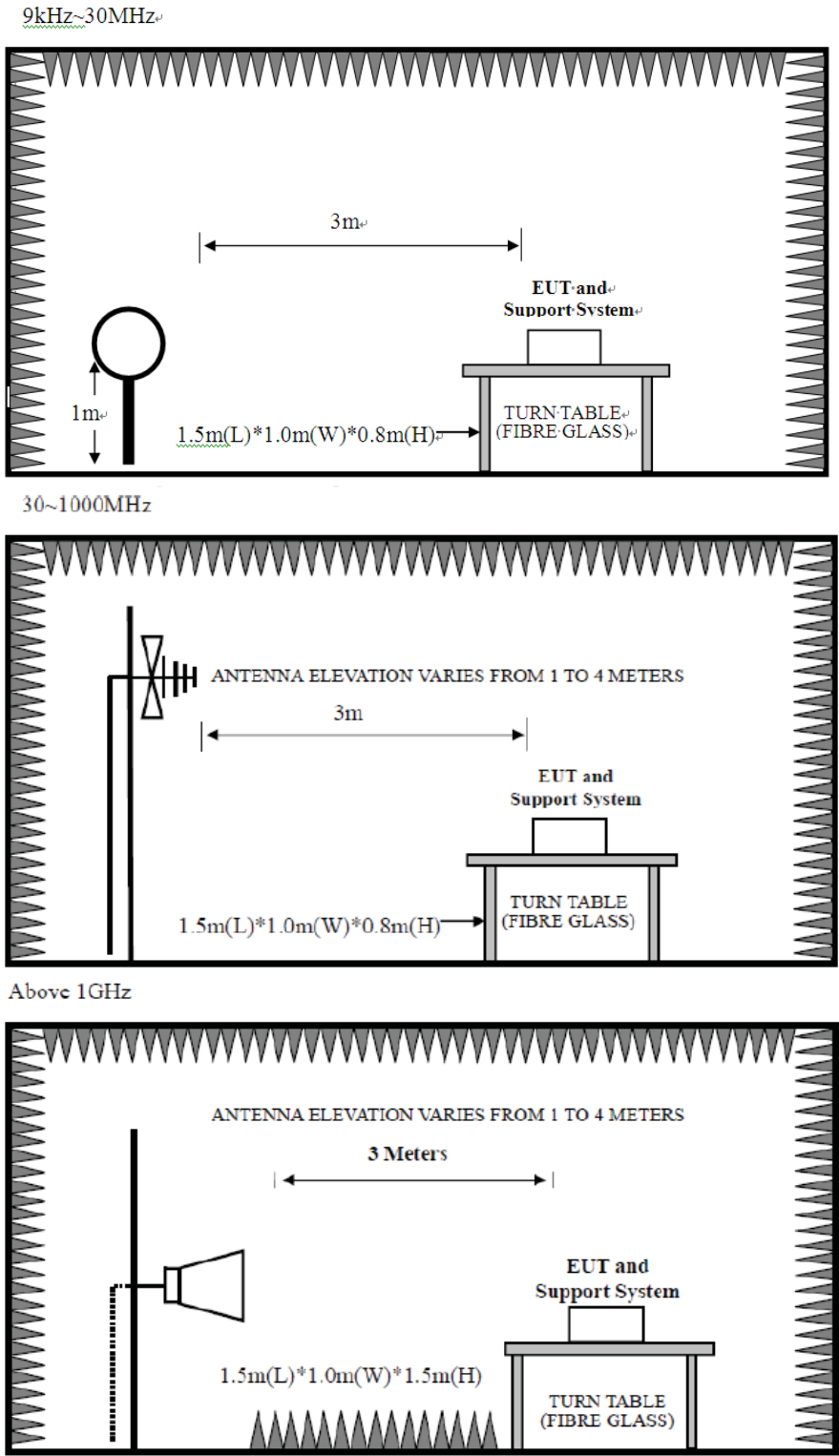
5150 MHz - 5250 MHz : e.i.r.p -27 dBm (68.2dBuV/m@3m)

5250 MHz - 5350 MHz : e.i.r.p -27 dBm (68.2dBuV/m@3m)

5470 MHz - 5725 MHz : e.i.r.p -27 dBm (68.2dBuV/m@3m)

5725 MHz - 5850 MHz : all emissions shall be limited to a level of -27 dBm/Mhz at 75Mhz or more above or below the band edge increasing linearly to 10dBm/Mhz at 25 Mhz above or below the band edge ,and from 25Mhz above or below the band edge increasing linearly to to a level of 15.6 dBm/Mhz at 5MHz above or below the band edge ,and from 5Mhz above or below the band edge increasing linearly to a level of 27 dBm/Mhz at the band edge.

3.2. Block Diagram of Test setup



3.3. Test Procedure

EUT was placed on a turn table, which is 0.8 meter high above ground for 9kHz~1000MHz test, and which is 1.5 meter high above ground for above 1GHz test. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Both horizontal and vertical polarization of the antenna are set on test.

The test frequency analyzer system was set to Peak Detect (300Hz RBW in 9kHz to 150kHz and 10kHz RBW in 150kHz to 30MHz) Function and Specified Bandwidth with Maximum Hold Mode.

The bandwidth of the EMI test receiver (R&S ESVS10) is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's VBW is set at 1MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz

PEAK detector, 1MHz/1MHz for PAEK measurement,

PEAK detector, 1MHz/10Hz for Average measurement

The frequency range from 9 kHz to 10th harmonic are checked.

3.4. Test Result

Pass

Note: 1、 For emissions above 1GHz, if peak level comply with average limit, then the average level is deemed to comply with average limit.

- 2、 The frequency 5180MHz 、 5190MHz、 5200MHz、 5230 MHz、 5240 MHz、 5260 MHz、 5270 MHz、 5300 MHz、 5310 MHz、 5320 MHz、 5500 MHz、 5510 MHz、 5580 MHz、 5670 MHz、 5700 MHz、 5745 MHz、 5755 MHz、 5785 MHz、 5795 MHz、 5825MHz is fundamental frequency which no limit, the limit on plots is automatically generated by the software, it's not fundamental limit, we can't remove it.

3.5. Test Data

9 kHz – 30 MHz

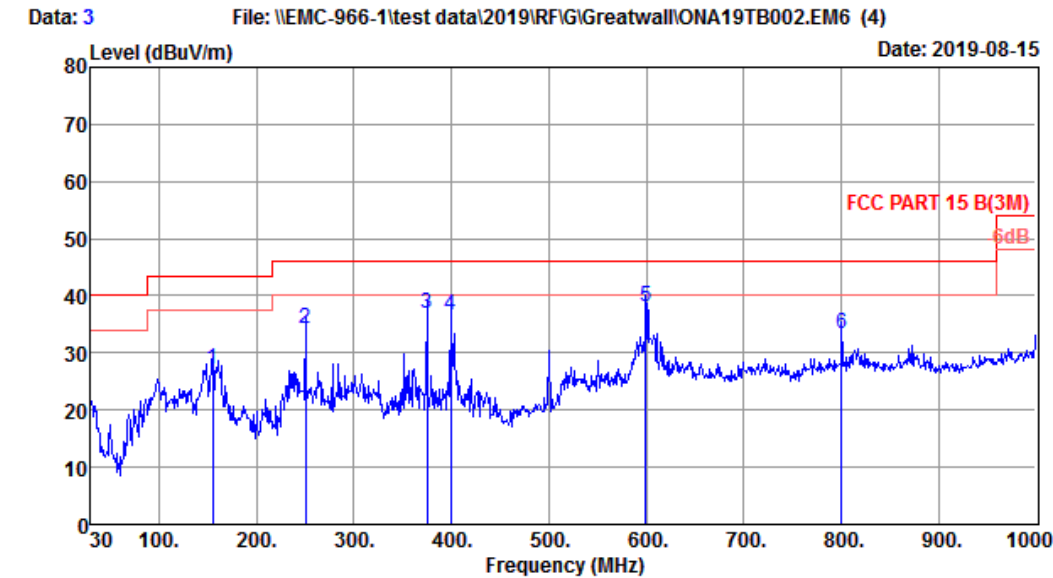
Pass

Note: The amplitude of spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.

30 MHz – 1000 MHz

EST Technology

Chilingxiang, Qishantou, Santun,
Houjie, Dongguan, Guangdong, China
Tel: +86-769-83081888
Fax: +86-769-83081878



Site no. : 1# 966 Chamber Data no. : 3
Dis. / Ant. : 3m 37062 Ant. pol. : VERTICAL
Limit : FCC PART 15 B(3M)
Env. / Ins. : Temp:26.9';Humi:61%;Press:101.52kPa
Engineer : TEA
EUT : 8" Android Tablet
Power : DC 5V From Adapter Input AC 120V/60Hz
M/N : ONA19TB002
Test Mode : TX Mode

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	155.13	11.30	1.12	14.80	27.22	43.50	16.28	QP
2	250.19	12.40	1.62	20.34	34.36	46.00	11.64	QP
3	375.32	15.60	2.19	19.21	37.00	46.00	9.00	QP
4	399.57	16.20	2.14	18.29	36.63	46.00	9.37	QP
5	599.39	20.39	2.97	14.78	38.14	46.00	7.86	QP
6	800.18	22.90	3.58	7.00	33.48	46.00	12.52	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
2. Margin= Limit - Emission Level.
3. The emission levels that are 20dB below the official limit are not reported.

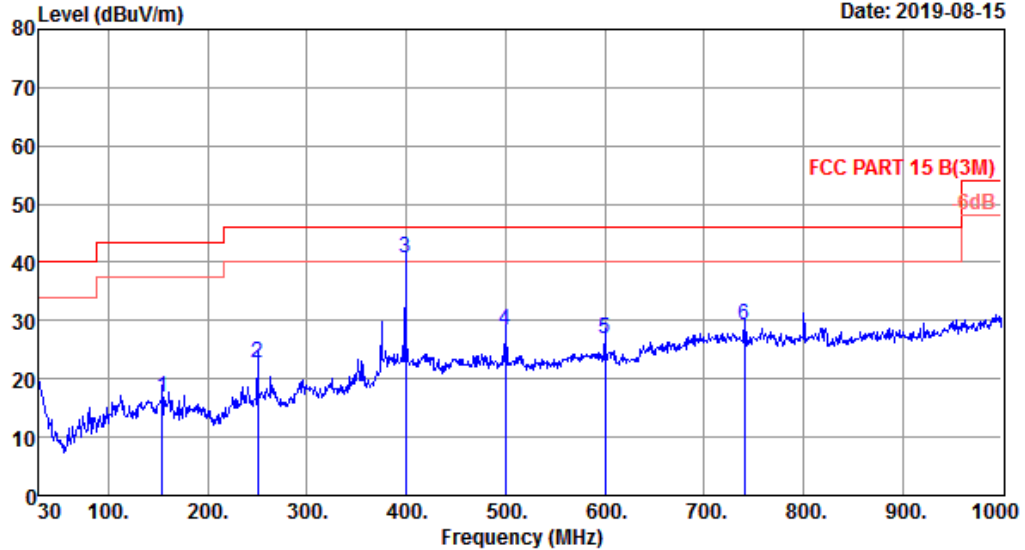
EST Technology

Chilingxiang, Qishantou, Santun,
Houjie, Dongguan, Guangdong, China
Tel: +86-769-83081888
Fax: +86-769-83081878

Data: 4

File: \\EMC-966-1\\test data\\2019\\RF\\G\\Greatwall\\ONA19TB002.EM6 (4)

Date: 2019-08-15



Site no. : 1# 966 Chamber Data no. : 4
 Dis. / Ant. : 3m 37062 Ant. pol. : HORIZONTAL
 Limit : FCC PART 15 B(3M)
 Env. / Ins. : Temp:26.9';Humi:61%;Press:101.52kPa
 Engineer : TEA
 EUT : 8" Android Tablet
 Power : DC 5V From Adapter Input AC 120V/60Hz
 M/N : ONA19TB002
 Test Mode : TX Mode

	Freq. (MHz)	ANT Factor (dB/m)	Cable Loss (dB)	Reading (dBUV)	Emission Level (dBUV/m)	Limit (dBUV/m)	Margin (dB)	Remark
1	154.16	11.36	1.11	4.39	16.86	43.50	26.64	QP
2	250.19	12.40	1.62	8.74	22.76	46.00	23.24	QP
3	399.57	16.20	2.14	22.35	40.69	46.00	5.31	QP
4	499.48	18.28	2.66	7.33	28.27	46.00	17.73	QP
5	600.36	20.40	2.97	3.38	26.75	46.00	19.25	QP
6	741.01	21.80	3.61	3.68	29.09	46.00	16.91	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.
 2. Margin= Limit - Emission Level.
 3. The emission levels that are 20dB below the official limit are not reported.

4. ANTENNA REQUIREMENTS

4.1. Limit

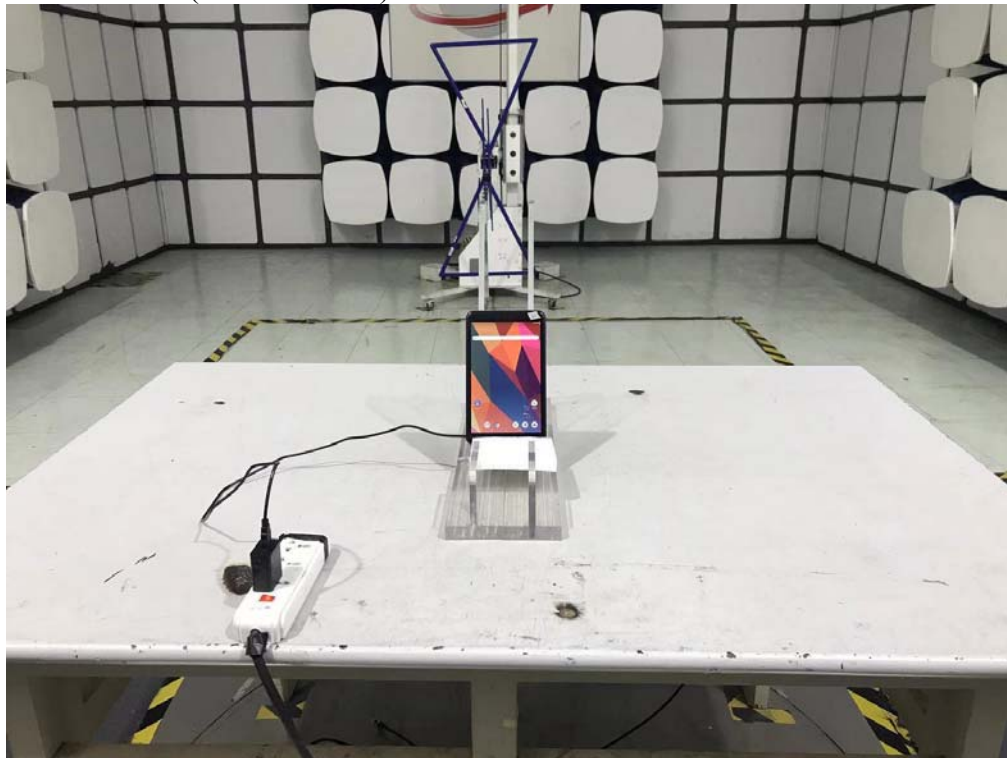
For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

4.2. Result

The antennas used for this product are External antenna and that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is only 1.27 dBi.

5. TEST SETUP PHOTO

Radiated Test (30-1000 MHz)

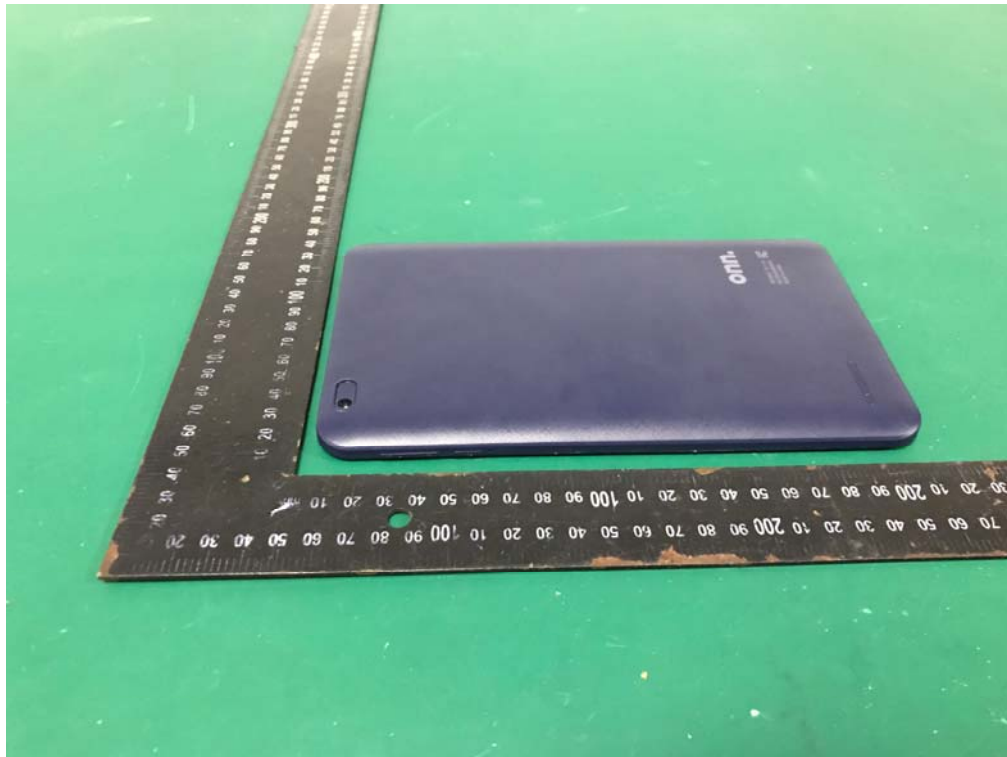


6. PHOTO OF EUT

External Photos
M/N: ONA19TB002



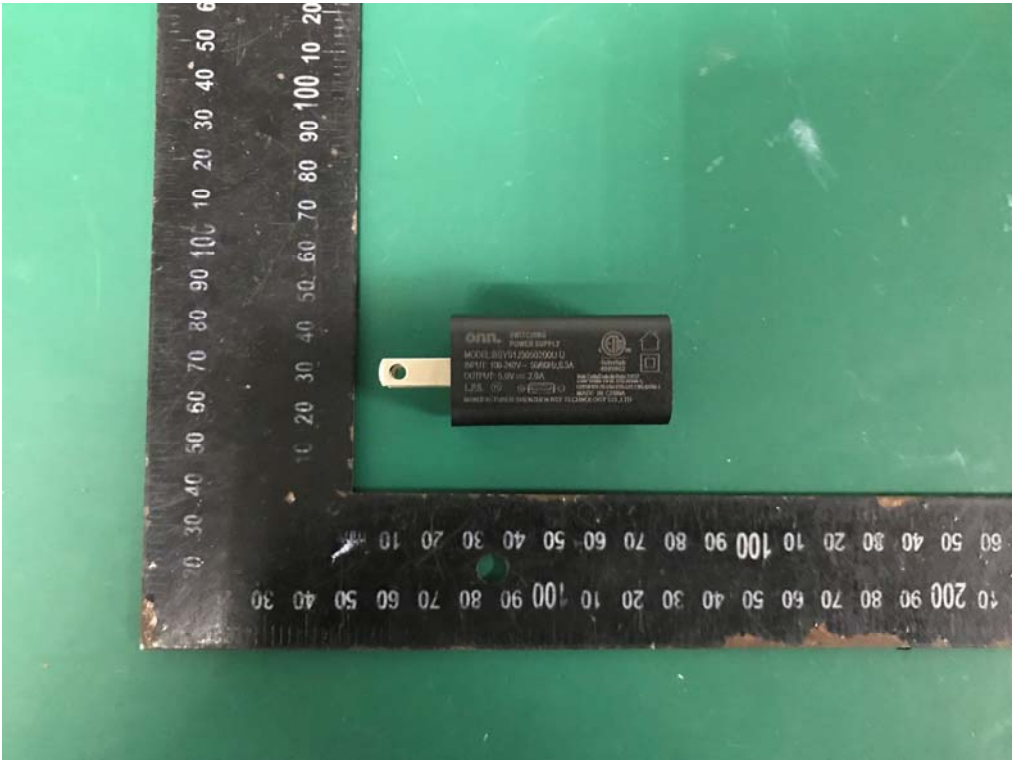
External Photos
M/N: ONA19TB002



External Photos
M/N: ONA19TB002



External Photos
M/N: ONA19TB002

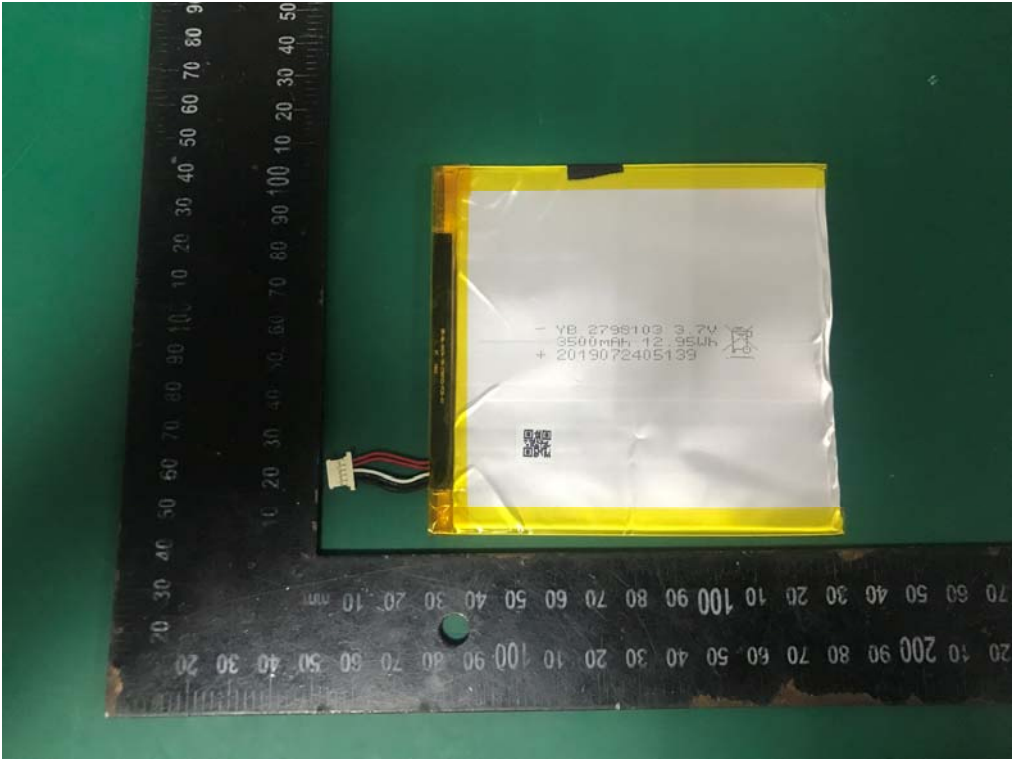


Internal Photos
M/N: ONA19TB002

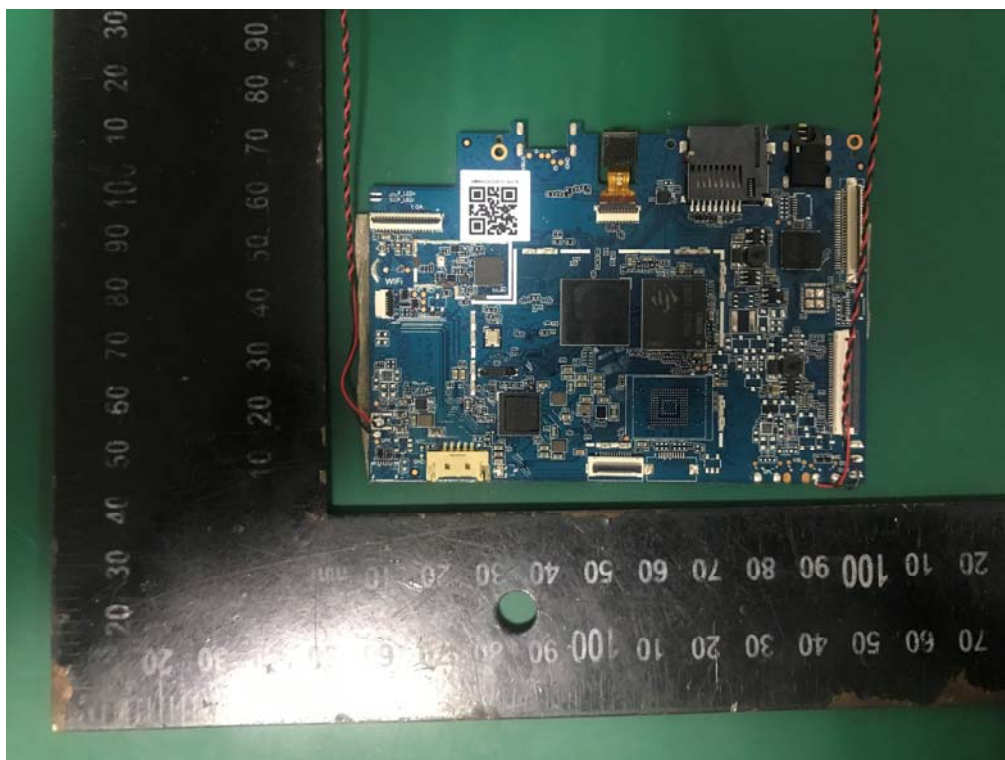
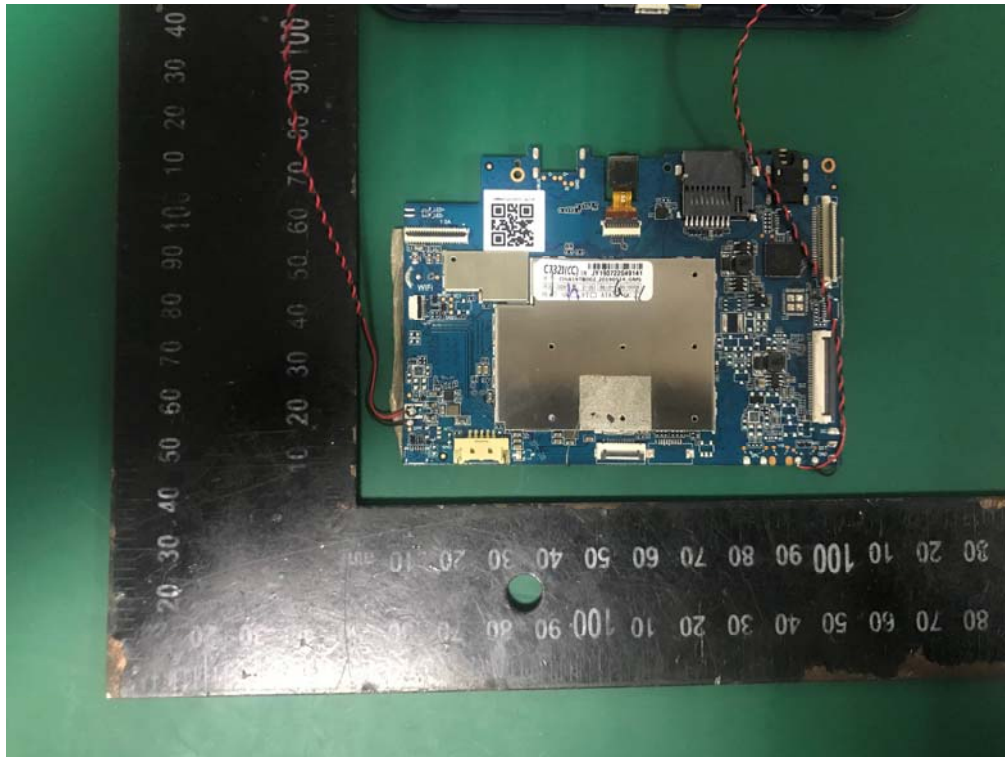
RF
Antenna



Internal Photos
M/N: ONA19TB002

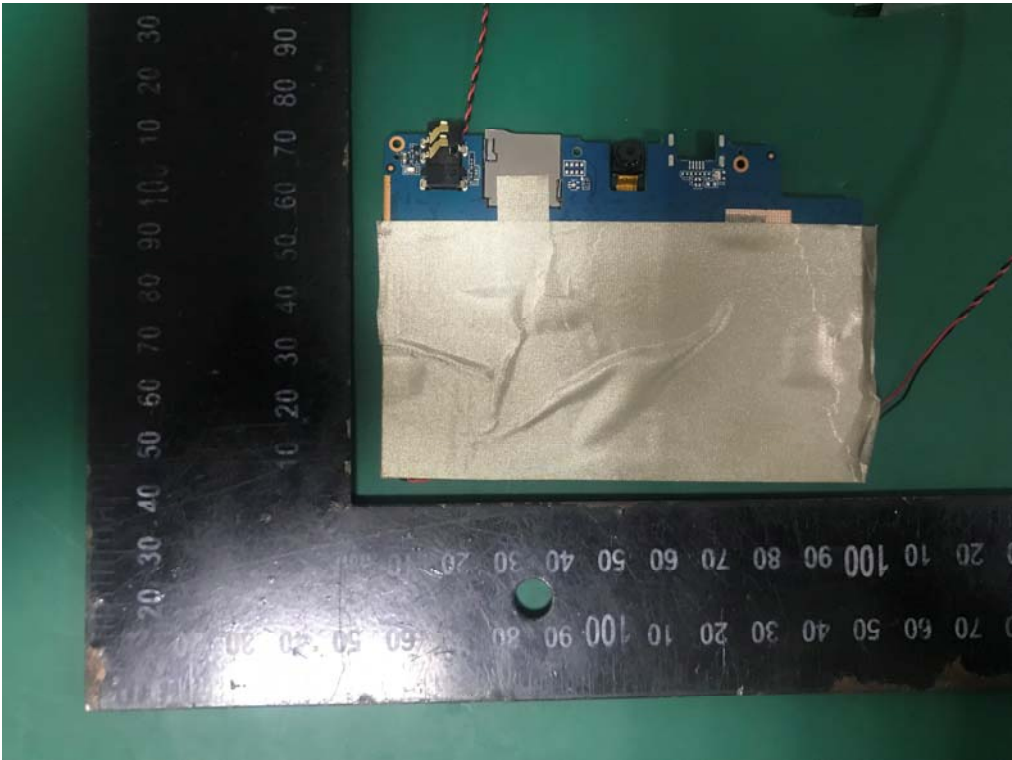
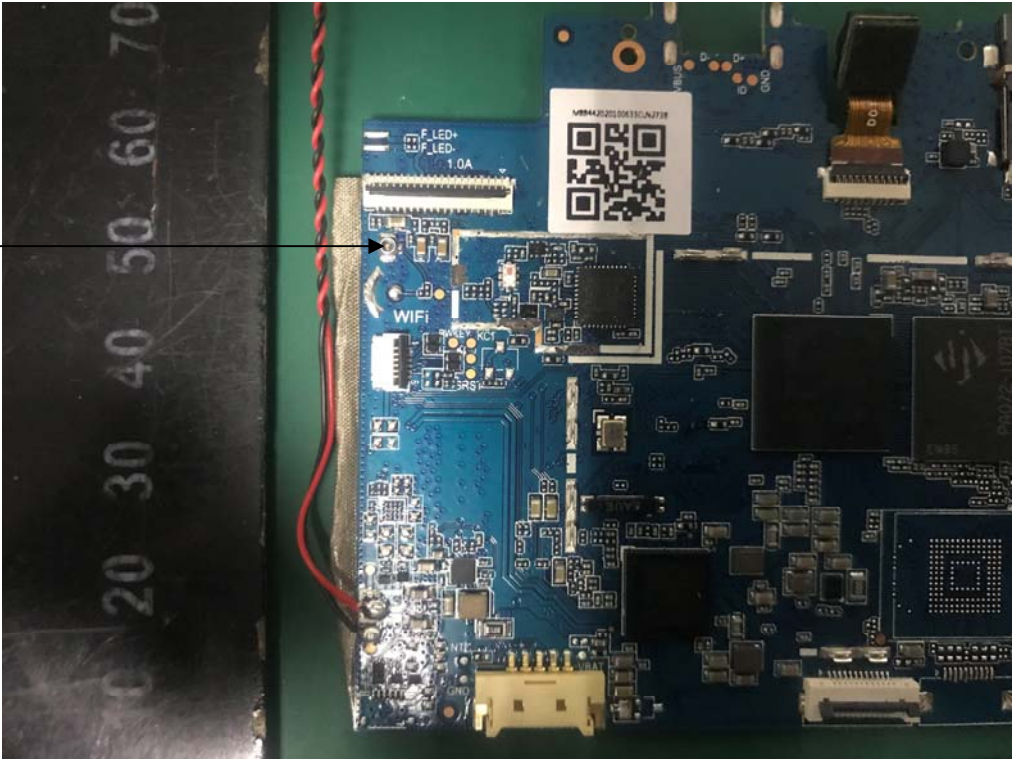


Internal Photos
M/N: ONA19TB002

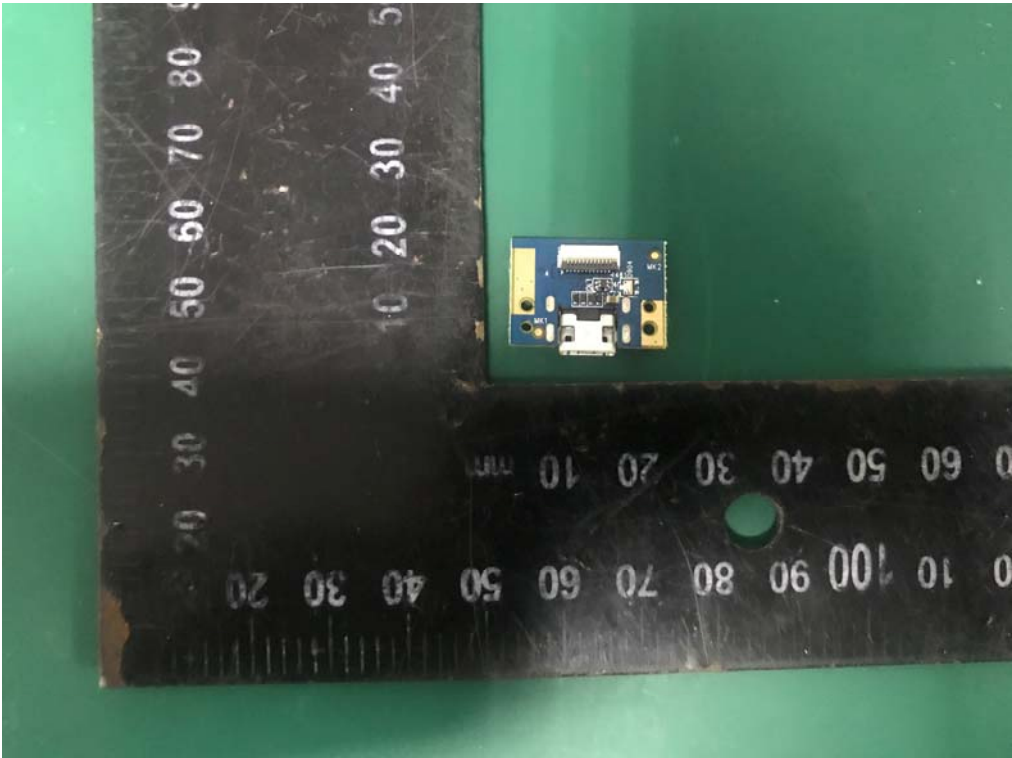
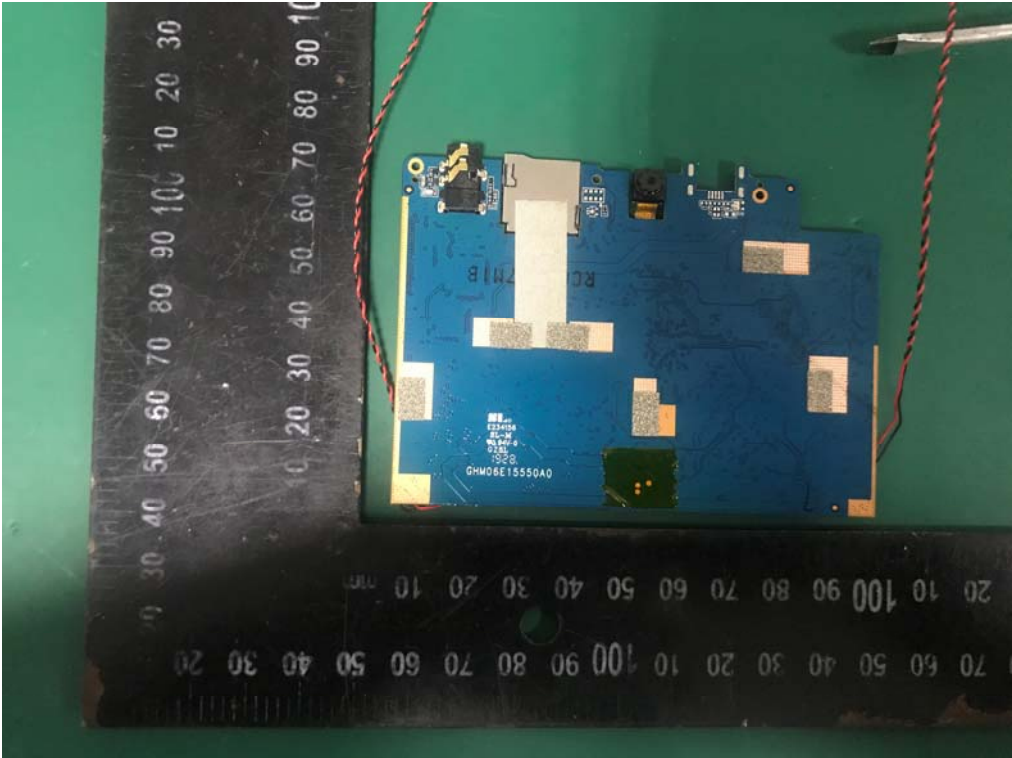


Internal Photos
M/N: ONA19TB002

RF
Antenna Port



Internal Photos
M/N: ONA19TB002



Internal Photos
M/N: ONA19TB002

