

FCC PART 15C 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

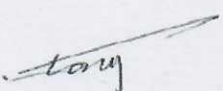
|               |                                                                      |
|---------------|----------------------------------------------------------------------|
| Prepared for: | Hunan Greatwall Computer System CO., LTD                             |
|               | Hunan GreatWall Industrial Park, Tianyi Science and Technology City, |
|               | Xiangyun Middle Road, Tianyuan District, Zhuzhou, Hunan              |
|               |                                                                      |
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|                 |                  |
|-----------------|------------------|
| Report Number:  | ESTE-R1901014-3  |
| Date of Test:   | Aug. 07~17, 2019 |
| Date of Report: | Aug. 19, 2019    |

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**EST Technology Co., Ltd.**

|                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                           |                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|------------------|
| <b>Applicant:</b>                                                                                                                                                                                                                                                 | Hunan Greatwall Computer System CO., LTD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                           |                  |
| <b>Address:</b>                                                                                                                                                                                                                                                   | Hunan GreatWall Industrial Park, Tianyi Science and Technology City, Xiangyun Middle Road, Tianyuan District, Zhuzhou, Hunan                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                           |                  |
| <b>Manufacturer Address:</b>                                                                                                                                                                                                                                      | Hunan Greatwall Computer System CO., LTD<br>Hunan GreatWall Industrial Park, Tianyi Science and Technology City, Xiangyun Middle Road, Tianyuan District, Zhuzhou, Hunan                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                           |                  |
| <b>E.U.T:</b>                                                                                                                                                                                                                                                     | 8" Android Tablet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                           |                  |
| <b>Model Number:</b>                                                                                                                                                                                                                                              | ONA19TB002                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                           |                  |
| <b>Additional Model:</b>                                                                                                                                                                                                                                          | ONA19TB010, 100005207<br>(They are identical except model name only)                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                           |                  |
| <b>Power Supply:</b>                                                                                                                                                                                                                                              | DC 5V From Adapter Input AC 100~240V, 50/60Hz, 0.3A<br>DC 3.7V From battery                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                           |                  |
| <b>Test Voltage:</b>                                                                                                                                                                                                                                              | DC 5V From Adapter Input AC 120V/60Hz, 0.3A<br>DC 5V From Adapter Input AC 240V/50Hz, 0.3A                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                           |                  |
| <b>Trade Name:</b>                                                                                                                                                                                                                                                | onn.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <b>Serial No.:</b>                                                                                                        | -----            |
| <b>Date of Receipt:</b>                                                                                                                                                                                                                                           | Aug. 07, 2019                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>Date of Test:</b>                                                                                                      | Aug. 07~17, 2019 |
| <b>Test Specification:</b>                                                                                                                                                                                                                                        | FCC Rules and Regulations Part 15 Subpart C:2018<br>ANSI C63.10:2013                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                           |                  |
| <b>Test Result:</b>                                                                                                                                                                                                                                               | <p>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 C requirements.</p> <p>This report applies to above tested sample only and shall not be reproduced in part without written approval of EST Technology Co., Ltd.</p> |                                                                                                                           |                  |
| <b>Prepared by:</b>                                                                                                                                                                                                                                               | <b>Reviewed by:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Date: Aug. 19, 2019<br>Approved by:  |                  |
| <br>_____<br>Ring / Assistant                                                                                                                                                  | <br>_____<br>Tony / Engineer                                                                                                                                                                                                                                                                                                                                                                                                                                | <br>_____<br>Iceman Hu / Manager     |                  |
| <b>Other Aspects:</b>                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                           |                  |
| 1. This report base on the previous report with report number: ESTE-R1901014-2, a new screen is add in this report and change applicant.<br>2. Because only the add screen, so just re-tested Radiated Emissions (30-1000Mhz), other test item needn't re-tested. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                           |                  |
| Abbreviations: OK/P=passed    fail/F=failed    n.a/N=not applicable    E.U.T=equipment under tested                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                           |                  |
| 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.                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                           |                  |

## 1. GENERAL INFORMATION

### 1.1. Description of Device (EUT)

|                     |   |                                                                                                                                                                                                            |              |
|---------------------|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Product Name        | : | 8" Android Tablet                                                                                                                                                                                          |              |
|                     |   |                                                                                                                                                                                                            |              |
| Model Number        | : | ONA19TB002                                                                                                                                                                                                 |              |
|                     |   |                                                                                                                                                                                                            |              |
| FCC ID              | : | 2APUQW8165                                                                                                                                                                                                 |              |
|                     |   |                                                                                                                                                                                                            |              |
| Modulation          | : | IEEE 802.11b mode: DSSS(CCK,QPSK, BPSK)<br>IEEE 802.11g mode: OFDM (BPSK/QPSK/16QAM/64QAM)<br>IEEE 802.11n HT20 mode: OFDM (BPSK/QPSK/16QAM/64QAM)<br>IEEE 802.11n HT40 mode: OFDM (BPSK/QPSK/16QAM/64QAM) |              |
|                     |   |                                                                                                                                                                                                            |              |
| Operation Frequency | : | IEEE 802.11b/g: 2412 ~ 2462 MHz<br>IEEE 802.11n HT20 : 2412 ~ 2462 MHz<br>IEEE 802.11n HT40: 2422 ~ 2452 MHz                                                                                               |              |
|                     |   |                                                                                                                                                                                                            |              |
| Number of channel   | : | IEEE 802.11b 2412 ~ 2462 MHz: 11 Channels<br>IEEE 802.11g 2412 ~ 2462 MHz: 11 Channels<br>IEEE 802.11n HT20 2412 ~ 2462 MHz: 11 Channels<br>IEEE 802.11n HT40 2422 ~ 2452 MHz: 7 Channels                  |              |
|                     |   |                                                                                                                                                                                                            |              |
| Antenna             | : | Internal antenna                                                                                                                                                                                           |              |
|                     |   | Frequency Range                                                                                                                                                                                            | Antenna gain |
|                     |   | 2400~2483.5 MHz                                                                                                                                                                                            | 1.27 dBi     |
|                     |   |                                                                                                                                                                                                            |              |
| Sample Type         | : | Prototype production                                                                                                                                                                                       |              |

## 2. SUMMARY OF TEST

### 2.1. Summary of test result

| Description of Test Item                      | Standard                                              | Results |
|-----------------------------------------------|-------------------------------------------------------|---------|
| Power Line Conducted Emission                 | FCC Part 15: 15.207<br>ANSI C63.10:2013               | N/A     |
| Radiated Emission                             | FCC Part 15: 15.209<br>ANSI C63.10:2013<br>KDB 558074 | PASS    |
| Band Edge Compliance                          | FCC Part 15: 15.247<br>ANSI C63.10:2013<br>KDB 558074 | N/A     |
| Conducted spurious emissions                  | FCC Part 15: 15.247<br>ANSI C63.10:2013<br>KDB 558074 | N/A     |
| 6dB Bandwidth                                 | FCC Part 15: 15.247<br>ANSI C63.10:2013<br>KDB 558074 | N/A     |
| Peak Output Power                             | FCC Part 15: 15.247<br>ANSI C63.10:2013<br>KDB 558074 | N/A     |
| Power Spectral Density                        | FCC Part 15: 15.247<br>ANSI C63.10:2013<br>KDB 558074 | N/A     |
| Antenna requirement                           | FCC Part 15: 15.203                                   | N/A     |
| Note: KDB 558074 D01 15.247 Meas Guidance v05 |                                                       |         |

## 2.2. 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



## 2.3. Measurement uncertainty

| Test Item                                                  | Uncertainty                       |
|------------------------------------------------------------|-----------------------------------|
| Uncertainty for Conduction emission test                   | $\pm 3.48\text{dB}$               |
| Uncertainty for spurious emissions test<br>(30MHz-1GHz)    | $\pm 4.60\text{ dB(Polarize: H)}$ |
|                                                            | $\pm 4.68\text{ dB(Polarize: V)}$ |
| Uncertainty for spurious emissions test<br>(1GHz to 18GHz) | $\pm 4.96\text{dB}$               |
| Uncertainty for radio frequency                            | $7 \times 10^{-8}$                |
| Uncertainty for conducted RF Power                         | $0.20\text{dB}$                   |
| Uncertainty for Power density test                         | $0.26\text{dB}$                   |

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

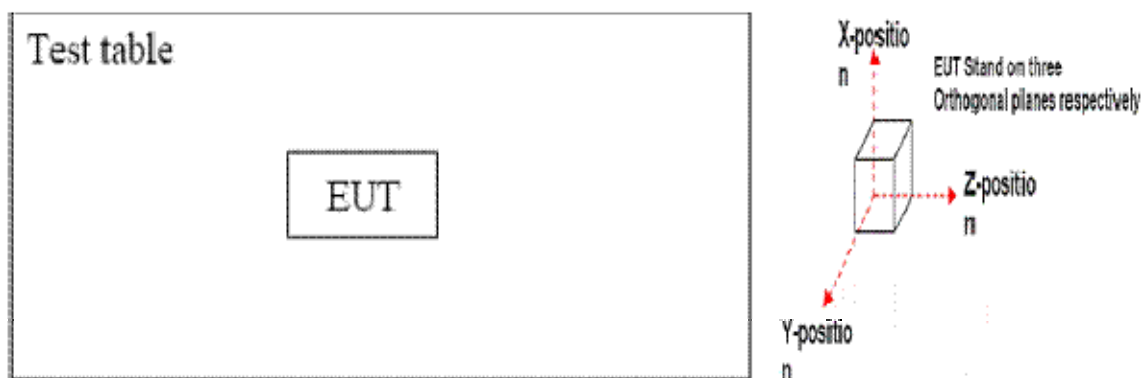
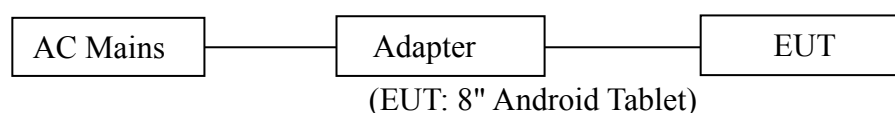
## 2.4. Assistant equipment used for test

### 2.4.1. Adapter

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

## 2.5. 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 the worst mode test data was included in the report.

### 3.1. Test mode

A special test software was used to control EUT work in Continuous TX mode, and select test channel, wireless mode and data rate.

| Test mode                                                | Lower channel | Center channel | Upper channel |
|----------------------------------------------------------|---------------|----------------|---------------|
| IEEE 802.11b;IEEE 802.11g;IEEE 802.11n HT20 Transmitting | 2412MHz       | 2437MHz        | 2462MHz       |
| IEEE 802.11b;IEEE 802.11g;IEEE 802.11n HT20 Receiving    | 2412MHz       | 2437MHz        | 2462MHz       |
| IEEE 802.11n HT40 Transmitting                           | 2422MHz       | 2437MHz        | 2452MHz       |
| IEEE 802.11n HT40 Receiving                              | 2422MHz       | 2437MHz        | 2452MHz       |

### 3.2. Channel List

| IEEE 802.11b;IEEE 802.11g;IEEE 802.11n HT20 |                 |         |                 |         |                 |
|---------------------------------------------|-----------------|---------|-----------------|---------|-----------------|
| Channel                                     | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
| 1                                           | 2412            | 6       | 2437            | 11      | 2462            |
| 2                                           | 2417            | 7       | 2442            |         |                 |
| 3                                           | 2422            | 8       | 2447            |         |                 |
| 4                                           | 2427            | 9       | 2452            |         |                 |
| 5                                           | 2432            | 10      | 2457            |         |                 |
| IEEE 802.11n HT40                           |                 |         |                 |         |                 |
| Channel                                     | Frequency (MHz) | Channel | Frequency (MHz) | Channel | Frequency (MHz) |
| 3                                           | 2422            | 6       | 2437            | 9       | 2452            |
| 4                                           | 2427            | 7       | 2442            |         |                 |
| 5                                           | 2432            | 8       | 2447            |         |                 |



### 3.3. Test Equipment

#### 3.3.1. 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       |

#### 3.3.2. 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       |

#### 3.3.3. 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       |

#### 3.3.4. 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 Spertrum 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       |

## 3.3.5. For connect EUT antenna terminal test

| Equipment         | Manufacturer    | Model No. | Serial No.     | Calibration Body | Last Cal.  | Next Cal. |
|-------------------|-----------------|-----------|----------------|------------------|------------|-----------|
| Spectrum Analyzer | Rohde & Schwarz | FSV       | 103173         | CEPREI           | June 14,19 | 1 Year    |
| Spectrum Analyzer | Agilent         | E4408B    | MY44211<br>139 | CEPREI           | June 14,19 | 1 Year    |

## 4 RADIATED EMISSION TEST

### 4.1 Limit

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 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       |
| <sup>1</sup> 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     | ( <sup>2</sup> ) |

#### 15.209 Limit

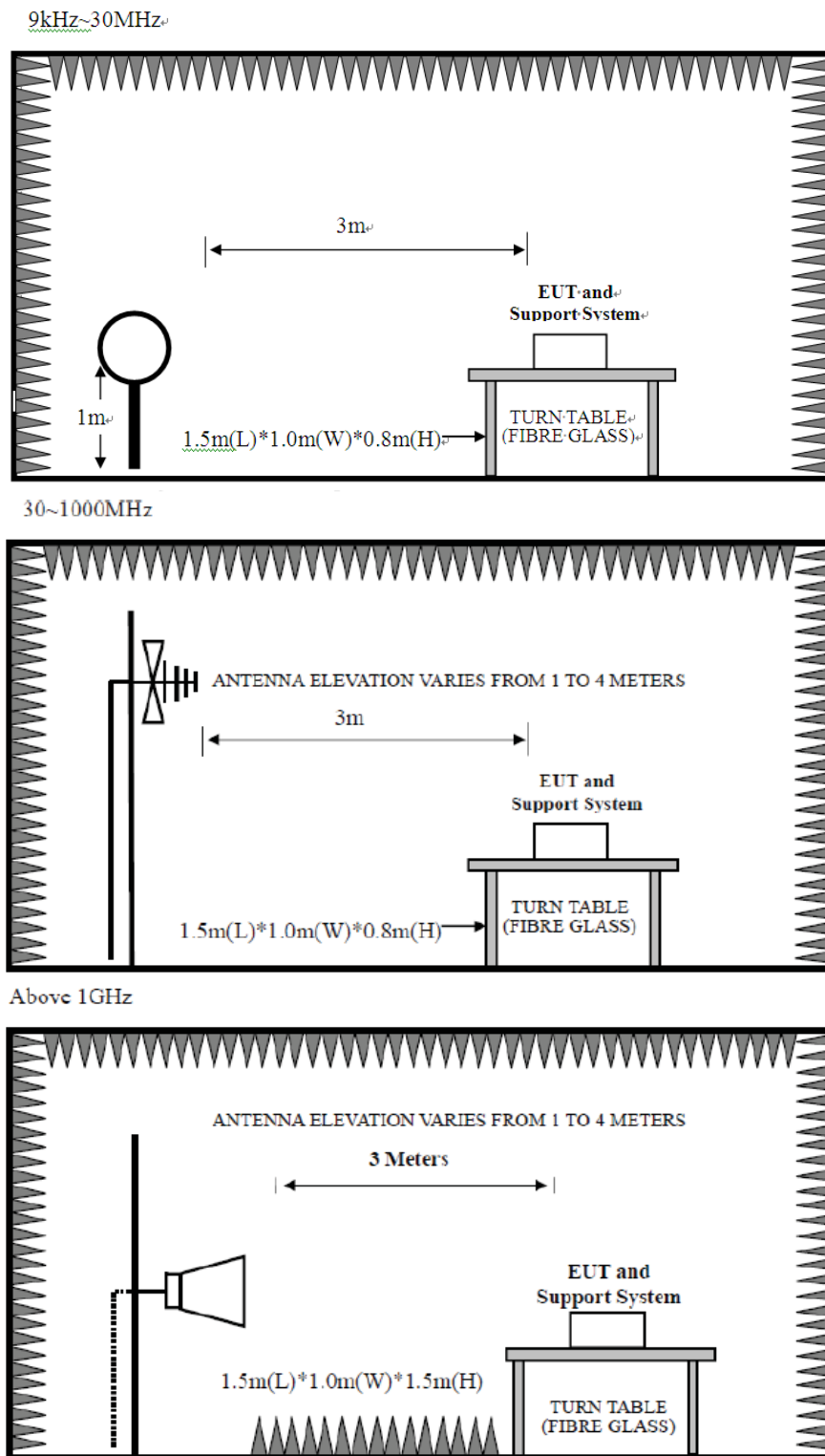
| Frequency (MHz) | Field Strength( $\mu$ V/m) | Distance(m) |
|-----------------|----------------------------|-------------|
| 0.009-0.490     | 2400/F(kHz)                | 300         |
| 0.490-1.705     | 24000/F(kHz)               | 30          |
| 1.705-30        | 30                         | 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.

## 4.2. Block Diagram of Test setup



### 4.3. 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 30MHz to 10th harmonic (25GHz) are checked.

### 4.4. 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 2412MHz 、 2422MHz、 2437 MHz、 2452MHz and 2462 MHz 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.

#### 4.5. 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.

30-1000 MHz

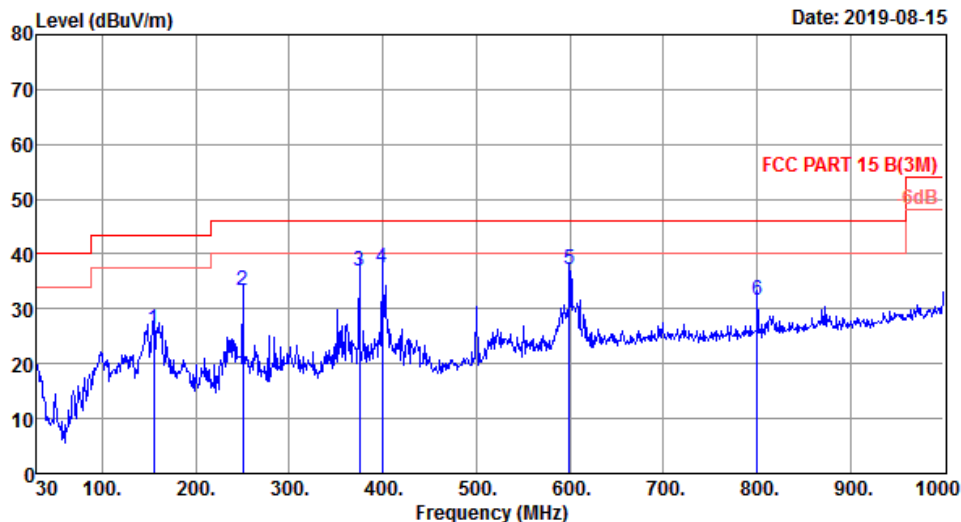
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Data: 1

File: \\EMC-966-1\\test data\\2019\\RF\\G\\Greatwall\\ONA19TB002.EM6 (2)

Date: 2019-08-15



Site no. : 1# 966 Chamber Data no. : 1  
 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.<br>(MHz) | ANT<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Remark |
|---|----------------|-------------------------|-----------------------|-------------------|-------------------------------|-------------------|----------------|--------|
| 1 | 155.13         | 11.30                   | 1.12                  | 13.80             | 26.22                         | 43.50             | 17.28          | QP     |
| 2 | 250.19         | 12.40                   | 1.62                  | 19.34             | 33.36                         | 46.00             | 12.64          | QP     |
| 3 | 375.32         | 15.60                   | 2.19                  | 19.21             | 37.00                         | 46.00             | 9.00           | QP     |
| 4 | 399.57         | 16.20                   | 2.14                  | 19.29             | 37.63                         | 46.00             | 8.37           | QP     |
| 5 | 599.39         | 20.39                   | 2.97                  | 13.78             | 37.14                         | 46.00             | 8.86           | QP     |
| 6 | 800.18         | 22.90                   | 3.58                  | 5.00              | 31.48                         | 46.00             | 14.52          | 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.



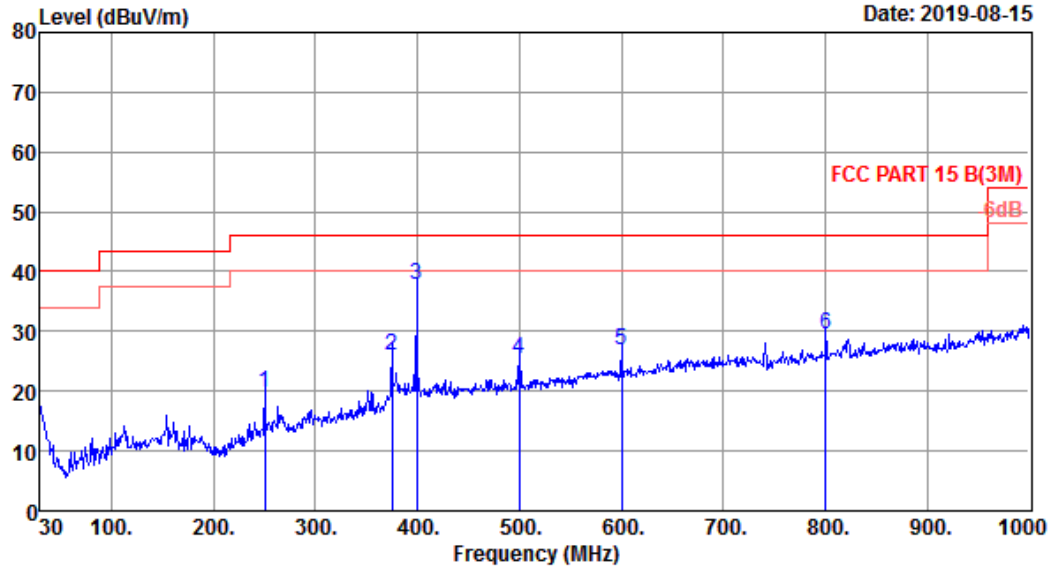
## EST Technology

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

Data: 2

File: \\EMC-966-1\\test data\\2019\\RF\\G\\Greatwall\\ONA19TB002.EM6 (2)

Date: 2019-08-15



Site no. : 1# 966 Chamber Data no. : 2  
 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.<br>(MHz) | ANT<br>Factor<br>(dB/m) | Cable<br>Loss<br>(dB) | Reading<br>(dBuV) | Emission<br>Level<br>(dBuV/m) | Limit<br>(dBuV/m) | Margin<br>(dB) | Remark |
|---|----------------|-------------------------|-----------------------|-------------------|-------------------------------|-------------------|----------------|--------|
| 1 | 250.19         | 12.40                   | 1.62                  | 5.74              | 19.76                         | 46.00             | 26.24          | QP     |
| 2 | 375.32         | 15.60                   | 2.19                  | 8.12              | 25.91                         | 46.00             | 20.09          | QP     |
| 3 | 399.57         | 16.20                   | 2.14                  | 19.35             | 37.69                         | 46.00             | 8.31           | QP     |
| 4 | 499.48         | 18.28                   | 2.66                  | 4.33              | 25.27                         | 46.00             | 20.73          | QP     |
| 5 | 600.36         | 20.40                   | 2.97                  | 3.38              | 26.75                         | 46.00             | 19.25          | QP     |
| 6 | 800.18         | 22.90                   | 3.58                  | 2.94              | 29.42                         | 46.00             | 16.58          | 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.

## 5 ANTENNA REQUIREMENTS

### 5.1 Limit

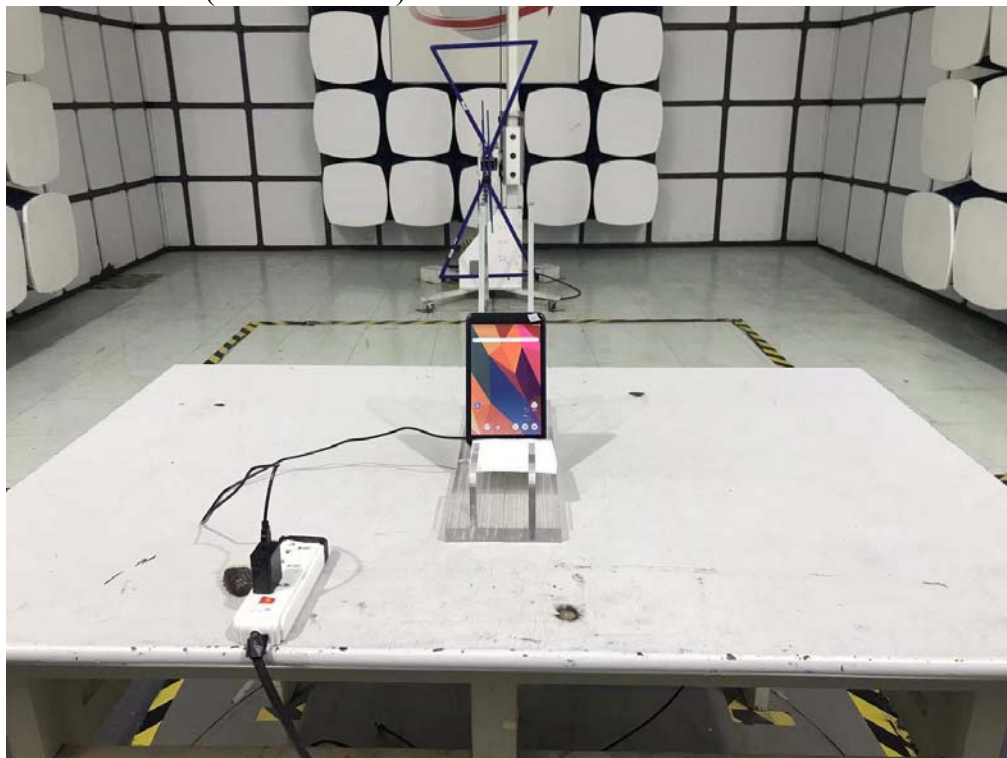
For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional 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.

### 5.2 Result

The antennas used for this product are Internal 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.

## 6 TEST SETUP PHOTO

Radiated Test (30-1000 MHz)

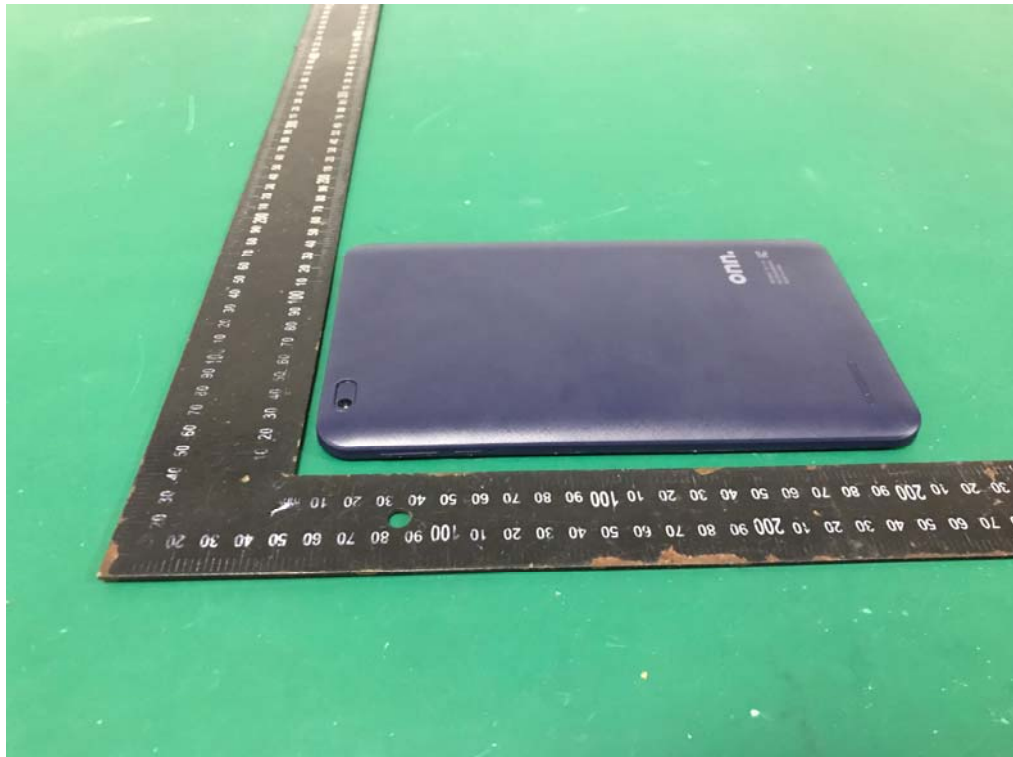


## 7 PHOTOS OF EUT

### External Photos M/N: ONA19TB002



**External Photos**  
M/N: ONA19TB002



**External Photos**  
M/N: ONA19TB002





**External Photos**  
M/N: ONA19TB002



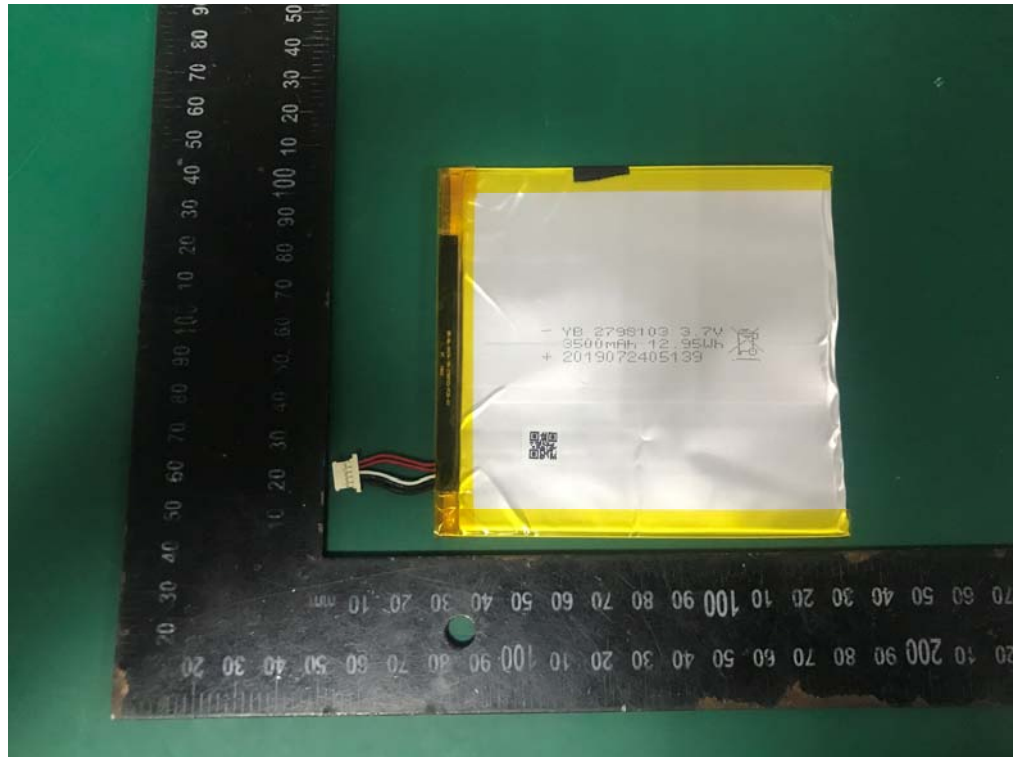
**Internal Photos**  
M/N: ONA19TB002

RF  
Antenna

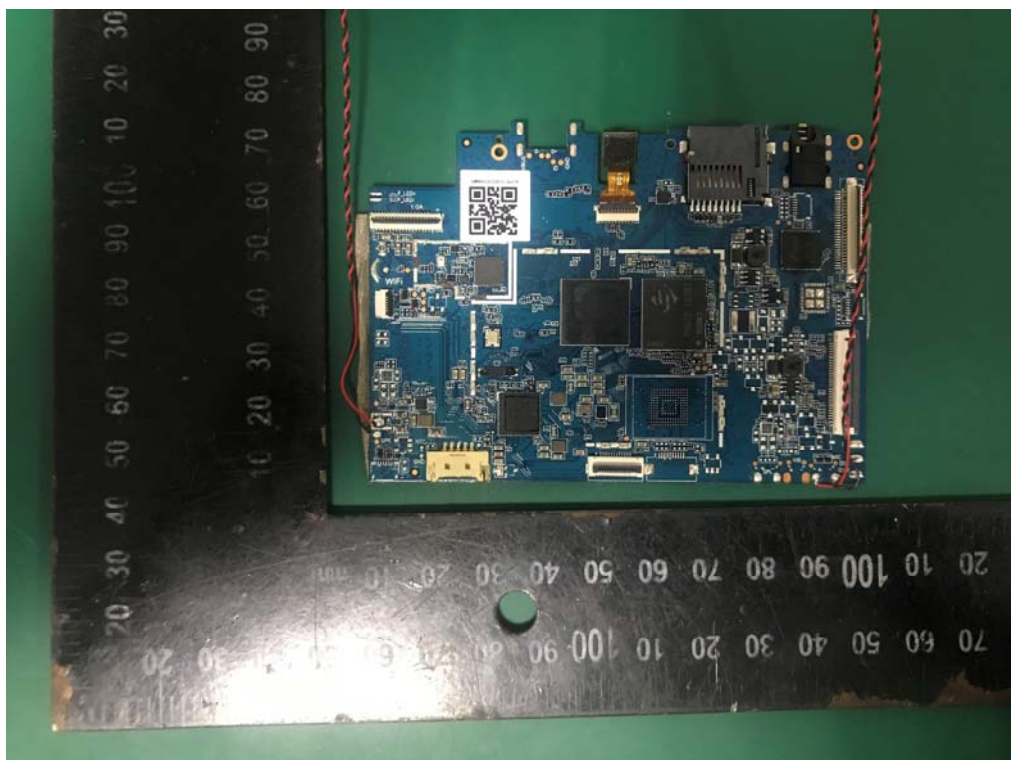
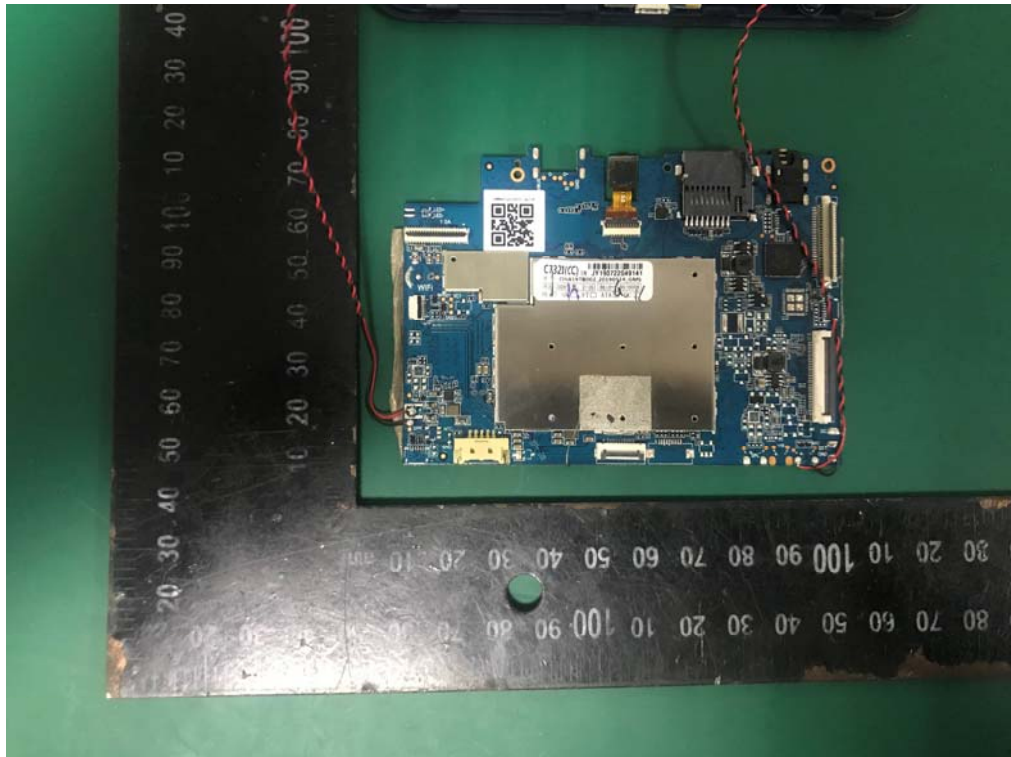




**Internal Photos**  
M/N: ONA19TB002

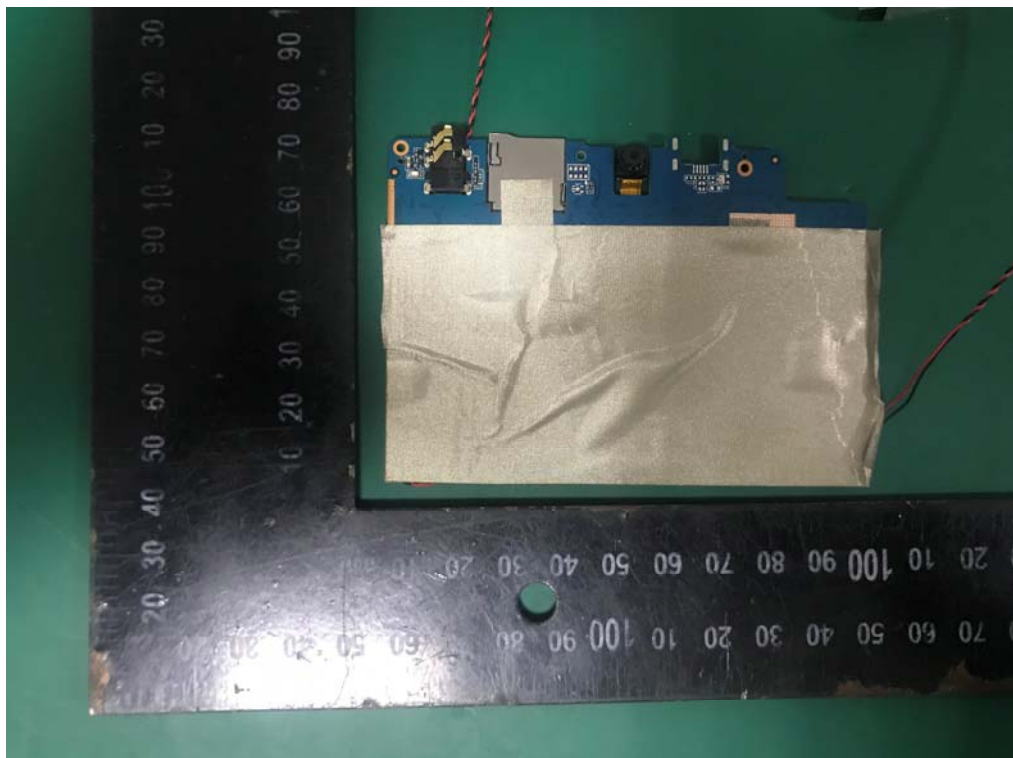
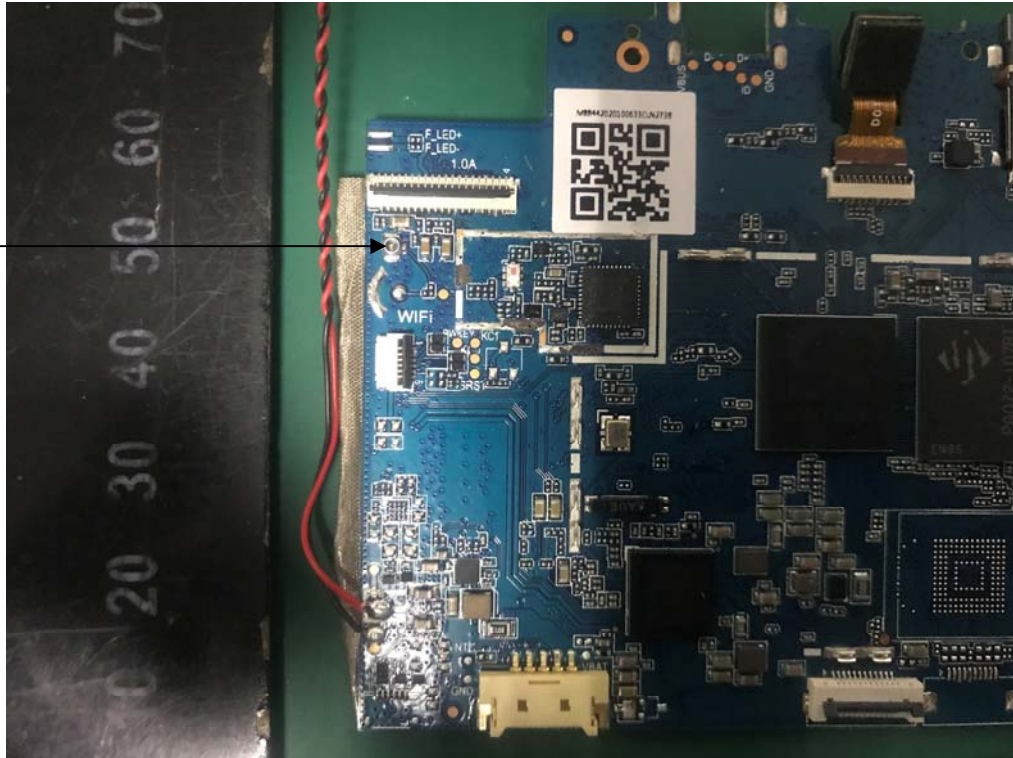


**Internal Photos**  
M/N: ONA19TB002



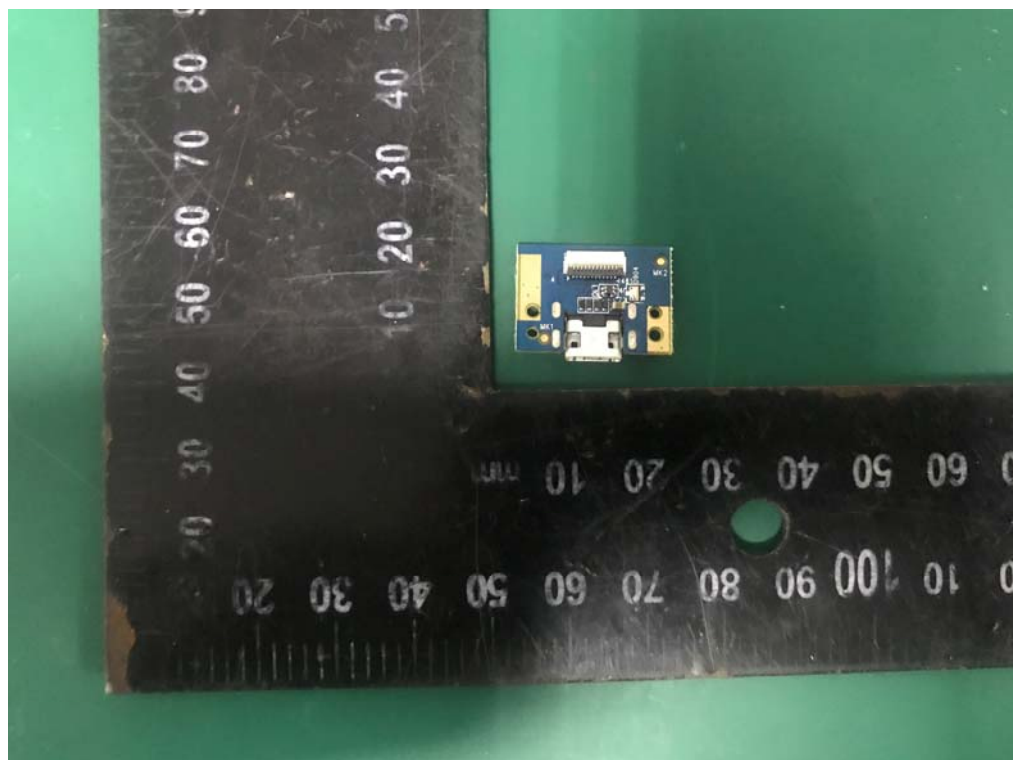
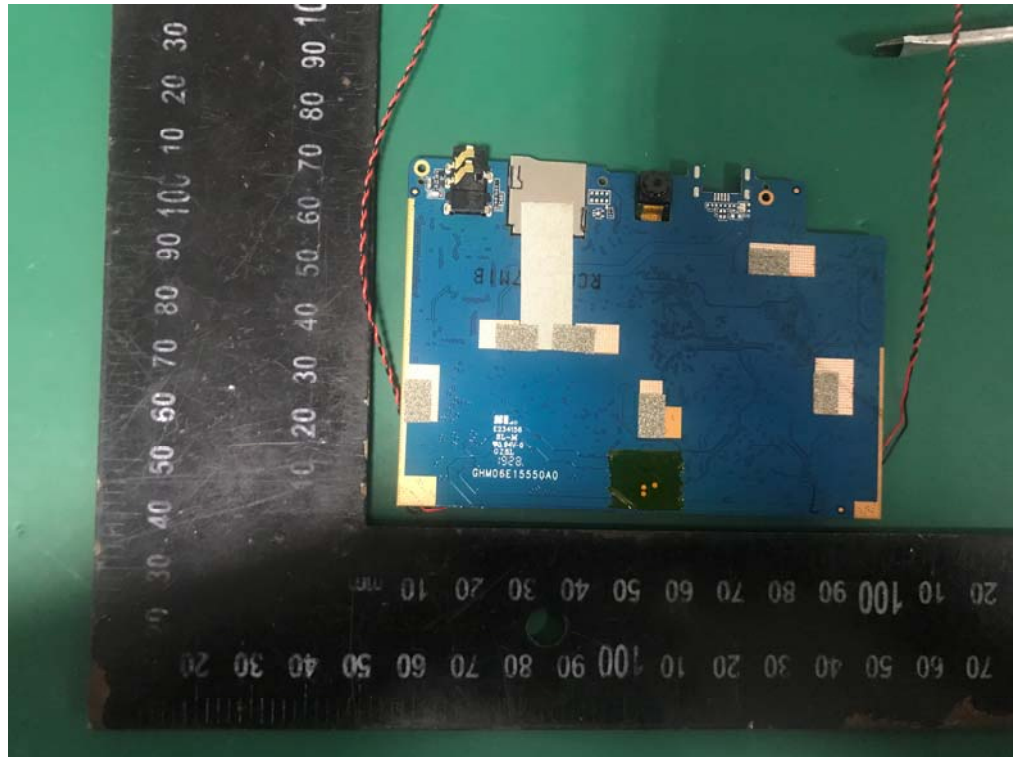
**Internal Photos**  
M/N: ONA19TB002

RF  
Antenna Port





**Internal Photos**  
M/N: ONA19TB002



**Internal Photos**  
M/N: ONA19TB002

