



## TEST REPORT

**Application No.:** ZR/2019/B0004  
**Applicant:** TCL Communication Ltd  
**Address of Applicant:** 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong  
**Manufacturer:** TCL Communication Ltd  
**Address of Manufacturer:** 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong  
**EUT Name:** LTE/WCDMA/GSM mobile phone  
**Model No.:** 5028A  
**Trade mark:** alcatel  
**FCC ID:** 2ACCJH113  
**Standard(s) :** 47 CFR Part 15, Subpart B  
**Date of Receipt:** 2019-11-12  
**Date of Test:** 2019-11-13 to 2019-11-27  
**Date of Issue:** 2021-8-16

|                     |              |
|---------------------|--------------|
| <b>Test Result:</b> | <b>Pass*</b> |
|---------------------|--------------|

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

Authorized Signature:

Derek Yang

Wireless Laboratory Manager



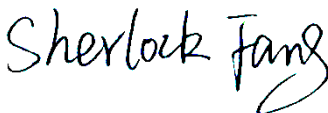
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| Revision Record |         |            |               |                                                                                                                                                            |
|-----------------|---------|------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Version         | Chapter | Date       | Modifier      | Remark                                                                                                                                                     |
| 01              |         | 2019-12-20 |               | Original                                                                                                                                                   |
| 02              |         | 2021-6-15  | Sherlock Fang | 1. The test site information of lab B(XI 'AN) added in section 4.5 and 4.6<br>2. Modify data conversion error of antenna height<br>3.Update equipment list |
| 03              |         | 2021-8-16  | Sherlock Fang | 1. Update Support Units.<br>2. Remove the information of lab A(SZ) in section 4.5 and 4.6                                                                  |

\*This report supersedes our previous report ZR/2019/B000407, issued on 2019-12-20, which is hereby deemed null and void.

|                          |                                                                                                                             |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Authorized for issue by: |                                                                                                                             |
| Prepared By              | <br>_____<br>(Sherlock Fang) / Engineer |
| Checked By               | <br>_____<br>(Jim Huang) / Reviewer     |

## 2 Test Summary

| Emission Part                                         |                           |                 |             |        |
|-------------------------------------------------------|---------------------------|-----------------|-------------|--------|
| Item                                                  | Standard                  | Method          | Requirement | Result |
| Conducted Emissions at Mains Terminals (150kHz-30MHz) | 47 CFR Part 15, Subpart B | ANSI C63.4:2014 | Class B     | Pass   |
| Radiated Emissions (30MHz-1GHz)                       | 47 CFR Part 15, Subpart B | ANSI C63.4:2014 | Class B     | Pass   |
| Radiated Emissions (above 1GHz)                       | 47 CFR Part 15, Subpart B | ANSI C63.4:2014 | Class B     | Pass   |

| Internal Source    | Upper Frequency                                                    |
|--------------------|--------------------------------------------------------------------|
| Below 1.705MHz     | 30MHz                                                              |
| 1.705MHz to 108MHz | 1GHz                                                               |
| 108MHz to 500MHz   | 2GHz                                                               |
| 500MHz to 1GHz     | 5GHz                                                               |
| Above 1GHz         | 5th harmonic of the highest frequency or 40GHz, whichever is lower |

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## 4 General Information

### 4.1 Details of E.U.T.

|               |                                                                                                                                                  |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Power supply: | DC 3.85V from internal rechargeable battery or from AC/DC adapter<br>Model No.: UC13US<br>AC Input: 100-240V 50/60Hz 0.5A<br>DC Output: DC 5V 2A |
| Cable:        | USB cable: 100cm unshielded<br>Earphone cable: 115cm unshielded                                                                                  |

|           | No. | P/N          | Remark                            | Comment                                          |
|-----------|-----|--------------|-----------------------------------|--------------------------------------------------|
| Adaptor   | 1   | CBA0059AGAC5 | UC13US; 5.0 V,2000 mA, PUAN;      | -                                                |
|           | 2   | CBA0059AGAC7 | UC13US; 5.0 V,2000 mA,; CHENGYANG | -                                                |
| USB cable | 1   | CDA0000024C8 | PUAN                              | -                                                |
|           | 2   | CDA0000024C2 | JUWEI                             | -                                                |
| Headset   | 1   | CCB0046A10C1 | JUWEI; alcatel Logo               | -                                                |
|           | 2   | CCB0046A10C4 | MEIHAO; alcatel Logo              | -                                                |
|           | 3   | CCB0046A15C1 | JUWEI                             | Same with CCB0046A10C1, only remove alcatel logo |
|           | 4   | CCB0046A15C4 | MEIHAO                            | Same with CCB0046A10C4, only remove alcatel logo |
| Battery   | 1   | CAC3860024C1 | TLp038D1; BYD                     | -                                                |
|           | 2   | CAC3860025C7 | TLp038D7; VEKEN;                  | -                                                |

### 4.2 Description of Support Units

| Description | Manufacturer | Model No.    | Serial No. |
|-------------|--------------|--------------|------------|
| Router      | NETGEAR      | R6020        | No.XA1401  |
| Computer    | Lenovo       | L480         | No.XA1402  |
| Mouse       | A4TECH       | OP-520NU USB | No.XA1403  |

### 4.3 Test modes

|                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pretest these modes to find the worst case and show the worse data in the test items: | <p>e: Transfer data between the EUT and the PC+USB cable1</p> <p>f: Transfer data between the EUT and the PC+USB cable2</p> <p>g: Telecom Idle+BT+WLAN +GPS Rx+playing MP4 (SD card) +earphone1+battery+Cable(worst)+adapter1</p> <p>h: Telecom Idle+BT+WLAN +GPS Rx+playing MP4 (SD card) +earphone1+battery+Cable(worst)+adapter2</p> <p>i: Telecom Idle+BT+WLAN +GPS Rx+camera (Front) +earphone+battery+Cable(worst)+ Cable(worst)+adapter(Worst)</p> <p>j: Telecom Idle+BT+WLAN +GPS Rx+camera (Back) +earphone+battery+Cable(worst)+adapter(Worst)</p> <p>k: GSM 850+BT+WLAN +GPS Rx+FM+earphone+battery+Cable(worst)+adapter(Worst)</p> <p>l: GSM 1900+BT+WLAN +GPS Rx+ FM+earphone+battery+Cable(worst)+adapter(Worst)</p> <p>m: WCDMA Band II+BT+WLAN +GPS Rx+ FM+earphone+battery+Cable(worst)+adapter(Worst)</p> <p>n: WCDMA Band IV+BT+WLAN +GPS Rx+ FM+earphone+battery+Cable(worst)+adapter(Worst)</p> <p>o: WCDMA Band V+BT+WLAN +GPS Rx+ FM+earphone+battery+Cable(worst)+adapter(Worst)</p> <p>p: LTE band 2+BT+WLAN +GPS Rx+ FM+earphone+battery+Cable(worst)+adapter(Worst)</p> <p>q: LTE band 4+BT+WLAN +GPS Rx+ FM+earphone(worst)+battery(worst)+Cable(worst)+adapter(Worst)</p> <p>r: LTE band 5+BT+WLAN +GPS Rx+ FM+earphone(worst)+battery(worst)+Cable(worst)+adapter(Worst)</p> <p>s: LTE band 7+BT+WLAN +GPS Rx+ FM+earphone(worst)+battery(worst)+Cable(worst)+adapter(Worst)</p> <p>t: LTE band 12+BT+WLAN +GPS Rx+ FM+earphone(worst)+battery(worst)+Cable(worst)+adapter(Worst)</p> <p>u: LTE band 13+BT+WLAN +GPS Rx+ FM+earphone(worst)+battery(worst)+Cable(worst)+adapter(Worst)</p> <p>v: LTE band 17+BT+WLAN +GPS Rx+ FM+earphone(worst)+battery(worst)+Cable(worst)+adapter(Worst)</p> <p>w: LTE band 66+BT+WLAN +GPS Rx+ FM+earphone(worst)+battery(worst)+Cable(worst)+adapter(Worst)</p> |
|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### 4.4 Measurement Uncertainty

| No. | Item                | Measurement Uncertainty              |
|-----|---------------------|--------------------------------------|
| 1   | Conduction Emission | $\pm 3.0\text{dB}$ (150kHz to 30MHz) |
| 2   | Radiated Emission   | $\pm 4.8\text{dB}$ (Below 1GHz)      |
|     |                     | $\pm 4.8\text{dB}$ (1GHz to 6GHz)    |
|     |                     | $\pm 4.5\text{dB}$ (6GHz to 18GHz)   |
|     |                     | $\pm 5.02\text{dB}$ (Above 18GHz)    |

#### 4.5 Test Location

|                |                                                                                                                            |
|----------------|----------------------------------------------------------------------------------------------------------------------------|
| Company:       | SGS-CSTC STANDARDS TECHNICAL SERVICES (XI 'AN) CO., LTD.                                                                   |
| Address:       | 1/F, Unit D, Building 1, Kanghong Orange Technology Park, No.137, Keyuan 3rd Road, Fengdong New City, Xi'an, Shaanxi China |
| Post code:     | 710086                                                                                                                     |
| Test engineer: | Ben Huang, Leah Chen                                                                                                       |

#### 4.6 Test Facility

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

##### Lab B:

##### • A2LA (Certificate No. 4854.01)

SGS-CSTC STANDARDS TECHNICAL SERVICES (XI 'AN) CO., LTD. is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 4854.01.

##### • FCC –Designation Number: CN1271.

#### 4.7 Deviation from Standards

None

#### 4.8 Abnormalities from Standard Conditions

None



## 5 Equipment List

| CE Test System                 |               |             |               |            |              |
|--------------------------------|---------------|-------------|---------------|------------|--------------|
| Equipment                      | Manufacturer  | Model No.   | Inventory No. | Cal Date   | Cal Due Date |
| Shielding Room                 | Brilliant-emc | N/A         | XAW03-35-01   | 2019-09-11 | 2022-09-10   |
| Radio communication analyzer   | ROHDE&SCHWARZ | CMW 500     | XAW01-03-02   | 2019-06-27 | 2020-06-26   |
| Test receiver                  | ROHDE&SCHWARZ | ESR         | XAW01-08-01   | 2019-09-07 | 2020-09-06   |
| Artificial network             | ROHDE&SCHWARZ | ENV216      | XAW01-04-01   | 2019-07-16 | 2020-07-15   |
| Temperature and humidity meter | MingGao       | TH101B      | XAW01-01-01   | 2018-12-16 | 2019-12-15   |
| Measurement Software           | Tonscend      | TS+ CE V2.5 | XAW02-05-02   | NCR        | NCR          |



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| RE Test System                      |                |                 |               |            |              |
|-------------------------------------|----------------|-----------------|---------------|------------|--------------|
| Equipment                           | Manufacturer   | Model No.       | Inventory No. | Cal Date   | Cal Due Date |
| Semi-Anechoic Chamber               | Brilliant-emc  | N/A             | XAW03-35-01   | 2019-09-11 | 2022-09-10   |
| MXA signal analyzer                 | Keysight       | N9020A          | XAW01-06-01   | 2019-06-27 | 2020-06-26   |
| Radio communication analyzer        | ROHDE&SCHWARZ  | CMW 500         | XAW01-03-02   | 2019-06-27 | 2020-06-26   |
| Test receiver                       | ROHDE&SCHWARZ  | ESR             | XAW01-08-01   | 2019-09-07 | 2020-09-06   |
| Receiving antenna (30MHz-3GHz)      | Schwarzbeck    | VULB 9163       | XAW01-09-01   | 2019-10-13 | 2021-10-12   |
| Receiving antenna (1GHz~18GHz)      | Schwarzbeck    | BBHA 9120D      | XAW01-09-02   | 2019-10-13 | 2021-10-12   |
| Receiving antenna (15GHz~40GHz)     | Schwarzbeck    | BBHA 9170       | XAW01-09-03   | 2019-10-13 | 2021-10-12   |
| Directional antenna rack controller | Max-Full       | MF-7802BS       | XAW03-03-01   | NCR        | NCR          |
| High-speed antenna rack controller  | Max-Full       | MF-7802         | XAW03-04-01   | NCR        | NCR          |
| Amplifier                           | Tonscend       | TAP00903040     | XAW01-41-01   | 2018-12-10 | 2019-12-09   |
|                                     |                |                 |               | 2019-11-18 | 2020-11-17   |
| Amplifier                           | Tonscend       | TAP01018048     | XAW01-41-02   | 2018-12-10 | 2019-12-09   |
|                                     |                |                 |               | 2019-11-18 | 2020-11-17   |
| Amplifier                           | Tonscend       | TAP18040048     | XAW01-41-03   | 2018-12-10 | 2019-12-09   |
|                                     |                |                 |               | 2019-12-03 | 2020-12-02   |
| Amplifier                           | Shanghai Steed | YX28980930      | XAW01-41-06   | 2018-12-10 | 2019-12-09   |
|                                     |                |                 |               | 2019-11-18 | 2020-11-17   |
| Temperature and humidity meter      | MingGao        | TH101B          | XAW01-01-01   | 2018-12-16 | 2019-12-15   |
| Measurement Software                | Tonscend       | TS+ RE V3.0.0.2 | XAW02-05-01   | NCR        | NCR          |

## 6 Emission Test Results

### 6.1 Conducted Emissions at Mains Terminals (150kHz-30MHz)

|                   |                                                              |
|-------------------|--------------------------------------------------------------|
| Test Requirement: | 47 CFR Part 15, Subpart B                                    |
| Test Method:      | ANSI C63.4:2014                                              |
| Frequency Range:  | 150kHz to 30MHz                                              |
| Limit:            |                                                              |
| 0.15M-0.5MHz      | 66dB(μV)-56dB(μV) quasi-peak, 56dB(μV)-46dB(μV) average      |
| 0.5M-5MHz         | 56dB(μV) quasi-peak, 46dB(μV) average                        |
| 5M-30MHz          | 60dB(μV) quasi-peak, 50dB(μV) average                        |
| Detector:         | Peak for pre-scan (9kHz resolution bandwidth) 0.15M to 30MHz |

#### 6.1.1 E.U.T. Operation

Operating Environment:

Temperature: 20.3 °C Humidity: 58.1 % RH Atmospheric Pressure: 1005 mbar

The worst case e: Transfer data between the EUT and the PC+USB cable1

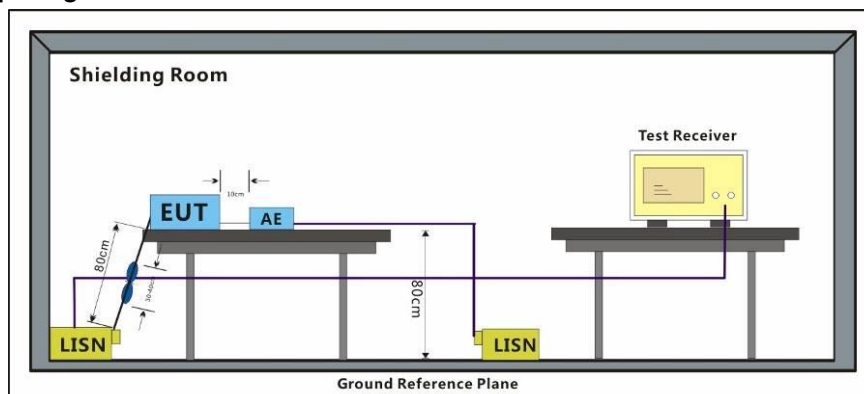
for final test: g: Telecom Idle+BT+WLAN +GPS Rx+playing MP4 (SD card)  
+earphone1+battery+Cable1+adapter1

h: Telecom Idle+BT+WLAN +GPS Rx+playing MP4 (SD card)  
+earphone1+battery+ Cable1+adapter2

i: Telecom Idle+BT+WLAN +GPS Rx+camera (Front) +earphone+battery+  
Cable1+ Cable1+adapter2

j: Telecom Idle+BT+WLAN +GPS Rx+camera (Back) +earphone+battery+  
Cable1+adapter2

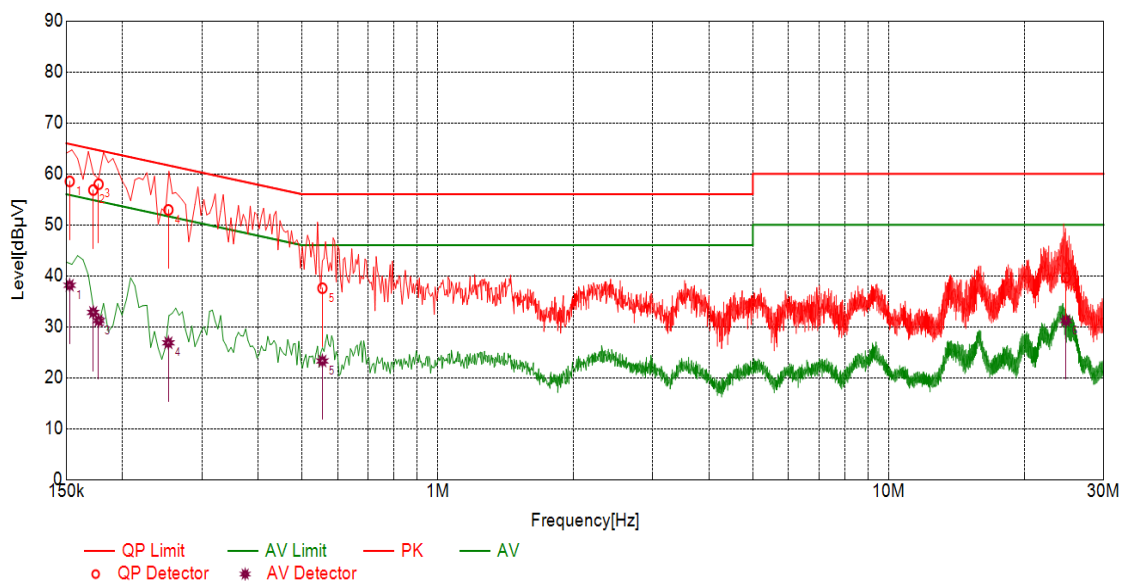
#### 6.1.2 Test Setup Diagram



#### 6.1.3 Measurement Data

An initial pre-scan was performed with peak detector. Quasi-Peak or Average measurement were performed at the frequencies with maximized peak emission were detected.

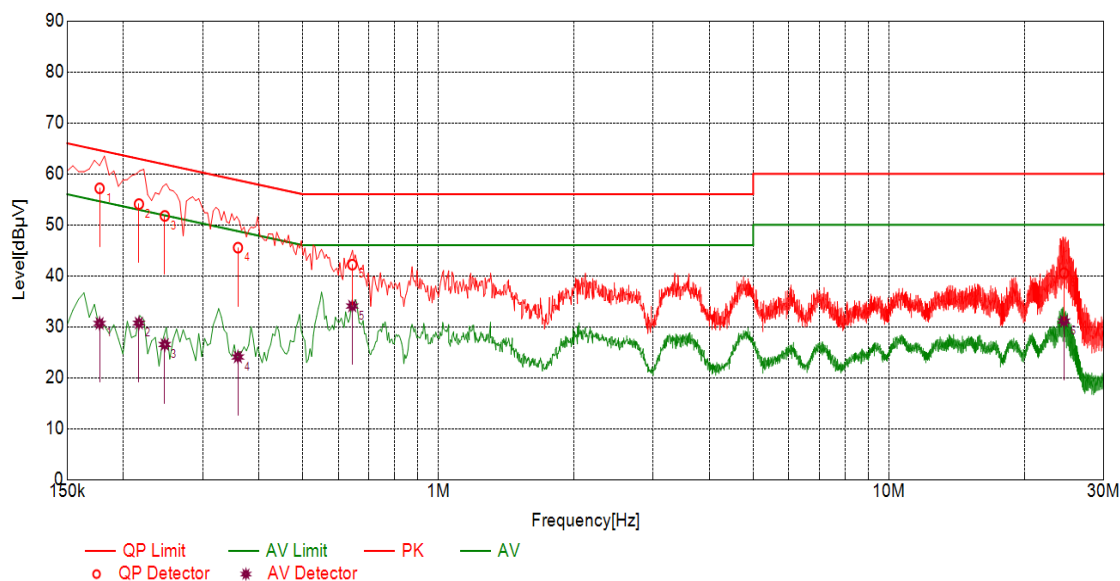
Mode:e; Line:Live Line



### Final Data List

| NO. | Freq.<br>[MHz] | Factor<br>[dB] | QP<br>Value<br>[dBμV] | QP<br>Limit<br>[dBμV] | QP<br>Margin<br>[dB] | AV<br>Value<br>[dBμV] | AV<br>Limit<br>[dBμV] | AV<br>Margin<br>[dB] | Type |
|-----|----------------|----------------|-----------------------|-----------------------|----------------------|-----------------------|-----------------------|----------------------|------|
| 1   | 0.1527         | 10.10          | 58.52                 | 65.85                 | 7.33                 | 38.13                 | 55.85                 | 17.72                | L    |
| 2   | 0.1722         | 10.10          | 56.82                 | 64.85                 | 8.03                 | 32.82                 | 54.85                 | 22.03                | L    |
| 3   | 0.1770         | 10.10          | 57.97                 | 64.63                 | 6.66                 | 31.21                 | 54.63                 | 23.42                | L    |
| 4   | 0.2528         | 10.10          | 52.93                 | 61.67                 | 8.74                 | 26.84                 | 51.67                 | 24.83                | L    |
| 5   | 0.5550         | 10.10          | 37.56                 | 56.00                 | 18.44                | 23.28                 | 46.00                 | 22.72                | L    |
| 6   | 24.7380        | 10.11          | 39.63                 | 60.00                 | 20.37                | 31.20                 | 50.00                 | 18.80                | L    |

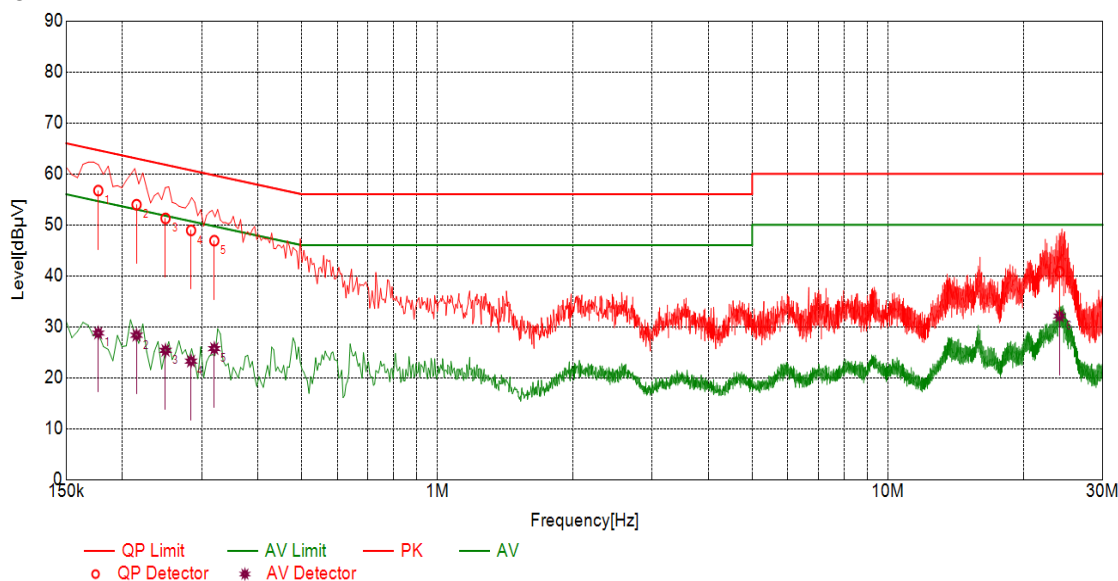
Mode:e; Line:Neutral Line



### Final Data List

| NO. | Freq.<br>[MHz] | Factor<br>[dB] | QP<br>Value<br>[dBμV] | QP<br>Limit<br>[dBμV] | QP<br>Margin<br>[dB] | AV<br>Value<br>[dBμV] | AV<br>Limit<br>[dBμV] | AV<br>Margin<br>[dB] | Type |
|-----|----------------|----------------|-----------------------|-----------------------|----------------------|-----------------------|-----------------------|----------------------|------|
| 1   | 0.1771         | 10.10          | 57.16                 | 64.62                 | 7.46                 | 30.65                 | 54.62                 | 23.97                | N    |
| 2   | 0.2165         | 10.10          | 54.07                 | 62.95                 | 8.88                 | 30.72                 | 52.95                 | 22.23                | N    |
| 3   | 0.2471         | 10.10          | 51.75                 | 61.85                 | 10.10                | 26.51                 | 51.85                 | 25.34                | N    |
| 4   | 0.3591         | 10.10          | 45.52                 | 58.75                 | 13.23                | 24.07                 | 48.75                 | 24.68                | N    |
| 5   | 0.6443         | 10.10          | 42.19                 | 56.00                 | 13.81                | 34.07                 | 46.00                 | 11.93                | N    |
| 6   | 24.4792        | 10.11          | 40.52                 | 60.00                 | 19.48                | 31.11                 | 50.00                 | 18.89                | N    |

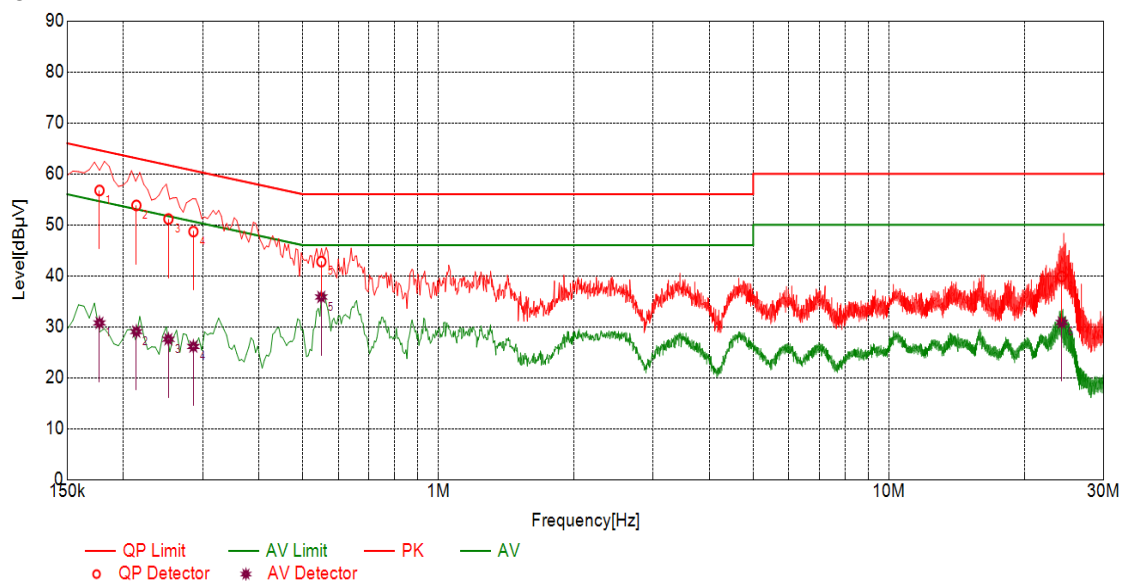
Mode:g; Line:Live Line



### Final Data List

| NO. | Freq.<br>[MHz] | Factor<br>[dB] | QP<br>Value<br>[dBμV] | QP<br>Limit<br>[dBμV] | QP<br>Margin<br>[dB] | AV<br>Value<br>[dBμV] | AV<br>Limit<br>[dBμV] | AV<br>Margin<br>[dB] | Type |
|-----|----------------|----------------|-----------------------|-----------------------|----------------------|-----------------------|-----------------------|----------------------|------|
| 1   | 0.1768         | 10.10          | 56.72                 | 64.63                 | 7.91                 | 28.75                 | 54.63                 | 25.88                | L    |
| 2   | 0.2150         | 10.10          | 53.95                 | 63.01                 | 9.06                 | 28.33                 | 53.01                 | 24.68                | L    |
| 3   | 0.2493         | 10.10          | 51.26                 | 61.78                 | 10.52                | 25.36                 | 51.78                 | 26.42                | L    |
| 4   | 0.2841         | 10.10          | 48.91                 | 60.70                 | 11.79                | 23.25                 | 50.70                 | 27.45                | L    |
| 5   | 0.3199         | 10.10          | 46.89                 | 59.71                 | 12.82                | 25.71                 | 49.71                 | 24.00                | L    |
| 6   | 24.0577        | 10.11          | 40.82                 | 60.00                 | 19.18                | 32.11                 | 50.00                 | 17.89                | L    |

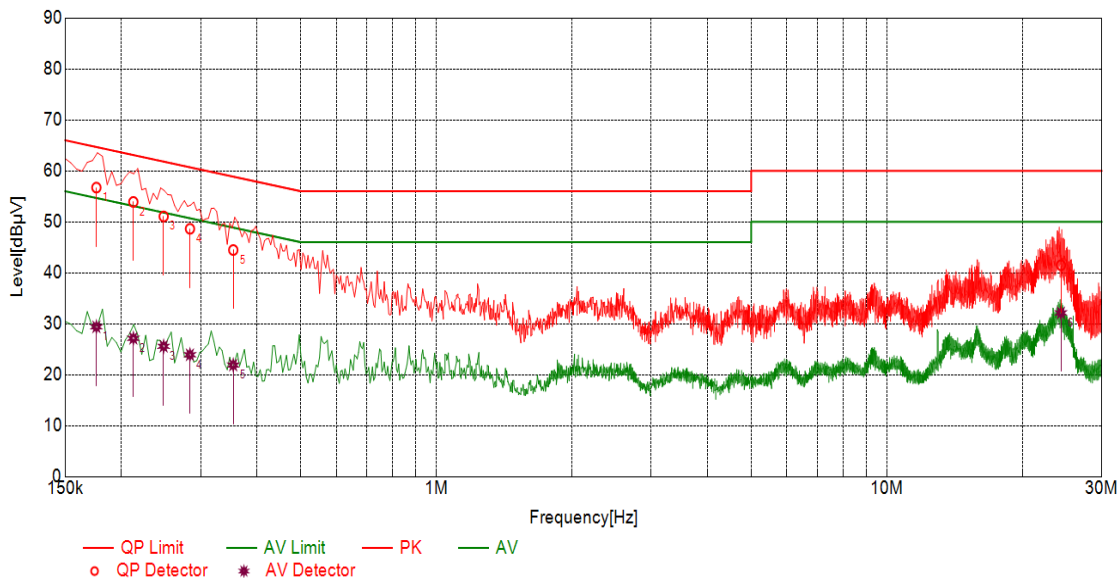
Mode:g; Line:Neutral Line



### Final Data List

| NO. | Freq.<br>[MHz] | Factor<br>[dB] | QP<br>Value<br>[dBμV] | QP<br>Limit<br>[dBμV] | QP<br>Margin<br>[dB] | AV<br>Value<br>[dBμV] | AV<br>Limit<br>[dBμV] | AV<br>Margin<br>[dB] | Type |
|-----|----------------|----------------|-----------------------|-----------------------|----------------------|-----------------------|-----------------------|----------------------|------|
| 1   | 0.1770         | 10.10          | 56.74                 | 64.63                 | 7.89                 | 30.75                 | 54.63                 | 23.88                | N    |
| 2   | 0.2137         | 10.10          | 53.81                 | 63.06                 | 9.25                 | 29.04                 | 53.06                 | 24.02                | N    |
| 3   | 0.2517         | 10.10          | 51.14                 | 61.70                 | 10.56                | 27.54                 | 51.70                 | 24.16                | N    |
| 4   | 0.2860         | 10.10          | 48.68                 | 60.64                 | 11.96                | 26.12                 | 50.64                 | 24.52                | N    |
| 5   | 0.5499         | 10.10          | 42.79                 | 56.00                 | 13.21                | 35.83                 | 46.00                 | 10.17                | N    |
| 6   | 24.2000        | 10.11          | 39.86                 | 60.00                 | 20.14                | 30.85                 | 50.00                 | 19.15                | N    |

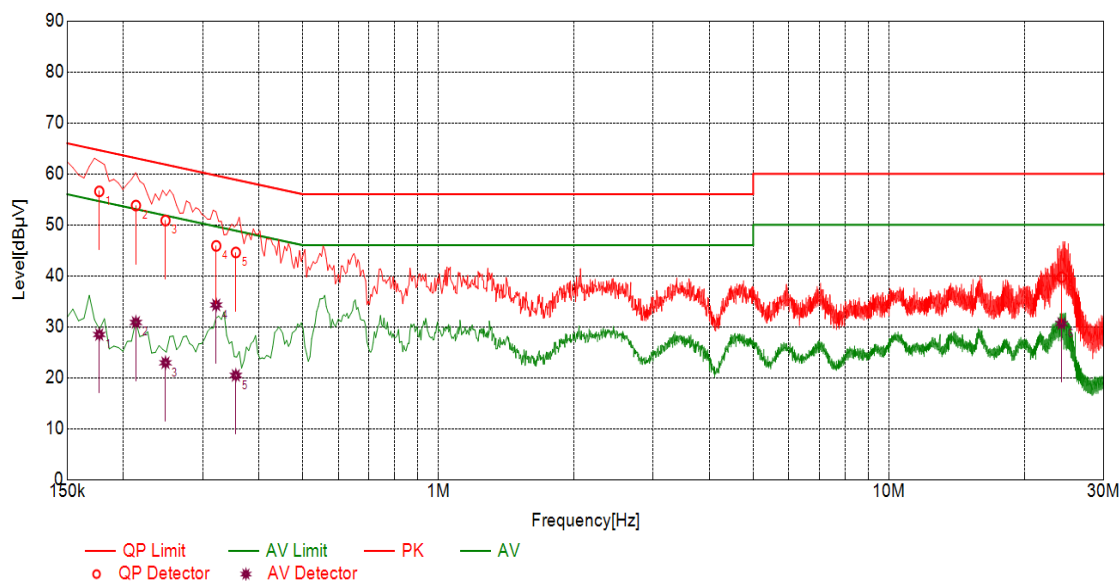
Mode:h; Line:Live Line



### Final Data List

| NO. | Freq. [MHz] | Factor [dB] | QP Value [dBμV] | QP Limit [dBμV] | QP Margin [dB] | AV Value [dBμV] | AV Limit [dBμV] | AV Margin [dB] | Type |
|-----|-------------|-------------|-----------------|-----------------|----------------|-----------------|-----------------|----------------|------|
| 1   | 0.1760      | 10.10       | 56.72           | 64.67           | 7.95           | 29.38           | 54.67           | 25.29          | L    |
| 2   | 0.2126      | 10.10       | 53.90           | 63.10           | 9.20           | 27.13           | 53.10           | 25.97          | L    |
| 3   | 0.2482      | 10.10       | 51.06           | 61.82           | 10.76          | 25.57           | 51.82           | 26.25          | L    |
| 4   | 0.2839      | 10.10       | 48.63           | 60.70           | 12.07          | 23.91           | 50.70           | 26.79          | L    |
| 5   | 0.3542      | 10.10       | 44.47           | 58.86           | 14.39          | 21.89           | 48.86           | 26.97          | L    |
| 6   | 24.3428     | 10.11       | 41.49           | 60.00           | 18.51          | 32.13           | 50.00           | 17.87          | L    |

Mode:h; Line:Neutral Line



### Final Data List

| NO. | Freq.<br>[MHz] | Factor<br>[dB] | QP<br>Value<br>[dBμV] | QP<br>Limit<br>[dBμV] | QP<br>Margin<br>[dB] | AV<br>Value<br>[dBμV] | AV<br>Limit<br>[dBμV] | AV<br>Margin<br>[dB] | Type |
|-----|----------------|----------------|-----------------------|-----------------------|----------------------|-----------------------|-----------------------|----------------------|------|
| 1   | 0.1768         | 10.10          | 56.56                 | 64.64                 | 8.08                 | 28.47                 | 54.64                 | 26.17                | N    |
| 2   | 0.2132         | 10.10          | 53.78                 | 63.08                 | 9.30                 | 30.85                 | 53.08                 | 22.23                | N    |
| 3   | 0.2480         | 10.10          | 50.84                 | 61.82                 | 10.98                | 22.93                 | 51.82                 | 28.89                | N    |
| 4   | 0.3214         | 10.10          | 45.87                 | 59.67                 | 13.80                | 34.28                 | 49.67                 | 15.39                | N    |
| 5   | 0.3553         | 10.10          | 44.58                 | 58.84                 | 14.26                | 20.45                 | 48.84                 | 28.39                | N    |
| 6   | 24.1668        | 10.11          | 39.74                 | 60.00                 | 20.26                | 30.63                 | 50.00                 | 19.37                | N    |

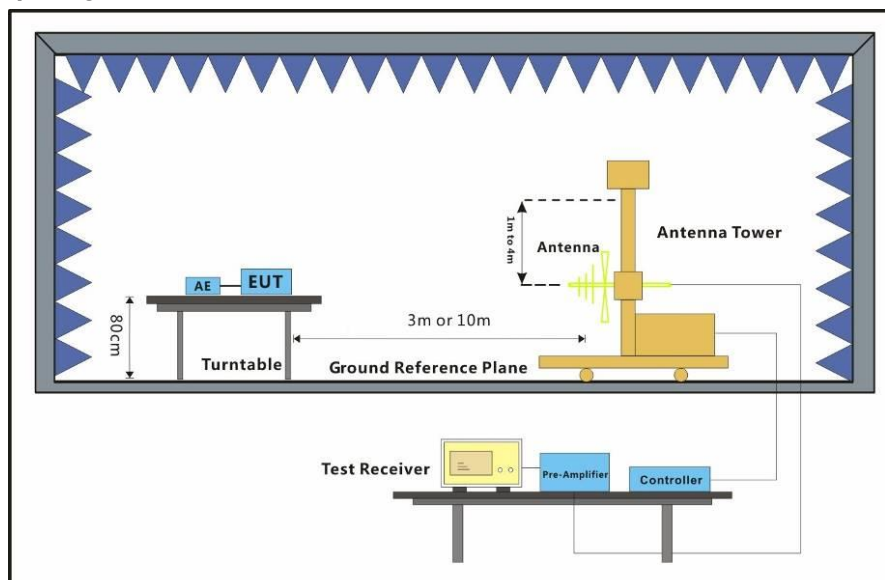
## 6.2 Radiated Emissions (30MHz-1GHz)

Test Requirement: 47 CFR Part 15, Subpart B  
Test Method: ANSI C63.4:2014  
Frequency Range: 30MHz to 1GHz  
Measurement Distance: 3m  
Limit:  
30MHz -88MHz 40.0(dBμV/m) quasi-peak  
88MHz-216MHz 43.5(dBμV/m) quasi-peak  
216MHz-960MHz 46.0(dBμV/m) quasi-peak  
960MHz-1000MHz 54.0(dBμV/m) quasi-peak  
Detector: Peak for pre-scan (120kHz resolution bandwidth) 30M to1000MHz

### 6.2.1 E.U.T. Operation

Operating Environment:  
Temperature: 25.4 °C Humidity: 51 % RH Atmospheric Pressure: 1005 mbar  
The worst case for final test: f: Transfer data between the EUT and the PC+USB cable2  
h: Telecom Idle+BT+WLAN +GPS Rx+playing MP4 (SD card)  
+earphone1+battery+ Cable1+adapter2

### 6.2.2 Test Setup Diagram

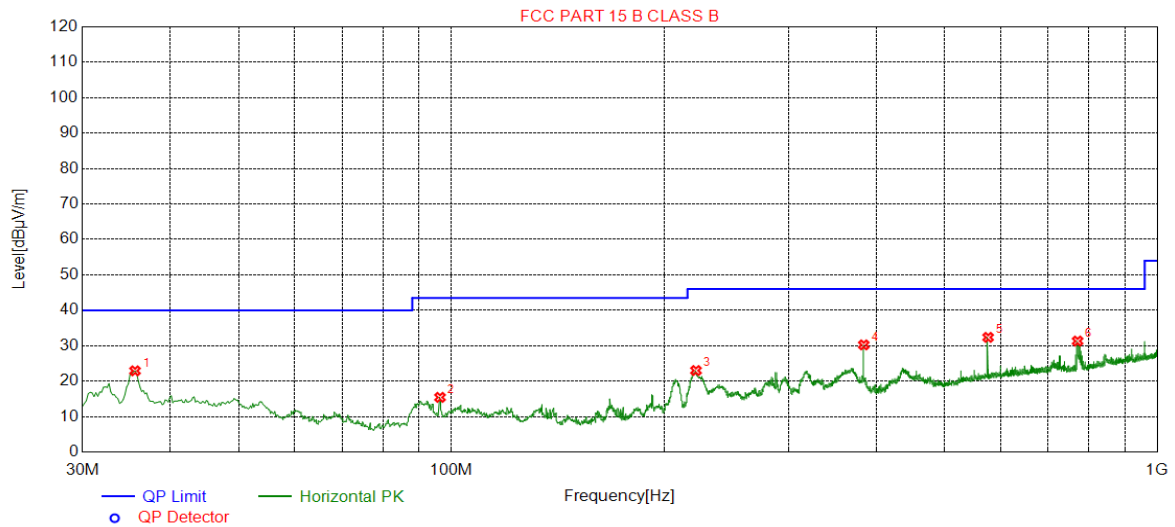


### 6.2.3 Measurement Data

An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by BiConiLog antenna with 2 orthogonal polarities.



Mode:f; Polarization:Horizontal



#### Suspected List

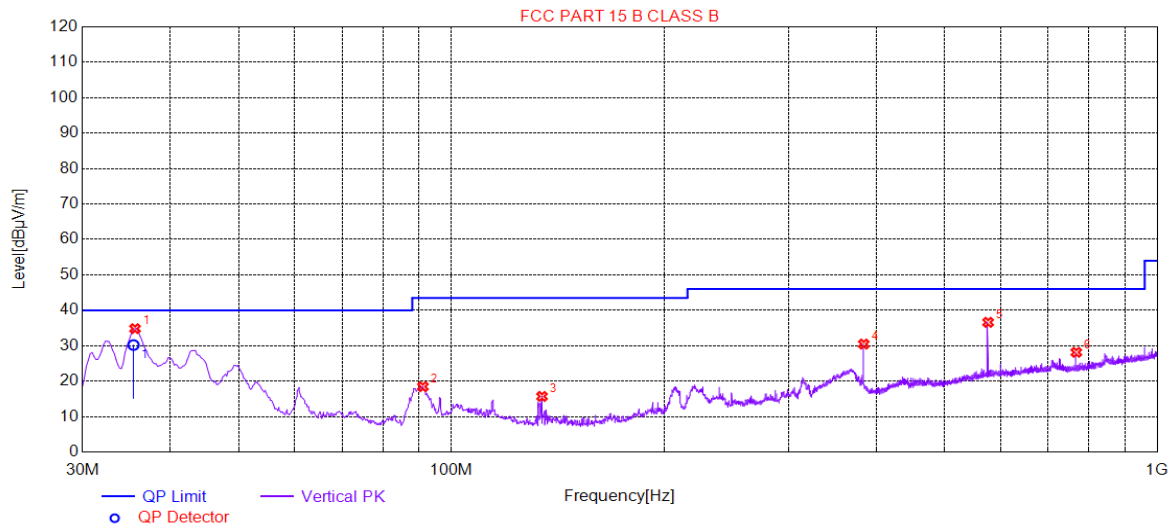
| NO. | Freq.<br>[MHz] | Level<br>[dBμV/m] | Factor<br>[dB] | Limit<br>[dBμV/m] | Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Polarity   |
|-----|----------------|-------------------|----------------|-------------------|----------------|----------------|--------------|------------|
| 1   | 35.6271        | 22.91             | -29.76         | 40.00             | 17.09          | 137            | 258          | Horizontal |
| 2   | 96.3613        | 15.43             | -32.65         | 43.50             | 28.07          | 218            | 88           | Horizontal |
| 3   | 222.0984       | 23.00             | -30.65         | 46.00             | 23.00          | 145            | 214          | Horizontal |
| 4   | 383.9268       | 30.24             | -25.95         | 46.00             | 15.76          | 216            | 20           | Horizontal |
| 5   | 576.0252       | 32.36             | -21.31         | 46.00             | 13.64          | 124            | 49           | Horizontal |
| 6   | 771.2282       | 31.32             | -18.10         | 46.00             | 14.68          | 189            | 68           | Horizontal |



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Mode:f; Polarization:Vertical



### Suspected List

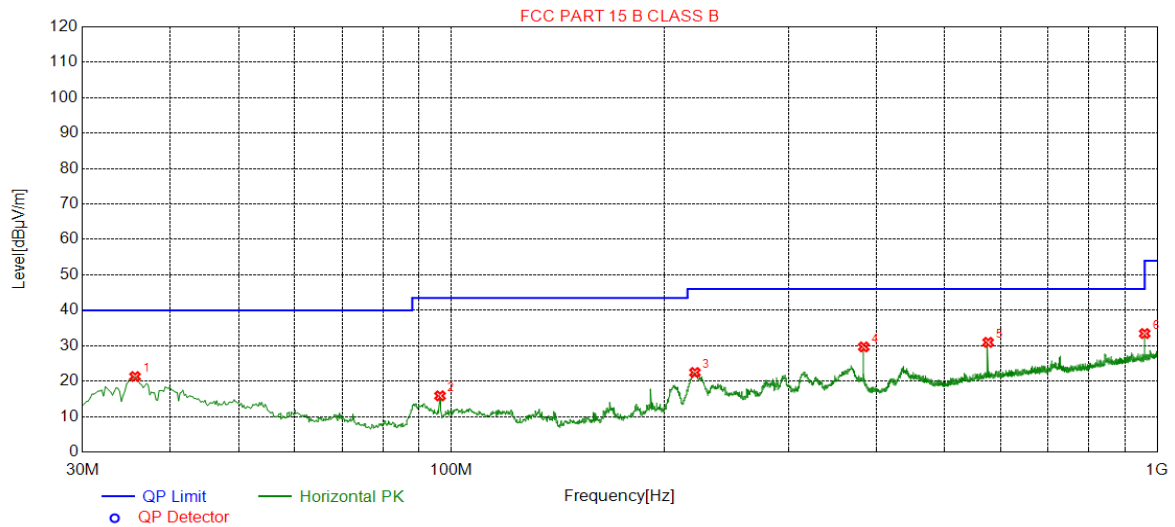
| Suspected List |             |                |             |                |             |             |           |          |
|----------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| N O.           | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1              | 35.6271     | 34.82          | -29.76      | 40.00          | 5.18        | 257         | 14        | Vertical |
| 2              | 91.1222     | 18.45          | -33.53      | 43.50          | 25.05       | 276         | 80        | Vertical |
| 3              | 134.3929    | 15.70          | -35.28      | 43.50          | 27.80       | 245         | 284       | Vertical |
| 4              | 383.9268    | 30.47          | -25.95      | 46.00          | 15.53       | 259         | 195       | Vertical |
| 5              | 576.0252    | 36.61          | -21.31      | 46.00          | 9.39        | 205         | 295       | Vertical |
| 6              | 768.1236    | 28.14          | -18.13      | 46.00          | 17.86       | 232         | 44        | Vertical |

### Final Data List

| Final Data List |             |             |                   |                   |                |             |           |          |
|-----------------|-------------|-------------|-------------------|-------------------|----------------|-------------|-----------|----------|
| NO.             | Freq. [MHz] | Factor [dB] | QP Value [dBμV/m] | QP Limit [dBμV/m] | QP Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1               | 35.439      | -29.82      | 30.21             | 40.00             | 9.79           | 121.6       | 359.5     | Vertical |



Mode:h; Polarization:Horizontal



### Suspected List

| Suspected List |                |                   |                |                   |                |                |              |            |
|----------------|----------------|-------------------|----------------|-------------------|----------------|----------------|--------------|------------|
| NO.            | Freq.<br>[MHz] | Level<br>[dBμV/m] | Factor<br>[dB] | Limit<br>[dBμV/m] | Margin<br>[dB] | Height<br>[cm] | Angle<br>[°] | Polarity   |
| 1              | 35.6271        | 21.30             | -29.76         | 40.00             | 18.70          | 170            | 256          | Horizontal |
| 2              | 96.3613        | 15.86             | -32.65         | 43.50             | 27.64          | 174            | 259          | Horizontal |
| 3              | 221.322        | 22.45             | -30.67         | 46.00             | 23.55          | 140            | 238          | Horizontal |
| 4              | 383.926        | 29.66             | -25.95         | 46.00             | 16.34          | 223            | 346          | Horizontal |
| 5              | 576.025        | 30.95             | -21.31         | 46.00             | 15.05          | 188            | 163          | Horizontal |
| 6              | 960.028        | 33.44             | -15.34         | 54.00             | 20.56          | 236            | 289          | Horizontal |

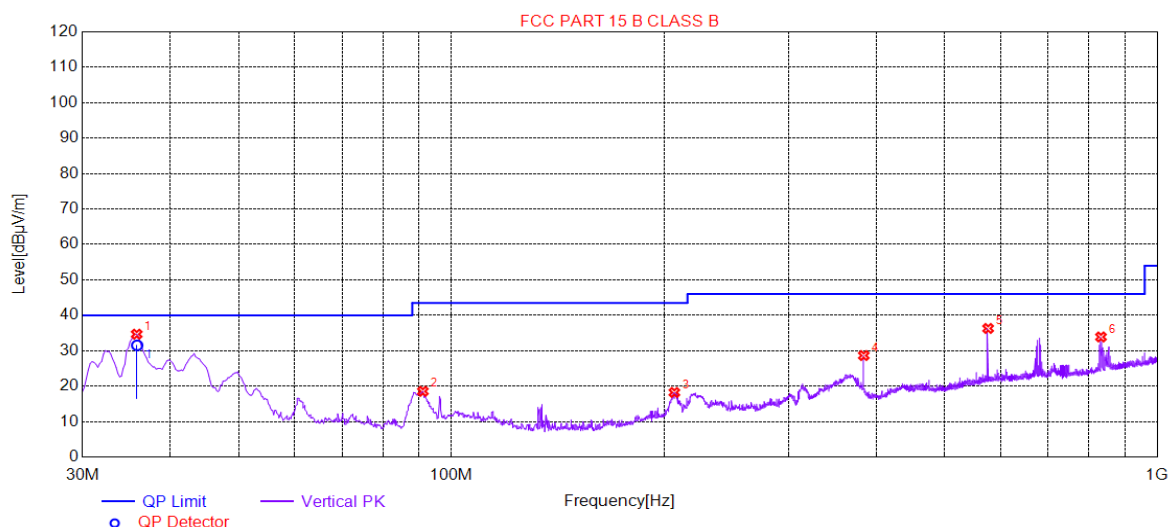


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Mode:h; Polarization:Vertical



#### Suspected List

| NO. | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
|-----|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| 1   | 35.8212     | 34.67          | -29.69      | 40.00          | 5.33        | 210         | 340       | Vertical |
| 2   | 91.1222     | 18.54          | -33.53      | 43.50          | 24.96       | 244         | 76        | Vertical |
| 3   | 206.9634    | 18.22          | -31.04      | 43.50          | 25.28       | 202         | 220       | Vertical |
| 4   | 383.9268    | 28.64          | -25.95      | 46.00          | 17.36       | 199         | 165       | Vertical |
| 5   | 576.0252    | 36.29          | -21.31      | 46.00          | 9.71        | 248         | 289       | Vertical |
| 6   | 832.3505    | 33.89          | -17.20      | 46.00          | 12.11       | 163         | 314       | Vertical |

#### Final Data List

| NO. | Freq. [MHz] | Factor [dB] | QP Value [dBμV/m] | QP Limit [dBμV/m] | QP Margin [dB] | Height [cm] | Angle [°] | Polarity |
|-----|-------------|-------------|-------------------|-------------------|----------------|-------------|-----------|----------|
| 1   | 35.8642     | -29.68      | 31.52             | 40.00             | 8.48           | 102.1       | 328.2     | Vertical |



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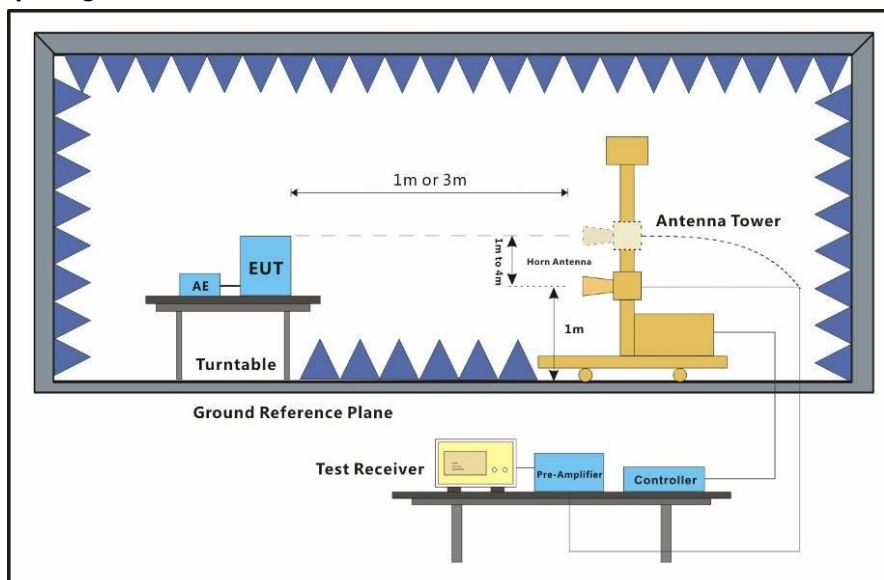
### 6.3 Radiated Emissions (above 1GHz)

Test Requirement: 47 CFR Part 15, Subpart B  
Test Method: ANSI C63.4:2014  
Frequency Range: Above 1GHz  
Measurement Distance: 3m  
Limit:  
Above 1GHz 74(dBμV/m) peak, 54(dBμV/m) average  
Detector: Peak for pre-scan (1000kHz resolution bandwidth) 1000M to18000MHz

#### 6.3.1 E.U.T. Operation

Operating Environment:  
Temperature: 23.3 °C Humidity: 56.2 % RH Atmospheric Pressure: 1005 mbar  
The worst case e: Transfer data between the EUT and the PC+USB cable1  
for final test: j: Telecom Idle+BT+WLAN +GPS Rx+camera (Back) +earphone+battery+ Cable1+adapter2

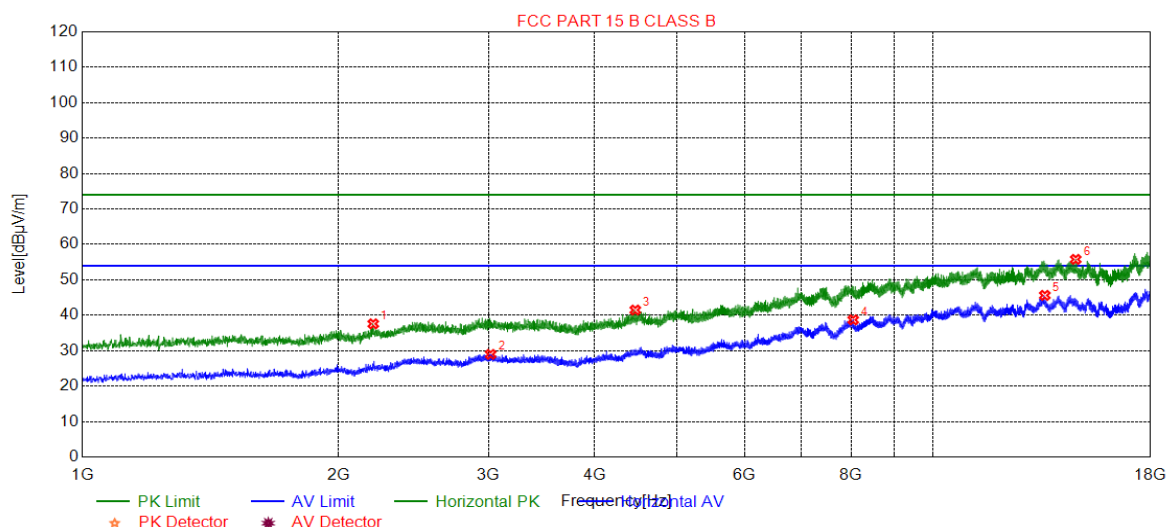
#### 6.3.2 Test Setup Diagram



#### 6.3.3 Measurement Data

An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Average measurements were conducted based on the peak sweep graph. The EUT was measured by Horn antenna with 2 orthogonal polarities.

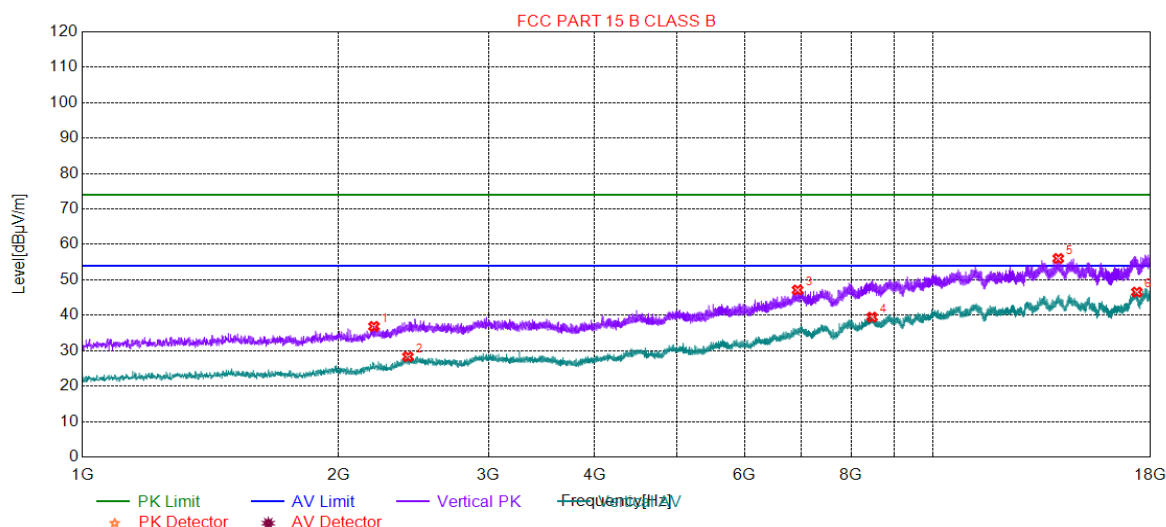
Mode:e; Polarization:Horizontal



#### Suspected List

| NO. | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
|-----|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| 1   | 2196.8598   | 37.59          | -27.47      | 74.00          | 36.41       | 175         | 74        | Horizontal |
| 2   | 3018.0009   | 28.97          | -24.40      | 54.00          | 25.03       | 173         | 225       | Horizontal |
| 3   | 4463.9232   | 41.49          | -20.47      | 74.00          | 32.51       | 231         | 225       | Horizontal |
| 4   | 8049.4025   | 38.71          | -10.33      | 54.00          | 15.29       | 140         | 18        | Horizontal |
| 5   | 13519.426   | 45.62          | -0.46       | 54.00          | 8.38        | 128         | 18        | Horizontal |
| 6   | 14697.584   | 55.78          | -1.16       | 74.00          | 18.22       | 176         | 175       | Horizontal |

Mode:e; Polarization:Vertical

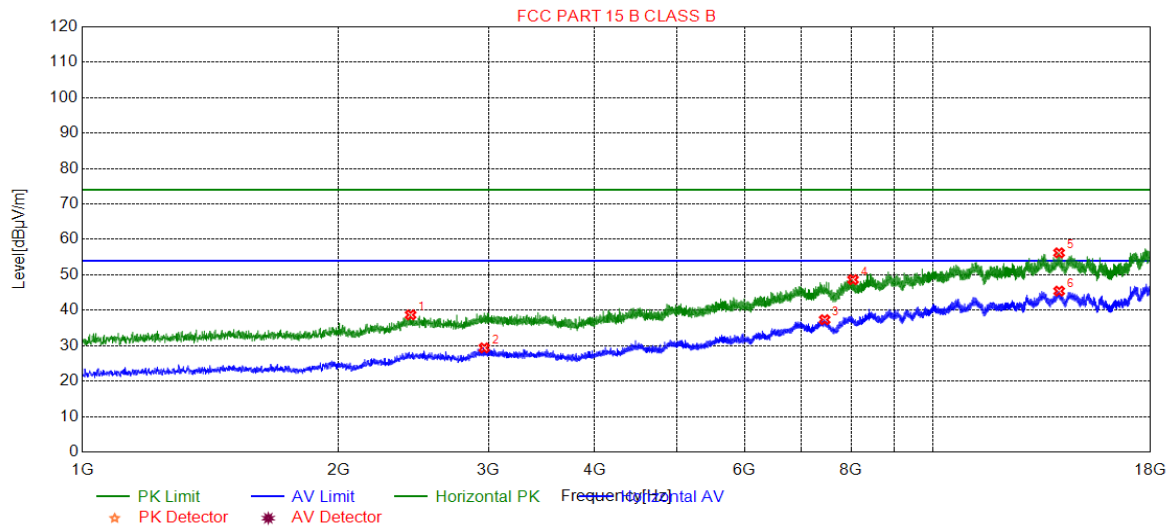


#### Suspected List

| NO. | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
|-----|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| 1   | 2201.1101   | 36.86          | -27.43      | 74.00          | 37.14       | 214         | 241       | Vertical |
| 2   | 2412.7706   | 28.32          | -25.99      | 54.00          | 25.68       | 299         | 0         | Vertical |
| 3   | 6924.7962   | 47.14          | -12.91      | 74.00          | 26.86       | 208         | 0         | Vertical |
| 4   | 8471.0236   | 39.48          | -9.16       | 54.00          | 14.52       | 287         | 291       | Vertical |
| 5   | 14020.101   | 56.03          | -0.64       | 74.00          | 17.97       | 234         | 141       | Vertical |
| 6   | 17341.217   | 46.54          | -1.60       | 54.00          | 7.46        | 299         | 90        | Vertical |



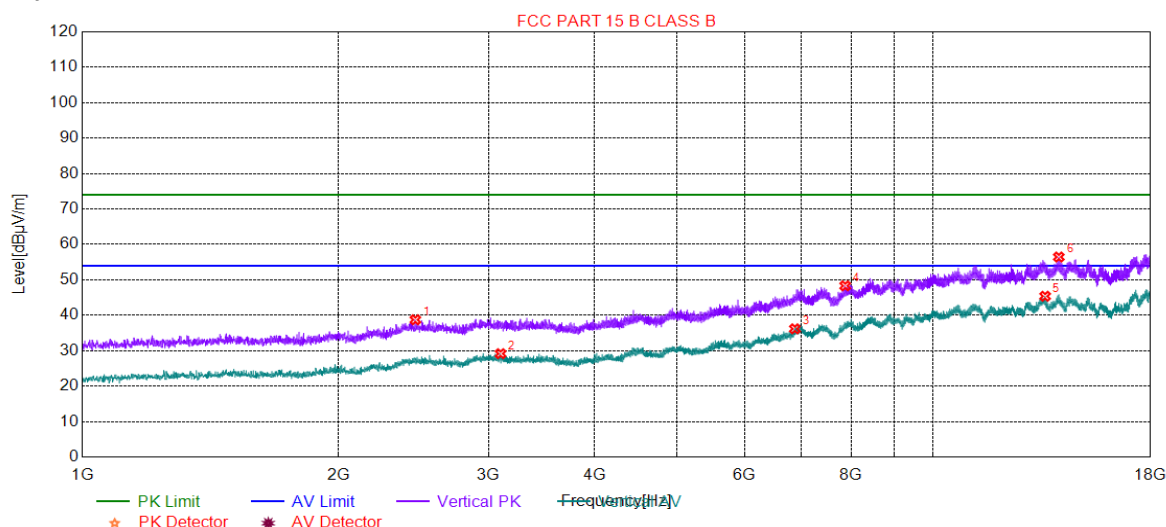
Mode:j; Polarization:Horizontal



| Suspected List |             |                |             |                |             |             |           |            |
|----------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.            | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1              | 2430.6215   | 38.71          | -25.97      | 74.00          | 35.29       | 200         | 170       | Horizontal |
| 2              | 2966.1483   | 29.39          | -24.54      | 54.00          | 24.61       | 205         | 120       | Horizontal |
| 3              | 7450.9725   | 37.35          | -12.01      | 54.00          | 16.65       | 208         | 69        | Horizontal |
| 4              | 8046.0023   | 48.64          | -10.30      | 74.00          | 25.36       | 119         | 271       | Horizontal |
| 5              | 14050.702   | 56.21          | -0.67       | 74.00          | 17.79       | 186         | 271       | Horizontal |
| 6              | 14054.102   | 45.41          | -0.67       | 54.00          | 8.59        | 165         | 360       | Horizontal |



Mode:j; Polarization:Vertical



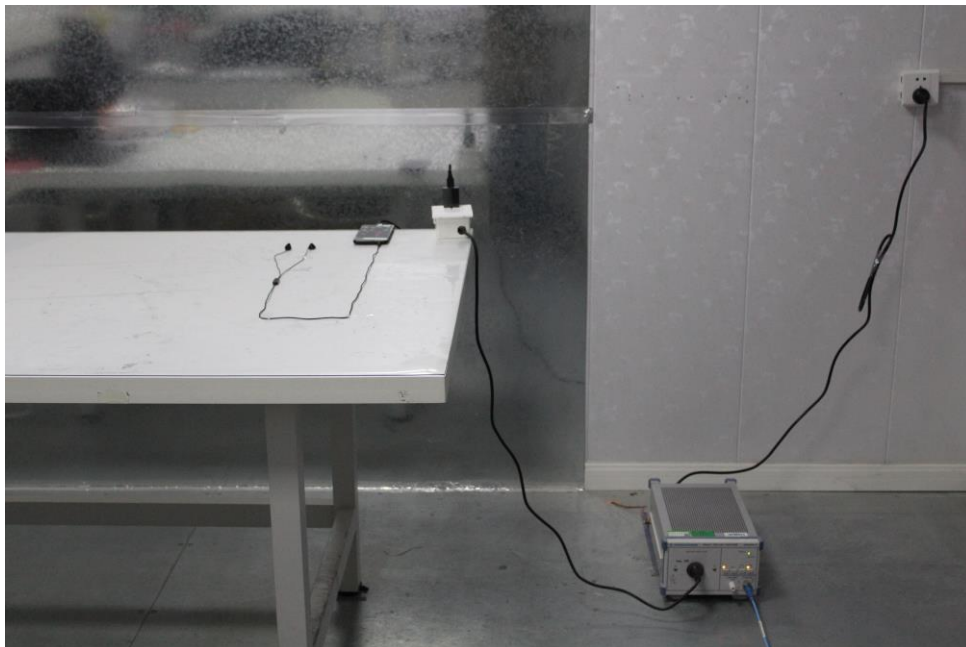
### Suspected List

| NO. | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
|-----|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| 1   | 2462.0731   | 38.74          | -25.94      | 74.00          | 35.26       | 221         | 142       | Vertical |
| 2   | 3100.4550   | 29.17          | -24.45      | 54.00          | 24.83       | 200         | 243       | Vertical |
| 3   | 6874.6437   | 36.18          | -13.32      | 54.00          | 17.82       | 288         | 142       | Vertical |
| 4   | 7876.8438   | 48.32          | -10.79      | 74.00          | 25.68       | 265         | 342       | Vertical |
| 5   | 13529.626   | 45.38          | -0.60       | 54.00          | 8.62        | 212         | 0         | Vertical |
| 6   | 14040.502   | 56.45          | -0.66       | 74.00          | 17.55       | 258         | 243       | Vertical |

## 7 Photographs

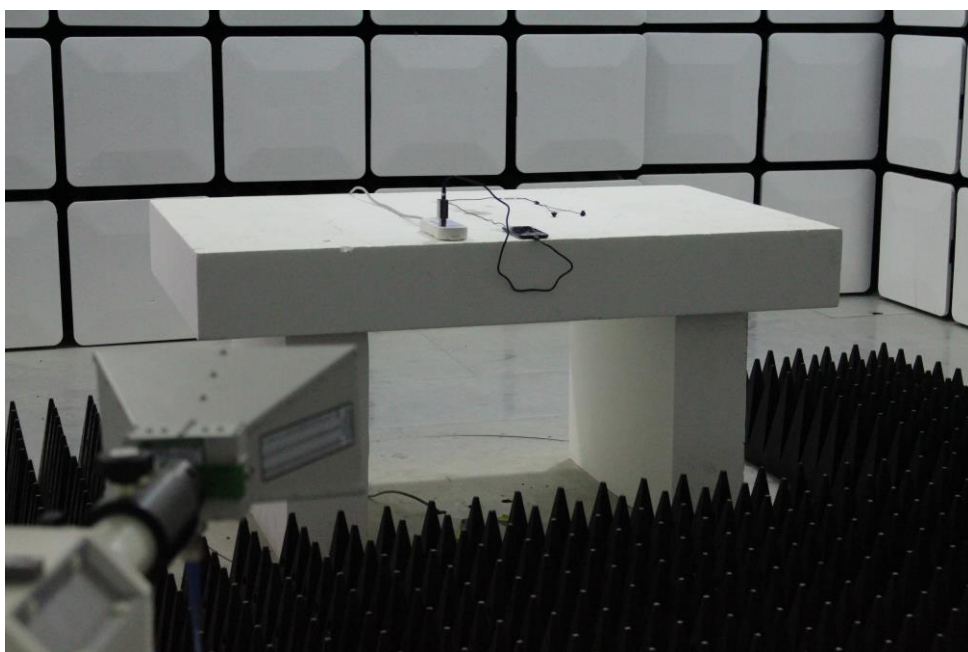
### 7.1 Conducted Emissions at Mains Terminals (150kHz-30MHz) Test Setup

(Test Location: SGS-CSTC STANDARDS TECHNICAL SERVICES (XI 'AN) CO., LTD.)



## 7.2 Radiated Emissions (30MHz-1GHz) Test Setup

(Test Location: SGS-CSTC STANDARDS TECHNICAL SERVICES (XI 'AN) CO., LTD.)



## 7.3 EUT Constructional Details (EUT Photos)

Please refer to internal and external photo.

- End of the Report -