



## TEST REPORT

**Application No.:** HR/2020/80004  
**Applicant:** Asiatelco Technologies Inc.  
**Address of Applicant:** 4611 Teller Avenue, Suite 110, Newport Beach, CA 92660, USA  
**Manufacturer:** Asiatelco Technologies Inc.  
**Address of Manufacturer:** 4611 Teller Avenue, Suite 110, Newport Beach, CA 92660, USA  
**Factory:** Shenzhen Saidaxin Technology Limited Company  
**Address of Factory:** 6 th Floor, No.1 Building, Saitu Digital Industry Area, Bulan Road, Buji, Longgang District Shenzhen  
**EUT Description:** 4G Feature Phone  
**Model No.:** FR150  
**Trade Mark:** R3Di  
**FCC ID:** 2AXKS-FR150  
**Standard(s) :** 47 CFR Part 15, Subpart B  
**Date of Receipt:** 2020/8/14  
**Date of Test:** 2020/9/3 to 2020/9/18  
**Date of Issue:** 2021/8/14

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

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

Authorized Signature:

Simon Ling

Wireless Laboratory Manager



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| Revision Record |         |           |           |                                                                              |
|-----------------|---------|-----------|-----------|------------------------------------------------------------------------------|
| Version         | Chapter | Date      | Modifier  | Remark                                                                       |
| 01              |         | 2020/9/21 |           | Original                                                                     |
| 02              |         | 2021/6/1  | Leah Chen | 1. Modify data conversion error of antenna height<br>2.Update equipment list |
| 03              |         | 2021/8/14 | Leah Chen | 1. Update Support Units, Test facility and Test Location                     |

This report supersedes our previous report HR/2020/8000407, issued on 2020/9/21, which is hereby deemed null and void.

|                          |                                                                                                                 |
|--------------------------|-----------------------------------------------------------------------------------------------------------------|
| Authorized for issue by: |                                                                                                                 |
| Prepared By              | <br>(Leah Chen) /Engineer    |
| Checked By               | <br>(Daniel Wang) /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

|                   |                                              |           |           |
|-------------------|----------------------------------------------|-----------|-----------|
| Product Name:     | 4G Feature Phone                             |           |           |
| Model No.(EUT):   | FR150                                        |           |           |
| Trade Mark:       | R3Di                                         |           |           |
| FCC ID:           | 2AXKS-FR150                                  |           |           |
| Hardware Version: | B1                                           |           |           |
| Software Version: | QC28A-FR150-01418_V01-08_07.24.2020_FCC_i-B1 |           |           |
| Frequency Bands:  | Band                                         | Tx (MHz)  | Rx (MHz)  |
|                   | GSM850                                       | 824~849   | 869~894   |
|                   | GSM1900                                      | 1850~1910 | 1930~1990 |
|                   | WCDMA Band II                                | 1850~1910 | 1930~1990 |
|                   | WCDMA Band IV                                | 1710~1755 | 2110~2155 |
|                   | WCDMA Band V                                 | 824~849   | 869~894   |
|                   | CDMA BC0                                     | 824~849   | 869~894   |
|                   | CDMA BC1                                     | 1850~1910 | 1930~1990 |
|                   | CDMA BC10                                    | 817~824   | 862~869   |
|                   | LTE Band 2                                   | 1850~1910 | 1930~1990 |
|                   | LTE Band 4                                   | 1710~1755 | 2110~2155 |
|                   | LTE Band 5                                   | 824~849   | 869~894   |
|                   | LTE Band 12                                  | 699~716   | 729~746   |
|                   | LTE Band 13                                  | 777~787   | 746~756   |
|                   | LTE Band 25                                  | 1850~1915 | 1930~1995 |
|                   | LTE Band 26                                  | 814~849   | 859~894   |
|                   | LTE Band 41                                  | 2496~2690 | 2496~2690 |
|                   | LTE Band 66                                  | 1710~1780 | 2110~2200 |
|                   | LTE Band 71                                  | 663~698   | 617~652   |
|                   | WIFI 2.4G                                    | 2412~2462 | 2412~2462 |
|                   | BT                                           | 2402~2480 | 2402~2480 |
|                   | FM                                           | 87.5~108  |           |
|                   | GPS                                          | 1559~1610 |           |

### 4.1 Description of Support Units

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



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## 4.2 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)    |

## 4.3 Test Location

All tests were performed at:

|                |                                                                                                                            |
|----------------|----------------------------------------------------------------------------------------------------------------------------|
| 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                                                                                                       |

No tests were sub-contracted.

## 4.4 Test Facility

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

- **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.**

## 4.5 Deviation from Standards

None

## 4.6 Abnormalities from Standard Conditions

None



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## 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   | 2020-04-02 | 2021-04-01   |
| Test receiver                  | ROHDE&SCHWARZ | ESR         | XAW01-08-05   | 2020-04-12 | 2021-04-11   |
| Artificial network             | ROHDE&SCHWARZ | ENV216      | XAW01-04-01   | 2020-08-04 | 2021-08-03   |
| Temperature and humidity meter | MingGao       | TH101B      | XAW01-01-01   | 2019-12-06 | 2020-12-05   |
| Measurement Software           | Tonscend      | TS+ CE V2.5 | XAW02-05-02   | NCR        | NCR          |

| 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   | 2020-04-02 | 2021-04-01   |
| Radio communication analyzer        | ROHDE&SCHWARZ  | CMW 500         | XAW01-03-02   | 2020-04-02 | 2021-04-01   |
| Test receiver                       | ROHDE&SCHWARZ  | ESR             | XAW01-08-05   | 2020-04-12 | 2021-04-11   |
| 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   | 2019-11-18 | 2020-11-17   |
| Amplifier                           | Tonscend       | TAP01018048     | XAW01-41-02   | 2019-11-18 | 2020-11-17   |
| Amplifier                           | Tonscend       | TAP18040048     | XAW01-41-03   | 2019-12-03 | 2020-12-02   |
| Amplifier                           | Shanghai Steed | YX28980930      | XAW01-41-06   | 2019-11-18 | 2020-11-17   |
| Temperature and humidity meter      | MingGao        | TH101B          | XAW01-01-01   | 2019-12-06 | 2020-12-05   |
| Measurement Software                | Tonscend       | TS+ RE V3.0.0.2 | XAW02-05-01   | NCR        | NCR          |



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## 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: 18.9 °C Humidity: 55.1 % RH Atmospheric Pressure: 1000 mbar

Pretest these modes to find the worst case:

- a: Transfer data between the EUT and the PC+USB cable
- b: GSM850 Link+BT+WLAN2.4G+GPS Rx+playing MP4+earphone+EUT+USB cable+adapter

- c: GSM1900 Link +BT+WLAN2.4G+GPS Rx+camera (Back)+earphone+EUT+USB cable+adapter

- d: WCDMA II Link +BT+WLAN2.4G+GPS Rx+camera (Front)+earphone+EUT+USB cable+adapter

- e: WCDMA VI Link +BT+WLAN2.4G+GPS Rx+camera (Back)+earphone+EUT+USB cable+adapter

- f: WCDMA V Link +BT+WLAN2.4G+GPS Rx+camera (Back)+earphone+EUT+USB cable+adapter

- g: CDMA BC0 Idle +BT+ WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter

- h: CDMA BC1 Idle +BT+ WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter

- i: CDMA BC10 Idle +BT+ WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter

- j: LTE band 2 Idle +BT+ WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter

- k: LTE band 4 Idle +BT+ WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter

- l: LTE band 5 Idle +BT+ WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter

- m: LTE band 12 Idle +BT+ WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter

- n: LTE band 13 Idle +BT+ WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter

- o: LTE band 25 Idle +BT+ WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter

- p: LTE band 26 Idle +BT+FM +WLAN2.4G+GNSS Rx+earphone+EUT+USB cable+adapter

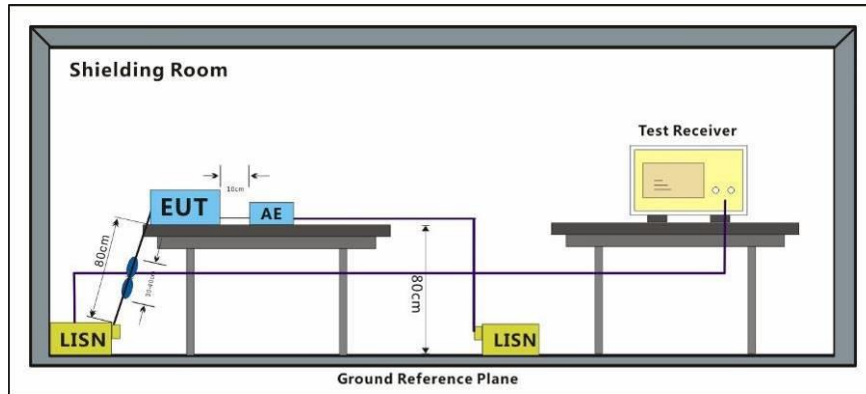
- q: LTE band 41 Idle +BT+FM+WLAN2.4G+GNSS Rx+earphone+EUT+USB cable+adapter

- r: LTE band 66 Idle +BT+FM+WLAN2.4G+GNSS Rx+earphone+EUT+USB cable+adapter

- s: LTE band 71 Idle +BT+FM+WLAN2.4G+GNSS Rx +earphone+EUT+USB

The worst case for final test: cable+adapter  
b: GSM850 Link+BT+WLAN2.4G+GPS Rx+playing MP4+earphone+EUT+USB  
cable+adapter

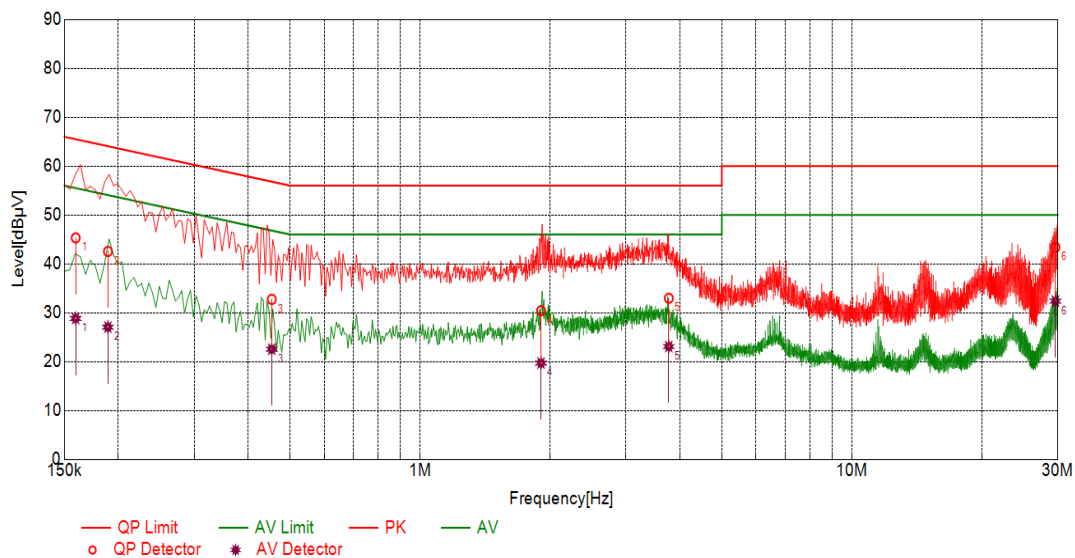
### 6.1.2 Test Setup Diagram



### 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.

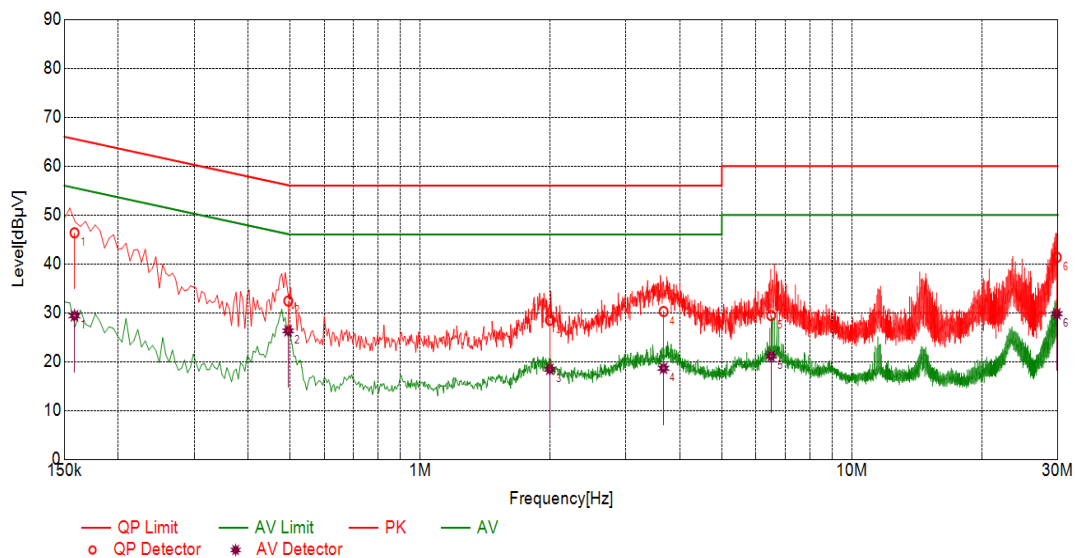
Mode:b; Line:Live Line



## 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   | 0.1594         | 10.10          | 45.32                 | 65.49                 | 20.17                | 28.82                 | 55.49                 | 26.67                | L    |
| 2   | 0.1893         | 10.10          | 42.54                 | 64.07                 | 21.53                | 27.05                 | 54.07                 | 27.02                | L    |
| 3   | 0.4535         | 10.10          | 32.74                 | 56.81                 | 24.07                | 22.53                 | 46.81                 | 24.28                | L    |
| 4   | 1.9064         | 10.10          | 30.42                 | 56.00                 | 25.58                | 19.70                 | 46.00                 | 26.30                | L    |
| 5   | 3.7675         | 10.10          | 32.96                 | 56.00                 | 23.04                | 23.08                 | 46.00                 | 22.92                | L    |
| 6   | 29.6135        | 10.11          | 43.40                 | 60.00                 | 16.60                | 32.37                 | 50.00                 | 17.63                | L    |

Mode:b; 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   | 0.1584         | 10.10          | 46.35                 | 65.55                 | 19.20                | 29.37                 | 55.55                 | 26.18                | N    |
| 2   | 0.4951         | 10.10          | 32.40                 | 56.08                 | 23.68                | 26.30                 | 46.08                 | 19.78                | N    |
| 3   | 1.9979         | 10.10          | 28.48                 | 56.00                 | 27.52                | 18.42                 | 46.00                 | 27.58                | N    |
| 4   | 3.6637         | 10.10          | 30.25                 | 56.00                 | 25.75                | 18.64                 | 46.00                 | 27.36                | N    |
| 5   | 6.5030         | 10.10          | 29.44                 | 60.00                 | 30.56                | 21.11                 | 50.00                 | 28.89                | N    |
| 6   | 29.8337        | 10.11          | 41.35                 | 60.00                 | 18.65                | 29.78                 | 50.00                 | 20.22                | 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:

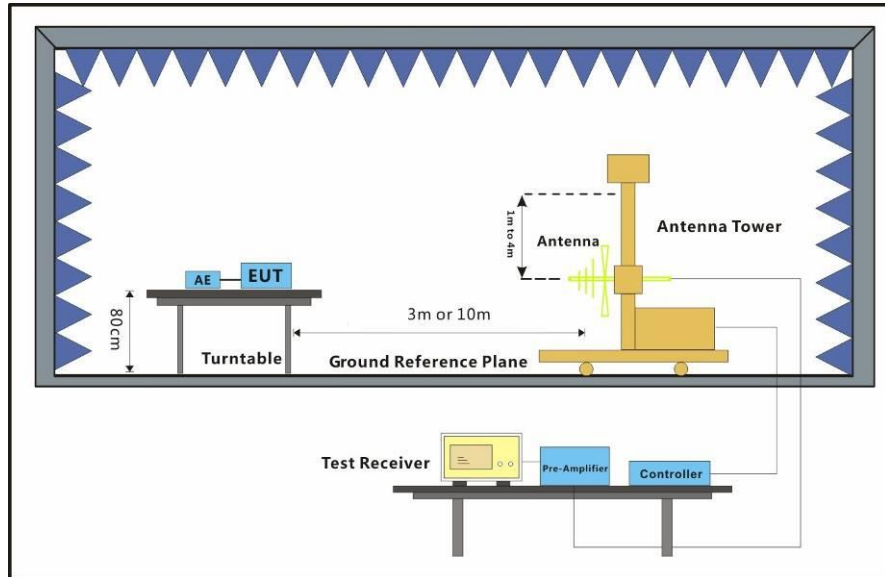
Temperature: 25 °C Humidity: 66.5 % RH Atmospheric Pressure: 1010 mbar

Pretest these modes to find the worst case:

- a: Transfer data between the EUT and the PC+USB cable
- b: GSM850 Idle +BT+WLAN2.4G+GPS Rx+playing MP4+earphone+EUT+USB cable+adapter
- c: GSM1900 Idle +BT+WLAN2.4G+GPS Rx+camera (Back)+earphone+EUT+USB cable+adapter
- d: WCDMA II Idle +BT+WLAN2.4G+GPS Rx+camera (Front)+earphone+EUT+USB cable+adapter
- e: WCDMA VI Idle +BT+WLAN2.4G+GPS Rx+camera (Back)+earphone+EUT+USB cable+adapter
- f: WCDMA V Idle +BT+WLAN2.4G+GPS Rx+camera (Back)+earphone+EUT+USB cable+adapter
- g: CDMA BC0 Idle +BT+ WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter
- h: CDMA BC1 Idle +BT+ WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter
- i: CDMA BC10 Idle +BT+ WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter
- j: LTE band 2 Idle +BT+ WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter
- k: LTE band 4 Idle +BT+ WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter
- l: LTE band 5 Idle +BT+ WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter
- m: LTE band 12 Idle +BT+ WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter
- n: LTE band 13 Idle +BT+ WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter
- o: LTE band 25 Idle +BT+ WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter
- p: LTE band 26 Idle +BT+FM +WLAN2.4G+GNSS Rx+earphone+EUT+USB cable+adapter
- q: LTE band 41 Idle +BT+FM+WLAN2.4G+GNSS Rx+earphone+EUT+USB cable+adapter
- r: LTE band 66 Idle +BT+FM+WLAN2.4G+GNSS Rx+earphone+EUT+USB cable+adapter
- s: LTE band 71 Idle +BT+FM+WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter

The worst case for final test: c:GSM1900 Idle +BT+WLAN2.4G+GPS Rx+camera (Back)+earphone+EUT+USB cable+adapter

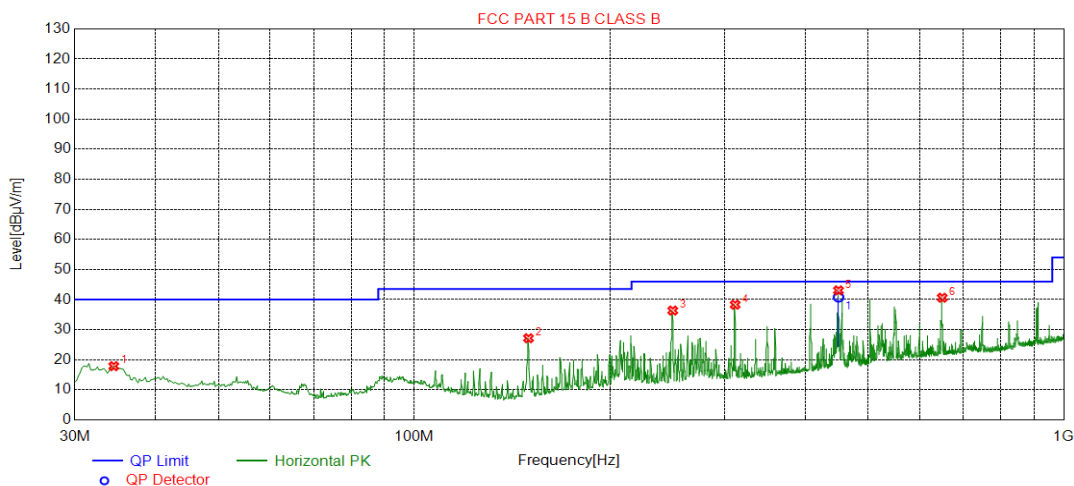
### 6.2.2 Test Setup Diagram



### 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:c; Polarization:Horizontal



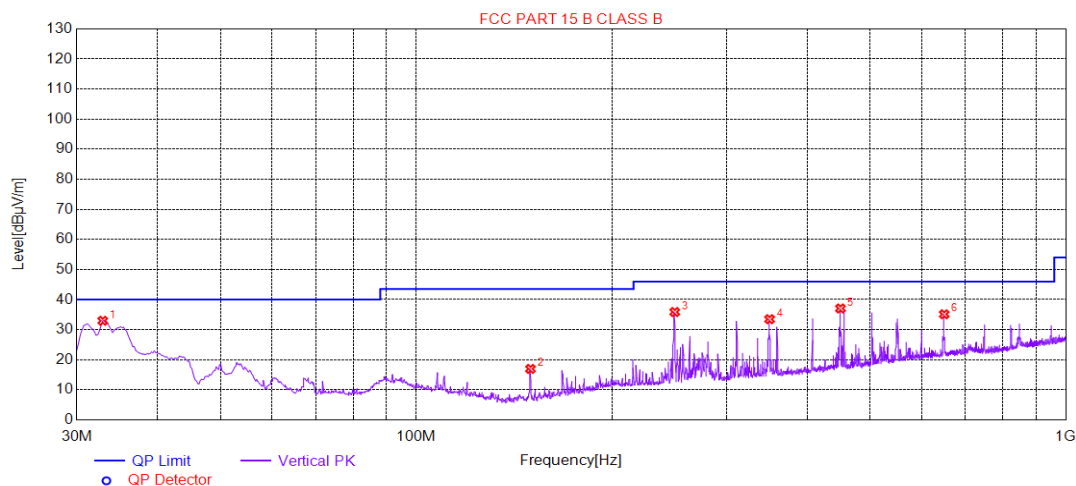
#### Suspected List

| NO. | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
|-----|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| 1   | 34.4629     | 17.88          | -29.97      | 40.00          | 22.12       | 165         | 256       | Horizontal |
| 2   | 149.916     | 27.17          | -35.08      | 43.50          | 16.33       | 184         | 37        | Horizontal |
| 3   | 250.040     | 36.36          | -29.66      | 46.00          | 9.64        | 182         | 112       | Horizontal |
| 4   | 311.938     | 38.32          | -27.93      | 46.00          | 7.68        | 155         | 42        | Horizontal |
| 5   | 449.900     | 43.07          | -24.38      | 46.00          | 2.93        | 192         | 346       | Horizontal |
| 6   | 649.954     | 40.63          | -20.03      | 46.00          | 5.37        | 174         | 24        | Horizontal |

#### 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               | 450.001     | -24.38      | 40.81             | 46.00             | 5.19           | 108.7       | 1.1       | Horizontal |

Mode:c; Polarization:Vertical



| Suspected List |             |                |             |                |             |             |           |          |
|----------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.            | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1              | 32.9106     | 32.97          | -30.01      | 40.00          | 7.03        | 263         | 314       | Vertical |
| 2              | 149.916     | 16.97          | -35.08      | 43.50          | 26.53       | 248         | 326       | Vertical |
| 3              | 250.040     | 35.88          | -29.66      | 46.00          | 10.12       | 210         | 8         | Vertical |
| 4              | 349.970     | 33.49          | -26.87      | 46.00          | 12.51       | 223         | 288       | Vertical |
| 5              | 449.900     | 37.06          | -24.38      | 46.00          | 8.94        | 284         | 258       | Vertical |
| 6              | 649.954     | 35.13          | -20.03      | 46.00          | 10.87       | 201         | 72        | Vertical |

### 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

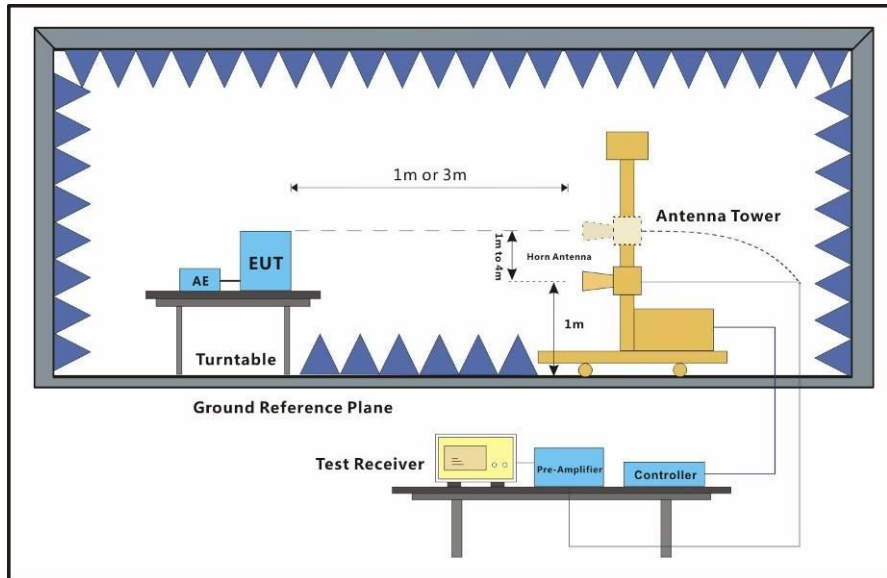
Operating Environment:

Temperature: 21.7 °C Humidity: 56.4 % RH Atmospheric Pressure: 1010 mbar

Pretest these modes to find the worst case:

- a: Transfer data between the EUT and the PC+USB cable
- b: GSM850 Idle +BT+WLAN2.4G+GPS Rx+playing MP4+earphone+EUT+USB cable+adapter
- c: GSM1900 Idle +BT+WLAN2.4G+GPS Rx+camera (Back)+earphone+EUT+USB cable+adapter
- d: WCDMA II Idle +BT+WLAN2.4G+GPS Rx+camera (Front)+earphone+EUT+USB cable+adapter
- e: WCDMA VI Idle +BT+WLAN2.4G+GPS Rx+camera (Back)+earphone+EUT+USB cable+adapter
- f: WCDMA V Idle +BT+WLAN2.4G+GPS Rx+camera (Back)+earphone+EUT+USB cable+adapter
- g: CDMA BC0 Idle +BT+ WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter
- h: CDMA BC1 Idle +BT+ WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter
- i: CDMA BC10 Idle +BT+ WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter
- j: LTE band 2 Idle +BT+ WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter
- k: LTE band 4 Idle +BT+ WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter
- l: LTE band 5 Idle +BT+ WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter
- m: LTE band 12 Idle +BT+ WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter
- n: LTE band 13 Idle +BT+ WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter
- o: LTE band 25 Idle +BT+ WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter
- p: LTE band 26 Idle +BT+FM+WLAN2.4G+GNSS Rx+earphone+EUT+USB cable+adapter
- q: LTE band 41 Idle +BT+FM+WLAN2.4G+GNSS Rx+earphone+EUT+USB cable+adapter
- r: LTE band 66 Idle +BT+FM+WLAN2.4G+GNSS Rx+earphone+EUT+USB cable+adapter
- s: LTE band 71 Idle +BT+FM+WLAN2.4G+GNSS Rx +earphone+EUT+USB cable+adapter
- The worst case for final test: d: WCDMA II Idle +BT+WLAN2.4G+GPS Rx+camera (Front)+earphone+EUT+USB cable+adapter

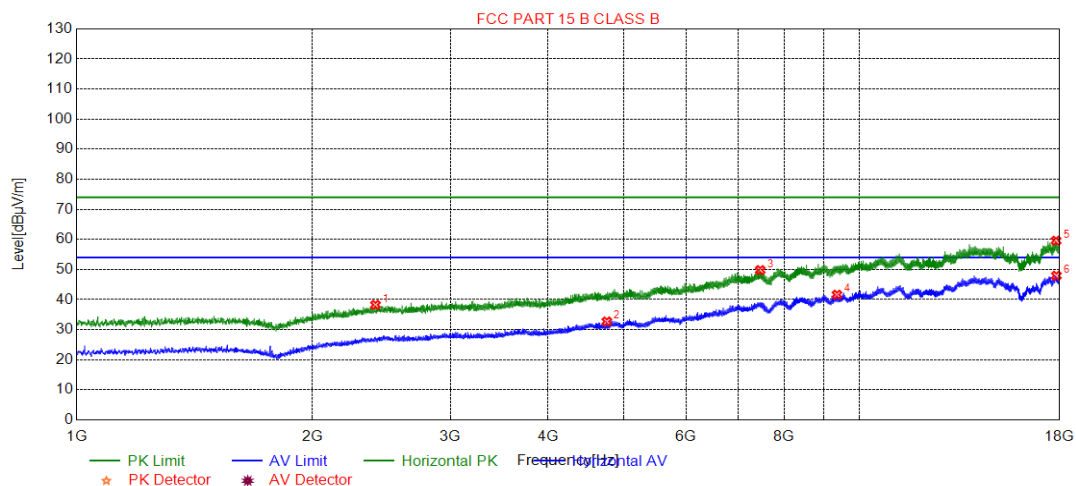
### 6.3.2 Test Setup Diagram



### 6.3.3 Measurement Data

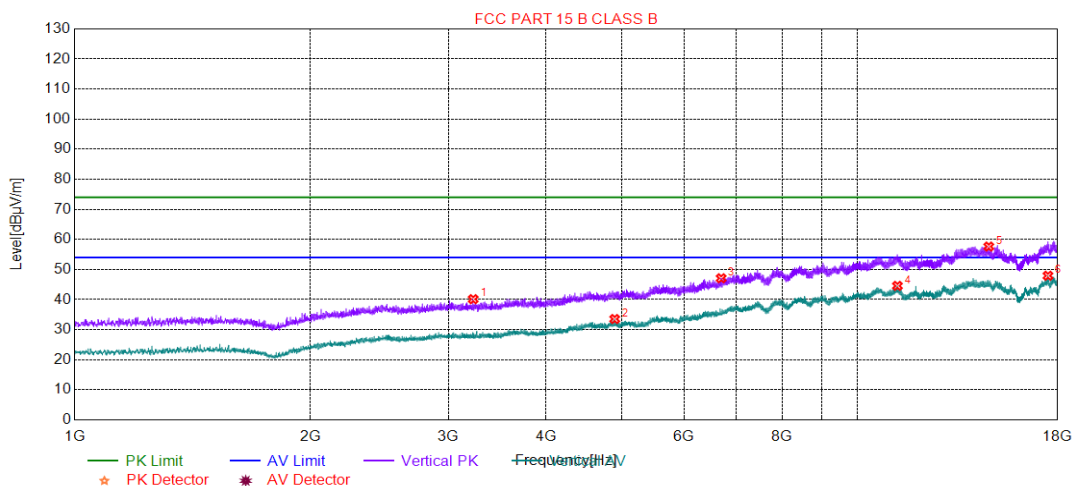
An initial pre-scan was performed in the chamber using the spectrum analyser in peak detection mode. Average measurements were conducted based on the peak sweep graph. The EUT was measured by Horn antenna with 2 orthogonal polarities.

Mode:d; Polarization:Horizontal



| Suspected List |             |                |             |                |             |             |           |            |
|----------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|------------|
| NO.            | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity   |
| 1              | 2407.67     | 38.26          | -26.44      | 74.00          | 35.74       | 184         | 5         | Horizontal |
| 2              | 4752.93     | 32.73          | -18.54      | 54.00          | 21.27       | 195         | 344       | Horizontal |
| 3              | 7462.02     | 49.81          | -9.82       | 74.00          | 24.19       | 162         | 156       | Horizontal |
| 4              | 9350.81     | 41.64          | -5.68       | 54.00          | 12.36       | 177         | 156       | Horizontal |
| 5              | 17808.7     | 59.59          | 0.64        | 74.00          | 14.41       | 168         | 241       | Horizontal |
| 6              | 17824.8     | 47.97          | 0.55        | 54.00          | 6.03        | 194         | 5         | Horizontal |

Mode:d; Polarization:Vertical



| Suspected List |             |                |             |                |             |             |           |          |
|----------------|-------------|----------------|-------------|----------------|-------------|-------------|-----------|----------|
| NO.            | Freq. [MHz] | Level [dBμV/m] | Factor [dB] | Limit [dBμV/m] | Margin [dB] | Height [cm] | Angle [°] | Polarity |
| 1              | 3227.96     | 40.15          | -24.00      | 74.00          | 33.85       | 299         | 119       | Vertical |
| 2              | 4893.19     | 33.55          | -17.81      | 54.00          | 20.45       | 245         | 231       | Vertical |
| 3              | 6691.88     | 47.10          | -12.31      | 74.00          | 26.90       | 261         | 119       | Vertical |
| 4              | 11237.0     | 44.58          | -2.80       | 54.00          | 9.42        | 203         | 128       | Vertical |
| 5              | 14697.5     | 57.65          | 1.68        | 74.00          | 16.35       | 218         | 269       | Vertical |
| 6              | 17491.6     | 47.94          | 1.53        | 54.00          | 6.06        | 211         | 6         | Vertical |

Remark:

1) Scan from 1GHz to 30GHz, The disturbance above 18GHz was very low and all noise floor. The above radiated emissions were the highest point could be found when testing, so only the above radiated emissions had been displayed.



## **7 Photographs**

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

Refer to Appendix A - Photographs of EUT Constructional Details for HR/2020/80004

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

Refer to Appendix A - Photographs of EUT Constructional Details for HR/2020/80004

### **7.3 Radiated Emissions (above 1GHz ) Test Setup**

Refer to Appendix A - Photographs of EUT Constructional Details for HR/2020/80004

### **7.4 EUT Constructional Details (EUT Photos)**

Refer to Photographs of EUT Constructional Details

- End of the Report -