

# FCC REPORT

## (LTE)

**Applicant** : SHENZHEN HUACHUANG AGES  
TECHNOLOGYCO.; LTD  
5th Floor, Building 4, Lianjian Industrial  
**Address** : Park, Dalang Street, Longhua New District,  
Shenzhen, China  
**Product Name** : 4G security camera  
**Brand Mark** : Neye  
**Model** : P18-5G-4K  
**Series model** : P10-5G-4K  
**FCC ID** : 2A9XK-P18  
**Report Number** : BLA-EMC-202409-A7302  
**Date of Receipt** : Sep. 26, 2024  
**Date of Test** : Sep. 26, 2024 to Dec. 11, 2024  
**Test standard** : FCC CFR Title 47 Part 2  
FCC CFR Title 47 Part 22 Subpart H  
FCC CFR Title 47 Part 24 Subpart E  
FCC CFR Title 47 Part 27 Subpart L  
**Test result** : PASS

Compiled by: *Hugh*Review by: *Sueels*Approved by: *Blue Zheng*

Issued Date: Dec. 11, 2024

**BlueAsia of Technical Services(Shenzhen) Co.,Ltd.**

Address: Building C, No. 107, Shihuan Road, Shiyao Sub-District, Baoan District, Shenzhen,

Guangdong Province, China



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## Table of Contents

|                                                                 | Page      |
|-----------------------------------------------------------------|-----------|
| <b>1 GENERAL INFORMATION .....</b>                              | <b>4</b>  |
| 1.1 CLIENT INFORMATION .....                                    | 4         |
| 1.2 GENERAL DESCRIPTION OF E.U.T. ....                          | 4         |
| <b>2 TEST SUMMARY .....</b>                                     | <b>5</b>  |
| <b>3 TEST CONFIGURATION .....</b>                               | <b>6</b>  |
| 3.1 TEST MODE .....                                             | 6         |
| 3.2 TEST ENVIRONMENT AND MODE .....                             | 8         |
| 3.3 CONFIGURATION DIAGRAM OF EUT .....                          | 8         |
| 3.4 AUXILIARY EQUIPMENT .....                                   | 8         |
| 3.5 TEST ENVIRONMENT .....                                      | 8         |
| <b>4 LABORATORY INFORMATION .....</b>                           | <b>9</b>  |
| 4.1 LABORATORY AND ACCREDITATIONS .....                         | 9         |
| 4.2 MEASUREMENT UNCERTAINTY .....                               | 9         |
| <b>5 TEST EQUIPMENT .....</b>                                   | <b>10</b> |
| <b>6 TEST RESULTS .....</b>                                     | <b>12</b> |
| 6.1 CONDUCTED EMISSIONS AT AC POWER LINE (150 KHz-30 MHz) ..... | 12        |
| 6.2 CONDUCTED OUTPUT POWER .....                                | 18        |
| 6.3 PEAK-TO-AVERAGE RATIO .....                                 | 19        |
| 6.4 OCCUPY BANDWIDTH .....                                      | 20        |
| 6.5 OUT OF BAND EMISSION AT ANTENNA TERMINALS, BAND EDGE .....  | 21        |
| 6.6 ERP, EIRP MEASUREMENT .....                                 | 22        |
| 6.7 SPURIOUS EMISSIONS AT ANTENNA TERMINAL .....                | 34        |
| 6.8 FREQUENCY STABILITY V.S. TEMPERATURE MEASUREMENT .....      | 44        |
| 6.9 FREQUENCY STABILITY V.S. VOLTAGE MEASUREMENT .....          | 45        |
| <b>7 TEST SETUP PHOTO .....</b>                                 | <b>46</b> |
| <b>8 EUT CONSTRUCTIONAL DETAILS .....</b>                       | <b>48</b> |

## Revise Record

| Version No. | Date          | Description |
|-------------|---------------|-------------|
| 01          | Dec. 11, 2024 | Original    |
|             |               |             |
|             |               |             |
|             |               |             |

# 1 General Information

## 1.1 Client Information

|               |                                                                                                       |
|---------------|-------------------------------------------------------------------------------------------------------|
| Applicant:    | SHENZHEN HUACHUANG AGES TECHNOLOGYCO.; LTD                                                            |
| Address:      | 5th Floor, Building 4, Lianjian Industrial Park, Dalang Street, Longhua New District, Shenzhen, China |
| Manufacturer: | SHENZHEN HUACHUANG AGES TECHNOLOGYCO.; LTD                                                            |
| Address:      | 5th Floor, Building 4, Lianjian Industrial Park, Dalang Street, Longhua New District, Shenzhen, China |
| Factory       | SHENZHEN HUACHUANG AGES TECHNOLOGYCO.; LTD                                                            |
| Address       | 5th Floor, Building 4, Lianjian Industrial Park, Dalang Street, Longhua New District, Shenzhen, China |

## 1.2 General Description of E.U.T.

|                                                                                               |                                                                                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name:                                                                                 | 4G security camera                                                                                                                                                                                               |
| Test Model No.:                                                                               | P18-5G-4K                                                                                                                                                                                                        |
| Series model:                                                                                 | P10-5G-4K                                                                                                                                                                                                        |
| Note:                                                                                         | The above models are identical in PCB layout, internal structure and components .only model no,appearance,and color is different.                                                                                |
| Operation Frequency range:                                                                    | LTE Band 2:TX: 1850MHz-1910MHz, RX: 1930MHz-1990MHz<br>LTE Band 4:TX: 1710MHz-1755MHz, RX: 2110MHz-2155MHz<br>LTE Band 5:TX: 824MHz-849MHz, RX: 869MHz-894MHz<br>LTE Band 12 TX:699MHz-716MHz, RX: 729MHz-746MHz |
| Modulation type:                                                                              | QPSK, 16QAM                                                                                                                                                                                                      |
| Antenna type:                                                                                 | External Antenna                                                                                                                                                                                                 |
| Antenna gain:                                                                                 | LTE Band 2:TX: 1.68 dBi; LTE Band 4:TX: 3.37 dBi;<br>LTE Band 5:TX: 0.36 dBi; LTE Band 12 TX: 0.06 dBi;                                                                                                          |
| Power supply:                                                                                 | Input DC5V, battery: DC3.7V                                                                                                                                                                                      |
| Remark:The Antenna Gain is supplied by the customer.BlueAsia is not responsible for this data |                                                                                                                                                                                                                  |

## 2 Test Summary

| Test Items                                                              | FCC standard                                                     | Result |
|-------------------------------------------------------------------------|------------------------------------------------------------------|--------|
| Conducted Emissions at AC Power Line<br>(150kHz-30MHz)                  | Part 15.207                                                      | Pass   |
| RF Output Power                                                         | Part 2.1046<br>Part 27.50 (d)(4)                                 | Pass   |
| Peak-to-Average Ratio                                                   | Part 24.232 (d)<br>Part 27.50(d)(5)                              | Pass   |
| 99% & -26 dB Occupied Bandwidth                                         | Part 2.1049<br>Part 27.53(h)                                     | Pass   |
| Out of band emission, Band Edge                                         | Part 22.917(a)<br>Part 27.53 (h)                                 | Pass   |
| Field Strength of Spurious Radiation<br>ERP EIRP Measurement            | Part 2.1053<br>Part 27.53 (h)                                    | Pass   |
| Spurious Emissions at Antenna Terminal                                  | Part 2.1051<br>Part 27.53 (h)                                    | Pass   |
| Frequency stability vs. temperature                                     | Part 22.355<br>Part 24.235<br>Part 27.54<br>Part 2.1055(a)(1)(b) | Pass   |
| Frequency stability vs. voltage                                         | Part 22.355<br>Part 24.235<br>Part 27.54<br>Part 2.1055(d)(2)    | Pass   |
| Pass: The EUT complies with the essential requirements in the standard. |                                                                  |        |

### 3 Test Configuration

#### 3.1 Test mode

| Test Mode <sup>Note 1</sup> | Description                                                      |
|-----------------------------|------------------------------------------------------------------|
| TX                          | Keep the EUT in continuously transmitting mode with modulation.  |
| RX                          | Keep the EUT in receiving mode                                   |
| TX Low channel              | Keep the EUT in continuously transmitting mode in low channel    |
| TX middle channel           | Keep the EUT in continuously transmitting mode in middle channel |
| TX high channel             | Keep the EUT in continuously transmitting mode in high channel   |

*Note 1: The EUT was configured to measure its highest possible emission and/or immunity level. The test modes were adapted according to the operation manual for use; the EUT was operated in the engineering mode Note 2 to fix the TX or Rx frequency that was for the purpose of the measurements.*

#### Operation Frequency List:

Regards to the operating frequency range, the lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channels as below:

| LTE Band 2(1.4MHz) |                 |         | LTE Band 2(3MHz)  |                 |         |
|--------------------|-----------------|---------|-------------------|-----------------|---------|
| Channel:           | Frequency (MHz) |         | Channel           | Frequency (MHz) |         |
| Lowest channel     | 18607           | 1850.70 | Lowest channel    | 18615           | 1851.5  |
| Middle channel     | 18900           | 1880.00 | Middle channel    | 18900           | 1880.00 |
| Highest channel    | 19193           | 1909.30 | Highest channel   | 19185           | 1908.5  |
| LTE Band 2(5MHz)   |                 |         | LTE Band 2(10MHz) |                 |         |
| Channel            | Frequency (MHz) |         | Channel           | Frequency (MHz) |         |
| Lowest channel     | 18625           | 1852.50 | Lowest channel    | 18650           | 1855.00 |
| Middle channel     | 18900           | 1880.00 | Middle channel    | 18900           | 1880.00 |
| Highest channel    | 19175           | 1907.50 | Highest channel   | 19150           | 1905.00 |
| LTE Band 2(15MHz)  |                 |         | LTE Band 2(20MHz) |                 |         |
| Channel            | Frequency (MHz) |         | Channel           | Frequency (MHz) |         |
| Lowest channel     | 18675           | 1857.50 | Lowest channel    | 18700           | 1860.00 |
| Middle channel     | 18900           | 1880.00 | Middle channel    | 18900           | 1880.00 |
| Highest channel    | 19125           | 1902.50 | Highest channel   | 19100           | 1900.00 |

| LTE Band 4(1.4MHz) |                 |         | LTE Band 4(3MHz)  |                 |         |
|--------------------|-----------------|---------|-------------------|-----------------|---------|
| Channel:           | Frequency (MHz) |         | Channel           | Frequency (MHz) |         |
| Lowest channel     | 19957           | 1710.70 | Lowest channel    | 19965           | 1711.50 |
| Middle channel     | 20175           | 1732.50 | Middle channel    | 20175           | 1732.50 |
| Highest channel    | 20393           | 1754.30 | Highest channel   | 20385           | 1753.50 |
| LTE Band 4(5MHz)   |                 |         | LTE Band 4(10MHz) |                 |         |
| Channel            | Frequency (MHz) |         | Channel           | Frequency (MHz) |         |
| Lowest channel     | 19975           | 1712.50 | Lowest channel    | 20000           | 1715.00 |
| Middle channel     | 20175           | 1732.50 | Middle channel    | 20175           | 1732.50 |
| Highest channel    | 20375           | 1752.50 | Highest channel   | 20350           | 1750.00 |
| LTE Band 4(15MHz)  |                 |         | LTE Band 4(20MHz) |                 |         |
| Channel            | Frequency (MHz) |         | Channel           | Frequency (MHz) |         |
| Lowest channel     | 20025           | 1717.50 | Lowest channel    | 20050           | 1720.00 |
| Middle channel     | 20175           | 1732.50 | Middle channel    | 20175           | 1732.50 |
| Highest channel    | 20325           | 1747.50 | Highest channel   | 20300           | 1745.00 |

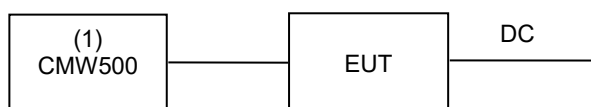
| LTE Band 5(1.4MHz) |       |                 | LTE Band 5(3MHz)  |       |                 |
|--------------------|-------|-----------------|-------------------|-------|-----------------|
| Channel:           |       | Frequency (MHz) | Channel           |       | Frequency (MHz) |
| Lowest channel     | 20407 | 824.7           | Lowest channel    | 20415 | 825.5           |
| Middle channel     | 20525 | 836.5           | Middle channel    | 20525 | 836.5           |
| Highest channel    | 20643 | 848.3           | Highest channel   | 20635 | 847.5           |
| LTE Band 5(5MHz)   |       |                 | LTE Band 5(10MHz) |       |                 |
| Channel            |       | Frequency (MHz) | Channel           |       | Frequency (MHz) |
| Lowest channel     | 20425 | 826.5           | Lowest channel    | 20450 | 829.0           |
| Middle channel     | 20525 | 836.5           | Middle channel    | 20525 | 836.5           |
| Highest channel    | 20625 | 846.5           | Highest channel   | 20600 | 844.0           |

| LTE Band 12(1.4MHz) |       |                 | LTE Band 12(3MHz)  |       |                 |
|---------------------|-------|-----------------|--------------------|-------|-----------------|
| Channel:            |       | Frequency (MHz) | Channel            |       | Frequency (MHz) |
| Lowest channel      | 23017 | 699.7           | Lowest channel     | 23025 | 700.5           |
| Middle channel      | 23095 | 707.5           | Middle channel     | 23095 | 707.5           |
| Highest channel     | 23173 | 715.3           | Highest channel    | 23165 | 714.0           |
| LTE Band 12(5MHz)   |       |                 | LTE Band 12(10MHz) |       |                 |
| Channel             |       | Frequency (MHz) | Channel            |       | Frequency (MHz) |
| Lowest channel      | 23035 | 701.5           | Lowest channel     | 23060 | 704             |
| Middle channel      | 23095 | 707.5           | Middle channel     | 23095 | 707.5           |
| Highest channel     | 23155 | 713.5           | Highest channel    | 23130 | 711             |

### 3.2 Test environment and mode

| Operating Environment:                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| Temperature:                                                                                                                                                                                                                                                                                                                                                                                                                 | Normal: 15℃~ 35℃, Extreme: -30℃ ~ +70℃                           |
| Humidity:                                                                                                                                                                                                                                                                                                                                                                                                                    | 20 % ~ 75 % RH                                                   |
| Atmospheric Pressure:                                                                                                                                                                                                                                                                                                                                                                                                        | 1008 mbar                                                        |
| Voltage:                                                                                                                                                                                                                                                                                                                                                                                                                     | Nominal: 12Vdc                                                   |
| Test mode:                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                  |
| LTE QPSK mode                                                                                                                                                                                                                                                                                                                                                                                                                | Keep the EUT communication with simulated station in QPSK mode   |
| LTE 16-QAM mode                                                                                                                                                                                                                                                                                                                                                                                                              | Keep the EUT communication with simulated station in 16-QAM mode |
| Remark: The EUT has been tested under continuous transmitting mode. Channel Low, Mid and High for each type band with rated data rate were chosen for full testing. The field strength of spurious radiation emission was measured as EUT stand-up position (H mode) and lie down position (E1, E2 mode) for these modes with power adaptor, earphone and Data cable. Just the worst case position (H mode) shown in report. |                                                                  |

### 3.3 Configuration diagram of EUT



### 3.4 Auxiliary equipment

| Device Type                | Manufacturer | Model Name | Serial No. | Remark                       |
|----------------------------|--------------|------------|------------|------------------------------|
| Radio communication tester | R&S          | CMW500     | 132429     | From lab<br>(No.BLA-EMC-044) |
| --                         | --           | --         | --         | --                           |

**Note:**

“--” mean no any auxiliary device during testing.

### 3.5 Test environment

| Environment | Temperature | Voltage |
|-------------|-------------|---------|
| Normal      | 25℃         | DC 12V  |

## 4 Laboratory information

### 4.1 Laboratory and accreditations

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

|                          |                                                                                                             |
|--------------------------|-------------------------------------------------------------------------------------------------------------|
| Company name:            | BlueAsia of Technical Services(Shenzhen) Co., Ltd.                                                          |
| Address:                 | Building C, No. 107, Shihuan Road, Shiyan Sub-District, Baoan District, Shenzhen, Guangdong Province, China |
| CNAS accredited No.:     | L9788                                                                                                       |
| A2LA Cert. No.:          | 5071.01                                                                                                     |
| FCC Designation No.:     | CN1252                                                                                                      |
| ISED CAB identifier No.: | CN0028                                                                                                      |
| Telephone:               | +86-755-28682673                                                                                            |
| FAX:                     | +86-755-28682673                                                                                            |

### 4.2 Measurement uncertainty

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of  $k=1.96$ .

| Parameter                                      | Expanded Uncertainty            |
|------------------------------------------------|---------------------------------|
| Radiated Emission(9kHz-30MHz)                  | $\pm 4.34\text{dB}$             |
| Radiated Emission(30Mz-1000MHz)                | $\pm 4.24\text{dB}$             |
| Radiated Emission(1GHz-18GHz)                  | $\pm 4.68\text{dB}$             |
| AC Power Line Conducted Emission(150kHz-30MHz) | $\pm 3.45\text{dB}$             |
| Occupied Channel Bandwidth                     | $\pm 5\%$                       |
| RF output power, conducted                     | $\pm 1.5\text{ dB}$             |
| Power Spectral Density, conducted              | $\pm 3.0\text{ dB}$             |
| Unwanted Emissions, conducted                  | $\pm 3.0\text{ dB}$             |
| Temperature                                    | $\pm 3\text{ }^{\circ}\text{C}$ |
| Supply voltages                                | $\pm 3\%$                       |
| Time                                           | $\pm 5\%$                       |

## 5 Test equipment

### RF conducted

| Equipment       | Name                       | Model    | Manufacture     | S/N           | Cal. Date  | Due. Date  |
|-----------------|----------------------------|----------|-----------------|---------------|------------|------------|
| BLA-EMC-003-003 | Shield room                | 5*3*3    | SKET            | N/A           | 2023/11/16 | 2025/11/15 |
| BLA-EMC-016     | Signal Generator           | N5182A   | Agilent         | MY52420567    | 2024/06/28 | 2025/06/27 |
| BLA-EMC-038     | Spectrum                   | N9020A   | Agilent         | MY49100060    | 2024/08/08 | 2025/08/07 |
| BLA-EMC-042     | Power sensor               | RPR3006W | DARE            | 14I00889SN042 | 2024/08/08 | 2025/08/07 |
| BLA-EMC-044     | Radio communication tester | CMW500   | R&S             | 132429        | 2024/08/08 | 2025/08/07 |
| BLA-EMC-064     | Signal Generator           | N5182B   | KEYSIGHT        | MY58108892    | 2024/06/28 | 2025/06/27 |
| BLA-EMC-079     | Spectrum                   | N9020A   | Agilent         | MY54420161    | 2024/08/08 | 2025/08/07 |
| BLA-EMC-088     | Audio Analyzer             | ATS-1    | Audio Precision | ATS141094     | 2024/06/28 | 2025/06/27 |

### Radiated Spurious Emissions (Below 1GHz)

| Equipment      | Name              | Model            | Manufacture | S/N    | Cal. Date  | Due. Date  |
|----------------|-------------------|------------------|-------------|--------|------------|------------|
| BLA-EMC-002-01 | Anechoic chamber  | 9*6*6 chamber    | SKET        | N/A    | 2024/3/27  | 2027/3/26  |
| BLA-EMC-002-02 | Control room      | 966 control room | SKET        | N/A    | 2024/3/27  | 2027/3/26  |
| BLA-EMC-009    | EMI receiver      | ESR7             | R&S         | 101199 | 2024/08/08 | 2025/08/07 |
| BLA-EMC-043    | Loop antenna      | FMZB1519B        | Schwarzbeck | 00102  | 2024/06/29 | 2026/06/28 |
| BLA-EMC-065    | Broadband antenna | VULB9168         | Schwarzbeck | 01065P | 2024/06/29 | 2026/06/27 |
| BLA-XC-01      | Coaxial Cable     | N/A              | BlueAsia    | V01    | N/A        | N/A        |
| BLA-XC-02      | Coaxial Cable     | N/A              | BlueAsia    | V02    | N/A        | N/A        |

### Radiated Spurious Emissions (Above 1GHz)

| Equipment      | Name                       | Model               | Manufacture | S/N          | Cal. Date  | Due. Date  |
|----------------|----------------------------|---------------------|-------------|--------------|------------|------------|
| BLA-EMC-001-01 | Anechoic chamber           | 9*6*6 chamber       | SKET        | N/A          | 2023/11/16 | 2026/11/15 |
| BLA-EMC-001-02 | Control Room               | 966 control room    | SKET        | N/A          | 2023/11/16 | 2025/11/15 |
| BLA-EMC-008    | Spectrum                   | FSP40               | R&S         | 100817       | 2024/08/08 | 2025/08/07 |
| BLA-EMC-012    | Broadband antenna          | VULB9168            | Schwarzbeck | 00836P:00227 | 2022/10/12 | 2025/10/11 |
| BLA-EMC-013    | Horn Antenna               | BBHA9120D           | Schwarzbeck | 01892        | 2024/06/29 | 2026/06/28 |
| BLA-EMC-014    | Amplifier                  | PA_000318G-45       | SKET        | PA2018043003 | 2024/08/08 | 2025/08/07 |
| BLA-EMC-044    | Radio communication tester | CMW500              | R&S         | 132429       | 2024/08/08 | 2025/08/07 |
| BLA-EMC-046    | Filter bank                | 2.4G/5G Filter bank | SKET        | N/A          | 2024/06/28 | 2025/06/27 |
| BLA-EMC-061    | Receiver                   | ESPI7               | R&S         | 101477       | 2024/06/28 | 2025/06/27 |
| BLA-EMC-066    | Amplifier                  | LNPA_30M01G-30      | SKET        | SK2021060801 | 2024/06/28 | 2025/06/27 |
| BLA-EMC-086    | Amplifier                  | LNPA_18G40G-50dB    | SKET        | SK2022071301 | 2024/06/28 | 2025/06/27 |

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|             |               |           |             |      |            |            |
|-------------|---------------|-----------|-------------|------|------------|------------|
| BLA-EMC-087 | Horn Antenna  | BBHA 9170 | Schwarzbeck | 1106 | 2024/06/29 | 2026/06/28 |
| BLA-XC-03   | Coaxial Cable | N/A       | BlueAsia    | V03  | N/A        | N/A        |
| BLA-XC-04   | Coaxial Cable | N/A       | BlueAsia    | V04  | N/A        | N/A        |

**Test Software Record:**

| Software No. | Software Name | Manufacture | Software version | Test site |
|--------------|---------------|-------------|------------------|-----------|
| BLA-EMC-S001 | EZ-EMC        | EZ          | EEMC-3A1+        | RE        |
| BLA-EMC-S010 | MTS 8310      | MW          | 2.0.0.0          | RF        |

## 6 Test results

### 6.1 Conducted emissions at AC power line (150 kHz-30 MHz)

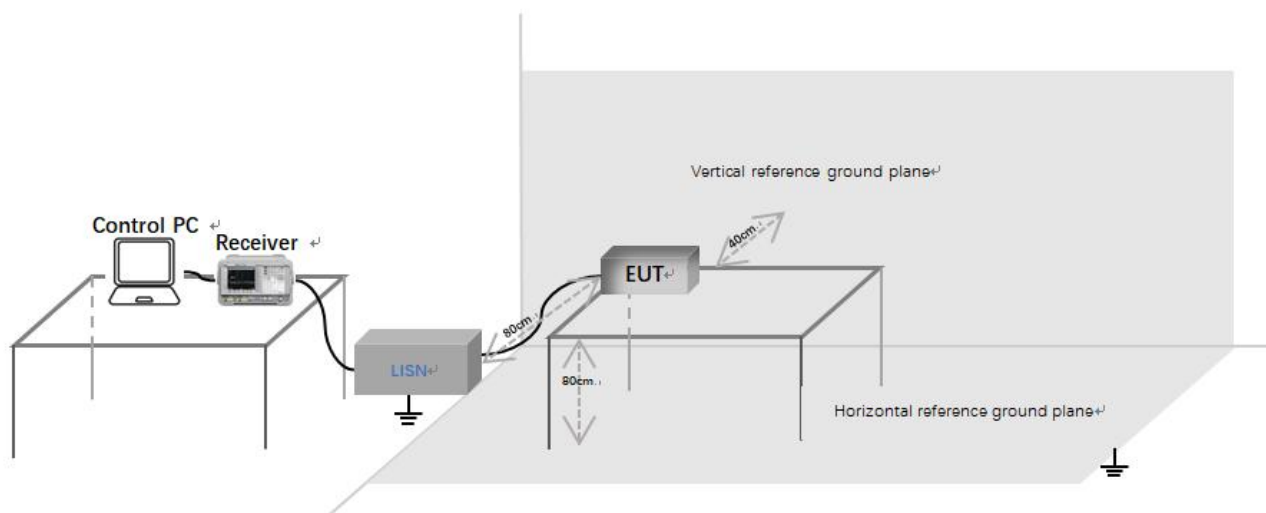
|                        |                                |
|------------------------|--------------------------------|
| Test Standard          | Part 15.207                    |
| Test Method            | ANSI C63.10 (2013) Section 6.2 |
| Test Mode (Pre-Scan)   | TX                             |
| Test Mode (Final Test) | TX                             |

#### Limit

| Frequency of emission(MHz) | Conducted limit(dB $\mu$ V) |           |
|----------------------------|-----------------------------|-----------|
|                            | Quasi-peak                  | Average   |
| 0.15-0.5                   | 66 to 56*                   | 56 to 46* |
| 0.5-5                      | 56                          | 46        |
| 5-30                       | 60                          | 50        |

\*Decreases with the logarithm of the frequency.

#### Test setup



Description of test setup connection:

- Connect the control PC to the receiver through a USB to GPIB cable;
- The receiver is connected to the LISN through a coaxial line;
- Connect the power port of LISN to the EUT.

## Procedure

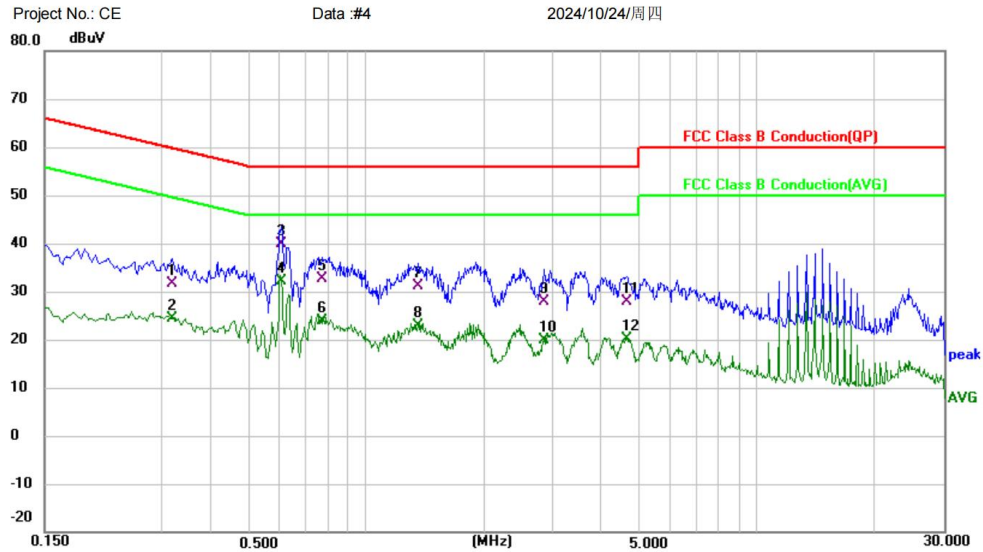
- 1) The mains terminal disturbance voltage test was conducted in a shielded room.
- 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50ohm/50H + 5ohm linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
- 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane,
- 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.
- 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10 on conducted measurement.

$$\text{LISN} = \text{Read Level} + \text{Cable Loss} + \text{LISN Factor}$$

## Test data

[Test mode: TX]; [Line: Line];[Power:AC120V/60Hz]

### Conducted Emission Measurement



Site: Limit: FCC Class B Conduction(QP)  
 EUT: 4G security camera  
 M/N: P18-5G-4K  
 Mode: TX Mode  
 Note:

Phase: **L1**  
 Power:  
 Distance: RBW: 9 KHz  
 VBW: 30 KHz

Temperature: (C)  
 Humidity: %RH  
 Sweep Time: 10 ms

| No. | Mk. | Freq.<br>MHz | Reading<br>Level<br>dBuV | Correct<br>Factor<br>dB | Measure-<br>ment<br>dBuV | Limit<br>dBuV | Over<br>dB | Antenna<br>Height<br>cm | Table<br>Degree | Comment |
|-----|-----|--------------|--------------------------|-------------------------|--------------------------|---------------|------------|-------------------------|-----------------|---------|
| 1   |     | 0.3180       | 21.67                    | 9.91                    | 31.58                    | 59.76         | -28.18     | QP                      |                 |         |
| 2   |     | 0.3180       | 14.45                    | 9.91                    | 24.36                    | 49.76         | -25.40     | AVG                     |                 |         |
| 3   |     | 0.6060       | 30.22                    | 9.75                    | 39.97                    | 56.00         | -16.03     | QP                      |                 |         |
| 4   | *   | 0.6060       | 22.43                    | 9.75                    | 32.18                    | 46.00         | -13.82     | AVG                     |                 |         |
| 5   |     | 0.7740       | 22.92                    | 9.68                    | 32.60                    | 56.00         | -23.40     | QP                      |                 |         |
| 6   |     | 0.7740       | 14.19                    | 9.68                    | 23.87                    | 46.00         | -22.13     | AVG                     |                 |         |
| 7   |     | 1.3580       | 21.35                    | 9.82                    | 31.17                    | 56.00         | -24.83     | QP                      |                 |         |
| 8   |     | 1.3580       | 13.05                    | 9.82                    | 22.87                    | 46.00         | -23.13     | AVG                     |                 |         |
| 9   |     | 2.8460       | 17.77                    | 10.01                   | 27.78                    | 56.00         | -28.22     | QP                      |                 |         |
| 10  |     | 2.8460       | 9.99                     | 10.01                   | 20.00                    | 46.00         | -26.00     | AVG                     |                 |         |
| 11  |     | 4.6420       | 17.68                    | 10.15                   | 27.83                    | 56.00         | -28.17     | QP                      |                 |         |
| 12  |     | 4.6420       | 9.95                     | 10.15                   | 20.10                    | 46.00         | -25.90     | AVG                     |                 |         |

\*:Maximum data x:Over limit !:over margin

<Reference Only

Receiver: ESPI\_1

Spectrum Analyzer: ESPI

## Test Result: Pass

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Email: [marketing@cblueasia.com](mailto:marketing@cblueasia.com) [www.cblueasia.com](http://www.cblueasia.com)

[Test mode: TX]; [Line: Neutral];[Power:AC120V/60Hz]

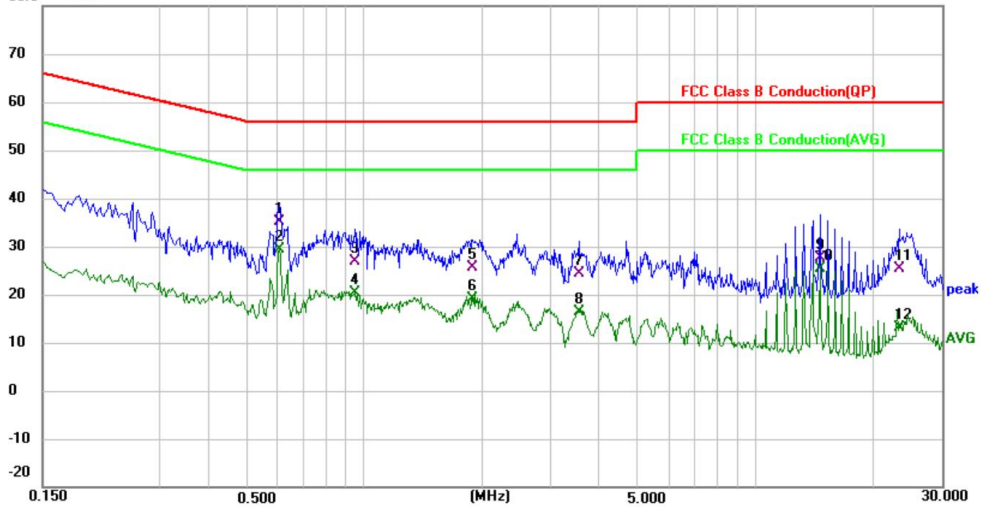
**Conducted Emission Measurement**

Project No.: CE

Data :#3

2024/10/24/周四

80.0 dBuV



Site

Phase: **N**

Temperature: (C)

Limit: FCC Class B Conduction(QP)

Power:

Humidity: %RH

EUT: 4G security camera

Distance:

RBW: 9 KHz

M/N: P18-5G-4K

VBW: 30 KHz

Sweep Time: 10 ms

Mode: TX Mode

Note:

| No. | Mk. | Freq.<br>MHz | Reading<br>Level<br>dBuV | Correct<br>Factor<br>dB | Measure-<br>ment<br>dBuV | Limit<br>dBuV | Over<br>dB | Antenna<br>Height<br>cm | Table<br>Degree | Comment |
|-----|-----|--------------|--------------------------|-------------------------|--------------------------|---------------|------------|-------------------------|-----------------|---------|
| 1   |     | 0.6060       | 25.50                    | 9.69                    | 35.19                    | 56.00         | -20.81     | QP                      |                 |         |
| 2   | *   | 0.6060       | 19.73                    | 9.69                    | 29.42                    | 46.00         | -16.58     | AVG                     |                 |         |
| 3   |     | 0.9460       | 17.16                    | 9.69                    | 26.85                    | 56.00         | -29.15     | QP                      |                 |         |
| 4   |     | 0.9460       | 10.63                    | 9.69                    | 20.32                    | 46.00         | -25.68     | AVG                     |                 |         |
| 5   |     | 1.8900       | 15.83                    | 9.81                    | 25.64                    | 56.00         | -30.36     | QP                      |                 |         |
| 6   |     | 1.8900       | 9.34                     | 9.81                    | 19.15                    | 46.00         | -26.85     | AVG                     |                 |         |
| 7   |     | 3.5420       | 14.30                    | 9.97                    | 24.27                    | 56.00         | -31.73     | QP                      |                 |         |
| 8   |     | 3.5420       | 6.45                     | 9.97                    | 16.42                    | 46.00         | -29.58     | AVG                     |                 |         |
| 9   |     | 14.6580      | 15.91                    | 11.74                   | 27.65                    | 60.00         | -32.35     | QP                      |                 |         |
| 10  |     | 14.6580      | 13.71                    | 11.74                   | 25.45                    | 50.00         | -24.55     | AVG                     |                 |         |
| 11  |     | 23.3580      | 12.41                    | 13.04                   | 25.45                    | 60.00         | -34.55     | QP                      |                 |         |
| 12  |     | 23.3580      | 0.00                     | 13.04                   | 13.04                    | 50.00         | -36.96     | AVG                     |                 |         |

\*:Maximum data x:Over limit !:over margin

(Reference Only)

Receiver: ESPI\_1

Spectrum Analyzer: ESPI

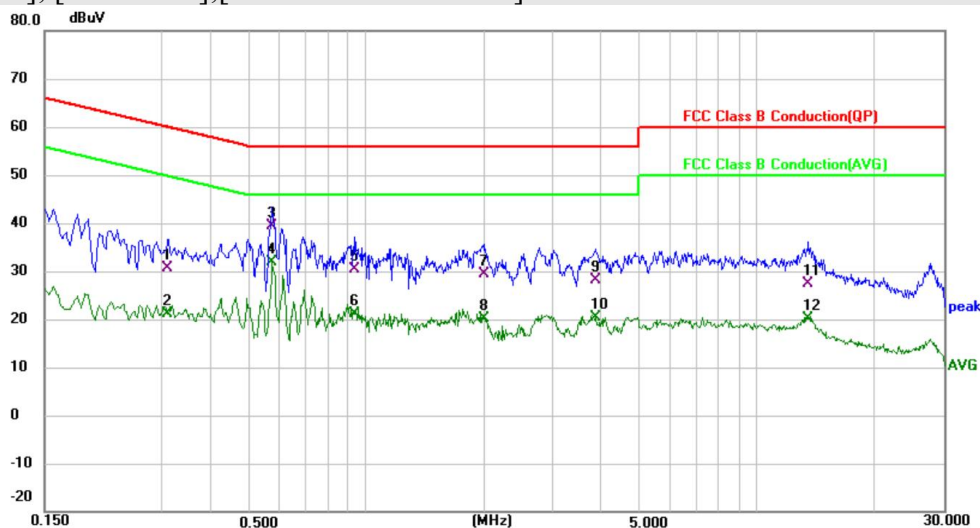
**Test Result: Pass**
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Email: [marketing@cblueasia.com](mailto:marketing@cblueasia.com) [www.cblueasia.com](http://www.cblueasia.com)

Serirs model:

[Test mode: TX]; [Line: Line];[Power:AC120V/60Hz]



Site: Limit: FCC Class B Conduction(QP)  
EUT: 4G security camera  
M/N: P10-5G-4K  
Mode: TX Mode  
Note:

Phase: **L1**  
Power:  
Distance: RBW: 9 KHz  
VBW: 30 KHz  
Sweep Time: 10 ms

Temperature: (C)  
Humidity: %RH

| No. | Mk. | Freq.<br>MHz | Reading<br>Level<br>dBuV | Correct<br>Factor<br>dB | Measure-<br>ment<br>dBuV | Limit<br>dBuV | Over<br>dB | Antenna<br>Height<br>cm | Table<br>Degree<br>degree | Comment |
|-----|-----|--------------|--------------------------|-------------------------|--------------------------|---------------|------------|-------------------------|---------------------------|---------|
| 1   |     | 0.3100       | 20.84                    | 9.91                    | 30.75                    | 59.97         | -29.22     | QP                      |                           |         |
| 2   |     | 0.3100       | 11.24                    | 9.91                    | 21.15                    | 49.97         | -28.82     | AVG                     |                           |         |
| 3   |     | 0.5740       | 29.55                    | 9.77                    | 39.32                    | 56.00         | -16.68     | QP                      |                           |         |
| 4   | *   | 0.5740       | 22.00                    | 9.77                    | 31.77                    | 46.00         | -14.23     | AVG                     |                           |         |
| 5   |     | 0.9380       | 20.70                    | 9.73                    | 30.43                    | 56.00         | -25.57     | QP                      |                           |         |
| 6   |     | 0.9380       | 11.37                    | 9.73                    | 21.10                    | 46.00         | -24.90     | AVG                     |                           |         |
| 7   |     | 1.9940       | 19.40                    | 9.93                    | 29.33                    | 56.00         | -26.67     | QP                      |                           |         |
| 8   |     | 1.9940       | 10.18                    | 9.93                    | 20.11                    | 46.00         | -25.89     | AVG                     |                           |         |
| 9   |     | 3.8660       | 17.92                    | 10.13                   | 28.05                    | 56.00         | -27.95     | QP                      |                           |         |
| 10  |     | 3.8660       | 10.24                    | 10.13                   | 20.37                    | 46.00         | -25.63     | AVG                     |                           |         |
| 11  |     | 13.4820      | 15.90                    | 11.49                   | 27.39                    | 60.00         | -32.61     | QP                      |                           |         |
| 12  |     | 13.4820      | 8.75                     | 11.49                   | 20.24                    | 50.00         | -29.76     | AVG                     |                           |         |

\*:Maximum data x:Over limit !:over margin

<Reference Only

Receiver: ESPI\_1

Spectrum Analyzer: ESPI

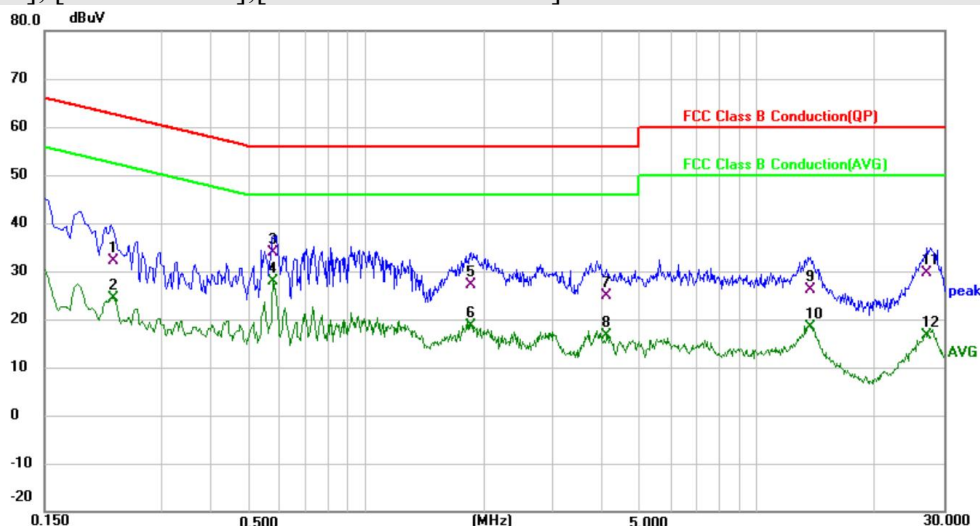
**Test Result: Pass**

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Email: [marketing@cblueasia.com](mailto:marketing@cblueasia.com) [www.cblueasia.com](http://www.cblueasia.com)

[Test mode: TX]; [Line: Neutral];[Power:AC120V/60Hz]



Site: \_\_\_\_\_ Phase: **N** Temperature: (C)  
Limit: FCC Class B Conduction(QP) Power: \_\_\_\_\_ Humidity: %RH  
EUT: 4G security camera Distance: RBW: 9 KHz  
M/N: P10-5G-4K VBW: 30 KHz Sweep Time: 10 ms  
Mode: TX Mode  
Note: \_\_\_\_\_

| No. | Mk. | Freq.   | Reading Level | Correct Factor | Measurement | Limit | Over   | Antenna Height | Table Degree |         |
|-----|-----|---------|---------------|----------------|-------------|-------|--------|----------------|--------------|---------|
|     |     | MHz     | dBuV          | dB             | dBuV        | dBuV  | dB     | cm             | degree       | Comment |
| 1   |     | 0.2256  | 21.85         | 10.23          | 32.08       | 62.61 | -30.53 | QP             |              |         |
| 2   |     | 0.2256  | 14.13         | 10.23          | 24.36       | 52.61 | -28.25 | AVG            |              |         |
| 3   |     | 0.5780  | 24.07         | 9.71           | 33.78       | 56.00 | -22.22 | QP             |              |         |
| 4   | *   | 0.5780  | 18.10         | 9.71           | 27.81       | 46.00 | -18.19 | AVG            |              |         |
| 5   |     | 1.8580  | 17.37         | 9.81           | 27.18       | 56.00 | -28.82 | QP             |              |         |
| 6   |     | 1.8580  | 8.79          | 9.81           | 18.60       | 46.00 | -27.40 | AVG            |              |         |
| 7   |     | 4.1140  | 14.73         | 10.05          | 24.78       | 56.00 | -31.22 | QP             |              |         |
| 8   |     | 4.1140  | 6.47          | 10.05          | 16.52       | 46.00 | -29.48 | AVG            |              |         |
| 9   |     | 13.6620 | 14.64         | 11.51          | 26.15       | 60.00 | -33.85 | QP             |              |         |
| 10  |     | 13.6620 | 6.95          | 11.51          | 18.46       | 50.00 | -31.54 | AVG            |              |         |
| 11  |     | 27.1580 | 16.47         | 13.09          | 29.56       | 60.00 | -30.44 | QP             |              |         |
| 12  |     | 27.1580 | 3.58          | 13.09          | 16.67       | 50.00 | -33.33 | AVG            |              |         |

\*:Maximum data x:Over limit !:over margin

(Reference Only)

Receiver: ESPI\_1

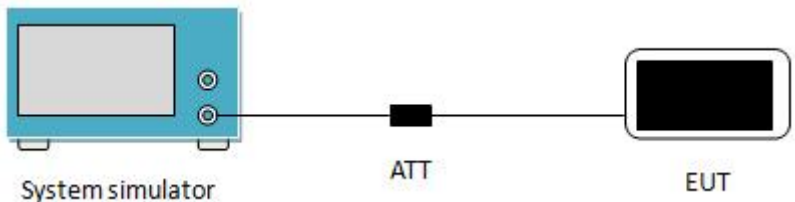
Spectrum Analyzer: ESPI

**Test Result: Pass**
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Email: [marketing@cblueasia.com](mailto:marketing@cblueasia.com) [www.cblueasia.com](http://www.cblueasia.com)

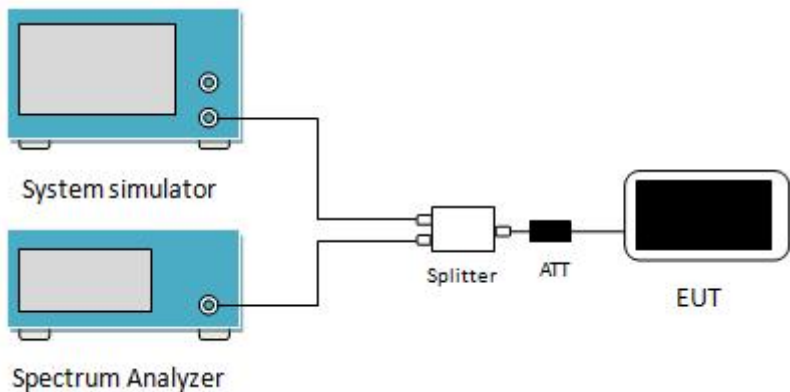
## 6.2 Conducted Output Power

|                   |                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement: | Part 22.913(a)(2), Part 27.50(d)(4),                                                                                                                                                                                                                                                                                                                                           |
| Test Method:      | ANSI/TIA-603-E 2016                                                                                                                                                                                                                                                                                                                                                            |
| Limit:            | Band2: 2W;<br>Band4:1W;<br>Band5/Band 12:7W;                                                                                                                                                                                                                                                                                                                                   |
| Test Setup:       |  <p>The diagram illustrates the test setup. On the left is a blue rectangular box labeled 'System simulator'. A line connects it to a small black rectangle labeled 'ATT' (attenuator). Another line connects the 'ATT' to a black rectangular box labeled 'EUT' (Equipment Under Test).</p> |
| Test Procedure:   | The transmitter output was connected to a calibrated attenuator, the other end of which was connected to the CMW500. Transmitter output power was read off in dBm.                                                                                                                                                                                                             |
| Test Instruments: | Refer to section 5 for details                                                                                                                                                                                                                                                                                                                                                 |
| Test mode:        | Refer to section 3.1 for details                                                                                                                                                                                                                                                                                                                                               |
| Test results:     | Passed                                                                                                                                                                                                                                                                                                                                                                         |

### Measurement Data:

Please Refer To Appendix 1: LTE RF Test data section 2

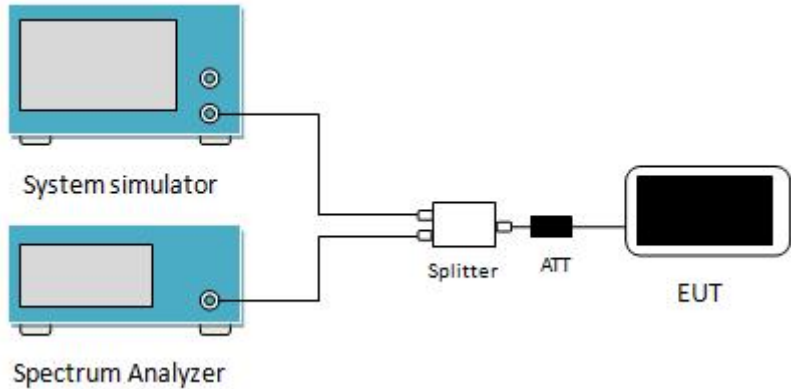
### 6.3 Peak-to-Average Ratio

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement: | Part 24.232 (d), Part 27.50(d)(5)                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Test Method:      | ANSI/TIA-603-E 2016                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Limit:            | The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.                                                                                                                                                                                                                                                                                                                                                                         |
| Test Setup:       |  <p>The diagram shows a test setup for measuring Peak-to-Average Ratio (PAR). It includes a System simulator, a Spectrum Analyzer, a Splitter, an ATT (Attenuator), and the EUT (Equipment Under Test). The System simulator and Spectrum Analyzer are connected to the Splitter. The Splitter is connected to the ATT, which is then connected to the EUT.</p> |
| Test Procedure:   | <ol style="list-style-type: none"> <li>1 The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation.</li> <li>2 Set the CCDF option in spectrum analyzer, <math>RBW \geq OBW</math>,</li> <li>3 Set the EUT working in highest power level, measured and recorded the 0.1% as PAPR level.</li> <li>4 Repeat step 1~3 at other frequency and modulations.</li> </ol>                                    |
| Test Instruments: | Refer to section 5 for details                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Test mode:        | Refer to section 3.1 for details                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Test results:     | Passed                                                                                                                                                                                                                                                                                                                                                                                                                                            |

#### Measurement Data:

Please Refer To Appendix 1: LTE RF Test data section 3

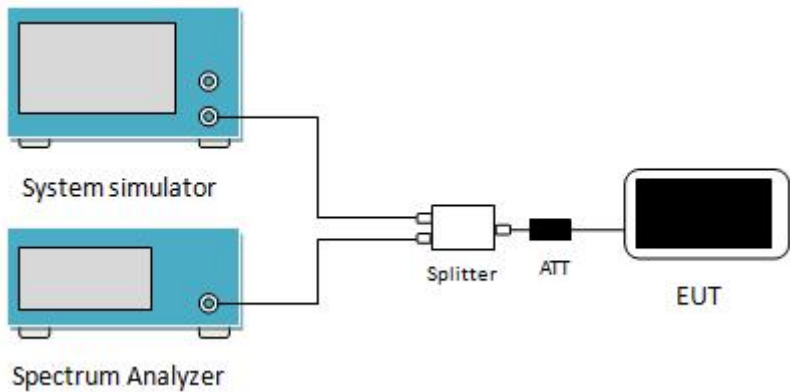
## 6.4 Occupy Bandwidth

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement: | Part 22.917(b), Part 27.53(h)                                                                                                                                                                                                                                                                                                                                                                                                 |
| Test Method:      | ANSI/TIA-603-E 2016                                                                                                                                                                                                                                                                                                                                                                                                           |
| Test Setup:       |  <p>The diagram illustrates the test setup for measuring occupied bandwidth. It shows a System simulator and a Spectrum Analyzer connected to a Splitter. The Splitter is connected to an ATT (Attenuator), which is then connected to the EUT (Equipment Under Test).</p>                                                                  |
| Test Procedure:   | <ol style="list-style-type: none"> <li>1. The EUT's output RF connector was connected with a short cable to the spectrum analyzer</li> <li>2. RBW was set to about 1% ~ 5% of emission BW, VBW= 3 times RBW.</li> <li>3. -26dBc display line was placed on the screen (or 99% bandwidth), the occupied bandwidth is the delta frequency between the two points where the display line intersects the signal trace.</li> </ol> |
| Test Instruments: | Refer to section 5 for details                                                                                                                                                                                                                                                                                                                                                                                                |
| Test mode:        | Refer to section 3.1 for details                                                                                                                                                                                                                                                                                                                                                                                              |
| Test results:     | Passed                                                                                                                                                                                                                                                                                                                                                                                                                        |

### Measurement Data:

Please Refer To Appendix 1: LTE RF Test data section 5

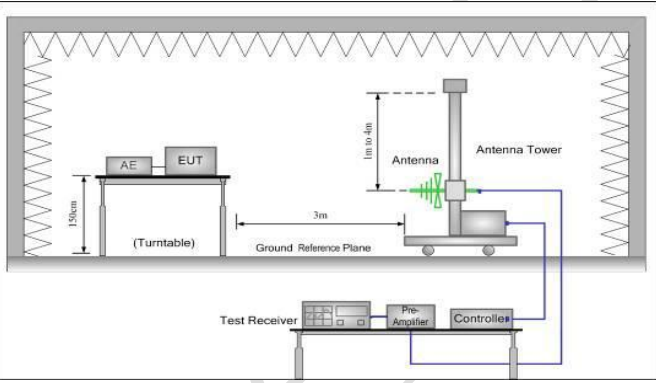
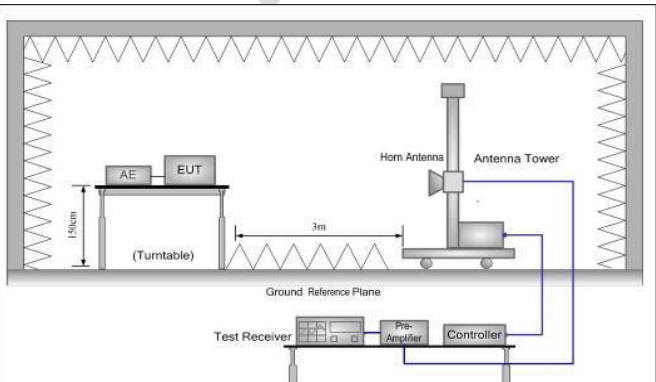
## 6.5 Out of band emission at antenna terminals,Band Edge

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement: | Part 24.238 (a), part 27.53(h)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Test Method:      | ANSI/TIA-603-E 2016                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Limit:            | <p>LTE Band4: The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least <math>43 + 10 \log_{10}(P)</math> dB (-13 dBm).</p> <p>frequencies between 5 megahertz and X megahertz from the channel edge, and <math>55 + 10 \log (P)</math> dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section.</p> <p>In addition, the attenuation factor shall not be less than <math>43 + 10 \log (P)</math> dB on all frequencies between 2490.5 MHz and 2496 MHz and <math>55 + 10 \log (P)</math> dB at or below 2490.5 MHz.</p>                                                                                               |
| Test Setup:       |  <p>The diagram shows a test setup for out-of-band emission measurement. A System simulator and a Spectrum Analyzer are connected to a Splitter. The Splitter is connected to an ATT (Attenuator) and then to the EUT (Equipment Under Test).</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Test Procedure:   | <ol style="list-style-type: none"> <li>1 The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation.</li> <li>2 The resolution bandwidth of the spectrum analyzer was set at 100 kHz when below 1GHz, 1MHz when above 1 GHz; sufficient scans were taken to show the out of band Emissions if any up to 10th harmonic.</li> <li>3 For the out of band: Set the RBW=100 kHz, VBW=300 kHz when below 1 GHz, RBW =1 MHz, VBW=3 MHz when above 1 GHz, Start=30MHz, Stop= 10th harmonic.</li> <li>4 Band Edge Requirements: In the 1 MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 1 percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to measure the out of band Emissions.</li> </ol> |
| Test Instruments: | Refer to section 5 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Test mode:        | Refer to section 3.1 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Test results:     | Passed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

### Measurement Data:

Please Refer To Appendix 1: LTE RF Test data section 1

## 6.6 ERP, EIRP Measurement

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement: | Part 22.913(a)(2), Part 27.50 (h)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Test Method:      | ANSI/TIA-603-E 2016                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Limit:            | Band2: 2W;<br>Band4:1W<br>Band5:7W<br>Band 12:30W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Test setup:       | <p><b>Below 1GHz</b></p>  <p><b>Above 1GHz</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Test Procedure:   | <ol style="list-style-type: none"> <li>1. The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer.</li> <li>2. During the measurement, the EUT was communication with the station. The highest emission was recorded with the rotation of the turntable and the lowering of the test antenna from 4m to 1m. The reading was recorded and the field strength (E in dBuV/m) was calculated.</li> <li>3. ERP in frequency band below 1GHz were measured using a substitution method. The EUT was replaced by dipole antenna connected, the S.G. output was recorded and ERP was calculated as follows:<br/> <math display="block">ERP = S.G. \text{ output (dBm) } + \text{Antenna Gain (dBd) } - \text{Cable Loss (dB)}</math> </li> <li>4. EIRP in frequency band above 1GHz were measured using a substitution method. The EUT was replaced by or horn antenna connected, the S.G. output was recorded and EIRP was calculated</li> </ol> |

|                   |                                                                                                                                                           |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | as follows:<br>$EIRP = S.G. \text{ output (dBm) + Antenna Gain (dBi) - Cable Loss (dB)}$<br>5. The worse case was relating to the conducted output power. |
| Test Instruments: | Refer to section 5 for details                                                                                                                            |
| Test mode:        | Refer to section 3.1 for details                                                                                                                          |
| Test results:     | Passed                                                                                                                                                    |

**Measurement Data:**
**LTE Band 2**

| Frequency (MHz) | UL Channel | Modulation | BW (MHz) | EUT Pol. | Antenna Pol. | EIRP(dBm) | Limit (dBm) | Result |
|-----------------|------------|------------|----------|----------|--------------|-----------|-------------|--------|
| LowestChannel   |            |            |          |          |              |           |             |        |
| 1850.70         | 18607      | QPSK       | 1.4      | H        | V            | 22.75     | 33.00       | Pass   |
|                 |            |            |          |          | H            | 22.44     |             |        |
| 1850.70         | 18607      | 16QAM      | 1.4      | H        | V            | 22.83     |             |        |
|                 |            |            |          |          | H            | 23.37     |             |        |
| Middle Channel  |            |            |          |          |              |           |             |        |
| 1880.00         | 18900      | QPSK       | 1.4      | H        | V            | 22.31     | 33.00       | Pass   |
|                 |            |            |          |          | H            | 22.34     |             |        |
| 1880.00         | 18900      | 16QAM      | 1.4      | H        | V            | 22.17     |             |        |
|                 |            |            |          |          | H            | 21.31     |             |        |
| Highest Channel |            |            |          |          |              |           |             |        |
| 1909.30         | 19193      | QPSK       | 1.4      | H        | V            | 22.33     | 33.00       | Pass   |
|                 |            |            |          |          | H            | 22.37     |             |        |
| 1909.30         | 19193      | 16QAM      | 1.4      | H        | V            | 22.59     |             |        |
|                 |            |            |          |          | H            | 21.44     |             |        |

| Frequency (MHz) | UL Channel | Modulation | BW (MHz) | EUT Pol. | Antenna Pol. | EIRP(dBm) | Limit (dBm) | Result |
|-----------------|------------|------------|----------|----------|--------------|-----------|-------------|--------|
| LowestChannel   |            |            |          |          |              |           |             |        |
| 1851.50         | 18615      | QPSK       | 3        | H        | V            | 20.19     | 33.00       | Pass   |
|                 |            |            |          |          | H            | 21.18     |             |        |
| 1851.50         | 18615      | 16QAM      | 3        | H        | V            | 21.09     |             |        |
|                 |            |            |          |          | H            | 22.18     |             |        |
| Middle Channel  |            |            |          |          |              |           |             |        |
| 1880.00         | 18900      | QPSK       | 3        | H        | V            | 22.77     | 33.00       | Pass   |
|                 |            |            |          |          | H            | 22.36     |             |        |
| 1880.00         | 18900      | 16QAM      | 3        | H        | V            | 22.01     |             |        |
|                 |            |            |          |          | H            | 22.13     |             |        |
| Highest Channel |            |            |          |          |              |           |             |        |
| 1908.50         | 19185      | QPSK       | 3        | H        | V            | 23.43     | 33.00       | Pass   |
|                 |            |            |          |          | H            | 22.13     |             |        |
| 1908.50         | 19185      | 16QAM      | 3        | H        | V            | 22.92     |             |        |
|                 |            |            |          |          | H            | 22.84     |             |        |

| Frequency (MHz) | UL Channel | Modulation | BW (MHz) | EUT Pol. | Antenna Pol. | EIRP(dBm) | Limit (dBm) | Result |
|-----------------|------------|------------|----------|----------|--------------|-----------|-------------|--------|
| LowestChannel   |            |            |          |          |              |           |             |        |
| 1852.50         | 18625      | QPSK       | 5        | H        | V            | 21.57     | 33.00       | Pass   |
|                 |            |            |          |          | H            | 21.08     |             |        |
| 1852.50         | 18625      | 16QAM      | 5        | H        | V            | 21.34     |             |        |
|                 |            |            |          |          | H            | 22.49     |             |        |
| Middle Channel  |            |            |          |          |              |           |             |        |
| 1880.00         | 18900      | QPSK       | 5        | H        | V            | 21.01     | 30.00       | Pass   |
|                 |            |            |          |          | H            | 22.71     |             |        |
| 1880.00         | 18900      | 16QAM      | 5        | H        | V            | 21.5      |             |        |
|                 |            |            |          |          | H            | 21.54     |             |        |
| Highest Channel |            |            |          |          |              |           |             |        |
| 1907.50         | 19175      | QPSK       | 5        | H        | V            | 22.53     | 33.00       | Pass   |
|                 |            |            |          |          | H            | 23.83     |             |        |
| 1907.50         | 19175      | 16QAM      | 5        | H        | V            | 21.63     |             |        |
|                 |            |            |          |          | H            | 21.87     |             |        |

| Frequency (MHz) | UL Channel | Modulation | BW (MHz) | EUT Pol. | Antenna Pol. | EIRP(dBm) | Limit (dBm) | Result |
|-----------------|------------|------------|----------|----------|--------------|-----------|-------------|--------|
| LowestChannel   |            |            |          |          |              |           |             |        |
| 1855.00         | 18650      | QPSK       | 10       | H        | V            | 22.32     | 30.00       | Pass   |
|                 |            |            |          |          | H            | 22.16     |             |        |
| 1855.00         | 18650      | 16QAM      | 10       | H        | V            | 23.98     |             |        |
|                 |            |            |          |          | H            | 21.85     |             |        |
| Middle Channel  |            |            |          |          |              |           |             |        |
| 1880.00         | 18900      | QPSK       | 10       | H        | V            | 21.28     | 33.00       | Pass   |
|                 |            |            |          |          | H            | 22.06     |             |        |
| 1880.00         | 18900      | 16QAM      | 10       | H        | V            | 21.96     |             |        |
|                 |            |            |          |          | H            | 21.91     |             |        |
| Highest Channel |            |            |          |          |              |           |             |        |
| 1905.00         | 19150      | QPSK       | 10       | H        | V            | 22.54     | 33.00       | Pass   |
|                 |            |            |          |          | H            | 21.18     |             |        |
| 1905.00         | 19150      | 16QAM      | 10       | H        | V            | 21.76     |             |        |
|                 |            |            |          |          | H            | 20.48     |             |        |

| Frequency (MHz) | UL Channel | Modulation | BW (MHz) | EUT Pol. | Antenna Pol. | EIRP(dBm) | Limit (dBm) | Result |
|-----------------|------------|------------|----------|----------|--------------|-----------|-------------|--------|
| LowestChannel   |            |            |          |          |              |           |             |        |
| 1857.50         | 18675      | QPSK       | 15       | H        | V            | 22.94     | 33.00       | Pass   |
|                 |            |            |          |          | H            | 22.94     |             |        |
| 1857.50         | 18675      | 16QAM      | 15       | H        | V            | 22.52     |             |        |
|                 |            |            |          |          | H            | 23.61     |             |        |
| Middle Channel  |            |            |          |          |              |           |             |        |
| 1880.00         | 18900      | QPSK       | 15       | H        | V            | 21.22     | 33.00       | Pass   |
|                 |            |            |          |          | H            | 21.81     |             |        |
| 1880.00         | 18900      | 16QAM      | 15       | H        | V            | 22.45     |             |        |
|                 |            |            |          |          | H            | 23.35     |             |        |
| Highest Channel |            |            |          |          |              |           |             |        |
| 1902.50         | 19125      | QPSK       | 15       | H        | V            | 22.27     | 33.00       | Pass   |
|                 |            |            |          |          | H            | 21.41     |             |        |
| 1902.50         | 19125      | 16QAM      | 15       | H        | V            | 22.17     |             |        |
|                 |            |            |          |          | H            | 22.96     |             |        |

| Frequency (MHz) | UL Channel | Modulation | BW (MHz) | EUT Pol. | Antenna Pol. | EIRP(dBm) | Limit (dBm) | Result |
|-----------------|------------|------------|----------|----------|--------------|-----------|-------------|--------|
| LowestChannel   |            |            |          |          |              |           |             |        |
| 1860.00         | 18700      | QPSK       | 20       | H        | V            | 22.74     | 33.00       | Pass   |
|                 |            |            |          |          | H            | 22.42     |             |        |
| 1860.00         | 18700      | 16QAM      | 20       | H        | V            | 22.19     |             |        |
|                 |            |            |          |          | H            | 22.68     |             |        |
| Middle Channel  |            |            |          |          |              |           |             |        |
| 1880.00         | 18900      | QPSK       | 20       | H        | V            | 22.36     | 33.00       | Pass   |
|                 |            |            |          |          | H            | 22.87     |             |        |
| 1880.00         | 18900      | 16QAM      | 20       | H        | V            | 20.22     |             |        |
|                 |            |            |          |          | H            | 22.58     |             |        |
| Highest Channel |            |            |          |          |              |           |             |        |
| 1900.00         | 19100      | QPSK       | 20       | H        | V            | 22.13     | 33.00       | Pass   |
|                 |            |            |          |          | H            | 20.72     |             |        |
| 1900.00         | 19100      | 16QAM      | 20       | H        | V            | 22.82     |             |        |
|                 |            |            |          |          | H            | 23.81     |             |        |

**LTE Band 4**

| Frequency (MHz) | UL Channel | Modulation | BW (MHz) | EUT Pol. | Antenna Pol. | EIRP(dBm) | Limit (dBm) | Result |
|-----------------|------------|------------|----------|----------|--------------|-----------|-------------|--------|
| LowestChannel   |            |            |          |          |              |           |             |        |
| 1710.70         | 19957      | QPSK       | 1.4      | H        | V            | 22.24     | 30.00       | Pass   |
|                 |            |            |          |          | H            | 21.73     |             |        |
| 1710.70         | 19957      | 16QAM      | 1.4      | H        | V            | 21.1      |             |        |
|                 |            |            |          |          | H            | 22.09     |             |        |
| Middle Channel  |            |            |          |          |              |           |             |        |
| 1732.50         | 20175      | QPSK       | 1.4      | H        | V            | 22.33     | 30.00       | Pass   |
|                 |            |            |          |          | H            | 22.49     |             |        |
| 1732.50         | 20175      | 16QAM      | 1.4      | H        | V            | 22.28     |             |        |
|                 |            |            |          |          | H            | 22.34     |             |        |
| Highest Channel |            |            |          |          |              |           |             |        |
| 1754.30         | 20393      | QPSK       | 1.4      | H        | V            | 21.09     | 30.00       | Pass   |
|                 |            |            |          |          | H            | 21.79     |             |        |
| 1754.30         | 20393      | 16QAM      | 1.4      | H        | V            | 21.17     |             |        |
|                 |            |            |          |          | H            | 22.68     |             |        |

| Frequency (MHz) | UL Channel | Modulation | BW (MHz) | EUT Pol. | Antenna Pol. | EIRP(dBm) | Limit (dBm) | Result |
|-----------------|------------|------------|----------|----------|--------------|-----------|-------------|--------|
| LowestChannel   |            |            |          |          |              |           |             |        |
| 1711.50         | 19965      | QPSK       | 3        | H        | V            | 21.94     | 30.00       | Pass   |
|                 |            |            |          |          | H            | 23.01     |             |        |
| 1711.50         | 19965      | 16QAM      | 3        | H        | V            | 22.84     |             |        |
|                 |            |            |          |          | H            | 23.81     |             |        |
| Middle Channel  |            |            |          |          |              |           |             |        |
| 1732.50         | 20175      | QPSK       | 3        | H        | V            | 22.66     | 30.00       | Pass   |
|                 |            |            |          |          | H            | 22.18     |             |        |
| 1732.50         | 20175      | 16QAM      | 3        | H        | V            | 22.29     |             |        |
|                 |            |            |          |          | H            | 21.21     |             |        |
| Highest Channel |            |            |          |          |              |           |             |        |
| 1753.50         | 20385      | QPSK       | 3        | H        | V            | 22.75     | 30.00       | Pass   |
|                 |            |            |          |          | H            | 21.05     |             |        |
| 1753.50         | 20385      | 16QAM      | 3        | H        | V            | 23.45     |             |        |
|                 |            |            |          |          | H            | 22.04     |             |        |

| Frequency (MHz) | UL Channel | Modulation | BW (MHz) | EUT Pol. | Antenna Pol. | EIRP(dBm) | Limit (dBm) | Result |
|-----------------|------------|------------|----------|----------|--------------|-----------|-------------|--------|
| LowestChannel   |            |            |          |          |              |           |             |        |
| 1712.50         | 19975      | QPSK       | 5        | H        | V            | 21.12     | 30.00       | Pass   |
|                 |            |            |          |          | H            | 22.93     |             |        |
| 1712.50         | 19975      | 16QAM      | 5        | H        | V            | 23.54     |             |        |
|                 |            |            |          |          | H            | 22.38     |             |        |
| Middle Channel  |            |            |          |          |              |           |             |        |
| 1732.50         | 20175      | QPSK       | 5        | H        | V            | 22.36     | 30.00       | Pass   |
|                 |            |            |          |          | H            | 22.17     |             |        |
| 1732.50         | 20175      | 16QAM      | 5        | H        | V            | 21.06     |             |        |
|                 |            |            |          |          | H            | 22.91     |             |        |
| Highest Channel |            |            |          |          |              |           |             |        |
| 1752.50         | 20375      | QPSK       | 5        | H        | V            | 22.39     | 30.00       | Pass   |
|                 |            |            |          |          | H            | 22.31     |             |        |
| 1752.50         | 20375      | 16QAM      | 5        | H        | V            | 22.05     |             |        |
|                 |            |            |          |          | H            | 21.81     |             |        |

| Frequency (MHz) | UL Channel | Modulation | BW (MHz) | EUT Pol. | Antenna Pol. | EIRP(dBm) | Limit (dBm) | Result |
|-----------------|------------|------------|----------|----------|--------------|-----------|-------------|--------|
| LowestChannel   |            |            |          |          |              |           |             |        |
| 1715.00         | 2000       | QPSK       | 10       | H        | V            | 21.25     | 30.00       | Pass   |
|                 |            |            |          |          | H            | 21.03     |             |        |
| 1715.00         | 2000       | 16QAM      | 10       | H        | V            | 22.29     |             |        |
|                 |            |            |          |          | H            | 20.81     |             |        |
| Middle Channel  |            |            |          |          |              |           |             |        |
| 1732.50         | 20175      | QPSK       | 10       | H        | V            | 21.78     | 30.00       | Pass   |
|                 |            |            |          |          | H            | 22.07     |             |        |
| 1732.50         | 20175      | 16QAM      | 10       | H        | V            | 22.18     |             |        |
|                 |            |            |          |          | H            | 21.06     |             |        |
| Highest Channel |            |            |          |          |              |           |             |        |
| 1750.00         | 20350      | QPSK       | 10       | H        | V            | 21.61     | 30.00       | Pass   |
|                 |            |            |          |          | H            | 21.09     |             |        |
| 1750.00         | 20350      | 16QAM      | 10       | H        | V            | 22.35     |             |        |
|                 |            |            |          |          | H            | 23.71     |             |        |

| Frequency (MHz) | UL Channel | Modulation | BW (MHz) | EUT Pol. | Antenna Pol. | EIRP(dBm) | Limit (dBm) | Result |
|-----------------|------------|------------|----------|----------|--------------|-----------|-------------|--------|
| LowestChannel   |            |            |          |          |              |           |             |        |
| 1717.50         | 20025      | QPSK       | 15       | H        | V            | 20.87     | 30.00       | Pass   |
|                 |            |            |          |          | H            | 22.57     |             |        |
| 1717.50         | 20025      | 16QAM      | 15       | H        | V            | 21.93     |             |        |
|                 |            |            |          |          | H            | 22.72     |             |        |
| Middle Channel  |            |            |          |          |              |           |             |        |
| 1732.50         | 20175      | QPSK       | 15       | H        | V            | 21.78     | 30.00       | Pass   |
|                 |            |            |          |          | H            | 22.69     |             |        |
| 1732.50         | 20175      | 16QAM      | 15       | H        | V            | 22.96     |             |        |
|                 |            |            |          |          | H            | 21.24     |             |        |
| Highest Channel |            |            |          |          |              |           |             |        |
| 1747.50         | 20325      | QPSK       | 15       | H        | V            | 21.66     | 30.00       | Pass   |
|                 |            |            |          |          | H            | 22.09     |             |        |
| 1747.50         | 20325      | 16QAM      | 15       | H        | V            | 21.63     |             |        |
|                 |            |            |          |          | H            | 20.66     |             |        |

| Frequency (MHz) | UL Channel | Modulation | BW (MHz) | EUT Pol. | Antenna Pol. | EIRP(dBm) | Limit (dBm) | Result |
|-----------------|------------|------------|----------|----------|--------------|-----------|-------------|--------|
| LowestChannel   |            |            |          |          |              |           |             |        |
| 1720.00         | 20050      | QPSK       | 20       | H        | V            | 22.39     | 30.00       | Pass   |
|                 |            |            |          |          | H            | 21.7      |             |        |
| 1720.00         | 20050      | 16QAM      | 20       | H        | V            | 22.8      |             |        |
|                 |            |            |          |          | H            | 21.44     |             |        |
| Middle Channel  |            |            |          |          |              |           |             |        |
| 1732.50         | 20175      | QPSK       | 20       | H        | V            | 22.63     | 30.00       | Pass   |
|                 |            |            |          |          | H            | 21.74     |             |        |
| 1732.50         | 20175      | 16QAM      | 20       | H        | V            | 21.45     |             |        |
|                 |            |            |          |          | H            | 21.49     |             |        |
| Highest Channel |            |            |          |          |              |           |             |        |
| 1745.00         | 20300      | QPSK       | 20       | H        | V            | 22.68     | 30.00       | Pass   |
|                 |            |            |          |          | H            | 21.18     |             |        |
| 1745.00         | 20300      | 16QAM      | 20       | H        | V            | 21.91     |             |        |
|                 |            |            |          |          | H            | 24.77     |             |        |

**LTE Band 5**

| Frequency (MHz) | UL Channel | Modulation | BW (MHz) | EUT Pol. | Antenna Pol. | ERP(dBm) | Limit (dBm) | Result |
|-----------------|------------|------------|----------|----------|--------------|----------|-------------|--------|
| LowestChannel   |            |            |          |          |              |          |             |        |
| 824.7           | 20407      | QPSK       | 1.4      | H        | V            | 22.96    | 38.45       | Pass   |
|                 |            |            |          |          | H            | 21.84    |             |        |
| 824.7           | 20407      | 16QAM      | 1.4      | H        | V            | 22.7     |             |        |
|                 |            |            |          |          | H            | 22.53    |             |        |
| Middle Channel  |            |            |          |          |              |          |             |        |
| 836.5           | 20525      | QPSK       | 1.4      | H        | V            | 22.32    | 38.45       | Pass   |
|                 |            |            |          |          | H            | 21.13    |             |        |
| 836.5           | 20525      | 16QAM      | 1.4      | H        | V            | 21.14    |             |        |
|                 |            |            |          |          | H            | 22.12    |             |        |
| Highest Channel |            |            |          |          |              |          |             |        |
| 848.3           | 20643      | QPSK       | 1.4      | H        | V            | 21.1     | 38.45       | Pass   |
|                 |            |            |          |          | H            | 22.8     |             |        |
| 848.3           | 20643      | 16QAM      | 1.4      | H        | V            | 22.45    |             |        |
|                 |            |            |          |          | H            | 21.32    |             |        |

| Frequency (MHz) | UL Channel | Modulation | BW (MHz) | EUT Pol. | Antenna Pol. | ERP(dBm) | Limit (dBm) | Result |
|-----------------|------------|------------|----------|----------|--------------|----------|-------------|--------|
| LowestChannel   |            |            |          |          |              |          |             |        |
| 825.5           | 20415      | QPSK       | 3        | H        | V            | 23.56    | 38.45       | Pass   |
|                 |            |            |          |          | H            | 21.04    |             |        |
| 825.5           | 20415      | 16QAM      | 3        | H        | V            | 22.87    |             |        |
|                 |            |            |          |          | H            | 21.96    |             |        |
| Middle Channel  |            |            |          |          |              |          |             |        |
| 836.5           | 20525      | QPSK       | 3        | H        | V            | 22.73    | 38.45       | Pass   |
|                 |            |            |          |          | H            | 22.89    |             |        |
| 836.5           | 20525      | 16QAM      | 3        | H        | V            | 21.25    |             |        |
|                 |            |            |          |          | H            | 21.98    |             |        |
| Highest Channel |            |            |          |          |              |          |             |        |
| 847.5           | 20635      | QPSK       | 3        | H        | V            | 21.33    | 38.45       | Pass   |
|                 |            |            |          |          | H            | 22.07    |             |        |
| 847.5           | 20635      | 16QAM      | 3        | H        | V            | 20.47    |             |        |
|                 |            |            |          |          | H            | 22.24    |             |        |

| Frequency (MHz) | UL Channel | Modulation | BW (MHz) | EUT Pol. | Antenna Pol. | ERP(dBm) | Limit (dBm) | Result |
|-----------------|------------|------------|----------|----------|--------------|----------|-------------|--------|
| LowestChannel   |            |            |          |          |              |          |             |        |
| 826.5           | 24025      | QPSK       | 5        | H        | V            | 22.83    | 38.45       | Pass   |
|                 |            |            |          |          | H            | 21.35    |             |        |
| 826.5           | 24025      | 16QAM      | 5        | H        | V            | 21.23    |             |        |
|                 |            |            |          |          | H            | 21.26    |             |        |
| Middle Channel  |            |            |          |          |              |          |             |        |
| 836.5           | 20525      | QPSK       | 5        | H        | V            | 20.84    | 38.45       | Pass   |
|                 |            |            |          |          | H            | 21.75    |             |        |
| 836.5           | 20525      | 16QAM      | 5        | H        | V            | 22.24    |             |        |
|                 |            |            |          |          | H            | 21.39    |             |        |
| Highest Channel |            |            |          |          |              |          |             |        |
| 846.5           | 20625      | QPSK       | 5        | H        | V            | 21.53    | 38.45       | Pass   |
|                 |            |            |          |          | H            | 22.77    |             |        |
| 846.5           | 20625      | 16QAM      | 5        | H        | V            | 21.81    |             |        |
|                 |            |            |          |          | H            | 23.57    |             |        |

| Frequency (MHz) | UL Channel | Modulation | BW (MHz) | EUT Pol. | Antenna Pol. | ERP(dBm) | Limit (dBm) | Result |
|-----------------|------------|------------|----------|----------|--------------|----------|-------------|--------|
| LowestChannel   |            |            |          |          |              |          |             |        |
| 829             | 20450      | QPSK       | 10       | H        | V            | 21.57    | 38.45       | Pass   |
|                 |            |            |          |          | H            | 22.76    |             |        |
| 829             | 20450      | 16QAM      | 10       | H        | V            | 20.45    |             |        |
|                 |            |            |          |          | H            | 22.67    |             |        |
| Middle Channel  |            |            |          |          |              |          |             |        |
| 836.5           | 20525      | QPSK       | 10       | H        | V            | 21.93    | 38.45       | Pass   |
|                 |            |            |          |          | H            | 22.21    |             |        |
| 836.5           | 20525      | 16QAM      | 10       | H        | V            | 22.36    |             |        |
|                 |            |            |          |          | H            | 21.86    |             |        |
| Highest Channel |            |            |          |          |              |          |             |        |
| 844             | 20600      | QPSK       | 10       | H        | V            | 22.66    | 38.45       | Pass   |
|                 |            |            |          |          | H            | 21.21    |             |        |
| 844             | 20600      | 16QAM      | 10       | H        | V            | 23.75    |             |        |
|                 |            |            |          |          | H            | 22.67    |             |        |

**LTE Band 12**

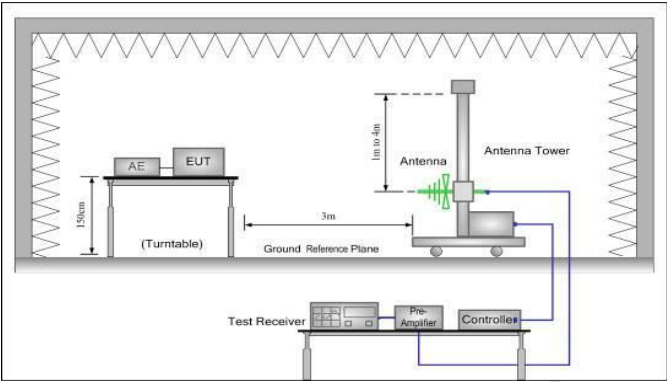
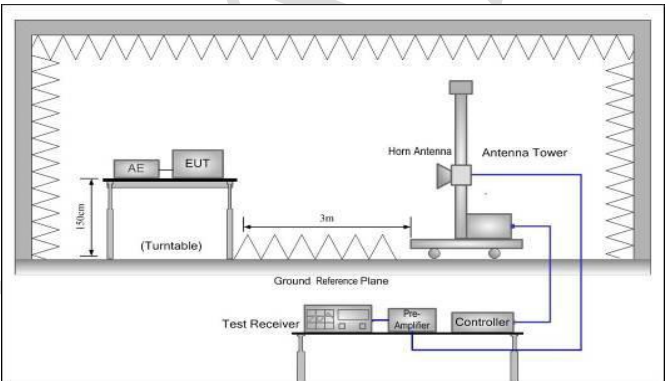
| Frequency (MHz) | UL Channel | Modulation | BW (MHz) | EUT Pol. | Antenna Pol. | ERP(dBm) | Limit (dBm) | Result |
|-----------------|------------|------------|----------|----------|--------------|----------|-------------|--------|
| Lowest Channel  |            |            |          |          |              |          |             |        |
| 699.7           | 23017      | QPSK       | 1.4      | H        | V            | 21.47    | 44.77       | Pass   |
|                 |            |            |          |          | H            | 22.69    |             |        |
| 699.7           | 23017      | 16QAM      | 1.4      | H        | V            | 21.08    |             |        |
|                 |            |            |          |          | H            | 21.08    |             |        |
| Middle Channel  |            |            |          |          |              |          |             |        |
| 707.5           | 23095      | QPSK       | 1.4      | H        | V            | 22.84    | 44.77       | Pass   |
|                 |            |            |          |          | H            | 22.5     |             |        |
| 707.5           | 23095      | 16QAM      | 1.4      | H        | V            | 21.92    |             |        |
|                 |            |            |          |          | H            | 21.1     |             |        |
| Highest Channel |            |            |          |          |              |          |             |        |
| 715.3           | 23173      | QPSK       | 1.4      | H        | V            | 22.46    | 44.77       | Pass   |
|                 |            |            |          |          | H            | 20.96    |             |        |
| 715.3           | 23173      | 16QAM      | 1.4      | H        | V            | 22.05    |             |        |
|                 |            |            |          |          | H            | 21.78    |             |        |

| Frequency (MHz) | UL Channel | Modulation | BW (MHz) | EUT Pol. | Antenna Pol. | ERP(dBm) | Limit (dBm) | Result |
|-----------------|------------|------------|----------|----------|--------------|----------|-------------|--------|
| Lowest Channel  |            |            |          |          |              |          |             |        |
| 700.5           | 23025      | QPSK       | 3        | H        | V            | 22.42    | 44.77       | Pass   |
|                 |            |            |          |          | H            | 22.93    |             |        |
| 700.5           | 23025      | 16QAM      | 3        | H        | V            | 23.20    |             |        |
|                 |            |            |          |          | H            | 22.33    |             |        |
| Middle Channel  |            |            |          |          |              |          |             |        |
| 707.5           | 23095      | QPSK       | 3        | H        | V            | 21.38    | 44.77       | Pass   |
|                 |            |            |          |          | H            | 21.88    |             |        |
| 707.5           | 23095      | 16QAM      | 3        | H        | V            | 21.12    |             |        |
|                 |            |            |          |          | H            | 21.39    |             |        |
| Highest Channel |            |            |          |          |              |          |             |        |
| 714.0           | 23165      | QPSK       | 3        | H        | V            | 22.81    | 44.77       | Pass   |
|                 |            |            |          |          | H            | 21.94    |             |        |
| 714.0           | 23165      | 16QAM      | 3        | H        | V            | 21.43    |             |        |
|                 |            |            |          |          | H            | 20.74    |             |        |

| Frequency (MHz) | UL Channel | Modulation | BW (MHz) | EUT Pol. | Antenna Pol. | ERP(dBm) | Limit (dBm) | Result |
|-----------------|------------|------------|----------|----------|--------------|----------|-------------|--------|
| LowestChannel   |            |            |          |          |              |          |             |        |
| 779.5           | 23205      | QPSK       | 5        | H        | V            | 22.91    | 44.77       | Pass   |
|                 |            |            |          |          | H            | 22.25    |             |        |
| 779.5           | 23205      | 16QAM      | 5        | H        | V            | 21.17    |             |        |
|                 |            |            |          |          | H            | 21.37    |             |        |
| Middle Channel  |            |            |          |          |              |          |             |        |
| 707.5           | 23095      | QPSK       | 5        | H        | V            | 21.64    | 44.77       | Pass   |
|                 |            |            |          |          | H            | 22.73    |             |        |
| 707.5           | 23095      | 16QAM      | 5        | H        | V            | 22.03    |             |        |
|                 |            |            |          |          | H            | 21.14    |             |        |
| Highest Channel |            |            |          |          |              |          |             |        |
| 713.5           | 23155      | QPSK       | 5        | H        | V            | 21.68    | 44.77       | Pass   |
|                 |            |            |          |          | H            | 22.6     |             |        |
| 713.5           | 23155      | 16QAM      | 5        | H        | V            | 23.25    |             |        |
|                 |            |            |          |          | H            | 23.82    |             |        |

| Frequency (MHz) | UL Channel | Modulation | BW (MHz) | EUT Pol. | Antenna Pol. | ERP(dBm) | Limit (dBm) | Result |
|-----------------|------------|------------|----------|----------|--------------|----------|-------------|--------|
| LowestChannel   |            |            |          |          |              |          |             |        |
| 704             | 23060      | QPSK       | 10       | H        | V            | 22.79    | 44.77       | Pass   |
|                 |            |            |          |          | H            | 22.41    |             |        |
| 704             | 23060      | 16QAM      | 10       | H        | V            | 21.91    |             |        |
|                 |            |            |          |          | H            | 22.02    |             |        |
| Middle Channel  |            |            |          |          |              |          |             |        |
| 707.5           | 23095      | QPSK       | 10       | H        | V            | 22.71    | 44.77       | Pass   |
|                 |            |            |          |          | H            | 22.03    |             |        |
| 707.5           | 23095      | 16QAM      | 10       | H        | V            | 21.42    |             |        |
|                 |            |            |          |          | H            | 21.61    |             |        |
| Highest Channel |            |            |          |          |              |          |             |        |
| 711             | 23130      | QPSK       | 10       | H        | V            | 20.20    | 44.77       | Pass   |
|                 |            |            |          |          | H            | 20.99    |             |        |
| 711             | 23130      | 16QAM      | 10       | H        | V            | 21.41    |             |        |
|                 |            |            |          |          | H            | 21.83    |             |        |

## 6.7 Spurious Emissions at Antenna Terminal

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement: | Part 24.238 (a),Part 27.53(h)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Test Method:      | ANSI/TIA-603-E 2016                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Limit:            | LTE Band 2/4/5/12: <-13dBm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Test setup:       | <p>Below 1GHz</p>  <p>Above 1GHz</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Test Procedure:   | <ol style="list-style-type: none"> <li>1. The EUT was placed on an non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer.</li> <li>2. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.</li> <li>3. The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). Once spurious emission was identified, the power of the emission was determined using the substitution method.</li> <li>4. The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency.<br/> <math display="block">ERP / EIRP = S.G. \text{ output (dBm)} + \text{Antenna Gain(dB/dBi)} - \text{Cable Loss (dB)}</math> </li> </ol> |
| Test Instruments: | Refer to section 5 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Test mode:        | Refer to section 3.1 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

Test results:

Passed

**Measurement Data:**

| LTE Band 2 / 1.4 MHz / RB size 1 & RB offset 0 |                   |             |             |        |
|------------------------------------------------|-------------------|-------------|-------------|--------|
| Frequency (MHz)                                | Spurious Emission |             | Limit (dBm) | Result |
|                                                | Polarization      | Level (dBm) |             |        |
| Lowest                                         |                   |             |             |        |
| 2701.4                                         | Vertical          | -41.03      | -13.00      | Pass   |
| 5552.1                                         | V                 | -42.12      |             |        |
| 2701.4                                         | Horizontal        | -40.05      |             |        |
| 5552.1                                         | H                 | -40.9       |             |        |
| Middle                                         |                   |             |             |        |
| 3760                                           | Vertical          | -40.11      | -13.00      | Pass   |
| 5640                                           | V                 | -42.01      |             |        |
| 3760                                           | Horizontal        | -41.37      |             |        |
| 5640                                           | H                 | -40.21      |             |        |
| Highest                                        |                   |             |             |        |
| 3818.6                                         | Vertical          | -41.34      | -13.00      | Pass   |
| 5727.9                                         | V                 | -41.59      |             |        |
| 3818.6                                         | Horizontal        | -42         |             |        |
| 5727.9                                         | H                 | -40.46      |             |        |

Note:

1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.

| LTE Band 2 / 20 MHz / RB size 1 & RB offset 0 |                   |             |             |        |
|-----------------------------------------------|-------------------|-------------|-------------|--------|
| Frequency (MHz)                               | Spurious Emission |             | Limit (dBm) | Result |
|                                               | Polarization      | Level (dBm) |             |        |
| Lowest                                        |                   |             |             |        |
| 3720                                          | Vertical          | -41.1       | -13.00      | Pass   |
| 5580                                          | V                 | -40.31      |             |        |
| 3720                                          | Horizontal        | -40.87      |             |        |
| 5580                                          | H                 | -41.55      |             |        |
| Middle                                        |                   |             |             |        |
| 3760                                          | Vertical          | -40.56      | -13.00      | Pass   |
| 5640                                          | V                 | -42.14      |             |        |
| 3760                                          | Horizontal        | -40.93      |             |        |
| 5640                                          | H                 | -42.43      |             |        |
| Highest                                       |                   |             |             |        |
| 3800                                          | Vertical          | -40.03      | -13.00      | Pass   |
| 5700                                          | V                 | -40.91      |             |        |
| 3800                                          | Horizontal        | -41.88      |             |        |
| 5700                                          | H                 | -41.6       |             |        |

Note:

1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.

| LTE Band 4 / 1.4 MHz / RB size 1 & RB offset 0 |                   |             |             |        |
|------------------------------------------------|-------------------|-------------|-------------|--------|
| Frequency (MHz)                                | Spurious Emission |             | Limit (dBm) | Result |
|                                                | Polarization      | Level (dBm) |             |        |
| Lowest                                         |                   |             |             |        |
| 3421.40                                        | Vertical          | -41.54      | -13.00      | Pass   |
| 5132.10                                        | V                 | -42.79      |             |        |
| 3421.40                                        | Horizontal        | -40.1       |             |        |
| 5132.10                                        | H                 | -42.15      |             |        |
| Middle                                         |                   |             |             |        |
| 3465.00                                        | Vertical          | -42.03      | -13.00      | Pass   |
| 5197.50                                        | V                 | -42.91      |             |        |
| 3465.00                                        | Horizontal        | -41.53      |             |        |
| 5197.50                                        | H                 | -40.33      |             |        |
| Highest                                        |                   |             |             |        |
| 3508.60                                        | Vertical          | -40.41      | -13.00      | Pass   |
| 5262.90                                        | V                 | -41.18      |             |        |
| 3508.60                                        | Horizontal        | -40.23      |             |        |
| 5262.90                                        | H                 | -41.15      |             |        |

Note:

1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.

| LTE Band 4 / 20 MHz / RB size 1 & RB offset 0 |                   |             |             |        |
|-----------------------------------------------|-------------------|-------------|-------------|--------|
| Frequency (MHz)                               | Spurious Emission |             | Limit (dBm) | Result |
|                                               | Polarization      | Level (dBm) |             |        |
| Lowest                                        |                   |             |             |        |
| 3440.00                                       | Vertical          | -41.35      | -13.00      | Pass   |
| 5160.00                                       | V                 | -42.59      |             |        |
| 3440.00                                       | Horizontal        | -42.36      |             |        |
| 5160.00                                       | H                 | -41.19      |             |        |
| Middle                                        |                   |             |             |        |
| 3465.00                                       | Vertical          | -41.36      | -13.00      | Pass   |
| 5197.50                                       | V                 | -41.21      |             |        |
| 3465.00                                       | Horizontal        | -42.84      |             |        |
| 5197.50                                       | H                 | -41.6       |             |        |
| Highest                                       |                   |             |             |        |
| 3490.00                                       | Vertical          | -41.05      | -13.00      | Pass   |
| 5235.00                                       | V                 | -42.67      |             |        |
| 3490.00                                       | Horizontal        | -41.19      |             |        |
| 5235.00                                       | H                 | -41.82      |             |        |

Note:

1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.

| LTE Band 5/ 1.4 MHz / RB size 1 & RB offset 0 |                   |             |             |        |
|-----------------------------------------------|-------------------|-------------|-------------|--------|
| Frequency (MHz)                               | Spurious Emission |             | Limit (dBm) | Result |
|                                               | Polarization      | Level (dBm) |             |        |
| Lowest                                        |                   |             |             |        |
| 1649.7                                        | Vertical          | -41.34      | -13.00      | Pass   |
| 2474.1                                        | V                 | -41.15      |             |        |
| 1649.7                                        | Horizontal        | -42.44      |             |        |
| 2474.1                                        | H                 | -42.37      |             |        |
| Middle                                        |                   |             |             |        |
| 1673.0                                        | Vertical          | -41.15      | -13.00      | Pass   |
| 2509.5                                        | V                 | -42.01      |             |        |
| 1673.0                                        | Horizontal        | -41.2       |             |        |
| 2509.5                                        | H                 | -43         |             |        |
| Highest                                       |                   |             |             |        |
| 1696.6                                        | Vertical          | -41.11      | -13.00      | Pass   |
| 2544.9                                        | V                 | -41.97      |             |        |
| 1696.6                                        | Horizontal        | -41.76      |             |        |
| 2544.9                                        | H                 | -42.78      |             |        |

Note:

1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.

| LTE Band 5 / 10 MHz / RB size 1 & RB offset 0 |                   |             |             |        |
|-----------------------------------------------|-------------------|-------------|-------------|--------|
| Frequency (MHz)                               | Spurious Emission |             | Limit (dBm) | Result |
|                                               | Polarization      | Level (dBm) |             |        |
| Lowest                                        |                   |             |             |        |
| 1658                                          | Vertical          | -41.52      | -13.00      | Pass   |
| 2487                                          | V                 | -41.94      |             |        |
| 1658                                          | Horizontal        | -42.69      |             |        |
| 2487                                          | H                 | -41.5       |             |        |
| Middle                                        |                   |             |             |        |
| 1673.0                                        | Vertical          | -41.99      | -13.00      | Pass   |
| 2509.5                                        | V                 | -41.08      |             |        |
| 1673.0                                        | Horizontal        | -42.05      |             |        |
| 2509.5                                        | H                 | -41.35      |             |        |
| Highest                                       |                   |             |             |        |
| 1688                                          | Vertical          | -41.88      | -13.00      | Pass   |
| 2532                                          | V                 | -42.94      |             |        |
| 1688                                          | Horizontal        | -41.25      |             |        |
| 2532                                          | H                 | -42.68      |             |        |

Note:

1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.
2. For above 1 GHz, all test modes were performed, and just the worst case shown in the report.

| LTE Band 12 / 1.4 MHz / RB size 1 & RB offset 0 |                   |             |             |        |
|-------------------------------------------------|-------------------|-------------|-------------|--------|
| Frequency (MHz)                                 | Spurious Emission |             | Limit (dBm) | Result |
|                                                 | Polarization      | Level (dBm) |             |        |
| Lowest                                          |                   |             |             |        |
| 1399.4                                          | Vertical          | -42.25      | -13.00      | Pass   |
| 2099.1                                          | V                 | -42.13      |             |        |
| 1399.4                                          | Horizontal        | -41.49      |             |        |
| 2099.1                                          | H                 | -41.68      |             |        |
| Middle                                          |                   |             |             |        |
| 1415                                            | Vertical          | -42.67      | -13.00      | Pass   |
| 2122.5                                          | V                 | -42.82      |             |        |
| 1415                                            | Horizontal        | -41.81      |             |        |
| 2122.5                                          | H                 | -42.75      |             |        |
| Highest                                         |                   |             |             |        |
| 1430.6                                          | Vertical          | -41.1       | -13.00      | Pass   |
| 2145.9                                          | V                 | -41.45      |             |        |
| 1430.6                                          | Horizontal        | -42.59      |             |        |
| 2145.9                                          | H                 | -42.74      |             |        |

Note:

1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.
- 2 For above 1 GHz, all test modes were performed, and just the worst case shown in the report.

| LTE Band 12 / 10 MHz / RB size 1 & RB offset 0 |                   |             |             |        |
|------------------------------------------------|-------------------|-------------|-------------|--------|
| Frequency (MHz)                                | Spurious Emission |             | Limit (dBm) | Result |
|                                                | Polarization      | Level (dBm) |             |        |
| Lowest                                         |                   |             |             |        |
| 1408                                           | Vertical          | -42.47      | -13.00      | Pass   |
| 2112                                           | V                 | -41.02      |             |        |
| 1408                                           | Horizontal        | -42.68      |             |        |
| 2112                                           | H                 | -41.27      |             |        |
| Middle                                         |                   |             |             |        |
| 1415                                           | Vertical          | -42.93      | -13.00      | Pass   |
| 2122.5                                         | V                 | -42.45      |             |        |
| 1415                                           | Horizontal        | -41.25      |             |        |
| 2122.5                                         | H                 | -42.42      |             |        |
| Highest                                        |                   |             |             |        |
| 1422                                           | Vertical          | -42.67      | -13.00      | Pass   |
| 2133                                           | V                 | -41.76      |             |        |
| 1422                                           | Horizontal        | -42.95      |             |        |
| 2133                                           | H                 | -41.76      |             |        |

Note:

- 1 The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.
- 2 For above 1 GHz, all test modes were performed, and just the worst case shown in the report.

**Series model:**

| LTE Band 2 / 1.4 MHz / RB size 1 & RB offset 0 |                   |             |             |        |
|------------------------------------------------|-------------------|-------------|-------------|--------|
| Frequency (MHz)                                | Spurious Emission |             | Limit (dBm) | Result |
|                                                | Polarization      | Level (dBm) |             |        |
| Lowest                                         |                   |             |             |        |
| 2701.4                                         | Vertical          | -40.68      | -13.00      | Pass   |
| 5552.1                                         | V                 | -40.88      |             |        |
| 2701.4                                         | Horizontal        | -40.71      |             |        |
| 5552.1                                         | H                 | -40.63      |             |        |
| Middle                                         |                   |             |             |        |
| 3760                                           | Vertical          | -40.53      | -13.00      | Pass   |
| 5640                                           | V                 | -40.9       |             |        |
| 3760                                           | Horizontal        | -40.82      |             |        |
| 5640                                           | H                 | -40.51      |             |        |
| Highest                                        |                   |             |             |        |
| 3818.6                                         | Vertical          | -40.87      | -13.00      | Pass   |
| 5727.9                                         | V                 | -40.74      |             |        |
| 3818.6                                         | Horizontal        | -40.67      |             |        |
| 5727.9                                         | H                 | -40.68      |             |        |

**Note:**

- The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.
- For above 1 GHz, all test modes were performed, and just the worst case shown in the report.

| LTE Band 2 / 20 MHz / RB size 1 & RB offset 0 |                   |             |             |        |
|-----------------------------------------------|-------------------|-------------|-------------|--------|
| Frequency (MHz)                               | Spurious Emission |             | Limit (dBm) | Result |
|                                               | Polarization      | Level (dBm) |             |        |
| Lowest                                        |                   |             |             |        |
| 3720                                          | Vertical          | -40.82      | -13.00      | Pass   |
| 5580                                          | V                 | -40.85      |             |        |
| 3720                                          | Horizontal        | -40.60      |             |        |
| 5580                                          | H                 | -40.69      |             |        |
| Middle                                        |                   |             |             |        |
| 3760                                          | Vertical          | -40.96      | -13.00      | Pass   |
| 5640                                          | V                 | -40.98      |             |        |
| 3760                                          | Horizontal        | -40.78      |             |        |
| 5640                                          | H                 | -40.88      |             |        |
| Highest                                       |                   |             |             |        |
| 3800                                          | Vertical          | -40.78      | -13.00      | Pass   |
| 5700                                          | V                 | -40.73      |             |        |
| 3800                                          | Horizontal        | -40.51      |             |        |
| 5700                                          | H                 | -40.93      |             |        |

**Note:**

- The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.
- For above 1 GHz, all test modes were performed, and just the worst case shown in the report.

| LTE Band 4 / 1.4 MHz / RB size 1 & RB offset 0 |                   |             |             |        |
|------------------------------------------------|-------------------|-------------|-------------|--------|
| Frequency (MHz)                                | Spurious Emission |             | Limit (dBm) | Result |
|                                                | Polarization      | Level (dBm) |             |        |
| Lowest                                         |                   |             |             |        |
| 3421.40                                        | Vertical          | -40.74      | -13.00      | Pass   |
| 5132.10                                        | V                 | -40.87      |             |        |
| 3421.40                                        | Horizontal        | -40.73      |             |        |
| 5132.10                                        | H                 | -40.97      |             |        |
| Middle                                         |                   |             |             |        |
| 3465.00                                        | Vertical          | -40.81      | -13.00      | Pass   |
| 5197.50                                        | V                 | -40.61      |             |        |
| 3465.00                                        | Horizontal        | -40.83      |             |        |
| 5197.50                                        | H                 | -40.98      |             |        |
| Highest                                        |                   |             |             |        |
| 3508.60                                        | Vertical          | -40.80      | -13.00      | Pass   |
| 5262.90                                        | V                 | -40.82      |             |        |
| 3508.60                                        | Horizontal        | -40.87      |             |        |
| 5262.90                                        | H                 | -40.82      |             |        |

Note:

- The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.
- For above 1 GHz, all test modes were performed, and just the worst case shown in the report.

| LTE Band 4 / 20 MHz / RB size 1 & RB offset 0 |                   |             |             |        |
|-----------------------------------------------|-------------------|-------------|-------------|--------|
| Frequency (MHz)                               | Spurious Emission |             | Limit (dBm) | Result |
|                                               | Polarization      | Level (dBm) |             |        |
| Lowest                                        |                   |             |             |        |
| 3440.00                                       | Vertical          | -40.75      | -13.00      | Pass   |
| 5160.00                                       | V                 | -40.68      |             |        |
| 3440.00                                       | Horizontal        | -40.89      |             |        |
| 5160.00                                       | H                 | -40.89      |             |        |
| Middle                                        |                   |             |             |        |
| 3465.00                                       | Vertical          | -40.92      | -13.00      | Pass   |
| 5197.50                                       | V                 | -40.75      |             |        |
| 3465.00                                       | Horizontal        | -40.97      |             |        |
| 5197.50                                       | H                 | -40.72      |             |        |
| Highest                                       |                   |             |             |        |
| 3490.00                                       | Vertical          | -40.71      | -13.00      | Pass   |
| 5235.00                                       | V                 | -40.68      |             |        |
| 3490.00                                       | Horizontal        | -40.97      |             |        |
| 5235.00                                       | H                 | -40.53      |             |        |

Note:

- The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.
- For above 1 GHz, all test modes were performed, and just the worst case shown in the report.

| LTE Band 5/ 1.4 MHz / RB size 1 & RB offset 0 |                   |             |             |        |
|-----------------------------------------------|-------------------|-------------|-------------|--------|
| Frequency (MHz)                               | Spurious Emission |             | Limit (dBm) | Result |
|                                               | Polarization      | Level (dBm) |             |        |
| Lowest                                        |                   |             |             |        |
| 1649.7                                        | Vertical          | -41.34      | -13.00      | Pass   |
| 2474.1                                        | V                 | -41.15      |             |        |
| 1649.7                                        | Horizontal        | -42.44      |             |        |
| 2474.1                                        | H                 | -42.37      |             |        |
| Middle                                        |                   |             |             |        |
| 1673.0                                        | Vertical          | -41.27      | -13.00      | Pass   |
| 2509.5                                        | V                 | -41.28      |             |        |
| 1673.0                                        | Horizontal        | -41         |             |        |
| 2509.5                                        | H                 | -40.3       |             |        |
| Highest                                       |                   |             |             |        |
| 1696.6                                        | Vertical          | -41.39      | -13.00      | Pass   |
| 2544.9                                        | V                 | -39.8       |             |        |
| 1696.6                                        | Horizontal        | -40.44      |             |        |
| 2544.9                                        | H                 | -40.14      |             |        |

Note:

- The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.
- For above 1 GHz, all test modes were performed, and just the worst case shown in the report.

| LTE Band 5 / 10 MHz / RB size 1 & RB offset 0 |                   |             |             |        |
|-----------------------------------------------|-------------------|-------------|-------------|--------|
| Frequency (MHz)                               | Spurious Emission |             | Limit (dBm) | Result |
|                                               | Polarization      | Level (dBm) |             |        |
| Lowest                                        |                   |             |             |        |
| 1658                                          | Vertical          | -41.15      | -13.00      | Pass   |
| 2487                                          | V                 | -40.9       |             |        |
| 1658                                          | Horizontal        | -40.39      |             |        |
| 2487                                          | H                 | -39.57      |             |        |
| Middle                                        |                   |             |             |        |
| 1673.0                                        | Vertical          | -40.07      | -13.00      | Pass   |
| 2509.5                                        | V                 | -40.49      |             |        |
| 1673.0                                        | Horizontal        | -40.42      |             |        |
| 2509.5                                        | H                 | -40.58      |             |        |
| Highest                                       |                   |             |             |        |
| 1688                                          | Vertical          | -40.26      | -13.00      | Pass   |
| 2532                                          | V                 | -40.07      |             |        |
| 1688                                          | Horizontal        | -40.57      |             |        |
| 2532                                          | H                 | -41.09      |             |        |

Note:

- The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.
- For above 1 GHz, all test modes were performed, and just the worst case shown in the report.

| LTE Band 12 / 1.4 MHz / RB size 1 & RB offset 0 |                   |             |             |        |
|-------------------------------------------------|-------------------|-------------|-------------|--------|
| Frequency (MHz)                                 | Spurious Emission |             | Limit (dBm) | Result |
|                                                 | Polarization      | Level (dBm) |             |        |
| Lowest                                          |                   |             |             |        |
| 1399.4                                          | Vertical          | -39.92      | -13.00      | Pass   |
| 2099.1                                          | V                 | -39.98      |             |        |
| 1399.4                                          | Horizontal        | -40.29      |             |        |
| 2099.1                                          | H                 | -40.13      |             |        |
| Middle                                          |                   |             |             |        |
| 1415                                            | Vertical          | -40.95      | -13.00      | Pass   |
| 2122.5                                          | V                 | -40.96      |             |        |
| 1415                                            | Horizontal        | -39.55      |             |        |
| 2122.5                                          | H                 | -41.03      |             |        |
| Highest                                         |                   |             |             |        |
| 1430.6                                          | Vertical          | -40.11      | -13.00      | Pass   |
| 2145.9                                          | V                 | -39.98      |             |        |
| 1430.6                                          | Horizontal        | -40.97      |             |        |
| 2145.9                                          | H                 | -39.73      |             |        |

Note:

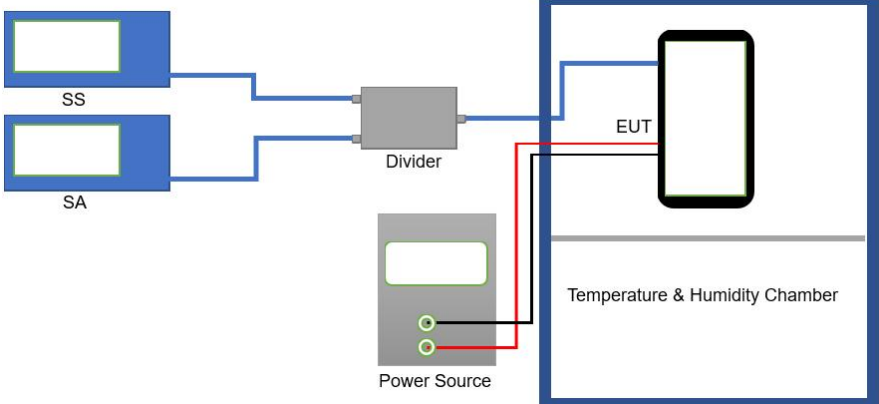
1. The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.
- 2 For above 1 GHz, all test modes were performed, and just the worst case shown in the report.

| LTE Band 12 / 10 MHz / RB size 1 & RB offset 0 |                   |             |             |        |
|------------------------------------------------|-------------------|-------------|-------------|--------|
| Frequency (MHz)                                | Spurious Emission |             | Limit (dBm) | Result |
|                                                | Polarization      | Level (dBm) |             |        |
| Lowest                                         |                   |             |             |        |
| 1408                                           | Vertical          | -40.44      | -13.00      | Pass   |
| 2112                                           | V                 | -40.97      |             |        |
| 1408                                           | Horizontal        | -40.42      |             |        |
| 2112                                           | H                 | -41.2       |             |        |
| Middle                                         |                   |             |             |        |
| 1415                                           | Vertical          | -40.48      | -13.00      | Pass   |
| 2122.5                                         | V                 | -41.04      |             |        |
| 1415                                           | Horizontal        | -39.9       |             |        |
| 2122.5                                         | H                 | -40.65      |             |        |
| Highest                                        |                   |             |             |        |
| 1422                                           | Vertical          | -40.48      | -13.00      | Pass   |
| 2133                                           | V                 | -41.04      |             |        |
| 1422                                           | Horizontal        | -39.9       |             |        |
| 2133                                           | H                 | -40.65      |             |        |

Note:

- 1 The emission levels of below 1 GHz are 20 dB lower than the limit so not show in this report.
- 2 For above 1 GHz, all test modes were performed, and just the worst case shown in the report.

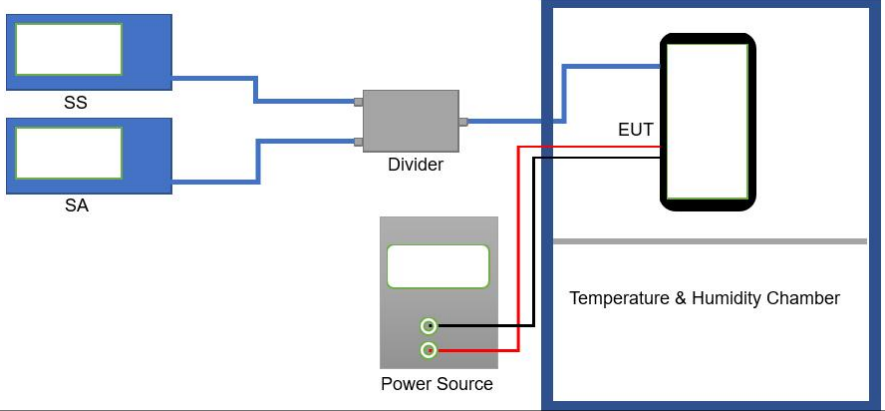
## 6.8 Frequency stability V.S. Temperature measurement

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement: | Part 22.355, Part 24.235, Part 27.54, Part 2.1055(a)(1)(b)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Test Method:      | ANSI/TIA-603-E 2016                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Limit:            | $\pm 2.5\text{ppm}$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Test setup:       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Test procedure:   | <ol style="list-style-type: none"> <li>1. The equipment under test was connected to an external DC power supply and input rated voltage.</li> <li>2. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators.</li> <li>3. The EUT was placed inside the temperature chamber.</li> <li>4. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25°C operating frequency as reference frequency.</li> <li>5. Turn EUT off and set the chamber temperature to -30 °C . After the temperature stabilized for approximately 30 minutes recorded the frequency.</li> <li>6. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached</li> </ol> |
| Test Instruments: | Refer to section 5 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Test mode:        | Refer to section 3.1 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Test results:     | Passed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

### Measurement Data:

Please Refer To Appendix 1: LTE RF Test data section 4

## 6.9 Frequency stability V.S. Voltage measurement

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement: | Part 22.355, Part 24.235, Part 27.54, Part 2.1055(d)(2)                                                                                                                                                                                                                                                                                                                                                                                        |
| Test Method:      | ANSI/TIA-603-E 2016                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Limit:            | $\pm 2.5\text{ppm}$                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Test setup:       |                                                                                                                                                                                                                                                                                                                                                              |
| Test procedure:   | <ol style="list-style-type: none"> <li>1. Set chamber temperature to 25°C. Use a variable DC power source to power the EUT and set the voltage to rated voltage.</li> <li>2. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.</li> <li>3. Reduce the input voltage to specify extreme voltage variation (+/- 15%) and endpoint, record the maximum frequency change.</li> </ol> |
| Test Instruments: | Refer to section 5 for details                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Test mode:        | Refer to section 3.1 for details                                                                                                                                                                                                                                                                                                                                                                                                               |
| Test results:     | Passed                                                                                                                                                                                                                                                                                                                                                                                                                                         |

### Measurement Data:

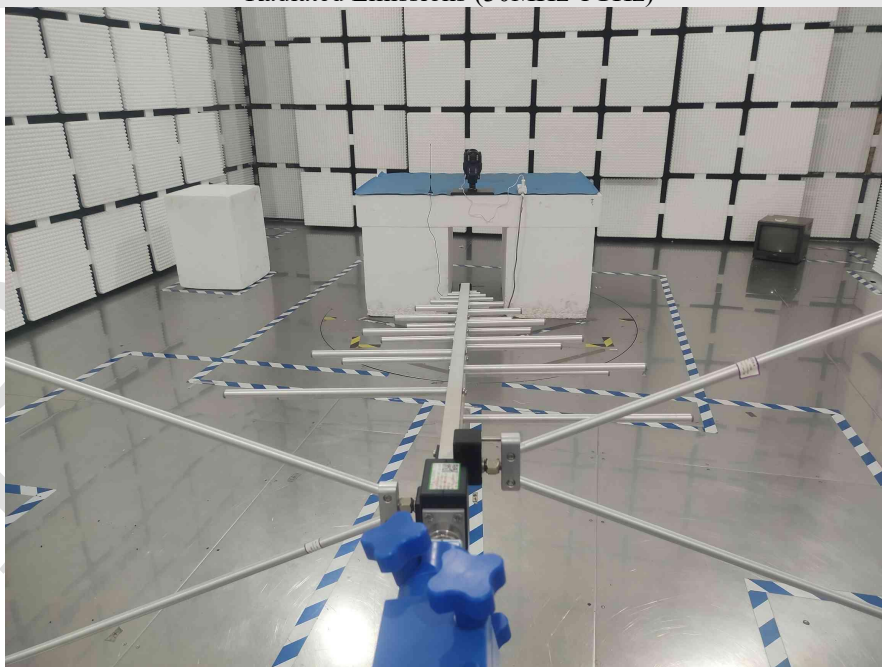
Please Refer To Appendix 1: LTE RF Test data section 4

## 7 Test Setup Photo

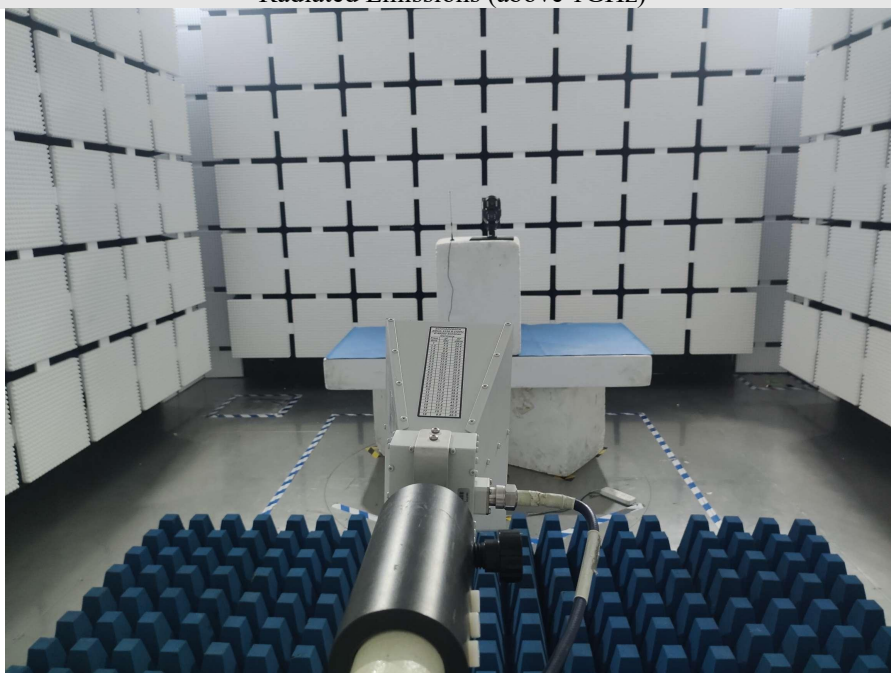
Conducted Emissions at Mains Terminals (150 kHz-30MHz)



Radiated Emissions (30MHz-1GHz)



Radiated Emissions (above 1GHz)



## 8 EUT Constructional Details

Reference to the test report No. BLA-EMC-202409-A7301

-----End of report-----

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