# FCC Co-Location Test Report

| | | |
|---|---|---|
| **FCC ID** | : | **2AQ68-GME840U-915U** |
| **Equipment** | : | **Wireless Gateway** |
| **Model No.** | : | **GME840U-915U** |
| **Multiple Listing** | : | **Refer to item 1.1.1 for more details.** |
| **Applicant** | : | **HON LIN TECHNOLOGY CO., LTD.** |
| **Address** | : | **11F, No.32, Jihu Rd., Neihu Dist., Taipei City,Taiwan 114** |
| **Standard** | : | **47 CFR FCC Part 15.247** |
| **Received Date** | : | **Sep. 04, 2020** |
| **Tested Date** | : | **Oct. 21 ~ Oct. 28, 2020** |

**We, International Certification Corp., would like to declare that the tested sample has been evaluated and in compliance with the requirement of the above standards. The test results contained in this report refer exclusively to the product. It may be duplicated completely for legal use with the approval of the applicant. It shall not be reproduced except in full without the written approval of our laboratory.**

**Reviewed by:** **Approved by:**

**Along Chen / Assistant Manager** **Gary Chang / Manager**

Testing Laboratory 2732

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# Release Record

| Report No. | Version | Description | Issued Date |
|---|---|---|---|
| FR970401-04CO | Rev. 01 | Initial issue | Nov. 10, 2020 |

# Summary of Test Results

| Test Items | Measured | Result |
|---|---|---|
| Radiated Emissions | [dBuV/m at 3m]: 1378.27MHz<br>-41.87 (Margin -1.87dB) | Pass |

| **Declaration of Conformity:** |
|---|
| The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers. |
| **Comments and Explanations:** |
| The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification. |

# 1 General Description

## 1.1 Information

### 1.1.1 Product Details

The following models are provided to this EUT.

| Model Name | Description | Remark |
|---|---|---|
| GME840U-915U | without LTE function | PCB is identical to each model. Difference between both models is only certified LTE module (FCC ID: ZMOL850GL) is embed or not. |
| GML840U-915U | with LTE function | |

### 1.1.2 Specification of the Equipment under Test (EUT)

| **WLAN** | |
|---|---|
| **Operating Frequency** | 802.11b/g/n: 2412 MHz ~ 2462 MHz |
| **Antenna Type** | PIFA antenna |
| **Modulation Type** | 802.11b: DSSS (DBPSK/DQPSK/CCK)<br>802.11g/n: OFDM (BPSK/QPSK/16QAM/64QAM) |
| **LoRa** | |
| **Operating Frequency** | 923.3 MHz ~ 927.5 MHz |
| **Antenna Type** | Dipole antenna |
| **Modulation Type** | CSS |

### 1.1.3 Specification of Certified LTE module (FCC ID: ZMOL850GL)

| **LTE** | |
|---|---|
| **Operating Frequency** | Band 02: 1850 MHz – 1910 MHz<br>Band 04: 1710 MHz – 1755 MHz<br>Band 05: 824 MHz – 849 MHz<br>Band 12: 699 MHz – 716 MHz<br>Band 13: 777 MHz – 787 MHz<br>Band 17: 704 MHz – 716 MHz<br>Band 26: 814 MHz – 849 MHz<br>Band 30: 2305 MHz – 2315 MHz<br>Band 66: 1710 MHz – 1780 MHz<br>Band 41: 2496 MHz – 2690 MHz |
| **Modulation Type** | DL:QPSK/16QAM/64QAM, UL:QPSK/16QAM |
| **WCDMA** | |
| **Operating Frequency** | WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz<br>WCDMA Band IV: 1712.4 MHz ~ 1752.6 MHz<br>WCDMA Band V: 826.4 MHz ~ 846.6 MHz |
| **Modulation Type** | DL:QPSK/16QAM/64QAM (DC-HSDPA), UL:QPSK (HSUPA) |

### 1.1.4 Antenna Details

Wi-Fi

| Ant. No. | Model | Type | Connector | Gain (dBi) |
|---|---|---|---|---|
| 1 | ANTP2M2-CZZ08-EH | PIFA | IPEX | 2.75 |

Lora

| Ant. No. | Brand | Model | Type | Connector | Gain (dBi) | Jumper cable |
|---|---|---|---|---|---|---|
| 1 | WHA YU | C107-511326-A | Dipole | N-type plug standard | -0.79 | X |
| 2 | WHA YU | C107-511380-A | Dipole | N-type plug standard | 2.88 | X |
| 3 | WHA YU | C107-821521-A | Dipole | N-type Jack standard | 1.17 | O |
| 4 | WHA YU | C107-821527-A | Dipole | N-type Jack female | 7.04 | O |
| 5 | TESSWAVE | TOF-900R-8V | Dipole | N-type Jack female | 6.5 | O |

LTE / WCDMA

| Ant. No. | Model | Type | Connector | Gain (dBi) | Frequency band |
|---|---|---|---|---|---|
| 1 | C107-511326-A | Dipole | N type | -0.05 | 1850 MHz – 1910 MHz |
| | | | | 0.34 | 1710 MHz – 1755 MHz |
| | | | | -0.4 | 824 MHz – 849 MHz |
| | | | | -0.02 | 699 MHz – 716 MHz |
| | | | | 0.09 | 777 MHz – 787 MHz |
| | | | | -0.02 | 704 MHz – 716 MHz |
| | | | | -0.4 | 814 MHz – 849 MHz |
| | | | | 2.44 | 2305 MHz – 2315 MHz |
| | | | | 0.34 | 1710 MHz – 1780 MHz |
| | | | | 1.99 | 2496 MHz – 2690 MHz |

### 1.1.5 Power Supply Type of Equipment under Test (EUT)

| | |
|---|---|
| **Power Supply Type 1 (PoE)** | I/P: 100-240Vac, 50/60Hz, 1.5A max.<br>O/P: 50Vdc, 1.2A |
| **Power Supply Type 2 (DC power source)** | I/P: 11-57Vdc<br>O/P: 10.8Vdc, 2.36A |

### 1.1.6 Accessories

| Accessories | | |
|---|---|---|
| **No.** | **Equipment** | **Description** |
| 1 | POE | Brand: Gospell<br>Model: G0566-500-120<br>Power Rating:<br>I/P: 100-240Vac, 50/60Hz, 1.5A max.<br>O/P: 50Vdc, 1.2A<br>Power Line: 0.67m non-shielded without core |
| 2 | Ground cable | 1m non-shielded without core |
| 3 | Jumper cable for Lora | 0.609m non-shielded without core |
| 4 | GPS Antenna | Brand: INPAQ<br>Model: GPSGLONASS08H-S6-1510 |

## 1.2 The Equipment List

| Test Item | Radiated Emission | | | | |
|---|---|---|---|---|---|
| Test Site | 966 chamber3 / (03CH03-WS) | | | | |
| Tested Date | Oct. 21 ~ Oct. 28, 2020 | | | | |
| **Instrument** | **Manufacturer** | **Model No.** | **Serial No.** | **Calibration Date** | **Calibration Until** |
| Radio Communication Analyzer | Anritsu | MT8820C | 6201240341 | May 06, 2020 | May 05, 2021 |
| Spectrum Analyzer | R&S | FSV40 | 101499 | Jan. 09, 2020 | Jan. 08, 2021 |
| Receiver | R&S | ESR3 | 101657 | Feb. 14, 2020 | Feb. 13, 2021 |
| Bilog Antenna | SCHWARZBECK | VULB9168 | VULB9168-685 | Apr. 29, 2020 | Apr. 28, 2021 |
| Horn Antenna 1G-18G | SCHWARZBECK | BBHA 9120 D | BBHA 9120 D 1206 | Dec. 27, 2019 | Dec. 26, 2020 |
| Horn Antenna 18G-40G | SCHWARZBECK | BBHA 9170 | BBHA 9170517 | Nov. 15, 2019 | Nov. 14, 2020 |
| Loop Antenna | R&S | HFH2-Z2 | 100330 | Nov. 13, 2019 | Nov. 12, 2020 |
| Loop Antenna Cable | KOAX KABEL | 101354-BW | 101354-BW | Oct. 06, 2020 | Oct. 05, 2021 |
| Preamplifier | EMC | EMC02325 | 980187 | Aug. 05, 2020 | Aug. 04, 2021 |
| Preamplifier | Agilent | 83017A | MY39501309 | Sep. 02, 2020 | Sep. 01, 2021 |
| Preamplifier | EMC | EMC184045B | 980192 | Jul. 21, 2020 | Jul. 20, 2021 |
| RF cable-3M | HUBER+SUHNER | SUCOFLEX104 | MY22620/**4** | Sep. 26, 2020 | Sep. 25, 2021 |
| RF cable-8M | EMC | EMC104-SM-SM-8000 | 181107 | Sep. 26, 2020 | Sep. 25, 2021 |
| RF cable-1M | HUBER+SUHNER | SUCOFLEX104 | MY22624/4 | Sep. 26, 2020 | Sep. 25, 2021 |
| LF cable-0.8M | EMC | EMC8D-NM-NM-800 | EMC8D-NM-NM-800 -001 | Sep. 26, 2020 | Sep. 25, 2021 |
| LF cable-3M | EMC | EMC8D-NM-NM-3000 | 131103 | Sep. 26, 2020 | Sep. 25, 2021 |
| LF cable-13M | EMC | EMC8D-NM-NM-13000 | 131104 | Sep. 26, 2020 | Sep. 25, 2021 |
| Measurement Software | AUDIX | e3 | 6.120210g | NA | NA |
| Note: Calibration Interval of instruments listed above is one year. | | | | | |

## 1.3 Test Standards

47 CFR FCC Part 15.247
ANSI C63.10-2013

## 1.4 Reference Guidance

FCC KDB 558074 D01 15.247 Meas Guidance v05r02
FCC KDB 412172 D01 Determining ERP and EIRP v01r01

## 1.5 Deviation from Test Standard and Measurement Procedure

None

## 1.6 Measurement Uncertainty

The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)).

| Measurement Uncertainty | |
|---|---|
| **Parameters** | **Uncertainty** |
| Radiated emission ≤ 1GHz | ±3.96 dB |
| Radiated emission > 1GHz | ±4.51 dB |

# 2 Test Configuration

## 2.1 Testing Condition

| Test Item | Test Site | Ambient Condition | Tested By |
|---|---|---|---|
| Radiated Emissions | 03CH03-WS | 23-24°C / 61-66% | Roger Lu<br>Brad Wu |

## 2.2 Testing Facility

| | |
|---|---|
| **Test Laboratory** | International Certification Corp. |
| **Test Site** | 03CH03-WS |
| **Address of Test Site** | No. 14-1, Lane 19, Wen San 3rd St., Kwei Shan District, Tao Yuan City 333, Taiwan, R.O.C. |

- FCC Designation No.: TW0009
- FCC site registration No.: 207696
- ISED#: 10807A
- CAB identifier: TW2732

## 2.3 The Worst Test Modes and Channel Details

| Test item | Radiated Emissions |
|---|---|
| **For model GML840U-915U** | |
| **Test Mode (POE mode)** | Mode 1a: LTE B13, BW10MHz, QPSK, CH23230(782MHz),1rb offset 0 + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| | Mode 2a: WCDMA B5, RMC, ch4182(836.4MHz) + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| | Mode 3a: WCDMA B4, RMC, ch1513(1752.6MHz) + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| | Mode 4a: WCDMA B2, RMC, ch9538(1907.6MHz) + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| | Mode 5a: LTE B30, BW10MHz,QPSK,CH27710(2310MHz),1rb offset 0 + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| | Mode 6a: LTE B41, BW5MHz, QPSK,CH40620(2593MHz),1rb offset 0 + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Test Mode (DC mode)** | Mode 1b: LTE B13, BW10MHz, QPSK, CH23230(782MHz),1rb offset 0 + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| | Mode 2b: WCDMA B5, RMC, ch4182(836.4MHz) + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| | Mode 3b: WCDMA B4, RMC, ch1513(1752.6MHz) + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| | Mode 4b: WCDMA B2, RMC, ch9538(1907.6MHz) + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| | Mode 5b: LTE B30, BW10MHz,QPSK,CH27710(2310MHz),1rb offset 0 + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| | Mode 6b: LTE B41, BW5MHz, QPSK,CH40620(2593MHz),1rb offset 0 + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **For model GME840U-915U** | |
| **Test Mode (POE mode)** | Mode 7a: LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Test Mode (DC mode)** | Mode 7b: LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **NOTE:**<br>1. The selected channel is the maximum power channel of wireless mode.<br>2. This device consumes power from POE or DC power source. Each power supply was selected for final testing. | |

# 3 Transmitter Test Results

## 3.1 Unwanted Emissions into Restricted Frequency Bands

### 3.1.1 Limit of Unwanted Emissions for Model: GME840U-915U

| Table 1: Restricted Band Emissions Limit | | | |
|---|---|---|---|
| **Frequency Range (MHz)** | **Field Strength (uV/m)** | **Field Strength (dBuV/m)** | **Measure Distance (m)** |
| 0.009~0.490 | 2400/F(kHz) | 48.5 - 13.8 | 300 |
| 0.490~1.705 | 24000/F(kHz) | 33.8 - 23 | 30 |
| 1.705~30.0 | 30 | 29 | 30 |
| 30~88 | 100 | 40 | 3 |
| 88~216 | 150 | 43.5 | 3 |
| 216~960 | 200 | 46 | 3 |
| Above 960 | 500 | 54 | 3 |

**Note 1:**
Qusai-Peak value is measured for frequency below 1GHz except for 9–90 kHz, 110–490 kHz frequency band. Peak and average value are measured for frequency above 1GHz. The limit on average radio frequency emission is as above table. The limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit
**Note 2:**
Measurements may be performed at a distance other than what is specified provided. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor as below, Frequency at or above 30 MHz: 20 dB/decade Frequency below 30 MHz: 40 dB/decade.

### 3.1.2 Limit of Unwanted Emissions for Model: GML840U-915U

Model: GML840U-915U shall meet below limit
1. Table 1 limit
2. -13 dBm for spurious emission is caused by the simultaneous operation(Wi-Fi+Lora+WWAN)
   (The limit is the highest level allowed by either rule part)

### 3.1.3 Test Procedures

Model: GME840U-915U / GML840U-915U

1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency. The EUT is placed at test table. For emissions testing at or below 1 GHz, the table height is 80 cm above the reference ground plane. For emission measurements above 1 GHz, the table height is 1.5 m.
2. Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m ~ 4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3 m.
3. This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.

Note:

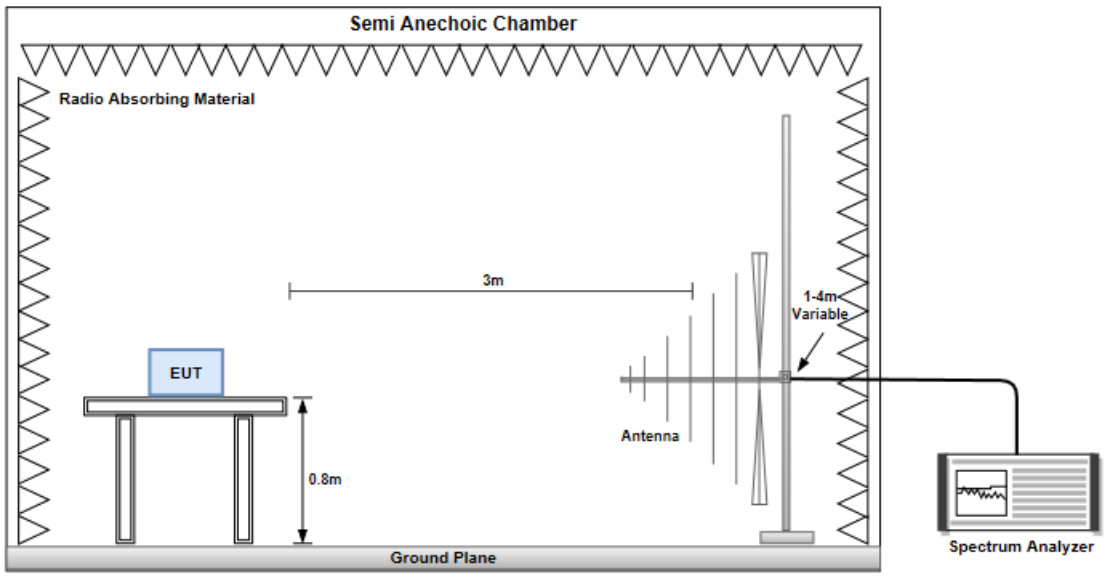
1. 120kHz measurement bandwidth of test receiver and Quasi-peak detector is for radiated emission below 1GHz.
2. RBW=1MHz, VBW=3MHz and Peak detector is for peak measured value of radiated emission above 1GHz.
3. RBW=1MHz, VBW=1/T and Peak detector is for average measured value of radiated emission above 1GHz.

Model: GML840U-915U

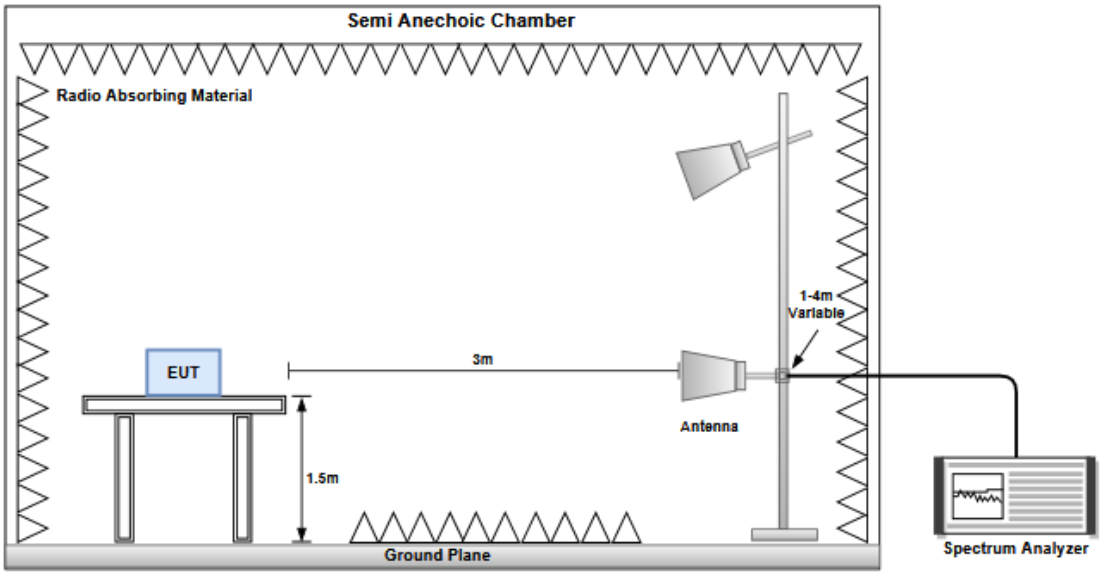
1. Measurement is made at a semi-anechoic chamber that incorporates a turntable allowing a EUT rotation of 360°. A continuously-rotating, remotely-controlled turntable is installed at the test site to support the EUT and facilitate determination of the direction of maximum radiation for each EUT emission frequency. For emissions testing at or below 1 GHz, the table height is 80 cm above the reference ground plane. For emission measurements above 1 GHz, the table height is 1.5 m.
2. Measurement is made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna is varied in height (1m ~ 4m) above the reference ground plane to obtain the maximum signal strength. Distance between EUT and antenna is 3 m.
3. This investigation is performed with the EUT rotated 360°, the antenna height scanned between 1 m and 4 m, and the antenna rotated to repeat the measurements for both the horizontal and vertical antenna polarizations.
4. After finding the max radiated emission, substitution method will be used for getting effective radiated power. EUT will be removed and substitution antenna will be placed at same position. Signal generator will output CW signal to substitution antenna through a RF cable. Rotate turntable and move antenna to find maximum radiated emission. Adjust output power of signal generator to let the maximum radiated emission is same as step 3. Record the output power level.
5. E.I.R.P = output power of step 4 + gain of substitution antenna – cable loss of RF cable. ERP can be calculated by below formula:
   E.R.P = E.I.R.P – 2.15dB.

### 3.1.4 Test Setup

**Radiated Emissions below 1 GHz**




**Radiated Emissions above 1 GHz**

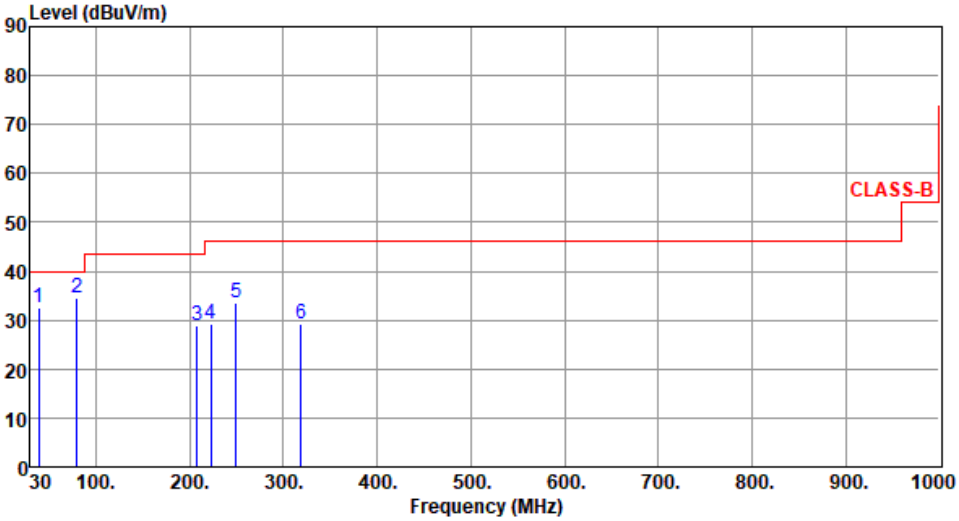


## *Test mode 1a – POE mode*

### 3.1.5 Transmitter Radiated Unwanted Emissions (Below 1GHz)

| | |
|---|---|
| **Mode** | Mode 1a: LTE B13, BW10MHz, QPSK, CH23230(782MHz),1rb offset 0 + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Horizontal |

Test By :Roger Lu Temperature(℃):23 Humidity(%):65

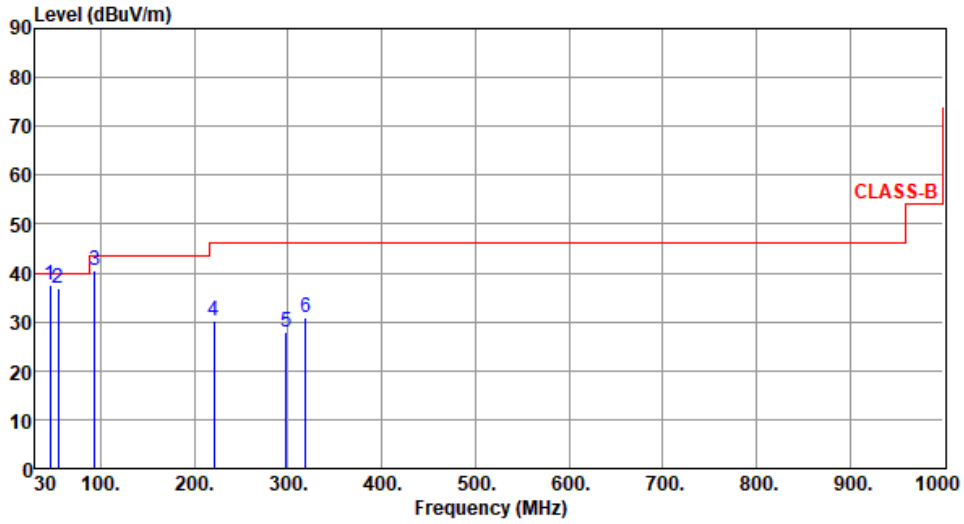



| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 38.65 | 32.45 | 40.00 | -7.55 | 41.47 | -9.02 | Peak | --- | --- |
| 2 | 79.52 | 34.45 | 40.00 | -5.55 | 47.80 | -13.35 | Peak | --- | --- |
| 3 | 208.00 | 29.02 | 43.50 | -14.48 | 41.22 | -12.20 | Peak | --- | --- |
| 4 | 222.40 | 29.34 | 46.00 | -16.66 | 41.74 | -12.40 | Peak | --- | --- |
| 5 | 249.60 | 33.65 | 46.00 | -12.35 | 43.83 | -10.18 | Peak | --- | --- |
| 6 | 319.20 | 29.27 | 46.00 | -16.73 | 37.24 | -7.97 | Peak | --- | --- |

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

| | |
|---|---|
| **Mode** | Mode 1a: LTE B13, BW10MHz, QPSK, CH23230(782MHz),1rb offset 0 + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Vertical |

Test By :Roger Lu Temperature(℃):23 Humidity(%):65




| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 45.61 | 37.68 | 40.00 | -2.32 | 46.41 | -8.73 | QP | 168 | 315 |
| 2 | 54.26 | 36.77 | 40.00 | -3.23 | 45.72 | -8.95 | QP | 100 | 249 |
| 3 | 93.68 | 40.38 | 43.50 | -3.12 | 55.04 | -14.66 | Peak | --- | --- |
| 4 | 220.80 | 30.14 | 46.00 | -15.86 | 42.52 | -12.38 | Peak | --- | --- |
| 5 | 298.40 | 27.95 | 46.00 | -18.05 | 36.59 | -8.64 | Peak | --- | --- |
| 6 | 319.20 | 30.82 | 46.00 | -15.18 | 38.79 | -7.97 | Peak | --- | --- |

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

### 3.1.6 Transmitter Radiated Unwanted Emissions (Above 1GHz)

| Mode | Mode 1a: LTE B13, BW10MHz, QPSK, CH23230(782MHz),1rb offset 0 + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 | | | | | | |
|---|---|---|---|---|---|---|---|
| **Frequency (MHz)** | **Antenna Polarity** | **E.R.P (dBm)** | **Limit (dBm)** | **Margin (dB)** | **S.A Reading (dBm)** | **S.G Power Value (dBm)** | **Correction Factor (dB)** |
| 1705.27 | H | -45.29 | -13.00 | -32.29 | -49.58 | -49.20 | 6.06 |
| 3260.81 | H | -69.02 | -13.00 | -56.02 | -79.36 | -73.77 | 6.90 |
| 1705.27 | V | -43.62 | -13.00 | -30.62 | -47.97 | -47.53 | 6.06 |
| 3260.81 | V | -63.10 | -13.00 | -50.10 | -73.45 | -67.85 | 6.90 |

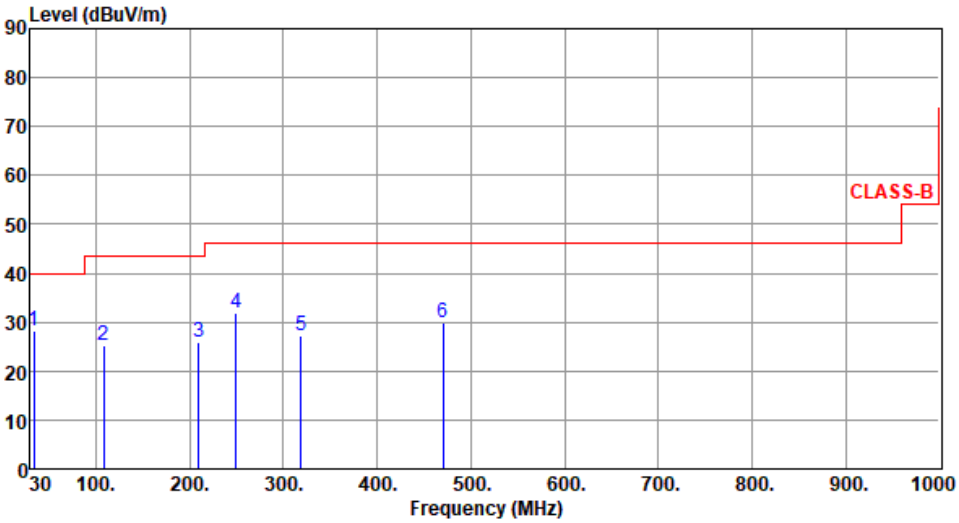
NOTE: ERP = S.G power value + correction factor - 2.15.

## *Test mode 1b – DC mode*

### 3.1.7 Transmitter Radiated Unwanted Emissions (Below 1GHz)

| | |
|---|---|
| **Mode** | Mode 1b: LTE B13, BW10MHz, QPSK, CH23230(782MHz),1rb offset 0 + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Horizontal |

Test By :Roger Lu Temperature(℃):23 Humidity(%):65

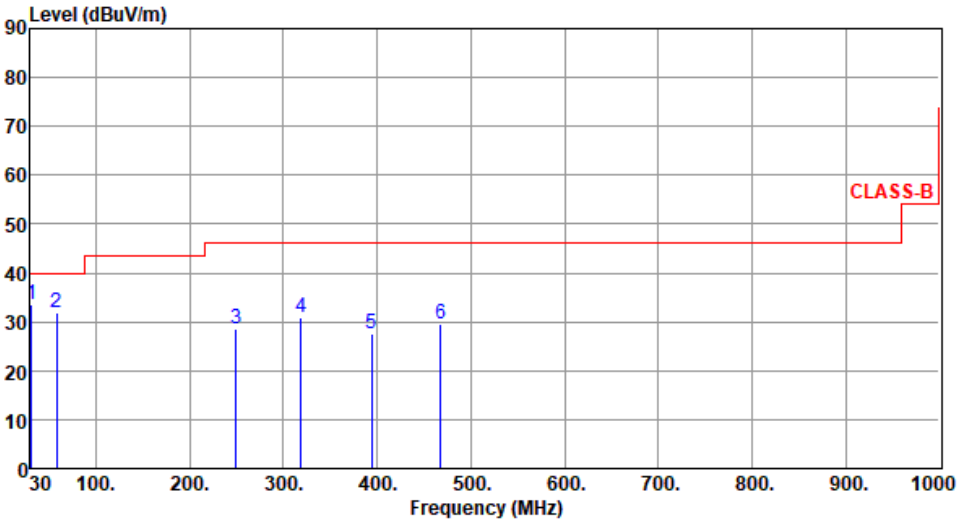



| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 33.79 | 28.33 | 40.00 | -11.67 | 38.35 | -10.02 | Peak | --- | --- |
| 2 | 108.61 | 25.33 | 43.50 | -18.17 | 37.65 | -12.32 | Peak | --- | --- |
| 3 | 209.60 | 25.97 | 43.50 | -17.53 | 38.16 | -12.19 | Peak | --- | --- |
| 4 | 249.60 | 31.98 | 46.00 | -14.02 | 42.16 | -10.18 | Peak | --- | --- |
| 5 | 319.20 | 27.12 | 46.00 | -18.88 | 35.09 | -7.97 | Peak | --- | --- |
| 6 | 470.40 | 29.78 | 46.00 | -16.22 | 33.43 | -3.65 | Peak | --- | --- |

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

| | |
|---|---|
| **Mode** | Mode 1b: LTE B13, BW10MHz, QPSK, CH23230(782MHz),1rb offset 0 + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Vertical |

Test By :Roger Lu Temperature(℃):23 Humidity(%):65




| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 31.26 | 33.42 | 40.00 | -6.58 | 43.49 | -10.07 | QP | 100 | 18 |
| 2 | 58.25 | 32.02 | 40.00 | -7.98 | 41.21 | -9.19 | Peak | --- | --- |
| 3 | 249.60 | 28.52 | 46.00 | -17.48 | 38.70 | -10.18 | Peak | --- | --- |
| 4 | 319.20 | 30.92 | 46.00 | -15.08 | 38.89 | -7.97 | Peak | --- | --- |
| 5 | 394.40 | 27.69 | 46.00 | -18.31 | 33.64 | -5.95 | Peak | --- | --- |
| 6 | 468.00 | 29.58 | 46.00 | -16.42 | 33.27 | -3.69 | Peak | --- | --- |

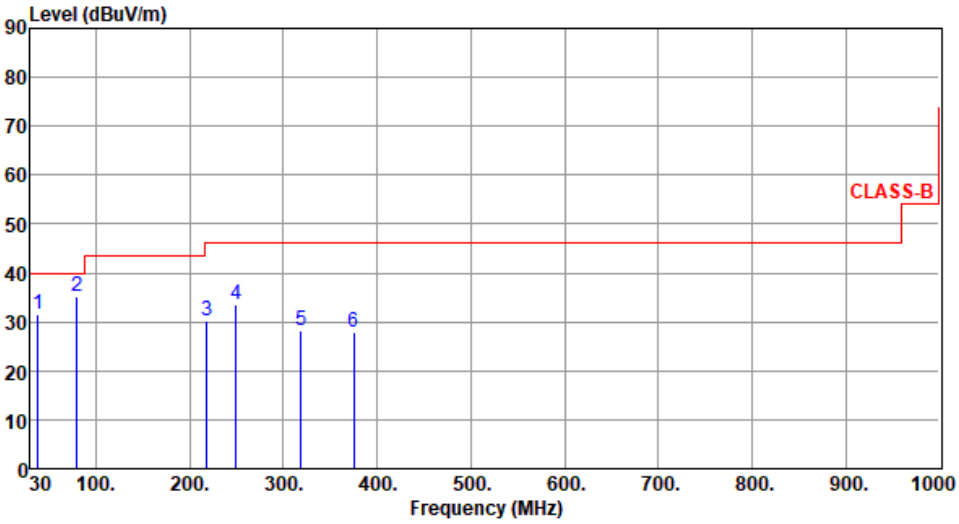
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

## *Test mode 2a – POE mode*

### 3.1.8 Transmitter Radiated Unwanted Emissions (Below 1GHz)

| | |
|---|---|
| **Mode** | Mode 2a: WCDMA B5, RMC, ch4182(836.4MHz) + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Horizontal |

Test By :Roger Lu Temperature(℃):23 Humidity(%):65

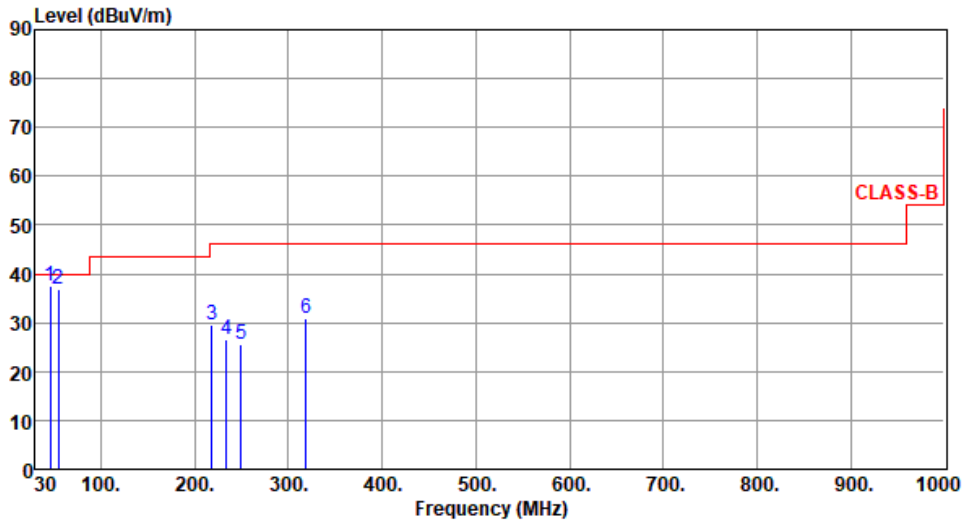



| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 38.45 | 31.52 | 40.00 | -8.48 | 40.56 | -9.04 | Peak | --- | --- |
| 2 | 79.52 | 35.07 | 40.00 | -4.93 | 48.42 | -13.35 | Peak | --- | --- |
| 3 | 218.40 | 30.36 | 46.00 | -15.64 | 42.66 | -12.30 | Peak | --- | --- |
| 4 | 249.60 | 33.66 | 46.00 | -12.34 | 43.84 | -10.18 | Peak | --- | --- |
| 5 | 319.20 | 28.21 | 46.00 | -17.79 | 36.18 | -7.97 | Peak | --- | --- |
| 6 | 375.20 | 28.04 | 46.00 | -17.96 | 34.53 | -6.49 | Peak | --- | --- |

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

| | |
|---|---|
| **Mode** | Mode 2a: WCDMA B5, RMC, ch4182(836.4MHz) + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Vertical |

Test By :Roger Lu Temperature(℃):23 Humidity(%):65




| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 45.61 | 37.62 | 40.00 | -2.38 | 46.35 | -8.73 | QP | 166 | 318 |
| 2 | 54.22 | 36.72 | 40.00 | -3.28 | 45.66 | -8.94 | QP | 100 | 244 |
| 3 | 218.40 | 29.54 | 46.00 | -16.46 | 41.84 | -12.30 | Peak | --- | --- |
| 4 | 233.60 | 26.72 | 46.00 | -19.28 | 37.93 | -11.21 | Peak | --- | --- |
| 5 | 249.60 | 25.67 | 46.00 | -20.33 | 35.85 | -10.18 | Peak | --- | --- |
| 6 | 319.20 | 30.99 | 46.00 | -15.01 | 38.96 | -7.97 | Peak | --- | --- |

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

### 3.1.9 Transmitter Radiated Unwanted Emissions (Above 1GHz)

| Mode | Mode 2a: WCDMA B5, RMC, ch4182(836.4MHz) + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 | | | | | | |
|---|---|---|---|---|---|---|---|
| **Frequency (MHz)** | **Antenna Polarity** | **E.R.P (dBm)** | **Limit (dBm)** | **Margin (dB)** | **S.A Reading (dBm)** | **S.G Power Value (dBm)** | **Correction Factor (dB)** |
| 1018.60 | H | -43.57 | -13.00 | -30.57 | -43.65 | -44.31 | 2.89 |
| 1763.90 | H | -53.83 | -13.00 | -40.83 | -58.45 | -57.98 | 6.30 |
| 1018.60 | V | -34.59 | -13.00 | -21.59 | -33.73 | -35.33 | 2.89 |
| 1763.90 | V | -49.37 | -13.00 | -36.37 | -53.99 | -53.52 | 6.30 |

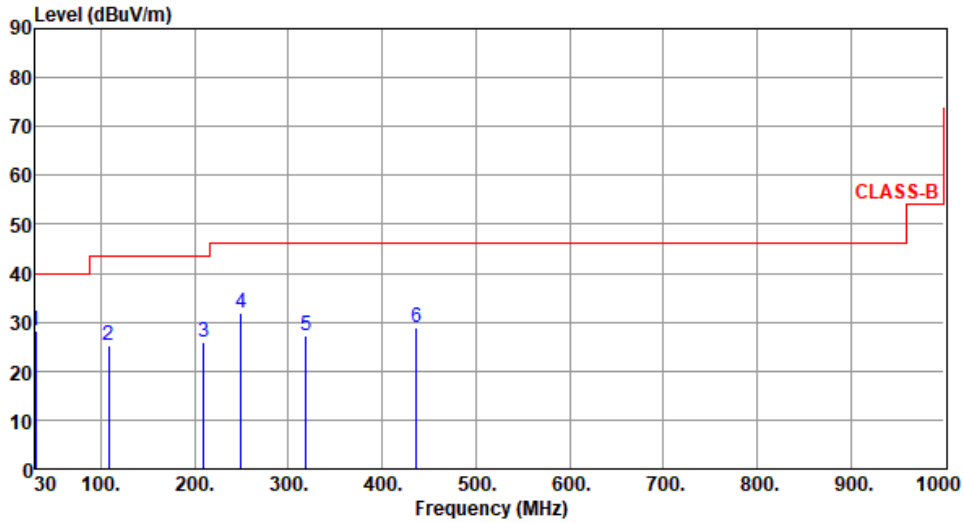
NOTE: ERP = S.G power value + correction factor - 2.15.

## *Test mode 2b – DC mode*

### 3.1.10 Transmitter Radiated Unwanted Emissions (Below 1GHz)

| | |
|---|---|
| **Mode** | Mode 2b: WCDMA B5, RMC, ch4182(836.4MHz) + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Horizontal |

Test By :Roger Lu Temperature(℃):23 Humidity(%):65

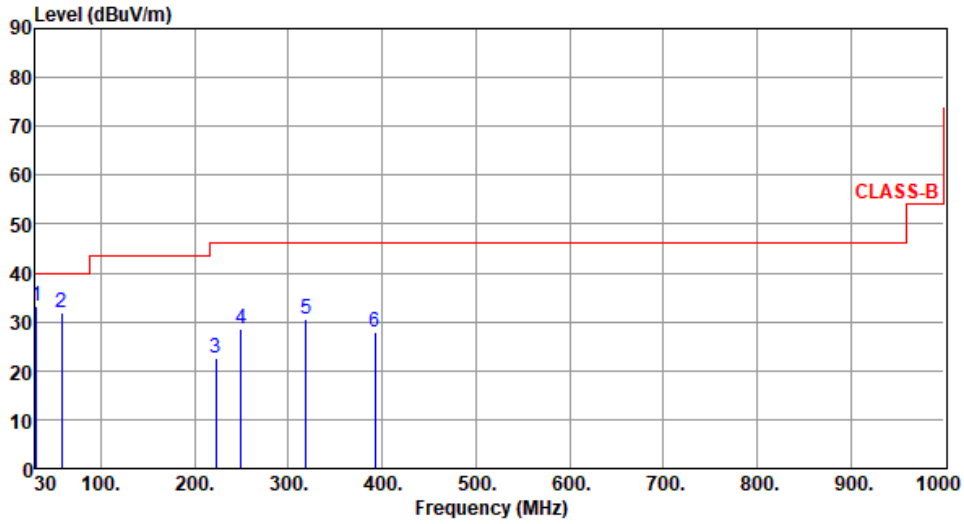



| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 30.48 | 28.27 | 40.00 | -11.73 | 38.44 | -10.17 | Peak | --- | --- |
| 2 | 108.61 | 25.30 | 43.50 | -18.20 | 37.62 | -12.32 | Peak | --- | --- |
| 3 | 209.60 | 25.84 | 43.50 | -17.66 | 38.03 | -12.19 | Peak | --- | --- |
| 4 | 249.60 | 31.88 | 46.00 | -14.12 | 42.06 | -10.18 | Peak | --- | --- |
| 5 | 319.20 | 27.16 | 46.00 | -18.84 | 35.13 | -7.97 | Peak | --- | --- |
| 6 | 436.80 | 28.85 | 46.00 | -17.15 | 33.36 | -4.51 | Peak | --- | --- |

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

| | |
|---|---|
| **Mode** | Mode 2b: WCDMA B5, RMC, ch4182(836.4MHz) + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Vertical |

Test By :Roger Lu Temperature(℃):23 Humidity(%):65




| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 30.86 | 33.33 | 40.00 | -6.67 | 43.43 | -10.10 | QP | 100 | 22 |
| 2 | 58.21 | 32.02 | 40.00 | -7.98 | 41.21 | -9.19 | Peak | --- | --- |
| 3 | 222.40 | 22.46 | 46.00 | -23.54 | 34.86 | -12.40 | Peak | --- | --- |
| 4 | 249.60 | 28.48 | 46.00 | -17.52 | 38.66 | -10.18 | Peak | --- | --- |
| 5 | 319.20 | 30.46 | 46.00 | -15.54 | 38.43 | -7.97 | Peak | --- | --- |
| 6 | 392.80 | 27.76 | 46.00 | -18.24 | 33.74 | -5.98 | Peak | --- | --- |

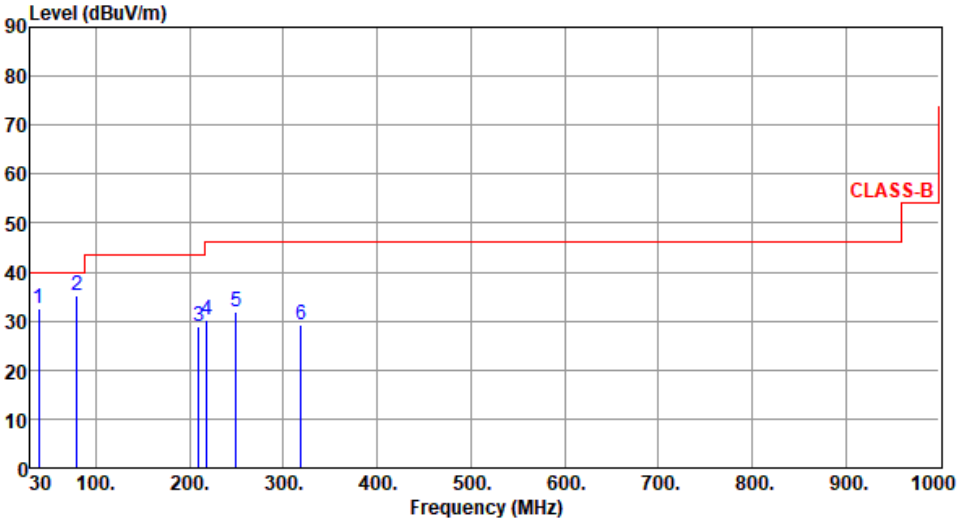
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

## *Test mode 3a – POE mode*

### 3.1.11 Transmitter Radiated Unwanted Emissions (Below 1GHz)

| | |
|---|---|
| **Mode** | Mode 3a: WCDMA B4, RMC, ch1513(1752.6MHz) + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Horizontal |

Test By :Roger Lu Temperature(℃):23 Humidity(%):65

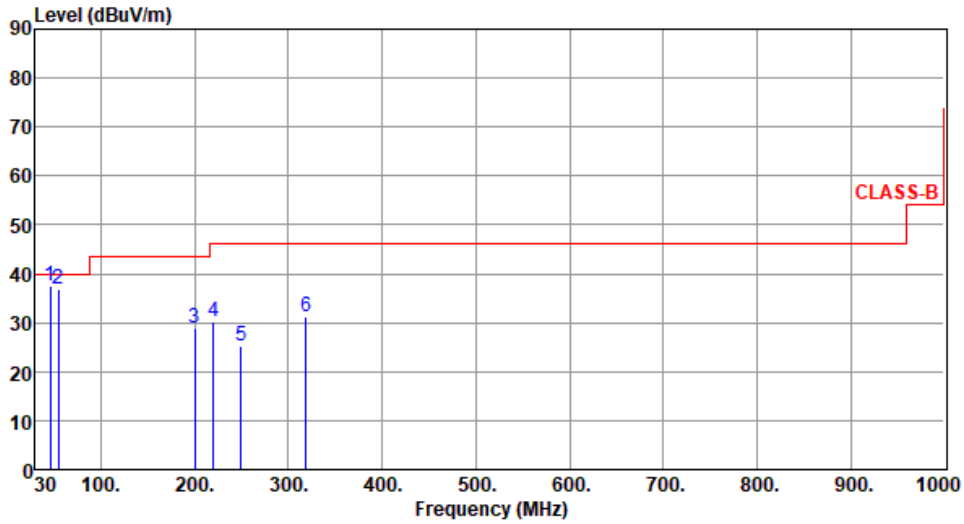



| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 38.65 | 32.46 | 40.00 | -7.54 | 41.48 | -9.02 | Peak | --- | --- |
| 2 | 79.61 | 35.06 | 40.00 | -4.94 | 48.43 | -13.37 | Peak | --- | --- |
| 3 | 209.60 | 29.05 | 43.50 | -14.45 | 41.24 | -12.19 | Peak | --- | --- |
| 4 | 218.40 | 30.38 | 46.00 | -15.62 | 42.68 | -12.30 | Peak | --- | --- |
| 5 | 249.60 | 31.94 | 46.00 | -14.06 | 42.12 | -10.18 | Peak | --- | --- |
| 6 | 319.20 | 29.26 | 46.00 | -16.74 | 37.23 | -7.97 | Peak | --- | --- |

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

| | |
|---|---|
| **Mode** | Mode 3a: WCDMA B4, RMC, ch1513(1752.6MHz) + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Vertical |

Test By :Roger Lu Temperature(℃):23 Humidity(%):65




| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 45.66 | 37.63 | 40.00 | -2.37 | 46.35 | -8.72 | QP | 162 | 313 |
| 2 | 54.22 | 36.80 | 40.00 | -3.20 | 45.74 | -8.94 | QP | 100 | 243 |
| 3 | 200.00 | 28.83 | 43.50 | -14.67 | 40.95 | -12.12 | Peak | --- | --- |
| 4 | 220.00 | 30.07 | 46.00 | -15.93 | 42.43 | -12.36 | Peak | --- | --- |
| 5 | 249.60 | 25.23 | 46.00 | -20.77 | 35.41 | -10.18 | Peak | --- | --- |
| 6 | 319.20 | 31.19 | 46.00 | -14.81 | 39.16 | -7.97 | Peak | --- | --- |

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

### 3.1.12 Transmitter Radiated Unwanted Emissions (Above 1GHz)

| Mode | Mode 3a: WCDMA B4, RMC, ch1513(1752.6MHz) + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 | | | | | | |
|---|---|---|---|---|---|---|---|
| **Frequency (MHz)** | **Antenna Polarity** | **E.I.R.P (dBm)** | **Limit (dBm)** | **Margin (dB)** | **S.A Reading (dBm)** | **S.G Power Value (dBm)** | **Correction Factor (dB)** |
| 2577.70 | H | -42.70 | -13.00 | -29.70 | -53.29 | -49.40 | 6.70 |
| 2680.10 | H | -42.09 | -13.00 | -29.09 | -53.04 | -48.75 | 6.66 |
| 2577.70 | V | -42.33 | -13.00 | -29.33 | -52.91 | -49.03 | 6.70 |
| 2680.10 | V | -41.33 | -13.00 | -28.33 | -52.43 | -47.99 | 6.66 |

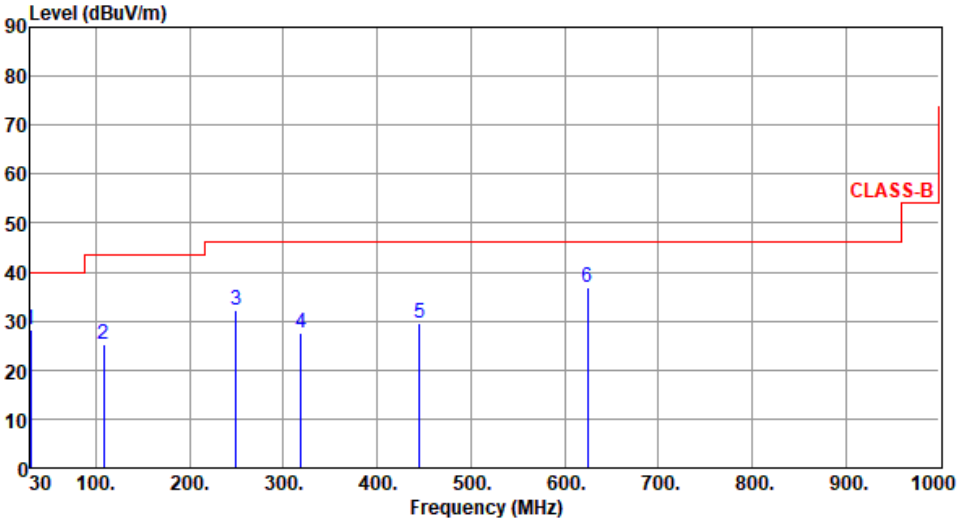
Note: EIRP = S.G Power value + Correction factor.

## *Test mode 3b – DC mode*

### 3.1.13 Transmitter Radiated Unwanted Emissions (Below 1GHz)

| | |
|---|---|
| **Mode** | Mode 3b: WCDMA B4, RMC, ch1513(1752.6MHz) + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Horizontal |

Test By :Roger Lu Temperature(℃):23 Humidity(%):65

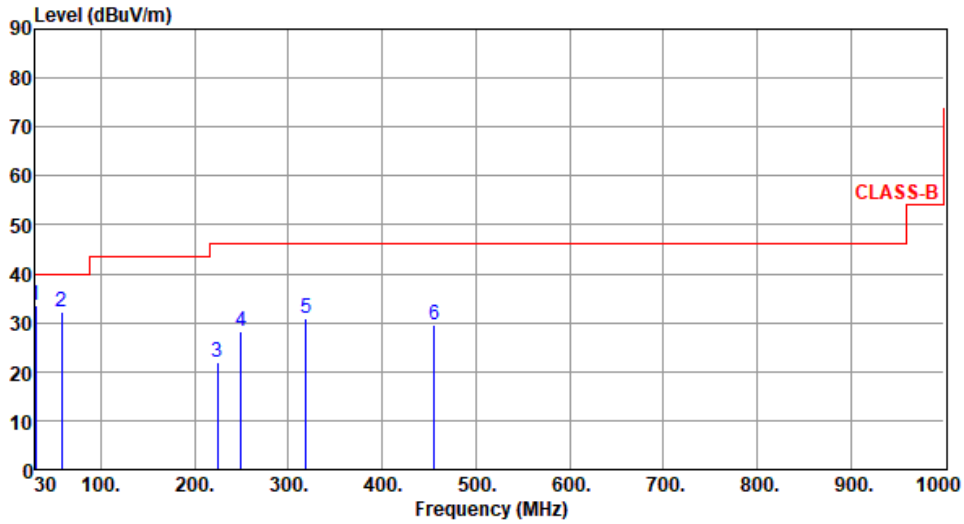



| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 30.25 | 28.23 | 40.00 | -11.77 | 38.46 | -10.23 | Peak | --- | --- |
| 2 | 108.46 | 25.30 | 43.50 | -18.20 | 37.65 | -12.35 | Peak | --- | --- |
| 3 | 249.60 | 32.05 | 46.00 | -13.95 | 42.23 | -10.18 | Peak | --- | --- |
| 4 | 319.20 | 27.63 | 46.00 | -18.37 | 35.60 | -7.97 | Peak | --- | --- |
| 5 | 445.60 | 29.50 | 46.00 | -16.50 | 33.44 | -3.94 | Peak | --- | --- |
| 6 | 624.60 | 36.86 | 46.00 | -9.14 | 36.91 | -0.05 | Peak | --- | --- |

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

| | |
|---|---|
| **Mode** | Mode 3b: WCDMA B4, RMC, ch1513(1752.6MHz) + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Vertical |

Test By :Roger Lu Temperature(℃):23 Humidity(%):65




| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 30.42 | 33.42 | 40.00 | -6.58 | 43.62 | -10.20 | QP | 100 | 17 |
| 2 | 58.22 | 32.07 | 40.00 | -7.93 | 41.26 | -9.19 | Peak | --- | --- |
| 3 | 224.00 | 21.81 | 46.00 | -24.19 | 34.24 | -12.43 | Peak | --- | --- |
| 4 | 249.60 | 28.37 | 46.00 | -17.63 | 38.55 | -10.18 | Peak | --- | --- |
| 5 | 319.20 | 30.91 | 46.00 | -15.09 | 38.88 | -7.97 | Peak | --- | --- |
| 6 | 456.00 | 29.47 | 46.00 | -16.53 | 33.42 | -3.95 | Peak | --- | --- |

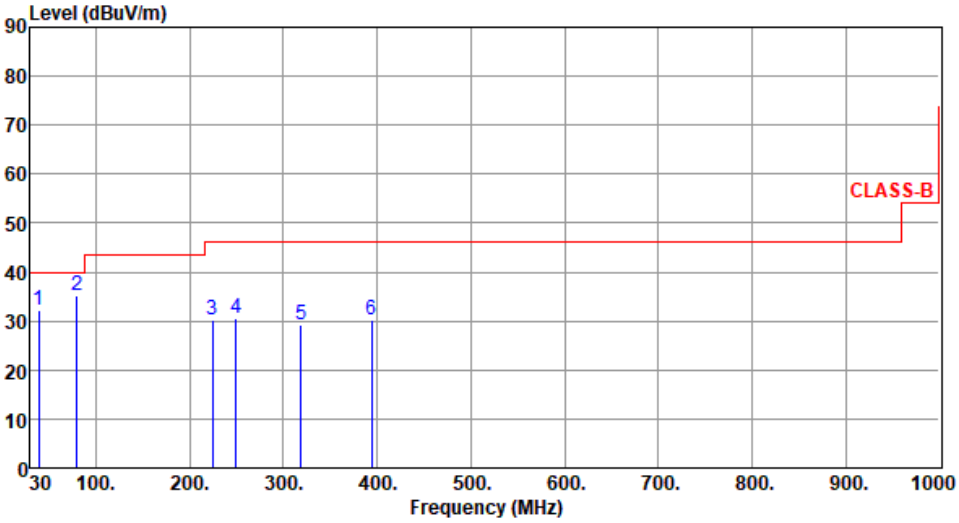
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

## *Test mode 4a – POE mode*

### 3.1.14 Transmitter Radiated Unwanted Emissions (Below 1GHz)

| | |
|---|---|
| **Mode** | Mode 4a: WCDMA B2, RMC, ch9538(1907.6MHz) + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Horizontal |

Test By :Roger Lu Temperature(℃):23 Humidity(%):65

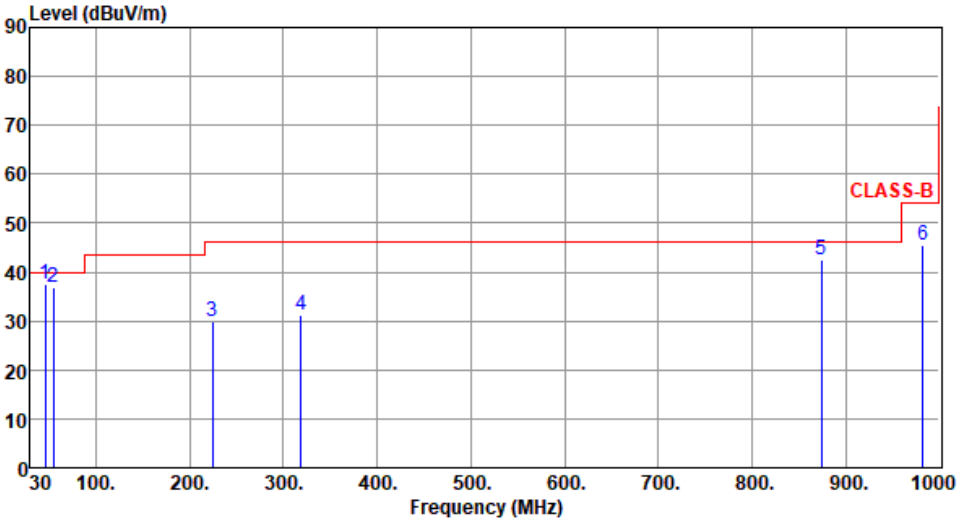



| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 38.66 | 32.26 | 40.00 | -7.74 | 41.27 | -9.01 | Peak | --- | --- |
| 2 | 79.54 | 35.07 | 40.00 | -4.93 | 48.43 | -13.36 | Peak | --- | --- |
| 3 | 224.00 | 30.24 | 46.00 | -15.76 | 42.67 | -12.43 | Peak | --- | --- |
| 4 | 249.60 | 30.42 | 46.00 | -15.58 | 40.60 | -10.18 | Peak | --- | --- |
| 5 | 319.20 | 29.06 | 46.00 | -16.94 | 37.03 | -7.97 | Peak | --- | --- |
| 6 | 394.40 | 30.36 | 46.00 | -15.64 | 36.31 | -5.95 | Peak | --- | --- |

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

| | |
|---|---|
| **Mode** | Mode 4a: WCDMA B2, RMC, ch9538(1907.6MHz) + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Vertical |

Test By :Roger Lu Temperature(℃):23 Humidity(%):65




| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 45.62 | 37.65 | 40.00 | -2.35 | 46.38 | -8.73 | QP | 158 | 315 |
| 2 | 54.26 | 36.82 | 40.00 | -3.18 | 45.77 | -8.95 | QP | 100 | 248 |
| 3 | 224.00 | 29.79 | 46.00 | -16.21 | 42.22 | -12.43 | Peak | --- | --- |
| 4 | 319.20 | 31.08 | 46.00 | -14.92 | 39.05 | -7.97 | Peak | --- | --- |
| 5 | 874.40 | 42.37 | 46.00 | -3.63 | 38.19 | 4.18 | Peak | --- | --- |
| 6 | 982.40 | 45.53 | 54.00 | -8.47 | 39.59 | 5.94 | Peak | --- | --- |

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

### 3.1.15 Transmitter Radiated Unwanted Emissions (Above 1GHz)

| Mode | Mode 4a: WCDMA B2, RMC, ch9538(1907.6MHz) + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 | | | | | | |
|---|---|---|---|---|---|---|---|
| **Frequency (MHz)** | **Antenna Polarity** | **E.I.R.P (dBm)** | **Limit (dBm)** | **Margin (dB)** | **S.A Reading (dBm)** | **S.G Power Value (dBm)** | **Correction Factor (dB)** |
| 2835.10 | H | -41.08 | -13.00 | -28.08 | -52.42 | -47.55 | 6.47 |
| 2887.70 | H | -41.16 | -13.00 | -28.16 | -52.63 | -47.60 | 6.44 |
| 2835.10 | V | -39.93 | -13.00 | -26.93 | -51.58 | -46.40 | 6.47 |
| 2887.70 | V | -40.16 | -13.00 | -27.16 | -51.80 | -46.60 | 6.44 |

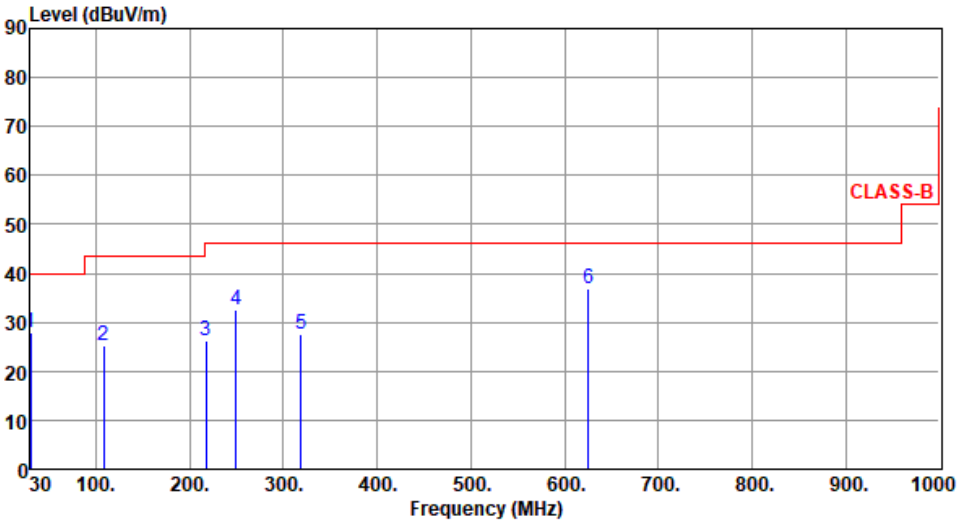
Note: EIRP = S.G Power value + Correction factor.

## *Test mode 4b – DC mode*

### 3.1.16 Transmitter Radiated Unwanted Emissions (Below 1GHz)

| | |
|---|---|
| **Mode** | Mode 4b: WCDMA B2, RMC, ch9538(1907.6MHz) + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Horizontal |

Test By :Roger Lu Temperature(℃):23 Humidity(%):65

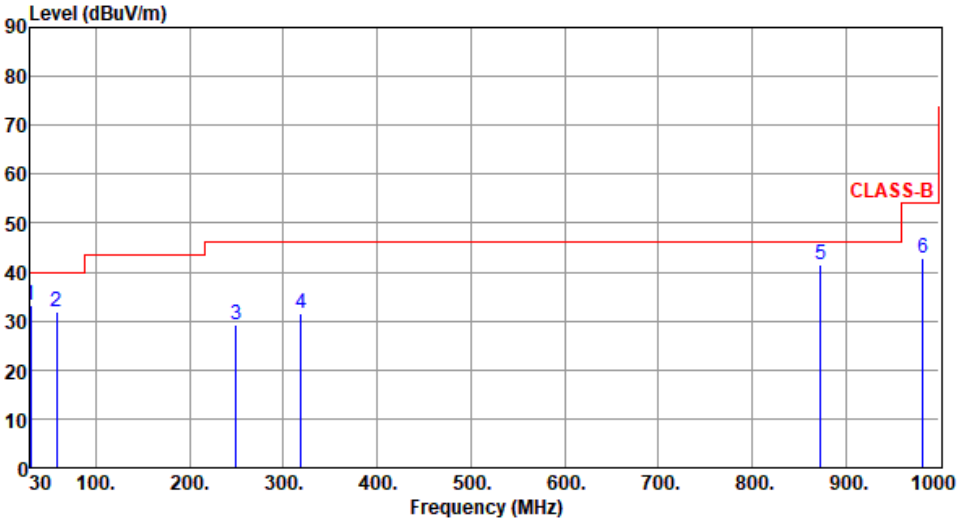



| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 30.25 | 28.03 | 40.00 | -11.97 | 38.26 | -10.23 | Peak | --- | --- |
| 2 | 108.43 | 25.29 | 43.50 | -18.21 | 37.64 | -12.35 | Peak | --- | --- |
| 3 | 217.60 | 26.18 | 46.00 | -19.82 | 38.44 | -12.26 | Peak | --- | --- |
| 4 | 249.60 | 32.67 | 46.00 | -13.33 | 42.85 | -10.18 | Peak | --- | --- |
| 5 | 319.20 | 27.42 | 46.00 | -18.58 | 35.39 | -7.97 | Peak | --- | --- |
| 6 | 625.60 | 36.89 | 46.00 | -9.11 | 36.92 | -0.03 | Peak | --- | --- |

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

| | |
|---|---|
| **Mode** | Mode 4b: WCDMA B2, RMC, ch9538(1907.6MHz) + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Vertical |

Test By :Roger Lu Temperature(℃):23 Humidity(%):65




| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 30.42 | 33.30 | 40.00 | -6.70 | 43.50 | -10.20 | QP | 100 | 13 |
| 2 | 58.26 | 32.03 | 40.00 | -7.97 | 41.22 | -9.19 | Peak | --- | --- |
| 3 | 249.60 | 29.16 | 46.00 | -16.84 | 39.34 | -10.18 | Peak | --- | --- |
| 4 | 319.20 | 31.59 | 46.00 | -14.41 | 39.56 | -7.97 | Peak | --- | --- |
| 5 | 873.60 | 41.64 | 46.00 | -4.36 | 37.48 | 4.16 | Peak | --- | --- |
| 6 | 982.26 | 42.93 | 54.00 | -11.07 | 36.99 | 5.94 | Peak | --- | --- |

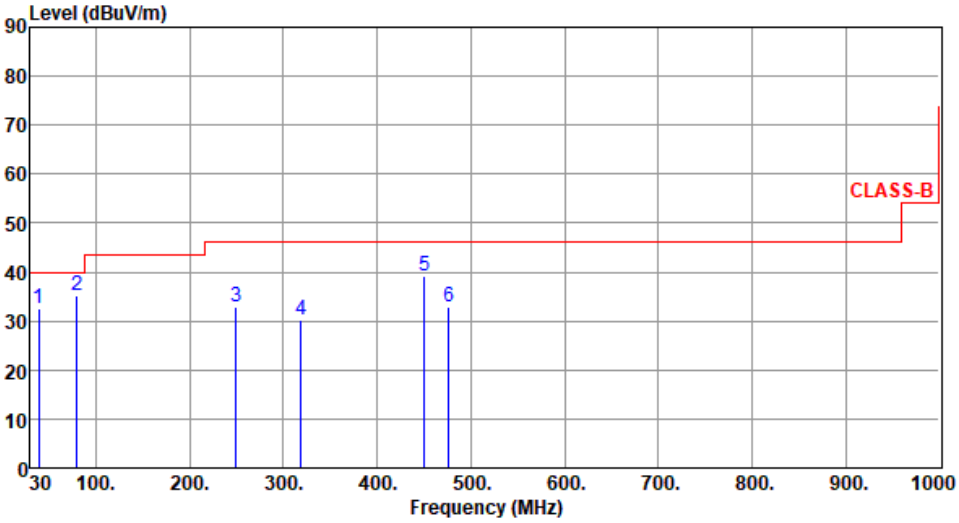
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

## *Test mode 5a – POE mode*

### 3.1.17 Transmitter Radiated Unwanted Emissions (Below 1GHz)

| | |
|---|---|
| **Mode** | Mode 5a: LTE B30, BW10MHz,QPSK,CH27710(2310MHz),1rb offset 0 + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Horizontal |

Test By :Roger Lu Temperature(℃):23 Humidity(%):65

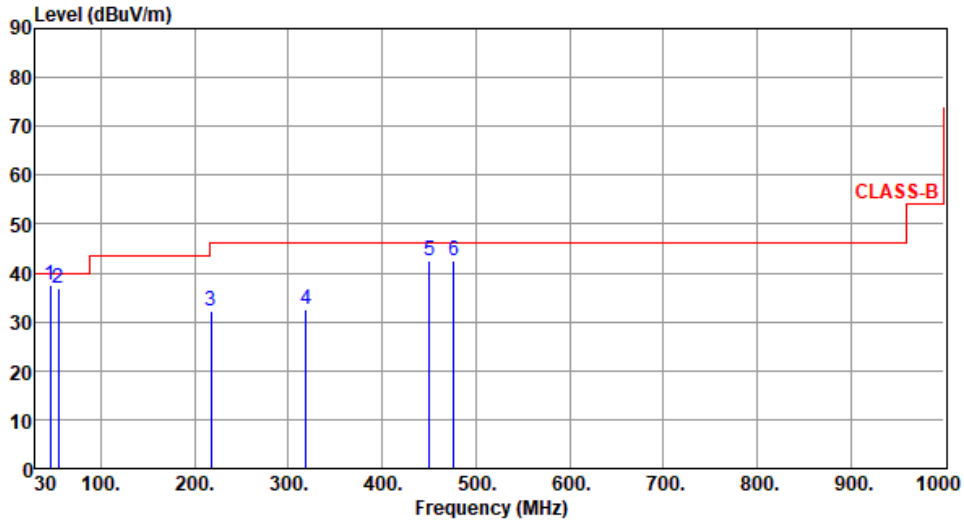



| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 38.64 | 32.46 | 40.00 | -7.54 | 41.48 | -9.02 | Peak | --- | --- |
| 2 | 79.56 | 35.32 | 40.00 | -4.68 | 48.68 | -13.36 | Peak | --- | --- |
| 3 | 249.60 | 33.00 | 46.00 | -13.00 | 43.18 | -10.18 | Peak | --- | --- |
| 4 | 319.20 | 30.09 | 46.00 | -15.91 | 38.06 | -7.97 | Peak | --- | --- |
| 5 | 450.40 | 39.15 | 46.00 | -6.85 | 43.23 | -4.08 | Peak | --- | --- |
| 6 | 476.80 | 33.01 | 46.00 | -12.99 | 36.60 | -3.59 | Peak | --- | --- |

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

| | |
|---|---|
| **Mode** | Mode 5a: LTE B30, BW10MHz,QPSK,CH27710(2310MHz),1rb offset 0 + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Vertical |

Test By :Roger Lu Temperature(℃):23 Humidity(%):65




| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 45.89 | 37.64 | 40.00 | -2.36 | 46.31 | -8.67 | QP | 161 | 317 |
| 2 | 54.26 | 36.81 | 40.00 | -3.19 | 45.76 | -8.95 | QP | 100 | 247 |
| 3 | 217.60 | 32.17 | 46.00 | -13.83 | 44.43 | -12.26 | Peak | --- | --- |
| 4 | 319.20 | 32.56 | 46.00 | -13.44 | 40.53 | -7.97 | Peak | --- | --- |
| 5 | 450.40 | 42.38 | 46.00 | -3.62 | 46.46 | -4.08 | Peak | --- | --- |
| 6 | 476.80 | 42.61 | 46.00 | -3.39 | 46.20 | -3.59 | Peak | --- | --- |

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

## 3.1.18 Transmitter Radiated Unwanted Emissions (Above 1GHz)

| Mode | Mode 5a: LTE B30, BW10MHz,QPSK,CH27710(2310MHz),1rb offset 0 + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 | | | | | | |
|---|---|---|---|---|---|---|---|
| **Frequency (MHz)** | **Antenna Polarity** | **E.I.R.P (dBm)** | **Limit (dBm)** | **Margin (dB)** | **S.A Reading (dBm)** | **S.G Power Value (dBm)** | **Correction Factor (dB)** |
| 1378.27 | H | -47.11 | -40.00 | -7.11 | -52.64 | -50.98 | 3.87 |
| 3233.27 | H | -66.76 | -40.00 | -26.76 | -79.31 | -73.55 | 6.79 |
| **1378.27** | **V** | **-41.87** | **-40.00** | **-1.87** | **-47.15** | **-45.74** | **3.87** |
| 3233.27 | V | -61.00 | -40.00 | -21.00 | -73.56 | -67.79 | 6.79 |

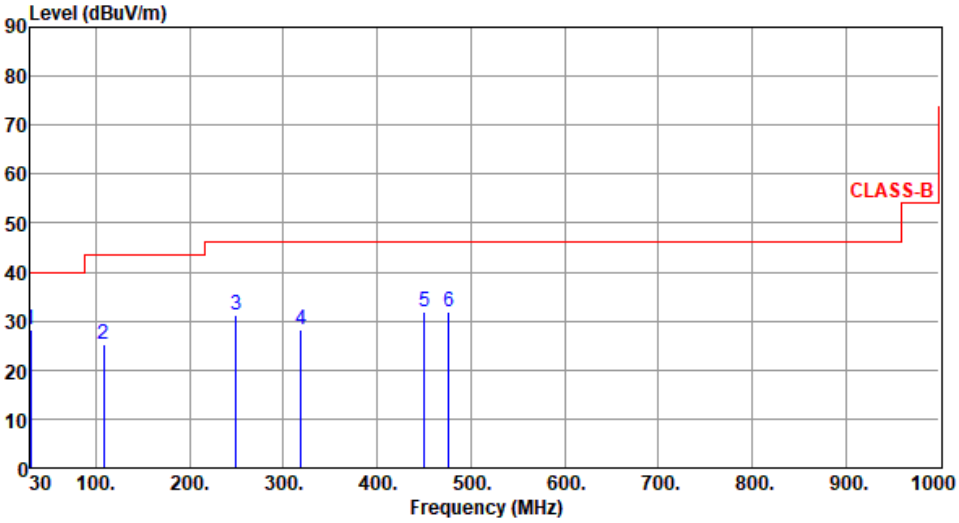
Note: EIRP = S.G Power value + Correction factor.

## *Test mode 5b – DC mode*

### 3.1.19 Transmitter Radiated Unwanted Emissions (Below 1GHz)

| | |
|---|---|
| **Mode** | Mode 5b: LTE B30, BW10MHz,QPSK,CH27710(2310MHz),1rb offset 0 + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Horizontal |

Test By :Roger Lu Temperature(℃):23 Humidity(%):65

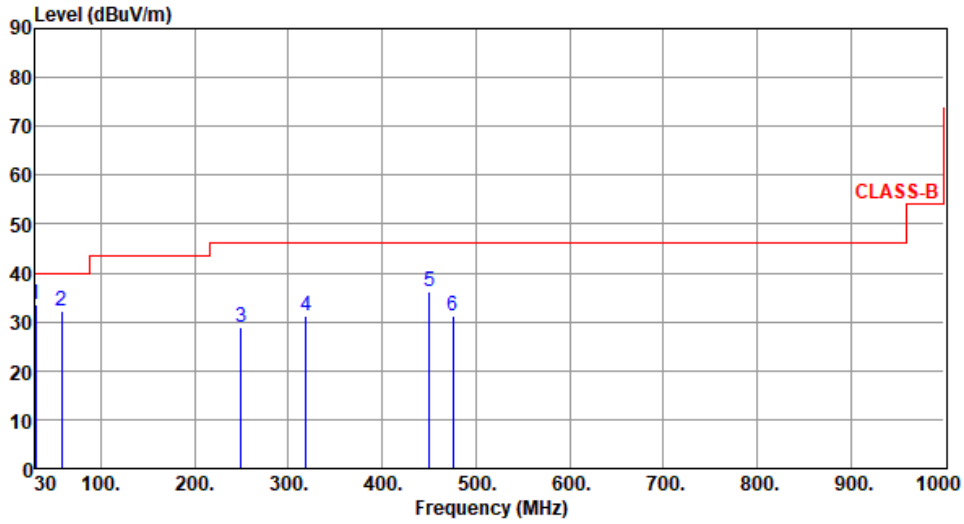



| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 30.35 | 28.24 | 40.00 | -11.76 | 38.45 | -10.21 | Peak | --- | --- |
| 2 | 108.42 | 25.22 | 43.50 | -18.28 | 37.58 | -12.36 | Peak | --- | --- |
| 3 | 249.60 | 31.30 | 46.00 | -14.70 | 41.48 | -10.18 | Peak | --- | --- |
| 4 | 319.20 | 28.36 | 46.00 | -17.64 | 36.33 | -7.97 | Peak | --- | --- |
| 5 | 450.40 | 31.79 | 46.00 | -14.21 | 35.87 | -4.08 | Peak | --- | --- |
| 6 | 476.80 | 31.99 | 46.00 | -14.01 | 35.58 | -3.59 | Peak | --- | --- |

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

| | |
|---|---|
| **Mode** | Mode 5b: LTE B30, BW10MHz,QPSK,CH27710(2310MHz),1rb offset 0 + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Vertical |

Test By :Roger Lu Temperature(℃):23 Humidity(%):65




| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 30.42 | 33.43 | 40.00 | -6.57 | 43.63 | -10.20 | QP | 100 | 17 |
| 2 | 58.26 | 32.12 | 40.00 | -7.88 | 41.31 | -9.19 | Peak | --- | --- |
| 3 | 249.60 | 28.89 | 46.00 | -17.11 | 39.07 | -10.18 | Peak | --- | --- |
| 4 | 319.20 | 31.18 | 46.00 | -14.82 | 39.15 | -7.97 | Peak | --- | --- |
| 5 | 450.40 | 36.35 | 46.00 | -9.65 | 40.43 | -4.08 | Peak | --- | --- |
| 6 | 476.00 | 31.36 | 46.00 | -14.64 | 34.97 | -3.61 | Peak | --- | --- |

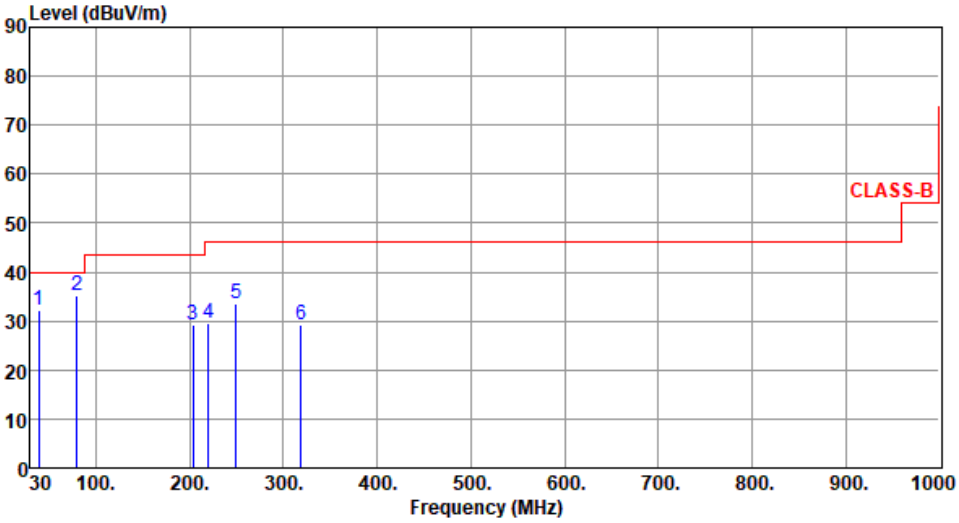
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

## *Test mode 6a – POE mode*

### 3.1.20 Transmitter Radiated Unwanted Emissions (Below 1GHz)

| | |
|---|---|
| **Mode** | Mode 6a: LTE B41, BW5MHz, QPSK,CH40620(2593MHz),1rb offset 0 + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Horizontal |

Test By :Roger Lu Temperature(℃):23 Humidity(%):65

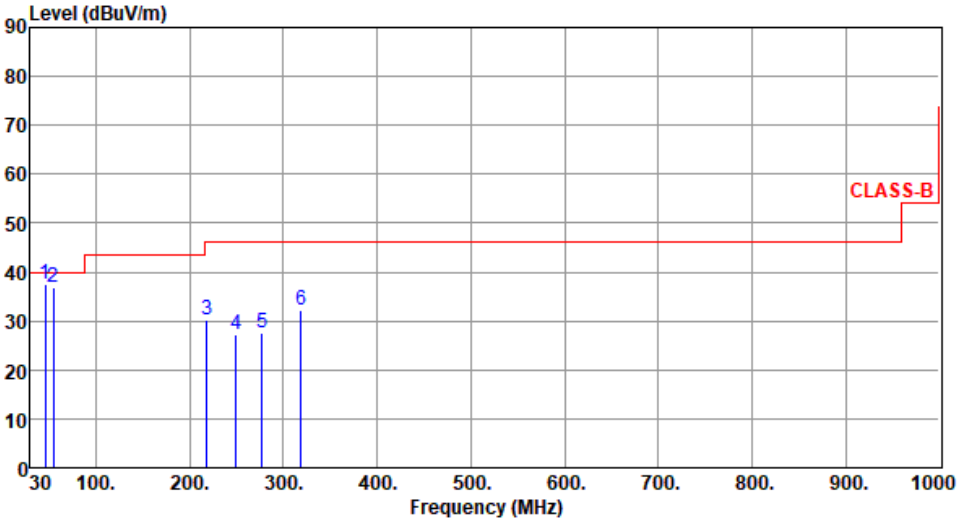



| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 38.65 | 32.26 | 40.00 | -7.74 | 41.28 | -9.02 | Peak | --- | --- |
| 2 | 79.56 | 35.07 | 40.00 | -4.93 | 48.43 | -13.36 | Peak | --- | --- |
| 3 | 204.00 | 29.20 | 43.50 | -14.30 | 41.39 | -12.19 | Peak | --- | --- |
| 4 | 220.00 | 29.51 | 46.00 | -16.49 | 41.87 | -12.36 | Peak | --- | --- |
| 5 | 249.60 | 33.54 | 46.00 | -12.46 | 43.72 | -10.18 | Peak | --- | --- |
| 6 | 319.20 | 29.08 | 46.00 | -16.92 | 37.05 | -7.97 | Peak | --- | --- |

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

| | |
|---|---|
| **Mode** | Mode 6a: LTE B41, BW5MHz, QPSK,CH40620(2593MHz),1rb offset 0 + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Vertical |

Test By :Roger Lu Temperature(℃):23 Humidity(%):65




| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 45.66 | 37.56 | 40.00 | -2.44 | 46.28 | -8.72 | QP | 159 | 315 |
| 2 | 54.25 | 36.77 | 40.00 | -3.23 | 45.72 | -8.95 | QP | 100 | 244 |
| 3 | 218.40 | 30.23 | 46.00 | -15.77 | 42.53 | -12.30 | Peak | --- | --- |
| 4 | 249.60 | 27.37 | 46.00 | -18.63 | 37.55 | -10.18 | Peak | --- | --- |
| 5 | 277.60 | 27.41 | 46.00 | -18.59 | 36.54 | -9.13 | Peak | --- | --- |
| 6 | 319.20 | 32.17 | 46.00 | -13.83 | 40.14 | -7.97 | Peak | --- | --- |

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

## 3.1.21 Transmitter Radiated Unwanted Emissions (Above 1GHz)

| Mode | Mode 6a: LTE B41, BW5MHz, QPSK,CH40620(2593MHz),1rb offset 0 + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 | | | | | | |
|---|---|---|---|---|---|---|---|
| **Frequency (MHz)** | **Antenna Polarity** | **E.I.R.P (dBm)** | **Limit (dBm)** | **Margin (dB)** | **S.A Reading (dBm)** | **S.G Power Value (dBm)** | **Correction Factor (dB)** |
| 1663.33 | H | -47.22 | -25.00 | -22.22 | -53.43 | -53.10 | 5.88 |
| 3518.30 | H | -61.57 | -25.00 | -36.57 | -74.25 | -68.76 | 7.19 |
| 1663.33 | V | -41.81 | -25.00 | -16.81 | -48.12 | -47.69 | 5.88 |
| 3518.30 | V | -61.58 | -25.00 | -36.58 | -74.16 | -68.77 | 7.19 |

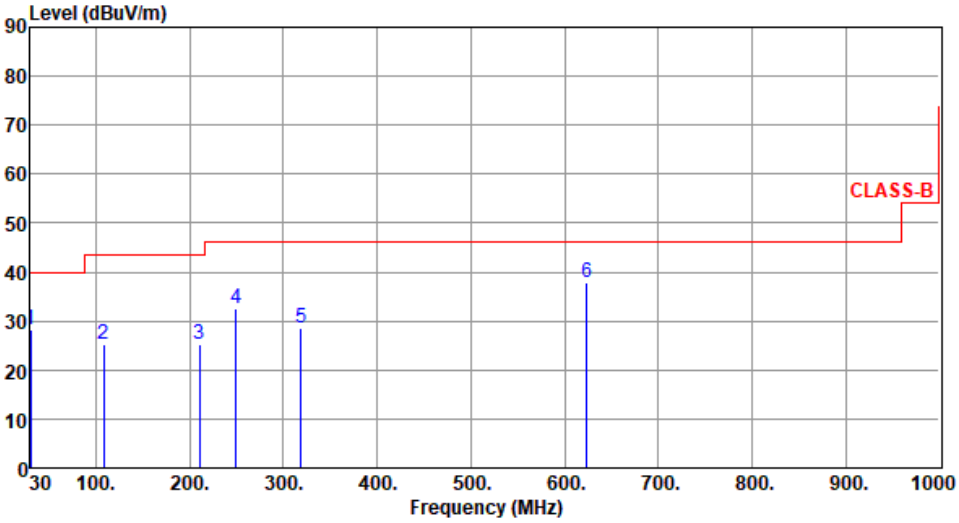
Note: EIRP = S.G Power value + Correction factor.

## *Test mode 6b – DC mode*

### 3.1.22 Transmitter Radiated Unwanted Emissions (Below 1GHz)

| | |
|---|---|
| **Mode** | Mode 6b: LTE B41, BW5MHz, QPSK,CH40620(2593MHz),1rb offset 0 + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Horizontal |

Test By :Roger Lu Temperature(℃):23 Humidity(%):65

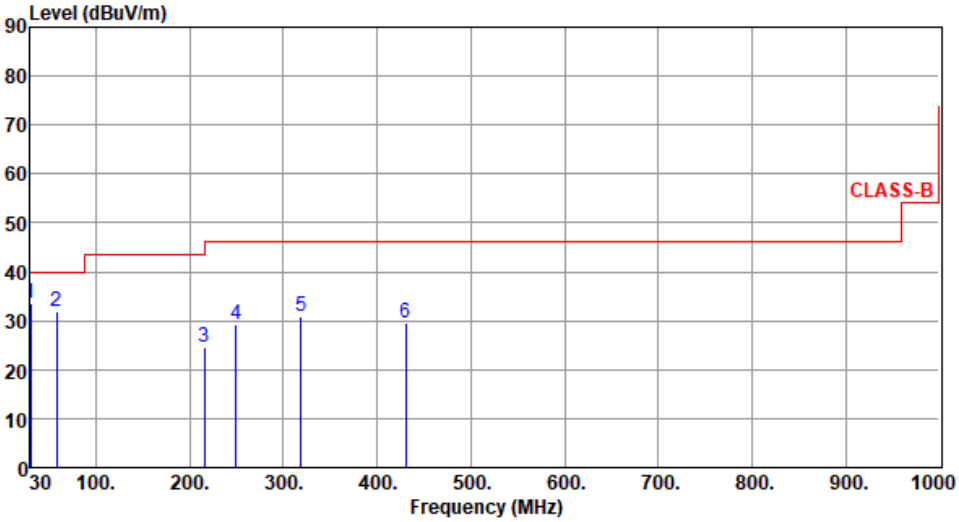



| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 30.25 | 28.10 | 40.00 | -11.90 | 38.33 | -10.23 | Peak | --- | --- |
| 2 | 108.43 | 25.16 | 43.50 | -18.34 | 37.51 | -12.35 | Peak | --- | --- |
| 3 | 210.40 | 25.37 | 43.50 | -18.13 | 37.55 | -12.18 | Peak | --- | --- |
| 4 | 249.60 | 32.40 | 46.00 | -13.60 | 42.58 | -10.18 | Peak | --- | --- |
| 5 | 319.20 | 28.45 | 46.00 | -17.55 | 36.42 | -7.97 | Peak | --- | --- |
| 6 | 624.00 | 37.99 | 46.00 | -8.01 | 38.05 | -0.06 | Peak | --- | --- |

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

| | |
|---|---|
| **Mode** | Mode 6b: LTE B41, BW5MHz, QPSK,CH40620(2593MHz),1rb offset 0 + LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Vertical |

Test By :Roger Lu Temperature(℃):23 Humidity(%):65




| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 30.47 | 33.44 | 40.00 | -6.56 | 43.62 | -10.18 | QP | 100 | 19 |
| 2 | 58.26 | 32.03 | 40.00 | -7.97 | 41.22 | -9.19 | Peak | --- | --- |
| 3 | 216.00 | 24.50 | 43.50 | -19.00 | 36.71 | -12.21 | Peak | --- | --- |
| 4 | 249.60 | 29.30 | 46.00 | -16.70 | 39.48 | -10.18 | Peak | --- | --- |
| 5 | 319.20 | 30.86 | 46.00 | -15.14 | 38.83 | -7.97 | Peak | --- | --- |
| 6 | 430.40 | 29.57 | 46.00 | -16.43 | 34.37 | -4.80 | Peak | --- | --- |

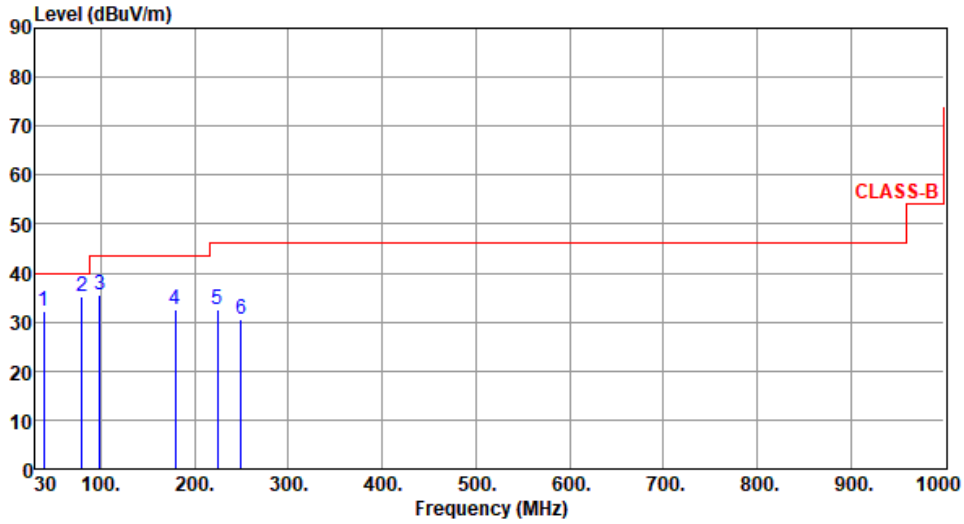
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

## *Test mode 7a – POE mode*

### 3.1.23 Transmitter Radiated Unwanted Emissions (Below 1GHz)

| | |
|---|---|
| **Mode** | Mode 7a: LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Horizontal |

Test By :Roger Lu Temperature(℃):23 Humidity(%):66

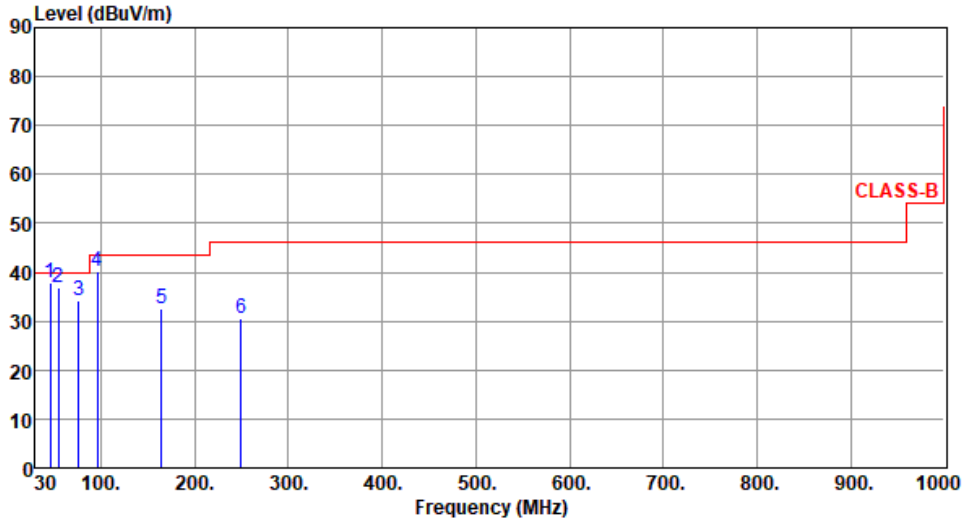



| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 38.65 | 32.26 | 40.00 | -7.74 | 41.28 | -9.02 | Peak | --- | --- |
| 2 | 79.58 | 35.35 | 40.00 | -4.65 | 48.72 | -13.37 | Peak | --- | --- |
| 3 | 98.79 | 35.68 | 43.50 | -7.82 | 49.73 | -14.05 | Peak | --- | --- |
| 4 | 179.42 | 32.49 | 43.50 | -11.01 | 42.81 | -10.32 | Peak | --- | --- |
| 5 | 224.05 | 32.67 | 46.00 | -13.33 | 45.10 | -12.43 | Peak | --- | --- |
| 6 | 249.39 | 30.54 | 46.00 | -15.46 | 40.72 | -10.18 | Peak | --- | --- |

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

| | |
|---|---|
| **Mode** | Mode 7a: LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Vertical |

Test By :Roger Lu Temperature(℃):23 Humidity(%):66



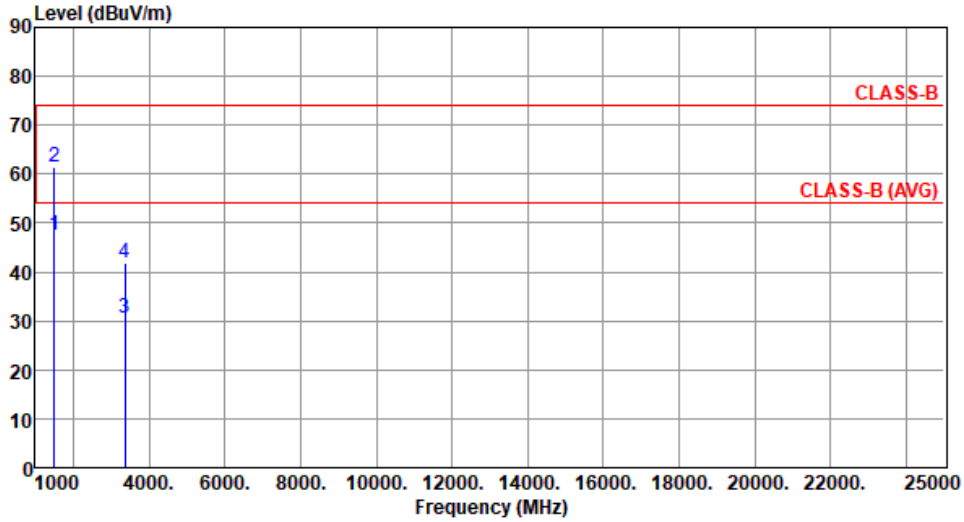

| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 45.68 | 37.85 | 40.00 | -2.15 | 46.56 | -8.71 | QP | 169 | 315 |
| 2 | 54.49 | 36.75 | 40.00 | -3.25 | 45.75 | -9.00 | QP | 100 | 249 |
| 3 | 76.59 | 34.33 | 40.00 | -5.67 | 46.98 | -12.65 | QP | 100 | 29 |
| 4 | 95.85 | 40.31 | 43.50 | -3.19 | 54.78 | -14.47 | Peak | --- | --- |
| 5 | 164.79 | 32.65 | 43.50 | -10.85 | 41.67 | -9.02 | Peak | --- | --- |
| 6 | 249.49 | 30.49 | 46.00 | -15.51 | 40.67 | -10.18 | Peak | --- | --- |

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

## 3.1.24 Transmitter Radiated Unwanted Emissions (Above 1GHz)

| | |
|---|---|
| **Mode** | Mode 7a: LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Horizontal |

Test By :Roger Lu Temperature(℃):24 Humidity(%):61

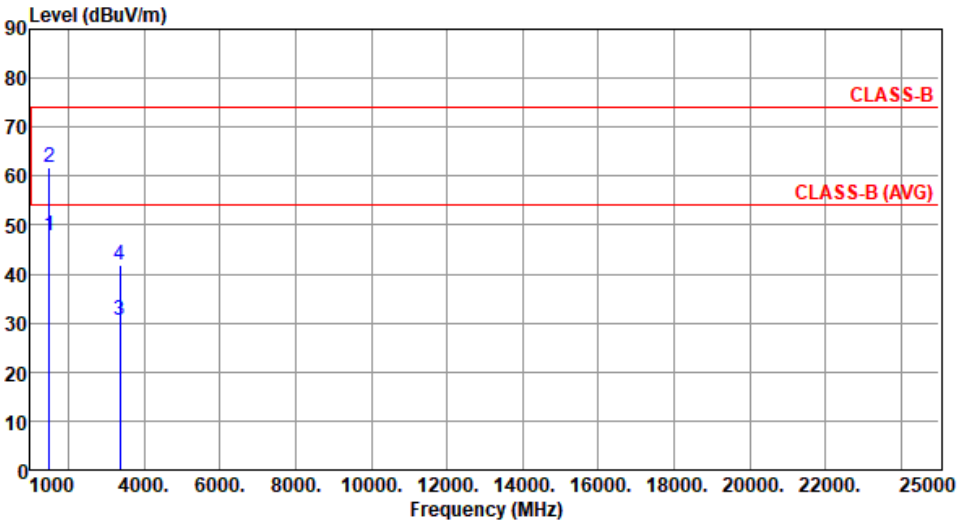



| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1509.50 | 47.50 | 54.00 | -6.50 | 53.54 | -6.04 | Average | 100 | 40 |
| 2 | 1509.50 | 61.43 | 74.00 | -12.57 | 67.47 | -6.04 | Peak | 100 | 40 |
| 3 | 3364.50 | 30.66 | 54.00 | -23.34 | 30.24 | 0.42 | Average | 100 | 60 |
| 4 | 3364.50 | 42.00 | 74.00 | -32.00 | 41.58 | 0.42 | Peak | 100 | 60 |

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

| | |
|---|---|
| **Mode** | Mode 7a: LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Vertical |

Test By :Roger Lu Temperature(℃):24 Humidity(%):61




| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1509.50 | 47.82 | 54.00 | -6.18 | 53.86 | -6.04 | Average | 100 | 50 |
| 2 | 1509.50 | 61.71 | 74.00 | -12.29 | 67.75 | -6.04 | Peak | 100 | 50 |
| 3 | 3364.50 | 30.60 | 54.00 | -23.40 | 30.18 | 0.42 | Average | 100 | 80 |
| 4 | 3364.50 | 41.78 | 74.00 | -32.22 | 41.36 | 0.42 | Peak | 100 | 80 |

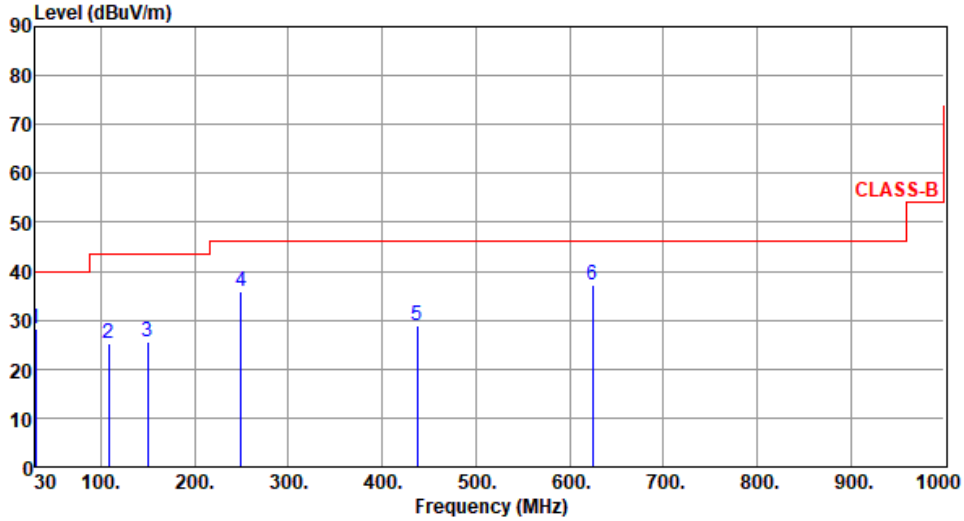
Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).

## *Test mode 7b – DC mode*

### 3.1.25 Transmitter Radiated Unwanted Emissions (Below 1GHz)

| | |
|---|---|
| **Mode** | Mode 7b: LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Horizontal |

Test By :BRAD WU Temperature(℃):23 Humidity(%):66

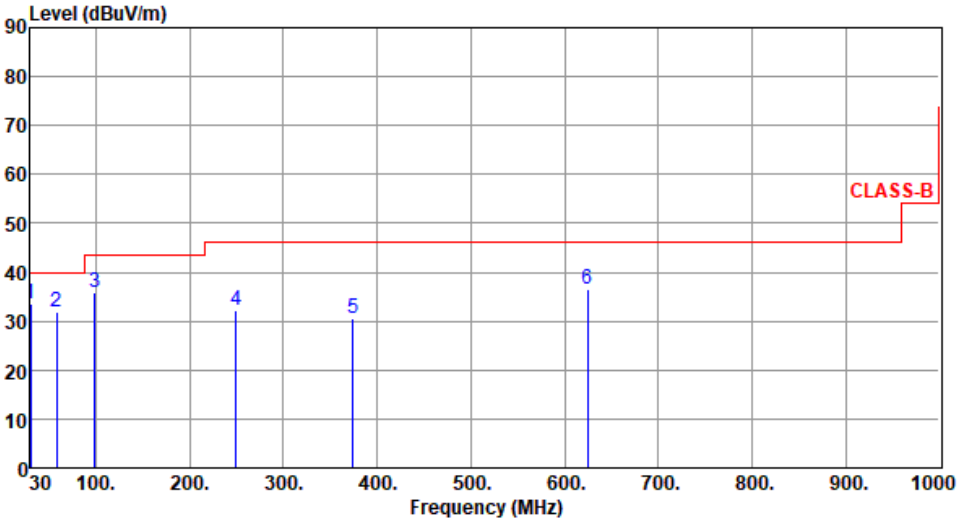



| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 30.15 | 28.22 | 40.00 | -11.78 | 38.47 | -10.25 | Peak | --- | --- |
| 2 | 108.61 | 25.24 | 43.50 | -18.26 | 37.56 | -12.32 | Peak | --- | --- |
| 3 | 149.49 | 25.43 | 43.50 | -18.07 | 34.34 | -8.91 | Peak | --- | --- |
| 4 | 249.33 | 35.75 | 46.00 | -10.25 | 45.94 | -10.19 | Peak | --- | --- |
| 5 | 437.58 | 28.76 | 46.00 | -17.24 | 33.23 | -4.47 | Peak | --- | --- |
| 6 | 624.59 | 37.34 | 46.00 | -8.66 | 37.39 | -0.05 | Peak | --- | --- |

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

| | |
|---|---|
| **Mode** | Mode 7b: LoRa BW500KHz, 927.5MHz + WIFI 11g ch6 |
| **Polarization** | Vertical |

Test By :BRAD WU Temperature(℃):23 Humidity(%):66




| | Freq. MHz | Emission level dBuV/m | Limit dBuV/m | Margin dB | SA reading dBuV | Factor dB | Remark | ANT High cm | Turn Table deg |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 30.42 | 33.45 | 40.00 | -6.55 | 43.65 | -10.20 | QP | 100 | 18 |
| 2 | 58.26 | 31.75 | 40.00 | -8.25 | 40.94 | -9.19 | Peak | --- | --- |
| 3 | 98.79 | 35.75 | 43.50 | -7.75 | 49.80 | -14.05 | Peak | --- | --- |
| 4 | 249.31 | 32.28 | 46.00 | -13.72 | 42.47 | -10.19 | Peak | --- | --- |
| 5 | 374.49 | 30.48 | 46.00 | -15.52 | 36.99 | -6.51 | Peak | --- | --- |
| 6 | 624.59 | 36.42 | 46.00 | -9.58 | 36.47 | -0.05 | Peak | --- | --- |

Note 1: Emission Level (dBuV/m) = SA Reading (dBuV/m) + Factor* (dB)
*Factor includes antenna factor , cable loss and amplifier gain
Note 2: Margin (dB) = Emission level (dBuV/m) – Limit (dBuV/m).
Note 3: All spurious emissions below 30MHz are more than 20 dB below the limit.

# 4 Test laboratory information

Established in 2012, ICC provides foremost EMC & RF Testing and advisory consultation services by our skilled engineers and technicians. Our services employ a wide variety of advanced edge test equipment and one of the widest certification extents in the business.

International Certification Corp (EMC and Wireless Communication Laboratory), it is our definitive objective is to institute long term, trust-based associations with our clients. The expectation we set up with our clients is based on outstanding service, practical expertise and devotion to a certified value structure. Our passion is to grant our clients with best EMC / RF services by oriented knowledgeable and accommodating staff.

Our Test sites are located at Linkou District and Kwei Shan District. Location map can be found on our website http://www.icertifi.com.tw.

| **Linkou** | **Kwei Shan** | **Kwei Shan Site II** |
|---|---|---|
| Tel: 886-2-2601-1640 | Tel: 886-3-271-8666 | Tel: 886-3-271-8640 |
| No. 30-2, Ding Fwu Tsuen, Lin Kou District, New Taipei City, Taiwan, R.O.C. | No. 3-1, Lane 6, Wen San 3rd St., Kwei Shan District, Tao Yuan City 333, Taiwan, R.O.C. | No. 14-1, Lane 19, Wen San 3rd St., Kwei Shan District, Tao Yuan City 333, Taiwan, R.O.C.. |

If you have any suggestion, please feel free to contact us as below information

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**==END==**