

## Remark:

1. Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain, the value was added to Original Receiver Reading by the software automatically.
2. Result = Reading + Correct Factor.
3. Margin = Result – Limit



## 5.8 FREQUENCY STABILITY

**Test Requirement:** FCC 47 CFR Part 2.1055 &  
FCC 47 CFR Part 22.355 &  
FCC 47 CFR Part 24.235 &  
FCC 47 CFR Part 27.54

**Test Method:** ANSI C63.26-2015 & KDB 971168 D01v03r01

**Limits:**

**FCC 47 CFR Part 22.355, FCC 47 CFR Part 90.213**

The carrier frequency shall not depart from the reference frequency in excess of  $\pm 2.5$  ppm for mobile stations.

**FCC 47 CFR Part 24.235, FCC 47 CFR Part 27.54**

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

**Test Setup:** Refer to section 4.2.2 for details.

**Test Procedures:**

1) Use CMW 500 with Frequency Error measurement capability.

a) Temp. =  $-30^{\circ}$  to  $+50^{\circ}\text{C}$

b) Voltage = low voltage, 3.4 Vdc, Normal, 3.85 Vdc and High voltage, 4.45 Vdc.

2) Frequency Stability vs Temperature:

The EUT is placed inside a temperature chamber. The temperature is set to  $20^{\circ}\text{C}$  and allowed to stabilize. After sufficient soak time, the transmitting frequency error is measured. The temperature is increased by 10 degrees, allowed to stabilize and soak, and then the measurement is repeated. This is repeated until  $+50^{\circ}\text{C}$  is reached.

3) Frequency Stability vs Voltage:

The peak frequency error is recorded (worst-case).

**Equipment Used:** Refer to section 3 for details.

**Test Result:** Pass

**Test Data:** Please refer to Appendix A

## APPENDIX A RF TEST DATA

## A.1 PEAK-TO-AVERAGE RATIO(CCDF)

| Band  | Bandwidth | Modulation | Channel | RB Configuration | Result(dB) | Limit(dB) | Verdict |
|-------|-----------|------------|---------|------------------|------------|-----------|---------|
| Band2 | 1.4MHz    | QPSK       | 18607   | 1RB#0            | 5.05       | 13        | PASS    |
| Band2 | 1.4MHz    | QPSK       | 18607   | 6RB#0            | 6.03       | 13        | PASS    |
| Band2 | 1.4MHz    | QPSK       | 18900   | 1RB#0            | 5.29       | 13        | PASS    |
| Band2 | 1.4MHz    | QPSK       | 18900   | 6RB#0            | 5.60       | 13        | PASS    |
| Band2 | 1.4MHz    | QPSK       | 19193   | 1RB#0            | 4.31       | 13        | PASS    |
| Band2 | 1.4MHz    | QPSK       | 19193   | 6RB#0            | 5.42       | 13        | PASS    |
| Band2 | 1.4MHz    | 16QAM      | 18607   | 1RB#0            | 5.84       | 13        | PASS    |
| Band2 | 1.4MHz    | 16QAM      | 18607   | 6RB#0            | 6.38       | 13        | PASS    |
| Band2 | 1.4MHz    | 16QAM      | 18900   | 1RB#0            | 6.46       | 13        | PASS    |
| Band2 | 1.4MHz    | 16QAM      | 18900   | 6RB#0            | 6.43       | 13        | PASS    |
| Band2 | 1.4MHz    | 16QAM      | 19193   | 1RB#0            | 5.08       | 13        | PASS    |
| Band2 | 1.4MHz    | 16QAM      | 19193   | 6RB#0            | 5.93       | 13        | PASS    |
| Band2 | 3MHz      | QPSK       | 18615   | 1RB#0            | 5.03       | 13        | PASS    |
| Band2 | 3MHz      | QPSK       | 18615   | 15RB#0           | 5.53       | 13        | PASS    |
| Band2 | 3MHz      | QPSK       | 18900   | 1RB#0            | 5.35       | 13        | PASS    |
| Band2 | 3MHz      | QPSK       | 18900   | 15RB#0           | 5.64       | 13        | PASS    |
| Band2 | 3MHz      | QPSK       | 19185   | 1RB#0            | 4.76       | 13        | PASS    |
| Band2 | 3MHz      | QPSK       | 19185   | 15RB#0           | 5.29       | 13        | PASS    |
| Band2 | 3MHz      | 16QAM      | 18615   | 1RB#0            | 6.21       | 13        | PASS    |
| Band2 | 3MHz      | 16QAM      | 18615   | 15RB#0           | 6.39       | 13        | PASS    |
| Band2 | 3MHz      | 16QAM      | 18900   | 1RB#0            | 6.26       | 13        | PASS    |
| Band2 | 3MHz      | 16QAM      | 18900   | 15RB#0           | 6.90       | 13        | PASS    |
| Band2 | 3MHz      | 16QAM      | 19185   | 1RB#0            | 5.45       | 13        | PASS    |
| Band2 | 3MHz      | 16QAM      | 19185   | 15RB#0           | 6.08       | 13        | PASS    |
| Band2 | 5MHz      | QPSK       | 18625   | 1RB#0            | 5.20       | 13        | PASS    |
| Band2 | 5MHz      | QPSK       | 18625   | 25RB#0           | 5.67       | 13        | PASS    |
| Band2 | 5MHz      | QPSK       | 18900   | 1RB#0            | 5.38       | 13        | PASS    |
| Band2 | 5MHz      | QPSK       | 18900   | 25RB#0           | 6.68       | 13        | PASS    |
| Band2 | 5MHz      | QPSK       | 19175   | 1RB#0            | 5.04       | 13        | PASS    |
| Band2 | 5MHz      | QPSK       | 19175   | 25RB#0           | 5.40       | 13        | PASS    |
| Band2 | 5MHz      | 16QAM      | 18625   | 1RB#0            | 5.75       | 13        | PASS    |
| Band2 | 5MHz      | 16QAM      | 18625   | 25RB#0           | 6.36       | 13        | PASS    |
| Band2 | 5MHz      | 16QAM      | 18900   | 1RB#0            | 7.06       | 13        | PASS    |
| Band2 | 5MHz      | 16QAM      | 18900   | 25RB#0           | 6.35       | 13        | PASS    |
| Band2 | 5MHz      | 16QAM      | 19175   | 1RB#0            | 5.67       | 13        | PASS    |
| Band2 | 5MHz      | 16QAM      | 19175   | 25RB#0           | 6.16       | 13        | PASS    |
| Band2 | 10MHz     | QPSK       | 18650   | 1RB#0            | 5.16       | 13        | PASS    |
| Band2 | 10MHz     | QPSK       | 18650   | 50RB#0           | 5.65       | 13        | PASS    |
| Band2 | 10MHz     | QPSK       | 18900   | 1RB#0            | 5.39       | 13        | PASS    |
| Band2 | 10MHz     | QPSK       | 18900   | 50RB#0           | 5.66       | 13        | PASS    |
| Band2 | 10MHz     | QPSK       | 19150   | 1RB#0            | 7.27       | 13        | PASS    |
| Band2 | 10MHz     | QPSK       | 19150   | 50RB#0           | 5.47       | 13        | PASS    |
| Band2 | 10MHz     | 16QAM      | 18650   | 1RB#0            | 6.04       | 13        | PASS    |
| Band2 | 10MHz     | 16QAM      | 18650   | 50RB#0           | 6.37       | 13        | PASS    |
| Band2 | 10MHz     | 16QAM      | 18900   | 1RB#0            | 6.06       | 13        | PASS    |
| Band2 | 10MHz     | 16QAM      | 18900   | 50RB#0           | 7.74       | 13        | PASS    |
| Band2 | 10MHz     | 16QAM      | 19150   | 1RB#0            | 6.43       | 13        | PASS    |
| Band2 | 10MHz     | 16QAM      | 19150   | 50RB#0           | 6.26       | 13        | PASS    |
| Band2 | 15MHz     | QPSK       | 18675   | 1RB#0            | 5.03       | 13        | PASS    |
| Band2 | 15MHz     | QPSK       | 18675   | 75RB#0           | 5.97       | 13        | PASS    |
| Band2 | 15MHz     | QPSK       | 18900   | 1RB#0            | 5.51       | 13        | PASS    |
| Band2 | 15MHz     | QPSK       | 18900   | 75RB#0           | 5.97       | 13        | PASS    |
| Band2 | 15MHz     | QPSK       | 19125   | 1RB#0            | 5.17       | 13        | PASS    |
| Band2 | 15MHz     | QPSK       | 19125   | 75RB#0           | 6.02       | 13        | PASS    |
| Band2 | 15MHz     | 16QAM      | 18675   | 1RB#0            | 6.20       | 13        | PASS    |
| Band2 | 15MHz     | 16QAM      | 18675   | 75RB#0           | 6.45       | 13        | PASS    |
| Band2 | 15MHz     | 16QAM      | 18900   | 1RB#0            | 6.44       | 13        | PASS    |
| Band2 | 15MHz     | 16QAM      | 18900   | 75RB#0           | 6.46       | 13        | PASS    |
| Band2 | 15MHz     | 16QAM      | 19125   | 1RB#0            | 6.08       | 13        | PASS    |

## Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F, Block A, Building 6th, Baoneng Science and Technology Park, Longhua Street, Longhua District, Shenzhen, China

Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

UTTR-RF-FCC4G-V1.1

|       |        |       |       |         |      |    |      |
|-------|--------|-------|-------|---------|------|----|------|
| Band2 | 15MHz  | 16QAM | 19125 | 75RB#0  | 6.47 | 13 | PASS |
| Band2 | 20MHz  | QPSK  | 18700 | 1RB#0   | 5.13 | 13 | PASS |
| Band2 | 20MHz  | QPSK  | 18700 | 100RB#0 | 5.67 | 13 | PASS |
| Band2 | 20MHz  | QPSK  | 18900 | 1RB#0   | 5.59 | 13 | PASS |
| Band2 | 20MHz  | QPSK  | 18900 | 100RB#0 | 5.68 | 13 | PASS |
| Band2 | 20MHz  | QPSK  | 19100 | 1RB#0   | 5.13 | 13 | PASS |
| Band2 | 20MHz  | QPSK  | 19100 | 100RB#0 | 5.82 | 13 | PASS |
| Band2 | 20MHz  | 16QAM | 18700 | 1RB#0   | 5.74 | 13 | PASS |
| Band2 | 20MHz  | 16QAM | 18700 | 100RB#0 | 6.43 | 13 | PASS |
| Band2 | 20MHz  | 16QAM | 18900 | 1RB#0   | 6.37 | 13 | PASS |
| Band2 | 20MHz  | 16QAM | 18900 | 100RB#0 | 6.38 | 13 | PASS |
| Band2 | 20MHz  | 16QAM | 19100 | 1RB#0   | 6.19 | 13 | PASS |
| Band2 | 20MHz  | 16QAM | 19100 | 100RB#0 | 6.51 | 13 | PASS |
| Band4 | 1.4MHz | QPSK  | 19957 | 1RB#0   | 5.54 | 13 | PASS |
| Band4 | 1.4MHz | QPSK  | 19957 | 6RB#0   | 5.58 | 13 | PASS |
| Band4 | 1.4MHz | QPSK  | 20175 | 1RB#0   | 5.45 | 13 | PASS |
| Band4 | 1.4MHz | QPSK  | 20175 | 6RB#0   | 5.75 | 13 | PASS |
| Band4 | 1.4MHz | QPSK  | 20393 | 1RB#0   | 5.59 | 13 | PASS |
| Band4 | 1.4MHz | QPSK  | 20393 | 6RB#0   | 5.64 | 13 | PASS |
| Band4 | 1.4MHz | 16QAM | 19957 | 1RB#0   | 6.57 | 13 | PASS |
| Band4 | 1.4MHz | 16QAM | 19957 | 6RB#0   | 6.41 | 13 | PASS |
| Band4 | 1.4MHz | 16QAM | 20175 | 1RB#0   | 6.17 | 13 | PASS |
| Band4 | 1.4MHz | 16QAM | 20175 | 6RB#0   | 6.89 | 13 | PASS |
| Band4 | 1.4MHz | 16QAM | 20393 | 1RB#0   | 6.82 | 13 | PASS |
| Band4 | 1.4MHz | 16QAM | 20393 | 6RB#0   | 6.51 | 13 | PASS |
| Band4 | 3MHz   | QPSK  | 19965 | 1RB#0   | 5.88 | 13 | PASS |
| Band4 | 3MHz   | QPSK  | 19965 | 15RB#0  | 5.58 | 13 | PASS |
| Band4 | 3MHz   | QPSK  | 20175 | 1RB#0   | 5.51 | 13 | PASS |
| Band4 | 3MHz   | QPSK  | 20175 | 15RB#0  | 5.74 | 13 | PASS |
| Band4 | 3MHz   | QPSK  | 20385 | 1RB#0   | 5.58 | 13 | PASS |
| Band4 | 3MHz   | QPSK  | 20385 | 15RB#0  | 6.40 | 13 | PASS |
| Band4 | 3MHz   | 16QAM | 19965 | 1RB#0   | 6.84 | 13 | PASS |
| Band4 | 3MHz   | 16QAM | 19965 | 15RB#0  | 6.44 | 13 | PASS |
| Band4 | 3MHz   | 16QAM | 20175 | 1RB#0   | 6.44 | 13 | PASS |
| Band4 | 3MHz   | 16QAM | 20175 | 15RB#0  | 6.53 | 13 | PASS |
| Band4 | 3MHz   | 16QAM | 20385 | 1RB#0   | 6.23 | 13 | PASS |
| Band4 | 3MHz   | 16QAM | 20385 | 15RB#0  | 6.47 | 13 | PASS |
| Band4 | 5MHz   | QPSK  | 19975 | 1RB#0   | 5.39 | 13 | PASS |
| Band4 | 5MHz   | QPSK  | 19975 | 25RB#0  | 5.76 | 13 | PASS |
| Band4 | 5MHz   | QPSK  | 20175 | 1RB#0   | 5.83 | 13 | PASS |
| Band4 | 5MHz   | QPSK  | 20175 | 25RB#0  | 5.80 | 13 | PASS |
| Band4 | 5MHz   | QPSK  | 20375 | 1RB#0   | 5.69 | 13 | PASS |
| Band4 | 5MHz   | QPSK  | 20375 | 25RB#0  | 5.75 | 13 | PASS |
| Band4 | 5MHz   | 16QAM | 19975 | 1RB#0   | 5.98 | 13 | PASS |
| Band4 | 5MHz   | 16QAM | 19975 | 25RB#0  | 6.51 | 13 | PASS |
| Band4 | 5MHz   | 16QAM | 20175 | 1RB#0   | 6.23 | 13 | PASS |
| Band4 | 5MHz   | 16QAM | 20175 | 25RB#0  | 7.12 | 13 | PASS |
| Band4 | 5MHz   | 16QAM | 20375 | 1RB#0   | 6.33 | 13 | PASS |
| Band4 | 5MHz   | 16QAM | 20375 | 25RB#0  | 6.42 | 13 | PASS |
| Band4 | 10MHz  | QPSK  | 20000 | 1RB#0   | 5.50 | 13 | PASS |
| Band4 | 10MHz  | QPSK  | 20000 | 50RB#0  | 5.80 | 13 | PASS |
| Band4 | 10MHz  | QPSK  | 20175 | 1RB#0   | 5.58 | 13 | PASS |
| Band4 | 10MHz  | QPSK  | 20175 | 50RB#0  | 5.75 | 13 | PASS |
| Band4 | 10MHz  | QPSK  | 20350 | 1RB#0   | 5.44 | 13 | PASS |
| Band4 | 10MHz  | QPSK  | 20350 | 50RB#0  | 5.75 | 13 | PASS |
| Band4 | 10MHz  | 16QAM | 20000 | 1RB#0   | 6.42 | 13 | PASS |
| Band4 | 10MHz  | 16QAM | 20000 | 50RB#0  | 6.53 | 13 | PASS |
| Band4 | 10MHz  | 16QAM | 20175 | 1RB#0   | 6.28 | 13 | PASS |
| Band4 | 10MHz  | 16QAM | 20175 | 50RB#0  | 7.77 | 13 | PASS |
| Band4 | 10MHz  | 16QAM | 20350 | 1RB#0   | 6.80 | 13 | PASS |
| Band4 | 10MHz  | 16QAM | 20350 | 50RB#0  | 6.52 | 13 | PASS |
| Band4 | 15MHz  | QPSK  | 20025 | 1RB#0   | 5.50 | 13 | PASS |
| Band4 | 15MHz  | QPSK  | 20025 | 75RB#0  | 6.12 | 13 | PASS |

## Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F, Block A, Building 6th, Baoneng Science and Technology Park, Longhua Street, Longhua District, Shenzhen, China

Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

UTTR-RF-FCC4G-V1.1

|       |        |       |       |         |      |    |      |
|-------|--------|-------|-------|---------|------|----|------|
| Band4 | 15MHz  | QPSK  | 20175 | 1RB#0   | 5.69 | 13 | PASS |
| Band4 | 15MHz  | QPSK  | 20175 | 75RB#0  | 6.11 | 13 | PASS |
| Band4 | 15MHz  | QPSK  | 20325 | 1RB#0   | 5.62 | 13 | PASS |
| Band4 | 15MHz  | QPSK  | 20325 | 75RB#0  | 6.11 | 13 | PASS |
| Band4 | 15MHz  | 16QAM | 20025 | 1RB#0   | 6.72 | 13 | PASS |
| Band4 | 15MHz  | 16QAM | 20025 | 75RB#0  | 6.63 | 13 | PASS |
| Band4 | 15MHz  | 16QAM | 20175 | 1RB#0   | 6.61 | 13 | PASS |
| Band4 | 15MHz  | 16QAM | 20175 | 75RB#0  | 6.58 | 13 | PASS |
| Band4 | 15MHz  | 16QAM | 20325 | 1RB#0   | 6.45 | 13 | PASS |
| Band4 | 15MHz  | 16QAM | 20325 | 75RB#0  | 7.99 | 13 | PASS |
| Band4 | 20MHz  | QPSK  | 20050 | 1RB#0   | 5.52 | 13 | PASS |
| Band4 | 20MHz  | QPSK  | 20050 | 100RB#0 | 5.84 | 13 | PASS |
| Band4 | 20MHz  | QPSK  | 20175 | 1RB#0   | 5.50 | 13 | PASS |
| Band4 | 20MHz  | QPSK  | 20175 | 100RB#0 | 5.76 | 13 | PASS |
| Band4 | 20MHz  | QPSK  | 20300 | 1RB#0   | 5.77 | 13 | PASS |
| Band4 | 20MHz  | QPSK  | 20300 | 100RB#0 | 5.83 | 13 | PASS |
| Band4 | 20MHz  | 16QAM | 20050 | 1RB#0   | 6.52 | 13 | PASS |
| Band4 | 20MHz  | 16QAM | 20050 | 100RB#0 | 6.62 | 13 | PASS |
| Band4 | 20MHz  | 16QAM | 20175 | 1RB#0   | 6.04 | 13 | PASS |
| Band4 | 20MHz  | 16QAM | 20175 | 100RB#0 | 6.52 | 13 | PASS |
| Band4 | 20MHz  | 16QAM | 20300 | 1RB#0   | 6.55 | 13 | PASS |
| Band4 | 20MHz  | 16QAM | 20300 | 100RB#0 | 6.52 | 13 | PASS |
| Band5 | 1.4MHz | QPSK  | 20407 | 1RB#0   | 5.08 | 13 | PASS |
| Band5 | 1.4MHz | QPSK  | 20407 | 6RB#0   | 5.55 | 13 | PASS |
| Band5 | 1.4MHz | QPSK  | 20525 | 1RB#0   | 4.34 | 13 | PASS |
| Band5 | 1.4MHz | QPSK  | 20525 | 6RB#0   | 5.21 | 13 | PASS |
| Band5 | 1.4MHz | QPSK  | 20643 | 1RB#0   | 4.71 | 13 | PASS |
| Band5 | 1.4MHz | QPSK  | 20643 | 6RB#0   | 5.77 | 13 | PASS |
| Band5 | 1.4MHz | 16QAM | 20407 | 1RB#0   | 6.62 | 13 | PASS |
| Band5 | 1.4MHz | 16QAM | 20407 | 6RB#0   | 6.34 | 13 | PASS |
| Band5 | 1.4MHz | 16QAM | 20525 | 1RB#0   | 5.24 | 13 | PASS |
| Band5 | 1.4MHz | 16QAM | 20525 | 6RB#0   | 6.03 | 13 | PASS |
| Band5 | 1.4MHz | 16QAM | 20643 | 1RB#0   | 5.46 | 13 | PASS |
| Band5 | 1.4MHz | 16QAM | 20643 | 6RB#0   | 6.14 | 13 | PASS |
| Band5 | 3MHz   | QPSK  | 20415 | 1RB#0   | 5.05 | 13 | PASS |
| Band5 | 3MHz   | QPSK  | 20415 | 15RB#0  | 5.58 | 13 | PASS |
| Band5 | 3MHz   | QPSK  | 20525 | 1RB#0   | 4.42 | 13 | PASS |
| Band5 | 3MHz   | QPSK  | 20525 | 15RB#0  | 5.45 | 13 | PASS |
| Band5 | 3MHz   | 16QAM | 20415 | 1RB#0   | 6.21 | 13 | PASS |
| Band5 | 3MHz   | 16QAM | 20415 | 15RB#0  | 6.40 | 13 | PASS |
| Band5 | 3MHz   | 16QAM | 20525 | 1RB#0   | 5.30 | 13 | PASS |
| Band5 | 3MHz   | 16QAM | 20525 | 15RB#0  | 6.78 | 13 | PASS |
| Band5 | 5MHz   | QPSK  | 20425 | 1RB#0   | 5.00 | 13 | PASS |
| Band5 | 5MHz   | QPSK  | 20425 | 25RB#0  | 5.72 | 13 | PASS |
| Band5 | 5MHz   | QPSK  | 20525 | 1RB#0   | 4.55 | 13 | PASS |
| Band5 | 5MHz   | QPSK  | 20525 | 25RB#0  | 5.50 | 13 | PASS |
| Band5 | 5MHz   | QPSK  | 20625 | 1RB#0   | 4.54 | 13 | PASS |
| Band5 | 5MHz   | QPSK  | 20625 | 25RB#0  | 5.51 | 13 | PASS |
| Band5 | 5MHz   | 16QAM | 20425 | 1RB#0   | 5.69 | 13 | PASS |
| Band5 | 5MHz   | 16QAM | 20425 | 25RB#0  | 6.38 | 13 | PASS |
| Band5 | 5MHz   | 16QAM | 20525 | 1RB#0   | 5.23 | 13 | PASS |
| Band5 | 5MHz   | 16QAM | 20525 | 25RB#0  | 7.04 | 13 | PASS |
| Band5 | 5MHz   | 16QAM | 20625 | 1RB#0   | 5.28 | 13 | PASS |
| Band5 | 5MHz   | 16QAM | 20625 | 25RB#0  | 6.20 | 13 | PASS |
| Band5 | 10MHz  | QPSK  | 20450 | 1RB#0   | 5.04 | 13 | PASS |
| Band5 | 10MHz  | QPSK  | 20450 | 50RB#0  | 5.60 | 13 | PASS |
| Band5 | 10MHz  | QPSK  | 20525 | 1RB#0   | 4.60 | 13 | PASS |
| Band5 | 10MHz  | QPSK  | 20525 | 50RB#0  | 5.50 | 13 | PASS |
| Band5 | 10MHz  | QPSK  | 20600 | 1RB#0   | 4.45 | 13 | PASS |
| Band5 | 10MHz  | QPSK  | 20600 | 50RB#0  | 5.49 | 13 | PASS |
| Band5 | 10MHz  | 16QAM | 20450 | 1RB#0   | 6.19 | 13 | PASS |
| Band5 | 10MHz  | 16QAM | 20450 | 50RB#0  | 6.36 | 13 | PASS |
| Band5 | 10MHz  | 16QAM | 20525 | 1RB#0   | 5.51 | 13 | PASS |

## Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F, Block A, Building 6th, Baoneng Science and Technology Park, Longhua Street, Longhua District, Shenzhen, China

Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

UTTR-RF-FCC4G-V1.1



|        |        |       |       |        |      |    |      |
|--------|--------|-------|-------|--------|------|----|------|
| Band5  | 10MHz  | 16QAM | 20525 | 50RB#0 | 6.22 | 13 | PASS |
| Band5  | 10MHz  | 16QAM | 20600 | 1RB#0  | 5.34 | 13 | PASS |
| Band5  | 10MHz  | 16QAM | 20600 | 50RB#0 | 6.25 | 13 | PASS |
| Band12 | 1.4MHz | QPSK  | 23017 | 1RB#0  | 5.67 | 13 | PASS |
| Band12 | 1.4MHz | QPSK  | 23017 | 6RB#0  | 5.82 | 13 | PASS |
| Band12 | 1.4MHz | QPSK  | 23095 | 1RB#0  | 6.06 | 13 | PASS |
| Band12 | 1.4MHz | QPSK  | 23095 | 6RB#0  | 5.87 | 13 | PASS |
| Band12 | 1.4MHz | QPSK  | 23173 | 1RB#0  | 5.62 | 13 | PASS |
| Band12 | 1.4MHz | QPSK  | 23173 | 6RB#0  | 5.85 | 13 | PASS |
| Band12 | 1.4MHz | 16QAM | 23017 | 1RB#0  | 6.87 | 13 | PASS |
| Band12 | 1.4MHz | 16QAM | 23017 | 6RB#0  | 6.69 | 13 | PASS |
| Band12 | 1.4MHz | 16QAM | 23095 | 1RB#0  | 6.91 | 13 | PASS |
| Band12 | 1.4MHz | 16QAM | 23095 | 6RB#0  | 6.67 | 13 | PASS |
| Band12 | 1.4MHz | 16QAM | 23173 | 1RB#0  | 6.32 | 13 | PASS |
| Band12 | 1.4MHz | 16QAM | 23173 | 6RB#0  | 6.89 | 13 | PASS |
| Band12 | 3MHz   | QPSK  | 23025 | 1RB#0  | 5.62 | 13 | PASS |
| Band12 | 3MHz   | QPSK  | 23025 | 15RB#0 | 5.67 | 13 | PASS |
| Band12 | 3MHz   | QPSK  | 23095 | 1RB#0  | 5.89 | 13 | PASS |
| Band12 | 3MHz   | QPSK  | 23095 | 15RB#0 | 6.46 | 13 | PASS |
| Band12 | 3MHz   | QPSK  | 23165 | 1RB#0  | 5.62 | 13 | PASS |
| Band12 | 3MHz   | 16QAM | 23025 | 1RB#0  | 6.85 | 13 | PASS |
| Band12 | 3MHz   | 16QAM | 23025 | 15RB#0 | 6.56 | 13 | PASS |
| Band12 | 3MHz   | 16QAM | 23095 | 1RB#0  | 6.81 | 13 | PASS |
| Band12 | 3MHz   | 16QAM | 23095 | 15RB#0 | 6.67 | 13 | PASS |
| Band12 | 3MHz   | 16QAM | 23165 | 1RB#0  | 6.22 | 13 | PASS |
| Band12 | 5MHz   | QPSK  | 23035 | 1RB#0  | 5.77 | 13 | PASS |
| Band12 | 5MHz   | QPSK  | 23035 | 25RB#0 | 5.79 | 13 | PASS |
| Band12 | 5MHz   | QPSK  | 23095 | 1RB#0  | 5.61 | 13 | PASS |
| Band12 | 5MHz   | QPSK  | 23095 | 25RB#0 | 6.02 | 13 | PASS |
| Band12 | 5MHz   | QPSK  | 23155 | 1RB#0  | 5.81 | 13 | PASS |
| Band12 | 5MHz   | QPSK  | 23155 | 25RB#0 | 5.75 | 13 | PASS |
| Band12 | 5MHz   | 16QAM | 23035 | 1RB#0  | 6.39 | 13 | PASS |
| Band12 | 5MHz   | 16QAM | 23035 | 25RB#0 | 6.50 | 13 | PASS |
| Band12 | 5MHz   | 16QAM | 23095 | 1RB#0  | 6.16 | 13 | PASS |
| Band12 | 5MHz   | 16QAM | 23095 | 25RB#0 | 6.68 | 13 | PASS |
| Band12 | 5MHz   | 16QAM | 23155 | 1RB#0  | 7.15 | 13 | PASS |
| Band12 | 5MHz   | 16QAM | 23155 | 25RB#0 | 6.45 | 13 | PASS |
| Band12 | 10MHz  | QPSK  | 23060 | 1RB#0  | 5.60 | 13 | PASS |
| Band12 | 10MHz  | QPSK  | 23060 | 50RB#0 | 5.80 | 13 | PASS |
| Band12 | 10MHz  | QPSK  | 23095 | 1RB#0  | 5.79 | 13 | PASS |
| Band12 | 10MHz  | QPSK  | 23095 | 50RB#0 | 6.15 | 13 | PASS |
| Band12 | 10MHz  | QPSK  | 23130 | 1RB#0  | 6.12 | 13 | PASS |
| Band12 | 10MHz  | QPSK  | 23130 | 50RB#0 | 5.71 | 13 | PASS |
| Band12 | 10MHz  | 16QAM | 23060 | 1RB#0  | 6.84 | 13 | PASS |
| Band12 | 10MHz  | 16QAM | 23060 | 50RB#0 | 6.59 | 13 | PASS |
| Band12 | 10MHz  | 16QAM | 23095 | 1RB#0  | 6.72 | 13 | PASS |
| Band12 | 10MHz  | 16QAM | 23095 | 50RB#0 | 6.77 | 13 | PASS |
| Band12 | 10MHz  | 16QAM | 23130 | 1RB#0  | 7.02 | 13 | PASS |
| Band12 | 10MHz  | 16QAM | 23130 | 50RB#0 | 6.51 | 13 | PASS |
| Band13 | 5MHz   | QPSK  | 23205 | 1RB#0  | 5.31 | 13 | PASS |
| Band13 | 5MHz   | QPSK  | 23205 | 25RB#0 | 5.85 | 13 | PASS |
| Band13 | 5MHz   | QPSK  | 23230 | 1RB#0  | 5.47 | 13 | PASS |
| Band13 | 5MHz   | QPSK  | 23230 | 25RB#0 | 5.83 | 13 | PASS |
| Band13 | 5MHz   | QPSK  | 23255 | 1RB#0  | 5.30 | 13 | PASS |
| Band13 | 5MHz   | QPSK  | 23255 | 25RB#0 | 5.88 | 13 | PASS |
| Band13 | 5MHz   | 16QAM | 23205 | 1RB#0  | 5.96 | 13 | PASS |
| Band13 | 5MHz   | 16QAM | 23205 | 25RB#0 | 7.26 | 13 | PASS |
| Band13 | 5MHz   | 16QAM | 23230 | 1RB#0  | 6.02 | 13 | PASS |
| Band13 | 5MHz   | 16QAM | 23230 | 25RB#0 | 6.52 | 13 | PASS |
| Band13 | 5MHz   | 16QAM | 23255 | 1RB#0  | 6.00 | 13 | PASS |
| Band13 | 5MHz   | 16QAM | 23255 | 25RB#0 | 6.59 | 13 | PASS |
| Band13 | 10MHz  | QPSK  | 23230 | 1RB#0  | 5.42 | 13 | PASS |
| Band13 | 10MHz  | QPSK  | 23230 | 50RB#0 | 5.69 | 13 | PASS |

## Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F, Block A, Building 6th, Baoneng Science and Technology Park, Longhua Street, Longhua District, Shenzhen, China

Tel: +86-755-28230888

Fax: +86-755-28230886

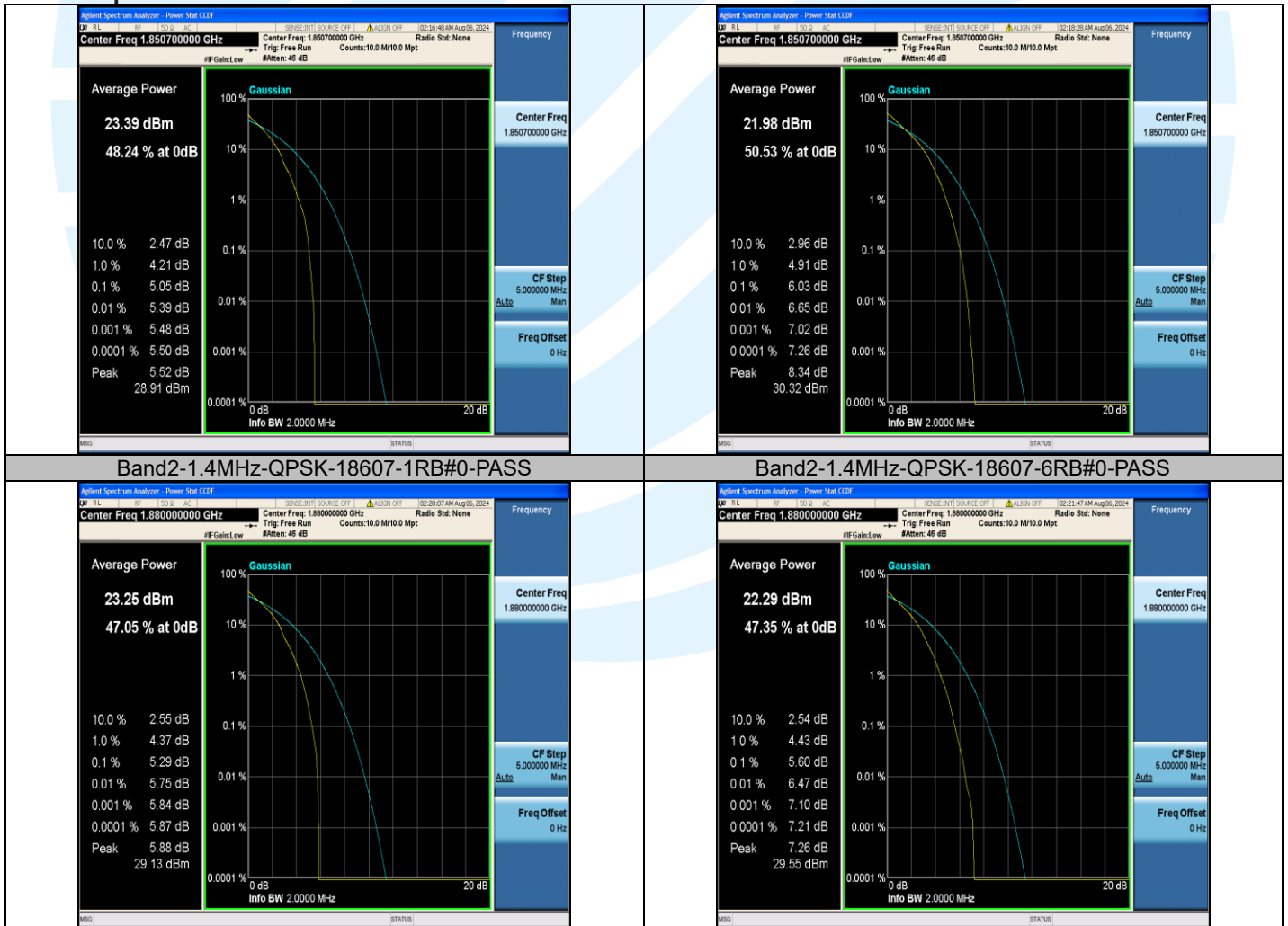
E-mail: info@uttlab.com

<http://www.uttlab.com>

UTTR-RF-FCC4G-V1.1

|        |       |       |       |        |      |    |      |
|--------|-------|-------|-------|--------|------|----|------|
| Band13 | 10MHz | 16QAM | 23230 | 1RB#0  | 6.31 | 13 | PASS |
| Band13 | 10MHz | 16QAM | 23230 | 50RB#0 | 6.50 | 13 | PASS |
| Band17 | 5MHz  | QPSK  | 23755 | 1RB#0  | 5.62 | 13 | PASS |
| Band17 | 5MHz  | QPSK  | 23755 | 25RB#0 | 6.68 | 13 | PASS |
| Band17 | 5MHz  | QPSK  | 23790 | 1RB#0  | 5.97 | 13 | PASS |
| Band17 | 5MHz  | QPSK  | 23790 | 25RB#0 | 5.92 | 13 | PASS |
| Band17 | 5MHz  | QPSK  | 23825 | 1RB#0  | 5.72 | 13 | PASS |
| Band17 | 5MHz  | QPSK  | 23825 | 25RB#0 | 5.76 | 13 | PASS |
| Band17 | 5MHz  | 16QAM | 23755 | 1RB#0  | 6.17 | 13 | PASS |
| Band17 | 5MHz  | 16QAM | 23755 | 25RB#0 | 6.72 | 13 | PASS |
| Band17 | 5MHz  | 16QAM | 23790 | 1RB#0  | 6.32 | 13 | PASS |
| Band17 | 5MHz  | 16QAM | 23790 | 25RB#0 | 6.58 | 13 | PASS |
| Band17 | 5MHz  | 16QAM | 23825 | 1RB#0  | 6.36 | 13 | PASS |
| Band17 | 5MHz  | 16QAM | 23825 | 25RB#0 | 6.47 | 13 | PASS |
| Band17 | 10MHz | QPSK  | 23780 | 1RB#0  | 6.87 | 13 | PASS |
| Band17 | 10MHz | QPSK  | 23780 | 50RB#0 | 5.99 | 13 | PASS |
| Band17 | 10MHz | QPSK  | 23790 | 1RB#0  | 5.80 | 13 | PASS |
| Band17 | 10MHz | QPSK  | 23790 | 50RB#0 | 5.88 | 13 | PASS |
| Band17 | 10MHz | QPSK  | 23800 | 1RB#0  | 5.75 | 13 | PASS |
| Band17 | 10MHz | QPSK  | 23800 | 50RB#0 | 5.71 | 13 | PASS |
| Band17 | 10MHz | 16QAM | 23780 | 1RB#0  | 7.21 | 13 | PASS |
| Band17 | 10MHz | 16QAM | 23780 | 50RB#0 | 6.68 | 13 | PASS |
| Band17 | 10MHz | 16QAM | 23790 | 1RB#0  | 6.74 | 13 | PASS |
| Band17 | 10MHz | 16QAM | 23790 | 50RB#0 | 6.59 | 13 | PASS |
| Band17 | 10MHz | 16QAM | 23800 | 1RB#0  | 6.43 | 13 | PASS |
| Band17 | 10MHz | 16QAM | 23800 | 50RB#0 | 6.54 | 13 | PASS |

## Test Graphs



## Shenzhen UnionTrust Quality and Technology Co., Ltd.

Address: 16/F, Block A, Building 6th, Baoneng Science and Technology Park, Longhua Street, Longhua District, Shenzhen, China

Tel: +86-755-28230888

Fax: +86-755-28230886

E-mail: info@uttlab.com

<http://www.uttlab.com>

UTTR-RF-FCC4G-V1.1

