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检测  
**TESTING**  
**CNAS L6791**

# TEST REPORT

**Applicant:** Intrepid Control Systems, Inc.  
**Address:** 1850 Research Dr., Troy Michigan 48083 USA  
**Equipment Type:** neoVI-Connect  
**Model Name:** 110-0071-02  
**Brand Name:** Intrepid  
**FCC ID:** 2A923241206ROEM1  
**Test Standard:** 47 CFR Part 2.1091  
KDB 447498 D04 v01  
**Test Date:** Jan. 19, 2025 - Feb. 26, 2025  
**Date of Issue:** Apr. 16, 2025

## ISSUED BY:

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**Revision History**

| <u>Version</u> | <u>Issue Date</u>    | <u>Revisions Content</u>             |
|----------------|----------------------|--------------------------------------|
| <u>Rev. 01</u> | <u>Apr. 08, 2025</u> | <u>Initial Issue</u>                 |
| <u>Rev. 02</u> | <u>Apr. 16, 2025</u> | <u>Updated BT/WIFI antenna gain.</u> |

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# 1 GENERAL INFORMATION

## 1.1 Test Laboratory

|              |                                                                                                                              |
|--------------|------------------------------------------------------------------------------------------------------------------------------|
| Name         | Shenzhen BALUN Technology Co., Ltd.                                                                                          |
| Address      | Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China |
| Phone Number | +86 755 6685 0100                                                                                                            |

## 1.2 Test Location

|                           |                                                                                                                                                                                                                         |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name                      | Shenzhen BALUN Technology Co., Ltd.                                                                                                                                                                                     |
| Location                  | <input checked="" type="checkbox"/> Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China                                                        |
|                           | <input type="checkbox"/> 1/F, Building B, Ganghongji High-tech Intelligent Industrial Park, No. 1008, Songbai Road, Yangguang Community, Xili Sub-district, Nanshan District, Shenzhen, Guangdong Province, P. R. China |
| Accreditation Certificate | The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196.                                                                                        |

## 2 PRODUCT INFORMATION

### 2.1 Applicant Information

|           |                                            |
|-----------|--------------------------------------------|
| Applicant | Intrepid Control Systems, Inc.             |
| Address   | 1850 Research Dr., Troy Michigan 48083 USA |

### 2.2 Manufacturer Information

|              |                                            |
|--------------|--------------------------------------------|
| Manufacturer | Intrepid Control Systems, Inc.             |
| Address      | 1850 Research Dr., Troy Michigan 48083 USA |

### 2.3 Factory Information

|         |     |
|---------|-----|
| Factory | N/A |
| Address | N/A |

### 2.4 General Description for Equipment under Test (EUT)

|                                           |                            |
|-------------------------------------------|----------------------------|
| EUT Name                                  | neoVI-Connect              |
| Model Name Under Test                     | 110-0071-02                |
| Series Model Name                         | N/A                        |
| Description of Model name differentiation | N/A                        |
| Hardware Version                          | 110-0071                   |
| Software Version                          | R2C1224                    |
| Dimensions (Approx.)                      | L155.0mm*W209.7mm*H43.75mm |
| Weight (Approx.)                          | N/A                        |

## 2.5 Technical Information

|                                   |                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Network and Wireless connectivity | 2G Network GPRS/EDGE 850/1900 MHz<br>3G Network WCDMA/HSDPA/HSUPA Band 2/4/5<br>4G Network FDD LTE Band 2/4/5/7/12/13/25/26/66/71<br>TDD LTE Band 38/41<br>LTE CA Uplink (UL): CA-7C, CA-38C, CA-41C, CA-66B, CA-66C, CA-41D, CA-41A-41C, CA-7C-4A, CA-7C-5A, CA-4C-12A, CA-5B<br>2.4G WIFI 802.11b,802.11g,802.11n(HT20/40)<br>5G WIFI 802.11a,802.11n(HT20/40),802.11ac(VHT20/40/80) |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

The requirement for the following technical information of the EUT was tested in this report:

|                   |                                          |                                                                                                            |                     |
|-------------------|------------------------------------------|------------------------------------------------------------------------------------------------------------|---------------------|
| Operating Mode    | GSM, WCDMA, LTE, WIFI                    |                                                                                                            |                     |
| Frequency Range   | 2.4G WIFI                                | 2412 ~ 2462 MHz                                                                                            |                     |
|                   | 5G WIFI                                  | U-NII-1: 5150 ~ 5250MHz<br>U-NII-2A: 5250 ~ 5350MHz<br>U-NII-2C: 5470 ~ 5725MHz<br>U-NII-3: 5725 ~ 5850MHz |                     |
|                   | GSM 850                                  | TX: 824 ~ 849 MHz                                                                                          | RX: 869 ~ 894 MHz   |
|                   | GSM 1900                                 | TX: 1850 ~ 1910 MHz                                                                                        | RX: 1930 ~ 1990 MHz |
|                   | WCDMA B2                                 | TX: 1850 ~ 1910 MHz                                                                                        | RX: 1930 ~ 1990 MHz |
|                   | WCDMA B4                                 | TX: 1710 ~ 1755 MHz                                                                                        | RX: 2110 ~ 2155 MHz |
|                   | WCDMA B5                                 | TX: 824 ~ 849 MHz                                                                                          | RX: 869 ~ 894 MHz   |
|                   | LTE B2                                   | TX: 1850 ~ 1910 MHz                                                                                        | RX: 1930 ~ 1990 MHz |
|                   | LTE B4                                   | TX: 1710 ~ 1755 MHz                                                                                        | RX: 2110 ~ 2155 MHz |
|                   | LTE B5                                   | TX: 824 ~ 849 MHz                                                                                          | RX: 869 ~ 894 MHz   |
|                   | LTE B7                                   | TX: 2500 ~ 2570 MHz                                                                                        | RX: 2620 ~ 2690 MHz |
|                   | LTE B12                                  | TX: 699 ~ 716 MHz                                                                                          | RX: 729 ~ 746 MHz   |
|                   | LTE B13                                  | TX: 777 ~ 787 MHz                                                                                          | RX: 746 ~ 756 MHz   |
|                   | LTE B25                                  | TX: 1850 ~ 1915 MHz                                                                                        | RX: 1930 ~ 1995 MHz |
|                   | LTE B26                                  | TX: 814 ~ 849 MHz                                                                                          | RX: 859 ~ 894 MHz   |
|                   | LTE B66                                  | TX: 1710 ~ 1780 MHz                                                                                        | RX: 2110 ~ 2180 MHz |
|                   | LTE B71                                  | TX: 663 ~ 698 MHz                                                                                          | RX: 617 ~ 652 MHz   |
|                   | LTE B38                                  | TX: 2570 ~ 2620 MHz                                                                                        | RX: 2570 ~ 2620 MHz |
|                   | LTE B41                                  | TX: 2535 ~ 2655 MHz                                                                                        | RX: 2535 ~ 2655 MHz |
|                   | Antenna Type                             | WIFI                                                                                                       | Rod Antenna         |
| WWAN              |                                          | Rod Antenna                                                                                                |                     |
| Exposure Category | General Population/Uncontrolled Exposure |                                                                                                            |                     |
| Product Type      | Mobile Device                            |                                                                                                            |                     |

### 3 SUMMARY OF TEST RESULT

#### 3.1 Test Standards

| No. | Identity            | Document Title                                               |
|-----|---------------------|--------------------------------------------------------------|
| 1   | 47 CFR Part 2.1091  | Radiofrequency radiation exposure evaluation: mobile devices |
| 2   | KDB 447498 D04 v01☆ | 447498 D04 Interim General RF Exposure Guidance v01          |

## 4 DEVICE CATEGORY AND LEVELS LIMITS

### Mobile Devices:

CFR Title 47 §2.1091(b)

For purposes of this section, a mobile device is defined as a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons.

### FCC KDB 447498 D04 General RF Exposure Guidance v01 Limit

Evaluation of compliance with the exposure limits in § 1.1310 is necessary if the ERP of the device is greater than ERP<sub>20cm</sub> in Formula (B.1) [repeated from § 2.1091(c)(1) and § 1.1307(b)(1)(i)(B)].

$$P_{th} \text{ (mW)} = ERP_{20 \text{ cm}} \text{ (mW)} = \begin{cases} 2040f & 0.3 \text{ GHz} \leq f < 1.5 \text{ GHz} \\ 3060 & 1.5 \text{ GHz} \leq f \leq 6 \text{ GHz} \end{cases} \quad (\text{B.1})$$

If the ERP is not easily obtained, then the available maximum time-averaged power may be used (i. e., without consideration of ERP only if the physical dimensions of the radiating structure(s) do not exceed the electrical length of  $\lambda/4$  or if the antenna gain is less than that of a half-wave dipole.

SAR-based exemptions are constant at separation distances between 20 cm and 40 cm to avoid discontinuities in the threshold when transitioning between SAR-based and MPE-based exemption criteria at 40 cm, considering the importance of reflections.

The SAR-based exemption formula of § 1.1307(b)(3)(i)(B), repeated here as Formula (B.2), applies for single fixed, mobile, and portable RF sources with available maximum time-averaged power or effective radiated power (ERP), whichever is greater, of less than or equal to the threshold  $P_{th}$  (mW).

This method shall only be used at separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz (inclusive).  $P_{th}$  is given by Formula (B.2).

$$P_{th} \text{ (mW)} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \leq 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \leq 40 \text{ cm} \end{cases} \quad (\text{B. 2})$$

where

$$x = -\log_{10} \left( \frac{60}{ERP_{20 \text{ cm}} \sqrt{f}} \right)$$

and  $f$  is in GHz,  $d$  is the separation distance (cm), and  $ERP_{20 \text{ cm}}$  is per Formula (B.1). The example values shown in Table B.2 are for illustration only.

Table B.2—Example Power Thresholds (mW)

| Frequency (MHz) | Distance (mm) |    |    |    |     |     |     |     |     |     |     |
|-----------------|---------------|----|----|----|-----|-----|-----|-----|-----|-----|-----|
|                 |               | 5  | 10 | 15 | 20  | 25  | 30  | 35  | 40  | 45  | 50  |
| 300             |               | 39 | 65 | 88 | 110 | 129 | 148 | 166 | 184 | 201 | 217 |
| 450             |               | 22 | 44 | 67 | 89  | 112 | 135 | 158 | 180 | 203 | 226 |
| 835             |               | 9  | 25 | 44 | 66  | 90  | 116 | 145 | 175 | 207 | 240 |
| 1900            |               | 3  | 12 | 26 | 44  | 66  | 92  | 122 | 157 | 195 | 236 |
| 2450            |               | 3  | 10 | 22 | 38  | 59  | 83  | 111 | 143 | 179 | 219 |
| 3600            |               | 2  | 8  | 18 | 32  | 49  | 71  | 96  | 125 | 158 | 195 |
| 5800            |               | 1  | 6  | 14 | 25  | 40  | 58  | 80  | 106 | 136 | 169 |

According with FCC KDB 447498 D04, Appendix A, Per § 1.1307(b)(3)(i)(A), a single RF source is exempt RF device (from the requirement to show data demonstrating compliance to RF exposure limits, as previously mentioned) if the available maximum time-averaged power is no more than 1 mW, regardless of separation distance.

This exemption applies to all operating configurations and exposure conditions, for the frequency range 100 kHz to 100 GHz, regardless of fixed, mobile, or portable device exposure conditions. This is a standalone exemption, and it cannot be applied in conjunction with any other test exemption.

When maximum available power each individual transmitting antenna within the same time averaging period is  $\leq 1$  mW, and the nearest parts of the antenna structures of the simultaneously operating transmitters are separated by at least 2 cm.

When the aggregate maximum available power of all transmitting antennas is  $\leq 1$  mW in the same time-averaging period.



## 5 ASSESSMENT RESULT

### 5.1 Output Power

| WLAN                                                                                                                                                            |                 |                        |                         |                         |                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|------------------------|-------------------------|-------------------------|------------------------|
| Mode                                                                                                                                                            | 2.4GWIFI<br>Max | 5GWIFI(U-NII-1)<br>Max | 5GWIFI(U-NII-2A)<br>Max | 5GWIFI(U-NII-2C)<br>Max | 5GWIFI(U-NII-3)<br>Max |
| Conducted Power<br>(dBm)                                                                                                                                        | 25.01           | 16.73                  | 16.49                   | 16.74                   | 17.52                  |
| Antenna Gain (dBi)                                                                                                                                              | 3.20            | 4.90                   | 4.90                    | 4.90                    | 4.90                   |
| EIRP (dBm)                                                                                                                                                      | 28.21           | 21.63                  | 21.39                   | 21.64                   | 22.42                  |
| Note: This report listed the worst case conducted power value, please refer to RF test report No. BL-BL-SH2510057-601 and BL-BL-SH2510057-602 for more details. |                 |                        |                         |                         |                        |

| GSM                                                                                                                                    |                          |              |          |                            |              |
|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------|--------------|----------|----------------------------|--------------|
| Mode                                                                                                                                   | Burst Average Power(dBm) |              | Division | Frame-Averaged power (dBm) |              |
|                                                                                                                                        | GSM 850                  | GSM 1900     | Factors  | GSM 850                    | GSM 1900     |
| GSM                                                                                                                                    | <b>33.33</b>             | <b>29.48</b> | 9.19     | 24.14                      | 20.29        |
| GPRS (GMSK, 1-Slot)                                                                                                                    | 33.27                    | 29.40        | 9.19     | 24.08                      | 20.21        |
| GPRS (GMSK, 2-Slots)                                                                                                                   | 32.89                    | 28.41        | 6.13     | <b>26.76</b>               | <b>22.28</b> |
| GPRS (GMSK, 3-Slots)                                                                                                                   | 30.69                    | 26.31        | 4.42     | 26.27                      | 21.89        |
| GPRS (GMSK, 4-Slots)                                                                                                                   | 28.90                    | 24.93        | 3.18     | 25.72                      | 21.75        |
| EGPRS (8PSK, 1-Slot)                                                                                                                   | 28.80                    | 25.02        | 9.19     | 19.61                      | 15.83        |
| EGPRS (8PSK, 2-Slots)                                                                                                                  | 26.66                    | 24.37        | 6.13     | 20.53                      | 18.24        |
| EGPRS (8PSK, 3-Slots)                                                                                                                  | 24.58                    | 22.20        | 4.42     | 20.16                      | 17.78        |
| EGPRS (8PSK, 4-Slots)                                                                                                                  | 23.68                    | 20.97        | 3.18     | 20.50                      | 17.79        |
| Antenna Gain (dB)                                                                                                                      | 0.10                     | 2.00         | N/A      | 0.10                       | 2.00         |
| MAX ERP/EIRP (dBm)                                                                                                                     | 31.28                    | 31.48        | N/A      | 24.71                      | 24.28        |
| Note: This report listed the worst case conducted power value, please refer to RF test report No.BL-BL-SH2510057-501 for more details. |                          |              |          |                            |              |

| WCDMA                                                                                                                                  |        |        |        |
|----------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|
| Mode                                                                                                                                   | Band 2 | Band 4 | Band 5 |
| Conducted Power (dBm)                                                                                                                  | 23.77  | 24.41  | 24.15  |
| Antenna Gain (dBi)                                                                                                                     | 2.00   | 2.00   | 0.10   |
| ERP/EIRP (dBm)                                                                                                                         | 25.77  | 26.41  | 22.10  |
| Note: This report listed the worst case conducted power value, please refer to RF test report No.BL-BL-SH2510057-501 for more details. |        |        |        |

| LTE                                                                                                                                 |        |        |        |        |         |         |         |         |         |         |         |         |
|-------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|
| Mode                                                                                                                                | Band 2 | Band 4 | Band 5 | Band 7 | Band 12 | Band 13 | Band 25 | Band 26 | Band 66 | Band 71 | Band 38 | Band 41 |
| Conducted Power (dBm)                                                                                                               | 24.40  | 24.34  | 24.63  | 24.50  | 24.71   | 24.66   | 22.95   | 24.54   | 24.81   | 24.60   | 24.89   | 25.12   |
| Antenna Gain (dBi)                                                                                                                  | 2.00   | 2.00   | 0.10   | 2.50   | 0.50    | 0.50    | 2.00    | 0.10    | 2.00    | 1.70    | 2.50    | 2.50    |
| ERP/EIRP (dBm)                                                                                                                      | 26.40  | 26.34  | 22.58  | 27.00  | 23.06   | 23.01   | 24.95   | 22.49   | 26.81   | 24.15   | 27.39   | 27.62   |
| Note: This report listed the worst case conducted power value, please refer to RF test report No.BL-SH2510057-501 for more details. |        |        |        |        |         |         |         |         |         |         |         |         |

| LTE CA Uplink (UL)                                                                                                                  |       |       |        |        |        |
|-------------------------------------------------------------------------------------------------------------------------------------|-------|-------|--------|--------|--------|
| Mode                                                                                                                                | CA-5B | CA-7C | CA-66C | CA-38C | CA-41C |
| Conducted Power (dBm)                                                                                                               | 27.53 | 23.49 | 24.35  | 21.94  | 26.56  |
| Antenna Gain (dBi)                                                                                                                  | 0.10  | 2.50  | 2.00   | 2.50   | 2.50   |
| ERP/EIRP (dBm)                                                                                                                      | 25.48 | 25.99 | 26.35  | 24.44  | 29.06  |
| Note: This report listed the worst case conducted power value, please refer to RF test report No.BL-SH2510057-501 for more details. |       |       |        |        |        |

## 5.2 Tune-up power

| Mode                                                                                                                          |         | Conducted Power Range (dBm) | EIRP Range (dBm) | ERP Range (dBm) |
|-------------------------------------------------------------------------------------------------------------------------------|---------|-----------------------------|------------------|-----------------|
| GSM                                                                                                                           | 850     | 【26.00,28.00】               | /                | 【23.95,25.95】   |
|                                                                                                                               | 1900    | 【21.50,23.50】               | 【23.50,25.50】    | 【21.35,23.35】   |
| WCDMA                                                                                                                         | Band 2  | 【23.00,25.00】               | 【25.00,27.00】    | 【22.85,24.85】   |
|                                                                                                                               | Band 4  | 【23.50,25.50】               | 【25.50,27.50】    | 【23.35,25.35】   |
|                                                                                                                               | Band 5  | 【23.00,25.00】               | /                | 【20.95,22.95】   |
| LTE                                                                                                                           | Band 2  | 【23.50,25.50】               | 【25.50,27.50】    | 【23.35,25.35】   |
|                                                                                                                               | Band 4  | 【23.50,25.50】               | 【25.50,27.50】    | 【23.35,25.35】   |
|                                                                                                                               | Band 5  | 【23.50,25.50】               | /                | 【21.45,23.45】   |
|                                                                                                                               | Band 7  | 【23.50,25.50】               | 【26.00,28.00】    | 【23.85,25.85】   |
|                                                                                                                               | Band 12 | 【23.50,25.50】               | /                | 【21.85,23.85】   |
|                                                                                                                               | Band 13 | 【23.50,25.50】               | /                | 【21.85,23.85】   |
|                                                                                                                               | Band 25 | 【22.00,24.00】               | 【24.00,26.00】    | 【21.85,23.85】   |
|                                                                                                                               | Band 26 | 【23.50,25.50】               | /                | 【21.45,23.45】   |
|                                                                                                                               | Band 66 | 【24.00,26.00】               | 【26.00,28.00】    | 【23.85,25.85】   |
|                                                                                                                               | Band 71 | 【23.50,25.50】               | /                | 【23.05,25.05】   |
|                                                                                                                               | Band 38 | 【24.00,26.00】               | 【26.50,28.50】    | 【24.35,26.35】   |
|                                                                                                                               | Band 41 | 【24.00,26.00】               | 【26.50,28.50】    | 【24.35,26.35】   |
| LTE CA Uplink (UL)                                                                                                            | CA-5B   | 【26.50,28.50】               | /                | 【24.45,26.45】   |
|                                                                                                                               | CA-7C   | 【22.50,24.50】               | 【25.00,27.00】    | 【22.85,24.85】   |
|                                                                                                                               | CA-66C  | 【23.50,25.50】               | 【25.50,27.50】    | 【23.35,25.35】   |
|                                                                                                                               | CA-38C  | 【21.00,23.00】               | 【23.50,25.50】    | 【21.35,23.35】   |
|                                                                                                                               | CA-41C  | 【25.50,27.50】               | 【28.00,30.00】    | 【25.85,27.85】   |
| 2.4GWIFI                                                                                                                      |         | 【24.00,26.00】               | 【27.20,29.20】    | 【25.05,27.05】   |
| 5GWIFI(U-NII-1: 5150-5250MHz)                                                                                                 |         | 【15.50,17.50】               | 【20.40,22.40】    | 【18.25,20.25】   |
| 5GWIFI(U-NII-2A: 5250-5350MHz)                                                                                                |         | 【15.50,17.50】               | 【20.40,22.40】    | 【18.25,20.25】   |
| 5GWIFI(U-NII-2C: 5470-5725MHz)                                                                                                |         | 【15.50,17.50】               | 【20.40,22.40】    | 【18.25,20.25】   |
| 5GWIFI(U-NII-3: 5725-5850MHz)                                                                                                 |         | 【16.50,18.50】               | 【21.40,23.40】    | 【19.25,21.25】   |
| Note1: ERP= EIRP -2.15dB.                                                                                                     |         |                             |                  |                 |
| Note2: According KDB 447498 D04, used the greater of maximum conducted power and ERP to compare with the threshold value Pth. |         |                             |                  |                 |

### 5.3 RF Exposure Evaluation Result

| Evolution mode     |                                | f(MHz) | Distance (cm) | Maximum power (dBm) | Maximum power (mw) | Threshold Power (mW) | P/Plimit | Verdict |
|--------------------|--------------------------------|--------|---------------|---------------------|--------------------|----------------------|----------|---------|
| GSM                | 850                            | 824    | 20            | 28.00               | 630.96             | 1680.96              | 0.3754   | Pass    |
|                    | 1900                           | 1850   | 20            | 23.50               | 223.87             | 3060.00              | 0.0732   | Pass    |
| WCDMA              | Band 2                         | 1850   | 20            | 25.00               | 316.23             | 3060.00              | 0.1033   | Pass    |
|                    | Band 4                         | 1710   | 20            | 25.50               | 354.81             | 3060.00              | 0.1160   | Pass    |
|                    | Band 5                         | 824    | 20            | 25.00               | 316.23             | 1680.96              | 0.1881   | Pass    |
| LTE                | Band 2                         | 1850   | 20            | 25.50               | 354.81             | 3060.00              | 0.1160   | Pass    |
|                    | Band 4                         | 1710   | 20            | 25.50               | 354.81             | 3060.00              | 0.1160   | Pass    |
|                    | Band 5                         | 824    | 20            | 25.50               | 354.81             | 1680.96              | 0.2111   | Pass    |
|                    | Band 7                         | 2500   | 20            | 25.85               | 384.59             | 3060.00              | 0.1257   | Pass    |
|                    | Band 12                        | 699    | 20            | 25.50               | 354.81             | 1425.96              | 0.2488   | Pass    |
|                    | Band 13                        | 777    | 20            | 25.50               | 354.81             | 1585.08              | 0.2238   | Pass    |
|                    | Band 25                        | 1850   | 20            | 24.00               | 251.19             | 3060.00              | 0.0821   | Pass    |
|                    | Band 26                        | 814    | 20            | 25.50               | 354.81             | 1660.56              | 0.2137   | Pass    |
|                    | Band 66                        | 1710   | 20            | 26.00               | 398.11             | 3060.00              | 0.1301   | Pass    |
|                    | Band 71                        | 663    | 20            | 25.50               | 354.81             | 1352.52              | 0.2623   | Pass    |
|                    | Band 38                        | 2570   | 20            | 26.35               | 431.52             | 3060.00              | 0.1410   | Pass    |
|                    | Band 41                        | 2535   | 20            | 26.35               | 431.52             | 3060.00              | 0.1410   | Pass    |
| LTE CA Uplink (UL) | CA-5B                          | 824    | 20            | 25.50               | 354.81             | 1680.96              | 0.2111   | Pass    |
|                    | CA-7C                          | 2500   | 20            | 26.00               | 398.11             | 3060.00              | 0.1301   | Pass    |
|                    | CA-66C                         | 1710   | 20            | 25.50               | 354.81             | 3060.00              | 0.1160   | Pass    |
|                    | CA-38C                         | 2570   | 20            | 26.35               | 431.52             | 3060.00              | 0.1410   | Pass    |
|                    | CA-41C                         | 2535   | 20            | 26.35               | 431.52             | 3060.00              | 0.1410   | Pass    |
| WALN               | 2.4GWIFI                       | 2412   | 20            | 27.05               | 506.99             | 3060.00              | 0.1657   | Pass    |
|                    | 5GWIFI(U-NII-1: 5150-5250MHz)  | 5150   | 20            | 20.25               | 105.93             | 3060.00              | 0.0346   | Pass    |
|                    | 5GWIFI(U-NII-2A: 5250-5350MHz) | 5250   | 20            | 20.25               | 105.93             | 3060.00              | 0.0346   | Pass    |
|                    | 5GWIFI(U-NII-2C: 5470-5725MHz) | 5470   | 20            | 20.25               | 105.93             | 3060.00              | 0.0346   | Pass    |
|                    | 5GWIFI(U-NII-3: 5725-5850MHz)  | 5725   | 20            | 21.25               | 133.35             | 3060.00              | 0.0436   | Pass    |

## 5.4 Collocated Power Calculation

| Evolution mode | Frequency(MHz)      | Power /Limit | $\Sigma(\text{Power / Limit})$ of WWAN + WLAN | Verdict |
|----------------|---------------------|--------------|-----------------------------------------------|---------|
| GSM 850        | 824MHz ~ 849MHz     | 0.3754       | 0.5411                                        | Pass    |
| 2.4G WIFI      | 2412 MHz ~ 2462 MHz | 0.1657       |                                               |         |

Note:

1.  $\Sigma(\text{Power / Limit})$ : This is a summation of [(power for each transmitter/ antenna included in the simultaneous transmission)/ (corresponding Power limit)], for WWAN+ WLAN.
2. Both of the WWAN+ WLAN can transmit simultaneously, the formula of calculated the Power is  $CP1 / LP1 + CP2 / LP2 + \dots \text{etc.} < 1$   
 CP = Calculation power  
 LP = Limit of power
3. Both of the 2.4GHz WIFI and 5GHz WIFI can't transmit simultaneously at same time.
4. The worst-case situation is 0.5411, which is less than "1". This confirmed that the device comply with FCC KDB 447498 D04 Power limit.
5. The DUT work frequency range used is 814 MHz ~ 849 MHz, 1850 MHz ~ 1915 MHz, 1710 MHz ~ 1780 MHz, 2500 MHz ~ 2570 MHz, 699 MHz ~ 716 MHz, 663 ~698 MHz, 2535 MHz ~ 2655 MHz, 2402MHz ~ 2462 MHz, 5150MHz ~ 5250 MHz, 5250MHz ~ 5350 MHz, 5470MHz ~ 5725 MHz, 5725MHz ~ 5850 MHz the result close to the limit by the above formula, so we select worst case power to calculate the exclusion power threshold.
6. More power list please refer to RF test report.

## 5.5 Conclusion

This EUT is deemed to comply with the reference level limits, therefore the basic restrictions are compliant with human exposure limits.

## Statement

1. The laboratory guarantees the scientificity, accuracy and impartiality of the test, and is responsible for all the information in the report, except the information provided by the customer. The customer is responsible for the impact of the information provided on the validity of the results.
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--END OF REPORT--