

Test Report No:  
2480097R-RFUSV22S-A

## TEST REPORT

### FCC Rules&Regulations

|                                 |                                                                                                                                                           |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name                    | Telematics Platform 2                                                                                                                                     |
| Brand Name                      | PCI                                                                                                                                                       |
| Model No.                       | PCI-TP2                                                                                                                                                   |
| FCC ID                          | LY5-PCITP2V2                                                                                                                                              |
| Applicant's Name / Address      | PCI Private Limited<br>35 Pioneer Road North Singapore 628475 Singapore                                                                                   |
| Manufacturer's Name / Address   | PCI Private Limited<br>35 Pioneer Road North Singapore 628475 Singapore                                                                                   |
| Test Method Requested, Standard | FCC CFR Title 47 Part 22 Subpart H<br>FCC CFR Title 47 Part 24 Subpart E<br>FCC CFR Title 47 Part 27 Subpart L<br>ANSI/TIA-603-E-2016<br>ANSI C63.26-2015 |
| Verdict Summary                 | IN COMPLIANCE                                                                                                                                             |
| Documented By                   | <br>Amelia Wu                                                          |
| Approved By                     | <br>Allen Lin                                                          |
| Date of Receipt                 | Aug. 05, 2024                                                                                                                                             |
| Date of Issue                   | Oct. 18, 2024                                                                                                                                             |
| Report Version                  | V1.0                                                                                                                                                      |

## INDEX

|                                                       | page |
|-------------------------------------------------------|------|
| Competences and Guarantees.....                       | 4    |
| General Conditions .....                              | 4    |
| Revision History .....                                | 5    |
| Summary of Test Result.....                           | 6    |
| Comments and Remarks .....                            | 6    |
| 1. General Information.....                           | 7    |
| 1.1. EUT Description .....                            | 7    |
| 1.2. EUT Information .....                            | 7    |
| 1.3. Testing Applied Standards.....                   | 8    |
| 1.4. Testing Location Information .....               | 8    |
| 1.5. Measurement Uncertainty .....                    | 9    |
| 1.6. List of Test Equipment .....                     | 10   |
| 2. Test Configuration of EUT .....                    | 11   |
| 2.1. Test Condition.....                              | 11   |
| 2.2. The Worst Case Measurement Configuration.....    | 11   |
| 2.3. Tested System Details.....                       | 12   |
| 2.4. Configuration of Tested System .....             | 12   |
| 3. RF Output Power.....                               | 13   |
| 3.1. Test Setup .....                                 | 13   |
| 3.2. Test Procedure .....                             | 13   |
| 3.3. Test Result of RF Output Power.....              | 13   |
| 4. Occupied Bandwidth .....                           | 14   |
| 4.1. Test Setup .....                                 | 14   |
| 4.2. Test Procedures .....                            | 14   |
| 4.3. Test Result of Occupied Bandwidth .....          | 14   |
| 5. Peak to Average Power Ratio .....                  | 15   |
| 5.1. Test Setup .....                                 | 15   |
| 5.2. Test Procedure .....                             | 15   |
| 5.3. Test Result of Peak to Average Power Ratio ..... | 15   |
| 6. Spurious Emission.....                             | 16   |
| 6.1. Test Setup .....                                 | 16   |
| 6.2. Test Procedure .....                             | 17   |
| 6.3. Test Methodology and Reference Procedures.....   | 17   |
| 6.4. Test Result of Spurious Emission.....            | 17   |
| 7. Conducted Band Edge .....                          | 18   |
| 7.1. Test Setup .....                                 | 18   |

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|                                                        |                                          |    |
|--------------------------------------------------------|------------------------------------------|----|
| 7.2.                                                   | Test Procedure .....                     | 18 |
| 7.3.                                                   | Test Result of Conducted Band Edge ..... | 18 |
| 8.                                                     | Frequency Stability .....                | 19 |
| 8.1.                                                   | Test Setup .....                         | 19 |
| 8.2.                                                   | Test Procedures .....                    | 19 |
| 8.3.                                                   | Test Result of Frequency Stability ..... | 19 |
| Appendix A. Test Result of RF Output Power             |                                          |    |
| Appendix B. Test Result of Occupied Bandwidth          |                                          |    |
| Appendix C. Test Result of Peak to Average Power Ratio |                                          |    |
| Appendix D. Test Result of Spurious Emission           |                                          |    |
| Appendix E. Test Result of Conducted Band Edge         |                                          |    |
| Appendix F. Test Result of Frequency Stability         |                                          |    |
| Appendix G. Test Setup Photograph                      |                                          |    |

## Competences and Guarantees

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DEKRA is a testing laboratory competent to carry out the tests described in this report.

In order to assure the traceability to other national and international laboratories, DEKRA has a calibration and maintenance program for its measurement equipment.

DEKRA guarantees the reliability of the data presented in this report, which is the result of the measurements and the tests performed to the item under test on the date and under the conditions stated in the report and it is based on the knowledge and technical facilities available at DEKRA at the time of performance of the test.

DEKRA is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.

The results presented in this Test Report apply only to the particular item under test established in this document.

**IMPORTANT:** No parts of this report may be reproduced or quoted out of context, in any form or by any means, except in full, without the previous written permission of DEKRA.

## General Conditions

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1. The test results relate only to the samples tested.
2. The test results shown in the test report are traceable to the national/international standard through the calibration report of the equipment and evaluated measurement uncertainty herein.
3. This report must not be used to claim product endorsement by TAF or any agency of the government.
4. The test report shall not be reproduced without the written approval of DEKRA Testing and Certification Co., Ltd.
5. Measurement uncertainties evaluated for each testing system and associated connections are given here to provide the system information for reference. Compliance determinations do not take into account measurement uncertainties for each testing system, but are based on the results of the compliance measurement.

Revision History

| Version | Description             | Issued Date   |
|---------|-------------------------|---------------|
| V1.0    | Initial issue of report | Oct. 18, 2024 |
|         |                         |               |
|         |                         |               |
|         |                         |               |
|         |                         |               |
|         |                         |               |
|         |                         |               |
|         |                         |               |
|         |                         |               |

## Summary of Test Result

| Report Clause | Test Items                  | Band    | Ref Std. Clause               | Limit         | Result (PASS/FAIL) | Remark |
|---------------|-----------------------------|---------|-------------------------------|---------------|--------------------|--------|
| 3             | RF Output Power             | 2       | §2.1033<br>§2.1046<br>§24.232 | < 2 Watts     | PASS               | -      |
|               |                             | 4       | §2.1033<br>§2.1046<br>§27.50  | < 1 Watts     | PASS               | -      |
|               |                             | 5       | §2.1033<br>§2.1046<br>§22.913 | < 7 Watts ERP | PASS               | -      |
| 4             | Occupied Bandwidth          | 2, 4, 5 | §2.1049                       | N/A           | PASS               | -      |
| 5             | Peak to Average Power Ratio | 2       | §24.232                       | $\leq 13$ dB  | PASS               | -      |
|               |                             | 4       | §27.50                        | $\leq 13$ dB  | PASS               | -      |
|               |                             | 5       | §22.913                       | $\leq 13$ dB  | PASS               | -      |
| 6             | Spurious Emission           | 2       | §2.1053<br>§24.238            | < -13 dBm     | PASS               | -      |
|               |                             | 4       | §27.53                        | < -13 dBm     | PASS               | -      |
|               |                             | 5       | §22.917                       | < -13 dBm     | PASS               | -      |
| 7             | Conducted Band Edge         | 2       | §24.238                       | < -13 dBm     | PASS               | -      |
|               |                             | 4       | §2.1053<br>§27.53             | < -13 dBm     | PASS               | -      |
|               |                             | 5       | §2.1053<br>§22.917            | < -13 dBm     | PASS               | -      |
| 8             | Frequency Stability         | 2       | §2.1055<br>§24.235            | $\pm 2.5$ ppm | PASS               | -      |
|               |                             | 4       | §2.1055<br>§27.54             | $\pm 2.5$ ppm | PASS               | -      |
|               |                             | 5       | §2.1055<br>§22.335            | $\pm 2.5$ ppm | PASS               | -      |

### 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.

## Comments and Remarks

The product specification and testing instructions for the EUT declared in the report are provided by the manufacturer.

## 1. General Information

### 1.1. EUT Description

|                    |                                |                                                    |
|--------------------|--------------------------------|----------------------------------------------------|
| Frequency Range    | WCDMA Band 2                   | 1850~1910 MHz (Uplink)<br>1930~1990 MHz (Downlink) |
|                    | WCDMA Band 4                   | 1710~1755 MHz (Uplink)<br>2110~2115 (Downlink)     |
|                    | WCDMA Band 5                   | 824~849 MHz (Uplink)<br>869~894 MHz (Downlink)     |
| Function           | RMC / HSDPA / DC-HSDPA / HSUPA |                                                    |
| Type of Modulation | BPSK / QPSK                    |                                                    |
| IMEI No.           | 356488680641419                |                                                    |

| Antenna Information |               |            |                     |                 |                 |                 |
|---------------------|---------------|------------|---------------------|-----------------|-----------------|-----------------|
| Ant.                | Brand Name    | Model No.  | Type                | Gain (dBi)      |                 |                 |
|                     |               |            |                     | WCDMA<br>Band 2 | WCDMA<br>Band 4 | WCDMA<br>Band 5 |
| 1                   | Green Antenna | GALHPLTE02 | Metal Stamp antenna | 2.61            | 2.75            | 0.15            |

### 1.2. EUT Information

|                  |                      |
|------------------|----------------------|
| EUT Power Type   | From DC power supply |
| Hardware Version | 2.0                  |
| Software Version | 2.0                  |

### 1.3. Testing Applied Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC CFR Title 47 Part 22 Subpart H
- FCC CFR Title 47 Part 24 Subpart E
- FCC CFR Title 47 Part 27 Subpart L
- ANSI/TIA-603-E (2016)
- ANSI C63.26-2015
- FCC KDB 971168 D01 v03r01

The following reference test guidance is not within the scope of accreditation of TAF.

- FCC KDB 412172 D01 v01r01
- FCC KDB 414788 D01 v01r01

**Remark:** All test items were verified and recorded according to the standards and without any deviation during the test.

### 1.4. Testing Location Information

| Testing Location Information                                                                                                             |                                                                                                                                                                                                                                                                                             |  |
|------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Test Laboratory : DEKRA Testing and Certification Co., Ltd.                                                                              |                                                                                                                                                                                                                                                                                             |  |
| 1<br><br>(TAF: 3024)                                                                                                                     | ADD: No.372-2, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C.<br><br>TEL: +886-3-582-8001                      FAX: +886-3-582-8958<br><br>Test site Designation No. TW3024 with FCC.<br><br>Conformity Assessment Body Identifier (CABID) TW3024 with ISED. |  |
| 2<br><br>(TAF: 3024)                                                                                                                     | ADD: No.372, Sec. 4, Zhongxing Rd., Zhudong Township, Hsinchu County 31061, Taiwan, R.O.C.<br><br>TEL: +886-3-582-8001                      FAX: +886-3-582-8958<br><br>Test site Designation No. TW3024 with FCC.<br><br>Conformity Assessment Body Identifier (CABID) TW3024 with ISED.   |  |
| Test site number for address 1 includes HC-SR02. Test site number for address 2 includes HC-CB02, HC-CB03, HC-CB04, HC-SR10 and HC-SR12. |                                                                                                                                                                                                                                                                                             |  |

| Test Condition        | Test Site No. | Test Engineer            | Test Environment<br>(°C / %) | Test Date             |
|-----------------------|---------------|--------------------------|------------------------------|-----------------------|
| RF Conducted Emission | HC-SR12       | Max Chang                | 25 / 61                      | 2024/08/14            |
| Radiated Emission     | HC-CB02       | Scott Chang<br>Gary Liao | 22~25 / 51~58.5              | 2024/08/12~2024/08/16 |

## 1.5. Measurement Uncertainty

Uncertainties have been calculated according to the DEKRA internal document with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)).

| Test Item                   | Uncertainty               |
|-----------------------------|---------------------------|
| RF Output Power             | $\pm 1.16$ dB             |
| Occupied Bandwidth          | $\pm 217.9$ Hz            |
| Peak to Average Power Ratio | $\pm 2.47$ dB             |
| Conducted Band Edge         | $\pm 2.47$ dB             |
| Spurious Emissions          | $\pm 3.52$ dB below 1 GHz |
|                             | $\pm 3.56$ dB above 1 GHz |
| Frequency Stability         | $\pm 217.9$ Hz            |

## 1.6. List of Test Equipment

### HC-SR12

| Instrument                             | Manufacturer | Model No.   | Serial No. | Characteristics                               | Cal. Date  | Next Cal. Date |
|----------------------------------------|--------------|-------------|------------|-----------------------------------------------|------------|----------------|
| High Speed Peak Power Meter Dual Input | Anritsu      | ML2496A     | 1602004    | 0.3-40 GHz                                    | 2023/10/25 | 2024/10/24     |
| Pulse Power Sensor                     | Anritsu      | MA2411B     | 1531043    | 0.3-40 GHz                                    | 2023/10/25 | 2024/10/24     |
| EXA Signal Analyzer                    | Keysight     | N9010A      | MY51440132 | 10 Hz-44 GHz                                  | 2023/12/11 | 2024/12/10     |
| Pulse Power Sensor                     | Anritsu      | MA2411B     | 1531044    | 0.3-40 GHz                                    | 2023/10/25 | 2024/10/24     |
| Spectrum Analyzer                      | Keysight     | N9010B      | MY57110159 | 10 Hz-7 GHz                                   | 2024/03/01 | 2025/02/28     |
| Signal & Spectrum Analyzer             | R&S          | FSV40       | 101869     | 10Hz-40GHz                                    | 2024/06/20 | 2025/06/19     |
| Temperature & Humidity Test Chamber    | KSON         | THS-B4T-150 | A0401      | -40°C~+150°<br>C/10%-98%R.H ;<br>114x93x162cm | 2023/12/06 | 2024/12/05     |
| Radio Communication Tester             | Anritsu      | MT8821C     | 6261915489 | LTE & Cat.M1 &<br>NB-IOT                      | 2023/10/30 | 2024/10/29     |

### HC-CB02

| Instrument                 | Manufacturer  | Model No.    | Serial No. | Characteristics          | Cal. Date  | Next Cal. Date |
|----------------------------|---------------|--------------|------------|--------------------------|------------|----------------|
| Signal Analyzer            | R&S           | FSVA40       | 101455     | 10 Hz-40 GHz             | 2023/10/03 | 2024/10/02     |
| EXA Signal Analyzer        | Keysight      | N9010A       | MY51440132 | 10 Hz-44 GHz             | 2023/12/11 | 2024/12/10     |
| Trilog Broadband Antenna   | Schwarzbeck   | VULB 9168    | 1272       | 30 MHz-2 GHz             | 2024/04/29 | 2025/04/28     |
| Horn Antenna               | Schwarzbeck   | BBHA 9170    | 203        | 18G-40GHz                | 2024/02/02 | 2025/02/01     |
| Pre-Amplifier              | EMCI          | EMC01820I    | 980365     | 30M-8 GHz,20 dB          | 2024/04/02 | 2025/04/01     |
| Pre-Amplifier              | EMEC          | EM01G18GA    | 060741     | 1G-18 GHz,50 dB          | 2024/04/23 | 2025/04/22     |
| Pre-Amplifier              | DEKRA         | AP-400C      | 201801231  | 18G-40 GHz,48 dB         | 2023/10/03 | 2024/10/02     |
| Radio Communication Tester | Anritsu       | MT8821C      | 6261915489 | LTE & Cat.M1 &<br>NB-IOT | 2023/10/30 | 2024/10/29     |
| Coaxial Cable(13m)         | Suhner        | SF104        | HC-CB02    | 30M-18 GHz               | 2024/08/07 | 2025/08/06     |
| Coaxial Cable(3m)          | Suhner,Rosnol | SF102_UP0264 | HC-CB02-1  | 18G-40 GHz 3 m           | 2023/08/14 | 2024/08/13     |
| Coaxial Cable(3m)          | Suhner,Rosnol | SF102_UP0264 | HC-CB02-1  | 18G-40 GHz 3 m           | 2024/08/13 | 2025/08/12     |
| Radiated Software          | Audix         | e3 V9        | HC-CB02_1  | N/A                      | N/A        | N/A            |

Note: All equipment upon which need to calibrated are with calibration period of 1 year.

## 2. Test Configuration of EUT

### 2.1. Test Condition

| EUT Operational Condition |               |               |              |
|---------------------------|---------------|---------------|--------------|
| Testing Voltage           | Vnom (DC 12V) | Vmax (DC 32V) | Vmin (DC 6V) |
| Operational Climatic      | Tnom (25°C)   | Tmax (70°C)   | Tmin (-30°C) |

### 2.2. The Worst Case Measurement Configuration

|                |                                                                                                                    |
|----------------|--------------------------------------------------------------------------------------------------------------------|
| Tests Item     | RF Output Power<br>Occupied Bandwidth<br>Peak to Average Power Ratio<br>Conducted Band Edge<br>Frequency Stability |
| Test Condition | Conducted measurement at transmit chains                                                                           |
| Test Mode      | Mode 1: WCDMA Band 2<br>Mode 2: WCDMA Band 4<br>Mode 3: WCDMA Band 5                                               |

|                                                                                                                                                                                                      |                                                                                                                                                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tests Item                                                                                                                                                                                           | Transmitter Radiated Spurious Emission                                                                                                                                                                                                              |
| Test Condition                                                                                                                                                                                       | Radiated measurement<br>If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type. |
| Test Mode                                                                                                                                                                                            | Mode 1: WCDMA Band 2<br>Mode 2: WCDMA Band 4<br>Mode 3: WCDMA Band 5                                                                                                                                                                                |
| The EUT was performed at X axis, Y axis and Z axis position for radiated spurious emission test.<br>The worst case was found at Z axis, so the measurement will follow this same test configuration. |                                                                                                                                                                                                                                                     |

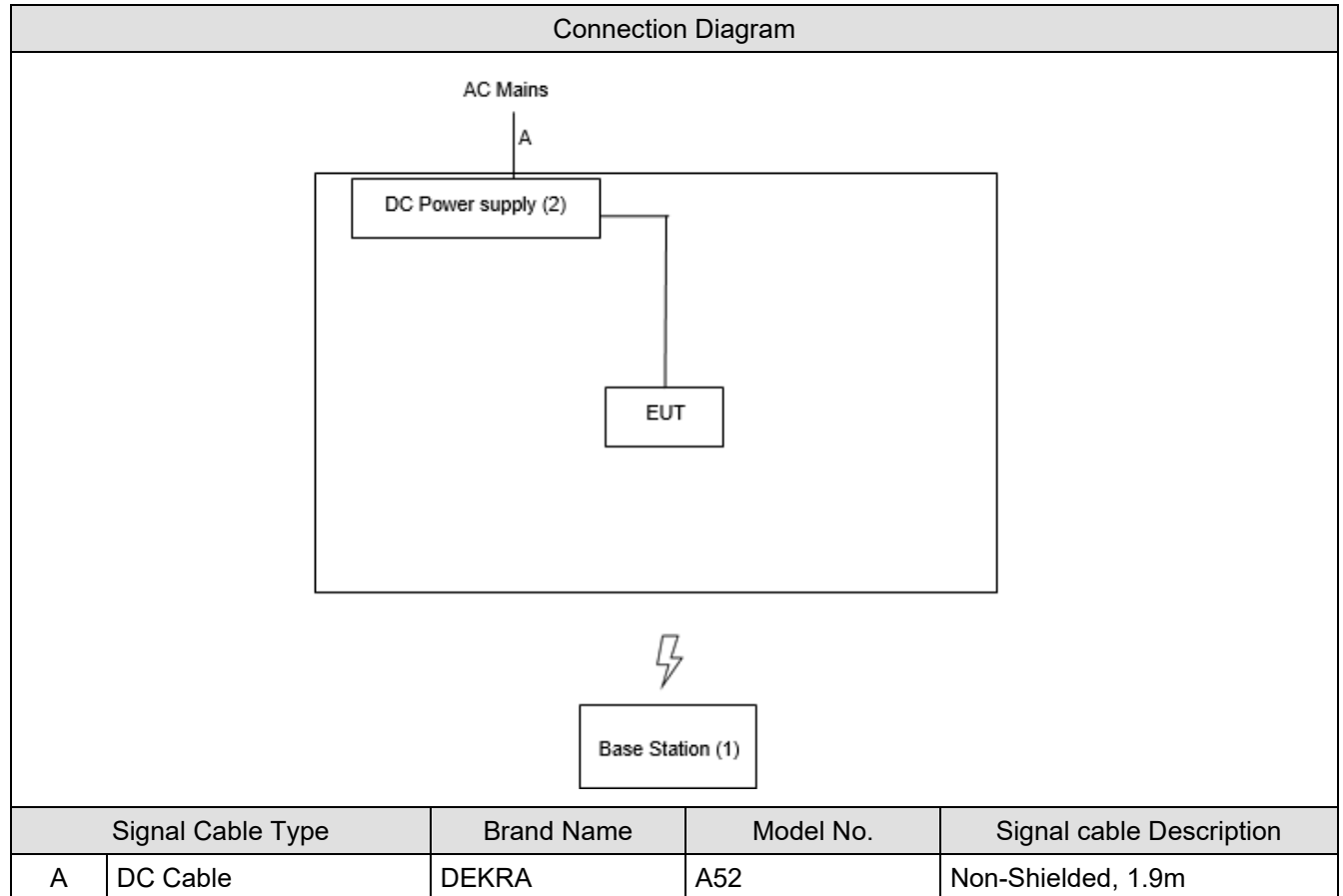
**Note:**

1. Determining compliance shall be based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. The device was tested under all bandwidths, RB configurations and modulations, and the worst case was found in QPSK modulation and show in "Conducted Band Edge" & "Spurious Emission".
3. The EUT was performed at X axis, Y axis and Z axis position for radiated spurious emission test.  
The worst case was found at Z axis, so the measurement will follow this same test configuration.

### 2.3. Tested System Details

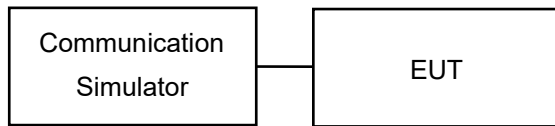
| No. | Equipment                    | Brand Name | Model No. | Serial No. |
|-----|------------------------------|------------|-----------|------------|
| 1   | Radio Communication Analyzer | Anritsu    | MT8821C   | 6261915489 |
| 2   | DC Power supply              | Topward    | 6303D     | 809497     |

### 2.4. Configuration of Tested System



### 3. RF Output Power

#### 3.1. Test Setup



#### 3.2. Test Procedure

The EUT makes a call to the communication simulator. The communication simulator station system controlled a EUT to export maximum conducted RF output power under transmission mode and specific channel frequency. The relevant equation for determining the ERP or EIRP from the conducted RF output power measured using the guidance provided above is:

$$\text{ERP or EIRP} = P_{\text{Meas}} + G_T - L_C$$

where:

ERP or EIRP = effective radiated power or equivalent isotropically radiated power, respectively (expressed in the same units as  $P_{\text{Meas}}$ , typically dBW or dBm);

$P_{\text{Meas}}$  = measured transmitter output power or PSD, in dBm or dBW;

$G_T$  = gain of the transmitting antenna, in dBd (ERP) or dBi (EIRP);

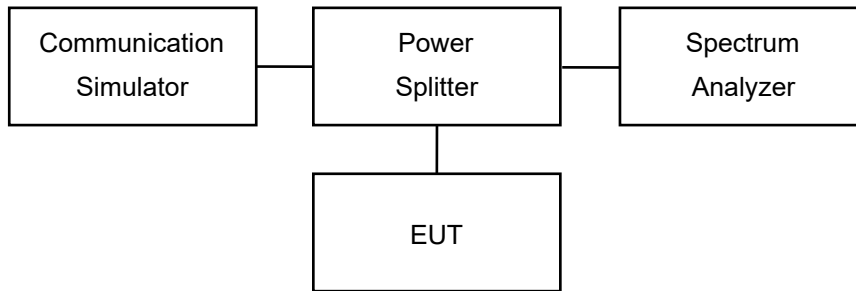
$L_C$  = signal attenuation in the connecting cable between the transmitter and antenna, in dB

#### 3.3. Test Result of RF Output Power

Refer as Appendix A

## 4. Occupied Bandwidth

### 4.1. Test Setup



### 4.2. Test Procedures

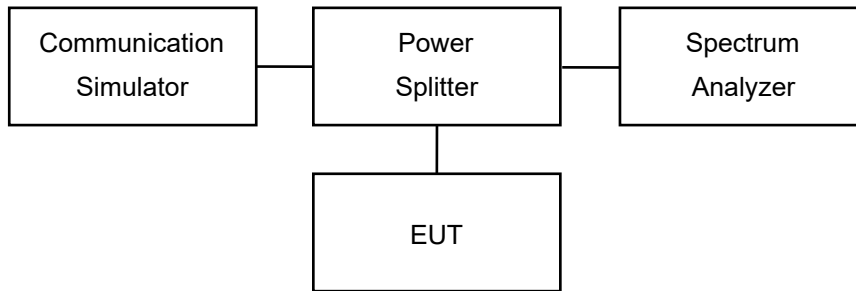
The EUT makes a call to the communication simulator. The 26dB bandwidth and 99% occupied bandwidth measurements were done at low, middle and high operational frequency range. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. The path loss was compensated to the results for each measurement.

### 4.3. Test Result of Occupied Bandwidth

Refer as Appendix B

## 5. Peak to Average Power Ratio

### 5.1. Test Setup



### 5.2. Test Procedure

1. The EUT makes a call to the communication simulator. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. The path loss was compensated to the results for each measurement.
2. Set resolution/measurement bandwidth  $\geq$  signal's occupied bandwidth.
3. Set the number of counts to a value that stabilizes the measured CCDF curve.
4. Record the maximum PAPR level associated with a probability of 0.1 %.

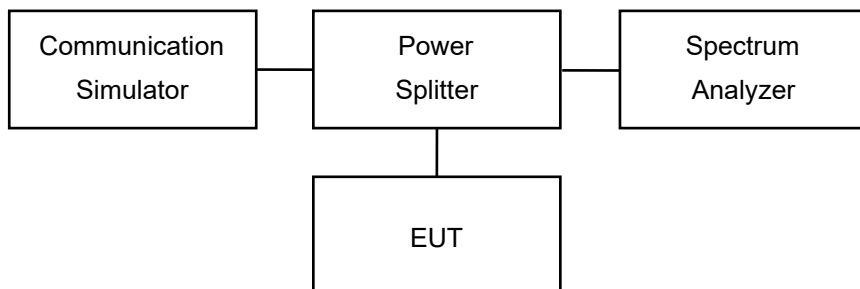
### 5.3. Test Result of Peak to Average Power Ratio

Refer as Appendix C

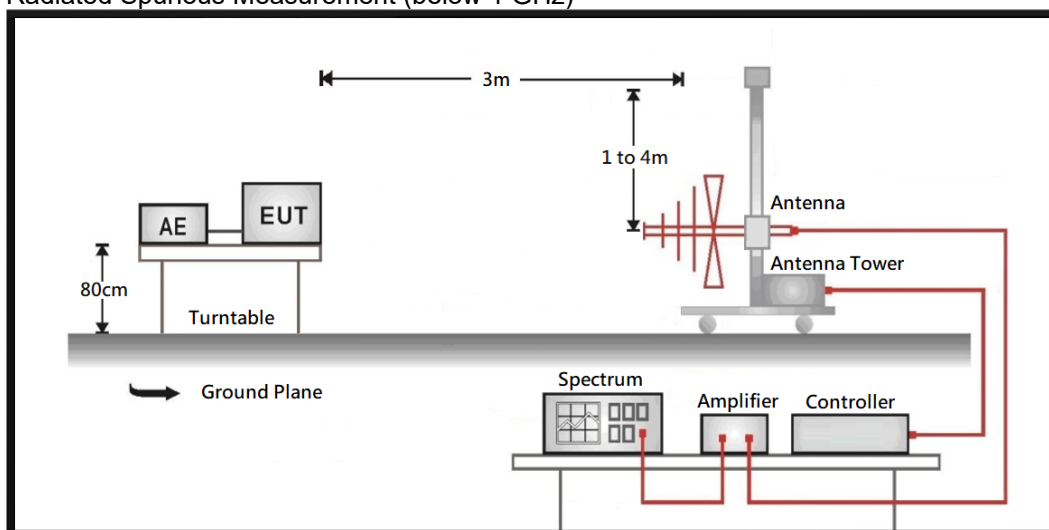
## 6. Spurious Emission

### 6.1. Test Setup

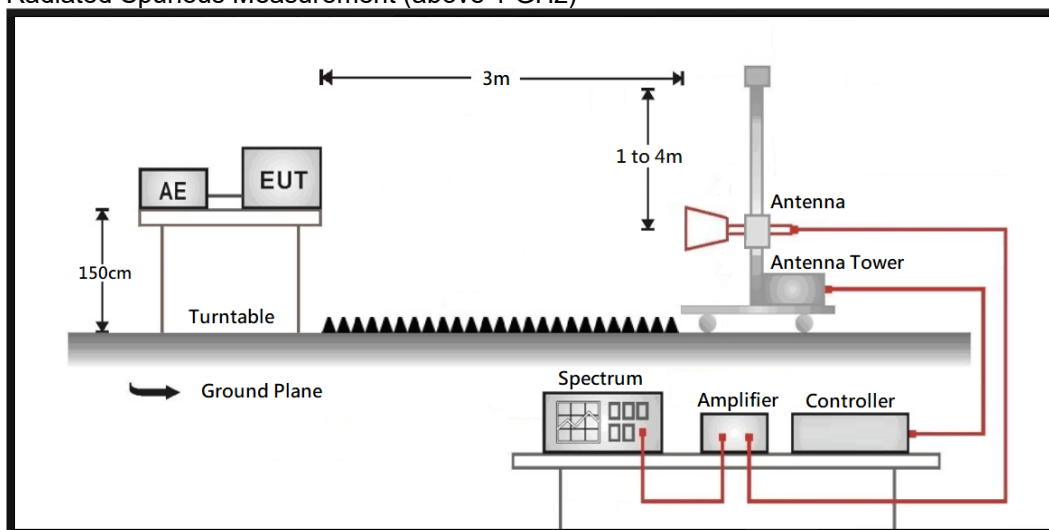
#### Conducted Spurious Measurement



#### Radiated Spurious Measurement (below 1 GHz)



#### Radiated Spurious Measurement (above 1 GHz)



## 6.2. Test Procedure

### Conducted Spurious Measurement:

The EUT makes a call to the communication simulator. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. The path loss was compensated to the results for each measurement. The resolution bandwidth of the spectrum analyzer was set at 1 MHz, sufficient scans were taken to show the out of band Emission if any up to 10<sup>th</sup> harmonic.

### Radiated Spurious Measurement:

The EUT and its simulators are placed on a turn table which is 0.8 or 1.5 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations. The resolution bandwidth of the spectrum analyzer was set at 1 MHz, sufficient scans were taken to show the out of band Emission if any up to 10th harmonic. Taking the record of maximum spurious emission.

## 6.3. Test Methodology and Reference Procedures

KDB 971168 D01 Power Meas License Digital Systems v03r01

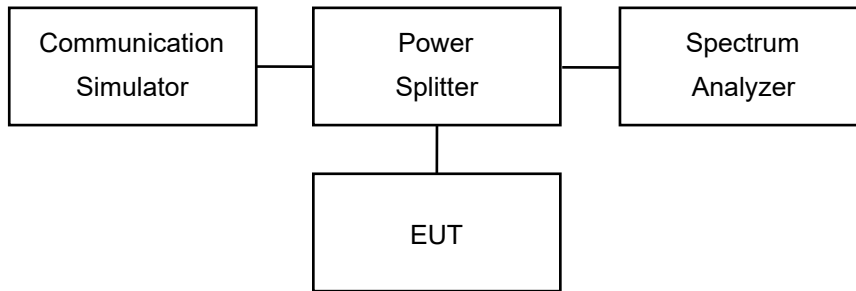
ANSI C63.26-2015

## 6.4. Test Result of Spurious Emission

Refer as Appendix D

## 7. Conducted Band Edge

### 7.1. Test Setup



### 7.2. Test Procedure

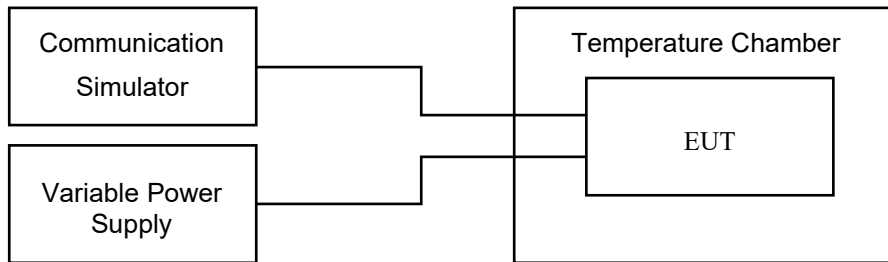
1. The EUT makes a call to the communication simulator. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. The path loss was compensated to the results for each measurement.
2. In the 1MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to measure the out of band Emissions.

### 7.3. Test Result of Conducted Band Edge

Refer as Appendix E

## 8. Frequency Stability

### 8.1. Test Setup



### 8.2. Test Procedures

#### Frequency Stability under Temperature Variations:

The EUT under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a communication simulator. The EUT was placed inside the temperature chamber. Set the EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached.

#### Frequency Stability under Voltage Variations:

Set chamber temperature to 20°C. Use a variable AC or DC power supply to power the EUT and set the voltage to rated voltage. Reduce the input voltage to specify extreme voltage variation ( $\pm 15\%$ ) and endpoint, record the maximum frequency change.

### 8.3. Test Result of Frequency Stability

Refer as Appendix F

## Appendix A. Test Result of RF Output Power

| WCDMA Band 2    |                 |                              |                    |            |          |                |
|-----------------|-----------------|------------------------------|--------------------|------------|----------|----------------|
| Test Mode       | Frequency (MHz) | Conducted Output Power (dBm) | Antenna Gain (dBi) | EIRP (dBm) | EIRP (W) | EIRP Limit (W) |
| RMC             | 1852.4          | 22.85                        | 2.6                | 25.450     | 0.351    | 2              |
|                 | 1880            | 22.86                        | 2.6                | 25.460     | 0.352    | 2              |
|                 | 1907.6          | 22.76                        | 2.6                | 25.360     | 0.344    | 2              |
| HSUPA Subtest 1 | 1852.4          | 22.03                        | 2.6                | 24.630     | 0.290    | 2              |
|                 | 1880            | 21.98                        | 2.6                | 24.580     | 0.287    | 2              |
|                 | 1907.6          | 22.09                        | 2.6                | 24.690     | 0.294    | 2              |
| HSUPA Subtest 2 | 1852.4          | 22.02                        | 2.6                | 24.620     | 0.290    | 2              |
|                 | 1880            | 22.03                        | 2.6                | 24.630     | 0.290    | 2              |
|                 | 1907.6          | 21.99                        | 2.6                | 24.590     | 0.288    | 2              |
| HSUPA Subtest 3 | 1852.4          | 21.94                        | 2.6                | 24.543     | 0.285    | 2              |
|                 | 1880            | 21.90                        | 2.6                | 24.498     | 0.282    | 2              |
|                 | 1907.6          | 21.92                        | 2.6                | 24.520     | 0.283    | 2              |
| HSUPA Subtest 4 | 1852.4          | 21.89                        | 2.6                | 24.491     | 0.281    | 2              |
|                 | 1880            | 22.06                        | 2.6                | 24.657     | 0.292    | 2              |
|                 | 1907.6          | 21.91                        | 2.6                | 24.510     | 0.283    | 2              |
| HSUPA Subtest 5 | 1852.4          | 21.97                        | 2.6                | 24.572     | 0.287    | 2              |
|                 | 1880            | 21.92                        | 2.6                | 24.517     | 0.283    | 2              |
|                 | 1907.6          | 22.02                        | 2.6                | 24.624     | 0.290    | 2              |
| HSDPA Subtest 1 | 1852.4          | 21.86                        | 2.6                | 24.460     | 0.279    | 2              |
|                 | 1880            | 21.65                        | 2.6                | 24.250     | 0.266    | 2              |
|                 | 1907.6          | 21.49                        | 2.6                | 24.090     | 0.256    | 2              |
| HSDPA Subtest 2 | 1852.4          | 21.67                        | 2.6                | 24.272     | 0.267    | 2              |
|                 | 1880            | 21.58                        | 2.6                | 24.185     | 0.262    | 2              |
|                 | 1907.6          | 21.75                        | 2.6                | 24.353     | 0.272    | 2              |
| HSDPA Subtest 3 | 1852.4          | 21.64                        | 2.6                | 24.237     | 0.265    | 2              |
|                 | 1880            | 21.78                        | 2.6                | 24.384     | 0.274    | 2              |
|                 | 1907.6          | 21.56                        | 2.6                | 24.158     | 0.261    | 2              |
| HSDPA Subtest 4 | 1852.4          | 21.61                        | 2.6                | 24.207     | 0.263    | 2              |
|                 | 1880            | 21.49                        | 2.6                | 24.094     | 0.257    | 2              |
|                 | 1907.6          | 21.60                        | 2.6                | 24.203     | 0.263    | 2              |

Note:

1. EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)

2. EIRP (W) =  $(10^{(\text{Power(dBm)}/10)}) \times 10^{-3}$

| WCDMA Band 4    |                 |                              |                    |            |          |                |
|-----------------|-----------------|------------------------------|--------------------|------------|----------|----------------|
| Test Mode       | Frequency (MHz) | Conducted Output Power (dBm) | Antenna Gain (dBi) | EIRP (dBm) | EIRP (W) | EIRP Limit (W) |
| RMC             | 1712.4          | 22.80                        | 2.78               | 25.580     | 0.361    | 1              |
|                 | 1732.6          | 23.36                        | 2.78               | 26.140     | 0.411    | 1              |
|                 | 1752.6          | 23.15                        | 2.78               | 25.930     | 0.392    | 1              |
| HSUPA Subtest 1 | 1712.4          | 22.11                        | 2.78               | 24.890     | 0.308    | 1              |
|                 | 1732.6          | 22.59                        | 2.78               | 25.370     | 0.344    | 1              |
|                 | 1752.6          | 22.60                        | 2.78               | 25.380     | 0.345    | 1              |
| HSUPA Subtest 2 | 1712.4          | 22.53                        | 2.78               | 25.314     | 0.340    | 1              |
|                 | 1732.6          | 22.31                        | 2.78               | 25.093     | 0.323    | 1              |
|                 | 1752.6          | 22.39                        | 2.78               | 25.168     | 0.329    | 1              |
| HSUPA Subtest 3 | 1712.4          | 22.47                        | 2.78               | 25.253     | 0.335    | 1              |
|                 | 1732.6          | 22.59                        | 2.78               | 25.368     | 0.344    | 1              |
|                 | 1752.6          | 22.50                        | 2.78               | 25.280     | 0.337    | 1              |
| HSUPA Subtest 4 | 1712.4          | 22.55                        | 2.78               | 25.333     | 0.341    | 1              |
|                 | 1732.6          | 22.35                        | 2.78               | 25.130     | 0.326    | 1              |
|                 | 1752.6          | 22.38                        | 2.78               | 25.159     | 0.328    | 1              |
| HSUPA Subtest 5 | 1712.4          | 22.55                        | 2.78               | 25.333     | 0.341    | 1              |
|                 | 1732.6          | 22.55                        | 2.78               | 25.332     | 0.341    | 1              |
|                 | 1752.6          | 22.54                        | 2.78               | 25.315     | 0.340    | 1              |
| HSDPA Subtest 1 | 1712.4          | 22.06                        | 2.78               | 24.840     | 0.305    | 1              |
|                 | 1732.6          | 22.58                        | 2.78               | 25.360     | 0.344    | 1              |
|                 | 1752.6          | 22.42                        | 2.78               | 25.200     | 0.331    | 1              |
| HSDPA Subtest 2 | 1712.4          | 22.42                        | 2.78               | 25.203     | 0.331    | 1              |
|                 | 1732.6          | 22.46                        | 2.78               | 25.242     | 0.334    | 1              |
|                 | 1752.6          | 22.37                        | 2.78               | 25.147     | 0.327    | 1              |
| HSDPA Subtest 3 | 1712.4          | 22.20                        | 2.78               | 24.984     | 0.315    | 1              |
|                 | 1732.6          | 22.36                        | 2.78               | 25.142     | 0.327    | 1              |
|                 | 1752.6          | 22.37                        | 2.78               | 25.151     | 0.327    | 1              |
| HSDPA Subtest 4 | 1712.4          | 22.39                        | 2.78               | 25.168     | 0.329    | 1              |
|                 | 1732.6          | 22.26                        | 2.78               | 25.038     | 0.319    | 1              |
|                 | 1752.6          | 22.53                        | 2.78               | 25.312     | 0.340    | 1              |

Note:

1. EIRP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi)

2. EIRP (W) =  $(10^{(\text{Power(dBm)}/10)}) \times 10^{-3}$

| WCDMA Band 5    |                 |                              |                    |           |         |               |
|-----------------|-----------------|------------------------------|--------------------|-----------|---------|---------------|
| Test Mode       | Frequency (MHz) | Conducted Output Power (dBm) | Antenna Gain (dBi) | ERP (dBm) | ERP (W) | ERP Limit (W) |
| RMC             | 826.4           | 23.82                        | 0.15               | 21.820    | 0.152   | 7             |
|                 | 836.6           | 23.88                        | 0.15               | 21.880    | 0.154   | 7             |
|                 | 846.6           | 23.80                        | 0.15               | 21.800    | 0.151   | 7             |
| HSUPA Subtest 1 | 826.4           | 22.04                        | 0.15               | 20.040    | 0.101   | 7             |
|                 | 836.6           | 22.31                        | 0.15               | 20.310    | 0.107   | 7             |
|                 | 846.6           | 22.17                        | 0.15               | 20.170    | 0.104   | 7             |
| HSUPA Subtest 2 | 826.4           | 22.27                        | 0.15               | 20.273    | 0.106   | 7             |
|                 | 836.6           | 22.30                        | 0.15               | 20.297    | 0.107   | 7             |
|                 | 846.6           | 22.28                        | 0.15               | 20.282    | 0.107   | 7             |
| HSUPA Subtest 3 | 826.4           | 22.20                        | 0.15               | 20.204    | 0.105   | 7             |
|                 | 836.6           | 22.16                        | 0.15               | 20.156    | 0.104   | 7             |
|                 | 846.6           | 22.17                        | 0.15               | 20.172    | 0.104   | 7             |
| HSUPA Subtest 4 | 826.4           | 22.17                        | 0.15               | 20.167    | 0.104   | 7             |
|                 | 836.6           | 22.29                        | 0.15               | 20.295    | 0.107   | 7             |
|                 | 846.6           | 22.29                        | 0.15               | 20.294    | 0.107   | 7             |
| HSUPA Subtest 5 | 826.4           | 22.24                        | 0.15               | 20.238    | 0.106   | 7             |
|                 | 836.6           | 22.29                        | 0.15               | 20.293    | 0.107   | 7             |
|                 | 846.6           | 22.22                        | 0.15               | 20.216    | 0.105   | 7             |
| HSDPA Subtest 1 | 826.4           | 21.81                        | 0.15               | 19.810    | 0.096   | 7             |
|                 | 836.6           | 22.10                        | 0.15               | 20.100    | 0.102   | 7             |
|                 | 846.6           | 21.74                        | 0.15               | 19.740    | 0.094   | 7             |
| HSDPA Subtest 2 | 826.4           | 22.02                        | 0.15               | 20.018    | 0.100   | 7             |
|                 | 836.6           | 21.97                        | 0.15               | 19.965    | 0.099   | 7             |
|                 | 846.6           | 22.03                        | 0.15               | 20.032    | 0.101   | 7             |
| HSDPA Subtest 3 | 826.4           | 21.84                        | 0.15               | 19.837    | 0.096   | 7             |
|                 | 836.6           | 21.87                        | 0.15               | 19.868    | 0.097   | 7             |
|                 | 846.6           | 22.07                        | 0.15               | 20.068    | 0.102   | 7             |
| HSDPA Subtest 4 | 826.4           | 22.00                        | 0.15               | 20.001    | 0.100   | 7             |
|                 | 836.6           | 21.96                        | 0.15               | 19.965    | 0.099   | 7             |
|                 | 846.6           | 21.97                        | 0.15               | 19.972    | 0.099   | 7             |

Note:

1. ERP (dBm) = Conducted Output Power (dBm) + Antenna Gain (dBi) - 2.15 dB

2. ERP (W) =  $(10^{(\text{Power(dBm)}/10)}) \times 10^{-3}$

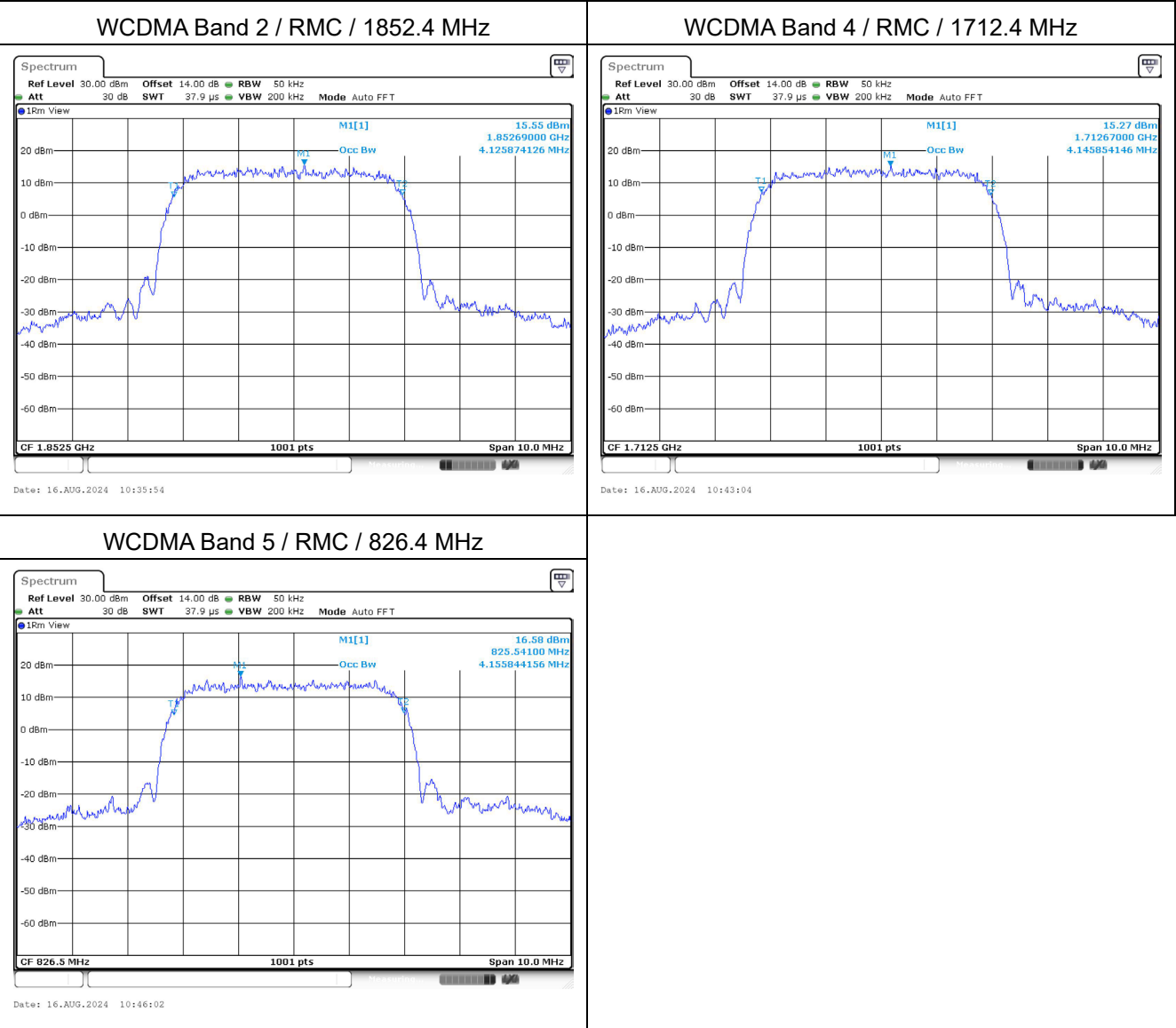
## Appendix B. Test Result of Occupied Bandwidth

| WCDMA Band 2 |         |                 |                     |         |             |
|--------------|---------|-----------------|---------------------|---------|-------------|
| Modulation   | Channel | Frequency (MHz) | Measure Level (MHz) |         | Limit (MHz) |
|              |         |                 | 26dB BW             | 99% OBW |             |
| RMC          | 9262    | 1852.4          | 4.685               | 4.125   | N/A         |
|              | 9400    | 1880            | 4.685               | 4.125   | N/A         |
|              | 9538    | 1907.6          | 4.655               | 4.105   | N/A         |

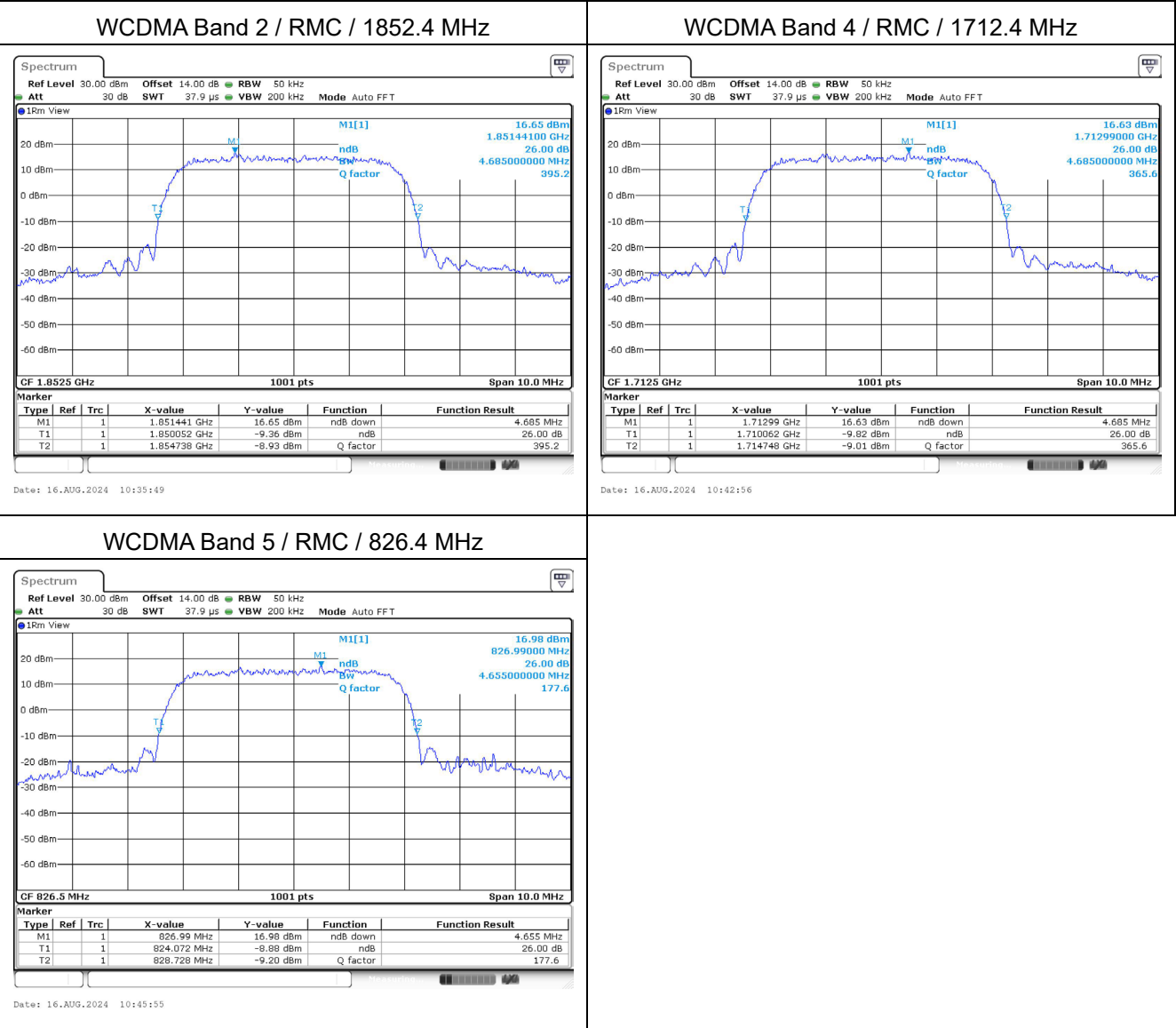
| WCDMA Band 4 |         |                 |                     |         |             |
|--------------|---------|-----------------|---------------------|---------|-------------|
| Modulation   | Channel | Frequency (MHz) | Measure Level (MHz) |         | Limit (MHz) |
|              |         |                 | 26dB BW             | 99% OBW |             |
| RMC          | 1312    | 1712.4          | 4.685               | 4.145   | N/A         |
|              | 1413    | 1732.6          | 4.685               | 4.145   | N/A         |
|              | 1513    | 1752.6          | 4.685               | 4.125   | N/A         |

| WCDMA Band 5 |         |                 |                     |         |             |
|--------------|---------|-----------------|---------------------|---------|-------------|
| Modulation   | Channel | Frequency (MHz) | Measure Level (MHz) |         | Limit (MHz) |
|              |         |                 | 26dB BW             | 99% OBW |             |
| RMC          | 4132    | 826.4           | 4.655               | 4.155   | N/A         |
|              | 4183    | 836.6           | 4.665               | 4.125   | N/A         |
|              | 4233    | 846.6           | 4.645               | 4.105   | N/A         |

For 99% OBW



For 26dB BW

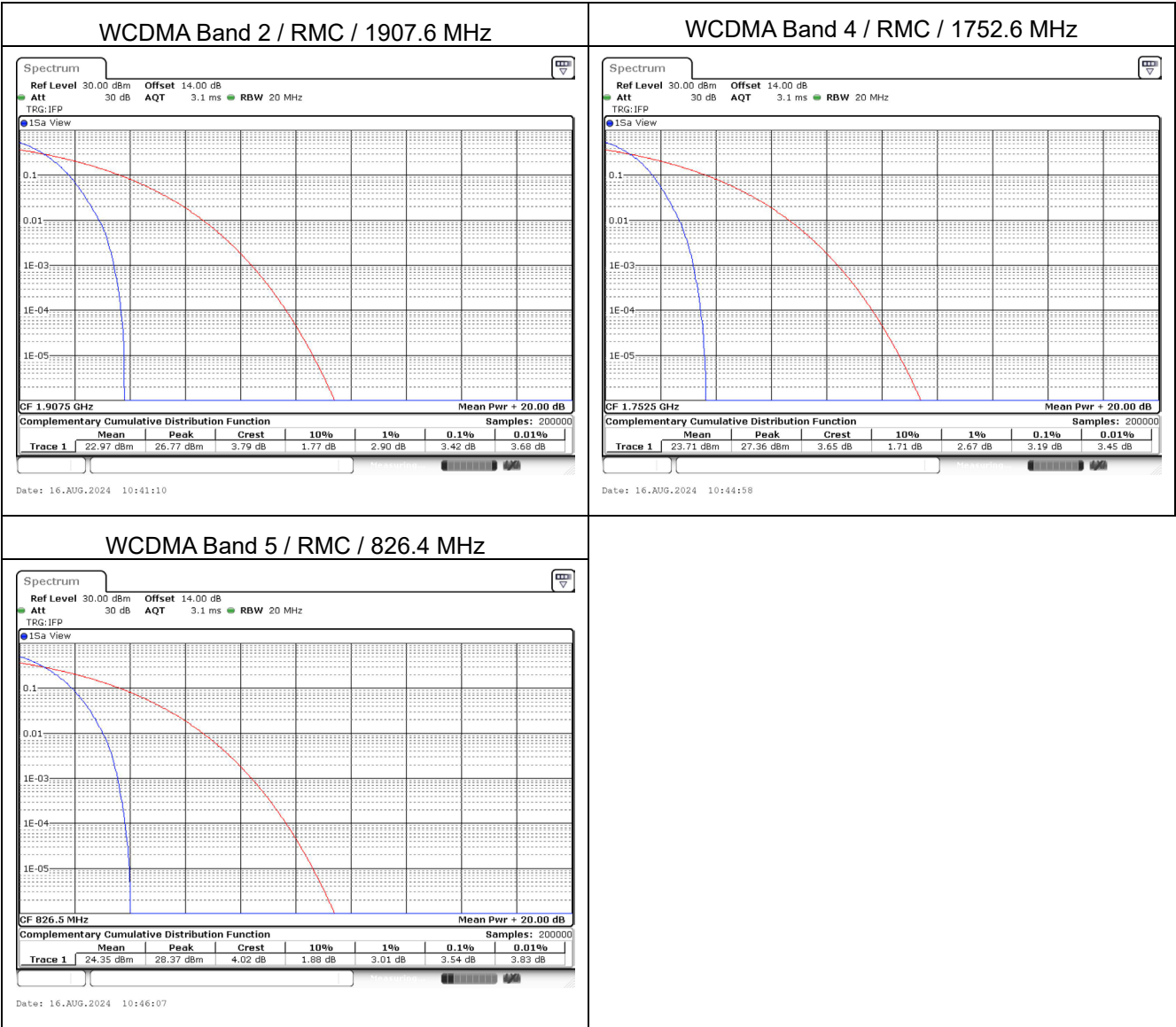


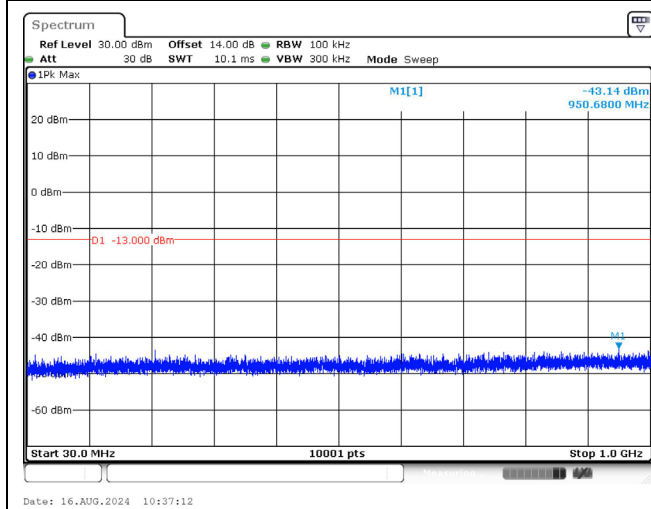
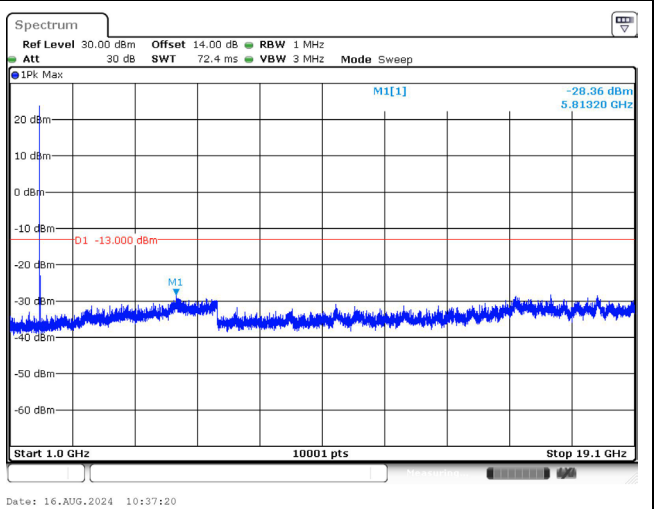
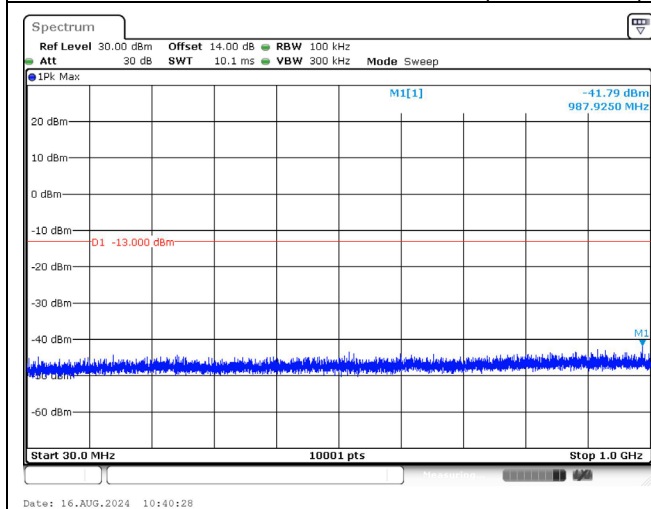
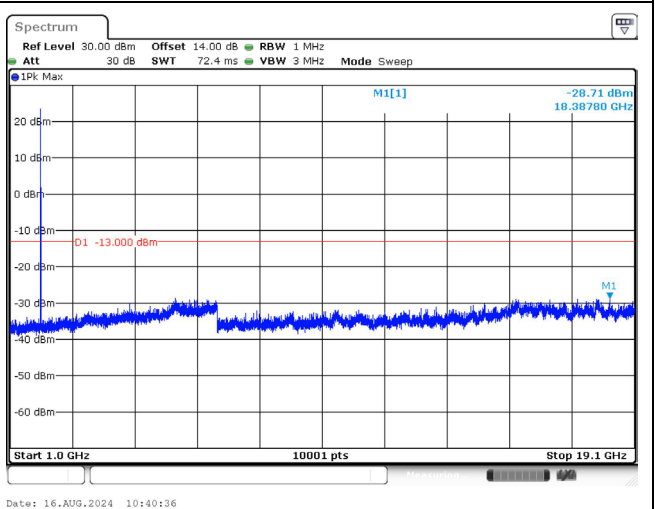
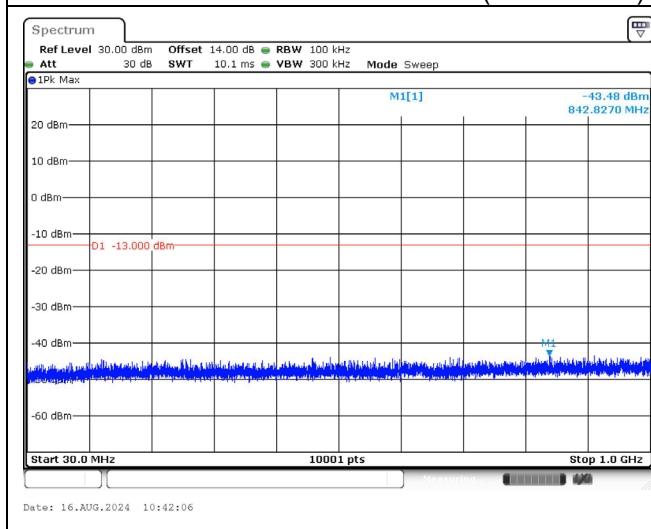
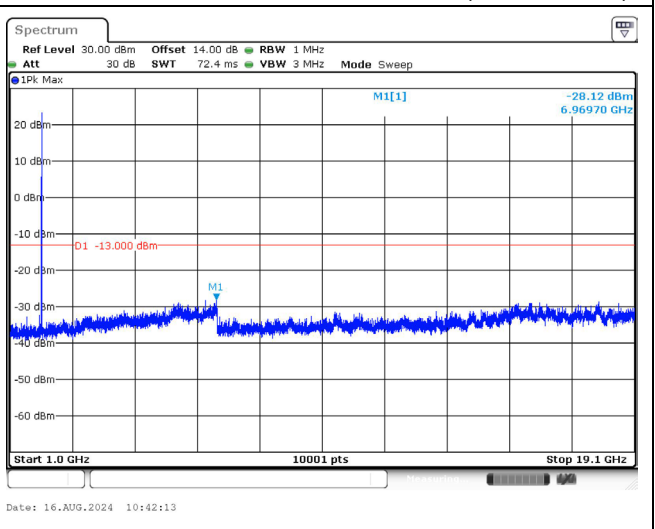
## Appendix C. Test Result of Peak to Average Power Ratio

| WCDMA Band 2 |                    |      |              |
|--------------|--------------------|------|--------------|
| Channel      | Frequency<br>(MHz) | Mode | PAPR<br>(dB) |
| 9262         | 1852.4             | RMC  | 3.13         |
| 9400         | 1880.0             |      | 3.28         |
| 9538         | 1907.6             |      | 3.42         |

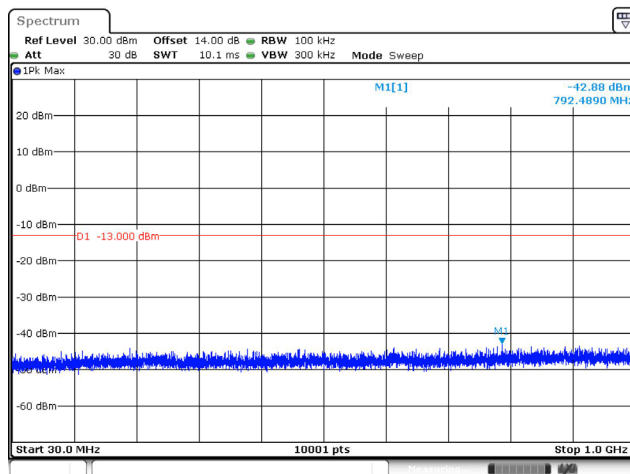
| WCDMA Band 4 |                    |      |              |
|--------------|--------------------|------|--------------|
| Channel      | Frequency<br>(MHz) | Mode | PAPR<br>(dB) |
| 1312         | 1712.4             | RMC  | 3.04         |
| 1413         | 1732.6             |      | 2.87         |
| 1513         | 1752.6             |      | 3.19         |

| WCDMA Band 5 |                    |      |              |
|--------------|--------------------|------|--------------|
| Channel      | Frequency<br>(MHz) | Mode | PAPR<br>(dB) |
| 4132         | 826.4              | RMC  | 3.54         |
| 4183         | 836.6              |      | 3.33         |
| 4233         | 846.6              |      | 3.54         |



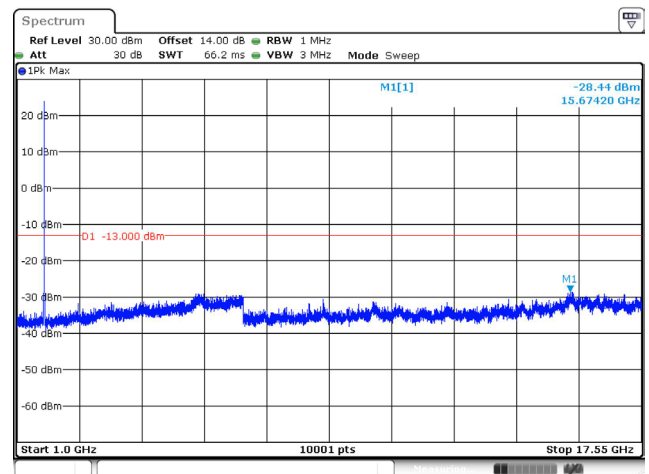
**Appendix D.1 Test Result of Conducted Spurious Emission****WCDMA Band 2 / RMC / 1852.4 MHz (below 1GHz)****WCDMA Band 2 / RMC / 1852.4 MHz (above 1GHz)****WCDMA Band 2 / RMC / 1880.0 MHz (below 1GHz)****WCDMA Band 2 / RMC / 1880.0 MHz (above 1GHz)****WCDMA Band 2 / RMC / 1907.6 MHz (below 1GHz)****WCDMA Band 2 / RMC / 1907.6 MHz (above 1GHz)**

## WCDMA Band 4 / RMC / 1712.4 MHz (below 1GHz)



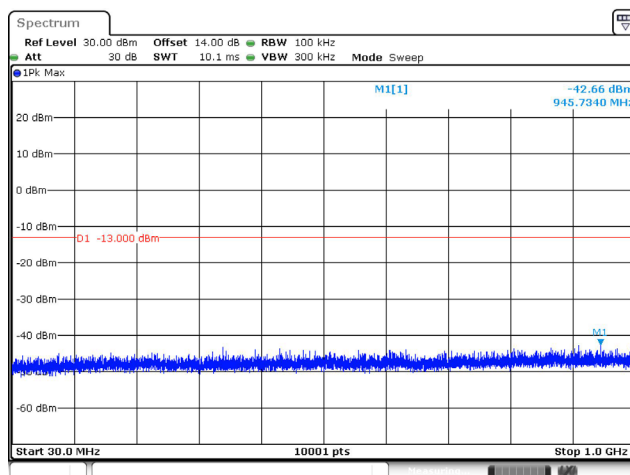
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## WCDMA Band 4 / RMC / 1712.4 MHz (above 1GHz)



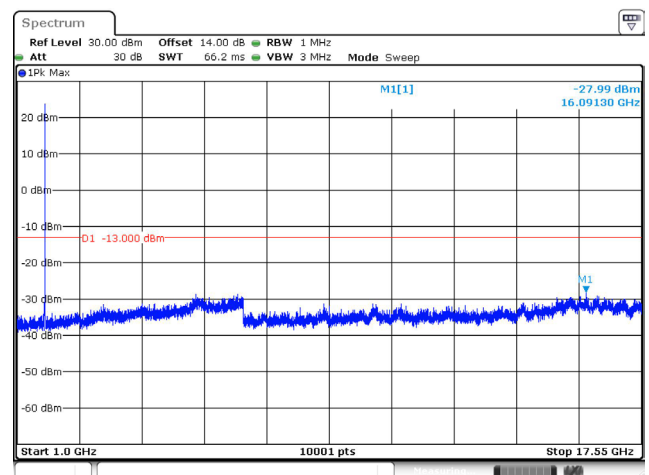
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## WCDMA Band 4 / RMC / 1732.6 MHz (below 1GHz)



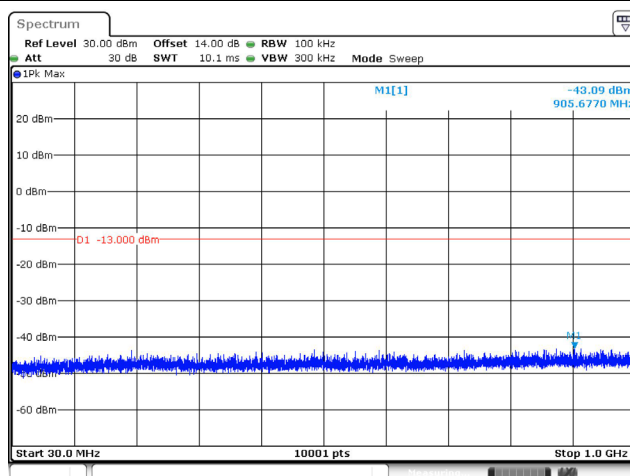
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## WCDMA Band 4 / RMC / 1732.6 MHz (above 1GHz)



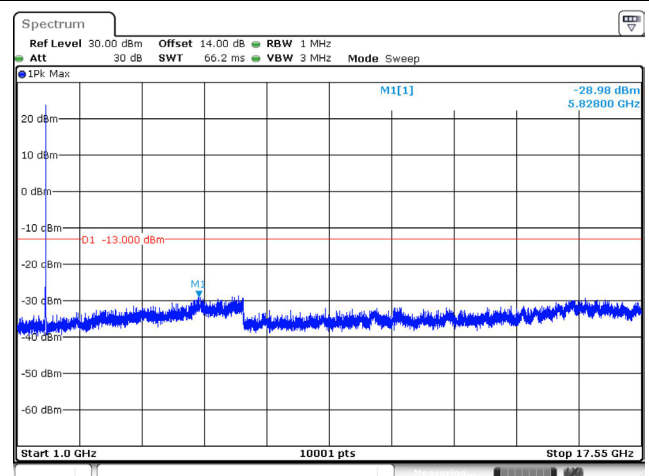
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## WCDMA Band 4 / RMC / 1752.6 MHz (below 1GHz)



Date: 16.AUG.2024 10:45:18

## WCDMA Band 4 / RMC / 1752.6 MHz (above 1GHz)



Date: 16.AUG.2024 10:45:26