# LTE TEST REPORT

## No. 24T04Z103031-012

**for**

**TCL Communication Ltd.**

**Tablet PC**

**Model Name: 9185W**

**FCC ID: 2ACCJB229**

**with**

**Hardware Version: 05**

**Software Version: 4J3M**

**Issued Date: 2025-03-11**

**Note:**

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of CTTL.

**Test Laboratory:**

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# REPORT HISTORY

| Report Number | Revision | Description | Issue Date |
|---|---|---|---|
| 24T04Z103031-012 | Rev.0 | 1st edition | 2025-03-11 |

Note: the latest revision of the test report supersedes all previous version.

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# 1. Test Laboratory

## 1.1. Introduction & Accreditation

**Telecommunication Technology Labs, CAICT** is an ISO/IEC 17025:2017 accredited test laboratory under American Association for Laboratory Accreditation (A2LA) with lab code 7049.01, and is also an FCC accredited test laboratory (CN1349), and ISED accredited test laboratory (CAB identifier:CN0066). The detail accreditation scope can be found on A2LA website.

## 1.2. Testing Location

Location 1: CTTL (huayuan North Road)

Address: No. 52, Huayuan North Road, Haidian District, Beijing, P. R. China 100191

Location 2: CTTL (BDA)

Address: No.18A, Kangding Street, Beijing Economic-Technology Development Area, Beijing, P. R. China 100176

## 1.3. Testing Environment

Normal Temperature: 15-35℃

Relative Humidity: 20-75%

## 1.4. Project Data

Testing Start Date: 2025-01-07

Testing End Date: 2025-03-10

## 1.5. Signature

王星

**Wang Xing**

**(Prepared this test report)**

周宇

**Zhou Yu**

**(Reviewed this test report)**

赵慧麟

**Zhao Hui Lin**

**(Approved this test report)**

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# 2. Client Information

## 2.1. Applicant Information

| | |
|---|---|
| Company Name: | TCL Communication Ltd. |
| Address /Post: | 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong |
| Contact: | Ting Wang |
| Email: | ting.wang.hz@tcl.com |
| Telephone: | +86 752 2639091 |

## 2.2. Manufacturer Information

| | |
|---|---|
| Company Name: | TCL Communication Ltd. |
| Address /Post: | 5/F, Building 22E, 22 Science Park East Avenue, Hong Kong Science Park, Shatin, NT, Hong Kong |
| Contact: | Ting Wang |
| Email: | ting.wang.hz@tcl.com |
| Telephone: | +86 752 2639091 |

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# 3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

## 3.1. About EUT

| | |
|---|---|
| Description | Tablet PC |
| Model Name | 9185W |
| FCC ID | 2ACCJB229 |
| Antenna | Embedded |
| Output power | 24.76dBm maximum EIRP measured for LTE Band 41 |
| Extreme Voltage | 3.45VDC to 4.4VDC (nominal: 3.8VDC) |
| Extreme Temperature | 0°C to 60°C |

Note: Components list, please refer to documents of the manufacturer; it is also included in the original test record of CTTL.

## 3.2. Internal Identification of EUT used during the test

| EUT ID* | IMEI | HW Version | SW Version | Date of receipt |
|---|---|---|---|---|
| UT46a | 016645000021042/ 016645000021109 | 05 | 4J3M | 2024-12-30 |
| UT74a | 016645000023287/ 016645000023345 | 05 | 4J3M | 2025-02-10 |

UT74a was used for emission limit test and UT46a was used for other testing cases.

*EUT ID: is used to identify the test sample in the lab internally.

## 3.3. Internal Identification of AE used during the test

| AE ID* | Description |
|---|---|
| AE1 | Battery |

AE1

| | |
|---|---|
| Model | TLp058C7 |
| Manufacturer | Veken |
| Capacitance | 6000mAh |

*AE ID: is used to identify the test sample in the lab internally.

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# 4. Reference Documents

## 4.1. Documents supplied by applicant

EUT parameters are supplied by the customer, which are the bases of testing. CAICT is not responsible for the accuracy of customer supplied technical information that may affect the test results (for example, antenna gain and loss of customer supplied cable).

## 4.2. Reference Documents for testing

The following documents listed in this section are referred for testing.

| Reference | Title | Version |
|---|---|---|
| FCC Part 24 | PERSONAL COMMUNICATIONS SERVICES | 10-1-23 Edition |
| FCC Part 22 | PUBLIC MOBILE SERVICES | 10-1-23 Edition |
| FCC Part 27 | MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES | 10-1-23 Edition |
| FCC Part 90 | PRIVATE LAND MOBILE RADIO SERVICES | 10-1-23 Edition |
| ANSI/TIA-603-E | Land Mobile FM or PM Communications Equipment Measurement and Performance Standards | 2016 |
| ANSI C63.26 | American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services | 2015 |
| KDB 971168 D01 | MEASUREMENT GUIDANCE FOR CERTIFICATION OF LICENSED DIGITAL TRANSMITTERS | v03r01 |

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## 5. Summary of Test Result

**LTE Band 7**

| Items | Test Name | Clause in FCC rules | Verdict |
|---|---|---|---|
| 1 | Output Power | 27.50 | P |
| 2 | Emission Limit | 2.1051/27.53 | P |
| 3 | Frequency Stability | 2.1055 | P |
| 4 | Occupied Bandwidth | 2.1049 | P |
| 5 | Emission Bandwidth | 27.53 | P |
| 6 | Band Edge Compliance | 27.53 | P |
| 7 | Conducted Spurious Emission | 27.53 | P |
| 8 | Peak-to-Average Power Ratio | 27.50 | P |

**LTE Band 12**

| Items | Test Name | Clause in FCC rules | Verdict |
|---|---|---|---|
| 1 | Output Power | 27.50 | P |
| 2 | Emission Limit | 2.1051/27.53 | P |
| 3 | Frequency Stability | 2.1055 | P |
| 4 | Occupied Bandwidth | 2.1049 | P |
| 5 | Emission Bandwidth | 27.53 | P |
| 6 | Band Edge Compliance | 27.53 | P |
| 7 | Conducted Spurious Emission | 27.53 | P |
| 8 | Peak-to-Average Power Ratio | 27.50 | P |

**LTE Band 25 (2)**

| Items | Test Name | Clause in FCC rules | Verdict |
|---|---|---|---|
| 1 | Output Power | 24.232 | P |
| 2 | Emission Limit | 2.1051/24.238 | P |
| 3 | Frequency Stability | 2.1055 | P |
| 4 | Occupied Bandwidth | 2.1049 | P |
| 5 | Emission Bandwidth | 24.238 | P |
| 6 | Band Edge Compliance | 24.238 | P |
| 7 | Conducted Spurious Emission | 24.238 | P |
| 8 | Peak-to-Average Power Ratio | 24.232 | P |

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**LTE Band 26(814MHz~824MHz)**

| Items | Test Name | Clause in FCC rules | Verdict |
|---|---|---|---|
| 1 | Output Power | 90.635 | P |
| 2 | Emission Limit | 2.1051/90.691 | P |
| 3 | Frequency Stability | 2.1055 | P |
| 4 | Occupied Bandwidth | 2.1049 | P |
| 5 | Emission Bandwidth | 2.1049 | P |
| 6 | Band Edge Compliance | 90.691 | P |
| 7 | Conducted Spurious Emission | 90.691 | P |

**LTE Band 26(824MHz~849MHz) (5)**

| Items | Test Name | Clause in FCC rules | Verdict |
|---|---|---|---|
| 1 | Output Power | 22.913 | P |
| 2 | Emission Limit | 2.1051/22.917 | P |
| 3 | Frequency Stability | 2.1055 | P |
| 4 | Occupied Bandwidth | 2.1049 | P |
| 5 | Emission Bandwidth | 22.917 | P |
| 6 | Band Edge Compliance | 22.917 | P |
| 7 | Conducted Spurious Emission | 22.917 | P |

**LTE Band 41 (38)**

| Items | Test Name | Clause in FCC rules | Verdict |
|---|---|---|---|
| 1 | Output Power | 27.50 | P |
| 2 | Emission Limit | 2.1051/27.53 | P |
| 3 | Frequency Stability | 2.1055 | P |
| 4 | Occupied Bandwidth | 2.1049 | P |
| 5 | Emission Bandwidth | 27.53 | P |
| 6 | Band Edge Compliance | 27.53 | P |
| 7 | Conducted Spurious Emission | 27.53 | P |
| 8 | Peak-to-Average Power Ratio | 27.50 | P |

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**LTE Band 66 (4)**

| Items | Test Name | Clause in FCC rules | Verdict |
|---|---|---|---|
| 1 | Output Power | 27.50 | P |
| 2 | Emission Limit | 2.1051/27.53 | P |
| 3 | Frequency Stability | 2.1055 | P |
| 4 | Occupied Bandwidth | 2.1049 | P |
| 5 | Emission Bandwidth | 27.53 | P |
| 6 | Band Edge Compliance | 27.53 | P |
| 7 | Conducted Spurious Emission | 27.53 | P |
| 8 | Peak-to-Average Power Ratio | 27.50 | P |

**LTE Band 71**

| Items | Test Name | Clause in FCC rules | Verdict |
|---|---|---|---|
| 1 | Output Power | 27.50 | P |
| 2 | Emission Limit | 2.1051/27.53 | P |
| 3 | Frequency Stability | 2.1055 | P |
| 4 | Occupied Bandwidth | 2.1049 | P |
| 5 | Emission Bandwidth | 27.53 | P |
| 6 | Band Edge Compliance | 27.53 | P |
| 7 | Conducted Spurious Emission | 27.53 | P |
| 8 | Peak-to-Average Power Ratio | 27.50 | P |

Terms used in Verdict column

| | |
|---|---|
| P | Pass. The EUT complies with the essential requirements in the standard. |
| NP | Not Performed. The test was not performed by CTTL. |
| NA | Not Applicable.The test was not applicable. |
| BR | Re-use test data from basic model report. |
| F | Fail. The EUT does not comply with the essential requirements in the standard. |

All the test results are based on normal power.

Measurement uncertainty is not taken into account when stating conformity with a specified requirement.

LTE Band 25, Band 66, Band 26 and Band 41 overlap the entire frequency range of LTE Band 2, Band 4, Band 5 and Band 38. Therefore, test data provided in this report covers Band 2, Band 4, Band 5, Band 38 as well as Band 25, Band 66, Band 26, Band41.

LTE Band 41 is tested by power class 2.

Explanation of worst-case configuration

The worst-case scenario for all measurements is based on the conducted output power measurement investigation results. Output power was measured on QPSK, 16QAM, 64QAM and 256QAM modulations. It was found that QPSK was the worst case. All testing was performed using QPSK modulations to represent the worst case unless otherwise stated. The test results shown in the following sections represent the worst case emission.

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## 6. Test Equipment Utilized

| Description | Type | Series Number | Manufacture | Cal Due Date | Calibration Interval |
|---|---|---|---|---|---|
| Wideband Radio Communication Tester | CMW500 | 159082 | R&S | 2025-12-03 | 1 year |
| Spectrum Analyzer | FSV | 101576 | R&S | 2025-05-08 | 1 year |
| Climate chamber | SH-241 | 92004642 | ESPEC | 2025-10-29 | 1 year |
| Test Receiver | FSV30 | 101525 | R&S | 2026-01-15 | 1 year |
| Test Receiver | FSV40 | 101047 | R&S | 2025-07-28 | 1 year |
| Antenna | VULB9163 | 9163-482 | Schwarzbeck | 2025-05-19 | 1 year |
| Antenna | LB-7180-NF | J2030013000005 | A-INFO | 2025-05-16 | 1 year |
| Antenna | LB-180400-25-C-KF | 2110084000006 | A-INFO | 2025-05-15 | 1 year |
| Antenna | 9117 | 167 | Schwarzbeck | 2026-10-15 | 2 years |
| Antenna | 3115 | 00146404 | ETS-Lindgren | 2025-05-16 | 1 year |
| Signal Generator | SMF100A | 101295 | R&S | 2026-02-10 | 1 year |
| Universal Radio Communication Tester | CMW500 | 143008 | R&S | 2026-01-15 | 1 year |

Note: Only the latest Cal Due Dates of equipment are listed above and all equipment is in valid calibration period when used.

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## 7. Measurement Uncertainty

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI C63.26. All measurement uncertainty values are shown with a coverage factor of k = 2 to indicate a 95% level of confidence. Measurement uncertainty is not taken into account when stating conformity with a specified requirement.

| Test item | | Measurement uncertainty |
|---|---|---|
| Output Power(dB) | | 1.90 |
| Emission Limit(dB) | 30MHz-1GHz | 2.12 |
| | 1GHz-18GHz | 3.10 |
| | 18GHz-40GHz | 3.37 |
| Frequency Stability | FE(ppm) | 1.16 |
| | $F_LF_H$(kHz) | 173.51 |
| Occupied Bandwidth(%) | | 0.72 |
| Emission Bandwidth(%) | | 0.75 |
| Band Edge Compliance(dB) | | 1.94 |
| Conducted Spurious Emission(dB) | | 4.77(0-20GHz) |
| | | 6.27(20-30GHz) |
| Peak-to-Average Power Ratio(dB) | | 2.10 |

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# Annex A: Measurement Results

## A.1 Output Power

### A.1.1 Summary

During the process of testing, the EUT was controlled via communication tester to ensure max power transmission and proper modulation.

In all cases, output power is within the specified limits.

### A.1.2 Conducted

#### A.1.2.1 Method of Measurements

The EUT was set up for the max output power with pseudo random data modulation.

These measurements were done at 3 frequencies (bottom, middle and top of operational frequency range) for each bandwidth.

The results below include a correction factor for cable loss that is provided by the customer.

#### A.1.2.2 Measurement Result

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**LTE band 7**

| Bandwidth | RB size/offset | Frequency (MHz) | Power (dBm) | | | |
|---|---|---|---|---|---|---|
| | | | QPSK | 16QAM | 64QAM | 256QAM |
| 5MHz | 1 RB high | 2567.5 | 22.85 | 22.15 | 21.00 | 20.41 |
| | | 2535.0 | 22.73 | 21.99 | 20.90 | 19.74 |
| | | 2502.5 | 22.82 | 21.97 | 20.87 | 20.45 |
| | 1 RB low | 2567.5 | 22.85 | 22.17 | 21.00 | 19.65 |
| | | 2535.0 | 22.73 | 22.00 | 20.91 | 20.12 |
| | | 2502.5 | 22.67 | 22.58 | 20.74 | 19.59 |
| | 50% RB mid | 2567.5 | 21.85 | 20.85 | 19.86 | 18.98 |
| | | 2535.0 | 21.71 | 20.72 | 19.73 | 18.64 |
| | | 2502.5 | 21.75 | 20.63 | 19.67 | 18.73 |
| | 100% RB | 2567.5 | 21.91 | 20.89 | 19.84 | 18.81 |
| | | 2535.0 | 21.78 | 20.76 | 19.73 | 18.56 |
| | | 2502.5 | 21.55 | 20.66 | 19.64 | 18.81 |
| 10MHz | 1 RB high | 2565.0 | 22.92 | 22.18 | 21.10 | 20.43 |
| | | 2535.0 | 22.77 | 22.06 | 20.92 | 19.98 |
| | | 2505.0 | 22.87 | 22.15 | 21.01 | 20.27 |
| | 1 RB low | 2565.0 | 22.79 | 22.07 | 21.00 | 20.01 |
| | | 2535.0 | 22.79 | 22.06 | 20.94 | 20.40 |
| | | 2505.0 | 22.61 | 21.88 | 20.77 | 19.67 |
| | 50% RB mid | 2565.0 | 21.84 | 20.84 | 19.79 | 18.98 |
| | | 2535.0 | 21.75 | 20.73 | 19.70 | 18.82 |
| | | 2505.0 | 21.72 | 20.70 | 19.68 | 18.97 |
| | 100% RB | 2565.0 | 21.86 | 20.89 | 19.84 | 18.73 |
| | | 2535.0 | 21.78 | 20.76 | 19.73 | 18.98 |
| | | 2505.0 | 21.71 | 20.70 | 19.70 | 18.89 |
| 15MHz | 1 RB high | 2562.5 | 22.98 | 22.28 | 21.14 | 20.53 |
| | | 2535.0 | 22.82 | 22.07 | 20.95 | 20.06 |
| | | 2507.5 | 22.99 | 22.28 | 21.17 | 20.23 |
| | 1 RB low | 2562.5 | 22.73 | 22.01 | 20.91 | 20.05 |
| | | 2535.0 | 22.81 | 22.10 | 20.99 | 20.26 |
| | | 2507.5 | 22.65 | 21.92 | 20.83 | 19.63 |
| | 50% RB mid | 2562.5 | 21.86 | 20.87 | 19.87 | 18.84 |
| | | 2535.0 | 21.79 | 20.79 | 19.79 | 18.96 |
| | | 2507.5 | 21.81 | 20.81 | 19.80 | 18.89 |
| | 100% RB | 2562.5 | 21.88 | 20.91 | 19.87 | 18.89 |
| | | 2535.0 | 21.84 | 20.85 | 19.82 | 18.76 |
| | | 2507.5 | 21.84 | 20.84 | 19.82 | 18.89 |
| 20MHz | 1 RB high | 2560.0 | 23.02 | 22.33 | 21.19 | 20.45 |
| | | 2535.0 | 22.82 | 22.12 | 21.00 | 20.14 |
| | | 2510.0 | 23.06 | 22.36 | 21.21 | 20.31 |
| | 1 RB low | 2560.0 | 22.64 | 21.95 | 20.81 | 19.85 |

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| | | | | | | |
|---|---|---|---|---|---|---|
| | | 2535.0 | 22.88 | 22.18 | 21.06 | 20.28 |
| | | 2510.0 | 22.66 | 21.94 | 20.79 | 19.85 |
| | 50% RB mid | 2560.0 | 21.90 | 20.90 | 19.88 | 18.82 |
| | | 2535.0 | 21.88 | 20.86 | 19.84 | 18.96 |
| | | 2510.0 | 21.92 | 20.91 | 19.87 | 18.77 |
| | 100% RB | 2560.0 | 21.92 | 20.90 | 19.87 | 18.93 |
| | | 2535.0 | 21.89 | 20.89 | 19.86 | 18.82 |
| | | 2510.0 | 21.91 | 20.90 | 19.89 | 18.91 |

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**LTE band 12**

| Bandwidth | RB size/offset | Frequency (MHz) | Power (dBm) | | | |
|---|---|---|---|---|---|---|
| | | | QPSK | 16QAM | 64QAM | 256QAM |
| 1.4MHz | 1 RB high | 715.3 | 22.71 | 22.00 | 20.81 | 20.09 |
| | | 707.5 | 22.79 | 22.06 | 20.95 | 19.98 |
| | | 699.7 | 22.77 | 22.17 | 21.10 | 19.95 |
| | 1 RB low | 715.3 | 22.70 | 21.99 | 20.82 | 19.84 |
| | | 707.5 | 22.79 | 22.09 | 21.02 | 19.74 |
| | | 699.7 | 22.81 | 22.08 | 21.00 | 20.14 |
| | 50% RB mid | 715.3 | 22.65 | 21.64 | 20.80 | 19.37 |
| | | 707.5 | 22.72 | 21.76 | 20.85 | 19.46 |
| | | 699.7 | 22.73 | 21.78 | 20.89 | 19.80 |
| | 100% RB | 715.3 | 21.67 | 20.72 | 19.64 | 18.83 |
| | | 707.5 | 21.74 | 20.83 | 19.71 | 18.82 |
| | | 699.7 | 21.83 | 20.88 | 19.78 | 18.52 |
| 3MHz | 1 RB high | 714.5 | 22.70 | 21.93 | 20.87 | 20.01 |
| | | 707.5 | 22.78 | 22.00 | 20.88 | 19.84 |
| | | 700.5 | 22.80 | 22.10 | 20.96 | 20.07 |
| | 1 RB low | 714.5 | 22.71 | 21.93 | 20.83 | 19.80 |
| | | 707.5 | 22.79 | 21.99 | 20.87 | 19.92 |
| | | 700.5 | 22.77 | 22.09 | 20.93 | 19.92 |
| | 50% RB mid | 714.5 | 21.69 | 20.71 | 19.70 | 18.61 |
| | | 707.5 | 21.76 | 20.80 | 19.76 | 18.66 |
| | | 700.5 | 21.81 | 20.89 | 19.88 | 18.80 |
| | 100% RB | 714.5 | 21.69 | 20.70 | 19.64 | 18.71 |
| | | 707.5 | 21.74 | 20.76 | 19.71 | 18.70 |
| | | 700.5 | 21.82 | 20.85 | 19.79 | 18.72 |
| 5MHz | 1 RB high | 713.5 | 22.80 | 22.07 | 20.90 | 20.03 |
| | | 707.5 | 22.85 | 22.10 | 20.90 | 20.08 |
| | | 701.5 | 22.92 | 22.14 | 21.00 | 20.03 |
| | 1 RB low | 713.5 | 22.78 | 22.05 | 20.90 | 19.98 |
| | | 707.5 | 22.82 | 22.06 | 20.87 | 19.82 |
| | | 701.5 | 22.85 | 22.08 | 20.96 | 20.10 |
| | 50% RB mid | 713.5 | 21.72 | 20.75 | 19.77 | 18.63 |
| | | 707.5 | 21.80 | 20.78 | 19.84 | 18.60 |
| | | 701.5 | 21.84 | 20.85 | 19.86 | 18.90 |
| | 100% RB | 713.5 | 21.75 | 20.74 | 19.70 | 18.63 |
| | | 707.5 | 21.82 | 20.81 | 19.79 | 18.64 |
| | | 701.5 | 21.86 | 20.85 | 19.82 | 18.88 |
| 10MHz | 1 RB high | 711.0 | 22.91 | 22.16 | 21.03 | 20.11 |
| | | 707.5 | 22.95 | 22.19 | 21.04 | 20.06 |
| | | 704.0 | 22.98 | 22.25 | 21.07 | 19.91 |
| | 1 RB low | 711.0 | 22.87 | 22.13 | 20.98 | 19.96 |

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| | | | | | | |
|---|---|---|---|---|---|---|
| | | 707.5 | 22.87 | 22.13 | 20.96 | 19.82 |
| | | 704.0 | 22.88 | 22.15 | 21.04 | 19.94 |
| | 50% RB mid | 711.0 | 21.76 | 20.72 | 19.73 | 18.75 |
| | | 707.5 | 21.79 | 20.78 | 19.76 | 18.58 |
| | | 704.0 | 21.84 | 20.80 | 19.82 | 18.64 |
| | 100% RB | 711.0 | 21.78 | 20.76 | 19.75 | 18.59 |
| | | 707.5 | 21.83 | 20.82 | 19.80 | 18.78 |
| | | 704.0 | 21.83 | 20.80 | 19.78 | 18.82 |

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**LTE band 25**

| Bandwidth | RB size/offset | Frequency (MHz) | Power (dBm) | | | |
|---|---|---|---|---|---|---|
| | | | QPSK | 16QAM | 64QAM | 256QAM |
| 1.4MHz | 1 RB high | 1914.3 | 23.05 | 22.32 | 21.23 | 20.15 |
| | | 1882.5 | 23.27 | 22.58 | 21.41 | 20.43 |
| | | 1850.7 | 23.53 | 22.75 | 21.65 | 20.28 |
| | 1 RB low | 1914.3 | 23.08 | 22.34 | 21.22 | 20.13 |
| | | 1882.5 | 23.30 | 22.59 | 21.50 | 20.38 |
| | | 1850.7 | 23.53 | 22.74 | 21.70 | 20.68 |
| | 50% RB mid | 1914.3 | 23.06 | 22.12 | 21.20 | 20.12 |
| | | 1882.5 | 23.23 | 22.26 | 21.37 | 20.02 |
| | | 1850.7 | 23.49 | 22.53 | 21.62 | 20.42 |
| | 100% RB | 1914.3 | 22.12 | 21.18 | 20.05 | 19.01 |
| | | 1882.5 | 22.26 | 21.32 | 20.23 | 19.30 |
| | | 1850.7 | 22.52 | 21.54 | 20.49 | 19.16 |
| 3MHz | 1 RB high | 1913.5 | 23.09 | 22.27 | 21.22 | 20.01 |
| | | 1882.5 | 23.27 | 22.56 | 21.45 | 20.21 |
| | | 1851.5 | 23.49 | 22.77 | 21.68 | 20.18 |
| | 1 RB low | 1913.5 | 23.17 | 22.34 | 21.28 | 20.23 |
| | | 1882.5 | 23.28 | 22.57 | 21.47 | 20.26 |
| | | 1851.5 | 23.50 | 22.80 | 21.66 | 20.50 |
| | 50% RB mid | 1913.5 | 22.12 | 21.18 | 20.14 | 19.26 |
| | | 1882.5 | 22.24 | 21.31 | 20.32 | 19.04 |
| | | 1851.5 | 22.54 | 21.61 | 20.59 | 19.42 |
| | 100% RB | 1913.5 | 22.11 | 21.13 | 20.09 | 19.05 |
| | | 1882.5 | 22.28 | 21.27 | 20.22 | 19.26 |
| | | 1851.5 | 22.56 | 21.57 | 20.56 | 19.26 |
| 5MHz | 1 RB high | 1912.5 | 23.12 | 22.34 | 21.25 | 20.23 |
| | | 1882.5 | 23.35 | 22.58 | 21.49 | 20.05 |
| | | 1852.5 | 23.51 | 22.73 | 21.73 | 20.28 |
| | 1 RB low | 1912.5 | 23.24 | 22.49 | 21.41 | 20.15 |
| | | 1882.5 | 23.35 | 22.62 | 21.53 | 20.48 |
| | | 1852.5 | 23.56 | 22.80 | 21.75 | 20.42 |
| | 50% RB mid | 1912.5 | 22.20 | 21.22 | 20.25 | 19.12 |
| | | 1882.5 | 22.34 | 21.33 | 20.34 | 19.40 |
| | | 1852.5 | 22.61 | 21.59 | 20.62 | 19.04 |
| | 100% RB | 1912.5 | 22.23 | 21.21 | 20.22 | 19.21 |
| | | 1882.5 | 22.35 | 21.33 | 20.30 | 19.42 |
| | | 1852.5 | 22.63 | 21.61 | 20.55 | 19.06 |
| 10MHz | 1 RB high | 1910.0 | 23.19 | 22.35 | 21.28 | 20.05 |
| | | 1882.5 | 23.34 | 22.57 | 21.51 | 20.31 |
| | | 1855.0 | 23.54 | 22.73 | 21.65 | 20.18 |
| | 1 RB low | 1910.0 | 23.42 | 22.63 | 21.53 | 20.45 |

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| | | | | | | |
|---|---|---|---|---|---|---|
| | | 1882.5 | 23.43 | 22.66 | 21.58 | 20.38 |
| | | 1855.0 | 23.60 | 22.85 | 21.75 | 20.50 |
| | 50% RB mid | 1910.0 | 22.30 | 21.32 | 20.29 | 19.20 |
| | | 1882.5 | 22.34 | 21.34 | 20.30 | 19.28 |
| | | 1855.0 | 22.63 | 21.62 | 20.58 | 19.44 |
| | 100% RB | 1910.0 | 22.32 | 21.29 | 20.29 | 18.97 |
| | | 1882.5 | 22.36 | 21.33 | 20.30 | 19.14 |
| | | 1855.0 | 22.60 | 21.60 | 20.56 | 19.20 |
| 15MHz | 1 RB high | 1907.5 | 23.22 | 22.49 | 21.29 | 20.09 |
| | | 1882.5 | 23.29 | 22.59 | 21.38 | 20.03 |
| | | 1857.5 | 23.52 | 22.73 | 21.75 | 20.32 |
| | 1 RB low | 1907.5 | 23.38 | 22.68 | 21.46 | 20.17 |
| | | 1882.5 | 23.40 | 22.72 | 21.53 | 20.46 |
| | | 1857.5 | 23.63 | 22.86 | 21.85 | 20.66 |
| | 50% RB mid | 1907.5 | 22.34 | 21.37 | 20.36 | 19.32 |
| | | 1882.5 | 22.35 | 21.33 | 20.34 | 19.22 |
| | | 1857.5 | 22.59 | 21.60 | 20.62 | 19.26 |
| | 100% RB | 1907.5 | 22.35 | 21.34 | 20.32 | 19.13 |
| | | 1882.5 | 22.34 | 21.34 | 20.32 | 19.00 |
| | | 1857.5 | 22.63 | 21.62 | 20.60 | 19.38 |
| 20MHz | 1 RB high | 1905.0 | 23.20 | 22.47 | 21.33 | 20.05 |
| | | 1882.5 | 23.33 | 22.52 | 21.47 | 20.31 |
| | | 1860.0 | 23.48 | 22.63 | 21.62 | 20.32 |
| | 1 RB low | 1905.0 | 23.39 | 22.65 | 21.57 | 20.37 |
| | | 1882.5 | 23.43 | 22.69 | 21.64 | 20.22 |
| | | 1860.0 | 23.69 | 22.96 | 21.84 | 20.50 |
| | 50% RB mid | 1905.0 | 22.40 | 21.40 | 20.38 | 19.16 |
| | | 1882.5 | 22.40 | 21.38 | 20.36 | 19.36 |
| | | 1860.0 | 22.67 | 21.66 | 20.62 | 19.42 |
| | 100% RB | 1905.0 | 22.39 | 21.38 | 20.37 | 19.17 |
| | | 1882.5 | 22.34 | 21.31 | 20.32 | 19.32 |
| | | 1860.0 | 22.61 | 21.61 | 20.60 | 19.30 |

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**LTE band 26(824MHz~849MHz)**

| Bandwidth | RB size/offset | Frequency (MHz) | Power (dBm) | | | |
|---|---|---|---|---|---|---|
| | | | QPSK | 16QAM | 64QAM | 256QAM |
| 1.4MHz | 1 RB high | 848.3 | 22.72 | 21.76 | 20.69 | 17.76 |
| | | 836.5 | 22.66 | 21.75 | 20.71 | 17.78 |
| | | 824.7 | 22.76 | 21.79 | 21.22 | 17.90 |
| | 1 RB low | 848.3 | 22.70 | 21.71 | 20.57 | 17.77 |
| | | 836.5 | 22.66 | 21.76 | 20.60 | 17.79 |
| | | 824.7 | 22.76 | 21.80 | 21.08 | 17.99 |
| | 50% RB mid | 848.3 | 22.81 | 21.89 | 20.83 | 17.77 |
| | | 836.5 | 22.67 | 21.76 | 20.88 | 17.81 |
| | | 824.7 | 22.82 | 21.95 | 21.11 | 17.83 |
| | 100% RB | 848.3 | 21.75 | 20.94 | 19.82 | 17.76 |
| | | 836.5 | 21.64 | 20.94 | 19.84 | 17.77 |
| | | 824.7 | 21.76 | 21.02 | 19.88 | 17.80 |
| 3MHz | 1 RB high | 847.5 | 22.67 | 21.72 | 20.60 | 17.73 |
| | | 836.5 | 22.59 | 21.61 | 20.64 | 17.78 |
| | | 825.5 | 22.75 | 21.78 | 20.64 | 17.77 |
| | 1 RB low | 847.5 | 22.65 | 21.69 | 20.49 | 17.72 |
| | | 836.5 | 22.62 | 21.66 | 20.53 | 17.71 |
| | | 825.5 | 22.78 | 21.81 | 20.55 | 17.86 |
| | 50% RB mid | 847.5 | 21.68 | 20.76 | 19.78 | 17.78 |
| | | 836.5 | 21.60 | 20.83 | 19.81 | 17.82 |
| | | 825.5 | 21.71 | 20.78 | 19.70 | 17.75 |
| | 100% RB | 847.5 | 21.70 | 20.70 | 19.79 | 17.73 |
| | | 836.5 | 21.62 | 20.72 | 19.79 | 17.78 |
| | | 825.5 | 21.72 | 20.72 | 19.82 | 17.77 |
| 5MHz | 1 RB high | 846.5 | 22.83 | 21.87 | 20.97 | 17.86 |
| | | 836.5 | 22.78 | 21.81 | 21.02 | 17.89 |
| | | 826.5 | 22.83 | 21.89 | 21.06 | 17.95 |
| | 1 RB low | 846.5 | 22.73 | 21.78 | 21.03 | 17.90 |
| | | 836.5 | 22.78 | 21.82 | 21.08 | 17.84 |
| | | 826.5 | 22.90 | 21.94 | 21.14 | 18.01 |
| | 50% RB mid | 846.5 | 21.72 | 20.85 | 19.94 | 17.88 |
| | | 836.5 | 21.67 | 20.89 | 19.98 | 17.89 |
| | | 826.5 | 21.76 | 20.84 | 19.89 | 17.90 |
| | 100% RB | 846.5 | 21.81 | 20.78 | 19.86 | 17.86 |
| | | 836.5 | 21.73 | 20.77 | 19.88 | 17.85 |
| | | 826.5 | 21.83 | 20.80 | 19.91 | 17.90 |
| 10MHz | 1 RB high | 844.0 | 22.89 | 21.90 | 20.76 | 17.93 |
| | | 836.5 | 22.79 | 21.79 | 20.78 | 17.96 |
| | | 829.0 | 22.80 | 21.80 | 20.74 | 17.92 |
| | 1 RB low | 844.0 | 22.77 | 21.78 | 20.64 | 17.95 |

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| | | | | | | |
|---|---|---|---|---|---|---|
| | | 836.5 | 22.80 | 21.83 | 20.69 | 17.91 |
| | | 829.0 | 22.88 | 21.89 | 20.65 | 17.92 |
| | 50% RB mid | 844.0 | 21.80 | 20.91 | 19.92 | 17.89 |
| | | 836.5 | 21.73 | 20.91 | 19.91 | 17.89 |
| | | 829.0 | 21.82 | 20.89 | 19.93 | 17.90 |
| | 100% RB | 844.0 | 21.78 | 20.87 | 19.86 | 17.83 |
| | | 836.5 | 21.75 | 20.85 | 19.83 | 17.82 |
| | | 829.0 | 21.84 | 20.87 | 19.85 | 17.85 |
| 15MHz | 1 RB high | 841.5 | 22.88 | 22.28 | 21.24 | 18.11 |
| | | 836.5 | 22.79 | 22.20 | 21.25 | 18.13 |
| | | 831.5 | 22.77 | 22.16 | 21.23 | 18.08 |
| | 1 RB low | 841.5 | 22.79 | 22.18 | 21.16 | 18.09 |
| | | 836.5 | 22.83 | 22.23 | 21.21 | 18.16 |
| | | 831.5 | 22.87 | 22.27 | 21.20 | 18.10 |
| | 50% RB mid | 841.5 | 21.80 | 20.91 | 19.88 | 17.92 |
| | | 836.5 | 21.78 | 20.84 | 19.87 | 17.89 |
| | | 831.5 | 21.79 | 20.84 | 19.88 | 17.87 |
| | 100% RB | 841.5 | 21.80 | 20.89 | 19.92 | 17.89 |
| | | 836.5 | 21.79 | 20.87 | 19.89 | 17.90 |
| | | 831.5 | 21.83 | 20.90 | 19.87 | 17.88 |

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**LTE band 26(814MHz~824MHz)**

| Bandwidth | RB size/offset | Frequency (MHz) | Power (dBm) | | | |
|---|---|---|---|---|---|---|
| | | | QPSK | 16QAM | 64QAM | 256QAM |
| 1.4MHz | 1 RB high | 823.3 | 22.80 | 21.89 | 20.83 | 17.90 |
| | | 819.0 | 22.76 | 21.87 | 20.76 | 17.83 |
| | | 814.7 | 22.78 | 21.81 | 21.28 | 17.99 |
| | 1 RB low | 823.3 | 22.76 | 21.87 | 20.74 | 17.90 |
| | | 819.0 | 22.78 | 21.90 | 20.66 | 17.81 |
| | | 814.7 | 22.84 | 21.85 | 21.17 | 18.06 |
| | 50% RB mid | 823.3 | 22.73 | 21.74 | 20.69 | 17.88 |
| | | 819.0 | 22.81 | 21.94 | 20.71 | 17.86 |
| | | 814.7 | 22.77 | 21.80 | 21.17 | 17.88 |
| | 100% RB | 823.3 | 21.76 | 20.97 | 19.82 | 17.89 |
| | | 819.0 | 21.74 | 21.02 | 19.80 | 17.83 |
| | | 814.7 | 21.78 | 21.02 | 19.93 | 17.89 |
| 3MHz | 1 RB high | 822.5 | 22.75 | 21.76 | 20.76 | 17.88 |
| | | 819.0 | 22.69 | 21.69 | 20.68 | 17.82 |
| | | 815.5 | 22.75 | 21.77 | 20.72 | 17.86 |
| | 1 RB low | 822.5 | 22.67 | 21.71 | 20.63 | 17.87 |
| | | 819.0 | 22.68 | 21.73 | 20.59 | 17.76 |
| | | 815.5 | 22.84 | 21.90 | 20.62 | 17.97 |
| | 50% RB mid | 822.5 | 21.69 | 20.87 | 19.91 | 17.85 |
| | | 819.0 | 21.68 | 20.81 | 19.85 | 17.83 |
| | | 815.5 | 21.73 | 20.87 | 19.78 | 17.88 |
| | 100% RB | 822.5 | 21.74 | 20.81 | 19.89 | 17.85 |
| | | 819.0 | 21.71 | 20.72 | 19.81 | 17.78 |
| | | 815.5 | 21.75 | 20.79 | 19.87 | 17.86 |
| 5MHz | 1 RB high | 821.5 | 22.88 | 21.93 | 21.10 | 18.00 |
| | | 819.0 | 22.84 | 21.88 | 21.12 | 18.02 |
| | | 816.5 | 22.88 | 21.92 | 21.06 | 17.95 |
| | 1 RB low | 821.5 | 22.84 | 21.87 | 21.17 | 17.92 |
| | | 819.0 | 22.87 | 21.92 | 21.19 | 17.95 |
| | | 816.5 | 23.00 | 22.02 | 21.13 | 18.09 |
| | 50% RB mid | 821.5 | 21.78 | 20.93 | 20.03 | 17.97 |
| | | 819.0 | 21.77 | 20.95 | 20.01 | 17.93 |
| | | 816.5 | 21.80 | 20.94 | 19.94 | 17.97 |
| | 100% RB | 821.5 | 21.83 | 20.87 | 19.97 | 17.95 |
| | | 819.0 | 21.82 | 20.85 | 19.91 | 17.91 |
| | | 816.5 | 21.83 | 20.85 | 19.94 | 17.93 |
| 10MHz | 1 RB high | 819.0 | 22.89 | 21.91 | 20.83 | 18.02 |
| | 1 RB low | 819.0 | 22.88 | 21.89 | 20.75 | 17.97 |
| | 50% RB mid | 819.0 | 21.79 | 20.94 | 19.96 | 17.94 |
| | 100% RB | 819.0 | 21.82 | 20.91 | 19.91 | 17.91 |

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**LTE band 41**

| Bandwidth | RB size/offset | Frequency (MHz) | Power (dBm) | | | |
|---|---|---|---|---|---|---|
| | | | QPSK | 16QAM | 64QAM | 256QAM |
| 5MHz | 1 RB high | 2687.5 | 25.23 | 24.38 | 23.29 | 22.56 |
| | | 2593.0 | 25.62 | 24.79 | 23.70 | 22.73 |
| | | 2498.5 | 25.64 | 24.65 | 23.67 | 22.85 |
| | 1 RB low | 2687.5 | 25.25 | 24.41 | 23.34 | 22.37 |
| | | 2593.0 | 25.67 | 24.82 | 23.74 | 22.75 |
| | | 2498.5 | 25.51 | 24.64 | 23.54 | 22.67 |
| | 50% RB mid | 2687.5 | 24.25 | 23.31 | 22.30 | 21.32 |
| | | 2593.0 | 24.67 | 23.73 | 22.73 | 21.73 |
| | | 2498.5 | 24.59 | 23.64 | 22.63 | 21.88 |
| | 100% RB | 2687.5 | 24.29 | 23.31 | 22.31 | 21.25 |
| | | 2593.0 | 24.70 | 23.75 | 22.74 | 21.62 |
| | | 2498.5 | 24.62 | 23.65 | 22.65 | 21.95 |
| 10MHz | 1 RB high | 2685.0 | 25.25 | 24.42 | 23.29 | 22.66 |
| | | 2593.0 | 25.62 | 24.81 | 23.67 | 22.65 |
| | | 2501.0 | 25.76 | 24.97 | 23.81 | 22.69 |
| | 1 RB low | 2685.0 | 25.29 | 24.47 | 23.35 | 22.41 |
| | | 2593.0 | 25.71 | 24.90 | 23.76 | 22.93 |
| | | 2501.0 | 25.51 | 24.70 | 23.56 | 22.57 |
| | 50% RB mid | 2685.0 | 24.26 | 23.30 | 22.31 | 21.48 |
| | | 2593.0 | 24.66 | 23.69 | 22.70 | 21.81 |
| | | 2501.0 | 24.62 | 23.65 | 22.67 | 21.80 |
| | 100% RB | 2685.0 | 24.28 | 23.32 | 22.28 | 21.41 |
| | | 2593.0 | 24.72 | 23.75 | 22.71 | 21.74 |
| | | 2501.0 | 24.63 | 23.67 | 22.64 | 21.81 |
| 15MHz | 1 RB high | 2682.5 | 25.25 | 24.43 | 23.31 | 22.42 |
| | | 2593.0 | 25.63 | 24.81 | 23.69 | 22.97 |
| | | 2503.5 | 25.90 | 25.08 | 23.96 | 22.93 |
| | 1 RB low | 2682.5 | 25.34 | 24.53 | 23.41 | 22.35 |
| | | 2593.0 | 25.77 | 24.94 | 23.83 | 22.73 |
| | | 2503.5 | 25.57 | 24.75 | 23.62 | 22.83 |
| | 50% RB mid | 2682.5 | 24.28 | 23.27 | 22.26 | 21.34 |
| | | 2593.0 | 24.68 | 23.67 | 22.68 | 21.81 |
| | | 2503.5 | 24.74 | 23.74 | 22.73 | 21.82 |
| | 100% RB | 2682.5 | 24.33 | 23.36 | 22.34 | 21.29 |
| | | 2593.0 | 24.72 | 23.75 | 22.72 | 21.80 |
| | | 2503.5 | 24.78 | 23.81 | 22.78 | 22.05 |
| 20MHz | 1 RB high | 2680.0 | 25.28 | 24.46 | 23.35 | 22.50 |
| | | 2593.0 | 25.62 | 24.81 | 23.68 | 22.81 |
| | | 2506.0 | 25.96 | 25.16 | 24.02 | 22.85 |
| | 1 RB low | 2680.0 | 25.32 | 24.50 | 23.38 | 22.27 |

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| | | | | | | |
|---|---|---|---|---|---|---|
| | | 2593.0 | 25.81 | 24.99 | 23.88 | 22.73 |
| | | 2506.0 | 25.59 | 24.77 | 23.64 | 22.75 |
| | 50% RB mid | 2680.0 | 24.34 | 23.37 | 22.35 | 21.36 |
| | | 2593.0 | 24.77 | 23.79 | 22.78 | 21.67 |
| | | 2506.0 | 24.85 | 23.87 | 22.85 | 21.92 |
| | 100% RB | 2680.0 | 24.35 | 23.36 | 22.34 | 21.35 |
| | | 2593.0 | 24.77 | 23.79 | 22.77 | 21.62 |
| | | 2506.0 | 24.85 | 23.86 | 22.86 | 21.99 |

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**LTE band 66**

| Bandwidth | RB size/offset | Frequency (MHz) | Power (dBm) | | | |
|---|---|---|---|---|---|---|
| | | | QPSK | 16QAM | 64QAM | 256QAM |
| 1.4MHz | 1 RB high | 1779.3 | 23.05 | 22.30 | 21.23 | 19.92 |
| | | 1745.0 | 22.78 | 22.09 | 20.96 | 19.91 |
| | | 1710.7 | 23.04 | 22.26 | 21.17 | 19.86 |
| | 1 RB low | 1779.3 | 23.04 | 22.29 | 21.24 | 20.01 |
| | | 1745.0 | 22.80 | 22.17 | 21.01 | 20.15 |
| | | 1710.7 | 23.06 | 22.25 | 21.23 | 20.11 |
| | 50% RB mid | 1779.3 | 23.00 | 22.09 | 21.18 | 19.72 |
| | | 1745.0 | 22.74 | 21.80 | 20.89 | 19.59 |
| | | 1710.7 | 23.02 | 22.05 | 21.14 | 19.60 |
| | 100% RB | 1779.3 | 22.06 | 21.12 | 20.05 | 18.72 |
| | | 1745.0 | 21.78 | 20.85 | 19.75 | 18.62 |
| | | 1710.7 | 22.07 | 21.13 | 20.04 | 18.94 |
| 3MHz | 1 RB high | 1778.5 | 23.01 | 22.23 | 21.20 | 19.48 |
| | | 1745.0 | 22.77 | 22.02 | 20.98 | 19.73 |
| | | 1711.5 | 22.97 | 22.26 | 21.11 | 19.86 |
| | 1 RB low | 1778.5 | 23.08 | 22.22 | 21.22 | 19.83 |
| | | 1745.0 | 22.77 | 22.01 | 20.97 | 19.91 |
| | | 1711.5 | 23.00 | 22.32 | 21.16 | 20.39 |
| | 50% RB mid | 1778.5 | 22.04 | 21.12 | 20.10 | 18.62 |
| | | 1745.0 | 21.81 | 20.89 | 19.88 | 18.65 |
| | | 1711.5 | 22.08 | 21.15 | 20.12 | 18.50 |
| | 100% RB | 1778.5 | 22.06 | 21.07 | 20.01 | 18.88 |
| | | 1745.0 | 21.83 | 20.86 | 19.82 | 18.64 |
| | | 1711.5 | 22.08 | 21.11 | 20.05 | 18.48 |
| 5MHz | 1 RB high | 1777.5 | 23.07 | 22.32 | 21.21 | 19.90 |
| | | 1745.0 | 22.81 | 22.12 | 21.04 | 19.67 |
| | | 1712.5 | 23.01 | 22.31 | 21.22 | 19.82 |
| | 1 RB low | 1777.5 | 23.05 | 22.32 | 21.23 | 19.79 |
| | | 1745.0 | 22.90 | 22.06 | 21.06 | 20.01 |
| | | 1712.5 | 23.07 | 22.34 | 21.28 | 20.25 |
| | 50% RB mid | 1777.5 | 22.08 | 21.09 | 20.11 | 18.80 |
| | | 1745.0 | 21.91 | 20.87 | 19.93 | 18.77 |
| | | 1712.5 | 22.08 | 21.12 | 20.11 | 18.90 |
| | 100% RB | 1777.5 | 22.12 | 21.10 | 20.10 | 19.02 |
| | | 1745.0 | 21.91 | 20.89 | 19.89 | 18.60 |
| | | 1712.5 | 22.11 | 21.10 | 20.09 | 18.86 |
| 10MHz | 1 RB high | 1775.0 | 23.13 | 22.30 | 21.27 | 19.94 |
| | | 1745.0 | 22.90 | 22.14 | 21.03 | 19.89 |
| | | 1715.0 | 23.07 | 22.34 | 21.24 | 19.80 |
| | 1 RB low | 1775.0 | 23.08 | 22.27 | 21.21 | 19.99 |

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| | | | | | | |
|---|---|---|---|---|---|---|
| | | 1745.0 | 22.91 | 22.19 | 21.05 | 20.15 |
| | | 1715.0 | 23.10 | 22.36 | 21.30 | 20.29 |
| | 50% RB mid | 1775.0 | 22.10 | 21.11 | 20.10 | 18.82 |
| | | 1745.0 | 21.90 | 20.92 | 19.89 | 18.57 |
| | | 1715.0 | 22.09 | 21.06 | 20.04 | 18.66 |
| | 100% RB | 1775.0 | 22.09 | 21.10 | 20.10 | 19.06 |
| | | 1745.0 | 21.90 | 20.91 | 19.88 | 18.56 |
| | | 1715.0 | 22.08 | 21.07 | 20.05 | 18.76 |
| 15MHz | 1 RB high | 1772.5 | 23.04 | 22.35 | 21.23 | 19.92 |
| | | 1745.0 | 22.91 | 22.11 | 21.01 | 19.79 |
| | | 1717.5 | 22.97 | 22.28 | 21.14 | 19.78 |
| | 1 RB low | 1772.5 | 23.07 | 22.38 | 21.22 | 19.79 |
| | | 1745.0 | 22.94 | 22.24 | 21.12 | 20.03 |
| | | 1717.5 | 23.12 | 22.37 | 21.33 | 20.25 |
| | 50% RB mid | 1772.5 | 22.08 | 21.07 | 20.09 | 18.64 |
| | | 1745.0 | 21.89 | 20.90 | 19.92 | 18.79 |
| | | 1717.5 | 22.07 | 21.07 | 20.09 | 18.94 |
| | 100% RB | 1772.5 | 22.11 | 21.12 | 20.11 | 18.96 |
| | | 1745.0 | 21.91 | 20.93 | 19.92 | 18.64 |
| | | 1717.5 | 22.10 | 21.11 | 20.09 | 18.76 |
| 20MHz | 1 RB high | 1770.0 | 23.06 | 22.40 | 21.19 | 19.76 |
| | | 1745.0 | 22.85 | 22.12 | 21.08 | 19.77 |
| | | 1720.0 | 22.96 | 22.31 | 21.11 | 19.68 |
| | 1 RB low | 1770.0 | 23.04 | 22.31 | 21.20 | 19.85 |
| | | 1745.0 | 23.18 | 22.30 | 21.18 | 19.97 |
| | | 1720.0 | 23.20 | 22.51 | 21.28 | 20.09 |
| | 50% RB mid | 1770.0 | 22.10 | 21.11 | 20.09 | 18.66 |
| | | 1745.0 | 21.96 | 20.95 | 19.94 | 18.67 |
| | | 1720.0 | 22.11 | 21.11 | 20.07 | 18.78 |
| | 100% RB | 1770.0 | 22.08 | 21.07 | 20.07 | 18.86 |
| | | 1745.0 | 21.94 | 20.92 | 19.93 | 18.62 |
| | | 1720.0 | 22.09 | 21.05 | 20.05 | 18.84 |

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**LTE band 71**

| Bandwidth | RB size/offset | Frequency (MHz) | Power (dBm) | | | |
|---|---|---|---|---|---|---|
| | | | QPSK | 16QAM | 64QAM | 256QAM |
| 5MHz | 1 RB high | 695.5 | 22.81 | 21.95 | 20.91 | 19.45 |
| | | 680.5 | 22.59 | 21.85 | 20.71 | 19.43 |
| | | 665.5 | 22.65 | 21.59 | 20.59 | 19.39 |
| | 1 RB low | 695.5 | 22.62 | 22.08 | 20.84 | 19.46 |
| | | 680.5 | 22.72 | 22.06 | 20.88 | 19.54 |
| | | 665.5 | 22.55 | 21.98 | 20.70 | 19.32 |
| | 50% RB mid | 695.5 | 21.56 | 20.49 | 19.53 | 18.15 |
| | | 680.5 | 21.44 | 20.53 | 19.45 | 18.07 |
| | | 665.5 | 21.48 | 20.39 | 19.75 | 18.41 |
| | 100% RB | 695.5 | 21.60 | 20.58 | 19.94 | 18.54 |
| | | 680.5 | 21.66 | 20.47 | 19.90 | 18.50 |
| | | 665.5 | 21.76 | 20.53 | 19.88 | 18.62 |
| 10MHz | 1 RB high | 693.0 | 22.75 | 22.29 | 20.83 | 19.37 |
| | | 680.5 | 22.73 | 22.21 | 20.63 | 19.43 |
| | | 668.0 | 22.67 | 21.91 | 20.75 | 19.27 |
| | 1 RB low | 693.0 | 22.92 | 22.24 | 20.90 | 19.72 |
| | | 680.5 | 22.80 | 21.86 | 20.72 | 19.32 |
| | | 668.0 | 22.65 | 22.16 | 20.74 | 19.36 |
| | 50% RB mid | 693.0 | 21.78 | 20.57 | 19.59 | 18.21 |
| | | 680.5 | 21.70 | 20.47 | 19.75 | 18.05 |
| | | 668.0 | 21.44 | 20.75 | 19.89 | 18.57 |
| | 100% RB | 693.0 | 21.46 | 20.70 | 20.12 | 18.34 |
| | | 680.5 | 21.60 | 20.75 | 19.74 | 18.20 |
| | | 668.0 | 21.72 | 20.53 | 20.08 | 18.54 |
| 15MHz | 1 RB high | 690.5 | 22.69 | 22.05 | 20.85 | 19.63 |
| | | 680.5 | 22.77 | 21.95 | 20.91 | 19.49 |
| | | 670.5 | 22.53 | 21.67 | 20.85 | 19.29 |
| | 1 RB low | 690.5 | 22.68 | 22.18 | 20.78 | 19.62 |
| | | 680.5 | 22.72 | 22.16 | 20.98 | 19.52 |
| | | 670.5 | 22.81 | 22.00 | 20.82 | 19.26 |
| | 50% RB mid | 690.5 | 21.64 | 20.81 | 19.73 | 18.17 |
| | | 680.5 | 21.66 | 20.79 | 19.81 | 18.13 |
| | | 670.5 | 21.76 | 20.65 | 20.01 | 18.41 |
| | 100% RB | 690.5 | 21.78 | 20.78 | 19.90 | 18.62 |
| | | 680.5 | 21.62 | 20.67 | 19.94 | 18.36 |
| | | 670.5 | 21.54 | 20.53 | 20.12 | 18.52 |
| 20MHz | 1 RB high | 688.0 | 22.73 | 22.11 | 20.85 | 19.49 |
| | | 680.5 | 22.69 | 21.99 | 20.79 | 19.35 |
| | | 673.0 | 22.57 | 21.71 | 20.79 | 19.41 |
| | 1 RB low | 688.0 | 22.72 | 22.22 | 20.78 | 19.50 |

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| | | | | | | |
|---|---|---|---|---|---|---|
| | | 680.5 | 22.78 | 21.98 | 20.86 | 19.40 |
| | | 673.0 | 22.63 | 22.10 | 20.76 | 19.34 |
| | 50% RB mid | 688.0 | 21.62 | 20.69 | 19.69 | 18.21 |
| | | 680.5 | 21.52 | 20.63 | 19.65 | 18.09 |
| | | 673.0 | 21.60 | 20.55 | 19.87 | 18.51 |
| | 100% RB | 688.0 | 21.64 | 20.62 | 19.96 | 18.48 |
| | | 680.5 | 21.58 | 20.63 | 19.88 | 18.36 |
| | | 673.0 | 21.66 | 20.63 | 20.08 | 18.52 |

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### A.1.3 Radiated

#### A.1.3.1 Description

This is the test for the maximum radiated power from the EUT.

**FDD Band 25:** Part 24.232(c) specifies "Mobile and portable stations are limited to 2 watts EIRP".

**FDD Band 66:** Part 27.50(d)(4) specifies "Fixed, mobile, and portable(handheld) stations operating in the 1710–1755 MHz band and mobile and portable stations operating in the 1695–1710 MHz and 1755–1780 MHz bands are limited to 1 watt EIRP".

**FDD Band 26(824MHz~849MHz):** Part 22.913(a) specifies "The ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts".

**FDD Band 7/TDD Band 41:** Part 27.50(h)(2) specifies "Mobile stations are limited to 2.0 watts EIRP".

**FDD Band 12/71:** Part 27.50(c) (10) specifies "Portable stations (hand-held devices) in the 600 MHz uplink band and the 698–746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP".

#### A.1.3.2 Method of Measurement

According to KDB 412172 D01 and ANSI C63.26 the relevant equation for determining the maximum ERP or EIRP from the measured RF output power is given in Equation as follows:

$$\mathrm{ERP\ or\ EIRP} = P_T + G_T - L_C$$

where;

- $\mathrm{ERP\ or\ EIRP} =$ effective radiated power or equivalent isotropically radiated power(expressed in the same units as $P_T$.
- $P_T =$ transmitter output power, in this report the unit express as dBm;
- $G_T =$ 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.

Alternatively, the EIRP can be determined from Equation above and then converted to ERP based on the maximum antenna gain relationship by applying the following equation:

$$\mathrm{ERP} = \mathrm{EIRP} - 2.15\mathrm{dB}$$

Note: The antenna gain information was provided by the client. The laboratory is not responsible for identifying its authenticity during the test.

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**A.1.3.3 Limits and Measurement Results**

**LTE Band 7- EIRP**

**Limits:** ≤33 dBm (2W)

Max EIRP: 22.26dBm

| Bandwidth | RB size/offset | Frequency (MHz) | Conducted Power(dBm) | | | | EIRP(dBm) (Gt-Lc =0.8) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | QPSK | 16QAM | 64QAM | 256QAM | QPSK | 16QAM | 64QAM | 256QAM |
| 5MHz | 1 RB high | 2567.5 | 22.85 | 22.15 | 21.00 | 20.41 | 22.05 | 21.35 | 20.20 | 19.61 |
| | | 2535.0 | 22.73 | 21.99 | 20.90 | 19.74 | 21.93 | 21.19 | 20.10 | 18.94 |
| | | 2502.5 | 22.82 | 21.97 | 20.87 | 20.45 | 22.02 | 21.17 | 20.07 | 19.65 |
| | 1 RB low | 2567.5 | 22.85 | 22.17 | 21.00 | 19.65 | 22.05 | 21.37 | 20.20 | 18.85 |
| | | 2535.0 | 22.73 | 22.00 | 20.91 | 20.12 | 21.93 | 21.20 | 20.11 | 19.32 |
| | | 2502.5 | 22.67 | 22.58 | 20.74 | 19.59 | 21.87 | 21.78 | 19.94 | 18.79 |
| | 50% RB mid | 2567.5 | 21.85 | 20.85 | 19.86 | 18.98 | 21.05 | 20.05 | 19.06 | 18.18 |
| | | 2535.0 | 21.71 | 20.72 | 19.73 | 18.64 | 20.91 | 19.92 | 18.93 | 17.84 |
| | | 2502.5 | 21.75 | 20.63 | 19.67 | 18.73 | 20.95 | 19.83 | 18.87 | 17.93 |
| | 100% RB | 2567.5 | 21.91 | 20.89 | 19.84 | 18.81 | 21.11 | 20.09 | 19.04 | 18.01 |
| | | 2535.0 | 21.78 | 20.76 | 19.73 | 18.56 | 20.98 | 19.96 | 18.93 | 17.76 |
| | | 2502.5 | 21.55 | 20.66 | 19.64 | 18.81 | 20.75 | 19.86 | 18.84 | 18.01 |
| 10MHz | 1 RB high | 2565.0 | 22.92 | 22.18 | 21.10 | 20.43 | 22.12 | 21.38 | 20.30 | 19.63 |
| | | 2535.0 | 22.77 | 22.06 | 20.92 | 19.98 | 21.97 | 21.26 | 20.12 | 19.18 |
| | | 2505.0 | 22.87 | 22.15 | 21.01 | 20.27 | 22.07 | 21.35 | 20.21 | 19.47 |
| | 1 RB low | 2565.0 | 22.79 | 22.07 | 21.00 | 20.01 | 21.99 | 21.27 | 20.20 | 19.21 |
| | | 2535.0 | 22.79 | 22.06 | 20.94 | 20.40 | 21.99 | 21.26 | 20.14 | 19.60 |
| | | 2505.0 | 22.61 | 21.88 | 20.77 | 19.67 | 21.81 | 21.08 | 19.97 | 18.87 |
| | 50% RB mid | 2565.0 | 21.84 | 20.84 | 19.79 | 18.98 | 21.04 | 20.04 | 18.99 | 18.18 |
| | | 2535.0 | 21.75 | 20.73 | 19.70 | 18.82 | 20.95 | 19.93 | 18.90 | 18.02 |
| | | 2505.0 | 21.72 | 20.70 | 19.68 | 18.97 | 20.92 | 19.90 | 18.88 | 18.17 |
| | 100% RB | 2565.0 | 21.86 | 20.89 | 19.84 | 18.73 | 21.06 | 20.09 | 19.04 | 17.93 |
| | | 2535.0 | 21.78 | 20.76 | 19.73 | 18.98 | 20.98 | 19.96 | 18.93 | 18.18 |
| | | 2505.0 | 21.71 | 20.70 | 19.70 | 18.89 | 20.91 | 19.90 | 18.90 | 18.09 |
| 15MHz | 1 RB high | 2562.5 | 22.98 | 22.28 | 21.14 | 20.53 | 22.18 | 21.48 | 20.34 | 19.73 |
| | | 2535.0 | 22.82 | 22.07 | 20.95 | 20.06 | 22.02 | 21.27 | 20.15 | 19.26 |
| | | 2507.5 | 22.99 | 22.28 | 21.17 | 20.23 | 22.19 | 21.48 | 20.37 | 19.43 |
| | 1 RB low | 2562.5 | 22.73 | 22.01 | 20.91 | 20.05 | 21.93 | 21.21 | 20.11 | 19.25 |
| | | 2535.0 | 22.81 | 22.10 | 20.99 | 20.26 | 22.01 | 21.30 | 20.19 | 19.46 |
| | | 2507.5 | 22.65 | 21.92 | 20.83 | 19.63 | 21.85 | 21.12 | 20.03 | 18.83 |
| | 50% RB mid | 2562.5 | 21.86 | 20.87 | 19.87 | 18.84 | 21.06 | 20.07 | 19.07 | 18.04 |
| | | 2535.0 | 21.79 | 20.79 | 19.79 | 18.96 | 20.99 | 19.99 | 18.99 | 18.16 |
| | | 2507.5 | 21.81 | 20.81 | 19.80 | 18.89 | 21.01 | 20.01 | 19.00 | 18.09 |
| | 100% RB | 2562.5 | 21.88 | 20.91 | 19.87 | 18.89 | 21.08 | 20.11 | 19.07 | 18.09 |
| | | 2535.0 | 21.84 | 20.85 | 19.82 | 18.76 | 21.04 | 20.05 | 19.02 | 17.96 |
| | | 2507.5 | 21.84 | 20.84 | 19.82 | 18.89 | 21.04 | 20.04 | 19.02 | 18.09 |
| 20MHz | 1 RB high | 2560.0 | 23.02 | 22.33 | 21.19 | 20.45 | 22.22 | 21.53 | 20.39 | 19.65 |

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| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 2535.0 | 22.82 | 22.12 | 21.00 | 20.14 | 22.02 | 21.32 | 20.20 | 19.34 |
| | | 2510.0 | 23.06 | 22.36 | 21.21 | 20.31 | 22.26 | 21.56 | 20.41 | 19.51 |
| | 1 RB low | 2560.0 | 22.64 | 21.95 | 20.81 | 19.85 | 21.84 | 21.15 | 20.01 | 19.05 |
| | | 2535.0 | 22.88 | 22.18 | 21.06 | 20.28 | 22.08 | 21.38 | 20.26 | 19.48 |
| | | 2510.0 | 22.66 | 21.94 | 20.79 | 19.85 | 21.86 | 21.14 | 19.99 | 19.05 |
| | 50% RB mid | 2560.0 | 21.90 | 20.90 | 19.88 | 18.82 | 21.10 | 20.10 | 19.08 | 18.02 |
| | | 2535.0 | 21.88 | 20.86 | 19.84 | 18.96 | 21.08 | 20.06 | 19.04 | 18.16 |
| | | 2510.0 | 21.92 | 20.91 | 19.87 | 18.77 | 21.12 | 20.11 | 19.07 | 17.97 |
| | 100% RB | 2560.0 | 21.92 | 20.90 | 19.87 | 18.93 | 21.12 | 20.10 | 19.07 | 18.13 |
| | | 2535.0 | 21.89 | 20.89 | 19.86 | 18.82 | 21.09 | 20.09 | 19.06 | 18.02 |
| | | 2510.0 | 21.91 | 20.90 | 19.89 | 18.91 | 21.11 | 20.10 | 19.09 | 18.11 |

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**LTE Band 12 - ERP**

**Limits:** ≤34.77dBm (3W)

Max ERP: 18.63dBm

| Bandwidth | RB size/offset | Frequency (MHz) | Conducted Power(dBm) | | | | ERP(dBm) (Gt-Lc =-2.2) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | QPSK | 16QAM | 64QAM | 256QAM | QPSK | 16QAM | 64QAM | 256QAM |
| 1.4MHz | 1 RB high | 715.3 | 22.71 | 22.00 | 20.81 | 20.09 | 18.36 | 17.65 | 16.46 | 15.74 |
| | | 707.5 | 22.79 | 22.06 | 20.95 | 19.98 | 18.44 | 17.71 | 16.60 | 15.63 |
| | | 699.7 | 22.77 | 22.17 | 21.10 | 19.95 | 18.42 | 17.82 | 16.75 | 15.60 |
| | 1 RB low | 715.3 | 22.70 | 21.99 | 20.82 | 19.84 | 18.35 | 17.64 | 16.47 | 15.49 |
| | | 707.5 | 22.79 | 22.09 | 21.02 | 19.74 | 18.44 | 17.74 | 16.67 | 15.39 |
| | | 699.7 | 22.81 | 22.08 | 21.00 | 20.14 | 18.46 | 17.73 | 16.65 | 15.79 |
| | 50% RB mid | 715.3 | 22.65 | 21.64 | 20.80 | 19.37 | 18.30 | 17.29 | 16.45 | 15.02 |
| | | 707.5 | 22.72 | 21.76 | 20.85 | 19.46 | 18.37 | 17.41 | 16.50 | 15.11 |
| | | 699.7 | 22.73 | 21.78 | 20.89 | 19.80 | 18.38 | 17.43 | 16.54 | 15.45 |
| | 100% RB | 715.3 | 21.67 | 20.72 | 19.64 | 18.83 | 17.32 | 16.37 | 15.29 | 14.48 |
| | | 707.5 | 21.74 | 20.83 | 19.71 | 18.82 | 17.39 | 16.48 | 15.36 | 14.47 |
| | | 699.7 | 21.83 | 20.88 | 19.78 | 18.52 | 17.48 | 16.53 | 15.43 | 14.17 |
| 3MHz | 1 RB high | 714.5 | 22.70 | 21.93 | 20.87 | 20.01 | 18.35 | 17.58 | 16.52 | 15.66 |
| | | 707.5 | 22.78 | 22.00 | 20.88 | 19.84 | 18.43 | 17.65 | 16.53 | 15.49 |
| | | 700.5 | 22.80 | 22.10 | 20.96 | 20.07 | 18.45 | 17.75 | 16.61 | 15.72 |
| | 1 RB low | 714.5 | 22.71 | 21.93 | 20.83 | 19.80 | 18.36 | 17.58 | 16.48 | 15.45 |
| | | 707.5 | 22.79 | 21.99 | 20.87 | 19.92 | 18.44 | 17.64 | 16.52 | 15.57 |
| | | 700.5 | 22.77 | 22.09 | 20.93 | 19.92 | 18.42 | 17.74 | 16.58 | 15.57 |
| | 50% RB mid | 714.5 | 21.69 | 20.71 | 19.70 | 18.61 | 17.34 | 16.36 | 15.35 | 14.26 |
| | | 707.5 | 21.76 | 20.80 | 19.76 | 18.66 | 17.41 | 16.45 | 15.41 | 14.31 |
| | | 700.5 | 21.81 | 20.89 | 19.88 | 18.80 | 17.46 | 16.54 | 15.53 | 14.45 |
| | 100% RB | 714.5 | 21.69 | 20.70 | 19.64 | 18.71 | 17.34 | 16.35 | 15.29 | 14.36 |
| | | 707.5 | 21.74 | 20.76 | 19.71 | 18.70 | 17.39 | 16.41 | 15.36 | 14.35 |
| | | 700.5 | 21.82 | 20.85 | 19.79 | 18.72 | 17.47 | 16.50 | 15.44 | 14.37 |
| 5MHz | 1 RB high | 713.5 | 22.80 | 22.07 | 20.90 | 20.03 | 18.45 | 17.72 | 16.55 | 15.68 |
| | | 707.5 | 22.85 | 22.10 | 20.90 | 20.08 | 18.50 | 17.75 | 16.55 | 15.73 |
| | | 701.5 | 22.92 | 22.14 | 21.00 | 20.03 | 18.57 | 17.79 | 16.65 | 15.68 |
| | 1 RB low | 713.5 | 22.78 | 22.05 | 20.90 | 19.98 | 18.43 | 17.70 | 16.55 | 15.63 |
| | | 707.5 | 22.82 | 22.06 | 20.87 | 19.82 | 18.47 | 17.71 | 16.52 | 15.47 |
| | | 701.5 | 22.85 | 22.08 | 20.96 | 20.10 | 18.50 | 17.73 | 16.61 | 15.75 |
| | 50% RB mid | 713.5 | 21.72 | 20.75 | 19.77 | 18.63 | 17.37 | 16.40 | 15.42 | 14.28 |
| | | 707.5 | 21.80 | 20.78 | 19.84 | 18.60 | 17.45 | 16.43 | 15.49 | 14.25 |
| | | 701.5 | 21.84 | 20.85 | 19.86 | 18.90 | 17.49 | 16.50 | 15.51 | 14.55 |
| | 100% RB | 713.5 | 21.75 | 20.74 | 19.70 | 18.63 | 17.40 | 16.39 | 15.35 | 14.28 |
| | | 707.5 | 21.82 | 20.81 | 19.79 | 18.64 | 17.47 | 16.46 | 15.44 | 14.29 |
| | | 701.5 | 21.86 | 20.85 | 19.82 | 18.88 | 17.51 | 16.50 | 15.47 | 14.53 |
| 10MHz | 1 RB high | 711.0 | 22.91 | 22.16 | 21.03 | 20.11 | 18.56 | 17.81 | 16.68 | 15.76 |
| | | 707.5 | 22.95 | 22.19 | 21.04 | 20.06 | 18.60 | 17.84 | 16.69 | 15.71 |

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| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 704.0 | 22.98 | 22.25 | 21.07 | 19.91 | 18.63 | 17.90 | 16.72 | 15.56 |
| | 1 RB low | 711.0 | 22.87 | 22.13 | 20.98 | 19.96 | 18.52 | 17.78 | 16.63 | 15.61 |
| | | 707.5 | 22.87 | 22.13 | 20.96 | 19.82 | 18.52 | 17.78 | 16.61 | 15.47 |
| | | 704.0 | 22.88 | 22.15 | 21.04 | 19.94 | 18.53 | 17.80 | 16.69 | 15.59 |
| | 50% RB mid | 711.0 | 21.76 | 20.72 | 19.73 | 18.75 | 17.41 | 16.37 | 15.38 | 14.40 |
| | | 707.5 | 21.79 | 20.78 | 19.76 | 18.58 | 17.44 | 16.43 | 15.41 | 14.23 |
| | | 704.0 | 21.84 | 20.80 | 19.82 | 18.64 | 17.49 | 16.45 | 15.47 | 14.29 |
| | 100% RB | 711.0 | 21.78 | 20.76 | 19.75 | 18.59 | 17.43 | 16.41 | 15.40 | 14.24 |
| | | 707.5 | 21.83 | 20.82 | 19.80 | 18.78 | 17.48 | 16.47 | 15.45 | 14.43 |
| | | 704.0 | 21.83 | 20.80 | 19.78 | 18.82 | 17.48 | 16.45 | 15.43 | 14.47 |

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**LTE Band 25- EIRP**

**Limits:** ≤33dBm (2W)

Max EIRP: 22.69dBm

| Bandwidth | RB size/offset | Frequency (MHz) | Conducted Power(dBm) | | | | EIRP(dBm) (Gt-Lc =-1) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | QPSK | 16QAM | 64QAM | 256QAM | QPSK | 16QAM | 64QAM | 256QAM |
| 1.4MHz | 1 RB high | 1914.3 | 23.05 | 22.32 | 21.23 | 20.15 | 22.05 | 21.32 | 20.23 | 19.15 |
| | | 1882.5 | 23.27 | 22.58 | 21.41 | 20.43 | 22.27 | 21.58 | 20.41 | 19.43 |
| | | 1850.7 | 23.53 | 22.75 | 21.65 | 20.28 | 22.53 | 21.75 | 20.65 | 19.28 |
| | 1 RB low | 1914.3 | 23.08 | 22.34 | 21.22 | 20.13 | 22.08 | 21.34 | 20.22 | 19.13 |
| | | 1882.5 | 23.30 | 22.59 | 21.50 | 20.38 | 22.30 | 21.59 | 20.50 | 19.38 |
| | | 1850.7 | 23.53 | 22.74 | 21.70 | 20.68 | 22.53 | 21.74 | 20.70 | 19.68 |
| | 50% RB mid | 1914.3 | 23.06 | 22.12 | 21.20 | 20.12 | 22.06 | 21.12 | 20.20 | 19.12 |
| | | 1882.5 | 23.23 | 22.26 | 21.37 | 20.02 | 22.23 | 21.26 | 20.37 | 19.02 |
| | | 1850.7 | 23.49 | 22.53 | 21.62 | 20.42 | 22.49 | 21.53 | 20.62 | 19.42 |
| | 100% RB | 1914.3 | 22.12 | 21.18 | 20.05 | 19.01 | 21.12 | 20.18 | 19.05 | 18.01 |
| | | 1882.5 | 22.26 | 21.32 | 20.23 | 19.30 | 21.26 | 20.32 | 19.23 | 18.30 |
| | | 1850.7 | 22.52 | 21.54 | 20.49 | 19.16 | 21.52 | 20.54 | 19.49 | 18.16 |
| 3MHz | 1 RB high | 1913.5 | 23.09 | 22.27 | 21.22 | 20.01 | 22.09 | 21.27 | 20.22 | 19.01 |
| | | 1882.5 | 23.27 | 22.56 | 21.45 | 20.21 | 22.27 | 21.56 | 20.45 | 19.21 |
| | | 1851.5 | 23.49 | 22.77 | 21.68 | 20.18 | 22.49 | 21.77 | 20.68 | 19.18 |
| | 1 RB low | 1913.5 | 23.17 | 22.34 | 21.28 | 20.23 | 22.17 | 21.34 | 20.28 | 19.23 |
| | | 1882.5 | 23.28 | 22.57 | 21.47 | 20.26 | 22.28 | 21.57 | 20.47 | 19.26 |
| | | 1851.5 | 23.50 | 22.80 | 21.66 | 20.50 | 22.50 | 21.80 | 20.66 | 19.50 |
| | 50% RB mid | 1913.5 | 22.12 | 21.18 | 20.14 | 19.26 | 21.12 | 20.18 | 19.14 | 18.26 |
| | | 1882.5 | 22.24 | 21.31 | 20.32 | 19.04 | 21.24 | 20.31 | 19.32 | 18.04 |
| | | 1851.5 | 22.54 | 21.61 | 20.59 | 19.42 | 21.54 | 20.61 | 19.59 | 18.42 |
| | 100% RB | 1913.5 | 22.11 | 21.13 | 20.09 | 19.05 | 21.11 | 20.13 | 19.09 | 18.05 |
| | | 1882.5 | 22.28 | 21.27 | 20.22 | 19.26 | 21.28 | 20.27 | 19.22 | 18.26 |
| | | 1851.5 | 22.56 | 21.57 | 20.56 | 19.26 | 21.56 | 20.57 | 19.56 | 18.26 |
| 5MHz | 1 RB high | 1912.5 | 23.12 | 22.34 | 21.25 | 20.23 | 22.12 | 21.34 | 20.25 | 19.23 |
| | | 1882.5 | 23.35 | 22.58 | 21.49 | 20.05 | 22.35 | 21.58 | 20.49 | 19.05 |
| | | 1852.5 | 23.51 | 22.73 | 21.73 | 20.28 | 22.51 | 21.73 | 20.73 | 19.28 |
| | 1 RB low | 1912.5 | 23.24 | 22.49 | 21.41 | 20.15 | 22.24 | 21.49 | 20.41 | 19.15 |
| | | 1882.5 | 23.35 | 22.62 | 21.53 | 20.48 | 22.35 | 21.62 | 20.53 | 19.48 |
| | | 1852.5 | 23.56 | 22.80 | 21.75 | 20.42 | 22.56 | 21.80 | 20.75 | 19.42 |
| | 50% RB mid | 1912.5 | 22.20 | 21.22 | 20.25 | 19.12 | 21.20 | 20.22 | 19.25 | 18.12 |
| | | 1882.5 | 22.34 | 21.33 | 20.34 | 19.40 | 21.34 | 20.33 | 19.34 | 18.40 |
| | | 1852.5 | 22.61 | 21.59 | 20.62 | 19.04 | 21.61 | 20.59 | 19.62 | 18.04 |
| | 100% RB | 1912.5 | 22.23 | 21.21 | 20.22 | 19.21 | 21.23 | 20.21 | 19.22 | 18.21 |
| | | 1882.5 | 22.35 | 21.33 | 20.30 | 19.42 | 21.35 | 20.33 | 19.30 | 18.42 |
| | | 1852.5 | 22.63 | 21.61 | 20.55 | 19.06 | 21.63 | 20.61 | 19.55 | 18.06 |
| 10MHz | 1 RB high | 1910.0 | 23.19 | 22.35 | 21.28 | 20.05 | 22.19 | 21.35 | 20.28 | 19.05 |
| | | 1882.5 | 23.34 | 22.57 | 21.51 | 20.31 | 22.34 | 21.57 | 20.51 | 19.31 |

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| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1855.0 | 23.54 | 22.73 | 21.65 | 20.18 | 22.54 | 21.73 | 20.65 | 19.18 |
| | 1 RB low | 1910.0 | 23.42 | 22.63 | 21.53 | 20.45 | 22.42 | 21.63 | 20.53 | 19.45 |
| | | 1882.5 | 23.43 | 22.66 | 21.58 | 20.38 | 22.43 | 21.66 | 20.58 | 19.38 |
| | | 1855.0 | 23.60 | 22.85 | 21.75 | 20.50 | 22.60 | 21.85 | 20.75 | 19.50 |
| | 50% RB mid | 1910.0 | 22.30 | 21.32 | 20.29 | 19.20 | 21.30 | 20.32 | 19.29 | 18.20 |
| | | 1882.5 | 22.34 | 21.34 | 20.30 | 19.28 | 21.34 | 20.34 | 19.30 | 18.28 |
| | | 1855.0 | 22.63 | 21.62 | 20.58 | 19.44 | 21.63 | 20.62 | 19.58 | 18.44 |
| | 100% RB | 1910.0 | 22.32 | 21.29 | 20.29 | 18.97 | 21.32 | 20.29 | 19.29 | 17.97 |
| | | 1882.5 | 22.36 | 21.33 | 20.30 | 19.14 | 21.36 | 20.33 | 19.30 | 18.14 |
| | | 1855.0 | 22.60 | 21.60 | 20.56 | 19.20 | 21.60 | 20.60 | 19.56 | 18.20 |
| 15MHz | 1 RB high | 1907.5 | 23.22 | 22.49 | 21.29 | 20.09 | 22.22 | 21.49 | 20.29 | 19.09 |
| | | 1882.5 | 23.29 | 22.59 | 21.38 | 20.03 | 22.29 | 21.59 | 20.38 | 19.03 |
| | | 1857.5 | 23.52 | 22.73 | 21.75 | 20.32 | 22.52 | 21.73 | 20.75 | 19.32 |
| | 1 RB low | 1907.5 | 23.38 | 22.68 | 21.46 | 20.17 | 22.38 | 21.68 | 20.46 | 19.17 |
| | | 1882.5 | 23.40 | 22.72 | 21.53 | 20.46 | 22.40 | 21.72 | 20.53 | 19.46 |
| | | 1857.5 | 23.63 | 22.86 | 21.85 | 20.66 | 22.63 | 21.86 | 20.85 | 19.66 |
| | 50% RB mid | 1907.5 | 22.34 | 21.37 | 20.36 | 19.32 | 21.34 | 20.37 | 19.36 | 18.32 |
| | | 1882.5 | 22.35 | 21.33 | 20.34 | 19.22 | 21.35 | 20.33 | 19.34 | 18.22 |
| | | 1857.5 | 22.59 | 21.60 | 20.62 | 19.26 | 21.59 | 20.60 | 19.62 | 18.26 |
| | 100% RB | 1907.5 | 22.35 | 21.34 | 20.32 | 19.13 | 21.35 | 20.34 | 19.32 | 18.13 |
| | | 1882.5 | 22.34 | 21.34 | 20.32 | 19.00 | 21.34 | 20.34 | 19.32 | 18.00 |
| | | 1857.5 | 22.63 | 21.62 | 20.60 | 19.38 | 21.63 | 20.62 | 19.60 | 18.38 |
| 20MHz | 1 RB high | 1905.0 | 23.20 | 22.47 | 21.33 | 20.05 | 22.20 | 21.47 | 20.33 | 19.05 |
| | | 1882.5 | 23.33 | 22.52 | 21.47 | 20.31 | 22.33 | 21.52 | 20.47 | 19.31 |
| | | 1860.0 | 23.48 | 22.63 | 21.62 | 20.32 | 22.48 | 21.63 | 20.62 | 19.32 |
| | 1 RB low | 1905.0 | 23.39 | 22.65 | 21.57 | 20.37 | 22.39 | 21.65 | 20.57 | 19.37 |
| | | 1882.5 | 23.43 | 22.69 | 21.64 | 20.22 | 22.43 | 21.69 | 20.64 | 19.22 |
| | | 1860.0 | 23.69 | 22.96 | 21.84 | 20.50 | 22.69 | 21.96 | 20.84 | 19.50 |
| | 50% RB mid | 1905.0 | 22.40 | 21.40 | 20.38 | 19.16 | 21.40 | 20.40 | 19.38 | 18.16 |
| | | 1882.5 | 22.40 | 21.38 | 20.36 | 19.36 | 21.40 | 20.38 | 19.36 | 18.36 |
| | | 1860.0 | 22.67 | 21.66 | 20.62 | 19.42 | 21.67 | 20.66 | 19.62 | 18.42 |
| | 100% RB | 1905.0 | 22.39 | 21.38 | 20.37 | 19.17 | 21.39 | 20.38 | 19.37 | 18.17 |
| | | 1882.5 | 22.34 | 21.31 | 20.32 | 19.32 | 21.34 | 20.31 | 19.32 | 18.32 |
| | | 1860.0 | 22.61 | 21.61 | 20.60 | 19.30 | 21.61 | 20.61 | 19.60 | 18.30 |

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**LTE Band 26(824MHz~849MHz) - ERP**

**Limits:** ≤38.45dBm (7W)

Max ERP: 19.15dBm

| Bandwidth | RB size/offset | Frequency (MHz) | Conducted Power(dBm) | | | | ERP(dBm) (Gt-Lc =-1.6) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | QPSK | 16QAM | 64QAM | 256QAM | QPSK | 16QAM | 64QAM | 256QAM |
| 1.4MHz | 1 RB high | 848.3 | 22.72 | 21.76 | 20.69 | 17.76 | 18.97 | 18.01 | 16.94 | 14.01 |
| | | 836.5 | 22.66 | 21.75 | 20.71 | 17.78 | 18.91 | 18.00 | 16.96 | 14.03 |
| | | 824.7 | 22.76 | 21.79 | 21.22 | 17.90 | 19.01 | 18.04 | 17.47 | 14.15 |
| | 1 RB low | 848.3 | 22.70 | 21.71 | 20.57 | 17.77 | 18.95 | 17.96 | 16.82 | 14.02 |
| | | 836.5 | 22.66 | 21.76 | 20.60 | 17.79 | 18.91 | 18.01 | 16.85 | 14.04 |
| | | 824.7 | 22.76 | 21.80 | 21.08 | 17.99 | 19.01 | 18.05 | 17.33 | 14.24 |
| | 50% RB mid | 848.3 | 22.81 | 21.89 | 20.83 | 17.77 | 19.06 | 18.14 | 17.08 | 14.02 |
| | | 836.5 | 22.67 | 21.76 | 20.88 | 17.81 | 18.92 | 18.01 | 17.13 | 14.06 |
| | | 824.7 | 22.82 | 21.95 | 21.11 | 17.83 | 19.07 | 18.20 | 17.36 | 14.08 |
| | 100% RB | 848.3 | 21.75 | 20.94 | 19.82 | 17.76 | 18.00 | 17.19 | 16.07 | 14.01 |
| | | 836.5 | 21.64 | 20.94 | 19.84 | 17.77 | 17.89 | 17.19 | 16.09 | 14.02 |
| | | 824.7 | 21.76 | 21.02 | 19.88 | 17.80 | 18.01 | 17.27 | 16.13 | 14.05 |
| 3MHz | 1 RB high | 847.5 | 22.67 | 21.72 | 20.60 | 17.73 | 18.92 | 17.97 | 16.85 | 13.98 |
| | | 836.5 | 22.59 | 21.61 | 20.64 | 17.78 | 18.84 | 17.86 | 16.89 | 14.03 |
| | | 825.5 | 22.75 | 21.78 | 20.64 | 17.77 | 19.00 | 18.03 | 16.89 | 14.02 |
| | 1 RB low | 847.5 | 22.65 | 21.69 | 20.49 | 17.72 | 18.90 | 17.94 | 16.74 | 13.97 |
| | | 836.5 | 22.62 | 21.66 | 20.53 | 17.71 | 18.87 | 17.91 | 16.78 | 13.96 |
| | | 825.5 | 22.78 | 21.81 | 20.55 | 17.86 | 19.03 | 18.06 | 16.80 | 14.11 |
| | 50% RB mid | 847.5 | 21.68 | 20.76 | 19.78 | 17.78 | 17.93 | 17.01 | 16.03 | 14.03 |
| | | 836.5 | 21.60 | 20.83 | 19.81 | 17.82 | 17.85 | 17.08 | 16.06 | 14.07 |
| | | 825.5 | 21.71 | 20.78 | 19.70 | 17.75 | 17.96 | 17.03 | 15.95 | 14.00 |
| | 100% RB | 847.5 | 21.70 | 20.70 | 19.79 | 17.73 | 17.95 | 16.95 | 16.04 | 13.98 |
| | | 836.5 | 21.62 | 20.72 | 19.79 | 17.78 | 17.87 | 16.97 | 16.04 | 14.03 |
| | | 825.5 | 21.72 | 20.72 | 19.82 | 17.77 | 17.97 | 16.97 | 16.07 | 14.02 |
| 5MHz | 1 RB high | 846.5 | 22.83 | 21.87 | 20.97 | 17.86 | 19.08 | 18.12 | 17.22 | 14.11 |
| | | 836.5 | 22.78 | 21.81 | 21.02 | 17.89 | 19.03 | 18.06 | 17.27 | 14.14 |
| | | 826.5 | 22.83 | 21.89 | 21.06 | 17.95 | 19.08 | 18.14 | 17.31 | 14.20 |
| | 1 RB low | 846.5 | 22.73 | 21.78 | 21.03 | 17.90 | 18.98 | 18.03 | 17.28 | 14.15 |
| | | 836.5 | 22.78 | 21.82 | 21.08 | 17.84 | 19.03 | 18.07 | 17.33 | 14.09 |
| | | 826.5 | 22.90 | 21.94 | 21.14 | 18.01 | 19.15 | 18.19 | 17.39 | 14.26 |
| | 50% RB mid | 846.5 | 21.72 | 20.85 | 19.94 | 17.88 | 17.97 | 17.10 | 16.19 | 14.13 |
| | | 836.5 | 21.67 | 20.89 | 19.98 | 17.89 | 17.92 | 17.14 | 16.23 | 14.14 |
| | | 826.5 | 21.76 | 20.84 | 19.89 | 17.90 | 18.01 | 17.09 | 16.14 | 14.15 |
| | 100% RB | 846.5 | 21.81 | 20.78 | 19.86 | 17.86 | 18.06 | 17.03 | 16.11 | 14.11 |
| | | 836.5 | 21.73 | 20.77 | 19.88 | 17.85 | 17.98 | 17.02 | 16.13 | 14.10 |
| | | 826.5 | 21.83 | 20.80 | 19.91 | 17.90 | 18.08 | 17.05 | 16.16 | 14.15 |
| 10MHz | 1 RB high | 844.0 | 22.89 | 21.90 | 20.76 | 17.93 | 19.14 | 18.15 | 17.01 | 14.18 |
| | | 836.5 | 22.79 | 21.79 | 20.78 | 17.96 | 19.04 | 18.04 | 17.03 | 14.21 |

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| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 829.0 | 22.80 | 21.80 | 20.74 | 17.92 | 19.05 | 18.05 | 16.99 | 14.17 |
| | 1 RB low | 844.0 | 22.77 | 21.78 | 20.64 | 17.95 | 19.02 | 18.03 | 16.89 | 14.20 |
| | | 836.5 | 22.80 | 21.83 | 20.69 | 17.91 | 19.05 | 18.08 | 16.94 | 14.16 |
| | | 829.0 | 22.88 | 21.89 | 20.65 | 17.92 | 19.13 | 18.14 | 16.90 | 14.17 |
| | 50% RB mid | 844.0 | 21.80 | 20.91 | 19.92 | 17.89 | 18.05 | 17.16 | 16.17 | 14.14 |
| | | 836.5 | 21.73 | 20.91 | 19.91 | 17.89 | 17.98 | 17.16 | 16.16 | 14.14 |
| | | 829.0 | 21.82 | 20.89 | 19.93 | 17.90 | 18.07 | 17.14 | 16.18 | 14.15 |
| | 100% RB | 844.0 | 21.78 | 20.87 | 19.86 | 17.83 | 18.03 | 17.12 | 16.11 | 14.08 |
| | | 836.5 | 21.75 | 20.85 | 19.83 | 17.82 | 18.00 | 17.10 | 16.08 | 14.07 |
| | | 829.0 | 21.84 | 20.87 | 19.85 | 17.85 | 18.09 | 17.12 | 16.10 | 14.10 |
| 15MHz | 1 RB high | 841.5 | 22.88 | 22.28 | 21.24 | 18.11 | 19.13 | 18.53 | 17.49 | 14.36 |
| | | 836.5 | 22.79 | 22.20 | 21.25 | 18.13 | 19.04 | 18.45 | 17.50 | 14.38 |
| | | 831.5 | 22.77 | 22.16 | 21.23 | 18.08 | 19.02 | 18.41 | 17.48 | 14.33 |
| | 1 RB low | 841.5 | 22.79 | 22.18 | 21.16 | 18.09 | 19.04 | 18.43 | 17.41 | 14.34 |
| | | 836.5 | 22.83 | 22.23 | 21.21 | 18.16 | 19.08 | 18.48 | 17.46 | 14.41 |
| | | 831.5 | 22.87 | 22.27 | 21.20 | 18.10 | 19.12 | 18.52 | 17.45 | 14.35 |
| | 50% RB mid | 841.5 | 21.80 | 20.91 | 19.88 | 17.92 | 18.05 | 17.16 | 16.13 | 14.17 |
| | | 836.5 | 21.78 | 20.84 | 19.87 | 17.89 | 18.03 | 17.09 | 16.12 | 14.14 |
| | | 831.5 | 21.79 | 20.84 | 19.88 | 17.87 | 18.04 | 17.09 | 16.13 | 14.12 |
| | 100% RB | 841.5 | 21.80 | 20.89 | 19.92 | 17.89 | 18.05 | 17.14 | 16.17 | 14.14 |
| | | 836.5 | 21.79 | 20.87 | 19.89 | 17.90 | 18.04 | 17.12 | 16.14 | 14.15 |
| | | 831.5 | 21.83 | 20.90 | 19.87 | 17.88 | 18.08 | 17.15 | 16.12 | 14.13 |

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**LTE band 41 - EIRP**

**Limits:** ≤33dBm (2W)

Max EIRP: 24.76dBm

| Bandwidth | RB size/offset | Frequency (MHz) | Conducted Power(dBm) | | | | EIRP(dBm)(Gt-Lc =-1.2) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | QPSK | 16QAM | 64QAM | 256QAM | QPSK | 16QAM | 64QAM | 256QAM |
| 5MHz | 1 RB high | 2687.5 | 25.23 | 24.38 | 23.29 | 22.56 | 24.03 | 23.18 | 22.09 | 21.36 |
| | | 2593.0 | 25.62 | 24.79 | 23.70 | 22.73 | 24.42 | 23.59 | 22.50 | 21.53 |
| | | 2498.5 | 25.64 | 24.65 | 23.67 | 22.85 | 24.44 | 23.45 | 22.47 | 21.65 |
| | 1 RB low | 2687.5 | 25.25 | 24.41 | 23.34 | 22.37 | 24.05 | 23.21 | 22.14 | 21.17 |
| | | 2593.0 | 25.67 | 24.82 | 23.74 | 22.75 | 24.47 | 23.62 | 22.54 | 21.55 |
| | | 2498.5 | 25.51 | 24.64 | 23.54 | 22.67 | 24.31 | 23.44 | 22.34 | 21.47 |
| | 50% RB mid | 2687.5 | 24.25 | 23.31 | 22.30 | 21.32 | 23.05 | 22.11 | 21.10 | 20.12 |
| | | 2593.0 | 24.67 | 23.73 | 22.73 | 21.73 | 23.47 | 22.53 | 21.53 | 20.53 |
| | | 2498.5 | 24.59 | 23.64 | 22.63 | 21.88 | 23.39 | 22.44 | 21.43 | 20.68 |
| | 100% RB | 2687.5 | 24.29 | 23.31 | 22.31 | 21.25 | 23.09 | 22.11 | 21.11 | 20.05 |
| | | 2593.0 | 24.70 | 23.75 | 22.74 | 21.62 | 23.50 | 22.55 | 21.54 | 20.42 |
| | | 2498.5 | 24.62 | 23.65 | 22.65 | 21.95 | 23.42 | 22.45 | 21.45 | 20.75 |
| 10MHz | 1 RB high | 2685.0 | 25.25 | 24.42 | 23.29 | 22.66 | 24.05 | 23.22 | 22.09 | 21.46 |
| | | 2593.0 | 25.62 | 24.81 | 23.67 | 22.65 | 24.42 | 23.61 | 22.47 | 21.45 |
| | | 2501.0 | 25.76 | 24.97 | 23.81 | 22.69 | 24.56 | 23.77 | 22.61 | 21.49 |
| | 1 RB low | 2685.0 | 25.29 | 24.47 | 23.35 | 22.41 | 24.09 | 23.27 | 22.15 | 21.21 |
| | | 2593.0 | 25.71 | 24.90 | 23.76 | 22.93 | 24.51 | 23.70 | 22.56 | 21.73 |
| | | 2501.0 | 25.51 | 24.70 | 23.56 | 22.57 | 24.31 | 23.50 | 22.36 | 21.37 |
| | 50% RB mid | 2685.0 | 24.26 | 23.30 | 22.31 | 21.48 | 23.06 | 22.10 | 21.11 | 20.28 |
| | | 2593.0 | 24.66 | 23.69 | 22.70 | 21.81 | 23.46 | 22.49 | 21.50 | 20.61 |
| | | 2501.0 | 24.62 | 23.65 | 22.67 | 21.80 | 23.42 | 22.45 | 21.47 | 20.60 |
| | 100% RB | 2685.0 | 24.28 | 23.32 | 22.28 | 21.41 | 23.08 | 22.12 | 21.08 | 20.21 |
| | | 2593.0 | 24.72 | 23.75 | 22.71 | 21.74 | 23.52 | 22.55 | 21.51 | 20.54 |
| | | 2501.0 | 24.63 | 23.67 | 22.64 | 21.81 | 23.43 | 22.47 | 21.44 | 20.61 |
| 15MHz | 1 RB high | 2682.5 | 25.25 | 24.43 | 23.31 | 22.42 | 24.05 | 23.23 | 22.11 | 21.22 |
| | | 2593.0 | 25.63 | 24.81 | 23.69 | 22.97 | 24.43 | 23.61 | 22.49 | 21.77 |
| | | 2503.5 | 25.90 | 25.08 | 23.96 | 22.93 | 24.70 | 23.88 | 22.76 | 21.73 |
| | 1 RB low | 2682.5 | 25.34 | 24.53 | 23.41 | 22.35 | 24.14 | 23.33 | 22.21 | 21.15 |
| | | 2593.0 | 25.77 | 24.94 | 23.83 | 22.73 | 24.57 | 23.74 | 22.63 | 21.53 |
| | | 2503.5 | 25.57 | 24.75 | 23.62 | 22.83 | 24.37 | 23.55 | 22.42 | 21.63 |
| | 50% RB mid | 2682.5 | 24.28 | 23.27 | 22.26 | 21.34 | 23.08 | 22.07 | 21.06 | 20.14 |
| | | 2593.0 | 24.68 | 23.67 | 22.68 | 21.81 | 23.48 | 22.47 | 21.48 | 20.61 |
| | | 2503.5 | 24.74 | 23.74 | 22.73 | 21.82 | 23.54 | 22.54 | 21.53 | 20.62 |
| | 100% RB | 2682.5 | 24.33 | 23.36 | 22.34 | 21.29 | 23.13 | 22.16 | 21.14 | 20.09 |
| | | 2593.0 | 24.72 | 23.75 | 22.72 | 21.80 | 23.52 | 22.55 | 21.52 | 20.60 |
| | | 2503.5 | 24.78 | 23.81 | 22.78 | 22.05 | 23.58 | 22.61 | 21.58 | 20.85 |
| 20MHz | 1 RB high | 2680.0 | 25.28 | 24.46 | 23.35 | 22.50 | 24.08 | 23.26 | 22.15 | 21.30 |
| | | 2593.0 | 25.62 | 24.81 | 23.68 | 22.81 | 24.42 | 23.61 | 22.48 | 21.61 |

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|---|---|---|---|---|---|---|---|---|---|---|
| | | 2506.0 | 25.96 | 25.16 | 24.02 | 22.85 | 24.76 | 23.96 | 22.82 | 21.65 |
| | 1 RB low | 2680.0 | 25.32 | 24.50 | 23.38 | 22.27 | 24.12 | 23.30 | 22.18 | 21.07 |
| | | 2593.0 | 25.81 | 24.99 | 23.88 | 22.73 | 24.61 | 23.79 | 22.68 | 21.53 |
| | | 2506.0 | 25.59 | 24.77 | 23.64 | 22.75 | 24.39 | 23.57 | 22.44 | 21.55 |
| | 50% RB mid | 2680.0 | 24.34 | 23.37 | 22.35 | 21.36 | 23.14 | 22.17 | 21.15 | 20.16 |
| | | 2593.0 | 24.77 | 23.79 | 22.78 | 21.67 | 23.57 | 22.59 | 21.58 | 20.47 |
| | | 2506.0 | 24.85 | 23.87 | 22.85 | 21.92 | 23.65 | 22.67 | 21.65 | 20.72 |
| | 100% RB | 2680.0 | 24.35 | 23.36 | 22.34 | 21.35 | 23.15 | 22.16 | 21.14 | 20.15 |
| | | 2593.0 | 24.77 | 23.79 | 22.77 | 21.62 | 23.57 | 22.59 | 21.57 | 20.42 |
| | | 2506.0 | 24.85 | 23.86 | 22.86 | 21.99 | 23.65 | 22.66 | 21.66 | 20.79 |

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**LTE Band 66- EIRP**

**Limits:** ≤30dBm (1W)

Max EIRP: 22.20dBm

| Bandwidth | RB size/offset | Frequency (MHz) | Conducted Power(dBm) | | | | EIRP(dBm) (Gt-Lc =-1) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | QPSK | 16QAM | 64QAM | 256QAM | QPSK | 16QAM | 64QAM | 256QAM |
| 1.4MHz | 1 RB high | 1779.3 | 23.05 | 22.30 | 21.23 | 19.92 | 22.05 | 21.30 | 20.23 | 18.92 |
| | | 1745.0 | 22.78 | 22.09 | 20.96 | 19.91 | 21.78 | 21.09 | 19.96 | 18.91 |
| | | 1710.7 | 23.04 | 22.26 | 21.17 | 19.86 | 22.04 | 21.26 | 20.17 | 18.86 |
| | 1 RB low | 1779.3 | 23.04 | 22.29 | 21.24 | 20.01 | 22.04 | 21.29 | 20.24 | 19.01 |
| | | 1745.0 | 22.80 | 22.17 | 21.01 | 20.15 | 21.80 | 21.17 | 20.01 | 19.15 |
| | | 1710.7 | 23.06 | 22.25 | 21.23 | 20.11 | 22.06 | 21.25 | 20.23 | 19.11 |
| | 50% RB mid | 1779.3 | 23.00 | 22.09 | 21.18 | 19.72 | 22.00 | 21.09 | 20.18 | 18.72 |
| | | 1745.0 | 22.74 | 21.80 | 20.89 | 19.59 | 21.74 | 20.80 | 19.89 | 18.59 |
| | | 1710.7 | 23.02 | 22.05 | 21.14 | 19.60 | 22.02 | 21.05 | 20.14 | 18.60 |
| | 100% RB | 1779.3 | 22.06 | 21.12 | 20.05 | 18.72 | 21.06 | 20.12 | 19.05 | 17.72 |
| | | 1745.0 | 21.78 | 20.85 | 19.75 | 18.62 | 20.78 | 19.85 | 18.75 | 17.62 |
| | | 1710.7 | 22.07 | 21.13 | 20.04 | 18.94 | 21.07 | 20.13 | 19.04 | 17.94 |
| 3MHz | 1 RB high | 1778.5 | 23.01 | 22.23 | 21.20 | 19.48 | 22.01 | 21.23 | 20.20 | 18.48 |
| | | 1745.0 | 22.77 | 22.02 | 20.98 | 19.73 | 21.77 | 21.02 | 19.98 | 18.73 |
| | | 1711.5 | 22.97 | 22.26 | 21.11 | 19.86 | 21.97 | 21.26 | 20.11 | 18.86 |
| | 1 RB low | 1778.5 | 23.08 | 22.22 | 21.22 | 19.83 | 22.08 | 21.22 | 20.22 | 18.83 |
| | | 1745.0 | 22.77 | 22.01 | 20.97 | 19.91 | 21.77 | 21.01 | 19.97 | 18.91 |
| | | 1711.5 | 23.00 | 22.32 | 21.16 | 20.39 | 22.00 | 21.32 | 20.16 | 19.39 |
| | 50% RB mid | 1778.5 | 22.04 | 21.12 | 20.10 | 18.62 | 21.04 | 20.12 | 19.10 | 17.62 |
| | | 1745.0 | 21.81 | 20.89 | 19.88 | 18.65 | 20.81 | 19.89 | 18.88 | 17.65 |
| | | 1711.5 | 22.08 | 21.15 | 20.12 | 18.50 | 21.08 | 20.15 | 19.12 | 17.50 |
| | 100% RB | 1778.5 | 22.06 | 21.07 | 20.01 | 18.88 | 21.06 | 20.07 | 19.01 | 17.88 |
| | | 1745.0 | 21.83 | 20.86 | 19.82 | 18.64 | 20.83 | 19.86 | 18.82 | 17.64 |
| | | 1711.5 | 22.08 | 21.11 | 20.05 | 18.48 | 21.08 | 20.11 | 19.05 | 17.48 |
| 5MHz | 1 RB high | 1777.5 | 23.07 | 22.32 | 21.21 | 19.90 | 22.07 | 21.32 | 20.21 | 18.90 |
| | | 1745.0 | 22.81 | 22.12 | 21.04 | 19.67 | 21.81 | 21.12 | 20.04 | 18.67 |
| | | 1712.5 | 23.01 | 22.31 | 21.22 | 19.82 | 22.01 | 21.31 | 20.22 | 18.82 |
| | 1 RB low | 1777.5 | 23.05 | 22.32 | 21.23 | 19.79 | 22.05 | 21.32 | 20.23 | 18.79 |
| | | 1745.0 | 22.90 | 22.06 | 21.06 | 20.01 | 21.90 | 21.06 | 20.06 | 19.01 |
| | | 1712.5 | 23.07 | 22.34 | 21.28 | 20.25 | 22.07 | 21.34 | 20.28 | 19.25 |
| | 50% RB mid | 1777.5 | 22.08 | 21.09 | 20.11 | 18.80 | 21.08 | 20.09 | 19.11 | 17.80 |
| | | 1745.0 | 21.91 | 20.87 | 19.93 | 18.77 | 20.91 | 19.87 | 18.93 | 17.77 |
| | | 1712.5 | 22.08 | 21.12 | 20.11 | 18.90 | 21.08 | 20.12 | 19.11 | 17.90 |
| | 100% RB | 1777.5 | 22.12 | 21.10 | 20.10 | 19.02 | 21.12 | 20.10 | 19.10 | 18.02 |
| | | 1745.0 | 21.91 | 20.89 | 19.89 | 18.60 | 20.91 | 19.89 | 18.89 | 17.60 |
| | | 1712.5 | 22.11 | 21.10 | 20.09 | 18.86 | 21.11 | 20.10 | 19.09 | 17.86 |
| 10MHz | 1 RB high | 1775.0 | 23.13 | 22.30 | 21.27 | 19.94 | 22.13 | 21.30 | 20.27 | 18.94 |
| | | 1745.0 | 22.90 | 22.14 | 21.03 | 19.89 | 21.90 | 21.14 | 20.03 | 18.89 |

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| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1715.0 | 23.07 | 22.34 | 21.24 | 19.80 | 22.07 | 21.34 | 20.24 | 18.80 |
| | 1 RB low | 1775.0 | 23.08 | 22.27 | 21.21 | 19.99 | 22.08 | 21.27 | 20.21 | 18.99 |
| | | 1745.0 | 22.91 | 22.19 | 21.05 | 20.15 | 21.91 | 21.19 | 20.05 | 19.15 |
| | | 1715.0 | 23.10 | 22.36 | 21.30 | 20.29 | 22.10 | 21.36 | 20.30 | 19.29 |
| | 50% RB mid | 1775.0 | 22.10 | 21.11 | 20.10 | 18.82 | 21.10 | 20.11 | 19.10 | 17.82 |
| | | 1745.0 | 21.90 | 20.92 | 19.89 | 18.57 | 20.90 | 19.92 | 18.89 | 17.57 |
| | | 1715.0 | 22.09 | 21.06 | 20.04 | 18.66 | 21.09 | 20.06 | 19.04 | 17.66 |
| | 100% RB | 1775.0 | 22.09 | 21.10 | 20.10 | 19.06 | 21.09 | 20.10 | 19.10 | 18.06 |
| | | 1745.0 | 21.90 | 20.91 | 19.88 | 18.56 | 20.90 | 19.91 | 18.88 | 17.56 |
| | | 1715.0 | 22.08 | 21.07 | 20.05 | 18.76 | 21.08 | 20.07 | 19.05 | 17.76 |
| 15MHz | 1 RB high | 1772.5 | 23.04 | 22.35 | 21.23 | 19.92 | 22.04 | 21.35 | 20.23 | 18.92 |
| | | 1745.0 | 22.91 | 22.11 | 21.01 | 19.79 | 21.91 | 21.11 | 20.01 | 18.79 |
| | | 1717.5 | 22.97 | 22.28 | 21.14 | 19.78 | 21.97 | 21.28 | 20.14 | 18.78 |
| | 1 RB low | 1772.5 | 23.07 | 22.38 | 21.22 | 19.79 | 22.07 | 21.38 | 20.22 | 18.79 |
| | | 1745.0 | 22.94 | 22.24 | 21.12 | 20.03 | 21.94 | 21.24 | 20.12 | 19.03 |
| | | 1717.5 | 23.12 | 22.37 | 21.33 | 20.25 | 22.12 | 21.37 | 20.33 | 19.25 |
| | 50% RB mid | 1772.5 | 22.08 | 21.07 | 20.09 | 18.64 | 21.08 | 20.07 | 19.09 | 17.64 |
| | | 1745.0 | 21.89 | 20.90 | 19.92 | 18.79 | 20.89 | 19.90 | 18.92 | 17.79 |
| | | 1717.5 | 22.07 | 21.07 | 20.09 | 18.94 | 21.07 | 20.07 | 19.09 | 17.94 |
| | 100% RB | 1772.5 | 22.11 | 21.12 | 20.11 | 18.96 | 21.11 | 20.12 | 19.11 | 17.96 |
| | | 1745.0 | 21.91 | 20.93 | 19.92 | 18.64 | 20.91 | 19.93 | 18.92 | 17.64 |
| | | 1717.5 | 22.10 | 21.11 | 20.09 | 18.76 | 21.10 | 20.11 | 19.09 | 17.76 |
| 20MHz | 1 RB high | 1770.0 | 23.06 | 22.40 | 21.19 | 19.76 | 22.06 | 21.40 | 20.19 | 18.76 |
| | | 1745.0 | 22.85 | 22.12 | 21.08 | 19.77 | 21.85 | 21.12 | 20.08 | 18.77 |
| | | 1720.0 | 22.96 | 22.31 | 21.11 | 19.68 | 21.96 | 21.31 | 20.11 | 18.68 |
| | 1 RB low | 1770.0 | 23.04 | 22.31 | 21.20 | 19.85 | 22.04 | 21.31 | 20.20 | 18.85 |
| | | 1745.0 | 23.18 | 22.30 | 21.18 | 19.97 | 22.18 | 21.30 | 20.18 | 18.97 |
| | | 1720.0 | 23.20 | 22.51 | 21.28 | 20.09 | 22.20 | 21.51 | 20.28 | 19.09 |
| | 50% RB mid | 1770.0 | 22.10 | 21.11 | 20.09 | 18.66 | 21.10 | 20.11 | 19.09 | 17.66 |
| | | 1745.0 | 21.96 | 20.95 | 19.94 | 18.67 | 20.96 | 19.95 | 18.94 | 17.67 |
| | | 1720.0 | 22.11 | 21.11 | 20.07 | 18.78 | 21.11 | 20.11 | 19.07 | 17.78 |
| | 100% RB | 1770.0 | 22.08 | 21.07 | 20.07 | 18.86 | 21.08 | 20.07 | 19.07 | 17.86 |
| | | 1745.0 | 21.94 | 20.92 | 19.93 | 18.62 | 20.94 | 19.92 | 18.93 | 17.62 |
| | | 1720.0 | 22.09 | 21.05 | 20.05 | 18.84 | 21.09 | 20.05 | 19.05 | 17.84 |

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**LTE Band 71- ERP**

**Limits:** ≤34.77 dBm (3W)

Max ERP: 18.27dBm

| Bandwidth | RB size/offset | Frequency (MHz) | Conducted Power(dBm) | | | | ERP(dBm) (Gt-Lc =-2.5) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | QPSK | 16QAM | 64QAM | 256QAM | QPSK | 16QAM | 64QAM | 256QAM |
| 5MHz | 1 RB high | 695.5 | 22.81 | 21.95 | 20.91 | 19.45 | 18.16 | 17.30 | 16.26 | 14.80 |
| | | 680.5 | 22.59 | 21.85 | 20.71 | 19.43 | 17.94 | 17.20 | 16.06 | 14.78 |
| | | 665.5 | 22.65 | 21.59 | 20.59 | 19.39 | 18.00 | 16.94 | 15.94 | 14.74 |
| | 1 RB low | 695.5 | 22.62 | 22.08 | 20.84 | 19.46 | 17.97 | 17.43 | 16.19 | 14.81 |
| | | 680.5 | 22.72 | 22.06 | 20.88 | 19.54 | 18.07 | 17.41 | 16.23 | 14.89 |
| | | 665.5 | 22.55 | 21.98 | 20.70 | 19.32 | 17.90 | 17.33 | 16.05 | 14.67 |
| | 50% RB mid | 695.5 | 21.56 | 20.49 | 19.53 | 18.15 | 16.91 | 15.84 | 14.88 | 13.50 |
| | | 680.5 | 21.44 | 20.53 | 19.45 | 18.07 | 16.79 | 15.88 | 14.80 | 13.42 |
| | | 665.5 | 21.48 | 20.39 | 19.75 | 18.41 | 16.83 | 15.74 | 15.10 | 13.76 |
| | 100% RB | 695.5 | 21.60 | 20.58 | 19.94 | 18.54 | 16.95 | 15.93 | 15.29 | 13.89 |
| | | 680.5 | 21.66 | 20.47 | 19.90 | 18.50 | 17.01 | 15.82 | 15.25 | 13.85 |
| | | 665.5 | 21.76 | 20.53 | 19.88 | 18.62 | 17.11 | 15.88 | 15.23 | 13.97 |
| 10MHz | 1 RB high | 693.0 | 22.75 | 22.29 | 20.83 | 19.37 | 18.10 | 17.64 | 16.18 | 14.72 |
| | | 680.5 | 22.73 | 22.21 | 20.63 | 19.43 | 18.08 | 17.56 | 15.98 | 14.78 |
| | | 668.0 | 22.67 | 21.91 | 20.75 | 19.27 | 18.02 | 17.26 | 16.10 | 14.62 |
| | 1 RB low | 693.0 | 22.92 | 22.24 | 20.90 | 19.72 | 18.27 | 17.59 | 16.25 | 15.07 |
| | | 680.5 | 22.80 | 21.86 | 20.72 | 19.32 | 18.15 | 17.21 | 16.07 | 14.67 |
| | | 668.0 | 22.65 | 22.16 | 20.74 | 19.36 | 18.00 | 17.51 | 16.09 | 14.71 |
| | 50% RB mid | 693.0 | 21.78 | 20.57 | 19.59 | 18.21 | 17.13 | 15.92 | 14.94 | 13.56 |
| | | 680.5 | 21.70 | 20.47 | 19.75 | 18.05 | 17.05 | 15.82 | 15.10 | 13.40 |
| | | 668.0 | 21.44 | 20.75 | 19.89 | 18.57 | 16.79 | 16.10 | 15.24 | 13.92 |
| | 100% RB | 693.0 | 21.46 | 20.70 | 20.12 | 18.34 | 16.81 | 16.05 | 15.47 | 13.69 |
| | | 680.5 | 21.60 | 20.75 | 19.74 | 18.20 | 16.95 | 16.10 | 15.09 | 13.55 |
| | | 668.0 | 21.72 | 20.53 | 20.08 | 18.54 | 17.07 | 15.88 | 15.43 | 13.89 |
| 15MHz | 1 RB high | 690.5 | 22.69 | 22.05 | 20.85 | 19.63 | 18.04 | 17.40 | 16.20 | 14.98 |
| | | 680.5 | 22.77 | 21.95 | 20.91 | 19.49 | 18.12 | 17.30 | 16.26 | 14.84 |
| | | 670.5 | 22.53 | 21.67 | 20.85 | 19.29 | 17.88 | 17.02 | 16.20 | 14.64 |
| | 1 RB low | 690.5 | 22.68 | 22.18 | 20.78 | 19.62 | 18.03 | 17.53 | 16.13 | 14.97 |
| | | 680.5 | 22.72 | 22.16 | 20.98 | 19.52 | 18.07 | 17.51 | 16.33 | 14.87 |
| | | 670.5 | 22.81 | 22.00 | 20.82 | 19.26 | 18.16 | 17.35 | 16.17 | 14.61 |
| | 50% RB mid | 690.5 | 21.64 | 20.81 | 19.73 | 18.17 | 16.99 | 16.16 | 15.08 | 13.52 |
| | | 680.5 | 21.66 | 20.79 | 19.81 | 18.13 | 17.01 | 16.14 | 15.16 | 13.48 |
| | | 670.5 | 21.76 | 20.65 | 20.01 | 18.41 | 17.11 | 16.00 | 15.36 | 13.76 |
| | 100% RB | 690.5 | 21.78 | 20.78 | 19.90 | 18.62 | 17.13 | 16.13 | 15.25 | 13.97 |
| | | 680.5 | 21.62 | 20.67 | 19.94 | 18.36 | 16.97 | 16.02 | 15.29 | 13.71 |
| | | 670.5 | 21.54 | 20.53 | 20.12 | 18.52 | 16.89 | 15.88 | 15.47 | 13.87 |
| 20MHz | 1 RB high | 688.0 | 22.73 | 22.11 | 20.85 | 19.49 | 18.08 | 17.46 | 16.20 | 14.84 |
| | | 680.5 | 22.69 | 21.99 | 20.79 | 19.35 | 18.04 | 17.34 | 16.14 | 14.70 |

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| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 673.0 | 22.57 | 21.71 | 20.79 | 19.41 | 17.92 | 17.06 | 16.14 | 14.76 |
| | 1 RB low | 688.0 | 22.72 | 22.22 | 20.78 | 19.50 | 18.07 | 17.57 | 16.13 | 14.85 |
| | | 680.5 | 22.78 | 21.98 | 20.86 | 19.40 | 18.13 | 17.33 | 16.21 | 14.75 |
| | | 673.0 | 22.63 | 22.10 | 20.76 | 19.34 | 17.98 | 17.45 | 16.11 | 14.69 |
| | 50% RB mid | 688.0 | 21.62 | 20.69 | 19.69 | 18.21 | 16.97 | 16.04 | 15.04 | 13.56 |
| | | 680.5 | 21.52 | 20.63 | 19.65 | 18.09 | 16.87 | 15.98 | 15.00 | 13.44 |
| | | 673.0 | 21.60 | 20.55 | 19.87 | 18.51 | 16.95 | 15.90 | 15.22 | 13.86 |
| | 100% RB | 688.0 | 21.64 | 20.62 | 19.96 | 18.48 | 16.99 | 15.97 | 15.31 | 13.83 |
| | | 680.5 | 21.58 | 20.63 | 19.88 | 18.36 | 16.93 | 15.98 | 15.23 | 13.71 |
| | | 673.0 | 21.66 | 20.63 | 20.08 | 18.52 | 17.01 | 15.98 | 15.43 | 13.87 |

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## A.2 Emission Limit

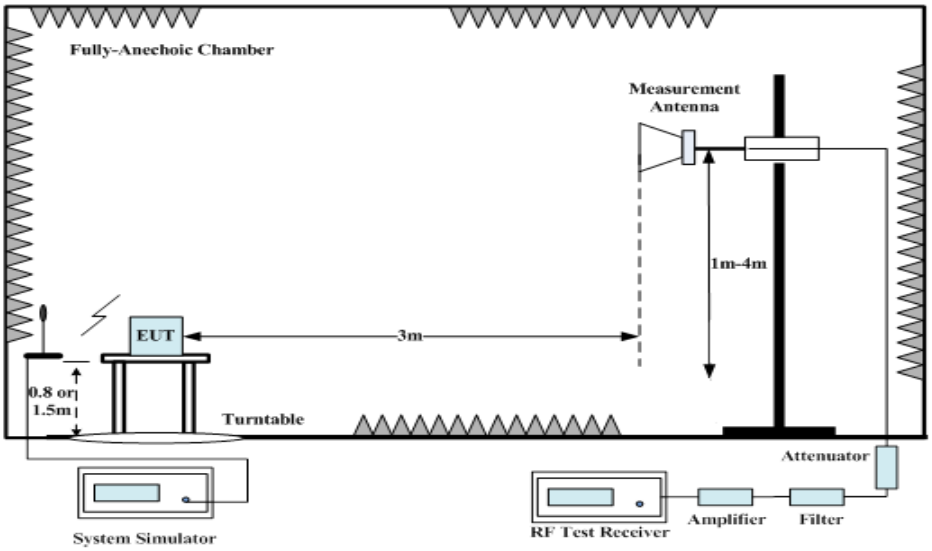
### A.2.1 Measurement Method

The measurement procedures in ANSI C63.26 are used.

The spectrum was scanned from 30 MHz to the 10th harmonic of the highest frequency generated within the equipment, which is the transmitted carrier. The resolution bandwidth is set 1MHz. The spectrum was scanned with the mobile station transmitting at carrier frequencies that pertain to low, mid and high channels of each LTE Band.

**The procedure of radiated spurious emissions is as follows:**

For measurements performed at frequencies less than or equal to 1 GHz, the EUT was placed on a 80cm-high non-conductive support; For measurements performed at frequencies above 1GHz,EUT was placed on a 1.5-meter-high non-conductive support. A measurement antenna was placed on the antenna mast 3 meters from the EUT for emission measurements. In the initial test, the height of the measurement antenna was varied from 1 m to 4 m for the relative positioning that produces the maximum radiated signal level. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the EUT through 360° and adjusting the receiving antenna polarization. The radiated emission measurements of all non-harmonic and harmonics of the transmit frequency through the 10th harmonic were measured with peak detector.




1. The EUT is then put into continuously transmitting mode at its maximum power level during the test. And the maximum value of the receiver should be recorded as (Pr).
2. The EUT shall be replaced by a substitution antenna. The test setup refers to figure below.

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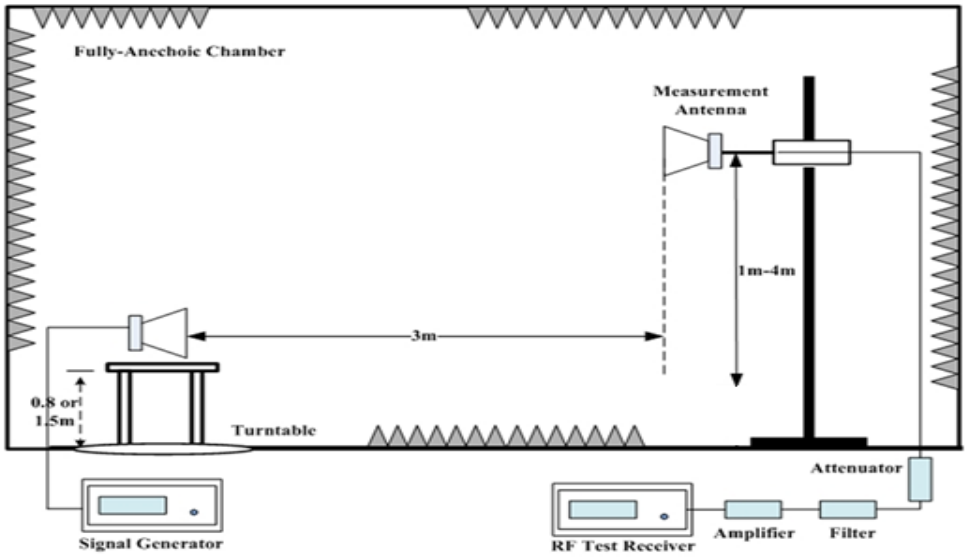


In the chamber, a substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. The height of measurement antenna varied between 1 m to 4 m to maximize the received signal amplitude for each emission that was detected and measured in the initial test. A power ($P_{Mea}$) is applied to the input of the substitution antenna and adjusts the level of the signal generator output until the value of the receiver reach the previously recorded ($P_r$). The power of signal source ($P_{Mea}$) is recorded. The test was performed with the measurement antenna in both vertical and horizontal polarization.

3. The Path loss ($P_{pl}$) between the Signal Source and the Substitution Antenna and the Substitution Antenna Gain ($G_a$) were recorded after test.A amplifier was connected in for the test. The Path loss ($P_{pl}$) is the summation of the cable loss and the gain of the amplifier.
4. The measurement results are obtained as described below:

$$\text{Power (EIRP)} = P_{Mea} - P_{pl} + G_a$$

This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dBi) and known input power.ERP can be calculated from EIRP by subtracting the gain of the dipole, ERP = EIRP -2.15dBi.

**A.2.2 Measurement Limit**

**FDD Band 25:** Part 24.238 specifies that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

**FDD Band 66:** Part 27.53(h) specifies that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

**FDD Band 26(824MHz~849MHz):** Part 22.917 specifies that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

**FDD Band 7/41:** Part 27.53(m) specifies for mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X

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megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

**FDD Band 12/71:** Part 27.53(g) states for operations in the 600 MHz band and the 698–746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

**FDD Band 26(814MHz~824MHz):** Part 90.691 states that out-of-band emission requirement shall apply only to the ''outer'' channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The emission limits are as follows: For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $116Log_{10}(f/6.1)$ decibels or $50 + 10 Log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz. For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least $43 + 10Log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.

**A.2.3 Measurement Results**

Radiated emissions measurements were made only at the upper, middle, and lower carrier frequencies of each LTE Band. It was decided that measurements at these three carrier frequencies would be sufficient to demonstrate compliance with emissions limits because it was seen that all the significant spurs occur well outside the band and no radiation was seen from a carrier in one block of each LTE Band into any of the other blocks. The equipment must still, however, meet emissions requirements with the carrier at all frequencies over which it is capable of operating and it is the manufacturer's responsibility to verify this. The range of evaluated frequency is from 9 kHz to 26GHz.

Note 1: Both of Vertical and Horizontal polarizations are evaluated, but only the worst case is recorded in this report.

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### A.2.4 Measurement Results Table

| Frequency | Channel | Frequency Range | Result |
|---|---|---|---|
| LTE Bands | Low | 9kHz-26GHz | Pass |
| | Middle | 9kHz-26GHz | Pass |
| | High | 9kHz-26GHz | Pass |

### A.2.5 Sweep Table

| Subrange | RBW | VBW |
|---|---|---|
| 9~150 kHz | 0.2kHz | 0.6kHz |
| 150kHz~30MHz | 9kHz | 27kHz |
| 30MHz~1 GHz | 100KHz | 300KHz |
| 1~26 GHz | 1 MHz | 3 MHz |

### A.2.6 Measurement Result

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**LTE Band 7, 5 MHz, QPSK, Channel 20775**

| Frequency (MHz) | $P_{Mea}$ (dBm) | $P_{pl}$ (dB) | AntennaGain (dBi) | Peak EIRP (dBm) | Limit (dBm) | Margin (dB) | Polorization |
|---|---|---|---|---|---|---|---|
| 5005.50 | -42.92 | 5.15 | 11.33 | -36.74 | -25.00 | 11.74 | V |
| 7517.50 | -50.21 | 7.71 | 10.24 | -47.68 | -25.00 | 22.68 | V |
| 10024.00 | -46.09 | 9.34 | 11.78 | -43.65 | -25.00 | 18.65 | H |
| 12509.50 | -40.29 | 12.37 | 13.57 | -39.09 | -25.00 | 14.09 | V |
| 15005.50 | -37.96 | 14.75 | 14.62 | -38.09 | -25.00 | 13.09 | H |
| 17513.00 | -26.20 | 19.71 | 13.11 | -32.80 | -25.00 | 7.80 | H |

**LTE Band 7, 5 MHz, QPSK, Channel 21100**

| Frequency (MHz) | $P_{Mea}$ (dBm) | $P_{pl}$ (dB) | AntennaGain (dBi) | Peak EIRP (dBm) | Limit (dBm) | Margin (dB) | Polorization |
|---|---|---|---|---|---|---|---|
| 5070.50 | -41.24 | 5.30 | 11.60 | -34.94 | -25.00 | 9.94 | V |
| 7610.50 | -52.14 | 6.59 | 10.32 | -48.41 | -25.00 | 23.41 | V |
| 10143.50 | -44.59 | 9.73 | 11.79 | -42.53 | -25.00 | 17.53 | H |
| 12688.00 | -42.03 | 11.75 | 13.12 | -40.66 | -25.00 | 15.66 | V |
| 15201.00 | -39.25 | 15.12 | 15.00 | -39.37 | -25.00 | 14.37 | V |
| 17738.00 | -25.58 | 19.56 | 13.44 | -31.70 | -25.00 | 6.70 | H |

**LTE Band 7, 5 MHz, QPSK, Channel 21425**

| Frequency (MHz) | $P_{Mea}$ (dBm) | $P_{pl}$ (dB) | AntennaGain (dBi) | Peak EIRP (dBm) | Limit (dBm) | Margin (dB) | Polorization |
|---|---|---|---|---|---|---|---|
| 5135.00 | -45.87 | 5.55 | 11.60 | -39.82 | -25.00 | 14.82 | H |
| 7708.50 | -51.52 | 6.73 | 10.62 | -47.63 | -25.00 | 22.63 | H |
| 10263.00 | -43.29 | 10.82 | 11.90 | -42.21 | -25.00 | 17.21 | V |
| 12826.50 | -40.32 | 13.13 | 12.95 | -40.50 | -25.00 | 15.50 | V |
| 15411.50 | -40.34 | 14.91 | 15.42 | -39.83 | -25.00 | 14.83 | V |
| 17973.00 | -26.78 | 19.99 | 13.45 | -33.32 | -25.00 | 8.32 | H |

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**LTE Band 12, 1.4MHz, QPSK, Channel 23017**

| Frequency (MHz) | $P_{Mea}$ (dBm) | $P_{pl}$ (dB) | AntennaGain (dBi) | Correction | Peak ERP (dBm) | Limit (dBm) | Margin (dB) | Polorization |
|---|---|---|---|---|---|---|---|---|
| 2114.00 | -56.19 | 3.67 | 8.02 | 2.15 | -53.99 | -13.00 | 40.99 | V |
| 2797.00 | -51.26 | 4.91 | 10.39 | 2.15 | -47.93 | -13.00 | 34.93 | V |
| 4886.50 | -59.90 | 4.80 | 10.97 | 2.15 | -55.88 | -13.00 | 42.88 | V |
| 5600.50 | -59.20 | 5.65 | 11.30 | 2.15 | -55.70 | -13.00 | 42.70 | H |
| 6290.00 | -56.27 | 6.08 | 10.80 | 2.15 | -53.70 | -13.00 | 40.70 | V |
| 7011.50 | -52.29 | 7.64 | 10.42 | 2.15 | -51.66 | -13.00 | 38.66 | V |

**LTE Band 12, 1.4MHz, QPSK, Channel 23095**

| Frequency (MHz) | $P_{Mea}$ (dBm) | $P_{pl}$ (dB) | AntennaGain (dBi) | Correction | Peak ERP (dBm) | Limit (dBm) | Margin (dB) | Polorization |
|---|---|---|---|---|---|---|---|---|
| 2127.00 | -55.66 | 3.71 | 8.23 | 2.15 | -53.29 | -13.00 | 40.29 | V |
| 2817.00 | -50.59 | 5.16 | 10.43 | 2.15 | -47.47 | -13.00 | 34.47 | V |
| 4955.00 | -59.19 | 4.92 | 11.21 | 2.15 | -55.05 | -13.00 | 42.05 | V |
| 5662.50 | -58.54 | 5.72 | 11.40 | 2.15 | -55.01 | -13.00 | 42.01 | V |
| 6381.50 | -56.75 | 5.78 | 10.96 | 2.15 | -53.72 | -13.00 | 40.72 | V |
| 7086.50 | -51.51 | 6.95 | 10.35 | 2.15 | -50.26 | -13.00 | 37.26 | V |

**LTE Band 12, 1.4MHz, QPSK, Channel 23173**

| Frequency (MHz) | $P_{Mea}$ (dBm) | $P_{pl}$ (dB) | AntennaGain (dBi) | Correction | Peak ERP (dBm) | Limit (dBm) | Margin (dB) | Polorization |
|---|---|---|---|---|---|---|---|---|
| 2159.00 | -55.75 | 3.70 | 8.71 | 2.15 | -52.89 | -13.00 | 39.89 | V |
| 2867.00 | -50.47 | 5.47 | 10.60 | 2.15 | -47.49 | -13.00 | 34.49 | V |
| 4998.50 | -59.72 | 5.17 | 11.30 | 2.15 | -55.74 | -13.00 | 42.74 | V |
| 5709.00 | -58.64 | 5.66 | 11.38 | 2.15 | -55.07 | -13.00 | 42.07 | V |
| 6452.50 | -55.68 | 6.75 | 10.79 | 2.15 | -53.79 | -13.00 | 40.79 | V |
| 7145.50 | -52.66 | 6.67 | 10.21 | 2.15 | -51.27 | -13.00 | 38.27 | V |

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**LTE Band 25, 1.4MHz, QPSK, Channel 26047**

| Frequency (MHz) | $P_{Mea}$ (dBm) | Path Loss(dB) | AntennaGain (dBi) | Peak EIRP (dBm) | Limit (dBm) | Margin (dB) | Polorization |
|---|---|---|---|---|---|---|---|
| 3699.00 | -63.03 | 3.46 | 10.40 | -56.09 | -13.00 | 43.09 | V |
| 5561.00 | -59.63 | 5.36 | 11.22 | -53.77 | -13.00 | 40.77 | H |
| 7392.00 | -50.67 | 8.14 | 10.07 | -48.74 | -13.00 | 35.74 | V |
| 9245.00 | -46.64 | 8.85 | 11.71 | -43.78 | -13.00 | 30.78 | V |
| 11104.00 | -43.37 | 9.75 | 12.60 | -40.52 | -13.00 | 27.52 | V |
| 12957.00 | -38.81 | 12.51 | 12.74 | -38.58 | -13.00 | 25.58 | V |

**LTE Band 25, 1.4MHz, QPSK, Channel 26365**

| Frequency (MHz) | $P_{Mea}$ (dBm) | Path Loss(dB) | AntennaGain (dBi) | Peak EIRP (dBm) | Limit (dBm) | Margin (dB) | Polorization |
|---|---|---|---|---|---|---|---|
| 3765.00 | -59.28 | 3.79 | 10.14 | -52.93 | -13.00 | 39.93 | V |
| 5661.50 | -59.48 | 5.72 | 11.40 | -53.80 | -13.00 | 40.80 | H |
| 7519.00 | -50.12 | 7.71 | 10.24 | -47.59 | -13.00 | 34.59 | V |
| 9425.50 | -46.89 | 9.02 | 11.60 | -44.31 | -13.00 | 31.31 | V |
| 11282.50 | -42.74 | 10.63 | 12.62 | -40.75 | -13.00 | 27.75 | V |
| 13179.00 | -39.07 | 13.15 | 12.52 | -39.70 | -13.00 | 26.70 | V |

**LTE Band 25, 1.4MHz, QPSK, Channel 26683**

| Frequency (MHz) | $P_{Mea}$ (dBm) | Path Loss(dB) | AntennaGain (dBi) | Peak EIRP (dBm) | Limit (dBm) | Margin (dB) | Polorization |
|---|---|---|---|---|---|---|---|
| 3828.00 | -62.43 | 3.92 | 9.94 | -56.41 | -13.00 | 43.41 | H |
| 5754.00 | -58.51 | 5.83 | 11.28 | -53.06 | -13.00 | 40.06 | V |
| 7652.00 | -51.55 | 6.87 | 10.41 | -48.01 | -13.00 | 35.01 | V |
| 9578.50 | -48.07 | 8.65 | 11.90 | -44.82 | -13.00 | 31.82 | V |
| 11477.50 | -40.51 | 12.31 | 12.52 | -40.30 | -13.00 | 27.30 | V |
| 13398.50 | -37.27 | 12.45 | 12.40 | -37.32 | -13.00 | 24.32 | V |

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**LTE Band 26(824MHz~849MHz), 1.4MHz, QPSK, Channel 26797**

| Frequency (MHz) | $P_{Mea}$ (dBm) | $P_{pl}$ (dB) | AntennaGain (dBi) | Correction | Peak ERP (dBm) | Limit (dBm) | Margin (dB) | Polorization |
|---|---|---|---|---|---|---|---|---|
| 2474.50 | -53.77 | 4.33 | 10.35 | 2.15 | -49.90 | -13.00 | 36.90 | V |
| 4954.50 | -60.81 | 4.91 | 11.21 | 2.15 | -56.66 | -13.00 | 43.66 | V |
| 5763.50 | -58.60 | 5.81 | 11.22 | 2.15 | -55.34 | -13.00 | 42.34 | V |
| 6611.00 | -54.04 | 7.00 | 10.32 | 2.15 | -52.87 | -13.00 | 39.87 | V |
| 7417.00 | -49.75 | 8.00 | 10.10 | 2.15 | -49.80 | -13.00 | 36.80 | V |
| 8245.50 | -48.95 | 7.59 | 11.20 | 2.15 | -47.49 | -13.00 | 34.49 | V |

**LTE Band 26(824MHz~849MHz), 1.4MHz, QPSK, Channel 26915**

| Frequency (MHz) | $P_{Mea}$ (dBm) | $P_{pl}$ (dB) | AntennaGain (dBi) | Correction | Peak ERP (dBm) | Limit (dBm) | Margin (dB) | Polorization |
|---|---|---|---|---|---|---|---|---|
| 2506.00 | -54.10 | 4.43 | 10.30 | 2.15 | -50.38 | -13.00 | 37.38 | V |
| 4191.50 | -60.26 | 4.12 | 10.08 | 2.15 | -56.45 | -13.00 | 43.45 | V |
| 5860.00 | -59.30 | 5.61 | 10.96 | 2.15 | -56.10 | -13.00 | 43.10 | V |
| 6681.50 | -53.94 | 6.38 | 10.46 | 2.15 | -52.01 | -13.00 | 39.01 | H |
| 7525.00 | -51.55 | 7.71 | 10.25 | 2.15 | -51.16 | -13.00 | 38.16 | H |
| 8356.50 | -48.80 | 8.25 | 11.30 | 2.15 | -47.90 | -13.00 | 34.90 | V |

**LTE Band 26(824MHz~849MHz), 1.4MHz, QPSK, Channel 27033**

| Frequency (MHz) | $P_{Mea}$ (dBm) | $P_{pl}$ (dB) | AntennaGain (dBi) | Correction | Peak ERP (dBm) | Limit (dBm) | Margin (dB) | Polorization |
|---|---|---|---|---|---|---|---|---|
| 1705.50 | -60.78 | 2.85 | 9.42 | 2.15 | -56.36 | -13.00 | 43.36 | V |
| 2553.50 | -53.65 | 4.56 | 10.30 | 2.15 | -50.06 | -13.00 | 37.06 | H |
| 5931.50 | -58.10 | 6.04 | 10.74 | 2.15 | -55.55 | -13.00 | 42.55 | V |
| 6774.00 | -53.45 | 6.40 | 10.35 | 2.15 | -51.65 | -13.00 | 38.65 | H |
| 7633.50 | -51.61 | 6.74 | 10.37 | 2.15 | -50.13 | -13.00 | 37.13 | H |
| 8469.00 | -49.67 | 8.02 | 11.30 | 2.15 | -48.54 | -13.00 | 35.54 | V |

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**LTE Band 26(814MHz~824MHz), 1.4MHz, QPSK, Channel 26697**

| Frequency (MHz) | $P_{Mea}$ (dBm) | $P_{pl}$ (dB) | AntennaGain (dBi) | Correction | Peak ERP (dBm) | Limit (dBm) | Margin (dB) | Polorization |
|---|---|---|---|---|---|---|---|---|
| 2433.00 | -54.31 | 4.12 | 10.33 | 2.15 | -50.25 | -13.00 | 37.25 | V |
| 4883.00 | -60.11 | 4.78 | 10.97 | 2.15 | -56.07 | -13.00 | 43.07 | H |
| 5709.50 | -59.66 | 5.94 | 11.38 | 2.15 | -56.37 | -13.00 | 43.37 | V |
| 6506.00 | -55.53 | 6.25 | 10.60 | 2.15 | -53.33 | -13.00 | 40.33 | H |
| 7317.50 | -51.53 | 7.83 | 9.90 | 2.15 | -51.61 | -13.00 | 38.61 | H |
| 8138.00 | -50.52 | 8.22 | 11.12 | 2.15 | -49.77 | -13.00 | 36.77 | H |

**LTE Band 26(814MHz~824MHz), 1.4MHz, QPSK, Channel 26740**

| Frequency (MHz) | $P_{Mea}$ (dBm) | $P_{pl}$ (dB) | AntennaGain (dBi) | Correction | Peak ERP (dBm) | Limit (dBm) | Margin (dB) | Polorization |
|---|---|---|---|---|---|---|---|---|
| 2454.00 | -54.02 | 4.45 | 10.39 | 2.15 | -50.23 | -13.00 | 37.23 | V |
| 4902.50 | -60.48 | 4.88 | 11.01 | 2.15 | -56.50 | -13.00 | 43.50 | V |
| 5724.00 | -59.41 | 5.90 | 11.35 | 2.15 | -56.11 | -13.00 | 43.11 | H |
| 6563.50 | -53.37 | 7.41 | 10.52 | 2.15 | -52.41 | -13.00 | 39.41 | V |
| 7378.00 | -51.58 | 7.38 | 10.01 | 2.15 | -51.10 | -13.00 | 38.10 | H |
| 8178.50 | -50.30 | 7.23 | 11.16 | 2.15 | -48.52 | -13.00 | 35.52 | V |

**LTE Band 26(814MHz~824MHz), 1.4MHz, QPSK, Channel 26783**

| Frequency (MHz) | $P_{Mea}$ (dBm) | $P_{pl}$ (dB) | AntennaGain (dBi) | Correction | Peak ERP (dBm) | Limit (dBm) | Margin (dB) | Polorization |
|---|---|---|---|---|---|---|---|---|
| 2464.50 | -53.50 | 4.32 | 10.37 | 2.15 | -49.60 | -13.00 | 36.60 | V |
| 4109.50 | -60.35 | 4.02 | 10.08 | 2.15 | -56.44 | -13.00 | 43.44 | H |
| 5769.00 | -59.33 | 5.67 | 11.19 | 2.15 | -55.96 | -13.00 | 42.96 | H |
| 6581.00 | -53.21 | 7.26 | 10.41 | 2.15 | -52.21 | -13.00 | 39.21 | V |
| 7420.50 | -50.64 | 7.98 | 10.10 | 2.15 | -50.67 | -13.00 | 37.67 | H |
| 8241.50 | -49.68 | 7.59 | 11.20 | 2.15 | -48.22 | -13.00 | 35.22 | V |

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**LTE Band 41, 5MHz, QPSK, Channel 39657**

| Frequency (MHz) | $P_{Mea}$ (dBm) | $P_{pl}$ (dB) | AntennaGain (dBi) | Peak EIRP (dBm) | Limit (dBm) | Margin (dB) | Polorization |
|---|---|---|---|---|---|---|---|
| 5005.00 | -60.09 | 5.15 | 11.33 | -53.91 | -25.00 | 28.91 | V |
| 7491.50 | -50.75 | 7.69 | 10.18 | -48.26 | -25.00 | 23.26 | H |
| 9986.00 | -46.74 | 9.37 | 11.77 | -44.34 | -25.00 | 19.34 | H |
| 12485.50 | -39.56 | 12.33 | 13.57 | -38.32 | -25.00 | 13.32 | V |
| 14997.00 | -38.49 | 14.76 | 14.59 | -38.66 | -25.00 | 13.66 | H |
| 17502.00 | -24.59 | 19.72 | 13.10 | -31.21 | -25.00 | 6.21 | H |

**LTE Band 41, 5MHz, QPSK, Channel 40620**

| Frequency (MHz) | $P_{Mea}$ (dBm) | $P_{pl}$ (dB) | AntennaGain (dBi) | Peak EIRP (dBm) | Limit (dBm) | Margin (dB) | Polorization |
|---|---|---|---|---|---|---|---|
| 5181.50 | -60.31 | 5.76 | 11.66 | -54.41 | -25.00 | 29.41 | V |
| 7782.00 | -51.34 | 7.36 | 10.76 | -47.94 | -25.00 | 22.94 | H |
| 10386.50 | -44.44 | 10.68 | 11.99 | -43.13 | -25.00 | 18.13 | H |
| 12967.50 | -39.51 | 12.53 | 12.73 | -39.31 | -25.00 | 14.31 | V |
| 15545.00 | -39.05 | 16.79 | 15.60 | -40.24 | -25.00 | 15.24 | H |
| 17981.00 | -27.38 | 19.98 | 13.44 | -33.92 | -25.00 | 8.92 | V |

**LTE Band 41, 5MHz, QPSK, Channel 41565**

| Frequency (MHz) | $P_{Mea}$ (dBm) | $P_{pl}$ (dB) | AntennaGain (dBi) | Peak EIRP (dBm) | Limit (dBm) | Margin (dB) | Polorization |
|---|---|---|---|---|---|---|---|
| 5385.50 | -61.51 | 5.43 | 11.63 | -55.31 | -25.00 | 30.31 | H |
| 8062.50 | -51.28 | 7.86 | 11.12 | -48.02 | -25.00 | 23.02 | H |
| 10744.50 | -43.01 | 9.85 | 12.14 | -40.72 | -25.00 | 15.72 | H |
| 13428.50 | -36.83 | 12.53 | 12.37 | -36.99 | -25.00 | 11.99 | V |
| 16128.50 | -36.18 | 17.03 | 15.10 | -38.11 | -25.00 | 13.11 | H |
| 17983.50 | -27.31 | 19.97 | 13.43 | -33.85 | -25.00 | 8.85 | H |

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**LTE Band 66, 1.4MHz QPSK, Channel 131979**

| Frequency (MHz) | $P_{Mea}$ (dBm) | $P_{pl}$ (dB) | AntennaGain (dBi) | Peak EIRP (dBm) | Limit (dBm) | Margin (dB) | Polorization |
|---|---|---|---|---|---|---|---|
| 8558.50 | -59.73 | 8.50 | 11.20 | -57.03 | -13.00 | 44.03 | H |
| 10254.00 | -53.75 | 10.89 | 11.90 | -52.74 | -13.00 | 39.74 | V |
| 11970.00 | -51.43 | 12.31 | 13.04 | -50.70 | -13.00 | 37.70 | V |
| 13698.00 | -49.11 | 13.05 | 12.20 | -49.96 | -13.00 | 36.96 | H |
| 15397.50 | -51.02 | 14.88 | 15.40 | -50.50 | -13.00 | 37.50 | H |
| 17107.50 | -40.88 | 18.45 | 13.49 | -45.84 | -13.00 | 32.84 | H |

**LTE Band 66, 1.4MHz, QPSK, Channel 132322**

| Frequency (MHz) | $P_{Mea}$ (dBm) | $P_{pl}$ (dB) | AntennaGain (dBi) | Peak EIRP (dBm) | Limit (dBm) | Margin (dB) | Polorization |
|---|---|---|---|---|---|---|---|
| 8738.50 | -58.72 | 7.86 | 11.10 | -55.48 | -13.00 | 42.48 | V |
| 10473.00 | -53.78 | 10.36 | 11.93 | -52.21 | -13.00 | 39.21 | H |
| 12207.00 | -52.26 | 12.17 | 13.40 | -51.03 | -13.00 | 38.03 | H |
| 13949.50 | -44.02 | 14.69 | 12.15 | -46.56 | -13.00 | 33.56 | H |
| 15690.50 | -49.41 | 16.68 | 15.51 | -50.58 | -13.00 | 37.58 | V |
| 17452.00 | -36.94 | 19.26 | 13.05 | -43.15 | -13.00 | 30.15 | H |

**LTE Band 66, 1.4MHz, QPSK, Channel 132665**

| Frequency (MHz) | $P_{Mea}$ (dBm) | $P_{pl}$ (dB) | AntennaGain (dBi) | Peak EIRP (dBm) | Limit (dBm) | Margin (dB) | Polorization |
|---|---|---|---|---|---|---|---|
| 8895.50 | -57.70 | 8.04 | 11.58 | -54.16 | -13.00 | 41.16 | V |
| 10684.50 | -53.77 | 10.01 | 12.08 | -51.70 | -13.00 | 38.70 | V |
| 12459.50 | -49.29 | 12.87 | 13.52 | -48.64 | -13.00 | 35.64 | V |
| 14234.50 | -48.12 | 13.13 | 12.63 | -48.62 | -13.00 | 35.62 | H |
| 16006.00 | -47.49 | 17.50 | 15.38 | -49.61 | -13.00 | 36.61 | V |
| 17792.50 | -37.50 | 19.55 | 13.49 | -43.56 | -13.00 | 30.56 | H |

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**LTE Band71 _5MHz_CH133147_QPSK**

| Frequency (MHz) | $P_{Mea}$ (dBm) | $P_{pl}$ (dB) | Antenna Gain(dBi) | Correction (dB) | Peak ERP (dBm) | Limit (dBm) | Margin (dB) | Polarization |
|---|---|---|---|---|---|---|---|---|
| 2009.00 | -56.88 | 3.35 | 7.70 | 2.15 | -54.68 | -13.00 | 41.68 | V |
| 2675.50 | -52.30 | 4.94 | 10.20 | 2.15 | -49.19 | -13.00 | 36.19 | V |
| 4661.00 | -61.81 | 5.01 | 10.92 | 2.15 | -58.05 | -13.00 | 45.05 | V |
| 5330.50 | -60.61 | 6.26 | 11.74 | 2.15 | -57.28 | -13.00 | 44.28 | H |
| 6001.00 | -58.02 | 6.21 | 10.69 | 2.15 | -55.69 | -13.00 | 42.69 | V |
| 6667.00 | -55.33 | 6.28 | 10.43 | 2.15 | -53.33 | -13.00 | 40.33 | V |

**LTE Band71 _5MHz_CH133297_QPSK**

| Frequency (MHz) | $P_{Mea}$ (dBm) | $P_{pl}$ (dB) | Antenna Gain(dBi) | Correction (dB) | Peak ERP (dBm) | Limit (dBm) | Margin (dB) | Polarization |
|---|---|---|---|---|---|---|---|---|
| 2055.50 | -56.54 | 3.60 | 7.71 | 2.15 | -54.58 | -13.00 | 41.58 | V |
| 2725.50 | -51.80 | 4.88 | 10.25 | 2.15 | -48.58 | -13.00 | 35.58 | H |
| 4070.00 | -60.76 | 4.35 | 10.04 | 2.15 | -57.22 | -13.00 | 44.22 | V |
| 5454.50 | -60.99 | 5.36 | 11.35 | 2.15 | -57.15 | -13.00 | 44.15 | H |
| 6135.50 | -57.71 | 6.13 | 10.67 | 2.15 | -55.32 | -13.00 | 42.32 | V |
| 6819.50 | -54.24 | 6.37 | 10.36 | 2.15 | -52.40 | -13.00 | 39.40 | V |

**LTE Band 71_5MHz_CH133447_QPSK**

| Frequency (MHz) | $P_{Mea}$ (dBm) | $P_{pl}$ (dB) | Antenna Gain(dBi) | Correction (dB) | Peak ERP (dBm) | Limit (dBm) | Margin (dB) | Polarization |
|---|---|---|---|---|---|---|---|---|
| 2076.50 | -56.38 | 3.53 | 7.75 | 2.15 | -54.31 | -13.00 | 41.31 | V |
| 2792.50 | -51.91 | 4.91 | 10.38 | 2.15 | -48.59 | -13.00 | 35.59 | H |
| 4878.50 | -60.34 | 4.75 | 10.96 | 2.15 | -56.28 | -13.00 | 43.28 | H |
| 5565.00 | -59.64 | 5.38 | 11.23 | 2.15 | -55.94 | -13.00 | 42.94 | H |
| 6247.50 | -56.93 | 6.16 | 10.79 | 2.15 | -54.45 | -13.00 | 41.45 | H |
| 6947.50 | -54.55 | 6.47 | 10.40 | 2.15 | -52.77 | -13.00 | 39.77 | H |

Note: Peak EIRP (dBm) = PMea(dBm) - Path Loss(dB) + Antenna Gain(dBi)

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## A.3 Frequency Stability

### A.3.1 Method of Measurement

Frequency stability is a measure of the frequency drift due to temperature and supply voltage variations, with reference to the frequency measured at +20 °C and rated supply voltage. Two reference points are established at the applicable unwanted emissions limit using a RBW equal to the RBW required by the unwanted emissions specification of the applicable regulatory standard. These reference points measured using the lowest and highest channel of operation shall be identified as $F_L$ and $F_H$ respectively.

In order to measure the carrier frequency under the condition of AFC lock, it is necessary to make measurements with the EUT in a “call mode”. This is accomplished with the use of CMW500.

1. Measure the carrier frequency at room temperature.
2. Subject the EUT to overnight soak at -30℃.
3. With the EUT, powered via nominal voltage, connected to the CMW500, and in a simulated call on middle channel for each LTE band, measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.
4. Repeat the above measurements at 10℃ increments from -30℃ to +50℃. Allow at least 1.5 hours at each temperature, unpowered, before making measurements.
5. Re-measure carrier frequency at room temperature with nominal voltage. Vary supply voltage from minimum voltage to maximum voltage, in 0.1Volt increments re-measuring carrier frequency at each voltage. Pause at nominal voltage for 1.5 hours unpowered, to allow any self-heating to stabilize, before continuing.
6. Subject the EUT to overnight soak at +50℃.
7. With the EUT, powered via nominal voltage, connected to the CMW500 and in a simulated call on the center channel, measure the carrier frequency. These measurements should be made within 2 minutes of Powering up the EUT, to prevent significant self-warming.
8. Repeat the above measurements at 10 ℃ decrements from +50℃ to -30℃. Allow at least 1.5 hours at each temperature, unpowered, before making measurements.
9. At all temperature levels hold the temperature to +/- 0.5℃ during the measurement procedure.

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. As this transceiver is considered "Hand carried, battery powered equipment" Section 2.1055(d)(2) applies. This requires that the lower voltage for frequency stability testing be specified by the manufacturer. This transceiver is specified to operate with an input voltage of the lower, higher and nominal voltage. Operation above or below these voltage limits is prohibited by transceiver software in order to prevent improper operation as well as to protect components from overstress.

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### A.3.2 Measurement results

**LTE band 7, 20MHz bandwidth QPSK(worst case of all bandwidths)**

**Frequency Error vs Temperature**

| Temperature(℃) | Voltage(V) | FL(MHz) | FH(MHz) | Offset(Hz) | Frequency error(ppm) |
|---|---|---|---|---|---|
| 20 | 3.8 | 2500.620 | 2569.380 | | |
| 50 | | | | -1.13 | 0.0004 |
| 40 | | | | -1.12 | 0.0004 |
| 30 | | | | -1.97 | 0.0008 |
| 10 | | | | -2.35 | 0.0009 |
| 0 | | | | -4.99 | 0.0020 |
| -10 | | | | -2.79 | 0.0011 |
| -20 | | | | -0.33 | 0.0001 |
| -30 | | | | -1.90 | 0.0008 |

**Frequency Error vs Voltage**

| Voltage(V) | Temperature(℃) | FL(MHz) | FH(MHz) | Offset(Hz) | Frequency error(ppm) |
|---|---|---|---|---|---|
| 3.45 | 20 | 2500.620 | 2569.380 | -4.86 | 0.0019 |
| 4.4 | | | | -3.53 | 0.0014 |

**LTE band 12, 10MHz bandwidth QPSK(worst case of all bandwidths)**

**Frequency Error vs Temperature**

| Temperature(℃) | Voltage(V) | FL(MHz) | FH(MHz) | Offset(Hz) | Frequency error(ppm) |
|---|---|---|---|---|---|
| 20 | 3.8 | 699.490 | 715.510 | | |
| 50 | | | | -0.63 | 0.0009 |
| 40 | | | | 0.07 | 0.0001 |
| 30 | | | | -0.86 | 0.0012 |
| 10 | | | | -0.74 | 0.0011 |
| 0 | | | | 0.12 | 0.0002 |
| -10 | | | | -0.06 | 0.0001 |
| -20 | | | | -0.11 | 0.0002 |
| -30 | | | | -0.39 | 0.0005 |

**Frequency Error vs Voltage**

| Voltage(V) | Temperature(℃) | FL(MHz) | FH(MHz) | Offset(Hz) | Frequency error(ppm) |
|---|---|---|---|---|---|
| 3.45 | 20 | 699.490 | 715.510 | -0.36 | 0.0005 |
| 4.4 | | | | -0.19 | 0.0003 |

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**LTE band 25, 20MHz bandwidth QPSK(worst case of all bandwidths)**

**Frequency Error vs Temperature**

| Temperature(℃) | Voltage(V) | FL(MHz) | FH(MHz) | Offset(Hz) | Frequency error(ppm) |
|---|---|---|---|---|---|
| 20 | 3.8 | 1850.860 | 1914.130 | | |
| 50 | | | | -0.96 | 0.0005 |
| 40 | | | | 0.79 | 0.0004 |
| 30 | | | | -1.46 | 0.0008 |
| 10 | | | | -2.26 | 0.0012 |
| 0 | | | | -1.16 | 0.0006 |
| -10 | | | | -0.69 | 0.0004 |
| -20 | | | | 1.33 | 0.0007 |
| -30 | | | | 0.54 | 0.0003 |

**Frequency Error vs Voltage**

| Voltage(V) | Temperature(℃) | FL(MHz) | FH(MHz) | Offset(Hz) | Frequency error(ppm) |
|---|---|---|---|---|---|
| 3.45 | 20 | 1850.860 | 1914.130 | 0.04 | 0.0000 |
| 4.4 | | | | 1.55 | 0.0008 |

**LTE band 26(824MHz~849MHz), 15MHz bandwidth QPSK(worst case of all bandwidths)**

**Frequency Error vs Temperature**

| Temperature(℃) | Voltage(V) | FL(MHz) | FH(MHz) | Offset(Hz) | Frequency error(ppm) |
|---|---|---|---|---|---|
| 20 | 3.8 | 824.600 | 848.400 | | |
| 50 | | | | -1.65 | 0.0020 |
| 40 | | | | -1.00 | 0.0012 |
| 30 | | | | -1.80 | 0.0022 |
| 10 | | | | -1.00 | 0.0012 |
| 0 | | | | 0.13 | 0.0002 |
| -10 | | | | -0.77 | 0.0009 |
| -20 | | | | -1.26 | 0.0015 |
| -30 | | | | -0.79 | 0.0009 |

**Frequency Error vs Voltage**

| Voltage(V) | Temperature(℃) | FL(MHz) | FH(MHz) | Offset(Hz) | Frequency error(ppm) |
|---|---|---|---|---|---|
| 3.45 | 20 | 824.600 | 848.400 | -2.22 | 0.0027 |
| 4.4 | | | | -2.13 | 0.0025 |

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**LTE band 26(814MHz~824MHz), 10MHz bandwidth QPSK(worst case of all bandwidths)**

**Frequency Error vs Temperature**

| Temperature(℃) | Voltage(V) | FL(MHz) | FH(MHz) | Offset(Hz) | Frequency error(ppm) |
|---|---|---|---|---|---|
| 20 | 3.8 | 814.440 | 823.570 | | |
| 50 | | | | 0.09 | 0.0001 |
| 40 | | | | 1.43 | 0.0017 |
| 30 | | | | 1.83 | 0.0022 |
| 10 | | | | 1.82 | 0.0022 |
| 0 | | | | 2.42 | 0.0030 |
| -10 | | | | 1.80 | 0.0022 |
| -20 | | | | 1.47 | 0.0018 |
| -30 | | | | 1.79 | 0.0022 |

**Frequency Error vs Voltage**

| Voltage(V) | Temperature(℃) | FL(MHz) | FH(MHz) | Offset(Hz) | Frequency error(ppm) |
|---|---|---|---|---|---|
| 3.45 | 20 | 814.440 | 823.570 | 2.86 | 0.0035 |
| 4.4 | | | | 1.56 | 0.0019 |

**LTE band 41, 20MHz bandwidth QPSK(worst case of all bandwidths)**

**Frequency Error vs Temperature**

| Temperature(℃) | Voltage(V) | FL(MHz) | FH(MHz) | Offset(Hz) | Frequency error(ppm) |
|---|---|---|---|---|---|
| 20 | 3.8 | 2496.500 | 2689.420 | | |
| 50 | | | | -1.15 | 0.0004 |
| 40 | | | | -1.89 | 0.0007 |
| 30 | | | | -1.05 | 0.0004 |
| 10 | | | | -1.05 | 0.0004 |
| 0 | | | | -1.20 | 0.0005 |
| -10 | | | | -1.60 | 0.0006 |
| -20 | | | | -1.35 | 0.0005 |
| -30 | | | | 0.49 | 0.0002 |

**Frequency Error vs Voltage**

| Voltage(V) | Temperature(℃) | FL(MHz) | FH(MHz) | Offset(Hz) | Frequency error(ppm) |
|---|---|---|---|---|---|
| 3.45 | 20 | 2496.500 | 2689.420 | -3.21 | 0.0012 |
| 4.4 | | | | -2.43 | 0.0009 |

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**LTE band 66, 20MHz bandwidth QPSK(worst case of all bandwidths)**

**Frequency Error vs Temperature**

| Temperature(℃) | Voltage(V) | FL(MHz) | FH(MHz) | Offset(Hz) | Frequency error(ppm) |
|---|---|---|---|---|---|
| 20 | 3.8 | 1710.850 | 1779.140 | | |
| 50 | | | | -0.59 | 0.0003 |
| 40 | | | | -0.50 | 0.0003 |
| 30 | | | | -0.50 | 0.0003 |
| 10 | | | | -0.04 | 0.0000 |
| 0 | | | | -0.89 | 0.0005 |
| -10 | | | | -1.05 | 0.0006 |
| -20 | | | | -1.57 | 0.0009 |
| -30 | | | | 0.06 | 0.0000 |

**Frequency Error vs Voltage**

| Voltage(V) | Temperature(℃) | FL(MHz) | FH(MHz) | Offset(Hz) | Frequency error(ppm) |
|---|---|---|---|---|---|
| 3.45 | 20 | 1710.850 | 1779.140 | -0.83 | 0.0005 |
| 4.4 | | | | -0.63 | 0.0004 |

**LTE band 71, 20MHz bandwidth QPSK(worst case of all bandwidths)**

**Frequency Error vs Temperature**

| Temperature(℃) | Voltage(V) | FL(MHz) | FH(MHz) | Offset(Hz) | Frequency error(ppm) |
|---|---|---|---|---|---|
| 20 | 3.8 | 663.880 | 697.140 | | |
| 50 | | | | 1.46 | 0.0021 |
| 40 | | | | 0.92 | 0.0013 |
| 30 | | | | 0.90 | 0.0013 |
| 10 | | | | 1.32 | 0.0019 |
| 0 | | | | 0.74 | 0.0011 |
| -10 | | | | 1.46 | 0.0021 |
| -20 | | | | 1.55 | 0.0023 |
| -30 | | | | 0.57 | 0.0008 |

**Frequency Error vs Voltage**

| Voltage(V) | Temperature(℃) | FL(MHz) | FH(MHz) | Offset(Hz) | Frequency error(ppm) |
|---|---|---|---|---|---|
| 3.45 | 20 | 663.880 | 697.140 | 0.92 | 0.0013 |
| 4.4 | | | | 1.83 | 0.0027 |

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## A.4 Occupied Bandwidth

ed bandwidth measurements are only provided for selected frequencies in order to reduce the amount of submitted data. Data were taken at the extreme and mid frequency. The table below lists the measured 99% BW. Spectrum analyzer plots are included on the following pages.
The measurement method is from ANSI C63.26:
a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be set wide enough to capture all modulation products including the emission skirts.
b) The nominal IF filter 3 dB bandwidth (RBW) shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set ≥ 3 × RBW.
c) Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation.
d) Set the detection mode to peak, and the trace mode to max-hold.

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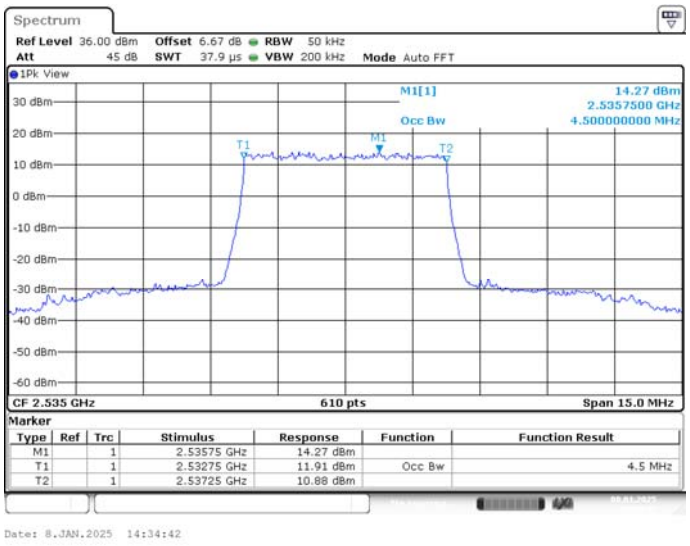
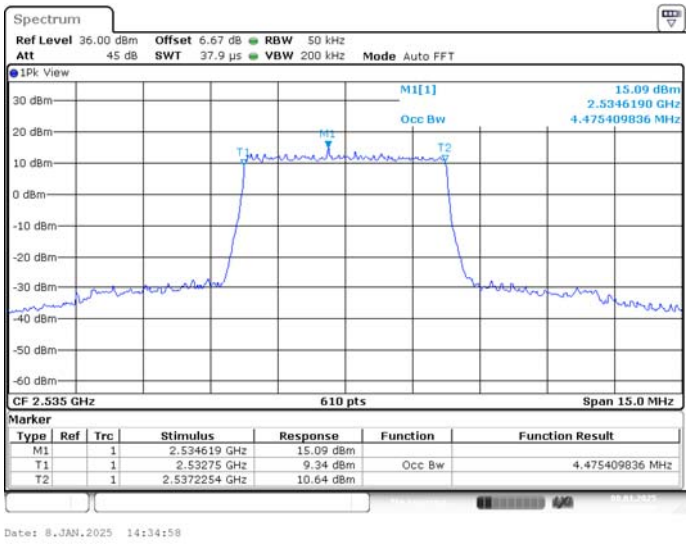
**LTE band 7,5MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 2535 | 4.500 | 4.475 |

**LTE band 7 , 5MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 7 , 5MHz Bandwidth,MID,16QAM (99% BW)**

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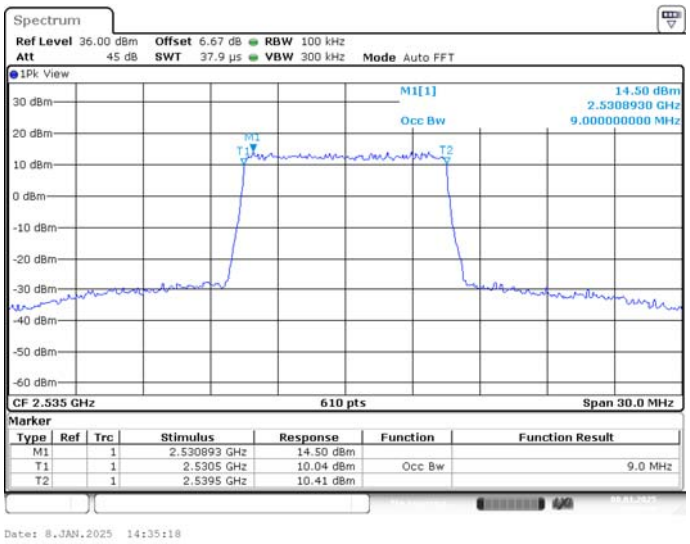
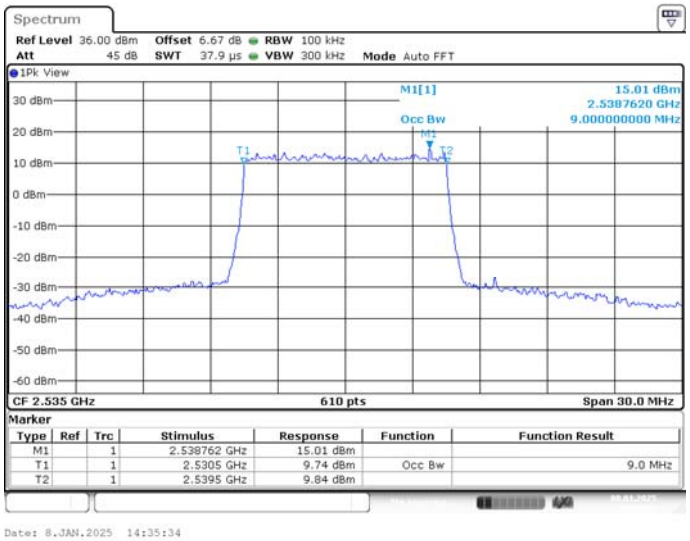
**LTE band 7,10MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 2535 | 9.000 | 9.000 |

**LTE band 7 , 10MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 7 , 10MHz Bandwidth,MID,16QAM (99% BW)**

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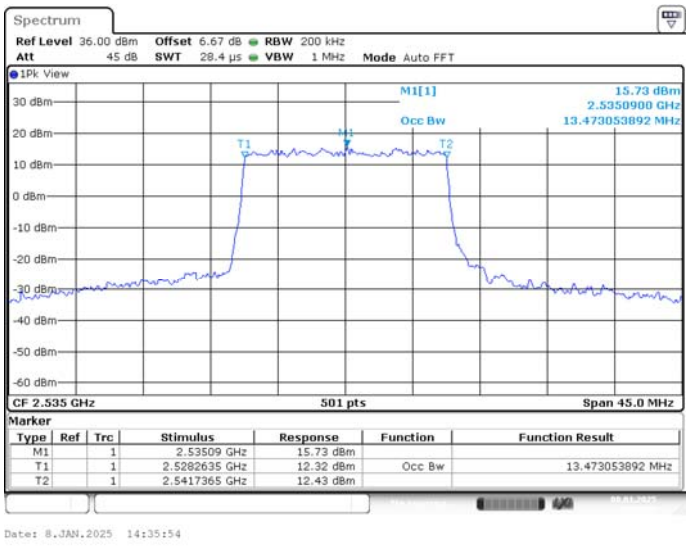
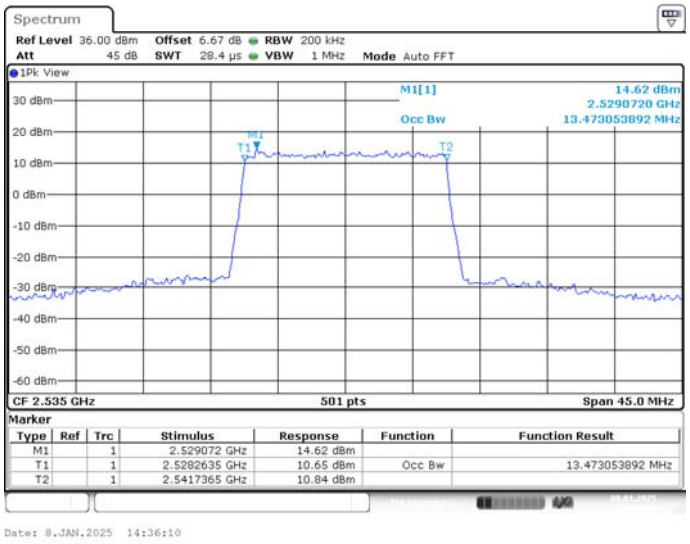
**LTE band 7,15MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 2535 | 13.473 | 13.473 |

**LTE band 7 , 15MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 7 , 15MHz Bandwidth,MID,16QAM (99% BW)**

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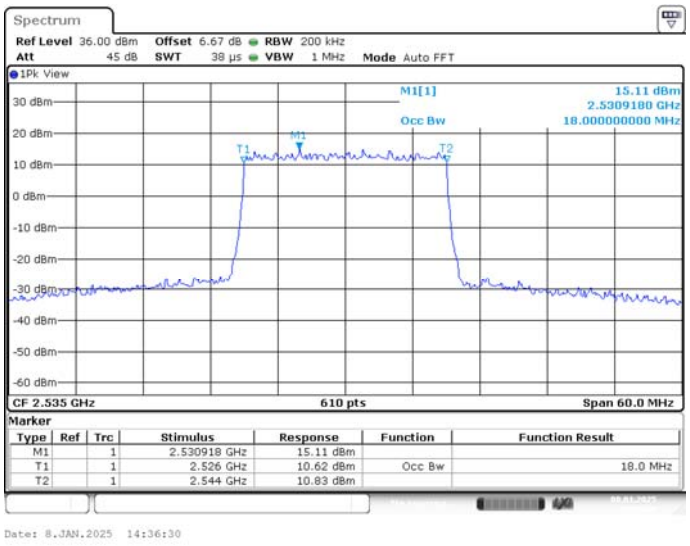
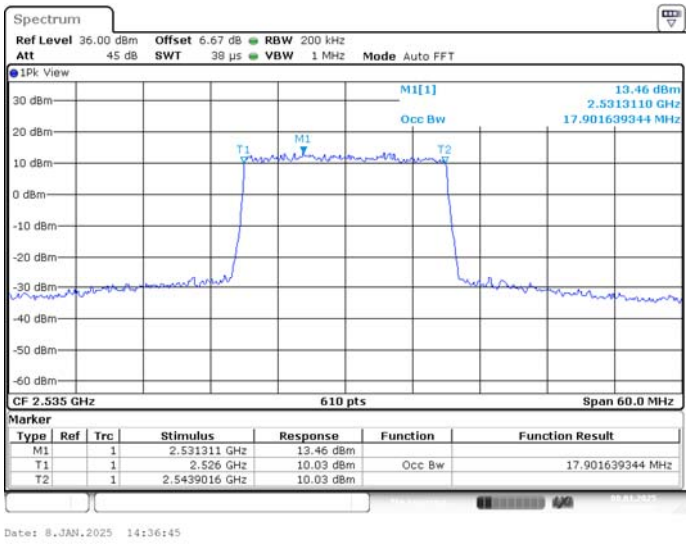
**LTE band 7,20MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 2535 | 18.000 | 17.902 |

**LTE band 7 , 20MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 7 , 20MHz Bandwidth,MID,16QAM (99% BW)**

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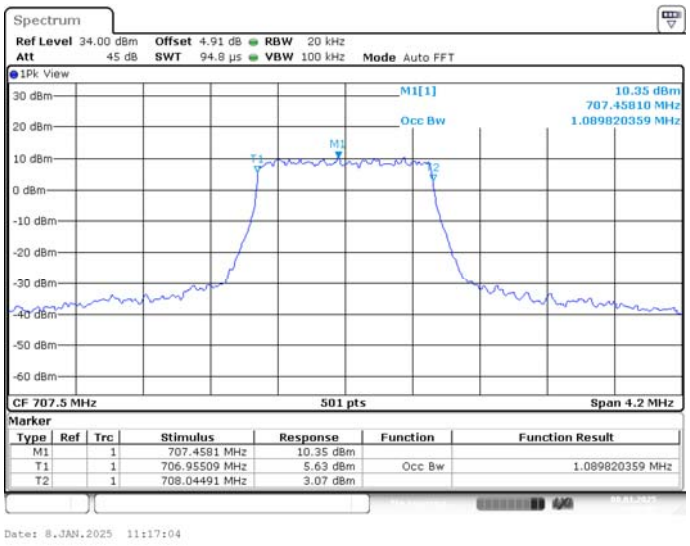
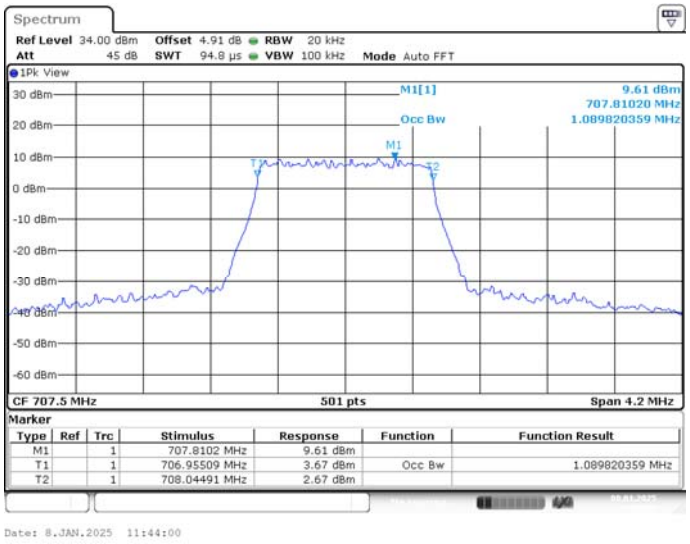
**LTE band 12,1.4MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 707.5 | 1.090 | 1.090 |

**LTE band 12 , 1.4MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 12 , 1.4MHz Bandwidth,MID,16QAM (99% BW)**

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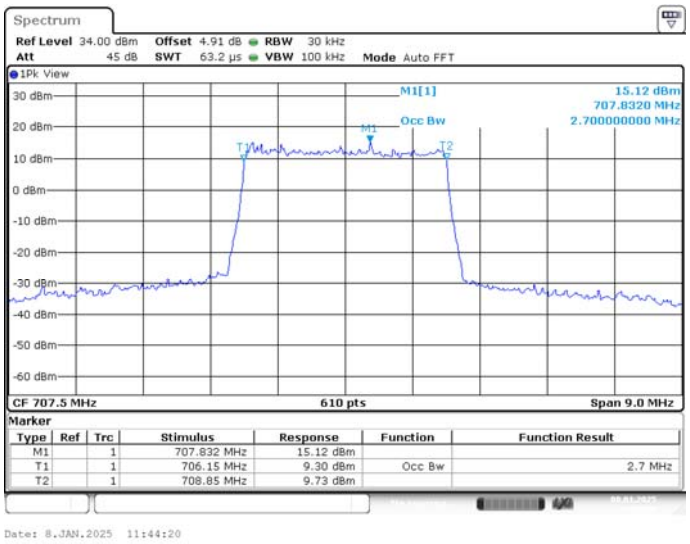
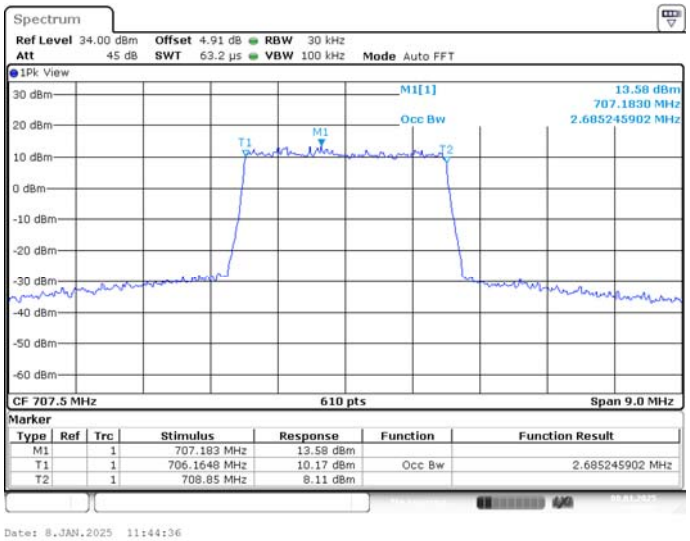
**LTE band 12,3MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 707.5 | 2.700 | 2.685 |

**LTE band 12 , 3MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 12 , 3MHz Bandwidth,MID,16QAM (99% BW)**

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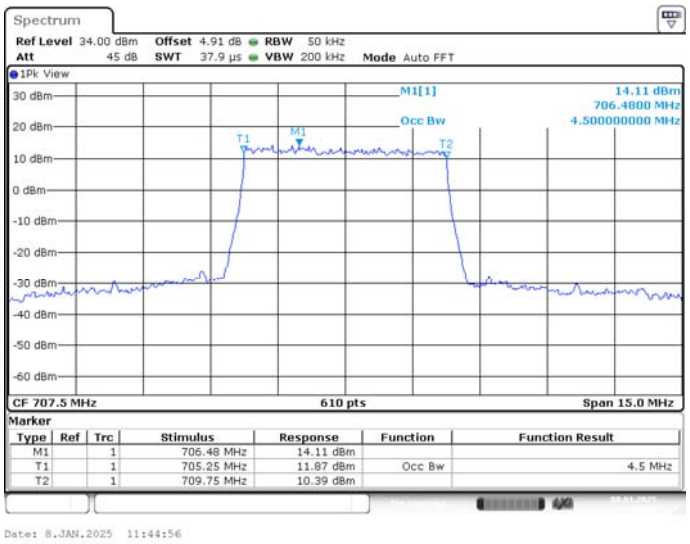
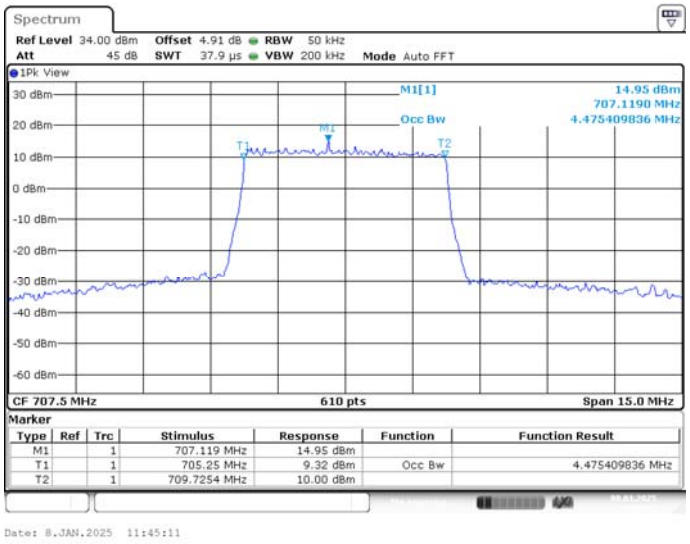
**LTE band 12,5MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 707.5 | 4.500 | 4.475 |

**LTE band 12 , 5MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 12 , 5MHz Bandwidth,MID,16QAM (99% BW)**

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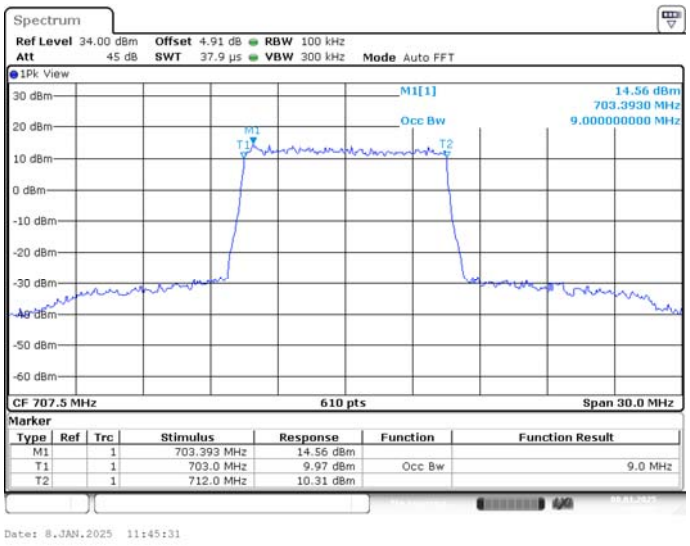
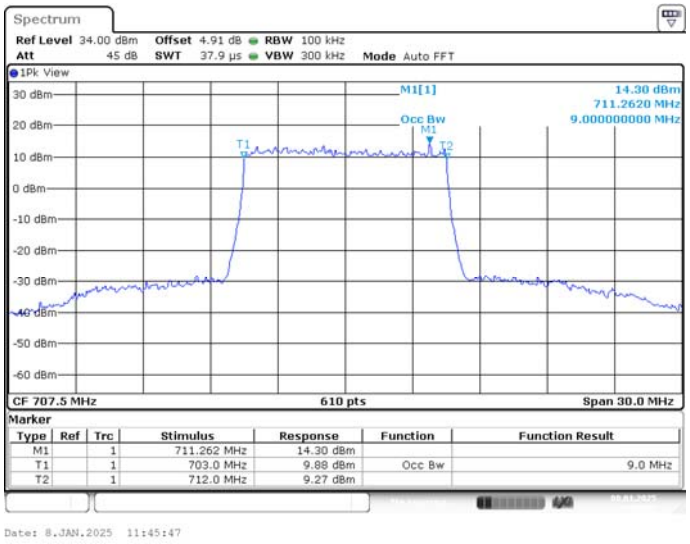
**LTE band 12,10MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 707.5 | 9.000 | 9.000 |

**LTE band 12 , 10MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 12 , 10MHz Bandwidth,MID,16QAM (99% BW)**

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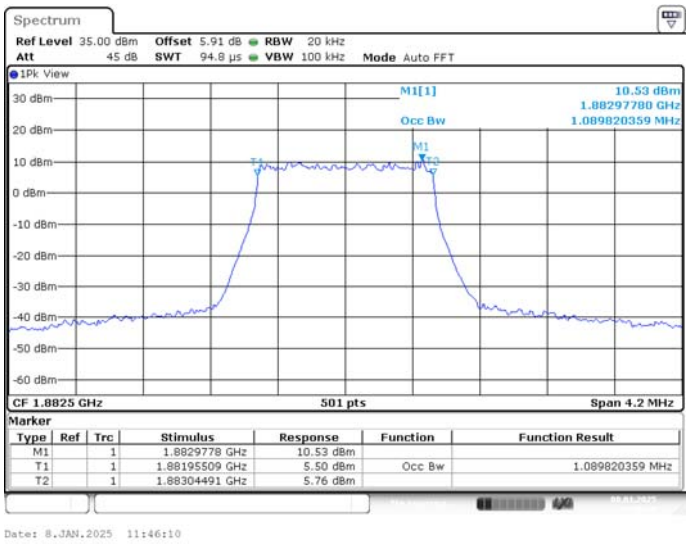
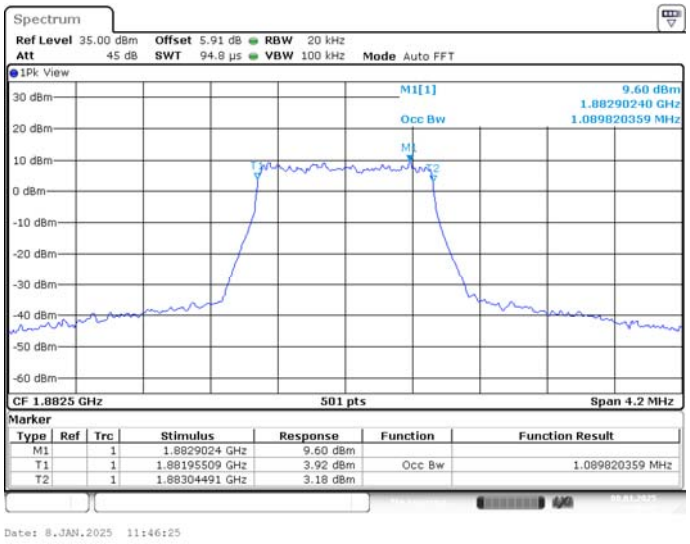
**LTE band 25,1.4MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 1882.5 | 1.090 | 1.090 |

**LTE band 25 , 1.4MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 25 , 1.4MHz Bandwidth,MID,16QAM (99% BW)**

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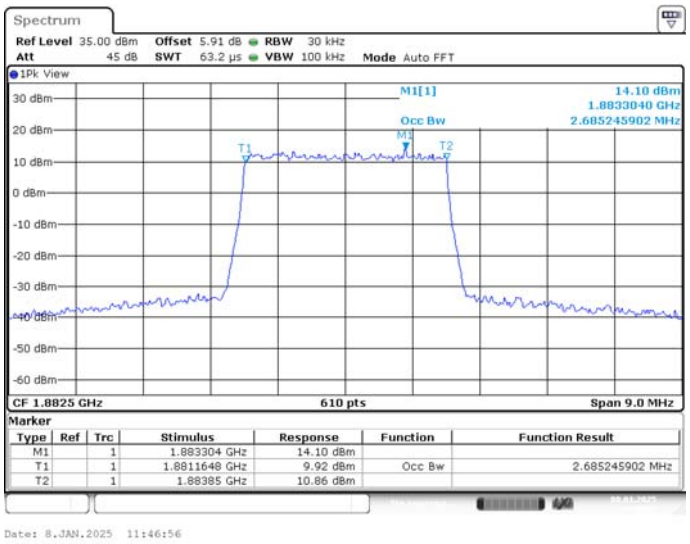
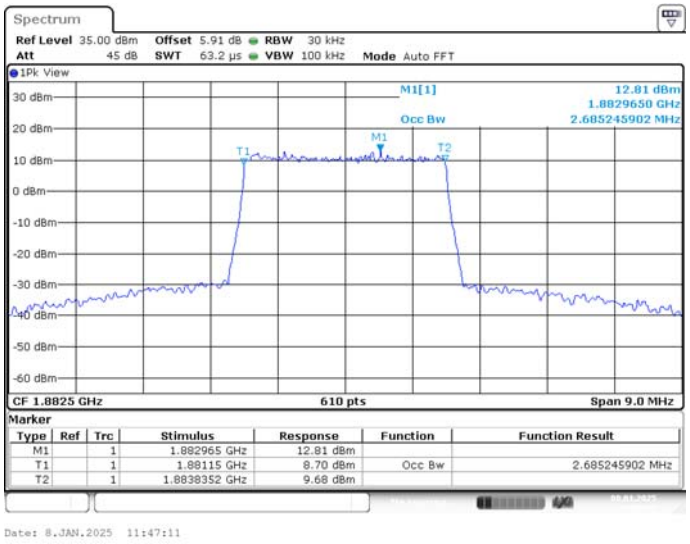
**LTE band 25,3MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 1882.5 | 2.685 | 2.685 |

**LTE band 25 , 3MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 25 , 3MHz Bandwidth,MID,16QAM (99% BW)**

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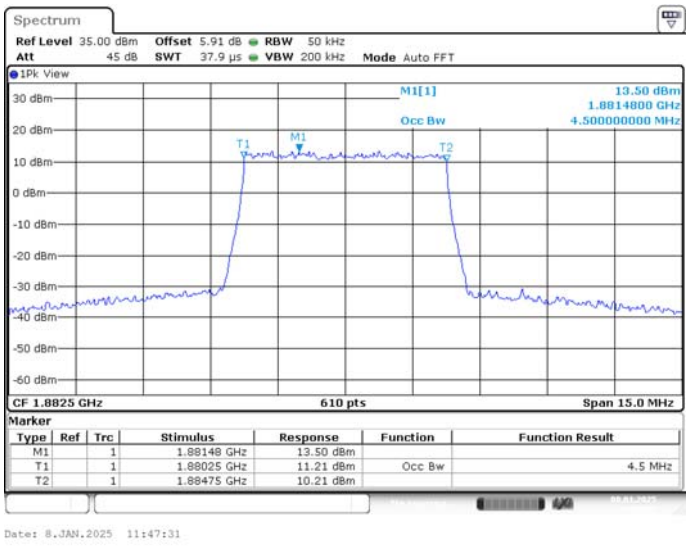
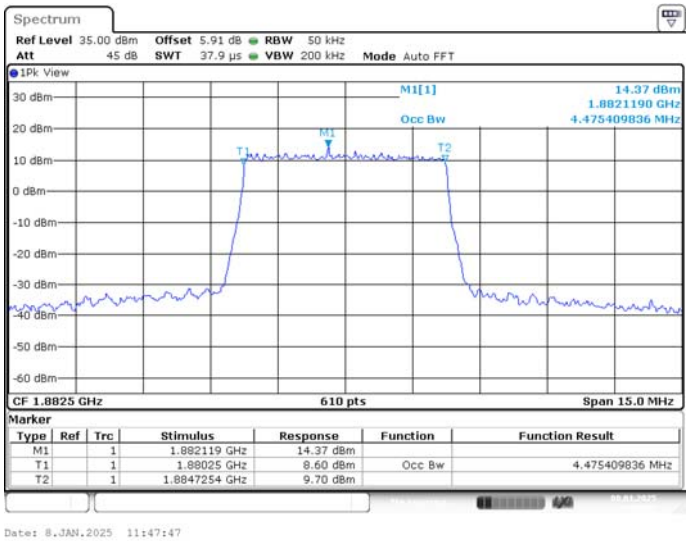
**LTE band 25,5MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 1882.5 | 4.500 | 4.475 |

**LTE band 25 , 5MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 25 , 5MHz Bandwidth,MID,16QAM (99% BW)**

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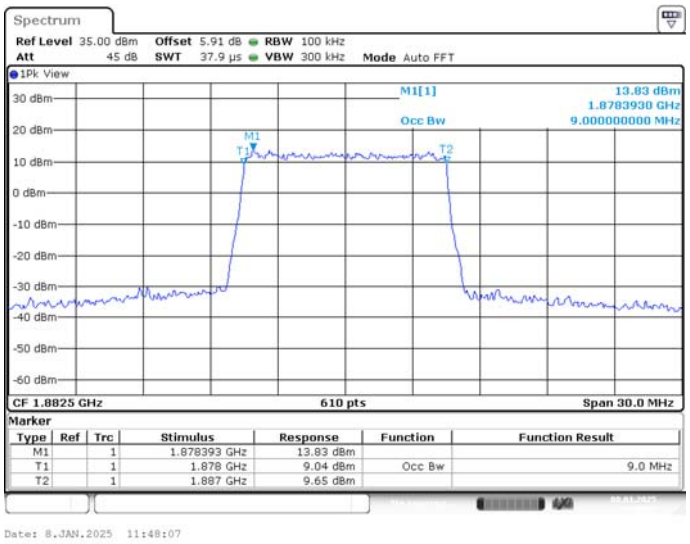
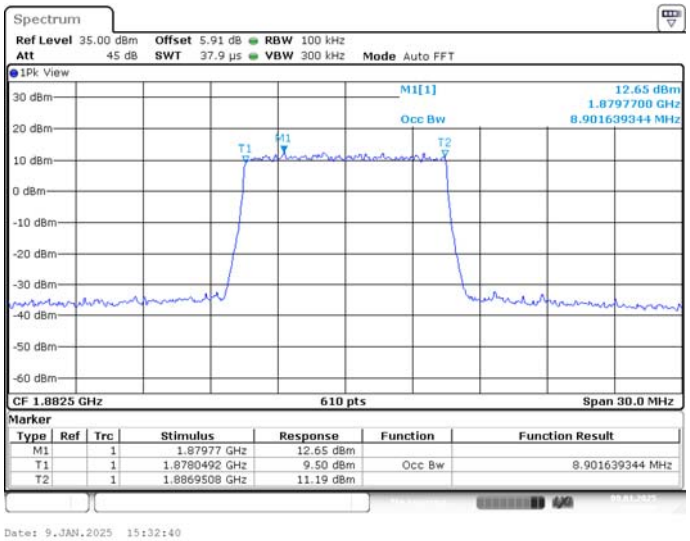
**LTE band 25,10MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 1882.5 | 9.000 | 8.902 |

**LTE band 25 , 10MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 25 , 10MHz Bandwidth,MID,16QAM (99% BW)**

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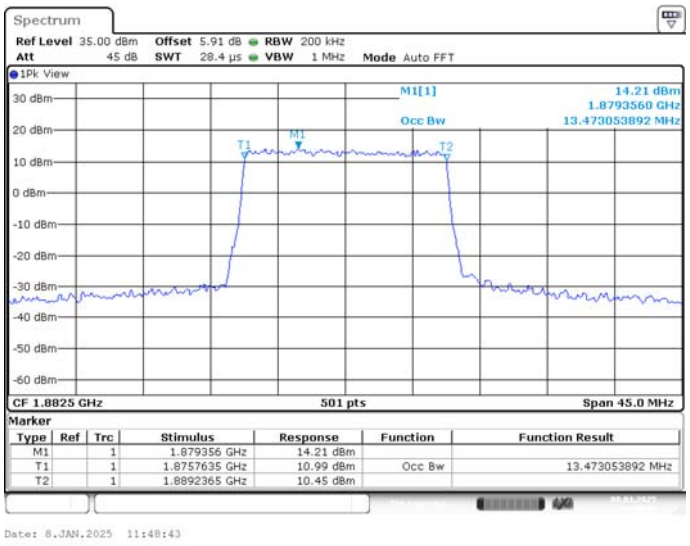
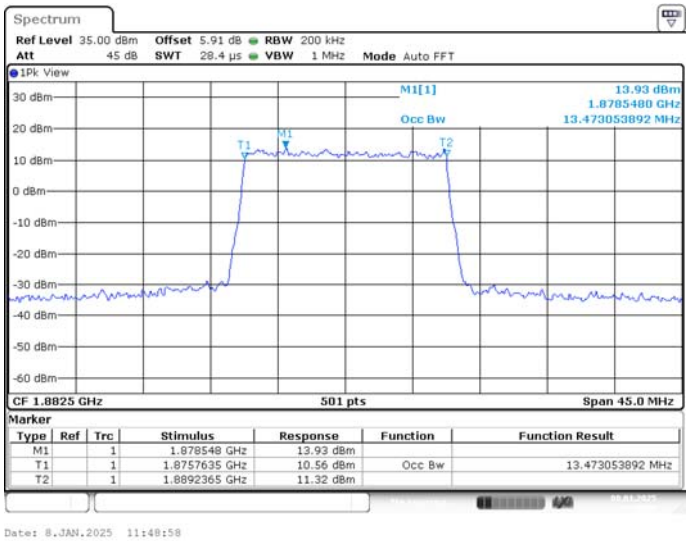
**LTE band 25,15MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 1882.5 | 13.473 | 13.473 |

**LTE band 25 , 15MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 25 , 15MHz Bandwidth,MID,16QAM (99% BW)**

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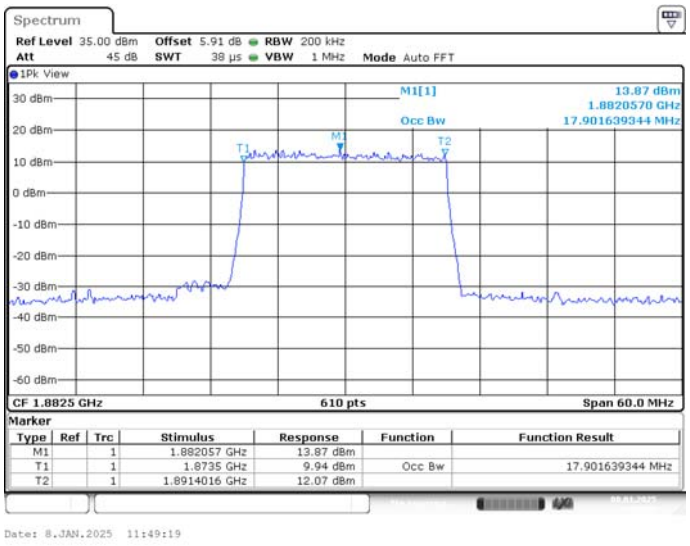
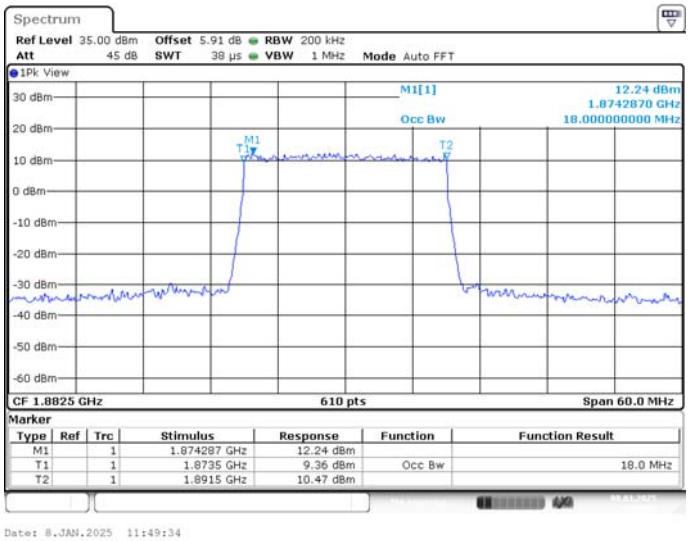
**LTE band 25,20MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 1882.5 | 17.902 | 18.000 |

**LTE band 25 , 20MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 25 , 20MHz Bandwidth,MID,16QAM (99% BW)**

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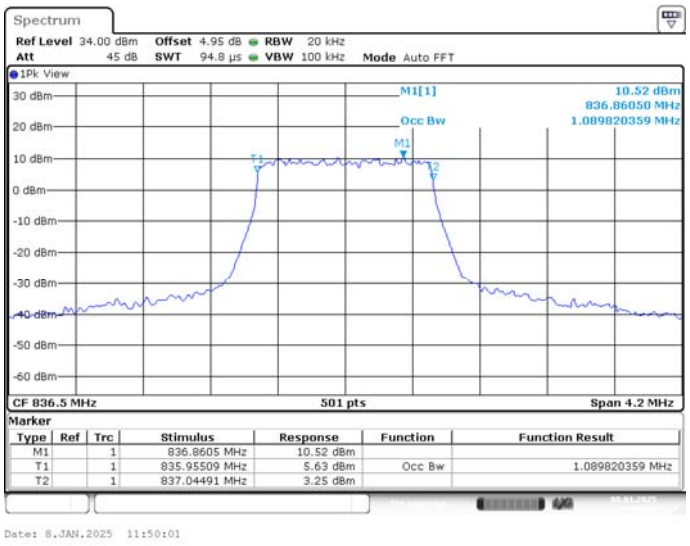
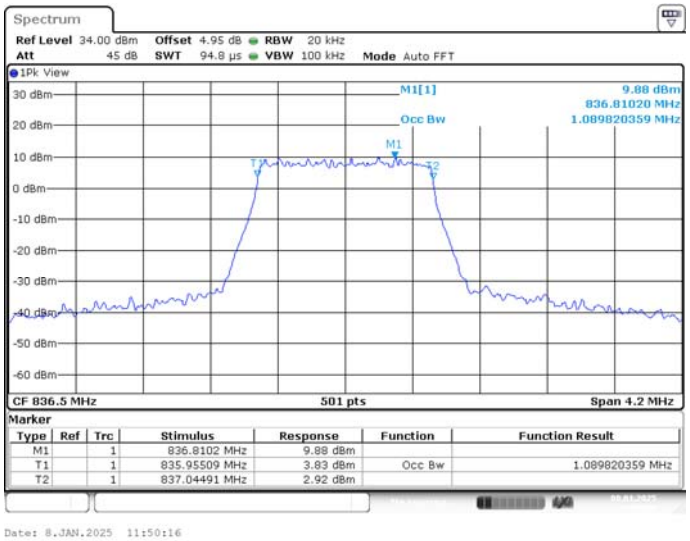
**LTE band 26(824MHz~849MHz),1.4MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 836.5 | 1.090 | 1.090 |

**LTE band 26 , 1.4MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 26 , 1.4MHz Bandwidth,MID,16QAM (99% BW)**

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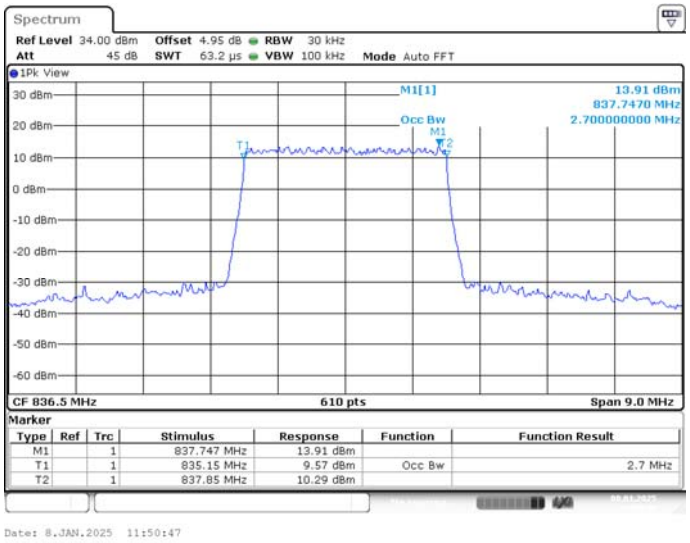
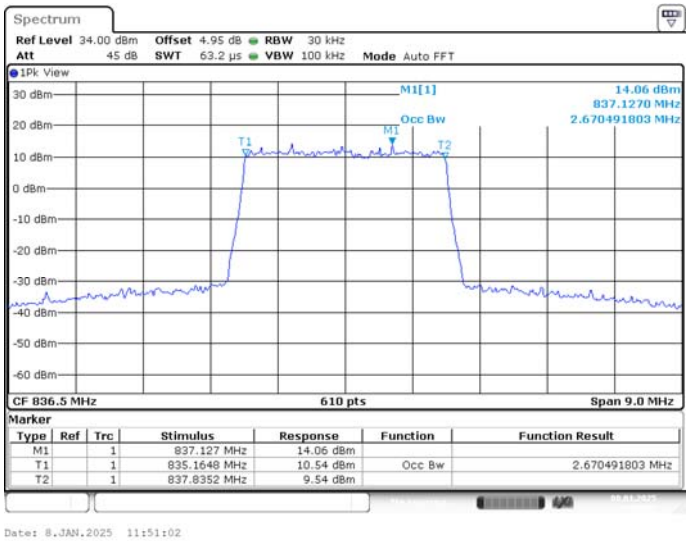
**LTE band 26(824MHz~849MHz),3MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 836.5 | 2.700 | 2.670 |

**LTE band 26 , 3MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 26 , 3MHz Bandwidth,MID,16QAM (99% BW)**

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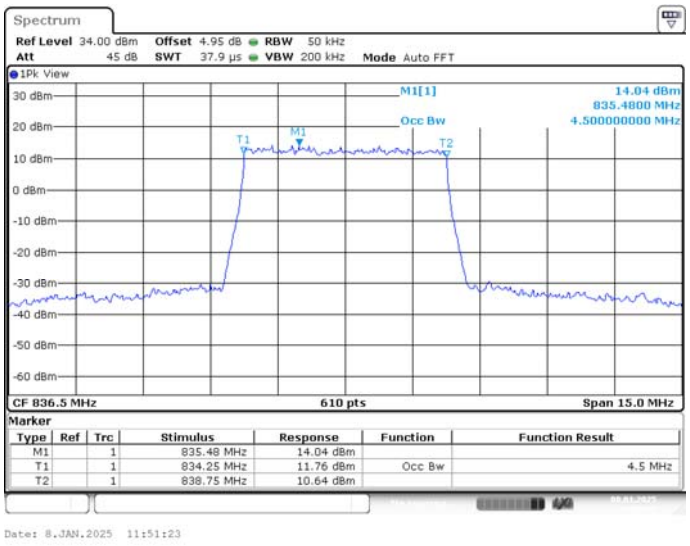
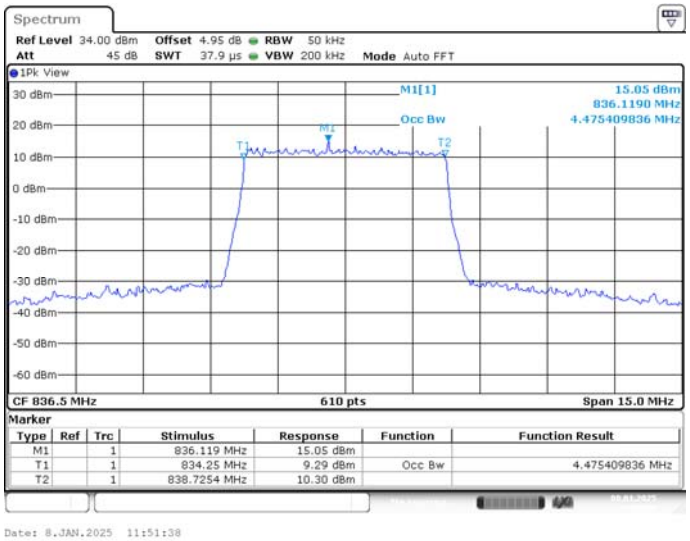
**LTE band 26(824MHz~849MHz),5MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 836.5 | 4.500 | 4.475 |

**LTE band 26 , 5MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 26 , 5MHz Bandwidth,MID,16QAM (99% BW)**

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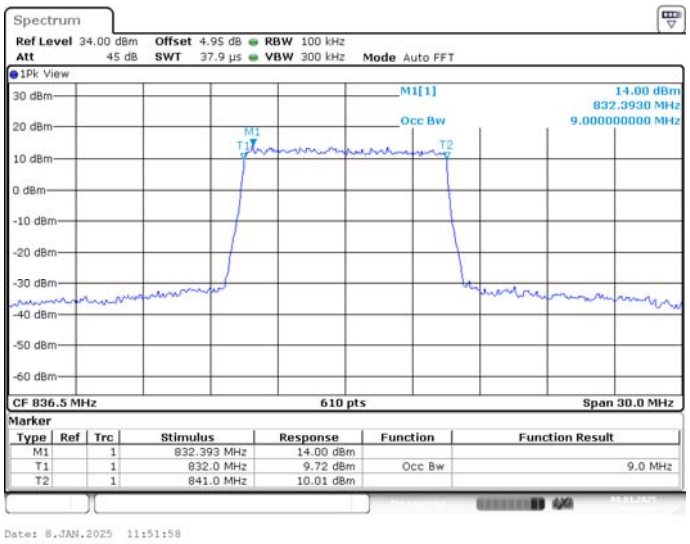
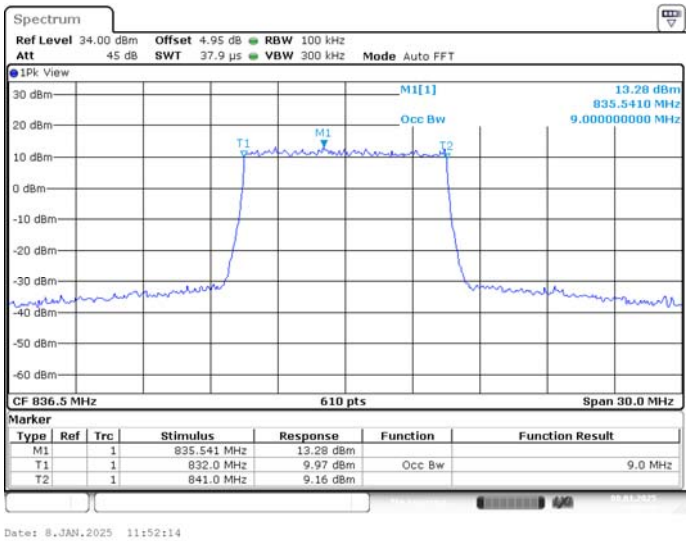
**LTE band 26(824MHz~849MHz),10MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 836.5 | 9.000 | 9.000 |

**LTE band 26 , 10MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 26 , 10MHz Bandwidth,MID,16QAM (99% BW)**

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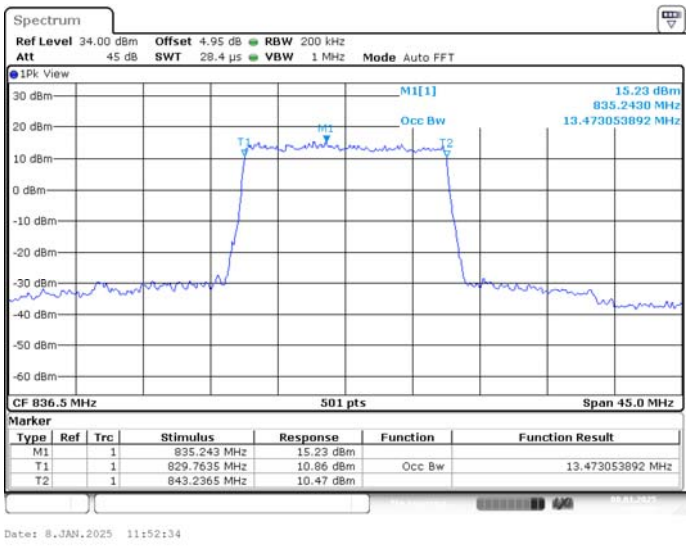
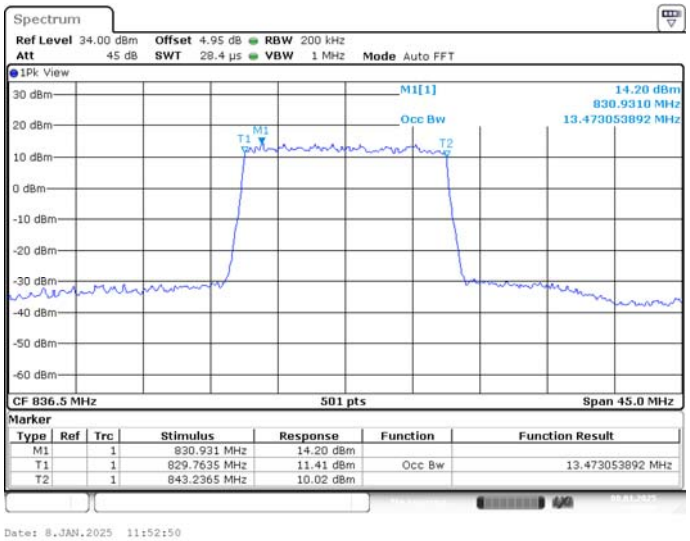
**LTE band 26(824MHz~849MHz),15MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 836.5 | 13.473 | 13.473 |

**LTE band 26 , 15MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 26 , 15MHz Bandwidth,MID,16QAM (99% BW)**

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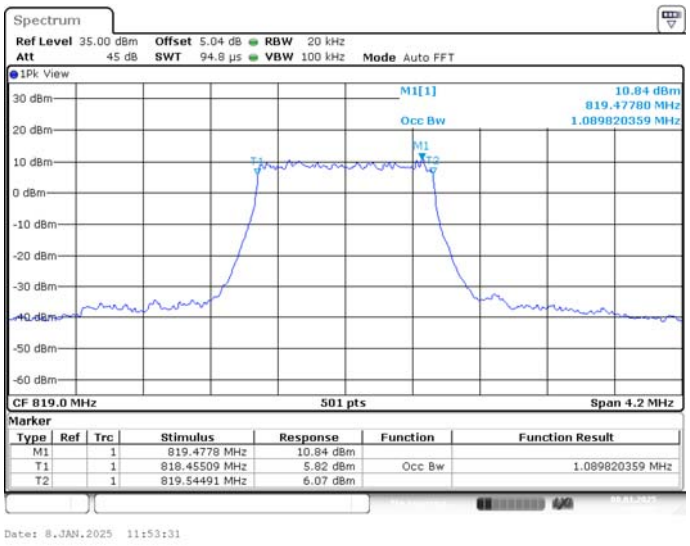
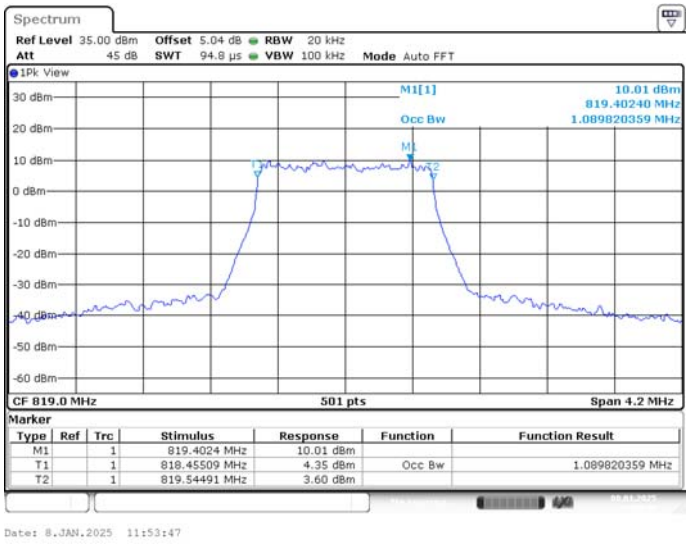
**LTE band 26(814MHz~824MHz),1.4MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 819 | 1.090 | 1.090 |

**LTE band 26 , 1.4MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 26 , 1.4MHz Bandwidth,MID,16QAM (99% BW)**

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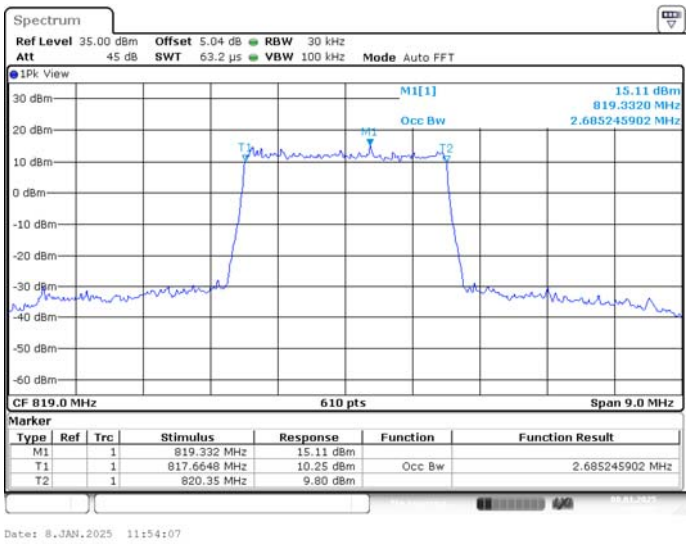
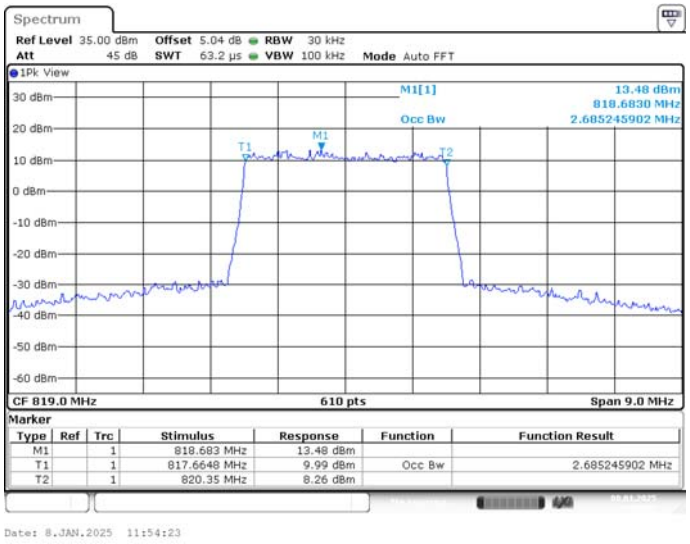
**LTE band 26(814MHz~824MHz),3MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 819 | 2.685 | 2.685 |

**LTE band 26 , 3MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 26 , 3MHz Bandwidth,MID,16QAM (99% BW)**

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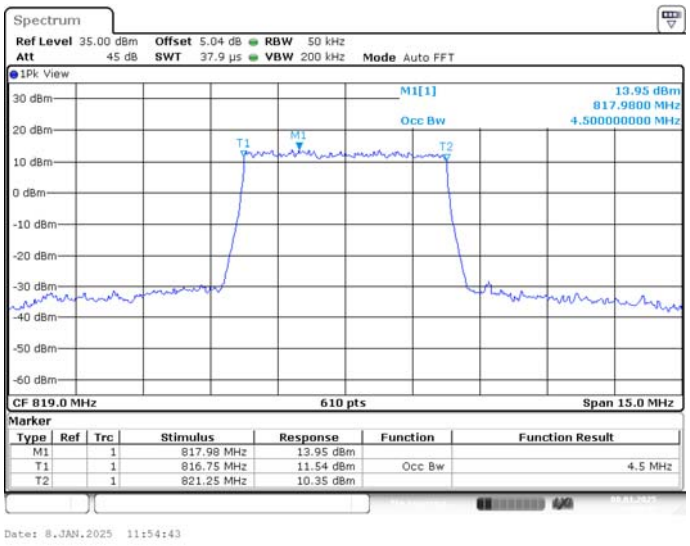
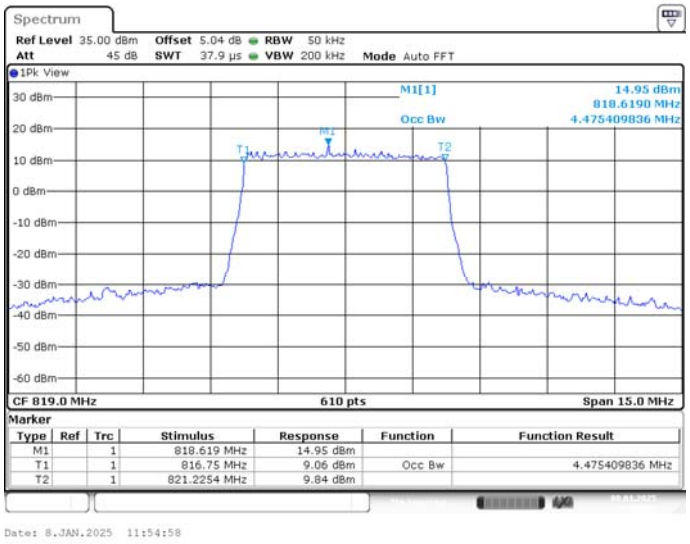
**LTE band 26(814MHz~824MHz),5MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 819 | 4.500 | 4.475 |

**LTE band 26 , 5MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 26 , 5MHz Bandwidth,MID,16QAM (99% BW)**

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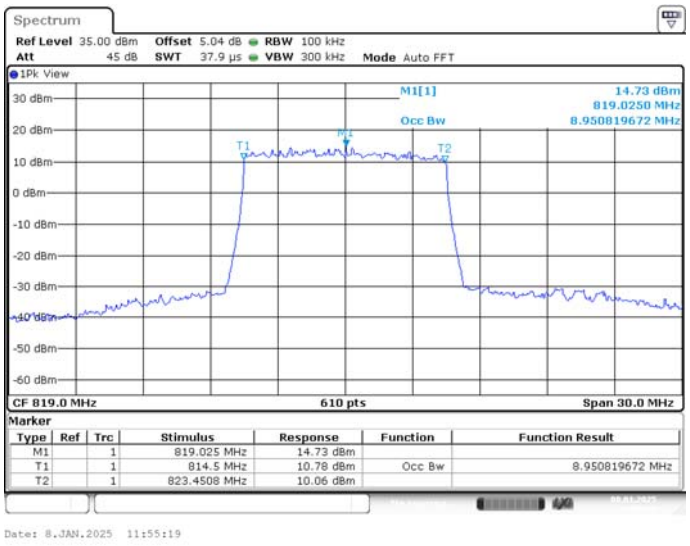
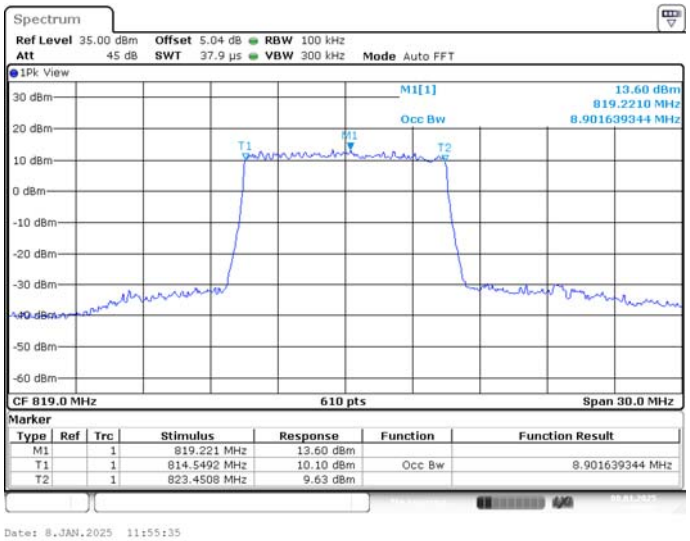
**LTE band 26(814MHz~824MHz),10MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 819 | 8.951 | 8.902 |

**LTE band 26 , 10MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 26 , 10MHz Bandwidth,MID,16QAM (99% BW)**

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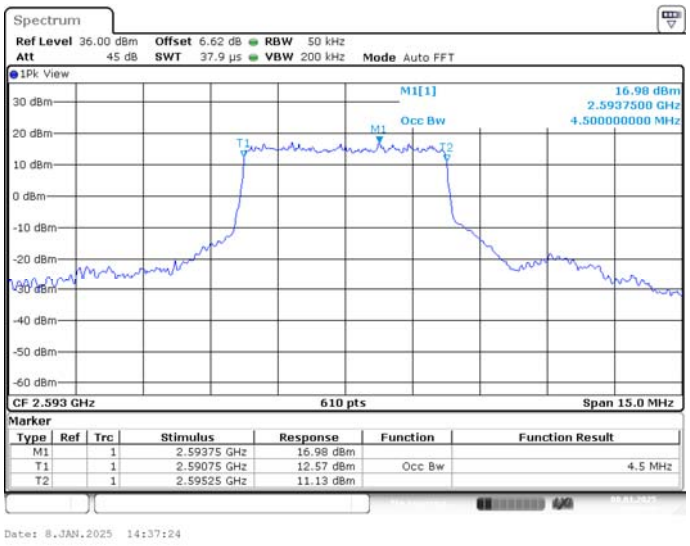
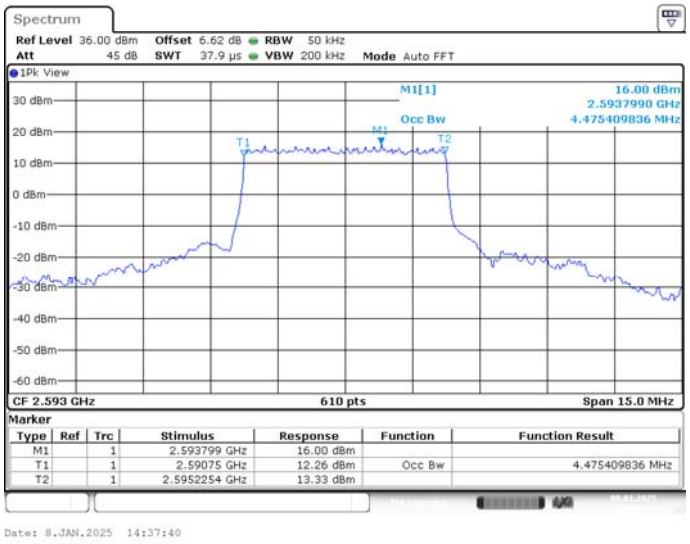
**LTE band 41,5MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 2593 | 4.500 | 4.475 |

**LTE band 41 , 5MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 41 , 5MHz Bandwidth,MID,16QAM (99% BW)**

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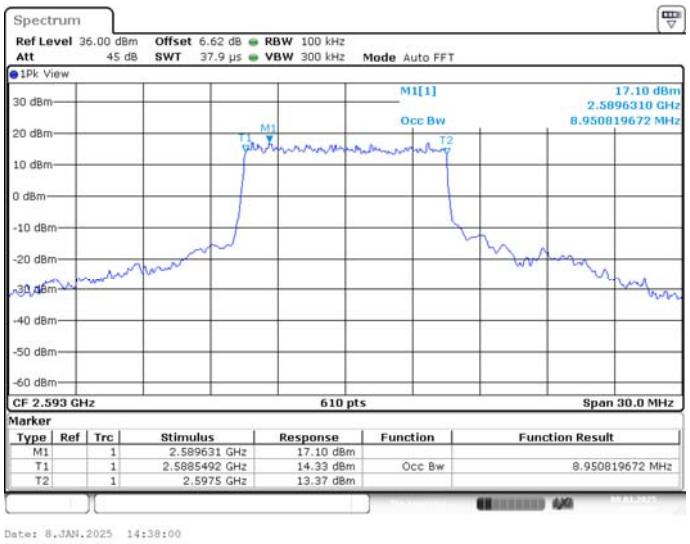
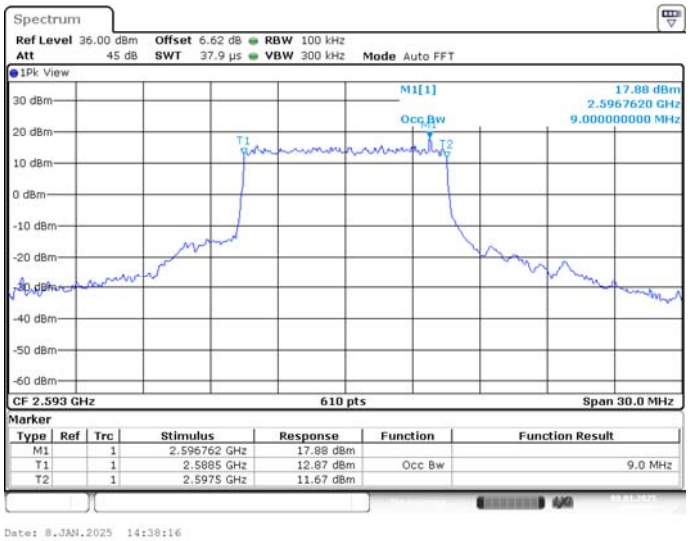
**LTE band 41,10MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 2593 | 8.951 | 9.000 |

**LTE band 41 , 10MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 41 , 10MHz Bandwidth,MID,16QAM (99% BW)**

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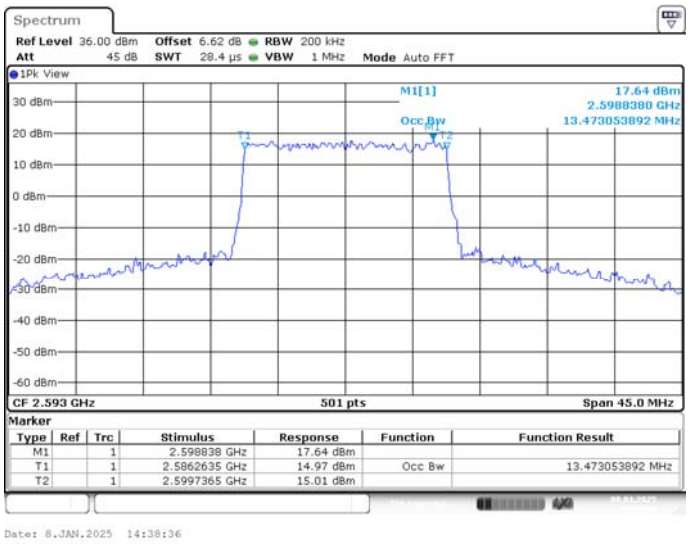
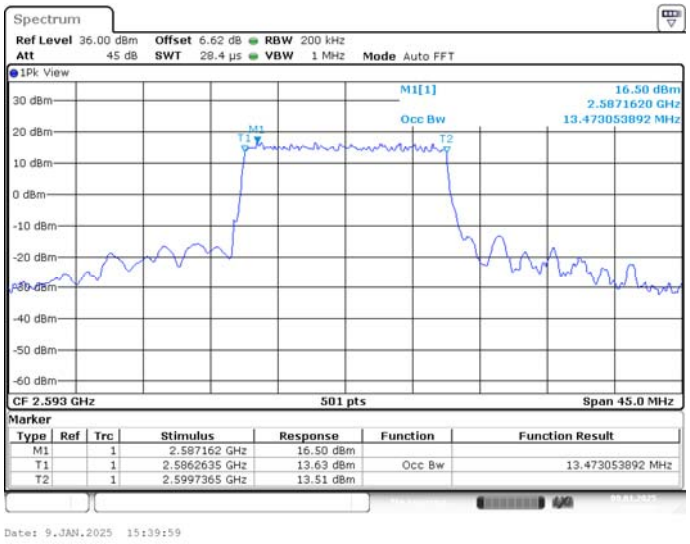
**LTE band 41,15MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 2593 | 13.473 | 13.473 |

**LTE band 41 , 15MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 41 , 15MHz Bandwidth,MID,16QAM (99% BW)**

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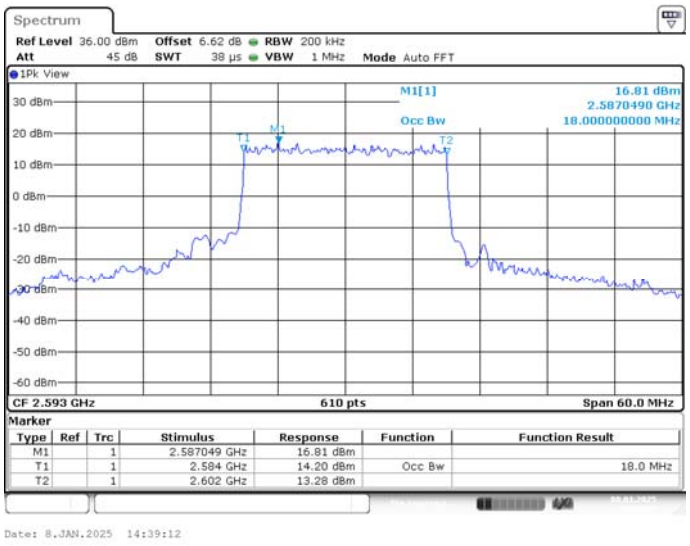
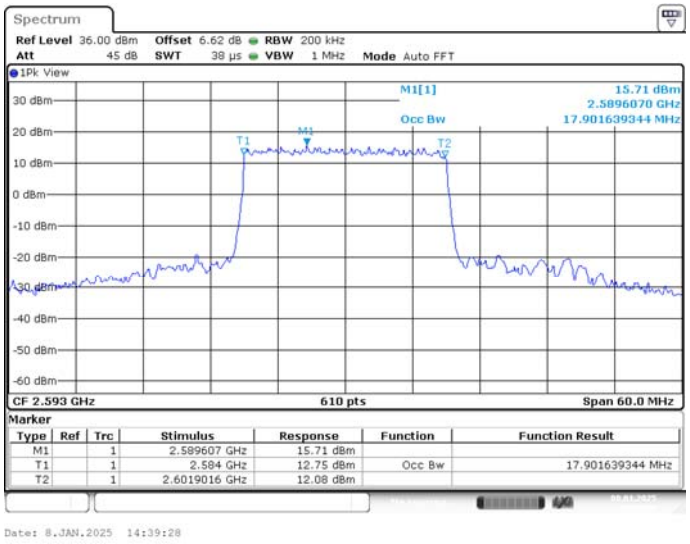
**LTE band 41,20MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 2593 | 18.000 | 17.902 |

**LTE band 41 , 20MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 41 , 20MHz Bandwidth,MID,16QAM (99% BW)**

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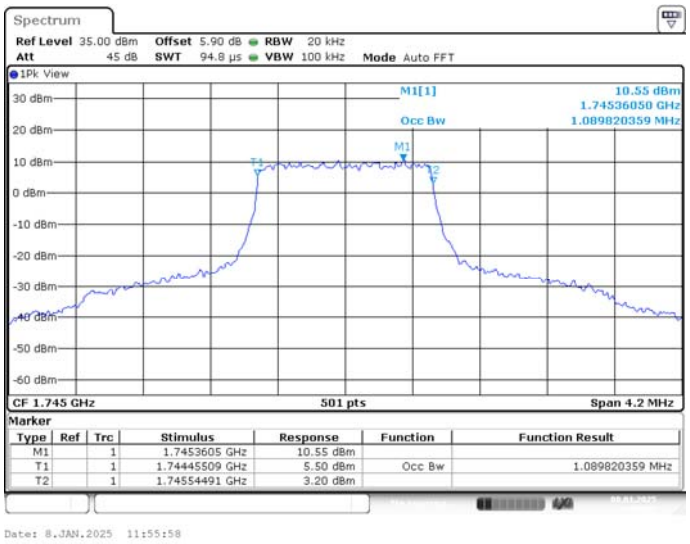
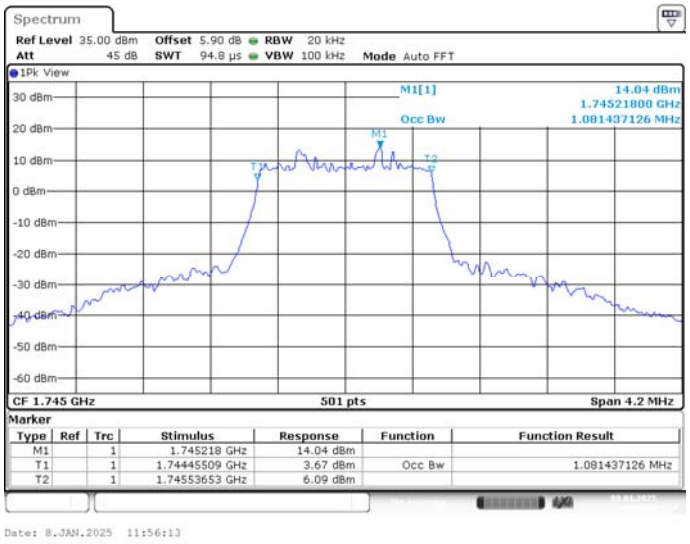
**LTE band 66,1.4MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 1745 | 1.090 | 1.081 |

**LTE band 66 , 1.4MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 66 , 1.4MHz Bandwidth,MID,16QAM (99% BW)**

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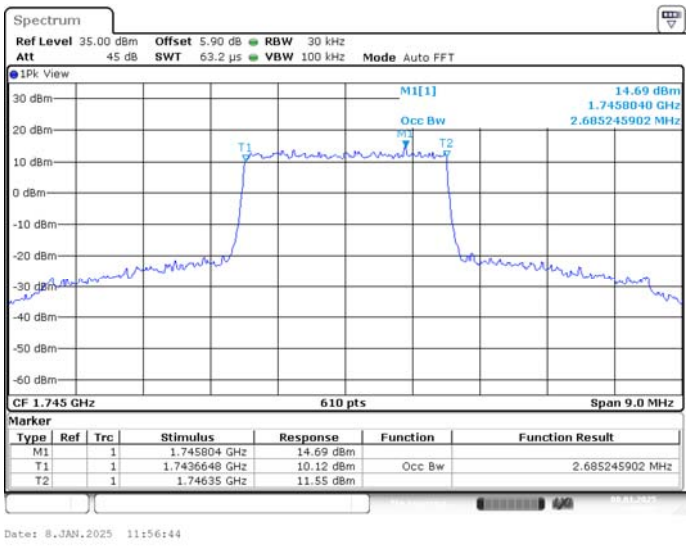
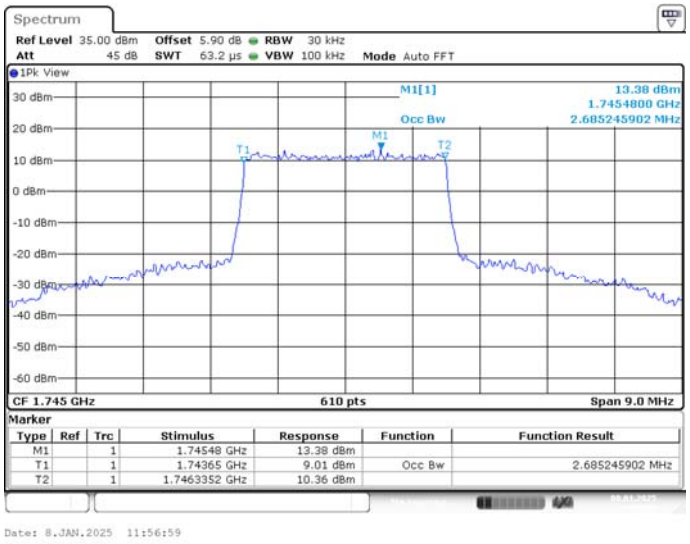
**LTE band 66,3MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 1745 | 2.685 | 2.685 |

**LTE band 66 , 3MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 66 , 3MHz Bandwidth,MID,16QAM (99% BW)**

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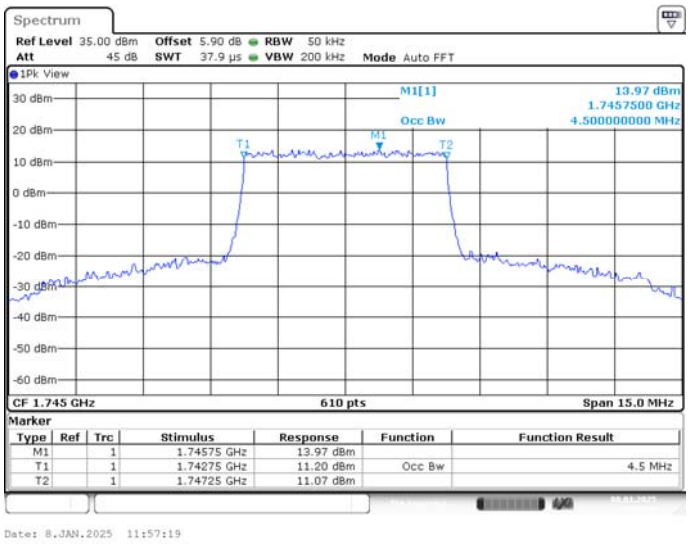
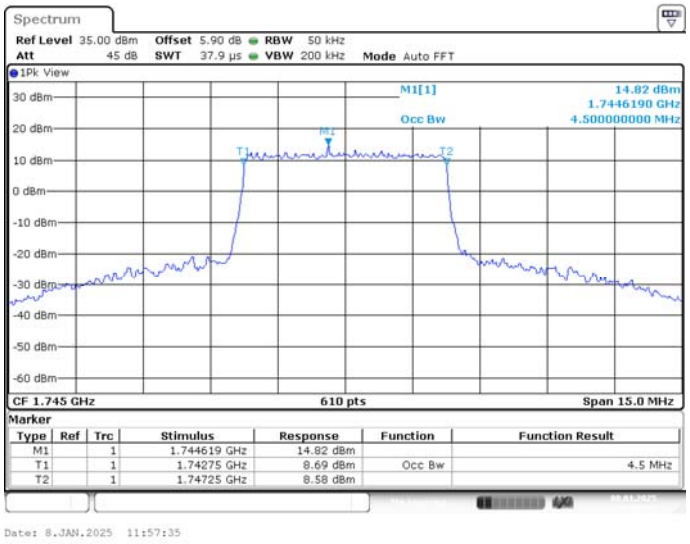
**LTE band 66,5MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 1745 | 4.500 | 4.500 |

**LTE band 66 , 5MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 66 , 5MHz Bandwidth,MID,16QAM (99% BW)**

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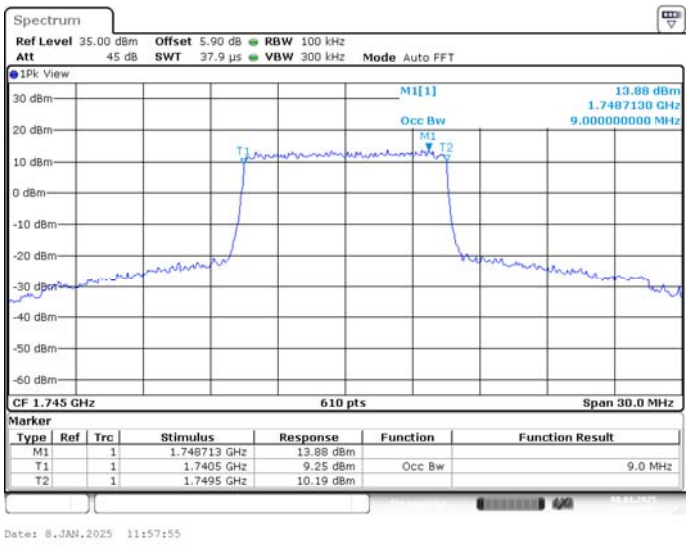
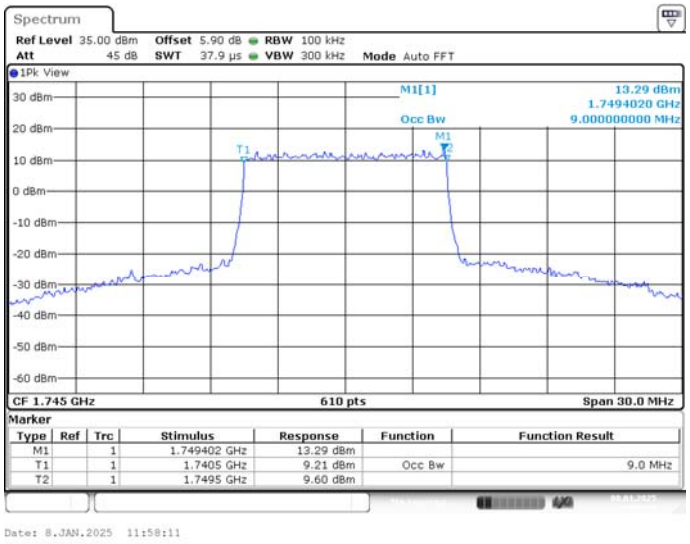
**LTE band 66,10MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 1745 | 9.000 | 9.000 |

**LTE band 66 , 10MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 66 , 10MHz Bandwidth,MID,16QAM (99% BW)**

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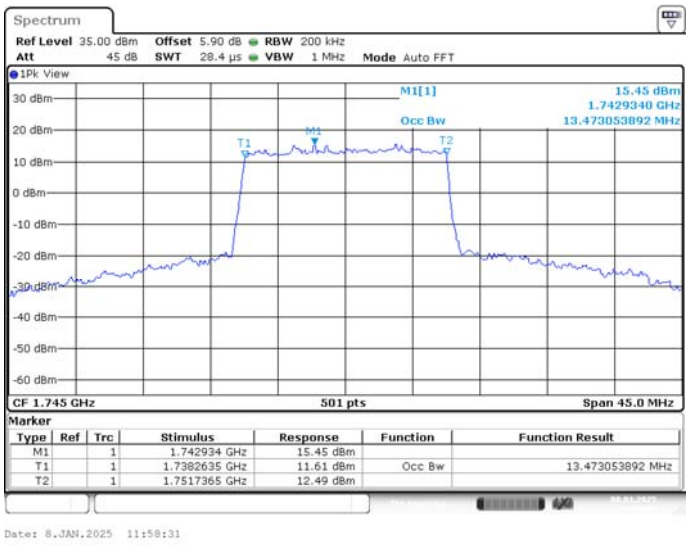
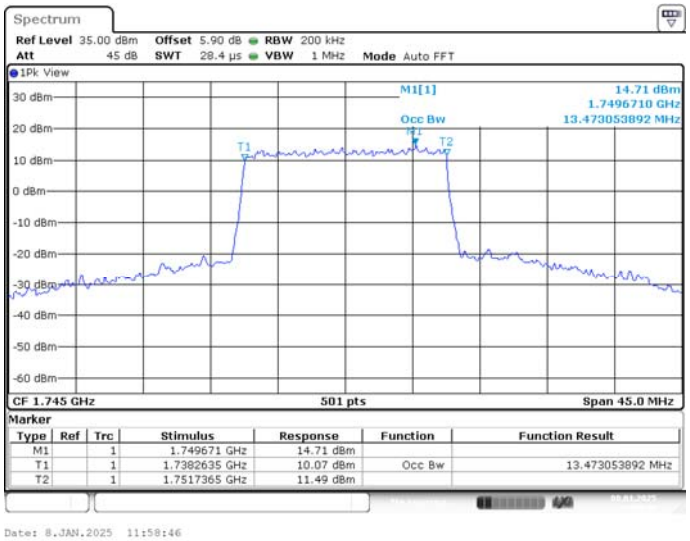
**LTE band 66,15MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 1745 | 13.473 | 13.473 |

**LTE band 66 , 15MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 66 , 15MHz Bandwidth,MID,16QAM (99% BW)**

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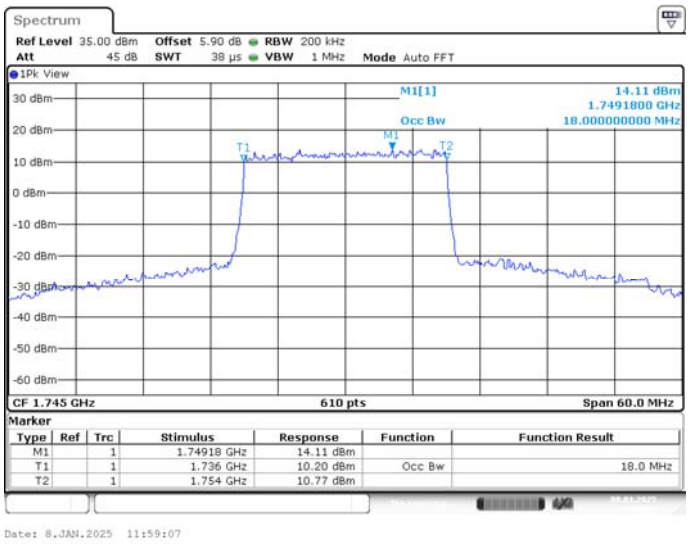
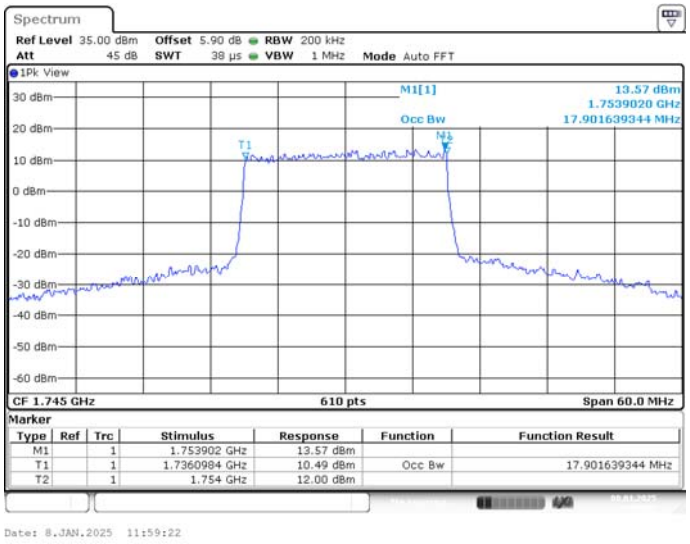
**LTE band 66,20MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 1745 | 18.000 | 17.902 |

**LTE band 66 , 20MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 66 , 20MHz Bandwidth,MID,16QAM (99% BW)**

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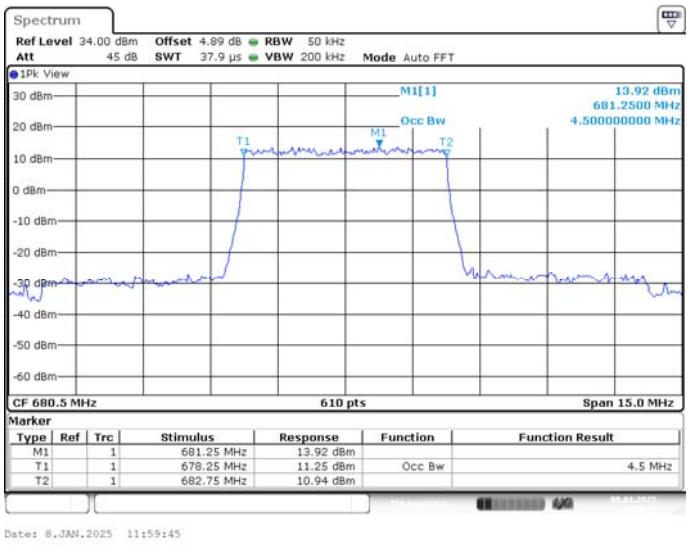
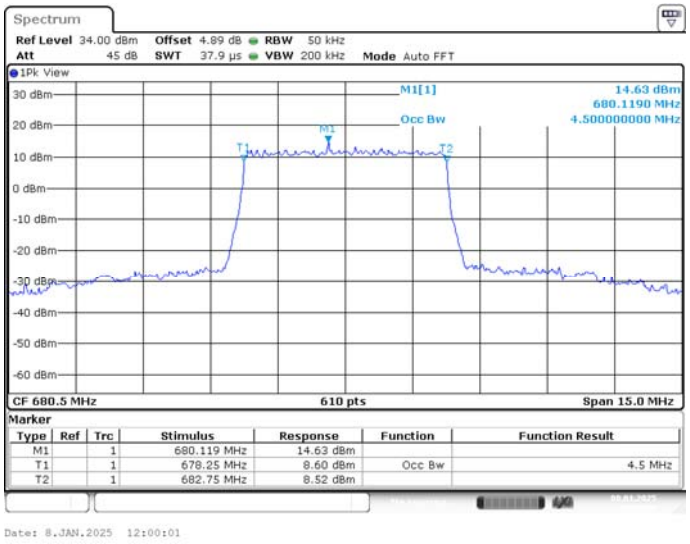
**LTE band 71,5MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 680.5 | 4.500 | 4.500 |

**LTE band 71 , 5MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 71 , 5MHz Bandwidth,MID,16QAM (99% BW)**

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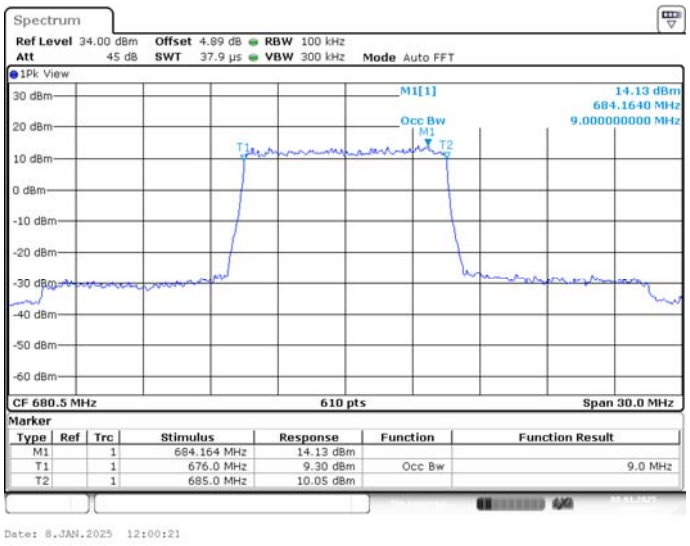
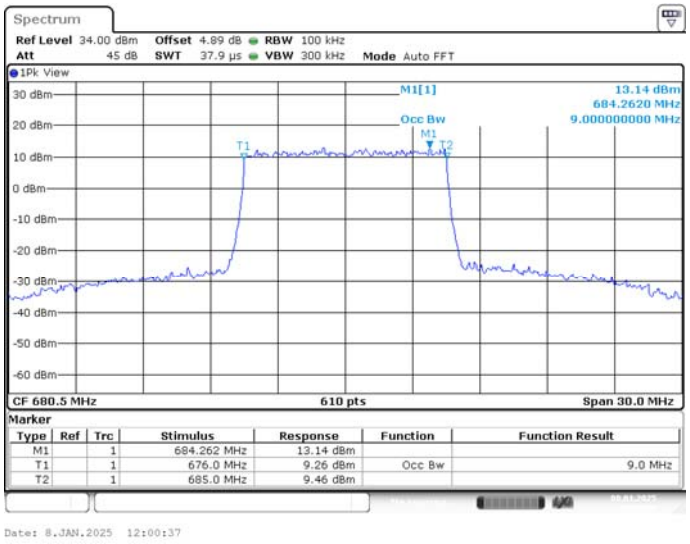
**LTE band 71,10MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 680.5 | 9.000 | 9.000 |

**LTE band 71 , 10MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 71 , 10MHz Bandwidth,MID,16QAM (99% BW)**

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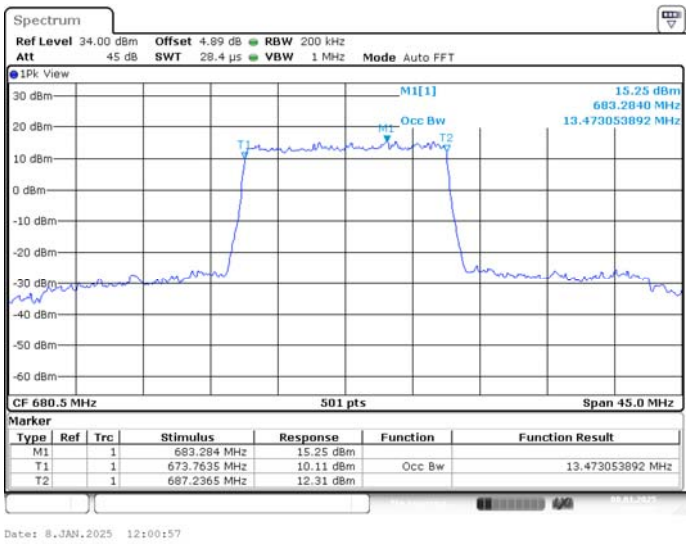
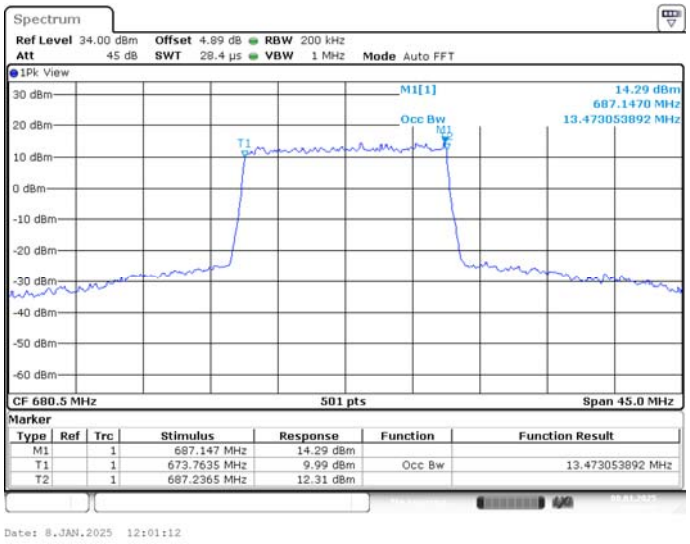
**LTE band 71,15MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 680.5 | 13.473 | 13.473 |

**LTE band 71 , 15MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 71 , 15MHz Bandwidth,MID,16QAM (99% BW)**

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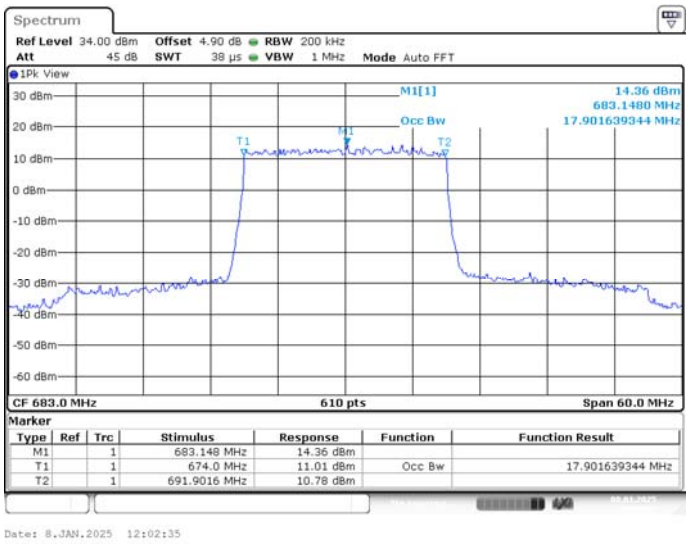
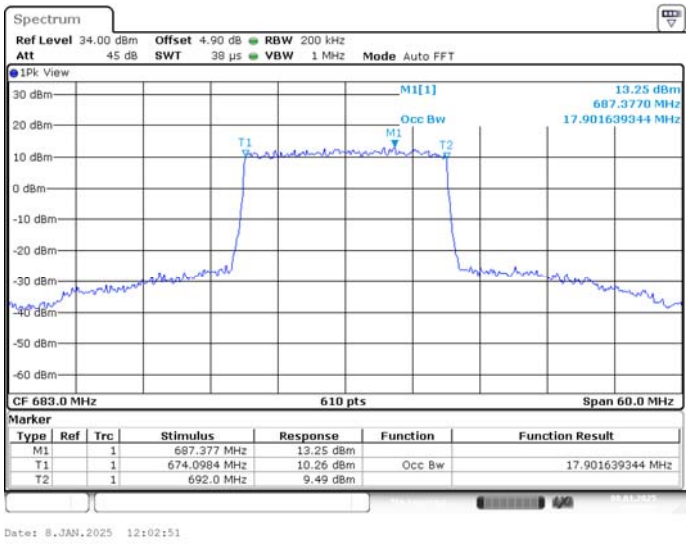
**LTE band 71,20MHz(99%)**

| Frequency (MHz) | Occupied Bandwidth (99%)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 683 | 17.902 | 17.902 |

**LTE band 71 , 20MHz Bandwidth,MID,QPSK (99% BW)**




**LTE band 71 , 20MHz Bandwidth,MID,16QAM (99% BW)**

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## A.5 Emission Bandwidth

The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.
The measurement method is from ANSI C63.26:
a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be wide enough to see sufficient roll off of the signal to make the measurement.
b) The nominal RBW shall be in the range of 1% to 5% of the anticipated OBW, and the VBW shall be set ≥ 3 × RBW.
c) Set the reference level of the instrument as required to prevent the signal amplitude from exceeding the maximum spectrum analyzer input mixer level for linear operation.
d) The dynamic range of the spectrum analyzer at the selected RBW shall be more than 10 dB below the target "−X dB" requirement, i.e., if the requirement calls for measuring the −26 dB OBW, the spectrum analyzer noise floor at the selected RBW shall be at least 36 dB below the reference level.
e) Set spectrum analyzer detection mode to peak, and the trace mode to max hold.

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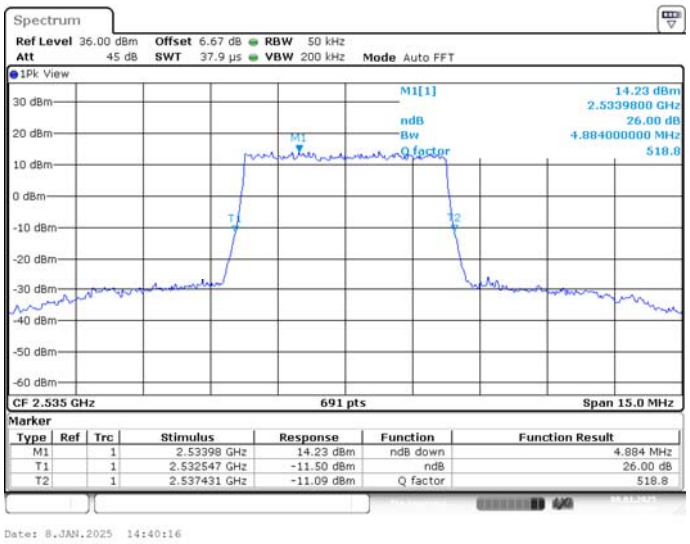
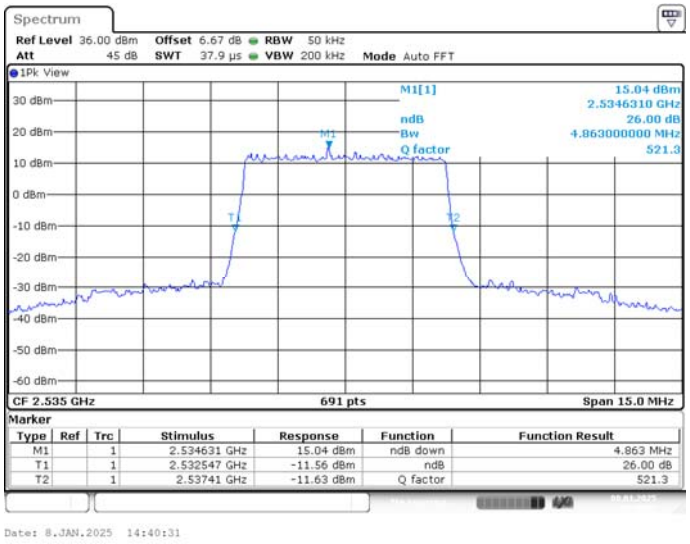
**LTE band 7,5MHz(-26dBc)**

| Frequency(MHz) | Emission Bandwidth (-26dBc)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 2535 | 4.884 | 4.863 |

**LTE band 7 , 5MHz Bandwidth,MID,QPSK (-26dBc BW)**




**LTE band 7 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)**

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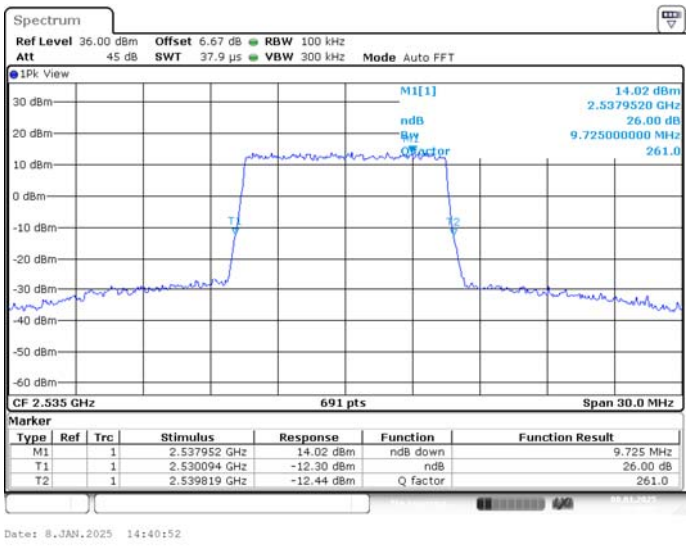
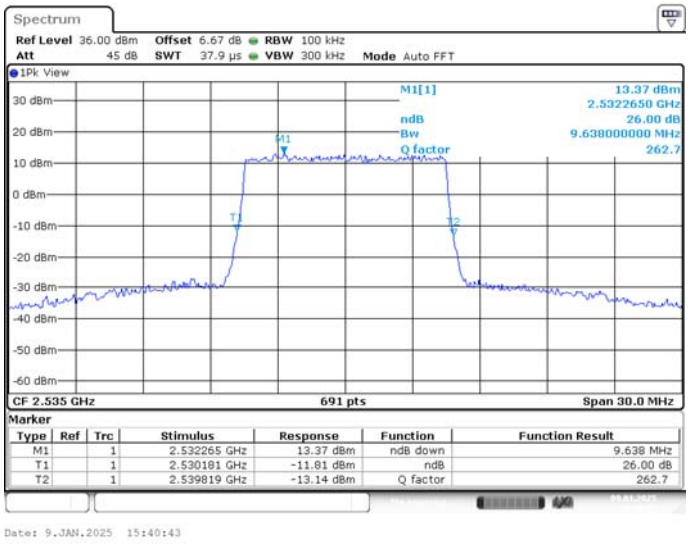
**LTE band 7,10MHz(-26dBc)**

| Frequency(MHz) | Emission Bandwidth (-26dBc)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 2535 | 9.725 | 9.638 |

**LTE band 7 , 10MHz Bandwidth,MID,QPSK (-26dBc BW)**




**LTE band 7 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)**

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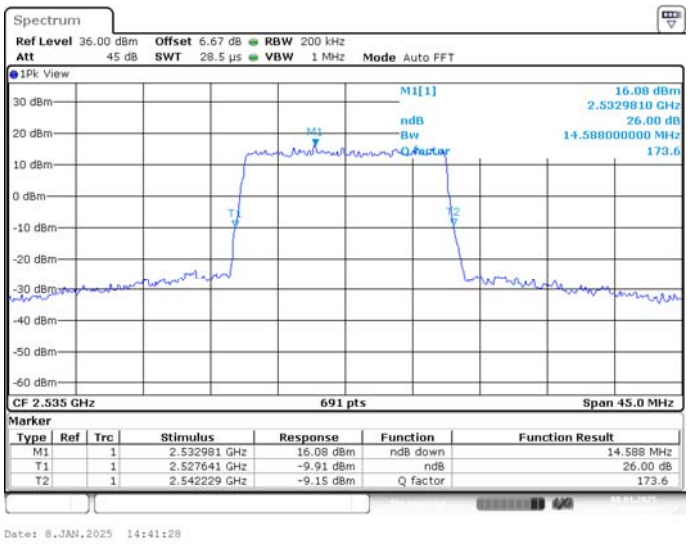
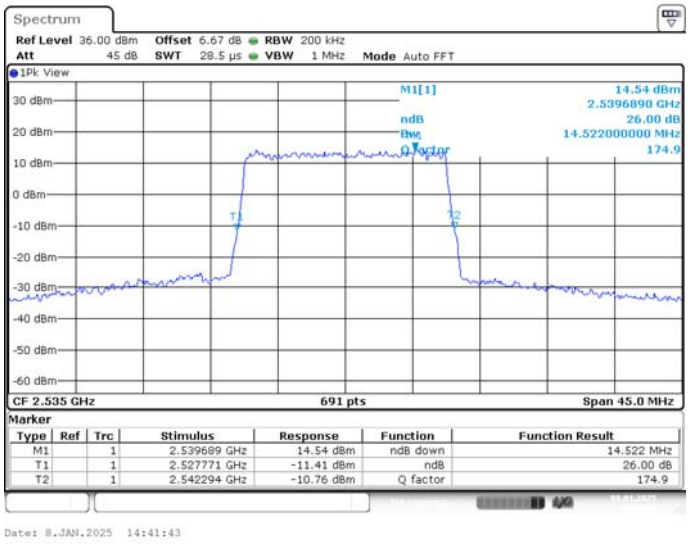
**LTE band 7,15MHz(-26dBc)**

| Frequency(MHz) | Emission Bandwidth (-26dBc)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 2535 | 14.588 | 14.522 |

**LTE band 7 , 15MHz Bandwidth,MID,QPSK (-26dBc BW)**




**LTE band 7 , 15MHz Bandwidth,MID,16QAM (-26dBc BW)**

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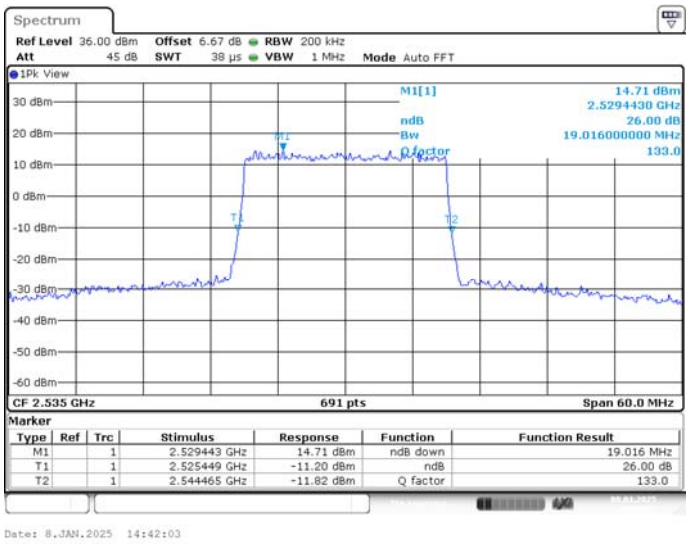
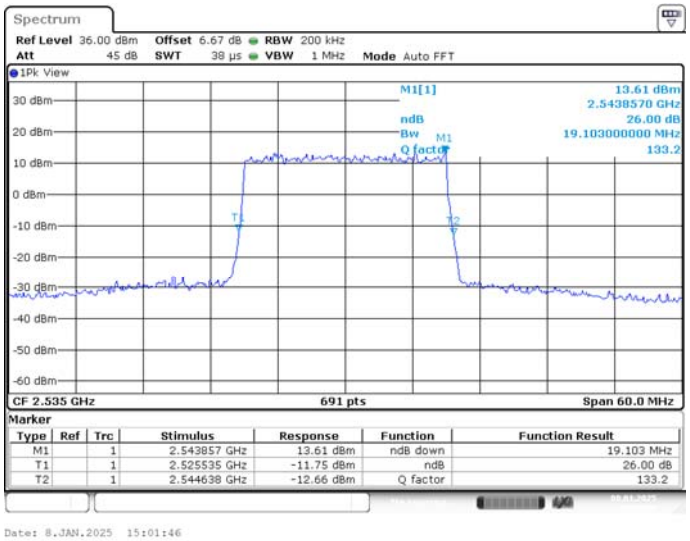
**LTE band 7,20MHz(-26dBc)**

| Frequency(MHz) | Emission Bandwidth (-26dBc)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 2535 | 19.016 | 19.103 |

**LTE band 7 , 20MHz Bandwidth,MID,QPSK (-26dBc BW)**




**LTE band 7 , 20MHz Bandwidth,MID,16QAM (-26dBc BW)**

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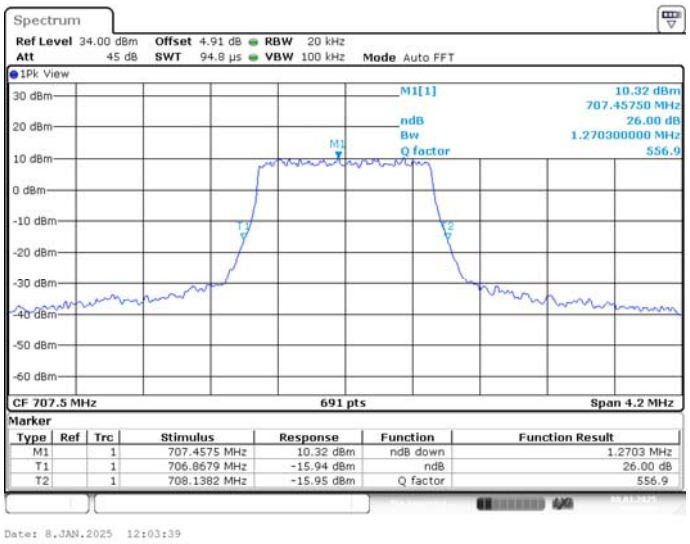
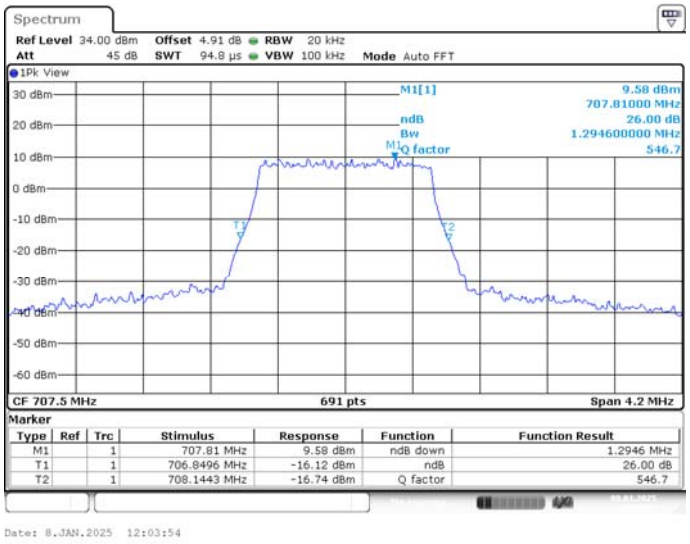
**LTE band 12,1.4MHz(-26dBc)**

| Frequency(MHz) | Emission Bandwidth (-26dBc)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 707.5 | 1.270 | 1.295 |

**LTE band 12 , 1.4MHz Bandwidth,MID,QPSK (-26dBc BW)**




**LTE band 12 , 1.4MHz Bandwidth,MID,16QAM (-26dBc BW)**

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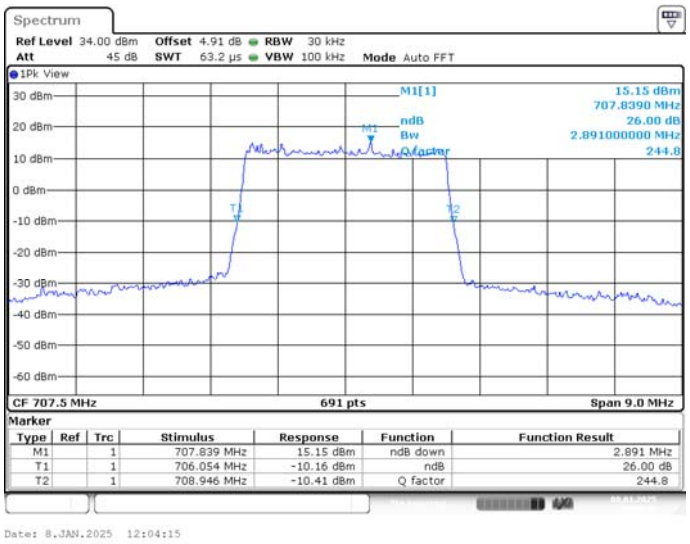
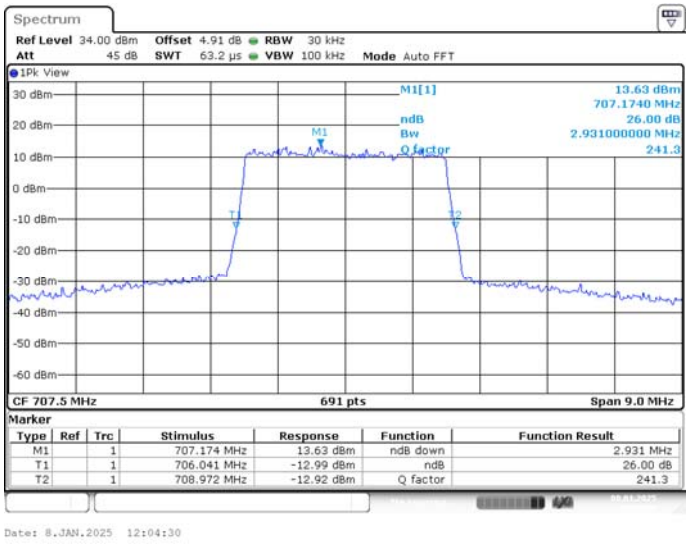
**LTE band 12,3MHz(-26dBc)**

| Frequency(MHz) | Emission Bandwidth (-26dBc)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 707.5 | 2.891 | 2.931 |

**LTE band 12 , 3MHz Bandwidth,MID,QPSK (-26dBc BW)**




**LTE band 12 , 3MHz Bandwidth,MID,16QAM (-26dBc BW)**

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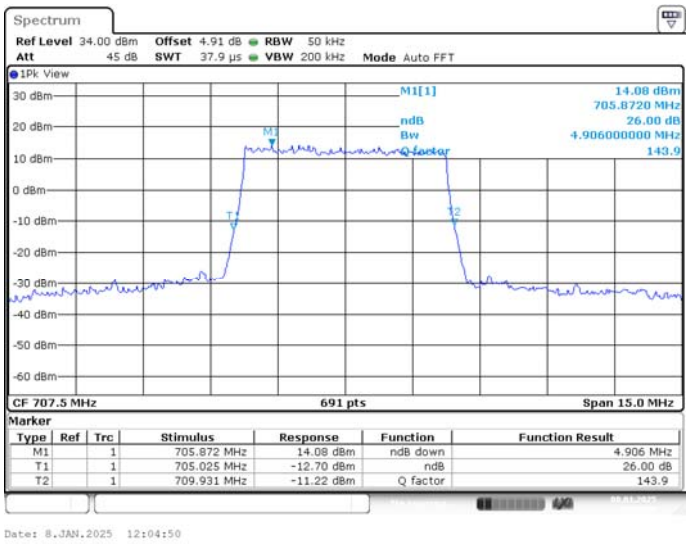
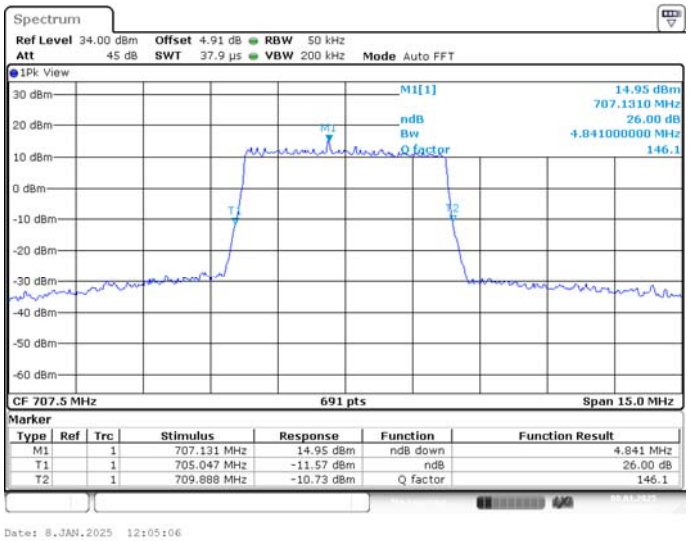
**LTE band 12,5MHz(-26dBc)**

| Frequency(MHz) | Emission Bandwidth (-26dBc)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 707.5 | 4.906 | 4.841 |

**LTE band 12 , 5MHz Bandwidth,MID,QPSK (-26dBc BW)**




**LTE band 12 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)**

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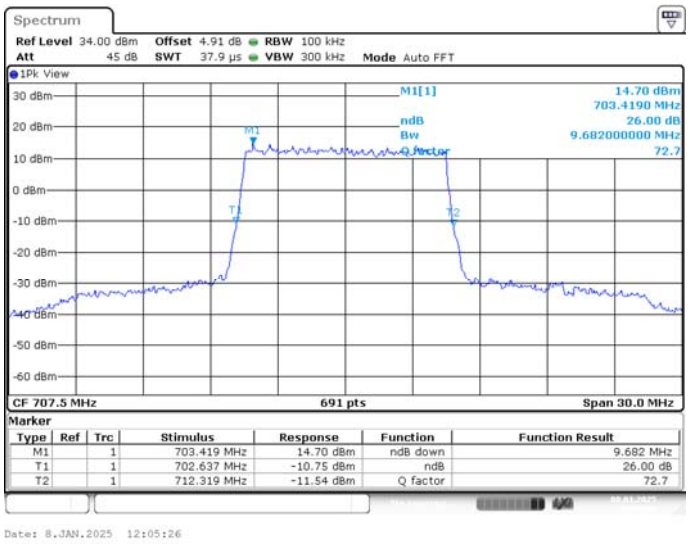
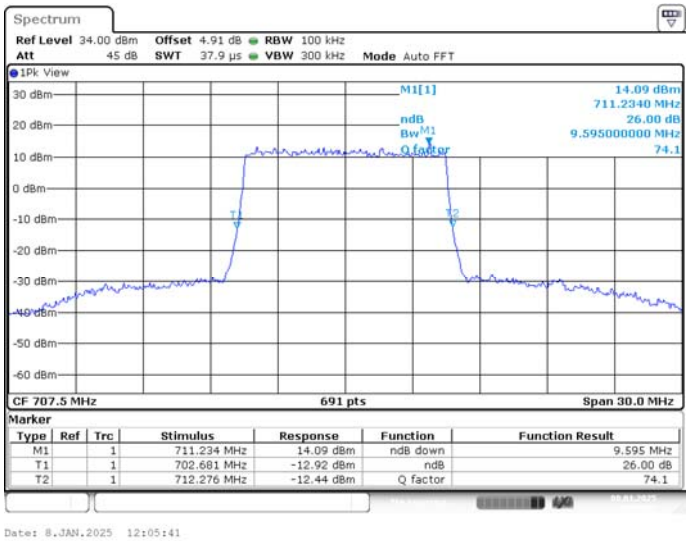
**LTE band 12,10MHz(-26dBc)**

| Frequency(MHz) | Emission Bandwidth (-26dBc)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 707.5 | 9.682 | 9.595 |

**LTE band 12 , 10MHz Bandwidth,MID,QPSK (-26dBc BW)**




**LTE band 12 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)**

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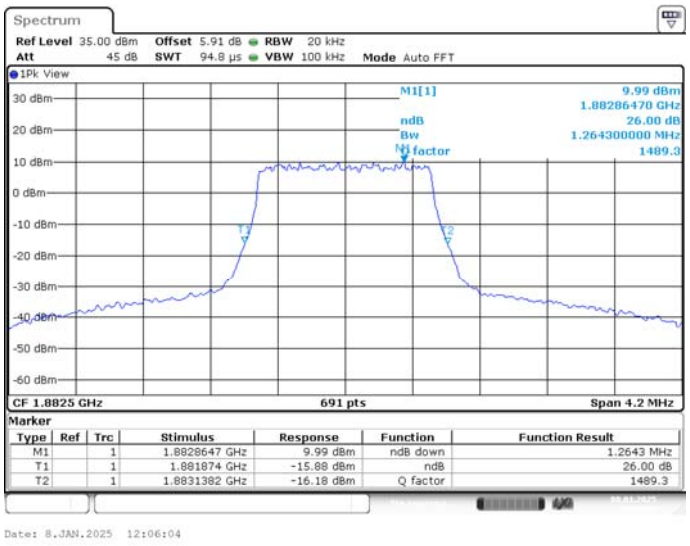
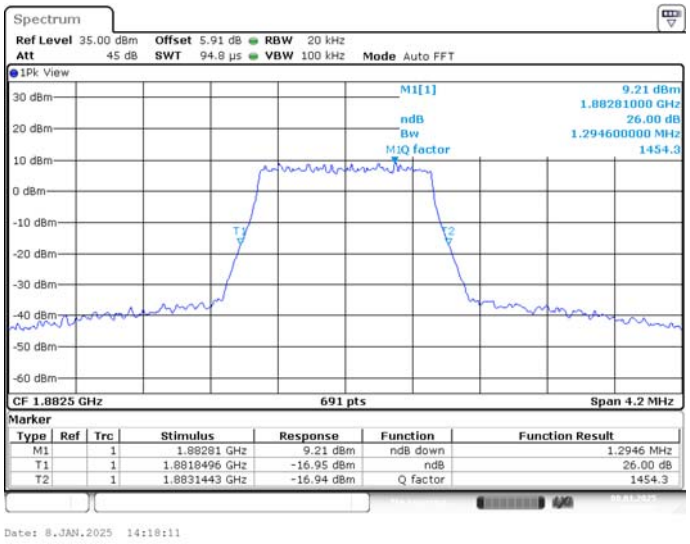
**LTE band 25,1.4MHz(-26dBc)**

| Frequency(MHz) | Emission Bandwidth (-26dBc)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 1882.5 | 1.264 | 1.295 |

**LTE band 25 , 1.4MHz Bandwidth,MID,QPSK (-26dBc BW)**




**LTE band 25 , 1.4MHz Bandwidth,MID,16QAM (-26dBc BW)**

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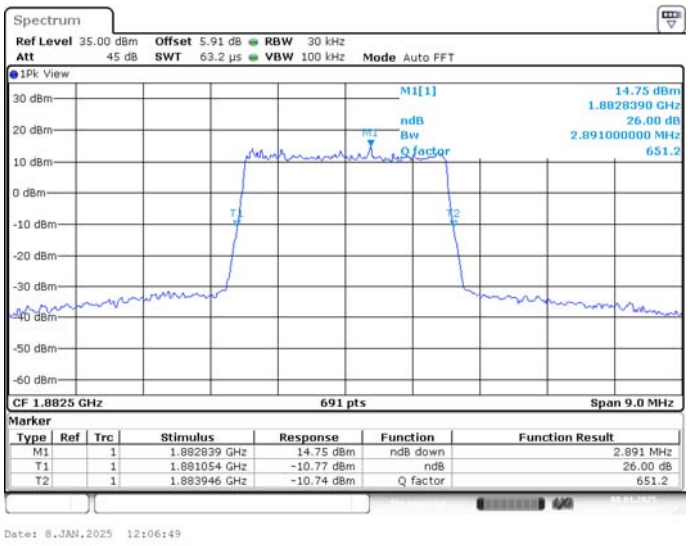
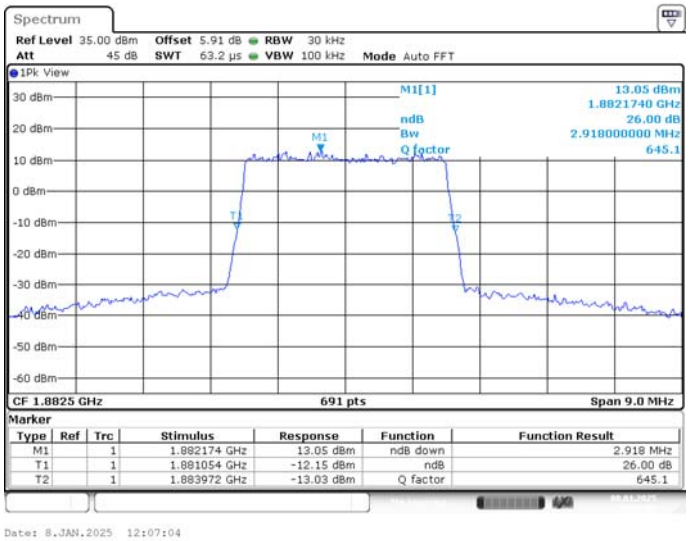
**LTE band 25,3MHz(-26dBc)**

| Frequency(MHz) | Emission Bandwidth (-26dBc)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 1882.5 | 2.891 | 2.918 |

**LTE band 25 , 3MHz Bandwidth,MID,QPSK (-26dBc BW)**




**LTE band 25 , 3MHz Bandwidth,MID,16QAM (-26dBc BW)**

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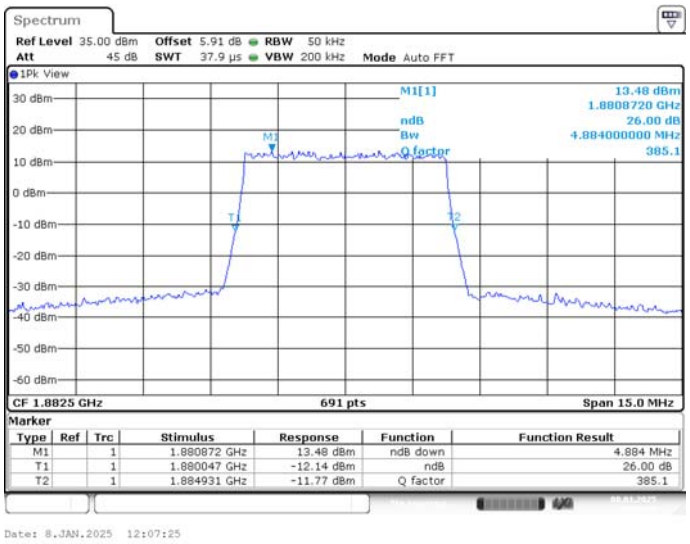
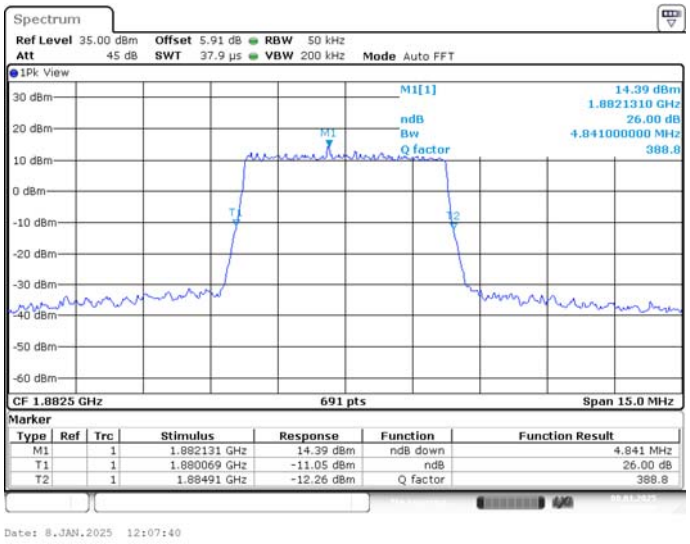
**LTE band 25,5MHz(-26dBc)**

| Frequency(MHz) | Emission Bandwidth (-26dBc)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 1882.5 | 4.884 | 4.841 |

**LTE band 25 , 5MHz Bandwidth,MID,QPSK (-26dBc BW)**




**LTE band 25 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)**

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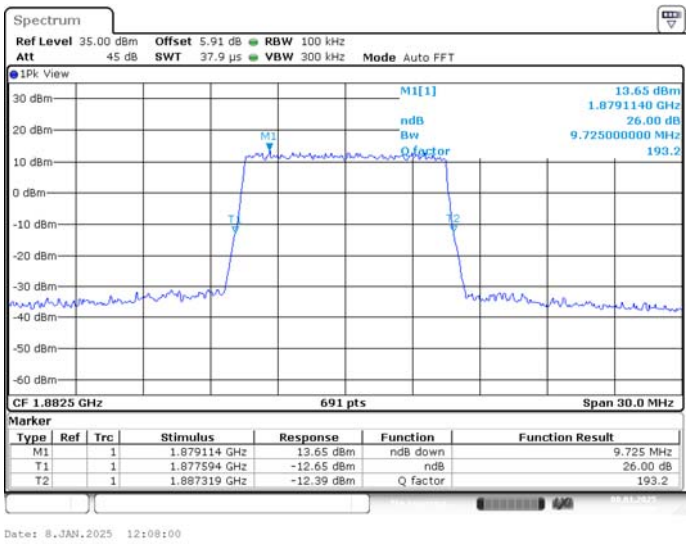
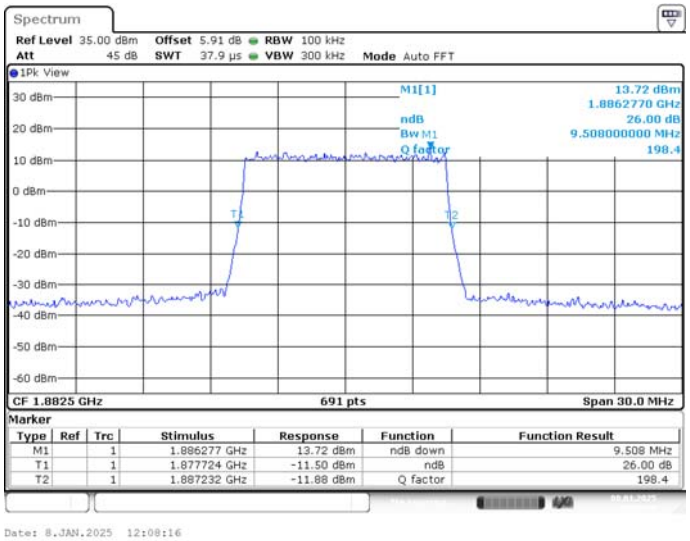
**LTE band 25,10MHz(-26dBc)**

| Frequency(MHz) | Emission Bandwidth (-26dBc)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 1882.5 | 9.725 | 9.508 |

**LTE band 25 , 10MHz Bandwidth,MID,QPSK (-26dBc BW)**




**LTE band 25 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)**

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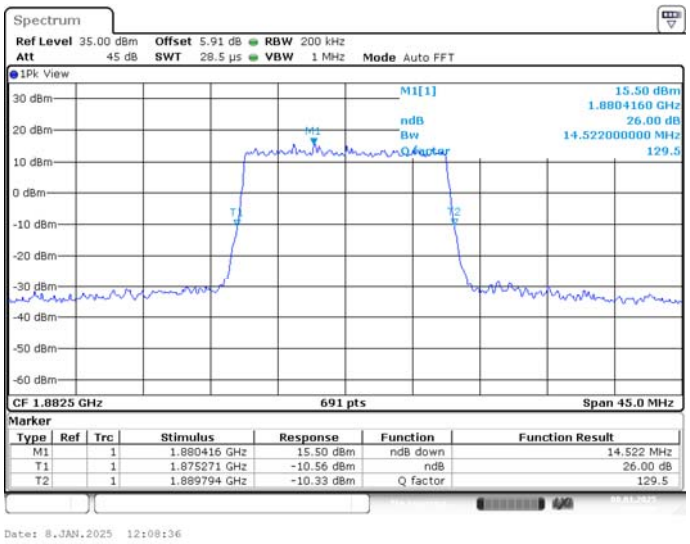
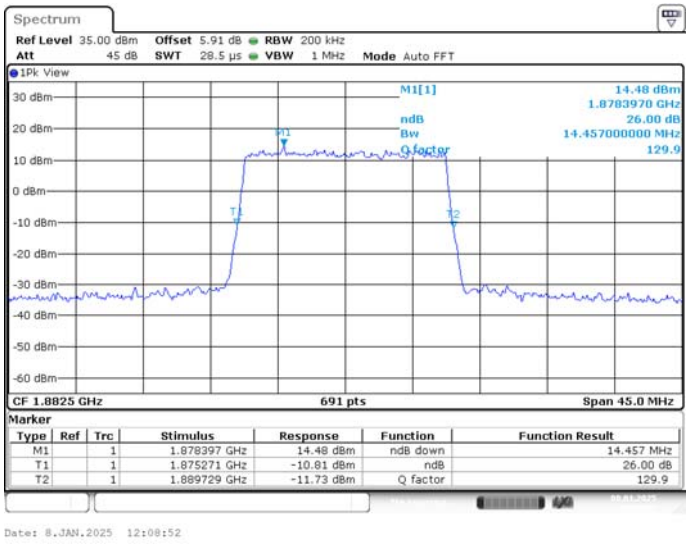
**LTE band 25,15MHz(-26dBc)**

| Frequency(MHz) | Emission Bandwidth (-26dBc)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 1882.5 | 14.522 | 14.457 |

**LTE band 25 , 15MHz Bandwidth,MID,QPSK (-26dBc BW)**




**LTE band 25 , 15MHz Bandwidth,MID,16QAM (-26dBc BW)**

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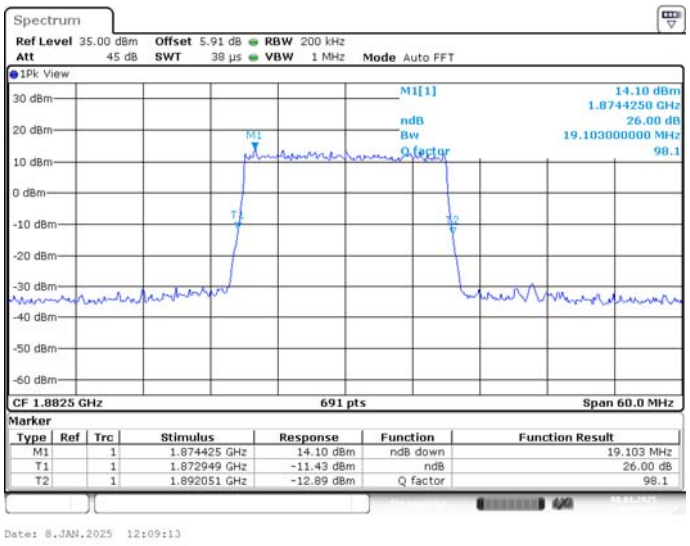
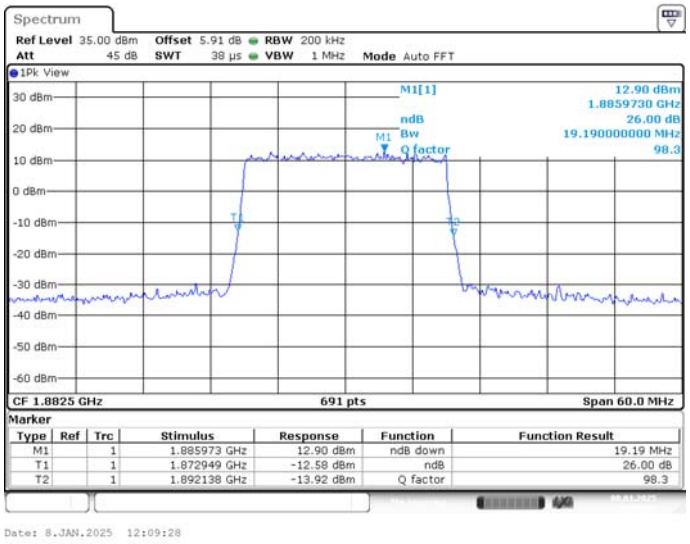
**LTE band 25,20MHz(-26dBc)**

| Frequency(MHz) | Emission Bandwidth (-26dBc)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 1882.5 | 19.103 | 19.190 |

**LTE band 25 , 20MHz Bandwidth,MID,QPSK (-26dBc BW)**




**LTE band 25 , 20MHz Bandwidth,MID,16QAM (-26dBc BW)**

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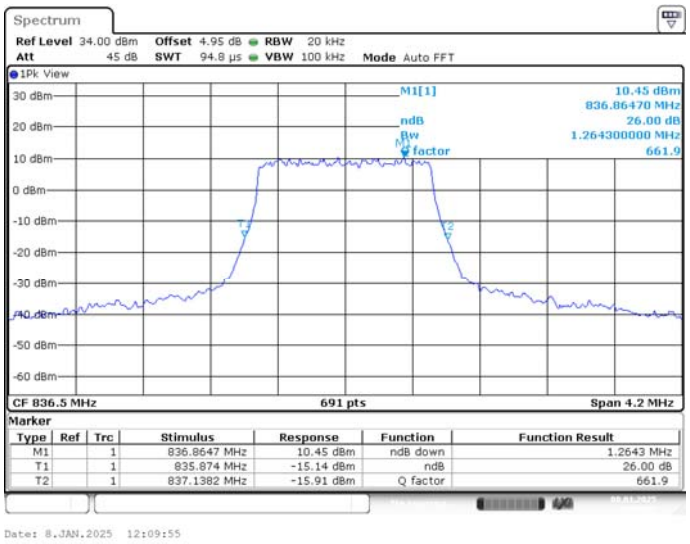
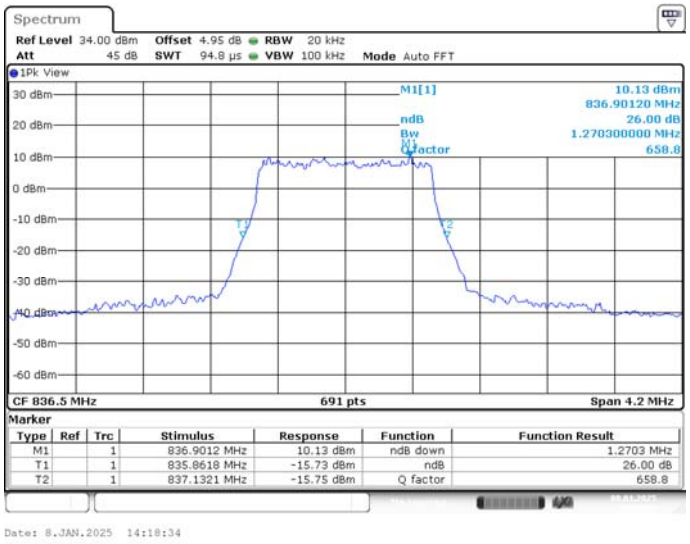
**LTE band 26(824MHz~849MHz),1.4MHz(-26dBc)**

| Frequency(MHz) | Emission Bandwidth (-26dBc)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 836.5 | 1.264 | 1.270 |

**LTE band 26 , 1.4MHz Bandwidth,MID,QPSK (-26dBc BW)**




**LTE band 26 , 1.4MHz Bandwidth,MID,16QAM (-26dBc BW)**

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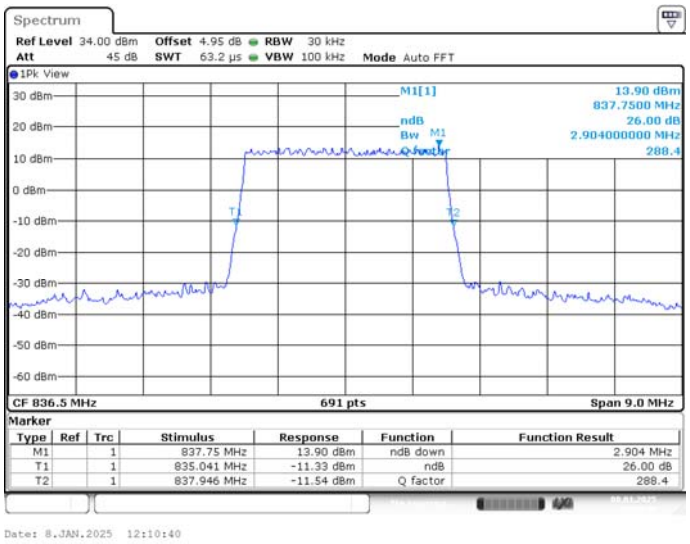
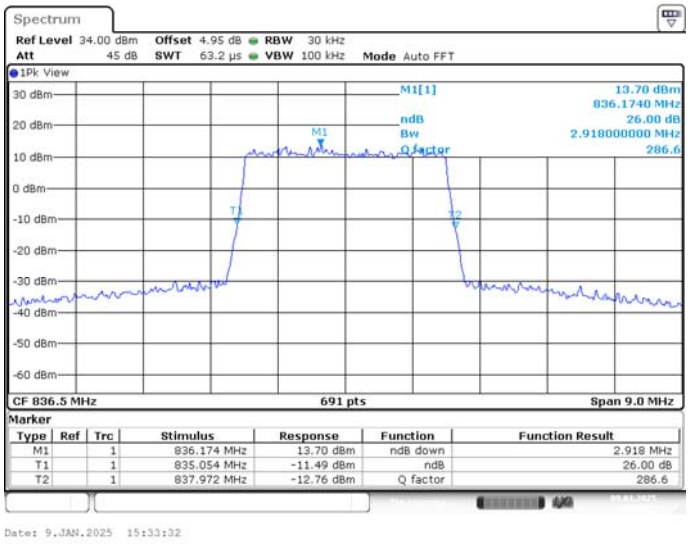
**LTE band 26(824MHz~849MHz),3MHz(-26dBc)**

| Frequency(MHz) | Emission Bandwidth (-26dBc)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 836.5 | 2.904 | 2.918 |

**LTE band 26 , 3MHz Bandwidth,MID,QPSK (-26dBc BW)**




**LTE band 26 , 3MHz Bandwidth,MID,16QAM (-26dBc BW)**

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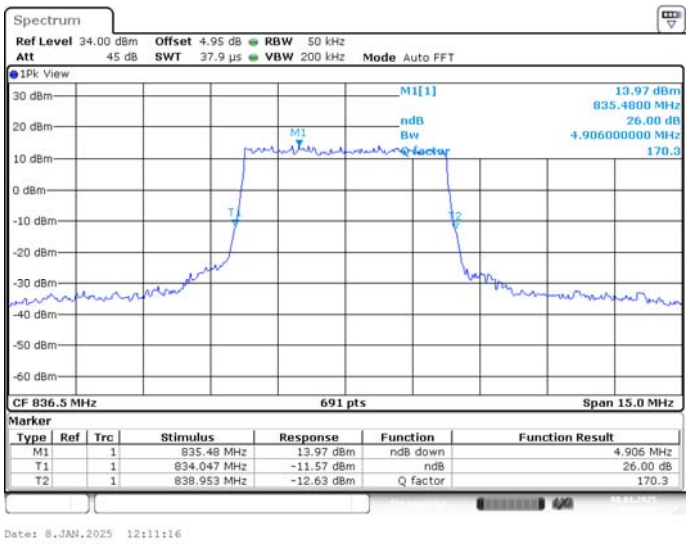
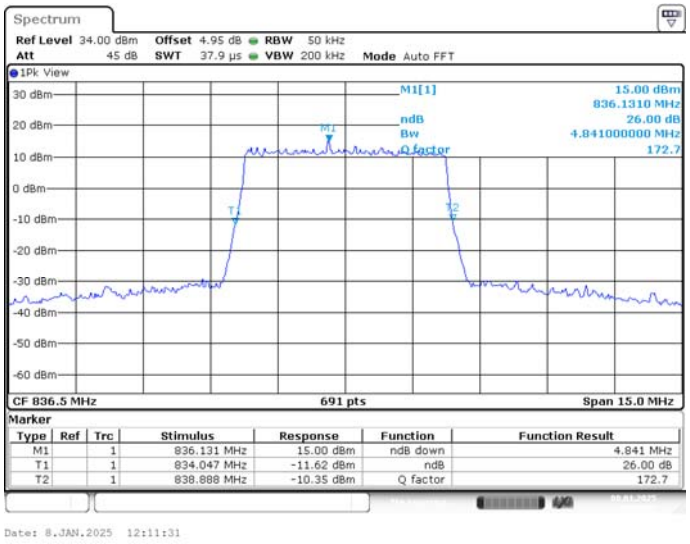
**LTE band 26(824MHz~849MHz),5MHz(-26dBc)**

| Frequency(MHz) | Emission Bandwidth (-26dBc)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 836.5 | 4.906 | 4.841 |

**LTE band 26 , 5MHz Bandwidth,MID,QPSK (-26dBc BW)**




**LTE band 26 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)**

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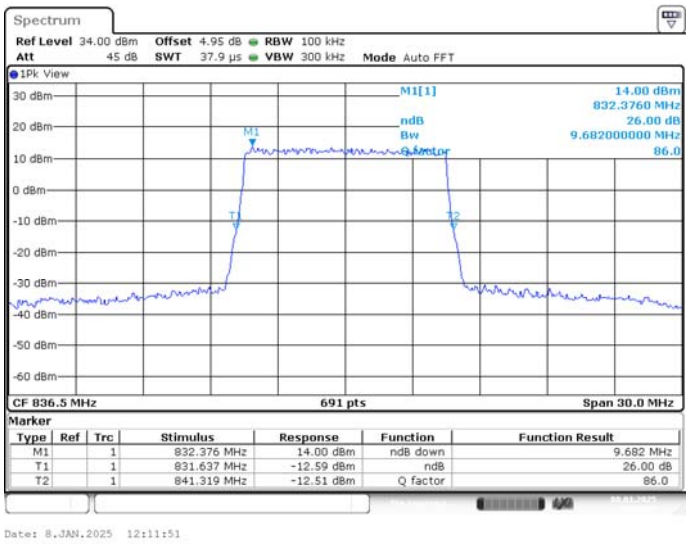
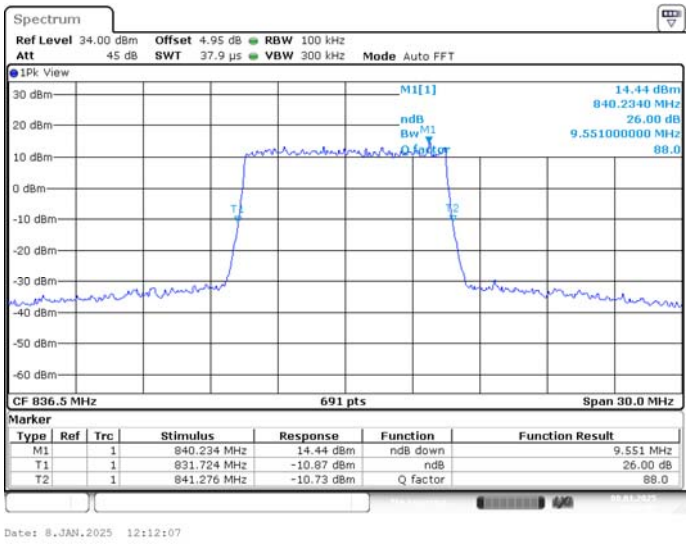
**LTE band 26(824MHz~849MHz),10MHz(-26dBc)**

| Frequency(MHz) | Emission Bandwidth (-26dBc)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 836.5 | 9.682 | 9.551 |

**LTE band 26 , 10MHz Bandwidth,MID,QPSK (-26dBc BW)**




**LTE band 26 , 10MHz Bandwidth,MID,16QAM (-26dBc BW)**

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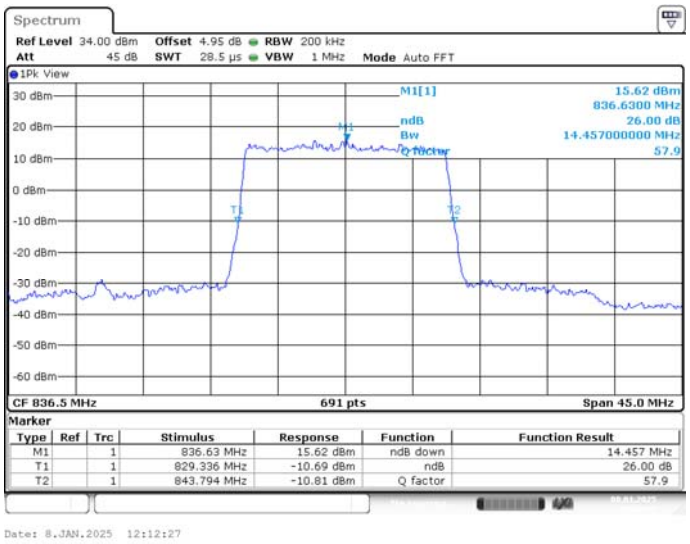
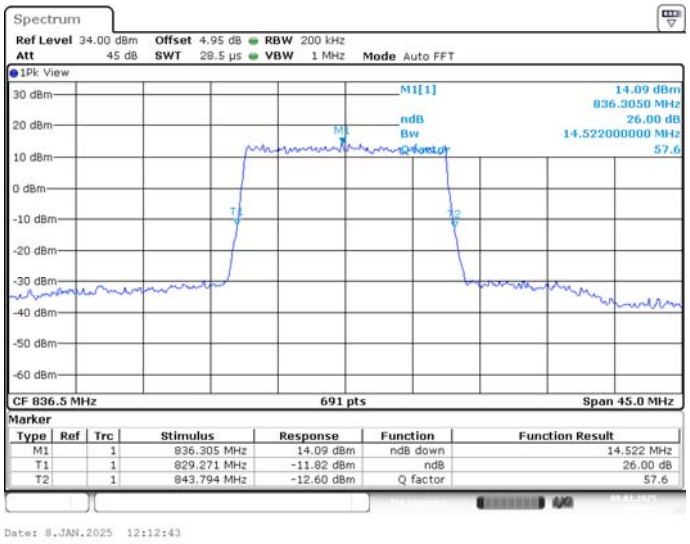
**LTE band 26(824MHz~849MHz),15MHz(-26dBc)**

| Frequency(MHz) | Emission Bandwidth (-26dBc)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 836.5 | 14.457 | 14.522 |

**LTE band 26 , 15MHz Bandwidth,MID,QPSK (-26dBc BW)**




**LTE band 26 , 15MHz Bandwidth,MID,16QAM (-26dBc BW)**

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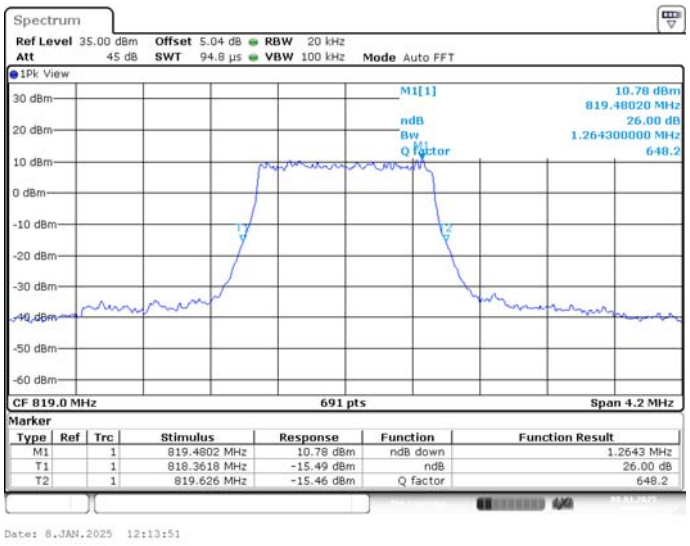
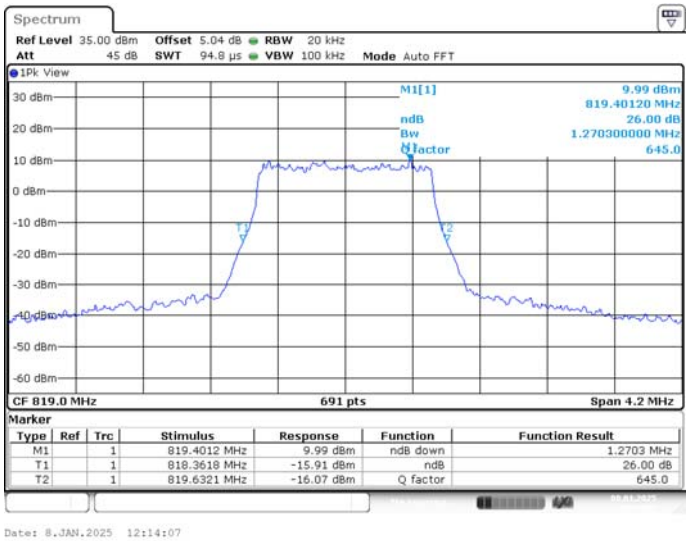
**LTE band 26(814MHz~824MHz),1.4MHz(-26dBc)**

| Frequency(MHz) | Emission Bandwidth (-26dBc)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 819 | 1.264 | 1.270 |

**LTE band 26 , 1.4MHz Bandwidth,MID,QPSK (-26dBc BW)**




**LTE band 26 , 1.4MHz Bandwidth,MID,16QAM (-26dBc BW)**

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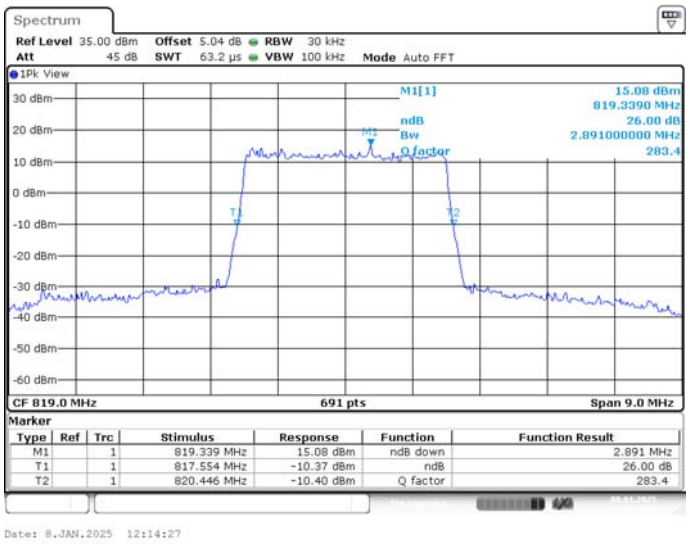
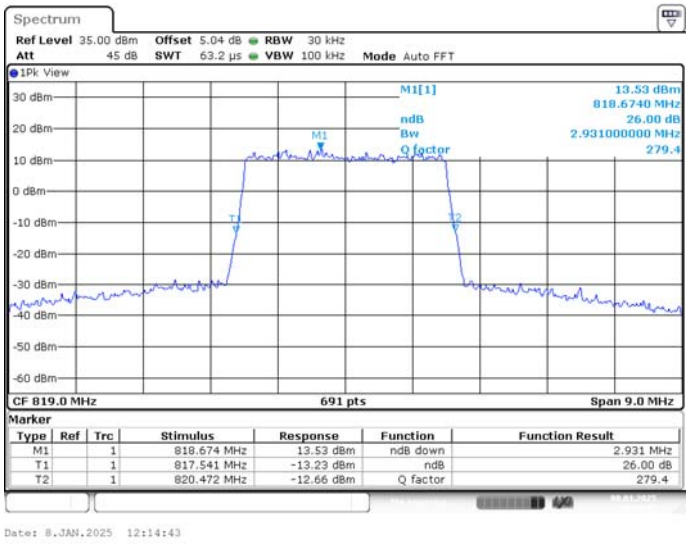
**LTE band 26(814MHz~824MHz),3MHz(-26dBc)**

| Frequency(MHz) | Emission Bandwidth (-26dBc)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 819 | 2.891 | 2.931 |

**LTE band 26 , 3MHz Bandwidth,MID,QPSK (-26dBc BW)**




**LTE band 26 , 3MHz Bandwidth,MID,16QAM (-26dBc BW)**

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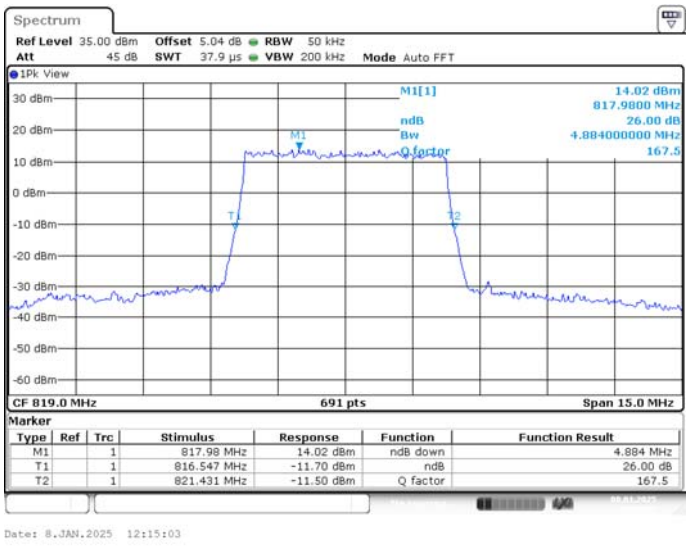
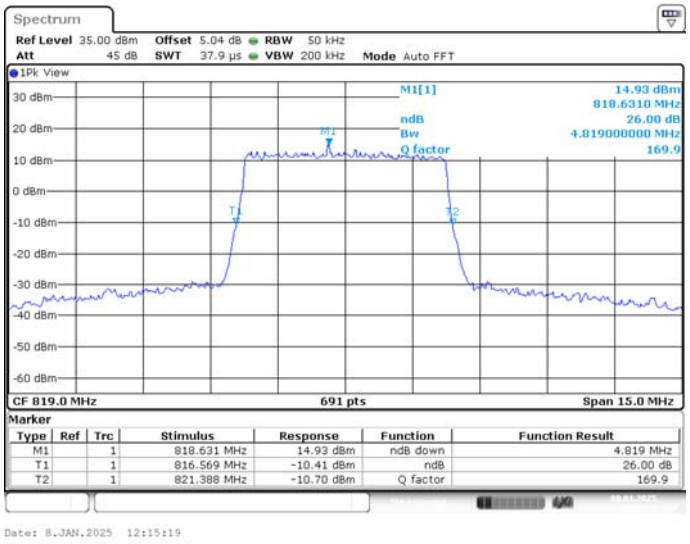
**LTE band 26(814MHz~824MHz),5MHz(-26dBc)**

| Frequency(MHz) | Emission Bandwidth (-26dBc)(MHz) | |
|---|---|---|
| | QPSK | 16QAM |
| 819 | 4.884 | 4.819 |

**LTE band 26 , 5MHz Bandwidth,MID,QPSK (-26dBc BW)**




**LTE band 26 , 5MHz Bandwidth,MID,16QAM (-26dBc BW)**

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