

# **FCC REPORT**

## **(LTE)**

**Applicant:** Industria Fueguina de Relojeria Electronica S. A.

**Address of Applicant:** Sarmiento 2920, Rio Grande CP(9420). Tierra del Fuego

**Equipment Under Test (EUT)**

Product Name: Smartphone

Model No.: Smartway M2

Trade mark: KODAK

**FCC ID:** 2ALP3-M2

**Applicable standards:** FCC CFR Title 47 Part 2  
FCC CFR Title 47 Part 24 Subpart E  
FCC CFR Title 47 Part 27 Subpart L  
FCC CFR Title 47 Part 27 Subpart M

**Date of sample receipt:** 24 Aug., 2020

**Date of Test:** 25 Aug., to 28 Sep., 2020

**Date of report issued:** 06 Nov., 2020

**Test Result:** PASS\*

\*In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Bruce Zhang  
Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the JYT product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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## 2. Version

| Version No. | Date          | Description                                |
|-------------|---------------|--------------------------------------------|
| 00          | 30 Sep., 2020 | Original                                   |
| 01          | 06 Nov., 2020 | Update Antenna gain, Update page 5, 13~20. |
|             |               |                                            |
|             |               |                                            |
|             |               |                                            |

**Tested by:** Mike.ou **Date:** 06 Nov., 2020  
**Test Engineer**

**Reviewed by:** Winner Zhang **Date:** 06 Nov., 2020  
**Project Engineer**

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## 4. Test Summary

| Test Items                                                                                                                                                                                                                                                                                                  | Section in CFR 47                                                        | Result                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|----------------------------------------|
| RF Exposure (SAR)                                                                                                                                                                                                                                                                                           | Part 1.1307<br>Part 2.1093                                               | Passed<br>(Please refer to SAR Report) |
| RF Output Power                                                                                                                                                                                                                                                                                             | Part 2.1046<br>Part 24.232 (c)<br>Part 27.50 (d)(4)<br>Part 27.50 (h)(2) | Pass                                   |
| Peak-to-Average Ratio                                                                                                                                                                                                                                                                                       | Part 24.232 (d)<br>Part 27.50(d)(5)                                      | Pass                                   |
| Modulation Characteristics                                                                                                                                                                                                                                                                                  | Part 2.1047                                                              | Pass                                   |
| 99% & -26 dB Occupied Bandwidth                                                                                                                                                                                                                                                                             | Part 2.1049<br>Part 24.238(b)<br>Part 27.53(h)<br>Part 27.53(m)          | Pass                                   |
| Out of band emission at antenna terminals                                                                                                                                                                                                                                                                   | Part 2.1053<br>Part 24.238 (a)<br>Part 27.53 (h)<br>Part 27.53(m)        | Pass                                   |
| Field strength of spurious radiation                                                                                                                                                                                                                                                                        | Part 24.238 (a)<br>Part 27.53 (h)<br>Part 27.53(m)                       | Pass                                   |
| Frequency stability vs. temperature                                                                                                                                                                                                                                                                         | Part 22.355<br>Part 24.235<br>Part 27.54<br>Part 2.1055(a)(1)(b)         | Pass                                   |
| Frequency stability vs. voltage                                                                                                                                                                                                                                                                             | Part 22.355<br>Part 24.235<br>Part 27.54<br>Part 2.1055(d)(2)            | Pass                                   |
| <b>Remark:</b><br>1. Pass: The EUT complies with the essential requirements in the standard.<br>2. The cable insertion loss used by "RF Output Power" and other conduction measurement items is 0.5dB(Fundamental Frequency below 1GHz)/1.0dB(Fundamental Frequency above 1GHz) (provided by the customer). |                                                                          |                                        |
| <b>Test Method:</b>                                                                                                                                                                                                                                                                                         | ANSI/TIA-603-E-2016<br>ANSI C63.26-2015                                  |                                        |

## 5. General Information

### 5.1 Client Information

|               |                                                             |
|---------------|-------------------------------------------------------------|
| Applicant:    | Industria Fuegoína de Relojeria Electronica S.A.            |
| Address:      | Sarmiento 2920, Rio Grande CP(9420). Tierra del Fuego       |
| Manufacturer: | HK I-SWIM TECHNOLOGY CO., LIMITED                           |
| Address:      | RM 1405, 14/F., LUCKY CENTRE, 165 WANCHAI ROAD, WANCHAI, HK |

### 5.2 General Description of E.U.T.

|                            |                                                                                                                                                                   |                                           |                                           |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------|
| Product Name:              | Smartphone                                                                                                                                                        |                                           |                                           |
| Model No.:                 | Smartway M2                                                                                                                                                       |                                           |                                           |
| Operation Frequency range: | LTE Band 2: TX: 1850MHz-1910MHz RX: 1930MHz-1990MHz<br>LTE Band 4: TX: 1710MHz-1755MHz RX: 2110MHz-2155MHz<br>LTE Band 7: TX: 2500MHz-2570MHz RX: 2620MHz-2690MHz |                                           |                                           |
| Modulation type:           | <input checked="" type="checkbox"/> QPSK                                                                                                                          | <input checked="" type="checkbox"/> 16QAM | <input checked="" type="checkbox"/> 64QAM |
| Antenna type:              | Internal Antenna                                                                                                                                                  |                                           |                                           |
| Antenna gain:              | LTE Band 2: 0.87 dBi(declare by Applicant)<br>LTE Band 4: 0.81 dBi(declare by Applicant)<br>LTE Band 7: 1.02 dBi(declare by Applicant)                            |                                           |                                           |
| Power supply:              | Rechargeable Li-ion Battery DC3.85V, 4800mAh                                                                                                                      |                                           |                                           |
| AC adapter:                | Model: FJ-SW266B50502000U<br>Input: AC100-240V, 50/60Hz, 0.4A<br>Output: DC 5.0V, 2A                                                                              |                                           |                                           |
| Test Sample Condition:     | The applicant provided engineering samples for staying in continuously transmitting for testing.                                                                  |                                           |                                           |

**Operation Frequency List:**

| LTE Band 2 (1.4MHz) |                 | LTE Band 2 (3MHz)  |                 |
|---------------------|-----------------|--------------------|-----------------|
| Channel             | Frequency (MHz) | Channel            | Frequency (MHz) |
| 18607               | 1850.70         | 18615              | 1851.50         |
| 18608               | 1850.80         | 18616              | 1851.60         |
| ....                | ....            | ....               | ....            |
| 18899               | 1879.90         | 18899              | 1879.90         |
| 18900               | 1880.00         | 18900              | 1880.00         |
| 18901               | 1880.10         | 18901              | 1880.10         |
| ...                 | ...             | ...                | ...             |
| 19193               | 1909.20         | 19185              | 1908.40         |
| 19194               | 1909.30         | 19186              | 1908.50         |
| LTE Band 2 (5MHz)   |                 | LTE Band 2 (10MHz) |                 |
| Channel             | Frequency (MHz) | Channel            | Frequency (MHz) |
| 18625               | 1852.50         | 18650              | 1855.00         |
| 18626               | 1852.60         | 18651              | 1855.10         |
| ....                | ....            | ....               | ....            |
| 18899               | 1879.90         | 18899              | 1879.90         |
| 18900               | 1880.00         | 18900              | 1880.00         |
| 18901               | 1880.10         | 18901              | 1880.10         |
| ...                 | ...             | ...                | ...             |
| 19175               | 1907.40         | 19150              | 1904.90         |
| 19176               | 1907.50         | 19151              | 1905.00         |
| LTE Band 2 (15MHz)  |                 | LTE Band 2 (20MHz) |                 |
| Channel             | Frequency (MHz) | Channel            | Frequency (MHz) |
| 18675               | 1857.50         | 18700              | 1860.00         |
| 18676               | 1857.60         | 18701              | 1860.10         |
| ....                | ....            | ....               | ....            |
| 18899               | 1879.90         | 18899              | 1879.90         |
| 18900               | 1880.00         | 18900              | 1880.00         |
| 18901               | 1880.10         | 18901              | 1880.10         |
| ...                 | ...             | ...                | ...             |
| 19125               | 1902.40         | 19100              | 1899.90         |
| 19126               | 1902.50         | 19101              | 1900.00         |

| LTE Band 4 (1.4MHz) |                 | LTE Band 4 (3MHz)  |                 |
|---------------------|-----------------|--------------------|-----------------|
| Channel             | Frequency (MHz) | Channel            | Frequency (MHz) |
| 19957               | 1710.70         | 19965              | 1711.50         |
| 19958               | 1710.80         | 19966              | 1711.60         |
| ....                | ....            | ....               | ....            |
| 20174               | 1732.40         | 20174              | 1732.40         |
| 20175               | 1732.50         | 20175              | 1732.50         |
| 20176               | 1732.60         | 20176              | 1732.60         |
| ...                 | ...             | ...                | ...             |
| 20392               | 1754.20         | 20384              | 1753.40         |
| 20393               | 1754.30         | 20385              | 1753.50         |
| LTE Band 4 (5MHz)   |                 | LTE Band 4 (10MHz) |                 |
| Channel             | Frequency (MHz) | Channel            | Frequency (MHz) |
| 19975               | 1712.50         | 20000              | 1715.00         |
| 19976               | 1712.60         | 20001              | 1715.10         |
| ....                | ....            | ....               | ....            |
| 20174               | 1732.40         | 20174              | 1732.40         |
| 20175               | 1732.50         | 20175              | 1732.50         |
| 20176               | 1732.60         | 20176              | 1732.60         |
| ...                 | ...             | ...                | ...             |
| 20374               | 1752.40         | 20349              | 1749.90         |
| 20375               | 1752.50         | 20350              | 1750.00         |
| LTE Band 4 (15MHz)  |                 | LTE Band 4 (20MHz) |                 |
| Channel             | Frequency (MHz) | Channel            | Frequency (MHz) |
| 20025               | 1717.50         | 20050              | 1720.00         |
| 20026               | 1717.60         | 20051              | 1720.10         |
| ....                | ....            | ....               | ....            |
| 20174               | 1732.40         | 20174              | 1732.40         |
| 20175               | 1732.50         | 20175              | 1732.50         |
| 20176               | 1732.60         | 20176              | 1732.60         |
| ...                 | ...             | ...                | ...             |
| 20324               | 1747.40         | 20299              | 1744.90         |
| 20325               | 1747.50         | 20300              | 1745.00         |

| LTE Band 7 (5MHz)  |                 | LTE Band 7 (10MHz) |                 |
|--------------------|-----------------|--------------------|-----------------|
| Channel            | Frequency (MHz) | Channel            | Frequency (MHz) |
| 20775              | 2502.50         | 20800              | 2505.00         |
| 20776              | 2502.60         | 20801              | 2502.10         |
| ....               | ....            | ....               | ....            |
| 21099              | 2534.90         | 21099              | 2534.90         |
| 21100              | 2535.00         | 21100              | 2535.00         |
| 21101              | 2535.20         | 21101              | 2535.20         |
| ...                | ...             | ...                | ...             |
| 21424              | 2567.40         | 21399              | 2564.90         |
| 21425              | 2567.50         | 21400              | 2565.00         |
| LTE Band 7 (15MHz) |                 | LTE Band 7 (20MHz) |                 |
| Channel            | Frequency (MHz) | Channel            | Frequency (MHz) |
| 20825              | 2507.50         | 20850              | 2510.00         |
| 20826              | 2507.60         | 20851              | 2510.10         |
| ....               | ....            | ....               | ....            |
| 21099              | 2534.90         | 21099              | 2534.90         |
| 21100              | 2535.00         | 21100              | 2535.00         |
| 21101              | 2535.20         | 21101              | 2535.20         |
| ...                | ...             | ...                | ...             |
| 21374              | 2562.40         | 21349              | 2559.90         |
| 21375              | 2562.50         | 21350              | 2560.00         |

Regards to the operating frequency range, the lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channels as below:

| LTE Band 2 (1.4MHz) |       |                 | LTE Band 2 (3MHz)  |       |                 |
|---------------------|-------|-----------------|--------------------|-------|-----------------|
| Channel             |       | Frequency (MHz) | Channel            |       | Frequency (MHz) |
| Lowest channel      | 18607 | 1850.70         | Lowest channel     | 18615 | 1851.50         |
| Middle channel      | 18900 | 1880.00         | Middle channel     | 18900 | 1880.00         |
| Highest channel     | 19193 | 1909.30         | Highest channel    | 19185 | 1908.50         |
| LTE Band 2 (5MHz)   |       |                 | LTE Band 2 (10MHz) |       |                 |
| Channel             |       | Frequency (MHz) | Channel            |       | Frequency (MHz) |
| Lowest channel      | 18625 | 1852.50         | Lowest channel     | 18650 | 1855.00         |
| Middle channel      | 18900 | 1880.00         | Middle channel     | 18900 | 1880.00         |
| Highest channel     | 19175 | 1907.50         | Highest channel    | 19150 | 1905.00         |
| LTE Band 2 (15MHz)  |       |                 | LTE Band 2 (20MHz) |       |                 |
| Channel             |       | Frequency (MHz) | Channel            |       | Frequency (MHz) |
| Lowest channel      | 18675 | 1857.50         | Lowest channel     | 18700 | 1860.00         |
| Middle channel      | 18900 | 1880.00         | Middle channel     | 18900 | 1880.00         |
| Highest channel     | 19125 | 1902.50         | Highest channel    | 19100 | 1900.00         |

| LTE Band 4 (1.4MHz) |       |                 | LTE Band 4 (3MHz)  |       |                 |
|---------------------|-------|-----------------|--------------------|-------|-----------------|
| Channel:            |       | Frequency (MHz) | Channel            |       | Frequency (MHz) |
| Lowest channel      | 19957 | 1710.70         | Lowest channel     | 19965 | 1711.50         |
| Middle channel      | 20175 | 1732.50         | Middle channel     | 20175 | 1732.50         |
| Highest channel     | 20393 | 1754.30         | Highest channel    | 20385 | 1753.50         |
| LTE Band 4 (5MHz)   |       |                 | LTE Band 4 (10MHz) |       |                 |
| Channel             |       | Frequency (MHz) | Channel            |       | Frequency (MHz) |
| Lowest channel      | 19975 | 1712.50         | Lowest channel     | 20000 | 1715.00         |
| Middle channel      | 20175 | 1732.50         | Middle channel     | 20175 | 1732.50         |
| Highest channel     | 20375 | 1752.50         | Highest channel    | 20350 | 1750.00         |
| LTE Band 4 (15MHz)  |       |                 | LTE Band 4 (20MHz) |       |                 |
| Channel             |       | Frequency (MHz) | Channel            |       | Frequency (MHz) |
| Lowest channel      | 20025 | 1717.50         | Lowest channel     | 20050 | 1720.00         |
| Middle channel      | 20175 | 1732.50         | Middle channel     | 20175 | 1732.50         |
| Highest channel     | 20325 | 1747.50         | Highest channel    | 20300 | 1745.00         |

| LTE Band 7 (5MHz)  |       |                 | LTE Band 7 (10MHz) |       |                 |
|--------------------|-------|-----------------|--------------------|-------|-----------------|
| Channel            |       | Frequency (MHz) | Channel            |       | Frequency (MHz) |
| Lowest channel     | 20775 | 2502.50         | Lowest channel     | 20800 | 2505.00         |
| Middle channel     | 21100 | 2535.00         | Middle channel     | 21100 | 2535.00         |
| Highest channel    | 21425 | 2567.50         | Highest channel    | 21400 | 2565.00         |
| LTE Band 7 (15MHz) |       |                 | LTE Band 7 (20MHz) |       |                 |
| Channel            |       | Frequency (MHz) | Channel            |       | Frequency (MHz) |
| Lowest channel     | 20825 | 2507.50         | Lowest channel     | 20850 | 2510.00         |
| Middle channel     | 21100 | 2535.00         | Middle channel     | 21100 | 2535.00         |
| Highest channel    | 21375 | 2562.50         | Highest channel    | 21350 | 2560.00         |

### 5.3 Test environment and mode, and test samples plans

| Operating Environment:                                                                                                                                                                                                                                                                                                                                                           |                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| Temperature:                                                                                                                                                                                                                                                                                                                                                                     | Normal: 15°C ~ 35°C, Extreme: -30°C ~ +50°C                      |
| Humidity:                                                                                                                                                                                                                                                                                                                                                                        | 20 % ~ 75 % RH                                                   |
| Atmospheric Pressure:                                                                                                                                                                                                                                                                                                                                                            | 1008 mbar                                                        |
| Voltage:                                                                                                                                                                                                                                                                                                                                                                         | Nominal: 3.85Vdc, Extreme: Low 3.5Vdc, High 4.40Vdc              |
| Test mode:                                                                                                                                                                                                                                                                                                                                                                       |                                                                  |
| LTE QPSK mode                                                                                                                                                                                                                                                                                                                                                                    | Keep the EUT communication with simulated station in QPSK mode   |
| LTE 16-QAM mode                                                                                                                                                                                                                                                                                                                                                                  | Keep the EUT communication with simulated station in 16-QAM mode |
| Remark: The EUT has been tested under continuous transmitting mode. Channel Low, Mid and High for each type band with rated data rate were chosen for full testing. The field strength of spurious radiation emission was measured as EUT stand-up position (H mode) and lie down position (E1, E2 mode) for these modes. Just the worst case position (H mode) shown in report. |                                                                  |

### 5.4 Description of Support Units

| Test Equipment    | Manufacturer | Model No. | Serial No. |
|-------------------|--------------|-----------|------------|
| Simulated Station | Anritsu      | MT8820C   | 6201026545 |

### 5.5 Measurement Uncertainty

| Parameters                          | Expanded Uncertainty |
|-------------------------------------|----------------------|
| Radiated Emission (9kHz ~ 30MHz)    | ±3.12 dB (k=2)       |
| Radiated Emission (30MHz ~ 1000MHz) | ±4.32 dB (k=2)       |
| Radiated Emission (1GHz ~ 18GHz)    | ±5.16 dB (k=2)       |
| Radiated Emission (18GHz ~ 40GHz)   | ±3.20 dB (k=2)       |

### 5.6 Related Submittal(s) / Grant (s)

|                                                              |
|--------------------------------------------------------------|
| This is an original grant, no related submittals and grants. |
|--------------------------------------------------------------|

### 5.7 Additions to, deviations, or exclusions from the method

|    |
|----|
| No |
|----|

### 5.8 Laboratory Facility

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>The test facility is recognized, certified, or accredited by the following organizations:</p> <ul style="list-style-type: none"> <li>● <b>FCC - Designation No.: CN1211</b><br/>JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission).The test firm Registration No. is 727551.</li> <li>● <b>ISED – CAB identifier.: CN0021</b><br/>The 3m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.</li> <li>● <b>A2LA - Registration No.: 4346.01</b><br/>This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: <a href="https://portal.a2la.org/scopepdf/4346-01.pdf">https://portal.a2la.org/scopepdf/4346-01.pdf</a></li> </ul> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## 5.9 Laboratory Location

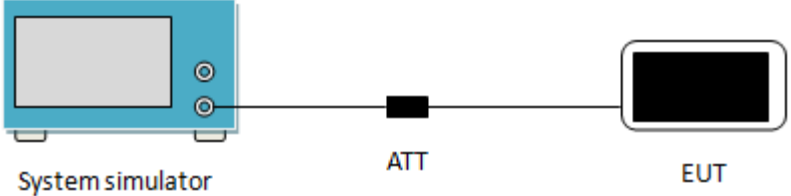
JianYan Testing Group Shenzhen Co., Ltd.  
Address: No.110~116, Building B, Jinyuan Business Building, Xixiang Road, Bao'an District, Shenzhen, Guangdong, China  
Tel: +86-755-23118282, Fax: +86-755-23116366  
Email: info@ccis-cb.com, Website: <http://www.ccis-cb.com>

## 5.10 Test Instruments list

| Test Equipment               | Manufacturer    | Model No.     | Serial No.         | Cal. Date (mm-dd-yy) | Cal. Due date (mm-dd-yy) |
|------------------------------|-----------------|---------------|--------------------|----------------------|--------------------------|
| 3m SAC                       | SAEMC           | 9m*6m*6m      | 966                | 07-22-2020           | 07-21-2021               |
| BiConiLog Antenna            | SCHWARZBECK     | VULB9163      | 497                | 03-07-2020           | 03-06-2021               |
| Biconical Antenna            | SCHWARZBECK     | VUBA9117      | 359                | 06-22-2020           | 06-21-2021               |
| Horn Antenna                 | SCHWARZBECK     | BBHA9120D     | 916                | 03-07-2020           | 03-06-2021               |
| Horn Antenna                 | SCHWARZBECK     | BBHA9120D     | 1805               | 06-22-2020           | 06-21-2021               |
| Horn Antenna                 | SCHWARZBECK     | BBHA 9170     | BBHA9170582        | 11-18-2019           | 11-17-2020               |
| EMI Test Software            | AUDIX           | E3            | Version: 6.110919b |                      |                          |
| Pre-amplifier                | HP              | 8447D         | 2944A09358         | 03-07-2020           | 03-06-2021               |
| Pre-amplifier                | CD              | PAP-1G18      | 11804              | 03-07-2020           | 03-06-2021               |
| Spectrum analyzer            | Rohde & Schwarz | FSP30         | 101454             | 03-05-2020           | 03-04-2021               |
| Spectrum analyzer            | Rohde & Schwarz | FSP40         | 100363             | 11-18-2019           | 11-17-2020               |
| EMI Test Receiver            | Rohde & Schwarz | ESRP7         | 101070             | 03-05-2020           | 03-04-2021               |
| Spectrum Analyzer            | Agilent         | N9020A        | MY50510123         | 11-18-2019           | 11-17-2020               |
| Signal Generator             | Rohde & Schwarz | SMX           | 835454/016         | 03-05-2020           | 03-04-2021               |
| Signal Generator             | R&S             | SMR20         | 1008100050         | 03-05-2020           | 03-04-2021               |
| RF Switch Unit               | MWRFTTEST       | MW200         | N/A                | N/A                  | N/A                      |
| Test Software                | MWRFTTEST       | MTS8200       | Version: 2.0.0.0   |                      |                          |
| Cable                        | ZDECL           | Z108-NJ-NJ-81 | 1608458            | 03-07-2020           | 03-06-2021               |
| Cable                        | MICRO-COAX      | MFR64639      | K10742-5           | 03-07-2020           | 03-06-2021               |
| Cable                        | SUHNER          | SUCOFLEX100   | 58193/4PE          | 03-07-2020           | 03-06-2021               |
| DC Power Supply              | XinNuoEr        | WYK-10020K    | 1409050110020      | 09-25-2019           | 09-24-2020               |
|                              |                 |               |                    | 09-25-2020           | 09-24-2021               |
| Temperature Humidity Chamber | HengPu          | HPGDS-500     | 20140828008        | 11-01-2019           | 11-31-2020               |
| Simulated Station            | Rohde & Schwarz | CMW500        | 140493             | 07-22-2020           | 07-21-2021               |

## 6. Test results

### 6.1 Conducted Output Power, ERP and EIRP

|                   |                                                                                                                                                                                                                                                                                                                                                |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement: | Part 22.913(a)(5), Part 24.232(c), Part 27.50(d)(4), Part 27.50 (h)(2)                                                                                                                                                                                                                                                                         |
| Limit:            | LTE Band 2: 2W, LTE Band 4: 1W, LTE Band 7: 2W,                                                                                                                                                                                                                                                                                                |
| Test Setup:       |  <p>The diagram illustrates the test setup. On the left is a blue box labeled 'System simulator'. A line connects it to a black box labeled 'ATT' (attenuator). Another line connects the 'ATT' box to a black box labeled 'EUT' (Equipment Under Test).</p> |
| Test Procedure:   | The transmitter output was connected to a calibrated attenuator, the other end of which was connected to the CMW500. Transmitter output power was read off in dBm.                                                                                                                                                                             |
| Test Instruments: | Refer to section 5.10 for details                                                                                                                                                                                                                                                                                                              |
| Test mode:        | Refer to section 5.3 for details                                                                                                                                                                                                                                                                                                               |
| Test results:     | Passed                                                                                                                                                                                                                                                                                                                                         |

## Measurement Data:

| LTE Band                                                     | Bandwidth (MHz) | Modulation          | RB Size | RB Offset | Average Power (dBm) |           |           |  |
|--------------------------------------------------------------|-----------------|---------------------|---------|-----------|---------------------|-----------|-----------|--|
|                                                              |                 |                     |         |           | 18607               | 18900     | 19193     |  |
|                                                              |                 |                     |         |           | 1850.7MHz           | 1880.0MHz | 1909.3MHz |  |
| 2                                                            | 1.4             | QPSK                | 1       | 0         | 21.56               | 21.65     | 21.29     |  |
|                                                              |                 |                     | 1       | 2         | 21.61               | 21.65     | 21.23     |  |
|                                                              |                 |                     | 1       | 5         | 21.57               | 21.62     | 21.27     |  |
|                                                              |                 |                     | 3       | 0         | 21.22               | 21.41     | 20.80     |  |
|                                                              |                 |                     | 3       | 1         | 21.22               | 21.38     | 20.84     |  |
|                                                              |                 |                     | 3       | 2         | 20.85               | 21.28     | 20.56     |  |
|                                                              |                 |                     | 6       | 0         | 20.83               | 21.25     | 20.33     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 0.87      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 22.52     |           |  |
|                                                              |                 | EIRP Limit (dBm):   |         |           |                     | 33.00     |           |  |
|                                                              |                 | 16QAM               | 1       | 0         | 21.14               | 21.29     | 20.69     |  |
|                                                              |                 |                     | 1       | 2         | 21.16               | 21.43     | 20.75     |  |
|                                                              |                 |                     | 1       | 5         | 21.16               | 21.26     | 20.73     |  |
|                                                              |                 |                     | 3       | 0         | 20.73               | 21.08     | 20.43     |  |
|                                                              |                 |                     | 3       | 1         | 20.76               | 21.09     | 20.38     |  |
|                                                              |                 |                     | 3       | 2         | 20.23               | 20.39     | 20.25     |  |
|                                                              |                 |                     | 6       | 0         | 20.21               | 20.36     | 20.22     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 0.87      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 22.30     |           |  |
| EIRP Limit (dBm):                                            |                 |                     |         | 33.00     |                     |           |           |  |
|                                                              |                 |                     |         |           |                     |           |           |  |
| LTE Band                                                     | Bandwidth (MHz) | Modulation          | RB Size | RB Offset | Average Power (dBm) |           |           |  |
|                                                              |                 |                     |         |           | 18615               | 18900     | 19185     |  |
|                                                              |                 |                     |         |           | 1851.5MHz           | 1880.0MHz | 1908.5MHz |  |
| 2                                                            | 3               | QPSK                | 1       | 0         | 21.44               | 21.64     | 20.61     |  |
|                                                              |                 |                     | 1       | 7         | 21.42               | 21.60     | 20.75     |  |
|                                                              |                 |                     | 1       | 14        | 21.51               | 21.60     | 20.80     |  |
|                                                              |                 |                     | 8       | 0         | 20.89               | 21.43     | 20.19     |  |
|                                                              |                 |                     | 8       | 4         | 20.86               | 21.36     | 20.25     |  |
|                                                              |                 |                     | 8       | 7         | 21.00               | 21.31     | 20.27     |  |
|                                                              |                 |                     | 15      | 0         | 20.88               | 21.28     | 20.24     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 0.87      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 22.51     |           |  |
|                                                              |                 | EIRP Limit (dBm):   |         |           |                     | 33.00     |           |  |
|                                                              |                 | 16QAM               | 1       | 0         | 20.67               | 21.02     | 21.02     |  |
|                                                              |                 |                     | 1       | 7         | 20.68               | 21.11     | 21.12     |  |
|                                                              |                 |                     | 1       | 14        | 20.62               | 21.11     | 21.10     |  |
|                                                              |                 |                     | 8       | 0         | 20.19               | 20.48     | 19.49     |  |
|                                                              |                 |                     | 8       | 4         | 20.23               | 20.46     | 19.51     |  |
|                                                              |                 |                     | 8       | 7         | 20.06               | 20.31     | 19.40     |  |
|                                                              |                 |                     | 15      | 0         | 20.02               | 20.28     | 19.52     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 0.87      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 21.99     |           |  |
| EIRP Limit (dBm):                                            |                 |                     |         | 33.00     |                     |           |           |  |
| Note: EIRP (dBm) = Average power (dBm) + Antenna Gain (dBi). |                 |                     |         |           |                     |           |           |  |

| LTE Band                                                     | Bandwidth (MHz) | Modulation          | RB Size | RB Offset | Average Power (dBm) |           |           |  |
|--------------------------------------------------------------|-----------------|---------------------|---------|-----------|---------------------|-----------|-----------|--|
|                                                              |                 |                     |         |           | 18625               | 18900     | 19175     |  |
|                                                              |                 |                     |         |           | 1852.5MHz           | 1880.0MHz | 1907.5MHz |  |
| 2                                                            | 5               | QPSK                | 1       | 0         | 21.35               | 21.59     | 20.77     |  |
|                                                              |                 |                     | 1       | 12        | 21.41               | 21.58     | 20.75     |  |
|                                                              |                 |                     | 1       | 24        | 21.32               | 21.54     | 20.85     |  |
|                                                              |                 |                     | 12      | 0         | 20.99               | 21.23     | 20.29     |  |
|                                                              |                 |                     | 12      | 6         | 21.04               | 21.20     | 20.35     |  |
|                                                              |                 |                     | 12      | 11        | 21.03               | 21.23     | 20.17     |  |
|                                                              |                 |                     | 25      | 0         | 21.00               | 21.24     | 20.15     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 0.87      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 22.46     |           |  |
|                                                              |                 | EIRP Limit (dBm):   |         |           |                     | 33.00     |           |  |
|                                                              |                 | 16QAM               | 1       | 0         | 20.91               | 20.89     | 20.39     |  |
|                                                              |                 |                     | 1       | 12        | 20.96               | 20.87     | 20.49     |  |
|                                                              |                 |                     | 1       | 24        | 20.94               | 20.92     | 20.58     |  |
|                                                              |                 |                     | 12      | 0         | 20.00               | 20.26     | 19.27     |  |
|                                                              |                 |                     | 12      | 6         | 19.99               | 20.22     | 19.32     |  |
|                                                              |                 |                     | 12      | 11        | 19.91               | 20.39     | 19.34     |  |
|                                                              |                 |                     | 25      | 0         | 19.95               | 20.35     | 19.45     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 0.87      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 21.83     |           |  |
|                                                              |                 | EIRP Limit (dBm):   |         |           |                     | 33.00     |           |  |
|                                                              |                 |                     |         |           |                     |           |           |  |
| LTE Band                                                     | Bandwidth (MHz) | Modulation          | RB Size | RB Offset | Average Power (dBm) |           |           |  |
|                                                              |                 |                     |         |           | 18650               | 18900     | 19150     |  |
|                                                              |                 |                     |         |           | 1855.0MHz           | 1880.0MHz | 1905.0MHz |  |
| 2                                                            | 10              | QPSK                | 1       | 0         | 21.42               | 21.55     | 20.80     |  |
|                                                              |                 |                     | 1       | 24        | 21.48               | 21.62     | 20.74     |  |
|                                                              |                 |                     | 1       | 49        | 21.56               | 21.63     | 20.82     |  |
|                                                              |                 |                     | 25      | 0         | 20.91               | 21.18     | 20.18     |  |
|                                                              |                 |                     | 25      | 12        | 20.96               | 21.08     | 20.15     |  |
|                                                              |                 |                     | 25      | 24        | 20.89               | 21.26     | 20.16     |  |
|                                                              |                 |                     | 50      | 0         | 20.85               | 21.23     | 20.13     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 0.87      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 22.50     |           |  |
|                                                              |                 | EIRP Limit (dBm):   |         |           |                     | 33.00     |           |  |
|                                                              |                 | 16QAM               | 1       | 0         | 20.36               | 21.01     | 20.43     |  |
|                                                              |                 |                     | 1       | 24        | 20.32               | 21.11     | 20.37     |  |
|                                                              |                 |                     | 1       | 49        | 20.39               | 21.13     | 20.50     |  |
|                                                              |                 |                     | 25      | 0         | 20.08               | 20.32     | 19.37     |  |
|                                                              |                 |                     | 25      | 12        | 20.11               | 20.27     | 19.45     |  |
|                                                              |                 |                     | 25      | 24        | 20.09               | 20.23     | 19.52     |  |
|                                                              |                 |                     | 50      | 0         | 20.06               | 20.21     | 19.36     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 0.87      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 22.00     |           |  |
|                                                              |                 | EIRP Limit (dBm):   |         |           |                     | 33.00     |           |  |
| Note: EIRP (dBm) = Average power (dBm) + Antenna Gain (dBi). |                 |                     |         |           |                     |           |           |  |

| LTE Band                                                     | Bandwidth (MHz) | Modulation          | RB Size | RB Offset | Average Power (dBm) |           |           |  |
|--------------------------------------------------------------|-----------------|---------------------|---------|-----------|---------------------|-----------|-----------|--|
|                                                              |                 |                     |         |           | 18675               | 18900     | 19125     |  |
|                                                              |                 |                     |         |           | 1857.5MHz           | 1880.0MHz | 1902.5MHz |  |
| 2                                                            | 15              | QPSK                | 1       | 0         | 21.39               | 21.52     | 20.90     |  |
|                                                              |                 |                     | 1       | 37        | 21.40               | 21.65     | 20.68     |  |
|                                                              |                 |                     | 1       | 74        | 21.41               | 21.64     | 20.81     |  |
|                                                              |                 |                     | 36      | 0         | 20.95               | 21.15     | 20.32     |  |
|                                                              |                 |                     | 36      | 16        | 20.99               | 21.27     | 20.20     |  |
|                                                              |                 |                     | 36      | 35        | 20.93               | 21.17     | 20.26     |  |
|                                                              |                 |                     | 75      | 0         | 20.95               | 21.14     | 20.25     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 0.87      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 22.52     |           |  |
|                                                              |                 | EIRP Limit (dBm):   |         |           |                     | 33.00     |           |  |
|                                                              |                 | 16QAM               | 1       | 0         | 20.90               | 21.05     | 20.48     |  |
|                                                              |                 |                     | 1       | 37        | 20.87               | 21.10     | 20.27     |  |
|                                                              |                 |                     | 1       | 74        | 20.86               | 21.12     | 20.35     |  |
|                                                              |                 |                     | 36      | 0         | 20.10               | 20.25     | 19.42     |  |
|                                                              |                 |                     | 36      | 16        | 20.16               | 20.31     | 19.33     |  |
|                                                              |                 |                     | 36      | 35        | 20.13               | 20.29     | 19.36     |  |
|                                                              |                 |                     | 75      | 0         | 20.11               | 20.25     | 19.42     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 0.87      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 21.99     |           |  |
| EIRP Limit (dBm):                                            |                 |                     |         | 33.00     |                     |           |           |  |
|                                                              |                 |                     |         |           |                     |           |           |  |
| LTE Band                                                     | Bandwidth (MHz) | Modulation          | RB Size | RB Offset | Average Power (dBm) |           |           |  |
|                                                              |                 |                     |         |           | 18700               | 18900     | 19100     |  |
|                                                              |                 |                     |         |           | 1860.0MHz           | 1880.0MHz | 1900.0MHz |  |
| 2                                                            | 20              | QPSK                | 1       | 0         | 21.64               | 21.60     | 21.07     |  |
|                                                              |                 |                     | 1       | 49        | 21.58               | 21.74     | 20.76     |  |
|                                                              |                 |                     | 1       | 99        | 21.63               | 21.70     | 20.80     |  |
|                                                              |                 |                     | 50      | 0         | 20.88               | 21.03     | 20.41     |  |
|                                                              |                 |                     | 50      | 24        | 20.94               | 21.11     | 20.30     |  |
|                                                              |                 |                     | 50      | 49        | 20.99               | 21.23     | 20.35     |  |
|                                                              |                 |                     | 100     | 0         | 20.98               | 21.22     | 20.33     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 0.87      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 22.61     |           |  |
|                                                              |                 | EIRP Limit (dBm):   |         |           |                     | 33.00     |           |  |
|                                                              |                 | 16QAM               | 1       | 0         | 20.79               | 20.96     | 20.68     |  |
|                                                              |                 |                     | 1       | 49        | 20.86               | 21.06     | 20.29     |  |
|                                                              |                 |                     | 1       | 99        | 20.88               | 21.00     | 20.35     |  |
|                                                              |                 |                     | 50      | 0         | 20.14               | 20.37     | 19.63     |  |
|                                                              |                 |                     | 50      | 24        | 20.15               | 20.45     | 19.44     |  |
|                                                              |                 |                     | 50      | 49        | 20.13               | 20.46     | 19.46     |  |
|                                                              |                 |                     | 100     | 0         | 20.11               | 20.42     | 19.45     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 0.87      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 21.93     |           |  |
| EIRP Limit (dBm):                                            |                 |                     |         | 33.00     |                     |           |           |  |
| Note: EIRP (dBm) = Average power (dBm) + Antenna Gain (dBi). |                 |                     |         |           |                     |           |           |  |

| LTE Band                                                     | Bandwidth (MHz) | Modulation          | RB Size | RB Offset | Average Power (dBm) |           |           |  |
|--------------------------------------------------------------|-----------------|---------------------|---------|-----------|---------------------|-----------|-----------|--|
|                                                              |                 |                     |         |           | 19957               | 20175     | 20393     |  |
|                                                              |                 |                     |         |           | 1710.7MHz           | 1732.5MHz | 1754.3MHz |  |
| 4                                                            | 1.4             | QPSK                | 1       | 0         | 21.63               | 22.33     | 21.54     |  |
|                                                              |                 |                     | 1       | 2         | 21.66               | 22.43     | 21.57     |  |
|                                                              |                 |                     | 1       | 5         | 21.63               | 22.35     | 21.54     |  |
|                                                              |                 |                     | 3       | 0         | 21.54               | 21.82     | 21.46     |  |
|                                                              |                 |                     | 3       | 1         | 21.52               | 21.95     | 21.43     |  |
|                                                              |                 |                     | 3       | 2         | 20.80               | 21.51     | 20.98     |  |
|                                                              |                 |                     | 6       | 0         | 20.78               | 21.50     | 20.95     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 0.81      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 23.24     |           |  |
|                                                              |                 | EIRP Limit (dBm):   |         |           |                     | 30.00     |           |  |
|                                                              |                 | 16QAM               | 1       | 0         | 21.30               | 22.08     | 21.15     |  |
|                                                              |                 |                     | 1       | 2         | 21.38               | 22.11     | 21.36     |  |
|                                                              |                 |                     | 1       | 5         | 21.25               | 22.14     | 21.16     |  |
|                                                              |                 |                     | 3       | 0         | 20.94               | 21.37     | 20.97     |  |
|                                                              |                 |                     | 3       | 1         | 21.01               | 21.36     | 20.95     |  |
|                                                              |                 |                     | 3       | 2         | 20.30               | 20.99     | 20.34     |  |
|                                                              |                 |                     | 6       | 0         | 20.25               | 20.89     | 20.32     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 0.81      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 22.95     |           |  |
| EIRP Limit (dBm):                                            |                 |                     |         | 30.00     |                     |           |           |  |
|                                                              |                 |                     |         |           |                     |           |           |  |
| LTE Band                                                     | Bandwidth (MHz) | Modulation          | RB Size | RB Offset | Average Power (dBm) |           |           |  |
|                                                              |                 |                     |         |           | 19965               | 20175     | 20385     |  |
|                                                              |                 |                     |         |           | 1711.5MHz           | 1732.5MHz | 1753.5MHz |  |
| 4                                                            | 3               | QPSK                | 1       | 0         | 21.49               | 22.37     | 21.54     |  |
|                                                              |                 |                     | 1       | 7         | 21.48               | 22.42     | 21.62     |  |
|                                                              |                 |                     | 1       | 14        | 21.45               | 22.43     | 21.62     |  |
|                                                              |                 |                     | 8       | 0         | 21.05               | 21.83     | 21.00     |  |
|                                                              |                 |                     | 8       | 4         | 21.04               | 21.94     | 20.97     |  |
|                                                              |                 |                     | 8       | 7         | 21.04               | 21.89     | 20.99     |  |
|                                                              |                 |                     | 15      | 0         | 21.02               | 21.78     | 20.95     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 0.81      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 23.24     |           |  |
|                                                              |                 | EIRP Limit (dBm):   |         |           |                     | 30.00     |           |  |
|                                                              |                 | 16QAM               | 1       | 0         | 21.10               | 22.18     | 20.98     |  |
|                                                              |                 |                     | 1       | 7         | 20.99               | 22.13     | 20.99     |  |
|                                                              |                 |                     | 1       | 14        | 21.08               | 22.13     | 20.90     |  |
|                                                              |                 |                     | 8       | 0         | 20.28               | 21.13     | 20.28     |  |
|                                                              |                 |                     | 8       | 4         | 20.34               | 21.15     | 20.25     |  |
|                                                              |                 |                     | 8       | 7         | 20.07               | 21.09     | 20.09     |  |
|                                                              |                 |                     | 15      | 0         | 20.05               | 21.04     | 20.06     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 0.81      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 22.99     |           |  |
| EIRP Limit (dBm):                                            |                 |                     |         | 30.00     |                     |           |           |  |
| Note: EIRP (dBm) = Average power (dBm) + Antenna Gain (dBi). |                 |                     |         |           |                     |           |           |  |

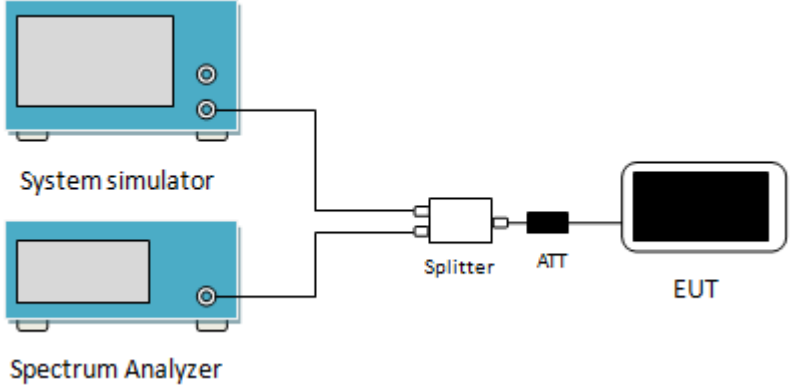
| LTE Band                                                     | Bandwidth (MHz) | Modulation          | RB Size | RB Offset | Average Power (dBm) |           |           |  |
|--------------------------------------------------------------|-----------------|---------------------|---------|-----------|---------------------|-----------|-----------|--|
|                                                              |                 |                     |         |           | 19975               | 20175     | 20375     |  |
|                                                              |                 |                     |         |           | 1712.5MHz           | 1732.5MHz | 1752.5MHz |  |
| 4                                                            | 5               | QPSK                | 1       | 0         | 21.44               | 22.41     | 21.34     |  |
|                                                              |                 |                     | 1       | 12        | 21.43               | 22.47     | 21.27     |  |
|                                                              |                 |                     | 1       | 24        | 21.38               | 22.48     | 21.13     |  |
|                                                              |                 |                     | 12      | 0         | 20.99               | 21.86     | 20.96     |  |
|                                                              |                 |                     | 12      | 6         | 20.96               | 21.98     | 20.87     |  |
|                                                              |                 |                     | 12      | 11        | 20.95               | 21.87     | 20.93     |  |
|                                                              |                 |                     | 25      | 0         | 20.92               | 21.85     | 20.91     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 0.81      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 23.29     |           |  |
|                                                              |                 | EIRP Limit (dBm):   |         |           |                     | 30.00     |           |  |
|                                                              |                 | 16QAM               | 1       | 0         | 20.74               | 22.03     | 20.86     |  |
|                                                              |                 |                     | 1       | 12        | 20.72               | 22.21     | 20.87     |  |
|                                                              |                 |                     | 1       | 24        | 20.78               | 22.12     | 20.88     |  |
|                                                              |                 |                     | 12      | 0         | 20.06               | 20.91     | 20.00     |  |
|                                                              |                 |                     | 12      | 6         | 20.05               | 20.98     | 19.97     |  |
|                                                              |                 |                     | 12      | 11        | 20.25               | 20.99     | 19.94     |  |
|                                                              |                 |                     | 25      | 0         | 20.22               | 20.95     | 19.96     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 0.81      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 23.02     |           |  |
| EIRP Limit (dBm):                                            |                 |                     |         | 30.00     |                     |           |           |  |
|                                                              |                 |                     |         |           |                     |           |           |  |
| LTE Band                                                     | Bandwidth (MHz) | Modulation          | RB Size | RB Offset | Average Power (dBm) |           |           |  |
|                                                              |                 |                     |         |           | 20000               | 20175     | 20350     |  |
|                                                              |                 |                     |         |           | 1715.0MHz           | 1732.5MHz | 1750.0MHz |  |
| 4                                                            | 10              | QPSK                | 1       | 0         | 21.49               | 22.18     | 21.66     |  |
|                                                              |                 |                     | 1       | 24        | 21.46               | 22.35     | 21.46     |  |
|                                                              |                 |                     | 1       | 49        | 21.64               | 22.34     | 21.34     |  |
|                                                              |                 |                     | 25      | 0         | 21.05               | 21.80     | 21.01     |  |
|                                                              |                 |                     | 25      | 12        | 21.05               | 21.87     | 21.04     |  |
|                                                              |                 |                     | 25      | 24        | 21.05               | 21.89     | 21.02     |  |
|                                                              |                 |                     | 50      | 0         | 21.02               | 21.87     | 21.00     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 0.81      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 23.16     |           |  |
|                                                              |                 | EIRP Limit (dBm):   |         |           |                     | 30.00     |           |  |
|                                                              |                 | 16QAM               | 1       | 0         | 20.38               | 21.65     | 22.02     |  |
|                                                              |                 |                     | 1       | 24        | 20.38               | 21.87     | 21.77     |  |
|                                                              |                 |                     | 1       | 49        | 20.55               | 21.72     | 21.68     |  |
|                                                              |                 |                     | 25      | 0         | 20.17               | 20.97     | 20.29     |  |
|                                                              |                 |                     | 25      | 12        | 20.21               | 21.05     | 20.14     |  |
|                                                              |                 |                     | 25      | 24        | 20.20               | 21.04     | 20.12     |  |
|                                                              |                 |                     | 50      | 0         | 20.17               | 21.02     | 20.00     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 0.81      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 22.83     |           |  |
| EIRP Limit (dBm):                                            |                 |                     |         | 30.00     |                     |           |           |  |
| Note: EIRP (dBm) = Average power (dBm) + Antenna Gain (dBi). |                 |                     |         |           |                     |           |           |  |

| LTE Band                                                     | Bandwidth (MHz) | Modulation          | RB Size | RB Offset | Average Power (dBm) |           |           |  |
|--------------------------------------------------------------|-----------------|---------------------|---------|-----------|---------------------|-----------|-----------|--|
|                                                              |                 |                     |         |           | 20025               | 20175     | 20325     |  |
|                                                              |                 |                     |         |           | 1717.5MHz           | 1732.5MHz | 1747.5MHz |  |
| 4                                                            | 15              | QPSK                | 1       | 0         | 21.48               | 22.14     | 22.32     |  |
|                                                              |                 |                     | 1       | 37        | 21.56               | 22.43     | 21.81     |  |
|                                                              |                 |                     | 1       | 74        | 21.84               | 22.26     | 21.67     |  |
|                                                              |                 |                     | 36      | 0         | 20.98               | 21.83     | 21.40     |  |
|                                                              |                 |                     | 36      | 16        | 21.21               | 21.82     | 20.88     |  |
|                                                              |                 |                     | 36      | 35        | 21.06               | 21.82     | 21.19     |  |
|                                                              |                 |                     | 75      | 0         | 21.05               | 21.81     | 21.15     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 0.81      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 23.24     |           |  |
|                                                              |                 | EIRP Limit (dBm):   |         |           |                     | 30.00     |           |  |
|                                                              |                 | 16QAM               | 1       | 0         | 20.89               | 21.75     | 21.70     |  |
|                                                              |                 |                     | 1       | 37        | 20.96               | 22.00     | 21.26     |  |
|                                                              |                 |                     | 1       | 74        | 21.36               | 21.87     | 21.07     |  |
|                                                              |                 |                     | 36      | 0         | 20.28               | 20.97     | 20.62     |  |
|                                                              |                 |                     | 36      | 16        | 20.42               | 21.03     | 20.21     |  |
|                                                              |                 |                     | 36      | 35        | 20.41               | 21.02     | 20.20     |  |
|                                                              |                 |                     | 75      | 0         | 20.35               | 21.01     | 20.19     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 0.81      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 22.81     |           |  |
|                                                              |                 | EIRP Limit (dBm):   |         |           |                     | 30.00     |           |  |
|                                                              |                 |                     |         |           |                     |           |           |  |
| LTE Band                                                     | Bandwidth (MHz) | Modulation          | RB Size | RB Offset | Average Power (dBm) |           |           |  |
|                                                              |                 |                     |         |           | 20050               | 20175     | 20300     |  |
|                                                              |                 |                     |         |           | 1720.0MHz           | 1732.5MHz | 1745.0MHz |  |
| 4                                                            | 20              | QPSK                | 1       | 0         | 21.71               | 22.13     | 22.41     |  |
|                                                              |                 |                     | 1       | 49        | 21.84               | 22.53     | 21.94     |  |
|                                                              |                 |                     | 1       | 99        | 22.44               | 22.26     | 21.52     |  |
|                                                              |                 |                     | 50      | 0         | 21.06               | 21.74     | 21.73     |  |
|                                                              |                 |                     | 50      | 24        | 21.45               | 21.75     | 21.07     |  |
|                                                              |                 |                     | 50      | 49        | 21.23               | 21.83     | 21.34     |  |
|                                                              |                 |                     | 100     | 0         | 21.22               | 21.80     | 21.32     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 0.81      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 23.34     |           |  |
|                                                              |                 | EIRP Limit (dBm):   |         |           |                     | 30.00     |           |  |
|                                                              |                 | 16QAM               | 1       | 0         | 20.90               | 21.37     | 22.23     |  |
|                                                              |                 |                     | 1       | 49        | 20.97               | 21.71     | 21.61     |  |
|                                                              |                 |                     | 1       | 99        | 21.61               | 21.46     | 21.22     |  |
|                                                              |                 |                     | 50      | 0         | 20.29               | 20.90     | 20.84     |  |
|                                                              |                 |                     | 50      | 24        | 20.62               | 21.03     | 20.24     |  |
|                                                              |                 |                     | 50      | 49        | 20.35               | 21.02     | 20.23     |  |
|                                                              |                 |                     | 100     | 0         | 20.33               | 21.00     | 20.21     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 0.81      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 23.04     |           |  |
|                                                              |                 | EIRP Limit (dBm):   |         |           |                     | 30.00     |           |  |
| Note: EIRP (dBm) = Average power (dBm) + Antenna Gain (dBi). |                 |                     |         |           |                     |           |           |  |

| LTE Band                                                     | Bandwidth (MHz) | Modulation          | RB Size | RB Offset | Average Power (dBm) |           |           |  |
|--------------------------------------------------------------|-----------------|---------------------|---------|-----------|---------------------|-----------|-----------|--|
|                                                              |                 |                     |         |           | 20775               | 21100     | 21425     |  |
|                                                              |                 |                     |         |           | 2502.5MHz           | 2535.0MHz | 2567.5MHz |  |
| 7                                                            | 5               | QPSK                | 1       | 0         | 20.73               | 20.63     | 20.78     |  |
|                                                              |                 |                     | 1       | 12        | 20.73               | 20.68     | 20.73     |  |
|                                                              |                 |                     | 1       | 24        | 20.85               | 20.71     | 20.80     |  |
|                                                              |                 |                     | 12      | 0         | 20.31               | 20.35     | 20.26     |  |
|                                                              |                 |                     | 12      | 6         | 20.31               | 20.35     | 20.29     |  |
|                                                              |                 |                     | 12      | 11        | 20.36               | 20.26     | 20.14     |  |
|                                                              |                 |                     | 25      | 0         | 20.35               | 20.24     | 20.12     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 1.02      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 21.87     |           |  |
|                                                              |                 | EIRP Limit (dBm):   |         |           |                     | 33.00     |           |  |
|                                                              |                 | 16QAM               | 1       | 0         | 20.38               | 20.21     | 19.95     |  |
|                                                              |                 |                     | 1       | 12        | 20.28               | 20.25     | 19.98     |  |
|                                                              |                 |                     | 1       | 24        | 20.41               | 20.25     | 20.02     |  |
|                                                              |                 |                     | 12      | 0         | 19.35               | 19.38     | 19.29     |  |
|                                                              |                 |                     | 12      | 6         | 19.36               | 19.40     | 19.29     |  |
|                                                              |                 |                     | 12      | 11        | 19.33               | 19.26     | 19.38     |  |
|                                                              |                 |                     | 25      | 0         | 19.32               | 19.24     | 19.40     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 1.02      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 21.43     |           |  |
| EIRP Limit (dBm):                                            |                 |                     |         | 33.00     |                     |           |           |  |
|                                                              |                 |                     |         |           |                     |           |           |  |
| LTE Band                                                     | Bandwidth (MHz) | Modulation          | RB Size | RB Offset | Average Power (dBm) |           |           |  |
|                                                              |                 |                     |         |           | 20800               | 21100     | 21400     |  |
|                                                              |                 |                     |         |           | 2505.0MHz           | 2535.0MHz | 2565.0MHz |  |
| 7                                                            | 10              | QPSK                | 1       | 0         | 20.68               | 20.79     | 20.95     |  |
|                                                              |                 |                     | 1       | 24        | 20.77               | 20.78     | 20.84     |  |
|                                                              |                 |                     | 1       | 49        | 20.86               | 20.87     | 20.91     |  |
|                                                              |                 |                     | 25      | 0         | 20.27               | 20.27     | 20.35     |  |
|                                                              |                 |                     | 25      | 12        | 20.26               | 20.35     | 20.25     |  |
|                                                              |                 |                     | 25      | 24        | 20.35               | 20.38     | 20.33     |  |
|                                                              |                 |                     | 50      | 0         | 20.33               | 20.35     | 20.31     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 1.02      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 21.97     |           |  |
|                                                              |                 | EIRP Limit (dBm):   |         |           |                     | 33.00     |           |  |
|                                                              |                 | 16QAM               | 1       | 0         | 20.13               | 20.52     | 19.72     |  |
|                                                              |                 |                     | 1       | 24        | 20.19               | 20.62     | 19.69     |  |
|                                                              |                 |                     | 1       | 49        | 20.30               | 20.53     | 19.65     |  |
|                                                              |                 |                     | 25      | 0         | 19.42               | 19.53     | 19.42     |  |
|                                                              |                 |                     | 25      | 12        | 19.50               | 19.62     | 19.38     |  |
|                                                              |                 |                     | 25      | 24        | 19.52               | 19.63     | 19.40     |  |
|                                                              |                 |                     | 50      | 0         | 19.48               | 19.60     | 19.36     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 1.02      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 21.64     |           |  |
| EIRP Limit (dBm):                                            |                 |                     |         | 33.00     |                     |           |           |  |
| Note: EIRP (dBm) = Average power (dBm) + Antenna Gain (dBi). |                 |                     |         |           |                     |           |           |  |

| LTE Band                                                     | Bandwidth (MHz) | Modulation          | RB Size | RB Offset | Average Power (dBm) |           |           |  |
|--------------------------------------------------------------|-----------------|---------------------|---------|-----------|---------------------|-----------|-----------|--|
|                                                              |                 |                     |         |           | 20825               | 21100     | 21375     |  |
|                                                              |                 |                     |         |           | 2507.5MHz           | 2535.0MHz | 2562.5MHz |  |
| 7                                                            | 15              | QPSK                | 1       | 0         | 20.73               | 20.78     | 20.98     |  |
|                                                              |                 |                     | 1       | 37        | 20.80               | 20.81     | 20.91     |  |
|                                                              |                 |                     | 1       | 74        | 20.83               | 20.91     | 20.86     |  |
|                                                              |                 |                     | 36      | 0         | 20.23               | 20.24     | 20.26     |  |
|                                                              |                 |                     | 36      | 16        | 20.32               | 20.23     | 20.23     |  |
|                                                              |                 |                     | 36      | 35        | 20.26               | 20.33     | 20.16     |  |
|                                                              |                 |                     | 75      | 0         | 20.23               | 20.31     | 20.12     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 1.02      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 22.00     |           |  |
|                                                              |                 | EIRP Limit (dBm):   |         |           |                     | 33.00     |           |  |
|                                                              |                 | 16QAM               | 1       | 0         | 20.23               | 20.07     | 20.03     |  |
|                                                              |                 |                     | 1       | 37        | 20.32               | 20.24     | 20.05     |  |
|                                                              |                 |                     | 1       | 74        | 20.25               | 20.11     | 20.12     |  |
|                                                              |                 |                     | 36      | 0         | 19.55               | 19.48     | 19.41     |  |
|                                                              |                 |                     | 36      | 16        | 19.56               | 19.55     | 19.39     |  |
|                                                              |                 |                     | 36      | 35        | 19.57               | 19.56     | 19.40     |  |
|                                                              |                 |                     | 75      | 0         | 19.52               | 19.54     | 19.38     |  |
| Antenna Gain (dBi):                                          |                 |                     |         | 1.02      |                     |           |           |  |
| Max. EIRP (dBm):                                             |                 |                     |         | 21.34     |                     |           |           |  |
| EIRP Limit (dBm):                                            |                 |                     |         | 33.00     |                     |           |           |  |
|                                                              |                 |                     |         |           |                     |           |           |  |
| LTE Band                                                     | Bandwidth (MHz) | Modulation          | RB Size | RB Offset | Average Power (dBm) |           |           |  |
|                                                              |                 |                     |         |           | 20850               | 21100     | 21350     |  |
|                                                              |                 |                     |         |           | 2510.0MHz           | 2535.0MHz | 2560.0MHz |  |
| 7                                                            | 20              | QPSK                | 1       | 0         | 21.08               | 20.79     | 21.10     |  |
|                                                              |                 |                     | 1       | 49        | 21.12               | 20.87     | 20.88     |  |
|                                                              |                 |                     | 1       | 99        | 21.13               | 21.02     | 20.89     |  |
|                                                              |                 |                     | 50      | 0         | 20.27               | 20.42     | 20.37     |  |
|                                                              |                 |                     | 50      | 24        | 20.32               | 20.32     | 20.27     |  |
|                                                              |                 |                     | 50      | 49        | 20.42               | 20.34     | 20.35     |  |
|                                                              |                 |                     | 100     | 0         | 20.41               | 20.33     | 20.32     |  |
|                                                              |                 | Antenna Gain (dBi): |         |           |                     | 1.02      |           |  |
|                                                              |                 | Max. EIRP (dBm):    |         |           |                     | 22.15     |           |  |
|                                                              |                 | EIRP Limit (dBm):   |         |           |                     | 33.00     |           |  |
|                                                              |                 | 16QAM               | 1       | 0         | 20.32               | 19.91     | 20.64     |  |
|                                                              |                 |                     | 1       | 49        | 20.34               | 19.87     | 20.38     |  |
|                                                              |                 |                     | 1       | 99        | 20.39               | 20.02     | 20.44     |  |
|                                                              |                 |                     | 50      | 0         | 19.49               | 19.49     | 19.56     |  |
|                                                              |                 |                     | 50      | 24        | 19.55               | 19.58     | 19.43     |  |
|                                                              |                 |                     | 50      | 49        | 19.56               | 19.57     | 19.46     |  |
|                                                              |                 |                     | 100     | 0         | 19.52               | 19.54     | 19.42     |  |
| Antenna Gain (dBi):                                          |                 |                     |         | 1.02      |                     |           |           |  |
| Max. EIRP (dBm):                                             |                 |                     |         | 21.66     |                     |           |           |  |
| EIRP Limit (dBm):                                            |                 |                     |         | 33.00     |                     |           |           |  |
| Note: EIRP (dBm) = Average power (dBm) + Antenna Gain (dBi). |                 |                     |         |           |                     |           |           |  |

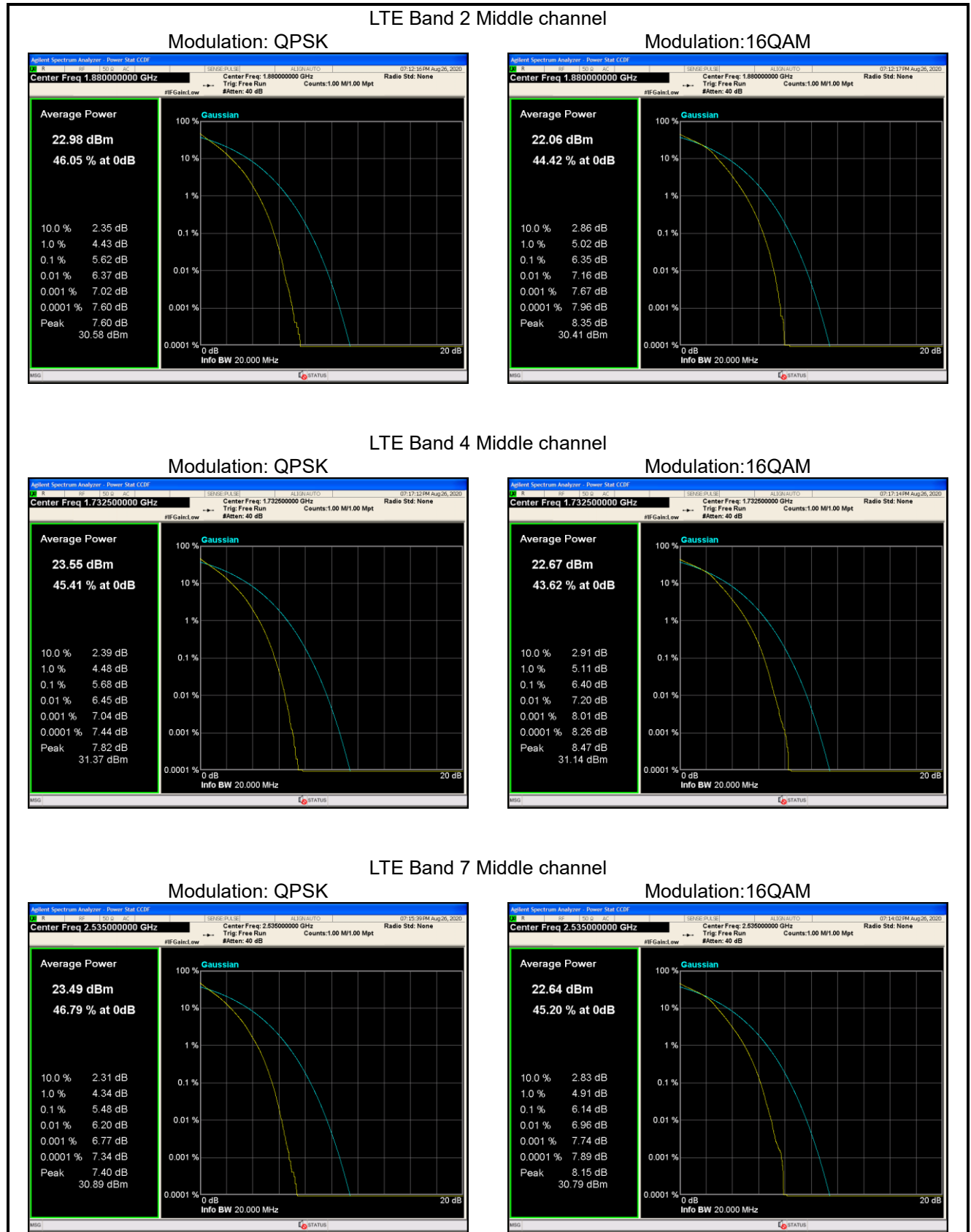
## 6.2 Peak-to-Average Ratio

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement: | Part 24.232 (d), Part 27.50(d)(5)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Limit:            | The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Test Setup:       |  <p>The diagram illustrates the test setup. On the left, there are two blue rectangular blocks: the top one is labeled 'System simulator' and the bottom one is labeled 'Spectrum Analyzer'. Both have a single output port. These two ports are connected to a single input port of a white rectangular block labeled 'Splitter'. The 'Splitter' has two output ports. One output port is connected to a black rectangular block labeled 'ATT' (Attenuator). The other output port is connected to a black rectangular block labeled 'EUT' (Equipment Under Test).</p> |
| Test Procedure:   | <ol style="list-style-type: none"> <li>1 The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation.</li> <li>2 Set the CCDF option in spectrum analyzer, <math>RBW \geq OBW</math>,</li> <li>3 Set the EUT working in highest power level, measured and recorded the 0.1% as PAPR level.</li> <li>4 Repeat step 1~3 at other frequency and modulations.</li> </ol>                                                                                                                                                                                                                                            |
| Test Instruments: | Refer to section 5.10 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Test mode:        | Refer to section 5.3 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Test results:     | Passed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

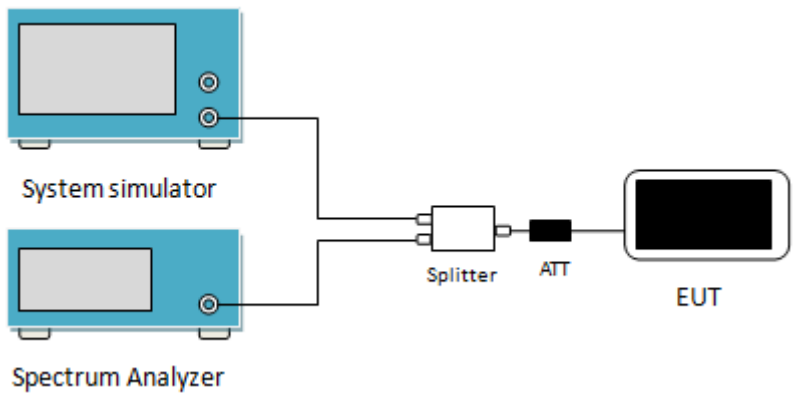
**Measurement Data (Worst case):**

| Bandwidth                   | Modulation | RB Size | RB Offset | PAPR |
|-----------------------------|------------|---------|-----------|------|
| LTE Band 2 (Middle Channel) |            |         |           |      |
| 20MHz                       | QPSK       | 100     | 0         | 5.62 |
|                             | 16QAM      | 100     | 0         | 6.35 |
| LTE Band 4 (Middle Channel) |            |         |           |      |
| 20MHz                       | QPSK       | 100     | 0         | 5.68 |
|                             | 16QAM      | 100     | 0         | 6.40 |
| LTE Band 7 (Middle Channel) |            |         |           |      |
| 20MHz                       | QPSK       | 100     | 0         | 5.48 |
|                             | 16QAM      | 100     | 0         | 6.14 |

Test plots as below:



### 6.3 Occupy Bandwidth

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Test Requirement: | Part 24.238(b), Part 27.53(h), Part 27.53(m)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Test Setup:       |  <p>The diagram illustrates the test setup. On the left, there are two blue rectangular units: the top one is labeled 'System simulator' and the bottom one is labeled 'Spectrum Analyzer'. Both have a single output port. These two ports are connected to a single input port of a white rectangular unit labeled 'Splitter'. The 'Splitter' has two output ports. One output port is connected to a black rectangular unit labeled 'ATT' (Attenuator). The other output port is connected to a black rectangular unit labeled 'EUT' (Equipment Under Test).</p> |
| Test Procedure:   | <ol style="list-style-type: none"> <li>1. The EUT's output RF connector was connected with a short cable to the spectrum analyzer</li> <li>2. RBW was set to about 1% ~ 5% of emission BW, VBW= 3 times RBW.</li> <li>3. -26dBc display line was placed on the screen (or 99% bandwidth), the occupied bandwidth is the delta frequency between the two points where the display line intersects the signal trace.</li> </ol>                                                                                                                                                                                                                         |
| Test Instruments: | Refer to section 5.10 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Test mode:        | Refer to section 5.3 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Test results:     | Passed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

**Measurement Data:**

| LTE Band 2 |         |                 |            |               |                 |
|------------|---------|-----------------|------------|---------------|-----------------|
| Bandwidth  | Channel | Frequency (MHz) | Modulation | 99% OBW (kHz) | -26dBcEBW (kHz) |
| 1.4MHz     | 18607   | 1850.70         | 16QAM      | 1104          | 1296            |
|            |         |                 | QPSK       | 1104          | 1260            |
|            | 18900   | 1880.00         | 16QAM      | 1098          | 1272            |
|            |         |                 | QPSK       | 1098          | 1260            |
|            | 19193   | 1909.30         | 16QAM      | 1098          | 1266            |
|            |         |                 | QPSK       | 1104          | 1248            |
| 3MHz       | 18615   | 1851.50         | 16QAM      | 2760          | 3204            |
|            |         |                 | QPSK       | 2772          | 3120            |
|            | 18900   | 1880.00         | 16QAM      | 2736          | 3108            |
|            |         |                 | QPSK       | 2760          | 3156            |
|            | 19185   | 1908.50         | 16QAM      | 2748          | 3060            |
|            |         |                 | QPSK       | 2760          | 3108            |
| 5MHz       | 18625   | 1852.50         | 16QAM      | 4520          | 4920            |
|            |         |                 | QPSK       | 4540          | 4940            |
|            | 18900   | 1880.00         | 16QAM      | 4480          | 5000            |
|            |         |                 | QPSK       | 4540          | 4980            |
|            | 19175   | 1907.50         | 16QAM      | 4480          | 4920            |
|            |         |                 | QPSK       | 4520          | 5020            |
| 10MHz      | 18650   | 1855.00         | 16QAM      | 9080          | 10160           |
|            |         |                 | QPSK       | 9120          | 10320           |
|            | 18900   | 1880.00         | 16QAM      | 9120          | 10080           |
|            |         |                 | QPSK       | 9080          | 10200           |
|            | 19150   | 1905.00         | 16QAM      | 9080          | 10120           |
|            |         |                 | QPSK       | 9080          | 10120           |
| 15MHz      | 18675   | 1857.50         | 16QAM      | 13500         | 14520           |
|            |         |                 | QPSK       | 13560         | 14820           |
|            | 18900   | 1880.00         | 16QAM      | 13560         | 14820           |
|            |         |                 | QPSK       | 13500         | 15060           |
|            | 19125   | 1902.50         | 16QAM      | 13500         | 14880           |
|            |         |                 | QPSK       | 13500         | 14880           |
| 20MHz      | 18700   | 1860.00         | 16QAM      | 18000         | 19360           |
|            |         |                 | QPSK       | 18000         | 19680           |
|            | 18900   | 1880.00         | 16QAM      | 18000         | 19600           |
|            |         |                 | QPSK       | 18080         | 19680           |
|            | 19100   | 1900.00         | 16QAM      | 17920         | 19440           |
|            |         |                 | QPSK       | 18080         | 19760           |

| LTE Band 4 |         |                 |            |               |                 |
|------------|---------|-----------------|------------|---------------|-----------------|
| Bandwidth  | Channel | Frequency (MHz) | Modulation | 99% OBW (kHz) | -26dBcEBW (kHz) |
| 1.4MHz     | 19957   | 1710.7          | 16QAM      | 1098          | 1260            |
|            |         |                 | QPSK       | 1092          | 1266            |
|            | 20175   | 1732.5          | 16QAM      | 1098          | 1266            |
|            |         |                 | QPSK       | 1104          | 1260            |
|            | 20393   | 1754.3          | 16QAM      | 1104          | 1272            |
|            |         |                 | QPSK       | 1104          | 1278            |
| 3MHz       | 19965   | 1711.5          | 16QAM      | 2748          | 3132            |
|            |         |                 | QPSK       | 2772          | 3144            |
|            | 20175   | 1732.5          | 16QAM      | 2724          | 3084            |
|            |         |                 | QPSK       | 2748          | 3132            |
|            | 20385   | 1750.5          | 16QAM      | 2748          | 3096            |
|            |         |                 | QPSK       | 2772          | 3144            |
| 5MHz       | 19975   | 1712.5          | 16QAM      | 4500          | 4980            |
|            |         |                 | QPSK       | 4520          | 4980            |
|            | 20175   | 1732.5          | 16QAM      | 4500          | 4940            |
|            |         |                 | QPSK       | 4520          | 4980            |
|            | 20375   | 1752.5          | 16QAM      | 4500          | 4940            |
|            |         |                 | QPSK       | 4520          | 5020            |
| 10MHz      | 20000   | 1715.0          | 16QAM      | 9120          | 10120           |
|            |         |                 | QPSK       | 9120          | 10280           |
|            | 20175   | 1732.5          | 16QAM      | 9080          | 10200           |
|            |         |                 | QPSK       | 9080          | 10280           |
|            | 20350   | 1750.0          | 16QAM      | 9080          | 10120           |
|            |         |                 | QPSK       | 9160          | 10200           |
| 15MHz      | 20025   | 1717.5          | 16QAM      | 13500         | 15000           |
|            |         |                 | QPSK       | 13560         | 15300           |
|            | 20175   | 1732.5          | 16QAM      | 13500         | 14940           |
|            |         |                 | QPSK       | 13500         | 14880           |
|            | 20325   | 1747.5          | 16QAM      | 13500         | 14820           |
|            |         |                 | QPSK       | 13500         | 14940           |
| 20MHz      | 20050   | 1720.0          | 16QAM      | 18000         | 19120           |
|            |         |                 | QPSK       | 18080         | 19680           |
|            | 20175   | 1732.5          | 16QAM      | 18000         | 19600           |
|            |         |                 | QPSK       | 18000         | 19760           |
|            | 20300   | 1745.0          | 16QAM      | 18000         | 19360           |
|            |         |                 | QPSK       | 18000         | 19600           |

| LTE Band 7 |         |                 |            |               |                 |
|------------|---------|-----------------|------------|---------------|-----------------|
| Bandwidth  | Channel | Frequency (MHz) | Modulation | 99% OBW (kHz) | -26dBcEBW (kHz) |
| 5MHz       | 20775   | 2502.5          | 16QAM      | 4480          | 4940            |
|            |         |                 | QPSK       | 4500          | 5040            |
|            | 21100   | 2535.0          | 16QAM      | 4480          | 4960            |
|            |         |                 | QPSK       | 4500          | 5020            |
|            | 21425   | 2567.5          | 16QAM      | 4520          | 4960            |
|            |         |                 | QPSK       | 4520          | 4920            |
| 10MHz      | 20800   | 2505.0          | 16QAM      | 9080          | 10160           |
|            |         |                 | QPSK       | 9080          | 10360           |
|            | 21100   | 2535.0          | 16QAM      | 9120          | 10040           |
|            |         |                 | QPSK       | 9120          | 10240           |
|            | 21400   | 2565.0          | 16QAM      | 9120          | 10160           |
|            |         |                 | QPSK       | 9120          | 10240           |
| 15MHz      | 20825   | 2507.5          | 16QAM      | 13560         | 14940           |
|            |         |                 | QPSK       | 13560         | 15060           |
|            | 21100   | 2535.0          | 16QAM      | 13560         | 14820           |
|            |         |                 | QPSK       | 13560         | 15060           |
|            | 21375   | 2562.5          | 16QAM      | 13500         | 14940           |
|            |         |                 | QPSK       | 13560         | 14880           |
| 20MHz      | 20850   | 2510.0          | 16QAM      | 18000         | 19440           |
|            |         |                 | QPSK       | 18000         | 19840           |
|            | 21100   | 2535.0          | 16QAM      | 17920         | 19600           |
|            |         |                 | QPSK       | 17920         | 19760           |
|            | 21350   | 2560.0          | 16QAM      | 17920         | 19440           |
|            |         |                 | QPSK       | 18000         | 19840           |

### LTE Band 2 part:

+ RBW 30 kHz Marker [T1]  
 + VBW 100 kHz 16.61 dBm  
 - Att. 30 dB SWT 5 ms 1.951000000 GHz

30 dBm  
 20  
 10  
 0  
 -10  
 -20  
 -30  
 -40  
 -50  
 -60  
 -70

2.995 GHz 3.000 GHz 3.005 GHz

Center 3.0000 GHz Span 500 kHz

Temp 1 1.000000000 GHz  
 Temp 2 1.951000000 GHz  
 Temp 1 [TS1 GHz] 16.61 dBm  
 Temp 2 [TS1 GHz] 1.951200000 GHz

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Ref 30 dBm Att 30 dB SFT 5 ms RBW 30 kHz VBW 100 kHz Marker [T1] 1.0, 43 dBm 1.000215000 GHz

30 dBm  
20  
10  
0  
-10  
-20  
-30  
-40  
-50  
-60  
-70

300 kHz 1.0 GHz 3.000 GHz

Center 1.000 GHz 300 kHz Span 3.000 GHz

1.000000 GHz  
Temp 1 [T1 Off]  
1.0794254 GHz  
Temp 2 [T1 Off]  
1.0800550 GHz

Date: 28.AUG.2020 18:21:50

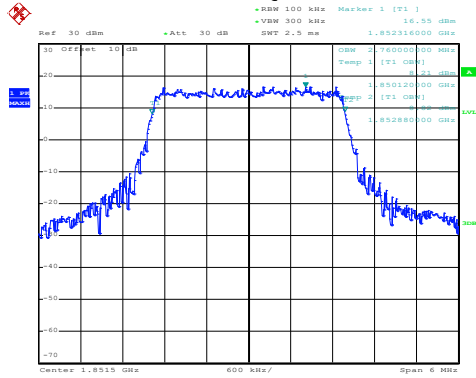
[illegible]

Date: 28.AUG.2020 18:22:13

Page 28 of

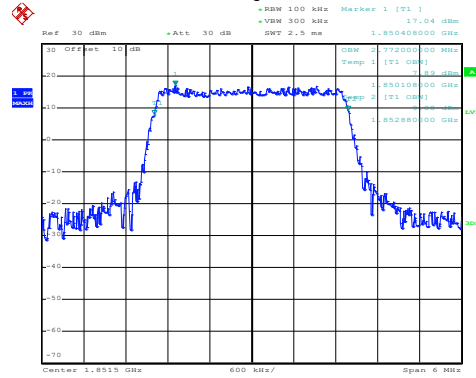
## LTE Band 2: 99% Occupancy bandwidth BW: 3MHz

### 16QAM



Date: 28.AUG.2020 18:23:21

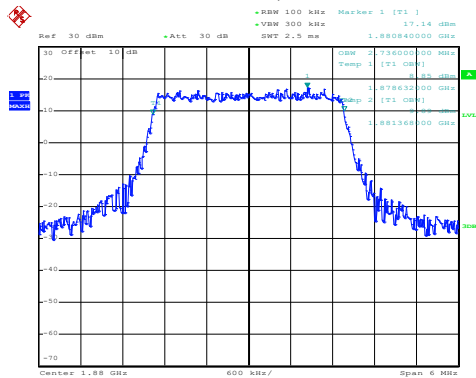
### QPSK



Date: 28.AUG.2020 18:23:13

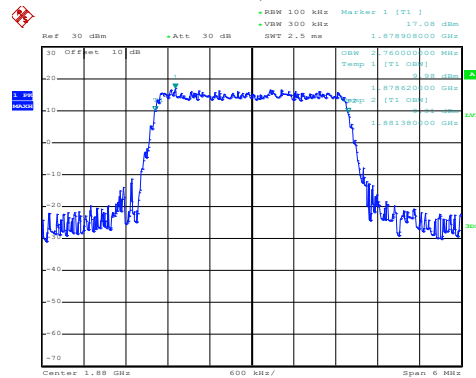
## Lowest channel

### 16QAM



Date: 28.AUG.2020 18:23:39

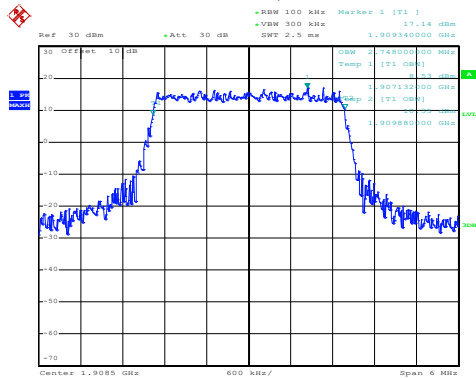
### QPSK



Date: 28.AUG.2020 18:23:31

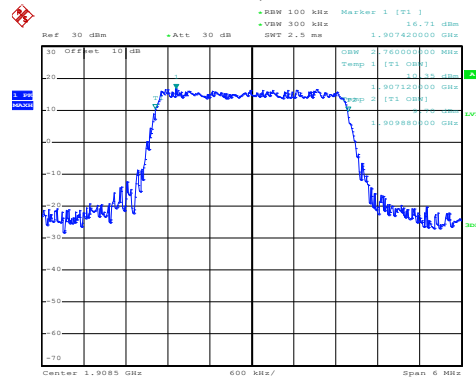
## Middle channel

### 16QAM



Date: 28.AUG.2020 18:25:03

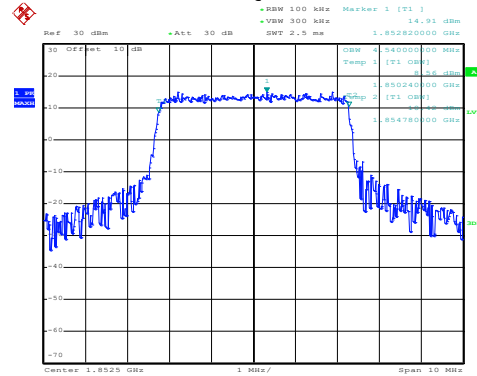
### QPSK



Date: 28.AUG.2020 18:24:57

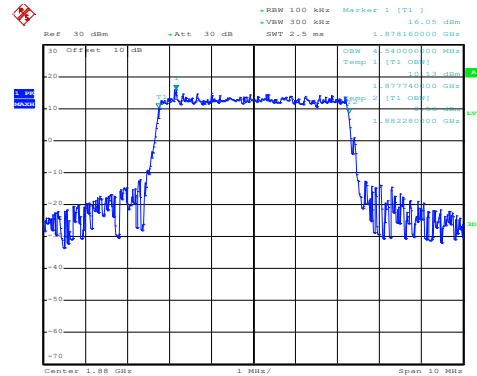
## Highest channel

QPSK



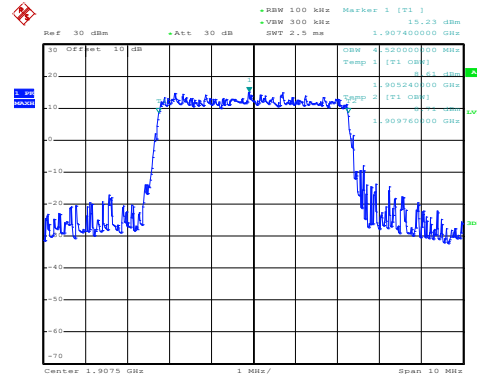
Date: 28.AUG.2020 18:25:29

QPSK



Date: 28.AUG.2020 18:26:07

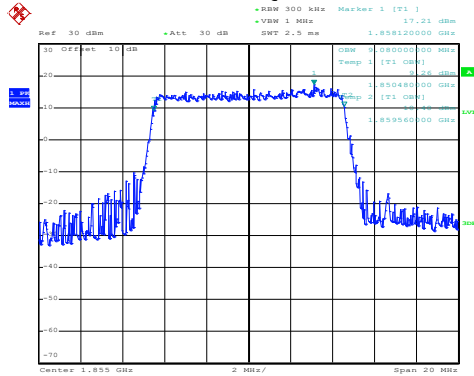
QPSK



Date: 28.AUG.2020 18:26:41

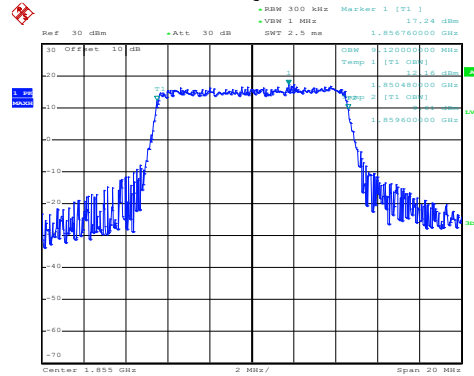
## LTE Band 2: 99% Occupancy bandwidth BW: 10MHz

### 16QAM



Date: 28.AUG.2020 18:27:33

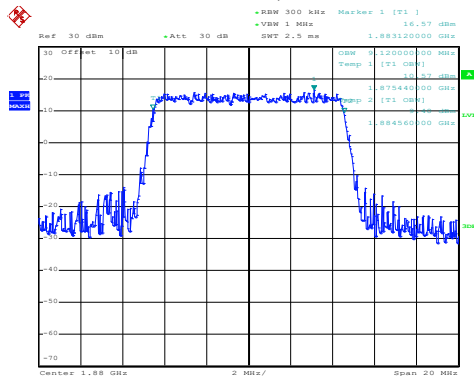
### QPSK



Date: 28.AUG.2020 18:27:29

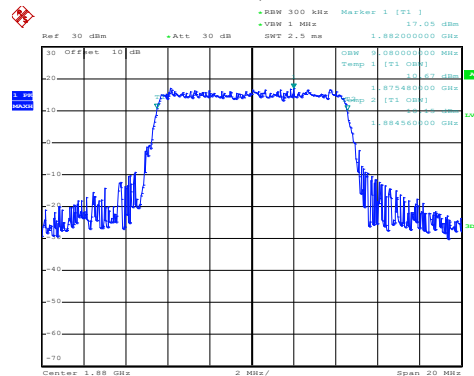
## Lowest channel

### 16QAM



Date: 28.AUG.2020 18:27:50

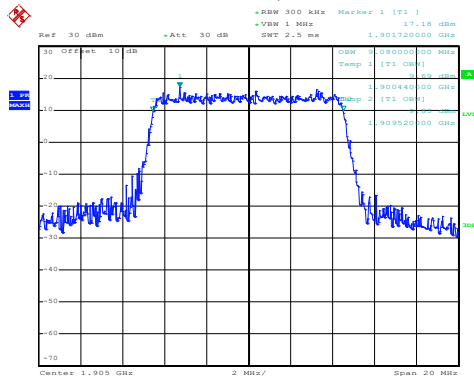
### QPSK



Date: 28.AUG.2020 18:27:46

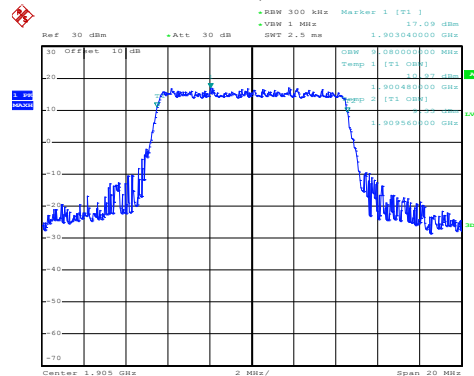
## Middle channel

### 16QAM



Date: 28.AUG.2020 18:28:29

### QPSK

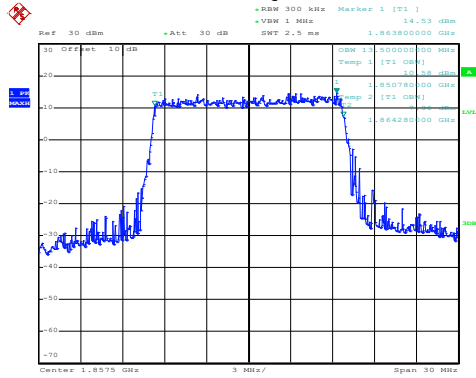


Date: 28.AUG.2020 18:28:24

## Highest channel

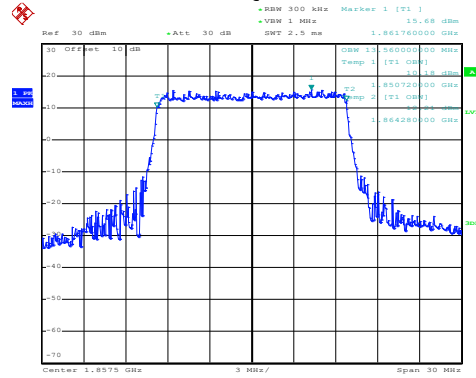
## LTE Band 2: 99% Occupancy bandwidth BW: 15MHz

### 16QAM



Date: 28.AUG.2020 18:28:50

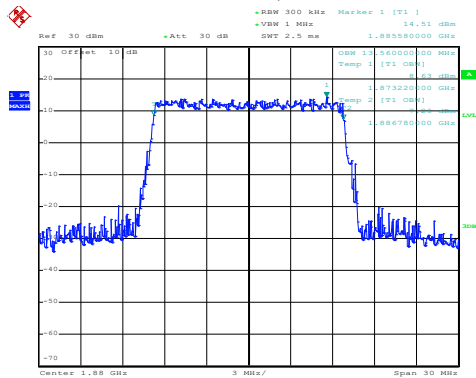
### QPSK



Date: 28.AUG.2020 18:28:46

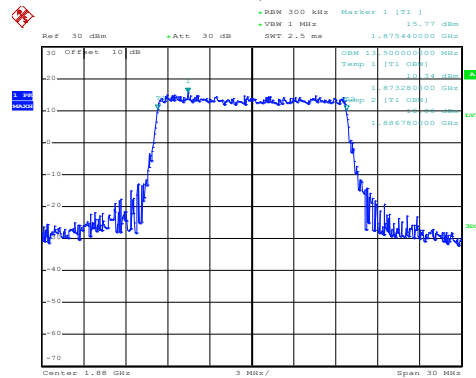
## Lowest channel

### 16QAM



Date: 28.AUG.2020 18:29:26

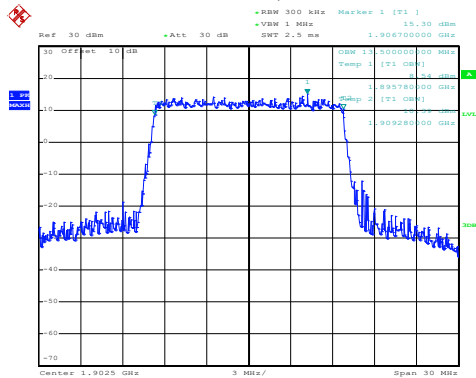
### QPSK



Date: 28.AUG.2020 18:29:22

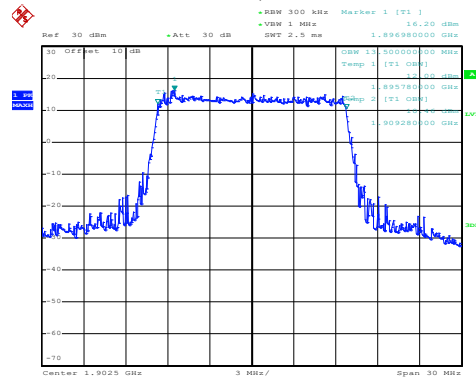
## Middle channel

### 16QAM



Date: 28.AUG.2020 18:29:49

### QPSK

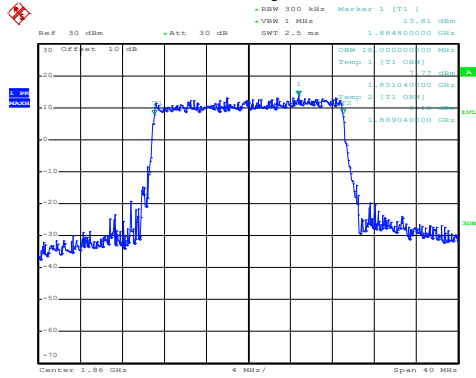


Date: 28.AUG.2020 18:29:45

## Highest channel

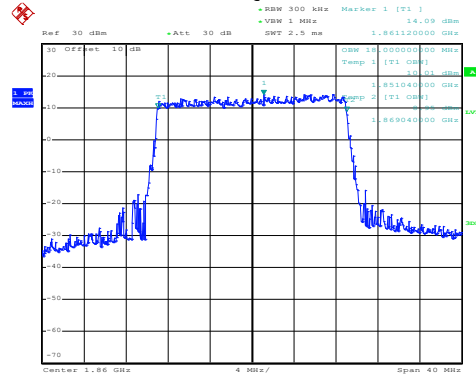
## LTE Band 2: 99% Occupancy bandwidth BW: 20MHz

### 16QAM



Date: 28.AUG.2020 18:30:35

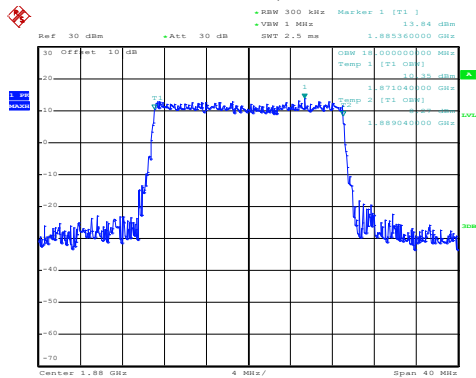
### QPSK



Date: 28.AUG.2020 18:30:31

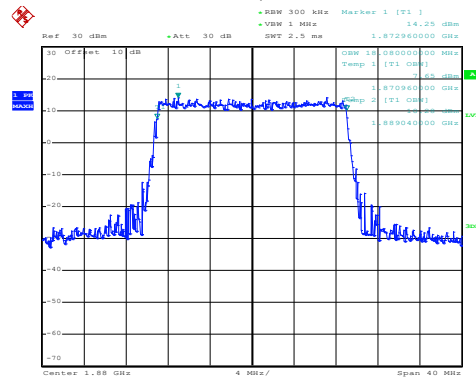
## Lowest channel

### 16QAM



Date: 28.AUG.2020 18:30:49

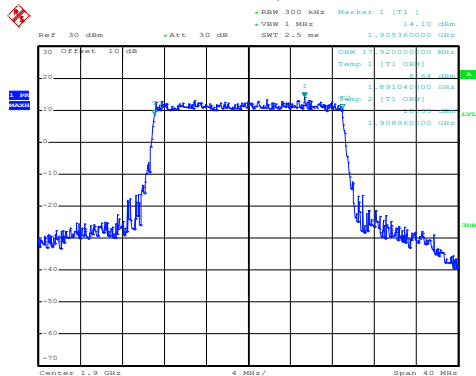
### QPSK



Date: 28.AUG.2020 18:30:45

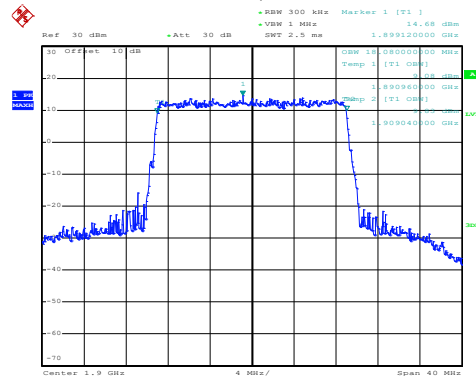
## Middle channel

### 16QAM



Date: 28.AUG.2020 18:31:33

### QPSK

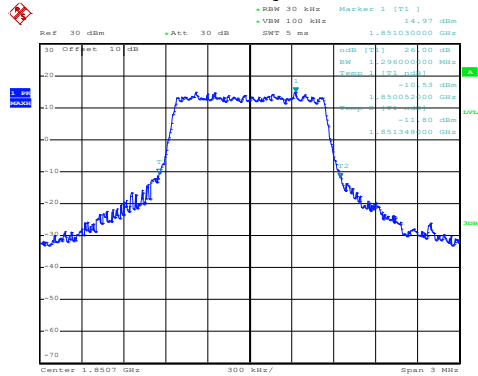


Date: 28.AUG.2020 18:31:28

## Highest channel

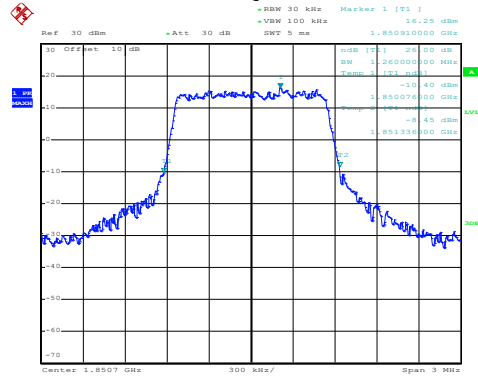
## LTE Band 2: -26dBc bandwidth BW: 1.4MHz

### 16QAM



Date: 28.AUG.2020 18:21:25

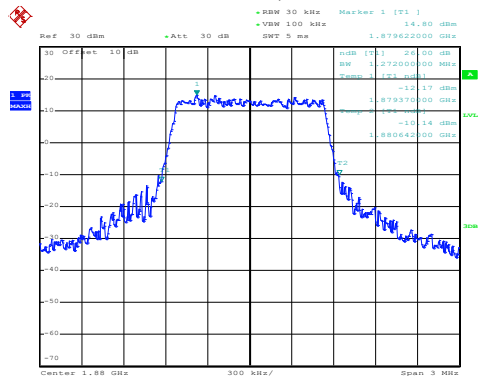
### QPSK



Date: 28.AUG.2020 18:21:13

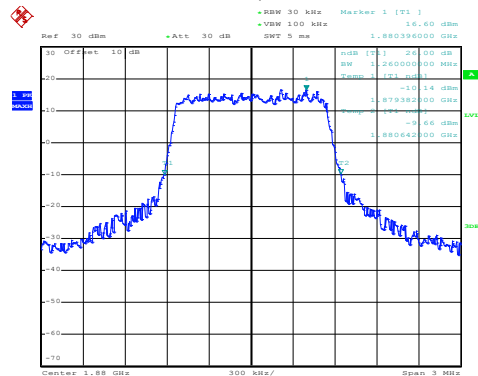
## Lowest channel

### 16QAM



Date: 28.AUG.2020 18:21:44

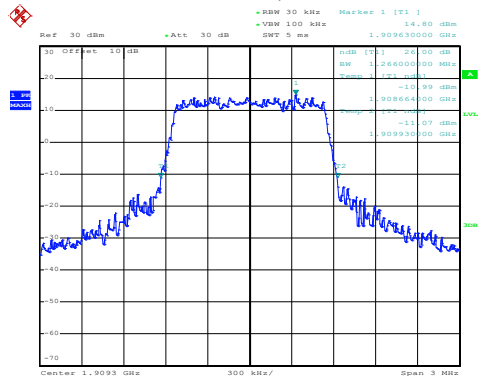
### QPSK



Date: 28.AUG.2020 18:21:38

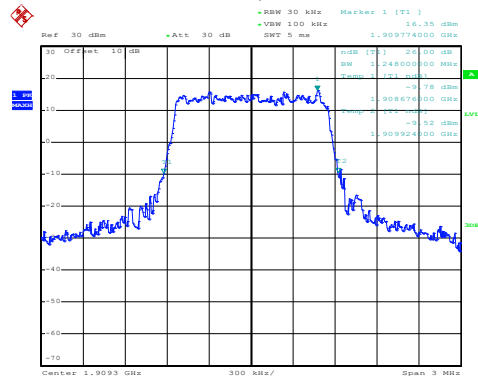
## Middle channel

### 16QAM



Date: 28.AUG.2020 18:22:29

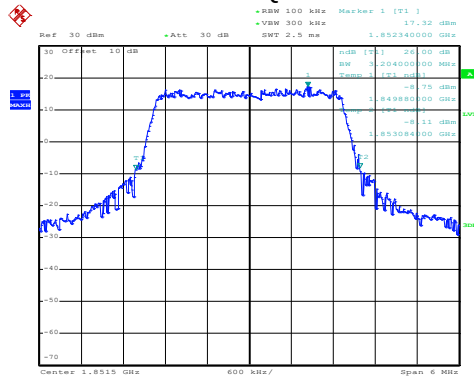
### QPSK



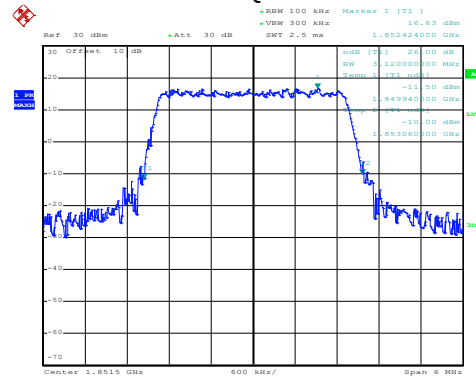
Date: 28.AUG.2020 18:22:24

## Highest channel

QPSK



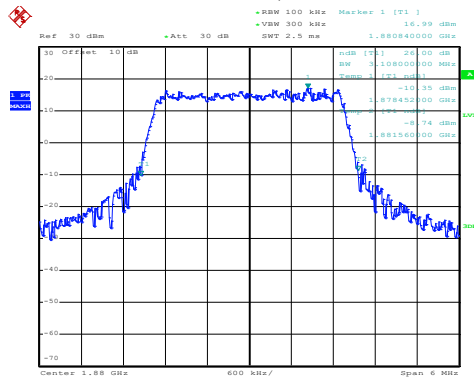
Date: 28.AUG.2020 18:23:06



Date: 28.AUG.2020 18:22:53

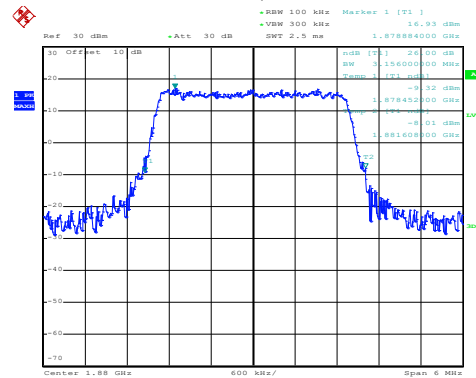
Lowest channel

16QAM



Date: 28.AUG.2020 18:23:56

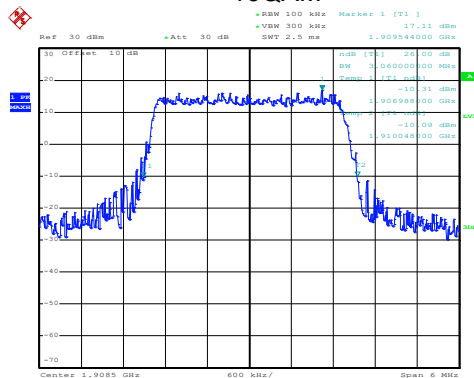
QPSK



Date: 28.AUG.2020 18:23:48

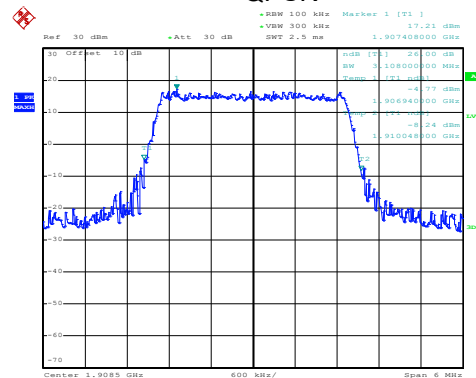
Middle channel

16QAM



Date: 28.AUG.2020 18:24:49

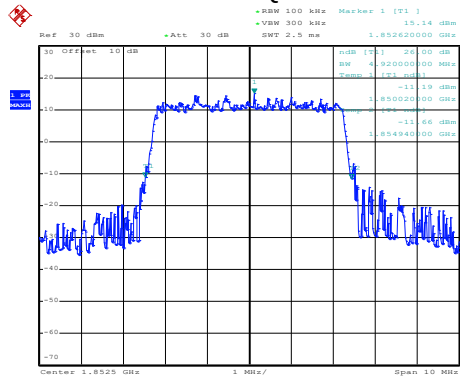
QPSK



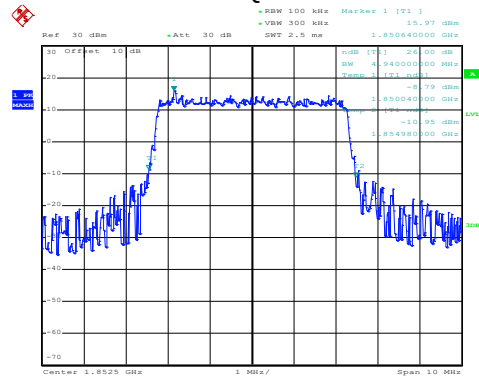
Date: 28.AUG.2020 18:24:44

Highest channel

QPSK



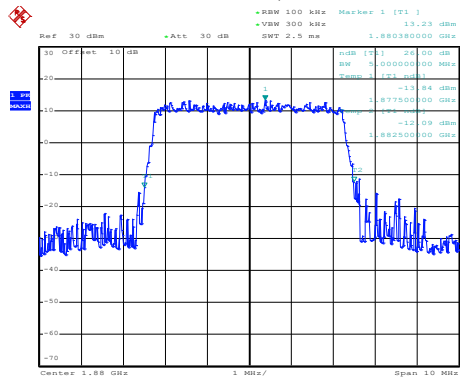
Date: 28.AUG.2020 18:25:43



Date: 28.AUG.2020 18:25:39

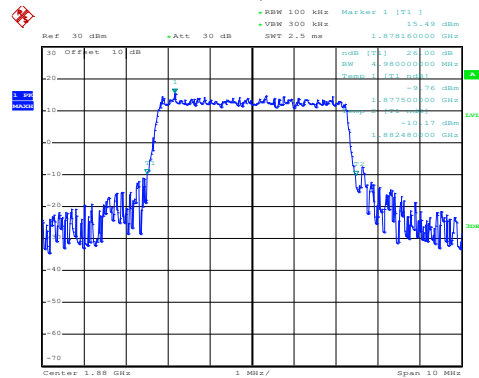
Lowest channel

16QAM



Date: 28.AUG.2020 18:25:58

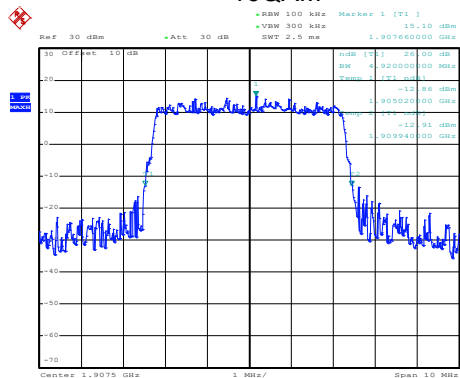
QPSK



Date: 28.AUG.2020 18:25:55

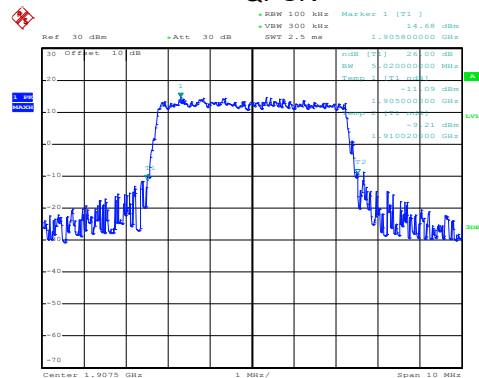
Middle channel

16QAM



Date: 28.AUG.2020 18:26:56

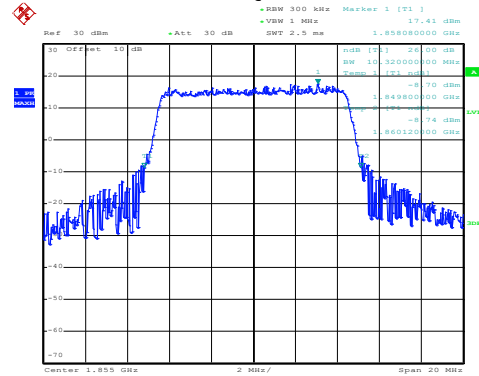
QPSK



Date: 28.AUG.2020 18:26:52

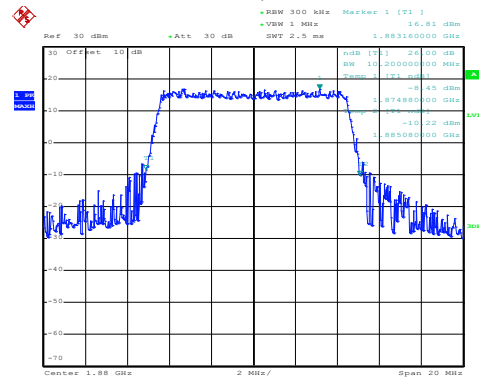
Highest channel

QPSK



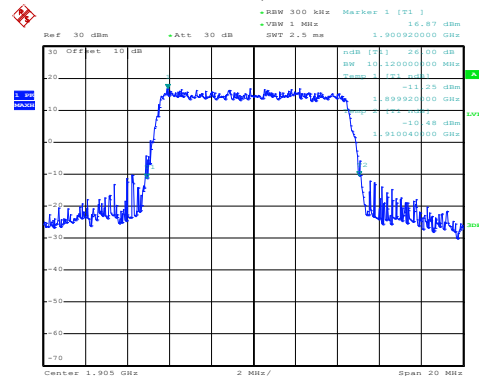
Date: 28.AUG.2020 18:27:18

QPSK



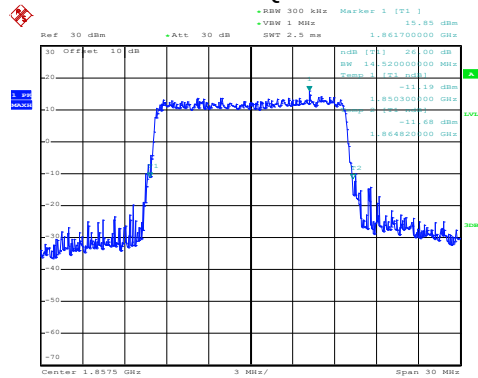
Date: 28.AUG.2020 18:27:56

QPSK

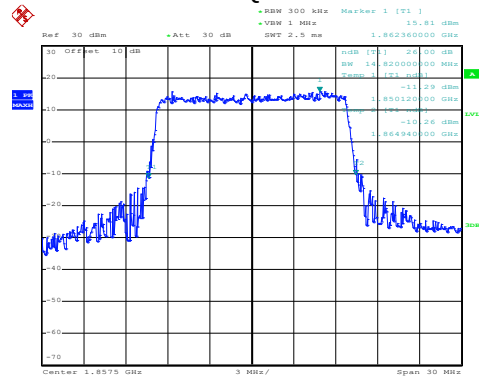


Date: 28.AUG.2020 18:28:12

QPSK



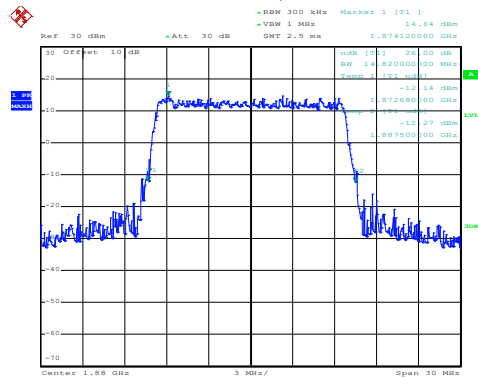
Date: 28.AUG.2020 18:29:02



Date: 28.AUG.2020 18:28:58

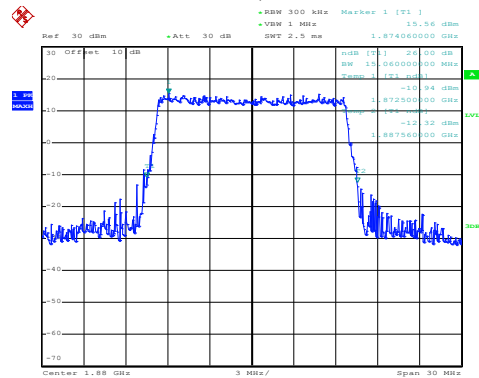
Lowest channel

16QAM



Date: 28.AUG.2020 18:29:15

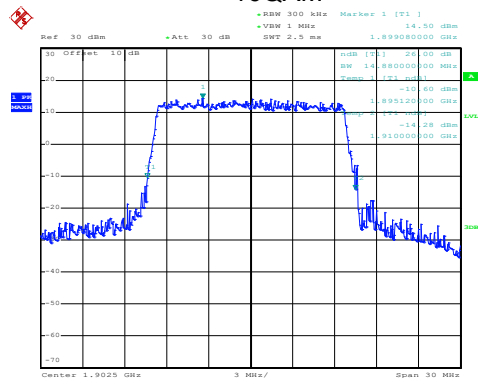
QPSK



Date: 28.AUG.2020 18:29:11

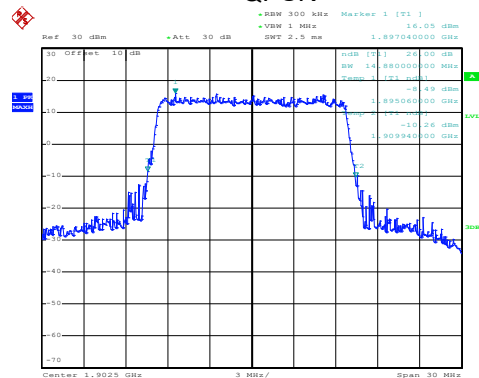
Middle channel

16QAM



Date: 28.AUG.2020 18:30:00

QPSK

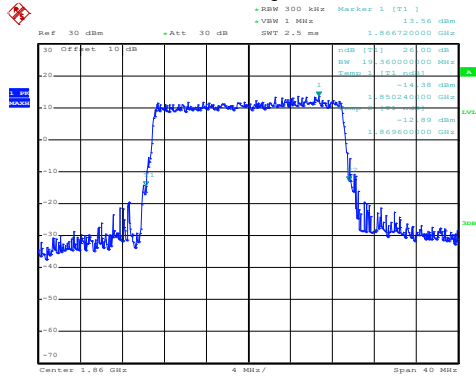


Date: 28.AUG.2020 18:29:56

Highest channel

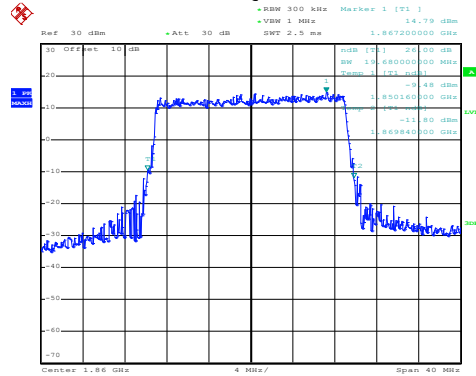
## LTE Band 2: -26dBc bandwidth BW: 20MHz

### 16QAM



Date: 28.AUG.2020 18:30:25

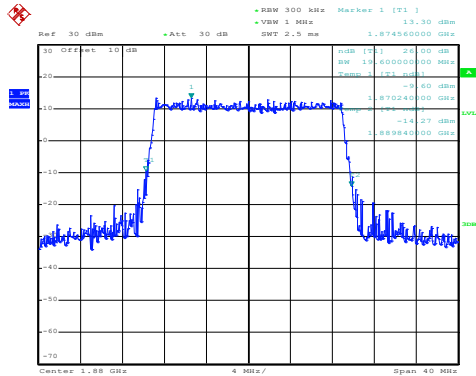
### QPSK



Date: 28.AUG.2020 18:30:21

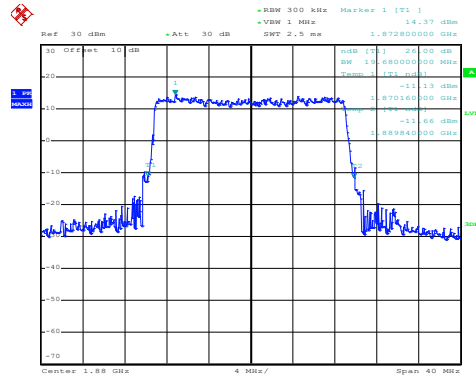
## Lowest channel

### 16QAM



Date: 28.AUG.2020 18:31:00

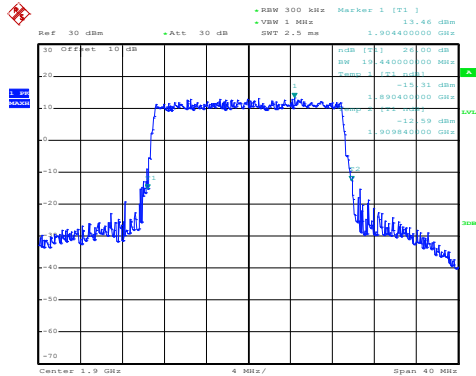
### QPSK



Date: 28.AUG.2020 18:30:56

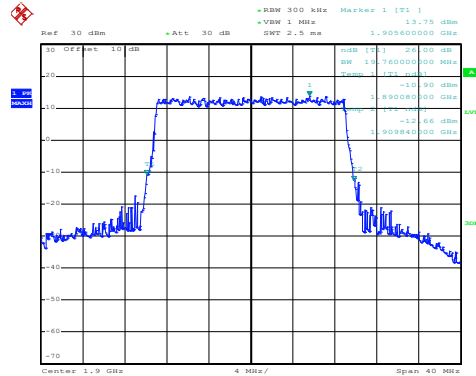
## Middle channel

### 16QAM



Date: 28.AUG.2020 18:31:21

### QPSK



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## Highest channel

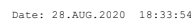
LTE Band 4: 99% Occupy bandwidth  
BW: 1.4MHz



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