

FCC Radio Test Report

FCC ID: QISAGS-L03

This report concerns (check one): Original Grant Class II Change

Project No. : 1705C003
Equipment : Huawei MediaPad T3 10 (MediaPad T3 10 for short)
Model Name : AGS-L03
Applicant : Huawei Technologies Co., Ltd.
Address : Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.C

Date of Receipt : May 02, 2017
Date of Test : May 02, 2017 ~ May 19, 2017
Issued Date : May 22, 2017
Tested by : BTL Inc.

Technical Engineer : Shawn Xiao
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Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

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BTL's laboratory quality assurance procedures are in compliance with the **ISO Guide17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

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REPORT ISSUED HISTORY

| Issued No. | Description | Issued Date |
|---------------------|-----------------|--------------|
| BTL-FCCP-8-1705C003 | Original Issue. | May 22, 2017 |

1. CERTIFICATION

Equipment : Huawei MediaPad T3 10 (MediaPad T3 10 for short)
Brand Name : HUAWEI
Model Name : AGS-L03
Applicant : Huawei Technologies Co., Ltd
Manufacturer: Huawei Technologies Co., Ltd
Address : Administration Building, Headquarters of Huawei Technologies Co., Ltd.,
Bantian, Longgang District Shenzhen China
Factory : Huawei Technologies Co., Ltd
Address : Administration Building, Headquarters of Huawei Technologies Co., Ltd.,
Bantian, Longgang District Shenzhen China
Date of Test : May 02, 2017 ~ May 19, 2017
Test Sample : Engineering Sample
Standard(s) : 47 CFR FCC Part 27
47 CFR FCC Part 2 & ANSI/TIA-603-D-2010
KDB 971168 D01 Power Meas License Digital Systems v02r02

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

The test data, data evaluation, and equipment configuration contained in our test report (Ref No. BTL-FCCP-8-1705C003) were obtained utilizing the test procedures, test instruments, test sites that has been accredited by the Authority of TAF according to the ISO-17025 quality assessment standard and technical standard(s).

Test results included in this report is only for the WCDMA Band 4, LTE Band 4, 7, 12, 17 and 41 part.

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

| FCC Part 27 & Part 2 | | | |
|-----------------------|------------------------------|----------|-----------|
| Standard(s) Section | Test Item | Judgment | Tested By |
| 2.1046 27.50(d)(4) | Radiated power | PASS | Paul Li |
| 2.1046 27.50(d)(4) | Conducted Output Power | PASS | Paul Li |
| 2.1049 27.53(h) | Occupied Bandwidth | PASS | Paul Li |
| 2.1051 27.53(h) | Conducted Spurious Emissions | PASS | Paul Li |
| 2.1053 27.53(h) | Radiated Spurious Emissions | PASS | Paul Li |
| 27.53(h) | Band Edge Measurements | PASS | Paul Li |
| 27.50 | Peak To Average Ratio | PASS | Paul Li |
| 2.1055 27.54 | Frequency Stability | PASS | Paul Li |

NOTE:

(1) "N/A" denotes test is not applicable to this device.

2.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No.3, Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.

BTL's test firm number for FCC: 319330

2.2 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. The BTL measurement uncertainty is less than the CISPR 16-4-2 U_{cispr} requirement.

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately **95%**.

A. Radiated Measurement :

| Test Site | Method | Measurement Frequency Range | Ant. H / V | U,(dB) |
|--------------|--------|-----------------------------|------------|--------|
| DG-CB03 (3m) | CISPR | 9KHz ~ 30MHz | V | 3.79 |
| | | 9KHz ~ 30MHz | H | 3.57 |
| | | 30MHz ~ 200MHz | V | 3.82 |
| | | 30MHz ~ 200MHz | H | 3.78 |
| | | 200MHz ~ 1,000MHz | V | 4.10 |
| | | 200MHz ~ 1,000MHz | H | 4.06 |

| Test Site | Method | Measurement Frequency Range | Ant. H / V | U,(dB) |
|--------------|--------|-----------------------------|------------|--------|
| DG-CB03 (3m) | CISPR | 1GHz ~ 18GHz | V | 3.12 |
| | | 1GHz ~ 18GHz | H | 3.68 |

| Test Site | Method | Measurement Frequency Range | Ant. H / V | U,(dB) |
|--------------|--------|-----------------------------|------------|--------|
| DG-CB03 (1m) | CISPR | 18GHz ~ 40GHz | V | 4.15 |
| | | 18GHz ~ 40GHz | H | 4.14 |

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

| | | |
|-----------------------------------|--|--|
| Equipment | Huawei MediaPad T3 10 (MediaPad T3 10 for short) | |
| Brand Name | HUAWEI | |
| Model Name | AGS-L03 | |
| Model Difference | N/A | |
| Modulation Type | WCDMA | UP: QPSK DP: QPSK,16QAM,64AQM |
| | LTE | UP: QPSK,16QAM DP: QPSK,16QAM,64AQM |
| Operation Frequency | WCDMA Band 4 | 1712.4 ~ 1752.6MHz |
| | LTE 4 (Channel Bandwidth: 1.4MHz) | 1710.7 ~ 1754.3 MHz |
| | LTE 4 (Channel Bandwidth: 3MHz) | 1711.5 ~ 1753.5 MHz |
| | LTE 4 (Channel Bandwidth: 5MHz) | 1712.5 ~ 1752.5 MHz |
| | LTE 4 (Channel Bandwidth: 10MHz) | 1715.0 ~ 1750.0 MHz |
| | LTE 4 (Channel Bandwidth: 15MHz) | 1717.5 ~ 1747.5 MHz |
| | LTE 4 (Channel Bandwidth: 20MHz) | 1720.0 ~ 1745.0 MHz |
| | LTE 7 (Channel Bandwidth: 5MHz) | 2502.5 ~ 2567.5 MHz |
| | LTE 7 (Channel Bandwidth: 10MHz) | 2505.0 ~ 2565.0 MHz |
| | LTE 7 (Channel Bandwidth: 15MHz) | 2507.5 ~ 2562.5 MHz |
| | LTE 7 (Channel Bandwidth: 20MHz) | 2510.0 ~ 2560.0 MHz |
| | LTE 12 (Channel Bandwidth: 1.4MHz) | 699.7 ~ 715.3MHz |
| | LTE 12 (Channel Bandwidth: 3MHz) | 700.5 ~ 714.5MHz |
| | LTE 12 (Channel Bandwidth: 5MHz) | 701.5 ~ 713.5MHz |
| | LTE 12 (Channel Bandwidth: 10MHz) | 704.0 ~ 711.0MHz |
| | LTE 17 (Channel Bandwidth: 5MHz) | 706.5 ~ 713.5 MHz |
| | LTE 17 (Channel Bandwidth: 10MHz) | 709.0 ~ 711.0 MHz |
| | LTE 41 (Channel Bandwidth: 5MHz) | 2498.5 ~ 2687.5 MHz |
| LTE 41 (Channel Bandwidth: 10MHz) | 2501.0 ~ 2685.0 MHz | |
| LTE 41 (Channel Bandwidth: 15MHz) | 2503.5 ~ 2682.5 MHz | |
| LTE 41 (Channel Bandwidth: 20MHz) | 2506.0 ~ 2680.0 MHz | |

| | | | | |
|----------------------------------|------------------------------------|-------|-------|-----|
| Max. EIRP Power | WCDMA Band 4(WCDMA) | QPSK | 24.53 | dBm |
| | WCDMA Band 4(HSDPA) | QPSK | 23.55 | dBm |
| | WCDMA Band 4(HSUPA) | QPSK | 23.56 | dBm |
| | WCDMA Band 4(DC-HSDPA) | QPSK | 23.55 | dBm |
| | LTE 4 (Channel Bandwidth: 1.4MHz) | QPSK | 20.83 | dBm |
| | | 16QAM | 23.30 | dBm |
| | LTE 4 (Channel Bandwidth: 3MHz) | QPSK | 24.12 | dBm |
| | | 16QAM | 23.25 | dBm |
| | LTE 4 (Channel Bandwidth: 5MHz) | QPSK | 24.04 | dBm |
| | | 16QAM | 22.81 | dBm |
| | LTE 4 (Channel Bandwidth: 10MHz) | QPSK | 24.11 | dBm |
| | | 16QAM | 23.11 | dBm |
| LTE 4 (Channel Bandwidth: 15MHz) | QPSK | 23.92 | dBm | |
| | 16QAM | 23.62 | dBm | |
| LTE 4 (Channel Bandwidth: 20MHz) | QPSK | 24.10 | dBm | |
| | 16QAM | 22.94 | dBm | |
| Max. EIRP Power | LTE 7 (Channel Bandwidth: 5MHz) | QPSK | 23.82 | dBm |
| | | 16QAM | 22.59 | dBm |
| | LTE 7 (Channel Bandwidth: 10MHz) | QPSK | 24.39 | dBm |
| | | 16QAM | 23.21 | dBm |
| | LTE 7 (Channel Bandwidth: 15MHz) | QPSK | 24.26 | dBm |
| | | 16QAM | 23.50 | dBm |
| | LTE 7 (Channel Bandwidth: 20MHz) | QPSK | 24.52 | dBm |
| | | 16QAM | 23.00 | dBm |
| Max. ERP Power | LTE 12 (Channel Bandwidth: 1.4MHz) | QPSK | 21.06 | dBm |
| | | 16QAM | 20.19 | dBm |
| | LTE 12 (Channel Bandwidth: 3MHz) | QPSK | 21.13 | dBm |
| | | 16QAM | 20.41 | dBm |
| | LTE 12 (Channel Bandwidth: 5MHz) | QPSK | 21.26 | dBm |
| | | 16QAM | 19.68 | dBm |
| | LTE 12 (Channel Bandwidth: 10MHz) | QPSK | 21.36 | dBm |
| | | 16QAM | 20.41 | dBm |
| | LTE 17 (Channel Bandwidth: 5MHz) | QPSK | 20.43 | dBm |
| | | 16QAM | 19.40 | dBm |
| | LTE 17 (Channel Bandwidth: 10MHz) | QPSK | 20.80 | dBm |
| | | 16QAM | 19.69 | dBm |
| Max. EIRP Power | LTE 41 (Channel Bandwidth: 5MHz) | QPSK | 25.08 | dBm |
| | | 16QAM | 23.36 | dBm |
| | LTE 41 (Channel Bandwidth: 10MHz) | QPSK | 24.84 | dBm |
| | | 16QAM | 23.52 | dBm |
| | LTE 41 (Channel Bandwidth: 15MHz) | QPSK | 24.81 | dBm |
| | | 16QAM | 23.64 | dBm |
| | LTE 41 (Channel Bandwidth: 20MHz) | QPSK | 25.00 | dBm |
| | | 16QAM | 23.69 | dBm |

| | | |
|------------------|---|-----------------|
| Antenna Type | Fixed Internal Antenna | |
| Antenna Gain | WCDMA Band 4 & LTE 4 | 1.2dBi |
| | LTE 7 & 41 | 1.6dBi |
| | LTE 12 & 17 | -0.5dBi |
| Hardware Version | SH1AGSL09M | |
| Software Version | AGS-L03C331B005-log | |
| IMEI No. | Radiated | 864273030006025 |
| | Conducted | 864273030006389 |
| Power Source | #1 DC voltage supplied from adapter. #2 Supplied from battery. #3 Supplied from USB port. | |
| Power Rating | #1 100-240V~ 50/60Hz 0.2A #2 DC 3.8V 4650mAh #2 DC 5V 1A | |

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

2. The EUT contains following accessory devices.

| Item | Mfr/Brand | Model. |
|--------------|---|------------------------------|
| Battery | Sunwoda Electronic Co., LTD | HB3080G1EBC/ HB3080G1EBW |
| | Harbin Coslight Power Co.,Ltd. | |
| Earphone | JIANGXI LIANCHUANG HONGSHENG ELECTRONIC CO., LTD | 22040150 |
| | BOLUO COUNTY QUANCHENG ELECTRONIC CO., LTD | 22040150 |
| | Goer Tek Inc | 22040150 |
| USB Cable | Shenzhen Luxshare Precision Industry Co.,Ltd. | L99U2017-CS-H |
| | FOXCONN INTERCONNECT TECHNOLOGY LIMITED | CUBB01M-HC304-DH |
| | HONGLIN TECHNOLOGY CO.,LTD | 130-26988 |
| Adapter | DONGGUAN PHITEK ELECTRONICS CO.,LTD. | HW-050100U01 |
| | SHENZHEN HUNTKEY ELECTRONIC CO.,LTD. | HW-050100A01 HW-050100E01 |
| | HUIZHOU BYD ELECTRONIC CO., LTD. | HW-050100B01 |

3.2 DESCRIPTION OF TEST MODES AND TEST CONDITION

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports

The worst case was found when positioned on X-plane for EIRP and X-axis for radiated emission.

Following channel(s) was (were) selected for the final test as listed below:

| WCDMA BAND 4 | | | |
|-----------------------|-------------------|------------------|--------------------|
| Test Item | Available Channel | Tested Channel | Mode |
| EIRP | 1312 to 1513 | 1312, 1413, 1513 | WCDMA,HSDPA, HSUPA |
| Frequency Stability | 1312 to 1513 | 1413 | WCDMA |
| Occupied Bandwidth | 1312 to 1513 | 1312, 1413, 1513 | WCDMA,HSDPA, HSUPA |
| Band Edge | 1312 to 1513 | 1312, 1513 | WCDMA,HSDPA, HSUPA |
| Peak to Average Ratio | 1312 to 1513 | 1312, 1413, 1513 | WCDMA,HSDPA, HSUPA |
| Conducuted Emission | 1312 to 1513 | 1413 | WCDMA,HSDPA, HSUPA |
| Radiated Emission | 1312 to 1513 | 1312 | WCDMA,HSDPA, HSUPA |

| LTE BAND 4 | | | | | |
|--------------------|-------------------|---------------------|-------------------|-------------|----------------|
| Test Item | Available Channel | Tested Channel | Channel Bandwidth | Modulation | Mode |
| EIRP | 19957 to 20393 | 19957, 20175, 20393 | 1.4MHz | QPSK, 16QAM | 1RB/3RB/6RB |
| | 19965 to 20385 | 19965, 20175, 20385 | 3MHz | QPSK, 16QAM | 1RB/8RB/15RB |
| | 19975 to 20375 | 19975, 20175, 20375 | 5MHz | QPSK, 16QAM | 1RB/12RB/25RB |
| | 20000 to 20350 | 20000, 20175, 20350 | 10MHz | QPSK, 16QAM | 1RB/25RB/50RB |
| | 20025 to 20325 | 20025, 20175, 20325 | 15MHz | QPSK, 16QAM | 1RB/36RB/75RB |
| | 20050 to 20300 | 20050, 20175, 20300 | 20MHz | QPSK, 16QAM | 1RB/50RB/100RB |
| Occupied Bandwidth | 19957 to 20393 | 19957, 20175, 20393 | 1.4MHz | QPSK, 16QAM | 6RB |
| | 19965 to 20385 | 19965, 20175, 20385 | 3MHz | QPSK, 16QAM | 15RB |
| | 19975 to 20375 | 19975, 20175, 20375 | 5MHz | QPSK, 16QAM | 25RB |
| | 20000 to 20350 | 20000, 20175, 20350 | 10MHz | QPSK, 16QAM | 50RB |
| | 20025 to 20325 | 20025, 20175, 20325 | 15MHz | QPSK, 16QAM | 75 RB |
| | 20050 to 20300 | 20050, 20175, 20300 | 20MHz | QPSK, 16QAM | 100RB |
| Conducted Emission | 19957 to 20393 | 20175 | 1.4MHz | QPSK | 1RB |
| | 19965 to 20385 | 20175 | 3MHz | QPSK | 1RB |
| | 19975 to 20375 | 20175 | 5MHz | QPSK | 1RB |
| | 20000 to 20350 | 20175 | 10MHz | QPSK | 1RB |
| | 20025 to 20325 | 20175 | 15MHz | QPSK | 1RB |
| | 20050 to 20300 | 20175 | 20MHz | QPSK | 1RB |
| Radiated Emission | 19957 to 20393 | 20175 | 1.4MHz | QPSK | 1RB |
| | 20050 to 20300 | 20175 | 20MHz | QPSK | 1RB |

| LTE BAND 4 | | | | | | |
|---------------------|-----------------------|---------------------|---------------------|-------------|-------------|-----|
| Test Item | Available Channel | Tested Channel | Channel Bandwidth | Modulation | Mode | |
| Band Edge | 19957 to 20393 | 19957 | 1.4MHz | QPSK | 1RB/6RB | |
| | | 20393 | 1.4MHz | QPSK | | |
| | 19965 to 20385 | 19965 | 3MHz | QPSK | 1RB/15RB | |
| | | 20385 | 3MHz | QPSK | | |
| | 19975 to 20375 | 19975 | 5MHz | QPSK | 1RB/25RB | |
| | | 20375 | 5MHz | QPSK | | |
| | 20000 to 20350 | 20000 | 10MHz | QPSK | 1RB/50RB | |
| | | 20350 | 10MHz | QPSK | | |
| | 20025 to 20325 | 20025 | 15MHz | QPSK | 1RB/75RB | |
| | | 20325 | 15MHz | QPSK | | |
| | 20050 to 20300 | 20050 | 20MHz | QPSK | 1RB/100RB | |
| | | 20300 | 20MHz | QPSK | | |
| | Peak To Average Ratio | 19957 to 20393 | 19957, 20175, 20393 | 1.4MHz | QPSK, 16QAM | 1RB |
| | | 19965 to 20385 | 19965, 20175, 20385 | 3MHz | QPSK, 16QAM | 1RB |
| 19975 to 20375 | | 19975, 20175, 20375 | 5MHz | QPSK, 16QAM | 1RB | |
| 20000 to 20350 | | 20000, 20175, 20350 | 10MHz | QPSK, 16QAM | 1RB | |
| 20025 to 20325 | | 20025, 20175, 20325 | 15MHz | QPSK, 16QAM | 1RB | |
| 20050 to 20300 | | 20050, 20175, 20300 | 20MHz | QPSK, 16QAM | 1RB | |
| Frequency Stability | 19957 to 20393 | 20175 | 1.4MHz | QPSK | 1RB | |
| | 19965 to 20385 | 20175 | 3MHz | QPSK | 1RB | |
| | 19975 to 20375 | 20175 | 5MHz | QPSK | 1RB | |
| | 20000 to 20350 | 20175 | 10MHz | QPSK | 1RB | |
| | 20025 to 20325 | 20175 | 15MHz | QPSK | 1RB | |
| | 20050 to 20300 | 20175 | 20MHz | QPSK | 1RB | |

| LTE BAND 7 | | | | | |
|-----------------------|-------------------|---------------------|-------------------|-------------|----------------|
| Test Item | Available Channel | Tested Channel | Channel Bandwidth | Modulation | Mode |
| EIRP | 20775 to 21425 | 20775, 21100, 21425 | 5MHz | QPSK, 16QAM | 1RB/12RB/25RB |
| | 20800 to 21400 | 20800, 21100, 21400 | 10MHz | QPSK, 16QAM | 1RB/25RB/50RB |
| | 20825 to 21375 | 20825, 21100, 21375 | 15MHz | QPSK, 16QAM | 1RB/36RB/75RB |
| | 20850 to 21350 | 20850, 21100, 21350 | 20MHz | QPSK, 16QAM | 1RB/50RB/100RB |
| Occupied Bandwidth | 20775 to 21425 | 20775, 21100, 21425 | 5MHz | QPSK, 16QAM | 25RB |
| | 20800 to 21400 | 20800, 21100, 21400 | 10MHz | QPSK, 16QAM | 50RB |
| | 20825 to 21375 | 20825, 21100, 21375 | 15MHz | QPSK, 16QAM | 75RB |
| | 20850 to 21350 | 20850, 21100, 21350 | 20MHz | QPSK, 16QAM | 100RB |
| Conducted Emission | 20775 to 21425 | 21100 | 5MHz | QPSK | 1 RB |
| | 20800 to 21400 | 21100 | 10MHz | QPSK | 1 RB |
| | 20825 to 21375 | 21100 | 15MHz | QPSK | 1 RB |
| | 20850 to 21350 | 21100 | 20MHz | QPSK | 1 RB |
| Radiated Emission | 20775 to 21425 | 21100 | 5MHz | QPSK | 1 RB |
| | 20850 to 21350 | 21100 | 20MHz | QPSK | 1 RB |
| Band Edge | 20775 to 21425 | 20775 | 5MHz | QPSK | 1RB/25RB |
| | | 21425 | 5MHz | QPSK | |
| | 20800 to 21400 | 20800 | 10MHz | QPSK | 1RB/50RB |
| | | 21400 | 10MHz | QPSK | |
| | 20825 to 21375 | 20825 | 15MHz | QPSK | 1RB/75RB |
| | | 21375 | 15MHz | QPSK | |
| | 20850 to 21350 | 20850 | 20MHz | QPSK | 1RB/100RB |
| | | 21350 | 20MHz | QPSK | |
| Peak To Average Ratio | 20775 to 21425 | 20775, 21100, 21425 | 5MHz | QPSK, 16QAM | 1RB |
| | 20800 to 21400 | 20800, 21100, 21400 | 10MHz | QPSK, 16QAM | 1RB |
| | 20825 to 21375 | 20825, 21100, 21375 | 15MHz | QPSK, 16QAM | 1RB |
| | 20850 to 21350 | 20850, 21100, 21350 | 20MHz | QPSK, 16QAM | 1RB |
| Frequency Stability | 20775 to 21425 | 21100 | 5MHz | QPSK | 1RB |
| | 20800 to 21400 | 21100 | 10MHz | QPSK | 1RB |
| | 20825 to 21375 | 21100 | 15MHz | QPSK | 1RB |
| | 20850 to 21350 | 21100 | 20MHz | QPSK | 1RB |

| LTE BAND 12 | | | | | |
|-----------------------|-------------------|---------------------|---------|-------------|---------------|
| Test Item | Available Channel | Tested Channel | Channel | Modulation | Mode |
| ERP | 23017 to 23173 | 23017, 23095, 23173 | 1.4MHz | QPSK, 16QAM | 1RB/3RB/6RB |
| | 23025 to 23165 | 23025, 23095, 23165 | 3MHz | QPSK, 16QAM | 1RB/8RB/15RB |
| | 23035 to 23155 | 23035, 23095, 23155 | 5MHz | QPSK, 16QAM | 1RB/12RB/25RB |
| | 23060 to 23130 | 23060, 23095, 23130 | 10MHz | QPSK, 16QAM | 1RB/25RB/50RB |
| Frequency Stability | 23017 to 23173 | 23095 | 1.4MHz | QPSK | 1 RB |
| | 23025 to 23165 | 23095 | 3MHz | QPSK | 1 RB |
| | 23035 to 23155 | 23095 | 5MHz | QPSK | 1 RB |
| | 23060 to 23130 | 23095 | 10MHz | QPSK | 1 RB |
| Occupied Bandwidth | 23017 to 23173 | 23017, 23095, 23173 | 1.4MHz | QPSK, 16QAM | 6RB |
| | 23025 to 23165 | 23025, 23095, 23165 | 3MHz | QPSK, 16QAM | 15RB |
| | 23035 to 23155 | 23035, 23095, 23155 | 5MHz | QPSK, 16QAM | 25RB |
| | 23060 to 23130 | 23060, 23095, 23130 | 10MHz | QPSK, 16QAM | 50RB |
| Peak to Average Ratio | 23017 to 23173 | 23017, 23095, 23173 | 1.4MHz | QPSK, 16QAM | 1 RB |
| | 23025 to 23165 | 23025, 23095, 23165 | 3MHz | QPSK, 16QAM | 1 RB |
| | 23035 to 23155 | 23035, 23095, 23155 | 5MHz | QPSK, 16QAM | 1 RB |
| | 23060 to 23130 | 23060, 23095, 23130 | 10MHz | QPSK, 16QAM | 1 RB |
| Band Edge | 23017 to 23173 | 23017 | 1.4MHz | QPSK | 1RB/6RB |
| | | 23173 | 1.4MHz | QPSK | |
| | 23025 to 23165 | 23025 | 3MHz | QPSK | 1RB/15RB |
| | | 23165 | 3MHz | QPSK | |
| | 23035 to 23155 | 23035 | 5MHz | QPSK | 1RB/25RB |
| | | 23155 | 5MHz | QPSK | |
| | 23060 to 23130 | 23060 | 10MHz | QPSK | 1RB/50RB |
| | | 23130 | 10MHz | QPSK | |
| Conducted Emission | 23017 to 23173 | 23095 | 1.4MHz | QPSK | 1 RB |
| | 23025 to 23165 | 23095 | 3MHz | QPSK | 1 RB |
| | 23035 to 23155 | 23095 | 5MHz | QPSK | 1 RB |
| | 23060 to 23130 | 23095 | 10MHz | QPSK | 1 RB |
| Radiated Emission | 23017 to 23173 | 23095 | 1.4MHz | QPSK | 1 RB |
| | 23060 to 23130 | 23095 | 10MHz | QPSK | 1 RB |

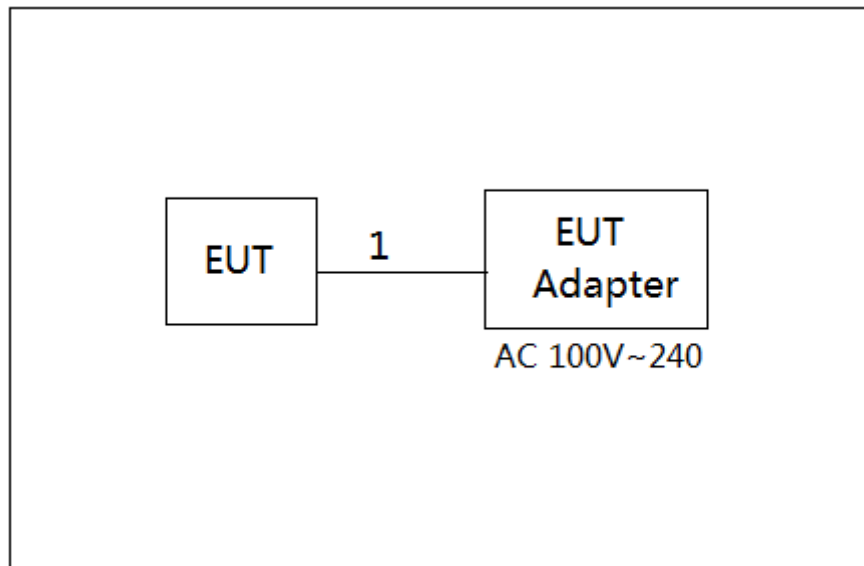
| LTE BAND 17 | | | | | |
|-----------------------|-------------------|---------------------|-------------------|-------------|---------------|
| Test Item | Available Channel | Tested Channel | Channel Bandwidth | Modulation | Mode |
| ERP | 706.5 to 713.5 | 23755, 23790, 23825 | 5MHz | QPSK, 16QAM | 1RB/12RB/25RB |
| | 709.0 to 711.0 | 23780, 23790, 23775 | 10MHz | QPSK, 16QAM | 1RB/25RB/50RB |
| Occupied Bandwidth | 706.5 to 713.5 | 23755, 23790, 23825 | 5MHz | QPSK, 16QAM | 25RB |
| | 709.0 to 711.0 | 23780, 23790, 23775 | 10MHz | QPSK, 16QAM | 50RB |
| Conducted Emission | 706.5 to 713.5 | 23790 | 5MHz | QPSK | 1 RB |
| | 709.0 to 711.0 | 23790 | 10MHz | QPSK | 1 RB |
| Radiated Emission | 706.5 to 713.5 | 23755 | 5MHz | QPSK | 1 RB |
| | 709.0 to 711.0 | 23755 | 10MHz | QPSK | 1 RB |
| Band Edge | 706.5 to 713.5 | 23755 | 5MHz | QPSK | 1RB/25RB |
| | | 23825 | 5MHz | QPSK | |
| | 709.0 to 711.0 | 23780 | 10MHz | QPSK | 1RB/50RB |
| | | 23775 | 10MHz | QPSK | |
| Peak To Average Ratio | 706.5 to 713.5 | 23755, 23790, 23825 | 5MHz | QPSK, 16QAM | 1 RB |
| | 709.0 to 711.0 | 23780, 23790, 23775 | 10MHz | QPSK, 16QAM | 1 RB |
| Frequency Stability | 706.5 to 713.5 | 23790 | 5MHz | QPSK | 1 RB |
| | 709.0 to 711.0 | 23790 | 10MHz | QPSK | 1 RB |

| LTE BAND 41 | | | | | |
|-----------------------|-------------------|---------------------|-------------------|-------------|----------------|
| Test Item | Available Channel | Tested Channel | Channel Bandwidth | Modulation | Mode |
| EIRP | 39675 to 41565 | 39675, 40620, 41565 | 5MHz | QPSK, 16QAM | 1RB/12RB/25RB |
| | 39700 to 41540 | 39700, 40620, 41540 | 10MHz | QPSK, 16QAM | 1RB/25RB/50RB |
| | 39725 to 41515 | 39725, 40620, 41515 | 15MHz | QPSK, 16QAM | 1RB/36RB/75RB |
| | 39750 to 41490 | 39750, 40620, 41490 | 20MHz | QPSK, 16QAM | 1RB/50RB/100RB |
| Frequency Stability | 39675 to 41565 | 40620 | 5MHz | QPSK | 1 RB |
| | 39700 to 41540 | 40620 | 10MHz | QPSK | 1 RB |
| | 39725 to 41515 | 40620 | 15MHz | QPSK | 1 RB |
| | 39750 to 41490 | 40620 | 20MHz | QPSK | 1 RB |
| Occupied Bandwidth | 39675 to 41565 | 39675, 40620, 41565 | 5MHz | QPSK, 16QAM | 25RB |
| | 39700 to 41540 | 39700, 40620, 41540 | 10MHz | QPSK, 16QAM | 50RB |
| | 39725 to 41515 | 39725, 40620, 41515 | 15MHz | QPSK, 16QAM | 75 RB |
| | 39750 to 41490 | 39750, 40620, 41490 | 20MHz | QPSK, 16QAM | 100RB |
| Peak to Average Ratio | 39675 to 41565 | 39675, 40620, 41565 | 5MHz | QPSK, 16QAM | 1 RB |
| | 39700 to 41540 | 39700, 40620, 41540 | 10MHz | QPSK, 16QAM | 1 RB |
| | 39725 to 41515 | 39725, 40620, 41515 | 15MHz | QPSK, 16QAM | 1 RB |
| | 39750 to 41490 | 39750, 40620, 41490 | 20MHz | QPSK, 16QAM | 1 RB |
| Band Edge | 39675 to 41565 | 39675, 41565 | 5MHz | QPSK, 16QAM | 1RB/25RB |
| | 39700 to 41540 | 39700, 41540 | 10MHz | QPSK, 16QAM | 1RB/50RB |
| | 39725 to 41515 | 39725, 41515 | 15MHz | QPSK, 16QAM | 1RB/75RB |
| | 39750 to 41490 | 39750, 41490 | 20MHz | QPSK, 16QAM | 1RB/100RB |
| Conducted Emission | 39675 to 41565 | 40620 | 5MHz | QPSK | 1 RB |
| | 39700 to 41540 | 40620 | 10MHz | QPSK | 1 RB |
| | 39725 to 41515 | 40620 | 15MHz | QPSK | 1 RB |
| | 39750 to 41490 | 40620 | 20MHz | QPSK | 1 RB |
| Radiated Emission | 39675 to 41565 | 40620 | 5MHz | QPSK | 1 RB |
| | 39700 to 41540 | 40620 | 10MHz | QPSK | 1 RB |
| | 39725 to 41515 | 40620 | 15MHz | QPSK | 1 RB |
| | 39750 to 41490 | 40620 | 20MHz | QPSK | 1 RB |

EUT TEST CONDITIONS:

| Test Item | Environmental Conditions | Test Voltage |
|------------------------|--------------------------|--------------|
| EIRP | 24°C, 63%RH | AC 120V/60Hz |
| Conducted Output Power | 25°C, 65%RH | AC 120V/60Hz |
| Occupied Bandwidth | 25°C, 65%RH | AC 120V/60Hz |
| Conducted Emission | 25°C, 65%RH | AC 120V/60Hz |
| Radiated Emission | 25°C, 60%RH | AC 120V/60Hz |
| Band Edge | 25°C, 65%RH | AC 120V/60Hz |
| Peak to Average Ratio | 25°C, 65%RH | AC 120V/60Hz |
| Frequency Stability | 25°C, 65%RH | AC 120V/60Hz |

3.3 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



3.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

| Item | Equipment | Mfr/Brand | Model/Type No. | FCC ID | Series No. |
|------|-----------|-----------|----------------|--------|------------|
| - | - | - | - | - | - |

| Item | Shielded Type | Ferrite Core | Length | Note |
|------|---------------|--------------|--------|-----------|
| 1 | YES | NO | 1m | USB cable |

4. TEST RESULT

4.1 OUTPUT POWER MEASUREMENT

4.1.1 LIMIT

Mobile / Portable station are limited to 1 watts e.i.r.p. (LTE 4)

Mobile / Portable station are limited to 2 watts e.i.r.p. (LTE 7 and LTE 41)

Mobile / Portable station are limited to 3 watts e.i.r.p. (LTE 12 and LTE 17)

4.1.2 TEST PROCEDURE

EIRP/ERP:

EIRP= Conducted Power +Antenan gain

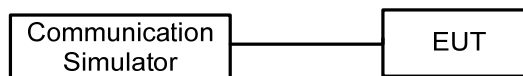
ERP power=EIPR power-2.15dBi.

Conducted Power:

The EUT was set up for the maximum power with GSM, GPRS, EDGE, WCDMA, CDMA, and LTE link data modulation and link up with simulator. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

4.1.3 TESTSETUP LAYOUT

Conducted Power Measurement



4.1.4 TEST DEVIATION

No deviation

4.1.5 TEST RESULTS

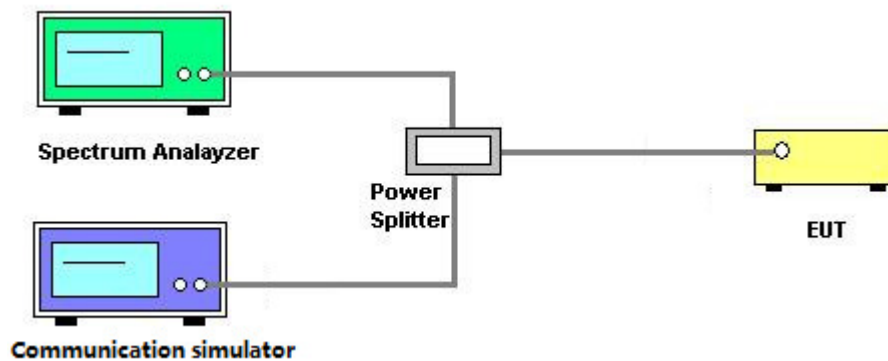
Please refer to the Attachment A.

4.2 OCCUPIED BANDWIDTH MEASUREMENT

4.2.1 TEST PROCEDURE

The EUT makes a call to the communication simulator. All measurements were done at low, middle and high operational frequency range. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth and 26dB bandwidth.

4.2.2 TEST SETUP LAYOUT



4.2.3 TEST DEVIATION

No deviation

4.2.4 TEST RESULTS

Please refer to the Attachment B.

4.3 CONDUCTED EMISSIONS MEASUREMENT

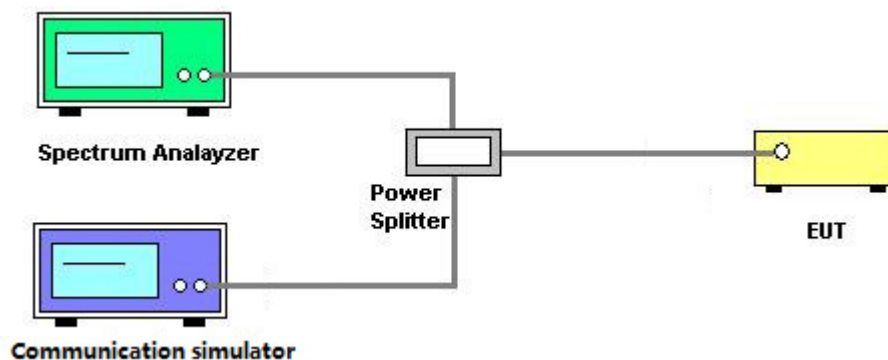
4.3.1 LIMIT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13dBm.

4.3.2 TEST PROCEDURES

1. The testing follows FCC KDB 971168 v02r02 Section 6.0.
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The band edges of low and high channels for the highest RF powers were measured. Set $RBW \geq 1\%$ EBW in the 1MHz band immediately outside and adjacent to the band edge.
4. Set spectrum analyzer with RMS detector.
5. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
6. The limit line is derived from $43+10\log(P)$ dB below the transmitter power P(Watts)
 $=P(W)-[43+10\log(P)](dB)$
 $=[30+10\log(P)](dBm)-[43+10\log(P)](dB)$
 $=-13dBm$

4.3.3 TESTSETUP LAYOUT



4.3.4 TESTDEVIATION

No deviation

4.3.5 TEST RESULTS

Please refer to the Attachment C.

4.4 RADIATED EMISSIONS MEASUREMENT

4.4.1 LIMIT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit equal to -13dBm.

4.4.2 TEST PROCEDURES

1. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
2. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value " of step a. Record the power level of S.G
3. EIRP = Output power level of S.G – TX cable loss + Antenna gain of substitution horn.
4. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, E.R.P power = E.I.P.R power - 2.15dBi.
5. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.

4.4.3 TESTSETUP LAYOUT

This test setup layout is the same as that shown in **section 4.1.3**.

4.4.4 TESTDEVIATION

No deviation

4.4.5 TEST RESULTS

Please refer to the Attachment D.

4.5 BAND EDGE MEASUREMENT

4.5.1 LIMIT

For operations in the 704-716 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least $43 + 10 \log(P)$ dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater.

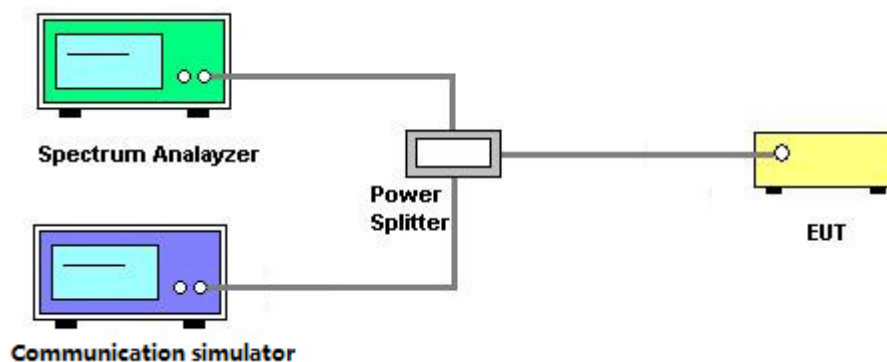
However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

For operations in the 1710–1755 MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least $43 + 10 \log_{10}(P)$ dB.

4.5.2 TEST PROCEDURES

1. All measurements were done at low and high operational frequency range.
2. The center frequency of spectrum is the band edge frequency and span is 1MHz. RB of the spectrum is 13kHz and VB of the spectrum is 51kHz (LTE Bandwidth 1.4MHz).
3. The center frequency of spectrum is the band edge frequency and span is 1MHz. RB of the spectrum is 30kHz and VB of the spectrum is 100kHz (LTE Bandwidth 3MHz).
4. The center frequency of spectrum is the band edge frequency and span is 1MHz. RB of the spectrum is 100kHz and VB of the spectrum is 300kHz (LTE Bandwidth 5MHz/10MHz).
5. Record the max trace plot into the test report.

4.5.3 TESTSETUP LAYOUT



4.5.4 TESTDEVIATION

No deviation

4.5.5 TEST RESULTS

Please refer to the Attachment E.

4.6 PEAK TO AVERAGE RATIO MEASUREMENT

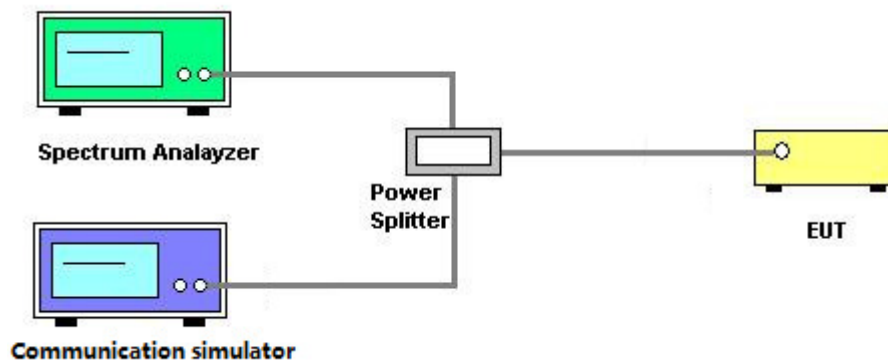
4.6.1 LIMIT

In measuring transmissions in this band using an average power technique, the peak to-average ratio (PAR) of the transmission may not exceed 13 dB.

4.6.2 TEST PROCEDURES

1. Set resolution/measurement bandwidth \geq signal's occupied bandwidth;
2. Set the number of counts to a value that stabilizes the measured CCDF curve;
3. Record the maximum PAPR level associated with a probability of 0.1%.

4.6.3 TESTSETUP LAYOUT



4.6.4 TESTDEVIATION

No deviation

4.6.5 TEST RESULTS

Please refer to the Attachment F.

4.7 FREQUENCY STABILITY MEASUREMENT

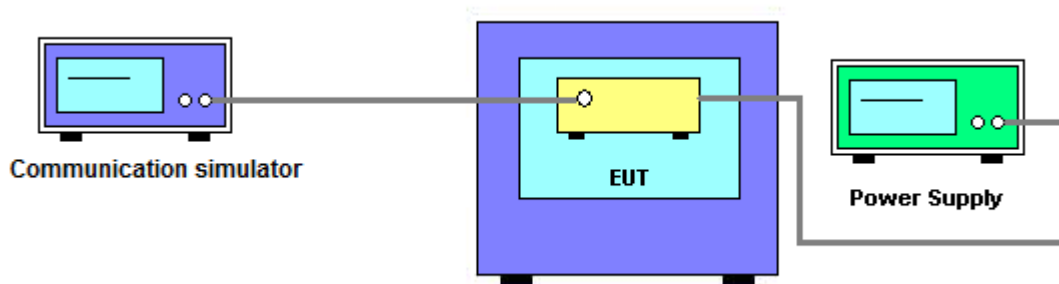
4.7.1 LIMIT

1.5 ppm is for base and fixed station. 2.5 ppm is for mobile station.

4.7.2 TEST PROCEDURES

1. Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.
2. EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.
3. The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the $\pm 0.5^{\circ}\text{C}$ during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.
4. The frequency error was recorded frequency error from the communication simulator.

4.7.3 TESTSETUP LAYOUT



4.7.4 TESTDEVIATION

No deviation

4.7.5 TEST RESULTS

Please refer to the Attachment G.

5. LIST OF MEASUREMENT EQUIPMENTS

| Radiated Emission & ERP or EIRP Measurement | | | | | |
|---|-------------------------------------|-----------------------------|---|---------------|------------------|
| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
| 1 | Antenna | Schwarbeck | VULB9160 | 9160-3232 | Mar. 26, 2018 |
| 2 | Double Ridged Guide Antenna | ETS | 3115 | 75789 | Mar. 26, 2018 |
| 3 | Broad-Band Horn Antenna | Schwarzbeck | BBHA 9170 | 9170319 | Apr. 22, 2018 |
| 4 | Amplifier | Agilent | 8449B | 3008A02274 | Mar. 09, 2018 |
| 5 | Amplifier | HP | 8447D | 2944A09673 | Oct. 20, 2017 |
| 6 | HighPass Filter | Wairwright Instruments Gmbh | WHK 1.5/15G-10ST | 11 | Mar. 09, 2018 |
| 7 | Band Reject Filter | Wairwright Instruments Gmbh | WRCG 1710/1785-1690/180 5-60/12SS | 38 | Feb. 22, 2018 |
| 8 | Band Reject Filter | Wairwright Instruments Gmbh | WRCG 824/849-810/863-60/ 9SS | 7 | Feb. 22, 2018 |
| 9 | Band Reject Filter | Wairwright Instruments Gmbh | WRCG 880/915-860/935-60/ 9SS | 14 | Feb. 22, 2018 |
| 10 | Band Reject Filter | Wairwright Instruments Gmbh | WRCG 1850/1910-1830/193 0-60/10SS | 17 | Feb. 22, 2018 |
| 11 | HighPass Filter | Wairwright Instruments Gmbh | WHK3.1/18G-10SS | 24 | Mar. 09, 2018 |
| 12 | Wireless Communication Test SET | Agilent | E5515C | MY48364183 | Mar. 26, 2018 |
| 13 | Microwave Preamplifier With Adaptor | EMC INSTRUMENT | EMC2654045 | 980039 & HA01 | Mar. 26, 2018 |
| 14 | Receiver | Agilent | N9038A | MY52130039 | Sep. 04, 2017 |
| 15 | wideband radio communication tester | R&S | CMW500 | 152372 | Mar. 26, 2018 |
| 16 | High pass filter | ZHPF-M1000-4000-1 | ZHPF-M3-12.75G-3869 | B2015073763 | Aug. 04, 2017 |
| 17 | High pass filter | ZHPF-M3-12.75G-3869 | ZHPF-M1000-4000-1 | B2015073762 | Aug. 04, 2017 |
| 18 | High pass filter | ZHPF-M6-18G-1727 | ZHPF-M6-186-1727 | B2015073764 | Aug. 04, 2017 |
| 19 | Cable | emci | LMR-400(30MHz-1GHz)(8m+5m) | N/A | Jun. 27, 2017 |
| 20 | Cable | emci | EMC104-SM-SM-12000(12m) | N/A | Jul. 06, 2017 |
| 21 | Controller | ETS-Lindgren | 2090 | N/A | N/A |
| 22 | Measurement Software | Farad | EZ-EMC Ver.NB-03A1-01 | N/A | N/A |

| Conducted Emission & Band Edge & Occupied Bandwidth Measurement | | | | | |
|---|-------------------------------------|---------------|---------------|-------------|------------------|
| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
| 1 | Wireless Communication Test SET | Agilent | E5515C | MY48364183 | Mar. 26, 2018 |
| 2 | EXA Spectrum Analyzer | Agilent | N9010A | MY50520044 | Mar. 26, 2018 |
| 3 | POWER SPLITTER | Mini-Circuits | ZFRSC-123-S + | 331000910-1 | Feb. 25, 2018 |
| 4 | wideband radio communication tester | R&S | CMW500 | 152372 | Mar. 26, 2018 |
| 5 | Cable | N/A | RG316(0.3m) | N/A | Jul. 06, 2017 |

| Frequency Stability Measurement | | | | | |
|---------------------------------|-------------------------------------|---------------|---------------|-------------|------------------|
| Item | Kind of Equipment | Manufacturer | Type No. | Serial No. | Calibrated until |
| 1 | Wireless Communication Test SET | Agilent | E5515C | MY48364183 | Mar. 26, 2018 |
| 2 | DC power supply | GW Instek | GPC-3030DN | EK880675 | Oct. 13, 2017 |
| 3 | POWER SPLITTER | Mini-Circuits | ZFRSC-123-S + | 331000910-1 | Feb. 25, 2018 |
| 4 | wideband radio communication tester | R&S | CMW500 | 152372 | Mar. 26, 2018 |
| 5 | Const Temp, & Humidity Chamber | Giant?Force | ITH-225-20-S | IAB0309-001 | Sep. 04, 2017 |
| 6 | Cable | N/A | RG316(0.3m) | N/A | Jul. 06, 2017 |

Remark: "N/A" denotes no model name, serial no. or calibration specified.
All calibration period of equipment list is one year.

ATTACHMENT A - OUTPUT POWER

Conducted Power:

| Modulation | Band | WCDMA IV | | |
|------------|--------------------|----------|---------|---------|
| | Tx Channel | 1312 CH | 1413 CH | 1513 CH |
| | Rx Channel | 1537 CH | 1638 CH | 1738 CH |
| | Frequency | 1712.4 | 1732.6 | 1752.6 |
| QPSK | RMC 12.2K | 23.26 | 23.29 | 23.21 |
| | RMC 64K | 23.33 | 23.29 | 23.27 |
| | RMC 144K | 23.32 | 23.27 | 23.26 |
| | RMC 384K | 23.32 | 23.27 | 23.25 |
| QPSK | HSDPA Subtest-1 | 22.35 | 22.33 | 22.29 |
| | HSDPA Subtest-2 | 22.32 | 22.27 | 22.25 |
| | HSDPA Subtest-3 | 21.75 | 21.74 | 21.66 |
| | HSDPA Subtest-4 | 21.74 | 21.73 | 21.68 |
| QPSK | HSUPA Subtest-1 | 22.27 | 22.26 | 22.27 |
| | HSUPA Subtest-2 | 21.75 | 21.75 | 21.65 |
| | HSUPA Subtest-3 | 22.32 | 22.28 | 22.24 |
| | HSUPA Subtest-4 | 22.32 | 22.32 | 22.28 |
| | HSUPA Subtest-5 | 22.34 | 22.32 | 22.36 |
| QPSK | DC-HSDPA Subtest-1 | 22.35 | 22.33 | 22.29 |
| | DC-HSDPA Subtest-2 | 22.32 | 22.27 | 22.25 |
| | DC-HSDPA Subtest-3 | 21.75 | 21.74 | 21.66 |
| | DC-HSDPA Subtest-4 | 21.74 | 21.73 | 21.68 |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|------------|------------|------------|
| | | | | 19957 CH | 20175 CH | 20393 CH |
| | | | | 1710.7 MHz | 1732.5 MHz | 1754.3 MHz |
| 4 / 1.4M | QPSK | 1 | 0 | 22.53 | 22.50 | 22.58 |
| | | 1 | 2 | 22.55 | 22.52 | 22.51 |
| | | 1 | 5 | 22.51 | 22.51 | 22.56 |
| | | 3 | 0 | 22.50 | 22.50 | 22.55 |
| | | 3 | 1 | 22.54 | 22.58 | 22.59 |
| | | 3 | 3 | 22.63 | 22.58 | 22.59 |
| | 16QAM | 6 | 0 | 21.51 | 21.55 | 21.57 |
| | | 1 | 0 | 21.51 | 21.94 | 21.54 |
| | | 1 | 2 | 21.62 | 21.98 | 21.68 |
| | | 1 | 5 | 21.59 | 21.94 | 21.60 |
| | | 3 | 0 | 21.53 | 21.58 | 22.07 |
| | | 3 | 1 | 21.51 | 21.52 | 21.88 |
| | | 3 | 3 | 21.55 | 21.52 | 22.10 |
| | | 6 | 0 | 20.57 | 20.53 | 21.07 |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|------------|------------|------------|
| | | | | 19965 CH | 20175 CH | 20385 CH |
| | | | | 1711.5 MHz | 1732.5 MHz | 1753.5 MHz |
| 4 / 3M | QPSK | 1 | 0 | 22.55 | 22.53 | 22.52 |
| | | 1 | 7 | 22.86 | 22.60 | 22.64 |
| | | 1 | 14 | 22.92 | 22.52 | 22.74 |
| | | 8 | 0 | 21.50 | 21.57 | 21.55 |
| | | 8 | 3 | 21.58 | 21.59 | 21.64 |
| | | 8 | 7 | 21.57 | 21.56 | 21.60 |
| | 16QAM | 15 | 0 | 21.66 | 21.68 | 21.62 |
| | | 1 | 0 | 21.65 | 22.05 | 21.55 |
| | | 1 | 7 | 21.88 | 21.90 | 21.59 |
| | | 1 | 14 | 21.78 | 21.59 | 21.51 |
| | | 8 | 0 | 20.61 | 20.63 | 20.52 |
| | | 8 | 3 | 20.64 | 20.57 | 20.50 |
| | | 8 | 7 | 20.56 | 20.59 | 20.56 |
| | | 15 | 0 | 20.83 | 20.68 | 20.59 |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|------------|------------|------------|
| | | | | 19975 CH | 20175 CH | 20375 CH |
| | | | | 1712.5 MHz | 1732.5 MHz | 1752.5 MHz |
| 4 / 5M | QPSK | 1 | 0 | 22.59 | 22.56 | 22.70 |
| | | 1 | 12 | 22.72 | 22.57 | 22.79 |
| | | 1 | 24 | 22.73 | 22.51 | 22.84 |
| | | 12 | 0 | 21.54 | 21.58 | 21.67 |
| | | 12 | 6 | 21.65 | 21.61 | 21.70 |
| | | 12 | 13 | 21.71 | 21.59 | 21.79 |
| | 16QAM | 25 | 0 | 21.64 | 21.58 | 21.78 |
| | | 1 | 0 | 21.58 | 21.53 | 21.53 |
| | | 1 | 12 | 21.53 | 21.54 | 21.61 |
| | | 1 | 24 | 21.51 | 21.57 | 21.57 |
| | | 12 | 0 | 20.58 | 20.52 | 20.62 |
| | | 12 | 6 | 20.59 | 20.55 | 20.65 |
| | | 12 | 13 | 20.66 | 20.53 | 20.72 |
| | | 25 | 0 | 20.72 | 20.54 | 20.70 |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|----------|------------|----------|
| | | | | 20000 CH | 20175 CH | 20350 CH |
| | | | | 1715 MHz | 1732.5 MHz | 1750 MHz |
| 4 / 10M | QPSK | 1 | 0 | 22.56 | 22.56 | 22.57 |
| | | 1 | 24 | 22.75 | 22.52 | 22.91 |
| | | 1 | 49 | 22.62 | 22.52 | 22.74 |
| | | 25 | 0 | 21.61 | 21.67 | 21.64 |
| | | 25 | 12 | 21.70 | 21.66 | 21.72 |
| | | 25 | 25 | 21.57 | 21.59 | 21.66 |
| | | 50 | 0 | 21.65 | 21.64 | 21.67 |
| | 16QAM | 1 | 0 | 21.56 | 21.85 | 21.55 |
| | | 1 | 24 | 21.87 | 21.91 | 21.51 |
| | | 1 | 49 | 21.61 | 21.87 | 21.75 |
| | | 25 | 0 | 20.58 | 20.61 | 20.63 |
| | | 25 | 12 | 20.55 | 20.59 | 20.69 |
| | | 25 | 25 | 20.55 | 20.52 | 20.67 |
| | | 50 | 0 | 20.60 | 20.54 | 20.60 |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|------------|------------|------------|
| | | | | 20025 CH | 20175 CH | 20325 CH |
| | | | | 1717.5 MHz | 1732.5 MHz | 1747.5 MHz |
| 4 / 15M | QPSK | 1 | 0 | 22.72 | 22.56 | 22.56 |
| | | 1 | 37 | 22.59 | 22.56 | 22.50 |
| | | 1 | 74 | 22.71 | 22.51 | 22.55 |
| | | 36 | 0 | 21.75 | 22.31 | 21.64 |
| | | 36 | 19 | 21.58 | 21.57 | 21.71 |
| | | 36 | 39 | 21.54 | 21.58 | 21.58 |
| | | 75 | 0 | 21.53 | 21.55 | 21.61 |
| | 16QAM | 1 | 0 | 21.60 | 21.58 | 22.42 |
| | | 1 | 37 | 22.20 | 21.53 | 22.07 |
| | | 1 | 74 | 21.74 | 21.59 | 22.38 |
| | | 36 | 0 | 20.62 | 20.99 | 20.59 |
| | | 36 | 19 | 20.65 | 20.69 | 20.65 |
| | | 36 | 39 | 20.60 | 20.61 | 20.63 |
| | | 75 | 0 | 20.60 | 20.56 | 20.61 |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|----------|------------|----------|
| | | | | 20050 CH | 20175 CH | 20300 CH |
| | | | | 1720 MHz | 1732.5 MHz | 1745 MHz |
| 4 / 20M | QPSK | 1 | 0 | 22.55 | 22.52 | 22.55 |
| | | 1 | 50 | 22.55 | 22.60 | 22.60 |
| | | 1 | 99 | 22.88 | 22.90 | 22.64 |
| | | 50 | 0 | 21.61 | 21.64 | 21.76 |
| | | 50 | 25 | 21.62 | 21.65 | 21.70 |
| | | 50 | 50 | 21.60 | 21.53 | 21.60 |
| | | 100 | 0 | 21.61 | 21.60 | 21.66 |
| | 16QAM | 1 | 0 | 21.55 | 21.60 | 21.74 |
| | | 1 | 50 | 21.57 | 21.63 | 21.68 |
| | | 1 | 99 | 21.56 | 21.58 | 21.53 |
| | | 50 | 0 | 20.67 | 20.56 | 20.75 |
| | | 50 | 25 | 20.59 | 20.58 | 20.69 |
| | | 50 | 50 | 20.53 | 20.56 | 20.59 |
| | | 100 | 0 | 20.68 | 20.60 | 20.57 |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|------------|----------|------------|
| | | | | 20775 CH | 21100 CH | 21425 CH |
| | | | | 2502.5 MHz | 2535 MHz | 2567.5 MHz |
| 7 / 5M | QPSK | 1 | 0 | 22.07 | 22.08 | 22.04 |
| | | 1 | 12 | 22.16 | 22.22 | 22.12 |
| | | 1 | 24 | 21.95 | 21.97 | 21.98 |
| | | 12 | 0 | 21.10 | 21.31 | 21.27 |
| | | 12 | 6 | 21.02 | 21.35 | 21.28 |
| | | 12 | 13 | 21.07 | 21.42 | 21.26 |
| | | 25 | 0 | 21.12 | 21.46 | 21.28 |
| | 16QAM | 1 | 0 | 20.54 | 20.75 | 20.92 |
| | | 1 | 12 | 20.51 | 20.78 | 20.99 |
| | | 1 | 24 | 20.33 | 20.68 | 20.96 |
| | | 12 | 0 | 19.93 | 20.26 | 20.19 |
| | | 12 | 6 | 19.83 | 20.31 | 20.21 |
| | | 12 | 13 | 19.79 | 20.25 | 20.12 |
| | | 25 | 0 | 20.11 | 20.25 | 20.14 |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|----------|----------|----------|
| | | | | 20800 CH | 21100 CH | 21400 CH |
| | | | | 2505 MHz | 2535 MHz | 2565 MHz |
| 7 / 10M | QPSK | 1 | 0 | 22.27 | 22.37 | 22.30 |
| | | 1 | 24 | 22.24 | 22.79 | 22.52 |
| | | 1 | 49 | 22.22 | 22.32 | 21.43 |
| | | 25 | 0 | 21.15 | 21.41 | 21.28 |
| | | 25 | 12 | 21.13 | 21.41 | 21.34 |
| | | 25 | 25 | 21.09 | 21.36 | 21.21 |
| | | 50 | 0 | 21.09 | 21.40 | 21.34 |
| | 16QAM | 1 | 0 | 21.21 | 21.12 | 21.31 |
| | | 1 | 24 | 21.19 | 21.61 | 21.19 |
| | | 1 | 49 | 21.20 | 21.51 | 20.73 |
| | | 25 | 0 | 20.11 | 20.54 | 20.37 |
| | | 25 | 12 | 19.98 | 20.45 | 20.42 |
| | | 25 | 25 | 19.92 | 20.41 | 20.19 |
| | | 50 | 0 | 20.08 | 20.42 | 20.25 |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|------------|----------|------------|
| | | | | 20825 CH | 21100 CH | 21375 CH |
| | | | | 2507.5 MHz | 2535 MHz | 2562.5 MHz |
| 7 / 15M | QPSK | 1 | 0 | 22.47 | 22.18 | 22.22 |
| | | 1 | 37 | 22.66 | 22.41 | 22.32 |
| | | 1 | 74 | 22.36 | 22.19 | 21.59 |
| | | 36 | 0 | 21.16 | 21.44 | 21.39 |
| | | 36 | 19 | 21.20 | 21.42 | 21.28 |
| | | 36 | 39 | 21.17 | 21.41 | 21.20 |
| | | 75 | 0 | 21.19 | 21.44 | 21.32 |
| | 16QAM | 1 | 0 | 21.38 | 20.84 | 21.88 |
| | | 1 | 37 | 21.65 | 21.67 | 21.90 |
| | | 1 | 74 | 21.34 | 21.61 | 21.20 |
| | | 36 | 0 | 20.19 | 20.34 | 20.25 |
| | | 36 | 19 | 20.22 | 20.30 | 20.03 |
| | | 36 | 39 | 20.11 | 20.29 | 19.98 |
| | | 75 | 0 | 20.13 | 20.31 | 20.12 |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|----------|----------|----------|
| | | | | 20850 CH | 21100 CH | 21350 CH |
| | | | | 2510 MHz | 2535 MHz | 2560 MHz |
| 7 / 20M | QPSK | 1 | 0 | 21.96 | 22.23 | 22.05 |
| | | 1 | 50 | 22.25 | 22.92 | 22.78 |
| | | 1 | 99 | 21.75 | 22.22 | 21.34 |
| | | 50 | 0 | 21.19 | 21.44 | 21.35 |
| | | 50 | 25 | 21.23 | 21.38 | 21.29 |
| | | 50 | 50 | 21.17 | 21.43 | 21.24 |
| | | 100 | 0 | 21.09 | 21.45 | 21.30 |
| | 16QAM | 1 | 0 | 20.83 | 21.14 | 21.25 |
| | | 1 | 50 | 20.85 | 21.40 | 21.32 |
| | | 1 | 99 | 20.75 | 21.19 | 20.97 |
| | | 50 | 0 | 19.96 | 20.41 | 20.28 |
| | | 50 | 25 | 20.28 | 20.30 | 20.30 |
| | | 50 | 50 | 20.28 | 20.38 | 20.00 |
| | | 100 | 0 | 20.16 | 20.41 | 20.16 |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|-----------|-----------|-----------|
| | | | | 23017 CH | 23095 CH | 23173 CH |
| | | | | 699.7 MHz | 707.5 MHz | 715.3 MHz |
| 12 / 1.4M | QPSK | 1 | 0 | 23.40 | 23.53 | 23.41 |
| | | 1 | 2 | 23.49 | 23.51 | 23.40 |
| | | 1 | 5 | 23.53 | 23.48 | 23.42 |
| | | 3 | 0 | 23.36 | 23.64 | 23.54 |
| | | 3 | 1 | 23.43 | 23.71 | 23.63 |
| | | 3 | 3 | 23.45 | 23.64 | 23.58 |
| | 16QAM | 6 | 0 | 22.71 | 22.71 | 22.71 |
| | | 1 | 0 | 22.53 | 22.49 | 22.17 |
| | | 1 | 2 | 22.61 | 22.64 | 22.14 |
| | | 1 | 5 | 22.67 | 22.52 | 22.84 |
| | | 3 | 0 | 22.59 | 22.31 | 22.63 |
| | | 3 | 1 | 22.71 | 22.27 | 22.62 |
| | | 3 | 3 | 22.72 | 22.30 | 22.57 |
| | | 6 | 0 | 21.80 | 21.82 | 21.51 |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|-----------|-----------|-----------|
| | | | | 23025 CH | 23095 CH | 23165 CH |
| | | | | 700.5 MHz | 707.5 MHz | 714.5 MHz |
| 12 / 3M | QPSK | 1 | 0 | 23.26 | 23.61 | 23.78 |
| | | 1 | 7 | 23.59 | 23.70 | 23.66 |
| | | 1 | 14 | 23.68 | 23.52 | 23.59 |
| | | 8 | 0 | 22.66 | 22.63 | 22.74 |
| | | 8 | 3 | 22.67 | 22.60 | 22.68 |
| | | 8 | 7 | 22.60 | 22.62 | 22.64 |
| | | 15 | 0 | 22.63 | 22.69 | 22.66 |
| | 16QAM | 1 | 0 | 22.27 | 22.95 | 22.67 |
| | | 1 | 7 | 22.60 | 23.06 | 22.65 |
| | | 1 | 14 | 22.64 | 22.90 | 22.74 |
| | | 8 | 0 | 21.89 | 21.79 | 21.91 |
| | | 8 | 3 | 21.74 | 21.90 | 21.66 |
| | | 8 | 7 | 21.79 | 21.77 | 21.57 |
| | | 15 | 0 | 21.61 | 21.67 | 21.49 |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|-----------|-----------|-----------|
| | | | | 23035 CH | 23095 CH | 23155 CH |
| | | | | 701.5 MHz | 707.5 MHz | 713.5 MHz |
| 12 / 5M | QPSK | 1 | 0 | 23.25 | 23.48 | 23.39 |
| | | 1 | 12 | 23.91 | 23.51 | 23.59 |
| | | 1 | 24 | 23.60 | 23.39 | 23.42 |
| | | 12 | 0 | 22.62 | 22.58 | 22.61 |
| | | 12 | 6 | 22.69 | 22.57 | 22.72 |
| | | 12 | 13 | 22.61 | 22.63 | 22.68 |
| | | 25 | 0 | 22.54 | 22.69 | 22.66 |
| | 16QAM | 1 | 0 | 21.77 | 21.96 | 22.24 |
| | | 1 | 12 | 22.21 | 22.07 | 22.33 |
| | | 1 | 24 | 21.86 | 21.95 | 22.29 |
| | | 12 | 0 | 21.58 | 21.48 | 21.53 |
| | | 12 | 6 | 21.75 | 21.49 | 21.65 |
| | | 12 | 13 | 21.66 | 21.54 | 21.69 |
| | | 25 | 0 | 21.31 | 21.60 | 21.68 |

| LTE Band / BW | Modulation | RB Sizing | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|-----------|-----------|----------|-----------|----------|
| | | | | 23060 CH | 23095 CH | 23130 CH |
| | | | | 704 MHz | 707.5 MHz | 711 MHz |
| 12 / 10M | QPSK | 1 | 0 | 22.53 | 23.13 | 23.05 |
| | | 1 | 24 | 24.01 | 24.00 | 23.85 |
| | | 1 | 49 | 23.24 | 23.57 | 23.47 |
| | | 25 | 0 | 22.60 | 22.52 | 22.73 |
| | | 25 | 12 | 22.52 | 22.60 | 22.67 |
| | | 25 | 25 | 22.55 | 22.54 | 22.65 |
| | | 50 | 0 | 22.62 | 22.58 | 22.65 |
| | 16QAM | 1 | 0 | 21.55 | 22.53 | 22.17 |
| | | 1 | 24 | 23.01 | 23.06 | 22.58 |
| | | 1 | 49 | 22.23 | 22.95 | 22.21 |
| | | 25 | 0 | 21.56 | 21.60 | 21.68 |
| | | 25 | 12 | 21.59 | 21.71 | 21.83 |
| | | 25 | 25 | 21.53 | 21.64 | 21.76 |
| | | 50 | 0 | 21.58 | 21.55 | 21.54 |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|-----------|-----------|-----------|
| | | | | 23755 CH | 23790 CH | 23825 CH |
| | | | | 706.5 MHz | 710.0 MHz | 713.5 MHz |
| 17 / 5M | QPSK | 1 | 0 | 22.98 | 22.80 | 22.83 |
| | | 1 | 12 | 23.08 | 22.86 | 22.92 |
| | | 1 | 24 | 23.00 | 22.74 | 22.91 |
| | | 12 | 0 | 22.11 | 22.05 | 22.08 |
| | | 12 | 6 | 22.08 | 22.06 | 22.19 |
| | | 12 | 13 | 22.05 | 22.04 | 22.18 |
| | | 25 | 0 | 22.14 | 22.08 | 22.03 |
| | 16QAM | 1 | 0 | 21.56 | 21.82 | 21.76 |
| | | 1 | 12 | 21.51 | 22.05 | 21.80 |
| | | 1 | 24 | 21.60 | 21.92 | 21.77 |
| | | 12 | 0 | 21.05 | 20.88 | 21.02 |
| | | 12 | 6 | 21.01 | 20.94 | 21.04 |
| | | 12 | 13 | 21.07 | 20.93 | 21.01 |
| | | 25 | 0 | 21.18 | 20.99 | 20.99 |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|-----------|-----------|-----------|
| | | | | 23780 CH | 23790 CH | 23800 CH |
| | | | | 709.0 MHz | 710.0 MHz | 711.0 MHz |
| 17 / 10M | QPSK | 1 | 0 | 23.22 | 22.95 | 23.16 |
| | | 1 | 24 | 23.45 | 23.16 | 23.17 |
| | | 1 | 49 | 23.17 | 22.83 | 22.81 |
| | | 25 | 0 | 22.14 | 22.08 | 22.01 |
| | | 25 | 12 | 22.19 | 22.12 | 22.08 |
| | | 25 | 25 | 22.07 | 22.15 | 22.06 |
| | | 50 | 0 | 22.11 | 22.06 | 22.05 |
| | 16QAM | 1 | 0 | 22.21 | 22.34 | 22.02 |
| | | 1 | 24 | 22.01 | 22.29 | 22.03 |
| | | 1 | 49 | 22.19 | 22.31 | 21.96 |
| | | 25 | 0 | 21.02 | 21.17 | 21.06 |
| | | 25 | 12 | 20.98 | 21.22 | 21.09 |
| | | 25 | 25 | 20.94 | 21.08 | 21.11 |
| | | 50 | 0 | 21.07 | 20.98 | 20.96 |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|-----------|-----------|-----------|
| | | | | 39675 CH | 40620 CH | 41565 CH |
| | | | | 2498.5MHz | 2593.0MHz | 2687.5MHz |
| 41 / 5M | QPSK | 1 | 0 | 23.12 | 22.70 | 22.63 |
| | | 1 | 12 | 23.48 | 23.08 | 22.98 |
| | | 1 | 24 | 23.20 | 22.80 | 22.70 |
| | | 12 | 0 | 22.34 | 21.94 | 21.84 |
| | | 12 | 6 | 22.25 | 21.85 | 21.75 |
| | | 12 | 13 | 22.16 | 21.76 | 21.66 |
| | 16QAM | 25 | 0 | 22.20 | 21.94 | 21.95 |
| | | 1 | 0 | 21.61 | 21.21 | 21.11 |
| | | 1 | 12 | 21.76 | 21.36 | 21.26 |
| | | 1 | 24 | 21.52 | 21.12 | 21.02 |
| | | 12 | 0 | 20.96 | 20.56 | 20.46 |
| | | 12 | 6 | 21.11 | 20.71 | 20.61 |
| | | 12 | 13 | 21.17 | 20.77 | 20.67 |
| | | 25 | 0 | 21.33 | 20.93 | 20.83 |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|-----------|-----------|-----------|
| | | | | 39700 CH | 40620 CH | 41540 CH |
| | | | | 2501.0MHz | 2593.0MHz | 2685.0MHz |
| 41 / 10M | QPSK | 1 | 0 | 22.90 | 22.73 | 22.63 |
| | | 1 | 24 | 23.24 | 23.02 | 22.70 |
| | | 1 | 49 | 22.88 | 22.71 | 22.61 |
| | | 25 | 0 | 22.28 | 22.11 | 22.01 |
| | | 25 | 12 | 22.23 | 22.06 | 21.96 |
| | | 25 | 25 | 22.17 | 22.00 | 21.90 |
| | | 50 | 0 | 22.24 | 22.07 | 21.97 |
| | 16QAM | 1 | 0 | 21.81 | 21.64 | 21.54 |
| | | 1 | 24 | 21.92 | 21.75 | 21.65 |
| | | 1 | 49 | 21.68 | 21.51 | 21.41 |
| | | 25 | 0 | 21.45 | 21.28 | 21.18 |
| | | 25 | 12 | 21.36 | 21.19 | 21.09 |
| | | 25 | 25 | 21.36 | 21.19 | 21.09 |
| | | 50 | 0 | 21.37 | 21.20 | 21.10 |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|-----------|-----------|-----------|
| | | | | 39725 CH | 40620 CH | 41515 CH |
| | | | | 2503.5MHz | 2593.0MHz | 2682.5MHz |
| 41 / 15M | QPSK | 1 | 0 | 22.95 | 22.92 | 22.65 |
| | | 1 | 37 | 23.21 | 23.18 | 22.91 |
| | | 1 | 74 | 22.93 | 22.90 | 22.63 |
| | | 36 | 0 | 22.28 | 22.25 | 21.98 |
| | | 36 | 19 | 22.21 | 22.18 | 21.91 |
| | | 36 | 39 | 22.12 | 22.09 | 21.82 |
| | | 75 | 0 | 22.19 | 22.16 | 21.89 |
| | 16QAM | 1 | 0 | 22.03 | 22.00 | 21.73 |
| | | 1 | 37 | 22.04 | 22.01 | 21.74 |
| | | 1 | 74 | 21.82 | 21.79 | 21.52 |
| | | 36 | 0 | 21.39 | 21.36 | 21.09 |
| | | 36 | 19 | 21.13 | 21.10 | 20.83 |
| | | 36 | 39 | 21.01 | 20.98 | 20.71 |
| | | 75 | 0 | 21.14 | 21.11 | 20.84 |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|-----------|-----------|-----------|
| | | | | 39750 CH | 40620 CH | 41490 CH |
| | | | | 2506.0MHz | 2593.0MHz | 2680.0MHz |
| 41 / 20M | QPSK | 1 | 0 | 22.77 | 22.83 | 22.71 |
| | | 1 | 50 | 23.40 | 23.23 | 23.03 |
| | | 1 | 99 | 22.86 | 22.81 | 22.22 |
| | | 50 | 0 | 22.73 | 22.15 | 22.02 |
| | | 50 | 25 | 22.40 | 22.21 | 21.99 |
| | | 50 | 50 | 22.14 | 21.89 | 21.52 |
| | | 100 | 0 | 22.20 | 21.99 | 21.78 |
| | 16QAM | 1 | 0 | 21.87 | 21.49 | 21.60 |
| | | 1 | 50 | 22.09 | 21.83 | 21.55 |
| | | 1 | 99 | 21.63 | 21.57 | 21.07 |
| | | 50 | 0 | 21.36 | 21.12 | 20.86 |
| | | 50 | 25 | 21.26 | 21.18 | 20.82 |
| | | 50 | 50 | 21.20 | 20.86 | 20.66 |
| | | 100 | 0 | 21.05 | 20.92 | 20.63 |

EIRP Power:

| Modulation | Band | WCDMA IV | | |
|------------|--------------------|----------|---------|---------|
| | Tx Channel | 1312 CH | 1413 CH | 1513 CH |
| QPSK | Rx Channel | 1537 CH | 1638 CH | 1738 CH |
| | Frequency | 1712.4 | 1732.6 | 1752.6 |
| | RMC 12.2K | 24.46 | 24.49 | 24.41 |
| | RMC 64K | 24.53 | 24.49 | 24.47 |
| QPSK | RMC 144K | 24.52 | 24.47 | 24.46 |
| | RMC 384K | 24.52 | 24.47 | 24.45 |
| | HSDPA Subtest-1 | 23.55 | 23.53 | 23.49 |
| | HSDPA Subtest-2 | 23.52 | 23.47 | 23.45 |
| QPSK | HSDPA Subtest-3 | 22.95 | 22.94 | 22.86 |
| | HSDPA Subtest-4 | 22.94 | 22.93 | 22.88 |
| | HSUPA Subtest-1 | 23.47 | 23.46 | 23.47 |
| | HSUPA Subtest-2 | 22.95 | 22.95 | 22.85 |
| QPSK | HSUPA Subtest-3 | 23.52 | 23.48 | 23.44 |
| | HSUPA Subtest-4 | 23.52 | 23.52 | 23.48 |
| | HSUPA Subtest-5 | 23.54 | 23.52 | 23.56 |
| QPSK | DC-HSDPA Subtest-1 | 23.55 | 23.53 | 23.49 |
| | DC-HSDPA Subtest-2 | 23.52 | 23.47 | 23.45 |
| | DC-HSDPA Subtest-3 | 22.95 | 22.94 | 22.86 |
| | DC-HSDPA Subtest-4 | 22.94 | 22.93 | 22.88 |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|------------|------------|------------|
| | | | | 19957 CH | 20175 CH | 20393 CH |
| | | | | 1710.7 MHz | 1732.5 MHz | 1754.3 MHz |
| 4 / 1.4M | QPSK | 1 | 0 | 23.73 | 23.70 | 23.78 |
| | | 1 | 2 | 23.75 | 23.72 | 23.71 |
| | | 1 | 5 | 23.71 | 23.71 | 23.76 |
| | | 3 | 0 | 23.70 | 23.70 | 23.75 |
| | | 3 | 1 | 23.74 | 23.78 | 23.79 |
| | | 3 | 3 | 23.83 | 23.78 | 23.79 |
| | | 6 | 0 | 22.71 | 22.75 | 22.77 |
| | 16QAM | 1 | 0 | 22.71 | 23.14 | 22.74 |
| | | 1 | 2 | 22.82 | 23.18 | 22.88 |
| | | 1 | 5 | 22.79 | 23.14 | 22.80 |
| | | 3 | 0 | 22.73 | 22.78 | 23.27 |
| | | 3 | 1 | 22.71 | 22.72 | 23.08 |
| | | 3 | 3 | 22.75 | 22.72 | 23.30 |
| | | 6 | 0 | 21.77 | 21.73 | 22.27 |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|------------|------------|------------|
| | | | | 19965 CH | 20175 CH | 20385 CH |
| | | | | 1711.5 MHz | 1732.5 MHz | 1753.5 MHz |
| 4 / 3M | QPSK | 1 | 0 | 23.75 | 23.73 | 23.72 |
| | | 1 | 7 | 24.06 | 23.80 | 23.84 |
| | | 1 | 14 | 24.12 | 23.72 | 23.94 |
| | | 8 | 0 | 22.70 | 22.77 | 22.75 |
| | | 8 | 3 | 22.78 | 22.79 | 22.84 |
| | | 8 | 7 | 22.77 | 22.76 | 22.80 |
| | | 15 | 0 | 22.86 | 22.88 | 22.82 |
| | 16QAM | 1 | 0 | 22.85 | 23.25 | 22.75 |
| | | 1 | 7 | 23.08 | 23.10 | 22.79 |
| | | 1 | 14 | 22.98 | 22.79 | 22.71 |
| | | 8 | 0 | 21.81 | 21.83 | 21.72 |
| | | 8 | 3 | 21.84 | 21.77 | 21.70 |
| | | 8 | 7 | 21.76 | 21.79 | 21.76 |
| | | 15 | 0 | 22.03 | 21.88 | 21.79 |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|------------|------------|------------|
| | | | | 19975 CH | 20175 CH | 20375 CH |
| | | | | 1712.5 MHz | 1732.5 MHz | 1752.5 MHz |
| 4 / 5M | QPSK | 1 | 0 | 23.79 | 23.76 | 23.90 |
| | | 1 | 12 | 23.92 | 23.77 | 23.99 |
| | | 1 | 24 | 23.93 | 23.71 | 24.04 |
| | | 12 | 0 | 22.74 | 22.78 | 22.87 |
| | | 12 | 6 | 22.85 | 22.81 | 22.90 |
| | | 12 | 13 | 22.91 | 22.79 | 22.99 |
| | | 25 | 0 | 22.84 | 22.78 | 22.98 |
| | 16QAM | 1 | 0 | 22.78 | 22.73 | 22.73 |
| | | 1 | 12 | 22.73 | 22.74 | 22.81 |
| | | 1 | 24 | 22.71 | 22.77 | 22.77 |
| | | 12 | 0 | 21.78 | 21.72 | 21.82 |
| | | 12 | 6 | 21.79 | 21.75 | 21.85 |
| | | 12 | 13 | 21.86 | 21.73 | 21.92 |
| | | 25 | 0 | 21.92 | 21.74 | 21.90 |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|----------|------------|----------|
| | | | | 20000 CH | 20175 CH | 20350 CH |
| | | | | 1715 MHz | 1732.5 MHz | 1750 MHz |
| 4 / 10M | QPSK | 1 | 0 | 23.76 | 23.76 | 23.77 |
| | | 1 | 24 | 23.95 | 23.72 | 24.11 |
| | | 1 | 49 | 23.82 | 23.72 | 23.94 |
| | | 25 | 0 | 22.81 | 22.87 | 22.84 |
| | | 25 | 12 | 22.90 | 22.86 | 22.92 |
| | | 25 | 25 | 22.77 | 22.79 | 22.86 |
| | | 50 | 0 | 22.85 | 22.84 | 22.87 |
| | 16QAM | 1 | 0 | 22.76 | 23.05 | 22.75 |
| | | 1 | 24 | 23.07 | 23.11 | 22.71 |
| | | 1 | 49 | 22.81 | 23.07 | 22.95 |
| | | 25 | 0 | 21.78 | 21.81 | 21.83 |
| | | 25 | 12 | 21.75 | 21.79 | 21.89 |
| | | 25 | 25 | 21.75 | 21.72 | 21.87 |
| | | 50 | 0 | 21.80 | 21.74 | 21.80 |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|------------|------------|------------|
| | | | | 20025 CH | 20175 CH | 20325 CH |
| | | | | 1717.5 MHz | 1732.5 MHz | 1747.5 MHz |
| 4 / 15M | QPSK | 1 | 0 | 23.92 | 23.76 | 23.76 |
| | | 1 | 37 | 23.79 | 23.76 | 23.70 |
| | | 1 | 74 | 23.91 | 23.71 | 23.75 |
| | | 36 | 0 | 22.95 | 23.51 | 22.84 |
| | | 36 | 19 | 22.78 | 22.77 | 22.91 |
| | | 36 | 39 | 22.74 | 22.78 | 22.78 |
| | | 75 | 0 | 22.73 | 22.75 | 22.81 |
| | 16QAM | 1 | 0 | 22.80 | 22.78 | 23.62 |
| | | 1 | 37 | 23.40 | 22.73 | 23.27 |
| | | 1 | 74 | 22.94 | 22.79 | 23.58 |
| | | 36 | 0 | 21.82 | 22.19 | 21.79 |
| | | 36 | 19 | 21.85 | 21.89 | 21.85 |
| | | 36 | 39 | 21.80 | 21.81 | 21.83 |
| | | 75 | 0 | 21.80 | 21.76 | 21.81 |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|----------|------------|----------|
| | | | | 20050 CH | 20175 CH | 20300 CH |
| | | | | 1720 MHz | 1732.5 MHz | 1745 MHz |
| 4 / 20M | QPSK | 1 | 0 | 23.75 | 23.72 | 23.75 |
| | | 1 | 50 | 23.75 | 23.80 | 23.80 |
| | | 1 | 99 | 24.08 | 24.10 | 23.84 |
| | | 50 | 0 | 22.81 | 22.84 | 22.96 |
| | | 50 | 25 | 22.82 | 22.85 | 22.90 |
| | | 50 | 50 | 22.80 | 22.73 | 22.80 |
| | | 100 | 0 | 22.81 | 22.80 | 22.86 |
| | 16QAM | 1 | 0 | 22.75 | 22.80 | 22.94 |
| | | 1 | 50 | 22.77 | 22.83 | 22.88 |
| | | 1 | 99 | 22.76 | 22.78 | 22.73 |
| | | 50 | 0 | 21.87 | 21.76 | 21.95 |
| | | 50 | 25 | 21.79 | 21.78 | 21.89 |
| | | 50 | 50 | 21.73 | 21.76 | 21.79 |
| | | 100 | 0 | 21.88 | 21.80 | 21.77 |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|------------|----------|------------|
| | | | | 20775 CH | 21100 CH | 21425 CH |
| | | | | 2502.5 MHz | 2535 MHz | 2567.5 MHz |
| 7 / 5M | QPSK | 1 | 0 | 23.67 | 23.68 | 23.64 |
| | | 1 | 12 | 23.76 | 23.82 | 23.72 |
| | | 1 | 24 | 23.55 | 23.57 | 23.58 |
| | | 12 | 0 | 22.70 | 22.91 | 22.87 |
| | | 12 | 6 | 22.62 | 22.95 | 22.88 |
| | | 12 | 13 | 22.67 | 23.02 | 22.86 |
| | | 25 | 0 | 22.72 | 23.06 | 22.88 |
| | 16QAM | 1 | 0 | 22.14 | 22.35 | 22.52 |
| | | 1 | 12 | 22.11 | 22.38 | 22.59 |
| | | 1 | 24 | 21.93 | 22.28 | 22.56 |
| | | 12 | 0 | 21.53 | 21.86 | 21.79 |
| | | 12 | 6 | 21.43 | 21.91 | 21.81 |
| | | 12 | 13 | 21.39 | 21.85 | 21.72 |
| | | 25 | 0 | 21.71 | 21.85 | 21.74 |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|----------|----------|----------|
| | | | | 20800 CH | 21100 CH | 21400 CH |
| | | | | 2505 MHz | 2535 MHz | 2565 MHz |
| 7 / 10M | QPSK | 1 | 0 | 23.87 | 23.97 | 23.90 |
| | | 1 | 24 | 23.84 | 24.39 | 24.12 |
| | | 1 | 49 | 23.82 | 23.92 | 23.03 |
| | | 25 | 0 | 22.75 | 23.01 | 22.88 |
| | | 25 | 12 | 22.73 | 23.01 | 22.94 |
| | | 25 | 25 | 22.69 | 22.96 | 22.81 |
| | | 50 | 0 | 22.69 | 23.00 | 22.94 |
| | 16QAM | 1 | 0 | 22.81 | 22.72 | 22.91 |
| | | 1 | 24 | 22.79 | 23.21 | 22.79 |
| | | 1 | 49 | 22.80 | 23.11 | 22.33 |
| | | 25 | 0 | 21.71 | 22.14 | 21.97 |
| | | 25 | 12 | 21.58 | 22.05 | 22.02 |
| | | 25 | 25 | 21.52 | 22.01 | 21.79 |
| | | 50 | 0 | 21.68 | 22.02 | 21.85 |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|------------|----------|------------|
| | | | | 20825 CH | 21100 CH | 21375 CH |
| | | | | 2507.5 MHz | 2535 MHz | 2562.5 MHz |
| 7 / 15M | QPSK | 1 | 0 | 24.07 | 23.78 | 23.82 |
| | | 1 | 37 | 24.26 | 24.01 | 23.92 |
| | | 1 | 74 | 23.96 | 23.79 | 23.19 |
| | | 36 | 0 | 22.76 | 23.04 | 22.99 |
| | | 36 | 19 | 22.80 | 23.02 | 22.88 |
| | | 36 | 39 | 22.77 | 23.01 | 22.80 |
| | | 75 | 0 | 22.79 | 23.04 | 22.92 |
| | 16QAM | 1 | 0 | 22.98 | 22.44 | 23.48 |
| | | 1 | 37 | 23.25 | 23.27 | 23.50 |
| | | 1 | 74 | 22.94 | 23.21 | 22.80 |
| | | 36 | 0 | 21.79 | 21.94 | 21.85 |
| | | 36 | 19 | 21.82 | 21.90 | 21.63 |
| | | 36 | 39 | 21.71 | 21.89 | 21.58 |
| | | 75 | 0 | 21.73 | 21.91 | 21.72 |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|----------|----------|----------|
| | | | | 20850 CH | 21100 CH | 21350 CH |
| | | | | 2510 MHz | 2535 MHz | 2560 MHz |
| 7 / 20M | QPSK | 1 | 0 | 23.56 | 23.83 | 23.65 |
| | | 1 | 50 | 23.85 | 24.52 | 24.38 |
| | | 1 | 99 | 23.35 | 23.82 | 22.94 |
| | | 50 | 0 | 22.79 | 23.04 | 22.95 |
| | | 50 | 25 | 22.83 | 22.98 | 22.89 |
| | | 50 | 50 | 22.77 | 23.03 | 22.84 |
| | | 100 | 0 | 22.69 | 23.05 | 22.90 |
| | 16QAM | 1 | 0 | 22.43 | 22.74 | 22.85 |
| | | 1 | 50 | 22.45 | 23.00 | 22.92 |
| | | 1 | 99 | 22.35 | 22.79 | 22.57 |
| | | 50 | 0 | 21.56 | 22.01 | 21.88 |
| | | 50 | 25 | 21.88 | 21.90 | 21.90 |
| | | 50 | 50 | 21.88 | 21.98 | 21.60 |
| | | 100 | 0 | 21.76 | 22.01 | 21.76 |

ERP Power:

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|-----------|-----------|-----------|
| | | | | 23017 CH | 23095 CH | 23173 CH |
| | | | | 699.7 MHz | 707.5 MHz | 715.3 MHz |
| 12 / 1.4M | QPSK | 1 | 0 | 20.75 | 20.88 | 20.76 |
| | | 1 | 2 | 20.84 | 20.86 | 20.75 |
| | | 1 | 5 | 20.88 | 20.83 | 20.77 |
| | | 3 | 0 | 20.71 | 20.99 | 20.89 |
| | | 3 | 1 | 20.78 | 21.06 | 20.98 |
| | | 3 | 3 | 20.80 | 20.99 | 20.93 |
| | | 6 | 0 | 20.06 | 20.06 | 20.06 |
| | 16QAM | 1 | 0 | 19.88 | 19.84 | 19.52 |
| | | 1 | 2 | 19.96 | 19.99 | 19.49 |
| | | 1 | 5 | 20.02 | 19.87 | 20.19 |
| | | 3 | 0 | 19.94 | 19.66 | 19.98 |
| | | 3 | 1 | 20.06 | 19.62 | 19.97 |
| | | 3 | 3 | 20.07 | 19.65 | 19.92 |
| | | 6 | 0 | 19.15 | 19.17 | 18.86 |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|-----------|-----------|-----------|
| | | | | 23025 CH | 23095 CH | 23165 CH |
| | | | | 700.5 MHz | 707.5 MHz | 714.5 MHz |
| 12 / 3M | QPSK | 1 | 0 | 20.61 | 20.96 | 21.13 |
| | | 1 | 7 | 20.94 | 21.05 | 21.01 |
| | | 1 | 14 | 21.03 | 20.87 | 20.94 |
| | | 8 | 0 | 20.01 | 19.98 | 20.09 |
| | | 8 | 3 | 20.02 | 19.95 | 20.03 |
| | | 8 | 7 | 19.95 | 19.97 | 19.99 |
| | | 15 | 0 | 19.98 | 20.04 | 20.01 |
| | 16QAM | 1 | 0 | 19.62 | 20.30 | 20.02 |
| | | 1 | 7 | 19.95 | 20.41 | 20.00 |
| | | 1 | 14 | 19.99 | 20.25 | 20.09 |
| | | 8 | 0 | 19.24 | 19.14 | 19.26 |
| | | 8 | 3 | 19.09 | 19.25 | 19.01 |
| | | 8 | 7 | 19.14 | 19.12 | 18.92 |
| | | 15 | 0 | 18.96 | 19.02 | 18.84 |

| LTE Band / BW | Modulation | RB Siset | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|-----------|-----------|-----------|
| | | | | 23035 CH | 23095 CH | 23155 CH |
| | | | | 701.5 MHz | 707.5 MHz | 713.5 MHz |
| 12 / 5M | QPSK | 1 | 0 | 20.60 | 20.83 | 20.74 |
| | | 1 | 12 | 21.26 | 20.86 | 20.94 |
| | | 1 | 24 | 20.95 | 20.74 | 20.77 |
| | | 12 | 0 | 19.97 | 19.93 | 19.96 |
| | | 12 | 6 | 20.04 | 19.92 | 20.07 |
| | | 12 | 13 | 19.96 | 19.98 | 20.03 |
| | | 25 | 0 | 19.89 | 20.04 | 20.01 |
| | 16QAM | 1 | 0 | 19.12 | 19.31 | 19.59 |
| | | 1 | 12 | 19.56 | 19.42 | 19.68 |
| | | 1 | 24 | 19.21 | 19.30 | 19.64 |
| | | 12 | 0 | 18.93 | 18.83 | 18.88 |
| | | 12 | 6 | 19.10 | 18.84 | 19.00 |
| | | 12 | 13 | 19.01 | 18.89 | 19.04 |
| | | 25 | 0 | 18.66 | 18.95 | 19.03 |

| LTE Band / BW | Modulation | RB Sizing | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|-----------|-----------|----------|-----------|----------|
| | | | | 23060 CH | 23095 CH | 23130 CH |
| | | | | 704 MHz | 707.5 MHz | 711 MHz |
| 12 / 10M | QPSK | 1 | 0 | 19.88 | 20.48 | 20.40 |
| | | 1 | 24 | 21.36 | 21.35 | 21.20 |
| | | 1 | 49 | 20.59 | 20.92 | 20.82 |
| | | 25 | 0 | 19.95 | 19.87 | 20.08 |
| | | 25 | 12 | 19.87 | 19.95 | 20.02 |
| | | 25 | 25 | 19.90 | 19.89 | 20.00 |
| | | 50 | 0 | 19.97 | 19.93 | 20.00 |
| | 16QAM | 1 | 0 | 18.90 | 19.88 | 19.52 |
| | | 1 | 24 | 20.36 | 20.41 | 19.93 |
| | | 1 | 49 | 19.58 | 20.30 | 19.56 |
| | | 25 | 0 | 18.91 | 18.95 | 19.03 |
| | | 25 | 12 | 18.94 | 19.06 | 19.18 |
| | | 25 | 25 | 18.88 | 18.99 | 19.11 |
| | | 50 | 0 | 18.93 | 18.90 | 18.89 |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|-----------|-----------|-----------|
| | | | | 23755 CH | 23790 CH | 23825 CH |
| | | | | 706.5 MHz | 710.0 MHz | 713.5 MHz |
| 17 / 5M | QPSK | 1 | 0 | 20.33 | 20.15 | 20.18 |
| | | 1 | 12 | 20.43 | 20.21 | 20.27 |
| | | 1 | 24 | 20.35 | 20.09 | 20.26 |
| | | 12 | 0 | 19.46 | 19.40 | 19.43 |
| | | 12 | 6 | 19.43 | 19.41 | 19.54 |
| | | 12 | 13 | 19.40 | 19.39 | 19.53 |
| | | 25 | 0 | 19.49 | 19.43 | 19.38 |
| | 16QAM | 1 | 0 | 18.91 | 19.17 | 19.11 |
| | | 1 | 12 | 18.86 | 19.40 | 19.15 |
| | | 1 | 24 | 18.95 | 19.27 | 19.12 |
| | | 12 | 0 | 18.40 | 18.23 | 18.37 |
| | | 12 | 6 | 18.36 | 18.29 | 18.39 |
| | | 12 | 13 | 18.42 | 18.28 | 18.36 |
| | | 25 | 0 | 18.53 | 18.34 | 18.34 |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|-----------|-----------|-----------|
| | | | | 23780 CH | 23790 CH | 23800 CH |
| | | | | 709.0 MHz | 710.0 MHz | 711.0 MHz |
| 17 / 10M | QPSK | 1 | 0 | 20.57 | 20.30 | 20.51 |
| | | 1 | 24 | 20.80 | 20.51 | 20.52 |
| | | 1 | 49 | 20.52 | 20.18 | 20.16 |
| | | 25 | 0 | 19.49 | 19.43 | 19.36 |
| | | 25 | 12 | 19.54 | 19.47 | 19.43 |
| | | 25 | 25 | 19.42 | 19.50 | 19.41 |
| | | 50 | 0 | 19.46 | 19.41 | 19.40 |
| | 16QAM | 1 | 0 | 19.56 | 19.69 | 19.37 |
| | | 1 | 24 | 19.36 | 19.64 | 19.38 |
| | | 1 | 49 | 19.54 | 19.66 | 19.31 |
| | | 25 | 0 | 18.37 | 18.52 | 18.41 |
| | | 25 | 12 | 18.33 | 18.57 | 18.44 |
| | | 25 | 25 | 18.29 | 18.43 | 18.46 |
| | | 50 | 0 | 18.42 | 18.33 | 18.31 |

EIRP Power:

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|-----------|-----------|-----------|
| | | | | 39675 CH | 40620 CH | 41565 CH |
| | | | | 2498.5MHz | 2593.0MHz | 2687.5MHz |
| 41 / 5M | QPSK | 1 | 0 | 24.72 | 24.30 | 24.23 |
| | | 1 | 12 | 25.08 | 24.68 | 24.58 |
| | | 1 | 24 | 24.80 | 24.40 | 24.30 |
| | | 12 | 0 | 23.94 | 23.54 | 23.44 |
| | | 12 | 6 | 23.85 | 23.45 | 23.35 |
| | | 12 | 13 | 23.76 | 23.36 | 23.26 |
| | | 25 | 0 | 23.80 | 23.54 | 23.55 |
| | 16QAM | 1 | 0 | 23.21 | 22.81 | 22.71 |
| | | 1 | 12 | 23.36 | 22.96 | 22.86 |
| | | 1 | 24 | 23.12 | 22.72 | 22.62 |
| | | 12 | 0 | 22.56 | 22.16 | 22.06 |
| | | 12 | 6 | 22.71 | 22.31 | 22.21 |
| | | 12 | 13 | 22.77 | 22.37 | 22.27 |
| | | 25 | 0 | 22.93 | 22.53 | 22.43 |

| LTE Band / BW | Modulation | RB Sizer | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|----------|-----------|-----------|-----------|-----------|
| | | | | 39700 CH | 40620 CH | 41540 CH |
| | | | | 2501.0MHz | 2593.0MHz | 2685.0MHz |
| 41 / 10M | QPSK | 1 | 0 | 24.50 | 24.33 | 24.23 |
| | | 1 | 24 | 24.84 | 24.62 | 24.30 |
| | | 1 | 49 | 24.48 | 24.31 | 24.21 |
| | | 25 | 0 | 23.88 | 23.71 | 23.61 |
| | | 25 | 12 | 23.83 | 23.66 | 23.56 |
| | | 25 | 25 | 23.77 | 23.60 | 23.50 |
| | | 50 | 0 | 23.84 | 23.67 | 23.57 |
| | 16QAM | 1 | 0 | 23.41 | 23.24 | 23.14 |
| | | 1 | 24 | 23.52 | 23.35 | 23.25 |
| | | 1 | 49 | 23.28 | 23.11 | 23.01 |
| | | 25 | 0 | 23.05 | 22.88 | 22.78 |
| | | 25 | 12 | 22.96 | 22.79 | 22.69 |
| | | 25 | 25 | 22.96 | 22.79 | 22.69 |
| | | 50 | 0 | 22.97 | 22.80 | 22.70 |

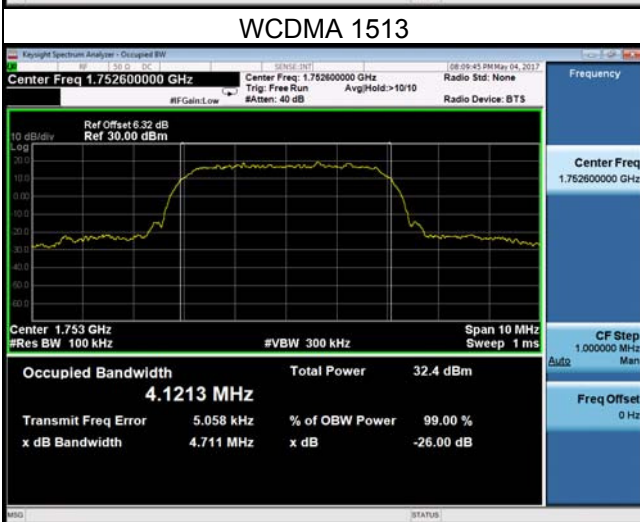
| LTE Band / BW | Modulation | RB Sizing | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|-----------|-----------|-----------|-----------|-----------|
| | | | | 39725 CH | 40620 CH | 41515 CH |
| | | | | 2503.5MHz | 2593.0MHz | 2682.5MHz |
| 41 / 15M | QPSK | 1 | 0 | 24.55 | 24.52 | 24.25 |
| | | 1 | 37 | 24.81 | 24.78 | 24.51 |
| | | 1 | 74 | 24.53 | 24.50 | 24.23 |
| | | 36 | 0 | 23.88 | 23.85 | 23.58 |
| | | 36 | 19 | 23.81 | 23.78 | 23.51 |
| | | 36 | 39 | 23.72 | 23.69 | 23.42 |
| | | 75 | 0 | 23.79 | 23.76 | 23.49 |
| | 16QAM | 1 | 0 | 23.63 | 23.60 | 23.33 |
| | | 1 | 37 | 23.64 | 23.61 | 23.34 |
| | | 1 | 74 | 23.42 | 23.39 | 23.12 |
| | | 36 | 0 | 22.99 | 22.96 | 22.69 |
| | | 36 | 19 | 22.73 | 22.70 | 22.43 |
| | | 36 | 39 | 22.61 | 22.58 | 22.31 |
| | | 75 | 0 | 22.74 | 22.71 | 22.44 |

| LTE Band / BW | Modulation | RB Sizing | RB Offset | Low CH | Mid CH | High CH |
|---------------|------------|-----------|-----------|-----------|-----------|-----------|
| | | | | 39750 CH | 40620 CH | 41490 CH |
| | | | | 2506.0MHz | 2593.0MHz | 2680.0MHz |
| 41 / 20M | QPSK | 1 | 0 | 24.37 | 24.43 | 24.31 |
| | | 1 | 50 | 25.00 | 24.83 | 24.63 |
| | | 1 | 99 | 24.46 | 24.41 | 23.82 |
| | | 50 | 0 | 24.33 | 23.75 | 23.62 |
| | | 50 | 25 | 24.00 | 23.81 | 23.59 |
| | | 50 | 50 | 23.74 | 23.49 | 23.12 |
| | | 100 | 0 | 23.80 | 23.59 | 23.38 |
| | 16QAM | 1 | 0 | 23.47 | 23.09 | 23.20 |
| | | 1 | 50 | 23.69 | 23.43 | 23.15 |
| | | 1 | 99 | 23.23 | 23.17 | 22.67 |
| | | 50 | 0 | 22.96 | 22.72 | 22.46 |
| | | 50 | 25 | 22.86 | 22.78 | 22.42 |
| | | 50 | 50 | 22.80 | 22.46 | 22.26 |
| | | 100 | 0 | 22.65 | 22.52 | 22.23 |

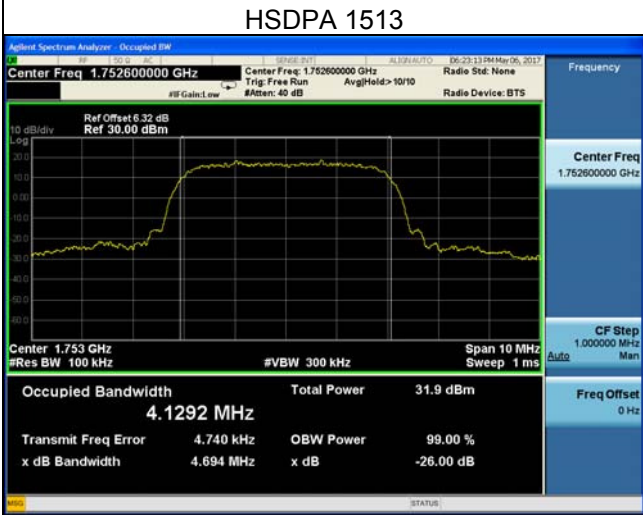
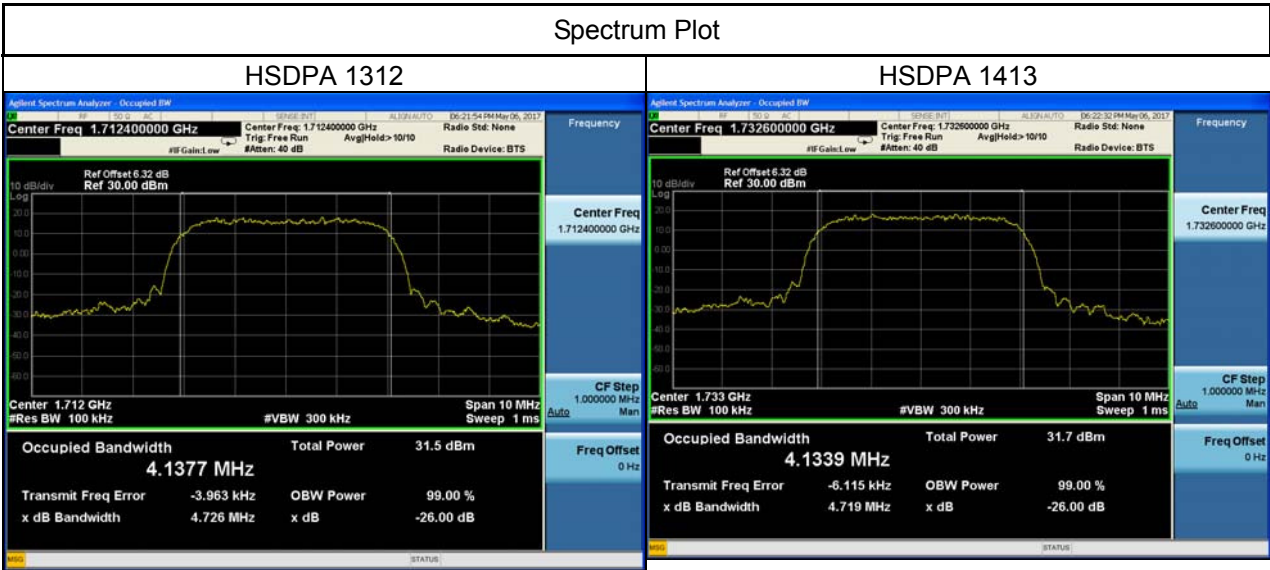
ATTACHMENT B - OCCUPIED BANDWIDTH

| WCDMA Band 4 WCDMA | | | | | |
|--------------------|-----------------|------------------------------|---------|-----------------|----------------------|
| Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 1312 | 1712.4 | 4.1492 | 19957 | 1710.7 | 4.733 |
| 1413 | 1732.6 | 4.1421 | 20175 | 1732.5 | 4.728 |
| 1513 | 1752.6 | 4.1213 | 20393 | 1754.3 | 4.711 |

Spectrum Plot

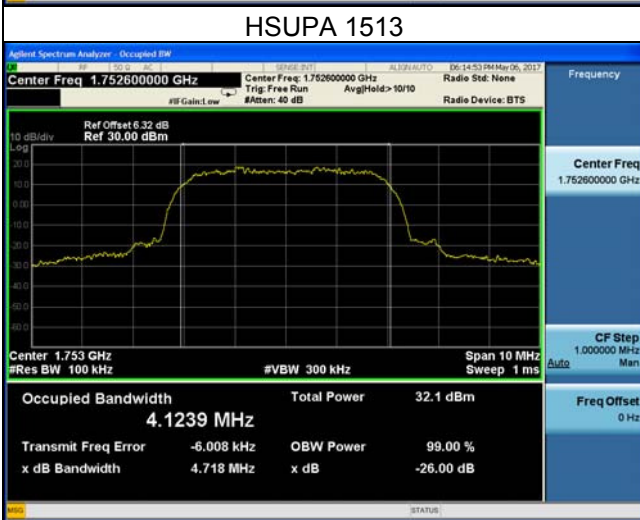
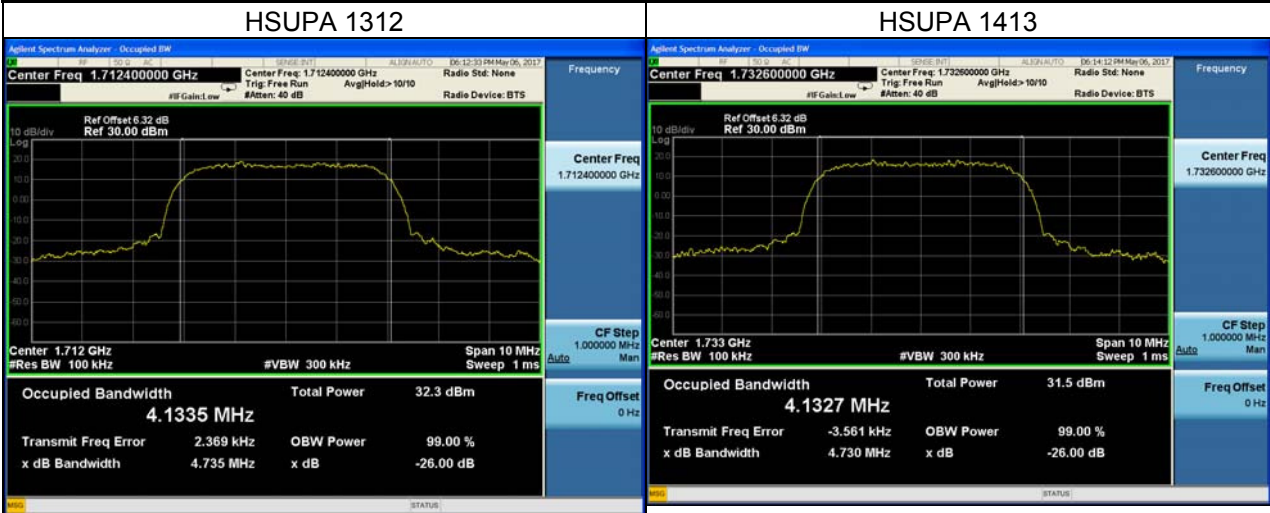


| WCDMA Band 4 HSDPA | | | | | |
|--------------------|-----------------|------------------------------|---------|-----------------|----------------------|
| Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 1312 | 1712.4 | 4.1377 | 19957 | 1710.7 | 4.726 |
| 1413 | 1732.6 | 4.1339 | 20175 | 1732.5 | 4.719 |
| 1513 | 1752.6 | 4.1292 | 20393 | 1754.3 | 4.694 |



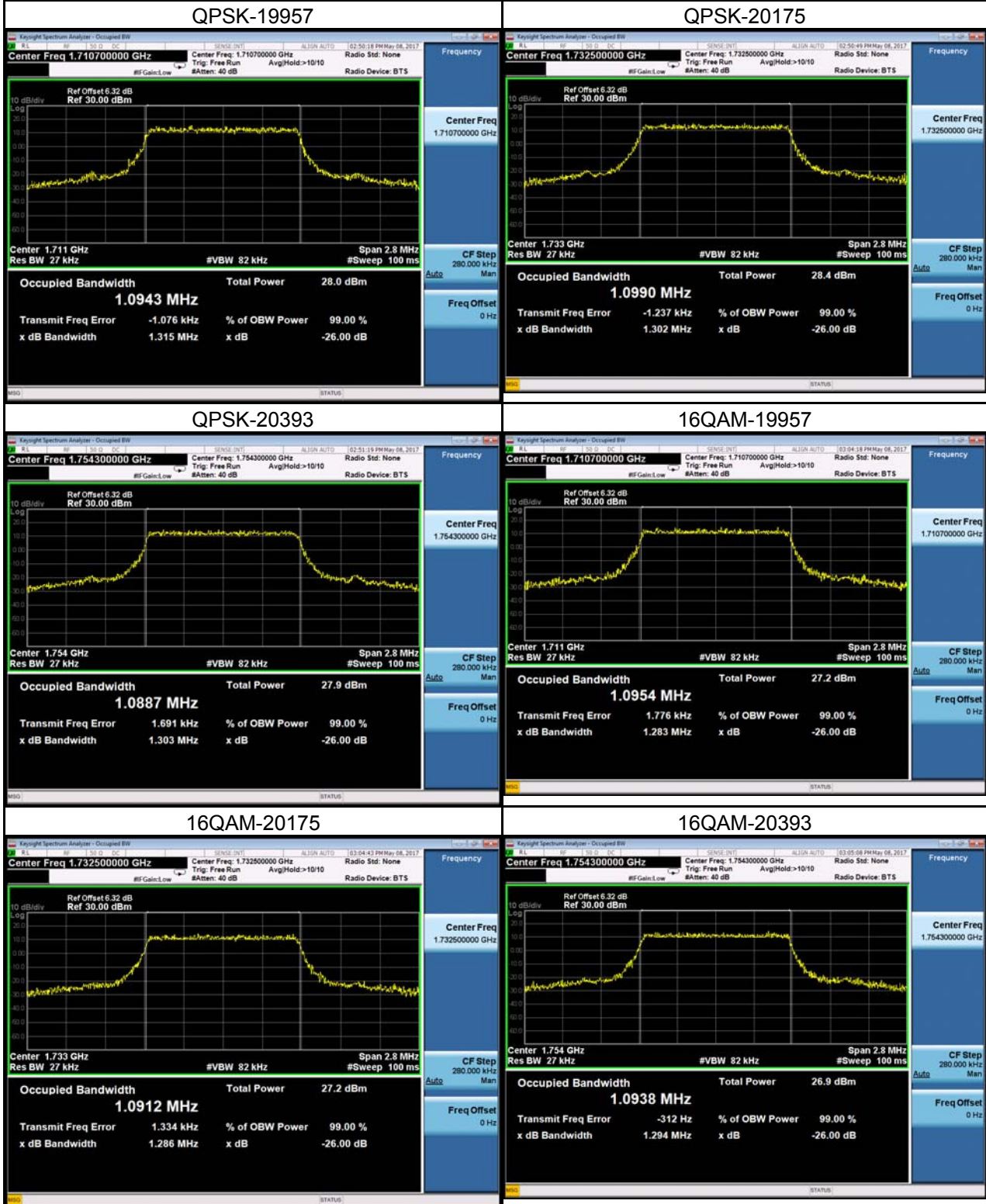
| WCDMA Band 4 HSUPA | | | | | |
|--------------------|-----------------|------------------------------|---------|-----------------|----------------------|
| Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 1312 | 1712.4 | 4.1335 | 19957 | 1710.7 | 4.735 |
| 1413 | 1732.6 | 4.1327 | 20175 | 1732.5 | 4.730 |
| 1513 | 1752.6 | 4.1239 | 20393 | 1754.3 | 4.718 |

Spectrum Plot



| LTE Band 4_1.4M | | | | | |
|-----------------|-----------------|------------------------------|---------|-----------------|------------------------------|
| QPSK | | | 16QAM | | |
| Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |
| 19957 | 1710.7 | 1.0943 | 19957 | 1710.7 | 1.0954 |
| 20175 | 1732.5 | 1.0990 | 20175 | 1732.5 | 1.0912 |
| 20393 | 1754.3 | 1.0887 | 20393 | 1754.3 | 1.9038 |
| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 19957 | 1710.7 | 1.315 | 19957 | 1710.7 | 1.283 |
| 20175 | 1732.5 | 1.302 | 20175 | 1732.5 | 1.286 |
| 20393 | 1754.3 | 1.303 | 20393 | 1754.3 | 1.294 |

Spectrum Plot



| LTE Band 4_3M | | | | | |
|---------------|-----------------|------------------------------|---------|-----------------|------------------------------|
| QPSK | | | 16QAM | | |
| Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |
| 19965 | 1711.5 | 2.6959 | 19965 | 1711.5 | 2.6958 |
| 20175 | 1732.5 | 2.6999 | 20175 | 1732.5 | 2.6995 |
| 20385 | 1753.5 | 2.7012 | 20385 | 1753.5 | 2.6968 |
| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 19965 | 1711.5 | 3.003 | 19965 | 1711.5 | 3.014 |
| 20175 | 1732.5 | 2.983 | 20175 | 1732.5 | 2.977 |
| 20385 | 1753.5 | 2.973 | 20385 | 1753.5 | 3.010 |

Spectrum Plot



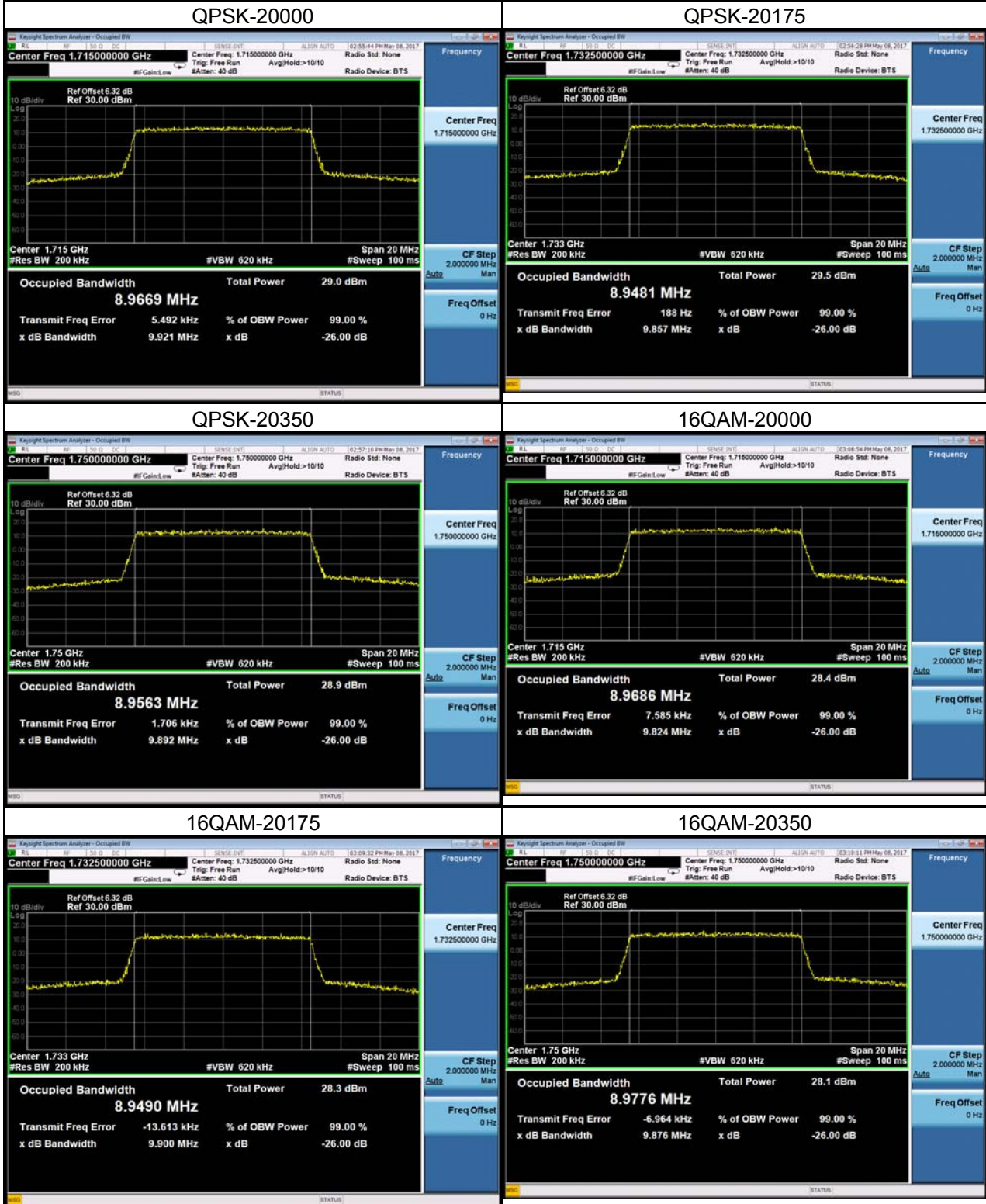
| LTE Band 4_5M | | | | | |
|---------------|-----------------|------------------------------|---------|-----------------|------------------------------|
| QPSK | | | 16QAM | | |
| Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |
| 19975 | 1712.5 | 4.5198 | 19975 | 1712.5 | 4.4990 |
| 20175 | 1732.5 | 4.5097 | 20175 | 1732.5 | 4.5076 |
| 20375 | 1752.5 | 4.5147 | 20375 | 1752.5 | 4.5058 |
| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 19975 | 1712.5 | 5.022 | 19975 | 1712.5 | 4.991 |
| 20175 | 1732.5 | 4.948 | 20175 | 1732.5 | 4.976 |
| 20375 | 1752.5 | 4.949 | 20375 | 1752.5 | 4.971 |

Spectrum Plot



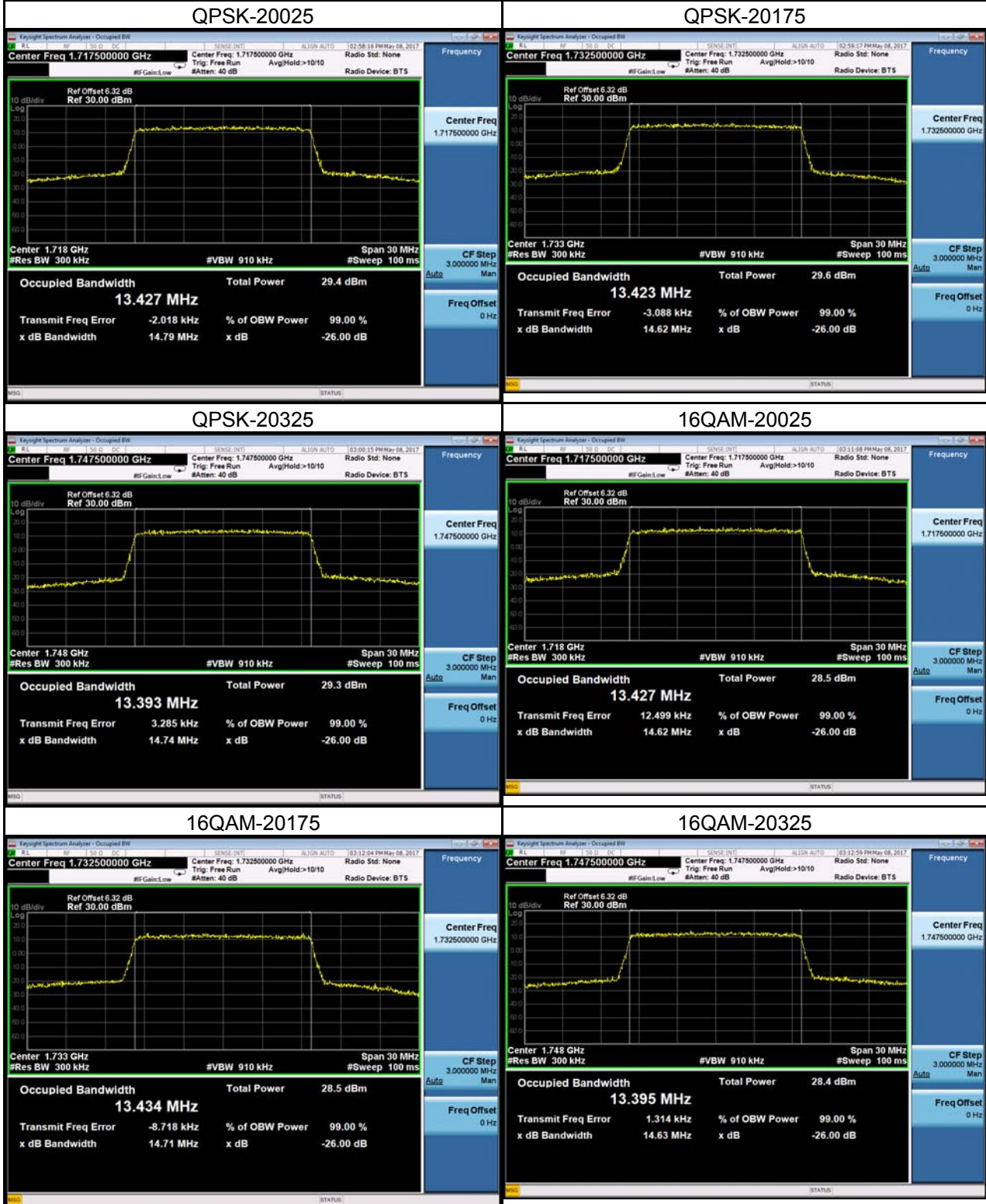
| LTE Band 4_10M | | | | | |
|----------------|-----------------|------------------------------|---------|-----------------|------------------------------|
| QPSK | | | 16QAM | | |
| Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |
| 20000 | 1715 | 8.9669 | 20000 | 1715 | 8.9686 |
| 20175 | 1732.5 | 8.9481 | 20175 | 1732.5 | 8.9490 |
| 20350 | 1750 | 8.9563 | 20350 | 1750 | 8.9776 |
| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 20000 | 1715 | 9.921 | 20000 | 1715 | 9.824 |
| 20175 | 1732.5 | 9.857 | 20175 | 1732.5 | 9.900 |
| 20350 | 1750 | 9.892 | 20350 | 1750 | 9.876 |

Spectrum Plot



| LTE Band 4_15M | | | | | |
|----------------|-----------------|------------------------------|---------|-----------------|------------------------------|
| QPSK | | | 16QAM | | |
| Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |
| 20025 | 1717.5 | 13.427 | 20025 | 1717.5 | 13.427 |
| 20175 | 1732.5 | 13.423 | 20175 | 1732.5 | 13.434 |
| 20325 | 1747.5 | 13.393 | 20325 | 1747.5 | 13.395 |
| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 20025 | 1717.5 | 14.79 | 20025 | 1717.5 | 14.62 |
| 20175 | 1732.5 | 14.62 | 20175 | 1732.5 | 14.71 |
| 20325 | 1747.5 | 14.74 | 20325 | 1747.5 | 14.63 |

Spectrum Plot



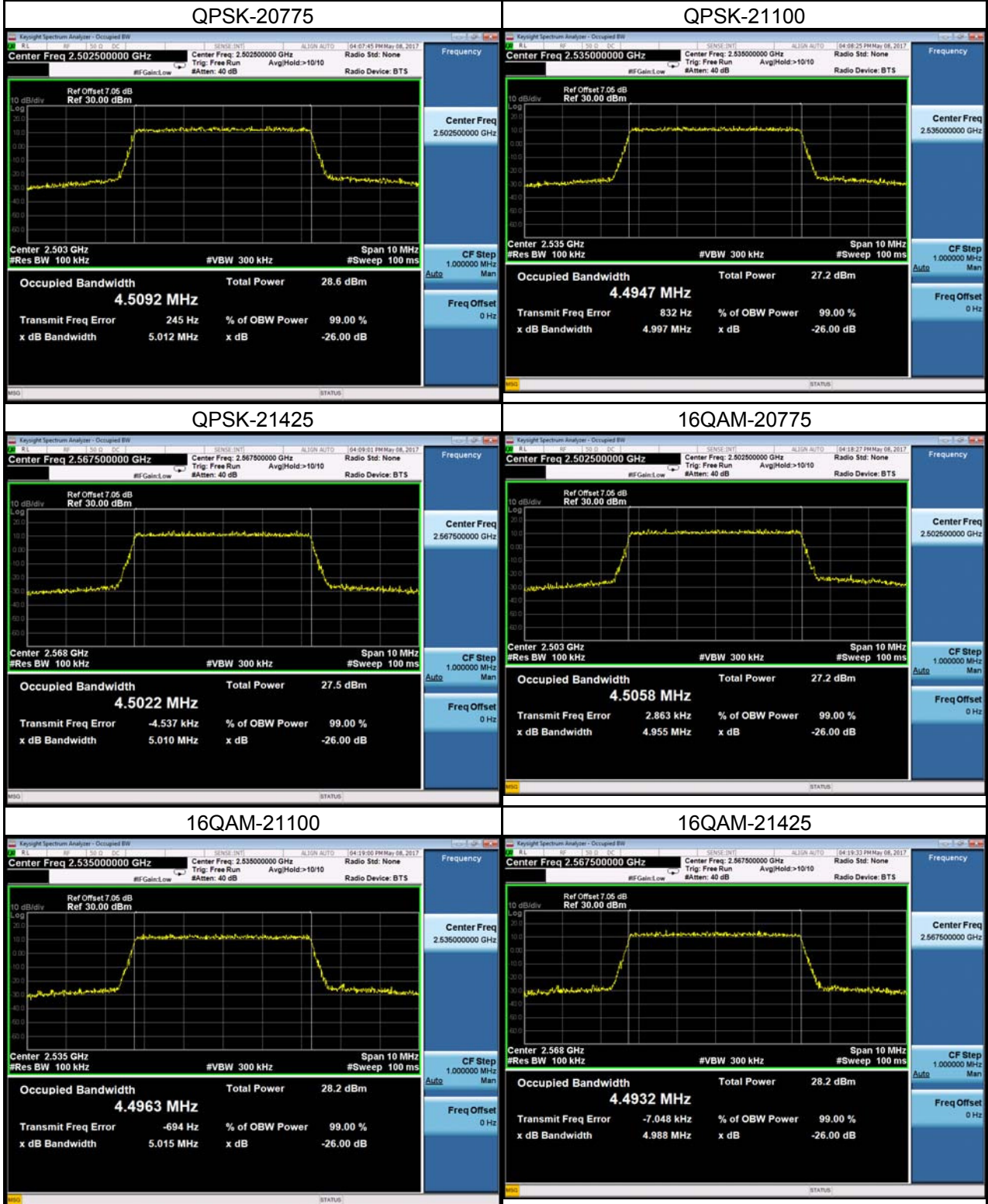
| LTE Band 4_20M | | | | | |
|----------------|-----------------|------------------------------|---------|-----------------|------------------------------|
| QPSK | | | 16QAM | | |
| Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |
| 20050 | 1720 | 17.890 | 20050 | 1720 | 17.867 |
| 20175 | 1732.5 | 17.876 | 20175 | 1732.5 | 17.893 |
| 20300 | 1745 | 17.865 | 20300 | 1745 | 17.905 |
| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 20050 | 1720 | 19.47 | 20050 | 1720 | 19.34 |
| 20175 | 1732.5 | 19.40 | 20175 | 1732.5 | 19.40 |
| 20300 | 1745 | 19.52 | 20300 | 1745 | 19.39 |

Spectrum Plot



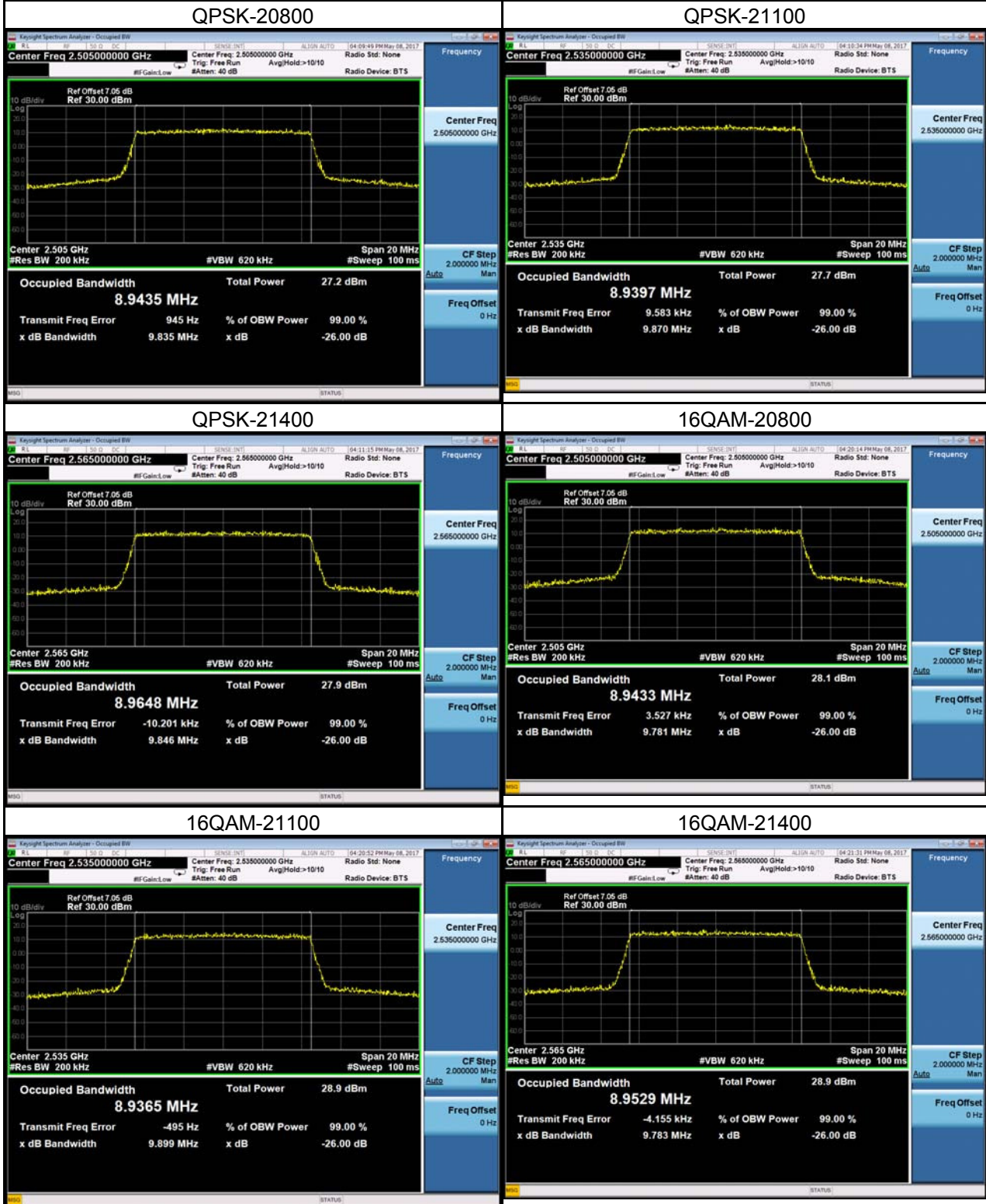
| LTE Band 7_5M | | | | | |
|---------------|-----------------|------------------------------|---------|-----------------|------------------------------|
| QPSK | | | 16QAM | | |
| Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |
| 20775 | 2502.5 | 4.5092 | 20775 | 2502.5 | 4.5058 |
| 21100 | 2535 | 4.4947 | 21100 | 2535 | 4.4963 |
| 21425 | 2567.5 | 4.5022 | 21425 | 2567.5 | 4.4932 |
| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 20775 | 2502.5 | 5.012 | 20775 | 2502.5 | 4.955 |
| 21100 | 2535 | 4.997 | 21100 | 2535 | 5.015 |
| 21425 | 2567.5 | 5.010 | 21425 | 2567.5 | 4.988 |

Spectrum Plot



| LTE Band 7_10M | | | | | |
|----------------|-----------------|------------------------------|---------|-----------------|------------------------------|
| QPSK | | | 16QAM | | |
| Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |
| 20800 | 2505 | 8.9435 | 20800 | 2505 | 8.9433 |
| 21100 | 2535 | 8.9397 | 21100 | 2535 | 8.9365 |
| 21400 | 2565 | 8.9648 | 21400 | 2565 | 8.9529 |
| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 20800 | 2505 | 9.835 | 20800 | 2505 | 9.781 |
| 21100 | 2535 | 9.870 | 21100 | 2535 | 9.899 |
| 21400 | 2565 | 9.846 | 21400 | 2565 | 9.783 |

Spectrum Plot



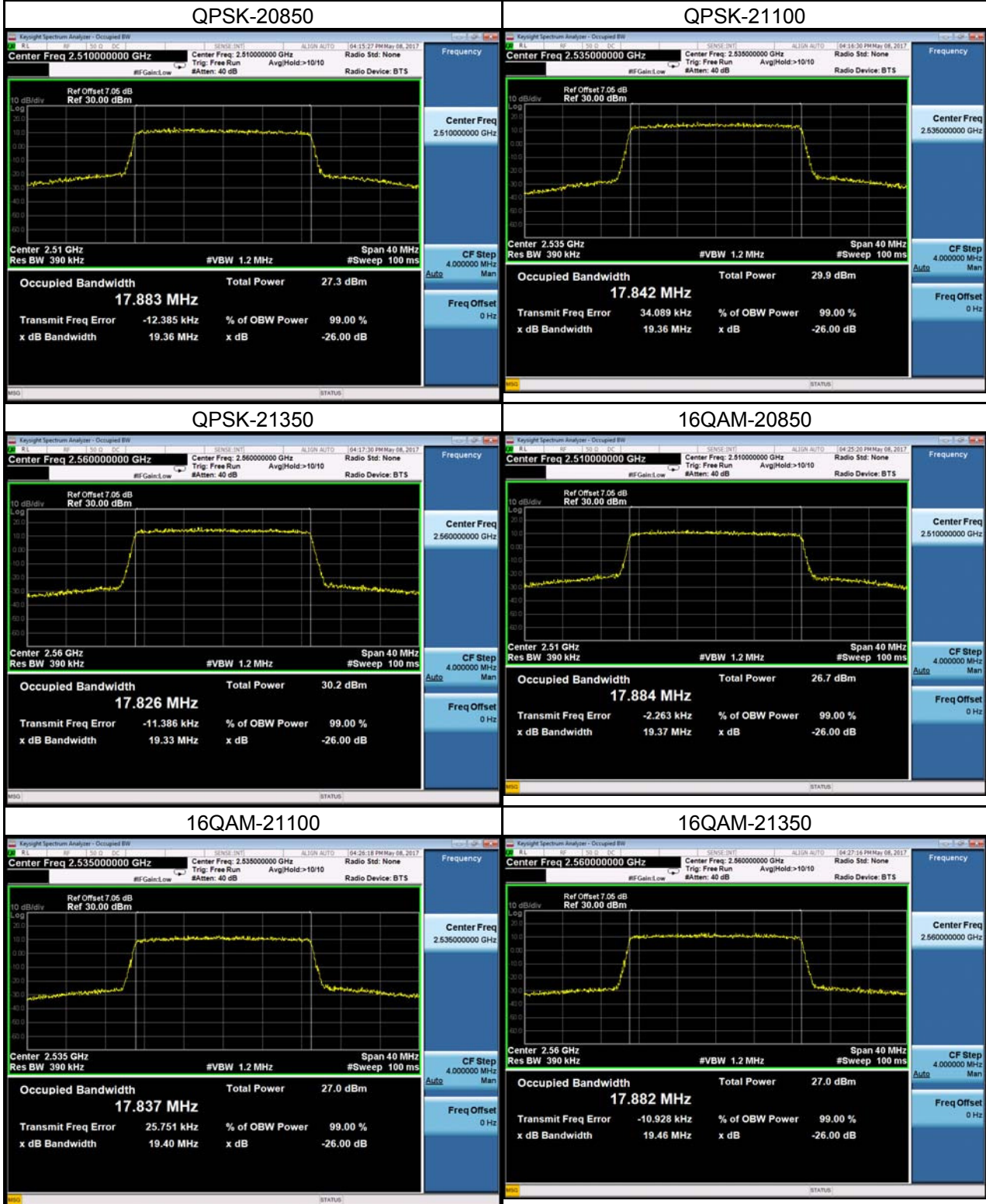
| LTE Band 7_15M | | | | | |
|----------------|-----------------|------------------------------|---------|-----------------|------------------------------|
| QPSK | | | 16QAM | | |
| Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |
| 20825 | 2507.5 | 13.406 | 20825 | 2507.5 | 13.426 |
| 21100 | 2535 | 13.403 | 21100 | 2535 | 13.416 |
| 21375 | 2562.5 | 13.412 | 21375 | 2562.5 | 13.409 |
| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 20825 | 2507.5 | 14.55 | 20825 | 2507.5 | 14.57 |
| 21100 | 2535 | 14.60 | 21100 | 2535 | 14.61 |
| 21375 | 2562.5 | 14.60 | 21375 | 2562.5 | 14.68 |

Spectrum Plot



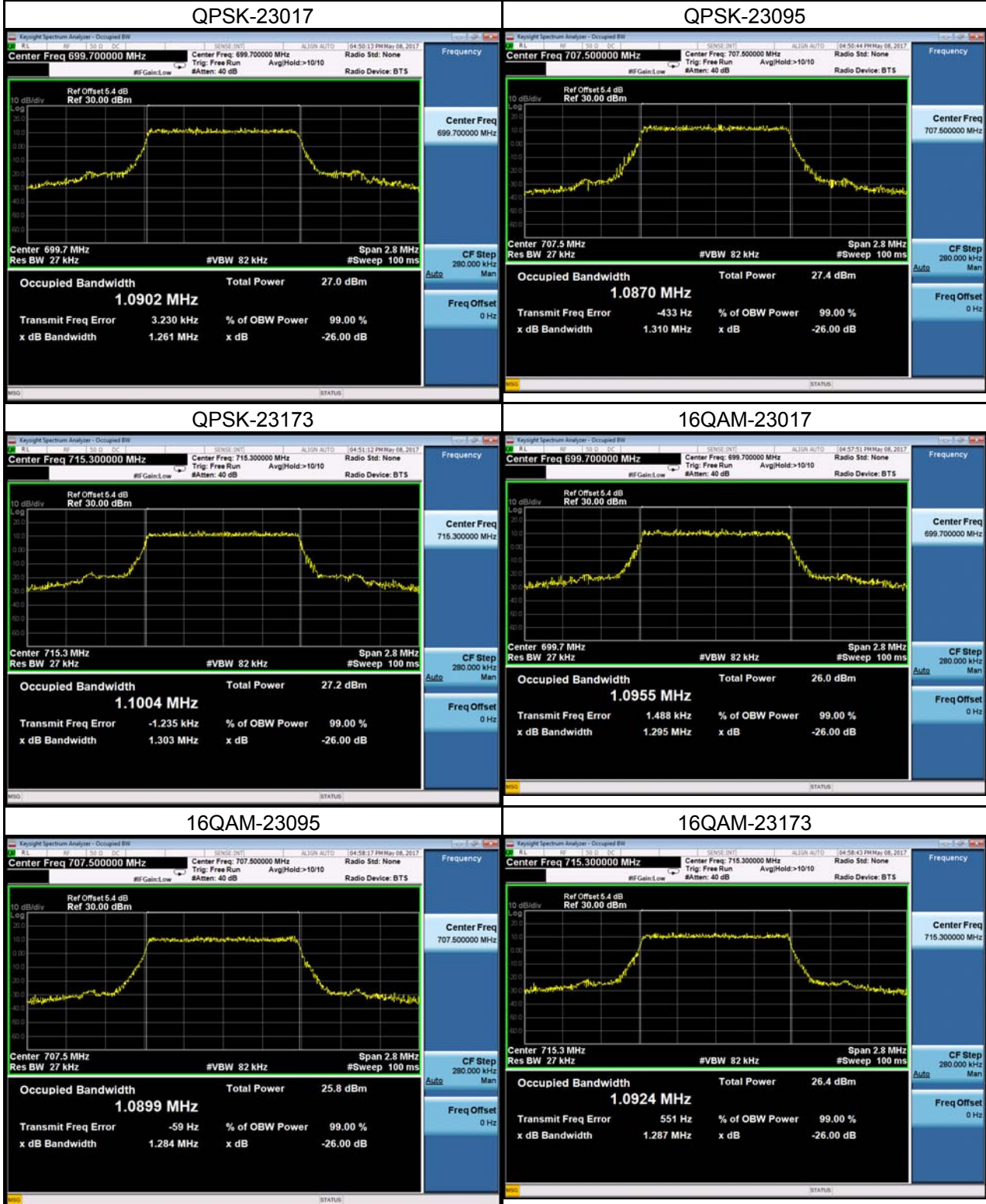
| LTE Band 7_20M | | | | | |
|----------------|-----------------|------------------------------|---------|-----------------|------------------------------|
| QPSK | | | 16QAM | | |
| Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |
| 20850 | 2510 | 17.883 | 20850 | 2510 | 17.884 |
| 21100 | 2535 | 17.842 | 21100 | 2535 | 17.837 |
| 21350 | 2560 | 17.826 | 21350 | 2560 | 17.882 |
| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 20850 | 2510 | 19.36 | 20850 | 2510 | 19.37 |
| 21100 | 2535 | 19.36 | 21100 | 2535 | 19.40 |
| 21350 | 2560 | 19.33 | 21350 | 2560 | 19.46 |

Spectrum Plot



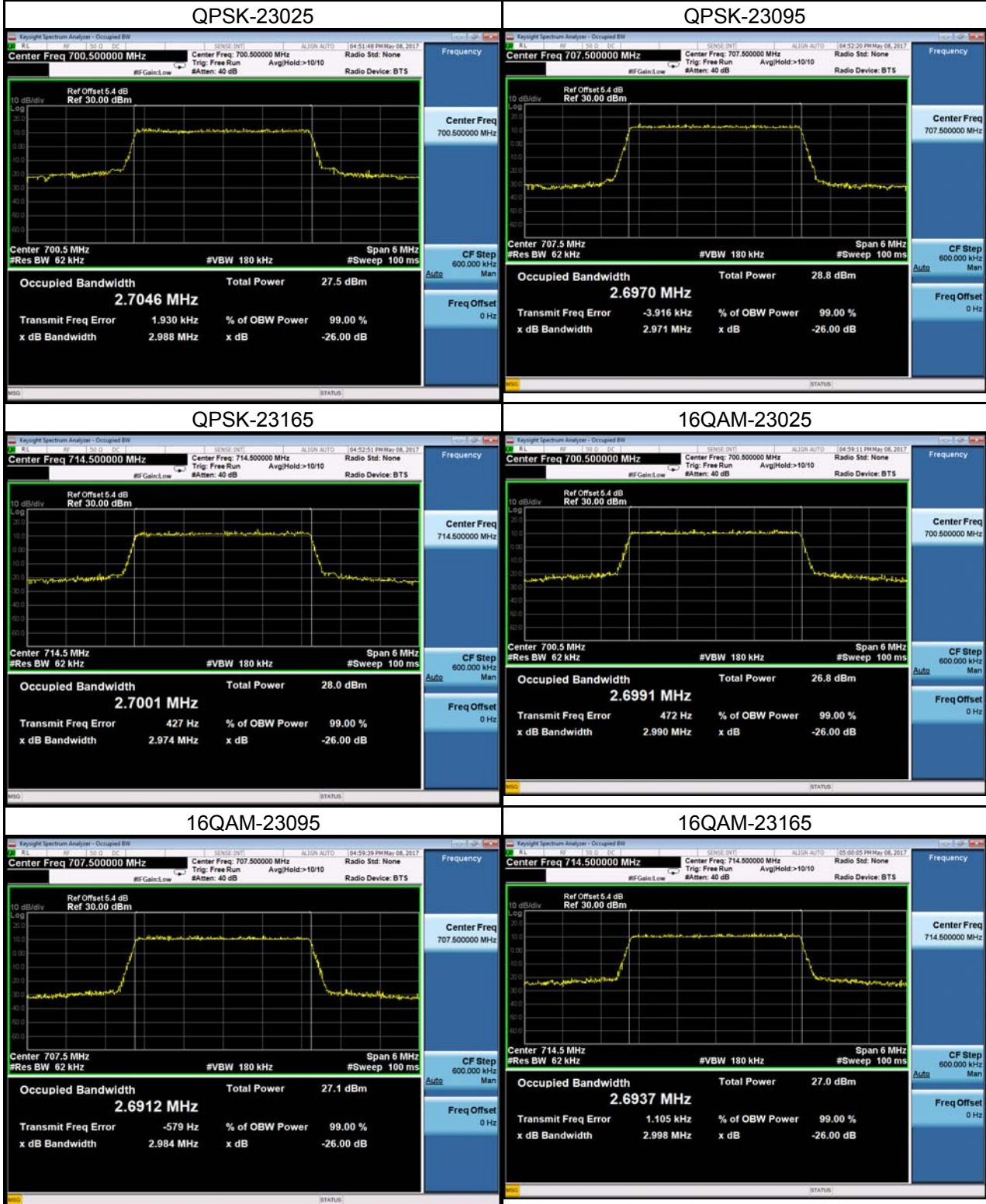
| LTE Band 12_1.4M | | | | | |
|------------------|-----------------|------------------------------|---------|-----------------|------------------------------|
| QPSK | | | 16QAM | | |
| Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |
| 23017 | 699.7 | 1.0902 | 23017 | 699.7 | 1.0955 |
| 23095 | 707.5 | 1.0870 | 23095 | 707.5 | 1.0899 |
| 23173 | 715.3 | 1.1004 | 23173 | 715.3 | 1.0924 |
| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 23017 | 699.7 | 1.261 | 23017 | 699.7 | 1.295 |
| 23095 | 707.5 | 1.310 | 23095 | 707.5 | 1.284 |
| 23173 | 715.3 | 1.303 | 23173 | 715.3 | 1.287 |

Spectrum Plot



| LTE Band 12_3M | | | | | |
|----------------|-----------------|------------------------------|---------|-----------------|------------------------------|
| QPSK | | | 16QAM | | |
| Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |
| 23025 | 700.5 | 2.7046 | 23025 | 700.5 | 2.6991 |
| 23095 | 707.5 | 2.6970 | 23095 | 707.5 | 2.6912 |
| 23165 | 714.5 | 2.7001 | 23165 | 714.5 | 2.6937 |
| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 23025 | 700.5 | 2.988 | 23025 | 700.5 | 2.990 |
| 23095 | 707.5 | 2.971 | 23095 | 707.5 | 2.984 |
| 23165 | 714.5 | 2.974 | 23165 | 714.5 | 2.998 |

Spectrum Plot



| LTE Band 12_5M | | | | | |
|----------------|-----------------|------------------------------|---------|-----------------|------------------------------|
| QPSK | | | 16QAM | | |
| Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |
| 23035 | 701.5 | 4.5225 | 23035 | 701.5 | 4.5140 |
| 23095 | 707.5 | 4.4975 | 23095 | 707.5 | 4.4936 |
| 23155 | 713.5 | 4.5236 | 23155 | 713.5 | 4.5043 |
| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 23035 | 701.5 | 5.024 | 23035 | 701.5 | 5.001 |
| 23095 | 707.5 | 4.966 | 23095 | 707.5 | 4.966 |
| 23155 | 713.5 | 4.966 | 23155 | 713.5 | 4.975 |

Spectrum Plot



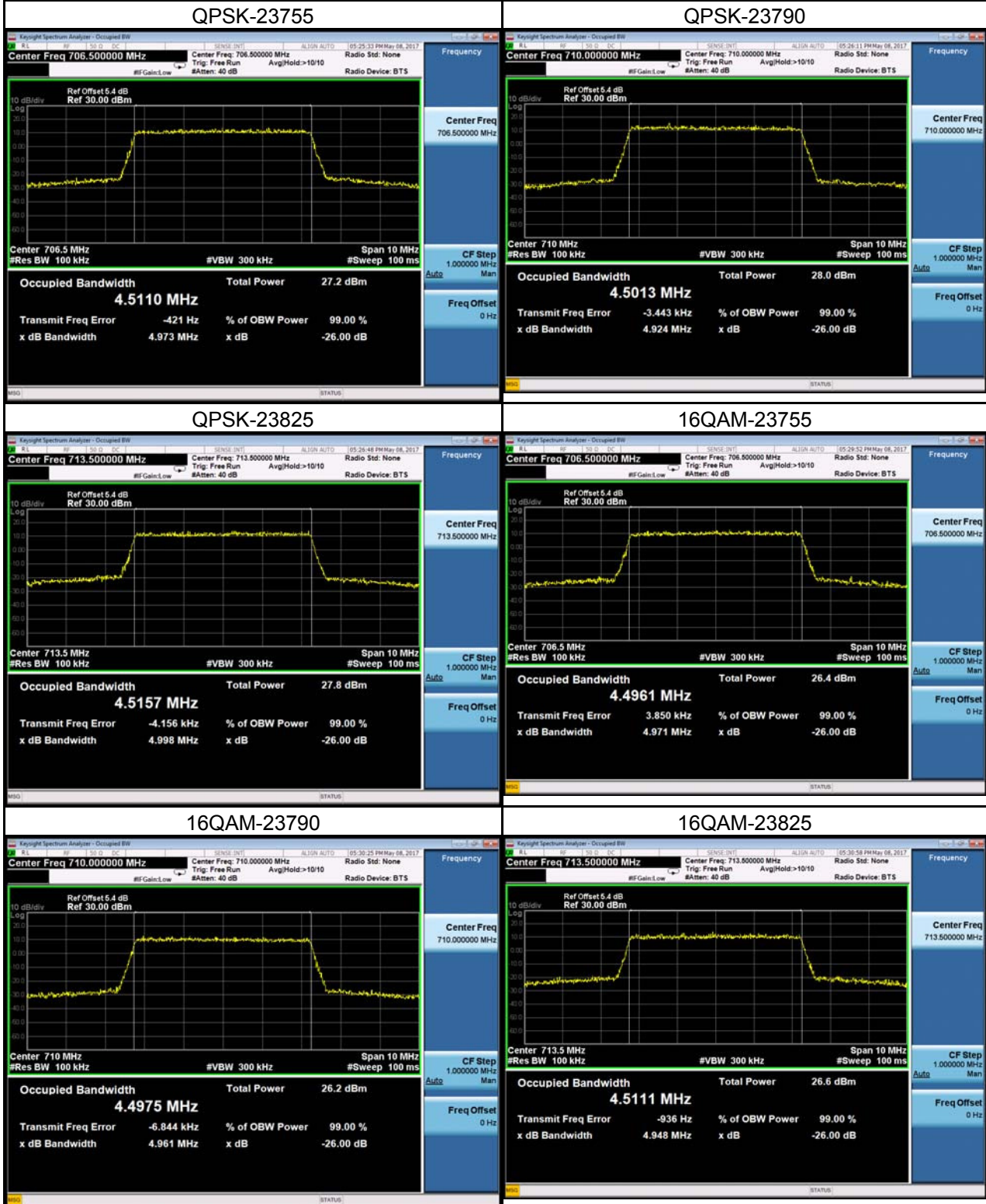
| LTE Band 12_10M | | | | | |
|-----------------|-----------------|------------------------------|---------|-----------------|------------------------------|
| QPSK | | | 16QAM | | |
| Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |
| 23060 | 704.0 | 8.9477 | 23060 | 704.0 | 8.9430 |
| 23095 | 707.5 | 8.9189 | 23095 | 707.5 | 8.9226 |
| 23130 | 711.0 | 8.9965 | 23130 | 711.0 | 8.9769 |
| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 23060 | 704.0 | 9.918 | 23060 | 704.0 | 9.835 |
| 23095 | 707.5 | 9.814 | 23095 | 707.5 | 9.796 |
| 23130 | 711.0 | 9.861 | 23130 | 711.0 | 9.821 |

Spectrum Plot



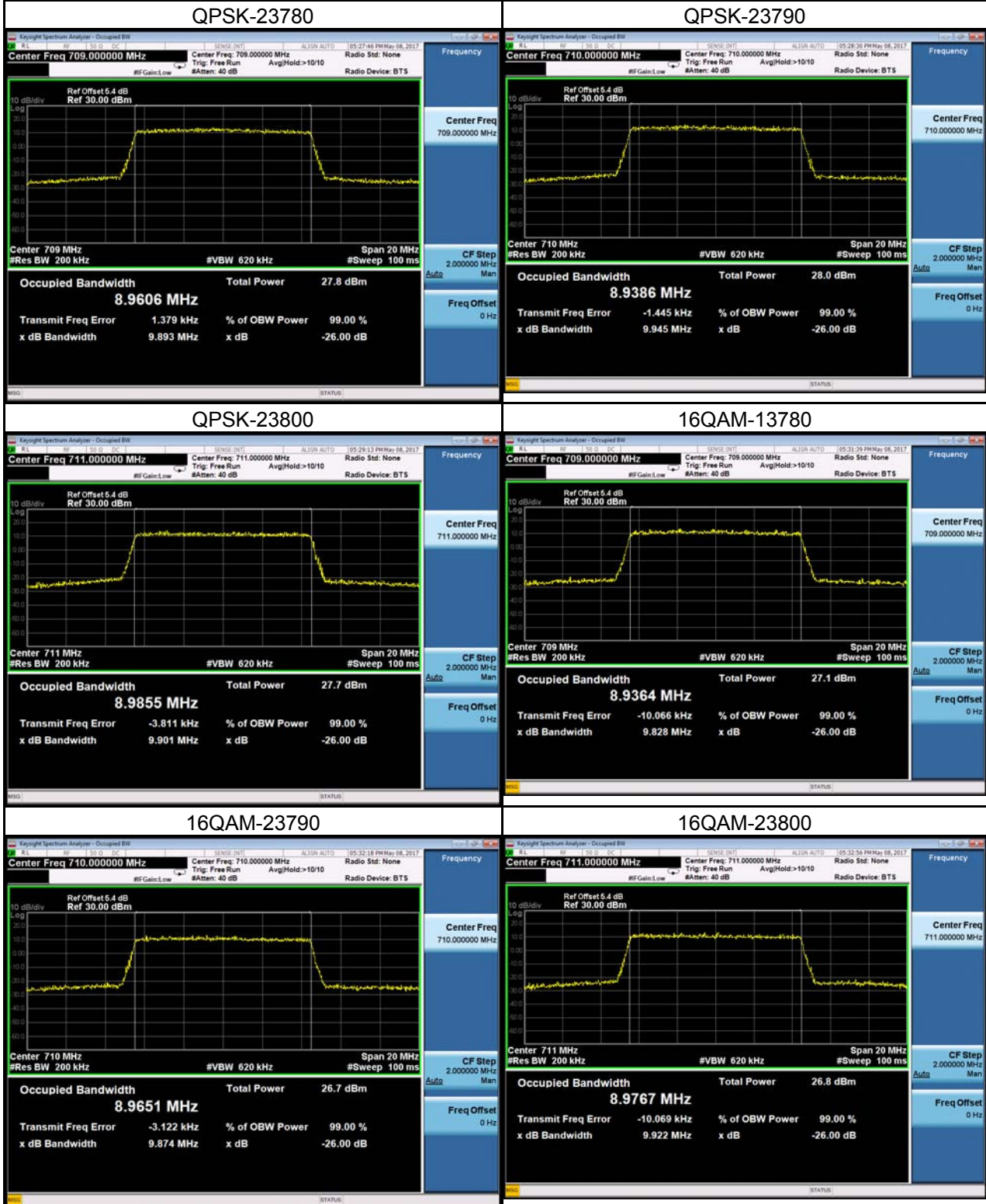
| LTE Band 17_5M | | | | | |
|----------------|-----------------|------------------------------|---------|-----------------|------------------------------|
| QPSK | | | 16QAM | | |
| Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |
| 23755 | 706.5 | 4.5110 | 23755 | 706.5 | 4.4961 |
| 23790 | 710.0 | 4.5013 | 23790 | 710.0 | 4.4975 |
| 23825 | 713.5 | 4.5157 | 23825 | 713.5 | 4.5111 |
| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 23755 | 706.5 | 4.973 | 23755 | 706.5 | 4.971 |
| 23790 | 710.0 | 4.924 | 23790 | 710.0 | 4.961 |
| 23825 | 713.5 | 4.998 | 23825 | 713.5 | 4.948 |

Spectrum Plot



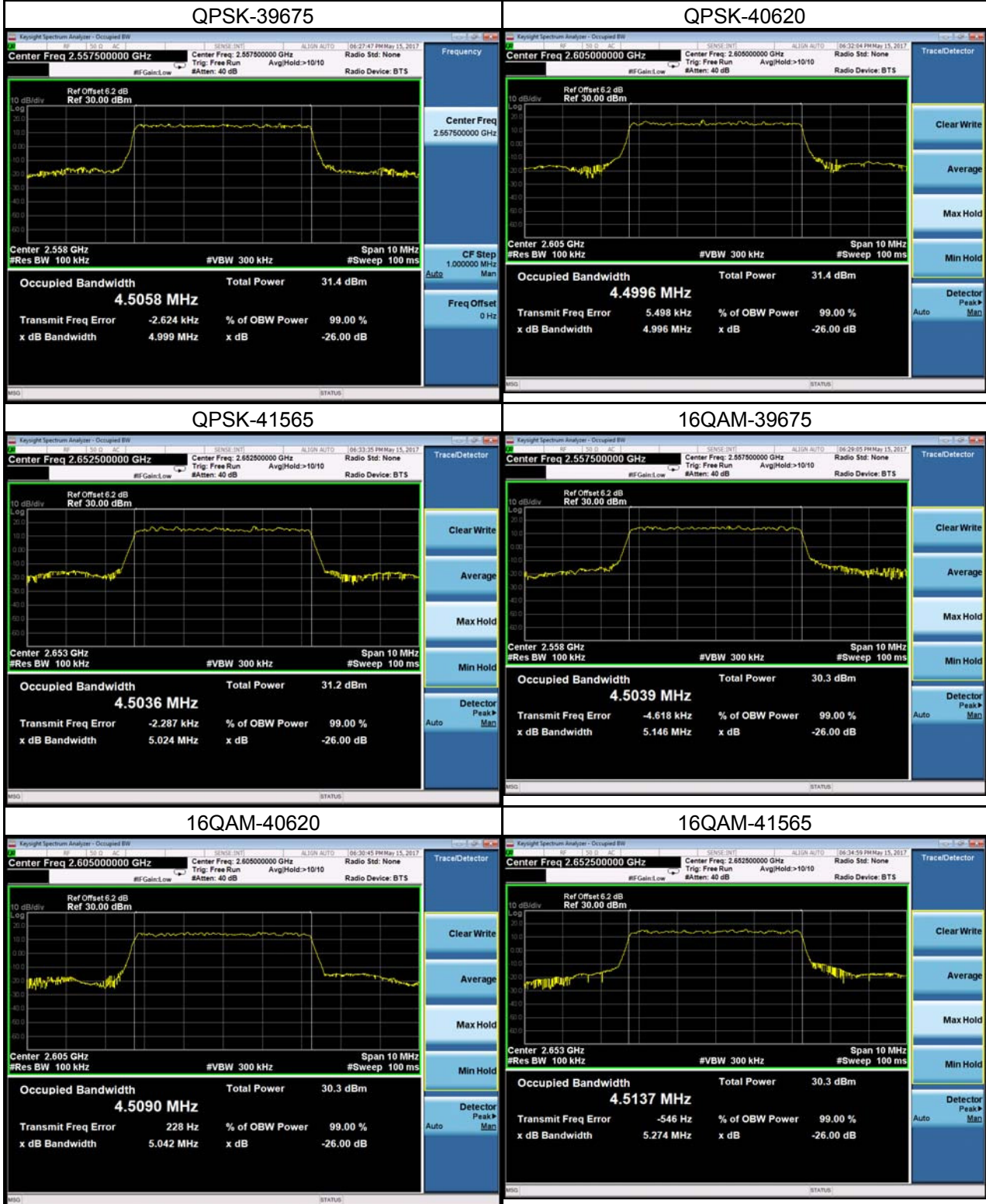
| LTE Band 17_10M | | | | | |
|-----------------|-----------------|------------------------------|---------|-----------------|------------------------------|
| QPSK | | | 16QAM | | |
| Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |
| 23780 | 709.0 | 8.9606 | 23780 | 709.0 | 8.9364 |
| 23790 | 710.0 | 8.9386 | 23790 | 710.0 | 8.9651 |
| 23800 | 711.0 | 8.9855 | 23800 | 711.0 | 9.6767 |
| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 23780 | 709.0 | 9.893 | 23780 | 709.0 | 9.828 |
| 23790 | 710.0 | 9.945 | 23790 | 710.0 | 9.874 |
| 23800 | 711.0 | 9.901 | 23800 | 711.0 | 9.922 |

Spectrum Plot



| LTE Band 41_5M | | | | | |
|----------------|-----------------|------------------------------|---------|-----------------|------------------------------|
| QPSK | | | 16QAM | | |
| Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |
| 39675 | 2498.5 | 4.5058 | 39675 | 2498.5 | 4.5039 |
| 40620 | 2593.0 | 4.4996 | 40620 | 2593.0 | 4.5090 |
| 41565 | 2687.5 | 4.5036 | 41565 | 2687.5 | 4.5137 |
| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 39675 | 2498.5 | 4.999 | 39675 | 2498.5 | 5.146 |
| 40620 | 2593.0 | 4.996 | 40620 | 2593.0 | 5.042 |
| 41565 | 2687.5 | 5.024 | 41565 | 2687.5 | 5.274 |

Spectrum Plot



| LTE Band 41_10M | | | | | |
|-----------------|-----------------|------------------------------|---------|-----------------|------------------------------|
| QPSK | | | 16QAM | | |
| Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |
| 39700 | 2501.0 | 8.9888 | 39700 | 2501.0 | 8.9878 |
| 40620 | 2593.0 | 9.0103 | 40620 | 2593.0 | 9.0110 |
| 41540 | 2685.0 | 9.9819 | 41540 | 2685.0 | 8.9502 |
| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 39700 | 2501.0 | 10.50 | 39700 | 2501.0 | 9.942 |
| 40620 | 2593.0 | 10.28 | 40620 | 2593.0 | 10.34 |
| 41540 | 2685.0 | 10.14 | 41540 | 2685.0 | 9.883 |

Spectrum Plot



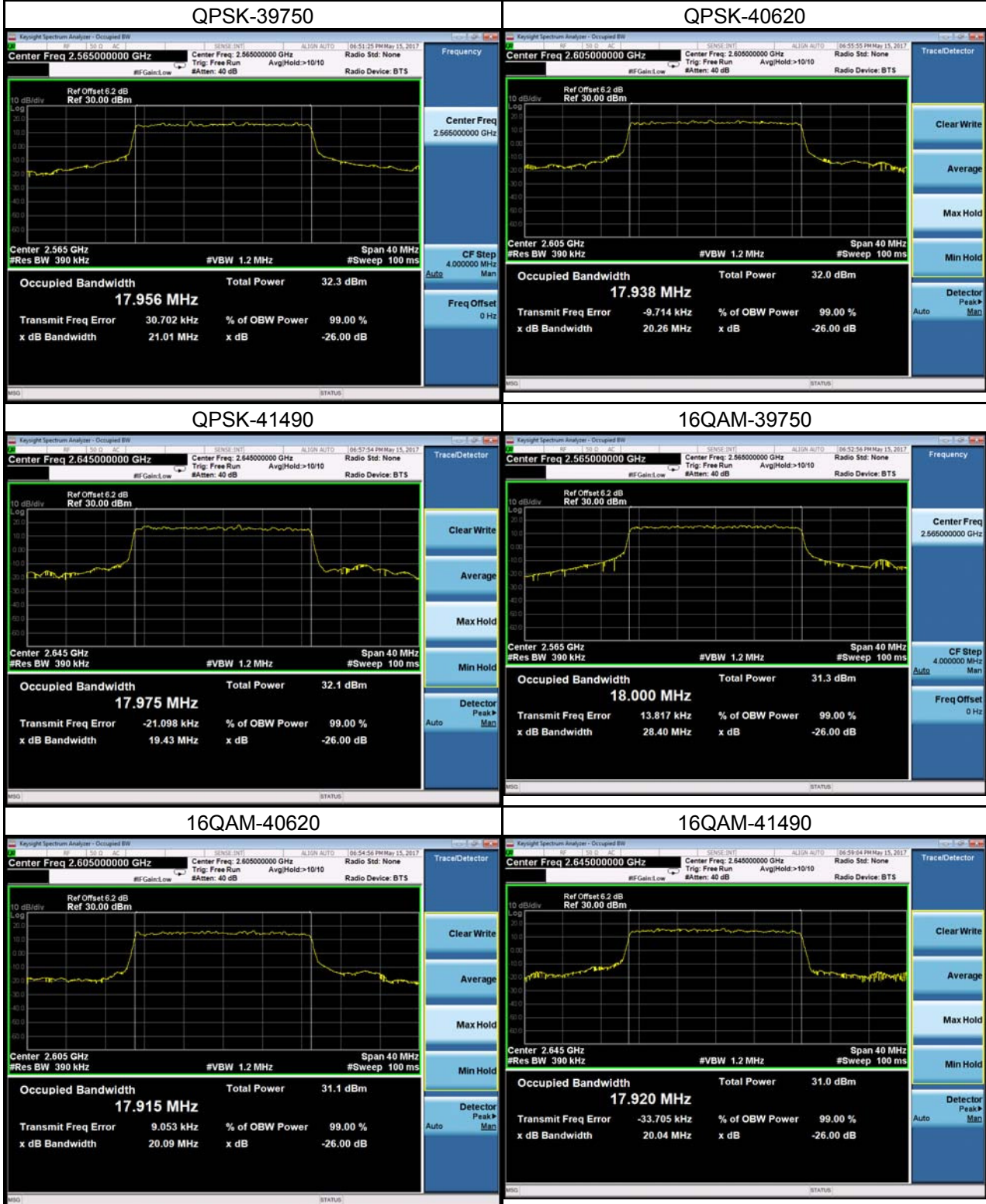
| LTE Band 41_15M | | | | | |
|-----------------|-----------------|------------------------------|---------|-----------------|------------------------------|
| QPSK | | | 16QAM | | |
| Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |
| 39725 | 2503.5 | 13.475 | 39725 | 2503.5 | 13.527 |
| 40620 | 2593.0 | 13.532 | 40620 | 2593.0 | 13.546 |
| 41515 | 2682.5 | 13.526 | 41515 | 2682.5 | 13.523 |
| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 39725 | 2503.5 | 15.35 | 39725 | 2503.5 | 15.14 |
| 40620 | 2593.0 | 18.57 | 40620 | 2593.0 | 15.66 |
| 41515 | 2682.5 | 16.37 | 41515 | 2682.5 | 16.65 |

Spectrum Plot



| LTE Band 41_20M | | | | | |
|-----------------|-----------------|------------------------------|---------|-----------------|------------------------------|
| QPSK | | | 16QAM | | |
| Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) | Channel | Frequency (MHz) | 99% Occupied Bandwidth (MHz) |
| 39750 | 2506.0 | 17.956 | 39750 | 2506.0 | 18.000 |
| 40620 | 2593.0 | 17.938 | 40620 | 2593.0 | 17.915 |
| 41490 | 2680.0 | 17.975 | 41490 | 2680.0 | 17.920 |
| Channel | Frequency (MHz) | 26dB Bandwidth (MHz) | Channel | Frequency (MHz) | 26dB Bandwidth (MHz) |
| 39750 | 2506.0 | 21.01 | 39750 | 2506.0 | 28.40 |
| 40620 | 2593.0 | 20.26 | 40620 | 2593.0 | 20.09 |
| 41490 | 2680.0 | 19.43 | 41490 | 2680.0 | 20.04 |

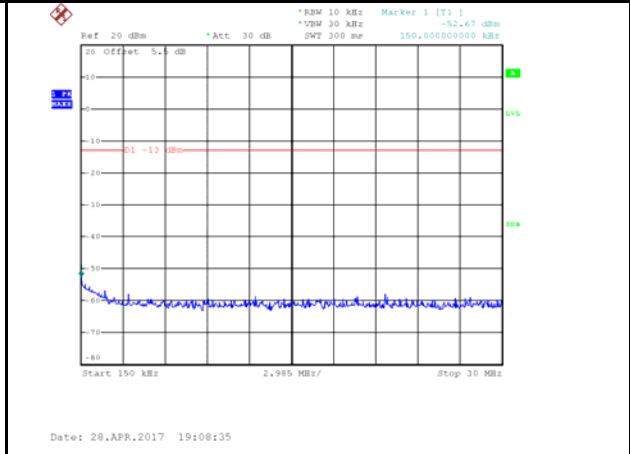
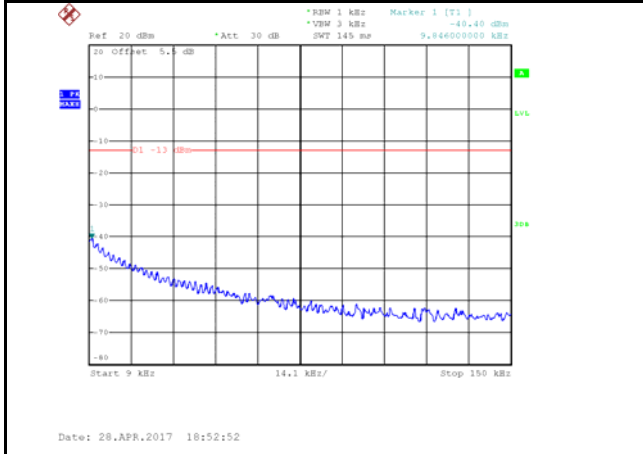
Spectrum Plot



ATTACHMENT C - CONDUCTED EMISSIONS

WCDMA Band 4_WCDMA

| Channel | Frequency(MHz) | Channel | Frequency(MHz) |
|---------|----------------|---------|----------------|
| 1413 | 1732.6 | 1413 | 1732.6 |



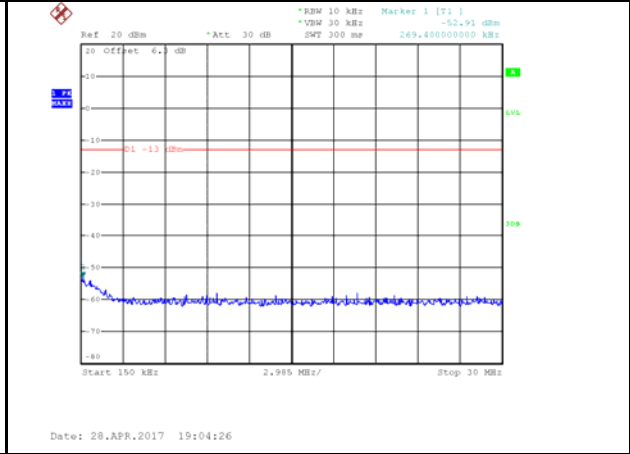
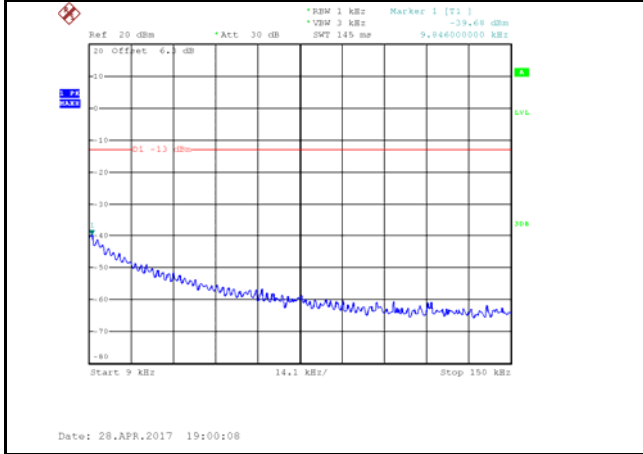
| Channel | Frequency(MHz) | - | - |
|---------|----------------|---|---|
| 1413 | 1732.6 | - | - |



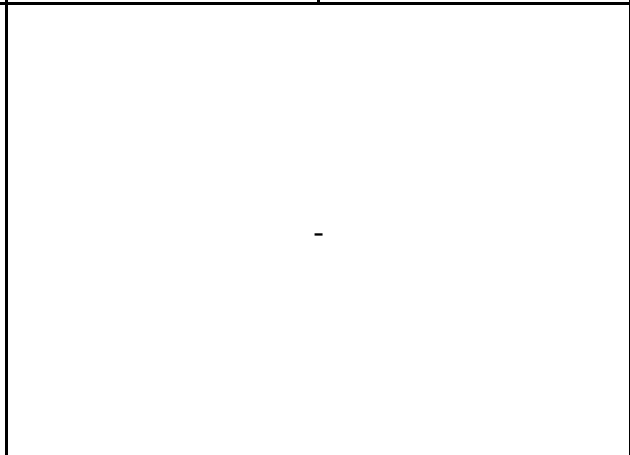
-

WCDMA Band 4_HSDPA

| Channel | Frequency(MHz) | Channel | Frequency(MHz) |
|---------|----------------|---------|----------------|
| 1413 | 1732.6 | 1413 | 1732.6 |

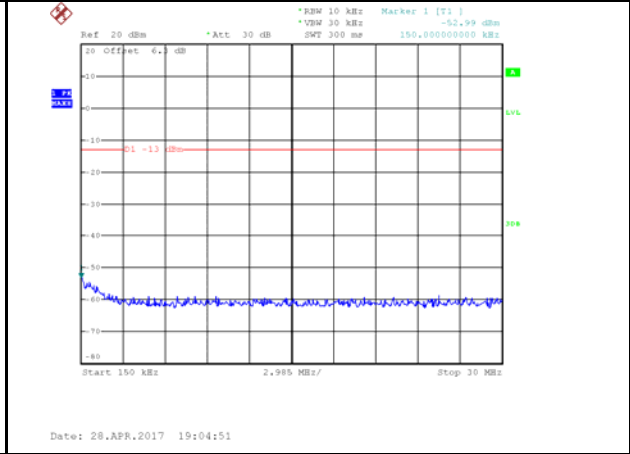
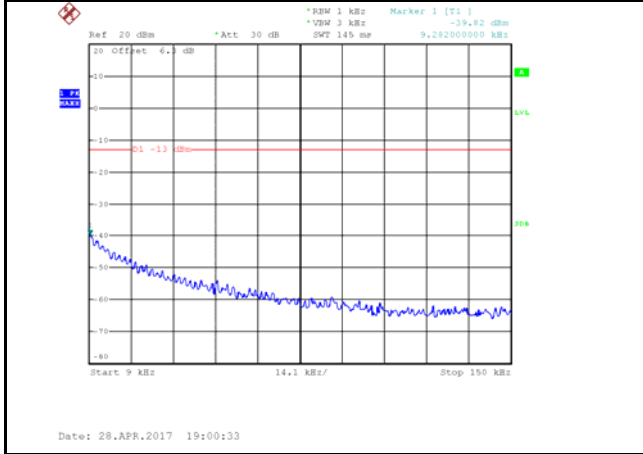


| Channel | Frequency(MHz) | - | - |
|---------|----------------|---|---|
| 1413 | 1732.6 | - | - |

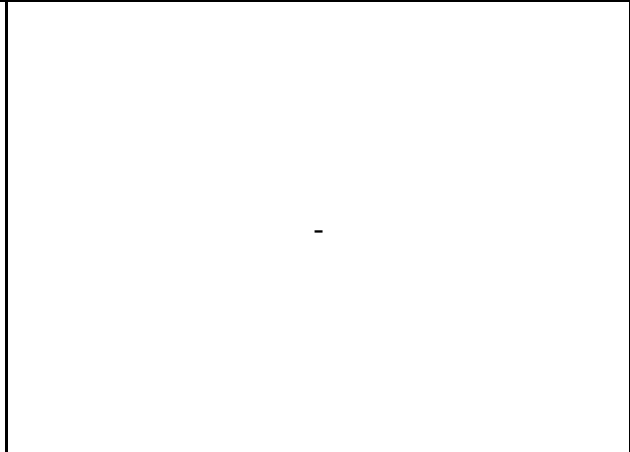


WCDMA Band 4_HSUPA

| Channel | Frequency(MHz) | Channel | Frequency(MHz) |
|---------|----------------|---------|----------------|
| 1413 | 1732.6 | 1413 | 1732.6 |

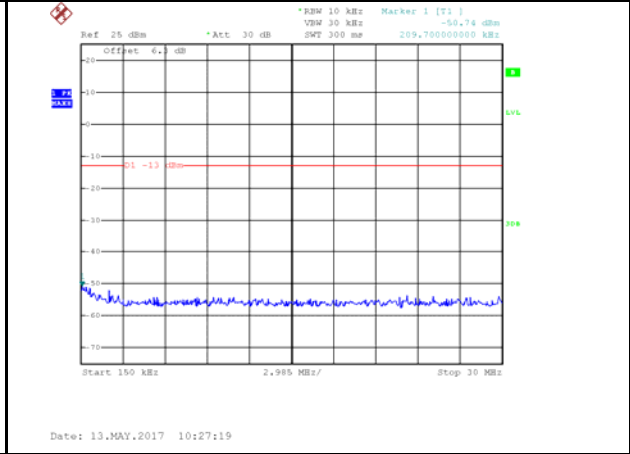
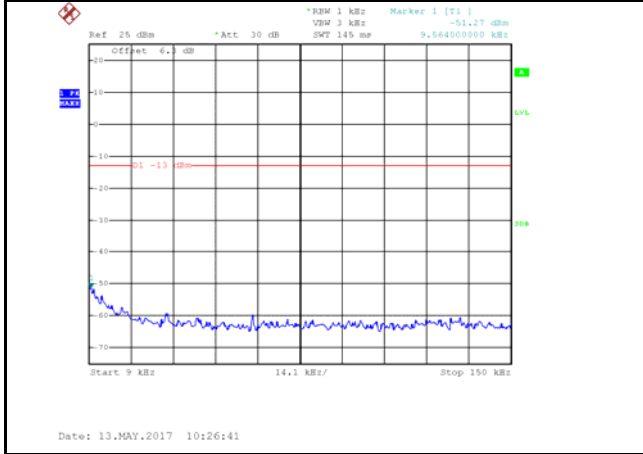


| Channel | Frequency(MHz) | - | - |
|---------|----------------|---|---|
| 1413 | 1732.6 | - | - |

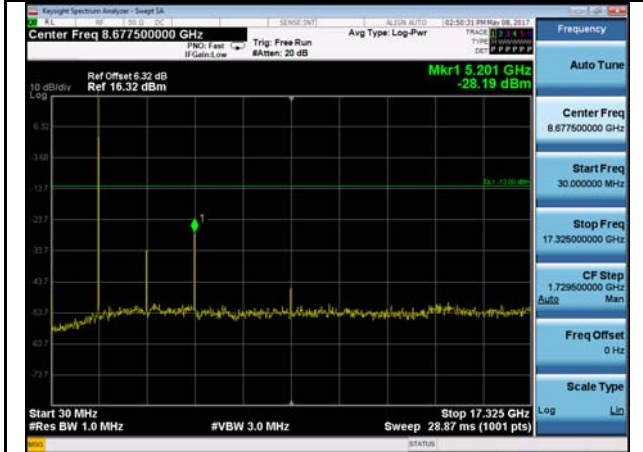


LTE Band 4_1.4M

| Channel | Frequency(MHz) | Channel | Frequency(MHz) |
|---------|----------------|---------|----------------|
| 20175 | 1732.5 | 20175 | 1732.5 |



| Channel | Frequency(MHz) | | |
|---------|----------------|---|---|
| 20175 | 1732.5 | - | - |



| | |
|--|---|
| | - |
|--|---|

| LTE Band 4_3M | | | |
|----------------------------|----------------|----------------------------|----------------|
| Channel | Frequency(MHz) | Channel | Frequency(MHz) |
| 20175 | 1732.5 | 20175 | 1732.5 |
| | | | |
| Date: 13.MAY.2017 10:26:07 | | Date: 13.MAY.2017 10:25:30 | |
| Channel | Frequency(MHz) | - | - |
| 20175 | 1732.5 | - | - |
| | | | |

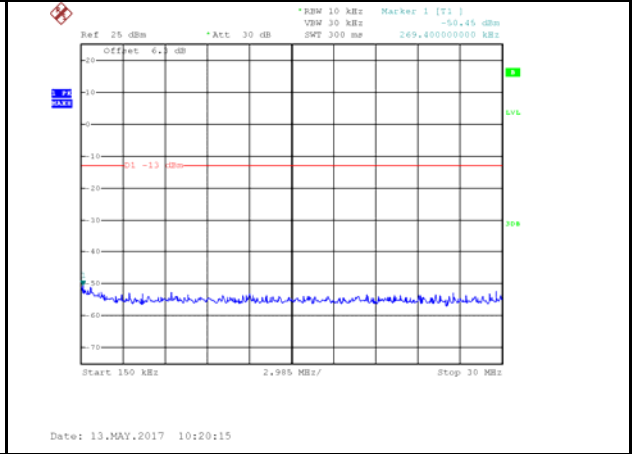
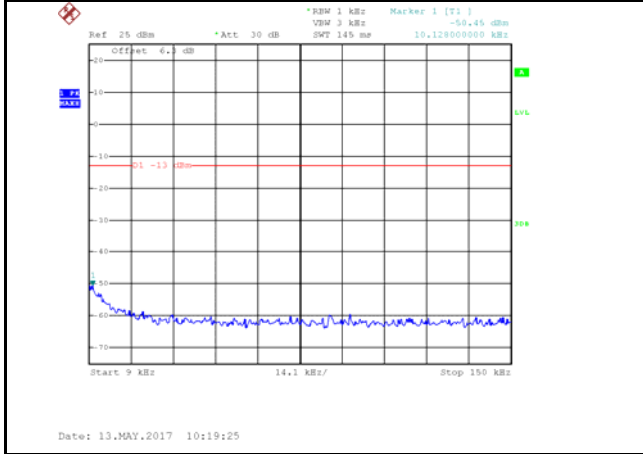
| LTE Band 4_5M | | | |
|----------------------------|----------------|----------------------------|----------------|
| Channel | Frequency(MHz) | Channel | Frequency(MHz) |
| 20175 | 1732.5 | 20175 | 1732.5 |
| | | | |
| Date: 13.MAY.2017 10:24:27 | | Date: 13.MAY.2017 10:24:49 | |
| Channel | Frequency(MHz) | - | - |
| 20175 | 1732.5 | - | - |
| | | | |

| LTE Band 4_10M | | | |
|----------------------------|----------------|----------------------------|----------------|
| Channel | Frequency(MHz) | Channel | Frequency(MHz) |
| 20175 | 1732.5 | 20175 | 1732.5 |
| | | | |
| Date: 13.MAY.2017 10:23:34 | | Date: 13.MAY.2017 10:23:03 | |
| Channel | Frequency(MHz) | - | - |
| 20175 | 1732.5 | - | - |
| | | | |

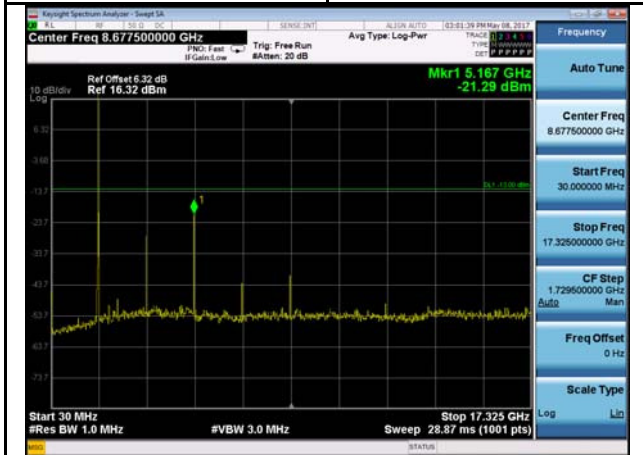
| LTE Band 4_15M | | | |
|----------------------------|----------------|----------------------------|----------------|
| Channel | Frequency(MHz) | Channel | Frequency(MHz) |
| 20175 | 1732.5 | 20175 | 1732.5 |
| | | | |
| Date: 13.MAY.2017 10:20:56 | | Date: 13.MAY.2017 10:21:40 | |
| Channel | Frequency(MHz) | - | - |
| 20175 | 1732.5 | - | - |
| | | | |

LTE Band 4_20M

| Channel | Frequency(MHz) | Channel | Frequency(MHz) |
|---------|----------------|---------|----------------|
| 20175 | 1732.5 | 20175 | 1732.5 |



| Channel | Frequency(MHz) | | |
|---------|----------------|---|---|
| 20175 | 1732.5 | - | - |

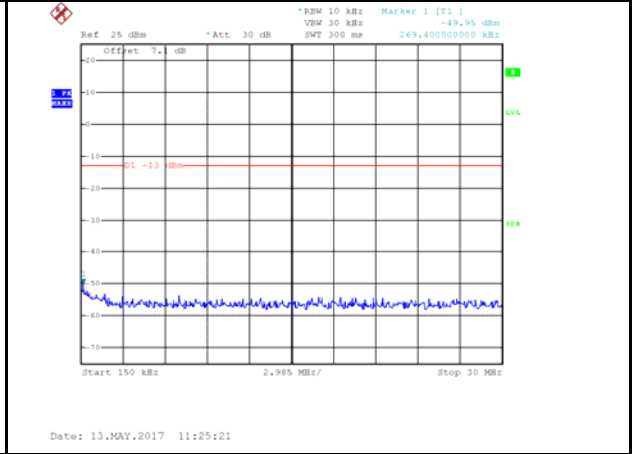
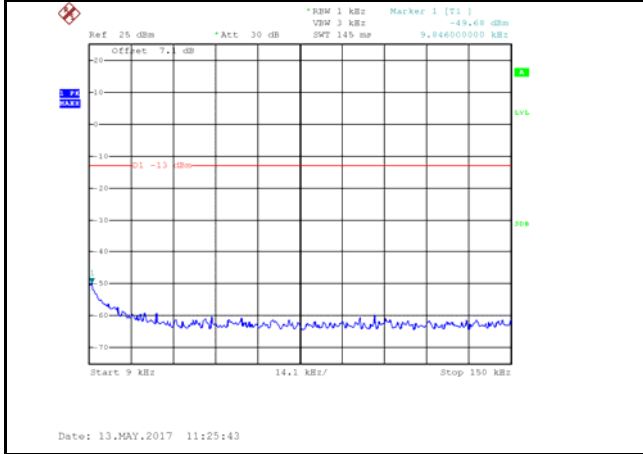


| |
|---|
| - |
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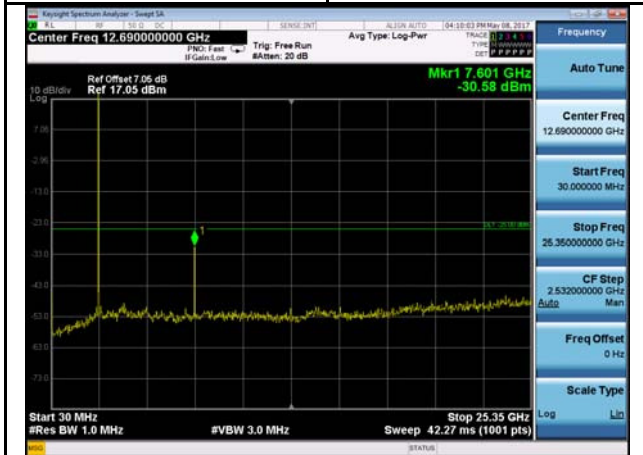
| LTE Band 7_5M | | | |
|----------------------------|----------------|----------------------------|----------------|
| Channel | Frequency(MHz) | Channel | Frequency(MHz) |
| 21100 | 2535 | 21100 | 2535 |
| | | | |
| Date: 13.MAY.2017 11:26:04 | | Date: 13.MAY.2017 11:26:22 | |
| Channel | Frequency(MHz) | - | - |
| 21100 | 2535 | - | - |
| | | - | |

LTE Band 7_10M

| Channel | Frequency(MHz) | Channel | Frequency(MHz) |
|---------|----------------|---------|----------------|
| 21100 | 2535 | 21100 | 2535 |



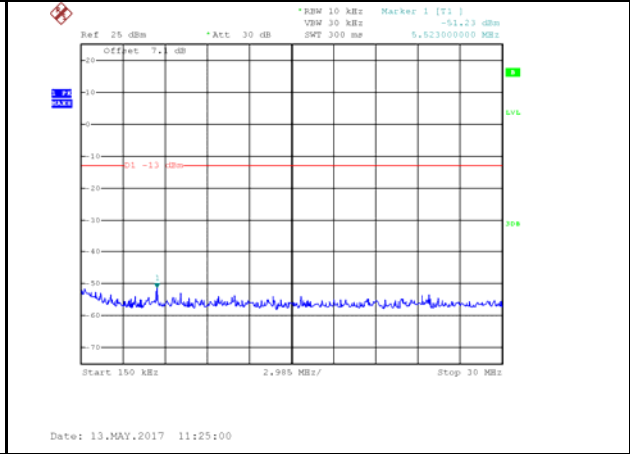
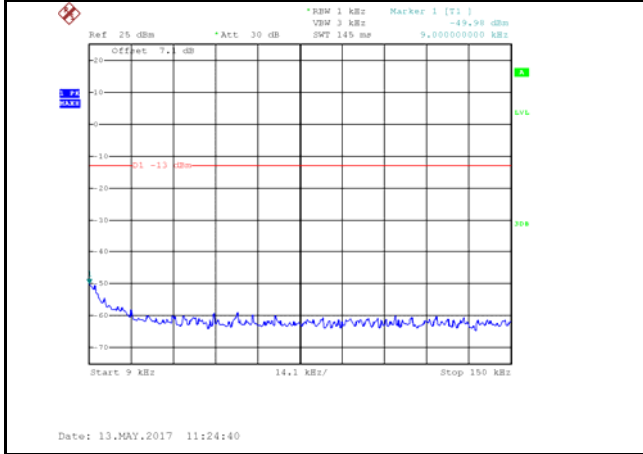
| | | | |
|---------|----------------|---|---|
| Channel | Frequency(MHz) | - | - |
| 21100 | 2535 | - | - |



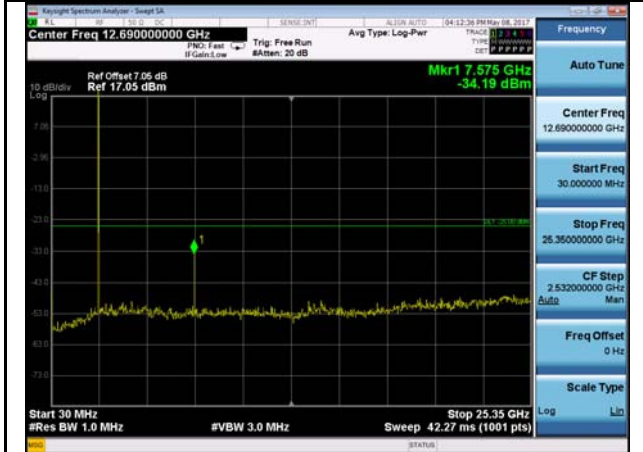
-

LTE Band 7_15M

| Channel | Frequency(MHz) | Channel | Frequency(MHz) |
|---------|----------------|---------|----------------|
| 21100 | 2535 | 21100 | 2535 |



| Channel | Frequency(MHz) | - | - |
|---------|----------------|---|---|
| 21100 | 2535 | - | - |



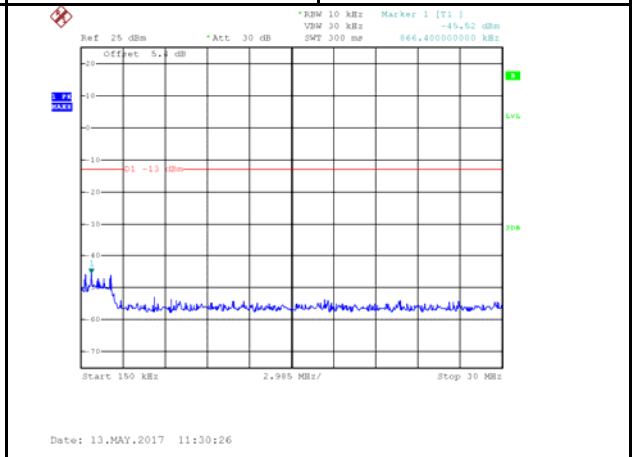
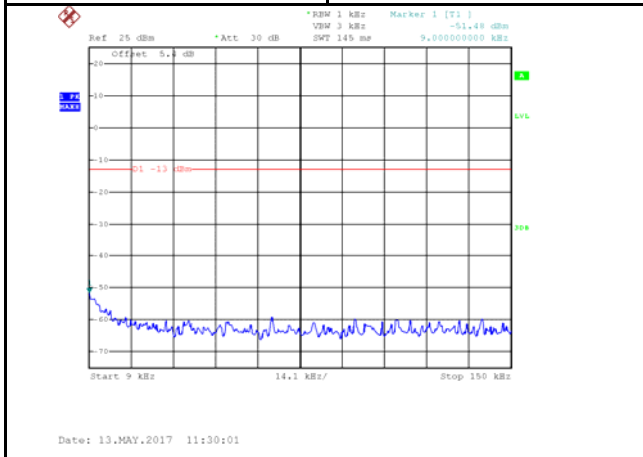
| | |
|--|---|
| | - |
|--|---|

| LTE Band 7_20M | | | |
|----------------------------|----------------|----------------------------|----------------|
| Channel | Frequency(MHz) | Channel | Frequency(MHz) |
| 21100 | 2535 | 21100 | 2535 |
| | | | |
| Date: 13.MAY.2017 11:23:29 | | Date: 13.MAY.2017 11:23:58 | |
| Channel | Frequency(MHz) | - | - |
| 21100 | 2535 | - | - |
| | | | |

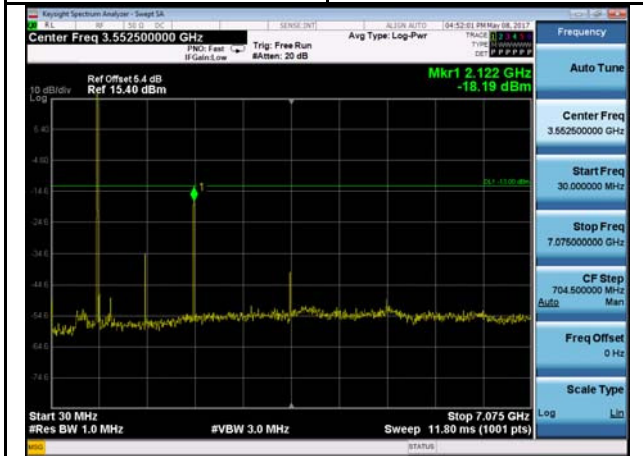
| LTE Band 12_1.4M | | | |
|----------------------------|----------------|----------------------------|----------------|
| Channel | Frequency(MHz) | Channel | Frequency(MHz) |
| 23095 | 707.5 | 23095 | 707.5 |
| | | | |
| Date: 13.MAY.2017 11:29:39 | | Date: 13.MAY.2017 11:29:16 | |
| Channel | Frequency(MHz) | - | - |
| 23095 | 707.5 | - | - |
| | | | |

LTE Band 12_3M

| Channel | Frequency(MHz) | Channel | Frequency(MHz) |
|---------|----------------|---------|----------------|
| 23095 | 707.5 | 23095 | 707.5 |



| Channel | Frequency(MHz) | - | - |
|---------|----------------|---|---|
| 23095 | 707.5 | - | - |



| Frequency | - | - | - |
|-----------|---|---|---|
| - | - | - | - |

| LTE Band 12_5M | | | |
|----------------------------|----------------|----------------------------|----------------|
| Channel | Frequency(MHz) | Channel | Frequency(MHz) |
| 23095 | 707.5 | 23095 | 707.5 |
| | | | |
| Date: 13.MAY.2017 11:28:32 | | Date: 13.MAY.2017 11:28:53 | |

| Channel | Frequency(MHz) | | |
|---------|----------------|---|---|
| 23095 | 707.5 | - | - |

| | | | |
|--|--|---|--|
| | | - | |
|--|--|---|--|