



FCC RADIO TEST REPORT

FCC ID : A4RG1F8F
Equipment : Phone
Model Name : G1F8F
Applicant : Google LLC
1600 Amphitheatre Parkway,
Mountain View, California, 94043 USA
Standard : FCC 47 CFR Part 2, 27

The product was received on Dec. 15, 2020 and testing was started from Dec. 22, 2020 and completed on Feb. 08, 2021. We, Sporton International Inc. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA-603-E and has been in compliance with the applicable technical standards.

The test results in this partial report apply exclusively to the tested model / sample. Without written approval of Sporton International Inc. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

Sporton International Inc. EMC & Wireless Communications Laboratory

No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)



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Summary of Test Result

| Report Clause | Ref Std. Clause | Test Items | Result (PASS/FAIL) | Remark |
|---------------|--------------------------|---|--------------------|--|
| 3.2 | §2.1046 | Conducted Output Power | Reporting only | - |
| | §27.50 (h)(2) | Equivalent Isotropic Radiated Power (Band 41) | Pass | |
| 3.3 | - | Peak-to-Average Ratio | Reporting only | - |
| 3.4 | §2.1049 | Occupied Bandwidth | Reporting only | - |
| 3.5 | §2.1051 §27.53 (m)(4) | Conducted Band Edge Measurement (Band 41) | Pass | - |
| 3.6 | §2.1051 §27.53 (m)(4) | Conducted Spurious Emission (Band 41) | Pass | - |
| 3.7 | §2.1055 §27.54 | Frequency Stability Temperature & Voltage | Pass | - |
| 4.2 | §2.1051 §27.53 (m)(4) | Radiated Spurious Emission (Band 41) | Pass | Under limit 22.68 dB at 8005.000 MHz for Primary Antenna Under limit 22.01 dB at 7776.000 MHz for ASDIV Antenna |

Remark: The RF and antenna design is the same across all two device. Hence, the test data can represent among all the two device in this test report. The test has been performed with the selected Sporton Report No.: FG001507-01A.

| |
|--|
| Declaration of Conformity: |
| The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers. |
| Comments and Explanations: |
| The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification. |

Reviewed by: Wii Chang

Report Producer: Amy Chen



1 General Description

1.1 Product Feature of Equipment Under Test

| Product Feature | |
|---------------------------------|--|
| Equipment | Phone |
| Model Name | G1F8F |
| FCC ID | A4RG1F8F |
| EUT supports Radios application | CDMA/EV-DO/GSM/EGPRS/WCDMA/HSPA/LTE/5G NR /NFC/GNSS WLAN 11b/g/n HT20 WLAN 11a/n HT20/HT40 WLAN 11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE |

Remark: The above EUT's information was declared by manufacturer.

| EUT Information List | |
|----------------------|-------------------------------|
| S/N | Performed Test Item |
| 0B271FQCB00063 | Conducted Measurement EIRP |
| 0C121FQCB00033 | Radiated Spurious Emission |

1.2 Product Specification of Equipment Under Test

| Product Specification subjective to this standard | |
|---|--|
| Tx Frequency | LTE Band 41: 2498.5 MHz ~ 2687.5 MHz |
| Rx Frequency | LTE Band 41: 2498.5 MHz ~ 2687.5 MHz |
| Bandwidth | LTE Band 41: 5MHz / 10MHz / 15MHz / 20MHz |
| Maximum Output Power to Antenna | <Primary Antenna> <Ant. 2> LTE Band 41C: 25.91 dBm for HPUE <ASDIV Antenna> <Ant. 0> LTE Band 41C: 25.79 dBm for HPUE |
| Antenna Type | <Primary Antenna>: IFA Antenna type <ASDIV Antenna>: Monopole with aperture Antenna type |
| Type of Modulation | QPSK / 16QAM / 64QAM / 256QAM |



<Primary Antenna>

| Radio Tech | Band Number | Antenna name | Gain |
|------------|-------------|--------------|------|
| LTE | B41_HPUE | Ant 2 | 0.2 |

<ASDIV Antenna>

| Radio Tech | Band Number | Antenna name | Gain |
|------------|-------------|--------------|------|
| LTE | B41_HPUE | Ant 0 | -5.5 |

Remark: The above EUT's information was declared by manufacturer. Please refer to Comments and Explanations in report summary.

1.3 Modification of EUT

No modifications are made to the EUT during all test items.

1.4 Testing Location

| | |
|---------------------------|---|
| Test Site | Sporton International Inc. EMC & Wireless Communications Laboratory |
| Test Site Location | No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) TEL: +886-3-327-3456 FAX: +886-3-328-4978 |
| Test Site No. | Sporton Site No. TH05-HY |
| Test Engineer | Luffy Lin |
| Temperature | 23~25°C |
| Relative Humidity | 52~56% |

| | |
|---------------------------|--|
| Test Site | Sporton International Inc. Wensan Laboratory |
| Test Site Location | No.58, Aly. 75, Ln. 564, Wenhua 3rd, Rd., Guishan Dist., Taoyuan City 333010, Taiwan (R.O.C.) TEL: +886-3-327-0868 FAX: +886-3-327-0855 |
| Test Site No. | Sporton Site No. 03CH13-HY (TAF Code: 3786) |
| Test Engineer | Daniel Lee, Jacky and Wilson Wu |
| Temperature | 20~25°C |
| Relative Humidity | 50~60% |
| Remark | The Radiated Spurious Emission test item subcontracted to Sporton International Inc. Wensan Laboratory |

Note: The test site complies with ANSI C63.4 2014 requirement.

FCC Designation No.: TW1190 and TW0007



1.5 Applicable Standards

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

- ♦ ANSI C63.26-2015
- ♦ ANSI / TIA-603-E
- ♦ FCC 47 CFR Part 2, 27
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- ♦ FCC KDB 412172 D01 Determining ERP and EIRP v01r01
- ♦ FCC KDB 414788 D01 Radiated Test Site v01r01.

Remark:

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.
3. The TAF code is not including all the FCC KDB listed without accreditation.



2 Test Configuration of Equipment Under Test

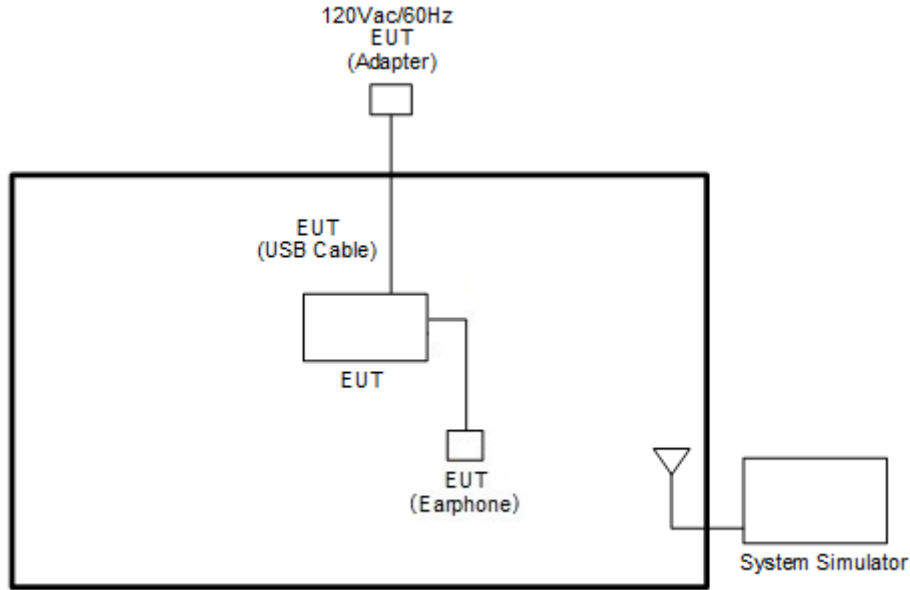
2.1 Test Mode

Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 with maximum output power.

For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Primary Antenna: Y plane; ASDIV Antenna: X plane) were recorded in this report.

| Test Items | Band | Bandwidth (MHz) | | | | | | | | | | Modulation | | | | RB # | | | Test Channel | | | |
|-----------------------------|---|-----------------|-------|-------|-------|-------|------|------|-------|-------|-------|------------|-------|-------|--------|------|------------|------|--------------|---|---|---|
| | | 20+20 | 20+15 | 15+20 | 20+10 | 10+20 | 20+5 | 5+20 | 15+15 | 15+10 | 10+15 | QPSK | 16QAM | 64QAM | 256QAM | 1 | Half | Full | L | M | H | |
| Max. Output Power | 41_CA | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v |
| 26dB and 99% Bandwidth | 41_CA | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v |
| Conducted Band Edge | 41_CA | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v |
| Conducted Spurious Emission | 41_CA | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v |
| E.I.R.P. | 41_CA | v | v | v | v | v | v | v | v | v | v | v | v | v | v | v | Max. Power | | | | | |
| Radiated Spurious Emission | 41_CA | Worst Case | | | | | | | | | | | | | | | | v | v | v | | |
| Remark | <ol style="list-style-type: none"> The mark "v" means that this configuration is chosen for testing The mark "-" means that this bandwidth is not supported. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported. All the radiated test cases were performed with Adapter 1 and USB Cable 1. | | | | | | | | | | | | | | | | | | | | | |

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

| Item | Equipment | Brand Name | Model No. | FCC ID | Data Cable | Power Cord |
|------|------------------|------------|-----------|--------|------------|-------------------|
| 1. | System Simulator | Anritsu | MT8821C | N/A | N/A | Unshielded, 1.8 m |

2.4 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 4.2 dB and 10dB attenuator.

Example :

$$\begin{aligned} \text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)}. \\ &= 4.2 + 10 = 14.2 \text{ (dB)} \end{aligned}$$



2.5 Frequency List of Low/Middle/High Channels

| LTE Band 41 Channel and Frequency List | | | | | |
|--|------------------------|-----------|--------|--------|---------|
| BW [MHz] | Channel/Frequency(MHz) | | Lowest | Middle | Highest |
| 20 + 20 | PCC | Channel | 39750 | 40521 | 41292 |
| | | Frequency | 2506.0 | 2583.1 | 2660.2 |
| | SCC | Channel | 39948 | 40719 | 41490 |
| | | Frequency | 2525.8 | 2602.9 | 2680.0 |
| 20 + 15 | PCC | Channel | 39750 | 40546 | 41341 |
| | | Frequency | 2506.0 | 2585.6 | 2665.1 |
| | SCC | Channel | 39921 | 40717 | 41512 |
| | | Frequency | 2523.1 | 2602.7 | 2682.2 |
| 15 + 20 | PCC | Channel | 39728 | 40523 | 41319 |
| | | Frequency | 2503.8 | 2593.3 | 2662.9 |
| | SCC | Channel | 39899 | 40694 | 41490 |
| | | Frequency | 2520.9 | 2600.4 | 2680.0 |
| 20 + 10 | PCC | Channel | 39750 | 40571 | 41391 |
| | | Frequency | 2506.0 | 2588.1 | 2670.1 |
| | SCC | Channel | 39894 | 40715 | 41535 |
| | | Frequency | 2520.4 | 2602.5 | 2684.5 |
| 10 + 20 | PCC | Channel | 39705 | 40526 | 41346 |
| | | Frequency | 2501.5 | 2583.6 | 2665.6 |
| | SCC | Channel | 39849 | 40670 | 41490 |
| | | Frequency | 2515.9 | 2598.0 | 2680.0 |



| LTE Band 41 Channel and Frequency List | | | | | |
|--|-----|-----------|--------|--------|--------|
| 20 + 5 | PCC | Channel | 39750 | 40595 | 41440 |
| | | Frequency | 2506.0 | 2590.5 | 2675.0 |
| | SCC | Channel | 39867 | 40712 | 41557 |
| | | Frequency | 2517.7 | 2602.2 | 2686.7 |
| 5 + 20 | PCC | Channel | 39683 | 40528 | 41373 |
| | | Frequency | 2499.3 | 2583.8 | 2668.3 |
| | SCC | Channel | 39800 | 40645 | 41490 |
| | | Frequency | 2511.0 | 2595.5 | 2680.0 |
| 15 + 15 | PCC | Channel | 39725 | 40545 | 41365 |
| | | Frequency | 2503.5 | 2585.5 | 2667.5 |
| | SCC | Channel | 39875 | 40695 | 41515 |
| | | Frequency | 2518.5 | 2600.5 | 2682.5 |
| 10 + 15 | PCC | Channel | 39703 | 40549 | 41395 |
| | | Frequency | 2501.3 | 2585.9 | 2670.5 |
| | SCC | Channel | 39823 | 40669 | 41515 |
| | | Frequency | 2513.3 | 2597.9 | 2682.5 |
| 15 + 10 | PCC | Channel | 39725 | 40571 | 41417 |
| | | Frequency | 2503.5 | 2588.1 | 2672.7 |
| | SCC | Channel | 39845 | 40691 | 41537 |
| | | Frequency | 2515.5 | 2600.1 | 2684.7 |

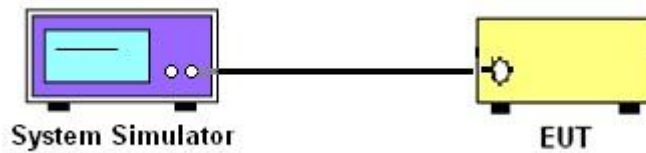
3 Conducted Test Items

3.1 Measuring Instruments

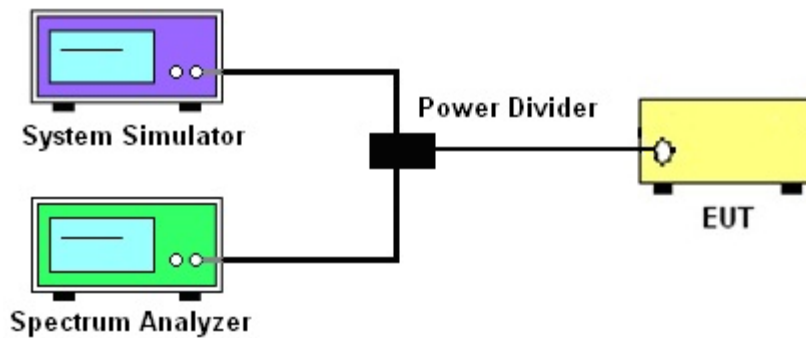
See list of measuring instruments of this test report.

3.1.1 Test Setup

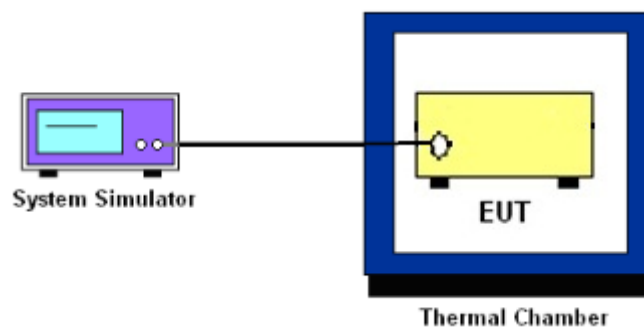
3.1.2 Conducted Output Power



3.1.3 Peak-to-Average Ratio, Occupied Bandwidth ,Conducted Band-Edge and Conducted Spurious Emission



3.1.4 Frequency Stability



3.1.5 Test Result of Conducted Test

Please refer to Appendix A.



3.2 Conducted Output Power and EIRP

3.2.1 Description of the Conducted Output Power Measurement and EIRP Measurement

A system simulator was used to establish communication with the EUT. Its parameters were set to force the EUT transmitting at maximum output power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

The EIRP of mobile transmitters must not exceed 2 Watts for LTE Band 41

According to KDB 412172 D01 Power Approach,

$EIRP = PT + GT - LC$, $ERP = EIRP - 2.15$, where

PT = transmitter output power in dBm

GT = gain of the transmitting antenna in dBi

LC = signal attenuation in the connecting cable between the transmitter and antenna in dB

3.2.2 Test Procedures

1. The transmitter output port was connected to the system simulator.
2. Set EUT at maximum power through the system simulator.
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Measure and record the power level from the system simulator.



3.3 Peak-to-Average Ratio

3.3.1 Description of the PAR Measurement

Power Complementary Cumulative Distribution Function (CCDF) curves provide a means for characterizing the power peaks of a digitally modulated signal on a statistical basis. A CCDF curve depicts the probability of the peak signal amplitude exceeding the average power level. Most contemporary measurement instrumentation include the capability to produce CCDF curves for an input signal provided that the instrument's resolution bandwidth can be set wide enough to accommodate the entire input signal bandwidth. 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.

3.3.2 Test Procedures

The testing follows ANSI C63.26-2015 Section 5.2.6

1. The EUT was connected to spectrum and system simulator via a power divider.
2. Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
3. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1 %.
4. Record the deviation as Peak to Average Ratio.



3.4 Occupied Bandwidth

3.4.1 Description of Occupied Bandwidth Measurement

The occupied bandwidth is the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean transmitted power.

The 26 dB emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth equal to approximately 1.0% of the emission bandwidth.

3.4.2 Test Procedures

The testing follows ANSI C63.26-2015 Section 5.4.3 (26dB) and Section 5.4.4 (99OB)

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be between two and five times the anticipated OBW.
3. The nominal resolution bandwidth (RBW) shall be in the range of 1 to 5 % of the anticipated OBW, and the VBW shall be at least 3 times the RBW.
4. Set the detection mode to peak, and the trace mode to max hold.
5. Determine the reference value: Set the EUT to transmit a modulated signal. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace.
(this is the reference value)
6. Determine the “-26 dB down amplitude” as equal to (Reference Value – X).
7. Place two markers, one at the lowest and the other at the highest frequency of the envelope of the spectral display such that each marker is at or slightly below the “-X dB down amplitude” determined in step 6. If a marker is below this “-X dB down amplitude” value it shall be placed as close as possible to this value. The OBW is the positive frequency difference between the two markers.
8. Use the 99 % power bandwidth function of the spectrum analyzer and report the measured bandwidth.



3.5 Conducted Band Edge

3.5.1 Description of Conducted Band Edge Measurement

27.53(m)(4)

For mobile digital stations, the attenuation factor shall be not less than $40 + 10 \log (P)$ dB on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log (P)$ dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and $55 + 10 \log (P)$ dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that $43 + 10 \log (P)$ dB on all frequencies between 2490.5 MHz and 2496 MHz and $55 + 10 \log (P)$ dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.

3.5.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 6.1.

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The band edges of low and high channels for the highest RF powers were measured.
3. Set RBW \geq 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
4. Beyond the 1 MHz band from the band edge, RBW=1MHz was used.
5. Set spectrum analyzer with RMS detector.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
7. Checked that all the results comply with the emission limit line.

The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)

For LTE Band 41

The other 40 dB, and 55 dB have additionally applied same calculation above.



3.6 Conducted Spurious Emission

3.6.1 Description of Conducted Spurious Emission Measurement

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least $43 + 10 \log (P)$ dB.

For LTE Band 41

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least $55 + 10 \log (P)$ dB.

It is measured by means of a calibrated spectrum analyzer and scanned from 30 MHz up to a frequency including its 10th harmonic.

3.6.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 6.1.

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.
The path loss was compensated to the results for each measurement.
3. The middle channel for the highest RF power within the transmitting frequency was measured.
4. The conducted spurious emission for the whole frequency range was taken.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz.
6. Set spectrum analyzer with RMS detector.
7. Taking the record of maximum spurious emission.
8. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
9. The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)

For LTE Band 41

The limit line is derived from $55 + 10\log(P)$ dB below the transmitter power P(Watts)



3.7 Frequency Stability

3.7.1 Description of Frequency Stability Measurement

27.54

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

3.7.2 Test Procedures for Temperature Variation

The testing follows FCC KDB 971168 D01 v03r01 Section 9.0.

1. The EUT was set up in the thermal chamber and connected with the system simulator.
2. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
3. With power OFF, the temperature was raised in 10°C step up to 50°C . The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

3.7.3 Test Procedures for Voltage Variation

The testing follows FCC KDB 971168 D01 v03r01 Section 9.0.

1. The EUT was placed in a temperature chamber at $20\pm 5^{\circ}\text{C}$ and connected with the system simulator.
2. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value measured at the input to the EUT.
3. The variation in frequency was measured for the worst case.

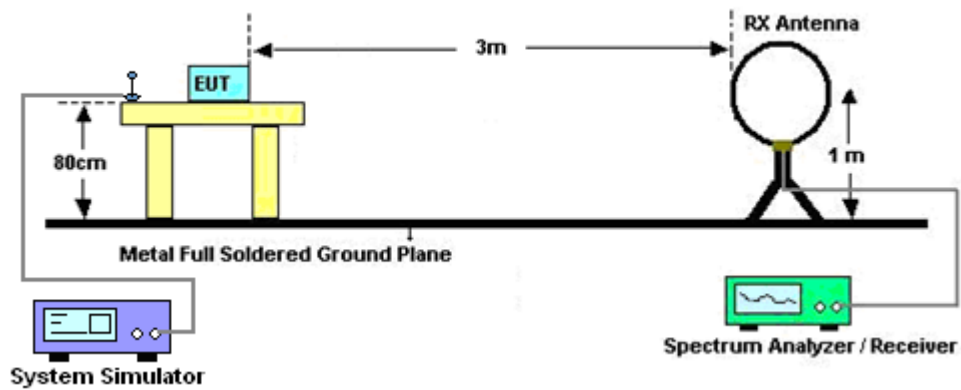
4 Radiated Test Items

4.1 Measuring Instruments

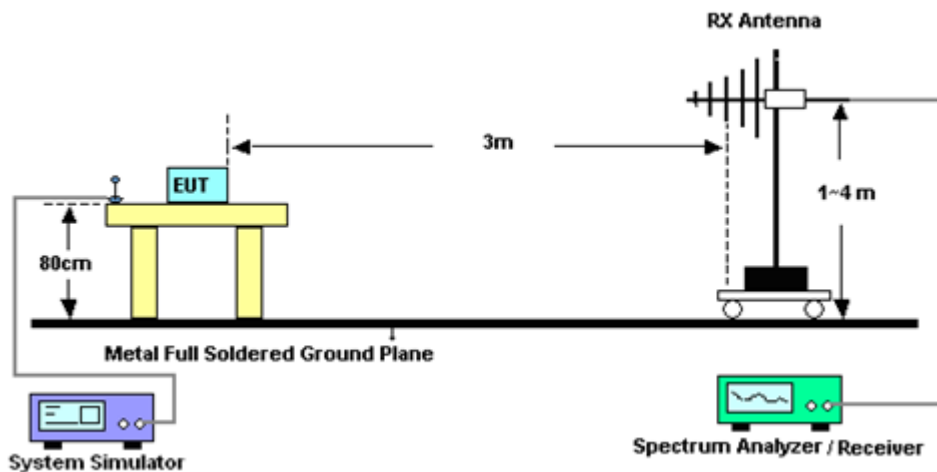
See list of measuring instruments of this test report.

4.1.1 Test Setup

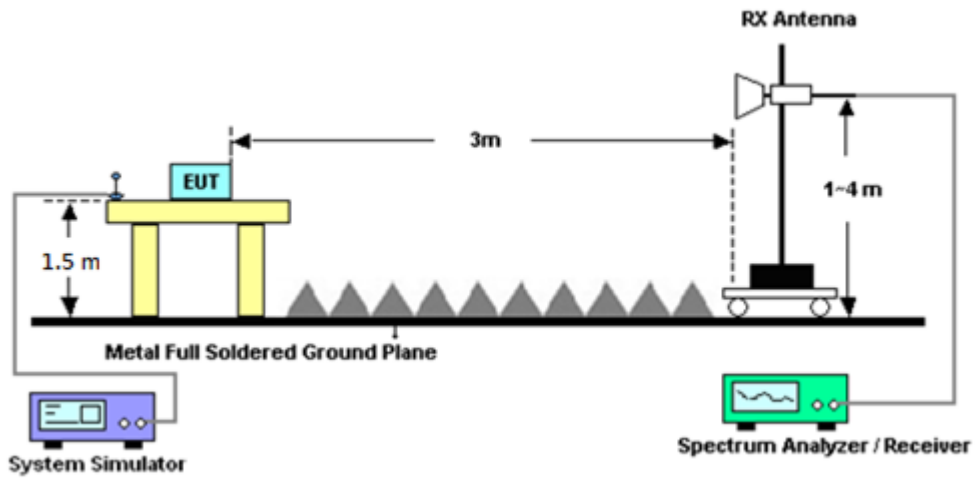
For radiated test below 30MHz



For radiated test from 30MHz to 1GHz



For radiated test above 1GHz



4.1.2 Test Result of Radiated Test

Please refer to Appendix B.

Note:

The low frequency, which started from 9 kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line was not reported.

There is a comparison data of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result came out very similar.



4.2 Radiated Spurious Emission Measurement

4.2.1 Description of Radiated Spurious Emission Measurement

The radiated spurious emission was measured by substitution method according to ANSI / TIA-603-E. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least $43 + 10 \log (P)$ dB.

For LTE Band 41

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least $55 + 10 \log (P)$ dB.

The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

4.2.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 7 and ANSI / TIA-603-E Section 2.2.12.

1. The EUT was placed on a turntable with 0.8 meter for frequency below 1GHz and 1.5 meter for frequency above 1GHz respectively above ground.
2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
6. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
8. Taking the record of output power at antenna port.
9. Repeat step 7 to step 8 for another polarization.
10. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

The limit line is derived from $43 + 10\log(P)$ dB below the transmitter power P(Watts)

For LTE Band 41

The limit line is derived from $55 + 10\log(P)$ dB below the transmitter power P(Watts)

EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain

ERP (dBm) = EIRP - 2.15



5 List of Measuring Equipment

| Instrument | Brand Name | Model No. | Serial No. | Characteristics | Calibration Date | Test Date | Due Date | Remark |
|-------------------|-------------------|---------------------------------|------------|----------------------------------|------------------|---------------------------------|---------------|--------------------------|
| Amplifier | Sonoma-Instrument | 310 N | 187282 | 9KHz~1GHz | Dec. 16, 2020 | Jan. 22, 2021~ Feb. 08, 2021 | Dec. 15, 2021 | Radiation (03CH13-HY) |
| Bilog Antenna | TESEQ | CBL 6111D&00800 N1D01N-06 | 40103&07 | 30MHz to 1GHz | Apr. 29, 2020 | Jan. 22, 2021~ Feb. 08, 2021 | Apr. 28, 2021 | Radiation (03CH13-HY) |
| Bilog Antenna | TESEQ | CBL 6111D&00800 N1D01N-06 | 41912 & 07 | 30MHz to 1GHz | Apr. 29, 2020 | Jan. 22, 2021~ Feb. 08, 2021 | Apr. 28, 2021 | Radiation (03CH13-HY) |
| Horn Antenna | SCHWARZBECK | BBHA 9120 D | 9120D-1212 | 1GHz ~ 18GHz | May 20, 2020 | Jan. 22, 2021~ Feb. 08, 2021 | May 19, 2021 | Radiation (03CH13-HY) |
| Horn Antenna | SCHWARZBECK | BBHA 9120 D | 9120D-1241 | 1GHz ~ 18GHz | Jul. 15, 2020 | Jan. 22, 2021~ Feb. 08, 2021 | Jul. 14, 2021 | Radiation (03CH13-HY) |
| Preamplifier | MITEQ | AMF-7D-0010 1800-30-10P | 1590074 | 1GHz~18GHz | May 19, 2020 | Jan. 22, 2021~ Feb. 08, 2021 | May 18, 2021 | Radiation (03CH13-HY) |
| Preamplifier | Keysight | 83017A | MY53270147 | 1GHz~26.5GHz | Oct. 28, 2020 | Jan. 22, 2021~ Feb. 08, 2021 | Oct. 27, 2021 | Radiation (03CH13-HY) |
| Signal Generator | Anritsu | MG3694C | 163401 | 0.1Hz~40GHz | Feb. 15, 2020 | Jan. 22, 2021~ Feb. 08, 2021 | Feb. 14, 2021 | Radiation (03CH13-HY) |
| Spectrum Analyzer | Keysight | N9010A | MY55370526 | 10Hz~44GHz | Mar. 20, 2020 | Jan. 22, 2021~ Feb. 08, 2021 | Mar. 19, 2021 | Radiation (03CH13-HY) |
| Controller | EMEC | EM1000 | N/A | Control Turn table & Ant Mast | N/A | Jan. 22, 2021~ Feb. 08, 2021 | N/A | Radiation (03CH13-HY) |
| Antenna Mast | EMEC | AM-BS-4500-B | N/A | 1m~4m | N/A | Jan. 22, 2021~ Feb. 08, 2021 | N/A | Radiation (03CH13-HY) |
| Turn Table | EMEC | TT2000 | N/A | 0~360 Degree | N/A | Jan. 22, 2021~ Feb. 08, 2021 | N/A | Radiation (03CH13-HY) |
| Software | Audix | E3 6.2009-8-24 | RK-000992 | N/A | N/A | Jan. 22, 2021~ Feb. 08, 2021 | N/A | Radiation (03CH13-HY) |
| Preamplifier | EMEC | EM18G40G | 060715 | 18GHz ~ 40GHz | Dec. 11, 2020 | Jan. 22, 2021~ Feb. 08, 2021 | Dec. 10, 2021 | Radiation (03CH13-HY) |
| RF Cable | HUBER + SUHNER | SUCOFLEX 126E | 0030/126E | 30M-18G | Feb. 12, 2020 | Jan. 22, 2021~ Feb. 08, 2021 | Feb. 11, 2021 | Radiation (03CH13-HY) |
| RF Cable | HUBER + SUHNER | SUCOFLEX 104 | 804793/4 | 30M-18G | Feb. 12, 2020 | Jan. 22, 2021~ Feb. 08, 2021 | Feb. 11, 2021 | Radiation (03CH13-HY) |
| RF Cable | HUBER + SUHNER | SUCOFLEX 102 | 505134/2 | 30M~40GHz | Feb. 25, 2020 | Jan. 22, 2021~ Feb. 08, 2021 | Feb. 24, 2021 | Radiation (03CH13-HY) |
| RF Cable | HUBER + SUHNER | SUCOFLEX 102 | MY4274/2 | 30M~40GHz | Mar. 12, 2020 | Jan. 22, 2021~ Feb. 08, 2021 | Mar. 11, 2021 | Radiation (03CH13-HY) |
| RF Cable | HUBER + SUHNER | SUCOFLEX 104 | MY24961/4 | 30M-18G | Feb. 12, 2020 | Jan. 22, 2021~ Feb. 08, 2021 | Feb. 11, 2021 | Radiation (03CH13-HY) |
| RF Cable | HUBER + SUHNER | SUCOFLEX 104 | MY9837/4PE | 9kHz~30MHz | Mar. 12, 2020 | Jan. 22, 2021~ Feb. 08, 2021 | Mar. 11, 2021 | Radiation (03CH13-HY) |



| Instrument | Brand Name | Model No. | Serial No. | Characteristics | Calibration Date | Test Date | Due Date | Remark |
|------------------------------|--------------------|---|-------------|----------------------------|------------------|---------------------------------|---------------|--------------------------|
| SHF-EHF Horn Antenna | SCHWARZBECK | BBHA 9170 | BBHA9170584 | 18GHz- 40GHz | Dec. 11, 2020 | Jan. 22, 2021~ Feb. 08, 2021 | Dec. 10, 2021 | Radiation (03CH13-HY) |
| SHF-EHF Horn Antenna | SCHWARZBECK | BBHA 9170 | BBHA9170980 | 18GHz~40GHz | Jan. 11, 2021 | Jan. 22, 2021~ Feb. 08, 2021 | Jan. 10, 2022 | Radiation (03CH13-HY) |
| Filter | Wainwright | WHKX12-2700 -3000-18000-6 0SS | SN2 | 3GHz High Pass Filter | Jul. 13, 2020 | Jan. 22, 2021~ Feb. 08, 2021 | Jul. 12, 2021 | Radiation (03CH13-HY) |
| Filter | Wainwright | WHKX12-1080 -1200-15000-6 0SS | SN3 | 1.2GHz High Pass Filter | Jul. 02, 2020 | Jan. 22, 2021~ Feb. 08, 2021 | Jul. 01, 2021 | Radiation (03CH13-HY) |
| Hygrometer | TECPEL | DTM-303A | TP190075 | N/A | Apr. 23, 2020 | Jan. 22, 2021~ Feb. 08, 2021 | Apr. 22, 2021 | Radiation (03CH13-HY) |
| Base Station (Measure) | Anritsu | MT8821C | 62620025341 | N/A | Oct. 06, 2020 | Dec. 22, 2020~ Jan. 14, 2021 | Oct. 05, 2021 | Conducted (TH05-HY) |
| Spectrum Analyzer | Rohde & Schwarz | FSV40 | 101909 | 10Hz~40GHz | May 19, 2020 | Dec. 22, 2020~ Jan. 14, 2021 | May 18, 2021 | Conducted (TH05-HY) |
| Thermal Chamber | Ten Billion | TTH-D3SP | TBN-930701 | N/A | Aug. 05, 2020 | Dec. 22, 2020~ Jan. 14, 2021 | Aug. 04, 2021 | Conducted (TH05-HY) |
| Programmable Power Supply | GW Instek | PSS-2005 | EL890094 | 1V~20V 0.5A~5A | Oct. 05, 2020 | Dec. 22, 2020~ Jan. 14, 2021 | Oct. 04, 2021 | Conducted (TH05-HY) |
| Coupler | Warison | 20dB 25W SM A Directional Coupler | #B | 1-18GHz | Jan. 11, 2020 | Dec. 22, 2020~ Jan. 10, 2021 | Jan. 10, 2021 | Conducted (TH05-HY) |
| Coupler | Warison | 20dB 25W SM A Directional Coupler | #B | 1-18GHz | Jan. 09, 2021 | Jan. 10, 2021~ Jan. 14, 2021 | Jan. 08, 2022 | Conducted (TH05-HY) |



6 Uncertainty of Evaluation

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

| | |
|---|------|
| Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$) | 3.10 |
|---|------|

Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)

| | |
|---|------|
| Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$) | 3.12 |
|---|------|

Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)

| | |
|---|------|
| Measuring Uncertainty for a Level of Confidence of 95% ($U = 2Uc(y)$) | 3.77 |
|---|------|



Appendix A. Test Results of Conducted Test

Conducted Output Power (Average power & EIRP)

<Primary Antenna>

| LTE Band 41C(HPUE)_CA Maximum Average Power [dBm] (GT - LC = 0.2 dB) | | | | | | | | | | |
|--|-----------|-----------|---------|-----------|---------|--------|--------|---------|------------|----------|
| BW [MHz] | PCC | | SCC | | Mod | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| | RB Size | RB Offset | RB Size | RB Offset | | | | | | |
| 20+20 | 100 | 0 | 100 | 0 | QPSK | 22.08 | 21.87 | 21.81 | 25.90 | 0.3890 |
| 20+20 | 1 | 0 | 1 | 99 | | 15.96 | 15.85 | 15.55 | | |
| 20+20 | 1 | 99 | 1 | 0 | | 25.70 | 25.50 | 25.58 | | |
| 20+20 | 100 | 0 | 100 | 0 | 16-QAM | 21.04 | 20.89 | 20.79 | 25.50 | 0.3548 |
| 20+20 | 1 | 0 | 1 | 99 | | 16.47 | 16.34 | 16.07 | | |
| 20+20 | 1 | 99 | 1 | 0 | | 25.30 | 25.10 | 25.13 | | |
| 20+20 | 100 | 0 | 100 | 0 | 64-QAM | 21.08 | 20.92 | 20.85 | 24.24 | 0.2655 |
| 20+20 | 1 | 0 | 1 | 99 | | 16.10 | 16.01 | 15.78 | | |
| 20+20 | 1 | 99 | 1 | 0 | | 24.04 | 23.87 | 24.03 | | |
| 20+20 | 100 | 0 | 100 | 0 | 256-QAM | 21.05 | 20.88 | 20.77 | 21.25 | 0.1334 |
| 20+20 | 1 | 0 | 1 | 99 | | 16.37 | 16.25 | 15.97 | | |
| 20+20 | 1 | 99 | 1 | 0 | | 21.01 | 21.03 | 20.84 | | |
| 20+15 | 100 | 0 | 75 | 0 | QPSK | 21.00 | 20.86 | 20.73 | 25.90 | 0.3890 |
| 20+15 | 1 | 0 | 1 | 74 | | 15.99 | 15.85 | 15.61 | | |
| 20+15 | 1 | 99 | 1 | 0 | | 25.70 | 25.63 | 25.57 | | |
| 20+15 | 100 | 0 | 75 | 0 | 16-QAM | 21.00 | 20.86 | 20.78 | 25.51 | 0.3556 |
| 20+15 | 1 | 0 | 1 | 74 | | 16.48 | 16.35 | 16.13 | | |
| 20+15 | 1 | 99 | 1 | 0 | | 25.31 | 25.14 | 25.19 | | |
| 20+15 | 100 | 0 | 75 | 0 | 64-QAM | 21.08 | 20.86 | 20.67 | 24.27 | 0.2673 |
| 20+15 | 1 | 0 | 1 | 74 | | 16.05 | 15.96 | 15.84 | | |
| 20+15 | 1 | 99 | 1 | 0 | | 24.07 | 23.91 | 24.04 | | |
| 20+15 | 100 | 0 | 75 | 0 | 256-QAM | 21.08 | 20.88 | 20.81 | 21.28 | 0.1343 |
| 20+15 | 1 | 0 | 1 | 74 | | 16.25 | 16.08 | 15.89 | | |
| 20+15 | 1 | 99 | 1 | 0 | | 21.06 | 20.93 | 20.85 | | |
| 15+20 | 75 | 0 | 100 | 0 | QPSK | 23.95 | 23.95 | 23.72 | 25.94 | 0.3926 |
| 15+20 | 1 | 0 | 1 | 99 | | 15.95 | 15.81 | 15.53 | | |
| 15+20 | 1 | 74 | 1 | 0 | | 25.74 | 25.55 | 25.52 | | |
| 15+20 | 75 | 0 | 100 | 0 | 16-QAM | 21.07 | 20.90 | 20.80 | 25.47 | 0.3524 |
| 15+20 | 1 | 0 | 1 | 99 | | 16.47 | 16.33 | 16.09 | | |
| 15+20 | 1 | 74 | 1 | 0 | | 25.27 | 25.16 | 25.11 | | |
| 15+20 | 75 | 0 | 100 | 0 | 64-QAM | 21.07 | 20.89 | 20.75 | 24.19 | 0.2624 |
| 15+20 | 1 | 0 | 1 | 99 | | 16.12 | 16.00 | 15.83 | | |
| 15+20 | 1 | 74 | 1 | 0 | | 23.99 | 23.86 | 23.92 | | |
| 15+20 | 75 | 0 | 100 | 0 | 256-QAM | 21.08 | 20.81 | 20.82 | 21.28 | 0.1343 |
| 15+20 | 1 | 0 | 1 | 99 | | 16.24 | 15.87 | 15.89 | | |
| 15+20 | 1 | 74 | 1 | 0 | | 21.01 | 20.83 | 20.78 | | |
| Limit | EIRP < 2W | | | | | Result | | | Pass | |



| LTE Band 41C(HPUE)_CA Maximum Average Power [dBm] (GT - LC = 0.2 dB) | | | | | | | | | | |
|--|-----------|-----------|---------|-----------|---------|--------|--------|---------|------------|----------|
| BW [MHz] | PCC | | SCC | | Mod | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| | RB Size | RB Offset | RB Size | RB Offset | | | | | | |
| 20+10 | 100 | 0 | 50 | 0 | QPSK | 21.98 | 21.78 | 21.82 | 26.11 | 0.4083 |
| 20+10 | 1 | 0 | 1 | 49 | | 16.02 | 15.86 | 15.72 | | |
| 20+10 | 1 | 99 | 1 | 0 | | 25.72 | 25.65 | 25.91 | | |
| 20+10 | 100 | 0 | 50 | 0 | 16-QAM | 20.98 | 20.85 | 20.88 | 25.37 | 0.3443 |
| 20+10 | 1 | 0 | 1 | 49 | | 16.13 | 16.38 | 15.78 | | |
| 20+10 | 1 | 99 | 1 | 0 | | 24.87 | 25.17 | 24.68 | | |
| 20+10 | 100 | 0 | 50 | 0 | 64-QAM | 23.72 | 20.85 | 20.79 | 24.13 | 0.2588 |
| 20+10 | 1 | 0 | 1 | 49 | | 15.60 | 15.97 | 15.49 | | |
| 20+10 | 1 | 99 | 1 | 0 | | 23.84 | 23.93 | 23.26 | | |
| 20+10 | 100 | 0 | 50 | 0 | 256-QAM | 22.04 | 21.92 | 21.89 | 22.24 | 0.1675 |
| 20+10 | 1 | 0 | 1 | 49 | | 15.97 | 15.71 | 15.65 | | |
| 20+10 | 1 | 99 | 1 | 0 | | 20.78 | 20.77 | 20.68 | | |
| 10+20 | 50 | 0 | 100 | 0 | QPSK | 22.11 | 21.87 | 21.74 | 25.97 | 0.3954 |
| 10+20 | 1 | 0 | 1 | 99 | | 16.00 | 15.85 | 15.61 | | |
| 10+20 | 1 | 49 | 1 | 0 | | 25.77 | 25.63 | 25.53 | | |
| 10+20 | 50 | 0 | 100 | 0 | 16-QAM | 21.08 | 20.96 | 20.79 | 25.55 | 0.3589 |
| 10+20 | 1 | 0 | 1 | 99 | | 16.51 | 16.37 | 16.17 | | |
| 10+20 | 1 | 49 | 1 | 0 | | 25.35 | 25.16 | 25.09 | | |
| 10+20 | 50 | 0 | 100 | 0 | 64-QAM | 21.07 | 20.93 | 20.73 | 24.27 | 0.2673 |
| 10+20 | 1 | 0 | 1 | 99 | | 16.16 | 16.04 | 15.85 | | |
| 10+20 | 1 | 49 | 1 | 0 | | 24.07 | 23.91 | 23.90 | | |
| 10+20 | 50 | 0 | 100 | 0 | 256-QAM | 21.06 | 20.93 | 20.79 | 21.35 | 0.1365 |
| 10+20 | 1 | 0 | 1 | 99 | | 16.44 | 16.25 | 16.11 | | |
| 10+20 | 1 | 49 | 1 | 0 | | 21.02 | 21.15 | 20.83 | | |
| 20+5 | 100 | 0 | 25 | 0 | QPSK | 20.95 | 20.78 | 20.71 | 25.92 | 0.3908 |
| 20+5 | 1 | 0 | 1 | 24 | | 15.99 | 15.84 | 15.62 | | |
| 20+5 | 1 | 99 | 1 | 0 | | 25.70 | 25.72 | 25.59 | | |
| 20+5 | 100 | 0 | 25 | 0 | 16-QAM | 20.92 | 20.83 | 20.74 | 25.48 | 0.3532 |
| 20+5 | 1 | 0 | 1 | 24 | | 16.48 | 16.37 | 16.16 | | |
| 20+5 | 1 | 99 | 1 | 0 | | 25.28 | 25.23 | 25.21 | | |
| 20+5 | 100 | 0 | 25 | 0 | 64-QAM | 21.00 | 20.86 | 20.80 | 24.10 | 0.2570 |
| 20+5 | 1 | 0 | 1 | 24 | | 16.10 | 15.96 | 15.88 | | |
| 20+5 | 1 | 99 | 1 | 0 | | 23.90 | 23.53 | 23.37 | | |
| 20+5 | 100 | 0 | 25 | 0 | 256-QAM | 21.03 | 20.91 | 20.77 | 21.45 | 0.1396 |
| 20+5 | 1 | 0 | 1 | 24 | | 16.41 | 16.34 | 16.04 | | |
| 20+5 | 1 | 99 | 1 | 0 | | 21.16 | 21.25 | 21.02 | | |
| Limit | EIRP < 2W | | | | Result | | | Pass | | |



| LTE Band 41C(HPUE)_CA Maximum Average Power [dBm] (GT - LC = 0.2 dB) | | | | | | | | | | |
|--|-----------|-----------|---------|-----------|---------|--------|--------|---------|------------|----------|
| BW [MHz] | PCC | | SCC | | Mod | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| | RB Size | RB Offset | RB Size | RB Offset | | | | | | |
| 5+20 | 25 | 0 | 100 | 0 | QPSK | 21.49 | 21.35 | 21.24 | 26.05 | 0.4027 |
| 5+20 | 1 | 0 | 1 | 99 | | 15.99 | 15.80 | 15.64 | | |
| 5+20 | 1 | 24 | 1 | 0 | | 25.85 | 25.67 | 25.57 | | |
| 5+20 | 25 | 0 | 100 | 0 | 16-QAM | 21.04 | 20.88 | 20.77 | 25.59 | 0.3622 |
| 5+20 | 1 | 0 | 1 | 99 | | 16.52 | 16.35 | 16.11 | | |
| 5+20 | 1 | 24 | 1 | 0 | | 25.39 | 25.23 | 25.11 | | |
| 5+20 | 25 | 0 | 100 | 0 | 64-QAM | 21.10 | 20.91 | 20.81 | 24.33 | 0.2710 |
| 5+20 | 1 | 0 | 1 | 99 | | 16.16 | 16.00 | 15.87 | | |
| 5+20 | 1 | 24 | 1 | 0 | | 24.13 | 23.65 | 23.89 | | |
| 5+20 | 25 | 0 | 100 | 0 | 256-QAM | 21.12 | 20.97 | 20.79 | 21.47 | 0.1403 |
| 5+20 | 1 | 0 | 1 | 99 | | 16.42 | 16.31 | 16.04 | | |
| 5+20 | 1 | 24 | 1 | 0 | | 21.26 | 21.27 | 20.86 | | |
| 15+10 | 75 | 0 | 50 | 0 | QPSK | 21.96 | 21.79 | 21.72 | 25.90 | 0.3890 |
| 15+10 | 1 | 0 | 1 | 49 | | 15.98 | 15.82 | 15.63 | | |
| 15+10 | 1 | 74 | 1 | 0 | | 25.70 | 25.54 | 25.50 | | |
| 15+10 | 75 | 0 | 50 | 0 | 16-QAM | 21.04 | 20.84 | 20.75 | 25.51 | 0.3556 |
| 15+10 | 1 | 0 | 1 | 49 | | 16.48 | 16.37 | 16.14 | | |
| 15+10 | 1 | 74 | 1 | 0 | | 25.31 | 25.12 | 25.13 | | |
| 15+10 | 75 | 0 | 50 | 0 | 64-QAM | 21.02 | 20.86 | 20.77 | 24.26 | 0.2667 |
| 15+10 | 1 | 0 | 1 | 49 | | 16.14 | 15.99 | 15.88 | | |
| 15+10 | 1 | 74 | 1 | 0 | | 24.06 | 23.88 | 23.92 | | |
| 15+10 | 75 | 0 | 50 | 0 | 256-QAM | 21.03 | 20.86 | 20.73 | 21.32 | 0.1355 |
| 15+10 | 1 | 0 | 1 | 49 | | 16.42 | 16.27 | 16.03 | | |
| 15+10 | 1 | 74 | 1 | 0 | | 20.98 | 21.12 | 20.79 | | |
| 10+15 | 50 | 0 | 75 | 0 | QPSK | 21.94 | 21.81 | 21.71 | 25.95 | 0.3936 |
| 10+15 | 1 | 0 | 1 | 74 | | 16.00 | 15.85 | 15.65 | | |
| 10+15 | 1 | 49 | 1 | 0 | | 25.75 | 25.59 | 25.46 | | |
| 10+15 | 50 | 0 | 75 | 0 | 16-QAM | 21.01 | 20.90 | 20.77 | 25.47 | 0.3524 |
| 10+15 | 1 | 0 | 1 | 74 | | 16.54 | 16.37 | 16.20 | | |
| 10+15 | 1 | 49 | 1 | 0 | | 25.27 | 25.07 | 25.10 | | |
| 10+15 | 50 | 0 | 75 | 0 | 64-QAM | 21.03 | 20.89 | 20.73 | 24.26 | 0.2667 |
| 10+15 | 1 | 0 | 1 | 74 | | 16.15 | 16.01 | 16.07 | | |
| 10+15 | 1 | 49 | 1 | 0 | | 24.06 | 23.86 | 23.91 | | |
| 10+15 | 50 | 0 | 75 | 0 | 256-QAM | 21.05 | 20.88 | 20.76 | 21.33 | 0.1358 |
| 10+15 | 1 | 0 | 1 | 74 | | 16.43 | 16.29 | 16.05 | | |
| 10+15 | 1 | 49 | 1 | 0 | | 21.12 | 21.13 | 20.81 | | |
| Limit | EIRP < 2W | | | | Result | | | Pass | | |



| LTE Band 41C(HPUE)_CA Maximum Average Power [dBm] (GT - LC = 0.2 dB) | | | | | | | | | | |
|--|-----------|-----------|---------|-----------|---------|--------|--------|---------|------------|----------|
| BW [MHz] | PCC | | SCC | | Mod | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| | RB Size | RB Offset | RB Size | RB Offset | | | | | | |
| 15+15 | 75 | 0 | 75 | 0 | QPSK | 22.03 | 21.82 | 21.77 | 25.92 | 0.3908 |
| 15+15 | 1 | 0 | 1 | 74 | | 15.99 | 15.81 | 15.62 | | |
| 15+15 | 1 | 74 | 1 | 0 | | 25.72 | 25.58 | 25.51 | | |
| 15+15 | 75 | 0 | 75 | 0 | 16-QAM | 21.06 | 20.86 | 20.78 | 25.51 | 0.3556 |
| 15+15 | 1 | 0 | 1 | 74 | | 16.50 | 16.36 | 16.15 | | |
| 15+15 | 1 | 74 | 1 | 0 | | 25.31 | 25.13 | 25.12 | | |
| 15+15 | 75 | 0 | 75 | 0 | 64-QAM | 21.07 | 20.85 | 20.78 | 24.24 | 0.2655 |
| 15+15 | 1 | 0 | 1 | 74 | | 16.14 | 15.99 | 15.85 | | |
| 15+15 | 1 | 74 | 1 | 0 | | 24.04 | 23.86 | 23.98 | | |
| 15+15 | 75 | 0 | 75 | 0 | 256-QAM | 21.07 | 20.85 | 20.76 | 21.28 | 0.1343 |
| 15+15 | 1 | 0 | 1 | 74 | | 16.38 | 16.25 | 16.03 | | |
| 15+15 | 1 | 74 | 1 | 0 | | 21.08 | 21.08 | 20.76 | | |
| Limit | EIRP < 2W | | | | | Result | | | Pass | |



<ASDIV Antenna>

| LTE Band 41C(HPUE)_CA Maximum Average Power [dBm] (GT - LC = -5.5 dB) | | | | | | | | | | |
|---|-----------|-----------|---------|-----------|---------|--------|--------|---------|------------|----------|
| BW [MHz] | PCC | | SCC | | Mod | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| | RB Size | RB Offset | RB Size | RB Offset | | | | | | |
| 20+20 | 100 | 0 | 100 | 0 | QPSK | 21.87 | 21.61 | 21.66 | 20.21 | 0.1050 |
| 20+20 | 1 | 0 | 1 | 99 | | 15.83 | 15.65 | 15.46 | | |
| 20+20 | 1 | 99 | 1 | 0 | | 25.71 | 25.38 | 25.43 | | |
| 20+20 | 100 | 0 | 100 | 0 | 16-QAM | 20.93 | 20.62 | 20.69 | 19.51 | 0.0893 |
| 20+20 | 1 | 0 | 1 | 99 | | 16.25 | 15.97 | 15.78 | | |
| 20+20 | 1 | 99 | 1 | 0 | | 25.01 | 24.71 | 24.79 | | |
| 20+20 | 100 | 0 | 100 | 0 | 64-QAM | 20.97 | 20.63 | 20.59 | 18.46 | 0.0701 |
| 20+20 | 1 | 0 | 1 | 99 | | 15.92 | 15.62 | 15.53 | | |
| 20+20 | 1 | 99 | 1 | 0 | | 23.96 | 23.41 | 23.83 | | |
| 20+20 | 100 | 0 | 100 | 0 | 256-QAM | 20.99 | 20.65 | 20.67 | 15.49 | 0.0354 |
| 20+20 | 1 | 0 | 1 | 99 | | 16.14 | 15.87 | 15.73 | | |
| 20+20 | 1 | 99 | 1 | 0 | | 20.98 | 20.62 | 20.65 | | |
| 20+15 | 100 | 0 | 75 | 0 | QPSK | 20.89 | 20.59 | 20.58 | 20.06 | 0.1014 |
| 20+15 | 1 | 0 | 1 | 74 | | 15.83 | 15.66 | 15.52 | | |
| 20+15 | 1 | 99 | 1 | 0 | | 25.56 | 25.48 | 25.52 | | |
| 20+15 | 100 | 0 | 75 | 0 | 16-QAM | 20.92 | 20.61 | 20.64 | 19.56 | 0.0904 |
| 20+15 | 1 | 0 | 1 | 74 | | 16.27 | 15.99 | 15.76 | | |
| 20+15 | 1 | 99 | 1 | 0 | | 25.06 | 24.84 | 24.89 | | |
| 20+15 | 100 | 0 | 75 | 0 | 64-QAM | 20.97 | 20.67 | 20.52 | 18.51 | 0.0710 |
| 20+15 | 1 | 0 | 1 | 74 | | 15.95 | 15.67 | 15.56 | | |
| 20+15 | 1 | 99 | 1 | 0 | | 24.01 | 23.54 | 23.98 | | |
| 20+15 | 100 | 0 | 75 | 0 | 256-QAM | 20.95 | 20.68 | 20.55 | 15.46 | 0.0352 |
| 20+15 | 1 | 0 | 1 | 74 | | 16.16 | 15.71 | 15.71 | | |
| 20+15 | 1 | 99 | 1 | 0 | | 20.96 | 20.70 | 20.68 | | |
| 15+20 | 75 | 0 | 100 | 0 | QPSK | 23.88 | 23.64 | 23.54 | 19.92 | 0.0982 |
| 15+20 | 1 | 0 | 1 | 99 | | 15.86 | 15.62 | 15.46 | | |
| 15+20 | 1 | 74 | 1 | 0 | | 25.35 | 25.42 | 25.33 | | |
| 15+20 | 75 | 0 | 100 | 0 | 16-QAM | 20.83 | 20.72 | 20.61 | 19.53 | 0.0897 |
| 15+20 | 1 | 0 | 1 | 99 | | 16.38 | 15.97 | 15.78 | | |
| 15+20 | 1 | 74 | 1 | 0 | | 25.03 | 24.74 | 24.77 | | |
| 15+20 | 75 | 0 | 100 | 0 | 64-QAM | 20.93 | 20.68 | 20.62 | 18.37 | 0.0687 |
| 15+20 | 1 | 0 | 1 | 99 | | 15.98 | 15.68 | 15.54 | | |
| 15+20 | 1 | 74 | 1 | 0 | | 23.87 | 23.69 | 23.86 | | |
| 15+20 | 75 | 0 | 100 | 0 | 256-QAM | 20.92 | 20.67 | 20.59 | 15.42 | 0.0348 |
| 15+20 | 1 | 0 | 1 | 99 | | 16.03 | 15.79 | 15.67 | | |
| 15+20 | 1 | 74 | 1 | 0 | | 20.77 | 20.68 | 20.57 | | |
| Limit | EIRP < 2W | | | | | Result | | | Pass | |



| LTE Band 41C(HPUE)_CA Maximum Average Power [dBm] (GT - LC = -5.5 dB) | | | | | | | | | | |
|---|-----------|-----------|---------|-----------|---------|--------|--------|---------|------------|----------|
| BW [MHz] | PCC | | SCC | | Mod | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| | RB Size | RB Offset | RB Size | RB Offset | | | | | | |
| 20+10 | 100 | 0 | 50 | 0 | QPSK | 21.85 | 21.53 | 21.66 | 20.18 | 0.1042 |
| 20+10 | 1 | 0 | 1 | 49 | | 15.93 | 15.67 | 15.58 | | |
| 20+10 | 1 | 99 | 1 | 0 | | 25.68 | 25.58 | 25.67 | | |
| 20+10 | 100 | 0 | 50 | 0 | 16-QAM | 20.95 | 20.66 | 20.71 | 19.33 | 0.0857 |
| 20+10 | 1 | 0 | 1 | 49 | | 16.02 | 15.99 | 15.63 | | |
| 20+10 | 1 | 99 | 1 | 0 | | 24.79 | 24.83 | 24.61 | | |
| 20+10 | 100 | 0 | 50 | 0 | 64-QAM | 20.95 | 20.65 | 20.66 | 18.25 | 0.0668 |
| 20+10 | 1 | 0 | 1 | 49 | | 15.55 | 15.73 | 15.41 | | |
| 20+10 | 1 | 99 | 1 | 0 | | 23.75 | 23.49 | 23.16 | | |
| 20+10 | 100 | 0 | 50 | 0 | 256-QAM | 21.86 | 21.68 | 21.71 | 16.36 | 0.0433 |
| 20+10 | 1 | 0 | 1 | 49 | | 15.88 | 15.58 | 15.62 | | |
| 20+10 | 1 | 99 | 1 | 0 | | 20.68 | 20.58 | 20.61 | | |
| 10+20 | 50 | 0 | 100 | 0 | QPSK | 21.97 | 21.66 | 21.50 | 20.18 | 0.1042 |
| 10+20 | 1 | 0 | 1 | 99 | | 15.91 | 15.67 | 15.53 | | |
| 10+20 | 1 | 49 | 1 | 0 | | 25.68 | 25.52 | 25.32 | | |
| 10+20 | 50 | 0 | 100 | 0 | 16-QAM | 20.99 | 20.69 | 20.59 | 19.59 | 0.0910 |
| 10+20 | 1 | 0 | 1 | 99 | | 16.36 | 16.03 | 16.02 | | |
| 10+20 | 1 | 49 | 1 | 0 | | 25.09 | 24.87 | 24.89 | | |
| 10+20 | 50 | 0 | 100 | 0 | 64-QAM | 21.03 | 20.72 | 20.56 | 18.48 | 0.0705 |
| 10+20 | 1 | 0 | 1 | 99 | | 15.98 | 15.72 | 15.63 | | |
| 10+20 | 1 | 49 | 1 | 0 | | 23.98 | 23.50 | 23.73 | | |
| 10+20 | 50 | 0 | 100 | 0 | 256-QAM | 20.95 | 20.75 | 20.57 | 15.46 | 0.0352 |
| 10+20 | 1 | 0 | 1 | 99 | | 16.20 | 15.94 | 15.43 | | |
| 10+20 | 1 | 49 | 1 | 0 | | 20.96 | 20.75 | 20.79 | | |
| 20+5 | 100 | 0 | 25 | 0 | QPSK | 20.86 | 20.53 | 20.54 | 20.14 | 0.1033 |
| 20+5 | 1 | 0 | 1 | 24 | | 15.92 | 15.61 | 15.52 | | |
| 20+5 | 1 | 99 | 1 | 0 | | 25.64 | 25.55 | 25.49 | | |
| 20+5 | 100 | 0 | 25 | 0 | 16-QAM | 20.88 | 20.56 | 20.62 | 19.57 | 0.0906 |
| 20+5 | 1 | 0 | 1 | 24 | | 16.25 | 15.96 | 15.86 | | |
| 20+5 | 1 | 99 | 1 | 0 | | 25.07 | 24.98 | 24.89 | | |
| 20+5 | 100 | 0 | 25 | 0 | 64-QAM | 20.89 | 20.58 | 20.63 | 17.84 | 0.0608 |
| 20+5 | 1 | 0 | 1 | 24 | | 15.94 | 15.69 | 15.62 | | |
| 20+5 | 1 | 99 | 1 | 0 | | 23.34 | 22.88 | 23.22 | | |
| 20+5 | 100 | 0 | 25 | 0 | 256-QAM | 20.96 | 20.59 | 20.57 | 15.46 | 0.0352 |
| 20+5 | 1 | 0 | 1 | 24 | | 16.12 | 15.91 | 15.71 | | |
| 20+5 | 1 | 99 | 1 | 0 | | 20.95 | 20.78 | 20.71 | | |
| Limit | EIRP < 2W | | | | | Result | | | Pass | |



| LTE Band 41C(HPUE)_CA Maximum Average Power [dBm] (GT - LC = -5.5 dB) | | | | | | | | | | |
|---|-----------|-----------|---------|-----------|---------|--------|--------|---------|------------|----------|
| BW [MHz] | PCC | | SCC | | Mod | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| | RB Size | RB Offset | RB Size | RB Offset | | | | | | |
| 5+20 | 25 | 0 | 100 | 0 | QPSK | 21.41 | 21.08 | 21.05 | 20.29 | 0.1069 |
| 5+20 | 1 | 0 | 1 | 99 | | 15.92 | 15.67 | 15.56 | | |
| 5+20 | 1 | 24 | 1 | 0 | | 25.79 | 25.52 | 25.46 | | |
| 5+20 | 25 | 0 | 100 | 0 | 16-QAM | 20.93 | 20.59 | 20.51 | 19.62 | 0.0916 |
| 5+20 | 1 | 0 | 1 | 99 | | 16.25 | 15.92 | 15.87 | | |
| 5+20 | 1 | 24 | 1 | 0 | | 25.12 | 24.91 | 24.79 | | |
| 5+20 | 25 | 0 | 100 | 0 | 64-QAM | 20.97 | 20.72 | 20.59 | 18.58 | 0.0721 |
| 5+20 | 1 | 0 | 1 | 99 | | 15.94 | 15.63 | 15.65 | | |
| 5+20 | 1 | 24 | 1 | 0 | | 24.08 | 23.17 | 23.82 | | |
| 5+20 | 25 | 0 | 100 | 0 | 256-QAM | 21.01 | 20.67 | 20.59 | 15.51 | 0.0356 |
| 5+20 | 1 | 0 | 1 | 99 | | 16.15 | 15.91 | 15.75 | | |
| 5+20 | 1 | 24 | 1 | 0 | | 20.99 | 20.88 | 20.59 | | |
| 15+10 | 75 | 0 | 50 | 0 | QPSK | 21.88 | 21.54 | 21.56 | 19.93 | 0.0984 |
| 15+10 | 1 | 0 | 1 | 49 | | 15.91 | 15.65 | 15.56 | | |
| 15+10 | 1 | 74 | 1 | 0 | | 25.34 | 25.41 | 25.43 | | |
| 15+10 | 75 | 0 | 50 | 0 | 16-QAM | 20.95 | 20.58 | 20.58 | 19.61 | 0.0914 |
| 15+10 | 1 | 0 | 1 | 49 | | 16.33 | 16.02 | 15.87 | | |
| 15+10 | 1 | 74 | 1 | 0 | | 25.11 | 23.81 | 24.97 | | |
| 15+10 | 75 | 0 | 50 | 0 | 64-QAM | 20.94 | 20.61 | 20.63 | 18.38 | 0.0689 |
| 15+10 | 1 | 0 | 1 | 49 | | 15.96 | 15.67 | 15.61 | | |
| 15+10 | 1 | 74 | 1 | 0 | | 23.88 | 23.43 | 23.88 | | |
| 15+10 | 75 | 0 | 50 | 0 | 256-QAM | 20.95 | 20.63 | 20.65 | 15.45 | 0.0351 |
| 15+10 | 1 | 0 | 1 | 49 | | 16.22 | 15.92 | 15.74 | | |
| 15+10 | 1 | 74 | 1 | 0 | | 20.77 | 20.66 | 20.63 | | |
| 10+15 | 50 | 0 | 75 | 0 | QPSK | 21.88 | 21.68 | 21.54 | 20.16 | 0.1038 |
| 10+15 | 1 | 0 | 1 | 74 | | 15.88 | 15.62 | 15.53 | | |
| 10+15 | 1 | 49 | 1 | 0 | | 25.66 | 25.44 | 25.41 | | |
| 10+15 | 50 | 0 | 75 | 0 | 16-QAM | 20.95 | 20.63 | 20.54 | 19.54 | 0.0899 |
| 10+15 | 1 | 0 | 1 | 74 | | 16.35 | 15.98 | 15.97 | | |
| 10+15 | 1 | 49 | 1 | 0 | | 25.04 | 24.77 | 24.75 | | |
| 10+15 | 50 | 0 | 75 | 0 | 64-QAM | 20.93 | 20.68 | 20.63 | 18.49 | 0.0706 |
| 10+15 | 1 | 0 | 1 | 74 | | 15.98 | 15.63 | 15.56 | | |
| 10+15 | 1 | 49 | 1 | 0 | | 23.99 | 23.48 | 23.85 | | |
| 10+15 | 50 | 0 | 75 | 0 | 256-QAM | 20.96 | 20.68 | 20.61 | 15.46 | 0.0352 |
| 10+15 | 1 | 0 | 1 | 74 | | 16.24 | 15.87 | 15.73 | | |
| 10+15 | 1 | 49 | 1 | 0 | | 20.94 | 20.65 | 20.59 | | |
| Limit | EIRP < 2W | | | | Result | | | Pass | | |



| LTE Band 41C(HPUE)_CA Maximum Average Power [dBm] (GT - LC = -5.5 dB) | | | | | | | | | | |
|---|-----------|-----------|---------|-----------|---------|--------|--------|---------|------------|----------|
| BW [MHz] | PCC | | SCC | | Mod | Lowest | Middle | Highest | EIRP (dBm) | EIRP (W) |
| | RB Size | RB Offset | RB Size | RB Offset | | | | | | |
| 15+15 | 75 | 0 | 75 | 0 | QPSK | 21.88 | 21.50 | 21.63 | 20.18 | 0.1042 |
| 15+15 | 1 | 0 | 1 | 74 | | 15.92 | 15.59 | 15.49 | | |
| 15+15 | 1 | 74 | 1 | 0 | | 25.68 | 25.41 | 25.42 | | |
| 15+15 | 75 | 0 | 75 | 0 | 16-QAM | 20.85 | 20.56 | 20.54 | 19.51 | 0.0893 |
| 15+15 | 1 | 0 | 1 | 74 | | 16.24 | 15.96 | 15.83 | | |
| 15+15 | 1 | 74 | 1 | 0 | | 25.01 | 24.64 | 24.78 | | |
| 15+15 | 75 | 0 | 75 | 0 | 64-QAM | 20.89 | 20.57 | 20.58 | 18.45 | 0.0700 |
| 15+15 | 1 | 0 | 1 | 74 | | 15.89 | 15.53 | 15.55 | | |
| 15+15 | 1 | 74 | 1 | 0 | | 23.95 | 23.38 | 23.75 | | |
| 15+15 | 75 | 0 | 75 | 0 | 256-QAM | 20.94 | 20.55 | 20.54 | 15.44 | 0.0350 |
| 15+15 | 1 | 0 | 1 | 74 | | 15.99 | 15.88 | 15.71 | | |
| 15+15 | 1 | 74 | 1 | 0 | | 20.87 | 20.56 | 20.55 | | |
| Limit | EIRP < 2W | | | | | Result | | | Pass | |



LTE Band 41C

26dB Bandwidth

| Mode | LTE Band 41C : 26dB BW(MHz) | | | | |
|-----------|-----------------------------|-------------|-------------|-------------|-------------|
| QPSK | | | | | |
| BW | 5MHz+20MHz | 10MHz+15MHz | 10MHz+20MHz | 15MHz+10MHz | 15MHz+15MHz |
| Middle CH | 24.73 | 25.03 | 29.79 | 25.23 | 30.57 |
| BW | 15MHz+20MHz | 20MHz+5MHz | 20MHz+10MHz | 20MHz+15MHz | 20MHz+20MHz |
| Middle CH | 34.76 | 24.83 | 29.91 | 34.90 | 39.64 |

| Mode | LTE Band 41C : 26dB BW(MHz) | | | | |
|-----------|-----------------------------|-------------|-------------|-------------|-------------|
| 16QAM | | | | | |
| BW | 5MHz+20MHz | 10MHz+15MHz | 10MHz+20MHz | 15MHz+10MHz | 15MHz+15MHz |
| Middle CH | 24.53 | 25.13 | 29.73 | 25.33 | 30.51 |
| BW | 15MHz+20MHz | 20MHz+5MHz | 20MHz+10MHz | 20MHz+15MHz | 20MHz+20MHz |
| Middle CH | 34.90 | 24.83 | 30.03 | 34.90 | 39.80 |

| Mode | LTE Band 41C : 26dB BW(MHz) | | | | |
|-----------|-----------------------------|-------------|-------------|-------------|-------------|
| 64QAM | | | | | |
| BW | 5MHz+20MHz | 10MHz+15MHz | 10MHz+20MHz | 15MHz+10MHz | 15MHz+15MHz |
| Middle CH | 24.68 | 24.93 | 29.73 | 25.08 | 30.63 |
| BW | 15MHz+20MHz | 20MHz+5MHz | 20MHz+10MHz | 20MHz+15MHz | 20MHz+20MHz |
| Middle CH | 34.83 | 24.88 | 30.03 | 34.97 | 39.96 |

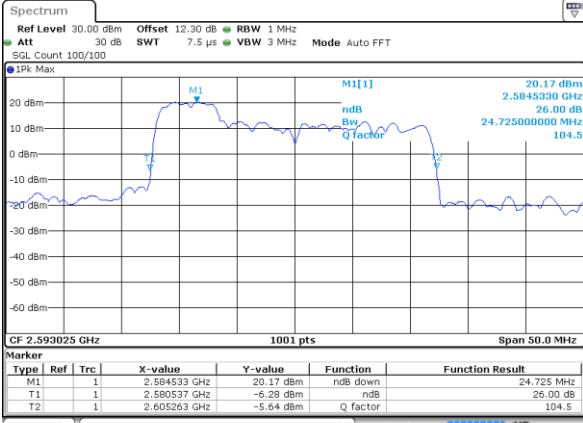
| Mode | LTE Band 41C : 26dB BW(MHz) | | | | |
|-----------|-----------------------------|-------------|-------------|-------------|-------------|
| 256QAM | | | | | |
| BW | 5MHz+20MHz | 10MHz+15MHz | 10MHz+20MHz | 15MHz+10MHz | 15MHz+15MHz |
| Middle CH | 24.68 | 25.23 | 30.15 | 25.13 | 30.63 |
| BW | 15MHz+20MHz | 20MHz+5MHz | 20MHz+10MHz | 20MHz+15MHz | 20MHz+20MHz |
| Middle CH | 34.69 | 24.78 | 29.91 | 34.90 | 39.96 |



LTE Band 41C

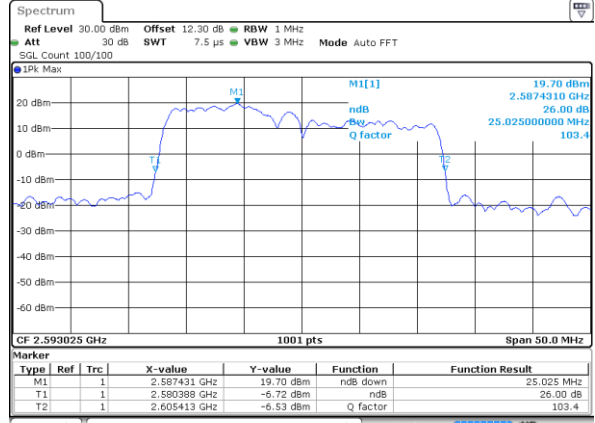
QPSK

Middle Channel / 5MHz+20MHz



Date: 5 JAN 2021 19:55:30

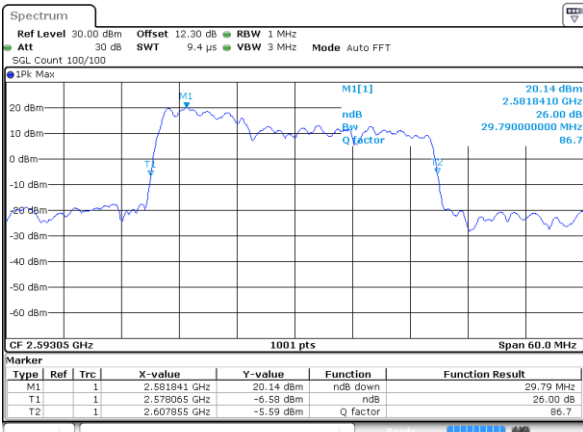
Middle Channel / 10MHz+15MHz



Date: 5 JAN 2021 20:02:11

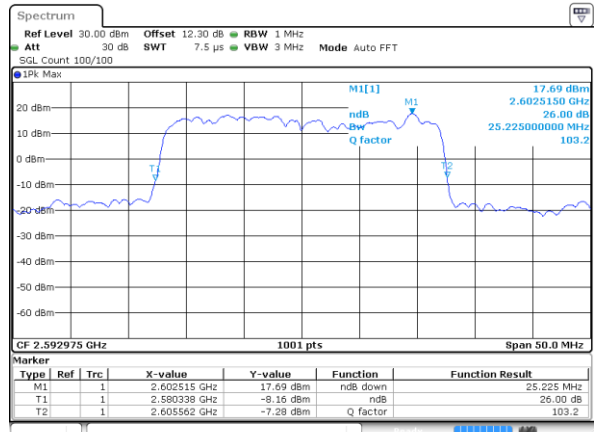
QPSK

Middle Channel / 10MHz+20MHz



Date: 5 JAN 2021 20:08:51

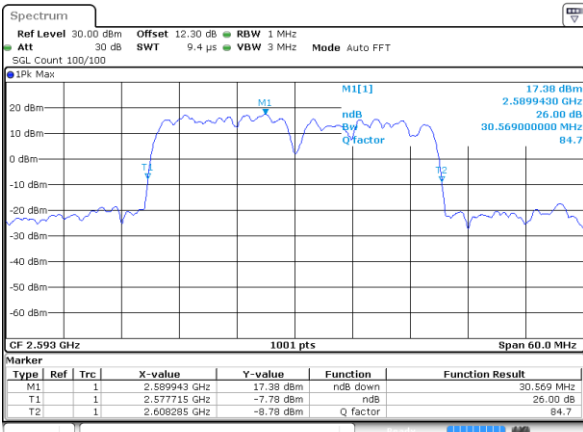
Middle Channel / 15MHz+10MHz



Date: 5 JAN 2021 20:05:31

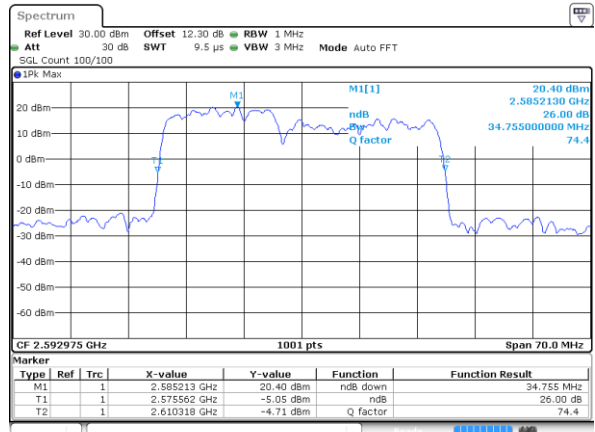
QPSK

Middle Channel / 15MHz+15MHz



Date: 5 JAN 2021 20:15:31

Middle Channel / 15MHz+20MHz



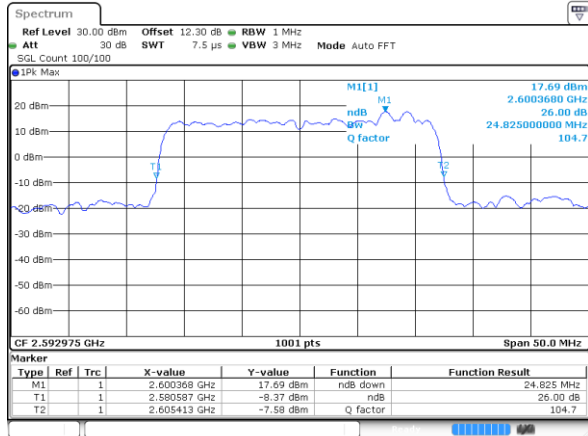
Date: 5 JAN 2021 20:18:51



LTE Band 41C

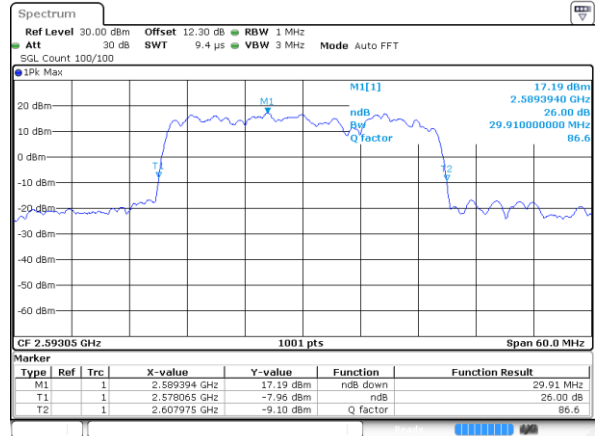
QPSK

Middle Channel / 20MHz+5MHz



Date: 5 JAN 2021 19:58:51

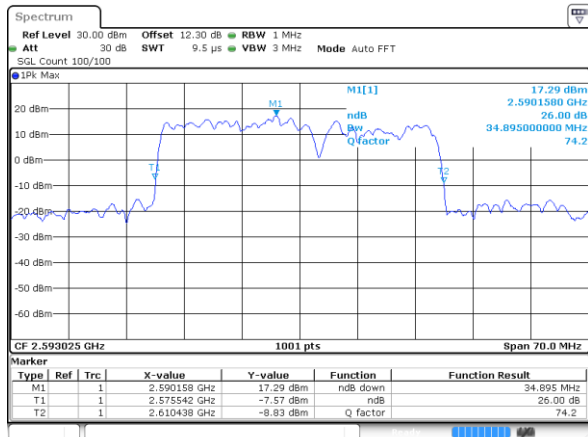
Middle Channel / 20MHz+10MHz



Date: 5 JAN 2021 20:12:11

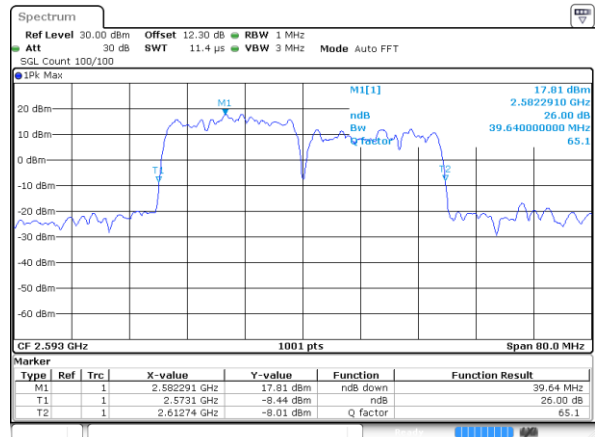
QPSK

Middle Channel / 20MHz+15MHz



Date: 5 JAN 2021 20:22:12

Middle Channel / 20MHz+20MHz



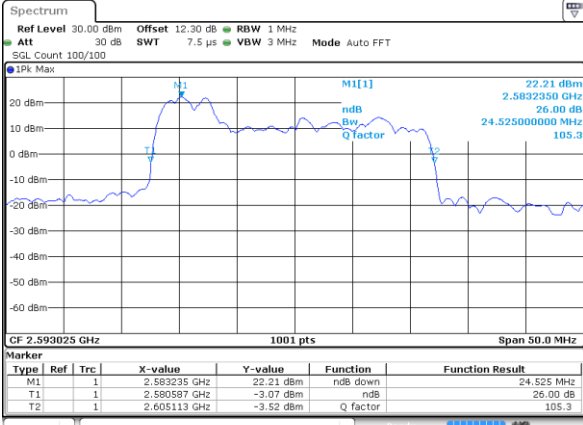
Date: 5 JAN 2021 20:25:31



LTE Band 41C

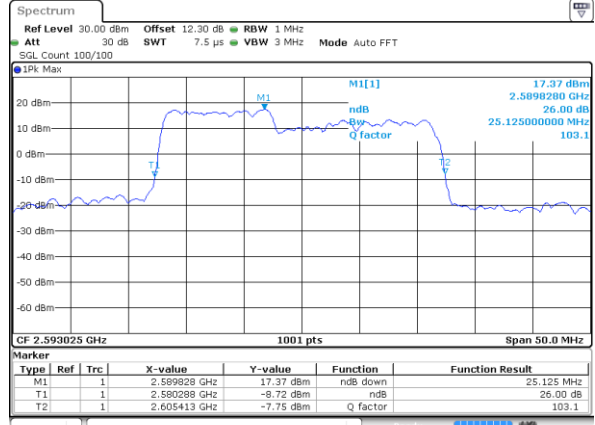
16QAM

Middle Channel / 5MHz+20MHz



Date: 5 JAN 2021 19:54:58

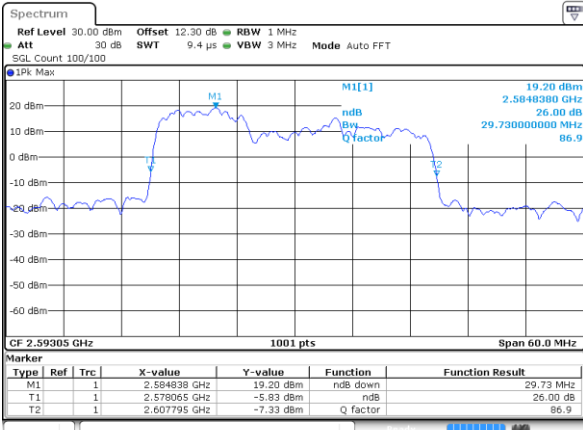
Middle Channel / 10MHz+15MHz



Date: 5 JAN 2021 20:01:38

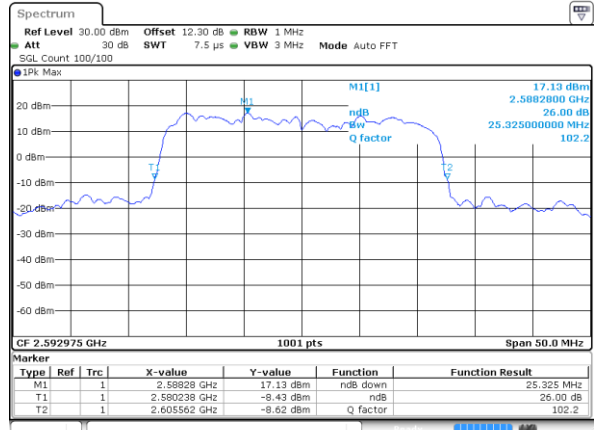
16QAM

Middle Channel / 10MHz+20MHz



Date: 5 JAN 2021 20:08:18

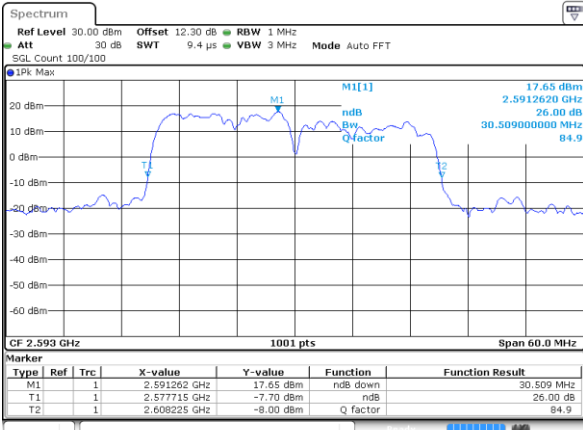
Middle Channel / 15MHz+10MHz



Date: 5 JAN 2021 20:04:58

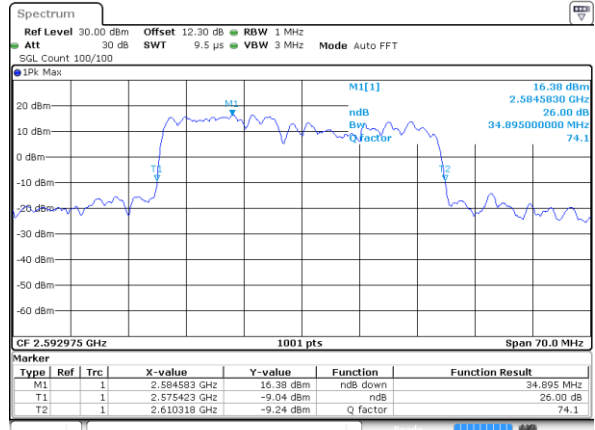
16QAM

Middle Channel / 15MHz+15MHz



Date: 5 JAN 2021 20:14:59

Middle Channel / 15MHz+20MHz



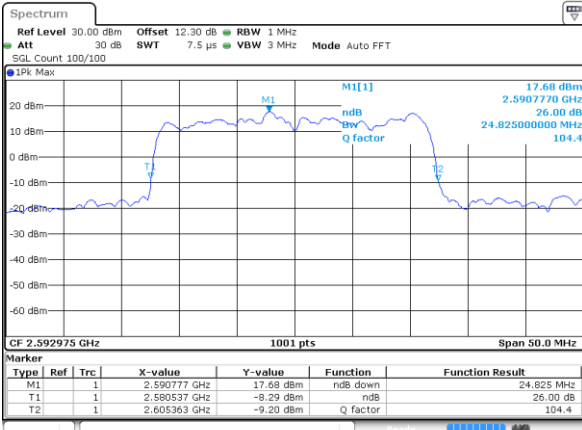
Date: 5 JAN 2021 20:18:19



LTE Band 41C

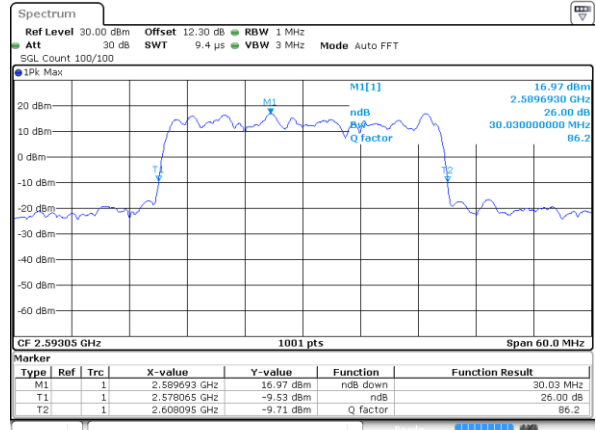
16QAM

Middle Channel / 20MHz+5MHz



Date: 5 JAN 2021 19:58:19

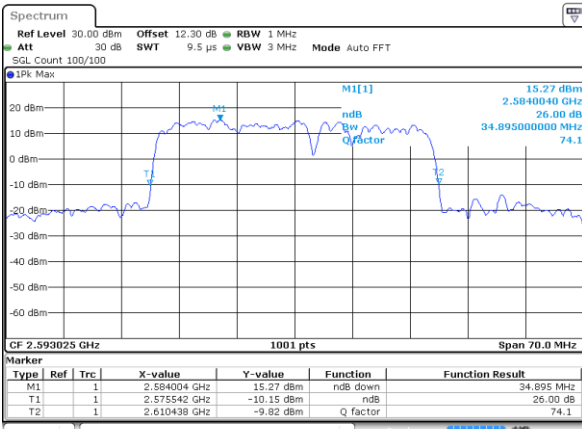
Middle Channel / 20MHz+10MHz



Date: 5 JAN 2021 20:11:39

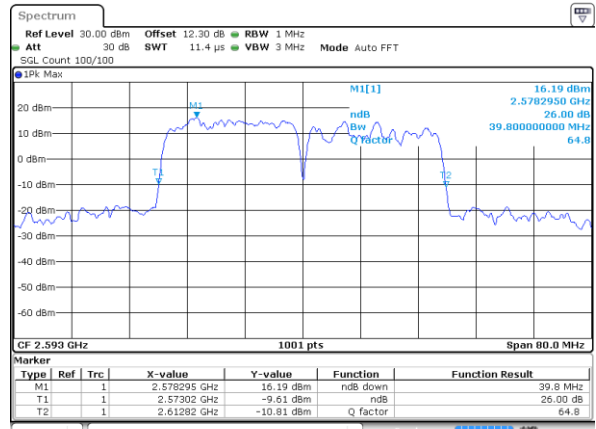
16QAM

Middle Channel / 20MHz+15MHz



Date: 5 JAN 2021 20:21:39

Middle Channel / 20MHz+20MHz



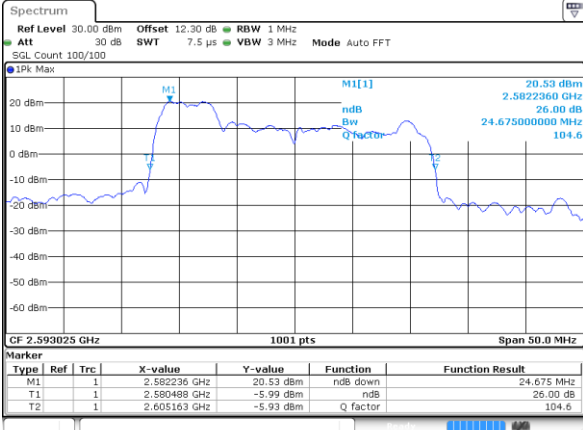
Date: 5 JAN 2021 20:24:59



LTE Band 41C

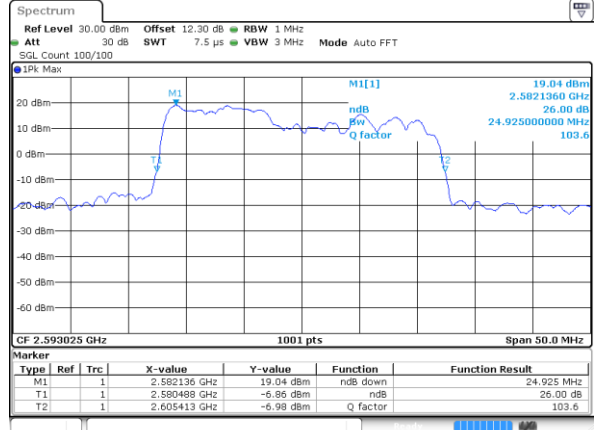
64QAM

Middle Channel / 5MHz+20MHz



Date: 5 JAN 2021 19:54:25

Middle Channel / 10MHz+15MHz



Date: 5 JAN 2021 20:01:08

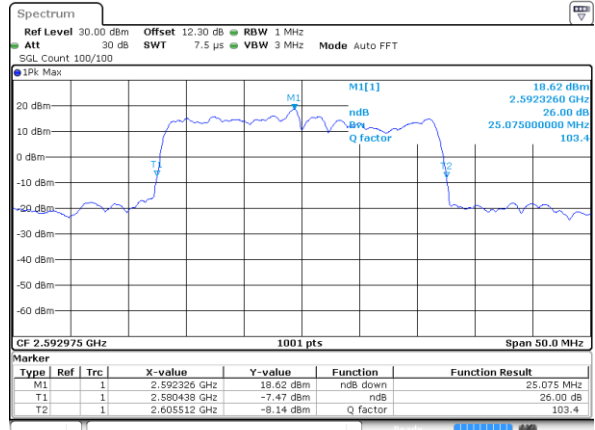
64QAM

Middle Channel / 10MHz+20MHz



Date: 5 JAN 2021 20:07:46

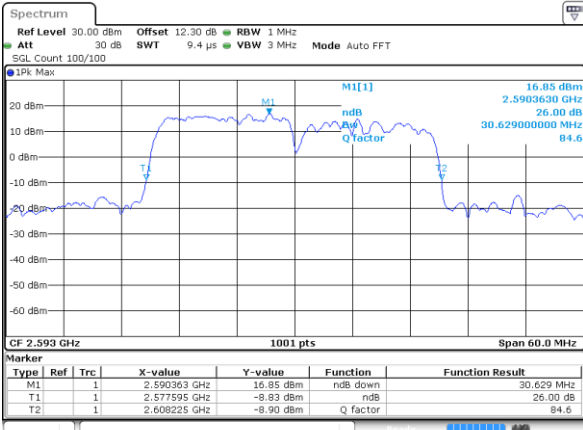
Middle Channel / 15MHz+10MHz



Date: 5 JAN 2021 20:04:26

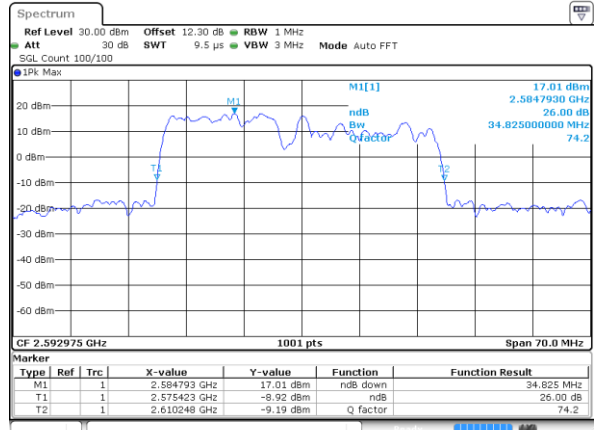
64QAM

Middle Channel / 15MHz+15MHz



Date: 5 JAN 2021 20:14:27

Middle Channel / 15MHz+20MHz



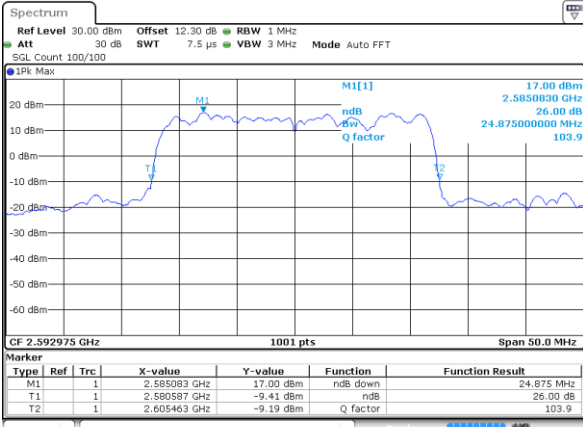
Date: 5 JAN 2021 20:17:47



LTE Band 41C

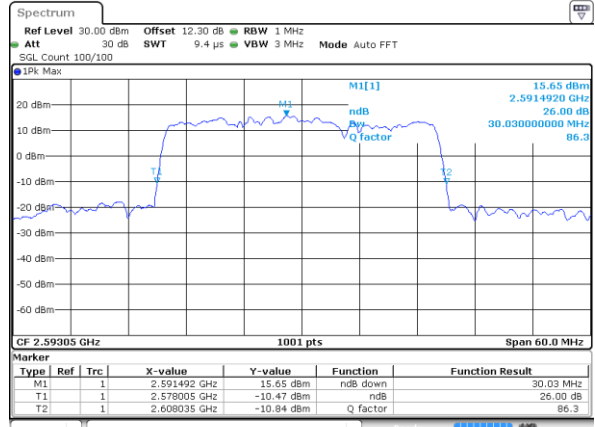
64QAM

Middle Channel / 20MHz+5MHz



Date: 5 JAN 2021 19:57:46

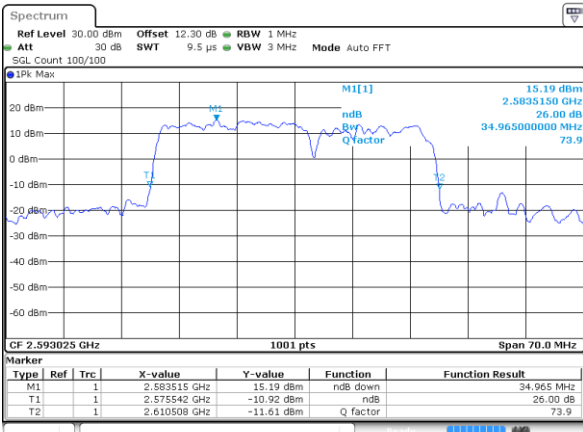
Middle Channel / 20MHz+10MHz



Date: 5 JAN 2021 20:11:07

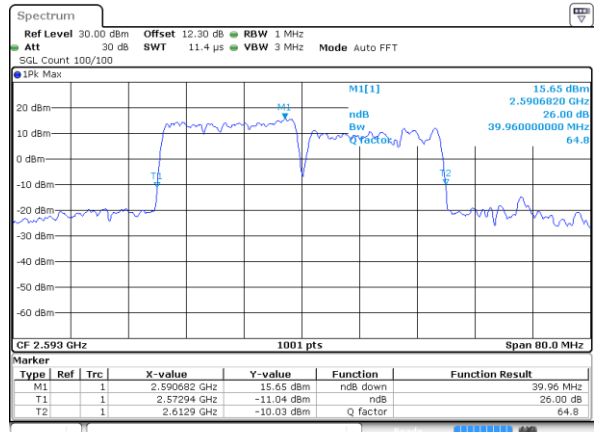
64QAM

Middle Channel / 20MHz+15MHz



Date: 5 JAN 2021 20:21:07

Middle Channel / 20MHz+20MHz



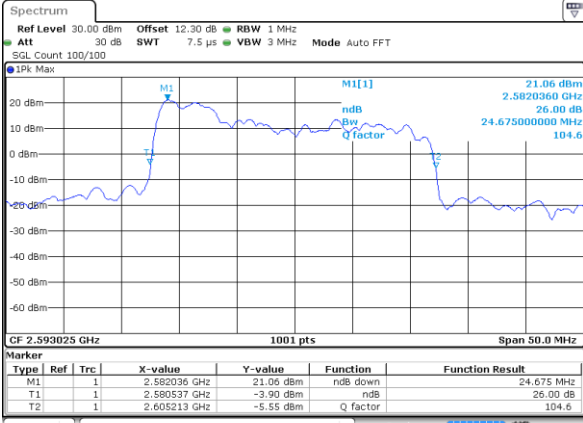
Date: 5 JAN 2021 20:24:26



LTE Band 41C

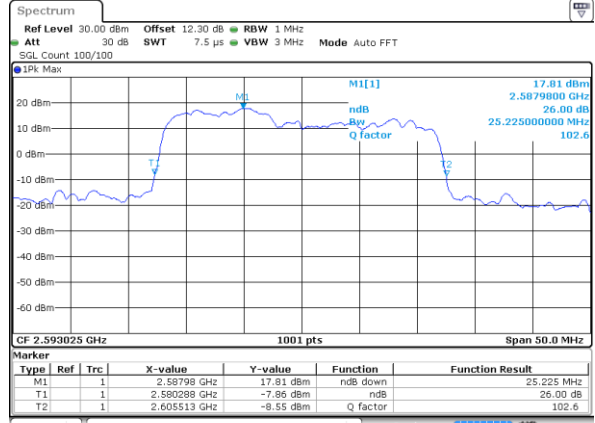
256QAM

Middle Channel / 5MHz+20MHz



Date: 5 JAN 2021 20:30:00

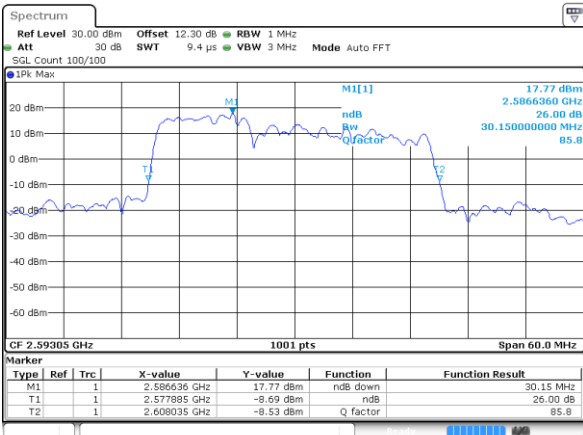
Middle Channel / 10MHz+15MHz



Date: 5 JAN 2021 20:32:14

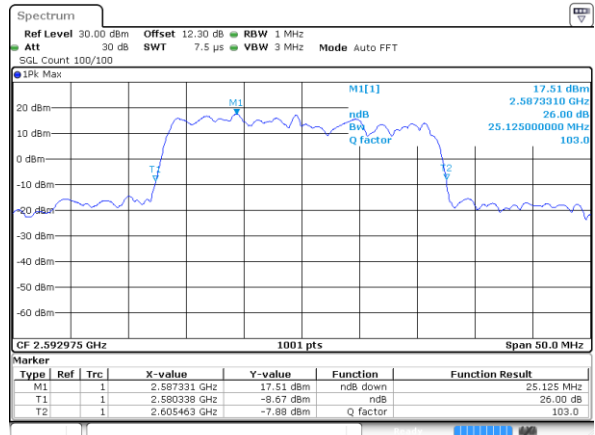
256QAM

Middle Channel / 10MHz+20MHz



Date: 5 JAN 2021 20:34:28

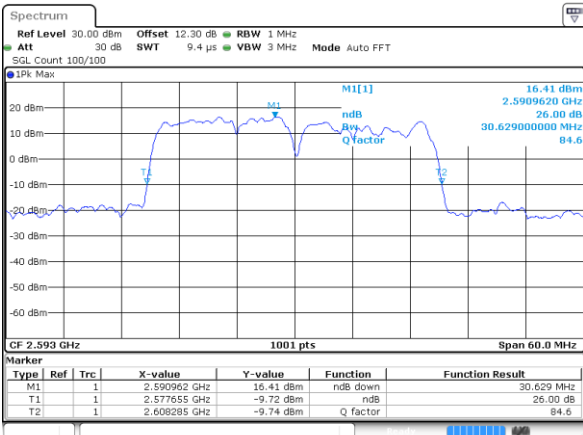
Middle Channel / 15MHz+10MHz



Date: 5 JAN 2021 20:33:20

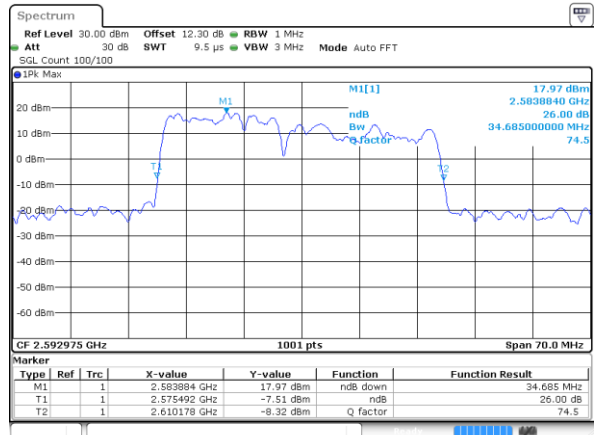
256QAM

Middle Channel / 15MHz+15MHz



Date: 5 JAN 2021 20:36:42

Middle Channel / 15MHz+20MHz



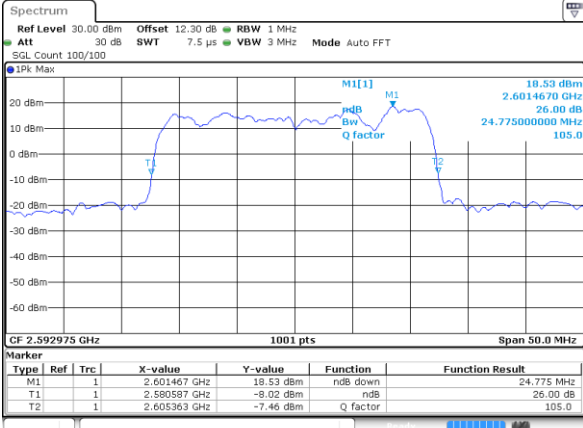
Date: 5 JAN 2021 20:37:48



LTE Band 41C

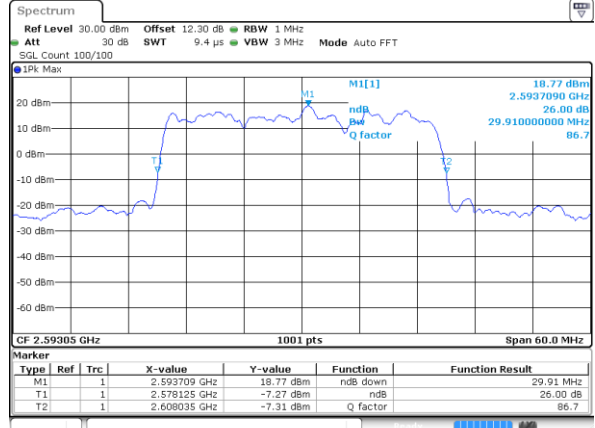
256QAM

Middle Channel / 20MHz+5MHz



Date: 5 JAN 2021 20:31:07

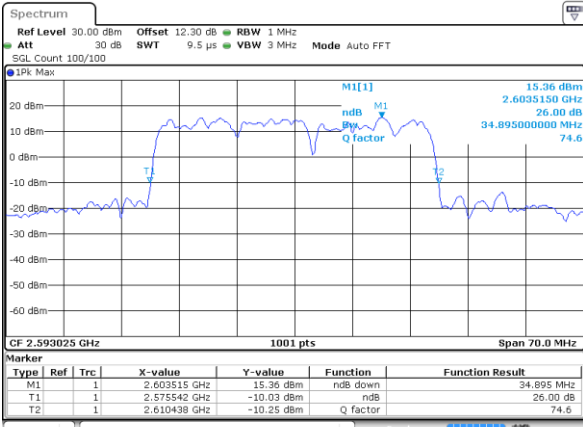
Middle Channel / 20MHz+10MHz



Date: 5 JAN 2021 20:35:35

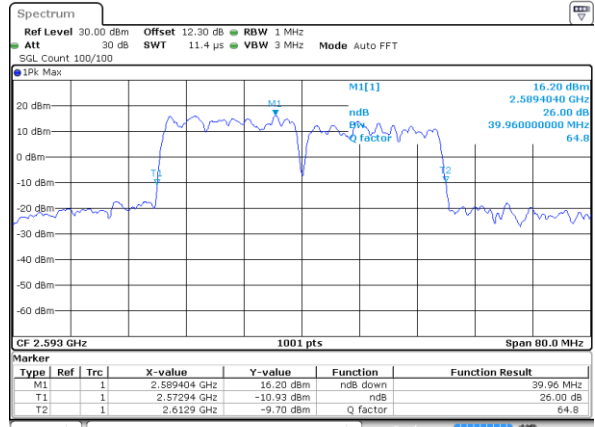
256QAM

Middle Channel / 20MHz+15MHz



Date: 5 JAN 2021 20:38:55

Middle Channel / 20MHz+20MHz



Date: 5 JAN 2021 20:40:02



Occupied Bandwidth

| Mode | LTE Band 41C : 99%OBW(MHz) | | | | |
|-----------|----------------------------|-------------|-------------|-------------|-------------|
| QPSK | | | | | |
| BW | 5MHz+20MHz | 10MHz+15MHz | 10MHz+20MHz | 15MHz+10MHz | 15MHz+15MHz |
| Middle CH | 23.23 | 23.33 | 27.45 | 23.18 | 28.65 |
| BW | 15MHz+20MHz | 20MHz+5MHz | 20MHz+10MHz | 20MHz+15MHz | 20MHz+20MHz |
| Middle CH | 32.80 | 23.18 | 27.87 | 32.66 | 37.72 |

| Mode | LTE Band 41C : 99%OBW(MHz) | | | | |
|-----------|----------------------------|-------------|-------------|-------------|-------------|
| 16QAM | | | | | |
| BW | 5MHz+20MHz | 10MHz+15MHz | 10MHz+20MHz | 15MHz+10MHz | 15MHz+15MHz |
| Middle CH | 22.98 | 23.43 | 27.87 | 23.33 | 28.71 |
| BW | 15MHz+20MHz | 20MHz+5MHz | 20MHz+10MHz | 20MHz+15MHz | 20MHz+20MHz |
| Middle CH | 32.94 | 23.43 | 27.93 | 32.94 | 37.16 |

| Mode | LTE Band 41C : 99%OBW(MHz) | | | | |
|-----------|----------------------------|-------------|-------------|-------------|-------------|
| 64QAM | | | | | |
| BW | 5MHz+20MHz | 10MHz+15MHz | 10MHz+20MHz | 15MHz+10MHz | 15MHz+15MHz |
| Middle CH | 22.93 | 23.38 | 28.17 | 23.43 | 28.59 |
| BW | 15MHz+20MHz | 20MHz+5MHz | 20MHz+10MHz | 20MHz+15MHz | 20MHz+20MHz |
| Middle CH | 32.80 | 23.08 | 27.87 | 33.01 | 37.88 |

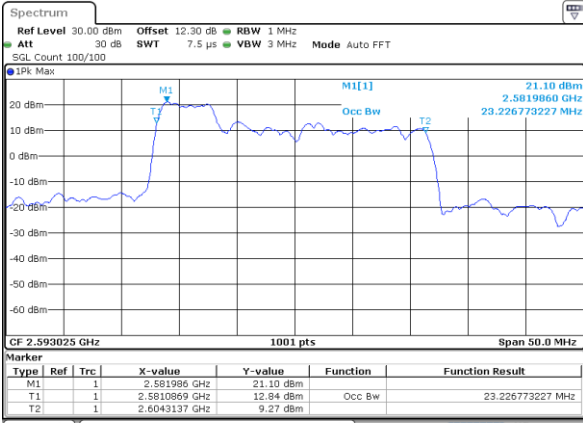
| Mode | LTE Band 41C : 99%OBW(MHz) | | | | |
|-----------|----------------------------|-------------|-------------|-------------|-------------|
| 256QAM | | | | | |
| BW | 5MHz+20MHz | 10MHz+15MHz | 10MHz+20MHz | 15MHz+10MHz | 15MHz+15MHz |
| Middle CH | 23.13 | 23.38 | 27.81 | 23.28 | 28.41 |
| BW | 15MHz+20MHz | 20MHz+5MHz | 20MHz+10MHz | 20MHz+15MHz | 20MHz+20MHz |
| Middle CH | 32.59 | 23.28 | 28.05 | 32.80 | 37.72 |



LTE Band 41C

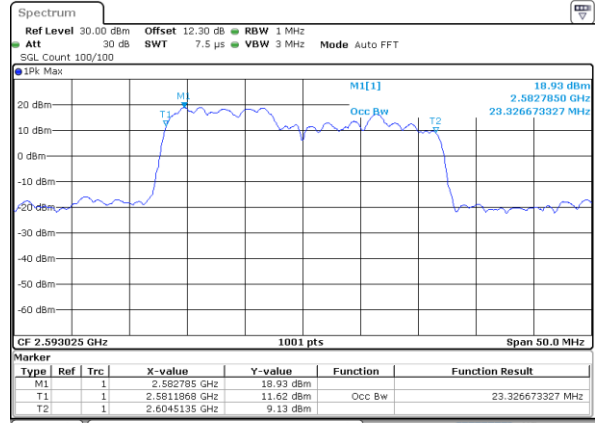
QPSK

Middle Channel / 5MHz+20MHz



Date: 5 JAN 2021 19:52:43

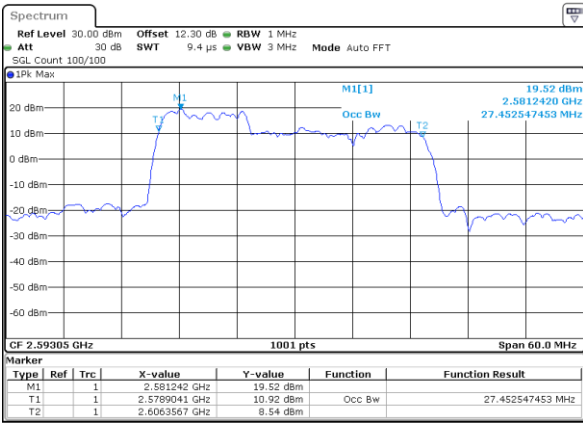
Middle Channel / 10MHz+15MHz



Date: 5 JAN 2021 19:59:24

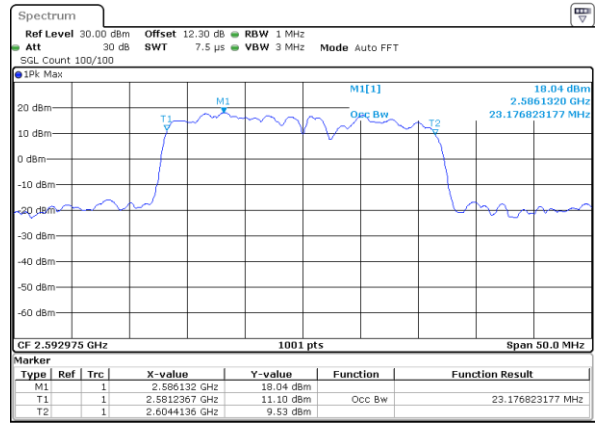
QPSK

Middle Channel / 10MHz+20MHz



Date: 5 JAN 2021 20:06:04

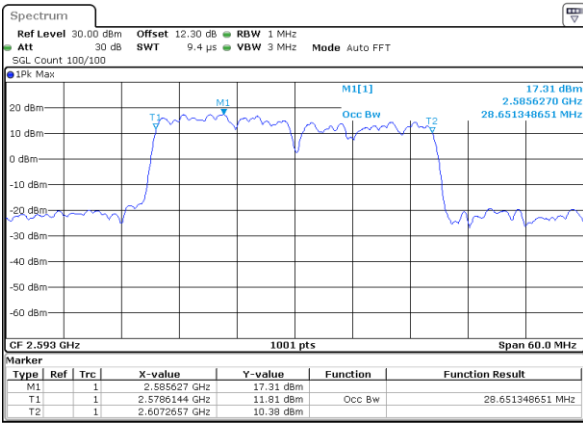
Middle Channel / 15MHz+10MHz



Date: 5 JAN 2021 20:02:44

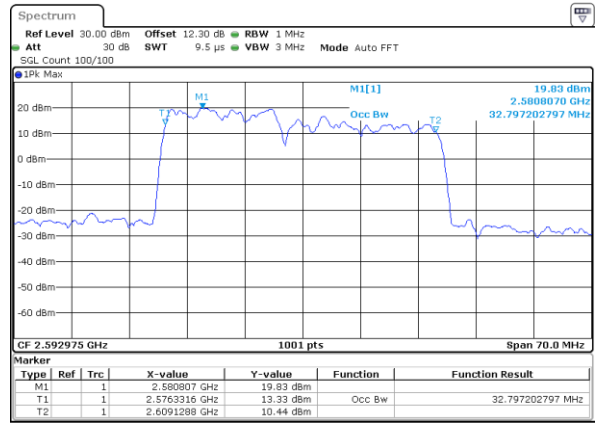
QPSK

Middle Channel / 15MHz+15MHz



Date: 5 JAN 2021 20:12:44

Middle Channel / 15MHz+20MHz



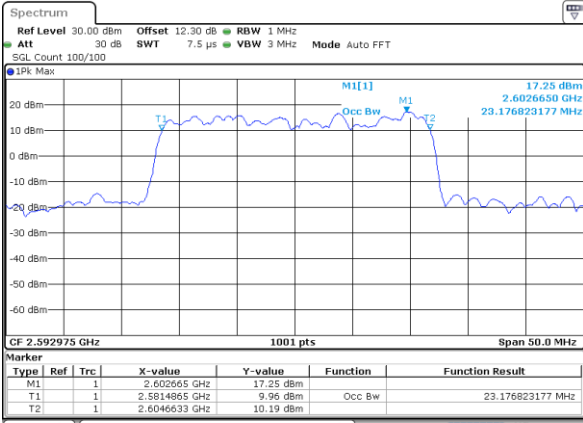
Date: 5 JAN 2021 20:16:04



LTE Band 41C

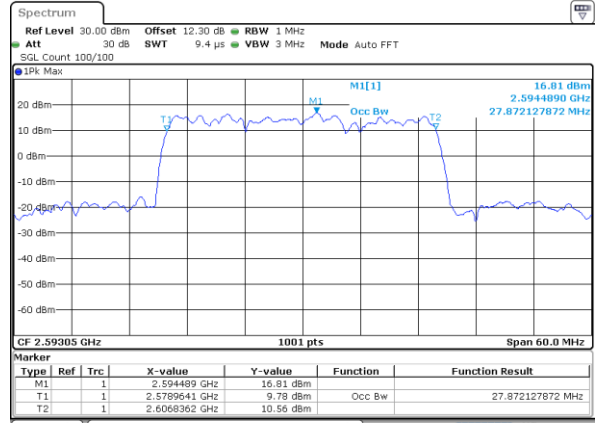
QPSK

Middle Channel / 20MHz+5MHz



Date: 5 JAN 2021 19:56:04

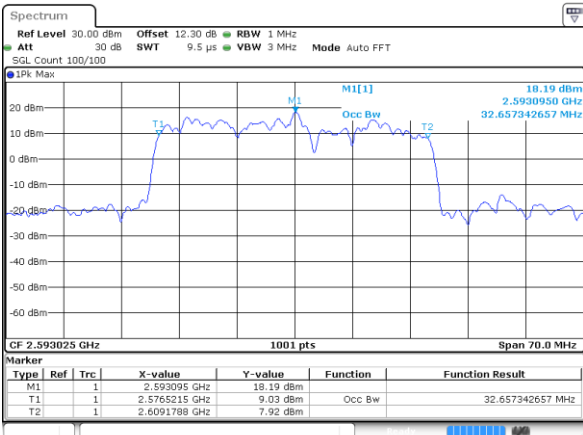
Middle Channel / 20MHz+10MHz



Date: 5 JAN 2021 20:09:24

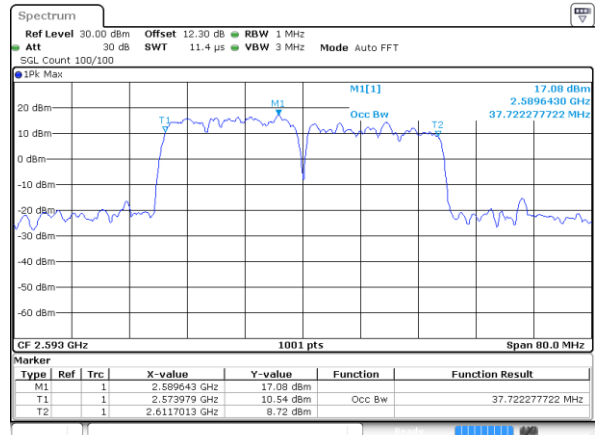
QPSK

Middle Channel / 20MHz+15MHz



Date: 5 JAN 2021 20:19:24

Middle Channel / 20MHz+20MHz



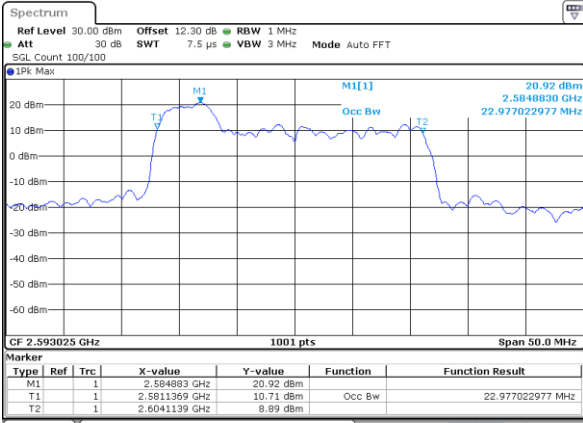
Date: 5 JAN 2021 20:22:44



LTE Band 41C

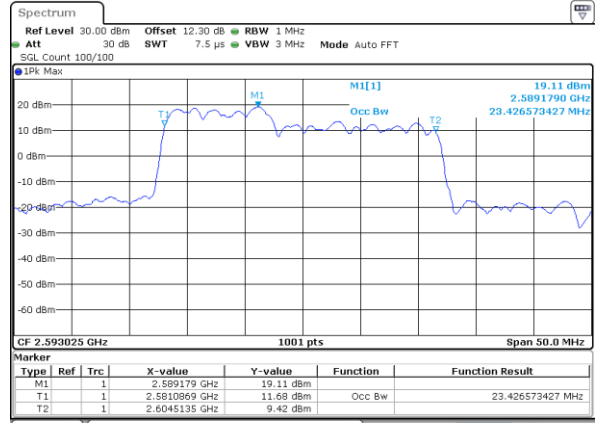
16QAM

Middle Channel / 5MHz+20MHz



Date: 5 JAN 2021 19:53:17

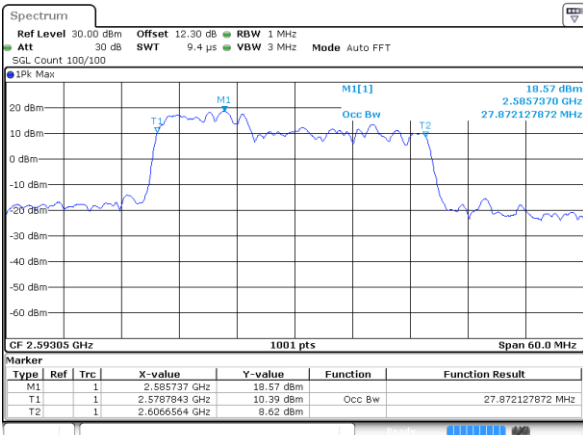
Middle Channel / 10MHz+15MHz



Date: 5 JAN 2021 19:59:58

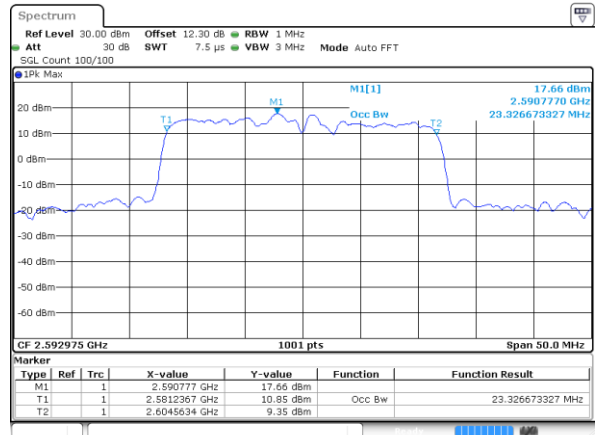
16QAM

Middle Channel / 10MHz+20MHz



Date: 5 JAN 2021 20:06:38

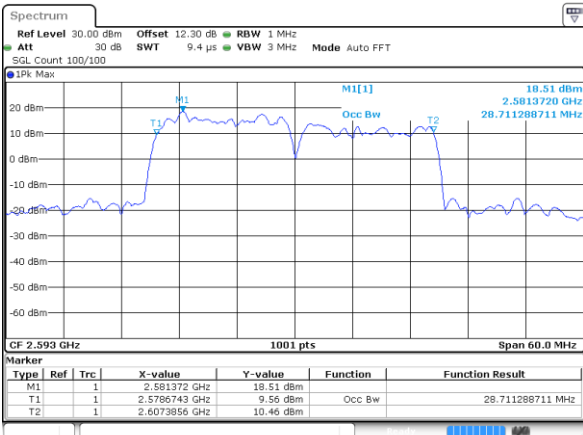
Middle Channel / 15MHz+10MHz



Date: 5 JAN 2021 20:03:18

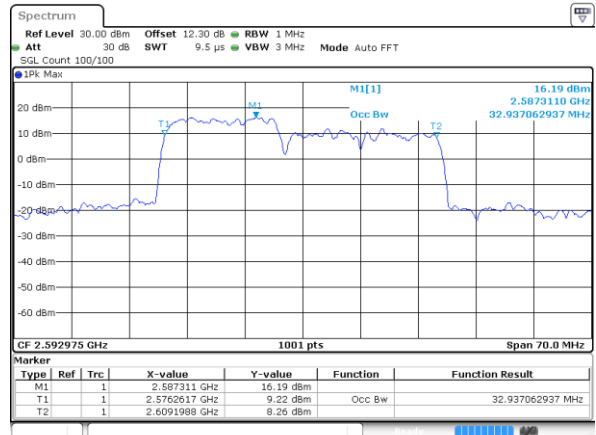
16QAM

Middle Channel / 15MHz+15MHz



Date: 5 JAN 2021 20:13:18

Middle Channel / 15MHz+20MHz



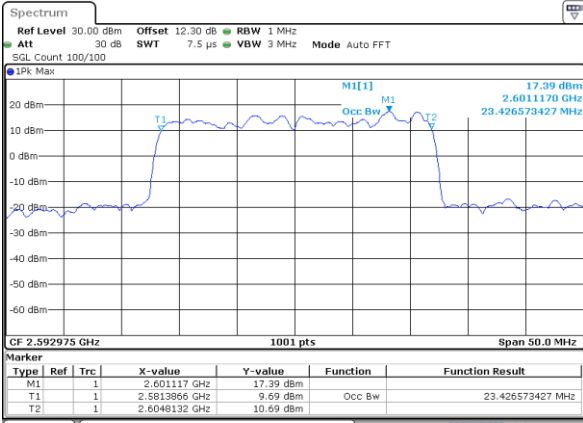
Date: 5 JAN 2021 20:16:38



LTE Band 41C

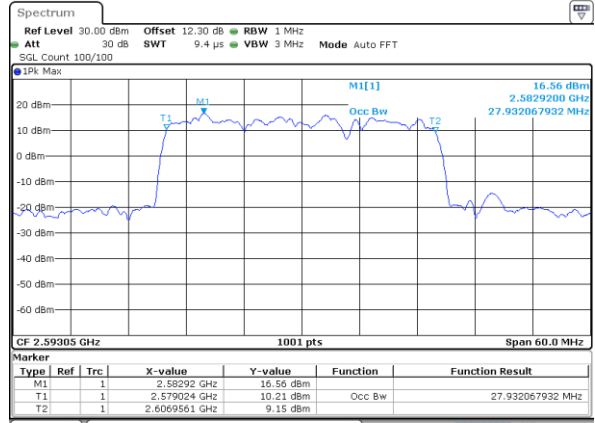
16QAM

Middle Channel / 20MHz+5MHz



Date: 5 JAN 2021 19:56:38

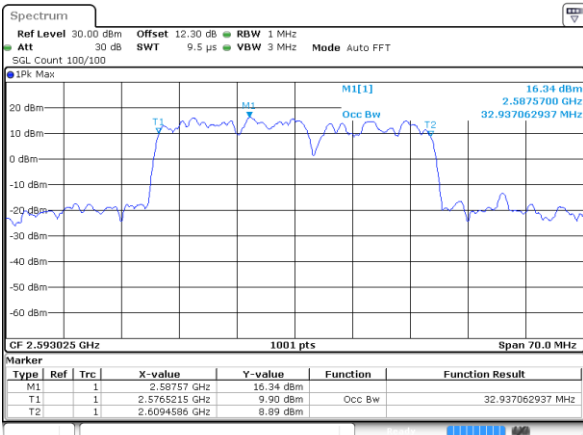
Middle Channel / 20MHz+10MHz



Date: 5 JAN 2021 20:09:58

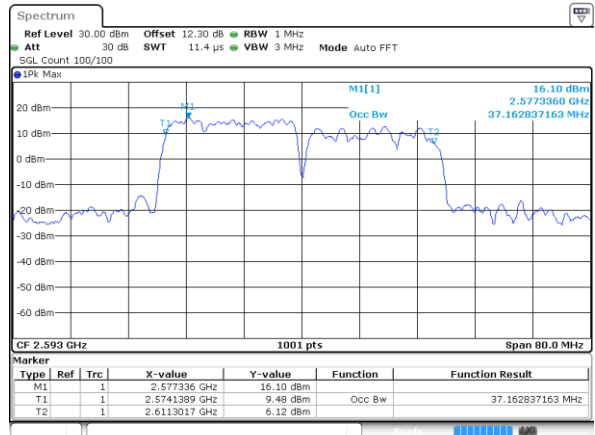
16QAM

Middle Channel / 20MHz+15MHz



Date: 5 JAN 2021 20:19:59

Middle Channel / 20MHz+20MHz



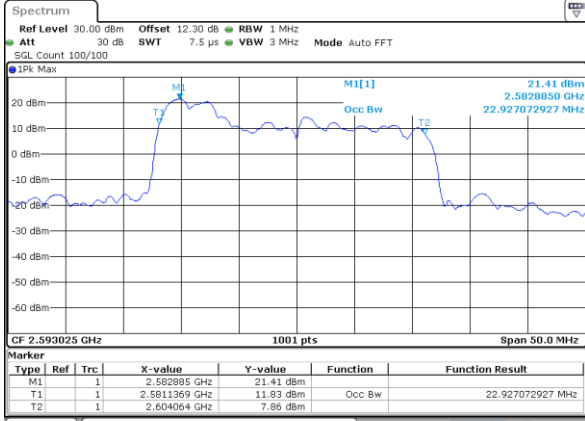
Date: 5 JAN 2021 20:23:18



LTE Band 41C

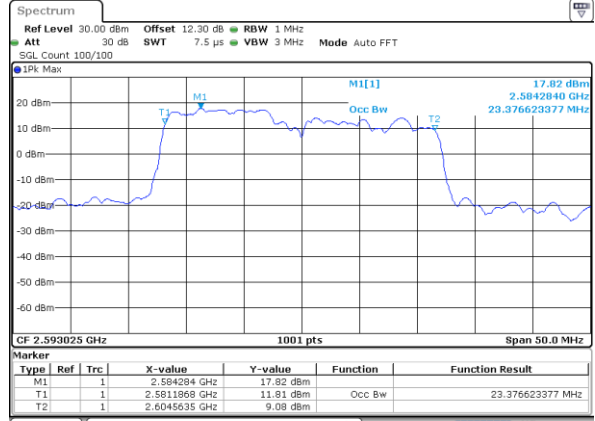
64QAM

Middle Channel / 5MHz+20MHz



Date: 5 JAN 2021 19:53:52

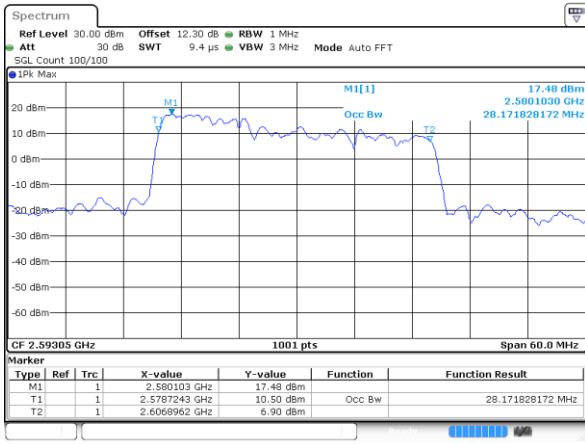
Middle Channel / 10MHz+15MHz



Date: 5 JAN 2021 20:00:32

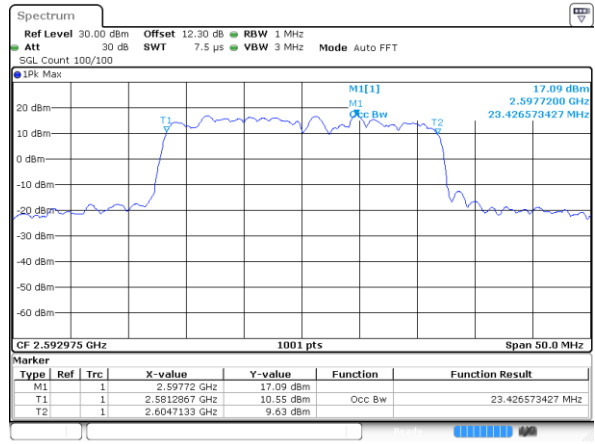
64QAM

Middle Channel / 10MHz+20MHz



Date: 5 JAN 2021 20:07:12

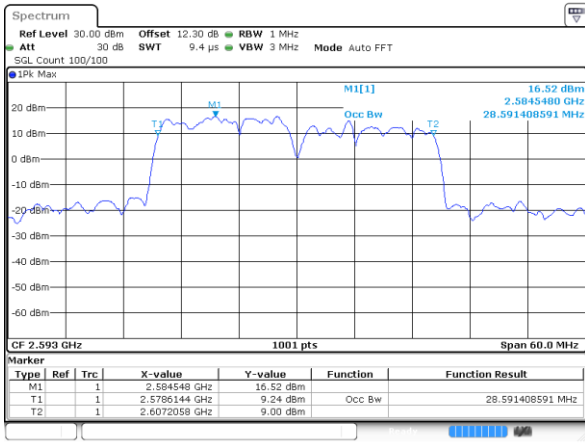
Middle Channel / 15MHz+10MHz



Date: 5 JAN 2021 20:03:52

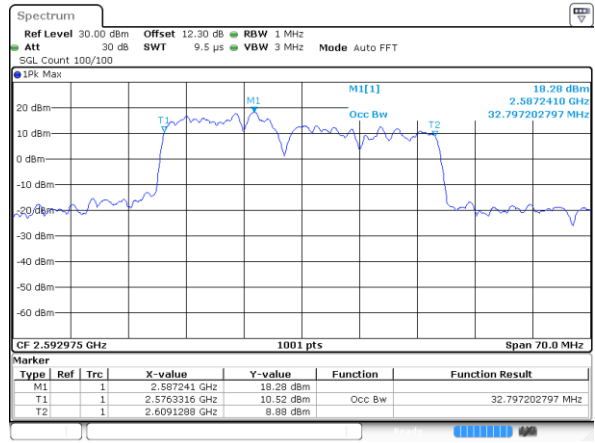
64QAM

Middle Channel / 15MHz+15MHz



Date: 5 JAN 2021 20:13:53

Middle Channel / 15MHz+20MHz



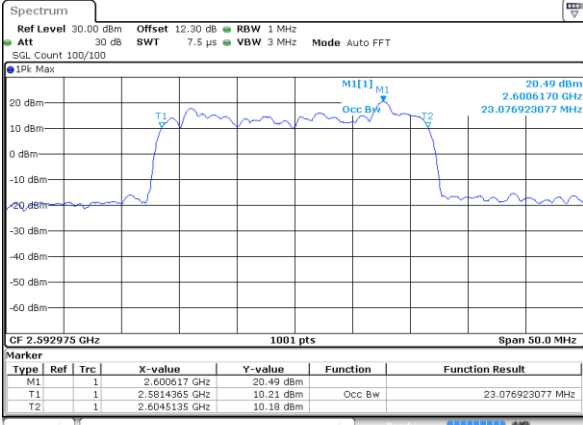
Date: 5 JAN 2021 20:17:13



LTE Band 41C

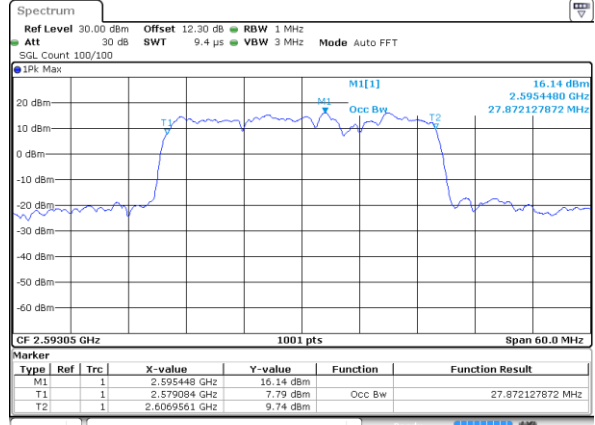
64QAM

Middle Channel / 20MHz+5MHz



Date: 5 JAN 2021 19:57:12

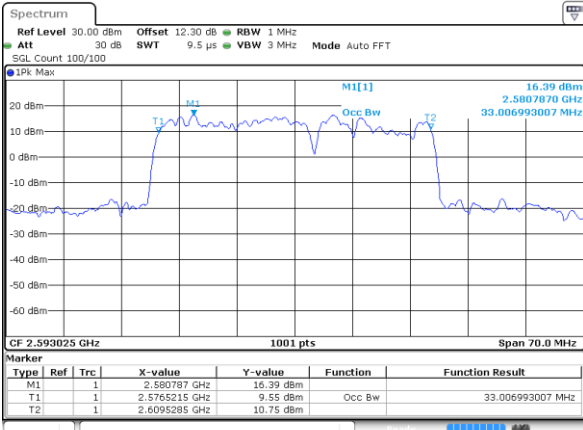
Middle Channel / 20MHz+10MHz



Date: 5 JAN 2021 20:10:33

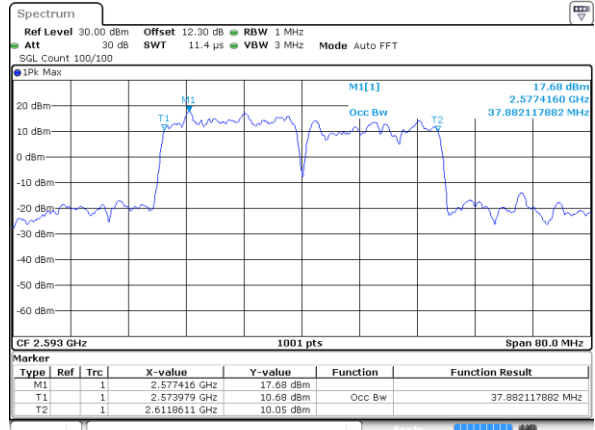
64QAM

Middle Channel / 20MHz+15MHz



Date: 5 JAN 2021 20:20:33

Middle Channel / 20MHz+20MHz



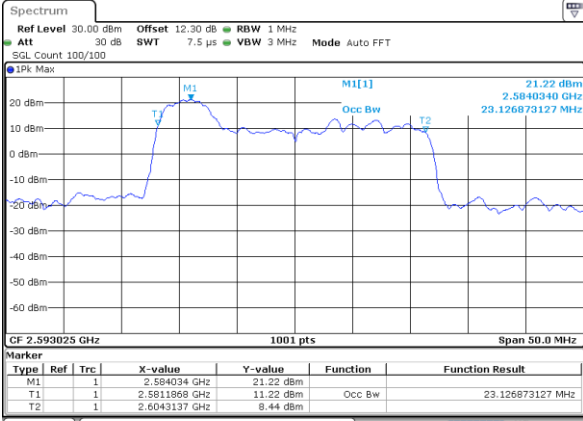
Date: 5 JAN 2021 20:23:52



LTE Band 41C

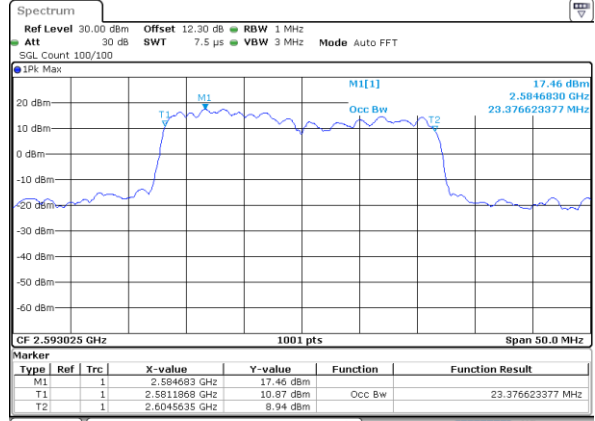
256QAM

Middle Channel / 5MHz+20MHz



Date: 5 JAN 2021 20:29:26

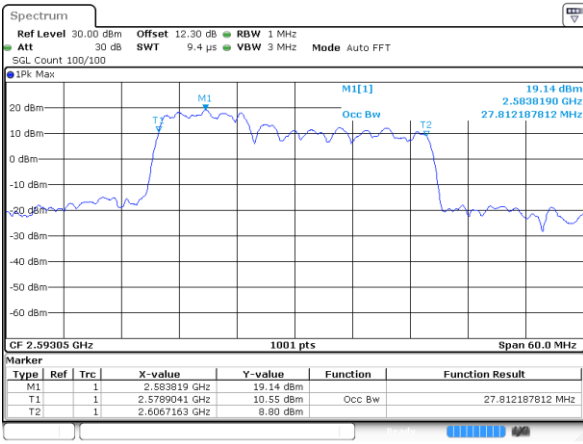
Middle Channel / 10MHz+15MHz



Date: 5 JAN 2021 20:31:40

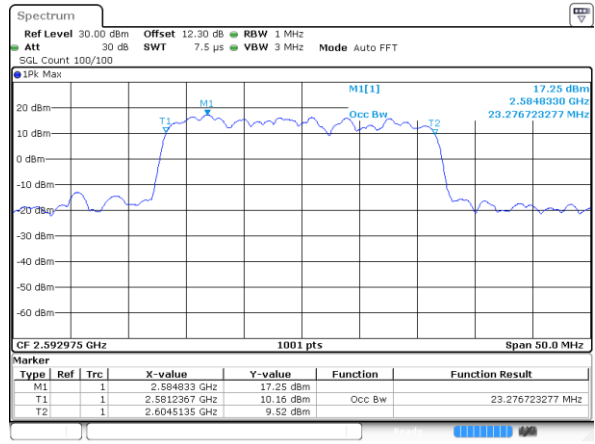
256QAM

Middle Channel / 10MHz+20MHz



Date: 5 JAN 2021 20:33:54

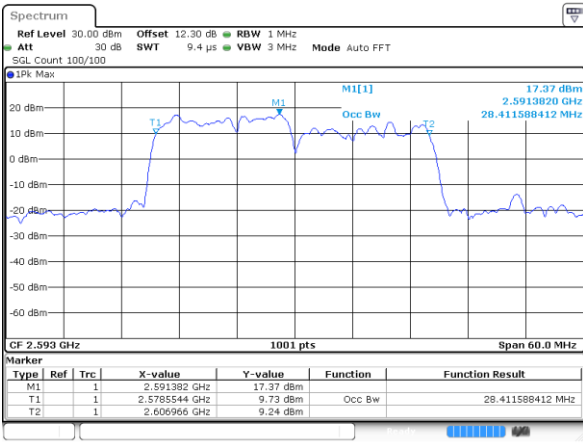
Middle Channel / 15MHz+10MHz



Date: 5 JAN 2021 20:32:47

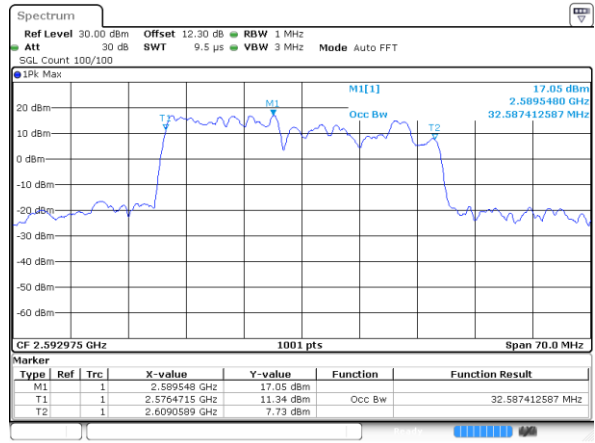
256QAM

Middle Channel / 15MHz+15MHz



Date: 5 JAN 2021 20:36:08

Middle Channel / 15MHz+20MHz



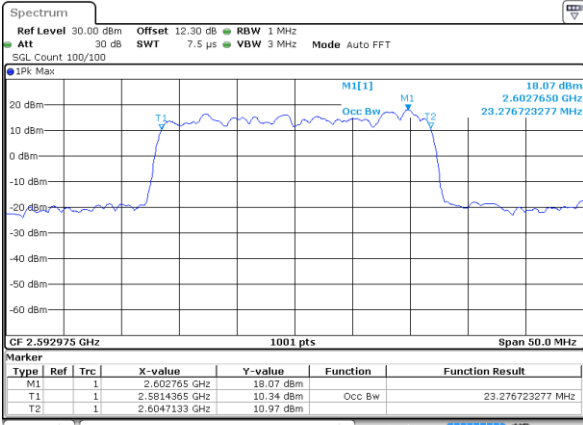
Date: 5 JAN 2021 20:37:14



LTE Band 41C

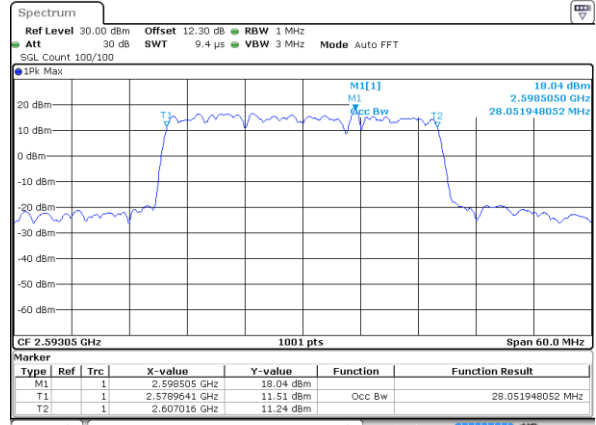
256QAM

Middle Channel / 20MHz+5MHz



Date: 5 JAN 2021 20:30:33

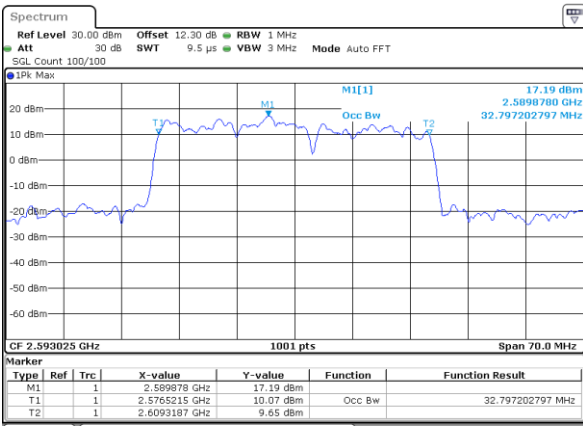
Middle Channel / 20MHz+10MHz



Date: 5 JAN 2021 20:35:01

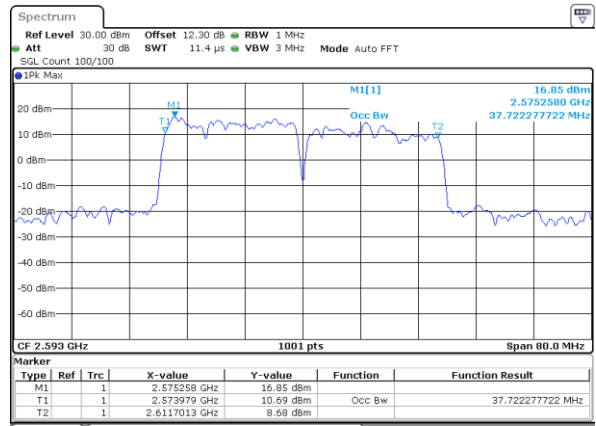
256QAM

Middle Channel / 20MHz+15MHz



Date: 5 JAN 2021 20:38:21

Middle Channel / 20MHz+20MHz



Date: 5 JAN 2021 20:39:28

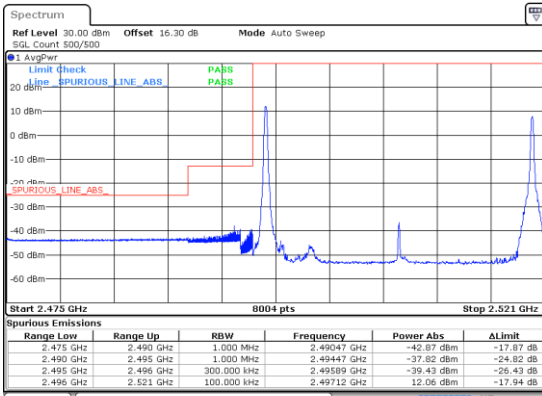


Conducted Band Edge

LTE Band 41C / 5MHz+20MHz

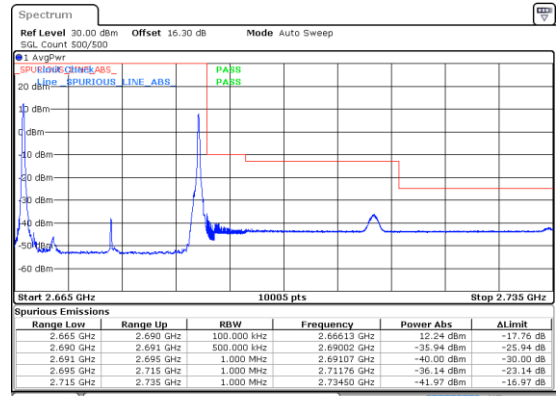
QPSK

Lowest Band Edge / 1RB0 and 1RB99



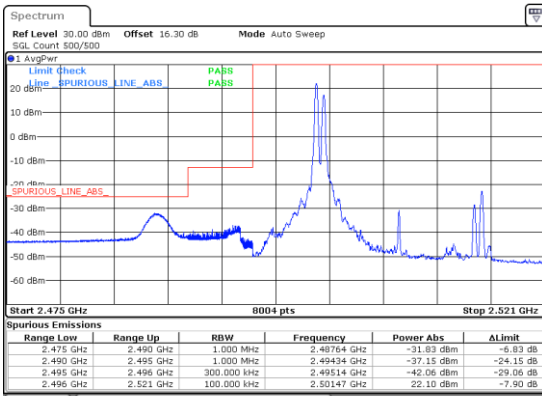
Date: 5 JAN 2021 01:55:37

Highest Band Edge / 1RB0 and 1RB99



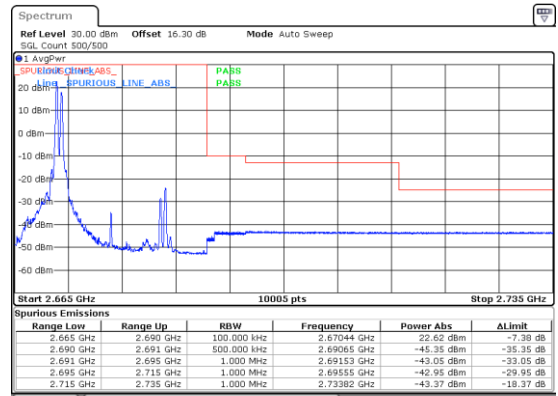
Date: 5 JAN 2021 02:04:49

Lowest Band Edge / 1RB24 and 1RB0



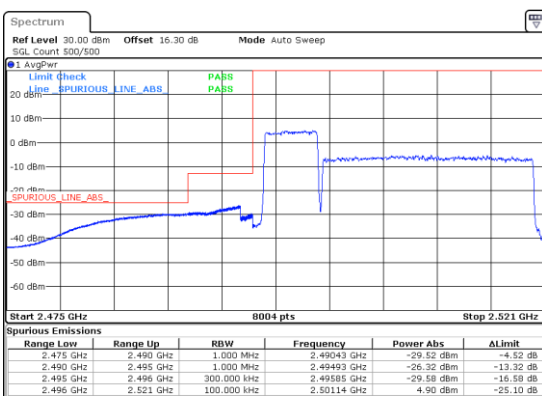
Date: 5 JAN 2021 01:58:01

Highest Band Edge / 1RB24 and 1RB0



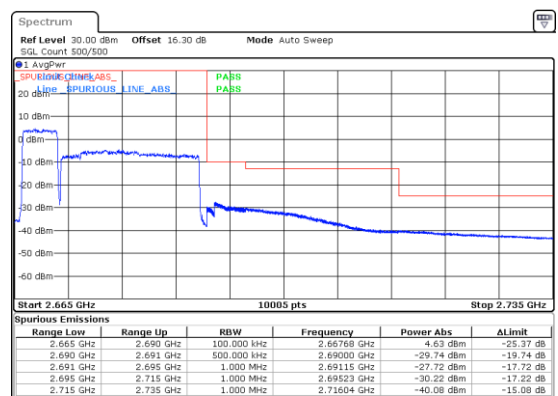
Date: 5 JAN 2021 02:09:13

Lowest Band Edge / Full RB



Date: 5 JAN 2021 01:51:15

Highest Band Edge / Full RB



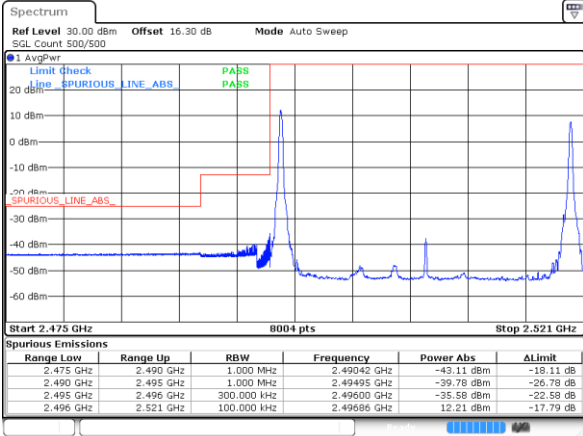
Date: 5 JAN 2021 02:03:56



LTE Band 41C / 10MHz+15MHz

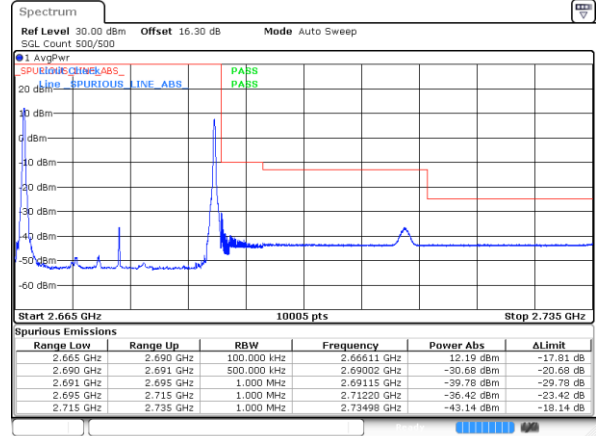
QPSK

Lowest Band Edge / 1RB0 and 1RB74



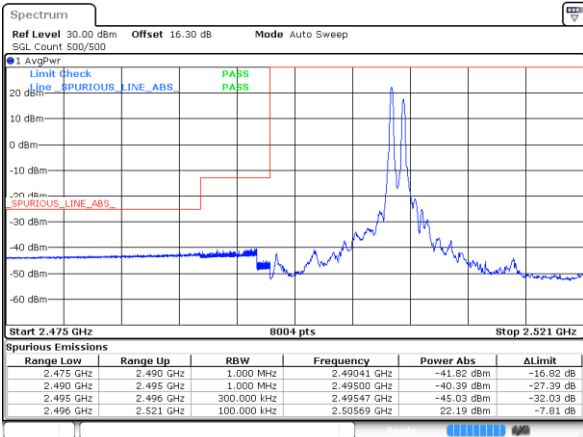
Date: 5 JAN 2021 02:43:19

Highest Band Edge / 1RB0 and 1RB74



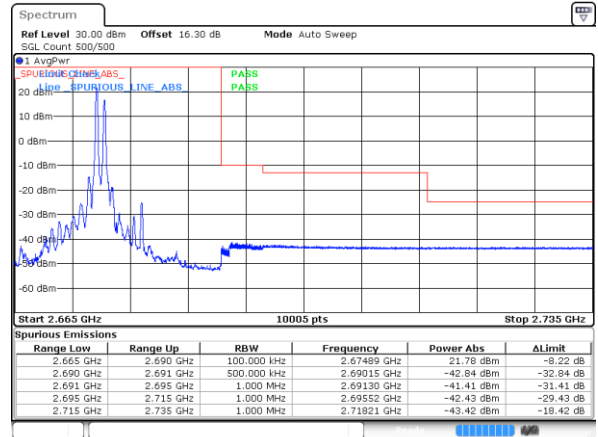
Date: 5 JAN 2021 02:49:26

Lowest Band Edge / 1RB49 and 1RB0



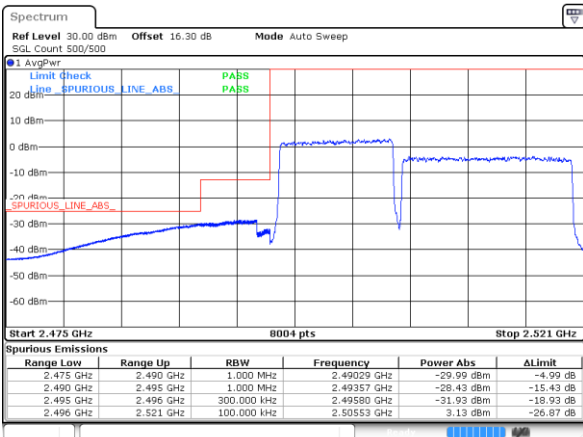
Date: 5 JAN 2021 02:44:10

Highest Band Edge / 1RB49 and 1RB0



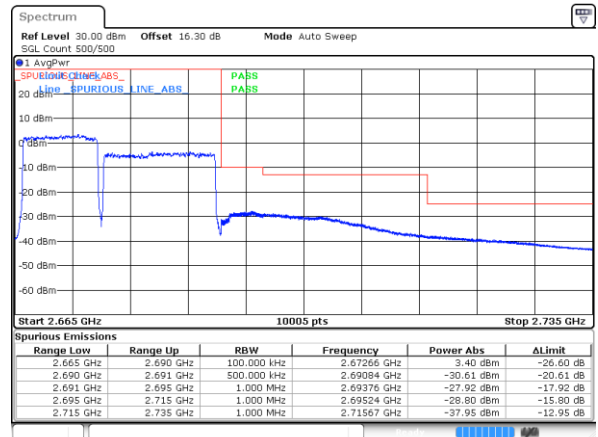
Date: 5 JAN 2021 02:53:51

Lowest Band Edge / Full RB



Date: 5 JAN 2021 02:39:00

Highest Band Edge / Full RB



Date: 5 JAN 2021 02:48:33

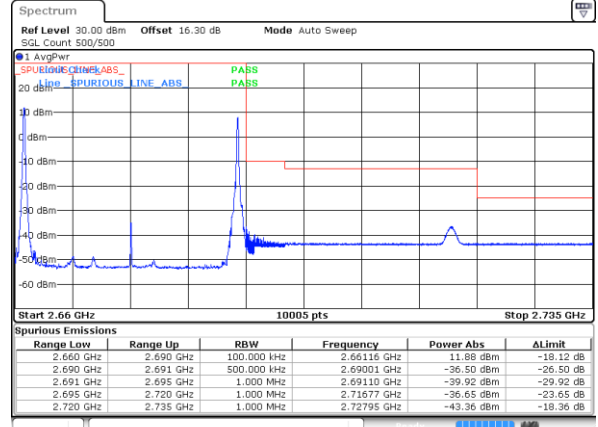
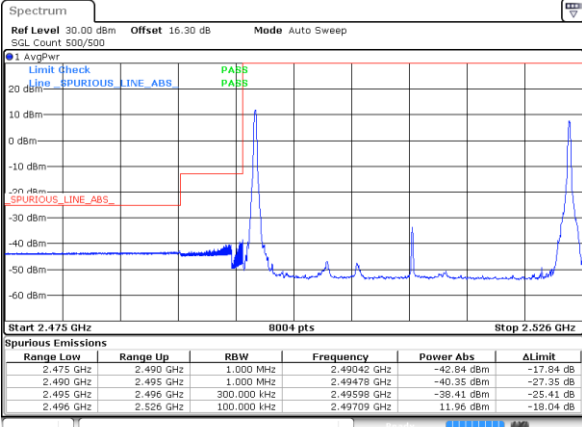


LTE Band 41C / 10MHz+20MHz

QPSK

Lowest Band Edge / 1RB0 and 1RB99

Highest Band Edge / 1RB0 and 1RB99

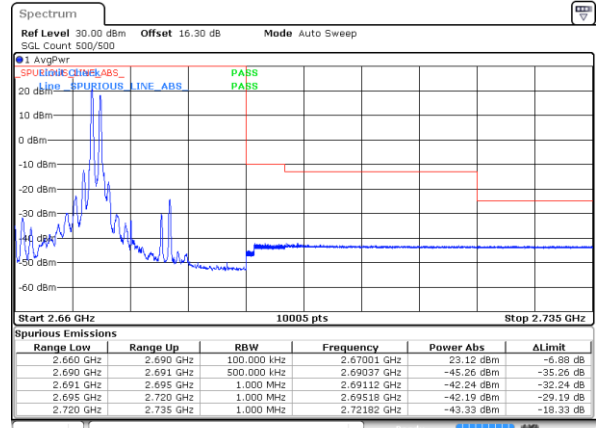
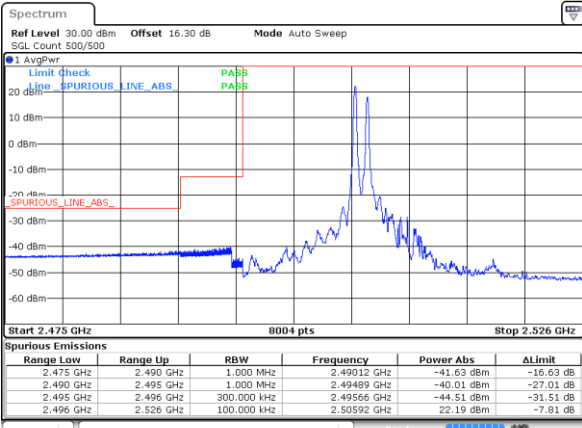


Date: 5 JAN 2021 03:14:58

Date: 5 JAN 2021 03:21:10

Lowest Band Edge / 1RB49 and 1RB0

Highest Band Edge / 1RB49 and 1RB0

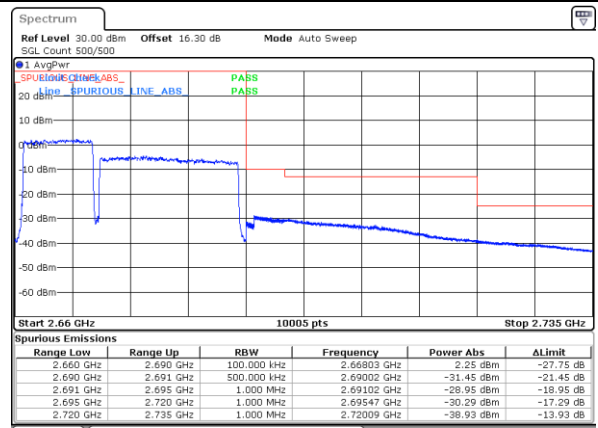
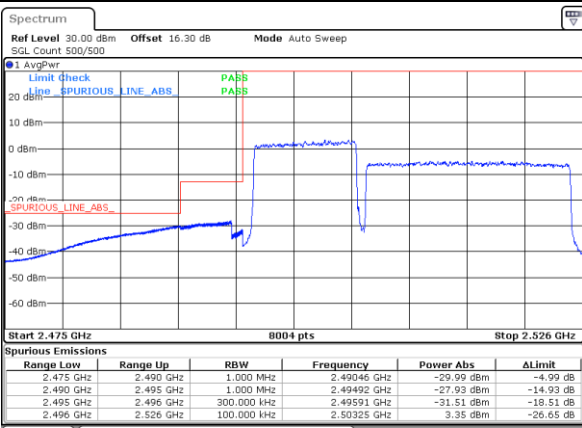


Date: 5 JAN 2021 03:15:51

Date: 5 JAN 2021 03:25:35

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 5 JAN 2021 03:10:31

Date: 5 JAN 2021 03:20:18

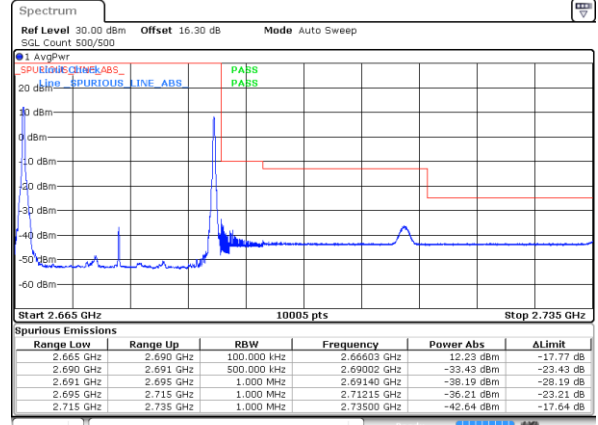
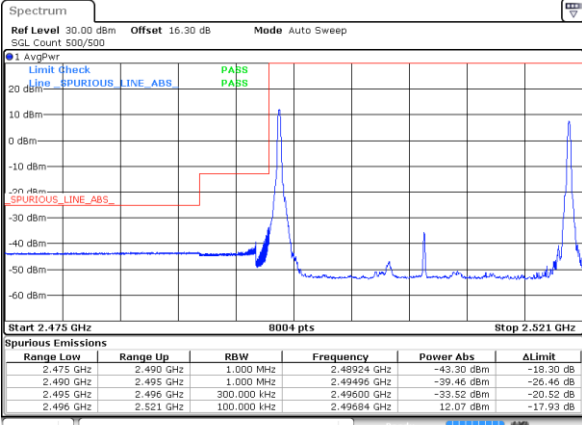


LTE Band 41C / 15MHz+10MHz

QPSK

Lowest Band Edge / 1RB0 and 1RB49

Highest Band Edge / 1RB0 and 1RB49

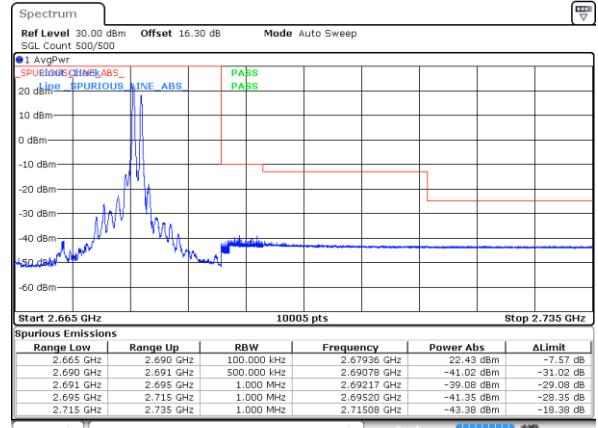
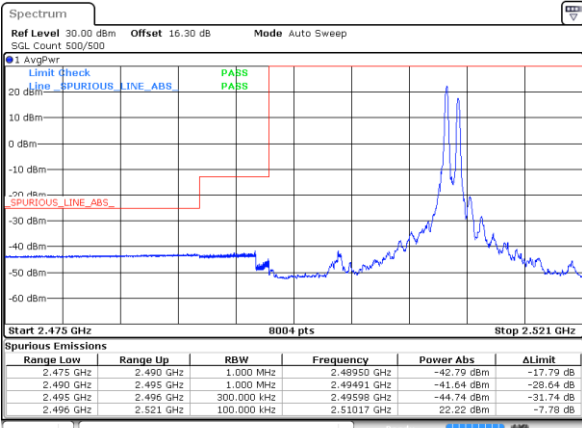


Date: 5 JAN 2021 02:59:03

Date: 5 JAN 2021 03:05:12

Lowest Band Edge / 1RB74 and 1RB0

Highest Band Edge / 1RB74 and 1RB0

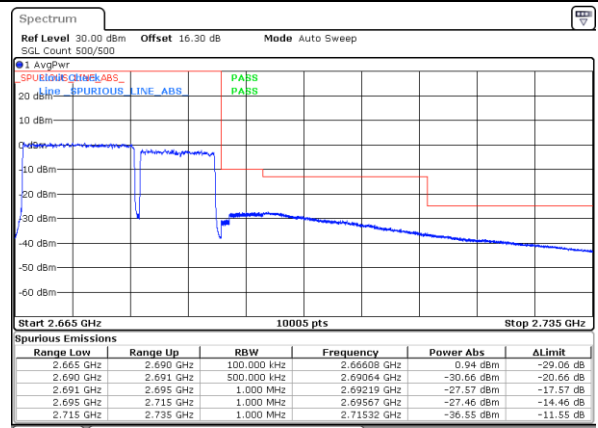
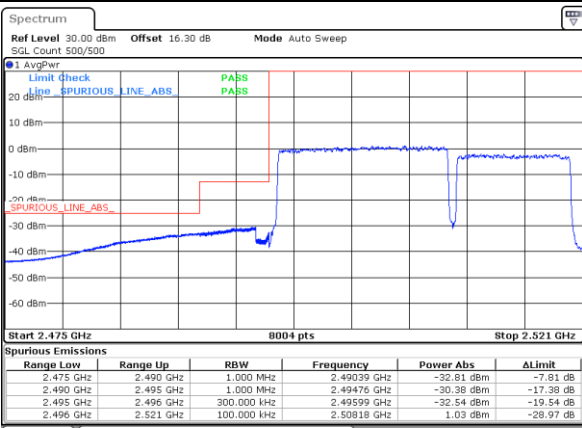


Date: 5 JAN 2021 02:59:54

Date: 5 JAN 2021 03:09:37

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 5 JAN 2021 02:54:43

Date: 5 JAN 2021 03:04:18

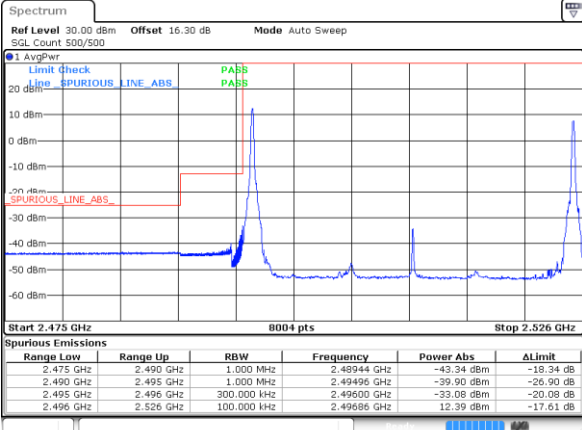


LTE Band 41C / 15MHz+15MHz

QPSK

Lowest Band Edge / 1RB0 and 1RB74

Highest Band Edge / 1RB0 and 1RB74

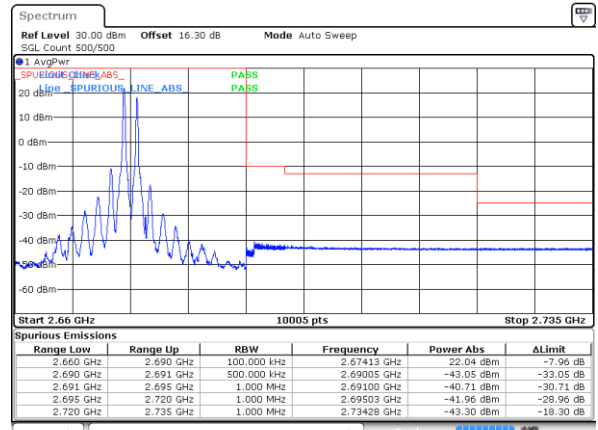
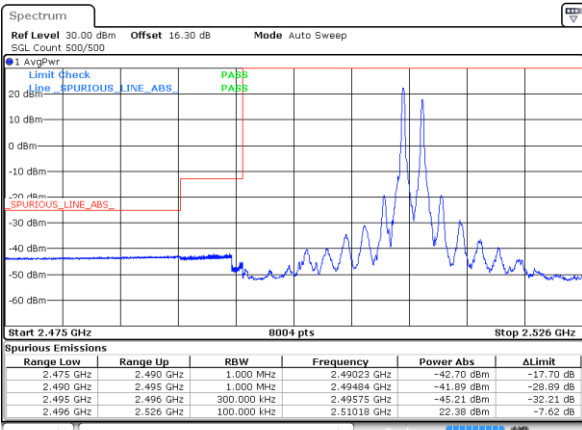


Date: 5 JAN 2021 03:46:57

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Lowest Band Edge / 1RB74 and 1RB0

Highest Band Edge / 1RB74 and 1RB0

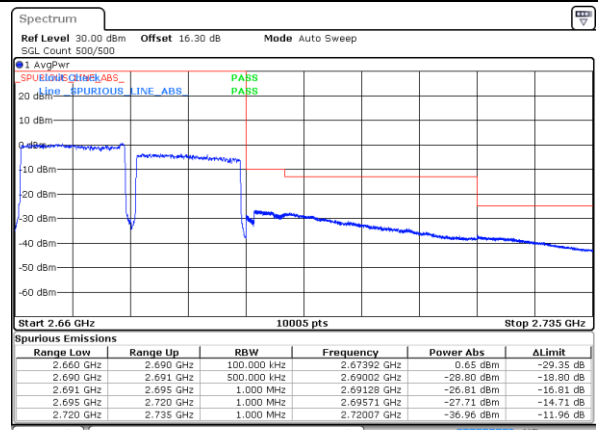
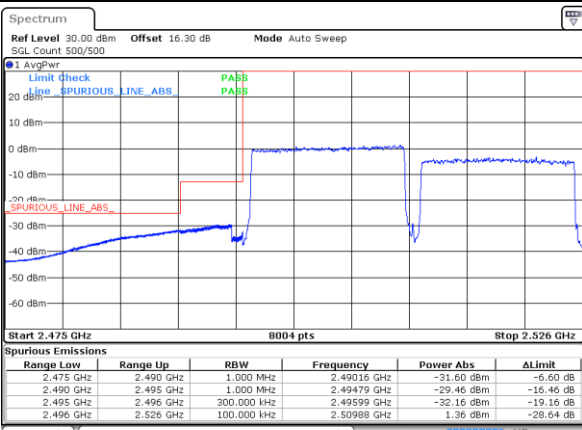


Date: 5 JAN 2021 03:47:50

Date: 5 JAN 2021 03:57:34

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 5 JAN 2021 03:42:30

Date: 5 JAN 2021 03:52:16