



# FCC RF Test Report

**APPLICANT** : Motorola Mobility LLC  
**EQUIPMENT** : Mobile Cellular Phone  
**BRAND NAME** : Motorola  
**MODEL NAME** : XT1921-2  
**FCC ID** : IHDT56XC4  
**STANDARD** : 47 CFR Part 2, 22(H), 24(E), 27  
**CLASSIFICATION** : PCS Licensed Transmitter Held to Ear (PCE)

This is a variant report. The product was received on Dec. 20, 2017 and completely tested on Jan. 30, 2018. We, SPORTON INTERNATIONAL Inc., would like to declare that the tested sample has been evaluated in accordance with the test procedures and the testing has shown the tested sample to be in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager



## **SPORTON INTERNATIONAL INC.**

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## SUMMARY OF TEST RESULT

| Report Section  | FCC Rule  | Description   | Limit                               | Result | Remark                                     |
|---|---|---|-------------------------------------|--------|--|
| 3.4   | §2.1046   | Conducted Output Power  | Reporting Only                      | PASS   | -  |
|   | §22.913(a)(2)   | Equivalent Isotropic Radiated Power (Band 5)  | EIRP < 11.5 Watt                    |        |  |
|   | §27.50(c)(10)   | Equivalent Isotropic Radiated Power (Band 12) (Band 17)                             | EIRP < 5 Watt                       |        |  |
|   | §24.232(c)  | Equivalent Isotropic Radiated Power (Band 2)  | EIRP < 2Watt                        |        |  |
|   | §27.50(d)(4)  | Equivalent Isotropic Radiated Power (Band 4) (Band 66)                              | EIRP < 1Watt                        |        |  |
| 3.5   | §24.232(d)  | Peak-to-Average Ratio   | <13 dB                              | PASS   | -  |
| 3.6   | §2.1049   | Occupied Bandwidth  | Reporting Only                      | PASS   | -  |
| 3.7   | §2.1051<br>§22.917(a)<br>§24.238(a)<br>§27.53(h)              | Conducted Band Edge Measurement (Band 2) (Band 4) (Band 5) (Band 66)                | < 43+10log <sub>10</sub> (P[Watts]) | PASS   | -  |
| 3.8   | §2.1051<br>§22.917(a)<br>§24.238(a)<br>§27.53(h)              | Conducted Spurious Emission (Band 2) (Band 4) (Band 5) (Band 66)                    | < 43+10log <sub>10</sub> (P[Watts]) | PASS   | -  |
| 3.9   | §2.1055<br>§22.355  | Frequency Stability<br>Temperature & Voltage  | < 2.5 ppm for RSS-132               | PASS   | -  |
|   | §2.1055<br>§24.235<br>§27.54                                  |   | Within Authorized Band              |        |  |
| 4.4   | §2.1053<br>§22.917(a)<br>§24.238(a)<br>§27.53(g)<br>§27.53(h) | Radiated Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 17) (Band 66) | < 43+10log <sub>10</sub> (P[Watts]) | PASS   | Under limit<br>39.09 dB at<br>3700.000 MHz |
| <p><b>Note:</b> This is a variant report which can be referred Product Equality Declaration. All the test cases were performed on original report which can be referred to Sporton Report Number FG7D2018C. Based on the original report, the test cases were verified.</p> |   |   |                                     |        |  |



# 1 General Description

## 1.1 Applicant

**Motorola Mobility LLC**  
222 W. Merchandise Mart Plaza, Chicago IL 60654, USA

## 1.2 Manufacturer

**Motorola Mobility LLC**  
222 W. Merchandise Mart Plaza, Chicago IL 60654, USA

## 1.3 Product Feature of Equipment Under Test

| Product Feature                 |  |
|---------------------------------|--|
| Equipment                       | Mobile Cellular Phone  |
| Brand Name                      | Motorola   |
| Model Name                      | XT1921-2   |
| FCC ID                          | IHDT56XC4  |
| IMEI Code                       | 351840090009840 (for Radiation)<br>351840090015086 (for Conducted)                                   |
| EUT supports Radios application | GSM/EGPRS/WCDMA/HSPA/LTE/FM/GNSS<br>WLAN 11b/g/n HT20<br>WLAN 11a/n HT20/HT40<br>Bluetooth BR/EDR/LE |
| HW Version                      | DVT1B  |
| EUT Stage                       | Identical Prototype  |

**Remark:** The above EUT's information was declared by manufacturer. Please refer to the specifications or user's manual for more detailed description.

| Accessory List |                        |
|----------------|------------------------|
| AC Adapter 1   | Brand Name : Motorola  |
|                | Model Name : C-P56     |
| AC Adapter 2   | Brand Name : Motorola  |
|                | Model Name : C-P56     |
| Battery        | Brand Name : Motorola  |
|                | Model Name : GK40      |
| USB Cable      | Brand Name : Saibao    |
|                | Model Name : SWT-A083A |



### 1.4 Product Specification of Equipment Under Test

| Standards-related Product Specification |   |
|---|---|
| <b>Tx Frequency</b>                     | LTE Band 2 : 1850.7 MHz ~ 1909.3 MHz<br>LTE Band 4 : 1710.7 MHz ~ 1754.3 MHz<br>LTE Band 5 : 824.7 MHz ~ 848.3 MHz<br>LTE Band 12 : 699.7 MHz ~ 715.3 MHz<br>LTE Band 17 : 706.5 MHz ~ 713.5 MHz<br>LTE Band 66 : 1710.7 MHz ~ 1754.3 MHz   |
| <b>Rx Frequency</b>                     | LTE Band 2 : 1930.7 MHz ~ 1989.3 MHz<br>LTE Band 4 : 2110.7 MHz ~ 2154.3 MHz<br>LTE Band 5 : 869.7 MHz ~ 893.3 MHz<br>LTE Band 12 : 729.7 MHz ~ 745.3 MHz<br>LTE Band 17 : 736.5 MHz ~ 743.5 MHz<br>LTE Band 66 : 2110.7 MHz ~ 2154.3 MHz   |
| <b>Bandwidth</b>                        | LTE Band 2 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz<br>LTE Band 4 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz<br>LTE Band 5 : 1.4MHz / 3MHz / 5MHz / 10MHz<br>LTE Band 12 : 1.4MHz / 3MHz / 5MHz / 10MHz<br>LTE Band 17 : 5MHz / 10MHz<br>LTE Band 66 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz |
| <b>Maximum Output Power to Antenna</b>  | LTE Band 2 : 23.10 dBm<br>LTE Band 4 : 23.32 dBm<br>LTE Band 5 : 23.13 dBm<br>LTE Band 12 : 23.01 dBm<br>LTE Band 17 : 23.21 dBm<br>LTE Band 66 : 23.34 dBm   |
| <b>Antenna Type</b>                     | PIFA Antenna and Coupling type (LDS) Antenna  |
| <b>Antenna Gain</b>                     | LTE Band 2 : 1.82 dBi<br>LTE Band 4 : 1.58 dBi<br>LTE Band 5 : -0.71 dBi<br>LTE Band 12 : -3.95 dBi<br>LTE Band 17 : -2.16 dBi<br>LTE Band 66 : 1.58 dBi  |
| <b>Type of Modulation</b>               | QPSK / 16QAM  |

### 1.5 Modification of EUT

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



### 1.6 Emission Designator

| LTE Band 2  |                       | QPSK                         |                           |                 | 16QAM                        |                           |                 |
|-------------|-----------------------|------------------------------|---------------------------|-----------------|------------------------------|---------------------------|-----------------|
| BW (MHz)    | Frequency Range (MHz) | Emission Designator (99%OBW) | Frequency Tolerance (ppm) | Maximum EIRP(W) | Emission Designator (99%OBW) | Frequency Tolerance (ppm) | Maximum EIRP(W) |
| 1.4         | 1850.7 ~ 1909.3       | 1M10G7D                      | -                         | 0.3069          | 1M10W7D                      | -                         | 0.2594          |
| 3           | 1851.5 ~ 1908.5       | 2M72G7D                      | -                         | 0.3097          | 2M73W7D                      | -                         | 0.2655          |
| 5           | 1852.5 ~ 1907.5       | 4M52G7D                      | -                         | 0.3083          | 4M50W7D                      | -                         | 0.2773          |
| 10          | 1855.0 ~ 1905.0       | 9M03G7D                      | 0.0079                    | 0.3069          | 9M03W7D                      | -                         | 0.2748          |
| 15          | 1857.5 ~ 1902.5       | 13M4G7D                      | -                         | 0.3069          | 13M6W7D                      | -                         | 0.2716          |
| 20          | 1860.0 ~ 1900.0       | 18M3G7D                      | -                         | 0.3105          | 18M4W7D                      | -                         | 0.2655          |
| LTE Band 4  |                       | QPSK                         |                           |                 | 16QAM                        |                           |                 |
| BW (MHz)    | Frequency Range (MHz) | Emission Designator (99%OBW) | Frequency Tolerance (ppm) | Maximum EIRP(W) | Emission Designator (99%OBW) | Frequency Tolerance (ppm) | Maximum EIRP(W) |
| 1.4         | 1710.7 ~ 1754.3       | 1M10G7D                      | -                         | 0.2911          | 1M09W7D                      | -                         | 0.2541          |
| 3           | 1711.5 ~ 1753.5       | 2M73G7D                      | -                         | 0.2938          | 2M72W7D                      | -                         | 0.2460          |
| 5           | 1712.5 ~ 1752.5       | 4M48G7D                      | -                         | 0.2897          | 4M50W7D                      | -                         | 0.2523          |
| 10          | 1715.0 ~ 1750.0       | 9M09G7D                      | 0.0043                    | 0.3090          | 9M03W7D                      | -                         | 0.2661          |
| 15          | 1717.5 ~ 1747.5       | 13M5G7D                      | -                         | 0.2773          | 13M5W7D                      | -                         | 0.2404          |
| 20          | 1720.0 ~ 1745.0       | 18M5G7D                      | -                         | 0.2838          | 18M3W7D                      | -                         | 0.2371          |
| LTE Band 5  |                       | QPSK                         |                           |                 | 16QAM                        |                           |                 |
| BW (MHz)    | Frequency Range (MHz) | Emission Designator (99%OBW) | Frequency Tolerance (ppm) | Maximum ERP(W)  | Emission Designator (99%OBW) | Frequency Tolerance (ppm) | Maximum ERP(W)  |
| 1.4         | 824.7 ~ 848.3         | 1M09G7D                      | -                         | 0.0982          | 1M10W7D                      | -                         | 0.0836          |
| 3           | 825.5 ~ 847.5         | 2M74G7D                      | -                         | 0.0975          | 2M72W7D                      | -                         | 0.0857          |
| 5           | 826.5 ~ 846.5         | 4M49G7D                      | -                         | 0.0979          | 4M50W7D                      | -                         | 0.0838          |
| 10          | 829.0 ~ 844.0         | 9M11G7D                      | 0.0038                    | 0.1064          | 9M03W7D                      | -                         | 0.0889          |
| LTE Band 12 |                       | QPSK                         |                           |                 | 16QAM                        |                           |                 |
| BW (MHz)    | Frequency Range (MHz) | Emission Designator (99%OBW) | Frequency Tolerance (ppm) | Maximum ERP(W)  | Emission Designator (99%OBW) | Frequency Tolerance (ppm) | Maximum ERP(W)  |
| 1.4         | 699.7 ~ 715.3         | -                            | -                         | 0.0468          | -                            | -                         | 0.0401          |
| 3           | 700.5 ~ 714.5         | -                            | -                         | 0.0457          | -                            | -                         | 0.0397          |
| 5           | 701.5 ~ 713.5         | -                            | -                         | 0.0467          | -                            | -                         | 0.0399          |
| 10          | 704.0 ~ 711.0         | -                            | -                         | 0.0491          | -                            | -                         | 0.0407          |



| LTE Band 17 |                       | QPSK                         |                           |                 | 16QAM                        |                           |                 |
|-------------|-----------------------|------------------------------|---------------------------|-----------------|------------------------------|---------------------------|-----------------|
| BW (MHz)    | Frequency Range (MHz) | Emission Designator (99%OBW) | Frequency Tolerance (ppm) | Maximum ERP(W)  | Emission Designator (99%OBW) | Frequency Tolerance (ppm) | Maximum ERP(W)  |
| 5           | 706.5 ~ 713.5         | -                            | -                         | 0.0706          | -                            | -                         | 0.0604          |
| 10          | 709.0 ~ 711.0         | -                            | -                         | 0.0776          | -                            | -                         | 0.0614          |
| LTE Band 66 |                       | QPSK                         |                           |                 | 16QAM                        |                           |                 |
| BW (MHz)    | Frequency Range (MHz) | Emission Designator (99%OBW) | Frequency Tolerance (ppm) | Maximum EIRP(W) | Emission Designator (99%OBW) | Frequency Tolerance (ppm) | Maximum EIRP(W) |
| 1.4         | 1710.7 ~ 1779.3       | 1M10G7D                      | -                         | 0.2767          | 1M10G7D                      | -                         | 0.2410          |
| 3           | 1711.5 ~ 1778.5       | 2M73G7D                      | -                         | 0.2773          | 2M73G7D                      | -                         | 0.2393          |
| 5           | 1712.5 ~ 1777.5       | 4M49G7D                      | -                         | 0.2858          | 4M50W7D                      | -                         | 0.2449          |
| 10          | 1715 ~ 1775           | 9M03G7D                      | 0.0048                    | 0.3097          | 9M05W7D                      | -                         | 0.2570          |
| 15          | 1717.5 ~ 1772.5       | 13M4G7D                      | -                         | 0.2884          | 13M5W7D                      | -                         | 0.2460          |
| 20          | 1720.0 ~ 1770.0       | 18M5G7D                      | -                         | 0.3105          | 18M5W7D                      | -                         | 0.2443          |





### 1.7 Testing Location

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code : 1190) and the FCC designation No. TW1190 and TW0007 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC Test.

|                           |  |
|---------------------------|--|
| <b>Test Site</b>          | SPORTON INTERNATIONAL INC.   |
| <b>Test Site Location</b> | No. 52, Hwa Ya 1 <sup>st</sup> Rd., Hwa Ya Technology Park,<br>Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C.<br>TEL: +886-3-327-3456<br>FAX: +886-3-328-4978 |
| <b>Test Site No.</b>      | <b>Sporton Site No.</b><br>TH05-HY   |

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

|                           |  |
|---------------------------|--|
| <b>Test Site</b>          | SPORTON INTERNATIONAL INC.   |
| <b>Test Site Location</b> | No.58, Aly. 75, Ln. 564, Wenhua 3rd Rd. Guishan Dist,<br>Taoyuan City, Taiwan (R.O.C.)<br>TEL: +886-3-327-0868<br>FAX: +886-3-327-0855 |
| <b>Test Site No.</b>      | <b>Sporton Site No.</b><br>03CH12-HY   |

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

### 1.8 Applicable Standards

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

- 47 CFR Part 2, 22(H), 24(E), 27
- ANSI / TIA-603-E
- FCC KDB 971168 D01 Power Meas. License Digital Systems v02r02
- FCC KDB 412172 D01 Determining ERP and EIRP 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 ICES-003, Subpart B, recorded in a separate test report.



## 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 v02r02 with maximum output power.

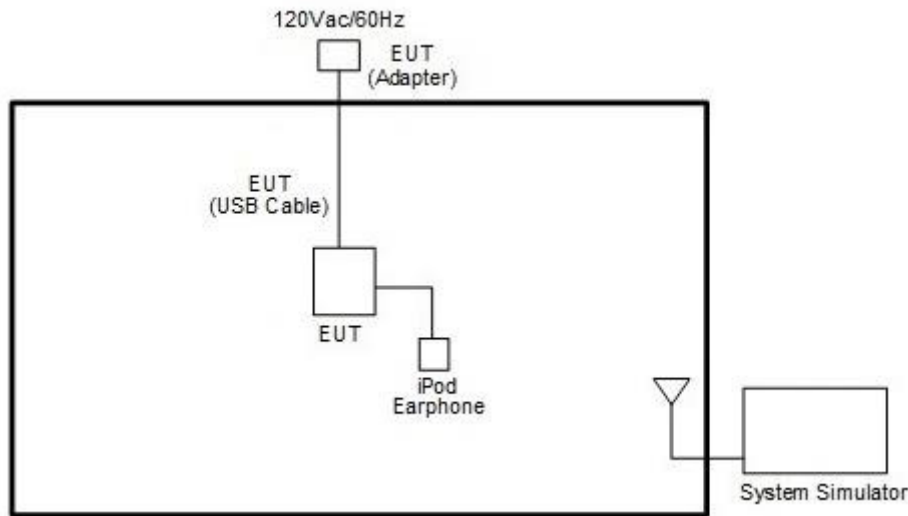
Radiated measurements are performed by rotating the EUT in three different orthogonal test planes to find the maximum emission.

| Test Items             | Band | Bandwidth (MHz) |   |   |    |    |    | Modulation |       | RB # |      |      | Test Channel |   |   |
|------------------------|------|-----------------|---|---|----|----|----|------------|-------|------|------|------|--------------|---|---|
|                        |      | 1.4             | 3 | 5 | 10 | 15 | 20 | QPSK       | 16QAM | 1    | Half | Full | L            | M | H |
| Max. Output Power      | 2    | v               | v | v | v  | v  | v  | v          | v     | v    | v    | v    | v            | v | v |
|                        | 4    | v               | v | v | v  | v  | v  | v          | v     | v    | v    | v    | v            | v | v |
|                        | 5    | v               | v | v | v  | -  | -  | v          | v     | v    | v    | v    | v            | v | v |
|                        | 12   | v               | v | v | v  | -  | -  | v          | v     | v    | v    | v    | v            | v | v |
|                        | 17   | -               | - | v | v  | -  | -  | v          | v     | v    | v    | v    | v            | v | v |
|                        | 66   | v               | v | v | v  | v  | v  | v          | v     | v    | v    | v    | v            | v | v |
| Peak-to-Average Ratio  | 2    |                 |   |   |    |    | v  | v          | v     | v    |      | v    | v            | v | v |
|                        | 4    |                 |   |   |    |    | v  | v          | v     | v    |      | v    | v            | v | v |
|                        | 5    |                 |   |   | v  | -  | -  | v          | v     | v    |      | v    | v            | v | v |
|                        | 66   |                 |   |   |    |    | v  | v          | v     | v    |      | v    | v            | v | v |
| 26dB and 99% Bandwidth | 2    | v               | v | v | v  | v  | v  | v          | v     |      |      | v    | v            | v | v |
|                        | 4    | v               | v | v | v  | v  | v  | v          | v     |      |      | v    | v            | v | v |
|                        | 5    | v               | v | v | v  | -  | -  | v          | v     |      |      | v    | v            | v | v |
|                        | 66   | v               | v | v | v  | v  | v  | v          | v     |      |      | v    | v            | v | v |
| Conducted Band Edge    | 2    | v               | v | v | v  | v  | v  | v          | v     | v    |      | v    | v            |   | v |
|                        | 4    | v               | v | v | v  | v  | v  | v          | v     | v    |      | v    | v            |   | v |
|                        | 5    | v               | v | v | v  | -  | -  | v          | v     | v    |      | v    | v            |   | v |
|                        | 66   | v               | v | v | v  | v  | v  | v          | v     | v    |      | v    | v            |   | v |



| Test Items                  | Band  | Bandwidth (MHz) |   |   |    |    |    | Modulation |       | RB # |      |      | Test Channel |   |   |
|-----------------------------|---|-----------------|---|---|----|----|----|------------|-------|------|------|------|--------------|---|---|
|                             |   | 1.4             | 3 | 5 | 10 | 15 | 20 | QPSK       | 16QAM | 1    | Half | Full | L            | M | H |
| Conducted Spurious Emission | 2   | v               | v | v | v  | v  | v  | v          | v     | v    |      |      | v            | v | v |
|                             | 4   | v               | v | v | v  | v  | v  | v          | v     | v    |      |      | v            | v | v |
|                             | 5   | v               | v | v | v  | -  | -  | v          | v     | v    |      |      | v            | v | v |
|                             | 66  | v               | v | v | v  | v  | v  | v          | v     | v    |      |      | v            | v | v |
| Frequency Stability         | 2   |                 |   |   | v  |    |    | v          |       |      |      | v    |              | v |   |
|                             | 4   |                 |   |   | v  |    |    | v          |       |      |      | v    |              | v |   |
|                             | 5   |                 |   |   | v  | -  | -  | v          |       |      |      | v    |              | v |   |
|                             | 66  |                 |   |   | v  |    |    | v          |       |      |      | v    |              | v |   |
| E.R.P./ E.I.R.P.            | 2   | v               | v | v | v  | v  | v  | v          | v     | v    |      |      | v            | v | v |
|                             | 4   | v               | v | v | v  | v  | v  | v          | v     | v    |      |      | v            | v | v |
|                             | 5   | v               | v | v | v  | -  | -  | v          | v     | v    |      |      | v            | v | v |
|                             | 12  | v               | v | v | v  | -  | -  | v          | v     | v    |      |      | v            | v | v |
|                             | 17  | -               | - | v | v  | -  | -  | v          | v     | v    |      |      | v            | v | v |
|                             | 66  | v               | v | v | v  | v  | v  | v          | v     | v    |      |      | v            | v | v |
| Radiated Spurious Emission  | 2   | v               | v | v | v  | v  | v  | v          |       | v    |      |      | v            | v | v |
|                             | 4   | v               | v | v | v  | v  | v  | v          |       | v    | v    |      | v            | v | v |
|                             | 5   | v               | v | v | v  | -  | -  | v          |       | v    | v    |      | v            | v | v |
|                             | 12  | v               | v | v | v  | -  | -  | v          |       | v    |      |      | v            | v | v |
|                             | 17  | -               | - | v | v  | -  | -  | v          |       | v    |      |      | v            | v | v |
|                             | 66  | v               | v | v | v  | v  | v  | v          |       | v    |      |      | v            | v | v |
| Note                        | <p>1. The mark "v" means that this configuration is chosen for testing</p> <p>2. The mark "-" means that this bandwidth is not supported.</p> <p>3. 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.</p> |                 |   |   |    |    |    |            |       |      |      |      |              |   |   |

## 2.2 Connection Diagram of Test System



## 2.3 Support Unit used in test configuration and system

| Item | Equipment        | Trade Name | Model No. | FCC ID       | Data Cable        | Power Cord        |
|------|------------------|------------|-----------|--------------|-------------------|-------------------|
| 1.   | System Simulator | Anritsu    | MT8820C   | N/A          | N/A               | Unshielded, 1.8 m |
| 2.   | iPod Earphone    | Apple      | N/A       | Verification | Unshielded, 1.0 m | N/A               |

## 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 2 Channel and Frequency List |                        |        |        |         |
|---------------------------------------|------------------------|--------|--------|---------|
| BW [MHz]                              | Channel/Frequency(MHz) | Lowest | Middle | Highest |
| 20                                    | Channel                | 18700  | 18900  | 19100   |
|                                       | Frequency              | 1860   | 1880   | 1900    |
| 15                                    | Channel                | 18675  | 18900  | 19125   |
|                                       | Frequency              | 1857.5 | 1880   | 1902.5  |
| 10                                    | Channel                | 18650  | 18900  | 19150   |
|                                       | Frequency              | 1855   | 1880   | 1905    |
| 5                                     | Channel                | 18625  | 18900  | 19175   |
|                                       | Frequency              | 1852.5 | 1880   | 1907.5  |
| 3                                     | Channel                | 18615  | 18900  | 19185   |
|                                       | Frequency              | 1851.5 | 1880   | 1908.5  |
| 1.4                                   | Channel                | 18607  | 18900  | 19193   |
|                                       | Frequency              | 1850.7 | 1880   | 1909.3  |

| LTE Band 4 Channel and Frequency List |                        |        |        |         |
|---------------------------------------|------------------------|--------|--------|---------|
| BW [MHz]                              | Channel/Frequency(MHz) | Lowest | Middle | Highest |
| 20                                    | Channel                | 20050  | 20175  | 20300   |
|                                       | Frequency              | 1720   | 1732.5 | 1745    |
| 15                                    | Channel                | 20025  | 20175  | 20325   |
|                                       | Frequency              | 1717.5 | 1732.5 | 1747.5  |
| 10                                    | Channel                | 20000  | 20175  | 20350   |
|                                       | Frequency              | 1715   | 1732.5 | 1750    |
| 5                                     | Channel                | 19975  | 20175  | 20375   |
|                                       | Frequency              | 1712.5 | 1732.5 | 1752.5  |
| 3                                     | Channel                | 19965  | 20175  | 20385   |
|                                       | Frequency              | 1711.5 | 1732.5 | 1753.5  |
| 1.4                                   | Channel                | 19957  | 20175  | 20393   |
|                                       | Frequency              | 1710.7 | 1732.5 | 1754.3  |



| LTE Band 5 Channel and Frequency List |                        |        |        |         |
|---------------------------------------|------------------------|--------|--------|---------|
| BW [MHz]                              | Channel/Frequency(MHz) | Lowest | Middle | Highest |
| 10                                    | Channel                | 20450  | 20525  | 20600   |
|                                       | Frequency              | 829    | 836.5  | 844     |
| 5                                     | Channel                | 20425  | 20525  | 20625   |
|                                       | Frequency              | 826.5  | 836.5  | 846.5   |
| 3                                     | Channel                | 20415  | 20525  | 20635   |
|                                       | Frequency              | 825.5  | 836.5  | 847.5   |
| 1.4                                   | Channel                | 20407  | 20525  | 20643   |
|                                       | Frequency              | 824.7  | 836.5  | 848.3   |

| LTE Band 12 Channel and Frequency List |                        |        |        |         |
|--|------------------------|--------|--------|---------|
| BW [MHz]                               | Channel/Frequency(MHz) | Lowest | Middle | Highest |
| 10                                     | Channel                | 23060  | 23095  | 23130   |
|  | Frequency              | 704    | 707.5  | 711     |
| 5                                      | Channel                | 23035  | 23095  | 23155   |
|  | Frequency              | 701.5  | 707.5  | 713.5   |
| 3                                      | Channel                | 23025  | 23095  | 23165   |
|  | Frequency              | 700.5  | 707.5  | 714.5   |
| 1.4                                    | Channel                | 23017  | 23095  | 23173   |
|  | Frequency              | 699.7  | 707.5  | 715.3   |

| LTE Band 17 Channel and Frequency List |                        |        |        |         |
|--|------------------------|--------|--------|---------|
| BW [MHz]                               | Channel/Frequency(MHz) | Lowest | Middle | Highest |
| 10                                     | Channel                | 23780  | 23790  | 23800   |
|  | Frequency              | 709    | 710    | 711     |
| 5                                      | Channel                | 23755  | 23790  | 23825   |
|  | Frequency              | 706.5  | 710    | 713.5   |



| LTE Band 66 Channel and Frequency List |                        |        |        |         |
|--|------------------------|--------|--------|---------|
| BW [MHz]                               | Channel/Frequency(MHz) | Lowest | Middle | Highest |
| 20                                     | Channel                | 132072 | 132322 | 132572  |
|  | Frequency              | 1720   | 1745   | 1770    |
| 15                                     | Channel                | 132047 | 132322 | 132597  |
|  | Frequency              | 1717.5 | 1745   | 1772.5  |
| 10                                     | Channel                | 132022 | 132322 | 132622  |
|  | Frequency              | 1715   | 1745   | 1775    |
| 5                                      | Channel                | 131997 | 132322 | 132647  |
|  | Frequency              | 1712.5 | 1745   | 1777.5  |
| 3                                      | Channel                | 131987 | 132322 | 132657  |
|  | Frequency              | 1711.5 | 1745   | 1778.5  |
| 1.4                                    | Channel                | 131979 | 132322 | 132665  |
|  | Frequency              | 1710.7 | 1745   | 1779.3  |

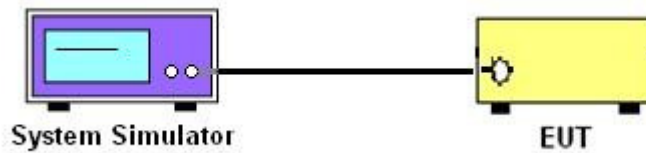
### 3 Conducted Test Items

#### 3.1 Measuring Instruments

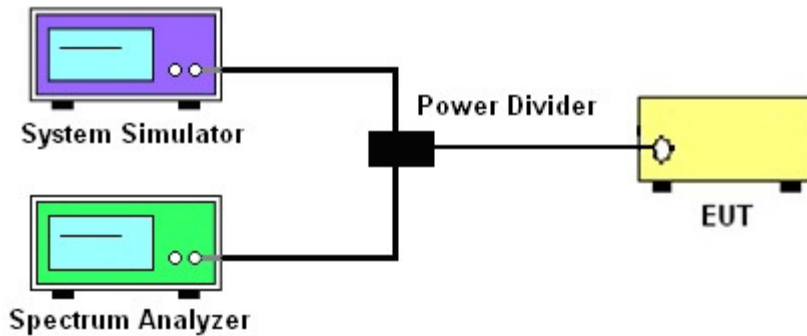
See list of measuring instruments of this test report.

#### 3.2 Test Setup

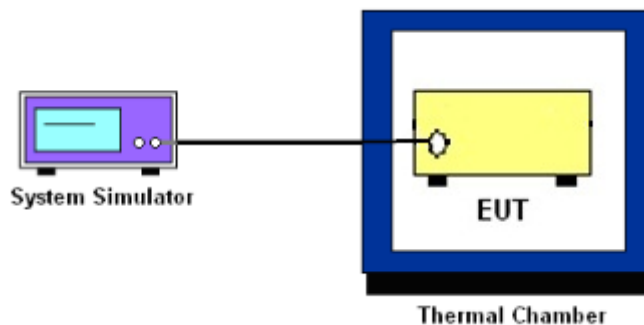
##### 3.2.1 Conducted Output Power



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



##### 3.2.3 Frequency Stability



### 3.3 Test Result of Conducted Test

Please refer to Appendix A.





### 3.4 Conducted Output Power and EIRP

#### 3.4.1 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 11 Watts for LTE Band 5.

The EIRP of mobile transmitters must not exceed 5 Watts for LTE Band 12 and Band 17.

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

The EIRP of mobile transmitters must not exceed 1 Watts for LTE Band 4 and Band 66.

According to KDB 412172 D01 Power Approach,

$EIRP = P_T + G_T - L_C$ ,  $ERP = EIRP - 2.15$ , where

$P_T$  = transmitter output power in dBm

$G_T$  = gain of the transmitting antenna in dBi

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

#### 3.4.2 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.



## **3.5 Peak-to-Average Ratio**

### **3.5.1 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.

### **3.5.2 Test Procedures**

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.



## 3.6 Occupied Bandwidth

### 3.6.1 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.

### 3.6.2 Test Procedures

The testing follows ANSI C63.26 Section 5.4

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.



## 3.7 Conducted Band Edge

### 3.7.1 Description of Conducted Band Edge Measurement

RSS – 132

For operations in the 824 – 849 MHz band, the FCC limit is  $43 + 10\log_{10}(P[\text{Watts}])$  dB below the transmitter power  $P(\text{Watts})$  in a 100kHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

RSS – 133

For operations in the 1850-1910 and 1930-1990 MHz band, the FCC limit is  $43 + 10\log_{10}(P[\text{Watts}])$  dB below the transmitter power  $P(\text{Watts})$  in a 1MHz bandwidth. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

RSS – 139

For operations in the 1710 – 1755 MHz band, the FCC limit is  $43 + 10\log_{10}(P[\text{Watts}])$  dB below the transmitter power  $P(\text{Watts})$  in a 1 MHz bandwidth. However, in the 1MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

RSS-199 4.5(b)

For mobile subscriber equipment, the power of any unwanted emissions measured as above shall be attenuated (in dB) below the transmitter power,  $P$  (dBW), by at least: i)  $40 + 10 \log_{10} p$  from the channel edges to 5 MHz away, ii)  $43 + 10 \log_{10} p$  between 5 MHz and  $X$  MHz from the channel edges, and iii)  $55 + 10 \log_{10} p$  at  $X$  MHz and beyond from the channel edges. iv) in addition, the attenuation shall be not be less than  $43 + 10 \log_{10} p$  on all frequencies between 2490.5 MHz and 2496 MHz and  $55 + 10 \log_{10} p$  at or below 2490.5 MHz. where  $p$  in (a) and (b) is the transmitter power measured in watts and  $X$  is 6 MHz or the equipment occupied bandwidth, whichever is greater.



### **3.7.2 Test Procedures**

The testing follows ANSI C63.26 Section 5.7.

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)



## **3.8 Conducted Spurious Emission**

### **3.8.1 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.

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

### **3.8.2 Test Procedures**

The testing follows ANSI C63.26 Section 5.7.

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)



## 3.9 Frequency Stability

### 3.9.1 Description of Frequency Stability Measurement

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within  $\pm 0.00025\%$  ( $\pm 2.5\text{ppm}$ ) of the center frequency.

### 3.9.2 Test Procedures for Temperature Variation

The testing follows ANSI C63.26 Section 5.6.

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  $-30^{\circ}\text{C}$  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  $10^{\circ}\text{C}$  step up to  $50^{\circ}\text{C}$ . 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.

### 3.9.3 Test Procedures for Voltage Variation

The testing follows ANSI C63.26 Section 5.6.

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.

### 3.9.4 Test Procedures for Frequency Stability

1. The testing follows the Section 6.11 of RSS-GEN.
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The EUT was operated at the lowest and highest channel.
4. For RSS-132, 133, 139 the frequency range shall be within the frequency range.
5. For RSS-130, 199, the frequency at these points shall be recorded as  $f_L$  and  $f_H$  respectively. The frequency stability by showing that  $f_L$  minus the frequency offset and  $f_H$  plus the frequency offset shall be within the frequency range that the equipment is designed to operate.

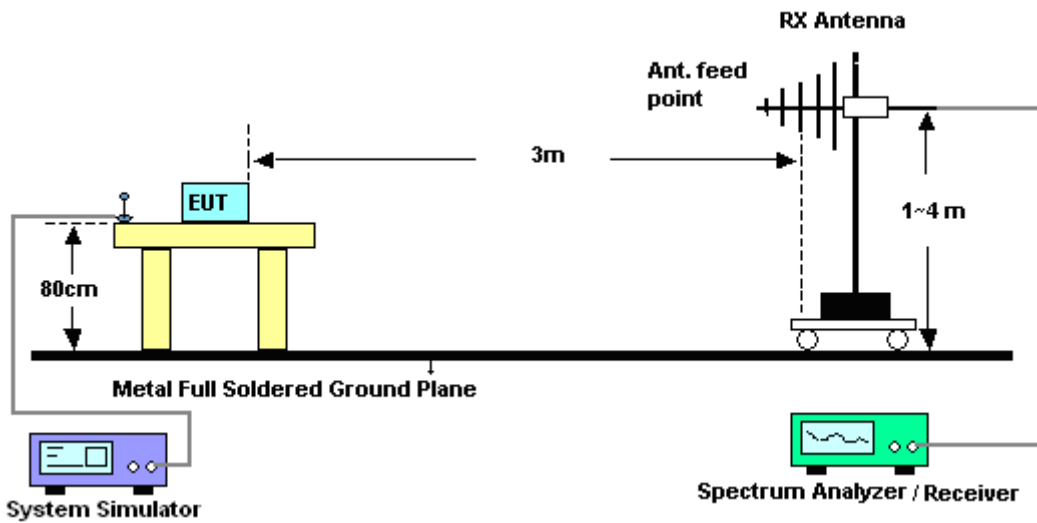
## 4 Radiated Test Items

### 4.1 Measuring Instruments

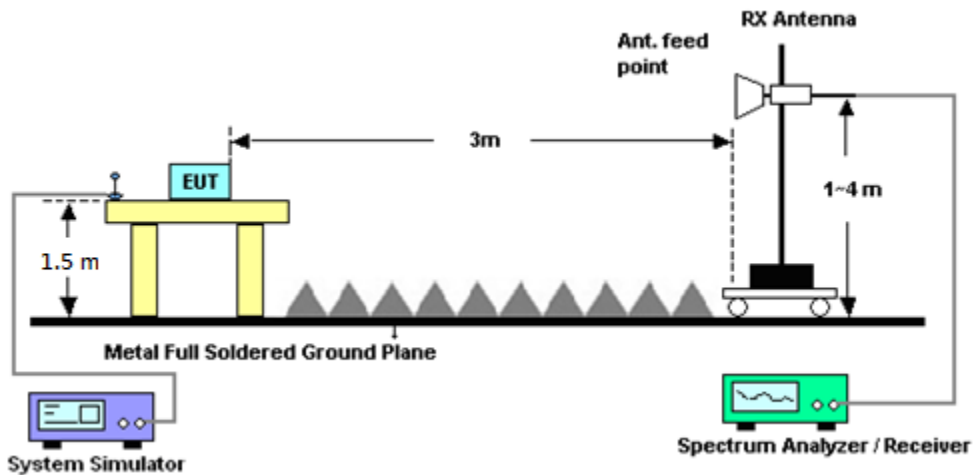
See list of measuring instruments of this test report.

### 4.2 Test Setup

#### 4.2.1 For radiated test from 30MHz to 1GHz



#### 4.2.2 For radiated test above 1GHz



### 4.3 Test Result of Radiated Test

Please refer to Appendix B.





## 4.4 Radiated Spurious Emission

### 4.4.1 Description of Radiated Spurious Emission

The radiated spurious emission was measured by substitution method according to ANSI C63.26. 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 12,17

For operations in the 746-758 MHz, 775-788 MHz, and 805-806 MHz bands, emissions in the band 1559-1610 MHz shall be limited to  $-70$  dBW/MHz equivalent isotropically radiated power (EIRP) for wideband signals, and  $-80$  dBW EIRP for discrete emissions of less than 700 Hz bandwidth.

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

### 4.4.2 Test Procedures

The testing follows ANSI C63.26 Section 5.8 Measurement of spurious emissions using substitution method.

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)



## 5 List of Measuring Equipment

| Instrument                | Manufacturer    | Model No.                                     | Serial No.             | Characteristics                     | Calibration Date | Test Date                       | Due Date      | Remark                   |
|---------------------------|-----------------|---|------------------------|-------------------------------------|------------------|---------------------------------|---------------|--------------------------|
| LTE Base Station          | Anritsu         | MT8820C                                       | 620143282<br>1         | GSM/GPRS<br>/WCDMA/LTE              | Oct. 13, 2017    | Jan. 25, 2018~<br>Jan. 30, 2018 | Oct. 12, 2018 | Conducted<br>(TH05-HY)   |
| Spectrum Analyzer         | Rohde & Schwarz | FSV40   | 101397                 | 10Hz~40GHz                          | Nov. 07, 2017    | Jan. 25, 2018~<br>Jan. 30, 2018 | Nov. 06, 2018 | Conducted<br>(TH05-HY)   |
| Spectrum Analyzer         | Rohde & Schwarz | FSV30   | 100895                 | 9kHz~30GHz                          | Apr. 25, 2017    | Jan. 25, 2018~<br>Jan. 30, 2018 | Apr. 24, 2018 | Conducted<br>(TH05-HY)   |
| Temperature Chamber       | ESPEC           | SH-641  | 92013720               | -30℃~70℃                            | Aug. 28, 2017    | Jan. 25, 2018~<br>Jan. 30, 2018 | Aug. 27, 2018 | Conducted<br>(TH05-HY)   |
| Programmable Power Supply | GW Instek       | PSS-2005                                      | EL890001               | 1V~20V<br>0.5A~5A                   | Oct. 06, 2017    | Jan. 25, 2018~<br>Jan. 30, 2018 | Oct. 05, 2018 | Conducted<br>(TH05-HY)   |
| Coupler                   | Warison         | 1-18GHz 20dB<br>25WSMA<br>Directional Coupler | #B                     | 1G~18GHz                            | Feb. 20, 2017    | Jan. 25, 2018~<br>Jan. 30, 2018 | Feb. 19, 2018 | Conducted<br>(TH05-HY)   |
| Amplifier                 | MITEQ           | TTA1840-35-HG                                 | 1871923                | 18GHz~40GHz,<br>VSWR : 2.5:1<br>max | Jul. 18, 2017    | Jan. 15, 2017~<br>Jan. 16, 2018 | Jul. 17, 2018 | Radiation<br>(03CH12-HY) |
| Bilog Antenna             | TESEQ           | CBL<br>6111D&00800<br>N1D01N-06               | 35413&02               | 30MHz~1GHz                          | Dec. 18, 2017    | Jan. 15, 2017~<br>Jan. 16, 2018 | Dec. 17, 2018 | Radiation<br>(03CH12-HY) |
| Horn Antenna              | SCHWARZBECK     | BBHA 9120D                                    | 9120D-132<br>8         | 1GHz ~ 18GHz                        | Oct. 20, 2017    | Jan. 15, 2017~<br>Jan. 16, 2018 | Oct. 19, 2018 | Radiation<br>(03CH12-HY) |
| Preamplifier              | COM-POWER       | PA-103  | 161075                 | 10MHz~1GHz                          | Mar. 23, 2017    | Jan. 15, 2017~<br>Jan. 16, 2018 | Mar. 22, 2018 | Radiation<br>(03CH12-HY) |
| Preamplifier              | Agilent         | 8449B   | 3008A023<br>75         | 1GHz~26.5GHz                        | Dec. 19, 2017    | Jan. 15, 2017~<br>Jan. 16, 2018 | Dec. 18, 2018 | Radiation<br>(03CH12-HY) |
| Antenna Mast              | EMEC            | AM-BS-4500-B                                  | N/A                    | 1m~4m                               | N/A              | Jan. 15, 2017~<br>Jan. 16, 2018 | N/A           | Radiation<br>(03CH12-HY) |
| Turn Table                | EMEC            | TT2000  | N/A                    | 0~360 Degree                        | N/A              | Jan. 15, 2017~<br>Jan. 16, 2018 | N/A           | Radiation<br>(03CH12-HY) |
| SHF-EHF Horn Antenna      | SCHWARZBECK     | BBHA 9170                                     | BBHA9170<br>576        | 18GHz ~ 40GHz                       | Apr. 27, 2017    | Jan. 15, 2017~<br>Jan. 16, 2018 | Apr. 26, 2018 | Radiation<br>(03CH12-HY) |
| Spectrum Analyzer         | Agilent         | N9030A  | MY523502<br>76         | 3Hz~44GHz                           | Mar. 23, 2017    | Jan. 15, 2017~<br>Jan. 16, 2018 | Mar. 22, 2018 | Radiation<br>(03CH12-HY) |
| Horn Antenna              | SCHWARZBECK     | BBHA 9120 D                                   | BBHA<br>9120 D<br>1212 | 1GHz ~ 18GHz                        | Mar. 17, 2017    | Jan. 15, 2017~<br>Jan. 16, 2018 | Mar. 16, 2018 | Radiation<br>(03CH12-HY) |
| SHF-EHF Horn Antenna      | SCHWARZBECK     | BBHA 9170                                     | BBHA9170<br>584        | 18GHz- 40GHz                        | Nov. 27, 2017    | Jan. 15, 2017~<br>Jan. 16, 2018 | Nov. 26, 2018 | Radiation<br>(03CH12-HY) |
| Signal Generator          | Rohde & Schwarz | SMF100A                                       | 101107                 | 100kHz~40GHz                        | May 22, 2017     | Jan. 15, 2017~<br>Jan. 16, 2018 | May 21, 2018  | Radiation<br>(03CH12-HY) |



## 6 Uncertainty of Evaluation

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

|   |      |
|---|------|
| Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ ) | 3.36 |
|---|------|

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

|   |      |
|---|------|
| Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ ) | 3.70 |
|---|------|

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

|   |      |
|---|------|
| Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ ) | 3.98 |
|---|------|



## Appendix A. Test Results of Conducted Test

### Conducted Output Power(Average power)

| LTE Band 2 Maximum Average Power [dBm] |         |           |        |        |              |         |
|--|---------|-----------|--------|--------|--------------|---------|
| BW [MHz]                               | RB Size | RB Offset | Mod    | Lowest | Middle       | Highest |
| 20                                     | 1       | 0         | QPSK   | 22.64  | 22.76        | 22.82   |
| 20                                     | 1       | 49        |        | 22.92  | <b>23.10</b> | 22.95   |
| 20                                     | 1       | 99        |        | 22.59  | 22.68        | 22.61   |
| 20                                     | 50      | 0         |        | 22.01  | 22.15        | 22.03   |
| 20                                     | 50      | 24        |        | 21.93  | 22.13        | 21.97   |
| 20                                     | 50      | 50        |        | 21.78  | 21.89        | 21.80   |
| 20                                     | 100     | 0         |        | 21.83  | 21.98        | 21.97   |
| 20                                     | 1       | 0         | 16-QAM | 22.18  | 22.30        | 22.42   |
| 20                                     | 1       | 49        |        | 22.07  | 22.32        | 22.29   |
| 20                                     | 1       | 99        |        | 21.87  | 21.96        | 21.84   |
| 20                                     | 50      | 0         |        | 20.81  | 21.09        | 21.03   |
| 20                                     | 50      | 24        |        | 20.92  | 21.12        | 20.94   |
| 20                                     | 50      | 50        |        | 20.71  | 20.87        | 20.75   |
| 20                                     | 100     | 0         |        | 20.82  | 20.96        | 20.96   |
| 15                                     | 1       | 0         | QPSK   | 22.77  | 22.94        | 22.93   |
| 15                                     | 1       | 37        |        | 22.76  | 23.05        | 22.57   |
| 15                                     | 1       | 74        |        | 22.91  | 23.01        | 22.93   |
| 15                                     | 36      | 0         |        | 21.82  | 22.11        | 21.98   |
| 15                                     | 36      | 20        |        | 21.93  | 22.11        | 21.95   |
| 15                                     | 36      | 39        |        | 21.82  | 21.99        | 21.96   |
| 15                                     | 75      | 0         |        | 21.92  | 22.05        | 21.91   |
| 15                                     | 1       | 0         | 16-QAM | 22.29  | 22.52        | 22.32   |
| 15                                     | 1       | 37        |        | 22.17  | 22.27        | 22.06   |
| 15                                     | 1       | 74        |        | 22.22  | 22.37        | 22.16   |
| 15                                     | 36      | 0         |        | 20.80  | 21.08        | 20.96   |
| 15                                     | 36      | 20        |        | 20.93  | 21.10        | 20.91   |
| 15                                     | 36      | 39        |        | 20.80  | 20.97        | 20.91   |
| 15                                     | 75      | 0         |        | 20.85  | 21.03        | 20.91   |



| LTE Band 2 Maximum Average Power [dBm] |         |           |        |        |        |         |
|--|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                               | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 10                                     | 1       | 0         | QPSK   | 22.72  | 22.98  | 22.92   |
| 10                                     | 1       | 25        |        | 22.85  | 23.05  | 23.02   |
| 10                                     | 1       | 49        |        | 22.98  | 23.02  | 22.95   |
| 10                                     | 25      | 0         |        | 21.84  | 22.16  | 21.96   |
| 10                                     | 25      | 12        |        | 21.83  | 22.13  | 21.96   |
| 10                                     | 25      | 25        |        | 21.90  | 22.15  | 21.92   |
| 10                                     | 50      | 0         |        | 21.83  | 22.16  | 21.96   |
| 10                                     | 1       | 0         | 16-QAM | 22.23  | 22.57  | 22.46   |
| 10                                     | 1       | 25        |        | 22.15  | 22.44  | 22.24   |
| 10                                     | 1       | 49        |        | 22.21  | 22.40  | 22.25   |
| 10                                     | 25      | 0         |        | 20.90  | 21.18  | 20.94   |
| 10                                     | 25      | 12        |        | 20.83  | 21.13  | 20.94   |
| 10                                     | 25      | 25        |        | 20.90  | 21.15  | 20.90   |
| 10                                     | 50      | 0         |        | 20.81  | 21.12  | 20.89   |
| 5                                      | 1       | 0         | QPSK   | 22.59  | 22.93  | 22.72   |
| 5                                      | 1       | 12        |        | 22.76  | 23.07  | 22.86   |
| 5                                      | 1       | 24        |        | 22.84  | 23.04  | 22.87   |
| 5                                      | 12      | 0         |        | 21.91  | 22.19  | 22.04   |
| 5                                      | 12      | 7         |        | 21.89  | 22.17  | 21.97   |
| 5                                      | 12      | 13        |        | 21.85  | 22.08  | 21.92   |
| 5                                      | 25      | 0         |        | 21.94  | 22.20  | 21.97   |
| 5                                      | 1       | 0         | 16-QAM | 22.28  | 22.61  | 22.35   |
| 5                                      | 1       | 12        |        | 22.12  | 22.38  | 22.20   |
| 5                                      | 1       | 24        |        | 22.11  | 22.44  | 22.27   |
| 5                                      | 12      | 0         |        | 20.96  | 21.23  | 21.07   |
| 5                                      | 12      | 7         |        | 20.88  | 21.20  | 20.96   |
| 5                                      | 12      | 13        |        | 20.85  | 21.10  | 20.95   |
| 5                                      | 25      | 0         |        | 20.86  | 21.16  | 20.95   |



| LTE Band 2 Maximum Average Power [dBm] |         |           |        |        |        |         |
|--|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                               | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 3                                      | 1       | 0         | QPSK   | 22.85  | 22.81  | 22.60   |
| 3                                      | 1       | 8         |        | 22.81  | 23.09  | 22.86   |
| 3                                      | 1       | 14        |        | 22.75  | 23.02  | 22.80   |
| 3                                      | 8       | 0         |        | 21.86  | 22.12  | 21.89   |
| 3                                      | 8       | 4         |        | 21.81  | 22.10  | 21.91   |
| 3                                      | 8       | 7         |        | 21.78  | 22.05  | 21.85   |
| 3                                      | 15      | 0         |        | 21.83  | 22.08  | 21.87   |
| 3                                      | 1       | 0         | 16-QAM | 22.09  | 22.42  | 22.23   |
| 3                                      | 1       | 8         |        | 22.08  | 22.42  | 22.15   |
| 3                                      | 1       | 14        |        | 22.00  | 22.28  | 22.14   |
| 3                                      | 8       | 0         |        | 20.89  | 21.20  | 20.92   |
| 3                                      | 8       | 4         |        | 20.87  | 21.16  | 20.97   |
| 3                                      | 8       | 7         |        | 20.84  | 21.13  | 20.93   |
| 3                                      | 15      | 0         |        | 20.80  | 21.14  | 20.88   |
| 1.4                                    | 1       | 0         | QPSK   | 22.70  | 22.73  | 22.49   |
| 1.4                                    | 1       | 3         |        | 22.76  | 23.04  | 22.85   |
| 1.4                                    | 1       | 5         |        | 22.69  | 23.05  | 22.75   |
| 1.4                                    | 3       | 0         |        | 22.72  | 23.00  | 22.75   |
| 1.4                                    | 3       | 1         |        | 22.75  | 23.05  | 22.77   |
| 1.4                                    | 3       | 3         |        | 22.71  | 22.99  | 22.73   |
| 1.4                                    | 6       | 0         |        | 21.71  | 22.00  | 21.79   |
| 1.4                                    | 1       | 0         | 16-QAM | 21.98  | 22.28  | 22.08   |
| 1.4                                    | 1       | 3         |        | 22.04  | 22.32  | 22.10   |
| 1.4                                    | 1       | 5         |        | 21.99  | 22.29  | 22.10   |
| 1.4                                    | 3       | 0         |        | 21.74  | 22.06  | 21.83   |
| 1.4                                    | 3       | 1         |        | 21.78  | 22.11  | 21.88   |
| 1.4                                    | 3       | 3         |        | 21.71  | 22.05  | 21.86   |
| 1.4                                    | 6       | 0         |        | 20.76  | 21.07  | 20.88   |



| LTE Band 4 Maximum Average Power [dBm] |         |           |        |        |        |         |
|--|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                               | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 20                                     | 1       | 0         | QPSK   | 22.26  | 22.37  | 22.40   |
| 20                                     | 1       | 49        |        | 22.90  | 22.95  | 22.86   |
| 20                                     | 1       | 99        |        | 22.51  | 22.69  | 22.80   |
| 20                                     | 50      | 0         |        | 21.71  | 21.79  | 21.91   |
| 20                                     | 50      | 24        |        | 21.67  | 21.83  | 21.96   |
| 20                                     | 50      | 50        |        | 21.62  | 21.70  | 21.92   |
| 20                                     | 100     | 0         |        | 21.68  | 21.72  | 21.87   |
| 20                                     | 1       | 0         | 16-QAM | 21.74  | 21.66  | 21.82   |
| 20                                     | 1       | 49        |        | 21.76  | 21.97  | 22.17   |
| 20                                     | 1       | 99        |        | 21.65  | 21.89  | 22.00   |
| 20                                     | 50      | 0         |        | 20.71  | 20.80  | 20.93   |
| 20                                     | 50      | 24        |        | 20.72  | 20.81  | 20.97   |
| 20                                     | 50      | 50        |        | 20.63  | 20.72  | 20.98   |
| 20                                     | 100     | 0         |        | 20.68  | 20.74  | 20.90   |
| 15                                     | 1       | 0         | QPSK   | 22.47  | 22.49  | 22.78   |
| 15                                     | 1       | 37        |        | 22.27  | 22.50  | 22.85   |
| 15                                     | 1       | 74        |        | 22.50  | 22.61  | 22.80   |
| 15                                     | 36      | 0         |        | 21.81  | 21.85  | 21.94   |
| 15                                     | 36      | 20        |        | 21.79  | 21.88  | 22.04   |
| 15                                     | 36      | 39        |        | 21.72  | 21.73  | 21.91   |
| 15                                     | 75      | 0         |        | 21.68  | 21.81  | 22.02   |
| 15                                     | 1       | 0         | 16-QAM | 21.94  | 21.88  | 22.17   |
| 15                                     | 1       | 37        |        | 21.80  | 21.91  | 22.23   |
| 15                                     | 1       | 74        |        | 21.67  | 21.94  | 22.07   |
| 15                                     | 36      | 0         |        | 20.81  | 20.85  | 20.96   |
| 15                                     | 36      | 20        |        | 20.68  | 20.82  | 21.06   |
| 15                                     | 36      | 39        |        | 20.71  | 20.73  | 20.92   |
| 15                                     | 75      | 0         |        | 20.70  | 20.79  | 20.96   |



| LTE Band 4 Maximum Average Power [dBm] |         |           |        |        |        |              |
|--|---------|-----------|--------|--------|--------|--------------|
| BW [MHz]                               | RB Size | RB Offset | Mod    | Lowest | Middle | Highest      |
| 10                                     | 1       | 0         | QPSK   | 22.66  | 23.17  | 23.00        |
| 10                                     | 1       | 25        |        | 22.81  | 22.94  | 23.17        |
| 10                                     | 1       | 49        |        | 23.13  | 23.27  | <b>23.32</b> |
| 10                                     | 25      | 0         |        | 21.69  | 21.90  | 22.06        |
| 10                                     | 25      | 12        |        | 21.80  | 21.91  | 22.14        |
| 10                                     | 25      | 25        |        | 21.88  | 22.05  | 22.24        |
| 10                                     | 50      | 0         |        | 21.86  | 21.92  | 22.20        |
| 10                                     | 1       | 0         | 16-QAM | 22.22  | 22.25  | 22.49        |
| 10                                     | 1       | 25        |        | 21.92  | 21.95  | 22.31        |
| 10                                     | 1       | 49        |        | 22.29  | 22.50  | 22.67        |
| 10                                     | 25      | 0         |        | 20.83  | 20.89  | 21.11        |
| 10                                     | 25      | 12        |        | 20.80  | 20.86  | 21.15        |
| 10                                     | 25      | 25        |        | 20.90  | 21.02  | 21.15        |
| 10                                     | 50      | 0         |        | 20.91  | 20.98  | 21.22        |
| 5                                      | 1       | 0         | QPSK   | 22.56  | 22.53  | 22.93        |
| 5                                      | 1       | 12        |        | 22.61  | 22.77  | 23.02        |
| 5                                      | 1       | 24        |        | 22.70  | 22.92  | 23.04        |
| 5                                      | 12      | 0         |        | 21.79  | 21.93  | 22.12        |
| 5                                      | 12      | 7         |        | 21.70  | 21.88  | 22.09        |
| 5                                      | 12      | 13        |        | 21.79  | 21.91  | 22.07        |
| 5                                      | 25      | 0         |        | 21.74  | 21.87  | 22.08        |
| 5                                      | 1       | 0         | 16-QAM | 22.05  | 22.02  | 22.44        |
| 5                                      | 1       | 12        |        | 21.83  | 21.96  | 22.26        |
| 5                                      | 1       | 24        |        | 22.00  | 22.18  | 22.34        |
| 5                                      | 12      | 0         |        | 20.76  | 20.90  | 21.16        |
| 5                                      | 12      | 7         |        | 20.73  | 20.93  | 21.12        |
| 5                                      | 12      | 13        |        | 20.77  | 20.87  | 21.10        |
| 5                                      | 25      | 0         |        | 20.65  | 20.88  | 21.10        |





| LTE Band 4 Maximum Average Power [dBm] |         |           |        |        |        |         |
|--|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                               | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 3                                      | 1       | 0         | QPSK   | 22.35  | 22.44  | 22.75   |
| 3                                      | 1       | 8         |        | 22.60  | 22.79  | 23.10   |
| 3                                      | 1       | 14        |        | 22.57  | 22.75  | 22.96   |
| 3                                      | 8       | 0         |        | 21.69  | 21.82  | 22.03   |
| 3                                      | 8       | 4         |        | 21.68  | 21.81  | 22.04   |
| 3                                      | 8       | 7         |        | 21.64  | 21.81  | 22.02   |
| 3                                      | 15      | 0         |        | 21.63  | 21.80  | 22.02   |
| 3                                      | 1       | 0         | 16-QAM | 21.93  | 22.21  | 22.29   |
| 3                                      | 1       | 8         |        | 21.92  | 21.99  | 22.33   |
| 3                                      | 1       | 14        |        | 21.82  | 22.32  | 22.29   |
| 3                                      | 8       | 0         |        | 20.71  | 20.86  | 21.10   |
| 3                                      | 8       | 4         |        | 20.72  | 20.87  | 21.10   |
| 3                                      | 8       | 7         |        | 20.66  | 20.85  | 21.07   |
| 3                                      | 15      | 0         |        | 20.63  | 20.83  | 21.04   |
| 1.4                                    | 1       | 0         | QPSK   | 22.31  | 22.60  | 22.68   |
| 1.4                                    | 1       | 3         |        | 22.65  | 22.76  | 23.02   |
| 1.4                                    | 1       | 5         |        | 22.56  | 22.73  | 22.95   |
| 1.4                                    | 3       | 0         |        | 22.61  | 22.74  | 22.95   |
| 1.4                                    | 3       | 1         |        | 22.67  | 22.70  | 23.01   |
| 1.4                                    | 3       | 3         |        | 22.64  | 22.77  | 23.06   |
| 1.4                                    | 6       | 0         |        | 21.65  | 21.74  | 22.01   |
| 1.4                                    | 1       | 0         | 16-QAM | 21.86  | 21.90  | 22.47   |
| 1.4                                    | 1       | 3         |        | 21.86  | 22.31  | 22.44   |
| 1.4                                    | 1       | 5         |        | 21.80  | 21.92  | 22.42   |
| 1.4                                    | 3       | 0         |        | 21.64  | 21.75  | 22.05   |
| 1.4                                    | 3       | 1         |        | 21.70  | 21.77  | 22.04   |
| 1.4                                    | 3       | 3         |        | 21.63  | 21.75  | 22.02   |
| 1.4                                    | 6       | 0         |        | 20.71  | 20.82  | 21.11   |



| LTE Band 5 Maximum Average Power [dBm] |         |           |        |              |        |         |
|--|---------|-----------|--------|--------------|--------|---------|
| BW [MHz]                               | RB Size | RB Offset | Mod    | Lowest       | Middle | Highest |
| 10                                     | 1       | 0         | QPSK   | 22.48        | 22.66  | 22.60   |
| 10                                     | 1       | 25        |        | 22.63        | 22.78  | 22.76   |
| 10                                     | 1       | 49        |        | <b>23.13</b> | 23.10  | 23.06   |
| 10                                     | 25      | 0         |        | 21.71        | 21.72  | 21.95   |
| 10                                     | 25      | 12        |        | 21.66        | 21.84  | 21.81   |
| 10                                     | 25      | 25        |        | 21.84        | 21.89  | 21.88   |
| 10                                     | 50      | 0         |        | 21.71        | 21.83  | 21.93   |
| 10                                     | 1       | 0         | 16-QAM | 22.01        | 22.06  | 22.21   |
| 10                                     | 1       | 25        |        | 21.85        | 22.10  | 21.96   |
| 10                                     | 1       | 49        |        | 22.16        | 22.35  | 22.27   |
| 10                                     | 25      | 0         |        | 20.71        | 20.75  | 20.94   |
| 10                                     | 25      | 12        |        | 20.67        | 20.84  | 20.84   |
| 10                                     | 25      | 25        |        | 20.78        | 20.90  | 20.88   |
| 10                                     | 50      | 0         |        | 20.71        | 20.86  | 20.95   |
| 5                                      | 1       | 0         | QPSK   | 22.24        | 22.42  | 22.39   |
| 5                                      | 1       | 12        |        | 22.74        | 22.74  | 22.71   |
| 5                                      | 1       | 24        |        | 22.70        | 22.77  | 22.67   |
| 5                                      | 12      | 0         |        | 21.66        | 21.75  | 21.81   |
| 5                                      | 12      | 7         |        | 21.66        | 21.80  | 21.74   |
| 5                                      | 12      | 13        |        | 21.59        | 21.76  | 21.77   |
| 5                                      | 25      | 0         |        | 21.69        | 21.77  | 21.75   |
| 5                                      | 1       | 0         | 16-QAM | 21.93        | 22.08  | 22.03   |
| 5                                      | 1       | 12        |        | 21.81        | 22.09  | 21.93   |
| 5                                      | 1       | 24        |        | 22.07        | 22.06  | 22.01   |
| 5                                      | 12      | 0         |        | 20.67        | 20.77  | 20.81   |
| 5                                      | 12      | 7         |        | 20.68        | 20.80  | 20.75   |
| 5                                      | 12      | 13        |        | 20.61        | 20.76  | 20.76   |
| 5                                      | 25      | 0         |        | 20.69        | 20.78  | 20.75   |



| LTE Band 5 Maximum Average Power [dBm] |         |           |        |        |        |         |
|--|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                               | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 3                                      | 1       | 0         | QPSK   | 22.16  | 22.31  | 22.31   |
| 3                                      | 1       | 8         |        | 22.62  | 22.75  | 22.72   |
| 3                                      | 1       | 14        |        | 22.59  | 22.62  | 22.60   |
| 3                                      | 8       | 0         |        | 21.60  | 21.67  | 21.68   |
| 3                                      | 8       | 4         |        | 21.59  | 21.76  | 21.79   |
| 3                                      | 8       | 7         |        | 21.60  | 21.71  | 21.74   |
| 3                                      | 15      | 0         |        | 21.62  | 21.76  | 21.74   |
| 3                                      | 1       | 0         | 16-QAM | 21.82  | 22.01  | 21.97   |
| 3                                      | 1       | 8         |        | 22.19  | 22.05  | 22.05   |
| 3                                      | 1       | 14        |        | 21.93  | 21.92  | 22.02   |
| 3                                      | 8       | 0         |        | 20.68  | 20.71  | 20.74   |
| 3                                      | 8       | 4         |        | 20.70  | 20.82  | 20.80   |
| 3                                      | 8       | 7         |        | 20.64  | 20.77  | 20.77   |
| 3                                      | 15      | 0         |        | 20.58  | 20.78  | 20.78   |
| 1.4                                    | 1       | 0         | QPSK   | 22.19  | 22.22  | 22.33   |
| 1.4                                    | 1       | 3         |        | 22.64  | 22.76  | 22.77   |
| 1.4                                    | 1       | 5         |        | 22.56  | 22.76  | 22.66   |
| 1.4                                    | 3       | 0         |        | 22.64  | 22.61  | 22.69   |
| 1.4                                    | 3       | 1         |        | 22.59  | 22.78  | 22.72   |
| 1.4                                    | 3       | 3         |        | 22.62  | 22.72  | 22.68   |
| 1.4                                    | 6       | 0         |        | 21.64  | 21.76  | 21.72   |
| 1.4                                    | 1       | 0         | 16-QAM | 21.86  | 22.06  | 22.08   |
| 1.4                                    | 1       | 3         |        | 21.85  | 22.06  | 22.05   |
| 1.4                                    | 1       | 5         |        | 21.86  | 21.96  | 21.96   |
| 1.4                                    | 3       | 0         |        | 21.61  | 21.71  | 21.72   |
| 1.4                                    | 3       | 1         |        | 21.70  | 21.83  | 21.78   |
| 1.4                                    | 3       | 3         |        | 21.62  | 21.78  | 21.74   |
| 1.4                                    | 6       | 0         |        | 20.70  | 20.81  | 20.77   |



| LTE Band 12 Maximum Average Power [dBm] |         |           |        |        |        |         |
|---|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                                | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 10                                      | 1       | 0         | QPSK   | 22.75  | 22.76  | 22.66   |
| 10                                      | 1       | 25        |        | 22.71  | 22.80  | 22.70   |
| 10                                      | 1       | 49        |        | 22.76  | 22.83  | 23.01   |
| 10                                      | 25      | 0         |        | 21.73  | 21.65  | 21.77   |
| 10                                      | 25      | 12        |        | 21.71  | 21.74  | 21.72   |
| 10                                      | 25      | 25        |        | 21.69  | 21.77  | 21.86   |
| 10                                      | 50      | 0         |        | 21.83  | 21.70  | 21.73   |
| 10                                      | 1       | 0         | 16-QAM | 21.98  | 22.20  | 22.08   |
| 10                                      | 1       | 25        |        | 21.83  | 21.94  | 21.83   |
| 10                                      | 1       | 49        |        | 22.03  | 22.09  | 22.07   |
| 10                                      | 25      | 0         |        | 20.86  | 20.68  | 20.75   |
| 10                                      | 25      | 12        |        | 20.68  | 20.76  | 20.72   |
| 10                                      | 25      | 25        |        | 20.69  | 20.75  | 20.78   |
| 10                                      | 50      | 0         |        | 20.80  | 20.71  | 20.76   |
| 5                                       | 1       | 0         | QPSK   | 22.31  | 22.36  | 22.23   |
| 5                                       | 1       | 12        |        | 22.63  | 22.65  | 22.68   |
| 5                                       | 1       | 24        |        | 22.76  | 22.72  | 22.79   |
| 5                                       | 12      | 0         |        | 21.58  | 21.68  | 21.66   |
| 5                                       | 12      | 7         |        | 21.72  | 21.77  | 21.73   |
| 5                                       | 12      | 13        |        | 21.67  | 21.75  | 21.73   |
| 5                                       | 25      | 0         |        | 21.75  | 21.76  | 21.74   |
| 5                                       | 1       | 0         | 16-QAM | 21.97  | 22.11  | 22.01   |
| 5                                       | 1       | 12        |        | 21.88  | 22.01  | 21.88   |
| 5                                       | 1       | 24        |        | 21.96  | 21.86  | 22.05   |
| 5                                       | 12      | 0         |        | 20.66  | 20.69  | 20.76   |
| 5                                       | 12      | 7         |        | 20.78  | 20.78  | 20.74   |
| 5                                       | 12      | 13        |        | 20.68  | 20.78  | 20.73   |
| 5                                       | 25      | 0         |        | 20.73  | 20.70  | 20.70   |



| LTE Band 12 Maximum Average Power [dBm] |         |           |        |        |        |         |
|---|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                                | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 3                                       | 1       | 0         | QPSK   | 22.21  | 22.24  | 22.19   |
| 3                                       | 1       | 8         |        | 22.64  | 22.70  | 22.67   |
| 3                                       | 1       | 14        |        | 22.56  | 22.65  | 22.62   |
| 3                                       | 8       | 0         |        | 21.62  | 21.68  | 21.64   |
| 3                                       | 8       | 4         |        | 21.64  | 21.74  | 21.71   |
| 3                                       | 8       | 7         |        | 21.63  | 21.64  | 21.64   |
| 3                                       | 15      | 0         |        | 21.59  | 21.71  | 21.69   |
| 3                                       | 1       | 0         | 16-QAM | 21.71  | 21.86  | 21.85   |
| 3                                       | 1       | 8         |        | 22.09  | 21.88  | 22.02   |
| 3                                       | 1       | 14        |        | 21.82  | 22.09  | 21.98   |
| 3                                       | 8       | 0         |        | 20.69  | 20.73  | 20.69   |
| 3                                       | 8       | 4         |        | 20.70  | 20.79  | 20.72   |
| 3                                       | 8       | 7         |        | 20.67  | 20.69  | 20.68   |
| 3                                       | 15      | 0         |        | 20.66  | 20.73  | 20.69   |
| 1.4                                     | 1       | 0         | QPSK   | 22.33  | 22.25  | 22.24   |
| 1.4                                     | 1       | 3         |        | 22.61  | 22.75  | 22.80   |
| 1.4                                     | 1       | 5         |        | 22.53  | 22.68  | 22.69   |
| 1.4                                     | 3       | 0         |        | 22.66  | 22.65  | 22.58   |
| 1.4                                     | 3       | 1         |        | 22.68  | 22.72  | 22.55   |
| 1.4                                     | 3       | 3         |        | 22.67  | 22.70  | 22.66   |
| 1.4                                     | 6       | 0         |        | 21.62  | 21.69  | 21.64   |
| 1.4                                     | 1       | 0         | 16-QAM | 21.87  | 21.97  | 22.03   |
| 1.4                                     | 1       | 3         |        | 22.02  | 22.06  | 21.91   |
| 1.4                                     | 1       | 5         |        | 21.95  | 21.95  | 22.13   |
| 1.4                                     | 3       | 0         |        | 21.57  | 21.66  | 21.64   |
| 1.4                                     | 3       | 1         |        | 21.70  | 21.71  | 21.63   |
| 1.4                                     | 3       | 3         |        | 21.64  | 21.64  | 21.72   |
| 1.4                                     | 6       | 0         |        | 20.75  | 20.83  | 20.67   |



| LTE Band 17 Maximum Average Power [dBm] |         |           |        |        |        |         |
|---|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                                | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 10                                      | 1       | 0         | QPSK   | 22.48  | 22.60  | 22.51   |
| 10                                      | 1       | 25        |        | 22.72  | 22.69  | 22.67   |
| 10                                      | 1       | 49        |        | 22.83  | 22.99  | 23.21   |
| 10                                      | 25      | 0         |        | 21.72  | 21.75  | 21.64   |
| 10                                      | 25      | 12        |        | 21.75  | 21.71  | 21.64   |
| 10                                      | 25      | 25        |        | 21.75  | 21.79  | 21.86   |
| 10                                      | 50      | 0         |        | 21.72  | 21.72  | 21.74   |
| 10                                      | 1       | 0         | 16-QAM | 22.00  | 22.09  | 22.08   |
| 10                                      | 1       | 25        |        | 21.86  | 21.85  | 21.90   |
| 10                                      | 1       | 49        |        | 22.16  | 22.19  | 22.14   |
| 10                                      | 25      | 0         |        | 20.73  | 20.74  | 20.66   |
| 10                                      | 25      | 12        |        | 20.76  | 20.64  | 20.62   |
| 10                                      | 25      | 25        |        | 20.72  | 20.77  | 20.80   |
| 10                                      | 50      | 0         |        | 20.79  | 20.71  | 20.78   |
| 5                                       | 1       | 0         | QPSK   | 22.23  | 22.23  | 22.26   |
| 5                                       | 1       | 12        |        | 22.62  | 22.54  | 22.59   |
| 5                                       | 1       | 24        |        | 22.57  | 22.69  | 22.80   |
| 5                                       | 12      | 0         |        | 21.64  | 21.59  | 21.73   |
| 5                                       | 12      | 7         |        | 21.63  | 21.62  | 21.71   |
| 5                                       | 12      | 13        |        | 21.70  | 21.69  | 21.84   |
| 5                                       | 25      | 0         |        | 21.70  | 21.63  | 21.83   |
| 5                                       | 1       | 0         | 16-QAM | 21.97  | 21.96  | 21.92   |
| 5                                       | 1       | 12        |        | 21.84  | 21.80  | 21.91   |
| 5                                       | 1       | 24        |        | 21.86  | 22.04  | 22.12   |
| 5                                       | 12      | 0         |        | 20.64  | 20.62  | 20.75   |
| 5                                       | 12      | 7         |        | 20.70  | 20.68  | 20.73   |
| 5                                       | 12      | 13        |        | 20.72  | 20.69  | 20.72   |
| 5                                       | 25      | 0         |        | 20.67  | 20.64  | 20.76   |



| LTE Band 66 Maximum Average Power [dBm] |         |           |        |        |        |         |
|---|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                                | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 20                                      | 1       | 0         | QPSK   | 22.39  | 22.67  | 22.75   |
| 20                                      | 1       | 49        |        | 22.53  | 22.96  | 22.83   |
| 20                                      | 1       | 99        |        | 23.24  | 23.14  | 23.34   |
| 20                                      | 50      | 0         |        | 21.62  | 21.82  | 21.89   |
| 20                                      | 50      | 24        |        | 21.73  | 21.94  | 21.89   |
| 20                                      | 50      | 50        |        | 21.78  | 21.90  | 21.85   |
| 20                                      | 100     | 0         |        | 21.69  | 21.85  | 21.94   |
| 20                                      | 1       | 0         | 16-QAM | 21.83  | 21.89  | 21.99   |
| 20                                      | 1       | 49        |        | 21.78  | 22.12  | 22.00   |
| 20                                      | 1       | 99        |        | 22.04  | 22.30  | 22.29   |
| 20                                      | 50      | 0         |        | 20.70  | 20.82  | 20.90   |
| 20                                      | 50      | 24        |        | 20.70  | 20.90  | 20.89   |
| 20                                      | 50      | 50        |        | 20.82  | 20.91  | 20.84   |
| 20                                      | 100     | 0         |        | 20.67  | 20.82  | 20.95   |
| 15                                      | 1       | 0         | QPSK   | 22.77  | 22.86  | 22.95   |
| 15                                      | 1       | 37        |        | 22.58  | 22.61  | 22.74   |
| 15                                      | 1       | 74        |        | 22.57  | 22.89  | 23.02   |
| 15                                      | 36      | 0         |        | 21.76  | 21.93  | 21.96   |
| 15                                      | 36      | 20        |        | 21.71  | 21.87  | 21.90   |
| 15                                      | 36      | 39        |        | 21.74  | 21.71  | 21.87   |
| 15                                      | 75      | 0         |        | 21.71  | 21.89  | 21.92   |
| 15                                      | 1       | 0         | 16-QAM | 22.12  | 22.23  | 22.33   |
| 15                                      | 1       | 37        |        | 21.76  | 21.97  | 22.08   |
| 15                                      | 1       | 74        |        | 21.83  | 22.15  | 22.14   |
| 15                                      | 36      | 0         |        | 20.76  | 20.84  | 20.97   |
| 15                                      | 36      | 20        |        | 20.72  | 20.86  | 20.91   |
| 15                                      | 36      | 39        |        | 20.70  | 20.71  | 20.83   |
| 15                                      | 75      | 0         |        | 20.72  | 20.86  | 20.88   |



| LTE Band 66 Maximum Average Power [dBm] |         |           |        |        |        |         |
|---|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                                | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 10                                      | 1       | 0         | QPSK   | 22.07  | 22.11  | 22.26   |
| 10                                      | 1       | 25        |        | 22.59  | 22.79  | 22.86   |
| 10                                      | 1       | 49        |        | 23.09  | 23.23  | 23.33   |
| 10                                      | 25      | 0         |        | 21.63  | 21.75  | 21.85   |
| 10                                      | 25      | 12        |        | 21.71  | 21.89  | 21.90   |
| 10                                      | 25      | 25        |        | 21.87  | 21.93  | 21.99   |
| 10                                      | 50      | 0         |        | 21.68  | 21.90  | 21.93   |
| 10                                      | 1       | 0         | 16-QAM | 21.34  | 21.53  | 21.62   |
| 10                                      | 1       | 25        |        | 21.82  | 22.07  | 22.16   |
| 10                                      | 1       | 49        |        | 22.19  | 22.52  | 22.36   |
| 10                                      | 25      | 0         |        | 20.70  | 20.75  | 20.93   |
| 10                                      | 25      | 12        |        | 20.69  | 20.86  | 20.88   |
| 10                                      | 25      | 25        |        | 20.82  | 20.90  | 21.00   |
| 10                                      | 50      | 0         |        | 20.72  | 20.87  | 20.91   |
| 5                                       | 1       | 0         | QPSK   | 22.51  | 22.80  | 22.97   |
| 5                                       | 1       | 12        |        | 22.53  | 22.84  | 22.98   |
| 5                                       | 1       | 24        |        | 22.57  | 22.81  | 22.81   |
| 5                                       | 12      | 0         |        | 21.65  | 21.91  | 21.95   |
| 5                                       | 12      | 7         |        | 21.56  | 21.89  | 21.89   |
| 5                                       | 12      | 13        |        | 21.65  | 21.81  | 21.83   |
| 5                                       | 25      | 0         |        | 21.61  | 21.87  | 21.88   |
| 5                                       | 1       | 0         | 16-QAM | 22.00  | 22.17  | 22.31   |
| 5                                       | 1       | 12        |        | 21.79  | 22.03  | 22.09   |
| 5                                       | 1       | 24        |        | 21.90  | 22.09  | 22.03   |
| 5                                       | 12      | 0         |        | 20.69  | 20.95  | 21.04   |
| 5                                       | 12      | 7         |        | 20.63  | 20.87  | 20.92   |
| 5                                       | 12      | 13        |        | 20.67  | 20.79  | 20.89   |
| 5                                       | 25      | 0         |        | 20.62  | 20.85  | 20.90   |





| LTE Band 66 Maximum Average Power [dBm] |         |           |        |        |        |         |
|---|---------|-----------|--------|--------|--------|---------|
| BW [MHz]                                | RB Size | RB Offset | Mod    | Lowest | Middle | Highest |
| 3                                       | 1       | 0         | QPSK   | 22.37  | 22.59  | 22.72   |
| 3                                       | 1       | 8         |        | 22.49  | 22.79  | 22.85   |
| 3                                       | 1       | 14        |        | 22.59  | 22.73  | 22.81   |
| 3                                       | 8       | 0         |        | 21.61  | 21.85  | 21.83   |
| 3                                       | 8       | 4         |        | 21.60  | 21.84  | 21.84   |
| 3                                       | 8       | 7         |        | 21.54  | 21.79  | 21.80   |
| 3                                       | 15      | 0         |        | 21.54  | 21.83  | 21.87   |
| 3                                       | 1       | 0         | 16-QAM | 21.91  | 22.11  | 22.21   |
| 3                                       | 1       | 8         |        | 21.86  | 22.08  | 22.06   |
| 3                                       | 1       | 14        |        | 21.92  | 22.09  | 22.04   |
| 3                                       | 8       | 0         |        | 20.63  | 20.88  | 20.94   |
| 3                                       | 8       | 4         |        | 20.63  | 20.85  | 20.90   |
| 3                                       | 8       | 7         |        | 20.55  | 20.80  | 20.86   |
| 3                                       | 15      | 0         |        | 20.63  | 20.80  | 20.87   |
| 1.4                                     | 1       | 0         | QPSK   | 22.33  | 22.56  | 22.56   |
| 1.4                                     | 1       | 3         |        | 22.64  | 22.84  | 22.76   |
| 1.4                                     | 1       | 5         |        | 22.49  | 22.73  | 22.67   |
| 1.4                                     | 3       | 0         |        | 22.60  | 22.84  | 22.77   |
| 1.4                                     | 3       | 1         |        | 22.58  | 22.81  | 22.82   |
| 1.4                                     | 3       | 3         |        | 22.56  | 22.79  | 22.73   |
| 1.4                                     | 6       | 0         |        | 21.56  | 21.78  | 21.73   |
| 1.4                                     | 1       | 0         | 16-QAM | 21.78  | 22.03  | 22.24   |
| 1.4                                     | 1       | 3         |        | 22.08  | 22.21  | 22.20   |
| 1.4                                     | 1       | 5         |        | 21.75  | 22.00  | 22.01   |
| 1.4                                     | 3       | 0         |        | 21.64  | 21.80  | 21.80   |
| 1.4                                     | 3       | 1         |        | 21.63  | 21.86  | 21.81   |
| 1.4                                     | 3       | 3         |        | 21.57  | 21.76  | 21.79   |
| 1.4                                     | 6       | 0         |        | 20.60  | 20.83  | 20.83   |



## LTE Band 2

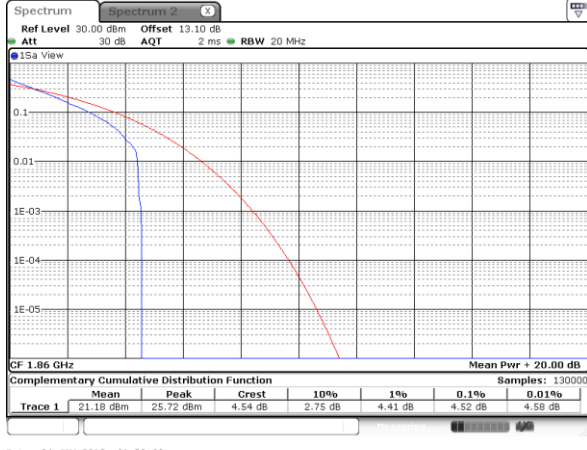
### Peak-to-Average Ratio

| Mode       | LTE Band 2 / 20MHz |         |       |         |             |
|------------|--------------------|---------|-------|---------|-------------|
| Mod.       | QPSK               |         | 16QAM |         | Limit: 13dB |
| RB Size    | 1RB                | Full RB | 1RB   | Full RB | Result      |
| Lowest CH  | 4.52               | 4.81    | 5.28  | 5.86    | <b>PASS</b> |
| Middle CH  | 4.49               | 5.1     | 5.22  | 6.09    |             |
| Highest CH | 4.55               | 5.07    | 5.25  | 6.06    |             |



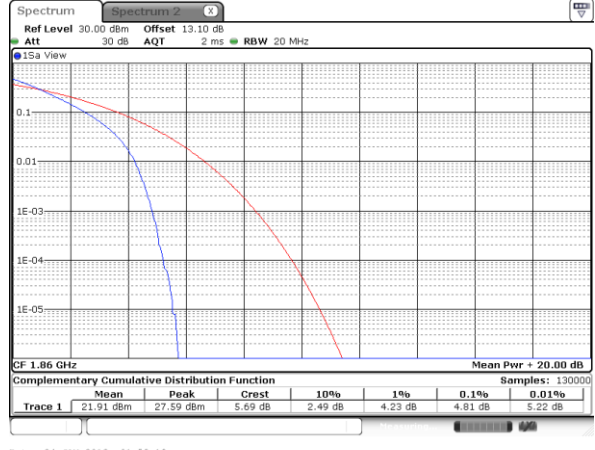
LTE Band 2 / 20MHz / QPSK

Lowest Channel / 1RB



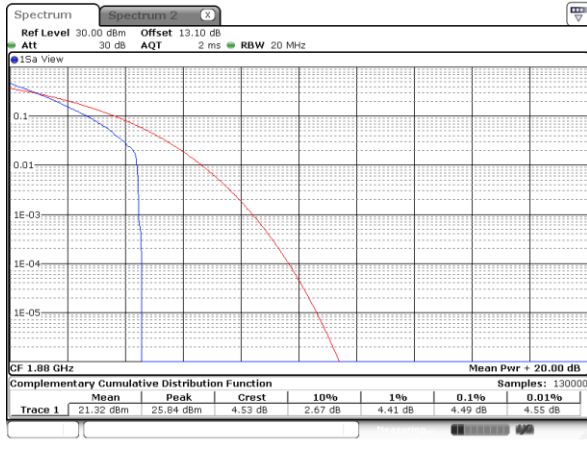
Date: 24.JAN.2018 01:59:03

Lowest Channel / Full RB



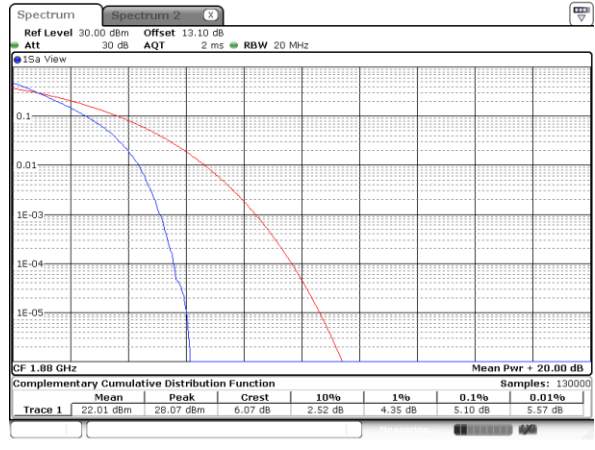
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Middle Channel / 1RB



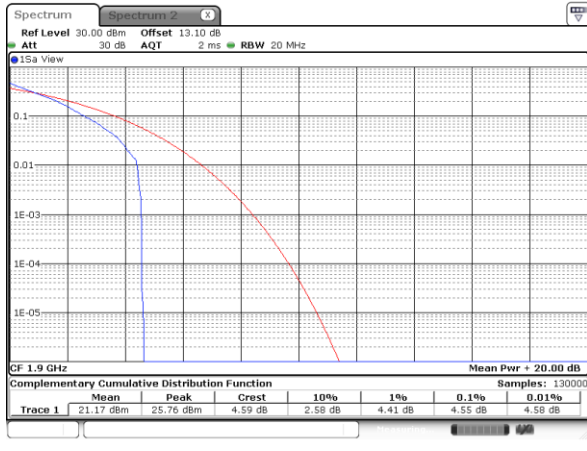
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Middle Channel / Full RB



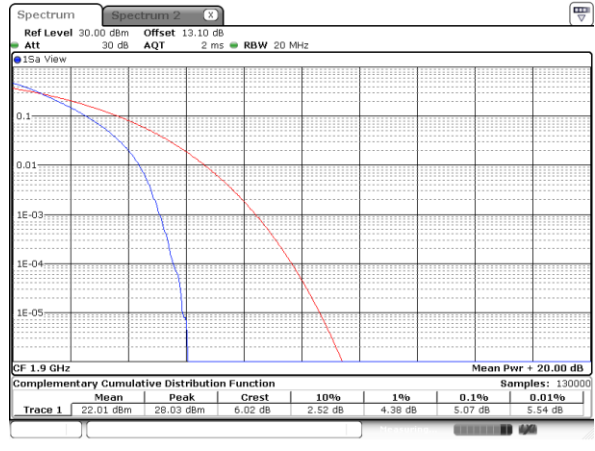
Date: 24.JAN.2018 01:59:40

Highest Channel / 1RB



Date: 24.JAN.2018 01:59:52

Highest Channel / Full RB



Date: 24.JAN.2018 02:00:04



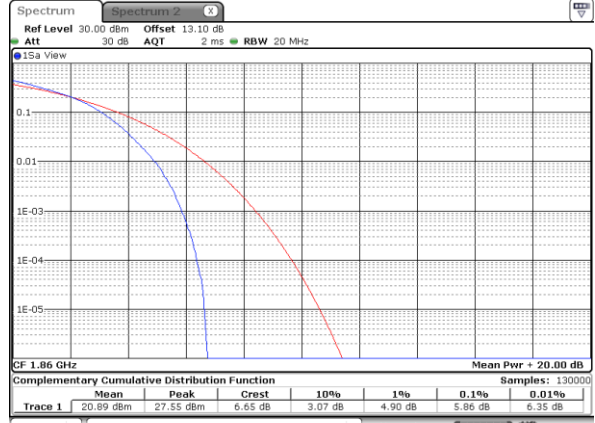
LTE Band 2 / 20MHz / 16QAM

Lowest Channel / 1RB



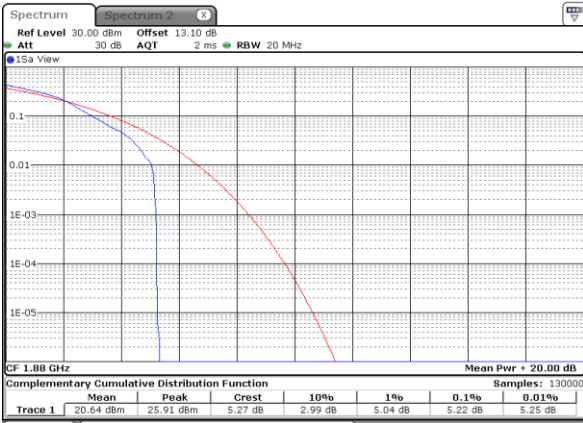
Date: 24.JAN.2018 01:56:29

Lowest Channel / Full RB



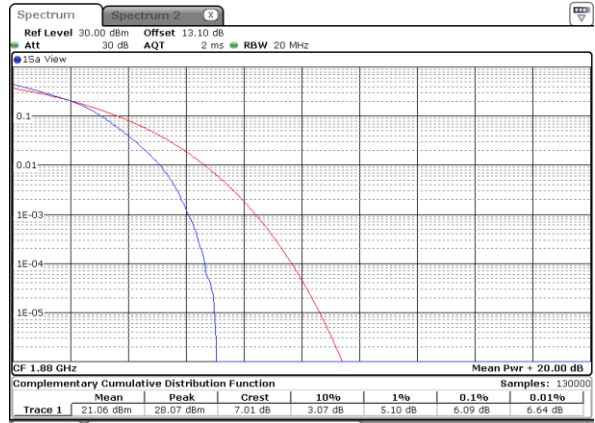
Date: 24.JAN.2018 01:56:57

Middle Channel / 1RB



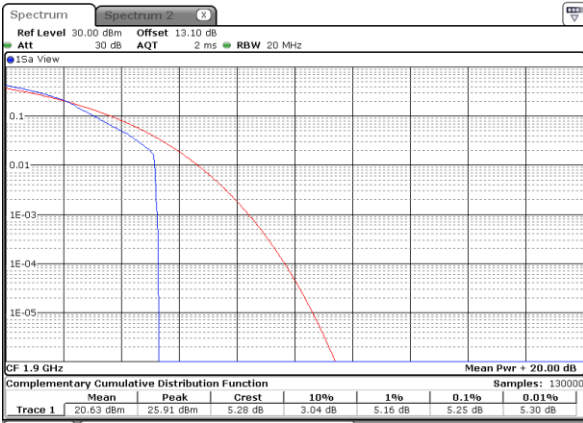
Date: 24.JAN.2018 01:57:21

Middle Channel / Full RB



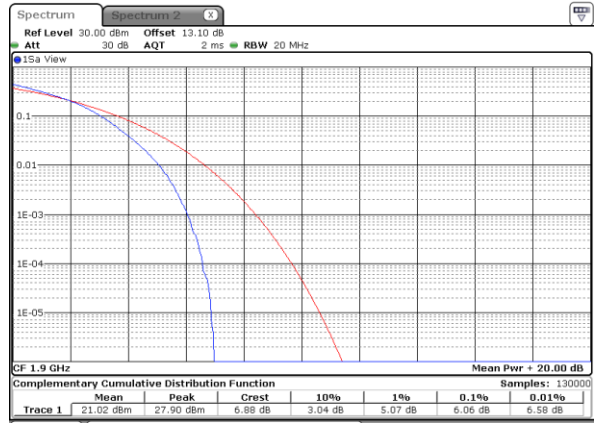
Date: 24.JAN.2018 01:58:18

Highest Channel / 1RB



Date: 24.JAN.2018 01:58:44

Highest Channel / Full RB



Date: 24.JAN.2018 02:02:10



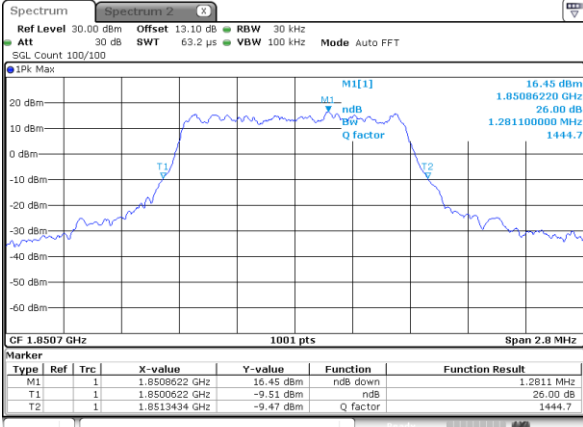
**26dB Bandwidth**

| Mode       | LTE Band 2 : 26dB BW(MHz) |       |      |       |      |       |       |       |       |       |       |       |
|------------|---------------------------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|
|            | 1.4MHz                    |       | 3MHz |       | 5MHz |       | 10MHz |       | 15MHz |       | 20MHz |       |
| BW         |                           |       |      |       |      |       |       |       |       |       |       |       |
| Mod.       | QPSK                      | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM |
| Lowest CH  | 1.28                      | 1.26  | 3.02 | 3.04  | 4.98 | 4.90  | 9.81  | 9.85  | 14.51 | 14.39 | 20.14 | 20.10 |
| Middle CH  | 1.29                      | 1.32  | 3.02 | 3.00  | 4.91 | 4.96  | 9.87  | 9.73  | 14.15 | 14.24 | 20.14 | 20.26 |
| Highest CH | 1.31                      | 1.28  | 2.98 | 2.99  | 4.83 | 4.93  | 9.95  | 9.93  | 14.45 | 14.48 | 20.22 | 20.10 |



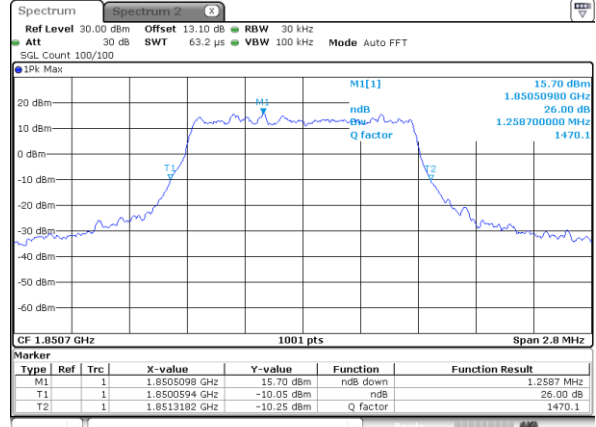
LTE Band 2

Lowest Channel / 1.4MHz / QPSK



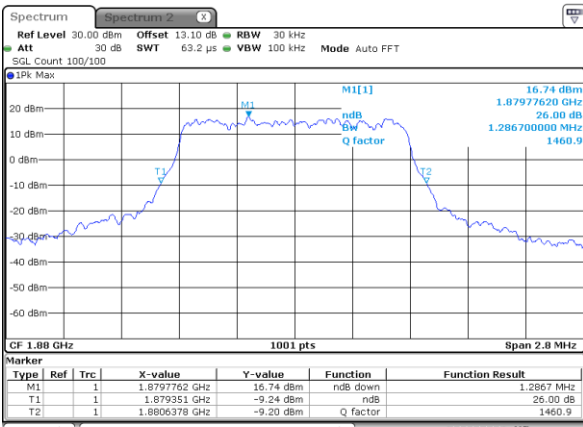
Date: 24\_JAN.2018 01:39:39

Lowest Channel / 1.4MHz / 16QAM



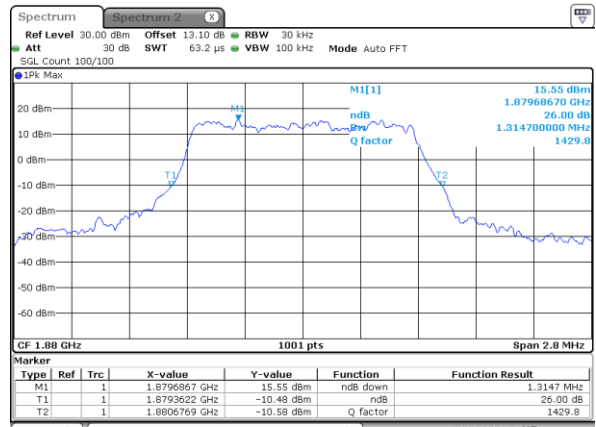
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Middle Channel / 1.4MHz / QPSK



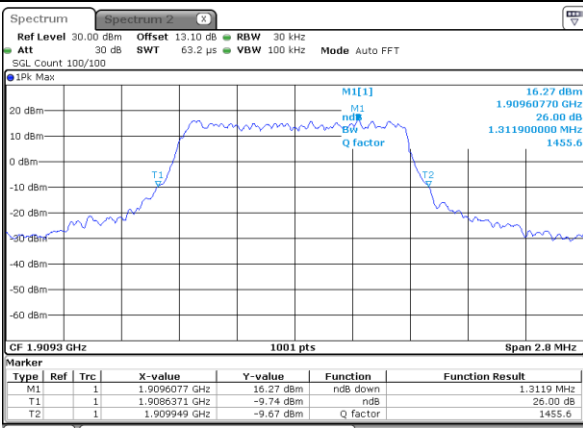
Date: 24\_JAN.2018 01:46:52

Middle Channel / 1.4MHz / 16QAM



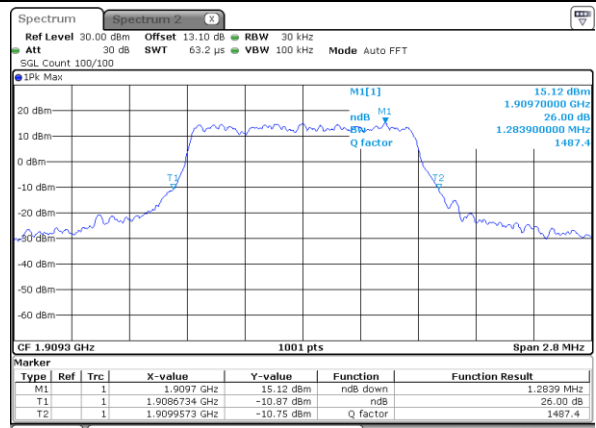
Date: 24\_JAN.2018 01:47:04

Highest Channel / 1.4MHz / QPSK



Date: 24\_JAN.2018 01:49:31

Highest Channel / 1.4MHz / 16QAM

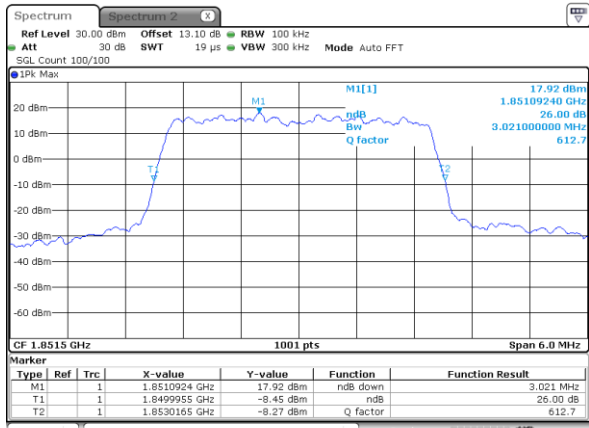


Date: 24\_JAN.2018 01:49:42



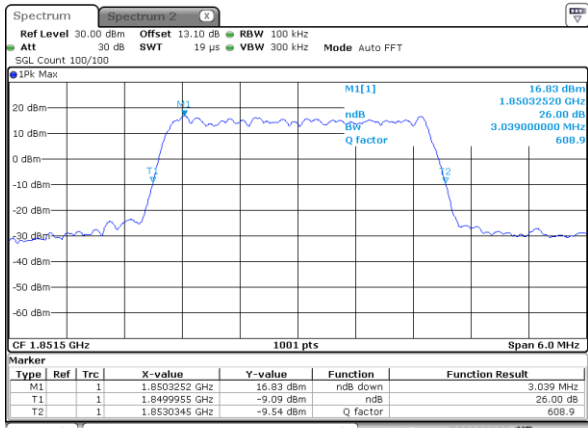
LTE Band 2

Lowest Channel / 3MHz / QPSK



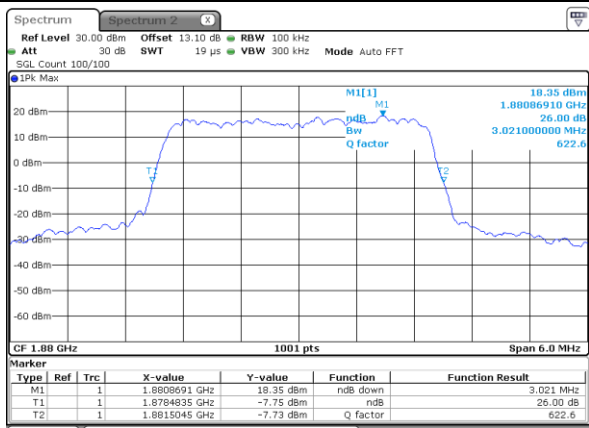
Date: 24\_JAN.2018 00:11:10

Lowest Channel / 3MHz / 16QAM



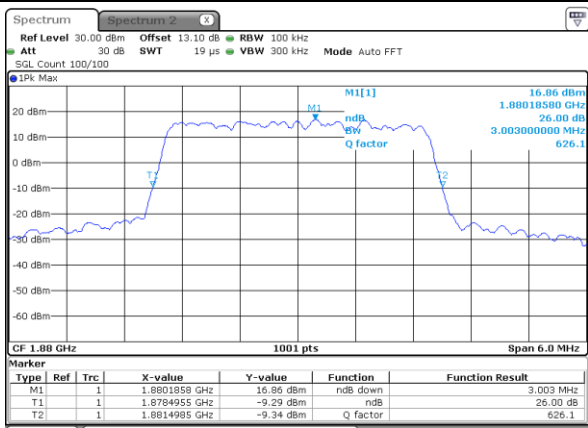
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Middle Channel / 3MHz / QPSK



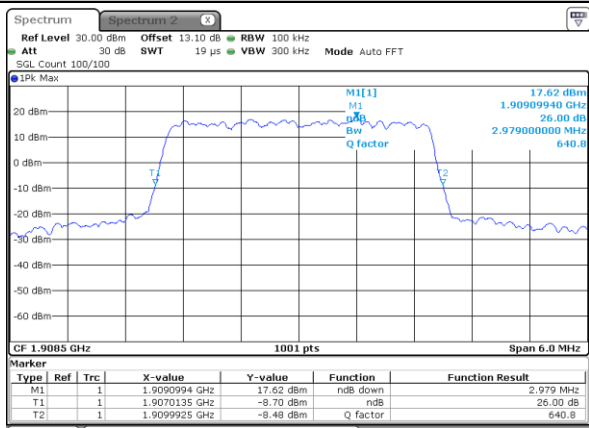
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Middle Channel / 3MHz / 16QAM



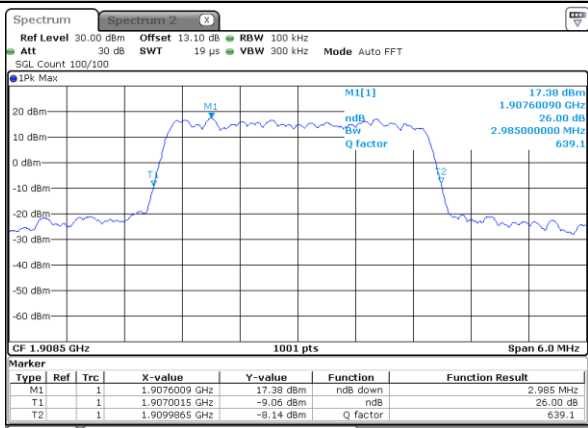
Date: 24\_JAN.2018 00:18:36

Highest Channel / 3MHz / QPSK



Date: 24\_JAN.2018 00:21:03

Highest Channel / 3MHz / 16QAM

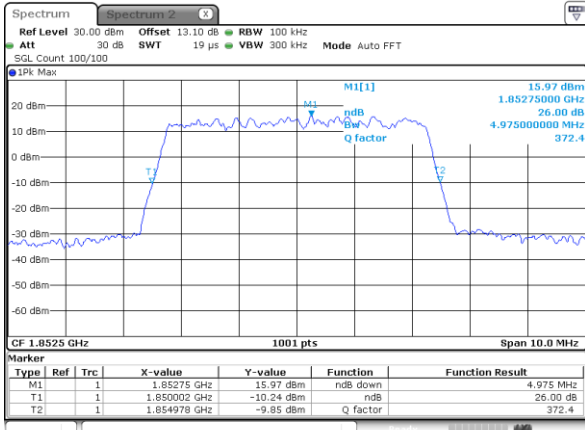


Date: 24\_JAN.2018 00:21:14



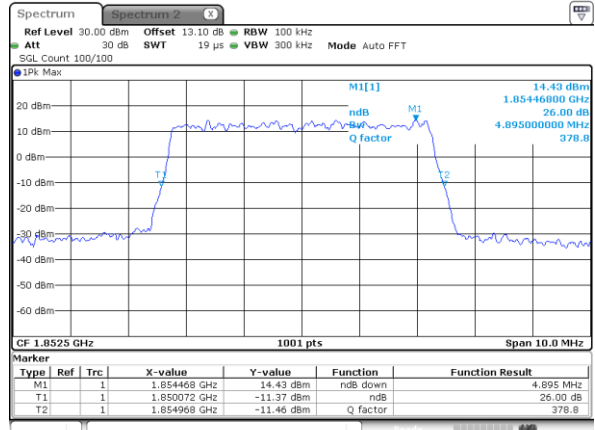
LTE Band 2

Lowest Channel / 5MHz / QPSK



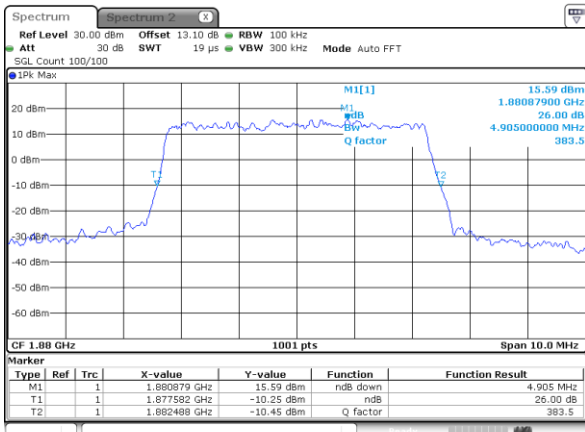
Date: 24\_JAN.2018 00:28:10

Lowest Channel / 5MHz / 16QAM



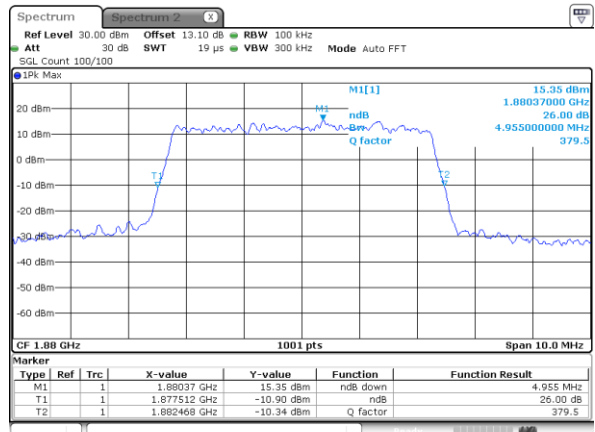
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Middle Channel / 5MHz / QPSK



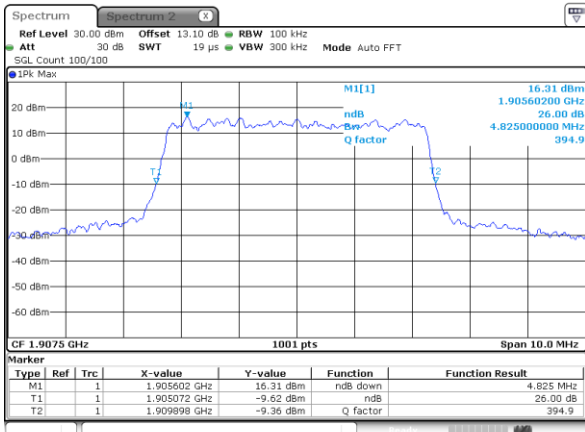
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Middle Channel / 5MHz / 16QAM



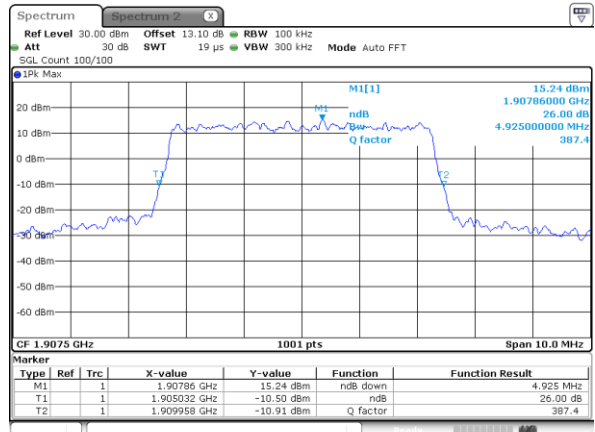
Date: 24\_JAN.2018 00:35:44

Highest Channel / 5MHz / QPSK



Date: 24\_JAN.2018 00:38:11

Highest Channel / 5MHz / 16QAM



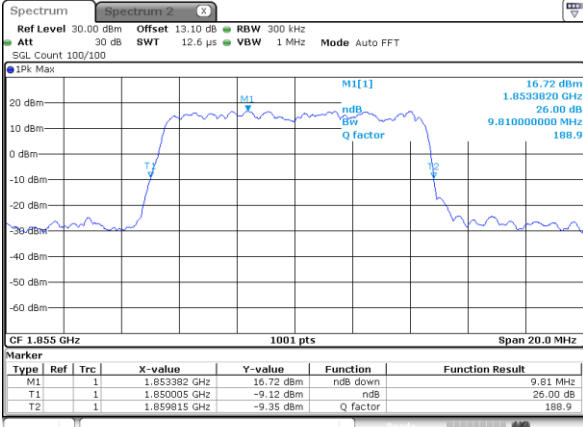
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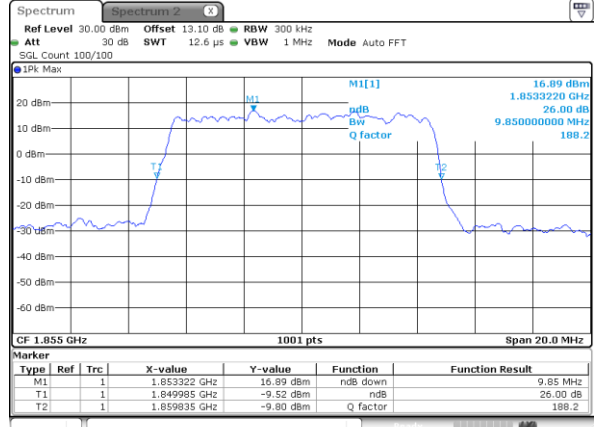
LTE Band 2

Lowest Channel / 10MHz / QPSK



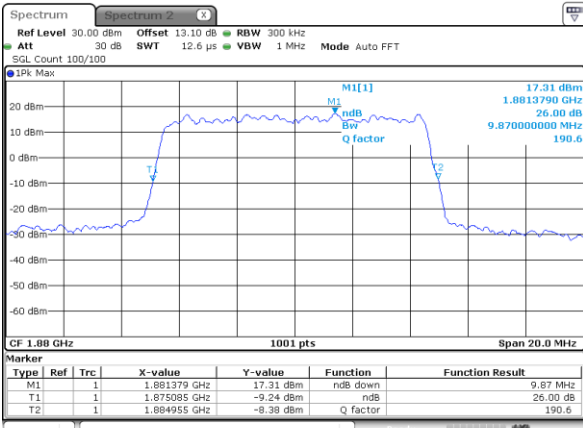
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Lowest Channel / 10MHz / 16QAM



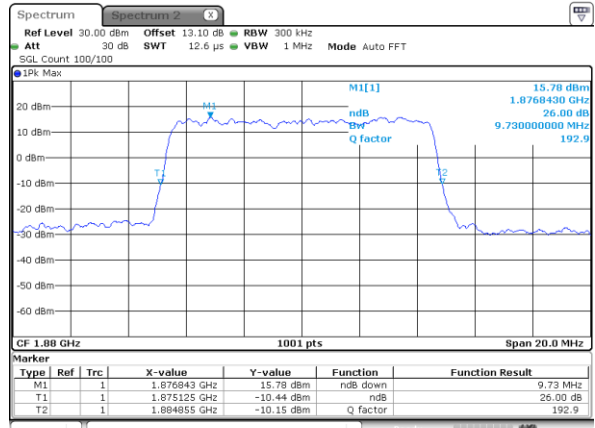
Date: 24\_JAN.2018 00:45:37

Middle Channel / 10MHz / QPSK



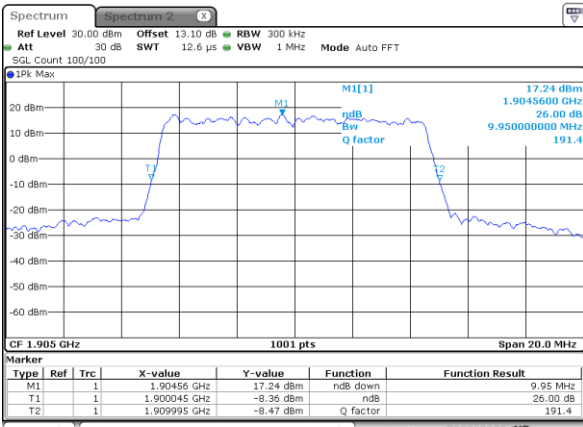
Date: 24\_JAN.2018 00:52:40

Middle Channel / 10MHz / 16QAM



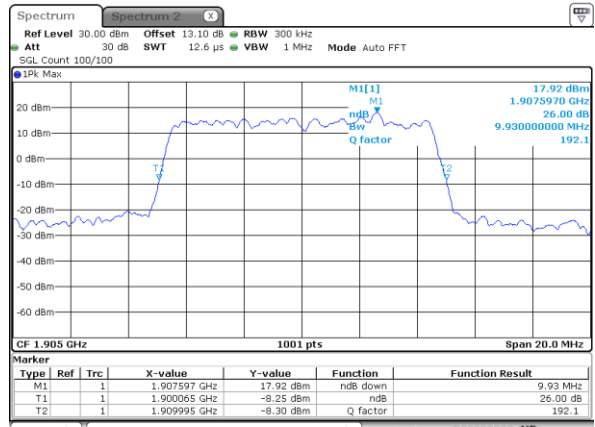
Date: 24\_JAN.2018 00:52:52

Highest Channel / 10MHz / QPSK



Date: 24\_JAN.2018 00:55:19

Highest Channel / 10MHz / 16QAM

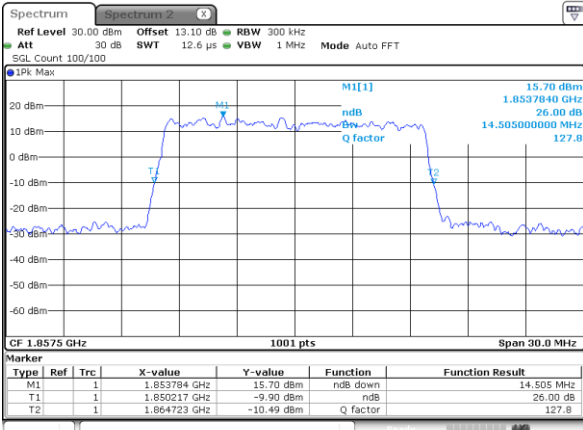


Date: 24\_JAN.2018 00:55:30



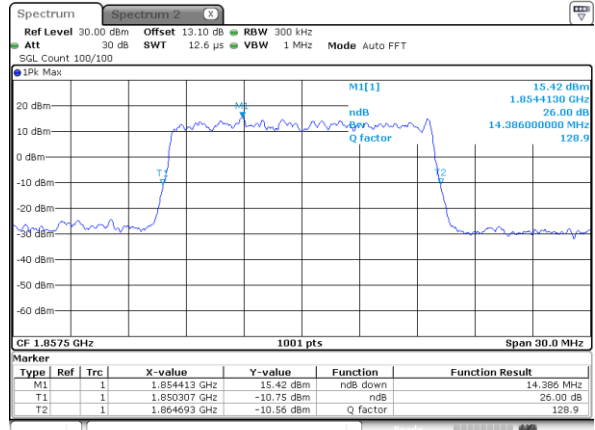
LTE Band 2

Lowest Channel / 15MHz / QPSK



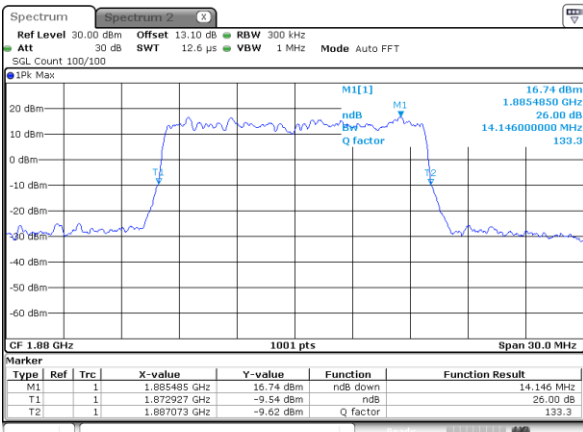
Date: 24\_JAN.2018 01:02:134

Lowest Channel / 15MHz / 16QAM



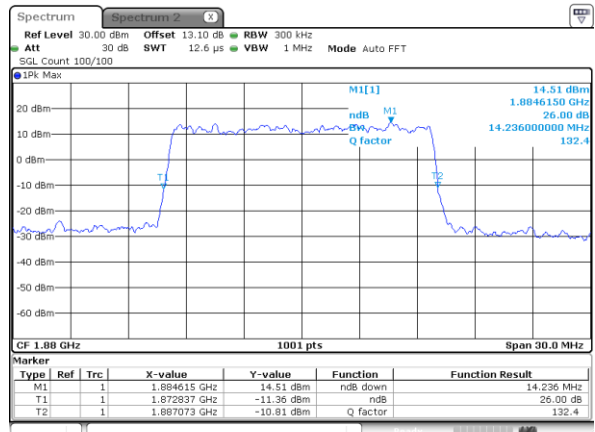
Date: 24\_JAN.2018 01:02:145

Middle Channel / 15MHz / QPSK



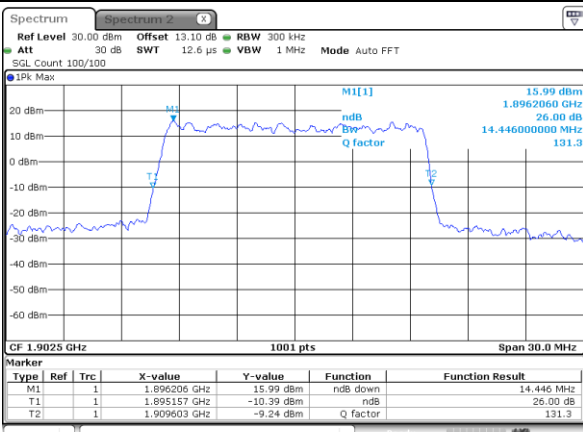
Date: 24\_JAN.2018 01:09:47

Middle Channel / 15MHz / 16QAM



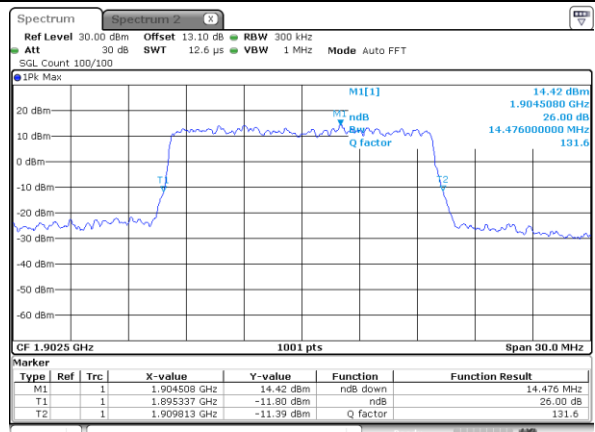
Date: 24\_JAN.2018 01:09:158

Highest Channel / 15MHz / QPSK



Date: 24\_JAN.2018 01:12:25

Highest Channel / 15MHz / 16QAM

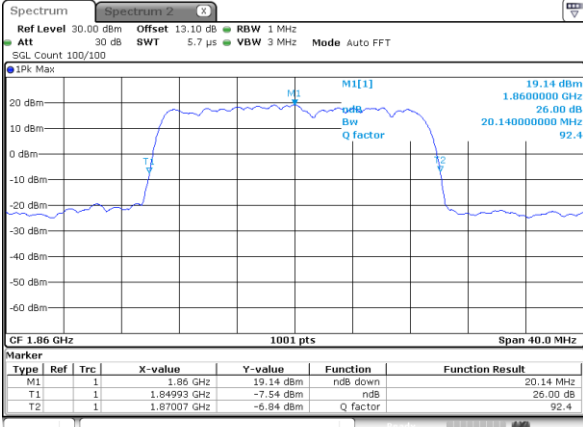


Date: 24\_JAN.2018 01:12:136



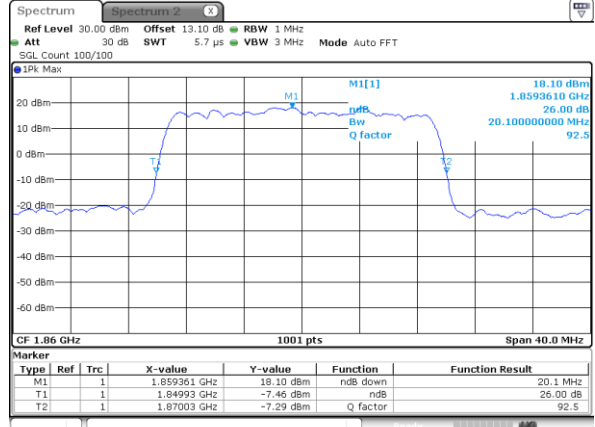
LTE Band 2

Lowest Channel / 20MHz / QPSK



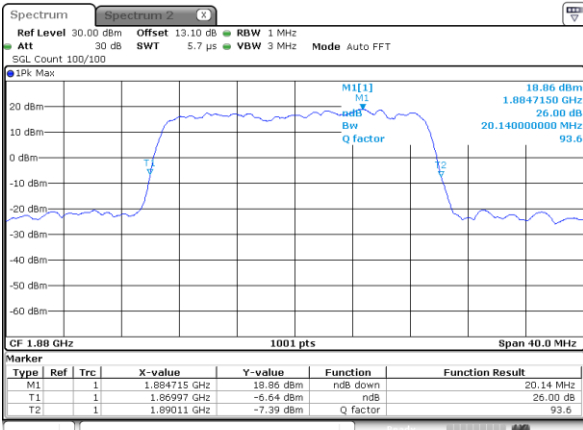
Date: 24\_JAN\_2018 01:19:40

Lowest Channel / 20MHz / 16QAM



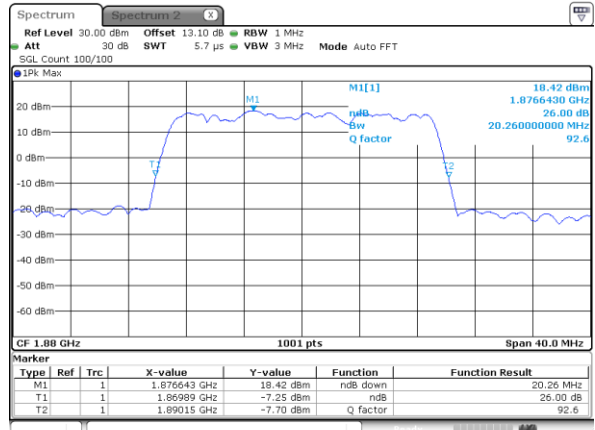
Date: 24\_JAN\_2018 01:19:51

Middle Channel / 20MHz / QPSK



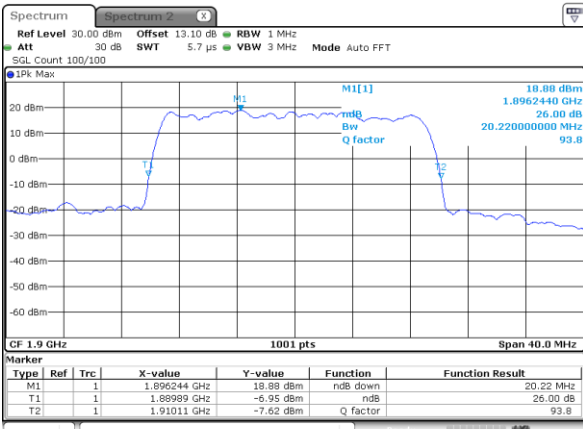
Date: 24\_JAN\_2018 01:26:53

Middle Channel / 20MHz / 16QAM



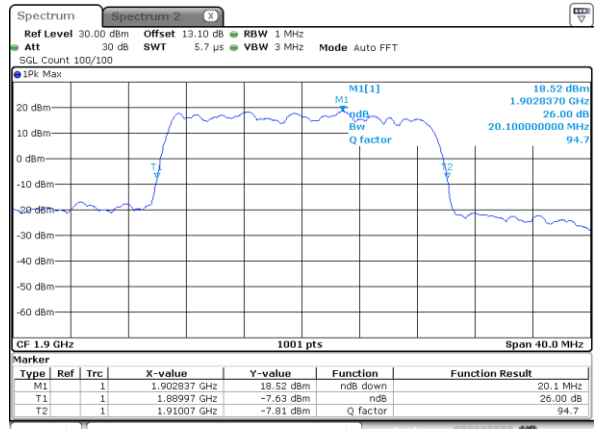
Date: 24\_JAN\_2018 01:27:04

Highest Channel / 20MHz / QPSK



Date: 24\_JAN\_2018 01:30:17

Highest Channel / 20MHz / 16QAM



Date: 24\_JAN\_2018 01:30:28



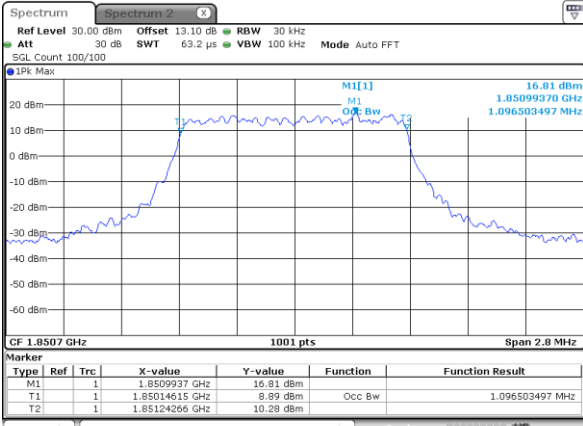
### Occupied Bandwidth

| Mode       | LTE Band 2 : 99%OBW(MHz) |       |      |       |      |       |       |       |       |       |       |       |
|------------|--------------------------|-------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|
|            | 1.4MHz                   |       | 3MHz |       | 5MHz |       | 10MHz |       | 15MHz |       | 20MHz |       |
| BW         |                          |       |      |       |      |       |       |       |       |       |       |       |
| Mod.       | QPSK                     | 16QAM | QPSK | 16QAM | QPSK | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM | QPSK  | 16QAM |
| Lowest CH  | 1.10                     | 1.10  | 2.72 | 2.71  | 4.52 | 4.49  | 9.01  | 9.03  | 13.40 | 13.43 | 18.34 | 18.38 |
| Middle CH  | 1.09                     | 1.10  | 2.70 | 2.72  | 4.49 | 4.50  | 9.03  | 9.01  | 13.43 | 13.46 | 18.34 | 18.26 |
| Highest CH | 1.10                     | 1.09  | 2.72 | 2.73  | 4.51 | 4.48  | 9.03  | 9.01  | 13.43 | 13.55 | 18.34 | 18.38 |

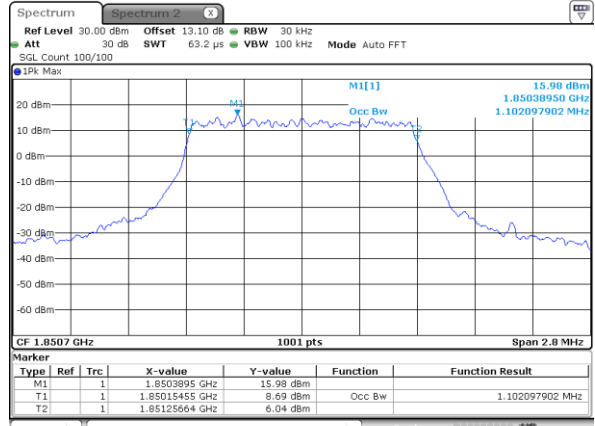


LTE Band 2

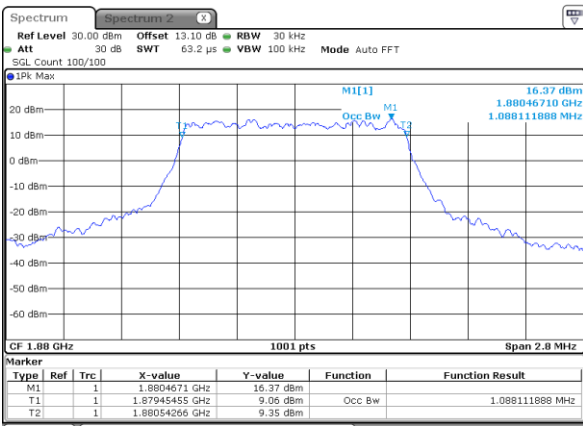
Lowest Channel / 1.4MHz / QPSK



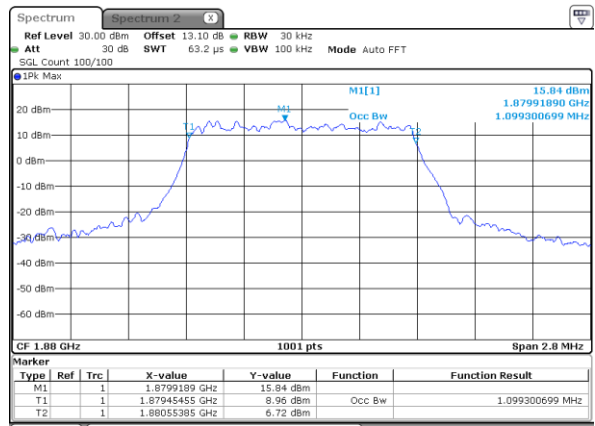
Lowest Channel / 1.4MHz / 16QAM



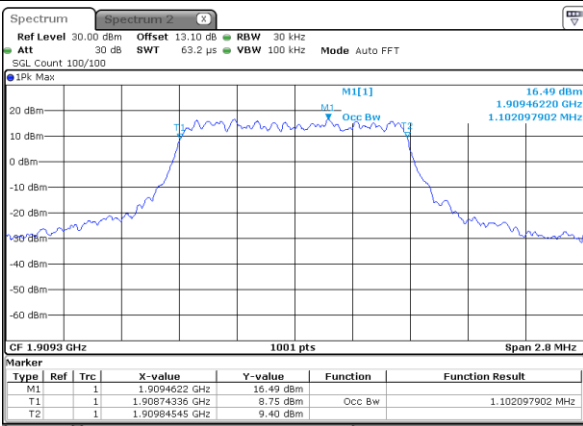
Middle Channel / 1.4MHz / QPSK



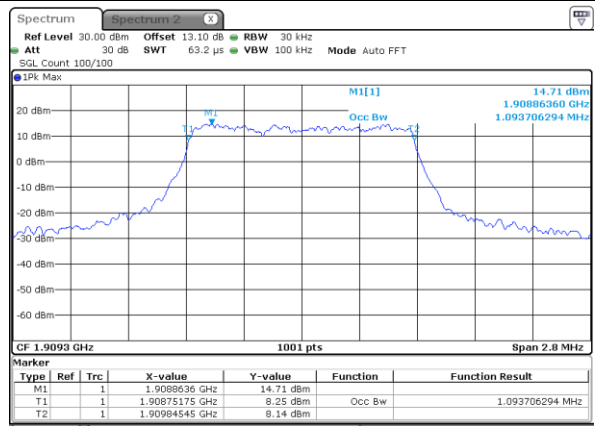
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



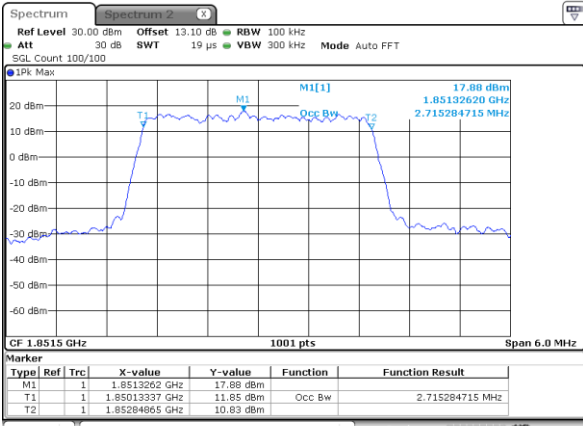
Highest Channel / 1.4MHz / 16QAM





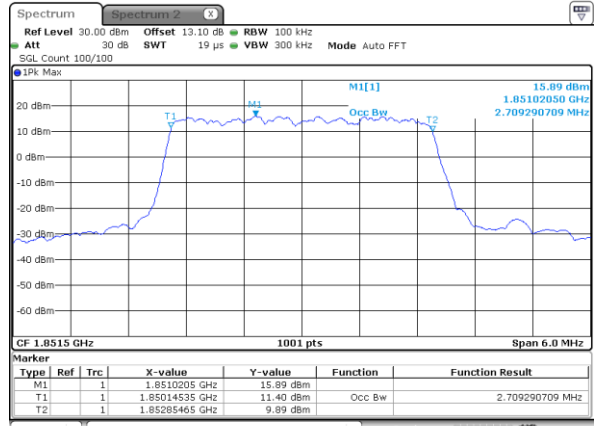
LTE Band 2

Lowest Channel / 3MHz / QPSK



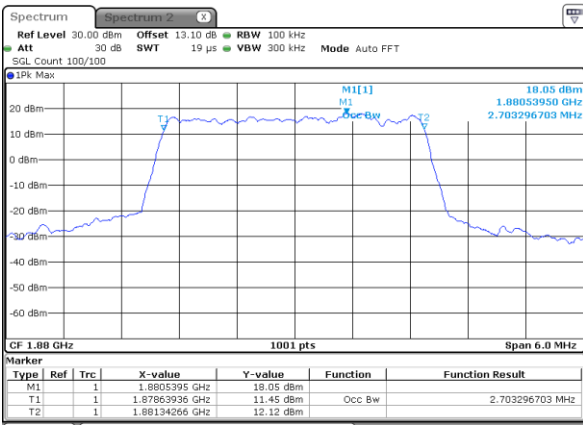
Date: 24\_JAN.2018 00:10:47

Lowest Channel / 3MHz / 16QAM



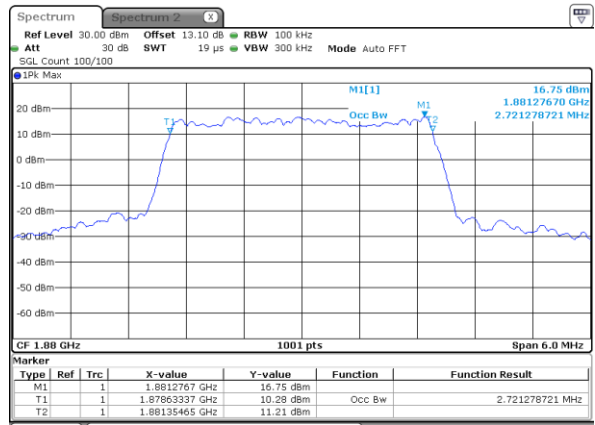
Date: 24\_JAN.2018 00:10:58

Middle Channel / 3MHz / QPSK



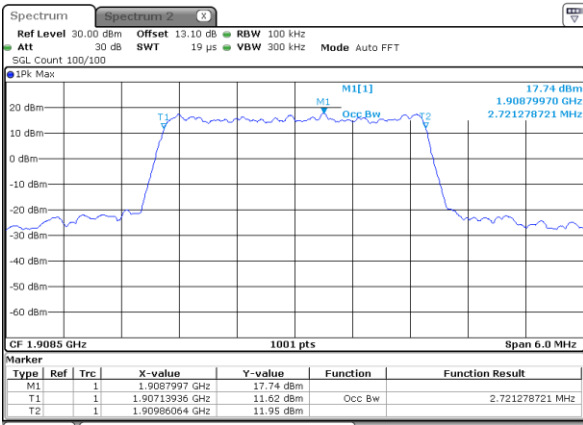
Date: 24\_JAN.2018 00:18:02

Middle Channel / 3MHz / 16QAM



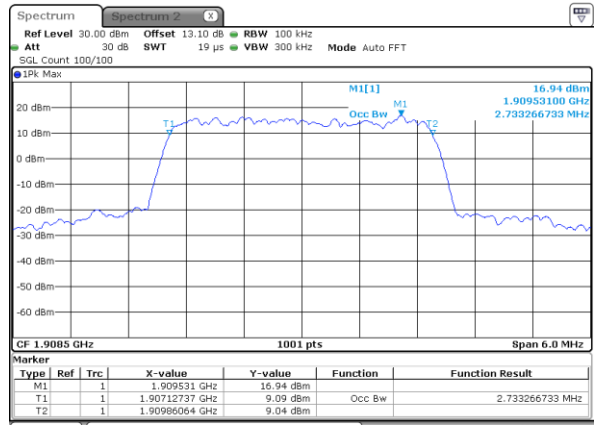
Date: 24\_JAN.2018 00:18:13

Highest Channel / 3MHz / QPSK



Date: 24\_JAN.2018 00:20:40

Highest Channel / 3MHz / 16QAM

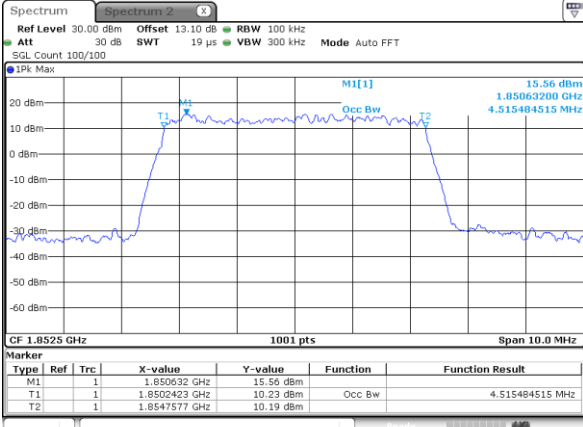


Date: 24\_JAN.2018 00:20:52



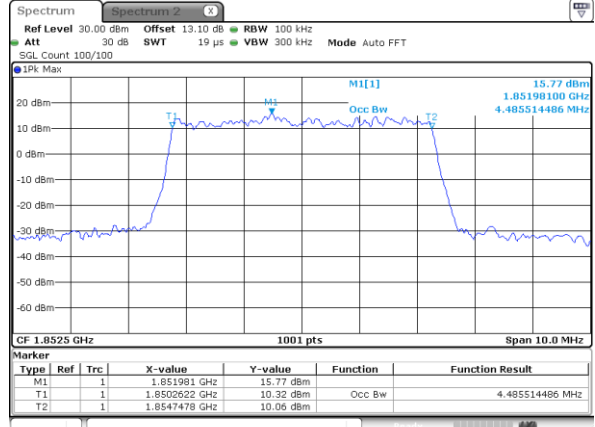
LTE Band 2

Lowest Channel / 5MHz / QPSK



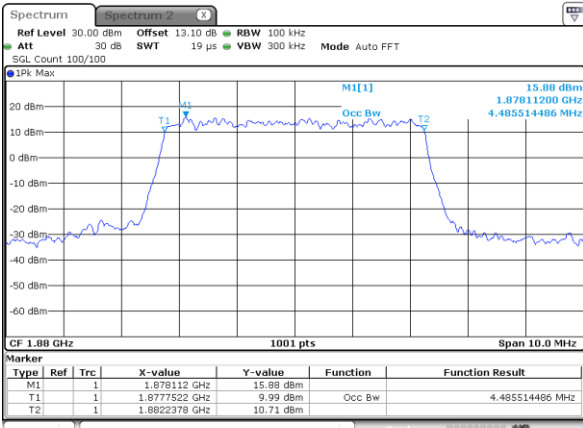
Date: 24\_JAN.2018 00:27:55

Lowest Channel / 5MHz / 16QAM



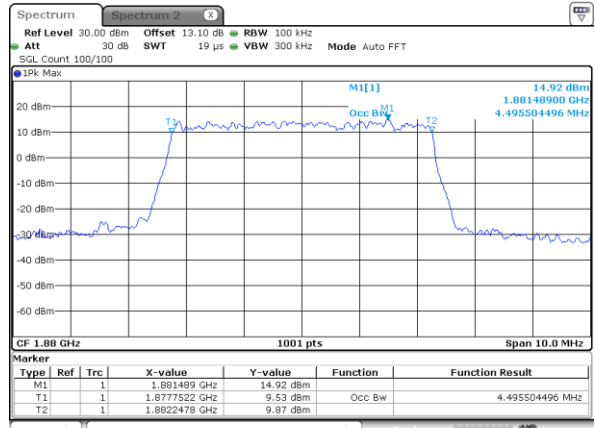
Date: 24\_JAN.2018 00:28:07

Middle Channel / 5MHz / QPSK



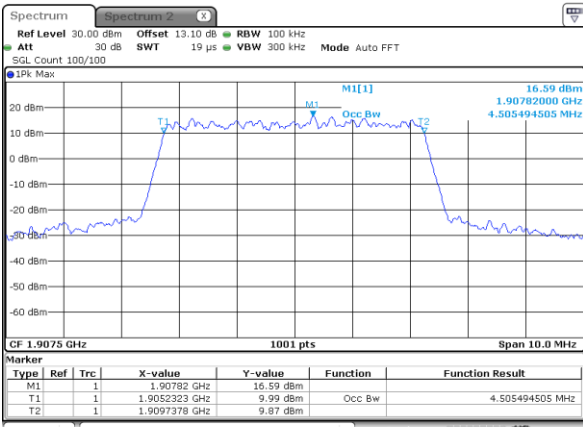
Date: 24\_JAN.2018 00:35:10

Middle Channel / 5MHz / 16QAM



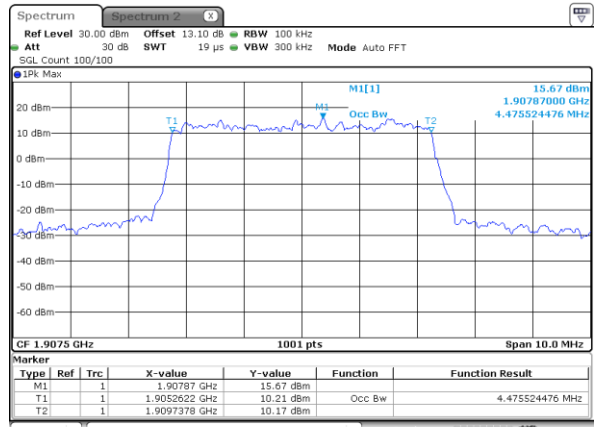
Date: 24\_JAN.2018 00:35:21

Highest Channel / 5MHz / QPSK



Date: 24\_JAN.2018 00:37:49

Highest Channel / 5MHz / 16QAM

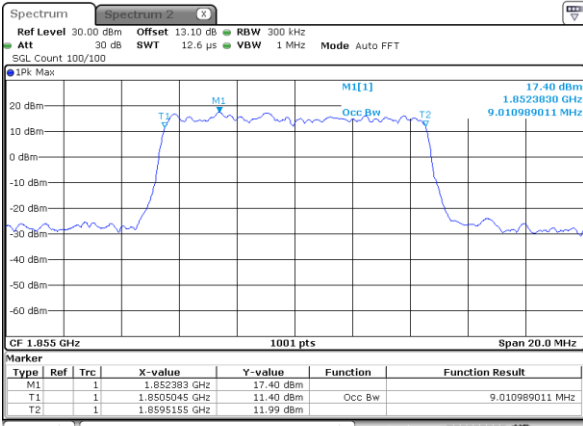


Date: 24\_JAN.2018 00:38:00



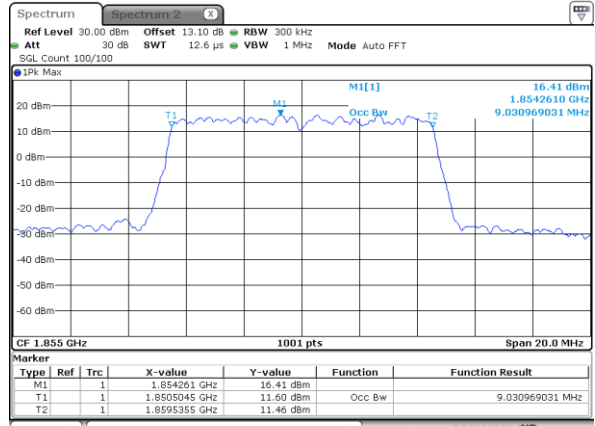
LTE Band 2

Lowest Channel / 10MHz / QPSK



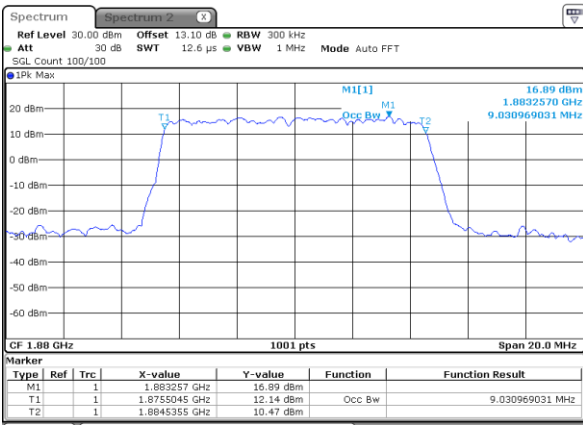
Date: 24\_JAN.2018 00:45:03

Lowest Channel / 10MHz / 16QAM



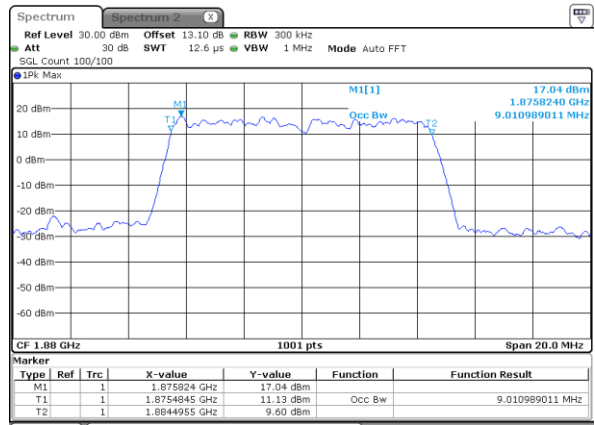
Date: 24\_JAN.2018 00:45:15

Middle Channel / 10MHz / QPSK



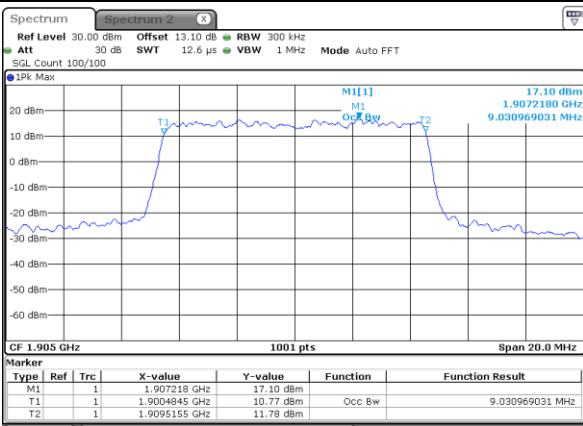
Date: 24\_JAN.2018 00:52:17

Middle Channel / 10MHz / 16QAM



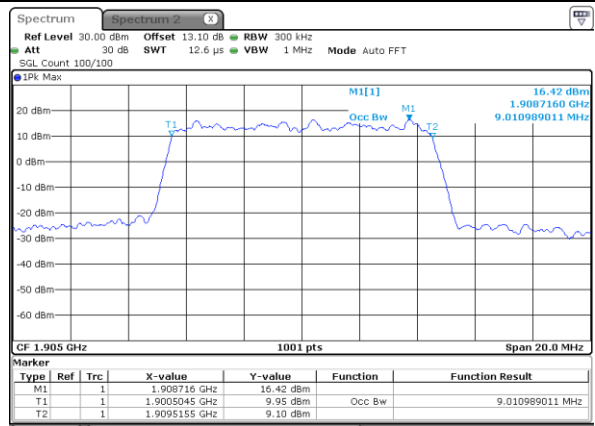
Date: 24\_JAN.2018 00:52:29

Highest Channel / 10MHz / QPSK



Date: 24\_JAN.2018 00:54:56

Highest Channel / 10MHz / 16QAM



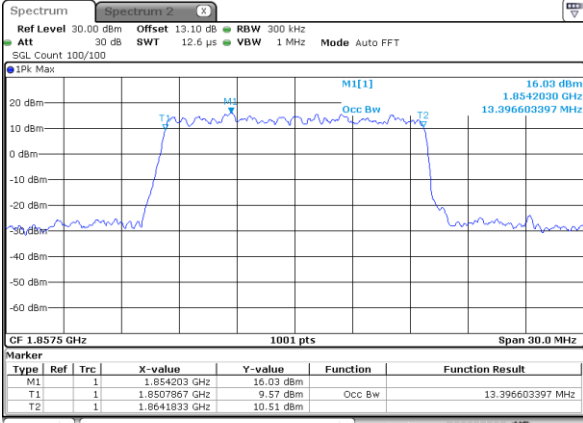
Date: 24\_JAN.2018 00:55:08





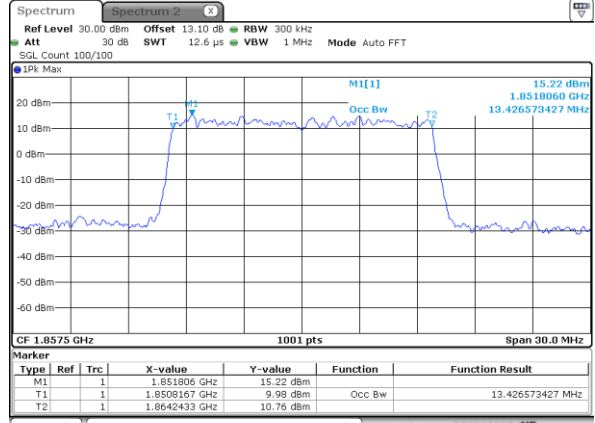
LTE Band 2

Lowest Channel / 15MHz / QPSK



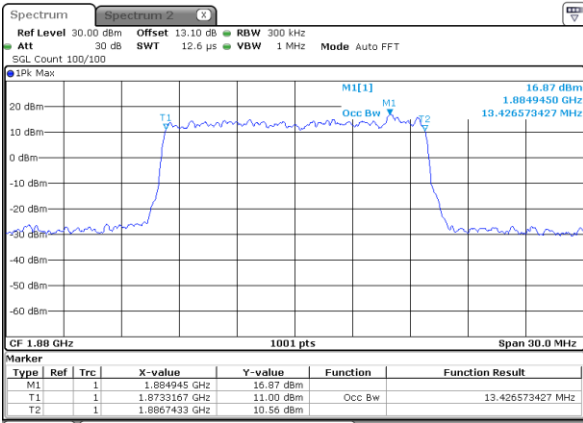
Date: 24\_JAN.2018 01:02:11

Lowest Channel / 15MHz / 16QAM



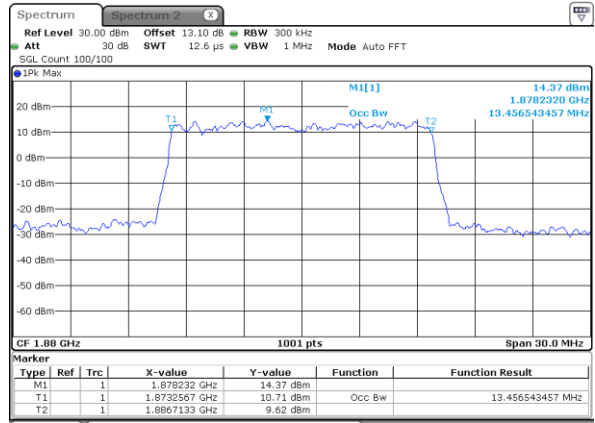
Date: 24\_JAN.2018 01:02:22

Middle Channel / 15MHz / QPSK



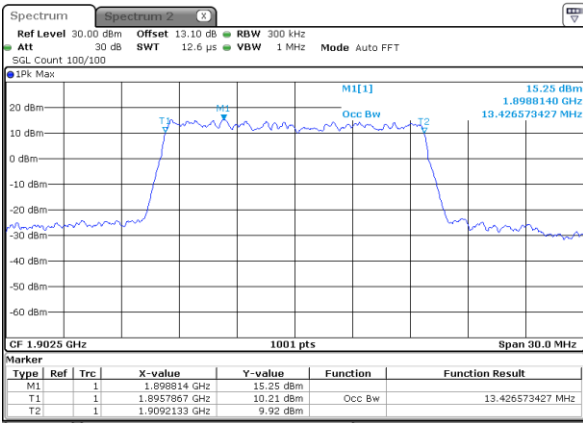
Date: 24\_JAN.2018 01:09:24

Middle Channel / 15MHz / 16QAM



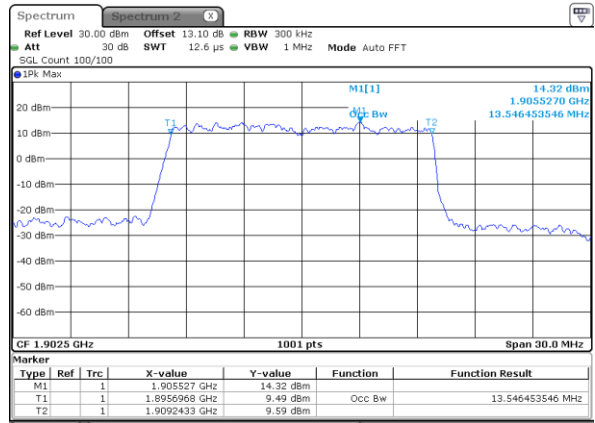
Date: 24\_JAN.2018 01:09:36

Highest Channel / 15MHz / QPSK



Date: 24\_JAN.2018 01:12:03

Highest Channel / 15MHz / 16QAM

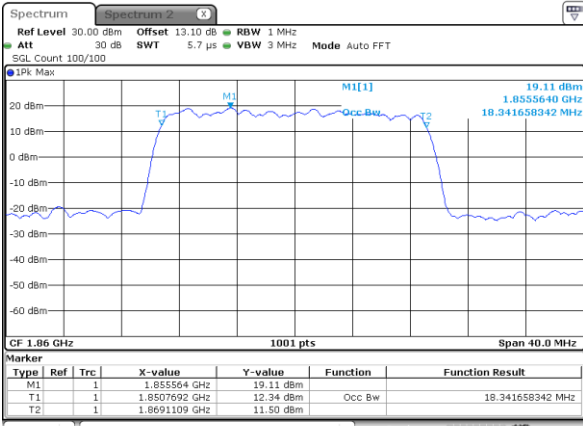


Date: 24\_JAN.2018 01:12:14



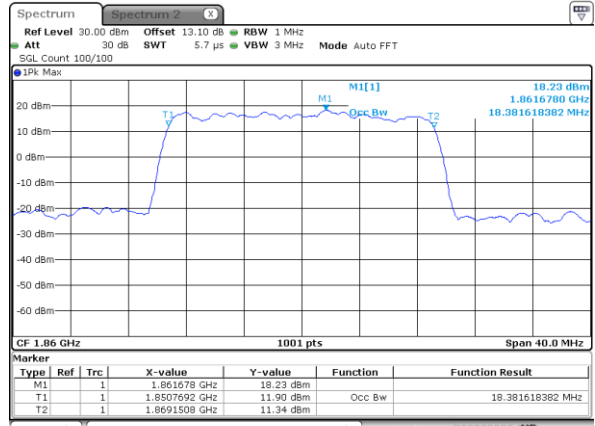
LTE Band 2

Lowest Channel / 20MHz / QPSK



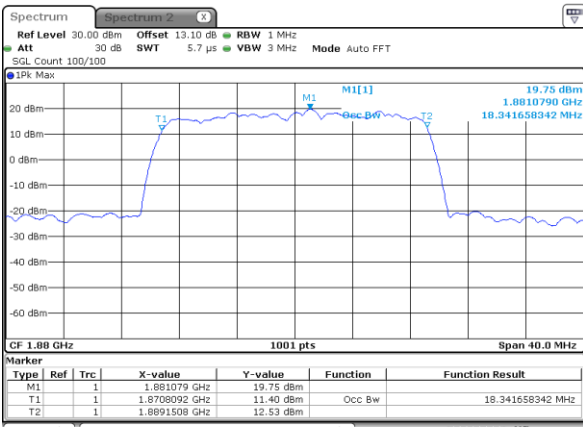
Date: 24\_JAN\_2018 01:19:17

Lowest Channel / 20MHz / 16QAM



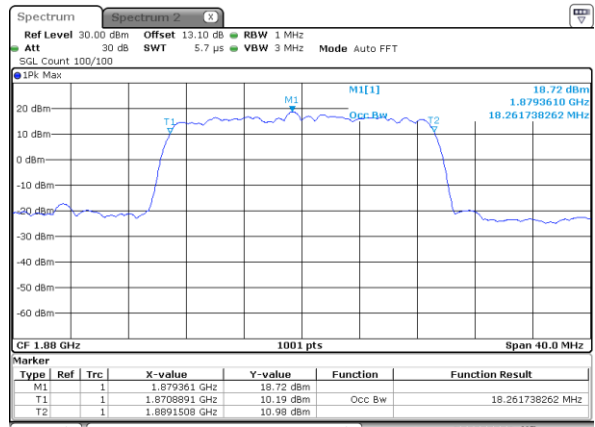
Date: 24\_JAN\_2018 01:19:28

Middle Channel / 20MHz / QPSK



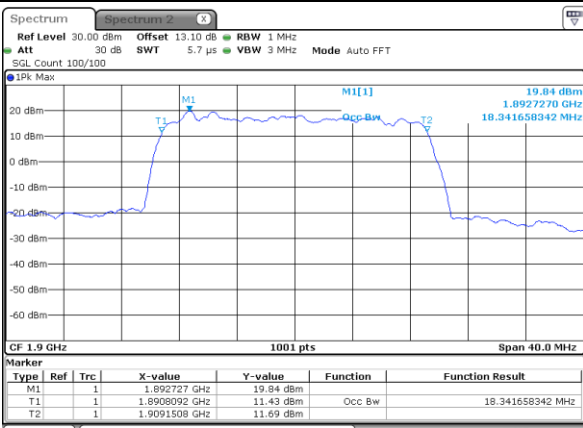
Date: 24\_JAN\_2018 01:26:30

Middle Channel / 20MHz / 16QAM



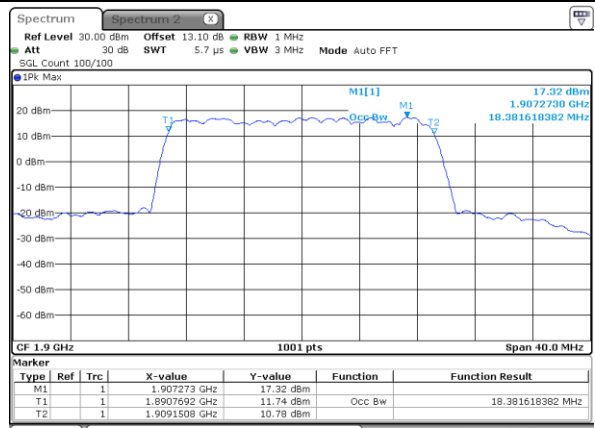
Date: 24\_JAN\_2018 01:26:41

Highest Channel / 20MHz / QPSK



Date: 24\_JAN\_2018 01:29:08

Highest Channel / 20MHz / 16QAM



Date: 24\_JAN\_2018 01:29:20

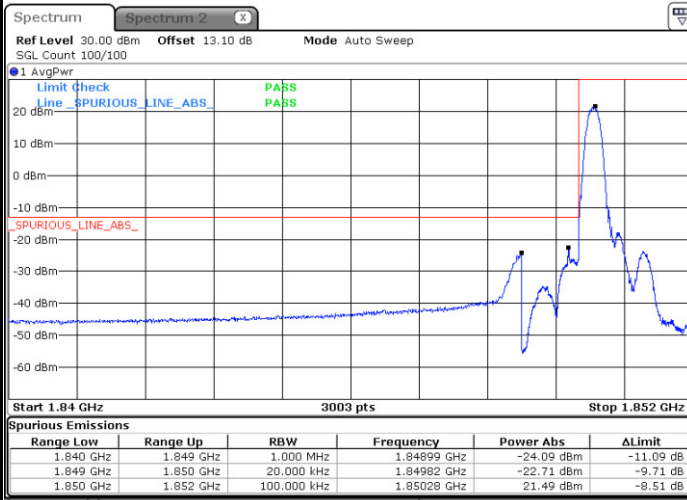


**Conducted Band Edge**



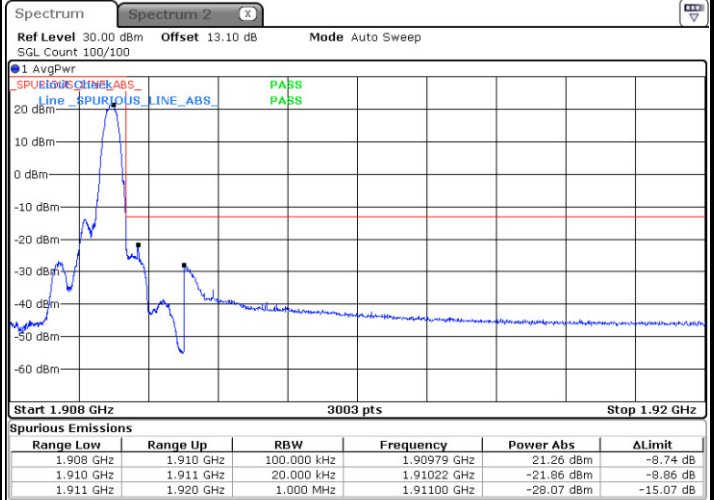
LTE Band 2 / 1.4MHz / QPSK

Lowest Band Edge / 1RB



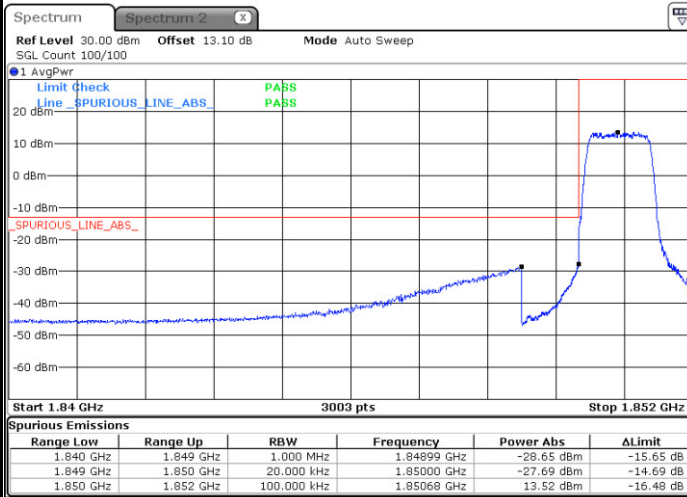
Date: 24.JAN.2018 01:41:00

Highest Band Edge / 1RB



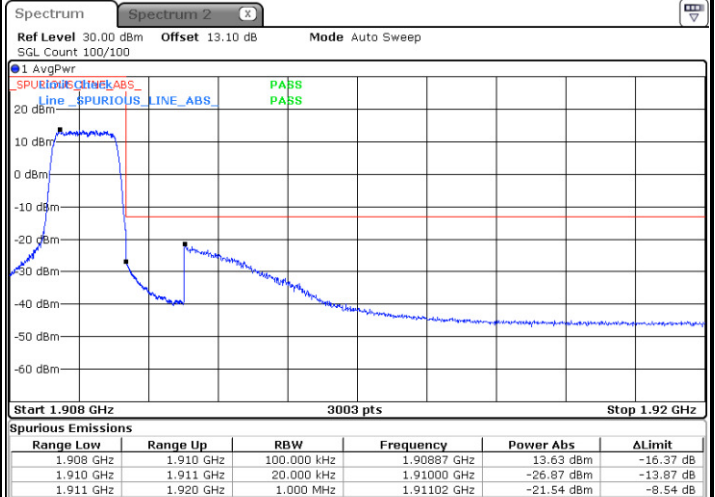
Date: 24.JAN.2018 01:50:51

Lowest Band Edge / Full RB



Date: 24.JAN.2018 01:43:17

Highest Band Edge / Full RB

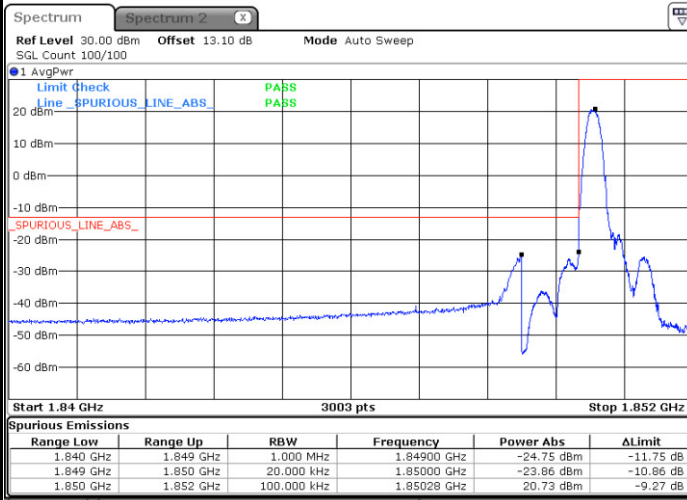


Date: 24.JAN.2018 01:53:09



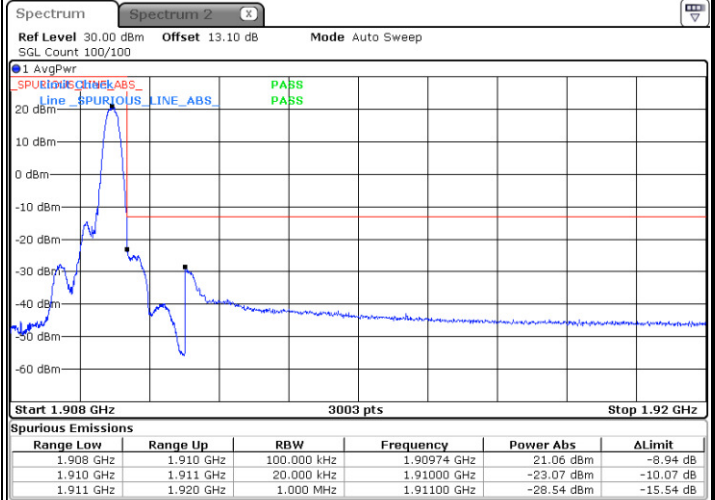
LTE Band 2 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



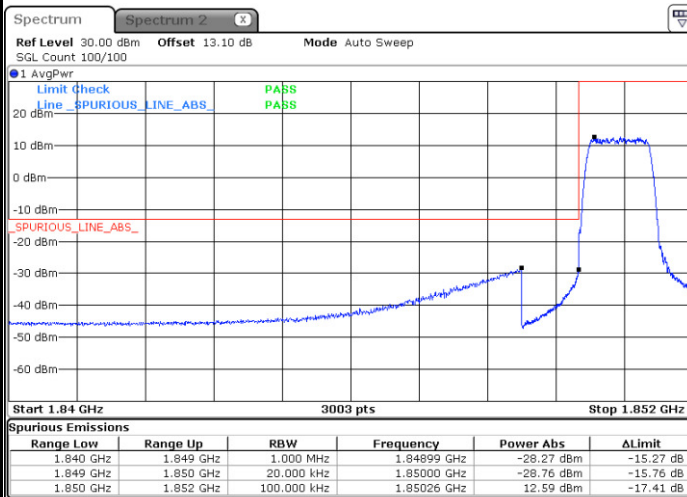
Date: 24.JAN.2018 01:42:09

Highest Band Edge / 1 RB



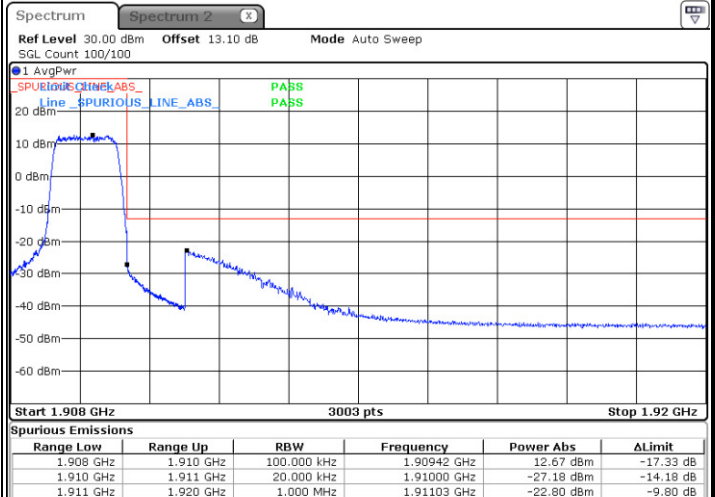
Date: 24.JAN.2018 01:52:00

Lowest Band Edge / Full RB



Date: 24.JAN.2018 01:44:26

Highest Band Edge / Full RB

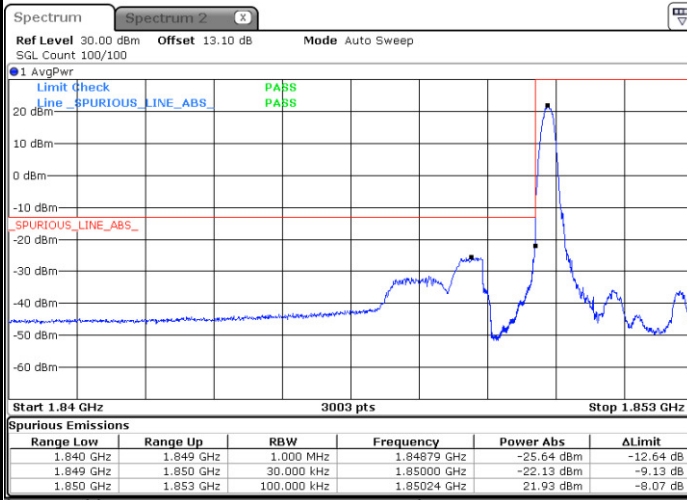


Date: 24.JAN.2018 01:54:18



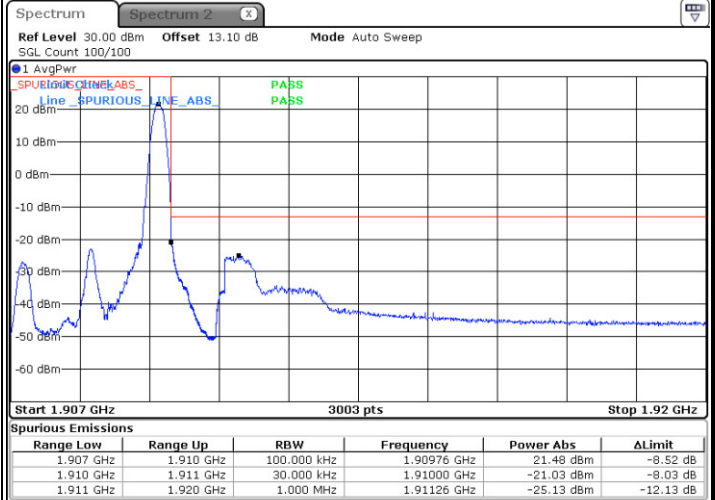
LTE Band 2 / 3MHz / QPSK

Lowest Band Edge / 1RB



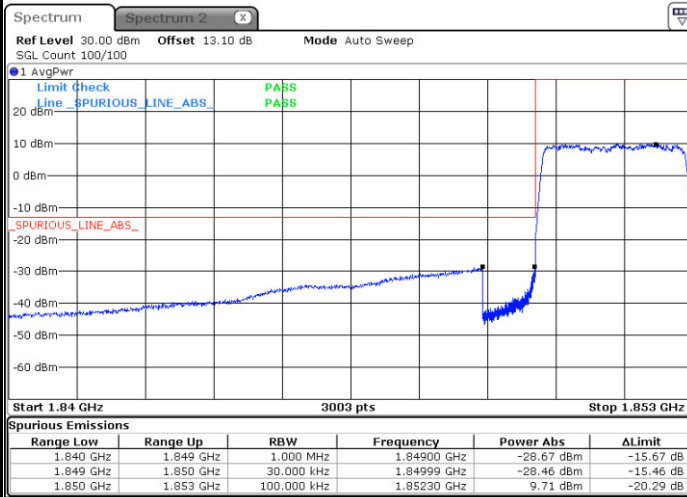
Date: 24.JAN.2018 00:12:30

Highest Band Edge / 1 RB



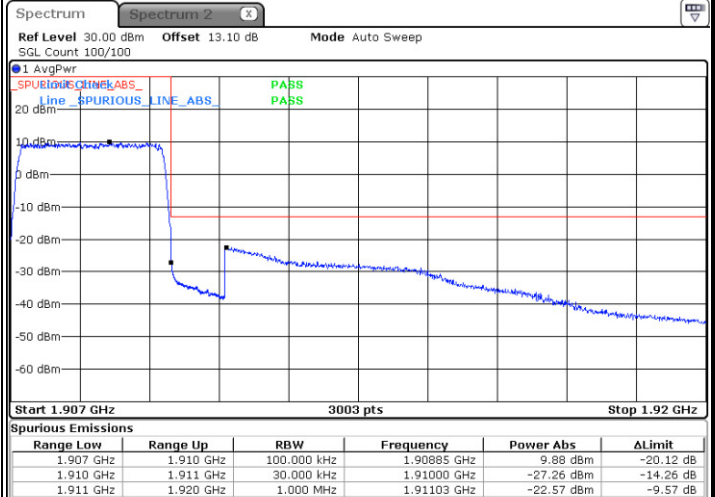
Date: 24.JAN.2018 00:22:24

Lowest Band Edge / Full RB



Date: 24.JAN.2018 00:14:48

Highest Band Edge / Full RB

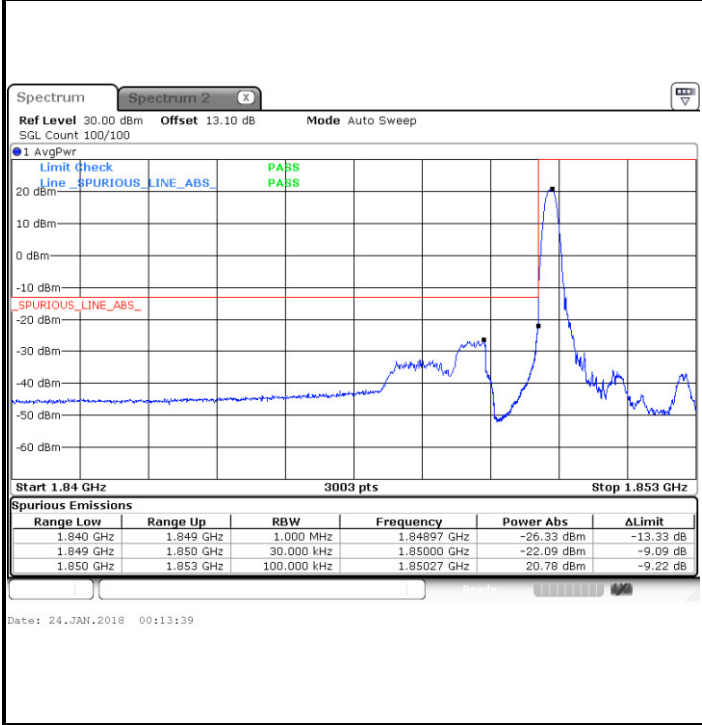


Date: 24.JAN.2018 00:24:41

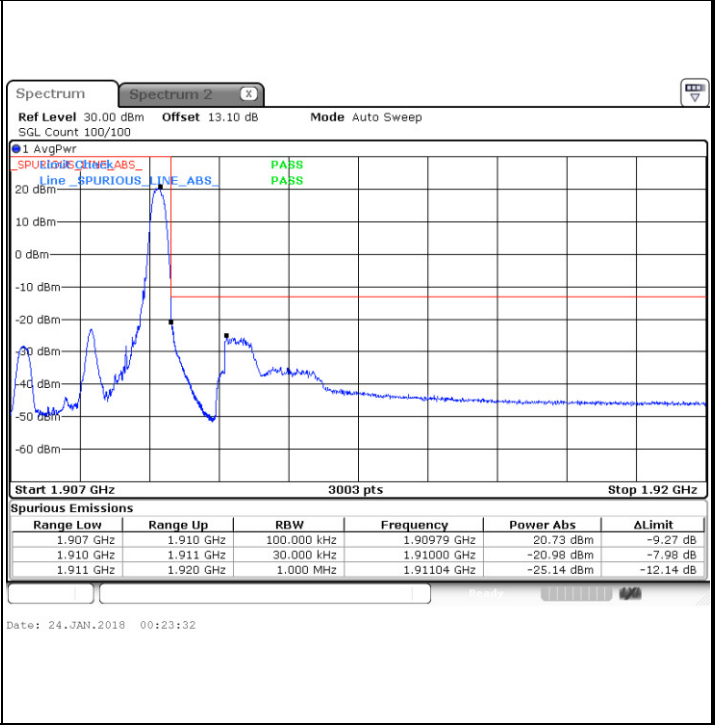


**LTE Band 2 / 3MHz / 16QAM**

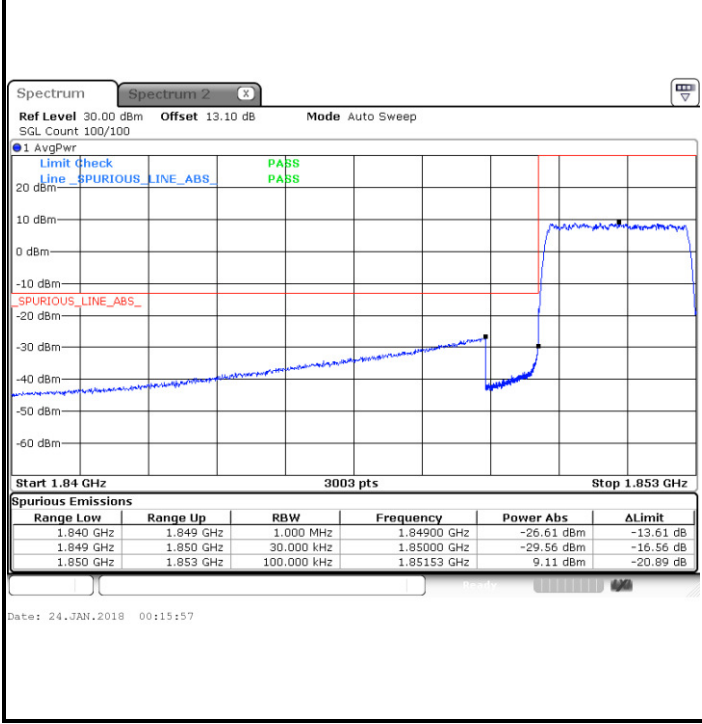
**Lowest Band Edge / 1 RB**



**Highest Band Edge / 1 RB**



**Lowest Band Edge / Full RB**



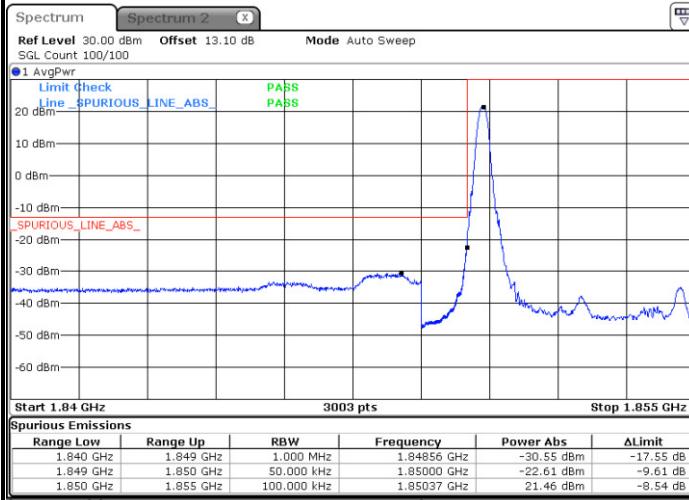
**Highest Band Edge / Full RB**





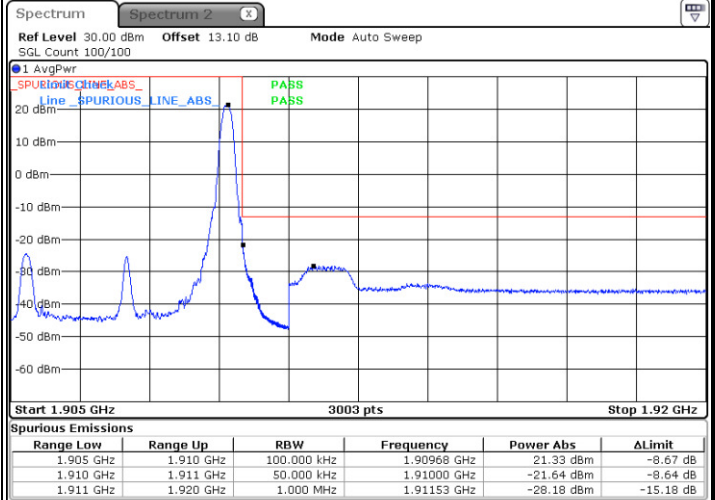
LTE Band 2 / 5MHz / QPSK

Lowest Band Edge / 1 RB



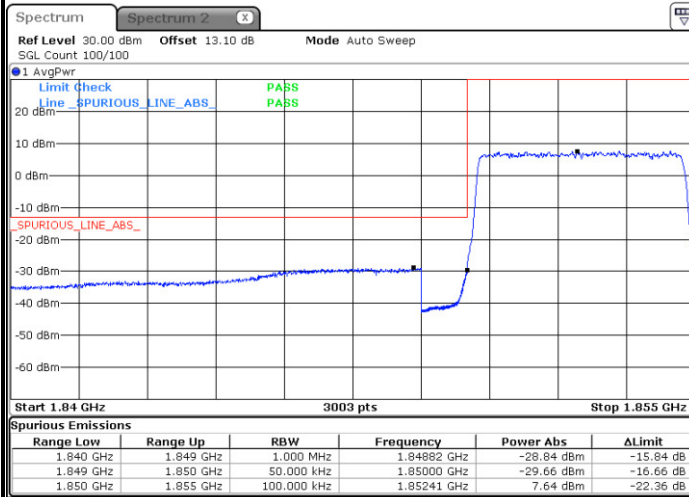
Date: 24.JAN.2018 00:29:39

Highest Band Edge / 1 RB



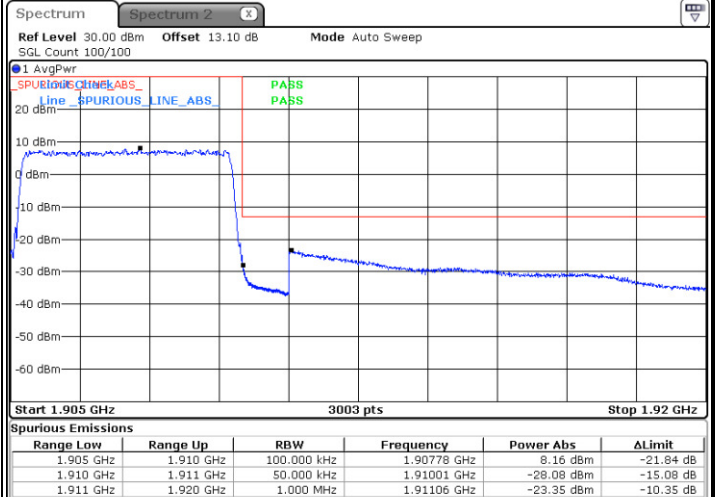
Date: 24.JAN.2018 00:31:32

Lowest Band Edge / Full RB



Date: 24.JAN.2018 00:31:57

Highest Band Edge / Full RB



Date: 24.JAN.2018 00:41:50