



# FCC RF Test Report

**APPLICANT** : ZTE CORPORATION  
**EQUIPMENT** : LTE/CDMA Multi-Mode Digital Mobile Phone  
**BRAND NAME** : ZTE  
**MODEL NAME** : Z6410S  
**FCC ID** : SRQ-Z6410S  
**STANDARD** : 47 CFR Part 2, 22(H), 24(E), 27(L), 27(F), 27(M),  
27(H)  
**CLASSIFICATION** : PCS Licensed Transmitter Held to Ear (PCE)

The product was received on Apr. 02, 2018 and completely tested on Aug. 17, 2018. We, Sporton International (Kunshan) Inc., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.26-2015 and shown 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 (Kunshan) Inc., the test report shall not be reproduced except in full.



Approved by: James Huang / Manager

**Sporton International (Kunshan) Inc.**

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China



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## REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG840202B	Rev. 01	Initial issue of report	Aug. 30, 2018



## 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)(5)	Effective Radiated Power (Band 5) (Band 26)	ERP < 7 Watt	PASS	-
	§27.50(b)(10) §27.50(c)(10)	Effective Radiated Power (Band 12) (Band 13)	ERP < 3 Watt	PASS	-
	§24.232(c) §27.50(h)(2)	Equivalent Isotropic Radiated Power (Band 2) (Band 25) (Band 7) (Band 41)	EIRP < 2Watt	PASS	-
	§27.50(d)(4)	Equivalent Isotropic Radiated Power (Band 4)	EIRP < 1Watt	PASS	-
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 §22.917(a) §24.238(a) §27.53(c)(2)(4) §27.53(g) §27.53(h)	Conducted Band Edge Measurement (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 25) (Band 26)	< 43+10log <sub>10</sub> (P[Watts])	PASS	-
	§27.53(m)(4)	Conducted Band Edge Measurement (Band 7) (Band 41)	§27.53(m)(4)		
3.8	§2.1051 §22.917(a) §24.238(a) §27.53(c)(2) §27.53(g) §27.53(h)	Conducted Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 25) (Band 26)	< 43+10log <sub>10</sub> (P[Watts])	PASS	-
	§2.1051 §27.53(m)(4)	Conducted Spurious Emission (Band 7) (Band 41)	< 55+10log <sub>10</sub> (P[Watts])		
3.9	§2.1055 §22.355	Frequency Stability Temperature & Voltage	< 2.5 ppm for Part 22	PASS	-
	§2.1055 §24.235 §27.54		Within Authorized Band		



Report Section	FCC Rule	Description	Limit	Result	Remark
4.4	§2.1053 §22.917(a) §24.238(a) §27.53(c)(2) §27.53(f) §27.53(g) §27.53(h)	Radiated Spurious Emission (Band 2) (Band 4) (Band 5) (Band 12) (Band 13) (Band 25) (Band 26)	$< 43 + 10 \log_{10}(P[\text{Watts}])$	PASS	Under limit 4.42 dB at 7961.00 MHz
	§2.1053 §27.53(m)(4)	Radiated Spurious Emission (Band 7) (Band 41)	$< 55 + 10 \log_{10}(P[\text{Watts}])$		



# 1 General Description

## 1.1 Applicant

**ZTE CORPORATION**

ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China

## 1.2 Manufacturer

**ZTE CORPORATION**

ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China

## 1.3 Product Feature of Equipment Under Test

Product Feature	
<b>Equipment</b>	LTE/CDMA Multi-Mode Digital Mobile Phone
<b>Brand Name</b>	ZTE
<b>Model Name</b>	Z6410S
<b>FCC ID</b>	SRQ-Z6410S
<b>EUT supports Radios application</b>	CDMA/EVDO/GSM/GPRS/EGPRS/WCDMA/HSPA/DC-HSDPA/HSPA+(16QAM uplink is not supported)/LTE WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40 Bluetooth BR/EDR/LE
<b>IMEI Code</b>	Conducted: 990010410011515 Radiation: 990010410011622
<b>HW Version</b>	Z6410SHW1.0
<b>SW Version</b>	Z6410SV1.0.0B01
<b>EUT Stage</b>	Identical Prototype



### 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 LTE Band 4 : 1710.7 MHz ~ 1754.3 MHz LTE Band 5 : 824.7 MHz ~ 848.3 MHz LTE Band 7 : 2502.5 MHz ~ 2567.5 MHz LTE Band 12 : 699.7 MHz ~ 715.3 MHz LTE Band 13 : 779.5 MHz ~ 784.5 MHz LTE Band 25 : 1850.7MHz ~ 1914.3 MHz LTE Band 26 : 824.7MHz ~ 848.3 MHz LTE Band 41 : 2498.5 MHz ~ 2687.5 MHz
<b>Rx Frequency</b>	LTE Band 2 : 1930.7 MHz ~ 1989.3 MHz LTE Band 4 : 2110.7 MHz ~ 2154.3 MHz LTE Band 5 : 869.7 MHz ~ 893.3 MHz LTE Band 7 : 2622.5MHz ~ 2687.5 MHz LTE Band 12 : 729.7 MHz ~ 745.3 MHz LTE Band 13 : 748.5 MHz ~ 753.5 MHz LTE Band 25 : 1930.7MHz ~ 1994.3 MHz LTE Band 26 : 869.7MHz ~ 893.3MHz LTE Band 41 : 2498.5 MHz ~ 2687.5 MHz
<b>Bandwidth</b>	LTE Band 2 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 4 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 5 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 7 : 5MHz / 10MHz / 15MHz / 20MHz LTE Band 12 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 13 : 5MHz / 10MHz LTE Band 25 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 26 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz LTE Band 41 : 5MHz / 10MHz / 15MHz / 20MHz
<b>Maximum Output Power to Antenna</b>	LTE Band 2 : 24.10 dBm LTE Band 4 : 24.01 dBm LTE Band 5 : 24.39 dBm LTE Band 7 : 23.60 dBm LTE Band 12 : 24.40 dBm LTE Band 13 : 24.32 dBm LTE Band 25 : 24.39 dBm LTE Band 26 : 24.88 dBm LTE Band 41 : 27.00 dBm
<b>Antenna Gain</b>	LTE Band 2 / 25 : -0.1 dBi LTE Band 4 : 0.3 dBi LTE Band 5 / 26 : -3.5 dBi LTE Band 7 : -3.0 dBi LTE Band 12 : -3.0 dBi LTE Band 13 : -3.0 dBi LTE Band 41 : -3.0 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 Maximum ERP/EIRP Power, Frequency Tolerance, and Emission Designator

LTE Band 25 / 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 ~ 1914.3	1M10G7D	-	0.2432	1M10W7D	-	0.2128
3	1851.5 ~ 1913.5	2M72G7D	-	0.2489	2M73W7D	-	0.2148
5	1852.5 ~ 1912.5	4M50G7D	-	0.2500	4M51W7D	-	0.2113
10	1855.0 ~ 1910.0	9M09G7D	0.0022	0.2570	9M01W7D	-	0.2163
15	1857.5 ~ 1907.5	13M5G7D	-	0.2553	13M5W7D	-	0.2173
20	1860.0 ~ 1905.0	18M4G7D	-	0.2685	18M4W7D	-	0.2178
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	-	0.2466	1M10W7D	-	0.2399
3	1711.5 ~ 1753.5	2M74G7D	-	0.2600	2M73W7D	-	0.2143
5	1712.5 ~ 1752.5	4M50G7D	-	0.2449	4M51W7D	-	0.2218
10	1715.0 ~ 1750.0	9M01G7D	0.0031	0.2698	9M03W7D	-	0.2339
15	1717.5 ~ 1747.5	13M5G7D	-	0.2541	13M5W7D	-	0.2223
20	1720.0 ~ 1745.0	18M5G7D	-	0.2582	18M4W7D	-	0.2377
LTE Band 7		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)
5	2502.5 ~ 2567.5	4M51G7D	-	0.1117	4M50W7D	-	0.0957
10	2505.0 ~ 2565.0	9M05G7D	0.0032	0.1143	9M05W7D	-	0.1009
15	2507.5 ~ 2562.5	13M5G7D	-	0.0916	13M5W7D	-	0.1014
20	2510.0 ~ 2560.0	18M5G7D	-	0.1148	18M4W7D	-	0.1014





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	1M10G7D	-	0.0802	1M10W7D		0.0687
3	700.5 ~ 714.5	2M73G7D	-	0.0800	2M73W7D		0.0673
5	701.5 ~ 713.5	4M52G7D	0.0106	0.0809	4M49W7D		0.0671
10	704.0 ~ 711.0	9M03G7D	-	0.0841	9M01W7D		0.0700
LTE Band 13		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	779.5 ~ 784.5	4M51G7D	-	0.0811	4M50W7D	-	0.0670
10	782.0	9M03G7D	0.0066	0.0826	9M01W7D	-	0.0701
LTE Band 26 / 5		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	824.7 ~ 848.3	1M09G7D	-	0.0832	1M10W7D	-	0.0682
3	825.5 ~ 847.5	2M72G7D	-	0.0731	2M73W7D	-	0.0628
5	826.5 ~ 846.5	4M50G7D	-	0.0733	4M50W7D	-	0.0619
10	829.0 ~ 844.0	9M03G7D	0.0092	0.0782	9M05W7D	-	0.0662
15	831.5 ~ 841.5	13M4G7D	-	0.0838	13M5W7D	-	0.0769
CH26765	821.5	13M5G7D	-	0.0796	13M5W7D	-	0.0658
LTE Band 41		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)
5	2498.5 ~ 2687.5	4M53G7D	-	0.2377	4M50W7D	-	0.1014
10	2501.0 ~ 2685.0	9M05G7D	0.0022	0.2377	9M03W7D	-	0.1026
15	2503.5 ~ 2682.5	13M6G7D	-	0.2512	13M5W7D	-	0.1067
20	2506.0 ~ 2680.0	18M4G7D	-	0.2382	18M5W7D	-	0.1138



LTE Band 41 CA	QPSK			16QAM		
BW (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5MHz+20MHz	23M3G7D	-	0.1285	23M3W7D	-	0.1054
10MHz+20MHz	27M9G7D	-	0.1276	27M9W7D	-	0.1069
10MHz+15MHz	23M5G7D	-	0.1300	23M6W7D	-	0.1074
15MHz+15MHz	28M7G7D	-	0.1291	28M5W7D	-	0.2128
15MHz+20MHz	32M7G7D	-	0.1349	32M7W7D	-	0.1091
15MHz+10MHz	23M5G7D	-	0.1294	23M6W7D	-	0.1069
20MHz+5MHz	23M4G7D	-	0.1285	23M3W7D	-	0.1047
20MHz+10MHz	28M1G7D	-	0.1262	28M1W7D	-	0.1057
20MHz+15MHz	32M8G7D	-	0.1327	32M8W7D	-	0.1076
20MHz+20MHz	37M6G7D	-	0.1380	37M6W7D	-	0.1380

Note:

1. LTE Band 26 overlaps the entire frequency range of LTE Band 5. Therefore, the test results provided in this report covers Band 5 and the portion of Band 26 subject to Part 22.
2. LTE Band 25 overlaps the entire frequency range of LTE Band 2. Therefore, the test results provided in this report covers Band 25 as well as Band 2.



### 1.7 Testing Location

Sporton International (Kunshan) Inc. is accredited to ISO 17025 by National Voluntary Laboratory Accreditation Program (NVLAP code: 600155-0) and the FCC designation No. is CN5013.

<b>Test Site</b>	Sporton International (Kunshan) Inc.		
<b>Test Site Location</b>	No.3-2 Ping-Xiang Rd, Kunshan Development Zone Kunshan City Jiangsu Province 215335 China TEL : +86-512-57900158 FAX : +86-512-57900958		
<b>Test Site No.</b>	<b>Sporton Site No.</b>		<b>FCC Test Firm Registration No.</b>
	TH01-KS	03CH02-KS	630927

**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(L), 27(F), 27(M), 27(H)
- ♦ ANSI C63.26-2015
- ♦ FCC KDB 971168 D01 Power Meas License Digital Systems v03r01
- ♦ 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 FCC Part 15, 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 v03r01 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	4	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	7	-	-	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
	13	-	-	v	v	-	-	v	v	v	v	v	v	v	v
	25	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	26	v	v	v	v	v	-	v	v	v	v	v	v	v	v
	41	-	-	v	v	v	v	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	4						v	v	v	v		v	v	v	v
	7	-	-				v	v	v	v		v	v	v	v
	12				v	-	-	v	v	v		v	v	v	v
	13	-	-		v	-	-	v	v	v		v	v	v	v
	25						v	v	v	v		v	v	v	v
	26				v		-	v	v	v		v	v	v	v
	41	-	-				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
26dB and 99% Bandwidth	4	v	v	v	v	v	v	v	v			v	v	v	v
	7	-	-	v	v	v	v	v	v			v	v	v	v
	12	v	v	v	v	-	-	v	v			v	v	v	v
	13	-	-	v	v	-	-	v	v			v	v	v	v
	25	v	v	v	v	v	v	v	v			v	v	v	v
	26	v	v	v	v	v	-	v	v			v	v	v	v
	41	-	-	v	v	v	v	v	v			v	v	v	v
Conducted Band Edge	4	v	v	v	v	v	v	v	v	v		v	v		v
	7	-	-	v	v	v	v	v	v	v		v	v		v
	12	v	v	v	v	-	-	v	v	v		v	v		v
	13	-	-	v	v	-	-	v	v	v		v	v		v
	25	v	v	v	v	v	v	v	v	v		v	v		v
	26	v	v	v	v	v	-	v	v	v		v	v		v
	41	-	-	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	4	v	v	v	v	v	v	v	v	v			v	v	v
	7	-	-	v	v	v	v	v	v	v			v	v	v
	12	v	v	v	v	-	-	v	v	v			v	v	v
	13	-	-	v	v	-	-	v	v	v			v	v	v
	25	v	v	v	v	v	v	v	v	v			v	v	v
	26	v	v	v	v	v	-	v	v	v			v	v	v
	41	-	-	v	v	v	v	v	v	v			v	v	v
Frequency Stability	4				v			v				v		v	
	7	-	-		v			v				v		v	
	12				v	-	-	v				v		v	
	13	-	-		v	-	-	v				v		v	
	25				v			v				v		v	
	26				v		-	v				v		v	
	41	-	-		v			v				v		v	



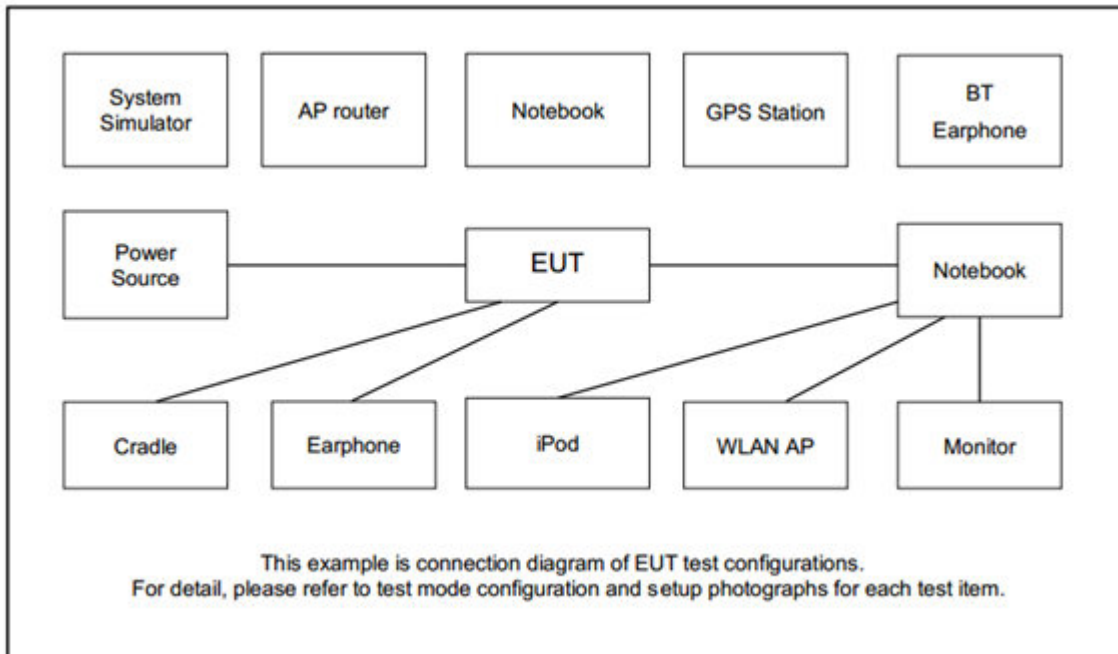
Test Items	Band	Bandwidth (MHz)						Modulation		RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full	L	M	H
E.R.P / E.I.R.P	4	v	v	v	v	v	v	v	v	v			v	v	v
	7	-	-	v	v	v	v	v	v	v			v	v	v
	12	v	v	v	v	-	-	v	v	v			v	v	v
	13	-	-	v	v	-	-	v	v	v			v	v	v
	25	v	v	v	v	v	v	v	v	v			v	v	v
	26	v	v	v	v	v	-	v	v	v			v	v	v
	41	-	-	v	v	v	v	v	v	v			v	v	v
Radiated Spurious Emission	4	Worst Case										v	v	v	
	7	Worst Case										v	v	v	
	12	Worst Case										v	v	v	
	13	Worst Case										v	v	v	
	25	Worst Case										v	v	v	
	26	Worst Case										v	v	v	
	41	Worst Case										v	v	v	
Note	<ol style="list-style-type: none"> <li>The mark "v" means that this configuration is chosen for testing</li> <li>The mark "-" means that this bandwidth is not supported.</li> <li>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.</li> <li>LTE Band 26 overlaps the entire frequency range of LTE Band 5. Therefore, the test results provided in this report covers Band 5 and the portion of Band 26 subject to Part 22.</li> <li>LTE Band 25 overlaps the entire frequency range of LTE Band 2. Therefore, the test results provided in this report covers Band 25 as well as Band 2.</li> </ol>														



Test Items	Band	Bandwidth (MHz)										Modulation		RB #			Test Channel			
		20+20	20+15	15+20	20+10	10+20	20+5	5+20	15+15	15+10	10+15	QPSK	16QAM	1	Half	Full	L	M	H	
Max. Output Power	41_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
26dB and 99% Bandwidth	41_CA	v	v	v	v	v	v	v	v	v	v	v	v	v			v	v	v	v
Conducted Band Edge	41_CA	v	v	v	v	v	v	v	v	v	v	v	v	v		v	v		v	
Conducted Spurious Emission	41_CA	v	v	v	v	v	v	v	v	v	v	v	v	v			v	v	v	
E.I.R.P.	41_CA	v	v	v	v	v	v	v	v	v	v	v	v	v			v	v	v	
Radiated Spurious Emission	41_CA	Worst Case															v	v	v	
Note	1. The mark "v " means that this configuration is chosen for testing 2. The mark "-" means that this bandwidth is not supported. 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.																			



## 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.	DC Power Supply	GW	GPS-3030D	N/A	N/A	Unshielded, 1.8 m
2.	LTE Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
3.	Earphone	Lenovo	SH100	N/A	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 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.

$Offset = RF\ cable\ loss.$

Following shows an offset computation example with cable loss 4.9 dB.

Example :

$$Offset(dB) = RF\ cable\ loss(dB).$$

$$= 4.9\ (dB)$$



### 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 7 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	20850	21100	21350
	Frequency	2510	2535	2560
15	Channel	20825	21100	21375
	Frequency	2507.5	2535	2562.5
10	Channel	20800	21100	21400
	Frequency	2505	2535	2565
5	Channel	20775	21100	21425
	Frequency	2502.5	2535	2567.5



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 13 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
10	Channel	-	23230	-
	Frequency	-	782	-
5	Channel	23205	23230	23255
	Frequency	779.5	782	784.5



LTE Band 25 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	26140	26340	26590
	Frequency	1860	1880	1905
15	Channel	26115	26340	26615
	Frequency	1857.5	1880	1907.5
10	Channel	26090	26340	26640
	Frequency	1855	1880	1910
5	Channel	26065	26340	26665
	Frequency	1852.5	1880	1912.5
3	Channel	26055	26340	26675
	Frequency	1851.5	1880	1913.5
1.4	Channel	26047	26340	26683
	Frequency	1850.7	1880	1914.3

LTE Band 26 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
15	Channel	26865	26915	26965
	Frequency	831.5	836.5	841.5
10	Channel	26840	26915	26990
	Frequency	829	836.5	844
5	Channel	26815	26915	27015
	Frequency	826.5	836.5	846.5
3	Channel	26805	26915	27025
	Frequency	825.5	836.5	847.5
1.4	Channel	26797	26915	27033
	Frequency	824.7	836.5	848.3



LTE Band 41 Channel and Frequency List				
BW [MHz]	Channel/Frequency(MHz)	Lowest	Middle	Highest
20	Channel	39750	40620	41490
	Frequency	2506	2593	2680
15	Channel	39725	40620	41515
	Frequency	2503.5	2593	2682.5
10	Channel	39700	40620	41540
	Frequency	2501	2593	2685
5	Channel	39675	40620	41565
	Frequency	2498.5	2593	2687.5

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



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

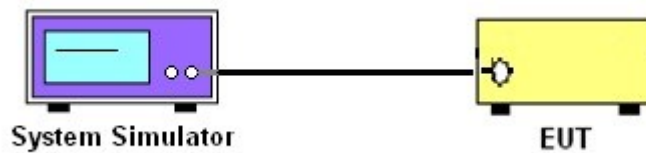
### 3 Conducted Test Items

#### 3.1 Measuring Instruments

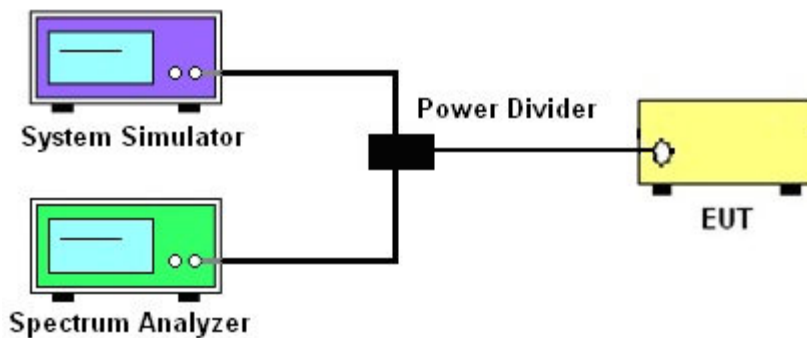
See list of measuring instruments of this test report.

#### 3.2 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 ERP/EIRP

#### 3.4.1 Description of the Conducted Output Power Measurement and ERP/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 ERP of mobile transmitters must not exceed 7 Watts for LTE Band 26 / Band 5.

The ERP of mobile transmitters must not exceed 3 Watts for LTE Band 12 and Band 13.

The EIRP of mobile transmitters must not exceed 2 Watts for LTE Band 25 / Band 2, Band 7, Band 41.

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

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 testing follows ANSI C63.26 Section 5.2
2. The transmitter output port was connected to the system simulator.
3. Set EUT at maximum power through the system simulator.
4. Select lowest, middle, and highest channels for each band and different modulation.
5. 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 testing follows ANSI C63.26 Section 5.2.3.4 (CCDF).
2. The EUT was connected to spectrum and system simulator via a power divider.
3. Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
4. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1 %.
5. 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

1. The testing follows ANSI C63.26 Section 5.4
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. 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.
4. 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.
5. Set the detection mode to peak, and the trace mode to max hold.
6. 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)
7. Determine the “-26 dB down amplitude” as equal to (Reference Value – X).
8. 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.
9. 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

22.917(a)

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(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.

24.238 (a)

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(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.

27.53 (c)

For operations in the 776-788 MHz band, the FCC limit is  $43 + 10\log_{10}(P[\text{Watts}])$  dB below the transmitter power P(Watts) in a 100 kHz bandwidth. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed. In addition, the power of any unwanted emissions in any 6.25 kHz bandwidth for all frequencies between 763-775 MHz and 793-806 MHz shall be attenuated below the transmitter power, P (dBW), by at least  $65 + 10 \log_{10} p(\text{watts})$ , dB, for mobile and portable equipment.

27.53 (g)

For operations in the 600MHz band and 698 -746 MHz band, the FCC limit is  $43 + 10\log_{10}(P[\text{Watts}])$  dB below the transmitter power P(Watts) in a 100 kHz bandwidth. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

27.53 (h)

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(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.



27.53(m)(4)

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

**3.7.2 Test Procedures**

1. The testing follows ANSI C63.26 section 5.7
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The band edges of low and high channels for the highest RF powers were measured.
4. Set RBW  $\geq$  1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
5. Beyond the 1 MHz band from the band edge, RBW=1MHz was used.
6. Set spectrum analyzer with RMS detector.
7. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
8. Checked that all the results comply with the emission limit line.

Example:

$$\begin{aligned} &\text{The limit line is derived from } 43 + 10\log(P)\text{dB below the transmitter power } P(\text{Watts}) \\ &= P(\text{W}) - [43 + 10\log(P)] \text{ (dB)} \\ &= [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)} = -13\text{dBm}. \end{aligned}$$

9. For LTE Band 7, 41, the other 40 dB, and 55 dB have additionally applied same calculation above.



### 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.

For Band 7, 41:

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

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

#### 3.8.2 Test Procedures

1. The testing follows ANSI C63.26 section 5.7
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. 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.
4. The middle channel for the highest RF power within the transmitting frequency was measured.
5. The conducted spurious emission for the whole frequency range was taken.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz.
7. Set spectrum analyzer with RMS detector.
8. Taking the record of maximum spurious emission.
9. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
10. The limit line is derived from  $43 + 10\log(P)$ dB below the transmitter power P(Watts)  
=  $P(W) - [43 + 10\log(P)]$  (dB)  
=  $[30 + 10\log(P)]$  (dBm) -  $[43 + 10\log(P)]$  (dB)  
= -13dBm.
11. For Band 7, 41  
The limit line is derived from  $55 + 10\log(P)$ dB below the transmitter power P(Watts)  
=  $P(W) - [55 + 10\log(P)]$  (dB)  
=  $[30 + 10\log(P)]$  (dBm) -  $[55 + 10\log(P)]$  (dB)  
= -25dBm.



## 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

1. The testing follows ANSI C63.26 section 5.6.4
2. The EUT was set up in the thermal chamber and connected with the system simulator.
3. 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.
4. 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

1. The testing follows ANSI C63.26 section 5.6.5
2. The EUT was placed in a temperature chamber at  $20\pm 5^{\circ}\text{C}$  and connected with the system simulator.
3. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value for other than hand carried battery equipment.
4. For hand carried, battery powered equipment, reduce the primary ac or dc supply voltage to the battery operating end point, which shall be specified by the manufacturer.
5. The variation in frequency was measured for the worst case.

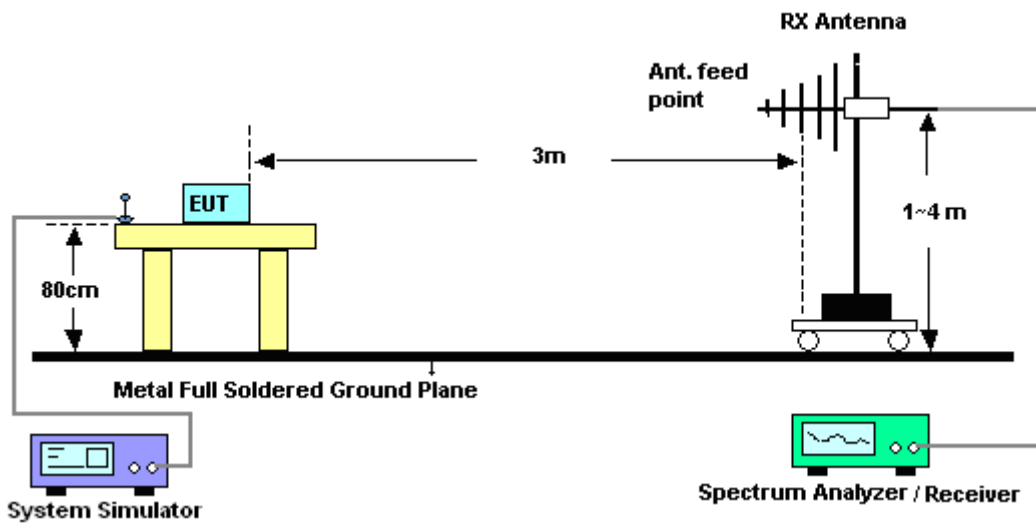
## 4 Radiated Test Items

### 4.1 Measuring Instruments

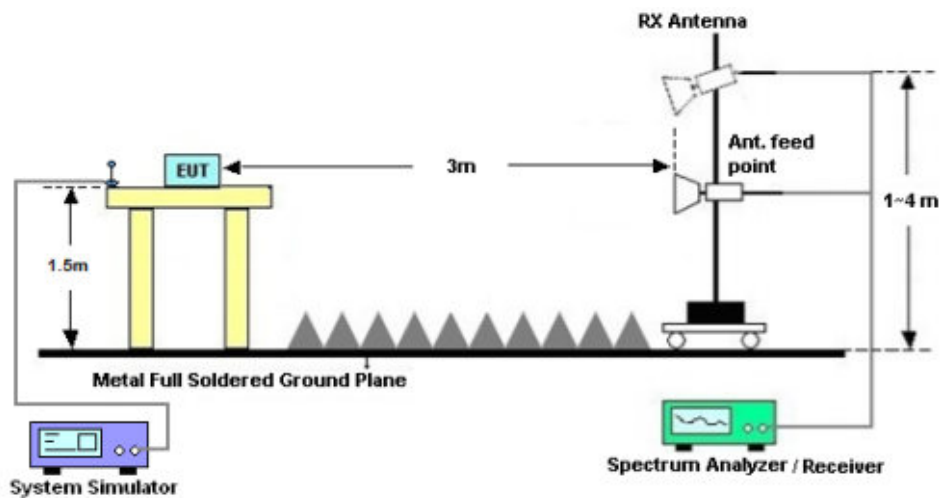
See list of measuring instruments of this test report.

### 4.2 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 Band 7, 41

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

For LTE Band 13

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

1. The testing follows ANSI C63.26 Section 5.5
2. The EUT was placed on a turntable with 0.8 meter height for frequency below 1GHz and 1.5 meter height for frequency above 1GHz respectively above ground.
3. The EUT was set 3 meters from the receiving antenna mounted on the antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest spurious emission.
5. The height of the receiving antenna is varied between 1m to 4m to search the maximum spurious emission for both horizontal and vertical polarizations.
6. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power.
7. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
8. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
9. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
10.  $EIRP (dBm) = S.G. Power - Tx Cable Loss + Tx Antenna Gain$
11.  $ERP (dBm) = EIRP - 2.15$
12. 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)  
 $= P(W) - [43 + 10\log(P)] (dB)$   
 $= [30 + 10\log(P)] (dBm) - [43 + 10\log(P)] (dB)$   
 $= -13dBm.$
13. For Band 7, 41:



The limit line is derived from  $55 + 10\log(P)$ 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
Spectrum Analyzer	R&S	FSV30	101338	10Hz~30GHz	Apr. 19, 2018	Apr. 14, 2018~ Aug. 17, 2018	Apr. 18, 2019	Conducted (TH01-KS)
Thermal Chamber	Ten Billion	TTC-B3S	TBN-960502	-40~+150°C	Oct.12, 2017	Apr. 14, 2018~ Aug. 17, 2018	Oct. 11, 2018	Conducted (TH01-KS)
EMI Test Receiver	R&S	ESR7	101403	9kHz~7GHz;Max 30dBm	Aug.08.2017	Jul. 21, 2018~ Jul. 22, 2018	Aug.07.2018	Radiation (03CH02-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55150208	10Hz-44G,MAX 30dB	Apr.17, 2018	Jul. 21, 2018~ Jul. 22, 2018	Apr. 16, 2019	Radiation (03CH02-KS)
Bilog Antenna	TeseQ	CBL6112D	23182	30MHz-2GHz	Jan. 29, 2018	Jul. 21, 2018~ Jul. 22, 2018	Jan. 28, 2019	Radiation (03CH02-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75957	1GHz~18GHz	Oct. 21, 2017	Jul. 21, 2018~ Jul. 22, 2018	Oct. 20, 2018	Radiation (03CH02-KS)
SHF-EHF Horn	Schwarzbeck	BBHA 9170	BBHA170249	15GHz~40GHz	Feb. 07, 2018	Jul. 21, 2018~ Jul. 22, 2018	Feb.06, 2019	Radiation (03CH02-KS)
Amplifier	SONOMA	310N	187289	9KHz-1GHz	Aug.07,2017	Jul. 21, 2018~ Jul. 22, 2018	Aug.06,2018	Radiation (03CH02-KS)
high gain Amplifier	MITEQ	AMF-7D-00 101800-30-1 00	2025788	100MHz-18GHz	Apr.17,2018	Jul. 21, 2018~ Jul. 22, 2018	Apr.16,2019	Radiation (03CH02-KS)
Amplifier	Agilent	8449B	3008A02384	1-26.5GHz Gain 30dB	Oct. 12, 2017	Jul. 21, 2018~ Jul. 22, 2018	Oct. 11, 2018	Radiation (03CH02-KS)
Amplifier	MITEQ	TTA1840-35 -HG	1887435	18~40GHz	Oct. 12, 2017	Jul. 21, 2018~ Jul. 22, 2018	Oct. 11, 2018	Radiation (03CH02-KS)
AC Power Source	Chroma	61601	616010002473	N/A	NCR	Jul. 21, 2018~ Jul. 22, 2018	NCR	Radiation (03CH02-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	NCR	Jul. 21, 2018~ Jul. 22, 2018	NCR	Radiation (03CH02-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	NCR	Jul. 21, 2018~ Jul. 22, 2018	NCR	Radiation (03CH02-KS)

NCR: No Calibration Required



## 6 Uncertainty of Evaluation

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

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	3.3dB
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### Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	2.8dB
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### Appendix A. Test Results of Conducted Test

#### Conducted Output Power(Average power)

LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	24.12	24.11	24.06
20	1	49		24.39	23.92	24.27
20	1	99		23.92	23.90	23.90
20	50	0		23.39	23.00	23.06
20	50	24		23.36	22.97	23.09
20	50	50		23.29	22.95	23.11
20	100	0		23.44	23.02	23.35
20	1	0	16-QAM	23.27	23.31	23.48
20	1	49		23.26	23.06	23.45
20	1	99		23.24	23.03	23.15
20	50	0		22.05	21.96	22.41
20	50	24		22.05	21.99	22.41
20	50	50		22.09	21.94	22.40
20	100	0		22.05	21.95	22.43
15	1	0	QPSK	24.04	24.16	23.94
15	1	37		24.01	23.83	24.17
15	1	74		23.68	23.68	24.03
15	36	0		22.99	22.95	23.25
15	36	20		22.89	22.93	23.22
15	36	39		22.89	22.89	23.38
15	75	0		22.90	22.90	23.34
15	1	0	16-QAM	23.32	23.31	23.47
15	1	37		23.19	23.16	23.42
15	1	74		23.07	23.02	23.34
15	36	0		21.93	21.91	22.28
15	36	20		21.94	21.88	22.27
15	36	39		21.89	21.84	22.24
15	75	0		21.97	21.88	22.29



LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	24.10	24.17	24.20
10	1	25		23.83	23.72	24.01
10	1	49		24.17	23.81	23.75
10	25	0		22.95	22.75	23.07
10	25	12		22.92	22.67	23.02
10	25	25		23.02	22.68	23.06
10	50	0		22.91	22.68	23.06
10	1	0	16-QAM	23.28	23.11	23.45
10	1	25		23.05	22.95	23.17
10	1	49		23.32	23.10	22.95
10	25	0		21.97	21.78	22.12
10	25	12		21.91	21.74	22.03
10	25	25		22.02	21.72	22.04
10	50	0		21.89	21.68	22.09
5	1	0	QPSK	23.99	24.08	24.02
5	1	12		23.88	23.59	23.95
5	1	24		23.86	23.71	23.72
5	12	0		23.01	22.67	23.10
5	12	7		22.94	22.71	23.05
5	12	13		22.97	22.68	23.03
5	25	0		22.93	22.67	23.03
5	1	0	16-QAM	23.35	23.09	23.30
5	1	12		23.23	22.88	23.23
5	1	24		23.12	22.93	22.95
5	12	0		22.07	21.70	22.13
5	12	7		22.05	21.70	22.06
5	12	13		21.95	21.69	22.06
5	25	0		21.99	21.66	22.02



LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	23.94	23.91	24.06
3	1	8		23.94	23.67	24.00
3	1	14		23.91	23.59	23.67
3	8	0		22.95	22.63	22.96
3	8	4		22.95	22.65	22.97
3	8	7		22.92	22.59	22.97
3	15	0		22.95	22.68	23.01
3	1	0	16-QAM	23.33	22.94	23.42
3	1	8		23.14	23.01	23.41
3	1	14		23.15	22.98	22.98
3	8	0		22.02	21.72	22.00
3	8	4		21.99	21.73	22.08
3	8	7		21.91	21.63	22.04
3	15	0		21.91	21.67	22.02
1.4	1	0	QPSK	23.84	23.91	23.91
1.4	1	3		23.88	23.69	23.91
1.4	1	5		23.78	23.57	23.60
1.4	3	0		23.96	23.59	23.88
1.4	3	1		23.87	23.61	23.84
1.4	3	3		23.92	23.66	23.74
1.4	6	0		22.88	22.60	22.92
1.4	1	0	16-QAM	23.38	22.92	23.15
1.4	1	3		23.21	23.05	23.17
1.4	1	5		23.27	22.96	22.89
1.4	3	0		22.92	22.61	22.98
1.4	3	1		22.94	22.69	22.96
1.4	3	3		22.89	22.69	22.89
1.4	6	0		21.95	21.66	21.98



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	23.57	23.41	23.72
20	1	49		23.82	23.82	23.53
20	1	99		23.40	23.50	23.60
20	50	0		22.70	22.78	22.80
20	50	24		22.77	22.82	22.81
20	50	50		22.72	22.66	22.72
20	100	0		22.72	22.79	22.75
20	1	0	16-QAM	23.27	23.12	23.46
20	1	49		23.40	23.41	23.45
20	1	99		23.10	23.10	23.12
20	50	0		21.78	21.79	21.79
20	50	24		21.85	21.79	21.87
20	50	50		21.68	21.70	21.64
20	100	0		21.63	21.62	21.75
15	1	0	QPSK	23.39	23.75	23.67
15	1	37		23.33	23.51	23.28
15	1	74		23.43	23.47	23.42
15	36	0		22.47	22.52	22.36
15	36	20		22.38	22.53	22.27
15	36	39		22.40	22.40	22.48
15	75	0		22.43	22.38	22.52
15	1	0	16-QAM	23.17	23.08	23.08
15	1	37		22.95	23.12	22.86
15	1	74		22.85	22.99	22.71
15	36	0		21.47	21.52	21.40
15	36	20		21.51	21.58	21.33
15	36	39		21.35	21.37	21.43
15	75	0		21.37	21.44	21.38





LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	23.88	23.61	23.74
10	1	25		23.65	23.69	23.54
10	1	49		24.01	23.81	23.83
10	25	0		22.61	22.50	22.61
10	25	12		22.66	22.55	22.59
10	25	25		22.80	22.65	22.79
10	50	0		22.69	22.55	22.69
10	1	0	16-QAM	23.39	23.20	23.07
10	1	25		23.00	23.05	22.89
10	1	49		23.35	23.28	23.11
10	25	0		21.58	21.46	21.59
10	25	12		21.68	21.41	21.52
10	25	25		21.70	21.64	21.68
10	50	0		21.62	21.58	21.63
5	1	0	QPSK	23.59	23.46	23.56
5	1	12		23.46	23.48	23.30
5	1	24		23.41	23.45	23.47
5	12	0		22.67	22.58	22.59
5	12	7		22.57	22.45	22.56
5	12	13		22.51	22.54	22.54
5	25	0		22.58	22.49	22.53
5	1	0	16-QAM	23.03	23.07	22.95
5	1	12		22.89	23.16	22.92
5	1	24		22.77	22.81	22.83
5	12	0		21.66	21.58	21.69
5	12	7		21.57	21.53	21.56
5	12	13		21.55	21.53	21.57
5	25	0		21.53	21.52	21.54



LTE Band 4 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	23.41	23.53	23.46
3	1	8		23.85	23.48	23.45
3	1	14		23.45	23.43	23.44
3	8	0		22.60	22.50	22.49
3	8	4		22.61	22.50	22.54
3	8	7		22.43	22.49	22.49
3	15	0		22.53	22.49	22.56
3	1	0	16-QAM	22.84	22.89	22.77
3	1	8		22.88	23.01	23.00
3	1	14		22.80	22.80	22.74
3	8	0		21.80	21.57	21.54
3	8	4		21.69	21.52	21.70
3	8	7		21.64	21.71	21.55
3	15	0		21.63	21.52	21.56
1.4	1	0	QPSK	23.30	23.56	23.62
1.4	1	3		23.53	23.33	23.50
1.4	1	5		23.51	23.51	23.51
1.4	3	0		23.52	23.38	23.49
1.4	3	1		23.59	23.49	23.53
1.4	3	3		23.56	23.46	23.57
1.4	6	0		22.57	22.40	22.41
1.4	1	0	16-QAM	23.01	23.40	23.14
1.4	1	3		23.50	23.07	23.01
1.4	1	5		23.44	23.05	23.05
1.4	3	0		22.64	22.49	22.57
1.4	3	1		22.70	22.70	22.54
1.4	3	3		22.75	22.68	22.72
1.4	6	0		21.49	21.37	21.44



LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	24.55	24.49	24.69
15	1	37		24.43	24.44	24.56
15	1	74		24.88	24.81	24.88
15	36	0		23.79	23.9	24.11
15	36	20		23.54	23.66	23.91
15	36	39		23.42	23.5	23.54
15	75	0		23.61	23.73	23.95
15	1	0	16-QAM	23.89	24.01	24.36
15	1	37		23.64	23.87	24.06
15	1	74		24.24	24.24	24.51
15	36	0		22.79	22.93	23.19
15	36	20		22.56	22.74	22.89
15	36	39		22.37	22.52	22.78
15	75	0		22.58	22.81	23.01
10	1	0	QPSK	24.53	21.48	21.26
10	1	25		24.41	21.65	21.4
10	1	49		24.58	21.15	20.89
10	25	0		23.47	20.74	20.59
10	25	12		23.57	20.75	20.46
10	25	25		23.59	20.56	20.33
10	50	0		23.49	20.64	20.45
10	1	0	16-QAM	23.76	20.87	20.62
10	1	25		23.64	21.03	20.76
10	1	49		23.86	20.5	20.2
10	25	0		22.52	19.81	19.68
10	25	12		22.53	19.86	19.56
10	25	25		22.62	19.64	19.44
10	50	0		22.54	19.75	19.57



LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	21.81	21.62	24.3
5	1	12		21.92	21.64	24.15
5	1	24		21.72	21.39	24.03
5	12	0		20.93	20.78	23.44
5	12	7		21.13	20.79	23.51
5	12	13		21.06	20.74	23.47
5	25	0		21.01	20.74	23.37
5	1	0	16-QAM	21.14	20.93	23.57
5	1	12		21.3	20.96	23.49
5	1	24		21.08	20.75	23.38
5	12	0		20.03	19.9	22.5
5	12	7		20.27	19.91	22.63
5	12	13		20.17	19.82	22.58
5	25	0		20.11	19.85	22.48
3	1	0	QPSK	21.88	21.69	24.22
3	1	8		21.94	21.69	24.29
3	1	14		21.85	21.58	24.12
3	8	0		20.94	20.79	23.37
3	8	4		21.08	20.8	23.46
3	8	7		21.13	20.75	23.47
3	15	0		21.06	20.77	23.45
3	1	0	16-QAM	21.2	21	23.53
3	1	8		21.29	21.01	23.63
3	1	14		21.21	20.92	23.47
3	8	0		20.09	19.93	22.52
3	8	4		20.27	19.94	22.62
3	8	7		20.28	19.89	22.62
3	15	0		20.2	19.9	22.58



LTE Band 26 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	24.18	24.41	24.44
1.4	1	3		24.32	24.85	24.65
1.4	1	5		24.16	24.83	24.63
1.4	3	0		24.11	24.75	24.66
1.4	3	1		24.23	24.82	24.68
1.4	3	3		24.21	24.81	24.6
1.4	6	0		23.26	23.85	23.76
1.4	1	0	16-QAM	23.44	23.98	23.9
1.4	1	3		23.46	23.93	23.94
1.4	1	5		23.39	23.93	23.99
1.4	3	0		23.24	23.81	23.78
1.4	3	1		23.28	23.84	23.75
1.4	3	3		23.27	23.9	23.71
1.4	6	0		22.37	22.95	22.76



LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	23.30	23.31	23.26
20	1	49		23.60	23.55	23.35
20	1	99		23.39	23.40	23.13
20	50	0		22.63	22.60	22.45
20	50	24		22.67	22.64	22.45
20	50	50		22.52	22.64	22.38
20	100	0		22.70	22.55	22.40
20	1	0	16-QAM	22.88	22.83	22.76
20	1	49		22.81	23.06	22.74
20	1	99		22.61	22.84	22.72
20	50	0		21.59	21.63	21.41
20	50	24		21.61	21.67	21.47
20	50	50		21.58	21.63	21.37
20	100	0		21.58	21.58	21.40
15	1	0	QPSK	23.18	23.31	23.18
15	1	37		23.48	23.52	23.30
15	1	74		23.50	23.55	23.08
15	36	0		22.62	22.55	22.42
15	36	20		22.66	22.65	22.43
15	36	39		22.71	22.63	22.46
15	75	0		22.62	22.61	22.49
15	1	0	16-QAM	22.99	22.85	22.56
15	1	37		22.90	23.06	22.56
15	1	74		22.75	22.90	22.61
15	36	0		21.64	21.61	21.44
15	36	20		21.69	21.67	21.45
15	36	39		21.67	21.60	21.43
15	75	0		21.64	21.64	21.49



LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	23.36	23.47	23.30
10	1	25		23.47	23.30	23.34
10	1	49		23.58	23.44	23.32
10	25	0		22.71	22.36	22.55
10	25	12		22.63	22.45	22.50
10	25	25		22.57	22.42	22.63
10	50	0		22.54	22.45	22.52
10	1	0	16-QAM	23.04	22.90	22.79
10	1	25		22.77	22.78	22.72
10	1	49		22.82	22.79	22.54
10	25	0		21.67	21.43	21.53
10	25	12		21.60	21.48	21.48
10	25	25		21.55	21.42	21.48
10	50	0		21.60	21.47	21.49
5	1	0	QPSK	23.21	23.37	23.36
5	1	12		23.40	23.27	23.12
5	1	24		23.48	23.16	23.00
5	12	0		22.54	22.46	22.41
5	12	7		22.53	22.39	22.41
5	12	13		22.58	22.39	22.39
5	25	0		22.56	22.45	22.40
5	1	0	16-QAM	22.73	22.81	22.77
5	1	12		22.71	22.53	22.59
5	1	24		22.72	22.75	22.32
5	12	0		21.53	21.48	21.42
5	12	7		21.58	21.49	21.41
5	12	13		21.60	21.41	21.45
5	25	0		21.54	21.46	21.36



LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	24.36	24.08	24.21
10	1	25		24.04	23.93	23.97
10	1	49		24.40	24.21	24.28
10	25	0		23.15	23.03	23.14
10	25	12		23.07	22.95	23.12
10	25	25		23.06	22.98	23.15
10	50	0		23.16	23.03	23.15
10	1	0	16-QAM	23.60	23.46	23.30
10	1	25		23.27	23.14	23.17
10	1	49		23.41	23.43	23.56
10	25	0		22.16	22.03	22.12
10	25	12		22.03	21.96	22.12
10	25	25		22.06	21.99	22.12
10	50	0		22.21	22.06	22.15
5	1	0	QPSK	24.23	23.78	23.82
5	1	12		24.03	23.99	23.95
5	1	24		23.84	23.99	24.09
5	12	0		23.06	22.86	23.01
5	12	7		23.02	22.93	23.03
5	12	13		22.96	22.88	23.08
5	25	0		23.04	22.94	23.13
5	1	0	16-QAM	23.35	22.99	23.35
5	1	12		23.16	23.19	23.42
5	1	24		23.21	23.18	23.30
5	12	0		22.14	21.90	22.00
5	12	7		22.01	21.91	22.10
5	12	13		21.96	21.90	22.12
5	25	0		22.03	21.86	22.12





LTE Band 12 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
3	1	0	QPSK	24.12	23.86	23.79
3	1	8		24.04	24.07	24.18
3	1	14		23.83	23.89	24.15
3	8	0		22.96	22.91	23.09
3	8	4		22.98	22.98	23.21
3	8	7		22.90	22.93	23.18
3	15	0		22.96	22.94	23.15
3	1	0	16-QAM	23.15	23.21	23.33
3	1	8		23.32	23.27	23.43
3	1	14		23.12	23.20	23.33
3	8	0		22.02	21.95	22.19
3	8	4		21.97	22.04	22.36
3	8	7		21.97	22.01	22.22
3	15	0		21.91	22.01	22.18
1.4	1	0	QPSK	24.03	23.70	23.86
1.4	1	3		23.91	23.92	24.16
1.4	1	5		23.80	23.81	24.17
1.4	3	0		24.05	23.88	24.07
1.4	3	1		24.03	23.86	24.17
1.4	3	3		24.10	23.86	24.19
1.4	6	0		22.96	22.81	23.15
1.4	1	0	16-QAM	23.16	23.26	23.37
1.4	1	3		23.51	23.34	23.47
1.4	1	5		23.03	23.46	23.52
1.4	3	0		23.01	22.86	23.18
1.4	3	1		22.99	22.92	23.26
1.4	3	3		23.08	23.02	23.22
1.4	6	0		22.03	21.89	22.23



LTE Band 13 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK		24.32	
10	1	25			24.14	
10	1	49			24.16	
10	25	0			23.14	
10	25	12			23.13	
10	25	25			23.13	
10	50	0			23.15	
10	1	0	16-QAM		23.61	
10	1	25			23.35	
10	1	49			23.50	
10	25	0			22.13	
10	25	12			22.16	
10	25	25			22.12	
10	50	0			22.14	
5	1	0	QPSK	24.07	24.02	24.08
5	1	12		24.24	24.10	24.10
5	1	24		24.12	24.03	24.02
5	12	0		23.17	23.06	23.02
5	12	7		23.27	23.11	23.09
5	12	13		23.17	23.06	23.05
5	25	0		23.22	23.07	23.09
5	1	0	16-QAM	23.33	23.35	23.35
5	1	12		23.31	23.24	23.23
5	1	24		23.41	23.22	23.35
5	12	0		22.18	22.08	22.03
5	12	7		22.21	22.11	22.10
5	12	13		22.20	22.09	22.06
5	25	0		22.16	22.08	22.12



LTE Band 41 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	26.58	26.41	26.66
20	1	49		26.77	26.44	26.49
20	1	99		26.39	26.55	26.36
20	50	0		22.97	22.59	22.73
20	50	24		23.08	22.57	22.69
20	50	50		22.89	22.91	22.75
20	100	0		22.90	22.53	22.73
20	1	0	16-QAM	23.56	22.96	22.74
20	1	49		23.35	23.05	23.03
20	1	99		23.40	23.16	22.57
20	50	0		22.55	21.92	21.79
20	50	24		22.47	21.98	22.00
20	50	50		22.48	22.03	22.04
20	100	0		22.29	22.14	22.03
15	1	0	QPSK	26.94	26.73	26.96
15	1	37		26.66	27.00	26.85
15	1	74		26.44	26.50	26.44
15	36	0		23.12	22.57	22.68
15	36	20		23.08	22.65	22.60
15	36	39		23.19	22.79	22.81
15	75	0		23.03	22.83	22.54
15	1	0	16-QAM	23.28	22.53	22.70
15	1	37		22.90	22.60	22.54
15	1	74		23.06	22.86	22.69
15	36	0		22.52	21.87	21.78
15	36	20		22.47	22.26	21.88
15	36	39		22.39	22.06	22.30
15	75	0		22.53	21.93	21.93



LTE Band 41 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	26.08	25.73	25.87
10	1	25		26.66	26.56	26.32
10	1	49		25.84	25.59	26.76
10	25	0		22.99	22.60	22.68
10	25	12		23.03	22.69	22.69
10	25	25		23.02	22.78	22.68
10	50	0		22.95	22.61	22.58
10	1	0	16-QAM	23.10	22.85	22.64
10	1	25		23.08	22.63	22.70
10	1	49		23.11	22.79	22.71
10	25	0		21.88	21.58	21.72
10	25	12		21.88	21.58	21.72
10	25	25		21.78	21.61	21.73
10	50	0		21.87	21.54	21.59
5	1	0	QPSK	26.57	26.39	26.76
5	1	12		26.09	26.47	26.15
5	1	24		26.36	26.60	26.38
5	12	0		22.78	22.57	22.58
5	12	7		22.95	22.62	22.71
5	12	13		22.73	22.69	22.71
5	25	0		22.70	22.68	22.52
5	1	0	16-QAM	23.06	22.69	22.62
5	1	12		22.86	22.70	22.62
5	1	24		23.06	22.70	22.63
5	12	0		22.02	21.55	21.51
5	12	7		22.08	21.55	21.71
5	12	13		22.06	21.82	21.74
5	25	0		22.06	21.72	21.55



**CA Power**

CA_41C								
Combination 20MHz+20MHz (100RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39948	QPSK	0	0	1	99	1	24.16
			1	0	0	0	1	24.40
			100	0	0	0	100	23.35
			100	0	100	0	200	22.84
			1	0	1	99	2	16.12
			1	0	1	0	2	20.08
			1	99	1	0	2	24.32
			100	0	1	99	101	20.98
		16QAM	0	0	1	99	1	23.22
			1	0	0	0	1	23.25
			100	0	0	0	100	22.36
			100	0	100	0	200	20.58
			1	0	1	99	2	16.08
			1	0	1	0	2	20.18
			1	99	1	0	2	23.62
100	0	1	99	101	21.45			



41319	41517	QPSK	0	0	1	99	1	24.25
			1	0	0	0	1	24.28
			100	0	0	0	100	23.18
			100	0	100	0	200	22.78
			1	0	1	99	2	16.32
			1	0	1	0	2	20.18
			1	99	1	0	2	24.25
			100	0	1	99	101	20.91
		16QAM	0	0	1	99	1	23.25
			1	0	0	0	1	23.21
			100	0	0	0	100	22.18
			100	0	100	0	200	20.28
			1	0	1	99	2	16.25
			1	0	1	0	2	20.35
			1	99	1	0	2	23.61
			100	0	1	99	101	21.42



41292	41490	QPSK	0	0	1	99	1	24.08
			1	0	0	0	1	24.25
			100	0	0	0	100	23.18
			100	0	100	0	200	22.82
			1	0	1	99	2	16.08
			1	0	1	0	2	20.15
			1	99	1	0	2	24.28
			100	0	1	99	101	20.85
		16QAM	0	0	1	99	1	23.16
			1	0	0	0	1	23.36
			100	0	0	0	100	22.25
			100	0	100	0	200	20.61
			1	0	1	99	2	16.32
			1	0	1	0	2	20.15
			1	99	1	0	2	23.61
			100	0	1	99	101	21.48



CA_41C								
Combination 20MHz+15MHz (100RB+75RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39750	39921	QPSK	100	0	75	0	175	22.32
		QPSK	1	0	1	74	2	16.05
		QPSK	1	99	1	0	2	24.15
		16QAM	100	0	75	0	175	20.28
		16QAM	1	0	1	74	2	15.96
		16QAM	1	99	1	0	2	23.32
40546	40717	QPSK	100	0	75	0	175	22.25
		QPSK	1	0	1	74	2	16.13
		QPSK	1	99	1	0	2	24.23
		16QAM	100	0	75	0	175	20.18
		16QAM	1	0	1	74	2	15.91
		16QAM	1	99	1	0	2	23.3
41341	41512	QPSK	100	0	75	0	175	22.28
		QPSK	1	0	1	74	2	16.01
		QPSK	1	99	1	0	2	24.05
		16QAM	100	0	75	0	175	20.15
		16QAM	1	0	1	74	2	15.91
		16QAM	1	99	1	0	2	23.18





Combination 15MHz+20MHz (75RB+100RB)								
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset		
39728	39899	QPSK	75	0	100	0	175	22.18
		QPSK	1	0	1	99	2	15.96
		QPSK	1	74	1	0	2	24.28
		16QAM	75	0	100	0	175	20.21
		16QAM	1	0	1	99	2	15.94
		16QAM	1	74	1	0	2	23.18
40523	40694	QPSK	75	0	100	0	175	22.28
		QPSK	1	0	1	99	2	16.09
		QPSK	1	74	1	0	2	24.3
		16QAM	75	0	100	0	175	20.21
		16QAM	1	0	1	99	2	15.91
		16QAM	1	74	1	0	2	23.38
41319	41490	QPSK	75	0	100	0	175	22.31
		QPSK	1	0	1	99	2	16.05
		QPSK	1	74	1	0	2	24.18
		16QAM	75	0	100	0	175	20.26
		16QAM	1	0	1	99	2	16.06
		16QAM	1	74	1	0	2	23.05



Combination 20MHz+10MHz (100RB+50RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
39750	39894	QPSK	100	0	50	0	150	22.14
		QPSK	1	0	1	49	2	15.87
		QPSK	1	99	1	0	2	23.97
		16QAM	100	0	50	0	150	20.10
		16QAM	1	0	1	49	2	15.78
		16QAM	1	99	1	0	2	23.18
40571	40715	QPSK	100	0	50	0	150	22.18
		QPSK	1	0	1	49	2	15.91
		QPSK	1	99	1	0	2	24.01
		16QAM	100	0	50	0	150	20.14
		16QAM	1	0	1	49	2	15.79
		16QAM	1	99	1	0	2	23.15
41391	41535	QPSK	100	0	50	0	150	22.15
		QPSK	1	0	1	49	2	15.88
		QPSK	1	99	1	0	2	23.98
		16QAM	100	0	50	0	150	20.2
		16QAM	1	0	1	49	2	15.88
		16QAM	1	99	1	0	2	23.24



Combination 10MHz+20MHz (50RB+100RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
39705	39849	QPSK	50	0	100	0	150	22.23
		QPSK	1	0	1	99	2	15.96
		QPSK	1	49	1	0	2	24.06
		16QAM	50	0	100	0	150	20.19
		16QAM	1	0	1	99	2	15.89
		16QAM	1	49	1	0	2	23.25
40526	40670	QPSK	50	0	100	0	150	22.25
		QPSK	1	0	1	99	2	15.98
		QPSK	1	49	1	0	2	24.05
		16QAM	50	0	100	0	150	20.25
		16QAM	1	0	1	99	2	15.93
		16QAM	1	49	1	0	2	23.29
41346	41490	QPSK	50	0	100	0	150	22.2
		QPSK	1	0	1	99	2	15.93
		QPSK	1	49	1	0	2	24.03
		16QAM	50	0	100	0	150	20.16
		16QAM	1	0	1	99	2	15.84
		16QAM	1	49	1	0	2	23.2



Combination 20MHz+5MHz (100RB+25RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
39750	39867	QPSK	100	0	25	0	125	22.26
		QPSK	1	0	1	24	2	15.99
		QPSK	1	99	1	0	2	24.09
		16QAM	100	0	25	0	125	20.22
		16QAM	1	0	1	24	2	15.82
		16QAM	1	99	1	0	2	23.18
40595	40712	QPSK	100	0	25	0	125	22.18
		QPSK	1	0	1	24	2	15.91
		QPSK	1	99	1	0	2	24.03
		16QAM	100	0	25	0	125	20.16
		16QAM	1	0	1	24	2	15.84
		16QAM	1	99	1	0	2	23.2
41440	41557	QPSK	100	0	25	0	125	22.19
		QPSK	1	0	1	24	2	15.92
		QPSK	1	99	1	0	2	24.02
		16QAM	100	0	25	0	125	20.15
		16QAM	1	0	1	24	2	15.83
		16QAM	1	99	1	0	2	23.19



Combination 5MHz+20MHz (25RB+100RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
39683	39800	QPSK	25	0	100	0	125	22.26
		QPSK	1	0	1	99	2	15.99
		QPSK	1	24	1	0	2	24.09
		16QAM	25	0	100	0	125	20.17
		16QAM	1	0	1	99	2	15.85
		16QAM	1	24	1	0	2	23.21
40528	40645	QPSK	25	0	100	0	125	22.21
		QPSK	1	0	1	99	2	15.94
		QPSK	1	24	1	0	2	24.03
		16QAM	25	0	100	0	125	20.16
		16QAM	1	0	1	99	2	15.84
		16QAM	1	24	1	0	2	23.2
41373	41490	QPSK	25	0	100	0	125	22.23
		QPSK	1	0	1	99	2	15.96
		QPSK	1	24	1	0	2	24.06
		16QAM	25	0	100	0	125	20.19
		16QAM	1	0	1	99	2	15.87
		16QAM	1	24	1	0	2	23.23



Combination 15MHz+15MHz (75RB+75RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
39725	39875	QPSK	75	0	75	0	150	22.24
		QPSK	1	0	1	74	2	15.97
		QPSK	1	74	1	0	2	24.07
		16QAM	75	0	75	0	150	20.2
		16QAM	1	0	1	74	2	15.88
		16QAM	1	74	1	0	2	23.25
40545	40695	QPSK	75	0	75	0	150	22.25
		QPSK	1	0	1	74	2	15.98
		QPSK	1	74	1	0	2	24.08
		16QAM	75	0	75	0	150	20.21
		16QAM	1	0	1	74	2	15.9
		16QAM	1	74	1	0	2	23.26
41365	41515	QPSK	75	0	75	0	150	22.26
		QPSK	1	0	1	74	2	15.99
		QPSK	1	74	1	0	2	24.11
		16QAM	75	0	75	0	150	20.24
		16QAM	1	0	1	74	2	15.92
		16QAM	1	74	1	0	2	23.28



Combination 15MHz+10MHz (75RB+50RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
39725	39845	QPSK	75	0	50	0	125	22.28
		QPSK	1	0	1	49	2	16.01
		QPSK	1	74	1	0	2	24.11
		16QAM	75	0	50	0	125	20.24
		16QAM	1	0	1	49	2	15.92
		16QAM	1	74	1	0	2	23.26
40571	40691	QPSK	75	0	50	0	125	22.26
		QPSK	1	0	1	49	2	15.99
		QPSK	1	74	1	0	2	24.09
		16QAM	75	0	50	0	125	20.22
		16QAM	1	0	1	49	2	15.88
		16QAM	1	74	1	0	2	23.24
41417	41537	QPSK	75	0	50	0	125	22.24
		QPSK	1	0	1	49	2	15.97
		QPSK	1	74	1	0	2	24.12
		16QAM	75	0	50	0	125	20.25
		16QAM	1	0	1	49	2	15.93
		16QAM	1	74	1	0	2	23.29



Combination 10MHz+15MHz (50RB+75RB)								
PCC	SCC	Modulation	PCC		SCC		Total RB Size	Measured Power (dBm)
Channel	Channel		RB Size	RB offset	RB Size	RB offset		
39703	39823	QPSK	50	0	75	0	125	22.29
		QPSK	1	49	1	0	2	16.02
		QPSK	1	0	1	74	2	24.12
		16QAM	50	0	75	0	125	20.25
		16QAM	1	49	1	0	2	15.93
		16QAM	1	0	1	74	2	23.3
40549	40669	QPSK	50	0	75	0	125	22.3
		QPSK	1	49	1	0	2	16.03
		QPSK	1	0	1	74	2	24.13
		16QAM	50	0	75	0	125	20.26
		16QAM	1	49	1	0	2	15.89
		16QAM	1	0	1	74	2	23.25
41395	41515	QPSK	50	0	75	0	125	22.25
		QPSK	1	49	1	0	2	15.98
		QPSK	1	0	1	74	2	24.14
		16QAM	50	0	75	0	125	20.27
		16QAM	1	49	1	0	2	15.95
		16QAM	1	0	1	74	2	23.31





ERP/EIRP

LTE Band 4 (GT - LC = 0.30 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	19957	20175	20393	19965	20175	20385	19975	20175	20375
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1710.7	1732.5	1754.3	1711.5	1732.5	1753.5	1712.5	1732.5	1752.5
Conducted Power (dBm)	23.30	23.56	23.62	23.85	23.48	23.45	23.59	23.46	23.56
Conducted Power (Watts)	0.2138	0.2270	0.2301	0.2427	0.2228	0.2213	0.2286	0.2218	0.2270
EIRP(dBm)	23.60	23.86	23.92	24.15	23.78	23.75	23.89	23.76	23.86
EIRP(Watts)	0.2291	0.2432	0.2466	0.2600	0.2388	0.2371	0.2449	0.2377	0.2432

LTE Band 4 (GT - LC = 0.30 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	20000	20175	20350	20025	20175	20325	20050	20175	20300
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1715	1732.5	1750	1717.5	1732.5	1747.5	1720	1732.5	1745
Conducted Power (dBm)	24.01	23.81	23.83	23.39	23.75	23.67	23.82	23.82	23.53
Conducted Power (Watts)	0.2518	0.2404	0.2415	0.2183	0.2371	0.2328	0.2410	0.2410	0.2254
EIRP(dBm)	24.31	24.11	24.13	23.69	24.05	23.97	24.12	24.12	23.83
EIRP(Watts)	0.2698	0.2576	0.2588	0.2339	0.2541	0.2495	0.2582	0.2582	0.2415



LTE Band 4 (GT - LC = 0.30 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	19957	20175	20393	19965	20175	20385	19975	20175	20375
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1710.7	1732.5	1754.3	1711.5	1732.5	1753.5	1712.5	1732.5	1752.5
Conducted Power (dBm)	23.50	23.07	23.01	22.88	23.01	23.00	22.89	23.16	22.92
Conducted Power (Watts)	0.2239	0.2028	0.2000	0.1941	0.2000	0.1995	0.1945	0.2070	0.1959
EIRP(dBm)	23.80	23.37	23.31	23.18	23.31	23.30	23.19	23.46	23.22
EIRP(Watts)	0.2399	0.2173	0.2143	0.2080	0.2143	0.2138	0.2084	0.2218	0.2099

LTE Band 4 (GT - LC = 0.30 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	20000	20175	20350	20025	20175	20325	20050	20175	20300
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1715	1732.5	1750	1717.5	1732.5	1747.5	1720	1732.5	1745
Conducted Power (dBm)	23.39	23.20	23.07	23.17	23.08	23.08	23.27	23.12	23.46
Conducted Power (Watts)	0.2183	0.2089	0.2028	0.2075	0.2032	0.2032	0.2123	0.2051	0.2218
EIRP(dBm)	23.69	23.50	23.37	23.47	23.38	23.38	23.57	23.42	23.76
EIRP(Watts)	0.2339	0.2239	0.2173	0.2223	0.2178	0.2178	0.2275	0.2198	0.2377



LTE Band 7 (GT - LC = -3.00dB) QPSK			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency	2502.5	2535	2567.5
(MHz)			
Conducted Power (dBm)	23.48	23.16	23.00
Conducted Power (Watts)	0.2228	0.2070	0.1995
EIRP(dBm)	20.48	20.16	20.00
EIRP(Watts)	0.1117	0.1038	0.1000

LTE Band 7 (GT - LC = -3.00dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	20800	21100	21400	20825	21100	21375	20850	21100	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
(MHz)									
Conducted Power (dBm)	23.58	23.44	23.32	22.62	22.55	22.42	23.60	23.55	23.35
Conducted Power (Watts)	0.2280	0.2208	0.2148	0.1828	0.1799	0.1746	0.2291	0.2265	0.2163
EIRP(dBm)	20.58	20.44	20.32	19.62	19.55	19.42	20.60	20.55	20.35
EIRP(Watts)	0.1143	0.1107	0.1076	0.0916	0.0902	0.0875	0.1148	0.1135	0.1084



LTE Band 7 (GT - LC = -3.00dB) 16QAM			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency	2502.5	2535	2567.5
(MHz)			
Conducted Power (dBm)	22.73	22.81	22.77
Conducted Power (Watts)	0.1875	0.1910	0.1892
EIRP(dBm)	19.73	19.81	19.77
EIRP(Watts)	0.0940	0.0957	0.0948

LTE Band 7 (GT - LC = -3.00dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	20800	21100	21400	20825	21100	21375	20850	21100	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
(MHz)									
Conducted Power (dBm)	23.04	22.90	22.79	22.90	23.06	22.56	22.81	23.06	22.74
Conducted Power (Watts)	0.2014	0.1950	0.1901	0.1950	0.2023	0.1803	0.1910	0.2023	0.1879
EIRP(dBm)	20.04	19.90	19.79	19.90	20.06	19.56	19.81	20.06	19.74
EIRP(Watts)	0.1009	0.0977	0.0953	0.0977	0.1014	0.0904	0.0957	0.1014	0.0942



LTE Band 12 (GT - LC = -3.00 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	23017	23095	23173	23025	23095	23165	23035	23095	23155
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
Conducted Power (dBm)	24.10	23.86	24.19	24.04	24.07	24.18	24.23	23.78	23.82
Conducted Power (Watts)	0.2570	0.2432	0.2624	0.2535	0.2553	0.2618	0.2649	0.2388	0.2410
ERP(dBm)	18.95	18.71	19.04	18.89	18.92	19.03	19.08	18.63	18.67
ERP(Watts)	0.0785	0.0743	0.0802	0.0774	0.0780	0.0800	0.0809	0.0729	0.0736

LTE Band 12 (GT - LC = -3.00 dB) QPSK			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	24.40	24.21	24.28
Conducted Power (Watts)	0.2754	0.2636	0.2679
ERP(dBm)	19.25	19.06	19.13
ERP(Watts)	0.0841	0.0805	0.0818



LTE Band 12 (GT - LC = -3.00 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	23017	23095	23173	23025	23095	23165	23035	23095	23155
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	699.7	707.5	715.3	700.5	707.5	714.5	701.5	707.5	713.5
Conducted Power (dBm)	23.03	23.46	23.52	23.32	23.27	23.43	23.16	23.19	23.42
Conducted Power (Watts)	0.2009	0.2218	0.2249	0.2148	0.2123	0.2203	0.2070	0.2084	0.2198
ERP(dBm)	17.88	18.31	18.37	18.17	18.12	18.28	18.01	18.04	18.27
ERP(Watts)	0.0614	0.0678	0.0687	0.0656	0.0649	0.0673	0.0632	0.0637	0.0671

LTE Band 12 (GT - LC = -3.00 dB) 16QAM			
Bandwidth	10M		
Channel	23060	23095	23130
	(Low)	(Mid)	(High)
Frequency (MHz)	704	707.5	711
Conducted Power (dBm)	23.60	23.46	23.30
Conducted Power (Watts)	0.2291	0.2218	0.2138
ERP(dBm)	18.45	18.31	18.15
ERP(Watts)	0.0700	0.0678	0.0653



LTE Band 13 (GT - LC = -3.00 dB) QPSK						
Bandwidth	5M			10M		
Channel	23205	23230	23255	23230		
	(Low)	(Mid)	(High)	-	(Mid)	-
Frequency	779.5	782	784.5	-	782	-
(MHz)						
Conducted Power (dBm)	24.24	24.10	24.10		24.32	-
Conducted Power (Watts)	0.2655	0.2570	0.2570		0.2704	-
ERP(dBm)	19.09	18.95	18.95		19.17	-
ERP(Watts)	0.0811	0.0785	0.0785		0.0826	-

LTE Band 13 (GT - LC = -3.00 dB) 16QAM						
Bandwidth	5M			10M		
Channel	23205	23230	23255	23230		
	(Low)	(Mid)	(High)	-	(Mid)	-
Frequency	779.5	782	784.5	-	782	-
(MHz)						
Conducted Power (dBm)	23.41	23.22	23.35		23.61	-
Conducted Power (Watts)	0.2193	0.2099	0.2163		0.2296	-
ERP(dBm)	18.26	18.07	18.20		18.46	-
ERP(Watts)	0.0670	0.0641	0.0661		0.0701	-



LTE Band 25 (GT - LC = -0.50dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	26407	26340	26683	26055	26340	26675	26065	26340	26665
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1850.7	1880	1914.3	1851.5	1880	1913.5	1852.5	1880	1912.5
Conducted Power (dBm)	23.96	23.59	23.88	23.94	23.91	24.06	23.99	24.08	24.02
Conducted Power (Watts)	0.2489	0.2286	0.2443	0.2477	0.2460	0.2547	0.2506	0.2559	0.2523
EIRP(dBm)	23.86	23.49	23.78	23.84	23.81	23.96	23.89	23.98	23.92
EIRP(Watts)	0.2432	0.2234	0.2388	0.2421	0.2404	0.2489	0.2449	0.2500	0.2466

LTE Band 25 (GT - LC = -0.50dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	26090	26340	26640	26115	26340	26615	26140	26340	26590
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1855	1880	1910	1857.5	1880	1907.5	1860	1880	1905
Conducted Power (dBm)	24.10	24.17	24.20	24.01	23.83	24.17	24.39	23.92	24.27
Conducted Power (Watts)	0.2570	0.2612	0.2630	0.2518	0.2415	0.2612	0.2748	0.2466	0.2673
EIRP(dBm)	24.00	24.07	24.10	23.91	23.73	24.07	24.29	23.82	24.17
EIRP(Watts)	0.2512	0.2553	0.2570	0.2460	0.2360	0.2553	0.2685	0.2410	0.2612





LTE Band 25 (GT - LC = -0.50dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	26407	26340	26683	26055	26340	26675	26065	26340	26665
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1850.7	1880	1914.3	1851.5	1880	1913.5	1852.5	1880	1912.5
Conducted Power (dBm)	23.38	22.92	23.15	23.33	22.94	23.42	23.35	23.09	23.30
Conducted Power (Watts)	0.2178	0.1959	0.2065	0.2153	0.1968	0.2198	0.2163	0.2037	0.2138
EIRP(dBm)	23.28	22.82	23.05	23.23	22.84	23.32	23.25	22.99	23.20
EIRP(Watts)	0.2128	0.1914	0.2018	0.2104	0.1923	0.2148	0.2113	0.1991	0.2089

LTE Band 25 (GT - LC = -0.50dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	26090	26340	26640	26115	26340	26615	26140	26340	26590
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	1855	1880	1910	1857.5	1880	1907.5	1860	1880	1905
Conducted Power (dBm)	23.28	23.11	23.45	23.32	23.31	23.47	23.27	23.31	23.48
Conducted Power (Watts)	0.2128	0.2046	0.2213	0.2148	0.2143	0.2223	0.2123	0.2143	0.2228
EIRP(dBm)	23.18	23.01	23.35	23.22	23.21	23.37	23.17	23.21	23.38
EIRP(Watts)	0.2080	0.2000	0.2163	0.2099	0.2094	0.2173	0.2075	0.2094	0.2178



LTE Band 26 (GT - LC = -3.50 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	26797	26915	27033	26805	26915	27025	26815	26915	27015
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
(MHz)									
Conducted Power (dBm)	24.32	24.85	24.65	21.94	21.69	24.29	21.81	21.62	24.30
Conducted Power (Watts)	0.2704	0.3055	0.2917	0.1563	0.1476	0.2685	0.1517	0.1452	0.2692
ERP(dBm)	18.67	19.20	19.00	16.29	16.04	18.64	16.16	15.97	18.65
ERP(Watts)	0.0736	0.0832	0.0794	0.0426	0.0402	0.0731	0.0413	0.0395	0.0733

LTE Band 26 (GT - LC = -3.50 dB) QPSK							
Bandwidth	10M			15M			15M
Channel	26840	26915	26990	26865	26915	26965	26765
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)
Frequency	829	836.5	844	831.5	836.5	841.5	821.5
(MHz)							
Conducted Power (dBm)	24.58	21.15	20.89	24.88	24.81	24.88	24.66
Conducted Power (Watts)	0.2871	0.1303	0.1227	0.3076	0.3027	0.3076	0.2924
ERP(dBm)	18.93	15.50	15.24	19.23	19.16	19.23	19.01
ERP(Watts)	0.0782	0.0355	0.0334	0.0838	0.0824	0.0838	0.0796



LTE Band 26 (GT - LC = -3.50 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	26797	26915	27033	26805	26915	27025	26815	26915	27015
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
(MHz)									
Conducted Power (dBm)	23.39	23.93	23.99	21.29	21.01	23.63	21.14	20.93	23.57
Conducted Power (Watts)	0.2183	0.2472	0.2506	0.1346	0.1262	0.2307	0.1300	0.1239	0.2275
ERP(dBm)	17.74	18.28	18.34	15.64	15.36	17.98	15.49	15.28	17.92
ERP(Watts)	0.0594	0.0673	0.0682	0.0366	0.0344	0.0628	0.0354	0.0337	0.0619

LTE Band 26 (GT - LC = -3.50 dB) 16QAM							
Bandwidth	10M			15M			15M
Channel	26840	26915	26990	26865	26915	26965	26765
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)
Frequency	829	836.5	844	831.5	836.5	841.5	821.5
(MHz)							
Conducted Power (dBm)	23.86	20.50	20.20	24.24	24.24	24.51	23.83
Conducted Power (Watts)	0.2432	0.1122	0.1047	0.2655	0.2655	0.2825	0.2415
ERP(dBm)	18.21	14.85	14.55	18.59	18.59	18.86	18.18
ERP(Watts)	0.0662	0.0305	0.0285	0.0723	0.0723	0.0769	0.0658



LTE Band 41 (G <sub>T</sub> - L <sub>C</sub> = -3.00dB) QPSK									
Bandwidth	5M			10M			15M		
Channel	39675	40620	41565	39700	40620	41540	39725	40620	41515
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2498.5	2593	2687.5	2501	2593	2685	2503.5	2593	2682.5
Conducted Power (dBm)	26.57	26.39	26.76	25.84	25.59	26.76	26.66	27.00	26.85
Conducted Power (Watts)	0.4539	0.4355	0.4742	0.3837	0.3622	0.4742	0.4634	0.5012	0.4842
EIRP(dBm)	23.57	23.39	23.76	22.84	22.59	23.76	23.66	24.00	23.85
EIRP(Watts)	0.2275	0.2183	0.2377	0.1923	0.1816	0.2377	0.2323	0.2512	0.2427

LTE Band 41 (G <sub>T</sub> - L <sub>C</sub> = -3.00dB) QPSK			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency (MHz)	2506	2593	2680
Conducted Power (dBm)	26.77	26.44	26.49
Conducted Power (Watts)	0.4753	0.4406	0.4457
EIRP(dBm)	23.77	23.44	23.49
EIRP(Watts)	0.2382	0.2208	0.2234



LTE Band 41 (G <sub>T</sub> - L <sub>C</sub> = -3.00dB) 16QAM									
Bandwidth	5M			10M			15M		
Channel	39675	40620	41565	39700	40620	41540	39725	40620	41515
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2498.5	2593	2687.5	2501	2593	2685	2503.5	2593	2682.5
Conducted Power (dBm)	23.06	22.7	22.63	23.11	22.79	22.71	23.28	22.53	22.7
Conducted Power (Watts)	0.2023	0.1862	0.1832	0.2046	0.1901	0.1866	0.2128	0.1791	0.1862
EIRP(dBm)	20.06	19.7	19.63	20.11	19.79	19.71	20.28	19.53	19.7
EIRP(Watts)	0.1014	0.0933	0.0918	0.1026	0.0953	0.0935	0.1067	0.0897	0.0933

LTE Band 41 (G <sub>T</sub> - L <sub>C</sub> = -3.00dB) 16QAM			
Bandwidth	20M		
Channel	39750	40620	41490
	(Low)	(Mid)	(High)
Frequency (MHz)	2506	2593	2680
Conducted Power (dBm)	23.56	22.96	22.74
Conducted Power (Watts)	0.2270	0.1977	0.1879
EIRP(dBm)	20.56	19.96	19.74
EIRP(Watts)	0.1138	0.0991	0.0942



**CA EIRP**

LTE Band 41 CA (GT - LC = -3.00 dB) QPSK									
Bandwidth	15M + 15M			5M + 20M			20M + 5M		
Channel PCC	39725	40545	41365	39683	40528	41373	39750	40595	41440
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39875	40695	41515	39800	40645	41490	39867	40712	41557
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	24.07	24.08	24.11	24.09	24.03	24.06	24.09	24.03	24.02
Conducted Power (Watts)	0.2553	0.2559	0.2576	0.2564	0.2529	0.2547	0.2564	0.2529	0.2523
EIRP(dBm)	21.07	21.08	21.11	21.09	21.03	21.06	21.09	21.03	21.02
EIRP(Watts)	0.1279	0.1282	0.1291	0.1285	0.1268	0.1276	0.1285	0.1268	0.1265

LTE Band 41 CA (GT - LC = -3.00 dB) QPSK									
Bandwidth	10M + 20M			20M + 10M			15M + 20M		
Channel PCC	39705	40526	41346	39750	40571	41391	39728	40523	41319
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39849	40670	41490	39894	40715	41535	39899	40694	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	24.06	24.05	24.03	23.97	24.01	23.98	24.28	24.3	24.18
Conducted Power (Watts)	0.2547	0.2541	0.2529	0.2495	0.2518	0.2500	0.2679	0.2692	0.2618
EIRP(dBm)	21.06	21.05	21.03	20.97	21.01	20.98	21.28	21.30	21.18
EIRP(Watts)	0.1276	0.1274	0.1268	0.1250	0.1262	0.1253	0.1343	0.1349	0.1312



LTE Band 41 CA (GT - LC = -3.00 dB) QPSK						
Bandwidth	20M+15M			20M+20M		
Channel PCC	39750	40546	41341	39750	40521	41292
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39921	40717	41512	39948	40719	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	24.15	24.23	24.05	24.40	24.28	24.25
Conducted Power (Watts)	0.2600	0.2649	0.2541	0.2754	0.2679	0.2661
EIRP(dBm)	21.15	21.23	21.05	21.40	21.28	21.25
EIRP(Watts)	0.1303	0.1327	0.1274	0.1380	0.1343	0.1334

LTE Band 41 CA (GT - LC = -3.00 dB) QPSK						
Bandwidth	15M+10M			10M+15M		
Channel PCC	39725	40571	41417	39703	40549	41395
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39845	40691	41537	39823	40669	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	24.11	24.09	24.12	24.12	24.13	24.14
Conducted Power (Watts)	0.2576	0.2564	0.2582	0.2582	0.2588	0.2594
EIRP(dBm)	21.11	21.09	21.12	21.12	21.13	21.14
EIRP(Watts)	0.1291	0.1285	0.1294	0.1294	0.1297	0.1300



LTE Band 41 CA (GT - LC = -3.00 dB) 16QAM									
Bandwidth	15M + 15M			5M + 20M			20M + 5M		
Channel PCC	39725	40545	41365	39683	40528	41373	39750	40595	41440
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39875	40695	41515	39800	40645	41490	39867	40712	41557
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	20.20	20.21	20.24	23.21	23.2	23.23	23.18	23.2	23.19
Conducted Power (Watts)	0.1047	0.1050	0.1057	0.2094	0.2089	0.2104	0.2080	0.2089	0.2084
EIRP(dBm)	23.25	23.26	23.28	20.21	20.20	20.23	20.18	20.20	20.19
EIRP(Watts)	0.2113	0.2118	0.2128	0.1050	0.1047	0.1054	0.1042	0.1047	0.1045

LTE Band 41 CA (GT - LC = -3.00 dB) 16QAM									
Bandwidth	10M + 20M			20M + 10M			15M + 20M		
Channel PCC	39705	40526	41346	39750	40571	41391	39728	40523	41319
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39849	40670	41490	39894	40715	41535	39899	40694	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	23.25	23.29	23.2	23.18	23.15	23.24	23.18	23.38	23.05
Conducted Power (Watts)	0.2113	0.2133	0.2089	0.2080	0.2065	0.2109	0.2080	0.2178	0.2018
EIRP(dBm)	20.25	20.29	20.20	20.18	20.15	20.24	20.18	20.38	20.05
EIRP(Watts)	0.1059	0.1069	0.1047	0.1042	0.1035	0.1057	0.1042	0.1091	0.1012





LTE Band 41 CA (GT - LC = -3.00 dB) 16QAM						
Bandwidth	20M+15M			20M+20M		
Channel PCC	39750	40546	41341	39750	40521	41292
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39921	40717	41512	39948	40719	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	23.32	23.3	23.18	24.40	23.21	23.36
Conducted Power (Watts)	0.2148	0.2138	0.2080	0.2754	0.2094	0.2168
EIRP(dBm)	20.32	20.30	20.18	21.40	20.21	20.36
EIRP(Watts)	0.1076	0.1072	0.1042	0.1380	0.1050	0.1086

LTE Band 41 CA (GT - LC = -3.00 dB) 16QAM						
Bandwidth	15M+10M			10M+15M		
Channel PCC	39725	40571	41417	39703	40549	41395
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	39845	40691	41537	39823	40669	41490
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	23.26	23.24	23.29	23.30	23.25	23.31
Conducted Power (Watts)	0.2118	0.2109	0.2133	0.2138	0.2113	0.2143
EIRP(dBm)	20.26	20.24	20.29	20.30	20.25	20.31
EIRP(Watts)	0.1062	0.1057	0.1069	0.1072	0.1059	0.1074



**Peak-to-Average Ratio**

Mode	LTE Band 4 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.72	5.13	5.39	6.23	PASS
Middle CH	4.9	5.16	5.97	6.14	
Highest CH	4.67	4.84	5.07	5.83	

Mode	LTE Band 7 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.36	4.43	4.17	5.33	PASS
Middle CH	3.3	4.9	3.91	5.83	
Highest CH	3.48	4.67	4.06	5.62	

Mode	LTE Band 12 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.77	4.64	4.64	5.54	PASS
Middle CH	4.14	4.81	4.81	5.77	
Highest CH	3.94	4.93	4.64	5.88	

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	4.17	4.87	5.01	5.8	
Highest CH	-	-	-	-	

Mode	LTE Band 25 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.83	4.61	4.93	5.57	PASS
Middle CH	4.17	4.72	5.07	5.62	
Highest CH	3.94	4.64	4.7	5.59	



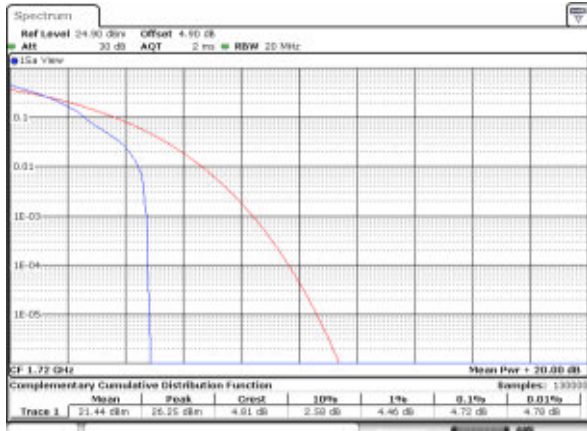
Mode	LTE Band 26 / 15MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.65	5.16	4.41	6.12	PASS
Middle CH	3.68	5.28	4.43	6.14	
Highest CH	3.80	5.42	4.78	6.32	

Mode	LTE Band 41 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.28	4.81	4.17	5.8	PASS
Middle CH	3.25	5.04	5.51	6.32	
Highest CH	3.59	4.78	5.88	5.88	



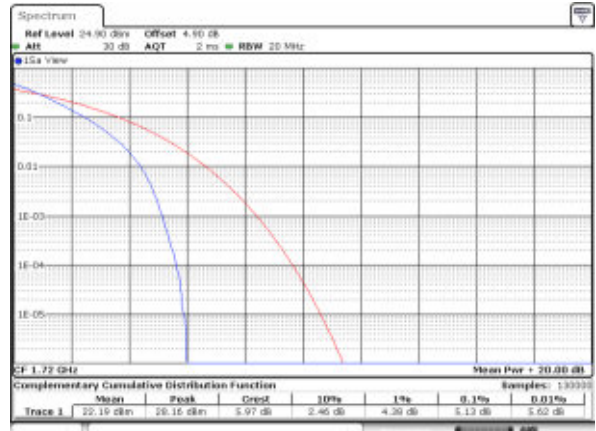
LTE Band 4 / 20MHz / QPSK

Lowest Channel / 1RB



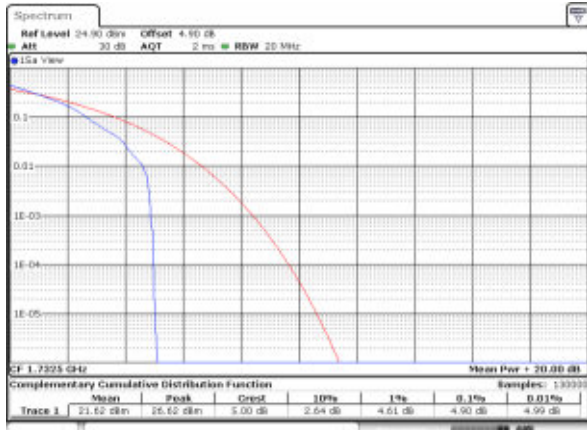
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Lowest Channel / Full RB



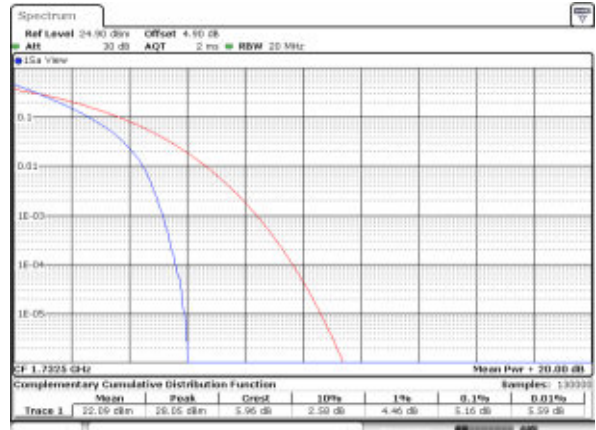
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Middle Channel / 1RB



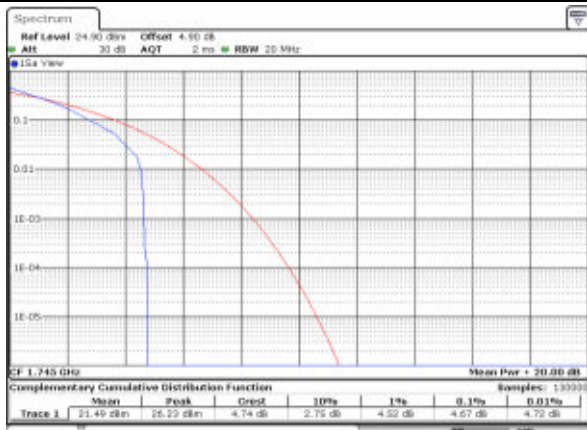
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Middle Channel / Full RB



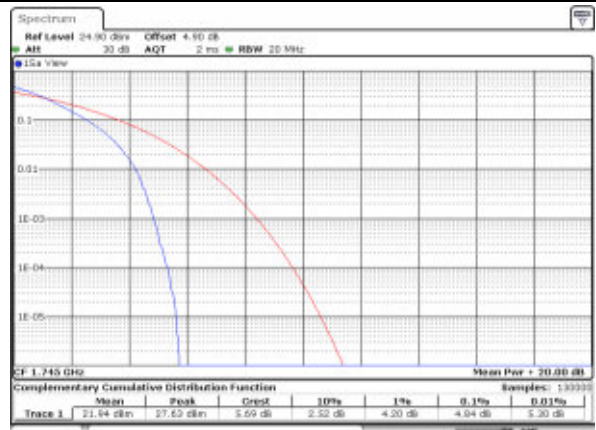
Date: 14 APR 2016 11:40:30

Highest Channel / 1RB



Date: 14 APR 2016 11:40:40

Highest Channel / Full RB

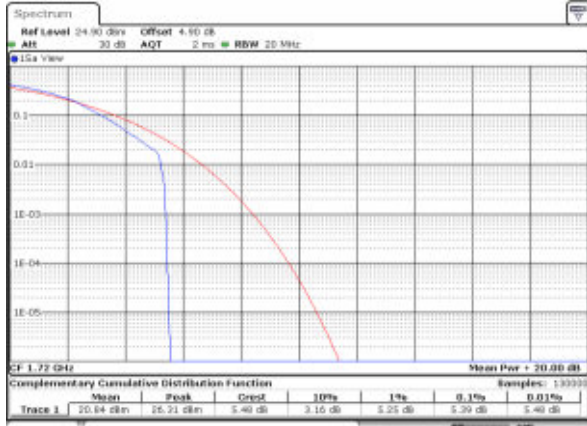


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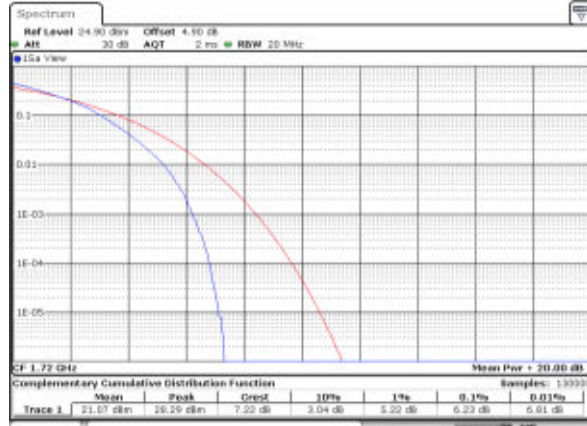
LTE Band 4 / 20MHz / 16QAM

Lowest Channel / 1RB



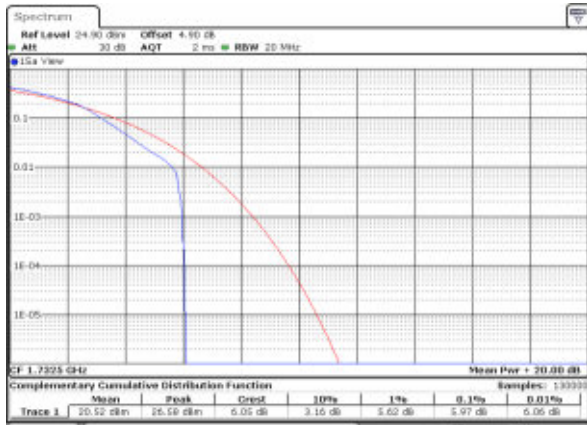
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Lowest Channel / Full RB



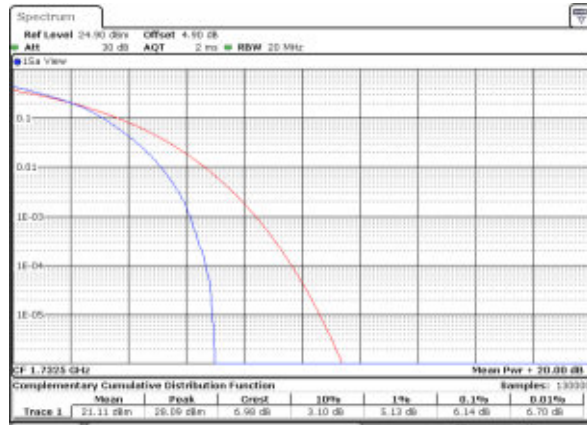
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Middle Channel / 1RB



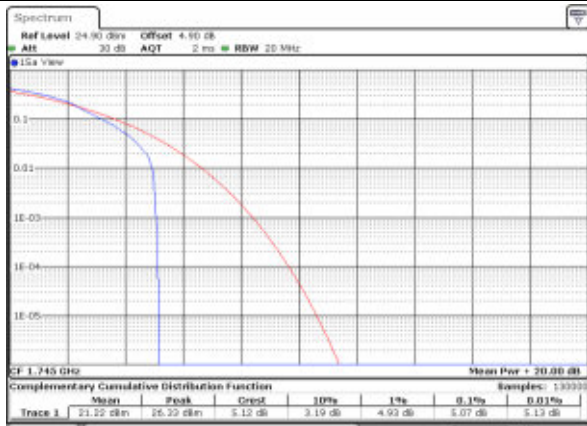
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Middle Channel / Full RB



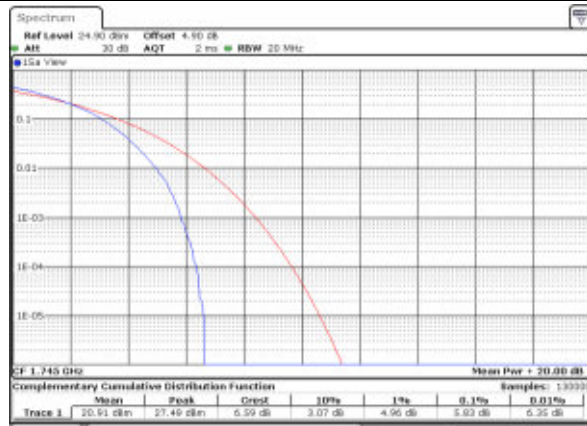
Date: 14 APR 2016 12:46:06

Highest Channel / 1RB



Date: 14 APR 2016 11:39:52

Highest Channel / Full RB

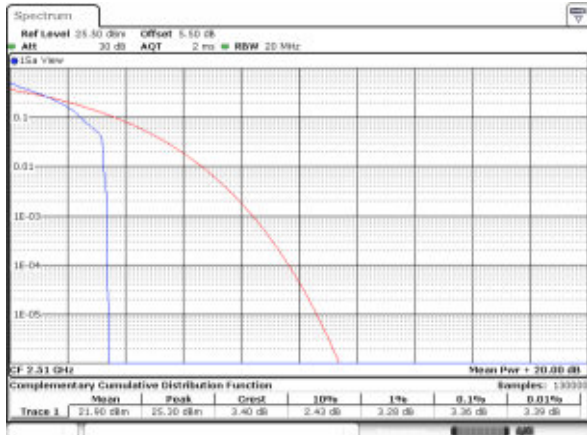


Date: 14 APR 2016 11:40:01



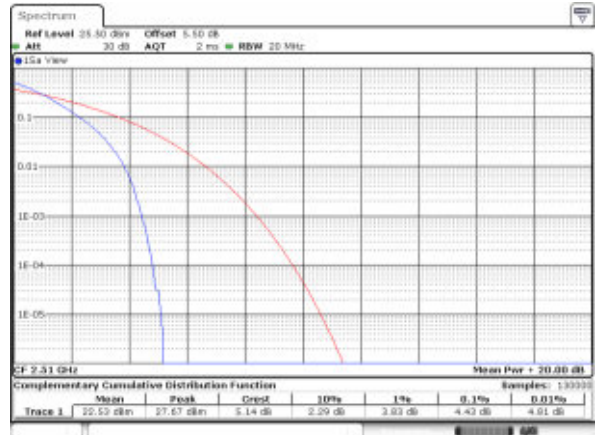
LTE Band 7 / 20MHz / QPSK

Lowest Channel / 1RB



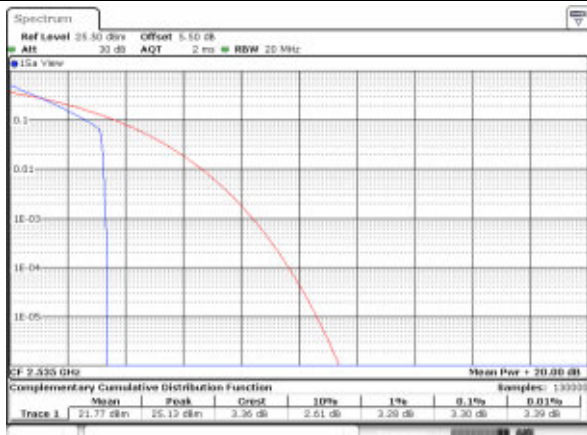
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Lowest Channel / Full RB



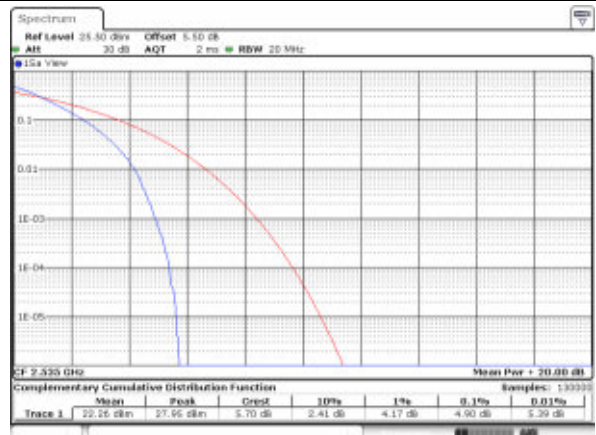
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Middle Channel / 1RB



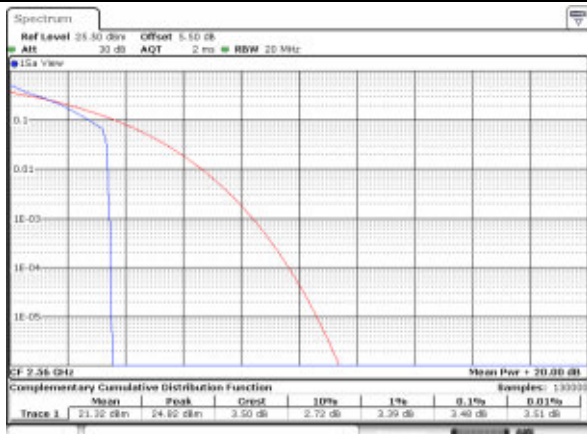
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Middle Channel / Full RB



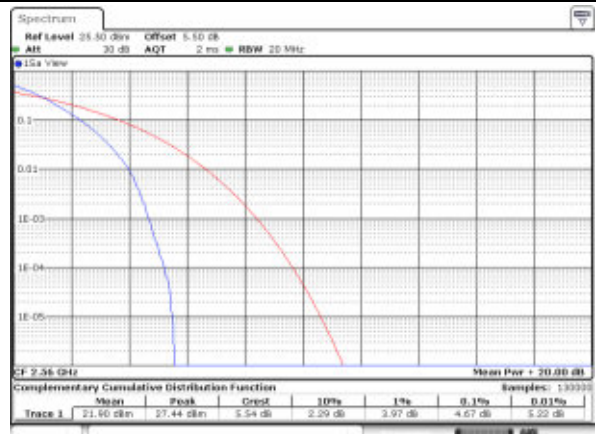
Date: 14 APR 2018 22:30:57

Highest Channel / 1RB



Date: 14 APR 2018 22:30:36

Highest Channel / Full RB



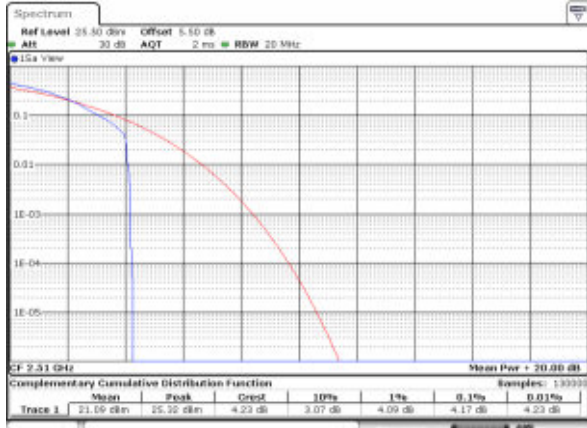
Date: 14 APR 2018 22:30:47





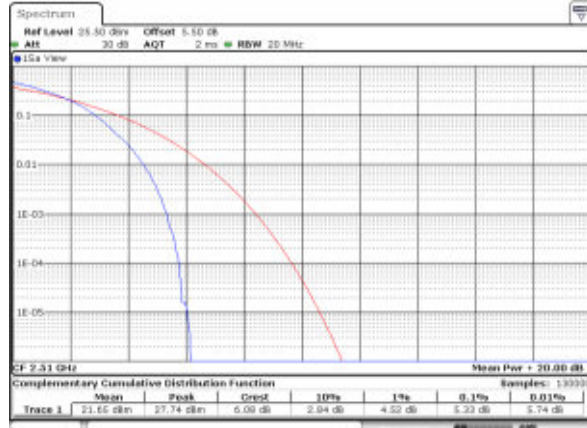
LTE Band 7 / 20MHz / 16QAM

Lowest Channel / 1RB



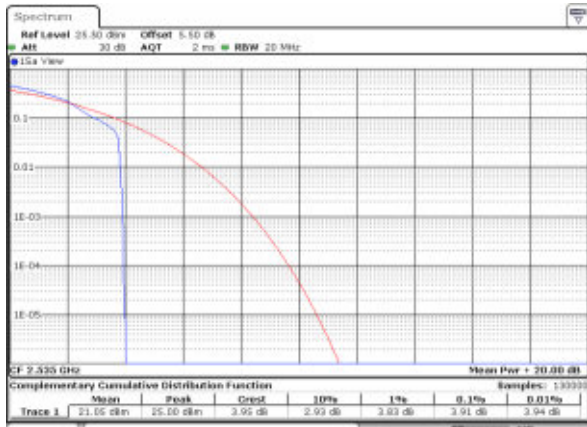
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Lowest Channel / Full RB



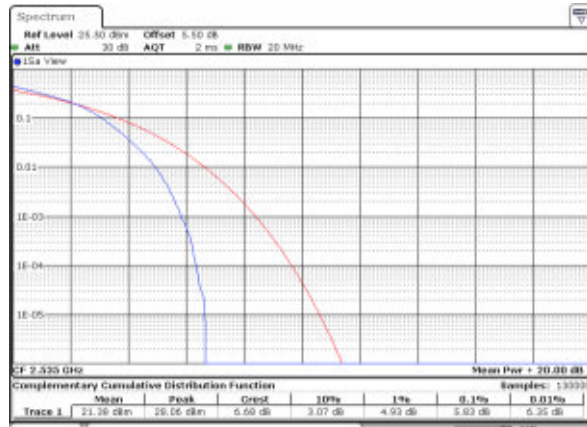
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Middle Channel / 1RB



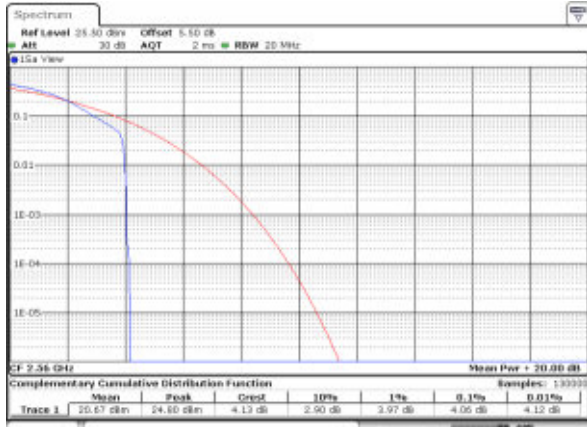
Date: 14 APR 2018 22:30:16

Middle Channel / Full RB



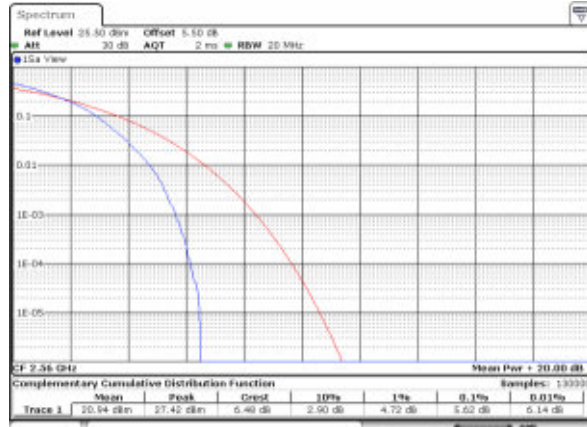
Date: 14 APR 2018 22:30:47

Highest Channel / 1RB



Date: 14 APR 2018 22:30:26

Highest Channel / Full RB

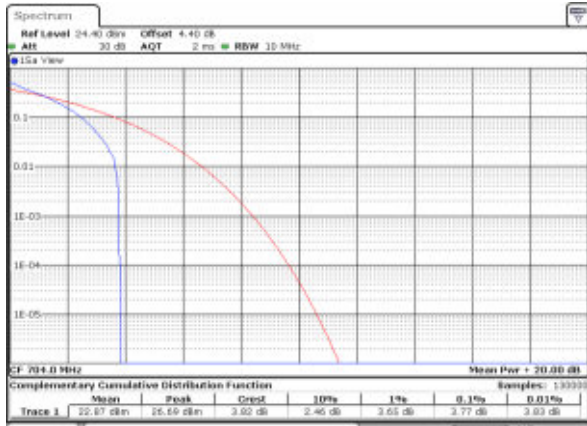


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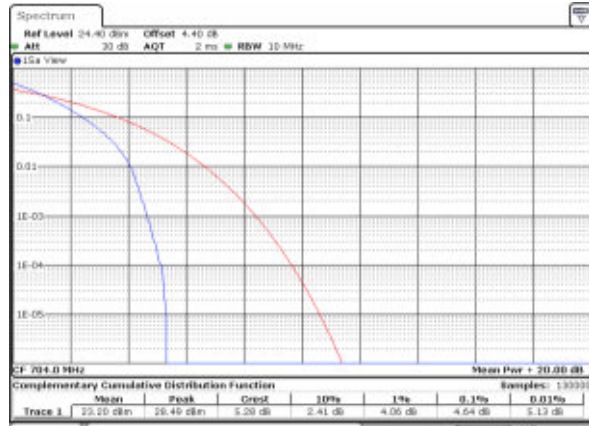
LTE Band 12 / 10MHz / QPSK

Lowest Channel / 1RB



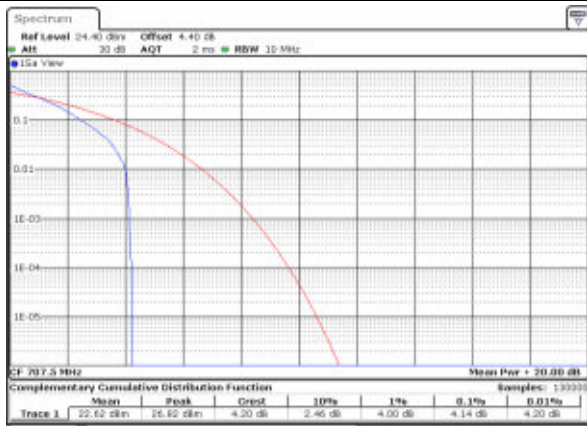
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Lowest Channel / Full RB



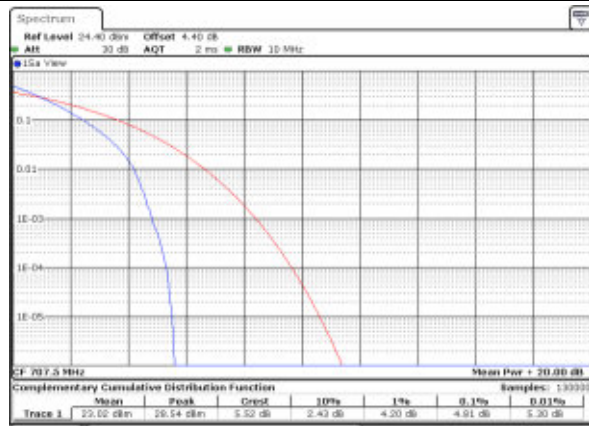
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Middle Channel / 1RB



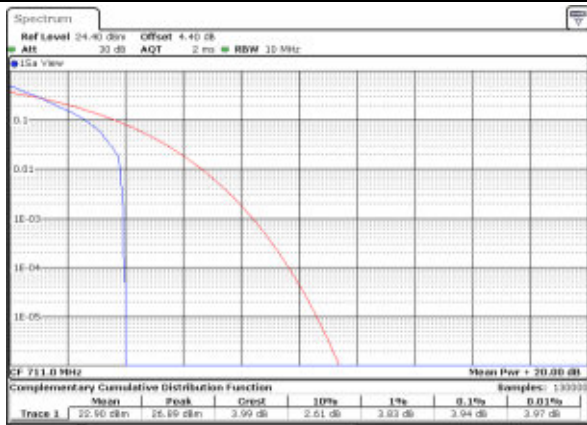
Date: 14 APR 2016 16:34:05

Middle Channel / Full RB



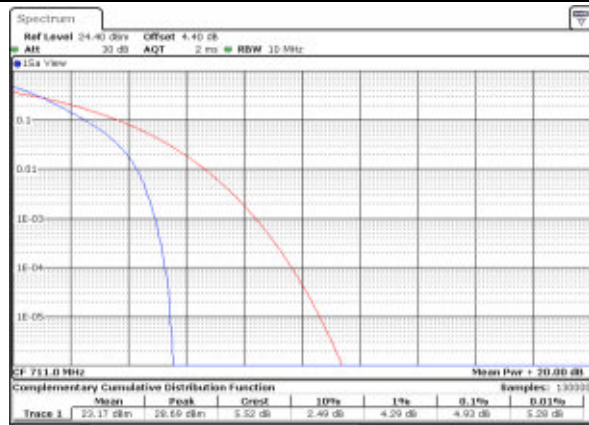
Date: 14 APR 2016 16:34:35

Highest Channel / 1RB



Date: 14 APR 2016 16:35:21

Highest Channel / Full RB



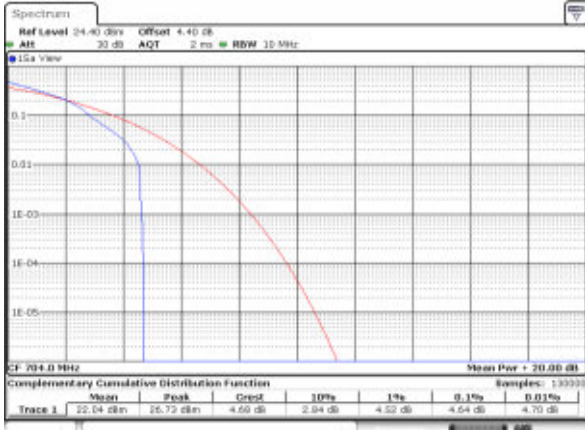
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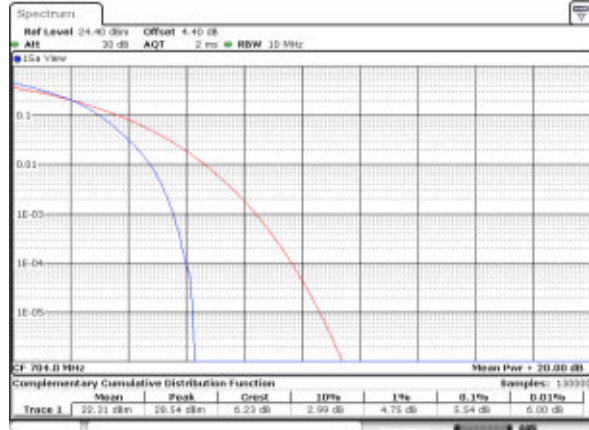
LTE Band 12 / 10MHz / 16QAM

Lowest Channel / 1RB



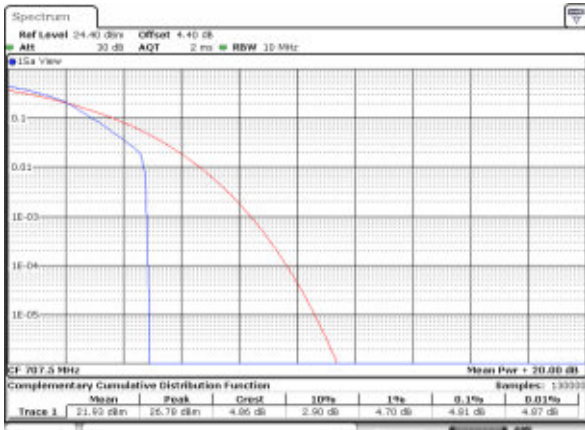
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Lowest Channel / Full RB



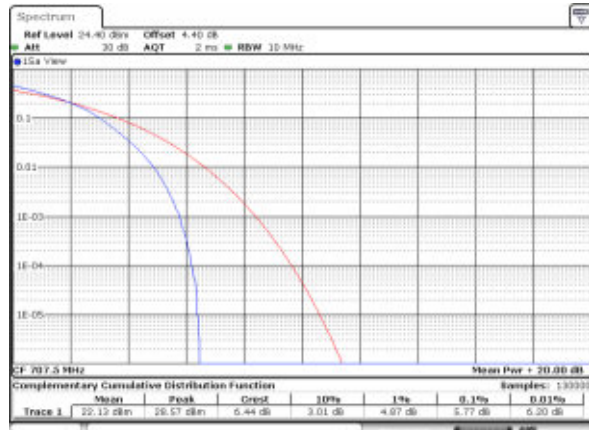
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Middle Channel / 1RB



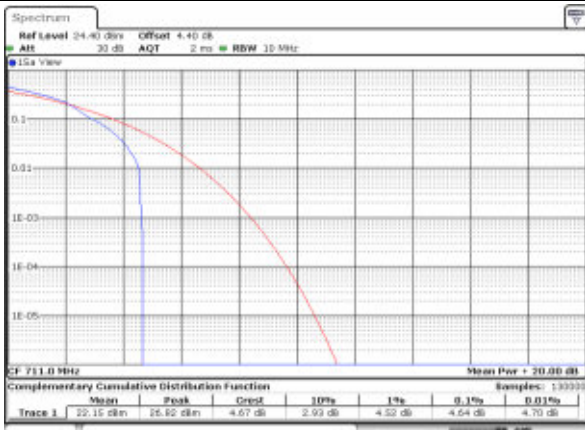
Date: 14 APR 2016 16:34:58

Middle Channel / Full RB



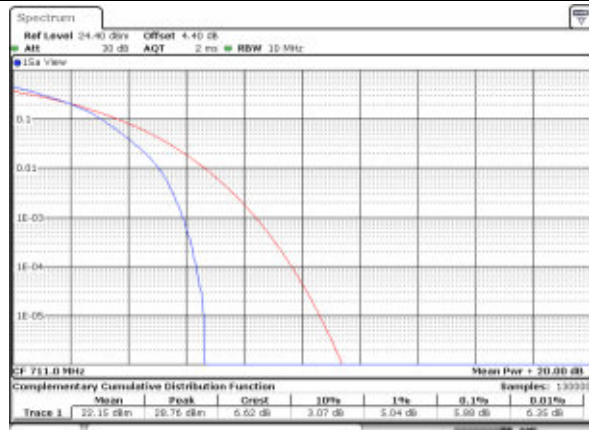
Date: 14 APR 2016 16:36:26

Highest Channel / 1RB



Date: 14 APR 2016 16:35:10

Highest Channel / Full RB

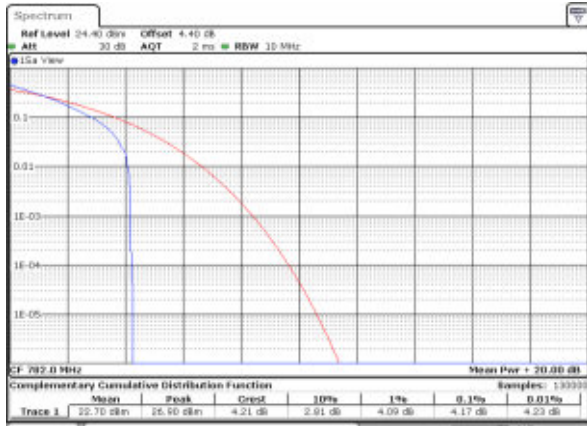


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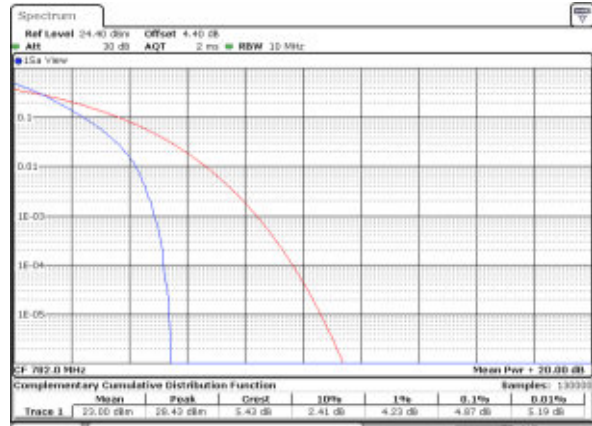
LTE Band 13 / 10MHz / QPSK

Middle Channel/ 1RB



Date: 14 APR 2016 10:04:03

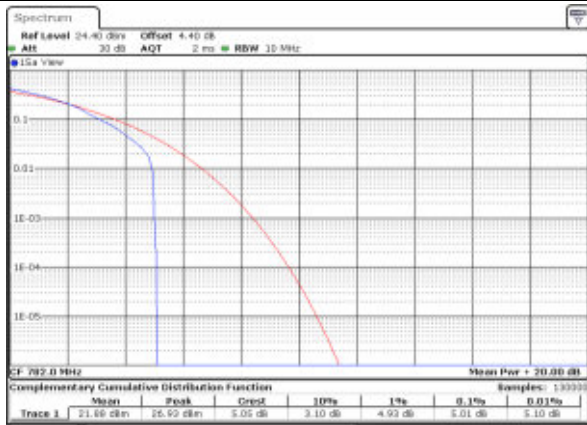
Middle Channel / Full RB



Date: 14 APR 2016 10:05:11

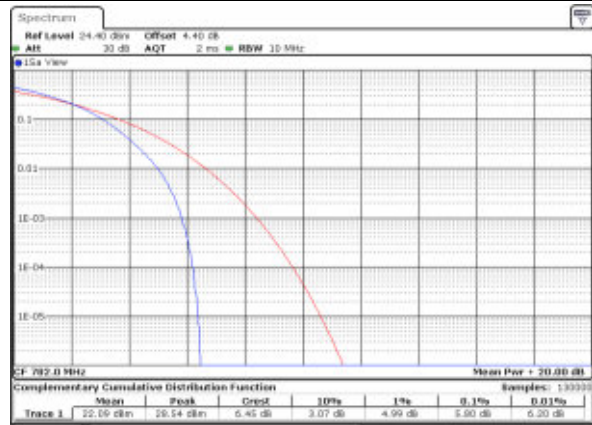
LTE Band 13 / 10MHz / 16QAM

Middle Channel/ 1RB



Date: 14 APR 2016 10:04:52

Middle Channel / Full RB

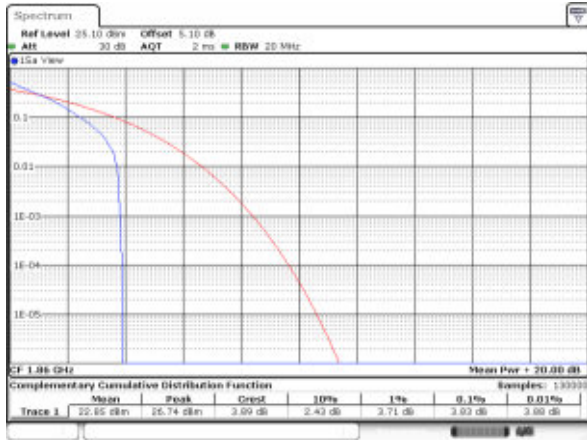


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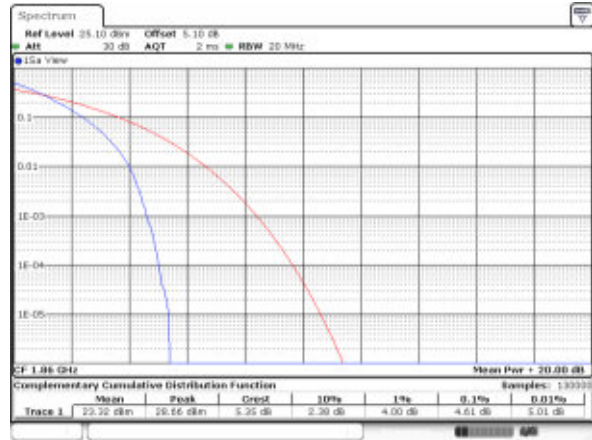
LTE Band 25 / 20MHz / QPSK

Lowest Channel / 1RB



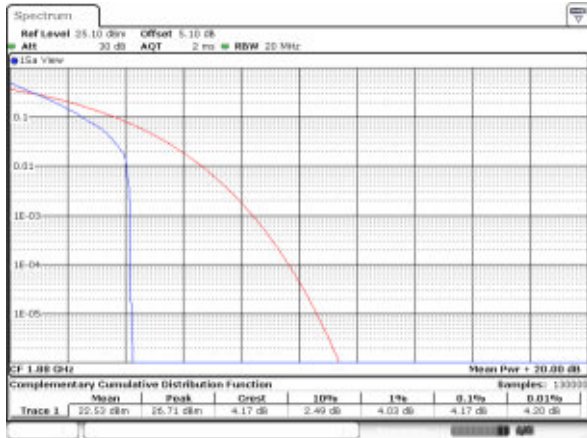
Date: 16 APR 2016 13:22:01

Lowest Channel / Full RB



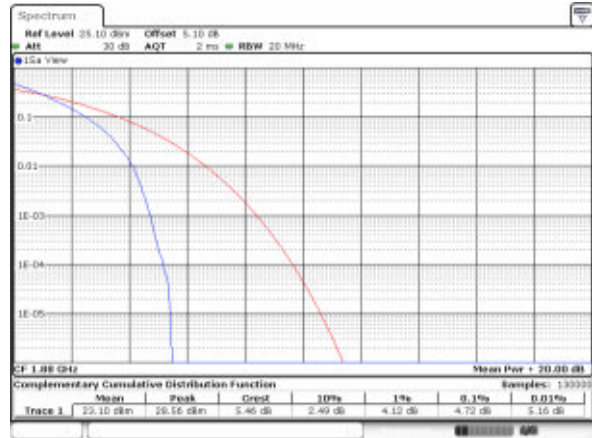
Date: 16 APR 2016 13:22:41

Middle Channel / 1RB



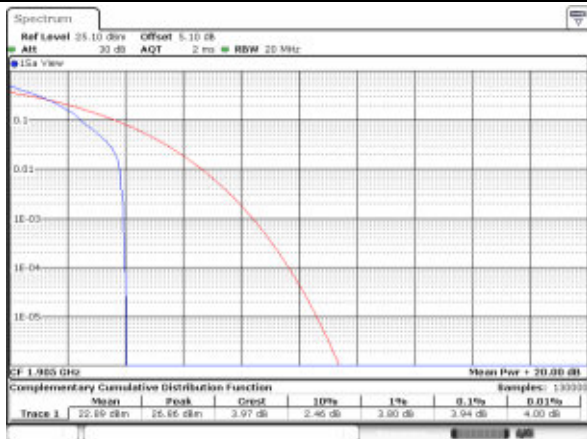
Date: 16 APR 2016 13:24:07

Middle Channel / Full RB



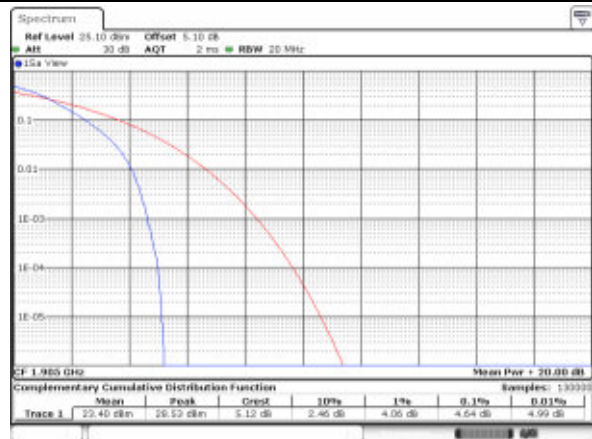
Date: 16 APR 2016 13:23:21

Highest Channel / 1RB



Date: 16 APR 2016 13:24:45

Highest Channel / Full RB

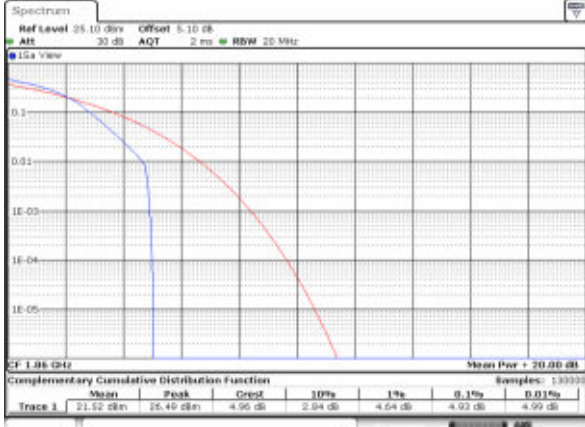


Date: 16 APR 2016 13:25:24



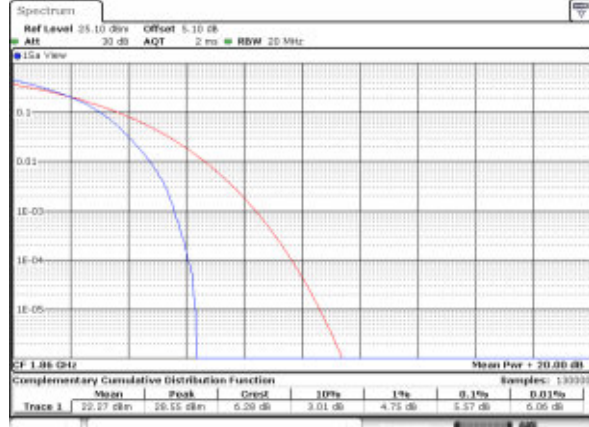
LTE Band 25 / 20MHz / 16QAM

Lowest Channel / 1RB



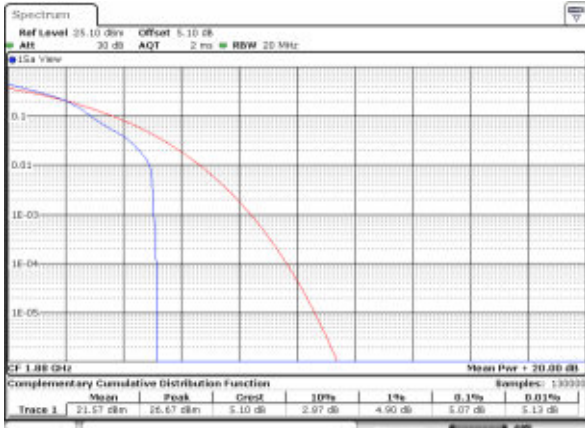
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Lowest Channel / Full RB



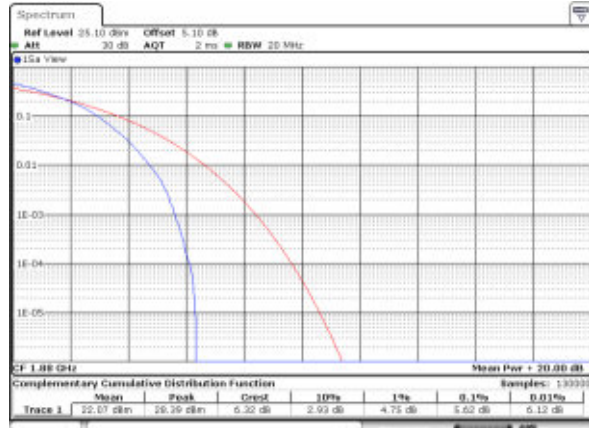
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Middle Channel / 1RB



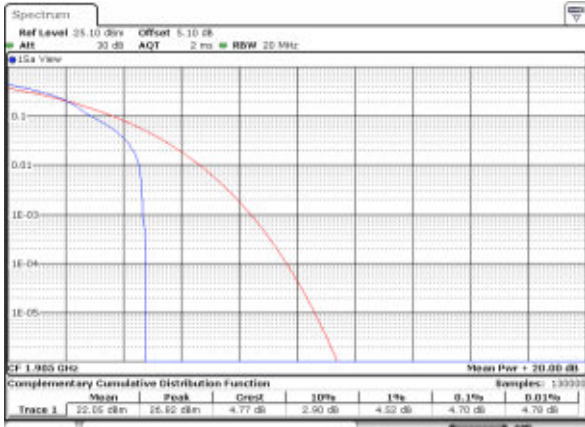
Date: 16 APR 2016 13:24:19

Middle Channel / Full RB



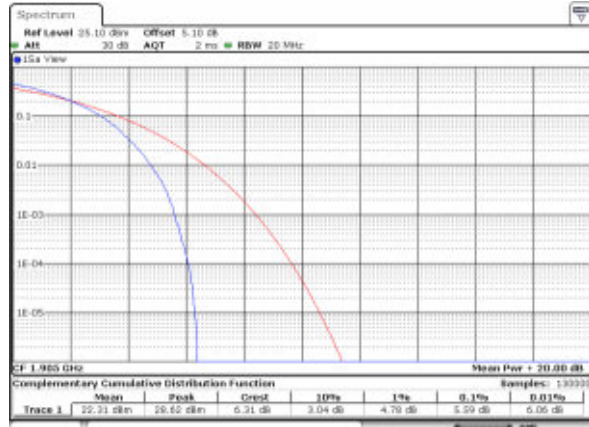
Date: 16 APR 2016 13:24:40

Highest Channel / 1RB



Date: 16 APR 2016 13:24:57

Highest Channel / Full RB



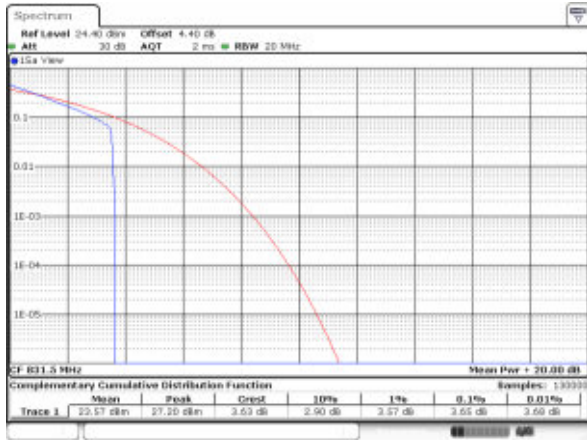
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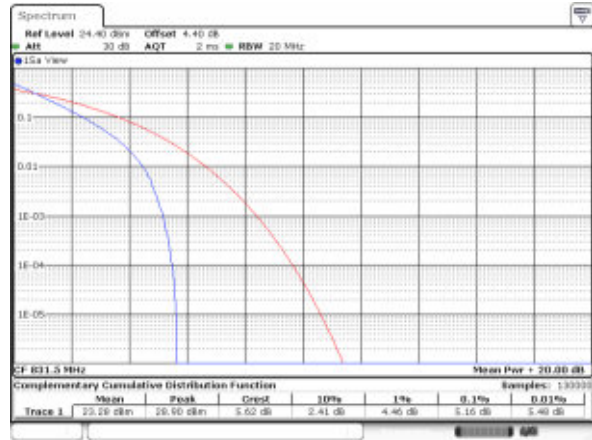
LTE Band 26 / 15MHz / QPSK

Lowest Channel / 1RB



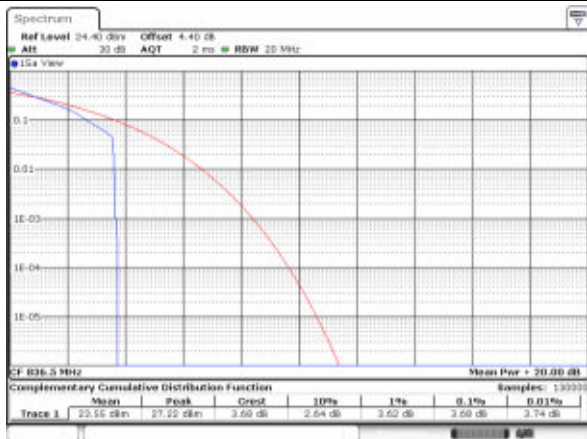
Date: 16 APR 2018 21:21:12

Lowest Channel / Full RB



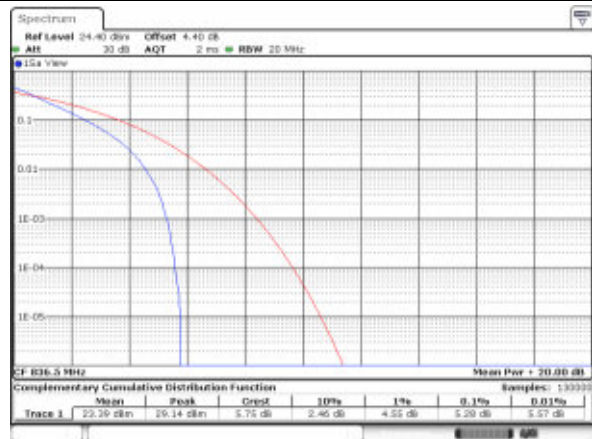
Date: 16 APR 2018 21:24:07

Middle Channel / 1RB



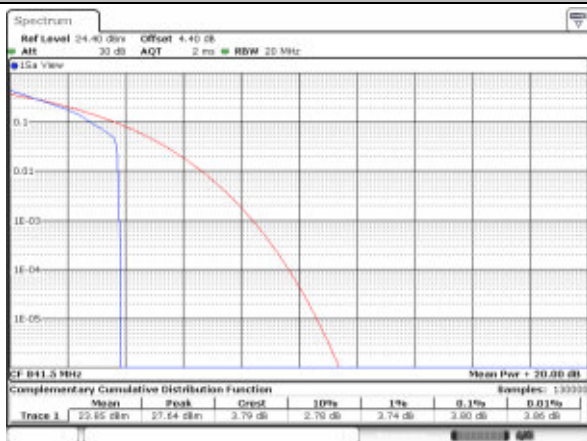
Date: 16 APR 2018 21:26:36

Middle Channel / Full RB



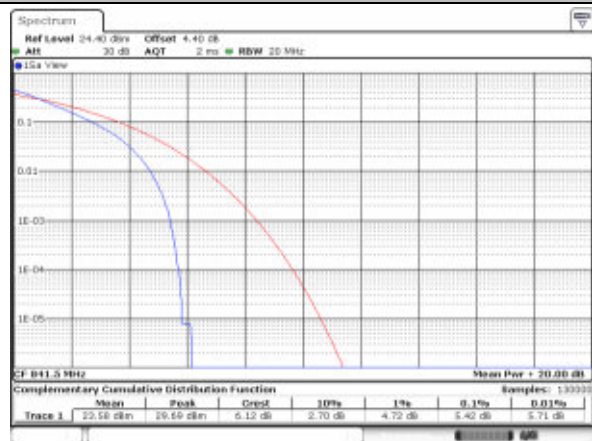
Date: 16 APR 2018 21:24:20

Highest Channel / 1RB



Date: 16 APR 2018 21:27:06

Highest Channel / Full RB

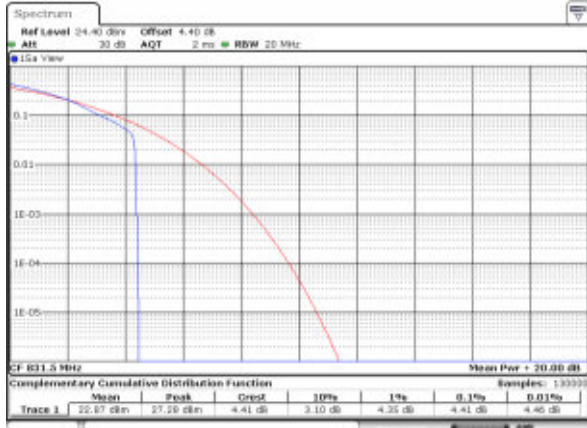


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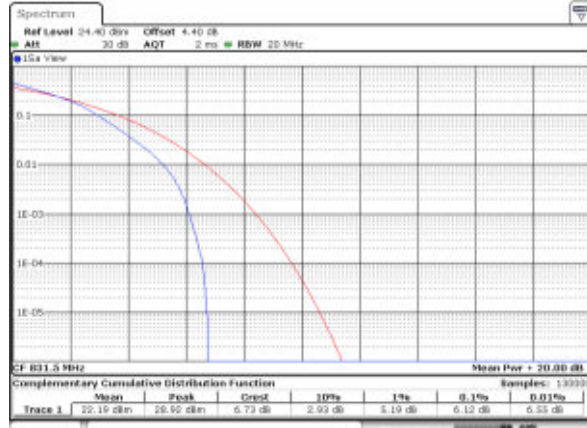
LTE Band 26 / 15MHz / 16QAM

Lowest Channel / 1RB



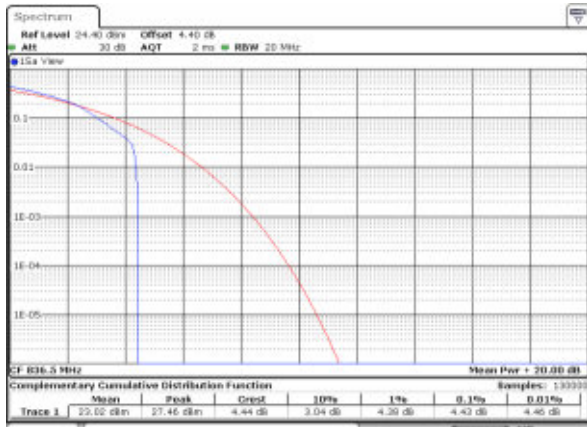
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Lowest Channel / Full RB



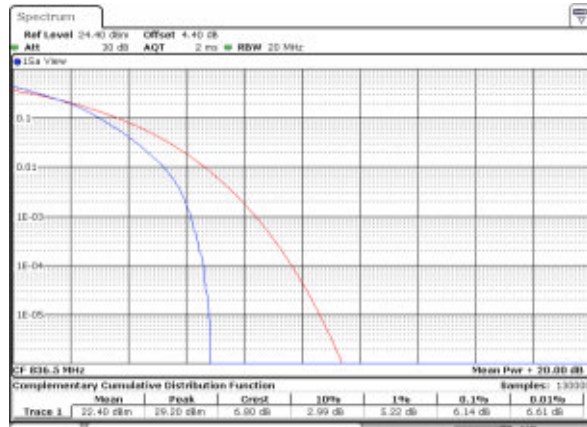
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Middle Channel / 1RB



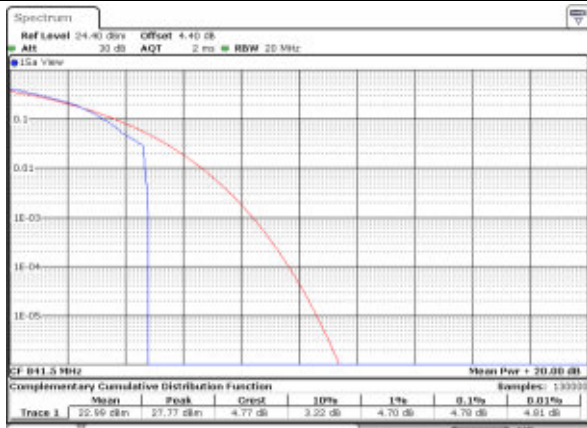
Date: 16 APR 2018 21:25:55

Middle Channel / Full RB



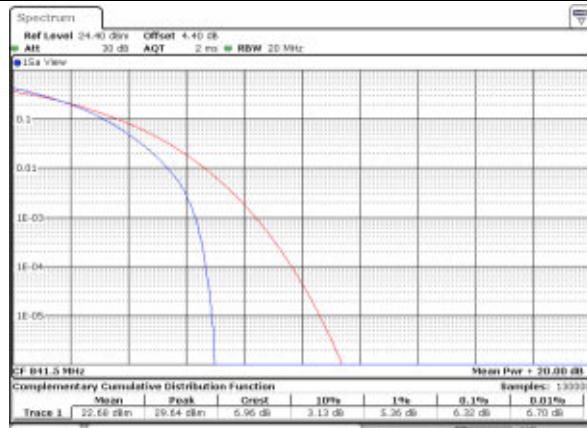
Date: 16 APR 2018 21:24:52

Highest Channel / 1RB



Date: 16 APR 2018 21:27:24

Highest Channel / Full RB

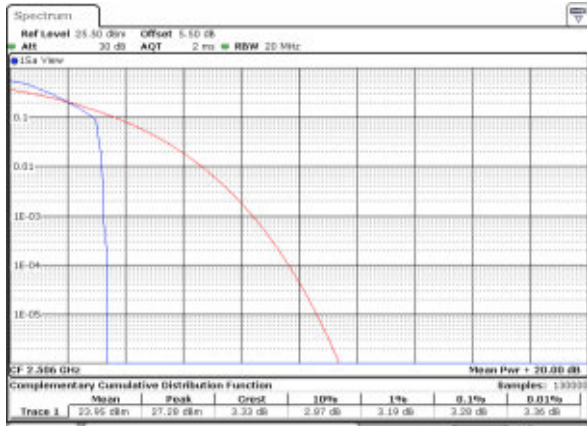


Date: 16 APR 2018 21:30:55



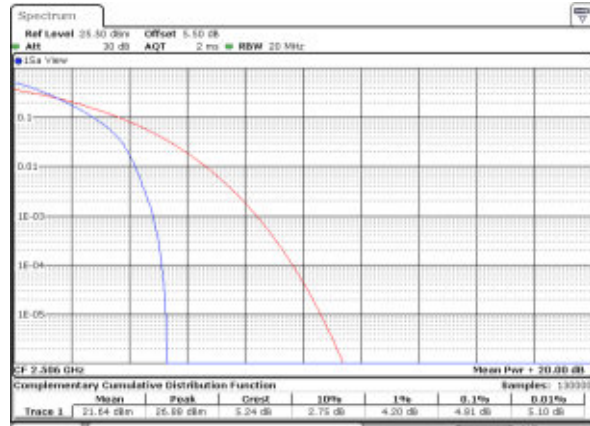
LTE Band 41 / 20MHz / QPSK

Lowest Channel / 1RB



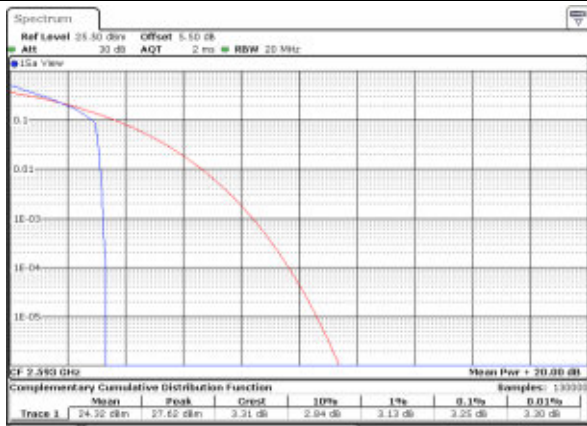
Date: 2.AUG.2018 11:01:21

Lowest Channel / Full RB



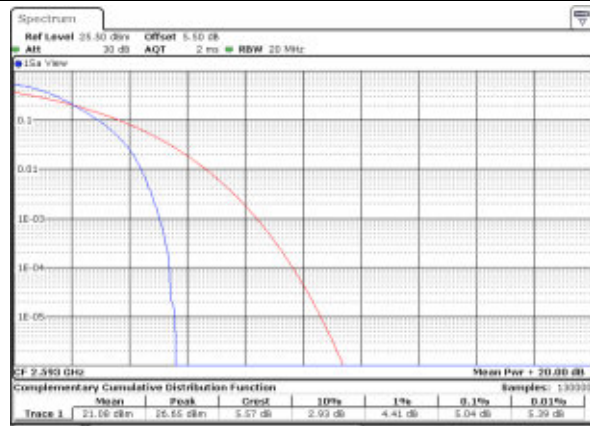
Date: 2.AUG.2018 11:02:15

Middle Channel / 1RB



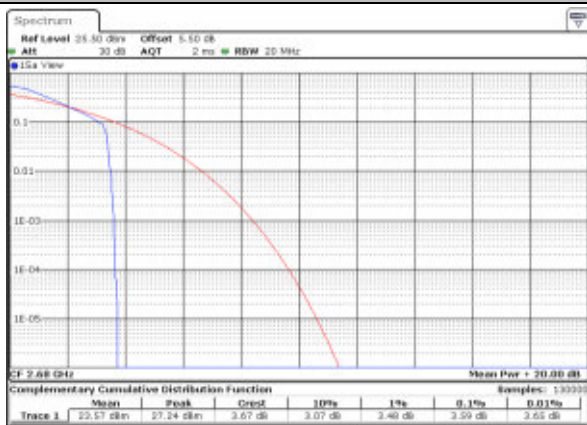
Date: 2.AUG.2018 11:03:04

Middle Channel / Full RB



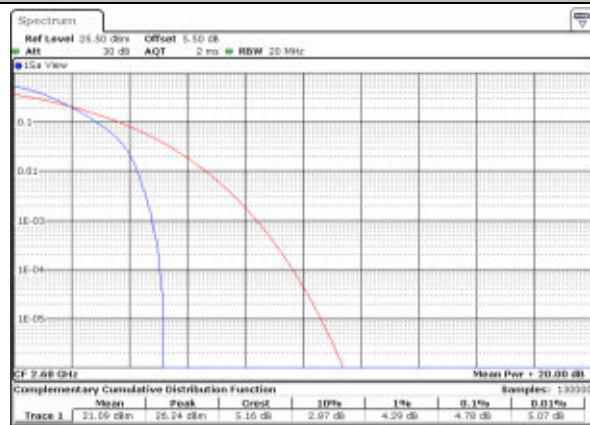
Date: 2.AUG.2018 11:03:51

Highest Channel / 1RB



Date: 2.AUG.2018 11:05:07

Highest Channel / Full RB

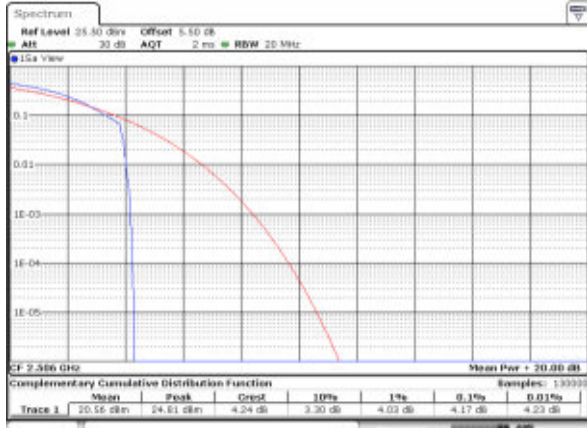


Date: 2.AUG.2018 11:06:03

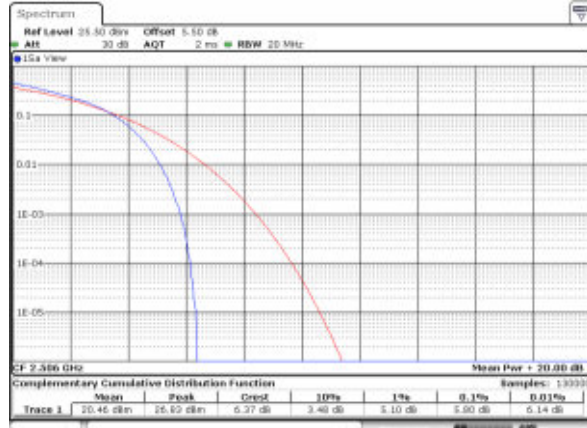


LTE Band 41 / 20MHz / 16QAM

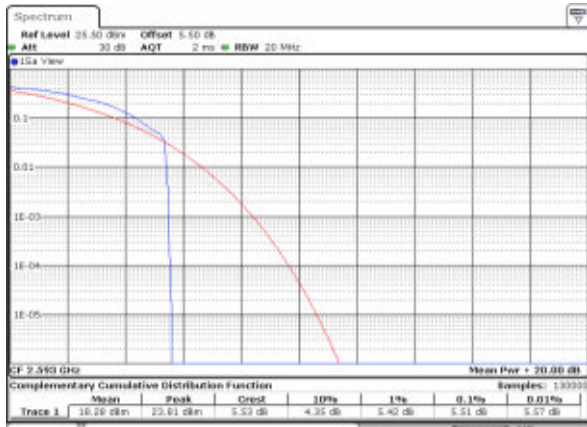
Lowest Channel / 1RB



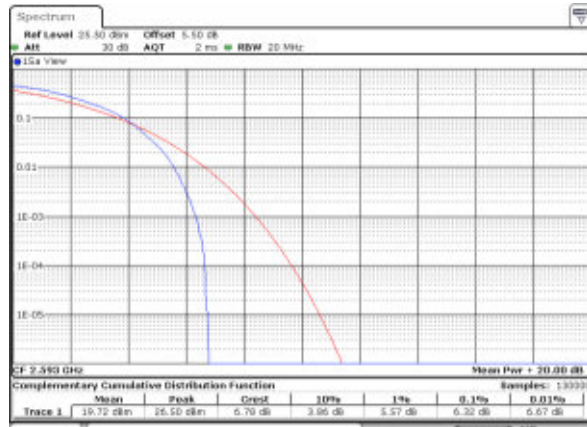
Lowest Channel / Full RB



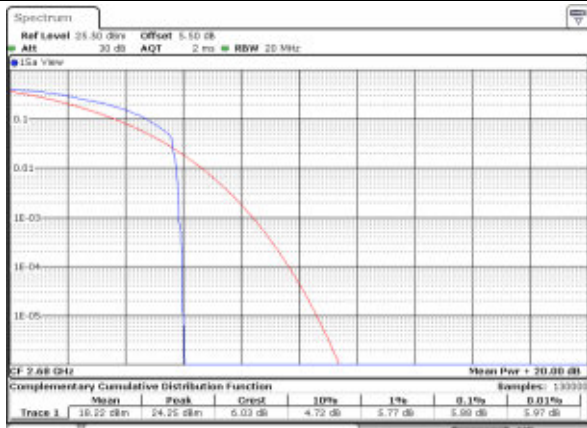
Middle Channel / 1RB



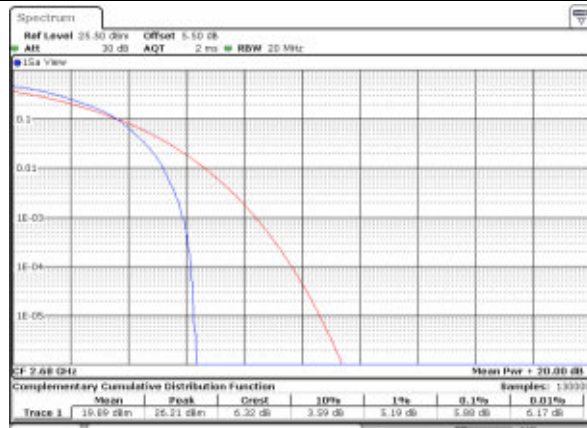
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB







**26dB Bandwidth**

Mode	LTE Band 4 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.304	1.306	3.027	2.985	4.955	4.845	9.75	9.77	14.176	14.206	20.18	20.14
Middle CH	1.295	1.264	2.985	2.979	4.945	4.955	9.85	9.79	14.326	14.206	20.22	20.1
Highest CH	1.292	1.262	3.009	3.027	4.875	4.925	9.99	9.75	14.326	14.386	20.1	20.02

Mode	LTE Band 7 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	5.005	4.855	9.87	9.85	14.146	14.446	20.46	20.38
Middle CH	-	-	-	-	4.865	4.895	9.93	9.97	14.266	14.416	20.14	20.18
Highest CH	-	-	-	-	4.965	4.855	9.91	9.79	14.655	14.356	20.18	20.06

Mode	LTE Band 12 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz					
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM				
Lowest CH	1.248	1.306	2.985	3.009	5.015	4.935	9.63	9.77				
Middle CH	1.259	1.256	2.967	2.985	4.995	4.895	9.73	9.89				
Highest CH	1.273	1.253	3.039	2.961	4.935	4.885	9.81	9.65				

Mode	LTE Band 13 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz					
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM				
Lowest CH	-	-	-	-	4.895	4.905	-	-			-	-
Middle CH	-	-	-	-	4.865	4.935	9.83	9.75			-	-
Highest CH	-	-	-	-	5.005	5.005	-	-			-	-

Mode	LTE Band 25 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.295	1.29	2.997	3.021	4.935	4.915	9.81	9.89	14.446	14.565	20.22	20.14
Middle CH	1.287	1.264	3.033	3.015	4.915	4.925	9.69	9.89	14.535	14.416	20.34	20.1
Highest CH	1.267	1.262	3.003	3.003	4.895	4.965	10.05	9.89	14.116	14.176	20.18	20.22



Mode	LTE Band 26 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		CH26765	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.27	1.26	3.04	2.99	4.92	4.94	9.65	9.77	14.42	14.36	14.386	14.386
Middle CH	1.29	1.30	3.00	3.04	4.95	4.90	9.73	9.79	14.51	14.63	-	-
Highest CH	1.25	1.24	3.02	3.03	4.84	4.96	9.91	9.77	14.42	14.30	-	-

Mode	LTE Band 41 : 26dB BW(MHz)											
BW					5MHz		10MHz		15MHz		20MHz	
Mod.					QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH					4.875	5.025	9.73	9.89	14.296	14.685	20.18	19.98
Middle CH					4.915	4.925	9.75	9.73	14.296	14.116	20.1	20.26
Highest CH					4.715	4.875	9.69	9.65	14.266	14.356	20.1	20.1

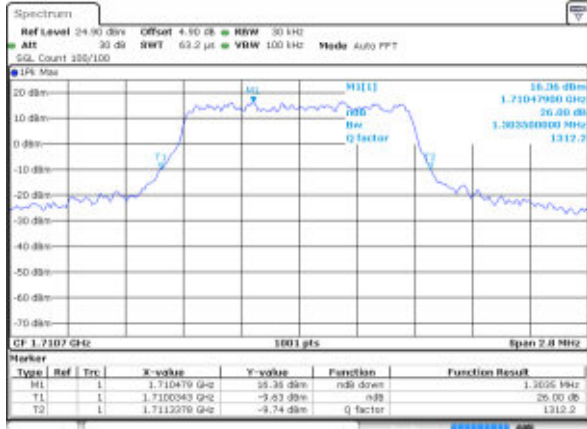
Mode	LTE Band 41 : 26dB BW(MHz)									
QPSK										
BW	5MHz+20MHz		10MHz+15MHz		10MHz+20MHz		15MHz+10MHz		15MHz+15MHz	
Lowest CH	24.925		25.275		29.79		25.175		30.569	
Middle CH	24.875		25.325		29.79		25.375		30.509	
Highest CH	24.875		25.375		29.97		25.375		30.569	
BW	15MHz+20MHz		20MHz+5MHz		20MHz+10MHz		20MHz+15MHz		20MHz+20MHz	
Lowest CH	34.755		25.125		29.97		34.895		39.80	
Middle CH	34.895		25.275		30.03		34.895		39.72	
Highest CH	34.755		25.125		30.15		34.965		39.72	

Mode	LTE Band 41 : 26dB BW(MHz)									
16QAM										
BW	5MHz+20MHz		10MHz+15MHz		10MHz+20MHz		15MHz+10MHz		15MHz+15MHz	
Lowest CH	24.725		25.075		29.85		25.275		30.509	
Middle CH	24.825		25.175		29.79		25.325		30.45	
Highest CH	24.775		25.425		29.79		25.375		30.509	
BW	15MHz+20MHz		20MHz+5MHz		20MHz+10MHz		20MHz+15MHz		20MHz+20MHz	
Lowest CH	34.755		25.175		30.03		34.755		39.72	
Middle CH	34.755		25.075		29.97		34.825		39.64	
Highest CH	34.755		25.125		29.97		34.895		39.88	



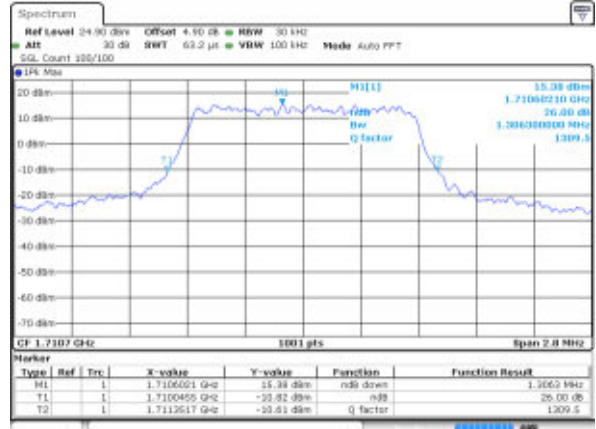
LTE Band 4

Lowest Channel / 1.4MHz / QPSK



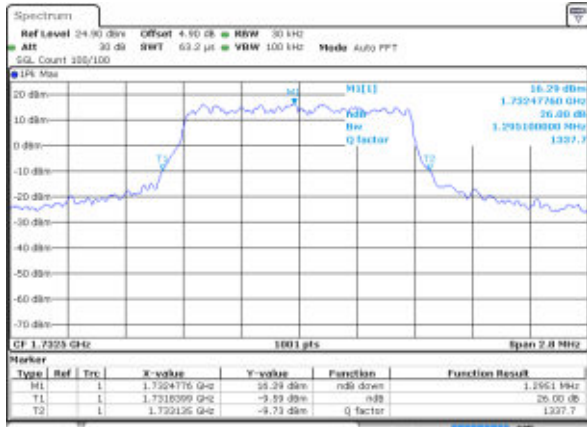
Date: 14 APR 2018 09:49:17

Lowest Channel / 1.4MHz / 16QAM



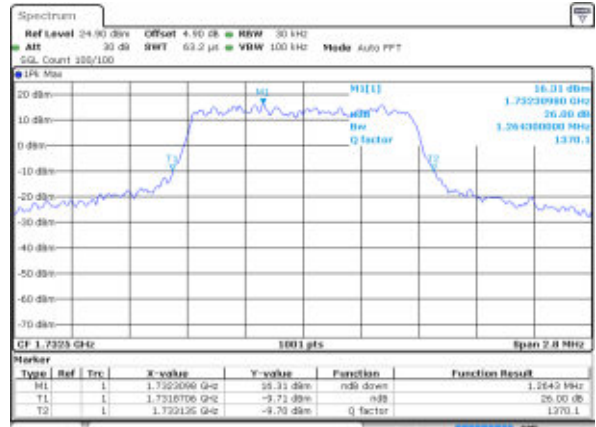
Date: 14 APR 2018 09:49:28

Middle Channel / 1.4MHz / QPSK



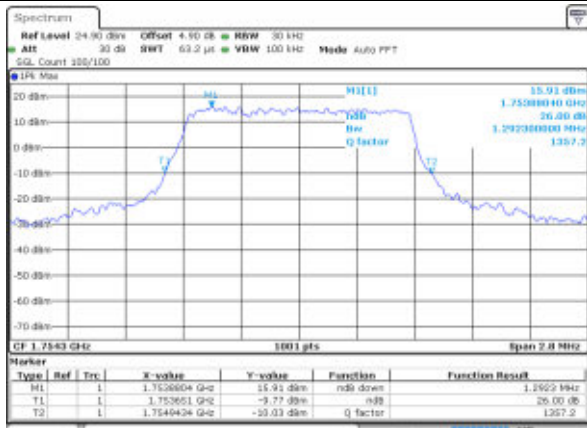
Date: 14 APR 2018 10:06:16

Middle Channel / 1.4MHz / 16QAM



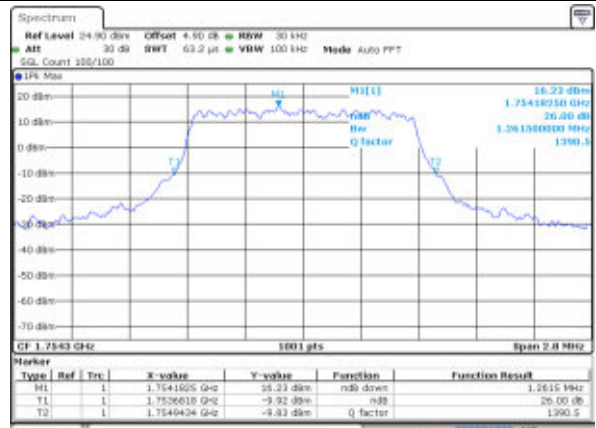
Date: 14 APR 2018 10:06:26

Highest Channel / 1.4MHz / QPSK



Date: 14 APR 2018 10:08:51

Highest Channel / 1.4MHz / 16QAM

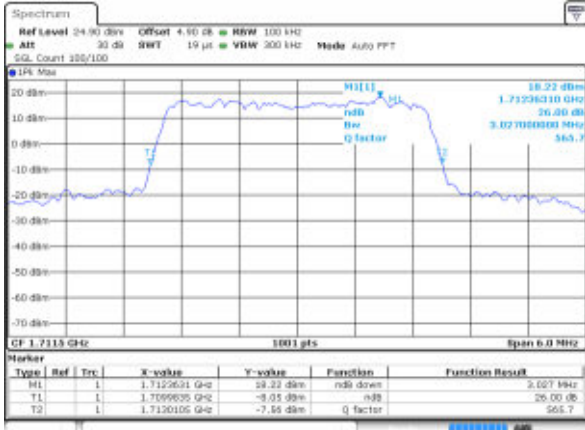


Date: 14 APR 2018 10:09:02



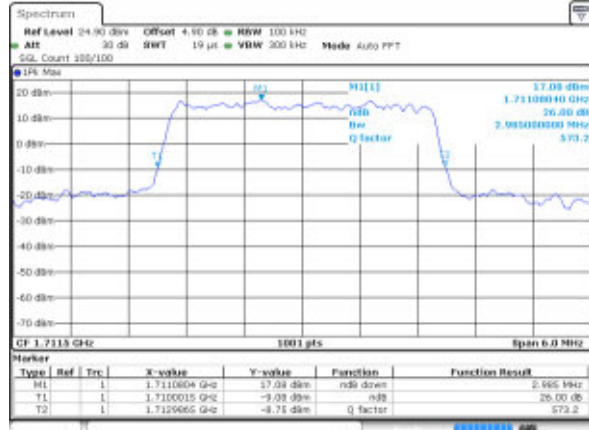
LTE Band 4

Lowest Channel / 3MHz / QPSK



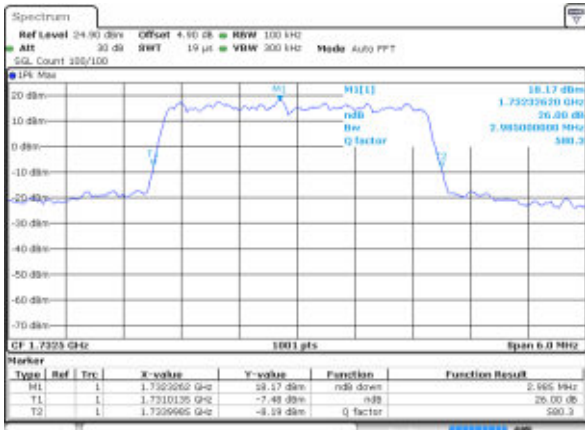
Date: 14 APR 2018 10:15:56

Lowest Channel / 3MHz / 16QAM



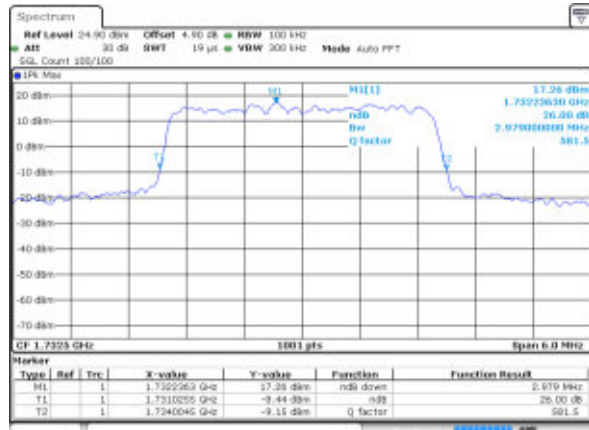
Date: 14 APR 2018 10:16:07

Middle Channel / 3MHz / QPSK



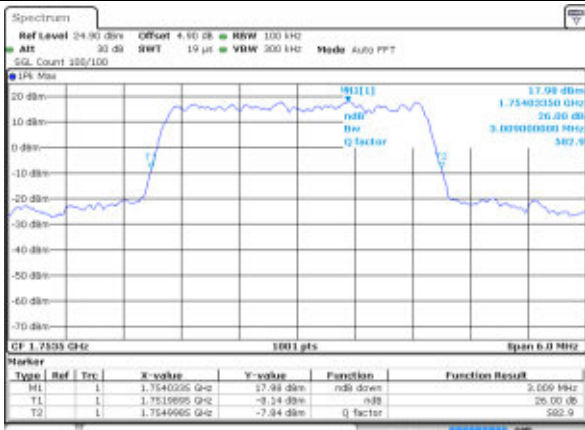
Date: 14 APR 2018 10:23:01

Middle Channel / 3MHz / 16QAM



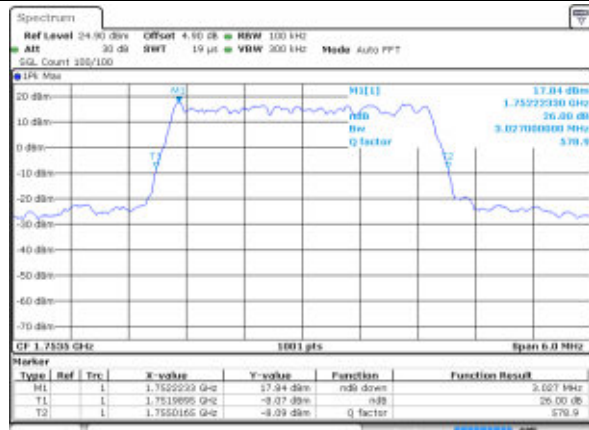
Date: 14 APR 2018 10:23:12

Highest Channel / 3MHz / QPSK



Date: 14 APR 2018 10:25:34

Highest Channel / 3MHz / 16QAM

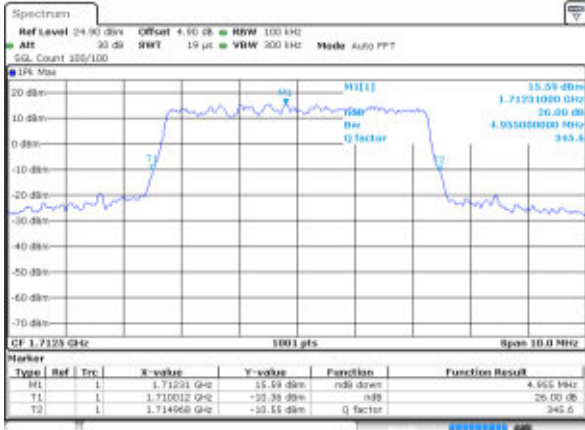


Date: 14 APR 2018 10:25:45



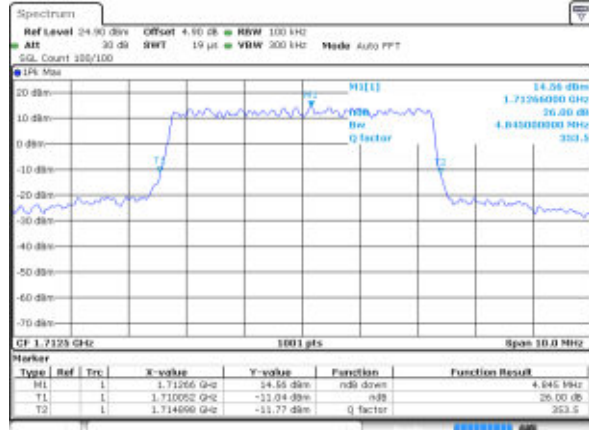
LTE Band 4

Lowest Channel / 5MHz / QPSK



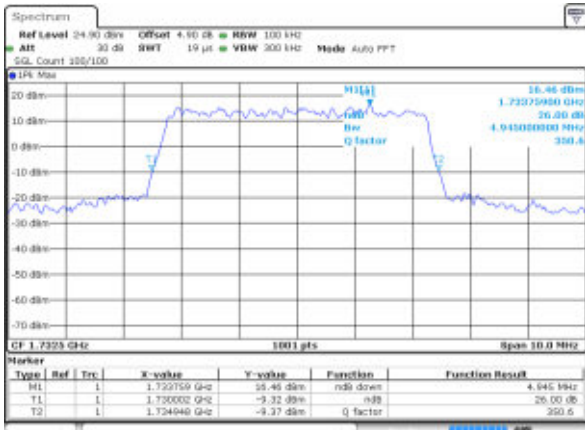
Date: 14 APR 2018 10:32:30

Lowest Channel / 5MHz / 16QAM



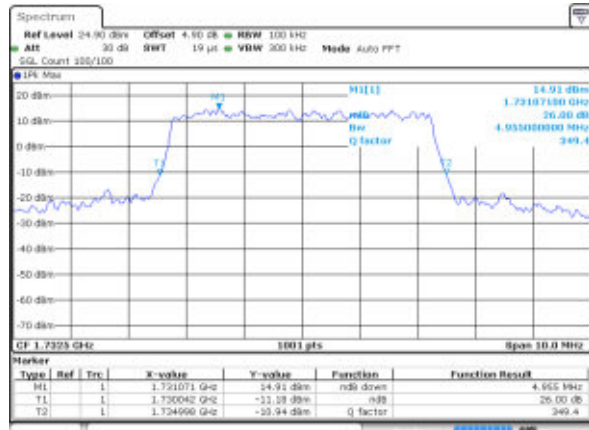
Date: 14 APR 2018 10:32:50

Middle Channel / 5MHz / QPSK



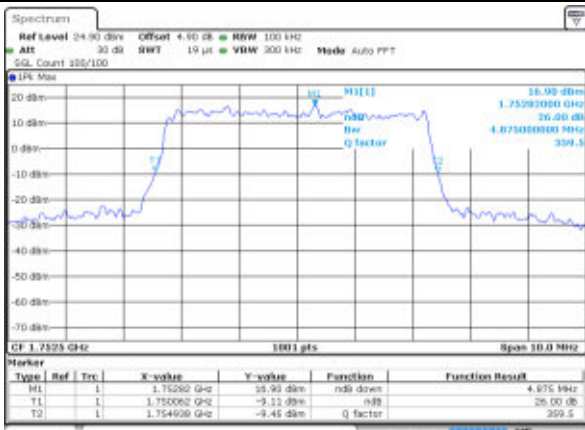
Date: 14 APR 2018 10:32:44

Middle Channel / 5MHz / 16QAM



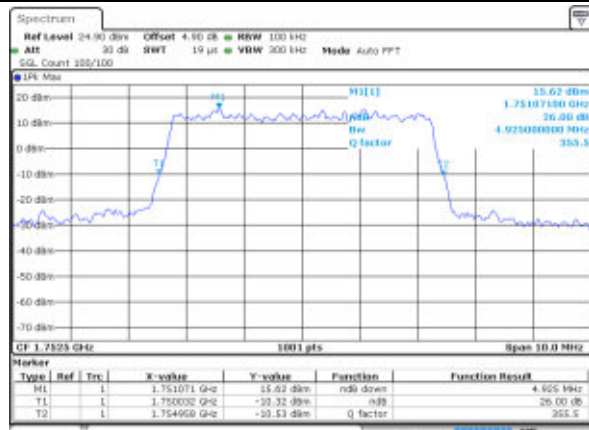
Date: 14 APR 2018 10:32:55

Highest Channel / 5MHz / QPSK



Date: 14 APR 2018 10:42:17

Highest Channel / 5MHz / 16QAM



Date: 14 APR 2018 10:42:28





LTE Band 4

Lowest Channel / 10MHz / QPSK



Date: 14 APR 2018 10:49:22

Lowest Channel / 10MHz / 16QAM



Date: 14 APR 2018 10:49:30

Middle Channel / 10MHz / QPSK



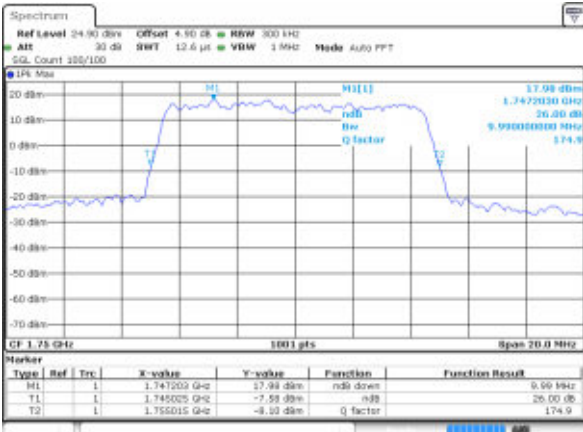
Date: 14 APR 2018 10:50:27

Middle Channel / 10MHz / 16QAM



Date: 14 APR 2018 10:50:36

Highest Channel / 10MHz / QPSK



Date: 14 APR 2018 10:50:00

Highest Channel / 10MHz / 16QAM

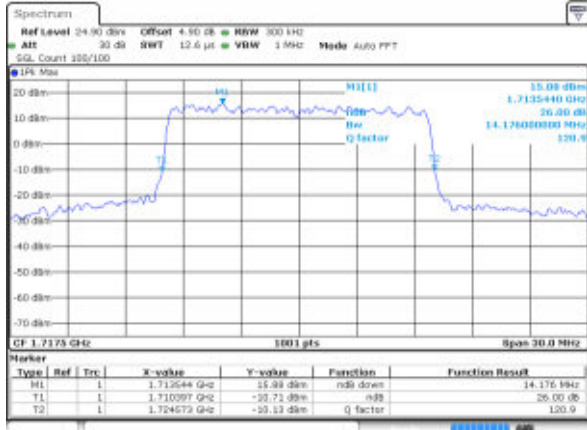


Date: 14 APR 2018 10:50:11



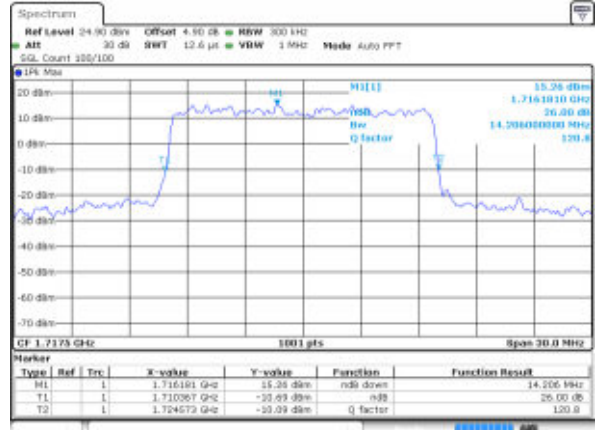
LTE Band 4

Lowest Channel / 15MHz / QPSK



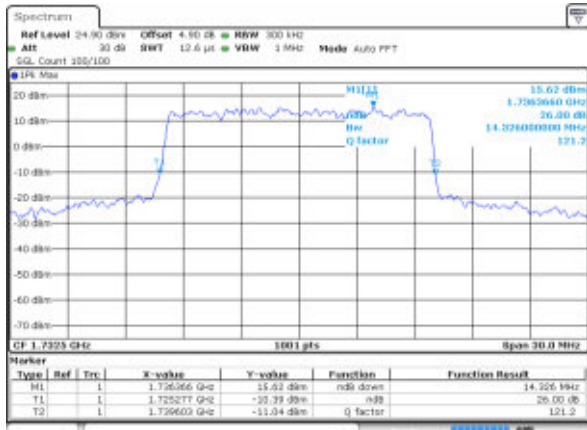
Date: 14 APR 2018 11:06:06

Lowest Channel / 15MHz / 16QAM



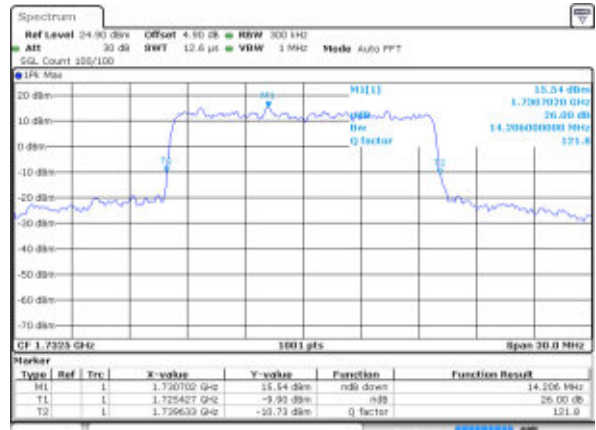
Date: 14 APR 2018 11:06:10

Middle Channel / 15MHz / QPSK



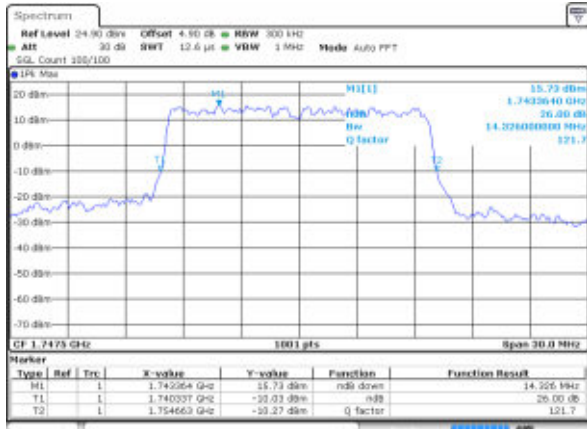
Date: 14 APR 2018 11:12:11

Middle Channel / 15MHz / 16QAM



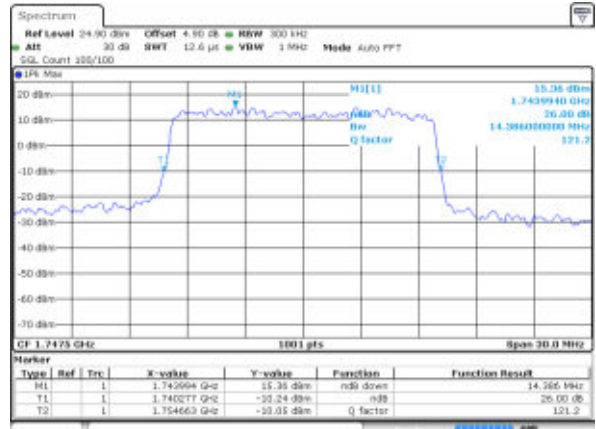
Date: 14 APR 2018 11:12:21

Highest Channel / 15MHz / QPSK



Date: 14 APR 2018 11:15:44

Highest Channel / 15MHz / 16QAM

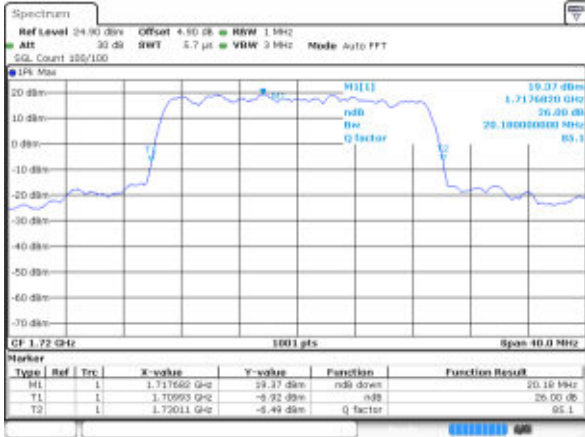


Date: 14 APR 2018 11:15:54



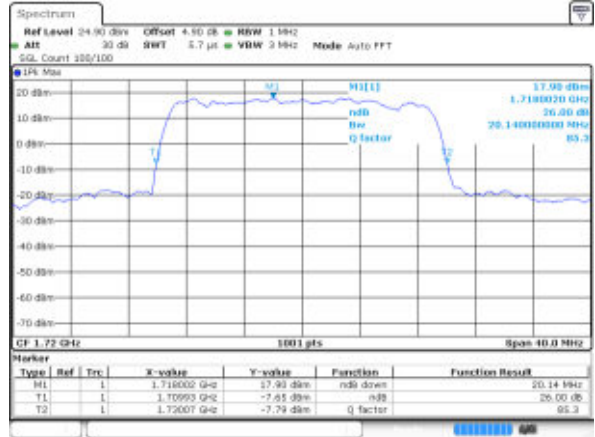
LTE Band 4

Lowest Channel / 20MHz / QPSK



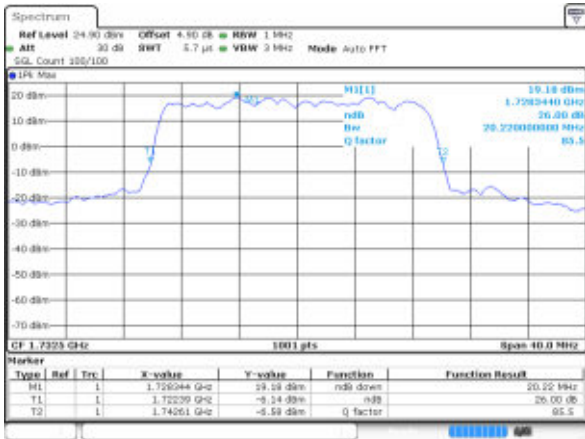
Date: 14 APR 2016 11:22:46

Lowest Channel / 20MHz / 16QAM



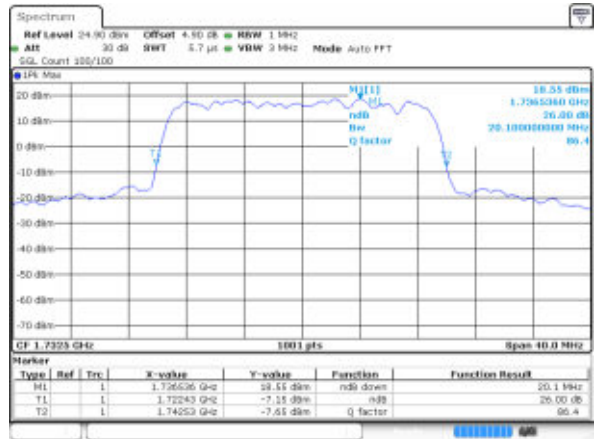
Date: 14 APR 2016 11:22:59

Middle Channel / 20MHz / QPSK



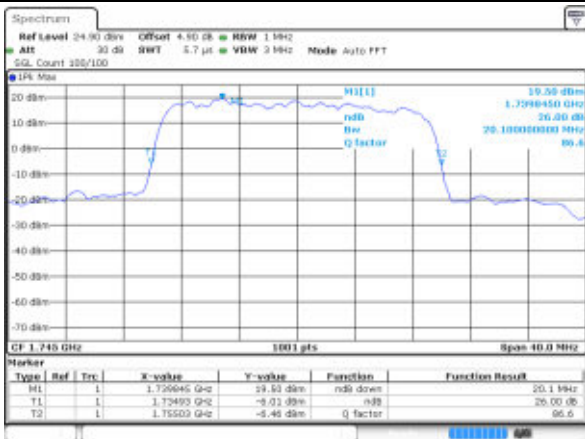
Date: 14 APR 2016 11:29:54

Middle Channel / 20MHz / 16QAM



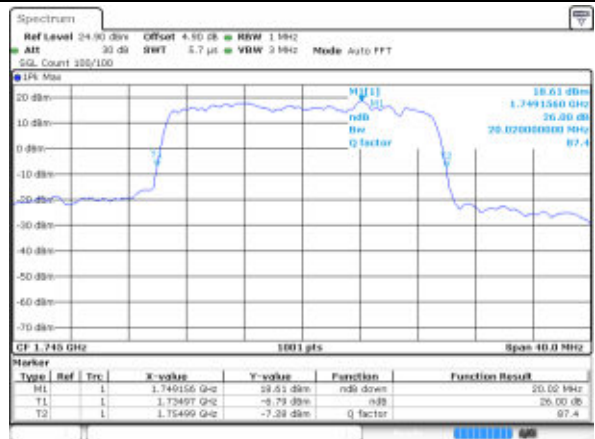
Date: 14 APR 2016 11:30:05

Highest Channel / 20MHz / QPSK



Date: 14 APR 2016 11:32:29

Highest Channel / 20MHz / 16QAM



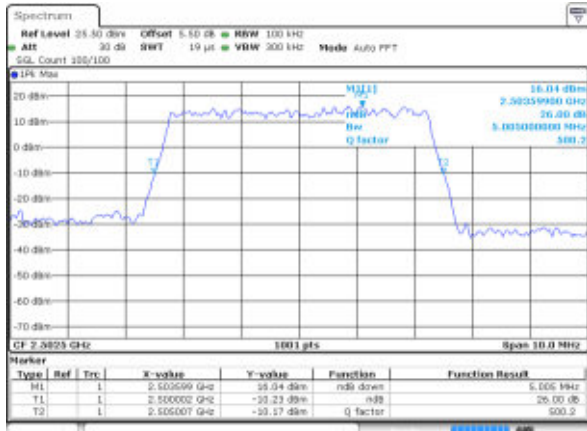
Date: 14 APR 2016 11:32:40





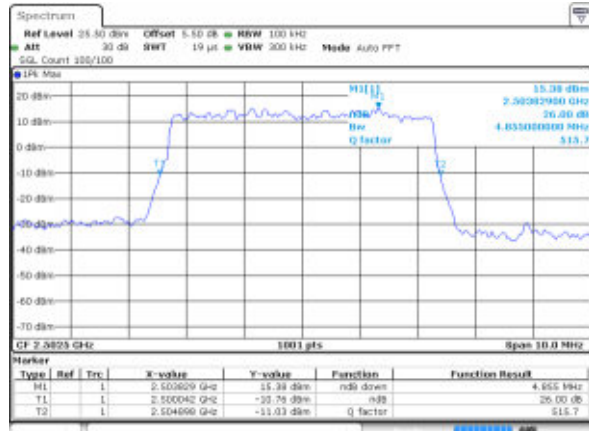
LTE Band 7

Lowest Channel / 5MHz / QPSK



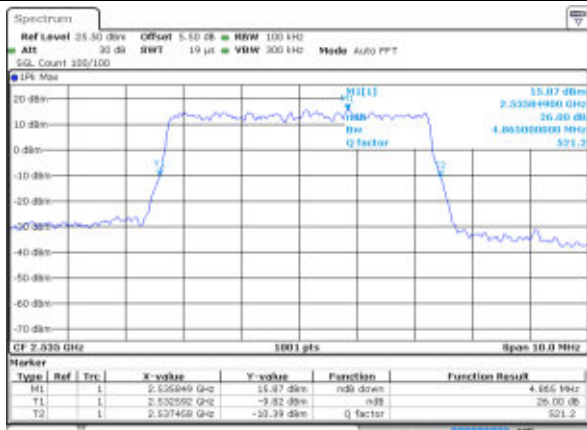
Date: 14 APR 2018 21:30:24

Lowest Channel / 5MHz / 16QAM



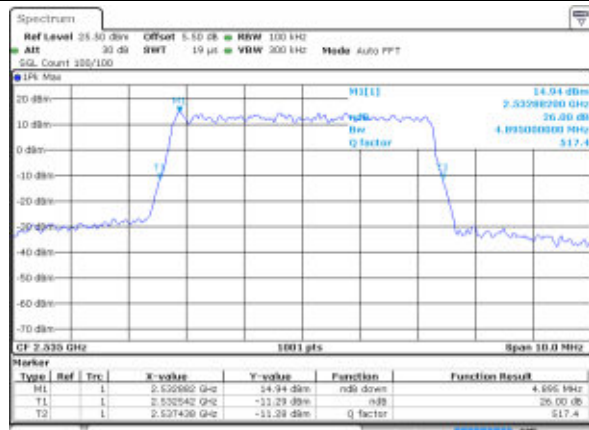
Date: 14 APR 2018 21:30:45

Middle Channel / 5MHz / QPSK



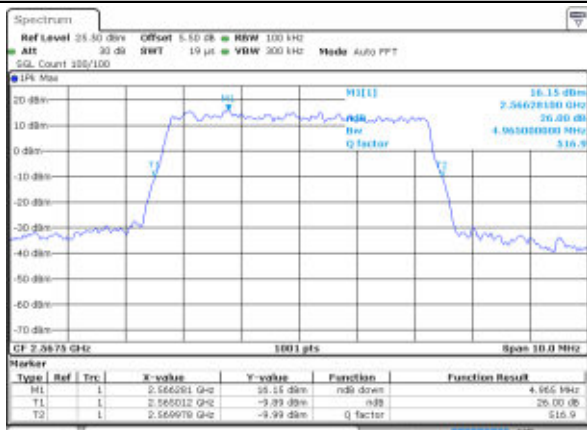
Date: 14 APR 2018 21:30:26

Middle Channel / 5MHz / 16QAM



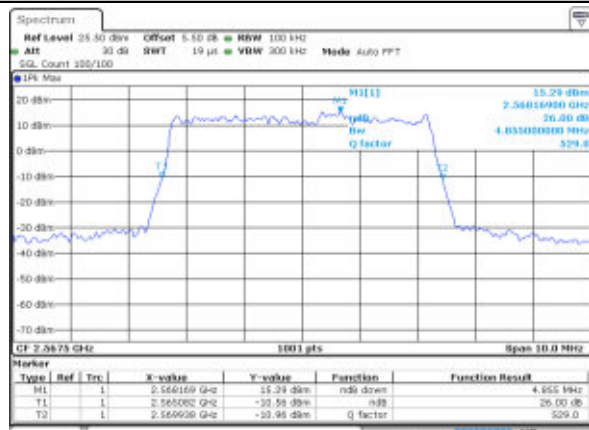
Date: 14 APR 2018 21:30:07

Highest Channel / 5MHz / QPSK



Date: 14 APR 2018 21:30:40

Highest Channel / 5MHz / 16QAM



Date: 14 APR 2018 21:40:10



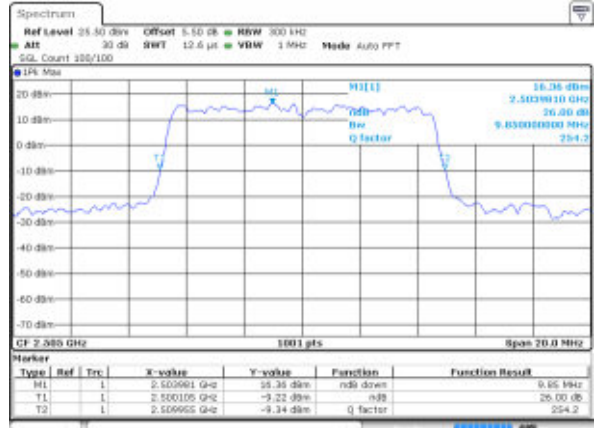
LTE Band 7

Lowest Channel / 10MHz / QPSK



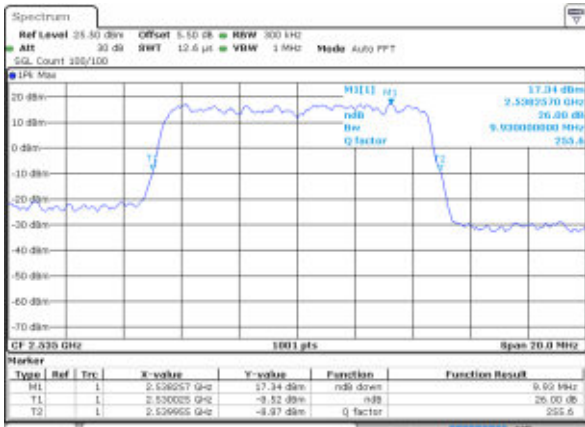
Date: 14 APR 2018 21:50:32

Lowest Channel / 10MHz / 16QAM



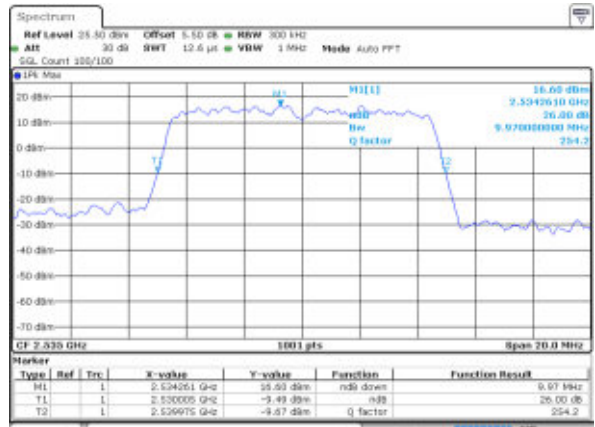
Date: 14 APR 2018 21:50:53

Middle Channel / 10MHz / QPSK



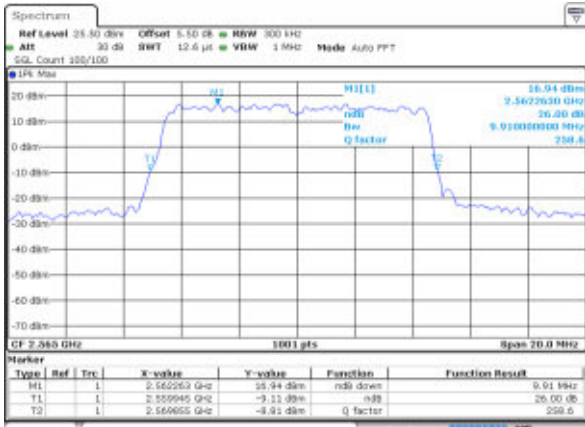
Date: 14 APR 2018 21:51:36

Middle Channel / 10MHz / 16QAM



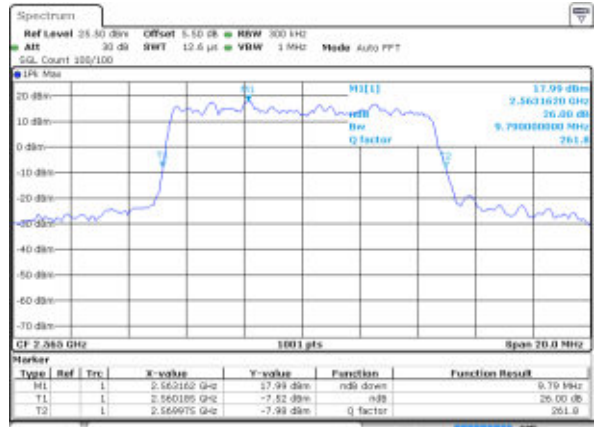
Date: 14 APR 2018 21:51:14

Highest Channel / 10MHz / QPSK



Date: 14 APR 2018 21:51:57

Highest Channel / 10MHz / 16QAM



Date: 14 APR 2018 21:52:18



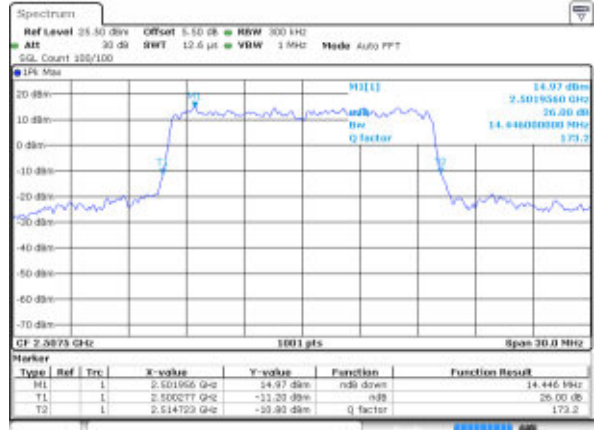
LTE Band 7

Lowest Channel / 15MHz / QPSK



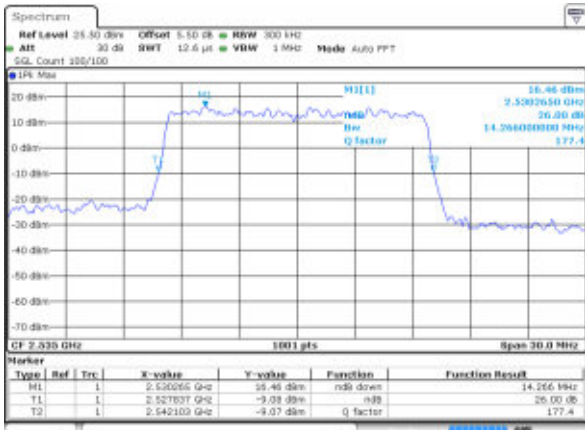
Date: 14 APR 2018 22:02:02

Lowest Channel / 15MHz / 16QAM



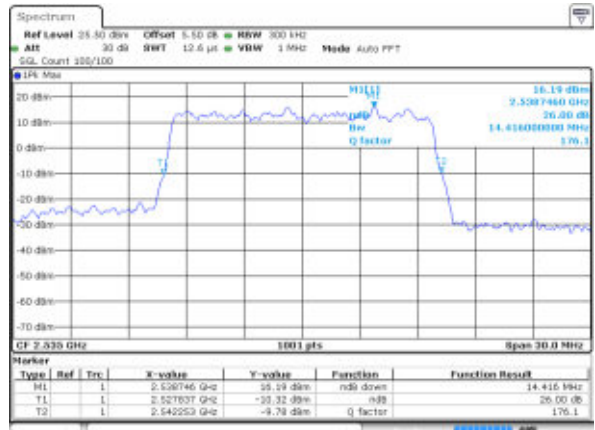
Date: 14 APR 2018 22:02:40

Middle Channel / 15MHz / QPSK



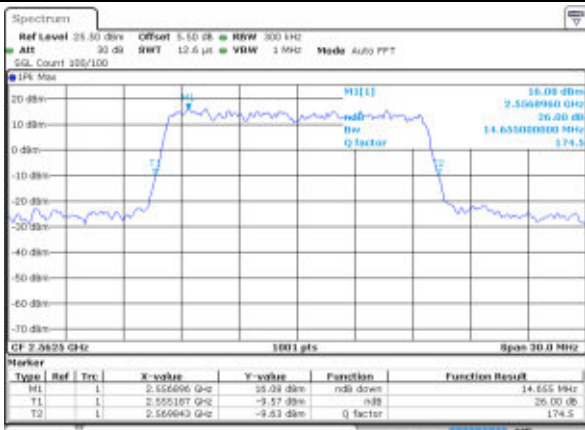
Date: 14 APR 2018 22:03:23

Middle Channel / 15MHz / 16QAM



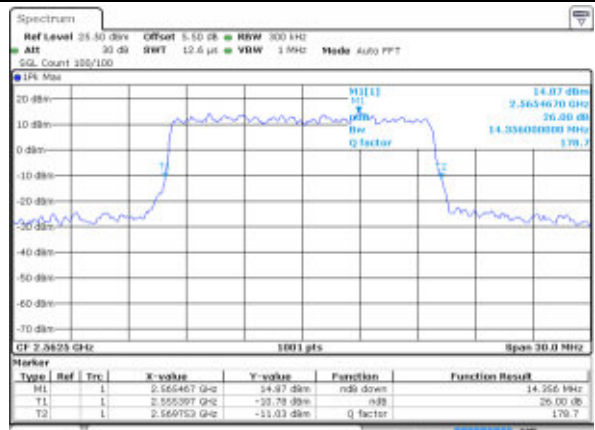
Date: 14 APR 2018 22:03:44

Highest Channel / 15MHz / QPSK



Date: 14 APR 2018 22:04:27

Highest Channel / 15MHz / 16QAM

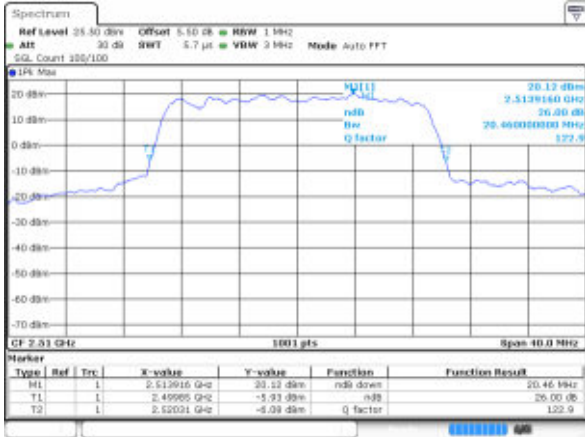


Date: 14 APR 2018 22:04:05



LTE Band 7

Lowest Channel / 20MHz / QPSK



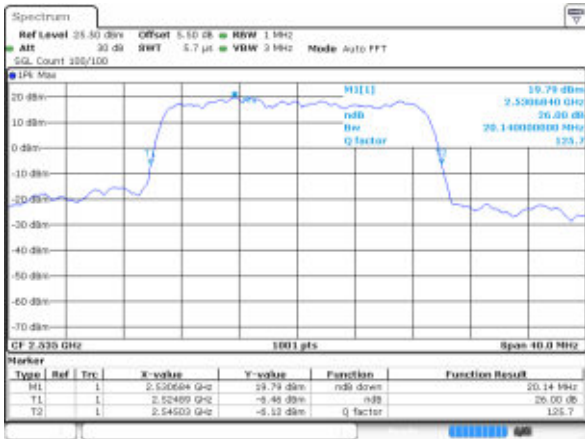
Date: 14 APR 2018 22:16:50

Lowest Channel / 20MHz / 16QAM



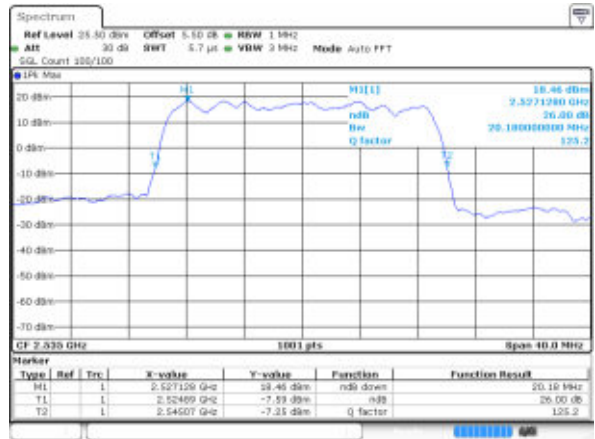
Date: 14 APR 2018 22:16:29

Middle Channel / 20MHz / QPSK



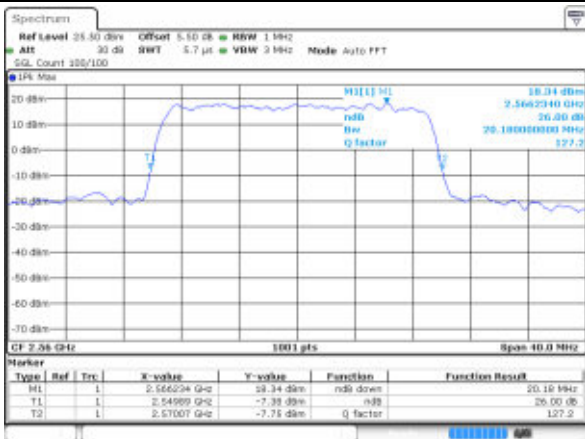
Date: 14 APR 2018 22:17:12

Middle Channel / 20MHz / 16QAM



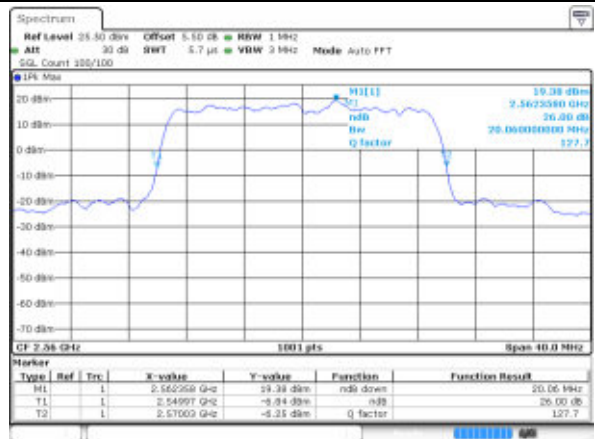
Date: 14 APR 2018 22:17:33

Highest Channel / 20MHz / QPSK



Date: 14 APR 2018 22:18:16

Highest Channel / 20MHz / 16QAM

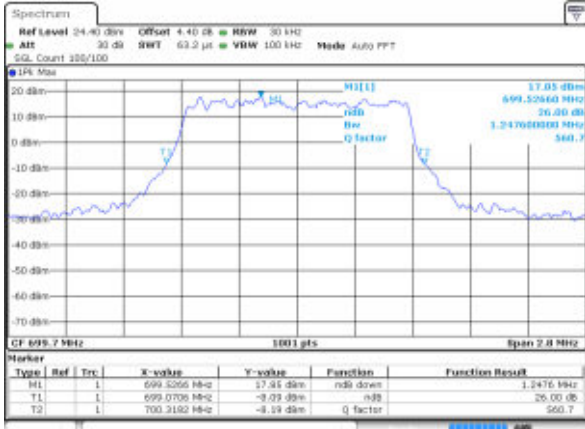


Date: 14 APR 2018 22:17:54



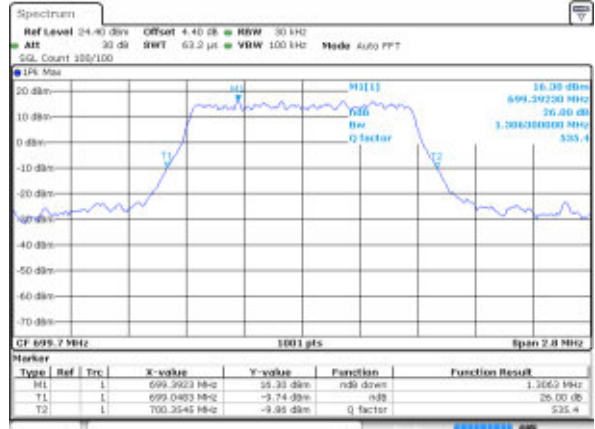
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



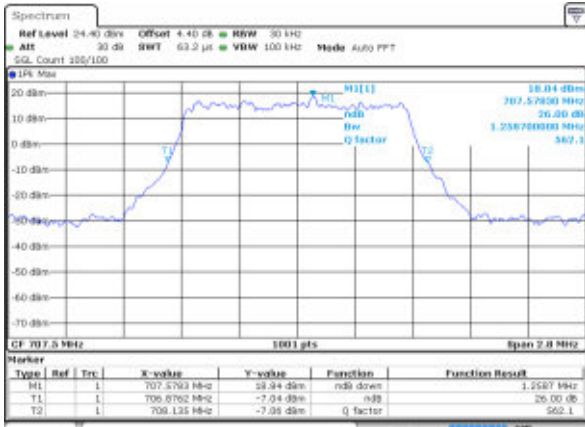
Date: 14 APR 2018 13:20:23

Lowest Channel / 1.4MHz / 16QAM



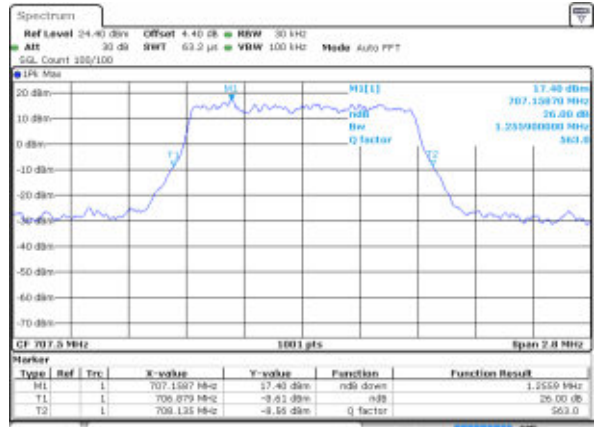
Date: 14 APR 2018 13:20:12

Middle Channel / 1.4MHz / QPSK



Date: 14 APR 2018 13:19:51

Middle Channel / 1.4MHz / 16QAM



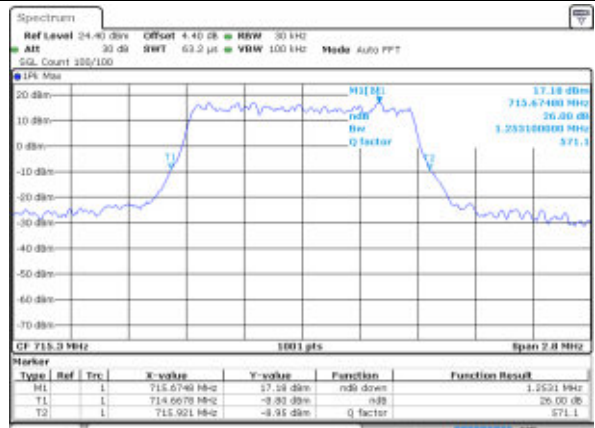
Date: 14 APR 2018 13:20:02

Highest Channel / 1.4MHz / QPSK



Date: 14 APR 2018 13:19:41

Highest Channel / 1.4MHz / 16QAM



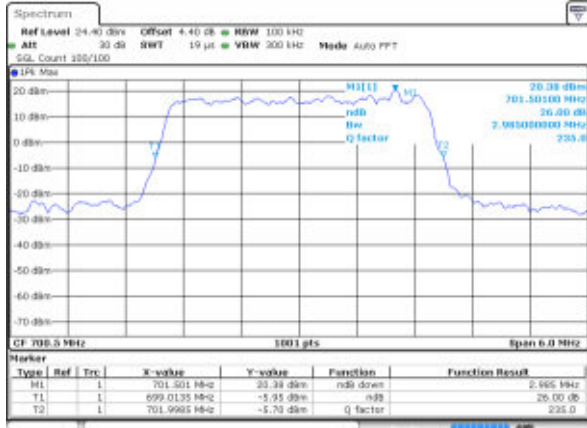
Date: 14 APR 2018 13:19:30





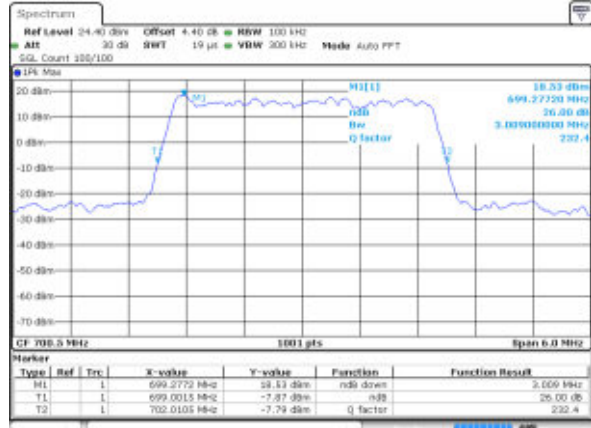
LTE Band 12

Lowest Channel / 3MHz / QPSK



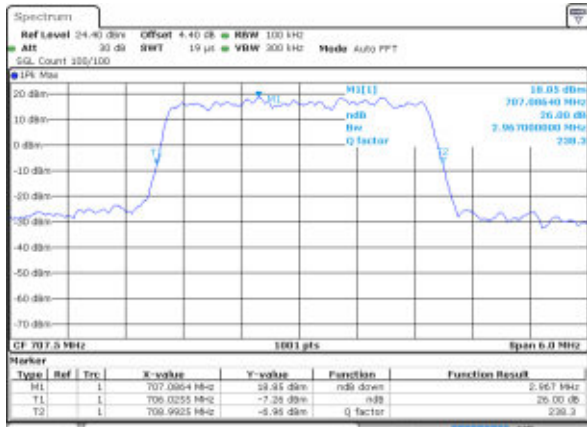
Date: 14 APR 2016 13:37:05

Lowest Channel / 3MHz / 16QAM



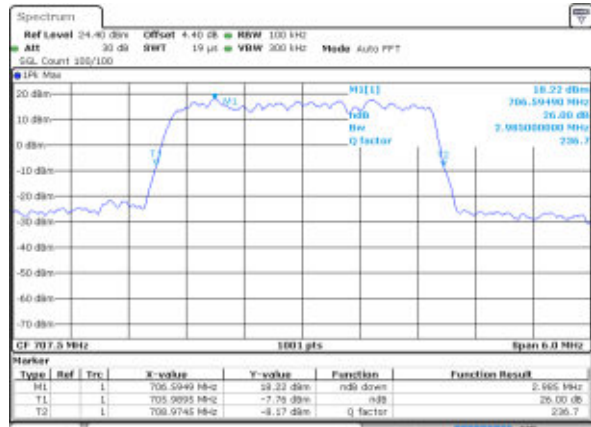
Date: 14 APR 2016 13:36:55

Middle Channel / 3MHz / QPSK



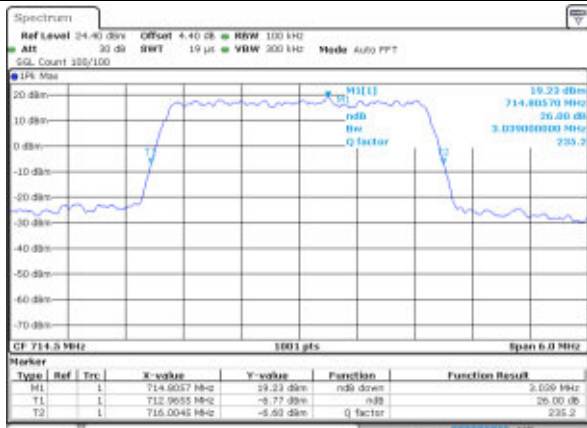
Date: 14 APR 2016 13:36:34

Middle Channel / 3MHz / 16QAM



Date: 14 APR 2016 13:36:44

Highest Channel / 3MHz / QPSK



Date: 14 APR 2016 13:36:23

Highest Channel / 3MHz / 16QAM

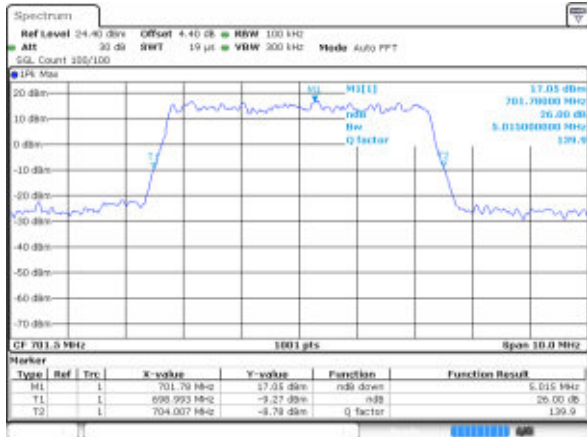


Date: 14 APR 2016 13:36:12



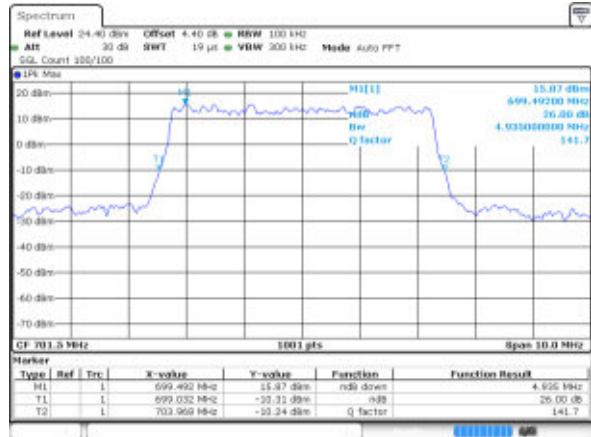
LTE Band 12

Lowest Channel / 5MHz / QPSK



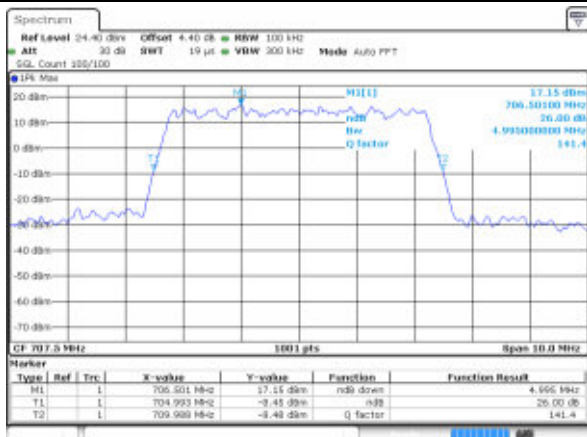
Date: 14 APR 2016 13:53:48

Lowest Channel / 5MHz / 16QAM



Date: 14 APR 2016 13:53:37

Middle Channel / 5MHz / QPSK



Date: 14 APR 2016 13:53:16

Middle Channel / 5MHz / 16QAM



Date: 14 APR 2016 13:53:27

Highest Channel / 5MHz / QPSK



Date: 14 APR 2016 13:53:05

Highest Channel / 5MHz / 16QAM

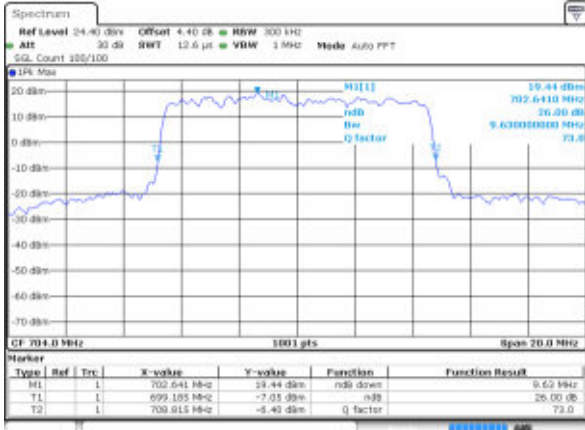


Date: 14 APR 2016 13:52:55



LTE Band 12

Lowest Channel / 10MHz / QPSK



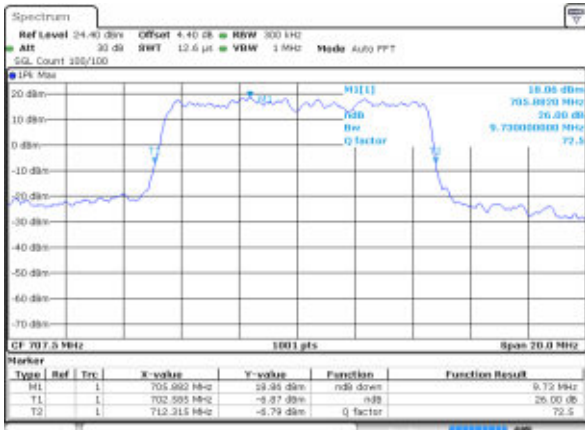
Date: 14 APR 2018 15:19:57

Lowest Channel / 10MHz / 16QAM



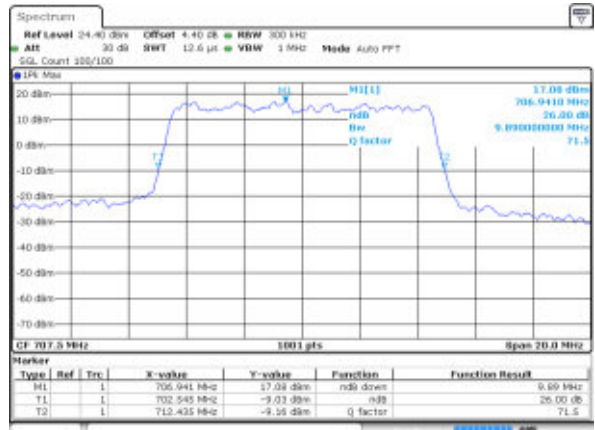
Date: 14 APR 2018 15:10:19

Middle Channel / 10MHz / QPSK



Date: 14 APR 2018 16:09:58

Middle Channel / 10MHz / 16QAM



Date: 14 APR 2018 16:10:09

Highest Channel / 10MHz / QPSK



Date: 14 APR 2018 16:09:48

Highest Channel / 10MHz / 16QAM



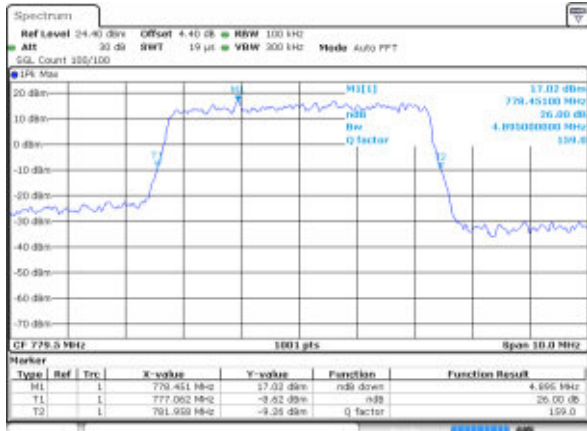
Date: 14 APR 2018 16:09:37





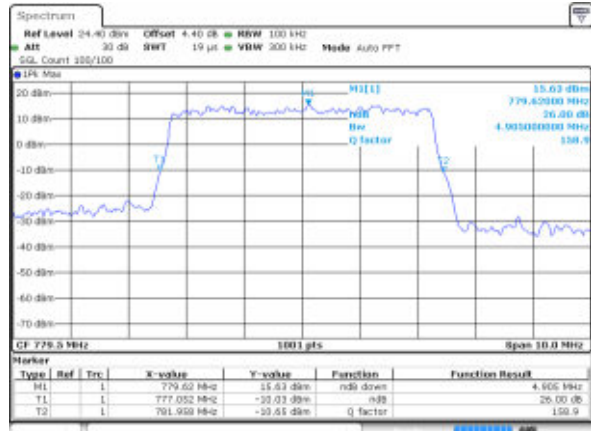
LTE Band 13

Lowest Channel / 5MHz / QPSK



Date: 14 APR 2016 15:26:12

Lowest Channel / 5MHz / 16QAM



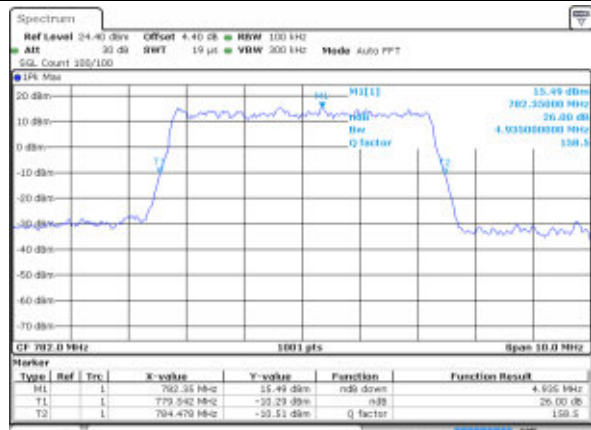
Date: 14 APR 2016 15:26:23

Middle Channel / 5MHz / QPSK



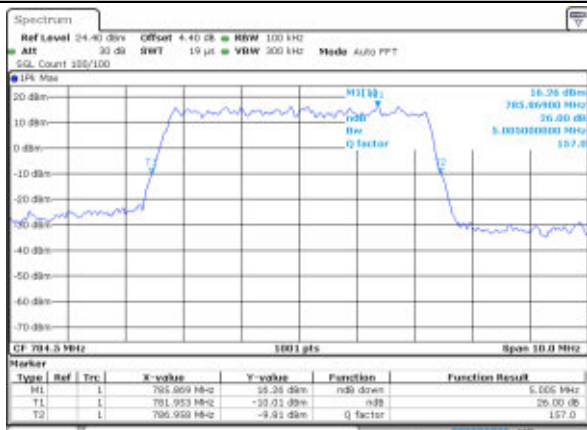
Date: 14 APR 2016 15:27:17

Middle Channel / 5MHz / 16QAM



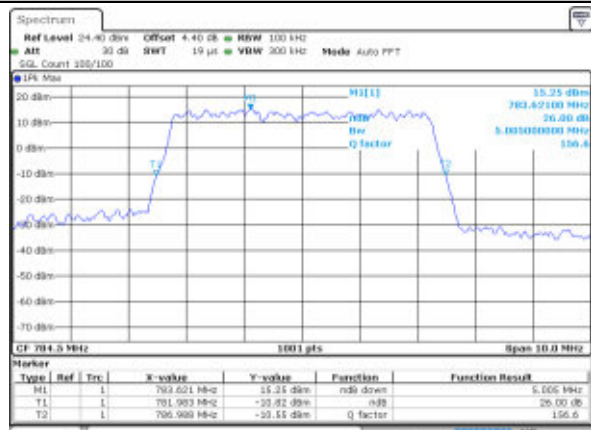
Date: 14 APR 2016 15:27:26

Highest Channel / 5MHz / QPSK



Date: 14 APR 2016 15:40:00

Highest Channel / 5MHz / 16QAM

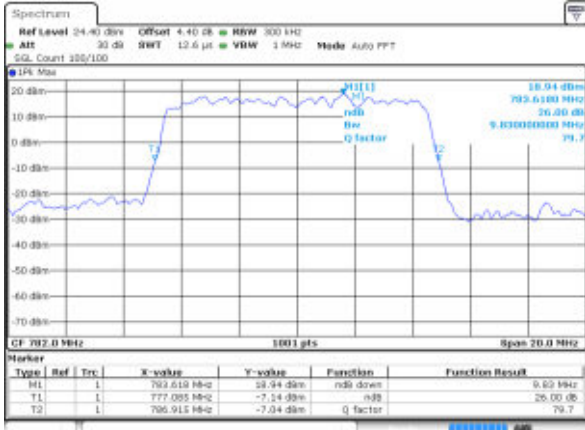


Date: 14 APR 2016 15:39:50



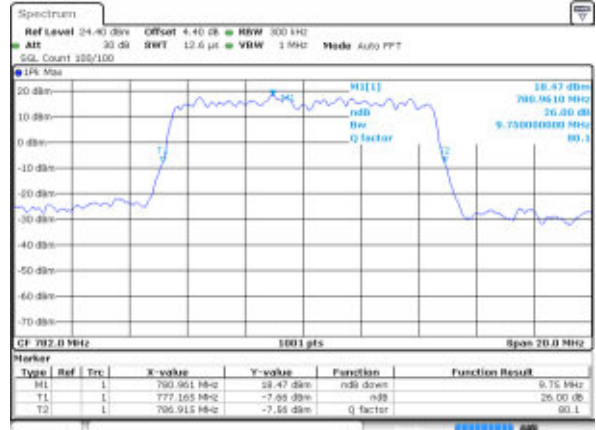
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 14 APR 2016 15:50:55

Middle Channel / 10MHz / 16QAM

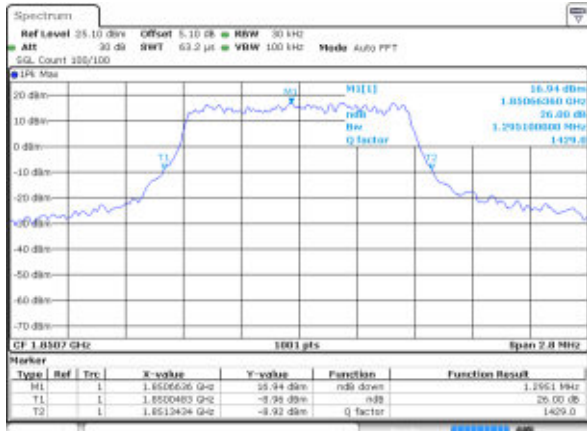


Date: 14 APR 2016 15:50:54



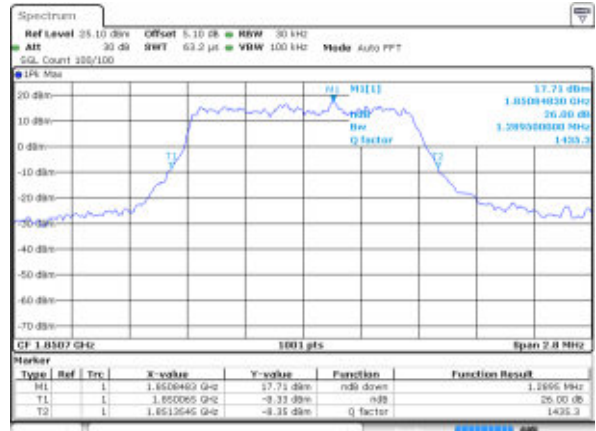
LTE Band 25

Lowest Channel / 1.4MHz / QPSK



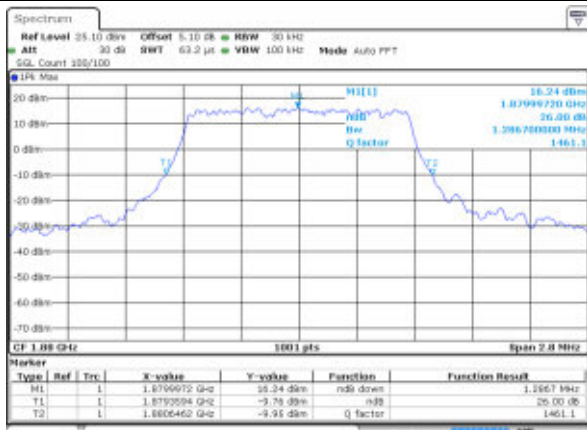
Date: 16 APR 2016 13:27:45

Lowest Channel / 1.4MHz / 16QAM



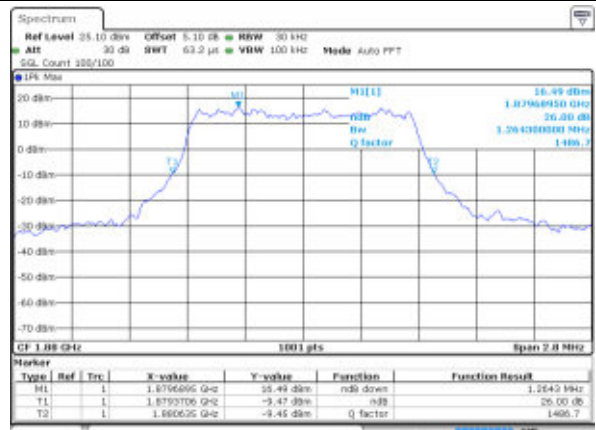
Date: 16 APR 2016 13:28:07

Middle Channel / 1.4MHz / QPSK



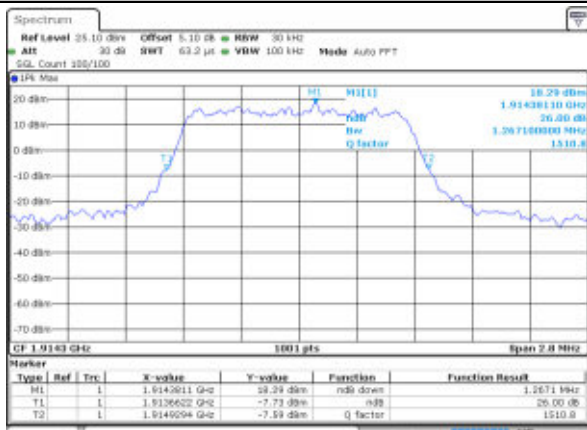
Date: 16 APR 2016 13:28:55

Middle Channel / 1.4MHz / 16QAM



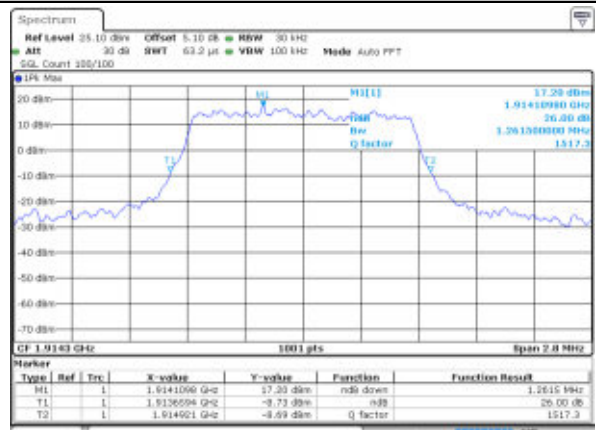
Date: 16 APR 2016 13:29:17

Highest Channel / 1.4MHz / QPSK



Date: 16 APR 2016 11:19:52

Highest Channel / 1.4MHz / 16QAM

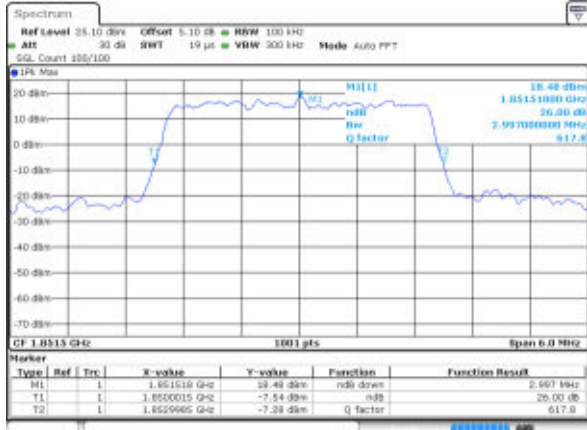


Date: 16 APR 2016 13:30:35



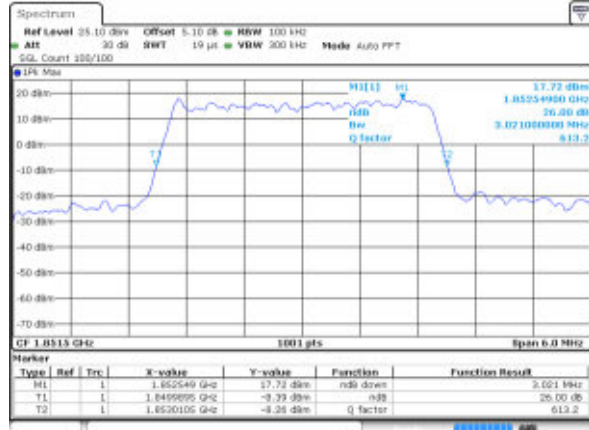
LTE Band 25

Lowest Channel / 3MHz / QPSK



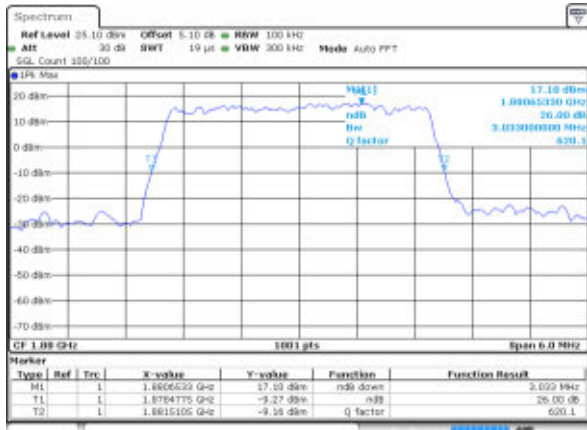
Date: 16 APR 2018 14:18:08

Lowest Channel / 3MHz / 16QAM



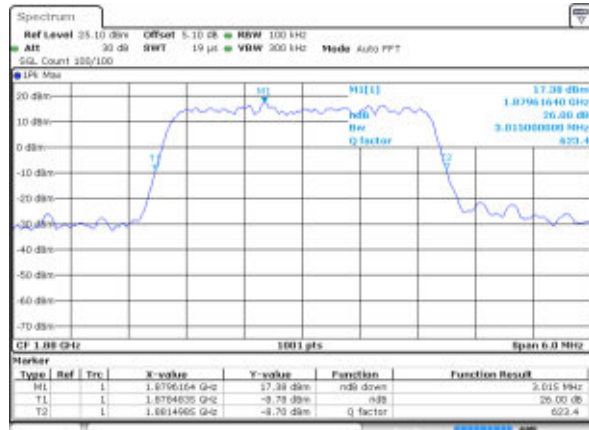
Date: 16 APR 2018 14:18:28

Middle Channel / 3MHz / QPSK



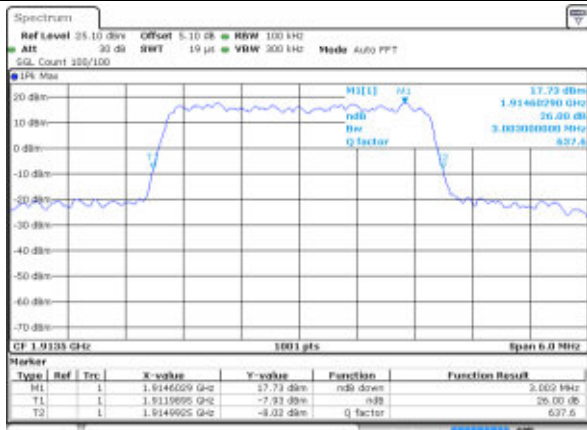
Date: 16 APR 2018 14:22:42

Middle Channel / 3MHz / 16QAM



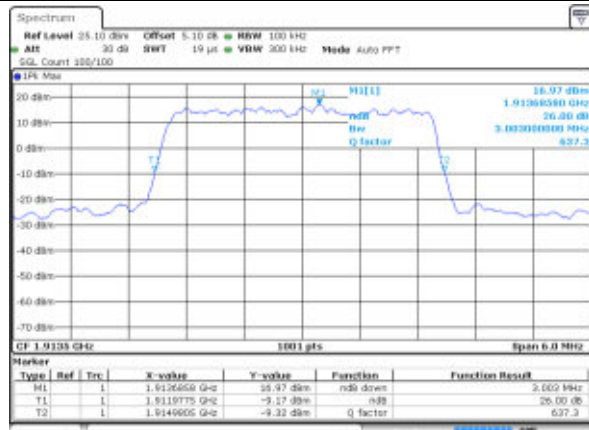
Date: 16 APR 2018 14:19:45

Highest Channel / 3MHz / QPSK



Date: 16 APR 2018 14:20:32

Highest Channel / 3MHz / 16QAM

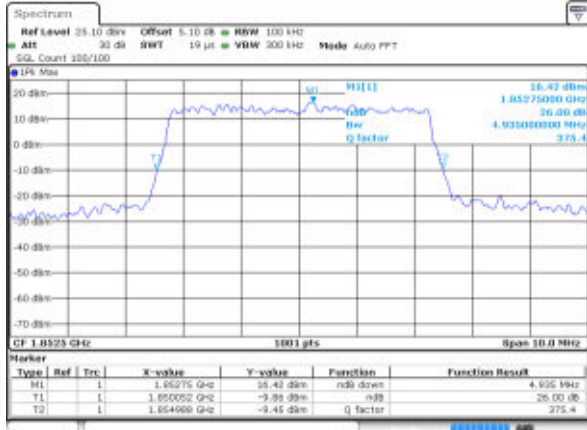


Date: 16 APR 2018 14:21:53



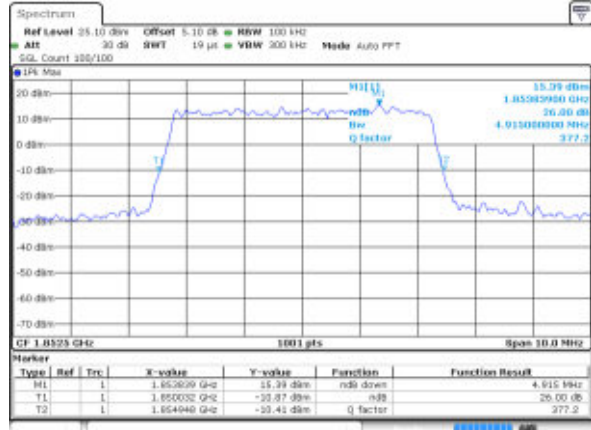
LTE Band 25

Lowest Channel / 5MHz / QPSK



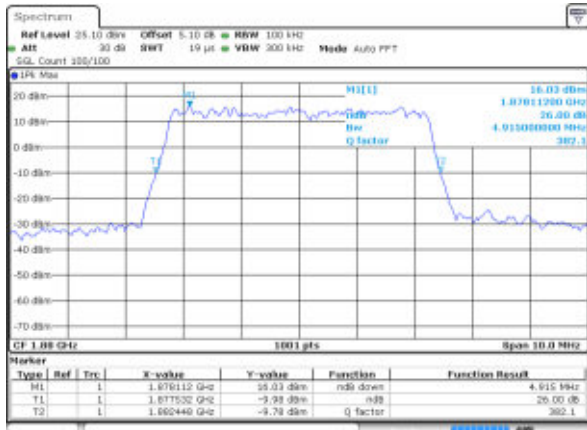
Date: 16 APR 2016 14:35:24

Lowest Channel / 5MHz / 16QAM



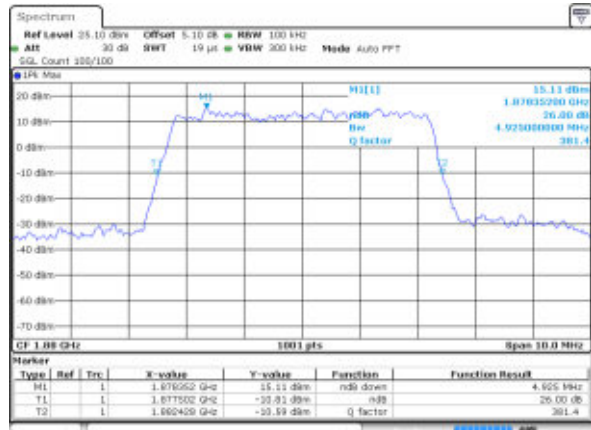
Date: 16 APR 2016 14:35:45

Middle Channel / 5MHz / QPSK



Date: 16 APR 2016 14:37:13

Middle Channel / 5MHz / 16QAM



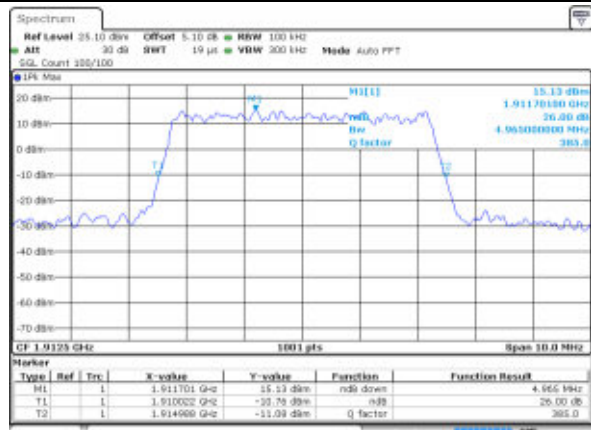
Date: 16 APR 2016 14:36:51

Highest Channel / 5MHz / QPSK



Date: 16 APR 2016 14:37:35

Highest Channel / 5MHz / 16QAM



Date: 16 APR 2016 14:37:56