FCC RF Test Report

APPLICANT	: OnePlus Technology (Shenzhen) Co., Ltd
EQUIPMENT	: Smart Phone
BRAND NAME	: ONEPLUS
MODEL NAME	: HD1905
FCC ID	: 2ABZ2-EE133
STANDARD	: 47 CFR Part 2, 27(M)
CLASSIFICATION	: PCS Licensed Transmitter Held to Ear (PCE)

The product was received on Jul. 02, 2019 and completely tested on Aug. 08, 2019. We, Sporton International (ShenZhen) 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 (ShenZhen) Inc., the test report shall not be reproduced except in full.

Derreck Chen

Reviewed by: Derreck Chen / Supervisor

Eric Shih

Approved by: Eric Shih / Manager

ACCREDITED Cert #5145.01

Sporton International (ShenZhen) Inc.

1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055

People's Republic of China

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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG970213-03D	Rev. 01	Initial issue of report	Sep. 24, 2019

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
	§27.50(h)(2)	Equivalent Isotropic Radiated Power (Band 7) (Band 38) (Band 41)	EIRP < 2Watt	PASS	-
3.5	N/A	Peak-to-Average Ratio	<13 dB	PASS	-
3.6	§2.1049	Occupied Bandwidth	Reporting Only	PASS	-
3.7	§27.53(m)(4)	Conducted Band Edge Measurement (Band 7) (Band 38) (Band 41)	§27.53(m)(4)	PASS	-
3.8	§2.1051 §27.53(m)(4)	Conducted Spurious Emission (Band 7) (Band 38) (Band 41)	< $55+10\log_{10}$(P[Watts])	PASS	-
3.9	§2.1055 §27.54	Frequency Stability Temperature & Voltage	Within Authorized Band	PASS	-
4.4	§2.1053 §27.53(m)(4)	Radiated Spurious Emission (Band 7) (Band 38) (Band 41)	< $55+10\log_{10}$(P[Watts])	PASS	Under limit 8.66 dB at 7491.270 MHz

1 General Description

1.1 Applicant

OnePlus Technology (Shenzhen) Co., Ltd
18C02, 18C03, 18C04 and 18C05, Shum Yip Terra Building, Binhe Avenue North, Futian District, Shenzhen

1.2 Manufacturer

OnePlus Technology (Shenzhen) Co., Ltd
18C02, 18C03, 18C04 and 18C05, Shum Yip Terra Building, Binhe Avenue North, Futian District, Shenzhen

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	Smart Phone
Brand Name	ONEPLUS
Model Name	HD1905
FCC ID	2ABZ2-EE133
EUT supports Radios application	CDMA/EVDO/GSM/GPRS/EGPRS/WCDMA/HSPA/ DC-HSDPA/HSPA+ /LTE WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 2.4GHz 802.11ac VHT20/VHT40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80 Bluetooth BR/EDR/LE GNSS/NFC
IMEI Code	Conducted: 990013830024993 for LTE B7 990013830030255 for LTE B7C 990013830029836 for LTE B38 / 41 / B41C Radiation: 990013830040874
HW Version	14
SW Version	Oxygen OS 10.0.HD65AA
EUT Stage	Production Unit

Remark:

This is a variant report for HD1905. The difference between previous and current is changing from single SIM card to dual SIM card, and the model name changed. Since the test result is not affected by the changes, all the test results are leveraged from original report which can be referred to Sporton Report Number FG970213D.

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	LTE Band 7 : 2502.5 MHz ~ 2567.5 MHz LTE Band 38 : 2572.5MHz ~ 2617.5MHz LTE Band 41 : 2498.5 MHz ~ 2687.5 MHz
Rx Frequency	LTE Band 7 : 2622.5MHz ~ 2687.5 MHz LTE Band 38 : 2572.5MHz ~ 2617.5MHz LTE Band 41 : 2498.5 MHz ~ 2687.5 MHz
Bandwidth	LTE Band 7 : 5MHz/ 10MHz / 15MHz / 20MHz LTE Band 38 : 5MHz / 10MHz / 15MHz / 20MHz LTE Band 41 : 5MHz / 10MHz / 15MHz / 20MHz
Maximum Output Power to Antenna	LTE Band 7 : 23.45 dBm LTE Band 38 : 23.50 dBm LTE Band 41 : 26.03 dBm LTE Band 7C_CA : 23.44 dBm LTE Band 41C_CA : 23.65 dBm
Antenna Gain	**Top/ Bottom Antenna** LTE Band 7 : -1.0 dBi LTE Band 38 : -1.0 dBi LTE Band 41 : -1.0 dBi
Type of Modulation	QPSK / 16QAM / 64QAM

1.5 Modification of EUT

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

1.6 Maximum EIRP Power, Frequency Tolerance, and Emission Designator

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	4M53G7D	-	0.1702	4M51W7D	-	0.1439
10	2505.0 ~ 2565.0	9M13G7D	0.0056	0.1683	8M99W7D	-	0.1445
15	2507.5 ~ 2562.5	13M5G7D	-	0.1746	13M5W7D	-	0.1472
20	2510.0 ~ 2560.0	18M4G7D	-	0.1758	18M4W7D	-	0.1469

LTE Band 7		64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5	2502.5 ~ 2567.5	4M50W7D	-	0.1117
10	2505.0 ~ 2565.0	9M05W7D	-	0.1104
15	2507.5 ~ 2562.5	13M5W7D	-	0.1146
20	2510.0 ~ 2560.0	18M5W7D	-	0.1156

LTE Band 38		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	2572.5 ~ 2617.5	4M51G7D	-	0.1660	4M50W7D	-	0.1387
10	2575.0 ~ 2615.0	9M05G7D	0.0010	0.1694	9M05W7D	-	0.1358
15	2577.5 ~ 2612.5	13M5G7D	-	0.1766	13M5W7D	-	0.1432
20	2580.0 ~ 2610.0	18M3G7D	-	0.1778	18M4W7D	-	0.1426

LTE Band 38		64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5	2572.5 ~ 2617.5	4M50W7D	-	0.1067
10	2575.0 ~ 2615.0	8M99W7D	-	0.1052
15	2577.5 ~ 2612.5	13M5W7D	-	0.1086
20	2580.0 ~ 2610.0	18M6W7D	-	0.1086

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	4M48G7D	-	0.3112	4M50W7D	-	0.2576
10	2501.0 ~ 2685.0	9M01G7D	0.0013	0.3027	9M11W7D	-	0.2541
15	2503.5 ~ 2682.5	13M5G7D	-	0.3126	13M5W7D	-	0.2588
20	2506.0 ~ 2680.0	18M3G7D	-	0.3184	18M4W7D	-	0.2655

LTE Band 41		64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5	2498.5 ~ 2687.5	4M49W7D	-	0.2070
10	2501.0 ~ 2685.0	9M05W7D	-	0.2089
15	2503.5 ~ 2682.5	13M5W7D	-	0.2099
20	2506.0 ~ 2680.0	18M4W7D	-	0.2099

LTE Band 7 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)
10MHz+20MHz	28M1G7D	-	0.1746	28M0W7D	-	0.1419
15MHz+15MHz	28M7G7D	-	0.1726	28M7W7D	-	0.1426
15MHz+20MHz	32M8G7D	-	0.1722	32M9W7D	-	0.1403
15MHz+10MHz	23M6G7D	-	0.1746	23M5W7D	-	0.1396
20MHz+10MHz	28M1G7D	-	0.1746	28M0W7D	-	0.1406
20MHz+15MHz	32M9G7D	-	0.1754	32M9W7D	-	0.1355
20MHz+20MHz	37M7G7D	-	0.1726	37M7W7D	-	0.1459

LTE Band 7 CA	64QAM		
BW (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
10MHz+20MHz	28M1W7D	-	0.0920
15MHz+15MHz	28M6W7D	-	0.1112
15MHz+20MHz	32M7W7D	-	0.0918
15MHz+10MHz	23M5W7D	-	0.0927
20MHz+10MHz	27M9W7D	-	0.0916
20MHz+15MHz	32M8W7D	-	0.0925
20MHz+20MHz	37M6W7D	-	0.0977

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	-	0.1795	23M2W7D	-	0.1416
10MHz+20MHz	28M1G7D	-	0.1742	28M1W7D	-	0.1442
10MHz+15MHz	23M5G7D	-	0.1816	23M4W7D	-	0.1426
15MHz+15MHz	28M6G7D	-	0.1782	28M7W7D	-	0.1435
15MHz+20MHz	32M9G7D	-	0.1841	32M8W7D	-	0.1429
15MHz+10MHz	23M5G7D	-	0.1726	23M5W7D	-	0.1374
20MHz+5MHz	23M3G7D	-	0.1786	23M3W7D	-	0.1445
20MHz+10MHz	28M1G7D	-	0.1778	28M1W7D	-	0.1435
20MHz+15MHz	32M9G7D	-	0.1824	32M9W7D	-	0.1426
20MHz+20MHz	37M8G7D	-	0.1824	37M6W7D	-	0.1426

LTE Band 41 CA	64QAM		
BW (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
5MHz+20MHz	23M2W7D	-	0.0962
10MHz+20MHz	28M0W7D	-	0.0942
10MHz+15MHz	23M5W7D	-	0.0940
15MHz+15MHz	28M5W7D	-	0.0975
15MHz+20MHz	32M9W7D	-	0.0998
15MHz+10MHz	23M5W7D	-	0.0912
20MHz+5MHz	23M3W7D	-	0.0971
20MHz+10MHz	28M1W7D	-	0.0973
20MHz+15MHz	32M8W7D	-	0.0959
20MHz+20MHz	37M8W7D	-	0.0975

1.7 Testing Location

Sporton International (Shenzhen) Inc. is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Test Firm	Sporton International (Shenzhen) Inc.		
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	TH01-SZ	CN1256	421272

Test Firm	Sporton International (Shenzhen) Inc.		
Test Site Location	No. 3 Bldg the third floor of south, Shahe River west, Fengzeyuan Warehouse, Nanshan Shenzhen, 518055 People's Republic of China TEL: +86-755-33202398		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	03CH02-SZ	CN1256	421272

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, 27(M)
- 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

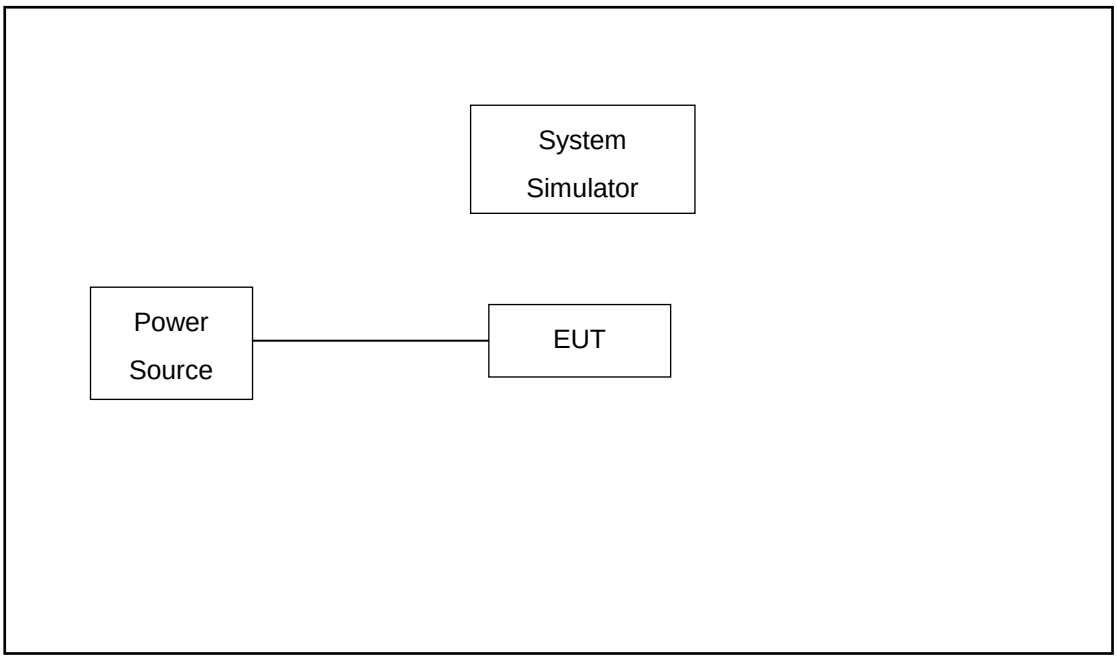
Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas License Digital Systems v03r01 with maximum output power.

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	64QAM	1	Half	Full	L	M	H
Max. Output Power	7	-	-	v	v	v	v	v	v	v	v	v	v	v	v	v
	38	-	-	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	v
Peak-to-Average Ratio	7	-	-				v	v	v	v	v		v	v	v	v
	38	-	-				v	v	v	v	v		v	v	v	v
	41	-	-				v	v	v	v	v		v	v	v	v
26dB and 99% Bandwidth	7	-	-	v	v	v	v	v	v	v			v	v	v	v
	38	-	-	v	v	v	v	v	v	v			v	v	v	v
	41	-	-	v	v	v	v	v	v	v			v	v	v	v
Conducted Band Edge	7	-	-	v	v	v	v	v	v	v	v		v	v		v
	38	-	-	v	v	v	v	v	v	v	v		v	v		v
	41	-	-	v	v	v	v	v	v	v	v		v	v		v
Conducted Spurious Emission	7	-	-	v	v	v	v	v	v	v	v			v	v	v
	38	-	-	v	v	v	v	v	v	v	v			v	v	v
	41	-	-	v	v	v	v	v	v	v	v			v	v	v
Frequency Stability	7	-	-		v			v					v		v	
	38	-	-		v			v					v		v	
	41	-	-		v			v					v		v	
E.R.P / E.I.R.P	7	-	-	v	v	v	v	v	v	v	v			v	v	v
	38	-	-	v	v	v	v	v	v	v	v			v	v	v
	41	-	-	v	v	v	v	v	v	v	v			v	v	v
Radiated Spurious Emission	7	-	-	v	v	v	v	v			v			v	v	v
	38	-	-	v	v	v	v	v			v			v	v	v
	41	-	-	v	v	v	v	v			v			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.															

Test Items	Band	Bandwidth (MHz)										Modulation			RB #			Test Channel		
		20+20	20+15	15+20	20+10	10+20	20+5	5+20	15+15	15+10	10+15	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Max. Output Power	7C_CA	v	v	v	v	v	-	-	v	v	-	v	v	v	v	v	v	v	v	v
	41C_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
26dB and 99% Bandwidth	7C_CA	v	v	v	v	v	-	-	v	v	-	v	v	v			v	v	v	v
	41C_CA	v	v	v	v	v	v	v	v	v	v	v	v	v			v	v	v	v
Conducted Band Edge	7C_CA	v	v	v	v	v	-	-	v	v	-	v	v	v	v		v	v		v
	41C_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	v		v	v		v
Conducted Spurious Emission	7C_CA	v	v	v	v	v	-	-	v	v	-	v	v	v	v			v	v	v
	41C_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	v			v	v	v
E.I.R.P.	7C_CA	v	v	v	v	v	-	-	v	v	-	v	v	v	v			v	v	v
	41C_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	v			v	v	v
Radiated Spurious Emission	7C_CA	v	v	v	v	v			v	v		v			v			v	v	v
	41C_CA	v	v	v	v	v	v	v	v	v	v	v			v			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.	System Simulator	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
2.	DC Power Supply	GWINSTEK	GPS-3030D	N/A	N/A	Unshielded, 1.8 m

2.4 Measurement Results Explanation Example

For all conducted test items:

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

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

Offset = RF cable loss + attenuator factor.

Following shows an offset computation example with cable loss 5.0 dB and 10dB attenuator.

Example :

Offset(dB) = RF cable loss(dB) + attenuator factor(dB).

= 5.0 + 10 = 15.0 (dB)

2.5 Frequency List of Low/Middle/High Channels

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 38 Channel and Frequency List				
BW [MHz]	**Channel/Frequency(MHz)**	**Lowest**	**Middle**	**Highest**
20	Channel	37850	38000	38150
	Frequency	2580	2595	2610
15	Channel	37825	38000	38175
	Frequency	2577.5	2595	2612.5
10	Channel	37800	38000	38200
	Frequency	2575	2595	2615
5	Channel	37775	38000	38225
	Frequency	2572.5	2595	2617.5

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 7C_CA Channel and Frequency List					
BW [MHz]	Channel/Frequency(MHz)		Lowest	Middle	Highest
20 + 20	PCC	Channel	20850	21001	21152
		Frequency	2510.0	2525.1	2540.2
	SCC	Channel	21048	21199	21350
		Frequency	2529.8	2544.9	2560.0
20 + 15	PCC	Channel	20850	21026	21201
		Frequency	2510.0	2527.6	2545.1
	SCC	Channel	21021	21197	21372
		Frequency	2527.1	2544.7	2562.2
15 + 20	PCC	Channel	20828	21003	21179
		Frequency	2507.8	2525.3	2542.9
	SCC	Channel	20999	21174	21350
		Frequency	2524.9	2542.4	2560.0
20 + 10	PCC	Channel	20850	21051	21251
		Frequency	2510.0	2530.1	2550.1
	SCC	Channel	20994	21195	21395
		Frequency	2524.4	2544.5	2564.5
10 + 20	PCC	Channel	20805	21006	21206
		Frequency	2505.5	2525.6	2545.6
	SCC	Channel	20949	21150	21350
		Frequency	2519.9	2540.0	2560.0
15 + 15	PCC	Channel	20825	21025	21225
		Frequency	2507.5	2527.5	2547.5
	SCC	Channel	20975	21175	21375
		Frequency	2522.5	2542.5	2562.5
15 + 10	PCC	Channel	20825	21051	21277
		Frequency	2507.5	2530.1	2552.7
	SCC	Channel	20945	21171	21397
		Frequency	2519.5	2542.1	2564.7

LTE Band 41C_CA 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 41C_CA 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

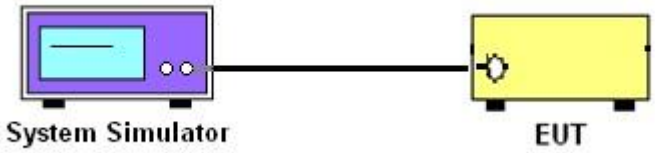
3 Conducted Test Items

3.1 Measuring Instruments

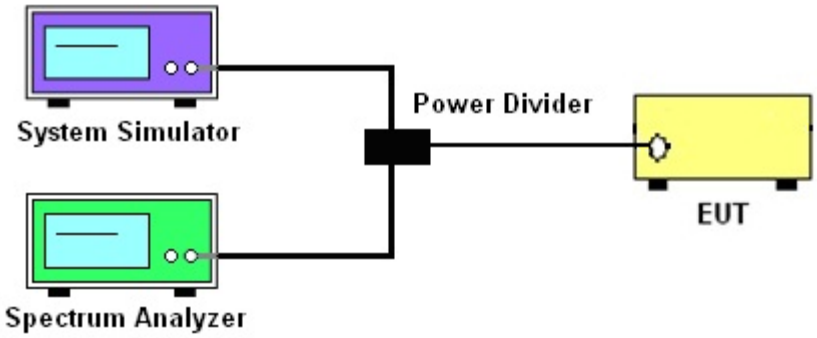
See list of measuring instruments of this test report.

3.2 Test Setup

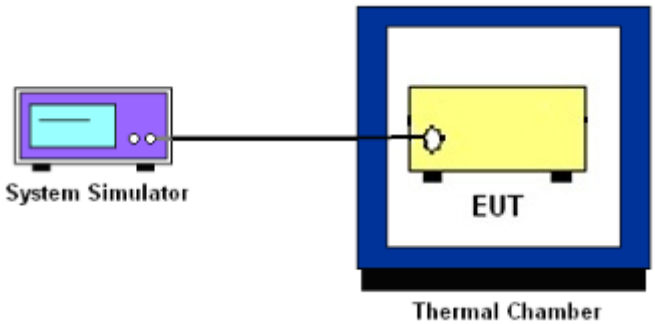
3.2.1 Conducted Output Power



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 EIRP

3.4.1 Description of the Conducted Output Power Measurement and EIRP Measurement

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

The EIRP of mobile transmitters must not exceed 2 Watts for LTE Band 7 and Band 38 and Band 41.

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

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 >= 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. Offset has included the duty factor for LTE Band 38/41. Duty factor =10 log (1/x), where x is the measured duty cycle.
8. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
9. Checked that all the results comply with the emission limit line.
   Example:
   The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
   = P(W)- [43 + 10log(P)] (dB)
   = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB) = -13dBm.
10. For LTE Band 7, 38, 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 7,38,41:

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^{th} 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. Offset has included the duty factor for LTE Band 38/41. Duty factor =10 log (1/x), where x is the measured duty cycle.
10. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
11. The limit line is derived from 43 + 10log(P)dB below the transmitter power P(Watts)
    = P(W)- [43 + 10log(P)] (dB)
    = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
    = -13dBm.
12. For Band 7, 38, 41
    The limit line is derived from 55 + 10log(P)dB below the transmitter power P(Watts)
    = P(W)- [55+ 10log(P)] (dB)
    = [30+ 10log(P)] (dBm) - [55+ 10log(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 ±0.00025% (±2.5ppm) 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°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°C step up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

3.9.3 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±5°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.

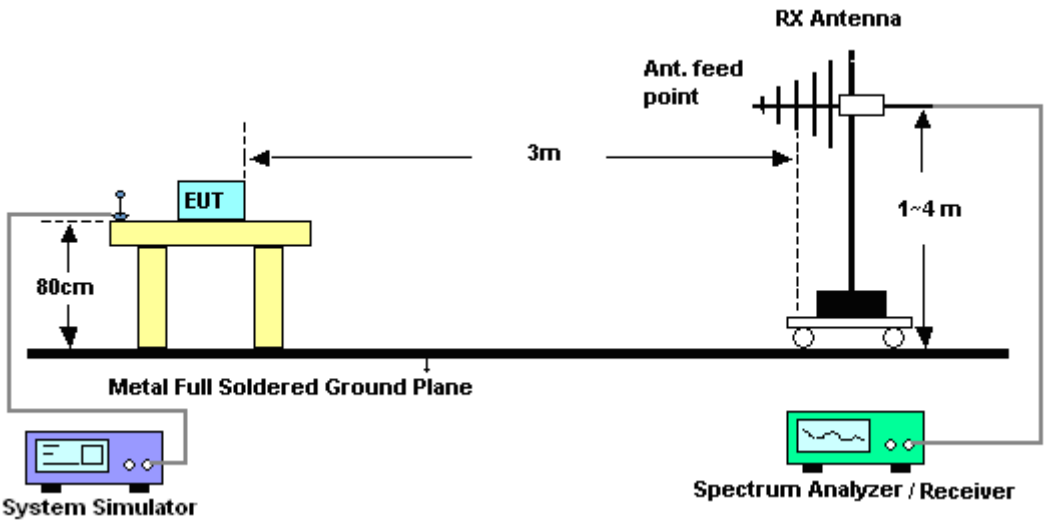
4 Radiated Test Items

4.1 Measuring Instruments

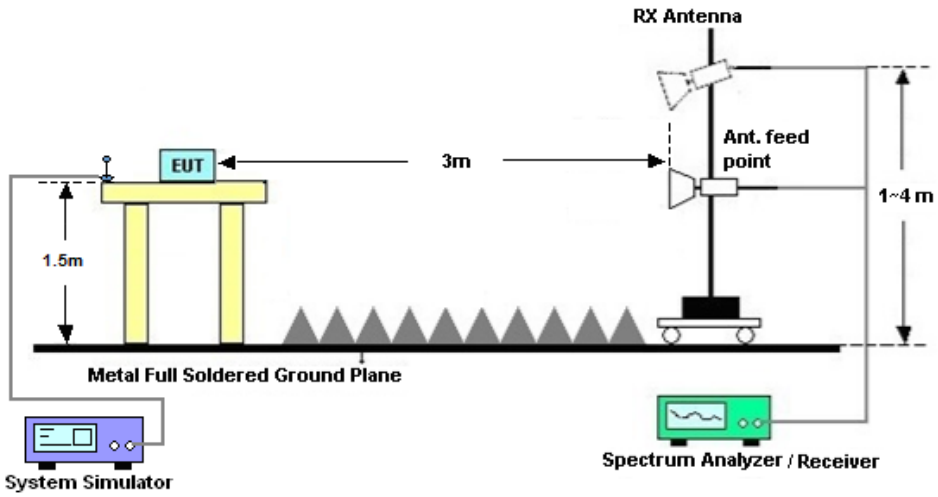
See list of measuring instruments of this test report.

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, 38, 41

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

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

4.4.2 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 + 10log(P)dB below the transmitter power P(Watts)
    = P(W)- [43 + 10log(P)] (dB)
    = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)
    = -13dBm.
13. For Band 7, 38, 41:
    The limit line is derived from 55 + 10log(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	FSV40	101078	10Hz~40GHz	Apr. 18, 2019	Jul. 12, 2019~ Aug. 07, 2019	Apr. 17, 2020	Conducted (TH01-SZ)
Thermal Chamber	Ten Billion Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Dec. 22, 2018	Jul. 12, 2019~ Aug. 07, 2019	Dec. 21, 2019	Conducted (TH01-SZ)
EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY55150213	10Hz~44GHz	Apr. 19, 2019	Aug. 07, 2019~ Aug. 08, 2019	Apr. 18, 2020	Radiation (03CH02-SZ)
Bilog Antenna	TeseQ	CBL6112D	35407	30MHz-2GHz	Jun. 05, 2019	Aug. 07, 2019~ Aug. 08, 2019	Jun. 04, 2020	Radiation (03CH02-SZ)
Double Ridge Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1285	1GHz~18GHz	Jan. 07, 2019	Aug. 07, 2019~ Aug. 08, 2019	Jan. 06, 2020	Radiation (03CH02-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18Ghz-40GHz	Mar. 30, 2019	Aug. 07, 2019~ Aug. 08, 2019	Mar. 29, 2020	Radiation (03CH02-SZ)
LF Amplifier	Burgeon	BPA-530	102211	0.01~3000Mhz	Oct. 18, 2018	Aug. 07, 2019~ Aug. 08, 2019	Oct. 18, 2019	Radiation (03CH02-SZ
HF Amplifier	Agilent	8449B	3008A01023	1GHz~26.5GHz	Oct. 18, 2018	Aug. 07, 2019~ Aug. 08, 2019	Oct. 17, 2019	Radiation (03CH02-SZ)
HF Amplifier	MITEQ	TTA1840-35 -HG	1871923	18GHz~40GHz	Jul. 18. 2019	Aug. 07, 2019~ Aug. 08, 2019	Jul. 17. 2020	Radiation (03CH02-SZ)
AC Power Source	Chroma	61601	616010002470	N/A	NCR	Aug. 07, 2019~ Aug. 08, 2019	NCR	Radiation (03CH02-SZ)
Turn Table	Chaintek	T-200	N/A	0~360 degree	NCR	Aug. 07, 2019~ Aug. 08, 2019	NCR	Radiation (03CH02-SZ)
Antenna Mast	Chaintek	MBS-400	N/A	1 m~4 m	NCR	Aug. 07, 2019~ Aug. 08, 2019	NCR	Radiation (03CH02-SZ)

NCR: No Calibration Required.

6 Uncertainty of Evaluation

The measurement uncertainties shown below were calculated in accordance with the requirements of ANSI 63.26-2015. All the measurement uncertainty value were shown with a coverage K=2 to indicate 95% level of confidence. The measurement data show herein meets or exceeds the CISPR measurement uncertainty values specified in CISPR 16-4-2 and can be compared directly to specified limit to determine compliance.

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**2.5 dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.3 dB**

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

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	**3.7 dB**

Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power)

Bottom Antenna:

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	23.25	23.30	23.45
20	1	49		23.15	23.26	23.31
20	1	99		23.21	23.33	23.21
20	50	0		22.38	22.44	22.51
20	50	24		22.33	22.44	22.50
20	50	50		22.37	22.46	22.46
20	100	0		22.30	22.42	22.47
20	1	0	16-QAM	22.38	22.56	22.55
20	1	49		22.40	22.48	22.62
20	1	99		22.41	22.58	22.67
20	50	0		21.29	21.43	21.51
20	50	24		21.39	21.44	21.51
20	50	50		21.40	21.45	21.47
20	100	0		21.36	21.45	21.46
20	1	0	64-QAM	21.16	21.43	21.47
20	1	49		21.18	21.42	21.50
20	1	99		21.24	21.50	21.63
20	50	0		20.05	20.41	20.44
20	50	24		20.13	20.44	20.46
20	50	50		20.14	20.42	20.41
20	100	0		20.09	20.40	20.42
15	1	0	QPSK	23.21	23.23	23.27
15	1	37		23.21	23.26	23.32
15	1	74		23.22	23.30	23.42
15	36	0		22.29	22.43	22.48
15	36	20		22.35	22.46	22.52
15	36	39		22.35	22.42	22.51
15	75	0		22.34	22.43	22.49

15	1	0		22.45	22.52	22.58
15	1	37		22.49	22.56	22.58
15	1	74		22.52	22.59	22.68
15	36	0	16-QAM	21.32	21.43	21.51
15	36	20		21.31	21.43	21.51
15	36	39		21.40	21.44	21.49
15	75	0		21.40	21.42	21.52
15	1	0		21.14	21.46	21.47
15	1	37		21.14	21.47	21.59
15	1	74		21.19	21.50	21.57
15	36	0	64-QAM	20.03	20.44	20.45
15	36	20		20.14	20.46	20.50
15	36	39		20.15	20.44	20.47
15	75	0		20.10	20.40	20.45

LTE Band 7 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	23.01	23.15	23.18
10	1	25		22.97	23.18	23.21
10	1	49		23.06	23.25	23.26
10	25	0		22.16	22.29	22.33
10	25	12		22.18	22.31	22.33
10	25	25		22.16	22.30	22.33
10	50	0		22.16	22.28	22.35
10	1	0	16-QAM	22.25	22.43	22.48
10	1	25		22.37	22.50	22.52
10	1	49		22.27	22.47	22.60
10	25	0		21.22	21.32	21.36
10	25	12		21.24	21.34	21.36
10	25	25		21.20	21.28	21.35
10	50	0		21.24	21.29	21.36
10	1	0	64-QAM	20.93	21.32	21.33
10	1	25		20.94	21.32	21.41
10	1	49		21.00	21.40	21.43
10	25	0		19.88	20.26	20.04
10	25	12		19.92	20.28	20.31
10	25	25		19.89	20.25	20.31
10	50	0		19.90	20.26	20.32
5	1	0	QPSK	22.96	23.17	23.21
5	1	12		23.11	23.26	23.27
5	1	24		23.14	23.26	23.31
5	12	0		22.13	22.23	22.34
5	12	7		22.27	22.35	22.47
5	12	13		22.27	22.35	22.39
5	25	0		22.20	22.28	22.36

5	1	0		22.35	22.41	22.51
5	1	12		22.49	22.58	22.57
5	1	24		22.50	22.51	22.57
5	12	0	16-QAM	21.20	21.28	21.37
5	12	7		21.35	21.35	21.44
5	12	13		21.31	21.34	21.47
5	25	0		21.25	21.30	21.42
5	1	0		20.99	21.28	21.45
5	1	12		21.01	21.38	21.48
5	1	24		20.99	21.41	21.45
5	12	0	64-QAM	19.91	20.27	20.21
5	12	7		19.96	20.32	20.29
5	12	13		19.95	20.37	20.23
5	25	0		19.90	20.24	20.38

LTE Band 38 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	23.25	23.07	23.02
20	1	49		23.27	23.25	23.14
20	1	99		23.50	23.31	23.46
20	50	0		22.36	22.40	22.21
20	50	24		22.52	22.45	22.33
20	50	50		22.58	22.46	22.38
20	100	0		22.46	22.34	22.32
20	1	0	16-QAM	22.32	22.48	22.28
20	1	49		22.54	22.51	22.32
20	1	99		22.52	22.46	22.49
20	50	0		21.42	21.39	21.28
20	50	24		21.50	21.46	21.38
20	50	50		21.47	21.48	21.37
20	100	0		21.52	21.43	21.29
20	1	0	64-QAM	21.28	21.15	21.24
20	1	49		21.19	21.17	21.28
20	1	99		21.36	21.29	21.34
20	50	0		20.24	20.21	20.30
20	50	24		20.37	20.17	20.28
20	50	50		20.34	20.31	20.35
20	100	0		20.29	20.15	20.31
15	1	0	QPSK	23.02	23.27	23.29
15	1	37		23.25	23.18	23.47
15	1	74		23.25	23.34	23.22
15	36	0		22.05	22.19	22.45
15	36	20		22.04	22.28	22.52
15	36	39		22.14	22.30	22.43
15	75	0		22.08	22.33	22.42

15	1	0		22.35	22.40	22.44
15	1	37		22.29	22.56	22.45
15	1	74		22.47	22.45	22.50
15	36	0	**16-QAM**	21.20	21.27	21.31
15	36	20		21.15	21.27	21.32
15	36	39		21.22	21.32	21.42
15	75	0		21.26	21.38	21.37
15	1	0		21.23	21.11	21.32
15	1	37		21.32	21.13	21.28
15	1	74		21.36	21.10	21.31
15	36	0	**64-QAM**	20.28	20.11	20.26
15	36	20		20.35	20.23	20.37
15	36	39		20.28	20.21	20.35
15	75	0		20.31	20.20	20.35

LTE Band 38 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	22.80	23.01	23.00
10	1	25		23.01	22.96	23.04
10	1	49		22.87	23.03	23.29
10	25	0		22.05	22.19	22.30
10	25	12		22.04	22.28	22.28
10	25	25		22.14	22.30	22.31
10	50	0		22.08	22.33	22.29
10	1	0	16-QAM	22.06	22.24	22.28
10	1	25		22.24	22.32	22.22
10	1	49		22.15	22.24	22.33
10	25	0		21.08	21.26	21.26
10	25	12		21.19	21.36	21.29
10	25	25		21.20	21.34	21.31
10	50	0		21.21	21.28	21.37
10	1	0	64-QAM	20.97	20.97	21.22
10	1	25		21.16	20.93	21.10
10	1	49		21.22	21.06	21.17
10	25	0		20.15	20.11	20.22
10	25	12		20.19	20.17	20.29
10	25	25		20.18	20.05	20.27
10	50	0		20.14	20.04	20.22
5	1	0	QPSK	22.85	23.11	23.19
5	1	12		22.96	23.05	23.20
5	1	24		23.06	23.15	23.18
5	12	0		22.12	22.26	22.33
5	12	7		22.19	22.26	22.19
5	12	13		22.15	22.38	22.43
5	25	0		22.13	22.34	22.30

5	1	0		22.08	22.27	22.39
5	1	12		22.26	22.39	22.42
5	1	24		22.25	22.40	22.41
5	12	0	16-QAM	21.03	21.21	21.28
5	12	7		21.19	21.35	21.47
5	12	13		21.20	21.25	21.38
5	25	0		21.11	21.32	21.35
5	1	0		21.03	21.00	21.24
5	1	12		21.14	21.09	21.26
5	1	24		21.17	21.10	21.28
5	12	0	64-QAM	20.08	20.06	20.22
5	12	7		20.17	20.11	20.35
5	12	13		20.25	20.08	20.36
5	25	0		20.13	20.05	20.26

LTE Band 41 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
20	1	0	QPSK	25.76	25.97	25.12
20	1	49		25.86	26.02	25.36
20	1	99		25.91	26.03	25.52
20	50	0		24.95	25.21	24.65
20	50	24		25.08	25.23	24.66
20	50	50		25.14	25.22	24.67
20	100	0		25.03	25.20	24.54
20	1	0	16-QAM	25.07	25.19	24.41
20	1	49		25.09	25.24	24.58
20	1	99		25.16	25.22	24.78
20	50	0		24.00	24.22	23.50
20	50	24		24.11	24.26	23.60
20	50	50		24.17	24.24	23.68
20	100	0		24.07	24.22	23.57
20	1	0	64-QAM	23.67	24.22	23.69
20	1	49		23.56	24.21	23.73
20	1	99		23.26	24.03	23.70
20	50	0		22.66	23.28	22.77
20	50	24		22.54	23.26	22.79
20	50	50		22.41	23.21	22.81
20	100	0		22.39	23.16	22.81
15	1	0	QPSK	25.85	25.85	25.27
15	1	37		25.93	25.87	25.47
15	1	74		25.95	25.76	25.52
15	36	0		24.97	24.97	24.48
15	36	20		25.07	25.01	24.57
15	36	39		25.09	24.96	24.59
15	75	0		25.06	24.98	24.55

15	1	0		25.10	25.02	24.47
15	1	37		25.12	25.06	24.61
15	1	74		25.13	24.97	24.78
15	36	0	**16-QAM**	23.95	23.94	23.49
15	36	20		24.03	23.98	23.58
15	36	39		24.05	23.94	23.61
15	75	0		24.06	24.01	23.61
15	1	0		23.41	24.07	23.98
15	1	37		23.60	24.22	24.07
15	1	74		23.42	24.00	23.83
15	36	0	**64-QAM**	22.35	23.08	22.98
15	36	20		22.54	23.21	23.00
15	36	39		22.43	23.13	22.91
15	75	0		22.39	23.16	23.00

LTE Band 41 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
10	1	0	QPSK	25.76	25.70	25.25
10	1	25		25.81	25.69	25.28
10	1	49		25.78	25.61	25.28
10	25	0		24.90	24.90	24.47
10	25	12		24.98	24.92	24.52
10	25	25		24.95	24.85	24.49
10	50	0		24.96	24.90	24.52
10	1	0	16-QAM	25.05	24.99	24.53
10	1	25		25.03	24.91	24.53
10	1	49		25.02	24.84	24.57
10	25	0		24.00	23.94	23.53
10	25	12		24.02	23.96	23.56
10	25	25		23.98	23.89	23.56
10	50	0		23.99	23.94	23.55
10	1	0	64-QAM	23.33	23.87	23.53
10	1	25		23.59	24.20	23.62
10	1	49		23.54	23.97	23.61
10	25	0		22.33	23.09	22.65
10	25	12		22.56	23.28	22.71
10	25	25		22.64	23.17	22.66
10	50	0		22.37	23.11	22.55
5	1	0	QPSK	25.93	25.76	25.37
5	1	12		25.91	25.77	25.37
5	1	24		25.88	25.74	25.33
5	12	0		24.96	24.88	24.53
5	12	7		25.07	24.97	24.59
5	12	13		25.00	24.93	24.55
5	25	0		25.02	24.88	24.51

5	1	0		25.07	24.96	24.59
5	1	12		25.09	25.00	24.63
5	1	24		25.11	25.00	24.58
5	12	0	**16-QAM**	23.98	23.92	23.58
5	12	7		24.04	24.02	23.58
5	12	13		24.06	23.96	23.56
5	25	0		24.02	23.92	23.59
5	1	0		23.36	24.10	23.59
5	1	12		23.45	24.11	23.62
5	1	24		23.58	24.16	23.58
5	12	0	**64-QAM**	22.38	23.23	22.64
5	12	7		22.41	23.28	22.68
5	12	13		22.47	23.28	22.65
5	25	0		22.33	23.28	22.66

CA Power

CA_7C								
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		
20850	21048	QPSK	0	0	1	99	1	21.96
			1	0	0	0	1	22.45
			100	0	0	0	100	21.51
			100	0	100	0	200	21.39
			1	0	1	99	2	14.77
			1	0	1	0	2	17.20
			1	99	1	0	2	23.37
			100	0	1	99	101	19.86
		16QAM	0	0	1	99	1	21.98
			1	0	0	0	1	21.90
			100	0	0	0	100	20.56
			100	0	100	0	200	20.38
			1	0	1	99	2	15.03
			1	0	1	0	2	17.68
			1	99	1	0	2	22.64
			100	0	1	99	101	20.38
		64QAM	0	0	1	99	1	19.86
			1	0	0	0	1	20.78
			100	0	0	0	100	19.58
			100	0	100	0	200	20.43
			1	0	1	99	2	15.05
			1	0	1	0	2	17.54
			1	99	1	0	2	20.64
			100	0	1	99	101	19.86

21001	21199	QPSK	0	0	1	99	1	20.04
			1	0	0	0	1	22.51
			100	0	0	0	100	21.60
			100	0	100	0	200	21.44
			1	0	1	99	2	14.87
			1	0	1	0	2	17.39
			1	99	1	0	2	23.34
			100	0	1	99	101	19.90
		16QAM	0	0	1	99	1	21.63
			1	23	0	0	1	22.01
			100	0	0	0	100	20.64
			100	0	100	0	200	20.45
			1	0	1	99	2	15.27
			1	0	1	0	2	17.91
			1	99	1	0	2	22.63
			100	0	1	99	101	19.94
		64QAM	0	0	1	99	1	20.58
			1	0	0	0	1	20.89
			100	0	0	0	100	19.65
			100	0	100	0	200	20.51
			1	0	1	99	2	15.25
			1	0	1	0	2	17.79
			1	99	1	0	2	20.61
			100	0	1	99	101	20.05

21152	21350	QPSK	0	0	1	99	1	22.47
			1	0	0	0	1	22.51
			100	0	0	0	100	21.61
			100	0	100	0	200	21.37
			1	0	1	99	2	14.93
			1	0	1	0	2	17.33
			1	99	1	0	2	23.33
			100	0	1	99	101	19.83
		16QAM	0	0	1	99	1	21.04
			1	0	0	0	1	21.94
			100	0	0	0	100	20.63
			100	0	100	0	200	20.44
			1	0	1	99	2	15.20
			1	0	1	0	2	17.84
			1	99	1	0	2	22.58
			100	0	1	99	101	19.85
		64QAM	0	0	1	99	1	20.78
			1	0	0	0	1	20.90
			100	0	0	0	100	19.59
			100	0	100	0	200	20.41
			1	0	1	99	2	15.06
			1	0	1	0	2	17.69
			1	99	1	0	2	20.59
			100	0	1	99	101	19.87

CA_7C								
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		
20850	21021	QPSK	1	99	1	0	2	23.31
		16QAM	1	99	1	0	2	22.30
		64QAM	1	99	1	0	2	20.65
21026	21197	QPSK	1	99	1	0	2	23.44
		16QAM	1	99	1	0	2	22.26
		64QAM	1	99	1	0	2	20.66
21201	21372	QPSK	1	99	1	0	2	23.43
		16QAM	1	99	1	0	2	22.32
		64QAM	1	99	1	0	2	20.58
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		
20828	20999	QPSK	1	74	1	0	2	23.36
		16QAM	1	74	1	0	2	22.40
		64QAM	1	74	1	0	2	20.63
21003	21174	QPSK	1	74	1	0	2	23.32
		16QAM	1	74	1	0	2	22.44
		64QAM	1	74	1	0	2	20.58
21179	21350	QPSK	1	74	1	0	2	23.36
		16QAM	1	74	1	0	2	22.47
		64QAM	1	74	1	0	2	20.59

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		
20850	20994	QPSK	1	99	1	0	2	23.42
		16QAM	1	99	1	0	2	22.24
		64QAM	1	99	1	0	2	20.56
21051	21195	QPSK	1	99	1	0	2	23.37
		16QAM	1	99	1	0	2	22.46
		64QAM	1	99	1	0	2	20.62
21251	21395	QPSK	1	99	1	0	1	23.32
		16QAM	1	99	1	0	2	22.48
		64QAM	1	99	1	0	2	20.55
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		
20805	20949	QPSK	1	49	1	0	2	23.28
		16QAM	1	49	1	0	2	22.52
		64QAM	1	49	1	0	2	20.57
21006	21150	QPSK	1	49	1	0	2	23.32
		16QAM	1	49	1	0	2	22.29
		64QAM	1	49	1	0	2	20.64
21206	21350	QPSK	1	49	1	0	2	23.42
		16QAM	1	49	1	0	2	22.30
		64QAM	1	49	1	0	2	20.63

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		
20825	20975	QPSK	1	74	1	0	1	23.36
		16QAM	1	74	1	0	1	22.35
		64QAM	1	74	1	0	1	20.63
21025	21175	QPSK	1	74	1	0	1	23.37
		16QAM	1	74	1	0	1	22.47
		64QAM	1	74	1	0	1	21.46
21225	21375	QPSK	1	74	1	0	1	23.32
		16QAM	1	74	1	0	1	22.54
		64QAM	1	74	1	0	1	20.55
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		
20825	20945	QPSK	1	74	1	0	1	23.42
		16QAM	1	74	1	0	1	22.41
		64QAM	1	74	1	0	1	20.58
21051	21171	QPSK	1	74	1	0	1	23.42
		16QAM	1	74	1	0	1	22.45
		64QAM	1	74	1	0	1	20.61
21277	21397	QPSK	1	74	1	0	1	23.40
		16QAM	1	74	1	0	1	22.37
		64QAM	1	74	1	0	1	20.67

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	23.25
			1	0	0	0	1	23.03
			100	0	0	0	100	22.11
			100	0	100	0	200	22.00
			1	0	1	99	2	15.43
			1	0	1	0	2	17.80
			1	99	1	0	2	23.61
			100	0	1	99	101	20.36
		16QAM	0	0	1	99	1	21.36
			1	0	0	0	1	21.03
			100	0	0	0	100	19.95
			100	0	100	0	200	20.83
			1	0	1	99	2	15.08
			1	0	1	0	2	17.73
			1	99	1	0	2	20.91
			100	0	1	99	101	20.21
		64QAM	0	0	1	99	1	19.93
			1	0	0	0	1	21.02
			100	0	0	0	100	20.08
			100	0	100	0	200	20.89
			1	0	1	99	2	15.27
			1	0	1	0	2	17.82
			1	99	1	0	2	20.79
			100	0	1	99	101	20.40

40521	40719	QPSK	0	0	1	99	1	22.56
			1	0	0	0	1	22.98
			100	0	0	0	100	21.94
			100	0	100	0	200	21.59
			1	0	1	99	2	15.18
			1	0	1	0	2	17.71
			1	99	1	0	2	23.59
			100	0	1	99	101	20.02
		16QAM	0	0	1	99	1	21.21
			1	0	0	0	1	22.07
			100	0	0	0	100	21.08
			100	0	100	0	200	20.62
			1	0	1	99	2	14.89
			1	0	1	0	2	17.76
			1	99	1	0	2	22.54
			100	0	1	99	101	19.91
		64QAM	0	0	1	99	1	20.26
			1	0	0	0	1	21.02
			100	0	0	0	100	20.01
			100	0	100	0	200	20.51
			1	0	1	99	2	14.93
			1	0	1	0	2	17.68
			1	99	1	0	2	20.50
			100	0	1	99	101	19.84

41292	41490	QPSK	0	0	1	99	1	22.28
			1	0	0	0	1	22.35
			100	0	0	0	100	21.34
			100	0	100	0	200	21.19
			1	0	1	99	2	14.39
			1	0	1	0	2	17.16
			1	99	1	0	2	22.98
			100	0	1	99	101	19.62
		16QAM	0	0	1	99	1	18.35
			1	0	0	0	1	20.56
			100	0	0	0	100	19.34
			100	0	100	0	200	20.17
			1	0	1	99	2	14.77
			1	0	1	0	2	17.29
			1	99	1	0	2	20.02
			100	0	1	99	101	19.61
		64QAM	0	0	1	99	1	20.53
			1	0	0	0	1	20.38
			100	0	0	0	100	19.19
			100	0	100	0	200	20.03
			1	0	1	99	2	14.67
			1	0	1	0	2	17.17
			1	99	1	0	2	19.94
			100	0	1	99	101	19.67

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	1	99	1	0	1	23.61
		16QAM	1	99	1	0	1	22.54
		64QAM	1	99	1	0	1	20.82
40546	40717	QPSK	1	99	1	0	2	23.54
		16QAM	1	99	1	0	1	22.41
		64QAM	1	99	1	0	1	20.68
41341	41512	QPSK	1	99	1	0	2	23.01
		16QAM	1	99	1	0	1	22.06
		64QAM	1	99	1	0	1	20.53

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	1	74	1	0	2	23.65
		16QAM	1	74	1	0	2	22.55
		64QAM	1	74	1	0	2	20.99
40523	40694	QPSK	1	74	1	0	2	23.52
		16QAM	1	74	1	0	2	22.50
		64QAM	1	74	1	0	2	20.64
41319	41490	QPSK	1	74	1	0	2	22.82
		16QAM	1	74	1	0	2	21.90
		64QAM	1	74	1	0	2	20.55

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	1	99	1	0	2	23.22
		16QAM	1	99	1	0	2	22.57
		64QAM	1	99	1	0	2	20.88
40571	40715	QPSK	1	99	1	0	1	23.50
		16QAM	1	99	1	0	2	22.51
		64QAM	1	99	1	0	2	20.68
41391	41535	QPSK	1	99	1	0	2	23.01
		16QAM	1	99	1	0	2	21.90
		64QAM	1	99	1	0	2	20.62

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	1	49	1	D	2	23.34
		16QAM	1	49	1	0	2	22.42
		64QAM	1	49	1	0	2	20.74
40526	40670	QPSK	1	49	1	0	2	23.41
		16QAM	1	49	1	0	2	22.59
		64QAM	1	49	1	0	2	20.61
41346	41490	QPSK	1	49	1	0	2	22.85
		16QAM	1	49	1	0	2	21.80
		64QAM	1	49	1	0	2	20.58

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	1	99	1	0	2	23.48
		16QAM	1	99	1	0	2	22.60
		64QAM	1	99	1	0	2	20.87
40595	40712	QPSK	1	99	1	0	2	23.52
		16QAM	1	99	1	0	2	22.56
		64QAM	1	99	1	0	2	20.63
41440	41557	QPSK	1	99	1	0	2	23.05
		16QAM	1	99	1	0	2	22.06
		64QAM	1	99	1	0	2	20.67

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	1	24	1	0	2	23.43
		16QAM	1	24	1	0	2	22.51
		64QAM	1	24	1	0	2	20.83
40528	40645	QPSK	1	24	1	0	2	23.54
		16QAM	1	24	1	0	2	22.45
		64QAM	1	24	1	0	2	20.75
41373	41490	QPSK	1	24	1	0	2	22.99
		16QAM	1	24	1	0	2	22.08
		64QAM	1	24	1	0	2	20.75

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	1	74	1	0	2	23.41
		16QAM	1	74	1	0	2	22.45
		64QAM	1	74	1	0	2	20.63
40545	40695	QPSK	1	74	1	0	2	23.51
		16QAM	1	74	1	0	2	22.57
		64QAM	1	74	1	0	2	20.62
41365	41515	QPSK	1	74	1	0	2	22.98
		16QAM	1	74	1	0	2	22.02
		64QAM	1	74	1	0	2	20.89

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	1	74	1	0	2	23.35
		16QAM	1	74	1	0	2	22.38
		64QAM	1	74	1	0	2	20.60
40571	40691	QPSK	1	74	1	0	2	23.37
		16QAM	1	74	1	0	2	22.23
		64QAM	1	74	1	0	2	20.55
41417	41537	QPSK	1	74	1	0	2	22.88
		16QAM	1	74	1	0	2	21.95
		64QAM	1	74	1	0	2	20.59

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	1	49	1	0	2	23.56
		16QAM	1	49	1	0	2	22.53
		64QAM	1	49	1	0	2	20.56
40549	40669	QPSK	1	49	1	0	2	23.59
		16QAM	1	49	1	0	2	22.54
		64QAM	1	49	1	0	2	20.57
41395	41515	QPSK	1	49	1	0	2	22.96
		16QAM	1	49	1	0	2	22.01
		64QAM	1	49	1	0	2	20.73

Note: For Top/Bottom Antenna, the higher Conducted power is shown in this report.

EIRP

LTE Band 7 (GT - LC = -1.0 dB) QPSK			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
Conducted Power (dBm)	23.14	23.26	23.31
Conducted Power (Watts)	0.2061	0.2118	0.2143
EIRP(dBm)	22.14	22.26	22.31
EIRP(Watts)	0.1637	0.1683	0.1702

LTE Band 7 (GT - LC = -1.0 dB) 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 (MHz)	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
Conducted Power (dBm)	23.06	23.25	23.26	23.22	23.30	23.42	23.25	23.30	23.45
Conducted Power (Watts)	0.2023	0.2113	0.2118	0.2099	0.2138	0.2198	0.2113	0.2138	0.2213
EIRP(dBm)	22.06	22.25	22.26	22.22	22.30	22.42	22.25	22.30	22.45
EIRP(Watts)	0.1607	0.1679	0.1683	0.1667	0.1698	0.1746	0.1679	0.1698	0.1758

LTE Band 7 (GT - LC = -1.0 dB) 16QAM			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
Conducted Power (dBm)	22.49	22.58	22.57
Conducted Power (Watts)	0.1774	0.1811	0.1807
EIRP(dBm)	21.49	21.58	21.57
EIRP(Watts)	0.1409	0.1439	0.1435

LTE Band 7 (GT - LC = -1.0 dB) 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 (MHz)	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
Conducted Power (dBm)	22.27	22.47	22.60	22.52	22.59	22.68	22.41	22.58	22.67
Conducted Power (Watts)	0.1687	0.1766	0.1820	0.1786	0.1816	0.1854	0.1742	0.1811	0.1849
EIRP(dBm)	21.27	21.47	21.60	21.52	21.59	21.68	21.41	21.58	21.67
EIRP(Watts)	0.1340	0.1403	0.1445	0.1419	0.1442	0.1472	0.1384	0.1439	0.1469

LTE Band 7 (GT - LC = -1.0 dB) 64QAM			
Bandwidth	5M		
Channel	20775	21100	21425
	(Low)	(Mid)	(High)
Frequency (MHz)	2502.5	2535	2567.5
Conducted Power (dBm)	21.01	21.38	21.48
Conducted Power (Watts)	0.1262	0.1374	0.1406
EIRP(dBm)	20.01	20.38	20.48
EIRP(Watts)	0.1002	0.1091	0.1117

LTE Band 7 (GT - LC = -1.0 dB) 64QAM									
Bandwidth	10M			15M			20M		
Channel	20800	21100	21400	20825	21100	21375	20850	21100	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency (MHz)	2505	2535	2565	2507.5	2535	2562.5	2510	2535	2560
Conducted Power (dBm)	21.00	21.40	21.43	21.14	21.47	21.59	21.24	21.50	21.63
Conducted Power (Watts)	0.1259	0.1380	0.1390	0.1300	0.1403	0.1442	0.1330	0.1413	0.1455
EIRP(dBm)	20.00	20.40	20.43	20.14	20.47	20.59	20.24	20.50	20.63
EIRP(Watts)	0.1000	0.1096	0.1104	0.1033	0.1114	0.1146	0.1057	0.1122	0.1156

LTE Band 38 (GT - LC = -1.0 dB) QPSK			
Bandwidth	5M		
Channel	37775	38000	38225
	(Low)	(Mid)	(High)
Frequency (MHz)	2572.5	2595	2617.5
Conducted Power (dBm)	22.96	23.05	23.20
Conducted Power (Watts)	0.1977	0.2018	0.2089
EIRP(dBm)	21.96	22.05	22.20
EIRP(Watts)	0.1570	0.1603	0.1660

LTE Band 38 (GT - LC = -1.0 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	37800	38000	38200	37825	38000	38175	37850	38000	38150
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(Mid)
Frequency (MHz)	2575	2595	2615	2577.5	2595	2612.5	2580	2595	2610
Conducted Power (dBm)	22.87	23.03	23.29	23.25	23.18	23.47	23.50	23.31	23.46
Conducted Power (Watts)	0.1936	0.2009	0.2133	0.2113	0.2080	0.2223	0.2239	0.2143	0.2218
EIRP(dBm)	21.87	22.03	22.29	22.25	22.18	22.47	22.50	22.31	22.46
EIRP(Watts)	0.1538	0.1596	0.1694	0.1679	0.1652	0.1766	0.1778	0.1702	0.1762

LTE Band 38 (GT - LC = -1.0 dB) 16QAM			
Bandwidth	5M		
Channel	37775	38000	38225
	(Low)	(Mid)	(High)
Frequency (MHz)	2572.5	2595	2617.5
Conducted Power (dBm)	22.26	22.39	22.42
Conducted Power (Watts)	0.1683	0.1734	0.1746
EIRP(dBm)	21.26	21.39	21.42
EIRP(Watts)	0.1337	0.1377	0.1387

LTE Band 38 (GT - LC = -1.0 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	37800	38000	38200	37825	38000	38175	37850	38000	38150
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(Mid)
Frequency (MHz)	2575	2595	2615	2577.5	2595	2612.5	2580	2595	2610
Conducted Power (dBm)	22.15	22.24	22.33	22.29	22.56	22.45	22.54	22.51	22.32
Conducted Power (Watts)	0.1641	0.1675	0.1710	0.1694	0.1803	0.1758	0.1795	0.1782	0.1706
EIRP(dBm)	21.15	21.24	21.33	21.29	21.56	21.45	21.54	21.51	21.32
EIRP(Watts)	0.1303	0.1330	0.1358	0.1346	0.1432	0.1396	0.1426	0.1416	0.1355

LTE Band 38 (GT - LC = -1.0 dB) 64QAM			
Bandwidth	**5M**		
Channel	**37775**	**38000**	**38225**
	(Low)	**(Mid)**	**(High)**
Frequency (MHz)	**2572.5**	**2595**	**2617.5**
Conducted Power (dBm)	21.17	21.10	21.28
Conducted Power (Watts)	0.1309	0.1288	0.1343
EIRP(dBm)	20.17	20.10	20.28
EIRP(Watts)	0.1040	0.1023	0.1067

LTE Band 38 (GT - LC = -1.0 dB) 64QAM									
Bandwidth	**10M**			**15M**			**20M**		
Channel	**37800**	**38000**	**38200**	**37825**	**38000**	**38175**	**37850**	**38000**	**38150**
	(Low)	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(High)**	**(Low)**	**(Mid)**	**(Mid)**
Frequency (MHz)	**2575**	**2595**	**2615**	**2577.5**	**2595**	**2612.5**	**2580**	**2595**	**2610**
Conducted Power (dBm)	21.22	21.06	21.17	21.36	21.10	21.31	21.36	21.29	21.34
Conducted Power (Watts)	0.1324	0.1276	0.1309	0.1368	0.1288	0.1352	0.1368	0.1346	0.1361
EIRP(dBm)	20.22	20.06	20.17	20.36	20.10	20.31	20.36	20.29	20.34
EIRP(Watts)	0.1052	0.1014	0.1040	0.1086	0.1023	0.1074	0.1086	0.1069	0.1081

LTE Band 41 (G_T - L_C = -1.0 dB) 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)	25.93	25.76	25.37	25.81	25.69	25.28	25.95	25.76	25.52
Conducted Power (Watts)	0.3917	0.3767	0.3443	0.3811	0.3707	0.3373	0.3936	0.3767	0.3565
EIRP(dBm)	24.93	24.76	24.37	24.81	24.69	24.28	24.95	24.76	24.52
EIRP(Watts)	0.3112	0.2992	0.2735	0.3027	0.2944	0.2679	0.3126	0.2992	0.2831

LTE Band 41 (G_T - L_C = -1.0 dB) QPSK			
Bandwidth	**20M**		
Channel	**39750**	**40620**	**41490**
	(Low)	**(Mid)**	**(High)**
Frequency (MHz)	**2506**	**2593**	**2680**
Conducted Power (dBm)	25.91	26.03	25.52
Conducted Power (Watts)	0.3899	0.4009	0.3565
EIRP(dBm)	24.91	25.03	24.52
EIRP(Watts)	0.3097	0.3184	0.2831

LTE Band 41 (G_T - L_C = -1.0 dB) 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)	25.11	25.00	24.58	25.05	24.99	24.53	25.13	24.97	24.78
Conducted Power (Watts)	0.3243	0.3162	0.2871	0.3199	0.3155	0.2838	0.3258	0.3141	0.3006
EIRP(dBm)	24.11	24.00	23.58	24.05	23.99	23.53	24.13	23.97	23.78
EIRP(Watts)	0.2576	0.2512	0.2280	0.2541	0.2506	0.2254	0.2588	0.2495	0.2388

LTE Band 41 (G_T - L_C = -1.0 dB) 16QAM			
Bandwidth	**20M**		
Channel	**39750**	**40620**	**41490**
	(Low)	**(Mid)**	**(High)**
Frequency (MHz)	**2506**	**2593**	**2680**
Conducted Power (dBm)	25.09	25.24	24.58
Conducted Power (Watts)	0.3228	0.3342	0.2871
EIRP(dBm)	24.09	24.24	23.58
EIRP(Watts)	0.2564	0.2655	0.2280

LTE Band 41 (G_T - L_C = -1.0 dB) 64QAM									
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)	23.58	24.16	23.58	23.59	24.20	23.62	23.60	24.22	24.07
Conducted Power (Watts)	0.2280	0.2606	0.2280	0.2286	0.2630	0.2301	0.2291	0.2642	0.2553
EIRP(dBm)	22.58	23.16	22.58	22.59	23.20	22.62	22.60	23.22	23.07
EIRP(Watts)	0.1811	0.2070	0.1811	0.1816	0.2089	0.1828	0.1820	0.2099	0.2028

LTE Band 41 (G_T - L_C = -1.0 dB) 64QAM			
Bandwidth	**20M**		
Channel	**39750**	**40620**	**41490**
	(Low)	**(Mid)**	**(High)**
Frequency (MHz)	**2506**	**2593**	**2680**
Conducted Power (dBm)	23.67	24.22	23.69
Conducted Power (Watts)	0.2328	0.2642	0.2339
EIRP(dBm)	22.67	23.22	22.69
EIRP(Watts)	0.1849	0.2099	0.1858

CA EIRP

LTE Band 7C_CA (GT - LC = -1.0 dB) QPSK									
Bandwidth	15M + 15M			10M + 20M			20M+10M		
Channel PCC	20825	21025	21225	20805	21006	21206	20850	21051	21251
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	20975	21175	21375	20949	21150	21350	20994	21195	21395
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	23.36	23.37	23.32	23.28	23.32	23.42	23.42	23.37	23.32
Conducted Power (Watts)	0.2168	0.2173	0.2148	0.2128	0.2148	0.2198	0.2198	0.2173	0.2148
EIRP(dBm)	22.36	22.37	22.32	22.28	22.32	22.42	22.42	22.37	22.32
EIRP(Watts)	0.1722	0.1726	0.1706	0.1690	0.1706	0.1746	0.1746	0.1726	0.1706

LTE Band 7C_CA (GT - LC = -1.0 dB) QPSK									
Bandwidth	15M+20M			20M+15M			20M + 20M		
Channel PCC	20828	21003	21179	20850	21026	21201	20850	21001	21152
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	20999	21174	21350	21021	21197	21372	21048	21199	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	23.36	23.32	23.36	23.31	23.44	23.43	23.37	23.34	23.33
Conducted Power (Watts)	0.2168	0.2148	0.2168	0.2143	0.2208	0.2203	0.2173	0.2158	0.2153
EIRP(dBm)	22.36	22.32	22.36	22.31	22.44	22.43	22.37	22.34	22.33
EIRP(Watts)	0.1722	0.1706	0.1722	0.1702	0.1754	0.1750	0.1726	0.1714	0.1710

LTE Band 7C_CA (GT - LC = -1.0 dB) 16QAM									
Bandwidth	15M + 15M			10M + 20M			20M+10M		
Channel PCC	20825	21025	21225	20805	21006	21206	20850	21051	21251
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	20975	21175	21375	20949	21150	21350	20994	21195	21395
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.35	22.47	22.54	22.52	22.29	22.30	22.24	22.46	22.48
Conducted Power (Watts)	0.1718	0.1766	0.1795	0.1786	0.1694	0.1698	0.1675	0.1762	0.1770
EIRP(dBm)	21.35	21.47	21.54	21.52	21.29	21.30	21.24	21.46	21.48
EIRP(Watts)	0.1365	0.1403	0.1426	0.1419	0.1346	0.1349	0.1330	0.1400	0.1406

LTE Band 7C_CA (GT - LC = -1.0 dB) 16QAM									
Bandwidth	15M+20M			20M+15M			20M + 20M		
Channel PCC	20828	21003	21179	20850	21026	21201	20850	21001	21152
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	20999	21174	21350	21021	21197	21372	21048	21199	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.40	22.44	22.47	22.30	22.26	22.32	22.64	22.63	22.58
Conducted Power (Watts)	0.1738	0.1754	0.1766	0.1698	0.1683	0.1706	0.18	0.18	0.18
EIRP(dBm)	21.40	21.44	21.47	21.30	21.26	21.32	21.64	21.63	21.58
EIRP(Watts)	0.1380	0.1393	0.1403	0.1349	0.1337	0.1355	0.1459	0.1455	0.1439

LTE Band 7C_CA (GT - LC = -1.0 dB) 64QAM									
Bandwidth	15M + 15M			10M + 20M			20M+10M		
Channel PCC	20825	21025	21225	20805	21006	21206	20850	21051	21251
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	20975	21175	21375	20949	21150	21350	20994	21195	21395
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	20.63	21.46	20.55	20.57	20.64	20.63	20.56	20.62	20.55
Conducted Power (Watts)	0.1156	0.1400	0.1135	0.1140	0.1159	0.1156	0.1138	0.1153	0.1135
EIRP(dBm)	19.63	20.46	19.55	19.57	19.64	19.63	19.56	19.62	19.55
EIRP(Watts)	0.0918	0.1112	0.0902	0.0906	0.0920	0.0918	0.0904	0.0916	0.0902

LTE Band 7C_CA (GT - LC = -1.0 dB) 64QAM									
Bandwidth	15M+20M			20M+15M			20M + 20M		
Channel PCC	20828	21003	21179	20850	21026	21201	20850	21001	21152
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Channel SCC	20999	21174	21350	21021	21197	21372	21048	21199	21350
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	20.63	20.58	20.59	20.65	20.66	20.58	20.78	20.89	20.90
Conducted Power (Watts)	0.1156	0.1143	0.1146	0.1161	0.1164	0.1143	0.1197	0.1227	0.1230
EIRP(dBm)	19.63	19.58	19.59	19.65	19.66	19.58	19.78	19.89	19.90
EIRP(Watts)	0.0918	0.0908	0.0910	0.0923	0.0925	0.0908	0.0951	0.0975	0.0977

LTE Band 7C_CA (GT - LC = -1.0 dB) QPSK			
Bandwidth	15M + 10M		
Channel PCC	20825	21051	21277
	(Low)	(Mid)	(High)
Channel SCC	20975	21171	21397
	(Low)	(Mid)	(High)
Conducted Power (dBm)	23.42	23.42	23.40
Conducted Power (Watts)	0.2198	0.2198	0.2188
EIRP(dBm)	22.42	22.42	22.40
EIRP(Watts)	0.1746	0.1746	0.1738

LTE Band 7C_CA (GT - LC = -1.0 dB) 16QAM			
Bandwidth	15M + 10M		
Channel PCC	20825	21051	21277
	(Low)	(Mid)	(High)
Channel SCC	20975	21171	21397
	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.41	22.45	22.37
Conducted Power (Watts)	0.1742	0.1758	0.1726
EIRP(dBm)	21.41	21.45	21.37
EIRP(Watts)	0.1384	0.1396	0.1371

LTE Band 7C_CA (GT - LC = -1.0 dB) 64QAM			
Bandwidth	15M + 10M		
Channel PCC	20825	21051	21277
	(Low)	(Mid)	(High)
Channel SCC	20975	21171	21397
	(Low)	(Mid)	(High)
Conducted Power (dBm)	20.58	20.61	20.67
Conducted Power (Watts)	0.1143	0.1151	0.1167
EIRP(dBm)	19.58	19.61	19.67
EIRP(Watts)	0.0908	0.0914	0.0927

LTE Band 41C_CA (GT - LC = -1.0 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)	23.41	23.51	22.98	23.43	23.54	22.99	23.48	23.52	23.05
Conducted Power (Watts)	0.2193	0.2244	0.1986	0.2203	0.2259	0.1991	0.2228	0.2249	0.2018
EIRP(dBm)	22.41	22.51	21.98	22.43	22.54	21.99	22.48	22.52	22.05
EIRP(Watts)	0.1742	0.1782	0.1578	0.1750	0.1795	0.1581	0.1770	0.1786	0.1603

LTE Band 41C_CA (GT - LC = -1.0 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)	23.34	23.41	22.85	23.22	23.50	23.01	23.65	23.52	22.82
Conducted Power (Watts)	0.2158	0.2193	0.1928	0.2099	0.2239	0.2000	0.2317	0.2249	0.1914
EIRP(dBm)	22.34	22.41	21.85	22.22	22.50	22.01	22.65	22.52	21.82
EIRP(Watts)	0.1714	0.1742	0.1531	0.1667	0.1778	0.1589	0.1841	0.1786	0.1521

LTE Band 41C_CA (GT - LC = -1.0 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)	23.61	23.54	23.01	23.61	23.59	22.98
Conducted Power (Watts)	0.2296	0.2259	0.2000	0.2296	0.2286	0.1986
EIRP(dBm)	22.61	22.54	22.01	22.61	22.59	21.98
EIRP(Watts)	0.1824	0.1795	0.1589	0.1824	0.1816	0.1578

LTE Band 41C_CA (GT - LC = -1.0 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	41515
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	23.35	23.37	22.88	23.56	23.59	22.96
Conducted Power (Watts)	0.2163	0.2173	0.1941	0.2270	0.2286	0.1977
EIRP(dBm)	22.35	22.37	21.88	22.56	22.59	21.96
EIRP(Watts)	0.1718	0.1726	0.1542	0.1803	0.1816	0.1570

LTE Band 41C_CA (GT - LC = -1.0 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)	22.45	22.57	22.02	22.51	22.45	22.08	22.60	22.56	22.06
Conducted Power (Watts)	0.1758	0.1807	0.1592	0.1782	0.1758	0.1614	0.1820	0.1803	0.1607
EIRP(dBm)	21.45	21.57	21.02	21.51	21.45	21.08	21.60	21.56	21.06
EIRP(Watts)	0.1396	0.1435	0.1265	0.1416	0.1396	0.1282	0.1445	0.1432	0.1276

LTE Band 41C_CA (GT - LC = -1.0 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)	22.42	22.59	21.80	22.57	22.51	21.90	22.55	22.50	21.90
Conducted Power (Watts)	0.1746	0.1816	0.1514	0.1807	0.1782	0.1549	0.1799	0.1778	0.1549
EIRP(dBm)	21.42	21.59	20.80	21.57	21.51	20.90	21.55	21.50	20.90
EIRP(Watts)	0.1387	0.1442	0.1202	0.1435	0.1416	0.1230	0.1429	0.1413	0.1230

LTE Band 41C_CA (GT - LC = -1.0 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)	22.54	22.41	22.06	21.36	22.54	20.56
Conducted Power (Watts)	0.1795	0.1742	0.1607	0.1368	0.1795	0.1138
EIRP(dBm)	21.54	21.41	21.06	20.36	21.54	19.56
EIRP(Watts)	0.1426	0.1384	0.1276	0.1086	0.1426	0.0904

LTE Band 41C_CA (GT - LC = -1.0 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	41515
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.38	22.23	21.95	22.53	22.54	22.01
Conducted Power (Watts)	0.1730	0.1671	0.1567	0.1791	0.1795	0.1589
EIRP(dBm)	21.38	21.23	20.95	21.53	21.54	21.01
EIRP(Watts)	0.1374	0.1327	0.1245	0.1422	0.1426	0.1262

LTE Band 41C_CA (GT - LC = -1.0 dB) 64QAM									
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)	20.63	20.62	20.89	20.83	20.75	20.75	20.87	20.63	20.67
Conducted Power (Watts)	0.1156	0.1153	0.1227	0.1211	0.1189	0.1189	0.1222	0.1156	0.1167
EIRP(dBm)	19.63	19.62	19.89	19.83	19.75	19.75	19.87	19.63	19.67
EIRP(Watts)	0.0918	0.0916	0.0975	0.0962	0.0944	0.0944	0.0971	0.0918	0.0927

LTE Band 41C_CA (GT - LC = -1.0 dB) 64QAM									
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)	20.74	20.61	20.58	20.88	20.68	20.62	20.99	20.64	20.55
Conducted Power (Watts)	0.1186	0.1151	0.1143	0.1225	0.1169	0.1153	0.1256	0.1159	0.1135
EIRP(dBm)	19.74	19.61	19.58	19.88	19.68	19.62	19.99	19.64	19.55
EIRP(Watts)	0.0942	0.0914	0.0908	0.0973	0.0929	0.0916	0.0998	0.0920	0.0902

LTE Band 41C_CA (GT - LC = -1.0 dB) 64QAM						
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)	20.82	20.68	20.53	20.89	20.51	20.03
Conducted Power (Watts)	0.1208	0.1169	0.1130	0.1227	0.1125	0.1007
EIRP(dBm)	19.82	19.68	19.53	19.89	19.51	19.03
EIRP(Watts)	0.0959	0.0929	0.0897	0.0975	0.0893	0.0800

LTE Band 41C_CA (GT - LC = -1.0 dB) 64QAM						
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	41515
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Conducted Power (dBm)	20.60	20.55	20.59	20.56	20.57	20.73
Conducted Power (Watts)	0.1148	0.1135	0.1146	0.1138	0.1140	0.1183
EIRP(dBm)	19.60	19.55	19.59	19.56	19.57	19.73
EIRP(Watts)	0.0912	0.0902	0.0910	0.0904	0.0906	0.0940

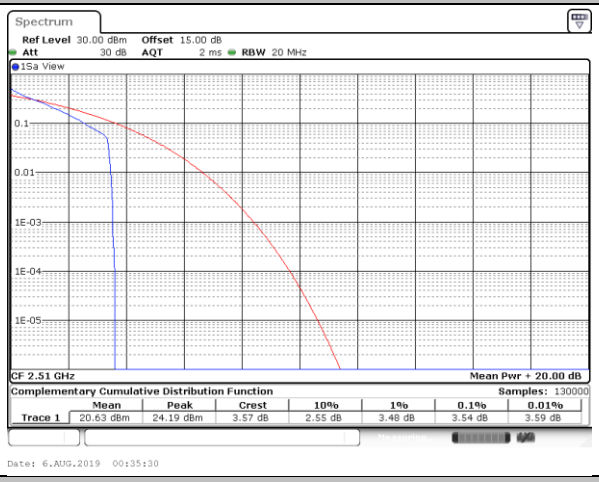
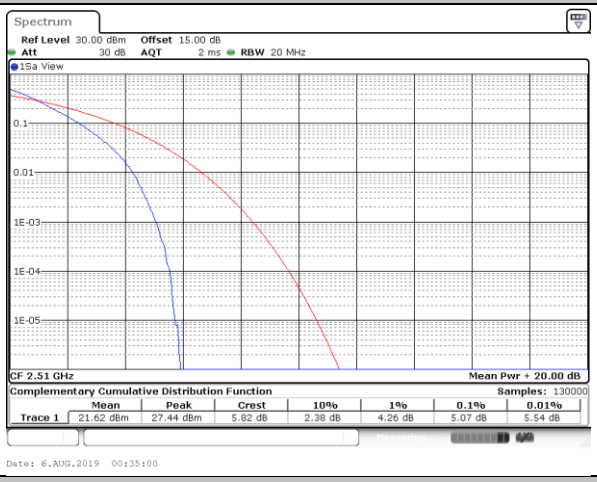
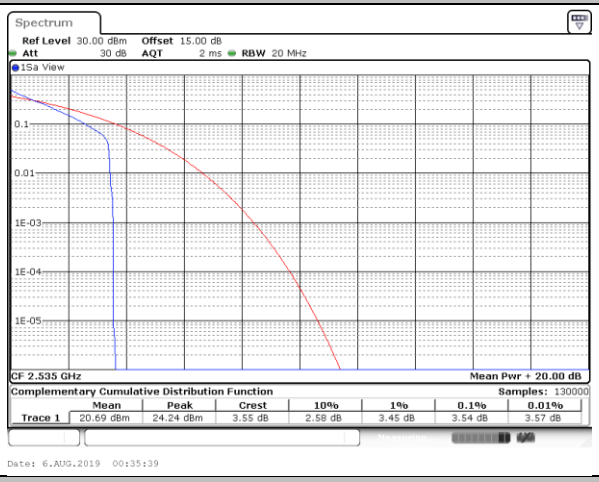
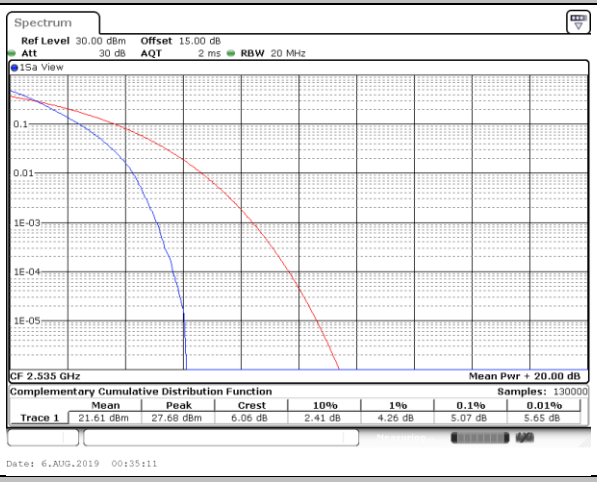
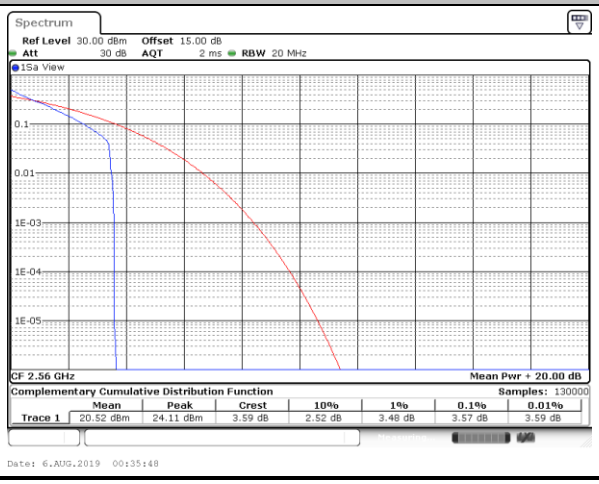
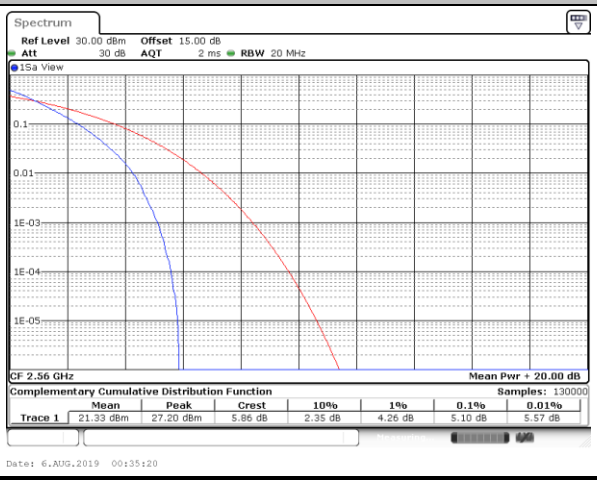
Note: The Maximum ERP/EIRP is calculated from Max Output power and Max antenna gain.

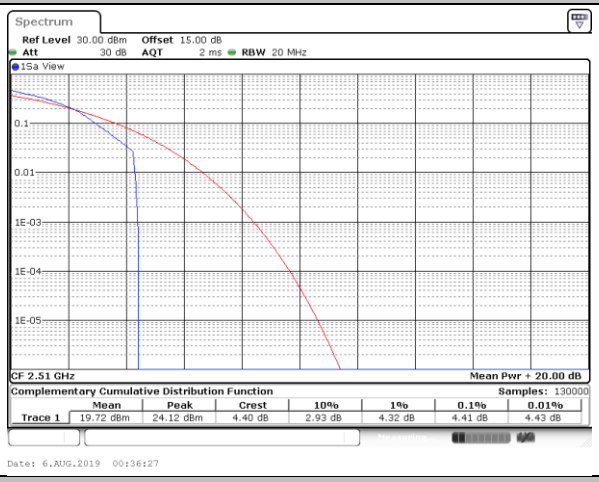
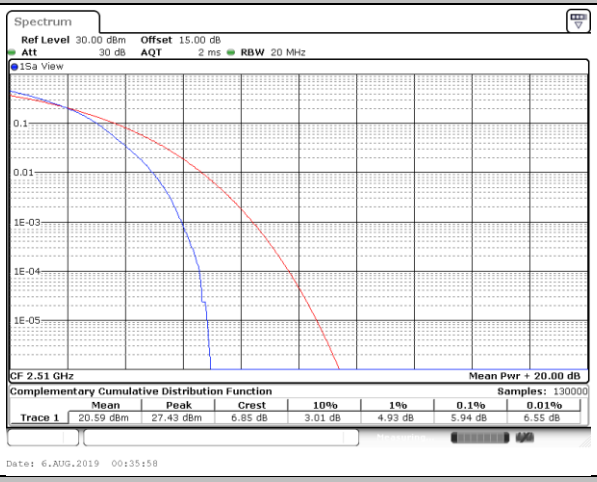
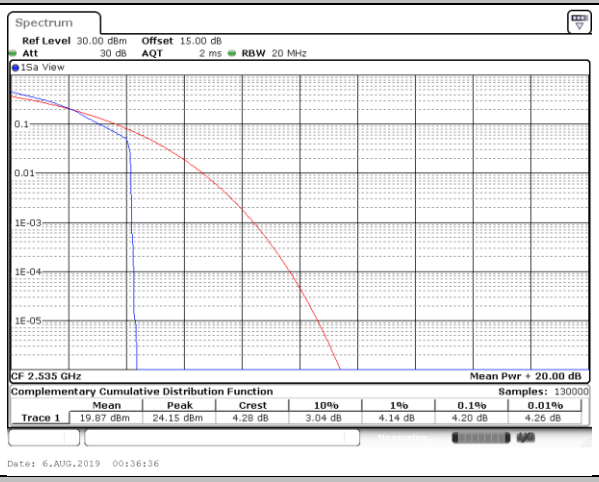
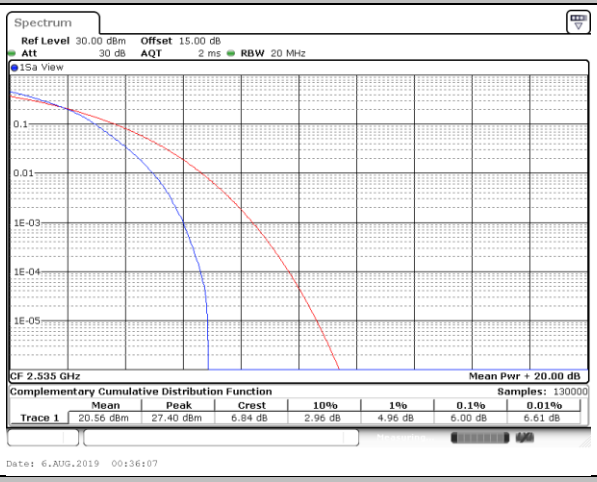
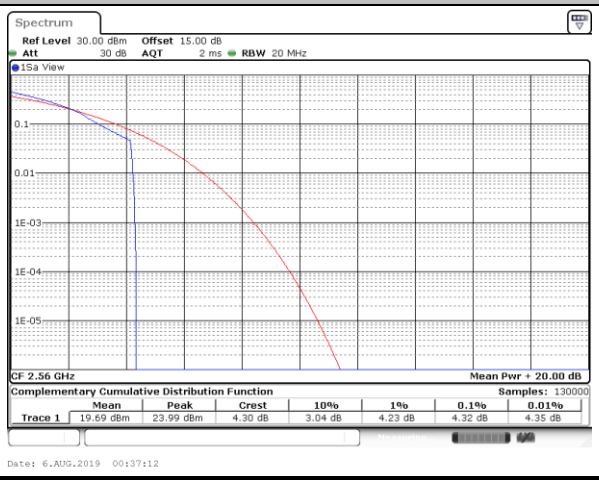
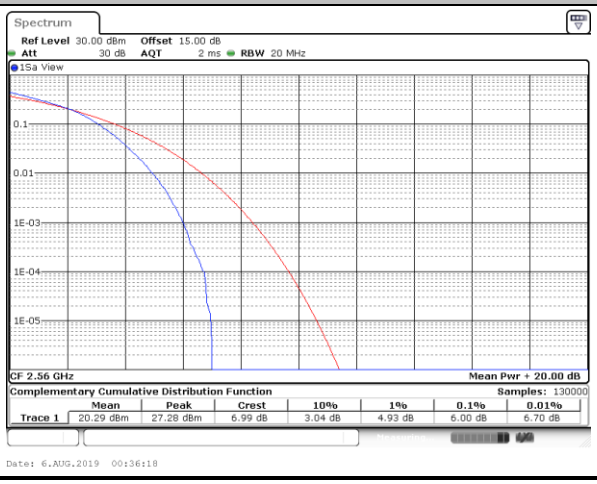
Peak-to-Average Ratio

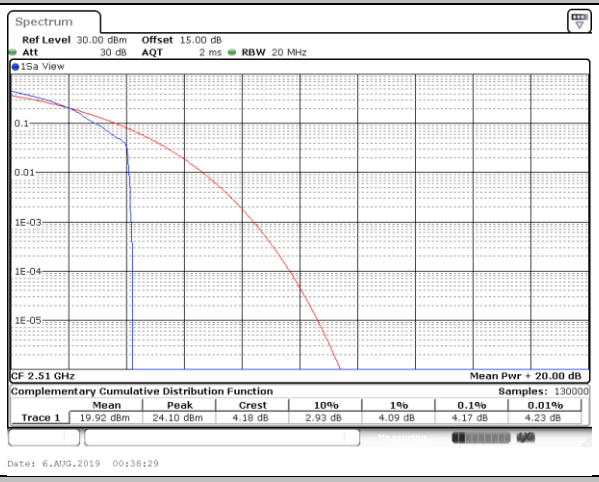
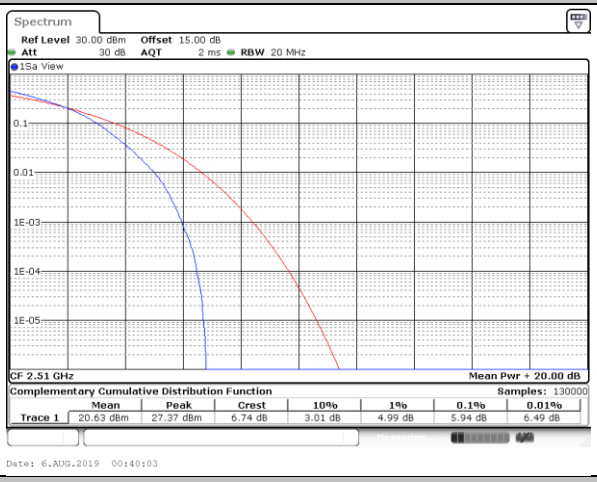
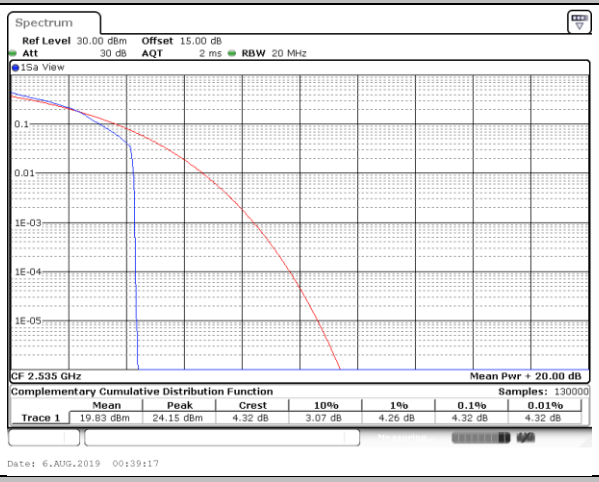
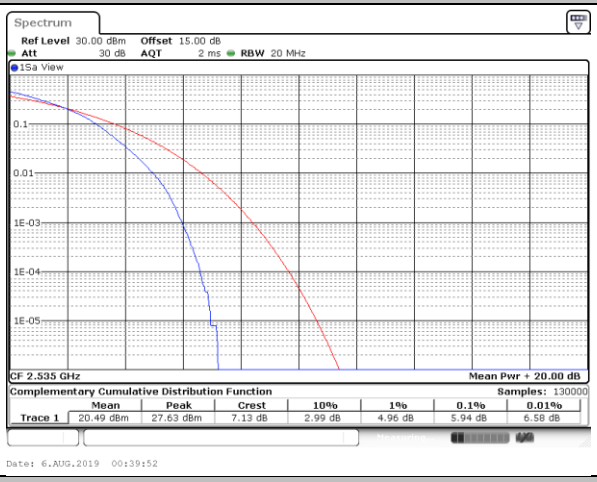
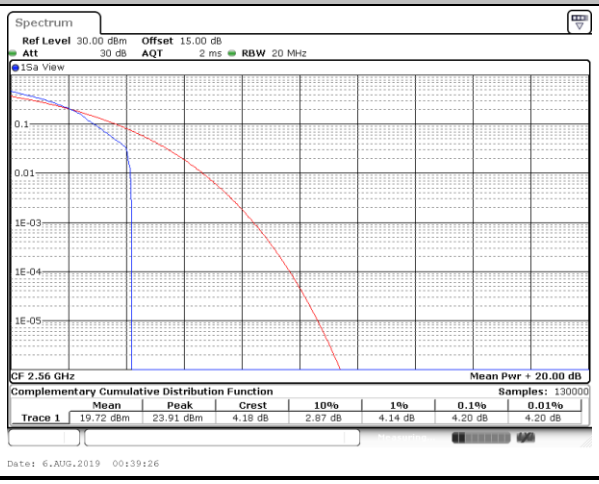
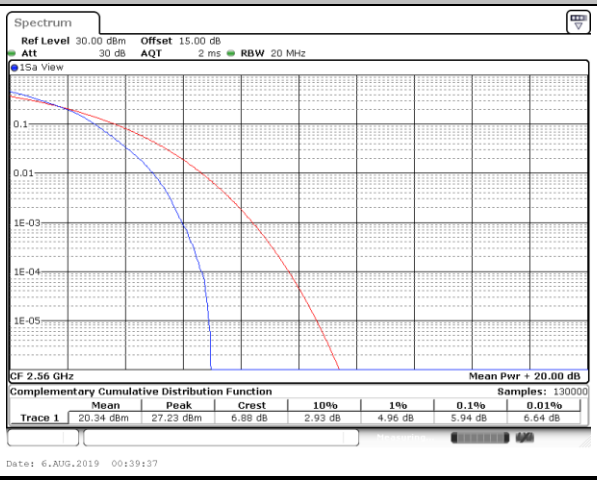
Mode	LTE Band 7 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.54	5.07	4.41	5.94	PASS
Middle CH	3.54	5.07	4.20	6.00	
Highest CH	3.57	5.10	4.32	6.00	
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	4.17	5.94			PASS
Middle CH	4.32	5.94			
Highest CH	4.20	5.94			

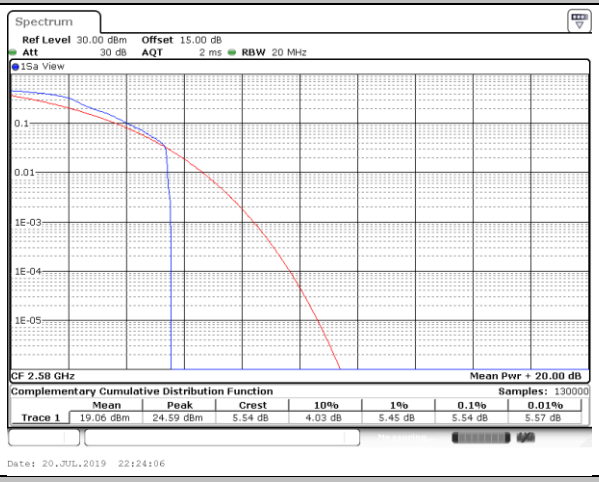
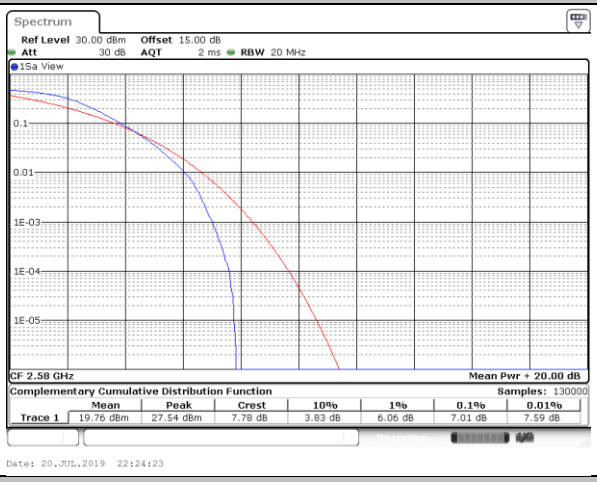
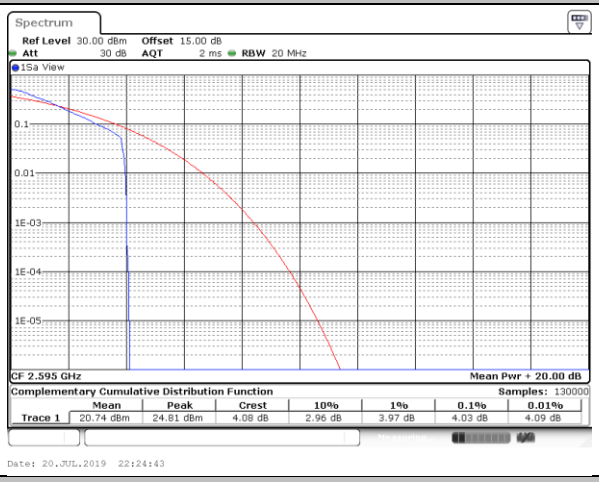
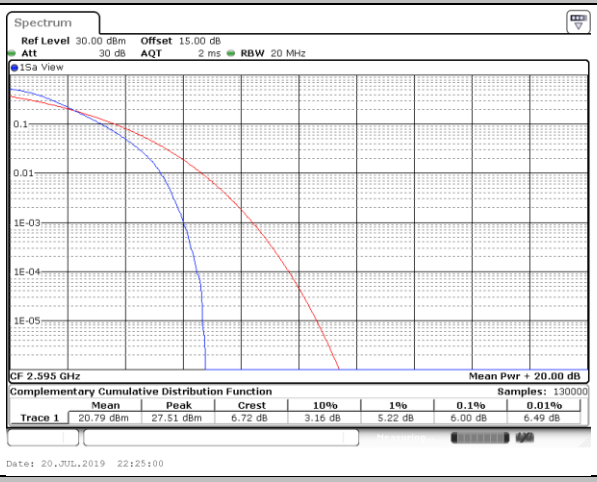
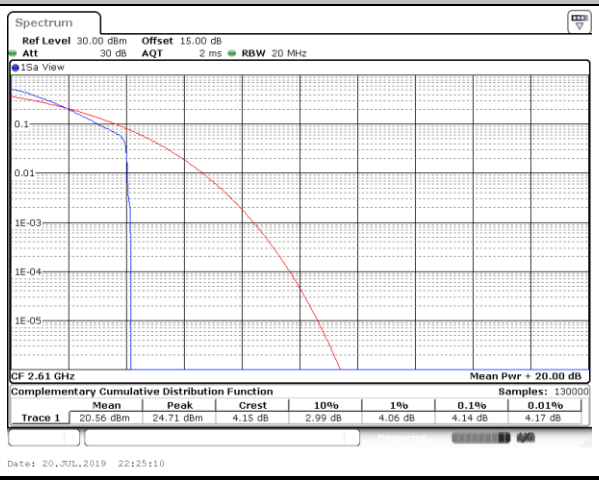
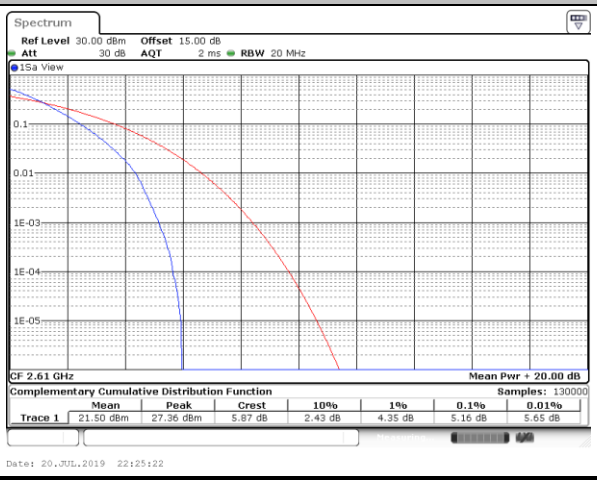
Mode	LTE Band 38 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	5.54	7.01	5.30	6.52	PASS
Middle CH	4.03	6.00	6.03	6.06	
Highest CH	4.14	5.16	5.22	7.39	
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	5.51	6.96			PASS
Middle CH	5.59	5.88			
Highest CH	4.52	5.88			

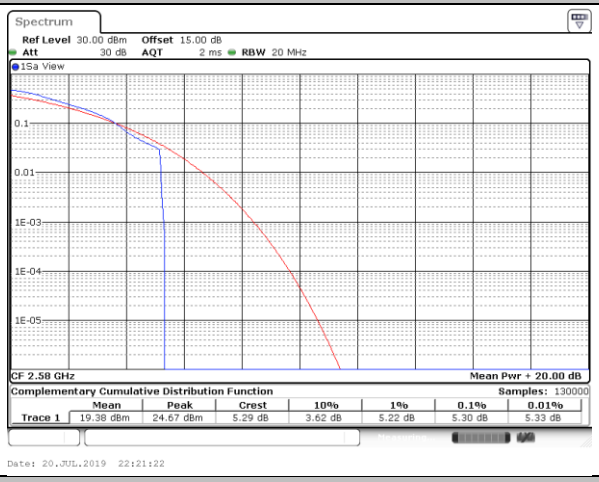
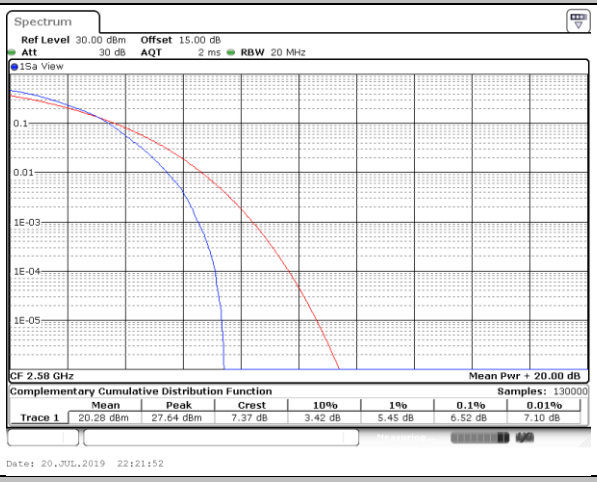
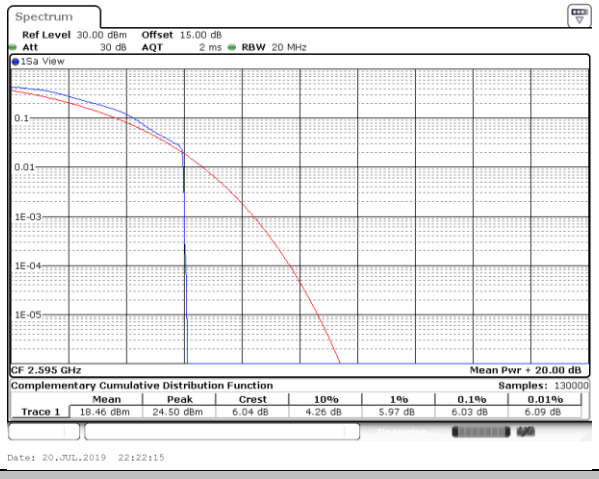
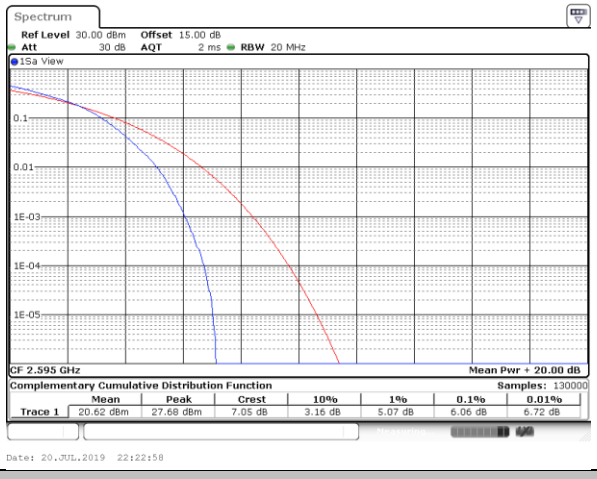
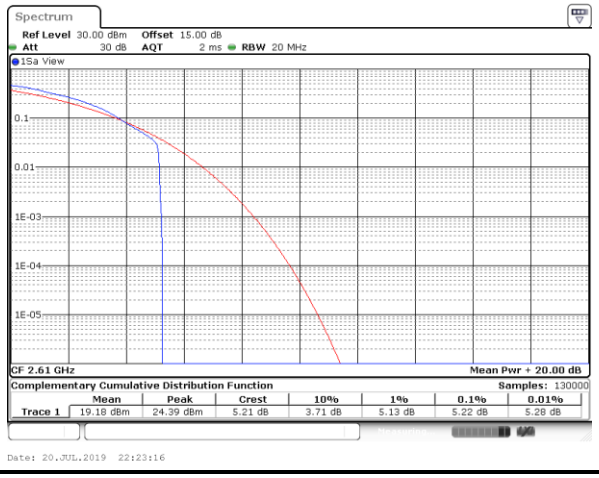
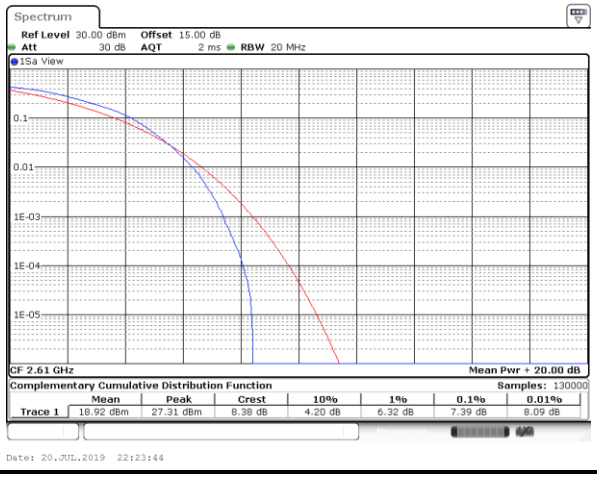
Mode	LTE Band 41 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	5.04	6.70	5.10	5.62	PASS
Middle CH	3.71	7.59	5.22	6.32	
Highest CH	3.83	5.28	5.30	6.43	
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	6.12	6.64			PASS
Middle CH	6.32	6.17			
Highest CH	7.13	7.33			

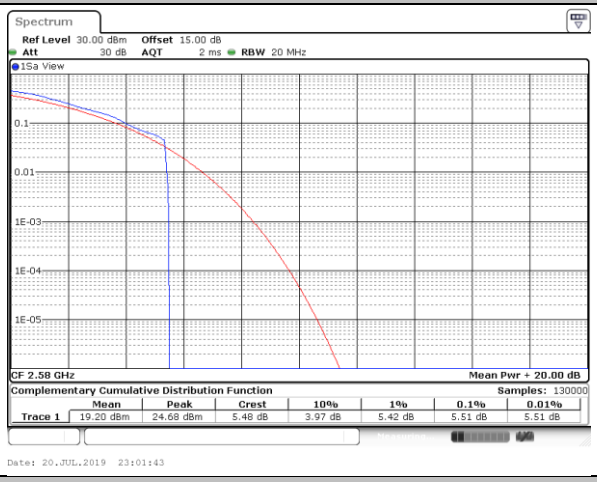
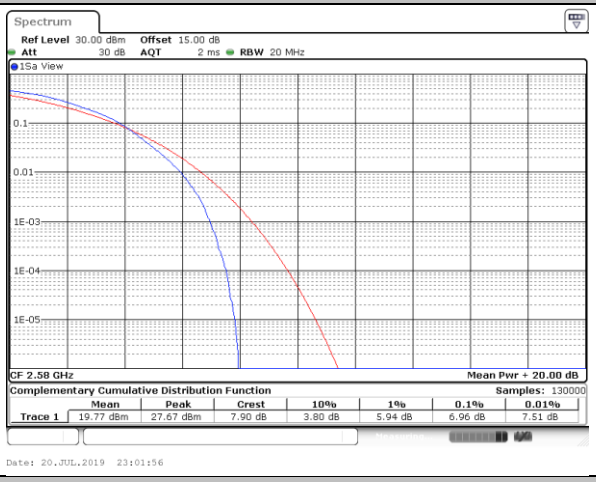
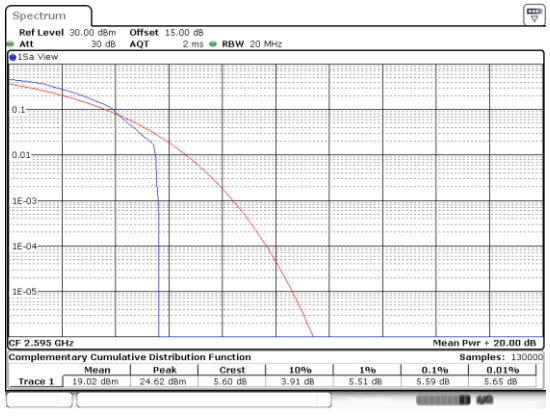
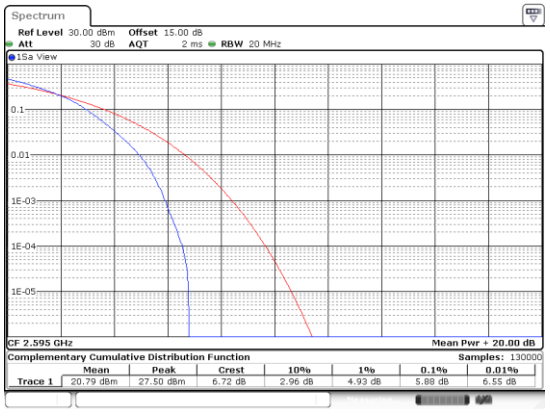
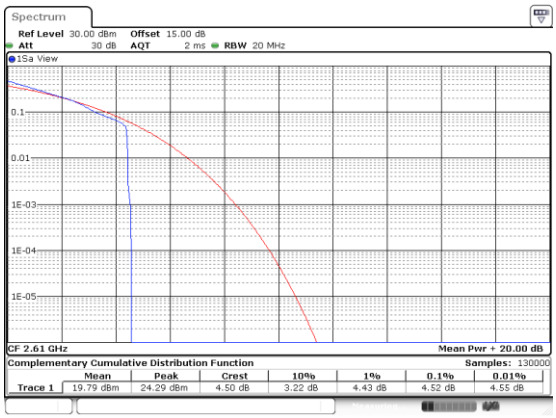
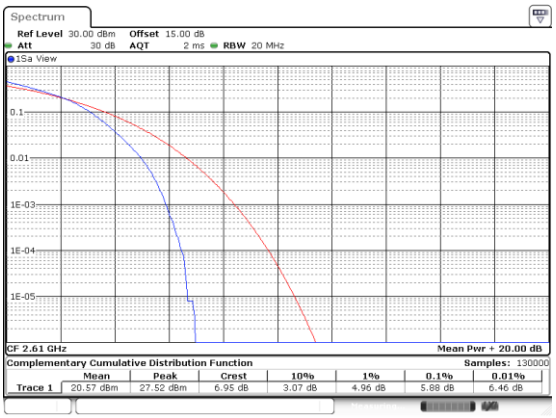
LTE Band 7 / 20MHz / QPSK	
Lowest Channel / 1RB	**Lowest Channel / Full RB**
	
Middle Channel / 1RB	**Middle Channel / Full RB**
	
Highest Channel / 1RB	**Highest Channel / Full RB**
	

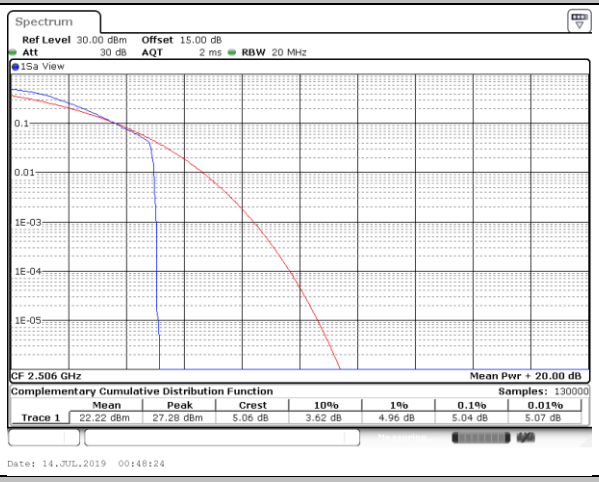
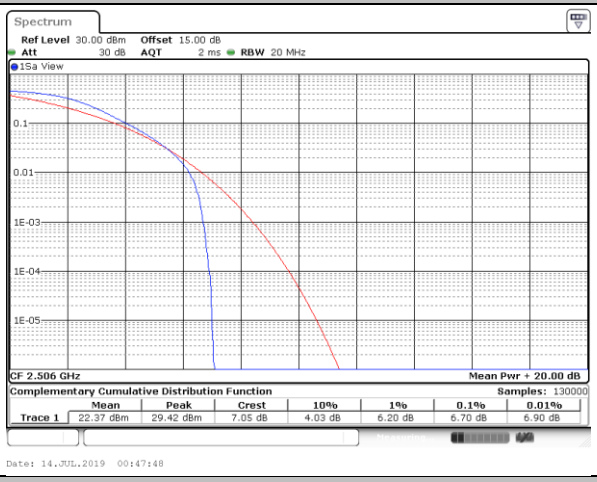
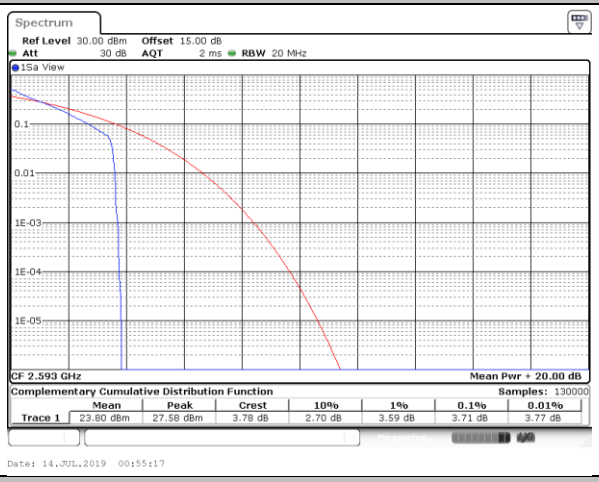
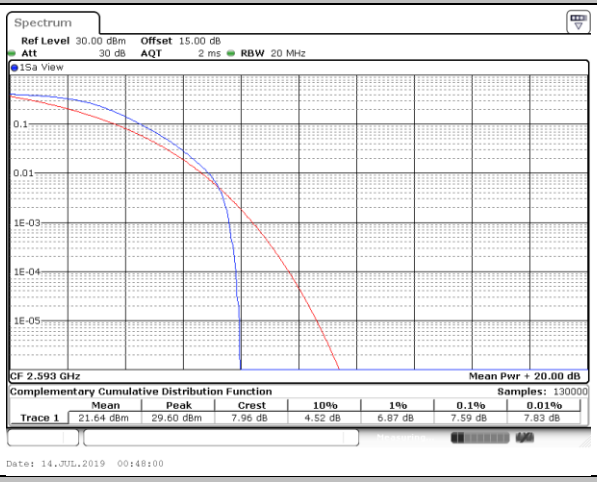
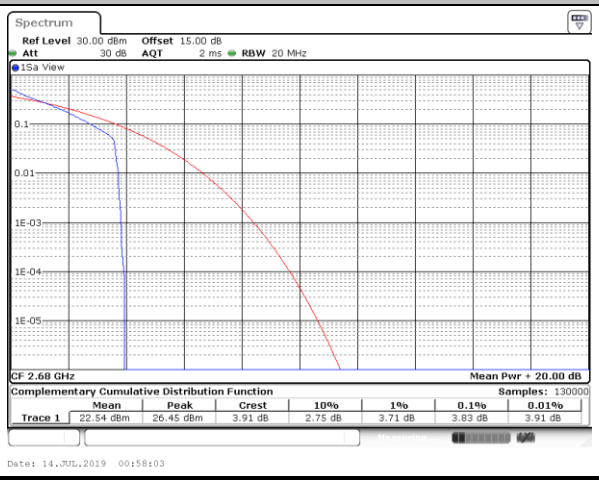
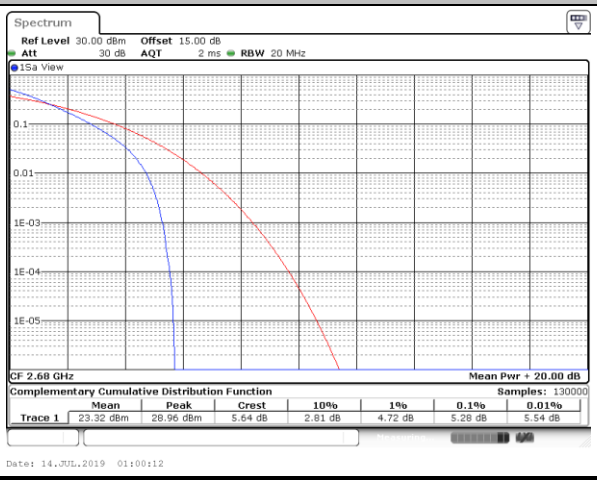
LTE Band 7 / 20MHz / 16QAM	
Lowest Channel / 1RB	**Lowest Channel / Full RB**
	
Middle Channel / 1RB	**Middle Channel / Full RB**
	
Highest Channel / 1RB	**Highest Channel / Full RB**
	

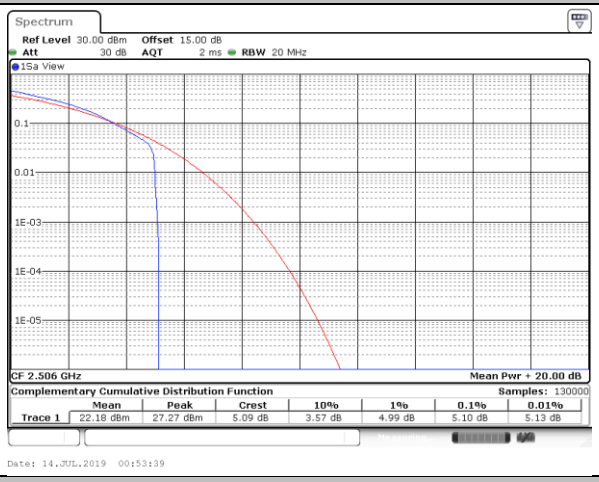
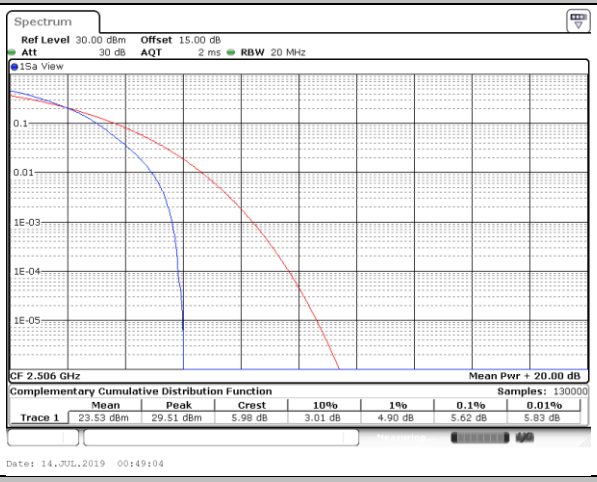
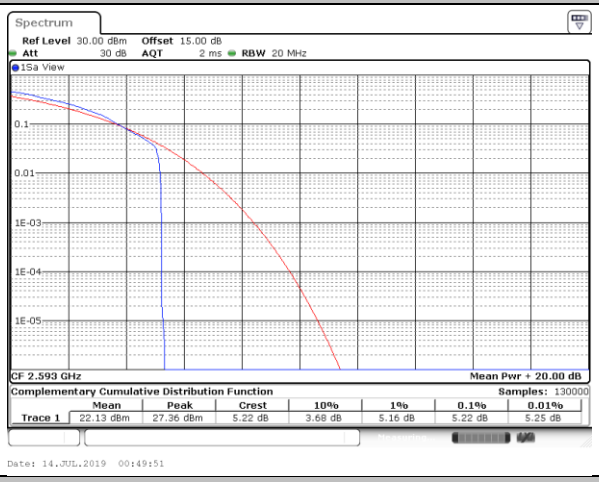
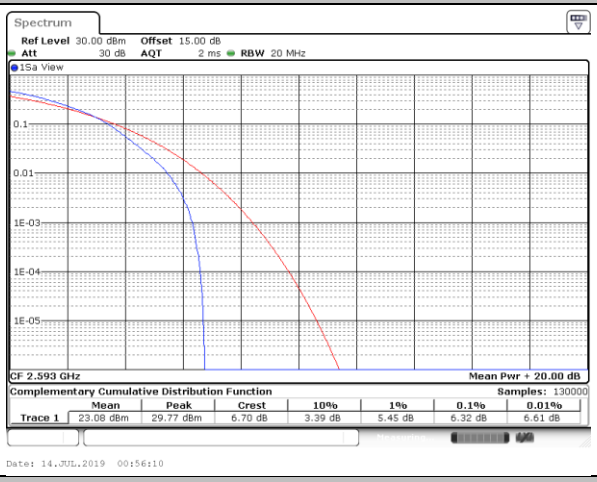
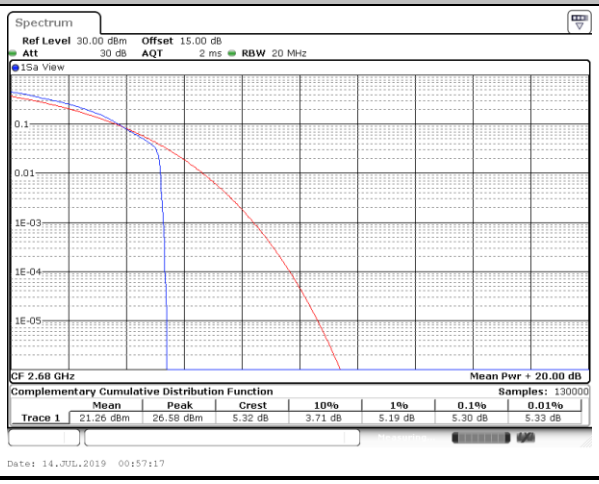
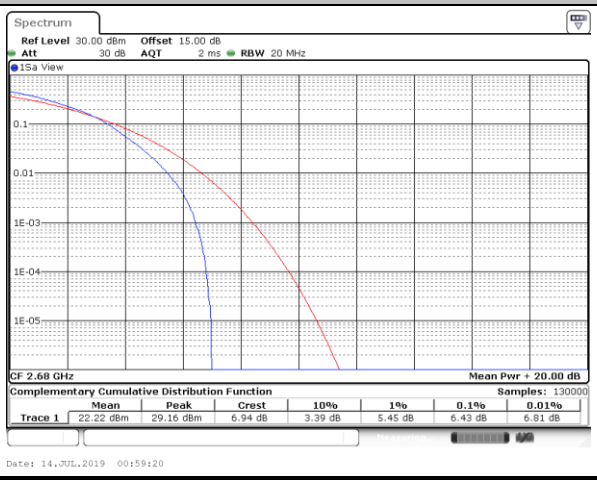
LTE Band 7 / 20MHz / 64QAM	
Lowest Channel / 1RB	**Lowest Channel / Full RB**
	
Middle Channel / 1RB	**Middle Channel / Full RB**
	
Highest Channel / 1RB	**Highest Channel / Full RB**
	

LTE Band 38 / 20MHz / QPSK	
Lowest Channel / 1RB	**Lowest Channel / Full RB**
	
Middle Channel / 1RB	**Middle Channel / Full RB**
	
Highest Channel / 1RB	**Highest Channel / Full RB**
	

LTE Band 38 / 20MHz / 16QAM	
Lowest Channel / 1RB	**Lowest Channel / Full RB**
	
Middle Channel / 1RB	**Middle Channel / Full RB**
	
Highest Channel / 1RB	**Highest Channel / Full RB**
	

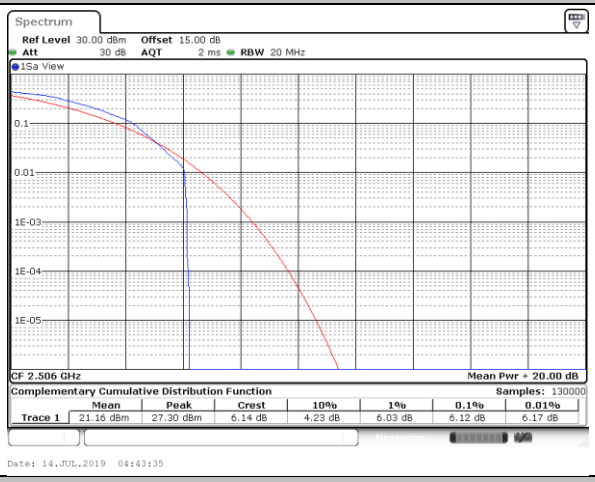
LTE Band 38 / 20MHz / 64QAM	
Lowest Channel / 1RB	**Lowest Channel / Full RB**
	
Middle Channel / 1RB	**Middle Channel / Full RB**
	
Highest Channel / 1RB	**Highest Channel / Full RB**
	

LTE Band 41 / 20MHz / QPSK	
Lowest Channel / 1RB	**Lowest Channel / Full RB**
	
Middle Channel / 1RB	**Middle Channel / Full RB**
	
Highest Channel / 1RB	**Highest Channel / Full RB**
	

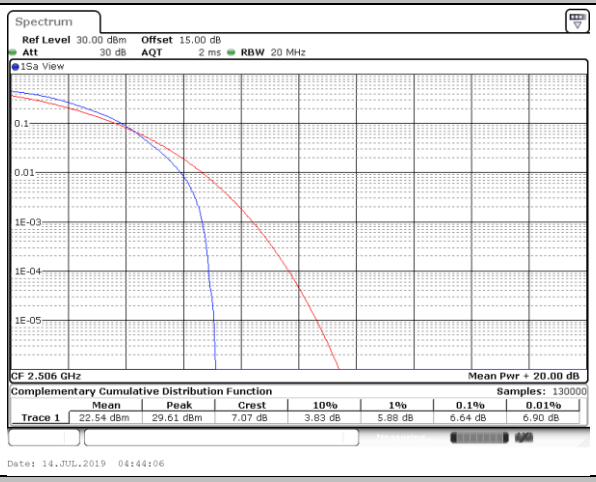
LTE Band 41 / 20MHz / 16QAM	
Lowest Channel / 1RB	**Lowest Channel / Full RB**
	
Middle Channel / 1RB	**Middle Channel / Full RB**
	
Highest Channel / 1RB	**Highest Channel / Full RB**
	

LTE Band 41 / 20MHz / 64QAM

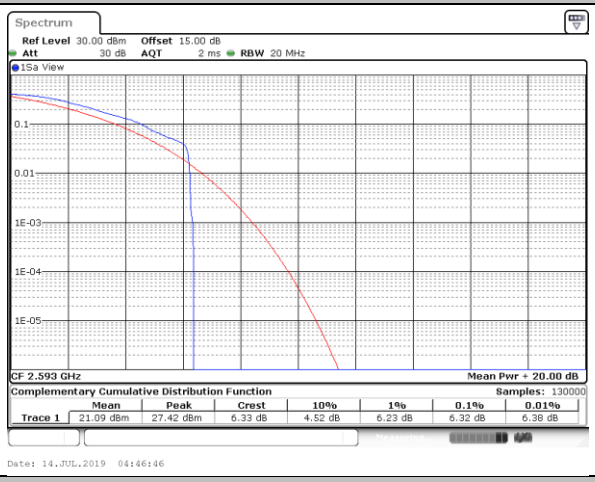
Lowest Channel / 1RB



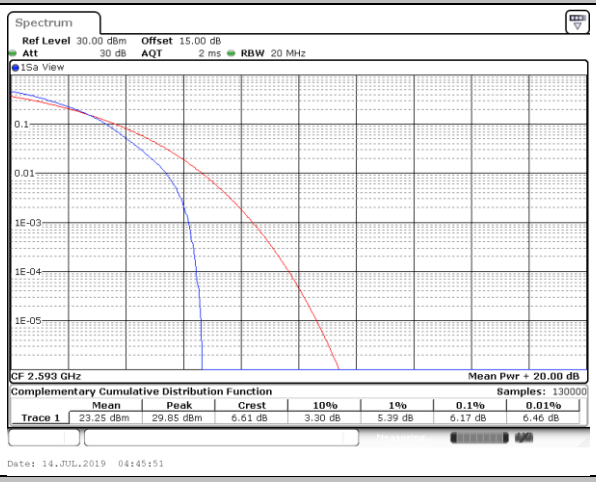
Lowest Channel / Full RB



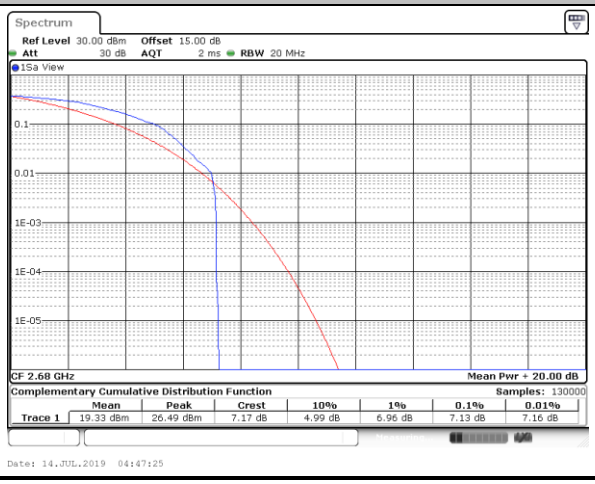
Middle Channel / 1RB



Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB

26dB Bandwidth

Mode	LTE Band 7 : 26dB BW(MHz)											
BW	5MHz		10MHz		15MHz		20MHz		5MHz	10MHz	15MHz	20MHz
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	64QAM	64QAM	64QAM	64QAM
Lowest CH	4.805	4.895	9.73	9.85	14.326	14.266	20.30	20.26	4.805	9.89	14.326	20.22
Middle CH	4.805	4.885	9.65	9.75	14.296	14.386	20.22	20.34	4.915	9.81	14.326	20.30
Highest CH	4.855	4.875	9.67	9.75	14.386	14.356	20.46	20.18	4.925	9.75	14.326	20.26

Mode	LTE Band 38 : 26dB BW(MHz)											
BW	5MHz		10MHz		15MHz		20MHz		5MHz	10MHz	15MHz	20MHz
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	64QAM	64QAM	64QAM	64QAM
Lowest CH	4.715	4.895	9.73	9.81	14.236	14.236	20.26	20.22	4.815	9.85	14.206	20.14
Middle CH	4.865	4.885	9.61	9.81	14.296	14.356	20.34	20.18	4.825	9.67	14.416	20.26
Highest CH	4.915	4.865	9.69	9.75	14.086	14.176	20.22	20.26	4.905	9.71	14.146	20.22

Mode	LTE Band 41 : 26dB BW(MHz)											
BW	5MHz		10MHz		15MHz		20MHz		5MHz	10MHz	15MHz	20MHz
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	64QAM	64QAM	64QAM	64QAM
Lowest CH	4.825	4.835	9.75	9.61	14.236	14.296	20.26	20.10	4.845	9.67	14.206	20.10
Middle CH	4.875	4.875	9.63	9.87	14.266	14.535	20.18	20.22	4.835	9.77	14.356	20.18
Highest CH	4.815	4.825	9.87	9.69	14.206	14.176	20.14	20.02	4.765	9.73	14.505	20.22

Mode	LTE Band 7C_CA: 26dB BW(MHz)			
	QPSK			
BW	10MHz+20MHz	15MHz+5MHz	15MHz+10MHz	15MHz+15MHz
Lowest CH	30.03	-	25.475	30.569
Middle CH	29.97	-	25.524	30.689
Highest CH	30.03	-	25.425	30.869
BW	15MHz+20MHz	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz
Lowest CH	34.965	30.09	35.105	39.96
Middle CH	34.825	30.21	35.035	40.12
Highest CH	34.965	30.15	34.965	39.80

Mode	LTE Band 7C_CA: 26dB BW(MHz)			
	16QAM			
BW	10MHz+20MHz	15MHz+5MHz	15MHz+10MHz	15MHz+15MHz
Lowest CH	29.91	-	25.425	30.629
Middle CH	29.79	-	25.425	30.749
Highest CH	30.03	-	25.375	30.569
BW	15MHz+20MHz	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz
Lowest CH	34.895	30.15	34.965	39.96
Middle CH	34.895	30.09	34.965	39.88
Highest CH	34.965	30.15	34.965	40.04

Mode	LTE Band 7C_CA: 26dB BW(MHz)			
	64QAM			
BW	10MHz+20MHz	15MHz+5MHz	15MHz+10MHz	15MHz+15MHz
Lowest CH	29.91	-	25.425	30.629
Middle CH	29.91	-	25.425	30.689
Highest CH	29.97	-	25.524	30.809
BW	15MHz+20MHz	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz
Lowest CH	34.825	30.03	34.965	39.96
Middle CH	34.895	30.09	34.965	39.80
Highest CH	34.895	30.33	34.965	39.80

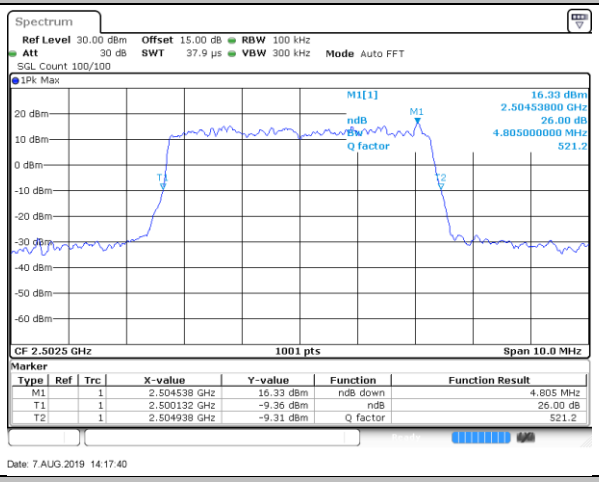
Mode	LTE Band 41C_CA: 26dB BW(MHz)				
QPSK					
BW	5MHz+20MHz	10MHz+15MHz	10MHz+20MHz	15MHz+10MHz	15MHz+15MHz
Lowest CH	24.875	25.325	29.97	25.375	30.689
Middle CH	25.025	25.425	29.91	25.275	30.689
Highest CH	24.925	25.425	29.97	25.375	30.629
BW	15MHz+20MHz	20MHz+5MHz	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz
Lowest CH	34.965	25.175	30.21	34.895	39.88
Middle CH	34.965	25.175	30.09	34.965	40.04
Highest CH	34.825	25.175	30.15	35.035	39.96

Mode	LTE Band 41C_CA: 26dB BW(MHz)				
16QAM					
BW	5MHz+20MHz	10MHz+15MHz	10MHz+20MHz	15MHz+10MHz	15MHz+15MHz
Lowest CH	24.875	25.325	29.73	25.475	30.509
Middle CH	24.925	25.225	29.97	25.325	30.689
Highest CH	25.025	25.225	29.97	25.325	30.749
BW	15MHz+20MHz	20MHz+5MHz	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz
Lowest CH	35.035	25.075	29.97	35.035	39.80
Middle CH	34.895	25.075	29.97	35.035	39.64
Highest CH	34.965	25.125	30.15	35.035	39.88

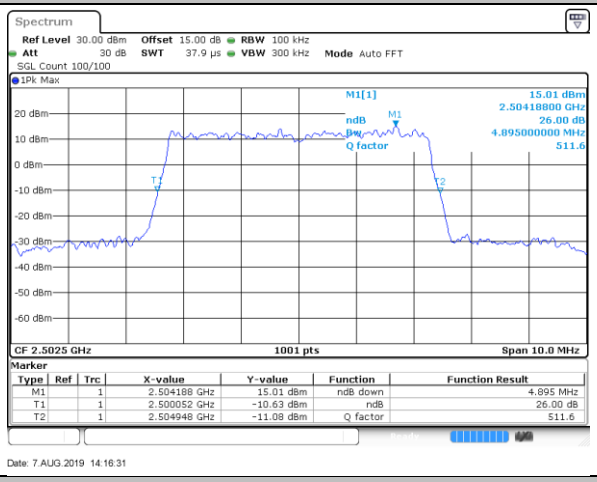
Mode	LTE Band 41C_CA: 26dB BW(MHz)				
64QAM					
BW	5MHz+20MHz	10MHz+15MHz	10MHz+20MHz	15MHz+10MHz	15MHz+15MHz
Lowest CH	24.775	25.375	29.79	25.325	30.569
Middle CH	25.025	25.325	29.91	25.375	30.689
Highest CH	24.975	25.425	30.03	25.425	30.509
BW	15MHz+20MHz	20MHz+5MHz	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz
Lowest CH	34.895	25.075	30.03	35.035	39.88
Middle CH	34.965	25.125	30.21	34.895	39.80
Highest CH	34.895	24.975	30.33	34.825	39.96

LTE Band 7

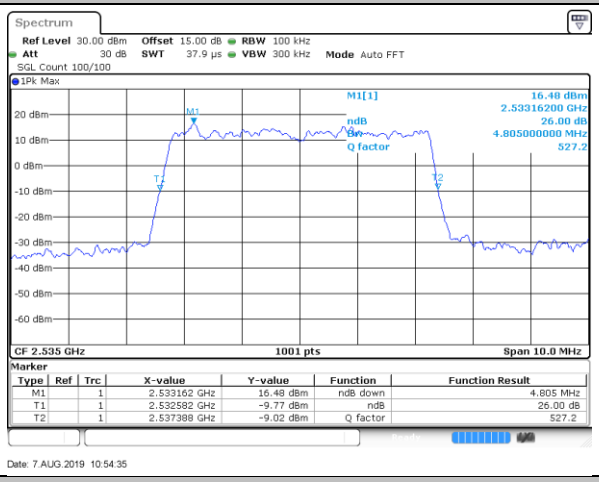
Lowest Channel / 5MHz / QPSK



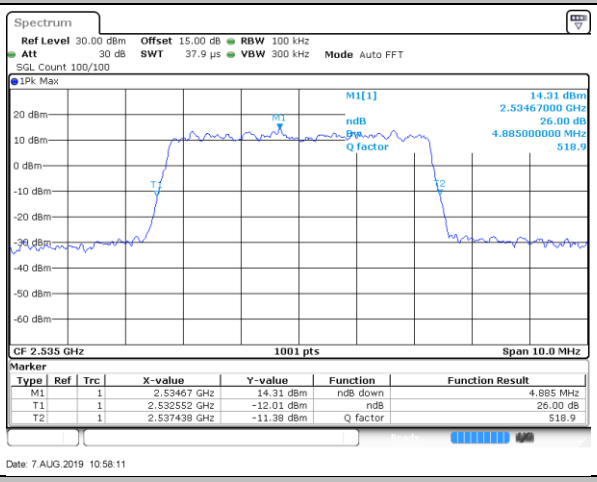
Lowest Channel / 5MHz / 16QAM



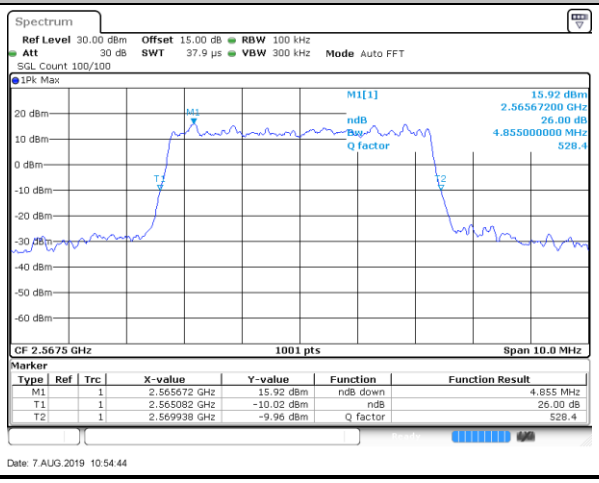
Middle Channel / 5MHz / QPSK



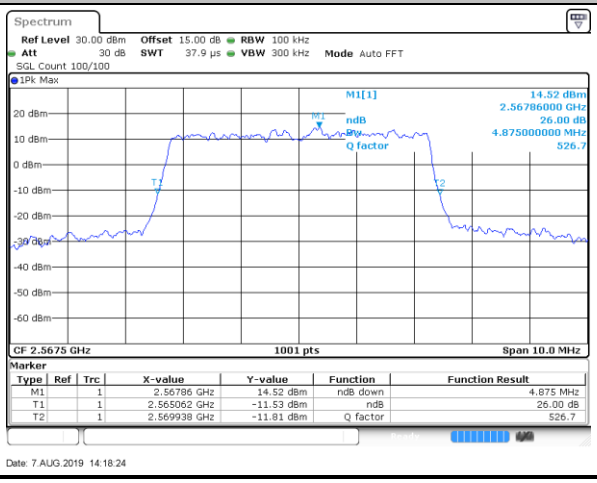
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK

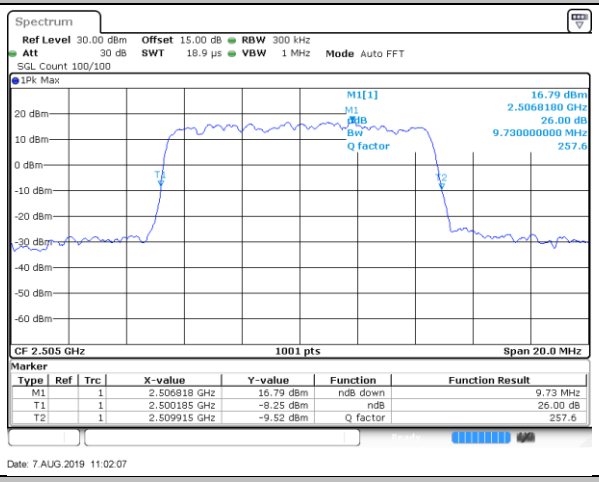


Highest Channel / 5MHz / 16QAM

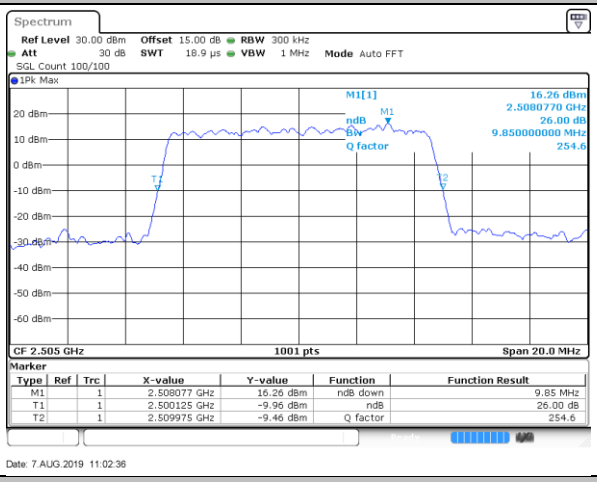


LTE Band 7

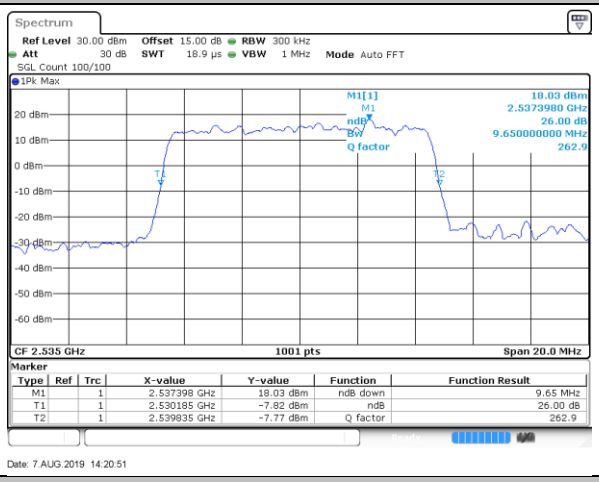
Lowest Channel / 10MHz / QPSK



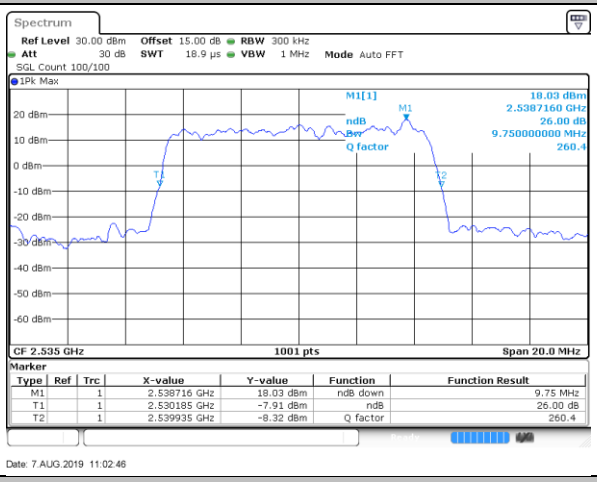
Lowest Channel / 10MHz / 16QAM



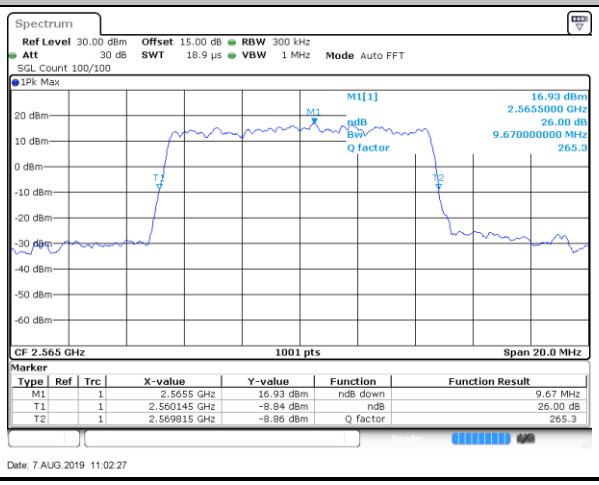
Middle Channel / 10MHz / QPSK



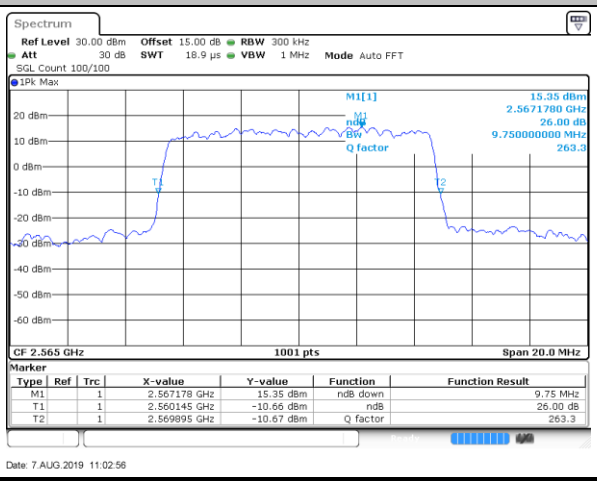
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK

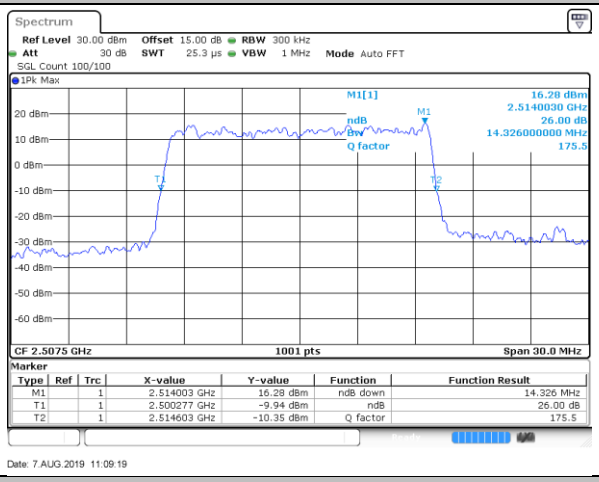


Highest Channel / 10MHz / 16QAM

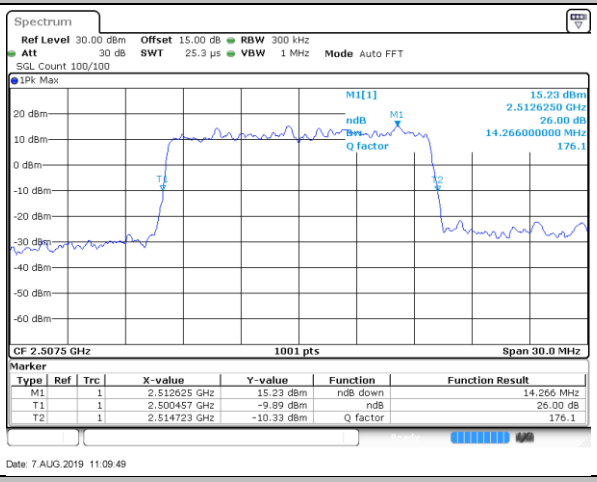


LTE Band 7

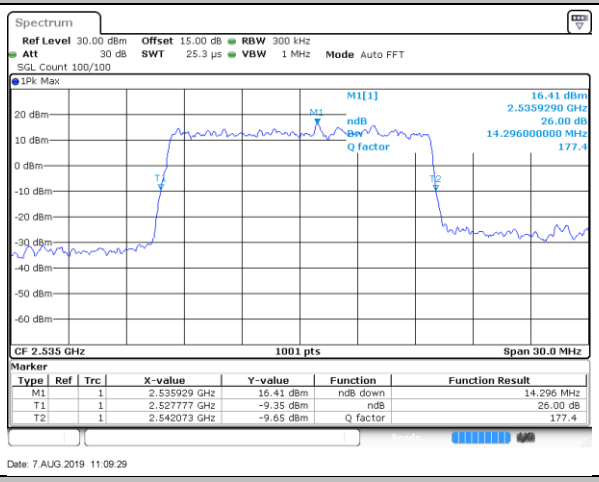
Lowest Channel / 15MHz / QPSK



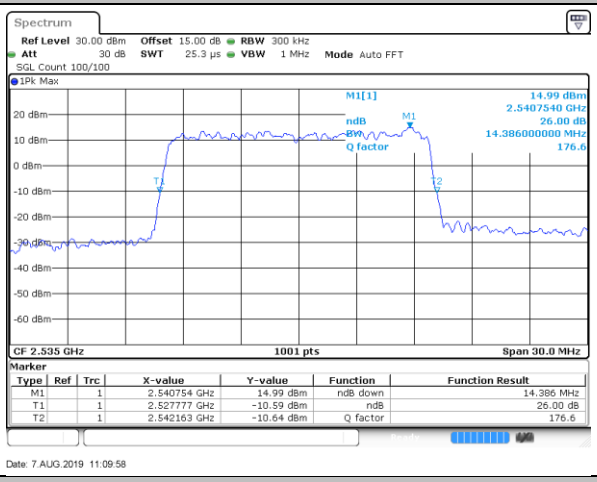
Lowest Channel / 15MHz / 16QAM



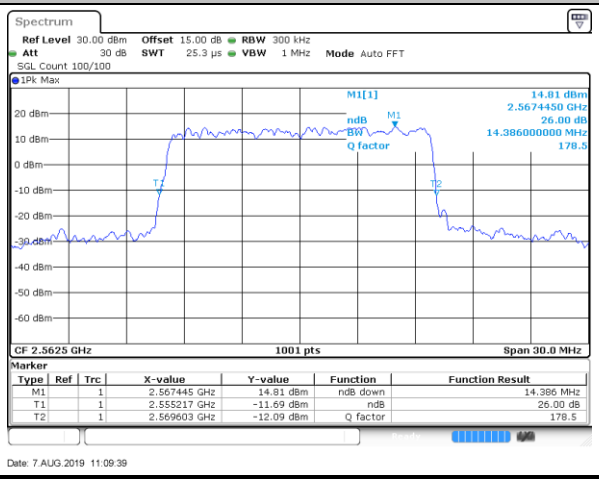
Middle Channel / 15MHz / QPSK



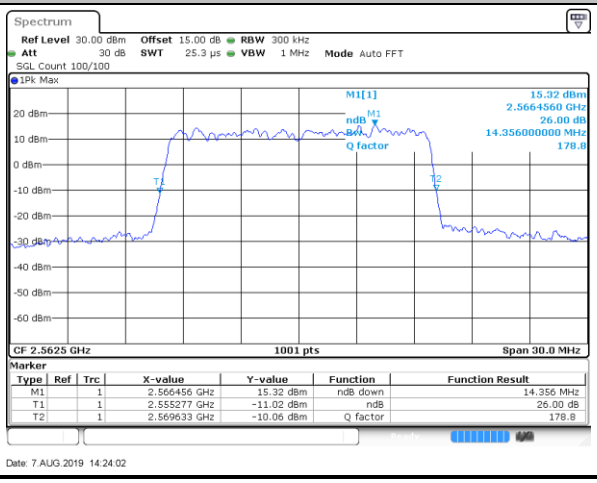
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK

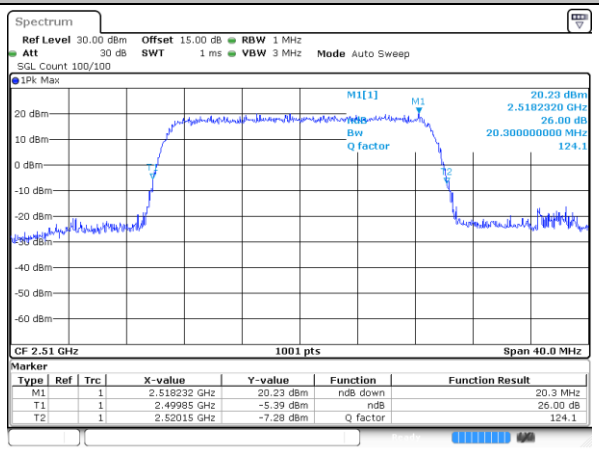


Highest Channel / 15MHz / 16QAM

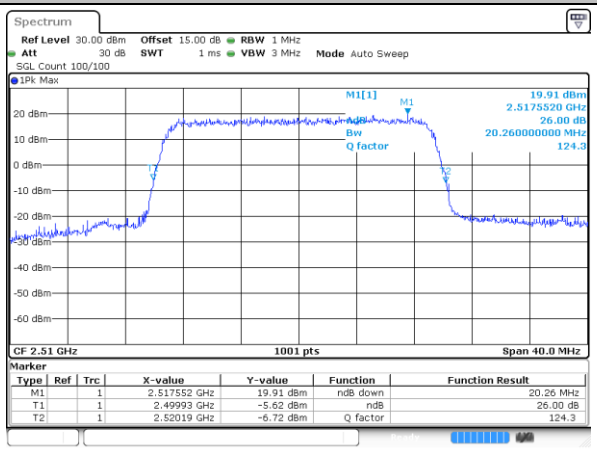


LTE Band 7

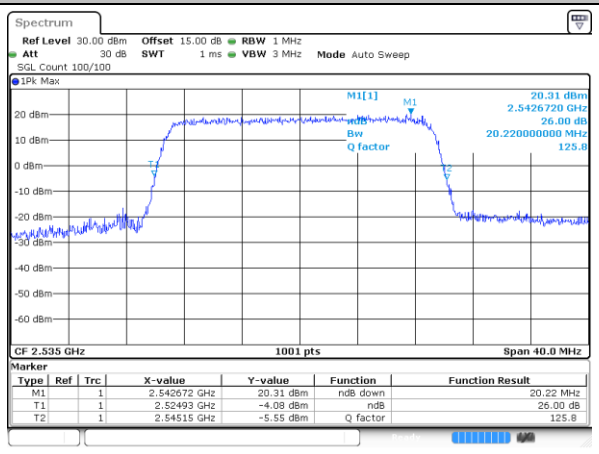
Lowest Channel / 20MHz / QPSK



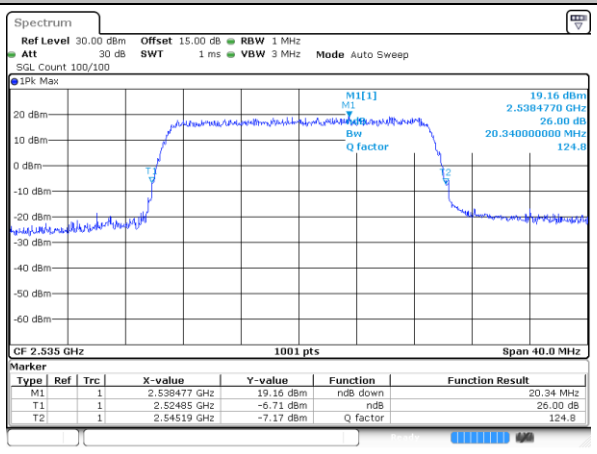
Lowest Channel / 20MHz / 16QAM



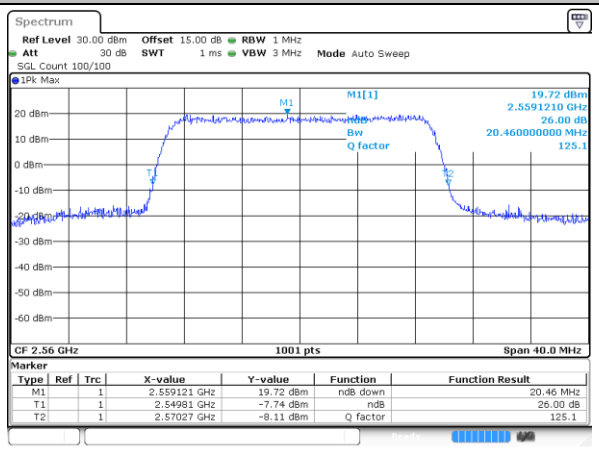
Middle Channel / 20MHz / QPSK



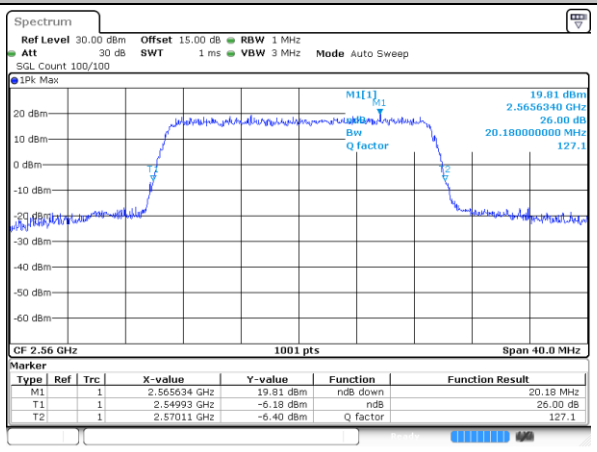
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK

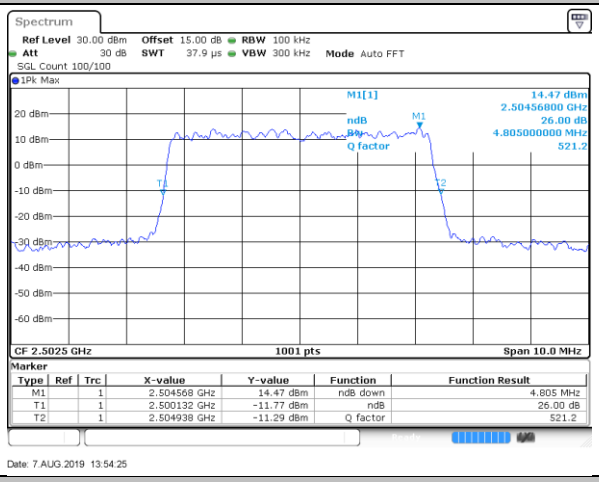


Highest Channel / 20MHz / 16QAM

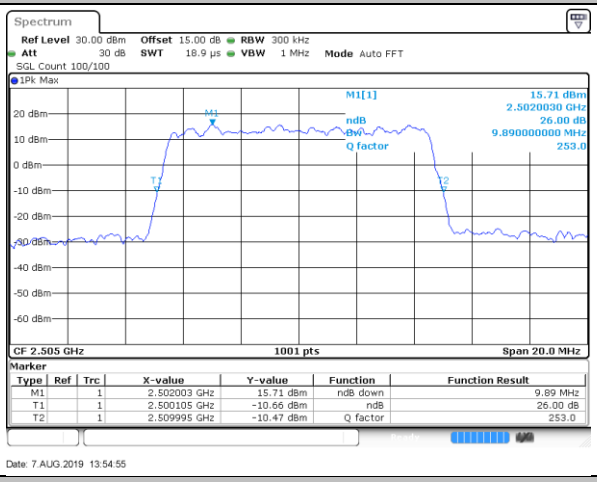


LTE Band 7

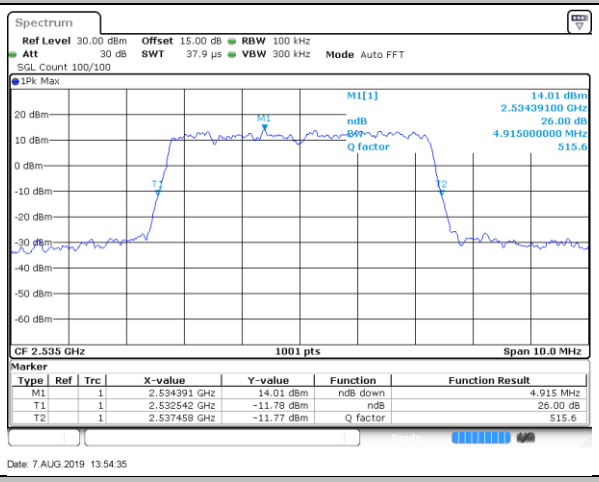
Lowest Channel / 5MHz / 64QAM



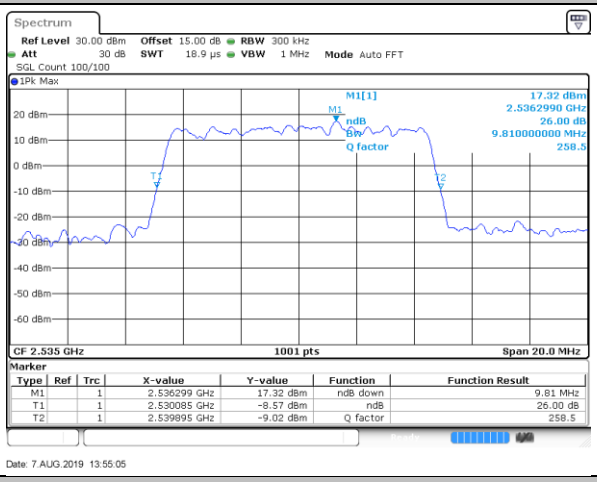
Lowest Channel / 10MHz / 64QAM



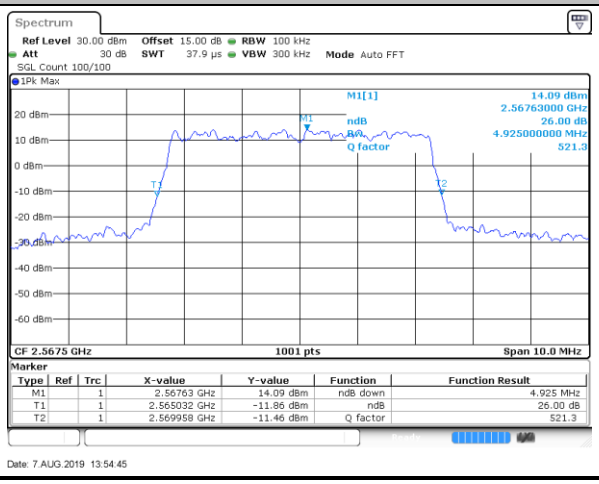
Middle Channel / 5MHz / 64QAM



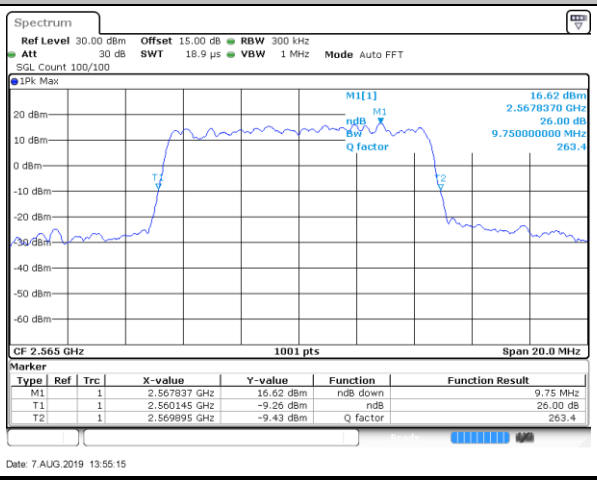
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM

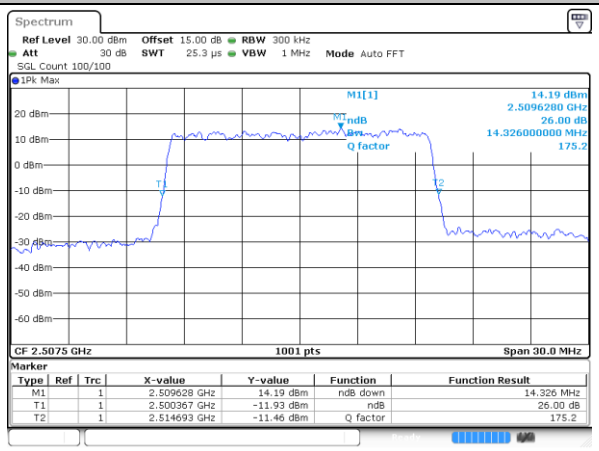


Highest Channel / 10MHz / 64QAM

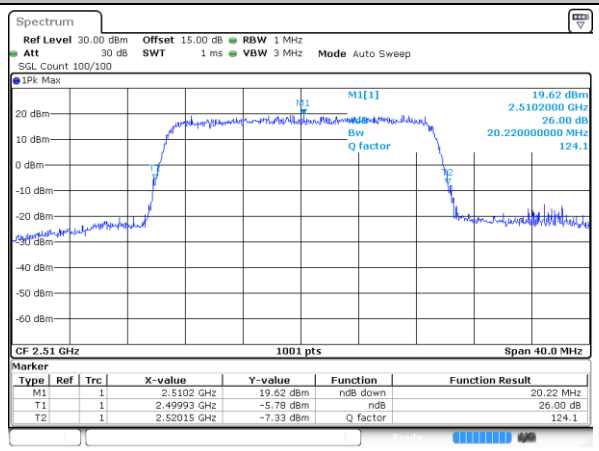


LTE Band 7

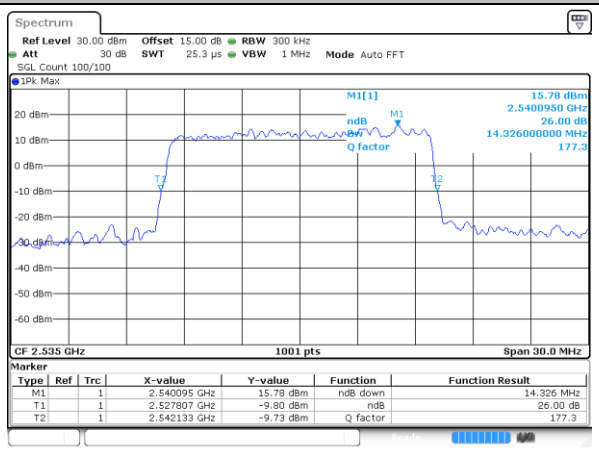
Lowest Channel / 15MHz / 64QAM



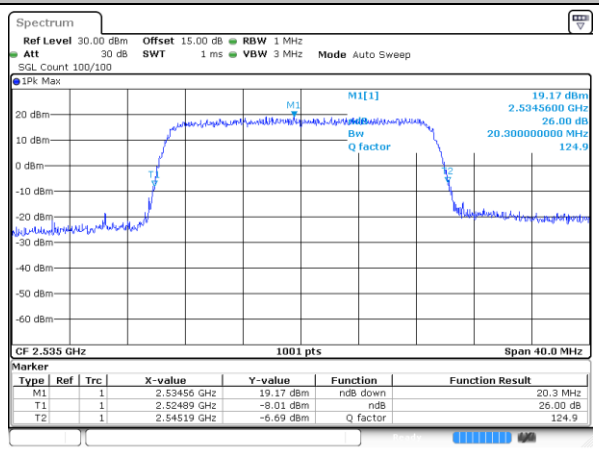
Lowest Channel / 20MHz / 64QAM



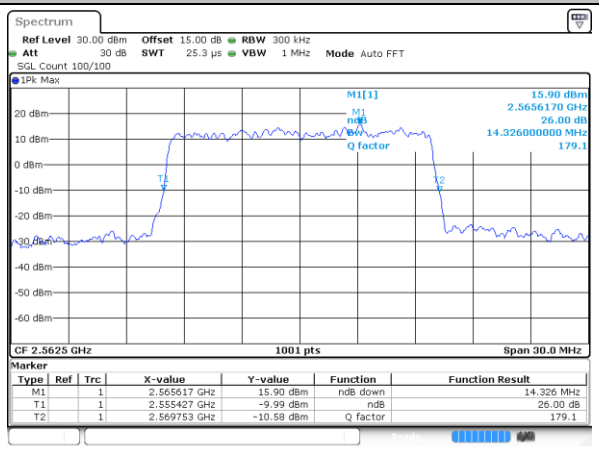
Middle Channel / 15MHz / 64QAM



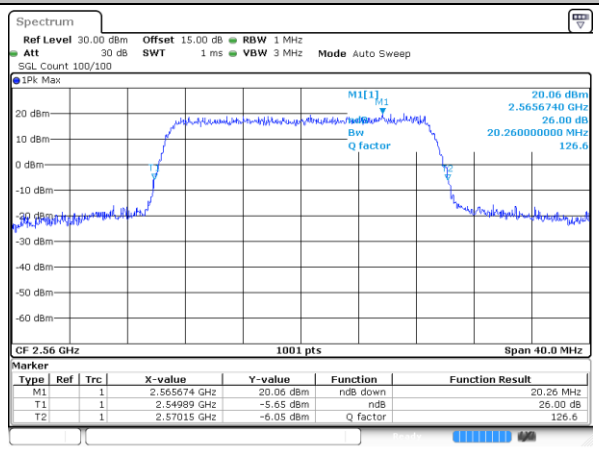
Middle Channel / 20MHz / 64QAM



Highest Channel / 15MHz / 64QAM

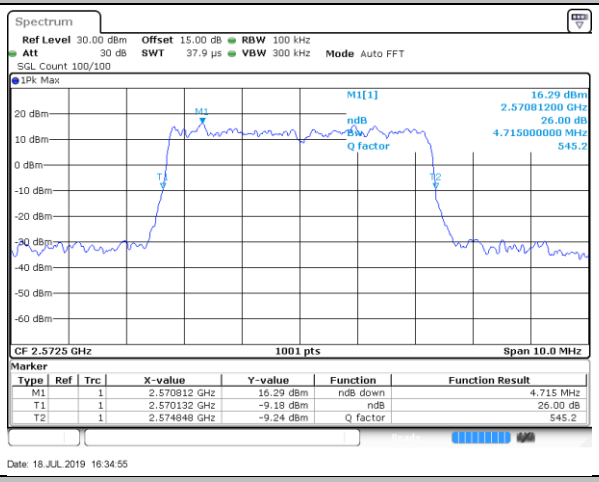


Highest Channel / 20MHz / 64QAM

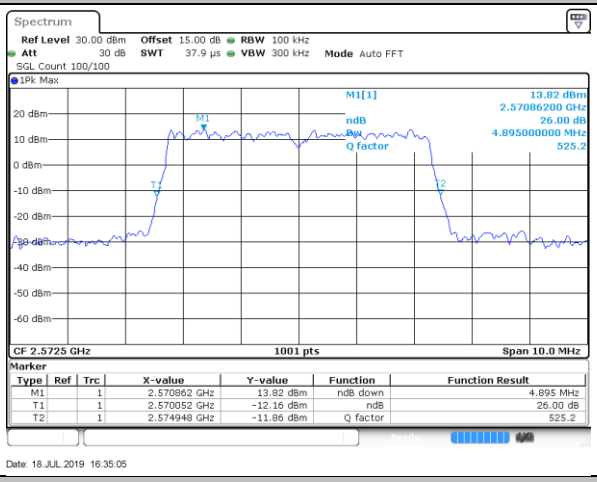


LTE Band 38

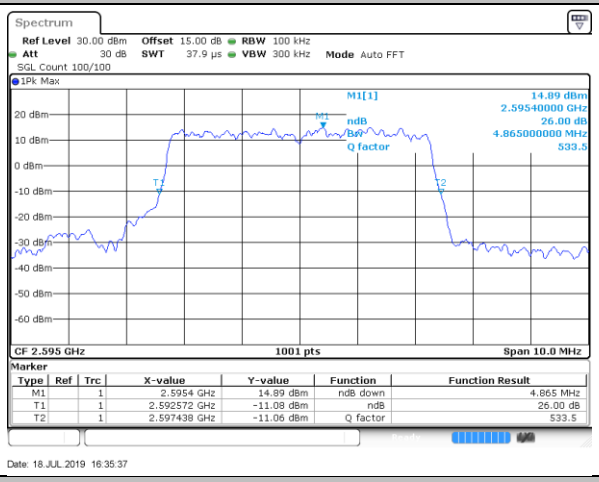
Lowest Channel / 5MHz / QPSK



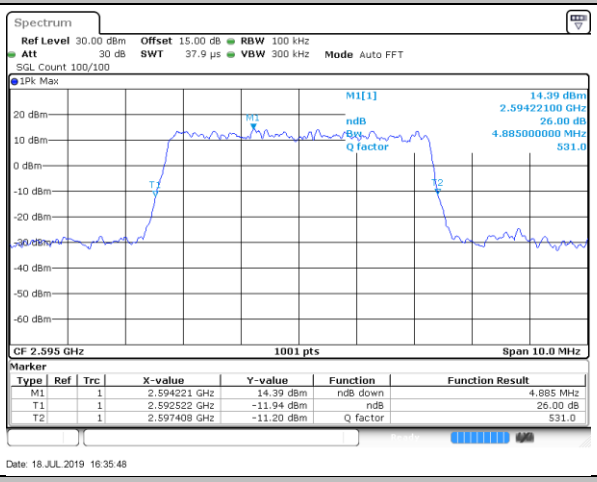
Lowest Channel / 5MHz / 16QAM



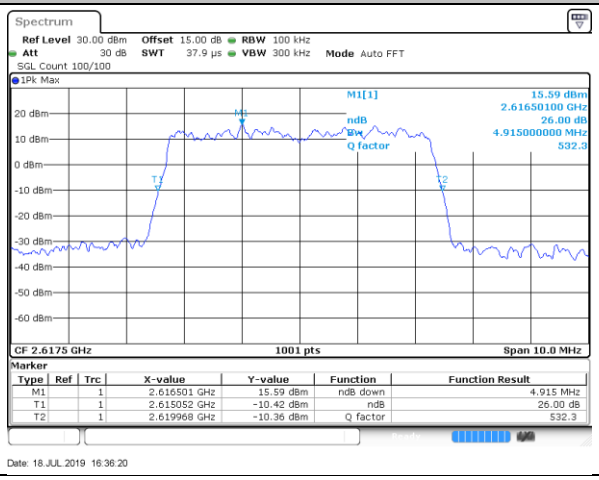
Middle Channel / 5MHz / QPSK



Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



Highest Channel / 5MHz / 16QAM