



FCC RF Test Report

APPLICANT : Fibocom Wireless Inc.
EQUIPMENT : 5G Module
BRAND NAME : Fibocom
MODEL NAME : FM150-NA
FCC ID : ZMOFM150NA
STANDARD : 47 CFR Part 2, 22(H), 24(E), 27(L)
CLASSIFICATION : PCS Licensed Transmitter (PCB)

The product was received on May 14, 2020 and completely tested on Aug. 10, 2020. We, Sporton International (Kunshan) Inc., would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.26-2015 and shown compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International (Kunshan) Inc., the test report shall not be reproduced except in full.

Jason Jia

Reviewed by: Jason Jia / Supervisor

James Huang

Approved by: James Huang / Manager



Sporton International (Kunshan) Inc.

***No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300
People's Republic of China***



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REVISION HISTORY

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FG051416B	Rev. 01	Initial issue of report	Sep. 11, 2020

SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
	§22.913(a)(5)	Effective Radiated Power (Band 5) (Band 26)	ERP < 7 Watt		
	§24.232(c)	Equivalent Isotropic Radiated Power (Band 2) (Band 25)	EIRP < 2Watt		
	§27.50(d)(4)	Equivalent Isotropic Radiated Power (Band 4) (Band 66)	EIRP < 1Watt		
3.5	§24.232(d)	Peak-to-Average Ratio	<13 dB	PASS	-
3.6	§2.1049	Occupied Bandwidth	Reporting Only	PASS	-
3.7	§2.1051 §22.917(a) §24.238(a) §27.53(h)	Conducted Band Edge Measurement (Band 2) (Band 4) (Band 5) (Band 25) (Band 26) (Band 66)	< 43+10log ₁₀ (P[Watts])	PASS	-
3.8	§2.1051 §22.917(a) §24.238(a) §27.53(h)	Conducted Spurious Emission (Band 2) (Band 4) (Band 5) (Band 25) (Band 26) (Band 66)	< 43+10log ₁₀ (P[Watts])	PASS	-
3.9	§2.1055 §22.355	Frequency Stability Temperature & Voltage	< 2.5 ppm for Part 22	PASS	-
	§2.1055 §24.235 §27.54		Within Authorized Band		
4.4	§2.1053 §22.917(a) §24.238(a) §27.53(h)	Radiated Spurious Emission (Band 2) (Band 4) (Band 5) (Band 25) (Band 26) (Band 66)	< 43+10log ₁₀ (P[Watts])	PASS	Under limit 29.46 dB at 7488.000 MHz

Declaration of Conformity:

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

Comments and Explanations:

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.



1 General Description

1.1 Applicant

Fibocom Wireless Inc.

5/F, Tower A, Technology Building II, 1057 Nanhai Avenue, Shenzhen, China

1.2 Manufacturer

Fibocom Wireless Inc.

5/F, Tower A, Technology Building II, 1057 Nanhai Avenue, Shenzhen, China

1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	5G Module
Brand Name	Fibocom
Model Name	FM150-NA
FCC ID	ZMOFM150NA
EUT supports Radios application	WCDMA/LTE/5G NR/GNSS
IMEI Code	Conducted: 867654040313583 RSE: 867654040317451
HW Version	V1.0.1
SW Version	89601.1000.00.02.11.20
EUT Stage	Identical Prototype

1.4 Product Specification of Equipment Under Test

Standards-related Product Specification	
Tx Frequency	LTE Band 2 : 1850.7 MHz ~ 1909.3 MHz LTE Band 4 : 1710.7 MHz ~ 1754.3 MHz LTE Band 5 : 824.7 MHz ~ 848.3 MHz LTE Band 25 : 1850.7MHz ~ 1914.3 MHz LTE Band 26 : 824.7MHz ~ 848.3 MHz LTE Band 66 : 1710.7 MHz ~ 1779.3 MHz
Rx Frequency	LTE Band 2 : 1930.7 MHz ~ 1989.3 MHz LTE Band 4 : 2110.7 MHz ~ 2154.3 MHz LTE Band 5 : 869.7 MHz ~ 893.3 MHz LTE Band 25 : 1930.7MHz ~ 1994.3 MHz LTE Band 26 : 869.7MHz ~ 893.3MHz LTE Band 66 : 2110.7 MHz ~ 2199.3 MHz
Bandwidth	LTE Band 2 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 4 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 5 : 1.4MHz / 3MHz / 5MHz / 10MHz LTE Band 25 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz LTE Band 26 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz LTE Band 66 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz

Maximum Output Power to Antenna	LTE Band 2 : 22.71 dBm
	LTE Band 4 : 23.26 dBm
	LTE Band 5 : 22.99 dBm
	LTE Band 25 : 22.84 dBm
	LTE Band 26 : 23.03 dBm
	LTE Band 66 : 23.28 dBm
	LTE Band 5B_CA : 24.62 dBm
Type of Modulation	QPSK / 16QAM / 64QAM

Remark: This module is limited to installation in fixed applications.

WWAN ANTENNA GAIN (dBi)		
Frequency Band	ANT.1: GHT-019A	ANT.2: AN0750-64S01BSM
LTE Band 2	1.93	1.46
LTE Band 4	2.86	0.13
LTE Band 5	1.32	1.12
LTE Band 25	1.93	1.46
LTE Band 26	1.61	1.78
LTE Band 66	3.53	0.13

Remark: Between the two type of antennas, only the worst antenna gain evaluated test is shown in bold.

1.5 Modification of EUT

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



1.6 Maximum Conducted Power, Frequency Tolerance, and Emission Designator

LTE Band 2		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum Conducted power (W)
1.4	1850.7 ~ 1909.3	1M09G7D	-	0.1854	1M09W7D	-	0.1585
3	1851.5 ~ 1908.5	2M73G7D	-	0.1923	2M74W7D	-	0.1622
5	1852.5 ~ 1907.5	4M49G7D	-	0.1824	4M50W7D	-	0.1614
10	1855.0 ~ 1905.0	9M05G7D	0.0022	0.1845	9M03W7D	-	0.1574
15	1857.5 ~ 1902.5	13M4G7D	-	0.1786	13M5W7D	-	0.1563
20	1860.0 ~ 1900.0	18M4G7D	-	0.1845	18M3W7D	-	0.1535
LTE Band 2		64QAM					
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)		Frequency Tolerance (ppm)	Maximum Conducted power (W)		
1.4	1850.7 ~ 1909.3	1M10W7D		-	0.1005		
3	1851.5 ~ 1908.5	2M73W7D		-	0.1002		
5	1852.5 ~ 1907.5	4M50W7D		-	0.0966		
10	1855.0 ~ 1905.0	9M07W7D		-	0.0986		
15	1857.5 ~ 1902.5	13M5W7D		-	0.0979		
20	1860.0 ~ 1900.0	18M4W7D		-	0.1014		
LTE Band 25		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum Conducted power (W)
1.4	1850.7 ~ 1914.3	1M09G7D	-	0.1854	1M09W7D	-	0.1585
3	1851.5 ~ 1913.5	2M73G7D	-	0.1923	2M74W7D	-	0.1622
5	1852.5 ~ 1912.5	4M49G7D	-	0.1824	4M50W7D	-	0.1614
10	1855.0 ~ 1910.0	9M05G7D	0.0022	0.1845	9M03W7D	-	0.1574
15	1857.5 ~ 1907.5	13M4G7D	-	0.1786	13M5W7D	-	0.1563
20	1860.0 ~ 1905.0	18M4G7D	-	0.1845	18M3W7D	-	0.1535



LTE Band 25		64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum Conducted power (W)
1.4	1850.7 ~ 1914.3	1M10W7D	-	0.1005
3	1851.5 ~ 1913.5	2M73W7D	-	0.1002
5	1852.5 ~ 1912.5	4M50W7D	-	0.0966
10	1855.0 ~ 1910.0	9M07W7D	-	0.0986
15	1857.5 ~ 1907.5	13M5W7D	-	0.0979
20	1860.0 ~ 1905.0	18M4W7D	-	0.1014

LTE Band 4		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum Conducted power (W)
1.4	1710.7 ~ 1754.3	1M09G7D	-	0.1816	1M09W7D	-	0.1585
3	1711.5 ~ 1753.5	2M73G7D	-	0.2009	2M72W7D	-	0.1466
5	1712.5 ~ 1752.5	4M51G7D	-	0.2023	4M53W7D	-	0.1710
10	1715.0 ~ 1750.0	9M09G7D	0.0042	0.2051	9M07W7D	-	0.1816
15	1717.5 ~ 1747.5	13M6G7D	-	0.2056	13M5W7D	-	0.1702
20	1720.0 ~ 1745.0	18M5G7D	-	0.2128	18M6W7D	-	0.1854

LTE Band 4		64QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum Conducted power (W)
1.4	1710.7 ~ 1754.3	1M09W7D	-	0.1016
3	1711.5 ~ 1753.5	2M73W7D	-	0.0989
5	1712.5 ~ 1752.5	4M51W7D	-	0.1099
10	1715.0 ~ 1750.0	9M09W7D	-	0.1169
15	1717.5 ~ 1747.5	13M5W7D	-	0.1114
20	1720.0 ~ 1745.0	18M5W7D	-	0.1330



LTE Band 66		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum Conducted power (W)
1.4	1710.7 ~ 1779.3	1M09G7D	-	0.1816	1M09W7D	-	0.1585
3	1711.5 ~ 1778.5	2M73G7D	-	0.2009	2M72W7D	-	0.1466
5	1712.5 ~ 1777.5	4M51G7D	-	0.2023	4M53W7D	-	0.1710
10	1715.0 ~ 1775.0	9M09G7D	0.0042	0.2051	9M07W7D	-	0.1816
15	1717.5 ~ 1772.5	13M6G7D	-	0.2056	13M5W7D	-	0.1702
20	1720.0 ~ 1770.0	18M5G7D	-	0.2128	18M6W7D	-	0.1854
LTE Band 66		64QAM					
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)		Frequency Tolerance (ppm)		Maximum Conducted power (W)	
1.4	1710.7 ~ 1779.3	1M09W7D		-		0.1016	
3	1711.5 ~ 1778.5	2M73W7D		-		0.0989	
5	1712.5 ~ 1777.5	4M51W7D		-		0.1099	
10	1715.0 ~ 1775.0	9M09W7D		-		0.1169	
15	1717.5 ~ 1772.5	13M5W7D		-		0.1114	
20	1720.0 ~ 1770.0	18M5W7D		-		0.1330	

LTE Band 5		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum Conducted power (W)
1.4	824.7 ~ 848.3	1M09G7D	-	0.1875	1M09W7D	-	0.1656
3	825.5 ~ 847.5	2M73G7D	-	0.1888	2M72W7D	-	0.1671
5	826.5 ~ 846.5	4M50G7D	-	0.2009	4M50W7D	-	0.1667
10	829.0 ~ 844.0	9M01G7D	0.0093	0.1875	9M05W7D	-	0.1549
LTE Band 5		64QAM					
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)		Frequency Tolerance (ppm)		Maximum Conducted power (W)	
1.4	824.7 ~ 848.3	1M09W7D		-		0.1040	
3	825.5 ~ 847.5	2M73W7D		-		0.1038	
5	826.5 ~ 846.5	4M51W7D		-		0.1099	
10	829.0 ~ 844.0	9M07W7D		-		0.1000	



LTE Band 26		QPSK			16QAM		
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum Conducted power (W)
1.4	824.7 ~ 848.3	1M09G7D	-	0.1875	1M09W7D	-	0.1656
3	825.5 ~ 847.5	2M73G7D	-	0.1888	2M72W7D	-	0.1671
5	826.5 ~ 846.5	4M50G7D	-	0.2009	4M50W7D	-	0.1667
10	829.0 ~ 844.0	9M01G7D	0.0093	0.1875	9M05W7D	-	0.1549
15	831.5 ~ 841.5	13M5G7D	-	0.1803	13M5W7D	-	0.1592
CH26765	821.5	13M4G7D	-	0.1734	13M4W7D	-	0.1549
LTE Band 26		64QAM					
BW (MHz)	Frequency Range (MHz)	Emission Designator (99%OBW)		Frequency Tolerance (ppm)		Maximum Conducted power (W)	
1.4	824.7 ~ 848.3	1M09W7D		-		0.1040	
3	825.5 ~ 847.5	2M73W7D		-		0.1038	
5	826.5 ~ 846.5	4M51W7D		-		0.1099	
10	829.0 ~ 844.0	9M07W7D		-		0.1000	
15	831.5 ~ 841.5	13M5W7D		-		0.1009	
CH26765	821.5	13M5W7D		-		0.0955	



LTE Band 5B_CA	QPSK			16QAM		
BW (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum Conducted power (W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum Conducted power (W)
3MHz+5MHz	7M58G7D	-	0.2704	7M56W7D	-	0.2449
5MHz+3MHz	7M64G7D	-	0.2685	7M61W7D	-	0.2466
5MHz+10MHz	13M9G7D	-	0.2831	13M9W7D	-	0.2466
10MHz+5MHz	13M9G7D	-	0.2897	13M9W7D	-	0.2529
10MHz+10MHz	18M8G7D	-	0.2773	18M7W7D	-	0.2541
LTE Band 5B_CA	64QAM					
BW (MHz)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)		Maximum Conducted power (W)		
3MHz+5MHz	7M53W7D	-		0.1910		
5MHz+3MHz	7M58W7D	-		0.1824		
5MHz+10MHz	13M7W7D	-		0.1892		
10MHz+5MHz	14M0W7D	-		0.1758		
10MHz+10MHz	18M7W7D	-		0.1858		

Note:

1. LTE Band 26 overlaps the entire frequency range of LTE Band 5. Therefore, the test results provided in this report covers Band 5 and the portion of Band 26 subject to Part 22.
2. LTE Band 66 overlaps the entire frequency range of LTE Band 4. Therefore, the test results provided in this report covers Band 66 as well as Band 4.
3. LTE Band 25 overlaps the entire frequency range of LTE Band 2. Therefore, the test results provided in this report covers Band 25 as well as Band 2.
4. The maximum EIRP for CA band is calculated from max output power of 10M+10M and max antenna gain, only the maximum EIRP of Band 5B_CA is shown on the report.

1.7 Testing Location

Sporton International (Kunshan) Inc. is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Test Firm	Sporton International (Kunshan) Inc.		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158 FAX : +86-512-57900958		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	03CH02-KS TH01-KS	CN1257	314309

1.8 Test Software

Item	Site	Manufacture	Name	Version
1.	03CH02-KS	AUDIX	E3	6.2009-8-24a

1.9 Applicable Standards

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

- ♦ 47 CFR Part 2, 22(H), 24(E), 27(L)
- ♦ 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	2	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	4	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	5	v	v	v	v	-	-	v	v	v	v	v	v	v	v	v
	25	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	26	v	v	v	v	v	-	v	v	v	v	v	v	v	v	v
	66	v	v	v	v	v	v	v	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	25						v	v	v	v	v		v	v	v	v
	26				v		-	v	v	v	v		v	v	v	v
	66						v	v	v	v	v		v	v	v	v
26dB and 99% Bandwidth	25	v	v	v	v	v	v	v	v	v			v	v	v	v
	26	v	v	v	v	v	-	v	v	v			v	v	v	v
	66	v	v	v	v	v	v	v	v	v			v	v	v	v
Conducted Band Edge	25	v	v	v	v	v	v	v	v	v	v		v	v		v
	26	v	v	v	v	v	-	v	v	v	v		v	v		v
	66	v	v	v	v	v	v	v	v	v	v		v	v		v

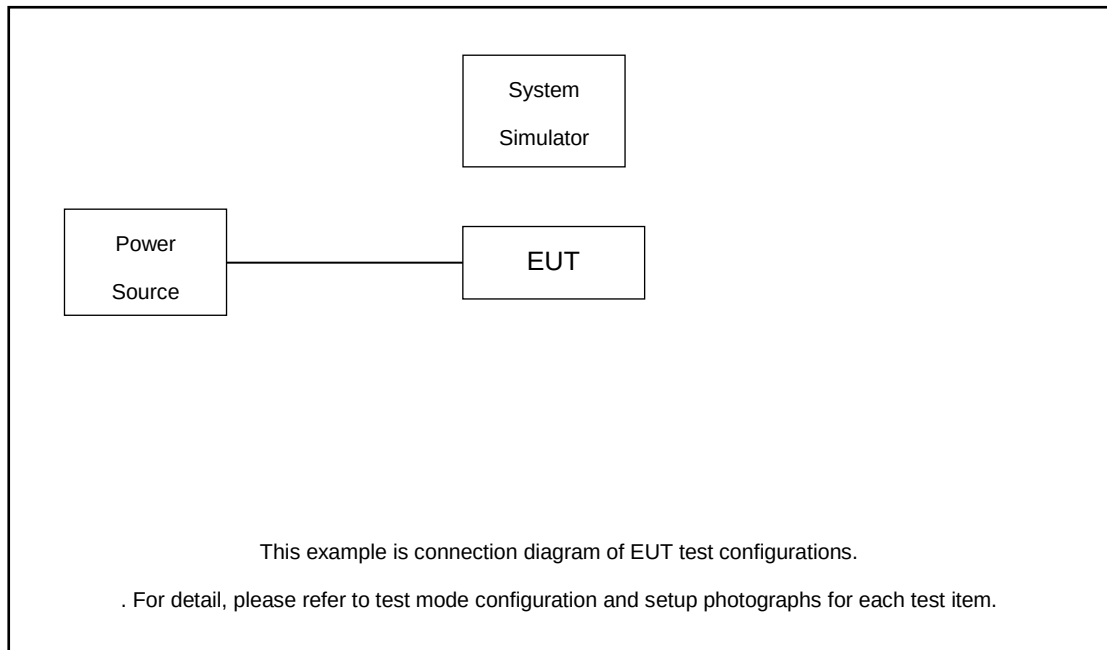


Test Items	Band	Bandwidth (MHz)						Modulation			RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Conducted Spurious Emission	25	v	v	v	v	v	v	v	v	v	v			v	v	v
	26	v	v	v	v	v	-	v	v	v	v			v	v	v
	66	v	v	v	v	v	v	v	v	v	v			v	v	v
Frequency Stability	25				v			v					v		v	
	26				v		-	v					v		v	
	66				v			v					v		v	
E.R.P / E.I.R.P	25	v	v	v	v	v	v	v	v	v	v			v	v	v
	26	v	v	v	v	v	-	v	v	v	v			v	v	v
	66	v	v	v	v	v	v	v	v	v	v			v	v	v
Radiated Spurious Emission	2	Worst Case												v	v	v
	4	Worst Case												v	v	v
	5	Worst Case												v	v	v
	25	Worst Case												v	v	v
	26	Worst Case												v	v	v
	66	Worst Case												v	v	v
Note	1. The mark “v ” means that this configuration is chosen for testing 2. The mark “-“ means that this bandwidth is not supported. 3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported. 4. LTE Band 26 overlaps the entire frequency range of LTE Band 5. Therefore, the test results provided in this report covers Band 5 and the portion of Band 26 subject to Part 22 5. LTE Band 66 overlaps the entire frequency range of LTE Band 4. Therefore, the test results provided in this report covers Band 66 as well as Band 4. 6. LTE Band 25 overlaps the entire frequency range of LTE Band 2. Therefore, the test results provided in this report covers Band 25 as well as Band 2.															



Test Items	Band	Bandwidth (MHz)					Modulation			RB #			Test Channel		
		3+5	5+3	5+10	10+5	10+10	QPSK	16QAM	64QAM	1	Half	Full	L	M	H
Max. Output Power	5B_CA	v	v	v	v	v	v	v	v	v	v	v	v	v	v
26dB and 99% Bandwidth	5B_CA	v	v	v	v	v	v	v	v			v	v	v	v
Conducted Band Edge	5B_CA	v	v	v	v	v	v	v	v	v		v	v		v
Conducted Spurious Emission	5B_CA	v	v	v	v	v	v	v	v	v			v	v	v
E.I.R.P.	5B_CA	v	v	v	v	v	v	v	v	v			v	v	v
Radiated Spurious Emission	5B_CA	Worst Case											v	v	v
Note	1. The mark "v " means that this configuration is chosen for testing 2. The mark "- " means that this bandwidth is not supported. 3. The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported.														

2.2 Connection Diagram of Test System



2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	Power Supply	GWINSTEK	PSS-2002	N/A	N/A	Unshielded, 1.8 m
2.	LTE Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m
3.	Antenna	N/A	N/A	N/A	N/A	N/A
4.	Adapter	N/A	N/A	N/A	N/A	N/A
5.	Test jig	N/A	N/A	N/A	N/A	N/A

2.4 Measurement Results Explanation Example

For all conducted test items:

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

The spectrum analyzer offset is derived from RF cable loss.

Offset = RF cable loss.

Following shows an offset computation example with cable loss 4.20 dB.

Example :



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

= 4.20 (dB)

2.5 Frequency List of Low/Middle/High Channels

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

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



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

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

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

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

LTE Band 5B_CA Channel and Frequency List					
BW [MHz]	Channel/Frequency(MHz)		Lowest	Middle	Highest
3 + 5	PCC	Channel	20416	20501	20586
		Frequency	825.6	834.1	842.6
	SCC	Channel	20455	20540	20625
		Frequency	829.5	838.0	846.5
5 + 3	PCC	Channel	20425	20510	20595
		Frequency	826.5	835.0	843.5
	SCC	Channel	20464	20549	20634
		Frequency	830.4	838.9	847.4
5 + 10	PCC	Channel	20428	20478	20528
		Frequency	826.8	831.8	836.8
	SCC	Channel	20500	20550	20600
		Frequency	834	839	844
10 + 5	PCC	Channel	20450	20500	20550
		Frequency	829	834	839
	SCC	Channel	20522	20572	20622
		Frequency	836.2	841.2	846.2
10 + 10	PCC	Channel	20450	20476	20501
		Frequency	829	831.6	834.1
	SCC	Channel	20549	20575	20600
		Frequency	838.9	841.5	844

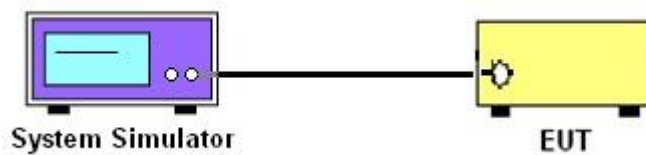
3 Conducted Test Items

3.1 Measuring Instruments

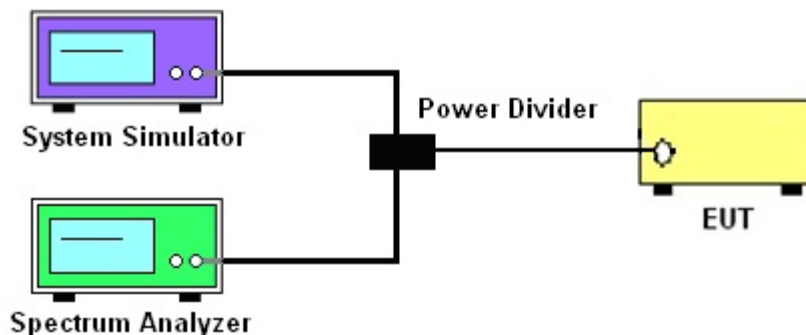
See list of measuring instruments of this test report.

3.2 Test Setup

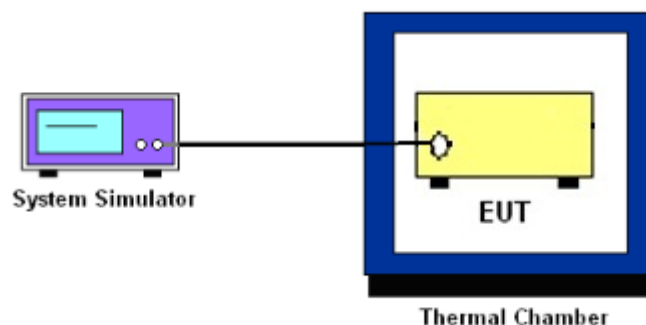
3.2.1 Conducted Output Power



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



3.2.3 Frequency Stability



3.3 Test Result of Conducted Test

Please refer to Appendix A.



3.4 Conducted Output Power and ERP/EIRP

3.4.1 Description of the Conducted Output Power Measurement and ERP/EIRP Measurement

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

The ERP of mobile transmitters must not exceed 7 Watts for LTE Band 5 and Band 26.

The EIRP of mobile transmitters must not exceed 2 Watts for LTE Band 2 and Band 25

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

According to KDB 412172 D01 Power Approach,

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

P_T = transmitter output power in dBm

G_T = gain of the transmitting antenna in dBi

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

3.4.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.2
2. The transmitter output port was connected to the system simulator.
3. Set EUT at maximum power through the system simulator.
4. Select lowest, middle, and highest channels for each band and different modulation.
5. Measure and record the power level from the system simulator.

3.5 Peak-to-Average Ratio

3.5.1 Description of the PAR Measurement

Power Complementary Cumulative Distribution Function (CCDF) curves provide a means for characterizing the power peaks of a digitally modulated signal on a statistical basis. A CCDF curve depicts the probability of the peak signal amplitude exceeding the average power level. Most contemporary measurement instrumentation include the capability to produce CCDF curves for an input signal provided that the instrument's resolution bandwidth can be set wide enough to accommodate the entire input signal bandwidth. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

3.5.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.2.3.4 (CCDF).
2. The EUT was connected to spectrum and system simulator via a power divider.
3. Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
4. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1 %.
5. Record the deviation as Peak to Average Ratio.

3.6 Occupied Bandwidth

3.6.1 Description of Occupied Bandwidth Measurement

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

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

3.6.2 Test Procedures

1. The testing follows ANSI C63.26 Section 5.4
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the spectrum analyzer shall be between two and five times the anticipated OBW.
4. The nominal resolution bandwidth (RBW) shall be in the range of 1 to 5 % of the anticipated OBW, and the VBW shall be at least 3 times the RBW.
5. Set the detection mode to peak, and the trace mode to max hold.
6. Determine the reference value: Set the EUT to transmit a modulated signal. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace.
(this is the reference value)
7. Determine the “-26 dB down amplitude” as equal to (Reference Value – X).
8. Place two markers, one at the lowest and the other at the highest frequency of the envelope of the spectral display such that each marker is at or slightly below the “-X dB down amplitude” determined in step 6. If a marker is below this “-X dB down amplitude” value it shall be placed as close as possible to this value. The OBW is the positive frequency difference between the two markers.
9. Use the 99 % power bandwidth function of the spectrum analyzer and report the measured bandwidth.

3.7 Conducted Band Edge

3.7.1 Description of Conducted Band Edge Measurement

22.917(a)

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

24.238 (a)

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

27.53 (h)

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

3.7.2 Test Procedures

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

Example:

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

3.8 Conducted Spurious Emission

3.8.1 Description of Conducted Spurious Emission Measurement

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

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

3.8.2 Test Procedures

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

3.9 Frequency Stability

3.9.1 Description of Frequency Stability Measurement

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

3.9.2 Test Procedures for Temperature Variation

1. The testing follows ANSI C63.26 section 5.6.4
2. The EUT was set up in the thermal chamber and connected with the system simulator.
3. With power OFF, the temperature was decreased to -30°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 $20\pm 5^{\circ}\text{C}$ and connected with the system simulator.
3. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value for other than hand carried battery equipment.
4. For hand carried, battery powered equipment, reduce the primary ac or dc supply voltage to the battery operating end point, which shall be specified by the manufacturer.
5. The variation in frequency was measured for the worst case.

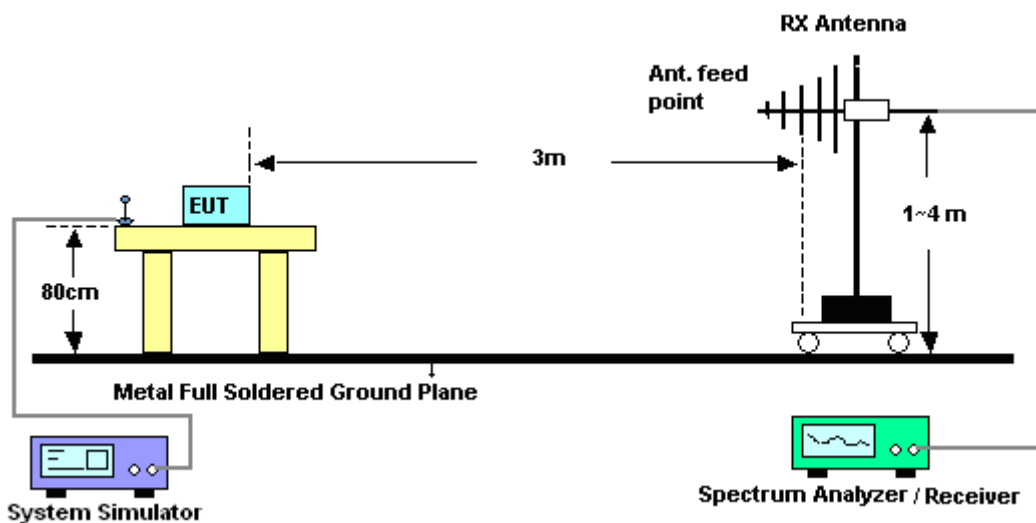
4 Radiated Test Items

4.1 Measuring Instruments

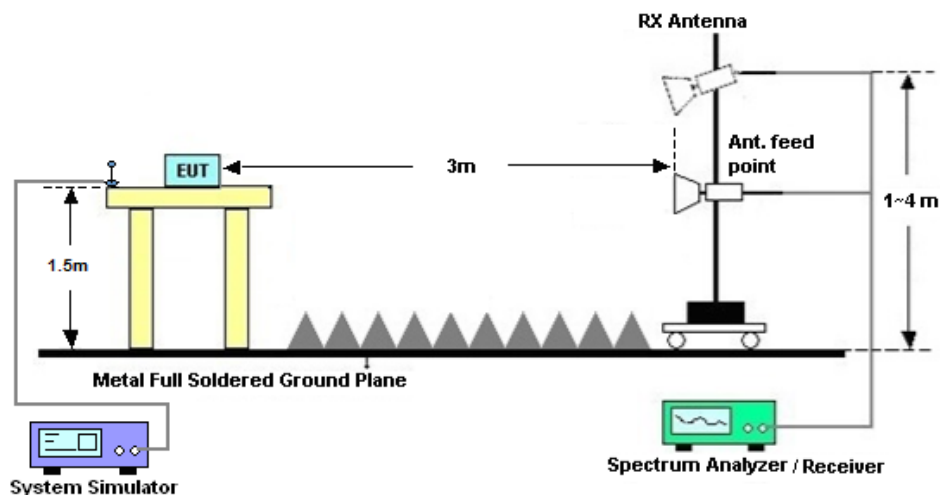
See list of measuring instruments of this test report.

4.2 Test Setup

4.2.1 For radiated test from 30MHz to 1GHz



4.2.2 For radiated test above 1GHz



4.3 Test Result of Radiated Test

Please refer to Appendix B.

4.4 Radiated Spurious Emission

4.4.1 Description of Radiated Spurious Emission

The radiated spurious emission was measured by substitution method according to ANSI C63.26. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least $43 + 10 \log (P)$ dB.

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. $EIRP \text{ (dBm)} = S.G. \text{ Power} - Tx \text{ Cable Loss} + Tx \text{ Antenna Gain}$
11. $ERP \text{ (dBm)} = EIRP - 2.15$
12. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

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



5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101040	10Hz~40GHz	Nov. 02, 2019	Jul. 07, 2020~ Aug. 09, 2020	Nov. 01, 2020	Conducted (TH01-KS)
Thermal Chamber	Ten Billion	TTC-B3S	TBN-960502	-40~+150°C	Oct. 28, 2019	Jul. 07, 2020~ Aug. 09, 2020	Oct. 27, 2020	Conducted (TH01-KS)
EMI Test Receiver	R&S	ESR7	101403	9kHz~7GHz;Max 30dBm	Oct. 18, 2019	Aug. 10, 2020	Oct. 17, 2020	Radiation (03CH02-KS)
EXA Spectrum Analyzer	Keysight	N9010A	MY55370528	10Hz~44G,MAX 30dB	Oct.18, 2019	Aug. 10, 2020	Oct. 17, 2020	Radiation (03CH02-KS)
Bilog Antenna	TeseQ	CBL6111D	44483	30MHz~1GHz	Dec. 30, 2019	Aug. 10, 2020	Dec. 29, 2020	Radiation (03CH02-KS)
Double Ridge Horn Antenna	ETS-Lindgren	3117	75957	1GHz~18GHz	Nov. 10, 2019	Aug. 10, 2020	Nov. 09, 2020	Radiation (03CH02-KS)
high gain Amplifier	MITEQ	AMF-7D-00 101800-30-1 NP	2025788	100MHz~18GHz	Jan. 03, 2020	Aug. 10, 2020	Jan. 02, 2021	Radiation (03CH02-KS)
SHF-EHF Horn	Com-power	AH-840	101115	18GHz~40GHz	Nov. 10, 2019	Aug. 10, 2020	Nov. 09, 2020	Radiation (03CH02-KS)
Amplifier	SONOMA	310N	187289	9KHz~1GHz	Jan. 03, 2020	Aug. 10, 2020	Jan. 02, 2021	Radiation (03CH02-KS)
Amplifier	Keysight	83017A	MY53270316	500MHz~26.5GHz	Oct. 18, 2019	Aug. 10, 2020	Oct. 17, 2020	Radiation (03CH02-KS)
Amplifier	MITEQ	EM18G40G GA	060728	18~40GHz	Jan. 08, 2020	Aug. 10, 2020	Jan. 07, 2021	Radiation (03CH02-KS)
AC Power Source	Chroma	61601	616010002473	N/A	NCR	Aug. 10, 2020	NCR	Radiation (03CH02-KS)
Turn Table	MF	MF7802	N/A	0~360 degree	NCR	Aug. 10, 2020	NCR	Radiation (03CH02-KS)
Antenna Mast	MF	MF7802	N/A	1 m~4 m	NCR	Aug. 10, 2020	NCR	Radiation (03CH02-KS)

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% ($U = 2U_c(y)$)	2.5dB
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Uncertainty of Radiated Emission Measurement (1 GHz ~ 40 GHz)

Measuring Uncertainty for a Level of Confidence of 95% ($U = 2U_c(y)$)	2.1dB
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Appendix A. Test Results of Conducted Test

Conducted Output Power(Average power)

LTE Band 2

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power
				Low Ch. / Freq.	Middle Ch. / Freq.	High Ch. / Freq.
Channel				18700	18900	19100
Frequency (MHz)				1860	1880	1900
20	QPSK	1	0	22.51	22.66	22.40
20	QPSK	1	49	22.41	22.71	22.33
20	QPSK	1	99	22.47	22.60	22.34
20	QPSK	50	0	21.48	21.64	21.52
20	QPSK	50	24	21.62	21.68	21.56
20	QPSK	50	50	21.61	21.78	21.47
20	QPSK	100	0	21.65	21.76	21.55
20	16QAM	1	0	21.90	22.19	21.77
20	16QAM	1	49	21.93	22.11	21.81
20	16QAM	1	99	22.03	22.24	21.85
20	16QAM	50	0	20.51	20.70	20.58
20	16QAM	50	24	20.63	20.75	20.56
20	16QAM	50	50	20.66	20.87	20.57
20	16QAM	100	0	20.58	20.66	20.50
20	64QAM	1	0	19.62	19.96	19.81
20	64QAM	1	49	19.71	19.87	19.78
20	64QAM	1	99	19.88	19.91	19.62
20	64QAM	50	0	19.61	19.60	19.54
20	64QAM	50	24	19.61	19.67	19.56
20	64QAM	50	50	19.73	19.72	19.52
20	64QAM	100	0	19.65	19.59	19.58



Channel				18675	18900	19125
Frequency (MHz)				1857.5	1880	1902.5
15	QPSK	1	0	22.41	22.37	22.35
15	QPSK	1	37	22.45	22.58	22.37
15	QPSK	1	74	22.36	22.57	22.29
15	QPSK	36	0	21.61	21.52	21.40
15	QPSK	36	20	21.55	21.67	21.45
15	QPSK	36	39	21.62	21.59	21.56
15	QPSK	75	0	21.48	21.59	21.79
15	16QAM	1	0	21.76	21.73	21.68
15	16QAM	1	37	21.82	21.58	21.78
15	16QAM	1	74	21.87	21.75	21.71
15	16QAM	36	0	20.55	20.60	20.46
15	16QAM	36	20	20.63	20.61	20.47
15	16QAM	36	39	20.65	20.59	20.44
15	16QAM	75	0	20.53	20.58	20.49
15	64QAM	1	0	19.67	19.81	19.77
15	64QAM	1	37	19.79	19.75	19.71
15	64QAM	1	74	19.78	19.88	19.51
15	64QAM	36	0	19.60	19.58	19.53
15	64QAM	36	20	19.59	19.60	19.50
15	64QAM	36	39	19.72	19.56	19.43
15	64QAM	75	0	19.66	19.48	19.44



Channel				18650	18900	19150
Frequency (MHz)				1855	1880	1905
10	QPSK	1	0	22.38	22.57	22.56
10	QPSK	1	25	22.59	22.59	22.30
10	QPSK	1	49	22.58	22.46	22.25
10	QPSK	25	0	21.61	21.59	21.33
10	QPSK	25	12	21.56	21.68	21.36
10	QPSK	25	25	21.51	21.57	21.43
10	QPSK	50	0	21.59	21.54	21.41
10	16QAM	1	0	22.12	22.13	21.90
10	16QAM	1	25	22.11	21.99	21.83
10	16QAM	1	49	21.79	21.70	21.91
10	16QAM	25	0	20.54	20.58	20.43
10	16QAM	25	12	20.58	20.59	20.44
10	16QAM	25	25	20.33	20.59	20.40
10	16QAM	50	0	20.69	20.51	20.42
10	64QAM	1	0	19.74	19.80	19.68
10	64QAM	1	25	19.80	19.59	19.52
10	64QAM	1	49	19.75	19.61	19.61
10	64QAM	25	0	19.48	19.54	19.37
10	64QAM	25	12	19.71	19.72	19.40
10	64QAM	25	25	19.57	19.56	19.41
10	64QAM	50	0	19.73	19.71	19.39



Channel				18625	18900	19175
Frequency (MHz)				1852.5	1880	1907.5
5	QPSK	1	0	22.38	22.46	22.30
5	QPSK	1	12	22.39	22.37	22.36
5	QPSK	1	24	22.56	22.57	22.27
5	QPSK	12	0	21.56	21.51	21.39
5	QPSK	12	7	21.50	21.53	21.38
5	QPSK	12	13	21.54	21.55	21.36
5	QPSK	25	0	21.48	21.51	21.34
5	16QAM	1	0	21.60	21.70	21.77
5	16QAM	1	12	21.81	21.78	21.71
5	16QAM	1	24	21.87	21.70	21.85
5	16QAM	12	0	20.55	20.55	20.44
5	16QAM	12	7	20.57	20.56	20.40
5	16QAM	12	13	20.62	20.64	20.41
5	16QAM	25	0	20.62	20.58	20.37
5	64QAM	1	0	19.74	19.61	19.54
5	64QAM	1	12	19.66	19.62	19.58
5	64QAM	1	24	19.82	19.66	19.56
5	64QAM	12	0	19.69	19.57	19.44
5	64QAM	12	7	19.73	19.65	19.50
5	64QAM	12	13	19.59	19.69	19.44
5	64QAM	25	0	19.56	19.61	19.40



Channel				18615	18900	19185
Frequency (MHz)				1851.5	1880	1908.5
3	QPSK	1	0	22.60	22.58	22.28
3	QPSK	1	8	22.66	22.63	22.36
3	QPSK	1	14	22.53	22.57	22.25
3	QPSK	8	0	21.53	21.48	21.30
3	QPSK	8	4	21.76	21.61	21.35
3	QPSK	8	7	21.61	21.59	21.28
3	QPSK	15	0	21.58	21.59	21.29
3	16QAM	1	0	21.52	21.61	21.73
3	16QAM	1	8	21.72	21.83	21.79
3	16QAM	1	14	21.94	21.92	21.69
3	16QAM	8	0	20.73	20.75	20.36
3	16QAM	8	4	20.69	20.78	20.37
3	16QAM	8	7	20.59	20.58	20.35
3	16QAM	15	0	20.56	20.63	20.43
3	64QAM	1	0	19.70	19.71	19.53
3	64QAM	1	8	19.68	19.68	19.51
3	64QAM	1	14	19.76	19.80	19.73
3	64QAM	8	0	19.70	19.62	19.40
3	64QAM	8	4	19.69	19.72	19.41
3	64QAM	8	7	19.76	19.66	19.36
3	64QAM	15	0	19.77	19.61	19.41



Channel				18607	18900	19193
Frequency (MHz)				1850.7	1880	1909.3
1.4	QPSK	1	0	22.36	22.46	22.09
1.4	QPSK	1	3	22.58	22.42	22.28
1.4	QPSK	1	5	22.50	22.51	22.16
1.4	QPSK	3	0	22.37	22.43	22.15
1.4	QPSK	3	1	22.59	22.44	22.20
1.4	QPSK	3	3	22.49	22.42	22.18
1.4	QPSK	6	0	21.49	21.50	21.23
1.4	16QAM	1	0	21.76	21.77	21.66
1.4	16QAM	1	3	21.80	21.82	21.55
1.4	16QAM	1	5	21.83	21.85	21.43
1.4	16QAM	3	0	21.58	21.50	21.22
1.4	16QAM	3	1	21.51	21.60	21.27
1.4	16QAM	3	3	21.55	21.48	21.39
1.4	16QAM	6	0	20.70	20.72	20.40
1.4	64QAM	1	0	19.60	19.71	19.41
1.4	64QAM	1	3	19.77	19.91	19.60
1.4	64QAM	1	5	19.78	19.81	19.63
1.4	64QAM	3	0	19.70	19.75	19.42
1.4	64QAM	3	1	19.68	19.80	19.36
1.4	64QAM	3	3	19.71	19.76	19.37
1.4	64QAM	6	0	19.50	19.46	19.39

**LTE Band 4**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				20050	20175	20300
Frequency (MHz)				1720	1732.5	1745
20	QPSK	1	0	23.23	23.26	23.04
20	QPSK	1	49	22.58	22.59	22.60
20	QPSK	1	99	22.91	22.80	22.76
20	QPSK	50	0	22.06	22.16	22.20
20	QPSK	50	24	22.32	22.26	22.37
20	QPSK	50	50	22.50	22.53	22.38
20	QPSK	100	0	22.64	22.42	22.35
20	16QAM	1	0	22.71	22.68	22.61
20	16QAM	1	49	22.51	22.47	22.69
20	16QAM	1	99	22.73	22.71	22.67
20	16QAM	50	0	21.65	21.61	21.56
20	16QAM	50	24	21.67	21.56	21.41
20	16QAM	50	50	21.39	21.42	21.39
20	16QAM	100	0	21.59	21.68	21.34
20	64QAM	1	0	20.83	20.57	20.73
20	64QAM	1	49	20.84	20.69	20.74
20	64QAM	1	99	20.58	20.48	20.76
20	64QAM	50	0	20.74	20.32	20.43
20	64QAM	50	24	20.58	20.48	20.41
20	64QAM	50	50	20.67	20.38	20.34
20	64QAM	100	0	20.25	20.35	20.38



Channel				20025	20175	20325
Frequency (MHz)				1717.5	1732.5	1747.5
15	QPSK	1	0	23.21	23.15	23.20
15	QPSK	1	37	23.13	23.09	23.18
15	QPSK	1	74	23.19	23.23	23.11
15	QPSK	36	0	22.56	22.69	22.37
15	QPSK	36	20	22.47	22.51	22.39
15	QPSK	36	39	22.38	22.41	22.34
15	QPSK	75	0	22.29	22.38	22.33
15	16QAM	1	0	22.71	22.64	22.72
15	16QAM	1	37	22.66	22.59	22.68
15	16QAM	1	74	22.47	22.58	22.63
15	16QAM	36	0	21.52	21.41	21.49
15	16QAM	36	20	21.29	21.35	21.42
15	16QAM	36	39	21.54	21.51	21.36
15	16QAM	75	0	21.26	21.07	21.21
15	64QAM	1	0	20.71	20.74	20.71
15	64QAM	1	37	20.56	20.59	20.80
15	64QAM	1	74	20.46	20.56	20.75
15	64QAM	36	0	20.58	20.21	20.45
15	64QAM	36	20	20.26	20.38	20.47
15	64QAM	36	39	20.16	20.28	20.36
15	64QAM	75	0	20.22	20.13	20.28



Channel				20000	20175	20350
Frequency (MHz)				1715	1732.5	1750
10	QPSK	1	0	23.14	23.07	23.11
10	QPSK	1	25	23.18	23.22	23.14
10	QPSK	1	49	23.19	23.11	23.06
10	QPSK	25	0	22.58	22.53	22.36
10	QPSK	25	12	22.67	22.64	22.34
10	QPSK	25	25	22.58	22.60	22.43
10	QPSK	50	0	22.39	22.57	22.35
10	16QAM	1	0	22.69	22.74	22.71
10	16QAM	1	25	22.59	22.64	22.73
10	16QAM	1	49	22.56	22.73	22.69
10	16QAM	25	0	21.41	21.62	21.32
10	16QAM	25	12	21.59	21.68	21.53
10	16QAM	25	25	21.75	21.73	21.41
10	16QAM	50	0	21.48	21.45	21.29
10	64QAM	1	0	20.68	20.57	20.80
10	64QAM	1	25	20.56	20.59	20.67
10	64QAM	1	49	20.48	20.67	20.71
10	64QAM	25	0	20.34	20.37	20.38
10	64QAM	25	12	20.47	20.54	20.43
10	64QAM	25	25	20.38	20.47	20.42
10	64QAM	50	0	20.46	20.51	20.46



Channel				19975	20175	20375
Frequency (MHz)				1712.5	1732.5	1752.5
5	QPSK	1	0	23.20	23.19	23.17
5	QPSK	1	12	23.19	23.10	23.16
5	QPSK	1	24	23.23	23.14	23.21
5	QPSK	12	0	22.39	22.51	22.41
5	QPSK	12	7	22.46	22.49	22.40
5	QPSK	12	13	22.44	22.26	22.31
5	QPSK	25	0	22.51	22.45	22.38
5	16QAM	1	0	22.65	22.69	22.73
5	16QAM	1	12	22.76	22.74	22.71
5	16QAM	1	24	22.64	22.59	22.67
5	16QAM	12	0	21.49	21.58	21.42
5	16QAM	12	7	21.37	21.29	21.48
5	16QAM	12	13	21.41	21.37	21.29
5	16QAM	25	0	21.27	21.28	21.36
5	64QAM	1	0	20.59	20.69	20.71
5	64QAM	1	12	20.76	20.56	20.64
5	64QAM	1	24	20.56	20.47	20.68
5	64QAM	12	0	20.37	20.58	20.43
5	64QAM	12	7	20.50	20.59	20.54
5	64QAM	12	13	20.27	20.33	20.28
5	64QAM	25	0	20.43	20.38	20.47



Channel				19965	20175	20385
Frequency (MHz)				1711.5	1732.5	1753.5
3	QPSK	1	0	23.20	23.19	23.17
3	QPSK	1	8	23.23	23.14	23.08
3	QPSK	1	14	23.18	23.22	23.25
3	QPSK	8	0	22.13	22.21	22.29
3	QPSK	8	4	22.31	22.29	22.30
3	QPSK	8	7	22.38	22.34	22.22
3	QPSK	15	0	22.17	22.28	22.23
3	16QAM	1	0	22.76	22.70	22.66
3	16QAM	1	8	22.71	22.59	22.58
3	16QAM	1	14	22.48	22.67	22.57
3	16QAM	8	0	21.50	21.56	21.43
3	16QAM	8	4	21.41	21.37	21.28
3	16QAM	8	7	21.29	21.36	21.43
3	16QAM	15	0	21.38	21.41	21.47
3	64QAM	1	0	20.73	20.71	20.70
3	64QAM	1	8	20.63	20.56	20.59
3	64QAM	1	14	20.56	20.59	20.71
3	64QAM	8	0	20.36	20.34	20.40
3	64QAM	8	4	20.34	20.61	20.35
3	64QAM	8	7	20.45	20.56	20.49
3	64QAM	15	0	20.23	20.34	20.26



Channel				19957	20175	20393
Frequency (MHz)				1710.7	1732.5	1754.3
1.4	QPSK	1	0	22.59	22.54	22.14
1.4	QPSK	1	3	22.64	22.63	22.27
1.4	QPSK	1	5	22.46	22.58	22.23
1.4	QPSK	3	0	22.58	22.55	22.39
1.4	QPSK	3	1	22.53	22.58	22.47
1.4	QPSK	3	3	22.41	22.47	22.42
1.4	QPSK	6	0	21.39	21.63	21.43
1.4	16QAM	1	0	21.82	21.84	21.68
1.4	16QAM	1	3	21.90	21.86	21.66
1.4	16QAM	1	5	21.97	21.95	21.47
1.4	16QAM	3	0	21.63	21.65	21.58
1.4	16QAM	3	1	21.65	21.63	21.67
1.4	16QAM	3	3	21.67	21.63	21.51
1.4	16QAM	6	0	20.71	20.65	20.62
1.4	64QAM	1	0	20.04	19.90	20.20
1.4	64QAM	1	3	19.90	19.98	19.91
1.4	64QAM	1	5	19.91	19.87	19.90
1.4	64QAM	3	0	19.77	19.72	19.76
1.4	64QAM	3	1	19.81	19.82	19.67
1.4	64QAM	3	3	19.75	19.78	19.71
1.4	64QAM	6	0	19.61	19.66	19.60

**LTE Band 5**

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power
				Low	Middle	High
				Ch. / Freq.	Ch. / Freq.	Ch. / Freq.
Channel				20450	20525	20600
Frequency (MHz)				829	836.5	844
10	QPSK	1	0	22.98	22.88	22.78
10	QPSK	1	25	22.97	22.84	22.66
10	QPSK	1	49	22.87	22.87	22.71
10	QPSK	25	0	21.97	22.04	21.95
10	QPSK	25	12	22.00	21.98	21.99
10	QPSK	25	25	22.13	21.99	21.93
10	QPSK	50	0	22.05	22.11	22.05
10	16QAM	1	0	22.31	22.26	22.17
10	16QAM	1	25	22.38	22.14	22.19
10	16QAM	1	49	22.36	22.45	22.22
10	16QAM	25	0	20.99	21.08	21.03
10	16QAM	25	12	21.05	21.00	20.96
10	16QAM	25	25	21.10	21.11	20.74
10	16QAM	50	0	20.94	20.99	20.99
10	64QAM	1	0	20.26	20.27	19.91
10	64QAM	1	25	20.22	20.38	20.05
10	64QAM	1	49	20.25	20.21	20.16
10	64QAM	25	0	20.03	20.00	19.94
10	64QAM	25	12	20.07	19.95	20.05
10	64QAM	25	25	20.11	20.13	20.04
10	64QAM	50	0	20.14	20.09	19.93



Channel				20425	20525	20625
Frequency (MHz)				826.5	836.5	846.5
5	QPSK	1	0	22.89	22.89	22.64
5	QPSK	1	12	22.99	22.95	22.98
5	QPSK	1	24	22.87	22.90	22.62
5	QPSK	12	0	22.01	21.95	22.07
5	QPSK	12	7	21.99	21.96	21.88
5	QPSK	12	13	21.92	21.97	21.90
5	QPSK	25	0	21.83	21.96	21.79
5	16QAM	1	0	21.97	22.06	22.17
5	16QAM	1	12	21.96	21.90	22.09
5	16QAM	1	24	22.07	22.37	21.94
5	16QAM	12	0	21.06	20.92	21.06
5	16QAM	12	7	20.85	21.04	20.96
5	16QAM	12	13	20.83	20.94	20.83
5	16QAM	25	0	21.07	20.91	20.72
5	64QAM	1	0	20.30	20.33	19.94
5	64QAM	1	12	20.18	20.30	20.05
5	64QAM	1	24	20.39	20.10	20.20
5	64QAM	12	0	20.05	20.03	19.69
5	64QAM	12	7	20.02	20.04	20.06
5	64QAM	12	13	19.84	20.04	20.04
5	64QAM	25	0	19.95	19.94	19.82



Channel				20415	20525	20635
Frequency (MHz)				825.5	836.5	847.5
3	QPSK	1	0	22.76	22.84	22.91
3	QPSK	1	8	22.74	22.98	22.78
3	QPSK	1	14	22.91	22.75	22.65
3	QPSK	8	0	21.95	22.00	21.98
3	QPSK	8	4	21.82	22.05	21.88
3	QPSK	8	7	21.88	21.97	21.81
3	QPSK	15	0	21.88	21.99	21.84
3	16QAM	1	0	22.11	21.94	22.33
3	16QAM	1	8	21.95	22.21	22.02
3	16QAM	1	14	21.92	22.28	22.16
3	16QAM	8	0	21.00	21.10	21.00
3	16QAM	8	4	21.06	21.11	21.01
3	16QAM	8	7	20.84	20.98	20.83
3	16QAM	15	0	20.89	20.96	20.84
3	64QAM	1	0	19.75	20.02	20.14
3	64QAM	1	8	20.20	20.08	20.13
3	64QAM	1	14	20.17	19.98	19.96
3	64QAM	8	0	19.97	20.10	20.01
3	64QAM	8	4	20.02	20.12	20.02
3	64QAM	8	7	20.11	19.99	19.91
3	64QAM	15	0	19.81	19.91	19.87



Channel				20407	20525	20643
Frequency (MHz)				824.7	836.5	848.3
1.4	QPSK	1	0	22.72	22.75	22.64
1.4	QPSK	1	3	22.63	22.72	22.72
1.4	QPSK	1	5	22.64	22.62	22.64
1.4	QPSK	3	0	22.71	22.80	22.78
1.4	QPSK	3	1	22.70	22.81	22.72
1.4	QPSK	3	3	22.69	22.74	22.73
1.4	QPSK	6	0	21.76	21.92	21.67
1.4	16QAM	1	0	21.97	21.85	21.88
1.4	16QAM	1	3	22.30	22.05	21.92
1.4	16QAM	1	5	22.04	22.08	21.91
1.4	16QAM	3	0	22.15	21.82	21.80
1.4	16QAM	3	1	21.96	21.93	21.92
1.4	16QAM	3	3	21.85	21.91	21.69
1.4	16QAM	6	0	20.92	20.90	20.80
1.4	64QAM	1	0	19.73	20.05	20.13
1.4	64QAM	1	3	19.98	20.00	19.91
1.4	64QAM	1	5	19.78	19.88	19.94
1.4	64QAM	3	0	20.13	20.03	19.97
1.4	64QAM	3	1	20.13	19.91	20.05
1.4	64QAM	3	3	19.91	19.72	19.98
1.4	64QAM	6	0	19.76	19.85	19.74

**LTE Band 25**

BW [MHz]	Modulation	RB Size	RB Offset	Power	Power	Power
				Low	Middle	High
				Ch. / Freq.	Ch. / Freq.	Ch. / Freq.
Channel				26140	26340	26590
Frequency (MHz)				1860	1880	1905
20	QPSK	1	0	22.66	22.53	22.40
20	QPSK	1	49	22.45	22.19	22.26
20	QPSK	1	99	22.48	22.28	22.17
20	QPSK	50	0	21.50	21.54	21.36
20	QPSK	50	24	21.38	21.48	21.48
20	QPSK	50	50	21.47	21.40	21.34
20	QPSK	100	0	21.67	21.62	21.47
20	16QAM	1	0	21.71	21.50	21.82
20	16QAM	1	49	21.57	21.63	21.73
20	16QAM	1	99	21.39	21.86	21.71
20	16QAM	50	0	20.52	20.53	20.47
20	16QAM	50	24	20.69	20.69	20.54
20	16QAM	50	50	20.53	20.57	20.38
20	16QAM	100	0	20.47	20.55	20.55
20	64QAM	1	0	19.88	19.81	19.74
20	64QAM	1	49	20.06	19.70	20.06
20	64QAM	1	99	19.68	19.87	19.94
20	64QAM	50	0	19.54	19.64	19.43
20	64QAM	50	24	19.55	19.68	19.35
20	64QAM	50	50	19.67	19.69	19.32
20	64QAM	100	0	19.61	19.84	19.44



Channel				26115	26340	26615
Frequency (MHz)				1857.5	1880	1907.5
15	QPSK	1	0	22.52	22.47	22.29
15	QPSK	1	37	22.26	22.45	22.21
15	QPSK	1	74	22.13	22.36	22.10
15	QPSK	36	0	21.62	21.52	21.42
15	QPSK	36	20	21.59	21.63	21.51
15	QPSK	36	39	21.42	21.58	21.43
15	QPSK	75	0	21.60	21.69	21.30
15	16QAM	1	0	21.82	21.94	21.72
15	16QAM	1	37	21.92	21.84	21.65
15	16QAM	1	74	21.79	21.66	21.86
15	16QAM	36	0	20.75	20.52	20.44
15	16QAM	36	20	20.66	20.61	20.33
15	16QAM	36	39	20.66	20.65	20.50
15	16QAM	75	0	20.56	20.63	20.36
15	64QAM	1	0	19.88	19.86	19.82
15	64QAM	1	37	19.91	19.84	19.71
15	64QAM	1	74	19.90	19.73	19.64
15	64QAM	36	0	19.63	19.58	19.38
15	64QAM	36	20	19.62	19.61	19.41
15	64QAM	36	39	19.50	19.58	19.51
15	64QAM	75	0	19.63	19.52	19.38



Channel				26090	26340	26640
Frequency (MHz)				1855	1880	1910
10	QPSK	1	0	22.63	22.66	22.50
10	QPSK	1	25	22.54	22.62	22.39
10	QPSK	1	49	22.64	22.48	22.26
10	QPSK	25	0	21.58	21.54	21.38
10	QPSK	25	12	21.52	21.58	21.39
10	QPSK	25	25	21.51	21.61	21.48
10	QPSK	50	0	21.67	21.62	21.38
10	16QAM	1	0	21.87	21.90	21.84
10	16QAM	1	25	21.97	21.97	21.81
10	16QAM	1	49	21.82	21.91	21.78
10	16QAM	25	0	20.68	20.55	20.38
10	16QAM	25	12	20.67	20.58	20.43
10	16QAM	25	25	20.70	20.47	20.54
10	16QAM	50	0	20.55	20.60	20.45
10	64QAM	1	0	19.89	19.78	19.47
10	64QAM	1	25	19.94	19.85	19.50
10	64QAM	1	49	19.91	19.90	19.49
10	64QAM	25	0	19.71	19.50	19.47
10	64QAM	25	12	19.68	19.82	19.42
10	64QAM	25	25	19.60	19.54	19.45
10	64QAM	50	0	19.73	19.62	19.36



Channel				26065	26340	26665
Frequency (MHz)				1852.5	1880	1912.5
5	QPSK	1	0	22.61	22.58	22.52
5	QPSK	1	12	22.48	22.54	22.47
5	QPSK	1	24	22.59	22.51	22.53
5	QPSK	12	0	21.66	21.47	21.54
5	QPSK	12	7	21.76	21.59	21.70
5	QPSK	12	13	21.72	21.58	21.66
5	QPSK	25	0	21.70	21.62	21.59
5	16QAM	1	0	22.05	21.61	21.81
5	16QAM	1	12	21.81	21.66	22.01
5	16QAM	1	24	21.88	21.69	22.08
5	16QAM	12	0	20.60	20.70	20.45
5	16QAM	12	7	20.75	20.64	20.55
5	16QAM	12	13	20.72	20.71	20.61
5	16QAM	25	0	20.67	20.65	20.67
5	64QAM	1	0	19.61	19.82	19.58
5	64QAM	1	12	19.78	19.67	19.75
5	64QAM	1	24	19.65	19.70	19.68
5	64QAM	12	0	19.85	19.54	19.59
5	64QAM	12	7	19.78	19.65	19.72
5	64QAM	12	13	19.84	19.73	19.80
5	64QAM	25	0	19.69	19.62	19.69



Channel				26055	26340	26675
Frequency (MHz)				1851.5	1880	1913.5
3	QPSK	1	0	22.60	22.69	22.56
3	QPSK	1	8	22.65	22.84	22.51
3	QPSK	1	14	22.51	22.75	22.48
3	QPSK	8	0	21.62	21.73	21.50
3	QPSK	8	4	21.70	21.80	21.55
3	QPSK	8	7	21.72	21.76	21.59
3	QPSK	15	0	21.59	21.74	21.53
3	16QAM	1	0	21.96	22.10	22.00
3	16QAM	1	8	21.93	22.05	21.98
3	16QAM	1	14	21.79	22.01	21.89
3	16QAM	8	0	20.72	20.90	20.68
3	16QAM	8	4	20.83	20.92	20.62
3	16QAM	8	7	20.74	20.87	20.65
3	16QAM	15	0	20.69	20.79	20.51
3	64QAM	1	0	19.83	19.91	19.51
3	64QAM	1	8	19.80	20.01	19.91
3	64QAM	1	14	19.72	19.95	19.96
3	64QAM	8	0	19.63	19.79	19.60
3	64QAM	8	4	19.89	19.91	19.61
3	64QAM	8	7	19.69	19.80	19.75
3	64QAM	15	0	19.78	19.83	19.67



Channel				26047	26340	26683
Frequency (MHz)				1850.7	1880	1914.3
1.4	QPSK	1	0	22.68	22.58	22.45
1.4	QPSK	1	3	22.67	22.56	22.48
1.4	QPSK	1	5	22.65	22.60	22.44
1.4	QPSK	3	0	22.51	22.48	22.30
1.4	QPSK	3	1	22.60	22.65	22.46
1.4	QPSK	3	3	22.61	22.58	22.42
1.4	QPSK	6	0	21.61	21.70	21.51
1.4	16QAM	1	0	22.00	21.79	21.76
1.4	16QAM	1	3	21.89	21.85	21.87
1.4	16QAM	1	5	21.91	21.98	21.70
1.4	16QAM	3	0	21.57	21.58	21.47
1.4	16QAM	3	1	21.70	21.79	21.54
1.4	16QAM	3	3	21.63	21.61	21.49
1.4	16QAM	6	0	20.62	20.67	20.58
1.4	64QAM	1	0	19.67	19.79	19.66
1.4	64QAM	1	3	20.02	20.00	19.82
1.4	64QAM	1	5	19.80	19.91	19.79
1.4	64QAM	3	0	19.65	19.86	19.55
1.4	64QAM	3	1	19.78	19.92	19.75
1.4	64QAM	3	3	19.46	19.86	19.66
1.4	64QAM	6	0	19.62	19.72	19.44

**LTE Band 26**

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				26865	26915	26965
Frequency (MHz)				831.5	836.5	841.5
15	QPSK	1	0	22.34	22.27	22.49
15	QPSK	1	37	22.30	22.48	22.53
15	QPSK	1	74	22.39	22.55	22.56
15	QPSK	36	0	21.53	21.61	21.73
15	QPSK	36	20	21.56	21.86	21.92
15	QPSK	36	39	21.66	21.72	21.91
15	QPSK	75	0	21.47	21.76	21.88
15	16QAM	1	0	21.55	21.95	21.70
15	16QAM	1	37	21.81	21.70	21.81
15	16QAM	1	74	21.90	22.02	22.01
15	16QAM	36	0	20.51	20.65	20.65
15	16QAM	36	20	20.55	20.78	20.89
15	16QAM	36	39	20.69	20.71	20.93
15	16QAM	75	0	20.58	20.72	20.90
15	64QAM	1	0	19.80	19.61	19.75
15	64QAM	1	37	19.71	19.91	19.94
15	64QAM	1	74	19.54	20.02	20.04
15	64QAM	36	0	19.49	19.64	19.86
15	64QAM	36	20	19.63	19.75	19.94
15	64QAM	36	39	19.69	19.69	19.88
15	64QAM	75	0	19.61	19.73	19.82



Channel				26840	26915	26990
Frequency (MHz)				829	836.5	844
10	QPSK	1	0	22.44	22.48	22.62
10	QPSK	1	25	22.38	22.53	22.63
10	QPSK	1	49	22.39	22.62	22.73
10	QPSK	25	0	21.56	21.64	21.83
10	QPSK	25	12	21.60	21.77	21.74
10	QPSK	25	25	21.40	21.72	21.87
10	QPSK	50	0	21.52	21.74	21.82
10	16QAM	1	0	21.48	21.82	21.76
10	16QAM	1	25	21.68	21.72	21.82
10	16QAM	1	49	21.55	21.90	21.84
10	16QAM	25	0	20.65	20.68	20.79
10	16QAM	25	12	20.53	20.70	20.83
10	16QAM	25	25	20.55	20.60	20.94
10	16QAM	50	0	20.50	20.74	20.90
10	64QAM	1	0	19.81	19.80	19.73
10	64QAM	1	25	19.63	19.90	19.95
10	64QAM	1	49	19.50	19.68	19.74
10	64QAM	25	0	19.65	19.62	19.86
10	64QAM	25	12	19.53	19.83	20.00
10	64QAM	25	25	19.51	19.75	19.96
10	64QAM	50	0	19.54	19.76	19.92



Channel				26815	26915	27015
Frequency (MHz)				826.5	836.5	846.5
5	QPSK	1	0	22.66	22.84	22.92
5	QPSK	1	12	22.64	22.81	22.83
5	QPSK	1	24	22.61	22.92	23.03
5	QPSK	12	0	21.80	21.80	21.91
5	QPSK	12	7	21.78	21.94	22.15
5	QPSK	12	13	21.73	21.98	22.04
5	QPSK	25	0	21.81	21.95	22.13
5	16QAM	1	0	22.06	22.03	22.22
5	16QAM	1	12	21.91	22.20	22.16
5	16QAM	1	24	21.81	21.89	22.14
5	16QAM	12	0	20.89	21.03	21.18
5	16QAM	12	7	20.83	20.97	21.25
5	16QAM	12	13	20.79	20.95	21.16
5	16QAM	25	0	20.79	20.96	21.08
5	64QAM	1	0	19.96	19.91	20.20
5	64QAM	1	12	19.98	20.10	20.41
5	64QAM	1	24	20.05	20.12	20.16
5	64QAM	12	0	19.88	19.97	20.13
5	64QAM	12	7	19.91	20.06	20.21
5	64QAM	12	13	19.74	20.03	20.20
5	64QAM	25	0	19.86	20.05	20.25



Channel				26805	26915	27025
Frequency (MHz)				825.5	836.5	847.5
3	QPSK	1	0	22.58	22.50	22.76
3	QPSK	1	8	22.61	22.64	22.74
3	QPSK	1	14	22.39	22.67	22.65
3	QPSK	8	0	21.52	21.59	21.93
3	QPSK	8	4	21.60	21.71	21.89
3	QPSK	8	7	21.48	21.63	21.79
3	QPSK	15	0	21.55	21.69	21.87
3	16QAM	1	0	21.83	21.76	22.11
3	16QAM	1	8	21.75	21.84	21.99
3	16QAM	1	14	21.92	22.03	22.23
3	16QAM	8	0	20.71	20.75	21.01
3	16QAM	8	4	20.76	20.83	20.84
3	16QAM	8	7	20.51	20.77	20.93
3	16QAM	15	0	20.62	20.79	20.81
3	64QAM	1	0	19.77	19.86	20.16
3	64QAM	1	8	19.81	19.94	20.15
3	64QAM	1	14	19.75	19.99	20.04
3	64QAM	8	0	19.65	19.72	19.94
3	64QAM	8	4	19.74	19.82	19.87
3	64QAM	8	7	19.55	19.74	19.85
3	64QAM	15	0	19.60	19.70	19.97



Channel				26797	26915	27033
Frequency (MHz)				824.7	836.5	848.3
1.4	QPSK	1	0	22.45	22.45	22.67
1.4	QPSK	1	3	22.50	22.53	22.60
1.4	QPSK	1	5	22.41	22.48	22.63
1.4	QPSK	3	0	22.44	22.40	22.68
1.4	QPSK	3	1	22.48	22.50	22.73
1.4	QPSK	3	3	22.37	22.46	22.62
1.4	QPSK	6	0	21.52	21.69	21.72
1.4	16QAM	1	0	21.78	22.05	22.05
1.4	16QAM	1	3	21.92	22.11	22.09
1.4	16QAM	1	5	21.87	21.90	22.19
1.4	16QAM	3	0	21.50	21.59	21.93
1.4	16QAM	3	1	21.60	21.61	21.85
1.4	16QAM	3	3	21.54	21.64	21.88
1.4	16QAM	6	0	20.59	20.68	20.87
1.4	64QAM	1	0	19.81	19.70	20.08
1.4	64QAM	1	3	19.83	19.88	20.17
1.4	64QAM	1	5	19.78	19.84	20.02
1.4	64QAM	3	0	19.72	19.79	19.95
1.4	64QAM	3	1	19.75	19.90	19.91
1.4	64QAM	3	3	19.73	19.77	20.02
1.4	64QAM	6	0	19.49	19.71	19.80



LTE Band 66

BW [MHz]	Modulation	RB Size	RB Offset	Power Low Ch. / Freq.	Power Middle Ch. / Freq.	Power High Ch. / Freq.
Channel				132072	132322	132572
Frequency (MHz)				1720	1745	1770
20	QPSK	1	0	23.28	23.21	23.09
20	QPSK	1	49	23.11	23.16	23.03
20	QPSK	1	99	23.11	22.90	22.90
20	QPSK	50	0	22.23	22.05	21.89
20	QPSK	50	24	22.19	22.03	21.87
20	QPSK	50	50	22.15	22.15	21.92
20	QPSK	100	0	22.23	21.99	21.96
20	16QAM	1	0	22.54	22.22	22.45
20	16QAM	1	49	22.68	22.34	22.40
20	16QAM	1	99	22.37	22.32	22.22
20	16QAM	50	0	21.34	21.09	21.04
20	16QAM	50	24	21.27	21.04	20.85
20	16QAM	50	50	21.22	21.15	20.97
20	16QAM	100	0	21.24	21.12	21.02
20	64QAM	1	0	20.43	20.38	20.29
20	64QAM	1	49	20.49	20.44	20.12
20	64QAM	1	99	20.32	20.23	20.26
20	64QAM	50	0	20.26	20.21	20.08
20	64QAM	50	24	20.22	20.08	19.95
20	64QAM	50	50	20.25	20.11	19.94
20	64QAM	100	0	20.21	19.97	20.00



Channel				132047	132322	132597
Frequency (MHz)				1717.5	1745	1772.5
15	QPSK	1	0	23.13	22.90	22.87
15	QPSK	1	37	23.12	23.04	22.73
15	QPSK	1	74	23.07	23.02	22.84
15	QPSK	36	0	22.08	22.06	21.94
15	QPSK	36	20	22.14	22.03	21.91
15	QPSK	36	39	22.09	21.98	21.87
15	QPSK	75	0	22.15	22.01	21.84
15	16QAM	1	0	22.12	22.09	22.06
15	16QAM	1	37	22.31	22.18	21.85
15	16QAM	1	74	22.27	22.14	22.05
15	16QAM	36	0	21.14	21.04	20.75
15	16QAM	36	20	21.21	21.06	20.86
15	16QAM	36	39	21.10	21.11	20.90
15	16QAM	75	0	21.07	20.97	20.85
15	64QAM	1	0	20.38	20.29	20.13
15	64QAM	1	37	20.47	20.24	20.15
15	64QAM	1	74	20.39	20.44	20.06
15	64QAM	36	0	20.17	20.18	19.83
15	64QAM	36	20	20.19	20.06	19.88
15	64QAM	36	39	20.16	20.12	19.79
15	64QAM	75	0	20.18	20.09	19.73



Channel				132022	132322	132622
Frequency (MHz)				1715	1745	1775
10	QPSK	1	0	23.09	22.91	22.82
10	QPSK	1	25	22.95	22.99	22.99
10	QPSK	1	49	23.12	23.00	22.89
10	QPSK	25	0	21.82	21.80	21.72
10	QPSK	25	12	22.10	22.00	21.80
10	QPSK	25	25	22.13	21.96	21.68
10	QPSK	50	0	22.26	21.91	22.05
10	16QAM	1	0	22.28	22.27	22.19
10	16QAM	1	25	22.59	22.46	22.54
10	16QAM	1	49	22.41	22.19	22.30
10	16QAM	25	0	21.21	21.13	20.82
10	16QAM	25	12	21.19	20.92	20.73
10	16QAM	25	25	20.99	21.05	20.82
10	16QAM	50	0	21.16	21.31	20.90
10	64QAM	1	0	20.42	20.42	20.29
10	64QAM	1	25	20.68	20.59	20.58
10	64QAM	1	49	20.52	20.48	20.44
10	64QAM	25	0	20.28	20.34	20.22
10	64QAM	25	12	20.37	20.16	20.28
10	64QAM	25	25	20.26	20.06	20.04
10	64QAM	50	0	20.29	19.87	19.89



Channel				131997	132322	132647
Frequency (MHz)				1712.5	1745	1777.5
5	QPSK	1	0	23.02	22.72	22.60
5	QPSK	1	12	23.00	22.92	22.96
5	QPSK	1	24	23.06	22.88	23.04
5	QPSK	12	0	21.93	21.82	21.78
5	QPSK	12	7	22.19	22.01	21.85
5	QPSK	12	13	22.08	21.83	21.98
5	QPSK	25	0	21.98	21.84	21.85
5	16QAM	1	0	22.33	22.15	22.24
5	16QAM	1	12	22.23	22.31	22.14
5	16QAM	1	24	22.32	21.85	22.14
5	16QAM	12	0	21.02	21.00	20.65
5	16QAM	12	7	21.05	20.95	20.75
5	16QAM	12	13	20.88	21.00	20.84
5	16QAM	25	0	21.00	20.84	20.74
5	64QAM	1	0	20.38	20.34	20.23
5	64QAM	1	12	20.41	20.40	20.02
5	64QAM	1	24	20.33	20.51	20.14
5	64QAM	12	0	20.02	19.98	19.77
5	64QAM	12	7	20.04	19.65	19.77
5	64QAM	12	13	20.10	19.86	19.69
5	64QAM	25	0	20.27	19.90	20.14



Channel				131987	132322	132657
Frequency (MHz)				1711.5	1745	1778.5
3	QPSK	1	0	23.03	22.87	22.78
3	QPSK	1	8	22.81	22.58	22.57
3	QPSK	1	14	22.60	22.81	22.66
3	QPSK	8	0	22.04	21.96	21.88
3	QPSK	8	4	22.23	22.01	22.06
3	QPSK	8	7	21.92	22.16	22.00
3	QPSK	15	0	21.97	21.93	21.99
3	16QAM	1	0	21.34	21.58	21.25
3	16QAM	1	8	21.44	21.24	21.32
3	16QAM	1	14	21.55	21.66	21.42
3	16QAM	8	0	21.25	21.02	20.91
3	16QAM	8	4	21.06	20.79	21.03
3	16QAM	8	7	21.11	21.06	20.89
3	16QAM	15	0	21.04	20.88	20.85
3	64QAM	1	0	19.93	19.95	19.52
3	64QAM	1	8	19.55	19.96	19.67
3	64QAM	1	14	19.90	19.74	19.64
3	64QAM	8	0	19.75	19.94	19.48
3	64QAM	8	4	19.81	19.79	19.65
3	64QAM	8	7	19.87	19.84	19.72
3	64QAM	15	0	20.00	19.59	19.72



Channel				131979	132322	132665
Frequency (MHz)				1710.7	1745	1779.3
1.4	QPSK	1	0	22.59	22.32	22.47
1.4	QPSK	1	3	22.51	22.62	22.34
1.4	QPSK	1	5	22.46	22.47	22.44
1.4	QPSK	3	0	20.88	20.97	21.17
1.4	QPSK	3	1	21.26	21.20	21.14
1.4	QPSK	3	3	20.91	20.87	21.10
1.4	QPSK	6	0	21.51	21.45	21.21
1.4	16QAM	1	0	21.67	21.95	21.73
1.4	16QAM	1	3	21.90	21.96	22.00
1.4	16QAM	1	5	21.66	21.77	21.60
1.4	16QAM	3	0	19.76	19.83	19.54
1.4	16QAM	3	1	19.83	19.59	19.69
1.4	16QAM	3	3	19.91	19.83	19.72
1.4	16QAM	6	0	20.56	20.66	20.23
1.4	64QAM	1	0	20.07	19.92	19.67
1.4	64QAM	1	3	19.96	19.87	19.76
1.4	64QAM	1	5	19.93	19.69	19.69
1.4	64QAM	3	0	19.42	19.56	19.45
1.4	64QAM	3	1	19.61	19.49	19.21
1.4	64QAM	3	3	19.48	19.47	19.28
1.4	64QAM	6	0	19.74	19.50	19.36

**CA Power**

CA_5B:

CA_5B							
Combination 10MHz+10MHz (50RB+50RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
20450	20549	QPSK	0	0	1	49	23.75
			1	0	0	0	23.48
			50	0	0	0	22.53
			50	0	50	0	22.45
			1	0	1	49	12.82
			1	0	1	0	13.42
			1	49	1	0	23.47
			50	0	1	49	19.55
		16QAM	0	0	1	49	23.41
			1	0	0	0	23.02
			50	0	0	0	21.6
			50	0	50	0	21.57
			1	0	1	49	13.38
			1	0	1	0	13.38
			1	49	1	0	23.79
			50	0	1	49	19.44
		64QAM	0	0	1	49	22.36
			1	0	0	0	22.05
			50	0	0	0	20.68
			50	0	50	0	21.44
			1	0	1	49	13.16
			1	0	1	0	13.22
			1	49	1	0	22.58
			50	0	1	49	19.36
20476	20575	QPSK	0	0	1	49	23.61
			1	0	0	0	23.47



			50	0	0	0	22.55
			50	0	50	0	22.41
			1	0	1	49	8.94
			1	0	1	0	9.37
			1	49	1	0	24.39
			50	0	1	49	19.57
		16QAM	0	0	1	49	23.29
			1	0	0	0	23.07
			50	0	0	0	21.56
			50	0	50	0	21.44
			1	0	1	49	9.32
			1	0	1	0	9.78
			1	49	1	0	24.05
			50	0	1	49	19.42
		64QAM	0	0	1	49	22.12
			1	0	0	0	21.98
			50	0	0	0	20.78
			50	0	50	0	21.36
			1	0	1	49	9.11
			1	0	1	0	9.52
			1	49	1	0	22.49
			50	0	1	49	19.41
		QPSK	0	0	1	49	23.87
			1	0	0	0	23.44
			50	0	0	0	22.68
			50	0	50	0	22.48
			1	0	1	49	12.88
			1	0	1	0	13.42
			1	49	1	0	24.43
			50	0	1	49	19.51
		16QAM	0	0	1	49	23.46
			1	0	0	0	23.08
			50	0	0	0	21.65
			50	0	50	0	21.58
			1	0	1	49	13.23

			1	0	1	0	13.77
			1	49	1	0	23.78
			50	0	1	49	19.42
		64QAM	0	0	1	49	22.39
			1	0	0	0	21.82
			50	0	0	0	20.71
			50	0	50	0	21.51
			1	0	1	49	13.12
			1	0	1	0	13.62
			1	49	1	0	22.69
			50	0	1	49	19.38

CA_5B							
Combination 10MHz+5MHz (50RB+25RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
20450	20522	QPSK	50	0	25	0	22.34
		QPSK	1	0	1	24	13.48
		QPSK	1	49	1	0	24.48
		16QAM	50	0	25	0	21.45
		16QAM	1	0	1	24	13.56
		16QAM	1	49	1	0	23.82
		64QAM	50	0	25	0	21.39
		64QAM	1	0	1	24	14.02
		64QAM	1	49	1	0	22.28
20500	20572	QPSK	50	0	25	0	22.52
		QPSK	1	0	1	24	13.42
		QPSK	1	49	1	0	24.36
		16QAM	50	0	25	0	21.56
		16QAM	1	0	1	24	13.15
		16QAM	1	49	1	0	23.85
		64QAM	50	0	25	0	21.42
		64QAM	1	0	1	24	13.12
		64QAM	1	49	1	0	22.45



20550	20622	QPSK	50	0	25	0	22.54
		QPSK	1	0	1	24	13.74
		QPSK	1	49	1	0	24.62
		16QAM	50	0	25	0	21.62
		16QAM	1	0	1	24	13.39
		16QAM	1	49	1	0	24.03
		64QAM	50	0	25	0	21.47
		64QAM	1	0	1	24	13.32
		64QAM	1	49	1	0	21.36
Combination 5MHz+10MHz (25RB+50RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
20428	20500	QPSK	25	0	50	0	22.45
		QPSK	1	0	1	49	13.62
		QPSK	1	24	1	0	24.26
		16QAM	25	0	50	0	21.52
		16QAM	1	0	1	49	14.23
		16QAM	1	24	1	0	23.92
		64QAM	25	0	50	0	21.4
		64QAM	1	0	1	49	13.93
		64QAM	1	24	1	0	22.53
20478	20550	QPSK	25	0	50	0	22.42
		QPSK	1	0	1	49	13.59
		QPSK	1	24	1	0	24.34
		16QAM	25	0	50	0	21.52
		16QAM	1	0	1	49	13.91
		16QAM	1	24	1	0	23.92
		64QAM	25	0	50	0	21.45
		64QAM	1	0	1	49	13.78
		64QAM	1	24	1	0	22.66
20528	20600	QPSK	25	0	50	0	22.57
		QPSK	1	0	1	49	13.41
		QPSK	1	24	1	0	24.52
		16QAM	25	0	50	0	21.59
		16QAM	1	0	1	49	14.21



		16QAM	1	24	1	0	23.66
		64QAM	25	0	50	0	21.53
		64QAM	1	0	1	49	14.05
		64QAM	1	24	1	0	22.77
Combination 5MHz+3MHz (25RB+156RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
20425	20464	QPSK	25	0	15	0	23.27
		QPSK	1	0	1	14	12.13
		QPSK	1	24	1	0	23.46
		16QAM	25	0	15	0	22.34
		16QAM	1	0	1	14	12.59
		16QAM	1	24	1	0	23.08
		64QAM	25	0	15	0	21.38
		64QAM	1	0	1	14	12.43
		64QAM	1	24	1	0	22.08
20510	20549	QPSK	25	0	15	0	24.12
		QPSK	1	0	1	14	12.65
		QPSK	1	24	1	0	24.29
		16QAM	25	0	15	0	23.25
		16QAM	1	0	1	14	13.11
		16QAM	1	24	1	0	23.92
		64QAM	25	0	15	0	22.17
		64QAM	1	0	1	14	13.08
		64QAM	1	24	1	0	22.61
20595	20634	QPSK	25	0	15	0	22.81
		QPSK	1	0	1	14	12.81
		QPSK	1	24	1	0	23.02
		16QAM	25	0	15	0	22.01
		16QAM	1	0	1	14	13.32
		16QAM	1	24	1	0	22.36
		64QAM	25	0	15	0	21.22
		64QAM	1	0	1	14	13.15
		64QAM	1	24	1	0	21.02



Combination 3MHz+5MHz (15RB+25RB)							
PCC Channel	SCC Channel	Modulation	PCC		SCC		Measured Power (dBm)
			RB Size	RB offset	RB Size	RB offset	
20416	20455	QPSK	15	0	25	0	23.43
		QPSK	1	0	1	24	12.54
		QPSK	1	14	1	0	23.86
		16QAM	15	0	25	0	22.63
		16QAM	1	0	1	24	13.03
		16QAM	1	14	1	0	23.22
		64QAM	15	0	25	0	21.68
		64QAM	1	0	1	24	12.76
		64QAM	1	14	1	0	22.11
20501	20540	QPSK	15	0	25	0	24.02
		QPSK	1	0	1	24	12.74
		QPSK	1	14	1	0	24.32
		16QAM	15	0	25	0	23.21
		16QAM	1	0	1	24	12.92
		16QAM	1	14	1	0	23.89
		64QAM	15	0	25	0	22.24
		64QAM	1	0	1	24	13.02
		64QAM	1	14	1	0	22.81
20586	20625	QPSK	15	0	25	0	22.93
		QPSK	1	0	1	24	12.94
		QPSK	1	14	1	0	23.02
		16QAM	15	0	25	0	22.07
		16QAM	1	0	1	24	13.51
		16QAM	1	14	1	0	22.32
		64QAM	15	0	25	0	21.14
		64QAM	1	0	1	24	13.06
		64QAM	1	14	1	0	20.98

**ERP/EIRP**

LTE Band 25 (GT - LC = 1.93 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	26407	26340	26683	26055	26340	26675	26065	26340	26665
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	1850.7	1880	1914.3	1851.5	1880	1913.5	1852.5	1880	1912.5
(MHz)									
Conducted Power (dBm)	22.68	22.58	22.45	22.65	22.84	22.51	22.61	22.58	22.52
Conducted Power (Watts)	0.1854	0.1811	0.1758	0.1841	0.1923	0.1782	0.1824	0.1811	0.1786
EIRP(dBm)	24.61	24.51	24.38	24.58	24.77	24.44	24.54	24.51	24.45
EIRP(Watts)	0.2891	0.2825	0.2742	0.2871	0.2999	0.2780	0.2844	0.2825	0.2786

LTE Band 25 (GT - LC = 1.93 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	26090	26340	26640	26115	26340	26615	26140	26340	26590
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	1855	1880	1910	1857.5	1880	1907.5	1860	1880	1905
(MHz)									
Conducted Power (dBm)	22.63	22.66	22.50	22.52	22.47	22.29	22.66	22.53	22.40
Conducted Power (Watts)	0.1832	0.1845	0.1778	0.1786	0.1766	0.1694	0.1845	0.1791	0.1738
EIRP(dBm)	24.56	24.59	24.43	24.45	24.40	24.22	24.59	24.46	24.33
EIRP(Watts)	0.2858	0.2877	0.2773	0.2786	0.2754	0.2642	0.2877	0.2793	0.2710



LTE Band 25 (GT - LC = 1.93 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	26407	26340	26683	26055	26340	26675	26065	26340	26665
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	1850.7	1880	1914.3	1851.5	1880	1913.5	1852.5	1880	1912.5
(MHz)									
Conducted Power (dBm)	22.00	21.79	21.76	21.96	22.10	22.00	21.88	21.69	22.08
Conducted Power (Watts)	0.1585	0.1510	0.1500	0.1570	0.1622	0.1585	0.1542	0.1476	0.1614
EIRP(dBm)	23.93	23.72	23.69	23.89	24.03	23.93	23.81	23.62	24.01
EIRP(Watts)	0.2472	0.2355	0.2339	0.2449	0.2529	0.2472	0.2404	0.2301	0.2518

LTE Band 25 (GT - LC = 1.93 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	26090	26340	26640	26115	26340	26615	26140	26340	26590
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	1855	1880	1910	1857.5	1880	1907.5	1860	1880	1905
(MHz)									
Conducted Power (dBm)	21.97	21.97	21.81	21.82	21.94	21.72	21.39	21.86	21.71
Conducted Power (Watts)	0.1574	0.1574	0.1517	0.1521	0.1563	0.1486	0.1377	0.1535	0.1483
EIRP(dBm)	23.90	23.90	23.74	23.75	23.87	23.65	23.32	23.79	23.64
EIRP(Watts)	0.2455	0.2455	0.2366	0.2371	0.2438	0.2317	0.2148	0.2393	0.2312



LTE Band 25 (GT - LC = 1.93 dB) 64QAM									
Bandwidth	1.4M			3M			5M		
Channel	26407	26340	26683	26055	26340	26675	26065	26340	26665
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	1850.7	1880	1914.3	1851.5	1880	1913.5	1852.5	1880	1912.5
(MHz)									
Conducted Power (dBm)	20.02	20.00	19.82	19.80	20.01	19.91	19.85	19.54	19.59
Conducted Power (Watts)	0.1005	0.1000	0.0959	0.0955	0.1002	0.0979	0.0966	0.0899	0.0910
EIRP(dBm)	21.95	21.93	21.75	21.73	21.94	21.84	21.78	21.47	21.52
EIRP(Watts)	0.1567	0.1560	0.1496	0.1489	0.1563	0.1528	0.1507	0.1403	0.1419

LTE Band 25 (GT - LC = 1.93 dB) 64QAM									
Bandwidth	10M			15M			20M		
Channel	26090	26340	26640	26115	26340	26615	26140	26340	26590
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	1855	1880	1910	1857.5	1880	1907.5	1860	1880	1905
(MHz)									
Conducted Power (dBm)	19.94	19.85	19.50	19.91	19.84	19.71	20.06	19.70	20.06
Conducted Power (Watts)	0.0986	0.0966	0.0891	0.0979	0.0964	0.0935	0.1014	0.0933	0.1014
EIRP(dBm)	21.87	21.78	21.43	21.84	21.77	21.64	21.99	21.63	21.99
EIRP(Watts)	0.1538	0.1507	0.1390	0.1528	0.1503	0.1459	0.1581	0.1455	0.1581



LTE Band 26 (GT - LC = 1.78 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	26797	26915	27033	26805	26915	27025	26815	26915	27015
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
(MHz)									
Conducted Power (dBm)	22.48	22.50	22.73	22.58	22.50	22.76	22.61	22.92	23.03
Conducted Power (Watts)	0.1770	0.1778	0.1875	0.1811	0.1778	0.1888	0.1824	0.1959	0.2009
ERP(dBm)	22.11	22.13	22.36	22.21	22.13	22.39	22.24	22.55	22.66
ERP(Watts)	0.1626	0.1633	0.1722	0.1663	0.1633	0.1734	0.1675	0.1799	0.1845

LTE Band 26 (GT - LC = 1.78 dB) QPSK							
Bandwidth	10M			15M			15M
Channel	26840	26915	26990	26865	26915	26965	26765
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)
Frequency	829	836.5	844	831.5	836.5	841.5	821.5
(MHz)							
Conducted Power (dBm)	22.39	22.62	22.73	22.39	22.55	22.56	22.39
Conducted Power (Watts)	0.1734	0.1828	0.1875	0.1734	0.1799	0.1803	0.1734
ERP(dBm)	22.02	22.25	22.36	22.02	22.18	22.19	22.02
ERP(Watts)	0.1592	0.1679	0.1722	0.1592	0.1652	0.1656	0.1592



LTE Band 26 (GT - LC = 1.78 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	26797	26915	27033	26805	26915	27025	26815	26915	27015
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
(MHz)									
Conducted Power (dBm)	21.87	21.90	22.19	21.92	22.03	22.23	22.06	22.03	22.22
Conducted Power (Watts)	0.1538	0.1549	0.1656	0.1556	0.1596	0.1671	0.1607	0.1596	0.1667
ERP(dBm)	21.50	21.53	21.82	21.55	21.66	21.86	21.69	21.66	21.85
ERP(Watts)	0.1413	0.1422	0.1521	0.1429	0.1466	0.1535	0.1476	0.1466	0.1531

LTE Band 26 (GT - LC = 1.78 dB) 16QAM							
Bandwidth	10M			15M			15M
Channel	26840	26915	26990	26865	26915	26965	26765
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)
Frequency	829	836.5	844	831.5	836.5	841.5	821.5
(MHz)							
Conducted Power (dBm)	21.55	21.90	21.84	21.90	22.02	22.01	21.90
Conducted Power (Watts)	0.1429	0.1549	0.1528	0.1549	0.1592	0.1589	0.1549
ERP(dBm)	21.18	21.53	21.47	21.53	21.65	21.64	21.53
ERP(Watts)	0.1312	0.1422	0.1403	0.1422	0.1462	0.1459	0.1422



LTE Band 26 (GT - LC = 1.78 dB) 64QAM									
Bandwidth	1.4M			3M			5M		
Channel	26797	26915	27033	26805	26915	27025	26815	26915	27015
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	824.7	836.5	848.3	825.5	836.5	847.5	826.5	836.5	846.5
(MHz)									
Conducted Power (dBm)	19.83	19.88	20.17	19.77	19.86	20.16	19.98	20.10	20.41
Conducted Power (Watts)	0.0962	0.0973	0.1040	0.0948	0.0968	0.1038	0.0995	0.1023	0.1099
ERP(dBm)	19.46	19.51	19.80	19.40	19.49	19.79	19.61	19.73	20.04
ERP(Watts)	0.0883	0.0893	0.0955	0.0871	0.0889	0.0953	0.0914	0.0940	0.1009

LTE Band 26 (GT - LC = 1.78 dB) 64QAM							
Bandwidth	10M			15M			15M
Channel	26840	26915	26990	26865	26915	26965	26765
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)
Frequency	829	836.5	844	831.5	836.5	841.5	821.5
(MHz)							
Conducted Power (dBm)	19.53	19.83	20.00	19.54	20.02	20.04	19.80
Conducted Power (Watts)	0.0897	0.0962	0.1000	0.0899	0.1005	0.1009	0.0955
ERP(dBm)	19.16	19.46	19.63	19.17	19.65	19.67	19.43
ERP(Watts)	0.0824	0.0883	0.0918	0.0826	0.0923	0.0927	0.0877



LTE Band 66 (GT - LC = 3.53 dB) QPSK									
Bandwidth	1.4M			3M			5M		
Channel	131979	132322	132665	131987	132322	132657	131997	132322	132647
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	1710.7	1745	1779.3	1711.5	1745	1778.5	1712.5	1745	1777.5
(MHz)									
Conducted Power (dBm)	22.59	22.32	22.47	23.03	22.87	22.78	23.06	22.88	23.04
Conducted Power (Watts)	0.1816	0.1706	0.1766	0.2009	0.1936	0.1897	0.2023	0.1941	0.2014
EIRP(dBm)	26.12	25.85	26.00	26.56	26.40	26.31	26.59	26.41	26.57
EIRP(Watts)	0.4093	0.3846	0.3981	0.4529	0.4365	0.4276	0.4560	0.4375	0.4539

LTE Band 66 (GT - LC = 3.53 dB) QPSK									
Bandwidth	10M			15M			20M		
Channel	132022	132322	132622	132047	132322	132597	132072	132322	132572
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(Mid)
Frequency	1715	1745	1775	1717.5	1745	1772.5	1720	1745	1770
(MHz)									
Conducted Power (dBm)	23.12	23.00	22.89	23.13	22.90	22.87	23.28	23.21	23.09
Conducted Power (Watts)	0.2051	0.1995	0.1945	0.2056	0.1950	0.1936	0.2128	0.2094	0.2037
EIRP(dBm)	26.65	26.53	26.42	26.66	26.43	26.40	26.81	26.74	26.62
EIRP(Watts)	0.4624	0.4498	0.4385	0.4634	0.4395	0.4365	0.4797	0.4721	0.4592



LTE Band 66 (GT - LC = 3.53 dB) 16QAM									
Bandwidth	1.4M			3M			5M		
Channel	131979	132322	132665	131987	132322	132657	131997	132322	132647
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	1710.7	1745	1779.3	1711.5	1745	1778.5	1712.5	1745	1777.5
(MHz)									
Conducted Power (dBm)	21.90	21.96	22.00	21.55	21.66	21.42	22.33	22.15	22.24
Conducted Power (Watts)	0.1549	0.1570	0.1585	0.1429	0.1466	0.1387	0.1710	0.1641	0.1675
EIRP(dBm)	25.43	25.49	25.53	25.08	25.19	24.95	25.86	25.68	25.77
EIRP(Watts)	0.3491	0.3540	0.3573	0.3221	0.3304	0.3126	0.3855	0.3698	0.3776

LTE Band 66 (GT - LC = 3.53 dB) 16QAM									
Bandwidth	10M			15M			20M		
Channel	132022	132322	132622	132047	132322	132597	132072	132322	132572
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(Mid)
Frequency	1715	1745	1775	1717.5	1745	1772.5	1720	1745	1770
(MHz)									
Conducted Power (dBm)	22.59	22.46	22.54	22.31	22.18	21.85	22.68	22.34	22.40
Conducted Power (Watts)	0.1816	0.1762	0.1795	0.1702	0.1652	0.1531	0.1854	0.1714	0.1738
EIRP(dBm)	26.12	25.99	26.07	25.84	25.71	25.38	26.21	25.87	25.93
EIRP(Watts)	0.4093	0.3972	0.4046	0.3837	0.3724	0.3451	0.4178	0.3864	0.3917



LTE Band 66 (GT - LC = 3.53 dB) 64QAM									
Bandwidth	1.4M			3M			5M		
Channel	131979	132322	132665	131987	132322	132657	131997	132322	132647
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)
Frequency	1710.7	1745	1779.3	1711.5	1745	1778.5	1712.5	1745	1777.5
(MHz)									
Conducted Power (dBm)	20.07	19.92	19.67	19.93	19.95	19.52	20.41	20.40	20.02
Conducted Power (Watts)	0.1016	0.0982	0.0927	0.0984	0.0989	0.0895	0.1099	0.1096	0.1005
EIRP(dBm)	23.60	23.45	23.20	23.46	23.48	23.05	23.94	23.93	23.55
EIRP(Watts)	0.2291	0.2213	0.2089	0.2218	0.2228	0.2018	0.2477	0.2472	0.2265

LTE Band 66 (GT - LC = 3.53 dB) 64QAM									
Bandwidth	10M			15M			20M		
Channel	132022	132322	132622	132047	132322	132597	132072	132322	132572
	(Low)	(Mid)	(High)	(Low)	(Mid)	(High)	(Low)	(Mid)	(Mid)
Frequency	1715	1745	1775	1717.5	1745	1772.5	1720	1745	1770
(MHz)									
Conducted Power (dBm)	20.68	20.59	20.58	20.47	20.24	20.15	21.24	21.12	21.02
Conducted Power (Watts)	0.1169	0.1146	0.1143	0.1114	0.1057	0.1035	0.1330	0.1294	0.1265
EIRP(dBm)	24.21	24.12	24.11	24.00	23.77	23.68	24.77	24.65	24.55
EIRP(Watts)	0.2636	0.2582	0.2576	0.2512	0.2382	0.2333	0.2999	0.2917	0.2851

**CA EIRP**

LTE Band 5B CA (GT - LC = 1.32 dB) QPSK			
Bandwidth	10M+10M		
Channel PCC	20450	20476	20501
	(Low)	(Mid)	(High)
Channel SCC	20549	20575	20600
	(Low)	(Mid)	(High)
Conducted Power (dBm)	23.75	24.39	24.43
Conducted Power (Watts)	0.2371	0.2748	0.2773
ERP(dBm)	22.92	23.56	23.60
ERP(Watts)	0.1959	0.2270	0.2291

LTE Band 5B CA (GT - LC = 1.32 dB) 16QAM			
Bandwidth	10M+10M		
Channel PCC	20450	20476	20501
	(Low)	(Mid)	(High)
Channel SCC	20549	20575	20600
	(Low)	(Mid)	(High)
Conducted Power (dBm)	23.79	24.05	23.78
Conducted Power (Watts)	0.2393	0.2541	0.2388
ERP(dBm)	22.96	23.22	22.95
ERP(Watts)	0.1977	0.2099	0.1972

LTE Band 5B CA (GT - LC = 1.32 dB) 64QAM			
Bandwidth	10M+10M		
Channel PCC	20450	20476	20501
	(Low)	(Mid)	(High)
Channel SCC	20549	20575	20600
	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.58	22.49	22.69
Conducted Power (Watts)	0.1811	0.1774	0.1858
ERP(dBm)	21.75	21.66	21.86
ERP(Watts)	0.1496	0.1466	0.1535

LTE Band 5B CA (GT - LC = 1.32 dB) QPSK			
Bandwidth	10M+5M		
Channel PCC	20450	20500	20550
	(Low)	(Mid)	(High)
Channel SCC	20522	20572	20622
	(Low)	(Mid)	(High)
Conducted Power (dBm)	24.48	24.36	24.62
Conducted Power (Watts)	0.2805	0.2729	0.2897
ERP(dBm)	23.65	23.53	23.79
ERP(Watts)	0.2317	0.2254	0.2393

LTE Band 5B CA (GT - LC = 1.32 dB) 16QAM			
Bandwidth	10M+5M		
Channel PCC	20450	20500	20550
	(Low)	(Mid)	(High)
Channel SCC	20522	20572	20622
	(Low)	(Mid)	(High)
Conducted Power (dBm)	23.82	23.85	24.03
Conducted Power (Watts)	0.2410	0.2427	0.2529
ERP(dBm)	22.99	23.02	23.20
ERP(Watts)	0.1991	0.2004	0.2089

LTE Band 5B CA (GT - LC = 1.32 dB) 64QAM			
Bandwidth	10M+5M		
Channel PCC	20450	20500	20550
	(Low)	(Mid)	(High)
Channel SCC	20522	20572	20622
	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.28	22.45	21.47
Conducted Power (Watts)	0.1690	0.1758	0.1403
ERP(dBm)	21.45	21.62	20.64
ERP(Watts)	0.1396	0.1452	0.1159



LTE Band 5B CA (GT - LC = 1.32 dB) QPSK			
Bandwidth	5M+10M		
Channel PCC	20428	20478	20528
	(Low)	(Mid)	(High)
Channel SCC	20500	20550	20600
	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.45	24.34	24.52
Conducted Power (Watts)	0.1758	0.2716	0.2831
ERP(dBm)	21.62	23.51	23.69
ERP(Watts)	0.1452	0.2244	0.2339

LTE Band 5B CA (GT - LC = 1.32 dB) 16QAM			
Bandwidth	5M+10M		
Channel PCC	20428	20478	20528
	(Low)	(Mid)	(High)
Channel SCC	20500	20550	20600
	(Low)	(Mid)	(High)
Conducted Power (dBm)	23.92	23.92	23.66
Conducted Power (Watts)	0.2466	0.2466	0.2323
ERP(dBm)	23.09	23.09	22.83
ERP(Watts)	0.2037	0.2037	0.1919

LTE Band 5B CA (GT - LC = 1.32 dB) 64QAM			
Bandwidth	5M+10M		
Channel PCC	20428	20478	20528
	(Low)	(Mid)	(High)
Channel SCC	20500	20550	20600
	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.53	22.66	22.77
Conducted Power (Watts)	0.1791	0.1845	0.1892
ERP(dBm)	21.70	21.83	21.94
ERP(Watts)	0.1479	0.1524	0.1563

LTE Band 5B CA (GT - LC = 1.32 dB) QPSK			
Bandwidth	5M+3M		
Channel PCC	20425	20510	20595
	(Low)	(Mid)	(High)
Channel SCC	20464	20549	20634
	(Low)	(Mid)	(High)
Conducted Power (dBm)	23.46	24.29	23.02
Conducted Power (Watts)	0.2218	0.2685	0.2004
ERP(dBm)	22.63	23.46	22.19
ERP(Watts)	0.1832	0.2218	0.1656

LTE Band 5B CA (GT - LC = 1.32 dB) 16QAM			
Bandwidth	5M+3M		
Channel PCC	20425	20510	20595
	(Low)	(Mid)	(High)
Channel SCC	20464	20549	20634
	(Low)	(Mid)	(High)
Conducted Power (dBm)	23.08	23.92	22.36
Conducted Power (Watts)	0.2032	0.2466	0.1722
ERP(dBm)	22.25	23.09	21.53
ERP(Watts)	0.1679	0.2037	0.1422

LTE Band 5B CA (GT - LC = 1.32 dB) 64QAM			
Bandwidth	5M+3M		
Channel PCC	20425	20510	20595
	(Low)	(Mid)	(High)
Channel SCC	20464	20549	20634
	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.08	22.61	21.22
Conducted Power (Watts)	0.1614	0.1824	0.1324
ERP(dBm)	21.25	21.78	20.39
ERP(Watts)	0.1334	0.1507	0.1094

LTE Band 5B CA (GT - LC = 1.32 dB) QPSK			
Bandwidth	3M+5M		
Channel PCC	20416	20501	20586
	(Low)	(Mid)	(High)
Channel SCC	20455	20540	20625
	(Low)	(Mid)	(High)
Conducted Power (dBm)	23.86	24.32	23.02
Conducted Power (Watts)	0.2432	0.2704	0.2004
ERP(dBm)	23.03	23.49	22.19
ERP(Watts)	0.2009	0.2234	0.1656

LTE Band 5B CA (GT - LC = 1.32 dB) 16QAM			
Bandwidth	3M+5M		
Channel PCC	20416	20501	20586
	(Low)	(Mid)	(High)
Channel SCC	20455	20540	20625
	(Low)	(Mid)	(High)
Conducted Power (dBm)	23.22	23.89	22.32
Conducted Power (Watts)	0.2099	0.2449	0.1706
ERP(dBm)	22.39	23.06	21.49
ERP(Watts)	0.1734	0.2023	0.1409



LTE Band 5B CA (GT - LC = 1.32 dB) 64QAM			
Bandwidth	3M+5M		
Channel PCC	20416	20501	20586
	(Low)	(Mid)	(High)
Channel SCC	20455	20540	20625
	(Low)	(Mid)	(High)
Conducted Power (dBm)	22.11	22.81	21.14
Conducted Power (Watts)	0.1626	0.1910	0.1300
ERP(dBm)	21.28	21.98	20.31
ERP(Watts)	0.1343	0.1578	0.1074



LTE Band 25

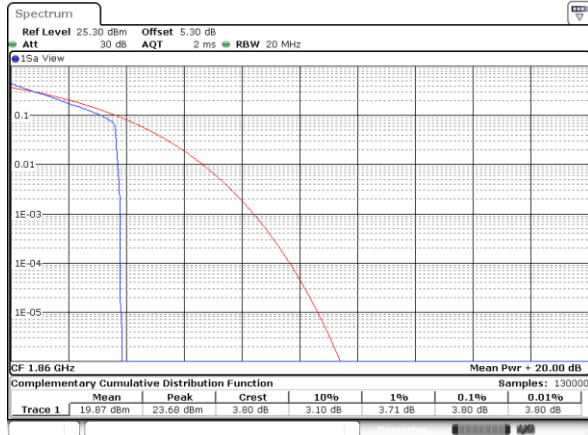
Peak-to-Average Ratio

Mode	LTE Band 25 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.80	4.99	4.67	5.88	PASS
Middle CH	3.83	5.19	5.51	6.20	
Highest CH	3.51	5.19	5.16	6.26	
Mode	LTE Band 25 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	6.78	6.46	-	-	PASS
Middle CH	7.80	6.72	-	-	
Highest CH	7.16	6.72	-	-	

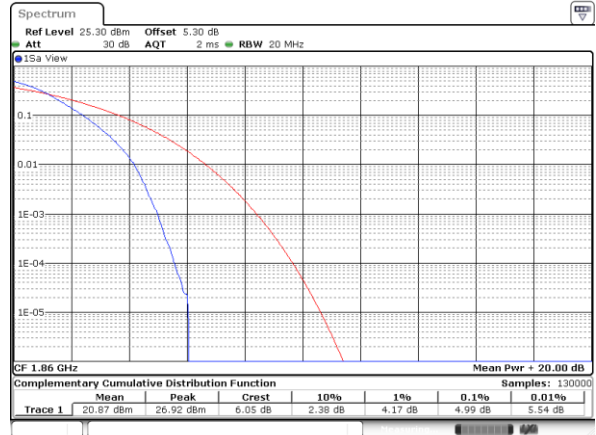


LTE Band 25 / 20MHz / QPSK

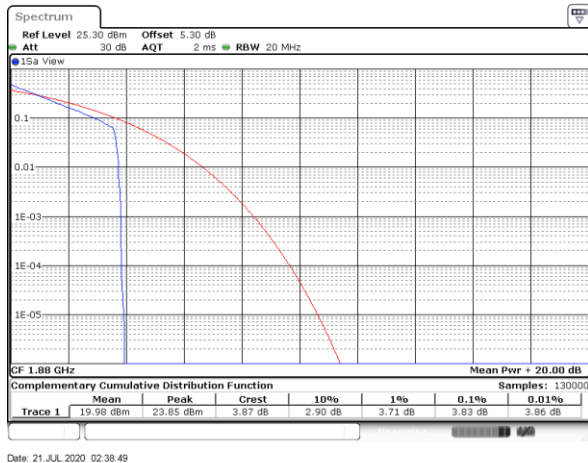
Lowest Channel / 1RB



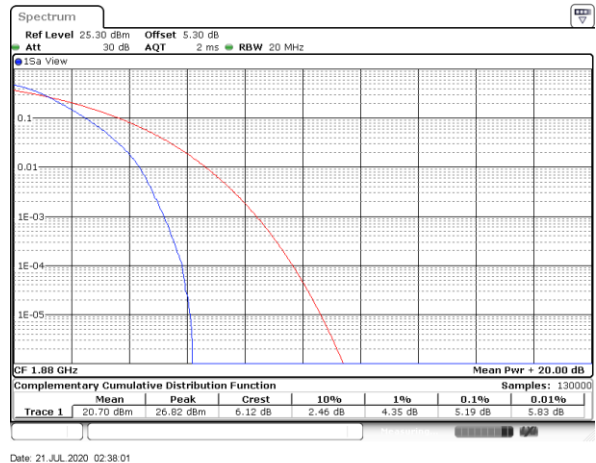
Lowest Channel / Full RB



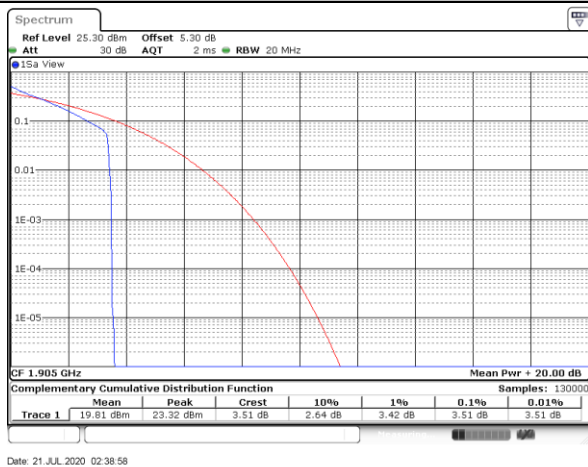
Middle Channel / 1RB



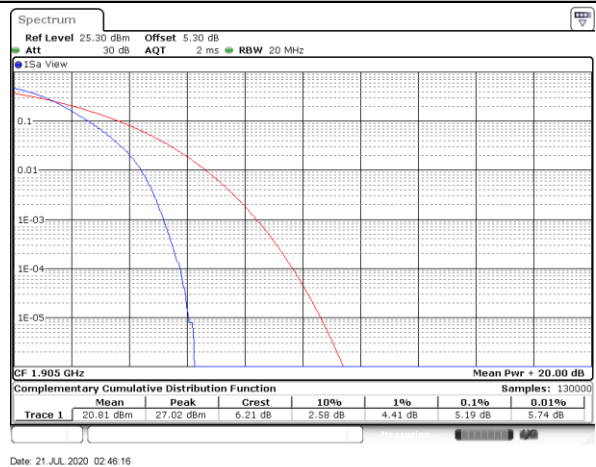
Middle Channel / Full RB



Highest Channel / 1RB



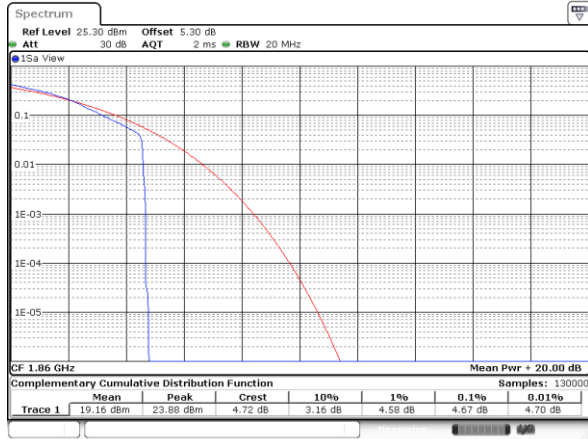
Highest Channel / Full RB



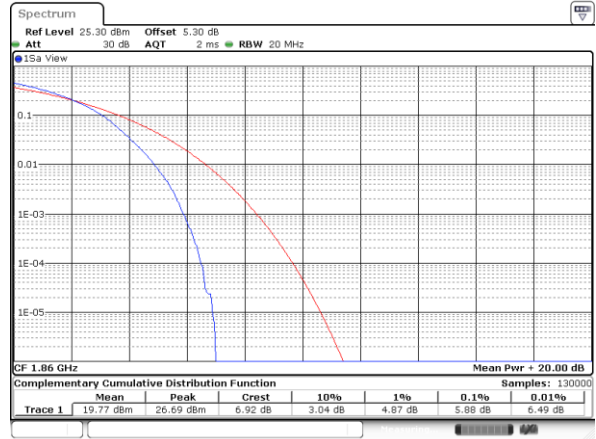


LTE Band 25 / 20MHz / 16QAM

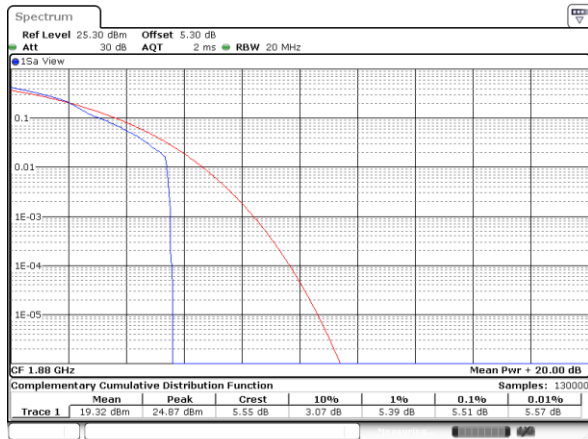
Lowest Channel / 1RB



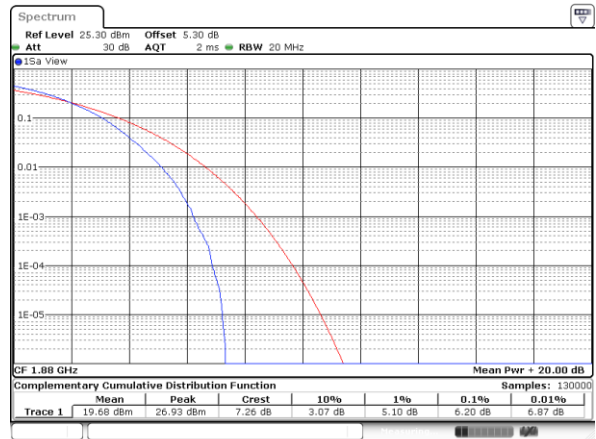
Lowest Channel / Full RB



Middle Channel / 1RB



Middle Channel / Full RB



Highest Channel / 1RB



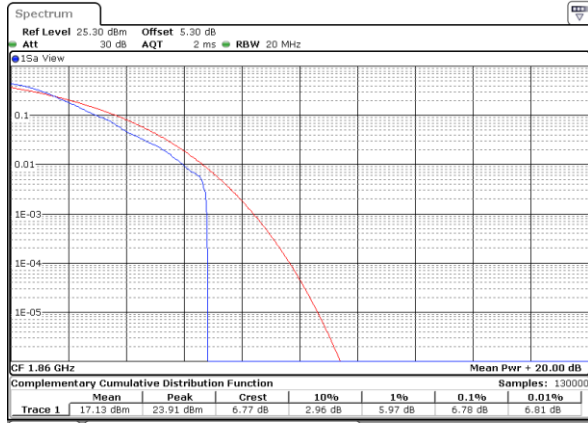
Highest Channel / Full RB



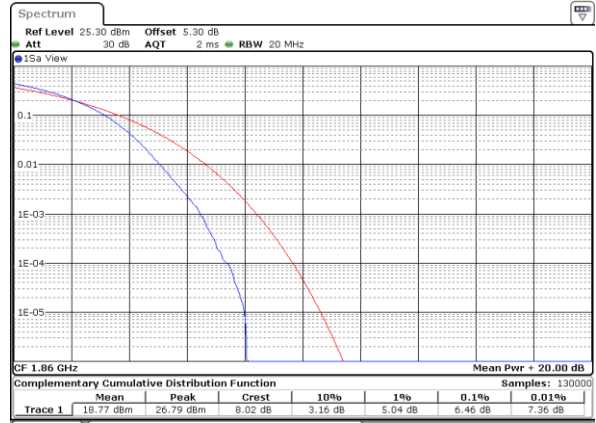


LTE Band 25 / 20MHz / 64QAM

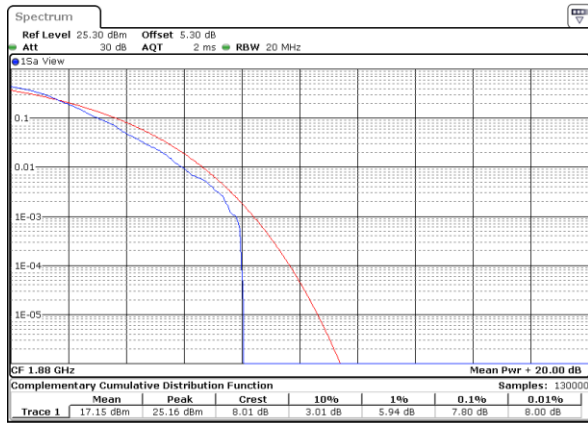
Lowest Channel / 1RB



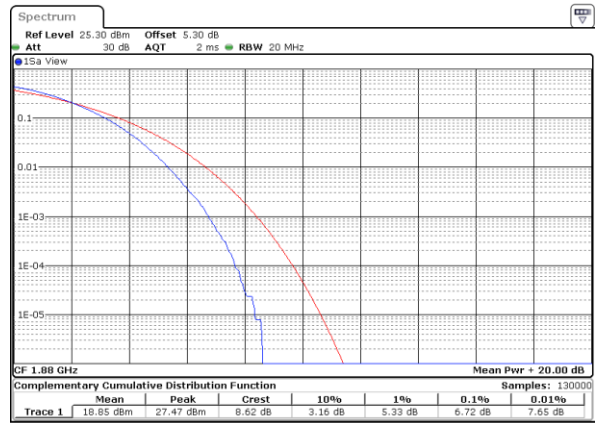
Lowest Channel / Full RB



Middle Channel / 1RB



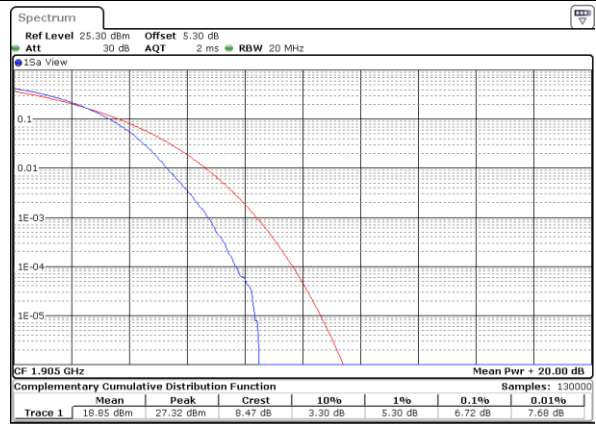
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB



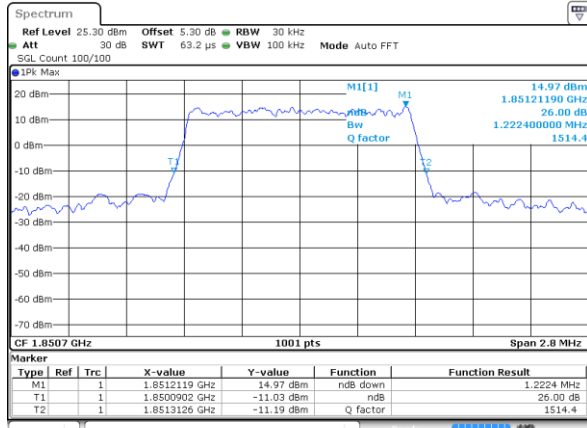
**26dB Bandwidth**

Mode	LTE Band 25 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.22	1.23	3.02	3.05	4.89	5.01	9.89	9.65	14.15	14.42	20.06	20.10
Middle CH	1.23	1.23	3.08	3.01	4.89	4.90	9.69	9.71	14.42	14.24	20.10	20.38
Highest CH	1.23	1.23	3.03	3.06	4.92	4.91	9.67	9.65	14.39	14.36	20.14	20.26
Mode	LTE Band 25 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.21	-	3.00	-	4.96	-	9.75	-	14.39	-	19.94	-
Middle CH	1.23	-	3.00	-	4.90	-	9.77	-	14.15	-	20.22	-
Highest CH	1.21	-	3.02	-	4.91	-	9.75	-	14.39	-	20.26	-

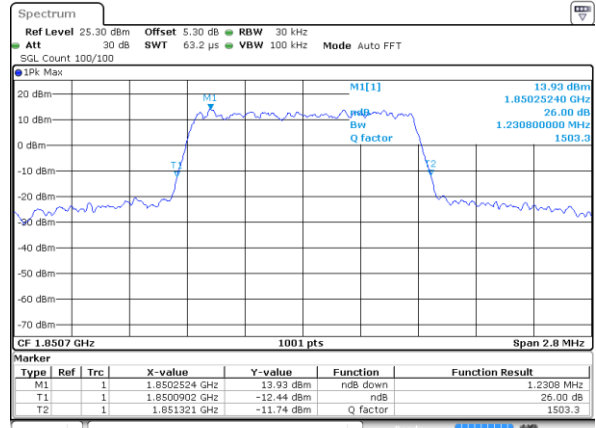


LTE Band 25

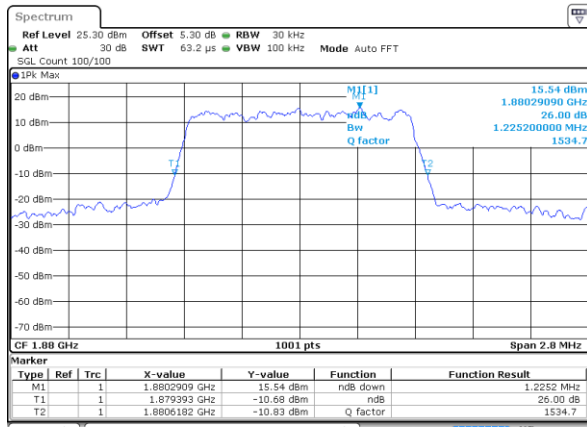
Lowest Channel / 1.4MHz / QPSK



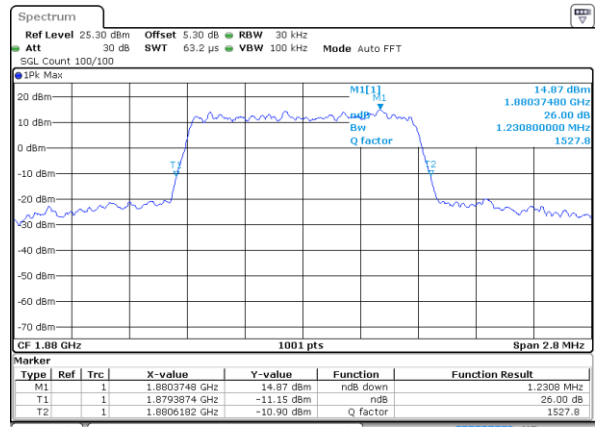
Lowest Channel / 1.4MHz / 16QAM



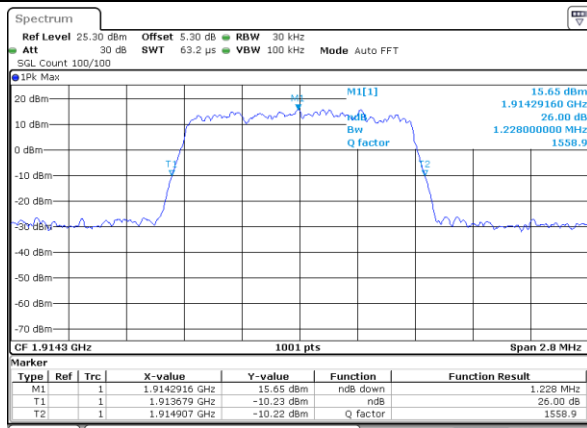
Middle Channel / 1.4MHz / QPSK



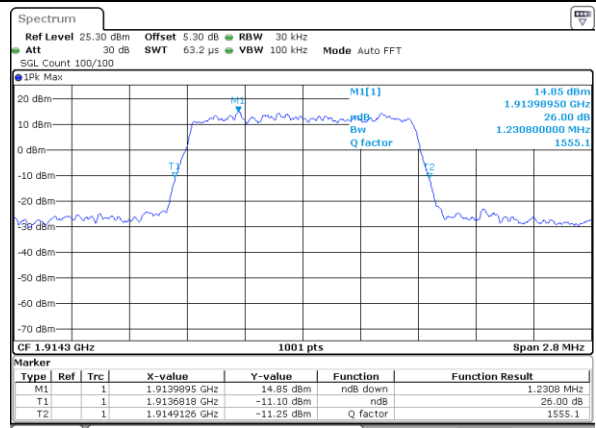
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



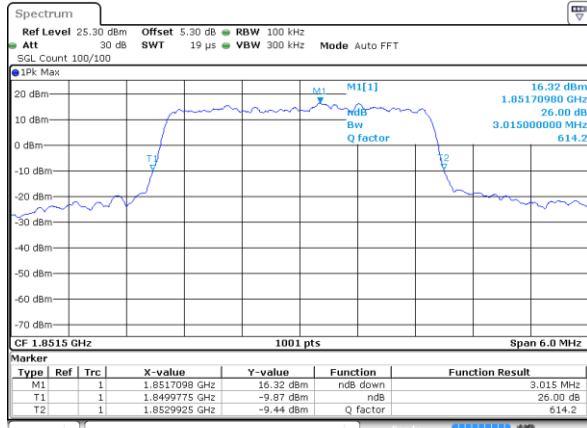
Highest Channel / 1.4MHz / 16QAM



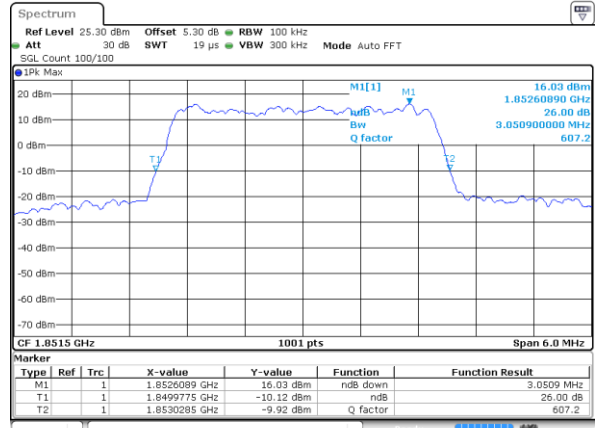


LTE Band 25

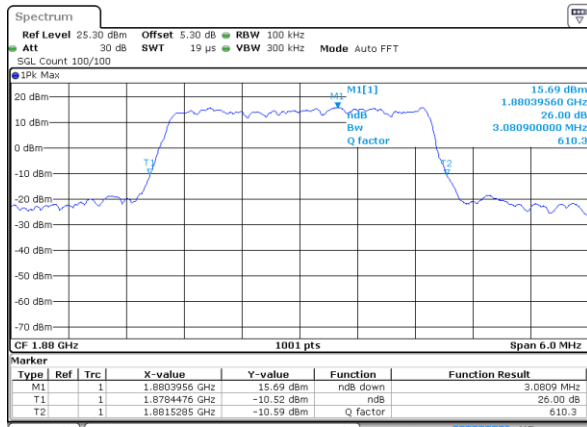
Lowest Channel / 3MHz / QPSK



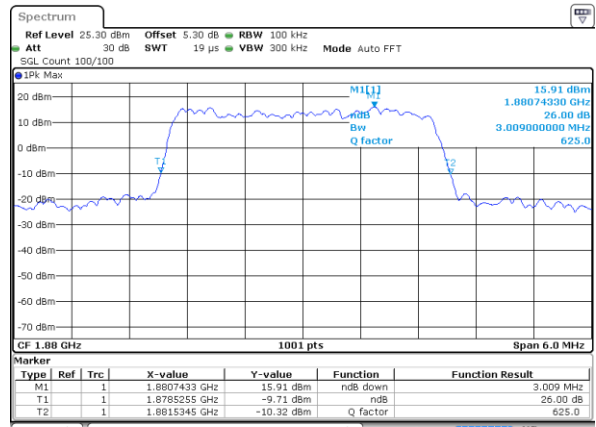
Lowest Channel / 3MHz / 16QAM



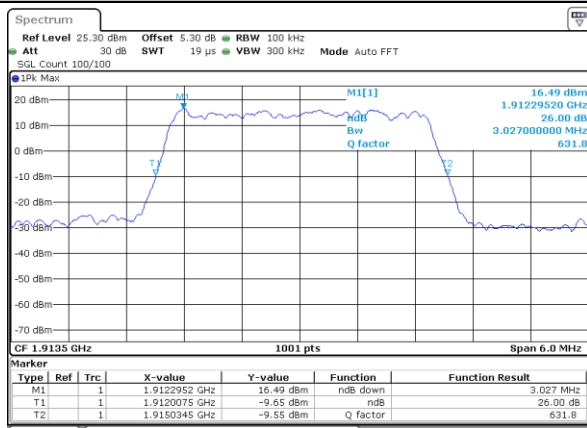
Middle Channel / 3MHz / QPSK



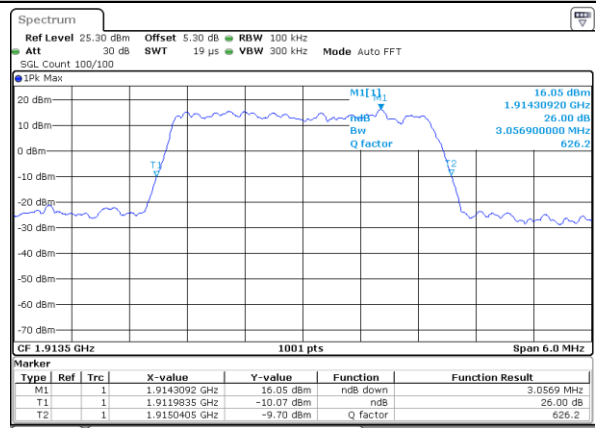
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



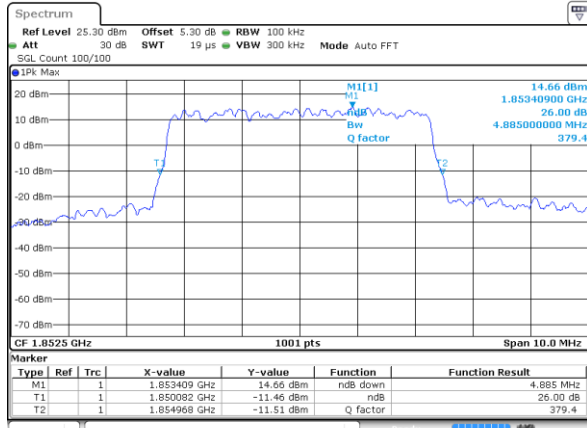
Highest Channel / 3MHz / 16QAM





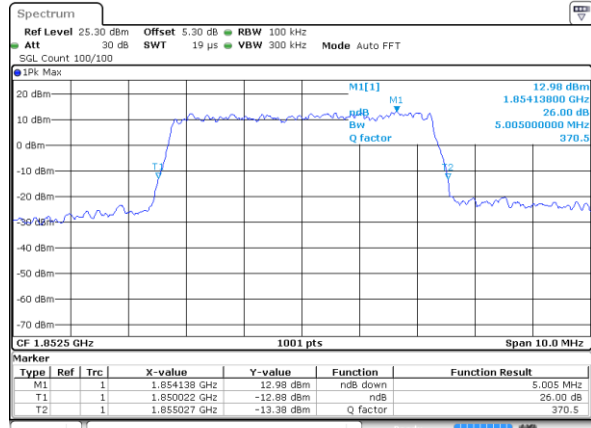
LTE Band 25

Lowest Channel / 5MHz / QPSK



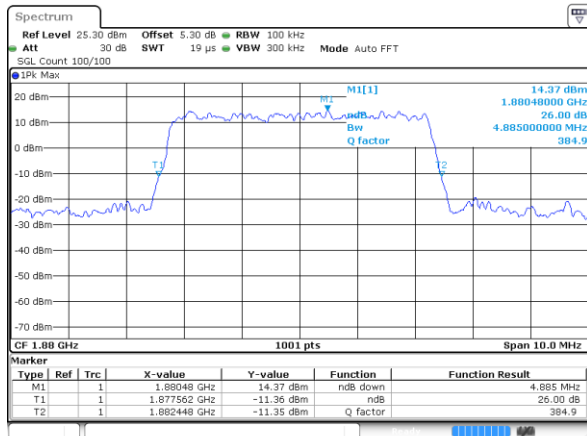
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Lowest Channel / 5MHz / 16QAM



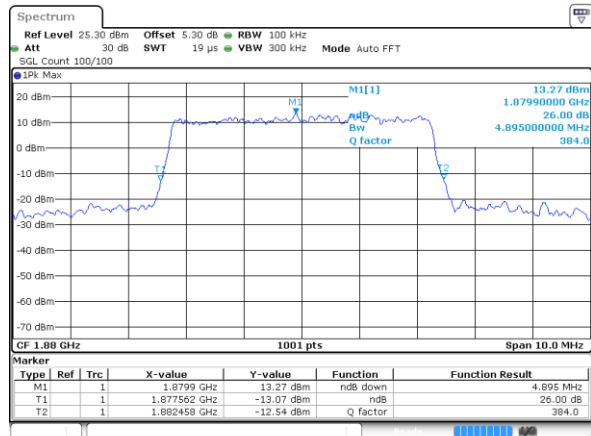
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Middle Channel / 5MHz / QPSK



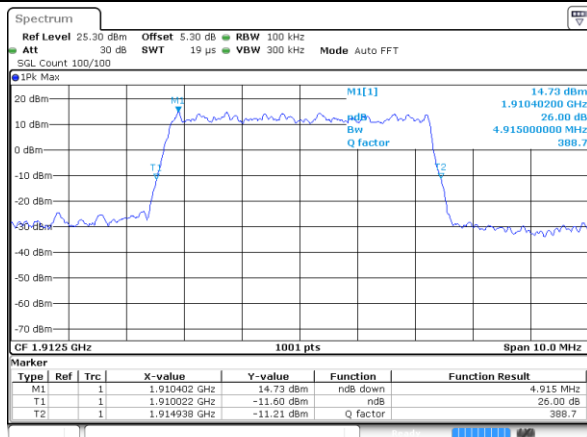
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Middle Channel / 5MHz / 16QAM



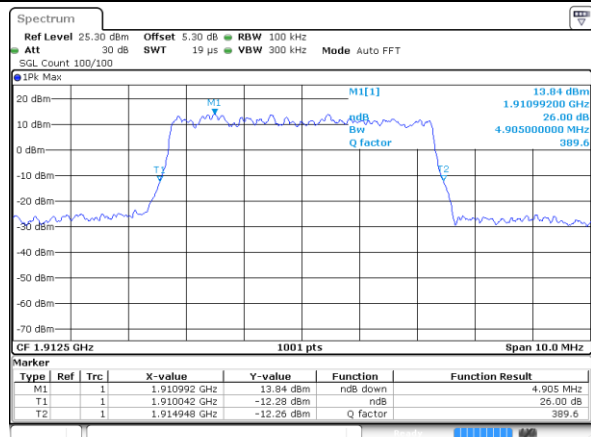
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Highest Channel / 5MHz / QPSK



Date: 21 JUL 2020 01:06:21

Highest Channel / 5MHz / 16QAM

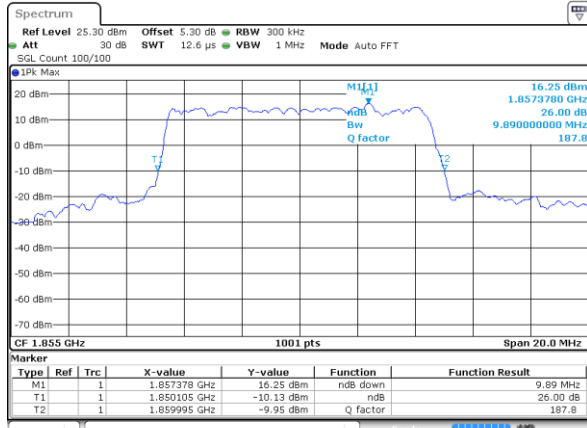


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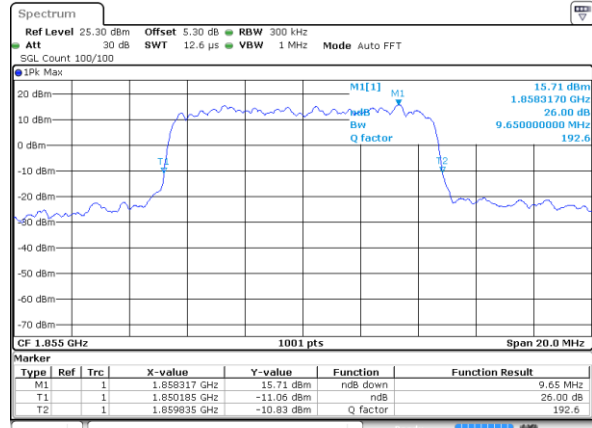
LTE Band 25

Lowest Channel / 10MHz / QPSK



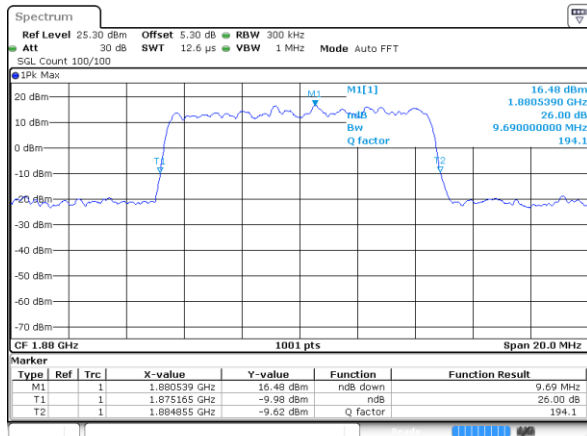
Date: 21 JUL 2020 01:16:49

Lowest Channel / 10MHz / 16QAM



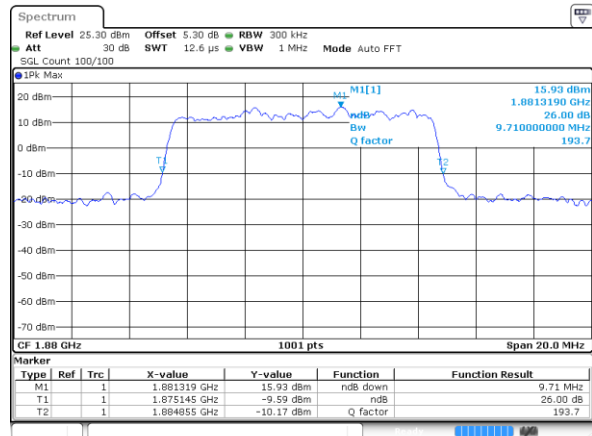
Date: 21 JUL 2020 01:17:09

Middle Channel / 10MHz / QPSK



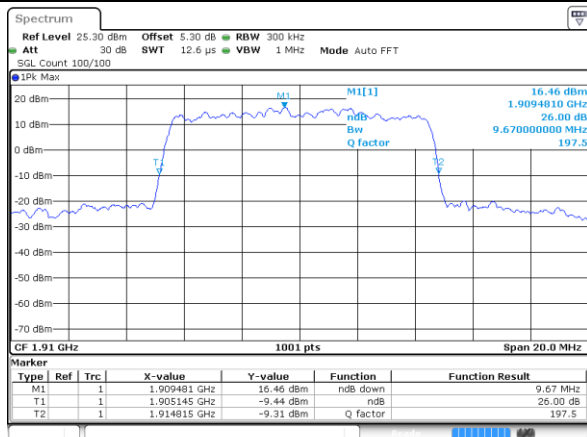
Date: 21 JUL 2020 01:30:39

Middle Channel / 10MHz / 16QAM



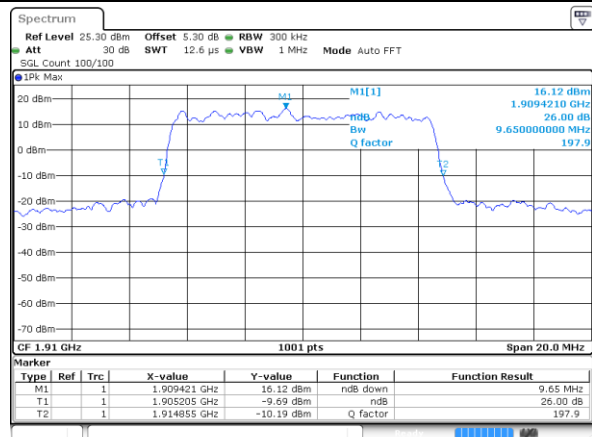
Date: 21 JUL 2020 01:30:20

Highest Channel / 10MHz / QPSK



Date: 21 JUL 2020 01:30:59

Highest Channel / 10MHz / 16QAM

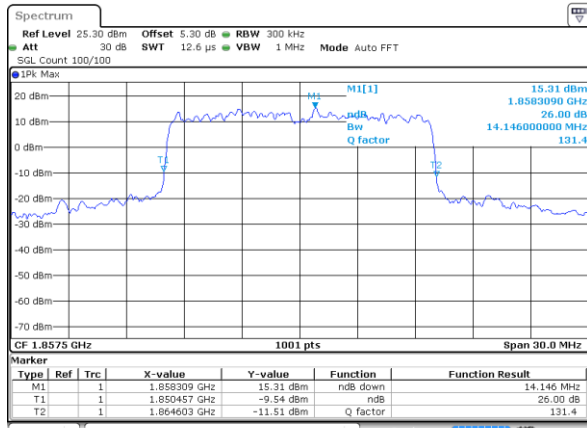


Date: 21 JUL 2020 01:31:19

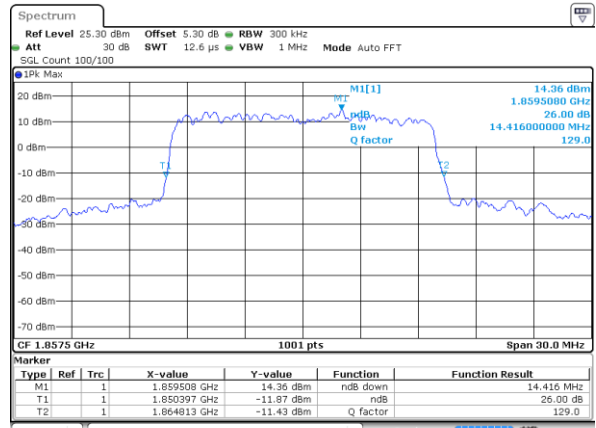


LTE Band 25

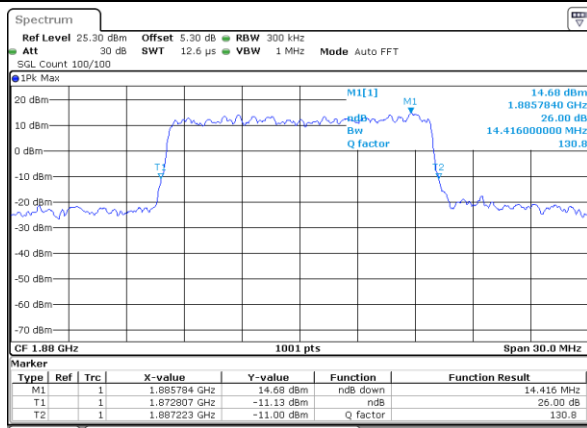
Lowest Channel / 15MHz / QPSK



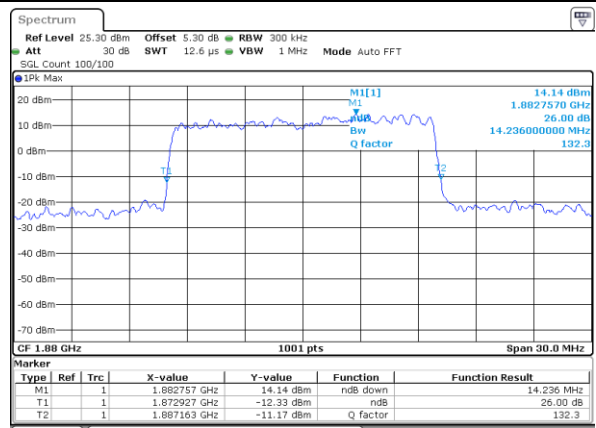
Lowest Channel / 15MHz / 16QAM



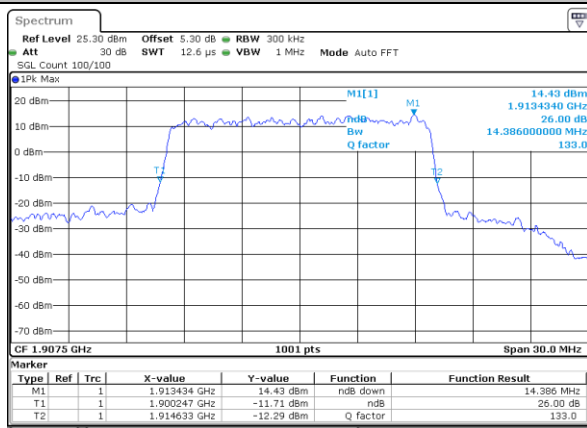
Middle Channel / 15MHz / QPSK



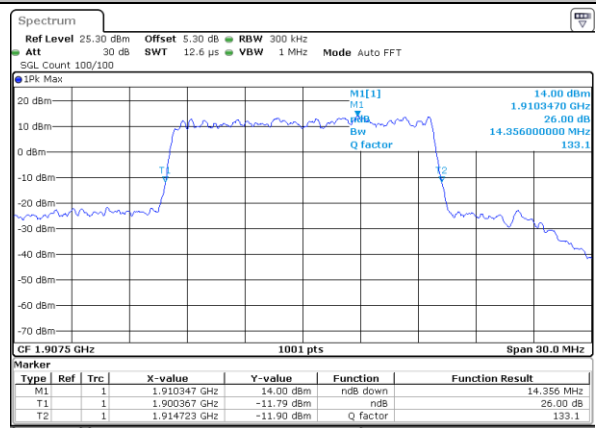
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK



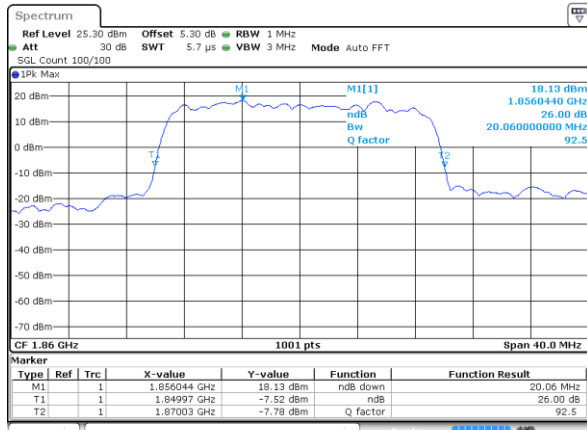
Highest Channel / 15MHz / 16QAM



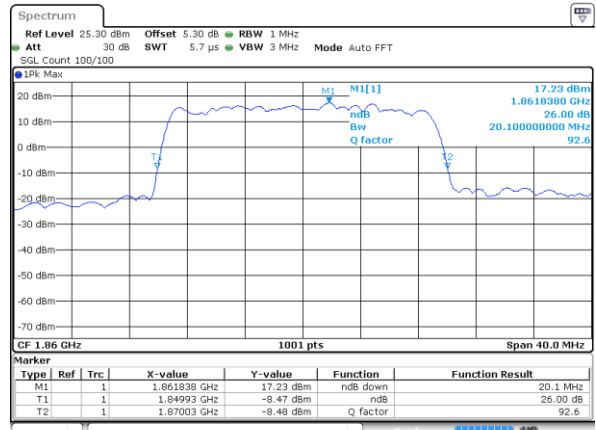


LTE Band 25

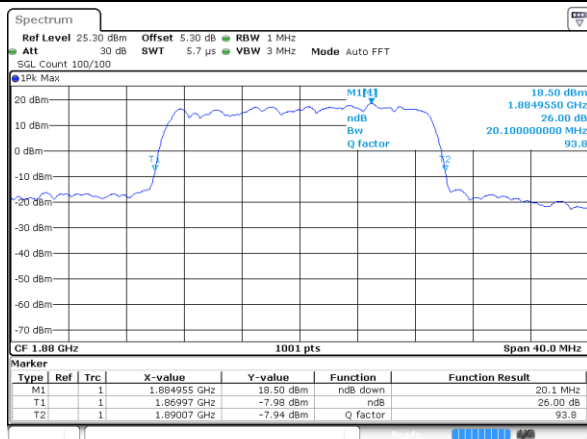
Lowest Channel / 20MHz / QPSK



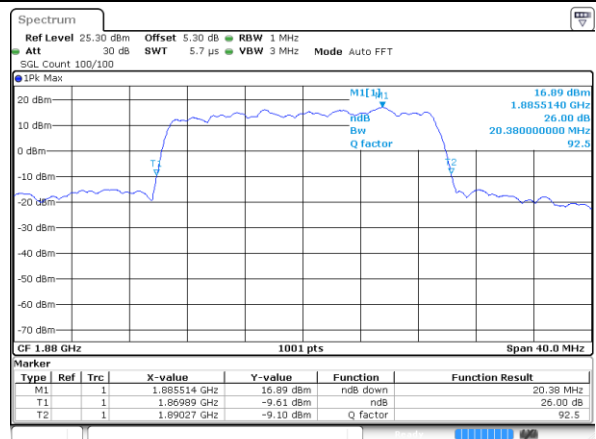
Lowest Channel / 20MHz / 16QAM



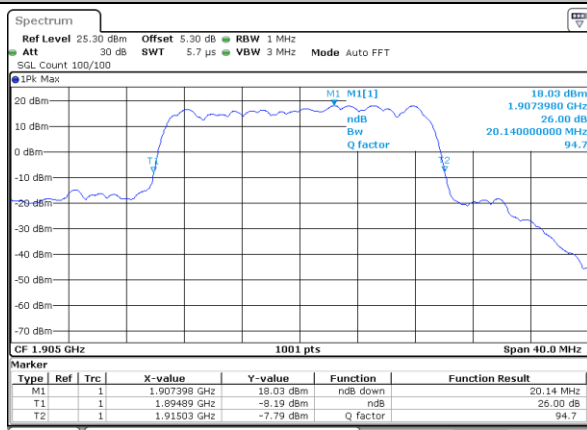
Middle Channel / 20MHz / QPSK



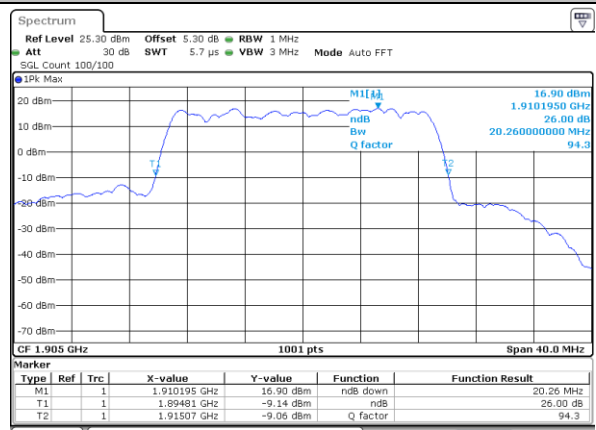
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK



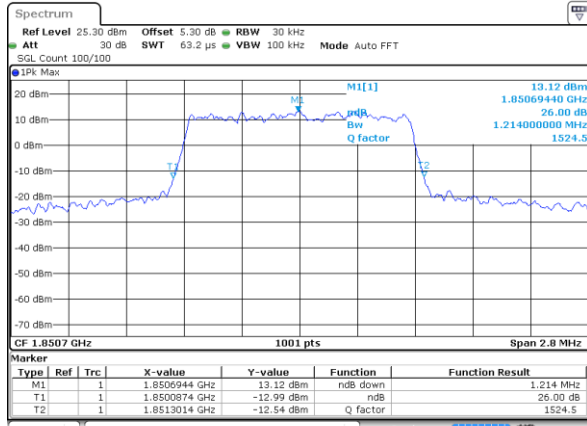
Highest Channel / 20MHz / 16QAM





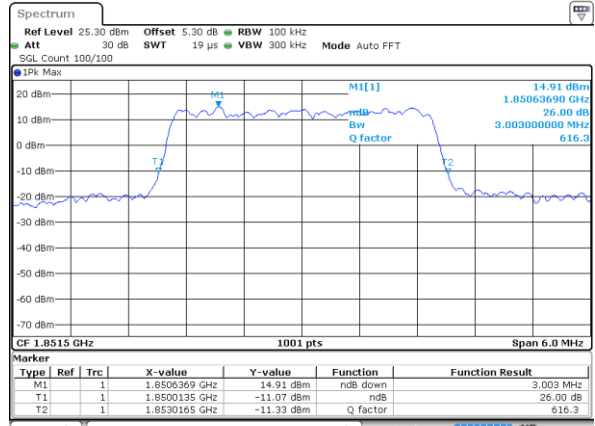
LTE Band 25

Lowest Channel / 1.4MHz / 64QAM



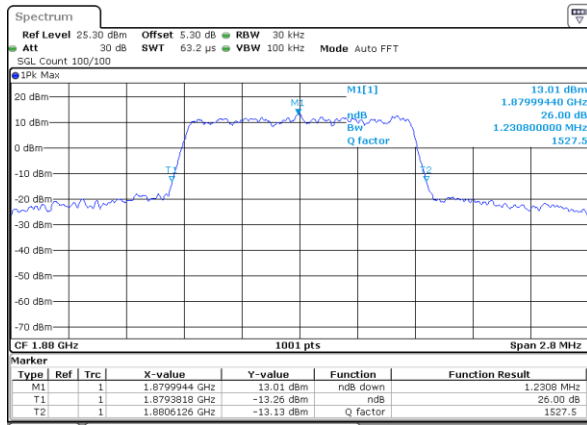
Date: 21 JUL 2020 00:03:34

Lowest Channel / 3MHz / 64QAM



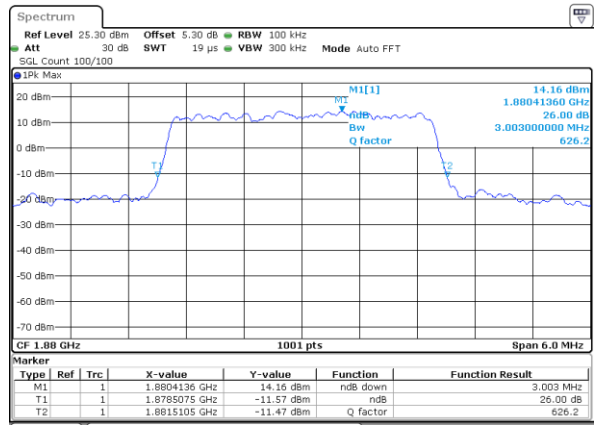
Date: 21 JUL 2020 00:28:12

Middle Channel / 1.4MHz / 64QAM



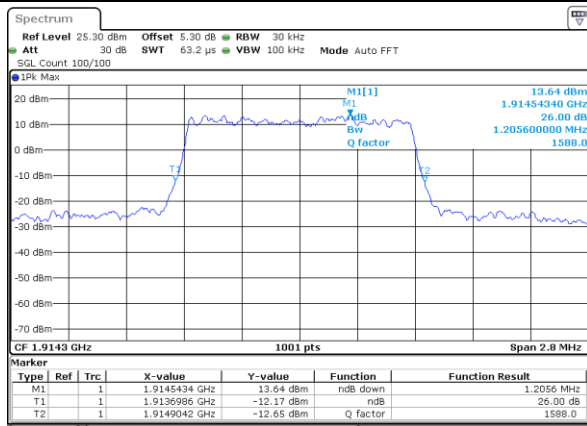
Date: 21 JUL 2020 00:04:34

Middle Channel / 3MHz / 64QAM



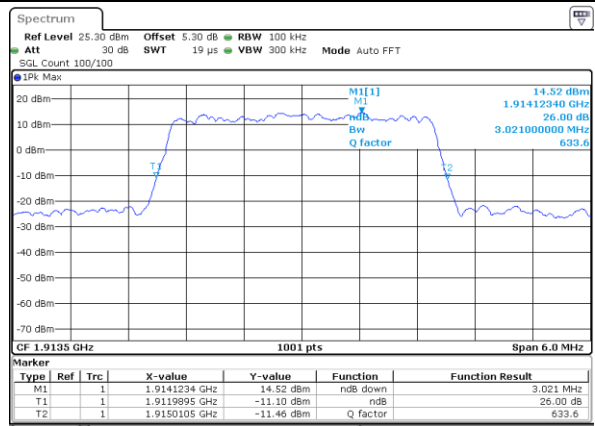
Date: 21 JUL 2020 00:29:12

Highest Channel / 1.4MHz / 64QAM



Date: 21 JUL 2020 00:05:34

Highest Channel / 3MHz / 64QAM

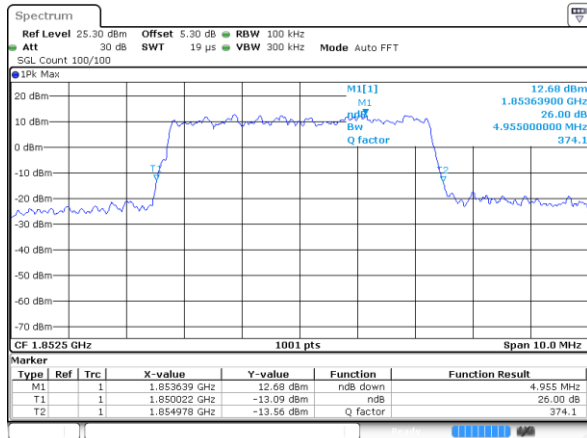


Date: 21 JUL 2020 00:30:12



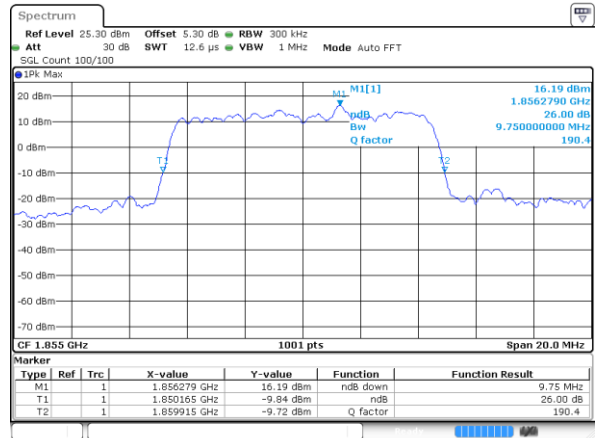
LTE Band 25

Lowest Channel / 5MHz / 64QAM



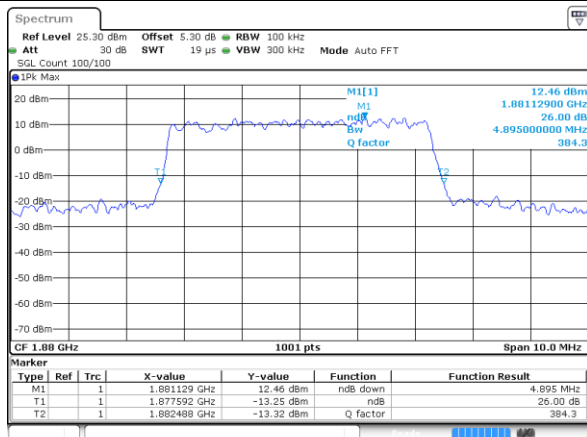
Date: 21 JUL 2020 00:52:50

Lowest Channel / 10MHz / 64QAM



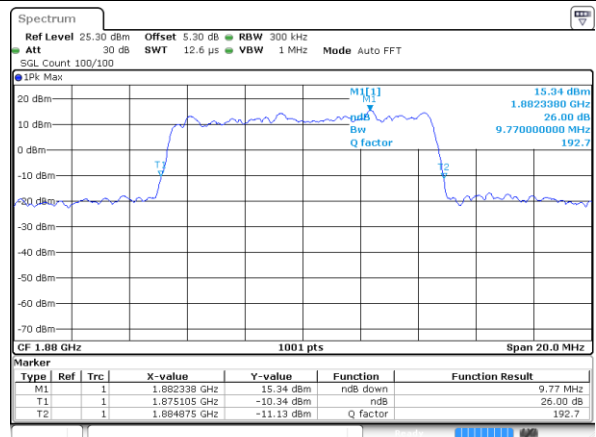
Date: 21 JUL 2020 01:17:29

Middle Channel / 5MHz / 64QAM



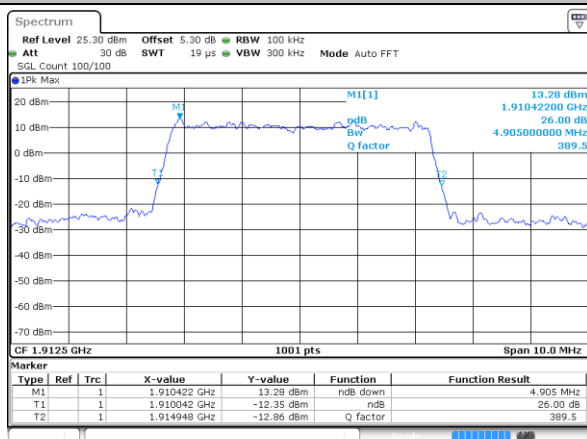
Date: 21 JUL 2020 01:05:21

Middle Channel / 10MHz / 64QAM



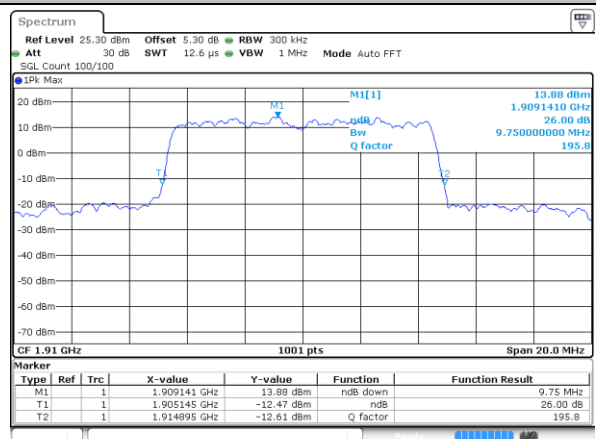
Date: 21 JUL 2020 01:30:00

Highest Channel / 5MHz / 64QAM



Date: 21 JUL 2020 01:07:01

Highest Channel / 10MHz / 64QAM

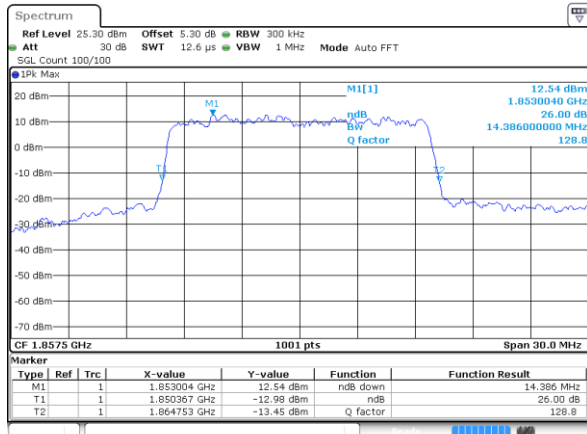


Date: 21 JUL 2020 01:31:39

LTE Band 25

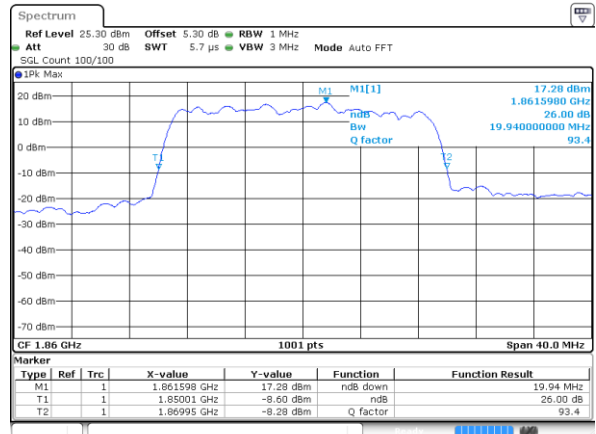


Lowest Channel / 15MHz / 64QAM



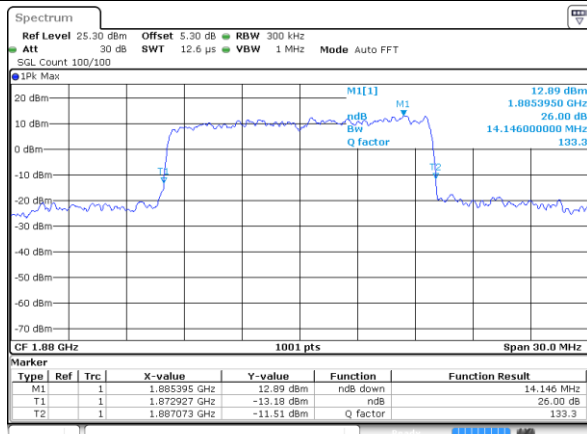
Date: 21 JUL 2020 01:42:07

Lowest Channel / 20MHz / 64QAM



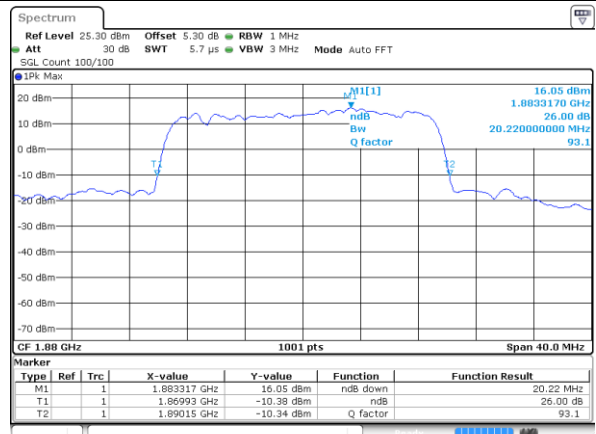
Date: 21 JUL 2020 02:06:46

Middle Channel / 15MHz / 64QAM



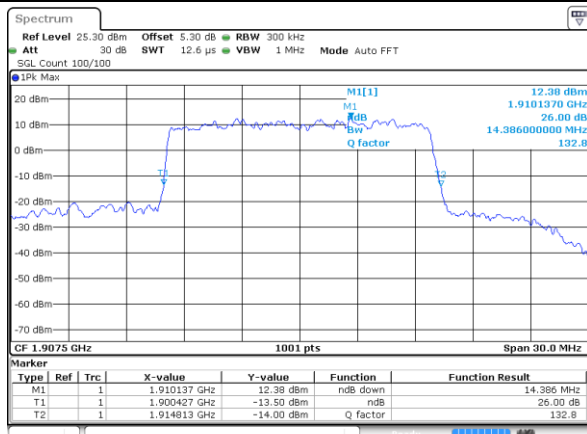
Date: 21 JUL 2020 01:54:38

Middle Channel / 20MHz / 64QAM



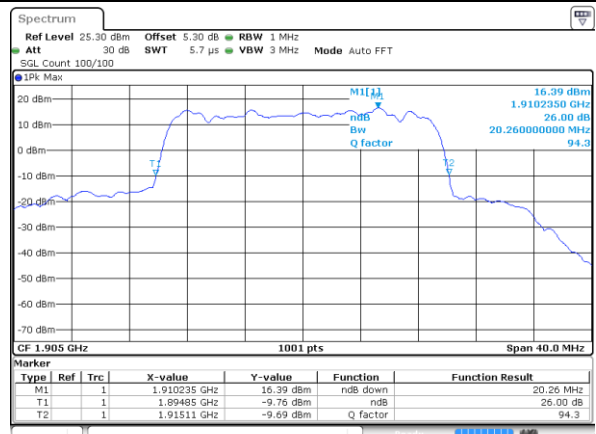
Date: 21 JUL 2020 02:19:16

Highest Channel / 15MHz / 64QAM



Date: 21 JUL 2020 01:56:17

Highest Channel / 20MHz / 64QAM



Date: 21 JUL 2020 02:20:56

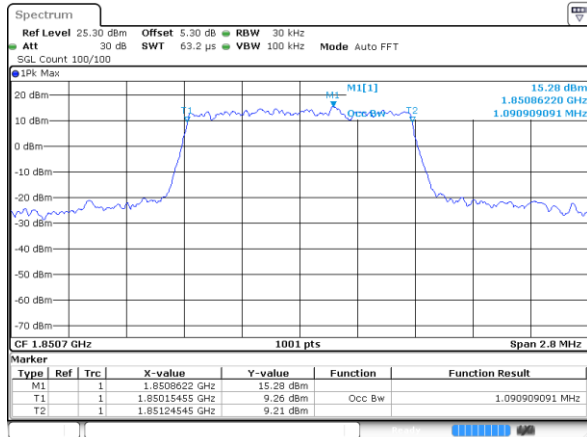
**Occupied Bandwidth**

Mode	LTE Band 25 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.09	2.72	2.72	4.49	4.50	9.01	8.99	13.43	13.37	18.26	18.34
Middle CH	1.09	1.09	2.73	2.74	4.48	4.49	9.05	8.97	13.43	13.46	18.42	18.26
Highest CH	1.09	1.09	2.73	2.74	4.47	4.49	9.01	9.03	13.43	13.43	18.42	18.26
Mode	LTE Band 25 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.09	-	2.73	-	4.50	-	8.95	-	13.40	-	18.38	-
Middle CH	1.10	-	2.72	-	4.49	-	9.01	-	13.52	-	18.38	-
Highest CH	1.09	-	2.72	-	4.49	-	9.07	-	13.40	-	18.38	-

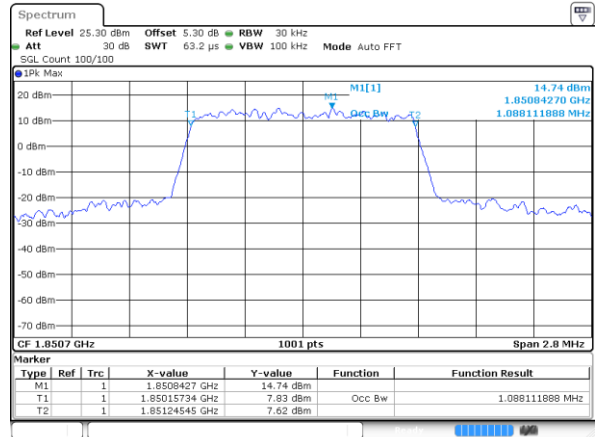


LTE Band 25

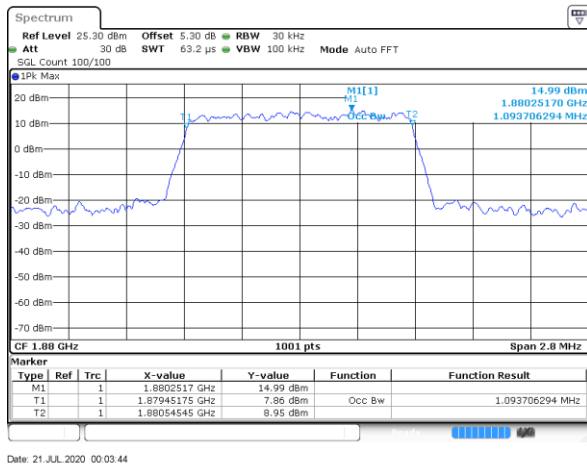
Lowest Channel / 1.4MHz / QPSK



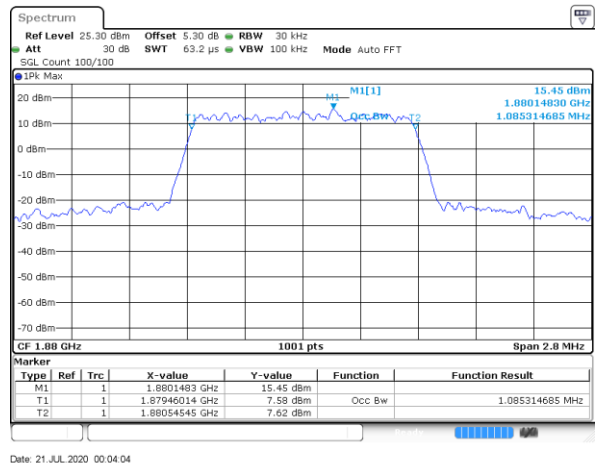
Lowest Channel / 1.4MHz / 16QAM



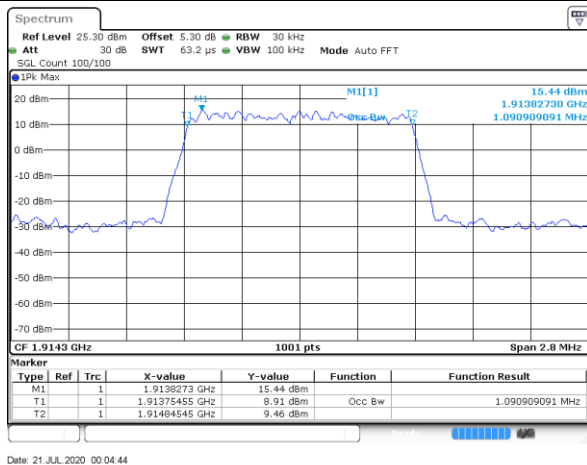
Middle Channel / 1.4MHz / QPSK



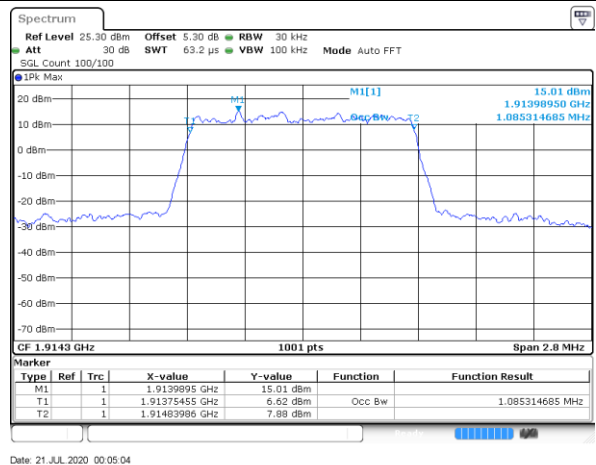
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



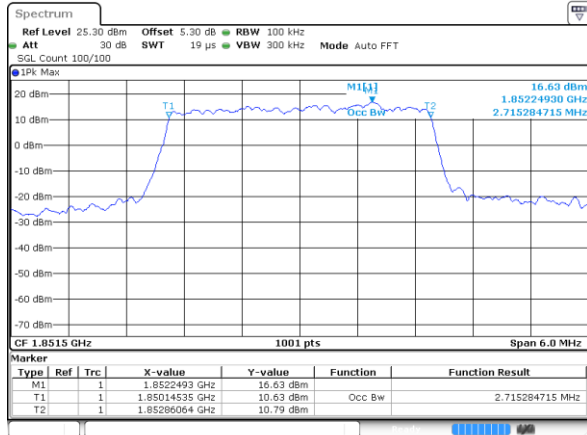
Highest Channel / 1.4MHz / 16QAM





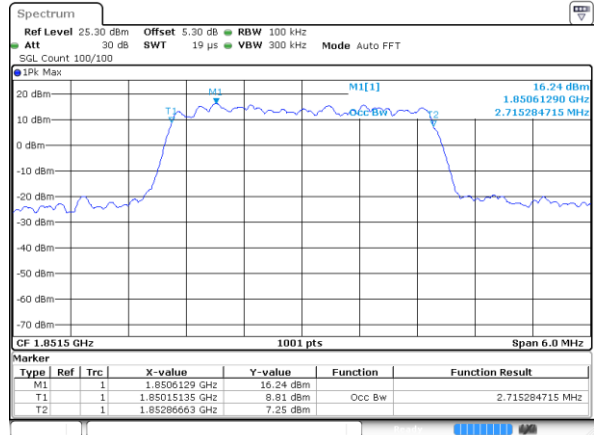
LTE Band 25

Lowest Channel / 3MHz / QPSK



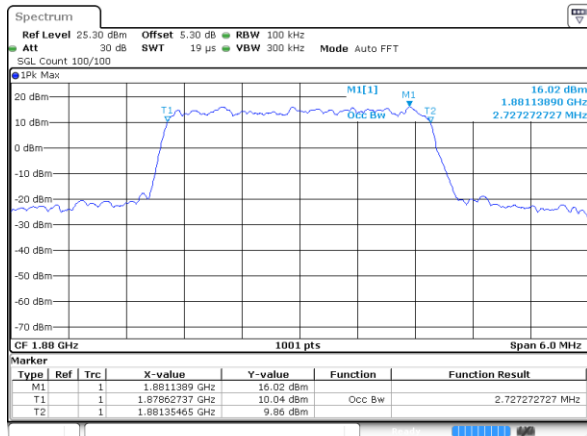
Date: 21 JUL 2020 00:27:23

Lowest Channel / 3MHz / 16QAM



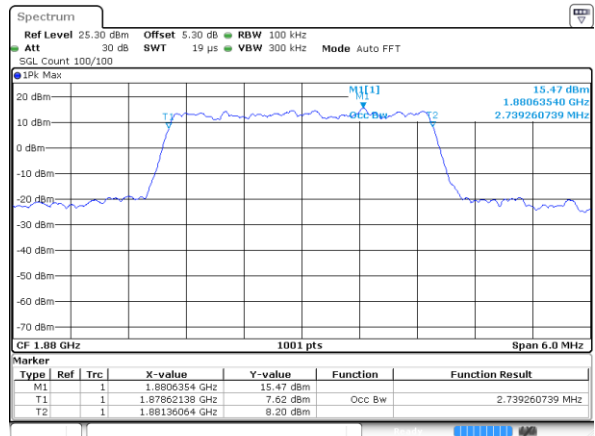
Date: 21 JUL 2020 00:27:43

Middle Channel / 3MHz / QPSK



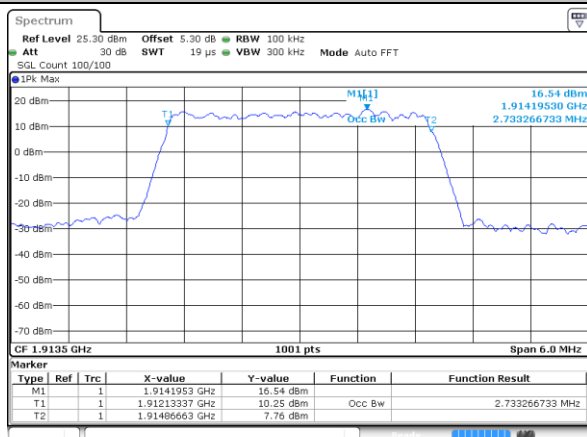
Date: 21 JUL 2020 00:28:22

Middle Channel / 3MHz / 16QAM



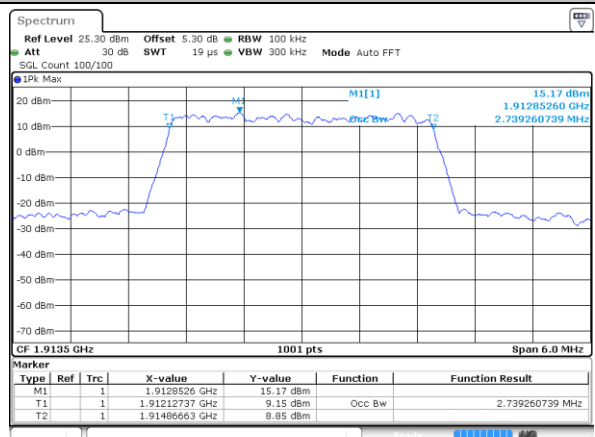
Date: 21 JUL 2020 00:28:42

Highest Channel / 3MHz / QPSK



Date: 21 JUL 2020 00:29:22

Highest Channel / 3MHz / 16QAM

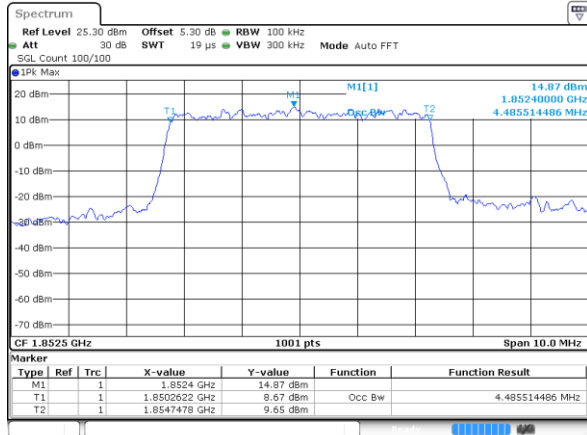


Date: 21 JUL 2020 00:29:42

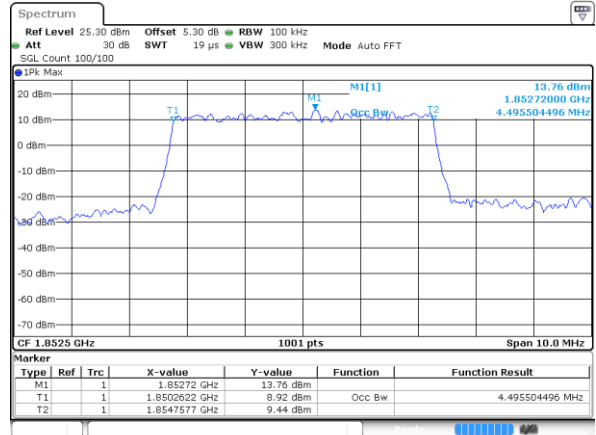


LTE Band 25

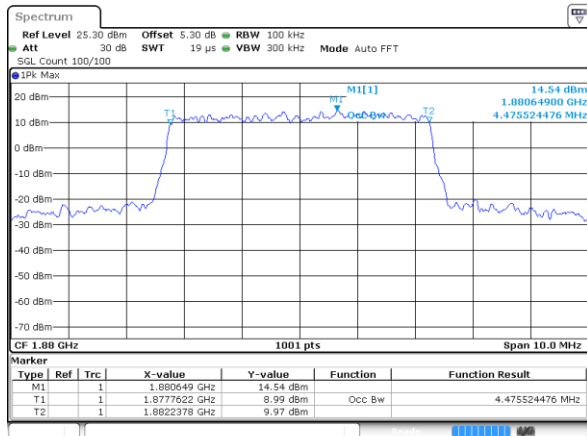
Lowest Channel / 5MHz / QPSK



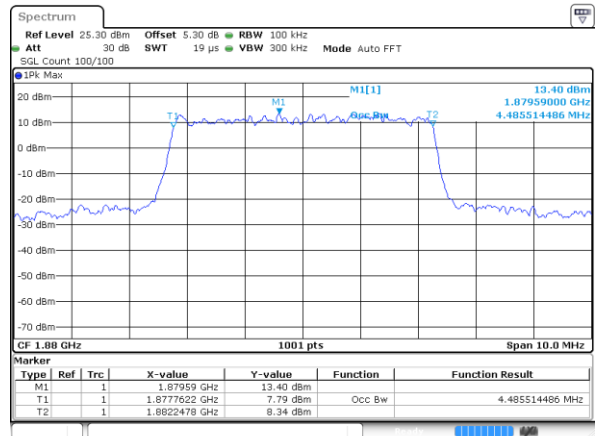
Lowest Channel / 5MHz / 16QAM



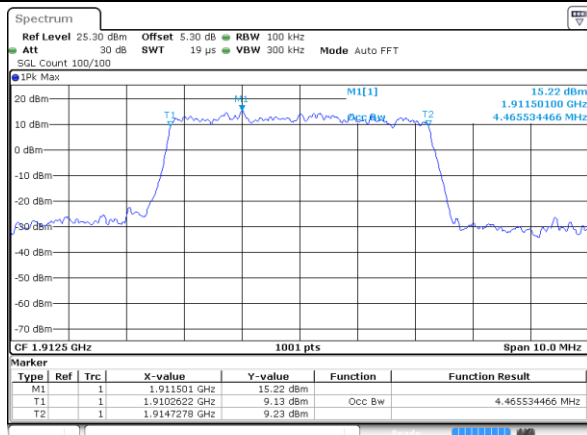
Middle Channel / 5MHz / QPSK



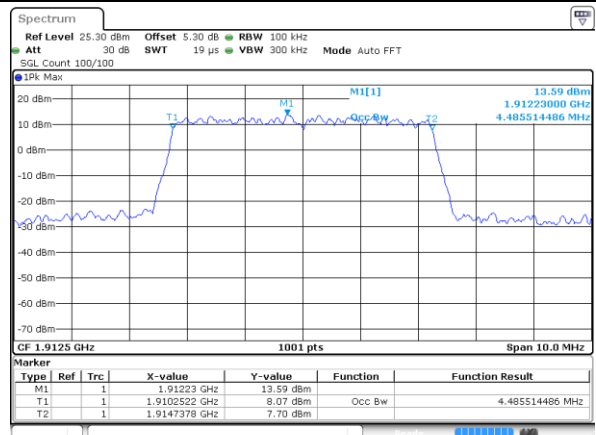
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



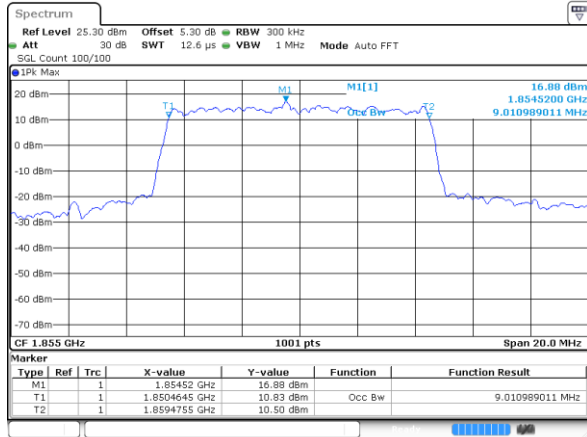
Highest Channel / 5MHz / 16QAM



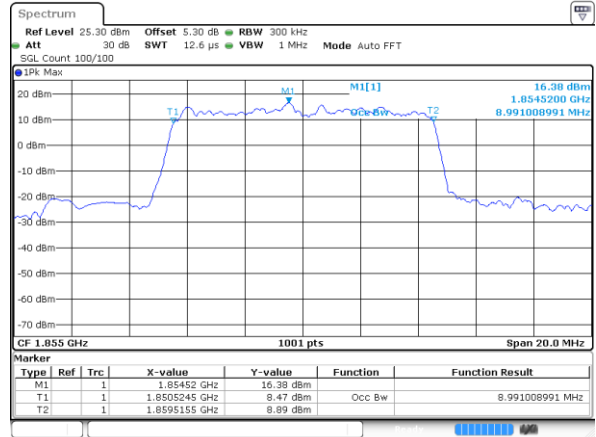


LTE Band 25

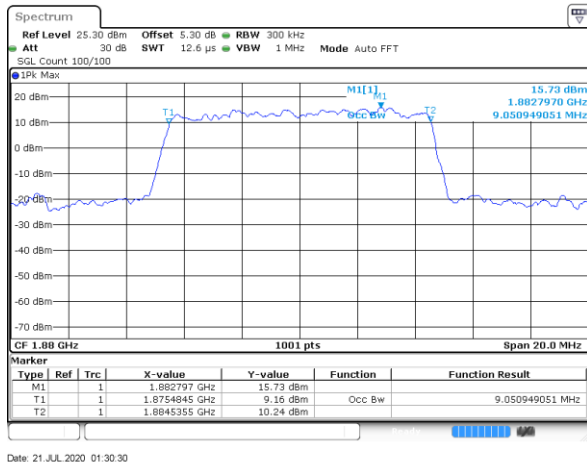
Lowest Channel / 10MHz / QPSK



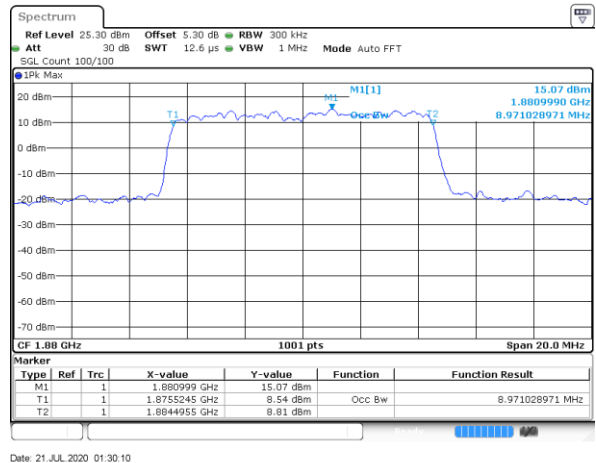
Lowest Channel / 10MHz / 16QAM



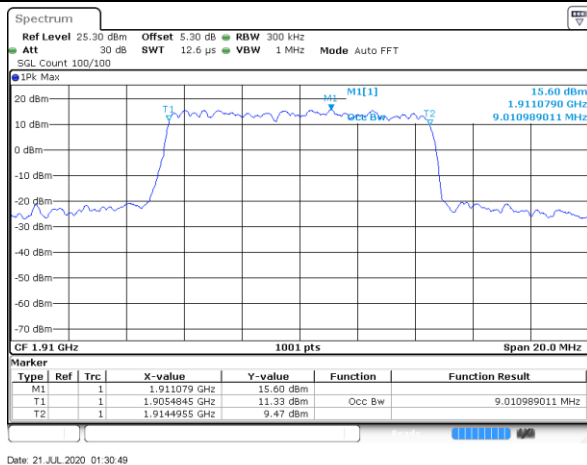
Middle Channel / 10MHz / QPSK



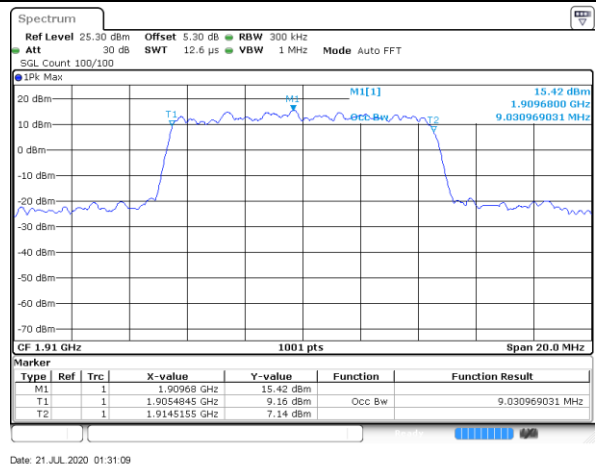
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



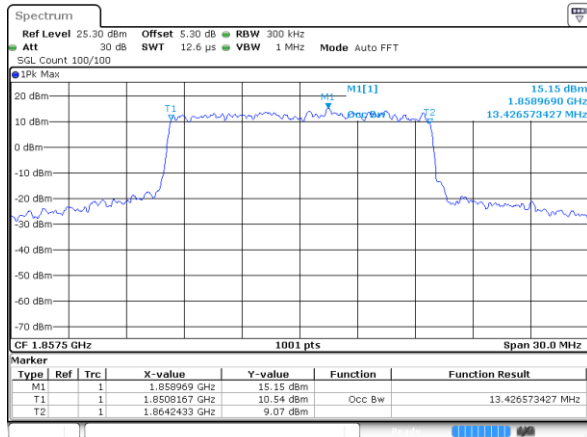
Highest Channel / 10MHz / 16QAM



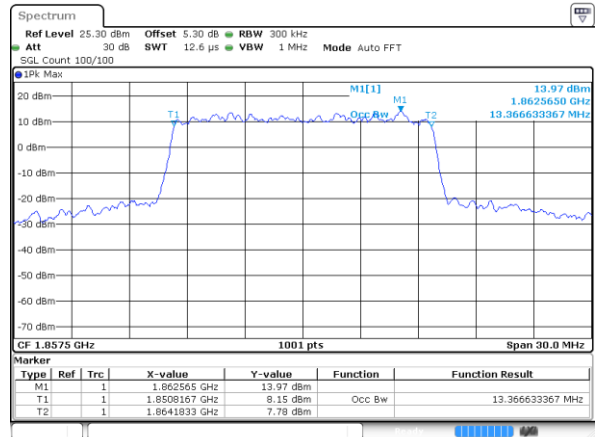


LTE Band 25

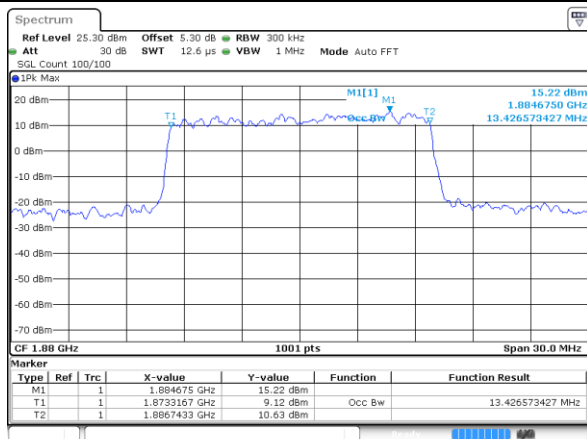
Lowest Channel / 15MHz / QPSK



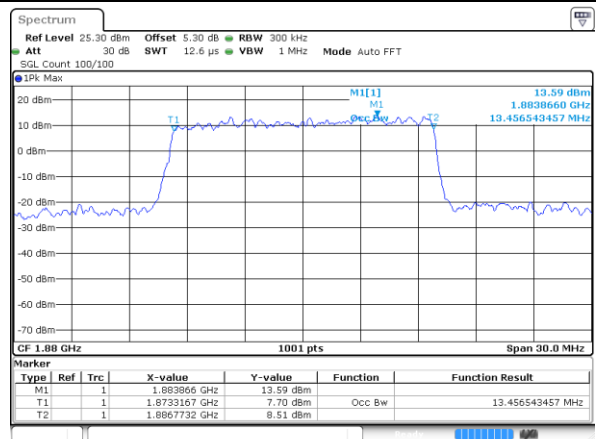
Lowest Channel / 15MHz / 16QAM



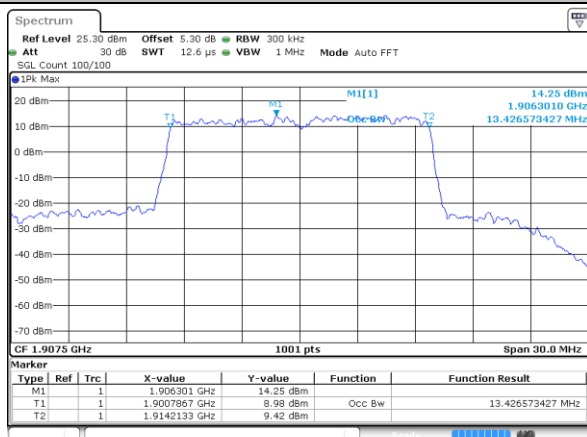
Middle Channel / 15MHz / QPSK



Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK



Highest Channel / 15MHz / 16QAM

