FCC Radio Test Report

FCC ID: R9C-CPH2083

This report concerns: Original Grant

Project No.	:	2003C217
Equipment	:	Mobile Phone
Brand Name	:	OPPO
Test Model	:	CPH2083
Series Model	:	N/A
Applicant	:	Guangdong OPPO Mobile Telecommunications Corp., Ltd.
Address	:	NO. 18 HaiBin Road, Wusha village, Chang An Town, DongGuan City, Guangdong, China
Manufacturer	:	Guangdong OPPO Mobile Telecommunications Corp., Ltd.
Address	:	NO. 18 HaiBin Road, Wusha village, Chang An Town, DongGuan City, Guangdong, China
Factory	:	Guangdong OPPO Mobile Telecommunications Corp., Ltd.
Address	:	NO. 18 HaiBin Road, Wusha village, Chang An Town, DongGuan City, Guangdong, China
Date of Receipt	:	Mar. 27, 2020
Date of Test	:	Mar. 28, 2020 ~ Apr. 24, 2020
Issued Date	:	Apr. 29, 2020
Report Version	:	R00
Test Sample	:	Engineering Sample No.: DG2020032776 for conducted, DG2020032773 for radiated.
Standard(s)	:	47 CFR FCC Part 27 Subpart L 47 CFR FCC Part 27 Subpart M 47 CFR FCC Part 2 ANSI/TIA/EIA-603-E-2016 KDB 971168 D01 Power Meas License Digital Systems v03r01

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

Treey Chen

Prepared by : Treey Chen

Steven Lu

Approved by : Steven Lu

Certificate #5123.02

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Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

BTL's reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **BTL** issued reports.

The report must not be used by the client to claim product certification, approval, or endorsement by NIST, A2LA, or any agency of the U.S. Government.

This report is the confidential property of the client. As a mutual protection to the clients, the public and ourselves, the test report shall not be reproduced, except in full, without our written approval.

BTL's laboratory quality assurance procedures are in compliance with the **ISO/IEC 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.
Please note that the measurement uncertainty is provided for informational purpose only and is not use in determining the Pass/Fail results.

Table of Contents Page

Table of Contents Page

REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	Apr. 29, 2020

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standard(s):

FCC Part 27 Subpart L, M & Part 2			
Standard(s) Section	**Test Item**	**Judgment**	**Remark**
2.1046 27.50(d)(4) 27.50(h)(2)	Equivalent Isotropic Radiated Power	PASS	------
2.1049	Occupied Bandwidth	PASS	------
2.1051 27.53(h) 27.53(m)(4)	Conducted Spurious Emissions	PASS	------
2.1053 27.53(h) 27.53(m)(4)	Radiated Spurious Emissions	PASS	------
2.1051 27.53(h) 27.53(m)(4)	Band Edge Measurements	PASS	------
-	Peak To Average Ratio	PASS	Record Only
2.1055 27.54	Frequency Stability	PASS	------

Note:

(1) “N/A” denotes test is not applicable in this test report.

1.1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No.3, Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.
BTL's Test Firm Registration Number for FCC: 357015
BTL's Designation Number for FCC: CN1240

1.2 MEASUREMENT UNCERTAINTY

The measurement uncertainty figures shall be calculated according the methods described in the ETSI TR 100 028 and shall correspond to an expansion factor (coverage factor) k=1.96 or k=2(which provide confidence levels of respectively 90% and 95.45% in the case where the distributions characterizing the actual measurement uncertainties are normal (Gaussian)).
Measurement Uncertainty for a Level of Confidence of 95 %, U=2xUc(y).

The BTL measurement uncertainty as below table:

A. Radiated Measurement :

Test Site	Method	Measurement Frequency Range	Ant. H / V	U,(dB)
DG-CB03 (3m)	CISPR	9KHz ~ 30MHz	V	3.79
		9KHz ~ 30MHz	H	3.57
		30MHz ~ 200MHz	V	4.88
		30MHz ~ 200MHz	H	4.14
		200MHz ~ 1,000MHz	V	4.62
		200MHz ~ 1,000MHz	H	4.80

Test Site	Method	Measurement Frequency Range	U,(dB)
DG-CB03 (3m)	CISPR	1GHz ~ 6GHz	4.58
		6GHz ~ 18GHz	5.18

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Test Voltage	Tested By
Output Power & EIRP	23.1°C	45%	DC 3.85V	Laughing Zhang
Occupied Bandwidth	23.1°C	45%	DC 3.85V	Hayden Chen
Conducted Spurious Emissions	23.1°C	45%	DC 3.85V	Hayden Chen
Radiated Spurious Emissions	24°C	68%	AC 120V/60Hz	Kwok Guo
Band Edge	23.1°C	45%	DC 3.85V	Hayden Chen
Peak to Average Ratio	23.1°C	45%	DC 3.85V	Hayden Chen
Frequency Stability	Normal and Extreme			Hayden Chen

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Mobile Phone				
Brand Name	OPPO				
Test Model	CPH2083				
Series Model	N/A				
Model Difference(s)	N/A				
Hardware Version	11				
Software Version	ColorOS V6.1.2				
Power Source	1. DC Voltage supplied from AC/DC adapter. 1# Model: OP52KAUH 2# Model: OP52JAUH 3# Model: OP52YAUH 2. Supplied from Li-ion Polymer battery. Model: BLP673 3. Supplied from USB port.				
Power Rating	1. I/P:100-240V~ 50/60Hz 0.4A O/P:5V ⎓ 2A 2. 3.85Vdc, 4100mAh/15.78Wh 3. DC 5V				
IEMI No.	Radiated	863634040130637			
	Conducted	863634040130603			
Modulation Type	WCDMA/HSDPA/HSUPA		UL: QPSK DL: QPSK, 16QAM		
	LTE		UL: QPSK,16QAM, 64QAM DL: QPSK,16QAM, 64QAM		
Max. EIRP	WCDMA Band IV		QPSK	17.99	dBm
	HSDPA Band IV		QPSK	15.93	dBm
	HSUPA Band IV		QPSK	17.94	dBm
	LTE	Channel Bandwidth (MHz)	QPSK (dBm)	16QAM (dBm)	64QAM (dBm)
	Band 4	1.4	17.65	16.93	16.13
		3	17.66	17.02	16.06
		5	17.62	17.02	15.86
		10	17.68	16.97	15.99
		15	17.59	16.93	16.20
		20	17.78	17.22	16.39
	Band 7	5	22.44	21.64	20.65
		10	22.52	21.69	20.79
		15	22.40	21.56	20.86
		20	22.64	21.92	21.00
	Band 12	1.4	14.84	14.07	13.29
		3	14.87	14.21	13.25
		5	14.79	14.23	13.13
		10	14.89	14.24	13.28
	Band 38	5	22.26	21.69	20.87
		10	22.61	21.91	21.07
		15	22.34	21.69	20.88
		20	22.54	21.83	21.13
	Band 41	5	22.15	21.49	20.49
		10	22.47	21.49	20.27
		15	22.18	21.35	20.17
		20	22.41	21.45	20.50

Max. EIRP	Band 66	1.4	17.72	17.10	16.16
		3	17.75	17.09	16.08
		5	17.74	17.12	15.90
		10	17.79	17.08	16.08
		15	17.68	17.11	16.25
		20	17.98	17.35	16.39

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

2. Channel List:

WCDMA Band IV				
Test Frequency ID	UARFCN	Frequency of Uplink (MHz)	UARFCN	Frequency of Downlink (MHz)
Low Range	1312	1712.4	1537	2112.4
Mid Range	1413	1732.6	1638	2132.6
High Range	1513	1752.6	1738	2152.6

LTE Band 4					
Test Frequency ID	Bandwidth (MHz)	N_{UL}	Frequency of Uplink (MHz)	N_{DL}	Frequency of Downlink (MHz)
Low Range	1.4	19957	1710.7	1957	2110.7
	3	19965	1711.5	1965	2111.5
	5	19975	1712.5	1975	2112.5
	10	20000	1715	2000	2115
	15	20025	1717.5	2025	2117.5
	20	20050	1720	2050	2120
Mid Range	1.4/3/5/10/15/20	20175	1732.5	2175	2132.5
High Range	1.4	20393	1754.3	2393	2154.3
	3	20385	1753.5	2385	2153.5
	5	20375	1752.5	2375	2152.5
	10	20350	1750	2350	2150
	15	20325	1747.5	2325	2147.5
	20	20300	1745	2300	2145

LTE Band 7					
Test Frequency ID	Bandwidth (MHz)	N_{UL}	Frequency of Uplink (MHz)	N_{DL}	Frequency of Downlink (MHz)
Low Range	5	20775	2502.5	2775	2622.5
	10	20800	2505	2800	2625
	15	20825	2507.5	2825	2627.5
	20	20850	2510	2850	2630
Mid Range	5/10/15/20	21100	2535	3100	2655
High Range	5	21425	2567.5	3425	2687.5
	10	21400	2565	3400	2685
	15	21375	2562.5	3375	2682.5
	20	21350	2560	3350	2680

LTE Band 12			
Test Frequency ID	Bandwidth (MHz)	EARFCN	Frequency (UL and DL) (MHz)
Low Range	1.4	23017	699.7
	3	23025	700.5
	5	23035	701.5
	10	23060	704.0
Mid Range	1.4/3/5/10	23095	707.5
High Range	1.4	23173	715.3
	3	23165	714.5
	5	23155	713.5
	10	23130	711.0

LTE Band 38			
Test Frequency ID	Bandwidth (MHz)	EARFCN	Frequency (UL and DL) (MHz)
Low Range	5	37775	2572.5
	10	37800	2575
	15	37825	2577.5
	20	37850	2580
Mid Range	5/10/15/20	38000	2595
High Range	5	38225	2617.5
	10	38200	2615
	15	38175	2612.5
	20	38150	2610

LTE Band 41			
Test Frequency ID	Bandwidth (MHz)	EARFCN	Frequency (UL and DL) (MHz)
Low Range	5	40065	2537.5
	10	40090	2540
	15	40115	2542.5
	20	40140	2545
Mid Range	5/10/15/20	40640	2595
High Range	5	41215	2652.5
	10	41190	2650
	15	41165	2647.5
	20	41140	2645

LTE Band 66					
Test Frequency ID	Bandwidth (MHz)	N_{UL}	Frequency of Uplink (MHz)	N_{DL}	Frequency of Downlink (MHz)
Low Range	1.4	131979	1710.7	66443	2110.7
	3	131987	1711.5	66451	2111.5
	5	131997	1712.5	66461	2112.5
	10	132022	1715	66486	2115
	15	132047	1717.5	66511	2117.5
	20	132072	1720	66536	2120
Mid Range	1.4/3/5/10/15/20	132322	1745	66786	2145
High Range	1.4	132665	1779.3	67129	2179.3
	3	132657	1778.5	67121	2178.5
	5	132647	1777.5	67111	2177.5
	10	132622	1775	67086	2175
	15	132597	1772.5	67061	2172.5
	20	132572	1770	67036	2170

3. Table for Filed Antenna:

Main Antenna

Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Note
N/A	N/A	Internal	N/A	-5.43	WCDMA Band IV
N/A	N/A	Internal	N/A	-5.43	LTE Band 4
N/A	N/A	Internal	N/A	-0.67	LTE Band 7
N/A	N/A	Internal	N/A	-5.90	LTE Band 12
N/A	N/A	Internal	N/A	-0.76	LTE Band 38
N/A	N/A	Internal	N/A	-0.95	LTE Band 41
N/A	N/A	Internal	N/A	-5.17	LTE Band 66

Second Antenna

Brand	Model Name	Antenna Type	Connector	Gain (dBi)	Note
N/A	N/A	Internal	N/A	0.47	WCDMA Band IV
N/A	N/A	Internal	N/A	0.47	LTE Band 4
N/A	N/A	Internal	N/A	-0.40	LTE Band 7
N/A	N/A	Internal	N/A	-14.5	LTE Band 12
N/A	N/A	Internal	N/A	-0.165	LTE Band 38
N/A	N/A	Internal	N/A	-0.39	LTE Band 41
N/A	N/A	Internal	N/A	0.36	LTE Band 66

2.2 DESCRIPTION OF TEST MODES

Following mode(s) is (were) found to be the worst case(s) and selected for the final test.

WCDMA BAND IV MODE			
Test Item	Available Channel	Tested Channel	Mode
Output Power & EIRP	1312 to 1513	1312, 1413, 1513	WCDMA,HSDPA, HSUPA
Occupied Bandwidth	1312 to 1513	1312, 1413, 1513	WCDMA,HSDPA, HSUPA
Conducted Spurious Emissions	1312 to 1513	1413	WCDMA
Radiated Spurious Emissions	1312 to 1513	1413	WCDMA
Band Edge	1312 to 1513	1312, 1513	WCDMA,HSDPA, HSUPA
Peak to Average Ratio	1312 to 1513	1312, 1413, 1513	WCDMA,HSDPA, HSUPA
Frequency Stability	1312 to 1513	1413	WCDMA

LTE BAND 4 MODE					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
Output Power & EIRP	19957 to 20393	19957, 20175, 20393	1.4MHz	QPSK, 16QAM, 64QAM	1RB/3RB/6RB
	19965 to 20385	19965, 20175, 20385	3MHz	QPSK, 16QAM, 64QAM	1RB/8RB/15RB
	19975 to 20375	19975, 20175, 20375	5MHz	QPSK, 16QAM, 64QAM	1RB/12RB/25RB
	20000 to 20350	20000, 20175, 20350	10MHz	QPSK, 16QAM, 64QAM	1RB/25RB/50RB
	20025 to 20325	20025, 20175, 20325	15MHz	QPSK, 16QAM, 64QAM	1RB/36RB/75RB
	20050 to 20300	20050, 20175, 20300	20MHz	QPSK, 16QAM, 64QAM	1RB/50RB/100RB
Occupied Bandwidth	19957 to 20393	19957, 20175, 20393	1.4MHz	QPSK, 16QAM, 64QAM	6RB
	19965 to 20385	19965, 20175, 20385	3MHz	QPSK, 16QAM, 64QAM	15RB
	19975 to 20375	19975, 20175, 20375	5MHz	QPSK, 16QAM, 64QAM	25RB
	20000 to 20350	20000, 20175, 20350	10MHz	QPSK, 16QAM, 64QAM	50RB
	20025 to 20325	20025, 20175, 20325	15MHz	QPSK, 16QAM, 64QAM	75 RB
	20050 to 20300	20050, 20175, 20300	20MHz	QPSK, 16QAM, 64QAM	100RB

LTE BAND 4 MODE					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
Conducted Spurious Emissions	19957 to 20393	20175	1.4MHz	QPSK	1RB
	19975 to 20375	20175	5MHz	QPSK	1RB
	20050 to 20300	20175	20MHz	QPSK	1RB
Radiated Spurious Emissions	19957 to 20393	20175	1.4MHz	QPSK	1RB
	19975 to 20375	20175	5MHz	QPSK	1RB
	20050 to 20300	20175	20MHz	QPSK	1RB
Band Edge	19957 to 20393	19957, 20393	1.4MHz	QPSK	1RB/6RB
	19965 to 20385	19965, 20385	3MHz	QPSK	1RB/15RB
	19975 to 20375	19975, 20375	5MHz	QPSK	1RB/25RB
	20000 to 20350	20000, 20350	10MHz	QPSK	1RB/50RB
	20025 to 20325	20025, 20325	15MHz	QPSK	1RB/75RB
	20050 to 20300	20050, 20300	20MHz	QPSK	1RB/100RB
Peak To Average Ratio	19957 to 20393	19957, 20175, 20393	1.4MHz	QPSK, 16QAM, 64QAM	1RB
	19965 to 20385	19965, 20175, 20385	3MHz	QPSK, 16QAM, 64QAM	1RB
	19975 to 20375	19975, 20175, 20375	5MHz	QPSK, 16QAM, 64QAM	1RB
	20000 to 20350	20000, 20175, 20350	10MHz	QPSK, 16QAM, 64QAM	1RB
	20025 to 20325	20025, 20175, 20325	15MHz	QPSK, 16QAM, 64QAM	1RB
	20050 to 20300	20050, 20175, 20300	20MHz	QPSK, 16QAM, 64QAM	1RB
Frequency Stability	19957 to 20393	20175	1.4MHz	QPSK	1RB
	19965 to 20385	20175	3MHz	QPSK	1RB
	19975 to 20375	20175	5MHz	QPSK	1RB
	20000 to 20350	20175	10MHz	QPSK	1RB
	20025 to 20325	20175	15MHz	QPSK	1RB
	20050 to 20300	20175	20MHz	QPSK	1RB

LTE BAND 7 MODE					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
Output Power & EIRP	20775 to 21425	20775, 21100, 21425	5MHz	QPSK, 16QAM, 64QAM	1RB/12RB/25RB
	20800 to 21400	20800, 21100, 21400	10MHz	QPSK, 16QAM, 64QAM	1RB/25RB/50RB
	20825 to 21375	20825, 21100, 21375	15MHz	QPSK, 16QAM, 64QAM	1RB/36RB/75RB
	20850 to 21350	20850, 21100, 21350	20MHz	QPSK, 16QAM, 64QAM	1RB/50RB/100RB
Occupied Bandwidth	20775 to 21425	20775, 21100, 21425	5MHz	QPSK, 16QAM, 64QAM	25RB
	20800 to 21400	20800, 21100, 21400	10MHz	QPSK, 16QAM, 64QAM	50RB
	20825 to 21375	20825, 21100, 21375	15MHz	QPSK, 16QAM, 64QAM	75RB
	20850 to 21350	20850, 21100, 21350	20MHz	QPSK, 16QAM, 64QAM	100RB
Conducted Spurious Emissions	20775 to 21425	21100	5MHz	QPSK	1RB
	20850 to 21350	21100	20MHz	QPSK	1RB
Radiated Spurious Emissions	20775 to 21425	21100	5MHz	QPSK	1RB
	20850 to 21350	21100	20MHz	QPSK	1RB
Band Edge	20775 to 21425	20775, 21425	5MHz	QPSK	1RB/25RB
	20800 to 21400	20800, 21400	10MHz	QPSK	1RB/50RB
	20825 to 21375	20825, 21375	15MHz	QPSK	1RB/75RB
	20850 to 21350	20850, 21350	20MHz	QPSK	1RB/100RB
Peak To Average Ratio	20775 to 21425	20775, 21100, 21425	5MHz	QPSK, 16QAM, 64QAM	1RB
	20800 to 21400	20800, 21100, 21400	10MHz	QPSK, 16QAM, 64QAM	1RB
	20825 to 21375	20825, 21100, 21375	15MHz	QPSK, 16QAM, 64QAM	1RB
	20850 to 21350	20850, 21100, 21350	20MHz	QPSK, 16QAM, 64QAM	1RB
Frequency Stability	20775 to 21425	21100	5MHz	QPSK	1RB
	20800 to 21400	21100	10MHz	QPSK	1RB
	20825 to 21375	21100	15MHz	QPSK	1RB
	20850 to 21350	21100	20MHz	QPSK	1RB

LTE BAND 12					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
ERP	23017 to 23173	23017, 23095, 23173	1.4MHz	QPSK, 16QAM, 64QAM	1RB/3RB/6RB
	23025 to 23165	23025, 23095, 23165	3MHz	QPSK, 16QAM, 64QAM	1RB/8RB/15RB
	23035 to 23155	23035, 23095, 23155	5MHz	QPSK, 16QAM, 64QAM	1RB/12RB/25RB
	23060 to 23130	23060, 23095, 23130	10MHz	QPSK, 16QAM, 64QAM	1RB/25RB/50RB
Frequency Stability	23017 to 23173	23095	1.4MHz	QPSK	1 RB
	23025 to 23165	23095	3MHz	QPSK	1 RB
	23035 to 23155	23095	5MHz	QPSK	1 RB
	23060 to 23130	23095	10MHz	QPSK	1 RB
Occupied Bandwidth	23017 to 23173	23017, 23095, 23173	1.4MHz	QPSK, 16QAM, 64QAM	6RB
	23025 to 23165	23025, 23095, 23165	3MHz	QPSK, 16QAM, 64QAM	15RB
	23035 to 23155	23035, 23095, 23155	5MHz	QPSK, 16QAM, 64QAM	25RB
	23060 to 23130	23060, 23095, 23130	10MHz	QPSK, 16QAM, 64QAM	50RB
Peak to Average Ratio	23017 to 23173	23017, 23095, 23173	1.4MHz	QPSK, 16QAM, 64QAM	1 RB
	23025 to 23165	23025, 23095, 23165	3MHz	QPSK, 16QAM, 64QAM	1 RB
	23035 to 23155	23035, 23095, 23155	5MHz	QPSK, 16QAM, 64QAM	1 RB
	23060 to 23130	23060, 23095, 23130	10MHz	QPSK, 16QAM, 64QAM	1 RB
Band Edge	23017 to 23173	23017,23173	1.4MHz	QPSK	1RB/6RB
	23025 to 23165	23025,23165	3MHz	QPSK	1RB/15RB
	23035 to 23155	23035,23155	5MHz	QPSK	1RB/25RB
	23060 to 23130	23060,23130	10MHz	QPSK	1RB/50RB
Conducted Emission	23017 to 23173	23095	1.4MHz	QPSK	1 RB
	23025 to 23165	23095	3MHz	QPSK	1 RB
	23035 to 23155	23095	5MHz	QPSK	1 RB
	23060 to 23130	23095	10MHz	QPSK	1 RB
Radiated Emission	23017 to 23173	23095	1.4MHz	QPSK	1 RB
	23060 to 23130	23095	10MHz	QPSK	1 RB

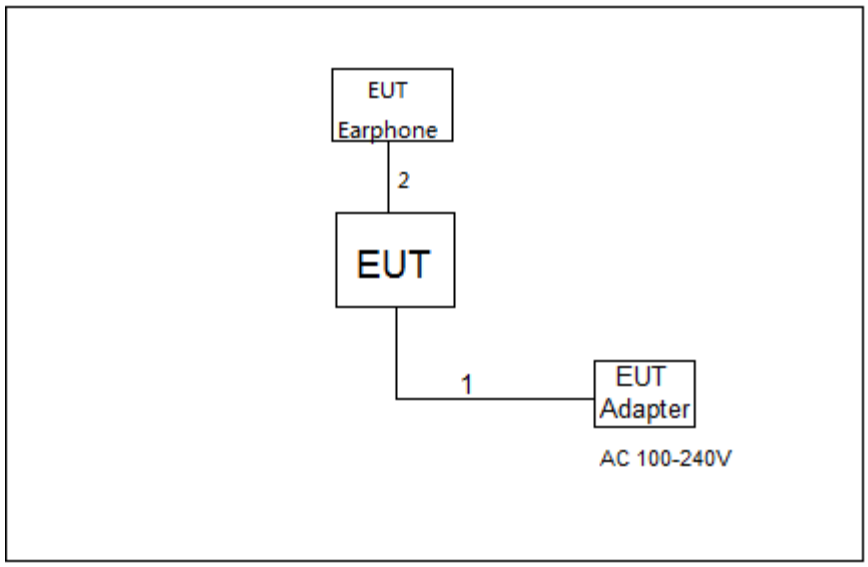
LTE BAND 38 MODE					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
Output Power & EIRP	37775 to 38225	37775, 38000, 38225	5MHz	QPSK, 16QAM, 64QAM	1RB/12RB/25RB
	37800 to 38200	37800, 38000, 38200	10MHz	QPSK, 16QAM, 64QAM	1RB/25RB/50RB
	37825 to 38175	37825, 38000, 38175	15MHz	QPSK, 16QAM, 64QAM	1RB/36RB/75RB
	37850 to 38150	37850, 38000, 38150	20MHz	QPSK, 16QAM, 64QAM	1RB/50RB/100RB
Occupied Bandwidth	37775 to 38225	37775, 38000, 38225	5MHz	QPSK, 16QAM, 64QAM	25RB
	37800 to 38200	37800, 38000, 38200	10MHz	QPSK, 16QAM, 64QAM	50RB
	37825 to 38175	37825, 38000, 38175	15MHz	QPSK, 16QAM, 64QAM	75RB
	37850 to 38150	37850, 38000, 38150	20MHz	QPSK, 16QAM, 64QAM	100RB
Conducted Spurious Emissions	37850 to 38150	38000	5MHz	QPSK	1RB
	37850 to 38150	38000	20MHz	QPSK	1RB
Radiated Spurious Emissions	37850 to 38150	38000	5MHz	QPSK	1RB
	37850 to 38150	38000	20MHz	QPSK	1RB
Band Edge	37775 to 38225	37775, 38225	5MHz	QPSK	1RB/25RB
	37800 to 38200	37800, 38200	10MHz	QPSK	1RB/50RB
	37825 to 38175	37825, 38175	15MHz	QPSK	1RB/75RB
	37850 to 38150	37850, 38150	20MHz	QPSK	1RB/100RB
Peak to Average Ratio	37775 to 38225	37775, 38000, 38225	5MHz	QPSK, 16QAM, 64QAM	1RB
	37800 to 38200	37800, 38000, 38200	10MHz	QPSK, 16QAM, 64QAM	1RB
	37825 to 38175	37825, 38000, 38175	15MHz	QPSK, 16QAM, 64QAM	1RB
	37850 to 38150	37850, 38000, 38150	20MHz	QPSK, 16QAM, 64QAM	1RB
Frequency Stability	37775 to 38225	38000	5MHz	QPSK	1RB
	37800 to 38200	38000	10MHz	QPSK	1RB
	37825 to 38175	38000	15MHz	QPSK	1RB
	37850 to 38150	38000	20MHz	QPSK	1RB

LTE BAND 41 MODE					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
Output Power & EIRP	40065 to 41215	40065, 40640, 41215	5MHz	QPSK, 16QAM, 64QAM	1RB/12RB/25RB
	40090 to 41190	40090, 40640, 41190	10MHz	QPSK, 16QAM, 64QAM	1RB/25RB/50RB
	40115 to 41165	40115, 40640, 41545	15MHz	QPSK, 16QAM, 64QAM	1RB/36RB/75RB
	40140 to 41140	40140, 40640, 41140	20MHz	QPSK, 16QAM, 64QAM	1RB/50RB/100RB
Occupied Bandwidth	40065 to 41215	40065, 40640, 41215	5MHz	QPSK, 16QAM, 64QAM	25RB
	40090 to 41190	40090, 40640, 41190	10MHz	QPSK, 16QAM, 64QAM	50RB
	40115 to 41165	40115, 40640, 41545	15MHz	QPSK, 16QAM, 64QAM	75RB
	40140 to 41140	40140, 40640, 41140	20MHz	QPSK, 16QAM, 64QAM	100RB
Conducted Spurious Emissions	40065 to 41215	40640	5MHz	QPSK	1RB
	40140 to 41140	40640	20MHz	QPSK	1RB
Radiated Spurious Emissions	40065 to 41215	40640	5MHz	QPSK	1RB
	40140 to 41140	40640	20MHz	QPSK	1RB
Band Edge	40065 to 41215	40065, 41215	5MHz	QPSK	1RB/25RB
	40090 to 41190	40090, 41190	10MHz	QPSK	1RB/50RB
	40115 to 41165	40115, 41545	15MHz	QPSK	1RB/75RB
	40140 to 41140	40140, 41140	20MHz	QPSK	1RB/100RB
Peak to Average Ratio	40065 to 41215	40065, 40640, 41215	5MHz	QPSK, 16QAM, 64QAM	1RB
	40090 to 41190	40090, 40640, 41190	10MHz	QPSK, 16QAM, 64QAM	1RB
	40115 to 41165	40115, 40640, 41545	15MHz	QPSK, 16QAM, 64QAM	1RB
	40140 to 41140	40140, 40640, 41140	20MHz	QPSK, 16QAM, 64QAM	1RB
Frequency Stability	40065 to 41215	40640	5MHz	QPSK	1RB
	40090 to 41190	40640	10MHz	QPSK	1RB
	40115 to 41165	40640	15MHz	QPSK	1RB
	40140 to 41140	40640	20MHz	QPSK	1RB

LTE BAND 66 MODE					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
Output Power & EIRP	131979 to 132665	131979, 132322, 132665	1.4MHz	QPSK, 16QAM, 64QAM	1RB/3RB/6RB
	131987 to 132657	131987, 132322, 132657	3MHz	QPSK, 16QAM, 64QAM	1RB/8RB/15RB
	131997 to 132647	131997, 132322, 132647	5MHz	QPSK, 16QAM, 64QAM	1RB/12RB/25RB
	132022 to 132622	132022, 132322, 132622	10MHz	QPSK, 16QAM, 64QAM	1RB/25RB/50RB
	132047 to 132597	132047, 132322, 132597	15MHz	QPSK, 16QAM, 64QAM	1RB/36RB/75RB
	132072 to 132572	132072, 132322, 132572	20MHz	QPSK, 16QAM, 64QAM	1RB/50RB/100RB
Occupied Bandwidth	131979 to 132665	131979, 132322, 132665	1.4MHz	QPSK, 16QAM, 64QAM	6RB
	131987 to 132657	131987, 132322, 132657	3MHz	QPSK, 16QAM, 64QAM	15RB
	131997 to 132647	131997, 132322, 132647	5MHz	QPSK, 16QAM, 64QAM	25RB
	132022 to 132622	132022, 132322, 132622	10MHz	QPSK, 16QAM, 64QAM	50RB
	132047 to 132597	132047, 132322, 132597	15MHz	QPSK, 16QAM, 64QAM	75 RB
	132072 to 132572	132072, 132322, 132572	20MHz	QPSK, 16QAM, 64QAM	100RB
Conducted Spurious Emissions	131979 to 132665	132322	1.4MHz	QPSK	1RB
	131997 to 132647	132322	5MHz	QPSK	1RB
	132072 to 132572	132322	20MHz	QPSK	1RB
Radiated Spurious Emissions	131979 to 132665	132322	1.4MHz	QPSK	1RB
	131997 to 132647	132322	5MHz	QPSK	1RB
	132072 to 132572	132322	20MHz	QPSK	1RB
Band Edge	131979 to 132665	131979, 132665	1.4MHz	QPSK	1RB/6RB
	131987 to 132657	131987, 132657	3MHz	QPSK	1RB/15RB
	131997 to 132647	131997, 132647	5MHz	QPSK	1RB/25RB
	132022 to 132622	132022, 132622	10MHz	QPSK	1RB/50RB
	132047 to 132597	132047, 132597	15MHz	QPSK	1RB/75RB
	132072 to 132572	132072, 132572	20MHz	QPSK	1RB/100RB

LTE BAND 66 MODE					
Test Item	Available Channel	Tested Channel	Channel Bandwidth	Modulation	Mode
Peak to Average Ratio	131979 to 132665	131979, 132322, 132665	1.4MHz	QPSK, 16QAM, 64QAM	1RB/3RB/6RB
	131987 to 132657	131987, 132322, 132657	3MHz	QPSK, 16QAM, 64QAM	1RB/8RB/15RB
	131997 to 132647	131997, 132322, 132647	5MHz	QPSK, 16QAM, 64QAM	1RB/12RB/25RB
	132022 to 132622	132022, 132322, 132622	10MHz	QPSK, 16QAM, 64QAM	1RB/25RB/50RB
	132047 to 132597	132047, 132322, 132597	15MHz	QPSK, 16QAM, 64QAM	1RB/36RB/75RB
	132072 to 132572	132072, 132322, 132572	20MHz	QPSK, 16QAM, 64QAM	1RB/50RB/100RB
Frequency Stability	131979 to 132665	132322	1.4MHz	QPSK	1RB
	131987 to 132657	132322	3MHz	QPSK	1RB
	131997 to 132647	132322	5MHz	QPSK	1RB
	132022 to 132622	132322	10MHz	QPSK	1RB
	132047 to 132597	132322	15MHz	QPSK	1RB
	132072 to 132572	132322	20MHz	QPSK	1RB

2.3 BLOCK DIGRAM SHOWING THECONFIGURATIONOFSYSTEMTESTED



3.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.
-	-	-	-	-

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	USB Cable	YES	NO	1m
2	Audio Cable	NO	NO	1m

3. TEST RESULT

3.1 OUTPUT POWER MEASUREMENT

3.1.1 LIMIT

Mobile / Portable station are limited to 1 watts e.i.r.p. (Part 27 Subpart L)
Mobile / Portable station are limited to 2 watts e.i.r.p. (Part 27 Subpart M)

3.1.2 TEST PROCEDURE

The testing follows FCC KDB 971168 v03r01 Section 5.

EIRP:

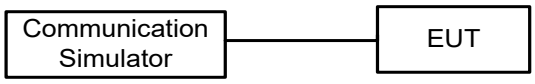
EIRP = Output Power + Antenan gain

Output Power:

The EUT was set up for the maximum power with WCDMA and LTE link data modulation and link up with simulator. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.

3.1.3 TEST SETUP LAYOUT

Output Power Measurement



3.1.4 TEST DEVIATION

No deviation

3.1.5 TEST RESULTS

Please refer to the APPENDIX A.

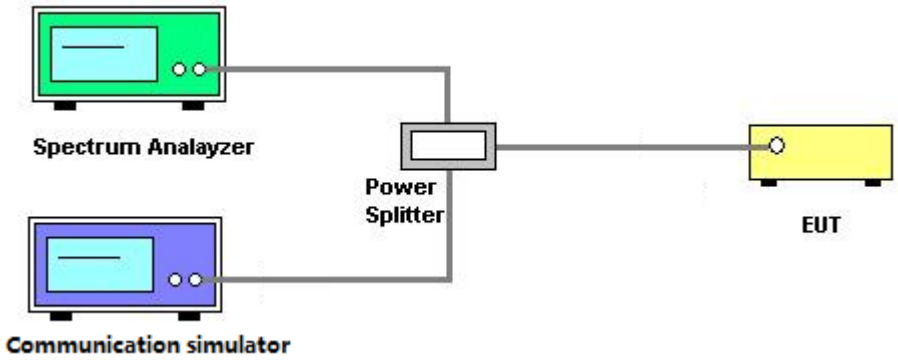
3.2 OCCUPIED BANDWIDTH MEASUREMENT

3.2.1 TEST PROCEDURE

The testing follows FCC KDB 971168 v03r01 Section 4.

1. The EUT makes a call to the communication simulator. All measurements were done at low, middle and high operational frequency range. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth and 26dB bandwidth.
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. RBW=(1% ~ 5%)*EBW
   VBW≥3* RBW
4. Set spectrum analyzer with Peak detector.

3.2.2 TEST SETUP LAYOUT



3.2.3 TEST DEVIATION

No deviation

3.2.4 TEST RESULTS

Please refer to the APPENDIX B.

3.3 CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

3.3.1 LIMIT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB. The emission limit equal to -13dBm. (Part 27 Subpart L)

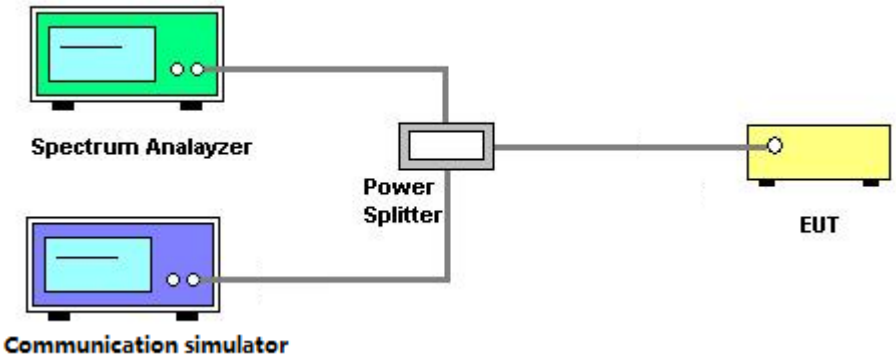
The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 55 + 10 log(P) dB. The emission limit equal to -25dBm. (Part 27 Subpart M)

3.3.2 TEST PROCEDURES

The testing follows FCC KDB 971168 v03r01 Section 6.

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The band edges of low and high channels for the highest RF powers were measured. Set RBW>=1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
3. Set spectrum analyzer with Peak detector.
4. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

3.3.3 TEST SETUP LAYOUT



3.3.4 TEST DEVIATION

No deviation

3.3.5 TEST RESULTS

Please refer to the APPENDIX C.

3.4 RADIATED SPURIOUS EMISSIONS MEASUREMENT

3.4.1 LIMIT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB. The emission limit equal to -13dBm. (Part 27 Subpart L)

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 55 + 10 log(P) dB. The emission limit equal to -25dBm. (Part 27 Subpart M)

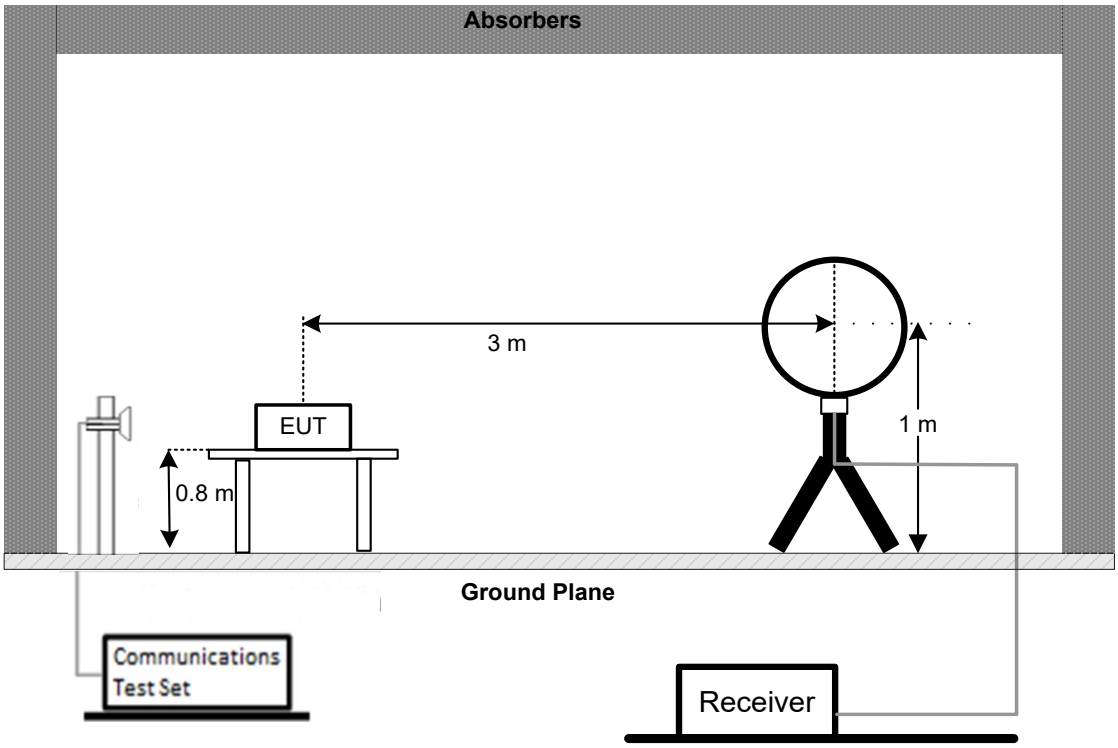
3.4.2 TEST PROCEDURES

The testing follows FCC KDB 971168 v03r01 Section 6.2.

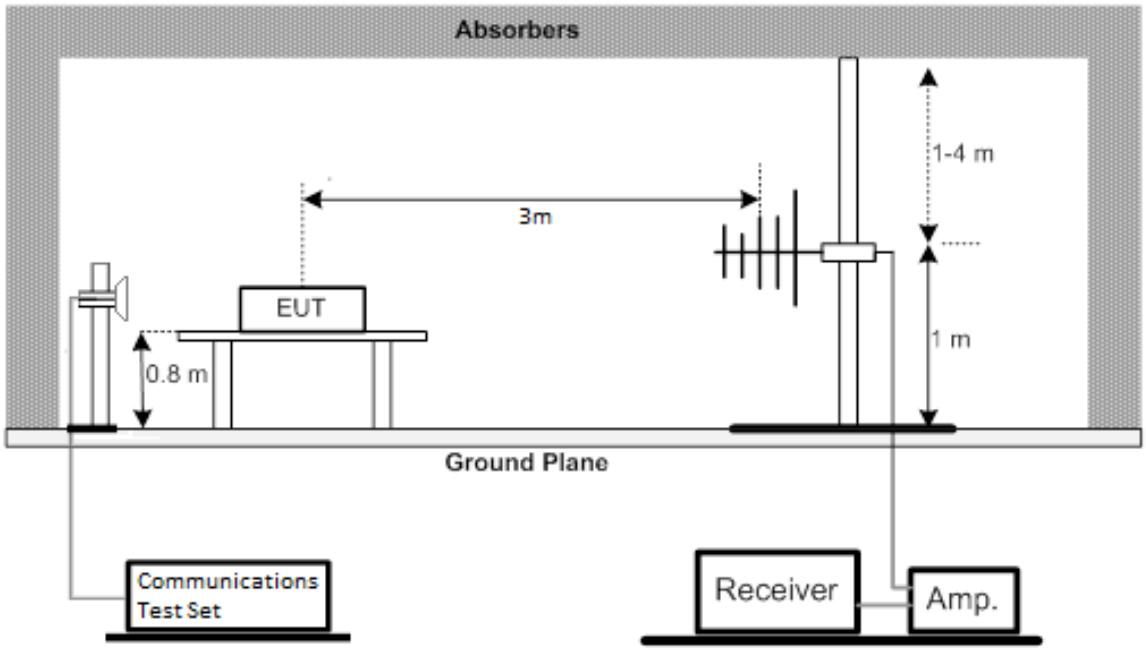
1. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.
2. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to “Read Value “ of step a. Record the power level of S.G
3. EIRP = Output power level of S.G – TX cable loss + Antenna gain of substitution horn.
4. ERP can be calculated form EIRP by subtracting the gain of dipole, ERP = EIPR - 2.15dBi.
5. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.

3.4.3 TEST SETUP LAYOUT

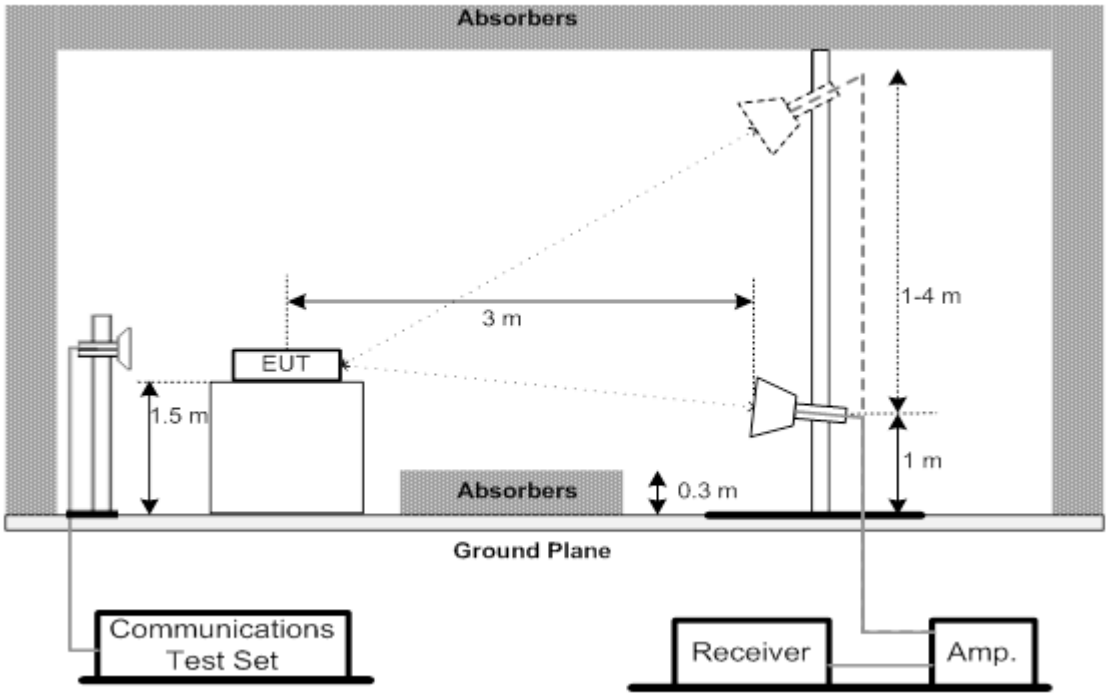
Below 30MHz



30MHz to 1GHz



Above 1GHz



3.4.4 TEST RESULTS (9KHZ TO 30MHZ)

Please refer to the APPENDIX D.

3.4.5 TEST RESULTS (30MHZ TO 1000MHZ)

Please refer to the APPENDIX E.

3.4.6 TEST RESULTS (ABOVE 1000MHZ)

Please refer to the APPENDIX F.

3.5 BAND EDGE MEASUREMENT

3.5.1 LIMIT

The power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed. (Part 27 Subpart L)

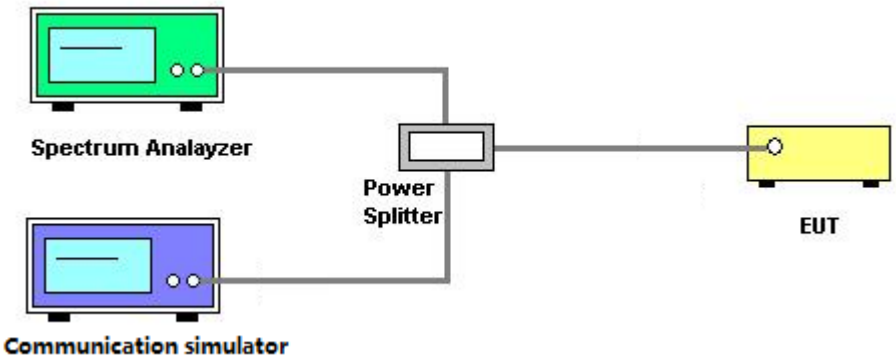
For mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees. (Part 27 Subpart M)

3.5.2 TEST PROCEDURES

The testing follows FCC KDB 971168 v03r01 Section 6.

1. All measurements were done at low and high operational frequency range.
2. Record the max trace plot into the test report.

3.5.3 TEST SETUP LAYOUT



3.5.4 TEST DEVIATION

No deviation

3.5.5 TEST RESULTS

Please refer to the APPENDIX G.

3.6 PEAK TO AVERAGE RATIO MEASUREMENT

3.6.1 LIMIT

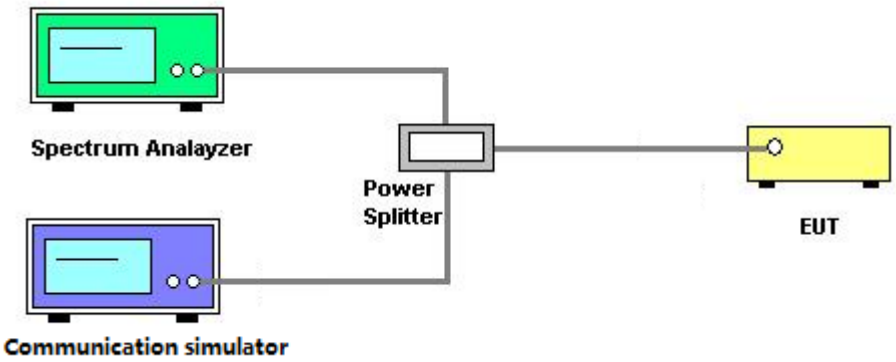
In measuring transmissions in this band using an average power technique, the peak to-average ratio (PAR) of the transmission may not exceed 13 dB.

3.6.2 TEST PROCEDURES

The testing follows FCC KDB 971168 v03r01 Section 5.7.

1. Set resolution/measurement bandwidth ≥ signal's occupied bandwidth;
2. Set the number of counts to a value that stabilizes the measured CCDF curve;
3. Record the maximum PAPR level associated with a probability of 0.1%.

3.6.3 TEST SETUP LAYOUT



3.6.4 TEST DEVIATION

No deviation

3.6.5 TEST RESULTS

Please refer to the APPENDIX H.

3.7 FREQUENCY STABILITY MEASUREMENT

3.7.1 LIMIT

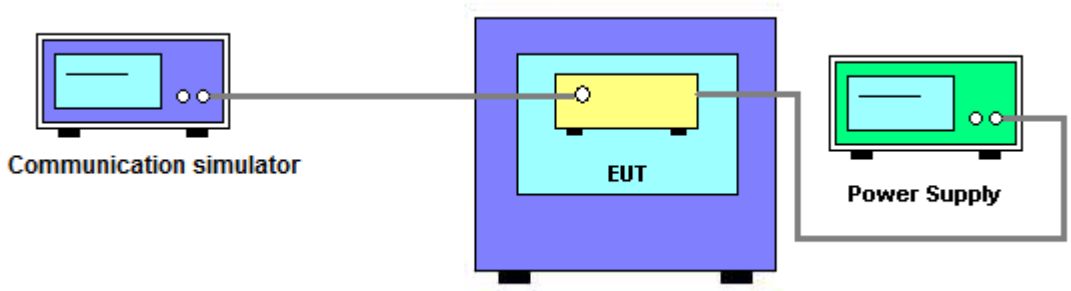
±1.5 ppm is for base and fixed station. ±2.5 ppm is for mobile station.

3.7.2 TEST PROCEDURES

The testing follows FCC KDB 971168 v03r01 Section 9.

1. Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.
2. EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.
3. The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the ±0.5°C during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.
4. The frequency error was recorded frequency error from the communication simulator.

3.7.3 TEST SETUP LAYOUT



3.7.4 TEST DEVIATION

No deviation

3.7.5 TEST RESULTS

Please refer to the APPENDIX I.

4. LIST OF MEASUREMENT EQUIPMENTS

Radiated Spurious Emission Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	Schwarzbeck	VULB9160	9160-3232	Mar. 09, 2021
2	Amplifier	Agilent	8449B	3008A02334	Mar. 01, 2021
3	HighPass Filter	Wairrwright Instruments Gmbh	WHK 1.5/15G-10ST	11	Feb. 28, 2021
4	Band Reject Filter	Wairrwright Instruments Gmbh	WRCG 1710/1785-1690/1805-60/12SS	38	Feb. 28, 2021
5	Band Reject Filter	Wairrwright Instruments Gmbh	WRCG 824/849-810/863-60/9 SS	7	Feb. 28, 2021
6	Band Reject Filter	Wairrwright Instruments Gmbh	WRCG 880/915-860/935-60/9 SS	14	Feb. 28, 2021
7	Band Reject Filter	Wairrwright Instruments Gmbh	WRCG 1850/1910-1830/1930-60/10SS	17	Feb. 28, 2021
8	HighPass Filter	Wairrwright Instruments Gmbh	WHK3.1/18G-10SS	24	Feb. 28, 2021
9	Wireless Communication Test SET	Agilent	E5515C	MY48364183	Mar. 01, 2021
10	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Mar. 07, 2021
11	Receiver	Agilent	N9038A	MY52130039	Aug. 03, 2020
12	wideband radio communication tester	R&S	CMW500	152372	Feb. 28, 2021
13	High pass filter	KANGMAIWEI	ZHPF-M3-12.75G-3869	B2015073763	Feb. 11, 2021
14	High pass filter	KANGMAIWEI	ZHPF-M1000-4000-1	B2015073762	Feb. 11, 2021
15	High pass filter	KANGMAIWEI	ZHPF-M6-186-1727	B2015073764	Feb. 11, 2021
16	Cable	emci	LMR-400(30MHz-1GHz)(8m+5m)	N/A	May 24, 2020
17	Cable	mitron	B10-01-01-12M	18072744	Jun. 29, 2020
18	Controller	ETS-Lindgren	2090	N/A	N/A
19	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
20	Loop Antenna	EM	EM-6876-1	230	Jan. 15, 2022
21	Double Ridged Guide Antenna	ETS	3115	75846	Mar. 19, 2021
22	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jun. 23, 2020

Conducted Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Wireless Communication Test SET	Agilent	E5515C	MY48364183	Mar. 01, 2021
2	EXA Spectrum Analyzer	Agilent	N9010A	MY50520044	Mar. 01, 2021
3	POWER SPLITTER	Mini-Circuits	ZFRSC-123-S+	331000910-1	Feb. 28, 2021
4	wideband radio communication tester	R&S	CMW500	152372	Feb. 28, 2021

Frequency Stability Measurement					
Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Wireless Communication Test SET	Agilent	E5515C	MY48364183	Mar. 01, 2021
2	Multi-output DC Power Supply	GW Instek	GPC-3030DN	EK880675	Sep. 26, 2020
3	POWER SPLITTER	Mini-Circuits	ZFRSC-123-S+	331000910-1	Feb. 28, 2021
4	wideband radio communication tester	R&S	CMW500	152372	Feb. 28, 2021
5	Const Temp,& Humidity Chamber	Bell	BTH-50C	20170306001	Feb. 28, 2021

Remark: ”N/A” denotes no model name, serial no. or calibration specified.
All calibration period of equipment list is one year.

APPENDIX A - OUTPUT POWER

Output Power (dBm):

Modulation	Band	WCDMA Band IV		
	Tx Channel	1312CH	1413CH	1513CH
	Frequency	1712.4MHz	1732.6MHz	1752.6MHz
QPSK	RMC 12.2K	23.29	23.34	23.32
	RMC 64K	23.27	23.32	23.35
	RMC 144K	23.28	23.34	23.42
	RMC 384K	23.27	23.31	23.35
	HSDPA Subtest-1	21.30	21.28	21.32
	HSDPA Subtest-2	21.28	21.26	21.29
	HSDPA Subtest-3	21.27	21.25	21.36
	HSDPA Subtest-4	21.25	21.27	21.31
	HSUPA Subtest-1	21.13	21.16	21.03
	HSUPA Subtest-2	21.32	21.41	21.33
	HSUPA Subtest-3	21.94	22.01	21.82
	HSUPA Subtest-4	20.89	20.82	20.86
	HSUPA Subtest-5	23.30	23.35	23.37

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				19957CH	20175CH	20393CH
				1710.7MHz	1732.5MHz	1754.3MHz
4 / 1.4M	QPSK	1	0	22.88	22.90	22.94
		1	2	23.05	23.01	23.07
		1	5	22.90	22.88	22.96
		3	0	23.04	22.96	22.98
		3	1	23.01	23.00	23.04
		3	2	23.08	22.97	22.97
		6	0	22.00	21.96	21.98
	16QAM	1	0	22.02	22.27	21.89
		1	2	22.15	22.36	22.00
		1	5	22.03	22.26	21.91
		3	0	22.04	22.18	22.11
		3	1	22.08	22.21	22.17
		3	2	22.06	22.17	22.13
		6	0	21.17	20.90	21.16
	64QAM	1	0	21.37	21.13	21.10
		1	2	21.56	21.21	21.23
		1	5	21.39	21.08	21.15
		3	0	21.39	21.19	21.00
		3	1	21.44	21.21	21.04
		3	2	21.39	21.17	21.05
		6	0	20.03	20.31	20.08

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				19965CH	20175CH	20385CH
				1711.5MHz	1732.5MHz	1753.5MHz
4 / 3M	QPSK	1	0	22.92	22.94	22.94
		1	7	23.04	23.09	23.04
		1	14	22.95	22.96	22.89
		8	0	21.93	21.90	21.92
		8	4	21.98	21.95	21.95
		8	7	21.93	21.90	21.93
		15	0	21.94	21.89	21.89
	16QAM	1	0	21.89	22.28	21.94
		1	7	21.98	22.45	22.07
		1	14	21.86	22.29	21.90
		8	0	21.12	21.05	21.02
		8	4	21.13	21.08	21.04
		8	7	21.09	21.04	20.99
		15	0	21.04	21.00	20.94
	64QAM	1	0	21.33	21.09	21.21
		1	7	21.49	21.25	21.33
		1	14	21.31	21.15	21.10
		8	0	20.07	20.00	19.93
		8	4	20.09	20.07	19.96
		8	7	20.05	20.00	19.94
		15	0	20.00	20.01	20.01

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				19975CH	20175CH	20375CH
				1712.5MHz	1732.5MHz	1752.5MHz
4 / 5M	QPSK	1	0	22.93	22.84	22.89
		1	13	23.05	22.94	23.00
		1	24	22.92	22.82	22.88
		12	0	21.92	21.89	21.92
		12	6	21.94	21.93	21.96
		12	11	21.95	21.96	21.96
		25	0	21.93	21.90	21.90
	16QAM	1	0	22.04	22.33	21.94
		1	13	22.18	22.45	22.05
		1	24	22.03	22.33	21.96
		12	0	21.04	21.06	20.99
		12	6	21.09	21.13	21.03
		12	11	21.10	21.13	21.04
		25	0	21.02	21.04	20.92
	64QAM	1	0	20.88	21.22	21.13
		1	13	20.99	21.29	21.25
		1	24	20.89	21.22	21.14
		12	0	20.03	19.88	20.01
		12	6	20.09	19.94	20.06
		12	11	20.07	19.97	20.07
		25	0	19.97	19.94	19.98

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20000CH	20175CH	20350CH
				1715MHz	1732.5MHz	1750MHz
4 / 10M	QPSK	1	0	22.88	22.92	22.86
		1	25	23.05	23.11	23.01
		1	49	22.88	22.91	22.84
		25	0	21.93	21.90	21.91
		25	13	21.96	21.93	21.91
		25	25	21.92	21.96	21.93
		50	0	21.96	21.94	21.93
	16QAM	1	0	21.83	22.25	21.87
		1	25	22.01	22.40	22.04
		1	49	21.84	22.25	21.87
		25	0	21.03	21.03	21.04
		25	13	21.07	21.04	21.05
		25	25	21.01	21.08	21.08
		50	0	21.00	21.05	21.02
	64QAM	1	0	21.28	21.10	21.14
		1	25	21.42	21.30	21.31
		1	49	21.27	21.09	21.11
		25	0	20.08	20.09	20.08
		25	13	20.09	20.10	20.07
		25	25	20.05	20.12	20.08
		50	0	20.07	20.10	20.00

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20025CH	20175CH	20325CH
				1717.5MHz	1732.5MHz	1747.5MHz
4 / 15M	QPSK	1	0	22.84	22.87	22.87
		1	38	22.93	23.00	23.02
		1	74	22.76	22.79	22.85
		36	0	21.99	21.97	21.96
		36	18	21.98	21.97	22.02
		36	39	21.95	22.01	22.03
		75	0	21.96	21.96	21.98
	16QAM	1	0	21.77	22.21	22.26
		1	38	21.89	22.33	22.36
		1	74	21.74	22.17	22.21
		36	0	21.01	21.02	20.95
		36	18	21.01	21.05	21.00
		36	39	20.98	21.05	21.00
		75	0	20.99	21.02	21.00
	64QAM	1	0	21.25	21.09	21.50
		1	38	21.33	21.20	21.63
		1	74	21.18	20.97	21.48
		36	0	20.05	20.09	20.02
		36	18	20.05	20.10	20.06
		36	39	20.02	20.11	20.05
		75	0	20.02	20.07	20.09

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20050CH	20175CH	20300CH
				1720MHz	1732.5MHz	1745MHz
4 / 20M	QPSK	1	0	22.76	22.74	22.73
		1	50	23.21	23.19	23.17
		1	99	22.72	22.72	22.75
		50	0	22.03	21.98	21.99
		50	25	22.04	22.05	22.03
		50	50	21.99	22.04	22.03
		100	0	21.99	22.01	22.01
	16QAM	1	0	22.20	22.13	22.04
		1	50	22.65	22.54	22.46
		1	99	22.16	22.09	22.01
		50	0	21.07	20.96	20.89
		50	25	21.06	21.06	20.97
		50	50	21.00	20.98	20.95
		100	0	21.03	20.98	20.97
	64QAM	1	0	21.11	21.38	20.97
		1	50	21.48	21.82	21.37
		1	99	21.05	21.34	20.93
		50	0	20.12	20.01	20.00
		50	25	20.10	20.08	20.06
		50	50	20.08	20.07	20.04
		100	0	20.04	20.03	20.05

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20775CH	21100CH	21425CH
				2502.5MHz	2535MHz	2567.5MHz
7 / 5M	QPSK	1	0	23.00	22.91	22.82
		1	13	23.11	23.01	22.93
		1	24	22.96	22.87	22.77
		12	0	21.99	21.90	21.87
		12	6	22.09	21.94	21.91
		12	11	22.08	21.94	21.91
		25	0	21.98	21.90	21.83
	16QAM	1	0	21.99	21.91	22.21
		1	13	22.09	22.03	22.31
		1	24	21.95	21.89	22.19
		12	0	21.01	20.94	21.00
		12	6	21.11	21.00	21.02
		12	11	21.10	20.99	20.98
		25	0	20.97	20.91	20.91
	64QAM	1	0	21.23	20.80	21.13
		1	2	21.32	20.92	21.25
		1	5	21.19	20.75	21.10
		3	0	20.07	19.95	19.89
		3	1	20.15	19.99	19.90
		3	2	20.17	20.02	19.89
		6	0	20.08	19.91	19.90

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20800CH	21100CH	21400CH
				2505MHz	2535MHz	2565MHz
7 / 10M	QPSK	1	0	23.03	22.98	22.89
		1	25	23.19	23.12	23.06
		1	49	23.03	22.94	22.85
		25	0	22.00	21.92	21.97
		25	13	22.04	21.94	21.91
		25	25	22.09	21.97	21.89
		50	0	22.03	21.93	21.93
	16QAM	1	0	21.87	22.20	21.79
		1	25	21.99	22.36	22.01
		1	49	21.83	22.14	21.78
		25	0	21.00	20.96	21.04
		25	13	21.06	20.97	21.01
		25	25	21.08	21.02	20.98
		50	0	21.04	20.98	20.94
	64QAM	1	0	21.35	21.11	21.05
		1	25	21.46	21.23	21.26
		1	49	21.26	21.04	21.04
		25	0	20.04	20.05	20.07
		25	13	20.10	20.08	20.03
		25	25	20.15	20.13	20.04
		50	0	20.10	20.10	19.99

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20825CH	21100CH	21375CH
				2507.5MHz	2535MHz	2562.5MHz
7 / 15M	QPSK	1	0	22.95	22.92	22.91
		1	38	23.07	22.97	23.00
		1	74	22.84	22.82	22.81
		36	0	22.05	21.97	22.04
		36	18	22.15	22.01	22.02
		36	39	22.11	22.00	21.96
		75	0	22.07	21.97	21.99
	16QAM	1	0	21.81	22.14	22.07
		1	38	21.86	22.23	22.17
		1	74	21.68	22.02	22.05
		36	0	20.99	20.99	20.94
		36	18	21.05	20.99	20.95
		36	39	21.04	21.00	20.90
		75	0	21.05	20.98	20.96
	64QAM	1	0	21.27	21.05	21.42
		1	38	21.35	21.10	21.53
		1	74	21.15	20.93	21.38
		36	0	20.04	20.07	20.00
		36	18	20.12	20.07	20.01
		36	39	20.10	20.05	19.94
		75	0	20.08	20.04	20.04

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20850CH	21100CH	21350CH
				2510MHz	2535MHz	2560MHz
7 / 20M	QPSK	1	0	22.88	22.78	22.75
		1	50	23.31	23.18	23.17
		1	99	22.76	22.69	22.67
		50	0	22.01	21.94	21.96
		50	25	22.10	22.00	21.96
		50	50	22.00	21.99	21.87
		100	0	21.97	21.98	21.95
	16QAM	1	0	22.21	22.10	22.08
		1	50	22.59	22.42	22.49
		1	99	22.08	21.96	22.07
		50	0	20.94	20.92	20.90
		50	25	21.02	20.96	20.96
		50	50	20.95	20.93	20.84
		100	0	20.96	20.90	20.92
	64QAM	1	0	21.11	21.32	20.81
		1	50	21.45	21.67	21.18
		1	99	20.97	21.20	20.81
		50	0	20.01	19.94	19.89
		50	25	20.06	20.01	19.95
		50	50	19.99	20.01	19.86
		100	0	19.98	19.93	19.91

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				23017CH	23095CH	23173CH
				699.7MHz	707.5MHz	715.3MHz
12 / 1.4M	QPSK	1	0	22.70	22.73	22.71
		1	2	22.80	22.82	22.82
		1	5	22.67	22.68	22.70
		3	0	22.82	22.80	22.85
		3	1	22.89	22.83	22.89
		3	2	22.86	22.81	22.79
		6	0	21.78	21.77	21.74
	16QAM	1	0	21.79	21.82	22.06
		1	2	21.86	21.92	22.12
		1	5	21.76	21.81	22.04
		3	0	22.00	21.84	21.97
		3	1	22.07	21.89	21.99
		3	2	22.03	21.86	22.00
		6	0	20.96	20.90	20.65
	64QAM	1	0	21.04	21.16	20.92
		1	2	21.08	21.34	21.03
		1	5	21.03	21.14	20.88
		3	0	20.85	21.30	20.97
		3	1	20.90	21.24	21.02
		3	2	20.88	21.23	20.98
		6	0	19.96	19.84	20.15

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				23025CH	23095CH	23165CH
				700.5MHz	707.5MHz	714.5MHz
12 / 3M	QPSK	1	0	22.75	22.79	22.74
		1	7	22.91	22.92	22.86
		1	14	22.77	22.77	22.66
		8	0	21.80	21.77	21.79
		8	4	21.82	21.78	21.79
		8	7	21.77	21.73	21.74
		15	0	21.77	21.74	21.75
	16QAM	1	0	21.71	22.10	21.78
		1	7	21.82	22.26	21.89
		1	14	21.68	22.09	21.68
		8	0	20.90	20.88	20.84
		8	4	20.93	20.88	20.86
		8	7	20.88	20.85	20.77
		15	0	20.83	20.80	20.74
	64QAM	1	0	21.19	20.95	21.03
		1	7	21.30	21.04	21.16
		1	14	21.13	20.93	20.91
		8	0	19.98	19.89	19.85
		8	4	20.02	19.93	19.87
		8	7	19.94	19.87	19.80
		15	0	19.89	19.91	19.91

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				23035CH	23095CH	23155CH
				701.5MHz	707.5MHz	713.5MHz
12 / 5M	QPSK	1	0	22.77	22.67	22.70
		1	13	22.84	22.79	22.80
		1	24	22.73	22.69	22.68
		12	0	21.77	21.78	21.76
		12	6	21.82	21.80	21.78
		12	11	21.77	21.79	21.78
		25	0	21.74	21.76	21.72
	16QAM	1	0	21.85	22.21	21.75
		1	13	21.95	22.28	21.88
		1	24	21.85	22.18	21.72
		12	0	20.85	20.94	20.82
		12	6	20.89	20.97	20.84
		12	11	20.85	20.94	20.83
		25	0	20.80	20.87	20.70
	64QAM	1	0	20.72	21.06	20.97
		1	13	20.80	21.18	21.08
		1	24	20.70	21.08	20.91
		12	0	19.94	19.84	19.90
		12	6	19.99	19.86	19.95
		12	11	19.94	19.85	19.95
		25	0	19.88	19.85	19.87

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				23060CH	23095CH	23130CH
				704MHz	707.5MHz	711MHz
12 / 10M	QPSK	1	0	22.72	22.80	22.69
		1	25	22.89	22.94	22.89
		1	49	22.70	22.81	22.69
		25	0	21.81	21.85	21.79
		25	13	21.82	21.82	21.79
		25	25	21.76	21.77	21.77
		50	0	21.81	21.81	21.80
	16QAM	1	0	21.68	22.13	21.74
		1	25	21.84	22.29	21.93
		1	49	21.65	22.14	21.71
		25	0	20.88	20.94	20.91
		25	13	20.88	20.90	20.92
		25	25	20.86	20.88	20.88
		50	0	20.84	20.86	20.87
	64QAM	1	0	21.16	20.98	21.01
		1	25	21.33	21.13	21.22
		1	49	21.15	20.96	20.96
		25	0	20.01	20.08	20.05
		25	13	20.01	20.03	20.03
		25	25	19.99	20.01	19.98
		50	0	19.96	19.98	19.94

LTE Band / BW	Modulation	RB Sizet	RB Offset	Low CH	Mid CH	High CH
				37775CH	38000CH	38225CH
				2572.5MHz	2595MHz	2617.5MHz
38 / 5M	QPSK	1	0	22.88	22.85	22.90
		1	13	23.00	23.00	23.02
		1	24	22.83	22.85	22.91
		12	0	22.00	21.96	21.99
		12	6	22.03	22.00	22.06
		12	11	22.06	22.02	22.06
		25	0	21.99	21.99	22.00
	16QAM	1	0	22.32	22.10	22.15
		1	13	22.45	22.24	22.30
		1	24	22.30	22.08	22.17
		12	0	21.15	21.06	21.01
		12	6	21.19	21.12	21.08
		12	11	21.19	21.12	21.08
		25	0	21.09	21.05	21.09
	64QAM	1	0	21.31	21.03	21.52
		1	13	21.45	21.17	21.63
		1	24	21.31	21.00	21.51
		12	0	19.95	19.93	20.05
		12	6	19.98	19.95	20.10
		12	11	19.96	19.95	20.09
		25	0	19.91	19.96	19.92

LTE Band / BW	Modulation	RB Sizet	RB Offset	Low CH	Mid CH	High CH
				37800CH	38000CH	38200CH
				2575MHz	2595MHz	2615MHz
38 / 10M	QPSK	1	0	22.96	23.09	22.99
		1	25	23.21	23.37	23.26
		1	49	22.95	23.05	22.99
		25	0	22.04	22.05	22.03
		25	13	22.04	22.04	22.06
		25	25	22.05	22.03	22.06
		50	0	22.03	22.02	22.02
	16QAM	1	0	22.30	22.43	22.36
		1	25	22.54	22.67	22.65
		1	49	22.29	22.40	22.36
		25	0	21.14	21.13	21.12
		25	13	21.11	21.11	21.12
		25	25	21.16	21.10	21.13
		50	0	21.12	21.11	21.15
	64QAM	1	0	20.92	21.59	21.28
		1	25	21.17	21.83	21.54
		1	49	20.92	21.56	21.28
		25	0	20.09	19.97	19.92
		25	13	20.08	19.96	19.91
		25	25	20.09	19.95	19.92
		50	0	20.04	19.94	19.93

LTE Band / BW	Modulation	RB Sizet	RB Offset	Low CH	Mid CH	High CH
				37825CH	38000CH	38175CH
				2577.5MHz	2595MHz	2612.5MHz
38 / 15M	QPSK	1	0	22.88	22.99	22.94
		1	38	22.96	23.10	23.02
		1	74	22.81	22.92	22.92
		36	0	22.05	22.05	22.08
		36	18	22.07	22.06	22.06
		36	39	22.07	22.05	22.05
		75	0	22.04	22.06	22.07
	16QAM	1	0	22.24	22.36	22.23
		1	38	22.28	22.45	22.32
		1	74	22.12	22.29	22.20
		36	0	21.04	21.05	21.09
		36	18	21.06	21.06	21.08
		36	39	21.07	21.02	21.06
		75	0	21.10	21.08	21.10
	64QAM	1	0	20.87	21.55	21.08
		1	38	20.92	21.64	21.15
		1	74	20.78	21.48	21.04
		36	0	20.10	20.11	20.01
		36	18	20.14	20.14	20.00
		36	39	20.14	20.11	19.97
		75	0	20.05	20.07	20.05

LTE Band / BW	Modulation	RB Sizet	RB Offset	Low CH	Mid CH	High CH
				37850CH	38000CH	38150CH
				2580MHz	2595MHz	2610MHz
38 / 20M	QPSK	1	0	22.77	22.80	22.80
		1	50	23.28	23.30	23.24
		1	99	22.69	22.76	22.75
		50	0	22.05	22.05	22.07
		50	25	22.09	22.12	22.09
		50	50	22.02	22.05	22.00
		100	0	22.08	22.07	22.04
	16QAM	1	0	22.12	21.97	22.05
		1	50	22.59	22.42	22.51
		1	99	22.02	21.89	22.05
		50	0	21.02	21.05	21.04
		50	25	21.06	21.09	21.05
		50	50	21.06	21.01	20.98
		100	0	21.04	21.06	21.01
	64QAM	1	0	21.42	20.95	21.20
		1	50	21.89	21.42	21.64
		1	99	21.33	20.89	21.19
		50	0	19.96	19.92	19.97
		50	25	20.02	19.97	19.98
		50	50	20.01	19.92	19.90
		100	0	19.96	19.93	19.93

LTE Band / BW	Modulation	RB Sizet	RB Offset	Low CH	Mid CH	High CH
				40065CH	40640CH	41215CH
				2537.5MHz	2595MHz	2652.5MHz
41 / 5M	QPSK	1	0	22.94	22.92	23.01
		1	13	23.06	23.02	23.10
		1	24	22.92	22.89	22.99
		12	0	22.00	21.92	21.98
		12	6	22.06	21.95	22.01
		12	11	22.10	21.93	22.00
		25	0	22.01	21.92	21.96
	16QAM	1	0	22.32	21.96	22.11
		1	13	22.44	22.07	22.26
		1	24	22.34	21.96	22.09
		12	0	21.14	21.17	21.20
		12	6	21.19	21.14	21.15
		12	11	21.20	21.16	21.18
		25	0	21.07	21.19	21.22
	64QAM	1	0	21.30	21.01	20.98
		1	13	21.44	21.14	21.09
		1	24	21.33	20.98	20.95
		12	0	19.92	20.02	19.86
		12	6	19.97	20.05	19.91
		12	11	19.99	20.06	19.89
		25	0	19.86	19.87	19.90

LTE Band / BW	Modulation	RB Sizet	RB Offset	Low CH	Mid CH	High CH
				40090CH	40640CH	41190CH
				2540MHz	2595MHz	2650MHz
41 / 10M	QPSK	1	0	23.17	23.00	23.05
		1	25	23.42	23.28	23.29
		1	49	23.15	22.90	22.96
		25	0	22.16	22.05	22.09
		25	13	22.15	22.03	22.08
		25	25	22.22	21.97	22.03
		50	0	22.18	22.02	22.06
	16QAM	1	0	22.20	21.94	22.27
		1	25	22.30	22.18	22.44
		1	49	22.13	21.87	22.17
		25	0	21.15	21.29	21.28
		25	13	21.19	21.28	21.28
		25	25	21.24	21.26	21.23
		50	0	21.17	21.25	21.28
	64QAM	1	0	20.92	20.91	20.82
		1	25	21.22	21.15	21.10
		1	49	20.91	20.86	20.76
		25	0	20.00	19.91	19.99
		25	13	19.99	19.90	19.98
		25	25	20.06	19.92	19.95
		50	0	20.02	19.95	19.93

LTE Band / BW	Modulation	RB Sizet	RB Offset	Low CH	Mid CH	High CH
				40115CH	40640CH	41165CH
				2542.5MHz	2595MHz	2647.5MHz
41 / 15M	QPSK	1	0	23.05	22.89	22.98
		1	38	23.13	22.91	23.04
		1	74	22.94	22.75	22.85
		36	0	22.15	22.03	22.10
		36	18	22.12	22.04	22.08
		36	39	22.16	22.01	22.08
		75	0	22.13	22.02	22.11
	16QAM	1	0	22.27	22.23	22.21
		1	38	22.30	22.23	22.23
		1	74	22.15	22.05	22.02
		36	0	21.30	21.28	21.28
		36	18	21.30	21.26	21.28
		36	39	21.32	21.23	21.19
		75	0	21.29	21.22	21.21
	64QAM	1	0	20.81	20.78	21.03
		1	38	20.92	20.85	21.12
		1	74	20.79	20.70	20.97
		36	0	20.10	20.07	19.94
		36	18	20.15	20.06	19.97
		36	39	20.13	20.04	19.91
		75	0	20.05	20.02	20.00

LTE Band / BW	Modulation	RB Sizet	RB Offset	Low CH	Mid CH	High CH
				40140CH	40640CH	41140CH
				2545MHz	2595MHz	2645MHz
41 / 20M	QPSK	1	0	22.89	22.84	22.96
		1	50	23.36	23.26	23.35
		1	99	22.78	22.66	22.79
		50	0	22.09	21.93	22.10
		50	25	22.21	21.94	22.19
		50	50	22.12	21.89	22.06
		100	0	22.15	21.91	22.13
	16QAM	1	0	21.97	22.15	22.04
		1	50	22.40	22.22	22.29
		1	99	21.87	21.98	21.82
		50	0	21.25	21.19	21.27
		50	25	21.23	21.19	21.25
		50	50	21.27	21.13	21.18
		100	0	21.27	21.17	21.23
	64QAM	1	0	21.00	21.21	21.31
		1	50	21.45	21.41	21.39
		1	99	20.97	21.11	21.25
		50	0	19.94	19.92	19.92
		50	25	20.03	19.94	19.97
		50	50	20.01	19.92	19.87
		100	0	19.99	19.95	19.88

LTE Band / BW	Modulation	RB Sizet	RB Offset	Low CH	Mid CH	High CH
				131979CH	132322CH	132665CH
				1710.7MHz	1745MHz	1779.3MHz
66 / 1.4M	QPSK	1	0	22.77	22.72	22.70
		1	2	22.86	22.85	22.83
		1	5	22.79	22.72	22.70
		3	0	22.82	22.78	22.83
		3	1	22.86	22.82	22.89
		3	2	22.84	22.77	22.89
		6	0	21.85	21.81	21.85
	16QAM	1	0	21.81	21.82	22.18
		1	2	21.90	21.92	22.27
		1	5	21.83	21.82	22.17
		3	0	22.00	21.82	22.06
		3	1	22.10	21.86	22.10
		3	2	22.05	21.82	22.06
		6	0	21.00	20.91	20.74
	64QAM	1	0	21.14	20.82	20.94
		1	2	21.33	20.96	21.03
		1	5	21.16	20.81	20.97
		3	0	21.16	20.89	20.81
		3	1	21.20	20.97	20.85
		3	2	21.17	20.92	20.81
		6	0	19.81	20.07	19.90

LTE Band / BW	Modulation	RB Sizet	RB Offset	Low CH	Mid CH	High CH
				131987CH	132322CH	132657CH
				1711.5MHz	1745MHz	1778.5MHz
66 / 3M	QPSK	1	0	22.75	22.76	22.80
		1	7	22.89	22.90	22.92
		1	14	22.79	22.79	22.78
		8	0	21.83	21.78	21.84
		8	4	21.85	21.82	21.85
		8	7	21.84	21.76	21.85
		15	0	21.82	21.74	21.79
	16QAM	1	0	21.76	22.13	21.86
		1	7	21.89	22.26	22.03
		1	14	21.76	22.16	21.86
		8	0	20.96	20.86	20.87
		8	4	20.96	20.86	20.89
		8	7	20.93	20.82	20.87
		15	0	20.87	20.78	20.79
	64QAM	1	0	21.09	20.86	21.01
		1	7	21.25	21.00	21.16
		1	14	21.11	20.88	20.94
		8	0	19.91	19.82	19.80
		8	4	19.91	19.85	19.81
		8	7	19.86	19.83	19.78
		15	0	19.80	19.79	19.85

LTE Band / BW	Modulation	RB Sizet	RB Offset	Low CH	Mid CH	High CH
				131997CH	132322CH	132647CH
				1712.5MHz	1745MHz	1777.5MHz
66 / 5M	QPSK	1	0	22.80	22.65	22.74
		1	13	22.91	22.78	22.86
		1	24	22.78	22.66	22.74
		12	0	21.78	21.72	21.81
		12	6	21.84	21.80	21.87
		12	11	21.84	21.81	21.82
		25	0	21.81	21.75	21.79
	16QAM	1	0	21.95	22.18	21.85
		1	13	22.03	22.29	21.96
		1	24	21.96	22.18	21.85
		12	0	20.88	20.86	20.85
		12	6	20.95	20.92	20.86
		12	11	20.97	20.90	20.85
		25	0	20.86	20.79	20.76
	64QAM	1	0	20.67	20.99	20.95
		1	13	20.82	21.07	21.07
		1	24	20.69	20.95	20.99
		12	0	19.85	19.69	19.90
		12	6	19.90	19.75	19.91
		12	11	19.89	19.76	19.92
		25	0	19.82	19.73	19.86

LTE Band / BW	Modulation	RB Sizet	RB Offset	Low CH	Mid CH	High CH
				132022CH	132322CH	132622CH
				1715MHz	1745MHz	1775MHz
66 / 10M	QPSK	1	0	22.75	22.76	22.72
		1	25	22.96	22.92	22.88
		1	49	22.74	22.73	22.71
		25	0	21.83	21.75	21.88
		25	13	21.85	21.78	21.81
		25	25	21.85	21.79	21.80
		50	0	21.85	21.79	21.83
	16QAM	1	0	21.75	22.11	21.78
		1	25	21.90	22.25	21.94
		1	49	21.76	22.10	21.80
		25	0	20.86	20.79	20.99
		25	13	20.87	20.80	20.92
		25	25	20.85	20.82	20.89
		50	0	20.85	20.81	20.86
	64QAM	1	0	21.10	20.86	20.94
		1	25	21.25	20.99	21.11
		1	49	21.10	20.85	20.95
		25	0	19.87	19.88	19.97
		25	13	19.90	19.87	19.91
		25	25	19.90	19.92	19.90
		50	0	19.87	19.90	19.89

LTE Band / BW	Modulation	RB Sizet	RB Offset	Low CH	Mid CH	High CH
				132047CH	132322CH	132597CH
				1717.5MHz	1745MHz	1772.5MHz
66 / 15M	QPSK	1	0	22.71	22.73	22.75
		1	38	22.79	22.81	22.85
		1	74	22.63	22.69	22.74
		36	0	21.89	21.86	21.96
		36	18	21.89	21.88	21.92
		36	39	21.89	21.87	21.90
		75	0	21.90	21.86	21.93
	16QAM	1	0	21.70	22.07	22.17
		1	38	21.82	22.18	22.28
		1	74	21.62	22.04	22.14
		36	0	20.84	20.82	20.85
		36	18	20.88	20.87	20.85
		36	39	20.86	20.87	20.79
		75	0	20.86	20.83	20.91
	64QAM	1	0	21.04	20.84	21.29
		1	38	21.14	20.91	21.42
		1	74	20.99	20.77	21.31
		36	0	19.85	19.89	19.88
		36	18	19.87	19.88	19.85
		36	39	19.87	19.90	19.82
		75	0	19.88	19.84	19.91

LTE Band / BW	Modulation	RB Sizet	RB Offset	Low CH	Mid CH	High CH
				132072CH	132322CH	132572CH
				1720MHz	1745MHz	1770MHz
66 / 20M	QPSK	1	0	22.73	22.71	22.67
		1	50	23.15	23.11	23.10
		1	99	22.74	22.68	22.70
		50	0	22.01	21.89	22.07
		50	25	22.03	21.99	22.02
		50	50	22.01	21.97	21.91
		100	0	22.01	21.94	21.97
	16QAM	1	0	22.08	22.07	21.98
		1	50	22.52	22.42	22.38
		1	99	22.10	21.99	22.03
		50	0	20.87	20.74	20.87
		50	25	20.90	20.80	20.84
		50	50	20.86	20.77	20.74
		100	0	20.84	20.80	20.81
	64QAM	1	0	20.80	20.91	21.14
		1	50	21.20	21.20	21.56
		1	99	20.79	20.85	21.18
		50	0	19.90	19.85	19.95
		50	25	19.93	19.88	19.87
		50	50	19.90	19.89	19.77
		100	0	19.90	19.83	19.84

EIRP (dBm):

Modulation	Band	WCDMA Band IV		
	Tx Channel	1312CH	1413CH	1513CH
	Frequency	1712.4MHz	1732.6MHz	1752.6MHz
QPSK	RMC 12.2K	17.86	17.91	17.89
	RMC 64K	17.84	17.89	17.92
	RMC 144K	17.85	17.91	17.99
	RMC 384K	17.84	17.88	17.92
	HSDPA Subtest-1	15.87	15.85	15.89
	HSDPA Subtest-2	15.85	15.83	15.86
	HSDPA Subtest-3	15.84	15.82	15.93
	HSDPA Subtest-4	15.82	15.84	15.88
	HSUPA Subtest-1	15.70	15.73	15.60
	HSUPA Subtest-2	15.89	15.98	15.90
	HSUPA Subtest-3	16.51	16.58	16.39
	HSUPA Subtest-4	15.46	15.39	15.43
	HSUPA Subtest-5	17.87	17.92	17.94

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				19957CH	20175CH	20393CH
				1710.7MHz	1732.5MHz	1754.3MHz
4 / 1.4M	QPSK	1	0	17.45	17.47	17.51
		1	2	17.62	17.58	17.64
		1	5	17.47	17.45	17.53
		3	0	17.61	17.53	17.55
		3	1	17.58	17.57	17.61
		3	2	17.65	17.54	17.54
		6	0	16.57	16.53	16.55
	16QAM	1	0	16.59	16.84	16.46
		1	2	16.72	16.93	16.57
		1	5	16.60	16.83	16.48
		3	0	16.61	16.75	16.68
		3	1	16.65	16.78	16.74
		3	2	16.63	16.74	16.70
		6	0	15.74	15.47	15.73
	64QAM	1	0	15.94	15.70	15.67
		1	2	16.13	15.78	15.80
		1	5	15.96	15.65	15.72
		3	0	15.96	15.76	15.57
		3	1	16.01	15.78	15.61
		3	2	15.96	15.74	15.62
		6	0	14.60	14.88	14.65

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				19965CH	20175CH	20385CH
				1711.5MHz	1732.5MHz	1753.5MHz
4 / 3M	QPSK	1	0	17.49	17.51	17.51
		1	7	17.61	17.66	17.61
		1	14	17.52	17.53	17.46
		8	0	16.50	16.47	16.49
		8	4	16.55	16.52	16.52
		8	7	16.50	16.47	16.50
		15	0	16.51	16.46	16.46
	16QAM	1	0	16.46	16.85	16.51
		1	7	16.55	17.02	16.64
		1	14	16.43	16.86	16.47
		8	0	15.69	15.62	15.59
		8	4	15.70	15.65	15.61
		8	7	15.66	15.61	15.56
		15	0	15.61	15.57	15.51
	64QAM	1	0	15.90	15.66	15.78
		1	7	16.06	15.82	15.90
		1	14	15.88	15.72	15.67
		8	0	14.64	14.57	14.50
		8	4	14.66	14.64	14.53
		8	7	14.62	14.57	14.51
		15	0	14.57	14.58	14.58

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				19975CH	20175CH	20375CH
				1712.5MHz	1732.5MHz	1752.5MHz
4 / 5M	QPSK	1	0	17.50	17.41	17.46
		1	13	17.62	17.51	17.57
		1	24	17.49	17.39	17.45
		12	0	16.49	16.46	16.49
		12	6	16.51	16.50	16.53
		12	11	16.52	16.53	16.53
		25	0	16.50	16.47	16.47
	16QAM	1	0	16.61	16.90	16.51
		1	13	16.75	17.02	16.62
		1	24	16.60	16.90	16.53
		12	0	15.61	15.63	15.56
		12	6	15.66	15.70	15.60
		12	11	15.67	15.70	15.61
		25	0	15.59	15.61	15.49
	64QAM	1	0	15.45	15.79	15.70
		1	13	15.56	15.86	15.82
		1	24	15.46	15.79	15.71
		12	0	14.60	14.45	14.58
		12	6	14.66	14.51	14.63
		12	11	14.64	14.54	14.64
		25	0	14.54	14.51	14.55

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20000CH	20175CH	20350CH
				1715MHz	1732.5MHz	1750MHz
4 / 10M	QPSK	1	0	17.45	17.49	17.43
		1	25	17.62	17.68	17.58
		1	49	17.45	17.48	17.41
		25	0	16.50	16.47	16.48
		25	13	16.53	16.50	16.48
		25	25	16.49	16.53	16.50
		50	0	16.53	16.51	16.50
	16QAM	1	0	16.40	16.82	16.44
		1	25	16.58	16.97	16.61
		1	49	16.41	16.82	16.44
		25	0	15.60	15.60	15.61
		25	13	15.64	15.61	15.62
		25	25	15.58	15.65	15.65
		50	0	15.57	15.62	15.59
	64QAM	1	0	15.85	15.67	15.71
		1	25	15.99	15.87	15.88
		1	49	15.84	15.66	15.68
		25	0	14.65	14.66	14.65
		25	13	14.66	14.67	14.64
		25	25	14.62	14.69	14.65
		50	0	14.64	14.67	14.57

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20025CH	20175CH	20325CH
				1717.5MHz	1732.5MHz	1747.5MHz
4 / 15M	QPSK	1	0	17.41	17.44	17.44
		1	38	17.50	17.57	17.59
		1	74	17.33	17.36	17.42
		36	0	16.56	16.54	16.53
		36	18	16.55	16.54	16.59
		36	39	16.52	16.58	16.60
		75	0	16.53	16.53	16.55
	16QAM	1	0	16.34	16.78	16.83
		1	38	16.46	16.90	16.93
		1	74	16.31	16.74	16.78
		36	0	15.58	15.59	15.52
		36	18	15.58	15.62	15.57
		36	39	15.55	15.62	15.57
		75	0	15.56	15.59	15.57
	64QAM	1	0	15.82	15.66	16.07
		1	38	15.90	15.77	16.20
		1	74	15.75	15.54	16.05
		36	0	14.62	14.66	14.59
		36	18	14.62	14.67	14.63
		36	39	14.59	14.68	14.62
		75	0	14.59	14.64	14.66

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20050CH	20175CH	20300CH
				1720MHz	1732.5MHz	1745MHz
4 / 20M	QPSK	1	0	17.33	17.31	17.30
		1	50	17.78	17.76	17.74
		1	99	17.29	17.29	17.32
		50	0	16.60	16.55	16.56
		50	25	16.61	16.62	16.60
		50	50	16.56	16.61	16.60
		100	0	16.56	16.58	16.58
	16QAM	1	0	16.77	16.70	16.61
		1	50	17.22	17.11	17.03
		1	99	16.73	16.66	16.58
		50	0	15.64	15.53	15.46
		50	25	15.63	15.63	15.54
		50	50	15.57	15.55	15.52
		100	0	15.60	15.55	15.54
	64QAM	1	0	15.68	15.95	15.54
		1	50	16.05	16.39	15.94
		1	99	15.62	15.91	15.50
		50	0	14.69	14.58	14.57
		50	25	14.67	14.65	14.63
		50	50	14.65	14.64	14.61
		100	0	14.61	14.60	14.62

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20775CH	21100CH	21425CH
				2502.5MHz	2535MHz	2567.5MHz
7 / 5M	QPSK	1	0	22.33	22.24	22.15
		1	13	22.44	22.34	22.26
		1	24	22.29	22.20	22.10
		12	0	21.32	21.23	21.20
		12	6	21.42	21.27	21.24
		12	11	21.41	21.27	21.24
		25	0	21.31	21.23	21.16
	16QAM	1	0	21.32	21.24	21.54
		1	13	21.42	21.36	21.64
		1	24	21.28	21.22	21.52
		12	0	20.34	20.27	20.33
		12	6	20.44	20.33	20.35
		12	11	20.43	20.32	20.31
		25	0	20.30	20.24	20.24
	64QAM	1	0	20.56	20.13	20.46
		1	2	20.65	20.25	20.58
		1	5	20.52	20.08	20.43
		3	0	19.40	19.28	19.22
		3	1	19.48	19.32	19.23
		3	2	19.50	19.35	19.22
		6	0	19.41	19.24	19.23

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20800CH	21100CH	21400CH
				2505MHz	2535MHz	2565MHz
7 / 10M	QPSK	1	0	22.36	22.31	22.22
		1	25	22.52	22.45	22.39
		1	49	22.36	22.27	22.18
		25	0	21.33	21.25	21.30
		25	13	21.37	21.27	21.24
		25	25	21.42	21.30	21.22
		50	0	21.36	21.26	21.26
	16QAM	1	0	21.20	21.53	21.12
		1	25	21.32	21.69	21.34
		1	49	21.16	21.47	21.11
		25	0	20.33	20.29	20.37
		25	13	20.39	20.30	20.34
		25	25	20.41	20.35	20.31
		50	0	20.37	20.31	20.27
	64QAM	1	0	20.68	20.44	20.38
		1	25	20.79	20.56	20.59
		1	49	20.59	20.37	20.37
		25	0	19.37	19.38	19.40
		25	13	19.43	19.41	19.36
		25	25	19.48	19.46	19.37
		50	0	19.43	19.43	19.32

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20825CH	21100CH	21375CH
				2507.5MHz	2535MHz	2562.5MHz
7 / 15M	QPSK	1	0	22.28	22.25	22.24
		1	38	22.40	22.30	22.33
		1	74	22.17	22.15	22.14
		36	0	21.38	21.30	21.37
		36	18	21.48	21.34	21.35
		36	39	21.44	21.33	21.29
		75	0	21.40	21.30	21.32
	16QAM	1	0	21.14	21.47	21.40
		1	38	21.19	21.56	21.50
		1	74	21.01	21.35	21.38
		36	0	20.32	20.32	20.27
		36	18	20.38	20.32	20.28
		36	39	20.37	20.33	20.23
		75	0	20.38	20.31	20.29
	64QAM	1	0	20.60	20.38	20.75
		1	38	20.68	20.43	20.86
		1	74	20.48	20.26	20.71
		36	0	19.37	19.40	19.33
		36	18	19.45	19.40	19.34
		36	39	19.43	19.38	19.27
		75	0	19.41	19.37	19.37

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				20850CH	21100CH	21350CH
				2510MHz	2535MHz	2560MHz
7 / 20M	QPSK	1	0	22.21	22.11	22.08
		1	50	22.64	22.51	22.50
		1	99	22.09	22.02	22.00
		50	0	21.34	21.27	21.29
		50	25	21.43	21.33	21.29
		50	50	21.33	21.32	21.20
		100	0	21.30	21.31	21.28
	16QAM	1	0	21.54	21.43	21.41
		1	50	21.92	21.75	21.82
		1	99	21.41	21.29	21.40
		50	0	20.27	20.25	20.23
		50	25	20.35	20.29	20.29
		50	50	20.28	20.26	20.17
		100	0	20.29	20.23	20.25
	64QAM	1	0	20.44	20.65	20.14
		1	50	20.78	21.00	20.51
		1	99	20.30	20.53	20.14
		50	0	19.34	19.27	19.22
		50	25	19.39	19.34	19.28
		50	50	19.32	19.34	19.19
		100	0	19.31	19.26	19.24

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				23017CH	23095CH	23173CH
				699.7MHz	707.5MHz	715.3MHz
12 / 1.4M	QPSK	1	0	14.65	14.68	14.66
		1	2	14.75	14.77	14.77
		1	5	14.62	14.63	14.65
		3	0	14.77	14.75	14.80
		3	1	14.84	14.78	14.84
		3	2	14.81	14.76	14.74
		6	0	13.73	13.72	13.69
	16QAM	1	0	13.74	13.77	14.01
		1	2	13.81	13.87	14.07
		1	5	13.71	13.76	13.99
		3	0	13.95	13.79	13.92
		3	1	14.02	13.84	13.94
		3	2	13.98	13.81	13.95
		6	0	12.91	12.85	12.60
	64QAM	1	0	12.99	13.11	12.87
		1	2	13.03	13.29	12.98
		1	5	12.98	13.09	12.83
		3	0	12.80	13.25	12.92
		3	1	12.85	13.19	12.97
		3	2	12.83	13.18	12.93
		6	0	11.91	11.79	12.10

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				23025CH	23095CH	23165CH
				700.5MHz	707.5MHz	714.5MHz
12 / 3M	QPSK	1	0	14.70	14.74	14.69
		1	7	14.86	14.87	14.81
		1	14	14.72	14.72	14.61
		8	0	13.75	13.72	13.74
		8	4	13.77	13.73	13.74
		8	7	13.72	13.68	13.69
		15	0	13.72	13.69	13.70
	16QAM	1	0	13.66	14.05	13.73
		1	7	13.77	14.21	13.84
		1	14	13.63	14.04	13.63
		8	0	12.85	12.83	12.79
		8	4	12.88	12.83	12.81
		8	7	12.83	12.80	12.72
		15	0	12.78	12.75	12.69
	64QAM	1	0	13.14	12.90	12.98
		1	7	13.25	12.99	13.11
		1	14	13.08	12.88	12.86
		8	0	11.93	11.84	11.80
		8	4	11.97	11.88	11.82
		8	7	11.89	11.82	11.75
		15	0	11.84	11.86	11.86

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				23035CH	23095CH	23155CH
				701.5MHz	707.5MHz	713.5MHz
12 / 5M	QPSK	1	0	14.72	14.62	14.65
		1	13	14.79	14.74	14.75
		1	24	14.68	14.64	14.63
		12	0	13.72	13.73	13.71
		12	6	13.77	13.75	13.73
		12	11	13.72	13.74	13.73
		25	0	13.69	13.71	13.67
	16QAM	1	0	13.80	14.16	13.70
		1	13	13.90	14.23	13.83
		1	24	13.80	14.13	13.67
		12	0	12.80	12.89	12.77
		12	6	12.84	12.92	12.79
		12	11	12.80	12.89	12.78
		25	0	12.75	12.82	12.65
	64QAM	1	0	12.67	13.01	12.92
		1	13	12.75	13.13	13.03
		1	24	12.65	13.03	12.86
		12	0	11.89	11.79	11.85
		12	6	11.94	11.81	11.90
		12	11	11.89	11.80	11.90
		25	0	11.83	11.80	11.82

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				23060CH	23095CH	23130CH
				704MHz	707.5MHz	711MHz
12 / 10M	QPSK	1	0	14.67	14.75	14.64
		1	25	14.84	14.89	14.84
		1	49	14.65	14.76	14.64
		25	0	13.76	13.80	13.74
		25	13	13.77	13.77	13.74
		25	25	13.71	13.72	13.72
		50	0	13.76	13.76	13.75
	16QAM	1	0	13.63	14.08	13.69
		1	25	13.79	14.24	13.88
		1	49	13.60	14.09	13.66
		25	0	12.83	12.89	12.86
		25	13	12.83	12.85	12.87
		25	25	12.81	12.83	12.83
		50	0	12.79	12.81	12.82
	64QAM	1	0	13.11	12.93	12.96
		1	25	13.28	13.08	13.17
		1	49	13.10	12.91	12.91
		25	0	11.96	12.03	12.00
		25	13	11.96	11.98	11.98
		25	25	11.94	11.96	11.93
		50	0	11.91	11.93	11.89

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				37775CH	38000CH	38225CH
				2572.5MHz	2595MHz	2617.5MHz
38 / 5M	QPSK	1	0	22.12	22.09	22.14
		1	13	22.24	22.24	22.26
		1	24	22.07	22.09	22.15
		12	0	21.24	21.20	21.23
		12	6	21.27	21.24	21.30
		12	11	21.30	21.26	21.30
		25	0	21.23	21.23	21.24
	16QAM	1	0	21.56	21.34	21.39
		1	13	21.69	21.48	21.54
		1	24	21.54	21.32	21.41
		12	0	20.39	20.30	20.25
		12	6	20.43	20.36	20.32
		12	11	20.43	20.36	20.32
		25	0	20.33	20.29	20.33
	64QAM	1	0	20.55	20.27	20.76
		1	13	20.69	20.41	20.87
		1	24	20.55	20.24	20.75
		12	0	19.19	19.17	19.29
		12	6	19.22	19.19	19.34
		12	11	19.20	19.19	19.33
		25	0	19.15	19.20	19.16

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				37800CH	38000CH	38200CH
				2575MHz	2595MHz	2615MHz
38 / 10M	QPSK	1	0	22.20	22.33	22.23
		1	25	22.45	22.61	22.50
		1	49	22.19	22.29	22.23
		25	0	21.28	21.29	21.27
		25	13	21.28	21.28	21.30
		25	25	21.29	21.27	21.30
		50	0	21.27	21.26	21.26
	16QAM	1	0	21.54	21.67	21.60
		1	25	21.78	21.91	21.89
		1	49	21.53	21.64	21.60
		25	0	20.38	20.37	20.36
		25	13	20.35	20.35	20.36
		25	25	20.40	20.34	20.37
		50	0	20.36	20.35	20.39
	64QAM	1	0	20.16	20.83	20.52
		1	25	20.41	21.07	20.78
		1	49	20.16	20.80	20.52
		25	0	19.33	19.21	19.16
		25	13	19.32	19.20	19.15
		25	25	19.33	19.19	19.16
		50	0	19.28	19.18	19.17

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				37825CH	38000CH	38175CH
				2577.5MHz	2595MHz	2612.5MHz
38 / 15M	QPSK	1	0	22.12	22.23	22.18
		1	38	22.20	22.34	22.26
		1	74	22.05	22.16	22.16
		36	0	21.29	21.29	21.32
		36	18	21.31	21.30	21.30
		36	39	21.31	21.29	21.29
		75	0	21.28	21.30	21.31
	16QAM	1	0	21.48	21.60	21.47
		1	38	21.52	21.69	21.56
		1	74	21.36	21.53	21.44
		36	0	20.28	20.29	20.33
		36	18	20.30	20.30	20.32
		36	39	20.31	20.26	20.30
		75	0	20.34	20.32	20.34
	64QAM	1	0	20.11	20.79	20.32
		1	38	20.16	20.88	20.39
		1	74	20.02	20.72	20.28
		36	0	19.34	19.35	19.25
		36	18	19.38	19.38	19.24
		36	39	19.38	19.35	19.21
		75	0	19.29	19.31	19.29

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				37850CH	38000CH	38150CH
				2580MHz	2595MHz	2610MHz
38 / 20M	QPSK	1	0	22.01	22.04	22.04
		1	50	22.52	22.54	22.48
		1	99	21.93	22.00	21.99
		50	0	21.29	21.29	21.31
		50	25	21.33	21.36	21.33
		50	50	21.26	21.29	21.24
		100	0	21.32	21.31	21.28
	16QAM	1	0	21.36	21.21	21.29
		1	50	21.83	21.66	21.75
		1	99	21.26	21.13	21.29
		50	0	20.26	20.29	20.28
		50	25	20.30	20.33	20.29
		50	50	20.30	20.25	20.22
		100	0	20.28	20.30	20.25
	64QAM	1	0	20.66	20.19	20.44
		1	50	21.13	20.66	20.88
		1	99	20.57	20.13	20.43
		50	0	19.20	19.16	19.21
		50	25	19.26	19.21	19.22
		50	50	19.25	19.16	19.14
		100	0	19.20	19.17	19.17

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				40065CH	40640CH	41215CH
				2537.5MHz	2595MHz	2652.5MHz
41 / 5M	QPSK	1	0	21.99	21.97	22.06
		1	13	22.11	22.07	22.15
		1	24	21.97	21.94	22.04
		12	0	21.05	20.97	21.03
		12	6	21.11	21.00	21.06
		12	11	21.15	20.98	21.05
		25	0	21.06	20.97	21.01
	16QAM	1	0	21.37	21.01	21.16
		1	13	21.49	21.12	21.31
		1	24	21.39	21.01	21.14
		12	0	20.19	20.22	20.25
		12	6	20.24	20.19	20.20
		12	11	20.25	20.21	20.23
		25	0	20.12	20.24	20.27
	64QAM	1	0	20.35	20.06	20.03
		1	13	20.49	20.19	20.14
		1	24	20.38	20.03	20.00
		12	0	18.97	19.07	18.91
		12	6	19.02	19.10	18.96
		12	11	19.04	19.11	18.94
		25	0	18.91	18.92	18.95

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				40090CH	40640CH	41190CH
				2540MHz	2595MHz	2650MHz
41 / 10M	QPSK	1	0	22.22	22.05	22.10
		1	25	22.47	22.33	22.34
		1	49	22.20	21.95	22.01
		25	0	21.21	21.10	21.14
		25	13	21.20	21.08	21.13
		25	25	21.27	21.02	21.08
		50	0	21.23	21.07	21.11
	16QAM	1	0	21.25	20.99	21.32
		1	25	21.35	21.23	21.49
		1	49	21.18	20.92	21.22
		25	0	20.20	20.34	20.33
		25	13	20.24	20.33	20.33
		25	25	20.29	20.31	20.28
		50	0	20.22	20.30	20.33
	64QAM	1	0	19.97	19.96	19.87
		1	25	20.27	20.20	20.15
		1	49	19.96	19.91	19.81
		25	0	19.05	18.96	19.04
		25	13	19.04	18.95	19.03
		25	25	19.11	18.97	19.00
		50	0	19.07	19.00	18.98

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				40115CH	40640CH	41165CH
				2542.5MHz	2595MHz	2647.5MHz
41 / 15M	QPSK	1	0	22.10	21.94	22.03
		1	38	22.18	21.96	22.09
		1	74	21.99	21.80	21.90
		36	0	21.20	21.08	21.15
		36	18	21.17	21.09	21.13
		36	39	21.21	21.06	21.13
		75	0	21.18	21.07	21.16
	16QAM	1	0	21.32	21.28	21.26
		1	38	21.35	21.28	21.28
		1	74	21.20	21.10	21.07
		36	0	20.35	20.33	20.33
		36	18	20.35	20.31	20.33
		36	39	20.37	20.28	20.24
		75	0	20.34	20.27	20.26
	64QAM	1	0	19.86	19.83	20.08
		1	38	19.97	19.90	20.17
		1	74	19.84	19.75	20.02
		36	0	19.15	19.12	18.99
		36	18	19.20	19.11	19.02
		36	39	19.18	19.09	18.96
		75	0	19.10	19.07	19.05

LTE Band / BW	Modulation	RB Size	RB Offset	Low CH	Mid CH	High CH
				40140CH	40640CH	41140CH
				2545MHz	2595MHz	2645MHz
41 / 20M	QPSK	1	0	21.94	21.89	22.01
		1	50	22.41	22.31	22.40
		1	99	21.83	21.71	21.84
		50	0	21.14	20.98	21.15
		50	25	21.26	20.99	21.24
		50	50	21.17	20.94	21.11
		100	0	21.20	20.96	21.18
	16QAM	1	0	21.02	21.20	21.09
		1	50	21.45	21.27	21.34
		1	99	20.92	21.03	20.87
		50	0	20.30	20.24	20.32
		50	25	20.28	20.24	20.30
		50	50	20.32	20.18	20.23
		100	0	20.32	20.22	20.28
	64QAM	1	0	20.05	20.26	20.36
		1	50	20.50	20.46	20.44
		1	99	20.02	20.16	20.30
		50	0	18.99	18.97	18.97
		50	25	19.08	18.99	19.02
		50	50	19.06	18.97	18.92
		100	0	19.04	19.00	18.93

LTE Band / BW	Modulation	RB Sizet	RB Offset	Low CH	Mid CH	High CH
				131979CH	132322CH	132665CH
				1710.7MHz	1745MHz	1779.3MHz
66 / 1.4M	QPSK	1	0	17.60	17.55	17.53
		1	2	17.69	17.68	17.66
		1	5	17.62	17.55	17.53
		3	0	17.65	17.61	17.66
		3	1	17.69	17.65	17.72
		3	2	17.67	17.60	17.72
		6	0	16.68	16.64	16.68
	16QAM	1	0	16.64	16.65	17.01
		1	2	16.73	16.75	17.10
		1	5	16.66	16.65	17.00
		3	0	16.83	16.65	16.89
		3	1	16.93	16.69	16.93
		3	2	16.88	16.65	16.89
		6	0	15.83	15.74	15.57
	64QAM	1	0	15.97	15.65	15.77
		1	2	16.16	15.79	15.86
		1	5	15.99	15.64	15.80
		3	0	15.99	15.72	15.64
		3	1	16.03	15.80	15.68
		3	2	16.00	15.75	15.64
		6	0	14.64	14.90	14.73

LTE Band / BW	Modulation	RB Sizet	RB Offset	Low CH	Mid CH	High CH
				131987CH	132322CH	132657CH
				1711.5MHz	1745MHz	1778.5MHz
66 / 3M	QPSK	1	0	17.58	17.59	17.63
		1	7	17.72	17.73	17.75
		1	14	17.62	17.62	17.61
		8	0	16.66	16.61	16.67
		8	4	16.68	16.65	16.68
		8	7	16.67	16.59	16.68
		15	0	16.65	16.57	16.62
	16QAM	1	0	16.59	16.96	16.69
		1	7	16.72	17.09	16.86
		1	14	16.59	16.99	16.69
		8	0	15.79	15.69	15.70
		8	4	15.79	15.69	15.72
		8	7	15.76	15.65	15.70
		15	0	15.70	15.61	15.62
	64QAM	1	0	15.92	15.69	15.84
		1	7	16.08	15.83	15.99
		1	14	15.94	15.71	15.77
		8	0	14.74	14.65	14.63
		8	4	14.74	14.68	14.64
		8	7	14.69	14.66	14.61
		15	0	14.63	14.62	14.68

LTE Band / BW	Modulation	RB Sizet	RB Offset	Low CH	Mid CH	High CH
				131997CH	132322CH	132647CH
				1712.5MHz	1745MHz	1777.5MHz
66 / 5M	QPSK	1	0	17.63	17.48	17.57
		1	13	17.74	17.61	17.69
		1	24	17.61	17.49	17.57
		12	0	16.61	16.55	16.64
		12	6	16.67	16.63	16.70
		12	11	16.67	16.64	16.65
		25	0	16.64	16.58	16.62
	16QAM	1	0	16.78	17.01	16.68
		1	13	16.86	17.12	16.79
		1	24	16.79	17.01	16.68
		12	0	15.71	15.69	15.68
		12	6	15.78	15.75	15.69
		12	11	15.80	15.73	15.68
		25	0	15.69	15.62	15.59
	64QAM	1	0	15.50	15.82	15.78
		1	13	15.65	15.90	15.90
		1	24	15.52	15.78	15.82
		12	0	14.68	14.52	14.73
		12	6	14.73	14.58	14.74
		12	11	14.72	14.59	14.75
		25	0	14.65	14.56	14.69

LTE Band / BW	Modulation	RB Sizet	RB Offset	Low CH	Mid CH	High CH
				132022CH	132322CH	132622CH
				1715MHz	1745MHz	1775MHz
66 / 10M	QPSK	1	0	17.58	17.59	17.55
		1	25	17.79	17.75	17.71
		1	49	17.57	17.56	17.54
		25	0	16.66	16.58	16.71
		25	13	16.68	16.61	16.64
		25	25	16.68	16.62	16.63
		50	0	16.68	16.62	16.66
	16QAM	1	0	16.58	16.94	16.61
		1	25	16.73	17.08	16.77
		1	49	16.59	16.93	16.63
		25	0	15.69	15.62	15.82
		25	13	15.70	15.63	15.75
		25	25	15.68	15.65	15.72
		50	0	15.68	15.64	15.69
	64QAM	1	0	15.93	15.69	15.77
		1	25	16.08	15.82	15.94
		1	49	15.93	15.68	15.78
		25	0	14.70	14.71	14.80
		25	13	14.73	14.70	14.74
		25	25	14.73	14.75	14.73
		50	0	14.70	14.73	14.72

LTE Band / BW	Modulation	RB Sizet	RB Offset	Low CH	Mid CH	High CH
				132047CH	132322CH	132597CH
				1717.5MHz	1745MHz	1772.5MHz
66 / 15M	QPSK	1	0	17.54	17.56	17.58
		1	38	17.62	17.64	17.68
		1	74	17.46	17.52	17.57
		36	0	16.72	16.69	16.79
		36	18	16.72	16.71	16.75
		36	39	16.72	16.70	16.73
		75	0	16.73	16.69	16.76
	16QAM	1	0	16.53	16.90	17.00
		1	38	16.65	17.01	17.11
		1	74	16.45	16.87	16.97
		36	0	15.67	15.65	15.68
		36	18	15.71	15.70	15.68
		36	39	15.69	15.70	15.62
		75	0	15.69	15.66	15.74
	64QAM	1	0	15.87	15.67	16.12
		1	38	15.97	15.74	16.25
		1	74	15.82	15.60	16.14
		36	0	14.68	14.72	14.71
		36	18	14.70	14.71	14.68
		36	39	14.70	14.73	14.65
		75	0	14.71	14.67	14.74

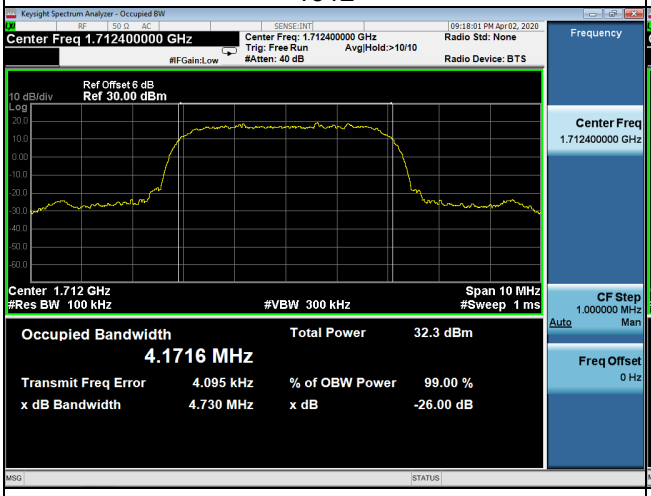
LTE Band / BW	Modulation	RB Sizet	RB Offset	Low CH	Mid CH	High CH
				132072CH	132322CH	132572CH
				1720MHz	1745MHz	1770MHz
66 / 20M	QPSK	1	0	17.56	17.54	17.50
		1	50	17.98	17.94	17.93
		1	99	17.57	17.51	17.53
		50	0	16.84	16.72	16.90
		50	25	16.86	16.82	16.85
		50	50	16.84	16.80	16.74
		100	0	16.84	16.77	16.80
	16QAM	1	0	16.91	16.90	16.81
		1	50	17.35	17.25	17.21
		1	99	16.93	16.82	16.86
		50	0	15.70	15.57	15.70
		50	25	15.73	15.63	15.67
		50	50	15.69	15.60	15.57
		100	0	15.67	15.63	15.64
	64QAM	1	0	15.63	15.74	15.97
		1	50	16.03	16.03	16.39
		1	99	15.62	15.68	16.01
		50	0	14.73	14.68	14.78
		50	25	14.76	14.71	14.70
		50	50	14.73	14.72	14.60
		100	0	14.73	14.66	14.67

APPENDIX B - OCCUPIED BANDWIDTH

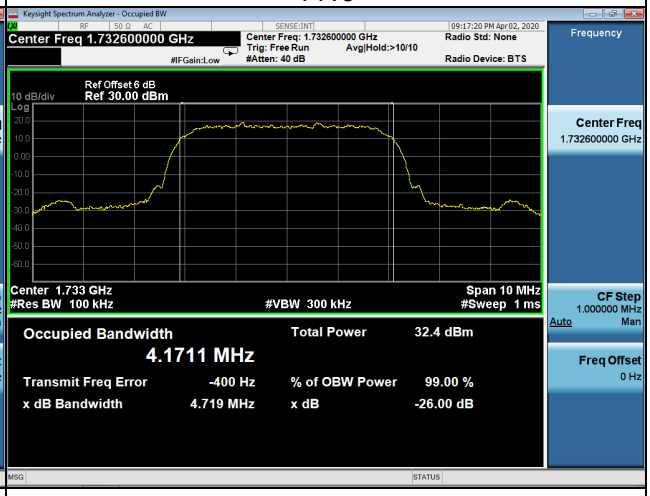
WCDMA Band IV_WCDMA					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
1312	1712.4	4.1716	1312	1712.4	4.730
1413	1732.6	4.1711	1413	1732.6	4.719
1513	1752.6	4.1731	1513	1752.6	4.733

Spectrum Plot

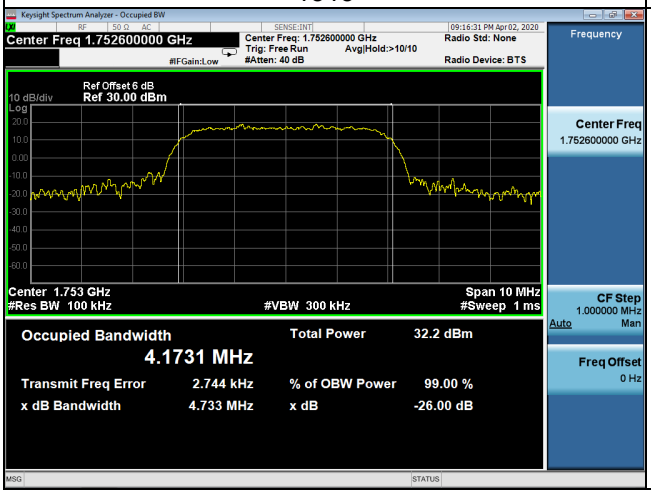
1312



1413



1513



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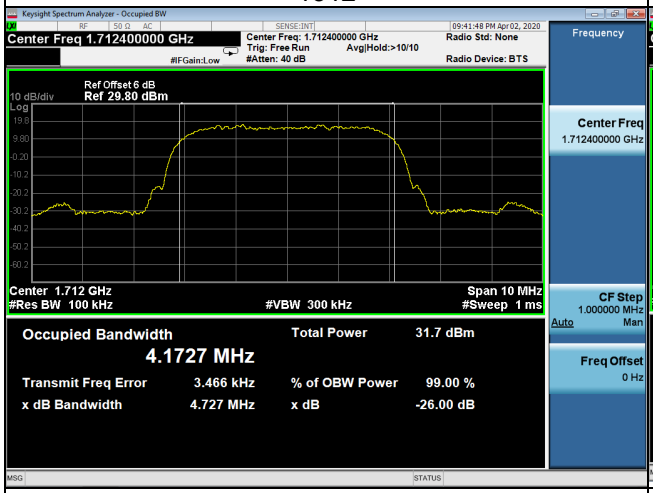
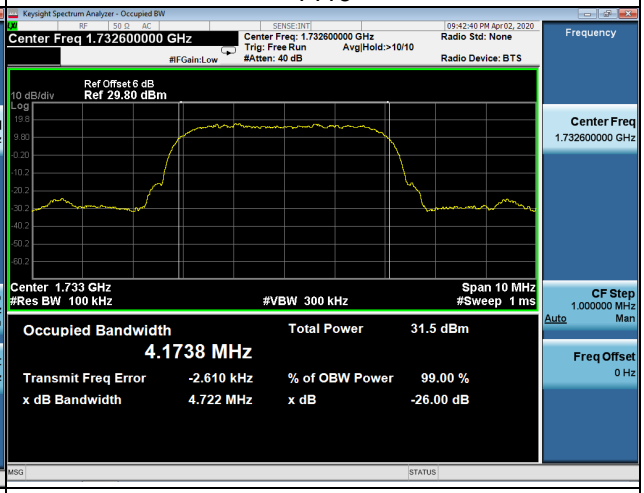
WCDMA Band IV_HSDPA					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
1312	1712.4	4.1727	1312	1712.4	4.727
1413	1732.6	4.1738	1413	1732.6	4.722
1513	1752.6	4.1772	1513	1752.6	4.723

Spectrum Plot

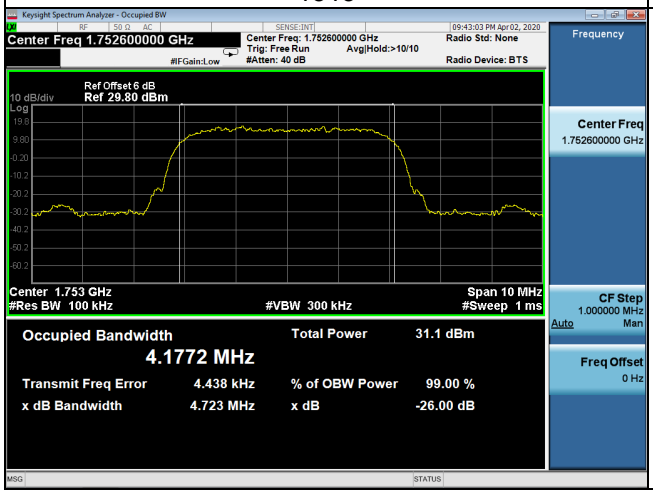
1312



1413



1513



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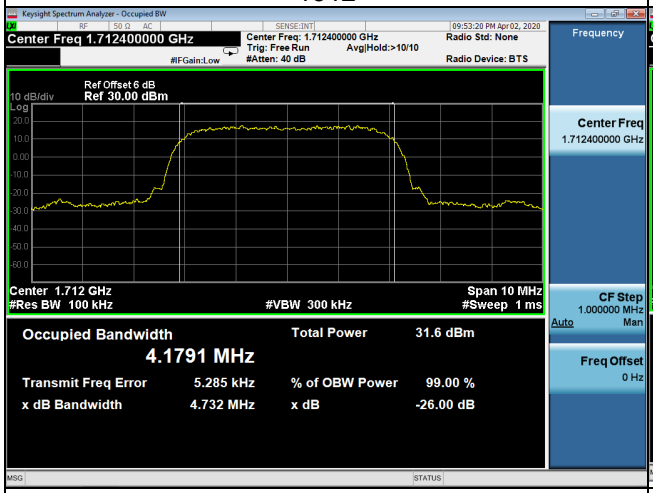
WCDMA Band IV_HSUPA					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
1312	1712.4	4.1791	1312	1712.4	4.732
1413	1732.6	4.1796	1413	1732.6	4.725
1513	1752.6	4.1813	1513	1752.6	4.733

Spectrum Plot

1312



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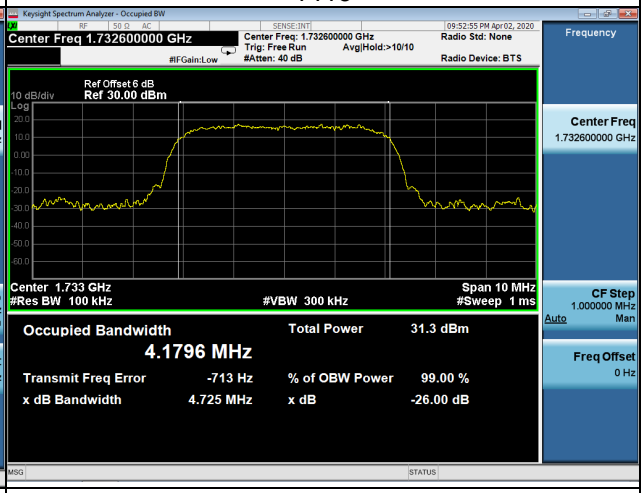
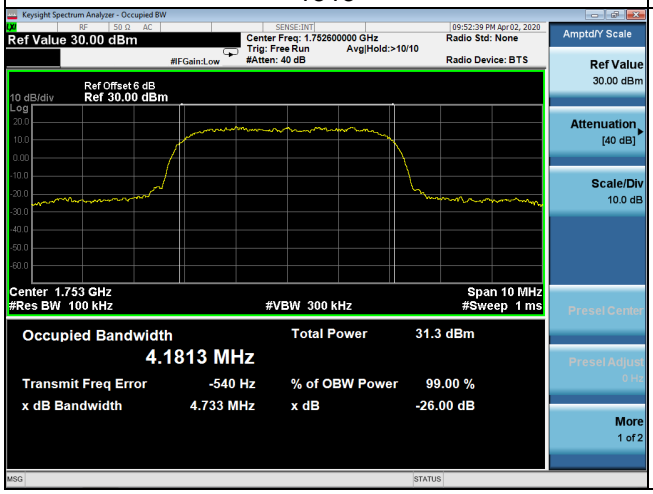


1513



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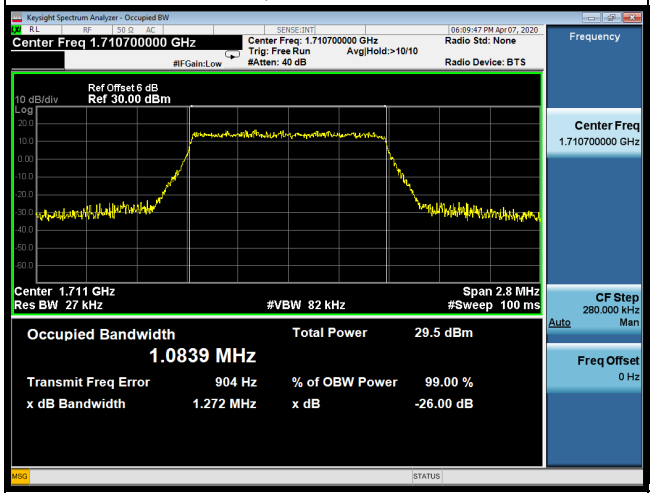
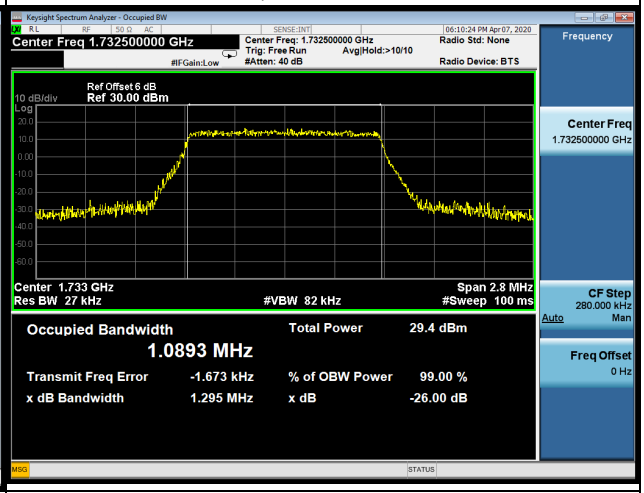
LTE Band 4_1.4M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
19957	1710.7	1.0839	19957	1710.7	1.272
20175	1732.5	1.0893	20175	1732.5	1.295
20393	1754.3	1.1020	20393	1754.3	1.306
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
19957	1710.7	1.0845	19957	1710.7	1.269
20175	1732.5	1.0869	20175	1732.5	1.279
20393	1754.3	1.0905	20393	1754.3	1.304
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
19957	1710.7	1.0850	19957	1710.7	1.312
20175	1732.5	1.0836	20175	1732.5	1.273
20393	1754.3	1.0857	20393	1754.3	1.270

Spectrum Plot

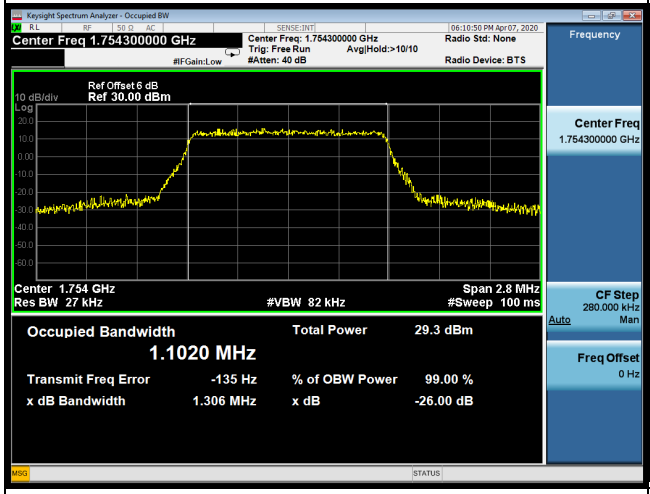
QPSK-19957



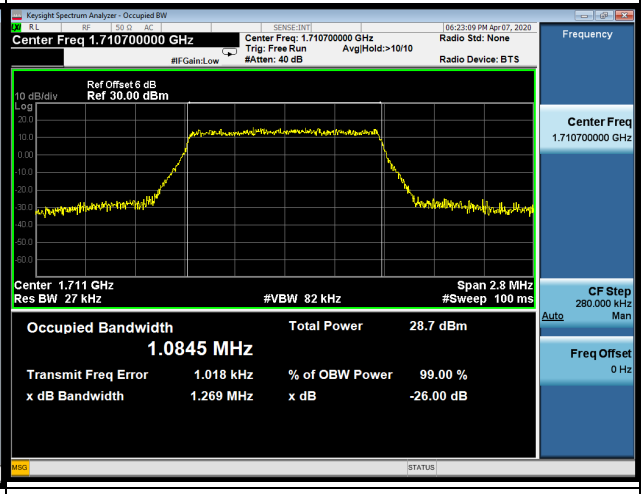
QPSK-20175



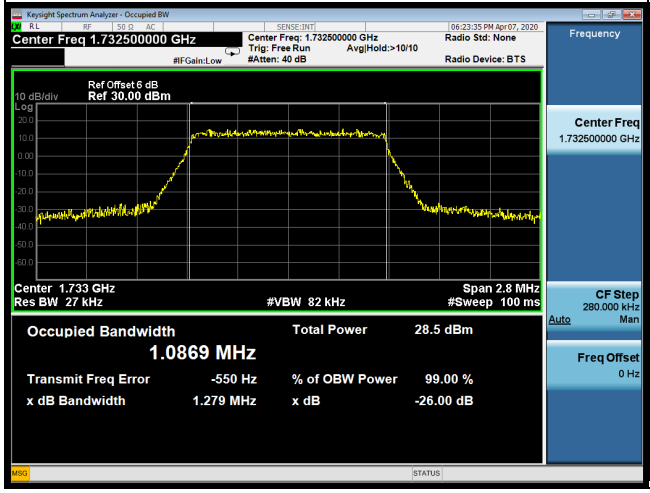
QPSK-20393



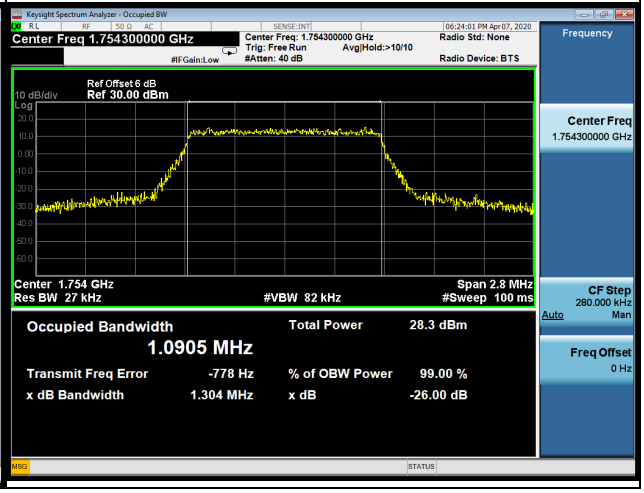
16QAM-19957

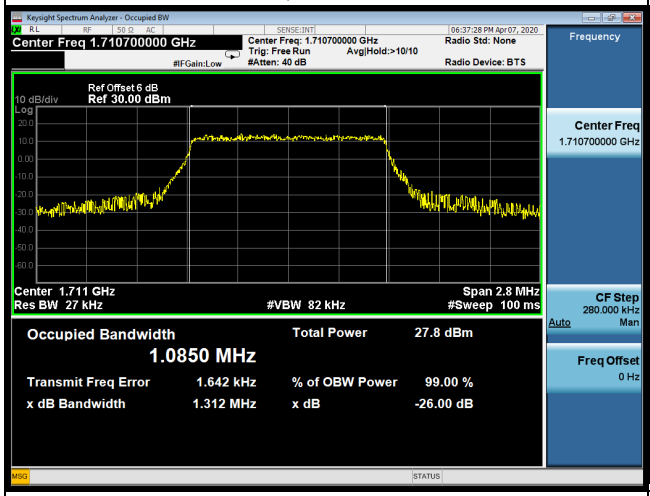
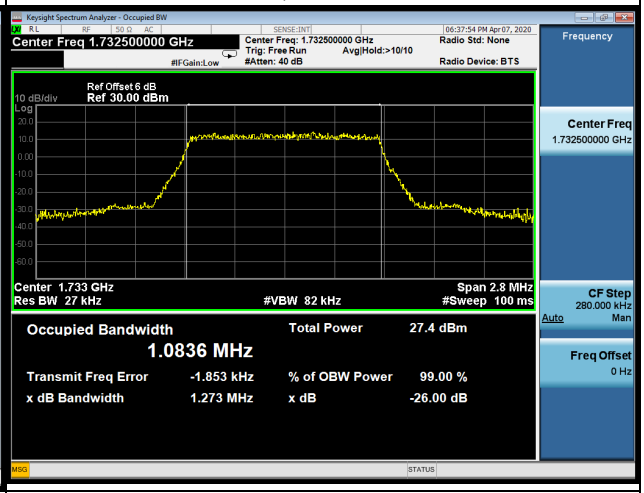
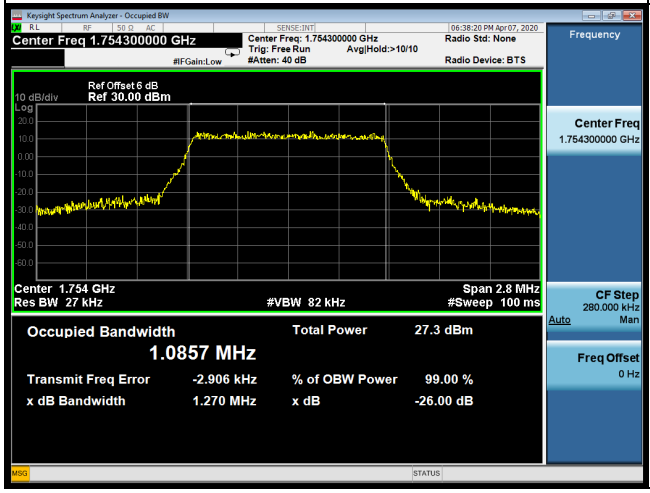


16QAM-20175

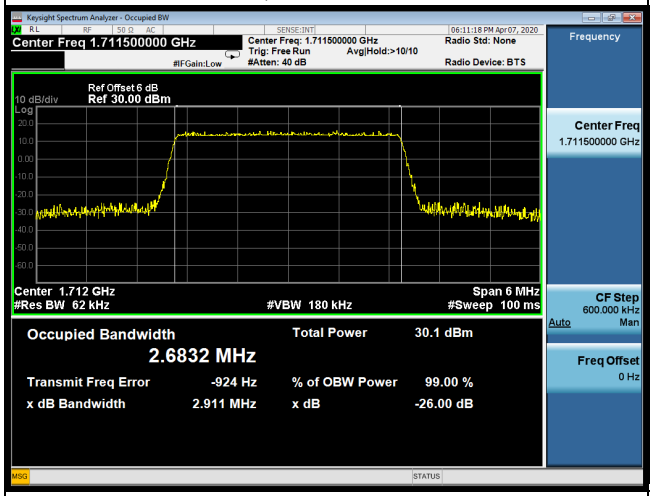
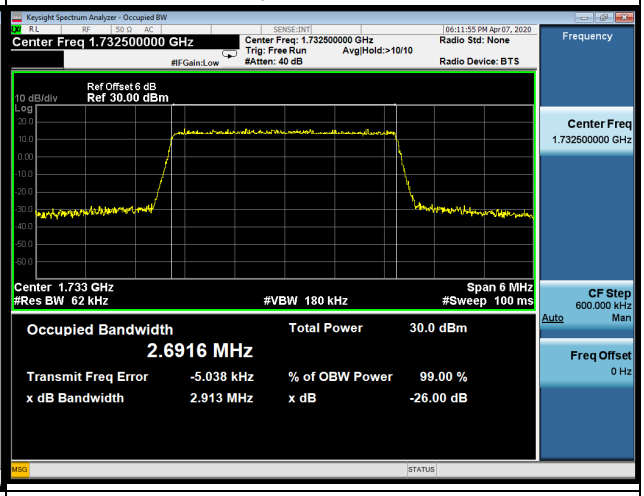
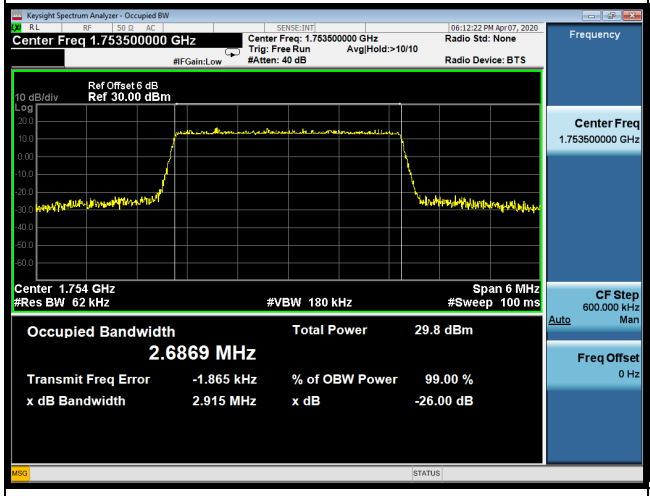
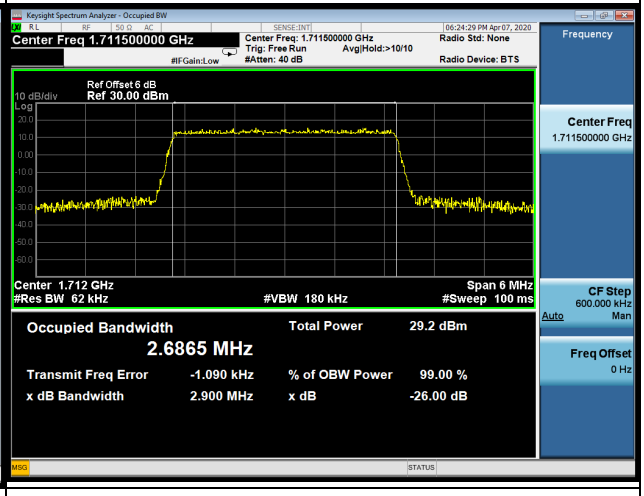
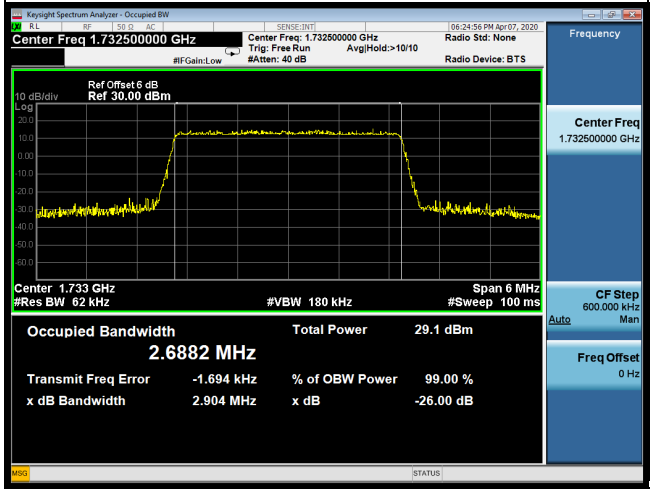
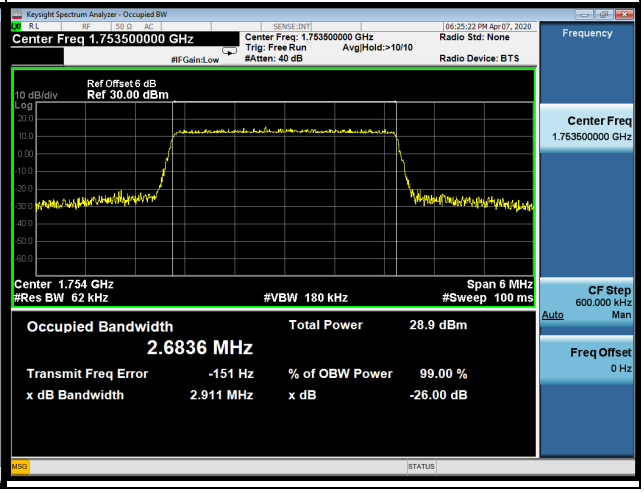


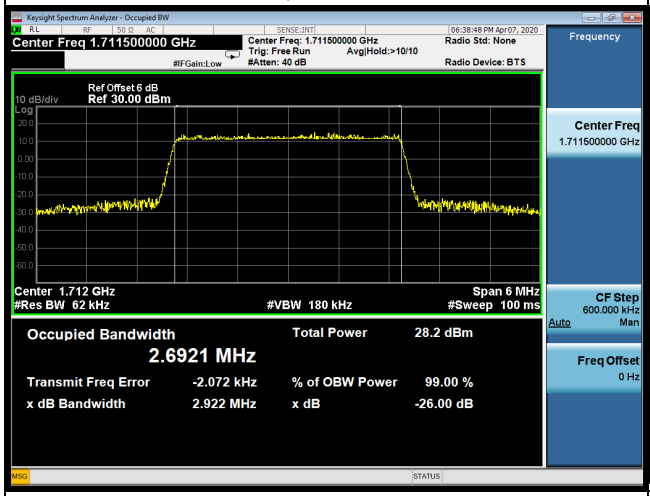
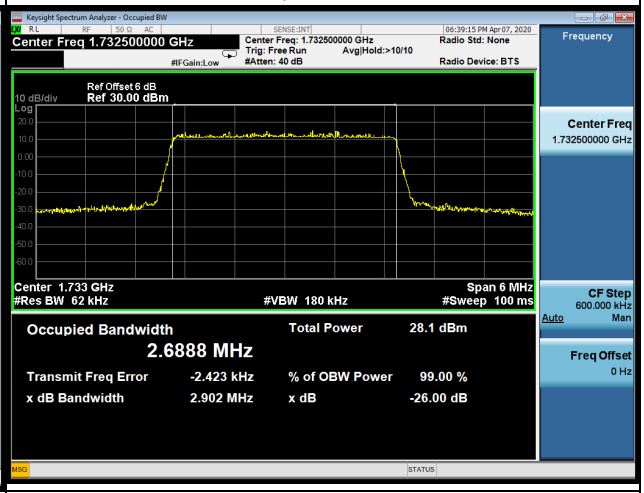
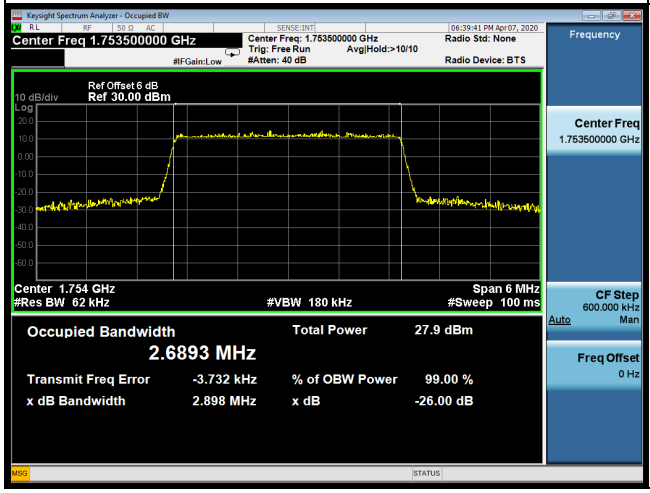
16QAM-20393



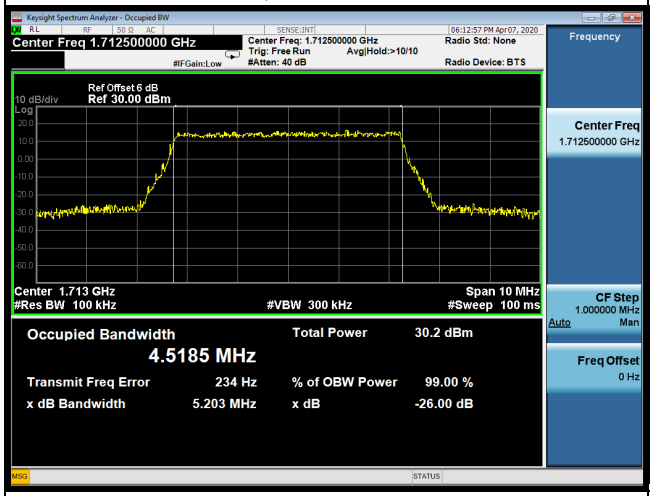
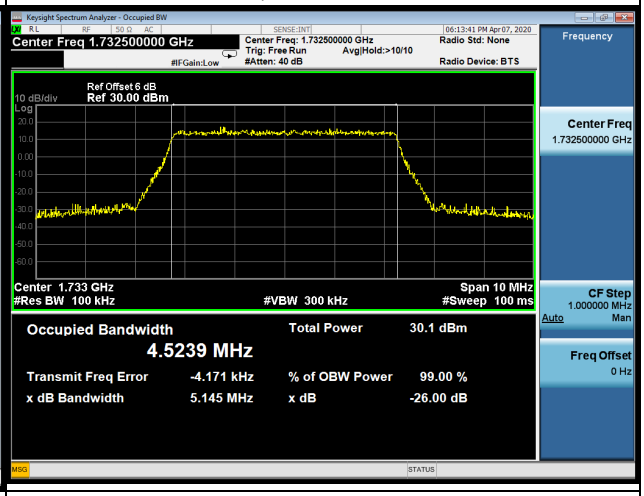
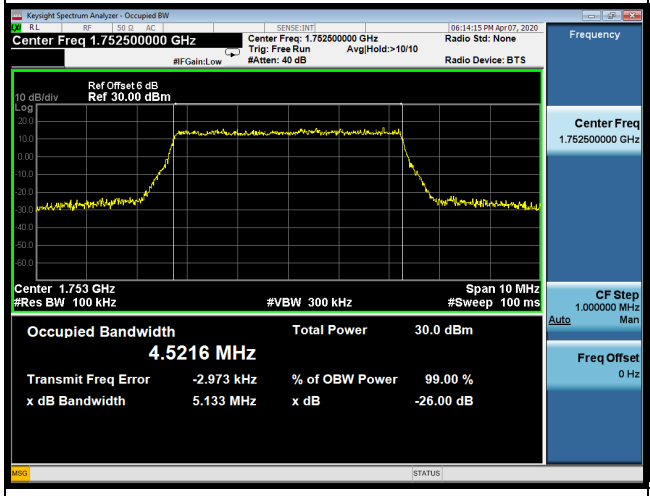
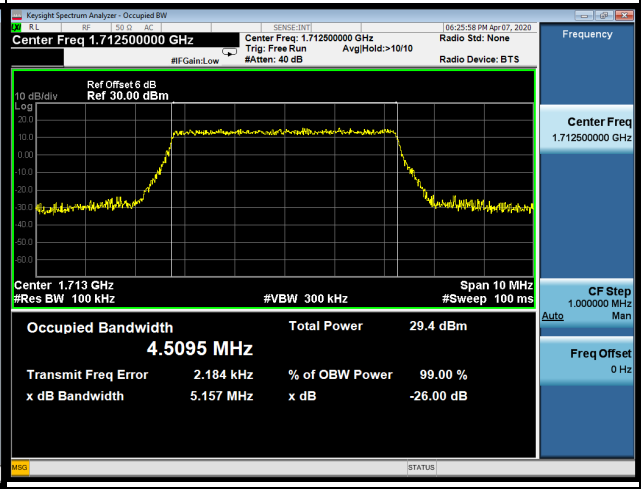
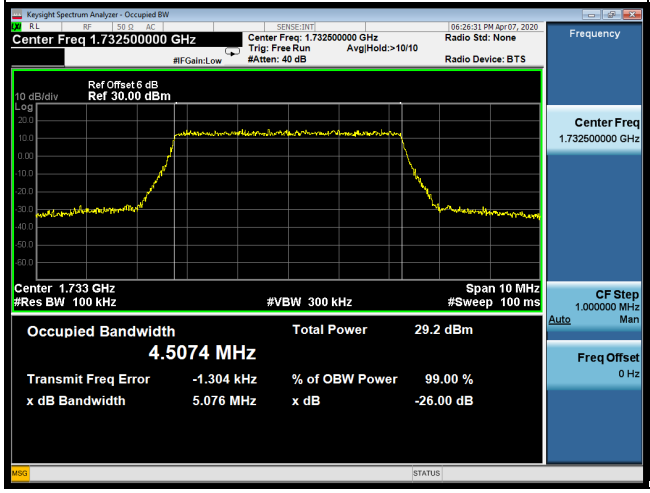
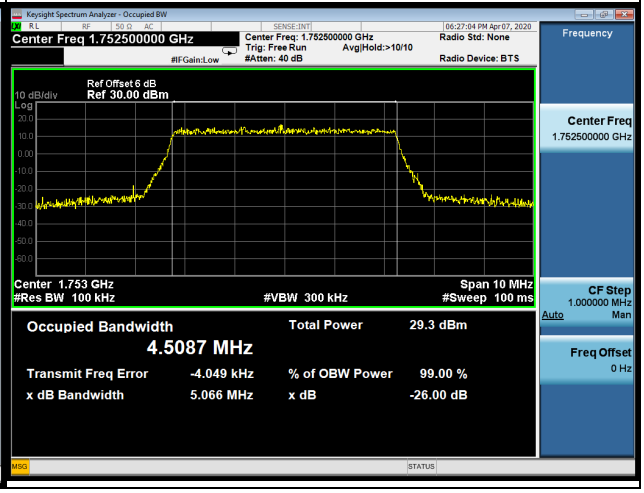
Spectrum Plot	
64QAM-19957	64QAM-20175
	
64QAM-20393	-
	-

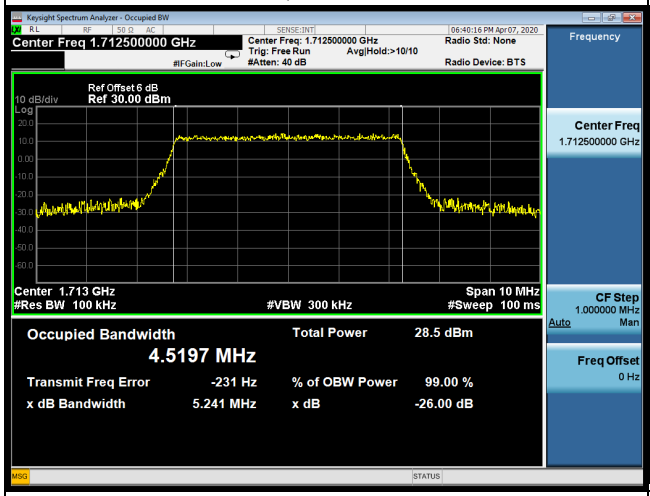
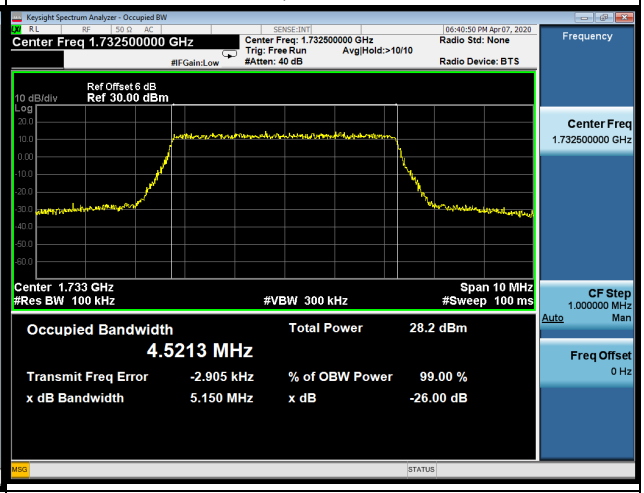
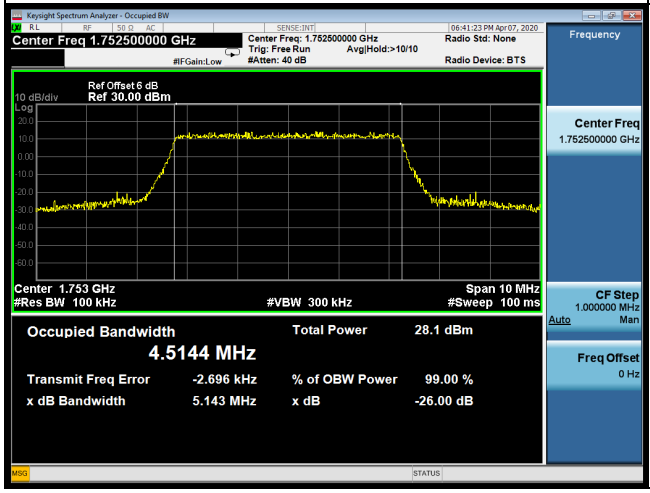
LTE Band 4_3M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
19965	1711.5	2.6832	19965	1711.5	2.911
20175	1732.5	2.6916	20175	1732.5	2.913
20385	1753.5	2.6869	20385	1753.5	2.915
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
19965	1711.5	2.6865	19965	1711.5	2.900
20175	1732.5	2.6882	20175	1732.5	2.904
20385	1753.5	2.6836	20385	1753.5	2.911
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
19965	1711.5	2.6921	19965	1711.5	2.922
20175	1732.5	2.6888	20175	1732.5	2.902
20385	1753.5	2.6893	20385	1753.5	2.898

Spectrum Plot	
QPSK-19965	QPSK-20175
	
QPSK-20385	16QAM-19965
	
16QAM-20175	16QAM-20385
	

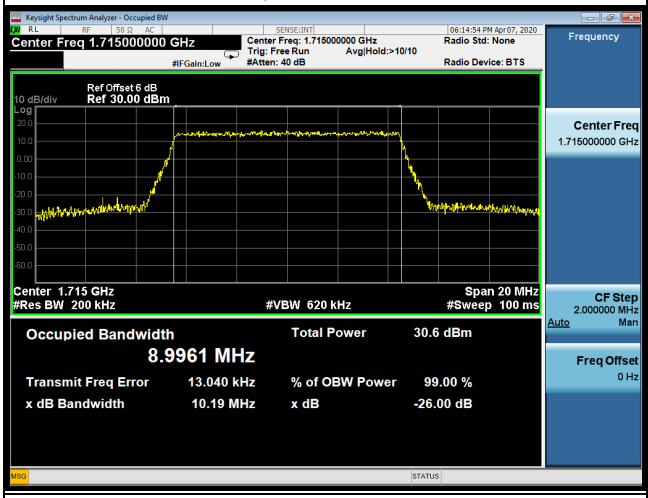
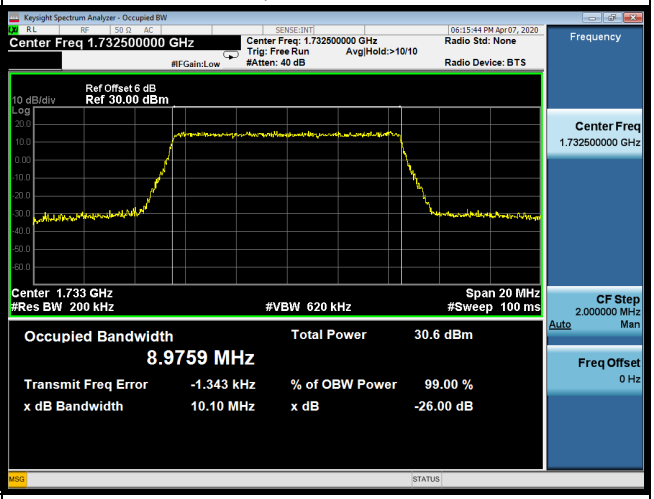
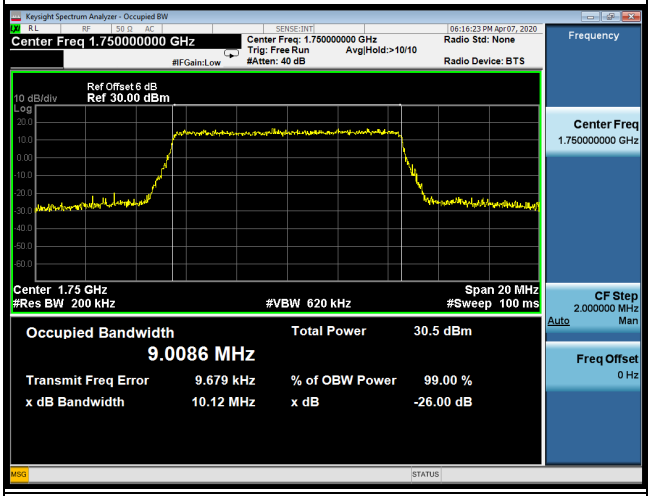
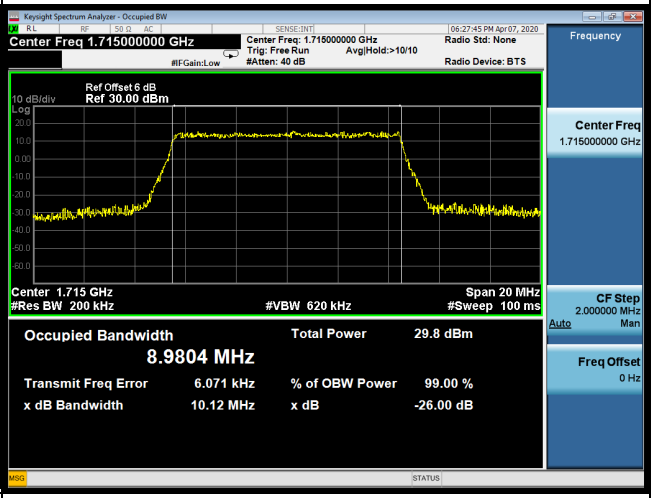
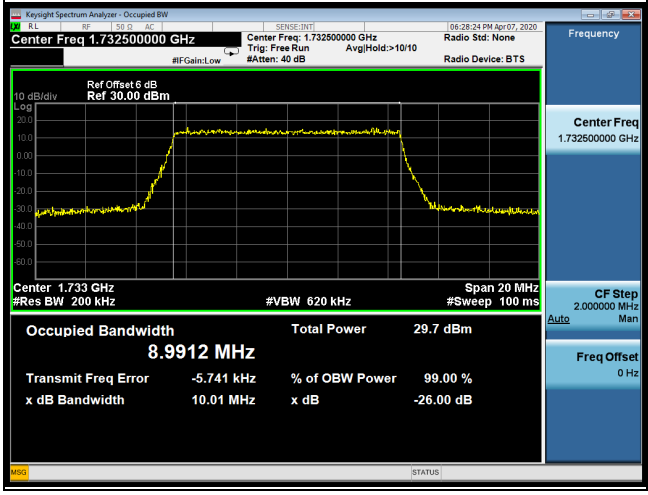
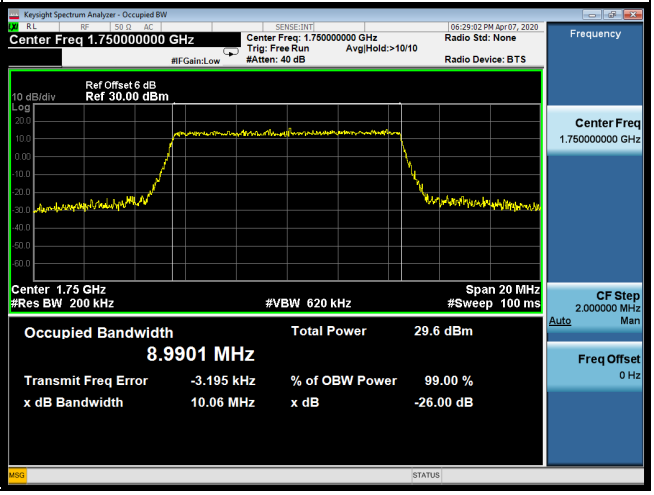
Spectrum Plot	
64QAM-19965	64QAM-20175
	
64QAM-20385	-
	-

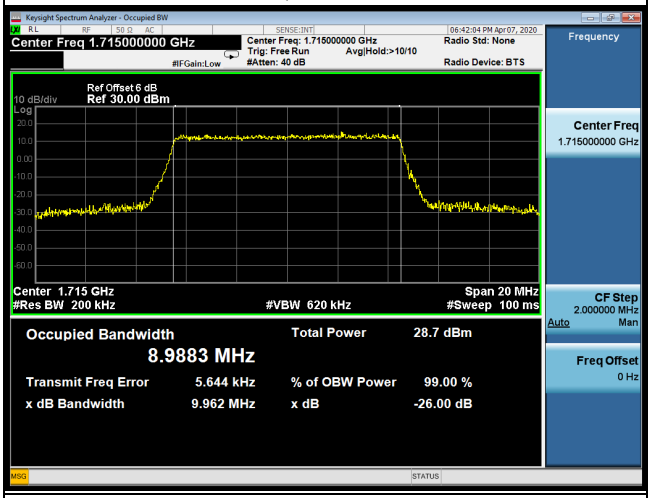
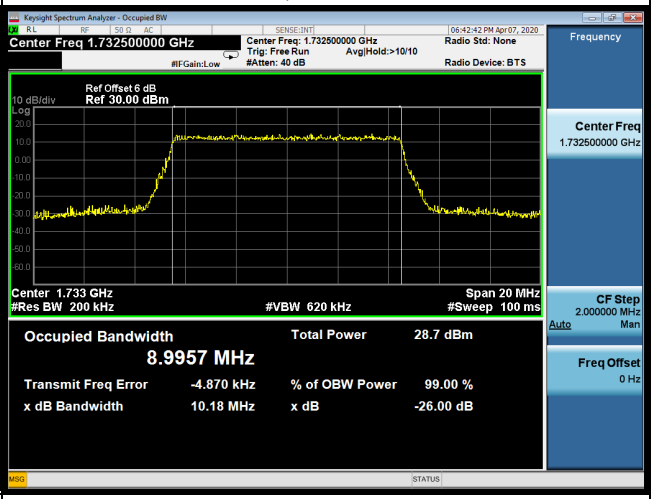
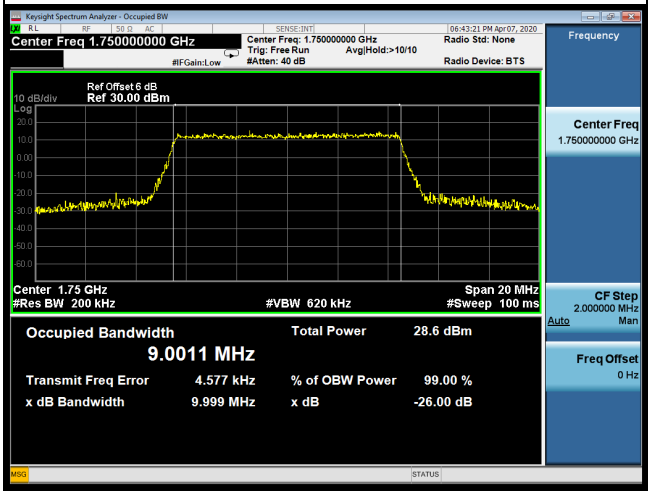
LTE Band 4_5M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
19975	1712.5	4.5185	19975	1712.5	5.203
20175	1732.5	4.5239	20175	1732.5	5.145
20375	1752.5	4.5216	20375	1752.5	5.133
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
19975	1712.5	4.5095	19975	1712.5	5.157
20175	1732.5	4.5074	20175	1732.5	5.076
20375	1752.5	4.5087	20375	1752.5	5.066
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
19975	1712.5	4.5197	19975	1712.5	5.241
20175	1732.5	4.5213	20175	1732.5	5.150
20375	1752.5	4.5144	20375	1752.5	5.143

Spectrum Plot	
QPSK-19975	QPSK-20175
	
QPSK-20375	16QAM-19975
	
16QAM-20175	16QAM-20375
	

Spectrum Plot	
64QAM-19975	64QAM-20175
	
64QAM-20375	-
	-

LTE Band 4_10M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20000	1715	8.9961	20000	1715	10.19
20175	1732.5	8.9759	20175	1732.5	10.10
20350	1750	9.0086	20350	1750	10.12
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20000	1715	8.9804	20000	1715	10.12
20175	1732.5	8.9912	20175	1732.5	10.01
20350	1750	8.9901	20350	1750	10.06
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20000	1715	8.9883	20000	1715	9.962
20175	1732.5	8.9957	20175	1732.5	10.18
20350	1750	9.0011	20350	1750	9.999

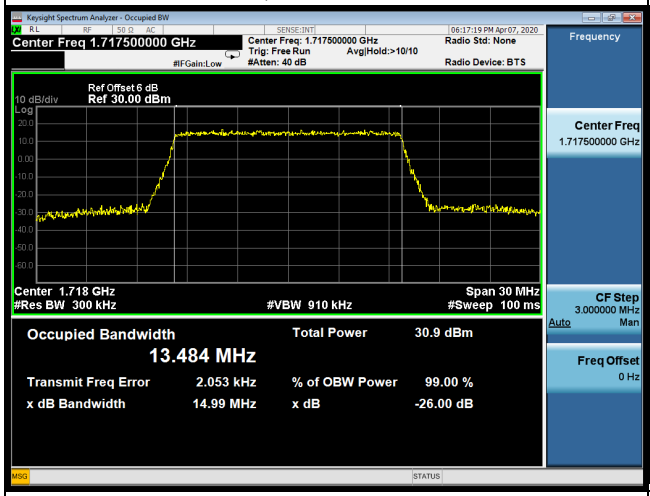
Spectrum Plot	
QPSK-20000	QPSK-20175
	
QPSK-20350	16QAM-20000
	
16QAM-20175	16QAM-20350
	

Spectrum Plot	
64QAM-20000	64QAM-20175
	
64QAM-20350	-
	-

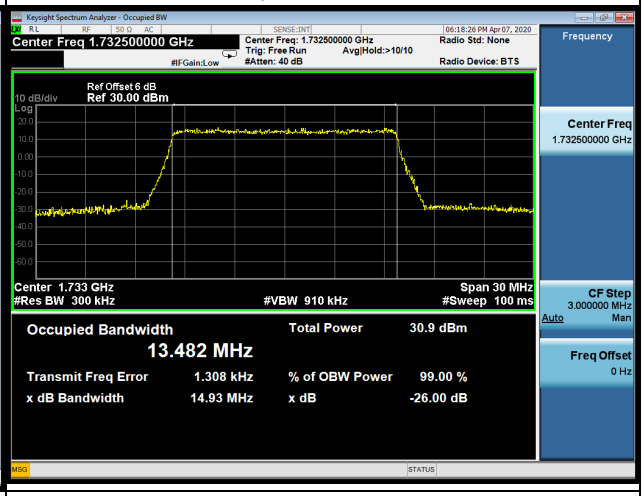
LTE Band 4_15M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20025	1717.5	13.484	20025	1717.5	14.99
20175	1732.5	13.482	20175	1732.5	14.93
20325	1747.5	13.470	20325	1747.5	14.94
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20025	1717.5	13.477	20025	1717.5	14.80
20175	1732.5	13.468	20175	1732.5	14.94
20325	1747.5	13.463	20325	1747.5	14.95
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20025	1717.5	13.468	20025	1717.5	14.89
20175	1732.5	13.498	20175	1732.5	15.03
20325	1747.5	13.474	20325	1747.5	14.97

Spectrum Plot

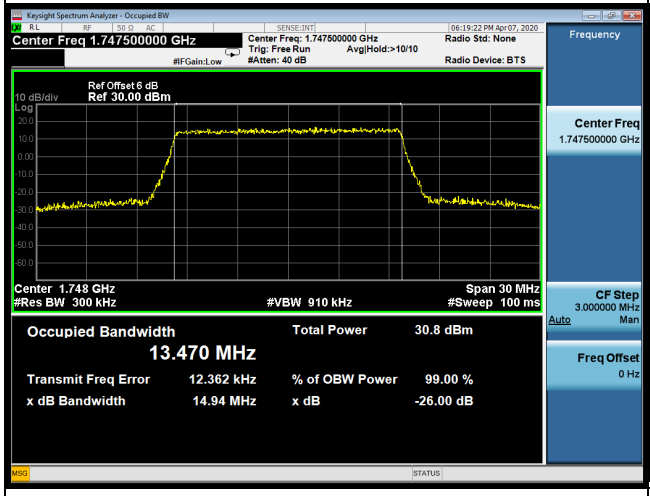
QPSK-20025



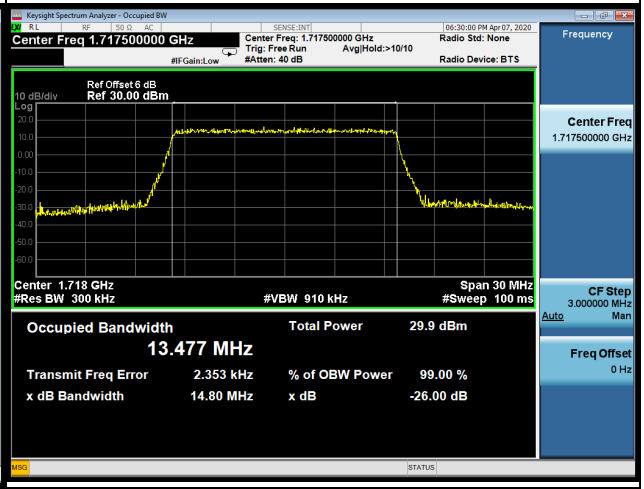
QPSK-20175



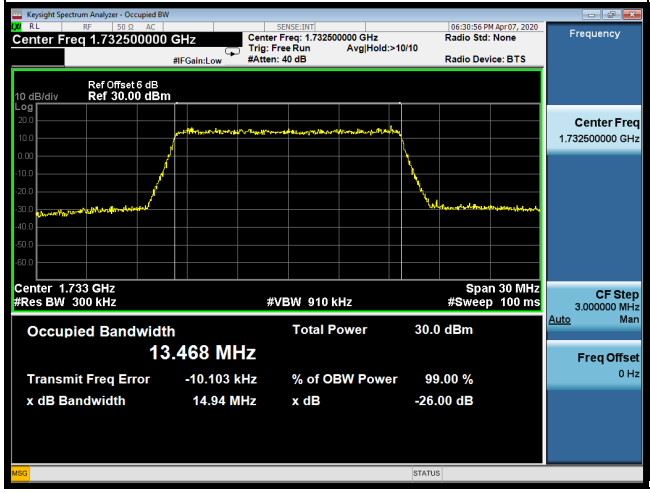
QPSK-20325



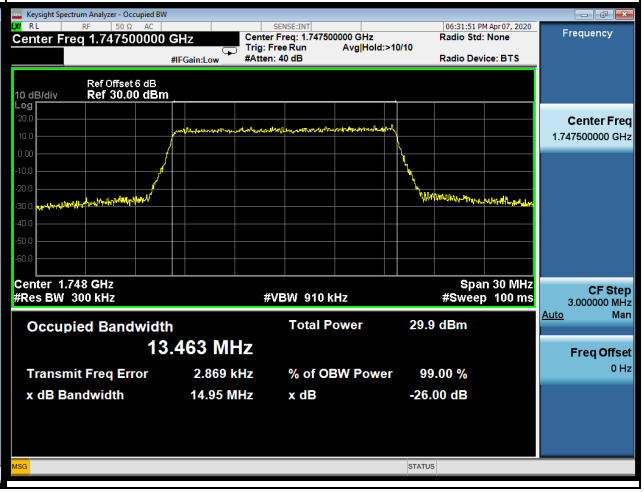
16QAM-20025

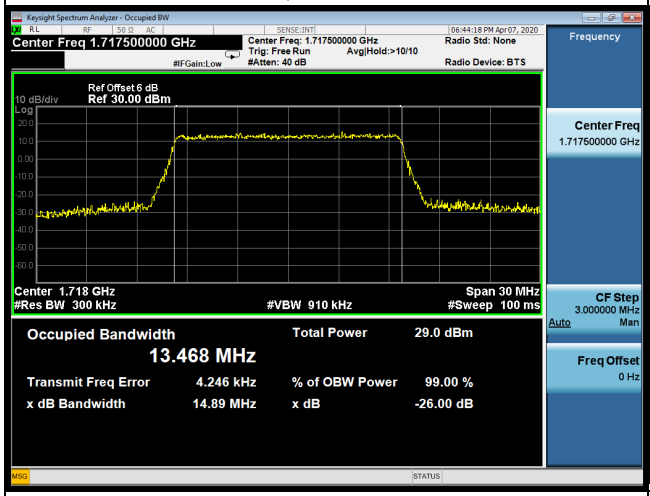
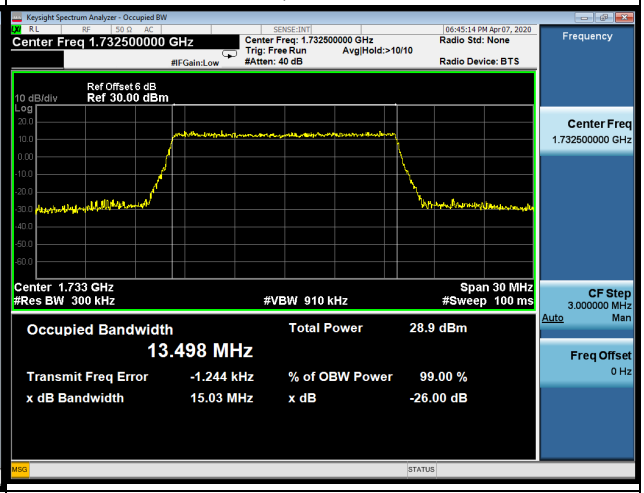
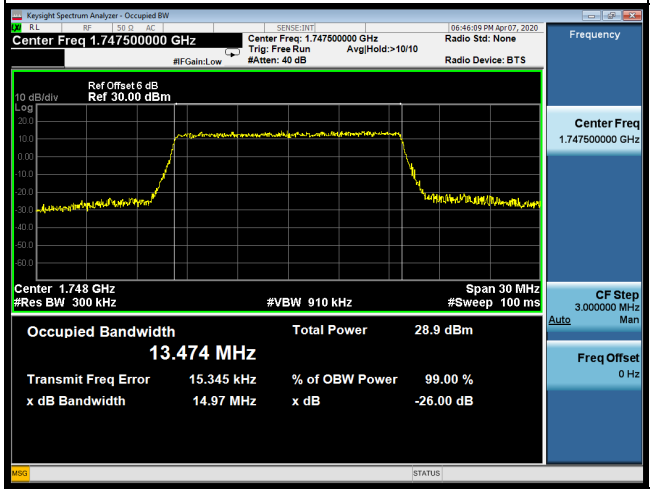


16QAM-20175

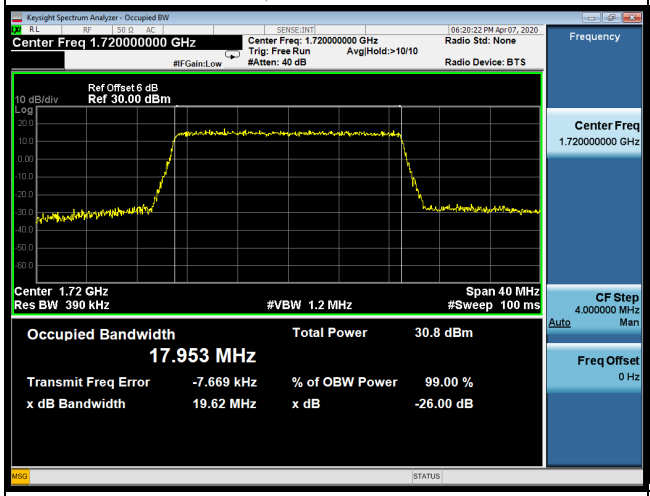
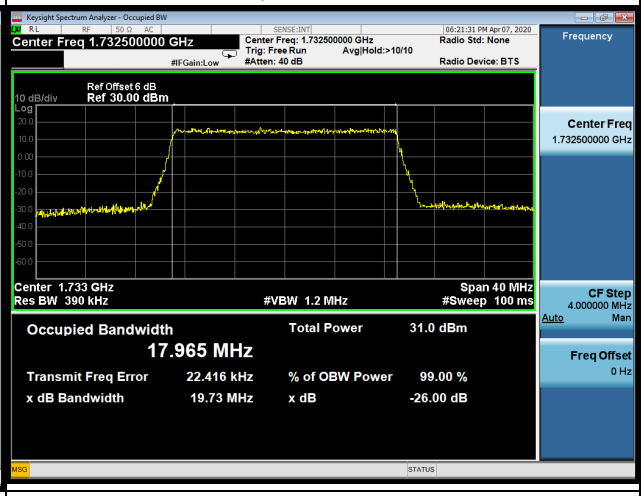
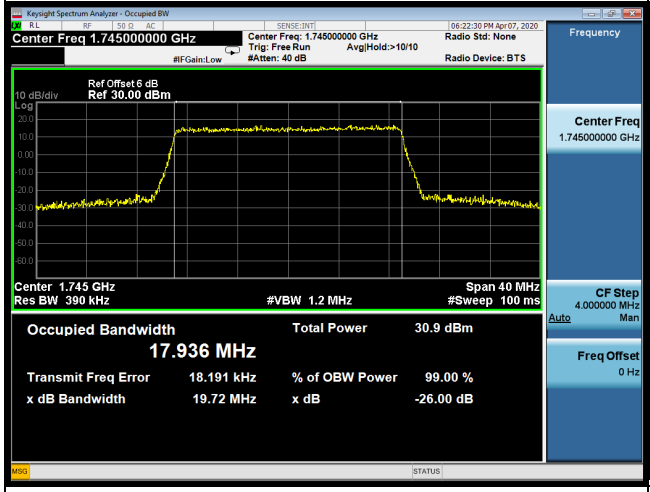
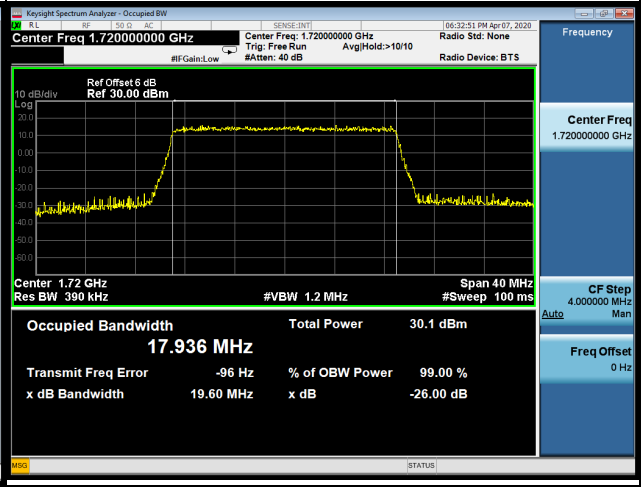
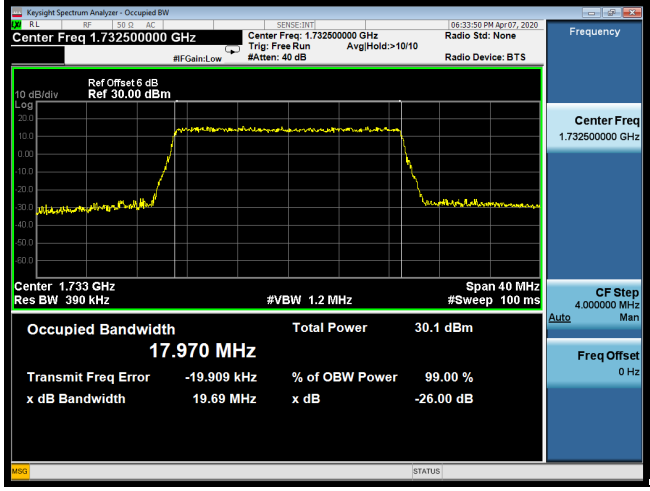
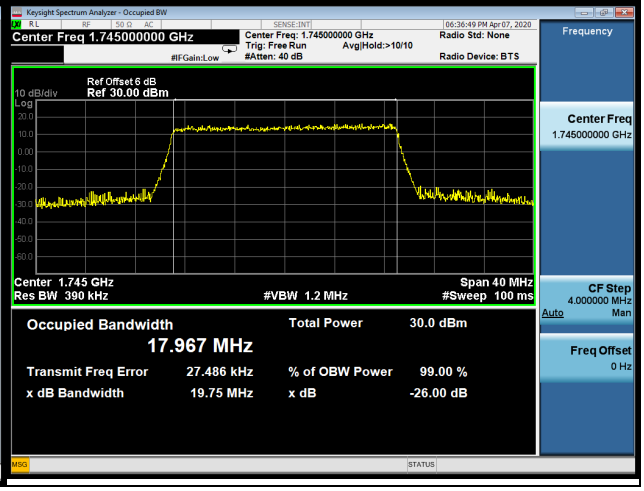


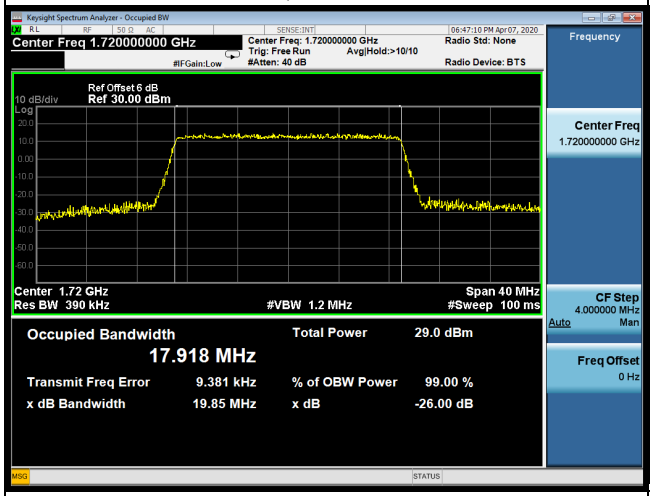
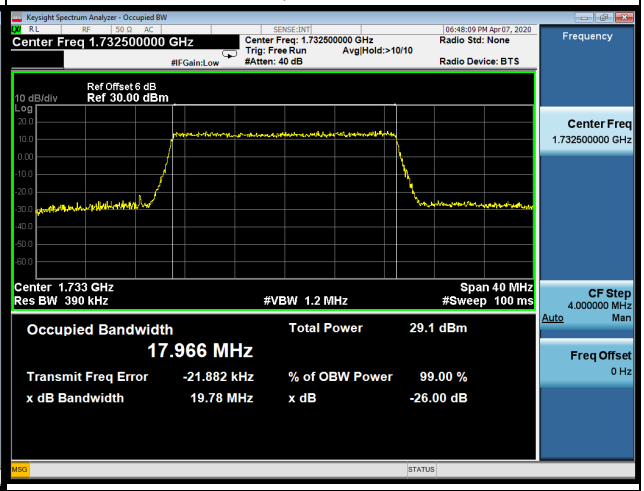
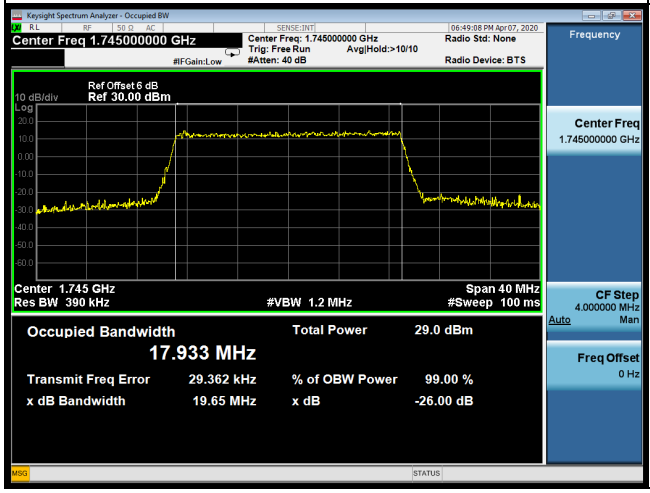
16QAM-20325



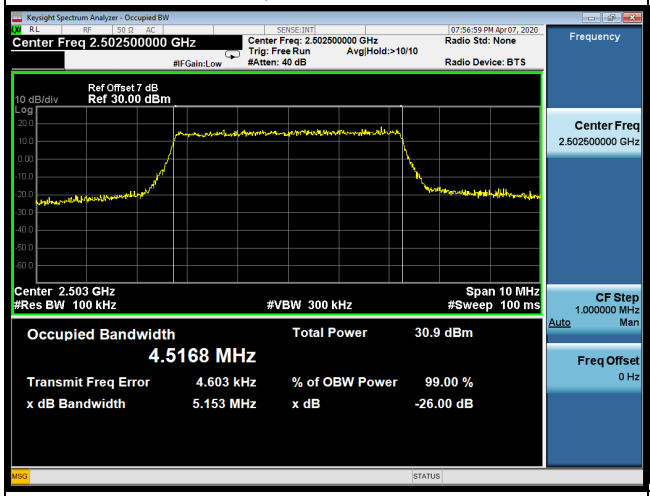
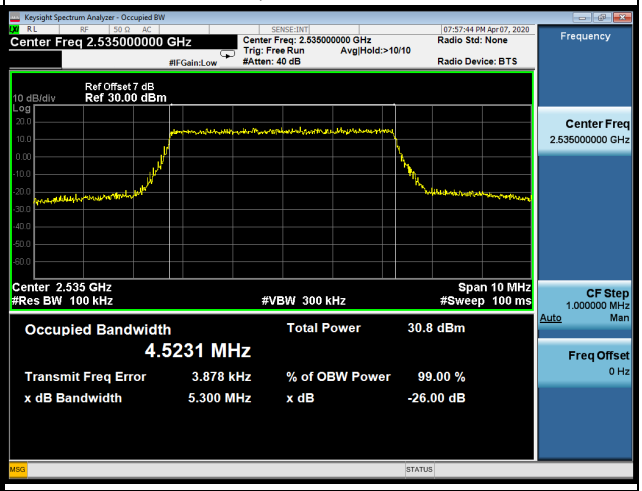
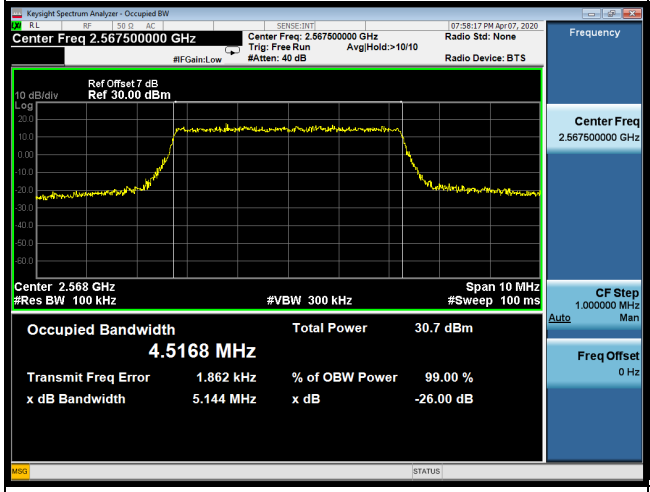
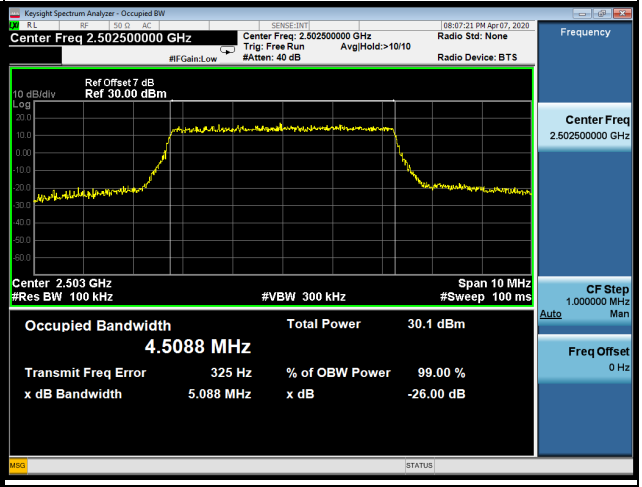
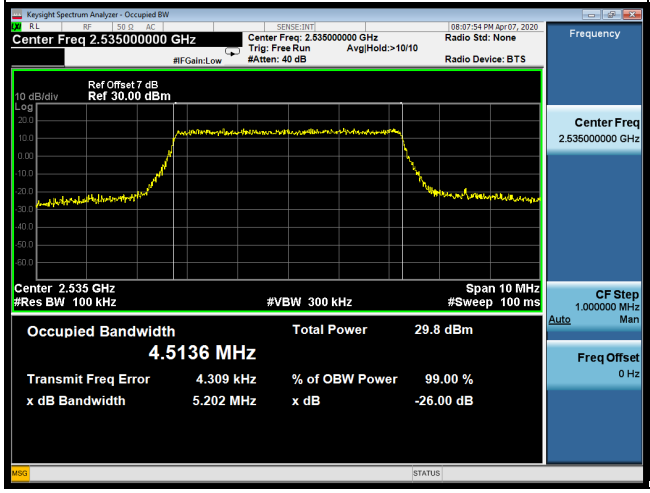
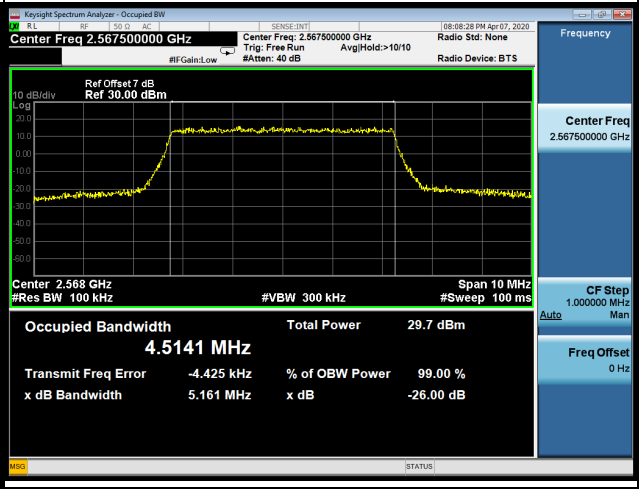
Spectrum Plot	
64QAM-20025	64QAM-20175
	
64QAM-20325	-
	-

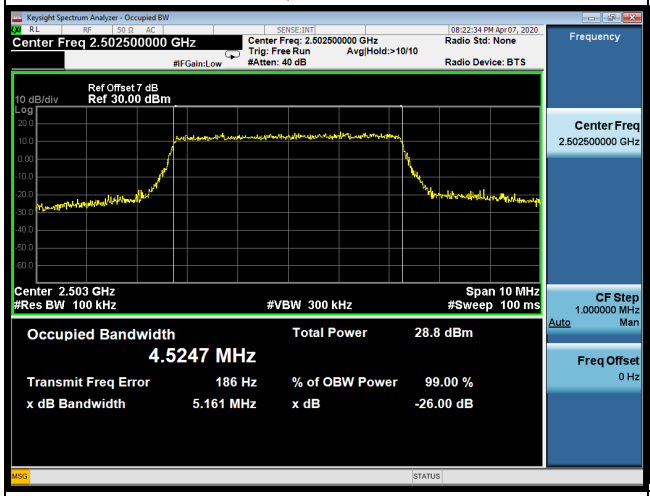
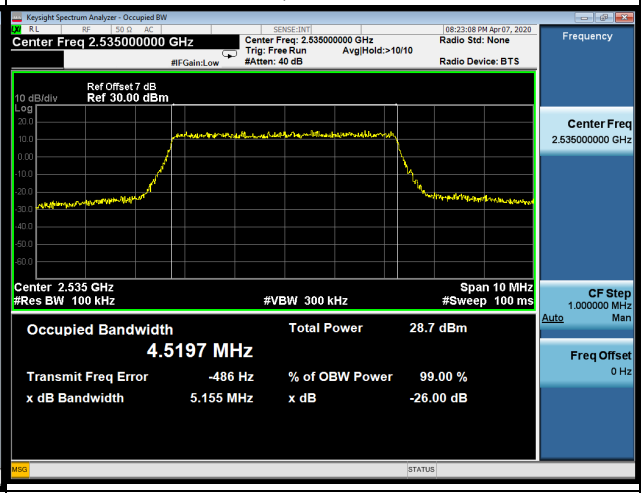
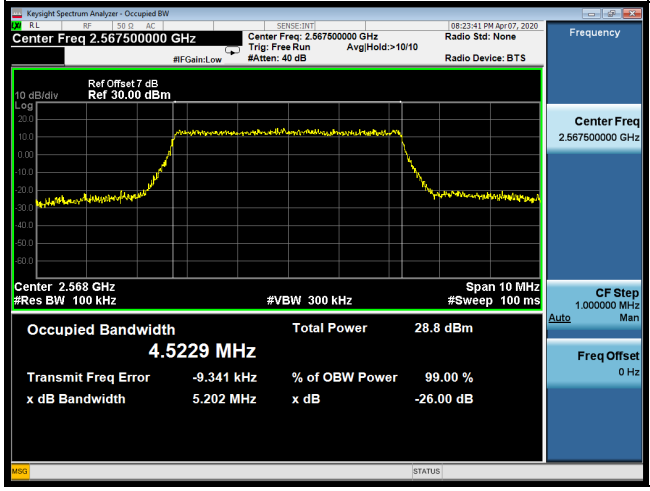
LTE Band 4_20M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20050	1720	17.953	20050	1720	19.62
20175	1732.5	17.965	20175	1732.5	19.73
20300	1745	17.936	20300	1745	19.72
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20050	1720	17.936	20050	1720	19.60
20175	1732.5	17.970	20175	1732.5	19.69
20300	1745	17.967	20300	1745	19.75
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20050	1720	17.918	20050	1720	19.85
20175	1732.5	17.966	20175	1732.5	19.78
20300	1745	17.933	20300	1745	19.65

Spectrum Plot	
QPSK-20050	QPSK-20175
	
QPSK-20300	16QAM-20050
	
16QAM-20175	16QAM-20300
	

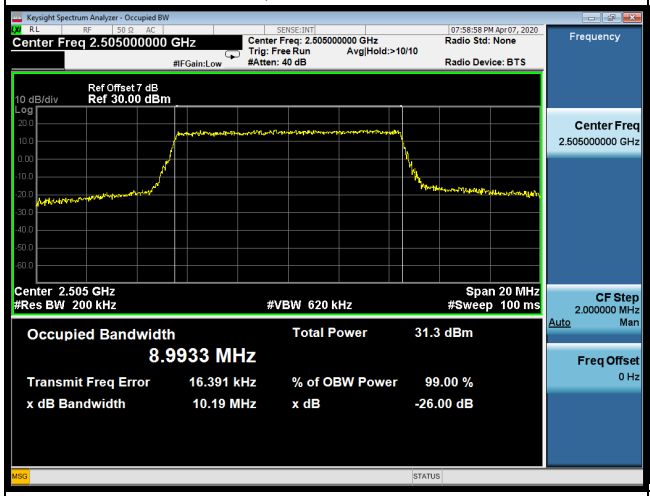
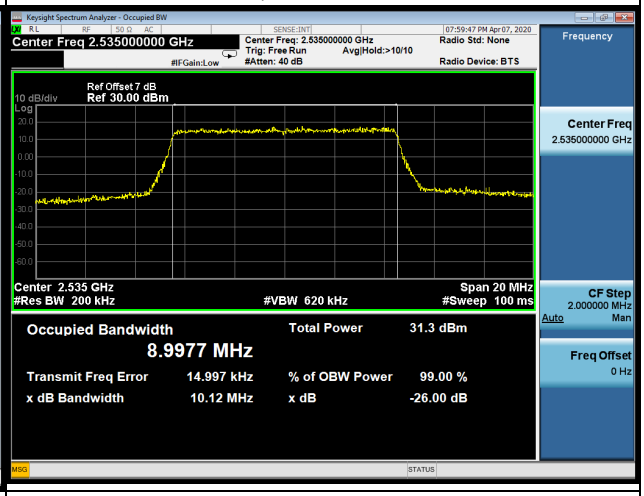
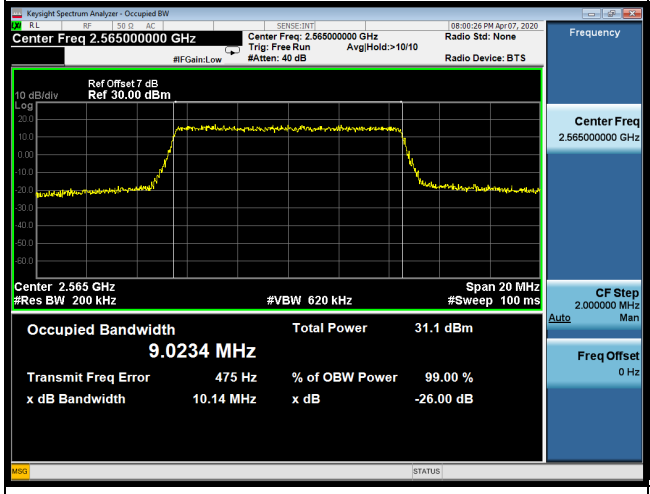
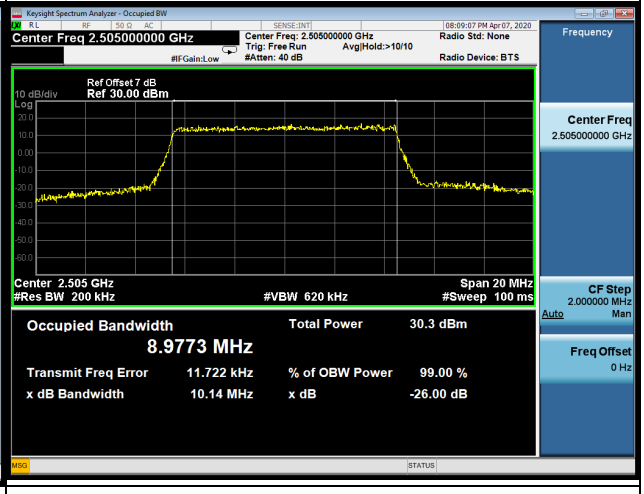
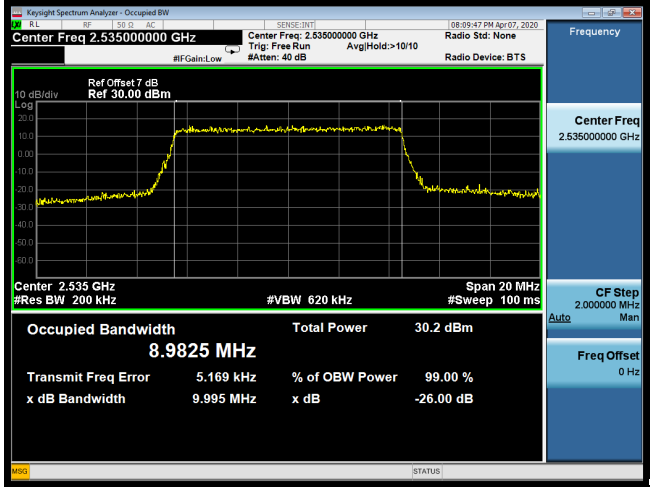
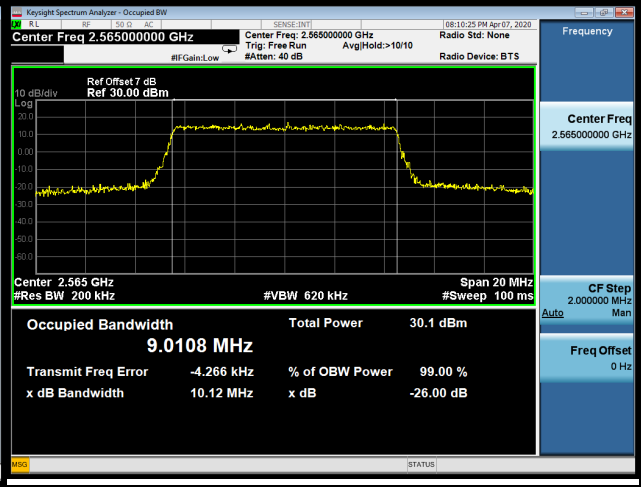
Spectrum Plot	
64QAM-20050	64QAM-20175
	
64QAM-20300	-
	-

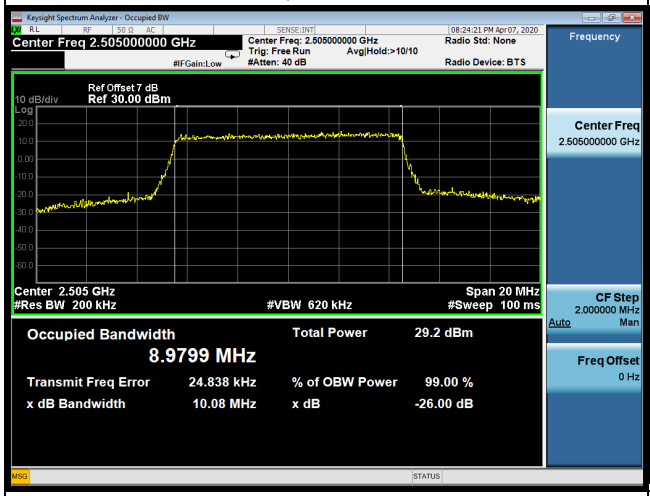
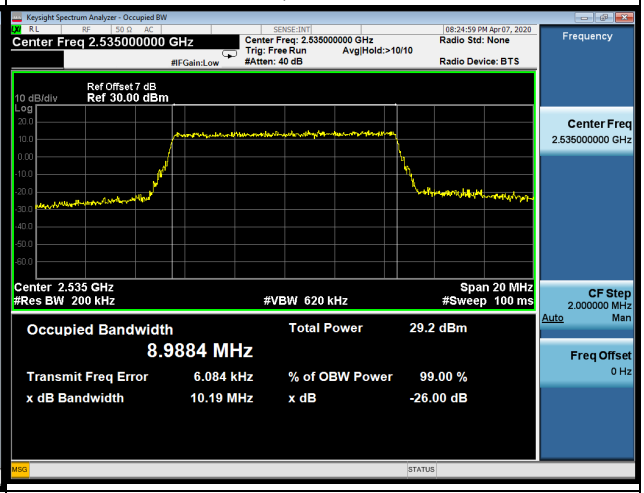
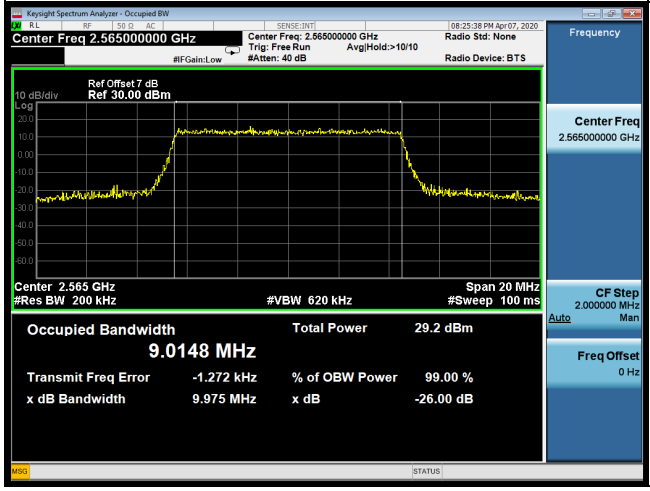
LTE Band 7_5M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20775	2502.5	4.5168	20775	2502.5	5.153
21100	2535	4.5231	21100	2535	5.300
21425	2567.5	4.5168	21425	2567.5	5.144
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20775	2502.5	4.5088	20775	2502.5	5.088
21100	2535	4.5136	21100	2535	5.202
21425	2567.5	4.5141	21425	2567.5	5.161
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20775	2502.5	4.5247	20775	2502.5	5.161
21100	2535	4.5197	21100	2535	5.155
21425	2567.5	4.5229	21425	2567.5	5.202

Spectrum Plot	
QPSK-20775	QPSK-21100
	
QPSK-21425	16QAM-20775
	
16QAM-21100	16QAM-21425
	

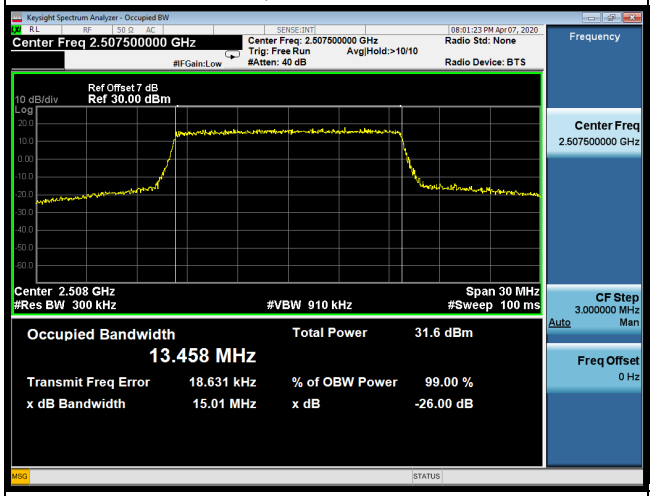
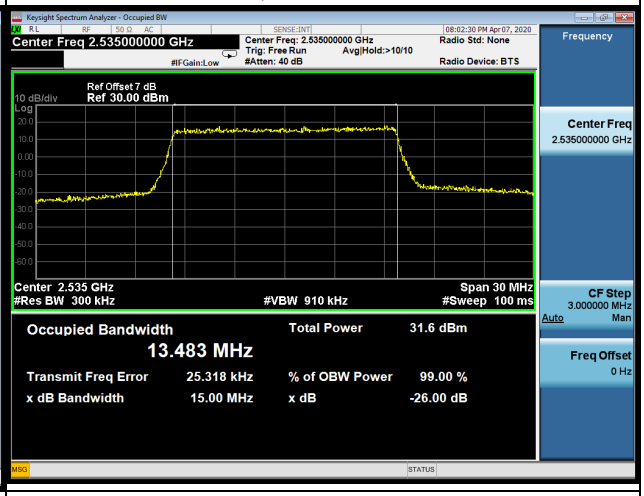
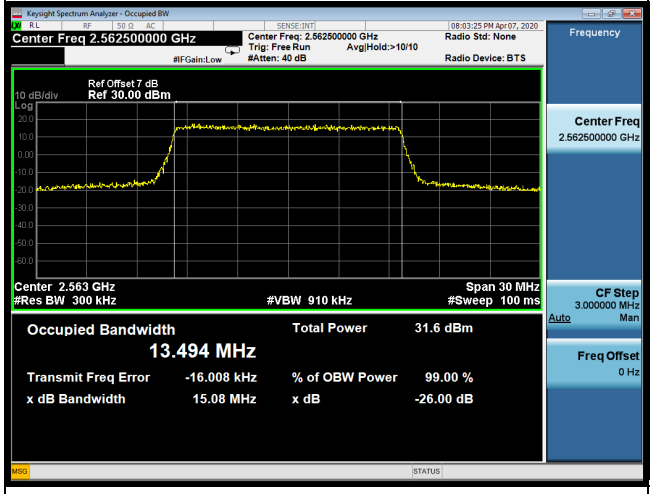
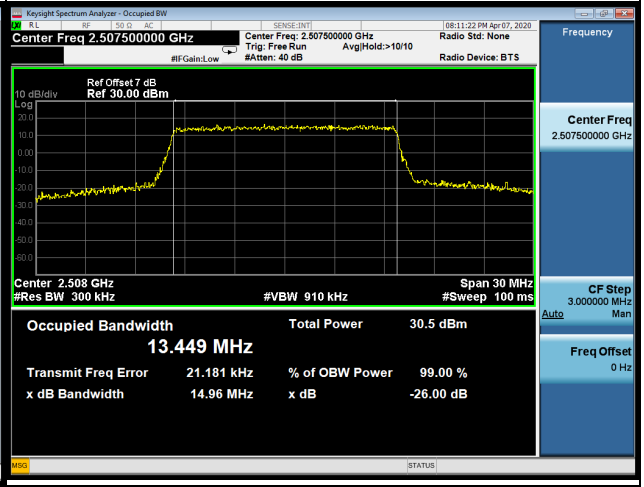
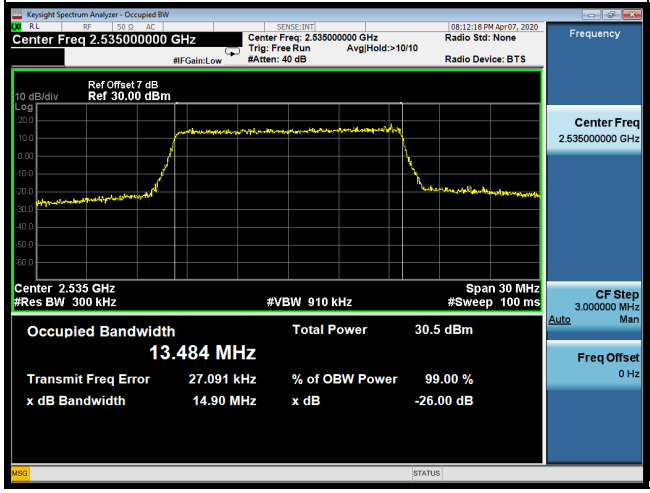
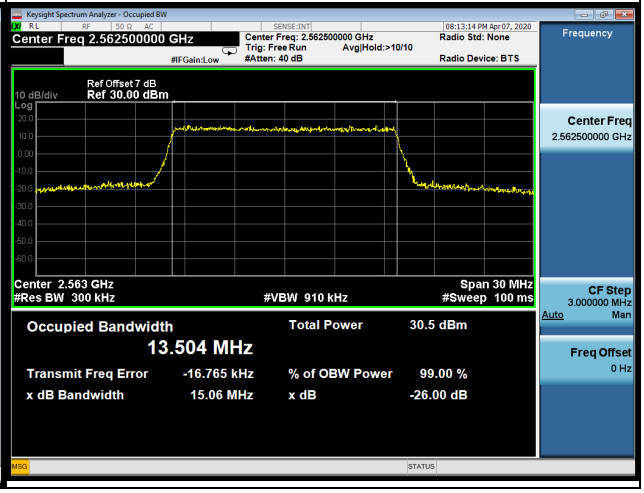
Spectrum Plot	
64QAM-20775	64QAM-21100
	
64QAM-21425	-
	-

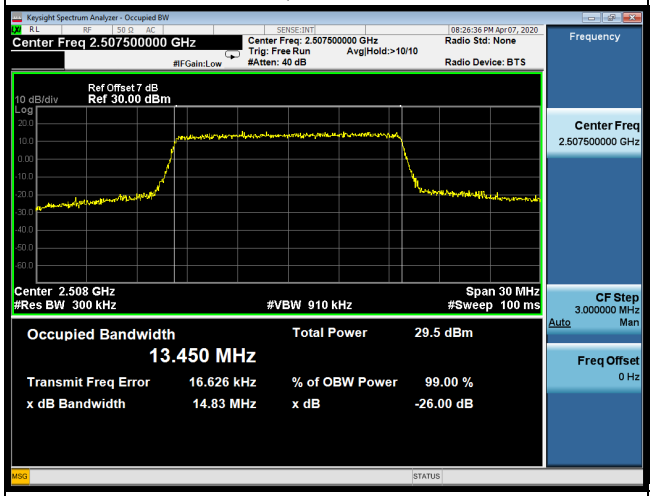
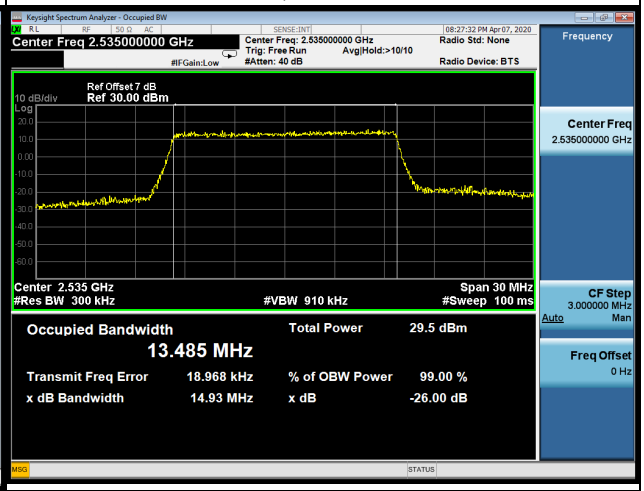
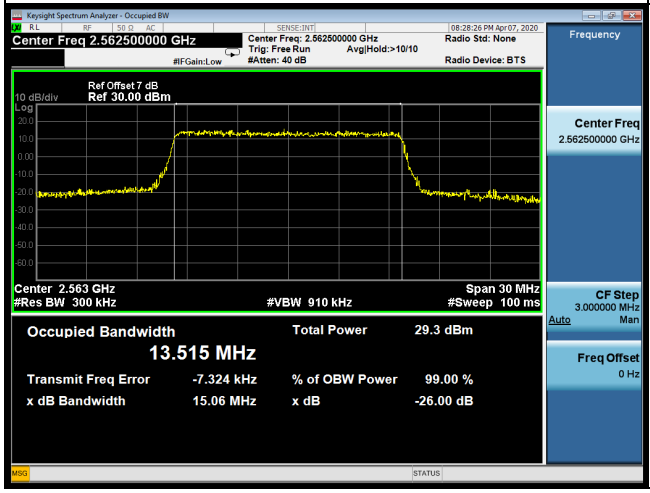
LTE Band 7_10M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20800	2505	8.9933	20800	2505	10.19
21100	2535	8.9977	21100	2535	10.12
21400	2565	9.0234	21400	2565	10.14
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20800	2505	8.9773	20800	2505	10.14
21100	2535	8.9825	21100	2535	9.995
21400	2565	9.0108	21400	2565	10.12
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20800	2505	8.9799	20800	2505	10.08
21100	2535	8.9884	21100	2535	10.19
21400	2565	9.0148	21400	2565	9.975

Spectrum Plot	
QPSK-20800	QPSK-21100
	
QPSK-21400	16QAM-20800
	
16QAM-21100	16QAM-21400
	

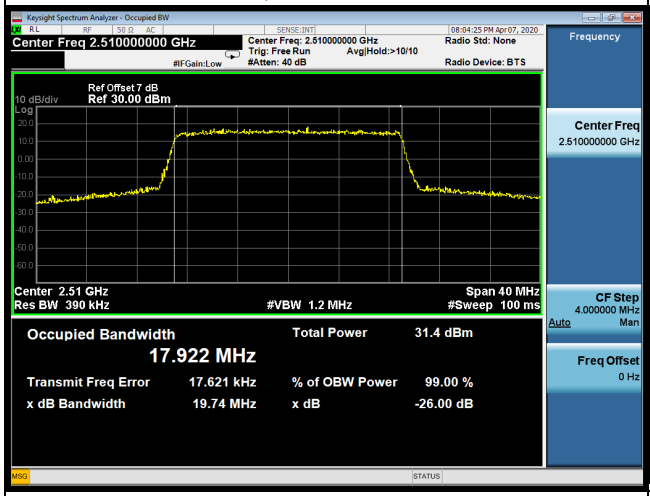
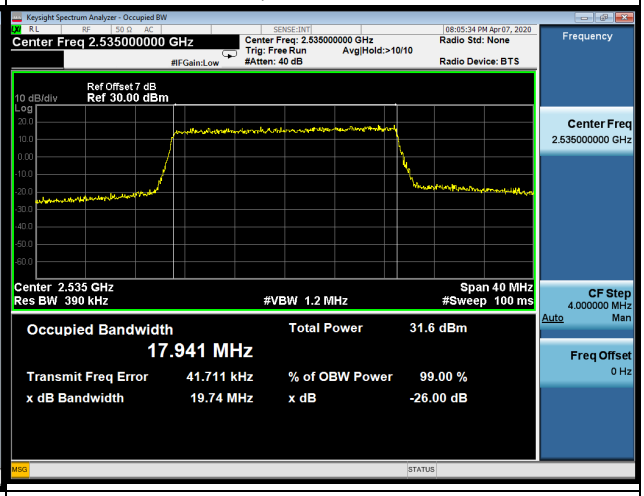
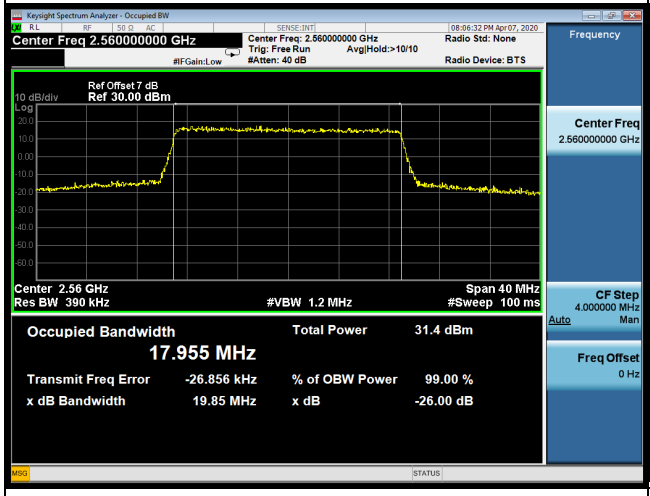
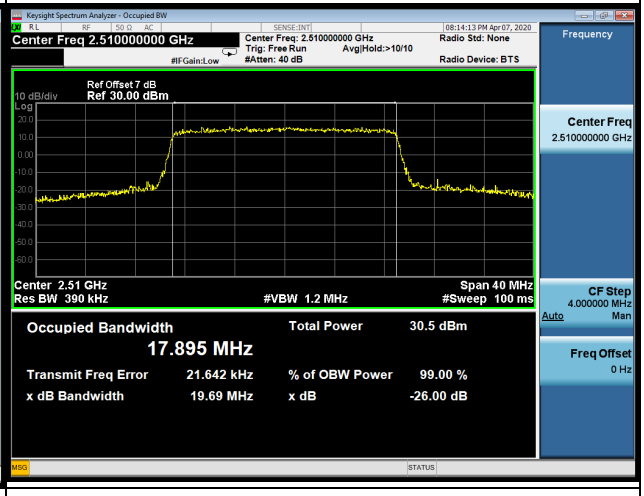
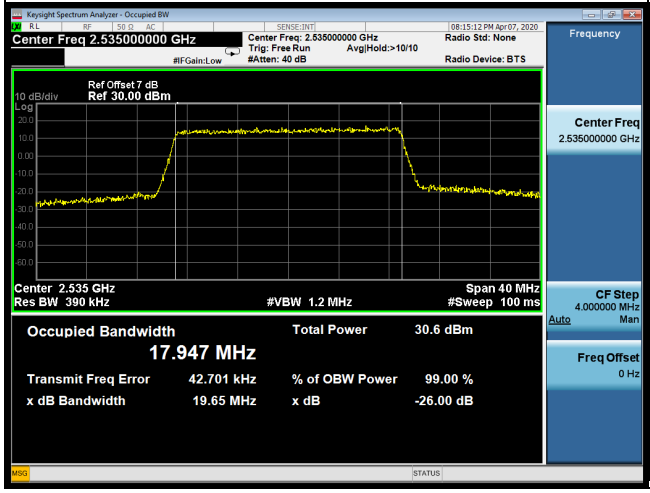
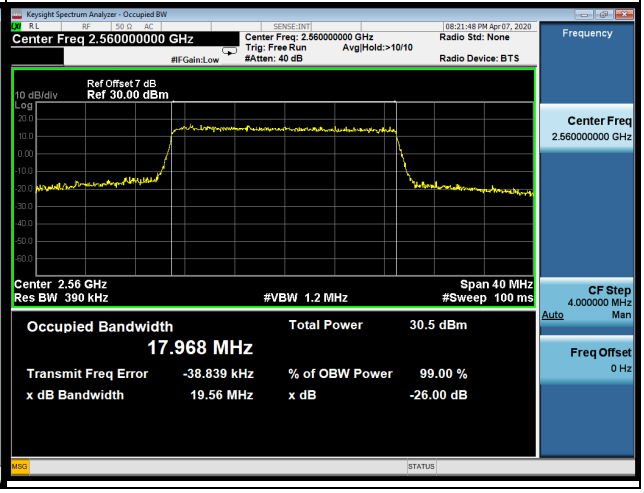
Spectrum Plot	
64QAM-20800	64QAM-21100
	
64QAM-21400	-
	-

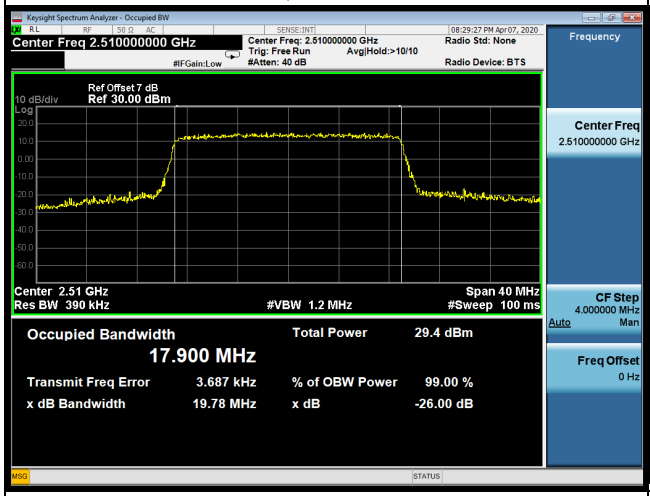
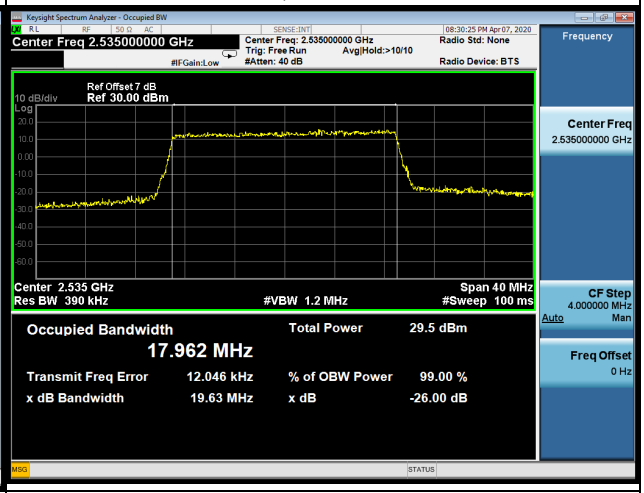
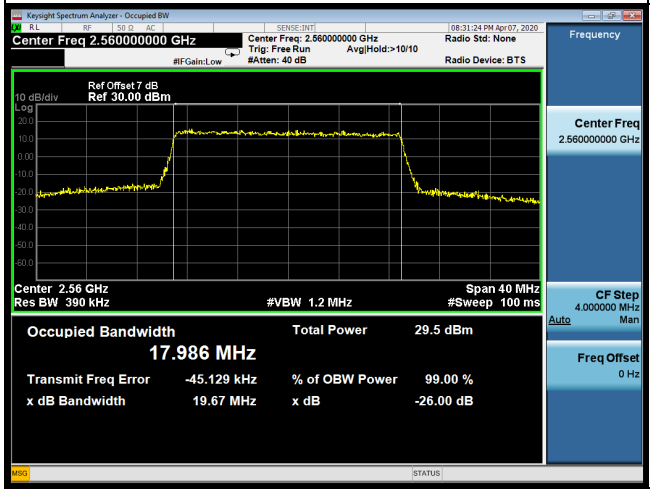
LTE Band 7_15M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20825	2507.5	13.458	20825	2507.5	15.01
21100	2535	13.483	21100	2535	15.00
21375	2562.5	13.494	21375	2562.5	15.08
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20825	2507.5	13.449	20825	2507.5	14.96
21100	2535	13.484	21100	2535	14.90
21375	2562.5	13.504	21375	2562.5	15.06
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20825	2507.5	13.450	20825	2507.5	14.83
21100	2535	13.485	21100	2535	14.93
21375	2562.5	13.515	21375	2562.5	15.06

Spectrum Plot	
QPSK-20825	QPSK-21100
	
QPSK-21375	16QAM-20825
	
16QAM-21100	16QAM-21375
	

Spectrum Plot	
64QAM-20825	64QAM-21100
	
64QAM-21375	-
	-

LTE Band 7_20M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20850	2510	17.922	20850	2510	19.74
21100	2535	17.941	21100	2535	19.74
21350	2560	17.955	21350	2560	19.85
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20850	2510	17.895	20850	2510	19.69
21100	2535	17.947	21100	2535	19.65
21350	2560	17.968	21350	2560	19.56
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
20850	2510	17.900	20850	2510	19.78
21100	2535	17.962	21100	2535	19.63
21350	2560	17.986	21350	2560	19.67

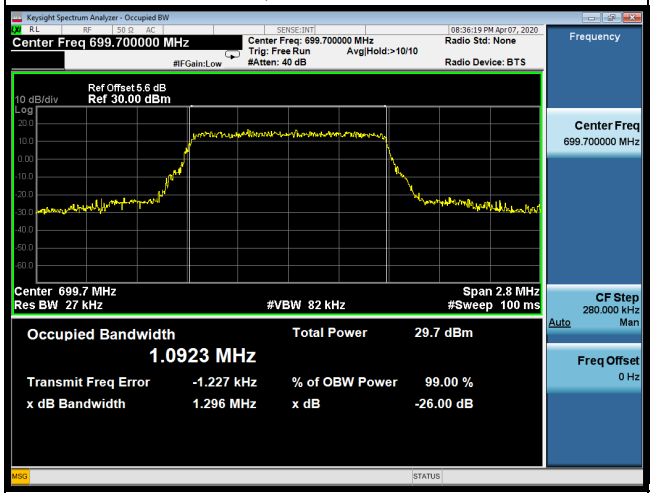
Spectrum Plot	
QPSK-20850	QPSK-21100
	
QPSK-21350	16QAM-20850
	
16QAM-21100	16QAM-21350
	

Spectrum Plot	
64QAM-20850	64QAM-21100
	
64QAM-21350	-
	-

LTE Band 12_1.4M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23017	699.7	1.0923	23017	699.7	1.296
23095	707.5	1.0956	23095	707.5	1.290
23173	715.3	1.0814	23173	715.3	1.278
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23017	699.7	1.0878	23017	699.7	1.287
23095	707.5	1.0953	23095	707.5	1.287
23173	715.3	1.0828	23173	715.3	1.262
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23017	699.7	1.0855	23017	699.7	1.259
23095	707.5	1.0901	23095	707.5	1.322
23173	715.3	1.0854	23173	715.3	1.278

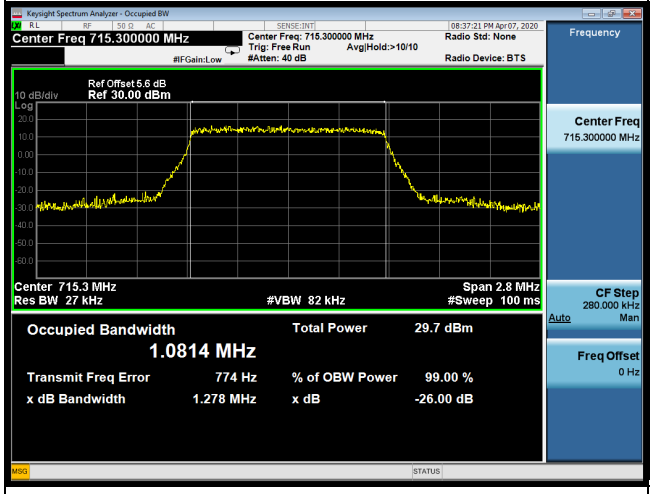
Spectrum Plot

QPSK-23017

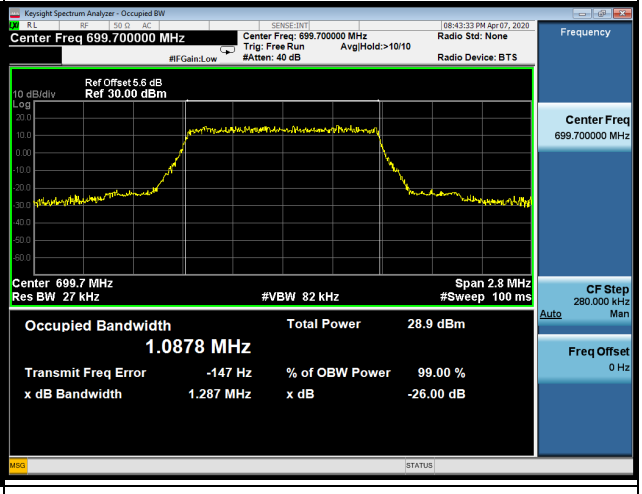


QPSK-23095

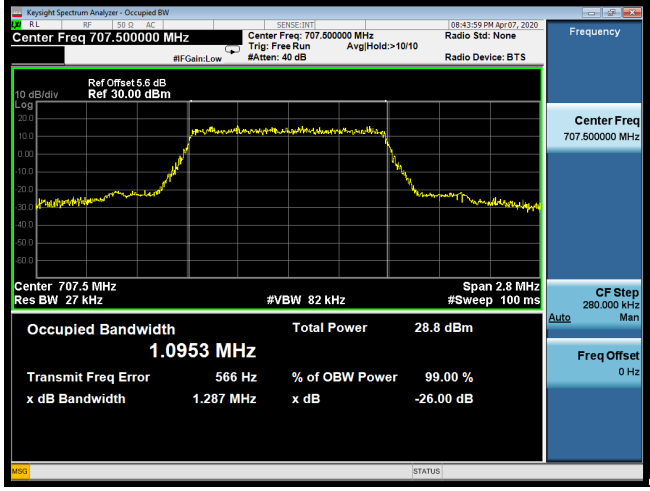
QPSK-23173



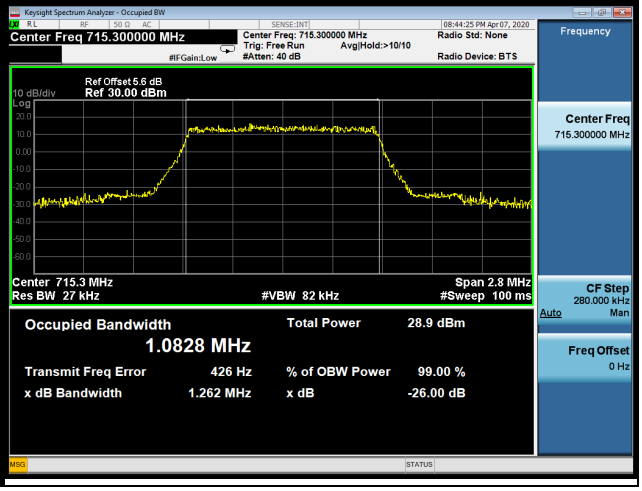
16QAM-23017

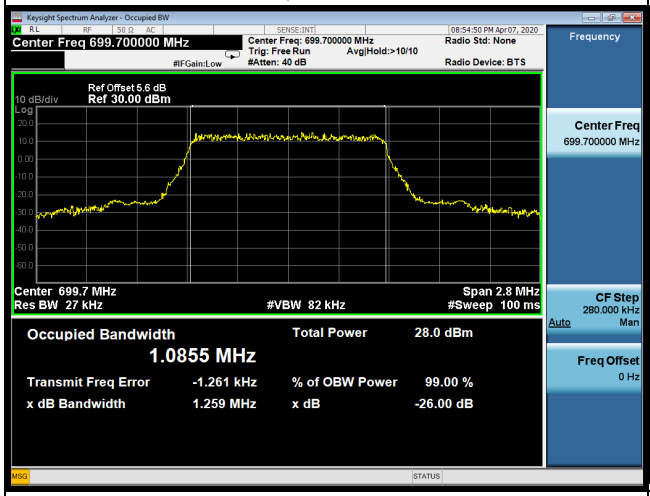
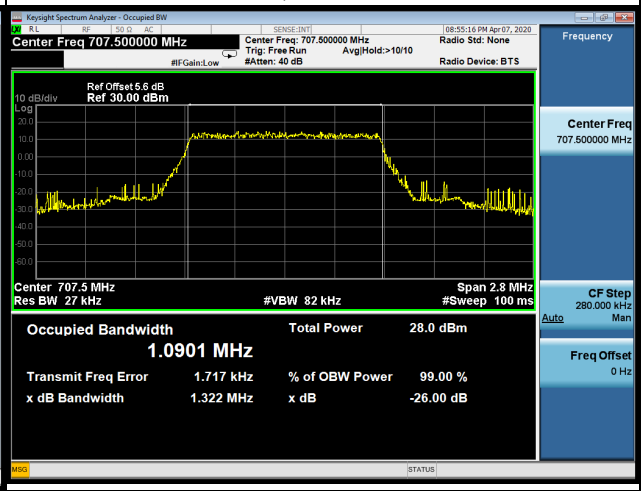
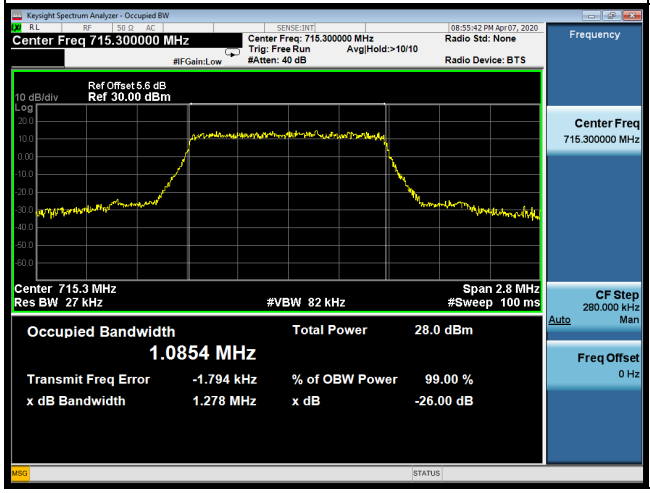


16QAM-23095

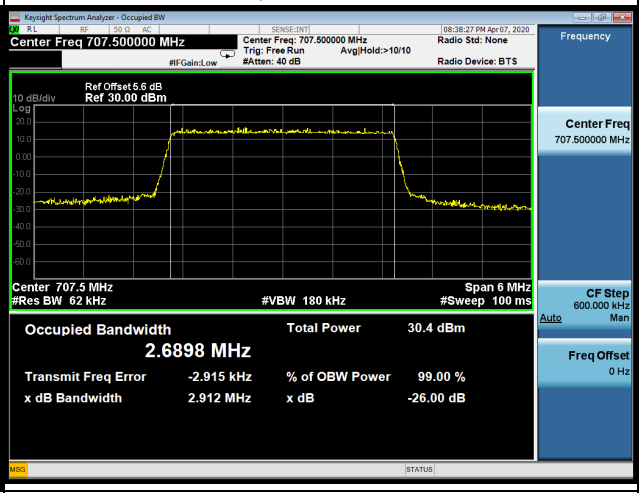
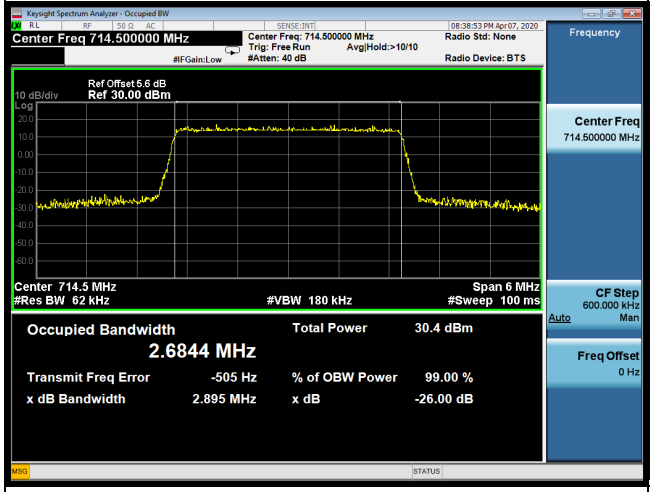
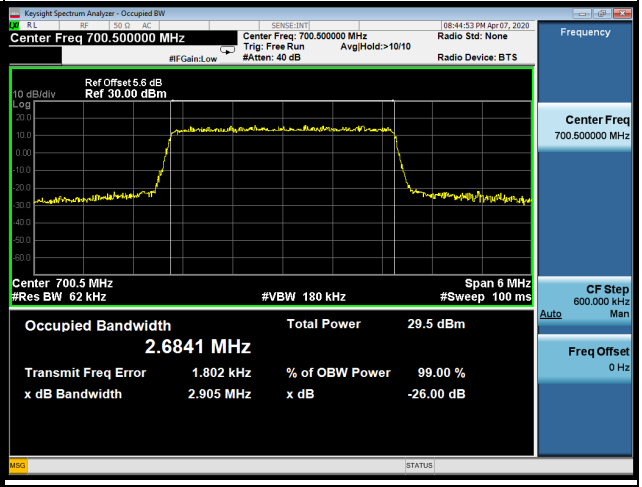


16QAM-23173



Spectrum Plot	
64QAM-23017	64QAM-23095
	
64QAM-23173	-
	-

LTE Band 12_3M					
QPSK					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23025	700.5	2.6828	23025	700.5	2.914
23095	707.5	2.6898	23095	707.5	2.912
23165	714.5	2.6844	23165	714.5	2.895
16QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23025	700.5	2.6841	23025	700.5	2.905
23095	707.5	2.6875	23095	707.5	2.908
23165	714.5	2.6831	23165	714.5	2.920
64QAM					
Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)	Channel	Frequency (MHz)	26dB Bandwidth (MHz)
23025	700.5	2.6888	23025	700.5	2.906
23095	707.5	2.6881	23095	707.5	2.983
23165	714.5	2.6857	23165	714.5	2.889

Spectrum Plot	
QPSK-23025	QPSK-23095
	
QPSK-23165	16QAM-23525
	
16QAM-23095	16QAM-23165