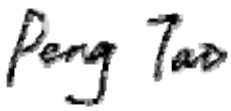
RF TEST REPORT

Applicant	Huawei Technologies Co., Ltd.
FCC ID	QISLIO-LX9
Product	Smart Phone
Model	LIO-L29, LIO-L09
Report No.	R1907H0137-R3V2
Issue Date	January 21, 2020

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 2 (2018)/ FCC CFR47 Part 27C (2018)**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.



Performed by: Peng Tao *Approved by: Kai Xu*

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Summary of Measurement Results

Number	Test Case	Clause in FCC rules	Verdict
1	RF power output	2.1046	PASS
2	Effective Isotropic Radiated power	27.50(d)(4) /27.50(b)(10) /27.50(c)(10) /27.50(h)(2)	PASS
3	Occupied Bandwidth	2.1049	PASS
4	Band Edge Compliance	27.53(h) /27.53(g) /27.53(f) /27.53(c) /27.53(m)	PASS
5	Peak-to-Average Power Ratio	27.50(d)/KDB971168 D01(5.7)	PASS
6	Frequency Stability	2.1055 / 27.54	PASS
7	Spurious Emissions at Antenna Terminals	2.1051 /27.53(h) /27.53(g) /27.53(m)	PASS
8	Radiates Spurious Emission	2.1053 /27.53(h) /27.53(g) /27.53(m)	PASS
Note: PASS: The EUT complies with the essential requirements in the standard. FAIL: The EUT does not comply with the essential requirements in the standard.			
Date of Testing: July 20, 2019~ August 11, 2019			

Note: This revised report (Report No.: R1907H0137-R3V2) supersedes and replaces the previously issued report (Report No.: R1907H0137-R3V1). Please discard or destroy the previously issued report and dispose of it accordingly.

1 Test Laboratory

1.1 Notes of the Test Report

This report shall not be reproduced in full or partial, without the written approval of **TA technology (shanghai) co., Ltd.** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein .Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of the applicable standards stated above.

1.2 Test facility

FCC (Designation number: CN1179, Test Firm Registration Number: 446626)

TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

IC (recognition number is 8510A)

TA Technology (Shanghai) Co., Ltd. has been listed by industry Canada to perform electromagnetic emission measurement.

VCCI (recognition number is C-4595, T-2154, R-4113, G-10766)

TA Technology (Shanghai) Co., Ltd. has been listed by industry Japan to perform electromagnetic emission measurement.

A2LA (Certificate Number: 3857.01)

TA Technology (Shanghai) Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

1.3 Testing Location

Company:	TA Technology (Shanghai) Co., Ltd.
Address:	No.145, Jintang Rd, Tangzhen Industry Park, Pudong Shanghai, China
City:	Shanghai
Post code:	201201
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2 General Description of Equipment under Test

Client Information

Applicant	Huawei Technologies Co., Ltd.
Applicant address	Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.C
Manufacturer	Huawei Technologies Co., Ltd.
Manufacturer address	Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.C

General information

EUT Description				
Model	LIO-L29, LIO-L09			
SN	YDM0119625000032			
Hardware Version	HL1LIONM			
Software Version	5.0.1.103M(C432E103R4P1)			
Power Supply	Battery/AC adapter			
Antenna Type	Internal Antenna			
Antenna Gain(dBi)	Mode	Main Antenna	Second Antenna	MAS Antenna
	WCDMA Band IV	-1.90	2.47	/
	LTE Band 4	-1.49	2.66	-10.07
	LTE Band 7	-6.49	3.96	-2.37
	LTE Band 12	-7.35	-2.78	/
	LTE Band 17	-7.30	-2.56	/
	LTE Band 38	-6.00	4.36	-1.64
	LTE Band 41	-4.69	4.55	-1.85
Test Mode(s)	WCDMA Band IV; LTE Band 4/7/12/17/38/41; CA_7C, CA_12B, CA_38C, CA_41C			
Test Modulation	(GSM)GMSK,8PSK; (WCDMA) BPSK, QPSK,16QAM; (LTE)QPSK 16QAM, 64QAM;			
HSDPA UE Category	14			
HSUPA UE Category	6			
LTE Category	19			
Maximum E.I.R.P./ E.R.P.	WCDMA Band IV:	22.04dBm		
	LTE Band 4:	21.71dBm		
	LTE Band 7:	22.88dBm		
	LTE Band 12:	16.86dBm		
	LTE Band 17:	16.76dBm		

	LTE Band 38:	22.91dBm
	LTE Band 41:	22.74dBm
	CA_7C:	22.89dBm
	CA_12B:	17.64dBm
	CA_38C:	21.84dBm
	CA_41C:	21.62dBm
Rated Power Supply Voltage:	3.8V	
Extreme Voltage	Minimum: 3.6V Maximum: 4.35V	
Extreme Temperature	Lowest: 0°C Highest: +35°C	

Operating Frequency Range(s)	Mode	Tx (MHz)	Rx (MHz)
	WCDMA Band IV	1710 ~ 1755	2110 ~ 2155
	LTE Band 4	1710 ~ 1755	2110 ~ 2155
	LTE Band 7	2500 ~ 2570	2620 ~ 2690
	LTE Band 12	699 ~ 716	729 ~ 746
	LTE Band 17	704 ~ 716	734~ 746
	LTE Band 38	2570 ~ 2620	2570 ~ 2620
	LTE Band 41	2496 ~ 2690	2496 ~ 2690

EUT Accessory	
Battery 1	Manufacturer: HUAWEI Technologies Co., Ltd. (Sunwoda, Murata) Model: HB555591EEW
Battery 2	Manufacturer: HUAWEI Technologies Co., Ltd. (Sunwoda, ATL) Model: HB555591EEW
Battery 3	Manufacturer: HUAWEI Technologies Co., Ltd. (SCUD) Model: HB555591EEW
Earphone 1	Manufacturer: Jiangxi Lianchuang Hongsheng Electronic Co. ,LTD Model: MEND1632B729001
Earphone 2	Manufacturer: Jiangxi Lianchuang Hongsheng Electronic Co. ,LTD Model: MEND1632B729000
Earphone 3	Manufacturer: GoerTek Inc Model: WINDY-C
Earphone 4	Manufacturer: Boluo County Quancheng Electronic Co.,ltd Model: 1331-3301-6001-TC-296
Earphone 5	Manufacturer: Foster Electric Co.,(GuangZhou)LTD.Sales Dep. Model: 618017
Note: 1. The information of the EUT is declared by the manufacturer. 2. There is more than one Battery, each one should be applied throughout the compliance test respectively, and however, only the worst case (Battery 1) will be recorded in this report.	

LIO-L29 is dual SIM smart phone. LIO-L09 is single SIM smart phone. The model LIO-L29 and LIO-L09 are identical except for LIO-L09 support single SIM card which deleted by software.

3 Applied Standards

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

Test standards

FCC CFR47 Part 2 (2018)

FCC CFR47 Part 27C (2018)

ANSI C63.26 (2015)

KDB 971168 D01 Power Meas License Digital Systems v03r01

4 Test Configuration

There is more than one SIM card slot, each one should be applied throughout the compliance test respectively, and however, only the worst case (SIM 1) will be recorded in this report

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes. EUT stand-up position (Z axis), lie-down position (X, Y axis). Receiver antenna polarization (horizontal and vertical), the worst emission was found in position (Z axis, horizontal polarization) and the worst case was recorded.

All mode and data rates and positions and RB size and modulations were investigated.
Subsequently, only the worst case emissions are reported.
The following testing in WCDMA/LTE is set based on the maximum RF Output Power.
The following testing in different Bandwidth is set to detailin the following table:
Test modes are chosen to be reported as the worst case configuration below for WCDMA Band IV:

Test items	**Modes/Modulation**
	WCDMA Band IV
RF power output	RMC HSDPA/HSUPA DC-HSDPA
Effective Isotropic Radiated power	RMC
Occupied Bandwidth	RMC
Band Edge Compliance	RMC
Peak-to-Average Power Ratio	RMC
Frequency Stability	RMC
Spurious Emissions at Antenna Terminals	RMC
Radiates Spurious Emission	RMC

Test modes are chosen to be reported as the worst case configuration below for LTE Band 4/7/12/17/38/41:

Test items	Modes	Bandwidth (MHz)						Modulation		RB			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	50%	100%	L	M	H
RF power output	LTE 4	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	LTE 7	-	-	O	O	O	O	O	O	O	O	O	O	O	O
	LTE 12	O	O	O	O	-	-	O	O	O	O	O	O	O	O
	LTE 17	-	-	O	O	-	-	O	O	O	O	O	O	O	O
	LTE 38	-	-	O	O	O	O	O	O	O	O	O	O	O	O
	LTE 41	-	-	O	O	O	O	O	O	O	O	O	O	O	O
Effective Isotropic Radiated power	LTE 4	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	LTE 7	-	-	O	O	O	O	O	O	O	O	O	O	O	O
	LTE 12	O	O	O	O	-	-	O	O	O	O	O	O	O	O
	LTE 17	-	-	O	O	-	-	O	O	O	O	O	O	O	O
	LTE 38	-	-	O	O	O	O	O	O	O	O	O	O	O	O
	LTE 41	-	-	O	O	O	O	O	O	O	O	O	O	O	O
Occupied Bandwidth	LTE 4	O	O	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 7	-	-	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 12	O	O	O	O	-	-	O	O	-	-	O	O	O	O
	LTE 17	-	-	O	O	-	-	O	O	-	-	O	O	O	O
	LTE 38	-	-	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 41	-	-	O	O	O	O	O	O	-	-	O	O	O	O
Band Edge Compliance	LTE 4	O	O	O	O	O	O	O	O	O	-	O	O	-	O
	LTE 7	-	-	O	O	O	O	O	O	O	-	O	O	-	O
	LTE 12	O	O	O	O	-	-	O	O	O	-	O	O	-	O
	LTE 17	-	-	O	O	-	-	O	O	O	-	O	O	-	O
	LTE 38	-	-	O	O	O	O	O	O	O	-	O	O	-	O
	LTE 41	-	-	O	O	O	O	O	O	O	-	O	O	-	O
Peak-to-Average Power Ratio	LTE 4	O	O	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 7	-	-	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 12	O	O	O	O	-	-	O	O	-	-	O	O	O	O
	LTE 17	-	-	O	O	-	-	O	O	-	-	O	O	O	O
	LTE 38	-	-	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 41	-	-	O	O	O	O	O	O	-	-	O	O	O	O
Frequency Stability	LTE 4	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	LTE 7	-	-	O	O	O	O	O	O	O	O	O	O	O	O
	LTE 12	O	O	O	O	-	-	O	O	O	O	O	O	O	O
	LTE 17	-	-	O	O	-	-	O	O	O	O	O	O	O	O
	LTE 38	-	-	O	O	O	O	O	O	O	O	O	O	O	O
	LTE 41	-	-	O	O	O	O	O	O	O	O	O	O	O	O

Spurious Emissions at Antenna Terminals	LTE 4	O	O	O	O	O	O	O	-	O	-	-	O	O	O
	LTE 7	-	-	O	O	O	O	O	-	O	-	-	O	O	O
	LTE 12	O	O	O	O	-	-	O	-	O	-	-	O	O	O
	LTE 17	-	-	O	O	-	-	O	-	O	-	-	O	O	O
	LTE 38	-	-	O	O	O	O	O	-	O	-	-	O	O	O
	LTE 41	-	-	O	O	O	O	O	-	O	-	-	O	O	O
Radiates Spurious Emission	LTE 4	O	-	O	-	-	O	O	-	O	-	-	O	O	O
	LTE 7	-	-	O	-	O	O	O	-	O	-	-	O	O	O
	LTE 12	O	-	O	O	-	-	O	-	O	-	-	O	O	O
	LTE 17	-	-	O	O	-	-	O	-	O	-	-	O	O	O
	LTE 38	-	-	O	-	O	O	O	-	O	-	-	O	O	O
	LTE 41	-	-	O	O	-	O	O	-	O	-	-	O	O	O
Note	1. The mark “O” means that this configuration is chosen for testing. 2. The mark “-” means that this configuration is not testing.														

5 Test Case Results

5.1 RF Power Output

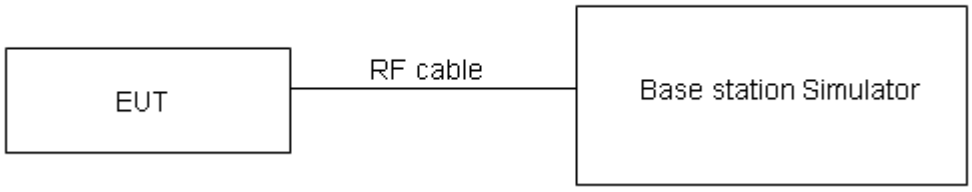
Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Methods of Measurement

During the process of the testing, The EUT is controlled by the Base Station Simulator to ensure max power transmission and proper modulation.

Test Setup



The loss between RF output port of the EUT and the input port of the tester has been taken into consideration.

Limits

No specific RF power output requirements in part 2.1046.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 2, U=0.4 dB.

Test Results

WCDMA Band IV		AV Conducted Power(dBm)		
		Channel 1312	Channel 1413	Channel 1513
		1712.4 (MHz)	1732.6 (MHz)	1752.6(MHz)
RMC		24.28	24.27	24.20
HSDPA	Sub - Test 1	23.70	23.69	23.62
	Sub - Test 2	23.69	23.68	23.61
	Sub - Test 3	23.18	23.17	23.10
	Sub - Test 4	23.17	23.16	23.09
HSUPA	Sub - Test 1	23.66	23.65	23.58
	Sub - Test 2	23.35	23.34	23.27
	Sub - Test 3	23.13	23.13	23.06
	Sub - Test 4	23.32	23.32	23.25
	Sub - Test 5	23.61	23.61	23.54
DC-HSDPA	Sub - Test 1	23.42	23.43	23.34
	Sub - Test 2	23.41	23.42	23.33
	Sub - Test 3	22.67	22.59	22.52
	Sub - Test 4	22.66	22.58	22.51

LTE FDD Band 4				Conducted Power(dBm)		
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				19957/1710.7	20175/1732.5	20393/1754.3
1.4MHz	QPSK	1	0	23.64	23.55	23.60
		1	2	23.39	23.22	23.34
		1	5	23.58	23.28	23.45
		3	0	23.85	23.78	23.81
		3	2	23.84	23.77	23.79
		3	3	23.83	23.65	23.78
		6	0	22.98	22.82	22.82
	16QAM	1	0	23.23	23.08	23.12
		1	2	23.21	23.05	23.21
		1	5	23.13	23.03	23.23
		3	0	22.87	22.75	22.65
		3	2	22.69	22.72	22.69
		3	3	22.77	22.66	22.54
		6	0	21.79	21.76	21.77
	64QAM	1	0	22.26	22.47	22.41
		1	2	22.19	22.38	22.35
		1	5	22.31	22.36	22.33
		3	0	22.19	22.22	22.11
		3	2	22.16	22.07	22.18
		3	3	22.12	22.07	22.12
		6	0	21.30	21.18	21.27
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				19965/1711.5	20175/1732.5	20385/1753.5
3MHz	QPSK	1	0	23.66	23.59	23.63
		1	7	23.37	23.25	23.38
		1	14	23.61	23.33	23.49
		8	0	23.16	22.90	22.94
		8	4	22.96	22.87	22.91
		8	7	22.93	22.76	22.88
		15	0	22.98	22.86	22.85
	16QAM	1	0	23.26	23.10	23.15
		1	7	23.24	23.05	23.25
		1	14	23.15	23.07	23.26
		8	0	21.98	21.88	21.77
		8	4	21.80	21.85	21.81
		8	7	21.87	21.78	21.67
		15	0	21.82	21.80	21.80
	64QAM	1	0	22.29	22.49	22.53
		1	7	22.22	22.38	22.42
		1	14	22.33	22.35	22.36

		8	0	21.30	21.35	21.23
		8	4	21.27	21.20	21.30
		8	7	21.22	21.19	21.25
		15	0	21.33	21.22	21.30
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				19975/1712.5	20175/1732.5	20375/1752.5
5MHz	QPSK	1	0	23.63	23.57	23.59
		1	13	23.35	23.21	23.35
		1	24	23.58	23.28	23.45
		12	0	23.13	22.85	22.90
		12	6	22.94	22.83	22.86
		12	13	22.91	22.74	22.84
		25	0	22.98	22.85	22.83
	16QAM	1	0	23.23	23.06	23.12
		1	13	23.21	23.03	23.22
		1	24	23.12	23.05	23.22
		12	0	21.96	21.84	21.74
		12	6	21.77	21.80	21.77
		12	13	21.84	21.73	21.63
		25	0	21.80	21.76	21.75
	64QAM	1	0	22.26	22.49	22.50
		1	13	22.19	22.40	22.39
		1	24	22.34	22.33	22.32
		12	0	21.28	21.31	21.24
		12	6	21.24	21.15	21.26
		12	13	21.19	21.14	21.21
		25	0	21.31	21.18	21.25
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				20000/1715	20175/1732.5	20350/1750
10MHz	QPSK	1	0	23.65	23.58	23.62
		1	25	23.38	23.26	23.39
		1	49	23.60	23.32	23.48
		25	0	23.16	22.90	22.94
		25	13	22.97	22.88	22.90
		25	25	22.93	22.78	22.89
		50	0	23.02	22.87	22.87
	16QAM	1	0	23.25	23.09	23.14
		1	25	23.24	23.07	23.25
		1	49	23.15	23.07	23.25
		25	0	21.99	21.89	21.78
		25	13	21.79	21.84	21.80
		25	25	21.87	21.78	21.67
		50	0	21.83	21.81	21.79

	64QAM	1	0	22.28	22.48	22.52
		1	25	22.22	22.40	22.42
		1	49	22.33	22.35	22.35
		25	0	21.31	21.36	21.24
		25	13	21.26	21.19	21.29
		25	25	21.22	21.19	21.25
		50	0	21.34	21.23	21.29
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				20025/1717.5	20175/1732.5	20325/1747.5
15MHz	QPSK	1	0	23.64	23.54	23.60
		1	38	23.36	23.25	23.36
		1	74	23.57	23.27	23.44
		36	0	23.14	22.86	22.91
		36	18	22.94	22.83	22.86
		36	39	22.90	22.75	22.85
		75	0	23.00	22.83	22.82
	16QAM	1	0	23.20	23.07	23.12
		1	38	23.22	23.04	23.23
		1	74	23.12	23.03	23.22
		36	0	21.96	21.87	21.75
		36	18	21.76	21.79	21.76
		36	39	21.85	21.74	21.64
		75	0	21.80	21.76	21.75
	64QAM	1	0	22.23	22.46	22.50
		1	38	22.20	22.37	22.40
		1	74	22.34	22.34	22.36
		36	0	21.30	21.38	21.25
		36	18	21.24	21.16	21.28
		36	39	21.20	21.15	21.22
		75	0	21.31	21.18	21.25
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				20050/1720	20175/1732.5	20300/1745
20MHz	QPSK	1	0	23.61	23.50	23.57
		1	50	23.35	23.21	23.34
		1	99	23.55	23.26	23.41
		50	0	23.11	22.81	22.87
		50	25	22.92	22.79	22.83
		50	50	22.87	22.70	22.81
		100	0	22.97	22.78	22.78
	16QAM	1	0	23.45	23.03	23.07
		1	50	23.18	23.02	23.19
		1	99	23.10	23.00	23.20
		50	0	21.93	21.83	21.72

		50	25	21.73	21.77	21.73
		50	50	21.82	21.69	21.60
		100	0	21.78	21.72	21.72
	64QAM	1	0	22.21	22.42	22.45
		1	50	22.16	22.35	22.36
		1	99	22.28	22.28	22.30
		50	0	21.25	21.30	21.18
		50	25	21.20	21.12	21.22
		50	50	21.17	21.10	21.18
		100	0	21.29	21.14	21.22

LTE FDD Band 7				Conducted Power(dBm)		
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				20775/2502.5	21100/2535	21425/2567.5
5MHz	QPSK	1	0	23.36	23.55	23.73
		1	13	23.22	23.25	23.79
		1	24	23.38	23.59	23.90
		12	0	22.13	23.30	22.95
		12	6	22.37	23.34	22.94
		12	13	22.42	23.39	22.99
		25	0	22.38	22.36	23.03
	16QAM	1	0	22.64	22.60	22.91
		1	13	22.62	22.40	22.82
		1	24	22.69	22.63	23.17
		12	0	21.27	21.22	21.82
		12	6	21.22	21.23	21.96
		12	13	21.22	21.27	21.96
		25	0	21.16	21.21	21.89
	64QAM	1	0	21.31	21.44	21.51
		1	13	21.37	21.38	21.55
		1	24	21.42	21.47	21.49
		12	0	20.53	20.45	20.48
		12	6	20.58	20.50	20.50
		12	13	20.48	20.41	20.41
		25	0	20.41	20.39	20.39
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				20800/2505	21100/2535	21400/2565
10MHz	QPSK	1	0	23.38	23.56	23.76
		1	25	23.25	23.30	23.83
		1	49	23.40	23.63	23.93
		25	0	22.16	23.35	22.99
		25	13	22.40	23.39	22.98

		25	25	22.44	23.43	23.04
		50	0	22.42	22.38	23.07
	16QAM	1	0	22.66	22.63	22.93
		1	25	22.65	22.44	22.85
		1	49	22.72	22.65	23.20
		25	0	21.30	21.27	21.86
		25	13	21.24	21.27	21.99
		25	25	21.25	21.32	22.00
		50	0	21.19	21.26	21.93
	64QAM	1	0	21.33	21.43	21.53
		1	25	21.40	21.38	21.58
		1	49	21.41	21.49	21.52
		25	0	20.56	20.50	20.48
		25	13	20.60	20.54	20.53
		25	25	20.51	20.46	20.45
		50	0	20.44	20.44	20.43
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				20825/2507.5	21100/2535	21375/2562.5
15MHz	QPSK	1	0	23.37	23.52	23.74
		1	38	23.23	23.29	23.80
		1	74	23.37	23.58	23.89
		36	0	22.14	23.31	22.96
		36	18	22.37	23.34	22.94
		36	39	22.41	23.40	23.00
		75	0	22.40	22.34	23.02
	16QAM	1	0	22.61	22.61	22.91
		1	38	22.63	22.41	22.83
		1	74	22.69	22.61	23.17
		36	0	21.27	21.25	21.83
		36	18	21.21	21.22	21.95
		36	39	21.23	21.28	21.97
		75	0	21.16	21.21	21.89
	64QAM	1	0	21.28	21.41	21.51
		1	38	21.38	21.35	21.56
		1	74	21.42	21.48	21.53
		36	0	20.55	20.52	20.49
		36	18	20.58	20.51	20.52
		36	39	20.49	20.42	20.42
		75	0	20.41	20.39	20.39
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				20850/2510	21100/2535	21350/2560
20MHz	QPSK	1	0	23.34	23.48	23.71
		1	50	23.22	23.25	23.78

		1	99	23.35	23.57	23.86
		50	0	22.11	23.26	22.92
		50	25	22.35	23.30	22.91
		50	50	22.38	23.35	22.96
		100	0	22.37	22.29	22.98
	16QAM	1	0	22.40	22.57	22.86
		1	50	22.59	22.39	22.79
		1	99	22.67	22.58	23.15
		50	0	21.24	21.21	21.80
		50	25	21.18	21.20	21.92
		50	50	21.20	21.23	21.93
		100	0	21.14	21.17	21.86
	64QAM	1	0	21.26	21.37	21.46
		1	50	21.34	21.33	21.52
		1	99	21.36	21.42	21.47
		50	0	20.50	20.44	20.42
		50	25	20.54	20.47	20.46
		50	50	20.46	20.37	20.38
		100	0	20.39	20.35	20.36

LTE FDD Band 12				Conducted Power(dBm)		
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				23017/699.7	23095/707.5	23173/715.3
1.4MHz	QPSK	1	0	23.57	23.49	23.53
		1	2	23.67	23.51	23.72
		1	5	23.74	23.85	23.85
		3	0	23.46	23.54	23.60
		3	2	23.35	23.53	23.52
		3	3	23.53	23.60	23.81
		6	0	22.55	22.58	22.76
	16QAM	1	0	22.89	22.97	22.93
		1	2	22.87	22.89	22.68
		1	5	22.79	22.96	22.75
		3	0	22.62	22.46	22.62
		3	2	22.57	22.65	22.62
		3	3	22.53	22.72	22.68
		6	0	21.55	21.40	21.61
	64QAM	1	0	21.58	21.62	22.55
		1	2	21.59	21.52	21.50
		1	5	21.58	21.64	21.51
		3	0	21.96	21.51	21.45
		3	2	21.96	21.93	21.93
		3	3	21.75	21.83	21.55

		6	0	20.59	20.67	20.61
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				23025/700.5	23095/707.5	23165/714.5
3MHz	QPSK	1	0	23.59	23.53	23.56
		1	7	23.65	23.54	23.76
		1	14	23.77	23.90	23.89
		8	0	22.56	22.66	22.73
		8	4	22.47	22.63	22.64
		8	7	22.63	22.71	22.91
		15	0	22.55	22.62	22.79
	16QAM	1	0	22.92	22.99	22.96
		1	7	22.90	22.89	22.64
		1	14	22.81	23.00	22.71
		8	0	21.49	21.59	21.74
		8	4	21.50	21.78	21.74
		8	7	21.63	21.84	21.81
		15	0	21.58	21.44	21.64
	64QAM	1	0	21.61	22.64	22.58
		1	7	21.62	22.52	21.52
		1	14	21.60	21.63	21.54
		8	0	21.07	20.55	21.57
		8	4	21.07	21.06	21.05
		8	7	21.03	20.95	20.53
		15	0	21.06	21.04	20.58
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				23035/701.5	23095/707.5	23155/713.5
5MHz	QPSK	1	0	23.56	23.51	23.52
		1	13	23.63	23.50	23.73
		1	24	23.74	23.85	23.85
		12	0	22.53	22.61	22.69
		12	6	22.45	22.59	22.59
		12	13	22.61	22.69	22.87
		25	0	22.55	22.61	22.77
	16QAM	1	0	22.89	22.95	22.93
		1	13	22.87	22.87	22.62
		1	24	22.78	22.98	22.70
		12	0	21.47	21.55	21.71
		12	6	21.47	21.73	21.70
		12	13	21.60	21.79	21.77
		25	0	21.56	21.40	21.59
	64QAM	1	0	21.58	21.64	22.55
		1	13	21.59	21.54	21.49
		1	24	21.61	21.61	21.50

		12	0	21.05	20.51	21.58
		12	6	21.04	21.01	21.01
		12	13	21.02	20.90	20.69
		25	0	20.98	20.98	20.54
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				23060/704	23095/707.5	23130/711
10MHz	QPSK	1	0	23.54	23.44	23.50
		1	25	23.63	23.50	23.72
		1	49	23.71	23.83	23.81
		25	0	22.51	22.57	22.66
		25	13	22.43	22.55	22.56
		25	25	22.57	22.65	22.84
		50	0	22.54	22.54	22.72
	16QAM	1	0	22.77	22.92	22.88
		1	25	22.84	22.86	22.71
		1	49	22.76	22.93	22.72
		25	0	21.44	21.54	21.69
		25	13	21.43	21.70	21.66
		25	25	21.58	21.75	21.74
		50	0	21.54	21.36	21.56
	64QAM	1	0	21.53	21.57	21.50
		1	25	21.56	21.49	21.46
		1	49	21.55	21.56	21.48
		25	0	21.02	20.53	21.52
		25	13	21.00	20.98	20.97
		25	25	21.07	20.86	20.67
		50	0	20.95	21.05	20.58

LTE FDD Band 17				**Conducted Power(dBm)**		
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				23755/706.5	23790/710	23825/713.5
5MHz	QPSK	1	0	24.30	24.25	24.20
		1	13	24.21	24.30	24.28
		1	24	24.22	24.29	24.40
		12	0	23.12	23.20	23.23
		12	6	23.03	23.19	23.03
		12	13	23.23	23.23	23.21
		25	0	23.14	23.23	23.21
	16QAM	1	0	23.32	23.31	23.45
		1	13	23.30	23.25	23.51
		1	24	23.45	23.25	23.19
		12	0	22.13	22.16	22.12

		12	6	22.13	22.15	22.11
		12	13	22.11	22.10	22.19
		25	0	22.13	22.16	21.99
	64QAM	1	0	22.03	22.08	22.11
		1	13	22.02	22.08	22.12
		1	24	22.10	22.17	22.12
		12	0	21.20	21.14	21.05
		12	6	21.27	21.23	21.10
		12	13	21.02	21.13	21.06
		25	0	21.34	21.01	21.43
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				23780/709	23790/710	23800/711
10MHz	QPSK	1	0	24.28	24.18	24.18
		1	25	24.21	24.30	24.27
		1	49	24.19	24.27	24.36
		25	0	23.10	23.16	23.20
		25	13	23.01	23.15	23.00
		25	25	23.19	23.19	23.18
		50	0	23.13	23.16	23.16
	16QAM	1	0	23.33	23.28	23.40
		1	25	23.27	23.24	23.48
		1	49	23.43	23.20	23.17
		25	0	22.10	22.15	22.10
		25	13	22.09	22.12	22.07
		25	25	22.09	22.06	22.16
		50	0	22.11	22.12	21.96
	64QAM	1	0	21.98	22.01	22.06
		1	25	21.99	22.03	22.09
		1	49	22.04	22.12	22.10
		25	0	21.17	21.13	20.99
		25	13	21.23	21.20	21.06
		25	25	21.00	21.09	21.03
		50	0	21.32	20.97	21.40

LTE TDD Band 38				**Conducted Power(dBm)**		
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				37775/2572.5	38000/2595	38225/2617.5
5MHz	QPSK	1	0	23.48	23.71	23.67
		1	13	23.53	23.55	23.54
		1	24	23.74	23.61	23.76
		12	0	22.90	22.65	22.83
		12	6	22.87	22.66	22.74

		12	13	22.85	22.68	22.70
		25	0	22.79	22.66	22.73
	16QAM	1	0	22.78	22.79	22.90
		1	13	22.76	22.74	22.72
		1	24	22.90	22.75	22.91
		12	0	21.82	21.69	22.14
		12	6	21.86	21.65	21.93
		12	13	21.87	21.70	21.84
		25	0	21.78	21.67	21.80
	64QAM	1	0	21.65	21.75	21.75
		1	13	21.70	21.70	21.87
		1	24	21.77	21.90	21.84
		12	0	20.86	20.85	20.73
		12	6	20.97	20.82	20.76
		12	13	20.85	20.85	20.66
		25	0	20.88	20.84	20.85
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				37800/2575	38000/2595	38200/2615
10MHz	QPSK	1	0	23.50	23.72	23.70
		1	25	23.56	23.60	23.58
		1	49	23.76	23.65	23.79
		25	0	22.93	22.70	22.87
		25	13	22.90	22.71	22.78
		25	25	22.87	22.72	22.75
		50	0	22.83	22.68	22.77
	16QAM	1	0	22.80	22.82	22.92
		1	25	22.79	22.78	22.75
		1	49	22.93	22.77	22.94
		25	0	21.85	21.74	22.18
		25	13	21.88	21.69	21.96
		25	25	21.90	21.75	21.88
		50	0	21.81	21.72	21.84
	64QAM	1	0	21.67	21.74	21.77
		1	25	21.73	21.70	21.90
		1	49	21.76	21.92	21.87
		25	0	20.89	20.90	20.73
		25	13	20.99	20.86	20.79
		25	25	20.88	20.90	20.70
		50	0	20.91	20.89	20.89
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				37825/2577.5	38000/2595	38175/2612.5
15MHz	QPSK	1	0	23.49	23.68	23.68
		1	38	23.54	23.59	23.55

		1	74	23.73	23.60	23.75
		36	0	22.91	22.66	22.84
		36	18	22.87	22.66	22.74
		36	39	22.84	22.69	22.71
		75	0	22.81	22.64	22.72
	16QAM	1	0	22.75	22.80	22.90
		1	38	22.77	22.75	22.73
		1	74	22.90	22.73	22.91
		36	0	21.82	21.72	22.15
		36	18	21.85	21.64	21.92
		36	39	21.88	21.71	21.85
		75	0	21.78	21.67	21.80
	64QAM	1	0	21.62	21.72	21.75
		1	38	21.71	21.67	21.88
		1	74	21.77	21.91	21.88
		36	0	20.88	20.92	20.74
		36	18	20.97	20.83	20.78
		36	39	20.86	20.86	20.67
		75	0	20.88	20.84	20.85
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				37850/2580	38000/2595	38150/2610
20MHz	QPSK	1	0	23.46	23.64	23.65
		1	50	23.53	23.55	23.53
		1	99	23.71	23.59	23.72
		50	0	22.88	22.61	22.80
		50	25	22.85	22.62	22.71
		50	50	22.81	22.64	22.67
		100	0	22.78	22.59	22.68
	16QAM	1	0	22.72	22.76	22.85
		1	50	22.73	22.73	22.69
		1	99	22.88	22.70	22.89
		50	0	21.79	21.68	22.12
		50	25	21.82	21.62	21.89
		50	50	21.85	21.66	21.81
		100	0	21.76	21.63	21.77
	64QAM	1	0	21.60	21.68	21.70
		1	50	21.67	21.65	21.84
		1	99	21.71	21.85	21.82
		50	0	20.83	20.84	20.67
		50	25	20.93	20.79	20.72
		50	50	20.83	20.81	20.63
		100	0	20.86	20.80	20.82

LTE TDD Band 41				Conducted Power(dBm)		
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				40165/2547.5	40690/2600	41215/2652.5
5MHz	QPSK	1	0	24.20	24.58	24.08
		1	13	24.15	24.21	23.81
		1	24	24.31	24.37	24.09
		12	0	23.12	23.32	23.16
		12	6	23.16	23.28	23.12
		12	13	23.20	23.24	23.15
		25	0	23.19	23.27	23.17
	16QAM	1	0	23.24	23.61	23.44
		1	13	23.22	23.39	23.24
		1	24	23.51	23.47	23.38
		12	0	22.09	22.19	22.18
		12	6	22.15	22.18	22.17
		12	13	22.15	22.13	22.18
		25	0	22.09	22.25	22.20
	64QAM	1	0	22.22	22.11	22.35
		1	13	22.44	22.26	22.26
		1	24	22.51	22.27	22.22
		12	0	21.45	21.29	21.62
		12	6	21.40	21.50	21.51
		12	13	21.39	21.38	21.40
		25	0	21.44	21.57	21.45
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				40190/2550	40690/2600	41190/2650
10MHz	QPSK	1	0	24.22	24.61	24.11
		1	25	24.18	24.25	23.85
		1	49	24.33	24.40	24.12
		25	0	23.15	23.36	23.20
		25	13	23.19	23.32	23.16
		25	25	23.22	23.29	23.20
		50	0	23.23	23.31	23.21
	16QAM	1	0	23.26	23.63	23.46
		1	25	23.25	23.42	23.27
		1	49	23.54	23.50	23.41
		25	0	22.12	22.23	22.22
		25	13	22.17	22.21	22.20
		25	25	22.18	22.17	22.22
		50	0	22.12	22.29	22.24
	64QAM	1	0	22.24	22.13	22.37
		1	25	22.47	22.29	22.29

		1	49	22.50	22.30	22.25
		25	0	21.48	21.29	21.62
		25	13	21.42	21.53	21.54
		25	25	21.42	21.42	21.44
		50	0	21.47	21.61	21.49
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				40215/2552.5	40690/2600	41165/2647.5
15MHz	QPSK	1	0	24.21	24.59	24.09
		1	38	24.16	24.22	23.82
		1	74	24.30	24.36	24.08
		36	0	23.13	23.33	23.17
		36	18	23.16	23.28	23.12
		36	39	23.19	23.25	23.16
		75	0	23.21	23.26	23.16
	16QAM	1	0	23.21	23.61	23.44
		1	38	23.23	23.40	23.25
		1	74	23.51	23.47	23.38
		36	0	22.09	22.20	22.19
		36	18	22.14	22.17	22.16
		36	39	22.16	22.14	22.19
		75	0	22.09	22.25	22.20
	64QAM	1	0	22.19	22.11	22.35
		1	38	22.45	22.27	22.27
		1	74	22.51	22.31	22.26
		36	0	21.47	21.30	21.63
		36	18	21.40	21.52	21.53
		36	39	21.40	21.39	21.41
		75	0	21.44	21.57	21.45
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				40240/2555	40690/2600	41140/2645
20MHz	QPSK	1	0	24.18	24.56	24.06
		1	50	24.15	24.20	23.80
		1	99	24.28	24.33	24.05
		50	0	23.10	23.29	23.13
		50	25	23.14	23.25	23.09
		50	50	23.16	23.21	23.12
		100	0	23.18	23.22	23.12
	16QAM	1	0	23.33	23.56	23.39
		1	50	23.19	23.36	23.21
		1	99	23.49	23.45	23.36
		50	0	22.06	22.17	22.16
		50	25	22.11	22.14	22.13
		50	50	22.13	22.10	22.15

		100	0	22.07	22.22	22.17
	64QAM	1	0	22.17	22.06	22.30
		1	50	22.41	22.23	22.23
		1	99	22.45	22.25	22.20
		50	0	21.42	21.23	21.56
		50	25	21.36	21.46	21.47
		50	50	21.37	21.35	21.37
		100	0	21.42	21.54	21.42

CA_7C	PCC	SCC	PCC RB		SCC1 RB		Conducted Power (dBm)		
	Frequency(MHz)	Frequency(MHz)	Size	Offset	Size	Offset	QPSK	16QAM	64QAM
10MHz+20MHz	2505.5	2519.9	1	49	1	0	22.44	22.32	22.04
			50	0	100	0	19.64	18.55	17.86
	2525.6	2540	1	49	1	0	22.35	22.30	21.48
			50	0	100	0	19.95	18.81	17.96
	2545.6	2560	1	49	1	0	22.65	22.60	22.59
			50	0	100	0	20.14	19.05	18.74
20MHz+10MHz	2510	2524.4	1	99	1	0	22.55	22.51	21.86
			100	0	50	0	20.21	19.16	19.05
	2530.1	2544.5	1	99	1	0	22.58	22.50	21.64
			100	0	50	0	20.43	19.29	18.83
	2550.1	2564.5	1	99	1	0	23.03	22.96	22.18
			100	0	50	0	20.88	19.79	19.21
15MHz+15MHz	2507.5	2522.5	1	74	1	0	22.07	21.95	21.45
			75	0	75	0	19.61	18.63	17.71
	2527.5	2542.5	1	74	1	0	22.02	21.90	21.37
			75	0	75	0	19.90	18.83	18.08
	2547.5	2562.5	1	74	1	0	22.45	22.36	21.72
			75	0	75	0	20.33	19.19	18.81
15MHz+20MHz	2507.8	2524.9	1	74	1	0	22.29	22.10	22.07
			75	0	100	0	19.75	18.70	18.60
	2525.3	2542.4	1	74	1	0	22.27	22.10	21.92
			75	0	100	0	20.01	18.94	18.62
	2542.9	2560	1	74	1	0	22.62	22.55	22.32
			75	0	100	0	20.10	18.98	18.89
20MHz+15MHz	2510	2527.1	1	99	1	0	22.40	22.35	22.13
			100	0	75	0	20.00	18.94	18.27
	2527.6	2544.7	1	99	1	0	22.45	22.37	21.96
			100	0	75	0	20.16	19.08	18.81
	2545.1	2562.2	1	99	1	0	22.92	22.88	22.54

			100	0	75	0	20.49	19.31	18.36
20MHz+20MHz	2510	2529.8	1	99	1	0	22.44	22.36	22.28
			1	0	1	99	9.81	9.91	9.35
			100	0	100	0	19.89	18.87	18.74
	2525.1	2544.9	1	99	1	0	22.39	22.32	22.16
			1	0	1	99	9.78	9.83	8.90
			100	0	100	0	20.01	18.97	17.99
	2540.2	2560	1	99	1	0	22.78	22.69	22.26
			1	0	1	99	10.34	10.38	10.32
			100	0	100	0	20.13	19.04	18.10

CA_12B	PCC	SCC	PCC RB		SCC1 RB		Conducted Power (dBm)		
	Frequency(MHz)	Frequency(MHz)	Size	Offset	Size	Offset	QPSK	16QAM	64QAM
5MHz+5MHz	701.5	706.3	1	24	1	0	22.36	22.66	22.58
			25	0	25	0	20.23	19.16	18.99
	705.1	709.9	1	24	1	0	22.43	22.54	22.56
			25	0	25	0	20.30	19.56	19.44
	708.7	713.5	1	24	1	0	22.60	22.69	22.43
			25	0	25	0	20.16	19.17	18.87
5MHz+10MHz	701.8	709	1	24	1	0	22.43	22.52	22.29
			25	0	50	0	20.31	19.21	18.93
	702.8	710	1	24	1	0	22.32	22.42	22.28
			25	0	50	0	20.35	19.31	19.02
	703.8	711	1	24	1	0	22.28	22.44	22.41
			25	0	50	0	20.35	19.36	19.11

CA_38C	PCC	SCC	PCC RB		SCC1 RB		Conducted Power (dBm)		
	Frequency(MHz)	Frequency(MHz)	Size	Offset	Size	Offset	QPSK	16QAM	64QAM
15MHz+15MHz	2577.5	2592.5	1	74	1	0	21.86	21.94	21.83
			75	0	75	0	20.08	19.01	18.93
	2587.5	2602.5	1	74	1	0	21.70	21.85	21.74
			75	0	75	0	20.05	18.96	18.67
	2597.5	2612.5	1	74	1	0	21.53	21.65	21.18
			75	0	75	0	19.96	18.88	18.40
20MHz+20MHz	2580	2599.8	1	99	1	0	21.97	22.17	21.91
			1	0	1	99	13.37	13.44	12.61
			100	0	100	0	20.11	19.11	19.03
	2585.1	2604.9	1	99	1	0	21.95	21.98	21.28

			1	0	1	99	13.50	13.59	13.45
			100	0	100	0	20.18	19.06	18.10
	2590.2	2610	1	99	1	0	21.88	22.18	21.40
			1	0	1	99	13.56	14.04	14.01
			100	0	100	0	20.06	18.94	18.24

CA_41C	PCC	SCC	PCC RB		SCC1 RB		Conducted Power (dBm)		
	Frequency(MHz)	Frequency(MHz)	Size	Offset	Size	Offset	QPSK	16QAM	64QAM
5MHz+20MHz	2499.3	2511	1	24	1	0	21.6	21.55	21.23
			25	0	100	0	19.62	18.64	18.36
	2583.8	2595.5	1	24	1	0	21.85	21.96	21.68
			25	0	100	0	19.77	18.68	18.25
	2668.3	2680	1	24	1	0	21.65	21.74	21.73
			25	0	100	0	19.62	18.60	18.37
20MHz+5MHz	2506	2517.7	1	99	1	0	22.04	21.84	21.11
			1	0	1	24	10.83	10.69	10.44
			100	0	25	0	20.59	19.55	18.89
	2590.5	2602.2	1	99	1	0	21.98	22.04	21.47
			1	0	1	24	10.44	10.50	10.41
			100	0	25	0	20.78	19.60	18.78
	2675	2686.7	1	99	1	0	21.99	22.04	21.37
			1	0	1	24	10.41	10.86	10.25
			100	0	25	0	20.45	19.37	18.86
10MHz+20MHz	2501.5	2515.9	1	49	1	0	21.9	21.81	21.25
			50	0	100	0	19.87	18.80	17.95
	2583.6	2598	1	49	1	0	21.96	22.27	21.37
			50	0	100	0	19.95	18.89	18.72
	2665.6	2680	1	49	1	0	21.95	22.26	22.06
			50	0	100	0	19.77	18.70	18.10
20MHz+10MHz	2506	2520.4	1	99	1	0	21.93	22.12	22.07
			100	0	50	0	20.24	19.16	19.10
	2588.1	2602.5	1	99	1	0	22.00	21.98	21.33
			100	0	50	0	20.26	19.31	18.35
	2670.1	2684.5	1	99	1	0	21.94	21.92	21.15
			100	0	50	0	20.19	19.14	18.62
15MHz+15MHz	2503.5	2518.5	1	74	1	0	21.54	21.61	21.44
			75	0	75	0	19.91	18.84	18.63
	2585.5	2600.5	1	74	1	0	21,64	21.70	21.69
			75	0	75	0	19.92	18.83	17.95
	2667.5	2682.5	1	74	1	0	21.56	21.85	21.28

			75	0	75	0	19.77	18.70	18.07
15MHz+20MHz	2503.8	2520.9	1	74	1	0	21.83	21.76	20.79
			75	0	100	0	19.88	18.83	18.00
	2583.3	2600.4	1	74	1	0	21.79	21.84	21.08
			75	0	100	0	19.91	18.86	18.31
	2662.9	2680	1	74	1	0	21.74	21.88	21.00
			75	0	100	0	19.82	18.75	18.44
20MHz+15MHz	2506	2523.1	1	99	1	0	21.87	22.09	21.69
			100	0	75	0	20.09	18.97	18.37
	2585.6	2602.7	1	99	1	0	21.95	21.98	21.35
			100	0	75	0	20.18	19.12	18.55
	2665.1	2682.2	1	99	1	0	21.96	22.09	21.69
			100	0	75	0	19.94	18.90	18.37
20MHz+20MHz	2506	2525.8	1	99	1	0	21.79	21.88	20.99
			1	0	1	99	10.14	10.45	9.60
			100	0	100	0	19.90	18.84	18.64
	2583.1	2602.9	1	99	1	0	21.93	21.97	21.15
			1	0	1	99	10.48	10.68	10.51
			100	0	100	0	20.06	18.93	18.16
	2660.2	2680	1	99	1	0	21.94	21.98	21.21
			1	0	1	99	10.31	10.60	10.05
			100	0	100	0	19.93	18.89	18.60

5.2 Effective Isotropic Radiated Power

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Methods of Measurement

1. The testing follows FCC KDB 971168 D01 v03r01 Section 5.8 and ANSI C63.26 (2015).

a) Connect the equipment as illustrated. Mount the equipment with the manufacturer specified antenna in a vertical orientation on a manufacturer specified mounting surface located on a non-conducting rotating platform of a RF anechoic chamber (preferred) or a standard radiation site.

b) Key the transmitter, then rotate the EUT 360° azimuthally and record spectrum analyzer power level (LVL) measurements at angular increments that are sufficiently small to permit resolution of all peaks. If a standard radiation test site is used, raise and lower the test antenna to obtain a maximum reading at each angular increment. (Note: several batteries may be needed to offset the effect of battery voltage droop, which should not exceed 5% of the manufactured specified battery voltage during transmission).

c) Replace the transmitter under test with a vertically polarized half-wave dipole (or an antenna whose gain is known relative to an ideal half-wave dipole). The center of the antenna should be at the same location as the center of the antenna under test.

d) Connect the antenna to a signal generator with a known output power and record the path loss (in dB) as LOSS. If a standard radiation test site is used, raise and lower the test antenna to obtain a maximum reading.LOSS = Generator Output Power (dBm) – Analyzer reading (dBm)

e) Determine the effective radiated output power at each angular position from the readings in steps b) and d) using the following equation:ERP (dBm) = LVL (dBm) + LOSS (dB)

f) The maximum ERP is the maximum value determined in the preceding step.

g) When calculating ERP, in addition to knowing the antenna radiation and matching characteristics, it is necessary to know the loss values of all elements (e.g.transmission line attenuation, mismatches, filters, combiners) interposed between the point where transmitter output power is measured, and the point where power is applied to the antenna. ERP can then be calculated as follows:

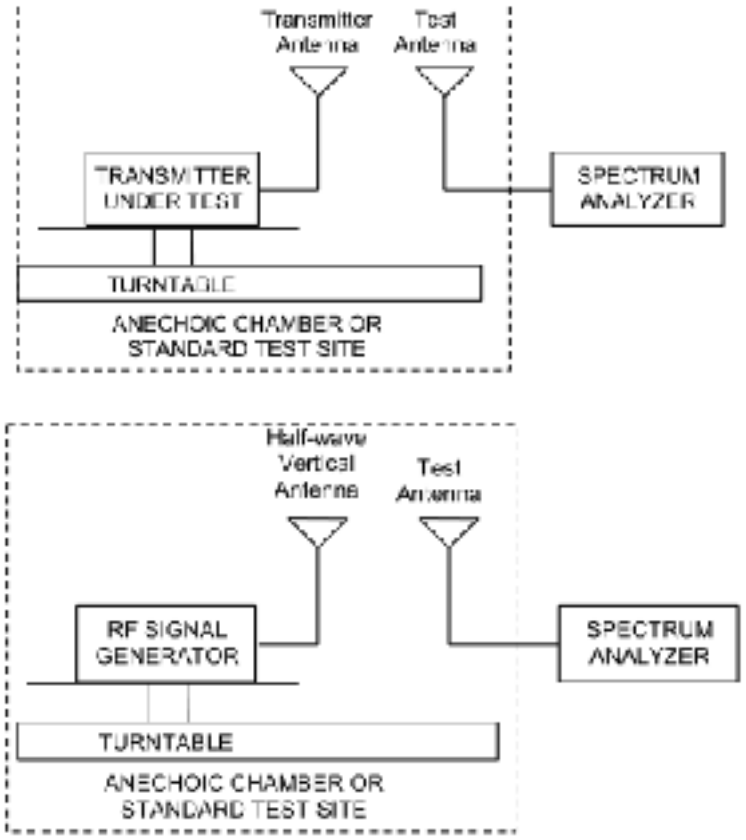
EIRP (dBm) = Output Power (dBm) - Losses (dB) + Antenna Gain (dBi)

where:dBd refers to gain relative to an ideal dipole.

EIRP (dBm) = ERP (dBm) + 2.15 (dB.)

The RB allocation refers to section 5.1, using the maximum output power configuration.

Test setup



Note: Area side:2.4mX3.6m

The radiated emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The worst emission was found in stand-up position (Z axis) and the worst case was recorded.

Limits

Rule Part 27.50(b) (10) specifies that “Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts ERP”

Rule Part 27.50(c) (10) specifies that “Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP”

Rule Part 27.50(d) (4) specifies that “Fixed, mobile and portable (hand-held) stations operating in the 1710–1755 MHz band are limited to 1 watt EIRP”

Rule Part 27.50(h) (2) specifies that “Mobile and other user stations. Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.”

Part 27.50(c)(10)Limit	≤ 3 W (34.77 dBm)
Part 27.50(d)(4)Limit	≤ 1 W (30 dBm)
Part 27.50(h)(2) Limit	≤ 2 W (33 dBm)

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 2, U= 1.19 dB

Test Results

The measurement is performed for both of horizontal and vertical antenna Polarization, and only the data of worst mode is recorded in this report.

Mode	Channel	Frequency (MHz)	Polarization	EIRP (dBm)	Limit (dBm)	Conclusion
WCDMA Band IV	Low	1712.4	Horizontal	21.29	30	Pass
	Mid	1732.6	Horizontal	21.75	30	Pass
	High	1752.6	Horizontal	22.04	30	Pass

LTE Band 4						
Bandwidth	Channel	Frequency (MHz)	Polarization	EIRP (dBm)	Limit (dBm)	Conclusion
1.4 MHz (QPSK)	Low	1710.7	Horizontal	21.00	30	Pass
	Mid	1732.5	Horizontal	21.43	30	Pass
	High	1754.3	Horizontal	21.66	30	Pass
3 MHz (QPSK)	Low	1711.5	Horizontal	21.12	30	Pass
	Mid	1732.5	Horizontal	21.25	30	Pass
	High	1753.5	Horizontal	21.36	30	Pass
5 MHz (QPSK)	Low	1712.5	Horizontal	21.33	30	Pass
	Mid	1732.5	Horizontal	21.29	30	Pass
	High	1752.5	Horizontal	21.62	30	Pass
10 MHz (QPSK)	Low	1715	Horizontal	21.42	30	Pass
	Mid	1732.5	Horizontal	21.39	30	Pass
	High	1750	Horizontal	21.68	30	Pass
15 MHz (QPSK)	Low	1717.5	Horizontal	21.37	30	Pass
	Mid	1732.5	Horizontal	21.52	30	Pass
	High	1747.5	Horizontal	21.71	30	Pass
20 MHz (QPSK)	Low	1720	Horizontal	21.62	30	Pass
	Mid	1732.5	Horizontal	21.15	30	Pass
	High	1745	Horizontal	21.52	30	Pass
1.4 MHz (16QAM)	Low	1710.7	Horizontal	20.43	30	Pass
	Mid	1732.5	Horizontal	20.88	30	Pass
	High	1754.3	Horizontal	21.09	30	Pass
3 MHz (16QAM)	Low	1711.5	Horizontal	20.58	30	Pass
	Mid	1732.5	Horizontal	20.68	30	Pass
	High	1753.5	Horizontal	20.84	30	Pass
5 MHz (16QAM)	Low	1712.5	Horizontal	20.79	30	Pass
	Mid	1732.5	Horizontal	20.75	30	Pass
	High	1752.5	Horizontal	21.10	30	Pass
10 MHz (16QAM)	Low	1715	Horizontal	20.88	30	Pass
	Mid	1732.5	Horizontal	20.81	30	Pass
	High	1750	Horizontal	21.15	30	Pass

15 MHz (16QAM)	Low	1717.5	Horizontal	20.84	30	Pass
	Mid	1732.5	Horizontal	21.02	30	Pass
	High	1747.5	Horizontal	21.18	30	Pass
20 MHz (16QAM)	Low	1720	Horizontal	21.10	30	Pass
	Mid	1732.5	Horizontal	20.59	30	Pass
	High	1745	Horizontal	20.99	30	Pass
1.4 MHz (64QAM)	Low	1710.7	Horizontal	19.92	30	Pass
	Mid	1732.5	Horizontal	20.35	30	Pass
	High	1754.3	Horizontal	20.54	30	Pass
3 MHz (64QAM)	Low	1711.5	Horizontal	20.05	30	Pass
	Mid	1732.5	Horizontal	20.16	30	Pass
	High	1753.5	Horizontal	20.31	30	Pass
5 MHz (64QAM)	Low	1712.5	Horizontal	20.25	30	Pass
	Mid	1732.5	Horizontal	20.21	30	Pass
	High	1752.5	Horizontal	20.53	30	Pass
10 MHz (64QAM)	Low	1715	Horizontal	20.34	30	Pass
	Mid	1732.5	Horizontal	20.28	30	Pass
	High	1750	Horizontal	20.61	30	Pass
15 MHz (64QAM)	Low	1717.5	Horizontal	20.27	30	Pass
	Mid	1732.5	Horizontal	20.51	30	Pass
	High	1747.5	Horizontal	20.65	30	Pass
20 MHz (64QAM)	Low	1720	Horizontal	20.58	30	Pass
	Mid	1732.5	Horizontal	20.06	30	Pass
	High	1745	Horizontal	20.47	30	Pass

LTE Band 7						
Band width	**Channel**	**Frequency (MHz)**	**Polarization**	**EIRP (dBm)**	**Limit (dBm)**	**Conclusion**
5 MHz (QPSK)	Low	2502.5	Horizontal	22.59	33	Pass
	Mid	2535	Horizontal	22.21	33	Pass
	High	2567.5	Horizontal	22.76	33	Pass
10 MHz (QPSK)	Low	2505	Horizontal	22.23	33	Pass
	Mid	2535	Horizontal	22.32	33	Pass
	High	2565	Horizontal	22.43	33	Pass
15 MHz (QPSK)	Low	2507.5	Horizontal	22.57	33	Pass
	Mid	2535	Horizontal	22.37	33	Pass
	High	2562.5	Horizontal	22.43	33	Pass
20 MHz (QPSK)	Low	2510	Horizontal	22.88	33	Pass
	Mid	2535	Horizontal	22.26	33	Pass
	High	2560	Horizontal	22.38	33	Pass
5 MHz	Low	2502.5	Horizontal	22.02	33	Pass

(16QAM)	Mid	2535	Horizontal	21.68	33	Pass
	High	2567.5	Horizontal	22.22	33	Pass
10 MHz (16QAM)	Low	2505	Horizontal	21.71	33	Pass
	Mid	2535	Horizontal	21.76	33	Pass
	High	2565	Horizontal	21.92	33	Pass
15 MHz (16QAM)	Low	2507.5	Horizontal	21.32	33	Pass
	Mid	2535	Horizontal	20.58	33	Pass
	High	2562.5	Horizontal	21.05	33	Pass
20 MHz (16QAM)	Low	2510	Horizontal	22.36	33	Pass
	Mid	2535	Horizontal	21.72	33	Pass
	High	2560	Horizontal	21.86	33	Pass
5 MHz (64QAM)	Low	2502.5	Horizontal	21.47	33	Pass
	Mid	2535	Horizontal	21.16	33	Pass
	High	2567.5	Horizontal	21.62	33	Pass
10 MHz (64QAM)	Low	2505	Horizontal	21.17	33	Pass
	Mid	2535	Horizontal	21.24	33	Pass
	High	2565	Horizontal	21.37	33	Pass
15 MHz (64QAM)	Low	2507.5	Horizontal	20.78	33	Pass
	Mid	2535	Horizontal	20.05	33	Pass
	High	2562.5	Horizontal	20.45	33	Pass
20 MHz (64QAM)	Low	2510	Horizontal	21.85	33	Pass
	Mid	2535	Horizontal	21.18	33	Pass
	High	2560	Horizontal	21.29	33	Pass

LTE Band 12						
Bandwidth	**Channel**	**Frequency (MHz)**	**Polarization**	**ERP (dBm)**	**Limit (dBm)**	**Conclusion**
1.4 MHz (QPSK)	Low	699.7	Horizontal	15.69	34.77	Pass
	Mid	707.5	Horizontal	16.33	34.77	Pass
	High	715.3	Horizontal	16.86	34.77	Pass
3 MHz (QPSK)	Low	700.5	Horizontal	15.69	34.77	Pass
	Mid	707.5	Horizontal	16.29	34.77	Pass
	High	714.5	Horizontal	16.84	34.77	Pass
5 MHz (QPSK)	Low	701.5	Horizontal	15.72	34.77	Pass
	Mid	707.5	Horizontal	16.18	34.77	Pass
	High	713.5	Horizontal	16.63	34.77	Pass
10 MHz (QPSK)	Low	704	Horizontal	15.66	34.77	Pass
	Mid	707.5	Horizontal	15.98	34.77	Pass
	High	711	Horizontal	16.22	34.77	Pass
1.4 MHz (16QAM)	Low	699.7	Horizontal	15.18	34.77	Pass
	Mid	707.5	Horizontal	15.73	34.77	Pass
	High	715.3	Horizontal	16.34	34.77	Pass
3 MHz (16QAM)	Low	700.5	Horizontal	15.12	34.77	Pass
	Mid	707.5	Horizontal	15.77	34.77	Pass
	High	714.5	Horizontal	16.30	34.77	Pass
5 MHz (16QAM)	Low	701.5	Horizontal	15.19	34.77	Pass
	Mid	707.5	Horizontal	15.60	34.77	Pass
	High	713.5	Horizontal	16.12	34.77	Pass
10 MHz (16QAM)	Low	704	Horizontal	15.06	34.77	Pass
	Mid	707.5	Horizontal	15.45	34.77	Pass
	High	711	Horizontal	15.68	34.77	Pass
1.4 MHz (64QAM)	Low	699.7	Horizontal	14.66	34.77	Pass
	Mid	707.5	Horizontal	15.20	34.77	Pass
	High	715.3	Horizontal	15.83	34.77	Pass
3 MHz (64QAM)	Low	700.5	Horizontal	14.60	34.77	Pass
	Mid	707.5	Horizontal	15.18	34.77	Pass
	High	714.5	Horizontal	15.73	34.77	Pass
5 MHz (64QAM)	Low	701.5	Horizontal	14.65	34.77	Pass
	Mid	707.5	Horizontal	15.05	34.77	Pass
	High	713.5	Horizontal	15.58	34.77	Pass
10 MHz (64QAM)	Low	704	Horizontal	14.54	34.77	Pass
	Mid	707.5	Horizontal	14.91	34.77	Pass
	High	711	Horizontal	15.17	34.77	Pass

LTE Band 17						
Bandwidth	**Channel**	**Frequency (MHz)**	**Polarization**	**ERP (dBm)**	**Limit (dBm)**	**Conclusion**
5MHz (QPSK)	Low	706.5	Horizontal	16.47	34.77	Pass
	Mid	710	Horizontal	16.53	34.77	Pass
	High	713.5	Horizontal	16.76	34.77	Pass
10MHz (QPSK)	Low	709	Horizontal	16.57	34.77	Pass
	Mid	710	Horizontal	16.70	34.77	Pass
	High	711	Horizontal	16.59	34.77	Pass
5MHz (16QAM)	Low	706.5	Horizontal	15.96	34.77	Pass
	Mid	710	Horizontal	16.00	34.77	Pass
	High	713.5	Horizontal	16.21	34.77	Pass
10MHz (16QAM)	Low	709	Horizontal	16.06	34.77	Pass
	Mid	710	Horizontal	16.10	34.77	Pass
	High	711	Horizontal	16.07	34.77	Pass
5MHz (64QAM)	Low	706.5	Horizontal	15.42	34.77	Pass
	Mid	710	Horizontal	15.48	34.77	Pass
	High	713.5	Horizontal	15.67	34.77	Pass
10MHz (64QAM)	Low	709	Horizontal	15.55	34.77	Pass
	Mid	710	Horizontal	15.57	34.77	Pass
	High	711	Horizontal	15.51	34.77	Pass

LTE Band 38						
Band width	Channel	Frequency (MHz)	Polarization	EIRP (dBm)	Limit (dBm)	Conclusion
5 MHz (QPSK)	Low	2572.5	Horizontal	22.39	33	Pass
	Mid	2595	Horizontal	22.66	33	Pass
	High	2617.5	Horizontal	22.91	33	Pass
10 MHz (QPSK)	Low	2575	Horizontal	22.41	33	Pass
	Mid	2595	Horizontal	22.57	33	Pass
	High	2615	Horizontal	22.73	33	Pass
15 MHz (QPSK)	Low	2577.5	Horizontal	22.35	33	Pass
	Mid	2595	Horizontal	22.41	33	Pass
	High	2612.5	Horizontal	22.86	33	Pass
20 MHz (QPSK)	Low	2580	Horizontal	22.07	33	Pass
	Mid	2595	Horizontal	22.19	33	Pass
	High	2610	Horizontal	22.67	33	Pass
5 MHz (16QAM)	Low	2572.5	Horizontal	21.82	33	Pass
	Mid	2595	Horizontal	22.14	33	Pass
	High	2617.5	Horizontal	22.39	33	Pass
10 MHz (16QAM)	Low	2575	Horizontal	21.84	33	Pass
	Mid	2595	Horizontal	22.06	33	Pass
	High	2615	Horizontal	22.22	33	Pass
15 MHz (16QAM)	Low	2577.5	Horizontal	21.81	33	Pass
	Mid	2595	Horizontal	21.88	33	Pass
	High	2612.5	Horizontal	22.32	33	Pass
20 MHz (16QAM)	Low	2580	Horizontal	21.54	33	Pass
	Mid	2595	Horizontal	21.65	33	Pass
	High	2610	Horizontal	22.15	33	Pass
5 MHz (64QAM)	Low	2572.5	Horizontal	21.29	33	Pass
	Mid	2595	Horizontal	21.63	33	Pass
	High	2617.5	Horizontal	21.87	33	Pass
10 MHz (64AM)	Low	2575	Horizontal	21.25	33	Pass
	Mid	2595	Horizontal	21.49	33	Pass
	High	2615	Horizontal	21.68	33	Pass
15 MHz (64QAM)	Low	2577.5	Horizontal	21.26	33	Pass
	Mid	2595	Horizontal	21.34	33	Pass
	High	2612.5	Horizontal	21.80	33	Pass
20 MHz (64QAM)	Low	2580	Horizontal	21.00	33	Pass
	Mid	2595	Horizontal	21.14	33	Pass
	High	2610	Horizontal	21.62	33	Pass

LTE Band 41						
Band width	Channel	Frequency (MHz)	Polarization	EIRP (dBm)	Limit (dBm)	Conclusion
5 MHz (QPSK)	Low	2498.5	Horizontal	21.53	33	Pass
	Mid	2593	Horizontal	22.64	33	Pass
	High	2687.5	Horizontal	21.40	33	Pass
10 MHz (QPSK)	Low	2501	Horizontal	21.62	33	Pass
	Mid	2593	Horizontal	22.57	33	Pass
	High	2685	Horizontal	21.48	33	Pass
15 MHz (QPSK)	Low	2503.5	Horizontal	22.06	33	Pass
	Mid	2593	Horizontal	22.56	33	Pass
	High	2682.5	Horizontal	21.94	33	Pass
20 MHz (QPSK)	Low	2506	Horizontal	22.15	33	Pass
	Mid	2593	Horizontal	22.74	33	Pass
	High	2680	Horizontal	22.09	33	Pass
5 MHz (16QAM)	Low	2498.5	Horizontal	20.98	33	Pass
	Mid	2593	Horizontal	22.07	33	Pass
	High	2687.5	Horizontal	20.80	33	Pass
10 MHz (16QAM)	Low	2501	Horizontal	21.10	33	Pass
	Mid	2593	Horizontal	22.04	33	Pass
	High	2685	Horizontal	20.97	33	Pass
15 MHz (16QAM)	Low	2503.5	Horizontal	21.54	33	Pass
	Mid	2593	Horizontal	21.97	33	Pass
	High	2682.5	Horizontal	21.37	33	Pass
20 MHz (16QAM)	Low	2506	Horizontal	21.61	33	Pass
	Mid	2593	Horizontal	22.19	33	Pass
	High	2680	Horizontal	21.55	33	Pass
5 MHz (64QAM)	Low	2498.5	Horizontal	20.46	33	Pass
	Mid	2593	Horizontal	21.55	33	Pass
	High	2687.5	Horizontal	20.23	33	Pass
10 MHz (64QAM)	Low	2501	Horizontal	20.59	33	Pass
	Mid	2593	Horizontal	21.53	33	Pass
	High	2685	Horizontal	20.43	33	Pass
15 MHz (64QAM)	Low	2503.5	Horizontal	21.01	33	Pass
	Mid	2593	Horizontal	21.43	33	Pass
	High	2682.5	Horizontal	20.84	33	Pass
20 MHz (64QAM)	Low	2506	Horizontal	21.07	33	Pass
	Mid	2593	Horizontal	21.67	33	Pass
	High	2680	Horizontal	21.04	33	Pass

CA_7C	PCC	SCC	PCC RB		SCC1 RB		Polarization	EIRP (dBm)			EIRP (W)			Limit (dBm)	Conclusion
	Frequency (MHz)	Frequency (MHz)	Size	Offset	Size	Offset		QPSK	16QAM	64QAM	QPSK	16QAM	64QAM		
10MHz+ 20MHz	2505.5	2519.9	1	49	1	0	V	22.12	21.56	21.06	0.16	0.14	0.13	33	Pass
	2525.6	2540	1	49	1	0	V	22.12	21.58	21.07	0.16	0.14	0.13	33	Pass
	2545.6	2560	1	49	1	0	V	22.27	21.75	22.34	0.17	0.15	0.17	33	Pass
20MHz+ 10MHz	2510	2524.4	1	99	1	0	V	22.19	21.64	21.12	0.17	0.15	0.13	33	Pass
	2530.1	2544.5	1	99	1	0	V	22.20	21.65	21.15	0.17	0.15	0.13	33	Pass
	2550.1	2564.5	1	99	1	0	V	22.89	22.36	22.84	0.19	0.17	0.19	33	Pass
15MHz+ 15MHz	2507.5	2522.5	1	74	1	0	V	22.16	22.65	22.12	0.16	0.18	0.16	33	Pass
	2527.5	2542.5	1	74	1	0	V	22.13	22.60	22.04	0.16	0.18	0.16	33	Pass
	2547.5	2562.5	1	74	1	0	V	22.43	21.89	21.35	0.17	0.15	0.14	33	Pass
15MHz+ 20MHz	2507.8	2524.9	1	74	1	0	V	22.21	21.67	21.14	0.17	0.15	0.13	33	Pass
	2525.3	2542.4	1	74	1	0	V	22.18	21.65	21.10	0.17	0.15	0.13	33	Pass
	2542.9	2560	1	74	1	0	V	22.67	22.07	21.54	0.18	0.16	0.14	33	Pass
20MHz+ 15MHz	2510	2527.1	1	99	1	0	V	22.13	21.59	21.03	0.16	0.14	0.13	33	Pass
	2527.6	2544.7	1	99	1	0	V	22.18	21.64	21.07	0.17	0.15	0.13	33	Pass
	2545.1	2562.2	1	99	1	0	V	22.73	22.49	21.92	0.19	0.18	0.16	33	Pass
20MHz+ 20MHz	2510	2529.8	1	99	1	0	V	22.16	21.62	21.08	0.16	0.15	0.13	33	Pass
	2525.1	2544.9	1	99	1	0	V	22.11	21.58	21.06	0.16	0.14	0.13	33	Pass
	2540.2	2560	1	99	1	0	V	22.66	22.10	21.53	0.18	0.16	0.14	33	Pass
CA_12B	PCC	SCC	PCC RB		SCC1 RB		Polarization	EIRP (dBm)			EIRP (W)			Limit (dBm)	Conclusion
	Frequency (MHz)	Frequency (MHz)	Size	Offset	Size	Offset		QPSK	16QAM	64QAM	QPSK	16QAM	64QAM		
5MHz+ 5MHz	701.5	706.3	1	24	1	0	V	17.56	17.03	16.49	0.06	0.05	0.04	34.77	Pass
	705.1	709.9	1	24	1	0	V	17.49	16.95	16.42	0.06	0.05	0.04	34.77	Pass
	708.7	713.5	1	24	1	0	V	17.62	17.07	16.55	0.06	0.05	0.05	34.77	Pass
5MHz+ 10MHz	701.8	709	1	24	1	0	V	17.47	16.95	16.40	0.06	0.05	0.04	34.77	Pass
	702.8	710	1	24	1	0	V	17.53	16.98	16.43	0.06	0.05	0.04	34.77	Pass
	703.8	711	1	24	1	0	V	17.64	17.13	16.59	0.06	0.05	0.05	34.77	Pass
CA_38C	PCC	SCC	PCC RB		SCC1 RB		Polarization	EIRP (dBm)			EIRP (W)			Limit (dBm)	Conclusion
	Frequency (MHz)	Frequency (MHz)	Size	Offset	Size	Offset		QPSK	16QAM	64QAM	QPSK	16QAM	64QAM		
15MHz+ 15MHz	2577.5	2592.5	1	74	1	0	V	21.59	21.05	20.52	0.14	0.13	0.11	33	Pass
	2587.5	2602.5	1	74	1	0	V	21.68	21.16	20.62	0.15	0.13	0.12	33	Pass
	2597.5	2612.5	1	74	1	0	V	21.78	21.28	20.71	0.15	0.13	0.12	33	Pass
20MHz+ 20MHz	2580	2599.8	1	99	1	0	V	21.63	21.13	20.59	0.15	0.13	0.11	33	Pass
	2585.1	2604.9	1	99	1	0	V	21.75	21.23	20.67	0.15	0.13	0.12	33	Pass
	2590.2	2610	1	99	1	0	V	21.84	21.31	20.73	0.15	0.14	0.12	33	Pass
CA_41C	PCC	SCC	PCC RB		SCC1 RB		Polarization	EIRP (dBm)			EIRP (W)			Limit (dBm)	Conclusion
	Frequency (MHz)	Frequency (MHz)	Size	Offset	Size	Offset		QPSK	16QAM	64QAM	QPSK	16QAM	64QAM		

5MHz+ 20MHz	2499.3	2511	1	24	1	0	H	21.59	21.03	20.49	0.14	0.13	0.11	33	Pass
	2583.8	2595.5	1	24	1	0	H	21.54	21.01	20.46	0.14	0.13	0.11	33	Pass
	2668.3	2680	1	24	1	0	H	21.08	20.51	19.97	0.13	0.11	0.10	33	Pass
20MHz+ 5MHz	2506	2517.7	1	99	1	0	H	21.43	20.89	20.32	0.14	0.12	0.11	33	Pass
	2590.5	2602.2	1	99	1	0	H	21.38	20.85	20.34	0.14	0.12	0.11	33	Pass
	2675	2686.7	1	99	1	0	H	21.15	20.61	20.05	0.13	0.12	0.10	33	Pass
10MHz+ 20MHz	2501.5	2515.9	1	49	1	0	H	21.55	21.04	20.51	0.14	0.13	0.11	33	Pass
	2583.6	2598	1	49	1	0	H	21.49	20.96	20.43	0.14	0.12	0.11	33	Pass
	2665.6	2680	1	49	1	0	H	20.85	20.32	19.79	0.12	0.11	0.10	33	Pass
20MHz+ 10MHz	2506	2520.4	1	99	1	0	H	21.36	20.83	20.27	0.14	0.12	0.11	33	Pass
	2588.1	2602.5	1	99	1	0	H	21.33	20.78	20.25	0.14	0.12	0.11	33	Pass
	2670.1	2684.5	1	99	1	0	H	20.74	20.22	19.68	0.12	0.11	0.09	33	Pass
15MHz+ 15MHz	2503.5	2518.5	1	74	1	0	H	21.57	21.04	20.51	0.14	0.13	0.11	33	Pass
	2585.5	2600.5	1	74	1	0	H	21.54	20.98	20.42	0.14	0.13	0.11	33	Pass
	2667.5	2682.5	1	74	1	0	H	20.88	20.35	19.82	0.12	0.11	0.10	33	Pass
15MHz+ 20MHz	2503.8	2520.9	1	74	1	0	H	21.48	20.91	20.39	0.14	0.12	0.11	33	Pass
	2583.3	2600.4	1	74	1	0	H	21.37	20.84	20.32	0.14	0.12	0.11	33	Pass
	2662.9	2680	1	74	1	0	H	20.49	19.95	19.42	0.11	0.10	0.09	33	Pass
20MHz+ 15MHz	2506	2523.1	1	99	1	0	H	21.62	21.09	20.52	0.15	0.13	0.11	33	Pass
	2585.6	2602.7	1	99	1	0	H	21.55	21.01	20.48	0.14	0.13	0.11	33	Pass
	2665.1	2682.2	1	99	1	0	H	20.75	20.23	19.69	0.12	0.11	0.09	33	Pass
20MHz+ 20MHz	2506	2525.8	1	99	1	0	H	21.46	20.92	20.37	0.14	0.12	0.11	33	Pass
	2583.1	2602.9	1	99	1	0	H	21.46	20.95	20.42	0.14	0.12	0.11	33	Pass
	2660.2	2680	1	99	1	0	H	20.35	19.81	19.25	0.11	0.10	0.08	33	Pass

Note: 1. EIRP= E.R.P+2.15

5.3 Occupied Bandwidth

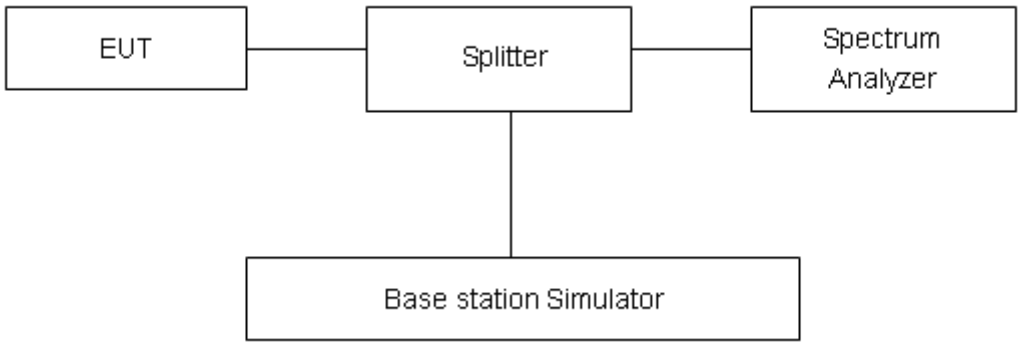
Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

The EUT was connected to Spectrum Analyzer and Base Station Simulator via power Splitter. The occupied bandwidth is measured using spectrum analyzer.
RBW is set to 51 kHz, VBW is set to 160 kHz for WCDMA Band IV.
RBW is set to 51 kHz, VBW is set to 160 kHz for LTE Band 4/12 (1.4MHz).
RBW is set to 100 kHz, VBW is set to 300 kHz for LTE Band 4/12 (3MHz).
RBW is set to 100 kHz, VBW is set to 300 kHz for LTE Band 4/7/12/17/38/41 (5MHz).
RBW is set to 300 kHz, VBW is set to 1MHz for LTE Band 4/7/12/17/38/41 (10MHz).
RBW is set to 300 kHz, VBW is set to 1MHz for LTE Band 4/7/38/41 (15MHz/20MHz).
RBW is set to 1MHz, VBW is set to 3MHz for CA Band.
99% power and -26dBc occupied bandwidths are recorded. Spectrum analyzer plots are included on the following pages.

Test Setup



Limits

No specific occupied bandwidth requirements in part 2.1049.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 2, U=624Hz.

Test Result

Mode	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
WCDMA Band IV (RMC)	1312	1712.4	4.1607	4.668
	1413	1732.6	4.1545	4.664
	1513	1752.6	4.1558	4.656

LTE Band 4						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	19957	1710.7	1.1110	1.252
			20175	1732.5	1.1101	1.253
			20393	1754.3	1.1069	1.251
		3	19965	1711.5	2.7308	2.976
			20175	1732.5	2.7337	2.986
			20385	1753.5	2.7316	2.978
		5	19975	1712.5	4.5002	4.860
			20175	1732.5	4.5038	4.875
			20375	1752.5	4.4982	4.859
		10	20000	1715	9.0477	9.754
			20175	1732.5	9.0581	9.771
			20350	1750	9.0510	9.744
		15	20025	1717.5	13.4660	14.350
			20175	1732.5	13.4710	14.320
			20325	1747.5	13.4580	14.380
		20	20050	1720	17.9220	18.910
			20175	1732.5	17.9140	18.930
			20300	1745	17.9030	18.900
	16QAM	1.4	19957	1710.7	1.1107	1.255
			20175	1732.5	1.1113	1.249
			20393	1754.3	1.1098	1.255
		3	19965	1711.5	2.7313	2.978
			20175	1732.5	2.7332	2.981
			20385	1753.5	2.7448	2.981
		5	19975	1712.5	4.5012	4.870
			20175	1732.5	4.5022	4.865
			20375	1752.5	4.5030	4.851
		10	20000	1715	9.0470	9.753
			20175	1732.5	9.0422	9.751

			20350	1750	9.0459	9.746
		15	20025	1717.5	13.4660	14.370
			20175	1732.5	13.4820	14.320
			20325	1747.5	13.4640	14.330
		20	20050	1720	17.9300	18.930
			20175	1732.5	17.9120	18.990
			20300	1745	17.8960	18.860
	64QAM	1.4	19957	1710.7	1.1141	1.254
			20175	1732.5	1.1096	1.256
			20393	1754.3	1.1109	1.253
		3	19965	1711.5	2.7309	2.982
			20175	1732.5	2.7361	2.977
			20385	1753.5	2.7338	2.973
		5	19975	1712.5	4.4991	4.871
			20175	1732.5	4.4992	4.855
			20375	1752.5	4.4983	4.865
		10	20000	1715	9.0439	9.753
			20175	1732.5	9.0521	9.750
			20350	1750	9.0434	9.771
		15	20025	1717.5	13.4640	14.350
			20175	1732.5	13.4820	14.370
			20325	1747.5	13.4580	14.330
		20	20050	1720	17.9190	19.000
			20175	1732.5	17.9130	18.910
			20300	1745	17.8960	18.830

LTE Band 7						
RB	**Modulation**	**Bandwidth (MHz)**	**Channel**	**Frequency (MHz)**	**99% Power Bandwidth(MHz)**	**-26dBc Bandwidth(MHz)**
100%	QPSK	5	20775	2502.5	4.4979	4.872
			21100	2535	4.4986	4.860
			21425	2567.5	4.5020	4.884
		10	20800	2505	9.0443	9.745
			21100	2535	9.0479	9.758
			21400	2565	9.0489	9.769
		15	20825	2507.5	13.4940	14.390
			21100	2535	13.4850	14.320
			21375	2562.5	13.4600	14.310
		20	20850	2510	17.9310	18.930
			21100	2535	17.9020	18.910

			21350	2560	17.9050	18.890
	16QAM	5	20775	2502.5	4.4983	4.863
			21100	2535	4.4975	4.879
			21425	2567.5	4.5005	4.866
		10	20800	2505	9.0455	9.732
			21100	2535	9.0545	9.749
			21400	2565	9.0609	9.770
		15	20825	2507.5	13.4860	14.330
			21100	2535	13.4640	14.320
			21375	2562.5	13.4520	14.300
		20	20850	2510	17.9190	18.970
			21100	2535	17.9200	18.910
			21350	2560	17.8950	18.830
	64QAM	5	20775	2502.5	4.4995	4.870
			21100	2535	4.4977	4.868
			21425	2567.5	4.5051	4.864
		10	20800	2505	9.0522	9.773
			21100	2535	9.0502	9.755
			21400	2565	9.0410	9.744
		15	20825	2507.5	13.4790	14.380
			21100	2535	13.4810	14.310
			21375	2562.5	13.4620	14.320
		20	20850	2510	17.9240	18.920
			21100	2535	17.9150	18.880
			21350	2560	17.9040	18.910

LTE Band 12						
RB	**Modulation**	**Bandwidth (MHz)**	**Channel**	**Frequency (MHz)**	**99% Power Bandwidth(MHz)**	**-26dBc Bandwidth(MHz)**
100%	QPSK	1.4	23017	699.7	1.1066	1.247
			23095	707.5	1.1102	1.252
			23173	715.3	1.1129	1.253
		3	23025	700.5	2.7336	2.975
			23095	707.5	2.7302	2.973
			23165	714.5	2.7239	2.971
		5	23035	701.5	4.5011	4.859
			23095	707.5	4.4991	4.860
			23155	713.5	4.4869	4.843
		10	23060	704	9.0266	9.716
			23095	707.5	9.0688	9.753

			23130	711	9.0556	9.772
	16QAM	1.4	23017	699.7	1.1094	1.247
			23095	707.5	1.1109	1.243
			23173	715.3	1.1107	1.253
		3	23025	700.5	2.7331	2.977
			23095	707.5	2.7296	2.984
			23165	714.5	2.7291	2.972
		5	23035	701.5	4.4927	4.855
			23095	707.5	4.5024	4.857
			23155	713.5	4.4930	4.844
		10	23060	704	9.0121	9.741
			23095	707.5	9.0579	9.747
			23130	711	9.0531	9.747
	64QAM	1.4	23017	699.7	1.1098	1.248
			23095	707.5	1.1094	1.250
			23173	715.3	1.1100	1.250
		3	23025	700.5	2.7311	2.980
			23095	707.5	2.7368	2.984
			23165	714.5	2.7267	2.965
		5	23035	701.5	4.4993	4.827
			23095	707.5	4.4957	4.861
			23155	713.5	4.4930	4.870
		10	23060	704	9.0217	9.722
			23095	707.5	9.0626	9.748
			23130	711	9.0523	9.751

LTE Band 17						
RB	**Modulation**	**Bandwidth (MHz)**	**Channel**	**Frequency (MHz)**	**99% Power Bandwidth(MHz)**	**-26dBc Bandwidth(MHz)**
100%	QPSK	5	23755	706.5	4.4941	4.858
			23790	710	4.5020	4.875
			23825	713.5	4.4867	4.842
		10	23780	709	9.0684	9.764
			23790	710	9.0637	9.744
			23800	711	9.0535	9.744
	16QAM	5	23755	706.5	4.5023	4.863
			23790	710	4.5042	4.871
			23825	713.5	4.4941	4.853
		10	23780	709	9.0721	9.765

			23790	710	9.0672	9.764
			23800	711	9.0514	9.761
	64QAM	5	23755	706.5	4.4949	4.868
			23790	710	4.5001	4.863
			23825	713.5	4.4950	4.841
		10	23780	709	9.0663	9.774
			23790	710	9.0608	9.786
			23800	711	9.0563	9.768

LTE Band 38						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	5	37775	2572.5	4.4884	4.817
			38000	2595	4.4983	4.848
			38225	2617.5	4.4870	4.838
		10	37800	2575	9.0335	9.741
			38000	2595	9.0434	9.735
			38200	2615	9.0295	9.720
		15	37825	2577.5	13.4640	14.290
			38000	2595	13.4730	14.340
			38175	2612.5	13.4520	14.260
		20	37850	2580	17.8950	18.970
			38000	2595	17.9060	18.800
			38150	2610	17.9140	18.810
	16QAM	5	37775	2572.5	4.5038	4.870
			38000	2595	4.5025	4.860
			38225	2617.5	4.4880	4.829
		10	37800	2575	9.0462	9.713
			38000	2595	9.0337	9.717
			38200	2615	9.0493	9.709
		15	37825	2577.5	13.4740	14.360
			38000	2595	13.4380	14.270
			38175	2612.5	13.4600	14.250
		20	37850	2580	17.8740	18.810
			38000	2595	17.8860	18.760
			38150	2610	17.9030	18.840
	64QAM	5	37775	2572.5	4.4930	4.850
			38000	2595	4.4816	4.835
			38225	2617.5	4.4857	4.837
		10	37800	2575	9.0390	9.717
			38000	2595	9.0450	9.720
			38200	2615	9.0365	9.684
		15	37825	2577.5	13.4630	14.280
			38000	2595	13.4680	14.290
			38175	2612.5	13.4620	14.270
		20	37850	2580	17.9150	18.960
			38000	2595	17.9120	19.000
			38150	2610	17.9070	18.850

LTE Band 41						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	5	39675	2498.5	4.4894	4.845
			40620	2593	4.4956	4.851
			41565	2687.5	4.4970	4.889
		10	39700	2501	9.0566	9.781
			40620	2593	9.0402	9.741
			41540	2685	9.0495	9.775
		15	39725	2503.5	13.4660	14.310
			40620	2593	13.4560	14.400
			41515	2682.5	13.4610	14.270
		20	39750	2506	17.9070	18.900
			40620	2593	17.9100	18.820
			41490	2680	17.9000	18.840
	16QAM	5	39675	2498.5	4.4870	4.851
			40620	2593	4.4917	4.836
			41565	2687.5	4.5005	4.833
		10	39700	2501	9.0549	9.725
			40620	2593	9.0521	9.750
			41540	2685	9.0489	9.757
		15	39725	2503.5	13.4940	14.300
			40620	2593	13.4690	14.380
			41515	2682.5	13.4760	14.310
		20	39750	2506	17.9220	19.030
			40620	2593	17.8990	18.820
			41490	2680	17.9040	18.880
	64QAM	5	39675	2498.5	4.5010	4.842
			40620	2593	4.4852	4.824
			41565	2687.5	4.4839	4.825
		10	39700	2501	9.0836	9.775
			40620	2593	9.0569	9.749
			41540	2685	9.0520	9.730
		15	39725	2503.5	13.4790	14.340
			40620	2593	13.4620	14.300
			41515	2682.5	13.4660	14.260
		20	39750	2506	17.8950	18.800
			40620	2593	17.9150	18.910
			41490	2680	17.9130	18.900

CA_7C	PCC		SCC1		PCC RB	SCC1 RB	Bandwidth(MHz)	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)			99% Power	-26dBc
CA_7C_10MHz+20MHz_QPSK	21006	2525.6	21150	2540	50#0	75#0	28.09	30.15
CA_7C_10MHz+20MHz_16QAM	21006	2525.6	21150	2540	50#0	75#0	28.08	30.17
CA_7C_10MHz+20MHz_64QAM	21006	2525.6	21150	2540	50#0	75#0	27.88	29.99
CA_7C_20MHz+10MHz_QPSK	21051	2530.1	21195	2544.5	75#0	50#0	28.17	30.49
CA_7C_20MHz+10MHz_16QAM	21051	2530.1	21195	2544.5	75#0	50#0	28.08	30.32
CA_7C_20MHz+10MHz_64QAM	21051	2530.1	21195	2544.5	75#0	50#0	28.14	30.41
CA_7C_15MHz+10MHz_QPSK	21051	2530.1	21171	2542.1	75#0	75#0	23.56	25.56
CA_7C_15MHz+10MHz_16QAM	21025	2527.5	21175	2542.5	75#0	75#0	23.49	25.60
CA_7C_15MHz+10MHz_64QAM	21025	2527.5	21175	2542.5	75#0	75#0	23.53	25.58
CA_7C_15MHz+15MHz_QPSK	21025	2527.5	21175	2542.5	75#0	75#0	28.69	30.96
CA_7C_15MHz+15MHz_16QAM	21025	2527.5	21175	2542.5	75#0	75#0	28.67	30.97
CA_7C_15MHz+15MHz_64QAM	21025	2527.5	21175	2542.5	75#0	75#0	28.66	30.88
CA_7C_15MHz+20MHz_QPSK	21003	2525.3	21174	2542.4	75#0	100#0	32.92	35.31
CA_7C_15MHz+20MHz_16QAM	21003	2525.3	21174	2542.4	75#0	100#0	32.87	35.29
CA_7C_15MHz+20MHz_64QAM	21003	2525.3	21174	2542.4	75#0	100#0	32.87	35.31
CA_7C_20MHz+15MHz_QPSK	21026	2527.6	21197	2544.7	100#0	75#0	32.99	35.52
CA_7C_20MHz+15MHz_16QAM	21026	2527.6	21197	2544.7	100#0	75#0	32.86	35.26
CA_7C_20MHz+15MHz_64QAM	21026	2527.6	21197	2544.7	100#0	75#0	32.89	35.31
CA_7C_20MHz+20MHz_QPSK	21001	2525.1	21199	2544.9	100#0	100#0	37.81	40.42
CA_7C_20MHz+20MHz_16QAM	21001	2525.1	21199	2544.9	100#0	100#0	37.75	40.40
CA_7C_20MHz+20MHz_64QAM	21001	2525.1	21199	2544.9	100#0	100#0	37.79	40.30

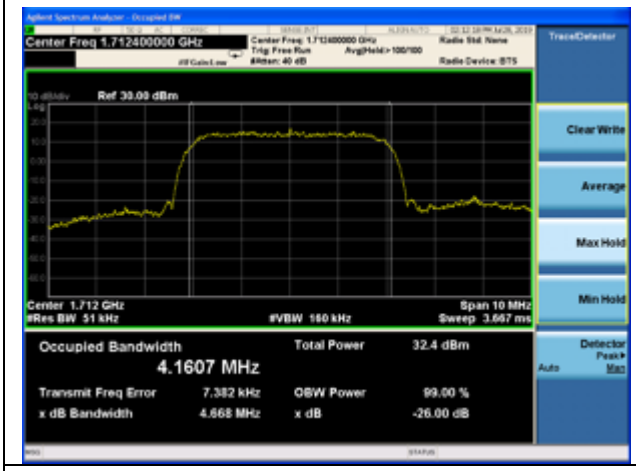
CA_12B	PCC		SCC1		PCC RB	SCC1 RB	Bandwidth(MHz)	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)			99% Power	-26dBc
CA_12B_5MHz+5MHz_QPSK	23071	705.1	23119	709.9	25#0	25#0	10.20	11.69
CA_12B_5MHz+5MHz_16QAM	23071	705.1	23119	709.9	25#0	25#0	10.08	11.51
CA_12B_5MHz+5MHz_64QAM	23071	705.1	23119	709.9	25#0	25#0	10.21	11.60
CA_12B_5MHz+10MHz_QPSK	23048	702.8	23120	710	25#0	50#0	14.62	16.18
CA_12B_5MHz+10MHz_16QAM	23048	702.8	23120	710	25#0	50#0	14.52	16.13
CA_12B_5MHz+10MHz_64QAM	23048	702.8	23120	710	25#0	50#0	14.55	16.06

CA_38C	PCC		SCC1		PCC RB	SCC1 RB	Bandwidth(MHz)	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)			99% Power	-26dBc
CA_38C_15MHz+15MHz_QPSK	37925	2587.5	38075	2602.5	75#0	75#0	28.65	30.97
CA_38C_15MHz+15MHz_16QAM	37925	2587.5	38075	2602.5	75#0	75#0	28.58	31.71
CA_38C_15MHz+15MHz_64QAM	37925	2587.5	38075	2602.5	75#0	75#0	28.68	31.37

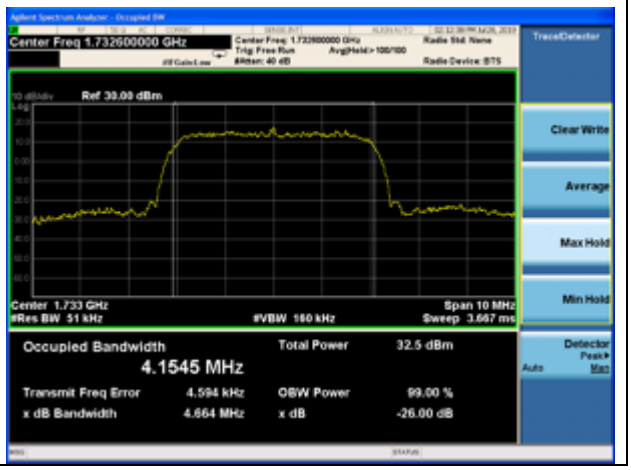
CA_38C_20MHz+20MHz_QPSK	37901	2585.1	38099	2604.9	100#0	100#0	37.66	40.48
CA_38C_20MHz+20MHz_16QAM	37901	2585.1	38099	2604.9	100#0	100#0	37.61	40.82
CA_38C_20MHz+20MHz_64QAM	37901	2585.1	38099	2604.9	100#0	100#0	37.68	40.75

CA_41C	PCC		SCC1		PCC RB	SCC1 RB	Bandwidth(MHz)	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)			99% Power	-26dBc
CA_41C_5MHz+20MHz_QPSK	40528	2583.8	40645	2595.5	25#0	100#0	23.40	26.33
CA_41C_5MHz+20MHz_16QAM	40528	2583.8	40645	2595.5	25#0	100#0	23.24	25.14
CA_41C_5MHz+20MHz_64QAM	40528	2583.8	40645	2595.5	25#0	100#0	23.26	25.40
CA_41C_20MHz+5MHz_QPSK	40595	2590.5	40712	2602.2	100#0	25#0	23.26	25.90
CA_41C_20MHz+5MHz_16QAM	40595	2590.5	40712	2602.2	100#0	25#0	23.20	26.97
CA_41C_20MHz+5MHz_64QAM	40595	2590.5	40712	2602.2	100#0	25#0	23.23	28.39
CA_41C_10MHz+20MHz_QPSK	40549	2585.9	40669	2597.9	50#0	75#0	25.70	29.38
CA_41C_10MHz+20MHz_16QAM	40549	2585.9	40669	2597.9	50#0	75#0	25.60	28.34
CA_41C_10MHz+20MHz_64QAM	40549	2585.9	40669	2597.9	50#0	75#0	25.60	28.78
CA_41C_20MHz+10MHz_QPSK	40571	2588.1	40691	2600.1	75#0	50#0	25.66	28.19
CA_41C_20MHz+10MHz_16QAM	40571	2588.1	40691	2600.1	75#0	50#0	25.71	28.43
CA_41C_20MHz+10MHz_64QAM	40571	2588.1	40691	2600.1	75#0	50#0	25.73	27.94
CA_41C_15MHz+15MHz_QPSK	40545	2585.5	40695	2600.5	75#0	75#0	28.61	32.31
CA_41C_15MHz+15MHz_16QAM	40545	2585.5	40695	2600.5	75#0	75#0	28.65	31.23
CA_41C_15MHz+15MHz_64QAM	40545	2585.5	40695	2600.5	75#0	75#0	28.67	31.16
CA_41C_15MHz+20MHz_QPSK	40523	2583.3	40694	2600.4	75#0	100#0	32.85	35.47
CA_41C_15MHz+20MHz_16QAM	40523	2583.3	40694	2600.4	75#0	100#0	32.81	35.48
CA_41C_15MHz+20MHz_64QAM	40523	2583.3	40694	2600.4	75#0	100#0	32.83	35.14
CA_41C_20MHz+15MHz_QPSK	40546	2585.6	40717	2602.7	100#0	75#0	32.96	36.14
CA_41C_20MHz+15MHz_16QAM	40546	2585.6	40717	2602.7	100#0	75#0	32.86	35.46
CA_41C_20MHz+15MHz_64QAM	40546	2585.6	40717	2602.7	100#0	75#0	32.84	35.99
CA_41C_20MHz+20MHz_QPSK	40521	2583.1	40719	2602.9	100#0	100#0	37.69	40.87
CA_41C_20MHz+20MHz_16QAM	40521	2583.1	40719	2602.9	100#0	100#0	37.68	41.90
CA_41C_20MHz+20MHz_64QAM	40521	2583.1	40719	2602.9	100#0	100#0	37.65	40.84

WCDMA Band IV CH-Low

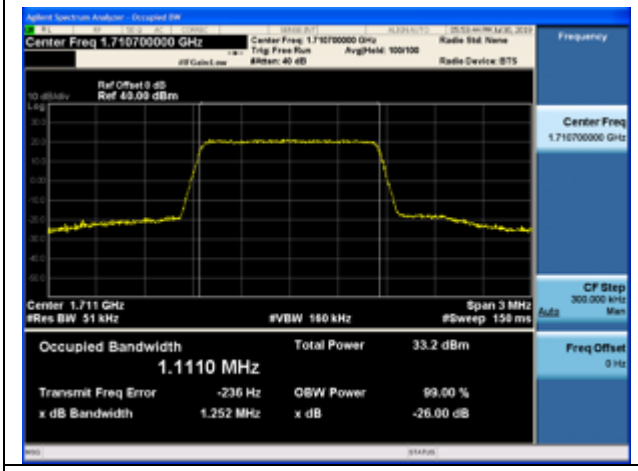


WCDMA Band IV CH Middle



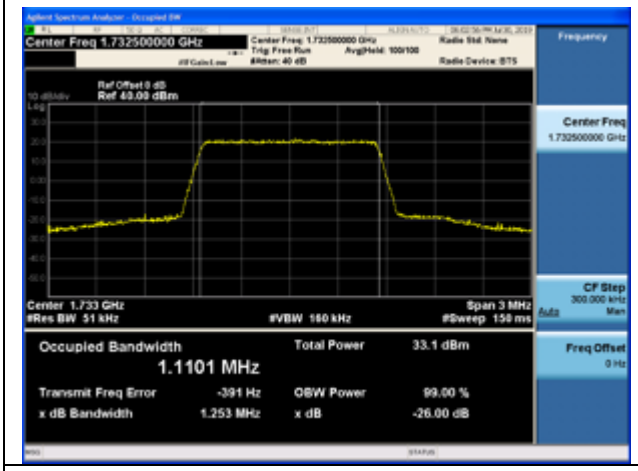
WCDMA Band IV CH High

LTE Band 4 QPSK 1.4MHz CH-Low

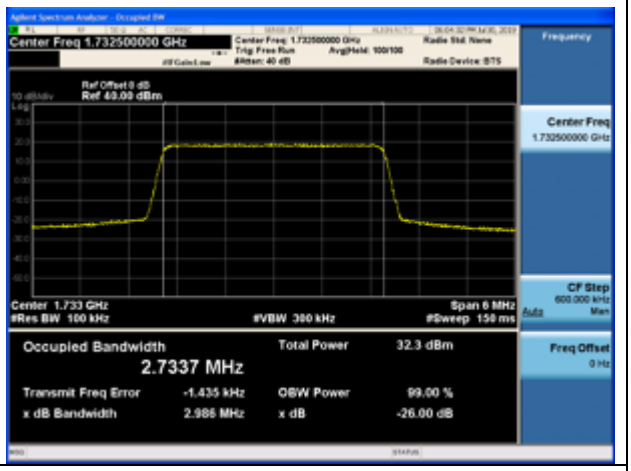


LTE Band 4 QPSK 3MHz CH-Low

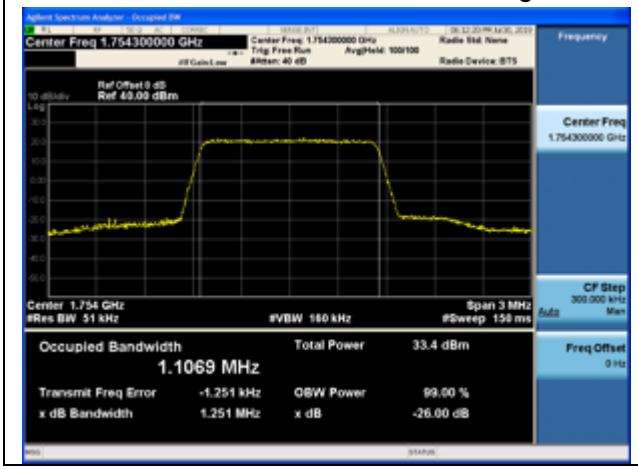
LTE Band 4 QPSK 1.4MHz CH-Middle



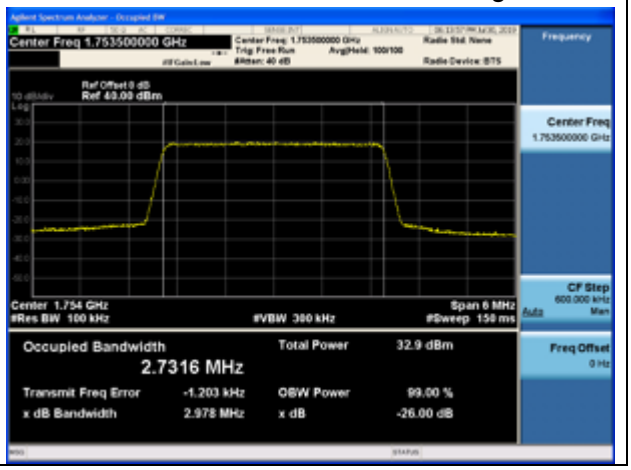
LTE Band 4 QPSK 3MHz CH-Middle



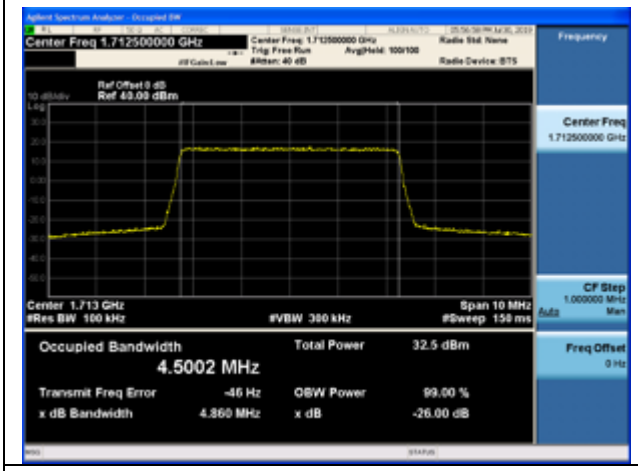
LTE Band 4 QPSK 1.4MHz CH-High



LTE Band 4 QPSK 3MHz CH-High

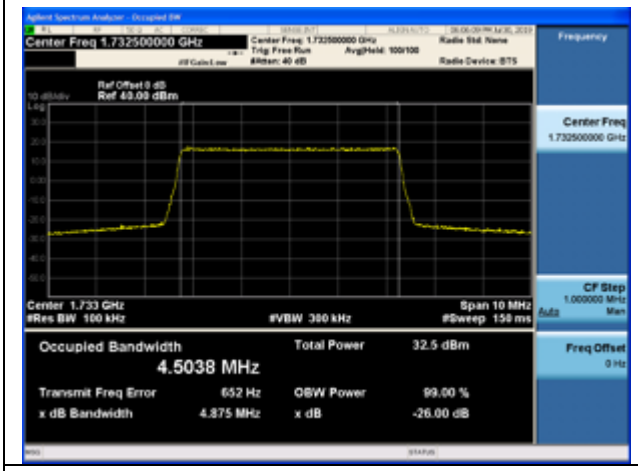


LTE Band 4 QPSK 5MHz CH-Low

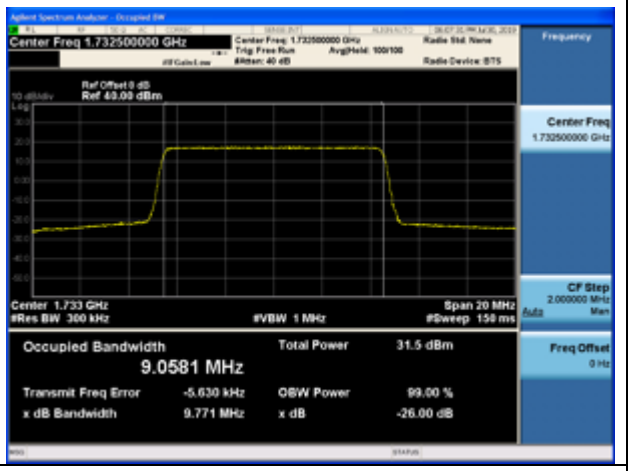


LTE Band 4 QPSK 10MHz CH-Low

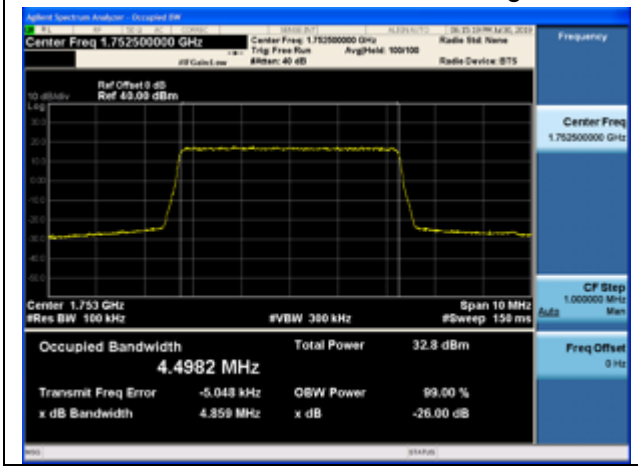
LTE Band 4 QPSK 5MHz CH-Middle



LTE Band 4 QPSK 10MHz CH-Middle

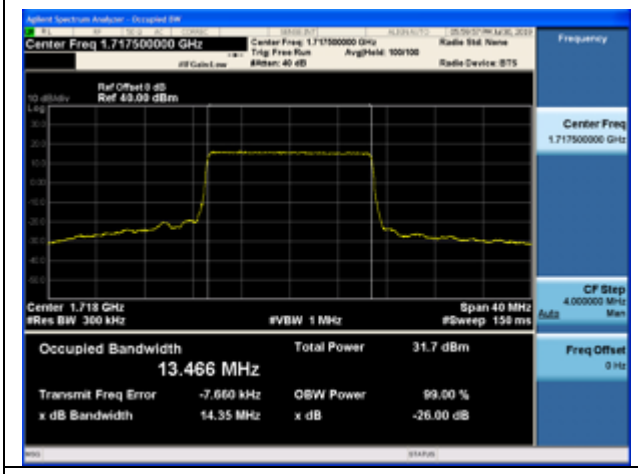


LTE Band 4 QPSK 5MHz CH-High

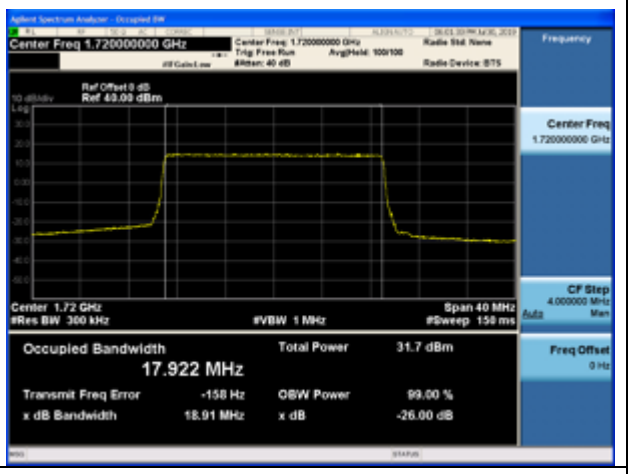


LTE Band 4 QPSK 10MHz CH-High

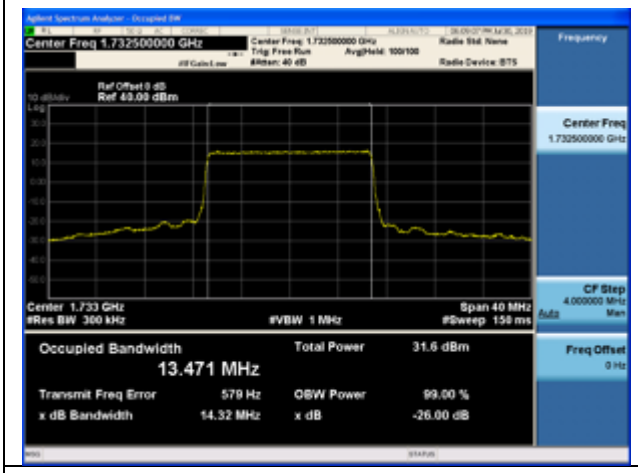
LTE Band 4 QPSK 15MHz CH-Low



LTE Band 4 QPSK 20MHz CH-Low

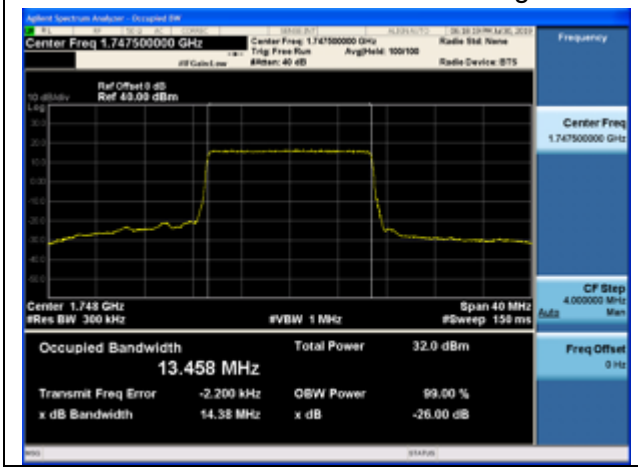


LTE Band 4 QPSK 15MHz CH-Middle

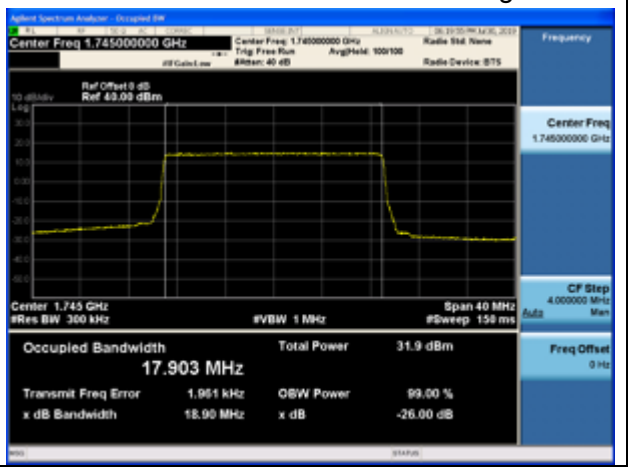


LTE Band 4 QPSK 20MHz CH-Middle

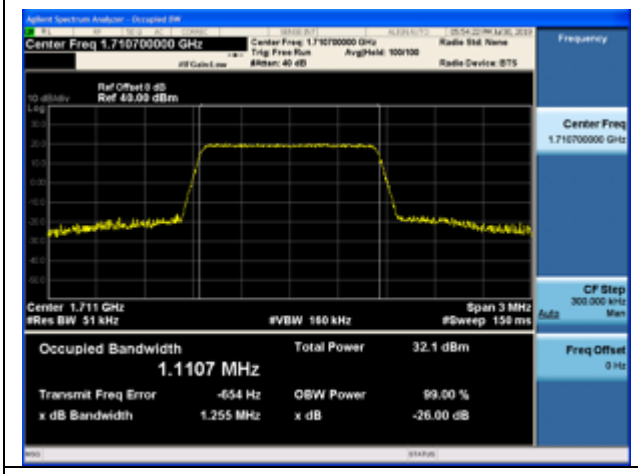
LTE Band 4 QPSK 15MHz CH-High



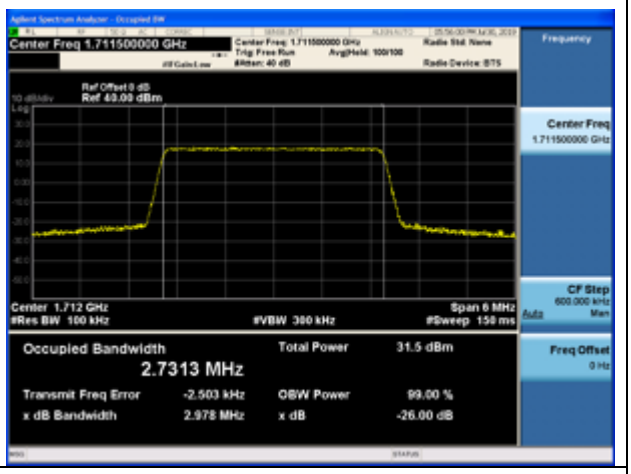
LTE Band 4 QPSK 20MHz CH-High



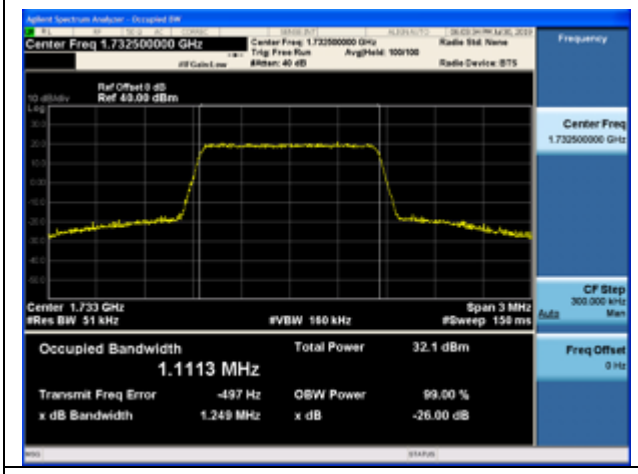
LTE Band 4 16QAM 1.4MHz CH-Low



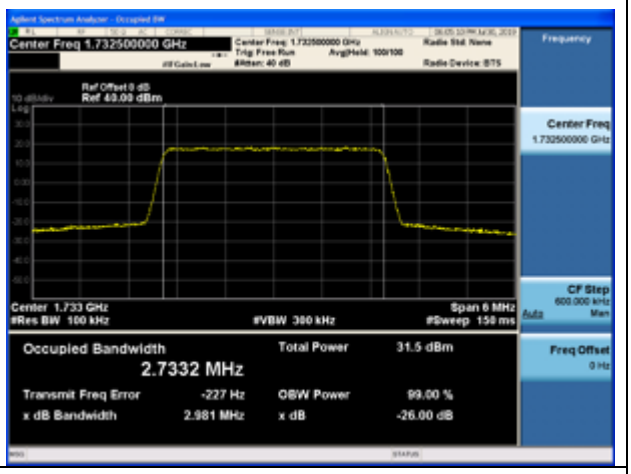
LTE Band 4 16QAM 3MHz CH-Low



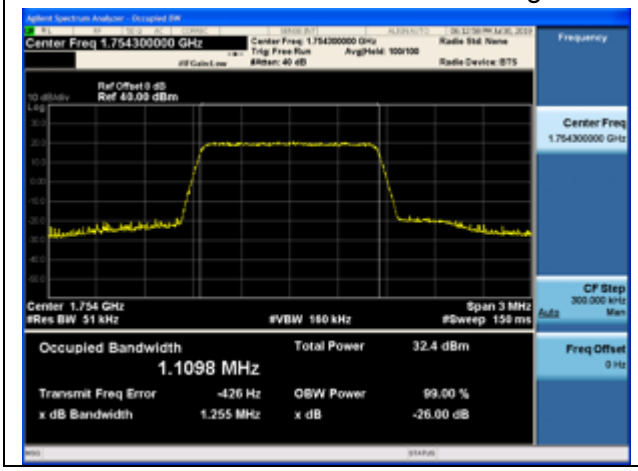
LTE Band 4 16QAM 1.4MHz CH-Middle



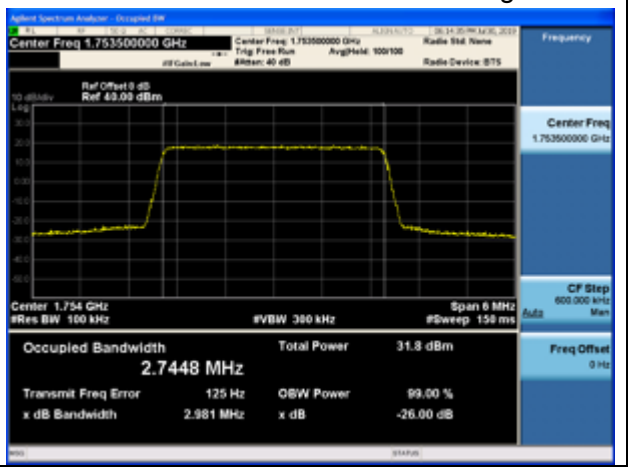
LTE Band 4 16QAM 3MHz CH-Middle



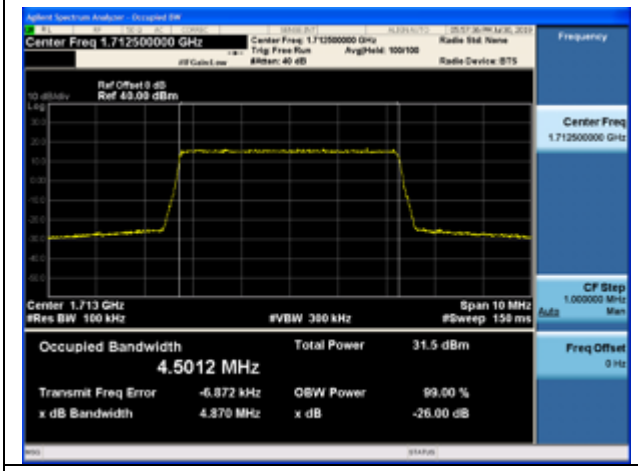
LTE Band 4 16QAM 1.4MHz CH-High



LTE Band 4 16QAM 3MHz CH-High

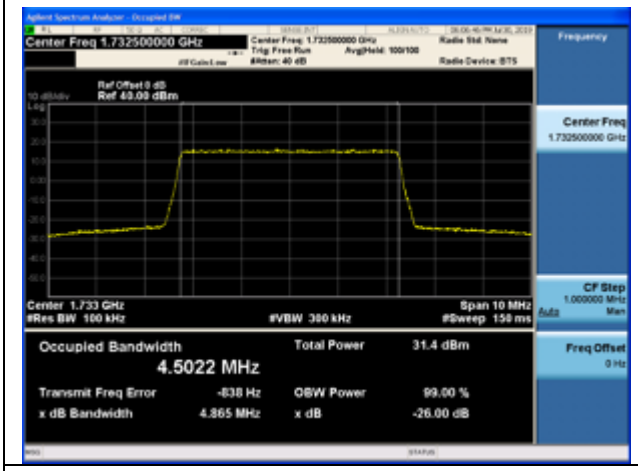


LTE Band 4 16QAM 5MHz CH-Low



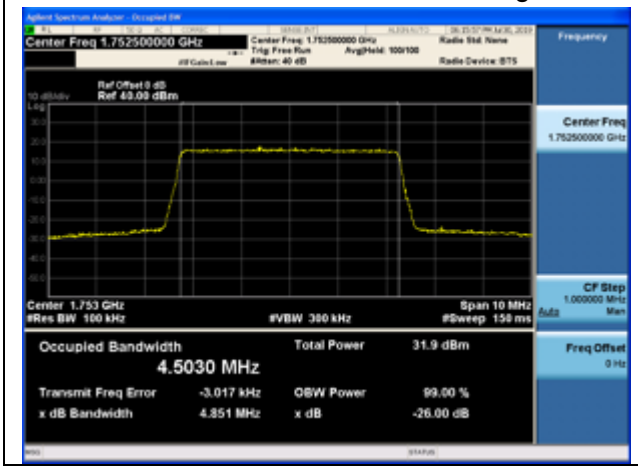
LTE Band 4 16QAM 10MHz CH-Low

LTE Band 4 16QAM 5MHz CH-Middle



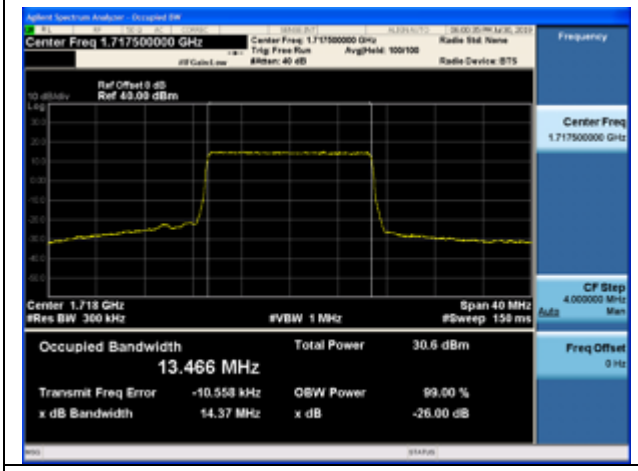
LTE Band 4 16QAM 10MHz CH-Middle

LTE Band 4 16QAM 5MHz CH-High

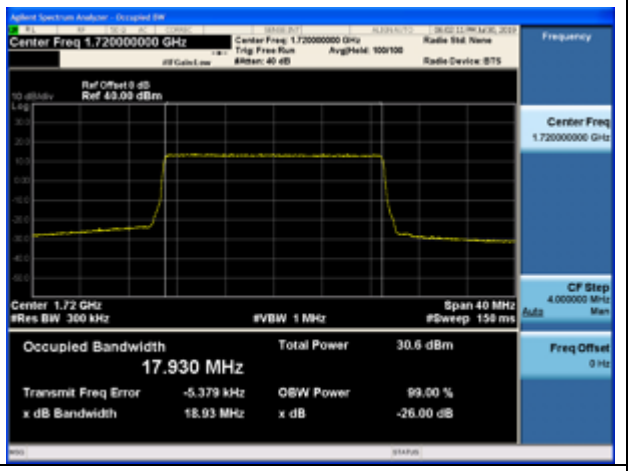


LTE Band 4 16QAM 10MHz CH-High

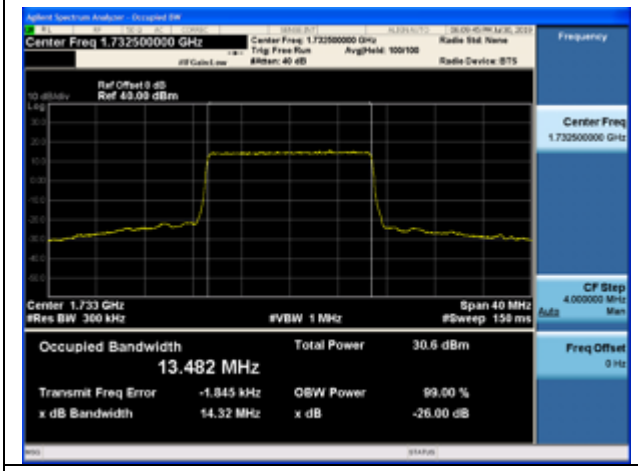
LTE Band 4 16QAM 15MHz CH-Low



LTE Band 4 16QAM 20MHz CH-Low

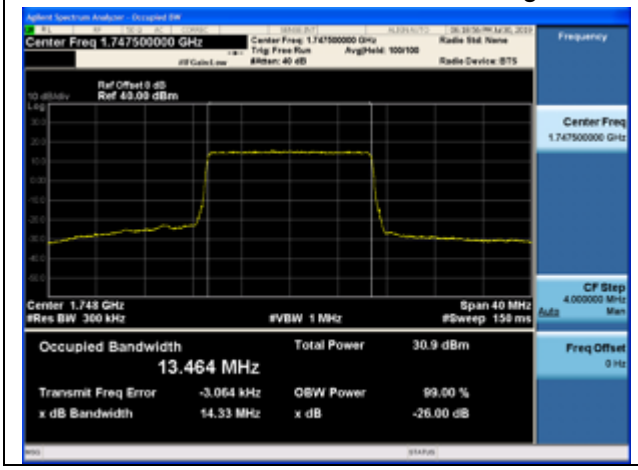


LTE Band 4 16QAM 15MHz CH-Middle

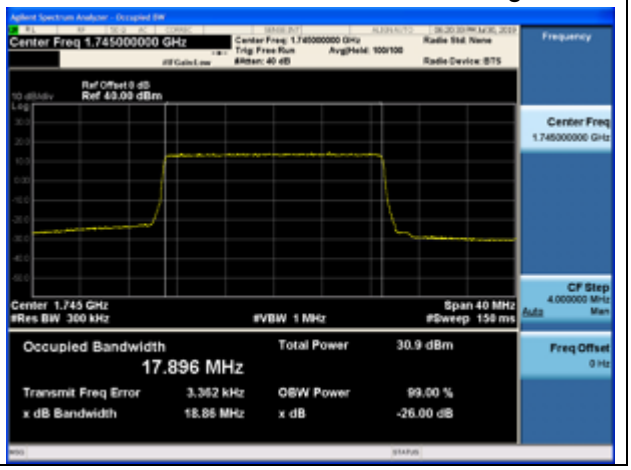


LTE Band 4 16QAM 20MHz CH-Middle

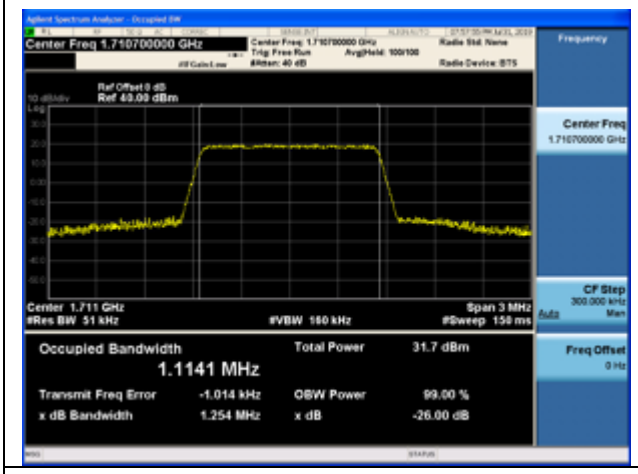
LTE Band 4 16QAM 15MHz CH-High



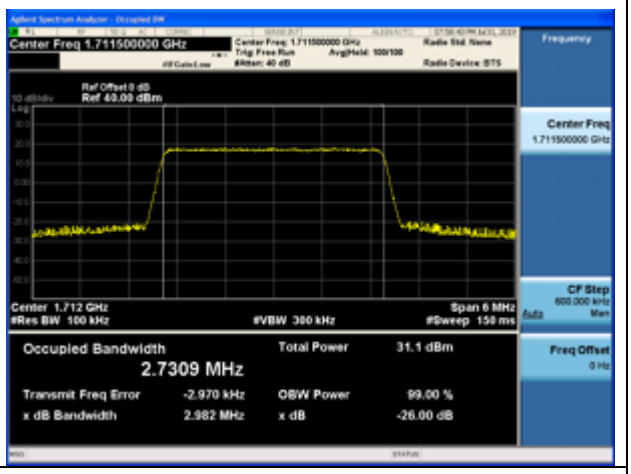
LTE Band 4 16QAM 20MHz CH-High



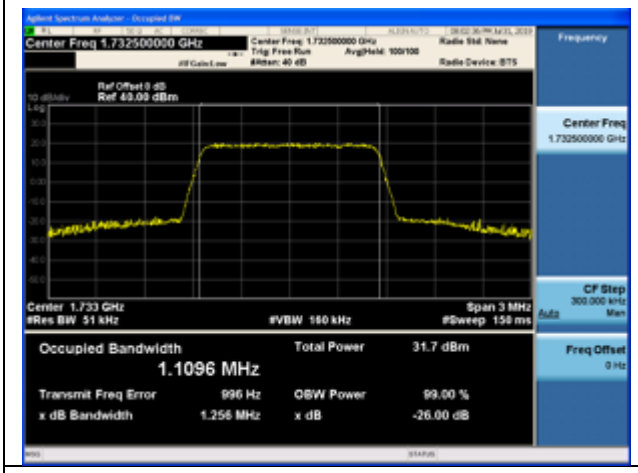
LTE Band 4 64QAM 1.4MHz CH-Low



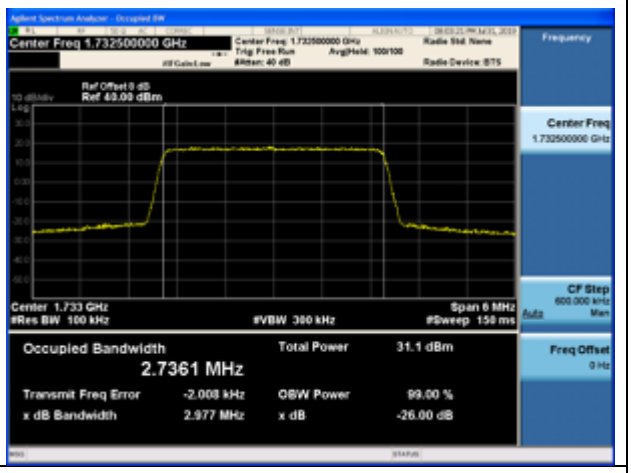
LTE Band 4 64QAM 3MHz CH-Low



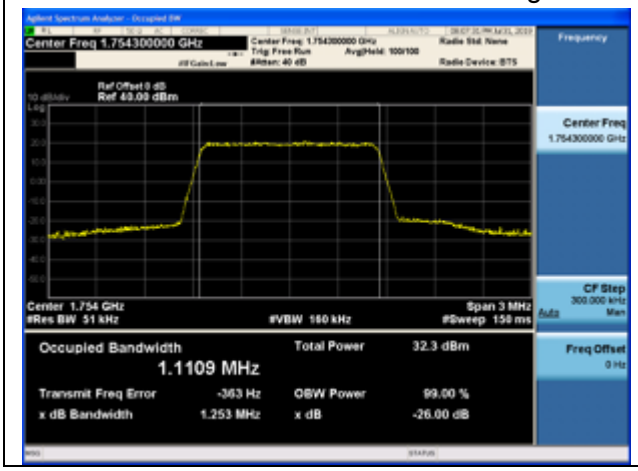
LTE Band 4 64QAM 1.4MHz CH-Middle



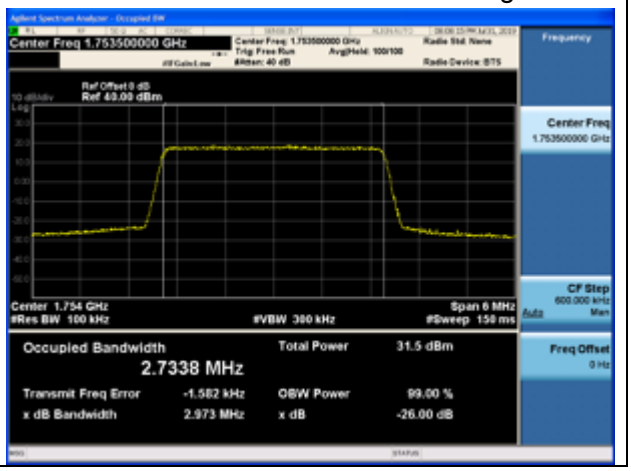
LTE Band 4 64QAM 3MHz CH-Middle



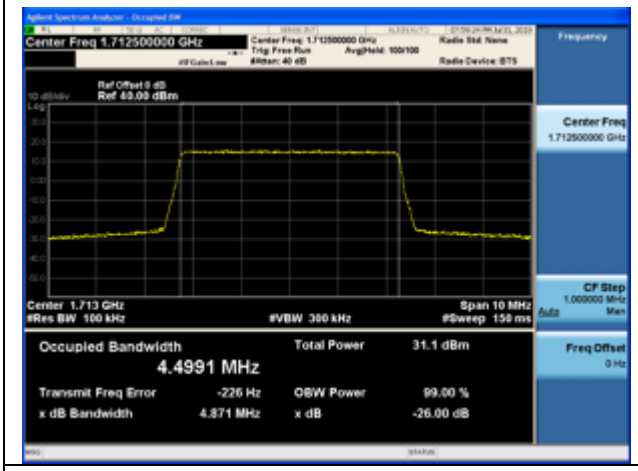
LTE Band 4 64QAM 1.4MHz CH-High



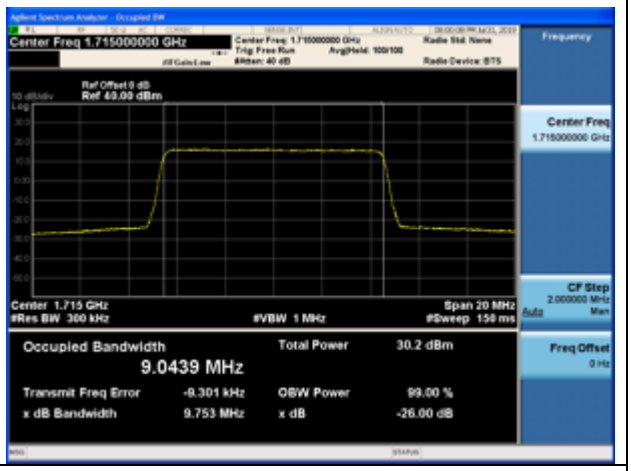
LTE Band 4 64QAM 3MHz CH-High



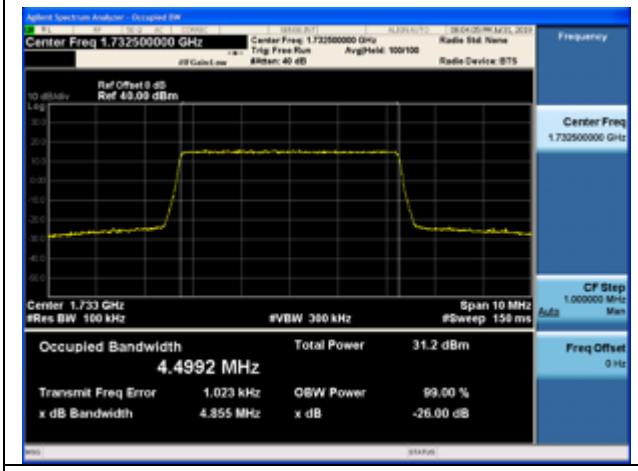
LTE Band 4 64QAM 5MHz CH-Low



LTE Band 4 64QAM 10MHz CH-Low

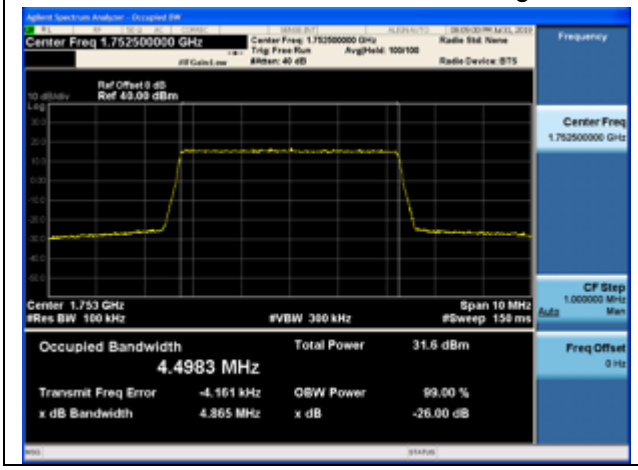


LTE Band 4 64QAM 5MHz CH-Middle



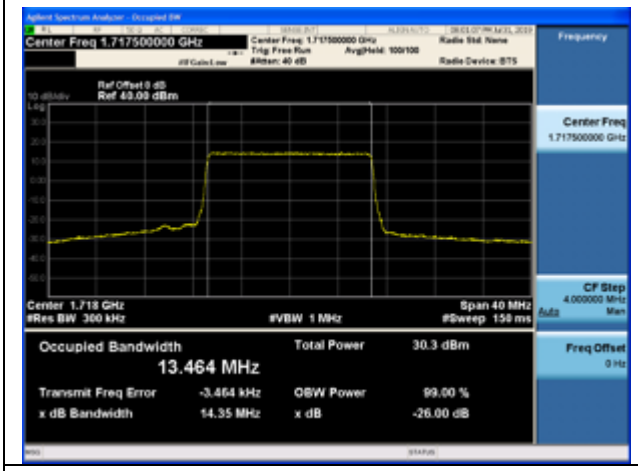
LTE Band 4 64QAM 10MHz CH-Middle

LTE Band 4 64QAM 5MHz CH-High

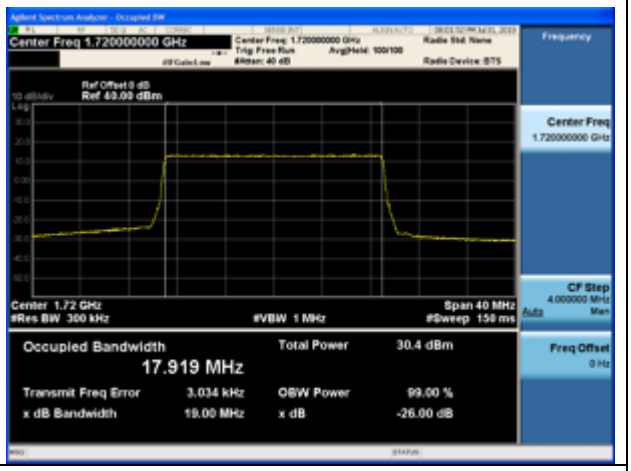


LTE Band 4 64QAM 10MHz CH-High

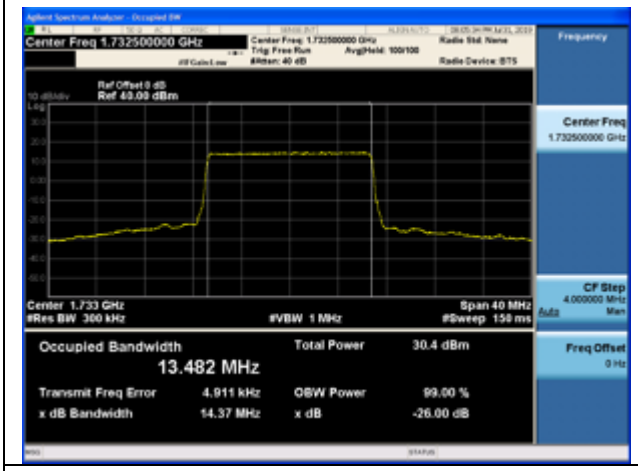
LTE Band 4 64QAM 15MHz CH-Low



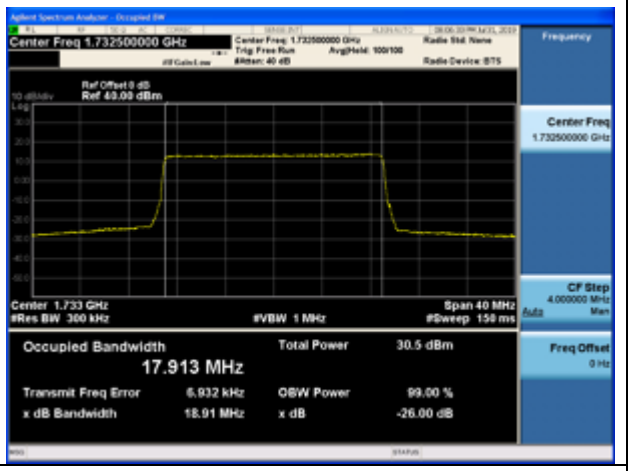
LTE Band 4 64QAM 20MHz CH-Low



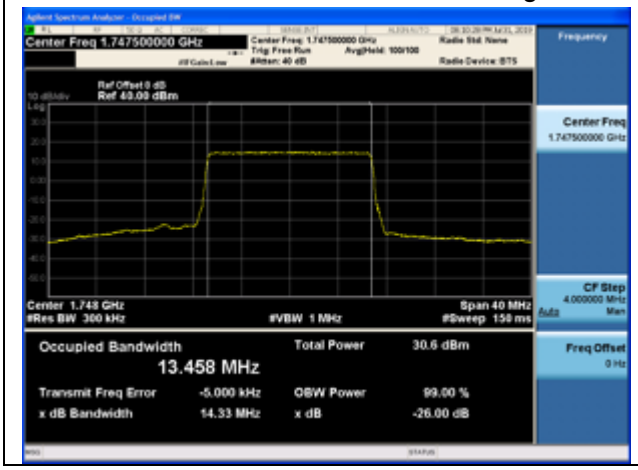
LTE Band 4 64QAM 15MHz CH-Middle



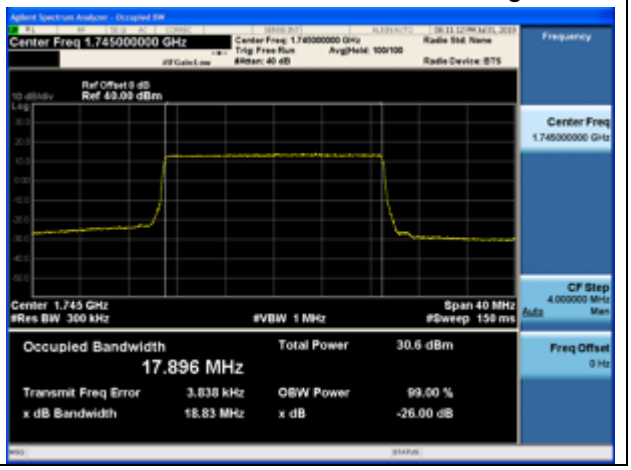
LTE Band 4 64QAM 20MHz CH-Middle



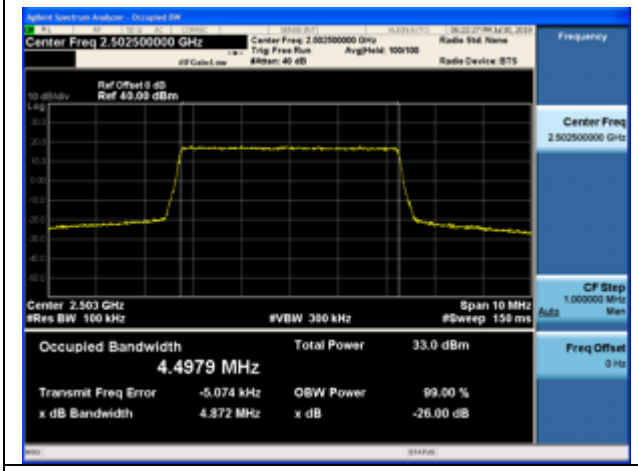
LTE Band 4 64QAM 15MHz CH-High



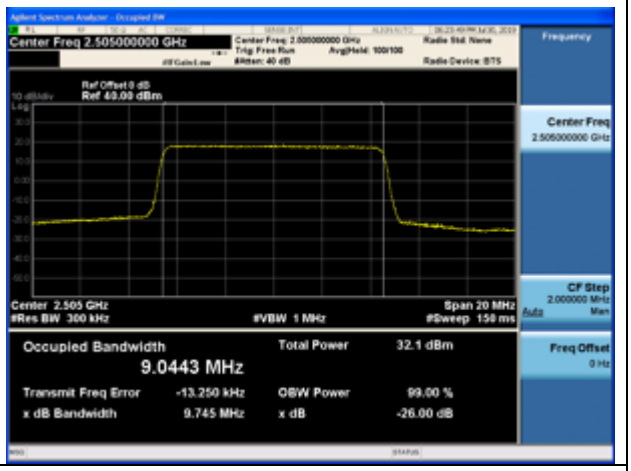
LTE Band 4 64QAM 20MHz CH-High



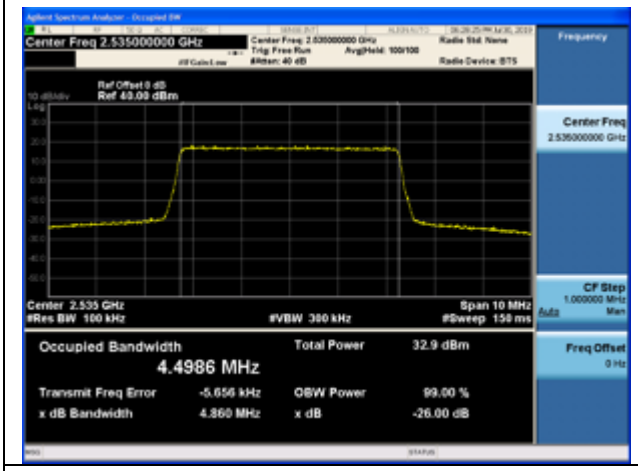
LTE Band 7 QPSK 5MHz CH-Low



LTE Band 7 QPSK 10MHz CH-Low

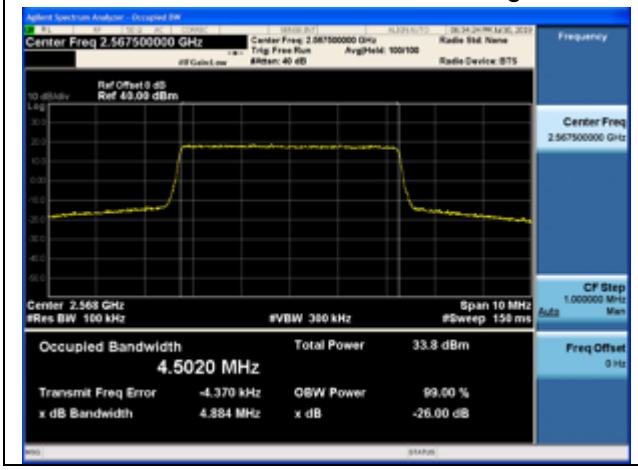


LTE Band 7 QPSK 5MHz CH-Middle



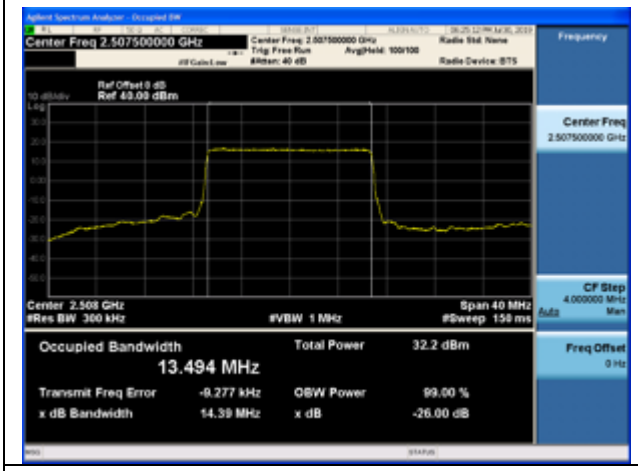
LTE Band 7 QPSK 10MHz CH-Middle

LTE Band 7 QPSK 5MHz CH-High

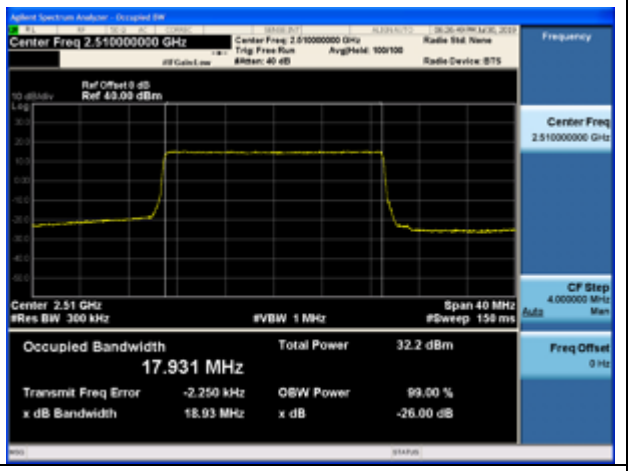


LTE Band 7 QPSK 10MHz CH-High

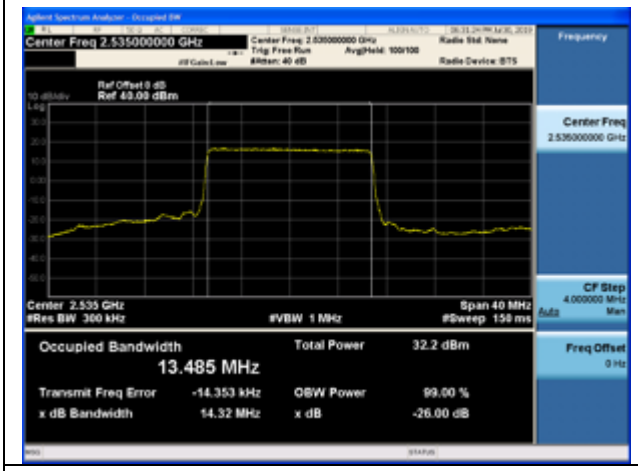
LTE Band 7 QPSK 15MHz CH-Low



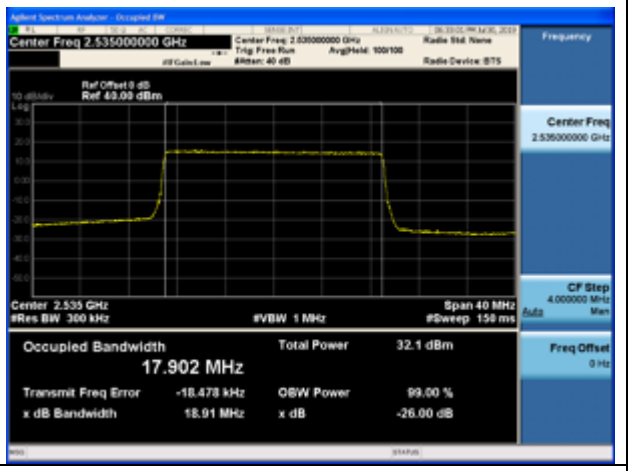
LTE Band 7 QPSK 20MHz CH-Low



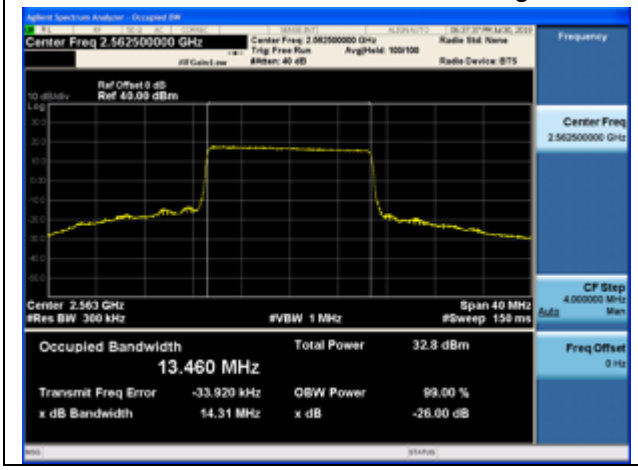
LTE Band 7 QPSK 15MHz CH-Middle



LTE Band 7 QPSK 20MHz CH-Middle

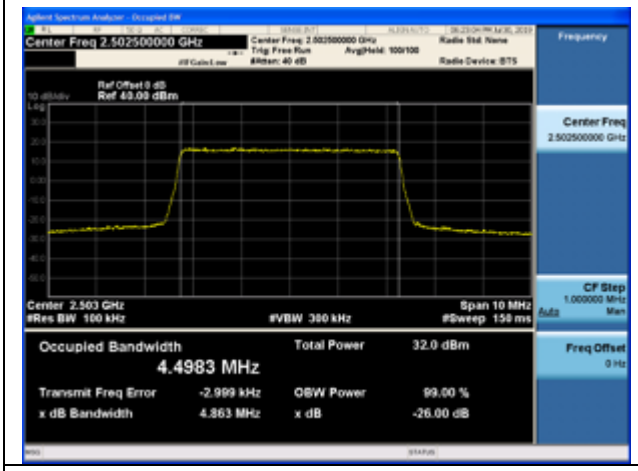


LTE Band 7 QPSK 15MHz CH-High

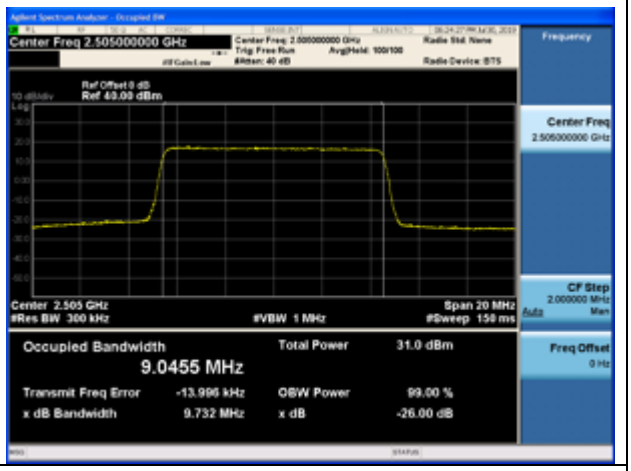


LTE Band 7 QPSK 20MHz CH-High

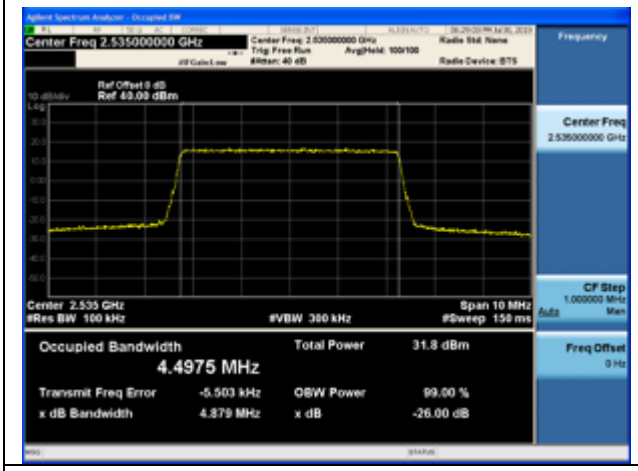
LTE Band 7 16QAM 5MHz CH-Low



LTE Band 7 16QAM 10MHz CH-Low

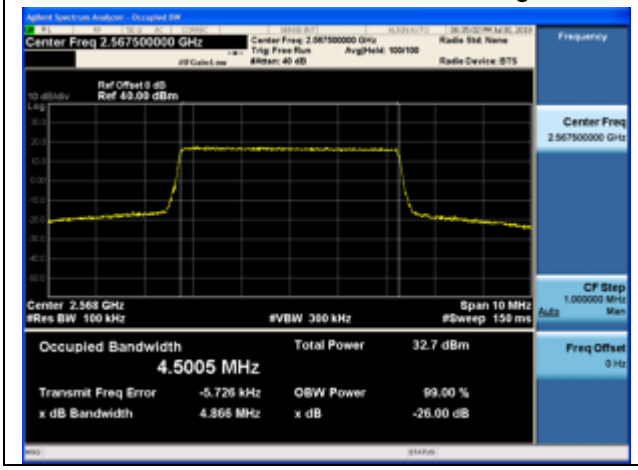


LTE Band 7 16QAM 5MHz CH-Middle



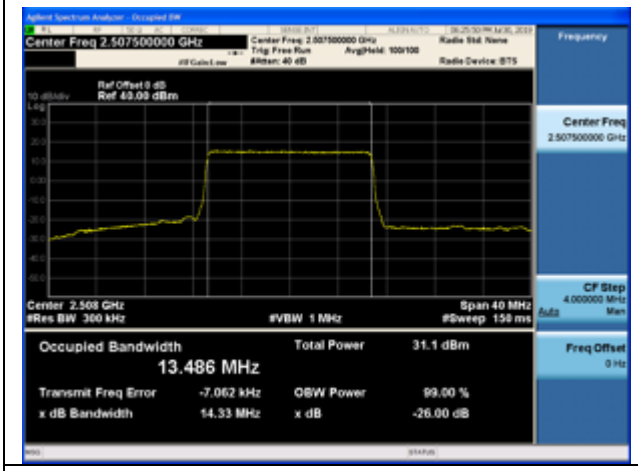
LTE Band 7 16QAM 10MHz CH-Middle

LTE Band 7 16QAM 5MHz CH-High

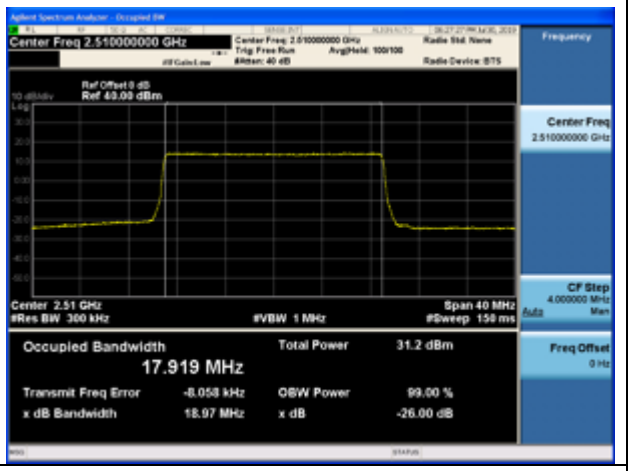


LTE Band 7 16QAM 10MHz CH-High

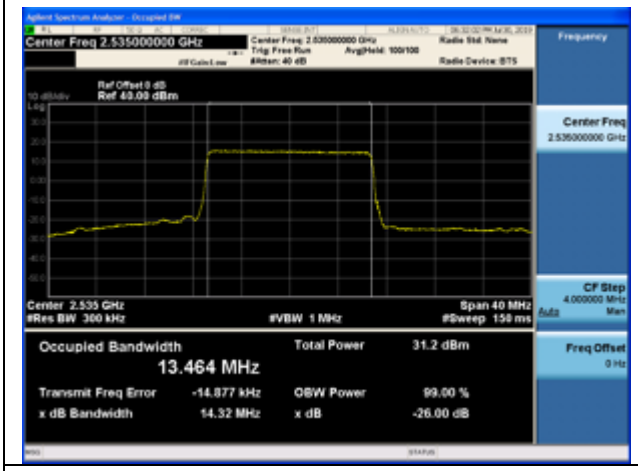
LTE Band 7 16QAM 15MHz CH-Low



LTE Band 7 16QAM 20MHz CH-Low

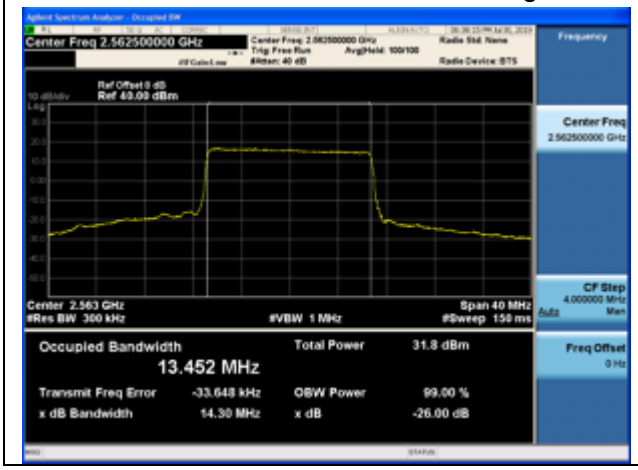


LTE Band 7 16QAM 15MHz CH-Middle



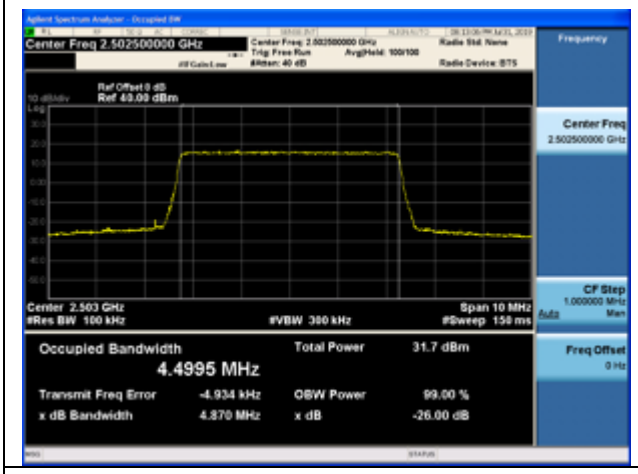
LTE Band 7 16QAM 20MHz CH-Middle

LTE Band 7 16QAM 15MHz CH-High

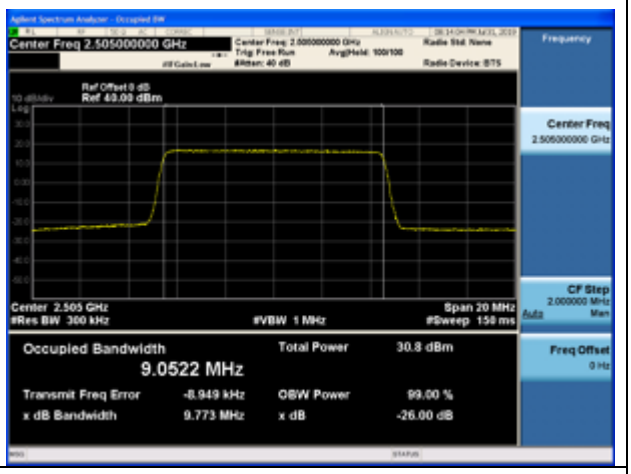


LTE Band 7 16QAM 20MHz CH-High

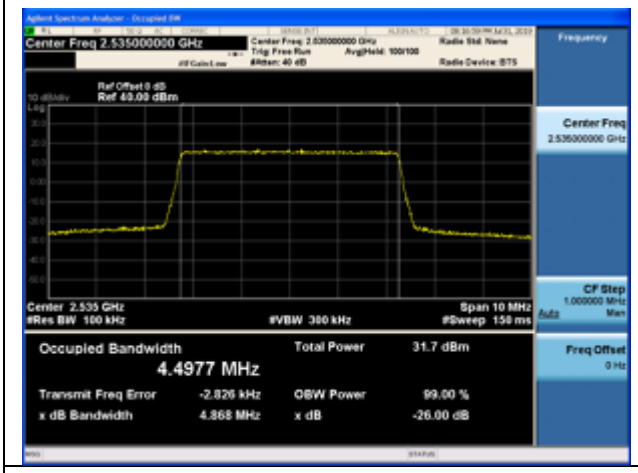
LTE Band 7 64QAM 5MHz CH-Low



LTE Band 7 64QAM 10MHz CH-Low

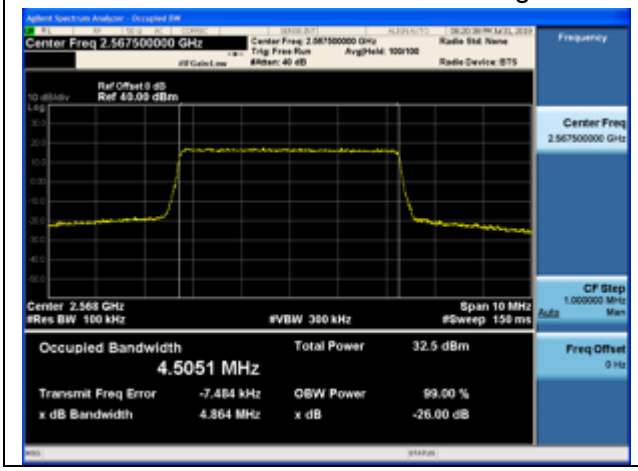


LTE Band 7 64QAM 5MHz CH-Middle



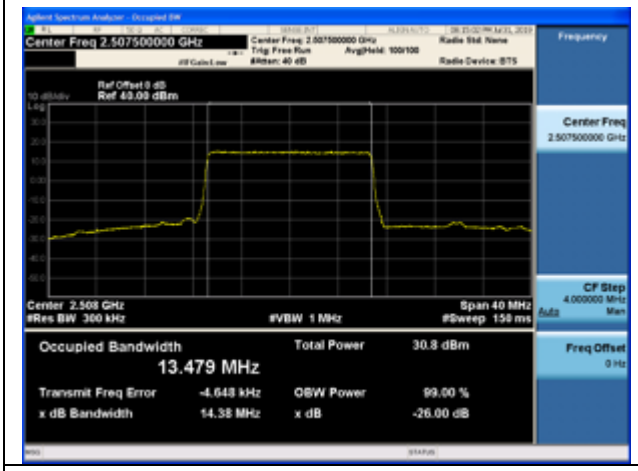
LTE Band 7 64QAM 10MHz CH-Middle

LTE Band 7 64QAM 5MHz CH-High

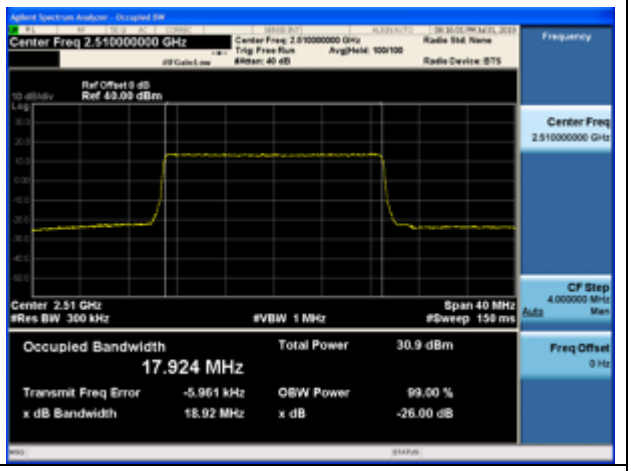


LTE Band 7 64QAM 10MHz CH-High

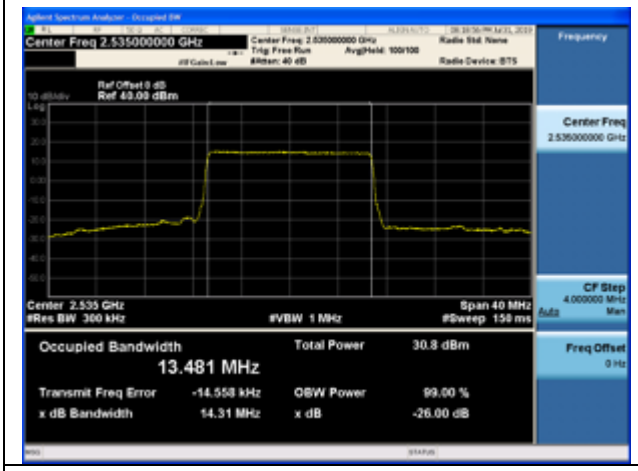
LTE Band 7 64QAM 15MHz CH-Low



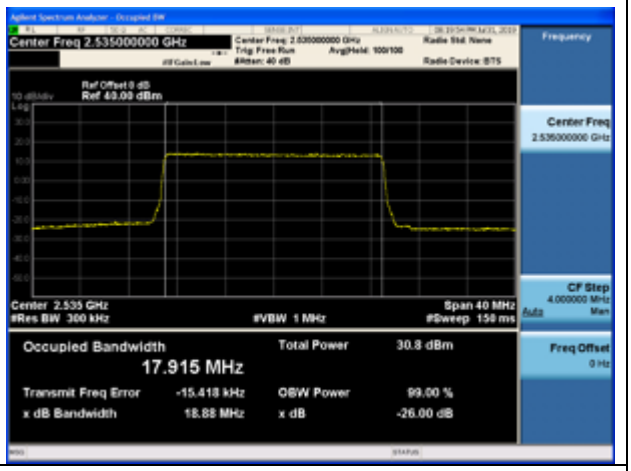
LTE Band 7 64QAM 20MHz CH-Low



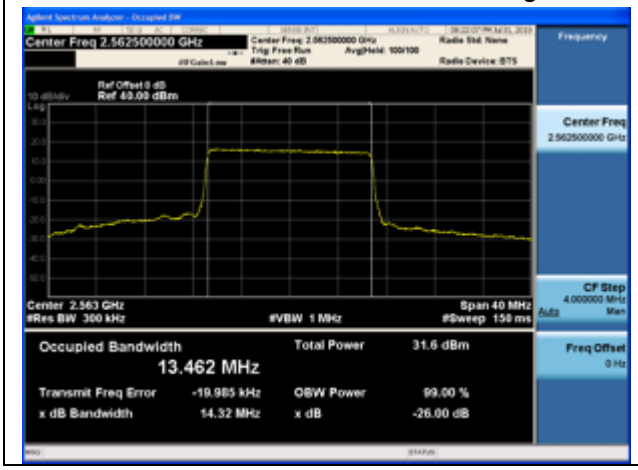
LTE Band 7 64QAM 15MHz CH-Middle



LTE Band 7 64QAM 20MHz CH-Middle

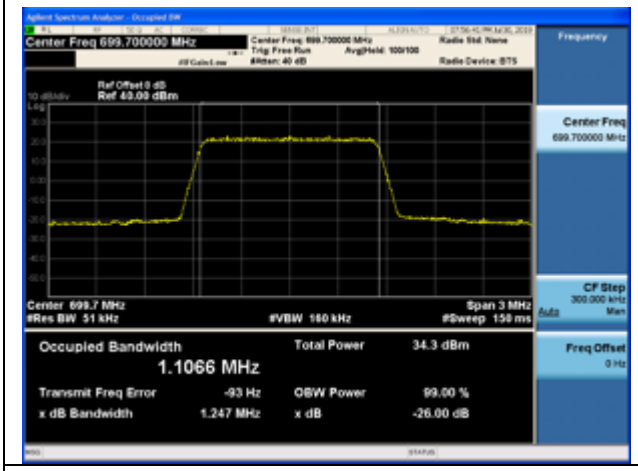


LTE Band 7 64QAM 15MHz CH-High

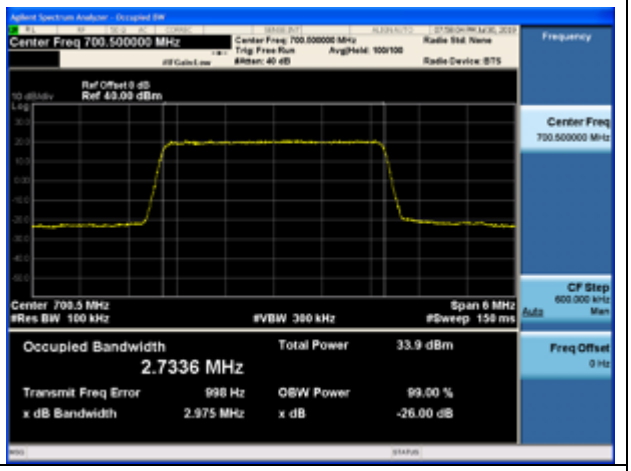


LTE Band 7 64QAM 20MHz CH-High

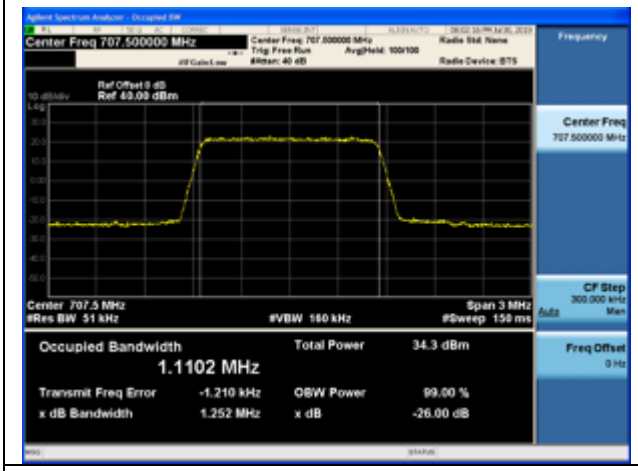
LTE Band 12 QPSK 1.4MHz CH-Low



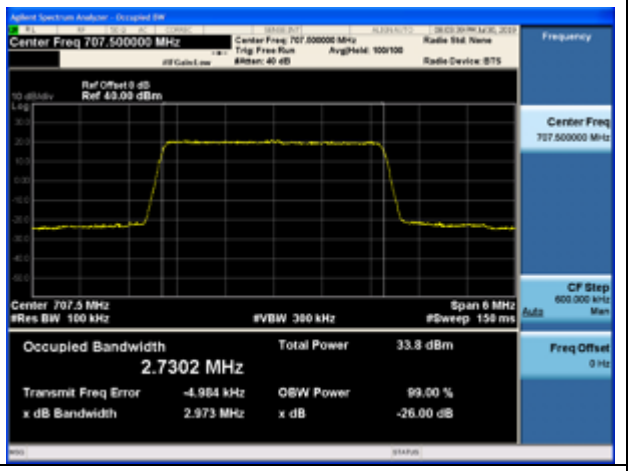
LTE Band 12 QPSK 3MHz CH-Low



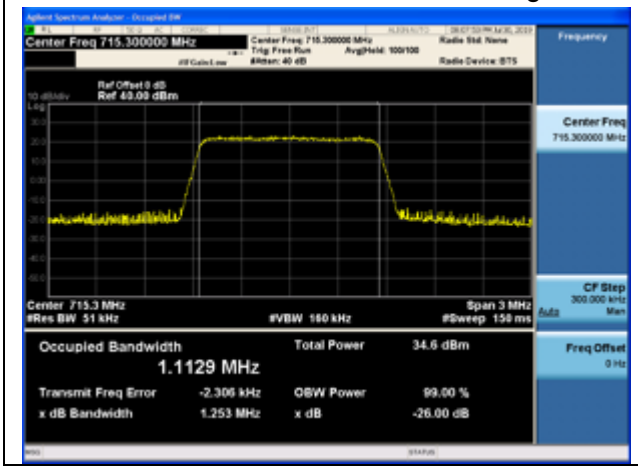
LTE Band 12 QPSK 1.4MHz CH-Middle



LTE Band 12 QPSK 3MHz CH-Middle



LTE Band 12 QPSK 1.4MHz CH-High



LTE Band 12 QPSK 3MHz CH-High