RF TEST REPORT

Applicant	Huawei Technologies Co., Ltd.
FCC ID	QISJAT-LX3
Product	Smart Phone
Model	JAT-LX3
Report No.	R1811H0154-R3V1
Issue Date	December 18, 2018

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: Jiangpeng Lan *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(h)(2)	PASS
3	Occupied Bandwidth	2.1049	PASS
4	Band Edge Compliance	27.53(h)/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(m)	PASS
8	Radiates Spurious Emission	2.1051 /27.53(h) /27.53(m)	PASS
Date of Testing: November 11, 2018 ~ December 10, 2018			
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.			

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

CNAS (accreditation number: L2264)

TA Technology (Shanghai) Co., Ltd. has obtained the accreditation of China National Accreditation Service for Conformity Assessment (CNAS).

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

General information

EUT Description		
Model	JAT-LX3	
IMEI	IMEI 1:861844040014648 IMEI 2:861844040015942	
Hardware Version	HL1JATM	
Software Version	9.0.1.55(C900E61R1P4log)	
Power Supply	Battery/AC adapter	
Antenna Type	Internal Antenna	
Antenna Gain	WCDMA Band IV : 0.5dBi LTE Band 4: 0.5dBi LTE Band 7: -1.0dBi LTE Band 38: -1.0dBi LTE Band 41: -1.0dBi	
Test Mode(s)	WCDMA Band IV; LTE Band 4; LTE Band 7, LTE Band 38, LTE Band 41;	
Test Modulation	(WCDMA)QPSK; (LTE)QPSK 16QAM;	
HSDPA UE Category	24	
HSUPA UE Category	6	
DC-HSDPA UE Category	24	
HSPA+ UE Category	7	
LTE Category	4	
Maximum E.I.R.P./ E.R.P.	WCDMA Band IV:	22.32dBm
	LTE Band 4:	21.31dBm
	LTE Band 7:	21.27dBm
	LTE Band 38:	19.84dBm
	LTE Band 41:	20.40dBm
Rated Power Supply Voltage:	3.82V	
Extreme Voltage	Minimum: 3.6V Maximum: 4.4V	
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 38	2570 ~ 2620	2570 ~ 2620
	LTE Band 41	2545 ~ 2655	2545 ~ 2655
EUT Accessory			
Adapter 1	Manufacturer: Huawei Technologies Co., Ltd. (SHENZHEN HUNTKEY ELECTRIC CO., LTD.) Model: HW-050100U01		
Adapter 2	Manufacturer: Huawei Technologies Co., Ltd. (HUIZHOU BYD ELECTRONIC CO., LTD.) Model: HW-050100U01		
Adapter 3	Manufacturer: Huawei Technologies Co., Ltd. (Dongguan Phitek Electronics Co., Ltd.) Model: HW-050100U01		
Battery 1	Manufacturer: Huawei Technologies Co., Ltd. (Sunwoda Electronic Co.,LTD) Model: HB405979ECW		
Battery 2	Manufacturer: Huawei Technologies Co., Ltd. (SCUD (Fujian) Electronics Co., LTD.) Model: HB405979ECW		
Battery 3	Manufacturer: Huawei Technologies Co., Ltd. (Desay Battery Electronic Co.,LTD) Model: HB405979ECW		
Earphone 1	Manufacturer: Jiangxi Lianchuang Hongsheng Electronic Co. ,LTD. Model: MEND1532B528A02		
Earphone 2	Manufacturer: Boluo County Quancheng Electronic Co.,ltd. Model: 1293-3283-3.5MM-322		
USB Cable 1	Manufacturer: HONGLIN TECHNOLOGY CO.,LTD. Model: 130-26654		
USB Cable 2	Manufacturer: Dongguan Ming Ji Electronics Co.,Ltd. Model: 203-0786-0		
USB Cable 3	Manufacturer: Luxshare Precision industry Co., Ltd. Model: L99U2013-CS-H		
USB Cable 4	Manufacturer: NingBo Broad Telecommunication Co., Ltd. Model: WA0007		
Note: 1. The information of the EUT is declared by the manufacturer. 2. There are more than one Adapter, Battery, Earphone and USB Cable, each one should be applied throughout the compliance test respectively, however, only the worst case (Adapter 1,Battery 1, Earphone 2 and USB Cable 4) will be recorded in this report.			

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 (X 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/HSPA+
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 4/7/38/41:

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 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 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	-
	LTE 7	-	-	O	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	-
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 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 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 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 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	-
	LTE 7	-	-	O	-	-	O	O	-	O	-	-	-	O	-
	LTE 38	-	-	O	-	-	O	O	-	O	-	-	-	O	-
	LTE 41	-	-	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

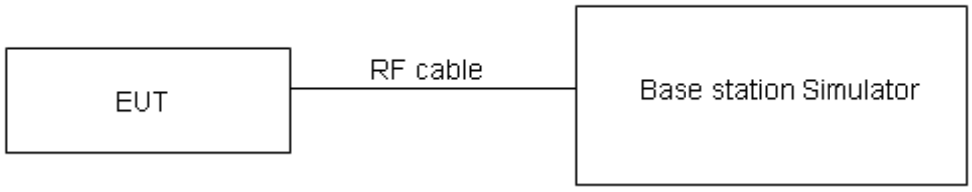
Ambient condition

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		Conducted Power(dBm)		
		Channel 1312	Channel 1413	Channel 1513
		1712.4 (MHz)	1732.6 (MHz)	1752.6(MHz)
RMC	12.2k	23.73	23.75	23.85
AMR	12.2k	23.73	23.83	23.99
HSDPA	Sub - Test 1	22.35	22.15	22.39
	Sub - Test 2	22.13	22.35	22.33
	Sub - Test 3	21.73	21.85	22.01
	Sub - Test 4	21.57	21.61	21.81
HSUPA	Sub - Test 1	20.29	20.23	20.37
	Sub - Test 2	20.37	20.17	20.39
	Sub - Test 3	21.25	21.21	21.21
	Sub - Test 4	19.75	19.81	19.97
	Sub - Test 5	21.11	21.23	21.41
DC-HSDPA	Sub - Test 1	22.27	22.11	22.23
	Sub - Test 2	22.39	22.37	22.27
	Sub - Test 3	21.65	21.81	21.93
	Sub - Test 4	21.75	21.83	21.93
HSPA+	16QAM	20.49	20.45	20.51

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	23.25	22.99	22.98
		1	2	23.43	23.37	23.44
		1	5	22.75	22.70	23.08
		3	0	23.28	23.40	23.19
		3	2	23.06	23.30	23.10
		3	3	23.33	23.29	23.45
		6	0	22.49	22.22	22.29
	16QAM	1	0	22.08	21.88	21.76
		1	2	22.36	21.95	22.24
		1	5	22.01	21.92	21.94
		3	0	22.29	22.29	22.31
		3	2	22.40	22.10	22.13
		3	3	22.16	22.28	22.27
		6	0	21.24	21.54	21.20
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				19965/1711.5	20175/1732.5	20385/1753.5
3MHz	QPSK	1	0	23.15	23.05	23.08
		1	7	23.15	23.41	23.30
		1	14	22.75	22.81	23.14
		8	0	22.30	22.36	22.13
		8	4	22.32	22.28	22.38
		8	7	22.13	22.39	22.45
		15	0	22.43	22.40	22.15
	16QAM	1	0	22.20	21.92	21.94
		1	7	22.46	22.23	22.38
		1	14	22.07	21.90	22.16
		8	0	21.19	21.17	20.89
		8	4	21.28	21.22	21.41
		8	7	21.32	21.16	21.15
		15	0	21.16	21.16	21.10
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				19975/1712.5	20175/1732.5	20375/1752.5
5MHz	QPSK	1	0	22.99	23.13	23.00
		1	13	23.23	23.39	23.32
		1	24	22.83	22.62	22.84
		12	0	22.30	22.32	22.31
		12	6	22.54	22.26	22.38
		12	13	22.41	22.45	22.41
		25	0	22.37	22.18	22.31
	16QAM	1	0	21.96	21.94	22.08

		1	13	22.40	22.35	22.32
		1	24	21.73	21.76	21.96
		12	0	21.17	21.19	21.15
		12	6	21.32	21.38	21.17
		12	13	21.26	21.14	21.23
		25	0	21.26	21.28	21.22
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				20000/1715	20175/1732.5	20350/1750
10MHz	QPSK	1	0	23.19	23.07	23.02
		1	25	23.43	23.47	23.46
		1	49	22.93	22.58	23.06
		25	0	22.24	22.20	22.31
		25	13	22.26	22.12	22.34
		25	25	22.29	22.23	22.27
		50	0	22.27	22.30	22.29
	16QAM	1	0	22.00	22.02	21.96
		1	25	22.20	22.09	22.32
		1	49	21.91	21.86	21.94
		25	0	21.27	21.05	21.25
		25	13	21.38	21.22	21.13
		25	25	21.22	21.10	21.41
		50	0	21.34	21.34	21.10
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				20025/1717.5	20175/1732.5	20325/1747.5
15MHz	QPSK	1	0	23.13	22.97	23.10
		1	38	23.25	23.39	23.44
		1	74	22.83	22.80	23.04
		36	0	22.30	22.18	22.31
		36	18	22.40	22.18	22.28
		36	39	22.31	22.19	22.21
		75	0	22.25	22.30	22.27
	16QAM	1	0	21.96	22.02	22.04
		1	38	22.24	22.17	22.18
		1	74	21.95	21.76	21.90
		36	0	21.17	21.19	21.31
		36	18	21.18	21.20	21.21
		36	39	21.16	21.28	21.37
		75	0	21.30	21.20	21.24
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				20050/1720	20175/1732.5	20300/1745
20MHz	QPSK	1	0	23.13	23.05	23.04
		1	50	23.35	23.33	23.42
		1	99	22.87	22.70	22.94

		50	0	22.30	22.26	22.33
		50	25	22.32	22.28	22.34
		50	50	22.29	22.21	22.31
		100	0	22.31	22.20	22.27
	16QAM	1	0	22.04	22.00	22.00
		1	50	22.22	22.21	22.26
		1	99	21.95	21.86	21.98
		50	0	21.27	21.25	21.29
		50	25	21.28	21.26	21.29
		50	50	21.26	21.22	21.27
		100	0	21.30	21.24	21.28

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	23.09	22.97	23.28
		1	13	23.72	23.67	23.44
		1	24	23.06	23.07	23.08
		12	0	22.68	22.46	22.54
		12	6	22.64	22.65	22.85
		12	13	22.55	22.46	22.74
		25	0	22.62	22.27	22.37
	16QAM	1	0	22.74	22.66	22.90
		1	13	22.78	22.73	22.71
		1	24	22.79	22.60	22.81
		12	0	21.62	21.60	21.44
		12	6	21.55	21.76	21.53
		12	13	21.56	21.44	21.48
		25	0	21.58	21.39	21.63
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				20800/2505	21100/2535	21400/2565
10MHz	QPSK	1	0	23.21	23.05	23.38
		1	25	23.66	23.61	23.60
		1	49	23.18	23.19	23.26
		25	0	22.60	22.56	22.54
		25	13	22.70	22.61	22.65
		25	25	22.59	22.54	22.62
		50	0	22.70	22.47	22.29
	16QAM	1	0	22.68	22.72	22.90
		1	25	22.94	22.91	22.59
		1	49	22.73	22.80	22.57
		25	0	21.76	21.52	21.38
		25	13	21.49	21.50	21.67

		25	25	21.56	21.38	21.54
		50	0	21.48	21.45	21.39
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				20825/2507.5	21100/2535	21375/2562.5
15MHz	QPSK	1	0	23.21	23.07	23.28
		1	38	23.70	23.69	23.56
		1	74	23.26	23.19	23.22
		36	0	22.60	22.44	22.50
		36	18	22.66	22.69	22.73
		36	39	22.57	22.52	22.62
		75	0	22.56	22.55	22.41
	16QAM	1	0	22.64	22.78	22.76
		1	38	22.82	22.77	22.71
		1	74	22.69	22.74	22.71
		36	0	21.64	21.58	21.40
		36	18	21.59	21.48	21.61
		36	39	21.38	21.44	21.46
		75	0	21.58	21.45	21.47
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				20850/2510	21100/2535	21350/2560
20MHz	QPSK	1	0	23.11	23.15	23.22
		1	50	23.76	23.59	23.62
		1	99	23.20	23.27	23.20
		50	0	22.64	22.52	22.44
		50	25	22.58	22.61	22.63
		50	50	22.57	22.58	22.62
		100	0	22.60	22.51	22.47
	16QAM	1	0	22.70	22.72	22.76
		1	50	22.84	22.75	22.77
		1	99	22.73	22.76	22.73
		50	0	21.60	21.54	21.50
		50	25	21.51	21.52	21.53
		50	50	21.46	21.46	21.48
		100	0	21.56	21.51	21.49

LTE Band 38				**Conducted Power(dBm)**			Tune-up Limit
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			
				37775/2572.5	38000/2595	38225/2617.5	
5MHz	QPSK	1	0	23.16	23.28	22.92	24.00
		1	13	23.61	23.68	23.08	24.00
		1	24	23.33	23.43	22.92	24.00
		12	0	22.55	22.30	22.02	23.00
		12	6	22.49	22.40	22.53	23.00

		12	13	22.38	22.57	22.60	23.00
		25	0	22.64	22.16	21.93	23.00
		1	0	22.60	22.02	22.58	23.00
		1	13	22.41	22.54	22.60	23.00
		1	24	22.44	22.24	22.44	23.00
	16QAM	12	0	21.40	21.54	21.19	22.00
		12	6	21.79	21.20	21.59	22.00
		12	13	21.39	21.44	21.53	22.00
		25	0	21.50	21.76	21.39	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37800/2575	38000/2595	38200/2615	
10MHz		1	0	22.90	23.24	23.26	24.00
		1	25	23.63	23.34	23.44	24.00
		1	49	23.01	23.07	23.30	24.00
	QPSK	25	0	22.59	22.42	22.14	23.00
		25	13	22.45	22.52	22.43	23.00
		25	25	22.64	22.41	22.42	23.00
		50	0	22.52	22.18	22.19	23.00
		1	0	22.32	22.42	22.52	23.00
		1	25	22.59	22.72	22.64	23.00
		1	49	22.36	22.36	22.18	23.00
	16QAM	25	0	21.40	21.60	21.45	22.00
		25	13	21.29	21.42	21.63	22.00
		25	25	21.39	21.40	21.63	22.00
		50	0	21.56	21.22	21.45	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37825/2577.5	38000/2595	38175/2612.5	
15MHz		1	0	23.24	23.06	23.04	24.00
		1	38	23.45	23.52	23.44	24.00
		1	74	23.21	23.13	23.12	24.00
	QPSK	36	0	22.25	22.36	22.42	23.00
		36	18	22.39	22.36	22.25	23.00
		36	39	22.56	22.65	22.54	23.00
		75	0	22.52	22.38	22.13	23.00
		1	0	22.26	22.36	22.26	23.00
		1	38	22.65	22.62	22.64	23.00
		1	74	22.42	22.30	22.30	23.00
	16QAM	36	0	21.58	21.64	21.35	22.00
		36	18	21.69	21.46	21.59	22.00
		36	39	21.57	21.68	21.63	22.00
		75	0	21.56	21.62	21.33	22.00
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)			Tune-up Limit
				37850/2580	38000/2595	38150/2610	

20MHz	QPSK	1	0	23.18	23.14	23.06	24.00
		1	50	23.55	23.54	23.42	24.00
		1	99	23.17	23.13	23.16	24.00
		50	0	22.39	22.44	22.26	23.00
		50	25	22.49	22.40	22.41	23.00
		50	50	22.50	22.57	22.46	23.00
		100	0	22.52	22.44	22.21	23.00
	16QAM	1	0	22.42	22.40	22.36	23.00
		1	50	22.77	22.76	22.70	23.00
		1	99	22.38	22.36	22.38	23.00
		50	0	21.46	21.48	21.39	22.00
		50	25	21.55	21.50	21.51	22.00
		50	50	21.51	21.54	21.49	22.00
		100	0	21.56	21.52	21.41	22.00

LTE Band 41				Conducted Power(dBm)		
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				40265/2557.5	40740/2605	41215/2652.5
5MHz	QPSK	1	0	22.38	22.36	22.23
		1	13	22.89	22.77	22.63
		1	24	22.45	22.19	22.31
		12	0	21.66	21.29	21.52
		12	6	21.82	21.36	21.57
		12	13	21.76	21.60	21.58
		25	0	21.28	21.21	21.63
	16QAM	1	0	21.49	21.58	21.55
		1	13	22.29	21.93	21.83
		1	24	21.49	21.60	21.53
		12	0	20.61	20.56	20.45
		12	6	20.41	20.79	20.67
		12	13	20.85	21.01	20.63
		25	0	20.67	20.80	20.52
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				40290/2560	40740/2605	41190/2650
10MHz	QPSK	1	0	22.52	22.64	22.23
		1	25	22.79	22.57	22.63
		1	49	22.55	22.37	22.31
		25	0	21.60	21.51	21.52
		25	13	21.64	21.50	21.57
		25	25	21.72	21.80	21.58
		50	0	21.70	21.61	21.63

	16QAM	1	0	21.51	21.92	21.55
		1	25	21.95	21.85	21.83
		1	49	21.57	21.54	21.53
		25	0	20.57	20.72	20.45
		25	13	20.57	20.47	20.67
		25	25	20.73	20.87	20.63
		50	0	20.97	20.56	20.52
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				40315/2562.5	40740/2605	41165/2647.5
15MHz	QPSK	1	0	22.42	22.42	22.23
		1	38	22.71	22.61	22.63
		1	74	22.35	22.37	22.31
		36	0	21.50	21.51	21.52
		36	18	21.56	21.48	21.57
		36	39	21.82	21.62	21.58
		75	0	21.74	21.45	21.63
	16QAM	1	0	21.45	21.60	21.55
		1	38	22.07	21.83	21.83
		1	74	21.41	21.30	21.53
		36	0	20.67	20.86	20.45
		36	18	20.65	20.71	20.67
		36	39	20.93	20.75	20.63
		75	0	20.63	20.80	20.52
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				40340/2565	40740/2605	41140/2645
20MHz	QPSK	1	0	22.40	22.38	22.23
		1	50	22.75	22.71	22.63
		1	99	22.51	22.37	22.31
		50	0	21.58	21.57	21.52
		50	25	21.70	21.58	21.57
		50	50	21.72	21.60	21.58
		100	0	21.64	21.55	21.63
	16QAM	1	0	21.61	21.60	21.54
		1	50	21.99	21.97	21.71
		1	99	21.53	21.46	21.53
		50	0	20.71	20.70	20.35
		50	25	20.73	20.67	20.75
		50	50	20.77	20.71	20.53
		100	0	20.71	20.66	20.52

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:

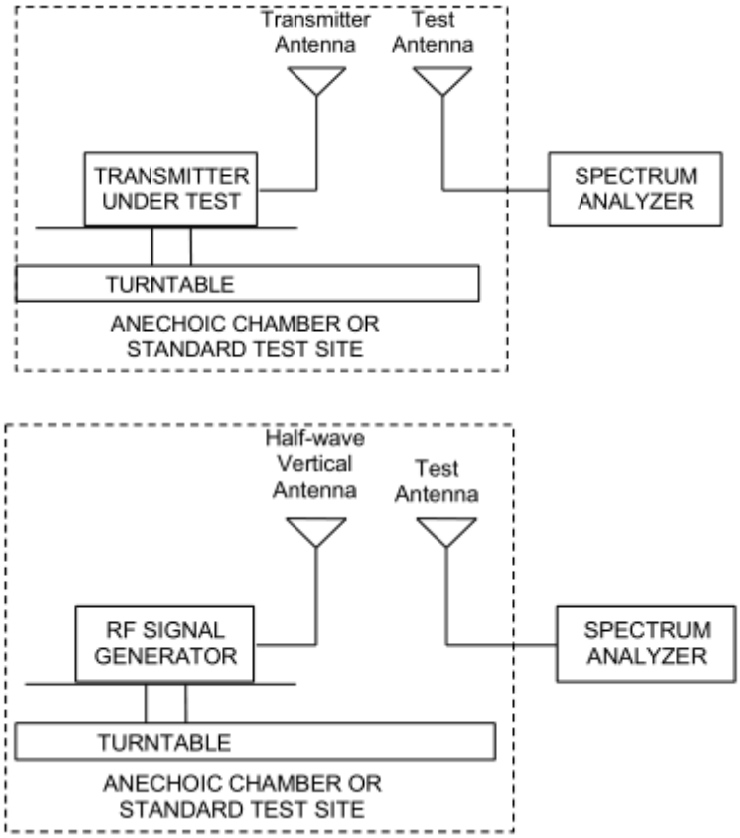
EIRP (dBm) = Output Power (dBm) - Losses (dB) + Antenna Gain (dBi)

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 lie-down position (X axis) and the worst case was recorded.

Limits

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(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	22.32	30	Pass
	Mid	1732.6	Horizontal	20.84	30	Pass
	High	1752.6	Horizontal	19.51	30	Pass

LTE Band 4						
Bandwidth	Channel	Frequency (MHz)	Polarization	EIRP (dBm)	Limit (dBm)	Conclusion
1.4 MHz (QPSK)	Low	1710.7	Horizontal	21.19	30	Pass
	Mid	1732.5	Horizontal	20.12	30	Pass
	High	1754.3	Horizontal	19.35	30	Pass
3 MHz (QPSK)	Low	1711.5	Horizontal	21.24	30	Pass
	Mid	1732.5	Horizontal	20.01	30	Pass
	High	1753.5	Horizontal	19.37	30	Pass
5 MHz (QPSK)	Low	1712.5	Horizontal	21.31	30	Pass
	Mid	1732.5	Horizontal	20.10	30	Pass
	High	1752.5	Horizontal	19.61	30	Pass
10 MHz (QPSK)	Low	1715	Horizontal	21.21	30	Pass
	Mid	1732.5	Horizontal	20.06	30	Pass
	High	1750	Horizontal	19.10	30	Pass
15 MHz (QPSK)	Low	1717.5	Horizontal	21.17	30	Pass
	Mid	1732.5	Horizontal	20.06	30	Pass
	High	1747.5	Horizontal	19.34	30	Pass
20 MHz (QPSK)	Low	1720	Horizontal	21.08	30	Pass
	Mid	1732.5	Horizontal	20.15	30	Pass
	High	1745	Horizontal	19.20	30	Pass
1.4 MHz (16QAM)	Low	1710.7	Horizontal	20.59	30	Pass
	Mid	1732.5	Horizontal	19.68	30	Pass
	High	1754.3	Horizontal	18.89	30	Pass
3 MHz (16QAM)	Low	1711.5	Horizontal	20.73	30	Pass
	Mid	1732.5	Horizontal	19.48	30	Pass
	High	1753.5	Horizontal	18.85	30	Pass
5 MHz (16QAM)	Low	1712.5	Horizontal	20.85	30	Pass
	Mid	1732.5	Horizontal	19.73	30	Pass
	High	1752.5	Horizontal	19.03	30	Pass
10 MHz (16QAM)	Low	1715	Horizontal	20.82	30	Pass
	Mid	1732.5	Horizontal	19.52	30	Pass
	High	1750	Horizontal	18.63	30	Pass
15 MHz	Low	1717.5	Horizontal	20.73	30	Pass

(16QAM)	Mid	1732.5	Horizontal	19.67	30	Pass
	High	1747.5	Horizontal	18.87	30	Pass
20 MHz (16QAM)	Low	1720	Horizontal	20.63	30	Pass
	Mid	1732.5	Horizontal	19.76	30	Pass
	High	1745	Horizontal	18.82	30	Pass

LTE Band 7						
Band width	Channel	Frequency (MHz)	Polarization	EIRP (dBm)	Limit (dBm)	Conclusion
5 MHz (QPSK)	Low	2502.5	Horizontal	21.27	33	Pass
	Mid	2535	Horizontal	20.66	33	Pass
	High	2567.5	Horizontal	20.93	33	Pass
10 MHz (QPSK)	Low	2505	Horizontal	20.89	33	Pass
	Mid	2535	Horizontal	20.64	33	Pass
	High	2565	Horizontal	20.35	33	Pass
15 MHz (QPSK)	Low	2507.5	Horizontal	20.97	33	Pass
	Mid	2535	Horizontal	20.35	33	Pass
	High	2562.5	Horizontal	20.12	33	Pass
20 MHz (QPSK)	Low	2510	Horizontal	20.44	33	Pass
	Mid	2535	Horizontal	19.93	33	Pass
	High	2560	Horizontal	20.14	33	Pass
5 MHz (16QAM)	Low	2502.5	Horizontal	20.83	33	Pass
	Mid	2535	Horizontal	20.12	33	Pass
	High	2567.5	Horizontal	20.38	33	Pass
10 MHz (16QAM)	Low	2505	Horizontal	20.21	33	Pass
	Mid	2535	Horizontal	20.09	33	Pass
	High	2565	Horizontal	19.84	33	Pass
15 MHz (16QAM)	Low	2507.5	Horizontal	20.26	33	Pass
	Mid	2535	Horizontal	19.86	33	Pass
	High	2562.5	Horizontal	19.73	33	Pass
20 MHz (16QAM)	Low	2510	Horizontal	19.94	33	Pass
	Mid	2535	Horizontal	19.35	33	Pass
	High	2560	Horizontal	19.67	33	Pass

LTE Band 38						
Band width	Channel	Frequency (MHz)	Polarization	EIRP (dBm)	Limit (dBm)	Conclusion
5 MHz (QPSK)	Low	2572.5	Horizontal	19.68	33	Pass
	Mid	2595	Horizontal	19.41	33	Pass
	High	2617.5	Horizontal	19.83	33	Pass
10 MHz (QPSK)	Low	2575	Horizontal	19.76	33	Pass
	Mid	2595	Horizontal	19.67	33	Pass
	High	2615	Horizontal	19.84	33	Pass
15 MHz (QPSK)	Low	2577.5	Horizontal	19.64	33	Pass
	Mid	2595	Horizontal	19.53	33	Pass
	High	2612.5	Horizontal	19.48	33	Pass
20 MHz (QPSK)	Low	2580	Horizontal	19.58	33	Pass
	Mid	2595	Horizontal	19.40	33	Pass
	High	2610	Horizontal	19.45	33	Pass
5 MHz (16QAM)	Low	2572.5	Horizontal	19.14	33	Pass
	Mid	2595	Horizontal	18.97	33	Pass
	High	2617.5	Horizontal	19.32	33	Pass
10 MHz (16QAM)	Low	2575	Horizontal	19.23	33	Pass
	Mid	2595	Horizontal	19.18	33	Pass
	High	2615	Horizontal	19.32	33	Pass
15 MHz (16QAM)	Low	2577.5	Horizontal	19.06	33	Pass
	Mid	2595	Horizontal	19.01	33	Pass
	High	2612.5	Horizontal	18.93	33	Pass
20 MHz (16QAM)	Low	2580	Horizontal	18.99	33	Pass
	Mid	2595	Horizontal	18.86	33	Pass
	High	2610	Horizontal	19.03	33	Pass

LTE Band 41						
Band width	Channel	Frequency (MHz)	Polarization	EIRP (dBm)	Limit (dBm)	Conclusion
5 MHz (QPSK)	Low	2557.5	Horizontal	20.40	33	Pass
	Mid	2605	Horizontal	20.16	33	Pass
	High	2652.5	Horizontal	19.94	33	Pass
10 MHz (QPSK)	Low	2560	Horizontal	20.35	33	Pass
	Mid	2605	Horizontal	20.16	33	Pass
	High	2650	Horizontal	20.14	33	Pass
15 MHz (QPSK)	Low	2562.5	Horizontal	20.23	33	Pass
	Mid	2605	Horizontal	19.97	33	Pass
	High	2647.5	Horizontal	20.11	33	Pass
20 MHz	Low	2565	Horizontal	20.38	33	Pass

(QPSK)	Mid	2605	Horizontal	20.09	33	Pass
	High	2645	Horizontal	20.17	33	Pass
5 MHz (16QAM)	Low	2557.5	Horizontal	19.89	33	Pass
	Mid	2605	Horizontal	19.65	33	Pass
	High	2652.5	Horizontal	19.53	33	Pass
10 MHz (16QAM)	Low	2560	Horizontal	20.06	33	Pass
	Mid	2605	Horizontal	19.69	33	Pass
	High	2650	Horizontal	19.57	33	Pass
15 MHz (16QAM)	Low	2562.5	Horizontal	20.03	33	Pass
	Mid	2605	Horizontal	19.49	33	Pass
	High	2647.5	Horizontal	19.68	33	Pass
20 MHz (16QAM)	Low	2565	Horizontal	20.23	33	Pass
	Mid	2605	Horizontal	19.65	33	Pass
	High	2645	Horizontal	19.69	33	Pass

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

5.3 Occupied Bandwidth

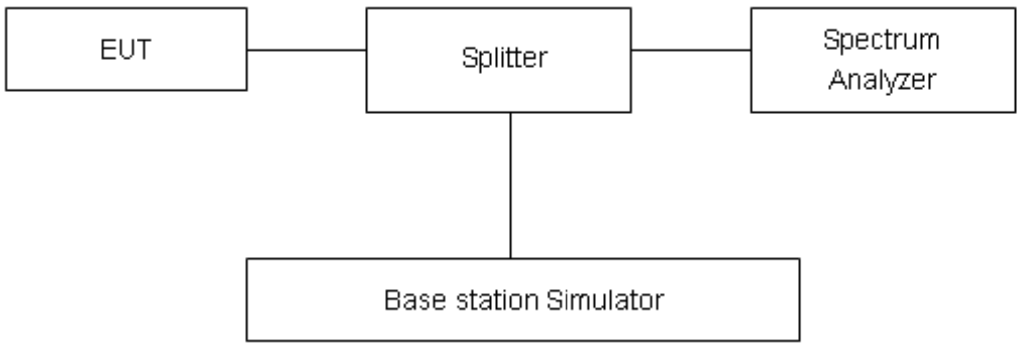
Ambient condition

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 (1.4MHz).
RBW is set to 100 kHz, VBW is set to 300 kHz for LTE Band 4 (3MHz).
RBW is set to 100 kHz, VBW is set to 300 kHz for LTE Band 4/7/38/41 (5MHz).
RBW is set to 300 kHz, VBW is set to 1MHz for LTE Band 4/7/38/41 (10MHz).
RBW is set to 300 kHz, VBW is set to 1MHz for LTE Band 4/7/38/41 (15MHz/20MHz).
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	4.162	4.665
	1413	1732.6	4.164	4.676
	1513	1752.6	4.169	4.679

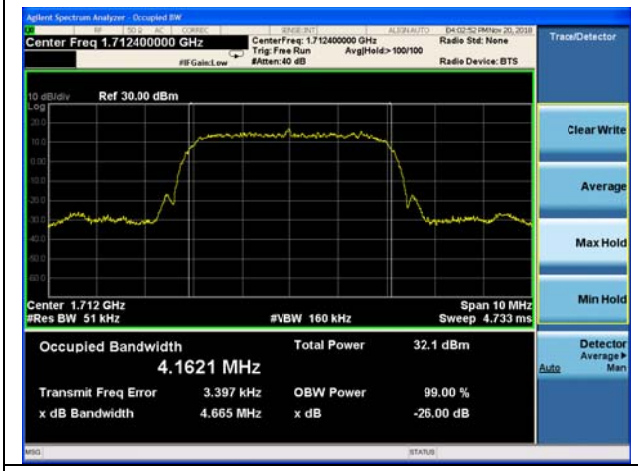
LTE Band 4						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	20175	1732.5	1.109	1.298
		3	20175	1732.5	2.731	2.956
		5	20175	1732.5	4.496	4.800
		10	20175	1732.5	9.072	9.730
		15	20175	1732.5	13.481	14.280
		20	20175	1732.5	17.913	20.62
	16QAM	1.4	20175	1732.5	1.108	1.270
		3	20175	1732.5	2.724	2.953
		5	20175	1732.5	4.497	4.829
		10	20175	1732.5	9.068	9.732
		15	20175	1732.5	13.467	14.270
		20	20175	1732.5	17.924	18.770

LTE Band 7						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	5	21100	2535	4.505	4.818
		10	21100	2535	9.056	9.728
		15	21100	2535	13.484	14.310
		20	21100	2535	17.894	18.770
	16QAM	5	21100	2535	4.505	4.799
		10	21100	2535	9.054	9.730
		15	21100	2535	13.461	14.260
		20	21100	2535	17.911	18.770

LTE Band 38						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	5	38000	2595	4.512	4.765
		10	38000	2595	9.069	9.710
		15	38000	2595	13.502	14.320
		20	38000	2595	17.914	18.740
	16QAM	5	38000	2595	4.496	4.787
		10	38000	2595	9.069	9.722
		15	38000	2595	13.488	14.260
		20	38000	2595	17.918	18.730

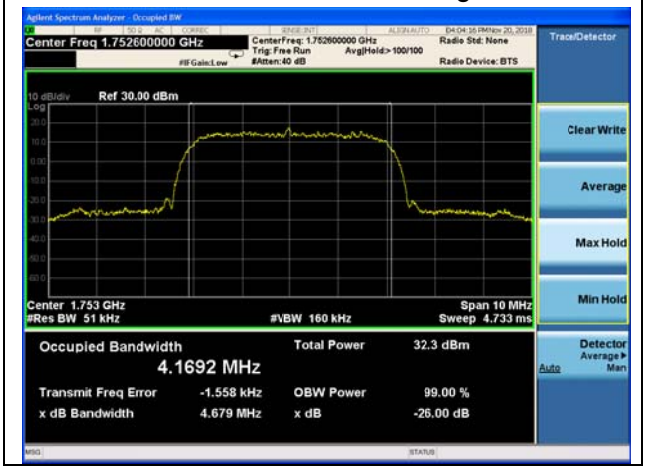
LTE Band 41						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	5	40740	2605	4.477	4.752
		10	40740	2605	9.027	9.677
		15	40740	2605	13.445	14.190
		20	40740	2605	17.873	18.700
	16QAM	5	40740	2605	4.476	4.755
		10	40740	2605	9.034	9.694
		15	40740	2605	13.470	14.200
		20	40740	2605	17.895	18.700

WCDMA Band IV CH-Low

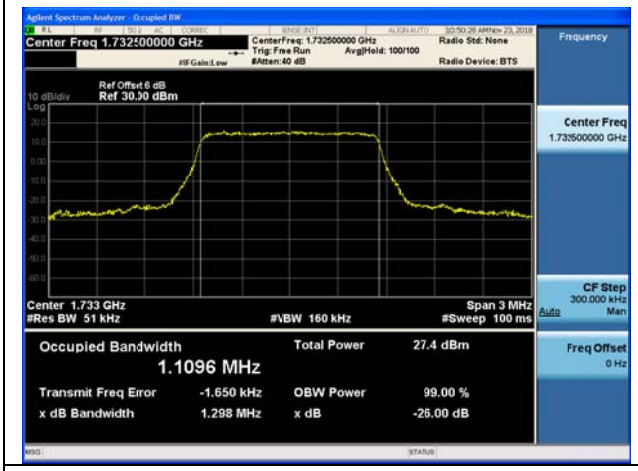


WCDMA Band IV CH Middle

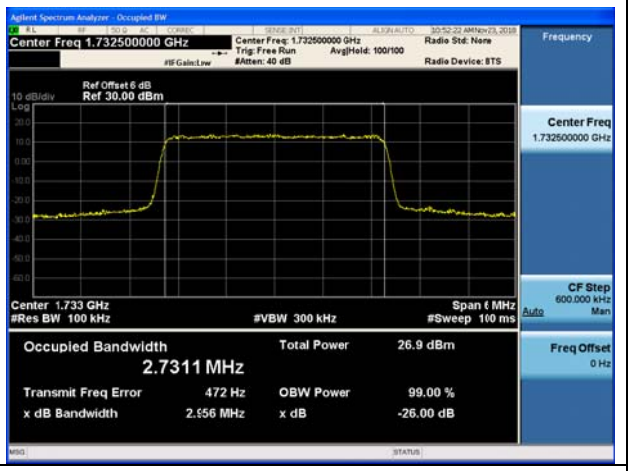
WCDMA Band IV CH High



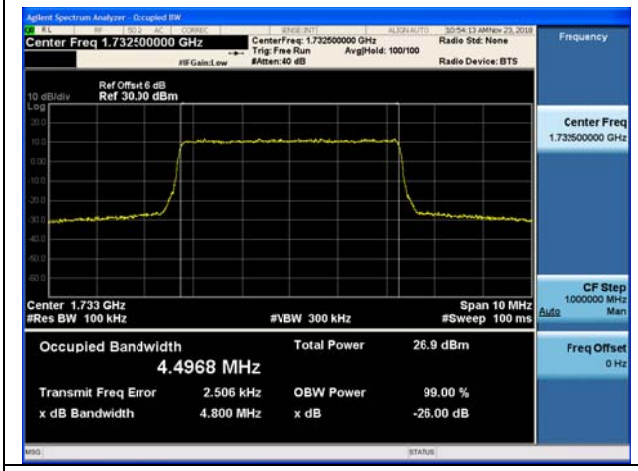
LTE Band 4 QPSK 1.4MHz CH-Middle



LTE Band 4 QPSK 3MHz CH-Middle

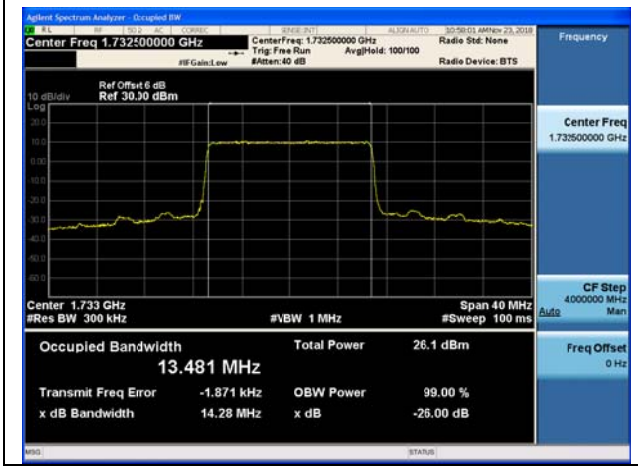


LTE Band 4 QPSK 5MHz CH-Middle

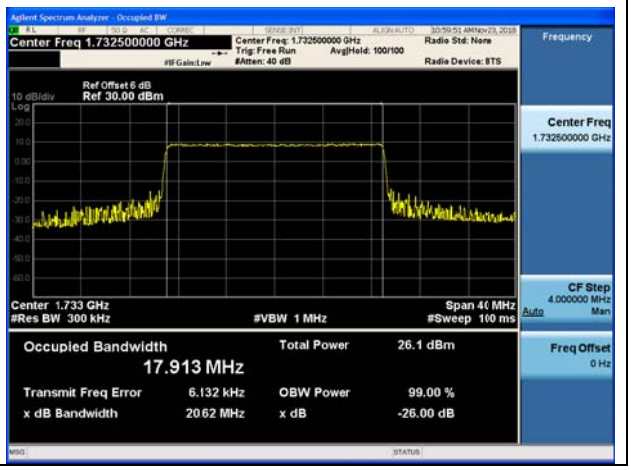


LTE Band 4 QPSK 10MHz CH-Middle

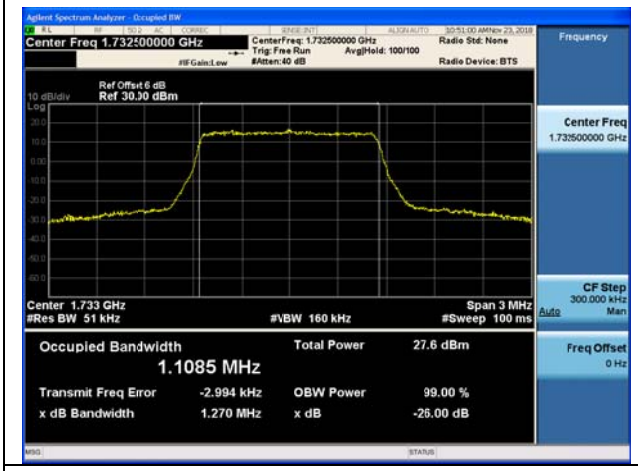
LTE Band 4 QPSK 15MHz CH-Middle



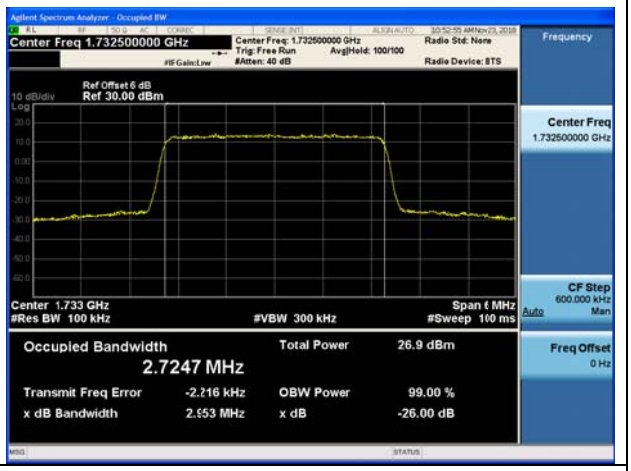
LTE Band 4 QPSK 20MHz CH-Middle



LTE Band 4 16QAM 1.4MHz CH-Middle



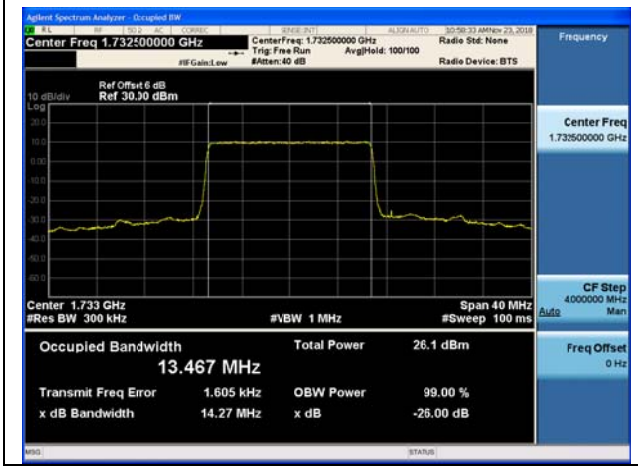
LTE Band 4 16QAM 3MHz CH-Middle



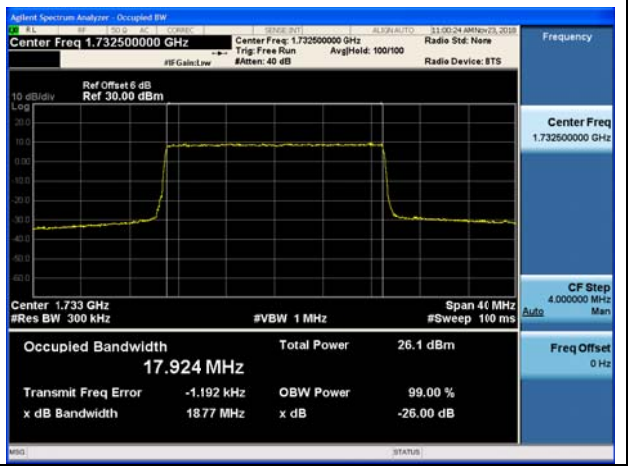
LTE Band 4 16QAM 5MHz CH-Middle

LTE Band 4 16QAM 10MHz CH-Middle

LTE Band 4 16QAM 15MHz CH-Middle

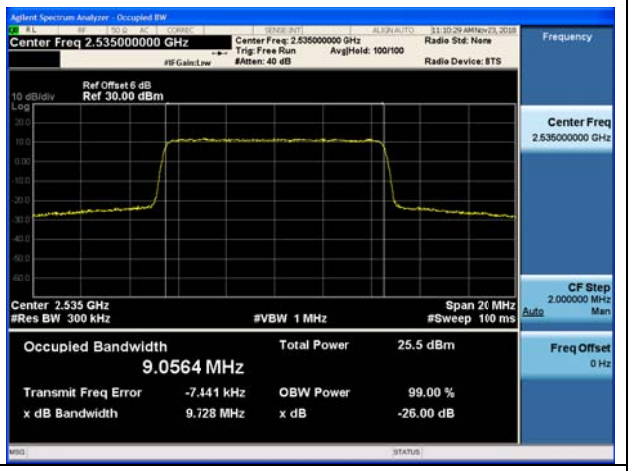


LTE Band 4 16QAM 20MHz CH-Middle

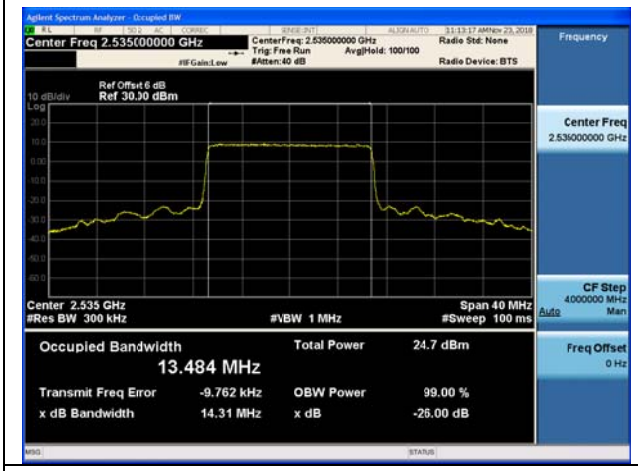


LTE Band 7 QPSK 5MHz CH-Middle

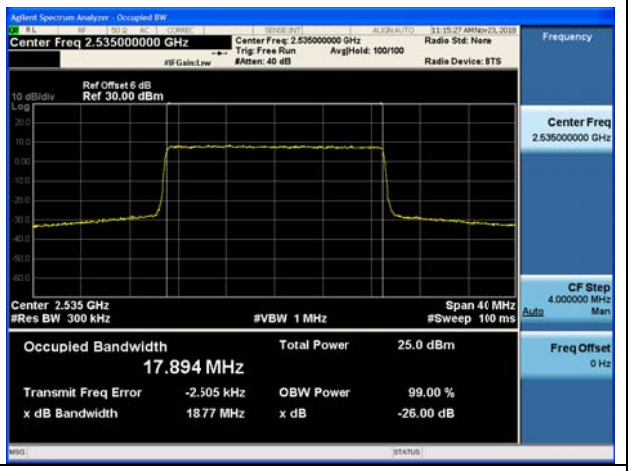
LTE Band 7 QPSK 10MHz CH-Middle



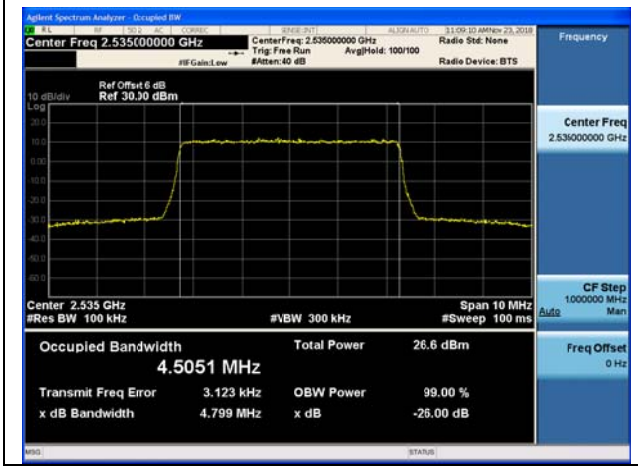
LTE Band 7 QPSK 15MHz CH-Middle



LTE Band 7 QPSK 20MHz CH-Middle

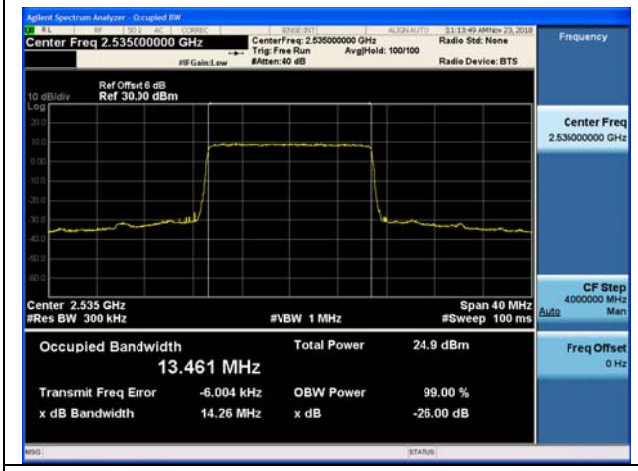


LTE Band 7 16QAM 5MHz CH-Middle

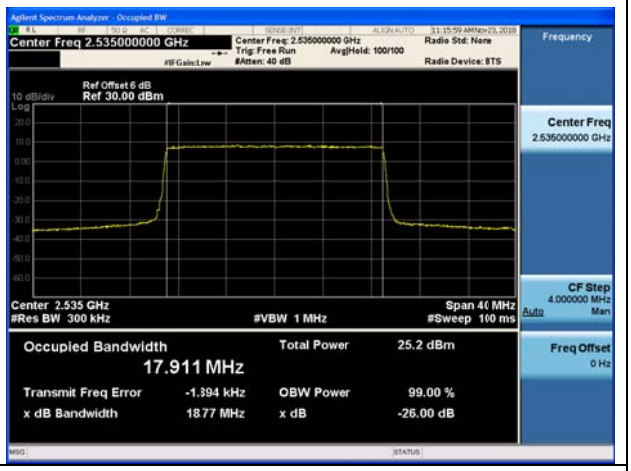


LTE Band 7 16QAM 10MHz CH-Middle

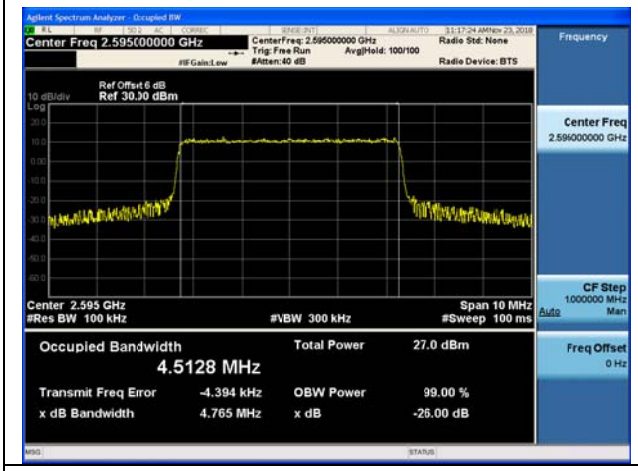
LTE Band 7 16QAM 15MHz CH-Middle



LTE Band 7 16QAM 20MHz CH-Middle

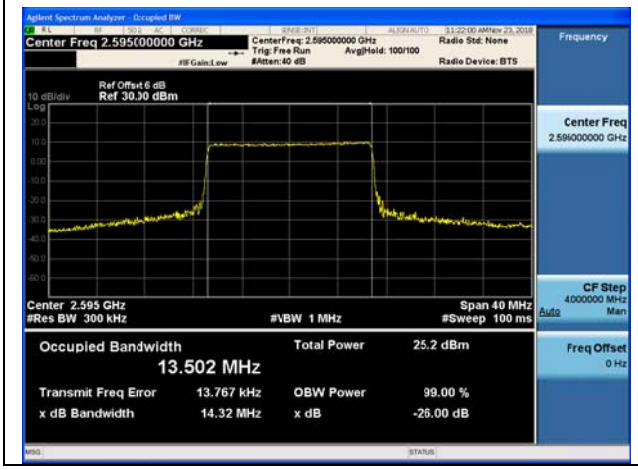


LTE Band 38 QPSK 5MHz CH-Middle

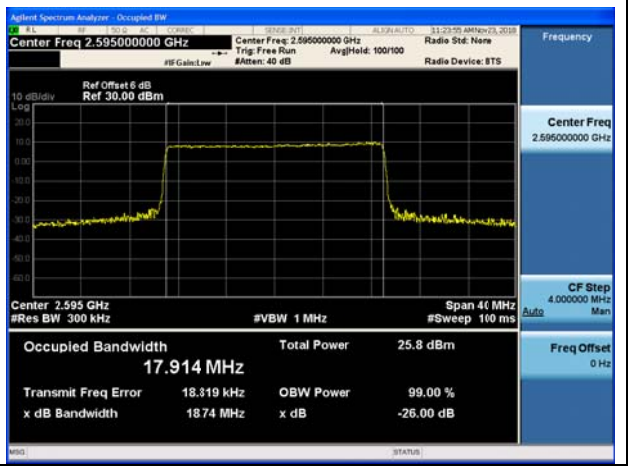


LTE Band 38 QPSK 10MHz CH-Middle

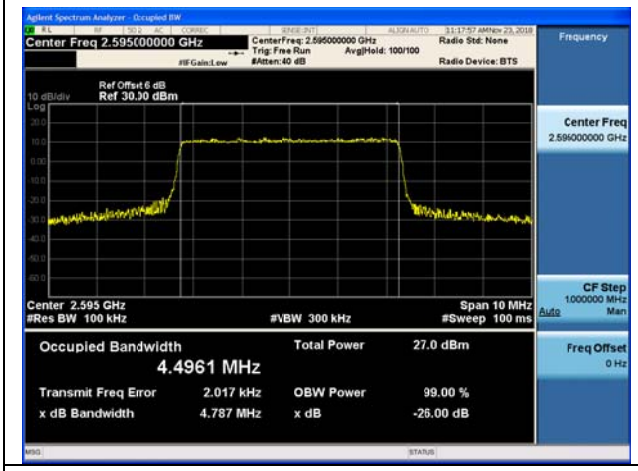
LTE Band 38 QPSK 15MHz CH-Middle



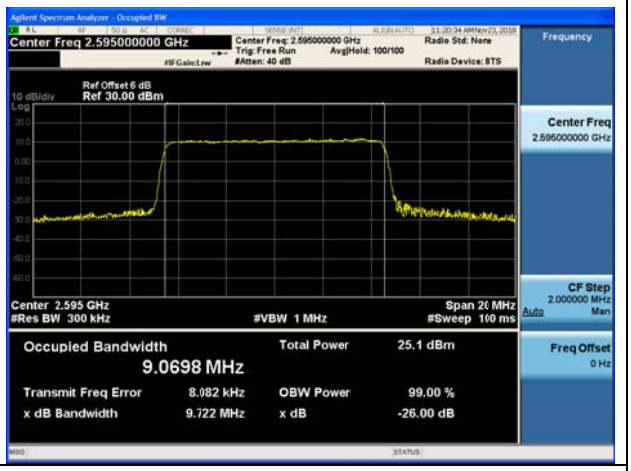
LTE Band 38 QPSK 20MHz CH-Middle



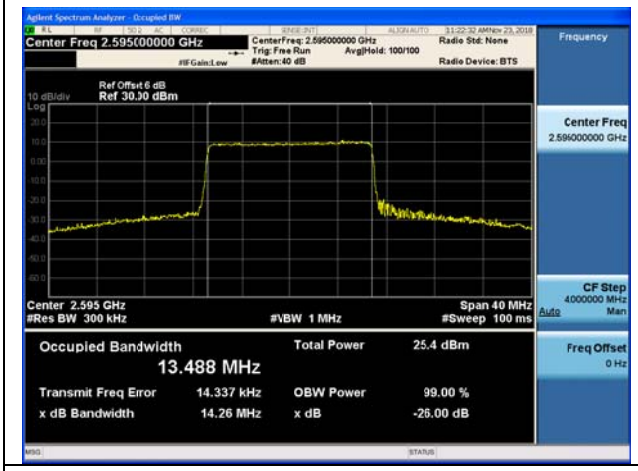
LTE Band 38 16QAM 5MHz CH-Middle



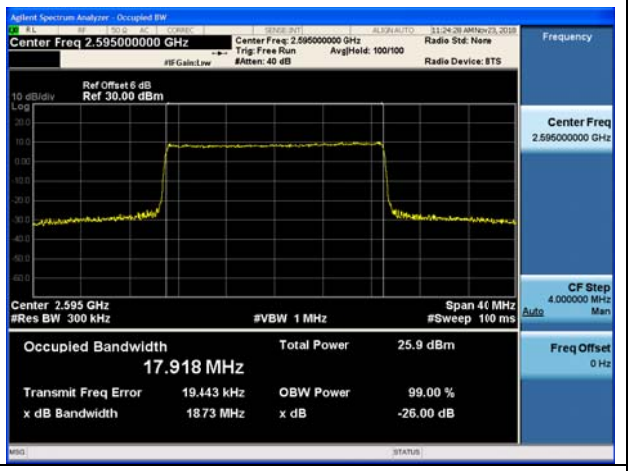
LTE Band 38 16QAM 10MHz CH-Middle



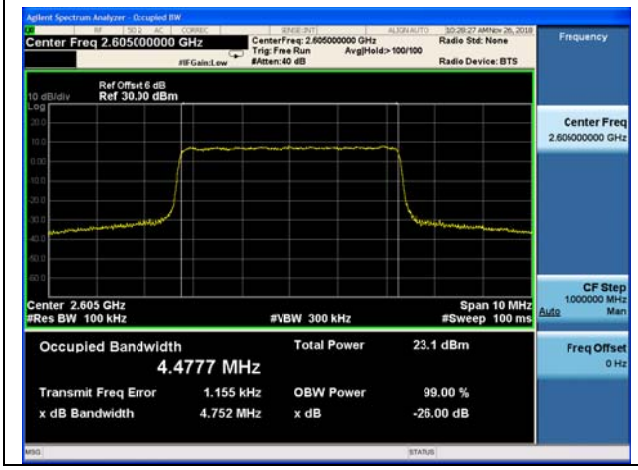
LTE Band 38 16QAM 15MHz CH-Middle



LTE Band 38 16QAM 20MHz CH-Middle



LTE Band 41 QPSK 5MHz CH-Middle



LTE Band 41 QPSK 10MHz CH-Middle

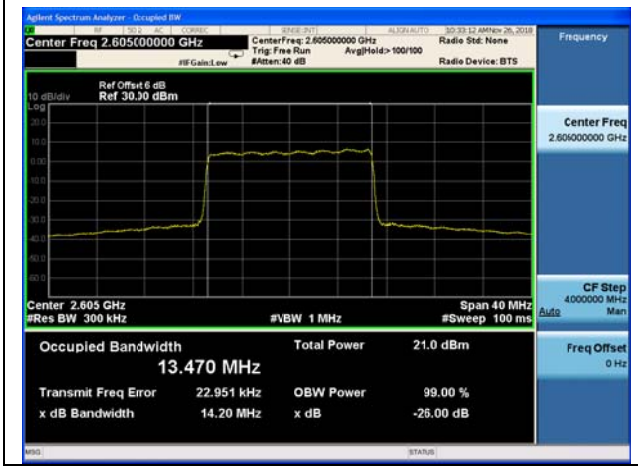
LTE Band 41 QPSK 15MHz CH-Middle

LTE Band 41 QPSK 20MHz CH-Middle

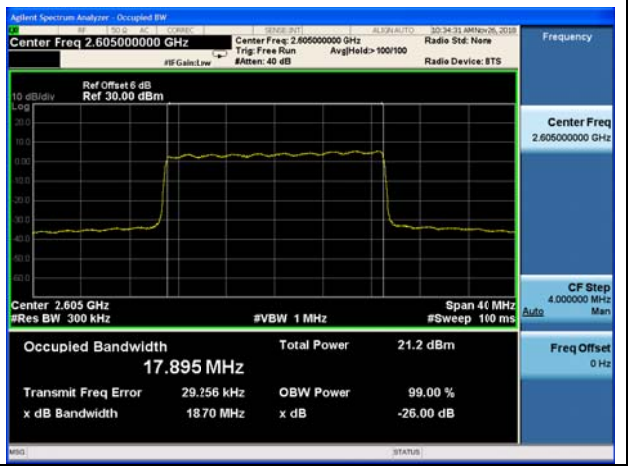
LTE Band 41 16QAM 5MHz CH-Middle

LTE Band 41 16QAM 10MHz CH-Middle

LTE Band 41 16QAM 15MHz CH-Middle



LTE Band 41 16QAM 20MHz CH-Middle



5.4 Band Edge Compliance

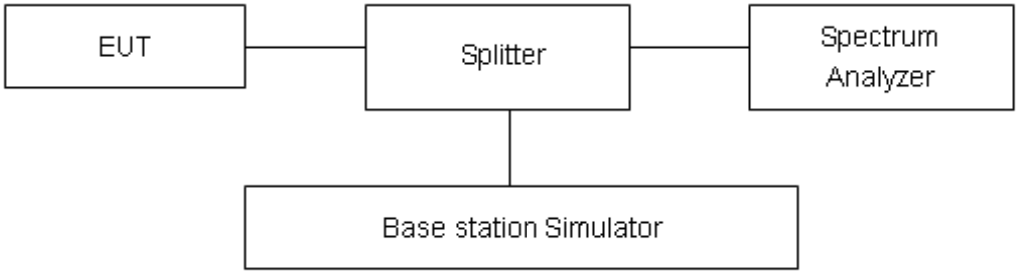
Ambient condition

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 band edge of the lowest and highest channels were measured.
The testing follows KDB 971168 D01 v03r01 Section 6.0
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.
3. For Set RBW >= 1% EBW in the 1MHz band immediately outside and adjacent to the band edge.
Beyond the 1 MHz band from the band edge, RBW=1MHz was used.
RBW is set to 51 kHz, VBW is set to 160 kHz for WCDMA Band IV.
RBW is set to 15 kHz, VBW is set to 51 kHz for LTE Band 4 (1.4MHz).
RBW is set to 30 kHz, VBW is set to 100 kHz for LTE Band 4 (3MHz).
RBW is set to 51 kHz, VBW is set to 160 kHz for LTE Band 4 (5MHz).
RBW is set to 100 kHz, VBW is set to 300kHz for LTE Band 4 (10MHz).
RBW is set to 150 kHz, VBW is set to 510 kHz for LTE Band 4 (15MHz).
RBW is set to 200 kHz, VBW is set to 620 kHz for LTE Band 4 (20MHz)
RBW is set to 50 kHz, VBW is set to 200 kHz for LTE Band 7 (5MHz).
RBW is set to 51 kHz, VBW is set to 200 kHz for LTE Band 38/41 (5MHz).
RBW is set to 100 kHz, VBW is set to 300kHz for LTE Band 7/38/41 (10MHz).
RBW is set to 200 kHz, VBW is set to 1MHz for LTE Band 7/38/41 (15MHz/20MHz).
on spectrum analyzer.
4. Set spectrum analyzer with RMS detector.
5. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
6. Checked that all the results comply with the emission limit line.

Test Setup



Limits

Rule Part 27.53(i) By a factor of not less than 43 + 10 log (P) dB on all frequencies between 2305 and 2320 MHz.

Rule Part 27.53(h)/ specifies that " for operations in the 1695-1710 MHz, 1710-1755 MHz, 1755-1780 MHz, 1915-1920 MHz, 1995-2000 MHz, 2000-2020 MHz, 2110-2155 MHz, 2155-2180 MHz, and 2180-2200 bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 $\log_{10}$ (P) dB"
Part 27.53(g) For operations in the 600 MHz band and the 698-746 MHz band, 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 27.53(m) (4)/ specifies that "for BRS and EBS stations. 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)(4) 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.
Example:
The limit line is derived from 43 + 10log (P) dB below the transmitter power P(Watts)
= P(W)- [43 + 10log(P)] (dB)
= [30 + 10log (P)] (dBm) - [43 + 10log(P)] (dB) = -13dBm.

Measurement Uncertainty

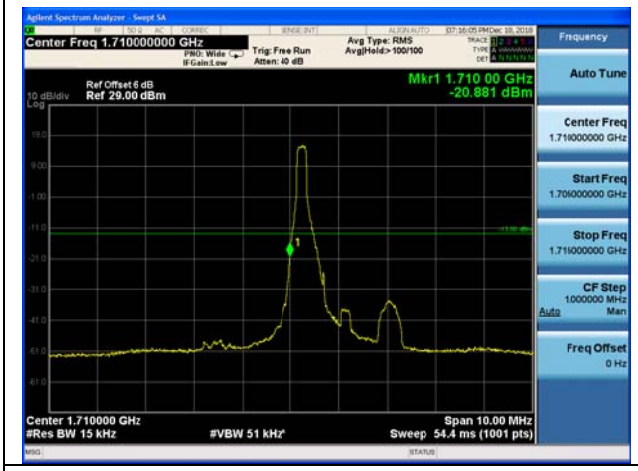
The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 1.96, U=0.684dB.

Test Result

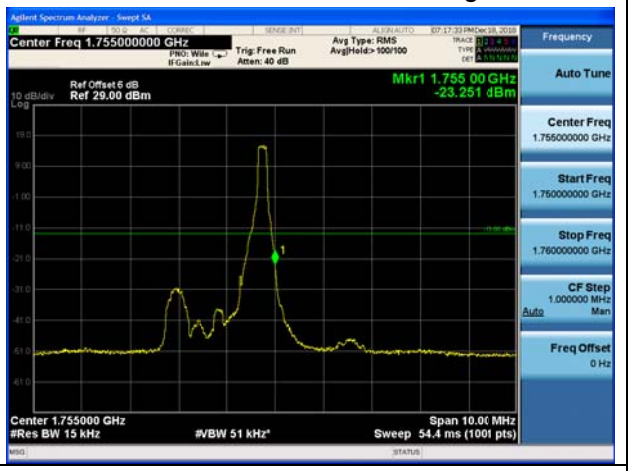
All the test traces in the plots shows the test results clearly.

WCDMA Band IV CH-Low	WCDMA Band IV CH-High
	

LTE Band 4 QPSK 1.4MHz CH-Low, 1 RB



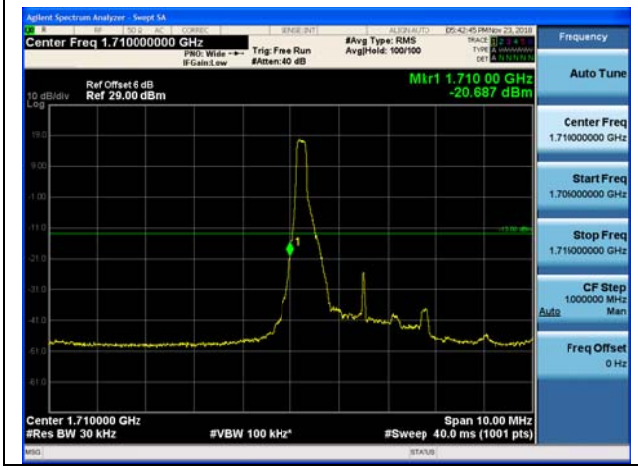
LTE Band 4 QPSK 1.4MHz CH-High, 1 RB



LTE Band 4 QPSK 1.4MHz CH-Low, 100%RB

LTE Band 4 QPSK 1.4MHz CH-High, 100%RB

LTE Band 4 QPSK 3MHz CH-Low, 1 RB

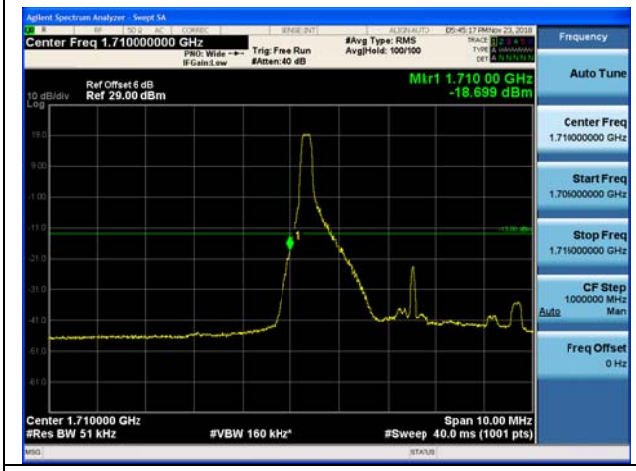


LTE Band 4 QPSK 3MHz CH-High, 1 RB

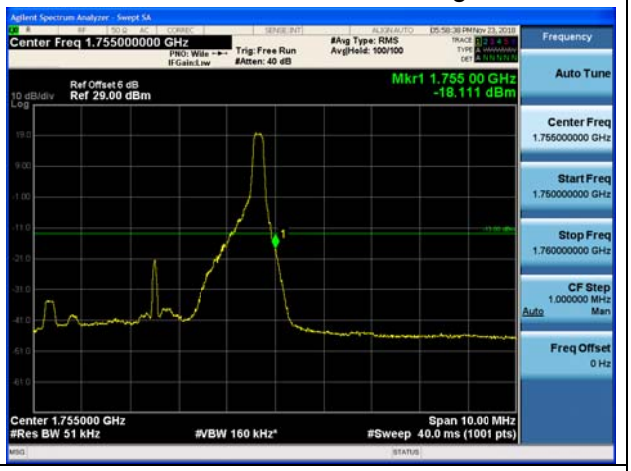
LTE Band 4 QPSK 3MHz CH-Low, 100%RB

LTE Band 4 QPSK 3MHz CH-High, 100%RB

LTE Band 4 QPSK 5MHz CH-Low, 1 RB



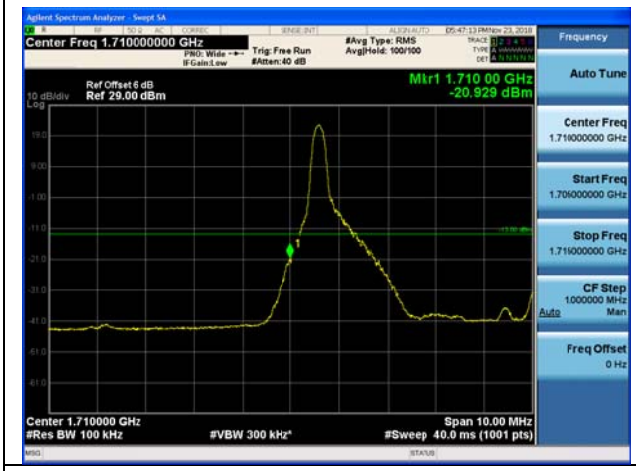
LTE Band 4 QPSK 5MHz CH-High, 1 RB



LTE Band 4 QPSK 5MHz CH-Low, 100%RB

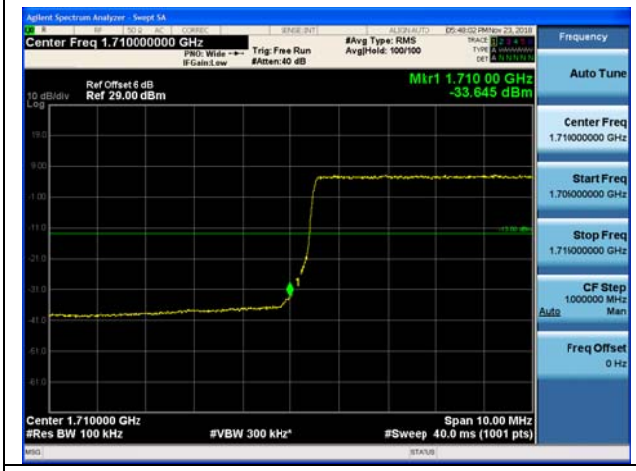
LTE Band 4 QPSK 5MHz CH-High, 100%RB

LTE Band 4 QPSK 10MHz CH-Low, 1 RB



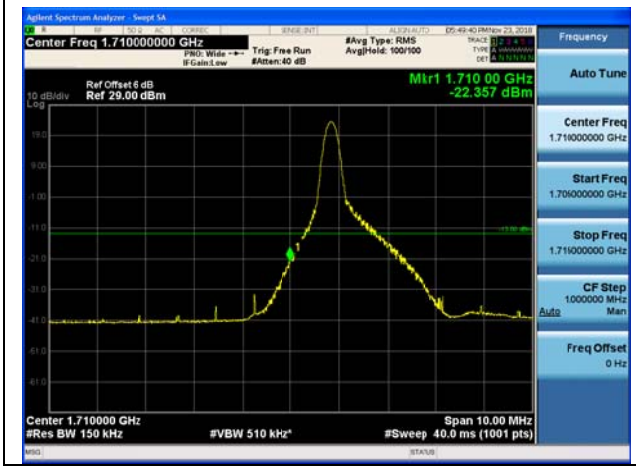
LTE Band 4 QPSK 10MHz CH-High, 1 RB

LTE Band 4 QPSK 10MHz CH-Low, 100%RB



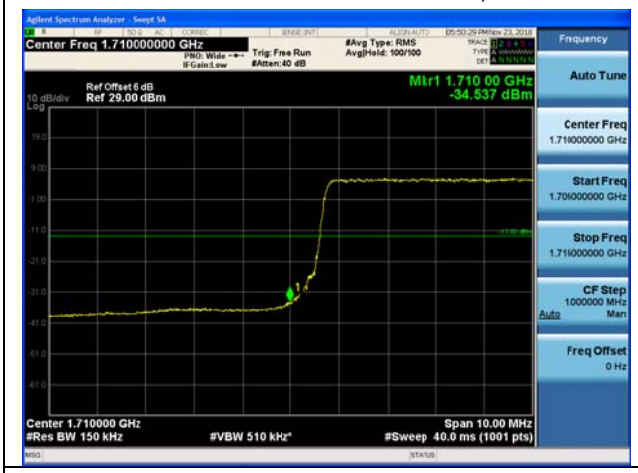
LTE Band 4 QPSK 10MHz CH-High, 100%RB

LTE Band 4 QPSK 15MHz CH-Low, 1 RB



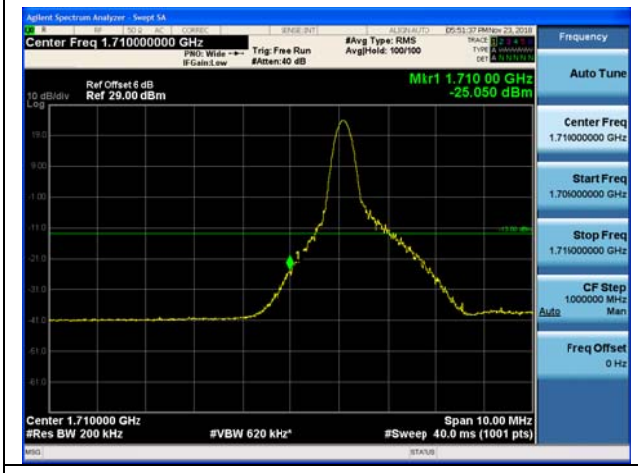
LTE Band 4 QPSK 15MHz CH-High, 1 RB

LTE Band 4 QPSK 15MHz CH-Low, 100%RB



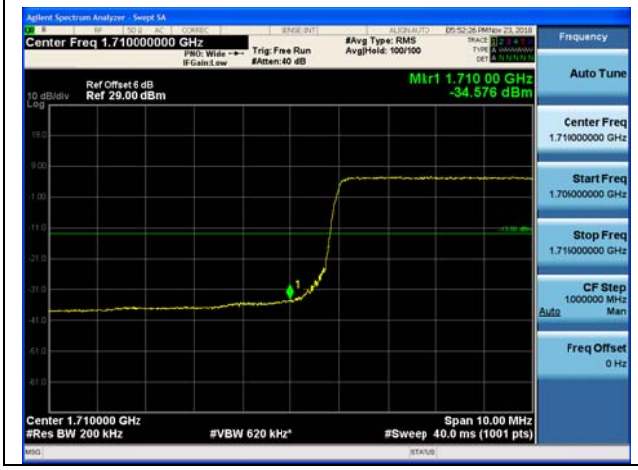
LTE Band 4 QPSK 15MHz CH-High, 100%RB

LTE Band 4 QPSK 20MHz CH-Low, 1 RB



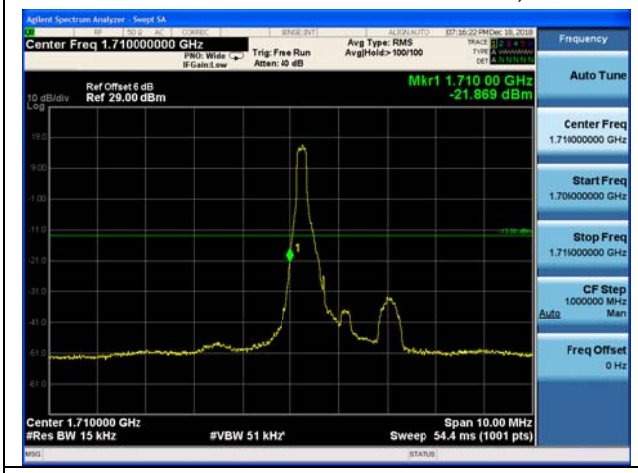
LTE Band 4 QPSK 20MHz CH-High, 1 RB

LTE Band 4 QPSK 20MHz CH-Low, 100%RB

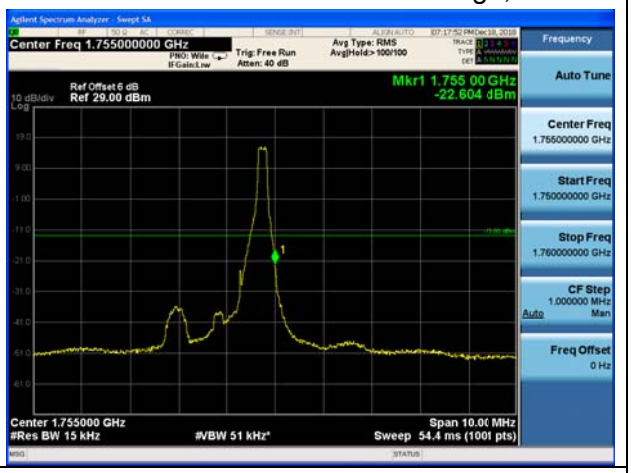


LTE Band 4 QPSK 20MHz CH-High, 100%RB

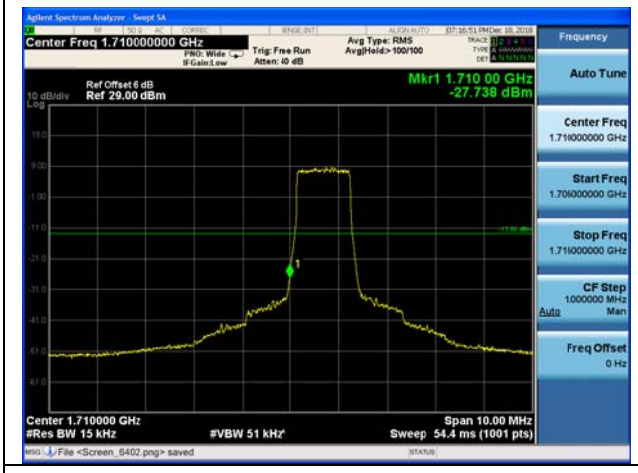
LTE Band 4 16QAM 1.4MHz CH-Low, 1 RB



LTE Band 4 16QAM 1.4MHz CH-High, 1 RB

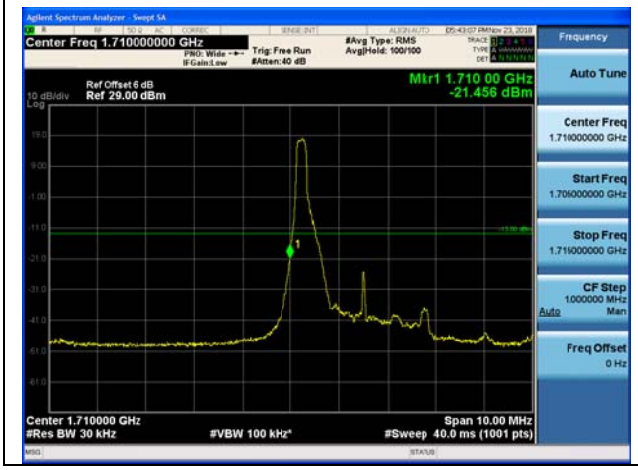


LTE Band 4 16QAM 1.4MHz CH-Low, 100%RB



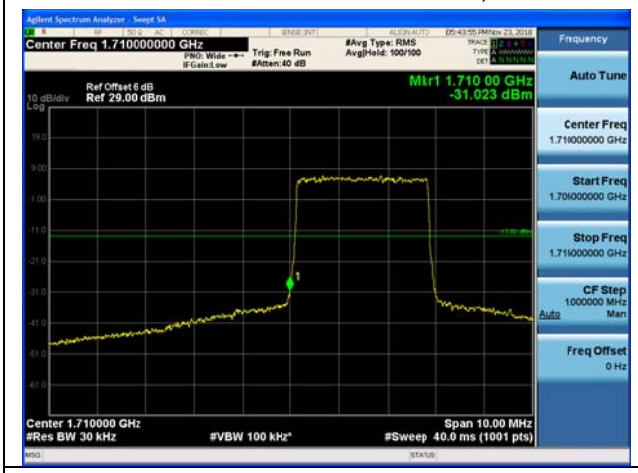
LTE Band 4 16QAM 1.4MHz CH-High, 100%RB

LTE Band 4 16QAM 3MHz CH-Low, 1 RB



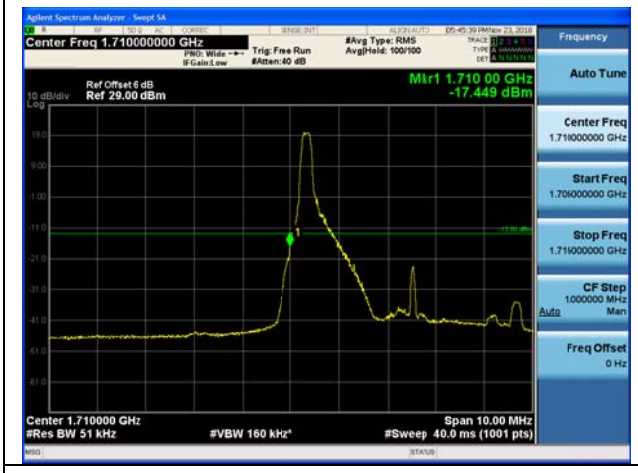
LTE Band 4 16QAM 3MHz CH-High, 1 RB

LTE Band 4 16QAM 3MHz CH-Low, 100%RB



LTE Band 4 16QAM 3MHz CH-High, 100%RB

LTE Band 4 16QAM 5MHz CH-Low, 1 RB

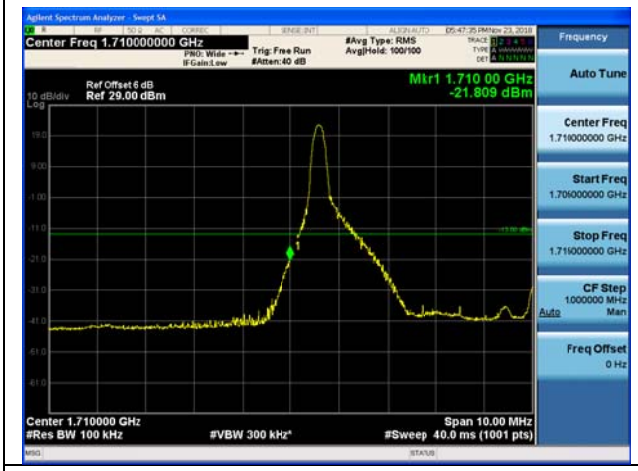


LTE Band 4 16QAM 5MHz CH-High, 1 RB

LTE Band 4 16QAM 5MHz CH-Low, 100%RB

LTE Band 4 16QAM 5MHz CH-High, 100%RB

LTE Band 4 16QAM 10MHz CH-Low, 1 RB

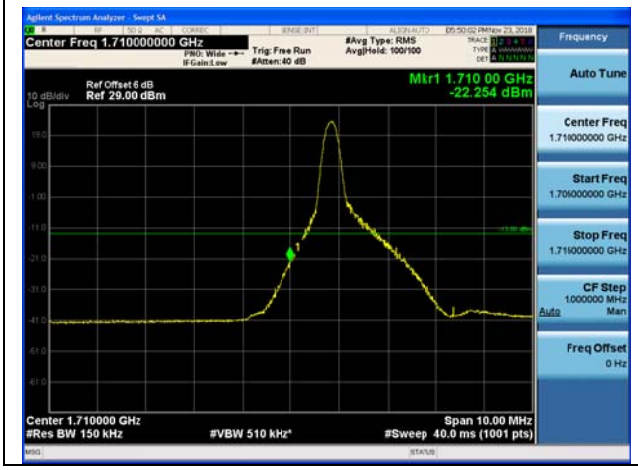


LTE Band 4 16QAM 10MHz CH-High, 1 RB

LTE Band 4 16QAM 10MHz CH-Low, 100%RB

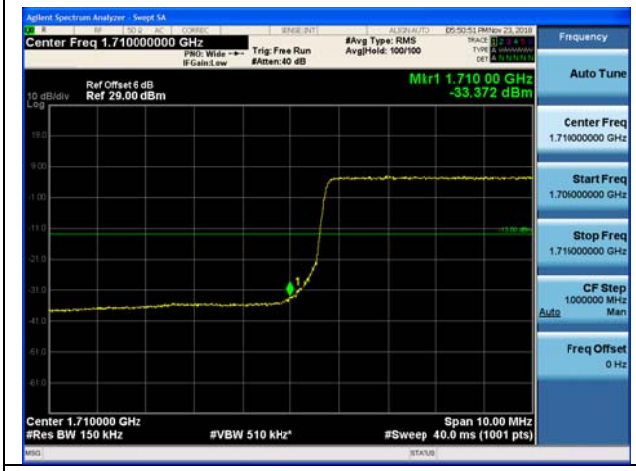
LTE Band 4 16QAM 10MHz CH-High, 100%RB

LTE Band 4 16QAM 15MHz CH-Low, 1 RB



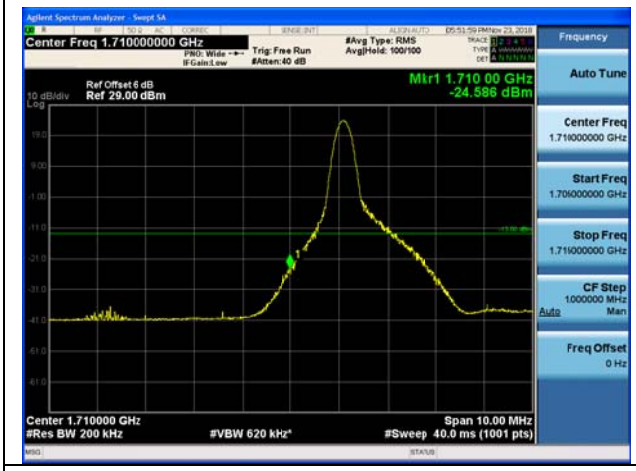
LTE Band 4 16QAM 15MHz CH-High, 1 RB

LTE Band 4 16QAM 15MHz CH-Low, 100%RB



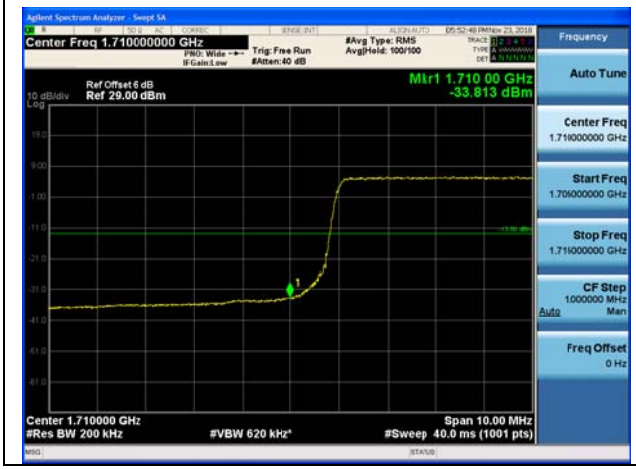
LTE Band 4 16QAM 15MHz CH-High, 100%RB

LTE Band 4 16QAM 20MHz CH-Low, 1 RB



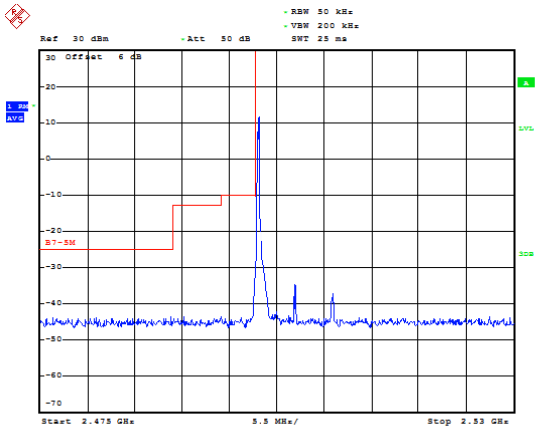
LTE Band 4 16QAM 20MHz CH-High, 1 RB

LTE Band 4 16QAM 20MHz CH-Low, 100%RB



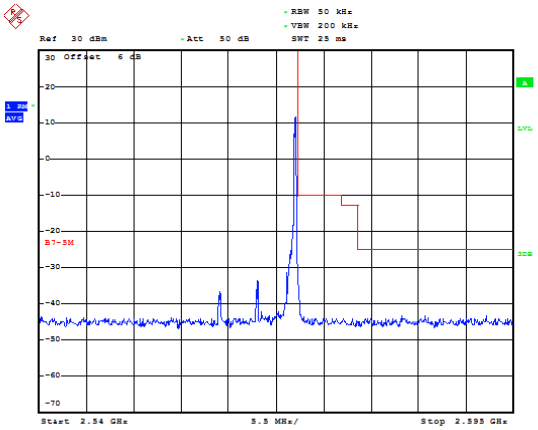
LTE Band 4 16QAM 20MHz CH-High, 100%RB

LTE Band 7 QPSK 5MHz CH-Low, 1 RB



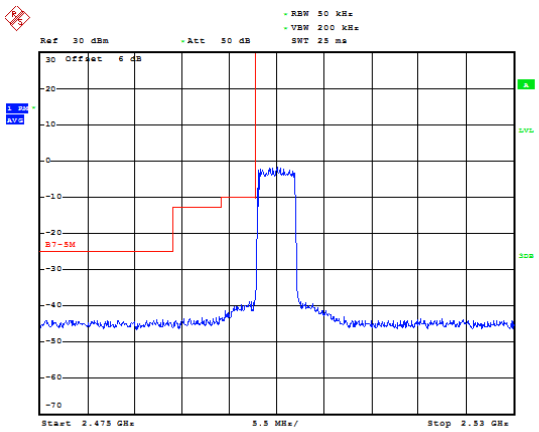
Date: 26.NOV.2018 11:33:50

LTE Band 7 QPSK 5MHz CH-High, 1 RB



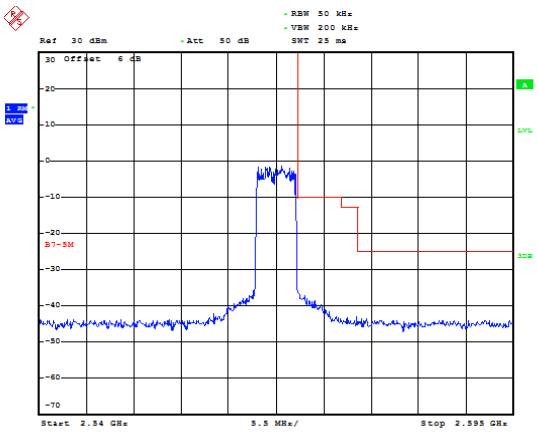
Date: 26.NOV.2018 11:25:41

LTE Band 7 QPSK 5MHz CH-Low, 100%RB



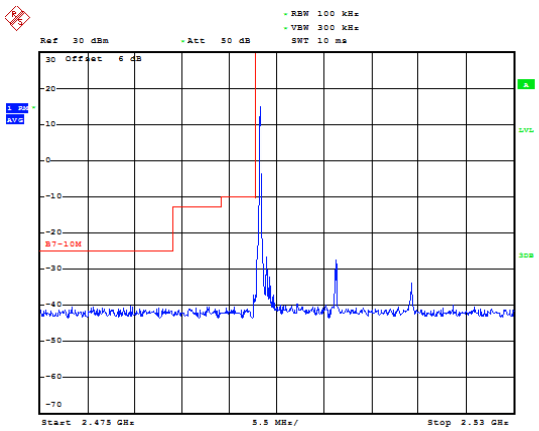
Date: 26.NOV.2018 11:34:04

LTE Band 7 QPSK 5MHz CH-High, 100%RB



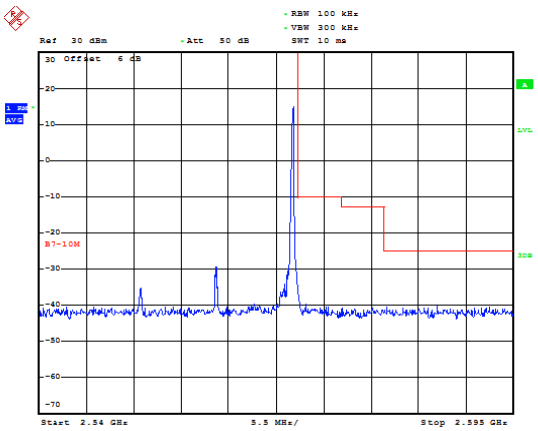
Date: 26.NOV.2018 11:25:51

LTE Band 7 QPSK 10MHz CH-Low, 1 RB



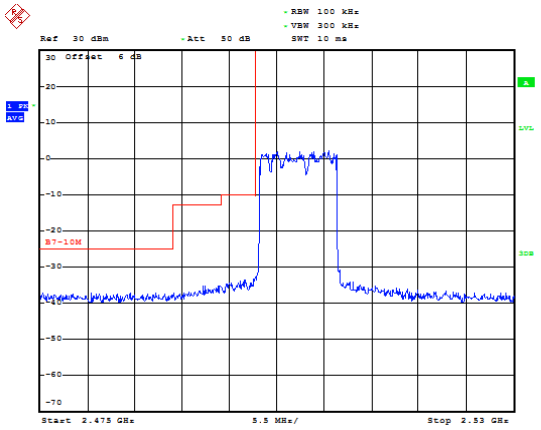
Date: 26.NOV.2018 11:35:38

LTE Band 7 QPSK 10MHz CH-High, 1 RB



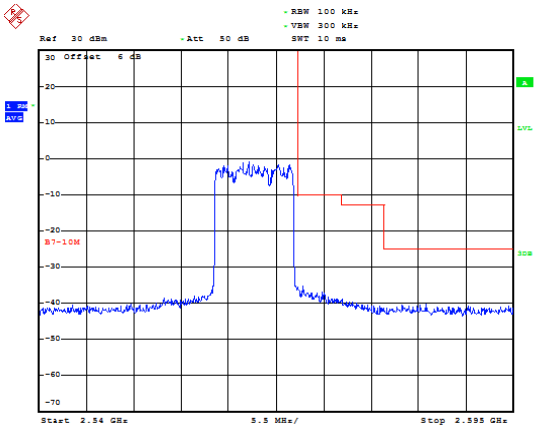
Date: 26.NOV.2018 11:28:14

LTE Band 7 QPSK 10MHz CH-Low, 100%RB



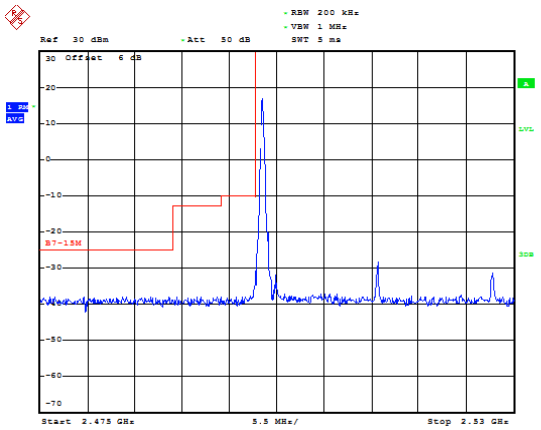
Date: 26.NOV.2018 11:13:38

LTE Band 7 QPSK 10MHz CH-High, 100%RB



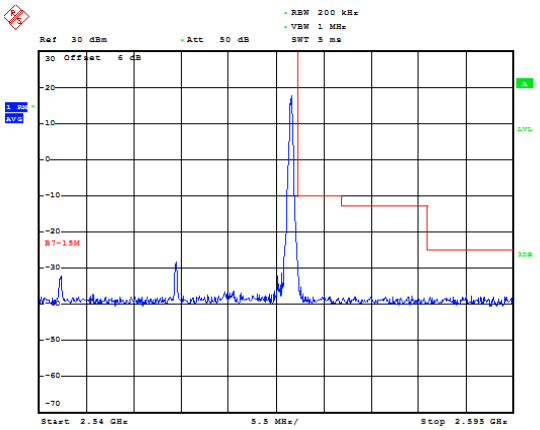
Date: 26.NOV.2018 11:28:26

LTE Band 7 QPSK 15MHz CH-Low, 1 RB



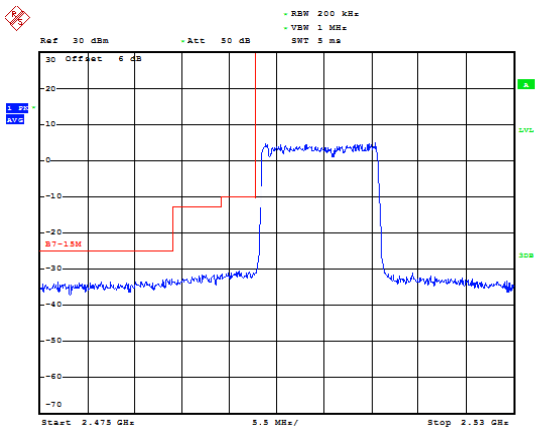
Date: 26.NOV.2018 11:36:23

LTE Band 7 QPSK 15MHz CH-High, 1 RB



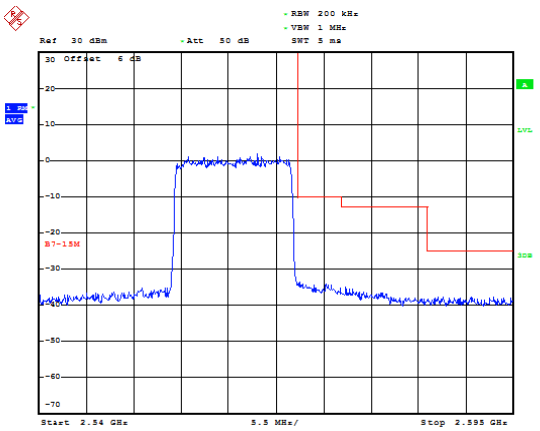
Date: 26.NOV.2018 11:32:16

LTE Band 7 QPSK 15MHz CH-Low, 100%RB



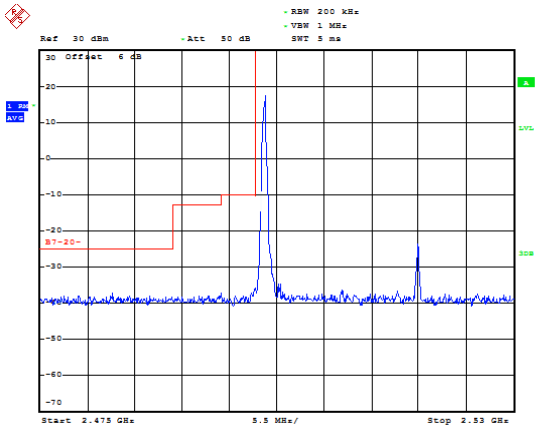
Date: 26.NOV.2018 11:16:30

LTE Band 7 QPSK 15MHz CH-High, 100%RB



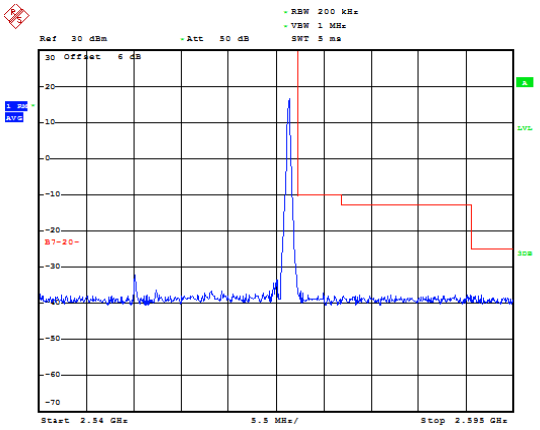
Date: 26.NOV.2018 11:32:25

LTE Band 7 QPSK 20MHz CH-Low, 1 RB



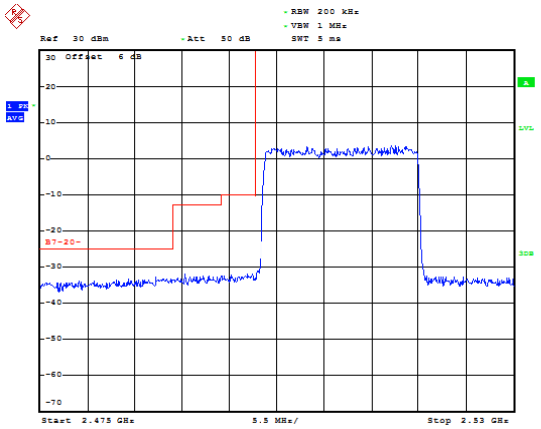
Date: 26.NOV.2018 11:37:03

LTE Band 7 QPSK 20MHz CH-High, 1 RB



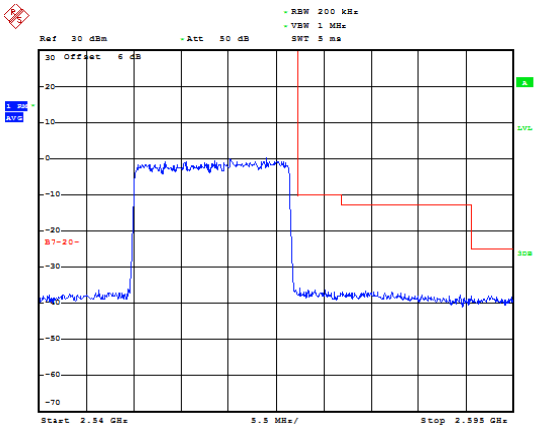
Date: 26.NOV.2018 11:31:03

LTE Band 7 QPSK 20MHz CH-Low, 100%RB



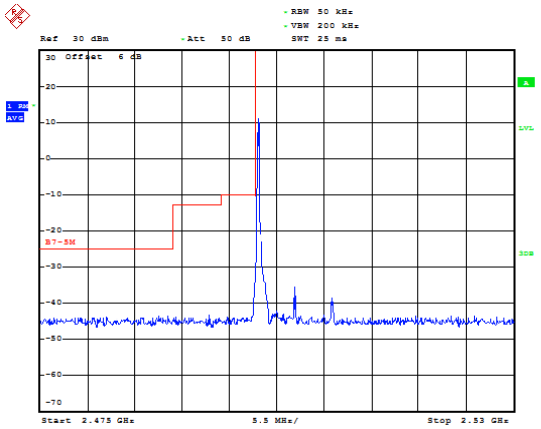
Date: 26.NOV.2018 11:18:05

LTE Band 7 QPSK 20MHz CH-High, 100%RB



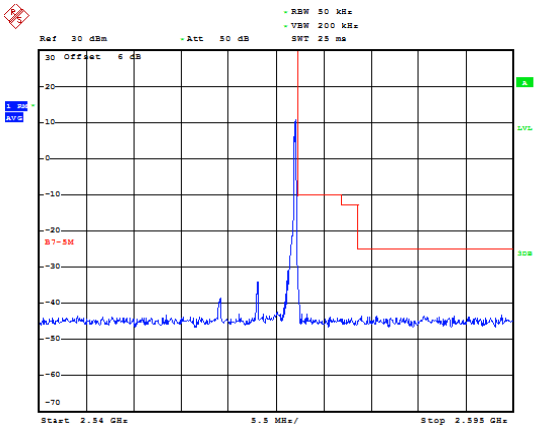
Date: 26.NOV.2018 11:31:18

LTE Band 7 16QAM 5MHz CH-Low, 1 RB



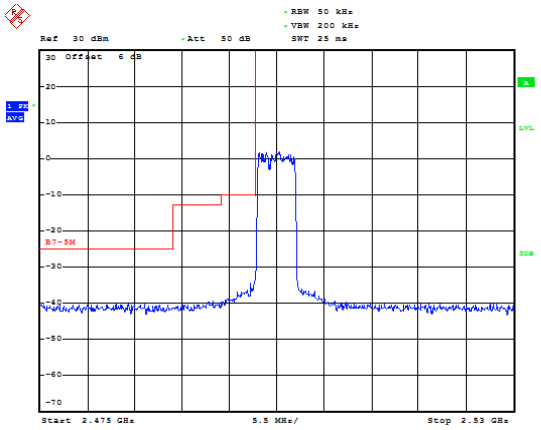
Date: 26.NOV.2018 11:34:48

LTE Band 7 16QAM 5MHz CH-High, 1 RB



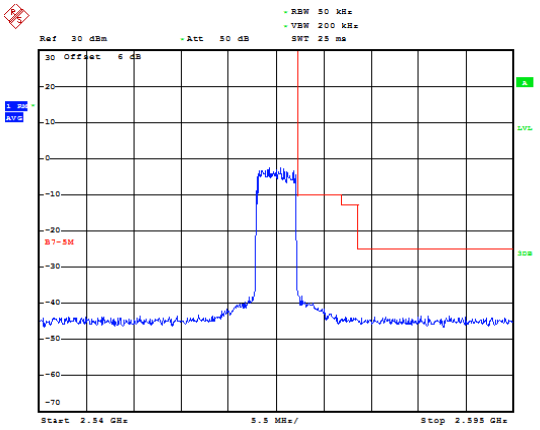
Date: 26.NOV.2018 11:26:02

LTE Band 7 16QAM 5MHz CH-Low, 100%RB



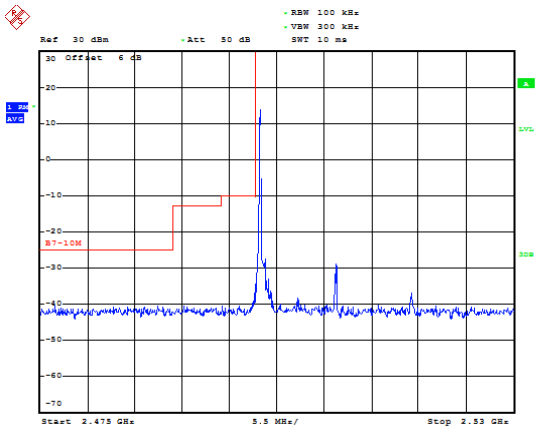
Date: 26.NOV.2018 11:12:14

LTE Band 7 16QAM 5MHz CH-High, 100%RB



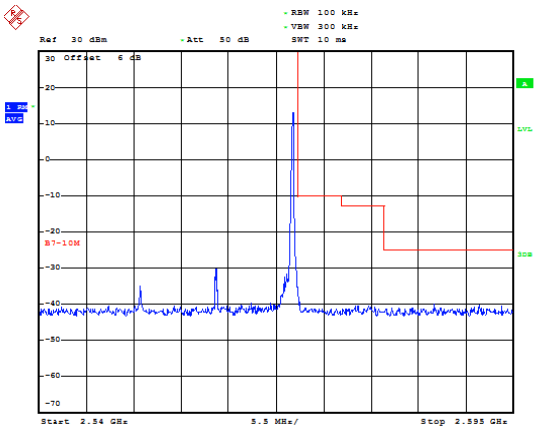
Date: 26.NOV.2018 11:26:12

LTE Band 7 16QAM 10MHz CH-Low, 1 RB



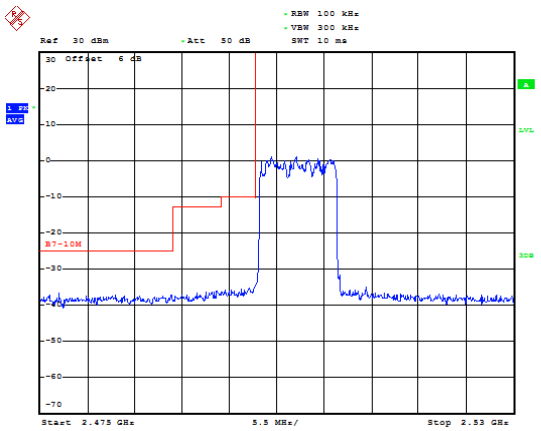
Date: 26.NOV.2018 11:35:26

LTE Band 7 16QAM 10MHz CH-High, 1 RB



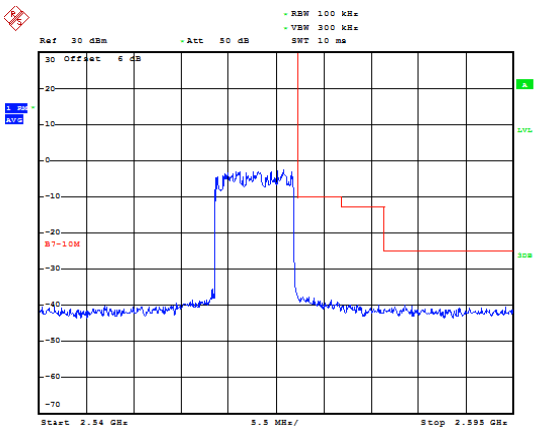
Date: 26.NOV.2018 11:28:37

LTE Band 7 16QAM 10MHz CH-Low, 100%RB



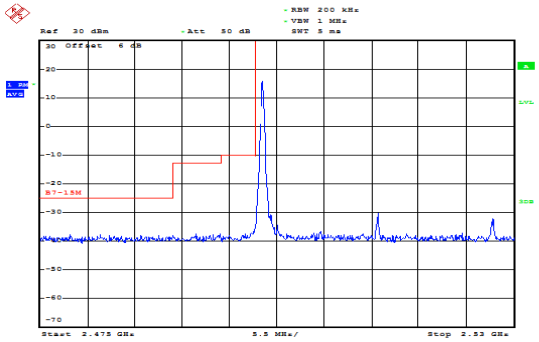
Date: 26.NOV.2018 11:14:04

LTE Band 7 16QAM 10MHz CH-High, 100%RB



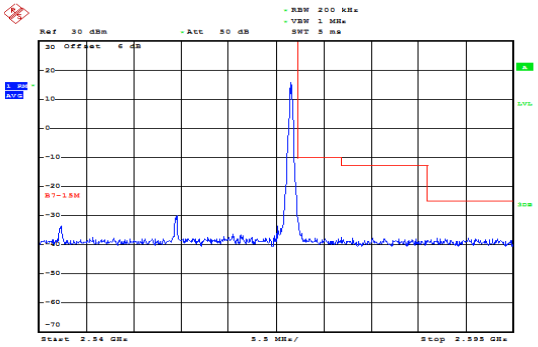
Date: 26.NOV.2018 11:28:47

LTE Band 7 16QAM 15MHz CH-Low, 1 RB



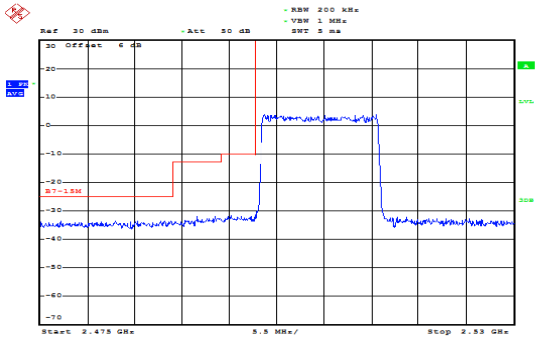
Date: 26.NOV.2018 11:36:32

LTE Band 7 16QAM 15MHz CH-High, 1 RB



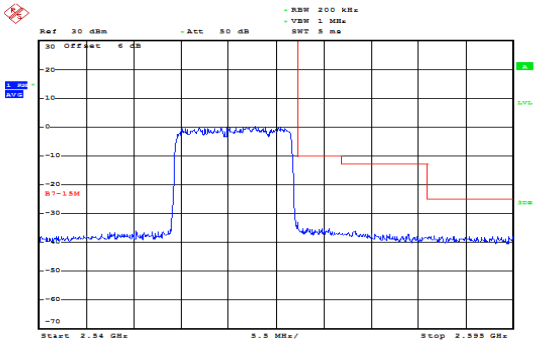
Date: 26.NOV.2018 11:32:35

LTE Band 7 16QAM 15MHz CH-Low, 100%RB



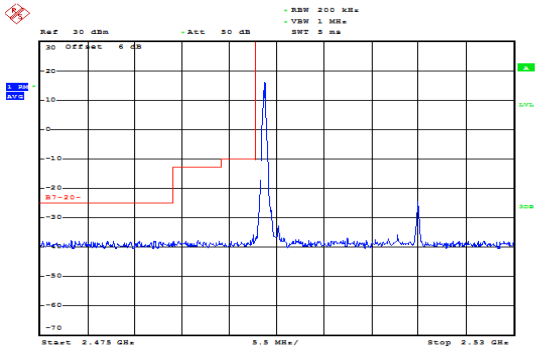
Date: 26.NOV.2018 11:16:53

LTE Band 7 16QAM 15MHz CH-High, 100%RB



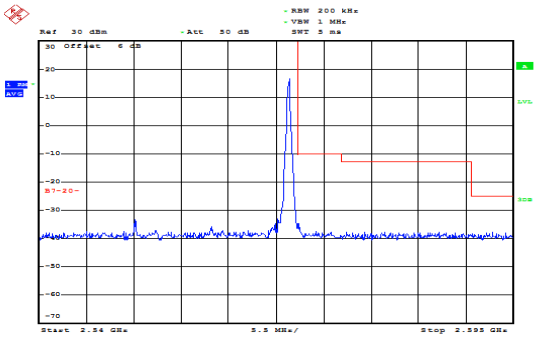
Date: 26.NOV.2018 11:32:43

LTE Band 7 16QAM 20MHz CH-Low, 1 RB



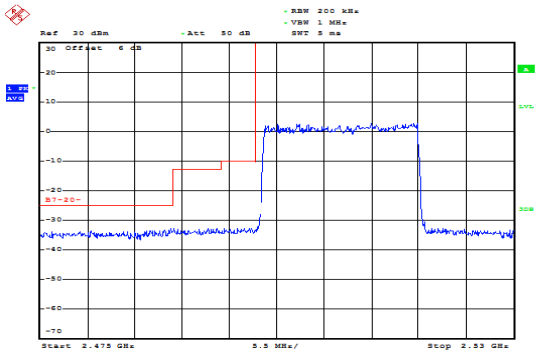
Date: 26.NOV.2018 11:37:15

LTE Band 7 16QAM 20MHz CH-High, 1 RB



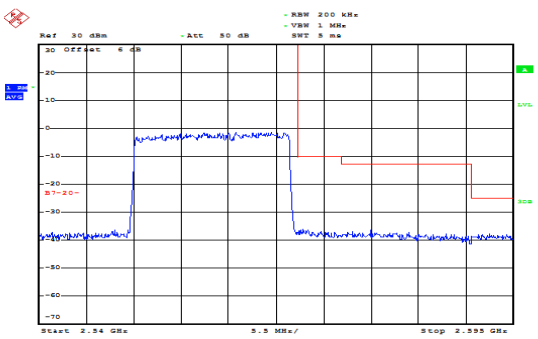
Date: 26.NOV.2018 11:31:26

LTE Band 7 16QAM 20MHz CH-Low, 100%RB



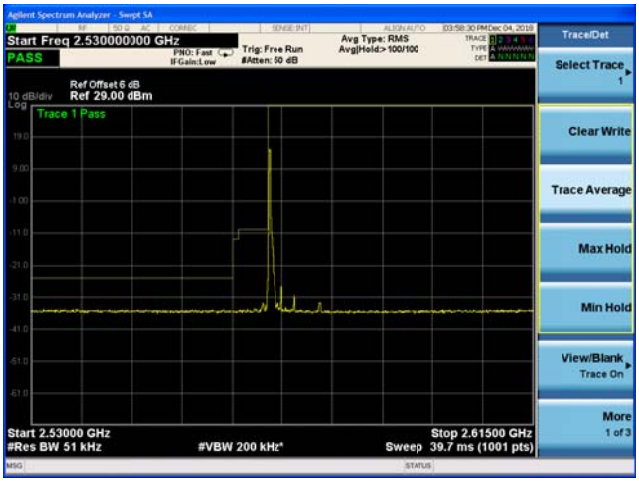
Date: 26.NOV.2018 11:18:25

LTE Band 7 16QAM 20MHz CH-High, 100%RB

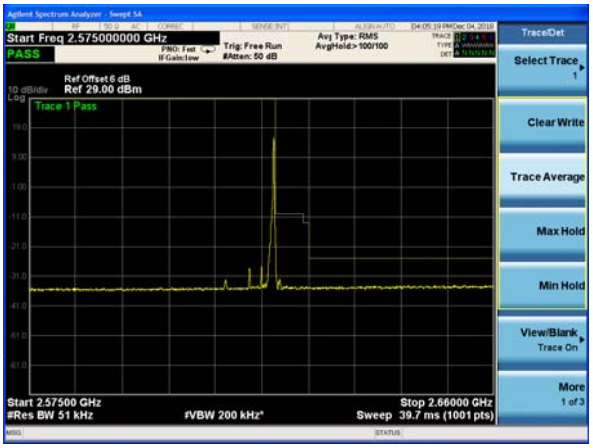


Date: 26.NOV.2018 11:31:45

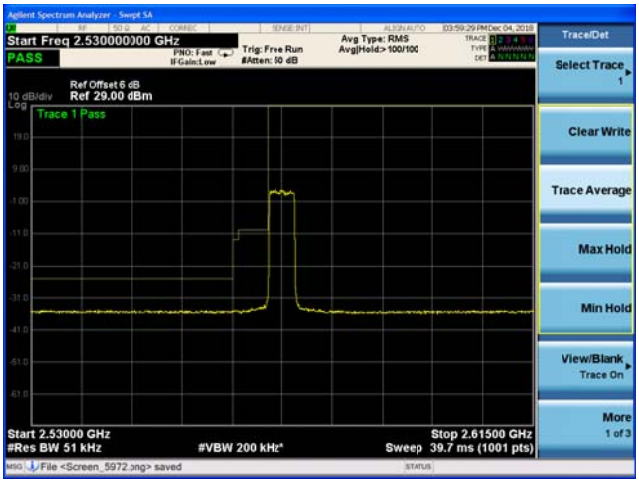
LTE Band 38 QPSK 5MHz CH-Low, 1 RB



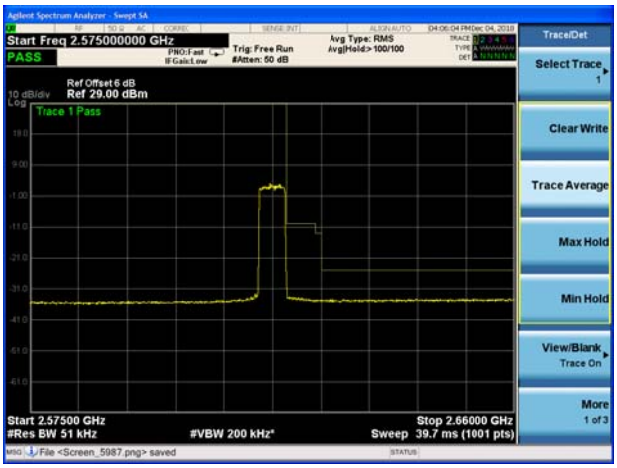
LTE Band 38 QPSK 5MHz CH-High, 1 RB



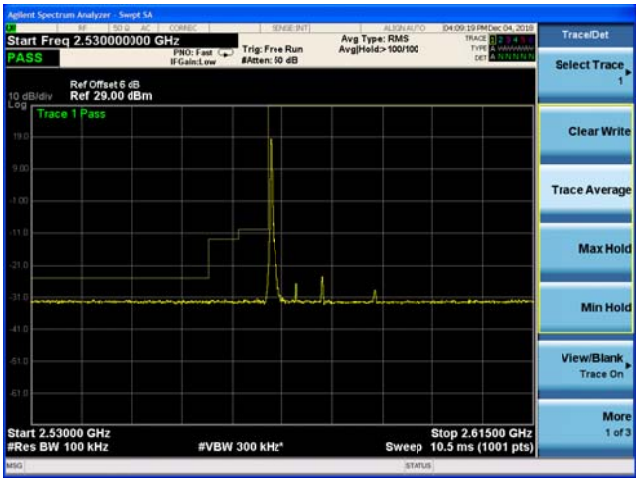
LTE Band 38 QPSK 5MHz CH-Low, 100%RB



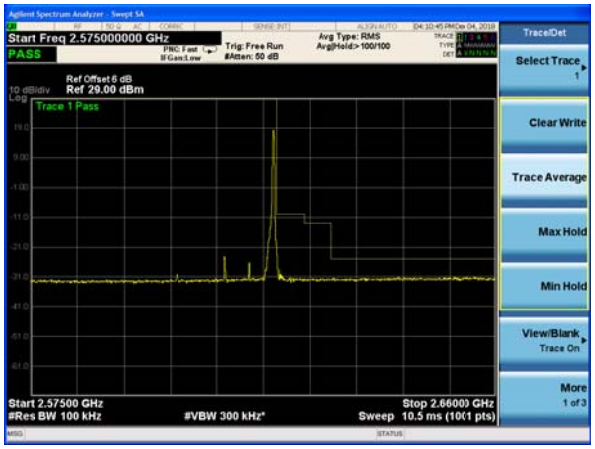
LTE Band 38 QPSK 5MHz CH-High, 100%RB



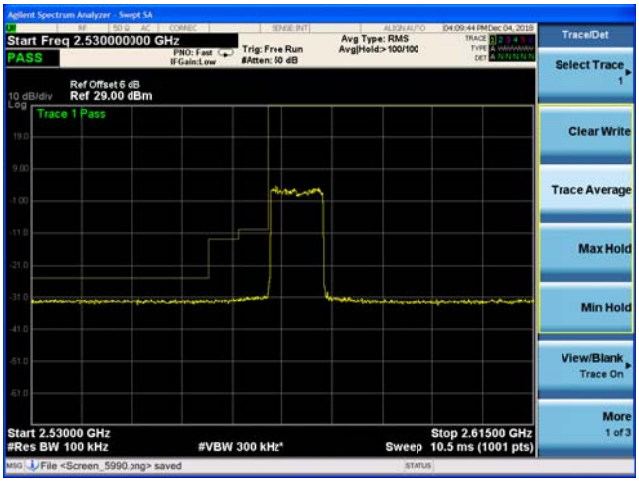
LTE Band 38 QPSK 10MHz CH-Low, 1 RB



LTE Band 38 QPSK 10MHz CH-High, 1 RB

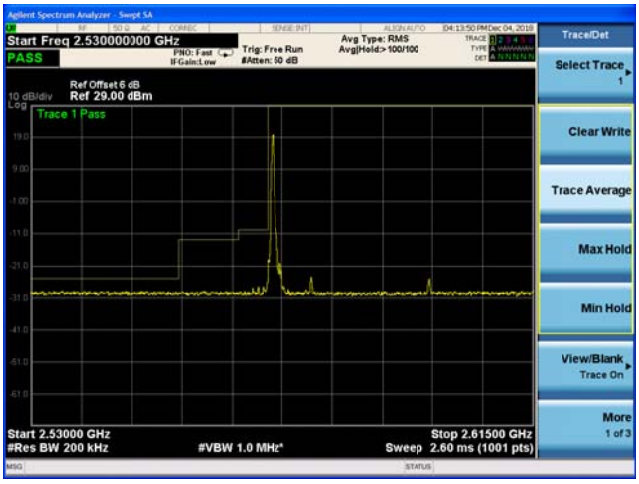


LTE Band 38 QPSK 10MHz CH-Low, 100%RB

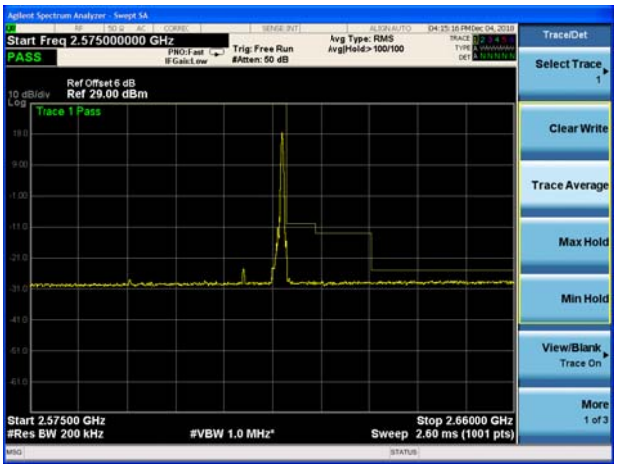


LTE Band 38 QPSK 10MHz CH-High, 100%RB

LTE Band 38 QPSK 15MHz CH-Low, 1 RB



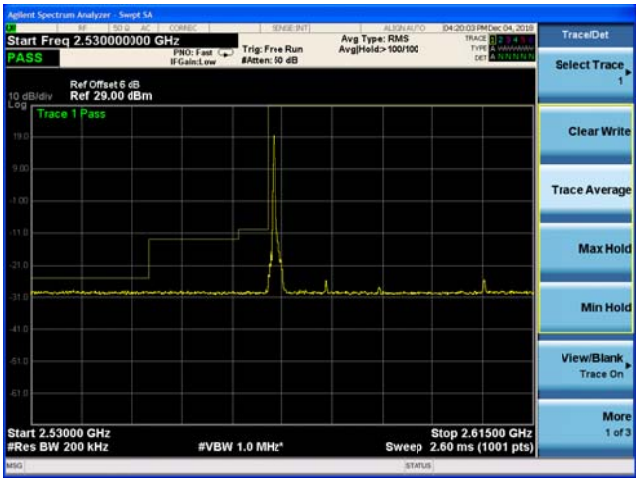
LTE Band 38 QPSK 15MHz CH-High, 1 RB



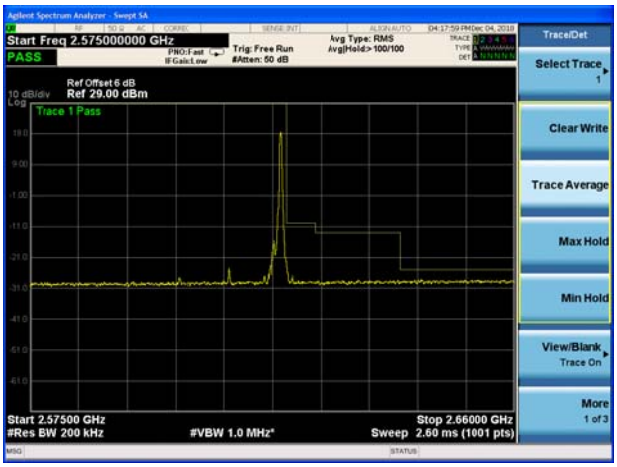
LTE Band 38 QPSK 15MHz CH-Low, 100%RB

LTE Band 38 QPSK 15MHz CH-High, 100%RB

LTE Band 38 QPSK 20MHz CH-Low, 1 RB



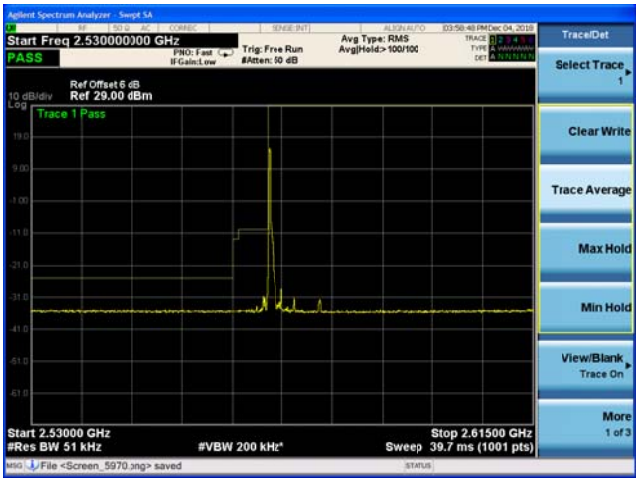
LTE Band 38 QPSK 20MHz CH-High, 1 RB



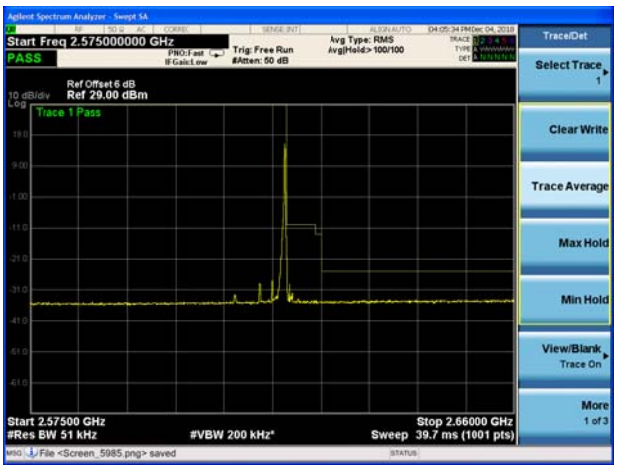
LTE Band 38 QPSK 20MHz CH-Low, 100%RB

LTE Band 38 QPSK 20MHz CH-High, 100%RB

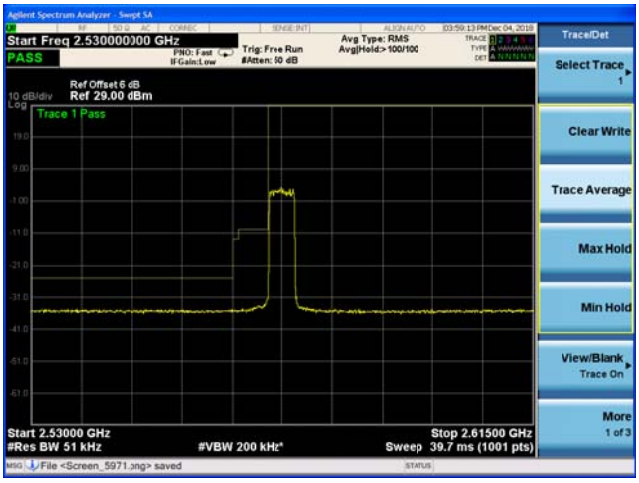
LTE Band 38 16QAM 5MHz CH-Low, 1 RB



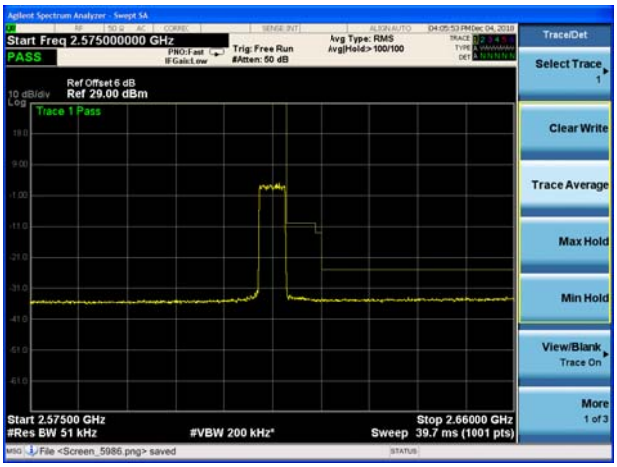
LTE Band 38 16QAM 5MHz CH-High, 1 RB



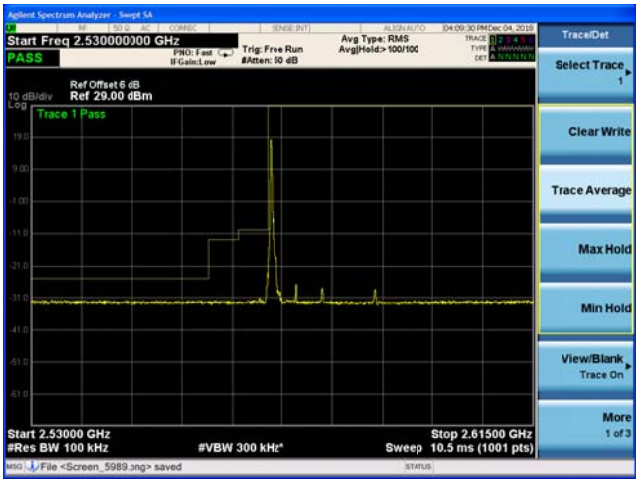
LTE Band 38 16QAM 5MHz CH-Low, 100%RB



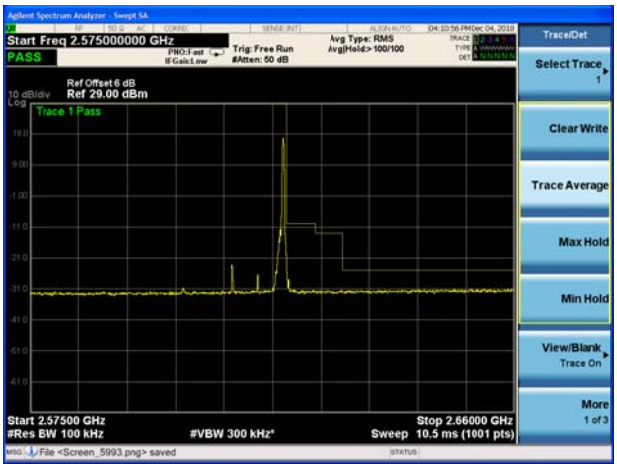
LTE Band 38 16QAM 5MHz CH-High, 100%RB



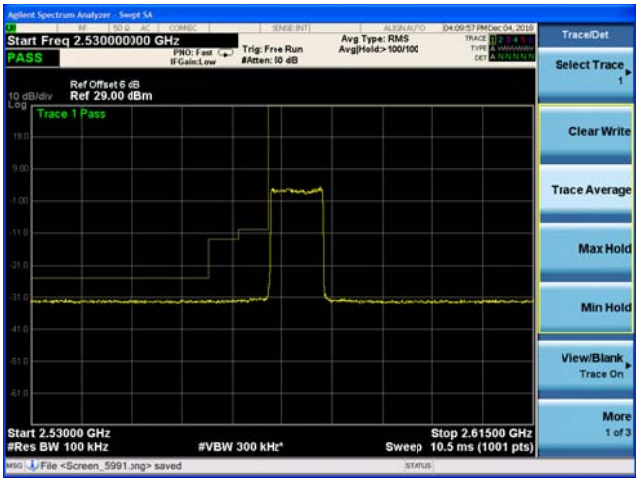
LTE Band 38 16QAM 10MHz CH-Low, 1 RB



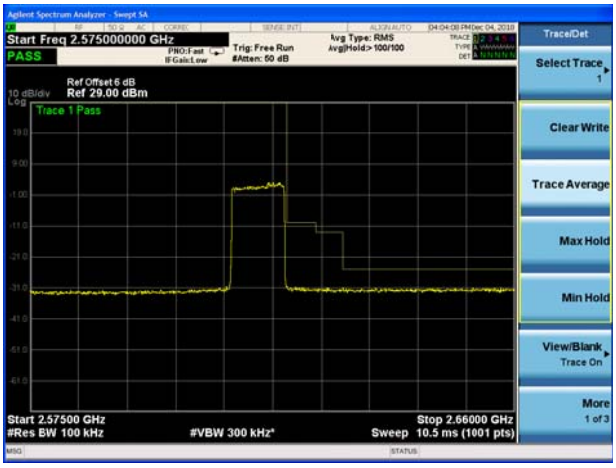
LTE Band 38 16QAM 10MHz CH-High, 1 RB



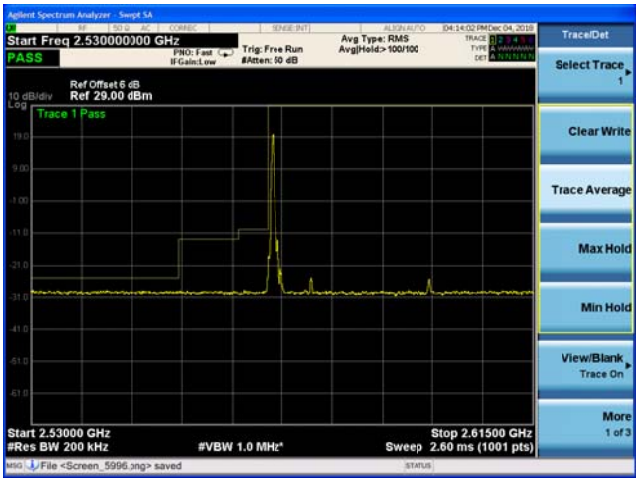
LTE Band 38 16QAM 10MHz CH-Low, 100%RB



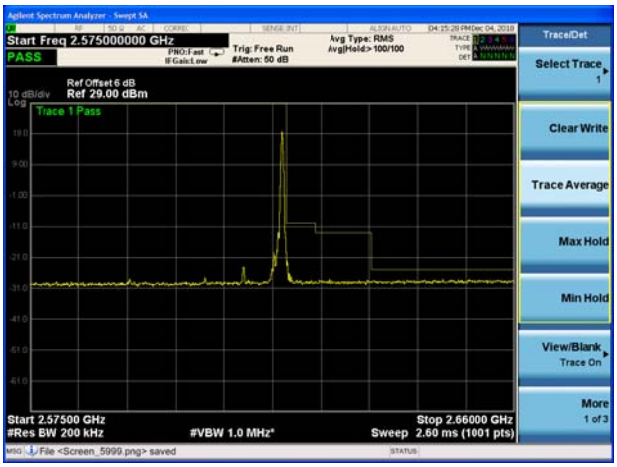
LTE Band 38 16QAM 10MHz CH-High, 100%RB



LTE Band 38 16QAM 15MHz CH-Low, 1 RB



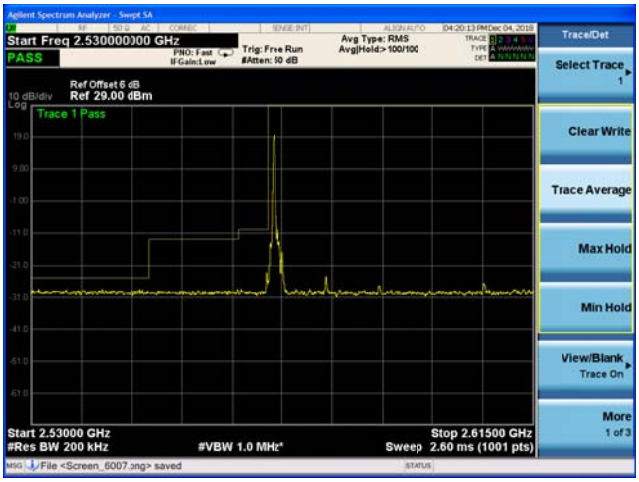
LTE Band 38 16QAM 15MHz CH-High, 1 RB



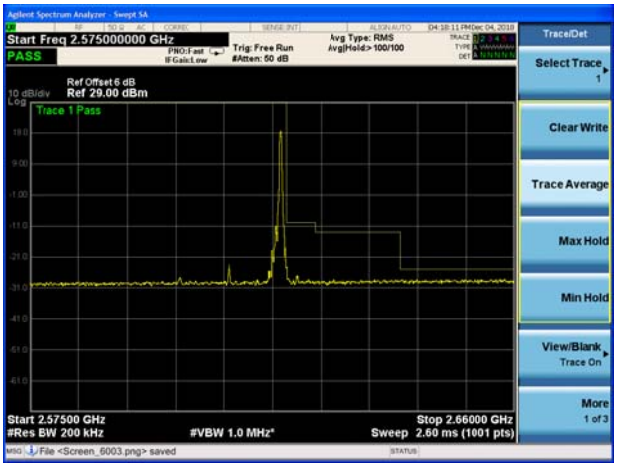
LTE Band 38 16QAM 15MHz CH-Low, 100%RB

LTE Band 38 16QAM 15MHz CH-High, 100%RB

LTE Band 38 16QAM 20MHz CH-Low, 1 RB

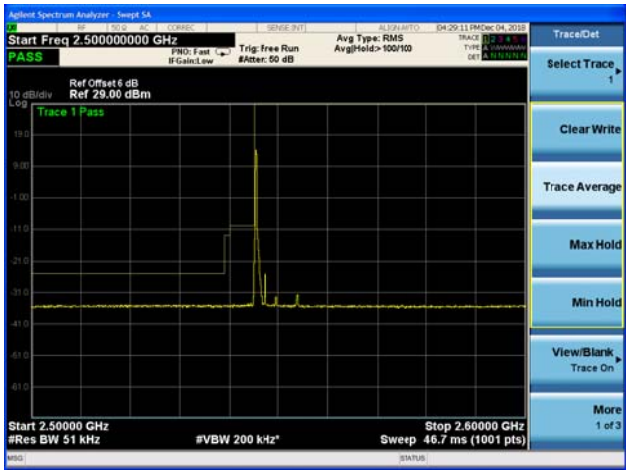


LTE Band 38 16QAM 20MHz CH-High, 1 RB

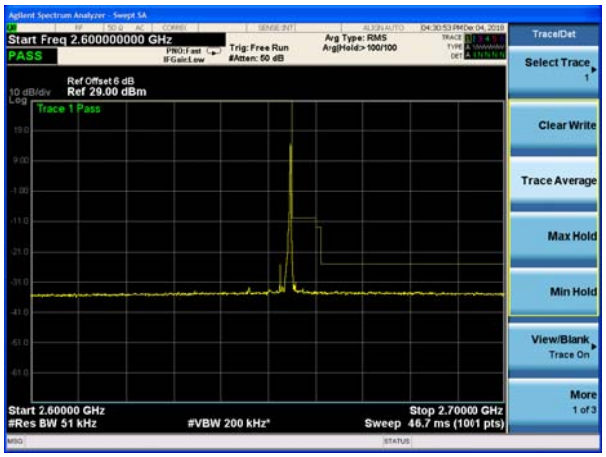


LTE Band 38 16QAM 20MHz CH-Low, 100%RB	LTE Band 38 16QAM 20MHz CH-High, 100%RB
	

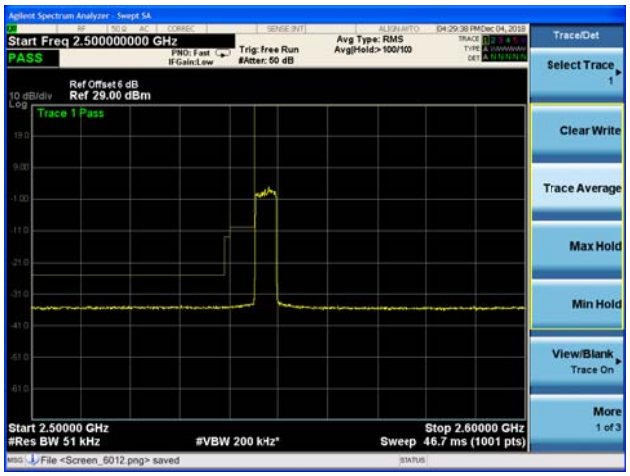
LTE Band 41 QPSK 5MHz CH-Low, 1 RB



LTE Band 41 QPSK 5MHz CH-High, 1 RB

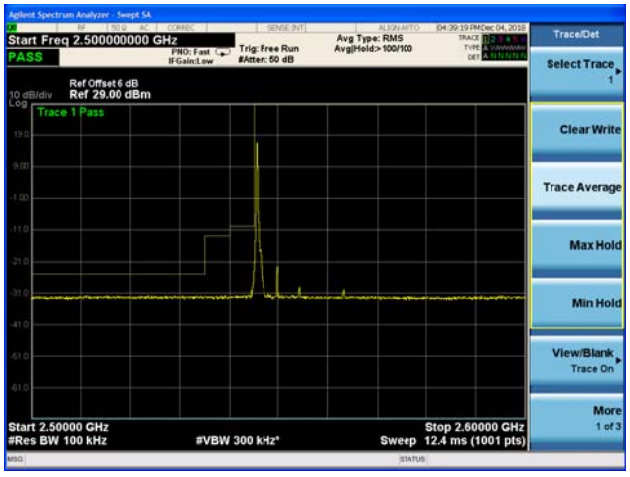


LTE Band 41 QPSK 5MHz CH-Low, 100%RB

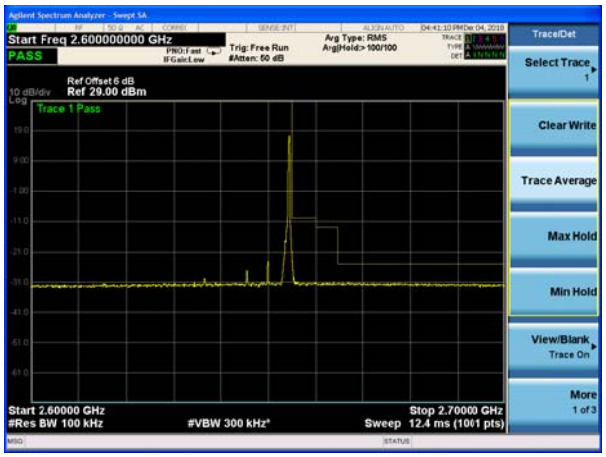


LTE Band 41 QPSK 5MHz CH-High, 100%RB

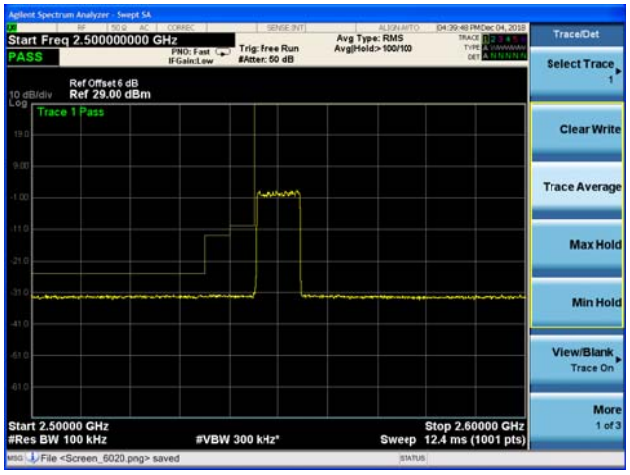
LTE Band 41 QPSK 10MHz CH-Low, 1 RB



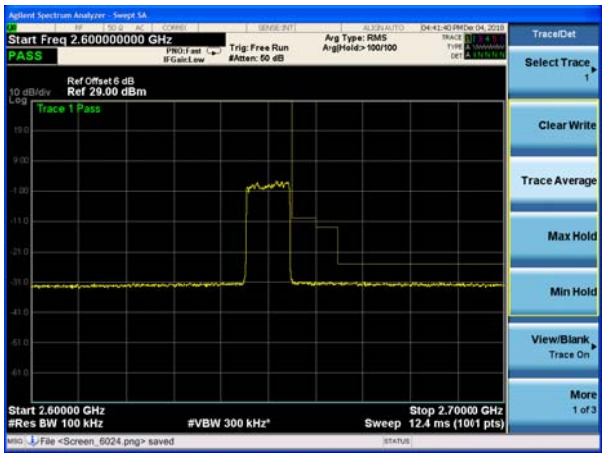
LTE Band 41 QPSK 10MHz CH-High, 1 RB



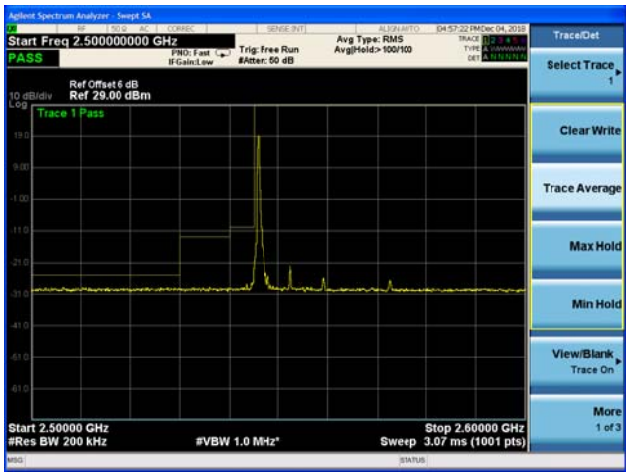
LTE Band 41 QPSK 10MHz CH-Low, 100%RB



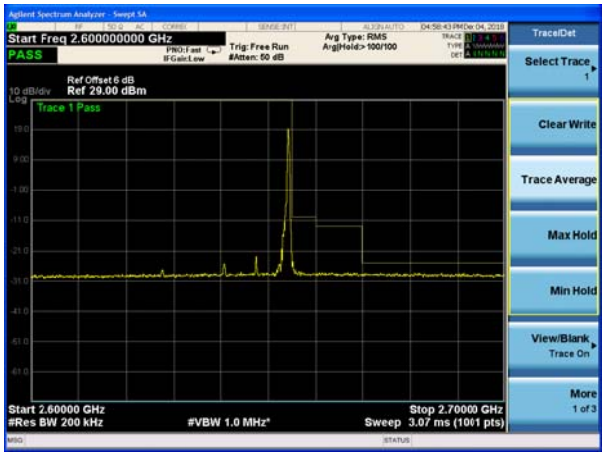
LTE Band 41 QPSK 10MHz CH-High, 100%RB



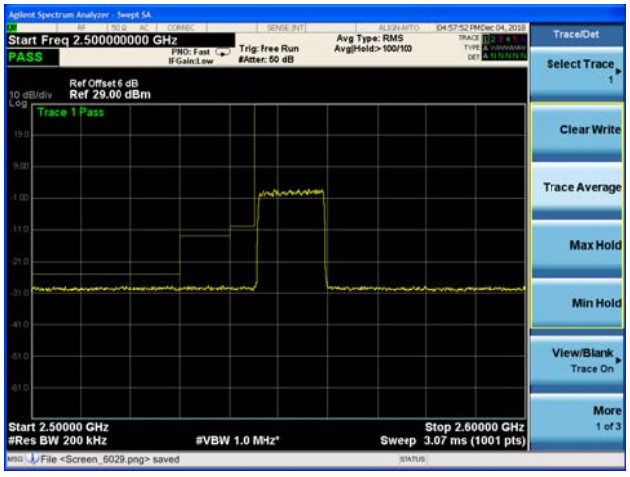
LTE Band 41 QPSK 15MHz CH-Low, 1 RB



LTE Band 41 QPSK 15MHz CH-High, 1 RB



LTE Band 41 QPSK 15MHz CH-Low, 100%RB



LTE Band 41 QPSK 15MHz CH-High, 100%RB