RF TEST REPORT

Applicant	Huawei Technologies Co., Ltd.
FCC ID	QISLIO-LX9
Product	Smart Phone
Model	LIO-L29, LIO-L09
Report No.	R1907H0137-R1V2
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 CFR 47 Part 22H (2018)**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Peng Tao

Performed by: Peng Tao

Kai Xu

Approved by: Kai Xu

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Summary of measurement results

No.	Test Case	Clause in FCC rules	Verdict
1	RF power output	2.1046	PASS
2	Effective Radiated Power	22.913(a)(5)	PASS
3	Occupied Bandwidth	2.1049	PASS
4	Band Edge Compliance	2.1051 / 22.917(a)	PASS
5	Peak-to-Average Power Ratio	22.913(d)/ KDB 971168 D01(5.7)	PASS
6	Frequency Stability	2.1055 / 22.355	PASS
7	Spurious Emissions at Antenna Terminals	2.1051 / 22.917(a)	PASS
8	Radiates Spurious Emission	2.1053 / 22.917 (a)	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-R1V2) supersedes and replaces the previously issued report (Report No.: R1907H0137-R1V1). Please discard or destroy the previously issued report and dispose of it accordingly.

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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.

A2LA (Certificate Number: 3857.01)

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

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1.3. Testing Location

Company:	TA Technology (Shanghai) Co., Ltd.
Address:	No.145, Jintang Rd, Tangzhen Industry Park, Pudong
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		
Test Mode(s)	GSM 850; WCDMA Band V;LTE Band 5/26; CA-5B		
Test Modulation	(GSM)GMSK,8PSK; (WCDMA) BPSK, QPSK,16QAM; (LTE)QPSK 16QAM,64QAM;		
GPRS Multislot Class	12		
EGPRS Multislot Class	12		
HSDPA UE Category	14		
HSUPA UE Category	6		
LTE Category	19		
Maximum E.R.P.	GSM 850:	26.63dBm	
	WCDMA Band V:	16.83dBm	
	LTE Band 5:	17.06dBm	
	LTE Band 26:	16.38dBm	
	CA-5B:	18.02dBm	
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)	Band	Tx (MHz)	Rx (MHz)
	GSM850	824 ~ 849	869 ~ 894
	WCDMA Band V	824 ~ 849	869 ~ 894
	LTE Band 5	824 ~ 849	869 ~ 894
	LTE Band 26	824 ~ 849	869 ~ 894
EUT Accessory			

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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: The information of the EUT is declared by the manufacturer.	

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.

Band	Second-Antenna Gain	Main-antenna Gain
GSM850	0.40	-2.91
WCDMA B5	-3.34	-3.37
LTE FDD Band5	-2.43	-2.80
LTE FDD Band26	-2.46	-2.83

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3. Applied Standards

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

FCC CFR47 Part 2 (2018)

FCC CFR 47 Part 22H (2018)

ANSI C63.26 (2015)

KDB 971168 D01 Power Meas License Digital Systems v03r01

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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 were investigated. Subsequently, only the worst case emissions are reported.
The following testing in GSM/WCDMA/LTE is set based on the maximum RF Output Power.
Test modes are chosen to be reported as the worst case configuration below:

Test items	Modes/Modulation	
	GSM 850	WCDMA Band V
RF power output	GSM GPRS EGPRS	RMC HSDPA/HSUPA DC-HSDPA/HSPA+
Effective Radiated Power	GSM GPRS(1Tx slot) EGPRS(1Tx slot)	RMC
Occupied Bandwidth	GSM GPRS(1Tx slot) EGPRS(1Tx slot)	RMC
Band Edge Compliance	GSM GPRS(1Tx slot) EGPRS(1Tx slot)	RMC
Peak-to-Average Power Ratio	GSM GPRS(1Tx slot) EGPRS(1Tx slot)	RMC
Frequency Stability	GSM GPRS(1Tx slot) EGPRS(1Tx slot)	RMC
Spurious Emissions at Antenna Terminals	GSM	RMC
Radiates Spurious Emission	GSM	RMC

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Test modes are chosen as the worst case configuration below for LTE Band 5/26.

Test items	Modes	Bandwidth (MHz)					Modulation		RB			Test Channel		
		1.4	3	5	10	15	QPSK	16QAM	1	50%	100%	L	M	H
RF power output	LTE 5	O	O	O	O	-	O	O	O	O	O	O	O	O
	LTE 26	O	O	O	O	O	O	O	O	O	O	O	O	O
Effective Isotropic Radiated power	LTE 5	O	O	O	O	-	O	O	O	O	O	O	O	O
	LTE 26	O	O	O	O	O	O	O	O	O	O	O	O	O
Occupied Bandwidth	LTE 5	O	O	O	O	-	O	O	-	-	O	O	O	O
	LTE 26	O	O	O	O	O	O	O	-	-	O	O	O	O
Band Edge Compliance	LTE 5	O	O	O	O	-	O	O	O	-	O	O	-	O
	LTE 26	O	O	O	O	O	O	O	O	-	O	O	-	O
Peak-to-Average Power Ratio	LTE 5	O	O	O	O	-	O	O	-	-	O	O	O	O
	LTE 26	O	O	O	O	O	O	O	-	-	O	O	O	O
Frequency Stability	LTE 5	O	O	O	O	-	O	O	O	O	O	O	O	O
	LTE 26	O	O	O	O	O	O	O	O	O	O	O	O	O
Spurious Emissions at Antenna Terminals	LTE 5	O	O	O	O	-	O	-	O	-	-	O	O	O
	LTE 26	O	O	O	O	O	O	-	O	-	-	O	O	O
Radiates Spurious Emission	LTE 5	O	-	O	O	-	O	-	O	-	-	-	O	-
	LTE 26	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.													

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5. Test Case Results

5.1. RF Power Output

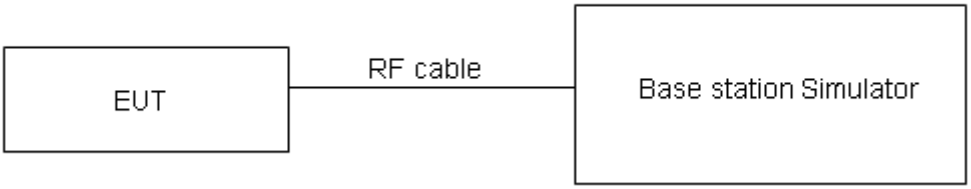
Ambient condition

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.

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Test Results

GSM 850		Conducted Power(dBm)		
		Channel 128	Channel 190	Channel 251
		824.2 (MHz)	836.6 (MHz)	848.8 (MHz)
GSM	Results	33.61	33.72	33.70
GPRS/EGPRS (GMSK)	1TXslot	33.64	33.64	33.73
	2TXslots	31.60	31.82	31.71
	3TXslots	29.47	29.67	29.68
	4TXslots	27.50	27.70	27.64
EGPRS	1TXslot	26.54	26.65	26.69
	2TXslots	24.47	24.62	24.63
	3TXslots	22.32	22.46	22.54
	4TXslots	20.43	20.64	20.67

WCDMA Band V		Conducted Power(dBm)		
		Channel 4132	Channel 4183	Channel 4233
		826.4(MHz)	836.6(MHz)	846.6(MHz)
RMC	12.2k	24.35	24.31	24.34
HSDPA	Sub - Test 1	23.77	23.73	23.76
	Sub - Test 2	23.76	23.72	23.75
	Sub - Test 3	22.75	22.71	22.74
	Sub - Test 4	22.74	22.70	22.73
HSUPA	Sub - Test 1	23.73	23.69	23.72
	Sub - Test 2	23.52	23.48	23.51
	Sub - Test 3	23.20	23.17	23.20
	Sub - Test 4	23.49	23.46	23.49
	Sub - Test 5	23.68	23.65	23.68
DC-HSDPA	Sub - Test 1	23.49	23.47	23.48
	Sub - Test 2	23.48	23.46	23.47
	Sub - Test 3	22.86	22.75	22.78
	Sub - Test 4	22.85	22.74	22.77
HSPA+	16QAM	21.84	21.82	21.85

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LTE Band 5				Conducted Power(dBm)		
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)		
				20407/824.7	20525/836.5	20643/848.3
1.4MHz	QPSK	1	0	24.22	24.31	24.20
		1	2	24.21	24.32	24.22
		1	5	24.12	24.29	24.18
		3	0	24.07	24.11	24.12
		3	2	24.10	24.22	24.15
		3	3	24.18	24.39	24.17
		6	0	23.25	23.42	23.23
	16QAM	1	0	23.51	23.07	23.39
		1	2	23.49	23.44	23.37
		1	5	23.41	23.49	23.42
		3	0	23.08	23.10	23.16
		3	2	23.19	23.26	23.14
		3	3	23.32	23.37	23.11
		6	0	22.25	22.40	22.27
	64QAM	1	0	22.41	22.51	22.54
		1	2	22.38	22.46	22.51
		1	5	22.44	22.47	22.54
		3	0	22.17	22.30	22.38
		3	2	22.34	22.37	22.32
		3	3	22.41	22.41	22.28
		6	0	21.25	21.33	21.35
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)		
				20415/825.5	20525/836.5	20635/847.5
3MHz	QPSK	1	0	24.24	24.35	24.23
		1	7	24.19	24.35	24.26
		1	14	24.15	24.34	24.22
		8	0	23.17	23.23	23.25
		8	4	23.22	23.32	23.27
		8	7	23.28	23.50	23.27
		15	0	23.25	23.46	23.26
	16QAM	1	0	23.54	23.09	23.42
		1	7	23.52	23.44	23.41

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		1	14	23.43	23.53	23.45
		8	0	22.19	22.23	22.28
		8	4	22.30	22.39	22.26
		8	7	22.42	22.49	22.24
		15	0	22.28	22.44	22.30
	64QAM	1	0	22.44	22.53	22.57
		1	7	22.41	22.46	22.53
		1	14	22.46	22.46	22.57
		8	0	21.28	21.43	21.50
		8	4	21.45	21.50	21.44
		8	7	21.51	21.53	21.41
		15	0	21.28	21.37	21.38
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)		
				20425/826.5	20525/836.5	20625/846.5
5MHz	QPSK	1	0	24.21	24.33	24.19
		1	13	24.17	24.31	24.23
		1	24	24.12	24.29	24.18
		12	0	23.14	23.18	23.21
		12	6	23.20	23.28	23.22
		12	13	23.26	23.48	23.23
		25	0	23.25	23.45	23.24
	16QAM	1	0	23.51	23.05	23.39
		1	13	23.49	23.42	23.38
		1	24	23.40	23.51	23.41
		12	0	22.17	22.19	22.25
		12	6	22.27	22.34	22.22
		12	13	22.39	22.44	22.20
		25	0	22.26	22.40	22.25
	64QAM	1	0	22.41	22.53	22.54
		1	13	22.38	22.48	22.50
		1	24	22.47	22.44	22.53
		12	0	21.26	21.39	21.51
		12	6	21.42	21.45	21.40
		12	13	21.48	21.48	21.37
		25	0	21.26	21.33	21.33
BW	Modulation	RB	RB	Channel/Frequency(MHz)		

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		size	offset	20450/829	20525/836.5	20600/844
10MHz	QPSK	1	0	24.19	24.26	24.17
		1	25	24.17	24.31	24.22
		1	49	24.09	24.27	24.14
		25	0	23.12	23.14	23.18
		25	13	23.18	23.24	23.19
		25	25	23.22	23.44	23.20
		50	0	23.24	23.38	23.19
	16QAM	1	0	23.56	23.02	23.34
		1	25	23.46	23.41	23.35
		1	49	23.38	23.46	23.39
		25	0	22.14	22.18	22.23
		25	13	22.23	22.31	22.18
		25	25	22.37	22.40	22.17
		50	0	22.24	22.36	22.22
	64QAM	1	0	22.36	22.46	22.49
		1	25	22.35	22.43	22.47
		1	49	22.41	22.39	22.51
		25	0	21.23	21.38	21.45
		25	13	21.38	21.42	21.36
		25	25	21.46	21.44	21.34
		50	0	21.24	21.29	21.30

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LTE Band 26				Conducted Power(dBm)		
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)		
				26797/824.7	26915/836.5	27033/848.3
1.4MHz	QPSK	1	0	24.04	24.01	23.97
		1	2	24.04	24.04	24.02
		1	5	23.89	23.93	23.78
		3	0	23.18	23.17	23.05
		3	2	21.11	23.13	23.04
		3	3	23.04	23.07	23.00
		6	0	23.05	23.11	22.99
	16QAM	1	0	23.29	23.39	23.12
		1	2	23.27	23.29	23.25
		1	5	23.06	23.19	22.98
		3	0	22.08	22.06	22.00
		3	2	22.05	22.04	22.05
		3	3	22.05	22.03	22.00
		6	0	22.03	22.03	21.96
		1	0	22.82	22.94	22.97
		1	2	22.82	22.88	23.08
		1	5	22.63	22.88	22.92
		3	0	21.84	21.73	21.79
		3	2	21.82	21.72	21.84
		3	3	21.76	21.81	21.80
		6	0	21.79	21.81	21.78
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)		
				26805/825.5	26915/836.5	27025/847.5
3MHz	QPSK	1	0	24.01	23.99	23.93
		1	7	24.02	24.00	23.99
		1	14	23.86	23.88	23.74
		8	0	23.15	23.12	23.01
		8	4	21.09	23.09	22.99
		8	7	23.02	23.05	22.96
		15	0	23.03	23.10	22.97
	16QAM	1	0	23.26	23.35	23.09
		1	7	23.24	23.27	23.22
		1	14	23.03	23.17	22.94

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		8	0	22.06	22.02	21.97
		8	4	22.02	21.99	22.01
		8	7	22.02	21.98	21.96
		15	0	22.01	21.99	21.91
	64QAM	1	0	22.79	22.90	22.94
		1	7	22.79	22.86	23.05
		1	14	22.60	22.86	22.88
		8	0	21.82	21.69	21.76
		8	4	21.79	21.67	21.80
		8	7	21.73	21.76	21.76
		15	0	21.77	21.77	21.73
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)		
				26815/826.5	26915/836.5	27015/846.5
5MHz	QPSK	1	0	24.03	24.00	23.96
		1	13	24.05	24.05	24.03
		1	24	23.88	23.92	23.77
		12	0	23.18	23.17	23.05
		12	6	21.12	23.14	23.03
		12	13	23.04	23.09	23.01
		25	0	23.11	23.12	23.01
	16QAM	1	0	23.28	23.38	23.11
		1	13	23.27	23.31	23.25
		1	24	23.06	23.19	22.97
		12	0	22.09	22.07	22.01
		12	6	22.04	22.03	22.04
		12	13	22.05	22.03	22.00
		25	0	22.04	22.04	21.95
	64QAM	1	0	22.81	22.93	22.96
		1	13	22.82	22.90	23.08
		1	24	22.63	22.88	22.91
		12	0	21.85	21.74	21.80
		12	6	21.81	21.71	21.83
		12	13	21.76	21.81	21.80
		25	0	21.80	21.82	21.77
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)		
				26840/829	26915/836.5	26990/844

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10MHz	QPSK	1	0	24.02	23.96	23.94
		1	25	24.03	24.04	24.00
		1	49	23.85	23.87	23.73
		25	0	23.16	23.13	23.02
		25	13	21.09	23.09	22.99
		25	25	23.01	23.06	22.97
		50	0	23.09	23.08	22.96
	16QAM	1	0	23.23	23.36	23.09
		1	25	23.25	23.28	23.23
		1	49	23.03	23.15	22.94
		25	0	22.06	22.05	21.98
		25	13	22.01	21.98	22.00
		25	25	22.03	21.99	21.97
		50	0	22.01	21.99	21.91
	64QAM	1	0	22.76	22.91	22.94
		1	25	22.80	22.87	23.06
		1	49	22.60	22.84	22.88
		25	0	21.82	21.72	21.77
		25	13	21.78	21.66	21.79
		25	25	21.74	21.77	21.77
		50	0	21.77	21.77	21.73
BW	Modulation	RB size	RB offset	Channel/Frequency(MHz)		
				26865/831.5	26915/836.5	26965/841.5
15MHz	QPSK	1	0	23.99	23.92	23.91
		1	38	24.02	24.00	23.98
		1	74	23.83	23.86	23.70
		36	0	23.13	23.08	22.98
		36	18	21.07	23.05	22.96
		36	39	22.98	23.01	22.93
		75	0	23.06	23.03	22.92
	16QAM	1	0	23.17	23.32	23.04
		1	38	23.21	23.26	23.19
		1	74	23.01	23.12	22.92
		36	0	22.03	22.01	21.95
		36	18	21.98	21.96	21.97
		36	39	22.00	21.94	21.93

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		75	0	21.99	21.95	21.88
	64QAM	1	0	22.74	22.87	22.89
		1	38	22.76	22.85	23.02
		1	74	22.58	22.81	22.86
		36	0	21.79	21.68	21.74
		36	18	21.75	21.64	21.76
		36	39	21.71	21.72	21.73
		75	0	21.75	21.73	21.70

CA_5B	PCC	SCC	PCC RB		SCC1 RB		Conducted Power (dBm)		
	Frequency(MHz)	Frequency(MHz)	Size	Offset	Size	Offset	QPSK	16QAM	64QAM
3MHz+5MHz	825.6	829.5	1	14	1	0	21.3	21.64	21.35
			15	0	25	0	21.39	21.35	21.26
	834.1	838	1	14	1	0	21.25	21.38	21.33
			15	0	25	0	21.17	21.18	21.15
	842.6	846.5	1	14	1	0	21.52	21.50	21.36
			15	0	25	0	21.32	21.20	21.33
5MHz+3MHz	835	838.9	1	24	1	0	22.98	23.16	22.78
			25	0	15	0	21.48	21.38	21.32
	843.5	847.4	1	24	1	0	22.77	22.95	22.94
			25	0	15	0	21.36	21.42	21.37
5MHz+10MHz	826.8	834	1	24	1	0	22.76	22.73	22.70
			25	0	50	0	20.72	19.74	19.81
	831.8	839	1	24	1	0	22.40	22.74	22.73
			25	0	50	0	20.83	19.84	19.88
	836.8	844	1	24	1	0	22.73	22.82	22.75
			25	0	50	0	21.17	20.15	20.32
10MHz+5MHz	829	836.2	1	49	1	0	22.88	22.91	23.02
			50	0	25	0	21.16	20.14	20.22
	834	841.2	1	49	1	0	22.72	22.87	22.89
			50	0	25	0	21.50	20.38	20.40
	839	846.2	1	49	1	0	22.75	22.93	22.86
			50	0	25	0	21.45	20.44	20.46
10MHz+10MHz	829	838.9	1	49	1	0	22.69	22.77	22.83
			50	0	50	0	21.03	19.88	19.85
	831.6	841.5	1	49	1	0	22.62	22.78	22.73
			50	0	50	0	21.17	20.07	20.05
	834.1	844	1	49	1	0	22.65	22.94	22.81
			50	0	50	0	21.28	20.14	20.19

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5.2. Effective Radiated Power

Ambient condition

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

Methods of Measurement

The testing follows FCC KDB 971168 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.

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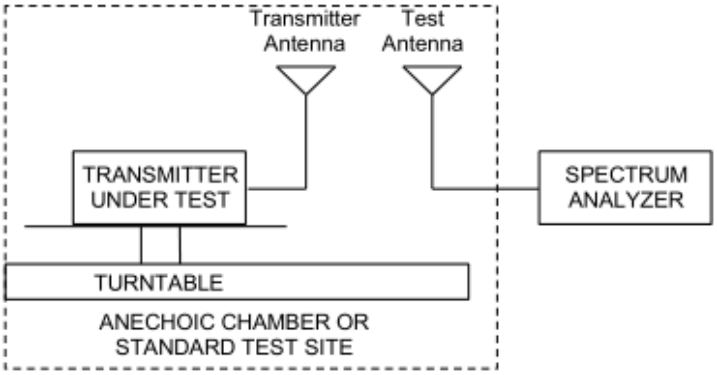
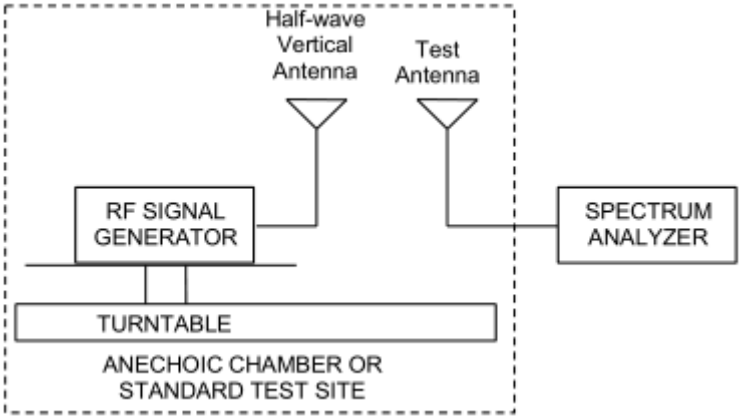
Test setup





Limits

Rule Part 22.913(a)(5) specifies that "Mobile/portable stations are limited to 7 watts ERP".

Limit	≤ 7 W (38.45 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

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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	ERP (dBm)	Limit (dBm)	Conclusion
GSM 850	Low	824.2	Horizontal	24.53	38.45	Pass
	Mid	836.6	Horizontal	25.59	38.45	Pass
	High	848.8	Horizontal	26.63	38.45	Pass
GPRS 850	Low	824.2	Horizontal	23.98	38.45	Pass
	Mid	836.6	Horizontal	25.09	38.45	Pass
	High	848.8	Horizontal	26.19	38.45	Pass
EGPRS 850	Low	824.2	Horizontal	21.50	38.45	Pass
	Mid	836.6	Horizontal	21.96	38.45	Pass
	High	848.8	Horizontal	22.19	38.45	Pass
WCDMA Band V	Low	826.4	Horizontal	16.30	38.45	Pass
	Mid	836.6	Horizontal	16.40	38.45	Pass
	High	846.6	Horizontal	16.83	38.45	Pass

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LTE Band 5						
bandwidth	Channel	Frequency (MHz)	Polarization	ERP (dBm)	Limit (dBm)	Conclusion
1.4 MHz (QPSK)	Low	824.7	Horizontal	16.80	38.45	Pass
	Mid	836.5	Horizontal	17.05	38.45	Pass
	High	848.3	Horizontal	17.06	38.45	Pass
3 MHz (QPSK)	Low	825.5	Horizontal	16.35	38.45	Pass
	Mid	836.5	Horizontal	16.39	38.45	Pass
	High	847.5	Horizontal	16.75	38.45	Pass
5 MHz (QPSK)	Low	826.5	Horizontal	16.44	38.45	Pass
	Mid	836.5	Horizontal	16.50	38.45	Pass
	High	846.5	Horizontal	16.81	38.45	Pass
10 MHz (QPSK)	Low	829	Horizontal	16.64	38.45	Pass
	Mid	836.5	Horizontal	16.68	38.45	Pass
	High	844	Horizontal	16.54	38.45	Pass
1.4 MHz (16QAM)	Low	824.7	Horizontal	16.27	38.45	Pass
	Mid	836.5	Horizontal	16.54	38.45	Pass
	High	848.3	Horizontal	16.54	38.45	Pass
3 MHz (16QAM)	Low	825.5	Horizontal	15.76	38.45	Pass
	Mid	836.5	Horizontal	15.82	38.45	Pass
	High	847.5	Horizontal	16.18	38.45	Pass
5 MHz (16QAM)	Low	826.5	Horizontal	15.89	38.45	Pass
	Mid	836.5	Horizontal	15.96	38.45	Pass
	High	846.5	Horizontal	16.29	38.45	Pass
10 MHz (16QAM)	Low	829	Horizontal	16.10	38.45	Pass
	Mid	836.5	Horizontal	16.17	38.45	Pass
	High	844	Horizontal	16.01	38.45	Pass
1.4 MHz (64QAM)	Low	824.7	Horizontal	15.75	38.45	Pass
	Mid	836.5	Horizontal	15.97	38.45	Pass
	High	848.3	Horizontal	15.96	38.45	Pass
3 MHz (64QAM)	Low	825.5	Horizontal	15.22	38.45	Pass
	Mid	836.5	Horizontal	15.29	38.45	Pass
	High	847.5	Horizontal	15.62	38.45	Pass
5 MHz (64QAM)	Low	826.5	Horizontal	15.38	38.45	Pass
	Mid	836.5	Horizontal	15.36	38.45	Pass
	High	846.5	Horizontal	15.76	38.45	Pass
10 MHz (64QAM)	Low	829	Horizontal	15.56	38.45	Pass
	Mid	836.5	Horizontal	15.65	38.45	Pass

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LTE Band 5						
bandwidth	Channel	Frequency (MHz)	Polarization	ERP (dBm)	Limit (dBm)	Conclusion
	High	844	Horizontal	15.44	38.45	Pass

LTE Band 26						
bandwidth	Channel	Frequency (MHz)	Polarization	ERP (dBm)	Limit (dBm)	Conclusion
1.4 MHz (QPSK)	Low	824.7	Horizontal	15.94	38.45	Pass
	Mid	836.5	Horizontal	15.92	38.45	Pass
	High	848.3	Horizontal	16.34	38.45	Pass
3 MHz (QPSK)	Low	825.5	Horizontal	15.95	38.45	Pass
	Mid	836.5	Horizontal	15.92	38.45	Pass
	High	847.5	Horizontal	16.38	38.45	Pass
5 MHz (QPSK)	Low	826.5	Horizontal	15.75	38.45	Pass
	Mid	836.5	Horizontal	15.91	38.45	Pass
	High	846.5	Horizontal	16.32	38.45	Pass
10 MHz (QPSK)	Low	829	Horizontal	15.75	38.45	Pass
	Mid	836.5	Horizontal	15.77	38.45	Pass
	High	844	Horizontal	15.80	38.45	Pass
15 MHz (QPSK)	Low	831.5	Horizontal	16.00	38.45	Pass
	Mid	836.5	Horizontal	15.97	38.45	Pass
	High	841.5	Horizontal	15.94	38.45	Pass
1.4 MHz (16QAM)	Low	824.7	Horizontal	15.41	38.45	Pass
	Mid	836.5	Horizontal	15.37	38.45	Pass
	High	848.3	Horizontal	15.83	38.45	Pass
3 MHz (16QAM)	Low	825.5	Horizontal	15.35	38.45	Pass
	Mid	836.5	Horizontal	15.40	38.45	Pass
	High	847.5	Horizontal	15.81	38.45	Pass
5 MHz (16QAM)	Low	826.5	Horizontal	15.23	38.45	Pass
	Mid	836.5	Horizontal	15.37	38.45	Pass
	High	846.5	Horizontal	15.79	38.45	Pass
10 MHz (16QAM)	Low	829	Horizontal	15.17	38.45	Pass
	Mid	836.5	Horizontal	15.26	38.45	Pass
	High	844	Horizontal	15.20	38.45	Pass
15 MHz (16QAM)	Low	831.5	Horizontal	15.47	38.45	Pass
	Mid	836.5	Horizontal	15.43	38.45	Pass
	High	841.5	Horizontal	15.38	38.45	Pass
1.4 MHz (64QAM)	Low	824.7	Horizontal	14.89	38.45	Pass
	Mid	836.5	Horizontal	14.80	38.45	Pass
	High	848.3	Horizontal	15.31	38.45	Pass

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LTE Band 26						
bandwidth	**Channel**	**Frequency (MHz)**	**Polarization**	**ERP (dBm)**	**Limit (dBm)**	**Conclusion**
3 MHz (64QAM)	Low	825.5	Horizontal	14.81	38.45	Pass
	Mid	836.5	Horizontal	14.87	38.45	Pass
	High	847.5	Horizontal	15.23	38.45	Pass
5 MHz (64QAM)	Low	826.5	Horizontal	14.72	38.45	Pass
	Mid	836.5	Horizontal	14.77	38.45	Pass
	High	846.5	Horizontal	15.26	38.45	Pass
10 MHz (64QAM)	Low	829	Horizontal	14.63	38.45	Pass
	Mid	836.5	Horizontal	14.73	38.45	Pass
	High	844	Horizontal	14.66	38.45	Pass
15 MHz (64QAM)	Low	831.5	Horizontal	14.95	38.45	Pass
	Mid	836.5	Horizontal	14.92	38.45	Pass
	High	841.5	Horizontal	14.83	38.45	Pass

CA_5B	PCC	SCC	PCC RB		SCC1 RB		Polarization	EIRP (dBm)		
	Frequency (MHz)	Frequency (MHz)	Size	Offset	Size	Offset		QPSK	16QAM	64QAM
3MHz+ 5MHz	825.6	829.5	1	14	1	0	V	17.98	17.47	16.94
	834.1	838	1	14	1	0	V	17.84	17.30	17.75
	842.6	846.5	1	14	1	0	V	17.88	17.32	16.75
10MHz+ 10MHz	829	838.9	1	49	1	0	V	18.02	17.48	16.92
	831.6	841.5	1	49	1	0	V	17.93	17.36	16.85
	834.1	844	1	49	1	0	V	17.97	17.44	16.84

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5.3. Occupied Bandwidth

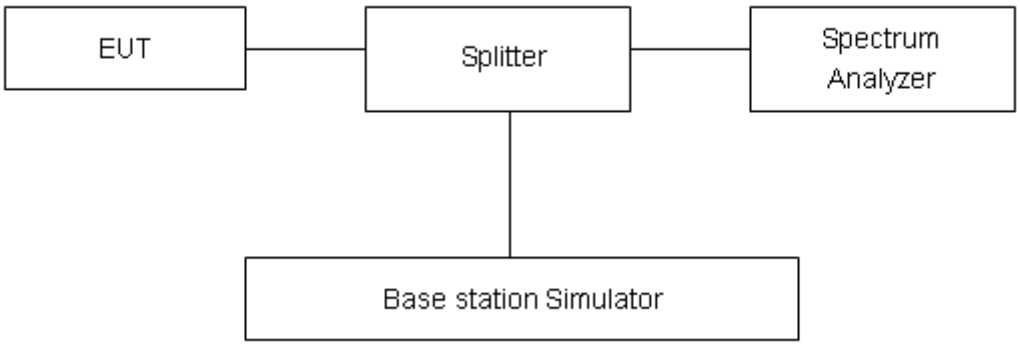
Ambient condition

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 3kHz, VBW is set to 10kHz for GSM 850,
RBW is set to 51kHz, VBW is set to 160kHz for WCDMA Band V,
RBW is set to 51 kHz, VBW is set to 160 kHz for LTE Band 5/26(1.4MHz),
RBW is set to 100 kHz, VBW is set to 300 kHz for LTE Band 5 (3MHz/5MHz),
RBW is set to 300 kHz, VBW is set to 1 MHz for LTE Band 5 (10MHz),
RBW is set to 100 kHz, VBW is set to 300 kHz for LTE Band 26 (3MHz/5MHz),
RBW is set to 300 kHz, VBW is set to 1 MHz for LTE Band 26 (10MHz/15MHz).
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.

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Test Result

Mode	Channel	Frequency (MHz)	99% Power Bandwidth (MHz)	-26dBc Bandwidth(MHz)
GSM 850 (GSM)	128	824.2	0.2508	0.3067
	190	836.6	0.2461	0.3054
	251	848.8	0.2481	0.3013
GPRS 850 (GMSK)	128	824.2	0.2505	0.3108
	190	836.6	0.2469	0.3111
	251	848.8	0.2424	0.3097
EGPRS 850 (8-PSK)	128	824.2	0.2541	0.3201
	190	836.6	0.2495	0.3251
	251	848.8	0.2549	0.3219
WCDMA Band V (RMC)	4132	826.4	4.1559	4.681
	4183	836.6	4.1438	4.676
	4233	846.6	4.1507	4.644

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LTE Band 5						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	20407	824.7	1.1081	1.252
			20525	836.5	1.1102	1.252
			20643	848.3	1.1112	1.250
		3	20415	825.5	2.7280	2.972
			20525	836.5	2.7369	2.973
			20635	847.5	2.7275	2.982
		5	20425	826.5	4.4943	4.857
			20525	836.5	4.5053	4.859
			20625	846.5	4.4923	4.844
		10	20450	829	9.0683	9.749
			20525	836.5	9.0323	9.736
			20600	844	9.0585	9.758
	16QAM	1.4	20407	824.7	1.1129	1.256
			20525	836.5	1.1080	1.251
			20643	848.3	1.1074	1.252
		3	20415	825.5	2.7326	2.980
			20525	836.5	2.7326	2.975
			20635	847.5	2.7318	2.987
		5	20425	826.5	4.4949	4.853
			20525	836.5	4.4989	4.854
			20625	846.5	4.4935	4.888
		10	20450	829	9.0539	9.750
			20525	836.5	9.0287	9.743
			20600	844	9.0475	9.789
	64QAM	1.4	20407	824.7	1.1093	1.247
			20525	836.5	1.1068	1.254
			20643	848.3	1.1113	1.247
		3	20415	825.5	2.7303	2.981
			20525	836.5	2.7333	2.983
			20635	847.5	2.7319	2.970
		5	20425	826.5	4.5002	4.858

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			20525	836.5	4.4968	4.857
			20625	846.5	4.4937	4.865
		10	20450	829	9.0612	9.746
			20525	836.5	9.0253	9.727
			20600	844	9.0554	9.748

LTE Band 26						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	26797	824.7	1.1151	1.279
			26915	836.5	1.1188	1.28
			27033	848.3	1.1181	1.281
		3	26805	825.5	2.744	3.052
			26915	836.5	2.7356	3.038
			27025	847.5	2.7387	3.063
		5	26815	826.5	4.5149	4.972
			26915	836.5	4.51	4.959
			27015	846.5	4.5249	4.979
		10	26840	829	9.081	10.04
			26915	836.5	9.0466	9.915
			26990	844	9.1202	10.04
		15	26865	831.5	13.502	15.01
			26915	836.5	13.508	14.92
			26965	841.5	13.512	14.92
	16QAM	1.4	26797	824.7	1.1188	1.284
			26915	836.5	1.1229	1.276
			27033	848.3	1.1203	1.28
		3	26805	825.5	2.7433	3.046
			26915	836.5	2.7456	3.051
			27025	847.5	2.7476	3.039
		5	26815	826.5	4.5129	4.981
			26915	836.5	4.5175	4.95
			27015	846.5	4.4979	4.965
		10	26840	829	9.0749	10.07

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			26915	836.5	9.0277	9.989
			26990	844	9.087	9.984
		15	26865	831.5	13.504	14.91
			26915	836.5	13.474	14.86
			26965	841.5	13.534	14.86
	16QAM	1.4	26797	824.7	1.1212	1.278
			26915	836.5	1.1164	1.276
			27033	848.5	1.1288	1.282
		3	26805	825.5	2.7401	3.008
			26915	836.5	2.7458	3.034
			27025	847.5	2.748	3.044
		5	26815	826.5	4.5225	4.981
			26915	836.5	4.5191	4.967
			27015	846.5	4.513	4.976
		10	26840	829	9.0884	10.03
			26915	836.5	9.041	10.01
			26990	844	9.0646	9.992
		15	26865	831.5	13.512	15
			26915	836.5	13.448	14.82
			26965	841.5	13.48	14.79

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CA_5B	PCC		SCC1		PCC RB	SCC1 RB	Bandwidth(MHz)	
	Channel	Frequency (MHz)	Channel	Frequency (MHz)			99% Power	-26dBc
CA_5B_3MHz+5MHz_QPSK	20501	834.1	20540	838	15#0	25#0	8.44	11.25
CA_5B_3MHz+5MHz_16QAM	20501	834.1	20540	838	15#0	25#0	8.49	10.85
CA_5B_3MHz+5MHz_64QAM	20501	834.1	20540	838	15#0	25#0	8.40	9.94
CA_5B_5MHz+3MHz_QPSK	20510	835	20549	838.9	25#0	15#0	8.49	10.66
CA_5B_5MHz+3MHz_16QAM	20510	835	20549	838.9	25#0	15#0	8.40	12.50
CA_5B_5MHz+3MHz_64QAM	20510	835	20549	838.9	25#0	15#0	8.39	11.16
CA_5B_5MHz+10MHz_QPSK	20478	831.8	20550	839	25#0	50#0	14.55	16.13
CA_5B_5MHz+10MHz_16QAM	20478	831.8	20550	839	25#0	50#0	14.45	16.09
CA_5B_5MHz+10MHz_64QAM	20478	831.8	20550	839	25#0	50#0	14.44	16.05
CA_5B_10MHz+5MHz_QPSK	20500	834	20572	841.2	50#0	25#0	14.54	16.27
CA_5B_10MHz+5MHz_16QAM	20500	834	20572	841.2	50#0	25#0	14.46	16.26
CA_5B_10MHz+5MHz_64QAM	20500	834	20572	841.2	50#0	25#0	14.46	16.17
CA_5B_10MHz+10MHz_QPSK	20476	831.6	20575	841.5	50#0	50#0	19.30	21.13
CA_5B_10MHz+10MHz_16QAM	20476	831.6	20575	841.5	50#0	50#0	19.22	21.04
CA_5B_10MHz+10MHz_64QAM	20476	831.6	20575	841.5	50#0	50#0	19.17	21.04

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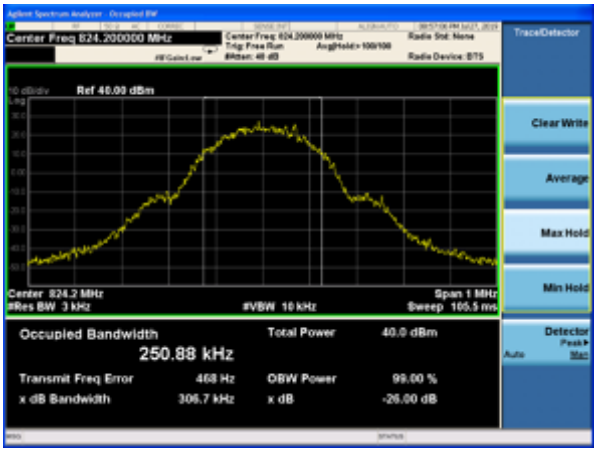
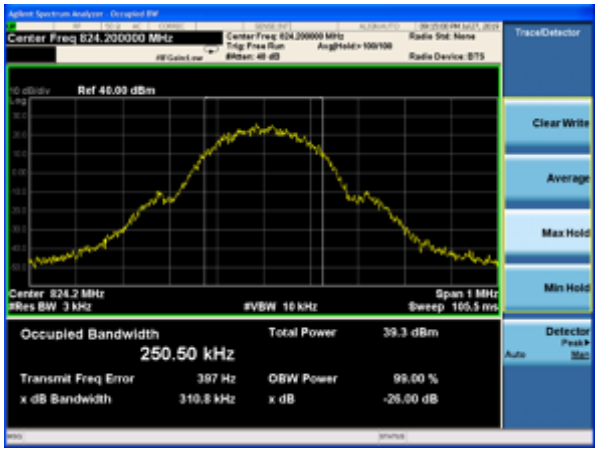
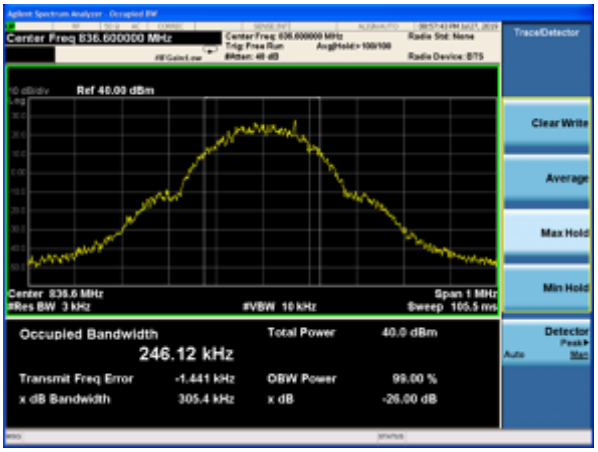
GSM 850 CH-Low



GSM 850 GPRS CH-Low



GSM 850 CH-Middle



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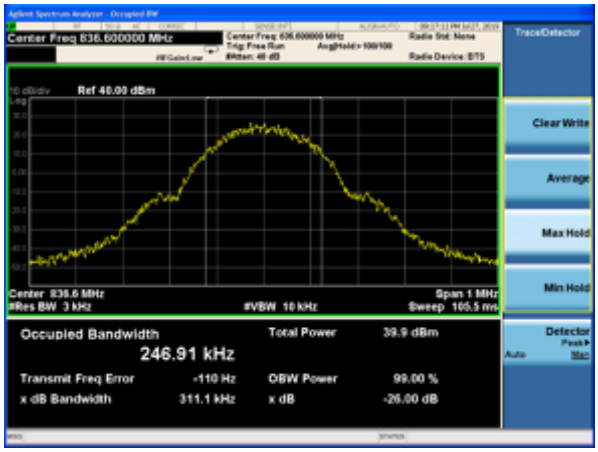
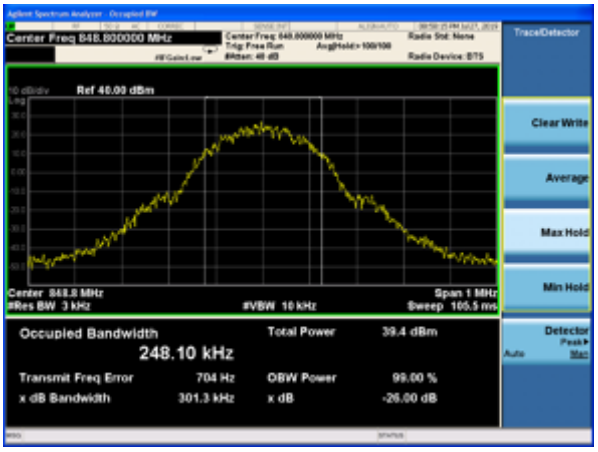


GSM 850 CH-High



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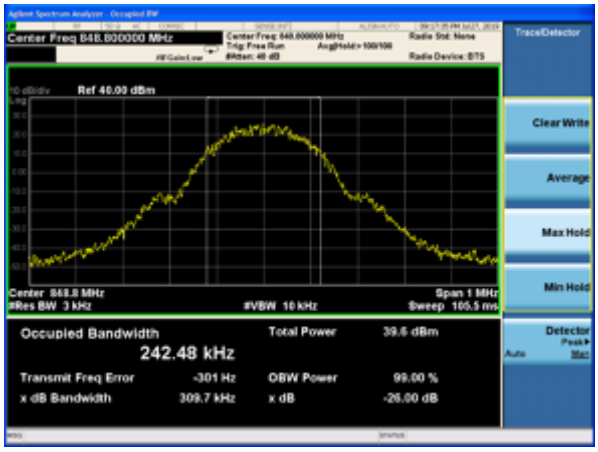

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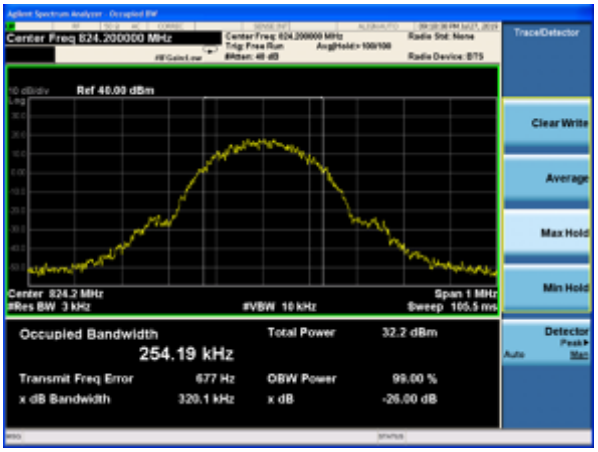
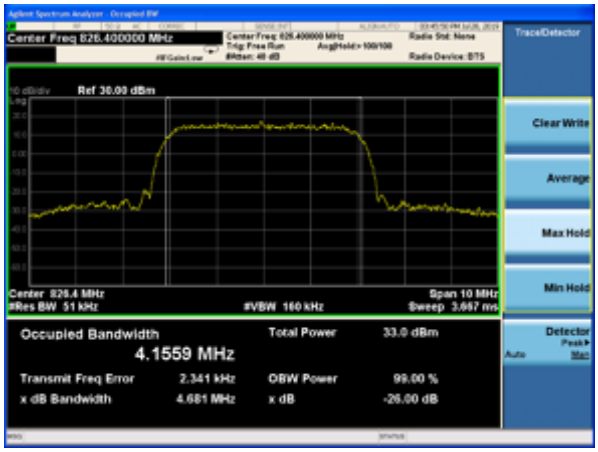
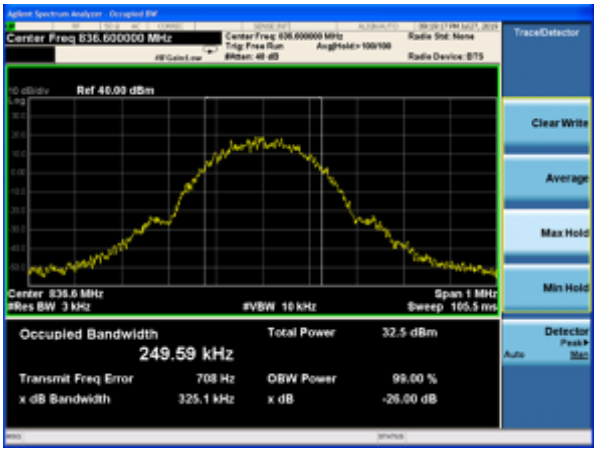
GSM 850 EGPRS CH-Low



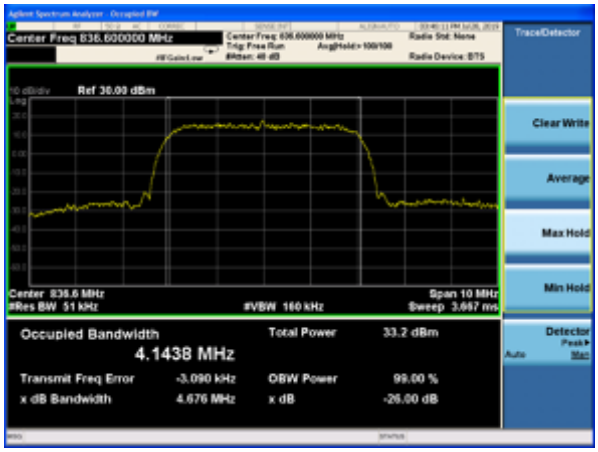
WCDMA Band V CH-Low



GSM 850 EGPRS CH-Middle



WCDMA Band V CH-Middle



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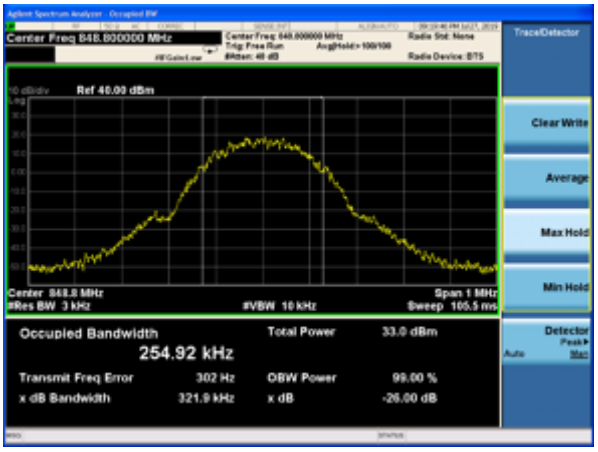
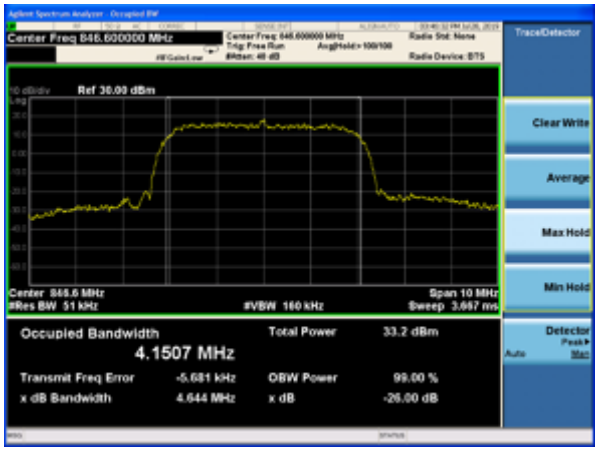


WCDMA Band V CH-High



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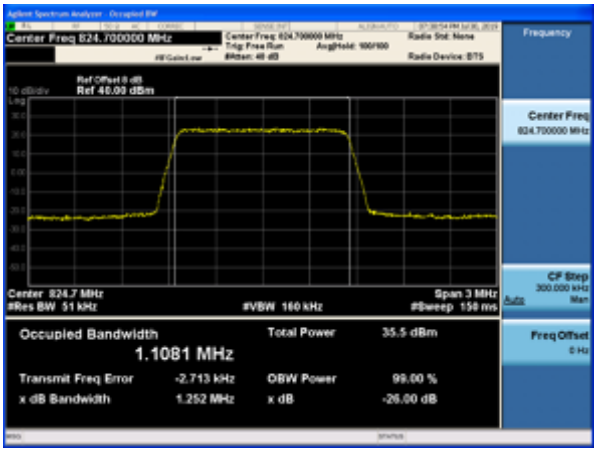
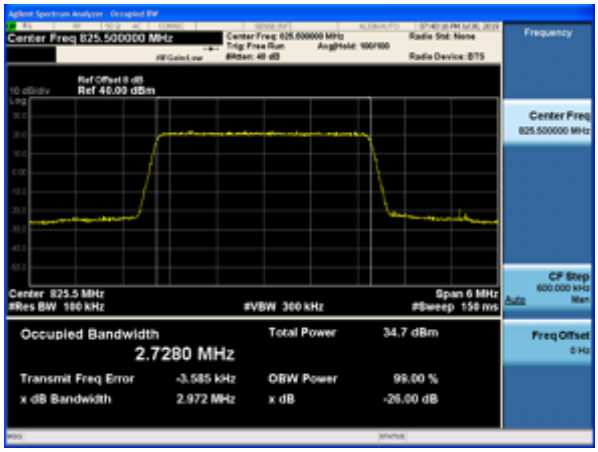
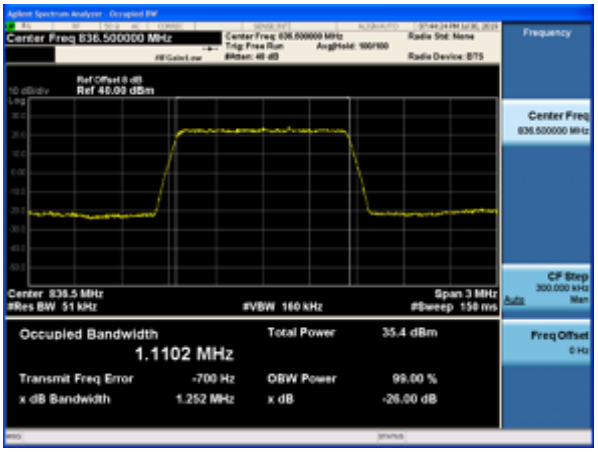
LTE Band 5 QPSK 1.4MHz CH-Low



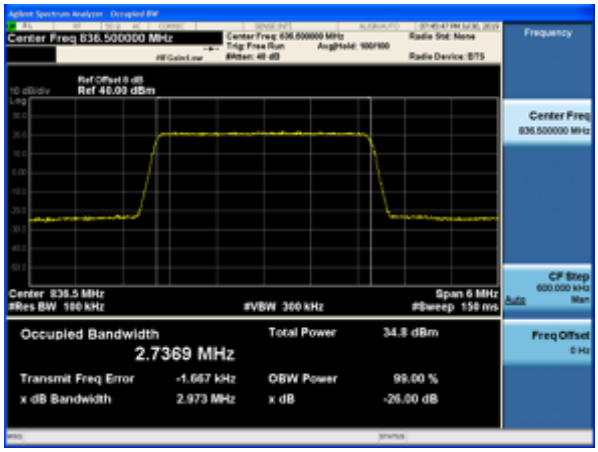
LTE Band 5 QPSK 3MHz CH-Low



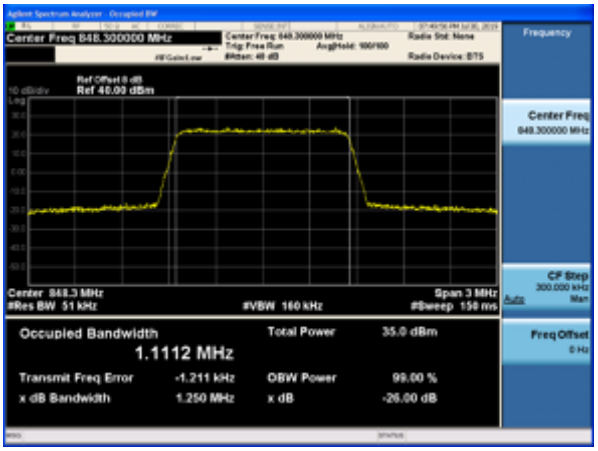
LTE Band 5 QPSK 1.4MHz CH-Middle



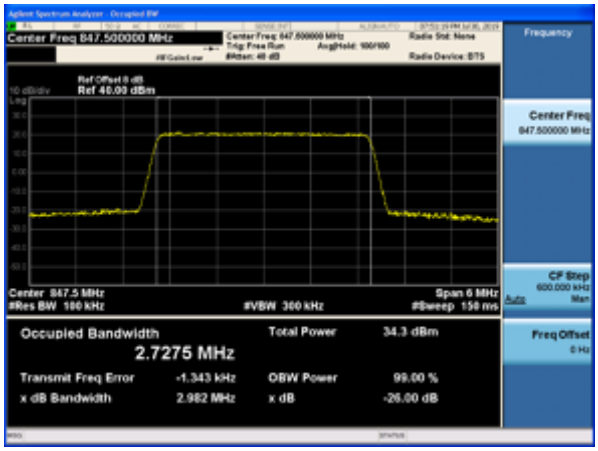
LTE Band 5 QPSK 3MHz CH-Middle



LTE Band 5 QPSK 1.4MHz CH-High



LTE Band 5 QPSK 3MHz CH-High



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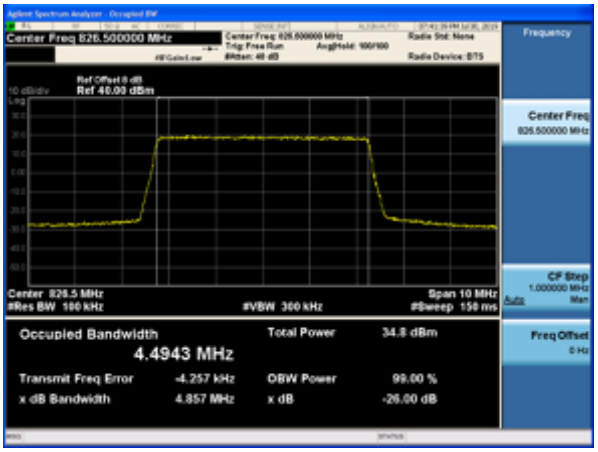
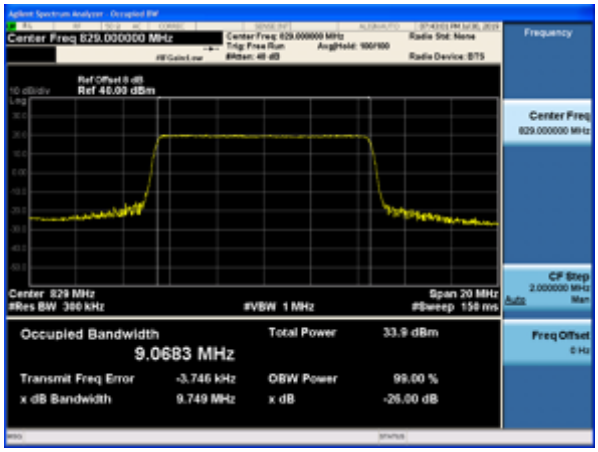
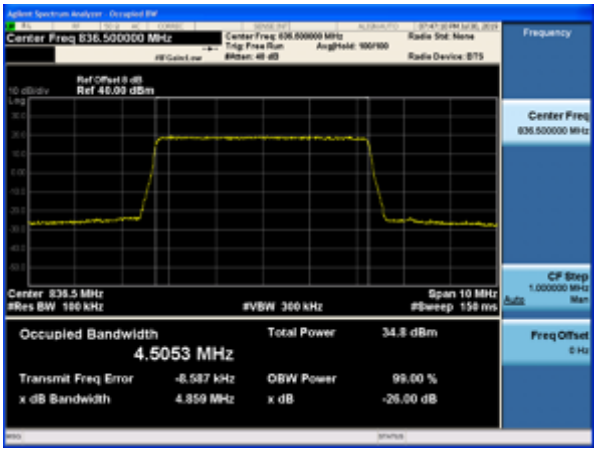
LTE Band 5 QPSK 5MHz CH-Low



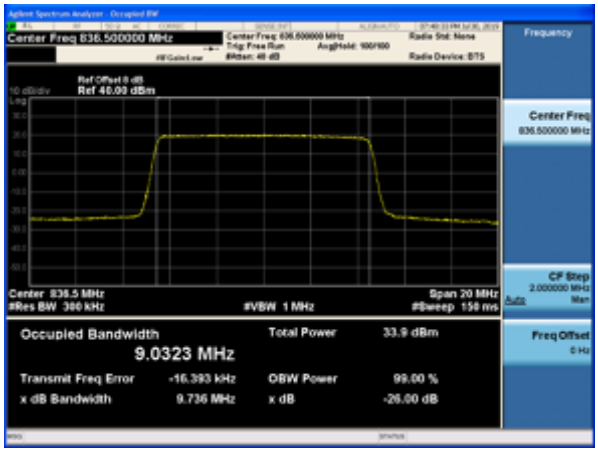
LTE Band 5 QPSK 10MHz CH-Low



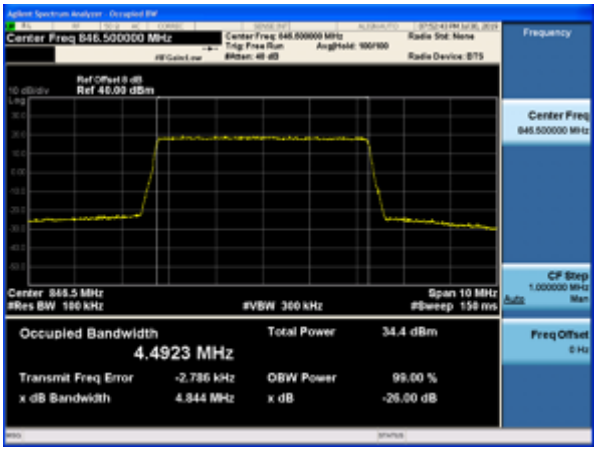
LTE Band 5 QPSK 5MHz CH-Middle



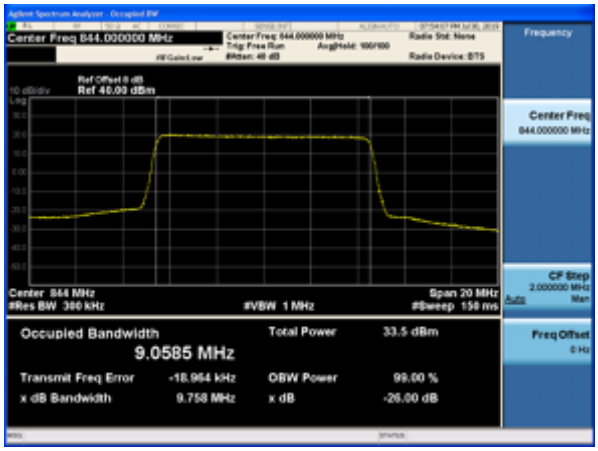
LTE Band 5 QPSK 10MHz CH-Middle



LTE Band 5 QPSK 5MHz CH-High



LTE Band 5 QPSK 10MHz CH-High



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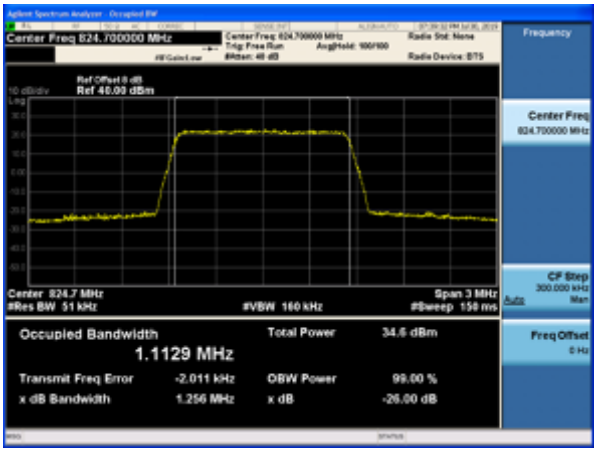
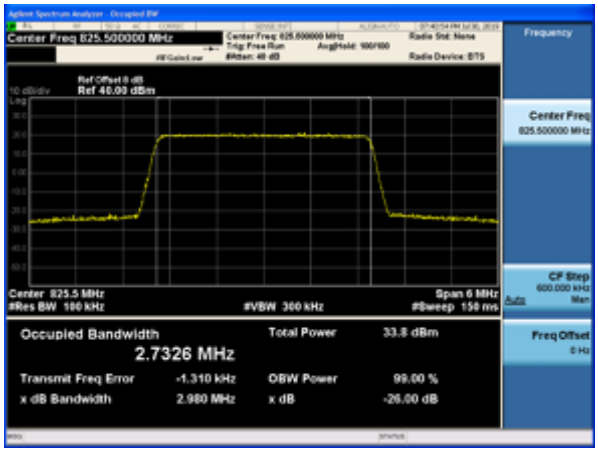
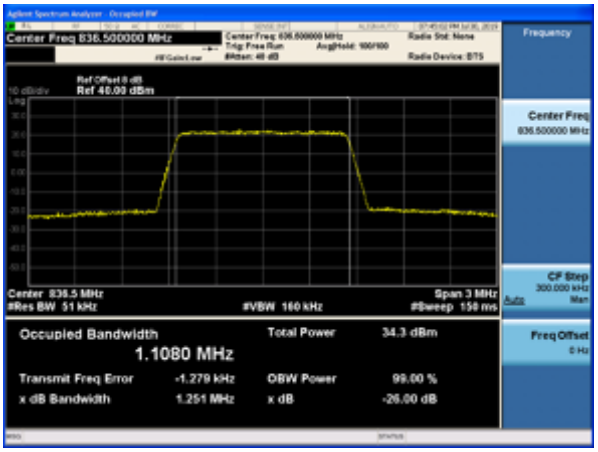
LTE Band 5 16QAM 1.4MHz CH-Low



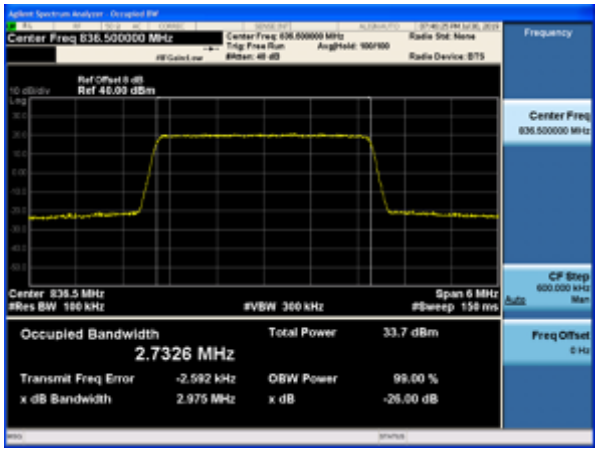
LTE Band 5 16QAM 3MHz CH-Low



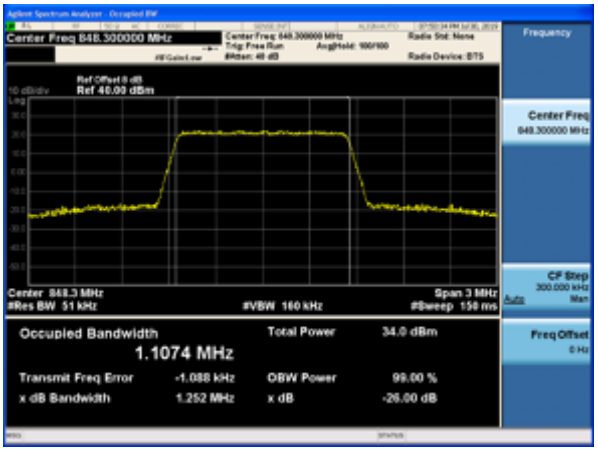
LTE Band 5 16QAM 1.4MHz CH-Middle



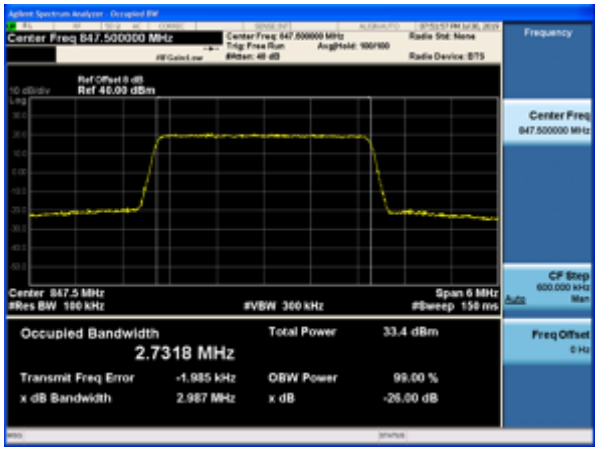
LTE Band 5 16QAM 3MHz CH-Middle



LTE Band 5 16QAM 1.4MHz CH-High



LTE Band 5 16QAM 3MHz CH-High



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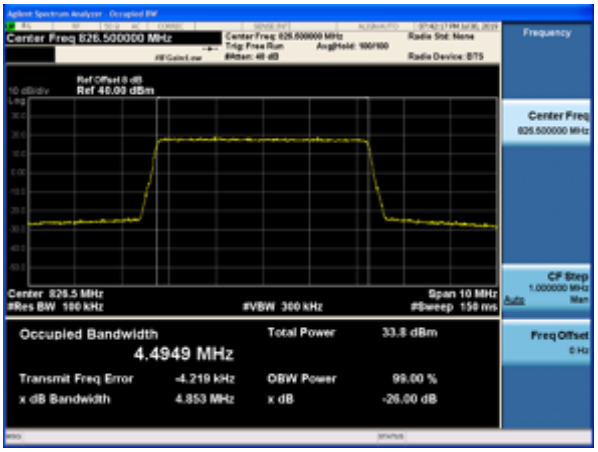
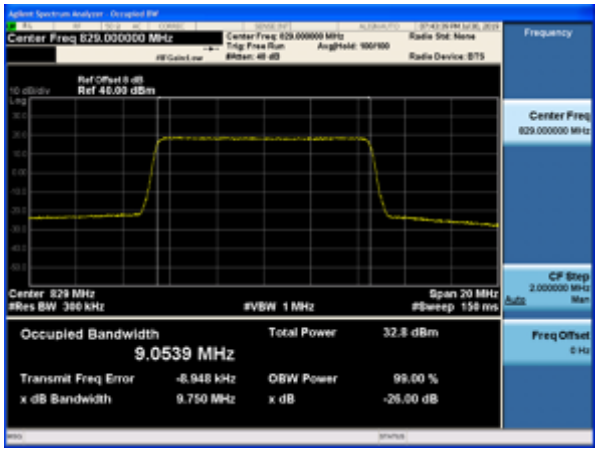
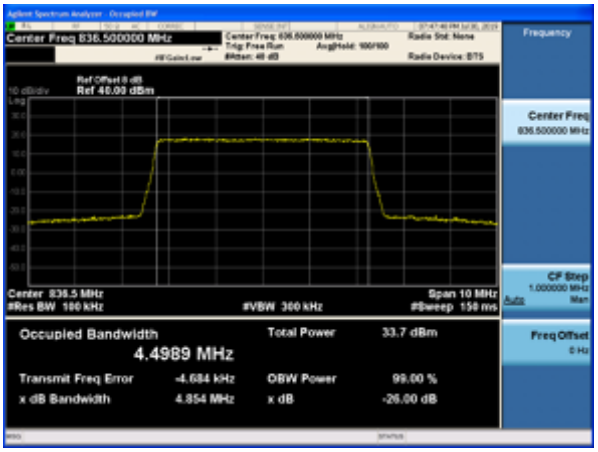
LTE Band 5 16QAM 5MHz CH-Low



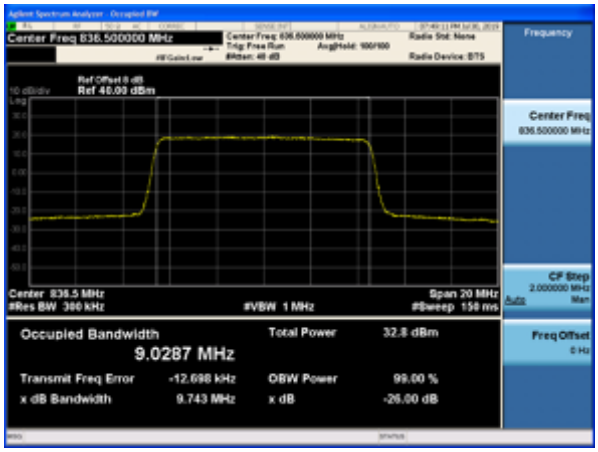
LTE Band 5 16QAM 10MHz CH-Low



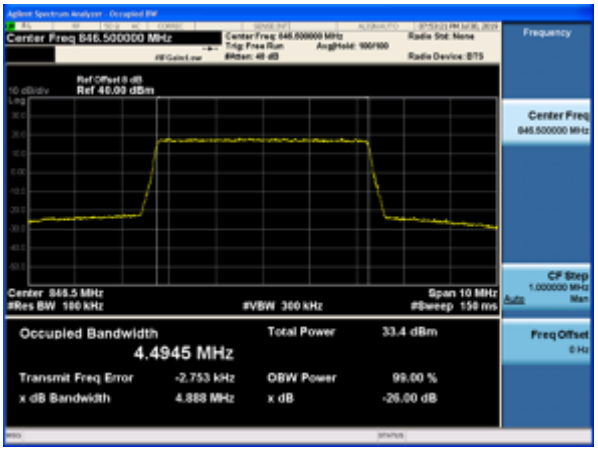
LTE Band 5 16QAM 5MHz CH-Middle



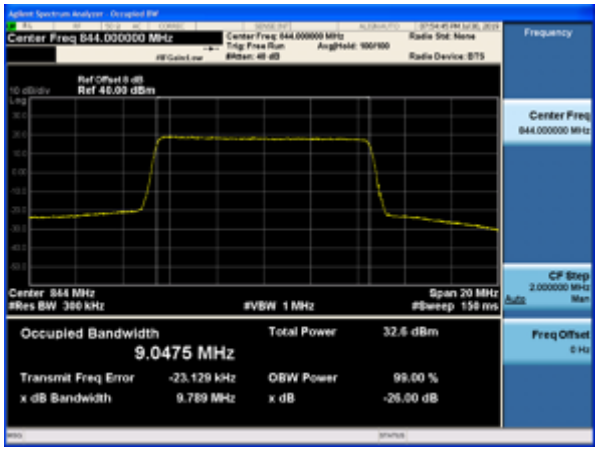
LTE Band 5 16QAM 10MHz CH-Middle



LTE Band 5 16QAM 5MHz CH-High



LTE Band 5 16QAM 10MHz CH-High



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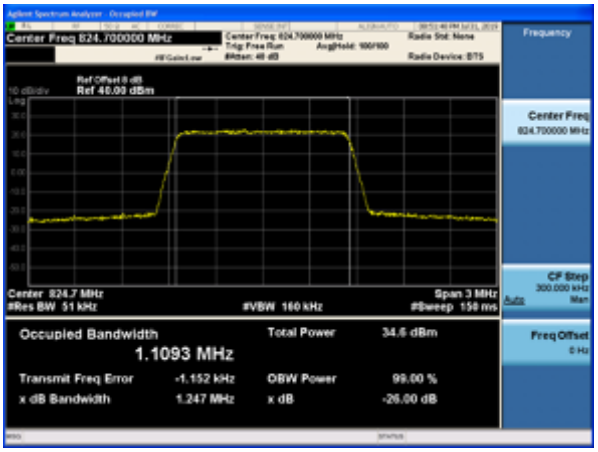
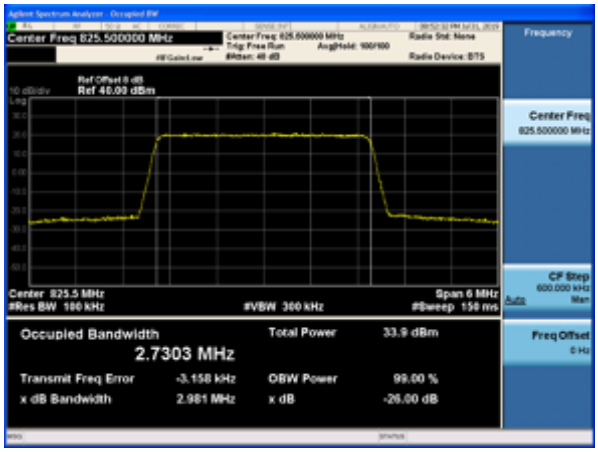
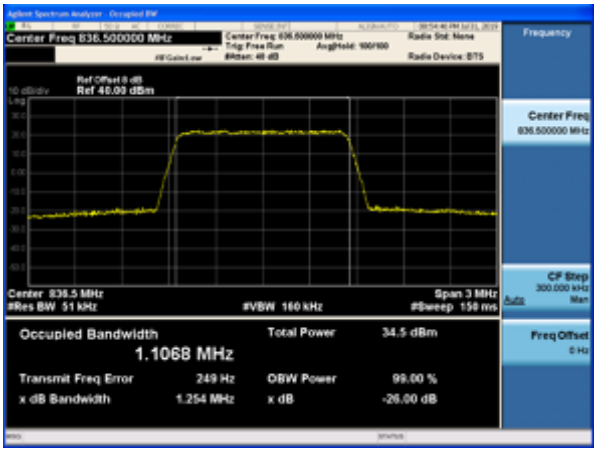
LTE Band 5 64QAM 1.4MHz CH-Low



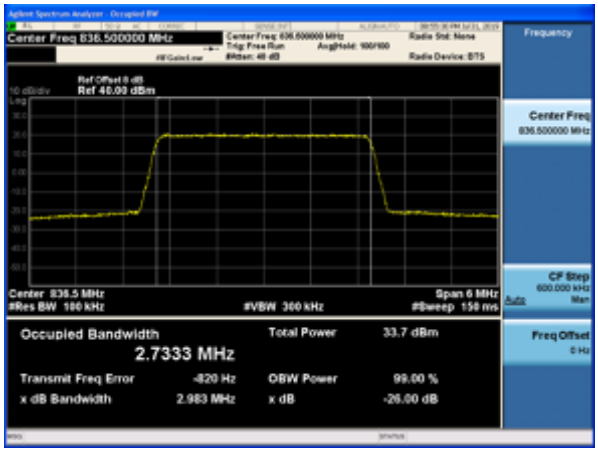
LTE Band 5 64QAM 3MHz CH-Low



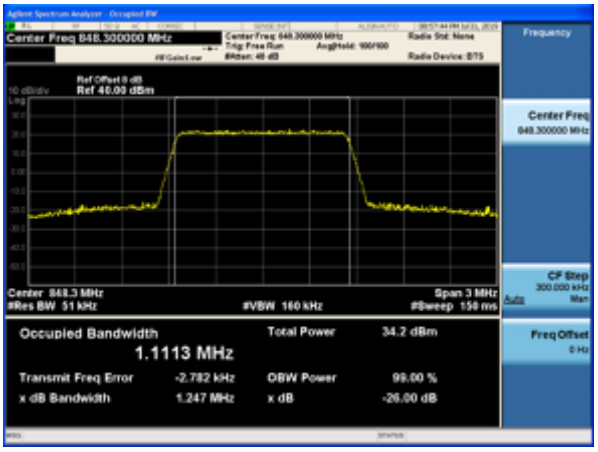
LTE Band 5 64QAM 1.4MHz CH-Middle



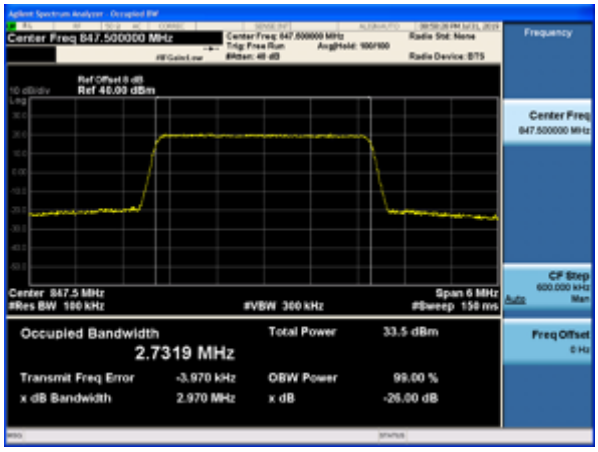
LTE Band 5 64QAM 3MHz CH-Middle



LTE Band 5 64QAM 1.4MHz CH-High



LTE Band 5 64QAM 3MHz CH-High



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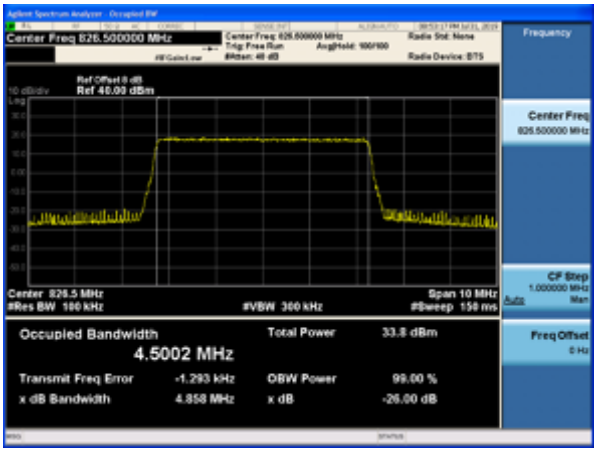
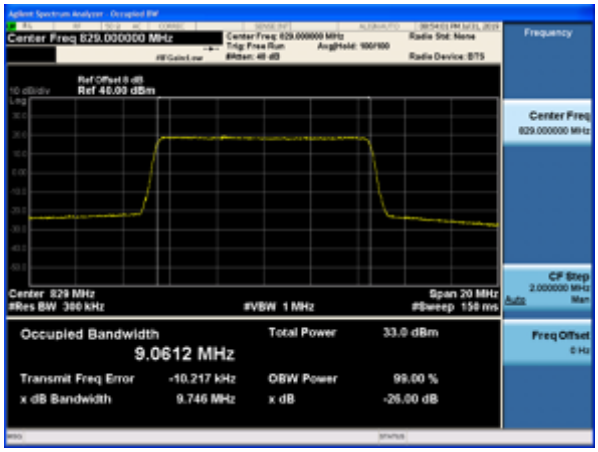
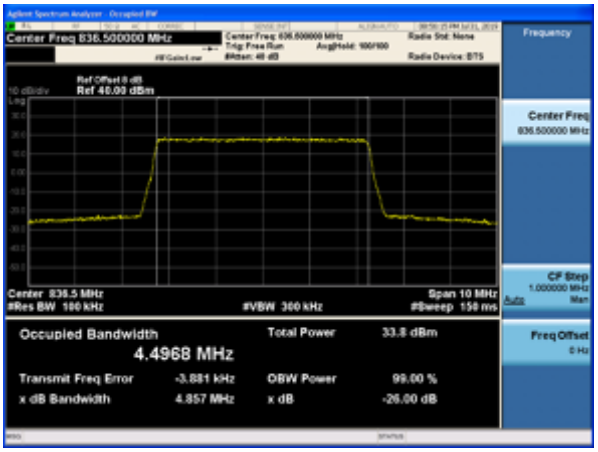
LTE Band 5 64QAM 5MHz CH-Low



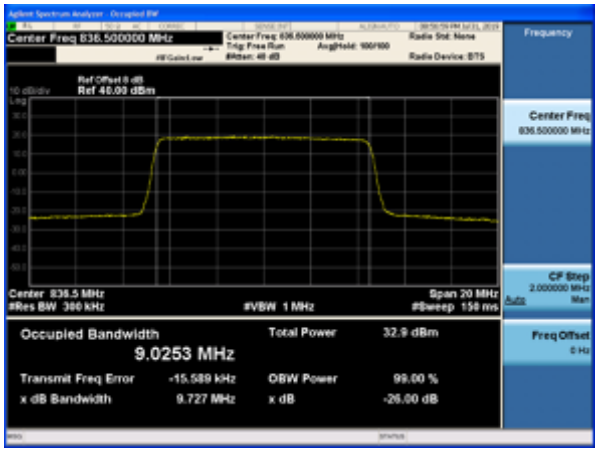
LTE Band 5 64QAM 10MHz CH-Low



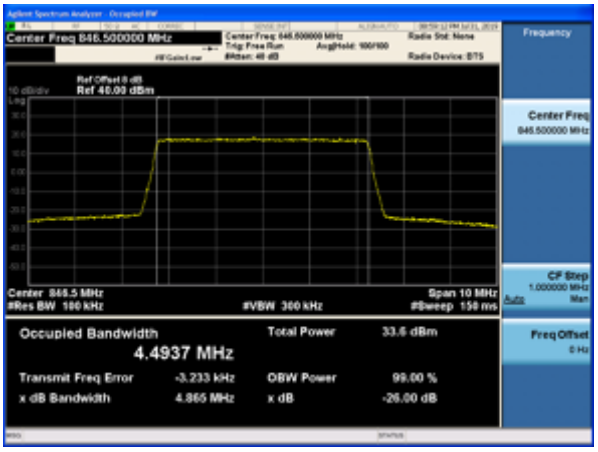
LTE Band 5 64QAM 5MHz CH-Middle



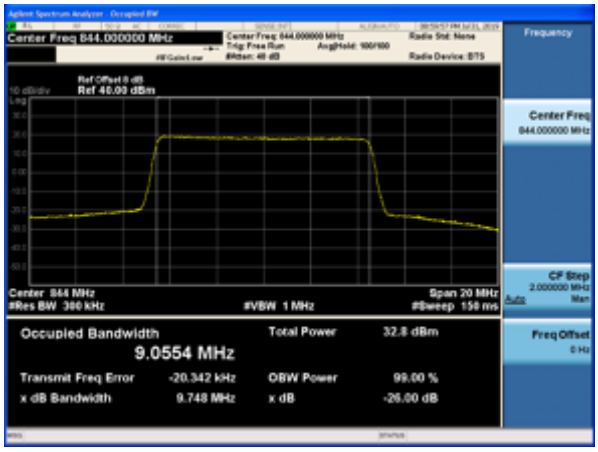
LTE Band 5 64QAM 10MHz CH-Middle



LTE Band 5 64QAM 5MHz CH-High



LTE Band 5 64QAM 10MHz CH-High



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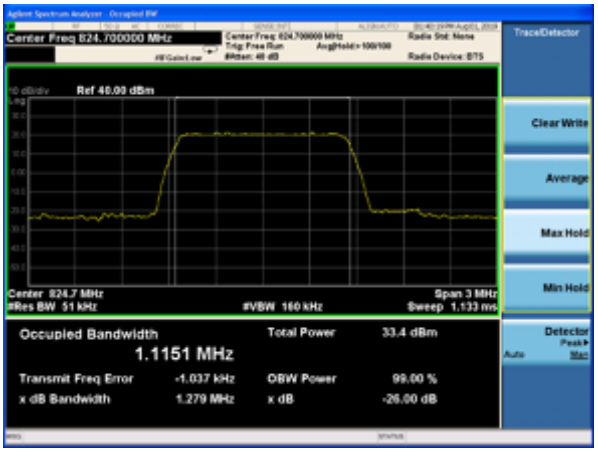
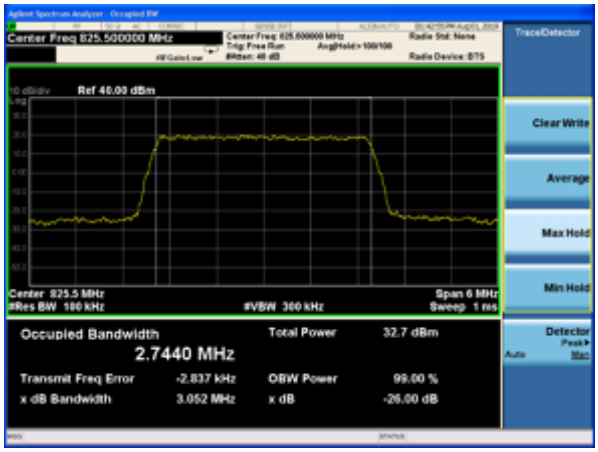
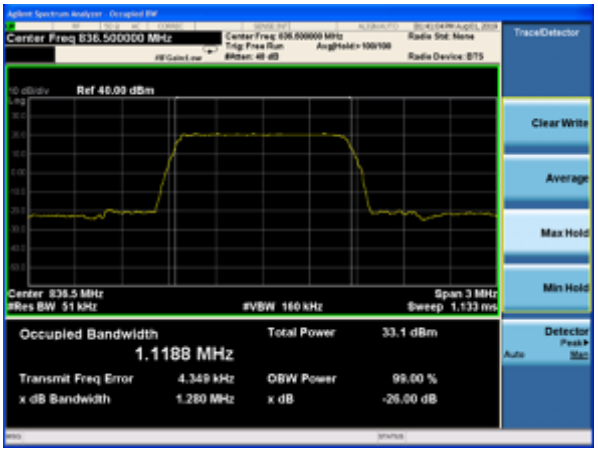
LTE Band 26 QPSK 1.4MHz CH-Low



LTE Band 26 QPSK 3MHz CH-Low

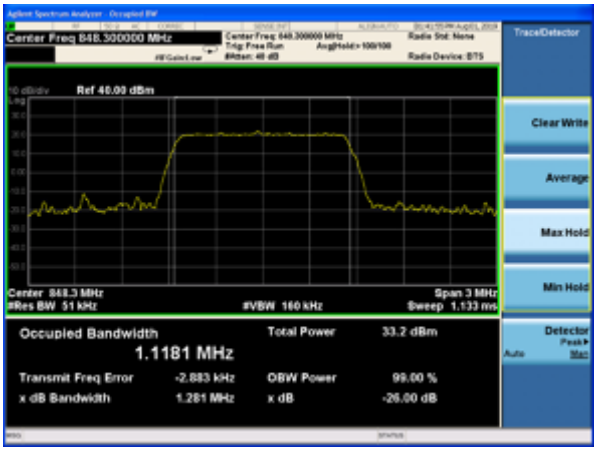


LTE Band 26 QPSK 1.4MHz CH-Middle

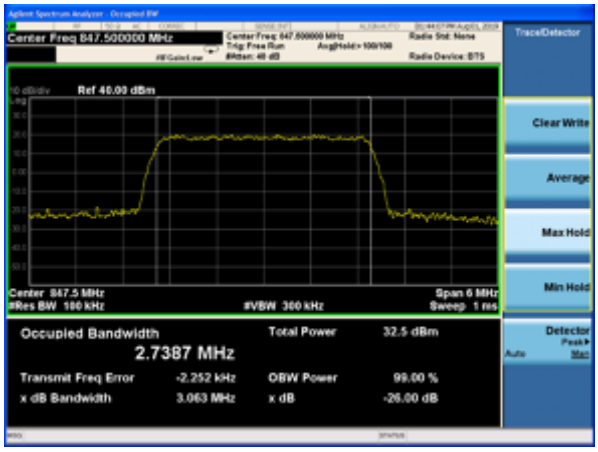


LTE Band 26 QPSK 3MHz CH-Middle

LTE Band 26 QPSK 1.4MHz CH-High



LTE Band 26 QPSK 3MHz CH-High



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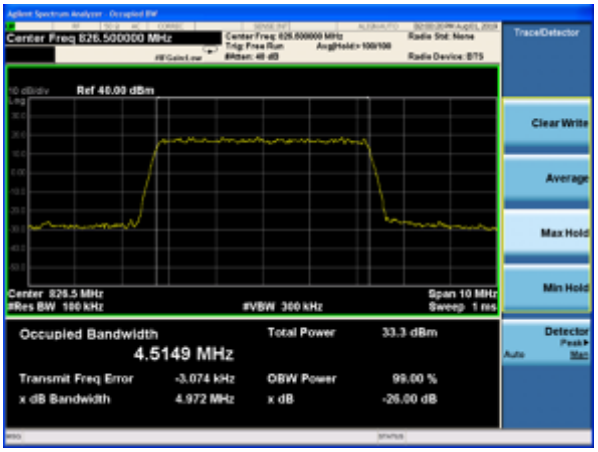
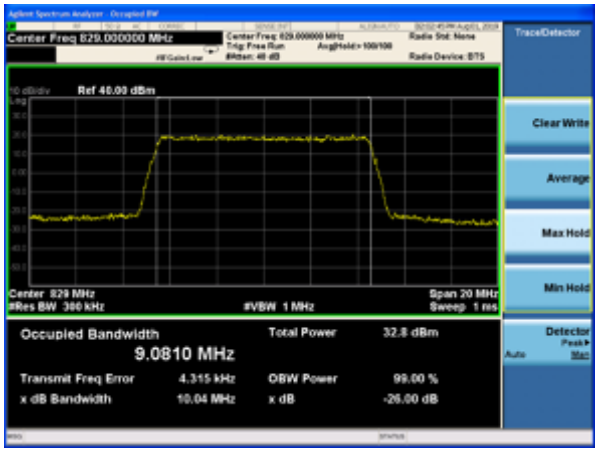
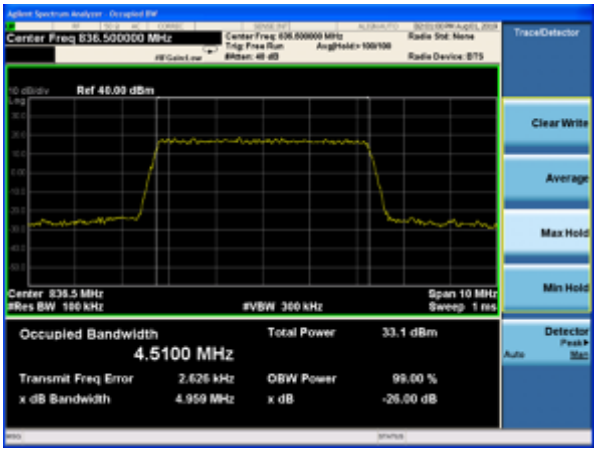
LTE Band 26 QPSK 5MHz CH-Low



LTE Band 26 QPSK 10MHz CH-Low

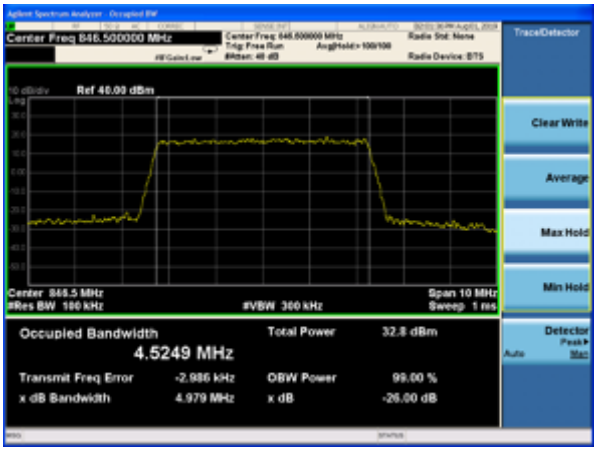


LTE Band 26 QPSK 5MHz CH-Middle

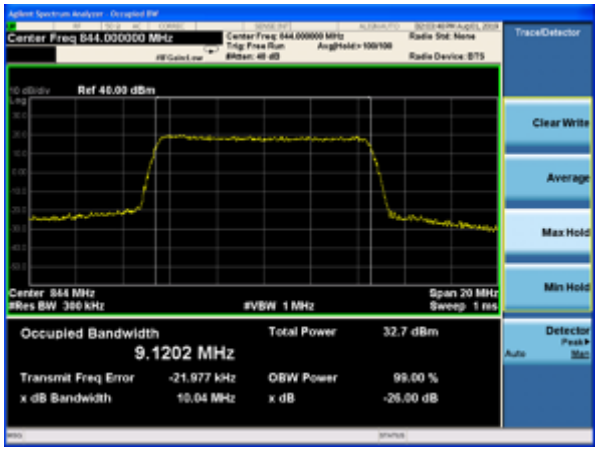


LTE Band 26 QPSK 10MHz CH-Middle

LTE Band 26 QPSK 5MHz CH-High



LTE Band 26 QPSK 10MHz CH-High



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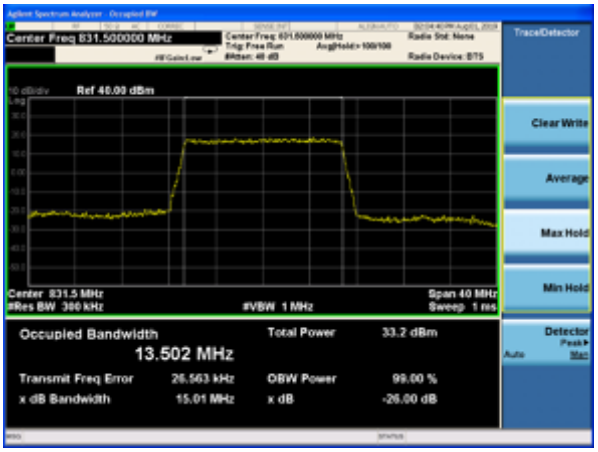
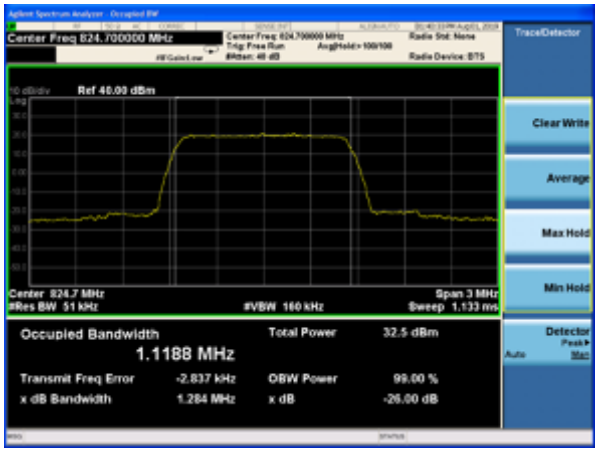
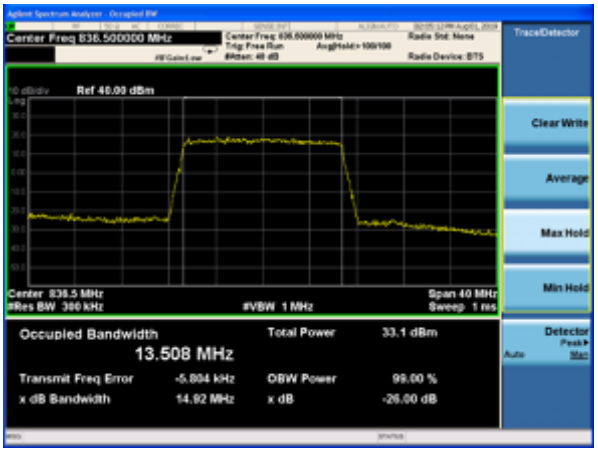
LTE Band 26 QPSK 15MHz CH-Low



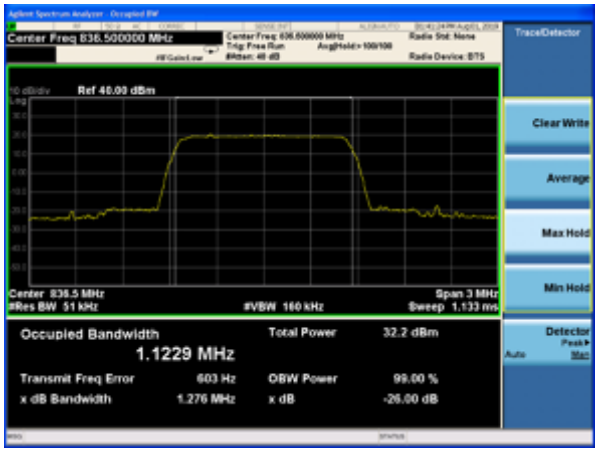
LTE Band 26 16QAM 1.4MHz CH-Low



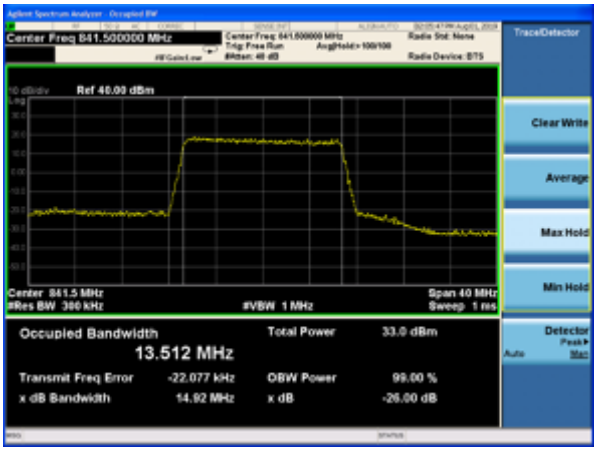
LTE Band 26 QPSK 15MHz CH-Middle



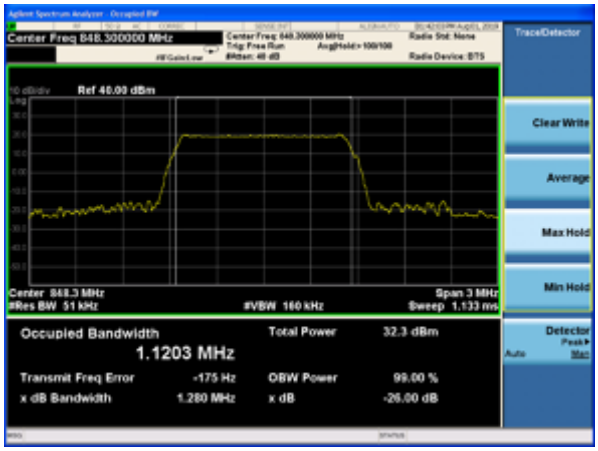
LTE Band 26 16QAM 1.4MHz CH-Middle



LTE Band 26 QPSK 15MHz CH-High



LTE Band 26 16QAM 1.4MHz CH-High



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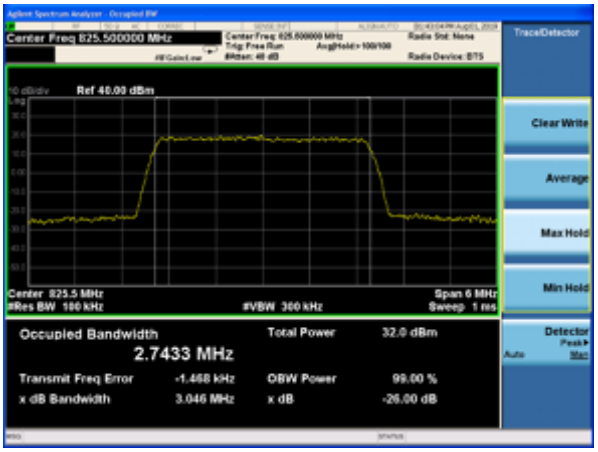
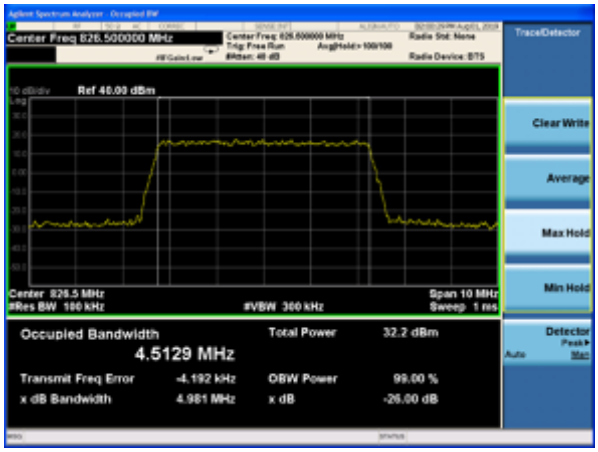
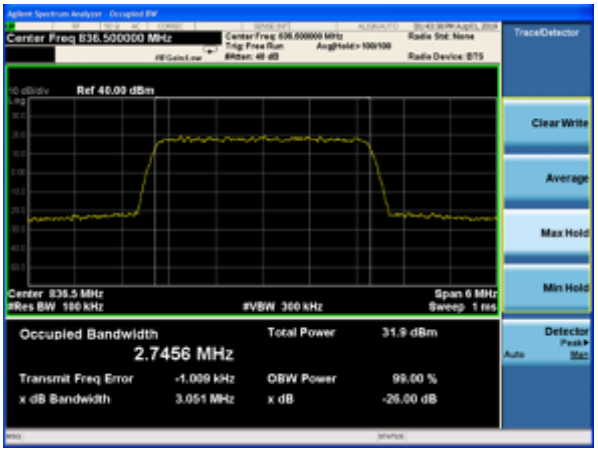
LTE Band 26 16QAM 3MHz CH-Low



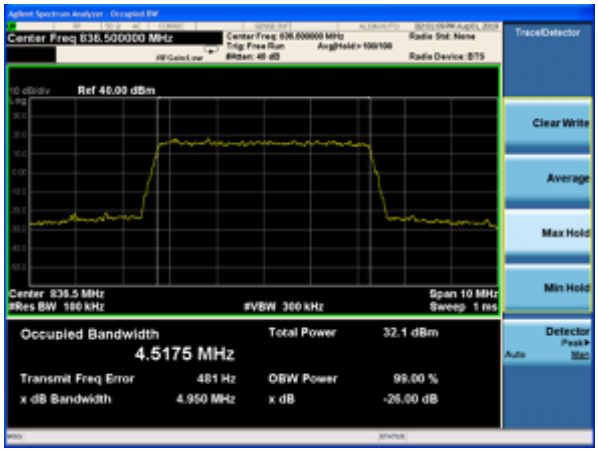
LTE Band 26 16QAM 5MHz CH-Low



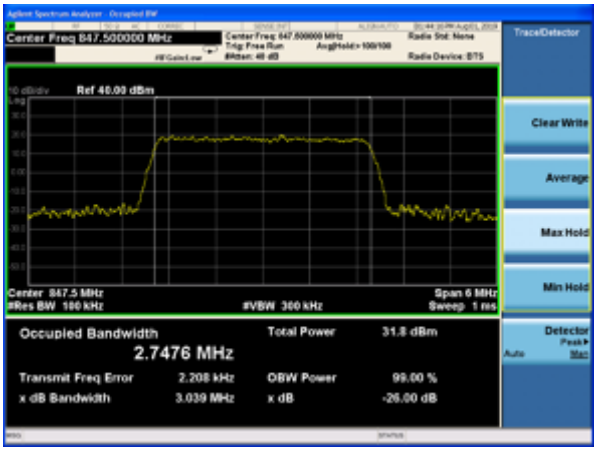
LTE Band 26 16QAM 3MHz CH-Middle



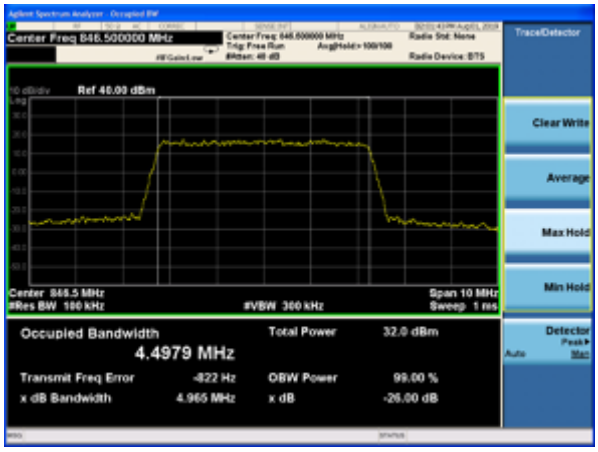
LTE Band 26 16QAM 5MHz CH-Middle



LTE Band 2616QAM 3MHz CH-High



LTE Band 26 16QAM 5MHz CH-High



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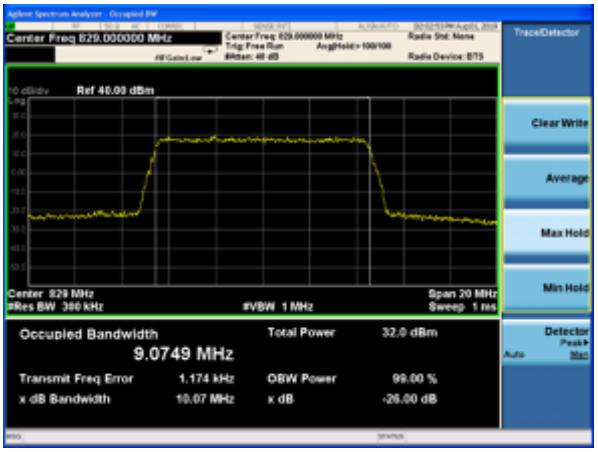
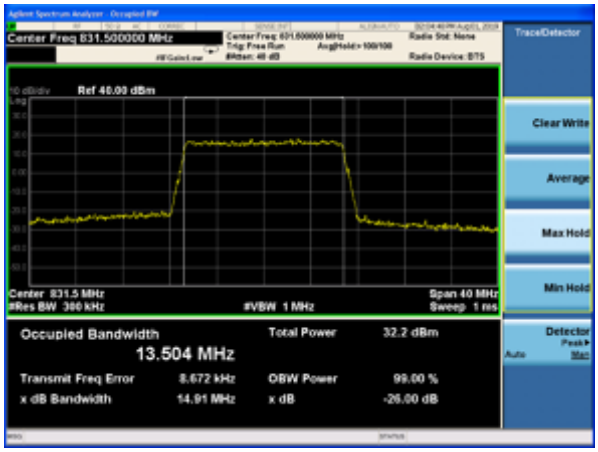
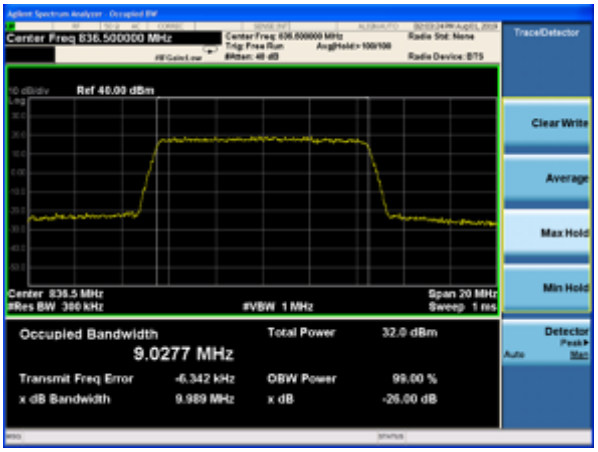
LTE Band 26 16QAM 10MHz CH-Low



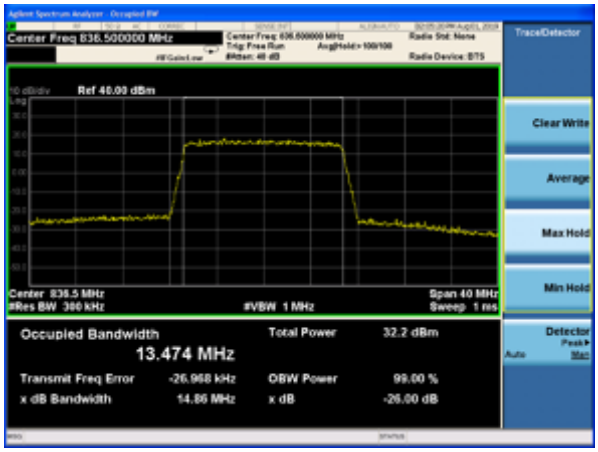
LTE Band 26 16QAM 15MHz CH-Low



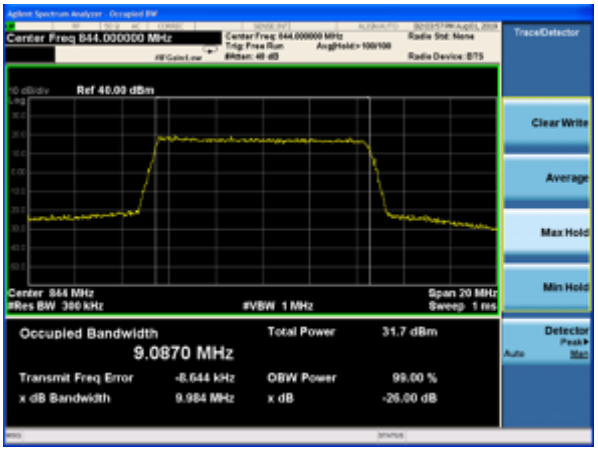
LTE Band 26 16QAM 10MHz CH-Middle



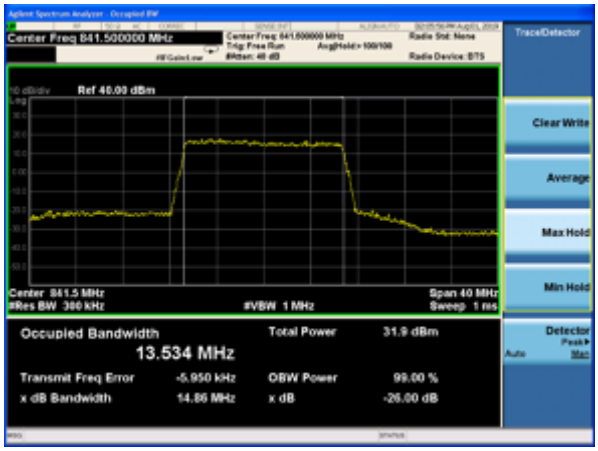
LTE Band 26 16QAM 15MHz CH-Middle



LTE Band 26 16QAM 10MHz CH-High



LTE Band 26 16QAM 15MHz CH-High



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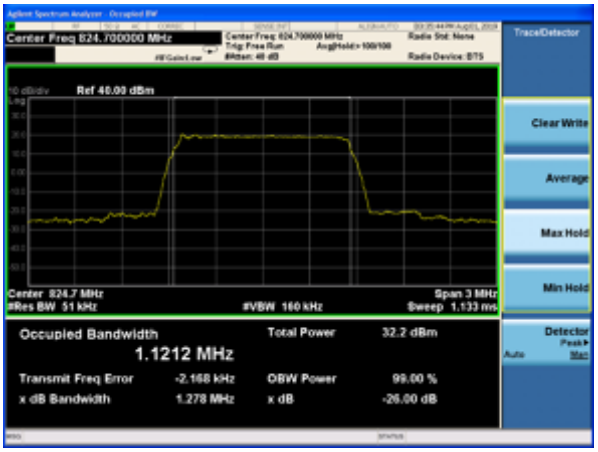
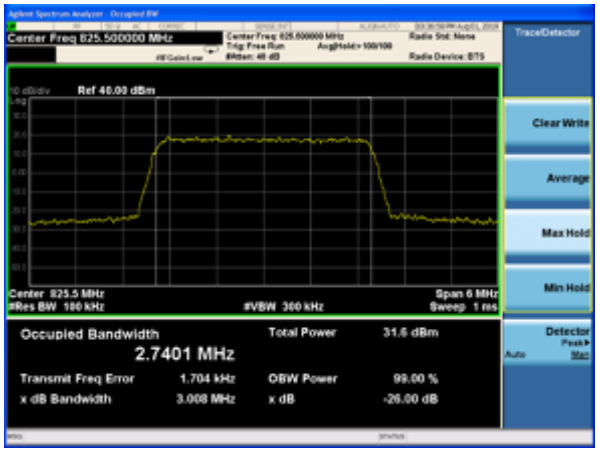
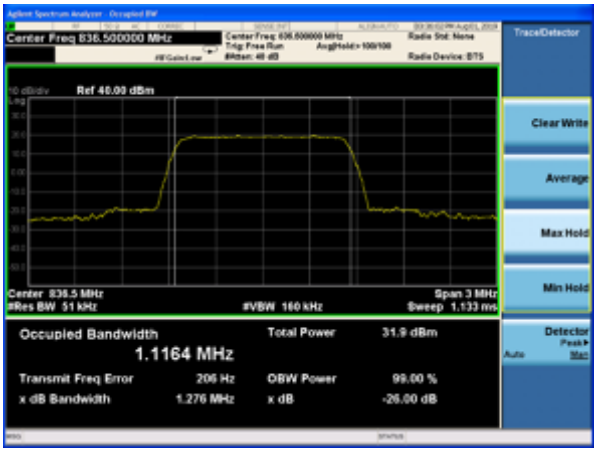
LTE Band 26 64QAM 1.4MHz CH-Low



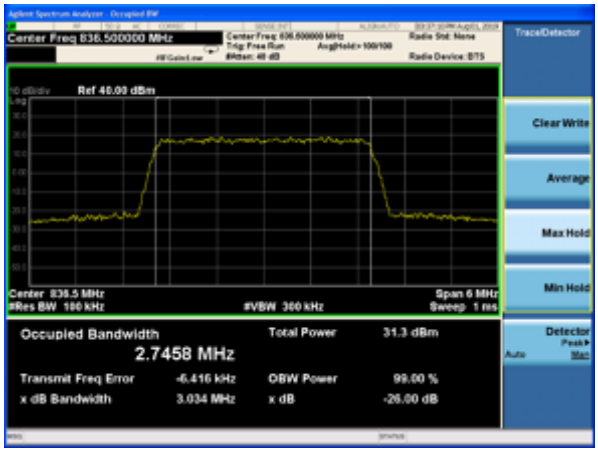
LTE Band 26 64QAM 3MHz CH-Low



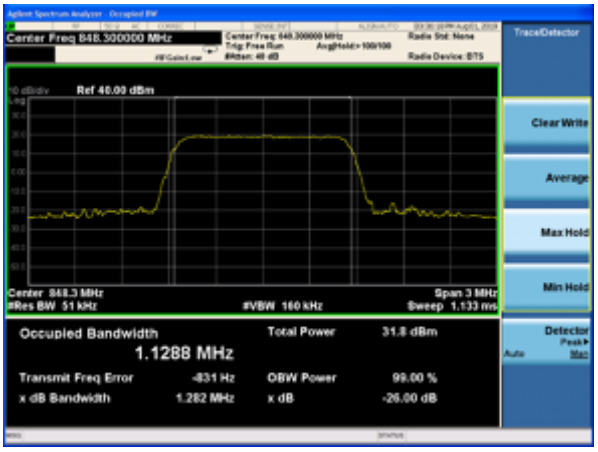
LTE Band 26 64QAM 1.4MHz CH-Middle



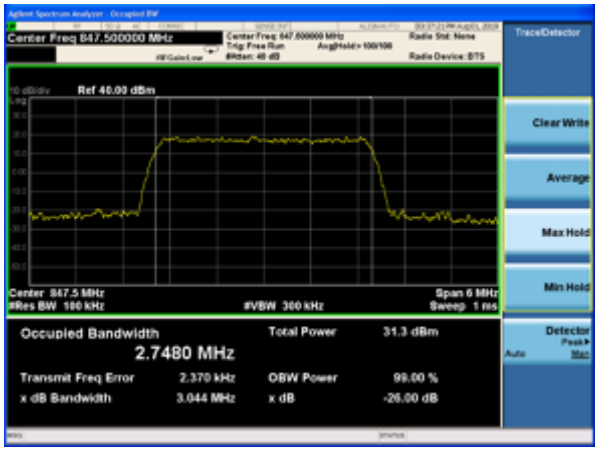
LTE Band 26 64QAM 3MHz CH-Middle



LTE Band 26 64QAM 1.4MHz CH-High



LTE Band 26 64QAM 3MHz CH-High



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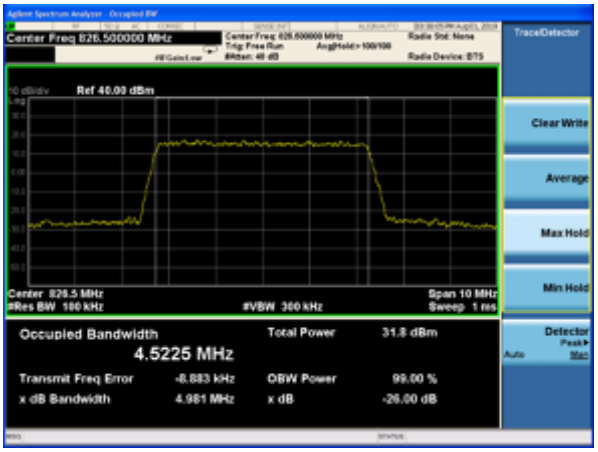
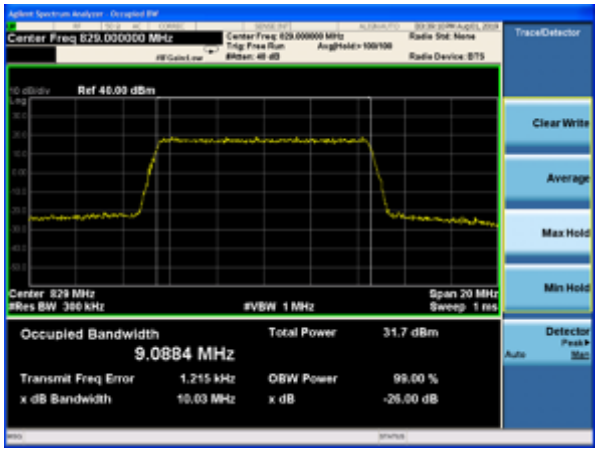
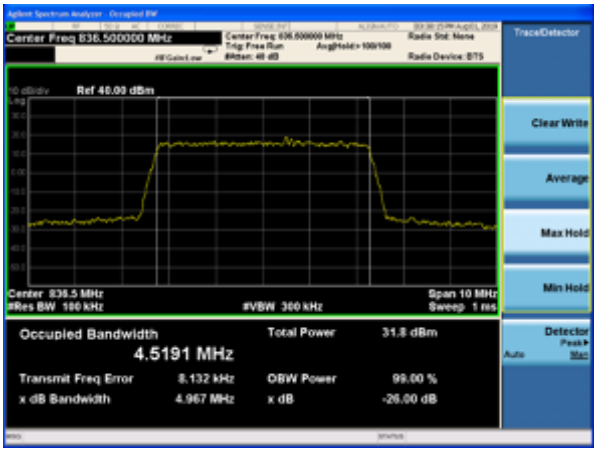
LTE Band 26 64QAM 5MHz CH-Low



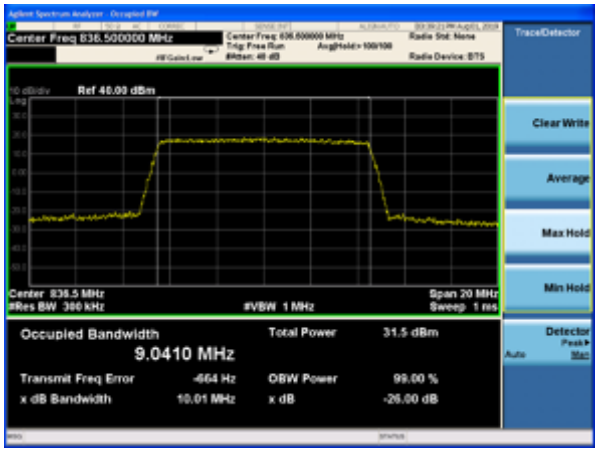
LTE Band 26 64QAM 10MHz CH-Low



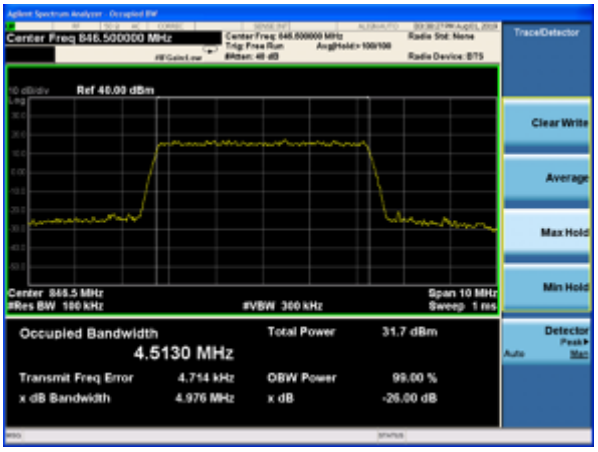
LTE Band 26 64QAM 5MHz CH-Middle



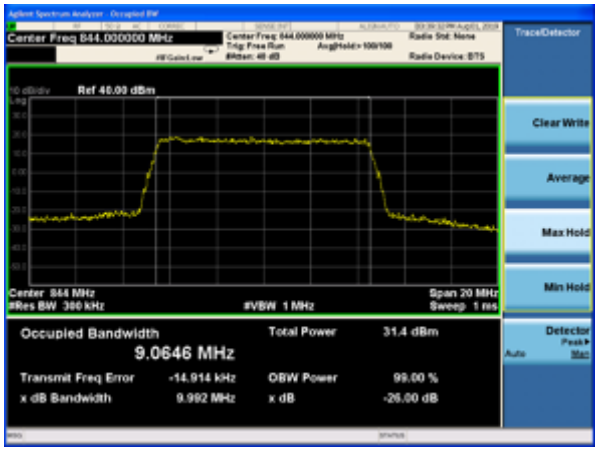
LTE Band 26 64QAM 10MHz CH-Middle



LTE Band 26 64QAM 5MHz CH-High



LTE Band 26 64QAM 10MHz CH-High



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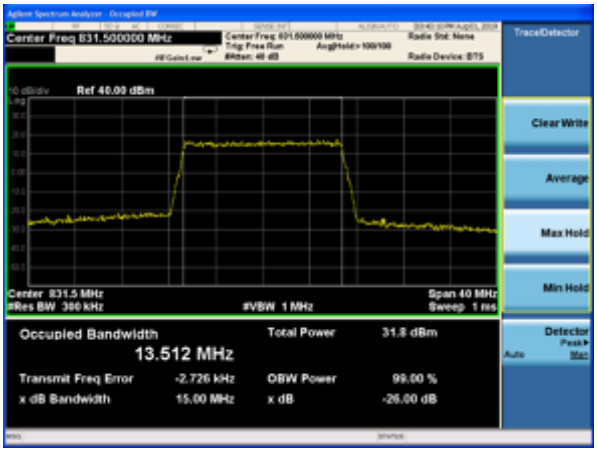
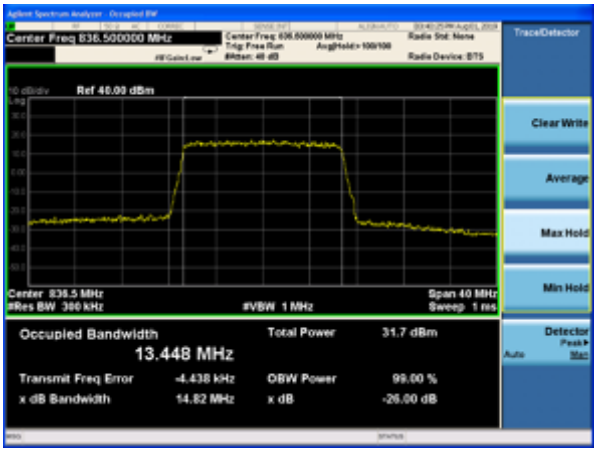
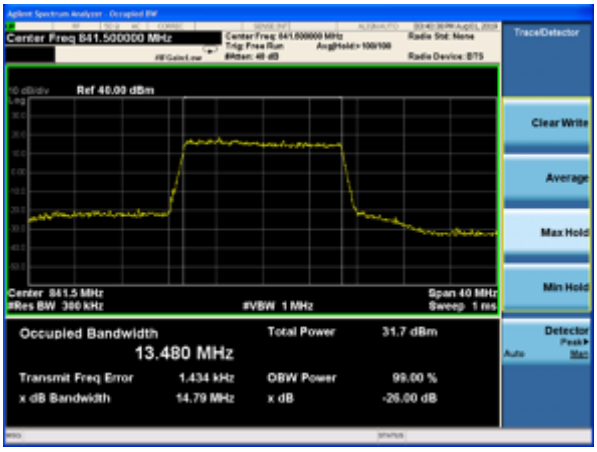
LTE Band 26 64QAM 15MHz CH-Low



LTE Band 26 64QAM 15MHz CH-Middle



LTE Band 26 64QAM 15MHz CH-High



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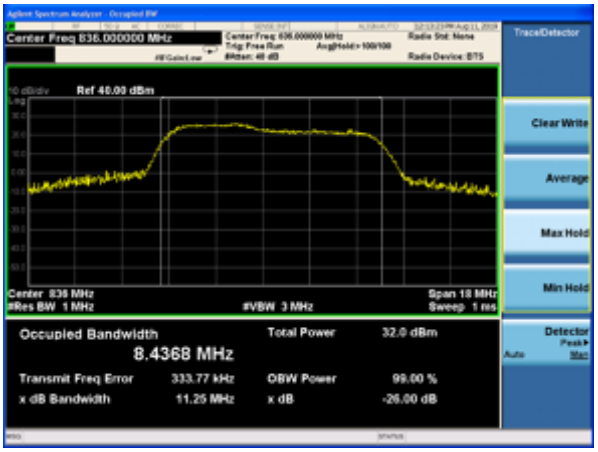
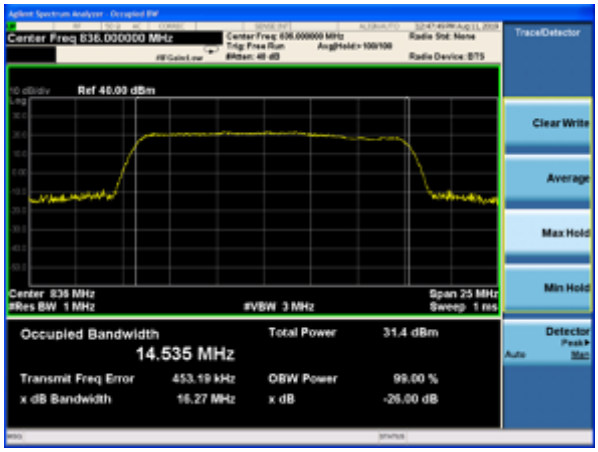
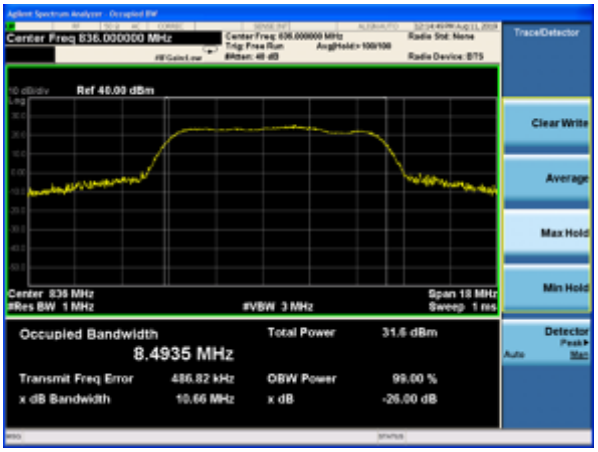
CA-5B QPSK 3MHz+5MHz-Middle



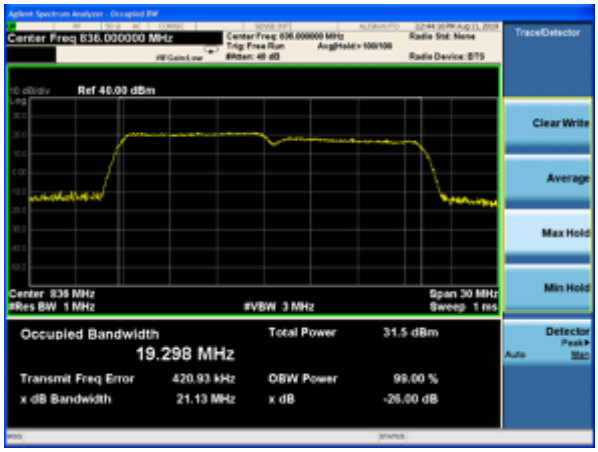
CA-5B QPSK 10MHz+5MHz-Middle



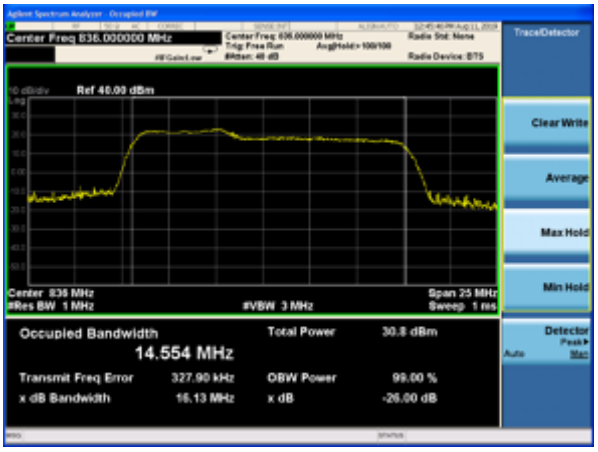
CA-5B QPSK 5MHz+3MHz-Middle



CA-5B QPSK 10MHz+10MHz-Middle



CA-5B QPSK 5MHz+10MHz-Middle



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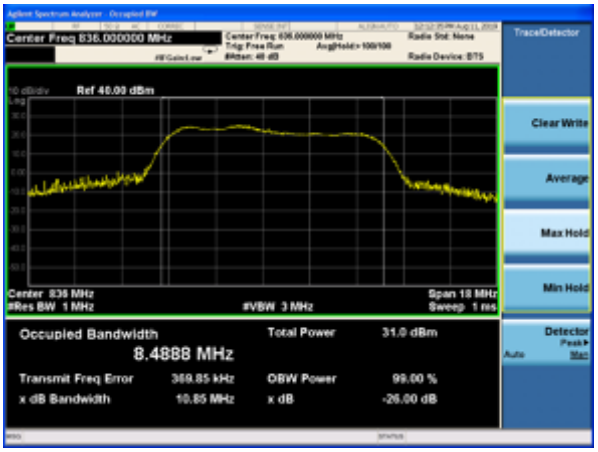
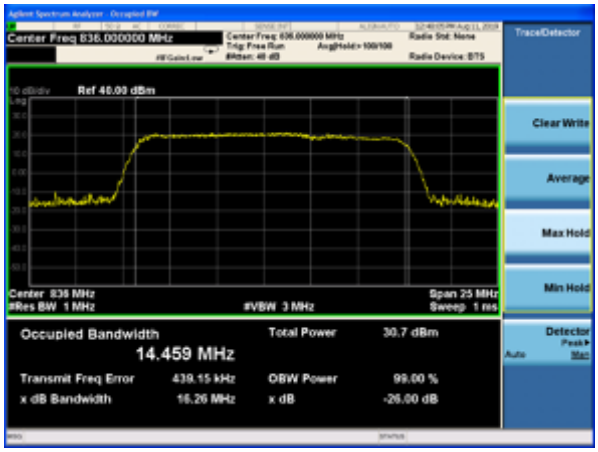
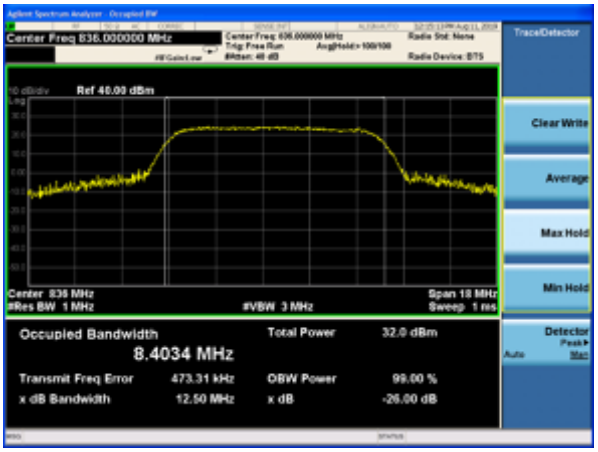
CA-5B 16QAM 3MHz+5MHz-Middle



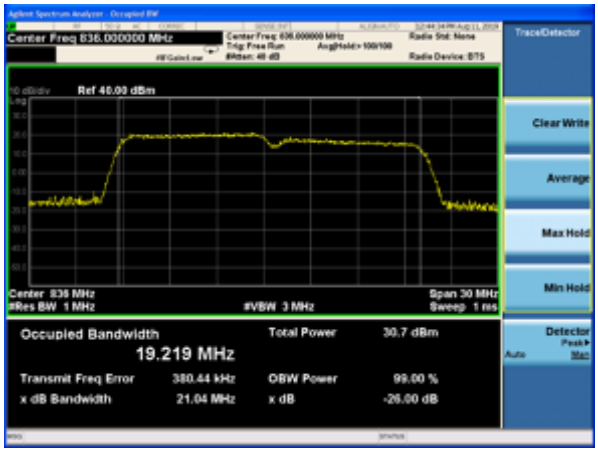
CA-5B 16QAM 10MHz+5MHz-Middle



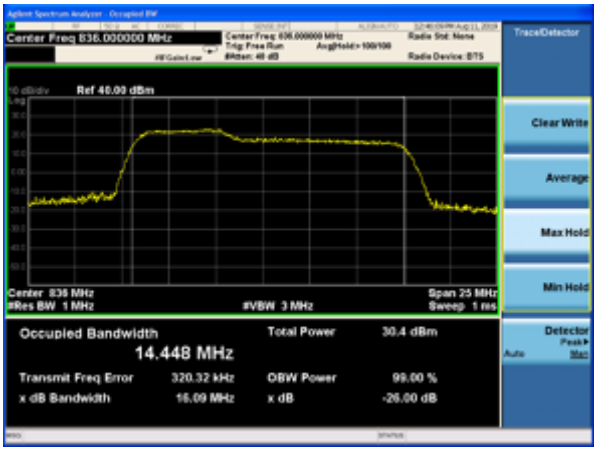
CA-5B 16QAM 5MHz+3MHz-Middle



CA-5B 16QAM 10MHz+10MHz-Middle



CA-5B 16QAM 5MHz+10MHz-Middle



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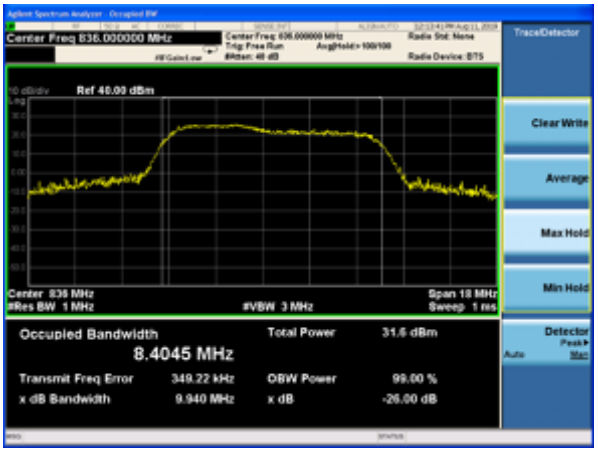
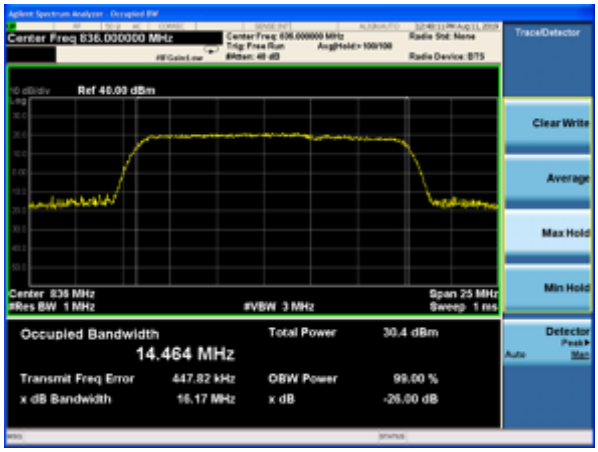
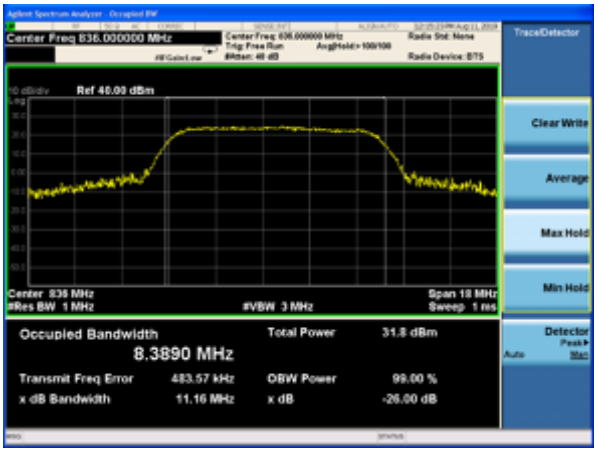
CA-5B 64QAM 3MHz+5MHz-Middle



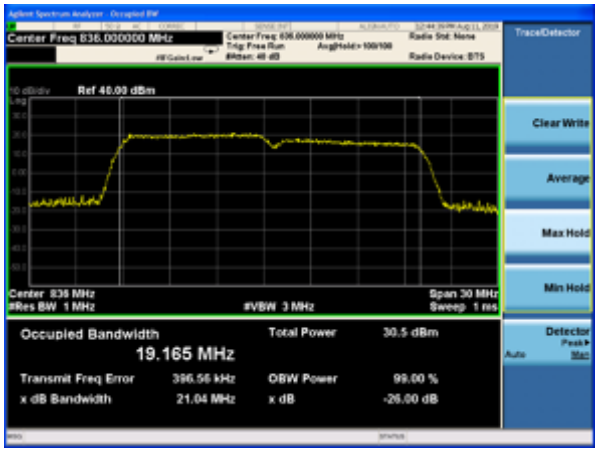
CA-5B 64QAM 10MHz+5MHz-Middle



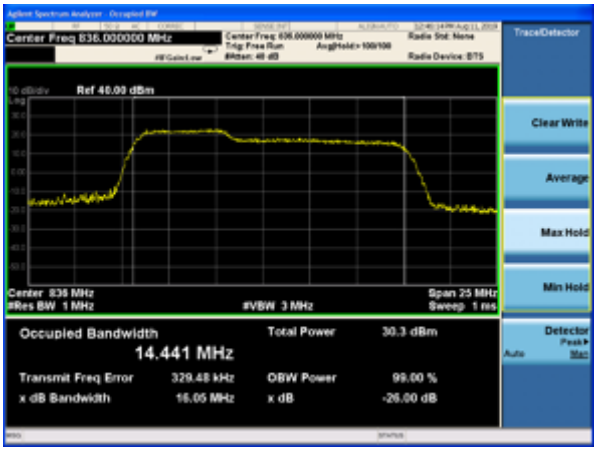
CA-5B 64QAM 5MHz+3MHz-Middle



CA-5B 64QAM 10MHz+10MHz-Middle



CA-5B 64QAM 5MHz+10MHz-Middle



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5.4. Band Edge Compliance

Ambient condition

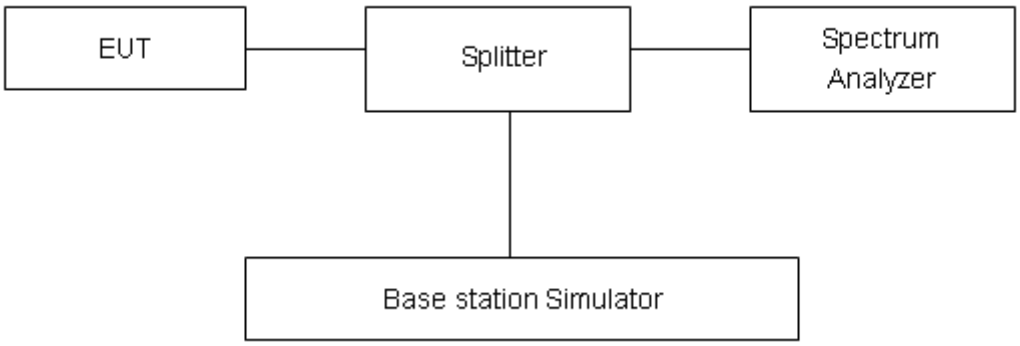
Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

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 average detector is used.
RBW is set to 3kHz,VBW is set to 10kHz for GSM 850,
RBW is set to 51kHz,VBW is set to 160kHz for WCDMA Band V,
RBW is set to 15 kHz, VBW is set to 51 kHz for LTE Band 5/26 (1.4MHz),
RBW is set to 30 kHz, VBW is set to 100 kHz for LTE Band 5/26 (3MHz),
RBW is set to 51 kHz, VBW is set to 160 kHz for LTE Band 5/26 (5MHz),
RBW is set to 100 kHz, VBW is set to 300 kHz for LTE Band 5/26 (10MHz),
RBW is set to 150 kHz, VBW is set to 510kHz for LTE Band 26 (15MHz).

Spectrum analyzer plots are included on the following pages.

Test Setup



Limits

Rule Part 22.917(a) specifies that “The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.”

Limit	-13 dBm

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.

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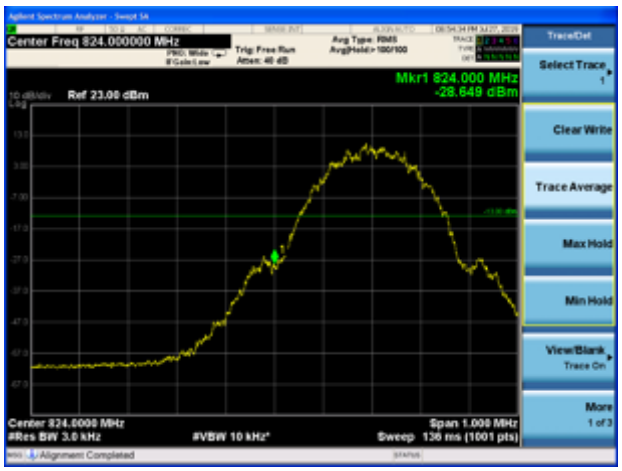
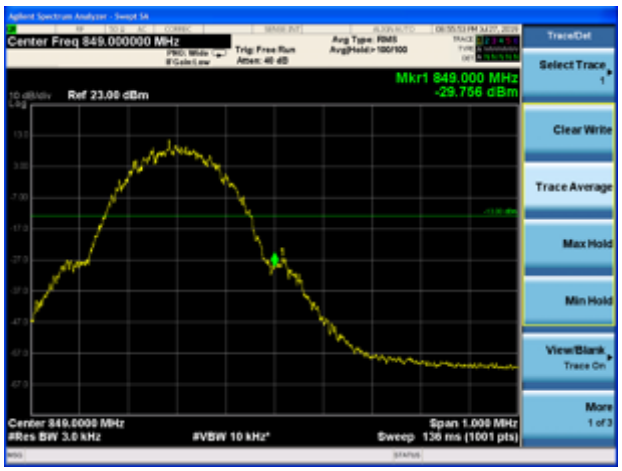
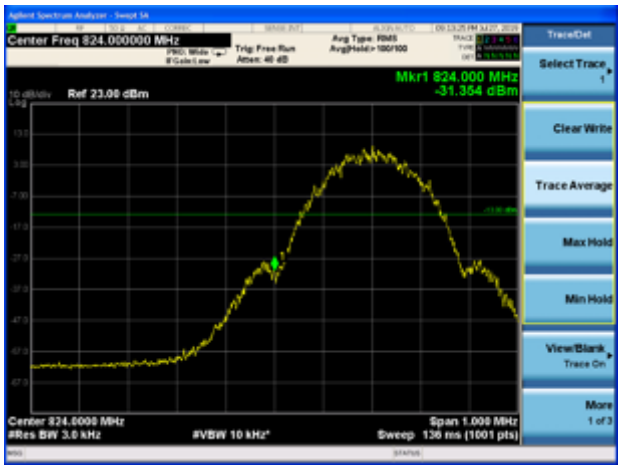
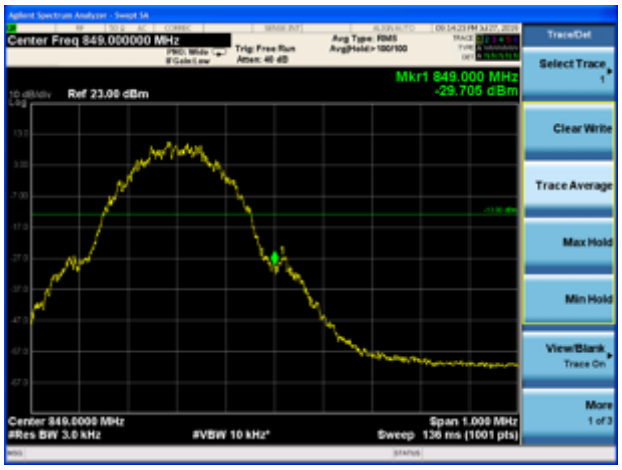
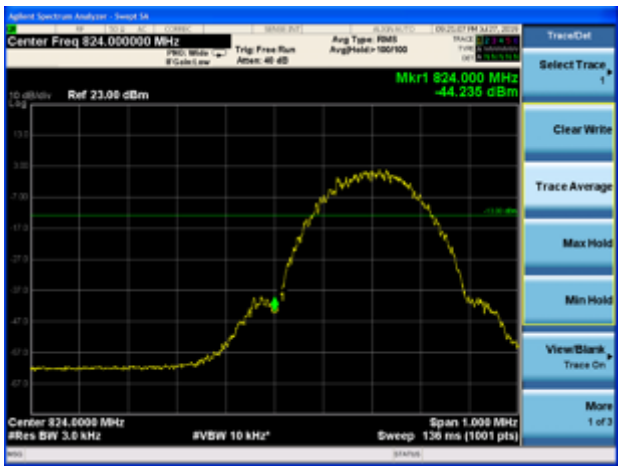
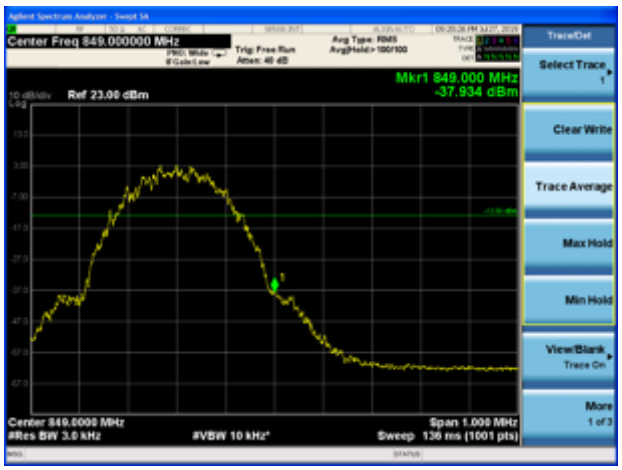
Test Result:

GSM 850 CH-Low	GSM 850 CH-High
	
GSM 850 GPRS CH-Low	**GSM 850 GPRS CH-High**
	
GSM 850 EGPRS CH-Low	**GSM 850 EGPRS CH-High**
	

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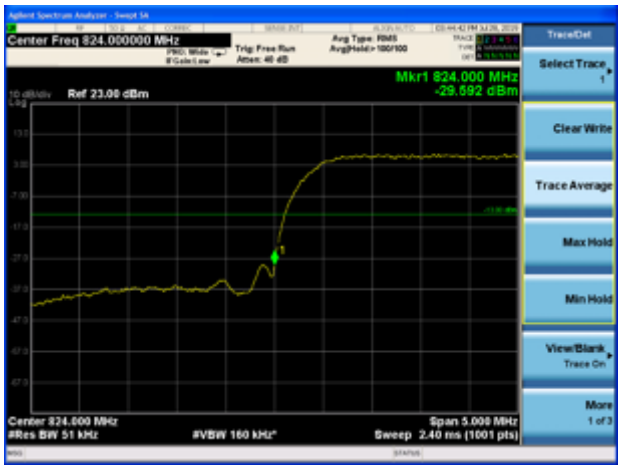
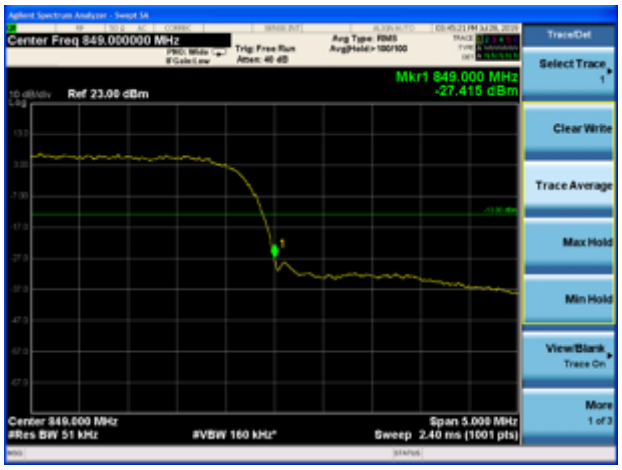
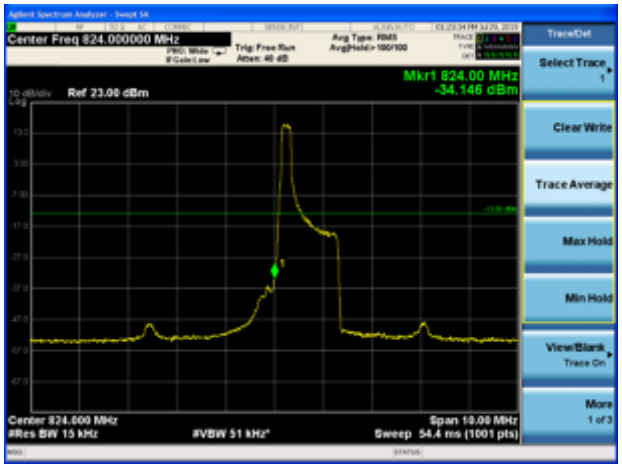
WCDMA Band V CH-Low



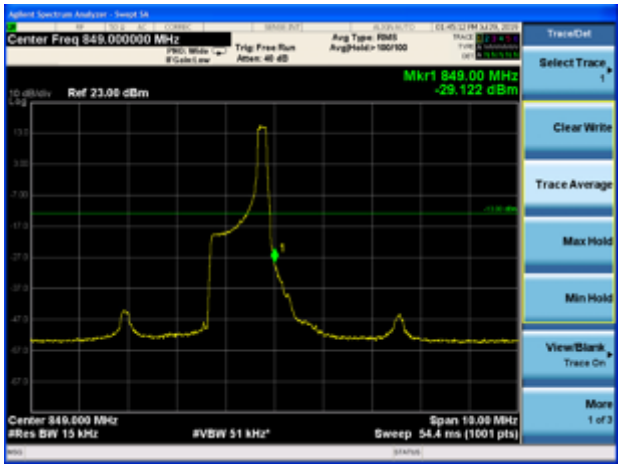
WCDMA Band V CH-High



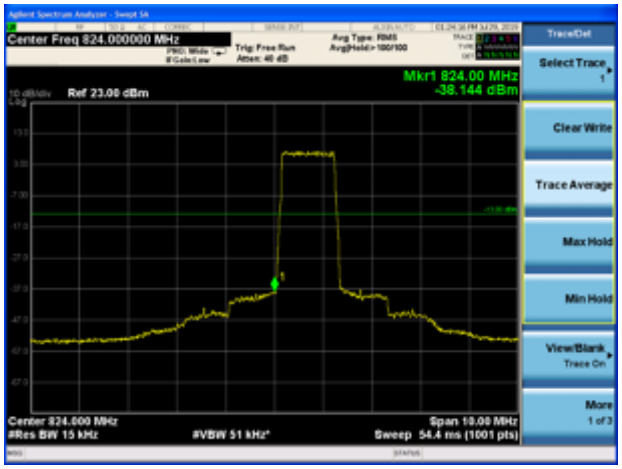
LTE Band 5 QPSK 1.4MHz CH-Low 1RB



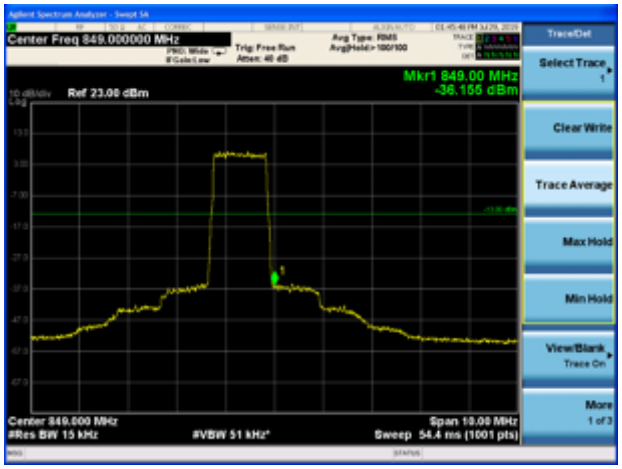
LTE Band 5 QPSK 1.4MHz CH-High 1RB



LTE Band 5 QPSK 1.4MHz CH-Low 100%RB



LTE Band 5 QPSK 1.4MHz CH-High 100%RB



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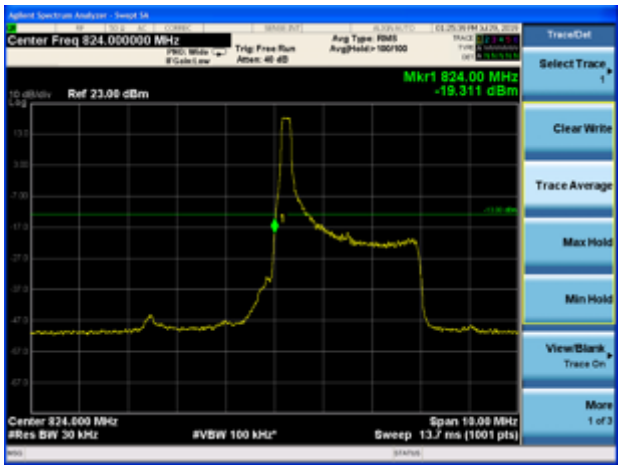
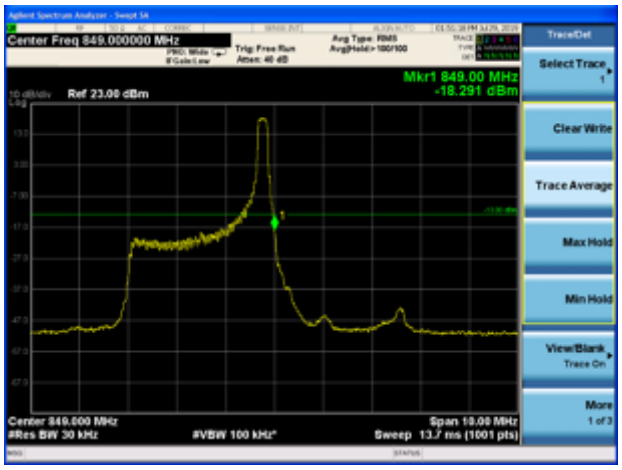
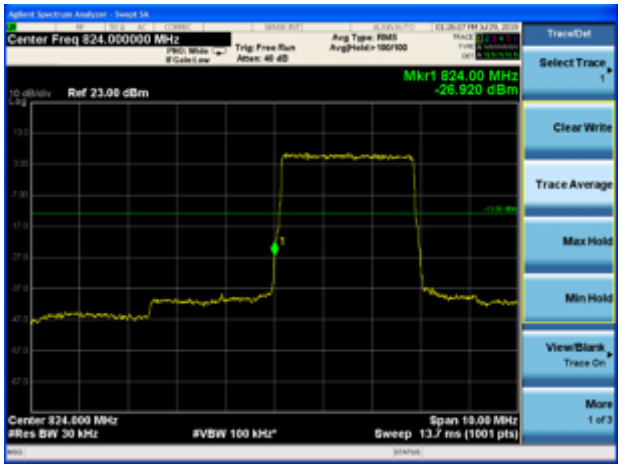
LTE Band 5 QPSK 3MHz CH-Low 1RB



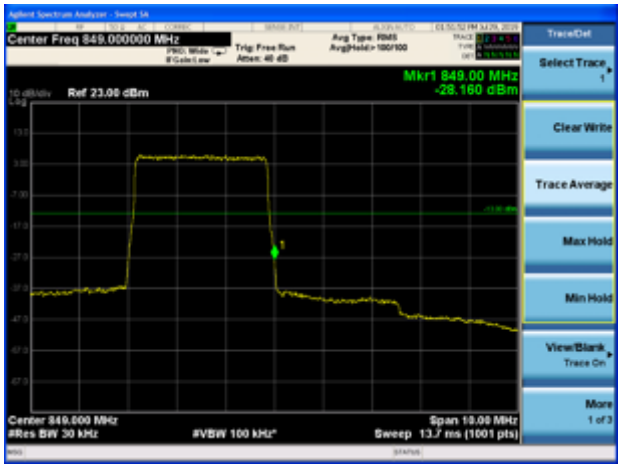
LTE Band 5 QPSK 3MHz CH-High 1RB



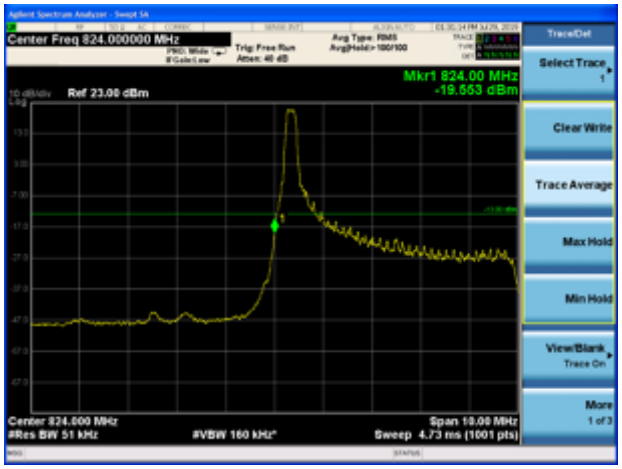
LTE Band 5 QPSK 3MHz CH-Low 100%RB



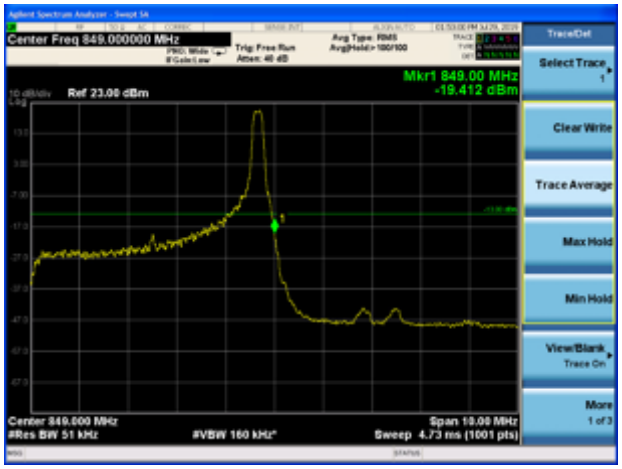
LTE Band 5 QPSK 3MHz CH-High 100%RB



LTE Band 5 QPSK 5MHz CH-Low 1RB



LTE Band 5 QPSK 5MHz CH-High 1RB



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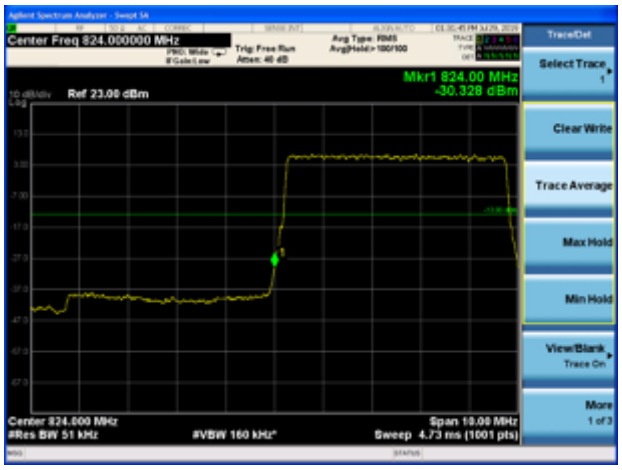
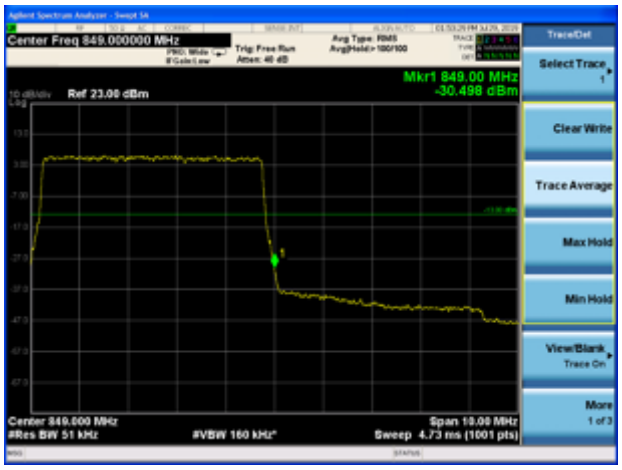
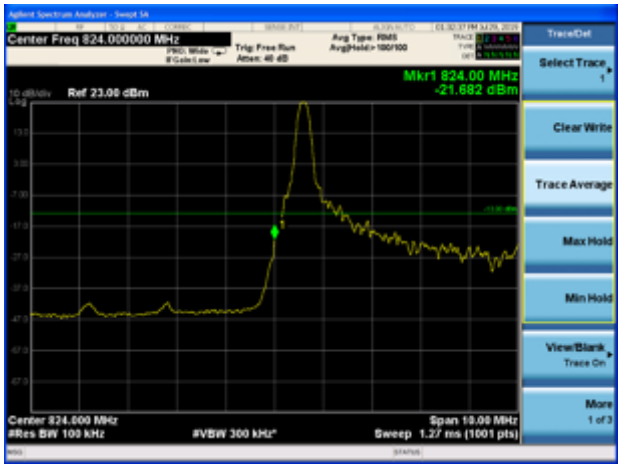
LTE Band 5 QPSK 5MHz CH-Low 100%RB



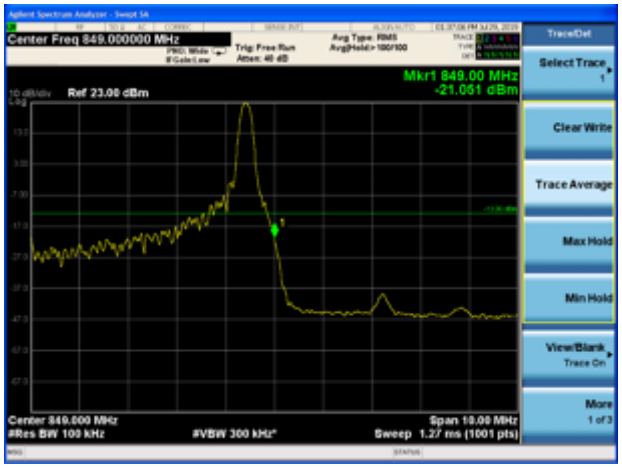
LTE Band 5 QPSK 5MHz CH-High 100%RB



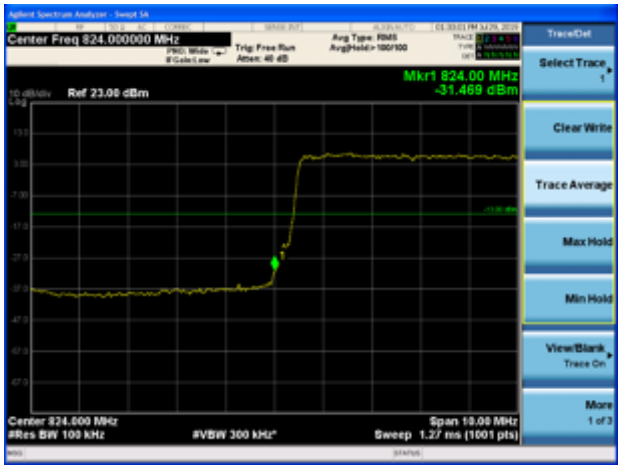
LTE Band 5 QPSK 10MHz CH-Low 1RB



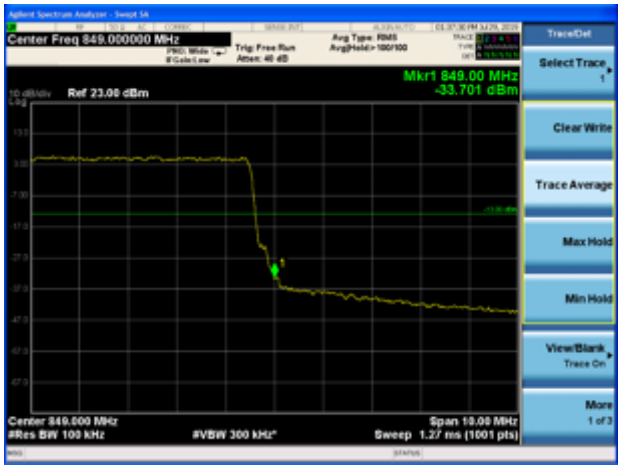
LTE Band 5 QPSK 10MHz CH-High 1RB



LTE Band 5 QPSK 10MHz CH-Low 100%RB



LTE Band 5 QPSK 10MHz CH-High 100%RB



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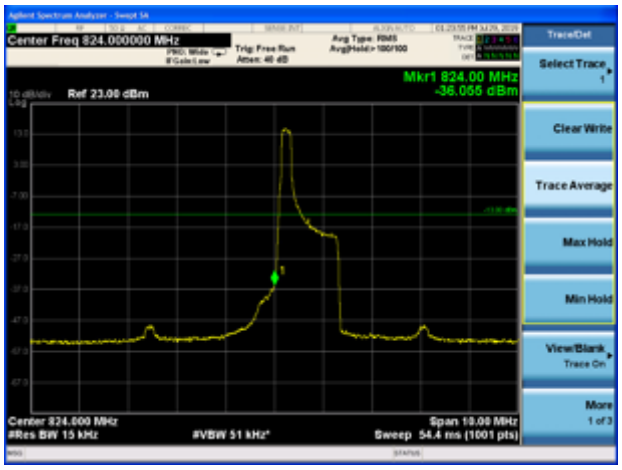
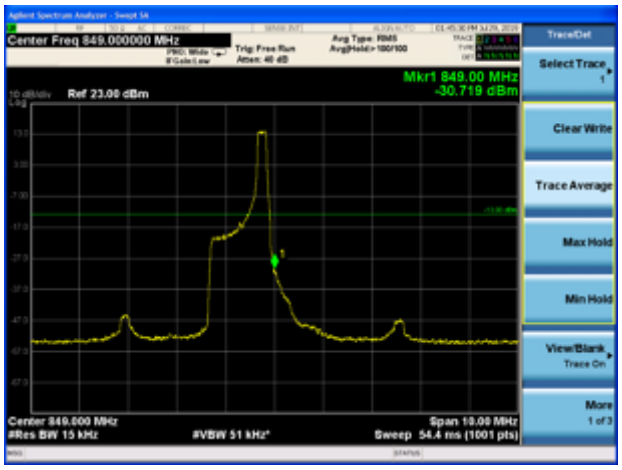
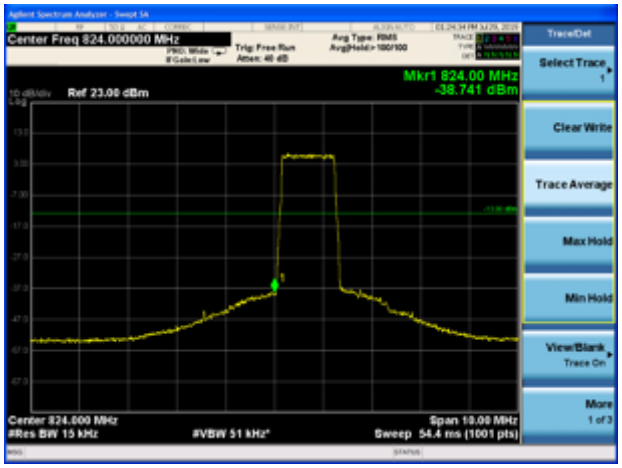
LTE Band 5 16QAM 1.4MHz CH-Low 1RB



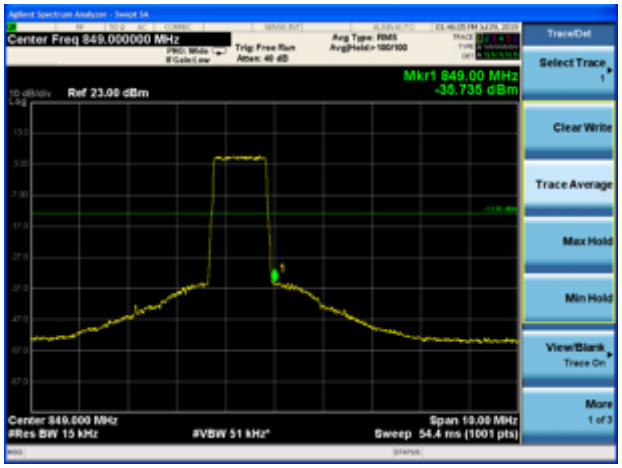
LTE Band 5 16QAM 1.4MHz CH-High 1RB



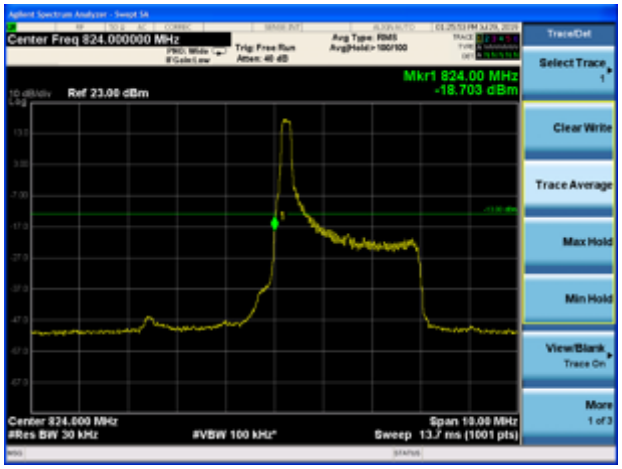
LTE Band 5 16QAM 1.4MHz CH-Low 100%RB



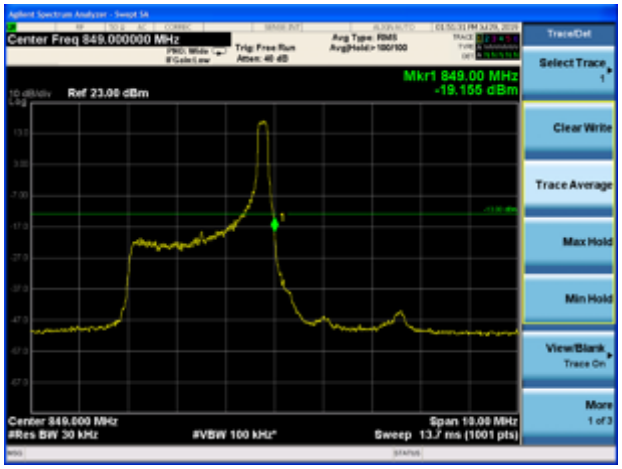
LTE Band 5 16QAM 1.4MHz CH-High 100%RB



LTE Band 5 16QAM 3MHz CH-Low 1RB



LTE Band 5 16QAM 3MHz CH-High 1RB



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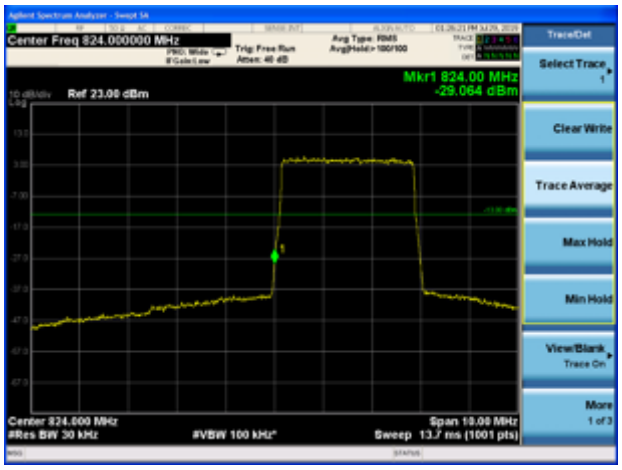
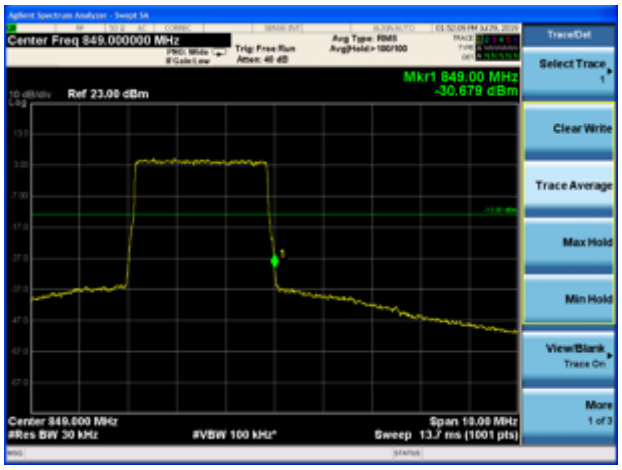
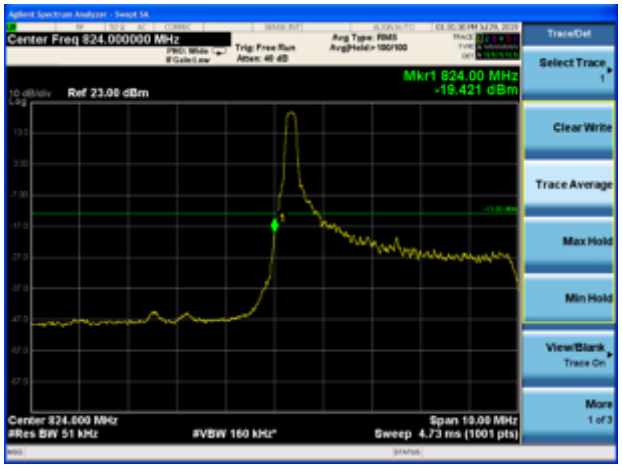
LTE Band 5 16QAM 3MHz CH-Low 100%RB



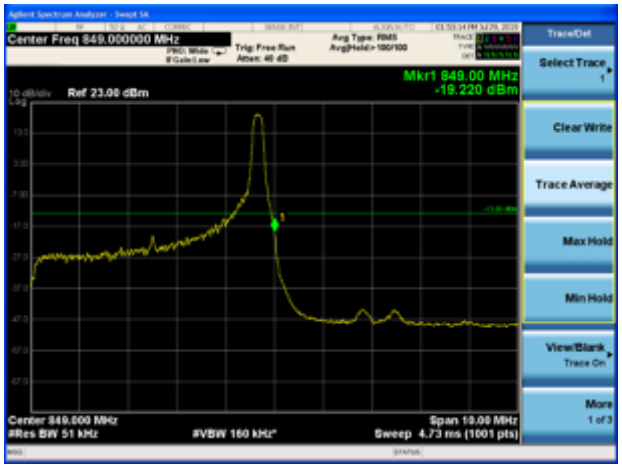
LTE Band 5 16QAM 3MHz CH-High 100%RB



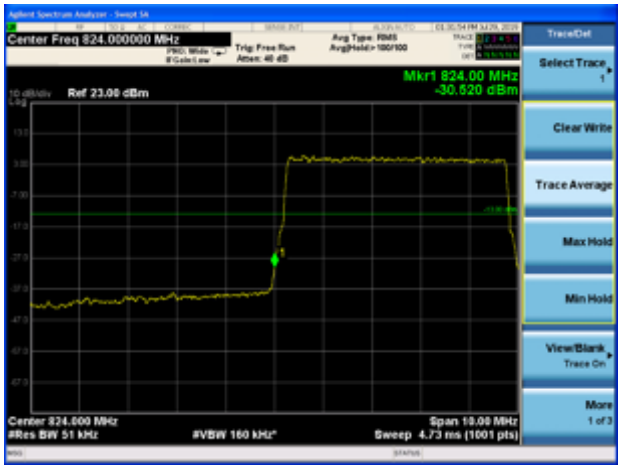
LTE Band 5 16QAM 5MHz CH-Low 1RB



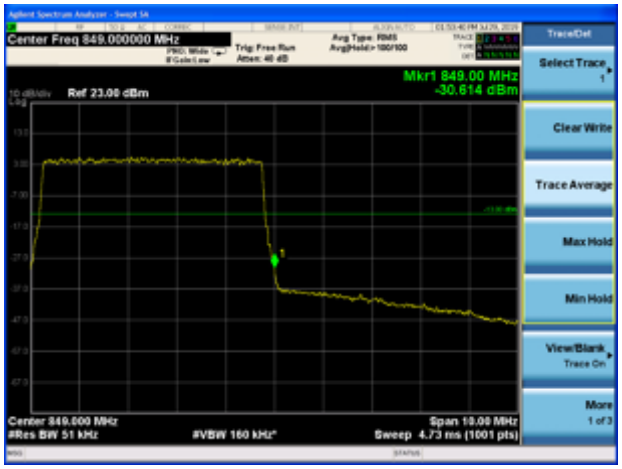
LTE Band 5 16QAM 5MHz CH-High 1RB



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



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



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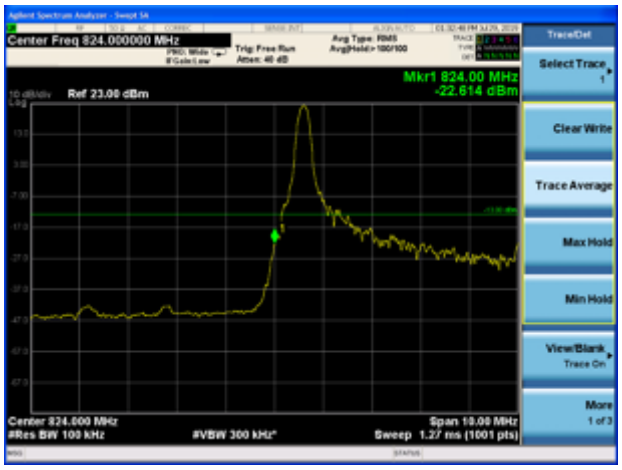
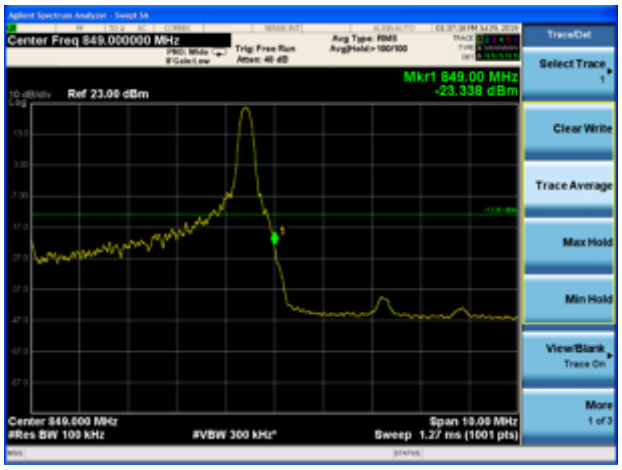
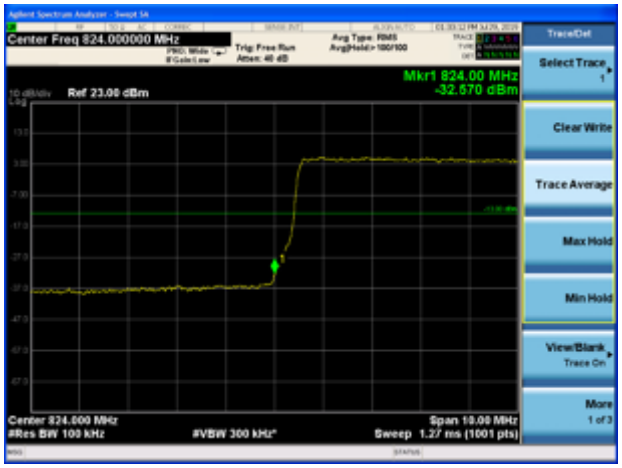
LTE Band 5 16QAM 10MHz CH-Low 1RB



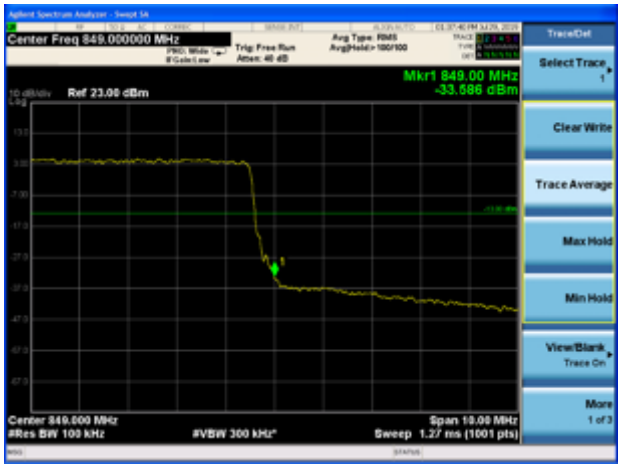
LTE Band 5 16QAM 10MHz CH-High 1RB



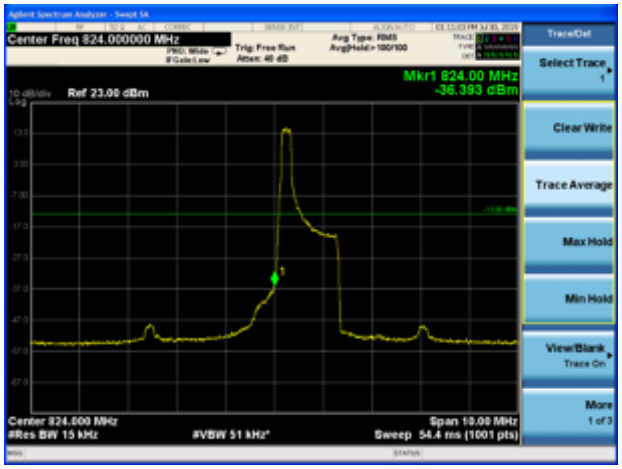
LTE Band 5 16QAM 10MHz CH-Low 100%RB



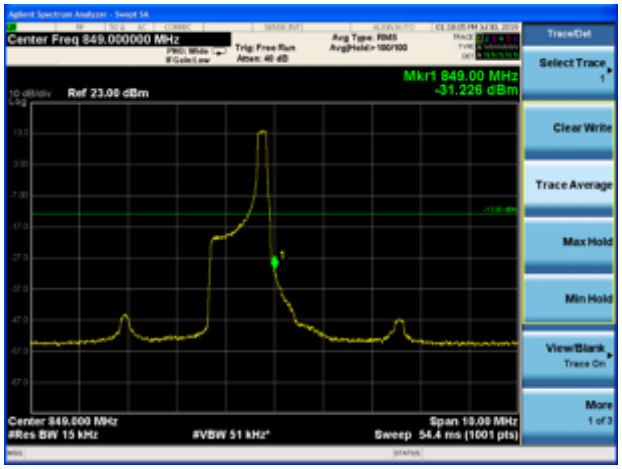
LTE Band 5 16QAM 10MHz CH-High 100%RB



LTE Band 5 64QAM 1.4MHz CH-Low 1RB



LTE Band 5 64QAM 1.4MHz CH-High 1RB



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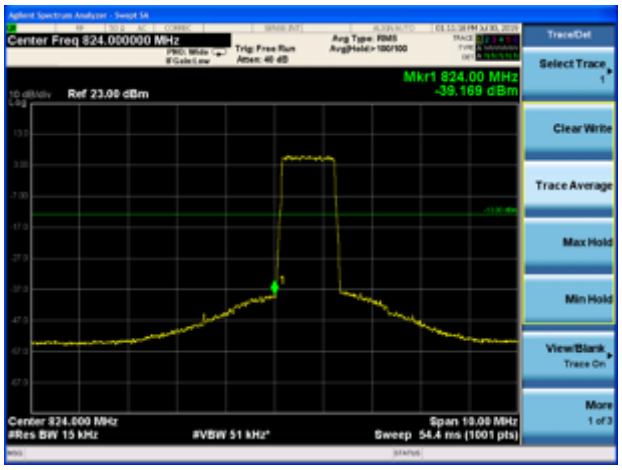
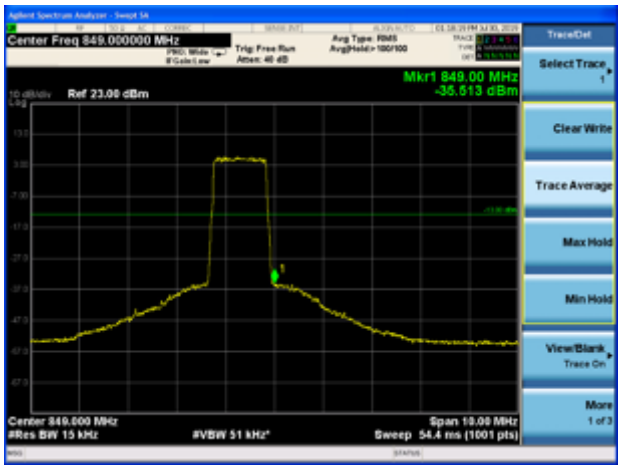
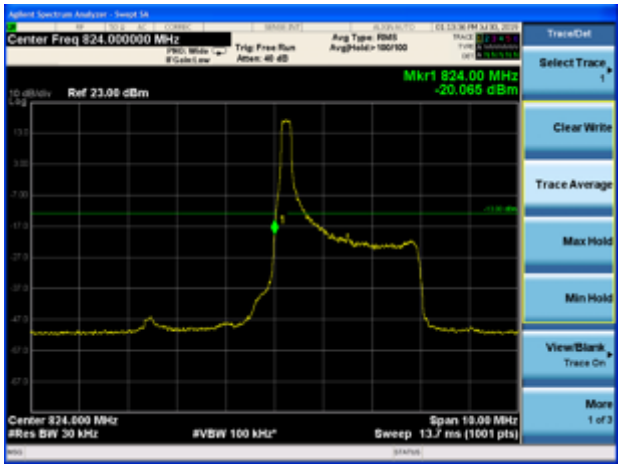
LTE Band 5 64QAM 1.4MHz CH-Low 100%RB



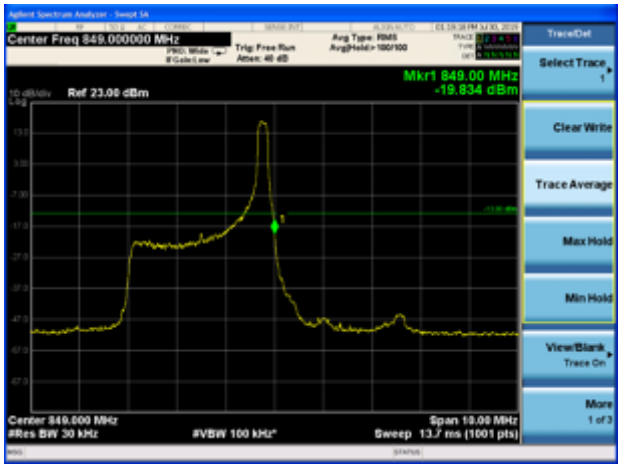
LTE Band 5 64QAM 1.4MHz CH-High 100%RB



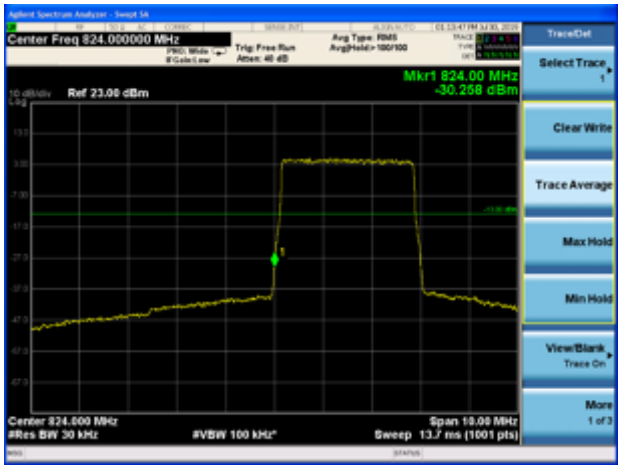
LTE Band 5 64QAM 3MHz CH-Low 1RB



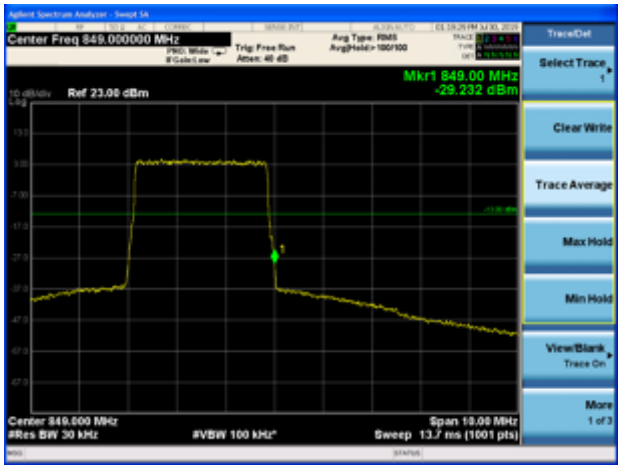
LTE Band 5 64QAM 3MHz CH-High 1RB



LTE Band 5 64QAM 3MHz CH-Low 100%RB



LTE Band 5 64QAM 3MHz CH-High 100%RB



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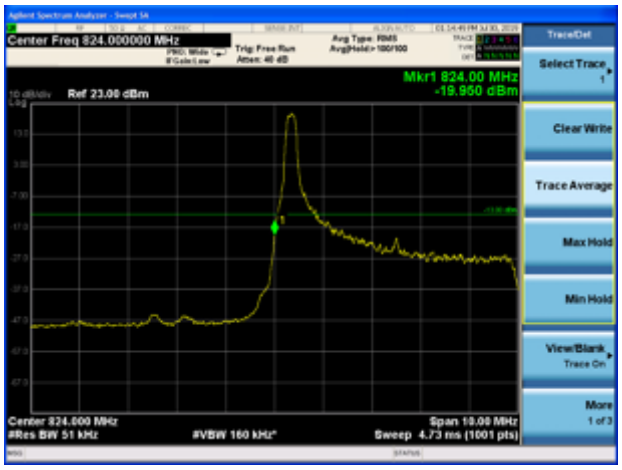
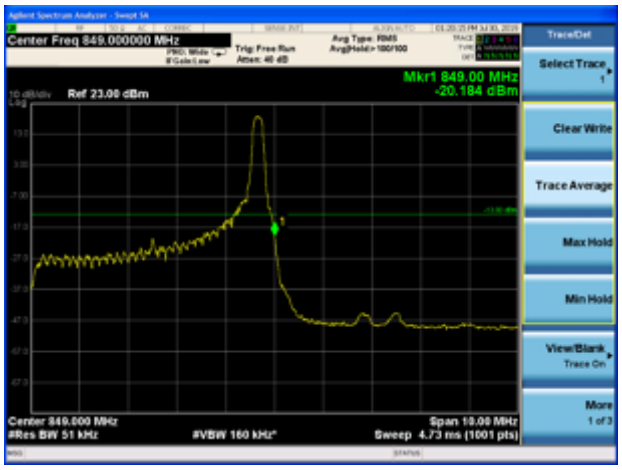
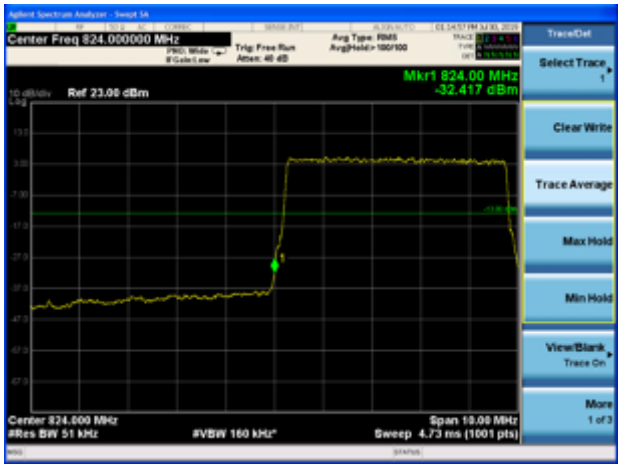
LTE Band 5 64QAM 5MHz CH-Low 1RB



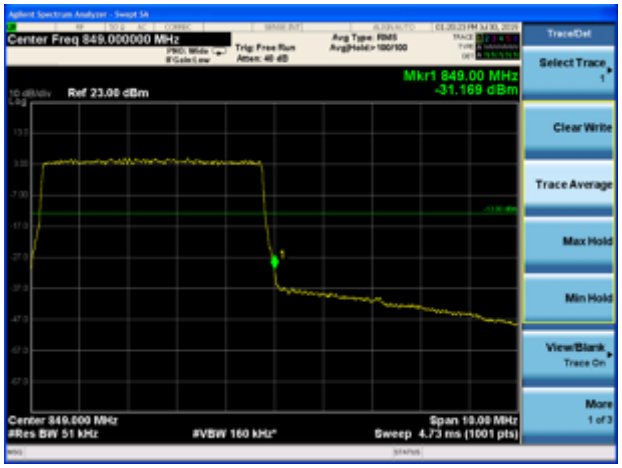
LTE Band 5 64QAM 5MHz CH-High 1RB



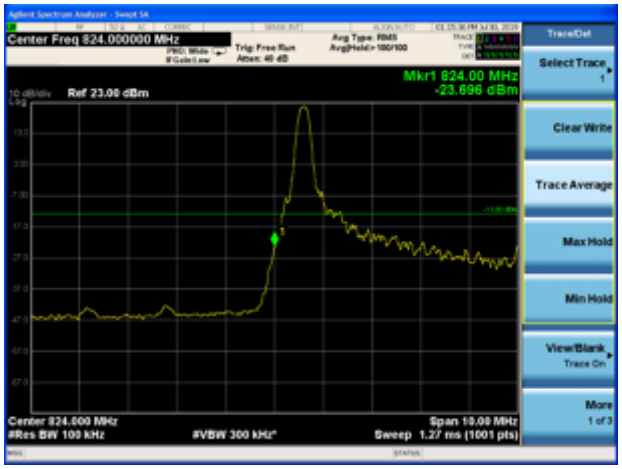
LTE Band 5 64QAM 5MHz CH-Low 100%RB



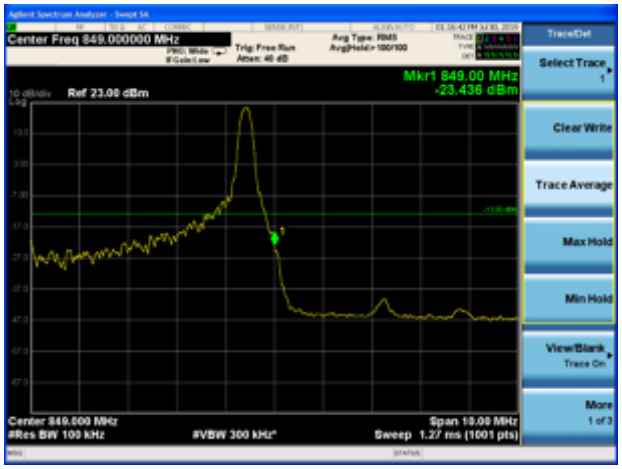
LTE Band 5 64QAM 5MHz CH-High 100%RB



LTE Band 5 64QAM 10MHz CH-Low 1RB



LTE Band 5 64QAM 10MHz CH-High 1RB



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