



RF TEST REPORT

Applicant TP-LINK TECHNOLOGIES CO., LTD.
FCC ID TE7C5MAXV1
Brand TP-LINK
Product NEFFOS C5 MAX FDD-LTE SMART PHONE
Model TP702C
Report No. RXA1602-0019RF03R1
Issue Date May 18, 2016

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 2 (2015)/ FCC CFR47 Part 27C (2015)**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Lingling Kang

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Summary of Measurement Results

WCDMA Band IV/LTE Band 4

Number	Test Case	Clause in FCC rules	Verdict
1	RF power output	2.1046	PASS
2	Effective Isotropic Radiated power	27.50(d)(4)	PASS
3	Occupied Bandwidth	2.1049	PASS
4	Band Edge Compliance	27.53(h)	PASS
5	Peak-to-Average Power Ratio	27.50(a)/KDB971168 D01(5.7)	PASS
6	Frequency Stability	2.1055 / 27.54	PASS
7	Spurious Emissions at Antenna Terminals	2.1051 / 27.53(h)	PASS
8	Radiates Spurious Emission	2.1053 /27.53(h)	PASS
Date of Testing: February 15, 2016~ March 23, 2016			
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.			

LTE Band 7

Number	Test Case	Clause in FCC rules	Verdict
1	RF power output	2.1046	PASS
2	Effective Isotropic Radiated power	27.50(h)(2)	PASS
3	Occupied Bandwidth	2.1049	PASS
4	Band Edge Compliance	27.53(m)	PASS
5	Peak-to-Average Power Ratio	27.50(a)/KDB971168 D01(5.7)	PASS
6	Frequency Stability	2.1055 / 27.54	PASS
7	Spurious Emissions at Antenna Terminals	2.1051 / 27.53(m)	PASS
8	Radiates Spurious Emission	2.1053 /27.53(m)	PASS
Date of Testing: February 15, 2016~ March 23, 2016			
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. This report must not be used by the client to claim product certification, approval, or endorsement by CNAS or any government agencies.

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 (recognition number is 428261)

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.

A2LA (Certificate Number: 3857.01)

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



1.3 Testing Location

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

Client Information

Applicant	TP-LINK TECHNOLOGIES CO., LTD.
Applicant address	Building 24 (floors 1,3,4,5) and 28 (floors1-4) Central Science and Technology Park,Shennan Rd, Nanshan, Shenzhen,China
Manufacturer	TP-LINK TECHNOLOGIES CO., LTD.
Manufacturer address	Building 24 (floors 1,3,4,5) and 28 (floors1-4) Central Science and Technology Park,Shennan Rd, Nanshan, Shenzhen,China

General information

Model:	TP702C		
Product MEID:	SIM 1: 868983020043343 SIM 2: 868983020044358		
Hardware Version:	AL1520_MB_PCB_V2.0		
Software Version:	H10S100D03B20160128R1004		
Power Supply:	Battery/AC adapter		
Antenna Type:	Internal Antenna		
Test Mode(s):	WCDMA Band IV; LTE Band 4; LTE Band 7;		
HSDPA UE Category:	14		
HSUPA UE Category:	6		
DC-HSDPA UE Category:	24		
Maximum E.I.R.P./ E.R.P.	WCDMA Band IV: 21.37dBm LTE Band 4: 22.18dBm LTE Band 7: 22.28dBm		
Rated Power Supply Voltage:	3.8V		
Extreme Voltage:	Minimum: 3.6V Maximum: 4.35V		
Extreme Temperature:	Lowest: -10°C Highest: +55°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
EUT Accessory			
Battery	Manufacturer: DongGuan Amperex Technology Co., Ltd Model: NBL-44A3045 Power Rating: DC 3.8V, 3045mAh, Li-ion		
Note: 1. The information of the EUT is declared by the manufacturer. Please refer to the specifications or user manual for details.			



2.1 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 (2015)

FCC CFR47 Part 27C (2015)

ANSI/TIA-603-D(2010)

KDB 971168 D01 Power Meas License Digital Systems v02r02

3 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, vertical 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 detail in the following table:

Test modes are chosen to be reported as the worst case configuration below for WCDMA Band IV:

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



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

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
Effective Isotropic Radiated power	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
Occupied Bandwidth	LTE 4	O	O	O	O	O	O	O	O	-	-	O	O	O	O
	LTE 7	-	-	O	O	O	O	O	O	-	-	O	O	O	O
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
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
Frequency Stability	LTE 4	O	O	O	O	O	O	O	O	-	-	O	-	O	-
	LTE 7	-	-	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
Radiates Spurious Emission	LTE 4	O	O	O	O	O	O	O	-	O	-	-	O	O	O
	LTE 7	-	-	O	O	O	O	O	-	O	-	-	O	O	O
Note	1. The mark "O" means that this configuration is chosen for testing. 2. The mark "-" means that this configuration is not testing.														

4 Test Information

4.1 RF Power Output

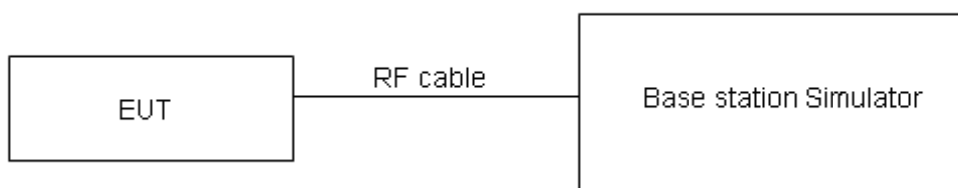
Ambient condition

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		Average Conducted Power(dBm)		
		Channel 1312	Channel 1413	Channel 1513
		1712.4 (MHz)	1732.6 (MHz)	1752.6(MHz)
RMC		22.50	22.45	22.57
HSDPA	Sub - Test 1	22.33	22.28	22.40
	Sub - Test 2	22.41	22.36	22.48
	Sub - Test 3	21.90	21.85	21.97
	Sub - Test 4	21.89	21.84	21.96
HSUPA	Sub - Test 1	22.38	22.33	22.45
	Sub - Test 2	20.37	20.32	20.44
	Sub - Test 3	21.30	21.25	21.53
	Sub - Test 4	20.29	20.24	20.52
	Sub - Test 5	22.44	22.39	22.51
DC-HSDPA	Sub - Test 1	22.43	22.34	22.46
	Sub - Test 2	22.42	22.33	22.45
	Sub - Test 3	21.91	21.82	21.94
	Sub - Test 4	21.90	21.91	21.92
Note: 1) The maximum RF Output Power numbers are marks in bold. 2) The following testing in RMC based on the maximum RF Output Power.				

LTE TDD Band 4				Average 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	23.05	22.94	22.98
		1	2	23.08	22.97	22.99
		1	5	23.07	22.91	23.34
		3	0	22.61	22.47	22.43
		3	2	22.58	22.50	22.43
		3	3	22.57	22.51	22.64
		6	0	22.05	21.91	21.97
	16QAM	1	0	21.99	22.03	22.05
		1	2	21.99	22.16	21.97
		1	5	22.04	22.10	22.32
		3	0	21.96	21.84	21.87
		3	2	21.91	21.79	21.94
		3	3	21.99	21.87	21.90
		6	0	21.95	21.76	21.92



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				19965/1711.5	20175/1732.5	20385/1753.5
3MHz	QPSK	1	0	22.98	22.86	22.91
		1	7	23.00	22.90	22.91
		1	14	22.99	22.84	23.27
		8	0	21.97	21.83	21.79
		8	4	21.94	21.86	21.79
		8	7	21.93	21.87	22.00
		15	0	21.97	21.83	21.90
	16QAM	1	0	21.92	21.95	21.98
		1	7	21.91	22.08	21.89
		1	14	21.96	22.02	22.24
		8	0	21.88	21.76	21.79
		8	4	21.83	21.72	21.86
		8	7	21.91	21.79	21.82
		15	0	21.87	21.68	21.84
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				19975/1712.5	20175/1732.5	20375/1752.5
5MHz	QPSK	1	0	22.99	22.88	22.92
		1	13	23.02	22.91	22.92
		1	24	23.01	22.85	23.28
		12	0	21.99	21.85	21.80
		12	6	21.96	21.88	21.81
		12	13	21.95	21.89	22.02
		25	0	21.98	21.85	21.91
	16QAM	1	0	21.93	21.96	21.99
		1	13	21.92	22.10	21.90
		1	24	21.97	22.03	22.25
		12	0	21.90	21.78	21.80
		12	6	21.85	21.73	21.88
		12	13	21.92	21.81	21.83
		25	0	21.89	21.70	21.85
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				20000/1715	20175/1732.5	20350/1750
10MHz	QPSK	1	0	23.01	22.89	22.94
		1	25	23.04	22.93	22.94
		1	49	23.02	22.87	23.30
		25	0	22.01	21.86	21.82
		25	13	21.98	21.90	21.83
		25	25	21.96	21.91	22.03
		50	0	22.00	21.86	21.93
	16QAM	1	0	21.95	21.98	22.01
		1	25	21.94	22.11	21.92



		1	49	21.99	22.05	22.27
		25	0	21.91	21.79	21.82
		25	13	21.87	21.75	21.89
		25	25	21.94	21.83	21.85
		50	0	21.90	21.71	21.87
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				20025/1717.5	20175/1732.5	20325/1747.5
15MHz	QPSK	1	0	23.02	22.91	22.95
		1	38	23.05	22.94	22.95
		1	74	23.04	22.88	23.31
		36	0	22.02	21.88	21.83
		36	18	21.99	21.91	21.84
		36	39	21.98	21.92	22.05
		75	0	22.01	21.88	21.94
	16QAM	1	0	21.96	21.99	22.02
		1	38	21.95	22.13	21.93
		1	74	22.00	22.06	22.28
		36	0	21.93	21.81	21.83
		36	18	21.88	21.76	21.91
		36	39	21.95	21.84	21.86
		75	0	21.92	21.73	21.88
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				20050/1720	20175/1732.5	20300/1745
20MHz	QPSK	1	0	23.04	22.93	22.97
		1	50	23.07	22.96	22.97
		1	99	23.06	22.90	23.33
		50	0	22.04	21.90	21.85
		50	25	22.01	21.93	21.86
		50	50	22.00	21.94	22.07
		100	0	22.03	21.90	21.96
	16QAM	1	0	21.98	22.01	22.04
		1	50	21.98	22.15	21.95
		1	99	22.02	22.08	22.30
		50	0	21.95	21.83	21.85
		50	25	21.90	21.78	21.93
		50	50	21.97	21.86	21.88
		100	0	21.94	21.75	21.91
Note:						
1) The following testing in worst case based on the maximum RF Output Power.						



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	22.95	22.77	22.56
		1	13	22.98	23.01	22.46
		1	24	22.86	22.80	22.56
		12	0	21.90	21.78	21.35
		12	6	21.79	21.75	21.35
		12	13	21.90	21.83	21.43
		25	0	21.88	21.84	21.38
	16QAM	1	0	21.97	21.87	21.52
		1	13	22.02	22.12	21.40
		1	24	21.78	21.89	21.54
		12	0	21.77	21.63	21.35
		12	6	21.80	21.77	21.25
		12	13	21.83	21.73	21.32
		25	0	21.75	21.79	21.34
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				20800/2505	21100/2535	21400/2565
10MHz	QPSK	1	0	22.97	22.79	22.58
		1	25	23.00	23.02	22.47
		1	49	22.87	22.82	22.57
		25	0	21.92	21.80	21.37
		25	13	21.81	21.77	21.37
		25	25	21.91	21.85	21.44
		50	0	21.89	21.85	21.40
	16QAM	1	0	21.99	21.88	21.54
		1	25	22.04	22.14	21.42
		1	49	21.80	21.91	21.56
		25	0	21.79	21.65	21.37
		25	13	21.81	21.79	21.27
		25	25	21.84	21.75	21.33
		50	0	21.77	21.81	21.36
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				20825/2507.5	21100/2535	21375/2562.5
15MHz	QPSK	1	0	22.99	22.81	22.60
		1	38	23.02	23.05	22.50
		1	74	22.90	22.84	22.60
		36	0	21.94	21.82	21.39
		36	18	21.84	21.79	21.40
		36	39	21.94	21.87	21.47
		75	0	21.92	21.88	21.42
	16QAM	1	0	22.01	21.91	21.56



		1	38	22.07	22.16	21.44
		1	74	21.82	21.93	21.58
		36	0	21.81	21.67	21.39
		36	18	21.84	21.82	21.29
		36	39	21.87	21.77	21.36
		75	0	21.80	21.83	21.38
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				20850/2510	21100/2535	21350/2560
20MHz	QPSK	1	0	23.01	22.83	22.62
		1	50	23.04	23.07	22.52
		1	99	22.92	22.86	22.62
		50	0	21.96	21.84	21.41
		50	25	21.86	21.81	21.42
		50	50	21.96	21.89	21.49
		100	0	21.94	21.90	21.44
	16QAM	1	0	22.03	21.93	21.58
		1	50	22.09	22.18	21.46
		1	99	21.84	21.95	21.60
		50	0	21.83	21.69	21.41
		50	25	21.86	21.84	21.31
		50	50	21.89	21.79	21.38
		100	0	21.82	21.86	21.40

4.2 Effective Isotropic Radiated Power

Ambient condition

Temperature	Relative humidity
21°C ~25°C	40%~60%

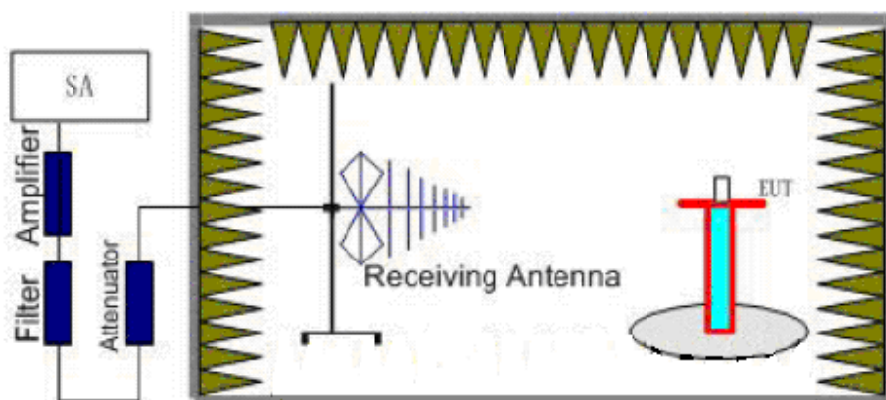
Methods of Measurement

The measurement procedures in TIA- 603-D are used.

1. The EUT was placed on a turntable with 1.5 meter height in a fully anechoic chamber.
 2. The EUT was set at 3 meters from the receiving antenna, which was mounted on the antennatower.
 - 3.UMTS operating modes: Set RBW= 100 KHz, VBW= 300 KHz, RMS detector over frame, and use channel power option with bandwidth=5MHz, per section 4.0 of KDB 971168 D01.
 4. The table was rotated 360 degrees to determine the position of the highest radiated power.
 5. The height of the receiving antenna is adjusted to look for the maximum ERP/EIRP.
 6. Taking the record of maximum ERP/EIRP.
 7. A dipole antenna was substituted in place of the EUT and was driven by a signal generator.
 8. The conducted power at the terminal of the dipole antenna is measured.
 9. Repeat step 3 to step 5 to get the maximum ERP/EIRP of the substitution antenna.
 10. $ERP/EIRP = P_s + E_t - E_s + G_s = P_s + R_t - R_s + G_s$
- P_s (dBm) : Input power to substitution antenna.
 G_s (dBi or dBd) : Substitution antenna Gain.
 $E_t = R_t + AF$
 $E_s = R_s + AF$
 AF (dB/m) : Receive antenna factor
 R_t : The highest received signal in spectrum analyzer for EUT.
 R_s : The highest received signal in spectrum analyzer for substitution antenna.

$$EIRP = E.R.P + 2.15$$

Test Setup



**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" , and Rule Part 27.50(d)(6) specifies that "Peak transmit power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage".

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 (EIRP)	$\leq 1 \text{ W}$ (30 dBm)
Part 27.50(h)(2) Limit (EIRP)	$\leq 2 \text{ W}$ (33 dBm)

Measurement Uncertainty

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



Test Results

WCDMA Band IV							
Frequency (MHz)	Ant Pot (H/V)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	Conclusion
1712.4	H	-37.39	-54.98	0	1.44	19.03	Pass
1732.6	H	-37.07	-55.10	0	1.63	19.66	Pass
1752.6	H	-38.11	-55.31	0	1.78	18.98	Pass
1712.4	V	-36.97	-55.50	0	1.44	19.97	Pass
1732.6	V	-36.13	-55.26	0	1.63	20.76	Pass
1752.6	V	-36.06	-55.65	0	1.78	21.37	Pass

LTE Band 4								
Bandwidth	Frequency (MHz)	Ant Pot (H/V)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	Conclusion
1.4MHz (QPSK)	1710.7	H	-36.55	-54.30	0	1.41	19.16	Pass
	1732.5	H	-35.67	-54.32	0	1.56	20.21	Pass
	1754.3	H	-35.08	-54.10	0	1.67	20.69	Pass
	1710.7	V	-35.28	-54.35	0	1.41	20.48	Pass
	1732.5	V	-34.72	-54.41	0	1.56	21.25	Pass
	1754.3	V	-34.01	-54.52	0	1.67	22.18	Pass
1.4MHz (16QAM)	1710.7	H	-37.26	-54.30	0	1.41	18.45	Pass
	1732.5	H	-36.52	-54.32	0	1.56	19.36	Pass
	1754.3	H	-35.73	-54.10	0	1.67	20.04	Pass
	1710.7	V	-36.16	-54.35	0	1.41	19.60	Pass
	1732.5	V	-35.63	-54.41	0	1.56	20.34	Pass
	1754.3	V	-34.88	-54.52	0	1.67	21.31	Pass
3MHz (QPSK)	1711.5	H	-36.51	-54.33	0	1.38	19.20	Pass
	1732.5	H	-35.75	-54.32	0	1.56	20.13	Pass
	1753.5	H	-35.08	-54.11	0	1.69	20.72	Pass
	1711.5	V	-35.24	-54.35	0	1.38	20.49	Pass
	1732.5	V	-34.75	-54.41	0	1.56	21.22	Pass
	1753.5	V	-34.00	-54.48	0	1.69	22.17	Pass
3MHz (16QAM)	1711.5	H	-37.35	-54.33	0	1.38	18.36	Pass
	1732.5	H	-36.34	-54.32	0	1.56	19.54	Pass
	1753.5	H	-35.74	-54.11	0	1.69	20.06	Pass
	1711.5	V	-36.03	-54.35	0	1.38	19.70	Pass
	1732.5	V	-35.76	-54.41	0	1.56	20.21	Pass
	1753.5	V	-34.86	-54.48	0	1.69	21.31	Pass
5MHz (QPSK)	1712.5	H	-36.63	-54.34	0	1.40	19.11	Pass
	1732.5	H	-35.83	-54.32	0	1.56	20.05	Pass
	1752.5	H	-35.06	-54.13	0	1.70	20.77	Pass
	1712.5	V	-35.24	-54.38	0	1.40	20.54	Pass
	1732.5	V	-34.74	-54.41	0	1.56	21.23	Pass



	1752.5	V	-34.05	-54.47	0	1.70	22.12	Pass
5MHz (16QAM)	1712.5	H	-37.28	-54.34	0	1.40	18.46	Pass
	1732.5	H	-36.70	-54.32	0	1.56	19.18	Pass
	1752.5	H	-35.83	-54.13	0	1.70	19.99	Pass
	1712.5	V	-36.18	-54.38	0	1.40	19.60	Pass
	1732.5	V	-35.62	-54.41	0	1.56	20.35	Pass
	1752.5	V	-35.07	-54.47	0	1.70	21.10	Pass
10MHz (QPSK)	1715	H	-36.46	-54.33	0	1.45	19.32	Pass
	1732.5	H	-35.71	-54.32	0	1.56	20.17	Pass
	1750	H	-34.97	-54.12	0	1.65	20.80	Pass
	1715	V	-35.16	-54.32	0	1.45	20.61	Pass
	1732.5	V	-34.69	-54.41	0	1.56	21.28	Pass
	1750	V	-34.03	-54.52	0	1.65	22.14	Pass
10MHz (16QAM)	1715	H	-37.44	-54.33	0	1.45	18.34	Pass
	1732.5	H	-36.73	-54.32	0	1.56	19.15	Pass
	1750	H	-36.08	-54.12	0	1.65	19.69	Pass
	1715	V	-36.20	-54.32	0	1.45	19.57	Pass
	1732.5	V	-35.67	-54.41	0	1.56	20.30	Pass
	1750	V	-34.94	-54.52	0	1.65	21.23	Pass
15MHz (QPSK)	1717.5	H	-36.06	-54.35	0	1.42	19.71	Pass
	1732.5	H	-35.84	-54.32	0	1.56	20.04	Pass
	1747.5	H	-35.60	-54.17	0	1.68	20.25	Pass
	1717.5	V	-35.17	-54.39	0	1.42	20.64	Pass
	1732.5	V	-34.82	-54.41	0	1.56	21.15	Pass
	1747.5	V	-34.38	-54.51	0	1.68	21.81	Pass
15MHz (16QAM)	1717.5	H	-37.00	-54.35	0	1.42	18.77	Pass
	1732.5	H	-36.87	-54.32	0	1.56	19.01	Pass
	1747.5	H	-36.68	-54.17	0	1.68	19.17	Pass
	1717.5	V	-36.27	-54.39	0	1.42	19.54	Pass
	1732.5	V	-35.91	-54.41	0	1.56	20.06	Pass
	1747.5	V	-35.50	-54.51	0	1.68	20.69	Pass
20MHz (QPSK)	1720	H	-35.09	-54.37	0	1.43	19.50	Pass
	1732.5	H	-35.71	-54.32	0	1.56	20.17	Pass
	1745	H	-35.18	-54.23	0	1.66	20.71	Pass
	1720	V	-35.14	-54.44	0	1.43	20.73	Pass
	1732.5	V	-34.80	-54.41	0	1.56	21.17	Pass
	1745	V	-34.20	-54.59	0	1.66	22.05	Pass
20MHz (16QAM)	1720	H	-37.31	-54.37	0	1.43	18.49	Pass
	1732.5	H	-36.79	-54.32	0	1.56	19.09	Pass
	1745	H	-36.32	-54.23	0	1.66	19.57	Pass
	1720	V	-36.12	-54.44	0	1.43	19.75	Pass
	1732.5	V	-35.74	-54.41	0	1.56	20.23	Pass
	1745	V	-35.19	-54.59	0	1.66	21.06	Pass



LTE Band 7								
Bandwidth	Frequency (MHz)	Ant Pot (H/V)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	Conclusion
5MHz (QPSK)	2502.5	H	-42.32	-61.01	0	1.81	20.50	Pass
	2535	H	-41.54	-60.98	0	1.80	21.24	Pass
	2567.5	H	-42.22	-61.70	0	1.82	21.30	Pass
	2502.5	V	-43.52	-60.77	0	1.81	19.06	Pass
	2535	V	-44.65	-61.01	0	1.80	18.16	Pass
	2567.5	V	-44.80	-61.58	0	1.82	18.60	Pass
5MHz (16QAM)	2502.5	H	-43.21	-61.01	0	1.81	19.61	Pass
	2535	H	-42.55	-60.98	0	1.80	20.23	Pass
	2567.5	H	-43.22	-61.70	0	1.82	20.30	Pass
	2502.5	V	-44.57	-60.77	0	1.81	18.01	Pass
	2535	V	-45.59	-61.01	0	1.80	17.22	Pass
	2567.5	V	-45.76	-61.58	0	1.82	17.64	Pass
10MHz (QPSK)	2505	H	-43.82	-60.98	0	1.82	18.98	Pass
	2535	H	-42.16	-60.98	0	1.80	20.62	Pass
	2565	H	-42.14	-61.63	0	1.81	21.30	Pass
	2505	V	-44.33	-60.87	0	1.82	18.36	Pass
	2535	V	-45.30	-61.01	0	1.80	17.51	Pass
	2565	V	-44.90	-61.74	0	1.81	18.65	Pass
10MHz (16QAM)	2505	H	-44.84	-60.98	0	1.82	17.96	Pass
	2535	H	-43.25	-60.98	0	1.80	19.53	Pass
	2565	H	-43.25	-61.63	0	1.81	20.19	Pass
	2505	V	-45.31	-60.87	0	1.82	17.38	Pass
	2535	V	-46.27	-61.01	0	1.80	16.54	Pass
	2565	V	-45.89	-61.74	0	1.81	17.66	Pass
15MHz (QPSK)	2507.5	H	-41.90	-61.02	0	1.82	20.94	Pass
	2535	H	-40.83	-60.98	0	1.80	21.95	Pass
	2562.5	H	-41.06	-61.53	0	1.81	22.28	Pass
	2507.5	V	-43.84	-60.85	0	1.82	18.83	Pass
	2535	V	-44.15	-61.01	0	1.80	18.66	Pass
	2562.5	V	-44.59	-61.60	0	1.81	18.82	Pass
15MHz (16QAM)	2507.5	H	-42.81	-61.02	0	1.82	20.03	Pass
	2535	H	-41.85	-60.98	0	1.80	20.93	Pass
	2562.5	H	-42.17	-61.53	0	1.81	21.17	Pass
	2507.5	V	-44.92	-60.85	0	1.82	17.75	Pass
	2535	V	-45.14	-61.01	0	1.80	17.67	Pass
	2562.5	V	-45.59	-61.60	0	1.81	17.82	Pass
20MHz	2510	H	-41.18	-61.06	0	1.81	21.69	Pass



(QPSK)	2535	H	-41.85	-60.98	0	1.80	20.93	Pass
	2560	H	-41.50	-61.47	0	1.81	21.78	Pass
	2510	V	-44.38	-61.00	0	1.81	18.43	Pass
	2535	V	-43.97	-61.01	0	1.80	18.84	Pass
	2560	V	-44.50	-61.49	0	1.81	18.80	Pass
20MHz (16QAM)	2510	H	-42.13	-61.06	0	1.81	20.74	Pass
	2535	H	-42.87	-60.98	0	1.80	19.91	Pass
	2560	H	-42.60	-61.47	0	1.81	20.68	Pass
	2510	V	-45.47	-61.00	0	1.81	17.34	Pass
	2535	V	-44.96	-61.01	0	1.80	17.85	Pass
	2560	V	-45.39	-61.49	0	1.81	17.91	Pass

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

4.3 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 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),

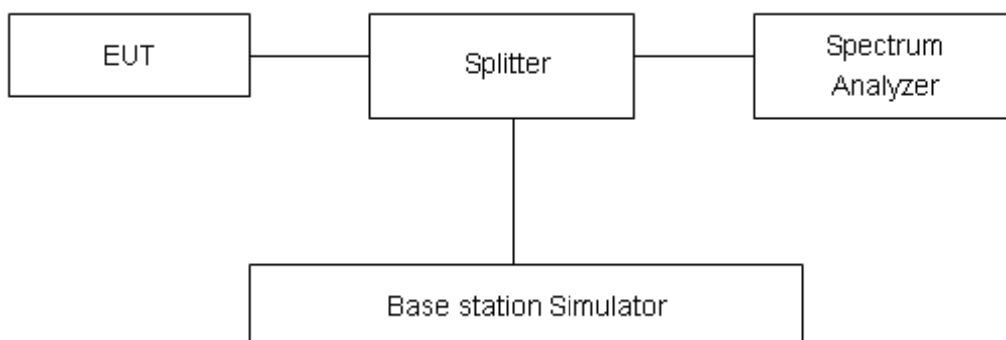
RBW is set to 100 kHz, VBW is set to 300 kHz for LTE Band 4/7 (5MHz),

RBW is set to 300 kHz, VBW is set to 1MHz for LTE Band 4/7 (10MHz),

RBW is set to 300 kHz, VBW is set to 1MHz for LTE Band 4/7 (15MHz/20MHz).

99% power and -26dBc s are recorded. Spectrum analyzer plots are included on the following pages.

Test Setup



Limits

No specific 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 $k = 2$, $U=624\text{Hz}$.



Test Result

Mode	Channel	Frequency (MHz)	99% Power Bandwidth(kHz)	-26dBc Bandwidth(kHz)
WCDMA Band IV (RMC)	1312	1712.4	4.2035	4.829
	1413	1732.6	4.2020	4.836
	1513	1752.6	4.1939	4.839

LTE Band 4						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(kHz)	-26dBc Bandwidth(kHz)
100%	QPSK	1.4	19957	1710.7	1.1175	1.298
			20175	1732.5	1.1279	1.307
			20393	1754.3	1.1217	1.317
		3	19965	1711.5	2.7400	3.020
			20175	1732.5	2.7387	3.043
			20385	1753.5	2.7337	3.019
		5	19975	1712.5	4.5196	5.042
			20175	1732.5	4.5323	5.066
			20375	1752.5	4.5150	5.050
		10	20000	1715	9.0311	10.08
			20175	1732.5	9.0709	10.07
			20350	1750	9.0625	10.13
		15	20025	1717.5	13.473	14.74
			20175	1732.5	13.516	14.90
			20325	1747.5	13.506	14.93
		20	20050	1720	17.932	19.64
			20175	1732.5	17.916	19.35
			20300	1745	17.925	19.30
	16QAM	1.4	19957	1710.7	1.1250	1.309
			20175	1732.5	1.1206	1.313
			20393	1754.3	1.1153	1.301
		3	19965	1711.5	2.7300	3.038
			20175	1732.5	2.7432	3.043
			20385	1753.5	2.7193	3.033
		5	19975	1712.5	4.5294	5.061
			20175	1732.5	4.5197	5.035
			20375	1752.5	4.5268	5.104
		10	20000	1715	9.0478	10.05
			20175	1732.5	9.0719	10.15

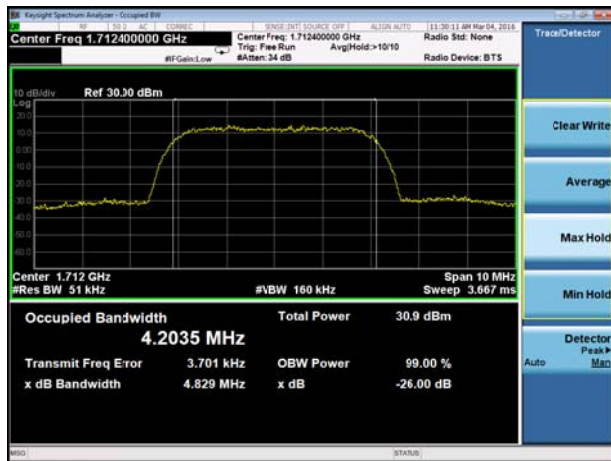


			20350	1750	9.0575	10.07
		15	20025	1717.5	13.503	14.83
			20175	1732.5	13.517	14.82
			20325	1747.5	13.545	14.85
		20	20050	1720	17.925	19.35
			20175	1732.5	17.966	19.42
			20300	1745	17.966	19.27

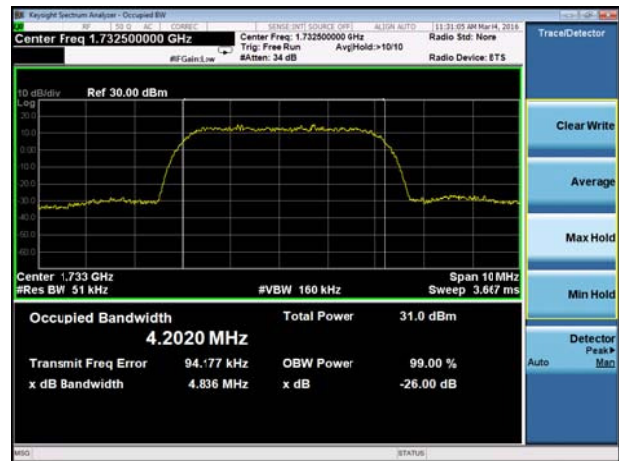
LTE Band 7						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(kHz)	-26dBc Bandwidth(kHz)
100 %	QPSK	5	20775	2502.5	4.5156	6.620
			21100	2535	4.5433	5.126
			21425	2567.5	4.5403	4.995
		10	20800	2505	9.0728	10.16
			21100	2535	9.1270	10.30
			21400	2565	9.0335	10.12
		15	20825	2507.5	13.476	14.60
			21100	2535	13.631	18.26
			21375	2562.5	13.450	14.85
		20	20850	2510	17.876	19.42
			21100	2535	17.980	19.27
			21350	2560	17.883	19.36
	16QAM	5	20775	2502.5	4.5379	5.050
			21100	2535	4.5355	5.102
			21425	2567.5	4.5154	5.061
		10	20800	2505	9.0728	10.04
			21100	2535	9.0680	10.94
			21400	2565	9.0422	10.00
		15	20825	2507.5	13.523	14.82
			21100	2535	13.609	19.48
			21375	2562.5	13.472	14.83
		20	20850	2510	17.914	19.47
			21100	2535	17.964	19.33
			21350	2560	17.883	19.35



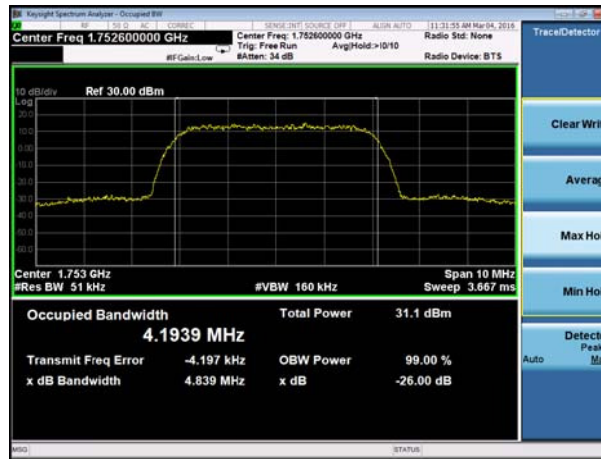
WCDMA Band IV CH1312



WCDMA Band IV CH1413

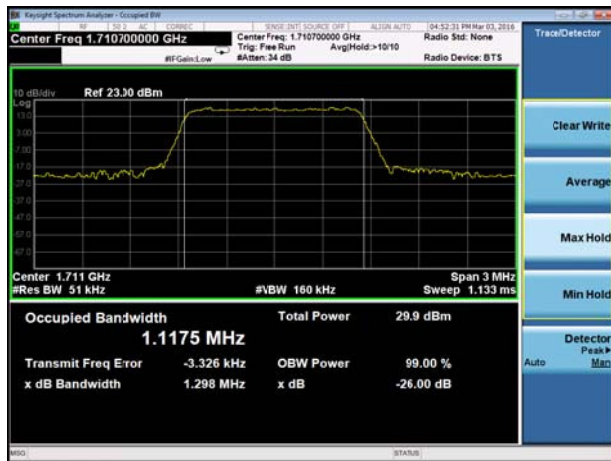


WCDMA Band IV CH1513

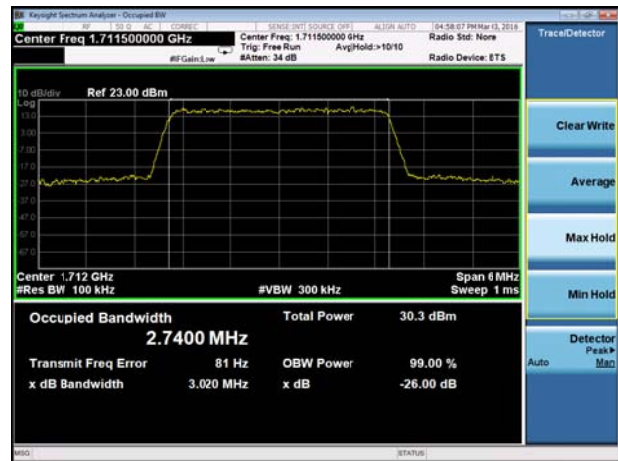




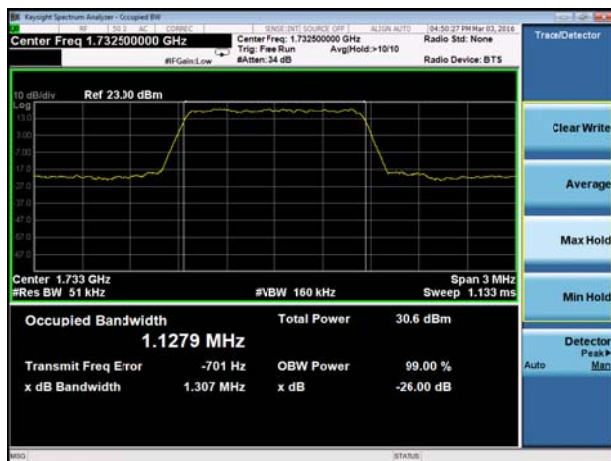
LTE Band 4 QPSK 1.4MHz CH-Low



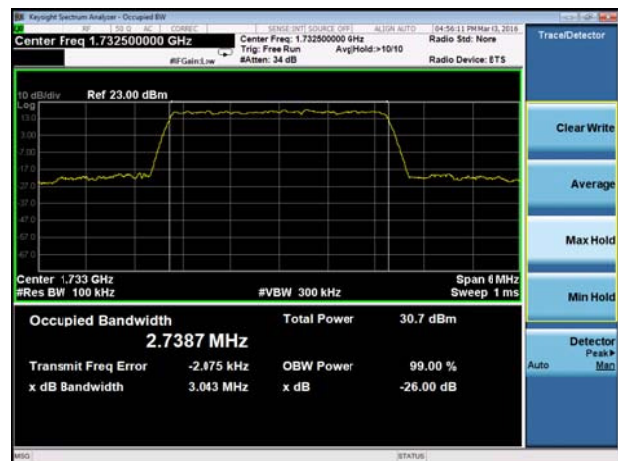
LTE Band 4 QPSK 3MHz CH-Low



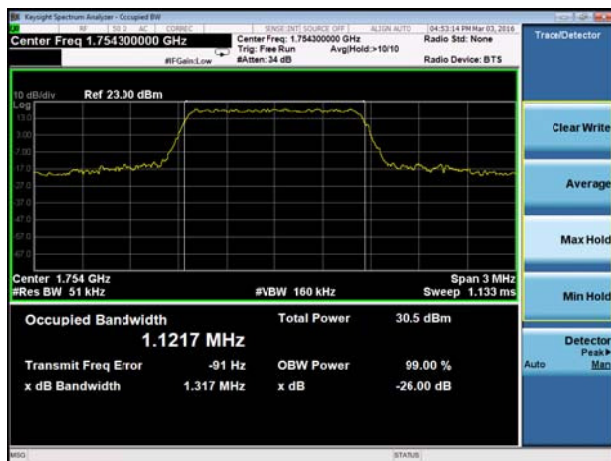
LTE Band 4 QPSK 1.4MHz CH-Middle



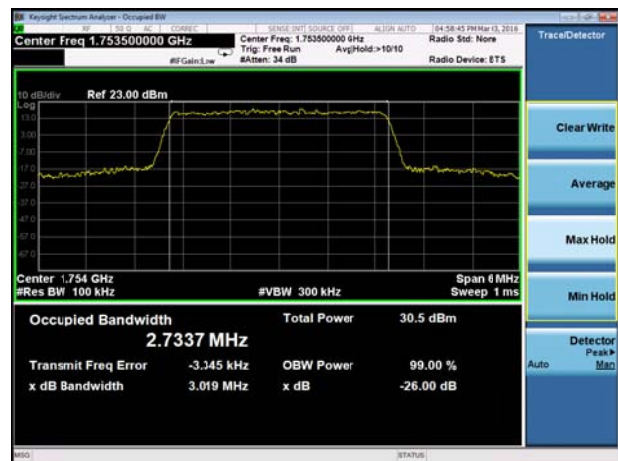
LTE Band 4 QPSK 3MHz CH-Middle



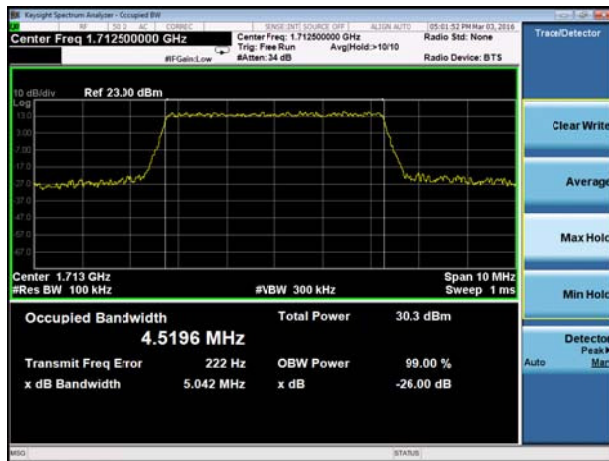
LTE Band 4 QPSK 1.4MHz CH-High



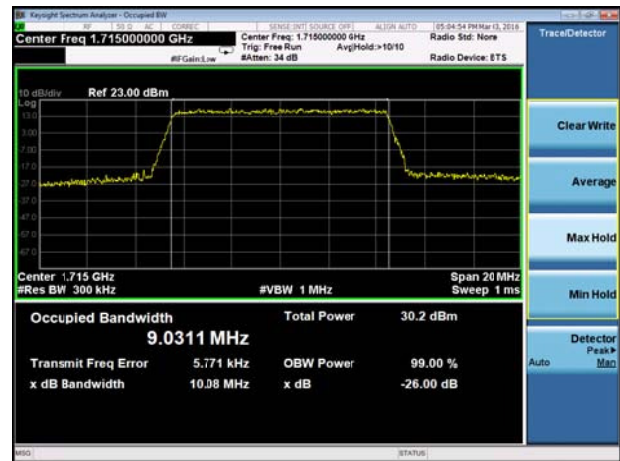
LTE Band 4 QPSK 3MHz CH-High



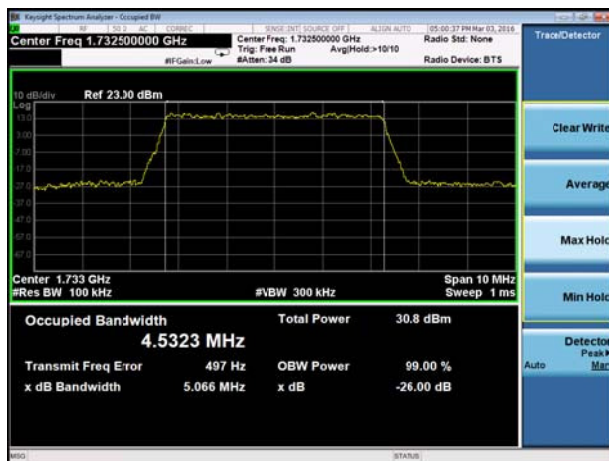
LTE Band 4 QPSK 5MHz CH-Low



LTE Band 4 QPSK 10MHz CH-Low



LTE Band 4 QPSK 5MHz CH-Middle



LTE Band 4 QPSK 10MHz CH-Middle



LTE Band 4 QPSK 5MHz CH-High

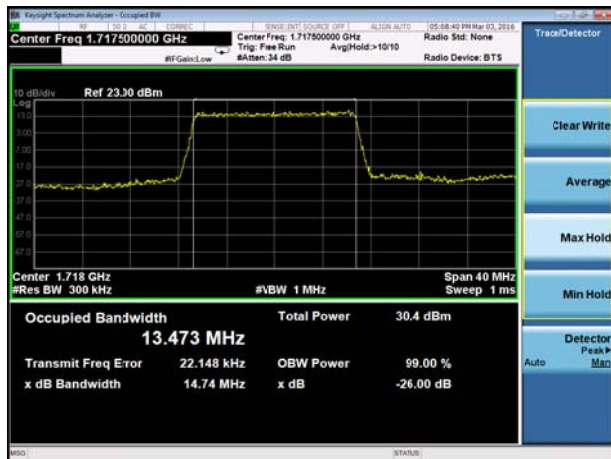


LTE Band 4 QPSK 10MHz CH-High

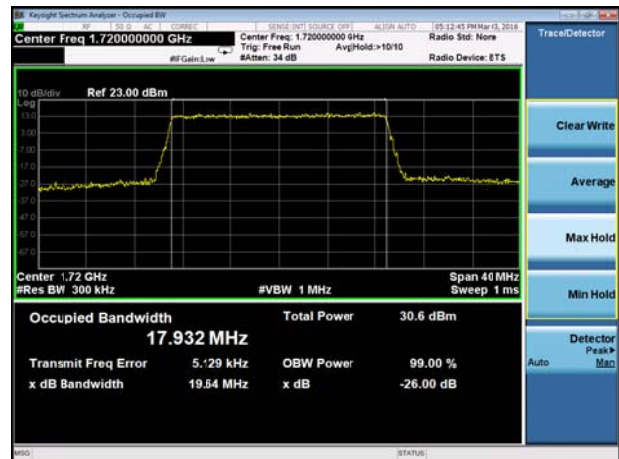




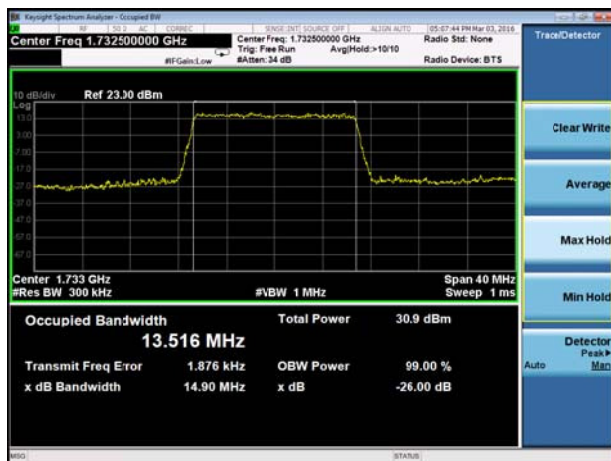
LTE Band 4 QPSK 15MHz CH-Low



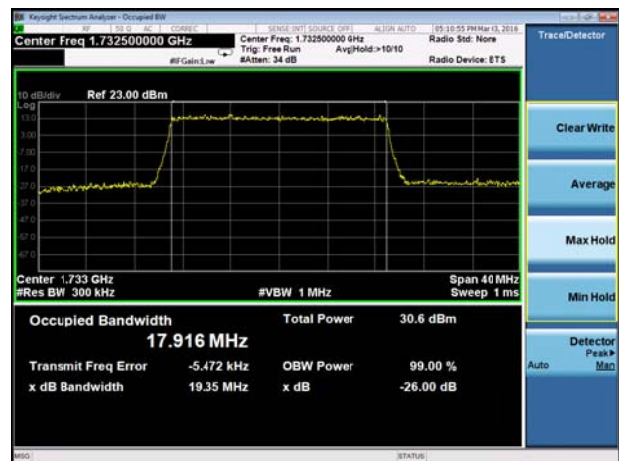
LTE Band 4 QPSK 20MHz CH-Low



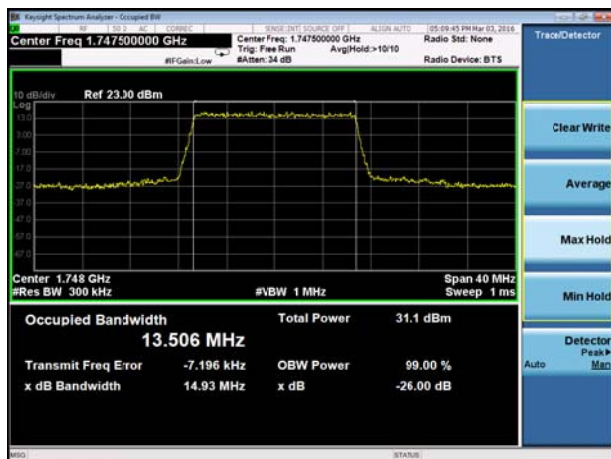
LTE Band 4 QPSK 15MHz CH-Middle



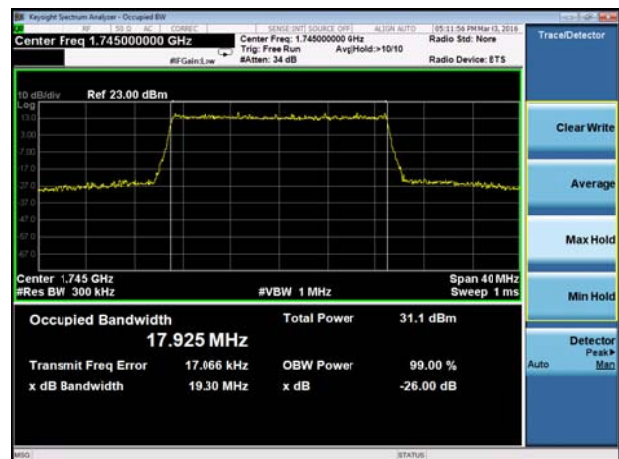
LTE Band 4 QPSK 20MHz CH-Middle



LTE Band 4 QPSK 15MHz CH-High

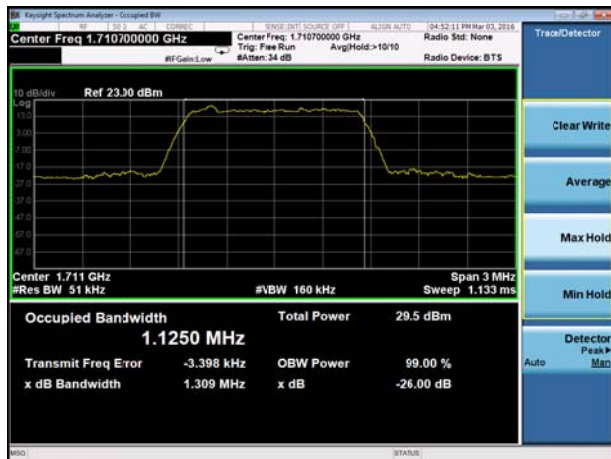


LTE Band 4 QPSK 20MHz CH-High

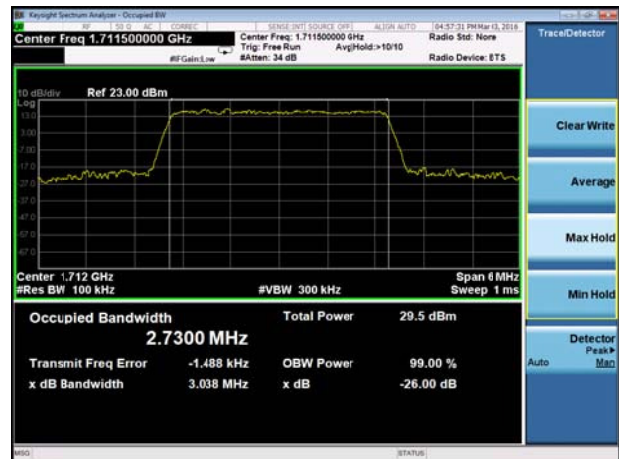




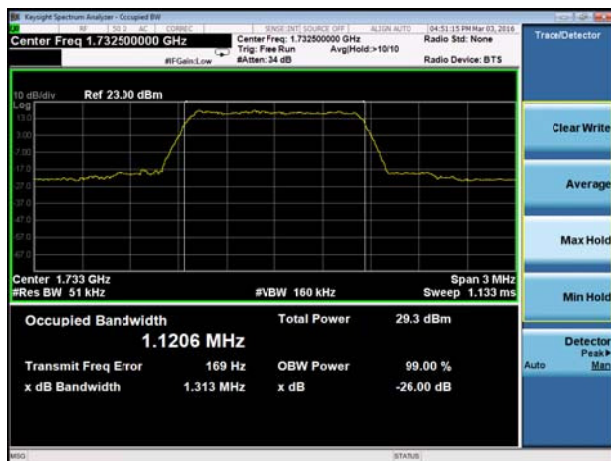
LTE Band 4 16QAM 1.4MHz CH-Low



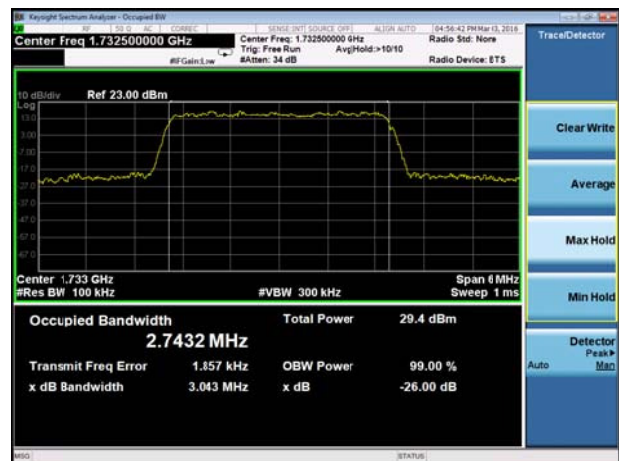
LTE Band 4 16QAM 3MHz CH-Low



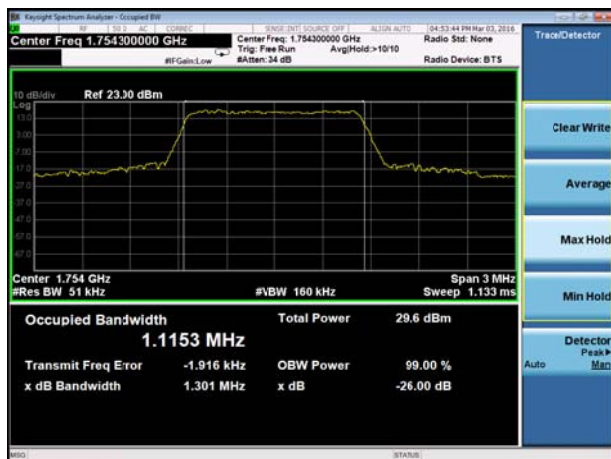
LTE Band 4 16QAM 1.4MHz CH-Middle



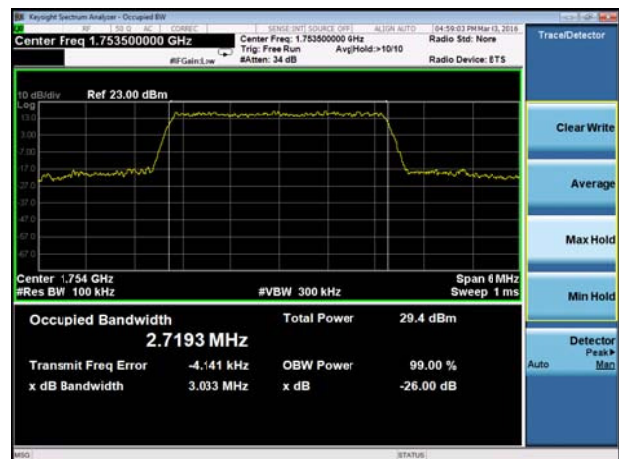
LTE Band 4 16QAM 3MHz CH-Middle



LTE Band 4 16QAM 1.4MHz CH-High

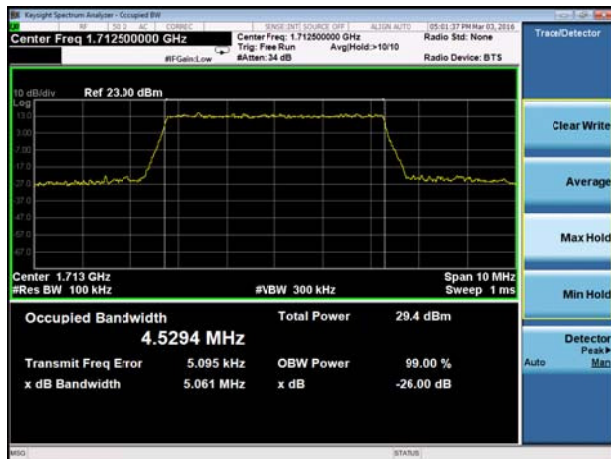


LTE Band 4 16QAM 3MHz CH-High

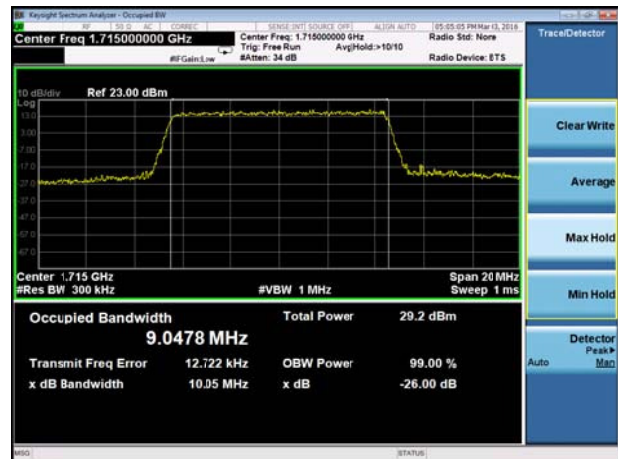




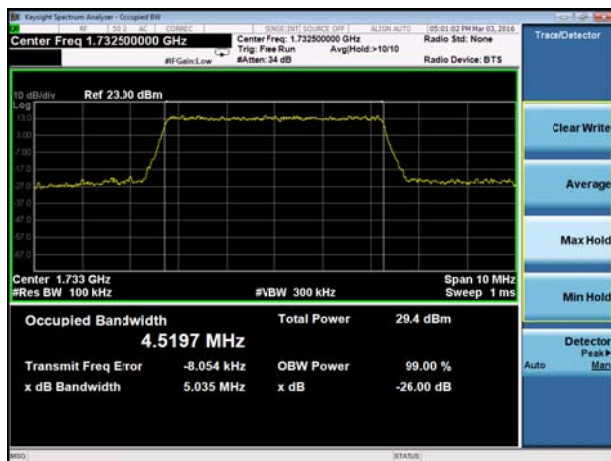
LTE Band 4 16QAM 5MHz CH-Low



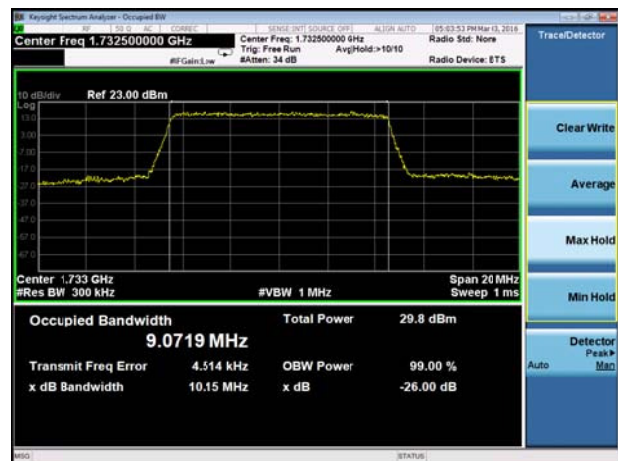
LTE Band 4 16QAM 10MHz CH-Low



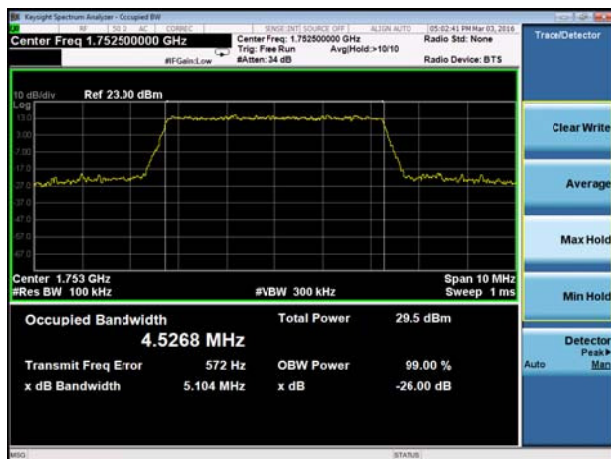
LTE Band 4 16QAM 5MHz CH-Middle



LTE Band 4 16QAM 10MHz CH-Middle



LTE Band 4 16QAM 5MHz CH-High

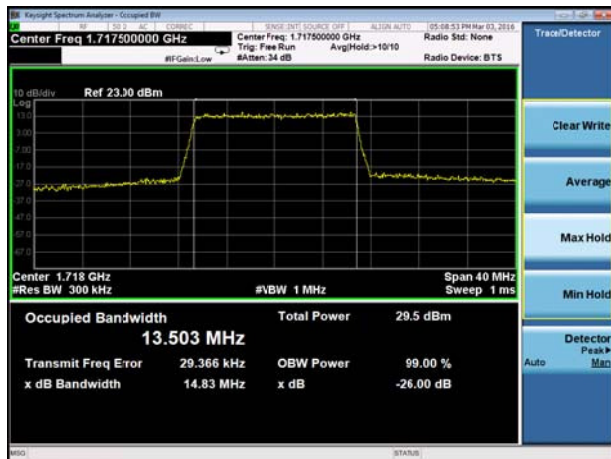


LTE Band 4 16QAM 10MHz CH-High

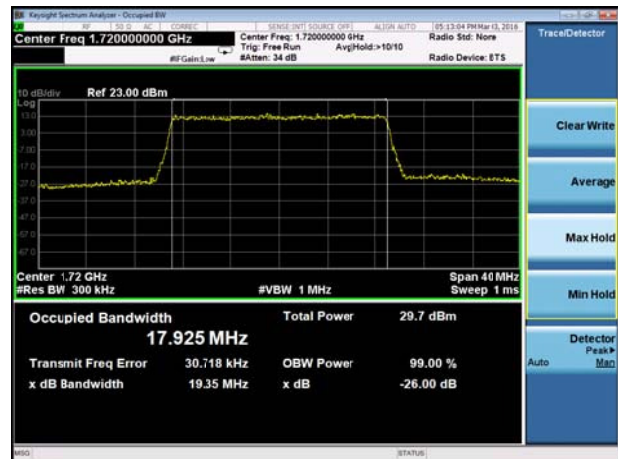




LTE Band 4 16QAM 15MHz CH-Low



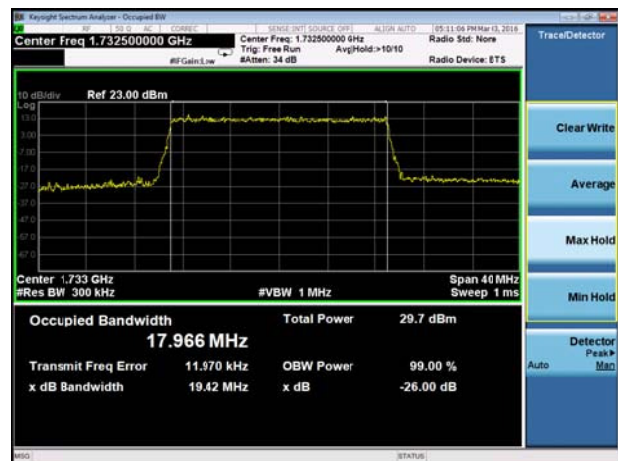
LTE Band 4 16QAM 20MHz CH-Low



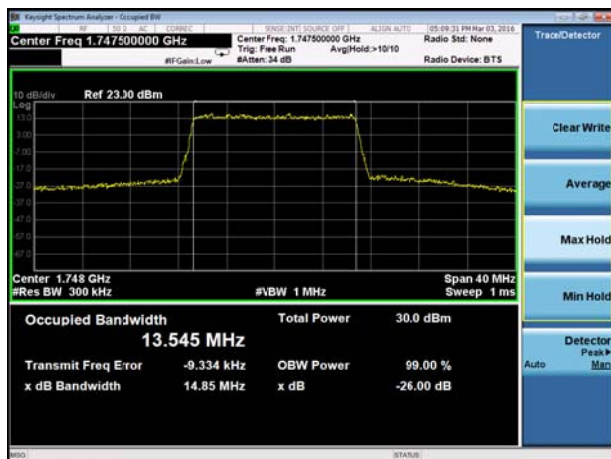
LTE Band 4 16QAM 15MHz CH-Middle



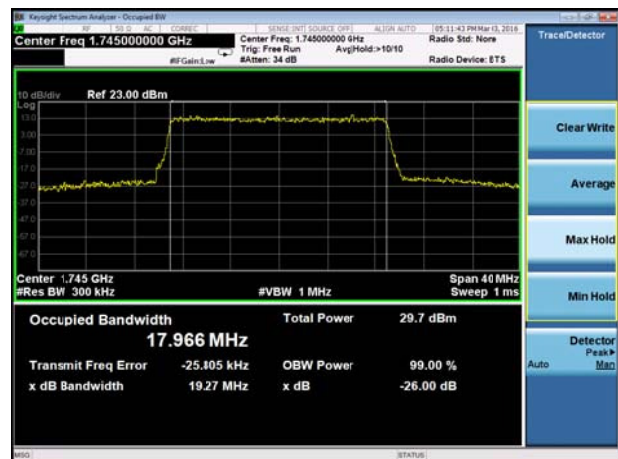
LTE Band 4 16QAM 20MHz CH-Middle



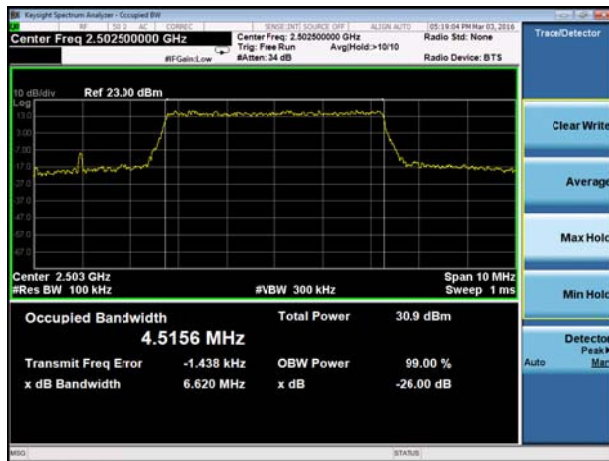
LTE Band 4 16QAM 15MHz CH-High



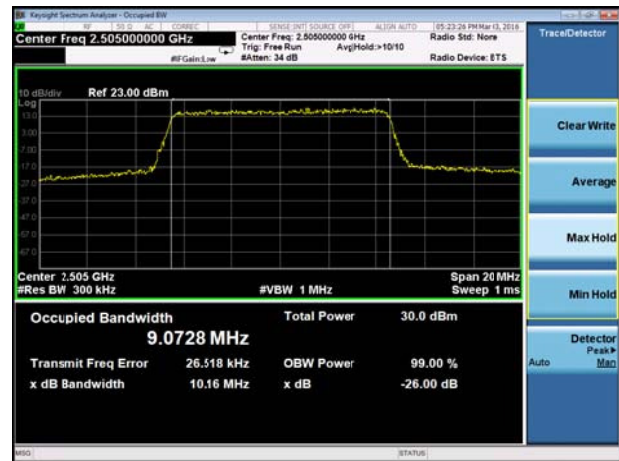
LTE Band 4 16QAM 20MHz CH-High



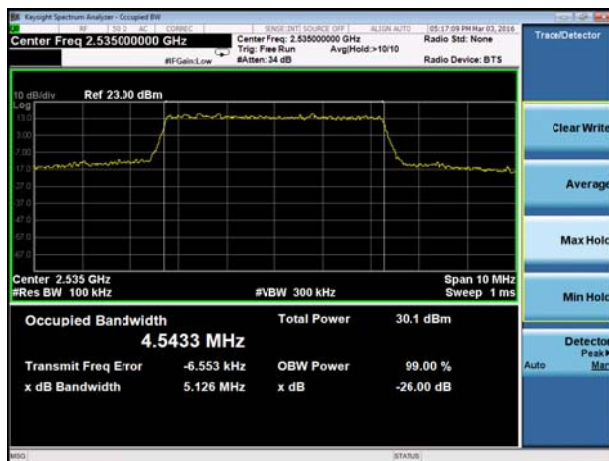
LTE Band 7QPSK 5MHz CH-Low



LTE Band 7QPSK 10MHz CH-Low



LTE Band 7QPSK 5MHz CH-Middle



LTE Band 7QPSK 10MHz CH-Middle



LTE Band 7QPSK 5MHz CH-High

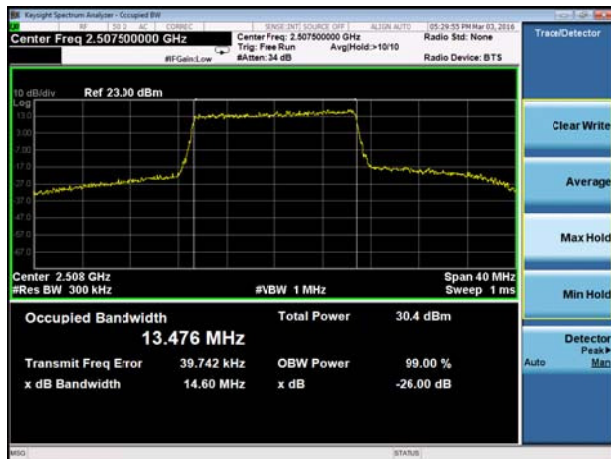


LTE Band 7QPSK 10MHz CH-High

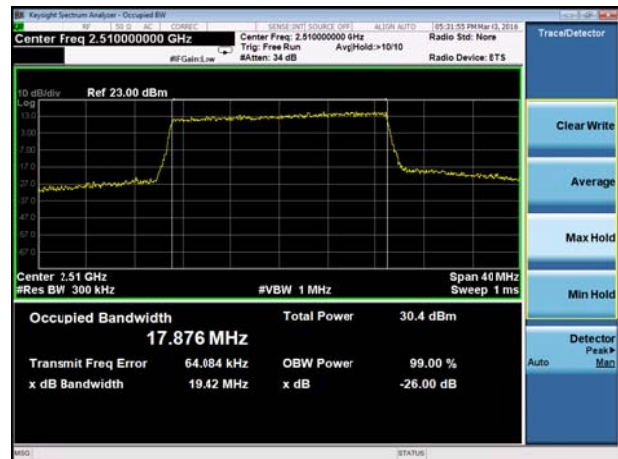




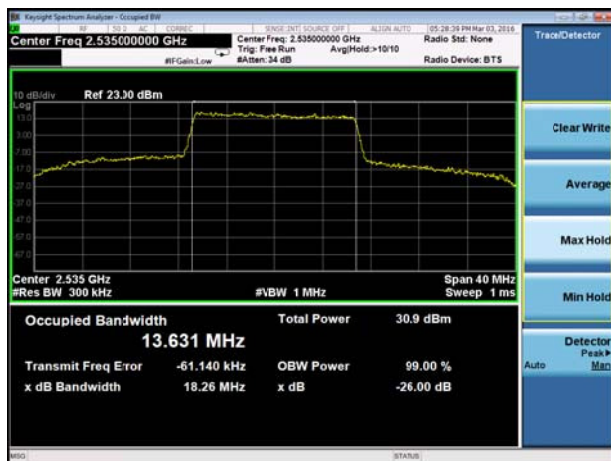
LTE Band 7QPSK 15MHz CH-Low



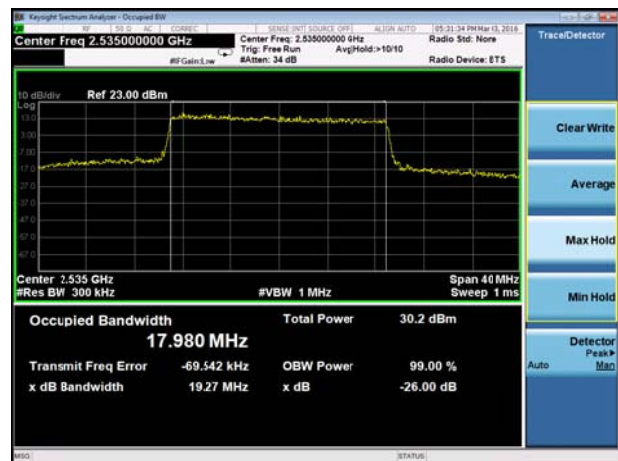
LTE Band 7QPSK 20MHz CH-Low



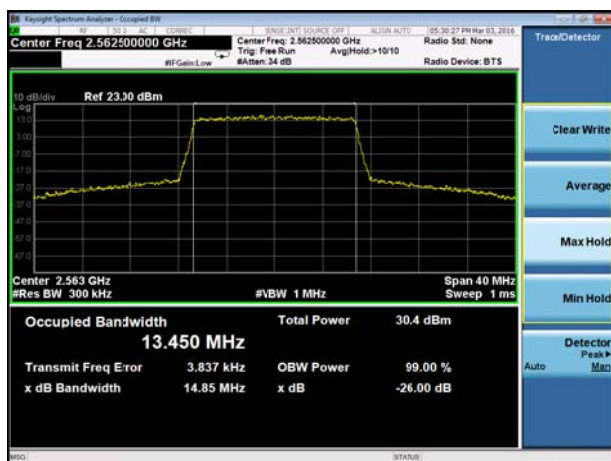
LTE Band 7QPSK 15MHz CH-Middle



LTE Band 7QPSK 20MHz CH-Middle



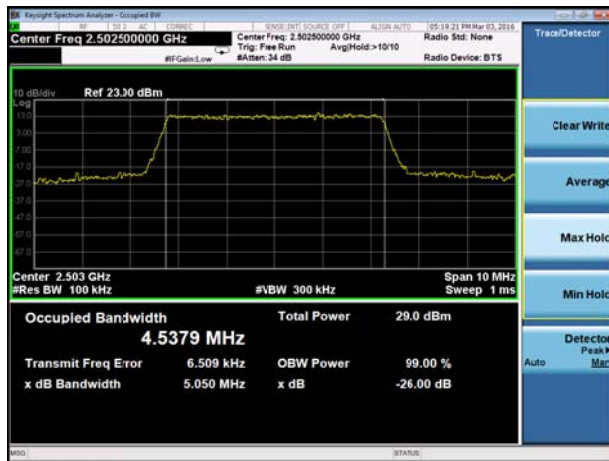
LTE Band 7QPSK 15MHz CH-High



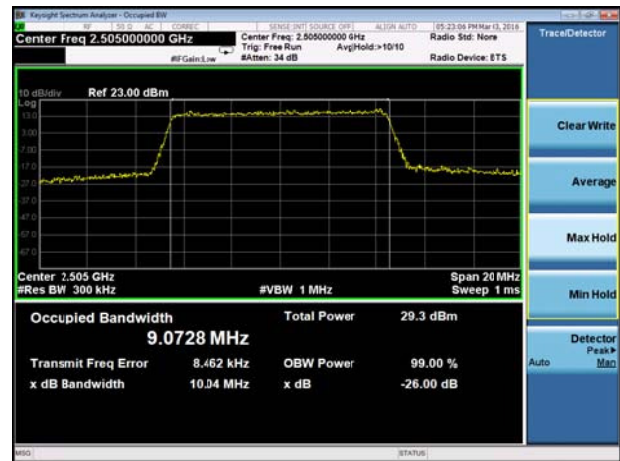
LTE Band 7QPSK 20MHz CH-High



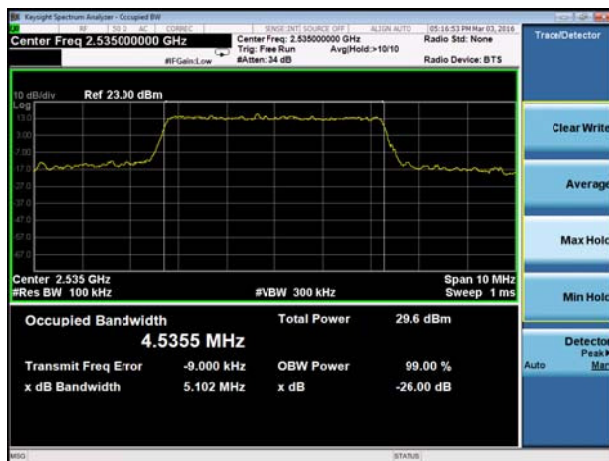
LTE Band 7 16QAM 5MHz CH-Low



LTE Band 7 16QAM 10MHz CH-Low



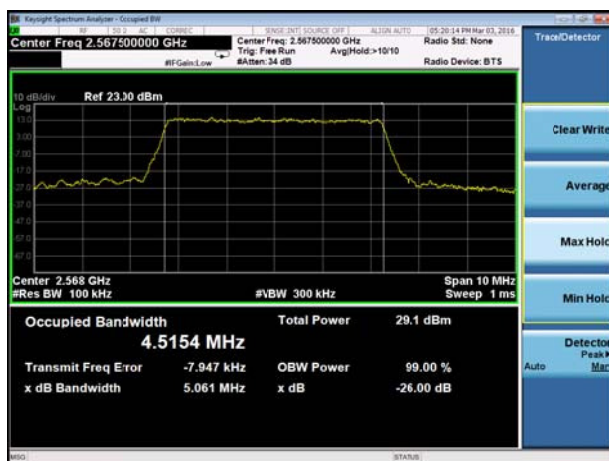
LTE Band 7 16QAM 5MHz CH-Middle



LTE Band 7 16QAM 10MHz CH-Middle



LTE Band 7 16QAM 5MHz CH-High



LTE Band 7 16QAM 10MHz CH-High

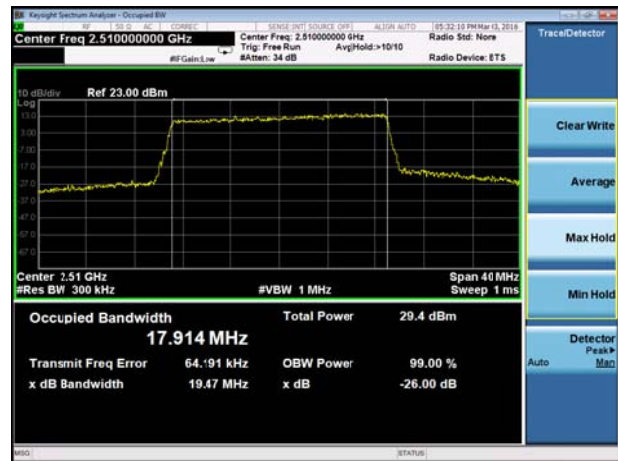




LTE Band 7 16QAM 15MHz CH-Low



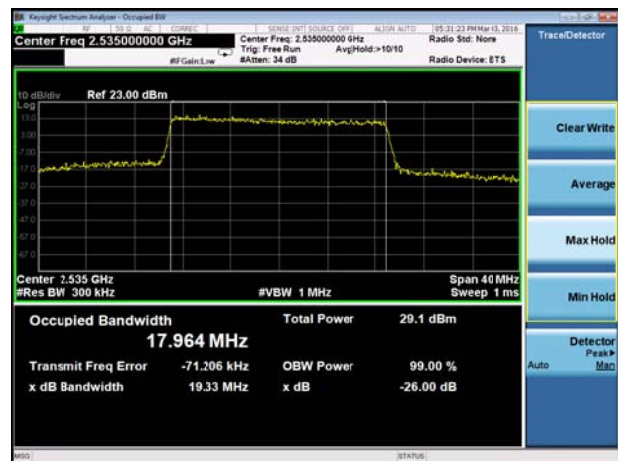
LTE Band 7 16QAM 20MHz CH-Low



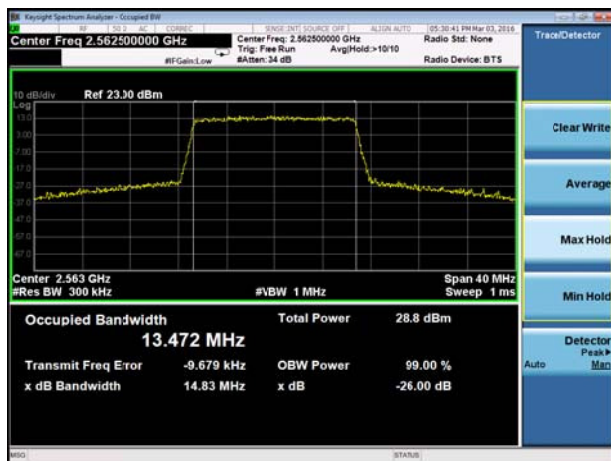
LTE Band 7 16QAM 15MHz CH-Middle



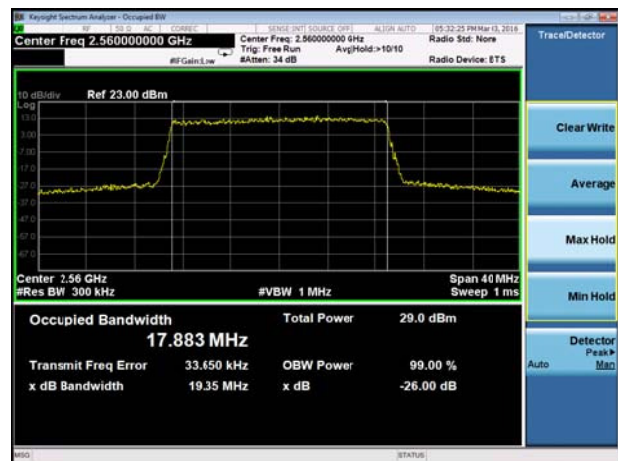
LTE Band 7 16QAM 20MHz CH-Middle



LTE Band 7 16QAM 15MHz CH-High



LTE Band 7 16QAM 20MHz CH-High



4.4 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.

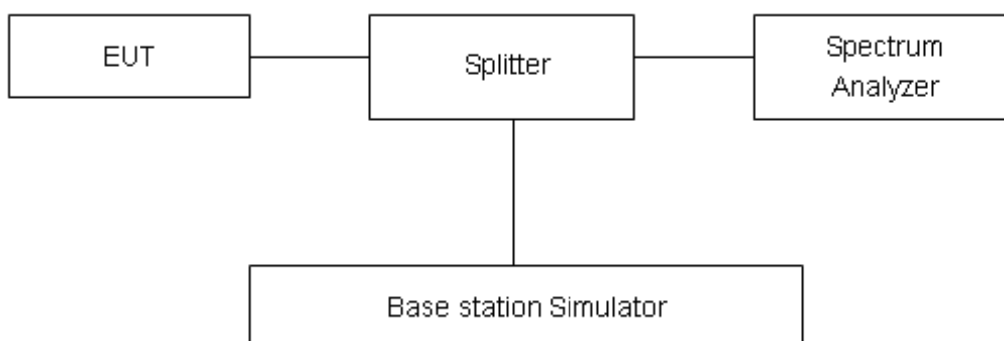
The testing follows KDB 971168 v02r02 Section 6.0

- 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 LTE Band 7 Set RBW $\geq$ 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.

For WCDMA Band IV and LTE Band 4, 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 100kHz, VBW is set to 300kHz for LTE Band 4 (10MHz). RBW is set to 150kHz, VBW is set to 510 kHz for LTE Band 4 (15MHz). RBW is set to 200kHz, VBW is set to 620 kHz for LTE Band 4 (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

WCDMA Band IV/LTE Band 4-Rule Part 27.53(h) specifies that “the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least $43 + 10 \log_{10} (P)$ dB.”

LTE Band 7-Rule 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 than $43 + 10 \log (P)$ 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 $43 + 10 \log (P)$ dB below the transmitter power P(Watts)

$$= P(W) - [43 + 10 \log (P)] \text{ (dB)}$$

$$= [30 + 10 \log (P)] \text{ (dBm)} - [43 + 10 \log (P)] \text{ (dB)} = -13 \text{ dBm}.$$

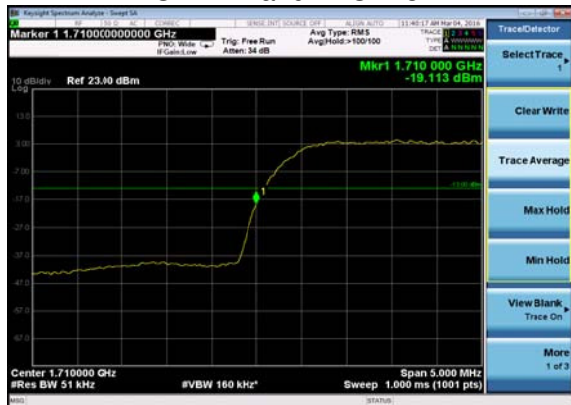
Measurement Uncertainty

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

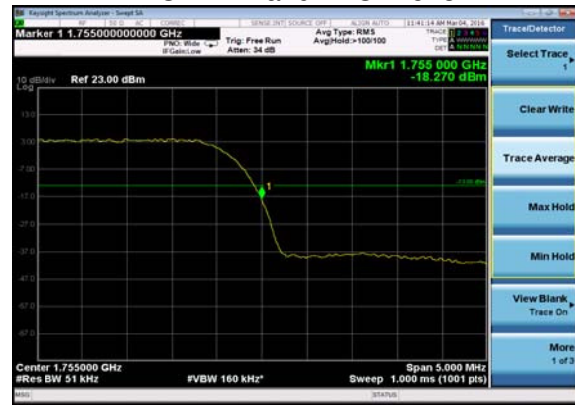


Test Result

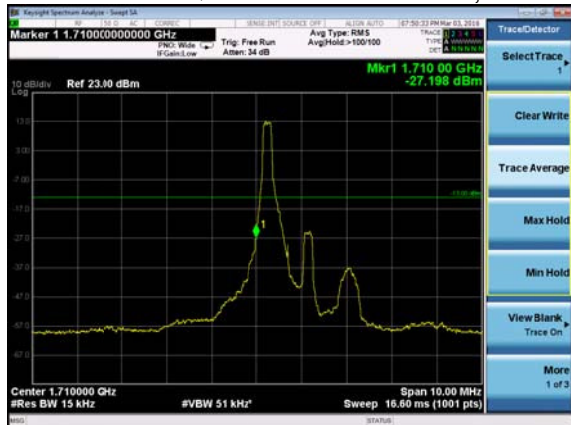
WCDMA Band IV CH1312



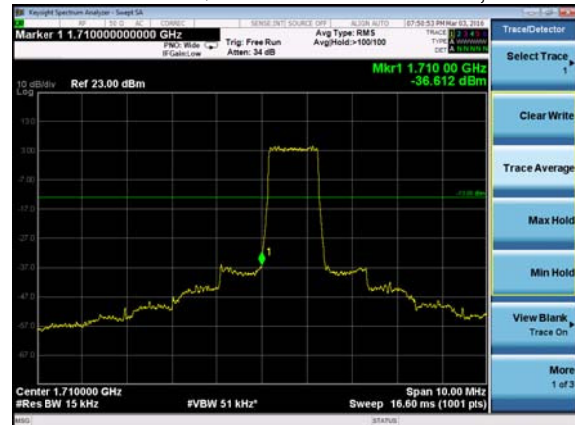
WCDMA Band IV CH1513



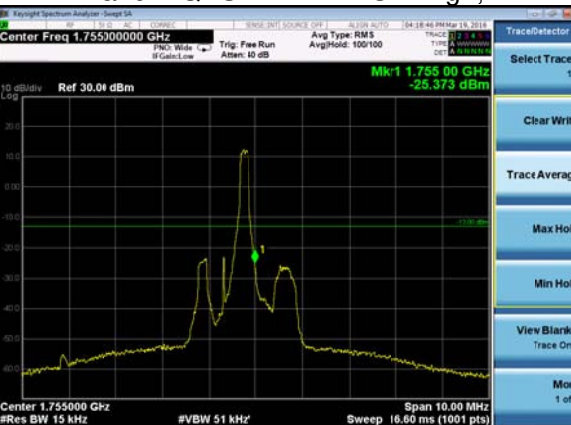
LTE Band 4 QPSK 1.4MHz CH-Low, RB 1



LTE Band 4 QPSK 1.4MHz CH-Low, RB 6



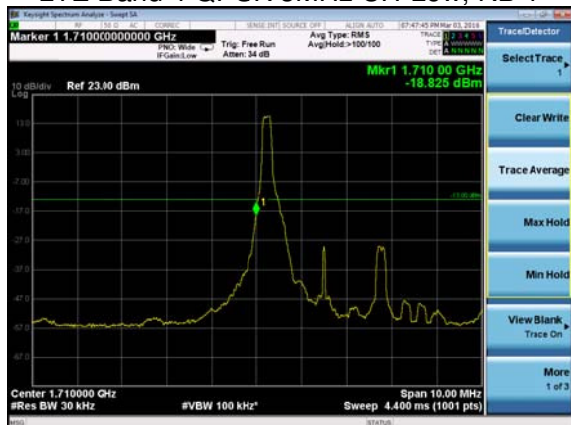
LTE Band 4 QPSK 1.4MHz CH-High, RB 1



LTE Band 4 QPSK 1.4MHz CH-High, RB 6



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

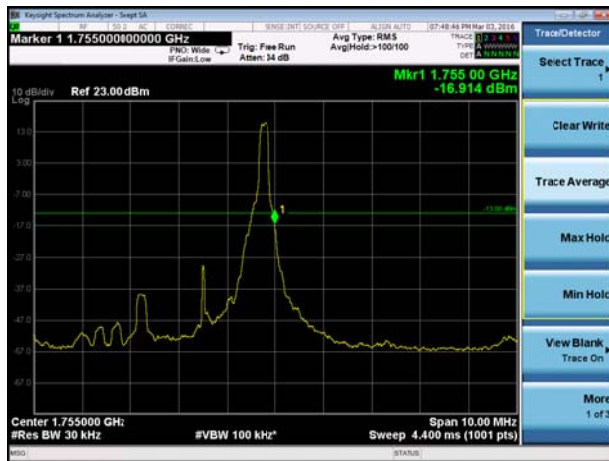


LTE Band 4 QPSK 3MHz CH-Low, RB 15





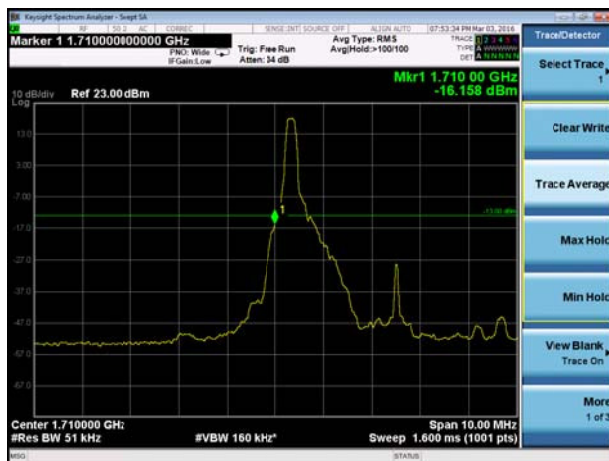
LTE Band 4 QPSK 3MHz CH-High, RB 1



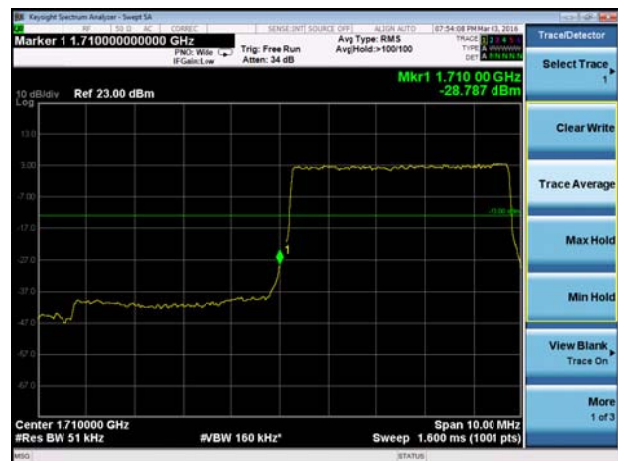
LTE Band 4 QPSK 3MHz CH-High, RB 15



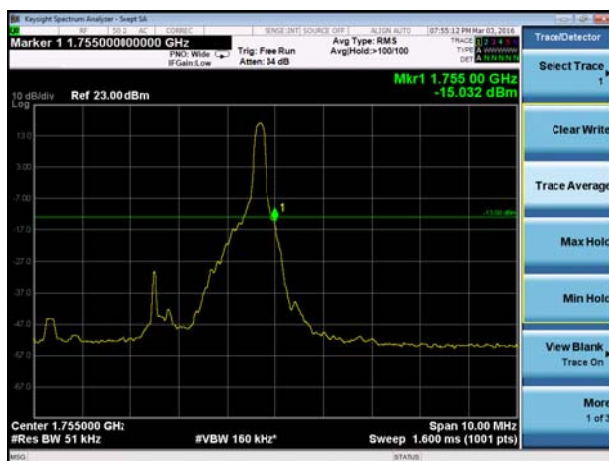
LTE Band 4 QPSK 5MHz CH-Low, RB 1



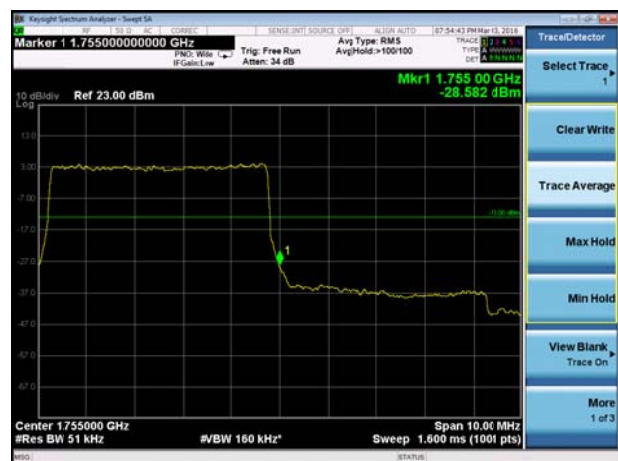
LTE Band 4 QPSK 5MHz CH-Low, RB 25



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

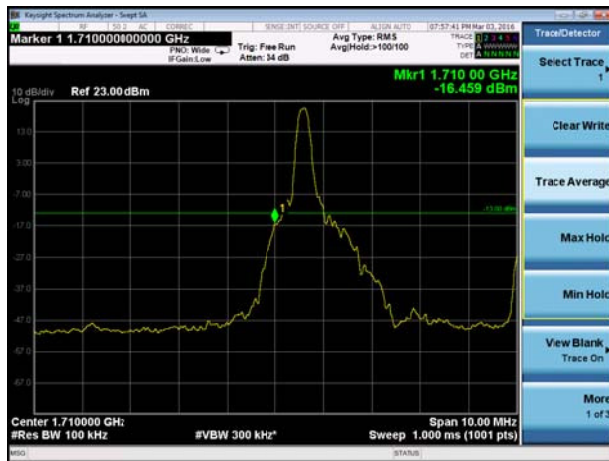


LTE Band 4 QPSK 5MHz CH-High, RB 25

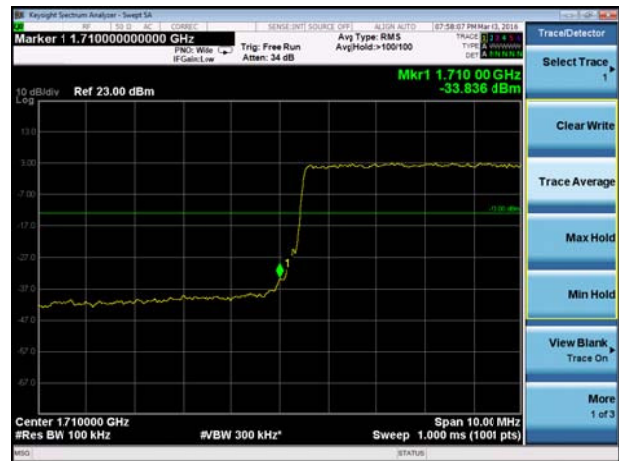




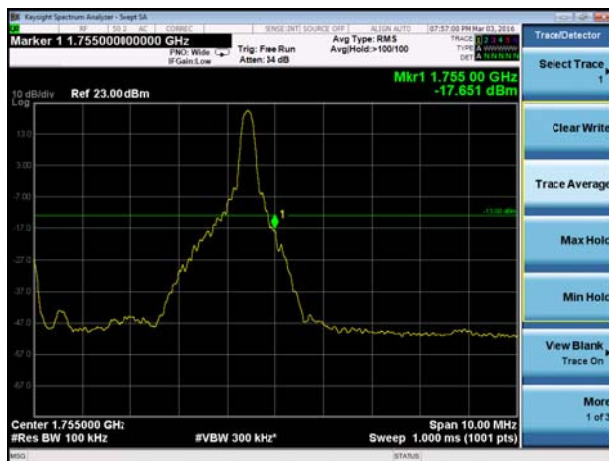
LTE Band 4 QPSK 10MHz CH-Low, RB 1



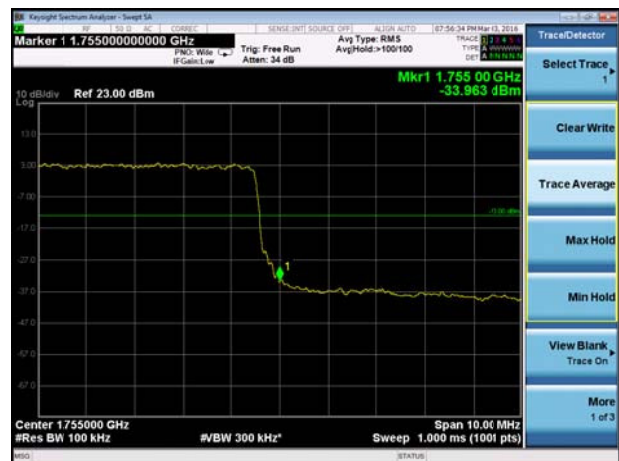
LTE Band 4 QPSK 10MHz CH-Low, RB 50



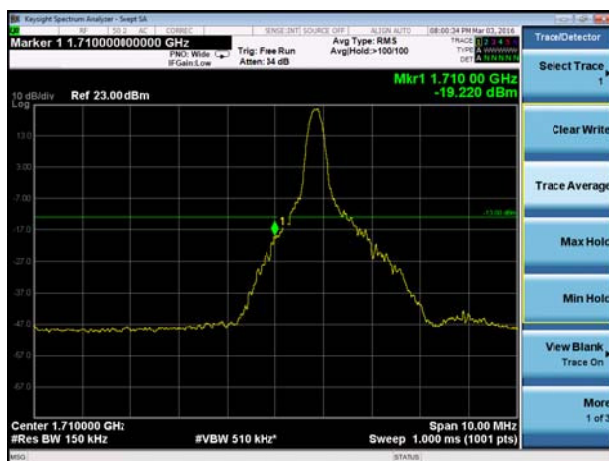
LTE Band 4 QPSK 10MHz CH-High, RB 1



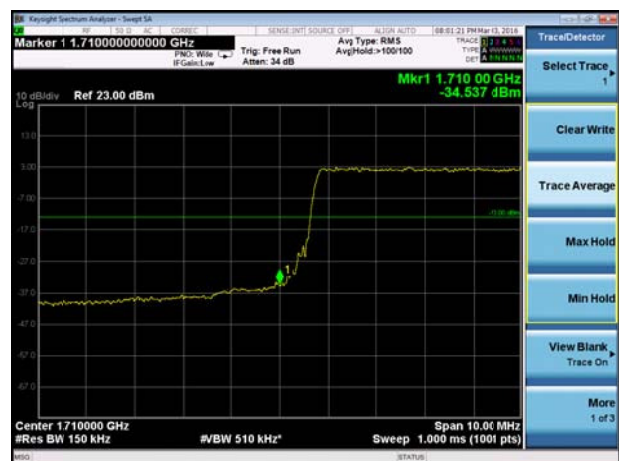
LTE Band 4 QPSK 10MHz CH-High, RB 50



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

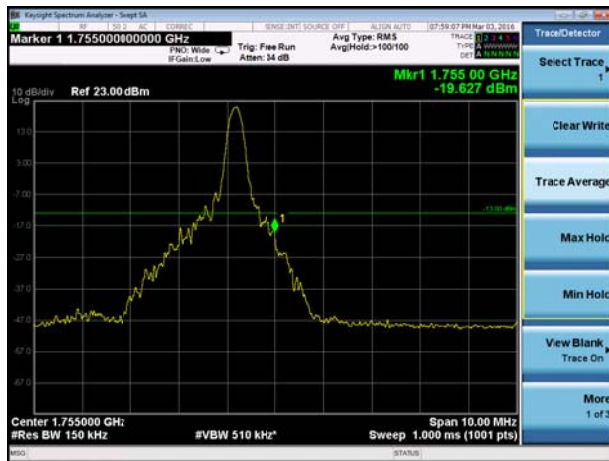


LTE Band 4 QPSK 15MHz CH-Low, RB 75

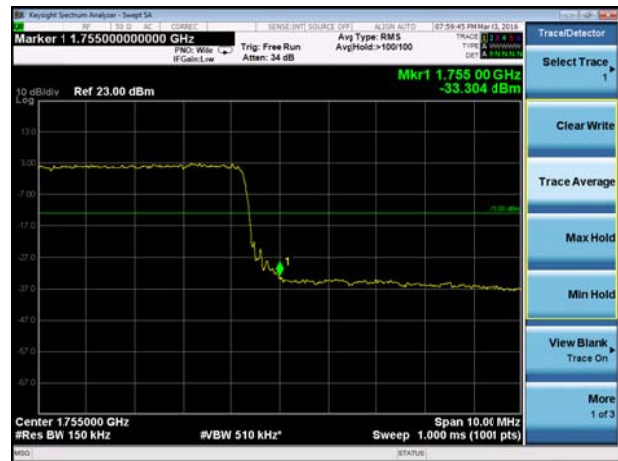




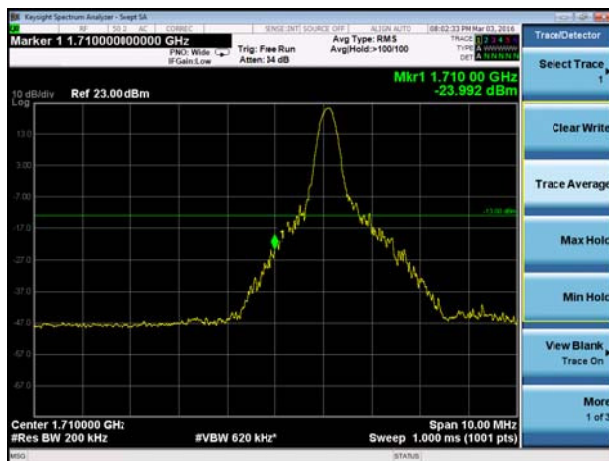
LTE Band 4 QPSK 15MHz CH-High, RB 1



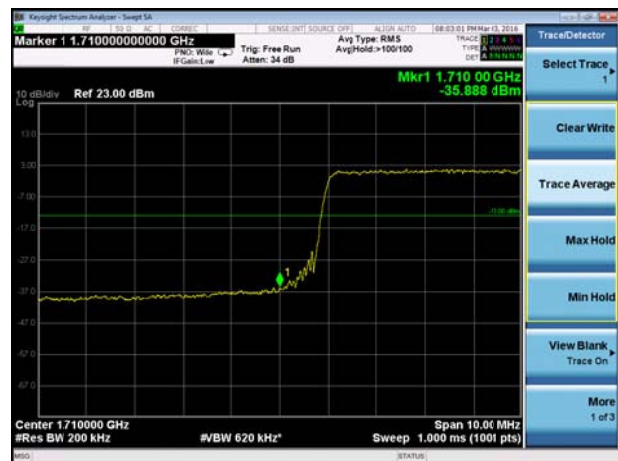
LTE Band 4 QPSK 15MHz CH-High, RB 75



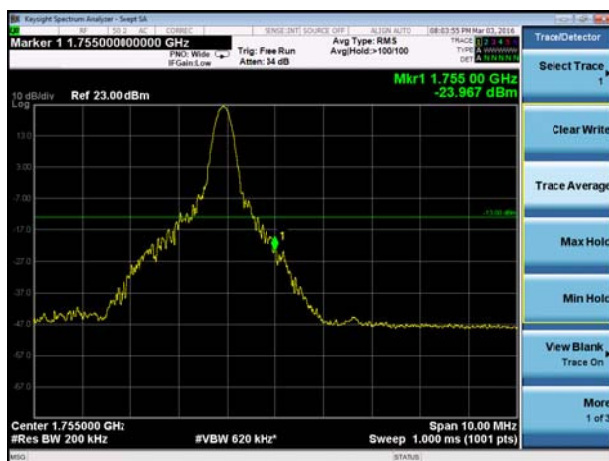
LTE Band 4 QPSK 20MHz CH-Low, RB 1



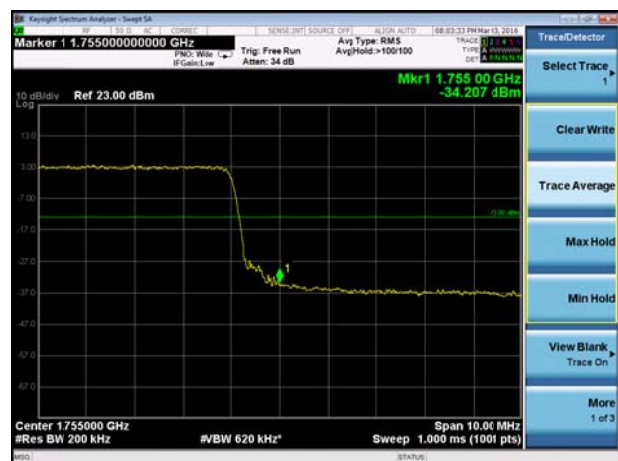
LTE Band 4 QPSK 20MHz CH-Low, RB 100



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

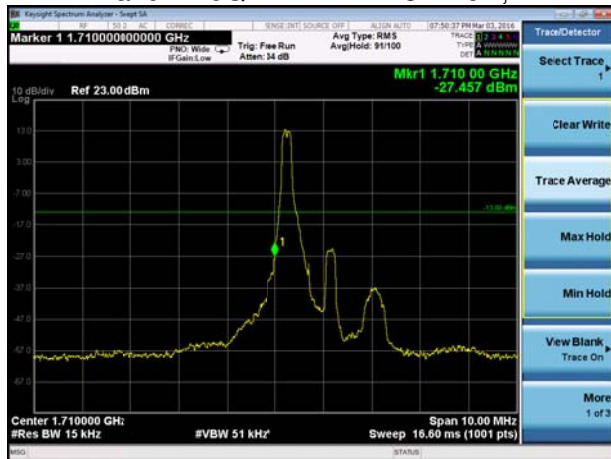


LTE Band 4 QPSK 20MHz CH-High, RB 100

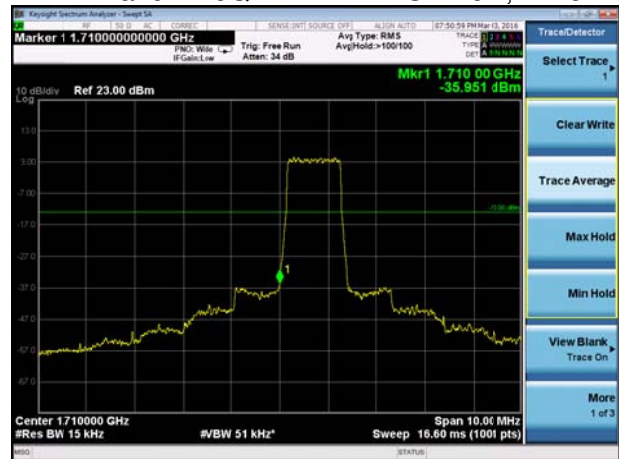




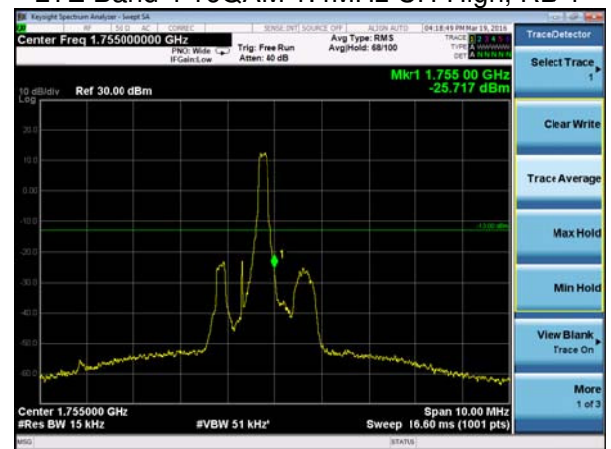
LTE Band 4 16QAM 1.4MHz CH-Low, RB 1



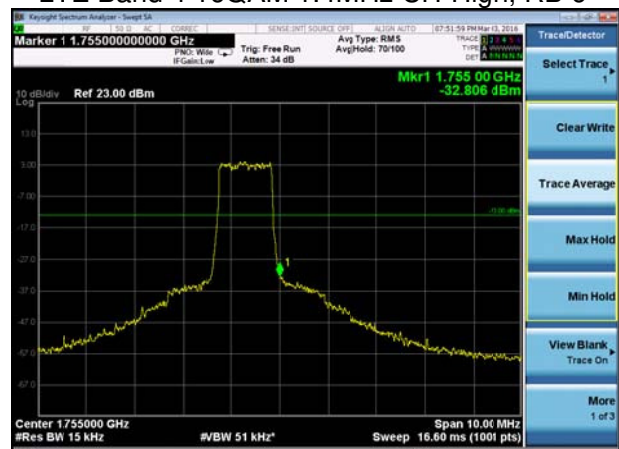
LTE Band 4 16QAM 1.4MHz CH-Low, RB 6



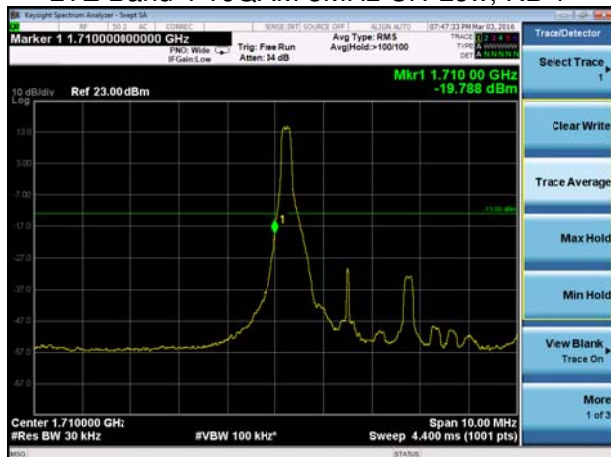
LTE Band 4 16QAM 1.4MHz CH-High, RB 1



LTE Band 4 16QAM 1.4MHz CH-High, RB 6



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

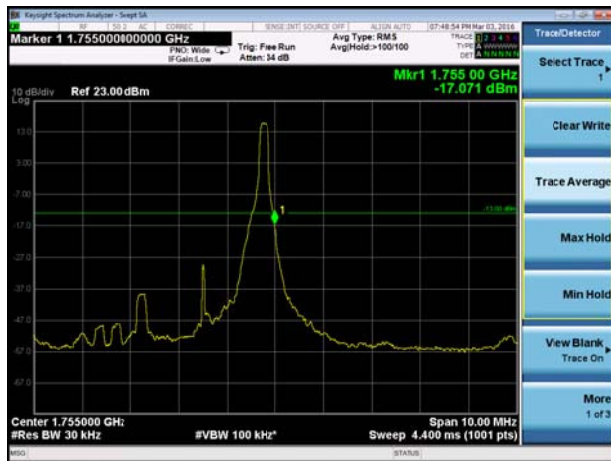


LTE Band 4 16QAM 3MHz CH-Low, RB 15





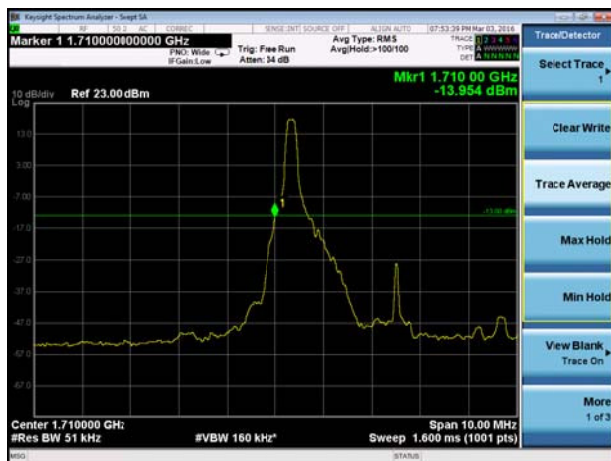
LTE Band 4 16QAM 3MHz CH-High, RB 1



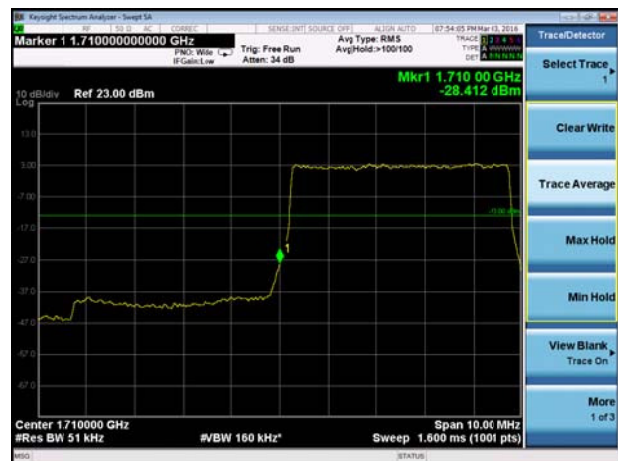
LTE Band 4 16QAM 3MHz CH-High, RB 15



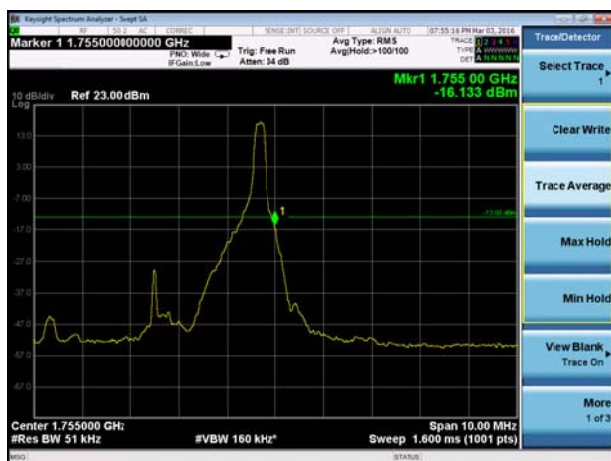
LTE Band 4 16QAM 5MHz CH-Low, RB 1



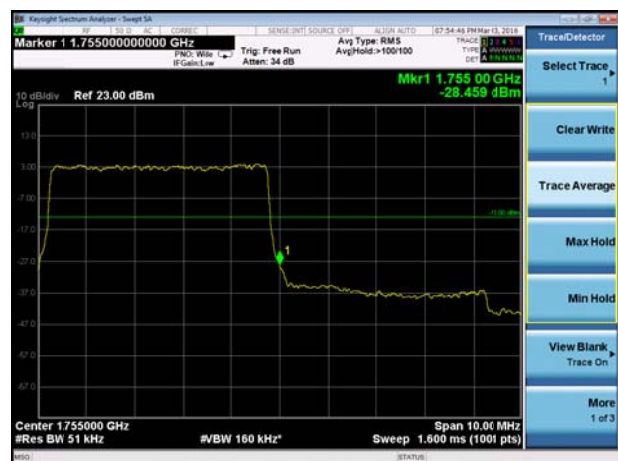
LTE Band 4 16QAM 5MHz CH-Low, RB 25



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

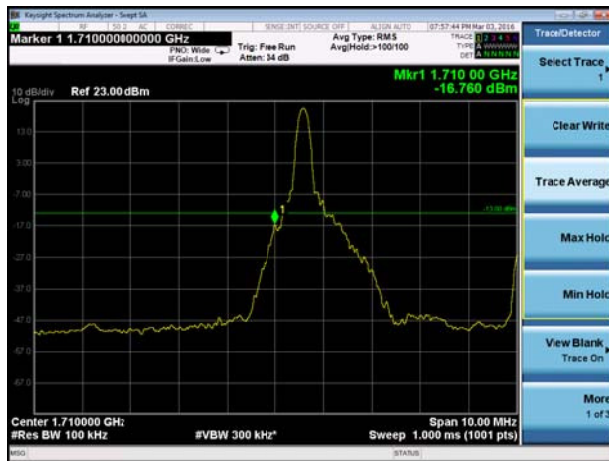


LTE Band 4 16QAM 5MHz CH-High, RB 25

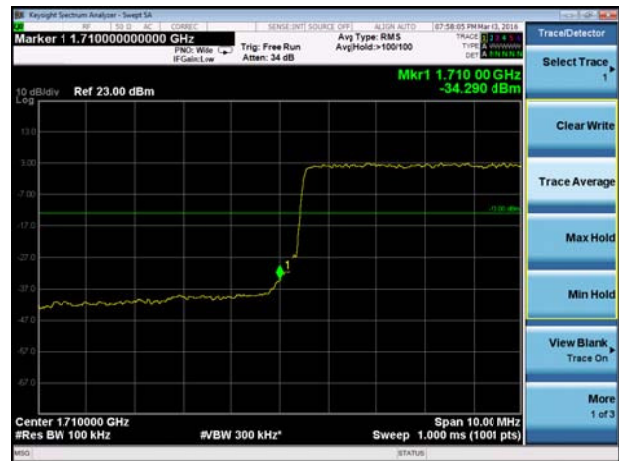




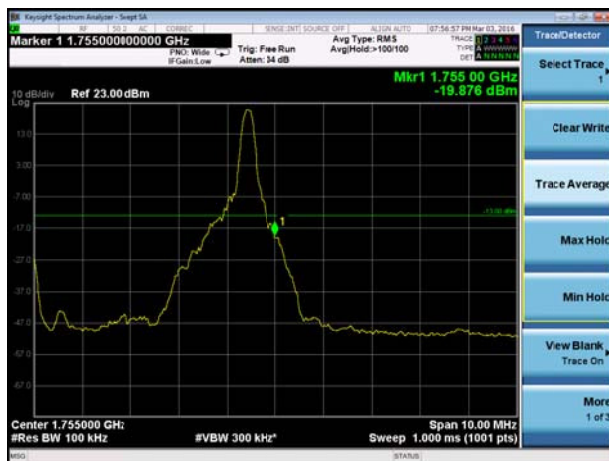
LTE Band 4 16QAM 10MHz CH-Low, RB 1



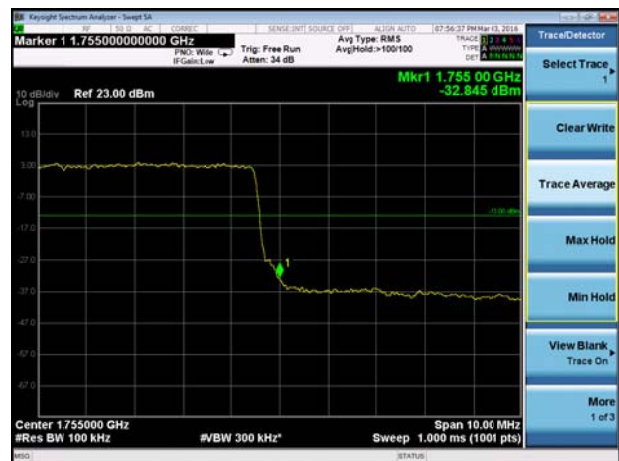
LTE Band 4 16QAM 10MHz CH-Low, RB 50



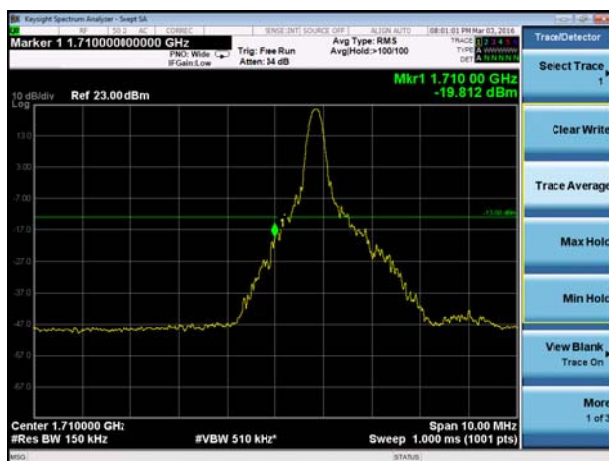
LTE Band 4 16QAM 10MHz CH-High, RB 1



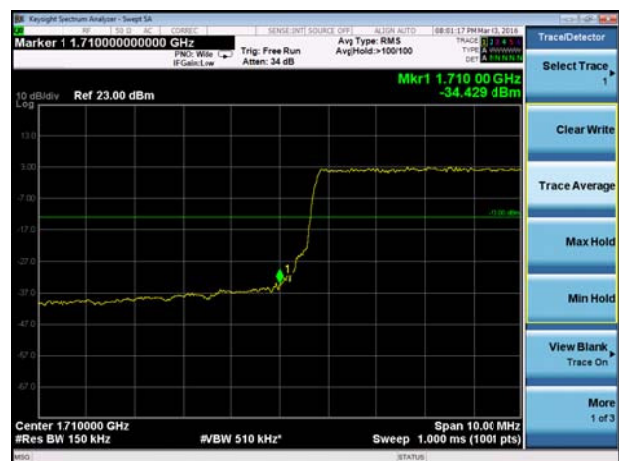
LTE Band 4 16QAM 10MHz CH-High, RB 50



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

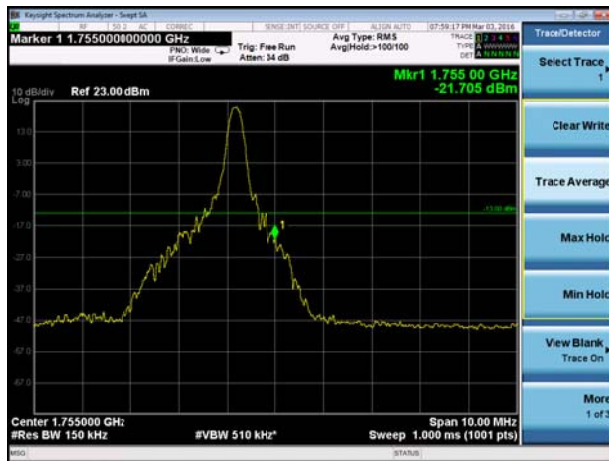


LTE Band 4 16QAM 15MHz CH-Low, RB 75

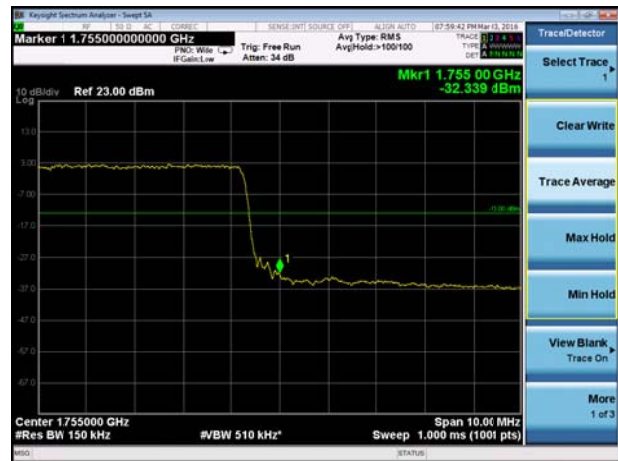




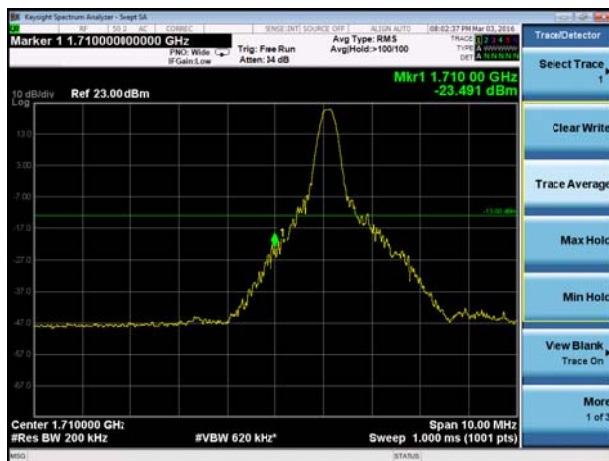
LTE Band 4 16QAM 15MHz CH-High, RB 1



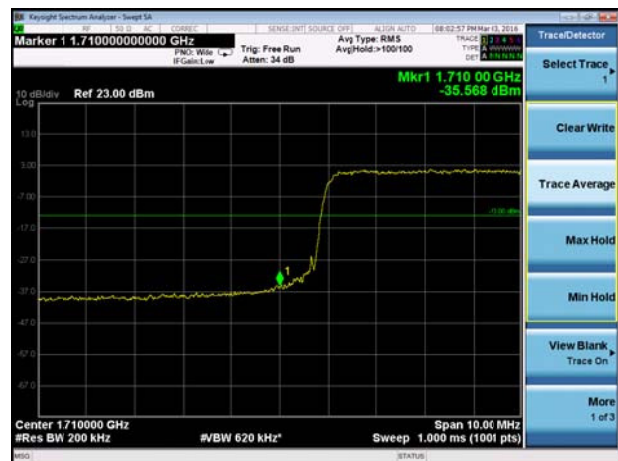
LTE Band 4 16QAM 15MHz CH-High, RB 75



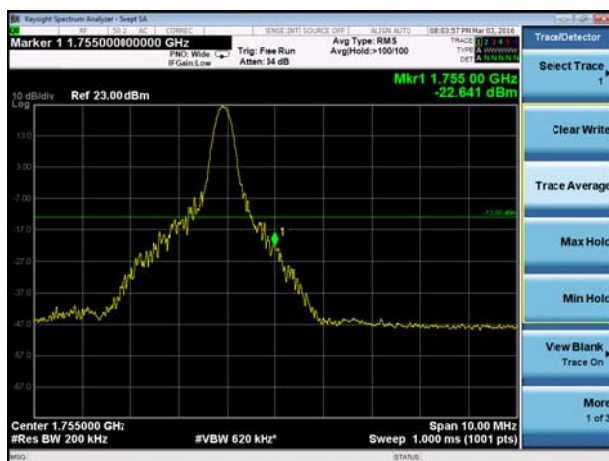
LTE Band 4 16QAM 20MHz CH-Low, RB 1



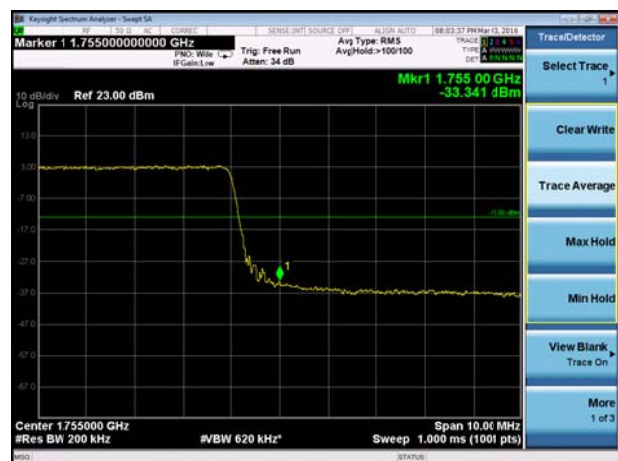
LTE Band 4 16QAM 20MHz CH-Low, RB 100



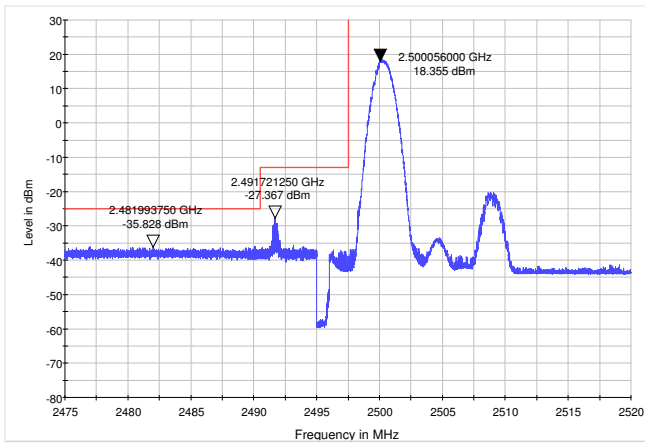
LTE Band 4 16QAM 20MHz CH-High, RB 1



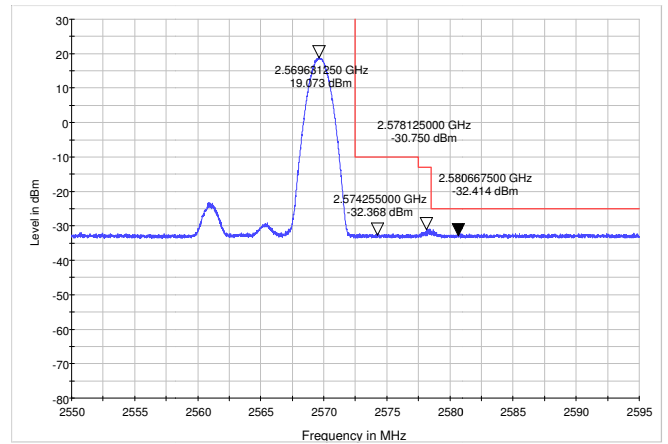
LTE Band 4 16QAM 20MHz CH-High, RB 100



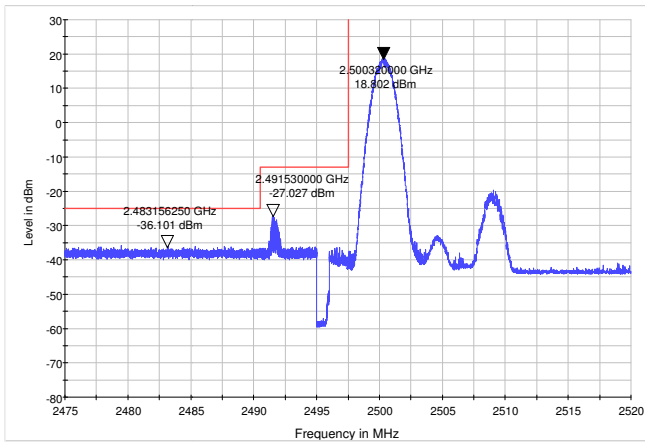
LTE Band 7 QPSK Bandwidth = 5MHz CH-LOW, RB 1



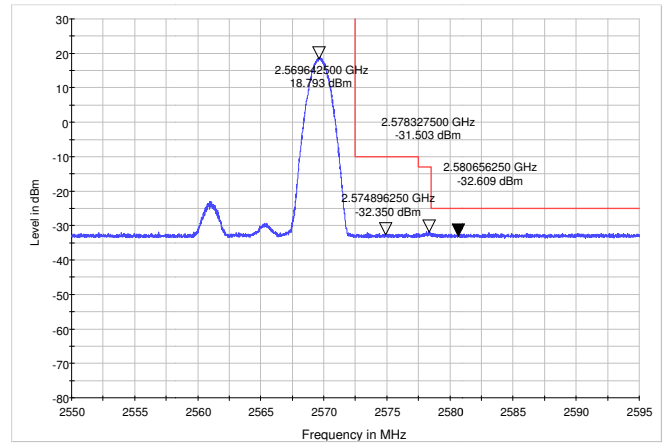
LTE Band 7 QPSK Bandwidth = 5MHz CH-HIGH, RB 1



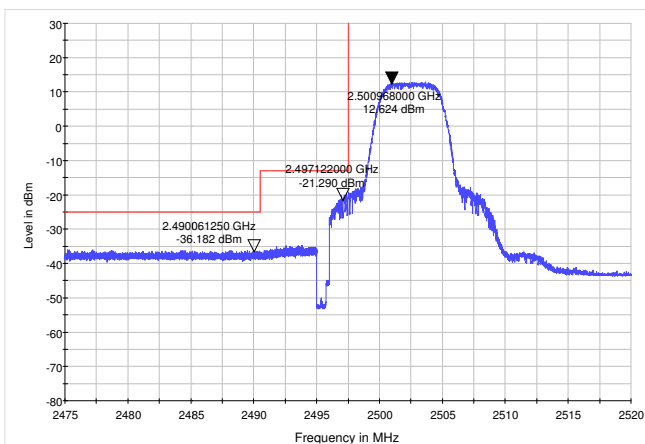
LTE Band 7 16QAM Bandwidth = 5MHz CH-LOW, RB 1



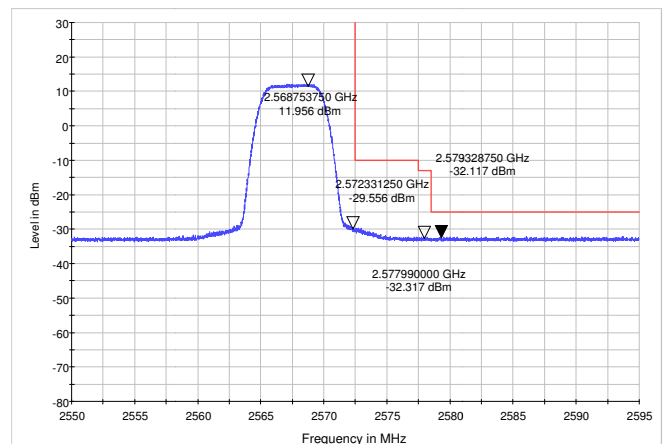
LTE Band 7 16QAM Bandwidth = 5MHz CH-HIGH, RB 1



LTE Band 7 QPSK Bandwidth = 5MHz CH-LOW, RB 25

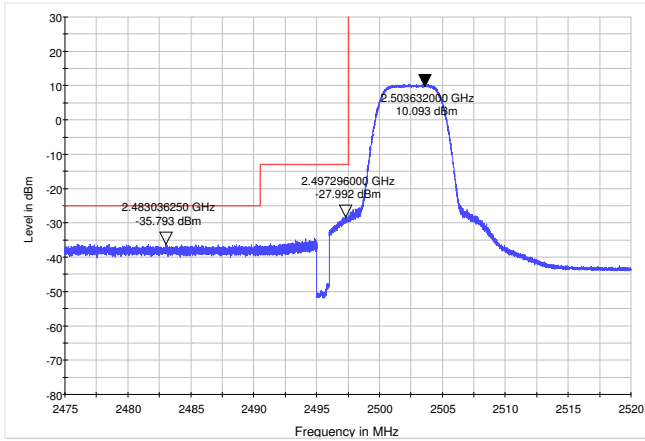


LTE Band 7 QPSK Bandwidth = 5MHz CH-HIGH, RB 25

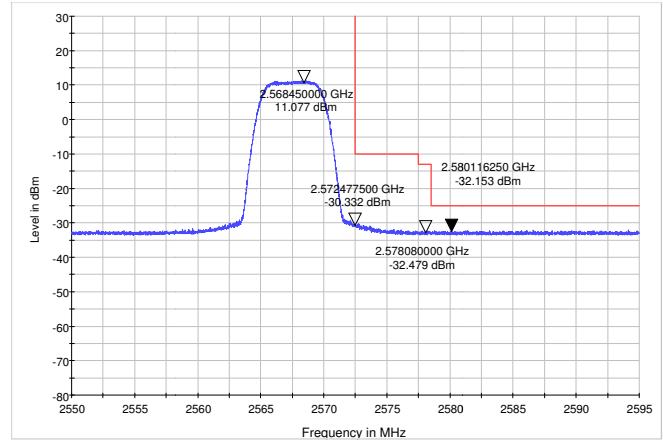




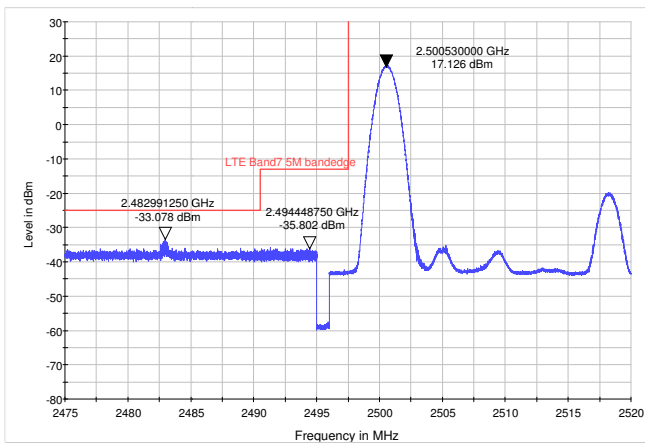
LTE Band 7 16QAM Bandwidth = 5MHz CH-LOW, RB 25



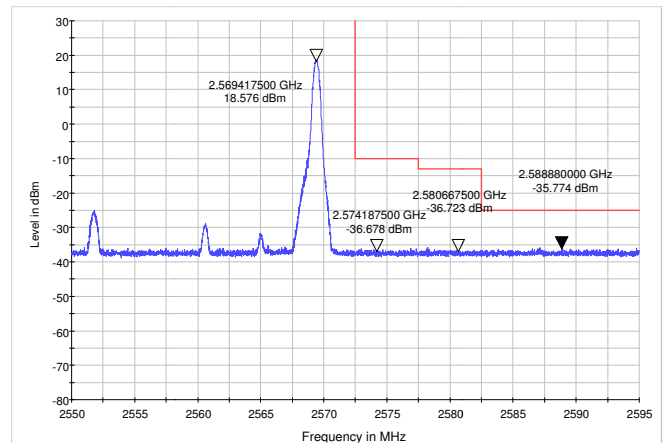
LTE Band 7 16QAM Bandwidth = 5MHz CH-HIGH, RB 25



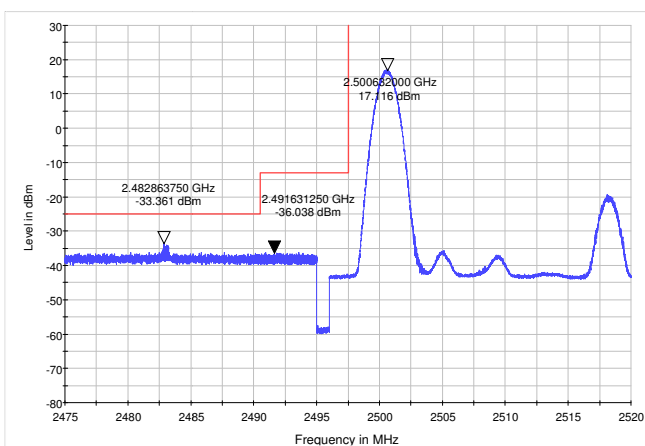
LTE Band 7 QPSK Bandwidth = 10MHz CH-LOW, RB 1



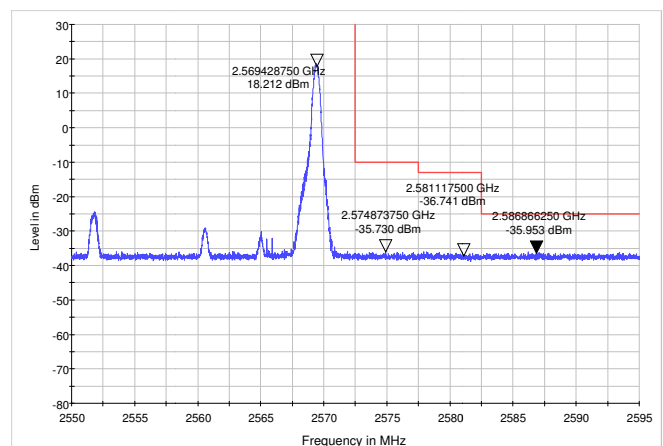
LTE Band 7 QPSK Bandwidth = 10MHz CH-HIGH, RB 1



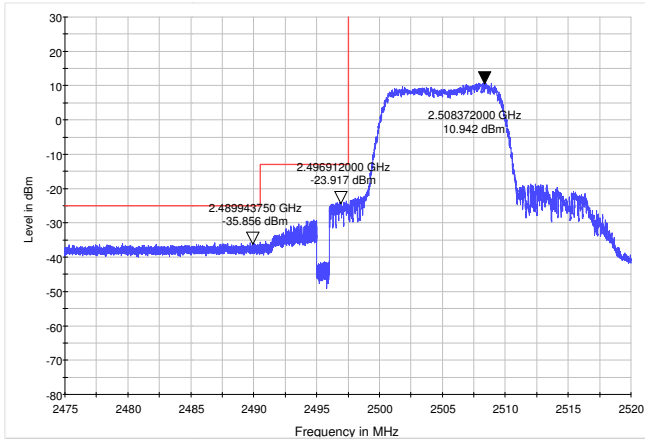
LTE Band 7 16QAM Bandwidth=10MHz CH-LOW, RB 1



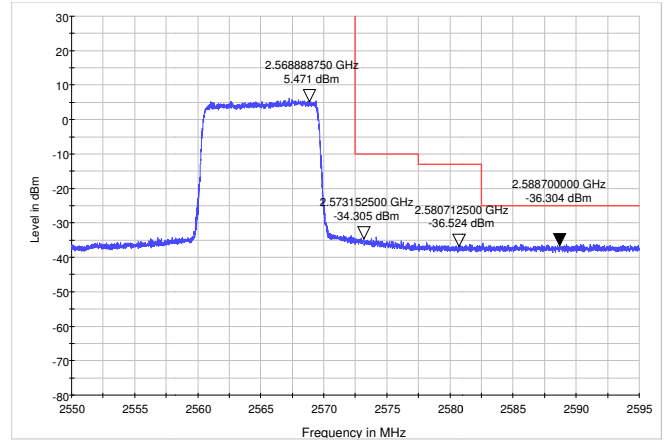
LTE Band 7 16QAM Bandwidth = 10MHz CH-HIGH, RB 1



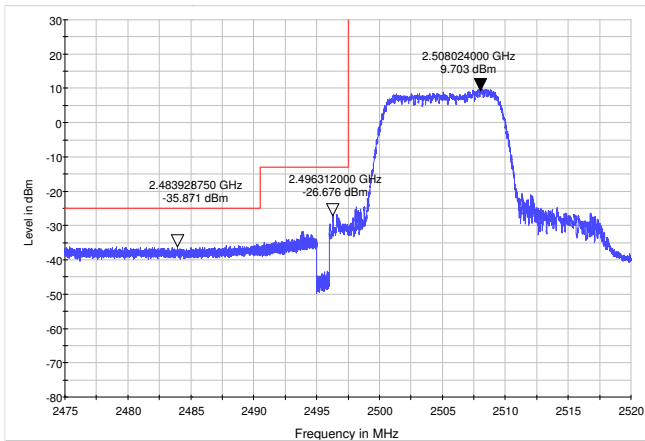
LTE Band 7 QPSK Bandwidth = 10MHz CH-LOW, RB 50



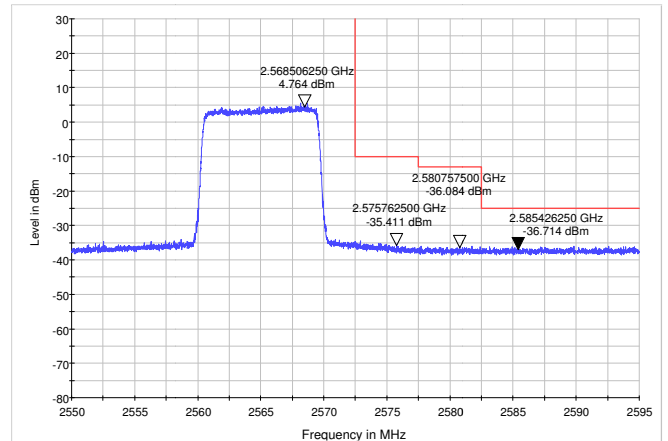
LTE Band 7 QPSK Bandwidth = 10MHz CH-HIGH, RB 50



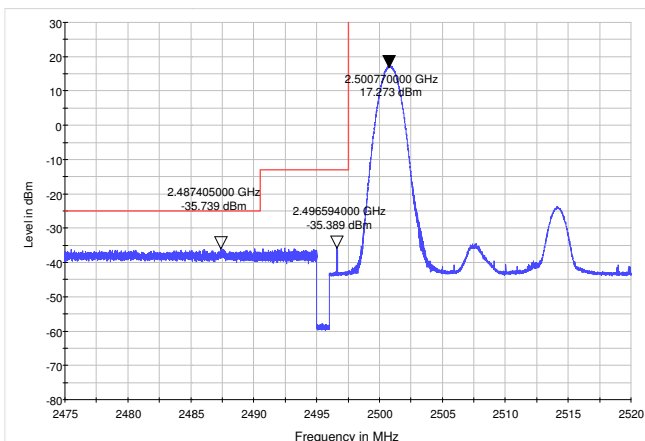
LTE Band 7 16QAM Bandwidth = 10MHz CH-LOW, RB 50



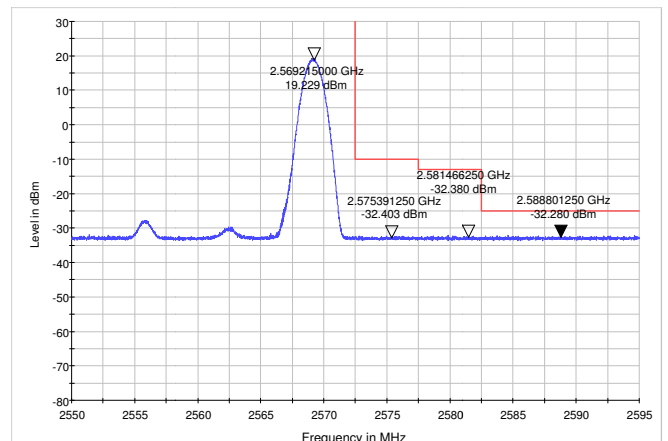
LTE Band 7 16QAM Bandwidth = 10MHz CH-HIGH, RB 50



LTE Band 7 QPSK Bandwidth = 15MHz CH-LOW, RB 1

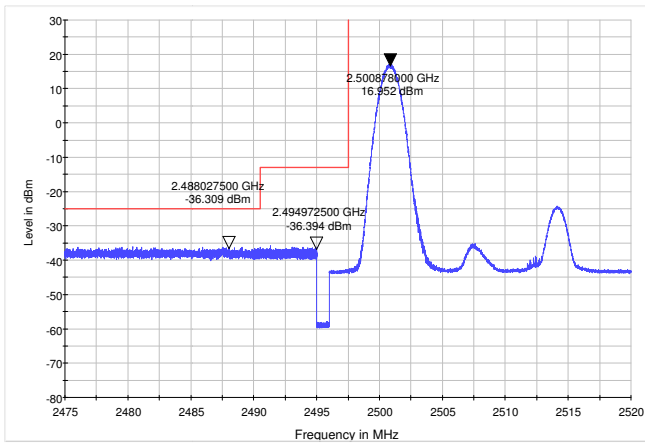


LTE Band 7 QPSK Bandwidth = 15MHz CH-HIGH, RB 1

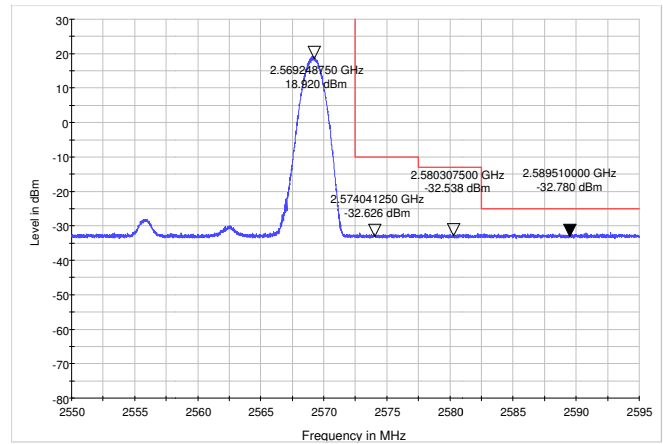




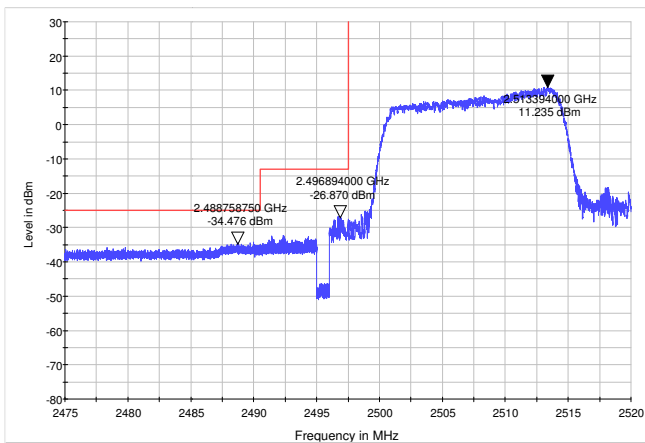
LTE Band 7 16QAM Bandwidth = 15MHz CH-LOW, RB 1



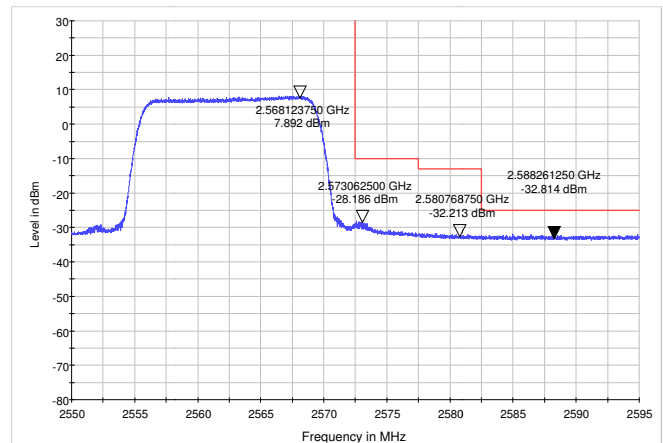
LTE Band 7 16QAM Bandwidth = 15MHz CH-HIGH, RB 1



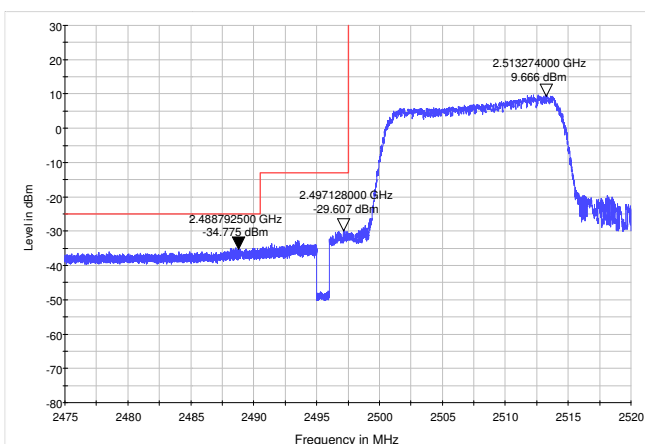
LTE Band 7 QPSK Bandwidth = 15MHz CH-LOW, RB 75



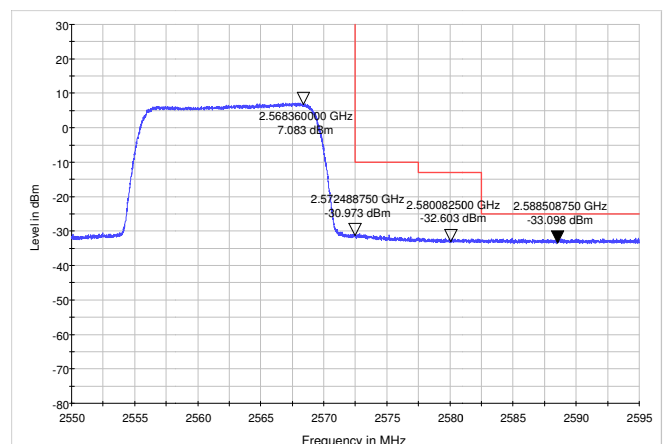
LTE Band 7 QPSK Bandwidth = 15MHz CH-HIGH, RB 75



LTE Band 7 16QAM Bandwidth = 15MHz CH-LOW, RB 75

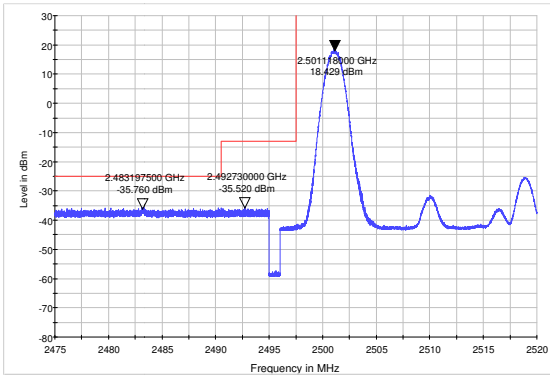


LTE Band 7 16QAM Bandwidth = 15MHz CH-HIGH, RB 75

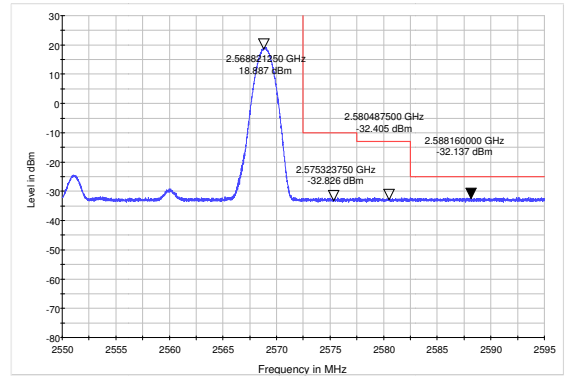




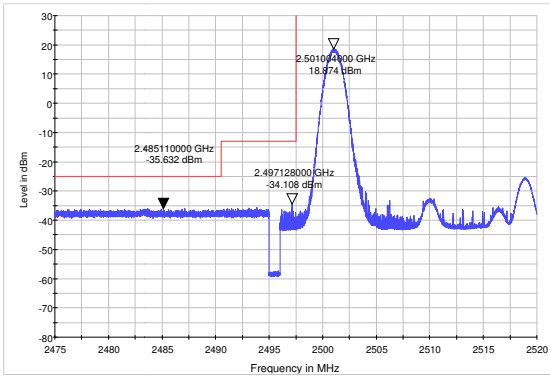
LTE Band 7 QPSK Bandwidth = 20MHz CH-LOW, RB 1



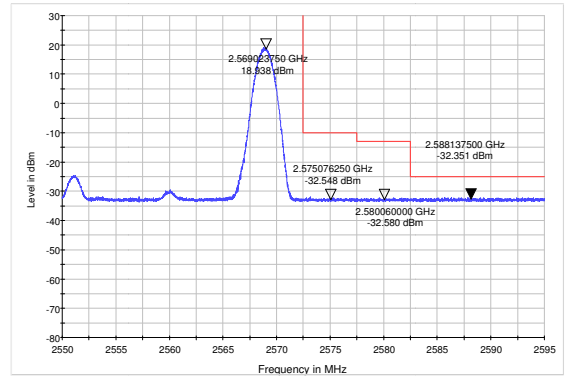
LTE Band 7 QPSK Bandwidth = 20MHz CH-HIGH, RB 1



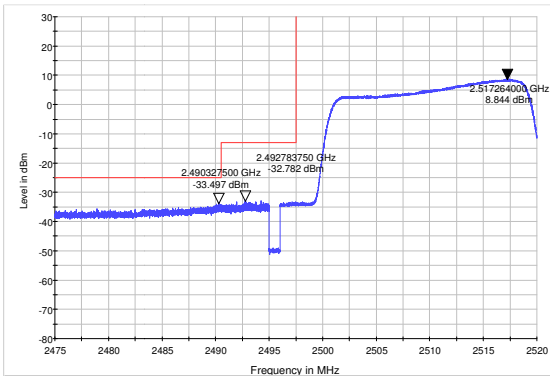
LTE Band 7 16QAM Bandwidth = 20MHz CH-LOW, RB 1



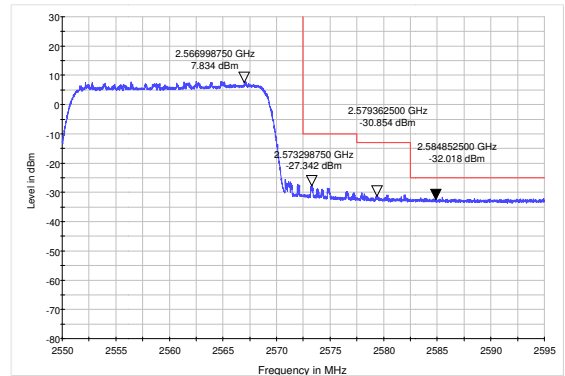
LTE Band 7 16QAM Bandwidth = 20MHz CH-HIGH, RB 1



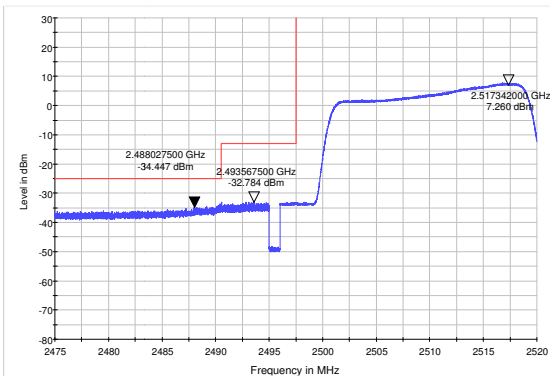
LTE Band 7 QPSK Bandwidth = 20MHz CH-LOW, RB 100



LTE Band 7 QPSK Bandwidth = 20MHz CH-HIGH, RB 100



LTE Band 7 16QAM Bandwidth = 20MHz CH-LOW, RB 100



LTE Band 7 16QAM Bandwidth = 20MHz CH-HIGH, RB 100

