



中国认可
国际互认
检测
TESTING
CNAS L2264

RF TEST REPORT

Applicant ZTE Corporation
FCC ID SRQ-ZTEB2017G
Product LTE/WCDMA/CDMA/GSM (GPRS)
Mutil-Mode Digital Mobile Phone
Brand ZTE
Model ZTE B2017G
Report No. RXA1607-0132RF03R1
Issue Date September 7, 2016

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

Performed by: Xianqing Li

Reviewed by: Kai Xu

TA Technology (Shanghai) Co., Ltd.

No.145, Jintang Rd, Tangzhen Industry Park, Pudong Shanghai, China

TEL: +86-021-50791141/2/3

FAX: +86-021-50791141/2/3-8000

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Summary of Measurement Results

Number	Test Case	Clause in FCC rules	Verdict
1	RF power output	2.1046	PASS
2	Effective Isotropic Radiated power	27.50(d)(4)/ 27.50(c)(10)/ 27.50(h)(2)	PASS
3	Occupied Bandwidth	2.1049	PASS
4	Band Edge Compliance	27.53(h)/ 27.53(g)/ 27.53(m)	PASS
5	Peak-to-Average Power Ratio	27.50(d)/KDB971168 D01(5.7)	PASS
6	Frequency Stability	2.1055 / 27.54	PASS
7	Spurious Emissions at Antenna Terminals	2.1051 / 27.53(h) / 27.53(g) / 27.53(m)	PASS
8	Radiates Spurious Emission	2.1053 /27.53(h) / 27.53(g) / 27.53(m)	PASS
Date of Testing: July 10, 2016 ~ August 12, 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
Post code: 201201
Country: P. R. China
Contact: Xu Kai
Telephone: +86-021-50791141/2/3
Fax: +86-021-50791141/2/3-8000
Website: <http://www.ta-shanghai.com>
E-mail: xukai@ta-shanghai.com

2 General Description of Equipment under Test

Client Information

Applicant	ZTE Corporation
Applicant address	ZTE Plaza, Keji Road South, Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong,518057, P.R. China
Manufacturer	ZTE Corporation
Manufacturer address	ZTE Plaza, Keji Road South, Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong,518057, P.R. China

General information

Model:	ZTE B2017G		
Product IMEI:	SIM1:860935030016782 SIM2:860935030018788		
Hardware Version:	uj3A		
Software Version:	ZTE B2017G_USAV1.0.0B01		
Power Supply:	Battery/AC adapter		
Antenna Type:	Internal Antenna		
Test Mode(s):	WCDMA Band IV; LTE Band 4/7/12/17/41		
HSDPA UE Category:	14		
HSUPA UE Category:	6		
Maximum E.I.R.P./ E.R.P.	WCDMA Band IV: 21.46 dBm LTE Band 4: 21.72 dBm LTE Band 7: 23.72 dBm LTE Band 12: 18.28 dBm LTE Band 17: 18.15 dBm LTE Band 41: 24.99 dBm		
Rated Power Supply Voltage:	3.85V		
Extreme Voltage:	Minimum: 3.4V Maximum: 4.4V		
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
	LTE Band 12	699 ~ 716	729 ~ 746
	LTE Band 17	704 ~ 716	734 ~ 746
	LTE Band 41	2496 ~ 2690	2496 ~ 2690
EUT Accessory			
Battery 1	Manufacturer: SHENZHEN RUIDE ELECTRONIC INDUSTRIAL CO.,LTD		



	Model: Li3927T44P8h726044 Power Rating: 3.85V/2705mAh
Battery 2	Manufacturer: SCUD (Fujian) Electronics Co., Ltd. Model: Li3927T44P8h726044 Power Rating: 3.85V/2705mAh
Earphone	Manufacturer: KINGSTATE ELECTRONICS CORP. Model: KJAG4020AWKCB-2
Adapter	Manufacturer: Salcomp (Shenzhen) Co., Ltd Model: STC-A5915A-Z Input power: 100-240Vac, 50/60Hz, 0.45A Output power: 5.0V, 1.5A/9.0V, 1.5A
Phone cover	Manufacturer: Shenzhen senyuanxiang Technology Co. Ltd. Model: senyuanxiang
Note: 1. The information of the EUT is declared by the manufacturer. Please refer to the specifications or user manual for details. 2. There is more than one battery, each one should be applied throughout the compliance test respectively, however, only the worst case (battery 1) will be recorded in this report.	



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
	Effective Isotropic Radiated power	WCDMA Band IV	RMC
	Occupied Bandwidth	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

4/7/12/17/41:

Test items	Modes	Bandwidth (MHz)						Modulation		RB			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	50%	100%	L	M	H
RF power output	LTE 4	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	LTE 7	-	-	O	O	O	O	O	O	O	O	O	O	O	O
	LTE 12	O	O	O	O	-	-	O	O	O	O	O	O	O	O
	LTE 17	-	-	O	O	-	-	O	O	O	O	O	O	O	O
	LTE 41	-	-	O	O	O	O	O	O	O	O	O	O	O	O



Effective Isotropic Radiated power	LTE 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	LTE 7	-	-	0	0	0	0	0	0	-	-	0	0	0	0
	LTE 12	0	0	0	0	-	-	0	0	-	-	0	0	0	0
	LTE 17	-	-	0	0	-	-	0	0	-	-	0	0	0	0
	LTE 41	-	-	0	0	0	0	0	0	-	-	0	0	0	0
Occupied Bandwidth	LTE 4	0	0	0	0	0	0	0	0	-	-	0	0	0	0
	LTE 7	-	-	0	0	0	0	0	0	-	-	0	0	0	0
	LTE 12	0	0	0	0	-	-	0	0	-	-	0	0	0	0
	LTE 17	-	-	0	0	-	-	0	0	-	-	0	0	0	0
	LTE 41	-	-	0	0	0	0	0	0	-	-	0	0	0	0
Band Edge Compliance	LTE 4	0	0	0	0	0	0	0	0	0	-	0	0	-	0
	LTE 7	-	-	0	0	0	0	0	0	0	-	0	0	-	0
	LTE 12	0	0	0	0	-	-	0	0	0	-	0	0	-	0
	LTE 17	-	-	0	0	-	-	0	0	0	-	0	0	-	0
	LTE 41	-	-	0	0	0	0	0	0	0	-	0	0	-	0
Peak-to-Average Power Ratio	LTE 4	0	0	0	0	0	0	0	0	-	-	0	0	0	0
	LTE 7	-	-	0	0	0	0	0	0	-	-	0	0	0	0
	LTE 12	0	0	0	0	-	-	0	0	-	-	0	0	0	0
	LTE 17	-	-	0	0	-	-	0	0	-	-	0	0	0	0
	LTE 41	-	-	0	0	0	0	0	0	-	-	0	0	0	0
Frequency Stability	LTE 4	0	0	0	0	0	0	0	0	-	-	0	-	0	-
	LTE 7	-	-	0	0	0	0	0	0	-	-	0	-	0	-
	LTE 12	0	0	0	0	-	-	0	0	-	-	0	-	0	-
	LTE 17	-	-	0	0	-	-	0	0	-	-	0	-	0	-
	LTE 41	-	-	0	0	0	0	0	0	-	-	0	-	0	-
Spurious Emissions at Antenna Terminals	LTE 4	0	0	0	0	0	0	0	-	0	-	-	0	0	0
	LTE 7	-	-	0	0	0	0	0	-	0	-	-	0	0	0
	LTE 12	0	0	0	0	-	-	0	-	0	-	-	0	0	0
	LTE 17	-	-	0	0	-	-	0	-	0	-	-	0	0	0
	LTE 41	-	-	0	0	0	0	0	-	0	-	-	0	0	0
Radiates Spurious Emission	LTE 4	0	0	0	0	0	0	0	-	0	-	-	0	0	0
	LTE 7	-	-	0	0	0	0	0	-	0	-	-	0	0	0
	LTE 12	0	0	0	0	-	-	0	-	0	-	-	0	0	0
	LTE 17	-	-	0	0	-	-	0	-	0	-	-	0	0	0
	LTE 41	-	-	0	0	0	0	0	-	0	-	-	0	0	0
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

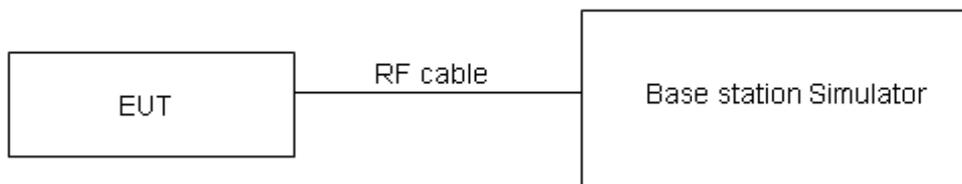
Ambient condition

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		AV Conducted Power(dBm)		
		Channel 1312	Channel 1413	Channel 1513
		1712.4 (MHz)	1732.6 (MHz)	1752.6(MHz)
RMC		22.19	22.30	22.36
HSDPA	Sub - Test 1	22.02	22.14	22.20
	Sub - Test 2	22.03	22.13	22.22
	Sub - Test 3	21.63	21.71	21.80
	Sub - Test 4	21.62	21.73	21.79
HSUPA	Sub - Test 1	22.11	22.22	22.28
	Sub - Test 2	20.27	20.38	20.44
	Sub - Test 3	21.09	21.20	21.26
	Sub - Test 4	20.28	20.39	20.45
	Sub - Test 5	22.07	22.18	22.24

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				AV 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	22.85	23.03	23.10
		1	2	22.97	22.91	22.97
		1	5	22.90	22.67	22.90
		3	0	22.65	22.64	22.80
		3	2	22.49	22.61	22.54
		3	3	22.50	22.49	22.60
		6	0	21.54	21.61	21.94
	16QAM	1	0	21.41	21.42	22.00
		1	2	21.43	22.03	21.65
		1	5	21.32	21.32	21.45
		3	0	21.61	21.75	21.80
		3	2	21.53	21.77	21.71
		3	3	21.60	21.64	21.67
		6	0	20.58	20.69	21.09
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				19965/1711.5	20175/1732.5	20385/1753.5
3MHz	QPSK	1	0	22.87	23.07	23.13
		1	7	23.00	22.96	23.01
		1	14	22.93	22.72	22.94
		8	0	21.75	21.76	21.93
		8	4	21.61	21.71	21.66
		8	7	21.60	21.60	21.70
		15	0	21.57	21.65	21.97
	16QAM	1	0	21.44	21.44	22.03
		1	7	21.46	22.08	21.69
		1	14	21.34	21.36	21.48
		8	0	20.72	20.88	20.92
		8	4	20.64	20.90	20.83
		8	7	20.70	20.76	20.80
		15	0	20.61	20.73	21.12
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				19975/1712.5	20175/1732.5	20375/1752.5
5MHz	QPSK	1	0	22.84	23.05	23.09
		1	13	22.98	22.92	22.98
		1	24	22.90	22.67	22.90
		12	0	21.72	21.71	21.89
		12	6	21.59	21.67	21.61
		12	13	21.58	21.58	21.66
		25	0	21.55	21.64	21.95



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				20000/1715	20175/1732.5	20350/1750
	16QAM	1	0	21.41	21.40	22.00
		1	13	21.43	22.06	21.66
		1	24	21.31	21.34	21.44
		12	0	20.70	20.84	20.89
		12	6	20.61	20.85	20.79
		12	13	20.67	20.71	20.76
		25	0	20.59	20.69	21.07
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				20025/1717.5	20175/1732.5	20325/1747.5
10MHz	QPSK	1	0	22.86	23.06	23.12
		1	25	23.01	22.97	23.02
		1	49	22.92	22.71	22.93
		25	0	21.75	21.76	21.93
		25	13	21.62	21.72	21.65
		25	25	21.60	21.62	21.71
		50	0	21.63	21.66	21.99
	16QAM	1	0	21.43	21.43	22.02
		1	25	21.46	22.10	21.69
		1	49	21.34	21.36	21.47
		25	0	20.73	20.89	20.93
		25	13	20.63	20.89	20.82
		25	25	20.70	20.76	20.80
		50	0	20.62	20.74	21.11
15MHz	QPSK	1	0	22.85	23.02	23.10
		1	38	22.99	22.96	22.99
		1	74	22.89	22.66	22.89
		36	0	21.73	21.72	21.90
		36	18	21.59	21.67	21.61
		36	39	21.57	21.59	21.67
		75	0	21.61	21.62	21.94
	16QAM	1	0	21.38	21.41	22.00
		1	38	21.44	22.07	21.67
		1	74	21.31	21.32	21.44
		36	0	20.70	20.87	20.90
		36	18	20.60	20.84	20.78
		36	39	20.68	20.72	20.77
		75	0	20.59	20.69	21.07
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				20050/1720	20175/1732.5	20300/1745
20MHz	QPSK	1	0	22.82	22.98	23.07
		1	50	22.99	22.92	22.97



		1	99	22.87	22.65	22.86
		50	0	21.70	21.67	21.86
		50	25	21.57	21.63	21.58
		50	50	21.54	21.54	21.63
		100	0	21.58	21.57	21.90
	16QAM	1	0	21.36	21.37	21.95
		1	50	21.40	22.05	21.63
		1	99	21.29	21.29	21.42
		50	0	20.67	20.83	20.87
		50	25	20.57	20.82	20.75
		50	50	20.65	20.67	20.73
		100	0	20.57	20.65	21.04

Note:

1) The following testing in worst case based on the maximum RF Output Power.

LTE TDD Band 7			AV Conducted Power(dBm)			
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				20775/2502.5	21100/2535	21425/2567.5
5MHz	QPSK	1	0	22.56	22.77	22.15
		1	13	22.06	22.34	22.17
		1	24	22.53	22.56	22.14
		12	0	21.75	21.86	21.54
		12	6	21.67	21.73	21.45
		12	13	21.74	21.62	21.51
		25	0	21.66	21.70	21.49
	16QAM	1	0	21.83	21.82	21.50
		1	13	21.86	21.93	21.70
		1	24	21.74	21.82	21.08
		12	0	20.88	20.70	20.91
		12	6	20.87	20.92	20.82
		12	13	20.81	20.95	20.90
		25	0	20.74	20.91	20.73
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
10MHz	QPSK			20800/2505	21100/2535	21400/2565
		1	0	22.58	22.78	22.18
		1	25	22.09	22.39	22.21
		1	49	22.55	22.60	22.17
		25	0	21.78	21.91	21.58
		25	13	21.70	21.78	21.49
		25	25	21.76	21.66	21.56



	16QAM	50	0	21.74	21.72	21.53
		1	0	21.85	21.85	21.52
		1	25	21.89	21.97	21.73
		1	49	21.77	21.84	21.11
		25	0	20.91	20.75	20.95
		25	13	20.89	20.96	20.85
		25	25	20.84	21.00	20.94
		50	0	20.77	20.96	20.77
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				20825/2507.5	21100/2535	21375/2562.5
15MHz	QPSK	1	0	22.57	22.74	22.16
		1	38	22.07	22.38	22.18
		1	74	22.52	22.55	22.13
		36	0	21.76	21.87	21.55
		36	18	21.67	21.73	21.45
		36	39	21.73	21.63	21.52
		75	0	21.72	21.68	21.48
	16QAM	1	0	21.80	21.83	21.50
		1	38	21.87	21.94	21.71
		1	74	21.74	21.80	21.08
		36	0	20.88	20.73	20.92
		36	18	20.86	20.91	20.81
		36	39	20.82	20.96	20.91
		75	0	20.74	20.91	20.73
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				20850/2510	21100/2535	21350/2560
20MHz	QPSK	1	0	22.54	22.70	22.13
		1	50	22.06	22.34	22.16
		1	99	22.50	22.54	22.10
		50	0	21.73	21.82	21.51
		50	25	21.65	21.69	21.42
		50	50	21.70	21.58	21.48
		100	0	21.69	21.63	21.44
	16QAM	1	0	21.78	21.79	21.45
		1	50	21.83	21.92	21.67
		1	99	21.72	21.77	21.06
		50	0	20.85	20.69	20.89
		50	25	20.83	20.89	20.78
		50	50	20.79	20.91	20.87
		100	0	20.72	20.87	20.70

LTE TDD Band 12				AV Conducted Power(dBm)		
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				23017/699.7	23095/707.5	23173/715.3
1.4MHz	QPSK	1	0	22.81	22.87	23.02
		1	2	22.97	23.07	23.47
		1	5	23.05	22.93	22.88
		3	0	22.74	22.81	22.86
		3	2	22.87	22.78	22.90
		3	3	22.77	22.76	22.86
		6	0	21.89	21.86	21.91
	16QAM	1	0	21.72	21.81	21.72
		1	2	22.19	22.20	21.78
		1	5	21.95	21.91	21.86
		3	0	21.83	21.83	21.82
		3	2	21.93	21.22	21.90
		3	3	21.86	21.91	21.91
		6	0	20.99	20.89	20.88
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				23025/700.5	23095/707.5	23165/714.5
3MHz	QPSK	1	0	22.83	22.91	23.05
		1	7	23.00	23.12	23.51
		1	14	23.08	22.98	22.92
		8	0	21.84	21.93	21.99
		8	4	21.99	21.88	22.02
		8	7	21.87	21.87	21.96
		15	0	21.92	21.90	21.94
	16QAM	1	0	21.75	21.83	21.75
		1	7	22.22	22.25	21.82
		1	14	21.97	21.95	21.89
		8	0	20.94	20.96	20.94
		8	4	21.04	21.35	21.02
		8	7	20.96	21.03	21.04
		15	0	21.02	20.93	20.91
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				23035/701.5	23095/707.5	23155/713.5
5MHz	QPSK	1	0	22.81	22.86	23.02
		1	13	22.99	23.12	23.49
		1	24	23.04	22.92	22.87
		12	0	21.82	21.89	21.96
		12	6	21.97	21.84	21.97
		12	13	21.84	21.86	21.93
		25	0	21.96	21.87	21.91



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				23060/704	23095/707.5	23130/711
				10MHz	16QAM	1
1	13	22.20	22.24			21.80
1	24	21.94	21.91			21.85
12	0	20.92	20.95			20.92
12	6	21.00	21.29			20.97
12	13	20.94	20.99			21.01
25	0	21.00	20.89			20.86
10MHz	QPSK	1	0	22.78	22.82	22.99
		1	25	22.98	23.08	23.47
		1	49	23.02	22.91	22.84
		25	0	21.79	21.84	21.92
		25	13	21.95	21.80	21.94
		25	25	21.81	21.81	21.89
		50	0	21.93	21.82	21.87
	16QAM	1	0	21.67	21.76	21.67
		1	25	22.16	22.22	21.76
		1	49	21.92	21.88	21.83
		25	0	20.89	20.91	20.89
		25	13	20.97	21.27	20.94
		25	25	20.91	20.94	20.97
		50	0	20.98	20.85	20.83

LTE TDD Band 17				AV Conducted Power(dBm)		
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				23755/706.5	23790/710	23825/713.5
5MHz	QPSK	1	0	23.23	23.14	23.22
		1	13	23.17	23.11	23.07
		1	24	23.13	23.10	23.20
		12	0	22.00	22.00	21.94
		12	6	22.09	22.08	22.10
		12	13	22.06	22.06	22.07
		25	0	21.90	22.08	22.08
	16QAM	1	0	21.90	22.01	21.68
		1	13	21.85	21.83	21.70
		1	24	21.89	21.76	21.80
		12	0	21.24	20.92	20.86
		12	6	20.92	20.97	20.94
		12	13	21.00	20.79	20.91
		25	0	20.88	20.95	21.01



Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				23780/709	23790/710	23800/711
10MHz	QPSK	1	0	23.21	23.07	23.20
		1	25	23.17	23.11	23.06
		1	49	23.10	23.08	23.16
		25	0	21.98	21.96	21.91
		25	13	22.07	22.04	22.06
		25	25	22.02	22.02	22.04
		50	0	21.93	22.01	22.03
	16QAM	1	0	21.85	21.98	21.63
		1	25	21.82	21.82	21.67
		1	49	21.87	21.71	21.78
		25	0	21.21	20.91	20.84
		25	13	20.88	20.94	20.90
		25	25	20.98	20.75	20.88
		50	0	20.86	20.91	20.98

LTE TDD Band 41				AV Conducted Power(dBm)		
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				39675/2498.5	40620/2593	41565/2687.5
5MHz	QPSK	1	0	22.17	22.58	22.11
		1	13	22.27	22.55	22.31
		1	24	22.30	22.47	22.28
		12	0	21.18	21.46	21.42
		12	6	21.28	21.45	21.39
		12	13	21.24	21.36	21.42
		25	0	21.22	21.41	21.38
	16QAM	1	0	20.87	21.07	20.97
		1	13	21.16	21.08	21.26
		1	24	20.84	20.95	21.01
		12	0	20.16	20.48	20.26
		12	6	20.28	20.51	20.27
		12	13	20.21	20.47	20.43
		25	0	20.14	20.43	20.31
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				39700/2501	40620/2593	41540/2685
10MHz	QPSK	1	0	22.19	22.59	22.14
		1	25	22.30	22.60	22.35
		1	49	22.32	22.51	22.31



		25	0	21.21	21.51	21.46
		25	13	21.31	21.50	21.43
		25	25	21.26	21.40	21.47
		50	0	21.30	21.43	21.42
	16QAM	1	0	20.89	21.10	20.99
		1	25	21.19	21.12	21.29
		1	49	20.87	20.97	21.04
		25	0	20.19	20.53	20.30
		25	13	20.30	20.55	20.30
		25	25	20.24	20.52	20.47
50	0	20.17	20.48	20.35		
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				39725/2503.5	40620/2593	41515/2682.5
15MHz	QPSK	1	0	22.18	22.55	22.12
		1	38	22.28	22.59	22.32
		1	74	22.29	22.46	22.27
		36	0	21.19	21.47	21.43
		36	18	21.28	21.45	21.39
		36	39	21.23	21.37	21.43
		75	0	21.28	21.39	21.37
	16QAM	1	0	20.84	21.08	20.97
		1	38	21.17	21.09	21.27
		1	74	20.84	20.93	21.01
		36	0	20.16	20.51	20.27
		36	18	20.27	20.50	20.26
		36	39	20.22	20.48	20.44
		75	0	20.14	20.43	20.31
Bandwidth	Modulation	RB size	RB offset	Channel/Frequency (MHz)		
				39750/2506	40620/2593	41490/2680
20MHz	QPSK	1	0	22.15	22.51	22.09
		1	50	22.27	22.55	22.30
		1	99	22.27	22.45	22.24
		50	0	21.16	21.42	21.39
		50	25	21.26	21.41	21.36
		50	50	21.20	21.32	21.39
		100	0	21.25	21.34	21.33
	16QAM	1	0	20.82	21.04	20.92
		1	50	21.13	21.07	21.23
		1	99	20.82	20.90	20.99
		50	0	20.13	20.47	20.24



		50	25	20.24	20.48	20.23
		50	50	20.19	20.43	20.40
		100	0	20.12	20.39	20.28

DL LTE CA Class	PCC								SCC			Power	
	PCC Band	PCC Bandwidth (MHz)	PCC UL RB size	PCC UL RB offset	PCC DL RB size	PCC DL RB offset	PCC UL Channel	PCC DL Channel	SCC Band	SCC Bandwidth (MHz)	SCC DL Channel	Rel 8 LTE Tx Power (dBm)	Rel 10 DL LTE CA Tx Power (dBm)
CA_4A-12A	4	1.4	1	0	6	0	20175	2175	12	10	5060	22.93	22.84
	4	3	1	14	15	0	19965	1965	12	10	5060	22.81	22.61
	4	5	1	24	25	0	19975	1975	12	10	5060	22.85	22.56
	4	10	1	25	50	0	20000	2000	12	10	5060	22.97	22.72
	12	5	1	24	25	0	23035	5035	4	10	2000	23.40	23.19
	12	10	1	49	50	0	23060	5060	4	10	2000	23.35	22.87
CA_4A-17A	4	5	1	24	25	0	19975	1975	17	10	5790	22.57	22.39
	4	10	1	25	50	0	20000	2000	17	10	5790	22.95	22.84
	17	5	1	24	25	0	23790	5790	4	10	2000	23.23	23.17
	17	10	1	25	50	0	23790	5790	4	10	2000	22.97	22.84

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.

$$E_t = R_t + AF$$

$$E_s = R_s + AF$$

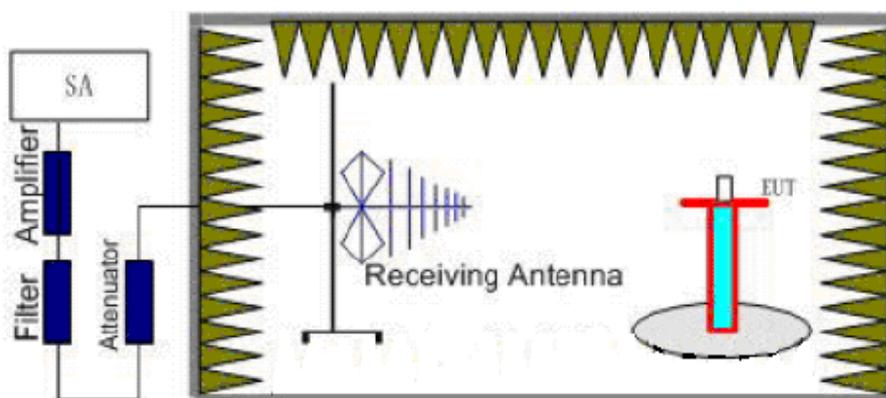
AF (dB/m) : Receive antenna factor

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”,

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

Rule Part 27.50(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)	≤ 1 W (30 dBm)
Part 27.50(c)(10)Limit (ERP)	≤ 3 W (34.77 dBm)
Part 27.50(h)(2) Limit (EIRP)	≤ 2 W (33 dBm)

Measurement Uncertainty

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

Test Results

WCDMA Band IV							
Frequency (MHz)	Ant Pot (H/V)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	EIRP (dBm)	Conclusion
1712.4	H	-35.73	-54.90	0.00	1.42	20.59	Pass
1732.6	H	-35.10	-54.89	0.00	1.53	21.32	Pass
1752.6	H	-34.77	-54.51	0.00	1.72	21.46	Pass
1712.4	V	-38.74	-55.40	0.00	1.42	18.08	Pass
1732.6	V	-39.74	-55.32	0.00	1.53	17.11	Pass
1752.6	V	-40.28	-55.58	0.00	1.72	17.02	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	-35.66	-54.30	0.00	1.44	20.08	Pass
	1732.5	H	-35.46	-54.32	0.00	1.57	20.42	Pass
	1754.3	H	-35.00	-54.10	0.00	1.72	20.82	Pass
	1710.7	V	-37.69	-54.35	0.00	1.44	18.10	Pass
	1732.5	V	-39.03	-54.41	0.00	1.57	16.95	Pass
	1754.3	V	-41.19	-54.52	0.00	1.72	15.05	Pass
1.4MHz (16QAM)	1710.7	H	-35.86	-54.30	0.00	1.44	19.88	Pass
	1732.5	H	-35.66	-54.32	0.00	1.57	20.22	Pass
	1754.3	H	-35.30	-54.10	0.00	1.72	20.52	Pass
	1710.7	V	-37.89	-54.35	0.00	1.44	17.90	Pass
	1732.5	V	-39.20	-54.41	0.00	1.57	16.78	Pass
	1754.3	V	-41.38	-54.52	0.00	1.72	14.86	Pass
3MHz (QPSK)	1711.5	H	-35.96	-54.33	0.00	1.44	19.81	Pass
	1732.5	H	-35.41	-54.32	0.00	1.57	20.47	Pass
	1753.5	H	-35.30	-54.11	0.00	1.72	20.53	Pass
	1711.5	V	-37.89	-54.35	0.00	1.44	17.90	Pass
	1732.5	V	-39.28	-54.41	0.00	1.57	16.70	Pass
	1753.5	V	-41.06	-54.48	0.00	1.72	15.14	Pass
3MHz (16QAM)	1711.5	H	-36.26	-54.33	0.00	1.44	19.51	Pass
	1732.5	H	-35.71	-54.32	0.00	1.57	20.17	Pass
	1753.5	H	-35.60	-54.11	0.00	1.72	20.23	Pass
	1711.5	V	-38.19	-54.35	0.00	1.44	17.60	Pass
	1732.5	V	-39.58	-54.41	0.00	1.57	16.40	Pass
	1753.5	V	-41.36	-54.48	0.00	1.72	14.84	Pass
5MHz (QPSK)	1712.5	H	-36.00	-54.34	0.00	1.44	19.78	Pass
	1732.5	H	-35.42	-54.32	0.00	1.57	20.46	Pass
	1752.5	H	-35.25	-54.13	0.00	1.72	20.59	Pass
	1712.5	V	-38.28	-54.38	0.00	1.44	17.54	Pass
	1732.5	V	-39.50	-54.41	0.00	1.57	16.48	Pass



	1752.5	V	-40.98	-54.47	0.00	1.72	15.21	Pass
5MHz (16QAM)	1712.5	H	-36.02	-54.34	0.00	1.44	19.76	Pass
	1732.5	H	-36.02	-54.32	0.00	1.57	19.86	Pass
	1752.5	H	-36.26	-54.13	0.00	1.72	19.58	Pass
	1712.5	V	-38.32	-54.38	0.00	1.44	17.50	Pass
	1732.5	V	-39.63	-54.41	0.00	1.57	16.35	Pass
	1752.5	V	-41.01	-54.47	0.00	1.72	15.17	Pass
	10MHz (QPSK)	1715	H	-35.58	-54.33	0.00	1.44	20.19
1732.5		H	-35.55	-54.32	0.00	1.57	20.33	Pass
1750		H	-34.90	-54.12	0.00	1.66	20.88	Pass
1715		V	-38.15	-54.32	0.00	1.44	17.61	Pass
1732.5		V	-39.47	-54.41	0.00	1.57	16.51	Pass
1750		V	-40.16	-54.52	0.00	1.66	16.02	Pass
10MHz (16QAM)	1715	H	-36.08	-54.33	0.00	1.44	19.69	Pass
	1732.5	H	-36.05	-54.32	0.00	1.57	19.83	Pass
	1750	H	-35.40	-54.12	0.00	1.66	20.38	Pass
	1715	V	-38.65	-54.32	0.00	1.44	17.11	Pass
	1732.5	V	-39.97	-54.41	0.00	1.57	16.01	Pass
	1750	V	-40.66	-54.52	0.00	1.66	15.52	Pass
15MHz (QPSK)	1717.5	H	-34.37	-54.35	0.00	1.49	21.46	Pass
	1732.5	H	-34.40	-54.32	0.00	1.57	21.48	Pass
	1747.5	H	-34.11	-54.17	0.00	1.66	21.72	Pass
	1717.5	V	-36.47	-54.39	0.00	1.49	19.41	Pass
	1732.5	V	-36.69	-54.41	0.00	1.57	19.29	Pass
	1747.5	V	-36.38	-54.51	0.00	1.66	19.79	Pass
15MHz (16QAM)	1717.5	H	-34.73	-54.35	0.00	1.49	21.10	Pass
	1732.5	H	-34.76	-54.32	0.00	1.57	21.12	Pass
	1747.5	H	-34.47	-54.17	0.00	1.66	21.36	Pass
	1717.5	V	-36.83	-54.39	0.00	1.49	19.05	Pass
	1732.5	V	-37.05	-54.41	0.00	1.57	18.93	Pass
	1747.5	V	-36.74	-54.51	0.00	1.66	19.43	Pass
20MHz (QPSK)	1720	H	-35.89	-54.37	0.00	1.49	19.97	Pass
	1732.5	H	-35.80	-54.32	0.00	1.57	20.08	Pass
	1745	H	-35.27	-54.23	0.00	1.63	20.59	Pass
	1720	V	-39.50	-54.44	0.00	1.49	16.43	Pass
	1732.5	V	-38.79	-54.41	0.00	1.57	17.19	Pass
	1745	V	-39.93	-54.59	0.00	1.63	16.29	Pass
20MHz (16QAM)	1720	H	-36.47	-54.37	0.00	1.49	19.39	Pass
	1732.5	H	-36.38	-54.32	0.00	1.57	19.50	Pass
	1745	H	-35.85	-54.23	0.00	1.63	20.01	Pass
	1720	V	-40.08	-54.44	0.00	1.49	15.85	Pass
	1732.5	V	-39.37	-54.41	0.00	1.57	16.61	Pass
	1745	V	-40.51	-54.59	0.00	1.63	15.71	Pass

LTE Band 7								
Band width	Frequency (MHz)	Ant Pot (H/V)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	EIRP (dBm)	Conclusion
5MHz (QPSK)	2502.5	H	-37.86	-59.64	0.00	1.81	23.59	Pass
	2535	H	-38.97	-59.72	0.00	1.81	22.56	Pass
	2567.5	H	-39.83	-59.98	0.00	1.83	21.98	Pass
	2502.5	V	-42.22	-59.31	0.00	1.81	18.90	Pass
	2535	V	-43.04	-59.11	0.00	1.81	17.88	Pass
	2567.5	V	-44.31	-59.59	0.00	1.83	17.11	Pass
5MHz (16QAM)	2502.5	H	-38.13	-59.64	0.00	1.81	23.32	Pass
	2535	H	-39.24	-59.72	0.00	1.81	22.29	Pass
	2567.5	H	-40.10	-59.98	0.00	1.83	21.71	Pass
	2502.5	V	-42.49	-59.31	0.00	1.81	18.63	Pass
	2535	V	-43.31	-59.11	0.00	1.81	17.61	Pass
	2567.5	V	-44.58	-59.59	0.00	1.83	16.84	Pass
10MHz (QPSK)	2505	H	-38.94	-59.61	0.00	1.82	22.49	Pass
	2535	H	-38.78	-59.72	0.00	1.81	22.75	Pass
	2565	H	-38.11	-60.02	0.00	1.81	23.72	Pass
	2505	V	-43.66	-59.33	0.00	1.82	17.49	Pass
	2535	V	-42.79	-59.11	0.00	1.81	18.13	Pass
	2565	V	-42.48	-59.59	0.00	1.81	18.92	Pass
10MHz (16QAM)	2505	H	-39.34	-59.61	0.00	1.82	22.09	Pass
	2535	H	-39.18	-59.72	0.00	1.81	22.35	Pass
	2565	H	-38.51	-60.02	0.00	1.81	23.32	Pass
	2505	V	-44.06	-59.33	0.00	1.82	17.09	Pass
	2535	V	-43.19	-59.11	0.00	1.81	17.73	Pass
	2565	V	-42.88	-59.59	0.00	1.81	18.52	Pass
15MHz (QPSK)	2507.5	H	-38.11	-59.71	0.00	1.80	23.40	Pass
	2535	H	-39.27	-59.72	0.00	1.81	22.26	Pass
	2562.5	H	-39.82	-60.08	0.00	1.82	22.08	Pass
	2507.5	V	-42.92	-59.29	0.00	1.80	18.17	Pass
	2535	V	-43.74	-59.72	0.00	1.81	17.79	Pass
	2562.5	V	-44.11	-59.46	0.00	1.82	17.17	Pass
15MHz (16QAM)	2507.5	H	-38.68	-59.71	0.00	1.80	22.83	Pass
	2535	H	-39.84	-59.72	0.00	1.81	21.69	Pass
	2562.5	H	-40.39	-60.08	0.00	1.82	21.51	Pass
	2507.5	V	-43.49	-59.29	0.00	1.80	17.60	Pass
	2535	V	-44.31	-59.72	0.00	1.81	17.22	Pass
	2562.5	V	-44.68	-59.46	0.00	1.82	16.60	Pass
20MHz (QPSK)	2510	H	-38.03	-59.52	0.00	1.77	23.26	Pass
	2535	H	-39.27	-59.72	0.00	1.81	22.26	Pass
	2560	H	-39.78	-60.01	0.00	1.82	22.05	Pass



	2510	V	-41.35	-59.09	0.00	1.77	19.51	Pass
	2535	V	-42.70	-59.72	0.00	1.81	18.83	Pass
	2560	V	-43.19	-59.52	0.00	1.82	18.15	Pass
20MHz (16QAM)	2510	H	-38.82	-59.52	0.00	1.77	22.47	Pass
	2535	H	-40.06	-59.72	0.00	1.81	21.47	Pass
	2560	H	-40.57	-60.01	0.00	1.82	21.26	Pass
	2510	V	-42.14	-59.09	0.00	1.77	18.72	Pass
	2535	V	-43.49	-59.72	0.00	1.81	18.04	Pass
	2560	V	-43.98	-59.52	0.00	1.82	17.36	Pass

LTE Band 12								
andwidth	Frequency (MHz)	Ant Pot (H/V)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBi)	ERP (dBm)	Conclusion
1.4MHz (QPSK)	699.7	H	-33.94	-49.12	0.00	2.04	17.22	Pass
	707.5	H	-33.68	-49.39	0.00	2.03	17.75	Pass
	715.3	H	-33.62	-49.76	0.00	1.99	18.13	Pass
	699.7	V	-53.80	-48.91	0.00	2.04	-2.84	Pass
	707.5	V	-54.03	-49.12	0.00	2.03	-2.88	Pass
	715.3	V	-54.20	-49.43	0.00	1.99	-2.77	Pass
1.4MHz (16QAM)	699.7	H	-34.37	-49.12	0.00	2.04	16.79	Pass
	707.5	H	-33.52	-49.39	0.00	2.03	17.91	Pass
	715.3	H	-34.09	-49.76	0.00	1.99	17.66	Pass
	699.7	V	-54.25	-48.91	0.00	2.04	-3.30	Pass
	707.5	V	-54.48	-49.12	0.00	2.03	-3.33	Pass
	715.3	V	-54.65	-49.43	0.00	1.99	-3.22	Pass
3MHz (QPSK)	700.5	H	-34.17	-49.15	0.00	2.04	17.02	Pass
	707.5	H	-34.00	-49.39	0.00	2.03	17.43	Pass
	714.5	H	-33.88	-49.73	0.00	2.00	17.85	Pass
	700.5	V	-54.42	-48.94	0.00	2.04	-3.44	Pass
	707.5	V	-54.10	-49.12	0.00	2.03	-2.95	Pass
	714.5	V	-53.66	-49.37	0.00	2.00	-2.29	Pass
3MHz (16QAM)	700.5	H	-34.85	-49.15	0.00	2.04	16.34	Pass
	707.5	H	-34.68	-49.39	0.00	2.03	16.75	Pass
	714.5	H	-34.56	-49.73	0.00	2.00	17.17	Pass
	700.5	V	-55.10	-48.94	0.00	2.04	-4.12	Pass
	707.5	V	-54.78	-49.12	0.00	2.03	-3.63	Pass
	714.5	V	-54.34	-49.37	0.00	2.00	-2.97	Pass
5MHz (QPSK)	701.5	H	-33.71	-49.17	0.00	2.04	17.51	Pass
	707.5	H	-33.51	-49.39	0.00	2.03	17.92	Pass
	713.5	H	-33.81	-49.72	0.00	2.01	17.91	Pass
	701.5	V	-38.30	-48.95	0.00	2.04	12.69	Pass
	707.5	V	-38.04	-49.12	0.00	2.03	13.11	Pass



	713.5	V	-38.37	-49.35	0.00	2.01	12.99	Pass
5MHz (16QAM)	701.5	H	-34.30	-49.17	0.00	2.04	16.92	Pass
	707.5	H	-34.10	-49.39	0.00	2.03	17.33	Pass
	713.5	H	-34.40	-49.72	0.00	2.01	17.32	Pass
	701.5	V	-38.89	-48.95	0.00	2.04	12.10	Pass
	707.5	V	-38.63	-49.12	0.00	2.03	12.52	Pass
	713.5	V	-38.96	-49.35	0.00	2.01	12.40	Pass
	10MHz (QPSK)	704	H	-33.06	-49.25	0.00	2.04	18.23
707.5		H	-33.15	-49.39	0.00	2.03	18.28	Pass
711		H	-33.70	-49.65	0.00	2.02	17.97	Pass
704		V	-37.73	-49.00	0.00	2.04	13.31	Pass
707.5		V	-37.80	-49.12	0.00	2.03	13.35	Pass
711		V	-38.39	-49.33	0.00	2.02	12.95	Pass
10MHz (16QAM)	704	H	-33.65	-49.25	0.00	2.04	17.64	Pass
	707.5	H	-33.84	-49.39	0.00	2.03	17.59	Pass
	711	H	-34.49	-49.65	0.00	2.02	17.18	Pass
	704	V	-38.38	-49.00	0.00	2.04	12.66	Pass
	707.5	V	-38.46	-49.12	0.00	2.03	12.69	Pass
	711	V	-39.05	-49.33	0.00	2.02	12.29	Pass

LTE Band 17								
Band width	Frequency (MHz)	Ant Pot (H/V)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	EIRP (dBm)	Conclusion
5MHz (QPSK)	706.5	H	-31.80	-47.47	0.00	1.92	17.59	Pass
	710	H	-31.92	-47.75	0.00	1.90	17.74	Pass
	713.5	H	-31.80	-47.72	0.00	1.91	17.82	Pass
	706.5	V	-36.67	-47.33	0.00	1.92	12.58	Pass
	710	V	-36.58	-47.49	0.00	1.90	12.82	Pass
	713.5	V	-36.38	-47.43	0.00	1.91	12.96	Pass
5MHz (16QAM)	706.5	H	-32.16	-47.47	0.00	1.92	17.23	Pass
	710	H	-32.21	-47.75	0.00	1.90	17.45	Pass
	713.5	H	-32.50	-47.72	0.00	1.91	17.12	Pass
	706.5	V	-37.39	-47.33	0.00	1.92	11.86	Pass
	710	V	-37.45	-47.49	0.00	1.90	11.95	Pass
	713.5	V	-36.80	-47.43	0.00	1.91	12.54	Pass
10MHz (QPSK)	709	H	-32.11	-47.70	0.00	1.91	17.50	Pass
	710	H	-31.51	-47.75	0.00	1.90	18.15	Pass
	711	H	-31.95	-47.76	0.00	1.90	17.72	Pass
	709	V	-36.70	-47.49	0.00	1.91	12.69	Pass
	710	V	-36.45	-47.49	0.00	1.90	12.95	Pass
	711	V	-36.48	-47.48	0.00	1.90	12.90	Pass
10MHz (16QAM)	709	H	-32.20	-47.70	0.00	1.91	17.41	Pass
	710	H	-31.65	-47.75	0.00	1.90	18.01	Pass



	711	H	-32.41	-47.76	0.00	1.90	17.26	Pass
	709	V	-37.24	-47.49	0.00	1.91	12.15	Pass
	710	V	-36.86	-47.49	0.00	1.90	12.54	Pass
	711	V	-36.89	-47.48	0.00	1.90	12.49	Pass

LTE Band 41								
Band width	Frequency (MHz)	Ant Pot (H/V)	Rt (dBm)	Rs (dBm)	Ps (dBm)	Gs (dBd)	EIRP (dBm)	Conclusion
5MHz (QPSK)	2498.5	H	-38.33	-61.07	0.00	1.80	24.54	Pass
	2593	H	-39.97	-62.08	0.00	1.85	23.96	Pass
	2687.5	H	-44.17	-63.61	0.00	2.00	21.44	Pass
	2498.5	V	-42.00	-60.85	0.00	1.80	20.65	Pass
	2593	V	-43.74	-62.08	0.00	1.85	20.19	Pass
	2687.5	V	-48.03	-64.28	0.00	2.00	18.25	Pass
5MHz (16QAM)	2498.5	H	-38.52	-61.07	0.00	1.80	24.35	Pass
	2593	H	-41.37	-62.08	0.00	1.85	22.56	Pass
	2687.5	H	-44.27	-63.61	0.00	2.00	21.34	Pass
	2498.5	V	-43.40	-60.85	0.00	1.80	19.25	Pass
	2593	V	-44.91	-62.08	0.00	1.85	19.02	Pass
	2687.5	V	-48.69	-64.28	0.00	2.00	17.59	Pass
10MHz (QPSK)	2501	H	-37.90	-61.08	0.00	1.81	24.99	Pass
	2593	H	-39.79	-62.08	0.00	1.85	24.14	Pass
	2685	H	-43.60	-63.56	0.00	1.99	21.95	Pass
	2501	V	-41.69	-60.90	0.00	1.81	21.02	Pass
	2593	V	-43.68	-62.08	0.00	1.85	20.25	Pass
	2685	V	-47.63	-64.37	0.00	1.99	18.73	Pass
10MHz (16QAM)	2501	H	-39.73	-61.08	0.00	1.81	23.16	Pass
	2593	H	-40.91	-62.08	0.00	1.85	23.02	Pass
	2685	H	-44.70	-63.56	0.00	1.99	20.85	Pass
	2501	V	-43.03	-60.90	0.00	1.81	19.68	Pass
	2593	V	-44.81	-62.08	0.00	1.85	19.12	Pass
	2685	V	-48.15	-64.37	0.00	1.99	18.21	Pass
15MHz (QPSK)	2503.5	H	-38.16	-61.13	0.00	1.82	24.79	Pass
	2593	H	-39.81	-62.08	0.00	1.85	24.12	Pass
	2682.5	H	-43.54	-63.50	0.00	2.00	21.96	Pass
	2503.5	V	-41.65	-60.93	0.00	1.82	21.10	Pass
	2593	V	-43.45	-62.08	0.00	1.85	20.48	Pass
	2682.5	V	-48.00	-64.41	0.00	2.00	18.41	Pass
15MHz (16QAM)	2503.5	H	-39.79	-61.13	0.00	1.82	23.16	Pass
	2593	H	-40.91	-62.08	0.00	1.85	23.02	Pass
	2682.5	H	-44.64	-63.50	0.00	2.00	20.86	Pass
	2503.5	V	-42.24	-60.93	0.00	1.82	20.51	Pass



	2593	V	-44.04	-62.08	0.00	1.85	19.89	Pass
	2682.5	V	-48.29	-64.41	0.00	2.00	18.12	Pass
20MHz (QPSK)	2506	H	-38.06	-61.14	0.00	1.81	24.89	Pass
	2593	H	-40.07	-62.08	0.00	1.85	23.86	Pass
	2680	H	-43.32	-63.56	0.00	1.80	22.04	Pass
	2506	V	-41.73	-60.93	0.00	1.81	21.01	Pass
	2593	V	-43.85	-62.08	0.00	1.85	20.08	Pass
	2680	V	-47.66	-64.34	0.00	1.80	18.48	Pass
20MHz (16QAM)	2506	H	-39.14	-61.14	0.00	1.81	23.81	Pass
	2593	H	-40.26	-62.08	0.00	1.85	23.67	Pass
	2680	H	-43.35	-63.56	0.00	1.80	22.01	Pass
	2506	V	-42.58	-60.93	0.00	1.81	20.16	Pass
	2593	V	-44.08	-62.08	0.00	1.85	19.85	Pass
	2680	V	-48.52	-64.34	0.00	1.80	17.62	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 occupied bandwidth is measured using spectrum analyzer.

RBW is set to 51 kHz, VBW is set to 160 kHz for WCDMA Band IV.

RBW is set to 51 kHz, VBW is set to 160 kHz for LTE Band 4/12 (1.4MHz).

RBW is set to 100 kHz, VBW is set to 300 kHz for LTE Band 4/12 (3MHz).

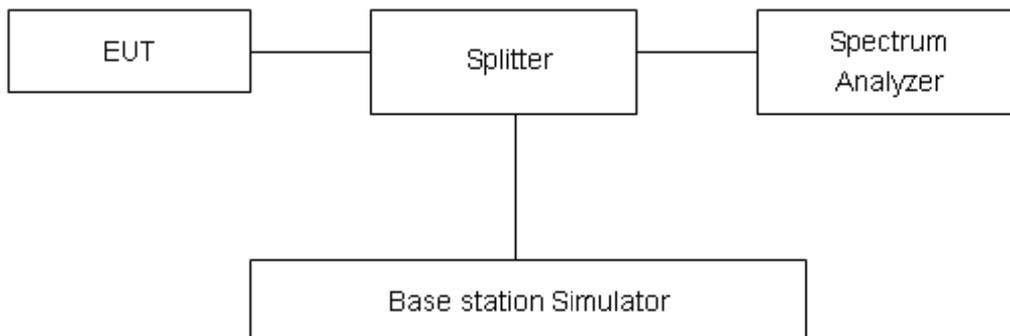
RBW is set to 100 kHz, VBW is set to 300 kHz for LTE Band 4/7/12/17/41 (5MHz).

RBW is set to 300 kHz, VBW is set to 1MHz for LTE Band 4/7/12/17/41 (10MHz).

RBW is set to 300 kHz, VBW is set to 1MHz for LTE Band 4/7/41 (15MHz/20MHz).

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

Test Setup



Limits

No specific occupied bandwidth requirements in part 2.1049.

Measurement Uncertainty

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

Test Result

Mode	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
WCDMA Band IV (RMC)	1312	1712.4	4.1082	4.682
	1413	1732.6	4.1280	4.709
	1513	1752.6	4.1210	4.717

LTE Band 4						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(kHz)	-26dBc Bandwidth(kHz)
100%	QPSK	1.4	19957	1710.7	1.1165	1.362
			20175	1732.5	1.1263	1.414
			20393	1754.3	1.1300	1.341
		3	19965	1711.5	2.7462	3.066
			20175	1732.5	2.7529	3.070
			20385	1753.5	2.7402	3.072
		5	19975	1712.5	4.5017	4.986
			20175	1732.5	4.5266	5.005
			20375	1752.5	4.5096	5.022
		10	20000	1715	9.0162	10.03
			20175	1732.5	9.0216	9.976
			20350	1750	9.0489	10.14
		15	20025	1717.5	13.426	14.75
			20175	1732.5	13.417	14.76
			20325	1747.5	13.464	14.83
		20	20050	1720	17.891	19.34
			20175	1732.5	17.845	19.47
			20300	1745	17.858	19.22
	16QAM	1.4	19957	1710.7	1.1206	1.339
			20175	1732.5	1.1171	1.343
			20393	1754.3	1.1244	1.372
		3	19965	1711.5	2.7405	3.046
			20175	1732.5	2.7303	3.058
			20385	1753.5	2.7341	3.068
5		19975	1712.5	4.5173	5.008	
		20175	1732.5	4.5005	5.030	
		20375	1752.5	4.5194	5.030	
10		20000	1715	9.0183	9.965	
		20175	1732.5	9.0300	10.04	
		20350	1750	9.0221	10.05	



	15	20025	1717.5	13.447	14.62
		20175	1732.5	13.443	14.52
		20325	1747.5	13.463	14.62
	20	20050	1720	17.902	19.37
		20175	1732.5	17.815	19.21
		20300	1745	17.900	19.22

LTE Band 7						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(kHz)	-26dBc Bandwidth(kHz)
100%	QPSK	5	20775	2502.5	4.5060	5.031
			21100	2535	4.5222	5.013
			21425	2567.5	4.5060	5.008
		10	20800	2505	9.0333	10.12
			21100	2535	9.0395	10.05
			21400	2565	9.0333	10.12
		15	20825	2507.5	13.452	14.63
			21100	2535	13.492	14.80
			21375	2562.5	13.437	14.78
		20	20850	2510	17.900	19.21
			21100	2535	17.913	19.28
			21350	2560	17.837	19.12
	16QAM	5	20775	2502.5	4.5256	5.052
			21100	2535	4.4908	4.983
			21425	2567.5	4.5213	5.025
		10	20800	2505	9.0283	10.02
			21100	2535	8.9970	10.08
			21400	2565	9.0283	10.02
		15	20825	2507.5	13.494	14.63
			21100	2535	13.466	14.65
			21375	2562.5	13.468	14.76
		20	20850	2510	17.875	19.20
			21100	2535	17.963	19.39
			21350	2560	17.846	19.32

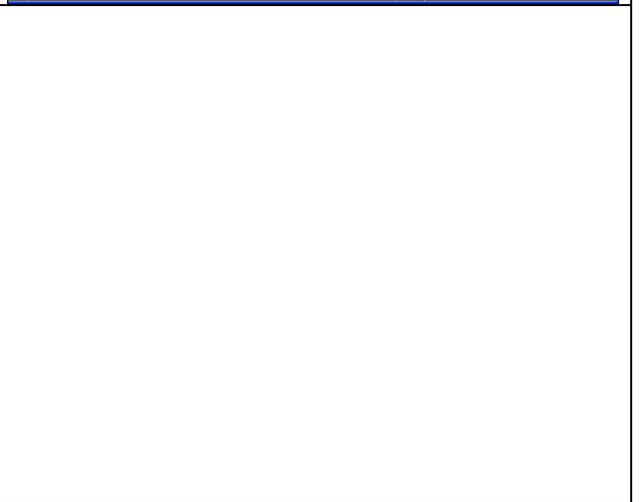
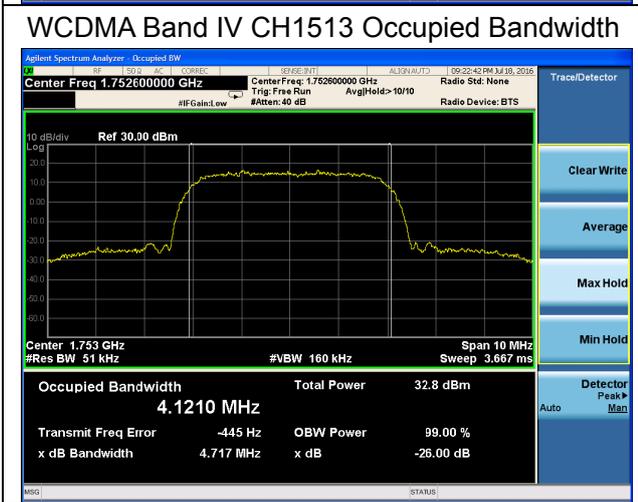
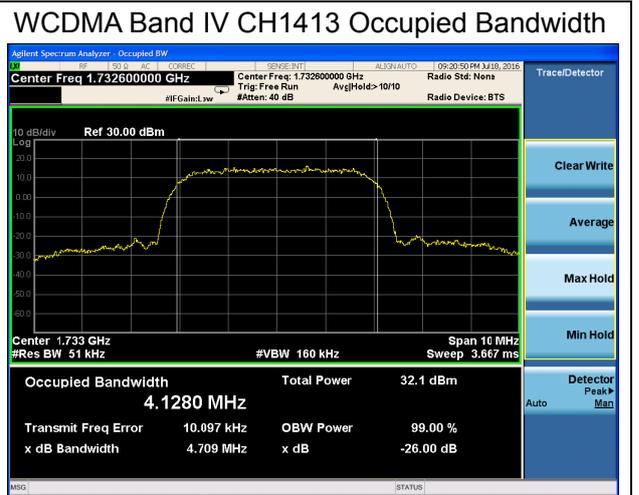
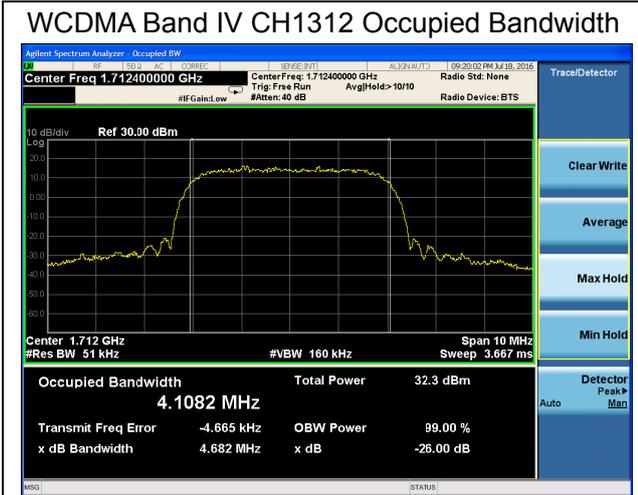
LTE Band 12						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(kHz)	-26dBc Bandwidth(kHz)
100%	QPSK	1.4	23017	699.7	1.1290	1.363
			23095	707.5	1.1387	1.375
			23173	715.3	1.1216	1.367



		3	23025	700.5	2.7419	3.073	
			23095	707.5	2.7459	3.074	
			23165	714.5	2.7416	3.050	
		5	23035	701.5	4.5093	4.959	
			23095	707.5	4.5285	4.993	
			23155	713.5	4.5031	4.968	
		10	23060	704	9.0086	10.06	
			23095	707.5	9.0014	10.04	
			23130	711	9.0353	10.12	
		16QAM	1.4	23017	699.7	1.1227	1.343
				23095	707.5	1.1173	1.354
				23173	715.3	1.1194	1.340
	3		23025	700.5	2.7395	3.047	
			23095	707.5	2.7353	3.055	
			23165	714.5	2.7380	3.065	
	5		23035	701.5	4.5077	4.983	
			23095	707.5	4.4991	4.960	
			23155	713.5	4.5367	5.057	
	10		23060	704	9.0081	9.989	
			23095	707.5	8.9939	9.945	
			23130	711	9.0506	10.09	

LTE Band 17						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(kHz)	-26dBc Bandwidth(kHz)
100%	QPSK	5	23755	706.5	4.5182	4.978
			23790	710	4.4983	4.942
			23825	713.5	4.5101	5.008
		10	23780	709	9.0049	10.10
			23790	710	9.0485	10.11
			23800	711	9.0284	10.06
	16QAM	5	23755	706.5	4.4969	5.000
			23790	710	4.5116	5.020
			23825	713.5	4.5350	5.047
		10	23780	709	9.0332	9.987
			23790	710	9.0276	10.05
			23800	711	9.0548	10.09

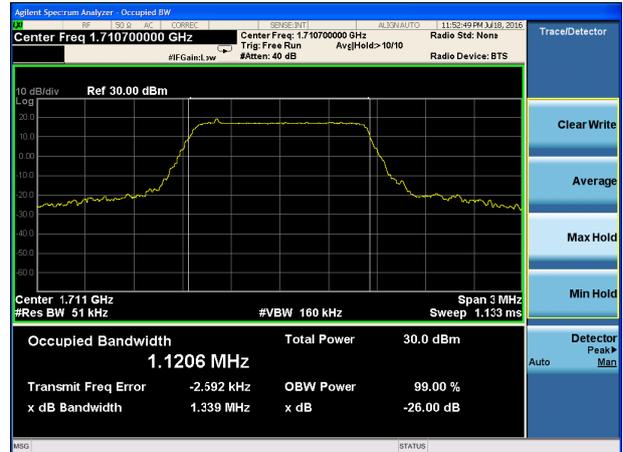
LTE Band 41						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(kHz)	-26dBc Bandwidth(kHz)
100%	QPSK	5	39675	2498.5	4.5201	5.623
			40620	2593	4.5037	5.138
			41565	2687.5	4.5039	5.009
		10	39700	2501	9.0454	10.87
			40620	2593	9.0564	11.29
			41540	2685	9.0567	11.30
		15	39725	2503.5	13.429	14.61
			40620	2593	13.470	15.73
			41515	2682.5	13.437	16.05
		20	39750	2506	17.853	19.30
			40620	2593	17.893	19.09
			41490	2680	17.829	19.34
	16QAM	5	39675	2498.5	4.5029	5.369
			40620	2593	4.5086	5.011
			41565	2687.5	4.5159	5.080
		10	39700	2501	9.0296	10.95
			40620	2593	9.0576	10.54
			41540	2685	9.0310	11.01
		15	39725	2503.5	13.474	15.07
			40620	2593	13.483	15.88
			41515	2682.5	13.455	14.72
		20	39750	2506	17.895	20.46
			40620	2593	17.856	19.39
			41490	2680	17.836	19.09



LTE Band 4 QPSK Bandwidth = 1.4MHz
CH19957 Occupied Bandwidth



LTE Band 4 16QAM Bandwidth = 1.4MHz
CH19957 Occupied Bandwidth



LTE Band 4 QPSK Bandwidth = 1.4MHz
CH20175 Occupied Bandwidth



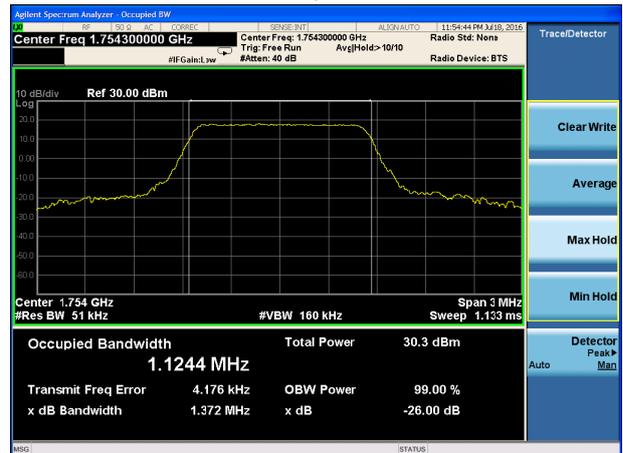
LTE Band 4 16QAM Bandwidth = 1.4MHz
CH20175 Occupied Bandwidth



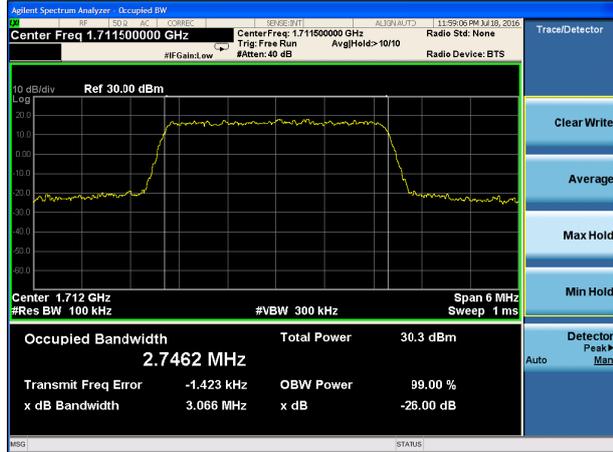
LTE Band 4 QPSK Bandwidth = 1.4MHz
CH20393 Occupied Bandwidth



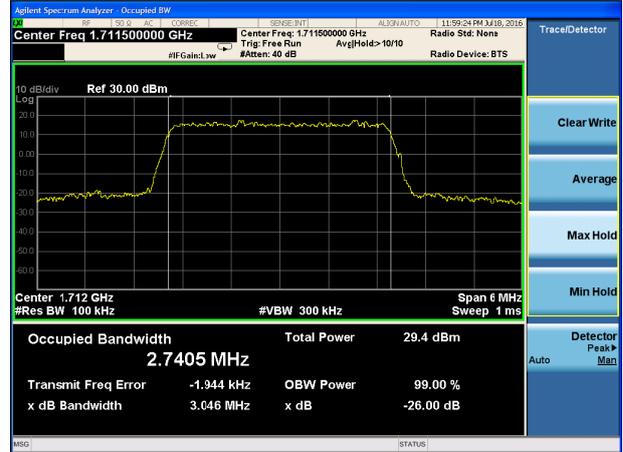
LTE Band 4 16QAM Bandwidth = 1.4MHz
CH20393 Occupied Bandwidth



LTE Band 4 QPSK Bandwidth = 3MHz CH19965
Occupied Bandwidth



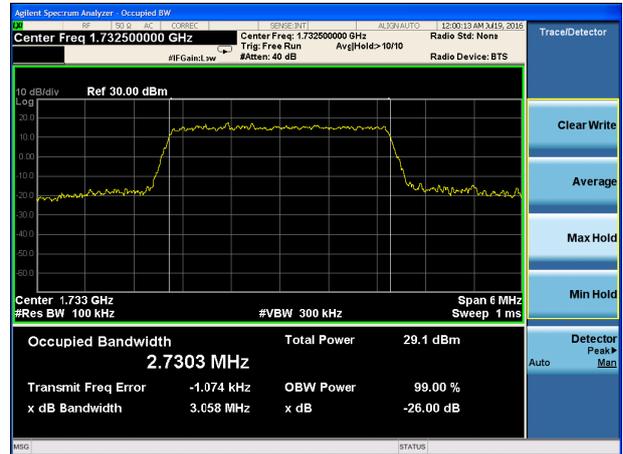
LTE Band 4 16QAM Bandwidth = 3MHz
CH19965 Occupied Bandwidth



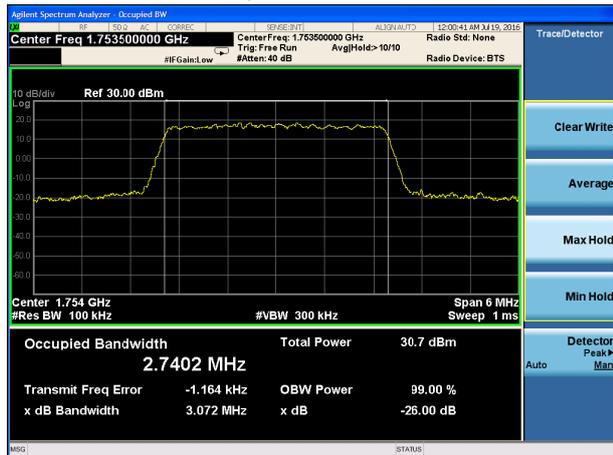
LTE Band 4 QPSK Bandwidth = 3MHz CH20175
Occupied Bandwidth



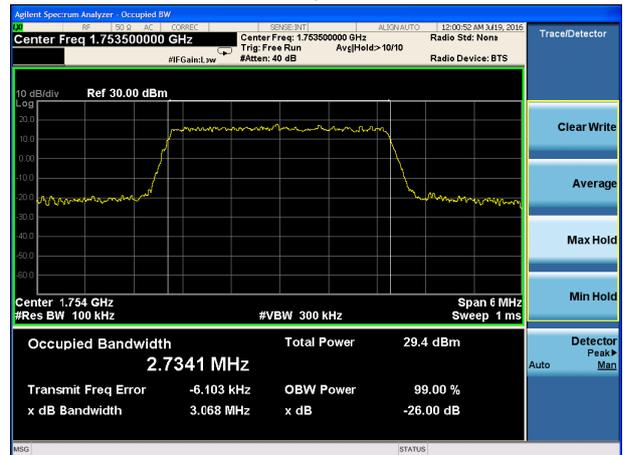
LTE Band 4 16QAM Bandwidth = 3MHz
CH20175 Occupied Bandwidth



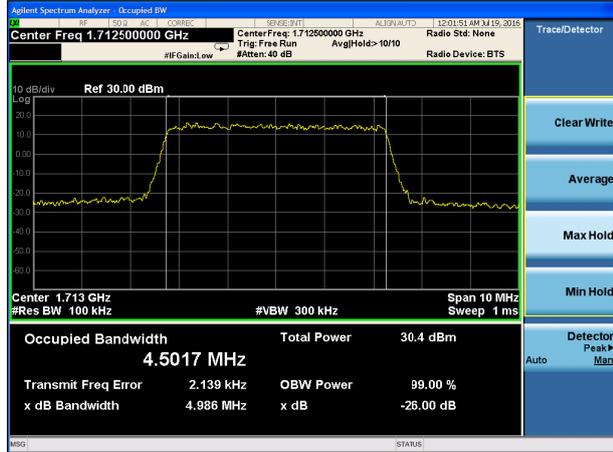
LTE Band 4 QPSK Bandwidth = 3MHz CH20385
Occupied Bandwidth



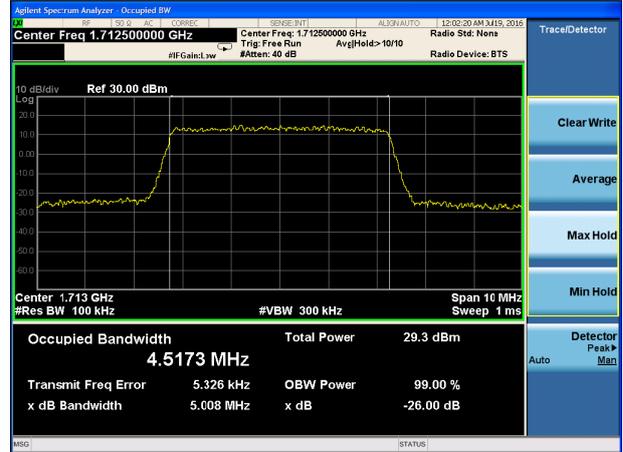
LTE Band 4 16QAM Bandwidth = 3MHz
CH20385 Occupied Bandwidth



LTE Band 4 QPSK Bandwidth = 5MHz CH19975
Occupied Bandwidth



LTE Band 4 16QAM Bandwidth = 5MHz
CH19975 Occupied Bandwidth



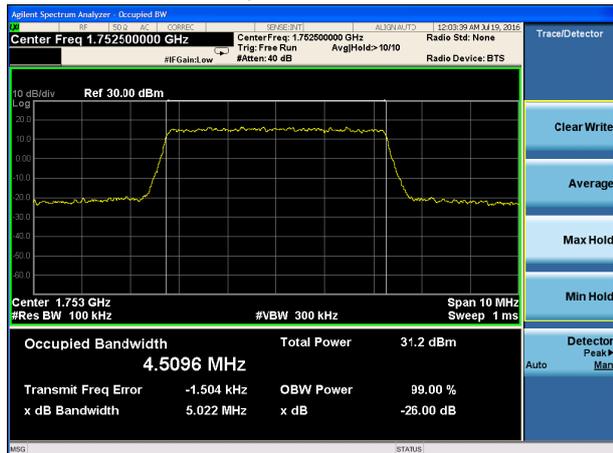
LTE Band 4 QPSK Bandwidth = 5MHz CH20175
Occupied Bandwidth



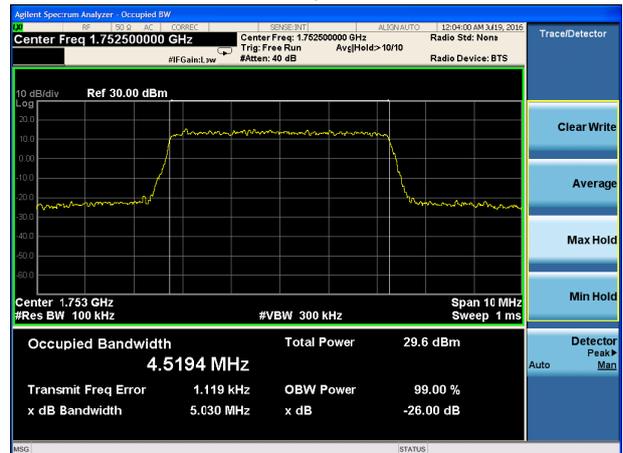
LTE Band 4 16QAM Bandwidth = 5MHz
CH20175 Occupied Bandwidth



LTE Band 4 QPSK Bandwidth = 5MHz CH20375
Occupied Bandwidth

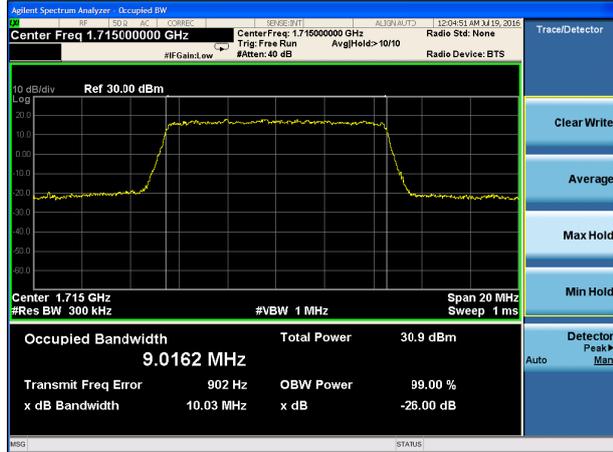


LTE Band 4 16QAM Bandwidth = 5MHz
CH20375 Occupied Bandwidth

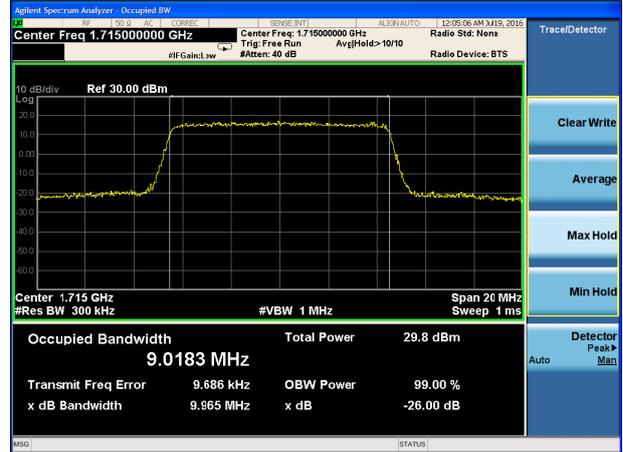




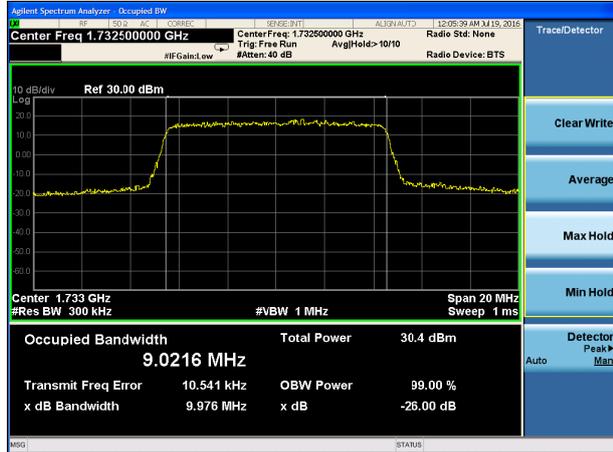
LTE Band 4 QPSK Bandwidth = 10MHz CH20000 Occupied Bandwidth



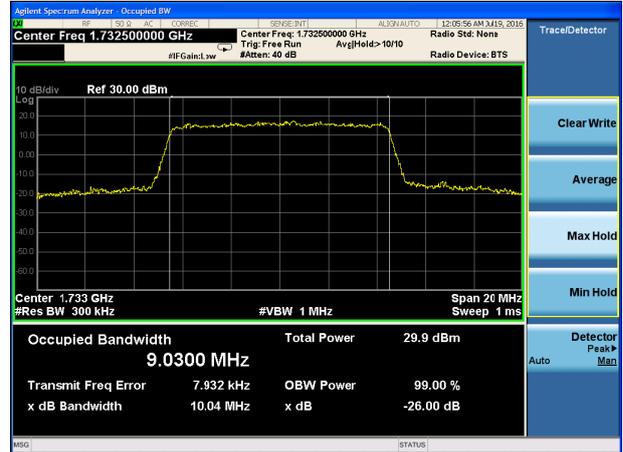
LTE Band 4 16QAM Bandwidth = 10MHz CH20000 Occupied Bandwidth



LTE Band 4 QPSK Bandwidth = 10MHz CH20175 Occupied Bandwidth



LTE Band 4 16QAM Bandwidth = 10MHz CH20175 Occupied Bandwidth



LTE Band 4 QPSK Bandwidth = 10MHz CH20350 Occupied Bandwidth

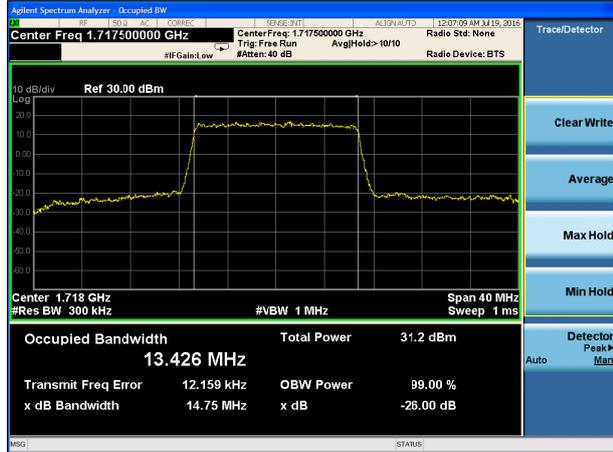


LTE Band 4 16QAM Bandwidth = 10MHz CH20350 Occupied Bandwidth

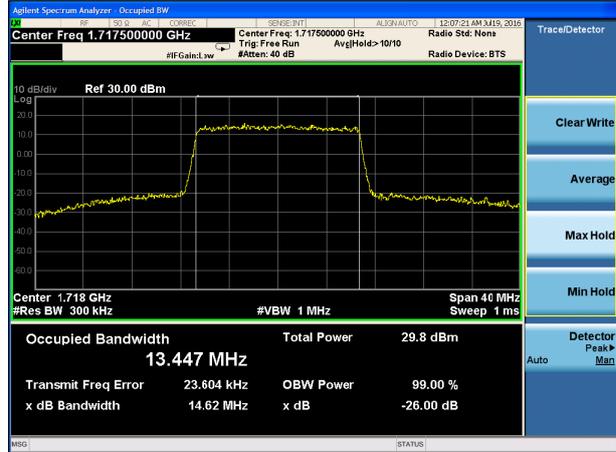




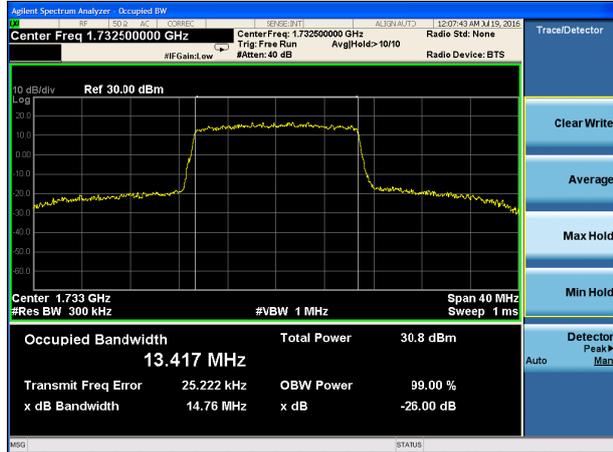
LTE Band 4 QPSK Bandwidth = 15MHz CH20025 Occupied Bandwidth



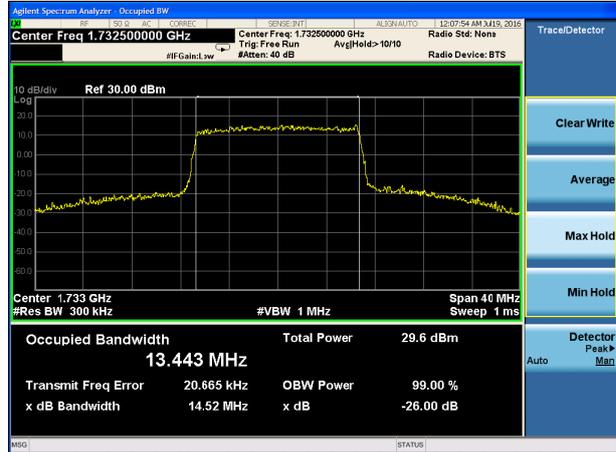
LTE Band 4 16QAM Bandwidth = 15MHz CH20025 Occupied Bandwidth



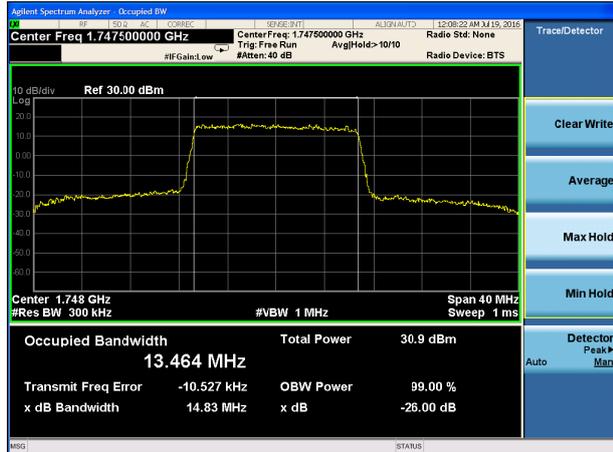
LTE Band 4 QPSK Bandwidth = 15MHz CH20175 Occupied Bandwidth



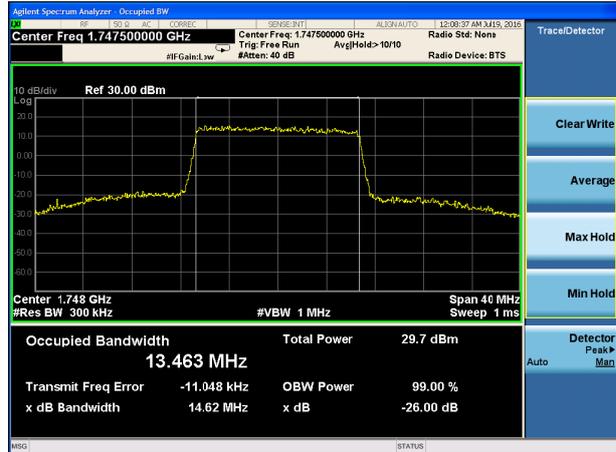
LTE Band 4 16QAM Bandwidth = 15MHz CH20175 Occupied Bandwidth



LTE Band 4 QPSK Bandwidth = 15MHz CH20325 Occupied Bandwidth

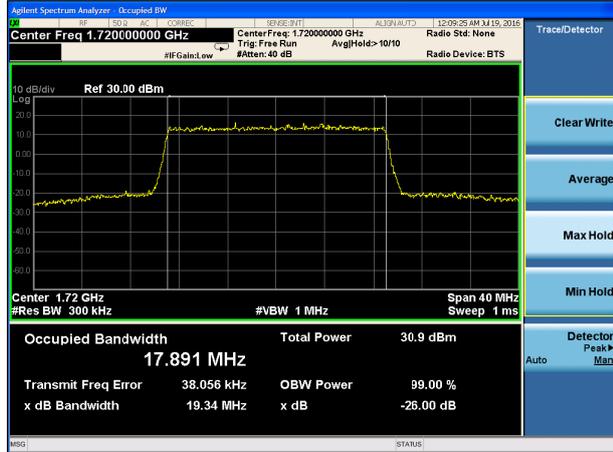


LTE Band 4 16QAM Bandwidth = 15MHz CH20325 Occupied Bandwidth

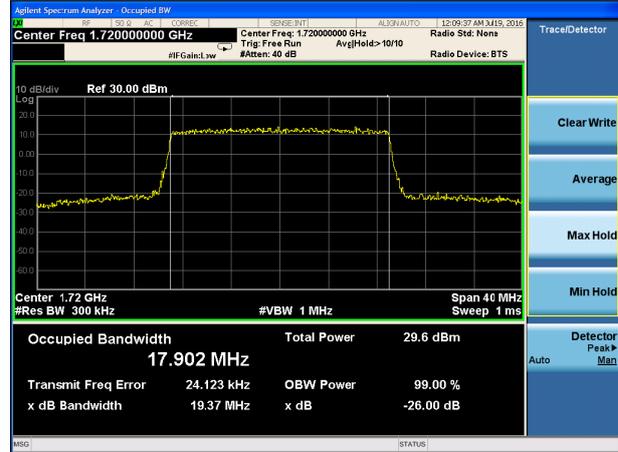




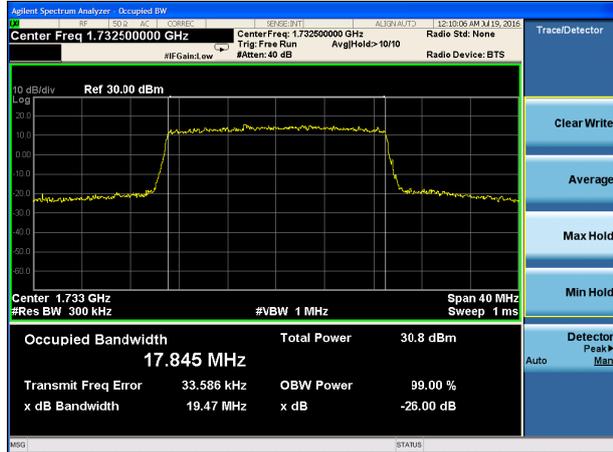
LTE Band 4 QPSK Bandwidth = 20MHz CH20050 Occupied Bandwidth



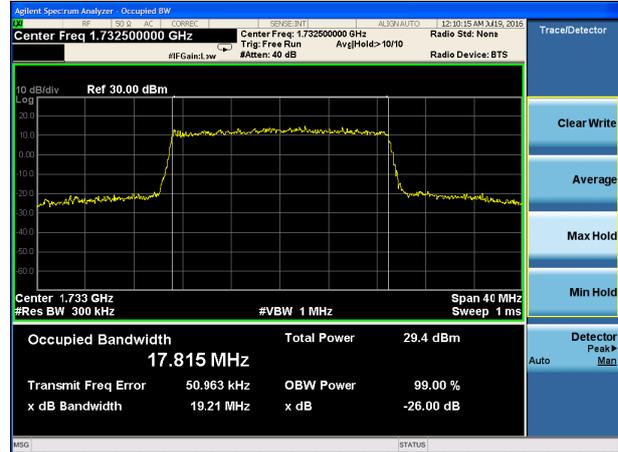
LTE Band 4 16QAM Bandwidth = 20MHz CH20050 Occupied Bandwidth



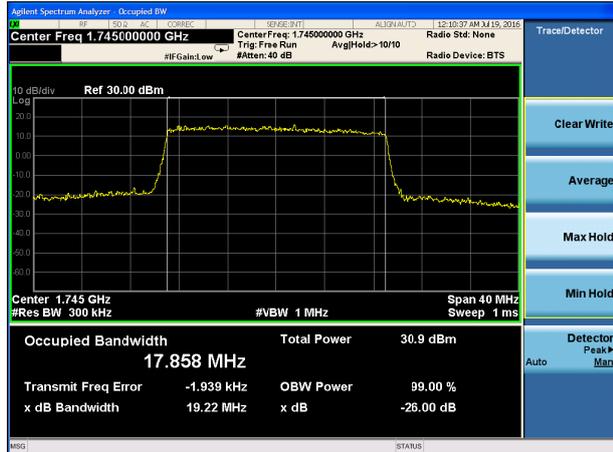
LTE Band 4 QPSK Bandwidth = 20MHz CH20175 Occupied Bandwidth



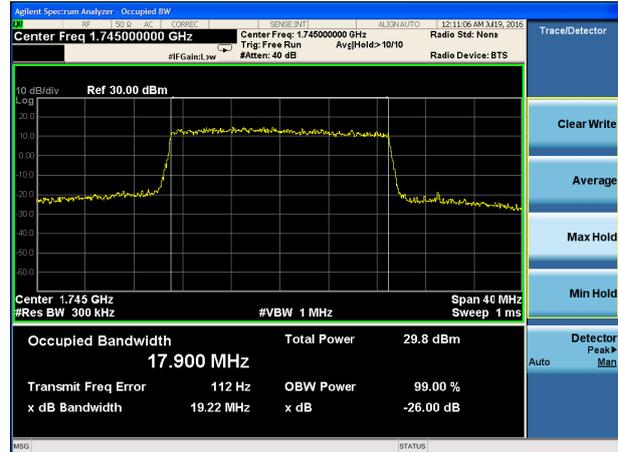
LTE Band 4 16QAM Bandwidth = 20MHz CH20175 Occupied Bandwidth



LTE Band 4 QPSK Bandwidth = 20MHz CH20300 Occupied Bandwidth

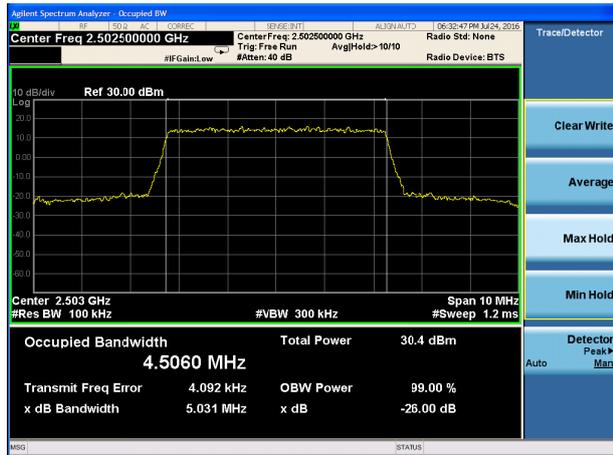


LTE Band 4 16QAM Bandwidth = 20MHz CH20300 Occupied Bandwidth

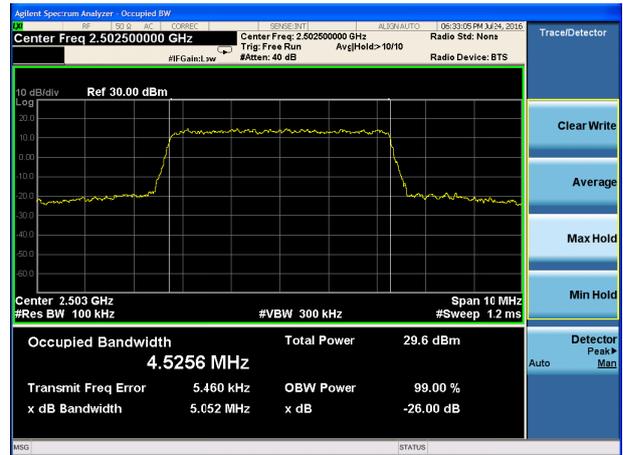




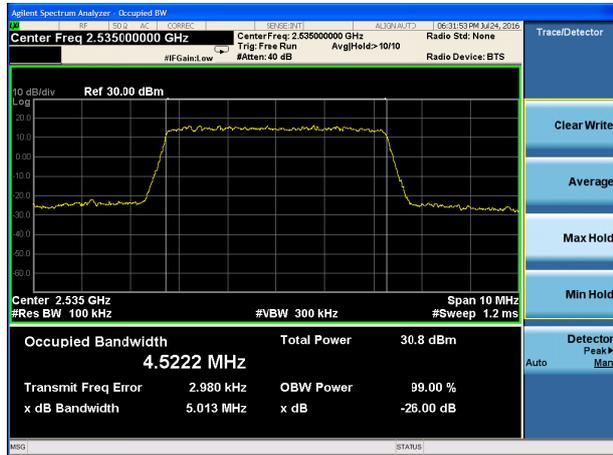
LTE Band 7 QPSK Bandwidth = 5MHz CH20775 Occupied Bandwidth



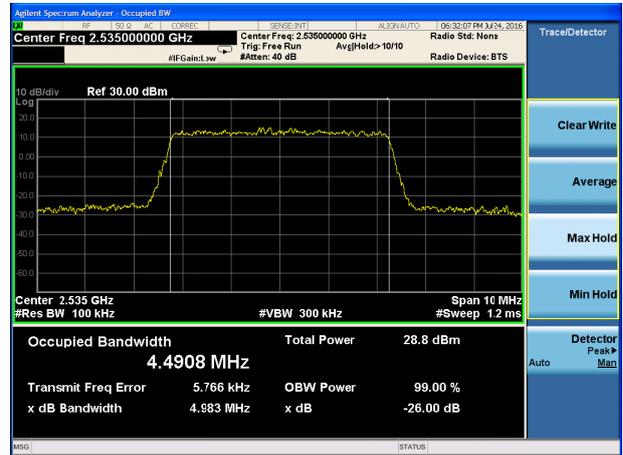
LTE Band 7 16QAM Bandwidth = 5MHz CH20775 Occupied Bandwidth



LTE Band 7 QPSK Bandwidth = 5MHz CH21100 Occupied Bandwidth



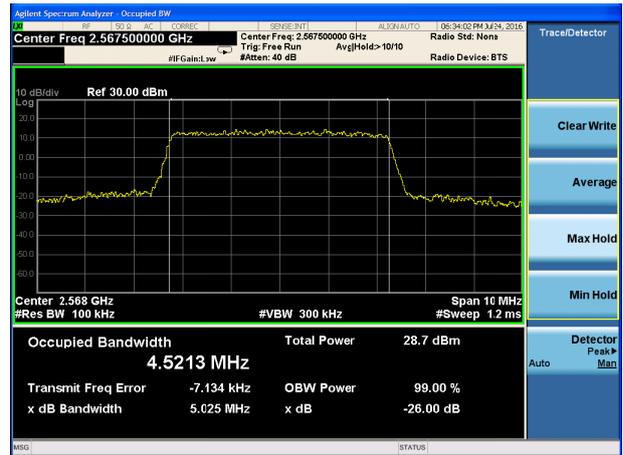
LTE Band 7 16QAM Bandwidth = 5MHz CH21100 Occupied Bandwidth



LTE Band 7 QPSK Bandwidth = 5MHz CH21425 Occupied Bandwidth

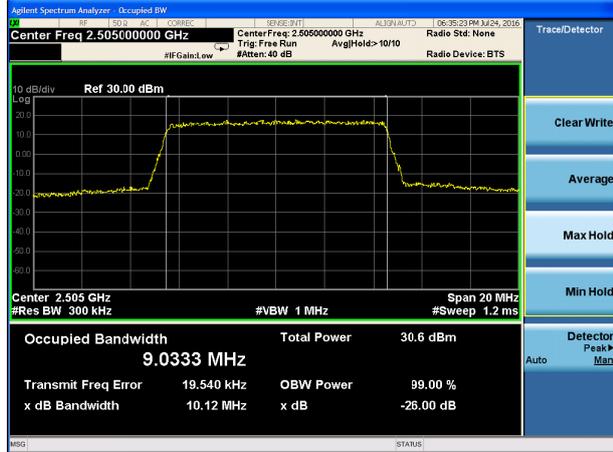


LTE Band 7 16QAM Bandwidth = 5MHz CH21425 Occupied Bandwidth





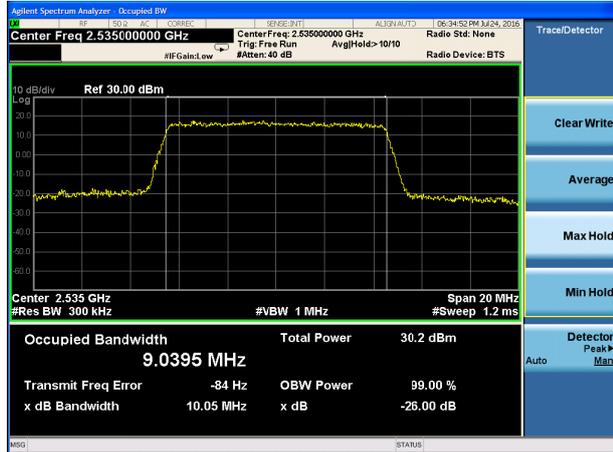
LTE Band 7 QPSK Bandwidth = 10MHz CH20800 Occupied Bandwidth



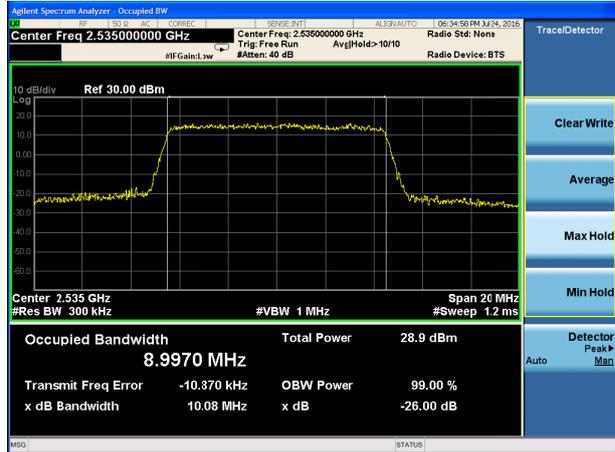
LTE Band 7 16QAM Bandwidth = 10MHz CH20800 Occupied Bandwidth



LTE Band 7 QPSK Bandwidth = 10MHz CH21100 Occupied Bandwidth



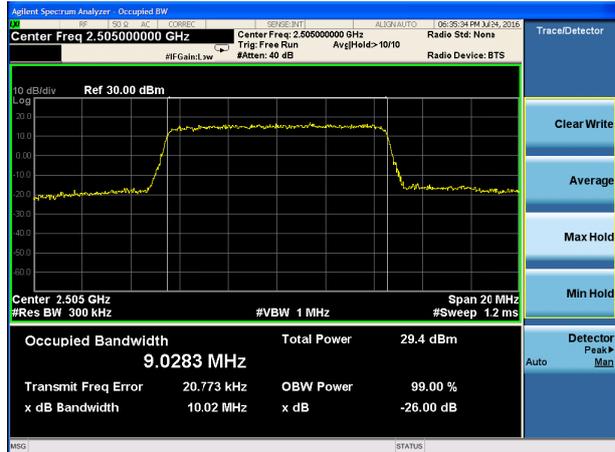
LTE Band 7 16QAM Bandwidth = 10MHz CH21100 Occupied Bandwidth



LTE Band 7 QPSK Bandwidth = 10MHz CH21400 Occupied Bandwidth

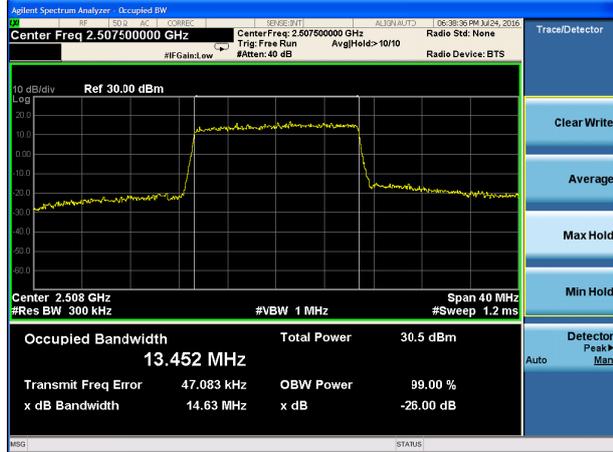


LTE Band 7 16QAM Bandwidth = 10MHz CH21400 Occupied Bandwidth

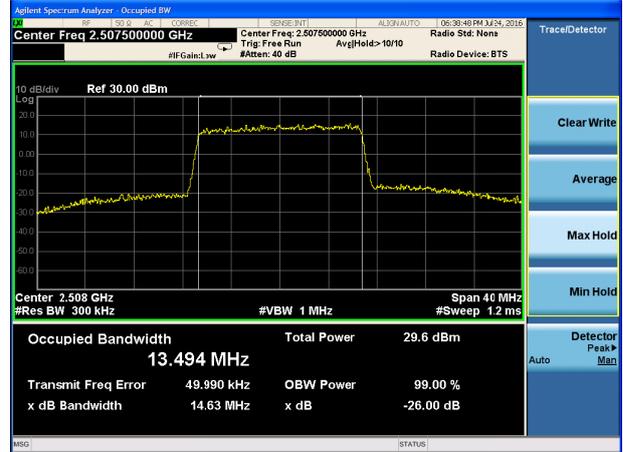




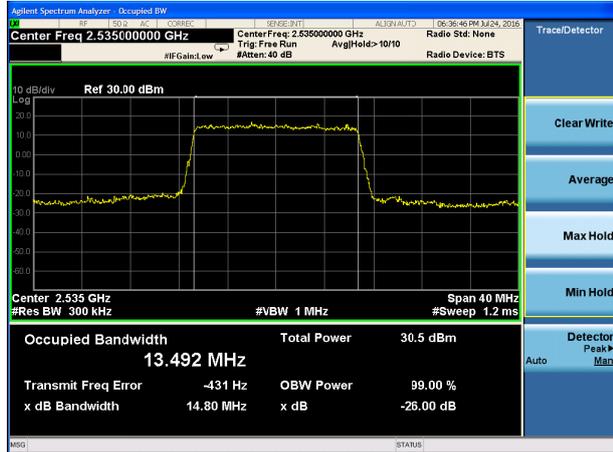
LTE Band 7 QPSK Bandwidth = 15MHz CH20825 Occupied Bandwidth



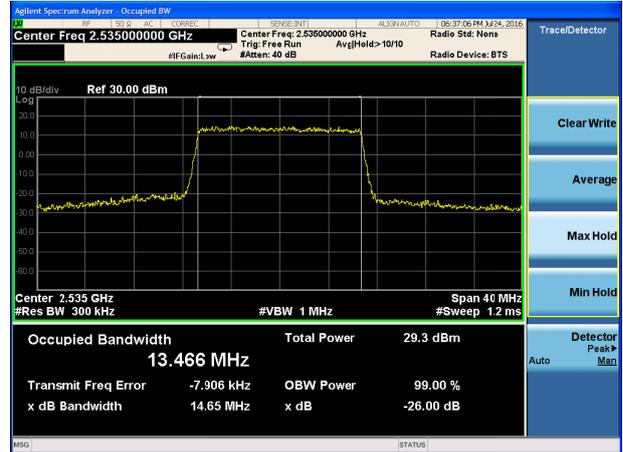
LTE Band 7 16QAM Bandwidth = 15MHz CH20825 Occupied Bandwidth



LTE Band 7 QPSK Bandwidth = 15MHz CH21100 Occupied Bandwidth



LTE Band 7 16QAM Bandwidth = 15MHz CH21100 Occupied Bandwidth



LTE Band 7 QPSK Bandwidth = 15MHz CH21375 Occupied Bandwidth



LTE Band 7 16QAM Bandwidth = 15MHz CH21375 Occupied Bandwidth

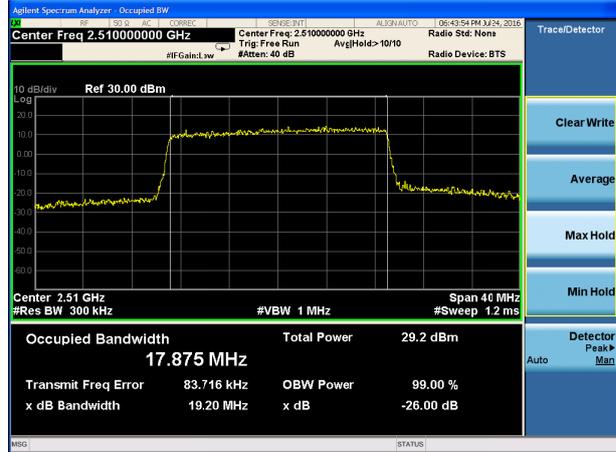




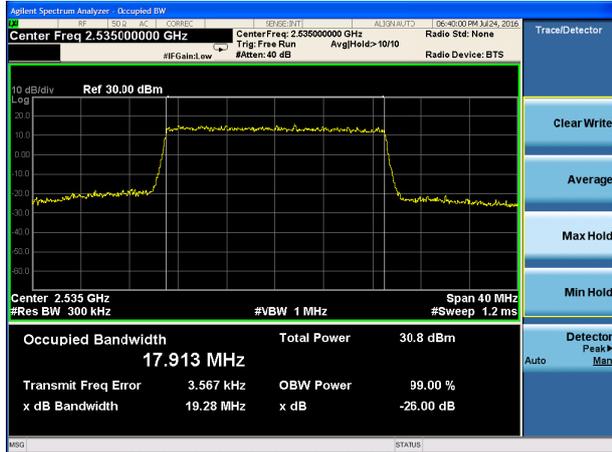
LTE Band 7 QPSK Bandwidth = 20MHz CH20850 Occupied Bandwidth



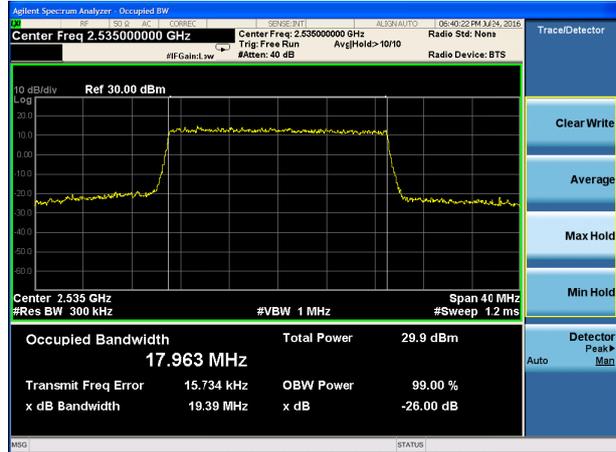
LTE Band 7 16QAM Bandwidth = 20MHz CH20850 Occupied Bandwidth



LTE Band 7 QPSK Bandwidth = 20MHz CH21100 Occupied Bandwidth



LTE Band 7 16QAM Bandwidth = 20MHz CH21100 Occupied Bandwidth



LTE Band 7 QPSK Bandwidth = 20MHz CH21350 Occupied Bandwidth



LTE Band 7 16QAM Bandwidth = 20MHz CH21350 Occupied Bandwidth

