RF TEST REPORT

Report No.: 16070127-FCC-R5

Supersede Report No.: N/A

Applicant	SUPERSONIC INC
Product Name	4.5" LTE SMART PHONE
Model No.	SV-145LTE
Serial No.	SV-245LTE,SV-345LTE, SC-145LTE
Test Standard	FCC Part 22(H), FCC Part 24(E), FCC Part 27: 2014; ANSI/TIA-603-D: 2010
Test Date	Feb 04 to Feb 25 , 2016
Issue Date	Feb 25, 2016
Test Result	☑ Pass ☐ Fail
Equipment complied with the specification	☑
Equipment did not comply with the specification	☐

Winnie.Zhang	David Huang	
Winnie Zhang Test Engineer	David Huang Checked By	

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Test result presented in this test report is applicable to the tested sample only

Issued by:

SIEMIC (SHENZHEN-CHINA) LABORATORIES

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Laboratories Introduction

SIEMIC, headquartered in the heart of Silicon Valley, with superior facilities in US and Asia, is one of the leading independent testing and certification facilities providing customers with one-stop shop services for Compliance Testing and Global Certifications.

In addition to testing and certification, SIEMIC provides initial design reviews and compliance management throughout a project. Our extensive experience with China, Asia Pacific, North America, European, and International compliance requirements, assures the fastest, most cost effective way to attain regulatory compliance for the global markets.

Accreditations for Conformity Assessment

Country/Region	Scope
USA	EMC, RF/Wireless, SAR, Telecom
Canada	EMC, RF/Wireless, SAR, Telecom
Taiwan	EMC, RF, Telecom, SAR, Safety
Hong Kong	RF/Wireless, SAR, Telecom
Australia	EMC, RF, Telecom, SAR, Safety
Korea	EMI, EMS, RF, SAR, Telecom, Safety
Japan	EMI, RF/Wireless, SAR, Telecom
Singapore	EMC, RF, SAR, Telecom
Europe	EMC, RF, SAR, Telecom, Safety

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1. Report Revision History

Report No.	Report Version	Description	Issue Date
16070127-FCC-R5	NONE	Original	Feb 25, 2016

2. Customer information

Applicant Name	SUPERSONIC INC
Applicant Add	6555 BANDINI BOULEVARD COMMERCE CA 90040-3119 USA
Manufacturer	NCBC OVERSEA CO., LIMITED
Manufacturer Add	FLAT/RM A5 9/F SILVERCORP INT' L TOWER 707-713 NATHAN ROAD MONGKOK KLN HONGKONG

3. Test site information

Lab performing tests	SIEMIC (Shenzhen-China) LABORATORIES
Lab Address	Zone A, Floor 1, Building 2 Wan Ye Long Technology Park South Side of Zhoushi Road, Bao' an District, Shenzhen, Guangdong China 518108
FCC Test Site No.	718246
IC Test Site No.	4842E-1
Test Software	Radiated Emission Program-To Shenzhen v2.0

4. Equipment under Test (EUT) Information

Description of EUT:	4.5" LTE SMART PHONE
Main Model:	SV-145LTE
Serial Model:	SV-245LTE,SV-345LTE, SC-145LTE
Date EUT received:	Feb 03，2016
Test Date(s):	Feb 04 to Feb 25，2016
Equipment Category：	PCE
Antenna Gain:	GSM850: -1 dBi PCS1900: 0 dBi UMTS-FDD Band V: -1dBi UMTS-FDD Band II: 0 dBi Bluetooth/BLE: 0 dBi WIFI: 0 dBi LTE Band 2: 0 dBi LTE Band 4: 0 dBi LTE Band 7: 1 dBi LTE Band 17: -1 dBi GPS:0 dBi
Type of Modulation:	GSM / GPRS: GMSK EGPRS: GMSK,8PSK UMTS-FDD: QPSK, 16QAM 802.11b/g/n: DSSS, OFDM Bluetooth: GFSK, π /4DQPSK, 8DPSK BLE: GFSK LTE Band: QPSK, 16QAM GPS:BPSK

RF Operating Frequency (ies):	GSM850 TX: 824.2 ~ 848.8 MHz; RX: 869.2 ~ 893.8 MHz PCS1900 TX: 1850.2 ~ 1909.8 MHz; RX: 1930.2 ~ 1989.8 MHz UMTS-FDD Band V TX: 826.4 ~ 846.6 MHz; RX: 871.4 ~ 891.6 MHz UMTS-FDD Band II TX:1852.4 ~ 1907.6 MHz; RX: 1932.4 ~ 1987.6 MHz WIFI:802.11b/g/n(20M): 2412-2472 MHz WIFI:802.11n(40M): 2422-2462 MHz Bluetooth& BLE: 2402-2480 MHz LTE Band 2 TX: 1852.5 ~ 1907.5 MHz; RX : 1932.5 ~ 1987.5 MHz LTE Band 4 TX: 1712.5 ~ 1752.5 MHz; RX : 2112.5 ~ 2152.5 MHz LTE Band 7 TX: 2502.5 ~ 2567.5 MHz; RX : 2622.5 ~ 2687.5 MHz LTE Band 17 TX: 706.5 ~ 713.5 MHz; RX : 736.5 ~ 743.5 MHz GPS RX:1575.42 MHz
Maximum Conducted AV Power to Antenna:	LTE Band 2: 22.67 dBm LTE Band 4: 22.79 dBm LTE Band 7: 22.85 dBm LTE Band 17: 23.26 dBm
ERP/EIRP:	LTE Band 2: 22.64 dBm / EIRP LTE Band 4: 22.69 dBm / EIRP LTE Band 7: 23.83 dBm / EIRP LTE Band 17: 21.80 dBm / ERP
Port:	Power Port, Earphone Port, USB Port
Input Power:	Adapter: Model: HJ-0501000B2-US Input: AC 100-240V; 50/60Hz;0.15A Output: DC 5.0V,1000mA Battery: Model: SV-145LTE Capacity: 1600mAh Voltage: 4.35V
Trade Name :	SHARPER VIEW
GPRS/EGPRS Multi-slot class	8/10/12

5. Test Summary

The product was tested in accordance with the following specifications.

All testing has been performed according to below product classification:

FCC Rules	Description of Test	Result
§ 1.1307; § 2.1093	RF Exposure (SAR)	Compliance
§2.1046; § 22.913(a); § 24.232(c); § 27.50(c.10); § 27.50(d.4)	RF Output Power	Compliance
§ 24.232 (d); § 27.50(d)	Peak-Average Ratio	Compliance
§ 2.1047	Modulation Characteristics	N/A
§ 2.1049; § 22.905; § 22.917; § 24.238; § 27.53(a.5)	99% & -26 dB Occupied Bandwidth	Compliance
§ 2.1051; § 22.917(a); § 24.238(a); § 27.53(h)	Spurious Emissions at Antenna Terminal	Compliance
§ 2.1053; § 22.917(a); § 24.238(a); § 27.53(h)	Field Strength of Spurious Radiation	Compliance
§ 22.917(a); § 24.238(a);	Out of band emission, Band Edge	Compliance
§ 27.53(m)	Band Edge 27.53(m)	Compliance
§ 2.1055; § 22.355; § 24.235; § 27.5(h); § 27.54	Frequency stability vs. temperature Frequency stability vs. voltage	Compliance

Note: Testing was performed by configuring EUT to maximum output power status, the declared output power class for different

Measurement Uncertainty

Emissions		
Test Item	**Description**	**Uncertainty**
Band Edge and Radiated Spurious Emissions	Confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2 (for EUTs < 0.5m X 0.5m X 0.5m)	+5.6dB/-4.5dB
-	-	-

6. MEASUREMENTS, EXAMINATION AND DERIVED RESULTS

6.1 RF Exposure (SAR)

Test Result: Pass

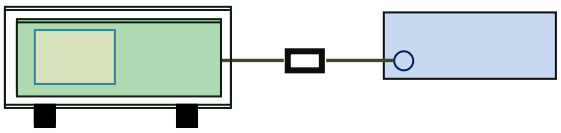
The EUT is a portable device, thus requires SAR evaluation;

Please refer to RF Exposure Evaluation Report: 16070127-FCC-H.

6.2 RF Output Power

Temperature	24℃
Relative Humidity	56%
Atmospheric Pressure	1023mbar
Test date :	Feb 23, 2016
Tested By :	Winnie Zhang

Requirement(s):

Spec	Item	Requirement	Applicable
§22.913 (a)	a)	ERP:38.45dBm	☑
§24.232 (c)	b)	EIRP:33dBm	☑
§27.50 (c)	c)	EIRP: 30dBm	☑
Test Setup			
Test Procedure	For Conducted Power: - The transmitter output port was connected to base station. - Set EUT at maximum power through base station. - Select lowest, middle, and highest channels for each band and different test mode. For ERP/EIRP: - The transmitter was placed on a wooden turntable, and it was transmitting into a non-radiating load which was also placed on the turntable. - The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis. - The frequency range up to tenth harmonic of the fundamental frequency was investigated.		

	- Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution. - Spurious emissions in dB = 10 log (TX power in Watts/0.001) – the absolute level - Spurious attenuation limit in dB = 43 + 10 Log10 (power out in Watts.
Remark	
Result	☑ Pass ☐ Fail

Test Data ☑ Yes ☐ N/A

Test Plot ☐ Yes (See below) ☑ N/A

Conducted Power

LTE Band 2:

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
20MHz	18700	1860.0	QPSK	1	0	0	22.41	22.5±1
				1	49	0	22.39	22.5±1
				1	99	0	22.37	22.5±1
				50	0	1	21.77	22.5±1
				50	24	1	21.69	22.5±1
				50	49	1	21.79	22.5±1
				100	0	1	21.81	22.5±1
			16QAM	1	0	1	21.86	21.3±1
				1	49	1	21.83	21.3±1
				1	99	1	21.77	21.3±1
				50	0	2	21.56	21.3±1
				50	24	2	21.69	21.3±1
				50	49	2	21.67	21.3±1
				100	0	2	20.89	21.3±1
	18900	1880.0	QPSK	1	0	0	22.63	22.5±1
				1	49	0	22.56	22.5±1
				1	99	0	22.57	22.5±1
				50	0	1	21.81	22.5±1
				50	24	1	21.83	22.5±1
				50	49	1	21.79	22.5±1
				100	0	1	21.74	22.5±1
			16QAM	1	0	1	21.80	21.3±1
				1	49	1	21.56	21.3±1
				1	99	1	21.58	21.3±1
				50	0	2	21.36	21.3±1
				50	24	2	21.45	21.3±1
				50	49	2	21.49	21.3±1
				100	0	2	20.87	21.3±1
	19100	1900.0	QPSK	1	0	0	22.32	21.5±1
				1	49	0	22.23	21.5±1
				1	99	0	22.41	21.5±1
				50	0	1	21.66	21.5±1
				50	24	1	21.56	21.5±1
				50	49	1	21.45	21.5±1
				100	0	1	21.69	21.5±1
			16QAM	1	0	1	21.88	21.5±1
				1	49	1	21.75	21.5±1
				1	99	1	21.83	21.5±1
				50	0	2	21.56	21.5±1
				50	24	2	21.48	21.5±1
				50	49	2	21.31	21.5±1
				100	0	2	20.70	21.5±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
15MHz	18675	1857.5	QPSK	1	0	0	22.57	22.5±1
				1	37	0	22.56	22.5±1
				1	74	0	22.49	22.5±1
				36	0	1	21.81	22.5±1
				36	16	1	21.59	22.5±1
				36	35	1	21.63	22.5±1
				75	0	1	21.80	22.5±1
			16QAM	1	0	1	21.84	21.3±1
				1	37	1	21.78	21.3±1
				1	74	1	21.69	21.3±1
				36	0	2	21.39	21.3±1
				36	16	2	21.43	21.3±1
				36	35	2	21.48	21.3±1
				75	0	2	20.80	21.3±1
	18900	1880.0	QPSK	1	0	0	**22.67**	22.5±1
				1	37	0	22.56	22.5±1
				1	74	0	22.63	22.5±1
				36	0	1	21.86	22.5±1
				36	16	1	21.59	22.5±1
				36	35	1	21.73	22.5±1
				75	0	1	21.84	22.5±1
			16QAM	1	0	1	21.85	21.3±1
				1	37	1	21.76	21.3±1
				1	74	1	21.84	21.3±1
				36	0	2	21.36	21.3±1
				36	16	2	21.45	21.3±1
				36	35	2	21.48	21.3±1
				75	0	2	20.71	21.3±1
	19125	1902.5	QPSK	1	0	0	22.58	22.6±1
				1	37	0	22.53	22.6±1
				1	74	0	22.48	22.6±1
				36	0	1	21.78	22.6±1
				36	16	1	21.74	22.6±1
				36	35	1	21.62	22.6±1
				75	0	1	21.70	22.6±1
			16QAM	1	0	1	22.01	21.3±1
				1	37	1	21.98	21.3±1
				1	74	1	22.03	21.3±1
				36	0	2	21.87	21.3±1
				36	16	2	21.81	21.3±1
				36	35	2	21.79	21.3±1
				75	0	2	20.71	21.3±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
10MHz	18650	1855	QPSK	1	0	0	21.78	21.5±1
				1	24	0	21.76	21.5±1
				1	49	0	21.75	21.5±1
				25	0	1	20.84	21.5±1
				25	12	1	20.82	21.5±1
				25	24	1	20.86	21.5±1
				50	0	1	20.87	21.5±1
			16QAM	1	0	1	21.28	21.3±1
				1	24	1	21.31	21.5±1
				1	49	1	21.32	21.5±1
				25	0	2	21.05	21.5±1
				25	12	2	21.01	21.5±1
				25	24	2	20.94	21.5±1
				50	0	2	20.65	21.5±1
	18900	1880.0	QPSK	1	0	0	22.15	22±1
				1	24	0	22.18	22±1
				1	49	0	22.20	22±1
				25	0	1	21.07	22±1
				25	12	1	21.11	22±1
				25	24	1	21.15	22±1
				50	0	1	21.11	22±1
			16QAM	1	0	1	20.94	21.3±1
				1	24	1	20.98	21.3±1
				1	49	1	21.02	21.3±1
				25	0	2	20.62	21.3±1
				25	12	2	20.58	21.3±1
				25	24	2	20.46	21.3±1
				50	0	2	20.35	21.3±1
	19150	1905	QPSK	1	0	0	21.13	21.3±1
				1	24	0	21.55	21.3±1
				1	49	0	20.49	21.3±1
				25	0	1	20.56	21.3±1
				25	12	1	20.34	21.3±1
				25	24	1	20.41	21.3±1
				50	0	1	20.45	21.3±1
			16QAM	1	0	1	20.61	21.3±1
				1	24	1	21.08	21.3±1
				1	49	1	20.37	21.3±1
				25	0	2	20.47	21.3±1
				25	12	2	20.51	21.3±1
				25	24	2	20.49	21.3±1
				50	0	2	20.32	21.3±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
5MHz	18625	1852.5	QPSK	1	0	0	22.44	22±1
				1	12	0	22.45	22±1
				1	24	0	22.46	22±1
				12	0	1	21.54	22±1
				12	6	1	21.56	22±1
				12	11	1	21.53	22±1
				25	0	1	21.50	22±1
			16QAM	1	0	1	21.39	21.3±1
				1	12	1	21.36	21.3±1
				1	24	1	21.38	21.3±1
				12	0	2	21.06	21.3±1
				12	6	2	21.05	21.3±1
				12	11	2	21.07	21.3±1
				25	0	2	20.53	21.3±1
	18900	1880.0	QPSK	1	0	0	22.66	22.5±1
				1	12	0	22.58	22.5±1
				1	24	0	22.64	22.5±1
				12	0	1	21.66	22.5±1
				12	6	1	21.67	22.5±1
				12	11	1	21.64	22.5±1
				25	0	1	21.64	22.5±1
			16QAM	1	0	1	21.37	21.3±1
				1	12	1	21.35	21.3±1
				1	24	1	21.38	21.3±1
				12	0	2	20.96	21.3±1
				12	6	2	20.93	21.3±1
				12	11	2	20.95	21.3±1
				25	0	2	20.56	21.3±1
	19175	1907.5	QPSK	1	0	0	22.61	22.3±1
				1	12	0	22.63	22.3±1
				1	24	0	22.65	22.3±1
				12	0	1	21.65	22.3±1
				12	6	1	21.63	22.3±1
				12	11	1	21.64	22.3±1
				25	0	1	21.49	22.3±1
			16QAM	1	0	1	21.55	21.3±1
				1	12	1	21.56	21.3±1
				1	24	1	21.53	21.3±1
				12	0	2	20.95	21.3±1
				12	6	2	20.98	21.3±1
				12	11	2	20.96	21.3±1
				25	0	2	20.48	21.3±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
3MHz	18625	1852.5	QPSK	1	0	0	22.27	22.3±1
				1	7	0	22.26	22.3±1
				1	14	0	22.29	22.3±1
				8	0	1	21.41	22.3±1
				8	4	1	21.43	22.3±1
				8	7	1	21.45	22.3±1
				15	0	1	21.43	22.3±1
			16QAM	1	0	1	21.48	21.3±1
				1	7	1	21.46	21.3±1
				1	14	1	21.49	21.3±1
				8	0	2	20.43	21.3±1
				8	4	2	20.46	21.3±1
				8	7	2	20.45	21.3±1
				15	0	2	20.48	21.3±1
	18900	1880.0	QPSK	1	0	0	22.56	22.5±1
				1	7	0	22.59	22.5±1
				1	14	0	22.53	22.5±1
				8	0	1	21.53	22.5±1
				8	4	1	21.56	22.5±1
				8	7	1	21.58	22.5±1
				15	0	1	21.57	22.5±1
			16QAM	1	0	1	21.57	21.3±1
				1	7	1	21.56	21.3±1
				1	14	1	21.59	21.3±1
				8	0	2	20.42	21.3±1
				8	4	2	20.47	21.3±1
				8	7	2	20.46	21.3±1
				15	0	2	20.47	21.3±1
	19175	1907.5	QPSK	1	0	0	22.55	22.5±1
				1	7	0	22.56	22.5±1
				1	14	0	22.53	22.5±1
				8	0	1	21.55	22.5±1
				8	4	1	21.56	22.5±1
				8	7	1	21.58	22.5±1
				15	0	1	21.59	22.5±1
			16QAM	1	0	1	21.57	21.3±1
				1	7	1	21.56	21.3±1
				1	14	1	21.54	21.3±1
				8	0	2	20.43	21.3±1
				8	4	2	20.45	21.3±1
				8	7	2	20.42	21.3±1
				15	0	2	20.50	21.3±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
1.4MHz	18607	1850.7	QPSK	1	0	0	22.50	22.5±1
				1	2	0	22.45	22.5±1
				1	5	0	22.36	22.5±1
				3	0	0	22.54	22.5±1
				3	1	0	22.35	22.5±1
				3	2	0	22.48	22.5±1
				6	0	1	21.50	22.5±1
			16QAM	1	0	1	21.54	21.3±1
				1	2	1	21.53	21.3±1
				1	5	1	21.50	21.3±1
				3	0	1	21.05	21.3±1
				3	1	1	21.09	21.3±1
				3	2	1	21.04	21.3±1
				6	0	2	20.43	21.3±1
	18900	1880.0	QPSK	1	0	0	22.51	22.5±1
				1	2	0	22.50	22.5±1
				1	5	0	22.53	22.5±1
				3	0	0	22.61	22.5±1
				3	1	0	22.63	22.5±1
				3	2	0	22.62	22.5±1
				6	0	1	21.57	22.5±1
			16QAM	1	0	1	21.47	21.3±1
				1	2	1	21.45	21.3±1
				1	5	1	21.48	21.3±1
				3	0	1	21.12	21.3±1
				3	1	1	21.19	21.3±1
				3	2	1	21.12	21.3±1
				6	0	2	20.47	21.3±1
	19193	1909.3	QPSK	1	0	0	22.44	22.3±1
				1	2	0	22.43	22.3±1
				1	5	0	22.46	22.3±1
				3	0	0	22.46	22.3±1
				3	1	0	22.43	22.3±1
				3	2	0	22.49	22.3±1
				6	0	1	21.41	22.3±1
			16QAM	1	0	1	21.28	21.3±1
				1	2	1	21.26	21.3±1
				1	5	1	21.29	21.3±1
				3	0	1	20.89	21.3±1
				3	1	1	20.86	21.3±1
				3	2	1	20.87	21.3±1
				6	0	2	20.41	21.3±1

LTE Band 4:

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
20MHz	20050	1720.0	QPSK	1	0	0	22.41	22.3±1
				1	49	0	22.36	22.3±1
				1	99	0	22.23	22.3±1
				50	0	1	21.68	22.3±1
				50	24	1	21.54	22.3±1
				50	49	1	21.37	22.3±1
				100	0	1	21.70	22.3±1
			16QAM	1	0	1	21.96	21.3±1
				1	49	1	21.87	21.3±1
				1	99	1	21.83	21.3±1
				50	0	2	21.79	21.3±1
				50	24	2	21.69	21.3±1
				50	49	2	21.67	21.3±1
				100	0	2	20.60	21.3±1
	20175	1732.5	QPSK	1	0	0	22.46	22.5±1
				1	49	0	22.47	22.5±1
				1	99	0	22.39	22.5±1
				50	0	1	21.76	22.5±1
				50	24	1	21.77	22.5±1
				50	49	1	21.79	22.5±1
				100	0	1	21.72	22.5±1
			16QAM	1	0	1	21.57	21.5±1
				1	49	1	21.49	21.5±1
				1	99	1	21.51	21.5±1
				50	0	2	21.34	21.5±1
				50	24	2	21.39	21.5±1
				50	49	2	21.31	21.5±1
				100	0	2	20.75	21.5±1
	20300	1745.0	QPSK	1	0	0	21.82	22±1
				1	49	0	21.67	22±1
				1	99	0	21.83	22±1
				50	0	1	21.45	22±1
				50	24	1	21.32	22±1
				50	49	1	21.23	22±1
				100	0	1	21.68	22±1
			16QAM	1	0	1	21.21	21.3±1
				1	49	1	21.13	21.3±1
				1	99	1	21.16	21.3±1
				50	0	2	21.05	21.3±1
				50	24	2	21.07	21.3±1
				50	49	2	21.03	21.3±1
				100	0	2	20.62	21.3±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
15MHz	20025	1717.5	QPSK	1	0	0	22.62	22.5±1
				1	37	0	22.56	22.5±1
				1	74	0	22.47	22.5±1
				36	0	1	21.77	22.5±1
				36	16	1	21.56	22.5±1
				36	35	1	21.63	22.5±1
				75	0	1	21.75	22.5±1
			16QAM	1	0	1	22.12	21.5±1
				1	37	1	22.16	21.5±1
				1	74	1	22.03	21.5±1
				36	0	2	21.96	21.5±1
				36	16	2	21.87	21.5±1
				36	35	2	21.94	21.5±1
				75	0	2	20.72	21.5±1
	20175	1732.5	QPSK	1	0	0	22.67	22±1
				1	37	0	22.56	22±1
				1	74	0	22.69	22±1
				36	0	1	21.73	22±1
				36	16	1	21.64	22±1
				36	35	1	21.58	22±1
				75	0	1	21.73	22±1
			16QAM	1	0	1	21.59	21.5±1
				1	37	1	21.47	21.5±1
				1	74	1	21.36	21.5±1
				36	0	2	21.33	21.5±1
				36	16	2	21.26	21.5±1
				36	35	2	21.27	21.5±1
				75	0	2	20.64	21.5±1
	20325	1747.5	QPSK	1	0	0	22.44	22.5±1
				1	37	0	22.43	22.5±1
				1	74	0	22.36	22.5±1
				36	0	1	21.75	22.5±1
				36	16	1	21.69	22.5±1
				36	35	1	21.56	22.5±1
				75	0	1	21.57	22.5±1
			16QAM	1	0	1	21.84	21.3±1
				1	37	1	21.78	21.3±1
				1	74	1	21.91	21.3±1
				36	0	2	21.67	21.3±1
				36	16	2	21.64	21.3±1
				36	35	2	21.53	21.3±1
				75	0	2	20.67	21.3±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
10MHz	20000	1715.0	QPSK	1	0	0	22.37	22.3±1
				1	24	0	22.46	22.3±1
				1	49	0	22.33	22.3±1
				25	0	1	21.61	22.3±1
				25	12	1	21.56	22.3±1
				25	24	1	21.35	22.3±1
				50	0	1	21.67	22.3±1
			16QAM	1	0	1	21.99	21.3±1
				1	24	1	21.89	21.3±1
				1	49	1	21.94	21.3±1
				25	0	2	21.69	21.3±1
				25	12	2	21.72	21.3±1
				25	24	2	21.77	21.3±1
				50	0	2	20.63	21.3±1
	20175	1732.5	QPSK	1	0	0	22.37	22.5±1
				1	24	0	22.34	22.5±1
				1	49	0	22.29	22.5±1
				25	0	1	21.68	22.5±1
				25	12	1	21.56	22.5±1
				25	24	1	21.64	22.5±1
				50	0	1	21.71	22.5±1
			16QAM	1	0	1	21.40	21.5±1
				1	24	1	21.36	21.5±1
				1	49	1	21.45	21.5±1
				25	0	2	21.37	21.5±1
				25	12	2	21.45	21.5±1
				25	24	2	21.34	21.5±1
				50	0	2	20.65	21.5±1
	20350	1750.0	QPSK	1	0	0	22.17	22.3±1
				1	24	0	22.16	22.3±1
				1	49	0	22.13	22.3±1
				25	0	1	21.46	22.3±1
				25	12	1	21.37	22.3±1
				25	24	1	21.45	22.3±1
				50	0	1	21.53	22.3±1
			16QAM	1	0	1	21.28	21.3±1
				1	24	1	21.34	21.3±1
				1	49	1	21.42	21.3±1
				25	0	2	21.37	21.3±1
				25	12	2	21.33	21.3±1
				25	24	2	21.34	21.3±1
				50	0	2	20.69	21.3±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
5MHz	20000	1715.0	QPSK	1	0	0	22.72	22.5±1
				1	12	0	22.63	22.5±1
				1	24	0	22.76	22.5±1
				12	0	1	21.72	22.5±1
				12	6	1	21.65	22.5±1
				12	11	1	21.75	22.5±1
				25	0	1	21.64	22.5±1
			16QAM	1	0	1	21.65	21.5±1
				1	12	1	21.56	21.5±1
				1	24	1	21.49	21.5±1
				12	0	2	21.33	21.5±1
				12	6	2	21.46	21.5±1
				12	11	2	21.47	21.5±1
				25	0	2	20.66	21.5±1
	20175	1732.5	QPSK	1	0	0	22.76	22±1
				1	12	0	**22.79**	22±1
				1	24	0	22.69	22±1
				12	0	1	21.72	22±1
				12	6	1	21.78	22±1
				12	11	1	21.67	22±1
				25	0	1	21.66	22±1
			16QAM	1	0	1	21.72	21.5±1
				1	12	1	21.56	21.5±1
				1	24	1	21.68	21.5±1
				12	0	2	21.65	21.5±1
				12	6	2	21.64	21.5±1
				12	11	2	21.39	21.5±1
				25	0	2	20.58	21.5±1
	20350	1750.0	QPSK	1	0	0	22.46	22±1
				1	12	0	22.37	22±1
				1	24	0	22.49	22±1
				12	0	1	21.54	22±1
				12	6	1	21.53	22±1
				12	11	1	21.49	22±1
				25	0	1	21.55	22±1
			16QAM	1	0	1	21.87	21.5±1
				1	12	1	21.86	21.5±1
				1	24	1	21.78	21.5±1
				12	0	2	21.54	21.5±1
				12	6	2	21.43	21.5±1
				12	11	2	21.39	21.5±1
				25	0	2	20.63	21.5±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
3MHz	19965	1711.5	QPSK	1	0	0	22.53	22.3±1
				1	7	0	22.46	22.3±1
				1	14	0	22.56	22.3±1
				8	0	1	21.66	22.3±1
				8	4	1	21.64	22.3±1
				8	7	1	21.37	22.3±1
				15	0	1	21.66	22.3±1
			16QAM	1	0	1	21.94	21.3±1
				1	7	1	21.84	21.3±1
				1	14	1	21.86	21.3±1
				8	0	2	20.54	21.3±1
				8	4	2	20.49	21.3±1
				8	7	2	20.67	21.3±1
				15	0	2	20.66	21.3±1
	20175	1732.5	QPSK	1	0	0	22.62	22±1
				1	7	0	22.56	22±1
				1	14	0	22.67	22±1
				8	0	1	21.55	22±1
				8	4	1	21.47	22±1
				8	7	1	21.53	22±1
				15	0	1	21.61	22±1
			16QAM	1	0	1	21.45	21.5±1
				1	7	1	21.43	21.5±1
				1	14	1	21.39	21.5±1
				8	0	2	20.51	21.5±1
				8	4	2	20.62	21.5±1
				8	7	2	20.53	21.5±1
				15	0	2	20.52	21.5±1
	20385	1753.5	QPSK	1	0	0	22.69	22±1
				1	7	0	22.64	22±1
				1	14	0	22.57	22±1
				8	0	1	21.68	22±1
				8	4	1	21.64	22±1
				8	7	1	21.53	22±1
				15	0	1	21.71	22±1
			16QAM	1	0	1	21.65	21.3±1
				1	7	1	21.63	21.3±1
				1	14	1	21.79	21.3±1
				8	0	2	20.50	21.3±1
				8	4	2	20.53	21.3±1
				8	7	2	20.47	21.3±1
				15	0	2	20.67	21.3±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
1.4MHz	19957	1710.7	QPSK	1	0	0	22.70	22.5±1
				1	2	0	22.56	22.5±1
				1	5	0	22.64	22.5±1
				3	0	0	22.75	22.5±1
				3	1	0	22.67	22.5±1
				3	2	0	22.61	22.5±1
				6	0	1	21.67	22.5±1
			16QAM	1	0	1	21.51	21.5±1
				1	2	1	21.59	21.5±1
				1	5	1	21.46	21.5±1
				3	0	1	21.37	21.5±1
				3	1	1	21.43	21.5±1
				3	2	1	21.36	21.5±1
				6	0	2	20.51	21.5±1
	20175	1732.5	QPSK	1	0	0	22.65	22±1
				1	2	0	22.63	22±1
				1	5	0	22.56	22±1
				3	0	0	22.66	22±1
				3	1	0	22.49	22±1
				3	2	0	22.64	22±1
				6	0	1	21.55	22±1
			16QAM	1	0	1	21.54	21.3±1
				1	2	1	21.43	21.3±1
				1	5	1	21.36	21.3±1
				3	0	1	21.33	21.3±1
				3	1	1	21.37	21.3±1
				3	2	1	21.36	21.3±1
				6	0	2	20.41	21.3±1
	20393	1754.3	QPSK	1	0	0	22.58	22±1
				1	2	0	22.52	22±1
				1	5	0	22.49	22±1
				3	0	0	22.74	22±1
				3	1	0	22.51	22±1
				3	2	0	22.52	22±1
				6	0	1	21.68	22±1
			16QAM	1	0	1	21.29	21.5±1
				1	2	1	21.32	21.5±1
				1	5	1	21.28	21.5±1
				3	0	1	21.34	21.5±1
				3	1	1	21.26	21.5±1
				3	2	1	21.37	21.5±1
				6	0	2	20.52	21.5±1

LTE Band 7:

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
20MHz	20850	2510	QPSK	1	0	0	22.36	21.5±1
				1	49	0	22.39	21.5±1
				1	99	0	22.23	21.5±1
				50	0	1	21.12	21.5±1
				50	24	1	21.34	21.5±1
				50	49	1	21.33	21.5±1
				100	0	1	21.06	21.5±1
			16QAM	1	0	1	21.52	21.3±1
				1	49	1	21.46	21.3±1
				1	99	1	21.53	21.3±1
				50	0	2	21.66	21.3±1
				50	24	2	21.56	21.3±1
				50	49	2	21.37	21.3±1
				100	0	2	20.31	21.3±1
	21100	2535	QPSK	1	0	0	22.62	22±1
				1	49	0	22.69	22±1
				1	99	0	22.54	22±1
				50	0	1	21.37	22±1
				50	24	1	21.36	22±1
				50	49	1	21.43	22±1
				100	0	1	21.36	22±1
			16QAM	1	0	1	21.34	21.3±1
				1	49	1	21.26	21.3±1
				1	99	1	21.23	21.3±1
				50	0	2	21.24	21.3±1
				50	24	2	21.34	21.3±1
				50	49	2	21.22	21.3±1
				100	0	2	20.36	21.3±1
	21350	2560	QPSK	1	0	0	20.81	21.5±1
				1	49	0	20.69	21.5±1
				1	99	0	20.83	21.5±1
				50	0	1	21.01	21.5±1
				50	24	1	21.12	21.5±1
				50	49	1	21.09	21.5±1
				100	0	1	21.41	21.5±1
			16QAM	1	0	1	20.50	21.3±1
				1	49	1	20.34	21.3±1
				1	99	1	20.46	21.3±1
				50	0	2	20.54	21.3±1
				50	24	2	20.42	21.3±1
				50	49	2	20.38	21.3±1
				100	0	2	20.48	21.3±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
15MHz	20825	1717.5	QPSK	1	0	0	22.35	22±1
				1	37	0	22.39	22±1
				1	74	0	22.45	22±1
				36	0	1	21.50	22±1
				36	16	1	21.53	22±1
				36	35	1	21.49	22±1
				75	0	1	21.59	22±1
			16QAM	1	0	1	21.78	21.3±1
				1	37	1	21.64	21.3±1
				1	74	1	21.73	21.3±1
				36	0	2	21.56	21.3±1
				36	16	2	21.42	21.3±1
				36	35	2	21.37	21.3±1
				75	0	2	20.47	21.3±1
	21100	1732.5	QPSK	1	0	0	22.78	22.3±1
				1	37	0	22.68	22.3±1
				1	74	0	22.49	22.3±1
				36	0	1	21.48	22.3±1
				36	16	1	21.56	22.3±1
				36	35	1	21.45	22.3±1
				75	0	1	21.47	22.3±1
			16QAM	1	0	1	21.76	21.3±1
				1	37	1	21.59	21.3±1
				1	74	1	21.48	21.3±1
				36	0	2	21.31	21.3±1
				36	16	2	21.39	21.3±1
				36	35	2	21.53	21.3±1
				75	0	2	20.45	21.3±1
	21375	1747.5	QPSK	1	0	0	22.46	22±1
				1	37	0	22.53	22±1
				1	74	0	22.47	22±1
				36	0	1	21.45	22±1
				36	16	1	21.56	22±1
				36	35	1	21.47	22±1
				75	0	1	21.46	22±1
			16QAM	1	0	1	21.56	21.3±1
				1	37	1	21.37	21.3±1
				1	74	1	21.51	21.3±1
				36	0	2	21.56	21.3±1
				36	16	2	21.48	21.3±1
				36	35	2	21.12	21.3±1
				75	0	2	20.34	21.3±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
10MHz	20800	2502	QPSK	1	0	0	22.32	21.5±1
				1	24	0	22.23	21.5±1
				1	49	0	22.19	21.5±1
				25	0	1	21.53	21.5±1
				25	12	1	21.45	21.5±1
				25	24	1	21.36	21.5±1
				50	0	1	21.01	21.5±1
			16QAM	1	0	1	20.31	21.3±1
				1	24	1	20.39	21.3±1
				1	49	1	20.44	21.3±1
				25	0	2	20.39	21.3±1
				25	12	2	20.54	21.3±1
				25	24	2	20.63	21.3±1
				50	0	2	20.31	21.3±1
	21100	2535	QPSK	1	0	0	22.52	22±1
				1	24	0	22.48	22±1
				1	49	0	22.54	22±1
				25	0	1	21.38	22±1
				25	12	1	21.46	22±1
				25	24	1	21.76	22±1
				50	0	1	21.37	22±1
			16QAM	1	0	1	21.81	21.3±1
				1	24	1	21.56	21.3±1
				1	49	1	21.75	21.3±1
				25	0	2	21.54	21.3±1
				25	12	2	21.34	21.3±1
				25	24	2	21.36	21.3±1
				50	0	2	20.39	21.3±1
	21400	2565	QPSK	1	0	0	21.66	21.3±1
				1	24	0	21.54	21.3±1
				1	49	0	21.43	21.3±1
				25	0	1	21.75	21.3±1
				25	12	1	21.56	21.3±1
				25	24	1	21.84	21.3±1
				50	0	1	21.69	21.3±1
			16QAM	1	0	1	21.39	21.3±1
				1	24	1	21.45	21.3±1
				1	49	1	21.38	21.3±1
				25	0	2	21.43	21.3±1
				25	12	2	21.35	21.3±1
				25	24	2	21.26	21.3±1
				50	0	2	20.36	21.3±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
5MHz	19975	1712.5	QPSK	1	0	0	21.45	21.5±1
				1	12	0	21.46	21.5±1
				1	24	0	21.38	21.5±1
				12	0	1	21.45	21.5±1
				12	6	1	21.34	21.5±1
				12	11	1	21.41	21.5±1
				25	0	1	21.36	21.5±1
			16QAM	1	0	1	21.35	21.3±1
				1	12	1	21.45	21.3±1
				1	24	1	21.26	21.3±1
				12	0	2	21.37	21.3±1
				12	6	2	21.45	21.3±1
				12	11	2	21.35	21.3±1
				25	0	2	20.40	21.3±1
	20175	1732.5	QPSK	1	0	0	**22.85**	22±1
				1	12	0	22.73	22±1
				1	24	0	22.69	22±1
				12	0	1	21.56	22±1
				12	6	1	21.64	22±1
				12	11	1	21.76	22±1
				25	0	1	21.52	22±1
			16QAM	1	0	1	21.56	21.3±1
				1	12	1	21.57	21.3±1
				1	24	1	21.68	21.3±1
				12	0	2	21.34	21.3±1
				12	6	2	21.26	21.3±1
				12	11	2	21.33	21.3±1
				25	0	2	20.54	21.3±1
	20375	1752.5	QPSK	1	0	0	21.78	21.3±1
				1	12	0	21.69	21.3±1
				1	24	0	21.53	21.3±1
				12	0	1	21.97	21.3±1
				12	6	1	21.89	21.3±1
				12	11	1	21.69	21.3±1
				25	0	1	22.19	21.3±1
			16QAM	1	0	1	21.78	21.3±1
				1	12	1	21.56	21.3±1
				1	24	1	21.46	21.3±1
				12	0	2	21.53	21.3±1
				12	6	2	21.46	21.3±1
				12	11	2	21.78	21.3±1
				25	0	2	20.71	21.3±1

LTE Band 17:

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
10MHz	23780	709.0	QPSK	1	0	0	22.64	22.5±1
				1	24	0	22.68	22.5±1
				1	49	0	22.59	22.5±1
				25	0	1	22.03	22.5±1
				25	12	1	22.06	22.5±1
				25	24	1	22.94	22.5±1
				50	0	1	22.12	22.5±1
			16QAM	1	0	1	22.47	22±1
				1	24	1	22.56	22±1
				1	49	1	22.48	22±1
				25	0	2	22.38	22±1
				25	12	2	22.46	22±1
				25	24	2	22.37	22±1
				50	0	2	21.20	22±1
	23790	701.0	QPSK	1	0	0	22.43	22±1
				1	24	0	22.45	22±1
				1	49	0	22.56	22±1
				25	0	1	21.83	22±1
				25	12	1	21.45	22±1
				25	24	1	21.68	22±1
				50	0	1	22.09	22±1
			16QAM	1	0	1	21.31	21.5±1
				1	24	1	21.26	21.5±1
				1	49	1	21.75	21.5±1
				25	0	2	21.54	21.5±1
				25	12	2	21.34	21.5±1
				25	24	2	21.36	21.5±1
				50	0	2	21.09	21.5±1
	23800	711.0	QPSK	1	0	0	22.39	22.3±1
				1	24	0	22.45	22.3±1
				1	49	0	22.38	22.3±1
				25	0	1	21.65	22.3±1
				25	12	1	21.56	22.3±1
				25	24	1	21.38	22.3±1
				50	0	1	22.04	22.3±1
			16QAM	1	0	1	21.41	22±1
				1	24	1	21.36	22±1
				1	49	1	21.35	22±1
				25	0	2	21.26	22±1
				25	12	2	21.35	22±1
				25	24	2	21.23	22±1
				50	0	2	21.09	22±1

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)	Tune up Power tolerant
5MHz	23755	706.5	QPSK	1	0	0	23.15	22.5±1
				1	12	0	**23.26**	22.5±1
				1	24	0	23.23	22.5±1
				12	0	1	22.23	22.5±1
				12	6	1	22.35	22.5±1
				12	11	1	22.46	22.5±1
				25	0	1	22.17	22.5±1
			16QAM	1	0	1	22.12	21.5±1
				1	12	1	22.34	21.5±1
				1	24	1	22.15	21.5±1
				12	0	2	22.06	21.5±1
				12	6	2	22.08	21.5±1
				12	11	2	22.13	21.5±1
				25	0	2	21.34	21.5±1
	23790	710.0	QPSK	1	0	0	22.95	22.5±1
				1	12	0	22.89	22.5±1
				1	24	0	22.86	22.5±1
				12	0	1	22.04	22.5±1
				12	6	1	22.12	22.5±1
				12	11	1	22.32	22.5±1
				25	0	1	22.07	22.5±1
			16QAM	1	0	1	22.01	21.5±1
				1	12	1	22.13	21.5±1
				1	24	1	22.31	21.5±1
				12	0	2	21.94	21.5±1
				12	6	2	21.98	21.5±1
				12	11	2	21.87	21.5±1
				25	0	2	21.13	21.5±1
	23825	713.5	QPSK	1	0	0	22.63	22±1
				1	12	0	22.64	22±1
				1	24	0	22.56	22±1
				12	0	1	21.54	22±1
				12	6	1	21.38	22±1
				12	11	1	21.56	22±1
				25	0	1	21.60	22±1
			16QAM	1	0	1	22.06	21.5±1
				1	12	1	22.13	21.5±1
				1	24	1	22.19	21.5±1
				12	0	2	21.89	21.5±1
				12	6	2	21.94	21.5±1
				12	11	2	21.87	21.5±1
				25	0	2	20.72	21.5±1

ERP & EIRP

EIRP for LTE Band 2 (Part 24E)

Frequency (MHz)	BW (MHz)	Modulation	RB Size/Offset	Substituted level (dBm)	Antenna Polarization	Antenna Gain correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
1850.7	1.4	QPSK	1/0	15.32	V	7.88	0.85	22.35	33.01
1880	1.4	QPSK	1/0	15.39	V	7.88	0.85	22.42	33.01
1909.3	1.4	QPSK	1/0	15.41	V	7.88	0.85	22.44	33.01
1850.7	1.4	QPSK	1/0	13.75	H	7.88	0.85	20.78	33.01
1880	1.4	QPSK	1/0	13.82	H	7.88	0.85	20.85	33.01
1909.3	1.4	QPSK	1/0	13.86	H	7.88	0.85	20.89	33.01
1850.7	1.4	16-QAM	1/0	14.28	V	7.88	0.85	21.31	33.01
1880	1.4	16-QAM	1/0	14.31	V	7.88	0.85	21.34	33.01
1909.3	1.4	16-QAM	1/0	14.35	V	7.88	0.85	21.38	33.01
1850.7	1.4	16-QAM	1/0	12.68	H	7.88	0.85	19.71	33.01
1880	1.4	16-QAM	1/0	12.71	H	7.88	0.85	19.74	33.01
1909.3	1.4	16-QAM	1/0	12.76	H	7.88	0.85	19.79	33.01
1851.5	3	QPSK	1/0	15.42	V	7.88	0.85	22.45	33.01
1880	3	QPSK	1/0	15.36	V	7.88	0.85	22.39	33.01
1908.5	3	QPSK	1/0	14.33	V	7.88	0.85	21.36	33.01
1851.5	3	QPSK	1/0	13.81	H	7.88	0.85	20.84	33.01
1880	3	QPSK	1/0	13.75	H	7.88	0.85	20.78	33.01
1908.5	3	QPSK	1/0	13.68	H	7.88	0.85	20.71	33.01
1851.5	3	16-QAM	1/0	14.32	V	7.88	0.85	21.35	33.01
1880	3	16-QAM	1/0	14.38	V	7.88	0.85	21.41	33.01
1908.5	3	16-QAM	1/0	14.31	V	7.88	0.85	21.34	33.01
1851.5	3	16-QAM	1/0	12.68	H	7.88	0.85	19.71	33.01
1880	3	16-QAM	1/0	12.73	H	7.88	0.85	19.76	33.01
1908.5	3	16-QAM	1/0	12.65	H	7.88	0.85	19.68	33.01
1852.5	5	QPSK	1/24	15.53	V	7.88	0.85	22.56	33.01
1880	5	QPSK	1/0	15.61	V	7.88	0.85	**22.64**	33.01
1907.5	5	QPSK	1/24	15.58	V	7.88	0.85	22.61	33.01
1852.5	5	QPSK	1/24	13.93	H	7.88	0.85	20.96	33.01
1880	5	QPSK	1/0	13.98	H	7.88	0.85	21.01	33.01
1907.5	5	QPSK	1/24	14.02	H	7.88	0.85	21.05	33.01
1852.5	5	16-QAM	1/24	14.38	V	7.88	0.85	21.41	33.01
1880	5	16-QAM	1/0	14.42	V	7.88	0.85	21.45	33.01

1907.5	5	16-QAM	1/24	14.37	V	7.88	0.85	21.40	33.01
1852.5	5	16-QAM	1/24	12.73	H	7.88	0.85	19.76	33.01
1880	5	16-QAM	1/0	12.78	H	7.88	0.85	19.81	33.01
1907.5	5	16-QAM	1/24	12.81	H	7.88	0.85	19.84	33.01
1855	10	QPSK	1/0	15.28	V	7.88	0.85	22.31	33.01
1880	10	QPSK	1/0	15.15	V	7.88	0.85	22.18	33.01
1905	10	QPSK	1/49	15.21	V	7.88	0.85	22.24	33.01
1855	10	QPSK	1/0	13.46	H	7.88	0.85	20.49	33.01
1880	10	QPSK	1/0	13.31	H	7.88	0.85	20.34	33.01
1905	10	QPSK	1/49	13.38	H	7.88	0.85	20.41	33.01
1855	10	16-QAM	1/0	13.95	V	7.88	0.85	20.98	33.01
1880	10	16-QAM	1/0	13.86	V	7.88	0.85	20.89	33.01
1905	10	16-QAM	1/49	13.94	V	7.88	0.85	20.97	33.01
1855	10	16-QAM	1/0	12.22	H	7.88	0.85	19.25	33.01
1880	10	16-QAM	1/0	12.28	H	7.88	0.85	19.31	33.01
1905	10	16-QAM	1/49	12.25	H	7.88	0.85	19.28	33.01
1857.5	15	QPSK	1/0	15.39	V	7.88	0.85	22.42	33.01
1880	15	QPSK	1/0	15.34	V	7.88	0.85	22.37	33.01
1902.5	15	QPSK	1/0	15.42	V	7.88	0.85	22.45	33.01
1857.5	15	QPSK	1/0	13.81	H	7.88	0.85	20.84	33.01
1880	15	QPSK	1/0	13.76	H	7.88	0.85	20.79	33.01
1902.5	15	QPSK	1/0	13.73	H	7.88	0.85	20.76	33.01
1857.5	15	16-QAM	1/0	14.25	V	7.88	0.85	21.28	33.01
1880	15	16-QAM	1/0	14.31	V	7.88	0.85	21.34	33.01
1902.5	15	16-QAM	1/0	14.27	V	7.88	0.85	21.30	33.01
1857.5	15	16-QAM	1/0	12.83	H	7.88	0.85	19.86	33.01
1880	15	16-QAM	1/0	12.76	H	7.88	0.85	19.79	33.01
1902.5	15	16-QAM	1/0	12.84	H	7.88	0.85	19.87	33.01
1860	20	QPSK	1/0	15.46	V	7.88	0.85	22.49	33.01
1880	20	QPSK	1/0	15.39	V	7.88	0.85	22.42	33.01
1900	20	QPSK	1/0	15.34	V	7.88	0.85	22.37	33.01
1860	20	QPSK	1/0	13.75	H	7.88	0.85	20.78	33.01
1880	20	QPSK	1/0	13.68	H	7.88	0.85	20.71	33.01
1900	20	QPSK	1/0	13.72	H	7.88	0.85	20.75	33.01
1860	20	16-QAM	1/0	14.32	V	7.88	0.85	21.35	33.01
1880	20	16-QAM	1/0	14.27	V	7.88	0.85	21.30	33.01
1900	20	16-QAM	1/0	14.21	V	7.88	0.85	21.24	33.01
1860	20	16-QAM	1/0	12.93	H	7.88	0.85	19.96	33.01

1880	20	16-QAM	1/0	12.86	H	7.88	0.85	19.89	33.01
1900	20	16-QAM	1/0	12.91	H	7.88	0.85	19.94	33.01

EIRP for LTE Band 4 (Part 27)

Frequency (MHz)	BW (MHz)	Modulation	RB Size/Offset	Substituted level (dBm)	Antenna Polarization	Antenna Gain correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
1710.7	1.4	QPSK	1/0	15.51	V	7.95	0.79	22.67	30
1732.5	1.4	QPSK	1/0	15.43	V	7.95	0.79	22.59	30
1754.3	1.4	QPSK	1/0	15.37	V	7.95	0.79	22.53	30
1710.7	1.4	QPSK	1/0	13.82	H	7.95	0.79	20.98	30
1732.5	1.4	QPSK	1/0	13.76	H	7.95	0.79	20.92	30
1754.3	1.4	QPSK	1/0	13.71	H	7.95	0.79	20.87	30
1710.7	1.4	16-QAM	1/5	14.29	V	7.95	0.79	21.45	30
1732.5	1.4	16-QAM	1/0	14.26	V	7.95	0.79	21.42	30
1754.3	1.4	16-QAM	1/0	14.27	V	7.95	0.79	21.43	30
1710.7	1.4	16-QAM	1/5	12.96	H	7.95	0.79	20.12	30
1732.5	1.4	16-QAM	1/0	12.89	H	7.95	0.79	20.05	30
1754.3	1.4	16-QAM	1/0	12.91	H	7.95	0.79	20.07	30
1711.5	3	QPSK	1/0	15.46	V	7.95	0.79	22.62	30
1732.5	3	QPSK	1/0	15.42	V	7.95	0.79	22.58	30
1753.5	3	QPSK	1/0	15.48	V	7.95	0.79	22.64	30
1711.5	3	QPSK	1/0	13.78	H	7.95	0.79	20.94	30
1732.5	3	QPSK	1/0	13.82	H	7.95	0.79	20.98	30
1753.5	3	QPSK	1/0	13.75	H	7.95	0.79	20.91	30
1711.5	3	16-QAM	1/0	14.33	V	7.95	0.79	21.49	30
1732.5	3	16-QAM	1/0	14.27	V	7.95	0.79	21.43	30
1753.5	3	16-QAM	1/0	14.31	V	7.95	0.79	21.47	30
1711.5	3	16-QAM	1/0	12.91	H	7.95	0.79	20.07	30
1732.5	3	16-QAM	1/0	12.93	H	7.95	0.79	20.09	30
1753.5	3	16-QAM	1/0	12.86	H	7.95	0.79	20.02	30
1712.5	5	QPSK	1/0	15.53	V	7.95	0.79	**22.69**	30
1732.5	5	QPSK	1/0	15.48	V	7.95	0.79	22.64	30
1752.5	5	QPSK	1/24	15.42	V	7.95	0.79	22.58	30
1712.5	5	QPSK	1/0	13.64	H	7.95	0.79	20.80	30
1732.5	5	QPSK	1/0	13.59	H	7.95	0.79	20.75	30
1752.5	5	QPSK	1/24	13.53	H	7.95	0.79	20.69	30
1712.5	5	16-QAM	1/0	14.24	V	7.95	0.79	21.40	30
1732.5	5	16-QAM	1/0	14.16	V	7.95	0.79	21.32	30
1752.5	5	16-QAM	1/24	14.22	V	7.95	0.79	21.38	30

1712.5	5	16-QAM	1/0	12.87	H	7.95	0.79	20.03	30
1732.5	5	16-QAM	1/0	12.85	H	7.95	0.79	20.01	30
1752.5	5	16-QAM	1/24	12.81	H	7.95	0.79	19.97	30
1715	10	QPSK	1/0	15.33	V	7.95	0.79	22.49	30
1732.5	10	QPSK	1/49	15.26	V	7.95	0.79	22.42	30
1750	10	QPSK	1/0	15.18	V	7.95	0.79	22.34	30
1715	10	QPSK	1/0	13.34	H	7.95	0.79	20.50	30
1732.5	10	QPSK	1/49	13.29	H	7.95	0.79	20.45	30
1750	10	QPSK	1/0	13.26	H	7.95	0.79	20.42	30
1715	10	16-QAM	1/0	14.08	V	7.95	0.79	21.24	30
1732.5	10	16-QAM	1/49	14.05	V	7.95	0.79	21.21	30
1750	10	16-QAM	1/0	14.02	V	7.95	0.79	21.18	30
1715	10	16-QAM	1/0	12.53	H	7.95	0.79	19.69	30
1732.5	10	16-QAM	1/49	12.49	H	7.95	0.79	19.65	30
1750	10	16-QAM	1/0	12.51	H	7.95	0.79	19.67	30
1717.5	15	QPSK	1/0	15.48	V	7.95	0.79	22.64	30
1732.5	15	QPSK	1/74	15.43	V	7.95	0.79	22.59	30
1747.5	15	QPSK	1/0	15.17	V	7.95	0.79	22.33	30
1717.5	15	QPSK	1/0	13.25	H	7.95	0.79	20.41	30
1732.5	15	QPSK	1/74	13.21	H	7.95	0.79	20.37	30
1747.5	15	QPSK	1/0	13.07	H	7.95	0.79	20.23	30
1717.5	15	16-QAM	1/0	13.95	V	7.95	0.79	21.11	30
1732.5	15	16-QAM	1/74	13.89	V	7.95	0.79	21.05	30
1747.5	15	16-QAM	1/0	13.92	V	7.95	0.79	21.08	30
1717.5	15	16-QAM	1/0	12.48	H	7.95	0.79	19.64	30
1732.5	15	16-QAM	1/74	12.51	H	7.95	0.79	19.67	30
1747.5	15	16-QAM	1/0	12.47	H	7.95	0.79	19.63	30
1720	20	QPSK	1/99	15.21	V	7.95	0.79	22.37	30
1732.5	20	QPSK	1/99	15.19	V	7.95	0.79	22.35	30
1745	20	QPSK	1/0	15.03	V	7.95	0.79	22.19	30
1720	20	QPSK	1/99	13.37	H	7.95	0.79	20.53	30
1732.5	20	QPSK	1/99	13.33	H	7.95	0.79	20.49	30
1745	20	QPSK	1/0	13.25	H	7.95	0.79	20.41	30
1720	20	16-QAM	1/99	14.16	V	7.95	0.79	21.32	30
1732.5	20	16-QAM	1/99	14.12	V	7.95	0.79	21.28	30
1745	20	16-QAM	1/0	14.09	V	7.95	0.79	21.25	30
1720	20	16-QAM	1/99	12.53	H	7.95	0.79	19.69	30
1732.5	20	16-QAM	1/99	12.48	H	7.95	0.79	19.64	30

1745	20	16-QAM	1/0	12.51	H	7.95	0.79	19.67	30

ERP for LTE Band 7 (Part 27)

Frequency (MHz)	BW (MHz)	Modulation	RB Size/Offset	Substituted level (dBm)	Antenna Polarization	Antenna Gain correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
2502.5	5	QPSK	1/0	14.86	V	8.93	0.83	22.96	30
2535	5	QPSK	1/0	15.11	V	8.93	0.83	23.21	30
2567.5	5	QPSK	1/24	15.09	V	8.93	0.83	23.19	30
2502.5	5	QPSK	1/0	13.59	H	8.93	0.83	21.69	30
2535	5	QPSK	1/0	13.52	H	8.93	0.83	21.62	30
2567.5	5	QPSK	1/24	13.48	H	8.93	0.83	21.58	30
2502.5	5	16-QAM	1/0	14.07	V	8.93	0.83	22.17	30
2535	5	16-QAM	1/0	14.15	V	8.93	0.83	22.25	30
2567.5	5	16-QAM	1/24	14.13	V	8.93	0.83	22.23	30
2502.5	5	16-QAM	1/0	12.61	H	8.93	0.83	20.71	30
2535	5	16-QAM	1/0	12.68	H	8.93	0.83	20.78	30
2567.5	5	16-QAM	1/24	12.54	H	8.93	0.83	20.64	30
2505	10	QPSK	1/0	15.67	V	8.93	0.83	23.77	30
2535	10	QPSK	1/49	15.73	V	8.93	0.83	**23.83**	30
2565	10	QPSK	1/0	15.61	V	8.93	0.83	23.71	30
2505	10	QPSK	1/0	13.85	H	8.93	0.83	21.95	30
2535	10	QPSK	1/49	13.91	H	8.93	0.83	22.01	30
2565	10	QPSK	1/0	13.84	H	8.93	0.83	21.94	30
2505	10	16-QAM	1/0	14.81	V	8.93	0.83	22.91	30
2535	10	16-QAM	1/49	14.76	V	8.93	0.83	22.86	30
2565	10	16-QAM	1/0	14.78	V	8.93	0.83	22.88	30
2505	10	16-QAM	1/0	12.93	H	8.93	0.83	21.03	30
2535	10	16-QAM	1/49	12.89	H	8.93	0.83	20.99	30
2565	10	16-QAM	1/0	12.97	H	8.93	0.83	21.07	30
2507.5	15	QPSK	1/0	15.58	V	8.93	0.83	23.68	30
2535	15	QPSK	1/74	15.64	V	8.93	0.83	23.74	30
2562.5	15	QPSK	1/0	15.53	V	8.93	0.83	23.63	30
2507.5	15	QPSK	1/0	13.91	H	8.93	0.83	22.01	30
2535	15	QPSK	1/74	13.87	H	8.93	0.83	21.97	30
2562.5	15	QPSK	1/0	13.95	H	8.93	0.83	22.05	30
2507.5	15	16-QAM	1/0	14.76	V	8.93	0.83	22.86	30
2535	15	16-QAM	1/74	14.72	V	8.93	0.83	22.82	30
2562.5	15	16-QAM	1/0	14.68	V	8.93	0.83	22.78	30

2507.5	15	16-QAM	1/0	12.88	H	8.93	0.83	20.98	30
2535	15	16-QAM	1/74	12.95	H	8.93	0.83	21.05	30
2562.5	15	16-QAM	1/0	12.91	H	8.93	0.83	21.01	30
2510	20	QPSK	1/99	15.26	V	8.93	0.83	23.36	30
2535	20	QPSK	1/99	15.12	V	8.93	0.83	23.22	30
2560	20	QPSK	1/0	14.86	V	8.93	0.83	22.96	30
2510	20	QPSK	1/99	13.58	H	8.93	0.83	21.68	30
2535	20	QPSK	1/99	13.44	H	8.93	0.83	21.54	30
2560	20	QPSK	1/0	13.21	H	8.93	0.83	21.31	30
2510	20	16-QAM	1/99	14.16	V	8.93	0.83	22.26	30
2535	20	16-QAM	1/99	14.03	V	8.93	0.83	22.13	30
2560	20	16-QAM	1/0	13.77	V	8.93	0.83	21.87	30
2510	20	16-QAM	1/99	12.53	H	8.93	0.83	20.63	30
2535	20	16-QAM	1/99	12.34	H	8.93	0.83	20.44	30
2560	20	16-QAM	1/0	12.18	H	8.93	0.83	20.28	30

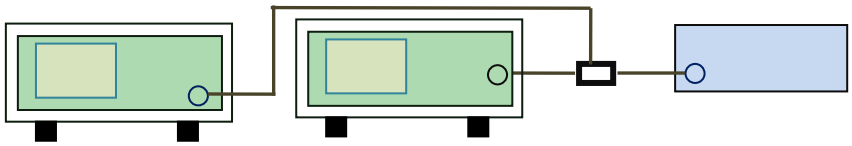
ERP for LTE Band 17 (Part 27)

Frequency (MHz)	BW (MHz)	Modulation	RB Size/Offset	Substituted level (dBm)	Antenna Polarization	Antenna Gain correction (dBi)	Cable Loss (dB)	Absolute Level (dBm)	Limit (dBm)
706.5	5	QPSK	1/0	15.38	V	6.8	0.42	21.76	34.77
710	5	QPSK	1/0	15.42	V	6.8	0.42	**21.80**	34.77
713.5	5	QPSK	1/0	15.06	V	6.8	0.42	21.44	34.77
706.5	5	QPSK	1/0	13.75	H	6.8	0.42	20.13	34.77
710	5	QPSK	1/0	13.71	H	6.8	0.42	20.09	34.77
713.5	5	QPSK	1/0	13.48	H	6.8	0.42	19.86	34.77
706.5	5	16-QAM	1/0	14.29	V	6.8	0.42	20.67	34.77
710	5	16-QAM	1/0	14.22	V	6.8	0.42	20.60	34.77
713.5	5	16-QAM	1/0	14.03	V	6.8	0.42	20.41	34.77
706.5	5	16-QAM	1/0	12.58	H	6.8	0.42	18.96	34.77
710	5	16-QAM	1/0	12.43	H	6.8	0.42	18.81	34.77
713.5	5	16-QAM	1/0	12.19	H	6.8	0.42	18.57	34.77
709	10	QPSK	1/0	15.23	V	6.8	0.42	21.61	34.77
710	10	QPSK	1/0	15.19	V	6.8	0.42	21.57	34.77
711	10	QPSK	1/0	14.67	V	6.8	0.42	21.05	34.77
709	10	QPSK	1/0	13.61	H	6.8	0.42	19.99	34.77
710	10	QPSK	1/0	13.53	H	6.8	0.42	19.91	34.77
711	10	QPSK	1/0	13.07	H	6.8	0.42	19.45	34.77
709	10	16-QAM	1/0	14.15	V	6.8	0.42	20.53	34.77
710	10	16-QAM	1/0	14.08	V	6.8	0.42	20.46	34.77
711	10	16-QAM	1/0	13.42	V	6.8	0.42	19.80	34.77
709	10	16-QAM	1/0	12.67	H	6.8	0.42	19.05	34.77
710	10	16-QAM	1/0	12.51	H	6.8	0.42	18.89	34.77
711	10	16-QAM	1/0	12.08	H	6.8	0.42	18.46	34.77

6.3 Peak-Average Ratio

Temperature	24℃
Relative Humidity	56%
Atmospheric Pressure	1023mbar
Test date :	Feb 23, 2016
Tested By :	Winnie Zhang

Requirement(s):

Spec	Item	Requirement	Applicable
§24.232(d) § 27.50(d)	a)	The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.	☑
Test Setup			
Test Procedure	**According with KDB 971168** 1. The signal analyzer' s CCDF measurement profile is enabled 2. Frequency = carrier center frequency 3. Measurement BW > Emission bandwidth of signal 4. The signal analyzer was set to collect one million samples to generate the CCDF curve 5. The measurement interval was set depending on the type of signal analyzed. For continuous signals (>98% duty cycle), the measurement interval was set to 1ms. For burst transmissions, the spectrum analyzer is set to use an internal " RF Burst" trigger that is synced with an incoming pulse and the measurement interval is set to less than the duration of the " on time" of one burst to ensure that energy is only captured during a time in which the transmitter is operating at maximum power		
Remark			
Result	☑ Pass ☐ Fail		

Test Data ☑ Yes ☐ N/A

Test Plot ☐ Yes (See below) ☑ N/A

LTE Band 2 (part 24E)

BW(MHz)	Frequency (MHz)	Mode	Modulation	Conducted Power (dBm)		Peak-Average Ratio (PAR)
				Peak	Average	
1.4	1880	RB 1/0	QPSK	24.36	22.51	1.85
			16QAM	23.42	21.47	1.95
3	1880	RB 1/0	QPSK	24.35	22.56	1.79
			16QAM	24.11	21.57	2.54
5	1880	RB 1/0	QPSK	23.41	22.66	0.75
			16QAM	23.56	21.37	2.19
10	1880	RB 1/0	QPSK	24.31	22.15	2.16
			16QAM	23.39	20.94	2.45
15	1880	RB 1/0	QPSK	23.46	22.67	0.79
			16QAM	23.87	21.85	2.02
20	1880	RB 1/0	QPSK	24.75	22.63	2.12
			16QAM	24.36	21.8	2.56

LTE Band 4 (part 27)

BW(MHz)	Frequency (MHz)	Mode	Modulation	Conducted Power (dBm)		Peak-Average Ratio (PAR)
				Peak	Average	
1.4	1732.5	RB 1/0	QPSK	25.15	22.56	2.59
			16QAM	24.21	21.54	2.67
3	1732.5	RB 1/0	QPSK	25.04	22.62	2.42
			16QAM	23.94	21.45	2.49
5	1732.5	RB 1/0	QPSK	25.16	22.76	2.40
			16QAM	23.86	21.72	2.14
10	1732.5	RB 1/0	QPSK	25.36	22.37	2.99
			16QAM	23.38	21.4	1.98
15	1732.5	RB 1/0	QPSK	24.97	22.67	2.30
			16QAM	23.21	21.59	1.62
20	1732.5	RB 1/0	QPSK	25.48	22.46	3.02
			16QAM	23.47	21.57	1.90

LTE Band 7 (part 27)

BW(MHz)	Frequency (MHz)	Mode	Modulation	Conducted Power (dBm)		Peak-Average Ratio (PAR)
				Peak	Average	
5	2535	RB 1/0	QPSK	25.36	22.85	2.51
			16QAM	24.21	21.56	2.65
10	2535	RB 1/0	QPSK	25.14	22.52	2.62
			16QAM	24.26	21.81	2.45
15	2535	RB 1/0	QPSK	25.61	22.78	2.83
			16QAM	24.17	21.76	2.41
20	2535	RB 1/0	QPSK	25.31	22.62	2.69
			16QAM	24.39	21.34	3.05

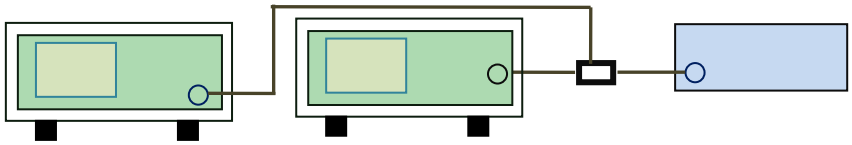
LTE Band 17 (part 27)

BW(MHz)	Frequency (MHz)	Mode	Modulation	Conducted Power (dBm)		Peak-Average Ratio (PAR)
				Peak	Average	
5	710	RB 1/0	QPSK	25.24	22.95	2.29
			16QAM	24.62	22.01	2.61
10	710	RB 1/0	QPSK	25.28	22.43	2.85
			16QAM	24.18	21.31	2.87

6.4 Occupied Bandwidth

Temperature	25℃
Relative Humidity	57%
Atmospheric Pressure	1024mbar
Test date :	Feb 24, 2016
Tested By :	Winnie Zhang

Requirement(s):

Spec	Item	Requirement	Applicable
§2.1049, §22.917, §22.905 §24.238 §27.53(a)	a)	99% Occupied Bandwidth(kHz)	☑
	b)	26 dB Bandwidth(kHz)	☑
Test Setup			
Test Procedure	- The EUT was connected to Spectrum Analyzer and Base Station via power divider. - The 99% and 26 dB occupied bandwidth (BW) of the middle channel for the highest RF powers.		
Remark			
Result	☑ Pass ☐ Fail		

Test Data ☑ Yes ☐ N/A

Test Plot ☑ Yes (See below) ☐ N/A

LTE Band 2 (Part 24E)

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
1.4	18607	1850.7	16QAM	1.1533	2.017
			QPSK	1.1450	2.022
1.4	18900	1880	16QAM	1.1293	1.607
			QPSK	1.1279	1.579
1.4	19193	1909.3	16QAM	1.1296	1.381
			QPSK	1.1304	1.389
3	18615	1851.5	16QAM	2.8309	4.927
			QPSK	2.8383	4.925
3	18900	1880	16QAM	2.7878	4.358
			QPSK	2.8114	4.316
3	19185	1908.5	16QAM	2.7986	4.792
			QPSK	2.7847	3.969
5	18625	1852.5	16QAM	6.3746	9.739
			QPSK	6.3960	9.726
5	18900	1880	16QAM	6.2890	9.376
			QPSK	6.2109	9.352
5	19175	1907.5	16QAM	6.1097	9.162
			QPSK	6.0968	9.162
10	18650	1855	16QAM	10.280	17.62
			QPSK	10.410	17.79
10	18900	1880	16QAM	9.7786	15.73
			QPSK	9.8394	15.92
10	19150	1905	16QAM	9.9612	16.26
			QPSK	9.9466	16.58
15	18675	1857.5	16QAM	13.984	21.27
			QPSK	13.947	21.45
15	18900	1880	16QAM	13.848	20.76
			QPSK	13.851	20.37
15	19125	1902.5	16QAM	13.780	19.94
			QPSK	13.832	20.72

20	18700	1860	16QAM	18.165	23.11
			QPSK	18.181	23.30
20	18900	1880	16QAM	18.155	22.14
			QPSK	18.153	22.42
20	19100	1900	16QAM	18.172	23.62
			QPSK	18.145	23.89

LTE Band 4 (Part 27)

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
1.4	19957	1710.7	16QAM	2.5888	3.000
			QPSK	2.5918	3.000
1.4	20175	1732.5	16QAM	2.3874	3.000
			QPSK	2.3941	3.000
1.4	20393	1754.3	16QAM	2.4194	3.000
			QPSK	2.4417	2.996
3	19965	1711.5	16QAM	6.0004	7.878
			QPSK	5.9814	7.908
3	20175	1732.5	16QAM	5.4271	7.774
			QPSK	5.4575	7.745
3	20385	1753.5	16QAM	5.7965	7.731
			QPSK	5.8202	7.817
5	19975	1712.5	16QAM	7.1604	10.00
			QPSK	7.1834	10.00
5	20175	1732.5	16QAM	6.3574	9.792
			QPSK	6.4074	9.815
5	20375	1752.5	16QAM	6.8081	10.00
			QPSK	6.8058	9.983
10	20000	1715	16QAM	12.044	20.00
			QPSK	12.039	20.00
10	20175	1732.5	16QAM	10.368	17.12
			QPSK	10.355	17.32
10	20350	1750	16QAM	11.957	19.81
			QPSK	11.832	19.75

15	20025	1717.5	16QAM	15.758	26.30
			QPSK	15.701	26.37
15	20175	1732.5	16QAM	13.919	21.71
			QPSK	13.899	21.51
15	20325	1747.5	16QAM	16.746	27.16
			QPSK	16.552	28.23
20	20050	1720	16QAM	18.258	25.90
			QPSK	18.322	25.99
20	20175	1732.5	16QAM	18.153	22.83
			QPSK	18.145	23.58
20	20300	1745	16QAM	18.439	30.45
			QPSK	18.474	30.53

LTE Band 7 (Part 27) result

BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
5	20775	2502.5	16QAM	5.6280	9.381
			QPSK	5.6084	9.159
5	21100	2535	16QAM	5.5032	8.855
			QPSK	5.4464	8.801
5	21425	2567.5	16QAM	5.2050	8.178
			QPSK	5.1887	8.050
10	20800	2505	16QAM	9.7607	19.91
			QPSK	9.8489	19.99
10	21100	2535	16QAM	9.3859	18.31
			QPSK	9.3807	18.25
10	21400	2562.5	16QAM	9.3458	13.82
			QPSK	9.3166	14.01
15	20825	2507.5	16QAM	14.158	27.91
			QPSK	14.073	26.45
15	21100	2535	16QAM	13.710	20.42
			QPSK	13.747	19.57
15	21400	2562.5	16QAM	13.725	17.42

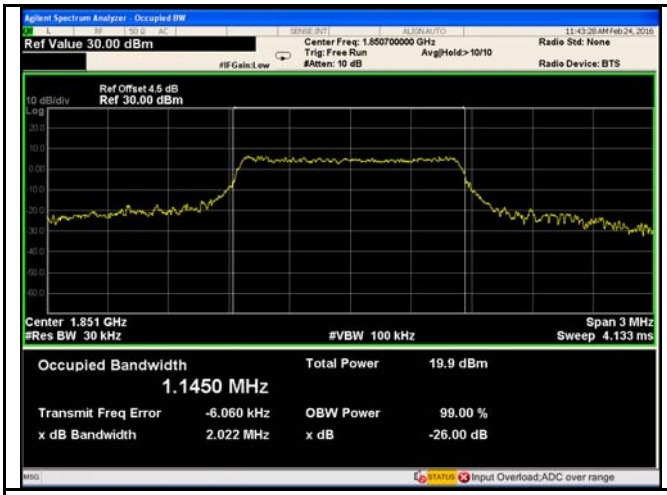
			QPSK	13.725	17.95
20	20850	2510	16QAM	18.158	27.01
			QPSK	18.193	28.71
20	21100	2535	16QAM	18.089	20.14
			QPSK	18.110	21.77
20	21350	2560	16QAM	18.133	20.06
			QPSK	18.123	19.93

LTE Band 17 (Part 27)

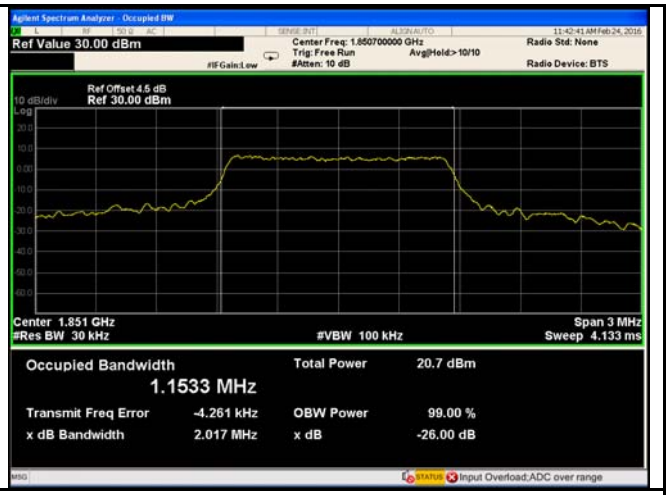
BW(MHz)	Channel	Frequency (MHz)	Modulation	99% Occupied Bandwidth (MHz)	26 dB Bandwidth (MHz)
5	23755	706.5	16QAM	7.3523	10.00
			QPSK	7.6099	10.00
5	23790	710	16QAM	7.3429	10.00
			QPSK	7.4953	10.00
5	23825	713.5	16QAM	7.0401	9.959
			QPSK	7.1286	9.965
10	23780	709	16QAM	11.684	19.91
			QPSK	11.502	19.97
10	23790	710	16QAM	11.545	19.46
			QPSK	11.521	19.20
10	23800	711	16QAM	11.663	19.54
			QPSK	11.635	19.64

Test Plots

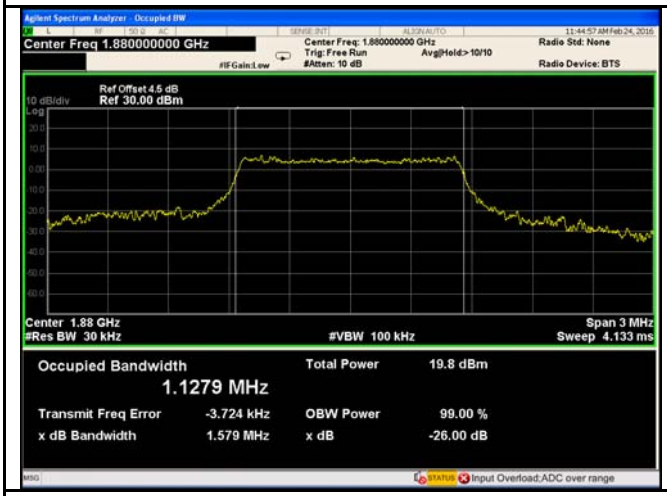
LTE Band 2 (Part 24E)



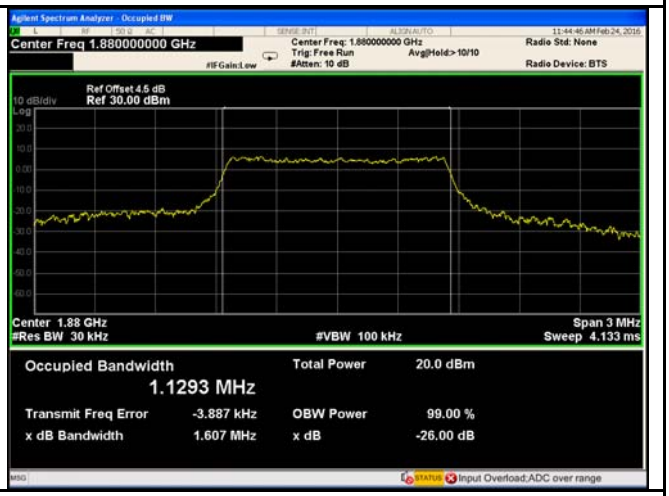
LTE band 2 - Low CH QPSK-1.4



LTE band 2 - Low CH 16QAM-1.4

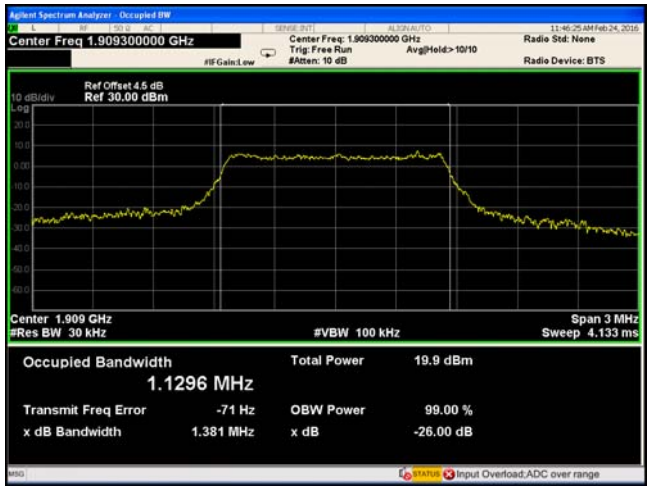


LTE band 2 - Middle CH QPSK-1.4



LTE band 2 - Middle CH 16QAM-1.4

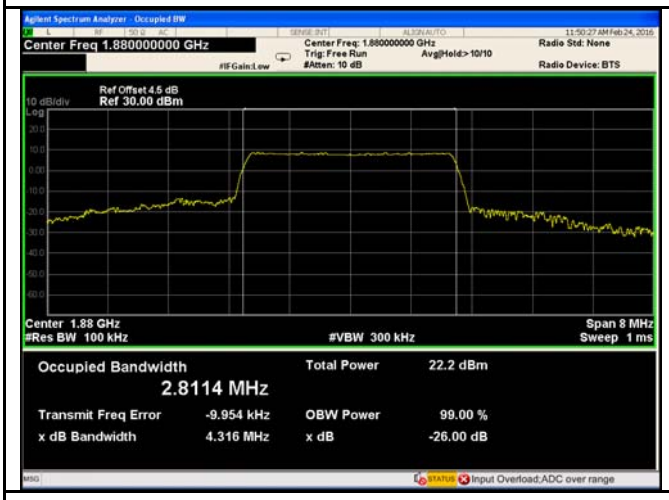
LTE band 2 - High CH QPSK-1.4



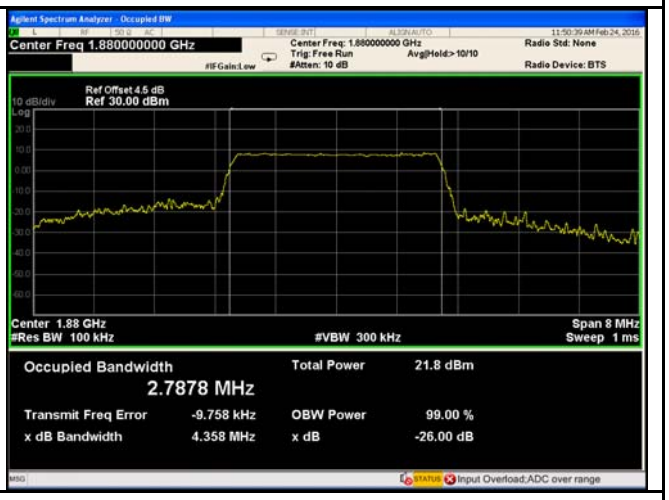
LTE band 2 - High CH 16QAM-1.4

LTE band 2 - Low CH QPSK-3

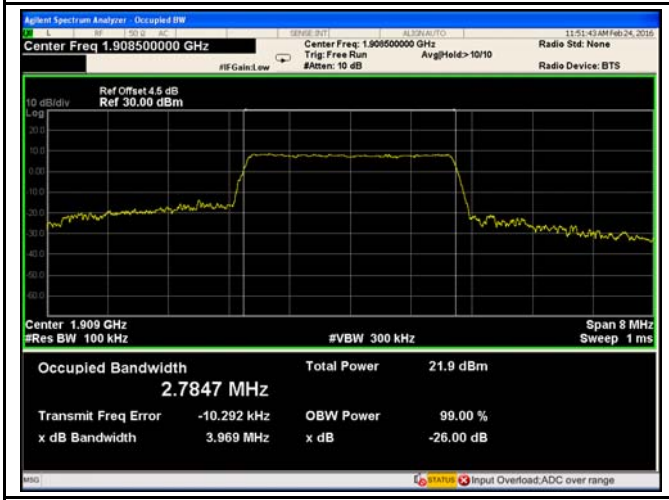
LTE band 2 - Low CH 16QAM-3



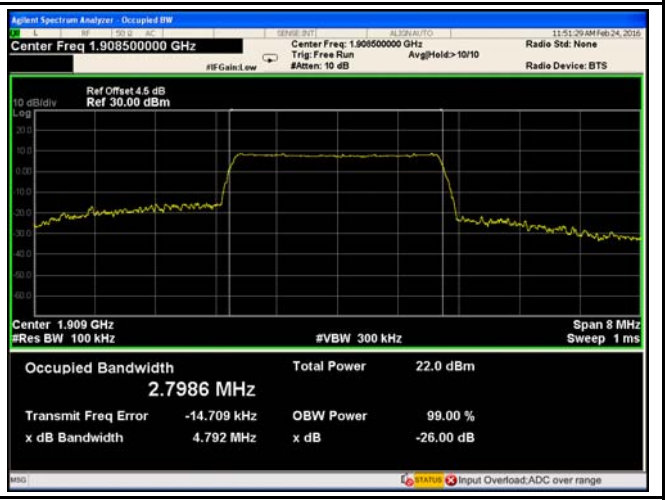
LTE band 2 - Middle CH QPSK-3



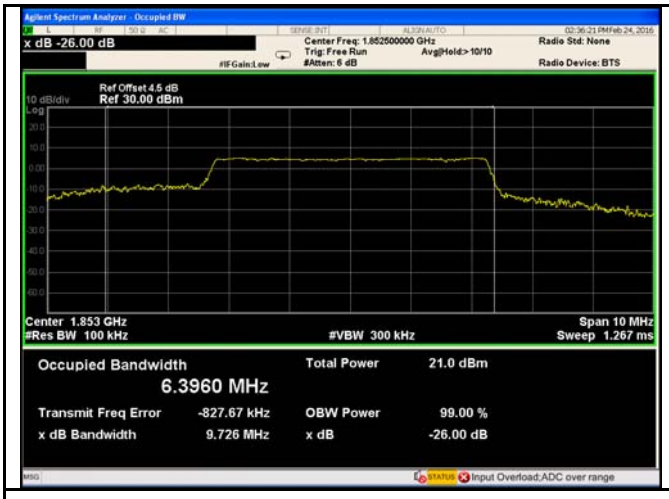
LTE band 2 - Middle CH 16QAM-3



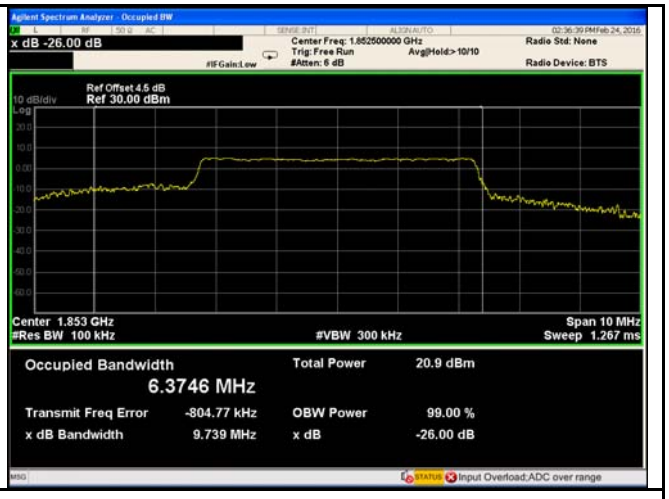
LTE band 2 - High CH QPSK-3



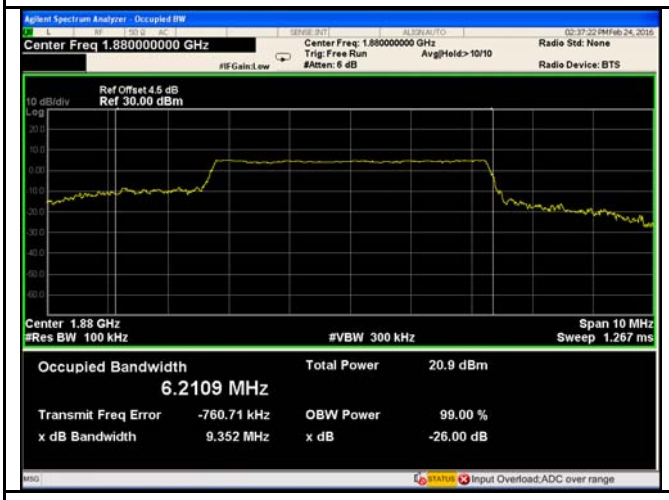
LTE band 2 - High CH 16QAM-3



LTE band 2 - Low CH QPSK-5



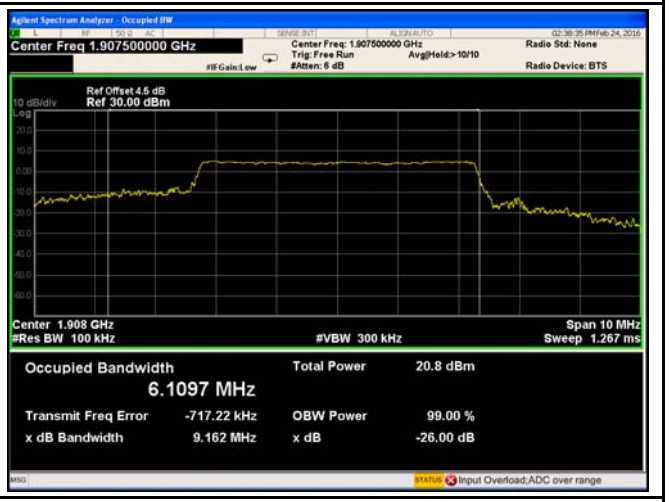
LTE band 2 - Low CH 16QAM-5



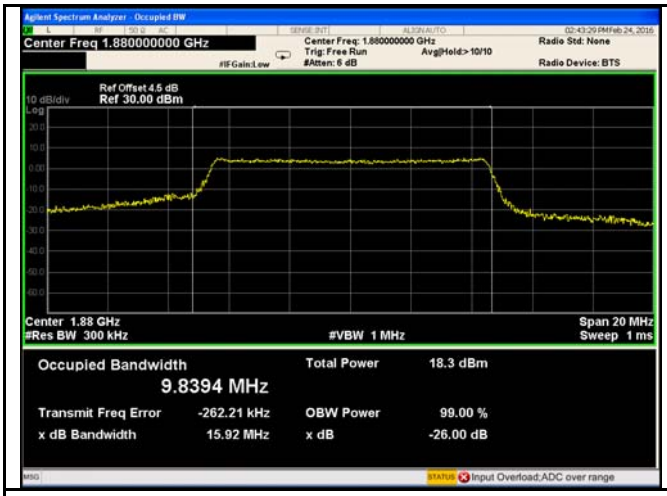
LTE band 2 - Middle CH QPSK-5

LTE band 2 - Middle CH 16QAM-5

LTE band 2 - High CH QPSK-5

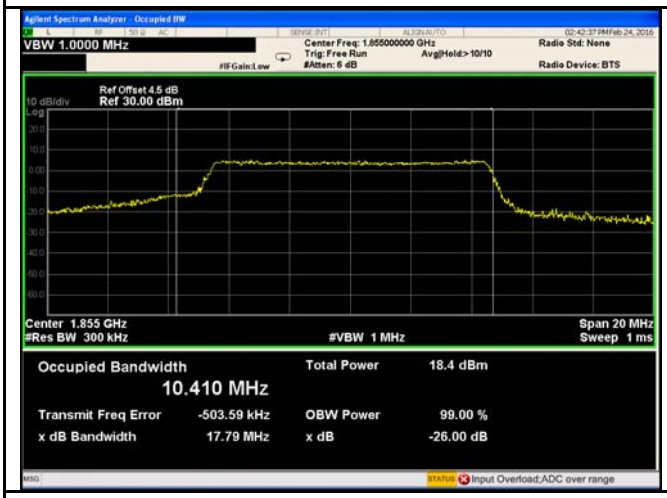


LTE band 2 - High CH 16QAM-5



LTE band 2 - Low CH QPSK-10

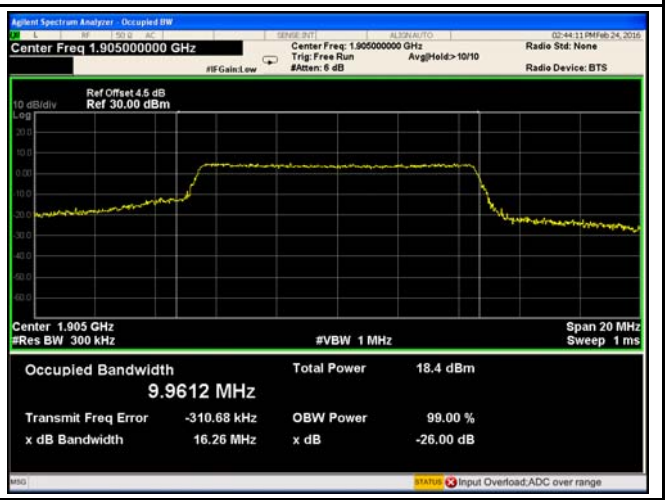
LTE band 2 - Low CH 16QAM-10



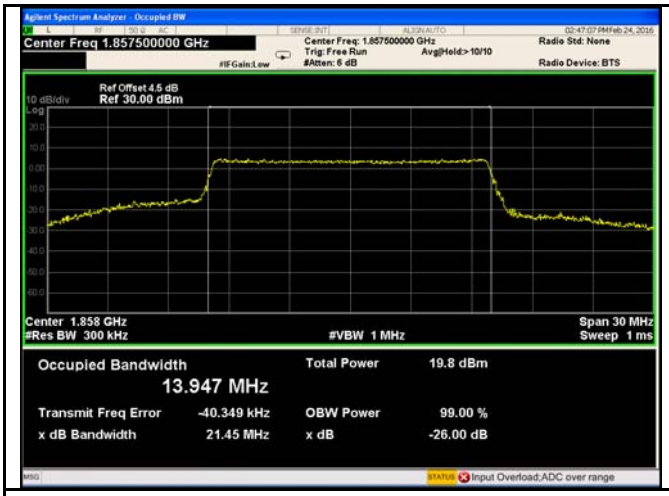
LTE band 2 - Middle CH QPSK-10

LTE band 2 - Middle CH 16QAM-10

LTE band 2 - High CH QPSK-10



LTE band 2 - High CH 16QAM-10



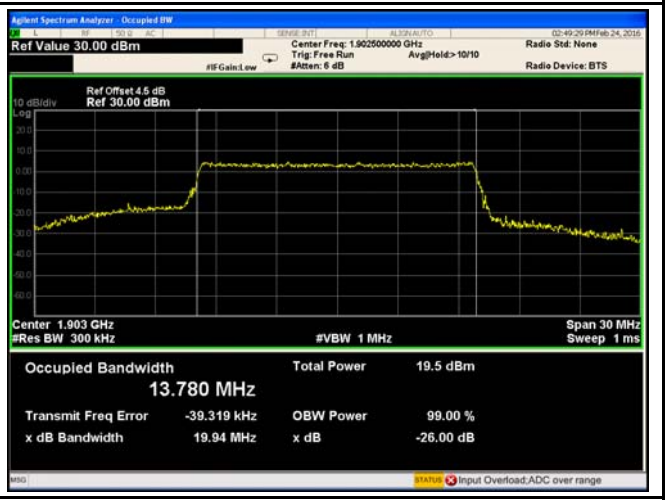
LTE band 2 - Low CH QPSK-15

LTE band 2 - Low CH 16QAM-15

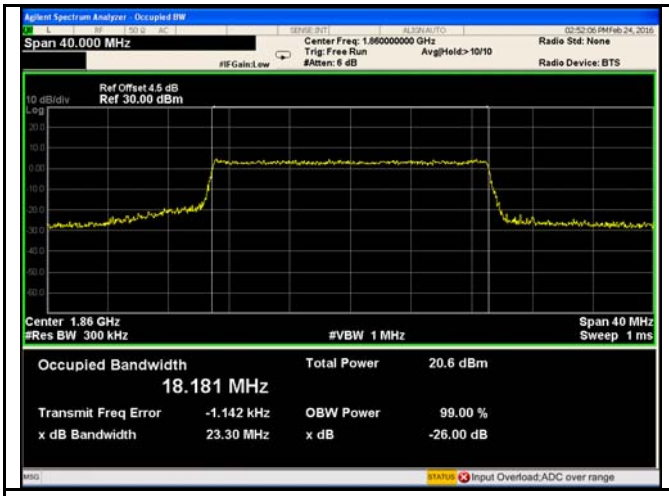
LTE band 2 - Middle CH QPSK-15

LTE band 2 - Middle CH 16QAM-15

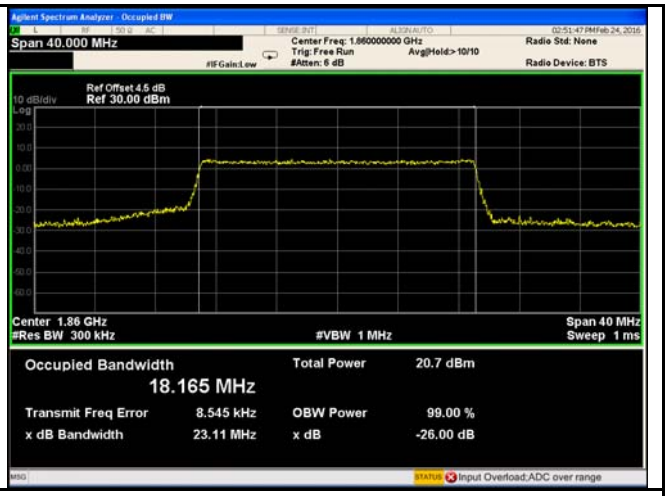
LTE band 2 - High CH QPSK-15



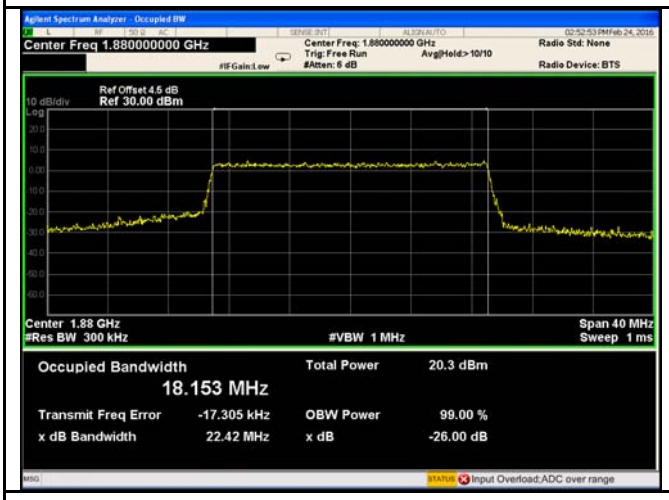
LTE band 2 - High CH 16QAM-15



LTE band 2 - Low CH QPSK-20



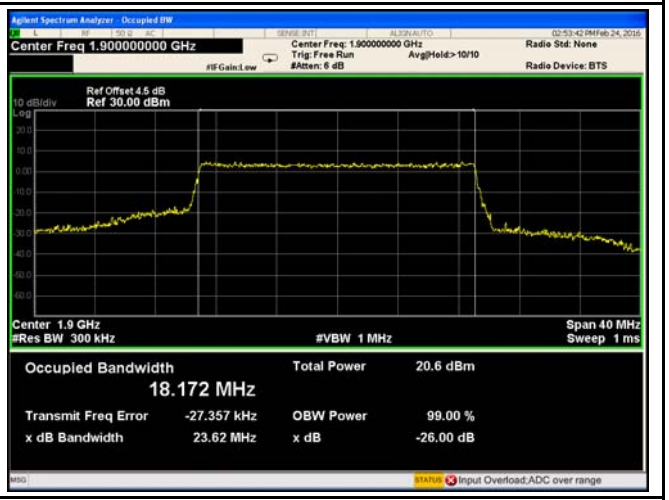
LTE band 2 - Low CH 16QAM-20



LTE band 2 - Middle CH QPSK-20

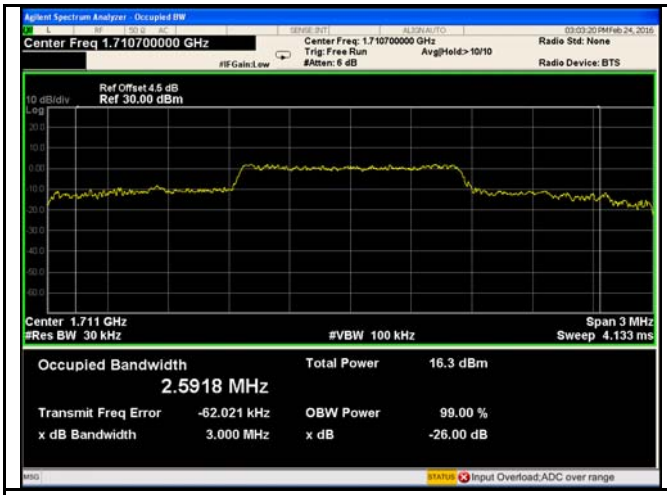
LTE band 2 - Middle CH 16QAM-20

LTE band 2 - High CH QPSK-20



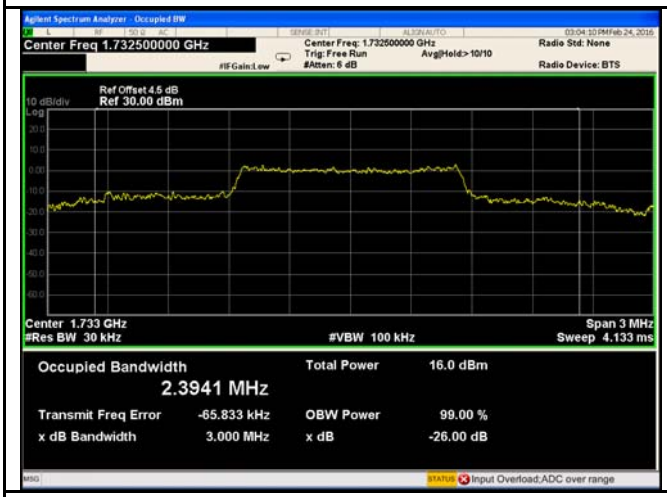
LTE band 2 - High CH 16QAM-20

LTE Band 4 (Part 27)

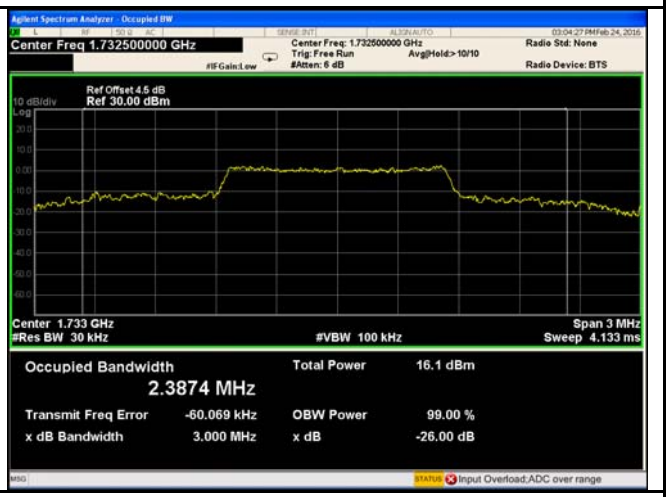


LTE band 4 - Low CH QPSK-1.4

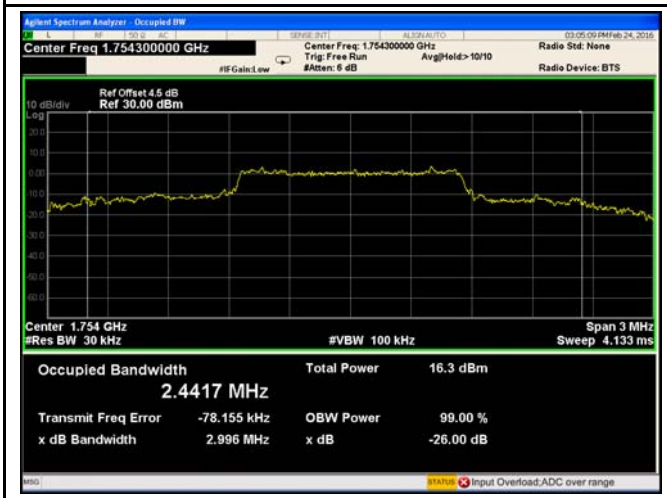
LTE band 4 - Low CH 16QAM-1.4



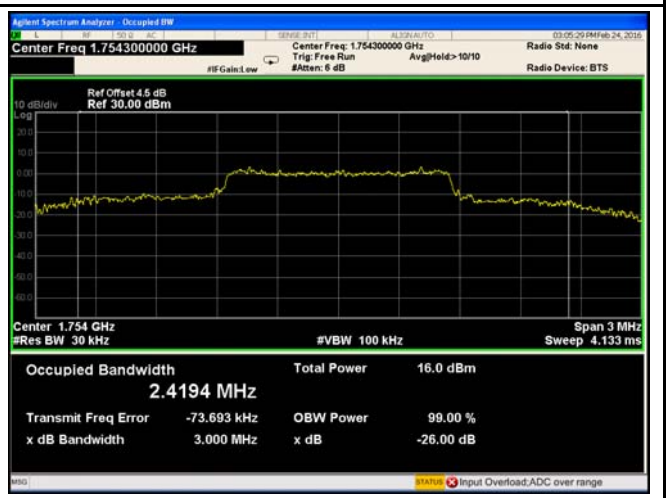
LTE band 4 - Middle CH QPSK-1.4



LTE band 4 - Middle CH 16QAM-1.4



LTE band 4 - High CH QPSK-1.4



LTE band 4 - High CH 16QAM-1.4

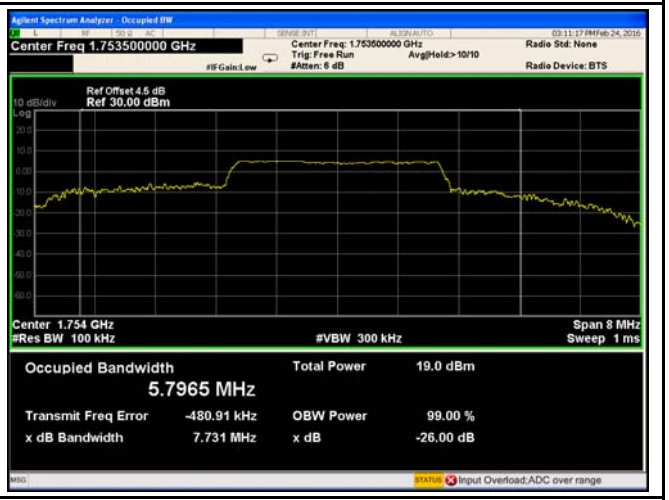
LTE band 4 - Low CH QPSK-3

LTE band 4 - Low CH 16QAM-3

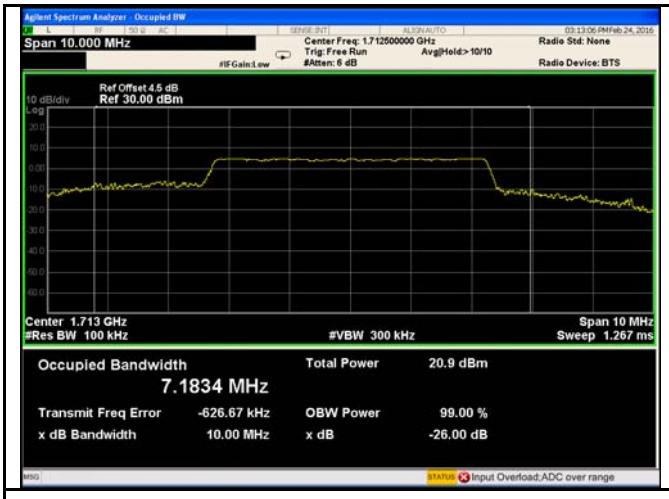
LTE band 4 - Middle CH QPSK-3

LTE band 4 - Middle CH 16QAM-3

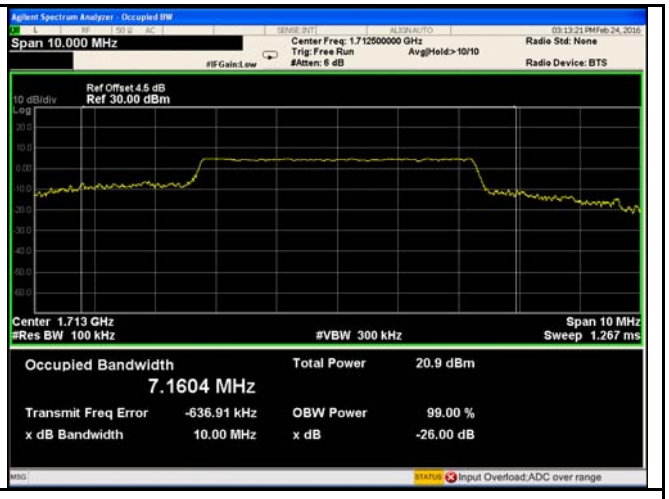
LTE band 4 - High CH QPSK-3



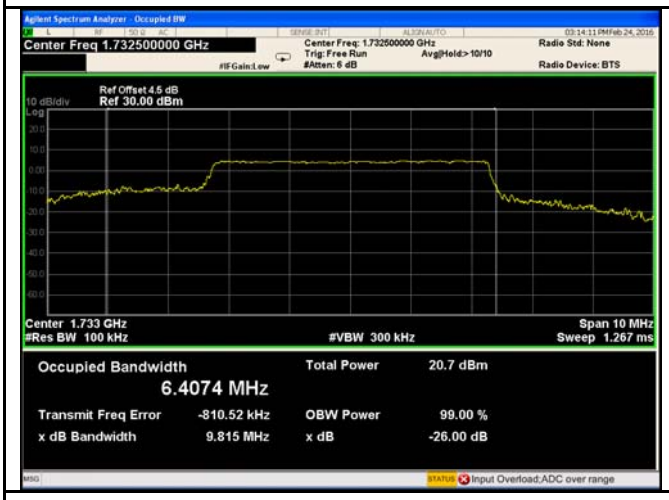
LTE band 4 - High CH 16QAM-3



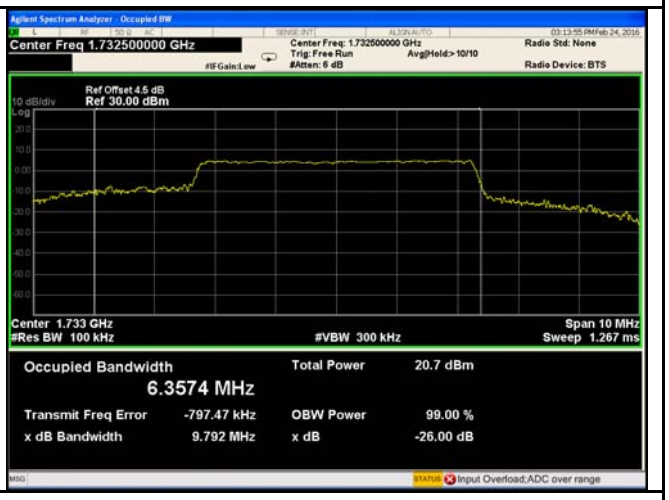
LTE band 4 - Low CH QPSK-5



LTE band 4 - Low CH 16QAM-5

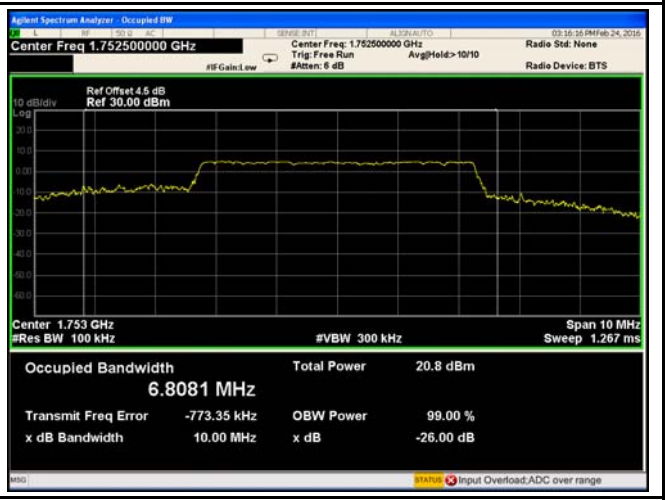


LTE band 4 - Middle CH QPSK-5

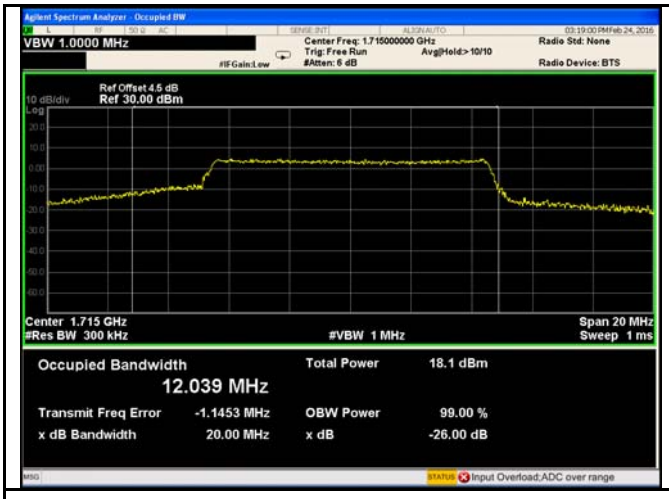


LTE band 4 - Middle CH 16QAM-5

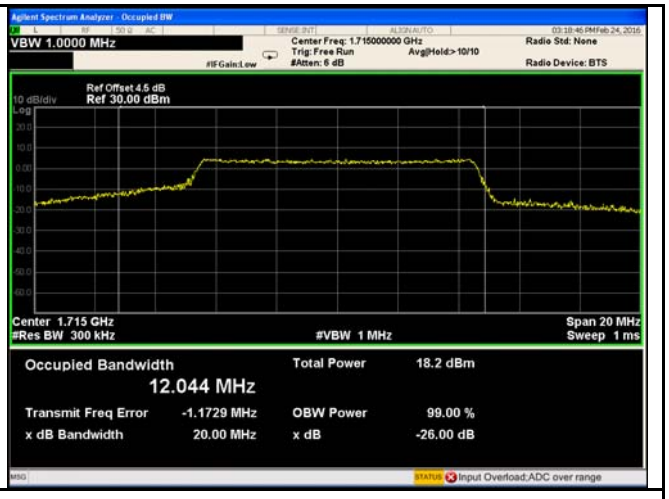
LTE band 4 - High CH QPSK-5



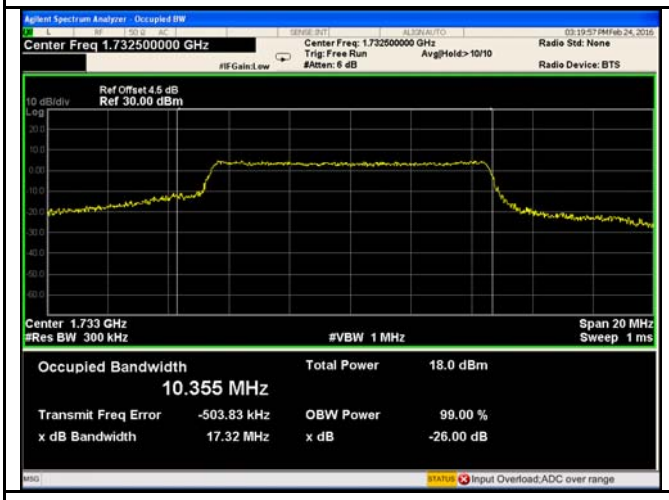
LTE band 4 - High CH 16QAM-5



LTE band 4 - Low CH QPSK-10

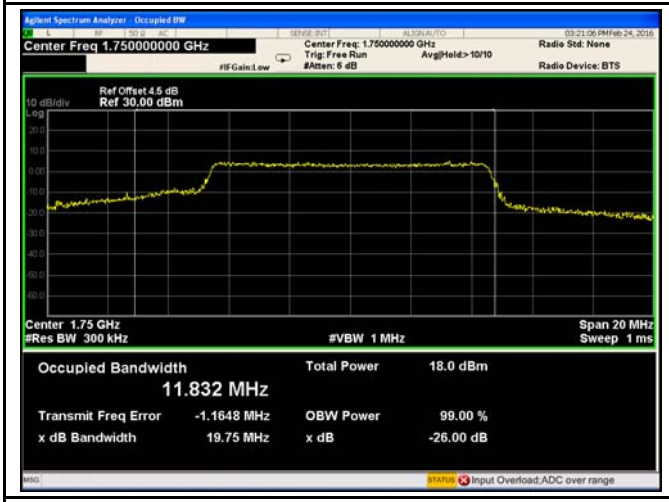


LTE band 4 - Low CH 16QAM-10

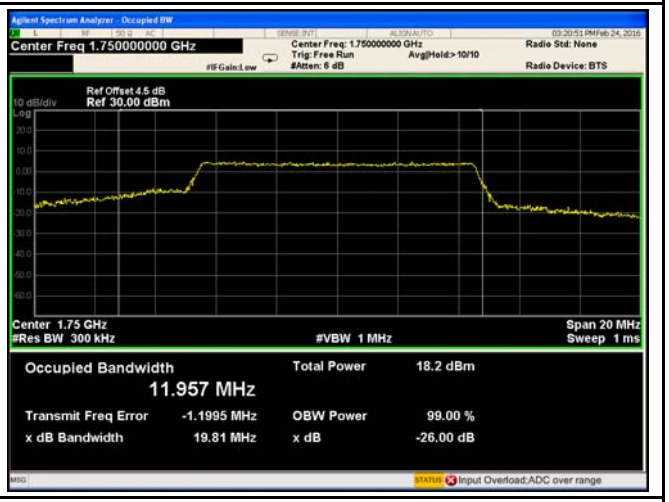


LTE band 4 - Middle CH QPSK-10

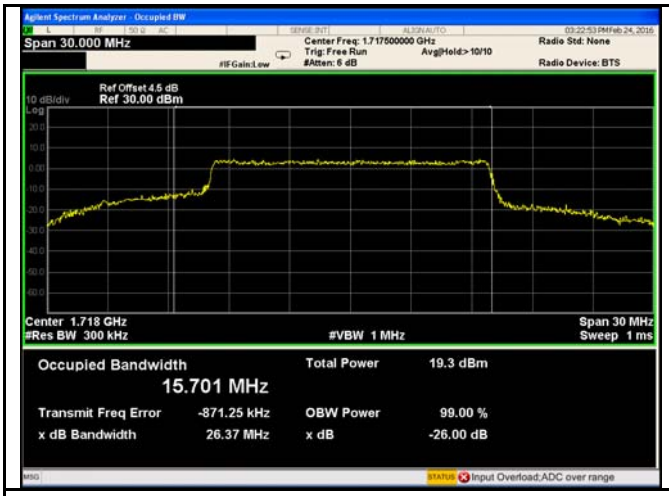
LTE band 4 - Middle CH 16QAM-10



LTE band 4 - High CH QPSK-10



LTE band 4 - High CH 16QAM-10



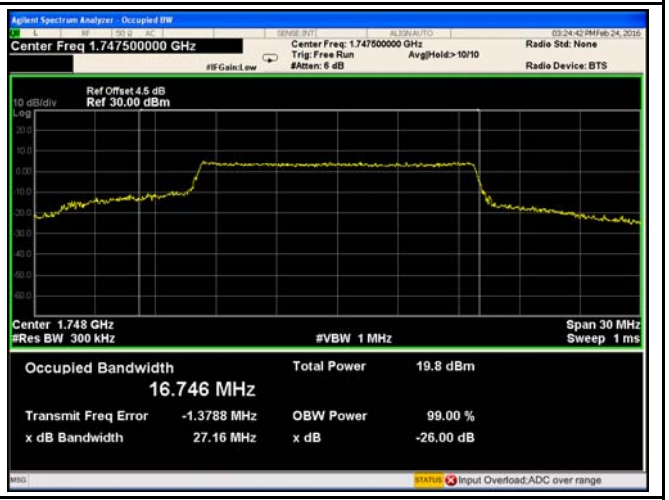
LTE band 4 - Low CH QPSK-15

LTE band 4 - Low CH 16QAM-15

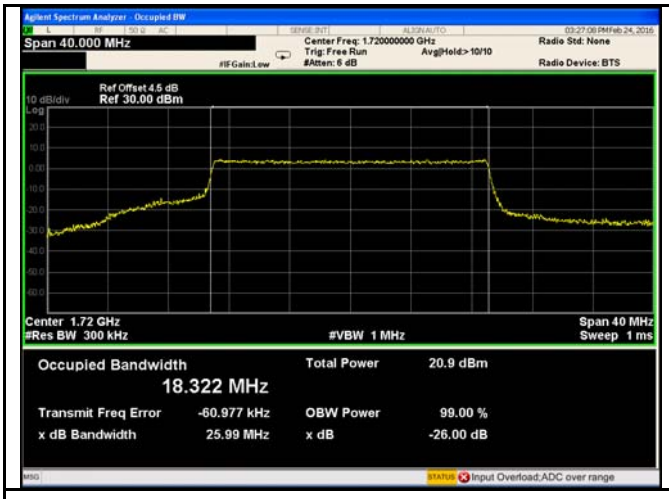
LTE band 4 - Middle CH QPSK-15

LTE band 4 - Middle CH 16QAM-15

LTE band 4 - High CH QPSK-15

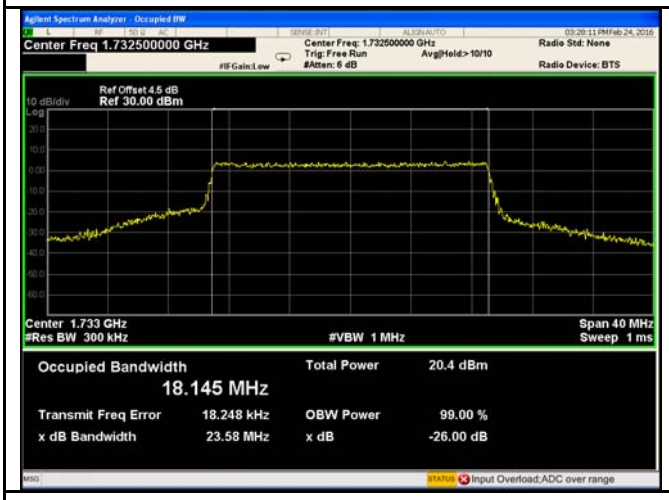


LTE band 4 - High CH 16QAM-15



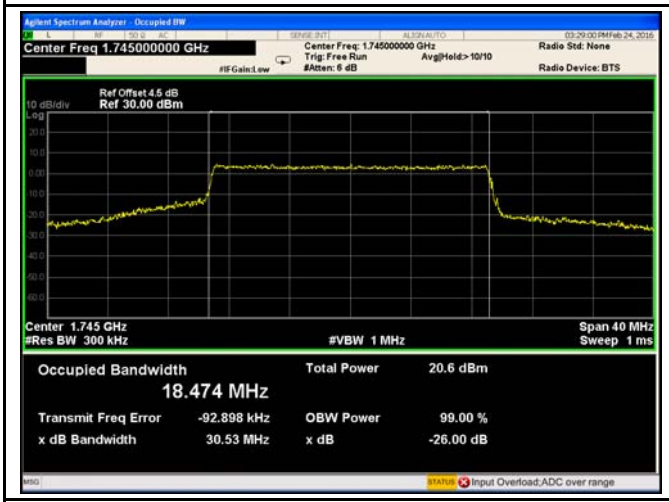
LTE band 4 - Low CH QPSK-20

LTE band 4 - Low CH 16QAM-20

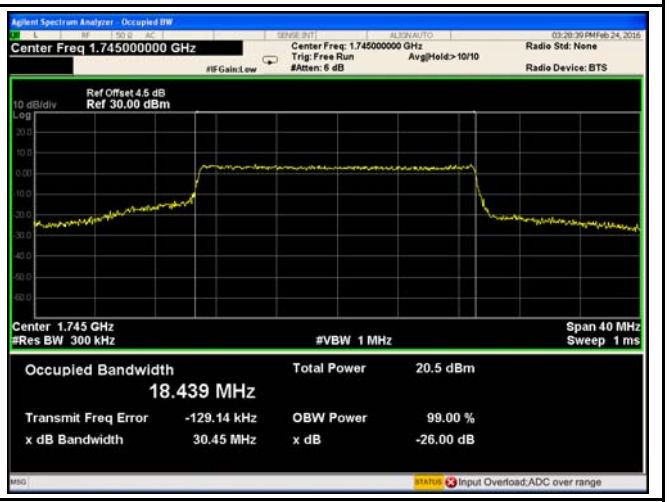


LTE band 4 - Middle CH QPSK-20

LTE band 4 - Middle CH 16QAM-20

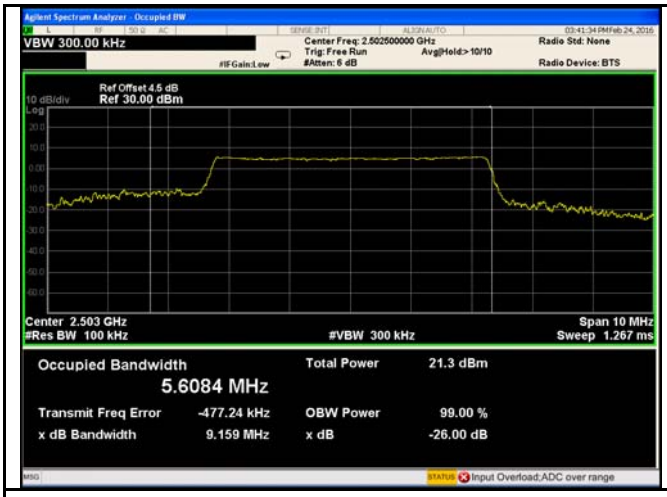


LTE band 4 - High CH QPSK-20

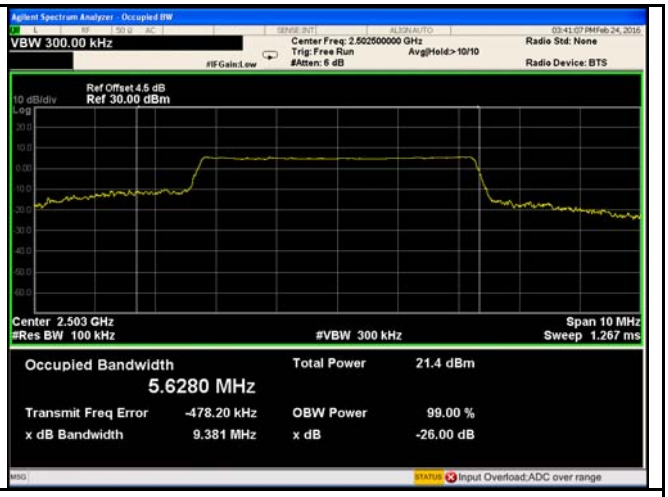


LTE band 4 - High CH 16QAM-20

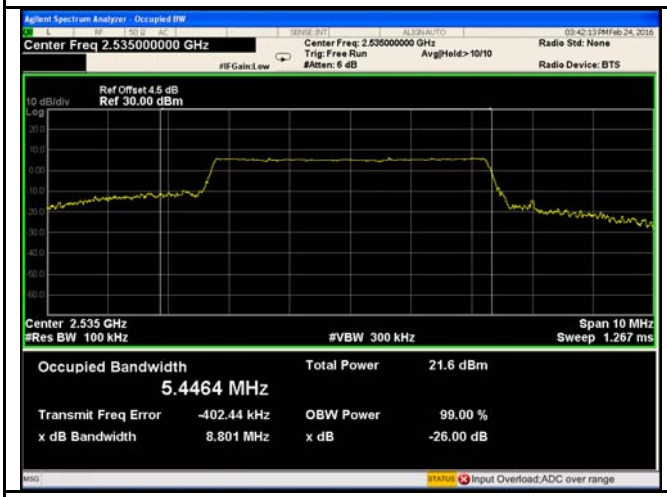
LTE Band 7 (Part 27)



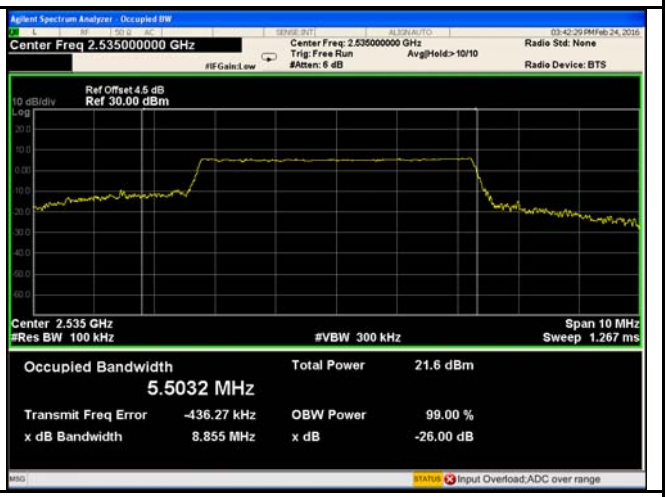
LTE band 7 - Low CH QPSK-5



LTE band 7 - Low CH 16QAM-5



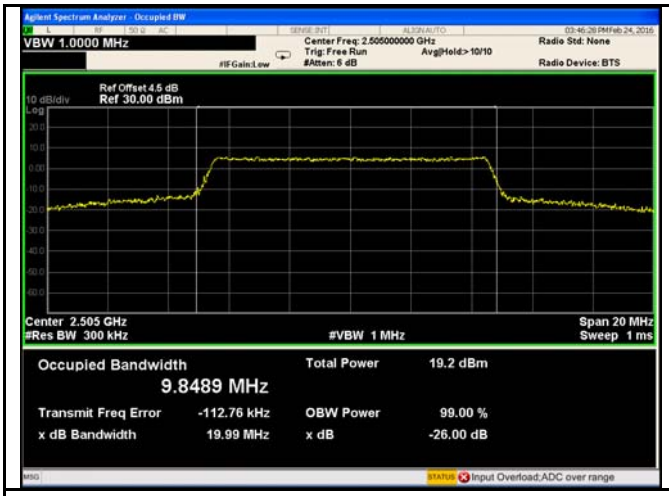
LTE band 7 - Middle CH QPSK-5



LTE band 7 - Middle CH 16QAM-5

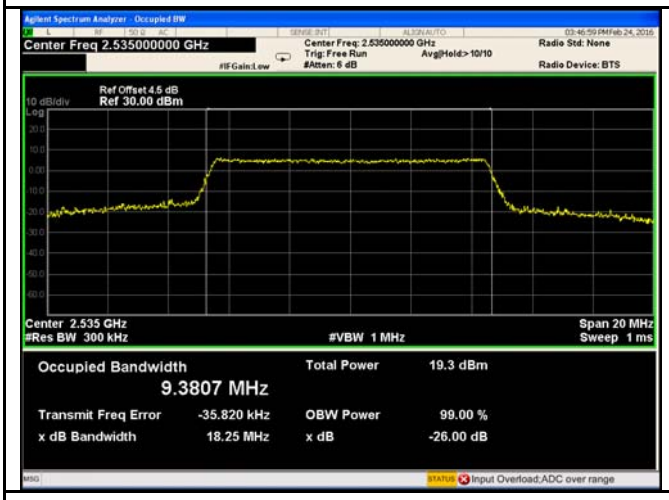
LTE band 7 - High CH QPSK-5

LTE band 7 - High CH 16QAM-5



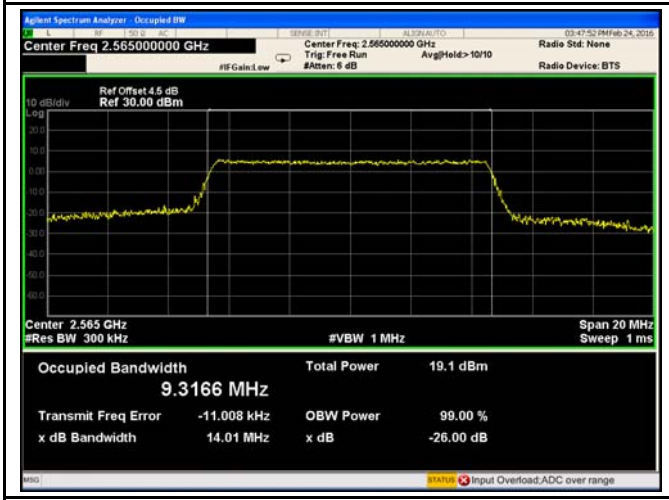
LTE band 7 - Low CH QPSK-10

LTE band 7 - Low CH 16QAM-10

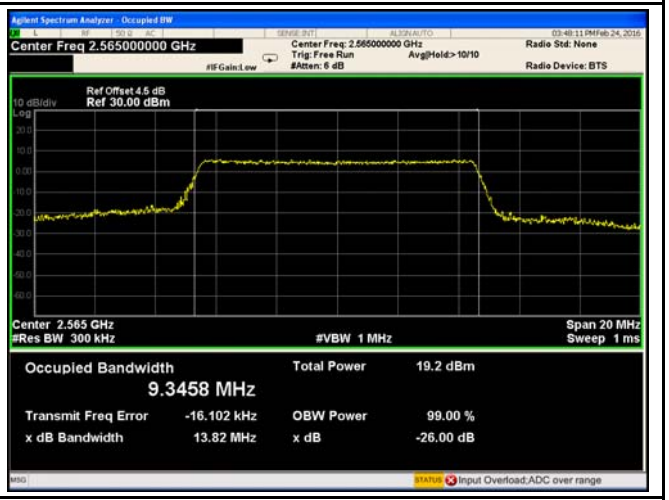


LTE band 7 - Middle CH QPSK-10

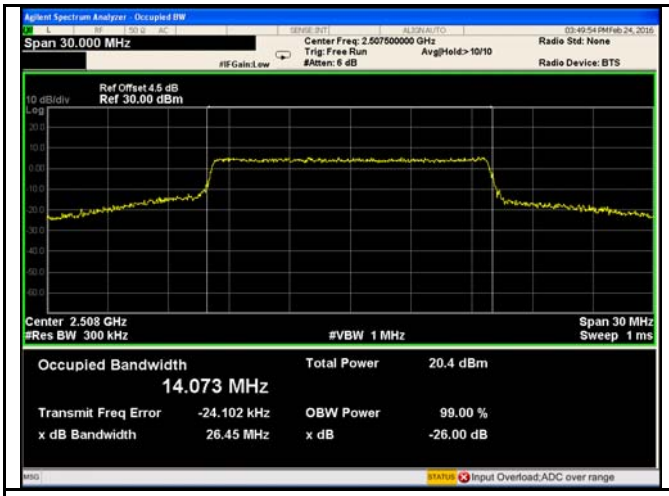
LTE band 7 - Middle CH 16QAM-10



LTE band 7 - High CH QPSK-10

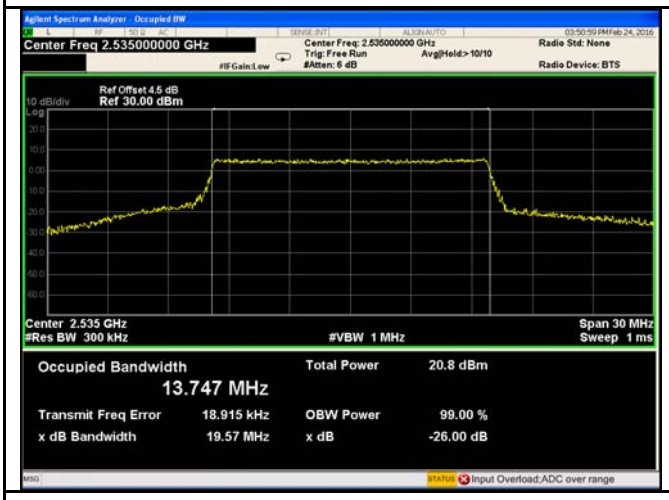


LTE band 7 - High CH 16QAM-10



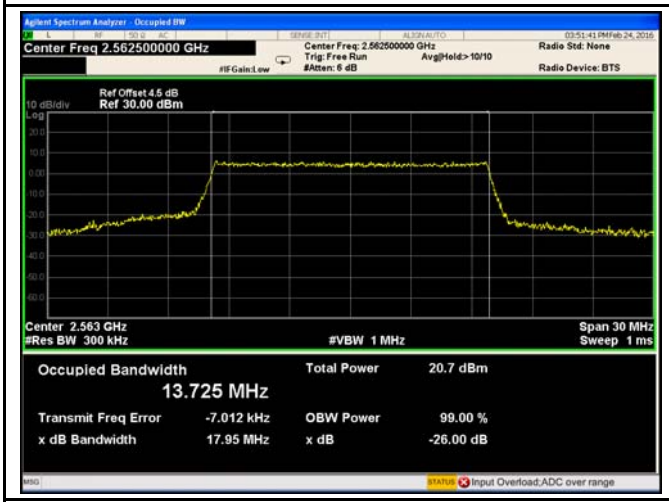
LTE band 7 - Low CH QPSK-15

LTE band 7 - Low CH 16QAM-15

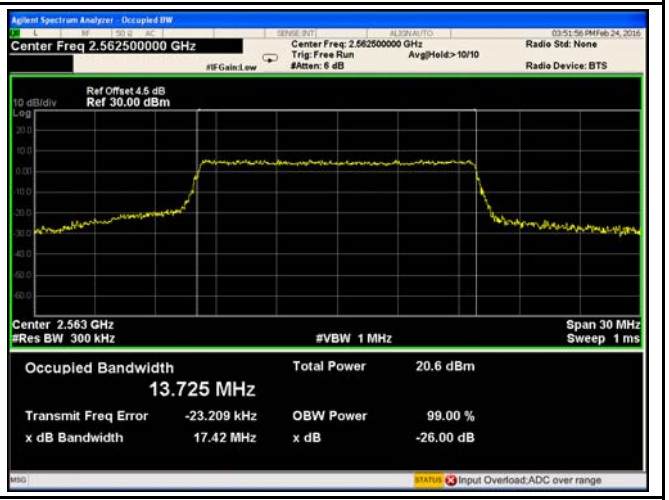


LTE band 7 - Middle CH QPSK-15

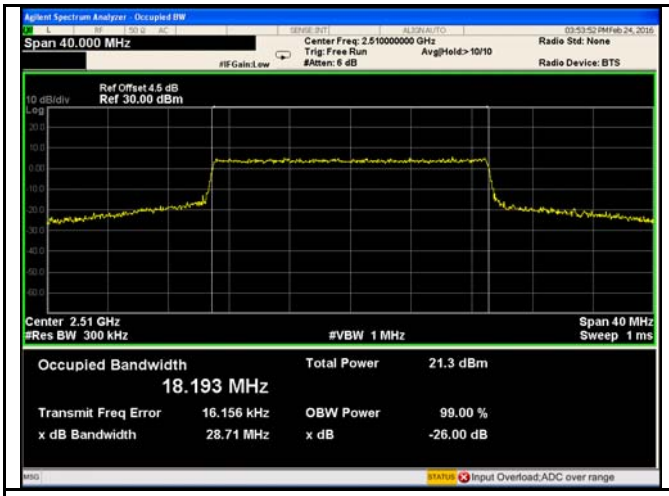
LTE band 7 - Middle CH 16QAM-15



LTE band 7 - High CH QPSK-15

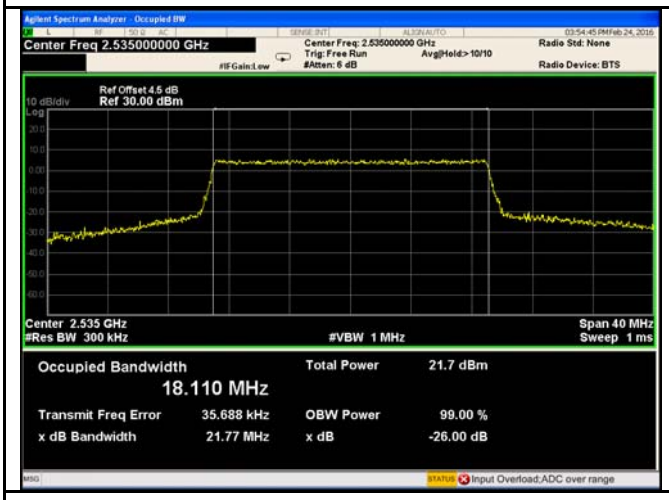


LTE band 7 - High CH 16QAM-15



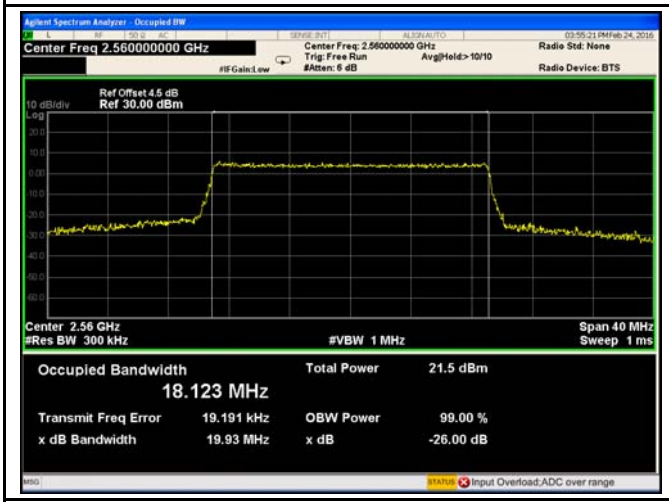
LTE band 7 - Low CH QPSK-20

LTE band 7 - Low CH 16QAM-20

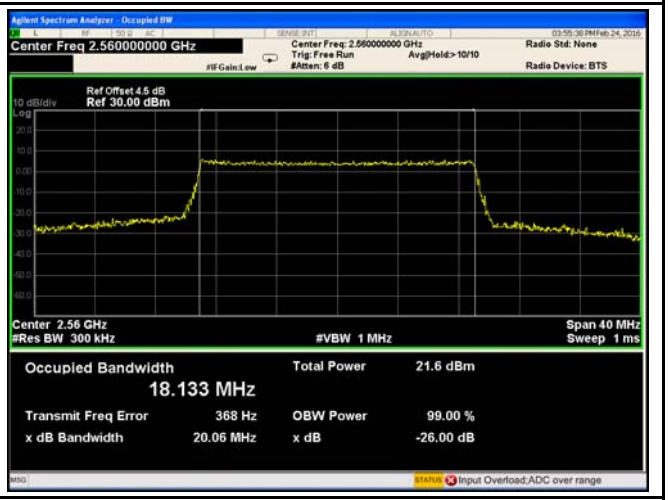


LTE band 7 - Middle CH QPSK-20

LTE band 7 - Middle CH 16QAM-20

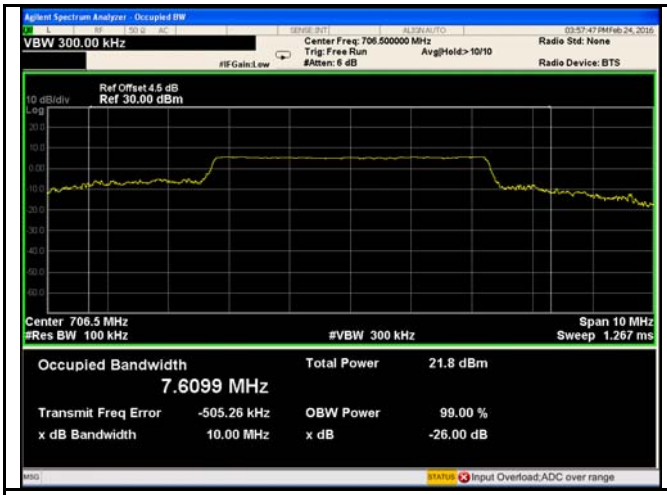


LTE band 7 - High CH QPSK-20

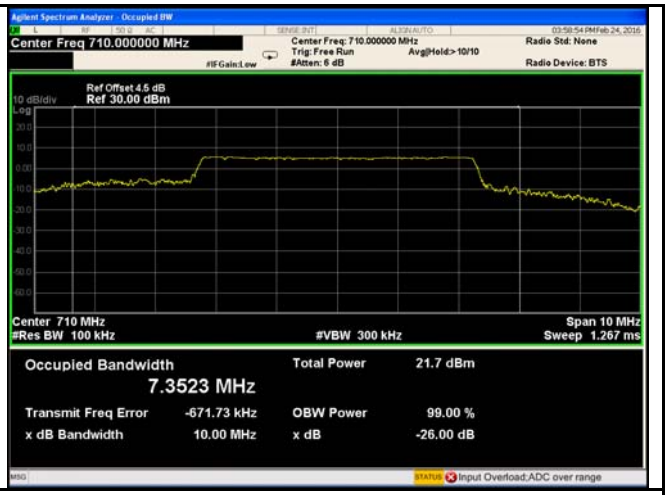


LTE band 7 - High CH 16QAM-20

LTE Band 17 (Part 27)

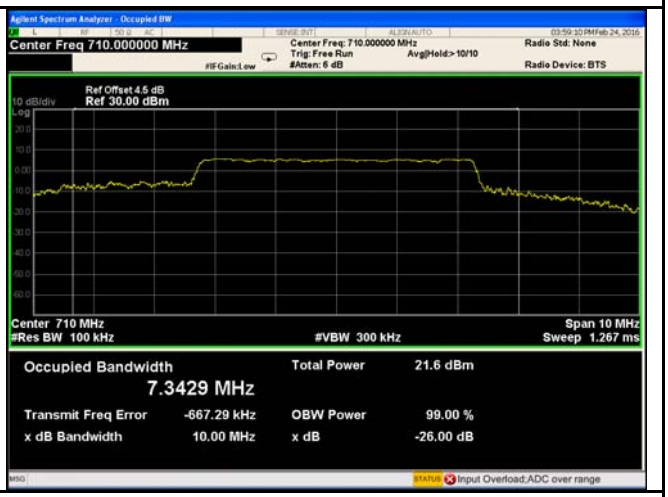


LTE band 17 - Low CH QPSK-5



LTE band 17 - Low CH 16QAM-5

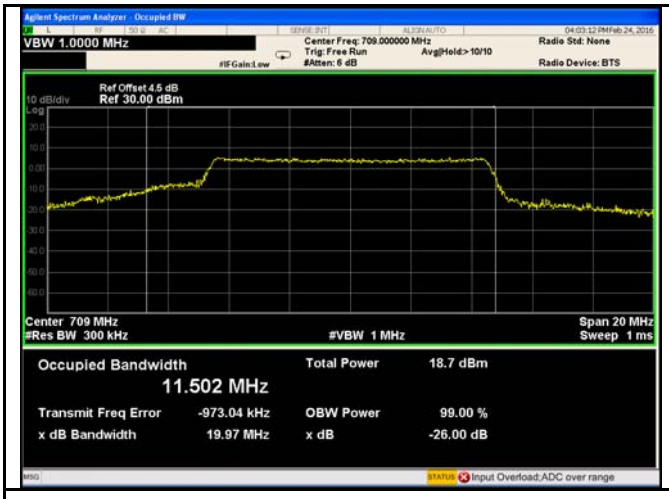
LTE band 17 - Middle CH QPSK-5



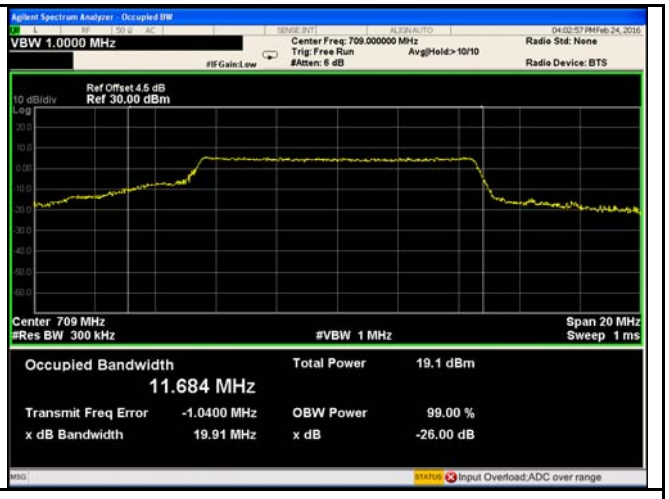
LTE band 17 - Middle CH 16QAM-5

LTE band 17 - High CH QPSK-5

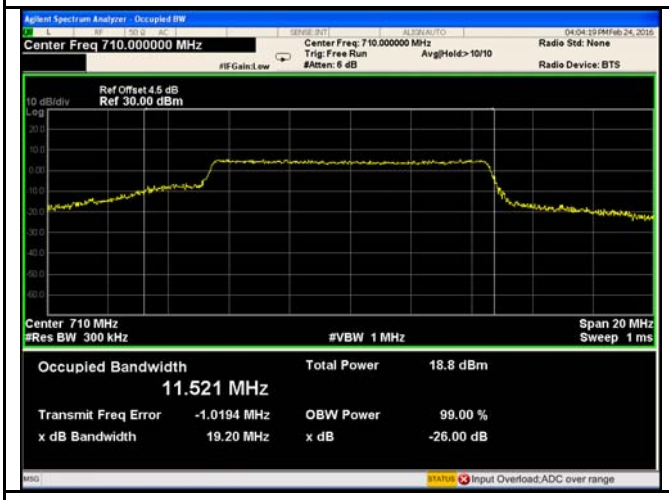
LTE band 17 - High CH 16QAM-5



LTE band 17 - Low CH QPSK-10



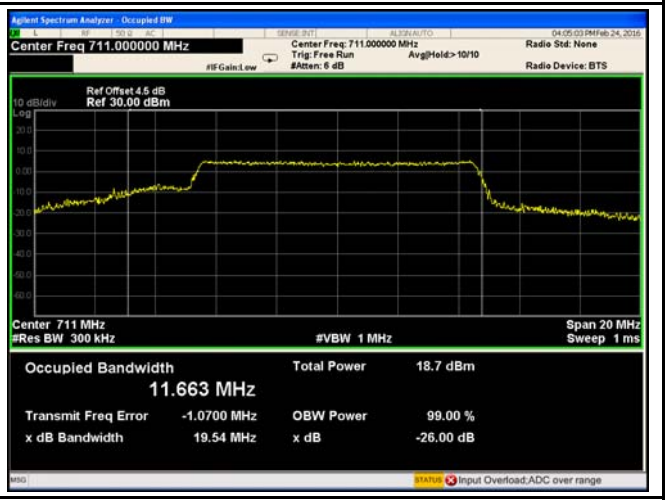
LTE band 17 - Low CH 16QAM-10



LTE band 17 - Middle CH QPSK-10

LTE band 17 - Middle CH 16QAM-10

LTE band 17 - High CH QPSK-10

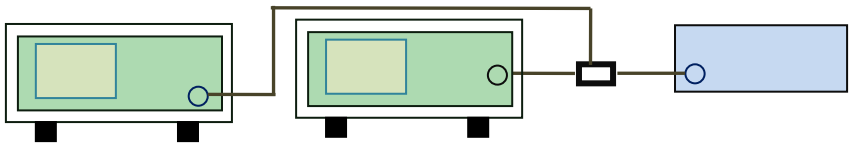


LTE band 17 - High CH 16QAM-10

6.5 Spurious Emissions at Antenna Terminals

Temperature	25℃
Relative Humidity	57%
Atmospheric Pressure	1024mbar
Test date :	Feb 24, 2016
Tested By :	Winnie Zhang

Requirement(s):

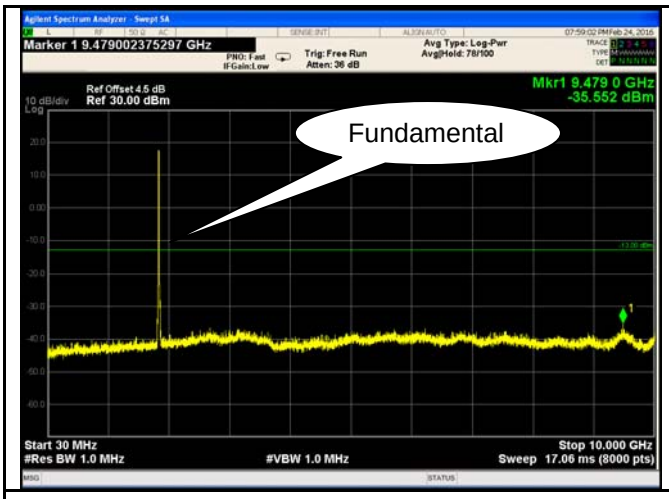
Spec	Item	Requirement	Applicable
§2.1051, §22.917(a)& §24.238(a) § 27.53(h)	a)	The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least 43 + 10 log (P) dB	☑
Test Setup			
Test Procedure	- The EUT was connected to Spectrum Analyzer and Base Station via power divider. - The Band Edges of low and high channels for the highest RF powers were measured. - Setting RBW as roughly BW/100.		
Remark			
Result	☑ Pass ☐ Fail		

Test Data ☑ Yes ☐ N/A

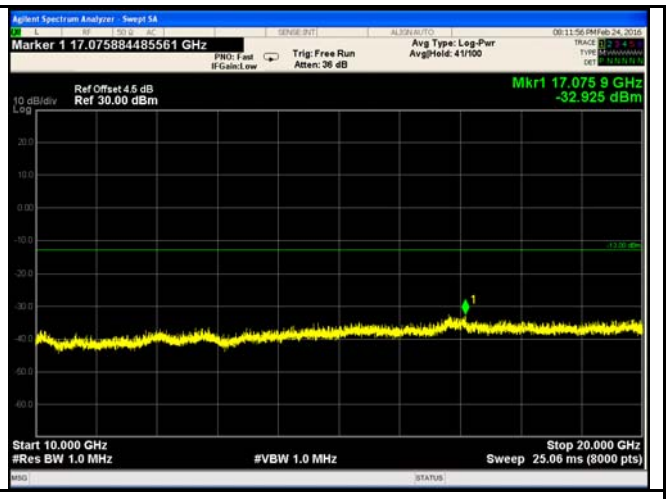
Test Plot ☑ Yes (See below) ☐ N/A

Test Plots 30MHz-5GHz

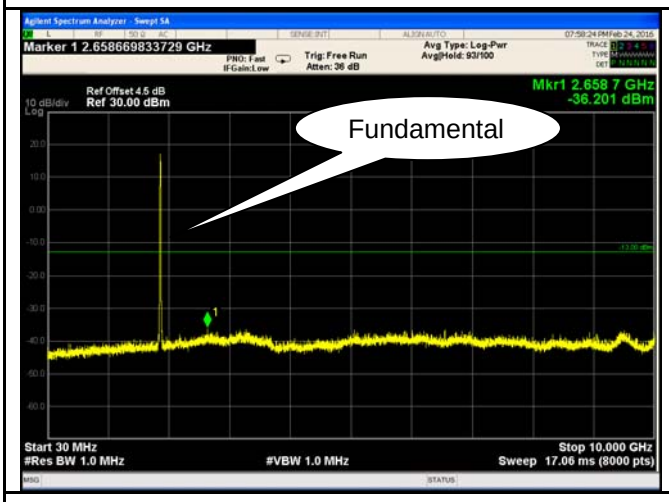
LTE Band 2 (Part 24E)



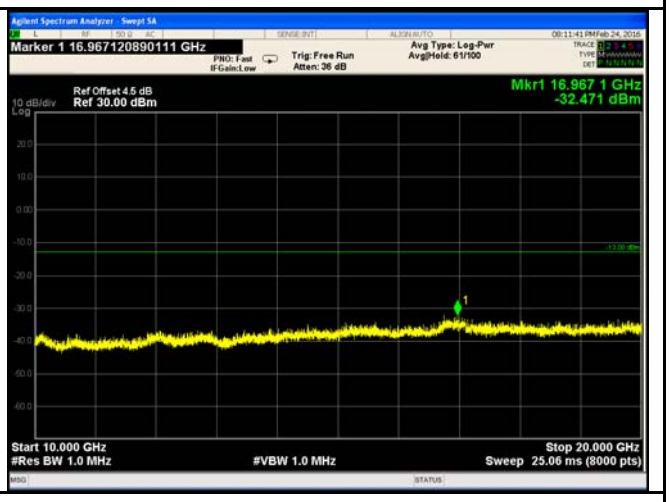
LTE Band 2 - Low Channel-1



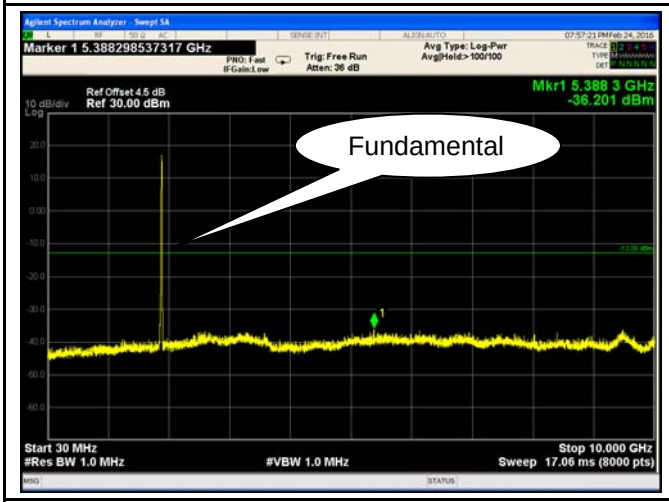
LTE Band 2 - Low Channel-2



LTE Band 2 Middle Channel-1



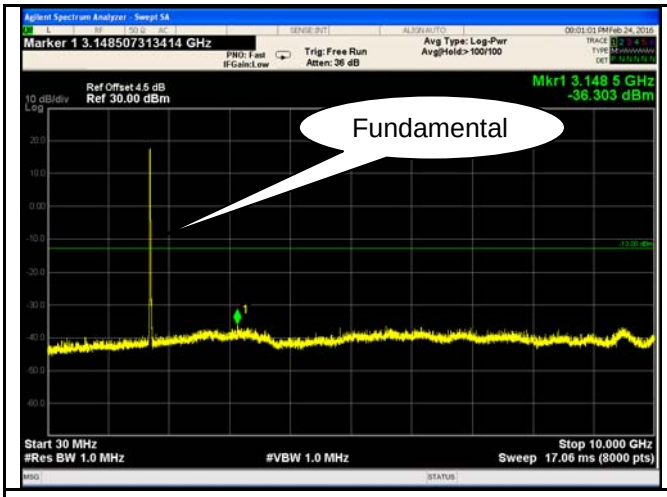
LTE Band 2 Middle Channel-2



LTE Band 2 - High Channel-1

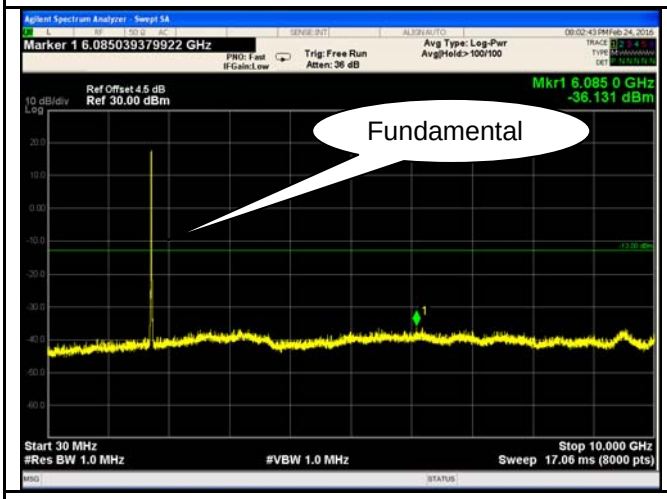
LTE Band 2 - High Channel-2

LTE Band 4 (Part27) result

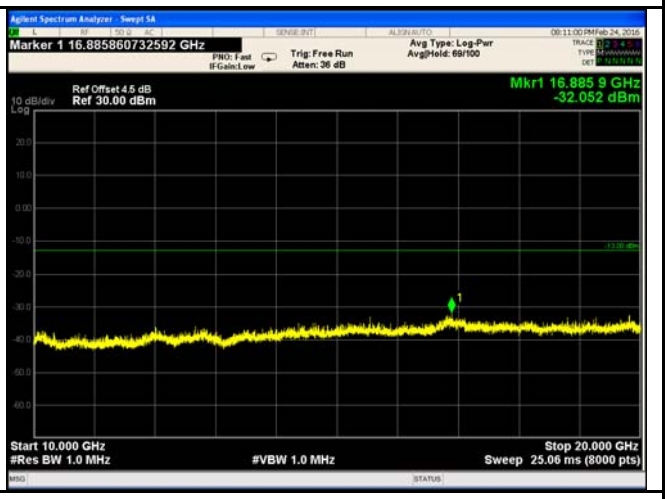


LTE Band 4 - Low Channel-1

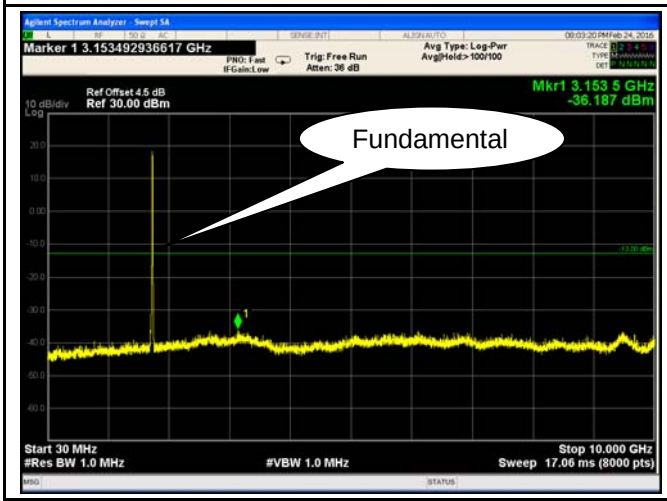
LTE Band 4 - Low Channel-2



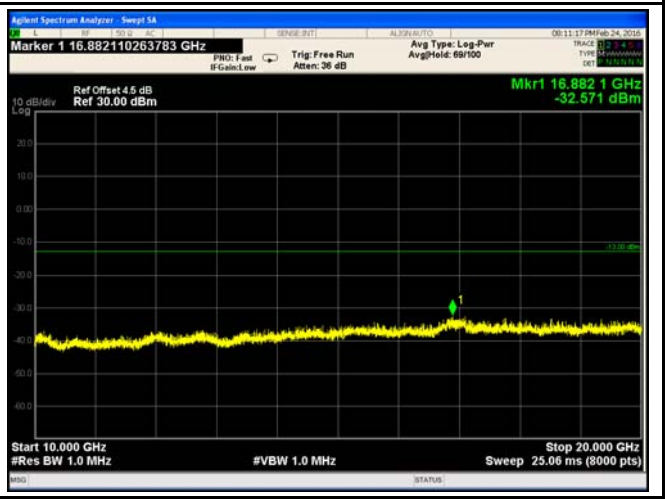
LTE Band 4 - Middle Channel-1



LTE Band 4 - Middle Channel-2

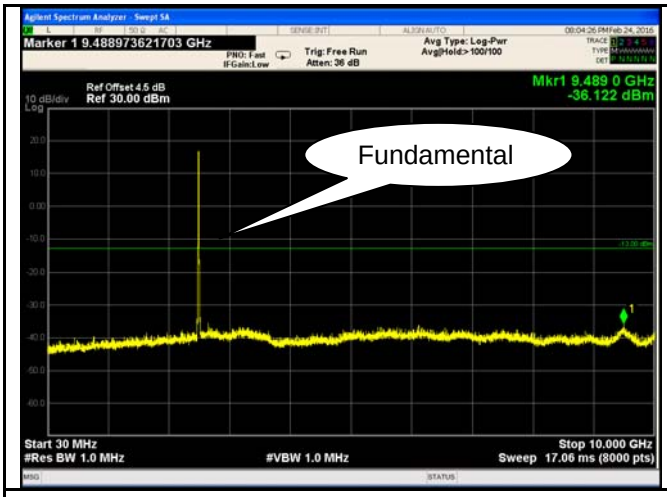


LTE Band 4 - High Channel-1

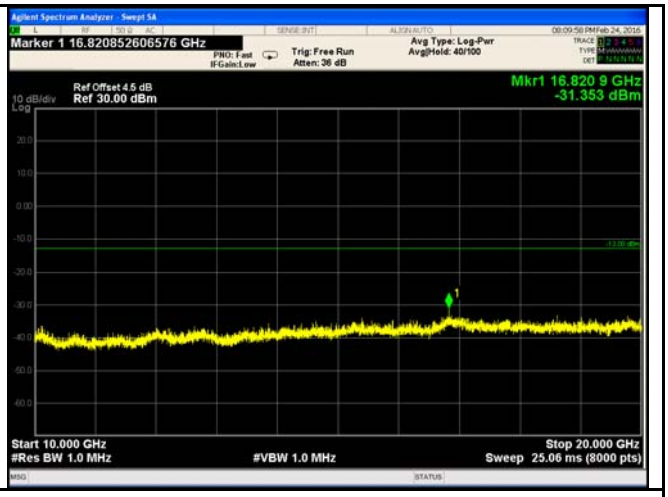


LTE Band 4 - High Channel-2

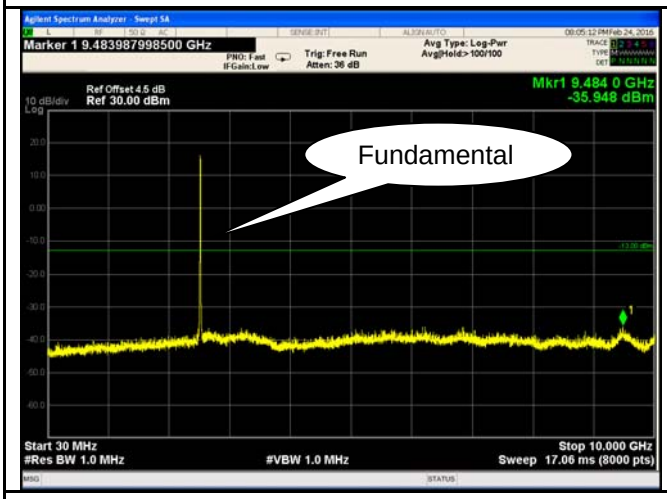
LTE Band 7 (Part 27)



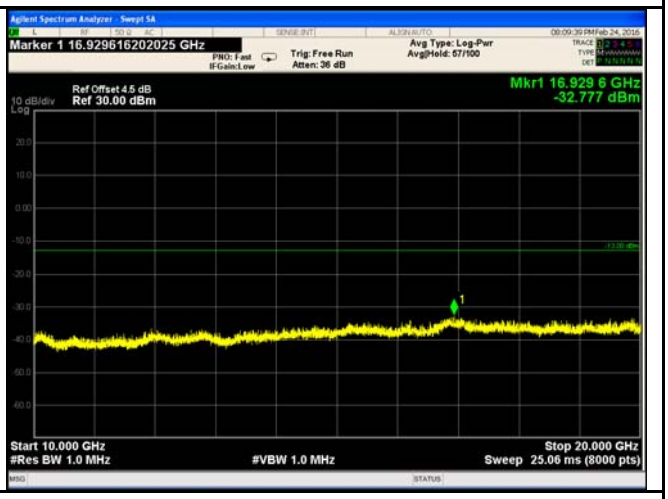
LTE Band 7 - Low Channel-1



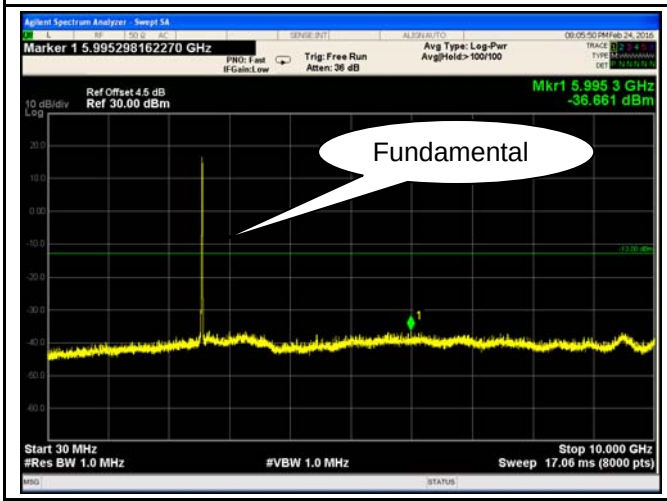
LTE Band 7 - Low Channel-2



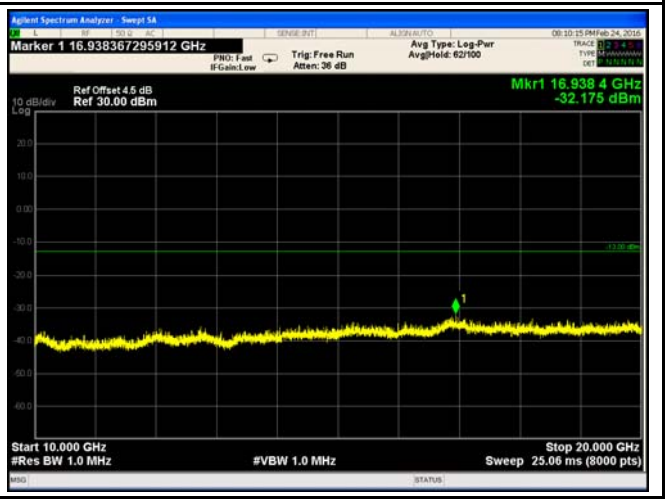
LTE Band 7- Middle Channel-1



LTE Band 7 - Middle Channel-2

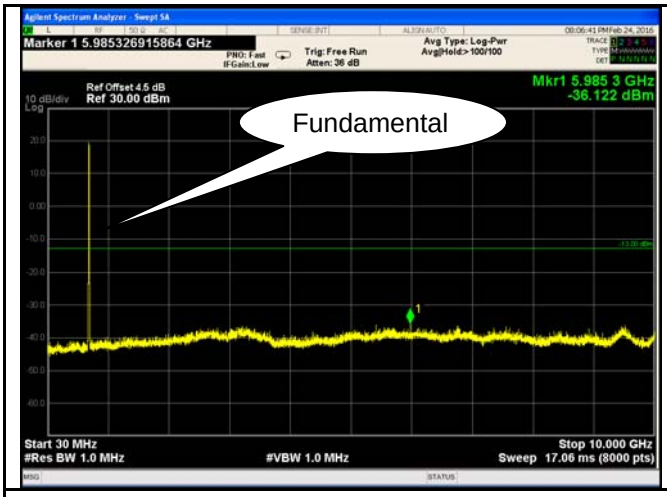


LTE Band 7 - High Channel-1

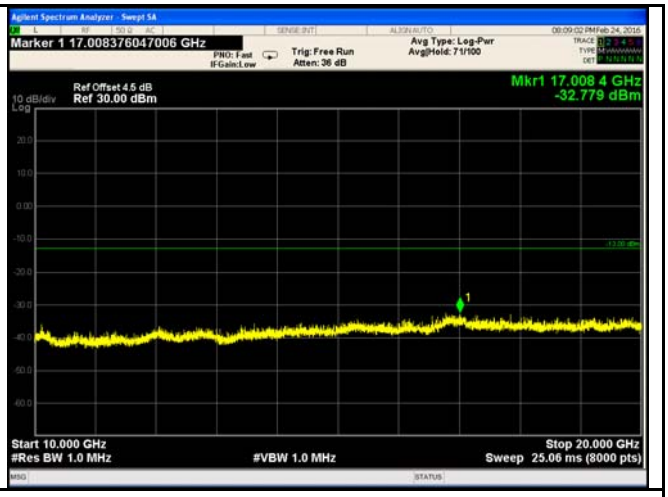


LTE Band 7 - High Channel-2

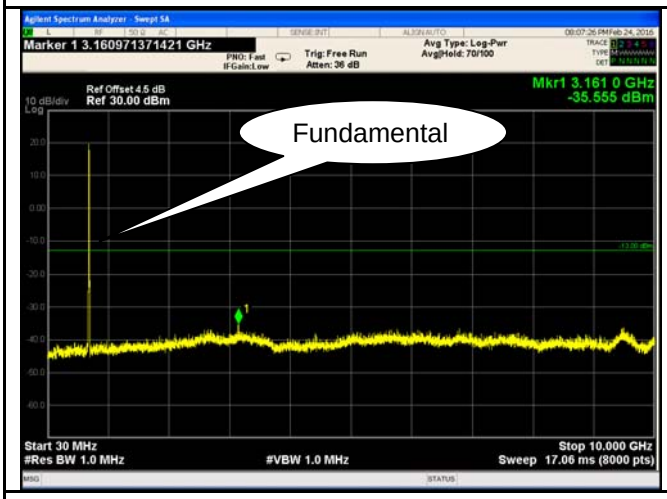
LTE Band 17 (Part 27)



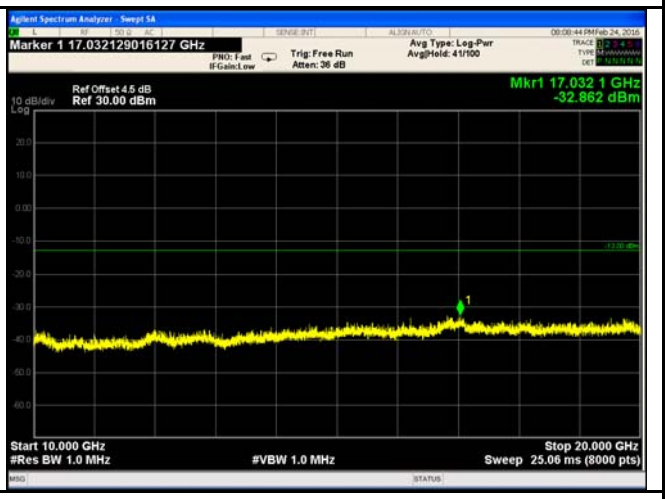
LTE Band 17 - Low Channel-1



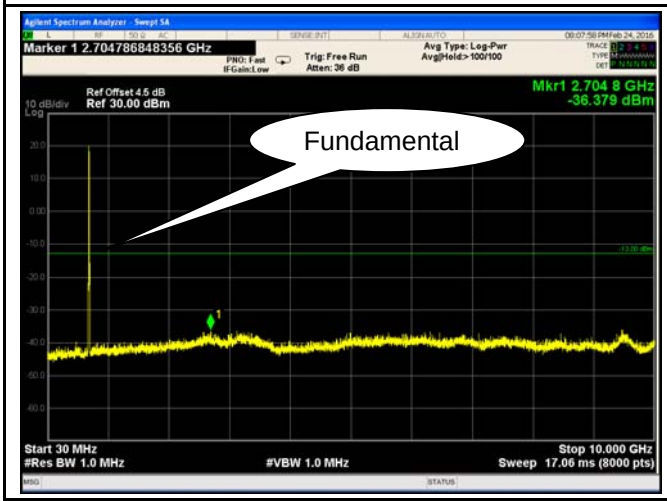
LTE Band 17 - Low Channel-2



LTE Band 17- Middle Channel-1



LTE Band 17 - Middle Channel-2



LTE Band 17 - High Channel-1

LTE Band 17 - High Channel-2