REPORT No. : SZ14110040W02

FCC TEST REPORT

APPLICANT	:	GUANGDONG OPPO MOBILE TELECOMMUNICATIONS CORP.,LTD
PRODUCT NAME	:	Mobile Phone
MODEL NAME	:	OPPO 3006
TRADE NAME	:	OPPO
BRAND NAME	:	OPPO
FCC ID	:	R9C-3006
STANDARD(S)	:	47 CFR Part 27, Subpart L
ISSUE DATE	:	2014-11-27

SHENZHEN MORLAB COMMUNICATIONS TECHNOLOGY Co., Ltd.

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DIRECTORY

Test Report Declaration

Applicant	GUANGDONG OPPO MOBILE TELECOMMUNICATIONS CORP.,LTD
Applicant Address	NO.18 HAIBIN ROAD, WUSHA, CHANG'AN, DONGGUAN, GUANGDONG,CHINA
Manufacturer	GUANGDONG OPPO MOBILE TELECOMMUNICATIONS CORP.,LTD
Manufacturer Address	NO.18 HAIBIN ROAD, WUSHA, CHANG'AN, DONGGUAN, GUANGDONG,CHINA
Product Name	Mobile Phone
Model Name	OPPO 3006
Brand Name	OPPO
HW Version	11
SW Version	ColorOS V2.0.0i
Test Standards	47 CFR Part 27, Subpart L
Test Date	2014-11-11 to 2014-11-27
Test Result	PASS

Tested by : Liu Zhisen
Liu Zhisen

Reviewed by : Huang Pulong
Huang Pulong

Approved by : Zeng Dexin
Zeng Dexin

1. GENERAL INFORMATION

1.1. EUT Description

Modulation Type.....	LTE Band 7: QPSK, 16QAM
	LTE Band 4: QPSK, 16QAM
Tx Frequency Range.....	LTE Band 7: 2502.5MHz~2567.5MHz
	LTE Band 4: 1710MHz~1755MHz
Rx Frequency Range	LTE Band 7: 2622.5MHz~2687.5MHz
	LTE Band 4: 2110MHz~2155MHz
Emission Designator	4M51G7D (LTE Band 7, QPSK, BW 5MHz)
	4M50W7D (LTE Band 7, 16QAM, BW 5MHz)
	8M98G7D (LTE Band 7, QPSK, BW 10MHz)
	8M99W7D (LTE Band 7, 16QAM, BW 10MHz)
	13M46G7D (LTE Band 7, QPSK, BW 15MHz)
	13M44W7D (LTE Band 7, 16QAM, BW 15MHz)
	17M93G7D (LTE Band 7, QPSK, BW 20MHz)
	17M97W7D (LTE Band 7, 16QAM, BW 20MHz)
	1M10G7D (LTE Band 4, QPSK, BW 1.4MHz)
	1M10W7D (LTE Band 4, 16QAM, BW 1.4MHz)
	2M70G7D (LTE Band 4, QPSK, BW 3MHz)
	2M70 W7D (LTE Band 4, 16QAM, BW 3MHz)
	4M51G7D (LTE Band 4, QPSK, BW 5MHz)
	4M51 W7D (LTE Band 4, 16QAM, BW 5MHz)
	8M97G7D (LTE Band 4, QPSK, BW 10MHz)
	8M97 W7D (LTE Band 4, 16QAM, BW 10MHz)
	13M44 G7D (LTE Band 4, QPSK, BW 15MHz)
	13M45 W7D (LTE Band 4, 16QAM, BW 15MHz)
	17M94G7D (LTE Band 4, QPSK, BW 20MHz)
	17M93W7D (LTE Band 4, 16QAM, BW 20MHz)
Antenna Type	PIFA Antenna
Power Supply	3.8V DC Power

1.2. Test Standards and Results

The objective of the report is to perform testing according to 47 CFR Part 2 and Part 27 for the EUT FCC ID Certification:

No.	Identity	Document Title
1	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
2	47 CFR Part 27	Miscellaneous Wireless Communications Services

Test detailed items/section required by FCC rules and results are as below:

No.	Section	Description	Result
1	2.1046	Transmitter Conducted Output Power	PASS
2	27.50(d)(5)	Occupied Bandwidth	PASS
3	2.1049,27.53(g)	Frequency Stability	PASS
4	2.1055, 27.54	Peak to Average Radio	PASS
5	2.1051,2.105727.53(g)	Conducted Spurious Emissions	PASS
6	2.1051,2.1057 27.53(g)(h)	Band Edge	PASS
7	27.50(d)(4)	Equivalent Isotropic Radiated Power	PASS
8	2.1053,2.1057 27.53(g)	Radiated Spurious Emissions	PASS

1.3. Facilities and Accreditations

1.3.1. Facilities

Shenzhen Morlab Communications Technology Co., Ltd. Morlab Laboratory is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L3572.

All measurement facilities used to collect the measurement data are located at 3/F, Electronic Testing Building, Shahe Road, Xili, Nanshan District, Shenzhen, 518055 P. R. China. The test site is constructed in conformance with the requirements of TIA/EIA 603.D: 2010, ANSI C63.4: 2009 and CISPR Publication 22: 2010. The FCC registration number is 695796.

1.3.2. Test Environment Conditions

During the measurement, the environmental conditions were within the listed ranges:

Temperature (°C):	15 - 35
Relative Humidity (%):	30 - 60
Atmospheric Pressure (kPa):	86 - 106

2. 47 CFR PART 2, PART 27L REQUIREMENTS

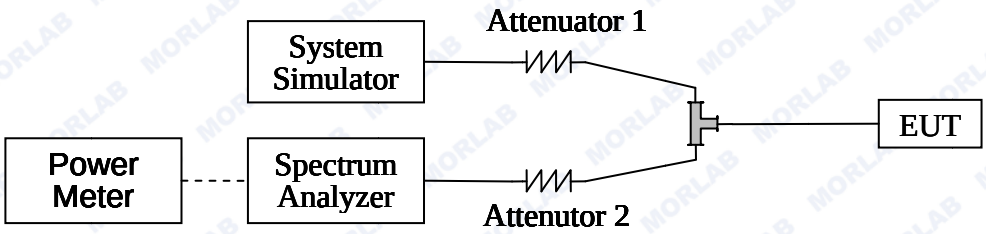
2.1. Transmitter Conducted Output Power

2.1.1. Requirement

According to FCC section 2.1046(a), for transmitters other than single sideband, independent sideband and controlled carrier radiotelephone, power output shall be measured at the RF output terminals when the transmitter is adjusted in accordance with the tune-up procedure to give the values of current and voltage on the circuit elements specified in FCC section 2.1033(c)(8).

2.1.2. Test Description

1. Test Setup:



The EUT, which is powered 5V DC power (USB port), is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

2. Equipments List:

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
System Simulator	Rohde& Schwarz	CMW500	1201.0002k50/124534/wk	2014.02.26	2015.02.25
Spectrum Analyzer	Rohde& Schwarz	FSL	10246	2014.02.26	2015.02.25

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer	Agilent	E4445A	MY44200685	2014.02.26	2015.02.25
Power Meter	Agilent	E4418B	GB43318055	2014.02.26	2015.02.25
Power Meter	Agilent	E4418B	GB43318055	2014.02.26	2015.02.25
Power Sensor	Agilent	8482A	MY41091706	2014.02.26	2015.02.25
Power Splitter	Weinschel	1506A	NW521	2014.02.26	2015.02.25
Attenuator 1	Resnet	20dB	(n.a.)	2014.02.26	2015.02.25
Attenuator 2	Resnet	3dB	(n.a.)	2014.02.26	2015.02.25

2.1.3. Test Results

LTE BAND 4

Band Width	Channel	Freq.(MHZ)	Modulation	RB Configuration		Average Power (dBm)
				RB Size	RB Offset	
20MHz	L 20050	1720.0	QPSK	1	0	22.11
				1	49	22.14
				1	99	22.18
				50	0	21.03
				50	25	21.00
				50	49	21.01
				100	0	21.01
			16-QAM	1	0	21.25
				1	49	21.20
				1	99	21.24
				50	0	21.08
				50	25	21.09
				50	49	21.01
				100	0	19.90
	M 20175	1732.5	QPSK	1	0	22.11
				1	49	22.13
				1	99	22.30
				50	0	21.01
				50	25	21.08
				50	49	21.02
				100	0	20.98
			16-QAM	1	0	21.24
				1	49	21.27
				1	99	21.40
				50	0	20.08
				50	25	20.10
				50	49	20.01
				100	0	19.98
	H	1745.0	QPSK	1	0	22.13

	20300			1	49	22.16
				1	99	22.20
				50	0	21.08
				50	25	21.05
				50	49	21.08
				100	0	21.04
			16-QAM	1	0	21.82
				1	49	21.91
				1	99	21.93
				50	0	21.06
				50	25	21.15
				50	49	21.51
				100	0	19.99

LTE BAND 4 (Continue)

Band Width	Channel	Freq.(MHZ)	Modulation	RB Configuration		Average Power (dBm)
				RB Size	RB Offset	
15MHz	L 20025	1717.5	QPSK	1	0	22.09
				1	37	22.13
				1	74	22.15
				36	0	21.00
				36	18	20.96
				36	35	20.97
				75	0	20.91
			16-QAM	1	0	21.02
				1	37	20.97
				1	74	21.01
				36	0	20.95
				36	18	20.90
				36	35	20.93
				75	0	19.91
	M 20175	1732.5	QPSK	1	0	21.96
				1	37	22.00
				1	74	22.20
				36	0	20.96
				36	18	20.98
				36	35	21.02
				75	0	20.92
			16-QAM	1	0	21.65
				1	37	21.72
				1	74	21.77
				36	0	20.98
				36	18	20.95
				36	35	20.88
				75	0	19.94
	H	1747.5	QPSK	1	0	22.23
				1	37	22.13
				1	74	22.17

	20325			36	0	21.07
				36	18	21.02
				36	35	21.13
				75	0	20.98
			16-QAM	1	0	21.42
				1	37	21.39
				1	74	21.44
				36	0	20.95
				36	18	20.93
				36	35	20.90
				75	0	19.96

LTE BAND 4 (Continue)

Band Width	Channel	Freq.(MHZ)	Modulation	RB Configuration		Average Power (dBm)
				RB Size	RB Offset	
10MHz	L 20000	1715.0	QPSK	1	0	22.10
				1	24	22.14
				1	49	22.17
				25	0	21.03
				25	12	21.05
				25	24	21.06
				50	0	21.00
			16-QAM	1	0	21.01
				1	24	20.98
				1	49	21.04
				25	0	21.00
				25	12	20.95
				25	24	20.83
				50	0	19.93
	M 20175	1732.5	QPSK	1	0	22.03
				1	24	22.02
				1	49	22.10
				25	0	21.06
				25	12	21.05
				25	24	21.10
				50	0	20.98
			16-QAM	1	0	21.65
				1	24	21.63
				1	49	21.71
				25	0	20.52
				25	12	20.36
				25	24	20.20
				50	0	19.95
	H 20350	1750.0	QPSK	1	0	22.17
				1	24	22.21
				1	49	22.18
				25	0	21.15
				25	12	21.13

				50	0	21.07
			16-QAM	1	0	20.85
				1	24	20.88
				1	49	20.90
				25	0	20.82
				25	12	20.76
				25	24	20.64
				50	0	20.03

LTE BAND 4 (Continue)

Band Width	Channel	Freq.(MHZ)	Modulation	RB Configuration		Average Power (dBm)
				RB Size	RB Offset	
5MHz	L 19975	1712.5	QPSK	1	0	22.20
				1	12	22.15
				1	24	22.24
				12	0	21.95
				12	6	21.88
				12	11	21.94
				25	0	21.05
			16-QAM	1	0	21.48
				1	12	21.44
				1	24	21.45
				12	0	20.98
				12	6	20.92
				12	11	20.86
				25	0	19.94
	M 20175	1732.5	QPSK	1	0	22.12
				1	12	22.03
				1	24	22.09
				12	0	21.65
				12	6	21.58
				12	11	21.60
				25	0	21.04
			16-QAM	1	0	20.78
				1	12	20.76
				1	24	20.82
				12	0	20.15
				12	6	20.26
				12	11	20.12
				25	0	20.07
	H 20375	1752.5	QPSK	1	0	22.23
				1	12	22.27
				1	24	22.19
				12	0	21.84
				12	6	21.75
				12	11	21.62
				25	0	21.22
			16-QAM	1	0	21.33

				1	12	21.29
				1	24	21.23
				12	0	20.77
				12	6	20.72
				12	11	20.64
				25	0	20.11

LTE BAND 4 (Continue)

Band Width	Channel	Freq.(MHZ)	Modulation	RB Configuration		Average Power (dBm)
				RB Size	RB Offset	
3MHz	L 19965	1711.5	QPSK	1	0	22.16
				1	7	22.11
				1	14	22.17
				8	0	21.82
				8	4	21.76
				8	7	21.64
				15	0	21.11
			16-QAM	1	0	20.98
				1	7	20.94
				1	14	21.03
				8	0	20.92
				8	4	20.86
				8	7	20.57
				15	0	20.08
	M 20175	1732.5	QPSK	1	0	22.06
				1	7	22.05
				1	14	22.09
				8	0	21.65
				8	4	21.59
				8	7	21.48
				15	0	21.09
			16-QAM	1	0	21.66
				1	7	21.63
				1	14	21.71
				8	0	20.68
				8	4	20.76
				8	7	20.79
				15	0	20.15
	H 20384	1753.4	QPSK	1	0	22.26
				1	7	22.10
				1	14	22.18
				8	0	21.84
				8	4	21.76
				8	7	21.68
				15	0	21.31
			16-QAM	1	0	20.95
				1	7	20.84
				1	14	20.90

				8	0	20.75
				8	4	20.64
				8	7	20.35
				15	0	20.30

LTE BAND 4 (Continue)

	Channel	Freq.(MHZ)	Modulation	RB Configuration		Average Power (dBm)
				RB Size	RB Offset	
1.4MHz	L 19957	1710.7	QPSK	1	0	22.12
				1	2	22.10
				1	5	22.15
				3	0	22.17
				3	1	22.15
				3	2	22.16
				6	0	21.18
			16-QAM	1	0	21.02
				1	2	21.04
				1	5	21.00
				3	0	20.34
				3	1	20.42
				3	2	20.25
				6	0	20.06
	M 20175	1732.5	QPSK	1	0	22.12
				1	2	22.10
				1	5	22.14
				3	0	22.14
				3	1	22.10
				3	2	22.11
				6	0	21.15
			16-QAM	1	0	20.92
				1	2	20.95
				1	5	20.99
				3	0	20.25
				3	2	20.46
				3	5	20.35
				6	0	20.15
	H 20392	1754.2	QPSK	1	0	22.17
				1	2	22.13
				1	5	22.16
				3	0	22.16
				3	1	22.21
				3	2	22.26
				6	0	21.23
			16-QAM	1	0	20.91
				1	2	20.96
				1	5	20.89
				3	0	20.56
				3	1	20.49

				3	2	20.48
				6	0	20.18

LTE BAND 7 (Continue)

Band Width	Channel	Freq.(MHZ)	Modulation	RB Configuration		Average Power (dBm)
				RB Size	RB Offset	
20MHz	L 20850	2510.0	QPSK	1	0	21.97
				1	49	21.92
				1	99	21.94
				50	0	20.80
				50	25	20.81
				50	49	20.83
				100	0	20.74
			16-QAM	1	0	21.66
				1	49	21.45
				1	99	21.62
				50	0	20.64
				50	25	20.59
				50	49	20.75
				100	0	19.65
	M 21100	2535.0	QPSK	1	0	22.29
				1	49	22.34
				1	99	22.28
				50	0	20.94
				50	25	20.97
				50	49	20.96
				100	0	20.88
			16-QAM	1	0	21.03
				1	49	21.10
				1	99	21.31
				50	0	20.85
				50	25	20.76
				50	49	20.70
				100	0	19.89
	H 21350	2560.0	QPSK	1	0	22.15
				1	49	22.21
				1	99	22.12
				50	0	21.13
				50	25	21.08
				50	49	21.07
				100	0	2012
			16-QAM	1	0	21.18
				1	49	21.11
				1	99	21.33
				50	0	20.86
				50	25	20.92
				50	49	20.85
				100	0	20.09

LTE BAND 7 (Continue)

Band Width	Channel	Freq.(MHZ)	Modulation	RB Configuration		Average Power (dBm)
				RB Size	RB Offset	
15MHz	L 20825	2507.5	QPSK	1	0	22.09
				1	37	21.96
				1	74	22.00
				36	0	20.96
				36	18	20.93
				36	35	20.90
				75	0	20.76
			16-QAM	1	0	21.23
				1	37	21.03
				1	74	21.08
				36	0	20.56
				36	18	20.48
				36	35	20.46
				75	0	19.61
	M 21100	2535.0	QPSK	1	0	21.98
				1	37	22.09
				1	74	22.37
				36	0	21.03
				36	18	21.06
				36	35	21.09
				75	0	20.95
			16-QAM	1	0	20.85
				1	37	20.96
				1	74	21.06
				36	0	20.56
				36	18	20.43
				36	35	20.35
				75	0	19.93
	H 21375	2562.5	QPSK	1	0	22.16
				1	37	22.14
				1	74	22.08
				36	0	21.13
				36	18	21.01
				36	35	21.02
				75	0	21.06
			16-QAM	1	0	21.69
				1	37	21.77
				1	74	21.54
				36	0	20.86
				36	18	20.75
				36	35	20.63
				75	0	20.05

LTE BAND 7 (Continue)

Band Width	Channel	Freq.(MHZ)	Modulation	RB Configuration		Average Power (dBm)
				RB Size	RB Offset	
10MHz	L 20800	2505.0	QPSK	1	0	22.16
				1	24	22.07
				1	49	21.91
				25	0	21.04
				25	12	21.12
				25	24	20.96
				50	0	20.95
			16-QAM	1	0	20.95
				1	24	20.83
				1	49	20.74
				25	0	20.24
				25	12	20.19
				25	24	20.20
				50	0	19.77
	M 21100	2535.0	QPSK	1	0	22.03
				1	24	22.12
				1	49	22.22
				25	0	21.08
				25	12	21.05
				25	24	21.12
				50	0	21.00
			16-QAM	1	0	21.52
				1	24	21.68
				1	49	21.71
				25	0	20.15
				25	12	20.20
				25	24	20.16
				50	0	19.96
	H 21400	2565.0	QPSK	1	0	22.22
				1	24	22.17
				1	49	22.20
				25	0	21.15
				25	12	21.13
				25	24	21.11
				50	0	21.03
			16-QAM	1	0	20.98
				1	24	20.75
				1	49	20.78
				25	0	20.12
				25	12	20.20
				25	24	20.18
				50	0	19.98

LTE BAND 7 (Continue)

Band Width	Channel	Freq.(MHZ)	Modulation	RB Configuration		Average Power (dBm)
				RB Size	RB Offset	
5MHz	L 20775	2502.5	QPSK	1	0	22.21
				1	12	22.03
				1	24	22.09
				12	0	21.62
				12	6	21.59
				12	11	21.48
				25	0	20.96
			16-QAM	1	0	21.33
				1	12	21.21
				1	24	21.28
				12	0	20.86
				12	6	20.92
				12	11	20.76
				25	0	19.88
	M 21100	2535.0	QPSK	1	0	22.21
				1	12	22.17
				1	24	22.19
				12	0	21.58
				12	6	21.49
				12	11	21.60
				25	0	21.08
			16-QAM	1	0	20.76
				1	12	20.74
				1	24	20.86
				12	0	20.18
				12	6	20.16
				12	11	20.20
				25	0	20.02
	H 21425	2567.5	QPSK	1	0	22.13
				1	12	22.20
				1	24	22.25
				12	0	21.54
				12	6	21.59
				12	11	21.68
				25	0	21.08
			16-QAM	1	0	21.18
				1	12	21.08
				1	24	21.02
				12	0	20.29
				12	6	20.38
				12	11	20.43
				25	0	19.98

2.2. Occupied Bandwidth

2.2.1. Definition

According to FCC section 2.1049 and 27.53(g), the occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power radiated by a given emission.

Occupied bandwidth is also known as the 99% emission bandwidth.

2.2.2. Test Description

See section 2.1.2 of this report.

2.2.3. Test Results

LTE Band 7

Low channel:

Channel Bandwidth: 5MHz				Channel Bandwidth: 10MHz			
Channel	Frequency (MHz)	99% Bandwidth (MHz)		Channel	Frequency (MHz)	99% Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
20755	2502.5	4.5084	4.5059	20800	2505	8.9910	9.9721
Channel Bandwidth: 5MHz				**Channel Bandwidth: 10MHz**			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz) QPSK	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
20755	2502.5	4.975	5.007	20800	2505	9.915	9.847

Channel Bandwidth: 15MHz				Channel Bandwidth: 20MHz			
Channel	Frequency (MHz)	99% Bandwidth (MHz)		Channel	Frequency (MHz)	99% Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
20825	2507.5	13.485	13.477	20850	2510	17.943	17.947

Channel Bandwidth: 15MHz				Channel Bandwidth: 20MHz			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
		QPSK	16QAM		QPSK	QPSK	16QAM
20825	2507.5	14.71	14.64	20850	2510	19.54	19.38

Middle channel:

Channel Bandwidth: 5MHz				Channel Bandwidth: 10MHz			
Channel	Frequency (MHz)	99% Bandwidth (MHz)		Channel	Frequency (MHz)	99% Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
21100	2535	4.5070	4.5019	21100	2535	8.9761	8.9983
Channel Bandwidth: 5MHz				**Channel Bandwidth: 10MHz**			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
		QPSK	16QAM		QPSK	QPSK	16QAM
21100	2535	5.053	4.983	21100	2535	9.929	9.878

Channel Bandwidth: 15MHz				Channel Bandwidth: 20MHz			
Channel	Frequency (MHz)	99% Bandwidth (MHz)		Channel	Frequency (MHz)	99% Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
21100	2535	13.457	13.444	21100	2535	17.927	17.966
Channel Bandwidth: 15MHz				**Channel Bandwidth: 20MHz**			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
		QPSK	16QAM		QPSK	QPSK	16QAM
21100	2535	14.65	14.63	21100	2535	19.39	19.40

High channel:

Channel Bandwidth: 5MHz				Channel Bandwidth: 10MHz			
Channel	Frequency (MHz)	99% Bandwidth (MHz)		Channel	Frequency (MHz)	99% Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
21425	2567.5	4.5022	4.5060	21400	2565	8.9872	8.9885
Channel Bandwidth: 5MHz				**Channel Bandwidth: 10MHz**			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
		QPSK	16QAM		QPSK	QPSK	16QAM
21425	2567.5	4.984	5.006	21400	2565	9.969	9.889

Channel Bandwidth: 15MHz				Channel Bandwidth: 20MHz			
Channel	Frequency (MHz)	99% Bandwidth (MHz)		Channel	Frequency (MHz)	99% Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
21375	2562.5	13.441	13.439	21350	2560	17.886	17.922
Channel Bandwidth: 15MHz				**Channel Bandwidth: 20MHz**			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz) QPSK	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
21375	2562.5	14.65	14.64	21350	2560	19.37	19.45

Low channel:

Spectrum Plot of Worst Value	
5MHz/QPSK	5MHz/16QAM
	
Spectrum Plot of Worst Value	
10MHz/QPSK	10MHz/16QAM
	

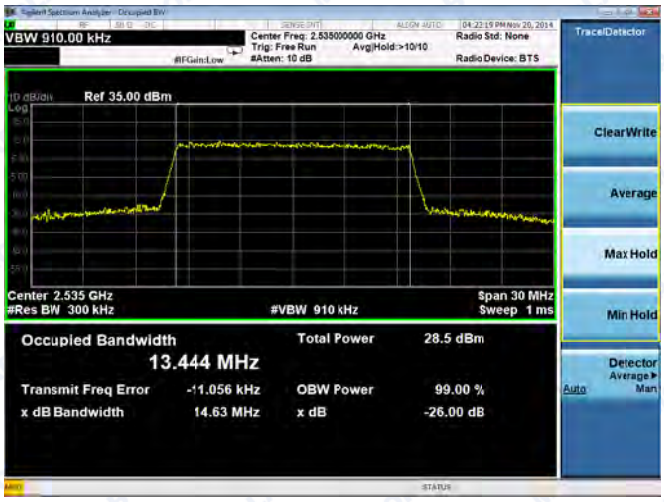
Spectrum Plot of Worst Value	
15MHz/QPSK	15MHz/16QAM
	

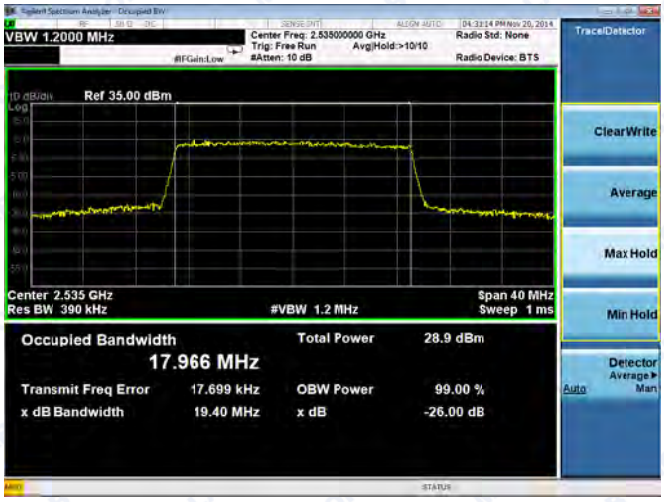
Spectrum Plot of Worst Value	
20MHz/QPSK	20MHz/16QAM
	

Middle channel:

Spectrum Plot of Worst Value	
5MHz/QPSK	5MHz/16QAM
	

Spectrum Plot of Worst Value	
10MHz/QPSK	10MHz/16QAM
	

Spectrum Plot of Worst Value	
15MHz/QPSK	15MHz/16QAM
	

Spectrum Plot of Worst Value	
20MHz/QPSK	20MHz/16QAM
	

High channel:

Spectrum Plot of Worst Value	
5MHz/QPSK	5MHz/16QAM
	
Spectrum Plot of Worst Value	
10MHz/QPSK	10MHz/16QAM
	

Spectrum Plot of Worst Value	
15MHz/QPSK	15MHz/16QAM
	

Spectrum Plot of Worst Value	
20MHz/QPSK	20MHz/16QAM
	

LTE Band 4

Low channel:

Channel Bandwidth: 1.4MHz				Channel Bandwidth: 3MHz			
Channel	Frequency (MHz)	99% Bandwidth (MHz)		Channel	Frequency (MHz)	99% Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
19957	1710.7	1.0908	1.0996	19965	1711.5	2.7049	2.6955
Channel Bandwidth: 1.4MHz				**Channel Bandwidth: 3MHz**			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz) QPSK	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
19957	1710.7	1.288	1.308	19965	1711.5	2.967	2.985

Channel Bandwidth: 5MHz				Channel Bandwidth: 10MHz			
Channel	Frequency (MHz)	99% Bandwidth (MHz)		Channel	Frequency (MHz)	99% Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
19975	1712.5	4.5053	4.5104	20000	1715.0	8.9929	8.9951
Channel Bandwidth: 5MHz				**Channel Bandwidth: 10MHz**			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz) QPSK	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
19975	1712.5	5.044	4.983	20000	1715.0	9.979	9.863

Channel Bandwidth: 15MHz				Channel Bandwidth: 20MHz			
Channel	Frequency (MHz)	99% Bandwidth (MHz)		Channel	Frequency (MHz)	99% Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
20025	1717.5	13.452	13.451	20050	1720.0	17.912	17.956
Channel Bandwidth: 15MHz				**Channel Bandwidth: 20MHz**			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz) QPSK	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
20025	1717.5	14.67	14.61	20050	1720.0	19.34	19.45

Middle channel:

Channel Bandwidth: 1.4MHz				Channel Bandwidth: 3MHz			
Channel	Frequency (MHz)	99% Bandwidth (MHz)		Channel	Frequency (MHz)	99% Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
20175	1732.5	1.1040	1.0969	20175	1732.5	2.7044	2.7006
Channel Bandwidth: 1.4MHz				**Channel Bandwidth: 3MHz**			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz) QPSK	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
20175	1732.5	1.279	1.299	20175	1732.5	2.988	2.984

Channel Bandwidth: 5MHz				Channel Bandwidth: 10MHz			
Channel	Frequency (MHz)	99% Bandwidth (MHz)		Channel	Frequency (MHz)	99% Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
20175	1732.5	4.5094	4.5101	20175	1732.5	8.9672	8.9727
Channel Bandwidth: 5MHz				**Channel Bandwidth: 10MHz**			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz) QPSK	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
20175	1732.5	4.973	4.992	20175	1732.5	9.849	9.872

Channel Bandwidth: 15MHz				Channel Bandwidth: 20MHz			
Channel	Frequency (MHz)	99% Bandwidth (MHz)		Channel	Frequency (MHz)	99% Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
20175	1732.5	13.441	13.449	20175	1732.5	17.941	17.926
Channel Bandwidth: 15MHz				**Channel Bandwidth: 20MHz**			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz) QPSK	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
20175	1732.5	14.69	14.58	20175	1732.5	19.60	19.34

High channel:

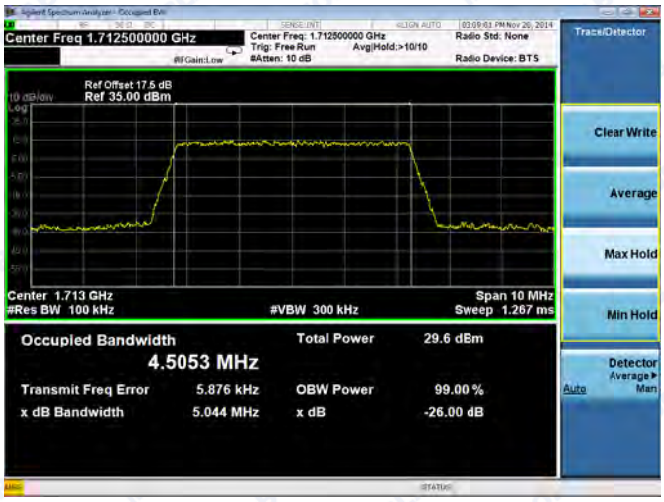
Channel Bandwidth: 1.4MHz				Channel Bandwidth: 3MHz			
Channel	Frequency (MHz)	99% Bandwidth (MHz)		Channel	Frequency (MHz)	99% Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
20392	1754.2	1.1007	1.0951	20384	1753.4	2.7059	2.6985
Channel Bandwidth: 1.4MHz				**Channel Bandwidth: 3MHz**			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz) QPSK	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
20392	1754.2	1.313	1.280	20384	1753.4	3.001	3.013

Channel Bandwidth: 5MHz				Channel Bandwidth: 10MHz			
Channel	Frequency (MHz)	99% Bandwidth (MHz)		Channel	Frequency (MHz)	99% Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
20375	1752.5	4.5115	4.5073	20350	1750.0	8.9914	8.9743
Channel Bandwidth: 5MHz				**Channel Bandwidth: 10MHz**			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz) QPSK	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
20375	1752.5	4.995	4.986	20350	1750.0	9.888	9.938

Channel Bandwidth: 15MHz				Channel Bandwidth: 20MHz			
Channel	Frequency (MHz)	99% Bandwidth (MHz)		Channel	Frequency (MHz)	99% Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
20325	1747.5	13.467	13.455	20300	1745.0	17.869	17.915
Channel Bandwidth: 15MHz				**Channel Bandwidth: 20MHz**			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz) QPSK	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
20325	1747.5	14.70	14.59	20300	1745.0	19.30	19.49

Low channel:

Spectrum Plot of Worst Value	
1.4MHz/QPSK	1.4MHz/16QAM
	
Spectrum Plot of Worst Value	
3MHz/QPSK	3MHz/16QAM
	

Spectrum Plot of Worst Value	
5MHz/QPSK	5MHz/16QAM
	

Spectrum Plot of Worst Value	
10MHz/QPSK	10MHz/16QAM
	

Spectrum Plot of Worst Value	
15MHz/QPSK	15MHz/16QAM
	

Spectrum Plot of Worst Value	
20MHz/QPSK	20MHz/16QAM
	

Middle channel:

Spectrum Plot of Worst Value	
1.4MHz/QPSK	1.4MHz/16QAM
	

Spectrum Plot of Worst Value	
3MHz/QPSK	3MHz/16QAM
	

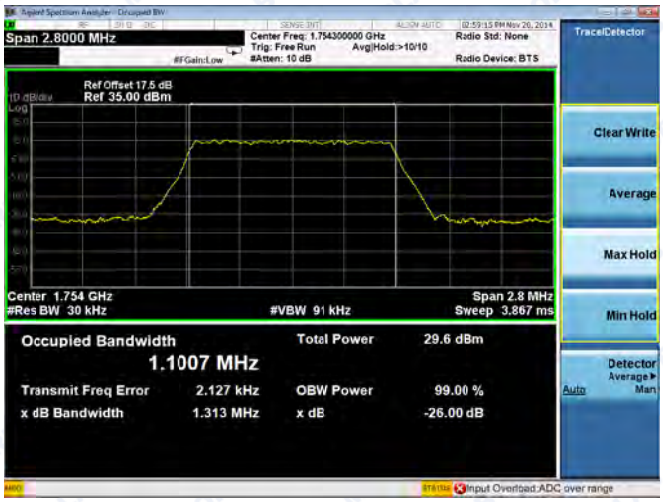
Spectrum Plot of Worst Value	
5MHz/QPSK	5MHz/16QAM
	
Spectrum Plot of Worst Value	
10MHz/QPSK	10MHz/16QAM
	

Spectrum Plot of Worst Value	
15MHz/QPSK	15MHz/16QAM
	

Spectrum Plot of Worst Value	
20MHz/QPSK	20MHz/16QAM
	

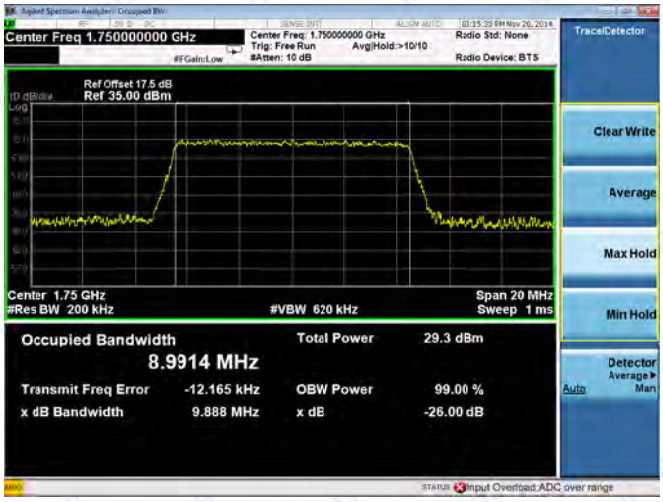
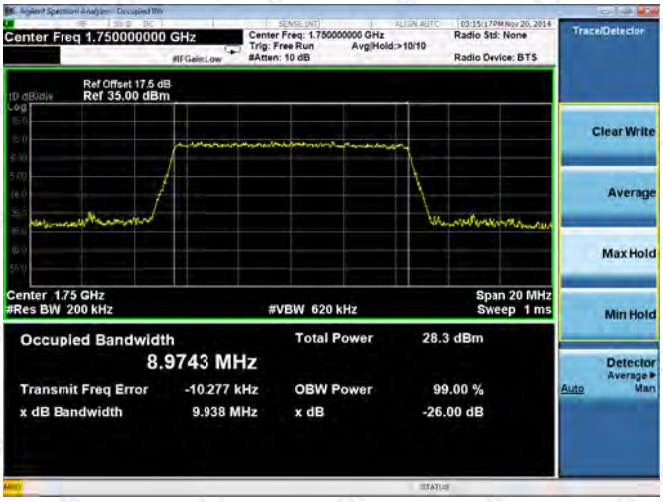
High channel:

Spectrum Plot of Worst Value	
1.4MHz/QPSK	1.4MHz/16QAM



Spectrum Plot of Worst Value	
3MHz/QPSK	3MHz/16QAM

Spectrum Plot of Worst Value	
5MHz/QPSK	5MHz/16QAM
	

Spectrum Plot of Worst Value	
10MHz/QPSK	10MHz/16QAM
	

Spectrum Plot of Worst Value	
15MHz/QPSK	15MHz/16QAM
	

Spectrum Plot of Worst Value	
20MHz/QPSK	20MHz/16QAM