



REPORT No.: SZ15050187W02

FCC RF TEST REPORT

APPLICANT : ZTE Corporation

PRODUCT NAME : Mobile Broadband Internet Device

MODEL NAME : ZTE K85

TRADE NAME : ZTE

BRAND NAME : ZTE

FCC ID : SRQ-K85

STANDARD(S) : 47 CFR Part 22, Subpart H
47 CFR Part 24, Subpart E
47 CFR Part 27, Subpart H&L&M

ISSUE DATE : 2015-7-27



SHENZHEN MORLAB COMMUNICATIONS TECHNOLOGY Co., Ltd.

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Change History		
Issue	Date	Reason for change
1.0	2015-7-27	First edition



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TEST REPORT DECLARATION

Applicant	ZTE Corporation
Applicant Address	ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, P.R.China
Manufacturer	ZTE Corporation
Manufacturer Address	ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, P.R.China
Product Name	Mobile Broadband Internet Device
Model Name	ZTE K85
Brand Name	ZTE
HW Version	K85MB_D
SW Version	K85_Bell_V1.05
Test Standards	47 CFR Part 22, Subpart H 47 CFR Part 24, Subpart E 47 CFR Part 27, Subpart H&L&M
Test Date	2015-6-2 to 2015-7-22
Test Result	PASS

Tested by : Zou Jian
Zou Jian(Test Engineer)

Reviewed by : Qiu Xiaojun
Qiu Xiaojun(RF Manager)

Approved by : Zeng Dexin
Zeng Dexin(Chief Engineer)



1. GENERAL INFORMATION

1.1 EUT Description

EUT Type: Mobile Broadband Internet Device
Serial No.: (n.a, marked #1 by test site)
Hardware Version.....: K85MB_D
Software Version..... K85_Bell_V1.05
Applicant: ZTE Corporation
ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan
District, Shenzhen, Guangdong, P.R.China
Manufacturer.....: ZTE Corporation
ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan
District, Shenzhen, Guangdong, P.R.China
Modulation Type.....: LTE Band 2: QPSK, 16QAM
LTE Band 4: QPSK, 16QAM
LTE Band 5: QPSK, 16QAM
LTE Band 7: QPSK, 16QAM
LTE Band 12: QPSK, 16QAM
LTE Band 17: QPSK, 16QAM
Tx Frequency Range.....: LTE Band 2: 1850MHz ~1910MHz
LTE Band 4: 1710MHz ~1755MHz
LTE Band 5: 824MHz ~ 849MHz
LTE Band 7: 2500MHz ~ 2570MHz
LTE Band 12: 699MHz ~ 716MHz
LTE Band 17: 704MHz ~ 716MHz
Rx Frequency Range: LTE Band 2: 1930MHz ~ 1990MHz
LTE Band 4: 2110MHz ~ 2155MHz
LTE Band 5: 869MHz ~ 894MHz
LTE Band 7: 2620MHz ~ 2690MHz
LTE Band 12: 729MHz ~ 746MHz
LTE Band 17: 734MHz ~ 746MHz
Emission Designator: 1M11G7D (LTE Band 2, QPSK, BW 1.4MHz)
1M11W7D (LTE Band 2, 16QAM, BW 1.4MHz)
2M72G7D (LTE Band 2, QPSK, BW 3MHz)
2M73 W7D (LTE Band 2, 16QAM, BW 3MHz)
4M54G7D (LTE Band 2, QPSK, BW 5MHz)
4M54 W7D (LTE Band 2, 16QAM, BW 5MHz)
9M01G7D (LTE Band 2, QPSK, BW 10MHz)



9M01W7D (LTE Band 2, 16QAM, BW 10MHz)
13M49G7D (LTE Band 2, QPSK, BW 15MHz)
13M52W7D (LTE Band 2, 16QAM, BW 15MHz)
18M00G7D (LTE Band 2, QPSK, BW 20MHz)
18M00W7D (LTE Band 2, 16QAM, BW 20MHz)
1M11G7D (LTE Band 4, QPSK, BW 1.4MHz)
1M10W7D (LTE Band 4, 16QAM, BW 1.4MHz)
2M72G7D (LTE Band 4, QPSK, BW 3MHz)
2M73W7D (LTE Band 4, 16QAM, BW 3MHz)
4M53G7D (LTE Band 4, QPSK, BW 5MHz)
4M53W7D (LTE Band 4, 16QAM, BW 5MHz)
9M03G7D (LTE Band 4, QPSK, BW 10MHz)
9M02W7D (LTE Band 4, 16QAM, BW 10MHz)
13M52G7D (LTE Band 4, QPSK, BW 15MHz)
13M51W7D (LTE Band 4, 16QAM, BW 15MHz)
17M93G7D (LTE Band 4, QPSK, BW 20MHz)
17M96W7D (LTE Band 4, 16QAM, BW 20MHz)
1M11G7D (LTE Band 5, QPSK, BW 1.4MHz)
1M10W7D (LTE Band 5, 16QAM, BW 1.4MHz)
2M72G7D (LTE Band 5, QPSK, BW 3MHz)
2M73W7D (LTE Band 5, 16QAM, BW 3MHz)
4M54G7D (LTE Band 5, QPSK, BW 5MHz)
4M54W7D (LTE Band 5, 16QAM, BW 5MHz)
9M04G7D (LTE Band 5, QPSK, BW 10MHz)
9M01W7D (LTE Band 5, 16QAM, BW 10MHz)
4M54G7D (LTE Band 7, QPSK, BW 5MHz)
4M53W7D (LTE Band 7, 16QAM, BW 5MHz)
9M02G7D (LTE Band 7, QPSK, BW 10MHz)
9M01W7D (LTE Band 7, 16QAM, BW 10MHz)
13M51G7D (LTE Band 7, QPSK, BW 15MHz)
13M50W7D (LTE Band 7, 16QAM, BW 15MHz)
18M00G7D (LTE Band 7, QPSK, BW 20MHz)
18M02W7D (LTE Band 7, 16QAM, BW 20MHz)
1M11G7D (LTE Band 12, QPSK, BW 1.4MHz)
1M11W7D (LTE Band 12, 16QAM, BW 1.4MHz)
2M73G7D (LTE Band 12, QPSK, BW 3MHz)
2M72W7D (LTE Band 12, 16QAM, BW 3MHz)
4M54G7D (LTE Band 12, QPSK, BW 5MHz)



4M55W7D (LTE Band 12, 16QAM, BW 5MHz)
9M04G7D (LTE Band 12, QPSK, BW 10MHz)
9M05W7D (LTE Band 12, 16QAM, BW 10MHz)
4M55G7D (LTE Band 17, QPSK, BW 5MHz)
4M55W7D (LTE Band 17, 16QAM, BW 5MHz)
8M99G7D (LTE Band 17, QPSK, BW 10MHz)
8M98W7D (LTE Band 17, 16QAM, BW 10MHz)

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 22, Part 24, 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 22 (10-1-09 Edition)	Public Mobile Services
3	47 CFR Part 24 (10-1-09 Edition)	Personal Communications Services
4	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	<u>PASS</u>
2	24.232(d), 27.50(d)(5)	Occupied Bandwidth	<u>PASS</u>
3	2.1049, 22.917 24.238, 27.53(g)	Frequency Stability	<u>PASS</u>
4	2.1055, 22.355 24.235, 27.54	Peak to Average Ratio	<u>PASS</u>
5	2.1051, 2.1057 24.238, 27.53(g)	Conducted Spurious Emissions	<u>PASS</u>
6	2.1051, 2.1057, 22.917, 24.238, 27.53(g)(h), 27.53(m)(4)	Band Edge	<u>PASS</u>
7	22.913, 24.232, 27.50(d)(4)	Equivalent Isotropic Radiated Power	<u>PASS</u>
8	2.1053, 2.1057, 22.917, 24.238, 27.53(g)	Radiated Spurious Emissions	<u>PASS</u>



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 FL.1, Building A, FeiYang Science Park, No.8 LongChang Road, Block 67, BaoAn District, ShenZhen, GuangDong Province, P. R. China 518101. 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 22H & 24E & 27L REQUIREMENTS

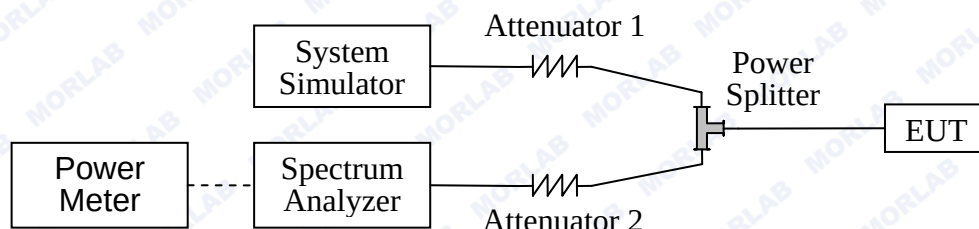
2.1 Transmitter Conducted Output Power

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

Test Setup:



The EUT, which is powered by the Battery, 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.

Equipments List:

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
System Simulator	Rohde& Schwarz	CMW500	1201.0002k5 0/124534/wk	2015.02.26	2016.02.25
Spectrum Analyzer	Rohde& Schwarz	FSL	10246	2015.02.26	2016.02.25
Spectrum Analyzer	Agilent	E4445A	MY44200685	2015.02.26	2016.02.25
Power Meter	Agilent	E4418B	GB43318055	2015.02.26	2016.02.25
Power Meter	Agilent	E4418B	GB43318055	2015.02.26	2016.02.25
Power Sensor	Agilent	8482A	MY41091706	2015.02.26	2016.02.25
Power Splitter	Weinschel	1506A	NW521	2015.02.26	2016.02.25
Attenuator 1	Resnet	20dB	(n.a.)	2015.02.26	2016.02.25
Attenuator 2	Resnet	3dB	(n.a.)	2015.02.26	2016.02.25

2.1.3 Test Results



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Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 2	20MHz	L 18700	1860	QPSK	1	0	22.60
					1	49	22.44
					1	99	22.27
					50	0	21.24
					50	25	21.23
					50	49	21.18
					100	0	20.65
				16-QAM	1	0	21.56
					1	49	21.61
					1	99	21.40
					50	0	21.35
					50	25	21.33
					50	49	21.40
					100	0	20.05
		M 18900	1880	QPSK	1	0	22.68
					1	49	22.54
					1	99	22.36
					50	0	21.22
					50	25	21.34
					50	49	21.19
					100	0	20.78
				16-QAM	1	0	21.35
					1	49	21.21
					1	99	21.08
					50	0	21.27
					50	25	21.33
					50	49	21.28
					100	0	20.06
		H 19100	1900	QPSK	1	0	22.72
					1	49	22.58
					1	99	22.34
					50	0	21.19
					50	25	21.21
					50	49	21.18
					100	0	20.62
				16-QAM	1	0	22.45
					1	49	22.35
					1	99	22.12
					50	0	21.23
					50	25	21.27
					50	49	21.22
					100	0	20.24



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Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 2	15MHz	L 18675	1857.5	QPSK	1	0	22.37
					1	37	22.30
					1	74	22.13
					36	0	21.15
					36	18	21.16
					36	35	21.11
					75	0	20.58
				16-QAM	1	0	21.52
					1	37	21.59
					1	74	21.71
					36	0	21.68
					36	18	21.63
					36	35	21.49
					75	0	20.08
		M 18900	1880	QPSK	1	0	22.10
					1	37	22.09
					1	74	21.96
					36	0	21.12
					36	18	21.15
					36	35	21.09
					75	0	20.65
				16-QAM	1	0	21.24
					1	37	21.28
					1	74	21.37
					36	0	21.36
					36	18	21.33
					36	35	21.29
					75	0	20.16
		H 19125	1902.5	QPSK	1	0	22.45
					1	37	21.89
					1	74	21.69
					36	0	20.89
					36	18	20.71
					36	35	20.68
					75	0	20.70
				16-QAM	1	0	21.55
					1	37	21.49
					1	74	21.25
					36	0	20.34
					36	18	20.29
					36	35	20.35
					75	0	19.95



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Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 2	10MHz	L 18650	1855	QPSK	1	0	22.07
					1	24	22.15
					1	49	22.16
					25	0	20.87
					25	12	20.78
					25	24	20.76
					50	0	20.65
				16-QAM	1	0	21.73
					1	24	21.64
					1	49	21.42
					25	0	20.55
					25	12	20.57
					25	24	20.61
					50	0	20.45
		M 18900	1880	QPSK	1	0	21.99
					1	24	22.06
					1	49	22.02
					25	0	20.91
					25	12	20.94
					25	24	20.91
					50	0	20.96
				16-QAM	1	0	21.15
					1	24	21.16
					1	49	21.11
					25	0	21.13
					25	12	21.10
					25	24	21.08
					50	0	19.87
		H 19150	1905	QPSK	1	0	21.68
					1	24	21.73
					1	49	21.74
					25	0	21.65
					25	12	21.58
					25	24	20.89
					50	0	20.80
				16-QAM	1	0	20.65
					1	24	20.58
					1	49	20.48
					25	0	20.43
					25	12	20.39
					25	24	20.32
					50	0	19.78



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Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 2	5MHz	L 18625	1852.5	QPSK	1	0	22.08
					1	12	22.06
					1	24	21.95
					12	0	20.89
					12	6	20.87
					12	11	20.81
					25	0	20.85
		M 18900	1880	16-QAM	1	0	21.44
					1	12	21.46
					1	24	21.38
					12	0	20.03
					12	6	20.01
					12	11	19.92
					25	0	19.81
				QPSK	1	0	21.71
					1	12	21.57
					1	24	21.68
					12	0	20.77
					12	6	20.69
					12	11	20.70
					25	0	20.71
		H 19175	1907.5	16-QAM	1	0	20.92
					1	12	20.89
					1	24	20.69
					12	0	20.58
					12	6	20.57
					12	11	20.52
					25	0	19.72
				QPSK	1	0	21.83
					1	12	21.92
					1	24	21.91
					12	0	20.86
					12	6	20.81
					12	11	20.76
					25	0	20.68
				16-QAM	1	0	21.07
					1	12	21.05
					1	24	20.94
					12	0	19.92
					12	6	19.84
					12	11	19.91
					25	0	19.83



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Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 2	3MHz	L 18615	1851.5	QPSK	1	0	22.03
					1	7	22.01
					1	14	22.09
					8	0	21.01
					8	4	20.91
					8	7	20.85
					15	0	20.87
		M 18900	1880	16-QAM	1	0	21.32
					1	7	21.25
					1	14	21.30
					8	0	20.14
					8	4	19.72
					8	7	19.49
					15	0	19.51
				QPSK	1	0	21.67
					1	7	21.66
					1	14	21.48
					8	0	20.81
					8	4	20.68
					8	7	20.82
					15	0	20.70
		H 19185	1908.5	16-QAM	1	0	21.11
					1	7	21.12
					1	14	21.15
					8	0	20.38
					8	4	20.22
					8	7	20.02
					15	0	19.65
				QPSK	1	0	21.63
					1	7	21.67
					1	14	21.86
					8	0	20.79
					8	4	20.73
					8	7	20.80
					15	0	20.81
				16-QAM	1	0	20.78
					1	7	20.73
					1	14	20.82
					8	0	19.60
					8	4	19.63
					8	7	19.54
					15	0	19.62



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Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 2	1.4MHz	L 18607	1850.7	QPSK	1	0	22.12
					1	2	22.01
					1	5	22.02
					3	0	21.61
					3	1	21.52
					3	2	21.48
					6	0	20.55
				16-QAM	1	0	21.16
					1	2	21.13
					1	5	21.03
					3	0	21.02
					3	1	21.03
					3	2	21.08
					6	0	19.96
		M 18900	1880	QPSK	1	0	21.61
					1	2	21.56
					1	5	21.67
					3	0	21.52
					3	1	21.58
					3	2	21.60
					6	0	20.67
				16-QAM	1	0	20.99
					1	2	20.87
					1	5	20.96
					3	0	20.82
					3	2	20.81
					3	5	20.80
					6	0	19.79
		H 19193	1909.3	QPSK	1	0	21.53
					1	2	21.55
					1	5	21.66
					3	0	21.65
					3	1	21.48
					3	2	21.59
					6	0	20.59
				16-QAM	1	0	20.68
					1	2	20.95
					1	5	20.89
					3	0	20.81
					3	1	20.82
					3	2	20.88
					6	0	19.91



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Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 4	20MHz	L 20050	1720.0	QPSK	1	0	21.73
					1	49	21.70
					1	99	21.34
					50	0	20.40
					50	25	20.35
					50	49	20.33
					100	0	19.85
				16-QAM	1	0	20.95
					1	49	20.78
					1	99	20.63
					50	0	19.58
					50	25	19.60
					50	49	19.62
					100	0	19.30
		M 20175	1732.5	QPSK	1	0	21.63
					1	49	21.52
					1	99	21.35
					50	0	20.33
					50	25	20.32
					50	49	20.38
					100	0	19.75
				16-QAM	1	0	20.85
					1	49	20.19
					1	99	20.72
					50	0	19.68
					50	25	19.69
					50	49	19.59
					100	0	19.52
		H 20300	1745.0	QPSK	1	0	21.65
					1	49	21.46
					1	99	21.28
					50	0	20.32
					50	25	20.41
					50	49	20.49
					100	0	19.72
				16-QAM	1	0	20.96
					1	49	20.95
					1	99	20.89
					50	0	19.59
					50	25	19.52
					50	49	19.48
					100	0	19.41



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Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 4	15MHz	L 20025	1717.5	QPSK	1	0	21.58
					1	37	21.62
					1	74	21.66
					36	0	20.63
					36	18	20.50
					36	35	20.48
					75	0	19.52
		M 20175	1732.5	16-QAM	1	0	21.11
					1	37	21.08
					1	74	20.73
					36	0	19.34
					36	18	19.40
					36	35	19.38
					75	0	19.39
		H 20325	1747.5	QPSK	1	0	21.49
					1	37	21.43
					1	74	21.30
					36	0	20.42
					36	18	20.39
					36	35	20.41
					75	0	19.38
				16-QAM	1	0	20.62
					1	37	20.49
					1	74	20.66
					36	0	19.45
					36	18	19.46
					36	35	19.40
					75	0	19.39
				QPSK	1	0	21.20
					1	37	21.23
					1	74	21.25
					36	0	20.52
					36	18	20.45
					36	35	20.43
					75	0	19.48
				16-QAM	1	0	20.95
					1	37	20.89
					1	74	20.71
					36	0	19.52
					36	18	19.41
					36	35	19.51
					75	0	19.42



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Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 4	10MHz	L 20000	1715.0	QPSK	1	0	21.63
					1	24	21.2
					1	49	21.67
					25	0	20.62
					25	12	20.44
					25	24	20.45
					50	0	19.43
				16-QAM	1	0	21.07
					1	24	20.98
					1	49	20.94
					25	0	19.52
					25	12	19.55
					25	24	19.51
					50	0	19.46
		M 20175	1732.5	QPSK	1	0	21.38
					1	24	21.31
					1	49	21.19
					25	0	20.43
					25	12	20.35
					25	24	20.45
					50	0	19.48
				16-QAM	1	0	20.93
					1	24	20.92
					1	49	20.95
					25	0	19.58
					25	12	19.62
					25	24	19.51
					50	0	19.48
		H 20350	1750.0	QPSK	1	0	21.52
					1	24	21.35
					1	49	21.25
					25	0	20.52
					25	12	20.46
					25	24	20.51
					50	0	19.58
				16-QAM	1	0	20.29
					1	24	20.18
					1	49	20.13
					25	0	19.35
					25	12	19.33
					25	24	19.39
					50	0	19.42



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Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 4	5MHz	L 19975	1712.5	QPSK	1	0	21.52
					1	12	21.45
					1	24	21.43
					12	0	20.30
					12	6	20.35
					12	11	20.34
					25	0	19.62
		M 20175	1732.5	16-QAM	1	0	21.10
					1	12	21.05
					1	24	20.86
					12	0	19.35
					12	6	19.40
					12	11	19.33
					25	0	19.26
		H 20375	1752.5	QPSK	1	0	21.15
					1	12	21.06
					1	24	21.03
					12	0	20.33
					12	6	20.24
					12	11	20.37
					25	0	19.46
				16-QAM	1	0	19.96
					1	12	20.11
					1	24	20.10
					12	0	19.28
					12	6	19.30
					12	11	19.29
					25	0	19.35
				QPSK	1	0	21.67
					1	12	21.51
					1	24	21.62
					12	0	20.46
					12	6	20.43
					12	11	20.44
					25	0	19.61
				16-QAM	1	0	20.78
					1	12	20.68
					1	24	20.42
					12	0	19.35
					12	6	19.36
					12	11	19.40
					25	0	19.39



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Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 4	3MHz	L 19965	1711.5	QPSK	1	0	21.50
					1	7	21.48
					1	14	21.58
					8	0	20.48
					8	4	20.42
					8	7	20.31
					15	0	19.79
				16-QAM	1	0	20.60
					1	7	20.68
					1	14	20.55
					8	0	19.35
					8	4	19.40
					8	7	19.23
					15	0	19.21
		M 20175	1732.5	QPSK	1	0	21.09
					1	7	21.07
					1	14	21.15
					8	0	20.28
					8	4	20.21
					8	7	20.33
					15	0	19.62
				16-QAM	1	0	20.67
					1	7	20.64
					1	14	20.66
					8	0	19.41
					8	4	19.35
					8	7	19.37
					15	0	19.36
		H 20385	1753.5	QPSK	1	0	21.22
					1	7	21.06
					1	14	21.07
					8	0	20.23
					8	4	20.20
					8	7	20.26
					15	0	19.63
				16-QAM	1	0	20.27
					1	7	20.13
					1	14	19.70
					8	0	19.10
					8	4	19.09
					8	7	19.11
					15	0	19.14



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Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 4	1.4MHz	L 19957	1710.7	QPSK	1	0	21.48
					1	2	20.44
					1	5	21.49
					3	0	20.26
					3	1	20.32
					3	2	20.38
					6	0	19.64
				16-QAM	1	0	20.81
					1	2	20.78
					1	5	20.75
					3	0	19.62
					3	1	19.78
					3	2	19.71
					6	0	19.71
		M 20175	1732.5	QPSK	1	0	21.19
					1	2	21.18
					1	5	21.15
					3	0	20.14
					3	1	20.26
					3	2	20.28
					6	0	19.73
				16-QAM	1	0	20.62
					1	2	20.58
					1	5	20.57
					3	0	19.43
					3	2	19.38
					3	5	19.40
					6	0	19.45
		H 20393	1754.3	QPSK	1	0	21.01
					1	2	21.05
					1	5	21.06
					3	0	20.14
					3	1	20.23
					3	2	20.26
					6	0	19.81
				16-QAM	1	0	19.91
					1	2	20.05
					1	5	20.01
					3	0	19.13
					3	1	19.15
					3	2	19.20
					6	0	19.17



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Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 5	10MHz	L 20450	829	QPSK	1	0	22.34
					1	24	22.35
					1	49	22.42
					25	0	21.49
					25	12	21.41
					25	24	21.48
					50	0	20.49
				16-QAM	1	0	21.62
					1	24	21.72
					1	49	21.88
					25	0	20.62
					25	12	20.63
					25	24	20.49
					50	0	20.52
		M 20525	836.5	QPSK	1	0	22.49
					1	24	22.38
					1	49	22.35
					25	0	21.34
					25	12	21.36
					25	24	21.41
					50	0	20.40
				16-QAM	1	0	21.50
					1	24	21.84
					1	49	21.55
					25	0	20.32
					25	12	20.42
					25	24	20.30
					50	0	20.33
		H 20600	844	QPSK	1	0	22.27
					1	24	22.25
					1	49	22.23
					25	0	21.24
					25	12	20.92
					25	24	20.79
					50	0	20.38
				16-QAM	1	0	21.02
					1	24	21.04
					1	49	20.89
					25	0	20.05
					25	12	20.02
					25	24	20.03
					50	0	19.77



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Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 5	5MHz	L 20425	826.5	QPSK	1	0	22.27
					1	12	22.23
					1	24	22.25
					12	0	21.15
					12	6	21.18
					12	11	21.13
					25	0	20.44
		M 20525	836.5	16-QAM	1	0	21.17
					1	12	21.15
					1	24	21.04
					12	0	20.03
					12	6	20.04
					12	11	20.05
					25	0	20.06
		H 20625	846.5	QPSK	1	0	21.96
					1	12	21.86
					1	24	21.82
					12	0	21.03
					12	6	21.05
					12	11	21.09
					25	0	20.48
				16-QAM	1	0	20.97
					1	12	20.96
					1	24	20.29
					12	0	19.82
					12	6	19.81
					12	11	19.89
					25	0	19.86
				QPSK	1	0	21.93
					1	12	22.05
					1	24	22.07
					12	0	21.07
					12	6	21.08
					12	11	21.05
					25	0	20.43
				16-QAM	1	0	21.43
					1	12	21.39
					1	24	21.38
					12	0	20.25
					12	6	20.15
					12	11	20.08
					25	0	20.04



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Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 5	3MHz	L 20415	825.5	QPSK	1	0	22.15
					1	7	22.13
					1	14	21.16
					8	0	21.18
					8	4	21.22
					8	7	21.19
					15	0	20.34
		M 20525	836.5	16-QAM	1	0	21.64
					1	7	21.65
					1	14	21.77
					8	0	20.58
					8	4	20.63
					8	7	20.62
					15	0	20.69
		H 20635	847.5	QPSK	1	0	22.15
					1	7	22.12
					1	14	21.92
					8	0	21.18
					8	4	21.19
					8	7	21.18
					15	0	20.31
				16-QAM	1	0	21.21
					1	7	21.34
					1	14	21.13
					8	0	20.12
					8	4	20.15
					8	7	20.14
					15	0	20.12
				QPSK	1	0	21.93
					1	7	21.92
					1	14	21.90
					8	0	21.07
					8	4	21.08
					8	7	21.10
					15	0	20.41
				16-QAM	1	0	20.21
					1	7	20.15
					1	14	20.16
					8	0	19.52
					8	4	19.65
					8	7	19.50
					15	0	19.68



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Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 5	1.4MHz	L 20407	824.7	QPSK	1	0	22.37
					1	2	22.32
					1	5	22.30
					3	0	22.32
					3	1	22.29
					3	2	22.27
					6	0	20.34
				16-QAM	1	0	21.53
					1	2	21.54
					1	5	21.56
					3	0	21.45
					3	1	21.39
					3	2	21.41
					6	0	20.38
		M 20525	836.5	QPSK	1	0	22.01
					1	2	22.06
					1	5	22.08
					3	0	22.03
					3	1	22.05
					3	2	22.01
					6	0	20.35
				16-QAM	1	0	21.03
					1	2	21.15
					1	5	21.00
					3	0	21.06
					3	2	21.08
					3	5	21.12
					6	0	20.33
		H 20643	848.3	QPSK	1	0	21.93
					1	2	21.90
					1	5	21.94
					3	0	22.06
					3	1	22.05
					3	2	21.98
					6	0	20.29
				16-QAM	1	0	20.73
					1	2	20.71
					1	5	20.61
					3	0	20.69
					3	1	20.62
					3	2	20.58
					6	0	20.05



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Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 7	20MHz	L 20850	2510	QPSK	1	0	20.26
					1	49	20.05
					1	99	19.80
					50	0	18.87
					50	25	18.85
					50	49	18.62
					100	0	18.38
				16-QAM	1	0	19.11
					1	49	19.08
					1	99	19.05
					50	0	17.95
					50	25	18.03
					50	49	17.72
					100	0	17.79
		M 21100	2535	QPSK	1	0	20.07
					1	49	20.05
					1	99	20.03
					50	0	18.87
					50	25	18.85
					50	49	18.88
					100	0	18.40
				16-QAM	1	0	18.91
					1	49	18.78
					1	99	19.09
					50	0	17.95
					50	25	18.03
					50	49	18.02
					100	0	17.93
		H 21350	2560	QPSK	1	0	20.05
					1	49	20.05
					1	99	20.00
					50	0	18.83
					50	25	18.85
					50	49	18.90
					100	0	18.44
				16-QAM	1	0	19.44
					1	49	19.42
					1	99	18.96
					50	0	17.95
					50	25	18.02
					50	49	18.01
					100	0	18.01



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Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 7	15MHz	L 20825	2507.5	QPSK	1	0	20.06
					1	37	20.08
					1	74	20.10
					36	0	19.07
					36	18	18.95
					36	35	18.87
					75	0	18.40
				16-QAM	1	0	19.93
					1	37	19.55
					1	74	19.39
					36	0	17.94
					36	18	17.93
					36	35	18.01
					75	0	17.92
		M 21100	2535	QPSK	1	0	20.05
					1	37	20.02
					1	74	18.89
					36	0	18.92
					36	18	19.04
					36	35	19.01
					75	0	18.45
				16-QAM	1	0	19.02
					1	37	18.89
					1	74	19.01
					36	0	18.07
					36	18	18.02
					36	35	18.01
					75	0	18.05
		H 21375	2562.5	QPSK	1	0	20.04
					1	37	20.03
					1	74	20.05
					36	0	19.04
					36	18	19.03
					36	35	19.02
					75	0	18.43
				16-QAM	1	0	19.05
					1	37	19.08
					1	74	19.02
					36	0	18.02
					36	18	18.07
					36	35	18.05
					75	0	18.03



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Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 7	10MHz	L 20800	2505	QPSK	1	0	20.04
					1	24	20.03
					1	49	19.00
					25	0	18.93
					25	12	19.02
					25	24	19.00
					50	0	18.39
				16-QAM	1	0	19.02
					1	24	18.98
					1	49	19.02
					25	0	18.05
					25	12	18.02
					25	24	18.04
					50	0	18.04
		M 21100	2535	QPSK	1	0	20.02
					1	24	20.08
					1	49	20.06
					25	0	19.05
					25	12	19.04
					25	24	18.92
					50	0	18.35
				16-QAM	1	0	19.04
					1	24	19.06
					1	49	19.02
					25	0	18.04
					25	12	18.05
					25	24	18.02
					50	0	18.01
		H 21400	2565	QPSK	1	0	20.03
					1	24	20.04
					1	49	20.06
					25	0	19.02
					25	12	19.01
					25	24	18.90
					50	0	18.45
				16-QAM	1	0	19.01
					1	24	18.89
					1	49	18.92
					25	0	18.03
					25	12	18.01
					25	24	18.00
					50	0	18.02



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Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 7	5MHz	L 20775	2502.5	QPSK	1	0	20.05
					1	12	20.02
					1	24	20.04
					12	0	19.03
					12	6	19.10
					12	11	19.02
					25	0	18.24
		M 21100	2535	16-QAM	1	0	19.02
					1	12	19.01
					1	24	19.03
					12	0	18.04
					12	6	18.10
					12	11	18.01
					25	0	18.00
		H 21425	2567.5	QPSK	1	0	20.04
					1	12	20.02
					1	24	20.05
					12	0	19.06
					12	6	19.03
					12	11	19.04
					25	0	18.31
				16-QAM	1	0	19.03
					1	12	19.05
					1	24	19.02
					12	0	18.01
					12	6	18.03
					12	11	18.02
					25	0	18.02
				QPSK	1	0	20.05
					1	12	20.02
					1	24	20.01
					12	0	19.02
					12	6	19.05
					12	11	19.02
					25	0	18.31
				16-QAM	1	0	19.01
					1	12	19.02
					1	24	19.05
					12	0	18.07
					12	6	18.06
					12	11	18.02
					25	0	18.01



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Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 12	10MHz	L 23060	704	QPSK	1	0	22.48
					1	24	22.66
					1	49	22.43
					25	0	21.70
					25	12	21.71
					25	24	21.70
					50	0	20.77
				16-QAM	1	0	21.89
					1	24	21.95
					1	49	21.81
					25	0	20.73
					25	12	20.71
					25	24	20.77
					50	0	20.76
		M 23095	707.5	QPSK	1	0	22.53
					1	24	22.62
					1	49	22.55
					25	0	21.82
					25	12	21.79
					25	24	21.80
					50	0	20.73
				16-QAM	1	0	21.60
					1	24	21.67
					1	49	21.43
					25	0	20.62
					25	12	20.58
					25	24	20.57
					50	0	20.64
		H 23130	711	QPSK	1	0	22.68
					1	24	22.73
					1	49	22.60
					25	0	21.66
					25	12	21.53
					25	24	21.84
					50	0	20.88
				16-QAM	1	0	21.03
					1	24	21.02
					1	49	20.87
					25	0	20.75
					25	12	20.78
					25	24	20.69
					50	0	20.74



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Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 12	5MHz	L 23035	701.5	QPSK	1	0	22.43
					1	12	22.51
					1	24	22.49
					12	0	21.62
					12	6	21.68
					12	11	21.62
					25	0	20.67
		M 23095	707.5	16-QAM	1	0	21.90
					1	12	21.95
					1	24	21.90
					12	0	20.74
					12	6	20.80
					12	11	20.79
					25	0	20.78
		H 23155	713.5	QPSK	1	0	22.44
					1	12	22.50
					1	24	22.51
					12	0	21.58
					12	6	21.61
					12	11	21.60
					25	0	20.52
				16-QAM	1	0	21.60
					1	12	21.50
					1	24	21.44
					12	0	20.62
					12	6	20.57
					12	11	20.55
					25	0	20.58
				QPSK	1	0	22.41
					1	12	22.43
					1	24	22.52
					12	0	21.49
					12	6	21.51
					12	11	21.52
					25	0	20.50
				16-QAM	1	0	21.03
					1	12	21.08
					1	24	20.97
					12	0	21.04
					12	6	21.03
					12	11	21.01
					25	0	20.94



REPORT No.: SZ15050187W02

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 12	3MHz	L 23025	700.5	QPSK	1	0	22.35
					1	7	22.41
					1	14	22.40
					8	0	21.35
					8	4	21.52
					8	7	21.41
					15	0	20.38
		M 23095	707.5	16-QAM	1	0	21.02
					1	7	21.06
					1	14	21.07
					8	0	20.02
					8	4	20.02
					8	7	20.00
					15	0	20.05
		H 23165	714.5	QPSK	1	0	22.23
					1	7	22.25
					1	14	22.26
					8	0	21.28
					8	4	21.19
					8	7	21.21
					15	0	20.19
				16-QAM	1	0	21.20
					1	7	21.19
					1	14	21.21
					8	0	20.15
					8	4	20.17
					8	7	20.16
					15	0	20.11
				QPSK	1	0	22.09
					1	7	22.11
					1	14	22.15
					8	0	21.12
					8	4	21.11
					8	7	21.08
					15	0	20.09
				16-QAM	1	0	21.08
					1	7	20.88
					1	14	20.92
					8	0	20.12
					8	4	20.20
					8	7	20.11
					15	0	20.06



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Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 12	1.4MHz	L 23017	699.7	QPSK	1	0	22.33
					1	2	22.32
					1	5	22.30
					3	0	22.30
					3	1	22.22
					3	2	21.32
					6	0	20.45
				16-QAM	1	0	21.05
					1	2	21.08
					1	5	21.06
					3	0	21.02
					3	1	21.02
					3	2	21.00
					6	0	20.95
		M 23095	707.5	QPSK	1	0	22.33
					1	2	22.25
					1	5	22.26
					3	0	21.28
					3	1	21.17
					3	2	21.21
					6	0	20.29
				16-QAM	1	0	21.20
					1	2	21.19
					1	5	21.21
					3	0	21.16
					3	2	21.12
					3	5	21.13
					6	0	20.12
		H 23173	715.3	QPSK	1	0	22.09
					1	2	22.12
					1	5	22.04
					3	0	22.10
					3	1	22.06
					3	2	22.08
					6	0	20.29
				16-QAM	1	0	21.08
					1	2	20.91
					1	5	20.92
					3	0	21.02
					3	1	21.05
					3	2	21.08
					6	0	20.06



REPORT No.: SZ15050187W02

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 17	10MHz	L 23780	709	QPSK	1	0	22.89
					1	24	22.81
					1	49	22.78
					25	0	21.63
					25	12	21.65
					25	24	21.68
					50	0	20.61
				16-QAM	1	0	22.10
					1	24	21.75
					1	49	21.82
					25	0	21.01
					25	12	20.88
					25	24	20.91
					50	0	20.65
		M 23790	710	QPSK	1	0	22.75
					1	24	22.78
					1	49	22.61
					25	0	21.78
					25	12	21.79
					25	24	21.68
					50	0	20.67
				16-QAM	1	0	22.14
					1	24	22.09
					1	49	21.50
					25	0	20.46
					25	12	20.45
					25	24	20.41
					50	0	20.48
		H 23800	711	QPSK	1	0	22.72
					1	24	22.65
					1	49	22.67
					25	0	21.71
					25	12	21.72
					25	24	21.69
					50	0	20.62
				16-QAM	1	0	20.85
					1	24	21.01
					1	49	21.34
					25	0	20.22
					25	12	20.23
					25	24	20.42
					50	0	20.55



REPORT No.: SZ15050187W02

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 17	5MHz	L 23755	706.5	QPSK	1	0	22.81
					1	12	22.78
					1	24	22.68
					12	0	21.62
					12	6	21.61
					12	11	21.56
					25	0	20.62
		M 23790	710	16-QAM	1	0	22.51
					1	12	22.45
					1	24	22.19
					12	0	20.42
					12	6	20.45
					12	11	20.53
					25	0	20.57
		H 23825	713.5	QPSK	1	0	22.52
					1	12	22.42
					1	24	22.34
					12	0	21.52
					12	6	21.55
					12	11	21.60
					25	0	20.54
				16-QAM	1	0	21.34
					1	12	21.52
					1	24	21.61
					12	0	20.85
					12	6	20.83
					12	11	20.87
					25	0	20.90
				QPSK	1	0	22.55
					1	12	22.50
					1	24	22.45
					12	0	21.38
					12	6	21.42
					12	11	21.53
					25	0	20.63
				16-QAM	1	0	21.96
					1	12	21.82
					1	24	21.22
					12	0	20.26
					12	6	20.32
					12	11	20.42
					25	0	20.50



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 2

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
18607	1850.7	1.1056	1.0977	18615	1851.5	2.7214	2.7126
Channel Bandwidth: 1.4MHz				Channel Bandwidth: 3MHz			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
18607	1850.7	1.337	1.323	18615	1851.5	3.010	3.022

Channel Bandwidth: 5MHz				Channel Bandwidth: 10MHz			
Channel	Frequency (MHz)	99% Bandwidth (MHz)		Channel	Frequency (MHz)	99% Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
18625	1852.5	4.5363	4.5379	18650	1855.0	9.0008	9.0144
Channel Bandwidth: 5MHz				Channel Bandwidth: 10MHz			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
18625	1852.5	5.073	5.056	18650	1855.0	10.01	9.955

Channel Bandwidth: 15MHz				Channel Bandwidth: 20MHz			
Channel	Frequency (MHz)	99% Bandwidth (MHz)		Channel	Frequency (MHz)	99% Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
18675	1857.5	13.478	13.517	18700	1860.0	17.990	18.003
Channel Bandwidth: 15MHz				Channel Bandwidth: 20MHz			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
18675	1857.5	14.75	14.77	18700	1860.0	19.56	19.66



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
18900	1880.0	1.0981	1.1077	18900	1880.0	2.7160	2.7311
Channel Bandwidth: 1.4MHz				Channel Bandwidth: 3MHz			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
18900	1880.0	1.354	1.330	18900	1880.0	3.010	3.003

Channel Bandwidth: 5MHz				Channel Bandwidth: 10MHz			
Channel	Frequency (MHz)	99% Bandwidth (MHz)		Channel	Frequency (MHz)	99% Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
18900	1880.0	4.5216	4.5296	18900	1880.0	9.0069	9.0048
Channel Bandwidth: 5MHz				Channel Bandwidth: 10MHz			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
18900	1880.0	5.012	5.046	18900	1880.0	9.999	9.871

Channel Bandwidth: 15MHz				Channel Bandwidth: 20MHz			
Channel	Frequency (MHz)	99% Bandwidth (MHz)		Channel	Frequency (MHz)	99% Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
18900	1880.0	13.489	13.461	18900	1880.0	17.927	17.927
Channel Bandwidth: 15MHz				Channel Bandwidth: 20MHz			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
18900	1880.0	14.87	14.70	18900	1880.0	19.47	19.47

**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
19192	1909.2	1.1090	1.1081	19184	1908.4	2.7163	2.7108
Channel Bandwidth: 1.4MHz				Channel Bandwidth: 3MHz			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
19192	1909.2	1.481	1.433	19184	1908.4	3.071	3.027

Channel Bandwidth: 5MHz				Channel Bandwidth: 10MHz			
Channel	Frequency (MHz)	99% Bandwidth (MHz)		Channel	Frequency (MHz)	99% Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
19175	1907.5	4.5227	4.5413	19150	1905.0	8.9983	8.9850
Channel Bandwidth: 5MHz				Channel Bandwidth: 10MHz			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
19175	1907.5	5.054	5.077	19150	1905.0	9.931	9.989

Channel Bandwidth: 15MHz				Channel Bandwidth: 20MHz			
Channel	Frequency (MHz)	99% Bandwidth (MHz)		Channel	Frequency (MHz)	99% Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
19125	1902.5	13.478	13.468	19100	1900.0	17.997	17.983
Channel Bandwidth: 15MHz				Channel Bandwidth: 20MHz			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
19125	1902.5	14.83	14.85	19100	1900.0	19.77	19.65



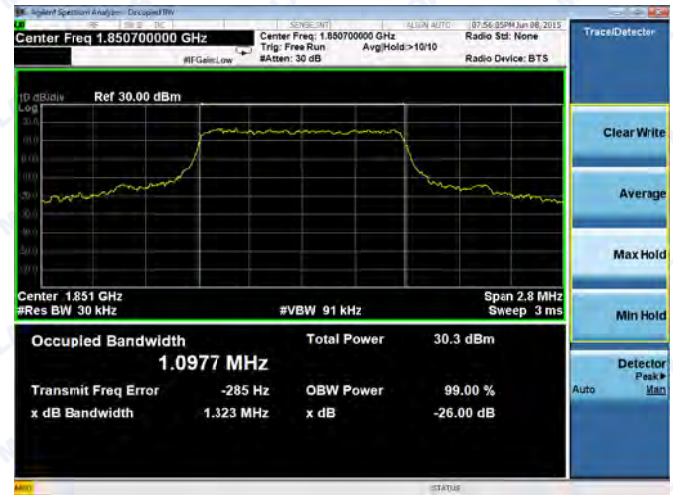
REPORT No.: SZ15050187W02

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

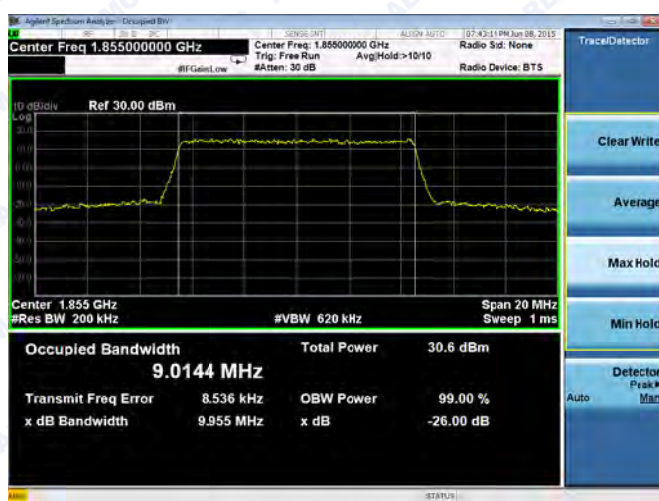


Spectrum Plot of Worst Value

10MHz/QPSK



10MHz/16QAM

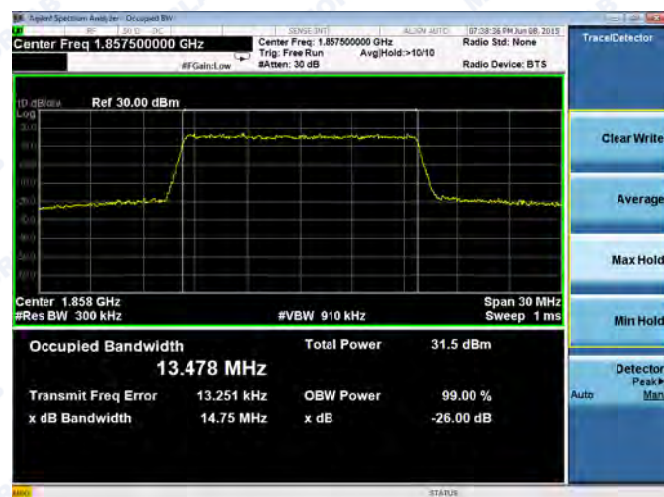




REPORT No.: SZ15050187W02

Spectrum Plot of Worst Value

15MHz/QPSK



15MHz/16QAM



Spectrum Plot of Worst Value

20MHz/QPSK



20MHz/16QAM





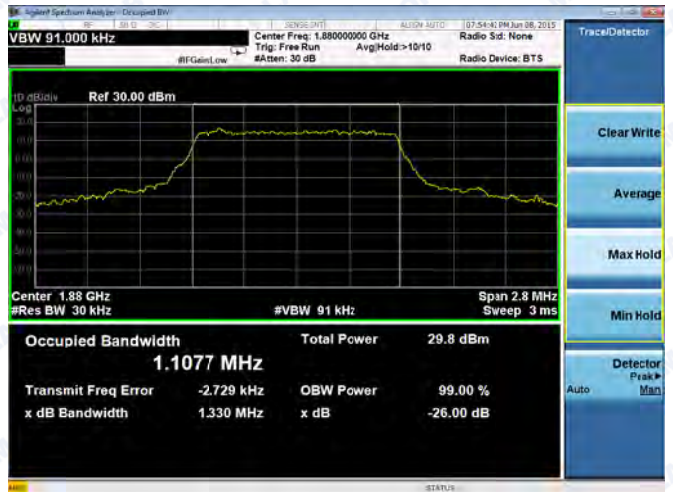
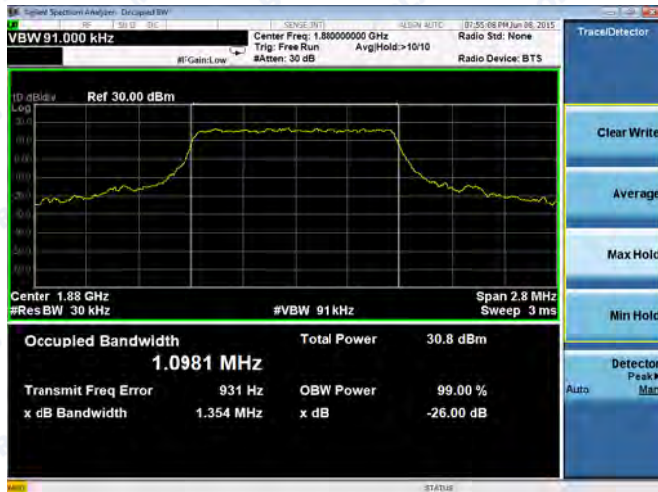
REPORT No.: SZ15050187W02

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





REPORT No.: SZ15050187W02

Spectrum Plot of Worst Value

15MHz/QPSK

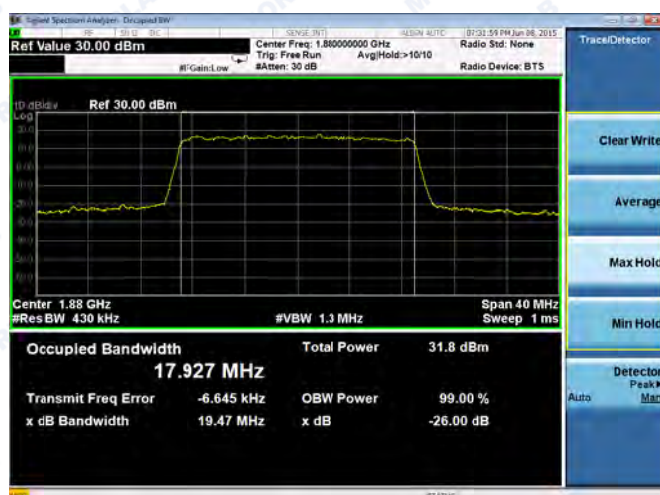


15MHz/16QAM



Spectrum Plot of Worst Value

20MHz/QPSK



20MHz/16QAM





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High channel:

Spectrum Plot of Worst Value

1.4MHz/QPSK

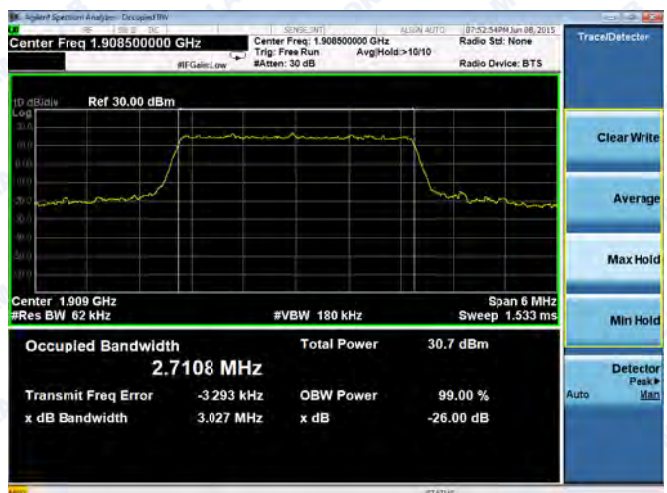
1.4MHz/16QAM



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

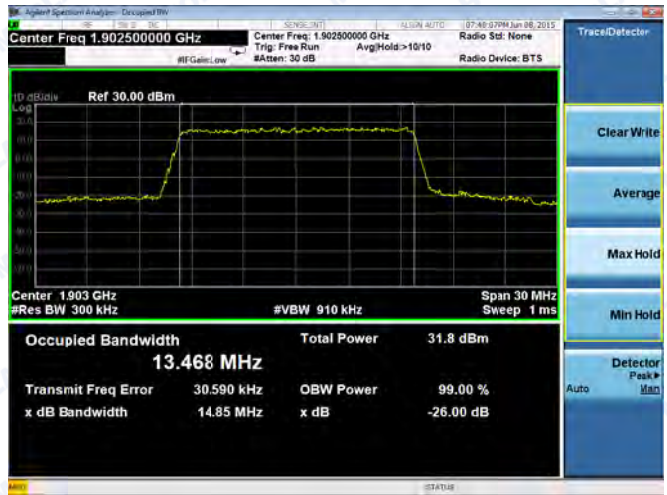
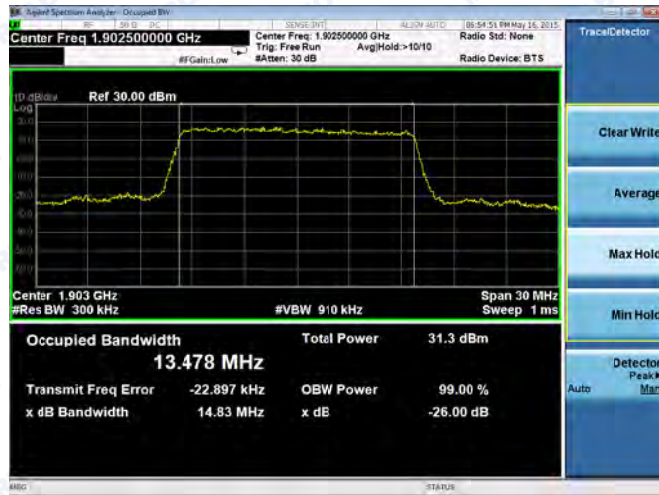




Spectrum Plot of Worst Value

15MHz/QPSK

15MHz/16QAM



Spectrum Plot of Worst Value

20MHz/QPSK

20MHz/16QAM





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	1.1013	1.0961	19965	1711.5	2.7217	2.7114
Channel Bandwidth: 1.4MHz				Channel Bandwidth: 3MHz			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
19957	1710.7	1.311	1.275	19965	1711.5	2.991	3.012

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	4.5341	4.5297	20000	1715.0	9.0073	9.0160
Channel Bandwidth: 5MHz				Channel Bandwidth: 10MHz			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
19975	1712.5	5.061	5.061	20000	1715.0	9.909	9.856

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	13.476	13.507	20050	1720.0	17.933	17.955
Channel Bandwidth: 15MHz				Channel Bandwidth: 20MHz			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
20025	1717.5	14.78	14.77	20050	1720.0	19.34	19.44



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	1.0951	1.1035	20175	1732.5	2.7173	2.7284
Channel Bandwidth: 1.4MHz				Channel Bandwidth: 3MHz			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
20175	1732.5	1.316	1.314	20175	1732.5	3.006	3.021

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	4.5218	4.5309	20175	1732.5	9.0265	9.0216
Channel Bandwidth: 5MHz				Channel Bandwidth: 10MHz			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
20175	1732.5	5.020	5.072	20175	1732.5	10.04	9.903

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	13.515	13.512	20175	1732.5	17.917	17.962
Channel Bandwidth: 15MHz				Channel Bandwidth: 20MHz			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
20175	1732.5	14.81	14.84	20175	1732.5	19.29	19.47



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	1.1053	1.1014	20384	1753.4	2.7140	2.7115
Channel Bandwidth: 1.4MHz				Channel Bandwidth: 3MHz			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
20392	1754.2	1.282	1.302	20384	1753.4	3.000	3.006

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	4.5319	4.5331	20350	1750.0	9.0169	9.0065
Channel Bandwidth: 5MHz				Channel Bandwidth: 10MHz			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
20375	1752.5	5.008	5.014	20350	1750.0	9.920	9.931

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	13.475	13.498	20300	1745.0	17.924	17.891
Channel Bandwidth: 15MHz				Channel Bandwidth: 20MHz			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
20325	1747.5	14.76	14.81	20300	1745.0	19.57	19.29



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Low channel:

Spectrum Plot of Worst Value

1.4MHz/QPSK

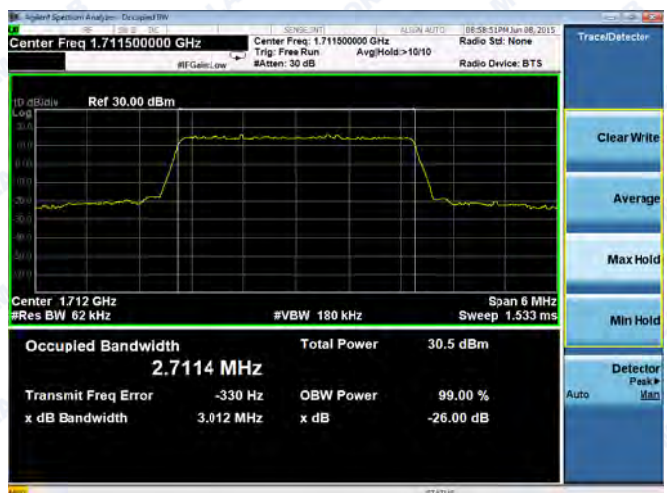
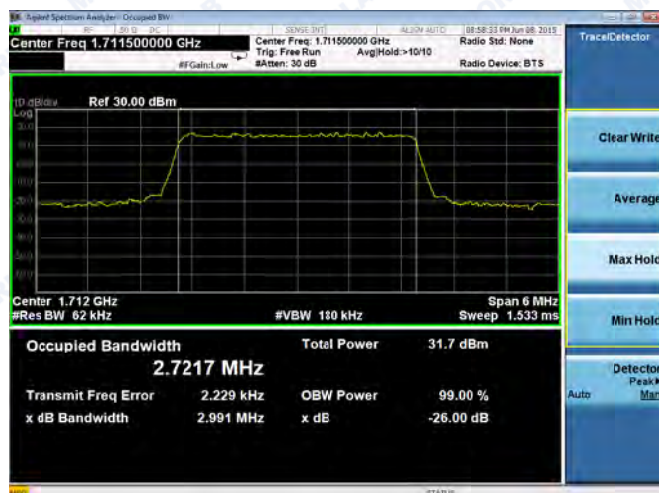
1.4MHz/16QAM



Spectrum Plot of Worst Value

3MHz/QPSK

3MHz/16QAM

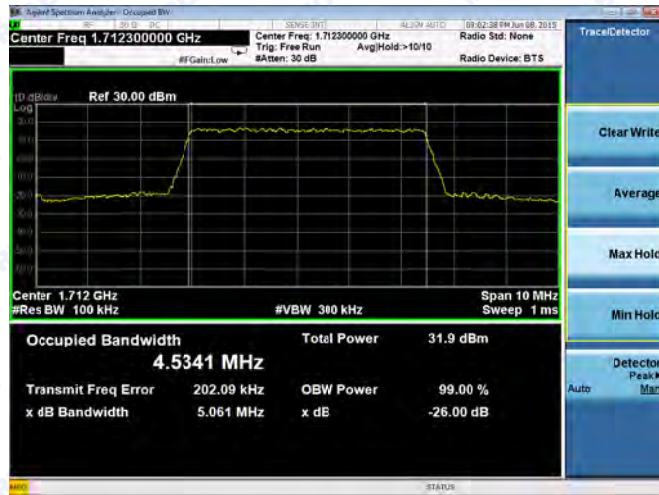




Spectrum Plot of Worst Value

5MHz/QPSK

5MHz/16QAM



Spectrum Plot of Worst Value

10MHz/QPSK

10MHz/16QAM

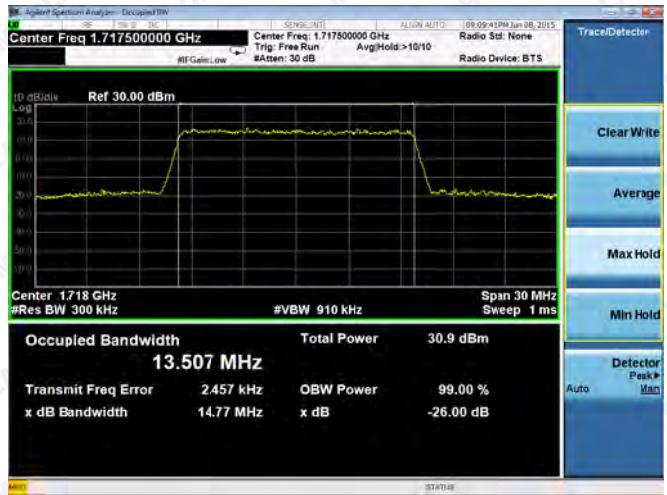
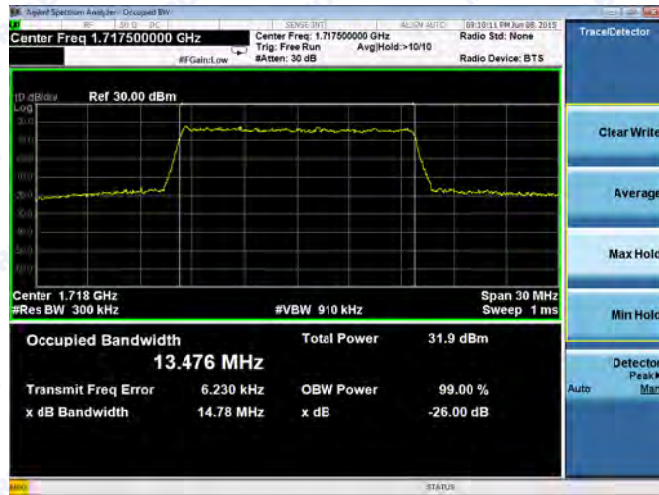




Spectrum Plot of Worst Value

15MHz/QPSK

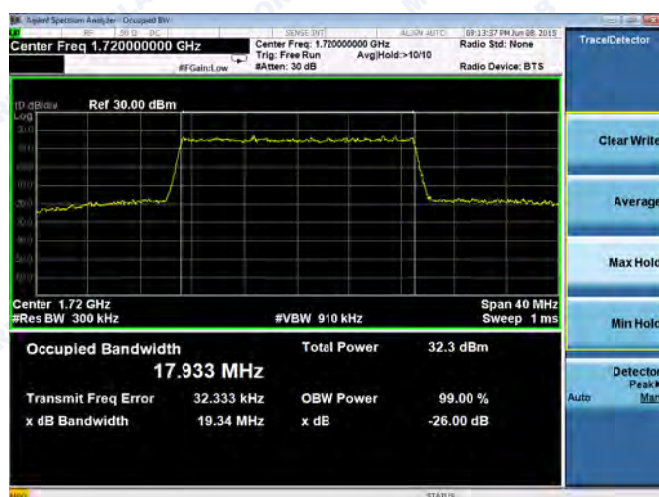
15MHz/16QAM



Spectrum Plot of Worst Value

20MHz/QPSK

20MHz/16QAM





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Middle channel:

Spectrum Plot of Worst Value

1.4MHz/QPSK

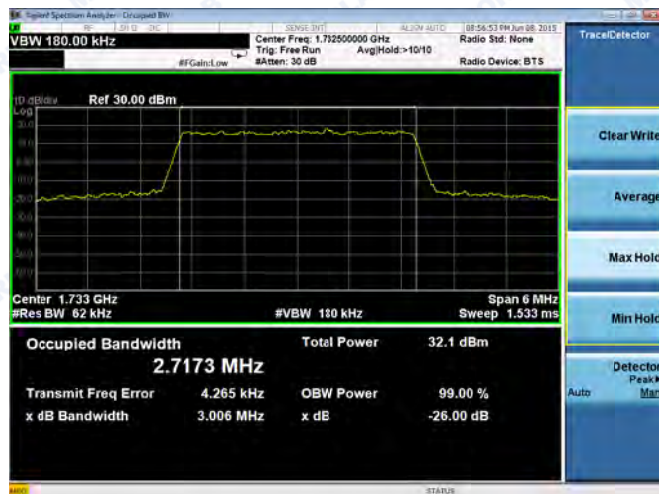
1.4MHz/16QAM



Spectrum Plot of Worst Value

3MHz/QPSK

3MHz/16QAM

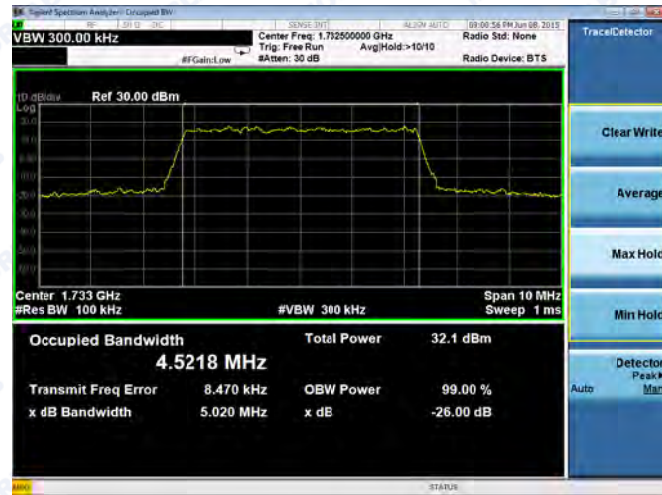




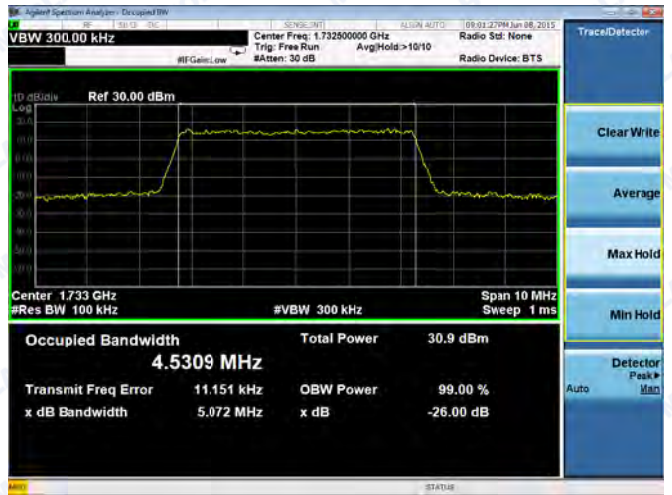
REPORT No.: SZ15050187W02

Spectrum Plot of Worst Value

5MHz/QPSK



5MHz/16QAM



Spectrum Plot of Worst Value

10MHz/QPSK



10MHz/16QAM

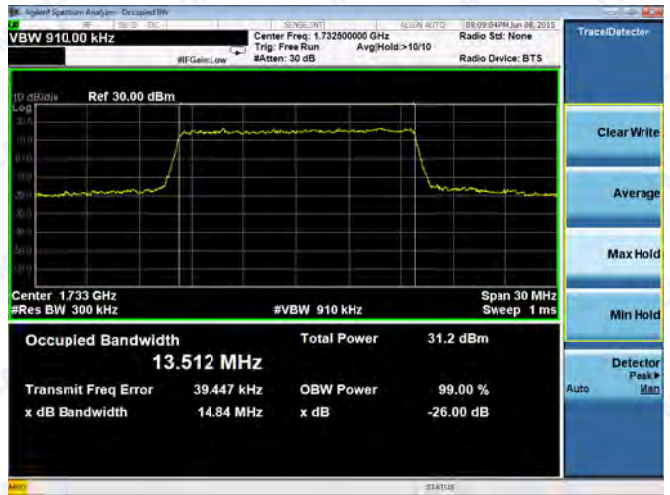
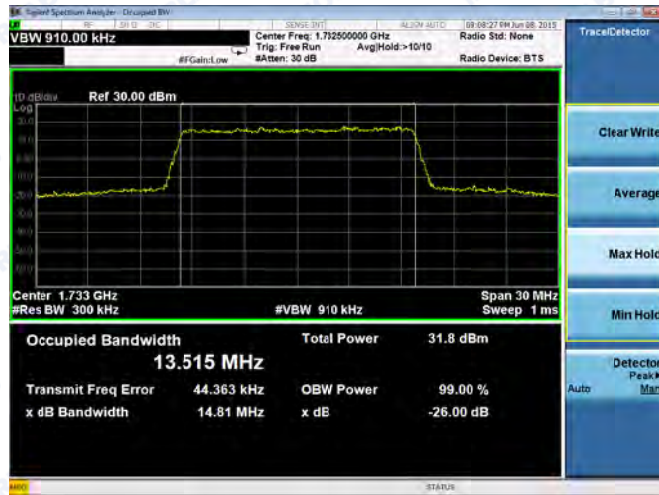




Spectrum Plot of Worst Value

15MHz/QPSK

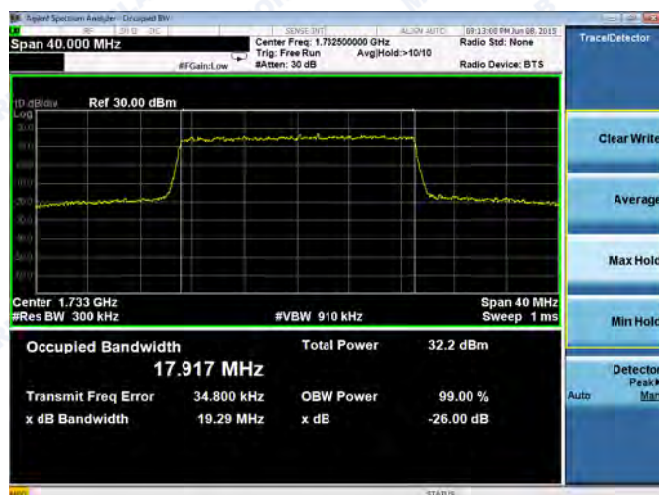
15MHz/16QAM



Spectrum Plot of Worst Value

20MHz/QPSK

20MHz/16QAM





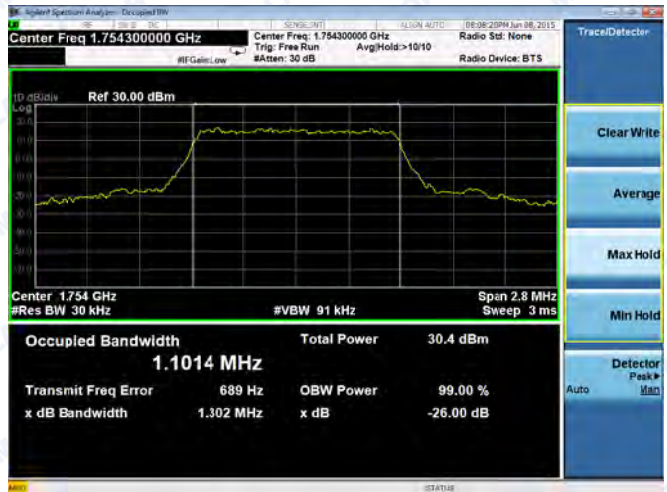
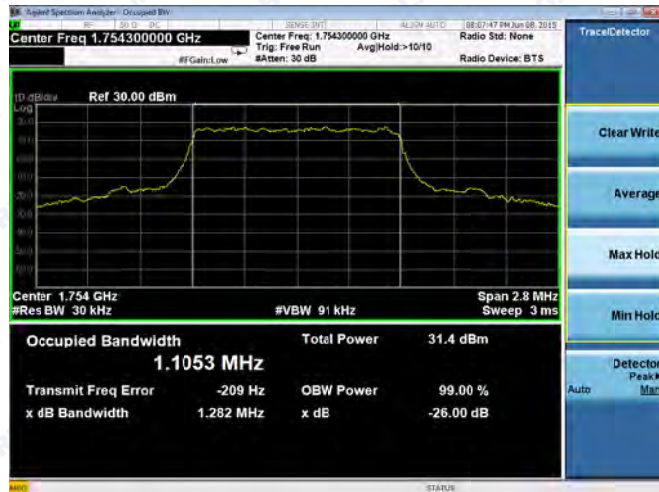
REPORT No.: SZ15050187W02

High channel:

Spectrum Plot of Worst Value

1.4MHz/QPSK

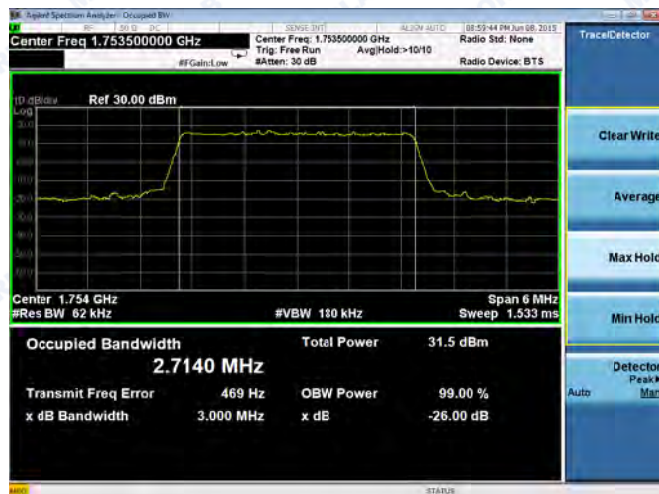
1.4MHz/16QAM



Spectrum Plot of Worst Value

3MHz/QPSK

3MHz/16QAM

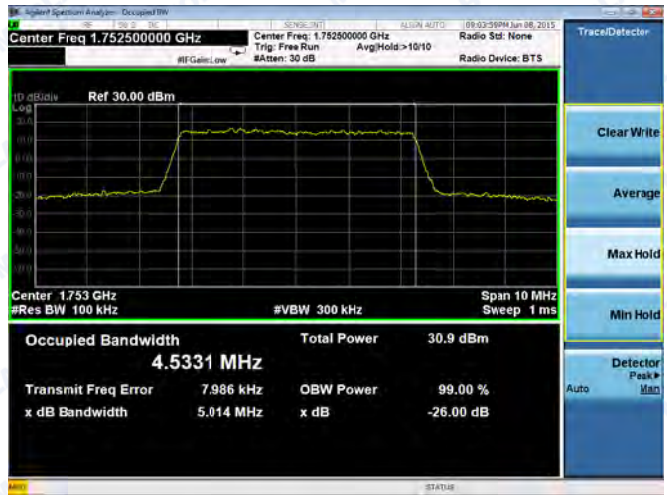
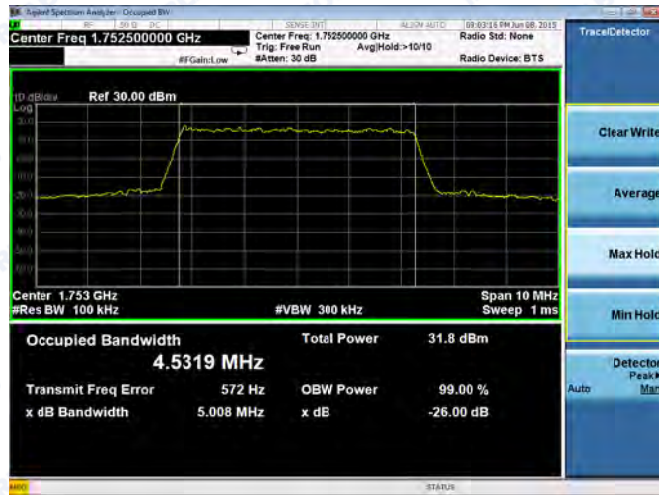




Spectrum Plot of Worst Value

5MHz/QPSK

5MHz/16QAM



Spectrum Plot of Worst Value

10MHz/QPSK

10MHz/16QAM

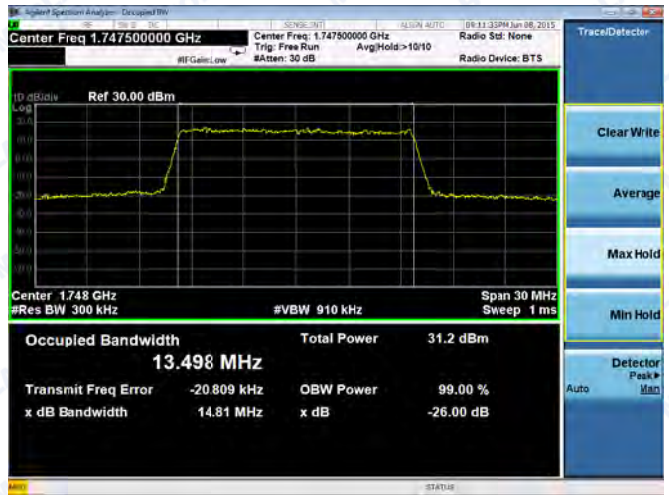
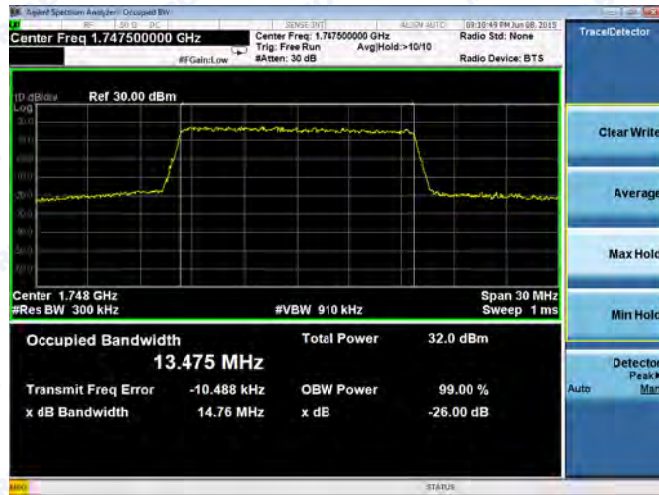




Spectrum Plot of Worst Value

15MHz/QPSK

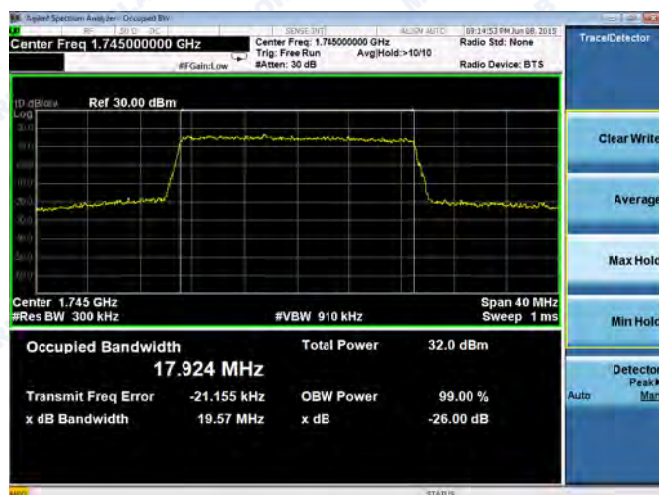
15MHz/16QAM



Spectrum Plot of Worst Value

20MHz/QPSK

20MHz/16QAM



**LTE Band 5****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
20407	824.7	1.1032	1.0963	20415	825.5	2.7186	2.7102
Channel Bandwidth: 1.4MHz				Channel Bandwidth: 3MHz			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
20407	824.7	1.307	1.277	20415	825.5	3.001	3.006

Channel Bandwidth: 5MHz				Channel Bandwidth: 10MHz			
Channel	Frequency (MHz)	99% Bandwidth (MHz)		Channel	Frequency (MHz)	99% Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
20425	826.5	4.5315	4.5327	20450	829.0	9.0004	8.9906
Channel Bandwidth: 5MHz				Channel Bandwidth: 10MHz			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
20425	826.5	5.056	5.057	20450	829.0	9.957	9.934

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
20525	836.5	1.0943	1.1026	20525	836.5	2.7172	2.7254
Channel Bandwidth: 1.4MHz				Channel Bandwidth: 3MHz			
Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
		QPSK	16QAM			QPSK	16QAM
20525	836.5	1.293	1.302	20525	836.5	3.003	3.012