



REPORT No.: SZ16030142W05

FCC RF TEST REPORT

APPLICANT : ZTE Corporation
PRODUCT NAME : LTE Mutil-Mode Digital Mobile Phone
MODEL NAME : Z861BL
TRADE NAME : ZTE
BRAND NAME : ZTE
FCC ID : SRQ-Z861BL
STANDARD(S) : 47 CFR Part 22, Subpart H
47 CFR Part 24, Subpart E
47 CFR Part 27, Subpart H&L
ISSUE DATE : 2016-05-19



SHENZHEN MORLAB COMMUNICATIONS TECHNOLOGY Co., Ltd.

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DIRECTORY

TEST REPORT DECLARATION	4
1. GENERAL INFORMATION	5
1.1 EUT DESCRIPTION	5
1.2 TEST STANDARDS AND RESULTS	7
1.3 FACILITIES AND ACCREDITATIONS	8
1.3.1 FACILITIES	8
1.3.2 TEST ENVIRONMENT CONDITIONS	8
2. 47 CFR PART 2, PART 22H & 24E & 27H&L&M REQUIREMENTS	9
2.1 TRANSMITTER CONDUCTED OUTPUT POWER	9
2.1.1 REQUIREMENT	9
2.1.2 TEST DESCRIPTION	9
2.1.3 TEST RESULTS	9
2.2 OCCUPIED BANDWIDTH	30
2.2.1 DEFINITION	30
2.2.2 TEST DESCRIPTION	30
2.2.3 TEST RESULTS	30
2.3 FREQUENCY STABILITY	70
2.3.1 REQUIREMENT	70
2.3.2 TEST DESCRIPTION	70
2.3.3 TEST VERDICT	71
2.4 PEAK TO AVERAGE RADIO	73
2.4.1 REQUIREMENT	73
2.4.2 TEST DESCRIPTION	73
2.4.3 TEST RESULT	73
2.5 CONDUCTED SPURIOUS EMISSIONS	92
2.5.1 TEST REQUIREMENT	92
2.5.2 TEST PROCEDURE	92
2.5.3 TEST RESULT	92
2.6 BAND EDGE	152
2.6.1 REQUIREMENT	152
2.6.2 TEST DESCRIPTION	152



2.6.3	TEST RESULT.....	152
2.7	TRANSMITTER RADIATED POWER (EIRP/ERP)	173
2.7.1	REQUIREMENT.....	173
2.7.2	TEST DESCRIPTION	173
2.7.3	TEST RESULT.....	174
2.8	RADIATED SPURIOUS EMISSIONS	182
2.8.1	REQUIREMENT.....	182
2.8.2	TEST DESCRIPTION	182
2.8.3	TEST RESULT.....	182

Change History		
Issue	Date	Reason for change
1.0	2016-05-19	First edition



REPORT No.: SZ16030142W05

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	LTE Mutil-Mode Digital Mobile Phone
Model Name	Z861BL
Brand Name	ZTE
HW Version	Z861BLHWV1.0
SW Version	Z861BLV0.0.0B02
Test Standards	47 CFR Part 22, Subpart H 47 CFR Part 24, Subpart E 47 CFR Part 27, Subpart H&L
Test Date	2016-04-06 to 2016-04-22
Test Result	PASS

Tested by : Yuan Ling
Yuan Ling

Reviewed by : Qiu Xiaojun
Qiu Xiaojun

Approved by : Peng Huarui
Peng Huarui



REPORT No.: SZ16030142W05

1. GENERAL INFORMATION

1.1 EUT Description

EUT Type : LTE Mutil-Mode Digital Mobile Phone
Serial No. : (n.a, marked #1 by test site)
Hardware Version..... : Z861BLHWV1.0
Software Version : Z861BLV0.0.0B02
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 12: QPSK, 16QAM
Tx Frequency Range..... : LTE Band 2: 1850MHz ~1910MHz
LTE Band 4: 1710MHz ~1755MHz
LTE Band 5: 824MHz ~ 849MHz
LTE Band 12: 699MHz ~ 716MHz
Rx Frequency Range : LTE Band 2: 1930MHz ~ 1990MHz
LTE Band 4: 2110MHz ~ 2155MHz
LTE Band 5: 869MHz ~ 894MHz
LTE Band 12: 729MHz ~ 746MHz
Emission Designator : 1M10G7D (LTE Band 2, QPSK, BW 1.4MHz)
1M10W7D (LTE Band 2, 16QAM, BW 1.4MHz)
2M72G7D (LTE Band 2, QPSK, BW 3MHz)
2M72 W7D (LTE Band 2, 16QAM, BW 3MHz)
4M53G7D (LTE Band 2, QPSK, BW 5MHz)
4M53 W7D (LTE Band 2, 16QAM, BW 5MHz)
9M00G7D (LTE Band 2, QPSK, BW 10MHz)
9M00W7D (LTE Band 2, 16QAM, BW 10MHz)
13M54G7D (LTE Band 2, QPSK, BW 15MHz)
13M50W7D (LTE Band 2, 16QAM, BW 15MHz)
18M00G7D (LTE Band 2, QPSK, BW 20MHz)
18M00W7D (LTE Band 2, 16QAM, BW 20MHz)
1M10G7D (LTE Band 4, QPSK, BW 1.4MHz)



REPORT No.: SZ16030142W05

1M11W7D (LTE Band 4, 16QAM, BW 1.4MHz)
2M72G7D (LTE Band 4, QPSK, BW 3MHz)
2M72W7D (LTE Band 4, 16QAM, BW 3MHz)
4M53G7D (LTE Band 4, QPSK, BW 5MHz)
4M53W7D (LTE Band 4, 16QAM, BW 5MHz)
9M00G7D (LTE Band 4, QPSK, BW 10MHz)
9M00W7D (LTE Band 4, 16QAM, BW 10MHz)
13M50G7D (LTE Band 4, QPSK, BW 15MHz)
13M50W7D (LTE Band 4, 16QAM, BW 15MHz)
18M00G7D (LTE Band 4, QPSK, BW 20MHz)
18M04W7D (LTE Band 4, 16QAM, BW 20MHz)
1M11G7D (LTE Band 5, QPSK, BW 1.4MHz)
1M10W7D (LTE Band 5, 16QAM, BW 1.4MHz)
2M71G7D (LTE Band 5, QPSK, BW 3MHz)
2M72W7D (LTE Band 5, 16QAM, BW 3MHz)
4M54G7D (LTE Band 5, QPSK, BW 5MHz)
4M53W7D (LTE Band 5, 16QAM, BW 5MHz)
9M00G7D (LTE Band 5, QPSK, BW 10MHz)
9M00W7D (LTE Band 5, 16QAM, BW 10MHz)
1M10G7D (LTE Band 12, QPSK, BW 1.4MHz)
1M10W7D (LTE Band 12, 16QAM, BW 1.4MHz)
2M72G7D (LTE Band 12, QPSK, BW 3MHz)
2M71W7D (LTE Band 12, 16QAM, BW 3MHz)
4M53G7D (LTE Band 12, QPSK, BW 5MHz)
4M53W7D (LTE Band 12, 16QAM, BW 5MHz)
9M01G7D (LTE Band 12, QPSK, BW 10MHz)
9M00W7D (LTE Band 12, 16QAM, BW 10MHz)

Antenna Type : PIFA Antenna

Power Supply : 3.8V DC Power

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REPORT No.: SZ16030142W05

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 Radio	<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 & 27H&L REQUIREMENTS

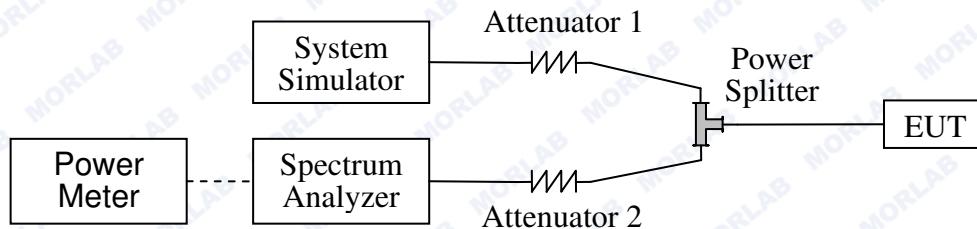
2.1 Transmitter Conducted Output Power

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	2016.03.02	2017.03.01
Spectrum Analyzer	Rohde& Schwarz	FSL	10246	2016.03.02	2017.03.01
Spectrum Analyzer	Agilent	E4445A	MY44200685	2016.03.02	2017.03.01
Power Meter	Agilent	E4418B	GB43318055	2016.03.02	2017.03.01
Power Meter	Agilent	E4418B	GB43318055	2016.03.02	2017.03.01
Power Sensor	Agilent	8482A	MY41091706	2016.03.02	2017.03.01
Power Splitter	Weinschel	1506A	NW521	2016.03.02	2017.03.01
Attenuator 1	Resnet	20dB	(n.a.)	2016.03.02	2017.03.01
Attenuator 2	Resnet	3dB	(n.a.)	2016.03.02	2017.03.01

2.1.3 Test Results



Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)	
					RB Size	RB Offset		
LTE Band 2	20MHz	L	1860	QPSK	1	0	22.45	
					1	49	22.24	
					1	99	22.20	
					50	0	21.28	
					50	25	21.12	
					50	49	21.14	
					100	0	21.26	
				16-QAM	1	0	21.78	
		M	1880		1	49	21.19	
					1	99	21.64	
					50	0	21.52	
					50	25	21.34	
					50	49	21.12	
					100	0	20.06	
					1	0	22.03	
LTE Band 2	20MHz	18900	1880	QPSK	1	49	22.63	
					1	99	22.44	
					50	0	21.28	
					50	25	21.24	
					50	49	21.22	
					100	0	21.25	
		18900	1880	16-QAM	1	0	21.38	
					1	49	21.67	
LTE Band 2	20MHz	H	1900	QPSK	1	99	21.06	
					50	0	21.33	
					50	25	21.04	
					50	49	21.12	
					100	0	20.11	
					1	0	22.41	
					1	49	22.58	
					1	99	22.73	
LTE Band 2	20MHz	19100	1900	16-QAM	50	0	21.44	
					50	25	21.28	
					50	49	21.31	
					100	0	21.37	
					1	0	21.23	
					1	49	21.47	
					1	99	21.97	
					50	0	21.67	



REPORT No.: SZ16030142W05

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE	15MHz	L	1857.5	QPSK	1	0	22.02
					1	37	22.11
					1	74	22.32
					36	0	21.89
					36	18	21.67
					36	35	21.51
					75	0	21.26
		M	1880	16-QAM	1	0	21.16
					1	37	21.05
					1	74	21.14
					36	0	21.09
					36	18	21.01
					36	35	21.07
					75	0	20.96
Band 2	15MHz	18900	18900	QPSK	1	0	21.66
					1	37	21.78
					1	74	21.59
					36	0	21.48
					36	18	21.63
					36	35	21.02
					75	0	21.03
		19025	19025	16-QAM	1	0	21.46
					1	37	21.89
					1	74	21.78
					36	0	21.63
					36	18	21.49
					36	35	21.36
					75	0	21.48
		H	19125	QPSK	1	0	21.77
					1	37	21.89
					1	74	21.54
					36	0	21.59
					36	18	21.45
					36	35	21.63
					75	0	21.25
		16-QAM	16-QAM	16-QAM	1	0	21.89
					1	37	21.48
					1	74	21.57
					36	0	21.69
					36	18	21.61
					36	35	21.42
					75	0	21.23



Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 2	10MHz	L	1855 18650	QPSK	1	0	22.38
					1	24	22.43
					1	49	22.12
					25	0	21.35
					25	12	21.23
					25	24	21.15
					50	0	21.24
					1	0	22.24
		M	1880 18900	16-QAM	1	24	21.98
					1	49	21.53
					25	0	21.69
					25	12	21.63
					25	24	21.34
					50	0	20.08
					1	0	22.25
					1	24	22.24
		H	1905 19150	QPSK	1	49	22.26
					25	0	21.32
					25	12	21.35
					25	24	21.36
					50	0	21.36
					1	0	21.66
					1	24	21.34
					1	49	21.37
		16-QAM	1905 19150	QPSK	25	0	21.39
					25	12	21.46
					25	24	21.37
					50	0	20.25
					1	0	22.39
					1	24	22.66
					1	49	22.47
					25	0	21.23
		16-QAM	19150	QPSK	25	12	21.33
					25	24	21.57
					50	0	21.36
					1	0	21.40
					1	24	21.38
					1	49	21.57
					25	0	21.48
					25	12	21.36
		16-QAM	19150	QPSK	25	24	21.21
					50	0	20.34



REPORT No.: SZ16030142W05

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE	5MHz	L	1852.5	QPSK	1	0	21.66
					1	12	21.79
					1	24	21.54
					12	0	21.13
					12	6	21.26
					12	11	21.24
					25	0	21.05
		M	1880	16-QAM	1	0	22.56
					1	12	22.45
					1	24	22.39
					12	0	22.58
					12	6	21.96
					12	11	21.85
					25	0	21.75
Band 2	5MHz	18900	18900	QPSK	1	0	21.89
					1	12	21.65
					1	24	21.48
					12	0	21.43
					12	6	21.25
					12	11	21.26
					25	0	21.12
		1907.5	1907.5	16-QAM	1	0	22.01
					1	12	21.89
					1	24	21.57
					12	0	21.78
					12	6	21.76
					12	11	21.63
					25	0	21.43
H	5MHz	H	1907.5	QPSK	1	0	21.56
					1	12	21.48
					1	24	21.59
					12	0	21.43
					12	6	21.35
					12	11	21.22
					25	0	21.04
		19175	19175	16-QAM	1	0	21.36
					1	12	21.58
					1	24	21.49
					12	0	21.23
					12	6	21.25
					12	11	21.29
					25	0	20.88



Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE	3MHz	L	1851.5	QPSK	1	0	22.24
					1	7	22.36
					1	14	22.41
					8	0	21.20
					8	4	21.23
					8	7	21.29
					15	0	21.22
		M	1880	16-QAM	1	0	22.24
					1	7	22.28
					1	14	22.23
					8	0	21.88
					8	4	21.59
					8	7	21.46
					15	0	20.15
Band 2	3MHz	18900	18900	QPSK	1	0	22.27
					1	7	22.40
					1	14	22.41
					8	0	21.31
					8	4	21.36
					8	7	21.37
					15	0	21.39
		19185	1908.5	16-QAM	1	0	21.32
					1	7	21.06
					1	14	21.01
					8	0	21.05
					8	4	21.11
					8	7	21.03
					15	0	20.25
		H	1908.5	QPSK	1	0	22.50
					1	7	22.49
					1	14	22.45
					8	0	21.48
					8	4	21.59
					8	7	21.50
					15	0	21.49
		19185	1908.5	16-QAM	1	0	21.42
					1	7	21.48
					1	14	21.46
					8	0	21.56
					8	4	21.43
					8	7	21.37
					15	0	20.26



REPORT No.: SZ16030142W05

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE	1.4MHz	L	1850.7	QPSK	1	0	22.10
					1	2	22.23
					1	5	22.32
					3	0	22.40
					3	1	22.21
					3	2	21.13
					6	0	22.25
		M	1880	16-QAM	1	0	21.34
					1	2	21.40
					1	5	21.36
					3	0	21.37
					3	1	21.26
					3	2	21.02
					6	0	20.17
Band 2	1.4MHz	18900	18900	QPSK	1	0	22.19
					1	2	22.26
					1	5	22.19
					3	0	22.38
					3	1	22.39
					3	2	21.46
					6	0	21.34
		H	1909.3	16-QAM	1	0	21.28
					1	2	21.17
					1	5	21.20
					3	0	21.15
					3	2	21.13
					3	5	21.02
					6	0	20.21
		19193	1909.3	QPSK	1	0	22.30
					1	2	22.68
					1	5	22.61
					3	0	22.54
					3	1	22.44
					3	2	22.47
					6	0	21.62
		19193	1909.3	16-QAM	1	0	21.53
					1	2	21.71
					1	5	21.58
					3	0	21.63
					3	1	21.67
					3	2	21.32
					6	0	20.71



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	22.26	
					1	49	22.17	
					1	99	22.43	
					50	0	21.33	
					50	25	21.36	
					50	49	21.26	
					100	0	21.28	
				16-QAM	1	0	21.81	
		M 20175	1732.5		1	49	21.51	
					1	99	21.44	
					50	0	21.59	
					50	25	21.36	
					50	49	21.37	
					100	0	20.28	
			QPSK	1	0	22.46		
		H 20300		1745.0		1	49	22.54
						1	99	22.35
						50	0	21.27
						50	25	21.24
						50	49	21.19
						100	0	21.32
			16-QAM	1	0	21.31		
				1	49	21.35		
		QPSK		1745.0		1	99	20.98
						50	0	20.69
						50	25	20.78
						50	49	20.53
						100	0	20.27
			16-QAM	1	0	22.40		
				1	49	22.23		
				1	99	22.17		
				50	0	21.49		
		H 20300		1745.0		50	25	21.51
						50	49	21.22
						100	0	21.37
						1	0	21.37
		QPSK		1745.0		1	49	21.14
						1	99	20.73
						50	0	20.49
						50	25	20.43
			16-QAM	50	49	20.19		
				100	0	20.14		
				1	0	20.14		
				1	49	20.14		



REPORT No.: SZ16030142W05

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE	15MHz	L	1717.5	QPSK	1	0	22.36
					1	37	22.25
					1	74	22.49
					36	0	21.45
					36	18	21.58
					36	35	21.63
					75	0	21.24
		M	1732.5	16-QAM	1	0	21.85
					1	37	21.34
					1	74	21.58
					36	0	21.66
					36	18	21.43
					36	35	21.37
					75	0	20.31
Band 4	15MHz	H	1747.5	QPSK	1	0	22.58
					1	37	22.67
					1	74	22.41
					36	0	21.34
					36	18	21.69
					36	35	21.52
					75	0	21.31
		20175	1747.5	16-QAM	1	0	21.45
					1	37	21.60
					1	74	20.99
					36	0	20.78
					36	18	20.51
					36	35	20.38
					75	0	20.14
				QPSK	1	0	22.58
					1	37	22.33
					1	74	22.21
					36	0	21.59
					36	18	21.46
					36	35	21.38
					75	0	21.21
				16-QAM	1	0	21.37
					1	37	21.20
					1	74	20.88
					36	0	20.59
					36	18	20.54
					36	35	20.26
					75	0	20.21



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	22.47
					1	24	22.26
					1	49	22.01
					25	0	21.25
					25	12	21.30
					25	24	21.21
					50	0	21.25
					1	0	21.70
		M 20175	1732.5	16-QAM	1	24	21.63
					1	49	21.25
					25	0	21.16
					25	12	21.11
					25	24	21.03
					50	0	20.21
					1	0	22.19
					1	24	22.38
		H 20350	1750.0	QPSK	1	49	22.34
					25	0	21.34
					25	12	21.19
					25	24	21.13
					50	0	21.26
					1	0	21.45
					1	24	21.23
					1	49	21.12
		16-QAM	QPSK	16-QAM	25	0	21.16
					25	12	21.34
					25	24	21.35
					50	0	20.24
					1	0	22.01
					1	24	22.05
					1	49	22.00
					25	0	21.14
		16-QAM	QPSK	16-QAM	25	12	21.11
					25	24	21.13
					50	0	21.16
					1	0	21.25
					1	24	21.19
					1	49	21.01
					25	0	21.05
					25	12	21.13
		16-QAM	QPSK	16-QAM	25	24	21.09
					50	0	21.01



REPORT No.: SZ16030142W05

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	22.47
					1	12	22.51
					1	24	22.31
					12	0	21.69
					12	6	21.87
					12	11	21.56
					25	0	21.23
		M 20175	1732.5	16-QAM	1	0	21.67
					1	12	21.78
					1	24	21.89
					12	0	21.85
					12	6	21.53
					12	11	21.50
					25	0	21.43
		H 20375	1752.5	QPSK	1	0	21.78
					1	12	21.63
					1	24	21.59
					12	0	21.61
					12	6	21.64
					12	11	21.55
					25	0	21.41
		16-QAM	16-QAM	16-QAM	1	0	21.36
					1	12	21.44
					1	24	21.39
					12	0	21.35
					12	6	21.12
					12	11	21.14
					25	0	21.18
		QPSK	QPSK	QPSK	1	0	22.19
					1	12	22.10
					1	24	22.14
					12	0	22.05
					12	6	21.96
					12	11	21.97
					25	0	21.85
		16-QAM	16-QAM	16-QAM	1	0	21.66
					1	12	21.45
					1	24	21.58
					12	0	21.87
					12	6	21.63
					12	11	21.39
					25	0	21.43



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	22.46	
					1	7	22.32	
					1	14	21.81	
					8	0	21.34	
					8	4	21.33	
					8	7	21.09	
					15	0	21.32	
				16-QAM	1	0	21.77	
		M 20175	1732.5		1	7	21.97	
					1	14	21.96	
					8	0	21.84	
					8	4	21.76	
					8	7	21.55	
					15	0	20.48	
					1	0	22.34	
		H 20385	1753.5	QPSK	1	7	22.19	
					1	14	22.32	
					8	0	21.28	
					8	4	21.23	
					8	7	21.22	
					15	0	21.29	
				16-QAM	1	0	21.24	
					1	7	21.23	
		H 20385	1753.5		1	14	21.04	
					8	0	21.06	
					8	4	21.11	
					8	7	21.13	
					15	0	20.42	
					1	0	22.08	
					1	7	22.19	
					1	14	22.15	
		QPSK	1753.5	16-QAM	8	0	21.24	
					8	4	21.28	
					8	7	21.09	
					15	0	21.17	
					1	0	21.27	
					1	7	21.05	
					1	14	20.81	
					8	0	20.56	
		16-QAM	1753.5	16-QAM	8	4	21.03	
					8	7	21.10	
					15	0	21.01	



REPORT No.: SZ16030142W05

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE	1.4MHz	L	1710.7 19957	QPSK	1	0	22.47
					1	2	22.46
					1	5	22.37
					3	0	22.49
					3	1	22.31
					3	2	22.14
					6	0	22.30
		M	1732.5 20175	16-QAM	1	0	21.97
					1	2	22.01
					1	5	21.98
					3	0	21.78
					3	1	21.85
					3	2	21.63
					6	0	20.72
Band 4	1.4MHz	H	1754.3 20393	QPSK	1	0	22.33
					1	2	22.27
					1	5	22.27
					3	0	22.31
					3	1	22.30
					3	2	22.36
					6	0	21.31
		16-QAM	16-QAM	16-QAM	1	0	21.42
					1	2	21.47
					1	5	21.36
					3	0	21.53
					3	2	21.46
					3	5	21.22
					6	0	20.42
		QPSK	QPSK	QPSK	1	0	22.09
					1	2	22.27
					1	5	22.16
					3	0	22.12
					3	1	22.16
					3	2	22.18
					6	0	21.16
		16-QAM	16-QAM	16-QAM	1	0	21.19
					1	2	21.29
					1	5	21.20
					3	0	21.21
					3	1	21.24
					3	2	21.23
					6	0	20.33



REPORT No.: SZ16030142W05

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE	Band 5	L	829	QPSK	1	0	22.48
					1	24	22.41
					1	49	22.26
					25	0	21.44
					25	12	21.56
					25	24	21.48
					50	0	21.66
		M	836.5	16-QAM	1	0	21.49
					1	24	21.59
					1	49	21.54
					25	0	21.34
					25	12	21.51
					25	24	21.43
					50	0	20.60
		H	844	QPSK	1	0	22.43
					1	24	22.33
					1	49	22.48
					25	0	21.61
					25	12	21.36
					25	24	21.37
					50	0	21.35
		20525	20600	16-QAM	1	0	21.95
					1	24	21.48
					1	49	21.40
					25	0	21.48
					25	12	21.36
					25	24	21.21
					50	0	20.44
		L	20450	QPSK	1	0	22.41
					1	24	22.55
					1	49	22.39
					25	0	21.44
					25	12	21.38
					25	24	21.25
					50	0	21.43
		M	836.5	16-QAM	1	0	21.37
					1	24	21.74
					1	49	21.33
					25	0	21.36
					25	12	21.34
					25	24	21.30
					50	0	20.41



REPORT No.: SZ16030142W05

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE	Band 5	L	826.5	QPSK	1	0	22.48
					1	12	22.43
					1	24	22.45
					12	0	22.36
					12	6	22.21
					12	11	22.31
					25	0	22.12
		M	836.5	16-QAM	1	0	21.58
					1	12	21.69
					1	24	21.57
					12	0	21.43
					12	6	21.36
					12	11	21.31
					25	0	21.20
		H	846.5	QPSK	1	0	22.34
					1	12	22.12
					1	24	22.24
					12	0	22.25
					12	6	22.11
					12	11	22.13
					25	0	21.69
		20525	16-QAM	16-QAM	1	0	21.35
					1	12	21.48
					1	24	21.41
					12	0	21.36
					12	6	21.37
					12	11	21.23
					25	0	21.10
		20625	846.5	QPSK	1	0	22.49
					1	12	22.36
					1	24	22.31
					12	0	22.21
					12	6	22.23
					12	11	22.16
					25	0	21.69
		16-QAM	16-QAM	16-QAM	1	0	21.34
					1	12	21.56
					1	24	21.46
					12	0	21.43
					12	6	21.37
					12	11	21.35
					25	0	21.12



Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE	Band 5	L	825.5	QPSK	1	0	22.21
					1	7	22.36
					1	14	22.12
					8	0	22.13
					8	4	22.01
					8	7	21.99
					15	0	21.85
		M	836.5	16-QAM	1	0	21.76
					1	7	21.71
					1	14	21.53
					8	0	21.64
					8	4	21.68
					8	7	21.63
					15	0	21.21
		H	847.5	QPSK	1	0	22.34
					1	7	22.36
					1	14	22.38
					8	0	22.23
					8	4	22.21
					8	7	22.19
					15	0	21.89
		20525	20635	16-QAM	1	0	21.75
					1	7	21.79
					1	14	21.69
					8	0	21.53
					8	4	21.34
					8	7	21.31
					15	0	21.20
		20635	20635	QPSK	1	0	21.63
					1	7	21.58
					1	14	21.64
					8	0	21.36
					8	4	21.34
					8	7	21.23
					15	0	21.25
		20635	20635	16-QAM	1	0	21.16
					1	7	21.24
					1	14	21.19
					8	0	21.05
					8	4	21.03
					8	7	21.05
					15	0	21.01



REPORT No.: SZ16030142W05

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE	Band 5	L	824.7	QPSK	1	0	22.30
					1	2	22.29
					1	5	22.29
					3	0	22.33
					3	1	22.23
					3	2	22.19
					6	0	21.33
		M	836.5	16-QAM	1	0	21.45
					1	2	21.53
					1	5	21.34
					3	0	21.25
					3	1	21.13
					3	2	21.17
					6	0	20.51
		H	848.3	QPSK	1	0	22.37
					1	2	22.44
					1	5	22.37
					3	0	22.30
					3	1	22.34
					3	2	22.26
					6	0	21.40
		20525	16-QAM	16-QAM	1	0	21.53
					1	2	21.60
					1	5	21.41
					3	0	21.36
					3	2	21.49
					3	5	21.53
					6	0	20.72
		20643	848.3	QPSK	1	0	22.26
					1	2	22.38
					1	5	22.02
					3	0	22.40
					3	1	22.31
					3	2	22.32
					6	0	22.52
		20643	16-QAM	16-QAM	1	0	22.13
					1	2	22.09
					1	5	21.99
					3	0	21.68
					3	1	21.57
					3	2	21.43
					6	0	20.69



Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE	10MHz	L 23060	704	QPSK	1	0	22.32
					1	24	22.41
					1	49	22.42
					25	0	21.45
					25	12	21.41
					25	24	21.47
					50	0	21.36
		M 23095	707.5	16-QAM	1	0	21.65
					1	24	22.12
					1	49	22.29
					25	0	21.96
					25	12	21.89
					25	24	21.76
					50	0	20.50
Band 12	10MHz	H 23130	711	QPSK	1	0	22.50
					1	24	22.51
					1	49	22.38
					25	0	21.51
					25	12	21.44
					25	24	21.36
					50	0	21.43
		16-QAM	16-QAM	16-QAM	1	0	21.47
					1	24	21.54
					1	49	21.63
					25	0	21.58
					25	12	21.36
					25	24	21.43
					50	0	20.41
		QPSK	QPSK	QPSK	1	0	22.48
					1	24	22.81
					1	49	22.42
					25	0	21.54
					25	12	21.51
					25	24	21.47
					50	0	21.45
		16-QAM	16-QAM	16-QAM	1	0	21.65
					1	24	21.46
					1	49	21.40
					25	0	21.34
					25	12	21.31
					25	24	21.23
					50	0	20.53



REPORT No.: SZ16030142W05

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE	5MHz	L 23035	701.5	QPSK	1	0	22.41
					1	12	22.34
					1	24	22.22
					12	0	21.92
					12	6	21.86
					12	11	21.54
					25	0	20.61
		M 23095	707.5	16-QAM	1	0	21.95
					1	12	21.96
					1	24	21.91
					12	0	20.87
					12	6	20.74
					12	11	20.51
					25	0	20.21
Band 12	5MHz	H 23155	713.5	QPSK	1	0	22.36
					1	12	22.25
					1	24	22.15
					12	0	21.85
					12	6	21.21
					12	11	21.56
					25	0	20.44
		16-QAM	16-QAM	16-QAM	1	0	21.54
					1	12	21.57
					1	24	21.44
					12	0	21.23
					12	6	21.29
					12	11	20.69
					25	0	20.58
		QPSK	QPSK	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	16-QAM	16-QAM	1	0	21.23
					1	12	21.25
					1	24	21.34
					12	0	21.54
					12	6	21.12
					12	11	21.27
					25	0	21.05



Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE	3MHz	L 23025	700.5	QPSK	1	0	22.64
					1	7	22.56
					1	14	22.23
					8	0	22.34
					8	4	22.08
					8	7	22.12
					15	0	22.01
		M 23095	707.5	16-QAM	1	0	21.56
					1	7	21.36
					1	14	21.48
					8	0	21.57
					8	4	21.69
					8	7	21.32
					15	0	21.23
Band 12	3MHz	H 23165	714.5	QPSK	1	0	22.34
					1	7	22.36
					1	14	22.31
					8	0	22.12
					8	4	22.28
					8	7	22.27
					15	0	21.96
		16-QAM	16-QAM	16-QAM	1	0	21.12
					1	7	21.36
					1	14	21.34
					8	0	21.23
					8	4	20.85
					8	7	20.57
					15	0	20.67
		QPSK	QPSK	QPSK	1	0	22.12
					1	7	22.03
					1	14	21.85
					8	0	21.64
					8	4	22.04
					8	7	21.69
					15	0	21.87
		16-QAM	16-QAM	16-QAM	1	0	21.53
					1	7	21.46
					1	14	21.31
					8	0	21.27
					8	4	21.36
					8	7	21.43
					15	0	21.52



Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE	1.4MHz	L 23017	699.7	QPSK	1	0	22.46
					1	2	22.60
					1	5	22.61
					3	0	22.47
					3	1	22.54
					3	2	22.60
					6	0	21.39
		M 23095	707.5	16-QAM	1	0	21.70
					1	2	21.91
					1	5	22.28
					3	0	22.36
					3	1	21.87
					3	2	21.63
					6	0	20.67
Band 12	1.4MHz	H 23173	715.3	QPSK	1	0	22.23
					1	2	22.73
					1	5	22.63
					3	0	22.62
					3	1	22.43
					3	2	22.33
					6	0	21.65
		16-QAM	715.3	16-QAM	1	0	21.33
					1	2	21.36
					1	5	21.18
					3	0	21.23
					3	2	21.10
					3	5	21.03
					6	0	21.01
		QPSK	715.3	QPSK	1	0	20.26
					1	2	22.49
					1	5	22.64
					3	0	22.52
					3	1	22.53
					3	2	22.41
					6	0	22.40
		16-QAM	715.3	16-QAM	1	0	21.55
					1	2	21.63
					1	5	21.56
					3	0	21.61
					3	1	21.52
					3	2	21.43
					6	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	1.0965	1.1001	18615	1851.5	2.7224	2.7109
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	1.294	1.289	18615	1851.5	3.004	3.028

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	4.5272	4.5322	18650	1855.0	8.9823	8.9753
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	5.055	5.027	18650	1855.0	9.803	9.820

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	13.457	13.502	18700	1860.0	17.966	17.956
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	14.55	14.65	18700	1860.0	19.51	19.62



REPORT No.: SZ16030142W05

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	1.0985	1.1042	18900	1880.0	2.7128	2.7231
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	1.301	1.305	18900	1880.0	3.001	2.986

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	4.5342	4.5293	18900	1880.0	9.0001	8.9897
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	5.029	5.040	18900	1880.0	10.010	9.906

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	13.519	13.501	18900	1880.0	17.981	17.939
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	14.69	18900	1880.0	19.48	19.49



REPORT No.: SZ16030142W05

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	1.0947	1.1033	19184	1908.4	2.7126	2.7147
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	1.293	1.295	19184	1908.4	3.009	3.019

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	4.5206	4.5203	19150	1905.0	8.9792	8.9880
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	5.001	5.029	19150	1905.0	9.892	9.926

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	13.541	13.488	19100	1900.0	17.950	18.004
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	14.88	14.75	19100	1900.0	19.53	19.69



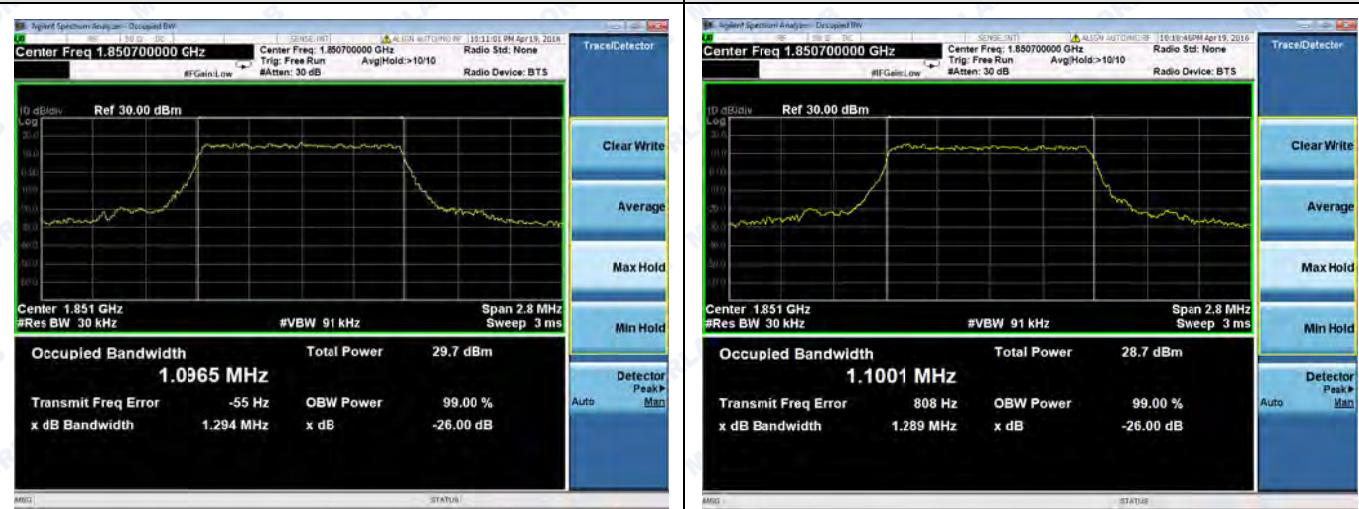
REPORT No.: SZ16030142W05

Low channel:

Spectrum Plot of Worst Value

1.4MHz/QPSK

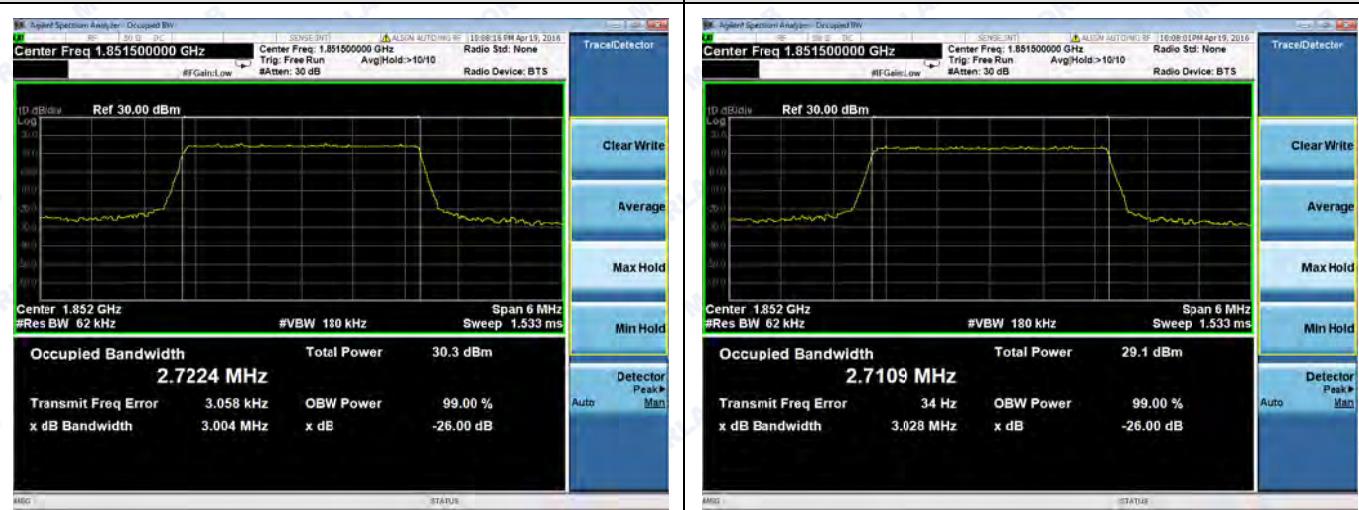
1.4MHz/16QAM



Spectrum Plot of Worst Value

3MHz/QPSK

3MHz/16QAM



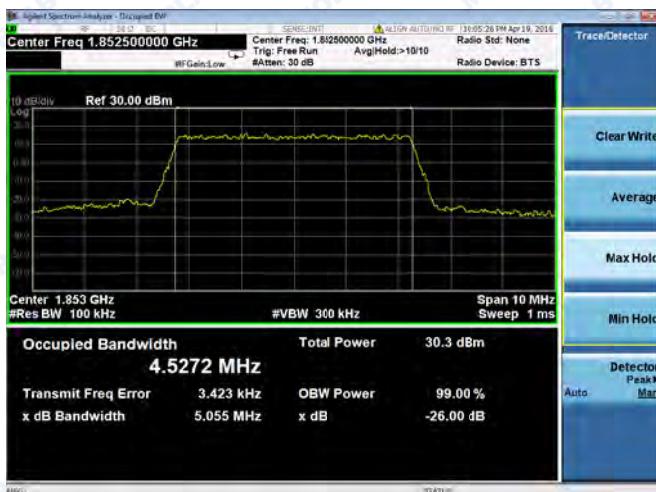


REPORT No.: SZ16030142W05

Spectrum Plot of Worst Value

5MHz/QPSK

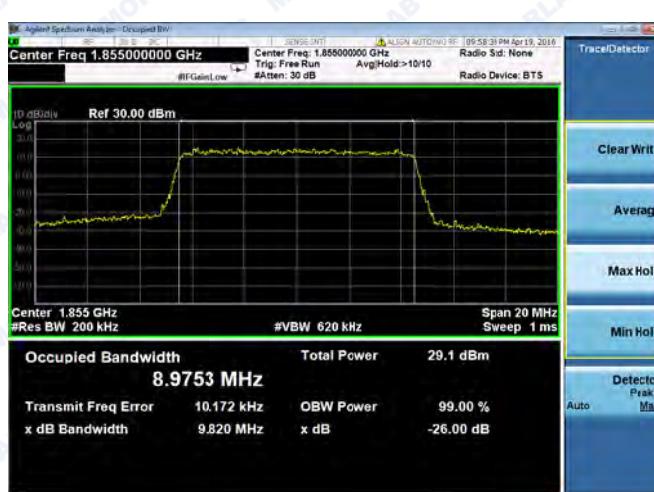
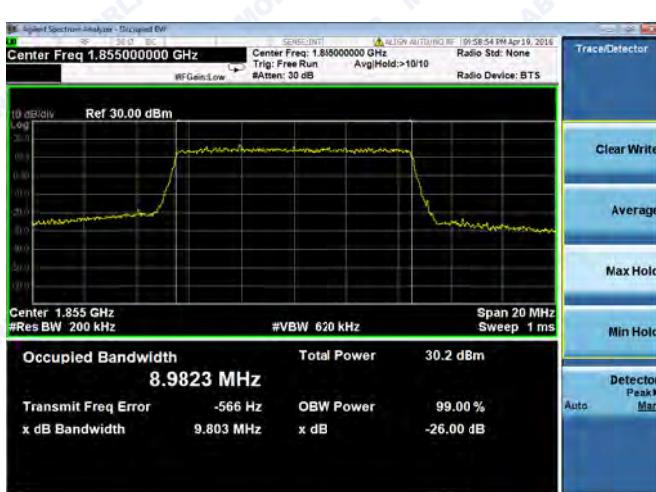
5MHz/16QAM



Spectrum Plot of Worst Value

10MHz/QPSK

10MHz/16QAM





REPORT No.: SZ16030142W05

Spectrum Plot of Worst Value

15MHz/QPSK

15MHz/16QAM



Spectrum Plot of Worst Value

20MHz/QPSK

20MHz/16QAM





REPORT No.: SZ16030142W05

Middle channel:

Spectrum Plot of Worst Value

1.4MHz/QPSK

1.4MHz/16QAM



Spectrum Plot of Worst Value

3MHz/QPSK

3MHz/16QAM



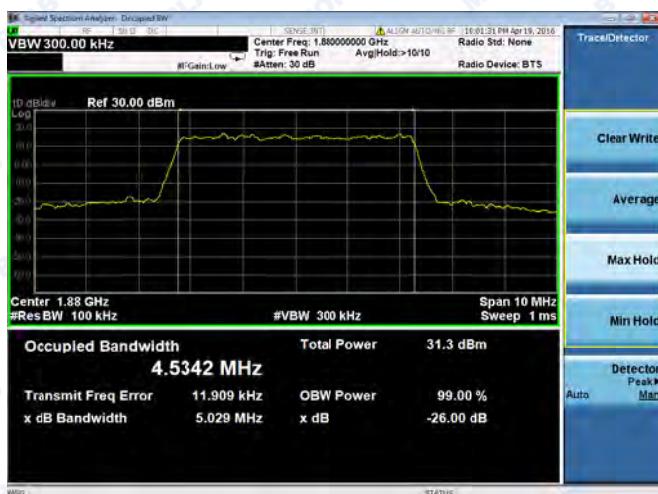


REPORT No.: SZ16030142W05

Spectrum Plot of Worst Value

5MHz/QPSK

5MHz/16QAM



Spectrum Plot of Worst Value

10MHz/QPSK

10MHz/16QAM



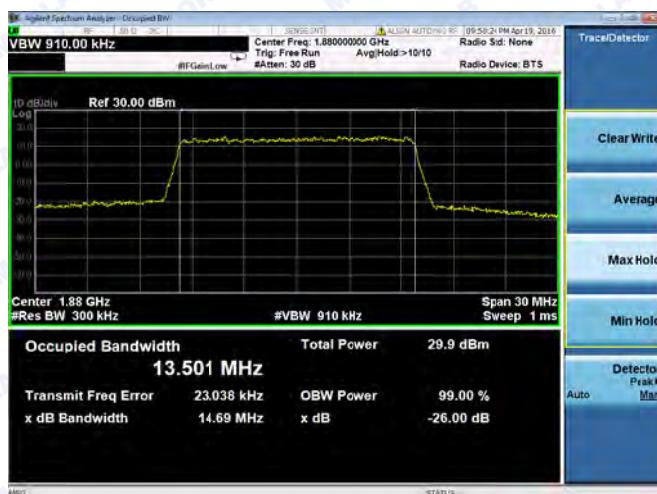
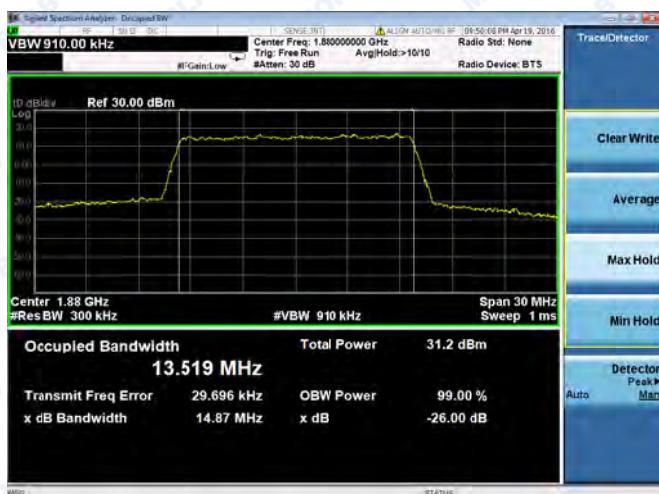


REPORT No.: SZ16030142W05

Spectrum Plot of Worst Value

15MHz/QPSK

15MHz/16QAM



Spectrum Plot of Worst Value

20MHz/QPSK

20MHz/16QAM





REPORT No.: SZ16030142W05

High channel:

Spectrum Plot of Worst Value

1.4MHz/QPSK

1.4MHz/16QAM



Spectrum Plot of Worst Value

3MHz/QPSK

3MHz/16QAM





REPORT No.: SZ16030142W05

Spectrum Plot of Worst Value

5MHz/QPSK

5MHz/16QAM



Spectrum Plot of Worst Value

10MHz/QPSK

10MHz/16QAM





REPORT No.: SZ16030142W05

Spectrum Plot of Worst Value

15MHz/QPSK

15MHz/16QAM



Spectrum Plot of Worst Value

20MHz/QPSK

20MHz/16QAM





REPORT No.: SZ16030142W05

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	1.1025	1.0928	19965	1711.5	2.7163	2.7078
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	1.307	1.307	19965	1711.5	2.986	2.998

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	4.5261	4.5213	20000	1715.0	8.9545	8.9749
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	5.037	5.021	20000	1715.0	9.855	9.898

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	13.440	13.453	20050	1720.0	17.954	17.975
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	14.72	14.66	20050	1720.0	19.60	19.56



REPORT No.: SZ16030142W05

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	1.1001	1.1075	20175	1732.5	2.7148	2.7239
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	1.356	1.326	20175	1732.5	2.997	3.032

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	4.5156	4.5281	20175	1732.5	8.9790	8.9865
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	5.017	5.063	20175	1732.5	9.932	9.894

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	13.495	13.505	20175	1732.5	17.995	18.040
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	14.73	14.77	20175	1732.5	19.50	19.62



REPORT No.: SZ16030142W05

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	1.1001	1.1061	20384	1753.4	2.7135	2.7154
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	1.356	1.342	20384	1753.4	2.996	3.043

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	4.5156	4.5214	20350	1750.0	8.9881	8.9761
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	5.010	5.049	20350	1750.0	9.924	9.819

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	13.450	13.445	20300	1745.0	17.923	17.972
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	14.75	14.66	20300	1745.0	19.36	19.45