



REPORT No.: SZ17120080W07

TEST REPORT

APPLICANT : Shenzhen Chainway Information Technology Co.,Ltd.

PRODUCT NAME : Mobile Data Terminal

MODEL NAME : C6000

BRAND NAME : CHAINWAY

FCC ID : 2AC6AC6000

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

TEST DATE : 2018-01-14 to 2018-05-09

ISSUE DATE : 2018-05-10

Tested by:

Tu Ya'nan

Tu Ya'nan (Test Engineer)

Approved by:

Andy Yeh

Andy Yeh (Technical Director)

NOTE: This document is issued by MORLAB, the test report shall not be reproduced except in full without prior written permission of the company. The test results apply only to the particular sample(s) tested and to the specific tests carried out which is available on request for validation and information confirmed at our website.

MORLAB

SHENZHEN MORLAB COMMUNICATIONS TECHNOLOGY Co., Ltd.
FL1-3, Building A, FeiYang Science Park, No.8 LongChang Road,
Block67, BaoAn District, ShenZhen , GuangDong Province, P. R. China

Tel: 86-755-36698555 Fax: 86-755-36698525
Http://www.morlab.cn E-mail: service@morlab.cn





DIRECTORY

1. Technical Information	4
1.1. Applicant and Manufacturer Information.....	4
1.2. Equipment Under Test (EUT) Description.....	4
1.3. Test Standards and Results	7
1.4. Environmental Conditions	7
2. 47 CFR Part 2, Part 24E & 27 Requirements.....	8
2.1. Transmitter Conducted Output Power	8
2.2. Occupied Bandwidth.....	31
2.3. Frequency Stability.....	63
2.4. Peak to Average Radio	67
2.5. Conducted Spurious Emissions	99
2.6. Band Edge.....	166
2.7. Transmitter Radiated Power (EIRP/ERP)	198
2.8. Radiated Spurious Emissions	209
Annex A Test Uncertainty	242
Annex B Testing Laboratory Information	243



REPORT No.: SZ17120080W07

Change History		
Issue	Date	Reason for change
1.0	2018-03-15	First edition
2.0	2018-05-10	Second edition

MORLAB

SHENZHEN MORLAB COMMUNICATIONS TECHNOLOGY Co., Ltd.
FL1-3, Building A, FeiYang Science Park, No.8 LongChang Road,
Block67, BaoAn District, ShenZhen , GuangDong Province, P. R. China

Tel: 86-755-36698555 Fax: 86-755-36698525
[Http://www.morlab.cn](http://www.morlab.cn) E-mail: service@morlab.cn



1. Technical Information

Note: Provide by applicant.

1.1. Applicant and Manufacturer Information

Applicant:	Shenzhen Chainway Information Technology Co.,Ltd.
Applicant Address:	9/F, Building 2, Daqian Industrial Park, Longchang Rd., District 67, Bao'an, Shenzhen
Manufacturer:	Shenzhen Chainway Information Technology Co.,Ltd.
Manufacturer Address:	9/F, Building 2, Daqian Industrial Park, Longchang Rd., District 67, Bao'an, Shenzhen

1.2. Equipment Under Test (EUT) Description

Product Name:	Mobile Data Terminal	
Serial No:	(N/A, marked #1 by test site)	
Hardware Version:	C6000EA_MB_10	
Software Version:	C6000A_MT6735_V3_AM_GITe978618_20180315	
Modulation Type:	QPSK, 16QAM	
Operation Band:	Band 2 / 4 / 7 / 12 / 17	
Frequency Range:	LTE Band 2	Tx: 1850MHz -1910MHz Rx: 1930MHz -1990MHz
	LTE Band 4	Tx: 1710MHz -1755MHz Rx: 2110MHz - 2155MHz
	LTE Band 7	Tx: 2500MHz - 2570MHz Rx: 2500MHz - 2570MHz
	LTE Band 12	Tx: 699MHz - 716MHz Rx: 729MHz - 746MHz
	LTE Band 17	Tx: 704MHz - 716MHz Rx: 734MHz- 746MHz
	LTE Band 2	1.4MHz, 3 MHz, 5 MHz, 10MHz, 15 MHz, 20 MHz
Channel Bandwidth	LTE Band 4	1.4MHz, 3 MHz, 5 MHz, 10MHz, 15 MHz, 20 MHz
	LTE Band 7	5 MHz, 10MHz, 15 MHz, 20 MHz
	LTE Band 12	1.4MHz, 3 MHz, 5 MHz, 10MHz
	LTE Band 17	5 MHz, 10MHz



	1M10G7D (LTE Band 2, QPSK, BW 1.4MHz) 1M10W7D (LTE Band 2, 16QAM, BW 1.4MHz) 2M72G7D (LTE Band 2, QPSK, BW 3MHz) 2M71 W7D (LTE Band 2, 16QAM, BW 3MHz) 4M54G7D (LTE Band 2, QPSK, BW 5MHz) 4M54W7D (LTE Band 2, 16QAM, BW 5MHz) 9M00G7D (LTE Band 2, QPSK, BW 10MHz) 9M00W7D (LTE Band 2, 16QAM, BW 10MHz) 13M50G7D (LTE Band 2, QPSK, BW 15MHz) 13M49W7D (LTE Band 2, 16QAM, BW 15MHz) 18M02G7D (LTE Band 2, QPSK, BW 20MHz) 18M02W7D (LTE Band 2, 16QAM, BW 20MHz) 1M11G7D (LTE Band 4, QPSK, BW 1.4MHz) 1M10W7D (LTE Band 4, 16QAM, BW 1.4MHz) 2M71G7D (LTE Band 4, QPSK, BW 3MHz) 2M70W7D (LTE Band 4, 16QAM, BW 3MHz) 4M54G7D (LTE Band 4, QPSK, BW 5MHz) 4M53W7D (LTE Band 4, 16QAM, BW 5MHz) 9M00G7D (LTE Band 4, QPSK, BW 10MHz) 9M01W7D (LTE Band 4, 16QAM, BW 10MHz) 13M54G7D (LTE Band 4, QPSK, BW 15MHz) 13M52W7D (LTE Band 4, 16QAM, BW 15MHz) 17M97G7D (LTE Band 4, QPSK, BW 20MHz) 17M95W7D (LTE Band 4, 16QAM, BW 20MHz) 4M54G7D (LTE Band 7, QPSK, BW 5MHz) 4M55W7D (LTE Band 7, 16QAM, BW 5MHz) 9M02G7D (LTE Band 7, QPSK, BW 10MHz) 9M03W7D (LTE Band 7, 16QAM, BW 10MHz) 13M53G7D (LTE Band 7, QPSK, BW 15MHz) 13M52W7D (LTE Band 7, 16QAM, BW 15MHz) 18M01G7D (LTE Band 7, QPSK, BW 20MHz) 18M00W7D (LTE Band 7, 16QAM, BW 20MHz) 1M09G7D (LTE Band 12, QPSK, BW 1.4MHz) 1M10W7D (LTE Band 12, 16QAM, BW 1.4MHz) 2M69G7D (LTE Band 12, QPSK, BW 3MHz) 2M69W7D (LTE Band 12, 16QAM, BW 3MHz) 4M50G7D (LTE Band 12, QPSK, BW 5MHz) 4M49W7D (LTE Band 12, 16QAM, BW 5MHz) 8M99G7D (LTE Band 12, QPSK, BW 10MHz)
--	---



REPORT No.: SZ17120080W07

	8M99W7D (LTE Band 12, 16QAM, BW 10MHz) 4M50G7D (LTE Band 17, QPSK, BW 5MHz) 4M49W7D (LTE Band 17, 16QAM, BW 5MHz) 8M98G7D (LTE Band 17, QPSK, BW 10MHz) 8M99W7D (LTE Band 17, 16QAM, BW 10MHz)
Antenna Type:	PIFA Antenna
Antenna Gain:	0.49 dBi
Operating voltage:	Normal(NV): 3.8V Lowest(LV): 3.6V Highest(HV): 4.35V

Note 1: For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.

MORLAB

SHENZHEN MORLAB COMMUNICATIONS TECHNOLOGY Co., Ltd.
FL1-3, Building A, FeiYang Science Park, No.8 LongChang Road,
Block67, BaoAn District, ShenZhen , GuangDong Province, P. R. China

Tel: 86-755-36698555 Fax: 86-755-36698525
[Http://www.morlab.cn](http://www.morlab.cn) E-mail: service@morlab.cn



1.3. Test Standards and Results

The objective of the report is to perform testing according to Part 2, Part 24 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 24	Personal Communications Services
3	47 CFR Part 27	Miscellaneous Wireless Communications Services

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

Section	Description	Test Date	Test Engineer	Result
2.1046	Transmitter Conducted Output Power	Mar 15, 2018	Li Jingzong	PASS
2.1049	Occupied Bandwidth	Feb 07, 2018	Li Jingzong	PASS
2.1055, 24.235, 27.54	Frequency Stability	Feb 07, 2018	Li Jingzong	PASS
24.232(d), 27.50(d)(5)	Peak to Average Radio	Feb 07, 2018 May 09, 2018	Li Jingzong	PASS
2.1051, 24.238, 27.53(g)(h), 27.53(m)(4)	Conducted Spurious Emissions	Feb 13, 2018	Li Jingzong	PASS
2.1051, 24.238, 27.53(g)(h), 27.53(m)(4)	Band Edge	Feb 13, 2018 May 09, 2018	Li Jingzong	PASS
24.232(c), 27.50(c)(10) 27.50(d)(4), 27.50(h)(2)	Equivalent Isotropic Radiated Power	Mar 15, 2018	Wu Zhongwen	PASS
2.1051, 24.238, 27.53(g)(h), 27.53(m)(4)	Radiated Spurious Emissions	Jan 14, 2017	Wu Zhongwen	PASS

Note: The tests were performed according to the method of measurements prescribed in KDB971168 D01 v03 (Oct 27, 2017) and ANSI/TIA-603-E-2016.

1.4. Environmental 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

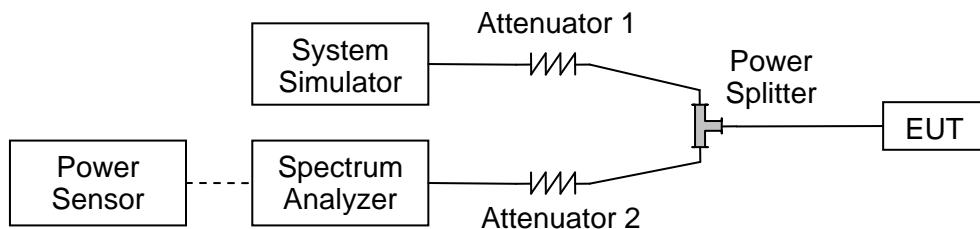
2. 47 CFR Part 2, Part 24E & 27 Requirements

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



The EUT 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.

2.1.3. Test procedure

KDB 971168 D01v03 Section 5.2 and ANSI/TIA-603-E-2016.

2.1.4. Result



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	19.25
					1	49	18.99
					1	99	18.93
					50	0	18.98
					50	25	18.36
					50	49	18.65
					100	0	18.66
		M	18700	16-QAM	1	0	18.40
					1	49	18.10
					1	99	18.25
					50	0	17.04
					50	25	16.88
					50	49	16.93
					100	0	16.96
		H	1880	QPSK	1	0	19.21
					1	49	18.90
					1	99	18.69
					50	0	18.98
					50	25	18.95
					50	49	19.11
					100	0	18.92
		18900	1900	16-QAM	1	0	18.48
					1	49	18.44
					1	99	17.99
					50	0	16.93
					50	25	16.80
					50	49	16.74
					100	0	16.85
		19100	1900	QPSK	1	0	18.83
					1	49	18.36
					1	99	18.32
					50	0	18.63
					50	25	18.27
					50	49	17.99
					100	0	18.69
		1900	1900	16-QAM	1	0	18.11
					1	49	18.23
					1	99	17.34
					50	0	16.68
					50	25	16.57
					50	49	16.47
					100	0	16.56



Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 2	15MHz	L	1857.5	QPSK	1	0	18.93
					1	37	18.56
					1	74	18.31
					36	0	18.03
					36	18	18.25
					36	35	17.55
					75	0	18.99
		M	1880	16-QAM	1	0	18.16
					1	37	18.43
					1	74	18.03
					36	0	16.95
					36	18	16.88
					36	35	16.92
					75	0	16.96
		H	1902.5	QPSK	1	0	19.03
					1	37	19.02
					1	74	18.36
					36	0	18.57
					36	18	18.24
					36	35	18.59
					75	0	18.88
		H	1902.5	16-QAM	1	0	18.47
					1	37	18.13
					1	74	18.01
					36	0	16.82
					36	18	16.74
					36	35	16.67
					75	0	16.81
		H	1912.5	QPSK	1	0	18.99
					1	37	18.65
					1	74	18.81
					36	0	18.38
					36	18	18.36
					36	35	18.31
					75	0	18.61
		H	1912.5	16-QAM	1	0	18.29
					1	37	17.93
					1	74	17.32
					36	0	16.58
					36	18	16.43
					36	35	16.35
					75	0	16.47



Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 2	10MHz	L	1855	QPSK	1	0	18.87
					1	24	18.98
					1	49	19.00
					25	0	18.9
					25	12	18.36
					25	24	18.35
					50	0	18.64
		M	1880	16-QAM	1	0	17.91
					1	24	17.99
					1	49	18.13
					25	0	16.93
					25	12	16.80
					25	24	16.83
					50	0	16.85
		H	1905	QPSK	1	0	18.76
					1	24	18.66
					1	49	18.84
					25	0	18.88
					25	12	18.15
					25	24	18.45
					50	0	18.57
		18900	19150	16-QAM	1	0	17.63
					1	24	18.06
					1	49	17.90
					25	0	16.84
					25	12	16.72
					25	24	16.73
					50	0	16.78
		H	1905	QPSK	1	0	18.35
					1	24	18.25
					1	49	18.63
					25	0	18.31
					25	12	18.20
					25	24	18.87
					50	0	18.12
		19150	1905	16-QAM	1	0	17.77
					1	24	17.67
					1	49	17.33
					25	0	16.47
					25	12	16.3
					25	24	16.24
					50	0	16.41



Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 2	5MHz	L	1852.5	QPSK	1	0	18.81
					1	12	18.10
					1	24	18.51
					12	0	18.35
					12	6	18.18
					12	11	18.24
					25	0	18.29.
		M	1880	16-QAM	1	0	17.83
					1	12	18.40
					1	24	17.71
					12	0	16.95
					12	6	16.83
					12	11	16.88
					25	0	16.80
		H	1907.5	QPSK	1	0	18.63
					1	12	18.35
					1	24	18.43
					12	0	18.86
					12	6	18.85
					12	11	18.74
					25	0	18.76
		H	1917.5	16-QAM	1	0	17.81
					1	12	17.84
					1	24	17.57
					12	0	16.73
					12	6	16.75
					12	11	16.70
					25	0	16.69
		H	1917.5	QPSK	1	0	18.18
					1	12	17.87
					1	24	17.88
					12	0	18.57
					12	6	17.99
					12	11	18.05
					25	0	18.36
		H	1917.5	16-QAM	1	0	17.28
					1	12	17.40
					1	24	16.95
					12	0	16.37
					12	6	16.16
					12	11	16.19
					25	0	16.27



Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 2	3MHz	L	1851.5	QPSK	1	0	19.01
					1	7	18.32
					1	14	18.15
					8	0	18.24
					8	4	18.26
					8	7	18.54
					15	0	18.27
		M	1880	16-QAM	1	0	18.20
					1	7	18.20
					1	14	18.08
					8	0	16.83
					8	4	16.74
					8	7	16.85
					15	0	16.77
		H	1908.5	QPSK	1	0	18.65
					1	7	18.69
					1	14	18.57
					8	0	18.75
					8	4	18.73
					8	7	18.21
					15	0	17.20
		H	1918.5	16-QAM	1	0	18.06
					1	7	17.96
					1	14	17.78
					8	0	16.71
					8	4	16.72
					8	7	16.66
					15	0	16.79
		H	1918.5	QPSK	1	0	18.36
					1	7	18.22
					1	14	18.66
					8	0	18.74
					8	4	18.73
					8	7	18.48
					15	0	18.57
		H	1918.5	16-QAM	1	0	17.45
					1	7	17.41
					1	14	17.50
					8	0	16.26
					8	4	16.14
					8	7	16.33
					15	0	16.16



Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 2	1.4MHz	L	1850.7	QPSK	1	0	18.52
					1	2	18.25
					1	5	18.22
					3	0	18.14
					3	1	18.45
					3	2	18.25
					6	0	18.29
		M	1880	16-QAM	1	0	17.75
					1	2	18.18
					1	5	17.70
					3	0	17.99
					3	1	17.90
					3	2	17.95
					6	0	16.9
		H	1909.3	QPSK	1	0	18.51
					1	2	18.76
					1	5	18.55
					3	0	18.54
					3	1	18.17
					3	2	18.32
					6	0	18.76
		H	1919.3	16-QAM	1	0	17.45
					1	2	17.99
					1	5	17.69
					3	0	17.65
					3	2	17.80
					3	5	17.87
					6	0	16.65
		H	1919.3	QPSK	1	0	17.85
					1	2	17.65
					1	5	18.05
					3	0	18.36
					3	1	18.25
					3	2	17.69
					6	0	17.98
		H	1919.3	16-QAM	1	0	17.24
					1	2	17.26
					1	5	16.89
					3	0	17.14
					3	1	17.28
					3	2	17.10
					6	0	16.16



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	19.39
					1	49	19.21
					1	99	18.96
					50	0	19.17
					50	25	19.11
					50	49	19.31
					100	0	19.15
		M 20175	1732.5	16-QAM	1	0	18.76
					1	49	18.16
					1	99	17.72
					50	0	17.14
					50	25	16.90
					50	49	16.86
					100	0	16.98
		H 20300	1745.0	QPSK	1	0	19.10
					1	49	18.89
					1	99	19.05
					50	0	19.02
					50	25	18.88
					50	49	19.05
					100	0	18.97
		16-QAM	16-QAM	16-QAM	1	0	18.12
					1	49	18.20
					1	99	17.92
					50	0	17.00
					50	25	16.83
					50	49	16.87
					100	0	16.9
		QPSK	16-QAM	16-QAM	1	0	18.25
					1	49	18.36
					1	99	18.71
					50	0	18.81
					50	25	18.69
					50	49	18.77
					100	0	18.64
		16-QAM	16-QAM	16-QAM	1	0	18.28
					1	49	18.68
					1	99	17.83
					50	0	17.10
					50	25	16.99
					50	49	17.00
					100	0	17.04



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	18.66
					1	37	18.52
					1	74	18.59
					36	0	18.69
					36	18	18.99
					36	35	19.04
					75	0	18.47
		M 20175	1732.5	16-QAM	1	0	18.77
					1	37	18.5
					1	74	17.82
					36	0	17.03
					36	18	17.03
					36	35	16.87
					75	0	16.99
		H 20325	1747.5	QPSK	1	0	18.68
					1	37	18.65
					1	74	18.05
					36	0	18.36
					36	18	18.37
					36	35	18.34
					75	0	18.53
		16-QAM	16-QAM	16-QAM	1	0	18.39
					1	37	18.22
					1	74	18.03
					36	0	16.87
					36	18	16.88
					36	35	16.85
					75	0	16.82
		QPSK	16-QAM	16-QAM	1	0	18.68
					1	37	18.65
					1	74	18.55
					36	0	18.45
					36	18	18.54
					36	35	18.78
					75	0	18.68
		16-QAM	16-QAM	16-QAM	1	0	18.64
					1	37	18.42
					1	74	17.72
					36	0	17.05
					36	18	17.01
					36	35	16.88
					75	0	16.99



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	18.99
					1	24	19.01
					1	49	18.86
					25	0	19.16
					25	12	18.98
					25	24	18.98
					50	0	18.68
		M 20175	1732.5	16-QAM	1	0	18.40
					1	24	17.91
					1	49	18.18
					25	0	17.05
					25	12	16.91
					25	24	16.93
					50	0	17.00
		H 20350	1750.0	QPSK	1	0	18.74
					1	24	18.77
					1	49	18.88
					25	0	18.93
					25	12	18.25
					25	24	18.57
					50	0	18.75
		16-QAM	16-QAM	16-QAM	1	0	17.93
					1	24	17.93
					1	49	17.82
					25	0	16.84
					25	12	16.74
					25	24	16.72
					50	0	16.84
		QPSK	16-QAM	16-QAM	1	0	18.75
					1	24	18.66
					1	49	18.81
					25	0	18.33
					25	12	18.81
					25	24	18.52
					50	0	18.51
		16-QAM	16-QAM	16-QAM	1	0	17.78
					1	24	18.31
					1	49	17.86
					25	0	16.94
					25	12	16.95
					25	24	16.80
					50	0	16.85



Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 4	5MHz	L	19975	QPSK	1	0	18.95
					1	12	18.69
					1	24	18.44
					12	0	19.12
					12	6	18.63
					12	11	18.68
					25	0	18.77
		M	1732.5	16-QAM	1	0	18.20
					1	12	18.27
					1	24	17.55
					12	0	17.20
					12	6	16.94
					12	11	16.97
					25	0	16.97
		H	20375	QPSK	1	0	18.64
					1	12	18.88
					1	24	18.54
					12	0	18.81
					12	6	18.65
					12	11	18.76
					25	0	18.67
		H	1752.5	16-QAM	1	0	17.54
					1	12	18.19
					1	24	17.50
					12	0	16.80
					12	6	16.70
					12	11	16.63
					25	0	16.70
		H	20375	QPSK	1	0	18.22
					1	12	18.24
					1	24	18.14
					12	0	18.21
					12	6	18.32
					12	11	18.53
					25	0	18.34
		H	1752.5	16-QAM	1	0	17.99
					1	12	17.86
					1	24	17.57
					12	0	16.78
					12	6	16.69
					12	11	16.54
					25	0	16.60



Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 4	3MHz	L	19965	QPSK	1	0	18.32
					1	7	18.25
					1	14	18.62
					8	0	18.66
					8	4	18.16
					8	7	18.18
					15	0	18.34
		M	1732.5	16-QAM	1	0	18.16
					1	7	18.45
					1	14	18.29
					8	0	17.12
					8	4	16.87
					8	7	16.92
					15	0	17.17
		H	20385	QPSK	1	0	18.65
					1	7	18.25
					1	14	18.54
					8	0	18.66
					8	4	18.69
					8	7	18.46
					15	0	18.27
		H	1753.5	16-QAM	1	0	17.93
					1	7	17.94
					1	14	17.80
					8	0	16.75
					8	4	16.77
					8	7	16.65
					15	0	16.78
		H	20385	QPSK	1	0	18.68
					1	7	18.84
					1	14	18.45
					8	0	18.57
					8	4	18.63
					8	7	18.25
					15	0	18.57
		H	1753.5	16-QAM	1	0	18.04
					1	7	17.57
					1	14	17.90
					8	0	16.70
					8	4	16.45
					8	7	16.39
					15	0	16.70



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	18.73
					1	2	18.98
					1	5	18.81
					3	0	18.72
					3	1	18.63
					3	2	18.58
					6	0	19.16
		M 20175	1732.5	16-QAM	1	0	17.97
					1	2	18.55
					1	5	18.04
					3	0	18.11
					3	1	18.27
					3	2	18.15
					6	0	17.10
		H 20393	1754.3	QPSK	1	0	18.38
					1	2	18.40
					1	5	18.52
					3	0	18.41
					3	1	18.62
					3	2	18.12
					6	0	18.83
		16-QAM	16-QAM	16-QAM	1	0	17.50
					1	2	17.84
					1	5	17.91
					3	0	17.80
					3	2	17.85
					3	5	17.80
					6	0	16.81
		QPSK	16-QAM	16-QAM	1	0	18.56
					1	2	18.26
					1	5	18.31
					3	0	18.36
					3	1	18.67
					3	2	18.55
					6	0	18.63
		16-QAM	16-QAM	16-QAM	1	0	17.32
					1	2	17.70
					1	5	17.64
					3	0	17.63
					3	1	17.68
					3	2	17.64
					6	0	16.53



Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 7	20MHz	L	2510	QPSK	1	0	20.42
					1	49	20.05
					1	99	20.16
					50	0	20.32
					50	25	20.31
					50	49	20.24
					100	0	20.32
		M	2535	16-QAM	1	0	19.37
					1	49	19.39
					1	99	19.34
					50	0	18.22
					50	25	18.05
					50	49	18.10
					100	0	18.16
		H	2560	QPSK	1	0	20.72
					1	49	20.35
					1	99	20.57
					50	0	20.6
					50	25	20.13
					50	49	20.30
					100	0	20.41
		H	21100	16-QAM	1	0	19.66
					1	49	19.80
					1	99	19.82
					50	0	18.61
					50	25	18.55
					50	49	18.51
					100	0	18.55
		H	20850	QPSK	1	0	21.25
					1	49	20.69
					1	99	20.36
					50	0	20.88
					50	25	20.38
					50	49	20.87
					100	0	20.79
		L	2510	16-QAM	1	0	20.47
					1	49	20.26
					1	99	19.13
					50	0	18.98
					50	25	18.66
					50	49	18.51
					100	0	18.71



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	20.12
					1	37	20.23
					1	74	20.11
					36	0	20.3
					36	18	20.31
					36	35	20.54
					75	0	20.42
		M 21100	2535	16-QAM	1	0	19.26
					1	37	19.43
					1	74	19.26
					36	0	18.18
					36	18	18.07
					36	35	18.09
					75	0	18.14
		H 21375	2562.5	QPSK	1	0	20.15
					1	37	20.18
					1	74	20.16
					36	0	20.45
					36	18	20.57
					36	35	20.58
					75	0	20.75
		16-QAM	16-QAM	16-QAM	1	0	19.90
					1	37	19.80
					1	74	19.49
					36	0	18.56
					36	18	18.57
					36	35	18.54
					75	0	18.56
		QPSK	QPSK	QPSK	1	0	20.68
					1	37	20.66
					1	74	20.10
					36	0	20.35
					36	18	20.78
					36	35	20.98
					75	0	20.45
		16-QAM	16-QAM	16-QAM	1	0	20.31
					1	37	19.84
					1	74	19.24
					36	0	18.72
					36	18	18.59
					36	35	18.35
					75	0	18.55



Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE Band 7	10MHz	L	2505	QPSK	1	0	20.36
					1	24	20.30
					1	49	20.57
					25	0	20.17
					25	12	20.58
					25	24	20.60
					50	0	20.34
		M	2535	16-QAM	1	0	19.38
					1	24	19.36
					1	49	19.27
					25	0	18.21
					25	12	18.08
					25	24	18.08
					50	0	18.20
		H	2565	QPSK	1	0	20.12
					1	24	20.11
					1	49	20.32
					25	0	20.31
					25	12	20.15
					25	24	20.14
					50	0	20.36
		H	2565	16-QAM	1	0	19.65
					1	24	19.55
					1	49	19.82
					25	0	18.54
					25	12	18.49
					25	24	18.44
					50	0	18.55
		H	21400	QPSK	1	0	20.55
					1	24	20.65
					1	49	20.61
					25	0	20.51
					25	12	20.15
					25	24	20.38
					50	0	20.67
		H	21400	16-QAM	1	0	19.65
					1	24	19.55
					1	49	19.82
					25	0	18.54
					25	12	18.49
					25	24	18.44
					50	0	18.55



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	20.09
					1	12	19.88
					1	24	19.87
					12	0	19.86
					12	6	19.96
					12	11	20.01
					25	0	20.15
		M 21100	2535	16-QAM	1	0	19.27
					1	12	19.68
					1	24	19.01
					12	0	18.31
					12	6	18.25
					12	11	18.20
					25	0	18.17
		H 21425	2567.5	QPSK	1	0	20.40
					1	12	20.12
					1	24	20.25
					12	0	20.60
					12	6	20.35
					12	11	20.11
					25	0	20.34
		16-QAM	16-QAM	16-QAM	1	0	19.50
					1	12	19.88
					1	24	19.10
					12	0	18.56
					12	6	18.50
					12	11	18.49
					25	0	18.51
		QPSK	QPSK	QPSK	1	0	20.35
					1	12	19.99
					1	24	19.93
					12	0	20.10
					12	6	20.15
					12	11	20.22
					25	0	20.19
		16-QAM	16-QAM	16-QAM	1	0	19.36
					1	12	19.69
					1	24	19.05
					12	0	18.40
					12	6	18.29
					12	11	18.27
					25	0	18.29



Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE	Band 12	L	23060	QPSK	1	0	21.89
					1	24	21.77
					1	49	21.73
					25	0	21.63
					25	12	21.68
					25	24	21.10
					50	0	21.04
		M	23095	16-QAM	1	0	20.92
					1	24	21.20
					1	49	20.95
					25	0	19.99
					25	12	19.84
					25	24	19.73
					50	0	19.88
		H	23130	QPSK	1	0	21.82
					1	24	21.55
					1	49	21.67
					25	0	21.97
					25	12	21.85
					25	24	21.87
					50	0	21.66
		711	16-QAM	16-QAM	1	0	20.74
					1	24	21.07
					1	49	20.5
					25	0	19.89
					25	12	19.68
					25	24	19.59
					50	0	19.75
		711	23130	QPSK	1	0	21.57
					1	24	21.55
					1	49	21.81
					25	0	21.65
					25	12	21.50
					25	24	21.12
					50	0	21.33
		711	23130	16-QAM	1	0	20.52
					1	24	20.70
					1	49	20.91
					25	0	19.6
					25	12	19.64
					25	24	19.48
					50	0	19.59



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	21.88
					1	12	21.21
					1	24	21.70
					12	0	21.12
					12	6	21.33
					12	11	21.34
					25	0	21.54
		M 23095	707.5	16-QAM	1	0	20.88
					1	12	21.38
					1	24	21.01
					12	0	20.04
					12	6	20.01
					12	11	19.95
					25	0	19.92
		H 23155	713.5	QPSK	1	0	21.67
					1	12	21.50
					1	24	21.31
					12	0	21.87
					12	6	21.12
					12	11	21.57
					25	0	21.36
		16-QAM		16-QAM	1	0	20.90
					1	12	21.04
					1	24	20.58
					12	0	19.95
					12	6	19.69
					12	11	19.65
					25	0	19.63
		QPSK		QPSK	1	0	21.18
					1	12	21.56
					1	24	21.24
					12	0	21.02
					12	6	21.1
					12	11	21.51
					25	0	21.30
		16-QAM		16-QAM	1	0	20.42
					1	12	20.83
					1	24	20.31
					12	0	19.46
					12	6	19.47
					12	11	19.47
					25	0	19.39



Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE	Band 12	L	23025	QPSK	1	0	21.22
					1	7	21.50
					1	14	21.56
					8	0	21.36
					8	4	21.37
					8	7	21.64
					15	0	21.57
		M	23095	16-QAM	1	0	21.41
					1	7	21.15
					1	14	21.37
					8	0	19.91
					8	4	19.88
					8	7	19.83
					15	0	20.01
		H	23165	QPSK	1	0	21.70
					1	7	21.56
					1	14	21.58
					8	0	21.35
					8	4	21.50
					8	7	21.30
					15	0	21.47
		H	714.5	16-QAM	1	0	21.13
					1	7	20.90
					1	14	21.01
					8	0	19.86
					8	4	19.75
					8	7	19.79
					15	0	19.74
		H	23165	QPSK	1	0	21.36
					1	7	21.58
					1	14	21.59
					8	0	21.47
					8	4	21.71
					8	7	21.34
					15	0	21.56
		H	714.5	16-QAM	1	0	20.65
					1	7	20.57
					1	14	20.99
					8	0	19.45
					8	4	19.34
					8	7	19.60
					15	0	19.51



Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE	Band 12	L	699.7	QPSK	1	0	21.75
					1	2	21.55
					1	5	21.58
					3	0	21.48
					3	1	21.8
					3	2	21.36
					6	0	21.59
		M	707.5	16-QAM	1	0	20.72
					1	2	21.33
					1	5	20.74
					3	0	21.02
					3	1	20.97
					3	2	20.87
					6	0	19.89
		H	715.3	QPSK	1	0	21.54
					1	2	21.60
					1	5	21.7
					3	0	21.64
					3	1	21.25
					3	2	21.78
					6	0	21.77
		H	715.3	16-QAM	1	0	20.60
					1	2	21.07
					1	5	20.68
					3	0	20.76
					3	2	20.80
					3	5	20.62
					6	0	19.748
		H	715.3	QPSK	1	0	21.25
					1	2	21.10
					1	5	21.50
					3	0	21.52
					3	1	21.36
					3	2	21.38
					6	0	21.30
		H	715.3	16-QAM	1	0	20.29
					1	2	21.09
					1	5	20.46
					3	0	20.62
					3	1	20.58
					3	2	20.64
					6	0	19.57



Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE	Band 17	L	23780	QPSK	1	0	21.07
					1	24	21.10
					1	49	21.34
					25	0	21.18
					25	12	21.07
					25	24	21.08
					50	0	21.20
		M	23790	16-QAM	1	0	20.42
					1	24	20.38
					1	49	19.79
					25	0	19.12
					25	12	19.08
					25	24	18.99
					50	0	19.15
		H	23800	QPSK	1	0	21.04
					1	24	21.10
					1	49	21.31
					25	0	21.25
					25	12	21.11
					25	24	21.23
					50	0	21.21
		710	711	16-QAM	1	0	20.23
					1	24	20.41
					1	49	19.68
					25	0	19.11
					25	12	18.99
					25	24	19.01
					50	0	19.10
		711	23800	QPSK	1	0	20.30
					1	24	20.25
					1	49	20.75
					25	0	20.38
					25	12	20.63
					25	24	20.39
					50	0	20.31
		711	23800	16-QAM	1	0	20.31
					1	24	20.17
					1	49	20.12
					25	0	19.05
					25	12	18.87
					25	24	18.73
					50	0	19.06



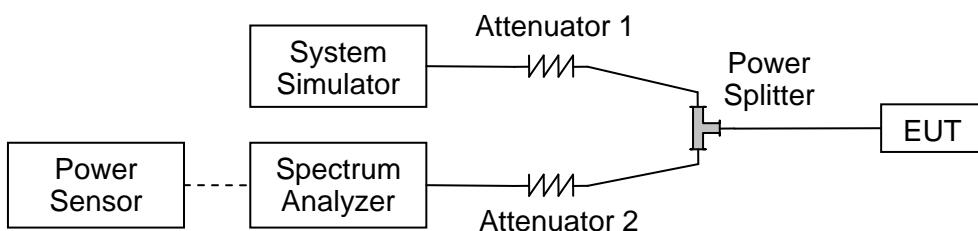
Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power (dBm)
					RB Size	RB Offset	
LTE	Band 17	L	23755	QPSK	1	0	21.03
					1	12	21.3
					1	24	21.22
					12	0	21.23
					12	6	21.05
					12	11	21.00
					25	0	21.19
		M	23790	16-QAM	1	0	20.19
					1	12	20.22
					1	24	19.81
					12	0	19.06
					12	6	19.03
					12	11	19.02
					25	0	19.01
		H	23825	QPSK	1	0	21.04
					1	12	21.05
					1	24	21.30
					12	0	21.21
					12	6	21.12
					12	11	21.24
					25	0	21.17
		710	713.5	16-QAM	1	0	19.87
					1	12	20.43
					1	24	19.91
					12	0	19.04
					12	6	19.07
					12	11	18.95
					25	0	19.06
		713.5	23825	QPSK	1	0	20.38
					1	12	20.65
					1	24	20.59
					12	0	20.42
					12	6	20.40
					12	11	20.65
					25	0	20.55
		713.5	23825	16-QAM	1	0	19.86
					1	12	19.84
					1	24	19.91
					12	0	18.85
					12	6	18.56
					12	11	18.59
					25	0	18.67

2.2. Occupied Bandwidth

2.2.1. Requirement

According to FCC section 2.1049, 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



The EUT 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.

2.2.3. Test procedure

KDB 971168 D01v03 Section 4.1 and ANSI/TIA-603-E-2016.

2.2.4. Test Result

LTE Band 2, BW: 1.4MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
18607	1850.7	1.0981	1.279	1.0969	1.271
18900	1880.0	1.0958	1.281	1.0926	1.267
19192	1909.2	1.0890	1.252	1.0884	1.264



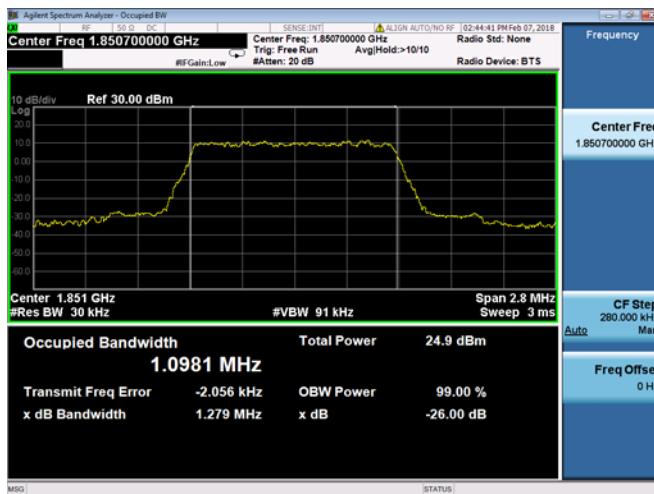
LTE Band 2, BW: 3MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
18615	1851.5	2.7048	2.980	2.6959	2.995
18900	1880.0	2.7154	2.995	2.7018	2.988
19184	1908.4	2.7117	2.989	2.7107	2.984
LTE Band 2, BW: 5MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
18625	1852.5	4.5347	5.065	4.5356	5.071
18900	1880.0	4.5447	5.083	4.5350	5.066
19175	1907.5	4.5207	5.039	4.5279	5.083
LTE Band 2, BW: 10MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
18650	1855.0	8.9984	9.985	8.9910	9.904
18900	1880.0	9.0019	9.962	8.9978	10.02
19150	1905.0	8.9828	9.924	8.9820	9.907
LTE Band 2, BW: 15MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
18675	1857.5	13.486	14.81	13.479	14.72
18900	1880.0	13.499	14.77	13.488	14.70
19125	1902.5	13.477	14.81	13.470	14.91
LTE Band 2, BW: 20MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
18700	1860.0	18.000	19.45	17.941	19.61
18900	1880.0	18.017	19.61	18.020	19.53
19100	1900.0	17.987	19.71	18.010	19.72



REPORT No.: SZ17120080W07

LTE Band 2 99%&26dB Bandwidth

1.4MHz/QPSK/Low CH



1.4MHz/16QAM/Low CH



1.4MHz/QPSK/Mid CH



1.4MHz/16QAM/Mid CH



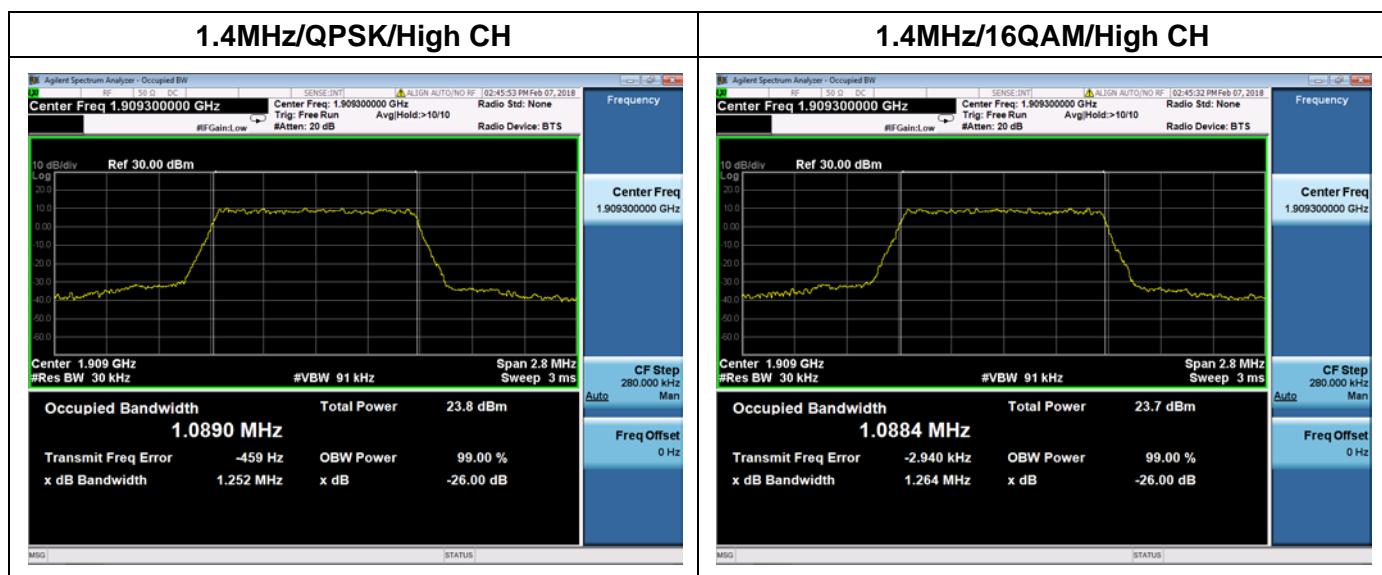
MORLAB

SHENZHEN MORLAB COMMUNICATIONS TECHNOLOGY Co., Ltd.
FL1-3, Building A, FeiYang Science Park, No.8 LongChang Road,
Block67, BaoAn District, ShenZhen , GuangDong Province, P. R. China

Tel: 86-755-36698555 Fax: 86-755-36698525
Http://www.morlab.cn E-mail: service@morlab.cn



REPORT No.: SZ17120080W07



MORLAB

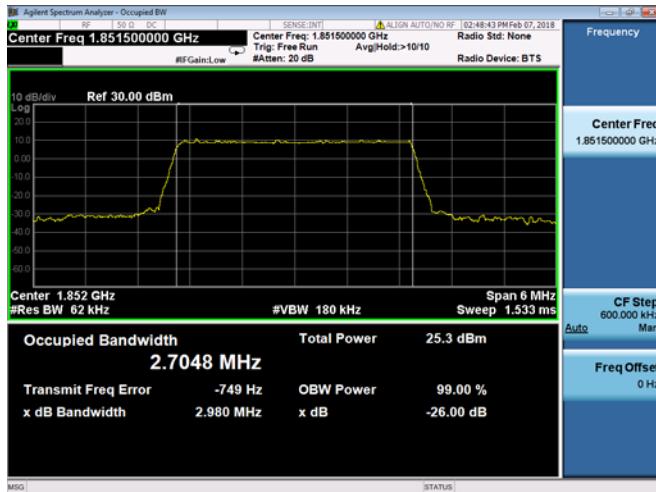
SHENZHEN MORLAB COMMUNICATIONS TECHNOLOGY Co., Ltd.
FL1-3, Building A, FeiYang Science Park, No.8 LongChang Road,
Block67, BaoAn District, ShenZhen , GuangDong Province, P. R. China

Tel: 86-755-36698555 Fax: 86-755-36698525
[Http://www.morlab.cn](http://www.morlab.cn) E-mail: service@morlab.cn

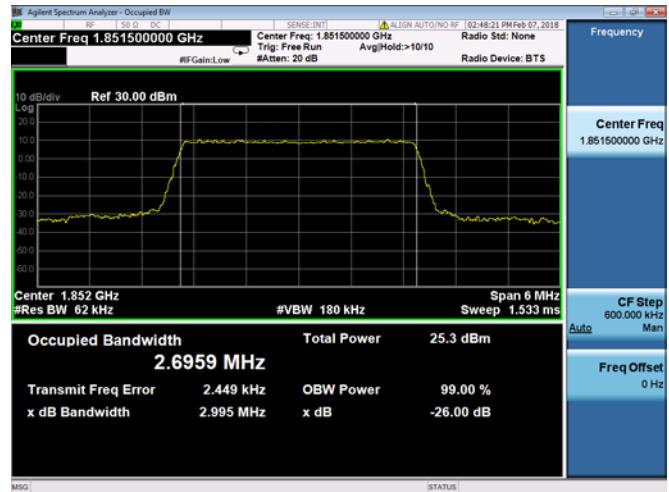


REPORT No.: SZ17120080W07

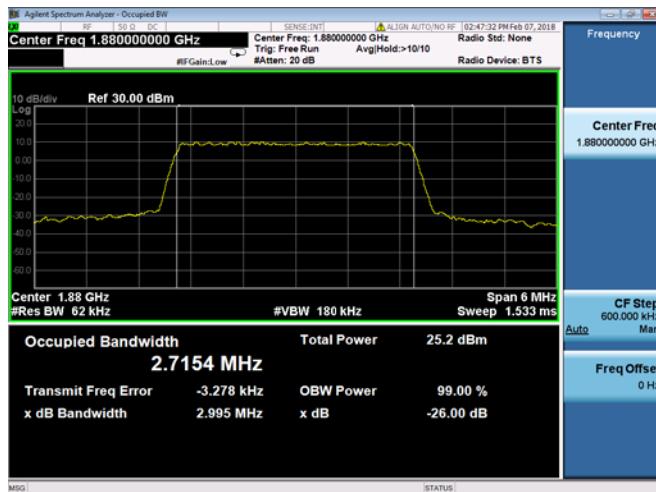
3MHz/QPSK/Low CH



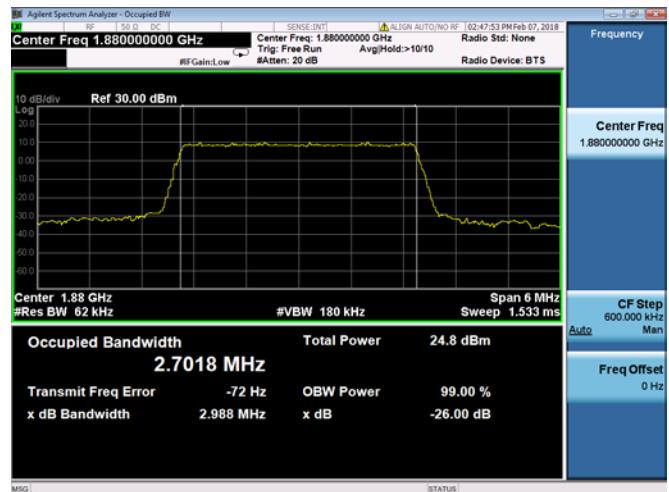
3MHz/16QAM/Low CH



3MHz/QPSK/Mid CH



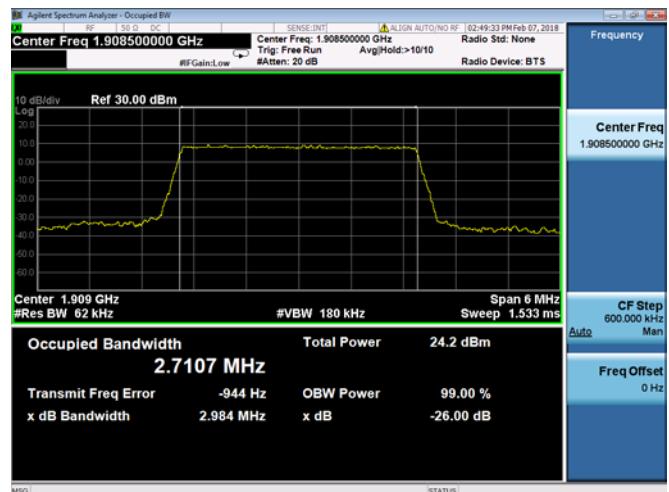
3MHz/16QAM/Mid CH



3MHz/QPSK/High CH



3MHz/16QAM/High CH



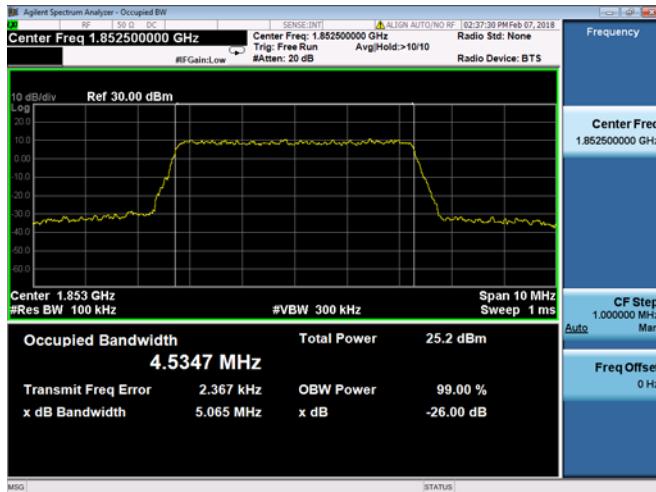
MORLAB

SHENZHEN MORLAB COMMUNICATIONS TECHNOLOGY Co., Ltd.
FL1-3, Building A, FeiYang Science Park, No.8 LongChang Road,
Block67, BaoAn District, ShenZhen , GuangDong Province, P. R. ChinaTel: 86-755-36698555 Fax: 86-755-36698525
Http://www.morlab.cn E-mail: service@morlab.cn



REPORT No.: SZ17120080W07

5MHz/QPSK/Low CH



5MHz/16QAM/Low CH



5MHz/QPSK/Mid CH



5MHz/16QAM/Mid CH



5MHz/QPSK/High CH



5MHz/16QAM/High CH



MORLAB

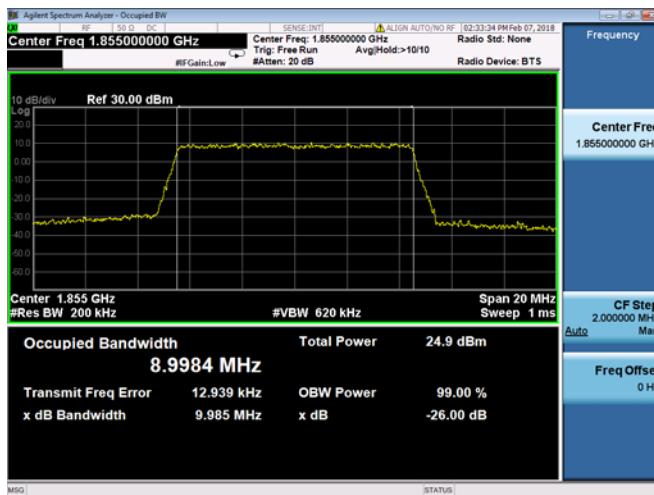
SHENZHEN MORLAB COMMUNICATIONS TECHNOLOGY Co., Ltd.
FL1-3, Building A, FeiYang Science Park, No.8 LongChang Road,
Block67, BaoAn District, ShenZhen , GuangDong Province, P. R. China

Tel: 86-755-36698555 Fax: 86-755-36698525
Http://www.morlab.cn E-mail: service@morlab.cn



REPORT No.: SZ17120080W07

10MHz/QPSK/Low CH



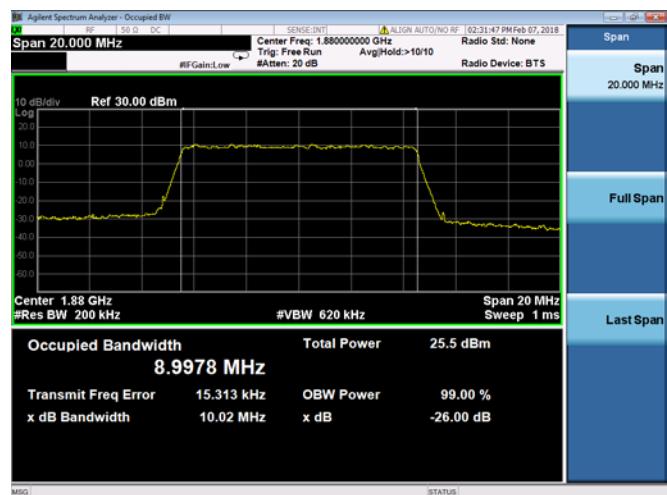
10MHz/16QAM/Low CH



10MHz/QPSK/Mid CH



10MHz/16QAM/Mid CH



10MHz/QPSK/High CH



10MHz/16QAM/High CH



MORLAB

SHENZHEN MORLAB COMMUNICATIONS TECHNOLOGY Co., Ltd.
FL1-3, Building A, FeiYang Science Park, No.8 LongChang Road,
Block67, BaoAn District, ShenZhen , GuangDong Province, P. R. China

Tel: 86-755-36698555 Fax: 86-755-36698525
Http://www.morlab.cn E-mail: service@morlab.cn



REPORT No.: SZ17120080W07

15MHz/QPSK/Low CH



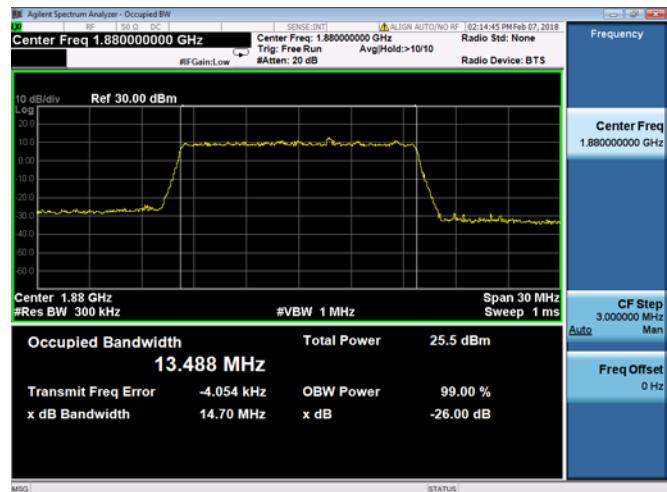
15MHz/16QAM/Low CH



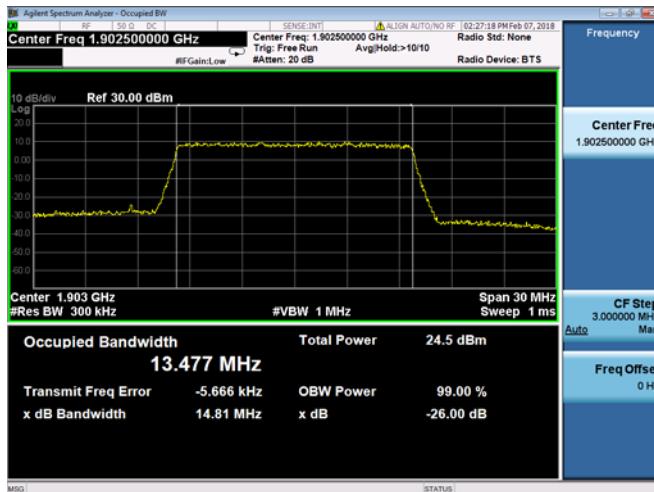
15MHz/QPSK/Mid CH



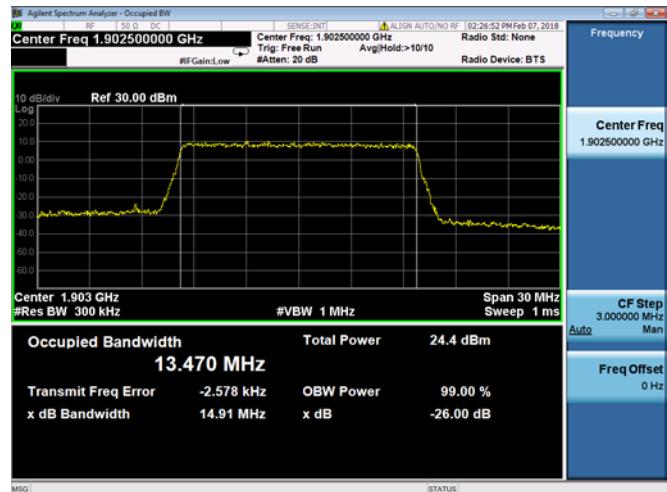
15MHz/16QAM/Mid CH



15MHz/QPSK/High CH



15MHz/16QAM/High CH



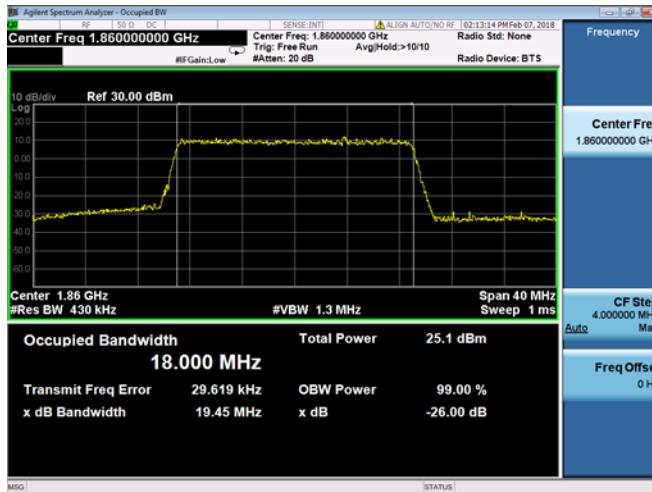
MORLAB

SHENZHEN MORLAB COMMUNICATIONS TECHNOLOGY Co., Ltd.
FL1-3, Building A, FeiYang Science Park, No.8 LongChang Road,
Block67, BaoAn District, ShenZhen , GuangDong Province, P. R. ChinaTel: 86-755-36698555 Fax: 86-755-36698525
Http://www.morlab.cn E-mail: service@morlab.cn

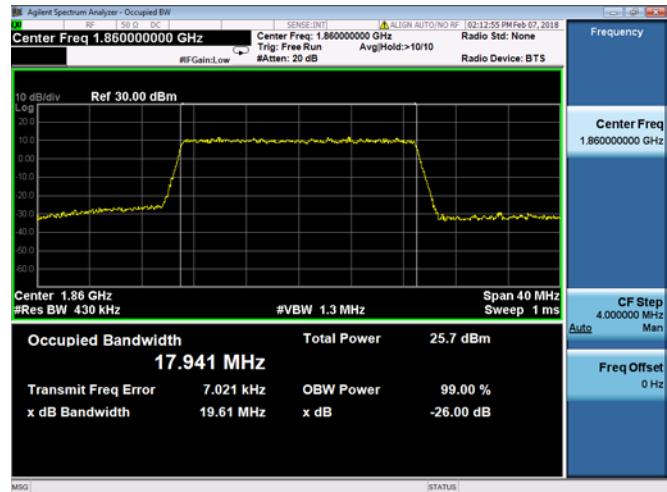


REPORT No.: SZ17120080W07

20MHz/QPSK/Low CH



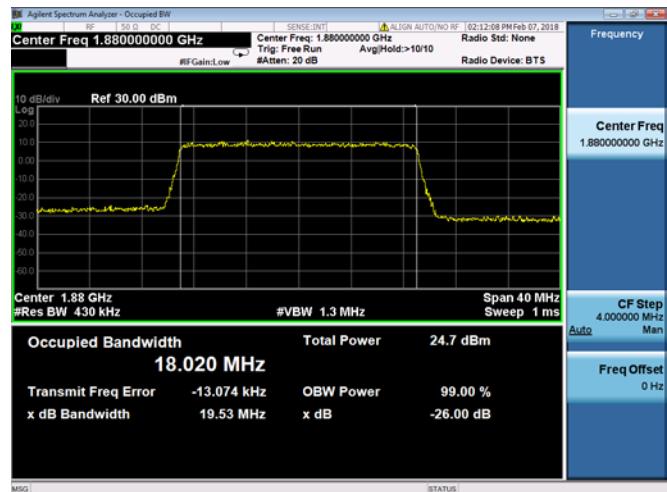
20MHz/16QAM/Low CH



20MHz/QPSK/Mid CH



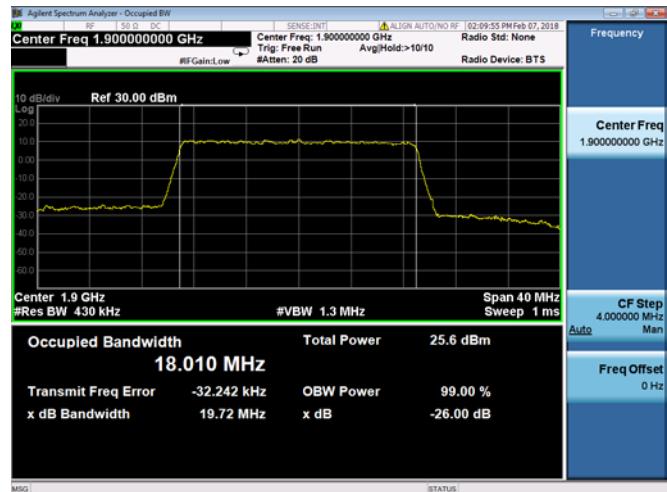
20MHz/16QAM/Mid CH



20MHz/QPSK/High CH



20MHz/16QAM/High CH



MORLAB

SHENZHEN MORLAB COMMUNICATIONS TECHNOLOGY Co., Ltd.
FL1-3, Building A, FeiYang Science Park, No.8 LongChang Road,
Block67, BaoAn District, ShenZhen , GuangDong Province, P. R. ChinaTel: 86-755-36698555 Fax: 86-755-36698525
Http://www.morlab.cn E-mail: service@morlab.cn



LTE Band 4, BW: 1.4MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
19957	1710.7	1.0993	1.261	1.0942	1.269
20175	1732.5	1.1107	1.280	1.0930	1.259
20392	1754.2	1.0915	1.267	1.0971	1.267
LTE Band 4, BW: 3MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
19965	1711.5	2.7103	2.969	2.7036	2.979
20175	1732.5	2.7092	2.983	2.7040	2.961
20384	1753.4	2.7048	2.952	2.7019	2.993
LTE Band 4, BW: 5MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
19975	1712.5	4.5308	4.985	4.5147	5.016
20175	1732.5	4.5431	5.095	4.5195	5.021
20375	1752.5	4.5255	5.076	4.5266	5.066
LTE Band 4, BW: 10MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
20000	1715.0	8.9907	9.914	9.0139	9.982
20175	1732.5	8.9973	9.980	9.0035	9.946
20350	1750.0	8.9847	9.963	9.0039	9.982
LTE Band 4, BW: 15MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
20025	1717.5	13.535	14.78	13.487	14.80
20175	1732.5	13.524	14.93	13.515	14.76
20325	1747.5	13.479	14.75	13.447	14.78

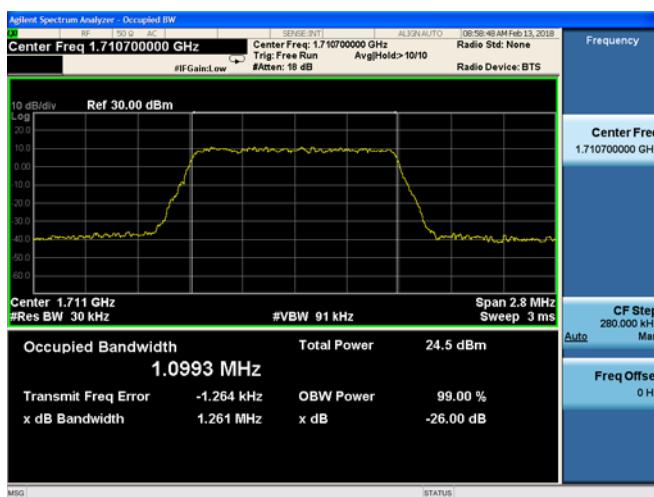


LTE Band 4, BW: 20MHz

Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
20050	1720.0	17.940	19.23	17.915	19.31
20175	1732.5	17.970	19.43	17.953	19.34
20300	1745.0	17.920	19.31	17.888	19.46

LTE Band 4 99%&26dB Bandwidth

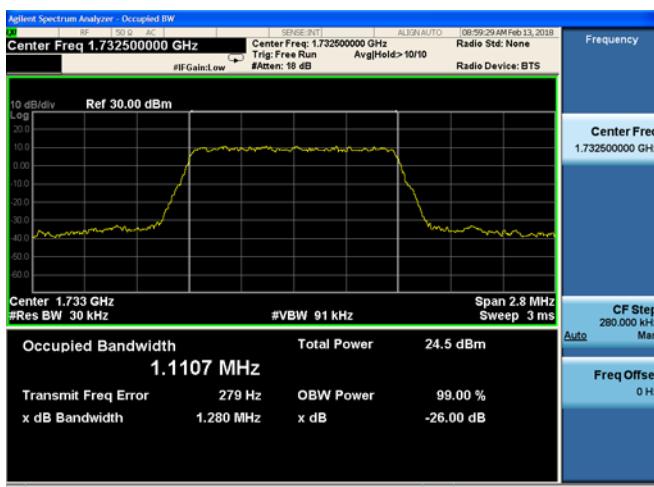
1.4MHz/QPSK/Low CH



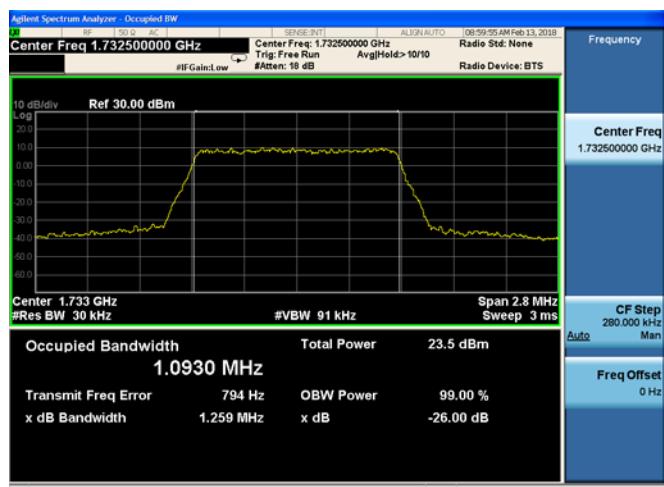
1.4MHz/16QAM/Low CH



1.4MHz/QPSK/Mid CH

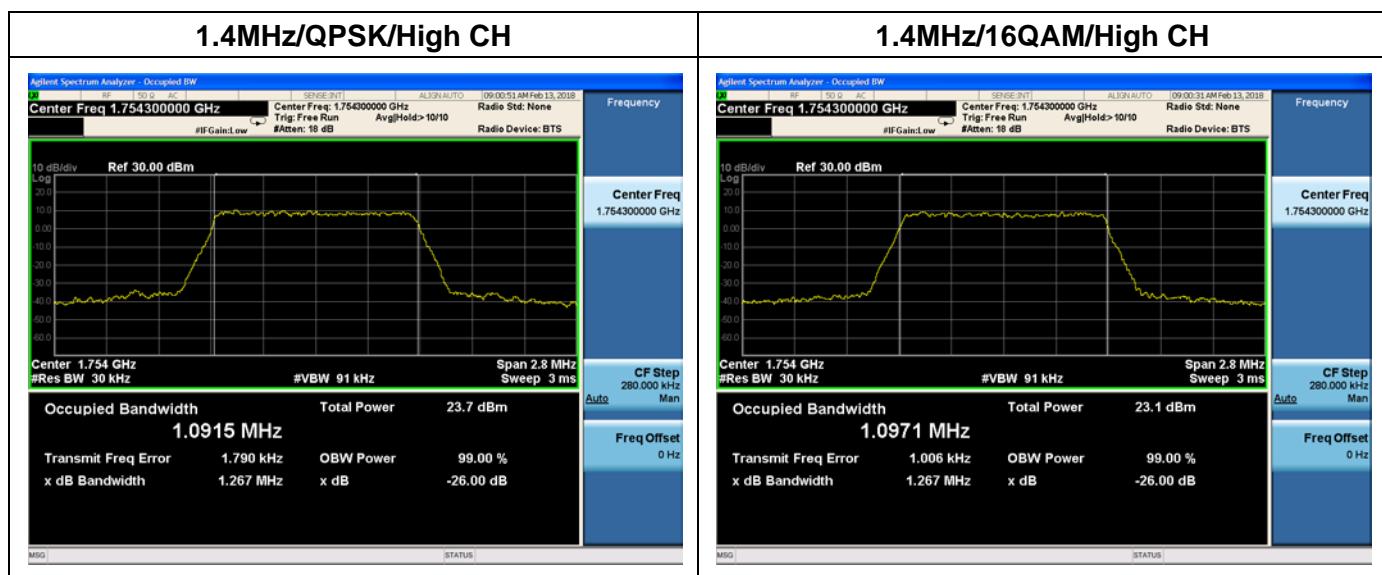


1.4MHz/16QAM/Mid CH





REPORT No.: SZ17120080W07



MORLAB

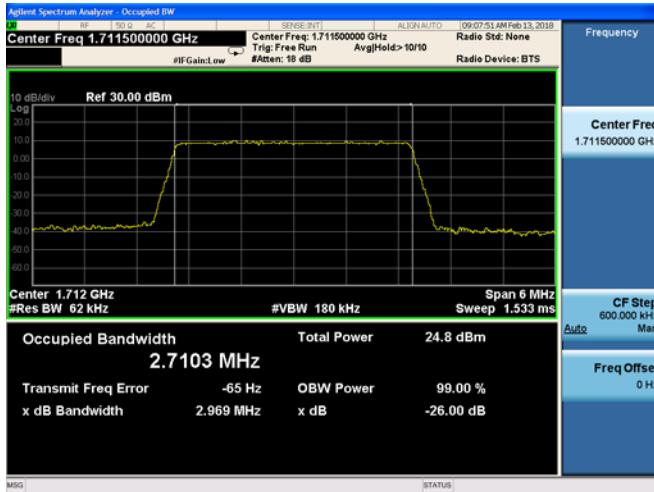
SHENZHEN MORLAB COMMUNICATIONS TECHNOLOGY Co., Ltd.
FL1-3, Building A, FeiYang Science Park, No.8 LongChang Road,
Block67, BaoAn District, ShenZhen , GuangDong Province, P. R. China

Tel: 86-755-36698555 Fax: 86-755-36698525
[Http://www.morlab.cn](http://www.morlab.cn) E-mail: service@morlab.cn

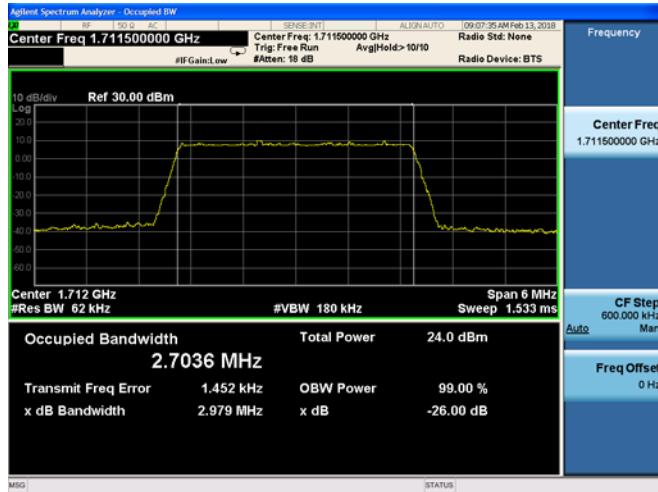


REPORT No.: SZ17120080W07

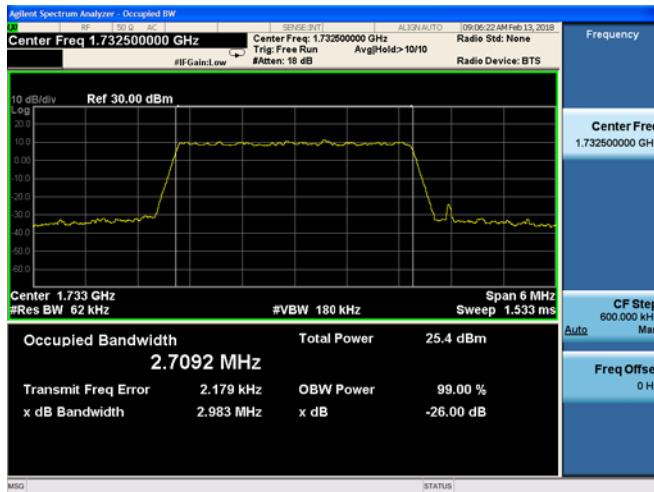
3MHz/QPSK/Low CH



3MHz/16QAM/Low CH



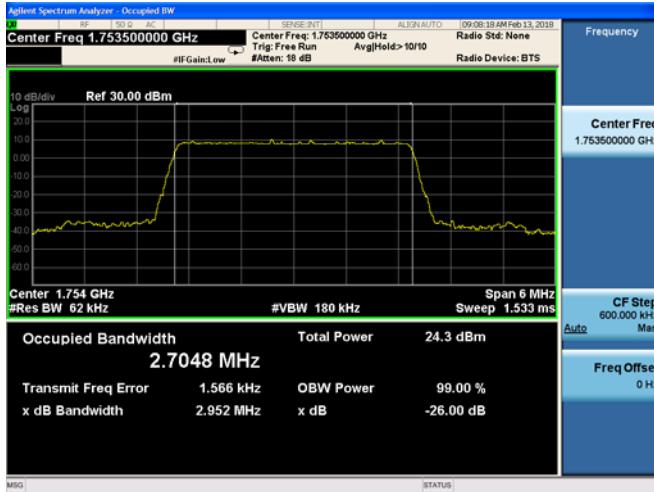
3MHz/QPSK/Mid CH



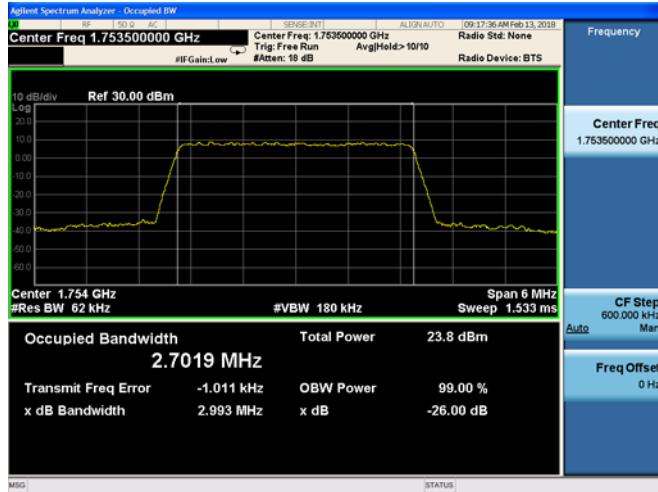
3MHz/16QAM/Mid CH



3MHz/QPSK/High CH

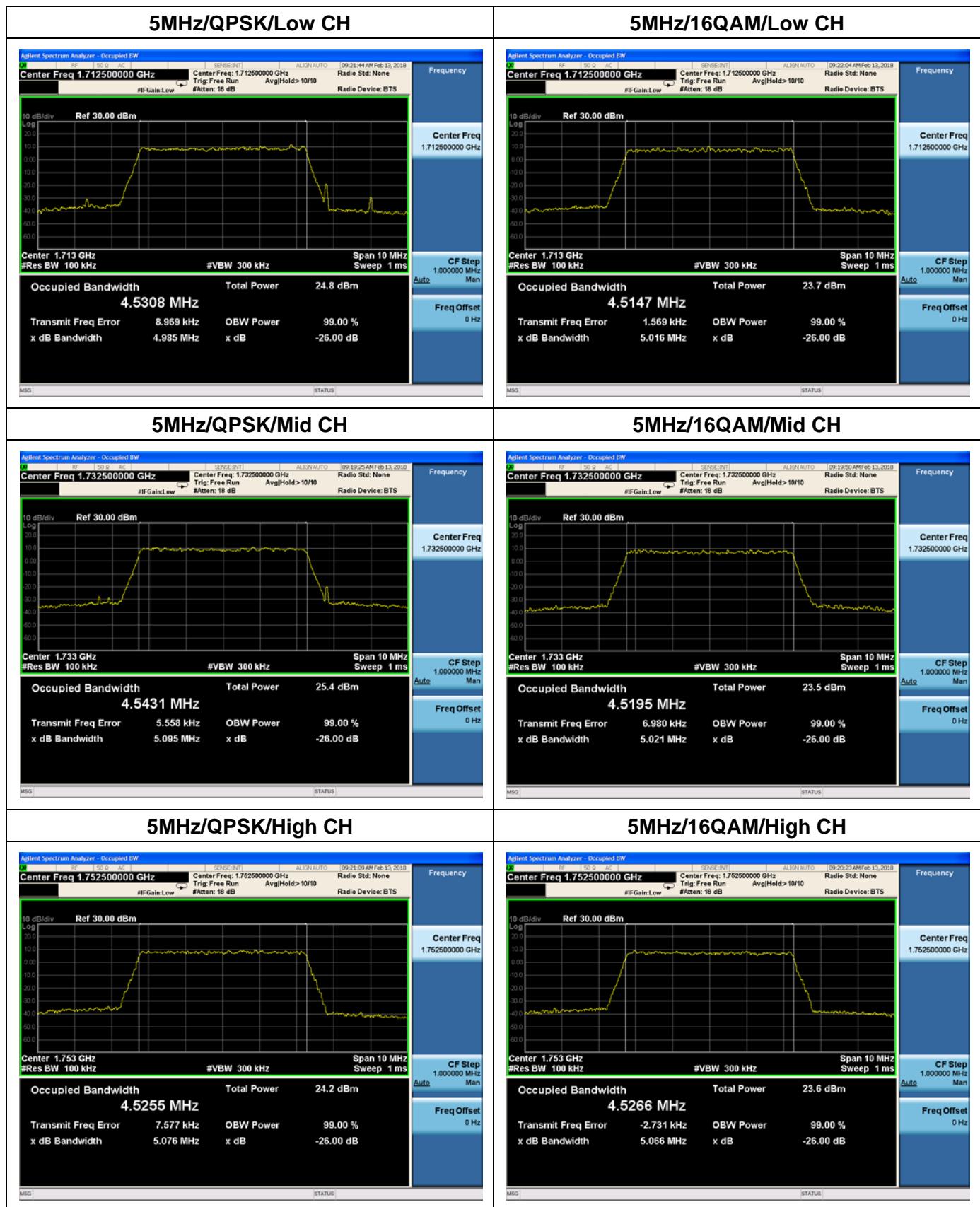


3MHz/16QAM/High CH





REPORT No.: SZ17120080W07



MORLAB

SHENZHEN MORLAB COMMUNICATIONS TECHNOLOGY Co., Ltd.
FL1-3, Building A, FeiYang Science Park, No.8 LongChang Road,
Block67, BaoAn District, ShenZhen , GuangDong Province, P. R. China

Tel: 86-755-36698555 Fax: 86-755-36698525
Http://www.morlab.cn E-mail: service@morlab.cn



REPORT No.: SZ17120080W07

10MHz/QPSK/Low CH



10MHz/16QAM/Low CH



10MHz/QPSK/Mid CH



10MHz/16QAM/Mid CH



10MHz/QPSK/High CH



10MHz/16QAM/High CH



MORLAB

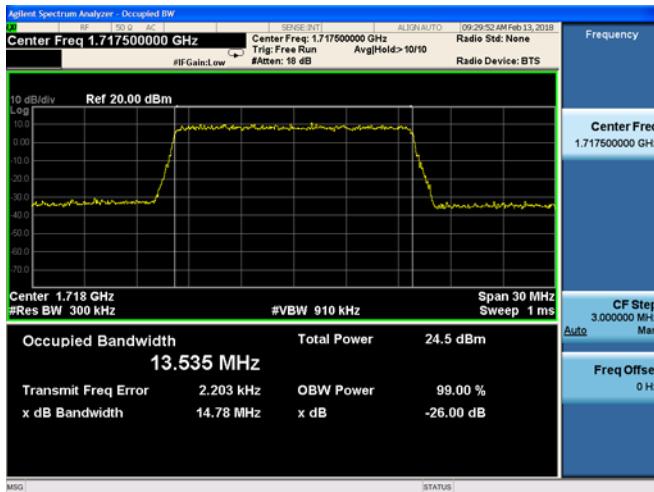
SHENZHEN MORLAB COMMUNICATIONS TECHNOLOGY Co., Ltd.
FL1-3, Building A, FeiYang Science Park, No.8 LongChang Road,
Block67, BaoAn District, ShenZhen , GuangDong Province, P. R. China

Tel: 86-755-36698555 Fax: 86-755-36698525
Http://www.morlab.cn E-mail: service@morlab.cn



REPORT No.: SZ17120080W07

15MHz/QPSK/Low CH



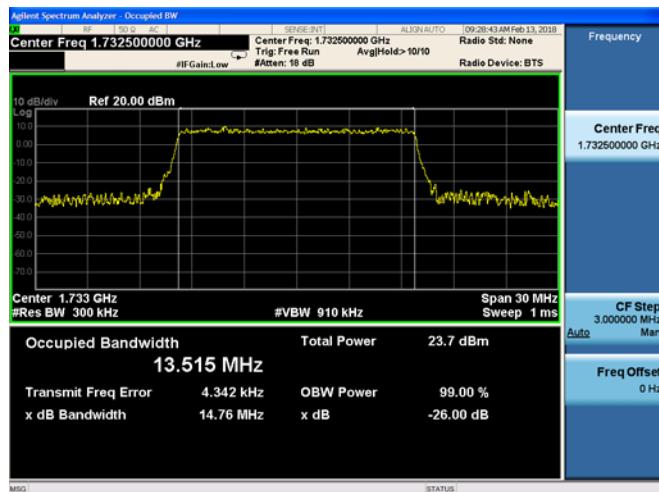
15MHz/16QAM/Low CH



15MHz/QPSK/Mid CH



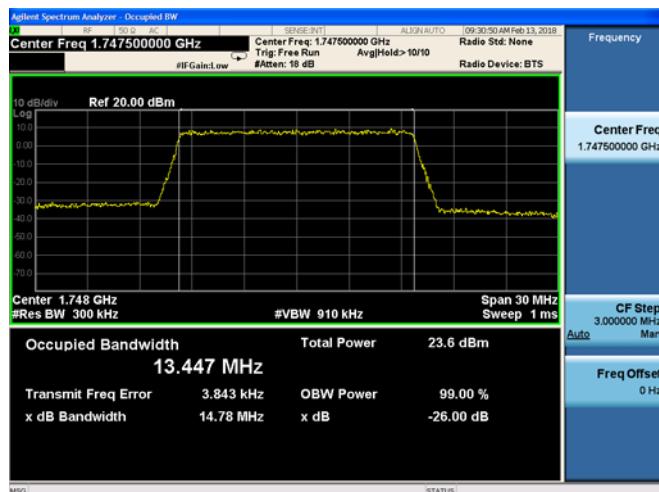
15MHz/16QAM/Mid CH



15MHz/QPSK/High CH



15MHz/16QAM/High CH



MORLAB

SHENZHEN MORLAB COMMUNICATIONS TECHNOLOGY Co., Ltd.
FL1-3, Building A, FeiYang Science Park, No.8 LongChang Road,
Block67, BaoAn District, ShenZhen , GuangDong Province, P. R. China

Tel: 86-755-36698555 | Fax: 86-755-36698525
Http://www.morlab.cn | E-mail: service@morlab.cn

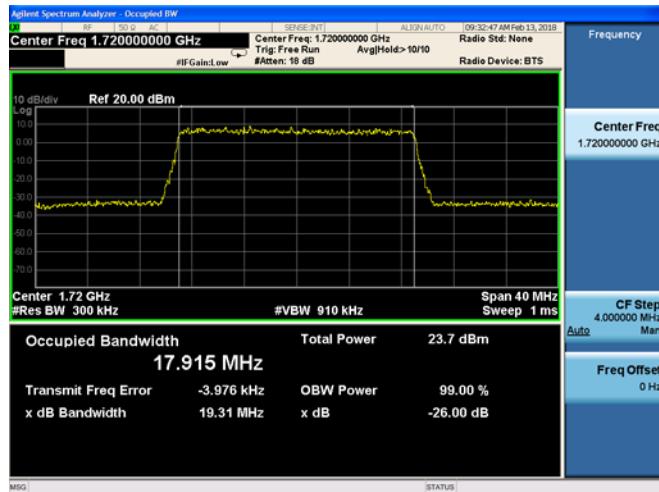


REPORT No.: SZ17120080W07

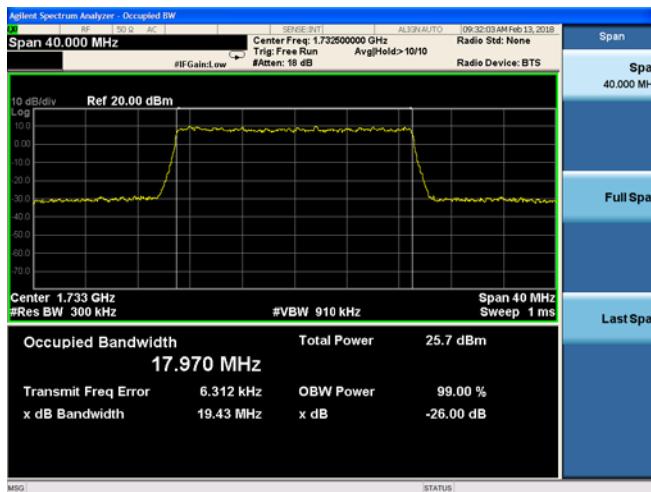
20MHz/QPSK/Low CH



20MHz/16QAM/Low CH



20MHz/QPSK/Mid CH



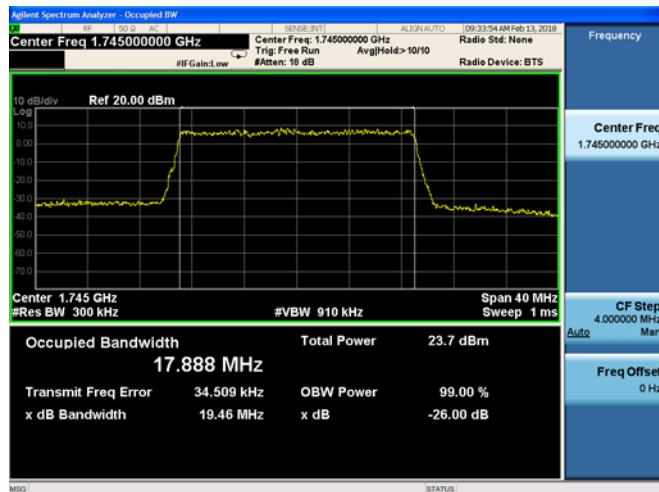
20MHz/16QAM/Mid CH



20MHz/QPSK/High CH



20MHz/16QAM/High CH



MORLAB

SHENZHEN MORLAB COMMUNICATIONS TECHNOLOGY Co., Ltd.
FL1-3, Building A, FeiYang Science Park, No.8 LongChang Road,
Block67, BaoAn District, ShenZhen , GuangDong Province, P. R. China

Tel: 86-755-36698555 Fax: 86-755-36698525
Http://www.morlab.cn E-mail: service@morlab.cn



LTE Band 7, BW: 5MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
20775	2502.5	4.5244	5.075	4.5464	5.047
21100	2535.0	4.5434	5.061	4.5500	5.095
21425	2567.5	4.5259	5.033	4.5480	5.119
LTE Band 7, BW: 10MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
20800	2505.0	9.0197	9.963	9.0132	9.961
21100	2535.0	9.0150	10.07	8.9787	9.993
21400	2565.0	9.0178	10.00	9.0288	9.890
LTE Band 7, BW: 15MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
20825	2507.5	13.493	14.94	13.466	14.74
21100	2535.0	13.529	14.83	13.516	14.92
21375	2562.5	13.453	14.77	13.467	14.79
LTE Band 7, BW: 20MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
20850	2510.0	18.011	19.72	17.990	19.62
21100	2535.0	17.998	19.41	18.003	19.51
21350	2560.0	17.968	19.71	17.986	19.70



REPORT No.: SZ17120080W07

LTE Band 7 99%&26dB Bandwidth

5MHz/QPSK/Low CH



5MHz/16QAM/Low CH



5MHz/QPSK/Mid CH



5MHz/16QAM/Mid CH



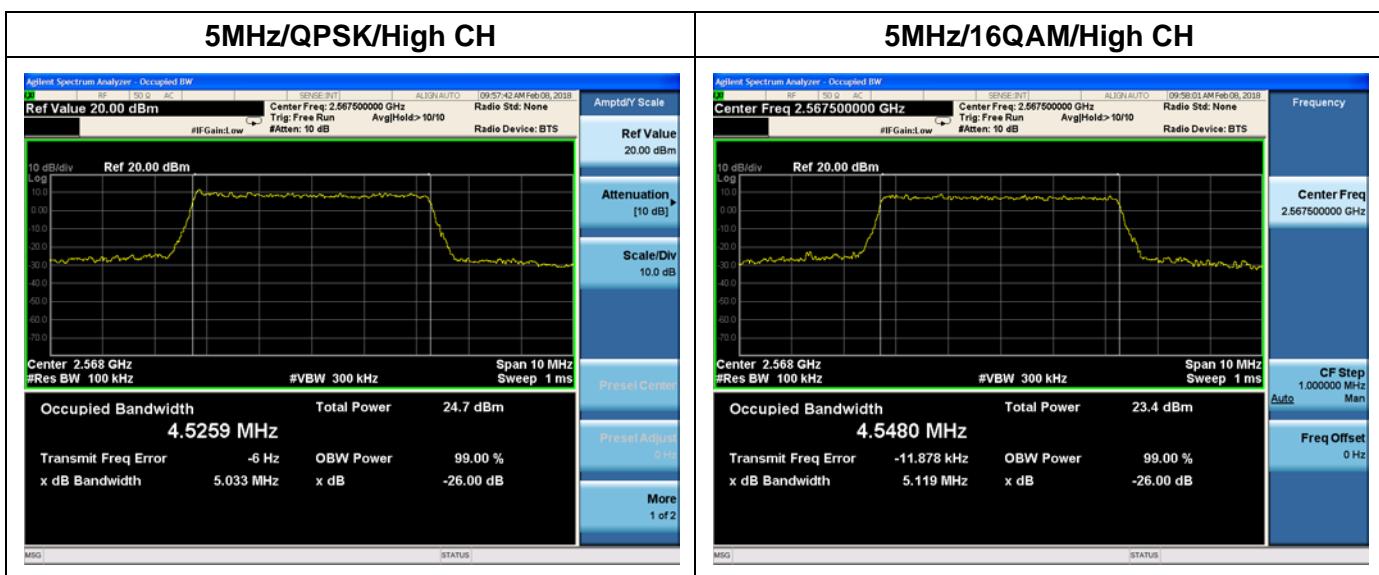
MORLAB

SHENZHEN MORLAB COMMUNICATIONS TECHNOLOGY Co., Ltd.
FL1-3, Building A, FeiYang Science Park, No.8 LongChang Road,
Block67, BaoAn District, ShenZhen , GuangDong Province, P. R. China

Tel: 86-755-36698555 Fax: 86-755-36698525
[Http://www.morlab.cn](http://www.morlab.cn) E-mail: service@morlab.cn



REPORT No.: SZ17120080W07



MORLAB

SHENZHEN MORLAB COMMUNICATIONS TECHNOLOGY Co., Ltd.
FL1-3, Building A, FeiYang Science Park, No.8 LongChang Road,
Block67, BaoAn District, ShenZhen , GuangDong Province, P. R. China

Tel: 86-755-36698555 Fax: 86-755-36698525
Http://www.morlab.cn E-mail: service@morlab.cn