TEST REPORT

APPLICANT	:	Shenzhen Chainway Information Technology Co.,Ltd.
PRODUCT NAME	:	Mobile Data Terminal
MODEL NAME	:	C75
BRAND NAME	:	CHAINWAY
FCC ID	:	2AC6AC75
STANDARD(S)	:	47 CFR Part 22, Subpart H 47 CFR Part 24, Subpart E 47 CFR Part 27, Subpart L&M
TEST DATE	:	2018-02-02 and 2018-06-14
ISSUE DATE	:	2018-06-28

Tested by: Su Hang

Su Hang (Test Engineer)

Approved by: Andy Yeh

Andy Yeh (Technical Director)

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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

Change History		
Issue	**Date**	**Reason for change**
1.0	2018-06-28	First edition

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:	C70_MB_V11	
Software Version:	C75A_MT6737_V1.2_AM_GITe4dc346_201805181532	
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
Channel Bandwidth	LTE Band 2	1.4MHz, 3 MHz, 5 MHz, 10MHz, 15 MHz, 20 MHz
	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

Emission Designator:	1M10G7D (LTE Band 2, QPSK, BW 1.4MHz) 1M10W7D (LTE Band 2, 16QAM, BW 1.4MHz) 2M71G7D (LTE Band 2, QPSK, BW 3MHz) 2M71 W7D (LTE Band 2, 16QAM, BW 3MHz) 4M53G7D (LTE Band 2, QPSK, BW 5MHz) 4M53W7D (LTE Band 2, 16QAM, BW 5MHz) 9M02G7D (LTE Band 2, QPSK, BW 10MHz) 9M01W7D (LTE Band 2, 16QAM, BW 10MHz) 13M52G7D (LTE Band 2, QPSK, BW 15MHz) 13M52W7D (LTE Band 2, 16QAM, BW 15MHz) 18M04G7D (LTE Band 2, QPSK, BW 20MHz) 18M05W7D (LTE Band 2, 16QAM, BW 20MHz) 1M13G7D (LTE Band 4, QPSK, BW 1.4MHz) 1M11W7D (LTE Band 4, 16QAM, BW 1.4MHz) 2M74G7D (LTE Band 4, QPSK, BW 3MHz) 2M73W7D (LTE Band 4, 16QAM, BW 3MHz) 4M57G7D (LTE Band 4, QPSK, BW 5MHz) 4M58W7D (LTE Band 4, 16QAM, BW 5MHz) 9M11G7D (LTE Band 4, QPSK, BW 10MHz) 9M06W7D (LTE Band 4, 16QAM, BW 10MHz) 13M60G7D (LTE Band 4, QPSK, BW 15MHz) 13M62W7D (LTE Band 4, 16QAM, BW 15MHz) 18M04G7D (LTE Band 4, QPSK, BW 20MHz) 18M09W7D (LTE Band 4, 16QAM, BW 20MHz) 4M54G7D (LTE Band 7, QPSK, BW 5MHz) 4M54W7D (LTE Band 7, 16QAM, BW 5MHz) 9M12G7D (LTE Band 7, QPSK, BW 10MHz) 9M01W7D (LTE Band 7, 16QAM, BW 10MHz) 13M54G7D (LTE Band 7, QPSK, BW 15MHz) 13M55W7D (LTE Band 7, 16QAM, BW 15MHz) 18M02G7D (LTE Band 7, QPSK, BW 20MHz) 18M06W7D (LTE Band 7, 16QAM, BW 20MHz) 1M10G7D (LTE Band 12, QPSK, BW 1.4MHz) 1M11W7D (LTE Band 12, 16QAM, BW 1.4MHz) 2M72G7D (LTE Band 12, QPSK, BW 3MHz) 2M71W7D (LTE Band 12, 16QAM, BW 3MHz) 4M54G7D (LTE Band 12, QPSK, BW 5MHz) 4M54W7D (LTE Band 12, 16QAM, BW 5MHz) 9M04G7D (LTE Band 12, QPSK, BW 10MHz)

	9M03W7D (LTE Band 12, 16QAM, BW 10MHz) 4M54G7D (LTE Band 17, QPSK, BW 5MHz) 4M54W7D (LTE Band 17, 16QAM, BW 5MHz) 9M03G7D (LTE Band 17, QPSK, BW 10MHz) 9M04W7D (LTE Band 17, 16QAM, BW 10MHz)	
Antenna Type:	PIFA Antenna	
Antenna Gain:	0.38 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.

Note 2: This test report is updated from report SZ18010063W09, based on the similarity between before, the model name, the software and hardware version, the antenna and the appearance of EUT are changed. And remove the RFID function. The changes only affect the test results of Equivalent Isotropic Radiated Power and Radiated Spurious Emissions.

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	May 21, 2018	Su Hang	PASS Note1
2.1049	Occupied Bandwidth	Feb 02&05, 2018	Su Hang	PASS Note1
2.1055, 24.235, 27.54	Frequency Stability	Feb 05, 2018	Su Hang	PASS Note1
24.232(d), 27.50(d)(5)	Peak to Average Radio	Feb 05, 2018	Su Hang	PASS Note1
2.1051, 24.238, 27.53(g)(h), 27.53(m)(4)	Conducted Spurious Emissions	Feb 05, 2018	Su Hang	PASS Note1
2.1051, 24.238, 27.53(g)(h), 27.53(m)(4)	Band Edge	Feb 09&24, 2018	Su Hang	PASS Note1
24.232(c), 27.50(c)(10) 27.50(d)(4), 27.50(h)(2)	Equivalent Isotropic Radiated Power	Jun 14, 2018	Wu Zhongwen	PASS
2.1051, 24.238, 27.53(g)(h), 27.53(m)(4)	Radiated Spurious Emissions	Jun 14, 2018	Wu Zhongwen	PASS
Note 1: The test results of these test items in this report refer to the test report (Report No.: SZ18010063W09). **Note 2:** 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

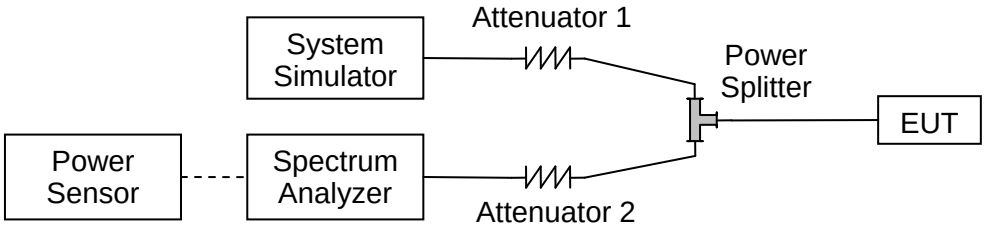
2. 47 CFR Part 2, Part 24E & 27 Requirements

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
					RB Size	RB Offset	(dBm)
LTE Band 2	20MHz	L 18700	1860	QPSK	1	0	23.02
					1	49	22.94
					1	99	22.75
					50	0	22.43
					50	25	22.31
					50	49	22.15
					100	0	22.15
				16-QAM	1	0	21.73
					1	49	21.88
					1	99	21.93
					50	0	20.83
					50	25	20.74
					50	49	20.77
					100	0	20.77
		M 18900	1880	QPSK	1	0	23.08
					1	49	23.02
					1	99	22.95
					50	0	23.05
					50	25	22.82
					50	49	22.76
					100	0	22.55
				16-QAM	1	0	22.21
					1	49	22.28
					1	99	22.02
					50	0	20.98
					50	25	20.91
					50	49	20.99
					100	0	21.00
		H 19100	1900	QPSK	1	0	23.14
					1	49	23.22
					1	99	23.27
					50	0	22.83
					50	25	22.74
					50	49	22.73
					100	0	22.73
				16-QAM	1	0	22.43
					1	49	22.29
					1	99	22.20
					50	0	21.07
					50	25	21.04
					50	49	21.13
					100	0	21.15

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 2	15MHz	L 18675	1857.5	QPSK	1	0	22.57
					1	37	22.39
					1	74	22.24
					36	0	21.99
					36	18	21.76
					36	35	21.72
					75	0	21.55
				16-QAM	1	0	21.71
					1	37	21.86
					1	74	21.82
					36	0	20.65
					36	18	20.62
					36	35	20.64
					75	0	20.64
		M 18900	1880	QPSK	1	0	23.24
					1	37	23.11
					1	74	23.00
					36	0	23.11
					36	18	22.98
					36	35	22.83
					75	0	22.81
				16-QAM	1	0	22.26
					1	37	22.28
					1	74	21.89
					36	0	20.92
					36	18	20.92
					36	35	20.89
					75	0	20.92
		H 19125	1902.5	QPSK	1	0	23.22
					1	37	23.13
					1	74	22.96
					36	0	22.96
					36	18	22.76
					36	35	22.62
					75	0	22.74
				16-QAM	1	0	22.47
					1	37	22.25
					1	74	22.35
					36	0	20.98
					36	18	21.01
					36	35	21.04
					75	0	21.05

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 2	10MHz	L 18650	1855	QPSK	1	0	22.49
					1	24	22.89
					1	49	22.88
					25	0	21.75
					25	12	21.53
					25	24	21.40
					50	0	21.49
				16-QAM	1	0	21.46
					1	24	21.94
					1	49	21.85
					25	0	20.57
					25	12	20.49
					25	24	20.51
					50	0	20.59
		M 18900	1880	QPSK	1	0	22.76
					1	24	22.92
					1	49	23.04
					25	0	23.01
					25	12	22.81
					25	24	22.90
					50	0	22.88
				16-QAM	1	0	21.64
					1	24	22.30
					1	49	21.87
					25	0	20.88
					25	12	20.84
					25	24	20.88
					50	0	20.93
		H 19150	1905	QPSK	1	0	22.91
					1	24	23.00
					1	49	23.31
					25	0	22.36
					25	12	22.21
					25	24	22.19
					50	0	22.05
				16-QAM	1	0	21.83
					1	24	22.17
					1	49	22.03
					25	0	20.98
					25	12	20.96
					25	24	21.07
					50	0	21.05

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 2	5MHz	L 18625	1852.5	QPSK	1	0	22.48
					1	12	22.33
					1	24	22.35
					12	0	21.12
					12	6	21.31
					12	11	21.37
					25	0	21.05
				16-QAM	1	0	21.36
					1	12	21.80
					1	24	21.45
					12	0	20.62
					12	6	20.50
					12	11	20.55
					25	0	20.48
		M 18900	1880	QPSK	1	0	22.81
					1	12	22.85
					1	24	22.72
					12	0	22.96
					12	6	22.49
					12	11	22.69
					25	0	22.49
				16-QAM	1	0	21.57
					1	12	22.08
					1	24	21.81
					12	0	20.83
					12	6	20.82
					12	11	20.86
					25	0	20.86
		H 19175	1907.5	QPSK	1	0	22.92
					1	12	22.79
					1	24	22.80
					12	0	22.22
					12	6	22.01
					12	11	22.03
					25	0	22.01
				16-QAM	1	0	21.96
					1	12	22.35
					1	24	21.75
					12	0	21.08
					12	6	21.00
					12	11	21.10
					25	0	20.96

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 2	3MHz	L 18615	1851.5	QPSK	1	0	23.21
					1	7	23.30
					1	14	23.05
					8	0	22.65
					8	4	22.63
					8	7	22.51
					15	0	22.19
				16-QAM	1	0	21.88
					1	7	21.52
					1	14	21.54
					8	0	20.47
					8	4	20.40
					8	7	20.51
					15	0	20.53
		M 18900	1880	QPSK	1	0	23.43
					1	7	23.43
					1	14	23.14
					8	0	22.67
					8	4	22.32
					8	7	22.45
					15	0	22.19
				16-QAM	1	0	22.27
					1	7	21.78
					1	14	21.93
					8	0	20.97
					8	4	20.87
					8	7	20.83
					15	0	20.95
		H 19185	1908.5	QPSK	1	0	23.43
					1	7	23.02
					1	14	23.20
					8	0	22.44
					8	4	22.58
					8	7	22.30
					15	0	22.00
				16-QAM	1	0	22.21
					1	7	22.15
					1	14	22.31
					8	0	20.92
					8	4	21.10
					8	7	21.05
					15	0	20.98

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 2	1.4MHz	L 18607	1850.7	QPSK	1	0	22.24
					1	2	22.13
					1	5	22.23
					3	0	21.96
					3	1	21.76
					3	2	21.63
					6	0	21.45
				16-QAM	1	0	21.32
					1	2	21.74
					1	5	21.40
					3	0	21.47
					3	1	21.46
					3	2	21.38
					6	0	20.46
		M 18900	1880	QPSK	1	0	22.54
					1	2	22.75
					1	5	22.54
					3	0	22.40
					3	1	22.38
					3	2	22.43
					6	0	23.10
				16-QAM	1	0	21.68
					1	2	22.28
					1	5	21.64
					3	0	22.21
					3	2	21.99
					3	5	21.79
					6	0	20.87
		H 19193	1909.3	QPSK	1	0	22.65
					1	2	22.35
					1	5	22.70
					3	0	22.29
					3	1	22.26
					3	2	22.23
					6	0	22.02
				16-QAM	1	0	22.01
					1	2	22.19
					1	5	21.96
					3	0	21.91
					3	1	22.14
					3	2	22.12
					6	0	21.07

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 4	20MHz	L 20050	1720.0	QPSK	1	0	23.36
					1	49	23.30
					1	99	23.41
					50	0	23.32
					50	25	22.80
					50	49	22.80
					100	0	22.68
				16-QAM	1	0	22.60
					1	49	22.54
					1	99	22.14
					50	0	21.23
					50	25	21.11
					50	49	21.02
					100	0	21.14
		M 20175	1732.5	QPSK	1	0	23.38
					1	49	23.52
					1	99	23.34
					50	0	23.31
					50	25	23.32
					50	49	23.03
					100	0	22.96
				16-QAM	1	0	22.33
					1	49	22.50
					1	99	22.44
					50	0	21.24
					50	25	21.10
					50	49	21.20
					100	0	21.18
		H 20300	1745.0	QPSK	1	0	23.93
					1	49	23.81
					1	99	23.99
					50	0	23.34
					50	25	23.86
					50	49	23.90
					100	0	23.48
				16-QAM	1	0	22.66
					1	49	22.59
					1	99	22.77
					50	0	21.44
					50	25	21.46
					50	49	21.74
					100	0	21.55

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 4	15MHz	L 20025	1717.5	QPSK	1	0	22.80
					1	37	22.82
					1	74	22.63
					36	0	22.42
					36	18	22.51
					36	35	22.52
					75	0	22.46
				16-QAM	1	0	22.49
					1	37	22.42
					1	74	22.10
					36	0	21.18
					36	18	21.12
					36	35	21.03
					75	0	21.10
		M 20175	1732.5	QPSK	1	0	23.14
					1	37	23.02
					1	74	22.87
					36	0	22.63
					36	18	22.40
					36	35	22.55
					75	0	22.00
				16-QAM	1	0	22.37
					1	37	22.12
					1	74	22.18
					36	0	21.13
					36	18	21.05
					36	35	21.09
					75	0	21.13
		H 20325	1747.5	QPSK	1	0	23.66
					1	37	23.62
					1	74	23.59
					36	0	23.02
					36	18	23.11
					36	35	22.96
					75	0	22.91
				16-QAM	1	0	22.51
					1	37	22.95
					1	74	22.91
					36	0	21.46
					36	18	21.63
					36	35	21.78
					75	0	21.61

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 4	10MHz	L 20000	1715.0	QPSK	1	0	23.08
					1	24	22.98
					1	49	22.78
					25	0	23.22
					25	12	22.96
					25	24	22.82
					50	0	22.83
				16-QAM	1	0	21.85
					1	24	22.29
					1	49	22.28
					25	0	21.07
					25	12	21.02
					25	24	21.01
					50	0	21.04
		M 20175	1732.5	QPSK	1	0	23.09
					1	24	23.00
					1	49	22.84
					25	0	23.21
					25	12	22.81
					25	24	22.69
					50	0	22.52
				16-QAM	1	0	22.12
					1	24	22.36
					1	49	22.37
					25	0	21.06
					25	12	20.98
					25	24	21.07
					50	0	21.13
		H 20350	1750.0	QPSK	1	0	23.75
					1	24	23.61
					1	49	24.00
					25	0	23.90
					25	12	23.89
					25	24	23.62
					50	0	23.33
				16-QAM	1	0	22.46
					1	24	22.80
					1	49	23.17
					25	0	21.54
					25	12	21.61
					25	24	21.76
					50	0	21.70

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 4	5MHz	L 19975	1712.5	QPSK	1	0	23.05
					1	12	22.98
					1	24	22.79
					12	0	23.20
					12	6	22.74
					12	11	22.81
					25	0	22.72
				16-QAM	1	0	22.14
					1	12	22.41
					1	24	21.93
					12	0	21.06
					12	6	21.06
					12	11	21.10
					25	0	21.01
		M 20175	1732.5	QPSK	1	0	22.91
					1	12	23.19
					1	24	23.00
					12	0	23.18
					12	6	22.99
					12	11	22.98
					25	0	22.77
				16-QAM	1	0	21.89
					1	12	22.13
					1	24	21.68
					12	0	21.16
					12	6	20.95
					12	11	21.00
					25	0	20.95
		H 20375	1752.5	QPSK	1	0	23.72
					1	12	23.44
					1	24	23.57
					12	0	23.00
					12	6	22.46
					12	11	23.84
					25	0	22.56
				16-QAM	1	0	22.63
					1	12	23.09
					1	24	22.41
					12	0	21.71
					12	6	21.69
					12	11	21.68
					25	0	21.65

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 4	3MHz	L 19965	1711.5	QPSK	1	0	23.56
					1	7	23.35
					1	14	23.22
					8	0	23.23
					8	4	23.02
					8	7	23.01
					15	0	22.86
				16-QAM	1	0	22.15
					1	7	22.04
					1	14	22.47
					8	0	20.95
					8	4	21.07
					8	7	21.05
					15	0	21.08
		M 20175	1732.5	QPSK	1	0	23.21
					1	7	23.14
					1	14	23.34
					8	0	22.42
					8	4	22.70
					8	7	22.35
					15	0	22.40
				16-QAM	1	0	22.19
					1	7	22.31
					1	14	22.40
					8	0	21.19
					8	4	21.09
					8	7	20.99
					15	0	21.17
		H 20385	1753.5	QPSK	1	0	23.87
					1	7	23.42
					1	14	23.35
					8	0	23.57
					8	4	22.97
					8	7	23.14
					15	0	23.30
				16-QAM	1	0	23.01
					1	7	22.86
					1	14	23.09
					8	0	21.56
					8	4	21.60
					8	7	21.87
					15	0	21.70

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 4	1.4MHz	L 19957	1710.7	QPSK	1	0	22.69
					1	2	22.52
					1	5	22.35
					3	0	22.11
					3	1	22.00
					3	2	22.21
					6	0	23.16
				16-QAM	1	0	21.92
					1	2	22.27
					1	5	21.92
					3	0	22.34
					3	1	22.13
					3	2	21.93
					6	0	21.01
		M 20175	1732.5	QPSK	1	0	22.74
					1	2	22.56
					1	5	22.44
					3	0	22.42
					3	1	22.10
					3	2	22.35
					6	0	23.20
				16-QAM	1	0	21.72
					1	2	22.42
					1	5	21.89
					3	0	22.07
					3	2	22.18
					3	5	22.10
					6	0	21.00
		H 20393	1754.3	QPSK	1	0	23.77
					1	2	23.32
					1	5	23.56
					3	0	23.15
					3	1	23.01
					3	2	23.23
					6	0	23.87
				16-QAM	1	0	22.56
					1	2	22.74
					1	5	22.52
					3	0	22.82
					3	1	22.75
					3	2	22.70
					6	0	21.71

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 7	20MHz	L 20850	2510	QPSK	1	0	22.68
					1	49	22.42
					1	99	23.00
					50	0	21.99
					50	25	22.31
					50	49	22.20
					100	0	22.01
				16-QAM	1	0	21.38
					1	49	21.95
					1	99	21.87
					50	0	20.58
					50	25	20.59
					50	49	20.76
					100	0	20.68
		M 21100	2535	QPSK	1	0	23.87
					1	49	23.44
					1	99	23.87
					50	0	23.88
					50	25	23.67
					50	49	23.53
					100	0	22.98
				16-QAM	1	0	22.93
					1	49	22.93
					1	99	23.09
					50	0	21.77
					50	25	21.48
					50	49	21.67
					100	0	21.80
		H 21350	2560	QPSK	1	0	24.18
					1	49	23.92
					1	99	23.98
					50	0	23.25
					50	25	23.51
					50	49	23.05
					100	0	23.12
				16-QAM	1	0	23.44
					1	49	23.07
					1	99	22.85
					50	0	21.92
					50	25	21.82
					50	49	21.77
					100	0	21.93

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 7	15MHz	L 20825	2507.5	QPSK	1	0	22.89
					1	37	22.26
					1	74	22.27
					36	0	21.63
					36	18	21.94
					36	35	22.21
					75	0	22.10
				16-QAM	1	0	21.86
					1	37	22.12
					1	74	21.85
					36	0	20.43
					36	18	20.60
					36	35	20.67
					75	0	20.56
		M 21100	2535	QPSK	1	0	24.17
					1	37	24.13
					1	74	23.98
					36	0	23.20
					36	18	23.40
					36	35	22.99
					75	0	22.89
				16-QAM	1	0	23.06
					1	37	22.92
					1	74	22.93
					36	0	21.62
					36	18	21.49
					36	35	21.60
					75	0	21.56
		H 21375	2562.5	QPSK	1	0	23.97
					1	37	23.45
					1	74	23.87
					36	0	23.42
					36	18	23.06
					36	35	23.00
					75	0	23.04
				16-QAM	1	0	22.84
					1	37	22.84
					1	74	22.85
					36	0	21.77
					36	18	21.81
					36	35	21.81
					75	0	21.83

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 7	10MHz	L 20800	2505	QPSK	1	0	22.76
					1	24	22.43
					1	49	22.13
					25	0	22.72
					25	12	22.65
					25	24	22.22
					50	0	21.97
				16-QAM	1	0	21.06
					1	24	21.74
					1	49	21.82
					25	0	20.42
					25	12	20.39
					25	24	20.57
					50	0	20.50
		M 21100	2535	QPSK	1	0	23.89
					1	24	23.82
					1	49	23.58
					25	0	22.97
					25	12	23.21
					25	24	23.31
					50	0	22.99
				16-QAM	1	0	22.63
					1	24	22.71
					1	49	22.68
					25	0	21.56
					25	12	21.42
					25	24	21.51
					50	0	21.51
		H 21400	2565	QPSK	1	0	23.86
					1	24	23.14
					1	49	23.19
					25	0	22.98
					25	12	23.23
					25	24	23.18
					50	0	23.30
				16-QAM	1	0	22.68
					1	24	23.02
					1	49	23.12
					25	0	21.75
					25	12	21.69
					25	24	21.80
					50	0	21.79

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 7	5MHz	L 20775	2502.5	QPSK	1	0	22.29
					1	12	22.25
					1	24	22.27
					12	0	21.84
					12	6	21.81
					12	11	21.61
					25	0	21.34
				16-QAM	1	0	21.21
					1	12	21.57
					1	24	21.05
					12	0	20.29
					12	6	20.34
					12	11	20.32
					25	0	20.31
		M 21100	2535	QPSK	1	0	23.55
					1	12	23.34
					1	24	23.59
					12	0	23.58
					12	6	23.35
					12	11	23.43
					25	0	22.18
				16-QAM	1	0	22.53
					1	12	22.75
					1	24	22.81
					12	0	21.63
					12	6	21.37
					12	11	21.54
					25	0	21.54
		H 21425	2567.5	QPSK	1	0	23.68
					1	12	23.66
					1	24	23.63
					12	0	23.03
					12	6	23.23
					12	11	23.20
					25	0	23.28
				16-QAM	1	0	22.67
					1	12	22.93
					1	24	22.72
					12	0	21.77
					12	6	21.81
					12	11	21.83
					25	0	21.74

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 12	10MHz	L 23060	704	QPSK	1	0	22.22
					1	24	22.21
					1	49	22.22
					25	0	21.87
					25	12	21.87
					25	24	21.77
					50	0	21.57
				16-QAM	1	0	21.68
					1	24	21.58
					1	49	21.60
					25	0	20.26
					25	12	20.12
					25	24	20.07
					50	0	20.22
		M 23095	707.5	QPSK	1	0	22.19
					1	24	21.10
					1	49	22.12
					25	0	22.29
					25	12	22.36
					25	24	21.99
					50	0	22.09
				16-QAM	1	0	21.46
					1	24	21.59
					1	49	21.02
					25	0	20.20
					25	12	20.06
					25	24	20.04
					50	0	20.12
		H 23130	711	QPSK	1	0	21.97
					1	24	21.56
					1	49	21.84
					25	0	21.24
					25	12	21.62
					25	24	21.40
					50	0	21.21
				16-QAM	1	0	20.93
					1	24	21.08
					1	49	20.88
					25	0	19.96
					25	12	19.85
					25	24	19.73
					50	0	19.92

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 12	5MHz	L 23035	701.5	QPSK	1	0	22.27
					1	12	21.85
					1	24	21.99
					12	0	21.85
					12	6	21.64
					12	11	21.52
					25	0	21.63
				16-QAM	1	0	21.37
					1	12	21.89
					1	24	21.15
					12	0	20.41
					12	6	20.15
					12	11	20.24
					25	0	20.29
		M 23095	707.5	QPSK	1	0	22.10
					1	12	22.11
					1	24	21.79
					12	0	22.22
					12	6	22.11
					12	11	21.97
					25	0	22.01
				16-QAM	1	0	21.10
					1	12	21.27
					1	24	21.09
					12	0	20.18
					12	6	20.09
					12	11	20.08
					25	0	20.04
		H 23155	713.5	QPSK	1	0	21.62
					1	12	21.35
					1	24	21.25
					12	0	21.62
					12	6	21.44
					12	11	21.49
					25	0	21.14
				16-QAM	1	0	20.74
					1	12	21.22
					1	24	20.32
					12	0	19.84
					12	6	19.67
					12	11	19.47
					25	0	19.60

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 12	3MHz	L 23025	700.5	QPSK	1	0	23.50
					1	7	23.21
					1	14	23.48
					8	0	22.96
					8	4	22.79
					8	7	22.65
					15	0	22.30
				16-QAM	1	0	21.92
					1	7	21.73
					1	14	21.55
					8	0	20.45
					8	4	20.35
					8	7	20.46
					15	0	20.26
		M 23095	707.5	QPSK	1	0	22.58
					1	7	22.32
					1	14	22.15
					8	0	22.10
					8	4	21.98
					8	7	21.98
					15	0	21.86
				16-QAM	1	0	21.44
					1	7	21.36
					1	14	21.46
					8	0	20.10
					8	4	20.18
					8	7	19.94
					15	0	20.14
		H 23165	714.5	QPSK	1	0	22.36
					1	7	22.49
					1	14	22.32
					8	0	21.90
					8	4	21.87
					8	7	21.76
					15	0	21.46
				16-QAM	1	0	20.95
					1	7	20.45
					1	14	20.55
					8	0	19.45
					8	4	19.28
					8	7	19.30
					15	0	19.58

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 12	1.4MHz	L 23017	699.7	QPSK	1	0	22.11
					1	2	22.11
					1	5	22.29
					3	0	21.90
					3	1	21.67
					3	2	21.34
					6	0	21.54
				16-QAM	1	0	21.10
					1	2	21.97
					1	5	21.25
					3	0	21.54
					3	1	21.80
					3	2	21.46
					6	0	20.31
		M 23095	707.5	QPSK	1	0	21.74
					1	2	21.62
					1	5	21.38
					3	0	21.21
					3	1	21.06
					3	2	20.95
					6	0	22.14
				16-QAM	1	0	21.08
					1	2	21.47
					1	5	21.01
					3	0	21.50
					3	2	21.22
					3	5	21.08
					6	0	20.11
		H 23173	715.3	QPSK	1	0	21.22
					1	2	21.45
					1	5	21.60
					3	0	21.01
					3	1	20.80
					3	2	20.83
					6	0	20.66
				16-QAM	1	0	20.35
					1	2	20.74
					1	5	20.10
					3	0	20.56
					3	1	20.62
					3	2	20.49
					6	0	19.49

Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 17	10MHz	L 23780	709	QPSK	1	0	22.26
					1	24	22.14
					1	49	22.01
					25	0	22.40
					25	12	22.22
					25	24	22.19
					50	0	21.89
				16-QAM	1	0	21.50
					1	24	21.37
					1	49	21.36
					25	0	20.28
					25	12	20.27
					25	24	20.12
					50	0	20.19
		M 23790	710	QPSK	1	0	22.26
					1	24	22.32
					1	49	22.44
					25	0	22.38
					25	12	22.13
					25	24	21.99
					50	0	21.99
				16-QAM	1	0	21.20
					1	24	21.58
					1	49	21.28
					25	0	20.33
					25	12	20.13
					25	24	19.94
					50	0	20.15
		H 23800	711	QPSK	1	0	21.98
					1	24	21.47
					1	49	21.91
					25	0	21.93
					25	12	21.65
					25	24	21.89
					50	0	21.58
				16-QAM	1	0	21.41
					1	24	21.24
					1	49	20.93
					25	0	20.10
					25	12	19.97
					25	24	19.80
					50	0	19.95

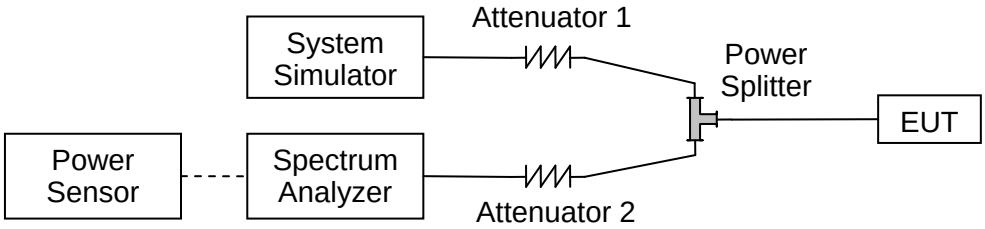
Band	Band Width	Channel	Freq.(MHz)	Modulation	RB Configuration		Average Power
					RB Size	RB Offset	(dBm)
LTE Band 17	5MHz	L 23755	706.5	QPSK	1	0	22.16
					1	12	22.10
					1	24	22.14
					12	0	22.32
					12	6	21.90
					12	11	21.95
					25	0	21.92
				16-QAM	1	0	21.01
					1	12	21.50
					1	24	21.00
					12	0	20.37
					12	6	20.27
					12	11	20.24
					25	0	20.24
		M 23790	710	QPSK	1	0	22.16
					1	12	22.06
					1	24	22.20
					12	0	22.28
					12	6	22.21
					12	11	21.94
					25	0	21.92
				16-QAM	1	0	21.34
					1	12	21.58
					1	24	21.23
					12	0	20.34
					12	6	20.07
					12	11	20.17
					25	0	20.07
		H 23825	713.5	QPSK	1	0	21.69
					1	12	21.53
					1	24	21.40
					12	0	21.59
					12	6	21.36
					12	11	21.28
					25	0	21.30
				16-QAM	1	0	20.95
					1	12	20.87
					1	24	20.54
					12	0	19.83
					12	6	19.72
					12	11	19.51
					25	0	19.72

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	1.1006	1.283	1.0949	1.260
18900	1880.0	1.0976	1.273	1.1012	1.283
19192	1909.2	1.1010	1.287	1.0962	1.258

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	2.7149	2.973	2.7067	2.990
18900	1880.0	2.7072	2.984	2.7131	2.994
19184	1908.4	2.7081	2.977	2.7037	2.974
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	4.5322	5.088	4.5336	5.065
18900	1880.0	4.5348	5.046	4.5330	5.083
19175	1907.5	4.4760	4.870	4.4676	4.888
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	8.9822	9.955	8.9948	9.937
18900	1880.0	9.0175	10.93	9.0089	9.852
19150	1905.0	8.9988	9.991	8.9851	9.974
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	13.488	15.06	13.488	14.42
18900	1880.0	13.524	14.96	13.519	14.90
19125	1902.5	13.483	15.03	13.497	14.96
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	17.997	19.63	18.054	19.95
18900	1880.0	18.041	21.39	18.100	22.37
19100	1900.0	17.992	19.70	17.951	19.52

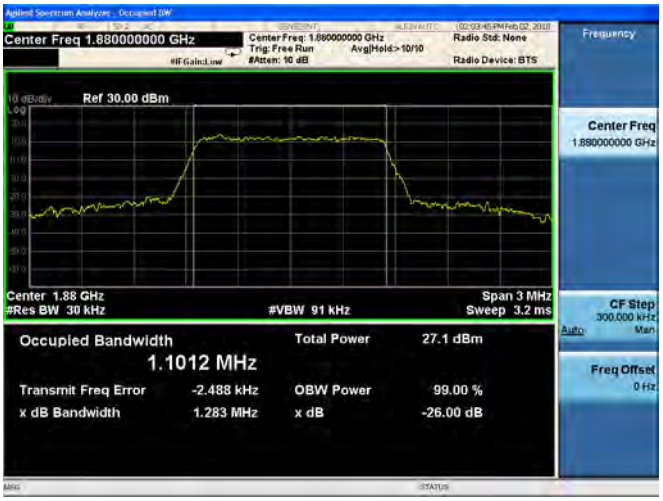
LTE Band 2 99%&26dB Bandwidth

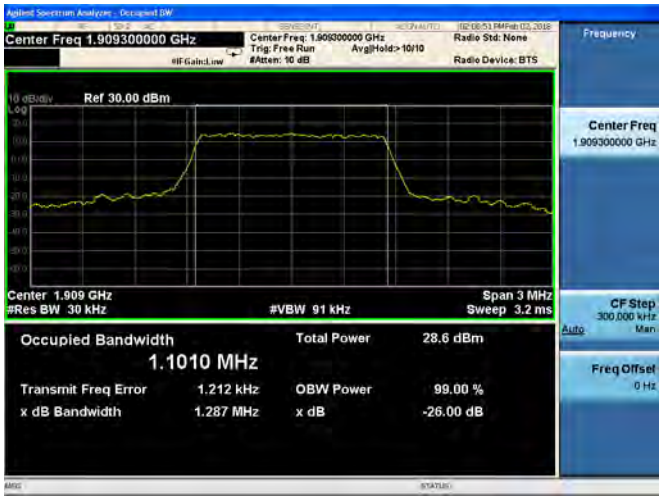
1.4MHz/QPSK/Low CH

1.4MHz/16QAM/Low CH

1.4MHz/QPSK/Mid CH

1.4MHz/16QAM/Mid CH



1.4MHz/QPSK/High CH	1.4MHz/16QAM/High CH
	

3MHz/QPSK/Low CH

3MHz/16QAM/Low CH

3MHz/QPSK/Mid CH

3MHz/16QAM/Mid CH

3MHz/QPSK/High CH

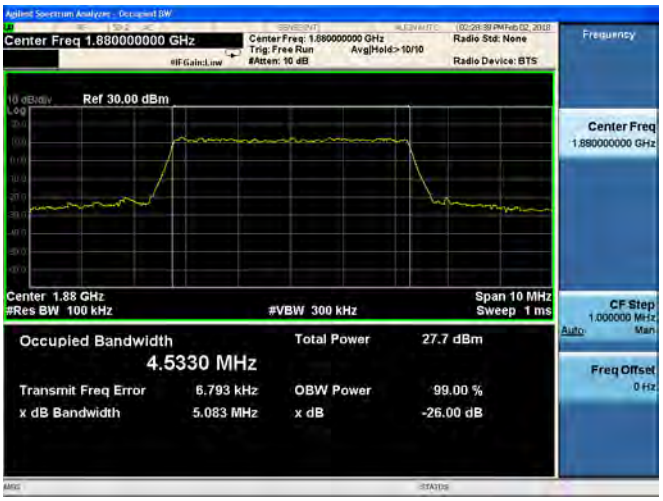
3MHz/16QAM/High CH

5MHz/QPSK/Low CH

5MHz/16QAM/Low CH

5MHz/QPSK/Mid CH

5MHz/16QAM/Mid CH



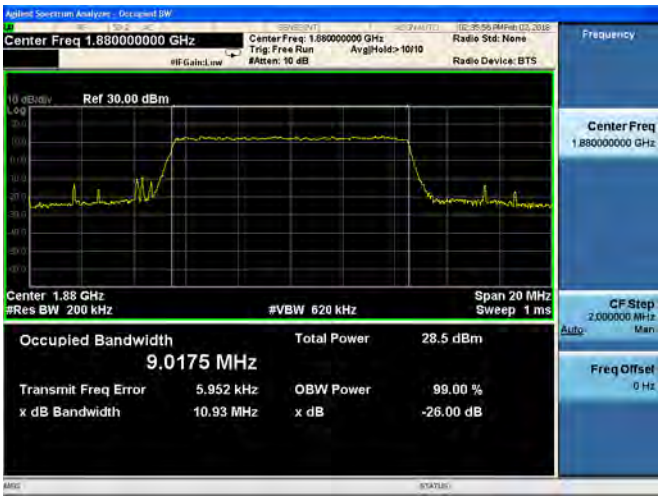
5MHz/QPSK/High CH

5MHz/16QAM/High CH

10MHz/QPSK/Low CH

10MHz/16QAM/Low CH

10MHz/QPSK/Mid CH



10MHz/16QAM/Mid CH

10MHz/QPSK/High CH

10MHz/16QAM/High CH

15MHz/QPSK/Low CH

15MHz/16QAM/Low CH

15MHz/QPSK/Mid CH

15MHz/16QAM/Mid CH

15MHz/QPSK/High CH

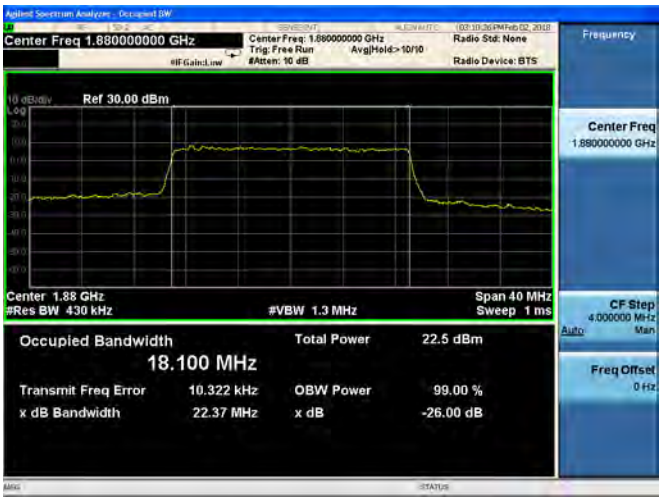
15MHz/16QAM/High CH

20MHz/QPSK/Low CH

20MHz/16QAM/Low CH

20MHz/QPSK/Mid CH

20MHz/16QAM/Mid CH



20MHz/QPSK/High CH

20MHz/16QAM/High CH

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	1.1349	2.076	1.1143	2.128
20175	1732.5	1.0967	1.270	1.1032	1.282
20392	1754.2	1.1178	1.639	1.1090	1.674
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	2.7429	4.325	2.7283	4.589
20175	1732.5	2.7103	2.989	2.7179	2.991
20384	1753.4	2.7302	4.013	2.7227	3.692
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	4.5655	8.284	4.5727	7.004
20175	1732.5	4.5371	5.060	4.5335	5.088
20375	1752.5	4.5525	5.600	4.5767	6.295
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	9.0436	14.70	9.0596	14.56
20175	1732.5	9.0082	10.02	9.0059	9.949
20350	1750.0	9.1072	16.82	9.0643	16.06
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	13.550	20.86	13.619	22.56
20175	1732.5	13.539	14.89	13.518	14.88
20325	1747.5	13.600	23.52	13.586	23.68

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	17.980	19.60	17.995	19.76
20175	1732.5	18.038	19.60	18.086	19.67
20300	1745.0	17.969	19.57	17.965	19.64

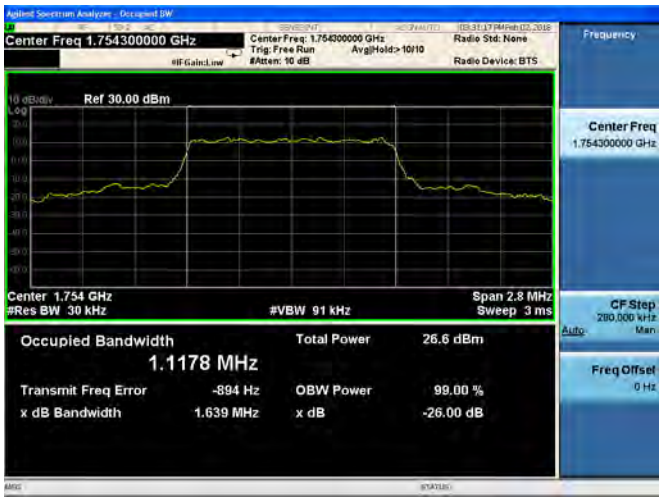
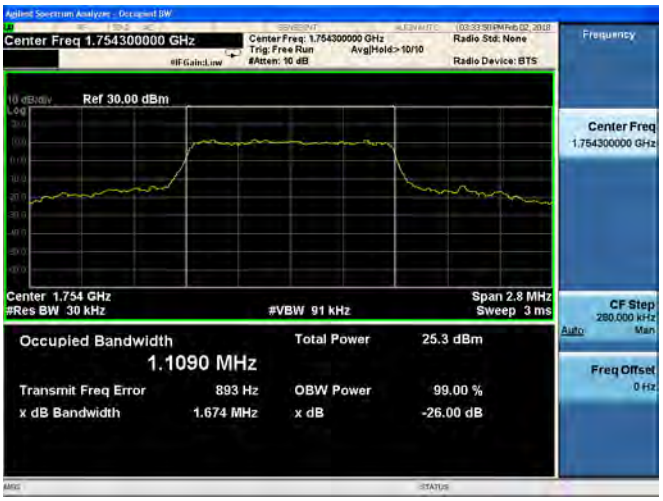
LTE Band 4 99%&26dB Bandwidth

1.4MHz/QPSK/Low CH

1.4MHz/16QAM/Low CH

1.4MHz/QPSK/Mid CH

1.4MHz/16QAM/Mid CH

1.4MHz/QPSK/High CH	1.4MHz/16QAM/High CH
	

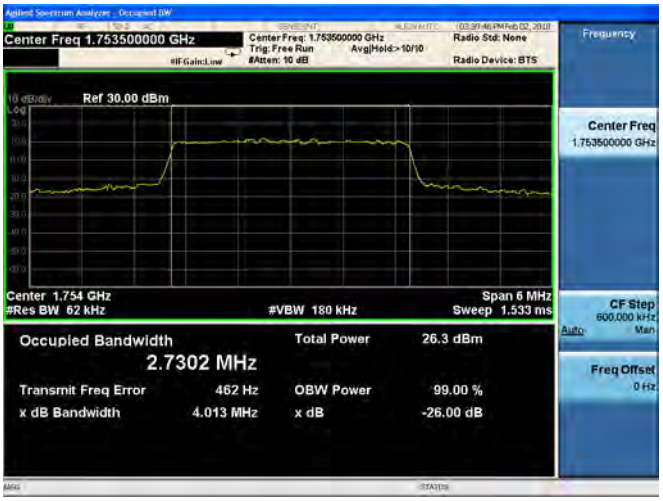
3MHz/QPSK/Low CH

3MHz/16QAM/Low CH

3MHz/QPSK/Mid CH

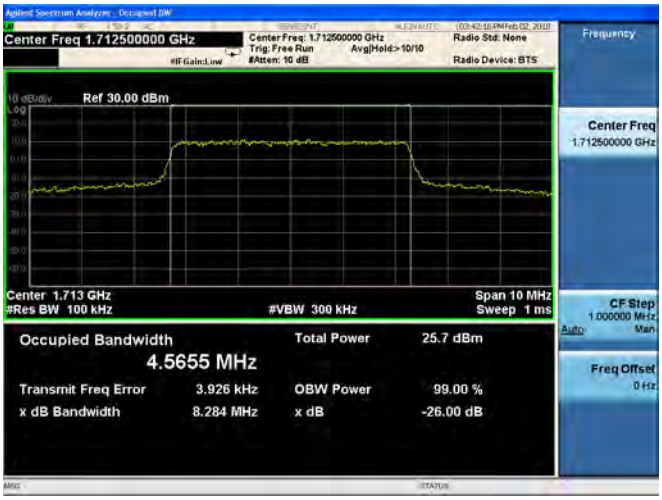
3MHz/16QAM/Mid CH

3MHz/QPSK/High CH



3MHz/16QAM/High CH

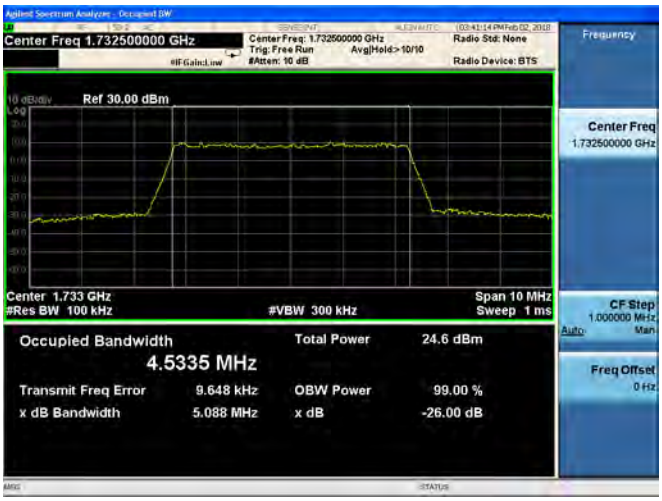
5MHz/QPSK/Low CH



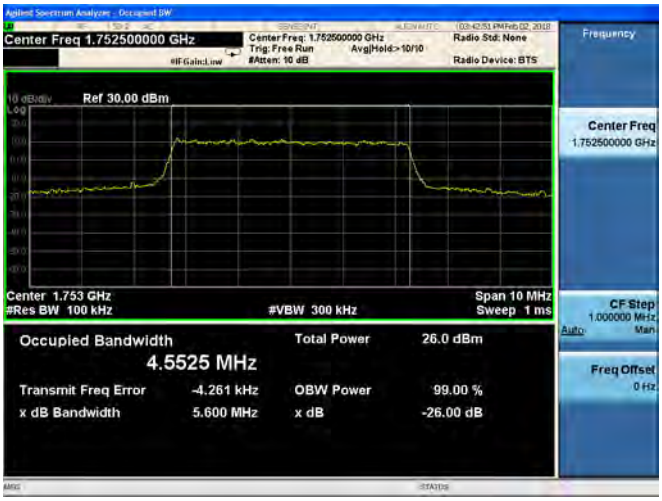
5MHz/16QAM/Low CH

5MHz/QPSK/Mid CH

5MHz/16QAM/Mid CH



5MHz/QPSK/High CH



5MHz/16QAM/High CH

10MHz/QPSK/Low CH

10MHz/16QAM/Low CH

10MHz/QPSK/Mid CH

10MHz/16QAM/Mid CH

10MHz/QPSK/High CH

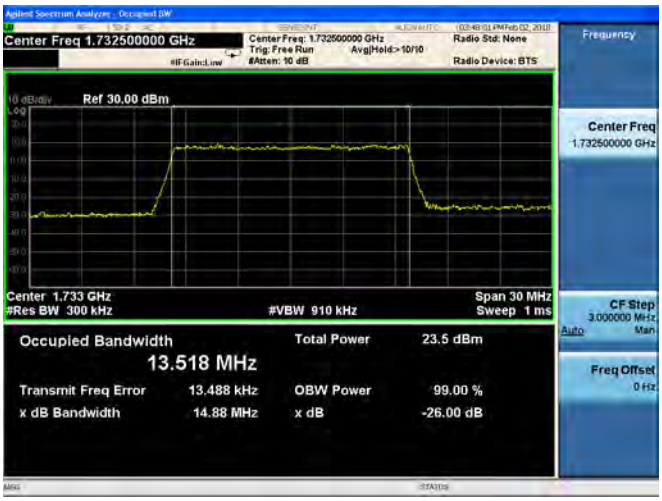
10MHz/16QAM/High CH

15MHz/QPSK/Low CH

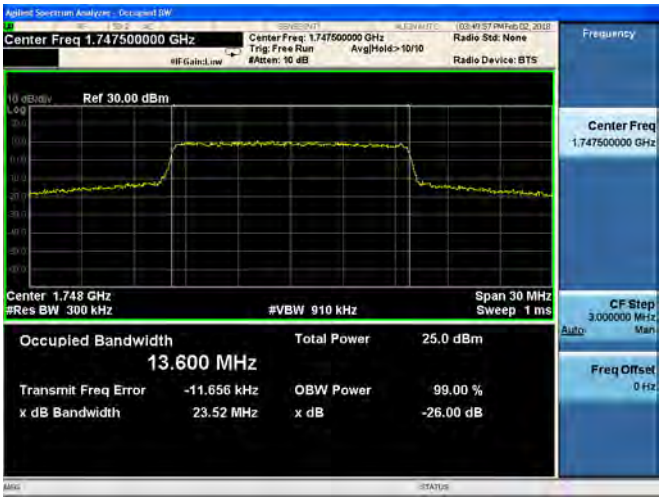
15MHz/16QAM/Low CH

15MHz/QPSK/Mid CH

15MHz/16QAM/Mid CH



15MHz/QPSK/High CH



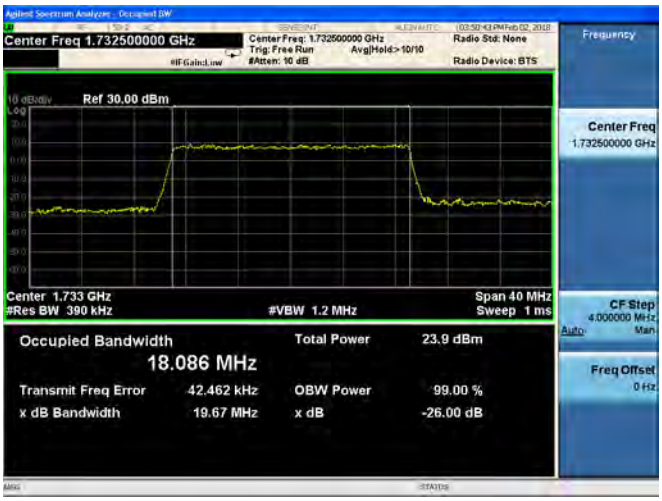
15MHz/16QAM/High CH

20MHz/QPSK/Low CH

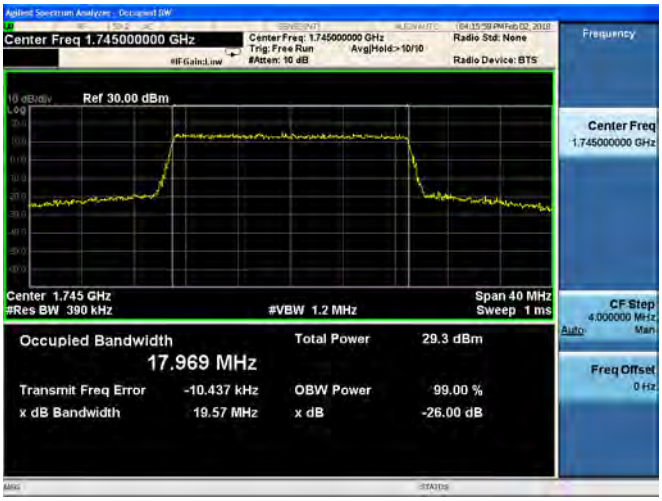
20MHz/16QAM/Low CH

20MHz/QPSK/Mid CH

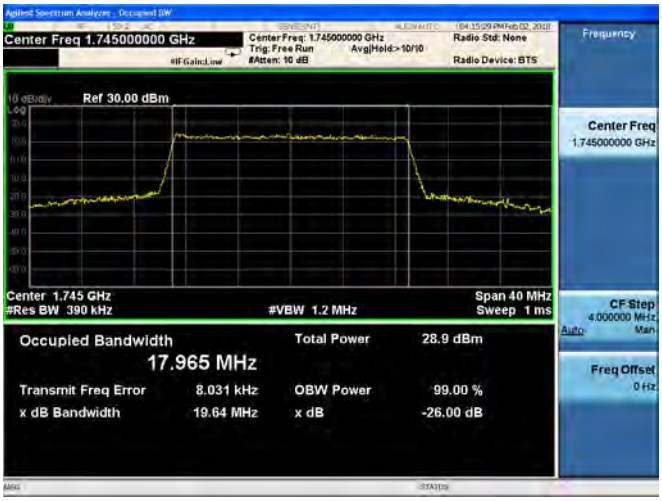
20MHz/16QAM/Mid CH



20MHz/QPSK/High CH



20MHz/16QAM/High CH



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	4.5354	5.110	4.5241	5.048
21100	2535.0	4.5367	5.055	4.5311	5.094
21425	2567.5	4.5289	5.065	4.5428	5.100
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	9.0003	9.925	9.0047	9.955
21100	2535.0	9.0129	10.06	9.0061	9.906
21400	2565.0	9.0118	9.997	9.0006	9.976
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	13.450	14.88	13.515	14.87
21100	2535.0	13.536	14.98	13.521	14.90
21375	2562.5	13.541	15.03	13.545	14.91
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	17.968	19.58	17.976	19.66
21100	2535.0	17.989	19.54	18.061	19.72
21350	2560.0	18.023	19.67	17.992	19.62

LTE Band 7 99%&26dB Bandwidth

5MHz/QPSK/Low CH

5MHz/16QAM/Low CH

5MHz/QPSK/Mid CH

5MHz/16QAM/Mid CH

5MHz/QPSK/High CH	5MHz/16QAM/High CH

10MHz/QPSK/Low CH

10MHz/16QAM/Low CH

10MHz/QPSK/Mid CH

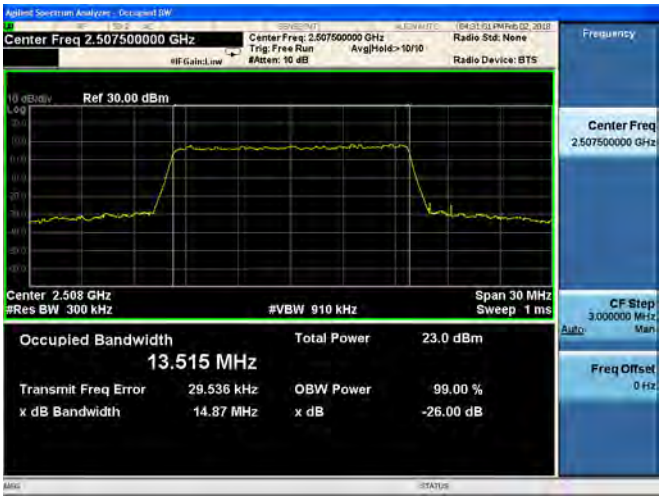
10MHz/16QAM/Mid CH

10MHz/QPSK/High CH

10MHz/16QAM/High CH

15MHz/QPSK/Low CH

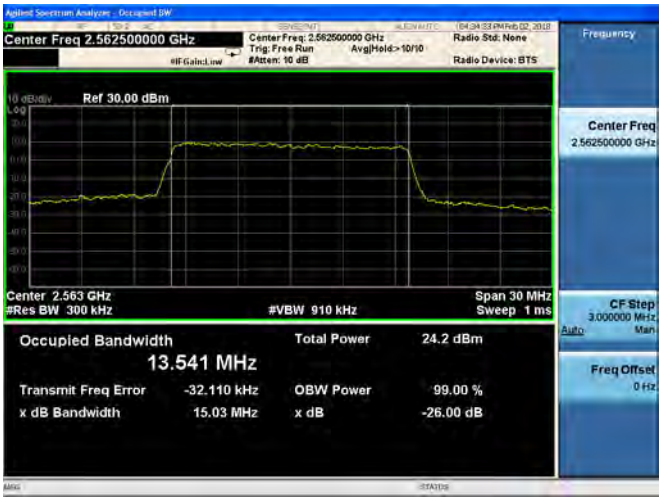
15MHz/16QAM/Low CH



15MHz/QPSK/Mid CH

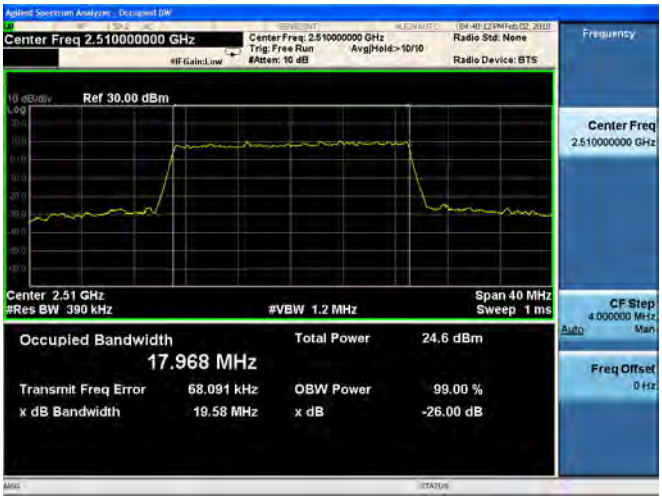
15MHz/16QAM/Mid CH

15MHz/QPSK/High CH



15MHz/16QAM/High CH

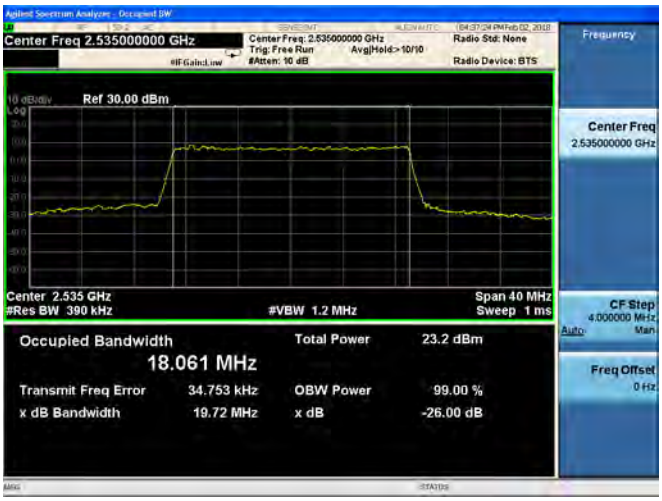
20MHz/QPSK/Low CH



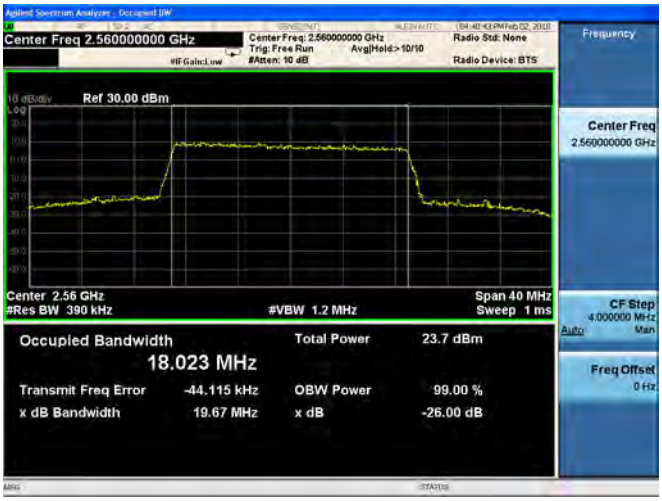
20MHz/16QAM/Low CH

20MHz/QPSK/Mid CH

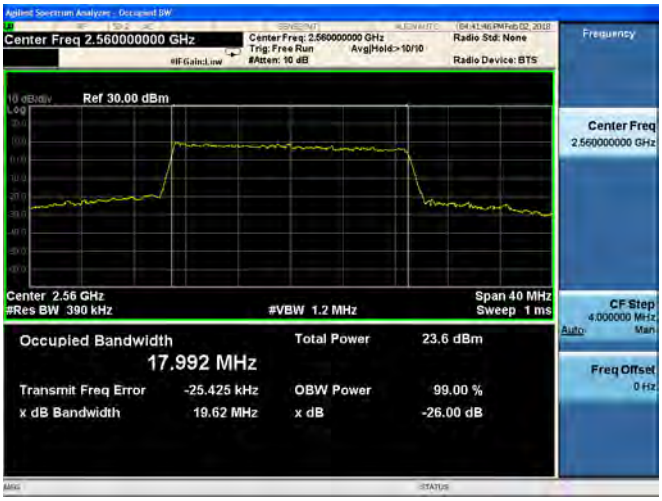
20MHz/16QAM/Mid CH



20MHz/QPSK/High CH



20MHz/16QAM/High CH



LTE Band 12, BW: 1.4MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
23017	699.7	1.0976	1.275	1.1051	1.286
23095	707.5	1.0994	1.280	1.0971	1.259
23173	715.3	1.0983	1.267	1.1034	1.285
LTE Band 12, BW: 3MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
23025	700.5	2.7163	2.972	2.7054	2.990
23095	707.5	2.7079	2.987	2.7147	2.996
23165	714.5	2.7110	2.976	2.7031	2.985
LTE Band 12, BW: 5MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
23035	701.5	4.5296	5.118	4.5267	5.014
23095	707.5	4.5412	5.045	4.5350	5.080
23165	714.5	4.5184	5.037	4.5344	5.077
LTE Band 12, BW: 10MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
23060	704.0	8.9582	9.883	8.9737	9.955
23095	707.5	9.0414	10.06	9.0311	9.912
23130	711.0	9.0128	10.03	9.0076	10.04

LTE Band 12 99%&26dB Bandwidth

1.4MHz/QPSK/Low CH

1.4MHz/16QAM/Low CH

1.4MHz/QPSK/Mid CH

1.4MHz/16QAM/Mid CH

1.4MHz/QPSK/High CH	1.4MHz/16QAM/High CH

3MHz/QPSK/Low CH

3MHz/16QAM/Low CH

3MHz/QPSK/Mid CH

3MHz/16QAM/Mid CH

3MHz/QPSK/High CH

3MHz/16QAM/High CH

5MHz/QPSK/Low CH

5MHz/16QAM/Low CH

5MHz/QPSK/Mid CH

5MHz/16QAM/Mid CH

5MHz/QPSK/High CH

5MHz/16QAM/High CH

10MHz/QPSK/Low CH

10MHz/16QAM/Low CH

10MHz/QPSK/Mid CH

10MHz/16QAM/Mid CH

10MHz/QPSK/High CH

10MHz/16QAM/High CH

LTE Band 17, BW: 5MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
23755	706.5	4.5368	5.087	4.5337	5.069
23790	710.0	4.5374	5.055	4.5423	5.101
23825	713.5	4.5210	5.044	4.5363	5.079
LTE Band 17, BW: 10MHz					
Channel	Frequency (MHz)	QPSK		16QAM	
		99% Bandwidth (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)	26dB Bandwidth (MHz)
23780	709.0	9.0177	10.01	9.0362	9.945
23790	710.0	9.0337	10.02	9.0298	9.985
23800	711.0	9.0136	10.00	9.0079	10.02

LTE Band 17 99%&26dB Bandwidth	
5MHz/QPSK/Low CH	**5MHz/16QAM/Low CH**

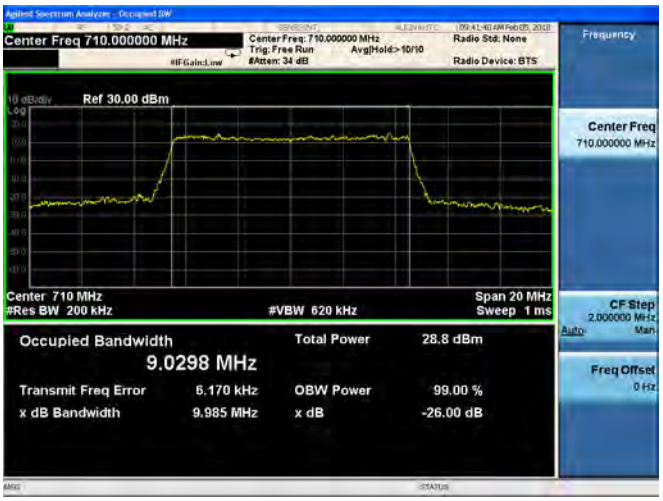
5MHz/QPSK/Mid CH	5MHz/16QAM/Mid CH
5MHz/QPSK/High CH	**5MHz/16QAM/High CH**

10MHz/QPSK/Low CH

10MHz/16QAM/Low CH

10MHz/QPSK/Mid CH

10MHz/16QAM/Mid CH



10MHz/QPSK/High CH

10MHz/16QAM/High CH

2.3. Frequency Stability

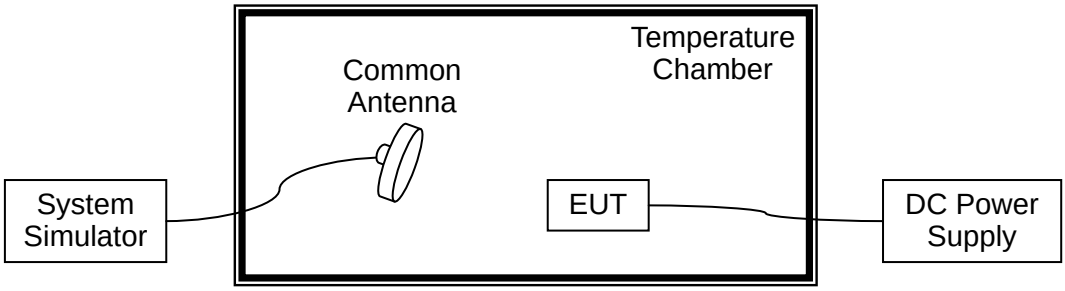
2.3.1. Requirement

According to FCC section 2.1055 & 27.54&24.235, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block. According to FCC section 2.1055, the test conditions are:

(a) The temperature is varied from -30°C to +50°C at intervals of not more than 10°C.

(b) For hand carried battery powered equipment, the primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacture. The supply voltage shall be measured at the input to the cable normally provided with the equipment, or at the power supply terminals if cables are not normally provided.

2.3.2. Test Description



The EUT which is powered by the DC Power Supply directly, is located in the Temperature Chamber. The EUT is commanded by the System Simulator (SS) to operate at the maximum output power. A call is established between the EUT and the SS via a Common Antenna.

2.3.3. Test procedure

KDB 971168 D01v03 Section 9.0 and ANSI/TIA-603-E-2016.

2.3.4. Test Result

The nominal, highest and lowest extreme voltages are separately 3.8VDC, 4.35VDC and 3.6VDC, which are specified by the applicant; the normal temperature here used is 20°C. The frequency deviation limit is ±2.5ppm.