



TEST REPORT

APPLICANT : Great Talent Technology Limited

PRODUCT NAME : SC3218

MODEL NAME : SC3218

BRAND NAME : SCHOCK

FCC ID : 2ALZM-SC3218

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

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Change History		
Version	Date	Reason for change
1.0	2019-10-26	First edition



1. Technical Information

Note: Provide by applicant.

1.1. Applicant and Manufacturer Information

Applicant:	Great Talent Technology Limited
Applicant Address:	RM602,T3 Software Park,Nanshan,Shenzhen,China
Manufacturer:	Great Talent Technology Limited
ManufacturerAddress:	RM602,T3 Software Park,Nanshan,Shenzhen,China

1.2. Equipment Under Test (EUT) Description

Product Name:	SC3218	
Hardware Version:	SC3218-V1.1	
Software Version:	SC3218_V1.0.4	
Modulation Type:	QPSK, 16QAM	
Operation Band:	Band 2 / 4 / 5 / 12/ 13 / 17 / 25	
Frequency Range:	LTE Band 2	Tx: 1850MHz -1910MHz
		Rx: 1930MHz -1990MHz
	LTE Band 4	Tx: 1710MHz -1755MHz
		Rx: 2110MHz - 2155MHz
	LTE Band 5	Tx: 824MHz -849MHz
		Rx: 869MHz – 894MHz
	LTE Band 12	Tx: 699MHz - 716MHz
		Rx: 729MHz– 746MHz
LTE Band 13	Tx:777MHz – 787MHz	
	Rx:746MHz – 756MHz	
LTE Band 17	Tx: 704MHz - 716MHz	
	Rx: 734MHz– 746MHz	
LTE Band 25	Tx:1850MHz – 1915MHz	
	Rx:1930MHz – 1995MHz	
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 5	1.4MHz, 3 MHz, 5 MHz, 10MHz
	LTE Band 12	1.4MHz, 3 MHz, 5 MHz, 10MHz



	LTE Band 13	5MHz,10MHz
	LTE Band 17	5 MHz, 10MHz
	LTE Band 25	1.4MHz, 3 MHz, 5 MHz, 10MHz, 15 MHz, 20 MHz
Antenna Type:	PIFA Antenna	
Antenna Gain:	LTE Band 2	-0.01 dBi
	LTE Band 4	-0.30 dBi
	LTE Band 5	-2.03 dBi
	LTE Band 12	-4.86 dBi
	LTE Band 13	-3.27 dBi
	LTE Band 17	-4.86 dBi
	LTE Band 25	-0.01 dBi
Accessory Information:	Battery	
	Brand Name:	SCHOCK
	Model No.:	SB165
	Capacity:	1650mAh
	Rated Voltage:	3.80V
	Charge Limit:	4.35V
	AC Adapter 1	
	Brand Name:	SCHOCK
	Model No.:	KFL-C050100
	Rated Input:	100-240V~50/60Hz 0.2A
	Rated Output:	5V $\overline{=}$ 1.0A
	Charging base	
	Brand Name:	SCHOCK
	Model No.:	SC3218
	Rated Input:	5V $\overline{=}$ 1.0A
Rated Output:	5V $\overline{=}$ 1.0A	

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



1.3. Emission Designator

LTE Band2	Emission Designator (99%OBW)	
BW(MHz)	QPSK	16QAM
1.4	1M09G7D	1M09W7D
3	2M70G7D	2M70W7D
5	4M50G7D	4M51W7D
10	8M99G7D	8M99W7D
15	13M5G7D	13M5W7D
20	18M0G7D	18M0W7D
LTE Band 4	Emission Designator (99%OBW)	
BW(MHz)	QPSK	16QAM
1.4	1M10G7D	1M10W7D
3	2M70G7D	2M71W7D
5	4M50G7D	4M51W7D
10	9M01G7D	8M97W7D
15	13M5G7D	13M5W7D
20	18M0G7D	18M0W7D
LTE Band 5	Emission Designator (99%OBW)	
BW(MHz)	QPSK	16QAM
1.4	1M09G7D	1M10W7D
3	2M70G7D	2M70W7D
5	4M51G7D	4M51W7D
10	9M01G7D	8M97W7D
LTE Band12	Emission Designator (99%OBW)	
BW(MHz)	QPSK	16QAM
1.4	1M09G7D	1M10W7D
3	2M70G7D	2M70W7D
5	4M50G7D	4M51W7D
10	9M01G7D	8M97W7D



LTE Band 13	Emission Designator (99%OBW)	
BW(MHz)	QPSK	16QAM
5	4M51G7D	4M51W7D
10	8M98G7D	8M94W7D
LTE Band 17	Emission Designator (99%OBW)	
BW(MHz)	QPSK	16QAM
5	4M50G7D	4M51W7D
10	9M01G7D	8M97W7D
LTE Band25	Emission Designator (99%OBW)	
BW(MHz)	QPSK	16QAM
1.4	1M09G7D	1M10W7D
3	2M70G7D	2M70W7D
5	4M50G7D	4M50W7D
10	9M00G7D	9M00W7D
15	13M5G7D	13M5W7D
20	17M95G7D	18M0W7D



1.4. Test Standards and Results

The objective of the report is to perform testing according to Part 2, Part 22, 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 22	Public Mobile Services
3	47 CFR Part 24	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:

Section	Description	Test Date	Test Engineer	Result
2.1046, 22.913(a)(2), 24.232(c), 27.50(c)(10) 27.50(d)(4), 27.50(h)(2) 27.50(a)(3)	Transmitter Conducted Output Power and ERP/EIRP	Oct 23, 2019	Gao Mingzhou Peng Xuewei	PASS
2.1049	Occupied Bandwidth	Oct 9, 2019	Gao Mingzhou	PASS
2.1055, 22.355, 24.235, 27.54	Frequency Stability	Oct 12 to 15, 2019	Gao Mingzhou	PASS
24.232(d), 27.50(d)(5)	Peak to Average Ratio	Oct 9, 2019	Gao Mingzhou	PASS
2.1051, 22.917(a), 24.238, 27.53(g)(h) 27.53(m)(4)(a)(4)	Conducted Spurious Emissions	Oct 9, 2019	Gao Mingzhou	PASS
2.1051, 22.917(a), 24.238, 27.53(g)(h) 27.53(m)(4)(a)(4)	Band Edge	Oct 9, and Oct 16, 2019	Gao Mingzhou	PASS
2.1051, 22.917(a), 24.238, 27.53(g)(h) 27.53(m)(4)(a)(4)	Radiated Spurious Emissions	Oct 15, 2019	Peng Xuewei	PASS

Note 1: The tests were performed according to the method of measurements prescribed in KDB971168 D01 v03 (Oct 27, 2017) and ANSI/TIA-603-E-2016.

Note 2: The path loss during the RF test is calibrated to correct the results by the offset setting in the test equipments. The ref offset 26.5dB contains two parts that cable loss 16.5dB and Attenuator 10dB.



1.5. 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 22H, Part 24E and 27D&H&L&M Requirements

2.1. Transmitter Conducted Output Power And ERP/EIRP

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).

According to FCC section 24.232 (c) for LTE Band 2/25, Mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

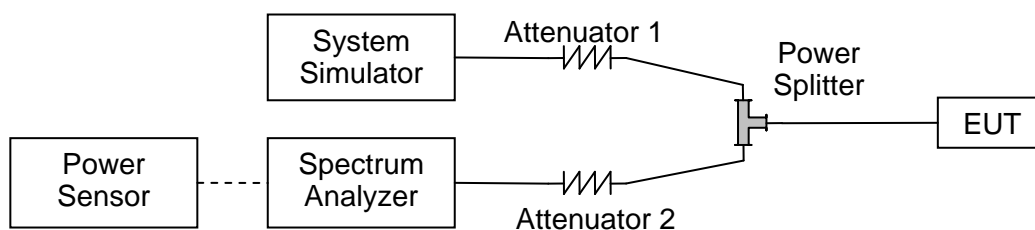
According to FCC section 27.50 (d) for LTE Band 4, fixed, mobile and portable (hand-held) stations in the 1710-1755MHz band are limited to 1wat EIRP.

According to FCC section 22.913 (a.2) for LTE Band 5/26, the ERP of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

According to FCC section 27.50 (h) for LTE Band 7/41, Mobile and other user stations. Mobile stations are limited to 2.0 watts EIRP. All user stations are limited to 2.0 watts transmitter output power.

According to FCC section 27.50 (c) for LTE Band 12/17, Portable stations (hand-held devices) operating in the 704-716MHz band are limited to 3watts ERP.

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 50 Ohm; 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.

$EIRP \text{ (dBm)} = \text{Conducted Output Power (dBm)} + \text{Antenna Gain (dBi)}$

$ERP \text{ (dBm)} = EIPR \text{ (dBm)} - 2.15$

2.1.4. Result



Conducted Output Power:

LTE Band2						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				18700	18900	19100
Frequency (MHz)				1860	1880	1900
20	QPSK	1	0	21.14	21.14	21.07
20	QPSK	1	49	21.41	21.15	21.07
20	QPSK	1	99	21.11	21.11	21.10
20	QPSK	50	0	20.44	20.41	20.40
20	QPSK	50	24	20.43	20.37	20.28
20	QPSK	50	50	20.38	20.30	20.42
20	QPSK	100	0	20.45	20.33	20.24
20	16QAM	1	0	20.30	19.92	20.22
20	16QAM	1	49	20.22	19.88	20.28
20	16QAM	1	99	20.28	20.06	20.30
20	16QAM	50	0	19.37	19.26	19.35
20	16QAM	50	24	19.40	19.11	19.32
20	16QAM	50	50	19.48	19.14	19.50
20	16QAM	100	0	19.44	19.31	19.24



LTE Band2						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				18675	18900	19125
Frequency (MHz)				1857.5	1880	1902.5
15	QPSK	1	0	21.29	21.27	21.11
15	QPSK	1	37	21.27	21.24	21.35
15	QPSK	1	74	21.28	21.28	21.21
15	QPSK	36	0	20.31	20.36	20.18
15	QPSK	36	20	20.31	20.39	20.28
15	QPSK	36	39	20.36	20.26	20.05
15	QPSK	75	0	20.39	20.31	20.20
15	16QAM	1	0	20.06	20.05	20.44
15	16QAM	1	37	20.27	20.16	19.97
15	16QAM	1	74	20.22	20.16	19.94
15	16QAM	36	0	19.26	19.20	19.15
15	16QAM	36	20	19.26	19.26	19.15
15	16QAM	36	39	19.41	19.04	19.18
15	16QAM	75	0	19.51	19.19	19.21



LTE Band2						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				18650	18900	19150
Frequency (MHz)				1855	1880	1905
10	QPSK	1	0	21.16	21.11	20.98
10	QPSK	1	25	21.30	21.36	21.37
10	QPSK	1	49	21.25	21.01	21.12
10	QPSK	25	0	20.23	20.18	20.12
10	QPSK	25	12	20.32	20.24	20.37
10	QPSK	25	25	20.24	20.15	20.29
10	QPSK	50	0	20.20	20.14	20.21
10	16QAM	1	0	19.64	19.81	19.57
10	16QAM	1	25	19.82	19.49	19.65
10	16QAM	1	49	19.93	19.71	19.64
10	16QAM	25	0	19.01	19.14	19.20
10	16QAM	25	12	19.25	19.19	19.44
10	16QAM	25	25	19.29	19.00	19.03
10	16QAM	50	0	19.23	19.15	19.36



LTE Band2						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				18625	18900	19175
Frequency (MHz)				1852.5	1880	1907.5
5	QPSK	1	0	21.26	21.39	21.05
5	QPSK	1	12	21.29	21.35	21.21
5	QPSK	1	24	21.31	21.32	21.30
5	QPSK	12	0	20.25	20.27	20.29
5	QPSK	12	7	20.29	20.24	20.34
5	QPSK	12	13	20.36	20.27	20.38
5	QPSK	25	0	20.31	20.32	20.22
5	16QAM	1	0	20.66	20.44	20.45
5	16QAM	1	12	20.77	20.28	20.60
5	16QAM	1	24	20.33	20.47	20.64
5	16QAM	12	0	19.26	19.19	19.20
5	16QAM	12	7	19.30	19.34	19.25
5	16QAM	12	13	19.39	19.23	19.36
5	16QAM	25	0	19.25	19.30	19.36



LTE Band2						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				18615	18900	19185
Frequency (MHz)				1851.5	1880	1908.5
3	QPSK	1	0	21.21	21.08	21.34
3	QPSK	1	8	21.25	21.26	21.24
3	QPSK	1	14	21.27	21.34	21.18
3	QPSK	8	0	20.27	20.34	20.26
3	QPSK	8	4	20.30	20.34	20.34
3	QPSK	8	7	20.36	20.31	20.35
3	QPSK	15	0	20.42	20.31	20.26
3	16QAM	1	0	20.74	20.53	20.60
3	16QAM	1	8	20.54	20.50	20.51
3	16QAM	1	14	20.67	20.44	20.43
3	16QAM	8	0	19.48	19.48	19.48
3	16QAM	8	4	19.48	19.54	19.53
3	16QAM	8	7	19.51	19.53	19.48
3	16QAM	15	0	19.47	19.52	19.53



LTE Band2						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				18607	18900	19193
Frequency (MHz)				1850.7	1880	1909.3
1.4	QPSK	1	0	21.27	21.19	21.18
1.4	QPSK	1	3	21.25	21.27	21.22
1.4	QPSK	1	5	21.22	21.29	21.17
1.4	QPSK	3	0	21.11	21.08	21.21
1.4	QPSK	3	1	21.21	21.18	21.29
1.4	QPSK	3	3	21.24	21.27	21.06
1.4	QPSK	6	0	20.28	20.31	20.33
1.4	16QAM	1	0	20.47	20.17	20.48
1.4	16QAM	1	3	20.48	20.13	20.50
1.4	16QAM	1	5	20.53	20.20	20.63
1.4	16QAM	3	0	20.22	20.43	20.43
1.4	16QAM	3	1	20.46	20.44	20.37
1.4	16QAM	3	3	20.47	20.57	20.43
1.4	16QAM	6	0	19.51	19.48	19.50



LTE Band4						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20050	20175	20300
Frequency (MHz)				1720	1732.5	1745
20	QPSK	1	0	20.90	20.81	20.88
20	QPSK	1	49	20.80	20.81	20.78
20	QPSK	1	99	20.65	20.65	20.63
20	QPSK	50	0	19.99	19.80	19.66
20	QPSK	50	24	19.71	19.75	19.94
20	QPSK	50	50	19.77	19.74	19.79
20	QPSK	100	0	19.64	19.79	19.83
20	16QAM	1	0	19.65	19.68	20.04
20	16QAM	1	49	19.69	19.71	19.63
20	16QAM	1	99	19.66	19.70	19.73
20	16QAM	50	0	18.72	18.78	18.90
20	16QAM	50	24	18.64	18.79	18.88
20	16QAM	50	50	18.68	18.89	18.75
20	16QAM	100	0	18.56	18.80	18.82



LTE Band4						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20025	20175	20325
Frequency (MHz)				1717.5	1732.5	1747.5
15	QPSK	1	0	20.70	20.56	20.69
15	QPSK	1	37	20.77	20.78	20.70
15	QPSK	1	74	20.85	20.76	20.53
15	QPSK	36	0	19.88	19.76	20.02
15	QPSK	36	20	19.68	19.85	19.83
15	QPSK	36	39	19.75	19.75	19.90
15	QPSK	75	0	19.90	19.76	19.92
15	16QAM	1	0	19.82	19.65	19.70
15	16QAM	1	37	19.99	19.52	19.99
15	16QAM	1	74	19.89	19.49	19.77
15	16QAM	36	0	18.73	18.66	18.76
15	16QAM	36	20	18.64	18.78	18.86
15	16QAM	36	39	18.72	18.67	18.62
15	16QAM	75	0	18.86	18.78	18.77



LTE Band4						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20000	20175	20350
Frequency (MHz)				1715	1732.5	1750
10	QPSK	1	0	20.87	20.85	20.76
10	QPSK	1	25	20.77	20.77	20.59
10	QPSK	1	49	20.87	20.55	20.56
10	QPSK	25	0	20.36	20.33	20.21
10	QPSK	25	12	20.44	20.36	20.17
10	QPSK	25	25	20.33	20.20	20.13
10	QPSK	50	0	20.23	19.96	20.04
10	16QAM	1	0	20.41	20.40	20.42
10	16QAM	1	25	20.34	20.19	20.34
10	16QAM	1	49	20.31	20.13	20.24
10	16QAM	25	0	19.23	19.14	19.26
10	16QAM	25	12	19.16	19.19	19.30
10	16QAM	25	25	19.28	19.10	19.24
10	16QAM	50	0	19.43	19.34	19.36



LTE Band4						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				19975	20175	20375
Frequency (MHz)				1712.5	1732.5	1752.5
5	QPSK	1	0	20.66	20.69	20.79
5	QPSK	1	12	20.66	20.70	20.68
5	QPSK	1	24	20.69	20.67	20.69
5	QPSK	12	0	20.08	20.01	20.13
5	QPSK	12	7	20.06	20.23	20.19
5	QPSK	12	13	19.97	20.05	20.13
5	QPSK	25	0	20.15	20.17	20.22
5	16QAM	1	0	20.06	19.67	19.95
5	16QAM	1	12	20.00	19.66	19.77
5	16QAM	1	24	19.71	19.82	20.13
5	16QAM	12	0	19.16	19.23	19.14
5	16QAM	12	7	19.14	19.05	19.10
5	16QAM	12	13	19.06	19.10	19.05
5	16QAM	25	0	19.11	19.09	19.07



LTE Band4						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				19965	20175	20385
Frequency (MHz)				1711.5	1732.5	1753.5
3	QPSK	1	0	20.68	20.70	20.72
3	QPSK	1	8	20.76	20.80	20.68
3	QPSK	1	14	20.69	20.67	20.69
3	QPSK	8	0	19.39	19.45	19.39
3	QPSK	8	4	19.37	19.48	19.40
3	QPSK	8	7	19.37	19.41	19.39
3	QPSK	15	0	19.29	19.41	19.37
3	16QAM	1	0	19.08	19.36	19.55
3	16QAM	1	8	19.23	19.12	19.11
3	16QAM	1	14	19.30	19.42	19.53
3	16QAM	8	0	18.83	18.87	18.57
3	16QAM	8	4	18.73	18.78	18.58
3	16QAM	8	7	18.79	18.62	18.60
3	16QAM	15	0	18.83	18.72	18.73



LTE Band4						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				19957	20175	20393
Frequency (MHz)				1710.7	1732.5	1754.3
1.4	QPSK	1	0	20.68	20.67	20.62
1.4	QPSK	1	3	20.56	20.66	20.68
1.4	QPSK	1	5	20.56	20.67	20.69
1.4	QPSK	3	0	20.68	20.60	20.62
1.4	QPSK	3	1	20.56	20.60	20.68
1.4	QPSK	3	3	20.65	20.67	20.65
1.4	QPSK	6	0	19.68	19.78	20.06
1.4	16QAM	1	0	19.08	19.32	19.50
1.4	16QAM	1	3	19.42	19.07	19.54
1.4	16QAM	1	5	19.33	19.30	19.38
1.4	16QAM	3	0	19.25	19.12	19.43
1.4	16QAM	3	1	19.06	19.14	19.47
1.4	16QAM	3	3	19.37	19.18	19.26
1.4	16QAM	6	0	19.30	19.50	19.13



LTE Band5						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20450	20525	20600
Frequency (MHz)				829	836.5	844
10	QPSK	1	0	23.37	23.44	23.45
10	QPSK	1	25	23.37	23.39	23.36
10	QPSK	1	49	23.39	23.41	23.38
10	QPSK	25	0	22.47	22.50	22.55
10	QPSK	25	12	22.47	22.53	22.47
10	QPSK	25	25	22.40	22.52	22.31
10	QPSK	50	0	22.43	22.44	22.43
10	16QAM	1	0	22.24	22.24	22.28
10	16QAM	1	25	22.27	21.97	22.18
10	16QAM	1	49	21.78	21.93	21.97
10	16QAM	25	0	21.59	21.55	21.55
10	16QAM	25	12	21.63	21.51	21.69
10	16QAM	25	25	21.66	21.58	21.57
10	16QAM	50	0	21.63	21.50	21.56



LTE Band5						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20425	20525	20625
Frequency (MHz)				826.5	836.5	846.5
5	QPSK	1	0	23.26	23.16	23.11
5	QPSK	1	12	23.24	23.02	23.15
5	QPSK	1	24	23.11	23.14	23.19
5	QPSK	12	0	22.79	22.81	22.66
5	QPSK	12	7	22.78	22.93	22.79
5	QPSK	12	13	22.70	22.91	22.71
5	QPSK	25	0	22.71	22.89	22.64
5	16QAM	1	0	22.94	22.59	22.81
5	16QAM	1	12	22.53	22.62	22.66
5	16QAM	1	24	22.46	22.58	22.49
5	16QAM	12	0	21.98	21.89	21.79
5	16QAM	12	7	21.98	21.65	21.68
5	16QAM	12	13	21.79	21.58	21.59
5	16QAM	25	0	21.59	21.63	21.65



LTE Band5						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20415	20525	20635
Frequency (MHz)				825.5	836.5	847.5
3	QPSK	1	0	23.28	23.28	23.28
3	QPSK	1	8	23.22	23.25	23.31
3	QPSK	1	14	23.25	23.21	23.27
3	QPSK	8	0	22.44	22.45	22.42
3	QPSK	8	4	22.50	22.49	22.57
3	QPSK	8	7	22.46	22.41	22.40
3	QPSK	15	0	22.43	22.39	22.28
3	16QAM	1	0	22.13	22.13	22.41
3	16QAM	1	8	22.22	22.04	22.20
3	16QAM	1	14	22.49	22.44	22.46
3	16QAM	8	0	21.52	21.65	21.56
3	16QAM	8	4	21.50	21.63	21.55
3	16QAM	8	7	21.55	21.63	21.52
3	16QAM	15	0	21.59	21.67	21.54



LTE Band5						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20407	20525	20643
Frequency (MHz)				824.7	836.5	848.3
1.4	QPSK	1	0	22.76	23.07	23.03
1.4	QPSK	1	3	22.98	23.08	22.96
1.4	QPSK	1	5	22.87	23.03	22.87
1.4	QPSK	3	0	23.17	23.33	23.13
1.4	QPSK	3	1	23.19	23.24	23.17
1.4	QPSK	3	3	23.21	23.38	23.02
1.4	QPSK	6	0	22.11	22.23	22.02
1.4	16QAM	1	0	22.14	21.97	22.16
1.4	16QAM	1	3	21.91	21.95	22.21
1.4	16QAM	1	5	21.94	21.98	21.87
1.4	16QAM	3	0	21.80	22.04	22.08
1.4	16QAM	3	1	21.98	22.07	22.03
1.4	16QAM	3	3	22.05	21.98	21.98
1.4	16QAM	6	0	21.61	21.91	21.53



LTE Band 12						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23060	23095	23130
Frequency (MHz)				704	707.5	711
10	QPSK	1	0	23.33	23.42	23.22
10	QPSK	1	25	23.21	23.28	23.22
10	QPSK	1	49	23.28	23.19	23.12
10	QPSK	25	0	22.39	22.68	22.28
10	QPSK	25	12	22.45	22.56	22.38
10	QPSK	25	25	22.44	22.62	22.50
10	QPSK	50	0	22.48	22.53	22.59
10	16QAM	1	0	22.42	22.22	22.43
10	16QAM	1	25	22.41	22.48	22.32
10	16QAM	1	49	22.25	22.33	22.23
10	16QAM	25	0	21.53	21.56	21.65
10	16QAM	25	12	21.56	21.58	21.59
10	16QAM	25	25	21.50	21.59	21.50
10	16QAM	50	0	21.60	21.55	21.67



LTE Band 12						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23035	23095	23155
Frequency (MHz)				701.5	707.5	713.5
5	QPSK	1	0	23.33	23.30	23.30
5	QPSK	1	12	23.25	23.11	23.22
5	QPSK	1	24	23.17	23.24	23.20
5	QPSK	12	0	22.44	22.51	22.54
5	QPSK	12	7	22.49	22.64	22.50
5	QPSK	12	13	22.39	22.62	22.44
5	QPSK	25	0	22.48	22.58	22.45
5	16QAM	1	0	22.13	22.09	22.36
5	16QAM	1	12	22.34	22.49	22.46
5	16QAM	1	24	22.24	22.43	22.43
5	16QAM	12	0	21.51	21.54	21.52
5	16QAM	12	7	21.63	21.56	21.64
5	16QAM	12	13	21.51	21.54	21.71
5	16QAM	25	0	21.63	21.78	21.68



LTE Band 12						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23025	23095	23165
Frequency (MHz)				700.5	707.5	714.5
3	QPSK	1	0	23.29	23.25	23.27
3	QPSK	1	8	23.23	23.26	23.21
3	QPSK	1	14	23.27	23.21	23.20
3	QPSK	8	0	22.48	22.74	22.49
3	QPSK	8	4	22.45	22.62	22.50
3	QPSK	8	7	22.40	22.62	22.49
3	QPSK	15	0	22.38	22.60	22.57
3	16QAM	1	0	21.77	22.12	22.15
3	16QAM	1	8	21.88	22.27	22.09
3	16QAM	1	14	22.12	21.95	21.99
3	16QAM	8	0	21.59	21.54	21.56
3	16QAM	8	4	21.68	21.59	21.62
3	16QAM	8	7	21.66	21.63	21.76
3	16QAM	15	0	21.79	21.53	21.54



LTE Band 12						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23017	23095	23173
Frequency (MHz)				699.7	707.5	715.3
1.4	QPSK	1	0	23.19	23.15	23.22
1.4	QPSK	1	3	23.18	23.16	23.21
1.4	QPSK	1	5	23.16	23.22	23.35
1.4	QPSK	3	0	23.11	23.27	23.21
1.4	QPSK	3	1	23.12	23.05	23.23
1.4	QPSK	3	3	23.29	23.23	23.14
1.4	QPSK	6	0	22.43	22.51	22.50
1.4	16QAM	1	0	22.73	22.71	22.40
1.4	16QAM	1	3	22.41	22.57	22.45
1.4	16QAM	1	5	22.23	22.49	22.31
1.4	16QAM	3	0	22.22	22.32	22.41
1.4	16QAM	3	1	22.05	22.42	22.35
1.4	16QAM	3	3	22.51	22.52	22.46
1.4	16QAM	6	0	21.75	21.72	21.77



LTE Band 13						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23780	23790	23800
Frequency (MHz)				709	710	711
10	QPSK	1	0	/	23.26	/
10	QPSK	1	25	/	22.88	/
10	QPSK	1	49	/	22.88	/
10	QPSK	25	0	/	22.17	/
10	QPSK	25	12	/	22.15	/
10	QPSK	25	25	/	22.14	/
10	QPSK	50	0	/	22.11	/
10	16QAM	1	0	/	22.28	/
10	16QAM	1	25	/	22.29	/
10	16QAM	1	49	/	22.29	/
10	16QAM	25	0	/	21.57	/
10	16QAM	25	12	/	21.53	/
10	16QAM	25	25	/	21.58	/
10	16QAM	50	0	/	21.60	/



LTE Band 13						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23780	23790	23800
Frequency (MHz)				709	710	711
5	QPSK	1	0	23.01	23.07	23.08
5	QPSK	1	25	23.22	23.07	23.15
5	QPSK	1	49	22.98	22.93	23.08
5	QPSK	25	0	22.27	22.21	22.19
5	QPSK	25	12	22.14	22.28	22.25
5	QPSK	25	25	22.08	22.12	22.24
5	QPSK	50	0	22.13	22.08	22.26
5	16QAM	1	0	22.25	22.29	21.88
5	16QAM	1	25	22.14	22.23	22.29
5	16QAM	1	49	21.85	21.82	21.89
5	16QAM	25	0	21.52	21.61	21.62
5	16QAM	25	12	21.63	21.55	21.55
5	16QAM	25	25	21.71	21.57	21.72
5	16QAM	50	0	21.52	21.54	21.58



LTE Band 17						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23780	23790	23800
Frequency (MHz)				709	710	711
10	QPSK	1	0	23.36	23.48	23.36
10	QPSK	1	25	23.24	23.46	23.15
10	QPSK	1	49	23.36	23.28	23.36
10	QPSK	25	0	22.43	22.58	22.35
10	QPSK	25	12	22.54	22.48	22.53
10	QPSK	25	25	22.55	22.37	22.37
10	QPSK	50	0	22.39	22.40	22.38
10	16QAM	1	0	21.97	21.82	21.87
10	16QAM	1	25	22.32	21.98	22.19
10	16QAM	1	49	21.89	21.89	22.22
10	16QAM	25	0	21.58	21.64	21.57
10	16QAM	25	12	21.55	21.53	21.52
10	16QAM	25	25	21.63	21.51	21.61
10	16QAM	50	0	21.51	21.50	21.52



LTE Band 17						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23035	23790	23155
Frequency (MHz)				706.5	710	713.5
5	QPSK	1	0	23.24	23.19	23.28
5	QPSK	1	12	23.27	23.26	23.22
5	QPSK	1	24	23.21	23.28	23.29
5	QPSK	12	0	22.37	22.56	22.4
5	QPSK	12	7	22.31	22.54	22.39
5	QPSK	12	13	22.32	22.43	22.34
5	QPSK	25	0	22.35	22.49	22.32
5	16QAM	1	0	22.18	22.45	22.18
5	16QAM	1	12	22.36	22.66	22.19
5	16QAM	1	24	22.62	22.48	22.16
5	16QAM	12	0	21.54	21.7	21.5
5	16QAM	12	7	21.69	21.62	21.66
5	16QAM	12	13	21.62	21.63	21.58
5	16QAM	25	0	21.50	21.59	21.50



LTE Band 25						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				26140	26365	26590
Frequency (MHz)				1860	1882.5	1905
20	QPSK	1	0	20.97	20.98	20.98
20	QPSK	1	49	21.39	21.14	21.07
20	QPSK	1	99	20.95	21.02	21.05
20	QPSK	50	0	20.29	20.22	20.19
20	QPSK	50	24	20.26	20.18	20.18
20	QPSK	50	50	20.16	20.21	20.18
20	QPSK	100	0	20.24	20.19	20.27
20	16QAM	1	0	20.00	19.82	19.91
20	16QAM	1	49	19.57	20.03	19.84
20	16QAM	1	99	19.56	20.03	19.94
20	16QAM	50	0	19.47	19.60	19.45
20	16QAM	50	24	19.51	19.46	19.56
20	16QAM	50	50	19.57	19.71	19.52
20	16QAM	100	0	19.60	19.50	19.60



LTE Band 25						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				26115	26365	26615
Frequency (MHz)				1857.5	1882.5	1907.5
15	QPSK	1	0	21.08	21.16	21.29
15	QPSK	1	37	21.34	21.26	21.33
15	QPSK	1	74	21.28	21.18	21.23
15	QPSK	36	0	20.16	20.23	20.16
15	QPSK	36	20	20.24	20.24	20.22
15	QPSK	36	39	20.22	20.22	20.18
15	QPSK	75	0	20.20	20.22	20.22
15	16QAM	1	0	19.93	19.92	19.82
15	16QAM	1	37	20.31	20.20	20.11
15	16QAM	1	74	20.24	19.82	19.91
15	16QAM	36	0	19.52	19.50	19.50
15	16QAM	36	20	19.50	19.60	19.55
15	16QAM	36	39	19.49	19.71	19.82
15	16QAM	75	0	19.58	19.66	19.84



LTE Band 25						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				26090	26365	26640
Frequency (MHz)				1855	1882.5	1910
10	QPSK	1	0	20.98	20.99	20.74
10	QPSK	1	25	20.99	21.05	20.99
10	QPSK	1	49	20.87	21.04	21.00
10	QPSK	25	0	20.16	20.18	20.07
10	QPSK	25	12	20.25	20.17	20.23
10	QPSK	25	25	20.15	20.03	20.12
10	QPSK	50	0	20.12	20.05	20.19
10	16QAM	1	0	20.19	19.87	19.89
10	16QAM	1	25	20.32	20.35	20.00
10	16QAM	1	49	19.90	19.89	20.26
10	16QAM	25	0	19.52	19.63	19.79
10	16QAM	25	12	19.60	19.45	19.66
10	16QAM	25	25	19.51	19.45	19.82
10	16QAM	50	0	19.48	19.57	19.56



LTE Band 25						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				26065	26365	26665
Frequency (MHz)				1852.5	1882.5	1912.5
5	QPSK	1	0	21.05	21.15	21.19
5	QPSK	1	12	21.12	21.21	21.33
5	QPSK	1	24	21.01	21.10	21.18
5	QPSK	12	0	20.17	20.21	20.21
5	QPSK	12	7	20.19	20.14	20.22
5	QPSK	12	13	20.13	20.15	20.31
5	QPSK	25	0	20.22	20.12	20.21
5	16QAM	1	0	20.31	19.88	19.95
5	16QAM	1	12	20.35	19.93	20.22
5	16QAM	1	24	20.34	19.85	20.01
5	16QAM	12	0	19.48	19.51	19.81
5	16QAM	12	7	19.60	19.47	19.52
5	16QAM	12	13	19.69	19.56	19.56
5	16QAM	25	0	19.66	19.66	19.45



LTE Band 25						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				26055	26365	26675
Frequency (MHz)				1851.5	1882.5	1913.5
3	QPSK	1	0	21.13	21.16	21.08
3	QPSK	1	8	20.97	21.16	21.22
3	QPSK	1	14	20.98	21.16	21.06
3	QPSK	8	0	20.41	20.22	20.23
3	QPSK	8	4	20.23	20.22	20.32
3	QPSK	8	7	20.18	20.23	20.34
3	QPSK	15	0	20.27	20.25	20.42
3	16QAM	1	0	20.40	19.94	20.31
3	16QAM	1	8	20.38	19.92	20.37
3	16QAM	1	14	20.29	19.92	20.41
3	16QAM	8	0	19.50	19.52	19.76
3	16QAM	8	4	19.71	19.66	19.52
3	16QAM	8	7	19.50	19.69	19.58
3	16QAM	15	0	19.62	19.74	19.66



LTE Band 25						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				26047	26365	26683
Frequency (MHz)				1850.7	1882.5	1914.3
1.4	QPSK	1	0	21.26	21.06	21.06
1.4	QPSK	1	3	21.16	21.17	21.17
1.4	QPSK	1	5	20.91	21.14	21.14
1.4	QPSK	3	0	21.19	21.09	21.09
1.4	QPSK	3	1	21.30	21.13	21.13
1.4	QPSK	3	3	21.19	21.25	21.25
1.4	QPSK	6	0	20.24	20.18	20.18
1.4	16QAM	1	0	20.69	20.32	20.32
1.4	16QAM	1	3	20.43	20.73	20.73
1.4	16QAM	1	5	20.42	20.69	20.69
1.4	16QAM	3	0	20.15	20.51	20.51
1.4	16QAM	3	1	20.24	20.37	20.37
1.4	16QAM	3	3	20.19	20.21	20.21
1.4	16QAM	6	0	19.49	19.66	19.74



Effective Radiated Power and Effective Isotropic Radiated Power:

LTE Band2				Measured EIRP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				18700		18900		19100	
Frequency (MHz)				1860		1880		1900	
				dbm	W	dbm	W	dbm	W
20	QPSK	1	0	21.13	0.130	21.13	0.130	21.06	0.128
20	QPSK	1	49	21.40	0.138	21.14	0.130	21.06	0.128
20	QPSK	1	99	21.10	0.129	21.10	0.129	21.09	0.129
20	QPSK	50	0	20.43	0.110	20.40	0.110	20.39	0.109
20	QPSK	50	24	20.42	0.110	20.36	0.109	20.27	0.106
20	QPSK	50	50	20.37	0.109	20.29	0.107	20.41	0.110
20	QPSK	100	0	20.44	0.111	20.32	0.108	20.23	0.105
20	16QAM	1	0	20.29	0.107	19.91	0.098	20.21	0.105
20	16QAM	1	49	20.21	0.105	19.87	0.097	20.27	0.106
20	16QAM	1	99	20.27	0.106	20.05	0.101	20.29	0.107
20	16QAM	50	0	19.36	0.086	19.25	0.084	19.34	0.086
20	16QAM	50	24	19.39	0.087	19.10	0.081	19.31	0.085
20	16QAM	50	50	19.47	0.089	19.13	0.082	19.49	0.089
20	16QAM	100	0	19.43	0.088	19.30	0.085	19.23	0.084



LTE Band2				Measured EIRP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				18675		18900		19125	
Frequency (MHz)				1857.5		1880		1902.5	
				dbm	W	dbm	W	dbm	W
15	QPSK	1	0	21.28	0.134	21.26	0.134	21.10	0.129
15	QPSK	1	37	21.26	0.134	21.23	0.133	21.34	0.136
15	QPSK	1	74	21.27	0.134	21.27	0.134	21.20	0.132
15	QPSK	36	0	20.30	0.107	20.35	0.108	20.17	0.104
15	QPSK	36	20	20.30	0.107	20.38	0.109	20.27	0.106
15	QPSK	36	39	20.35	0.108	20.25	0.106	20.04	0.101
15	QPSK	75	0	20.38	0.109	20.30	0.107	20.19	0.104
15	16QAM	1	0	20.05	0.101	20.04	0.101	20.43	0.110
15	16QAM	1	37	20.26	0.106	20.15	0.104	19.96	0.099
15	16QAM	1	74	20.21	0.105	20.15	0.104	19.93	0.098
15	16QAM	36	0	19.25	0.084	19.19	0.083	19.14	0.082
15	16QAM	36	20	19.25	0.084	19.25	0.084	19.14	0.082
15	16QAM	36	39	19.40	0.087	19.03	0.080	19.17	0.083
15	16QAM	75	0	19.50	0.089	19.18	0.083	19.20	0.083



LTE Band2				Measured EIRP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				18650		18900		19150	
Frequency (MHz)				1855		1880		1905	
				dbm	W	dbm	W	dbm	W
10	QPSK	1	0	21.15	0.130	20.97	0.125	21.10	0.129
10	QPSK	1	25	21.29	0.135	21.36	0.137	21.35	0.136
10	QPSK	1	49	21.24	0.133	21.11	0.129	21.00	0.126
10	QPSK	25	0	20.22	0.105	20.11	0.103	20.17	0.104
10	QPSK	25	12	21.15	0.130	20.36	0.109	20.23	0.105
10	QPSK	25	25	21.29	0.135	20.28	0.107	20.14	0.103
10	QPSK	50	0	21.24	0.133	20.20	0.105	20.13	0.103
10	16QAM	1	0	20.22	0.105	19.56	0.090	19.80	0.095
10	16QAM	1	25	20.31	0.107	19.64	0.092	19.48	0.089
10	16QAM	1	49	20.23	0.105	19.63	0.092	19.70	0.093
10	16QAM	25	0	20.19	0.104	19.19	0.083	19.13	0.082
10	16QAM	25	12	19.63	0.092	19.43	0.088	19.18	0.083
10	16QAM	25	25	19.81	0.096	19.02	0.080	18.99	0.079
10	16QAM	50	0	19.92	0.098	19.35	0.086	19.14	0.082



LTE Band2				Measured EIRP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				18625		18900		19175	
Frequency (MHz)				1852.5		1880		1907.5	
				dbm	W	dbm	W	dbm	W
5	QPSK	1	0	21.25	0.133	21.38	0.137	21.04	0.127
5	QPSK	1	12	21.28	0.134	21.34	0.136	21.20	0.132
5	QPSK	1	24	21.30	0.135	21.31	0.135	21.29	0.135
5	QPSK	12	0	20.24	0.106	20.26	0.106	20.28	0.107
5	QPSK	12	7	20.28	0.107	20.23	0.105	20.33	0.108
5	QPSK	12	13	20.35	0.108	20.26	0.106	20.37	0.109
5	QPSK	25	0	20.30	0.107	20.31	0.107	20.21	0.105
5	16QAM	1	0	20.65	0.116	20.43	0.110	20.44	0.111
5	16QAM	1	12	20.76	0.119	20.27	0.106	20.59	0.115
5	16QAM	1	24	20.32	0.108	20.46	0.111	20.63	0.116
5	16QAM	12	0	19.25	0.084	19.18	0.083	19.19	0.083
5	16QAM	12	7	19.29	0.085	19.33	0.086	19.24	0.084
5	16QAM	12	13	19.38	0.087	19.22	0.084	19.35	0.086
5	16QAM	25	0	19.24	0.084	19.29	0.085	19.35	0.086



LTE Band2				Measured EIRP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				18615		18900		19185	
Frequency (MHz)				1851.5		1880		1908.5	
				dbm	W	dbm	W	dbm	W
3	QPSK	1	0	21.20	0.132	21.07	0.128	21.33	0.136
3	QPSK	1	8	21.24	0.133	21.25	0.133	21.23	0.133
3	QPSK	1	14	21.26	0.134	21.33	0.136	21.17	0.131
3	QPSK	8	0	20.26	0.106	20.33	0.108	20.25	0.106
3	QPSK	8	4	20.29	0.107	20.33	0.108	20.33	0.108
3	QPSK	8	7	20.35	0.108	20.30	0.107	20.34	0.108
3	QPSK	15	0	20.41	0.110	20.30	0.107	20.25	0.106
3	16QAM	1	0	20.73	0.118	20.52	0.113	20.59	0.115
3	16QAM	1	8	20.53	0.113	20.49	0.112	20.50	0.112
3	16QAM	1	14	20.66	0.116	20.43	0.110	20.42	0.110
3	16QAM	8	0	19.47	0.089	19.47	0.089	19.47	0.089
3	16QAM	8	4	19.47	0.089	19.53	0.090	19.52	0.090
3	16QAM	8	7	19.50	0.089	19.52	0.090	19.47	0.089
3	16QAM	15	0	19.46	0.088	19.51	0.089	19.52	0.090



LTE Band2				Measured EIRP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				18607		18900		19193	
Frequency (MHz)				1850.7		1880		1909.3	
				dbm	W	dbm	W	dbm	W
1.4	QPSK	1	0	21.26	0.134	21.18	0.131	21.17	0.131
1.4	QPSK	1	3	21.24	0.133	21.26	0.134	21.21	0.132
1.4	QPSK	1	5	21.21	0.132	21.28	0.134	21.16	0.131
1.4	QPSK	3	0	21.10	0.129	21.07	0.128	21.20	0.132
1.4	QPSK	3	1	21.20	0.132	21.17	0.131	21.28	0.134
1.4	QPSK	3	3	21.23	0.133	21.26	0.134	21.05	0.127
1.4	QPSK	6	0	20.27	0.106	20.30	0.107	20.32	0.108
1.4	16QAM	1	0	20.46	0.111	20.16	0.104	20.47	0.111
1.4	16QAM	1	3	20.47	0.111	20.12	0.103	20.49	0.112
1.4	16QAM	1	5	20.52	0.113	20.19	0.104	20.62	0.115
1.4	16QAM	3	0	20.21	0.105	20.42	0.110	20.42	0.110
1.4	16QAM	3	1	20.45	0.111	20.43	0.110	20.36	0.109
1.4	16QAM	3	3	20.46	0.111	20.56	0.114	20.42	0.110
1.4	16QAM	6	0	19.50	0.089	19.47	0.089	19.49	0.089



LTE Band4				Measured EIRP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20050		20175		20300	
Frequency (MHz)				1720		1732.5		1745	
				dbm	W	dbm	W	dbm	W
20	QPSK	1	0	20.60	0.115	20.51	0.112	20.58	0.114
20	QPSK	1	49	20.50	0.112	20.51	0.112	20.48	0.112
20	QPSK	1	99	20.35	0.108	20.35	0.108	20.33	0.108
20	QPSK	50	0	19.69	0.093	19.50	0.089	19.36	0.086
20	QPSK	50	24	19.41	0.087	19.45	0.088	19.64	0.092
20	QPSK	50	50	19.47	0.089	19.44	0.088	19.49	0.089
20	QPSK	100	0	19.34	0.086	19.49	0.089	19.53	0.090
20	16QAM	1	0	19.35	0.086	19.38	0.087	19.74	0.094
20	16QAM	1	49	19.39	0.087	19.41	0.087	19.33	0.086
20	16QAM	1	99	19.36	0.086	19.40	0.087	19.43	0.088
20	16QAM	50	0	18.42	0.070	18.48	0.070	18.60	0.072
20	16QAM	50	24	18.34	0.068	18.49	0.071	18.58	0.072
20	16QAM	50	50	18.38	0.069	18.59	0.072	18.45	0.070
20	16QAM	100	0	18.26	0.067	18.50	0.071	18.52	0.071



LTE Band4				Measured EIRP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20025		20175		20325	
Frequency (MHz)				1717.5		1732.5		1747.5	
				dbm	W	dbm	W	dbm	W
15	QPSK	1	0	20.40	0.110	20.26	0.106	20.39	0.109
15	QPSK	1	37	20.47	0.111	20.48	0.112	20.40	0.110
15	QPSK	1	74	20.55	0.114	20.46	0.111	20.23	0.105
15	QPSK	36	0	19.58	0.091	19.46	0.088	19.72	0.094
15	QPSK	36	20	19.38	0.087	19.55	0.090	19.53	0.090
15	QPSK	36	39	19.45	0.088	19.45	0.088	19.60	0.091
15	QPSK	75	0	19.60	0.091	19.46	0.088	19.62	0.092
15	16QAM	1	0	19.52	0.090	19.35	0.086	19.40	0.087
15	16QAM	1	37	19.69	0.093	19.22	0.084	19.69	0.093
15	16QAM	1	74	19.59	0.091	19.19	0.083	19.47	0.089
15	16QAM	36	0	18.43	0.070	18.36	0.069	18.46	0.070
15	16QAM	36	20	18.34	0.068	18.48	0.070	18.56	0.072
15	16QAM	36	39	18.42	0.070	18.37	0.069	18.32	0.068
15	16QAM	75	0	18.56	0.072	18.48	0.070	18.47	0.070



LTE Band4				Measured EIRP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20000		20175		20350	
Frequency (MHz)				1715		1732.5		1750	
				dbm	W	dbm	W	dbm	W
10	QPSK	1	0	20.57	0.114	20.55	0.114	20.46	0.111
10	QPSK	1	25	20.47	0.111	20.47	0.111	20.29	0.107
10	QPSK	1	49	20.57	0.114	20.25	0.106	20.26	0.106
10	QPSK	25	0	20.06	0.101	20.03	0.101	19.91	0.098
10	QPSK	25	12	20.14	0.103	20.06	0.101	19.87	0.097
10	QPSK	25	25	20.03	0.101	19.90	0.098	19.83	0.096
10	QPSK	50	0	19.93	0.098	19.66	0.092	19.74	0.094
10	16QAM	1	0	20.11	0.103	20.10	0.102	20.12	0.103
10	16QAM	1	25	20.04	0.101	19.89	0.097	20.04	0.101
10	16QAM	1	49	20.01	0.100	19.83	0.096	19.94	0.099
10	16QAM	25	0	18.93	0.078	18.84	0.077	18.96	0.079
10	16QAM	25	12	18.86	0.077	18.89	0.077	19.00	0.079
10	16QAM	25	25	18.98	0.079	18.80	0.076	18.94	0.078
10	16QAM	50	0	19.13	0.082	19.04	0.080	19.06	0.081



LTE Band4				Measured EIRP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				19975		20175		20375	
Frequency (MHz)				1712.5		1732.5		1752.5	
				dbm	W	dbm	W	dbm	W
5	QPSK	1	0	20.36	0.109	20.39	0.109	20.49	0.112
5	QPSK	1	12	20.36	0.109	20.40	0.110	20.38	0.109
5	QPSK	1	24	20.39	0.109	20.37	0.109	20.39	0.109
5	QPSK	12	0	19.78	0.095	19.71	0.094	19.83	0.096
5	QPSK	12	7	19.76	0.095	19.93	0.098	19.89	0.097
5	QPSK	12	13	19.67	0.093	19.75	0.094	19.83	0.096
5	QPSK	25	0	19.85	0.097	19.87	0.097	19.92	0.098
5	16QAM	1	0	19.76	0.095	19.37	0.086	19.65	0.092
5	16QAM	1	12	19.70	0.093	19.36	0.086	19.47	0.089
5	16QAM	1	24	19.41	0.087	19.52	0.090	19.83	0.096
5	16QAM	12	0	18.86	0.077	18.93	0.078	18.84	0.077
5	16QAM	12	7	18.84	0.077	18.75	0.075	18.80	0.076
5	16QAM	12	13	18.76	0.075	18.80	0.076	18.75	0.075
5	16QAM	25	0	18.81	0.076	18.79	0.076	18.77	0.075



LTE Band4				Measured EIRP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				19965		20175		20385	
Frequency (MHz)				1711.5		1732.5		1753.5	
				dbm	W	dbm	W	dbm	W
3	QPSK	1	0	20.38	0.109	20.40	0.110	20.42	0.110
3	QPSK	1	8	20.46	0.111	20.50	0.112	20.38	0.109
3	QPSK	1	14	20.39	0.109	20.37	0.109	20.39	0.109
3	QPSK	8	0	19.09	0.081	19.15	0.082	19.09	0.081
3	QPSK	8	4	19.07	0.081	19.18	0.083	19.10	0.081
3	QPSK	8	7	19.07	0.081	19.11	0.081	19.09	0.081
3	QPSK	15	0	18.99	0.079	19.11	0.081	19.07	0.081
3	16QAM	1	0	18.78	0.076	19.06	0.081	19.25	0.084
3	16QAM	1	8	18.93	0.078	18.82	0.076	18.81	0.076
3	16QAM	1	14	19.00	0.079	19.12	0.082	19.23	0.084
3	16QAM	8	0	18.53	0.071	18.57	0.072	18.27	0.067
3	16QAM	8	4	18.43	0.070	18.48	0.070	18.28	0.067
3	16QAM	8	7	18.49	0.071	18.32	0.068	18.30	0.068
3	16QAM	15	0	18.53	0.071	18.42	0.070	18.43	0.070



LTE Band4				Measured EIRP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				19957		20175		20393	
Frequency (MHz)				1710.7		1732.5		1754.3	
				dbm	W	dbm	W	dbm	W
1.4	QPSK	1	0	20.38	0.109	20.40	0.110	20.42	0.110
1.4	QPSK	1	3	20.46	0.111	20.50	0.112	20.38	0.109
1.4	QPSK	1	5	20.39	0.109	20.37	0.109	20.39	0.109
1.4	QPSK	3	0	19.09	0.081	19.15	0.082	19.09	0.081
1.4	QPSK	3	1	19.07	0.081	19.18	0.083	19.10	0.081
1.4	QPSK	3	3	19.07	0.081	19.11	0.081	19.09	0.081
1.4	QPSK	6	0	18.99	0.079	19.11	0.081	19.07	0.081
1.4	16QAM	1	0	18.78	0.076	19.06	0.081	19.25	0.084
1.4	16QAM	1	3	18.93	0.078	18.82	0.076	18.81	0.076
1.4	16QAM	1	5	19.00	0.079	19.12	0.082	19.23	0.084
1.4	16QAM	3	0	18.53	0.071	18.57	0.072	18.27	0.067
1.4	16QAM	3	1	18.43	0.070	18.48	0.070	18.28	0.067
1.4	16QAM	3	3	18.49	0.071	18.32	0.068	18.30	0.068
1.4	16QAM	6	0	18.53	0.071	18.42	0.070	18.43	0.070



LTE Band5				Measured ERP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20450		20525		20600	
Frequency (MHz)				829		836.5		844	
				dbm	W	dbm	W	dbm	W
10	QPSK	1	0	19.19	0.083	19.26	0.084	19.27	0.085
10	QPSK	1	25	19.19	0.083	19.21	0.083	19.18	0.083
10	QPSK	1	49	19.21	0.083	19.23	0.084	19.20	0.083
10	QPSK	25	0	18.29	0.067	18.32	0.068	18.37	0.069
10	QPSK	25	12	18.29	0.067	18.35	0.068	18.29	0.067
10	QPSK	25	25	18.22	0.066	18.34	0.068	18.13	0.065
10	QPSK	50	0	18.25	0.067	18.26	0.067	18.25	0.067
10	16QAM	1	0	18.06	0.064	18.06	0.064	18.10	0.065
10	16QAM	1	25	18.09	0.064	17.79	0.060	18.00	0.063
10	16QAM	1	49	17.60	0.058	17.75	0.060	17.79	0.060
10	16QAM	25	0	17.41	0.055	17.37	0.055	17.37	0.055
10	16QAM	25	12	17.45	0.056	17.33	0.054	17.51	0.056
10	16QAM	25	25	17.48	0.056	17.40	0.055	17.39	0.055
10	16QAM	50	0	17.45	0.056	17.32	0.054	17.38	0.055



LTE Band5				Measured ERP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20425		20525		20625	
Frequency (MHz)				826.5		836.5		846.5	
				dbm	W	dbm	W	dbm	W
5	QPSK	1	0	19.08	0.081	18.98	0.079	18.93	0.078
5	QPSK	1	12	19.06	0.081	18.84	0.077	18.97	0.079
5	QPSK	1	24	18.93	0.078	18.96	0.079	19.01	0.080
5	QPSK	12	0	18.61	0.073	18.63	0.073	18.48	0.070
5	QPSK	12	7	18.60	0.072	18.75	0.075	18.61	0.073
5	QPSK	12	13	18.52	0.071	18.73	0.075	18.53	0.071
5	QPSK	25	0	18.53	0.071	18.71	0.074	18.46	0.070
5	16QAM	1	0	18.76	0.075	18.41	0.069	18.63	0.073
5	16QAM	1	12	18.35	0.068	18.44	0.070	18.48	0.070
5	16QAM	1	24	18.28	0.067	18.40	0.069	18.31	0.068
5	16QAM	12	0	17.80	0.060	17.71	0.059	17.61	0.058
5	16QAM	12	7	17.80	0.060	17.47	0.056	17.50	0.056
5	16QAM	12	13	17.61	0.058	17.40	0.055	17.41	0.055
5	16QAM	25	0	17.41	0.055	17.45	0.056	17.47	0.056



LTE Band5				Measured ERP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20415		20525		20635	
Frequency (MHz)				825.5		836.5		847.5	
				dbm	W	dbm	W	dbm	W
3	QPSK	1	0	19.10	0.081	19.10	0.081	19.10	0.081
3	QPSK	1	8	19.04	0.080	19.07	0.081	19.13	0.082
3	QPSK	1	14	19.07	0.081	19.03	0.080	19.09	0.081
3	QPSK	8	0	18.26	0.067	18.27	0.067	18.24	0.067
3	QPSK	8	4	18.32	0.068	18.31	0.068	18.39	0.069
3	QPSK	8	7	18.28	0.067	18.23	0.067	18.22	0.066
3	QPSK	15	0	18.25	0.067	18.21	0.066	18.10	0.065
3	16QAM	1	0	17.95	0.062	17.95	0.062	18.23	0.067
3	16QAM	1	8	18.04	0.064	17.86	0.061	18.02	0.063
3	16QAM	1	14	18.31	0.068	18.26	0.067	18.28	0.067
3	16QAM	8	0	17.34	0.054	17.47	0.056	17.38	0.055
3	16QAM	8	4	17.32	0.054	17.45	0.056	17.37	0.055
3	16QAM	8	7	17.37	0.055	17.45	0.056	17.34	0.054
3	16QAM	15	0	17.41	0.055	17.49	0.056	17.36	0.054



LTE Band5				Measured ERP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20407		20525		20643	
Frequency (MHz)				824.7		836.5		848.3	
				dbm	W	dbm	W	dbm	W
1.4	QPSK	1	0	18.58	0.072	18.89	0.077	18.85	0.077
1.4	QPSK	1	3	18.80	0.076	18.90	0.078	18.78	0.076
1.4	QPSK	1	5	18.69	0.074	18.85	0.077	18.69	0.074
1.4	QPSK	3	0	18.99	0.079	19.15	0.082	18.95	0.079
1.4	QPSK	3	1	19.01	0.080	19.06	0.081	18.99	0.079
1.4	QPSK	3	3	19.03	0.080	19.20	0.083	18.84	0.077
1.4	QPSK	6	0	17.93	0.062	18.05	0.064	17.84	0.061
1.4	16QAM	1	0	17.96	0.063	17.79	0.060	17.98	0.063
1.4	16QAM	1	3	17.73	0.059	17.77	0.060	18.03	0.064
1.4	16QAM	1	5	17.76	0.060	17.80	0.060	17.69	0.059
1.4	16QAM	3	0	17.62	0.058	17.86	0.061	17.90	0.062
1.4	16QAM	3	1	17.80	0.060	17.89	0.062	17.85	0.061
1.4	16QAM	3	3	17.87	0.061	17.80	0.060	17.80	0.060
1.4	16QAM	6	0	17.43	0.055	17.73	0.059	17.35	0.054



LTE Band 12				Measured ERP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23060		23095		23130	
Frequency (MHz)				704		707.5		711	
				dbm	W	dbm	W	dbm	W
10	QPSK	1	0	16.32	0.043	16.41	0.044	16.21	0.042
10	QPSK	1	25	16.20	0.042	16.27	0.042	16.21	0.042
10	QPSK	1	49	16.27	0.042	16.18	0.041	16.11	0.041
10	QPSK	25	0	15.38	0.035	15.67	0.037	15.27	0.034
10	QPSK	25	12	15.44	0.035	15.55	0.036	15.37	0.034
10	QPSK	25	25	15.43	0.035	15.61	0.036	15.49	0.035
10	QPSK	50	0	15.47	0.035	15.52	0.036	15.58	0.036
10	16QAM	1	0	15.41	0.035	15.21	0.033	15.42	0.035
10	16QAM	1	25	15.40	0.035	15.47	0.035	15.31	0.034
10	16QAM	1	49	15.24	0.033	15.32	0.034	15.22	0.033
10	16QAM	25	0	14.52	0.028	14.55	0.029	14.64	0.029
10	16QAM	25	12	14.55	0.029	14.57	0.029	14.58	0.029
10	16QAM	25	25	14.49	0.028	14.58	0.029	14.49	0.028
10	16QAM	50	0	14.59	0.029	14.54	0.028	14.66	0.029



LTE Band 12				Measured ERP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23035		23095		23155	
Frequency (MHz)				701.5		707.5		713.5	
				dbm	W	dbm	W	dbm	W
5	QPSK	1	0	16.32	0.043	16.29	0.043	16.29	0.043
5	QPSK	1	12	16.24	0.042	16.10	0.041	16.21	0.042
5	QPSK	1	24	16.16	0.041	16.23	0.042	16.19	0.042
5	QPSK	12	0	15.43	0.035	15.50	0.035	15.53	0.036
5	QPSK	12	7	15.48	0.035	15.63	0.037	15.49	0.035
5	QPSK	12	13	15.38	0.035	15.61	0.036	15.43	0.035
5	QPSK	25	0	15.47	0.035	15.57	0.036	15.44	0.035
5	16QAM	1	0	15.12	0.033	15.08	0.032	15.35	0.034
5	16QAM	1	12	15.33	0.034	15.48	0.035	15.45	0.035
5	16QAM	1	24	15.23	0.033	15.42	0.035	15.42	0.035
5	16QAM	12	0	14.50	0.028	14.53	0.028	14.51	0.028
5	16QAM	12	7	14.62	0.029	14.55	0.029	14.63	0.029
5	16QAM	12	13	14.50	0.028	14.53	0.028	14.70	0.030
5	16QAM	25	0	14.62	0.029	14.77	0.030	14.67	0.029



LTE Band 12				Measured ERP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23025		23095		23165	
Frequency (MHz)				700.5		707.5		714.5	
				dbm	W	dbm	W	dbm	W
3	QPSK	1	0	16.28	0.042	16.24	0.042	16.26	0.042
3	QPSK	1	8	16.22	0.042	16.25	0.042	16.20	0.042
3	QPSK	1	14	16.26	0.042	16.20	0.042	16.19	0.042
3	QPSK	8	0	15.47	0.035	15.73	0.037	15.48	0.035
3	QPSK	8	4	15.44	0.035	15.61	0.036	15.49	0.035
3	QPSK	8	7	15.39	0.035	15.61	0.036	15.48	0.035
3	QPSK	15	0	15.37	0.034	15.59	0.036	15.56	0.036
3	16QAM	1	0	14.76	0.030	15.11	0.032	15.14	0.033
3	16QAM	1	8	14.87	0.031	15.26	0.034	15.08	0.032
3	16QAM	1	14	15.11	0.032	14.94	0.031	14.98	0.031
3	16QAM	8	0	14.58	0.029	14.53	0.028	14.55	0.029
3	16QAM	8	4	14.67	0.029	14.58	0.029	14.61	0.029
3	16QAM	8	7	14.65	0.029	14.62	0.029	14.75	0.030
3	16QAM	15	0	14.78	0.030	14.52	0.028	14.53	0.028



LTE Band 12				Measured ERP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23017		23095		23173	
Frequency (MHz)				699.7		707.5		715.3	
				dbm	W	dbm	W	dbm	W
1.4	QPSK	1	0	16.18	0.041	16.14	0.041	16.21	0.042
1.4	QPSK	1	3	16.17	0.041	16.15	0.041	16.20	0.042
1.4	QPSK	1	5	16.15	0.041	16.21	0.042	16.34	0.043
1.4	QPSK	3	0	16.10	0.041	16.26	0.042	16.20	0.042
1.4	QPSK	3	1	16.11	0.041	16.04	0.040	16.22	0.042
1.4	QPSK	3	3	16.28	0.042	16.22	0.042	16.13	0.041
1.4	QPSK	6	0	15.42	0.035	15.50	0.035	15.49	0.035
1.4	16QAM	1	0	15.72	0.037	15.70	0.037	15.39	0.035
1.4	16QAM	1	3	15.40	0.035	15.56	0.036	15.44	0.035
1.4	16QAM	1	5	15.22	0.033	15.48	0.035	15.30	0.034
1.4	16QAM	3	0	15.21	0.033	15.31	0.034	15.40	0.035
1.4	16QAM	3	1	15.04	0.032	15.41	0.035	15.34	0.034
1.4	16QAM	3	3	15.50	0.035	15.51	0.036	15.45	0.035
1.4	16QAM	6	0	14.74	0.030	14.71	0.030	14.76	0.030



LTE Band 13				Measured ERP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23780		23790		23800	
Frequency (MHz)				709		710		711	
				dbm	W	dbm	W	dbm	W
10	QPSK	1	0	/	/	17.84	0.061	/	/
10	QPSK	1	25	/	/	17.46	0.056	/	/
10	QPSK	1	49	/	/	17.46	0.056	/	/
10	QPSK	25	0	/	/	16.75	0.047	/	/
10	QPSK	25	12	/	/	16.73	0.047	/	/
10	QPSK	25	25	/	/	16.72	0.047	/	/
10	QPSK	50	0	/	/	16.69	0.047	/	/
10	16QAM	1	0	/	/	16.86	0.049	/	/
10	16QAM	1	25	/	/	16.87	0.049	/	/
10	16QAM	1	49	/	/	16.87	0.049	/	/
10	16QAM	25	0	/	/	16.15	0.041	/	/
10	16QAM	25	12	/	/	16.11	0.041	/	/
10	16QAM	25	25	/	/	16.16	0.041	/	/
10	16QAM	50	0	/	/	16.18	0.041	/	/



LTE Band 13				Measured ERP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23035		23790		23155	
Frequency (MHz)				706.5		710		713.5	
				dbm	W	dbm	W	dbm	W
5	QPSK	1	0	17.59	0.057	17.65	0.058	17.66	0.058
5	QPSK	1	12	17.80	0.060	17.65	0.058	17.73	0.059
5	QPSK	1	24	17.56	0.057	17.51	0.056	17.66	0.058
5	QPSK	12	0	16.85	0.048	16.79	0.048	16.77	0.048
5	QPSK	12	7	16.72	0.047	16.86	0.049	16.83	0.048
5	QPSK	12	13	16.66	0.046	16.70	0.047	16.82	0.048
5	QPSK	25	0	16.71	0.047	16.66	0.046	16.84	0.048
5	16QAM	1	0	16.83	0.048	16.87	0.049	16.46	0.044
5	16QAM	1	12	16.72	0.047	16.81	0.048	16.87	0.049
5	16QAM	1	24	16.43	0.044	16.40	0.044	16.47	0.044
5	16QAM	12	0	16.10	0.041	16.19	0.042	16.20	0.042
5	16QAM	12	7	16.21	0.042	16.13	0.041	16.13	0.041
5	16QAM	12	13	16.29	0.043	16.15	0.041	16.30	0.043
5	16QAM	25	0	16.10	0.041	16.12	0.041	16.16	0.041



LTE Band 17				Measured ERP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23780		23790		23800	
Frequency (MHz)				709		710		711	
				dbm	W	dbm	W	dbm	W
10	QPSK	1	0	16.35	0.043	16.47	0.044	16.35	0.043
10	QPSK	1	25	16.23	0.042	16.45	0.044	16.14	0.041
10	QPSK	1	49	16.35	0.043	16.27	0.042	16.35	0.043
10	QPSK	25	0	15.42	0.035	15.57	0.036	15.34	0.034
10	QPSK	25	12	15.53	0.036	15.47	0.035	15.52	0.036
10	QPSK	25	25	15.54	0.036	15.36	0.034	15.36	0.034
10	QPSK	50	0	15.38	0.035	15.39	0.035	15.37	0.034
10	16QAM	1	0	14.96	0.031	14.81	0.030	14.86	0.031
10	16QAM	1	25	15.31	0.034	14.97	0.031	15.18	0.033
10	16QAM	1	49	14.88	0.031	14.88	0.031	15.21	0.033
10	16QAM	25	0	14.57	0.029	14.63	0.029	14.56	0.029
10	16QAM	25	12	14.54	0.028	14.52	0.028	14.51	0.028
10	16QAM	25	25	14.62	0.029	14.50	0.028	14.60	0.029
10	16QAM	50	0	14.50	0.028	14.49	0.028	14.51	0.028



LTE Band 17				Measured ERP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23035		23790		23155	
Frequency (MHz)				706.5		710		713.5	
				dbm	W	dbm	W	dbm	W
5	QPSK	1	0	16.23	0.042	16.18	0.041	16.27	0.042
5	QPSK	1	12	16.26	0.042	16.25	0.042	16.21	0.042
5	QPSK	1	24	16.20	0.042	16.27	0.042	16.28	0.042
5	QPSK	12	0	15.36	0.034	15.55	0.036	15.39	0.035
5	QPSK	12	7	15.30	0.034	15.53	0.036	15.38	0.035
5	QPSK	12	13	15.31	0.034	15.42	0.035	15.33	0.034
5	QPSK	25	0	15.34	0.034	15.48	0.035	15.31	0.034
5	16QAM	1	0	15.17	0.033	15.44	0.035	15.17	0.033
5	16QAM	1	12	15.35	0.034	15.65	0.037	15.18	0.033
5	16QAM	1	24	15.61	0.036	15.47	0.035	15.15	0.033
5	16QAM	12	0	14.53	0.028	14.69	0.029	14.49	0.028
5	16QAM	12	7	14.68	0.029	14.61	0.029	14.65	0.029
5	16QAM	12	13	14.61	0.029	14.62	0.029	14.57	0.029
5	16QAM	25	0	14.49	0.028	14.58	0.029	14.49	0.028



LTE Band 25				Measured EIRP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				26140		26365		26590	
Frequency (MHz)				1860		1882.5		1905	
				dbm	W	dbm	W	dbm	W
20	QPSK	1	0	20.96	0.125	20.97	0.125	20.97	0.125
20	QPSK	1	49	21.38	0.137	21.13	0.130	21.06	0.128
20	QPSK	1	99	20.94	0.124	21.01	0.126	21.04	0.127
20	QPSK	50	0	20.28	0.107	20.21	0.105	20.18	0.104
20	QPSK	50	24	20.25	0.106	20.17	0.104	20.17	0.104
20	QPSK	50	50	20.15	0.104	20.20	0.105	20.17	0.104
20	QPSK	100	0	20.23	0.105	20.18	0.104	20.26	0.106
20	16QAM	1	0	19.99	0.100	19.81	0.096	19.90	0.098
20	16QAM	1	49	19.56	0.090	20.02	0.100	19.83	0.096
20	16QAM	1	99	19.55	0.090	20.02	0.100	19.93	0.098
20	16QAM	50	0	19.46	0.088	19.59	0.091	19.44	0.088
20	16QAM	50	24	19.50	0.089	19.45	0.088	19.55	0.090
20	16QAM	50	50	19.56	0.090	19.70	0.093	19.51	0.089
20	16QAM	100	0	19.59	0.091	19.49	0.089	19.59	0.091



LTE Band 25				Measured EIRP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				26115		26365		26615	
Frequency (MHz)				1857.5		1882.5		1907.5	
				dbm	W	dbm	W	dbm	W
15	QPSK	1	0	21.07	0.128	21.15	0.130	21.28	0.134
15	QPSK	1	37	21.33	0.136	21.25	0.133	21.32	0.136
15	QPSK	1	74	21.27	0.134	21.17	0.131	21.22	0.132
15	QPSK	36	0	20.15	0.104	20.22	0.105	20.15	0.104
15	QPSK	36	20	20.23	0.105	20.23	0.105	20.21	0.105
15	QPSK	36	39	20.21	0.105	20.21	0.105	20.17	0.104
15	QPSK	75	0	20.19	0.104	20.21	0.105	20.21	0.105
15	16QAM	1	0	19.92	0.098	19.91	0.098	19.81	0.096
15	16QAM	1	37	20.30	0.107	20.19	0.104	20.10	0.102
15	16QAM	1	74	20.23	0.105	19.81	0.096	19.90	0.098
15	16QAM	36	0	19.51	0.089	19.49	0.089	19.49	0.089
15	16QAM	36	20	19.49	0.089	19.59	0.091	19.54	0.090
15	16QAM	36	39	19.48	0.089	19.70	0.093	19.81	0.096
15	16QAM	75	0	19.57	0.091	19.65	0.092	19.83	0.096



LTE Band 25				Measured EIRP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				26090		26365		26640	
Frequency (MHz)				1855		1882.5		1910	
				dbm	W	dbm	W	dbm	W
10	QPSK	1	0	20.97	0.125	20.98	0.125	20.73	0.118
10	QPSK	1	25	20.98	0.125	21.04	0.127	20.98	0.125
10	QPSK	1	49	20.86	0.122	21.03	0.127	20.99	0.126
10	QPSK	25	0	20.15	0.104	20.17	0.104	20.06	0.101
10	QPSK	25	12	20.24	0.106	20.16	0.104	20.22	0.105
10	QPSK	25	25	20.14	0.103	20.02	0.100	20.11	0.103
10	QPSK	50	0	20.11	0.103	20.04	0.101	20.18	0.104
10	16QAM	1	0	20.18	0.104	19.86	0.097	19.88	0.097
10	16QAM	1	25	20.31	0.107	20.34	0.108	19.99	0.100
10	16QAM	1	49	19.89	0.097	19.88	0.097	20.25	0.106
10	16QAM	25	0	19.51	0.089	19.62	0.092	19.78	0.095
10	16QAM	25	12	19.59	0.091	19.44	0.088	19.65	0.092
10	16QAM	25	25	19.50	0.089	19.44	0.088	19.81	0.096
10	16QAM	50	0	19.47	0.089	19.56	0.090	19.55	0.090



LTE Band 25				Measured EIRP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				26065		26365		26665	
Frequency (MHz)				1852.5		1882.5		1912.5	
				dbm	W	dbm	W	dbm	W
5	QPSK	1	0	21.04	0.127	21.14	0.130	21.18	0.131
5	QPSK	1	12	21.11	0.129	21.20	0.132	21.32	0.136
5	QPSK	1	24	21.00	0.126	21.09	0.129	21.17	0.131
5	QPSK	12	0	20.16	0.104	20.20	0.105	20.20	0.105
5	QPSK	12	7	20.18	0.104	20.13	0.103	20.21	0.105
5	QPSK	12	13	20.12	0.103	20.14	0.103	20.30	0.107
5	QPSK	25	0	20.21	0.105	20.11	0.103	20.20	0.105
5	16QAM	1	0	20.30	0.107	19.87	0.097	19.94	0.099
5	16QAM	1	12	20.34	0.108	19.92	0.098	20.21	0.105
5	16QAM	1	24	20.33	0.108	19.84	0.096	20.00	0.100
5	16QAM	12	0	19.47	0.089	19.50	0.089	19.80	0.095
5	16QAM	12	7	19.59	0.091	19.46	0.088	19.51	0.089
5	16QAM	12	13	19.68	0.093	19.55	0.090	19.55	0.090
5	16QAM	25	0	19.65	0.092	19.65	0.092	19.44	0.088



LTE Band 25				Measured EIRP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				26055		26365		26675	
Frequency (MHz)				1851.5		1882.5		1913.5	
				dbm	W	dbm	W	dbm	W
3	QPSK	1	0	21.12	0.129	21.15	0.130	21.07	0.128
3	QPSK	1	8	20.96	0.125	21.15	0.130	21.21	0.132
3	QPSK	1	14	20.97	0.125	21.15	0.130	21.05	0.127
3	QPSK	8	0	20.40	0.110	20.21	0.105	20.22	0.105
3	QPSK	8	4	20.22	0.105	20.21	0.105	20.31	0.107
3	QPSK	8	7	20.17	0.104	20.22	0.105	20.33	0.108
3	QPSK	15	0	20.26	0.106	20.24	0.106	20.41	0.110
3	16QAM	1	0	20.39	0.109	19.93	0.098	20.30	0.107
3	16QAM	1	8	20.37	0.109	19.91	0.098	20.36	0.109
3	16QAM	1	14	20.28	0.107	19.91	0.098	20.40	0.110
3	16QAM	8	0	19.49	0.089	19.51	0.089	19.75	0.094
3	16QAM	8	4	19.70	0.093	19.65	0.092	19.51	0.089
3	16QAM	8	7	19.49	0.089	19.68	0.093	19.57	0.091
3	16QAM	15	0	19.61	0.091	19.73	0.094	19.65	0.092



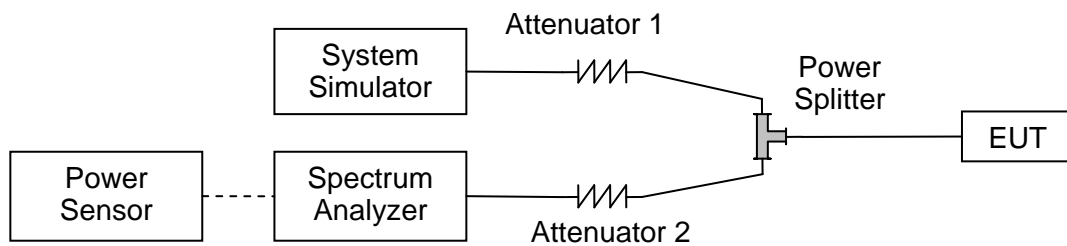
LTE Band 25				Measured EIRP					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				26047		26365		26683	
Frequency (MHz)				1850.7		1882.5		1914.3	
				dbm	W	dbm	W	dbm	W
1.4	QPSK	1	0	21.25	0.133	21.05	0.127	21.05	0.127
1.4	QPSK	1	3	21.15	0.130	21.16	0.131	21.16	0.131
1.4	QPSK	1	5	20.90	0.123	21.13	0.130	21.13	0.130
1.4	QPSK	3	0	21.18	0.131	21.08	0.128	21.08	0.128
1.4	QPSK	3	1	21.29	0.135	21.12	0.129	21.12	0.129
1.4	QPSK	3	3	21.18	0.131	21.24	0.133	21.24	0.133
1.4	QPSK	6	0	20.23	0.105	20.17	0.104	20.17	0.104
1.4	16QAM	1	0	20.68	0.117	20.31	0.107	20.31	0.107
1.4	16QAM	1	3	20.42	0.110	20.72	0.118	20.72	0.118
1.4	16QAM	1	5	20.41	0.110	20.68	0.117	20.68	0.117
1.4	16QAM	3	0	20.14	0.103	20.50	0.112	20.50	0.112
1.4	16QAM	3	1	20.23	0.105	20.36	0.109	20.36	0.109
1.4	16QAM	3	3	20.18	0.104	20.20	0.105	20.20	0.105
1.4	16QAM	6	0	19.48	0.089	19.65	0.092	19.73	0.094

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 50 Ohm; 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(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
1.4	Low	QPSK	1.09	1.24
	Low	16QAM	1.09	1.24
	Mid	QPSK	1.09	1.24
	Mid	16QAM	1.09	1.24
	High	QPSK	1.09	1.23
	High	16QAM	1.09	1.24
3	Low	QPSK	2.70	2.99
	Low	16QAM	2.70	3.02
	Mid	QPSK	2.70	3.02
	Mid	16QAM	2.70	3.02
	High	QPSK	2.70	3.02
	High	16QAM	2.70	3.01
5	Low	QPSK	4.50	4.99
	Low	16QAM	4.51	4.97
	Mid	QPSK	4.50	4.99
	Mid	16QAM	4.50	4.95
	High	QPSK	4.50	4.97
	High	16QAM	4.50	4.95
10	Low	QPSK	8.98	9.81
	Low	16QAM	8.97	9.74
	Mid	QPSK	8.98	9.80
	Mid	16QAM	8.96	9.74
	High	QPSK	8.99	9.78
	High	16QAM	8.97	9.77
15	Low	QPSK	13.44	14.68
	Low	16QAM	13.47	14.69
	Mid	QPSK	13.47	14.69
	Mid	16QAM	13.48	14.67
	High	QPSK	13.48	14.69
	High	16QAM	13.50	14.65
20	Low	QPSK	17.96	19.42
	Low	16QAM	17.98	19.58
	Mid	QPSK	17.98	19.47
	Mid	16QAM	18.00	19.61



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20	High	QPSK	18.00	19.57
	High	16QAM	17.97	19.44



LTE Band4				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
1.4	Low	QPSK	1.10	1.25
	Low	16QAM	1.10	1.24
	Mid	QPSK	1.09	1.23
	Mid	16QAM	1.10	1.25
	High	QPSK	1.09	1.24
	High	16QAM	1.10	1.24
3	Low	QPSK	2.70	3.00
	Low	16QAM	2.71	3.03
	Mid	QPSK	2.70	2.99
	Mid	16QAM	2.70	3.02
	High	QPSK	2.70	3.00
	High	16QAM	2.70	3.02
5	Low	QPSK	4.49	4.97
	Low	16QAM	4.50	4.96
	Mid	QPSK	4.50	4.95
	Mid	16QAM	4.50	4.96
	High	QPSK	4.50	4.97
	High	16QAM	4.51	4.97
10	Low	QPSK	9.01	9.78
	Low	16QAM	8.96	9.76
	Mid	QPSK	9.00	9.79
	Mid	16QAM	8.97	9.76
	High	QPSK	9.01	9.83
	High	16QAM	8.96	9.78
15	Low	QPSK	13.47	14.62
	Low	16QAM	13.46	14.61
	Mid	QPSK	13.47	14.68
	Mid	16QAM	13.46	14.71
	High	QPSK	13.48	14.68
	High	16QAM	13.45	14.67
20	Low	QPSK	17.93	19.50
	Low	16QAM	17.98	19.29
	Mid	QPSK	17.93	19.45
	Mid	16QAM	17.99	19.49
	High	QPSK	17.95	19.48
	High	16QAM	17.96	19.51



LTE Band5				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
1.4	Low	QPSK	1.09	1.23
	Low	16QAM	1.09	1.24
	Mid	QPSK	1.09	1.23
	Mid	16QAM	1.10	1.24
	High	QPSK	1.09	1.24
	High	16QAM	1.10	1.24
3	Low	QPSK	2.70	2.98
	Low	16QAM	2.70	2.99
	Mid	QPSK	2.70	3.00
	Mid	16QAM	2.70	3.02
	High	QPSK	2.70	3.00
	High	16QAM	2.70	3.02
5	Low	QPSK	4.51	4.97
	Low	16QAM	4.50	4.96
	Mid	QPSK	4.50	5.00
	Mid	16QAM	4.51	4.97
	High	QPSK	4.50	5.00
	High	16QAM	4.51	4.96
10	Low	QPSK	8.99	9.82
	Low	16QAM	8.97	9.79
	Mid	QPSK	9.01	9.85
	Mid	16QAM	8.96	9.78
	High	QPSK	8.97	9.72
	High	16QAM	8.96	9.79



LTE Band12				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
1.4	Low	QPSK	1.09	1.24
	Low	16QAM	1.09	1.23
	Mid	QPSK	1.09	1.23
	Mid	16QAM	1.10	1.23
	High	QPSK	1.09	1.24
	High	16QAM	1.10	1.23
3	Low	QPSK	2.70	2.99
	Low	16QAM	2.70	3.01
	Mid	QPSK	2.70	2.99
	Mid	16QAM	2.70	3.01
	High	QPSK	2.70	2.99
	High	16QAM	2.70	3.00
5	Low	QPSK	4.50	4.99
	Low	16QAM	4.50	4.92
	Mid	QPSK	4.50	4.98
	Mid	16QAM	4.50	4.95
	High	QPSK	4.50	4.97
	High	16QAM	4.51	4.95
10	Low	QPSK	9.00	9.80
	Low	16QAM	8.97	9.76
	Mid	QPSK	9.00	9.86
	Mid	16QAM	8.96	9.81
	High	QPSK	9.01	9.82
	High	16QAM	8.95	9.77



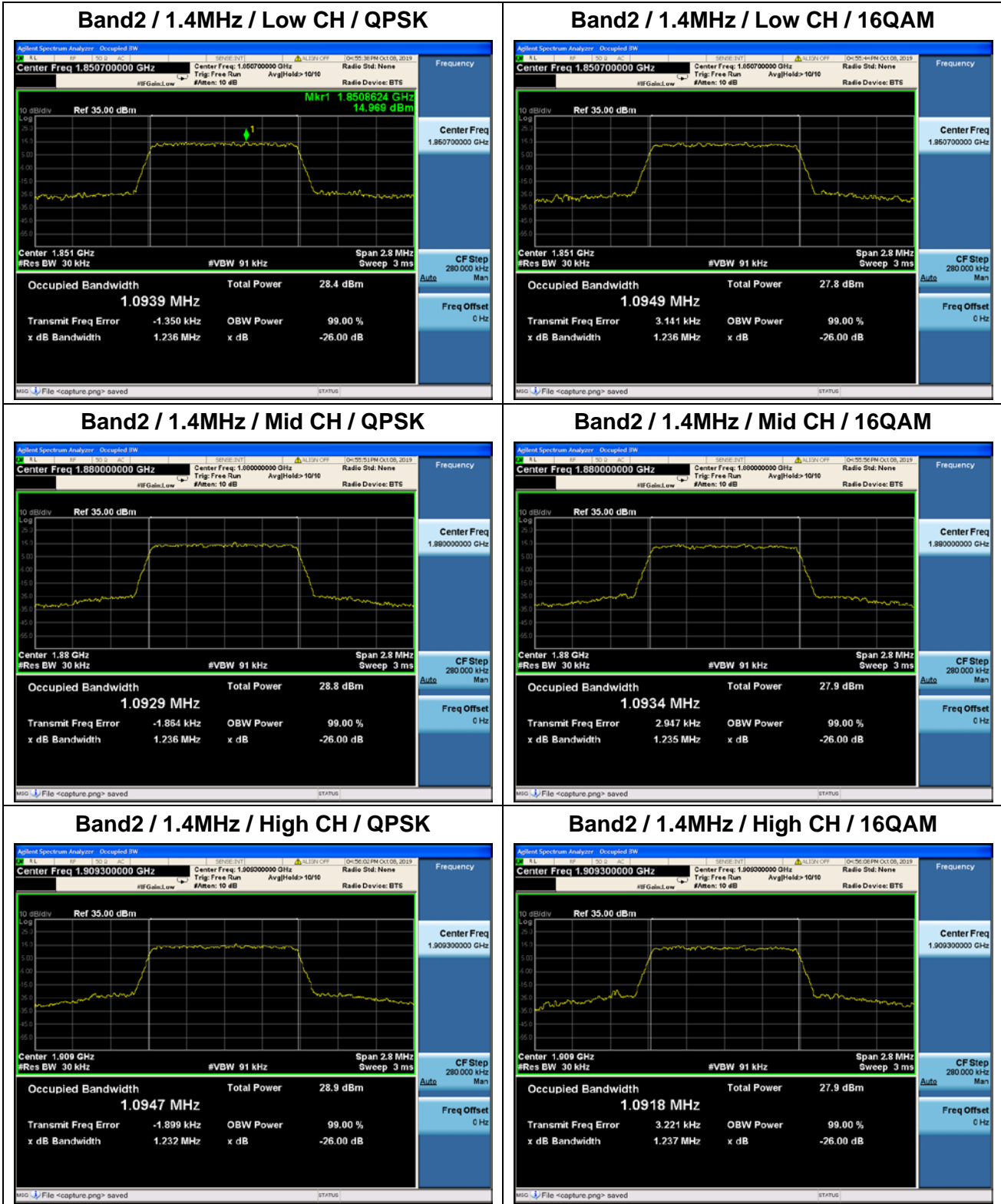
LTE Band13				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
5	Low	QPSK	4.51	5.02
	Low	16QAM	4.51	4.98
	Mid	QPSK	4.50	5.06
	Mid	16QAM	4.50	5.01
	High	QPSK	4.50	5.01
	High	16QAM	4.50	5.04
10	Mid	QPSK	8.98	9.86
	Mid	16QAM	8.94	9.74

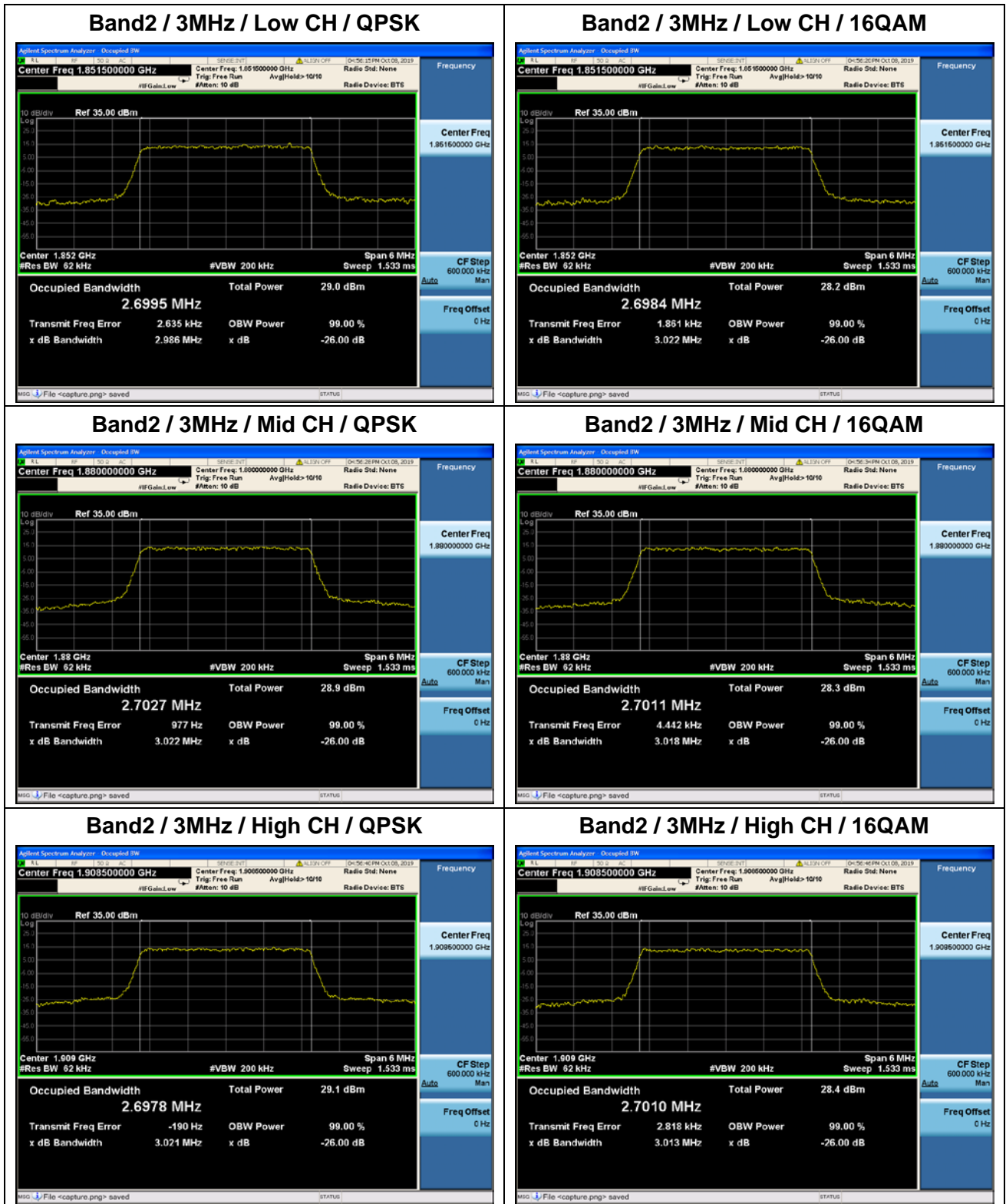


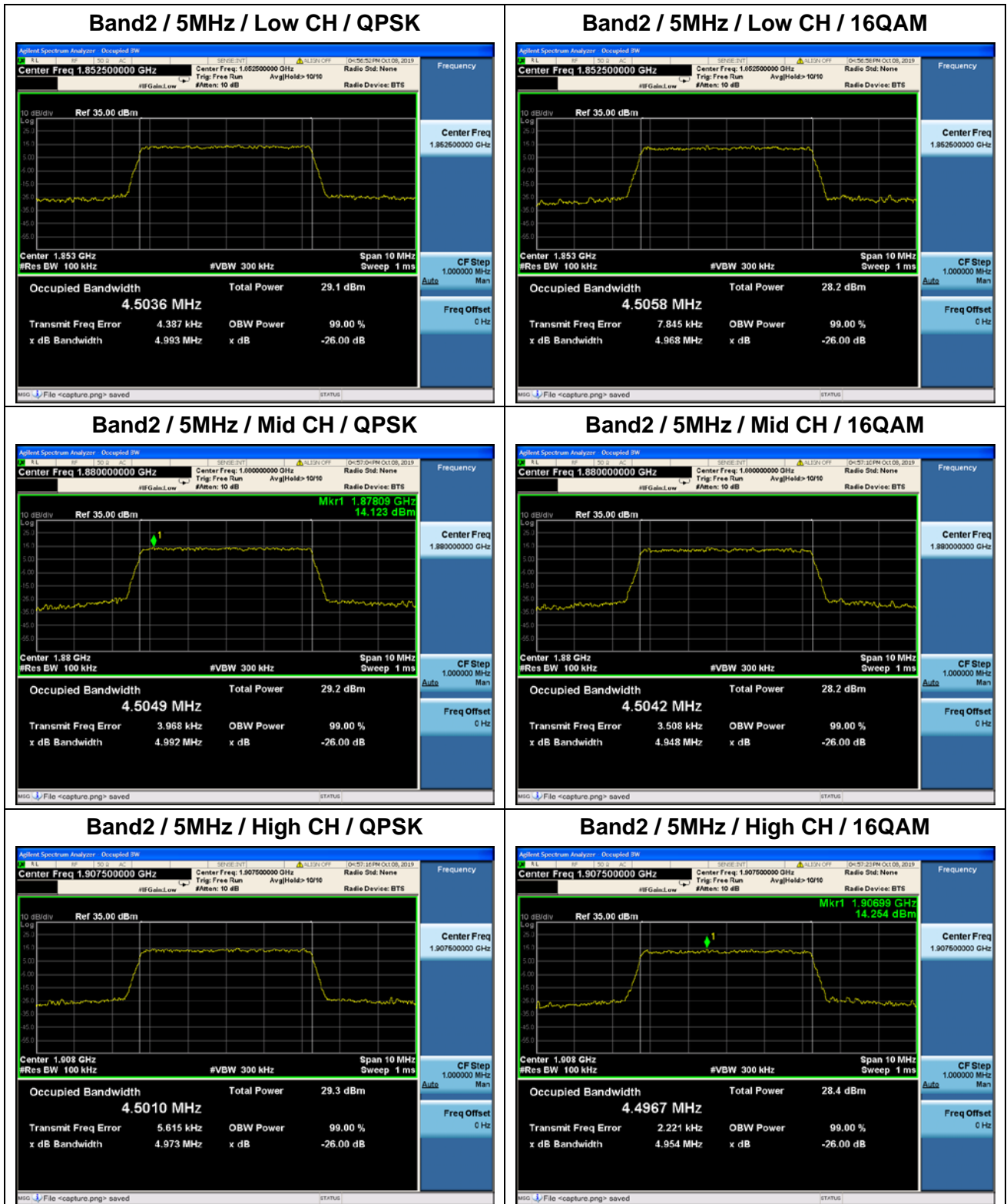
LTE Band17				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
5	Low	QPSK	4.50	4.97
	Low	16QAM	4.51	4.93
	Mid	QPSK	4.50	4.98
	Mid	16QAM	4.50	4.95
	High	QPSK	4.49	4.90
	High	16QAM	4.50	4.96
10	Low	QPSK	9.01	9.78
	Low	16QAM	8.96	9.75
	Mid	QPSK	9.00	9.81
	Mid	16QAM	8.96	9.82
	High	QPSK	8.98	9.80
	High	16QAM	8.97	9.75

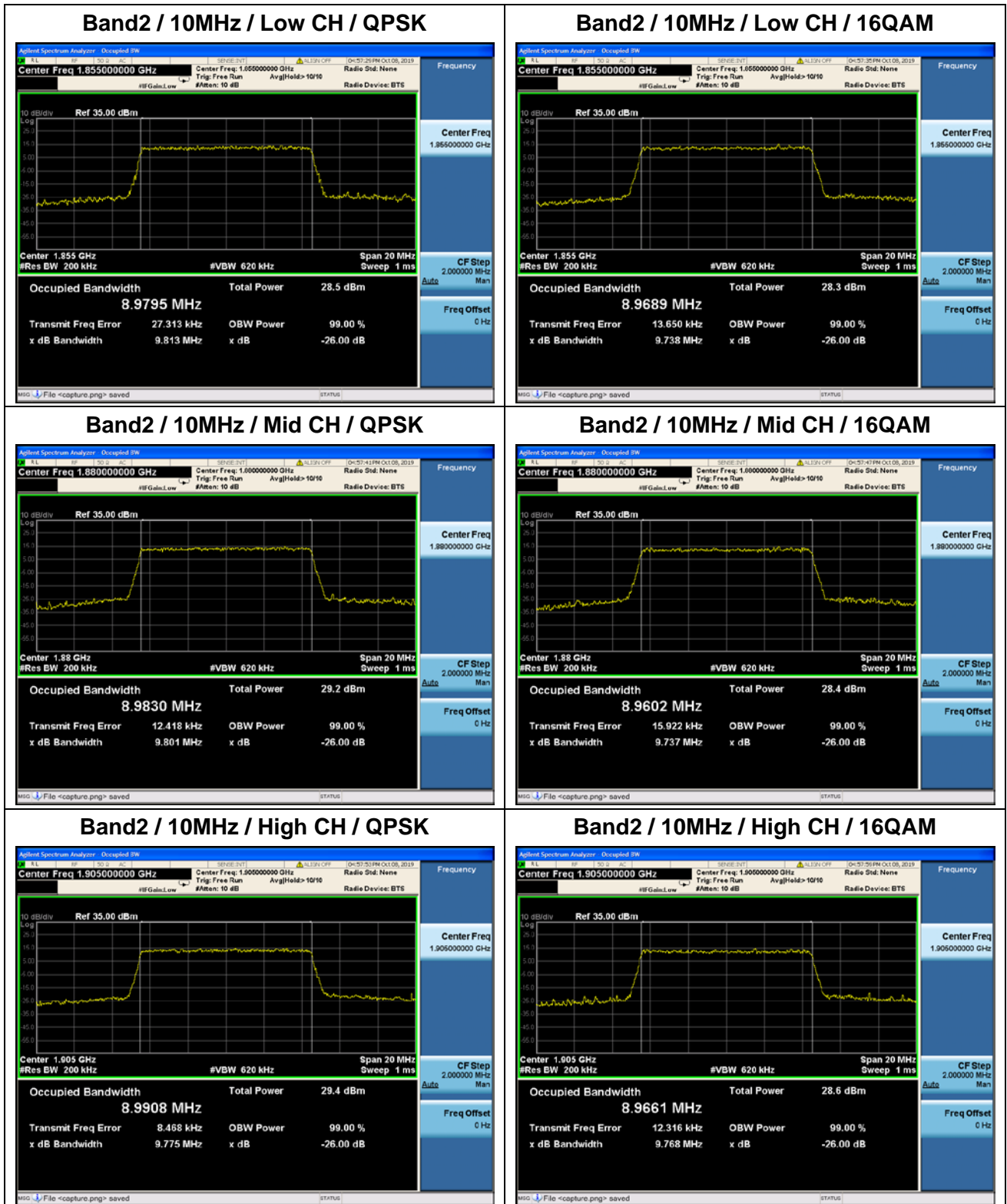


LTE Band25				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
1.4	Low	QPSK	1.09	1.24
	Low	16QAM	1.10	1.23
	Mid	QPSK	1.09	1.24
	Mid	16QAM	1.10	1.24
	High	QPSK	1.09	1.24
	High	16QAM	1.10	1.24
3	Low	QPSK	2.70	2.98
	Low	16QAM	2.70	3.02
	Mid	QPSK	2.69	2.99
	Mid	16QAM	2.70	3.01
	High	QPSK	2.70	3.02
	High	16QAM	2.70	3.00
5	Low	QPSK	4.50	4.98
	Low	16QAM	4.50	4.92
	Mid	QPSK	4.50	4.98
	Mid	16QAM	4.50	4.93
	High	QPSK	4.49	4.96
	High	16QAM	4.50	4.94
10	Low	QPSK	8.99	9.84
	Low	16QAM	8.97	9.84
	Mid	QPSK	9.00	9.77
	Mid	16QAM	8.97	9.79
	High	QPSK	9.00	9.84
	High	16QAM	8.96	9.75
15	Low	QPSK	13.49	14.70
	Low	16QAM	13.46	14.68
	Mid	QPSK	13.51	14.65
	Mid	16QAM	13.46	14.66
	High	QPSK	13.43	14.73
	High	16QAM	13.47	14.57
20	Low	QPSK	17.95	19.58
	Low	16QAM	17.95	19.43
	Mid	QPSK	17.95	19.47
	Mid	16QAM	18.00	19.51
	High	QPSK	17.94	19.51
	High	16QAM	17.97	19.52



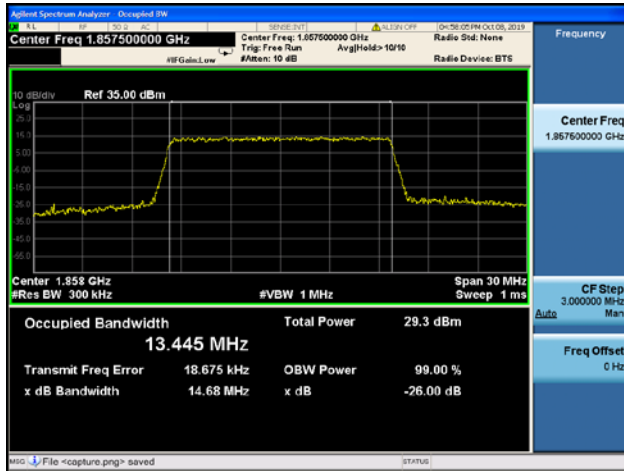




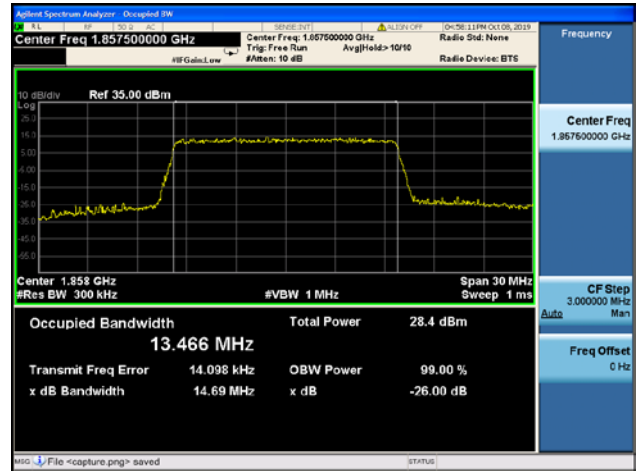




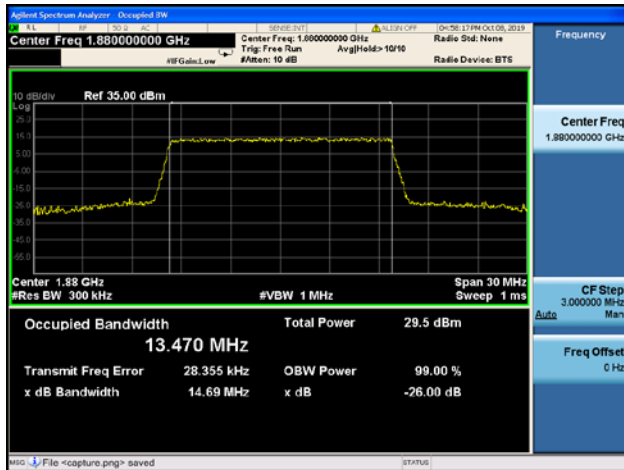
Band2 / 15MHz / Low CH / QPSK



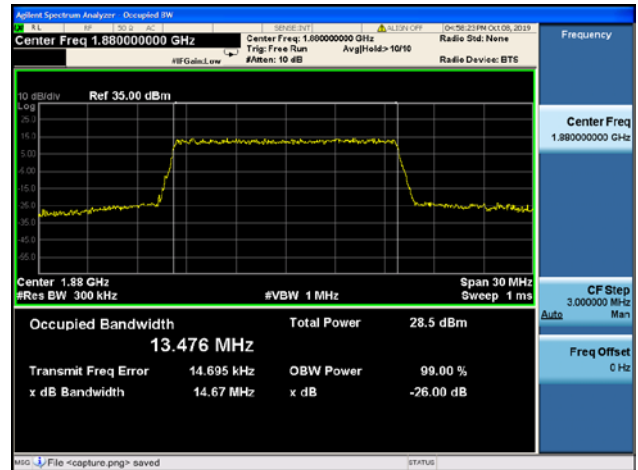
Band2 / 15MHz / Low CH / 16QAM



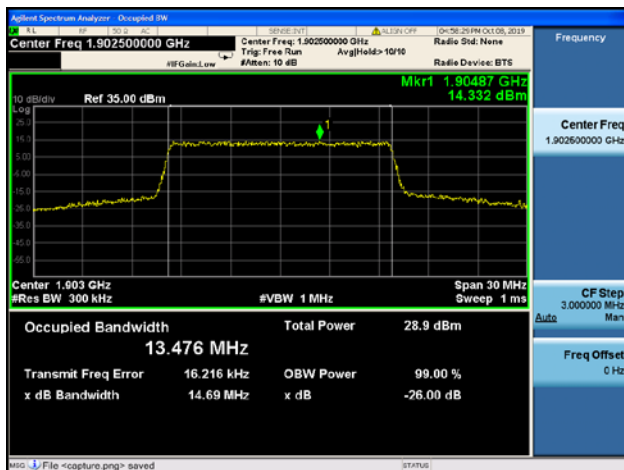
Band2 / 15MHz / Mid CH / QPSK



Band2 / 15MHz / Mid CH / 16QAM



Band2 / 15MHz / High CH / QPSK



Band2 / 15MHz / High CH / 16QAM

