



# TEST REPORT

**APPLICANT** : Shenzhen Chainway Information  
Technology Co., Ltd

**PRODUCT NAME** : Industrial Tablet

**MODEL NAME** : P80

**BRAND NAME** : CHAINWAY

**FCC ID** : 2AC6AP80P

**STANDARD(S)** : 47 CFR Part 2  
47 CFR Part 22, Subpart H  
47 CFR Part 24, Subpart E  
47 CFR Part 27, Subpart D&H&L&M

**RECEIPT DATE** : 2023-07-26

**TEST DATE** : 2023-07-26 to 2023-10-31

**ISSUE DATE** : 2023-12-05



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Change History		
Version	Date	Reason for change
1.0	2023-12-05	First edition



# 1. Technical Information

**Note:** Provide by applicant.

## 1.1. Applicant and Manufacturer Information

<b>Applicant:</b>	Shenzhen Chainway Information Technology Co., Ltd
<b>Applicant Address:</b>	9F Building 2, Daqian Industrial Park, District 67, XingDong Community, Xin'an Street, Bao'an District, Shenzhen, Guangdong, China
<b>Manufacturer:</b>	Shenzhen Chainway Information Technology Co., Ltd
<b>Manufacturer Address:</b>	9F Building 2, Daqian Industrial Park, District 67, XingDong Community, Xin'an Street, Bao'an District, Shenzhen, Guangdong, China

## 1.2. Equipment Under Test (EUT) Description

<b>Product Name:</b>	Industrial Tablet	
<b>Sample No.:</b>	23#	
<b>Hardware Version:</b>	P80_Hardware_version	
<b>Software Version:</b>	P80_Software_version	
<b>Modulation Type:</b>	QPSK, 16QAM, 64QAM	
<b>Operation Band:</b>	Band 2 / 4 / 5 / 7 / 12 / 13 / 17 / 40 / 41	
<b>Frequency Range:</b>	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 7	Tx: 2500MHz–2570MHz
		Rx: 2620MHz–2690MHz
	LTE Band 12	Tx: 699MHz–716MHz
		Rx: 729MHz–746MHz
	LTE Band 13	Tx: 777MHz–787MHz
		Rx: 746MHz–756MHz



<b>Frequency Range:</b>	LTE Band 17	Tx: 704MHz-716MHz
		Rx: 734MHz-746MHz
	LTE Band 40 Block A	Tx: 2305MHz-2315MHz
		Rx: 2305MHz-2315MHz
	LTE Band 40 Block B	Tx: 2350MHz-2360MHz
Rx: 2350MHz-2360MHz		
LTE Band 41	Tx: 2496MHz-2690MHz	
	Rx: 2496MHz-2690MHz	
<b>Channel Bandwidth:</b>	LTE Band 2	1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
	LTE Band 4	1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
	LTE Band 5	1.4MHz, 3MHz, 5MHz, 10MHz
	LTE Band 7	5 MHz, 10MHz, 15MHz, 20MHz
	LTE Band 12	1.4MHz, 3 MHz, 5 MHz, 10MHz
	LTE Band 13	5 MHz, 10MHz
	LTE Band 17	5 MHz, 10MHz
	LTE Band 40	5 MHz, 10MHz
	LTE Band 41	5 MHz, 10MHz, 15MHz, 20MHz
<b>Antenna Type:</b>	PIFA Internal	
<b>Frequency Range:</b>	LTE Band 2	2.56dBi
	LTE Band 4	3.03dBi
	LTE Band 5	-0.84dBi
	LTE Band 7	2.72dBi
	LTE Band 12	-0.68dBi
	LTE Band 13	-0.98dBi
	LTE Band 17	-0.68dBi
	LTE Band 40	3.75dBi
	LTE Band 41	2.72dBi
<b>Accessory Information:</b>	Battery	
	Brand Name:	BOB
	Model No.:	P80-8700mAh
	Serial No.:	N/A
	Capacity:	8700mAh
	Rated Voltage:	3.8V
	Charge Limit:	4.35V
	Manufacturer:	DONGGUAN BOB ELECTRONICS CO.,LTD



<b>Accessory Information:</b>	AC Adapter	
	Brand Name:	N/A
	Model No.:	HJ-FC001K7-US
	Serial No.:	N/A
	Rated Output:	5V $\overline{=}$ 3A; 9V $\overline{=}$ 2A; 12V $\overline{=}$ 1.5A
	Rated Input:	100-240V $\sim$ 50/60Hz, 0.6A
	Manufacturer:	Shenzhen Huajin Electronics Co.,Ltd

**Note 1:** SIM 1 and SIM 2 is a chipset unit and tested as a single chipset. The SIM 1 is chosen for test.

**Note 2:** For a more detailed description, please refer to Specification or User's Manual supplied by the applicant and/or manufacturer.



### 1.3. Maximum E.R.P./E.I.R.P. and Emission Designator

<b>LTE Band 2</b>		<b>Maximum E.R.P./E.I.R.P. (W)</b>			<b>Emission Designator (99%OBW)</b>		
BW(MHz)	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	
20	0.065	0.056	0.043	18M0G7D	18M0W7D	18M0W7D	
15	0.065	0.056	0.043	13M5G7D	13M5W7D	13M5W7D	
10	0.064	0.056	0.043	9M02G7D	8M97W7D	8M99W7D	
5	0.063	0.056	0.042	4M50G7D	4M51W7D	4M51W7D	
3	0.064	0.055	0.042	2M69G7D	2M69W7D	2M70W7D	
1.4	0.064	0.055	0.042	1M09G7D	1M10W7D	1M10W7D	
<b>LTE Band 4</b>		<b>Maximum E.R.P./E.I.R.P. (W)</b>			<b>Emission Designator (99%OBW)</b>		
BW(MHz)	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	
20	0.136	0.117	0.092	18M0G7D	18M0W7D	18M0W7D	
15	0.132	0.116	0.090	13M5G7D	13M5W7D	13M5W7D	
10	0.134	0.115	0.090	9M01G7D	8M98W7D	9M01W7D	
5	0.133	0.116	0.090	4M50G7D	4M51W7D	4M50W7D	
3	0.131	0.115	0.089	2M69G7D	2M69W7D	2M70W7D	
1.4	0.132	0.115	0.090	1M10G7D	1M10W7D	1M09W7D	
<b>LTE Band 5</b>		<b>Maximum E.R.P./E.I.R.P. (W)</b>			<b>Emission Designator (99%OBW)</b>		
BW(MHz)	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	
10	0.048	0.040	0.032	9M02G7D	9M00W7D	9M01W7D	
5	0.047	0.040	0.031	4M51G7D	4M50W7D	4M50W7D	
3	0.047	0.040	0.031	2M69G7D	2M69W7D	2M70W7D	
1.4	0.047	0.039	0.031	1M10G7D	1M10W7D	1M10W7D	
<b>LTE Band 7</b>		<b>Maximum E.R.P./E.I.R.P. (W)</b>			<b>Emission Designator (99%OBW)</b>		
BW(MHz)	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	
20	0.037	0.027	0.021	18M3G7D	18M2W7D	18M2W7D	
15	0.033	0.026	0.020	13M7G7D	13M6W7D	13M5W7D	
10	0.033	0.026	0.020	9M08G7D	9M04W7D	9M04W7D	
5	0.033	0.026	0.020	4M53G7D	4M53W7D	4M51W7D	
<b>LTE Band 12</b>		<b>Maximum E.R.P./E.I.R.P. (W)</b>			<b>Emission Designator (99%OBW)</b>		
BW(MHz)	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM	
10	0.108	0.092	0.066	9M04G7D	9M00W7D	9M02W7D	
5	0.107	0.091	0.066	4M52G7D	4M52W7D	4M52W7D	
3	0.107	0.091	0.065	2M69G7D	2M69W7D	2M70W7D	
1.4	0.106	0.090	0.065	1M09G7D	1M10W7D	1M10W7D	



<b>LTE Band 13</b>	<b>Maximum E.R.P./E.I.R.P. (W)</b>			<b>Emission Designator (99%OBW)</b>		
BW(MHz)	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10	0.070	0.057	0.046	9M04G7D	8M98W7D	9M00W7D
5	0.068	0.056	0.045	4M52G7D	4M52W7D	4M51W7D
<b>LTE Band 17</b>	<b>Maximum E.R.P./E.I.R.P. (W)</b>			<b>Emission Designator (99%OBW)</b>		
BW(MHz)	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10	0.104	0.088	0.073	9M02G7D	8M97W7D	9M01W7D
5	0.103	0.088	0.072	4M53G7D	4M51W7D	4M53W7D
<b>LTE Band 40 Block A</b>	<b>Maximum E.R.P./E.I.R.P. (W)</b>			<b>Emission Designator (99%OBW)</b>		
BW(MHz)	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10	0.140	0.110	0.089	9M00G7D	8M99W7D	9M00W7D
5	0.138	0.109	0.088	4M52G7D	4M52W7D	4M51W7D
<b>LTE Band 40 Block B</b>	<b>Maximum E.R.P./E.I.R.P. (W)</b>			<b>Emission Designator (99%OBW)</b>		
BW(MHz)	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
10	0.140	0.109	0.088	9M00G7D	8M97W7D	8M99W7D
5	0.138	0.108	0.088	4M53G7D	4M53W7D	4M51W7D
<b>LTE Band 41</b>	<b>Maximum E.R.P./E.I.R.P. (W)</b>			<b>Emission Designator (99%OBW)</b>		
BW(MHz)	QPSK	16QAM	64QAM	QPSK	16QAM	64QAM
20	0.069	0.056	0.047	18M0G7D	17M9W7D	18M0W7D
15	0.067	0.056	0.046	13M5G7D	13M5W7D	13M5W7D
10	0.067	0.055	0.046	8M99G7D	8M98W7D	8M98W7D
5	0.067	0.055	0.045	4M51G7D	4M51W7D	4M50W7D



## 1.4. Test Standards and Results

The objective of the report is to perform testing according to Part 2, Part 22, Part 24, Part 27 for the EUT FCC ID Certification:

No.	Identity	Document Title
1	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
2	47 CFR Part 22	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	Method Determination /Remark
2.1046 22.913(a)(2) 24.232(c) 27.50(a)(3) 27.50(c)(10) 27.50(d)(4) 27.50(h)(2)	Transmitter Conducted Output Power and E.R.P./E.I.R.P.	Oct. 31, 2023	Yu zhizheng Li Huaijie	PASS	No deviation
2.1049	Occupied Bandwidth	Jul. 31, 2023	Li Huaijie	PASS	No deviation
2.1055 22.355 24.235 27.54	Frequency Stability	Jul. 31, 2023	Li Huaijie	PASS	No deviation
24.232(d), 27.50(d)(5)	Peak to Average Radio	Jul. 31, 2023	Li Huaijie	PASS	No deviation
2.1051 22.917(a) 24.238(a) 27.53(a)(4) 27.53(g) 27.53(h) 27.53(m)(4)	Conducted Spurious Emissions	Jul. 31, 2023	Li Huaijie	PASS	No deviation
2.1051 22.917(a)	Band Edge	Jul. 31, 2023	Li Huaijie	PASS	No deviation





24.238(a) 27.53(a)(4) 27.53(g) 27.53(h) 27.53(m)(4)					
2.1053 22.917(a) 24.238(a) 27.53(a)(4) 27.53(g) 27.53(h) 27.53(m)(4)	Radiated Spurious Emissions	Oct. 31, 2023	Gao Jianrou	PASS	No deviation

**Note 1:** The tests were performed according to the method of measurements prescribed in KDB971168 D01 v03 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 24.5dB contains two parts that cable loss 14.5dB and Attenuator 10dB.

**Note 3:** Additions to, deviation, or exclusions from the method shall be judged in the "method determination" column of add, deviate or exclude from the specific method shall be explained in the "Remark" of the above table.

**Note 4:** When the test result is a critical value, we will use the measurement uncertainty give the judgment result based on the 95% confidence intervals.

### 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, Part 27 D&H&L&M Requirements**

### **2.1. Transmitter Conducted Output Power and E.R.P./E.I.R.P.**

#### **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, Mobile and portable stations are limited to 2 watts E.I.R.P. and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

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

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

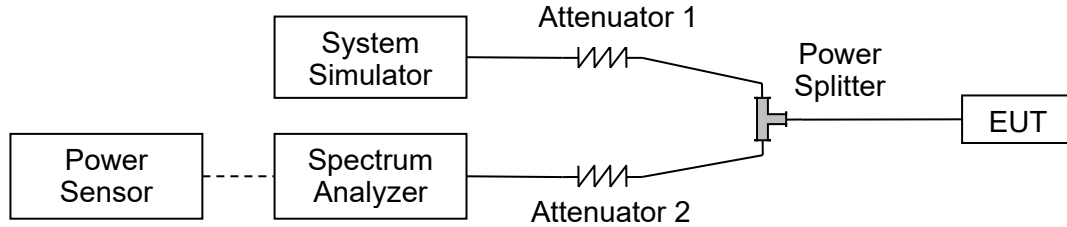
According to FCC section 27.50 (h)(2) for LTE Band 7/41, Mobile and other user stations. Mobile stations are limited to 2 watts E.I.R.P. All user stations are limited to 2 watts transmitter output power.

According to FCC section 27.50 (c)(10) for LTE Band 12/17, Portable stations (hand-held devices) operating in the 704-716MHz band are limited to 3watts E.R.P.

According to FCC section 27.50 (b)(10) for LTE Band 13, Portable stations (hand-held devices) transmitting in the 746-757 MHz, 776-788 MHz, and 805-806 MHz bands are limited to 3 watts E.R.P.

According to FCC section 27.50 (a)(3) for LTE Band 40, For mobile and portable stations transmitting in the 2305-2315 MHz band or the 2350-2360 MHz band, the average E.I.R.P. must not exceed 50 mill watts within any 1 megahertz of authorized bandwidth

### 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.

$E.I.R.P. (dBm) = \text{Conducted Output Power (dBm)} + \text{Antenna Gain (dBi)}$

$E.R.P. (dBm) = E.I.R.P. (dBm) - 2.15$



2.1.4. Result

Conducted Output Power:

LTE Band 2						
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	15.40	15.56	15.51
20	QPSK	1	49	15.36	15.48	15.28
20	QPSK	1	99	15.24	15.44	15.15
20	QPSK	50	0	15.16	15.21	15.15
20	QPSK	50	24	15.13	15.18	15.10
20	QPSK	50	50	15.08	15.15	15.05
20	QPSK	100	0	15.11	15.12	15.10
20	16QAM	1	0	14.83	14.94	14.95
20	16QAM	1	49	14.70	14.84	14.81
20	16QAM	1	99	14.66	14.78	14.77
20	16QAM	50	0	14.12	14.20	14.26
20	16QAM	50	24	14.06	14.13	14.16
20	16QAM	50	50	13.89	14.02	14.06
20	16QAM	100	0	13.85	13.87	13.91
20	64QAM	1	0	13.76	13.81	13.81
20	64QAM	1	49	13.68	13.72	13.65
20	64QAM	1	99	13.57	13.55	13.59
20	64QAM	50	0	12.99	13.10	13.11
20	64QAM	50	24	12.94	12.95	13.08
20	64QAM	50	50	12.88	12.90	13.03
20	64QAM	100	0	12.76	12.84	12.93



LTE Band 2						
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	15.31	15.54	15.33
15	QPSK	1	37	15.29	15.39	15.20
15	QPSK	1	74	15.17	15.36	15.06
15	QPSK	36	0	15.05	15.12	15.06
15	QPSK	36	20	15.05	15.13	15.05
15	QPSK	36	39	14.98	15.08	14.98
15	QPSK	75	0	15.05	15.03	15.01
15	16QAM	1	0	14.76	14.88	14.89
15	16QAM	1	37	14.68	14.77	14.79
15	16QAM	1	74	14.61	14.70	14.68
15	16QAM	36	0	14.03	14.15	14.19
15	16QAM	36	20	14.00	14.07	14.09
15	16QAM	36	39	13.80	13.98	13.98
15	16QAM	75	0	13.79	13.80	13.82
15	64QAM	1	0	13.65	13.76	13.74
15	64QAM	1	37	13.63	13.63	13.60
15	64QAM	1	74	13.46	13.49	13.53
15	64QAM	36	0	12.93	13.03	13.08
15	64QAM	36	20	12.84	12.84	13.00
15	64QAM	36	39	12.82	12.81	12.94
15	64QAM	75	0	12.66	12.76	12.89



LTE Band 2						
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	15.33	15.52	15.33
10	QPSK	1	25	15.27	15.39	15.20
10	QPSK	1	49	15.15	15.34	15.05
10	QPSK	25	0	15.06	15.16	15.07
10	QPSK	25	12	15.07	15.13	15.06
10	QPSK	25	25	15.00	15.04	14.99
10	QPSK	50	0	15.05	15.04	15.03
10	16QAM	1	0	14.74	14.87	14.91
10	16QAM	1	25	14.67	14.78	14.74
10	16QAM	1	49	14.61	14.68	14.67
10	16QAM	25	0	14.03	14.15	14.22
10	16QAM	25	12	14.01	14.03	14.10
10	16QAM	25	25	13.81	13.99	13.96
10	16QAM	50	0	13.80	13.81	13.81
10	64QAM	1	0	13.65	13.73	13.73
10	64QAM	1	25	13.62	13.61	13.60
10	64QAM	1	49	13.48	13.50	13.54
10	64QAM	25	0	12.91	13.02	13.08
10	64QAM	25	12	12.86	12.85	12.97
10	64QAM	25	25	12.85	12.81	12.97
10	64QAM	50	0	12.68	12.79	12.86



LTE Band 2						
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	15.28	15.46	15.31
5	QPSK	1	12	15.21	15.35	15.17
5	QPSK	1	24	15.12	15.29	15.01
5	QPSK	12	0	15.03	15.13	15.06
5	QPSK	12	7	15.05	15.10	15.05
5	QPSK	12	13	14.96	15.02	14.98
5	QPSK	25	0	15.01	15.02	14.97
5	16QAM	1	0	14.70	14.85	14.89
5	16QAM	1	12	14.64	14.74	14.71
5	16QAM	1	24	14.57	14.64	14.63
5	16QAM	12	0	13.99	14.09	14.18
5	16QAM	12	7	13.96	13.99	14.06
5	16QAM	12	13	13.76	13.97	13.91
5	16QAM	25	0	13.76	13.80	13.77
5	64QAM	1	0	13.61	13.71	13.69
5	64QAM	1	12	13.57	13.59	13.58
5	64QAM	1	24	13.44	13.49	13.52
5	64QAM	12	0	12.86	12.98	13.03
5	64QAM	12	7	12.80	12.83	12.95
5	64QAM	12	13	12.79	12.78	12.93
5	64QAM	25	0	12.63	12.78	12.82



LTE Band 2						
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	15.29	15.50	15.30
3	QPSK	1	8	15.21	15.33	15.16
3	QPSK	1	14	15.12	15.29	15.00
3	QPSK	8	0	15.01	15.12	15.04
3	QPSK	8	4	15.04	15.08	15.04
3	QPSK	8	7	14.96	14.98	14.96
3	QPSK	15	0	15.00	14.99	15.02
3	16QAM	1	0	14.71	14.84	14.86
3	16QAM	1	8	14.65	14.76	14.72
3	16QAM	1	14	14.55	14.64	14.62
3	16QAM	8	0	13.98	14.12	14.21
3	16QAM	8	4	14.00	13.99	14.07
3	16QAM	8	7	13.77	13.94	13.92
3	16QAM	15	0	13.77	13.78	13.78
3	64QAM	1	0	13.62	13.71	13.68
3	64QAM	1	8	13.57	13.56	13.54
3	64QAM	1	14	13.46	13.47	13.49
3	64QAM	8	0	12.89	13.00	13.02
3	64QAM	8	4	12.84	12.82	12.94
3	64QAM	8	7	12.80	12.79	12.94
3	64QAM	15	0	12.63	12.76	12.84





LTE Band 2						
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	15.28	15.47	15.32
1.4	QPSK	1	3	15.26	15.35	15.17
1.4	QPSK	1	5	15.09	15.29	15.02
1.4	QPSK	3	0	15.01	15.14	15.01
1.4	QPSK	3	1	15.06	15.10	15.02
1.4	QPSK	3	3	14.96	14.99	14.93
1.4	QPSK	6	0	15.00	15.03	15.02
1.4	16QAM	1	0	14.70	14.86	14.86
1.4	16QAM	1	3	14.61	14.72	14.71
1.4	16QAM	1	5	14.60	14.63	14.62
1.4	16QAM	3	0	14.01	14.09	14.17
1.4	16QAM	3	1	13.99	14.00	14.08
1.4	16QAM	3	3	13.80	13.98	13.91
1.4	16QAM	6	0	13.75	13.79	13.80
1.4	64QAM	1	0	13.63	13.67	13.72
1.4	64QAM	1	3	13.57	13.56	13.58
1.4	64QAM	1	5	13.42	13.44	13.53
1.4	64QAM	3	0	12.88	12.97	13.05
1.4	64QAM	3	1	12.85	12.81	12.96
1.4	64QAM	3	3	12.81	12.77	12.95
1.4	64QAM	6	0	12.67	12.75	12.81



LTE Band 4						
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	18.11	18.29	18.20
20	QPSK	1	49	18.08	18.19	18.11
20	QPSK	1	99	18.03	18.06	18.01
20	QPSK	50	0	17.68	17.83	17.81
20	QPSK	50	24	17.59	17.56	17.74
20	QPSK	50	50	17.55	17.45	17.58
20	QPSK	100	0	17.38	17.45	17.43
20	16QAM	1	0	17.50	17.61	17.67
20	16QAM	1	49	17.45	17.49	17.56
20	16QAM	1	99	17.29	17.44	17.52
20	16QAM	50	0	16.61	16.71	16.68
20	16QAM	50	24	16.55	16.54	16.65
20	16QAM	50	50	16.62	16.70	16.78
20	16QAM	100	0	16.56	16.57	16.65
20	64QAM	1	0	16.53	16.59	16.49
20	64QAM	1	49	16.42	16.51	16.54
20	64QAM	1	99	16.44	16.42	16.40
20	64QAM	50	0	15.88	15.92	15.89
20	64QAM	50	24	15.86	15.85	15.83
20	64QAM	50	50	15.77	15.81	15.71
20	64QAM	100	0	15.60	15.73	15.57



LTE Band 4						
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	18.06	18.19	18.11
15	QPSK	1	37	18.02	18.13	18.05
15	QPSK	1	74	18.00	18.02	17.94
15	QPSK	36	0	17.59	17.59	17.73
15	QPSK	36	20	17.52	17.50	17.64
15	QPSK	36	39	17.49	17.40	17.52
15	QPSK	75	0	17.31	17.29	17.32
15	16QAM	1	0	17.42	17.55	17.62
15	16QAM	1	37	17.36	17.42	17.50
15	16QAM	1	74	17.18	17.36	17.48
15	16QAM	36	0	16.55	16.68	16.62
15	16QAM	36	20	16.48	16.44	16.55
15	16QAM	36	39	16.55	16.64	16.70
15	16QAM	75	0	16.51	16.51	16.54
15	64QAM	1	0	16.47	16.52	16.43
15	64QAM	1	37	16.36	16.46	16.44
15	64QAM	1	74	16.36	16.34	16.29
15	64QAM	36	0	15.83	15.81	15.84
15	64QAM	36	20	15.80	15.79	15.78
15	64QAM	36	39	15.70	15.74	15.66
15	64QAM	75	0	15.55	15.69	15.49



LTE Band 4						
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	18.06	18.23	18.10
10	QPSK	1	25	18.02	18.13	18.03
10	QPSK	1	49	17.99	18.01	17.90
10	QPSK	25	0	17.59	17.60	17.74
10	QPSK	25	12	17.52	17.49	17.65
10	QPSK	25	25	17.48	17.38	17.49
10	QPSK	50	0	17.28	17.32	17.34
10	16QAM	1	0	17.45	17.53	17.59
10	16QAM	1	25	17.38	17.42	17.51
10	16QAM	1	49	17.21	17.35	17.48
10	16QAM	25	0	16.57	16.65	16.65
10	16QAM	25	12	16.51	16.48	16.57
10	16QAM	25	25	16.55	16.59	16.71
10	16QAM	50	0	16.51	16.51	16.58
10	64QAM	1	0	16.45	16.52	16.43
10	64QAM	1	25	16.37	16.44	16.47
10	64QAM	1	49	16.36	16.34	16.30
10	64QAM	25	0	15.81	15.84	15.84
10	64QAM	25	12	15.79	15.78	15.81
10	64QAM	25	25	15.69	15.76	15.66
10	64QAM	50	0	15.56	15.67	15.53



LTE Band 4						
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	18.10	18.20	18.08
5	QPSK	1	12	18.00	18.14	18.01
5	QPSK	1	24	17.99	18.02	17.92
5	QPSK	12	0	17.57	17.60	17.77
5	QPSK	12	7	17.54	17.46	17.64
5	QPSK	12	13	17.50	17.36	17.51
5	QPSK	25	0	17.27	17.33	17.37
5	16QAM	1	0	17.46	17.55	17.60
5	16QAM	1	12	17.35	17.41	17.50
5	16QAM	1	24	17.20	17.36	17.47
5	16QAM	12	0	16.58	16.65	16.64
5	16QAM	12	7	16.47	16.45	16.55
5	16QAM	12	13	16.56	16.63	16.71
5	16QAM	25	0	16.48	16.49	16.55
5	64QAM	1	0	16.46	16.51	16.44
5	64QAM	1	12	16.38	16.42	16.45
5	64QAM	1	24	16.39	16.35	16.32
5	64QAM	12	0	15.81	15.82	15.82
5	64QAM	12	7	15.78	15.81	15.77
5	64QAM	12	13	15.71	15.76	15.65
5	64QAM	25	0	15.57	15.68	15.50



LTE Band 4						
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	18.06	18.15	18.02
3	QPSK	1	8	17.96	18.11	17.96
3	QPSK	1	14	17.93	17.97	17.87
3	QPSK	8	0	17.54	17.56	17.72
3	QPSK	8	4	17.48	17.40	17.59
3	QPSK	8	7	17.46	17.34	17.47
3	QPSK	15	0	17.22	17.31	17.32
3	16QAM	1	0	17.41	17.51	17.56
3	16QAM	1	8	17.33	17.38	17.46
3	16QAM	1	14	17.15	17.34	17.42
3	16QAM	8	0	16.56	16.62	16.61
3	16QAM	8	4	16.46	16.40	16.51
3	16QAM	8	7	16.51	16.60	16.66
3	16QAM	15	0	16.46	16.44	16.50
3	64QAM	1	0	16.41	16.46	16.40
3	64QAM	1	8	16.33	16.40	16.43
3	64QAM	1	14	16.34	16.34	16.27
3	64QAM	8	0	15.77	15.77	15.80
3	64QAM	8	4	15.77	15.80	15.73
3	64QAM	8	7	15.69	15.75	15.59
3	64QAM	15	0	15.55	15.65	15.44



LTE Band 4						
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	18.09	18.16	18.04
1.4	QPSK	1	3	17.99	18.08	17.99
1.4	QPSK	1	5	17.94	18.00	17.90
1.4	QPSK	3	0	17.53	17.57	17.73
1.4	QPSK	3	1	17.52	17.44	17.59
1.4	QPSK	3	3	17.46	17.35	17.47
1.4	QPSK	6	0	17.24	17.28	17.34
1.4	16QAM	1	0	17.45	17.53	17.57
1.4	16QAM	1	3	17.32	17.37	17.47
1.4	16QAM	1	5	17.14	17.32	17.44
1.4	16QAM	3	0	16.53	16.63	16.60
1.4	16QAM	3	1	16.45	16.39	16.52
1.4	16QAM	3	3	16.55	16.59	16.66
1.4	16QAM	6	0	16.43	16.44	16.51
1.4	64QAM	1	0	16.42	16.49	16.38
1.4	64QAM	1	3	16.33	16.39	16.43
1.4	64QAM	1	5	16.37	16.31	16.28
1.4	64QAM	3	0	15.76	15.78	15.79
1.4	64QAM	3	1	15.74	15.79	15.75
1.4	64QAM	3	3	15.67	15.74	15.59
1.4	64QAM	6	0	15.54	15.63	15.45



LTE Band 5						
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	19.70	19.76	19.66
10	QPSK	1	25	19.63	19.64	19.59
10	QPSK	1	49	19.57	19.60	19.53
10	QPSK	25	0	18.96	19.16	19.03
10	QPSK	25	12	18.91	19.06	18.87
10	QPSK	25	25	18.76	18.94	18.73
10	QPSK	50	0	18.58	18.77	18.56
10	16QAM	1	0	19.02	19.02	19.05
10	16QAM	1	25	18.92	18.94	19.00
10	16QAM	1	49	18.77	18.78	18.87
10	16QAM	25	0	18.13	18.19	18.11
10	16QAM	25	12	18.06	18.02	18.17
10	16QAM	25	25	17.98	17.92	18.06
10	16QAM	50	0	18.04	18.00	18.09
10	64QAM	1	0	17.99	17.91	17.88
10	64QAM	1	25	17.82	17.81	17.74
10	64QAM	1	49	17.79	17.77	17.68
10	64QAM	25	0	17.19	17.20	17.10
10	64QAM	25	12	17.10	17.12	16.95
10	64QAM	25	25	17.16	17.01	16.88
10	64QAM	50	0	17.17	17.00	16.91





LTE Band 5						
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	19.68	19.74	19.64
5	QPSK	1	12	19.61	19.58	19.53
5	QPSK	1	24	19.54	19.58	19.51
5	QPSK	12	0	18.95	19.10	18.98
5	QPSK	12	7	18.87	19.02	18.85
5	QPSK	12	13	18.73	18.91	18.68
5	QPSK	25	0	18.56	18.75	18.52
5	16QAM	1	0	19.00	18.97	19.03
5	16QAM	1	12	18.91	18.92	18.96
5	16QAM	1	24	18.75	18.73	18.84
5	16QAM	12	0	18.11	18.16	18.06
5	16QAM	12	7	18.01	17.97	18.12
5	16QAM	12	13	17.97	17.91	18.02
5	16QAM	25	0	18.02	17.96	18.05
5	64QAM	1	0	17.97	17.89	17.83
5	64QAM	1	12	17.77	17.76	17.68
5	64QAM	1	24	17.74	17.75	17.67
5	64QAM	12	0	17.16	17.19	17.06
5	64QAM	12	7	17.05	17.07	16.91
5	64QAM	12	13	17.14	17.00	16.85
5	64QAM	25	0	17.14	16.94	16.87



LTE Band 5						
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	19.60	19.69	19.63
3	QPSK	1	8	19.56	19.56	19.53
3	QPSK	1	14	19.51	19.51	19.46
3	QPSK	8	0	18.84	19.10	18.97
3	QPSK	8	4	18.85	18.99	18.81
3	QPSK	8	7	18.68	18.85	18.68
3	QPSK	15	0	18.48	18.70	18.49
3	16QAM	1	0	18.95	18.92	18.98
3	16QAM	1	8	18.85	18.84	18.91
3	16QAM	1	14	18.73	18.69	18.83
3	16QAM	8	0	18.05	18.11	18.08
3	16QAM	8	4	18.02	17.93	18.06
3	16QAM	8	7	17.93	17.85	18.01
3	16QAM	15	0	17.98	17.94	18.01
3	64QAM	1	0	17.94	17.87	17.80
3	64QAM	1	8	17.75	17.74	17.68
3	64QAM	1	14	17.71	17.70	17.62
3	64QAM	8	0	17.14	17.14	17.04
3	64QAM	8	4	17.03	17.09	16.92
3	64QAM	8	7	17.10	16.91	16.77
3	64QAM	15	0	17.13	16.95	16.87



LTE Band 5						
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	19.60	19.72	19.58
1.4	QPSK	1	3	19.51	19.48	19.45
1.4	QPSK	1	5	19.46	19.47	19.40
1.4	QPSK	3	0	18.83	19.10	18.91
1.4	QPSK	3	1	18.83	18.91	18.76
1.4	QPSK	3	3	18.64	18.82	18.65
1.4	QPSK	6	0	18.47	18.65	18.48
1.4	16QAM	1	0	18.89	18.88	18.95
1.4	16QAM	1	3	18.80	18.82	18.85
1.4	16QAM	1	5	18.66	18.71	18.77
1.4	16QAM	3	0	18.05	18.11	18.04
1.4	16QAM	3	1	17.91	17.92	18.03
1.4	16QAM	3	3	17.89	17.80	17.95
1.4	16QAM	6	0	17.95	17.95	17.99
1.4	64QAM	1	0	17.90	17.81	17.77
1.4	64QAM	1	3	17.76	17.70	17.66
1.4	64QAM	1	5	17.69	17.65	17.55
1.4	64QAM	3	0	17.12	17.13	17.02
1.4	64QAM	3	1	17.01	17.01	16.86
1.4	64QAM	3	3	17.02	16.90	16.80
1.4	64QAM	6	0	17.04	16.89	16.80



LTE Band 7						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20850	21100	21350
Frequency (MHz)				2510	2535	2560
20	QPSK	1	0	12.90	13.01	12.93
20	QPSK	1	49	12.41	12.48	12.45
20	QPSK	1	99	12.32	12.43	12.40
20	QPSK	50	0	11.73	11.82	11.78
20	QPSK	50	24	11.61	11.70	11.69
20	QPSK	50	50	11.57	11.60	11.79
20	QPSK	100	0	11.56	11.62	11.57
20	16QAM	1	0	11.53	11.54	11.43
20	16QAM	1	49	11.40	11.37	11.28
20	16QAM	1	99	11.29	11.27	11.24
20	16QAM	50	0	10.78	10.82	10.73
20	16QAM	50	24	10.76	10.74	10.71
20	16QAM	50	50	10.71	10.64	10.73
20	16QAM	100	0	10.72	10.65	10.75
20	64QAM	1	0	10.43	10.40	10.39
20	64QAM	1	49	10.36	10.32	10.25
20	64QAM	1	99	10.32	10.24	10.20
20	64QAM	50	0	9.67	9.69	9.63
20	64QAM	50	24	9.51	9.59	9.48
20	64QAM	50	50	9.41	9.55	9.40
20	64QAM	100	0	9.48	9.58	9.46



LTE Band 7						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20825	21100	21375
Frequency (MHz)				2507.5	2535	2562.5
15	QPSK	1	0	12.50	12.53	12.42
15	QPSK	1	37	12.37	12.40	12.36
15	QPSK	1	74	12.24	12.37	12.35
15	QPSK	36	0	11.69	11.74	11.72
15	QPSK	36	20	11.58	11.62	11.65
15	QPSK	36	39	11.47	11.52	11.69
15	QPSK	75	0	11.48	11.54	11.52
15	16QAM	1	0	11.43	11.46	11.38
15	16QAM	1	37	11.34	11.26	11.21
15	16QAM	1	74	11.19	11.18	11.16
15	16QAM	36	0	10.71	10.75	10.65
15	16QAM	36	20	10.72	10.66	10.64
15	16QAM	36	39	10.63	10.57	10.64
15	16QAM	75	0	10.64	10.56	10.69
15	64QAM	1	0	10.38	10.33	10.33
15	64QAM	1	37	10.31	10.24	10.14
15	64QAM	1	74	10.24	10.17	10.14
15	64QAM	36	0	9.61	9.61	9.54
15	64QAM	36	20	9.43	9.52	9.40
15	64QAM	36	39	9.37	9.49	9.30
15	64QAM	75	0	9.42	9.52	9.39



LTE Band 7						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20800	21100	21400
Frequency (MHz)				2505	2535	2565
10	QPSK	1	0	12.49	12.51	12.45
10	QPSK	1	25	12.37	12.43	12.35
10	QPSK	1	49	12.25	12.39	12.36
10	QPSK	25	0	11.67	11.76	11.73
10	QPSK	25	12	11.54	11.61	11.64
10	QPSK	25	25	11.49	11.51	11.71
10	QPSK	50	0	11.49	11.56	11.48
10	16QAM	1	0	11.44	11.48	11.36
10	16QAM	1	25	11.32	11.26	11.21
10	16QAM	1	49	11.21	11.18	11.15
10	16QAM	25	0	10.73	10.77	10.65
10	16QAM	25	12	10.71	10.68	10.64
10	16QAM	25	25	10.62	10.56	10.64
10	16QAM	50	0	10.61	10.60	10.71
10	64QAM	1	0	10.39	10.34	10.31
10	64QAM	1	25	10.30	10.24	10.16
10	64QAM	1	49	10.23	10.19	10.12
10	64QAM	25	0	9.63	9.62	9.55
10	64QAM	25	12	9.46	9.52	9.40
10	64QAM	25	25	9.33	9.48	9.31
10	64QAM	50	0	9.40	9.48	9.41



LTE Band 7						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				20775	21100	21425
Frequency (MHz)				2502.5	2535	2567.5
5	QPSK	1	0	12.49	12.50	12.42
5	QPSK	1	12	12.35	12.39	12.38
5	QPSK	1	24	12.25	12.38	12.37
5	QPSK	12	0	11.66	11.77	11.73
5	QPSK	12	7	11.58	11.63	11.65
5	QPSK	12	13	11.47	11.51	11.70
5	QPSK	25	0	11.47	11.53	11.49
5	16QAM	1	0	11.44	11.46	11.34
5	16QAM	1	12	11.32	11.30	11.21
5	16QAM	1	24	11.21	11.17	11.17
5	16QAM	12	0	10.73	10.78	10.65
5	16QAM	12	7	10.73	10.69	10.63
5	16QAM	12	13	10.65	10.57	10.62
5	16QAM	25	0	10.65	10.57	10.70
5	64QAM	1	0	10.36	10.30	10.30
5	64QAM	1	12	10.32	10.25	10.13
5	64QAM	1	24	10.27	10.18	10.11
5	64QAM	12	0	9.61	9.64	9.56
5	64QAM	12	7	9.43	9.53	9.37
5	64QAM	12	13	9.37	9.47	9.33
5	64QAM	25	0	9.39	9.49	9.38



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	23.01	23.18	23.10
10	QPSK	1	25	22.93	23.04	22.94
10	QPSK	1	49	22.81	22.96	22.86
10	QPSK	25	0	22.43	22.51	22.48
10	QPSK	25	12	22.33	22.46	22.31
10	QPSK	25	25	22.26	22.42	22.25
10	QPSK	50	0	22.19	22.40	22.19
10	16QAM	1	0	22.43	22.47	22.47
10	16QAM	1	25	22.29	22.42	22.31
10	16QAM	1	49	22.21	22.34	22.24
10	16QAM	25	0	21.59	21.64	21.55
10	16QAM	25	12	21.50	21.61	21.48
10	16QAM	25	25	21.46	21.50	21.45
10	16QAM	50	0	21.40	21.44	21.37
10	64QAM	1	0	20.95	21.05	20.99
10	64QAM	1	25	20.86	21.01	20.94
10	64QAM	1	49	20.89	20.95	20.84
10	64QAM	25	0	20.55	20.59	20.56
10	64QAM	25	12	20.51	20.51	20.44
10	64QAM	25	25	20.45	20.46	20.40
10	64QAM	50	0	20.42	20.39	20.38





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	22.92	23.11	23.02
5	QPSK	1	12	22.88	22.96	22.86
5	QPSK	1	24	22.73	22.90	22.77
5	QPSK	12	0	22.35	22.44	22.43
5	QPSK	12	7	22.25	22.38	22.26
5	QPSK	12	13	22.21	22.35	22.21
5	QPSK	25	0	22.12	22.36	22.17
5	16QAM	1	0	22.35	22.41	22.39
5	16QAM	1	12	22.23	22.33	22.25
5	16QAM	1	24	22.15	22.27	22.22
5	16QAM	12	0	21.51	21.57	21.47
5	16QAM	12	7	21.43	21.55	21.44
5	16QAM	12	13	21.34	21.45	21.35
5	16QAM	25	0	21.33	21.40	21.32
5	64QAM	1	0	20.88	21.00	20.89
5	64QAM	1	12	20.80	20.95	20.88
5	64QAM	1	24	20.81	20.85	20.77
5	64QAM	12	0	20.45	20.54	20.48
5	64QAM	12	7	20.44	20.43	20.35
5	64QAM	12	13	20.35	20.40	20.32
5	64QAM	25	0	20.32	20.32	20.28



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	22.91	23.13	23.01
3	QPSK	1	8	22.88	23.00	22.84
3	QPSK	1	14	22.76	22.92	22.78
3	QPSK	8	0	22.34	22.46	22.45
3	QPSK	8	4	22.23	22.37	22.26
3	QPSK	8	7	22.22	22.31	22.21
3	QPSK	15	0	22.08	22.36	22.16
3	16QAM	1	0	22.35	22.41	22.36
3	16QAM	1	8	22.23	22.35	22.25
3	16QAM	1	14	22.14	22.25	22.21
3	16QAM	8	0	21.52	21.56	21.47
3	16QAM	8	4	21.43	21.53	21.44
3	16QAM	8	7	21.39	21.45	21.36
3	16QAM	15	0	21.37	21.38	21.29
3	64QAM	1	0	20.86	20.98	20.88
3	64QAM	1	8	20.79	20.97	20.86
3	64QAM	1	14	20.82	20.87	20.77
3	64QAM	8	0	20.44	20.54	20.46
3	64QAM	8	4	20.44	20.42	20.36
3	64QAM	8	7	20.37	20.38	20.30
3	64QAM	15	0	20.35	20.30	20.31



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	22.91	23.10	23.00
1.4	QPSK	1	3	22.84	22.96	22.83
1.4	QPSK	1	5	22.67	22.87	22.76
1.4	QPSK	3	0	22.30	22.41	22.38
1.4	QPSK	3	1	22.22	22.34	22.18
1.4	QPSK	3	3	22.17	22.29	22.13
1.4	QPSK	6	0	22.10	22.29	22.12
1.4	16QAM	1	0	22.31	22.39	22.36
1.4	16QAM	1	3	22.17	22.31	22.21
1.4	16QAM	1	5	22.10	22.20	22.16
1.4	16QAM	3	0	21.50	21.53	21.44
1.4	16QAM	3	1	21.41	21.50	21.40
1.4	16QAM	3	3	21.35	21.43	21.36
1.4	16QAM	6	0	21.30	21.36	21.30
1.4	64QAM	1	0	20.85	20.95	20.87
1.4	64QAM	1	3	20.74	20.95	20.87
1.4	64QAM	1	5	20.80	20.81	20.75
1.4	64QAM	3	0	20.41	20.49	20.47
1.4	64QAM	3	1	20.40	20.39	20.36
1.4	64QAM	3	3	20.31	20.34	20.28
1.4	64QAM	6	0	20.28	20.24	20.29



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				/	23230	/
Frequency (MHz)				/	782	/
10	QPSK	1	0	/	21.58	/
10	QPSK	1	25	/	21.42	/
10	QPSK	1	49	/	21.39	/
10	QPSK	25	0	/	20.89	/
10	QPSK	25	12	/	20.76	/
10	QPSK	25	25	/	20.65	/
10	QPSK	50	0	/	20.63	/
10	16QAM	1	0	/	20.68	/
10	16QAM	1	25	/	20.60	/
10	16QAM	1	49	/	20.54	/
10	16QAM	25	0	/	20.09	/
10	16QAM	25	12	/	19.94	/
10	16QAM	25	25	/	19.86	/
10	16QAM	50	0	/	19.80	/
10	64QAM	1	0	/	19.75	/
10	64QAM	1	25	/	19.70	/
10	64QAM	1	49	/	19.63	/
10	64QAM	25	0	/	19.03	/
10	64QAM	25	12	/	18.99	/
10	64QAM	25	25	/	18.97	/
10	64QAM	50	0	/	18.92	/



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				23205	23230	23255
Frequency (MHz)				779.5	782	784.5
5	QPSK	1	0	21.45	21.46	21.38
5	QPSK	1	12	21.31	21.34	21.30
5	QPSK	1	24	21.27	21.34	21.27
5	QPSK	12	0	20.79	20.84	20.76
5	QPSK	12	7	20.68	20.70	20.61
5	QPSK	12	13	20.51	20.56	20.48
5	QPSK	25	0	20.53	20.57	20.48
5	16QAM	1	0	20.54	20.64	20.53
5	16QAM	1	12	20.49	20.54	20.45
5	16QAM	1	24	20.45	20.46	20.43
5	16QAM	12	0	20.01	20.03	19.93
5	16QAM	12	7	19.84	19.88	19.83
5	16QAM	12	13	19.74	19.78	19.71
5	16QAM	25	0	19.73	19.74	19.68
5	64QAM	1	0	19.68	19.68	19.61
5	64QAM	1	12	19.63	19.65	19.58
5	64QAM	1	24	19.55	19.56	19.50
5	64QAM	12	0	18.89	18.97	18.89
5	64QAM	12	7	18.87	18.93	18.85
5	64QAM	12	13	18.88	18.89	18.84
5	64QAM	25	0	18.82	18.83	18.80



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	22.93	23.00	22.96
10	QPSK	1	25	22.85	22.88	22.90
10	QPSK	1	49	22.83	22.82	22.78
10	QPSK	25	0	22.33	22.35	22.33
10	QPSK	25	12	22.16	22.25	22.21
10	QPSK	25	25	22.13	22.20	22.15
10	QPSK	50	0	22.10	22.28	22.18
10	16QAM	1	0	22.22	22.27	22.23
10	16QAM	1	25	22.16	22.16	22.12
10	16QAM	1	49	22.10	22.14	22.13
10	16QAM	25	0	21.56	21.67	21.61
10	16QAM	25	12	21.53	21.58	21.55
10	16QAM	25	25	21.45	21.56	21.44
10	16QAM	50	0	21.42	21.52	21.47
10	64QAM	1	0	21.42	21.47	21.39
10	64QAM	1	25	21.34	21.31	21.24
10	64QAM	1	49	21.31	21.24	21.16
10	64QAM	25	0	20.50	20.53	20.55
10	64QAM	25	12	20.45	20.49	20.48
10	64QAM	25	25	20.33	20.38	20.41
10	64QAM	50	0	20.40	20.44	20.40



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				23755	23790	23825
Frequency (MHz)				706.5	710	713.5
5	QPSK	1	0	22.91	22.96	22.91
5	QPSK	1	12	22.84	22.85	22.86
5	QPSK	1	24	22.80	22.77	22.75
5	QPSK	12	0	22.28	22.33	22.29
5	QPSK	12	7	22.11	22.22	22.17
5	QPSK	12	13	22.09	22.17	22.14
5	QPSK	25	0	22.07	22.27	22.15
5	16QAM	1	0	22.20	22.26	22.18
5	16QAM	1	12	22.15	22.13	22.07
5	16QAM	1	24	22.09	22.09	22.08
5	16QAM	12	0	21.51	21.63	21.57
5	16QAM	12	7	21.48	21.53	21.50
5	16QAM	12	13	21.41	21.51	21.42
5	16QAM	25	0	21.38	21.48	21.42
5	64QAM	1	0	21.37	21.43	21.38
5	64QAM	1	12	21.29	21.26	21.18
5	64QAM	1	24	21.28	21.22	21.12
5	64QAM	12	0	20.48	20.51	20.50
5	64QAM	12	7	20.43	20.48	20.45
5	64QAM	12	13	20.30	20.34	20.39
5	64QAM	25	0	20.36	20.39	20.39



LTE Band 40, Block A						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				/	38750	/
Frequency (MHz)				/	2310	/
10	QPSK	1	0	/	17.72	/
10	QPSK	1	25	/	17.68	/
10	QPSK	1	49	/	17.57	/
10	QPSK	25	0	/	16.77	/
10	QPSK	25	12	/	16.74	/
10	QPSK	25	25	/	16.73	/
10	QPSK	50	0	/	16.63	/
10	16QAM	1	0	/	16.68	/
10	16QAM	1	25	/	16.60	/
10	16QAM	1	49	/	16.66	/
10	16QAM	25	0	/	15.98	/
10	16QAM	25	12	/	15.86	/
10	16QAM	25	25	/	15.91	/
10	16QAM	50	0	/	15.74	/
10	64QAM	1	0	/	15.64	/
10	64QAM	1	25	/	15.70	/
10	64QAM	1	49	/	15.73	/
10	64QAM	25	0	/	14.86	/
10	64QAM	25	12	/	14.73	/
10	64QAM	25	25	/	14.85	/
10	64QAM	50	0	/	14.65	/





LTE Band 40, Block A						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				38725	38750	38775
Frequency (MHz)				2307.5	2310	2312.5
5	QPSK	1	0	17.60	17.66	17.63
5	QPSK	1	12	17.57	17.66	17.59
5	QPSK	1	24	17.43	17.54	17.42
5	QPSK	12	0	16.61	16.71	16.65
5	QPSK	12	7	16.60	16.70	16.64
5	QPSK	12	13	16.59	16.70	16.64
5	QPSK	25	0	16.49	16.57	16.51
5	16QAM	1	0	16.55	16.62	16.59
5	16QAM	1	12	16.48	16.54	16.54
5	16QAM	1	24	16.55	16.62	16.57
5	16QAM	12	0	15.84	15.95	15.88
5	16QAM	12	7	15.69	15.84	15.74
5	16QAM	12	13	15.80	15.90	15.83
5	16QAM	25	0	15.62	15.73	15.68
5	64QAM	1	0	15.49	15.63	15.52
5	64QAM	1	12	15.61	15.68	15.60
5	64QAM	1	24	15.59	15.70	15.58
5	64QAM	12	0	14.75	14.85	14.74
5	64QAM	12	7	14.63	14.67	14.62
5	64QAM	12	13	14.71	14.84	14.75
5	64QAM	25	0	14.53	14.63	14.54



LTE Band 40, Block B						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				/	39200	/
Frequency (MHz)				/	2355	/
10	QPSK	1	0	/	17.71	/
10	QPSK	1	25	/	17.60	/
10	QPSK	1	49	/	17.65	/
10	QPSK	25	0	/	16.68	/
10	QPSK	25	12	/	16.65	/
10	QPSK	25	25	/	16.66	/
10	QPSK	50	0	/	16.57	/
10	16QAM	1	0	/	16.64	/
10	16QAM	1	25	/	16.58	/
10	16QAM	1	49	/	16.63	/
10	16QAM	25	0	/	15.93	/
10	16QAM	25	12	/	15.81	/
10	16QAM	25	25	/	15.90	/
10	16QAM	50	0	/	15.72	/
10	64QAM	1	0	/	15.60	/
10	64QAM	1	25	/	15.68	/
10	64QAM	1	49	/	15.71	/
10	64QAM	25	0	/	14.82	/
10	64QAM	25	12	/	14.68	/
10	64QAM	25	25	/	14.84	/
10	64QAM	50	0	/	14.60	/



LTE Band 40, Block B						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				39175	39200	39225
Frequency (MHz)				2352.5	2355	2357.5
5	QPSK	1	0	17.58	17.66	17.59
5	QPSK	1	12	17.51	17.55	17.50
5	QPSK	1	24	17.52	17.59	17.51
5	QPSK	12	0	16.56	16.64	16.58
5	QPSK	12	7	16.52	16.62	16.52
5	QPSK	12	13	16.55	16.62	16.58
5	QPSK	25	0	16.50	16.55	16.52
5	16QAM	1	0	16.52	16.60	16.51
5	16QAM	1	12	16.51	16.54	16.46
5	16QAM	1	24	16.53	16.58	16.51
5	16QAM	12	0	15.86	15.88	15.88
5	16QAM	12	7	15.70	15.78	15.70
5	16QAM	12	13	15.79	15.88	15.77
5	16QAM	25	0	15.60	15.69	15.63
5	64QAM	1	0	15.48	15.57	15.51
5	64QAM	1	12	15.54	15.66	15.51
5	64QAM	1	24	15.60	15.69	15.59
5	64QAM	12	0	14.67	14.80	14.69
5	64QAM	12	7	14.55	14.67	14.57
5	64QAM	12	13	14.77	14.82	14.74
5	64QAM	25	0	14.53	14.56	14.54



LTE Band 41						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				39750	40620	41490
Frequency (MHz)				2506	2593	2680
20	QPSK	1	0	15.37	15.67	15.43
20	QPSK	1	49	15.26	15.64	15.34
20	QPSK	1	99	15.21	15.52	15.22
20	QPSK	50	0	14.73	14.86	14.84
20	QPSK	50	24	14.66	14.58	14.70
20	QPSK	50	50	14.64	14.53	14.62
20	QPSK	100	0	14.58	14.72	14.69
20	16QAM	1	0	14.69	14.76	14.62
20	16QAM	1	49	14.60	14.69	14.58
20	16QAM	1	99	14.49	14.62	14.52
20	16QAM	50	0	14.04	14.07	14.02
20	16QAM	50	24	14.00	14.03	13.96
20	16QAM	50	50	13.89	13.94	13.86
20	16QAM	100	0	13.86	13.90	13.80
20	64QAM	1	0	13.91	13.97	13.83
20	64QAM	1	49	13.78	13.71	13.69
20	64QAM	1	99	13.66	13.63	13.64
20	64QAM	50	0	13.11	13.13	13.07
20	64QAM	50	24	13.04	13.00	13.00
20	64QAM	50	50	12.99	12.93	12.92
20	64QAM	100	0	13.03	12.98	13.01



LTE Band 41						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				39725	40620	41515
Frequency (MHz)				2503.5	2593	2682.5
15	QPSK	1	0	15.31	15.55	15.36
15	QPSK	1	37	15.20	15.57	15.25
15	QPSK	1	74	15.09	15.44	15.17
15	QPSK	36	0	14.64	14.79	14.74
15	QPSK	36	20	14.57	14.50	14.61
15	QPSK	36	39	14.54	14.42	14.57
15	QPSK	75	0	14.53	14.61	14.62
15	16QAM	1	0	14.62	14.73	14.54
15	16QAM	1	37	14.49	14.61	14.47
15	16QAM	1	74	14.44	14.52	14.43
15	16QAM	36	0	13.95	13.97	13.96
15	16QAM	36	20	13.92	13.99	13.86
15	16QAM	36	39	13.83	13.85	13.76
15	16QAM	75	0	13.82	13.83	13.74
15	64QAM	1	0	13.80	13.88	13.79
15	64QAM	1	37	13.70	13.63	13.58
15	64QAM	1	74	13.60	13.53	13.59
15	64QAM	36	0	13.05	13.01	13.00
15	64QAM	36	20	12.95	12.96	12.95
15	64QAM	36	39	12.96	12.89	12.83
15	64QAM	75	0	12.96	12.92	12.95



LTE Band 41						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				39700	40620	41540
Frequency (MHz)				2501	2593	2685
10	QPSK	1	0	15.29	15.55	15.37
10	QPSK	1	25	15.23	15.56	15.26
10	QPSK	1	49	15.13	15.44	15.13
10	QPSK	25	0	14.63	14.82	14.75
10	QPSK	25	12	14.59	14.50	14.64
10	QPSK	25	25	14.58	14.44	14.58
10	QPSK	50	0	14.53	14.58	14.61
10	16QAM	1	0	14.59	14.72	14.58
10	16QAM	1	25	14.49	14.62	14.49
10	16QAM	1	49	14.44	14.56	14.46
10	16QAM	25	0	13.95	13.99	13.97
10	16QAM	25	12	13.90	13.98	13.86
10	16QAM	25	25	13.84	13.87	13.75
10	16QAM	50	0	13.81	13.85	13.70
10	64QAM	1	0	13.80	13.88	13.77
10	64QAM	1	25	13.69	13.63	13.61
10	64QAM	1	49	13.63	13.55	13.58
10	64QAM	25	0	13.07	13.05	12.96
10	64QAM	25	12	12.95	12.92	12.94
10	64QAM	25	25	12.92	12.90	12.87
10	64QAM	50	0	12.97	12.92	12.93



LTE Band 41						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				39675	40620	41565
Frequency (MHz)				2498.5	2593	2687.5
5	QPSK	1	0	15.25	15.50	15.35
5	QPSK	1	12	15.21	15.54	15.24
5	QPSK	1	24	15.09	15.43	15.11
5	QPSK	12	0	14.61	14.81	14.73
5	QPSK	12	7	14.53	14.49	14.62
5	QPSK	12	13	14.57	14.40	14.55
5	QPSK	25	0	14.52	14.55	14.55
5	16QAM	1	0	14.54	14.69	14.53
5	16QAM	1	12	14.44	14.59	14.44
5	16QAM	1	24	14.42	14.51	14.43
5	16QAM	12	0	13.89	13.97	13.95
5	16QAM	12	7	13.86	13.94	13.81
5	16QAM	12	13	13.80	13.84	13.69
5	16QAM	25	0	13.80	13.82	13.69
5	64QAM	1	0	13.75	13.82	13.75
5	64QAM	1	12	13.65	13.60	13.56
5	64QAM	1	24	13.62	13.51	13.55
5	64QAM	12	0	13.06	13.02	12.93
5	64QAM	12	7	12.91	12.89	12.92
5	64QAM	12	13	12.89	12.89	12.84
5	64QAM	25	0	12.95	12.88	12.91



**Effective Radiated Power and Effective Isotropic Radiated Power:**

LTE Band 2				Measured E.I.R.P.					
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	17.96	0.063	18.12	0.065	18.07	0.064
20	QPSK	1	49	17.92	0.062	18.04	0.064	17.84	0.061
20	QPSK	1	99	17.80	0.060	18.00	0.063	17.71	0.059
20	QPSK	50	0	17.72	0.059	17.77	0.060	17.71	0.059
20	QPSK	50	24	17.69	0.059	17.74	0.059	17.66	0.058
20	QPSK	50	50	17.64	0.058	17.71	0.059	17.61	0.058
20	QPSK	100	0	17.67	0.058	17.68	0.059	17.66	0.058
20	16QAM	1	0	17.39	0.055	17.50	0.056	17.51	0.056
20	16QAM	1	49	17.26	0.053	17.40	0.055	17.37	0.055
20	16QAM	1	99	17.22	0.053	17.34	0.054	17.33	0.054
20	16QAM	50	0	16.68	0.047	16.76	0.047	16.82	0.048
20	16QAM	50	24	16.62	0.046	16.69	0.047	16.72	0.047
20	16QAM	50	50	16.45	0.044	16.58	0.045	16.62	0.046
20	16QAM	100	0	16.41	0.044	16.43	0.044	16.47	0.044
20	64QAM	1	0	16.32	0.043	16.37	0.043	16.37	0.043
20	64QAM	1	49	16.24	0.042	16.28	0.042	16.21	0.042
20	64QAM	1	99	16.13	0.041	16.11	0.041	16.15	0.041
20	64QAM	50	0	15.55	0.036	15.66	0.037	15.67	0.037
20	64QAM	50	24	15.50	0.035	15.51	0.036	15.64	0.037
20	64QAM	50	50	15.44	0.035	15.46	0.035	15.59	0.036
20	64QAM	100	0	15.32	0.034	15.40	0.035	15.49	0.035





LTE Band 2				Measured E.I.R.P.					
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	17.87	0.061	18.10	0.065	17.89	0.062
15	QPSK	1	37	17.85	0.061	17.95	0.062	17.76	0.060
15	QPSK	1	74	17.73	0.059	17.92	0.062	17.62	0.058
15	QPSK	36	0	17.61	0.058	17.68	0.059	17.62	0.058
15	QPSK	36	20	17.61	0.058	17.69	0.059	17.61	0.058
15	QPSK	36	39	17.54	0.057	17.64	0.058	17.54	0.057
15	QPSK	75	0	17.61	0.058	17.59	0.057	17.57	0.057
15	16QAM	1	0	17.32	0.054	17.44	0.055	17.45	0.056
15	16QAM	1	37	17.24	0.053	17.33	0.054	17.35	0.054
15	16QAM	1	74	17.17	0.052	17.26	0.053	17.24	0.053
15	16QAM	36	0	16.59	0.046	16.71	0.047	16.75	0.047
15	16QAM	36	20	16.56	0.045	16.63	0.046	16.65	0.046
15	16QAM	36	39	16.36	0.043	16.54	0.045	16.54	0.045
15	16QAM	75	0	16.35	0.043	16.36	0.043	16.38	0.043
15	64QAM	1	0	16.21	0.042	16.32	0.043	16.30	0.043
15	64QAM	1	37	16.19	0.042	16.19	0.042	16.16	0.041
15	64QAM	1	74	16.02	0.040	16.05	0.040	16.09	0.041
15	64QAM	36	0	15.49	0.035	15.59	0.036	15.64	0.037
15	64QAM	36	20	15.40	0.035	15.40	0.035	15.56	0.036
15	64QAM	36	39	15.38	0.035	15.37	0.034	15.50	0.035
15	64QAM	75	0	15.22	0.033	15.32	0.034	15.45	0.035



LTE Band 2				Measured E.I.R.P.					
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	17.89	0.062	18.08	0.064	17.89	0.062
10	QPSK	1	25	17.83	0.061	17.95	0.062	17.76	0.060
10	QPSK	1	49	17.71	0.059	17.90	0.062	17.61	0.058
10	QPSK	25	0	17.62	0.058	17.72	0.059	17.63	0.058
10	QPSK	25	12	17.63	0.058	17.69	0.059	17.62	0.058
10	QPSK	25	25	17.56	0.057	17.60	0.058	17.55	0.057
10	QPSK	50	0	17.61	0.058	17.60	0.058	17.59	0.057
10	16QAM	1	0	17.30	0.054	17.43	0.055	17.47	0.056
10	16QAM	1	25	17.23	0.053	17.34	0.054	17.30	0.054
10	16QAM	1	49	17.17	0.052	17.24	0.053	17.23	0.053
10	16QAM	25	0	16.59	0.046	16.71	0.047	16.78	0.048
10	16QAM	25	12	16.57	0.045	16.59	0.046	16.66	0.046
10	16QAM	25	25	16.37	0.043	16.55	0.045	16.52	0.045
10	16QAM	50	0	16.36	0.043	16.37	0.043	16.37	0.043
10	64QAM	1	0	16.21	0.042	16.29	0.043	16.29	0.043
10	64QAM	1	25	16.18	0.041	16.17	0.041	16.16	0.041
10	64QAM	1	49	16.04	0.040	16.06	0.040	16.10	0.041
10	64QAM	25	0	15.47	0.035	15.58	0.036	15.64	0.037
10	64QAM	25	12	15.42	0.035	15.41	0.035	15.53	0.036
10	64QAM	25	25	15.41	0.035	15.37	0.034	15.53	0.036
10	64QAM	50	0	15.24	0.033	15.35	0.034	15.42	0.035



LTE Band 2				Measured E.I.R.P.					
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	17.84	0.061	18.02	0.063	17.87	0.061
5	QPSK	1	12	17.77	0.060	17.91	0.062	17.73	0.059
5	QPSK	1	24	17.68	0.059	17.85	0.061	17.57	0.057
5	QPSK	12	0	17.59	0.057	17.69	0.059	17.62	0.058
5	QPSK	12	7	17.61	0.058	17.66	0.058	17.61	0.058
5	QPSK	12	13	17.52	0.056	17.58	0.057	17.54	0.057
5	QPSK	25	0	17.57	0.057	17.58	0.057	17.53	0.057
5	16QAM	1	0	17.26	0.053	17.41	0.055	17.45	0.056
5	16QAM	1	12	17.20	0.052	17.30	0.054	17.27	0.053
5	16QAM	1	24	17.13	0.052	17.20	0.052	17.19	0.052
5	16QAM	12	0	16.55	0.045	16.65	0.046	16.74	0.047
5	16QAM	12	7	16.52	0.045	16.55	0.045	16.62	0.046
5	16QAM	12	13	16.32	0.043	16.53	0.045	16.47	0.044
5	16QAM	25	0	16.32	0.043	16.36	0.043	16.33	0.043
5	64QAM	1	0	16.17	0.041	16.27	0.042	16.25	0.042
5	64QAM	1	12	16.13	0.041	16.15	0.041	16.14	0.041
5	64QAM	1	24	16.00	0.040	16.05	0.040	16.08	0.041
5	64QAM	12	0	15.42	0.035	15.54	0.036	15.59	0.036
5	64QAM	12	7	15.36	0.034	15.39	0.035	15.51	0.036
5	64QAM	12	13	15.35	0.034	15.34	0.034	15.49	0.035
5	64QAM	25	0	15.19	0.033	15.34	0.034	15.38	0.035



LTE Band 2				Measured E.I.R.P.					
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	17.85	0.061	18.06	0.064	17.86	0.061
3	QPSK	1	8	17.77	0.060	17.89	0.062	17.72	0.059
3	QPSK	1	14	17.68	0.059	17.85	0.061	17.56	0.057
3	QPSK	8	0	17.57	0.057	17.68	0.059	17.60	0.058
3	QPSK	8	4	17.60	0.058	17.64	0.058	17.60	0.058
3	QPSK	8	7	17.52	0.056	17.54	0.057	17.52	0.056
3	QPSK	15	0	17.56	0.057	17.55	0.057	17.58	0.057
3	16QAM	1	0	17.27	0.053	17.40	0.055	17.42	0.055
3	16QAM	1	8	17.21	0.053	17.32	0.054	17.28	0.053
3	16QAM	1	14	17.11	0.051	17.20	0.052	17.18	0.052
3	16QAM	8	0	16.54	0.045	16.68	0.047	16.77	0.048
3	16QAM	8	4	16.56	0.045	16.55	0.045	16.63	0.046
3	16QAM	8	7	16.33	0.043	16.50	0.045	16.48	0.044
3	16QAM	15	0	16.33	0.043	16.34	0.043	16.34	0.043
3	64QAM	1	0	16.18	0.041	16.27	0.042	16.24	0.042
3	64QAM	1	8	16.13	0.041	16.12	0.041	16.10	0.041
3	64QAM	1	14	16.02	0.040	16.03	0.040	16.05	0.040
3	64QAM	8	0	15.45	0.035	15.56	0.036	15.58	0.036
3	64QAM	8	4	15.40	0.035	15.38	0.035	15.50	0.035
3	64QAM	8	7	15.36	0.034	15.35	0.034	15.50	0.035
3	64QAM	15	0	15.19	0.033	15.32	0.034	15.40	0.035



LTE Band 2				Measured E.I.R.P.					
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	17.84	0.061	18.03	0.064	17.88	0.061
1.4	QPSK	1	3	17.82	0.061	17.91	0.062	17.73	0.059
1.4	QPSK	1	5	17.65	0.058	17.85	0.061	17.58	0.057
1.4	QPSK	3	0	17.57	0.057	17.70	0.059	17.57	0.057
1.4	QPSK	3	1	17.62	0.058	17.66	0.058	17.58	0.057
1.4	QPSK	3	3	17.52	0.056	17.55	0.057	17.49	0.056
1.4	QPSK	6	0	17.56	0.057	17.59	0.057	17.58	0.057
1.4	16QAM	1	0	17.26	0.053	17.42	0.055	17.42	0.055
1.4	16QAM	1	3	17.17	0.052	17.28	0.053	17.27	0.053
1.4	16QAM	1	5	17.16	0.052	17.19	0.052	17.18	0.052
1.4	16QAM	3	0	16.57	0.045	16.65	0.046	16.73	0.047
1.4	16QAM	3	1	16.55	0.045	16.56	0.045	16.64	0.046
1.4	16QAM	3	3	16.36	0.043	16.54	0.045	16.47	0.044
1.4	16QAM	6	0	16.31	0.043	16.35	0.043	16.36	0.043
1.4	64QAM	1	0	16.19	0.042	16.23	0.042	16.28	0.042
1.4	64QAM	1	3	16.13	0.041	16.12	0.041	16.14	0.041
1.4	64QAM	1	5	15.98	0.040	16.00	0.040	16.09	0.041
1.4	64QAM	3	0	15.44	0.035	15.53	0.036	15.61	0.036
1.4	64QAM	3	1	15.41	0.035	15.37	0.034	15.52	0.036
1.4	64QAM	3	3	15.37	0.034	15.33	0.034	15.51	0.036
1.4	64QAM	6	0	15.23	0.033	15.31	0.034	15.37	0.034



LTE Band 4				Measured E.I.R.P.					
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	21.14	0.130	21.32	0.136	21.23	0.133
20	QPSK	1	49	21.11	0.129	21.22	0.132	21.14	0.130
20	QPSK	1	99	21.06	0.128	21.09	0.129	21.04	0.127
20	QPSK	50	0	20.71	0.118	20.86	0.122	20.84	0.121
20	QPSK	50	24	20.62	0.115	20.59	0.115	20.77	0.119
20	QPSK	50	50	20.58	0.114	20.48	0.112	20.61	0.115
20	QPSK	100	0	20.41	0.110	20.48	0.112	20.46	0.111
20	16QAM	1	0	20.53	0.113	20.64	0.116	20.70	0.117
20	16QAM	1	49	20.48	0.112	20.52	0.113	20.59	0.115
20	16QAM	1	99	20.32	0.108	20.47	0.111	20.55	0.114
20	16QAM	50	0	19.64	0.092	19.74	0.094	19.71	0.094
20	16QAM	50	24	19.58	0.091	19.57	0.091	19.68	0.093
20	16QAM	50	50	19.65	0.092	19.73	0.094	19.81	0.096
20	16QAM	100	0	19.59	0.091	19.60	0.091	19.68	0.093
20	64QAM	1	0	19.56	0.090	19.62	0.092	19.52	0.090
20	64QAM	1	49	19.45	0.088	19.54	0.090	19.57	0.091
20	64QAM	1	99	19.47	0.089	19.45	0.088	19.43	0.088
20	64QAM	50	0	18.91	0.078	18.95	0.079	18.92	0.078
20	64QAM	50	24	18.89	0.077	18.88	0.077	18.86	0.077
20	64QAM	50	50	18.80	0.076	18.84	0.077	18.74	0.075
20	64QAM	100	0	18.63	0.073	18.76	0.075	18.60	0.072



LTE Band 4				Measured E.I.R.P.					
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	21.09	0.129	21.22	0.132	21.14	0.130
15	QPSK	1	37	21.05	0.127	21.16	0.131	21.08	0.128
15	QPSK	1	74	21.03	0.127	21.05	0.127	20.97	0.125
15	QPSK	36	0	20.62	0.115	20.62	0.115	20.76	0.119
15	QPSK	36	20	20.55	0.114	20.53	0.113	20.67	0.117
15	QPSK	36	39	20.52	0.113	20.43	0.110	20.55	0.114
15	QPSK	75	0	20.34	0.108	20.32	0.108	20.35	0.108
15	16QAM	1	0	20.45	0.111	20.58	0.114	20.65	0.116
15	16QAM	1	37	20.39	0.109	20.45	0.111	20.53	0.113
15	16QAM	1	74	20.21	0.105	20.39	0.109	20.51	0.112
15	16QAM	36	0	19.58	0.091	19.71	0.094	19.65	0.092
15	16QAM	36	20	19.51	0.089	19.47	0.089	19.58	0.091
15	16QAM	36	39	19.58	0.091	19.67	0.093	19.73	0.094
15	16QAM	75	0	19.54	0.090	19.54	0.090	19.57	0.091
15	64QAM	1	0	19.50	0.089	19.55	0.090	19.46	0.088
15	64QAM	1	37	19.39	0.087	19.49	0.089	19.47	0.089
15	64QAM	1	74	19.39	0.087	19.37	0.086	19.32	0.086
15	64QAM	36	0	18.86	0.077	18.84	0.077	18.87	0.077
15	64QAM	36	20	18.83	0.076	18.82	0.076	18.81	0.076
15	64QAM	36	39	18.73	0.075	18.77	0.075	18.69	0.074
15	64QAM	75	0	18.58	0.072	18.72	0.074	18.52	0.071



LTE Band 4				Measured E.I.R.P.					
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	21.09	0.129	21.26	0.134	21.13	0.130
10	QPSK	1	25	21.05	0.127	21.16	0.131	21.06	0.128
10	QPSK	1	49	21.02	0.126	21.04	0.127	20.93	0.124
10	QPSK	25	0	20.62	0.115	20.63	0.116	20.77	0.119
10	QPSK	25	12	20.55	0.114	20.52	0.113	20.68	0.117
10	QPSK	25	25	20.51	0.112	20.41	0.110	20.52	0.113
10	QPSK	50	0	20.31	0.107	20.35	0.108	20.37	0.109
10	16QAM	1	0	20.48	0.112	20.56	0.114	20.62	0.115
10	16QAM	1	25	20.41	0.110	20.45	0.111	20.54	0.113
10	16QAM	1	49	20.24	0.106	20.38	0.109	20.51	0.112
10	16QAM	25	0	19.60	0.091	19.68	0.093	19.68	0.093
10	16QAM	25	12	19.54	0.090	19.51	0.089	19.60	0.091
10	16QAM	25	25	19.58	0.091	19.62	0.092	19.74	0.094
10	16QAM	50	0	19.54	0.090	19.54	0.090	19.61	0.091
10	64QAM	1	0	19.48	0.089	19.55	0.090	19.46	0.088
10	64QAM	1	25	19.40	0.087	19.47	0.089	19.50	0.089
10	64QAM	1	49	19.39	0.087	19.37	0.086	19.33	0.086
10	64QAM	25	0	18.84	0.077	18.87	0.077	18.87	0.077
10	64QAM	25	12	18.82	0.076	18.81	0.076	18.84	0.077
10	64QAM	25	25	18.72	0.074	18.79	0.076	18.69	0.074
10	64QAM	50	0	18.59	0.072	18.70	0.074	18.56	0.072





LTE Band 4				Measured E.I.R.P.					
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	21.13	0.130	21.23	0.133	21.11	0.129
5	QPSK	1	12	21.03	0.127	21.17	0.131	21.04	0.127
5	QPSK	1	24	21.02	0.126	21.05	0.127	20.95	0.124
5	QPSK	12	0	20.60	0.115	20.63	0.116	20.80	0.120
5	QPSK	12	7	20.57	0.114	20.49	0.112	20.67	0.117
5	QPSK	12	13	20.53	0.113	20.39	0.109	20.54	0.113
5	QPSK	25	0	20.30	0.107	20.36	0.109	20.40	0.110
5	16QAM	1	0	20.49	0.112	20.58	0.114	20.63	0.116
5	16QAM	1	12	20.38	0.109	20.44	0.111	20.53	0.113
5	16QAM	1	24	20.23	0.105	20.39	0.109	20.50	0.112
5	16QAM	12	0	19.61	0.091	19.68	0.093	19.67	0.093
5	16QAM	12	7	19.50	0.089	19.48	0.089	19.58	0.091
5	16QAM	12	13	19.59	0.091	19.66	0.092	19.74	0.094
5	16QAM	25	0	19.51	0.089	19.52	0.090	19.58	0.091
5	64QAM	1	0	19.49	0.089	19.54	0.090	19.47	0.089
5	64QAM	1	12	19.41	0.087	19.45	0.088	19.48	0.089
5	64QAM	1	24	19.42	0.087	19.38	0.087	19.35	0.086
5	64QAM	12	0	18.84	0.077	18.85	0.077	18.85	0.077
5	64QAM	12	7	18.81	0.076	18.84	0.077	18.80	0.076
5	64QAM	12	13	18.74	0.075	18.79	0.076	18.68	0.074
5	64QAM	25	0	18.60	0.072	18.71	0.074	18.53	0.071



LTE Band 4				Measured E.I.R.P.					
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	21.09	0.129	21.18	0.131	21.05	0.127
3	QPSK	1	8	20.99	0.126	21.14	0.130	20.99	0.126
3	QPSK	1	14	20.96	0.125	21.00	0.126	20.90	0.123
3	QPSK	8	0	20.57	0.114	20.59	0.115	20.75	0.119
3	QPSK	8	4	20.51	0.112	20.43	0.110	20.62	0.115
3	QPSK	8	7	20.49	0.112	20.37	0.109	20.50	0.112
3	QPSK	15	0	20.25	0.106	20.34	0.108	20.35	0.108
3	16QAM	1	0	20.44	0.111	20.54	0.113	20.59	0.115
3	16QAM	1	8	20.36	0.109	20.41	0.110	20.49	0.112
3	16QAM	1	14	20.18	0.104	20.37	0.109	20.45	0.111
3	16QAM	8	0	19.59	0.091	19.65	0.092	19.64	0.092
3	16QAM	8	4	19.49	0.089	19.43	0.088	19.54	0.090
3	16QAM	8	7	19.54	0.090	19.63	0.092	19.69	0.093
3	16QAM	15	0	19.49	0.089	19.47	0.089	19.53	0.090
3	64QAM	1	0	19.44	0.088	19.49	0.089	19.43	0.088
3	64QAM	1	8	19.36	0.086	19.43	0.088	19.46	0.088
3	64QAM	1	14	19.37	0.086	19.37	0.086	19.30	0.085
3	64QAM	8	0	18.80	0.076	18.80	0.076	18.83	0.076
3	64QAM	8	4	18.80	0.076	18.83	0.076	18.76	0.075
3	64QAM	8	7	18.72	0.074	18.78	0.076	18.62	0.073
3	64QAM	15	0	18.58	0.072	18.68	0.074	18.47	0.070



LTE Band 4				Measured E.I.R.P.					
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	21.12	0.129	21.19	0.132	21.07	0.128
1.4	QPSK	1	3	21.02	0.126	21.11	0.129	21.02	0.126
1.4	QPSK	1	5	20.97	0.125	21.03	0.127	20.93	0.124
1.4	QPSK	3	0	20.56	0.114	20.60	0.115	20.76	0.119
1.4	QPSK	3	1	20.55	0.114	20.47	0.111	20.62	0.115
1.4	QPSK	3	3	20.49	0.112	20.38	0.109	20.50	0.112
1.4	QPSK	6	0	20.27	0.106	20.31	0.107	20.37	0.109
1.4	16QAM	1	0	20.48	0.112	20.56	0.114	20.60	0.115
1.4	16QAM	1	3	20.35	0.108	20.40	0.110	20.50	0.112
1.4	16QAM	1	5	20.17	0.104	20.35	0.108	20.47	0.111
1.4	16QAM	3	0	19.56	0.090	19.66	0.092	19.63	0.092
1.4	16QAM	3	1	19.48	0.089	19.42	0.087	19.55	0.090
1.4	16QAM	3	3	19.58	0.091	19.62	0.092	19.69	0.093
1.4	16QAM	6	0	19.46	0.088	19.47	0.089	19.54	0.090
1.4	64QAM	1	0	19.45	0.088	19.52	0.090	19.41	0.087
1.4	64QAM	1	3	19.36	0.086	19.42	0.087	19.46	0.088
1.4	64QAM	1	5	19.40	0.087	19.34	0.086	19.31	0.085
1.4	64QAM	3	0	18.79	0.076	18.81	0.076	18.82	0.076
1.4	64QAM	3	1	18.77	0.075	18.82	0.076	18.78	0.076
1.4	64QAM	3	3	18.70	0.074	18.77	0.075	18.62	0.073
1.4	64QAM	6	0	18.57	0.072	18.66	0.073	18.48	0.070



LTE Band 5				Measured E.R.P.					
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	16.71	0.047	16.77	0.048	16.67	0.046
10	QPSK	1	25	16.64	0.046	16.65	0.046	16.60	0.046
10	QPSK	1	49	16.58	0.046	16.61	0.046	16.54	0.045
10	QPSK	25	0	15.97	0.040	16.17	0.041	16.04	0.040
10	QPSK	25	12	15.92	0.039	16.07	0.040	15.88	0.039
10	QPSK	25	25	15.77	0.038	15.95	0.039	15.74	0.037
10	QPSK	50	0	15.59	0.036	15.78	0.038	15.57	0.036
10	16QAM	1	0	16.03	0.040	16.03	0.040	16.06	0.040
10	16QAM	1	25	15.93	0.039	15.95	0.039	16.01	0.040
10	16QAM	1	49	15.78	0.038	15.79	0.038	15.88	0.039
10	16QAM	25	0	15.14	0.033	15.20	0.033	15.12	0.033
10	16QAM	25	12	15.07	0.032	15.03	0.032	15.18	0.033
10	16QAM	25	25	14.99	0.032	14.93	0.031	15.07	0.032
10	16QAM	50	0	15.05	0.032	15.01	0.032	15.10	0.032
10	64QAM	1	0	15.00	0.032	14.92	0.031	14.89	0.031
10	64QAM	1	25	14.83	0.030	14.82	0.030	14.75	0.030
10	64QAM	1	49	14.80	0.030	14.78	0.030	14.69	0.029
10	64QAM	25	0	14.20	0.026	14.21	0.026	14.11	0.026
10	64QAM	25	12	14.11	0.026	14.13	0.026	13.96	0.025
10	64QAM	25	25	14.17	0.026	14.02	0.025	13.89	0.024
10	64QAM	50	0	14.18	0.026	14.01	0.025	13.92	0.025



LTE Band 5				Measured E.R.P.					
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	16.69	0.047	16.75	0.047	16.65	0.046
5	QPSK	1	12	16.62	0.046	16.59	0.046	16.54	0.045
5	QPSK	1	24	16.55	0.045	16.59	0.046	16.52	0.045
5	QPSK	12	0	15.96	0.039	16.11	0.041	15.99	0.040
5	QPSK	12	7	15.88	0.039	16.03	0.040	15.86	0.039
5	QPSK	12	13	15.74	0.037	15.92	0.039	15.69	0.037
5	QPSK	25	0	15.57	0.036	15.76	0.038	15.53	0.036
5	16QAM	1	0	16.01	0.040	15.98	0.040	16.04	0.040
5	16QAM	1	12	15.92	0.039	15.93	0.039	15.97	0.040
5	16QAM	1	24	15.76	0.038	15.74	0.037	15.85	0.038
5	16QAM	12	0	15.12	0.033	15.17	0.033	15.07	0.032
5	16QAM	12	7	15.02	0.032	14.98	0.031	15.13	0.033
5	16QAM	12	13	14.98	0.031	14.92	0.031	15.03	0.032
5	16QAM	25	0	15.03	0.032	14.97	0.031	15.06	0.032
5	64QAM	1	0	14.98	0.031	14.90	0.031	14.84	0.030
5	64QAM	1	12	14.78	0.030	14.77	0.030	14.69	0.029
5	64QAM	1	24	14.75	0.030	14.76	0.030	14.68	0.029
5	64QAM	12	0	14.17	0.026	14.20	0.026	14.07	0.026
5	64QAM	12	7	14.06	0.025	14.08	0.026	13.92	0.025
5	64QAM	12	13	14.15	0.026	14.01	0.025	13.86	0.024
5	64QAM	25	0	14.15	0.026	13.95	0.025	13.88	0.024



LTE Band 5				Measured E.R.P.					
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	16.61	0.046	16.70	0.047	16.64	0.046
3	QPSK	1	8	16.57	0.045	16.57	0.045	16.54	0.045
3	QPSK	1	14	16.52	0.045	16.52	0.045	16.47	0.044
3	QPSK	8	0	15.85	0.038	16.11	0.041	15.98	0.040
3	QPSK	8	4	15.86	0.039	16.00	0.040	15.82	0.038
3	QPSK	8	7	15.69	0.037	15.86	0.039	15.69	0.037
3	QPSK	15	0	15.49	0.035	15.71	0.037	15.50	0.035
3	16QAM	1	0	15.96	0.039	15.93	0.039	15.99	0.040
3	16QAM	1	8	15.86	0.039	15.85	0.038	15.92	0.039
3	16QAM	1	14	15.74	0.037	15.70	0.037	15.84	0.038
3	16QAM	8	0	15.06	0.032	15.12	0.033	15.09	0.032
3	16QAM	8	4	15.03	0.032	14.94	0.031	15.07	0.032
3	16QAM	8	7	14.94	0.031	14.86	0.031	15.02	0.032
3	16QAM	15	0	14.99	0.032	14.95	0.031	15.02	0.032
3	64QAM	1	0	14.95	0.031	14.88	0.031	14.81	0.030
3	64QAM	1	8	14.76	0.030	14.75	0.030	14.69	0.029
3	64QAM	1	14	14.72	0.030	14.71	0.030	14.63	0.029
3	64QAM	8	0	14.15	0.026	14.15	0.026	14.05	0.025
3	64QAM	8	4	14.04	0.025	14.10	0.026	13.93	0.025
3	64QAM	8	7	14.11	0.026	13.92	0.025	13.78	0.024
3	64QAM	15	0	14.14	0.026	13.96	0.025	13.88	0.024



LTE Band 5				Measured E.R.P.					
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	16.61	0.046	16.73	0.047	16.59	0.046
1.4	QPSK	1	3	16.52	0.045	16.49	0.045	16.46	0.044
1.4	QPSK	1	5	16.47	0.044	16.48	0.044	16.41	0.044
1.4	QPSK	3	0	15.84	0.038	16.11	0.041	15.92	0.039
1.4	QPSK	3	1	15.84	0.038	15.92	0.039	15.77	0.038
1.4	QPSK	3	3	15.65	0.037	15.83	0.038	15.66	0.037
1.4	QPSK	6	0	15.48	0.035	15.66	0.037	15.49	0.035
1.4	16QAM	1	0	15.90	0.039	15.89	0.039	15.96	0.039
1.4	16QAM	1	3	15.81	0.038	15.83	0.038	15.86	0.039
1.4	16QAM	1	5	15.67	0.037	15.72	0.037	15.78	0.038
1.4	16QAM	3	0	15.06	0.032	15.12	0.033	15.05	0.032
1.4	16QAM	3	1	14.92	0.031	14.93	0.031	15.04	0.032
1.4	16QAM	3	3	14.90	0.031	14.81	0.030	14.96	0.031
1.4	16QAM	6	0	14.96	0.031	14.96	0.031	15.00	0.032
1.4	64QAM	1	0	14.91	0.031	14.82	0.030	14.78	0.030
1.4	64QAM	1	3	14.77	0.030	14.71	0.030	14.67	0.029
1.4	64QAM	1	5	14.70	0.030	14.66	0.029	14.56	0.029
1.4	64QAM	3	0	14.13	0.026	14.14	0.026	14.03	0.025
1.4	64QAM	3	1	14.02	0.025	14.02	0.025	13.87	0.024
1.4	64QAM	3	3	14.03	0.025	13.91	0.025	13.81	0.024
1.4	64QAM	6	0	14.05	0.025	13.90	0.025	13.81	0.024



LTE Band 7				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20850		21100		21350	
Frequency (MHz)				2510		2535		2560	
				dBm	W	dBm	W	dBm	W
20	QPSK	1	0	15.62	0.036	15.73	0.037	15.65	0.037
20	QPSK	1	49	15.13	0.033	15.20	0.033	15.17	0.033
20	QPSK	1	99	15.04	0.032	15.15	0.033	15.12	0.033
20	QPSK	50	0	14.45	0.028	14.54	0.028	14.50	0.028
20	QPSK	50	24	14.33	0.027	14.42	0.028	14.41	0.028
20	QPSK	50	50	14.29	0.027	14.32	0.027	14.51	0.028
20	QPSK	100	0	14.28	0.027	14.34	0.027	14.29	0.027
20	16QAM	1	0	14.25	0.027	14.26	0.027	14.15	0.026
20	16QAM	1	49	14.12	0.026	14.09	0.026	14.00	0.025
20	16QAM	1	99	14.01	0.025	13.99	0.025	13.96	0.025
20	16QAM	50	0	13.50	0.022	13.54	0.023	13.45	0.022
20	16QAM	50	24	13.48	0.022	13.46	0.022	13.43	0.022
20	16QAM	50	50	13.43	0.022	13.36	0.022	13.45	0.022
20	16QAM	100	0	13.44	0.022	13.37	0.022	13.47	0.022
20	64QAM	1	0	13.15	0.021	13.12	0.021	13.11	0.020
20	64QAM	1	49	13.08	0.020	13.04	0.020	12.97	0.020
20	64QAM	1	99	13.04	0.020	12.96	0.020	12.92	0.020
20	64QAM	50	0	12.39	0.017	12.41	0.017	12.35	0.017
20	64QAM	50	24	12.23	0.017	12.31	0.017	12.20	0.017
20	64QAM	50	50	12.13	0.016	12.27	0.017	12.12	0.016
20	64QAM	100	0	12.20	0.017	12.30	0.017	12.18	0.017





LTE Band 7				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20825		21100		21375	
Frequency (MHz)				2507.5		2535		2562.5	
				dBm	W	dBm	W	dBm	W
15	QPSK	1	0	15.22	0.033	15.25	0.033	15.14	0.033
15	QPSK	1	37	15.09	0.032	15.12	0.033	15.08	0.032
15	QPSK	1	74	14.96	0.031	15.09	0.032	15.07	0.032
15	QPSK	36	0	14.41	0.028	14.46	0.028	14.44	0.028
15	QPSK	36	20	14.30	0.027	14.34	0.027	14.37	0.027
15	QPSK	36	39	14.19	0.026	14.24	0.027	14.41	0.028
15	QPSK	75	0	14.20	0.026	14.26	0.027	14.24	0.027
15	16QAM	1	0	14.15	0.026	14.18	0.026	14.10	0.026
15	16QAM	1	37	14.06	0.025	13.98	0.025	13.93	0.025
15	16QAM	1	74	13.91	0.025	13.90	0.025	13.88	0.024
15	16QAM	36	0	13.43	0.022	13.47	0.022	13.37	0.022
15	16QAM	36	20	13.44	0.022	13.38	0.022	13.36	0.022
15	16QAM	36	39	13.35	0.022	13.29	0.021	13.36	0.022
15	16QAM	75	0	13.36	0.022	13.28	0.021	13.41	0.022
15	64QAM	1	0	13.10	0.020	13.05	0.020	13.05	0.020
15	64QAM	1	37	13.03	0.020	12.96	0.020	12.86	0.019
15	64QAM	1	74	12.96	0.020	12.89	0.019	12.86	0.019
15	64QAM	36	0	12.33	0.017	12.33	0.017	12.26	0.017
15	64QAM	36	20	12.15	0.016	12.24	0.017	12.12	0.016
15	64QAM	36	39	12.09	0.016	12.21	0.017	12.02	0.016
15	64QAM	75	0	12.14	0.016	12.24	0.017	12.11	0.016



LTE Band 7				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20800		21100		21400	
Frequency (MHz)				2505		2535		2565	
				dBm	W	dBm	W	dBm	W
10	QPSK	1	0	15.21	0.033	15.23	0.033	15.17	0.033
10	QPSK	1	25	15.09	0.032	15.15	0.033	15.07	0.032
10	QPSK	1	49	14.97	0.031	15.11	0.032	15.08	0.032
10	QPSK	25	0	14.39	0.027	14.48	0.028	14.45	0.028
10	QPSK	25	12	14.26	0.027	14.33	0.027	14.36	0.027
10	QPSK	25	25	14.21	0.026	14.23	0.026	14.43	0.028
10	QPSK	50	0	14.21	0.026	14.28	0.027	14.20	0.026
10	16QAM	1	0	14.16	0.026	14.20	0.026	14.08	0.026
10	16QAM	1	25	14.04	0.025	13.98	0.025	13.93	0.025
10	16QAM	1	49	13.93	0.025	13.90	0.025	13.87	0.024
10	16QAM	25	0	13.45	0.022	13.49	0.022	13.37	0.022
10	16QAM	25	12	13.43	0.022	13.40	0.022	13.36	0.022
10	16QAM	25	25	13.34	0.022	13.28	0.021	13.36	0.022
10	16QAM	50	0	13.33	0.022	13.32	0.021	13.43	0.022
10	64QAM	1	0	13.11	0.020	13.06	0.020	13.03	0.020
10	64QAM	1	25	13.02	0.020	12.96	0.020	12.88	0.019
10	64QAM	1	49	12.95	0.020	12.91	0.020	12.84	0.019
10	64QAM	25	0	12.35	0.017	12.34	0.017	12.27	0.017
10	64QAM	25	12	12.18	0.017	12.24	0.017	12.12	0.016
10	64QAM	25	25	12.05	0.016	12.20	0.017	12.03	0.016
10	64QAM	50	0	12.12	0.016	12.20	0.017	12.13	0.016



LTE Band 7				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				20775		21100		21425	
Frequency (MHz)				2502.5		2535		2567.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	15.21	0.033	15.22	0.033	15.14	0.033
5	QPSK	1	12	15.07	0.032	15.11	0.032	15.10	0.032
5	QPSK	1	24	14.97	0.031	15.10	0.032	15.09	0.032
5	QPSK	12	0	14.38	0.027	14.49	0.028	14.45	0.028
5	QPSK	12	7	14.30	0.027	14.35	0.027	14.37	0.027
5	QPSK	12	13	14.19	0.026	14.23	0.026	14.42	0.028
5	QPSK	25	0	14.19	0.026	14.25	0.027	14.21	0.026
5	16QAM	1	0	14.16	0.026	14.18	0.026	14.06	0.025
5	16QAM	1	12	14.04	0.025	14.02	0.025	13.93	0.025
5	16QAM	1	24	13.93	0.025	13.89	0.024	13.89	0.024
5	16QAM	12	0	13.45	0.022	13.50	0.022	13.37	0.022
5	16QAM	12	7	13.45	0.022	13.41	0.022	13.35	0.022
5	16QAM	12	13	13.37	0.022	13.29	0.021	13.34	0.022
5	16QAM	25	0	13.37	0.022	13.29	0.021	13.42	0.022
5	64QAM	1	0	13.08	0.020	13.02	0.020	13.02	0.020
5	64QAM	1	12	13.04	0.020	12.97	0.020	12.85	0.019
5	64QAM	1	24	12.99	0.020	12.90	0.019	12.83	0.019
5	64QAM	12	0	12.33	0.017	12.36	0.017	12.28	0.017
5	64QAM	12	7	12.15	0.016	12.25	0.017	12.09	0.016
5	64QAM	12	13	12.09	0.016	12.19	0.017	12.05	0.016
5	64QAM	25	0	12.11	0.016	12.21	0.017	12.10	0.016



LTE Band 12				Measured E.R.P.					
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	20.18	0.104	20.35	0.108	20.27	0.106
10	QPSK	1	25	20.10	0.102	20.21	0.105	20.11	0.103
10	QPSK	1	49	19.98	0.100	20.13	0.103	20.03	0.101
10	QPSK	25	0	19.60	0.091	19.68	0.093	19.65	0.092
10	QPSK	25	12	19.50	0.089	19.63	0.092	19.48	0.089
10	QPSK	25	25	19.43	0.088	19.59	0.091	19.42	0.087
10	QPSK	50	0	19.36	0.086	19.57	0.091	19.36	0.086
10	16QAM	1	0	19.60	0.091	19.64	0.092	19.64	0.092
10	16QAM	1	25	19.46	0.088	19.59	0.091	19.48	0.089
10	16QAM	1	49	19.38	0.087	19.51	0.089	19.41	0.087
10	16QAM	25	0	18.76	0.075	18.81	0.076	18.72	0.074
10	16QAM	25	12	18.67	0.074	18.78	0.076	18.65	0.073
10	16QAM	25	25	18.63	0.073	18.67	0.074	18.62	0.073
10	16QAM	50	0	18.57	0.072	18.61	0.073	18.54	0.071
10	64QAM	1	0	18.12	0.065	18.22	0.066	18.16	0.065
10	64QAM	1	25	18.03	0.064	18.18	0.066	18.11	0.065
10	64QAM	1	49	18.06	0.064	18.12	0.065	18.01	0.063
10	64QAM	25	0	17.72	0.059	17.76	0.060	17.73	0.059
10	64QAM	25	12	17.68	0.059	17.68	0.059	17.61	0.058
10	64QAM	25	25	17.62	0.058	17.63	0.058	17.57	0.057
10	64QAM	50	0	17.59	0.057	17.56	0.057	17.55	0.057



LTE Band 12				Measured E.R.P.					
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	20.09	0.102	20.28	0.107	20.19	0.104
5	QPSK	1	12	20.05	0.101	20.13	0.103	20.03	0.101
5	QPSK	1	24	19.90	0.098	20.07	0.102	19.94	0.099
5	QPSK	12	0	19.52	0.090	19.61	0.091	19.60	0.091
5	QPSK	12	7	19.42	0.087	19.55	0.090	19.43	0.088
5	QPSK	12	13	19.38	0.087	19.52	0.090	19.38	0.087
5	QPSK	25	0	19.29	0.085	19.53	0.090	19.34	0.086
5	16QAM	1	0	19.52	0.090	19.58	0.091	19.56	0.090
5	16QAM	1	12	19.40	0.087	19.50	0.089	19.42	0.087
5	16QAM	1	24	19.32	0.086	19.44	0.088	19.39	0.087
5	16QAM	12	0	18.68	0.074	18.74	0.075	18.64	0.073
5	16QAM	12	7	18.60	0.072	18.72	0.074	18.61	0.073
5	16QAM	12	13	18.51	0.071	18.62	0.073	18.52	0.071
5	16QAM	25	0	18.50	0.071	18.57	0.072	18.49	0.071
5	64QAM	1	0	18.05	0.064	18.17	0.066	18.06	0.064
5	64QAM	1	12	17.97	0.063	18.12	0.065	18.05	0.064
5	64QAM	1	24	17.98	0.063	18.02	0.063	17.94	0.062
5	64QAM	12	0	17.62	0.058	17.71	0.059	17.65	0.058
5	64QAM	12	7	17.61	0.058	17.60	0.058	17.52	0.056
5	64QAM	12	13	17.52	0.056	17.57	0.057	17.49	0.056
5	64QAM	25	0	17.49	0.056	17.49	0.056	17.45	0.056



LTE Band 12				Measured E.R.P.					
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	20.08	0.102	20.30	0.107	20.18	0.104
3	QPSK	1	8	20.05	0.101	20.17	0.104	20.01	0.100
3	QPSK	1	14	19.93	0.098	20.09	0.102	19.95	0.099
3	QPSK	8	0	19.51	0.089	19.63	0.092	19.62	0.092
3	QPSK	8	4	19.40	0.087	19.54	0.090	19.43	0.088
3	QPSK	8	7	19.39	0.087	19.48	0.089	19.38	0.087
3	QPSK	15	0	19.25	0.084	19.53	0.090	19.33	0.086
3	16QAM	1	0	19.52	0.090	19.58	0.091	19.53	0.090
3	16QAM	1	8	19.40	0.087	19.52	0.090	19.42	0.087
3	16QAM	1	14	19.31	0.085	19.42	0.087	19.38	0.087
3	16QAM	8	0	18.69	0.074	18.73	0.075	18.64	0.073
3	16QAM	8	4	18.60	0.072	18.70	0.074	18.61	0.073
3	16QAM	8	7	18.56	0.072	18.62	0.073	18.53	0.071
3	16QAM	15	0	18.54	0.071	18.55	0.072	18.46	0.070
3	64QAM	1	0	18.03	0.064	18.15	0.065	18.05	0.064
3	64QAM	1	8	17.96	0.063	18.14	0.065	18.03	0.064
3	64QAM	1	14	17.99	0.063	18.04	0.064	17.94	0.062
3	64QAM	8	0	17.61	0.058	17.71	0.059	17.63	0.058
3	64QAM	8	4	17.61	0.058	17.59	0.057	17.53	0.057
3	64QAM	8	7	17.54	0.057	17.55	0.057	17.47	0.056
3	64QAM	15	0	17.52	0.056	17.47	0.056	17.48	0.056



LTE Band 12				Measured E.R.P.					
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	20.08	0.102	20.27	0.106	20.17	0.104
1.4	QPSK	1	3	20.01	0.100	20.13	0.103	20.00	0.100
1.4	QPSK	1	5	19.84	0.096	20.04	0.101	19.93	0.098
1.4	QPSK	3	0	19.47	0.089	19.58	0.091	19.55	0.090
1.4	QPSK	3	1	19.39	0.087	19.51	0.089	19.35	0.086
1.4	QPSK	3	3	19.34	0.086	19.46	0.088	19.30	0.085
1.4	QPSK	6	0	19.27	0.085	19.46	0.088	19.29	0.085
1.4	16QAM	1	0	19.48	0.089	19.56	0.090	19.53	0.090
1.4	16QAM	1	3	19.34	0.086	19.48	0.089	19.38	0.087
1.4	16QAM	1	5	19.27	0.085	19.37	0.086	19.33	0.086
1.4	16QAM	3	0	18.67	0.074	18.70	0.074	18.61	0.073
1.4	16QAM	3	1	18.58	0.072	18.67	0.074	18.57	0.072
1.4	16QAM	3	3	18.52	0.071	18.60	0.072	18.53	0.071
1.4	16QAM	6	0	18.47	0.070	18.53	0.071	18.47	0.070
1.4	64QAM	1	0	18.02	0.063	18.12	0.065	18.04	0.064
1.4	64QAM	1	3	17.91	0.062	18.12	0.065	18.04	0.064
1.4	64QAM	1	5	17.97	0.063	17.98	0.063	17.92	0.062
1.4	64QAM	3	0	17.58	0.057	17.66	0.058	17.64	0.058
1.4	64QAM	3	1	17.57	0.057	17.56	0.057	17.53	0.057
1.4	64QAM	3	3	17.48	0.056	17.51	0.056	17.45	0.056
1.4	64QAM	6	0	17.45	0.056	17.41	0.055	17.46	0.056



LTE Band 13				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				/		23230		/	
Frequency (MHz)				/		782		/	
				dBm	W	dBm	W	dBm	W
10	QPSK	1	0	/	/	18.45	0.070	/	/
10	QPSK	1	25	/	/	18.29	0.067	/	/
10	QPSK	1	49	/	/	18.26	0.067	/	/
10	QPSK	25	0	/	/	17.76	0.060	/	/
10	QPSK	25	12	/	/	17.63	0.058	/	/
10	QPSK	25	25	/	/	17.52	0.056	/	/
10	QPSK	50	0	/	/	17.50	0.056	/	/
10	16QAM	1	0	/	/	17.55	0.057	/	/
10	16QAM	1	25	/	/	17.47	0.056	/	/
10	16QAM	1	49	/	/	17.41	0.055	/	/
10	16QAM	25	0	/	/	16.96	0.050	/	/
10	16QAM	25	12	/	/	16.81	0.048	/	/
10	16QAM	25	25	/	/	16.73	0.047	/	/
10	16QAM	50	0	/	/	16.67	0.046	/	/
10	64QAM	1	0	/	/	16.62	0.046	/	/
10	64QAM	1	25	/	/	16.57	0.045	/	/
10	64QAM	1	49	/	/	16.50	0.045	/	/
10	64QAM	25	0	/	/	15.90	0.039	/	/
10	64QAM	25	12	/	/	15.86	0.039	/	/
10	64QAM	25	25	/	/	15.84	0.038	/	/
10	64QAM	50	0	/	/	15.79	0.038	/	/





LTE Band 13				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23205		23230		23255	
Frequency (MHz)				779.5		782		784.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	18.32	0.068	18.33	0.068	18.25	0.067
5	QPSK	1	12	18.18	0.066	18.21	0.066	18.17	0.066
5	QPSK	1	24	18.14	0.065	18.21	0.066	18.14	0.065
5	QPSK	12	0	17.66	0.058	17.71	0.059	17.63	0.058
5	QPSK	12	7	17.55	0.057	17.57	0.057	17.48	0.056
5	QPSK	12	13	17.38	0.055	17.43	0.055	17.35	0.054
5	QPSK	25	0	17.40	0.055	17.44	0.055	17.35	0.054
5	16QAM	1	0	17.41	0.055	17.51	0.056	17.40	0.055
5	16QAM	1	12	17.36	0.054	17.41	0.055	17.32	0.054
5	16QAM	1	24	17.32	0.054	17.33	0.054	17.30	0.054
5	16QAM	12	0	16.88	0.049	16.90	0.049	16.80	0.048
5	16QAM	12	7	16.71	0.047	16.75	0.047	16.70	0.047
5	16QAM	12	13	16.61	0.046	16.65	0.046	16.58	0.045
5	16QAM	25	0	16.60	0.046	16.61	0.046	16.55	0.045
5	64QAM	1	0	16.55	0.045	16.55	0.045	16.48	0.044
5	64QAM	1	12	16.50	0.045	16.52	0.045	16.45	0.044
5	64QAM	1	24	16.42	0.044	16.43	0.044	16.37	0.043
5	64QAM	12	0	15.76	0.038	15.84	0.038	15.76	0.038
5	64QAM	12	7	15.74	0.037	15.80	0.038	15.72	0.037
5	64QAM	12	13	15.75	0.038	15.76	0.038	15.71	0.037
5	64QAM	25	0	15.69	0.037	15.70	0.037	15.67	0.037



LTE Band 17				Measured E.R.P.					
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	20.10	0.102	20.17	0.104	20.13	0.103
10	QPSK	1	25	20.02	0.100	20.05	0.101	20.07	0.102
10	QPSK	1	49	20.00	0.100	19.99	0.100	19.95	0.099
10	QPSK	25	0	19.50	0.089	19.52	0.090	19.50	0.089
10	QPSK	25	12	19.33	0.086	19.42	0.087	19.38	0.087
10	QPSK	25	25	19.30	0.085	19.37	0.086	19.32	0.086
10	QPSK	50	0	19.27	0.085	19.45	0.088	19.35	0.086
10	16QAM	1	0	19.39	0.087	19.44	0.088	19.40	0.087
10	16QAM	1	25	19.33	0.086	19.33	0.086	19.29	0.085
10	16QAM	1	49	19.27	0.085	19.31	0.085	19.30	0.085
10	16QAM	25	0	18.73	0.075	18.84	0.077	18.78	0.076
10	16QAM	25	12	18.70	0.074	18.75	0.075	18.72	0.074
10	16QAM	25	25	18.62	0.073	18.73	0.075	18.61	0.073
10	16QAM	50	0	18.59	0.072	18.69	0.074	18.64	0.073
10	64QAM	1	0	18.59	0.072	18.64	0.073	18.56	0.072
10	64QAM	1	25	18.51	0.071	18.48	0.070	18.41	0.069
10	64QAM	1	49	18.48	0.070	18.41	0.069	18.33	0.068
10	64QAM	25	0	17.67	0.058	17.70	0.059	17.72	0.059
10	64QAM	25	12	17.62	0.058	17.66	0.058	17.65	0.058
10	64QAM	25	25	17.50	0.056	17.55	0.057	17.58	0.057
10	64QAM	50	0	17.57	0.057	17.61	0.058	17.57	0.057



LTE Band 17				Measured E.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				23755		23790		23825	
Frequency (MHz)				706.5		710		713.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	20.08	0.102	20.13	0.103	20.08	0.102
5	QPSK	1	12	20.01	0.100	20.02	0.100	20.03	0.101
5	QPSK	1	24	19.97	0.099	19.94	0.099	19.92	0.098
5	QPSK	12	0	19.45	0.088	19.50	0.089	19.46	0.088
5	QPSK	12	7	19.28	0.085	19.39	0.087	19.34	0.086
5	QPSK	12	13	19.26	0.084	19.34	0.086	19.31	0.085
5	QPSK	25	0	19.24	0.084	19.44	0.088	19.32	0.086
5	16QAM	1	0	19.37	0.086	19.43	0.088	19.35	0.086
5	16QAM	1	12	19.32	0.086	19.30	0.085	19.24	0.084
5	16QAM	1	24	19.26	0.084	19.26	0.084	19.25	0.084
5	16QAM	12	0	18.68	0.074	18.80	0.076	18.74	0.075
5	16QAM	12	7	18.65	0.073	18.70	0.074	18.67	0.074
5	16QAM	12	13	18.58	0.072	18.68	0.074	18.59	0.072
5	16QAM	25	0	18.55	0.072	18.65	0.073	18.59	0.072
5	64QAM	1	0	18.54	0.071	18.60	0.072	18.55	0.072
5	64QAM	1	12	18.46	0.070	18.43	0.070	18.35	0.068
5	64QAM	1	24	18.45	0.070	18.39	0.069	18.29	0.067
5	64QAM	12	0	17.65	0.058	17.68	0.059	17.67	0.058
5	64QAM	12	7	17.60	0.058	17.65	0.058	17.62	0.058
5	64QAM	12	13	17.47	0.056	17.51	0.056	17.56	0.057
5	64QAM	25	0	17.53	0.057	17.56	0.057	17.56	0.057



LTE Band 40, Block A				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				/		38750		/	
Frequency (MHz)				/		2310		/	
				dBm	W	dBm	W	dBm	W
10	QPSK	1	0	/	/	21.47	0.140	/	/
10	QPSK	1	25	/	/	21.43	0.139	/	/
10	QPSK	1	49	/	/	21.32	0.136	/	/
10	QPSK	25	0	/	/	20.52	0.113	/	/
10	QPSK	25	12	/	/	20.49	0.112	/	/
10	QPSK	25	25	/	/	20.48	0.112	/	/
10	QPSK	50	0	/	/	20.38	0.109	/	/
10	16QAM	1	0	/	/	20.43	0.110	/	/
10	16QAM	1	25	/	/	20.35	0.108	/	/
10	16QAM	1	49	/	/	20.41	0.110	/	/
10	16QAM	25	0	/	/	19.73	0.094	/	/
10	16QAM	25	12	/	/	19.61	0.091	/	/
10	16QAM	25	25	/	/	19.66	0.092	/	/
10	16QAM	50	0	/	/	19.49	0.089	/	/
10	64QAM	1	0	/	/	19.39	0.087	/	/
10	64QAM	1	25	/	/	19.45	0.088	/	/
10	64QAM	1	49	/	/	19.48	0.089	/	/
10	64QAM	25	0	/	/	18.61	0.073	/	/
10	64QAM	25	12	/	/	18.48	0.070	/	/
10	64QAM	25	25	/	/	18.60	0.072	/	/
10	64QAM	50	0	/	/	18.40	0.069	/	/



LTE Band 40, Block A				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				38725		38750		38775	
Frequency (MHz)				2307.5		2310		2312.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	21.35	0.136	21.41	0.138	21.38	0.137
5	QPSK	1	12	21.32	0.136	21.41	0.138	21.34	0.136
5	QPSK	1	24	21.18	0.131	21.29	0.135	21.17	0.131
5	QPSK	12	0	20.36	0.109	20.46	0.111	20.40	0.110
5	QPSK	12	7	20.35	0.108	20.45	0.111	20.39	0.109
5	QPSK	12	13	20.34	0.108	20.45	0.111	20.39	0.109
5	QPSK	25	0	20.24	0.106	20.32	0.108	20.26	0.106
5	16QAM	1	0	20.30	0.107	20.37	0.109	20.34	0.108
5	16QAM	1	12	20.23	0.105	20.29	0.107	20.29	0.107
5	16QAM	1	24	20.30	0.107	20.37	0.109	20.32	0.108
5	16QAM	12	0	19.59	0.091	19.70	0.093	19.63	0.092
5	16QAM	12	7	19.44	0.088	19.59	0.091	19.49	0.089
5	16QAM	12	13	19.55	0.090	19.65	0.092	19.58	0.091
5	16QAM	25	0	19.37	0.086	19.48	0.089	19.43	0.088
5	64QAM	1	0	19.24	0.084	19.38	0.087	19.27	0.085
5	64QAM	1	12	19.36	0.086	19.43	0.088	19.35	0.086
5	64QAM	1	24	19.34	0.086	19.45	0.088	19.33	0.086
5	64QAM	12	0	18.50	0.071	18.60	0.072	18.49	0.071
5	64QAM	12	7	18.38	0.069	18.42	0.070	18.37	0.069
5	64QAM	12	13	18.46	0.070	18.59	0.072	18.50	0.071
5	64QAM	25	0	18.28	0.067	18.38	0.069	18.29	0.067



LTE Band 40, Block B				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				/		39200		/	
Frequency (MHz)				/		2355		/	
				dBm	W	dBm	W	dBm	W
10	QPSK	1	0	/	/	21.46	0.140	/	/
10	QPSK	1	25	/	/	21.35	0.136	/	/
10	QPSK	1	49	/	/	21.40	0.138	/	/
10	QPSK	25	0	/	/	20.43	0.110	/	/
10	QPSK	25	12	/	/	20.40	0.110	/	/
10	QPSK	25	25	/	/	20.41	0.110	/	/
10	QPSK	50	0	/	/	20.32	0.108	/	/
10	16QAM	1	0	/	/	20.39	0.109	/	/
10	16QAM	1	25	/	/	20.33	0.108	/	/
10	16QAM	1	49	/	/	20.38	0.109	/	/
10	16QAM	25	0	/	/	19.68	0.093	/	/
10	16QAM	25	12	/	/	19.56	0.090	/	/
10	16QAM	25	25	/	/	19.65	0.092	/	/
10	16QAM	50	0	/	/	19.47	0.089	/	/
10	64QAM	1	0	/	/	19.35	0.086	/	/
10	64QAM	1	25	/	/	19.43	0.088	/	/
10	64QAM	1	49	/	/	19.46	0.088	/	/
10	64QAM	25	0	/	/	18.57	0.072	/	/
10	64QAM	25	12	/	/	18.43	0.070	/	/
10	64QAM	25	25	/	/	18.59	0.072	/	/
10	64QAM	50	0	/	/	18.35	0.068	/	/



LTE Band 40, Block B				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				39175		39200		39225	
Frequency (MHz)				2352.5		2355		2357.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	21.33	0.136	21.41	0.138	21.34	0.136
5	QPSK	1	12	21.26	0.134	21.30	0.135	21.25	0.133
5	QPSK	1	24	21.27	0.134	21.34	0.136	21.26	0.134
5	QPSK	12	0	20.31	0.107	20.39	0.109	20.33	0.108
5	QPSK	12	7	20.27	0.106	20.37	0.109	20.27	0.106
5	QPSK	12	13	20.30	0.107	20.37	0.109	20.33	0.108
5	QPSK	25	0	20.25	0.106	20.30	0.107	20.27	0.106
5	16QAM	1	0	20.27	0.106	20.35	0.108	20.26	0.106
5	16QAM	1	12	20.26	0.106	20.29	0.107	20.21	0.105
5	16QAM	1	24	20.28	0.107	20.33	0.108	20.26	0.106
5	16QAM	12	0	19.61	0.091	19.63	0.092	19.63	0.092
5	16QAM	12	7	19.45	0.088	19.53	0.090	19.45	0.088
5	16QAM	12	13	19.54	0.090	19.63	0.092	19.52	0.090
5	16QAM	25	0	19.35	0.086	19.44	0.088	19.38	0.087
5	64QAM	1	0	19.23	0.084	19.32	0.086	19.26	0.084
5	64QAM	1	12	19.29	0.085	19.41	0.087	19.26	0.084
5	64QAM	1	24	19.35	0.086	19.44	0.088	19.34	0.086
5	64QAM	12	0	18.42	0.070	18.55	0.072	18.44	0.070
5	64QAM	12	7	18.30	0.068	18.42	0.070	18.32	0.068
5	64QAM	12	13	18.52	0.071	18.57	0.072	18.49	0.071
5	64QAM	25	0	18.28	0.067	18.31	0.068	18.29	0.067



LTE Band 41				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				39750		40620		41490	
Frequency (MHz)				2506		2593		2680	
				dBm	W	dBm	W	dBm	W
20	QPSK	1	0	18.09	0.064	18.39	0.069	18.15	0.065
20	QPSK	1	49	17.98	0.063	18.36	0.069	18.06	0.064
20	QPSK	1	99	17.93	0.062	18.24	0.067	17.94	0.062
20	QPSK	50	0	17.45	0.056	17.58	0.057	17.56	0.057
20	QPSK	50	24	17.38	0.055	17.30	0.054	17.42	0.055
20	QPSK	50	50	17.36	0.054	17.25	0.053	17.34	0.054
20	QPSK	100	0	17.30	0.054	17.44	0.055	17.41	0.055
20	16QAM	1	0	17.41	0.055	17.48	0.056	17.34	0.054
20	16QAM	1	49	17.32	0.054	17.41	0.055	17.30	0.054
20	16QAM	1	99	17.21	0.053	17.34	0.054	17.24	0.053
20	16QAM	50	0	16.76	0.047	16.79	0.048	16.74	0.047
20	16QAM	50	24	16.72	0.047	16.75	0.047	16.68	0.047
20	16QAM	50	50	16.61	0.046	16.66	0.046	16.58	0.045
20	16QAM	100	0	16.58	0.045	16.62	0.046	16.52	0.045
20	64QAM	1	0	16.63	0.046	16.69	0.047	16.55	0.045
20	64QAM	1	49	16.50	0.045	16.43	0.044	16.41	0.044
20	64QAM	1	99	16.38	0.043	16.35	0.043	16.36	0.043
20	64QAM	50	0	15.83	0.038	15.85	0.038	15.79	0.038
20	64QAM	50	24	15.76	0.038	15.72	0.037	15.72	0.037
20	64QAM	50	50	15.71	0.037	15.65	0.037	15.64	0.037
20	64QAM	100	0	15.75	0.038	15.70	0.037	15.73	0.037





LTE Band 41				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				39725		40620		41515	
Frequency (MHz)				2503.5		2593		2682.5	
				dBm	W	dBm	W	dBm	W
15	QPSK	1	0	18.03	0.064	18.27	0.067	18.08	0.064
15	QPSK	1	37	17.92	0.062	18.29	0.067	17.97	0.063
15	QPSK	1	74	17.81	0.060	18.16	0.065	17.89	0.062
15	QPSK	36	0	17.36	0.054	17.51	0.056	17.46	0.056
15	QPSK	36	20	17.29	0.054	17.22	0.053	17.33	0.054
15	QPSK	36	39	17.26	0.053	17.14	0.052	17.29	0.054
15	QPSK	75	0	17.25	0.053	17.33	0.054	17.34	0.054
15	16QAM	1	0	17.34	0.054	17.45	0.056	17.26	0.053
15	16QAM	1	37	17.21	0.053	17.33	0.054	17.19	0.052
15	16QAM	1	74	17.16	0.052	17.24	0.053	17.15	0.052
15	16QAM	36	0	16.67	0.046	16.69	0.047	16.68	0.047
15	16QAM	36	20	16.64	0.046	16.71	0.047	16.58	0.045
15	16QAM	36	39	16.55	0.045	16.57	0.045	16.48	0.044
15	16QAM	75	0	16.54	0.045	16.55	0.045	16.46	0.044
15	64QAM	1	0	16.52	0.045	16.60	0.046	16.51	0.045
15	64QAM	1	37	16.42	0.044	16.35	0.043	16.30	0.043
15	64QAM	1	74	16.32	0.043	16.25	0.042	16.31	0.043
15	64QAM	36	0	15.77	0.038	15.73	0.037	15.72	0.037
15	64QAM	36	20	15.67	0.037	15.68	0.037	15.67	0.037
15	64QAM	36	39	15.68	0.037	15.61	0.036	15.55	0.036
15	64QAM	75	0	15.68	0.037	15.64	0.037	15.67	0.037



LTE Band 41				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				39700		40620		41540	
Frequency (MHz)				2501		2593		2685	
				dBm	W	dBm	W	dBm	W
10	QPSK	1	0	18.01	0.063	18.27	0.067	18.09	0.064
10	QPSK	1	25	17.95	0.062	18.28	0.067	17.98	0.063
10	QPSK	1	49	17.85	0.061	18.16	0.065	17.85	0.061
10	QPSK	25	0	17.35	0.054	17.54	0.057	17.47	0.056
10	QPSK	25	12	17.31	0.054	17.22	0.053	17.36	0.054
10	QPSK	25	25	17.30	0.054	17.16	0.052	17.30	0.054
10	QPSK	50	0	17.25	0.053	17.30	0.054	17.33	0.054
10	16QAM	1	0	17.31	0.054	17.44	0.055	17.30	0.054
10	16QAM	1	25	17.21	0.053	17.34	0.054	17.21	0.053
10	16QAM	1	49	17.16	0.052	17.28	0.053	17.18	0.052
10	16QAM	25	0	16.67	0.046	16.71	0.047	16.69	0.047
10	16QAM	25	12	16.62	0.046	16.70	0.047	16.58	0.045
10	16QAM	25	25	16.56	0.045	16.59	0.046	16.47	0.044
10	16QAM	50	0	16.53	0.045	16.57	0.045	16.42	0.044
10	64QAM	1	0	16.52	0.045	16.60	0.046	16.49	0.045
10	64QAM	1	25	16.41	0.044	16.35	0.043	16.33	0.043
10	64QAM	1	49	16.35	0.043	16.27	0.042	16.30	0.043
10	64QAM	25	0	15.79	0.038	15.77	0.038	15.68	0.037
10	64QAM	25	12	15.67	0.037	15.64	0.037	15.66	0.037
10	64QAM	25	25	15.64	0.037	15.62	0.036	15.59	0.036
10	64QAM	50	0	15.69	0.037	15.64	0.037	15.65	0.037



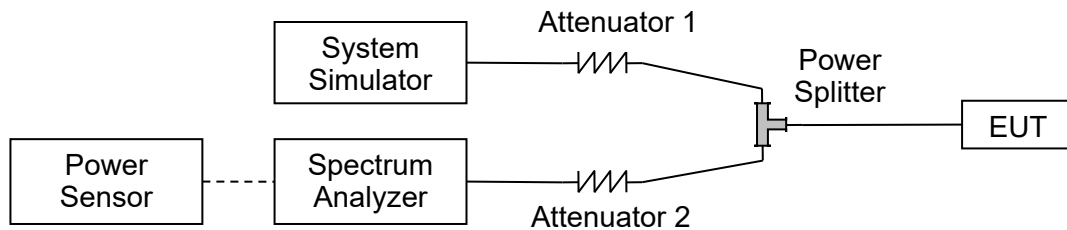
LTE Band 41				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				39675		40620		41565	
Frequency (MHz)				2498.5		2593		2687.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	17.97	0.063	18.22	0.066	18.07	0.064
5	QPSK	1	12	17.93	0.062	18.26	0.067	17.96	0.063
5	QPSK	1	24	17.81	0.060	18.15	0.065	17.83	0.061
5	QPSK	12	0	17.33	0.054	17.53	0.057	17.45	0.056
5	QPSK	12	7	17.25	0.053	17.21	0.053	17.34	0.054
5	QPSK	12	13	17.29	0.054	17.12	0.052	17.27	0.053
5	QPSK	25	0	17.24	0.053	17.27	0.053	17.27	0.053
5	16QAM	1	0	17.26	0.053	17.41	0.055	17.25	0.053
5	16QAM	1	12	17.16	0.052	17.31	0.054	17.16	0.052
5	16QAM	1	24	17.14	0.052	17.23	0.053	17.15	0.052
5	16QAM	12	0	16.61	0.046	16.69	0.047	16.67	0.046
5	16QAM	12	7	16.58	0.045	16.66	0.046	16.53	0.045
5	16QAM	12	13	16.52	0.045	16.56	0.045	16.41	0.044
5	16QAM	25	0	16.52	0.045	16.54	0.045	16.41	0.044
5	64QAM	1	0	16.47	0.044	16.54	0.045	16.47	0.044
5	64QAM	1	12	16.37	0.043	16.32	0.043	16.28	0.042
5	64QAM	1	24	16.34	0.043	16.23	0.042	16.27	0.042
5	64QAM	12	0	15.78	0.038	15.74	0.037	15.65	0.037
5	64QAM	12	7	15.63	0.037	15.61	0.036	15.64	0.037
5	64QAM	12	13	15.61	0.036	15.61	0.036	15.56	0.036
5	64QAM	25	0	15.67	0.037	15.60	0.036	15.63	0.037

## 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(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
1.4	Low	QPSK	1.09	1.27
	Low	16QAM	1.10	1.30
	Low	64QAM	1.10	1.29
	Mid	QPSK	1.09	1.27
	Mid	16QAM	1.10	1.29
	Mid	64QAM	1.10	1.30
	High	QPSK	1.09	1.27
	High	16QAM	1.10	1.29
	High	64QAM	1.10	1.31
3	Low	QPSK	2.69	2.91
	Low	16QAM	2.69	2.93
	Low	64QAM	2.70	2.92
	Mid	QPSK	2.69	2.91
	Mid	16QAM	2.69	2.94
	Mid	64QAM	2.70	2.91
	High	QPSK	2.69	2.92
	High	16QAM	2.69	2.93
	High	64QAM	2.70	2.91
5	Low	QPSK	4.49	4.90
	Low	16QAM	4.50	4.89
	Low	64QAM	4.50	4.91
	Mid	QPSK	4.49	4.95
	Mid	16QAM	4.51	4.89
	Mid	64QAM	4.51	4.96
	High	QPSK	4.50	4.92
	High	16QAM	4.50	4.92
	High	64QAM	4.50	4.94
10	Low	QPSK	9.01	9.82
	Low	16QAM	8.97	9.68
	Low	64QAM	8.99	9.76
	Mid	QPSK	9.02	9.69
	Mid	16QAM	8.97	9.70
	Mid	64QAM	8.98	9.78
	High	QPSK	9.01	9.66
	High	16QAM	8.96	9.68
	High	64QAM	8.98	9.74



15	Low	QPSK	13.47	14.56
	Low	16QAM	13.47	14.61
	Low	64QAM	13.45	14.59
	Mid	QPSK	13.45	14.54
	Mid	16QAM	13.47	14.44
	Mid	64QAM	13.44	14.59
	High	QPSK	13.51	14.51
	High	16QAM	13.47	14.59
	High	64QAM	13.46	14.56
20	Low	QPSK	17.96	26.39
	Low	16QAM	17.96	19.43
	Low	64QAM	17.97	19.40
	Mid	QPSK	17.95	19.38
	Mid	16QAM	17.95	19.36
	Mid	64QAM	17.93	19.52
	High	QPSK	17.97	20.42
	High	16QAM	17.99	19.26
	High	64QAM	17.96	19.35



LTE Band 4				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
1.4	Low	QPSK	1.09	1.27
	Low	16QAM	1.10	1.27
	Low	64QAM	1.09	1.29
	Mid	QPSK	1.09	1.28
	Mid	16QAM	1.10	1.30
	Mid	64QAM	1.09	1.29
	High	QPSK	1.10	1.26
	High	16QAM	1.10	1.29
	High	64QAM	1.09	1.29
3	Low	QPSK	2.69	2.91
	Low	16QAM	2.69	2.93
	Low	64QAM	2.70	2.94
	Mid	QPSK	2.68	2.88
	Mid	16QAM	2.69	2.92
	Mid	64QAM	2.70	2.94
	High	QPSK	2.69	2.91
	High	16QAM	2.68	2.93
	High	64QAM	2.69	2.93
5	Low	QPSK	4.50	4.92
	Low	16QAM	4.51	4.92
	Low	64QAM	4.50	4.90
	Mid	QPSK	4.49	4.95
	Mid	16QAM	4.50	4.95
	Mid	64QAM	4.49	4.91
	High	QPSK	4.49	4.95
	High	16QAM	4.50	4.89
	High	64QAM	4.49	4.90
10	Low	QPSK	9.00	10.48
	Low	16QAM	8.98	9.67
	Low	64QAM	9.01	9.99
	Mid	QPSK	9.01	9.68
	Mid	16QAM	8.97	9.62
	Mid	64QAM	8.97	9.65
	High	QPSK	9.00	9.76
	High	16QAM	8.98	9.62
	High	64QAM	8.98	9.77



15	Low	QPSK	13.52	14.58
	Low	16QAM	13.47	14.62
	Low	64QAM	13.47	14.61
	Mid	QPSK	13.46	14.52
	Mid	16QAM	13.46	14.59
	Mid	64QAM	13.45	14.36
	High	QPSK	13.47	14.50
	High	16QAM	13.43	14.54
	High	64QAM	13.44	14.53
20	Low	QPSK	17.96	19.33
	Low	16QAM	17.98	19.43
	Low	64QAM	17.95	19.35
	Mid	QPSK	17.97	19.32
	Mid	16QAM	17.97	19.38
	Mid	64QAM	17.97	19.31
	High	QPSK	17.86	19.25
	High	16QAM	17.94	19.29
	High	64QAM	17.90	19.23





LTE Band 5				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
1.4	Low	QPSK	1.10	1.27
	Low	16QAM	1.10	1.30
	Low	64QAM	1.09	1.29
	Mid	QPSK	1.10	1.29
	Mid	16QAM	1.10	1.31
	Mid	64QAM	1.10	1.29
	High	QPSK	1.09	1.26
	High	16QAM	1.10	1.29
	High	64QAM	1.07	1.21
3	Low	QPSK	2.69	2.92
	Low	16QAM	2.69	2.92
	Low	64QAM	2.70	2.92
	Mid	QPSK	2.69	2.93
	Mid	16QAM	2.69	2.93
	Mid	64QAM	2.70	2.94
	High	QPSK	2.69	2.91
	High	16QAM	2.69	2.93
	High	64QAM	2.70	2.92
5	Low	QPSK	4.50	4.93
	Low	16QAM	4.50	4.90
	Low	64QAM	4.50	4.91
	Mid	QPSK	4.51	4.94
	Mid	16QAM	4.50	4.93
	Mid	64QAM	4.49	4.89
	High	QPSK	4.49	5.00
	High	16QAM	4.50	4.92
	High	64QAM	4.50	4.89
10	Low	QPSK	8.97	9.70
	Low	16QAM	8.93	9.60
	Low	64QAM	8.94	9.74
	Mid	QPSK	9.02	9.61
	Mid	16QAM	9.00	9.70
	Mid	64QAM	9.01	9.68
	High	QPSK	8.97	9.73
	High	16QAM	8.95	9.68
	High	64QAM	8.99	9.71



LTE Band 7				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
5	Low	QPSK	4.53	5.34
	Low	16QAM	4.51	4.95
	Low	64QAM	4.51	4.97
	Mid	QPSK	4.53	8.05
	Mid	16QAM	4.53	6.85
	Mid	64QAM	4.51	6.39
	High	QPSK	4.52	6.81
	High	16QAM	4.52	5.49
	High	64QAM	4.51	4.90
10	Low	QPSK	9.00	9.76
	Low	16QAM	9.00	9.71
	Low	64QAM	9.00	9.82
	Mid	QPSK	9.08	17.94
	Mid	16QAM	9.04	17.17
	Mid	64QAM	9.04	14.63
	High	QPSK	9.04	13.51
	High	16QAM	9.01	12.34
	High	64QAM	9.02	12.21
15	Low	QPSK	13.50	14.65
	Low	16QAM	13.48	14.54
	Low	64QAM	13.52	14.60
	Mid	QPSK	13.66	26.79
	Mid	16QAM	13.59	23.67
	Mid	64QAM	13.25	14.00
	High	QPSK	13.52	15.35
	High	16QAM	13.49	14.67
	High	64QAM	13.48	15.19
20	Low	QPSK	17.95	19.39
	Low	16QAM	17.97	19.82
	Low	64QAM	17.98	19.93
	Mid	QPSK	18.25	35.50
	Mid	16QAM	18.19	32.50
	Mid	64QAM	18.15	32.67
	High	QPSK	17.93	19.32
	High	16QAM	17.96	19.37
	High	64QAM	17.91	19.29



LTE Band 12				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
1.4	Low	QPSK	1.09	1.28
	Low	16QAM	1.10	1.27
	Low	64QAM	1.10	1.29
	Mid	QPSK	1.09	1.29
	Mid	16QAM	1.10	1.30
	Mid	64QAM	1.09	1.26
	High	QPSK	1.09	1.28
	High	16QAM	1.10	1.31
	High	64QAM	1.10	1.30
3	Low	QPSK	2.69	2.92
	Low	16QAM	2.68	2.91
	Low	64QAM	2.70	2.92
	Mid	QPSK	2.69	2.91
	Mid	16QAM	2.69	2.93
	Mid	64QAM	2.70	2.93
	High	QPSK	2.69	2.91
	High	16QAM	2.69	2.93
	High	64QAM	2.69	2.95
5	Low	QPSK	4.51	5.16
	Low	16QAM	4.51	5.15
	Low	64QAM	4.51	5.12
	Mid	QPSK	4.51	5.14
	Mid	16QAM	4.51	5.16
	Mid	64QAM	4.51	5.11
	High	QPSK	4.52	5.14
	High	16QAM	4.52	5.33
	High	64QAM	4.52	5.16
10	Low	QPSK	9.01	9.97
	Low	16QAM	8.98	9.90
	Low	64QAM	8.99	10.04
	Mid	QPSK	9.04	10.07
	Mid	16QAM	8.98	10.07
	Mid	64QAM	8.99	9.92
	High	QPSK	9.02	10.01
	High	16QAM	9.00	11.51
	High	64QAM	9.02	10.09



LTE Band 13				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
5	Low	QPSK	4.52	5.16
	Low	16QAM	4.51	5.11
	Low	64QAM	4.51	5.10
	Mid	QPSK	4.52	5.31
	Mid	16QAM	4.52	5.15
	Mid	64QAM	4.51	5.15
	High	QPSK	4.52	5.14
	High	16QAM	4.51	5.16
	High	64QAM	4.50	5.01
10	Low	QPSK	9.04	10.09
	Mid	16QAM	8.98	10.05
	High	64QAM	9.00	10.10

LTE Band 17				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
5	Low	QPSK	4.53	5.18
	Low	16QAM	4.51	5.22
	Low	64QAM	4.53	5.20
	Mid	QPSK	4.51	5.20
	Mid	16QAM	4.51	5.19
	Mid	64QAM	4.52	5.19
	High	QPSK	4.51	5.13
	High	16QAM	4.50	5.15
	High	64QAM	4.53	5.13
10	Low	QPSK	9.02	10.64
	Low	16QAM	8.97	9.84
	Low	64QAM	9.01	10.06
	Mid	QPSK	9.02	10.05
	Mid	16QAM	8.97	9.91
	Mid	64QAM	8.99	10.02
	High	QPSK	8.98	9.87
	High	16QAM	8.97	9.90
	High	64QAM	8.99	10.00

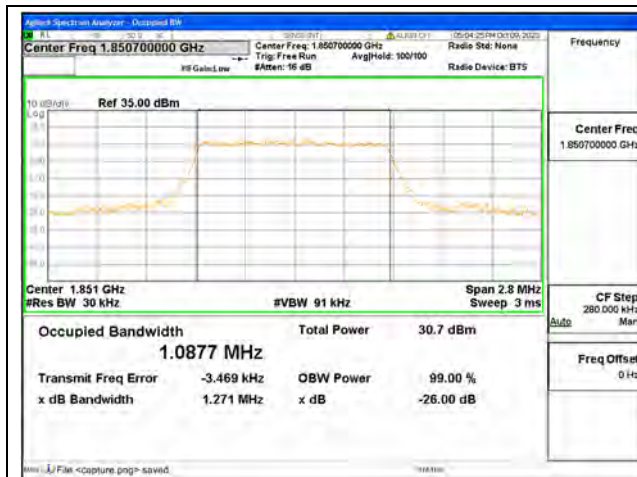


LTE Band 40, Block A				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
5	Low	QPSK	4.52	5.39
	Low	16QAM	4.52	5.28
	Low	64QAM	4.51	5.20
	Mid	QPSK	4.52	5.16
	Mid	16QAM	4.51	5.20
	Mid	64QAM	4.51	5.08
	High	QPSK	4.52	5.30
	High	16QAM	4.52	5.28
	High	64QAM	4.50	5.09
10	Mid	QPSK	9.00	10.24
	Mid	16QAM	8.99	10.14
	Mid	64QAM	9.00	10.11

LTE Band 40, Block B				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
5	Low	QPSK	4.53	5.16
	Low	16QAM	4.53	5.25
	Low	64QAM	4.50	5.31
	Mid	QPSK	4.52	5.21
	Mid	16QAM	4.52	5.20
	Mid	64QAM	4.51	5.08
	High	QPSK	4.53	5.14
	High	16QAM	4.52	5.22
	High	64QAM	4.51	5.12
10	Mid	QPSK	9.00	10.06
	Mid	16QAM	8.97	9.84
	Mid	64QAM	8.99	10.16



LTE Band 41				
BW(MHz)	Channel Level	Modulation	99% BW(MHz)	26dB BW(MHz)
5	Low	QPSK	4.50	4.97
	Low	16QAM	4.49	4.92
	Low	64QAM	4.49	4.86
	Mid	QPSK	4.50	4.94
	Mid	16QAM	4.51	4.90
	Mid	64QAM	4.50	4.93
	High	QPSK	4.51	4.94
	High	16QAM	4.50	5.08
	High	64QAM	4.49	4.86
10	Low	QPSK	8.97	9.93
	Low	16QAM	8.98	10.02
	Low	64QAM	8.98	9.97
	Mid	QPSK	8.95	9.87
	Mid	16QAM	8.98	10.40
	Mid	64QAM	8.96	9.94
	High	QPSK	8.99	9.82
	High	16QAM	8.97	10.26
	High	64QAM	8.98	10.18
15	Low	QPSK	13.49	14.64
	Low	16QAM	13.48	14.75
	Low	64QAM	13.42	14.44
	Mid	QPSK	13.47	14.78
	Mid	16QAM	13.49	15.12
	Mid	64QAM	13.43	14.86
	High	QPSK	13.44	15.03
	High	16QAM	13.47	14.62
	High	64QAM	13.46	15.25
20	Low	QPSK	17.92	19.09
	Low	16QAM	17.94	19.75
	Low	64QAM	17.94	19.63
	Mid	QPSK	17.97	19.46
	Mid	16QAM	17.91	19.21
	Mid	64QAM	17.96	19.38
	High	QPSK	17.92	19.25
	High	16QAM	17.90	19.46
	High	64QAM	17.93	19.98



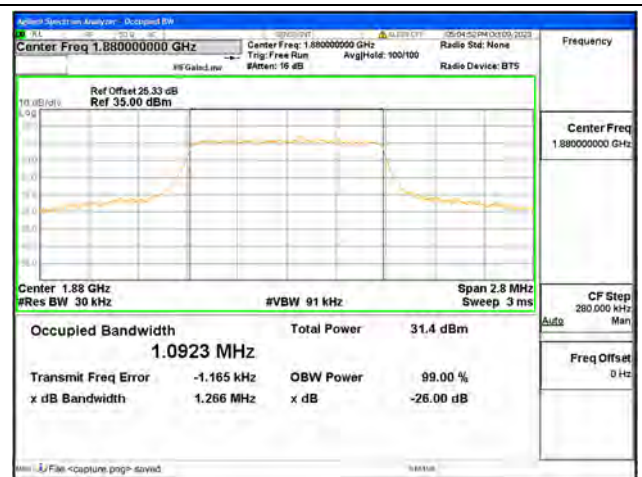
B2 / 1.4MHz / QPSK/ Low CH



B2 / 1.4MHz / 16QAM/ Low CH



B2 / 1.4MHz / 64QAM/ Low CH



B2 / 1.4MHz / QPSK/ Mid CH



B2 / 1.4MHz / 16QAM/ Mid CH



B2 / 1.4MHz / 64QAM/ Mid CH



B2 / 1.4MHz / QPSK / High CH



B2 / 1.4MHz / 16QAM / High CH



B2 / 1.4MHz / 64QAM / High CH



B2 / 3MHz / QPSK / Low CH



B2 / 3MHz / 16QAM / Low CH



B2 / 3MHz / 64QAM / Low CH





B2 / 3MHz / QPSK / Mid CH



B2 / 3MHz / 16QAM / Mid CH



B2 / 3MHz / 64QAM / Mid CH



B2 / 3MHz / QPSK / High CH



B2 / 3MHz / 16QAM / High CH



B2 / 3MHz / 64QAM / High CH



B2 / 5MHz / QPSK/ Low CH



B2 / 5MHz / 16QAM/ Low CH



B2 / 5MHz / 64QAM/ Low CH



B2 / 5MHz / QPSK/ Mid CH



B2 / 5MHz / 16QAM/ Mid CH



B2 / 5MHz / 64QAM/ Mid CH



B2 / 5MHz / QPSK / High CH



B2 / 5MHz / 16QAM / High CH



B2 / 5MHz / 64QAM / High CH



B2 / 10MHz / QPSK / Low CH



B2 / 10MHz / 16QAM / Low CH



B2 / 10MHz / 64QAM / Low CH



B2 / 10MHz / QPSK / Mid CH



B2 / 10MHz / 16QAM / Mid CH



B2 / 10MHz / 64QAM / Mid CH



B2 / 10MHz / QPSK / High CH



B2 / 10MHz / 16QAM / High CH



B2 / 10MHz / 64QAM / High CH



B2 / 15MHz / QPSK/ Low CH



B2 / 15MHz / 16QAM/ Low CH



B2 / 15MHz / 64QAM/ Low CH



B2 / 15MHz / QPSK/ Mid CH



B2 / 15MHz / 16QAM/ Mid CH



B2 / 15MHz / 64QAM/ Mid CH



B2 / 15MHz / QPSK/ High CH



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B2 / 15MHz / 64QAM/ High CH



B2 / 20MHz / QPSK/ Low CH



B2 / 20MHz / 16QAM/ Low CH



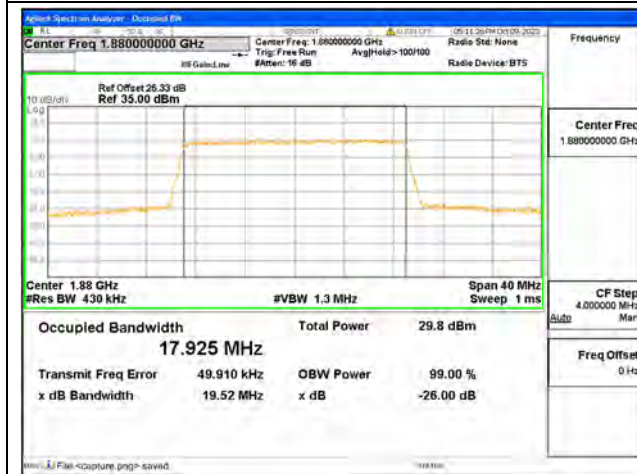
B2 / 20MHz / 64QAM/ Low CH



B2 / 20MHz / QPSK / Mid CH



B2 / 20MHz / 16QAM / Mid CH



B2 / 20MHz / 64QAM / Mid CH



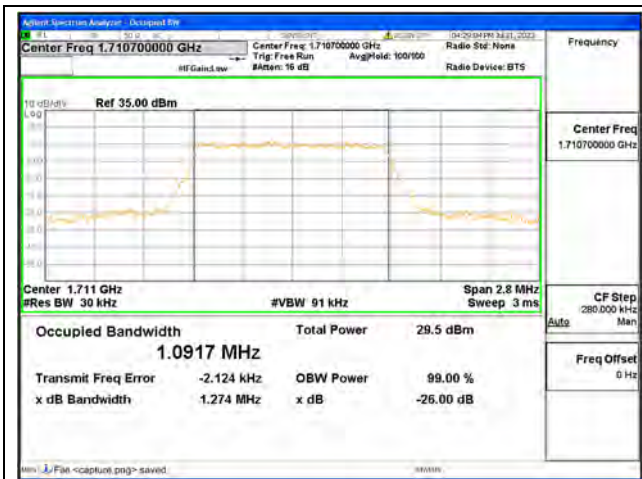
B2 / 20MHz / QPSK / High CH



B2 / 20MHz / 16QAM / High CH



B2 / 20MHz / 64QAM / High CH



B4 / 1.4MHz / QPSK/ Low CH



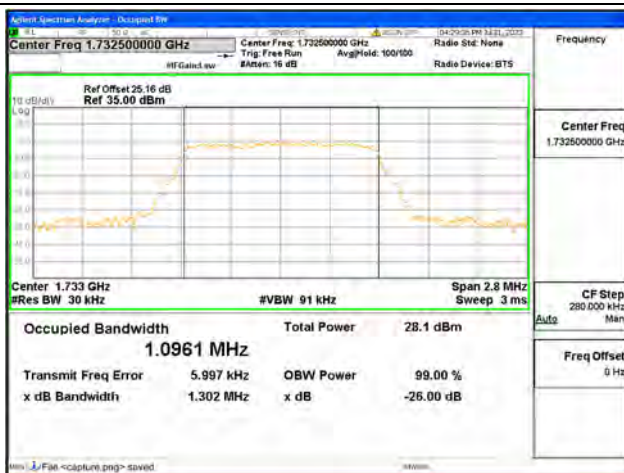
B4 / 1.4MHz / 16QAM/ Low CH



B4 / 1.4MHz / 64QAM/ Low CH



B4 / 1.4MHz / QPSK/ Mid CH



B4 / 1.4MHz / 16QAM/ Mid CH



B4 / 1.4MHz / 64QAM/ Mid CH

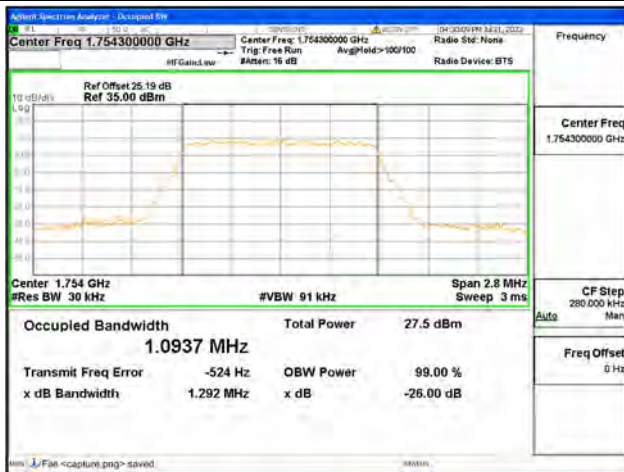




B4 / 1.4MHz / QPSK/ High CH



B4 / 1.4MHz / 16QAM/ High CH



B4 / 1.4MHz / 64QAM/ High CH



B4 / 3MHz / QPSK/ Low CH



B4 / 3MHz / 16QAM/ Low CH



B4 / 3MHz / 64QAM/ Low CH



B4 / 3MHz / QPSK / Mid CH



B4 / 3MHz / 16QAM / Mid CH



B4 / 3MHz / 64QAM / Mid CH



B4 / 3MHz / QPSK / High CH



B4 / 3MHz / 16QAM / High CH



B4 / 3MHz / 64QAM / High CH



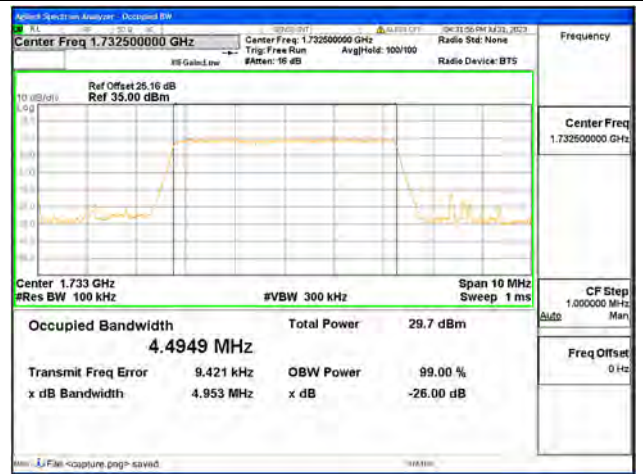
B4 / 5MHz / QPSK/ Low CH



B4 / 5MHz / 16QAM/ Low CH



B4 / 5MHz / 64QAM/ Low CH



B4 / 5MHz / QPSK/ Mid CH



B4 / 5MHz / 16QAM/ Mid CH



B4 / 5MHz / 64QAM/ Mid CH



B4 / 5MHz / QPSK/ High CH



B4 / 5MHz / 16QAM/ High CH



B4 / 5MHz / 64QAM/ High CH



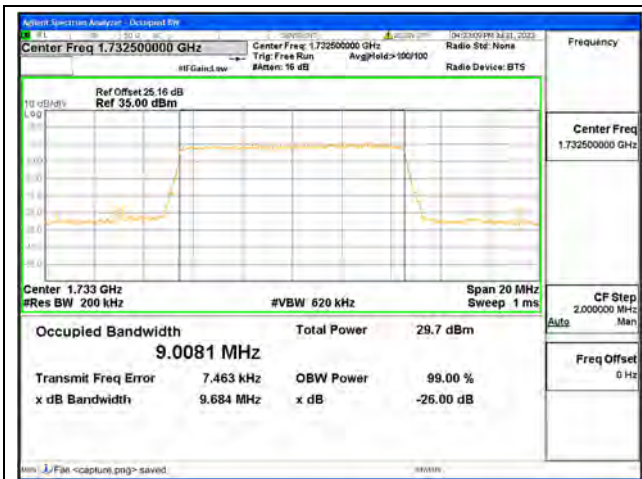
B4 / 10MHz / QPSK/ Low CH



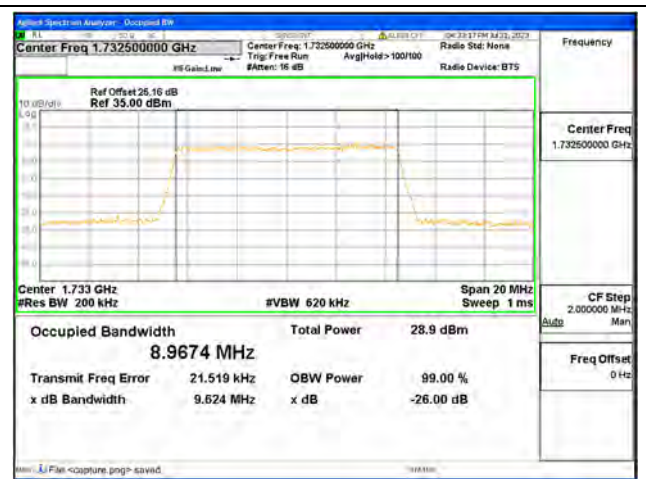
B4 / 10MHz / 16QAM/ Low CH



B4 / 10MHz / 64QAM/ Low CH



B4 / 10MHz / QPSK/ Mid CH



B4 / 10MHz / 16QAM/ Mid CH



B4 / 10MHz / 64QAM/ Mid CH



B4 / 10MHz / QPSK/ High CH



B4 / 10MHz / 16QAM/ High CH



B4 / 10MHz / 64QAM/ High CH



B4 / 15MHz / QPSK/ Low CH



B4 / 15MHz / 16QAM/ Low CH



B4 / 15MHz / 64QAM/ Low CH



B4 / 15MHz / QPSK/ Mid CH



B4 / 15MHz / 16QAM/ Mid CH



B4 / 15MHz / 64QAM/ Mid CH



B4 / 15MHz / QPSK/ High CH



B4 / 15MHz / 16QAM/ High CH



B4 / 15MHz / 64QAM/ High CH



B4 / 20MHz / QPSK/ Low CH



B4 / 20MHz / 16QAM/ Low CH



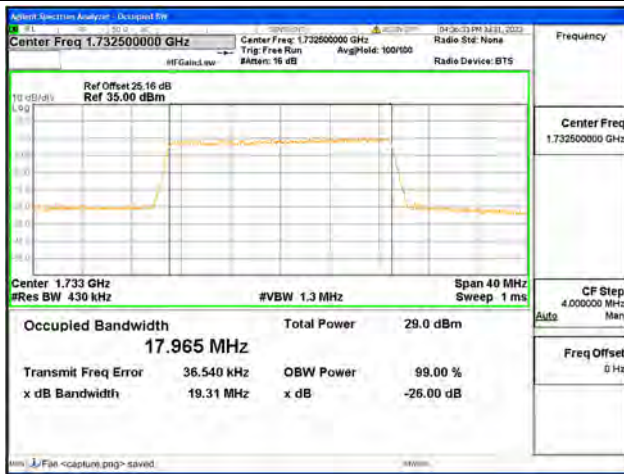
B4 / 20MHz / 64QAM/ Low CH



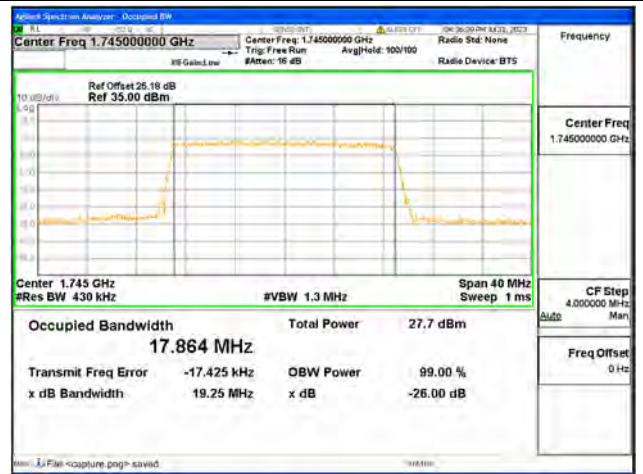
B4 / 20MHz / QPSK/ Mid CH



B4 / 20MHz / 16QAM/ Mid CH



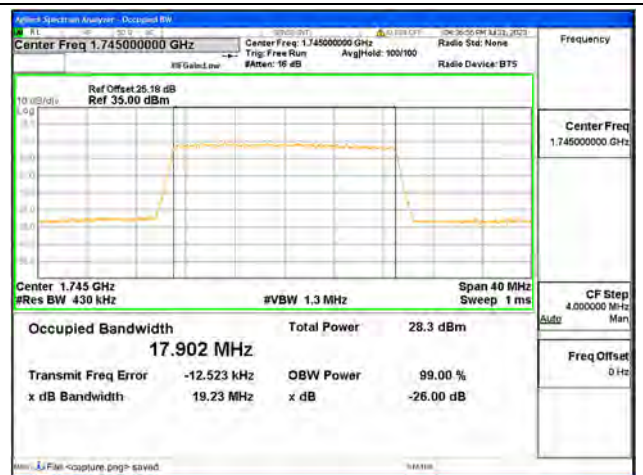
B4 / 20MHz / 64QAM/ Mid CH



B4 / 20MHz / QPSK/ High CH



B4 / 20MHz / 16QAM/ High CH



B4 / 20MHz / 64QAM/ High CH





B5 / 1.4MHz / QPSK/ Low CH



B5 / 1.4MHz / 16QAM/ Low CH



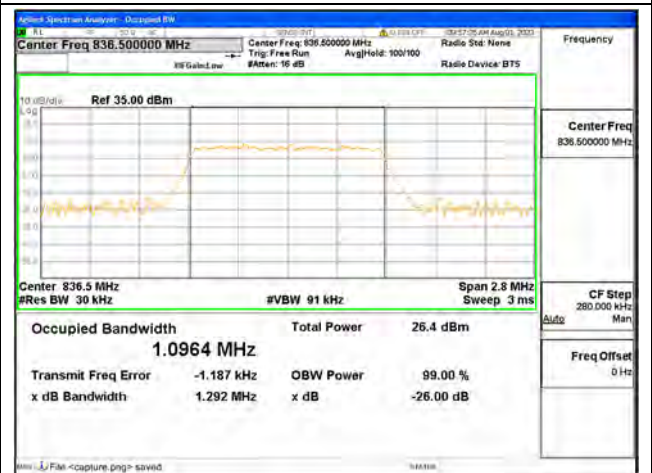
B5 / 1.4MHz / 64QAM/ Low CH



B5 / 1.4MHz / QPSK/ Mid CH



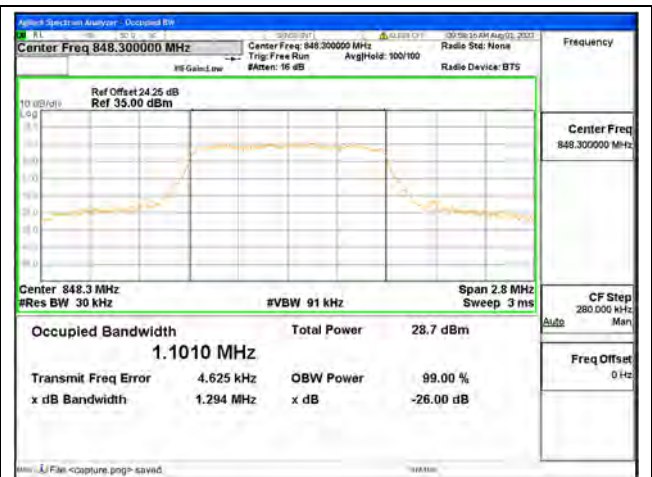
B5 / 1.4MHz / 16QAM/ Mid CH



B5 / 1.4MHz / 64QAM/ Mid CH



B5 / 1.4MHz / QPSK/ High CH



B5 / 1.4MHz / 16QAM/ High CH



B5 / 1.4MHz / 64QAM/ High CH



B5 / 3MHz / QPSK/ Low CH



B5 / 3MHz / 16QAM/ Low CH



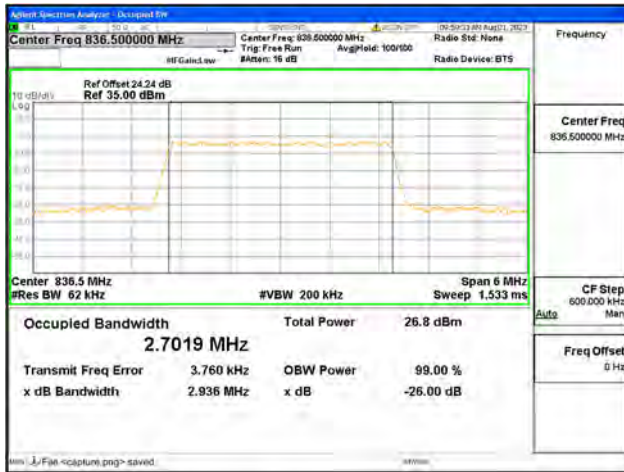
B5 / 3MHz / 64QAM/ Low CH



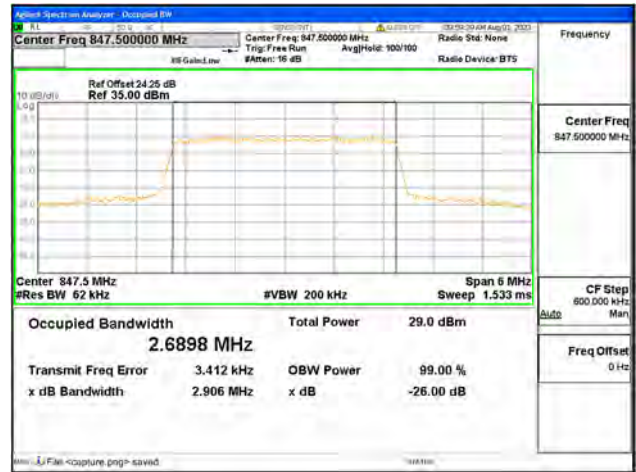
B5 / 3MHz / QPSK/ Mid CH



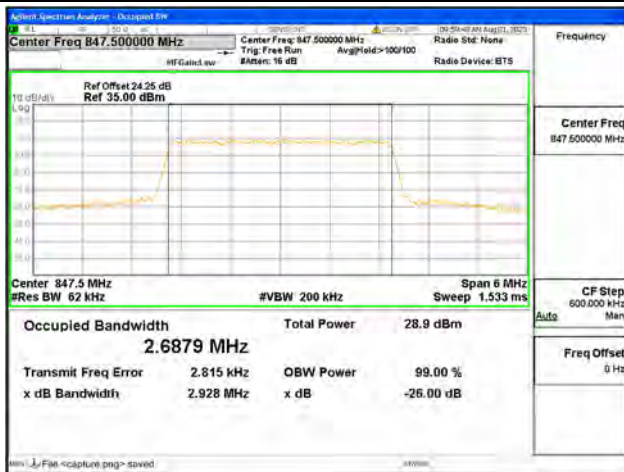
B5 / 3MHz / 16QAM/ Mid CH



B5 / 3MHz / 64QAM/ Mid CH



B5 / 3MHz / QPSK/ High CH



B5 / 3MHz / 16QAM/ High CH



B5 / 3MHz / 64QAM/ High CH



B5 / 5MHz / QPSK/ Low CH



B5 / 5MHz / 16QAM/ Low CH



B5 / 5MHz / 64QAM/ Low CH



B5 / 5MHz / QPSK/ Mid CH



B5 / 5MHz / 16QAM/ Mid CH



B5 / 5MHz / 64QAM/ Mid CH



B5 / 5MHz / QPSK/ High CH



B5 / 5MHz / 16QAM/ High CH



B5 / 5MHz / 64QAM/ High CH



B5 / 10MHz / QPSK/ Low CH



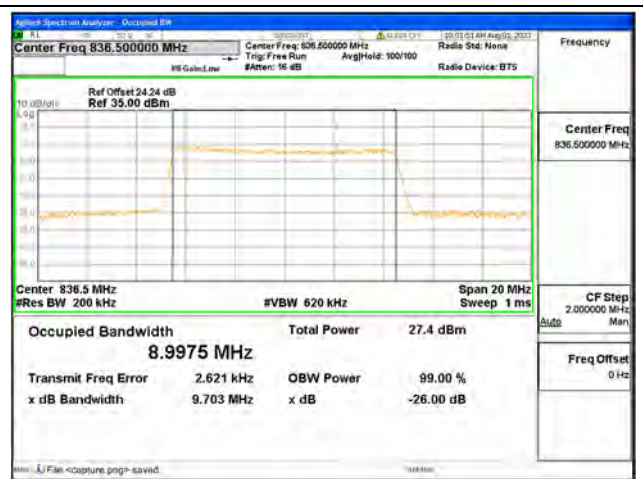
B5 / 10MHz / 16QAM/ Low CH



B5 / 10MHz / 64QAM/ Low CH



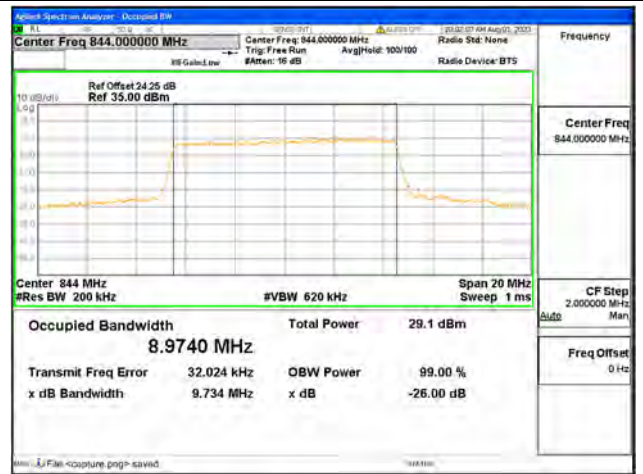
B5 / 10MHz / QPSK/ Mid CH



B5 / 10MHz / 16QAM/ Mid CH



B5 / 10MHz / 64QAM/ Mid CH



B5 / 10MHz / QPSK/ High CH



B5 / 10MHz / 16QAM/ High CH



B5 / 10MHz / 64QAM/ High CH



B7 / 5MHz / QPSK/ Low CH



B7 / 5MHz / 16QAM/ Low CH



B7 / 5MHz / 64QAM/ Low CH



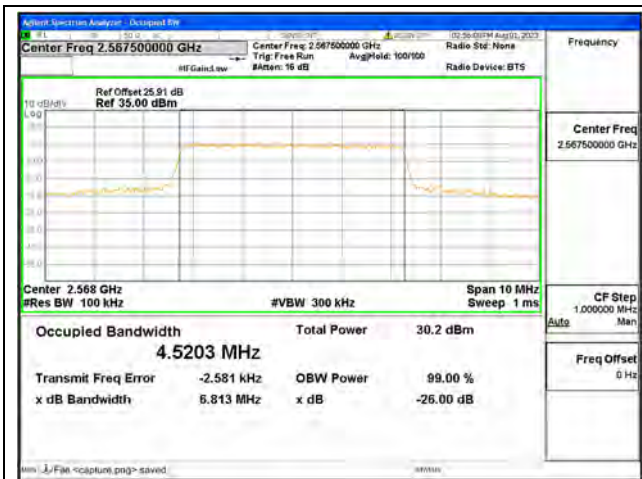
B7 / 5MHz / QPSK/ Mid CH



B7 / 5MHz / 16QAM/ Mid CH



B7 / 5MHz / 64QAM/ Mid CH



B7 / 5MHz / QPSK/ High CH



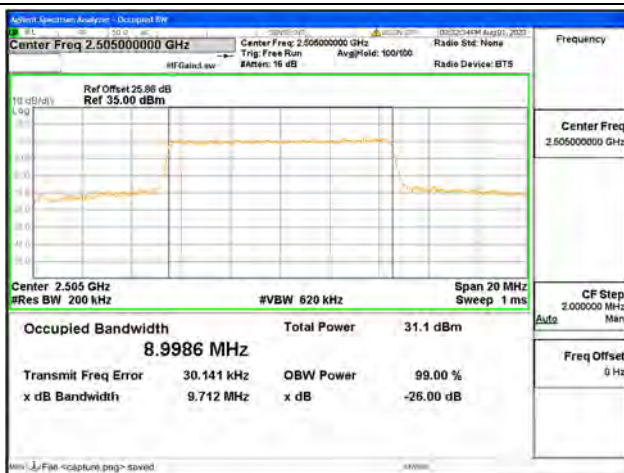
B7 / 5MHz / 16QAM/ High CH



B7 / 5MHz / 64QAM/ High CH



B7 / 10MHz / QPSK/ Low CH



B7 / 10MHz / 16QAM/ Low CH



B7 / 10MHz / 64QAM/ Low CH





B7 / 10MHz / QPSK/ Mid CH



B7 / 10MHz / 16QAM/ Mid CH



B7 / 10MHz / 64QAM/ Mid CH



B7 / 10MHz / QPSK/ High CH



B7 / 10MHz / 16QAM/ High CH



B7 / 10MHz / 64QAM/ High CH



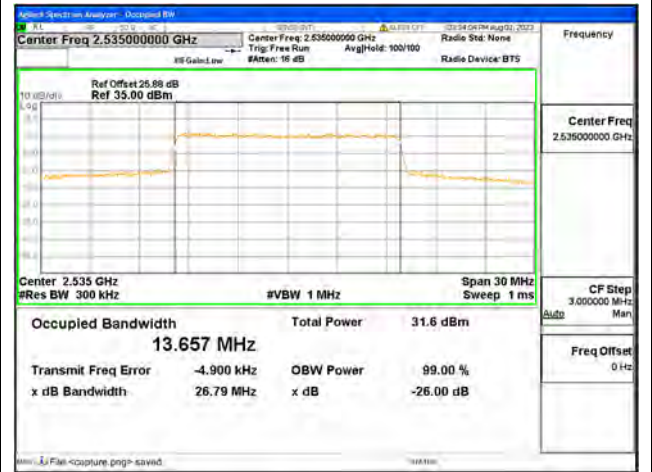
B7 / 15MHz / QPSK/ Low CH



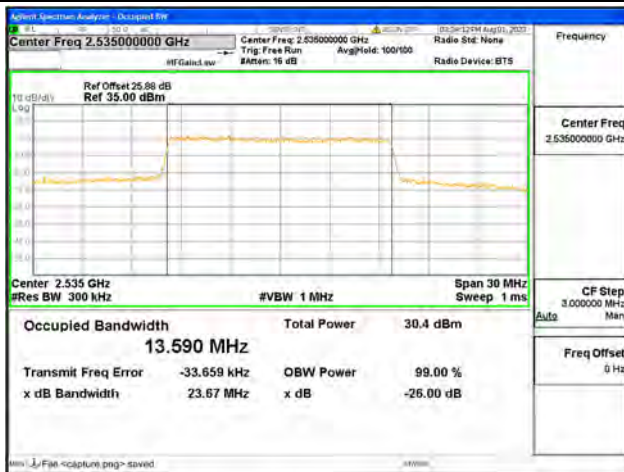
B7 / 15MHz / 16QAM/ Low CH



B7 / 15MHz / 64QAM/ Low CH



B7 / 15MHz / QPSK/ Mid CH



B7 / 15MHz / 16QAM/ Mid CH



B7 / 15MHz / 64QAM/ Mid CH



B7 / 15MHz / QPSK/ High CH



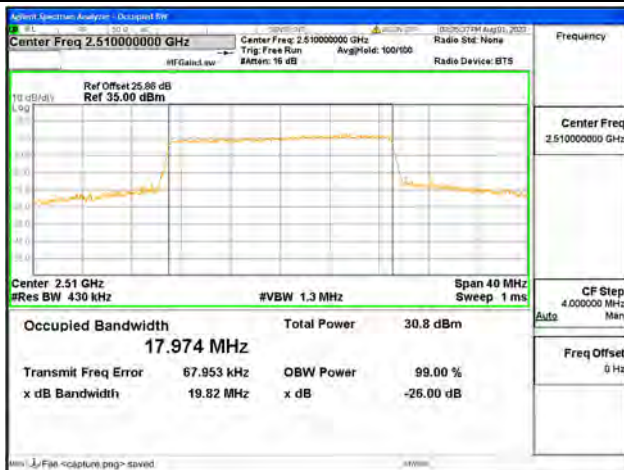
B7 / 15MHz / 16QAM/ High CH



B7 / 15MHz / 64QAM/ High CH



B7 / 20MHz / QPSK/ Low CH



B7 / 20MHz / 16QAM/ Low CH



B7 / 20MHz / 64QAM/ Low CH



B7 / 20MHz / QPSK/ Mid CH



B7 / 20MHz / 16QAM/ Mid CH



B7 / 20MHz / 64QAM/ Mid CH



B7 / 20MHz / QPSK/ High CH



B7 / 20MHz / 16QAM/ High CH



B7 / 20MHz / 64QAM/ High CH



B12 / 1.4MHz / QPSK/ Low CH



B12 / 1.4MHz / 16QAM/ Low CH



B12 / 1.4MHz / 64QAM/ Low CH



B12 / 1.4MHz / QPSK/ Mid CH



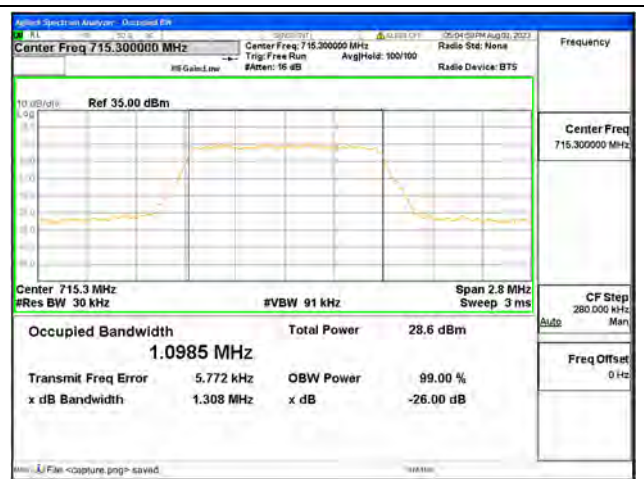
B12 / 1.4MHz / 16QAM/ Mid CH



B12 / 1.4MHz / 64QAM/ Mid CH



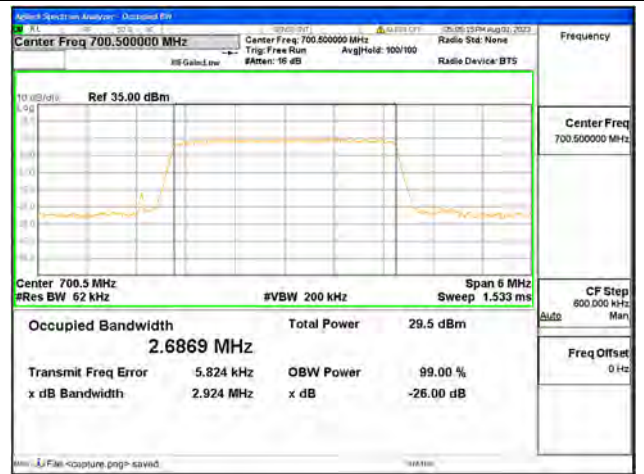
B12 / 1.4MHz / QPSK/ High CH



B12 / 1.4MHz / 16QAM/ High CH



B12 / 1.4MHz / 64QAM/ High CH



B12 / 3MHz / QPSK/ Low CH



B12 / 3MHz / 16QAM/ Low CH



B12 / 3MHz / 64QAM/ Low CH



B12 / 3MHz / QPSK/ Mid CH



B12 / 3MHz / 16QAM/ Mid CH



B12 / 3MHz / 64QAM/ Mid CH



B12 / 3MHz / QPSK/ High CH



B12 / 3MHz / 16QAM/ High CH



B12 / 3MHz / 64QAM/ High CH



B12 / 5MHz / QPSK / Low CH



B12 / 5MHz / 16QAM / Low CH



B12 / 5MHz / 64QAM / Low CH



B12 / 5MHz / QPSK / Mid CH



B12 / 5MHz / 16QAM / Mid CH



B12 / 5MHz / 64QAM / Mid CH





B12 / 5MHz / QPSK/ High CH



B12 / 5MHz / 16QAM/ High CH



B12 / 5MHz / 64QAM/ High CH



B12 / 10MHz / QPSK/ Low CH



B12 / 10MHz / 16QAM/ Low CH



B12 / 10MHz / 64QAM/ Low CH



B12 / 10MHz / QPSK/ Mid CH



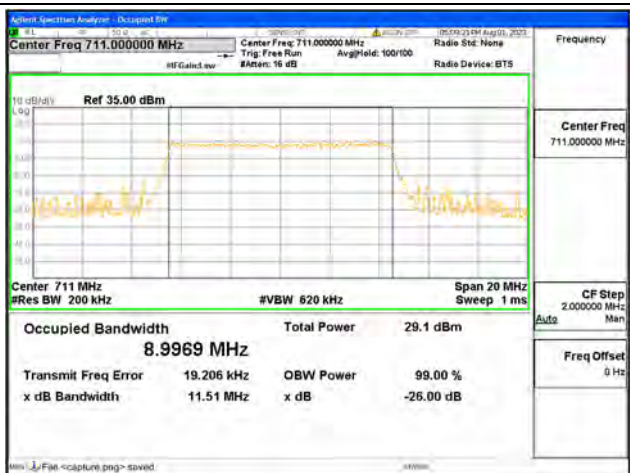
B12 / 10MHz / 16QAM/ Mid CH



B12 / 10MHz / 64QAM/ Mid CH



B12 / 10MHz / QPSK/ High CH



B12 / 10MHz / 16QAM/ High CH



B12 / 10MHz / 64QAM/ High CH



B13 / 5MHz / QPSK/ Low CH



B13 / 5MHz / 16QAM/ Low CH



B13 / 5MHz / 64QAM/ Low CH



B13 / 5MHz / QPSK/ Mid CH



B13 / 5MHz / 16QAM/ Mid CH



B13 / 5MHz / 64QAM/ Mid CH



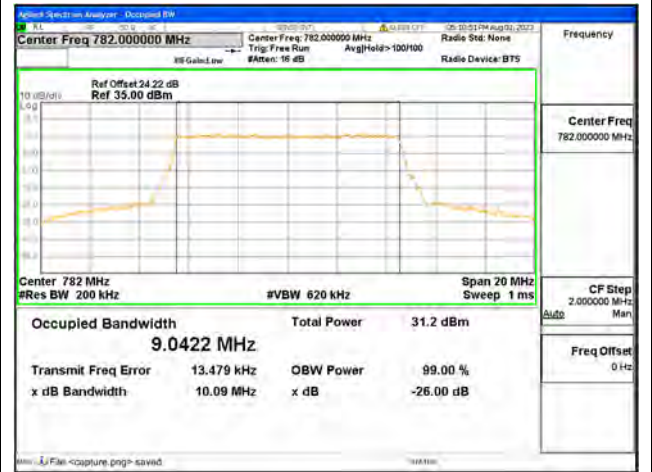
B13 / 5MHz / QPSK/ High CH



B13 / 5MHz / 16QAM/ High CH



B13 / 5MHz / 64QAM/ High CH



B13 / 10MHz / QPSK/ Mid CH



B13 / 10MHz / 16QAM/ Mid CH



B13 / 10MHz / 64QAM/ Mid CH



B17 / 5MHz / QPSK/ Low CH



B17 / 5MHz / 16QAM/ Low CH



B17 / 5MHz / 64QAM/ Low CH



B17 / 5MHz / QPSK/ Mid CH



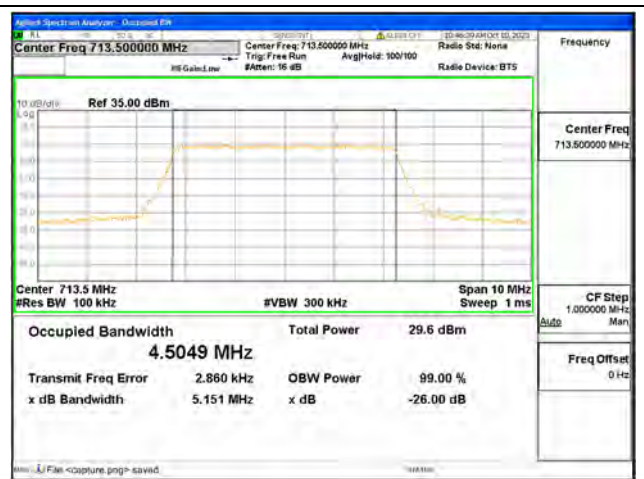
B17 / 5MHz / 16QAM/ Mid CH



B17 / 5MHz / 64QAM/ Mid CH



B17 / 5MHz / QPSK/ High CH



B17 / 5MHz / 16QAM/ High CH



B17 / 5MHz / 64QAM/ High CH



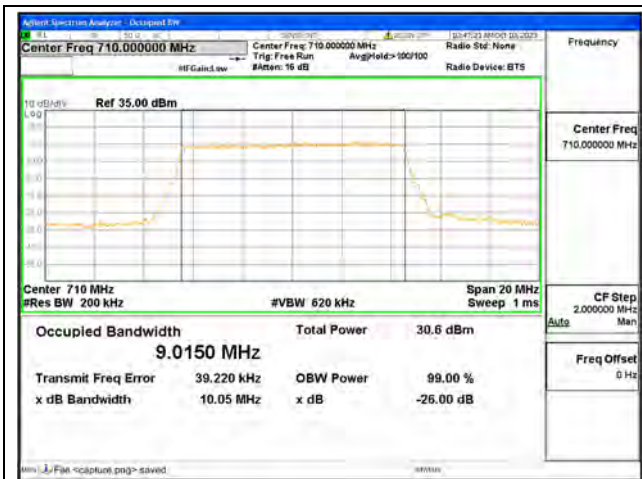
B17 / 10MHz / QPSK/ Low CH



B17 / 10MHz / 16QAM/ Low CH



B17 / 10MHz / 64QAM/ Low CH



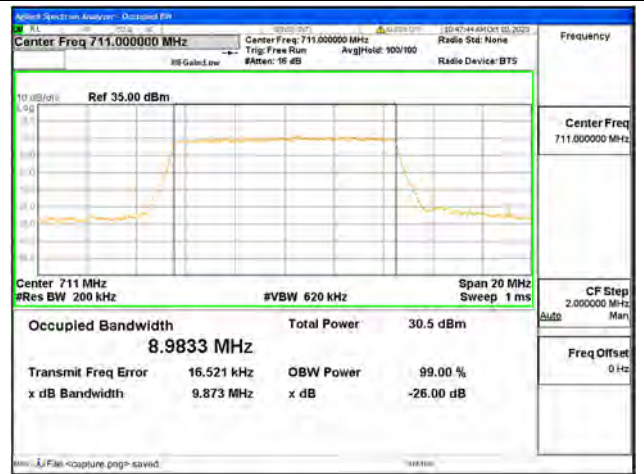
B17 / 10MHz / QPSK/ Mid CH



B17 / 10MHz / 16QAM/ Mid CH



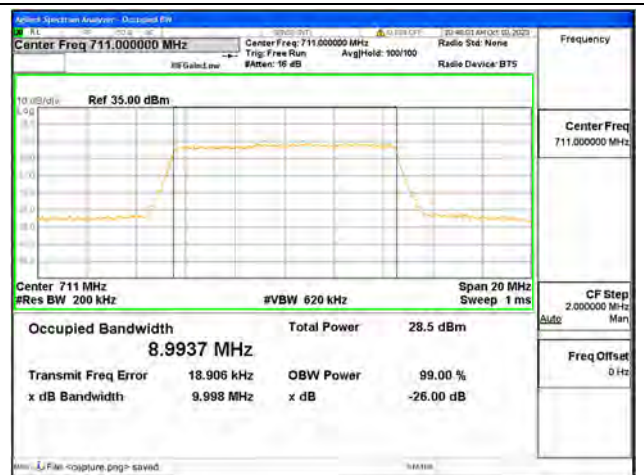
B17 / 10MHz / 64QAM/ Mid CH



B17 / 10MHz / QPSK/ High CH



B17 / 10MHz / 16QAM/ High CH



B17 / 10MHz / 64QAM/ High CH



B40-1 / 5MHz / QPSK/ Low CH



B40-1 / 5MHz / 16QAM/ Low CH



B40-1 / 5MHz / 64QAM/ Low CH



B40-1 / 5MHz / QPSK/ Mid CH



B40-1 / 5MHz / 16QAM/ Mid CH



B40-1 / 5MHz / 64QAM/ Mid CH





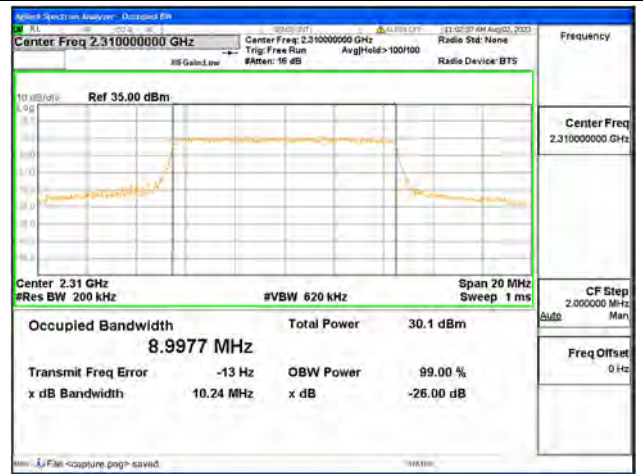
B40-1 / 5MHz / QPSK/ High CH



B40-1 / 5MHz / 16QAM/ High CH



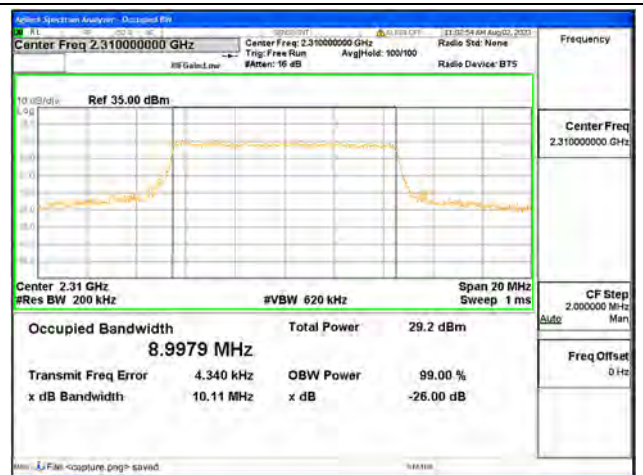
B40-1 / 5MHz / 64QAM/ High CH



B40-1 / 10MHz / QPSK/ Mid CH



B40-1 / 10MHz / 16QAM/ Mid CH



B40-1 / 10MHz / 64QAM/ Mid CH



B40-2 / 5MHz / QPSK/ Low CH



B40-2 / 5MHz / 16QAM/ Low CH



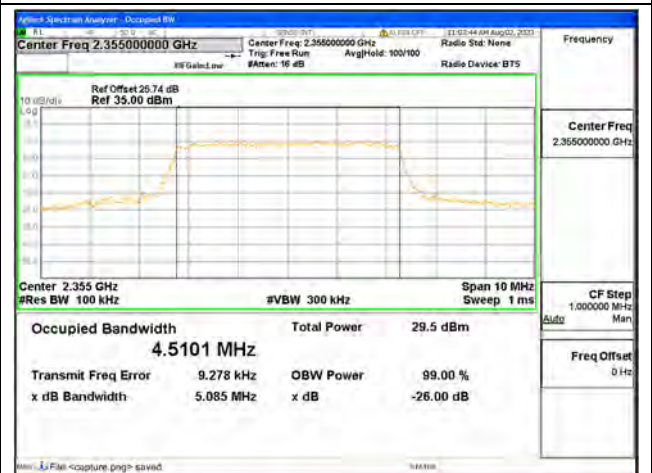
B40-2 / 5MHz / 64QAM/ Low CH



B40-2 / 5MHz / QPSK/ Mid CH



B40-2 / 5MHz / 16QAM/ Mid CH



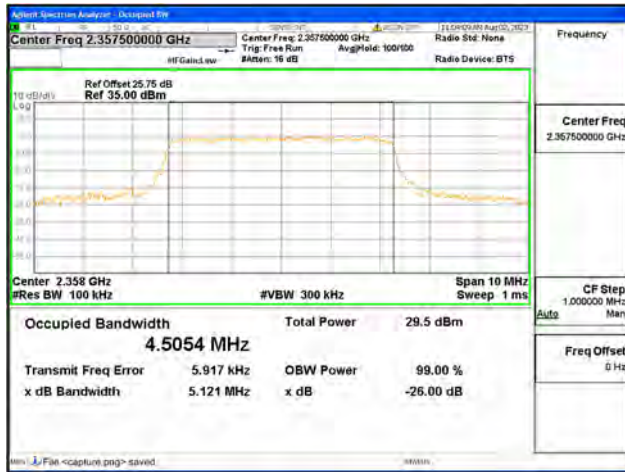
B40-2 / 5MHz / 64QAM/ Mid CH



B40-2 / 5MHz / QPSK/ High CH



B40-2 / 5MHz / 16QAM/ High CH



B40-2 / 5MHz / 64QAM/ High CH



B40-2 / 10MHz / QPSK/ Mid CH



B40-2 / 10MHz / 16QAM/ Mid CH



B40-2 / 10MHz / 64QAM/ Mid CH



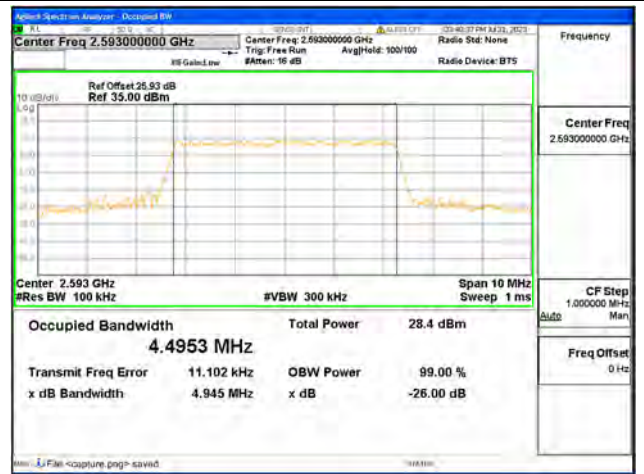
B41 / 5MHz / QPSK/ Low CH



B41 / 5MHz / 16QAM/ Low CH



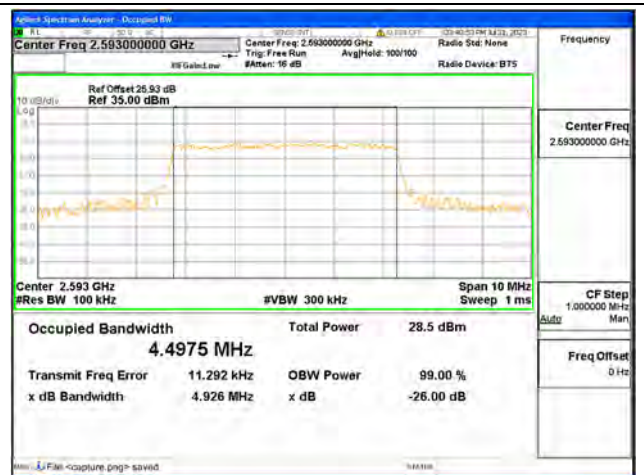
B41 / 5MHz / 64QAM/ Low CH



B41 / 5MHz / QPSK/ Mid CH



B41 / 5MHz / 16QAM/ Mid CH



B41 / 5MHz / 64QAM/ Mid CH



B41 / 5MHz / QPSK/ High CH



B41 / 5MHz / 16QAM/ High CH



B41 / 5MHz / 64QAM/ High CH



B41 / 10MHz / QPSK/ Low CH



B41 / 10MHz / 16QAM/ Low CH



B41 / 10MHz / 64QAM/ Low CH



B41 / 10MHz / QPSK/ Mid CH



B41 / 10MHz / 16QAM/ Mid CH



B41 / 10MHz / 64QAM/ Mid CH



B41 / 10MHz / QPSK/ High CH



B41 / 10MHz / 16QAM/ High CH



B41 / 10MHz / 64QAM/ High CH



B41 / 15MHz / QPSK/ Low CH



B41 / 15MHz / 16QAM/ Low CH



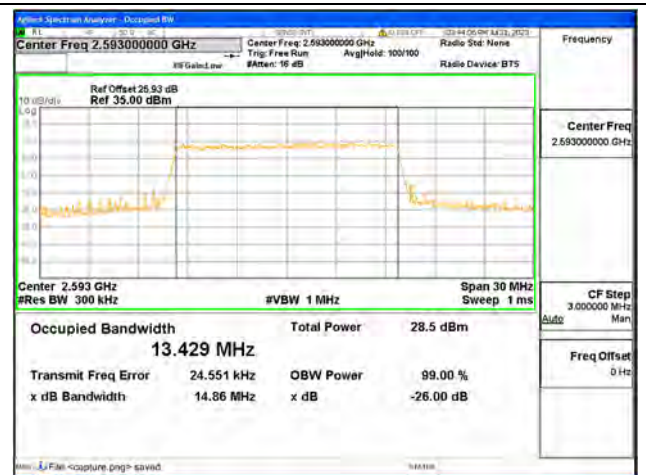
B41 / 15MHz / 64QAM/ Low CH



B41 / 15MHz / QPSK/ Mid CH



B41 / 15MHz / 16QAM/ Mid CH



B41 / 15MHz / 64QAM/ Mid CH



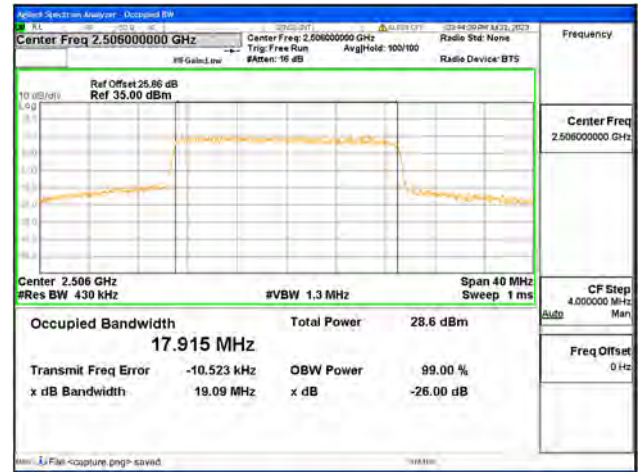
B41 / 15MHz / QPSK/ High CH



B41 / 15MHz / 16QAM/ High CH



B41 / 15MHz / 64QAM/ High CH



B41 / 20MHz / QPSK/ Low CH



B41 / 20MHz / 16QAM/ Low CH



B41 / 20MHz / 64QAM/ Low CH





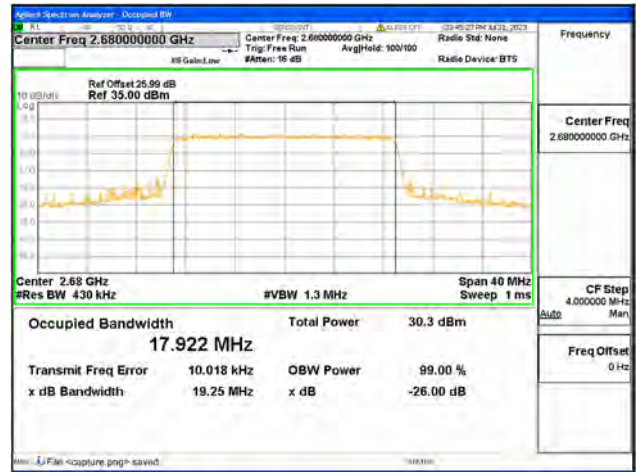
B41 / 20MHz / QPSK/ Mid CH



B41 / 20MHz / 16QAM/ Mid CH



B41 / 20MHz / 64QAM/ Mid CH



B41 / 20MHz / QPSK/ High CH



B41 / 20MHz / 16QAM/ High CH



B41 / 20MHz / 64QAM/ High CH

## 2.3. Frequency Stability

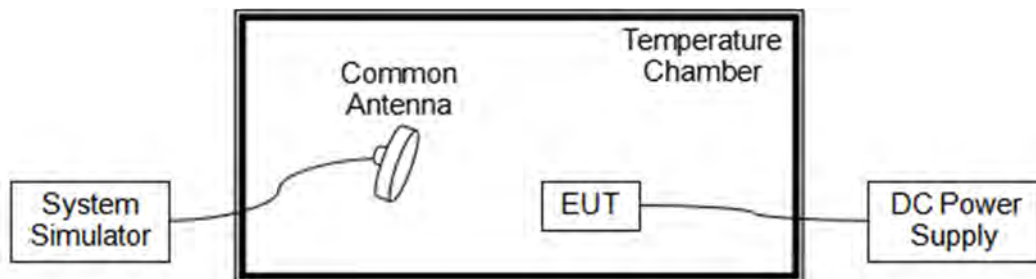
### 2.3.1. Requirement

According to FCC section 2.1055, 24.235, 27.54, 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  $-30^{\circ}\text{C}$  to  $+50^{\circ}\text{C}$  at intervals of not more than  $10^{\circ}\text{C}$ .
- (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.

**Note:** The operating temperature of EUT is from  $-20^{\circ}\text{C}$  to  $50^{\circ}\text{C}$ , which are specified by the applicant.

### 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 3.80V, 4.35V and 3.00V, which are specified by the applicant; the normal temperature here used is 20°C.

<b>LTE Band 2, 64QAM, Channel 18900, Frequency 1880.0MHz</b>					
<b>Limit =Within Authorized Band</b>					
<b>Voltage (%)</b>	<b>Power (VDC)</b>	<b>Temp(°C)</b>	<b>Fre. Dev.(Hz)</b>	<b>Deviation (ppm)</b>	<b>Result</b>
Normal	3.80	+20(Ref)	22	0.012	PASS
Normal		-20	1	0.001	
Normal		-10	13	0.007	
Normal		0	19	0.010	
Normal		+10	17	0.009	
Normal		+20	2	0.001	
Normal		+30	13	0.007	
Normal		+40	23	<b>0.012</b>	
Normal		+50	6	0.003	
High	4.35	+20	18	0.010	
BATT.ENDPOINT	3.00	+20	14	0.007	

<b>LTE Band 4, 64QAM, Channel 20175, Frequency 1732.5MHz</b>					
<b>Limit =Within Authorized Band</b>					
<b>Voltage (%)</b>	<b>Power (VDC)</b>	<b>Temp(°C)</b>	<b>Fre. Dev.(Hz)</b>	<b>Deviation (ppm)</b>	<b>Result</b>
Normal	3.80	+20(Ref)	15	0.009	PASS
Normal		-20	8	0.005	
Normal		-10	19	<b>0.011</b>	
Normal		0	-9	-0.005	
Normal		+10	17	0.010	
Normal		+20	17	0.010	
Normal		+30	13	0.008	
Normal		+40	17	0.010	
Normal		+50	-14	-0.008	
High	4.35	+20	2	0.001	
BATT.ENDPOINT	3.00	+20	19	<b>0.011</b>	



LTE Band 5, 64QAM, Channel 20525, Frequency 836.5MHz					
Limit=±2.5ppm					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev.(Hz)	Deviation (ppm)	Result
Normal	3.80	+20(Ref)	19	0.023	PASS
Normal		-20	18	0.022	
Normal		-10	21	<b>0.025</b>	
Normal		0	-22	-0.026	
Normal		+10	2	0.002	
Normal		+20	19	0.023	
Normal		+30	15	0.018	
Normal		+40	14	0.017	
Normal		+50	12	0.014	
High	4.35	+20	20	0.024	
BATT.ENDPOINT	3.00	+20	13	0.016	

LTE Band 7, 64QAM, Channel 21100, Frequency 2535MHz					
Limit= Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev.(Hz)	Deviation (ppm)	Result
Normal	3.80	+20(Ref)	14	0.006	PASS
Normal		-20	13	0.005	
Normal		-10	17	0.007	
Normal		0	17	0.007	
Normal		+10	17	0.007	
Normal		+20	14	0.006	
Normal		+30	10	0.004	
Normal		+40	17	0.007	
Normal		+50	12	0.005	
High	4.35	+20	19	<b>0.007</b>	
BATT.ENDPOINT	3.00	+20	9	0.004	



LTE Band 12, 64QAM, Channel 23095, Frequency 707.5MHz					
Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev.(Hz)	Deviation (ppm)	Result
Normal	3.80	+20(Ref)	5	0.007	PASS
Normal		-20	15	0.021	
Normal		-10	18	0.025	
Normal		0	-1	-0.001	
Normal		+10	20	<b>0.028</b>	
Normal		+20	20	<b>0.028</b>	
Normal		+30	16	0.023	
Normal		+40	16	0.023	
Normal		+50	-8	-0.011	
High	4.35	+20	17	0.024	
BATT.ENDPOINT	3.00	+20	16	0.023	

LTE Band 13, 64QAM, Channel 23230, Frequency 782.0MHz					
Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.80	+20(Ref)	15	0.019	PASS
		-20	15	0.019	
Normal		-10	18	0.023	
Normal		0	17	0.022	
Normal		+10	11	0.014	
Normal		+20	18	0.023	
Normal		+30	19	0.024	
Normal		+40	20	<b>0.026</b>	
Normal		+50	16	0.020	
High	4.35	+20	17	0.022	
BATT.ENDPOINT	3.00	+20	19	0.024	



LTE Band 17, 64QAM, Channel 23790, Frequency 710MHz Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev.(Hz)	Deviation (ppm)	Result
Normal	3.80	+20(Ref)	8	0.011	PASS
Normal		-20	20	0.028	
Normal		-10	13	0.018	
Normal		0	-21	-0.030	
Normal		+10	20	0.028	
Normal		+20	-3	-0.004	
Normal		+30	15	0.021	
Normal		+40	19	0.027	
Normal		+50	-18	-0.025	
High	4.35	+20	23	<b>0.032</b>	
BATT.ENDPOINT	3.00	+20	3	0.004	

LTE Band 40, Block A, 64QAM, Channel 38750, Frequency 2310MHz Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.80	+20(Ref)	13	0.006	PASS
Normal		-20	-20	-0.009	
Normal		-10	-17	-0.007	
Normal		0	4	0.002	
Normal		+10	20	<b>0.009</b>	
Normal		+20	-5	-0.002	
Normal		+30	14	0.006	
Normal		+40	15	0.006	
Normal		+50	19	0.008	
High	4.35	+20	13	0.006	
BATT.ENDPOINT	3.00	+20	14	0.006	



LTE Band 40 Block B, 64QAM, Channel 39200, Frequency 2355MHz					
Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp (°C)	Fre. Dev. (Hz)	Deviation (ppm)	Result
Normal	3.80	+20(Ref)	19	0.008	PASS
Normal		-20	20	0.008	
Normal		-10	14	0.006	
Normal		0	19	0.008	
Normal		+10	18	0.008	
Normal		+20	14	0.006	
Normal		+30	18	0.008	
Normal		+40	14	0.006	
Normal		+50	22	0.009	
High	4.35	+20	23	<b>0.010</b>	
BATT.ENDPOINT	3.00	+20	-15	-0.006	

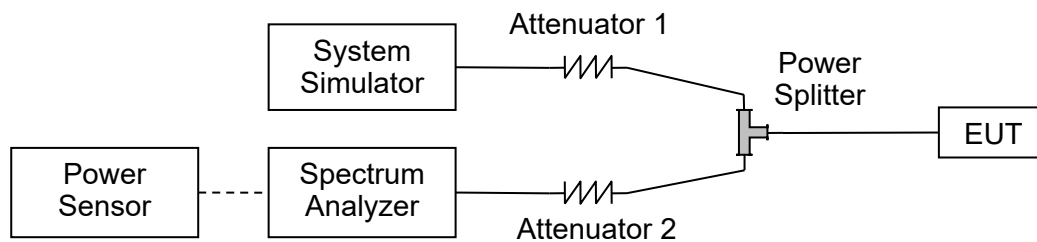
LTE Band 41, 64QAM, Channel 40620, Frequency 2593MHz					
Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev.(Hz)	Deviation (ppm)	Result
Normal	3.80	+20(Ref)	-18	-0.007	PASS
Normal		-20	21	0.008	
Normal		-10	22	0.008	
Normal		0	23	<b>0.009</b>	
Normal		+10	2	0.001	
Normal		+20	20	0.008	
Normal		+30	6	0.002	
Normal		+40	18	0.007	
Normal		+50	9	0.003	
High	4.35	+20	20	0.008	
BATT.ENDPOINT	3.00	+20	16	0.006	

## 2.4. Peak to Average Ratio

### 2.4.1. Requirement

According to FCC section 24.232(d) and 27.50(d), the peak to average ratio (PAR) of the transmission may not exceed 13dB.

### 2.4.2. 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.

### 2.4.3. Test Procedure

KDB 971168 D01v03 Section 5.7 and ANSI/TIA-603-E-2016.

### 2.4.4. Test Result

Record the maximum PAPR level associated with a probability of 0.1%.





LTE Band 2					
BW(MHz)	Channel Level	Modulation	PAR Radio(dB)	Limit(dB)	Verdict
1.4	Low	QPSK	4.93	<=13	PASS
	Low	16QAM	5.72	<=13	PASS
	Low	64QAM	6.18	<=13	PASS
	Mid	QPSK	4.99	<=13	PASS
	Mid	16QAM	5.77	<=13	PASS
	Mid	64QAM	6.16	<=13	PASS
	High	QPSK	4.24	<=13	PASS
	High	16QAM	5.09	<=13	PASS
	High	64QAM	5.73	<=13	PASS
3	Low	QPSK	5.17	<=13	PASS
	Low	16QAM	5.95	<=13	PASS
	Low	64QAM	6.29	<=13	PASS
	Mid	QPSK	5.10	<=13	PASS
	Mid	16QAM	5.85	<=13	PASS
	Mid	64QAM	6.18	<=13	PASS
	High	QPSK	4.48	<=13	PASS
	High	16QAM	5.38	<=13	PASS
	High	64QAM	5.90	<=13	PASS
5	Low	QPSK	5.39	<=13	PASS
	Low	16QAM	6.06	<=13	PASS
	Low	64QAM	6.41	<=13	PASS
	Mid	QPSK	5.35	<=13	PASS
	Mid	16QAM	6.00	<=13	PASS
	Mid	64QAM	6.28	<=13	PASS
	High	QPSK	4.93	<=13	PASS
	High	16QAM	5.63	<=13	PASS
	High	64QAM	6.07	<=13	PASS
10	Low	QPSK	5.52	<=13	PASS
	Low	16QAM	6.17	<=13	PASS
	Low	64QAM	6.51	<=13	PASS
	Mid	QPSK	5.42	<=13	PASS
	Mid	16QAM	6.03	<=13	PASS
	Mid	64QAM	6.31	<=13	PASS
	High	QPSK	5.17	<=13	PASS
	High	16QAM	5.87	<=13	PASS
	High	64QAM	6.24	<=13	PASS



15	Low	QPSK	5.43	<=13	PASS
	Low	16QAM	6.12	<=13	PASS
	Low	64QAM	6.57	<=13	PASS
	Mid	QPSK	5.36	<=13	PASS
	Mid	16QAM	6.10	<=13	PASS
	Mid	64QAM	6.37	<=13	PASS
	High	QPSK	5.12	<=13	PASS
	High	16QAM	5.97	<=13	PASS
	High	64QAM	6.34	<=13	PASS
20	Low	QPSK	5.51	<=13	PASS
	Low	16QAM	6.23	<=13	PASS
	Low	64QAM	6.50	<=13	PASS
	Mid	QPSK	5.41	<=13	PASS
	Mid	16QAM	6.15	<=13	PASS
	Mid	64QAM	6.43	<=13	PASS
	High	QPSK	5.29	<=13	PASS
	High	16QAM	6.10	<=13	PASS
	High	64QAM	6.46	<=13	PASS



LTE Band 4					
BW(MHz)	Channel Level	Modulation	PAR Radio(dB)	Limit(dB)	Verdict
1.4	Low	QPSK	5.47	<=13	PASS
	Low	16QAM	6.25	<=13	PASS
	Low	64QAM	6.20	<=13	PASS
	Mid	QPSK	5.81	<=13	PASS
	Mid	16QAM	6.51	<=13	PASS
	Mid	64QAM	6.36	<=13	PASS
	High	QPSK	5.77	<=13	PASS
	High	16QAM	6.52	<=13	PASS
	High	64QAM	6.41	<=13	PASS
3	Low	QPSK	5.66	<=13	PASS
	Low	16QAM	6.47	<=13	PASS
	Low	64QAM	6.30	<=13	PASS
	Mid	QPSK	6.29	<=13	PASS
	Mid	16QAM	7.12	<=13	PASS
	Mid	64QAM	7.04	<=13	PASS
	High	QPSK	7.69	<=13	PASS
	High	16QAM	7.66	<=13	PASS
	High	64QAM	8.71	<=13	PASS
5	Low	QPSK	5.67	<=13	PASS
	Low	16QAM	6.38	<=13	PASS
	Low	64QAM	6.29	<=13	PASS
	Mid	QPSK	5.89	<=13	PASS
	Mid	16QAM	6.46	<=13	PASS
	Mid	64QAM	6.32	<=13	PASS
	High	QPSK	5.88	<=13	PASS
	High	16QAM	6.49	<=13	PASS
	High	64QAM	6.38	<=13	PASS
10	Low	QPSK	5.63	<=13	PASS
	Low	16QAM	6.33	<=13	PASS
	Low	64QAM	6.38	<=13	PASS
	Mid	QPSK	5.92	<=13	PASS
	Mid	16QAM	6.44	<=13	PASS
	Mid	64QAM	6.46	<=13	PASS
	High	QPSK	5.79	<=13	PASS
	High	16QAM	6.45	<=13	PASS
	High	64QAM	6.44	<=13	PASS



15	Low	QPSK	5.69	$\leq 13$	PASS
	Low	16QAM	6.34	$\leq 13$	PASS
	Low	64QAM	6.31	$\leq 13$	PASS
	Mid	QPSK	6.01	$\leq 13$	PASS
	Mid	16QAM	6.46	$\leq 13$	PASS
	Mid	64QAM	6.47	$\leq 13$	PASS
	High	QPSK	5.66	$\leq 13$	PASS
	High	16QAM	6.35	$\leq 13$	PASS
	High	64QAM	6.30	$\leq 13$	PASS
20	Low	QPSK	5.83	$\leq 13$	PASS
	Low	16QAM	6.44	$\leq 13$	PASS
	Low	64QAM	6.39	$\leq 13$	PASS
	Mid	QPSK	5.85	$\leq 13$	PASS
	Mid	16QAM	6.50	$\leq 13$	PASS
	Mid	64QAM	6.45	$\leq 13$	PASS
	High	QPSK	5.54	$\leq 13$	PASS
	High	16QAM	6.30	$\leq 13$	PASS
	High	64QAM	6.42	$\leq 13$	PASS