



# TEST REPORT

**APPLICANT** : Reliance Communications LLC

**PRODUCT NAME** : Orbic Trophy 5G UW

**MODEL NAME** : R667L5U

**BRAND NAME** : Orbic

**FCC ID** : 2ABGH-R667L5U

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

**RECEIPT DATE** : 2023-11-07

**TEST DATE** : 2023-12-01 to 2024-02-29

**ISSUE DATE** : 2024-04-22



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Change History		
Version	Date	Reason for change
1.0	2024-04-22	First edition



# 1. Technical Information

**Note:** Provide by applicant.

## 1.1. Applicant and Manufacturer Information

<b>Applicant:</b>	Reliance Communications LLC
<b>Applicant Address:</b>	555 Wireless Blvd. Hauppauge, NY 11788, USA
<b>Manufacturer:</b>	Unimaxcomm
<b>Manufacturer Address:</b>	35F,HBC HuiLong Center Building-II Minzhi Street,Longhua, Shenzhen, P.R. China 518110

## 1.2. Equipment Under Test (EUT) Description

<b>Product Name:</b>	Orbic Trophy 5G UW	
<b>Sample No.:</b>	1#	
<b>Hardware Version:</b>	V1.0	
<b>Software Version:</b>	R667L5U_v1.1.2_BVZ	
<b>Modulation Type:</b>	QPSK, 16QAM, 64QAM	
<b>Operation Band:</b>	Band 2 / 4 / 5 / 7 / 12 / 13 / 66	
<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
LTE Band 66	Tx: 1710MHz –1780MHz	
	Rx: 2110MHz–2200MHz	
<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 66	1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
<b>Antenna Type:</b>	PIFA Antenna	
<b>Antenna Gain:</b>	LTE Band 2	1.35dBi
	LTE Band 4	0.31dBi
	LTE Band 5	-2.85dBi
	LTE Band 7	-1.97dBi
	LTE Band 12	-1.01dBi
	LTE Band 13	-4.05dBi
	LTE Band 66	0.89dBi
<b>Accessory Information:</b>	Battery	
	Brand Name:	Shenbird
	Model No.:	BTE-5003
	Serial No.:	N/A
	Capacity:	5000mAh
	Rated Voltage:	3.89V
	Charge Limit:	4.48V
	Manufacturer:	Shenbird New Energy (Huizhou) Co., Ltd.
	AC Adapter	
	Brand Name:	Orbic
	Model No.:	OACH023US1
	Serial No.:	N/A
	Rated Output:	5V=3A, 9V=2A, 12V=1.5A
	Rated Input:	100-240V~50/60Hz, 0.5A
	Manufacturer 1:	WATAI ELECTRONICS PRIVATE LIMITED
	Manufacturer 2:	KANGYIN ELECTRONIC TECHNOLOGY CO.,LTD
	USB Cable	
Model No.:	HX-YLMK-06	
Manufacturer:	HUIZHOU WASHIN ELECTRONICS CO.,LTD	

**Note 1:** 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	0.265	0.218	0.171	18M0G7D	18M0W7D	18M0W7D	
15	0.264	0.218	0.171	13M5G7D	13M5W7D	13M5W7D	
10	0.262	0.215	0.170	9M03G7D	8M99W7D	9M00W7D	
5	0.261	0.214	0.167	4M51G7D	4M51W7D	4M52W7D	
3	0.259	0.215	0.171	2M70G7D	2M70W7D	2M70W7D	
1.4	0.260	0.219	0.168	1M10G7D	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	0.206	0.168	0.137	18M0G7D	18M0W7D	18M0W7D	
15	0.204	0.173	0.135	13M5G7D	13M5W7D	13M5W7D	
10	0.205	0.173	0.136	9M01G7D	8M99W7D	9M02W7D	
5	0.203	0.169	0.134	4M51G7D	4M51W7D	4M52W7D	
3	0.203	0.170	0.134	2M70G7D	2M70W7D	2M71W7D	
1.4	0.204	0.172	0.134	1M10G7D	1M10W7D	1M10W7D	
<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	0.078	0.065	0.050	9M01G7D	8M96W7D	8M99W7D	
5	0.077	0.065	0.049	4M51G7D	4M51W7D	4M52W7D	
3	0.076	0.064	0.049	2M70G7D	2M70W7D	2M71W7D	
1.4	0.077	0.066	0.049	1M09G7D	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	0.122	0.102	0.082	18M0G7D	18M0W7D	18M0W7D	
15	0.121	0.103	0.080	13M5G7D	13M5W7D	13M5W7D	
10	0.121	0.102	0.079	9M00G7D	8M97W7D	8M99W7D	
5	0.121	0.103	0.079	4M50G7D	4M51W7D	4M52W7D	
<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	0.121	0.100	0.079	9M04G7D	8M99W7D	9M00W7D	
5	0.119	0.099	0.076	4M50G7D	4M52W7D	4M51W7D	
3	0.119	0.099	0.078	2M70G7D	2M71W7D	2M70W7D	
1.4	0.119	0.098	0.076	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	0.060	0.049	0.039	8M96G7D	8M93W7D	8M96W7D
5	0.059	0.049	0.038	4M52G7D	4M51W7D	4M52W7D
<b>LTE Band 66</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	0.242	0.199	0.153	18M0G7D	18M0W7D	18M0W7D
15	0.240	0.198	0.153	13M5G7D	13M5W7D	13M5W7D
10	0.239	0.199	0.152	9M04G7D	8M99W7D	9M01W7D
5	0.237	0.197	0.157	4M51G7D	4M51W7D	4M51W7D
3	0.238	0.198	0.156	2M70G7D	2M71W7D	2M71W7D
1.4	0.237	0.196	0.152	1M10G7D	1M10W7D	1M10W7D



## 1.4. Test Standards and Results

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

No.	Identity	Document Title
1	47 CFR Part 2	Frequency Allocations and Radio Treaty Matters; General Rules and Regulations
2	47 CFR Part 22	Public Mobile Services
3	47 CFR Part 24	Personal Communications Services
4	47 CFR Part 27	Miscellaneous Wireless Communications Services

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

Section	Description	Test Date	Test Engineer	Result	Method Determination /Remark
2.1046 22.913(a)(2) 24.232(c) 27.50(b)(10) 27.50(c)(10) 27.50(d)(4) 27.50(h)(2)	Transmitter Conducted Output Power and E.R.P./E.I.R.P.	Feb. 29, 2024	Shen Biaohong Gan Jing	PASS	No deviation
2.1049	Occupied Bandwidth	Dec. 01&08, 2023	Gan Jing	PASS	No deviation
2.1055 22.355 24.235 27.54	Frequency Stability	Dec. 29, 2023	Gan Jing	PASS	No deviation
24.232(d), 27.50(d)(5)	Peak to Average Radio	Dec. 25, 2023	Gan Jing	PASS	No deviation
2.1051 22.917(a) 24.238(a) 27.53(c)(2) 27.53(g) 27.53(h) 27.53(m)(4)	Conducted Spurious Emissions	Dec. 01&08, 2023	Gan Jing	PASS	No deviation
2.1051 22.917(a)	Band Edge	Dec. 01&08, 2023	Gan Jing	PASS	No deviation



24.238(a) 27.53(c)(2) 27.53(g) 27.53(h) 27.53(m)(4)					
2.1053 22.917(a) 24.238(a) 27.53(c)(2) 27.53(g) 27.53(h) 27.53(m)(4)	Radiated Spurious Emissions	Jan. 03&12, 2024	Gao Jianrou	PASS	No deviation
<p><b>Note 1:</b> The tests were performed according to the method of measurements prescribed in KDB 971168 D01 v03 and ANSI/TIA-603-E-2016.</p> <p><b>Note 2:</b> 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.</p> <p><b>Note 3:</b> When the test result is a critical value, we will use the measurement uncertainty give the judgment result based on the 95% confidence intervals.</p>					

## 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 F&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 2/25, 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 4/66, Fixed, mobile and portable (hand-held) stations in the 1710-1755MHz band are limited to 1wat E.I.R.P.

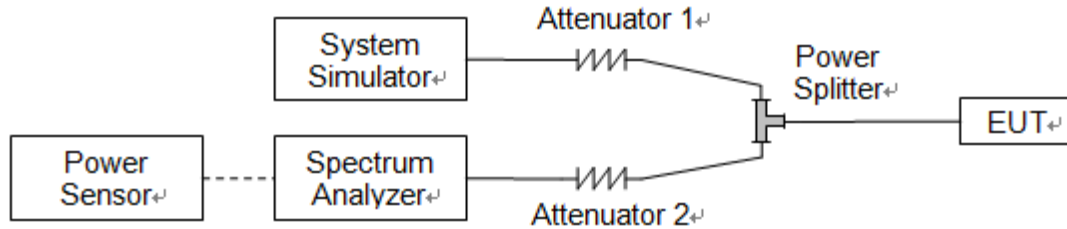
According to FCC section 22.913 (a)(2) for LTE Band 5/26, the E.R.P. of mobile transmitters and auxiliary test transmitters must not exceed 7 watts.

According to FCC section 27.50 (h)(2) for LTE Band 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 (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 (c)(10) for LTE Band 12/71, Portable stations (hand-held devices) operating in the 704-716MHz band are limited to 3watts E.R.P.

### 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	22.85	22.89	22.82
20	QPSK	1	49	22.86	22.80	22.66
20	QPSK	1	99	22.71	22.76	22.75
20	QPSK	50	0	21.74	21.84	21.76
20	QPSK	50	24	21.71	21.69	21.75
20	QPSK	50	50	21.64	21.64	21.65
20	QPSK	100	0	21.67	21.69	21.64
20	16QAM	1	0	21.87	22.03	21.92
20	16QAM	1	49	22.00	22.01	21.80
20	16QAM	1	99	21.89	21.98	21.96
20	16QAM	50	0	20.78	20.82	20.65
20	16QAM	50	24	20.62	20.77	20.66
20	16QAM	50	50	20.70	20.67	20.79
20	16QAM	100	0	20.54	20.68	20.72
20	64QAM	1	0	20.72	20.97	20.89
20	64QAM	1	49	20.69	20.62	20.86
20	64QAM	1	99	20.81	20.82	20.90
20	64QAM	50	0	19.78	19.85	19.77
20	64QAM	50	24	19.66	19.72	19.60
20	64QAM	50	50	19.75	19.62	19.65
20	64QAM	100	0	19.69	19.81	19.76



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	22.78	22.86	22.80
15	QPSK	1	37	22.74	22.85	22.71
15	QPSK	1	74	22.61	22.80	22.70
15	QPSK	36	0	21.72	21.95	21.84
15	QPSK	36	20	21.72	21.68	21.65
15	QPSK	36	39	21.64	21.63	21.63
15	QPSK	75	0	21.55	21.74	21.82
15	16QAM	1	0	22.02	22.03	21.97
15	16QAM	1	37	21.95	22.00	21.92
15	16QAM	1	74	21.77	21.95	21.81
15	16QAM	36	0	20.90	20.92	20.77
15	16QAM	36	20	20.83	20.71	20.63
15	16QAM	36	39	20.69	20.77	20.82
15	16QAM	75	0	20.59	20.71	20.71
15	64QAM	1	0	20.80	20.87	20.86
15	64QAM	1	37	20.66	20.82	20.97
15	64QAM	1	74	20.78	20.74	20.86
15	64QAM	36	0	19.76	19.90	19.67
15	64QAM	36	20	19.57	19.88	19.67
15	64QAM	36	39	19.71	19.60	19.65
15	64QAM	75	0	19.54	19.64	19.66



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	22.75	22.84	22.81
10	QPSK	1	25	22.82	22.74	22.64
10	QPSK	1	49	22.75	22.75	22.60
10	QPSK	25	0	21.76	21.85	21.79
10	QPSK	25	12	21.72	21.79	21.78
10	QPSK	25	25	21.67	21.67	21.73
10	QPSK	50	0	21.75	21.65	21.68
10	16QAM	1	0	21.92	21.98	21.96
10	16QAM	1	25	21.91	21.96	21.95
10	16QAM	1	49	21.73	21.86	21.94
10	16QAM	25	0	20.77	20.91	20.69
10	16QAM	25	12	20.78	20.70	20.77
10	16QAM	25	25	20.55	20.73	20.79
10	16QAM	50	0	20.63	20.77	20.67
10	64QAM	1	0	20.71	20.95	20.77
10	64QAM	1	25	20.79	20.75	20.86
10	64QAM	1	49	20.68	20.60	20.90
10	64QAM	25	0	19.69	19.86	19.75
10	64QAM	25	12	19.55	19.72	19.60
10	64QAM	25	25	19.76	19.54	19.53
10	64QAM	50	0	19.66	19.86	19.71



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	22.75	22.82	22.77
5	QPSK	1	12	22.75	22.60	22.63
5	QPSK	1	24	22.54	22.68	22.81
5	QPSK	12	0	21.68	21.85	21.78
5	QPSK	12	7	21.79	21.72	21.67
5	QPSK	12	13	21.65	21.65	21.58
5	QPSK	25	0	21.60	21.60	21.64
5	16QAM	1	0	21.82	21.96	21.87
5	16QAM	1	12	21.92	21.92	21.86
5	16QAM	1	24	21.96	21.87	21.95
5	16QAM	12	0	20.76	20.83	20.55
5	16QAM	12	7	20.60	20.63	20.65
5	16QAM	12	13	20.59	20.79	20.73
5	16QAM	25	0	20.44	20.67	20.63
5	64QAM	1	0	20.78	20.89	20.74
5	64QAM	1	12	20.82	20.84	20.88
5	64QAM	1	24	20.82	20.70	20.82
5	64QAM	12	0	19.69	19.87	19.88
5	64QAM	12	7	19.70	19.77	19.71
5	64QAM	12	13	19.70	19.57	19.70
5	64QAM	25	0	19.57	19.86	19.68



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	22.69	22.79	22.75
3	QPSK	1	8	22.77	22.74	22.73
3	QPSK	1	14	22.64	22.76	22.65
3	QPSK	8	0	21.72	21.78	21.69
3	QPSK	8	4	21.74	21.56	21.57
3	QPSK	8	7	21.68	21.70	21.67
3	QPSK	15	0	21.72	21.77	21.67
3	16QAM	1	0	21.88	21.95	21.93
3	16QAM	1	8	21.98	21.92	21.97
3	16QAM	1	14	21.77	21.88	21.86
3	16QAM	8	0	20.82	20.87	20.63
3	16QAM	8	4	20.60	20.62	20.85
3	16QAM	8	7	20.52	20.76	20.71
3	16QAM	15	0	20.62	20.69	20.68
3	64QAM	1	0	20.80	20.86	20.97
3	64QAM	1	8	20.78	20.61	20.84
3	64QAM	1	14	20.78	20.69	20.87
3	64QAM	8	0	19.71	19.76	19.73
3	64QAM	8	4	19.71	19.89	19.64
3	64QAM	8	7	19.56	19.54	19.56
3	64QAM	15	0	19.64	19.79	19.59



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	22.72	22.80	22.74
1.4	QPSK	1	3	22.66	22.70	22.78
1.4	QPSK	1	5	22.72	22.73	22.57
1.4	QPSK	3	0	21.86	21.88	21.80
1.4	QPSK	3	1	21.83	21.83	21.82
1.4	QPSK	3	3	21.83	21.85	21.81
1.4	QPSK	6	0	21.70	21.69	21.73
1.4	16QAM	1	0	22.05	22.03	21.88
1.4	16QAM	1	3	21.82	21.99	21.94
1.4	16QAM	1	5	21.86	21.94	21.85
1.4	16QAM	3	0	20.83	20.90	20.80
1.4	16QAM	3	1	20.84	20.87	20.85
1.4	16QAM	3	3	20.81	20.80	20.83
1.4	16QAM	6	0	20.47	20.68	20.57
1.4	64QAM	1	0	20.71	20.90	20.74
1.4	64QAM	1	3	20.66	20.62	20.82
1.4	64QAM	1	5	20.72	20.70	20.70
1.4	64QAM	3	0	19.87	19.94	19.88
1.4	64QAM	3	1	19.81	19.89	19.86
1.4	64QAM	3	3	19.85	19.82	19.81
1.4	64QAM	6	0	19.71	19.79	19.67





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	22.76	22.83	22.80
20	QPSK	1	49	22.78	22.60	22.72
20	QPSK	1	99	22.69	22.75	22.67
20	QPSK	50	0	21.74	21.84	21.72
20	QPSK	50	24	21.80	21.66	21.74
20	QPSK	50	50	21.62	21.79	21.68
20	QPSK	100	0	21.70	21.72	21.66
20	16QAM	1	0	21.90	21.95	21.93
20	16QAM	1	49	21.90	21.90	21.87
20	16QAM	1	99	21.89	21.88	21.84
20	16QAM	50	0	20.72	20.87	20.70
20	16QAM	50	24	20.79	20.61	20.66
20	16QAM	50	50	20.70	20.69	20.63
20	16QAM	100	0	20.56	20.79	20.51
20	64QAM	1	0	20.88	21.05	20.93
20	64QAM	1	49	20.68	20.83	20.80
20	64QAM	1	99	20.72	20.72	20.73
20	64QAM	50	0	19.65	19.85	19.72
20	64QAM	50	24	19.58	19.80	19.61
20	64QAM	50	50	19.51	19.73	19.57
20	64QAM	100	0	19.70	19.79	19.64



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	22.72	22.79	22.73
15	QPSK	1	37	22.75	22.75	22.70
15	QPSK	1	74	22.73	22.66	22.74
15	QPSK	36	0	21.71	21.81	21.76
15	QPSK	36	20	21.73	21.66	21.63
15	QPSK	36	39	21.65	21.68	21.70
15	QPSK	75	0	21.77	21.71	21.75
15	16QAM	1	0	21.83	22.08	21.92
15	16QAM	1	37	21.96	22.03	21.74
15	16QAM	1	74	21.98	21.93	21.94
15	16QAM	36	0	20.74	20.88	20.80
15	16QAM	36	20	20.66	20.70	20.61
15	16QAM	36	39	20.56	20.66	20.66
15	16QAM	75	0	20.61	20.86	20.65
15	64QAM	1	0	20.72	21.00	20.86
15	64QAM	1	37	20.76	20.85	20.78
15	64QAM	1	74	20.83	20.69	20.72
15	64QAM	36	0	19.88	19.91	19.82
15	64QAM	36	20	19.79	19.83	19.77
15	64QAM	36	39	19.70	19.66	19.66
15	64QAM	75	0	19.71	19.67	19.76



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	22.77	22.80	22.73
10	QPSK	1	25	22.71	22.60	22.69
10	QPSK	1	49	22.59	22.68	22.57
10	QPSK	25	0	21.74	21.86	21.82
10	QPSK	25	12	21.72	21.73	21.55
10	QPSK	25	25	21.75	21.74	21.58
10	QPSK	50	0	21.68	21.73	21.78
10	16QAM	1	0	21.86	22.08	21.96
10	16QAM	1	25	22.04	21.91	21.84
10	16QAM	1	49	21.79	21.87	21.92
10	16QAM	25	0	20.84	20.89	20.73
10	16QAM	25	12	20.80	20.68	20.72
10	16QAM	25	25	20.70	20.55	20.68
10	16QAM	50	0	20.63	20.87	20.72
10	64QAM	1	0	20.82	21.03	20.83
10	64QAM	1	25	20.76	20.77	20.97
10	64QAM	1	49	20.70	20.85	20.78
10	64QAM	25	0	19.78	19.80	19.71
10	64QAM	25	12	19.54	19.80	19.52
10	64QAM	25	25	19.66	19.54	19.54
10	64QAM	50	0	19.72	19.70	19.61



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	22.73	22.76	22.74
5	QPSK	1	12	22.68	22.70	22.73
5	QPSK	1	24	22.75	22.69	22.57
5	QPSK	12	0	21.80	21.82	21.77
5	QPSK	12	7	21.75	21.57	21.55
5	QPSK	12	13	21.68	21.77	21.63
5	QPSK	25	0	21.54	21.80	21.75
5	16QAM	1	0	21.91	21.98	21.88
5	16QAM	1	12	21.88	21.92	21.79
5	16QAM	1	24	21.88	21.85	21.82
5	16QAM	12	0	20.74	20.85	20.64
5	16QAM	12	7	20.81	20.64	20.63
5	16QAM	12	13	20.72	20.63	20.75
5	16QAM	25	0	20.60	20.72	20.63
5	64QAM	1	0	20.76	20.95	20.78
5	64QAM	1	12	20.63	20.62	20.91
5	64QAM	1	24	20.79	20.83	20.74
5	64QAM	12	0	19.66	19.86	19.72
5	64QAM	12	7	19.72	19.84	19.69
5	64QAM	12	13	19.54	19.54	19.50
5	64QAM	25	0	19.53	19.82	19.73



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	22.68	22.77	22.73
3	QPSK	1	8	22.65	22.69	22.72
3	QPSK	1	14	22.73	22.68	22.66
3	QPSK	8	0	21.78	21.82	21.75
3	QPSK	8	4	21.72	21.76	21.61
3	QPSK	8	7	21.69	21.77	21.54
3	QPSK	15	0	21.56	21.79	21.82
3	16QAM	1	0	21.80	22.00	21.95
3	16QAM	1	8	21.97	21.98	21.97
3	16QAM	1	14	21.81	21.95	21.91
3	16QAM	8	0	20.73	20.85	20.72
3	16QAM	8	4	20.74	20.76	20.80
3	16QAM	8	7	20.60	20.65	20.74
3	16QAM	15	0	20.63	20.72	20.53
3	64QAM	1	0	20.89	20.95	20.82
3	64QAM	1	8	20.65	20.66	20.87
3	64QAM	1	14	20.69	20.75	20.93
3	64QAM	8	0	19.64	19.86	19.76
3	64QAM	8	4	19.74	19.87	19.55
3	64QAM	8	7	19.59	19.71	19.67
3	64QAM	15	0	19.67	19.69	19.57



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				19957	20175	20393
Frequency (MHz)				1710.7	1732.5	1754.3
1.4	QPSK	1	0	22.76	22.78	22.73
1.4	QPSK	1	3	22.66	22.69	22.63
1.4	QPSK	1	5	22.70	22.75	22.71
1.4	QPSK	3	0	21.87	21.90	21.82
1.4	QPSK	3	1	21.85	21.80	21.87
1.4	QPSK	3	3	21.83	21.85	21.81
1.4	QPSK	6	0	21.69	21.73	21.86
1.4	16QAM	1	0	22.04	22.05	22.03
1.4	16QAM	1	3	22.04	22.03	21.76
1.4	16QAM	1	5	21.90	21.84	21.99
1.4	16QAM	3	0	20.84	20.86	20.82
1.4	16QAM	3	1	20.81	20.83	20.81
1.4	16QAM	3	3	20.83	20.81	20.80
1.4	16QAM	6	0	20.59	20.82	20.56
1.4	64QAM	1	0	20.96	20.97	20.75
1.4	64QAM	1	3	20.75	20.84	20.93
1.4	64QAM	1	5	20.66	20.61	20.97
1.4	64QAM	3	0	19.85	19.94	19.88
1.4	64QAM	3	1	19.81	19.90	19.87
1.4	64QAM	3	3	19.82	19.86	19.80
1.4	64QAM	6	0	19.75	19.81	19.69



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	23.79	23.91	23.84
10	QPSK	1	25	23.82	23.86	23.83
10	QPSK	1	49	23.68	23.75	23.66
10	QPSK	25	0	22.81	22.85	22.83
10	QPSK	25	12	22.73	22.74	22.78
10	QPSK	25	25	22.70	22.75	22.69
10	QPSK	50	0	22.66	22.82	22.70
10	16QAM	1	0	22.89	23.10	22.94
10	16QAM	1	25	22.91	22.97	22.98
10	16QAM	1	49	22.98	22.97	22.90
10	16QAM	25	0	21.80	21.85	21.72
10	16QAM	25	12	21.60	21.75	21.85
10	16QAM	25	25	21.59	21.76	21.83
10	16QAM	50	0	21.64	21.72	21.58
10	64QAM	1	0	21.79	21.99	21.73
10	64QAM	1	25	21.75	21.86	21.95
10	64QAM	1	49	21.77	21.83	21.82
10	64QAM	25	0	20.72	20.78	20.71
10	64QAM	25	12	20.66	20.76	20.68
10	64QAM	25	25	20.53	20.73	20.61
10	64QAM	50	0	20.65	20.75	20.67



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	23.77	23.85	23.79
5	QPSK	1	12	23.74	23.72	23.73
5	QPSK	1	24	23.63	23.72	23.60
5	QPSK	12	0	22.86	22.95	22.69
5	QPSK	12	7	22.84	22.70	22.73
5	QPSK	12	13	22.79	22.70	22.66
5	QPSK	25	0	22.65	22.82	22.73
5	16QAM	1	0	22.80	23.11	23.02
5	16QAM	1	12	22.92	23.06	22.98
5	16QAM	1	24	22.82	22.87	22.96
5	16QAM	12	0	21.81	21.87	21.69
5	16QAM	12	7	21.73	21.70	21.86
5	16QAM	12	13	21.65	21.69	21.81
5	16QAM	25	0	21.63	21.71	21.74
5	64QAM	1	0	21.83	21.94	21.88
5	64QAM	1	12	21.68	21.73	21.75
5	64QAM	1	24	21.70	21.81	21.83
5	64QAM	12	0	20.63	20.84	20.79
5	64QAM	12	7	20.68	20.70	20.66
5	64QAM	12	13	20.62	20.73	20.65
5	64QAM	25	0	20.66	20.71	20.70





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	23.79	23.83	23.78
3	QPSK	1	8	23.74	23.78	23.75
3	QPSK	1	14	23.72	23.76	23.60
3	QPSK	8	0	22.73	22.83	22.82
3	QPSK	8	4	22.77	22.74	22.69
3	QPSK	8	7	22.76	22.78	22.59
3	QPSK	15	0	22.69	22.68	22.68
3	16QAM	1	0	22.91	23.06	22.94
3	16QAM	1	8	22.87	23.05	22.93
3	16QAM	1	14	22.88	22.87	23.00
3	16QAM	8	0	21.80	21.80	21.74
3	16QAM	8	4	21.63	21.67	21.65
3	16QAM	8	7	21.69	21.63	21.68
3	16QAM	15	0	21.65	21.77	21.74
3	64QAM	1	0	21.79	21.93	21.86
3	64QAM	1	8	21.73	21.74	21.81
3	64QAM	1	14	21.77	21.72	21.81
3	64QAM	8	0	20.75	20.81	20.86
3	64QAM	8	4	20.75	20.81	20.71
3	64QAM	8	7	20.70	20.66	20.74
3	64QAM	15	0	20.71	20.86	20.69



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	23.71	23.86	23.74
1.4	QPSK	1	3	23.70	23.77	23.68
1.4	QPSK	1	5	23.70	23.67	23.61
1.4	QPSK	3	0	22.84	22.99	22.94
1.4	QPSK	3	1	22.85	22.85	22.84
1.4	QPSK	3	3	22.84	22.86	22.87
1.4	QPSK	6	0	22.56	22.72	22.67
1.4	16QAM	1	0	22.82	23.18	23.00
1.4	16QAM	1	3	22.87	22.93	22.81
1.4	16QAM	1	5	22.97	22.88	22.85
1.4	16QAM	3	0	21.86	21.85	21.82
1.4	16QAM	3	1	21.88	21.86	21.84
1.4	16QAM	3	3	21.82	21.83	21.81
1.4	16QAM	6	0	21.56	21.81	21.59
1.4	64QAM	1	0	21.91	21.88	21.86
1.4	64QAM	1	3	21.77	21.65	21.89
1.4	64QAM	1	5	21.73	21.70	21.78
1.4	64QAM	3	0	20.85	20.85	20.86
1.4	64QAM	3	1	20.81	20.89	20.88
1.4	64QAM	3	3	20.87	20.85	20.82
1.4	64QAM	6	0	20.51	20.68	20.74



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	22.73	22.84	22.79
20	QPSK	1	49	22.67	22.80	22.74
20	QPSK	1	99	22.64	22.68	22.61
20	QPSK	50	0	21.77	21.86	21.80
20	QPSK	50	24	21.78	21.80	21.74
20	QPSK	50	50	21.59	21.75	21.57
20	QPSK	100	0	21.59	21.68	21.75
20	16QAM	1	0	21.88	22.04	21.95
20	16QAM	1	49	21.87	22.03	21.93
20	16QAM	1	99	21.87	21.94	21.93
20	16QAM	50	0	20.77	20.99	20.71
20	16QAM	50	24	20.75	20.73	20.80
20	16QAM	50	50	20.68	20.79	20.73
20	16QAM	100	0	20.44	20.77	20.71
20	64QAM	1	0	20.93	21.09	20.83
20	64QAM	1	49	20.81	20.73	20.92
20	64QAM	1	99	20.60	20.77	20.87
20	64QAM	50	0	19.78	19.74	19.84
20	64QAM	50	24	19.68	19.74	19.58
20	64QAM	50	50	19.64	19.61	19.59
20	64QAM	100	0	19.70	19.88	19.69



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	22.77	22.80	22.79
15	QPSK	1	37	22.76	22.67	22.71
15	QPSK	1	74	22.64	22.69	22.61
15	QPSK	36	0	21.76	21.79	21.72
15	QPSK	36	20	21.74	21.73	21.57
15	QPSK	36	39	21.65	21.70	21.73
15	QPSK	75	0	21.57	21.70	21.63
15	16QAM	1	0	22.02	22.09	22.00
15	16QAM	1	37	21.99	22.05	21.98
15	16QAM	1	74	21.87	21.87	21.84
15	16QAM	36	0	20.83	20.85	20.76
15	16QAM	36	20	20.63	20.53	20.65
15	16QAM	36	39	20.70	20.59	20.71
15	16QAM	75	0	20.66	20.77	20.71
15	64QAM	1	0	20.90	21.00	20.79
15	64QAM	1	37	20.83	20.75	20.96
15	64QAM	1	74	20.78	20.70	20.97
15	64QAM	36	0	19.78	19.80	19.73
15	64QAM	36	20	19.70	19.70	19.58
15	64QAM	36	39	19.76	19.69	19.59
15	64QAM	75	0	19.56	19.87	19.80



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				20800	21100	21400
Frequency (MHz)				2505	2535	2565
10	QPSK	1	0	22.66	22.81	22.75
10	QPSK	1	25	22.72	22.64	22.71
10	QPSK	1	49	22.60	22.68	22.66
10	QPSK	25	0	21.83	21.88	21.82
10	QPSK	25	12	21.74	21.68	21.76
10	QPSK	25	25	21.71	21.70	21.69
10	QPSK	50	0	21.64	21.62	21.78
10	16QAM	1	0	21.96	22.06	21.97
10	16QAM	1	25	21.88	21.88	21.86
10	16QAM	1	49	21.94	22.05	21.95
10	16QAM	25	0	20.78	20.88	20.78
10	16QAM	25	12	20.78	20.54	20.63
10	16QAM	25	25	20.64	20.62	20.76
10	16QAM	50	0	20.43	20.72	20.64
10	64QAM	1	0	20.82	20.97	20.93
10	64QAM	1	25	20.75	20.60	20.96
10	64QAM	1	49	20.85	20.62	20.91
10	64QAM	25	0	19.65	19.72	19.88
10	64QAM	25	12	19.70	19.78	19.67
10	64QAM	25	25	19.51	19.64	19.59
10	64QAM	50	0	19.56	19.72	19.66



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	22.77	22.79	22.71
5	QPSK	1	12	22.72	22.65	22.72
5	QPSK	1	24	22.70	22.67	22.64
5	QPSK	12	0	21.67	21.82	21.73
5	QPSK	12	7	21.73	21.59	21.57
5	QPSK	12	13	21.67	21.75	21.59
5	QPSK	25	0	21.75	21.69	21.76
5	16QAM	1	0	22.02	22.10	21.95
5	16QAM	1	12	21.96	22.00	21.83
5	16QAM	1	24	21.85	21.86	21.85
5	16QAM	12	0	20.79	20.81	20.67
5	16QAM	12	7	20.59	20.78	20.75
5	16QAM	12	13	20.67	20.68	20.73
5	16QAM	25	0	20.63	20.81	20.67
5	64QAM	1	0	20.91	20.97	20.80
5	64QAM	1	12	20.62	20.80	20.89
5	64QAM	1	24	20.60	20.79	20.75
5	64QAM	12	0	19.83	19.85	19.76
5	64QAM	12	7	19.67	19.69	19.62
5	64QAM	12	13	19.57	19.71	19.67
5	64QAM	25	0	19.74	19.71	19.69



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	23.92	23.97	23.85
10	QPSK	1	25	23.73	23.78	23.72
10	QPSK	1	49	23.78	23.79	23.75
10	QPSK	25	0	22.83	22.95	22.89
10	QPSK	25	12	22.84	22.74	22.83
10	QPSK	25	25	22.79	22.88	22.74
10	QPSK	50	0	22.70	22.86	22.81
10	16QAM	1	0	22.92	23.16	22.98
10	16QAM	1	25	23.02	23.14	22.86
10	16QAM	1	49	22.89	23.12	22.97
10	16QAM	25	0	21.85	21.91	21.67
10	16QAM	25	12	21.74	21.72	21.87
10	16QAM	25	25	21.68	21.83	21.87
10	16QAM	50	0	21.76	21.90	21.73
10	64QAM	1	0	21.90	22.12	21.88
10	64QAM	1	25	21.85	21.79	21.84
10	64QAM	1	49	21.81	21.87	21.91
10	64QAM	25	0	20.84	20.89	20.76
10	64QAM	25	12	20.71	20.88	20.69
10	64QAM	25	25	20.62	20.64	20.71
10	64QAM	50	0	20.64	20.81	20.71



LTE Band 12						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23035	23095	23155
Frequency (MHz)				701.5	707.5	713.5
5	QPSK	1	0	23.86	23.93	23.79
5	QPSK	1	12	23.78	23.84	23.69
5	QPSK	1	24	23.80	23.85	23.75
5	QPSK	12	0	22.78	22.92	22.85
5	QPSK	12	7	22.97	22.68	22.60
5	QPSK	12	13	22.83	22.74	22.66
5	QPSK	25	0	22.64	22.70	22.90
5	16QAM	1	0	23.05	23.13	22.93
5	16QAM	1	12	23.00	23.04	22.86
5	16QAM	1	24	22.98	23.03	23.08
5	16QAM	12	0	21.85	21.90	21.81
5	16QAM	12	7	21.78	21.71	21.72
5	16QAM	12	13	21.68	21.78	21.77
5	16QAM	25	0	21.77	21.82	21.74
5	64QAM	1	0	21.87	21.96	21.79
5	64QAM	1	12	21.72	21.88	21.89
5	64QAM	1	24	21.66	21.77	21.84
5	64QAM	12	0	20.84	20.89	20.72
5	64QAM	12	7	20.71	20.80	20.67
5	64QAM	12	13	20.74	20.72	20.75
5	64QAM	25	0	20.68	20.89	20.85





LTE Band 12						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23025	23095	23165
Frequency (MHz)				700.5	707.5	714.5
3	QPSK	1	0	23.84	23.92	23.82
3	QPSK	1	8	23.71	23.85	23.70
3	QPSK	1	14	23.67	23.75	23.79
3	QPSK	8	0	22.77	22.88	22.82
3	QPSK	8	4	22.81	22.85	22.83
3	QPSK	8	7	22.79	22.79	22.73
3	QPSK	15	0	22.66	22.80	22.81
3	16QAM	1	0	23.02	23.12	23.08
3	16QAM	1	8	22.90	23.10	22.93
3	16QAM	1	14	22.98	23.06	22.85
3	16QAM	8	0	21.77	21.80	21.75
3	16QAM	8	4	21.79	21.73	21.73
3	16QAM	8	7	21.77	21.75	21.75
3	16QAM	15	0	21.69	21.78	21.70
3	64QAM	1	0	21.88	22.10	21.95
3	64QAM	1	8	21.86	21.87	21.94
3	64QAM	1	14	21.74	21.79	21.89
3	64QAM	8	0	20.85	20.85	20.87
3	64QAM	8	4	20.72	20.83	20.65
3	64QAM	8	7	20.69	20.70	20.69
3	64QAM	15	0	20.57	20.84	20.71



LTE Band 12						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23017	23095	23173
Frequency (MHz)				699.7	707.5	715.3
1.4	QPSK	1	0	23.73	23.90	23.85
1.4	QPSK	1	3	23.77	23.79	23.67
1.4	QPSK	1	5	23.64	23.80	23.66
1.4	QPSK	3	0	22.81	22.95	22.87
1.4	QPSK	3	1	22.88	22.83	22.84
1.4	QPSK	3	3	22.86	22.88	22.90
1.4	QPSK	6	0	22.75	22.72	22.74
1.4	16QAM	1	0	22.95	23.06	23.04
1.4	16QAM	1	3	22.94	22.96	22.79
1.4	16QAM	1	5	22.83	23.06	23.06
1.4	16QAM	3	0	21.92	21.88	21.84
1.4	16QAM	3	1	21.87	21.87	21.86
1.4	16QAM	3	3	21.84	21.90	21.85
1.4	16QAM	6	0	21.65	21.79	21.78
1.4	64QAM	1	0	21.84	21.99	21.81
1.4	64QAM	1	3	21.63	21.85	21.91
1.4	64QAM	1	5	21.87	21.83	21.89
1.4	64QAM	3	0	20.81	20.98	20.87
1.4	64QAM	3	1	20.81	20.88	20.82
1.4	64QAM	3	3	20.87	20.80	20.81
1.4	64QAM	6	0	20.79	20.77	20.83



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	/	23.98	/
10	QPSK	1	25	/	23.87	/
10	QPSK	1	49	/	23.79	/
10	QPSK	25	0	/	22.88	/
10	QPSK	25	12	/	22.87	/
10	QPSK	25	25	/	22.77	/
10	QPSK	50	0	/	22.70	/
10	16QAM	1	0	/	23.11	/
10	16QAM	1	25	/	23.06	/
10	16QAM	1	49	/	23.09	/
10	16QAM	25	0	/	22.05	/
10	16QAM	25	12	/	21.85	/
10	16QAM	25	25	/	21.80	/
10	16QAM	50	0	/	21.77	/
10	64QAM	1	0	/	22.10	/
10	64QAM	1	25	/	21.83	/
10	64QAM	1	49	/	21.90	/
10	64QAM	25	0	/	20.88	/
10	64QAM	25	12	/	20.97	/
10	64QAM	25	25	/	20.78	/
10	64QAM	50	0	/	20.86	/



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	23.87	23.93	23.92
5	QPSK	1	12	23.90	23.81	23.83
5	QPSK	1	24	23.68	23.82	23.79
5	QPSK	12	0	22.81	22.89	22.85
5	QPSK	12	7	22.85	22.85	22.84
5	QPSK	12	13	22.82	22.80	22.81
5	QPSK	25	0	22.74	22.88	22.88
5	16QAM	1	0	22.93	23.07	23.05
5	16QAM	1	12	23.03	23.02	22.91
5	16QAM	1	24	23.03	23.04	23.01
5	16QAM	12	0	21.96	21.98	21.75
5	16QAM	12	7	21.78	21.84	21.79
5	16QAM	12	13	21.60	21.71	21.70
5	16QAM	25	0	21.74	21.78	21.76
5	64QAM	1	0	21.96	22.00	21.92
5	64QAM	1	12	21.93	21.94	21.99
5	64QAM	1	24	21.92	21.78	21.95
5	64QAM	12	0	20.79	20.83	20.88
5	64QAM	12	7	20.82	20.81	20.69
5	64QAM	12	13	20.70	20.77	20.83
5	64QAM	25	0	20.63	20.81	20.67



LTE Band 66						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				132072	132322	132572
Frequency (MHz)				1720	1745	1770
20	QPSK	1	0	22.87	22.95	22.90
20	QPSK	1	49	22.84	22.80	22.78
20	QPSK	1	99	22.73	22.87	22.69
20	QPSK	50	0	21.86	21.91	21.87
20	QPSK	50	24	21.73	21.78	21.75
20	QPSK	50	50	21.63	21.77	21.67
20	QPSK	100	0	21.66	21.64	21.87
20	16QAM	1	0	21.85	22.10	21.93
20	16QAM	1	49	22.03	22.08	21.77
20	16QAM	1	99	21.97	21.93	21.90
20	16QAM	50	0	20.86	20.89	20.75
20	16QAM	50	24	20.79	20.71	20.78
20	16QAM	50	50	20.66	20.73	20.81
20	16QAM	100	0	20.75	20.92	20.71
20	64QAM	1	0	20.91	20.97	20.73
20	64QAM	1	49	20.72	20.83	20.86
20	64QAM	1	99	20.83	20.77	20.86
20	64QAM	50	0	19.70	19.83	19.70
20	64QAM	50	24	19.74	19.93	19.69
20	64QAM	50	50	19.65	19.67	19.67
20	64QAM	100	0	19.60	19.79	19.71



LTE Band 66						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				132047	132322	132597
Frequency (MHz)				1717.5	1745	1772.5
15	QPSK	1	0	22.81	22.91	22.85
15	QPSK	1	37	22.87	22.78	22.77
15	QPSK	1	74	22.77	22.78	22.71
15	QPSK	36	0	21.83	21.85	21.77
15	QPSK	36	20	21.87	21.71	21.69
15	QPSK	36	39	21.80	21.79	21.72
15	QPSK	75	0	21.70	21.70	21.79
15	16QAM	1	0	21.95	22.01	22.07
15	16QAM	1	37	21.95	21.89	21.77
15	16QAM	1	74	21.84	22.05	21.94
15	16QAM	36	0	20.77	20.84	20.77
15	16QAM	36	20	20.60	20.53	20.78
15	16QAM	36	39	20.69	20.57	20.80
15	16QAM	75	0	20.60	20.76	20.61
15	64QAM	1	0	20.79	20.91	20.95
15	64QAM	1	37	20.77	20.80	20.77
15	64QAM	1	74	20.80	20.74	20.85
15	64QAM	36	0	19.71	19.74	19.80
15	64QAM	36	20	19.65	19.87	19.72
15	64QAM	36	39	19.73	19.67	19.74
15	64QAM	75	0	19.75	19.87	19.78



LTE Band 66						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				132022	132322	132622
Frequency (MHz)				1715	1745	1775
10	QPSK	1	0	22.78	22.89	22.83
10	QPSK	1	25	22.68	22.68	22.71
10	QPSK	1	49	22.68	22.72	22.72
10	QPSK	25	0	21.78	21.91	21.86
10	QPSK	25	12	21.86	21.76	21.79
10	QPSK	25	25	21.76	21.74	21.72
10	QPSK	50	0	21.78	21.72	21.86
10	16QAM	1	0	21.99	22.09	21.95
10	16QAM	1	25	21.81	21.94	21.89
10	16QAM	1	49	21.80	21.95	21.96
10	16QAM	25	0	20.89	20.80	20.60
10	16QAM	25	12	20.69	20.68	20.71
10	16QAM	25	25	20.61	20.72	20.75
10	16QAM	50	0	20.57	20.75	20.61
10	64QAM	1	0	20.92	20.94	20.79
10	64QAM	1	25	20.65	20.64	20.89
10	64QAM	1	49	20.82	20.68	20.79
10	64QAM	25	0	19.79	19.71	19.75
10	64QAM	25	12	19.68	19.80	19.53
10	64QAM	25	25	19.71	19.62	19.52
10	64QAM	50	0	19.59	19.73	19.62



LTE Band 66						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				131997	132322	132647
Frequency (MHz)				1712.5	1745	1777.5
5	QPSK	1	0	22.79	22.86	22.71
5	QPSK	1	12	22.70	22.71	22.69
5	QPSK	1	24	22.65	22.67	22.62
5	QPSK	12	0	21.88	21.92	21.75
5	QPSK	12	7	21.89	21.70	21.64
5	QPSK	12	13	21.68	21.80	21.61
5	QPSK	25	0	21.67	21.77	21.83
5	16QAM	1	0	21.81	22.02	21.90
5	16QAM	1	12	22.05	21.98	21.87
5	16QAM	1	24	21.92	22.04	21.86
5	16QAM	12	0	20.91	20.79	20.76
5	16QAM	12	7	20.62	20.85	20.84
5	16QAM	12	13	20.68	20.77	20.69
5	16QAM	25	0	20.61	20.72	20.66
5	64QAM	1	0	20.91	21.07	20.80
5	64QAM	1	12	20.70	20.78	20.92
5	64QAM	1	24	20.71	20.72	20.87
5	64QAM	12	0	19.73	19.75	19.69
5	64QAM	12	7	19.60	19.80	19.57
5	64QAM	12	13	19.72	19.64	19.56
5	64QAM	25	0	19.75	19.81	19.60





LTE Band 66						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				131987	132322	132657
Frequency (MHz)				1711.5	1745	1778.5
3	QPSK	1	0	22.78	22.87	22.75
3	QPSK	1	8	22.73	22.74	22.77
3	QPSK	1	14	22.67	22.80	22.62
3	QPSK	8	0	21.66	21.75	21.73
3	QPSK	8	4	21.72	21.59	21.68
3	QPSK	8	7	21.81	21.66	21.59
3	QPSK	15	0	21.59	21.73	21.65
3	16QAM	1	0	21.90	22.05	22.04
3	16QAM	1	8	21.91	22.08	21.88
3	16QAM	1	14	21.85	21.96	21.99
3	16QAM	8	0	20.94	20.92	20.69
3	16QAM	8	4	20.77	20.74	20.72
3	16QAM	8	7	20.71	20.70	20.79
3	16QAM	15	0	20.70	20.80	20.65
3	64QAM	1	0	20.72	21.03	20.88
3	64QAM	1	8	20.83	20.83	20.81
3	64QAM	1	14	20.72	20.72	20.76
3	64QAM	8	0	19.69	19.70	19.72
3	64QAM	8	4	19.59	19.77	19.66
3	64QAM	8	7	19.72	19.60	19.65
3	64QAM	15	0	19.62	19.78	19.76



LTE Band 66						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				131979	132322	132665
Frequency (MHz)				1710.7	1745	1779.3
1.4	QPSK	1	0	22.81	22.86	22.70
1.4	QPSK	1	3	22.81	22.68	22.69
1.4	QPSK	1	5	22.55	22.76	22.81
1.4	QPSK	3	0	21.87	21.88	21.85
1.4	QPSK	3	1	21.82	21.82	21.80
1.4	QPSK	3	3	21.80	21.81	21.82
1.4	QPSK	6	0	21.70	21.74	21.66
1.4	16QAM	1	0	21.94	22.03	21.85
1.4	16QAM	1	3	21.92	21.97	21.75
1.4	16QAM	1	5	21.84	21.99	21.86
1.4	16QAM	3	0	20.73	20.97	20.67
1.4	16QAM	3	1	20.82	20.68	20.80
1.4	16QAM	3	3	20.62	20.74	20.68
1.4	16QAM	6	0	20.69	20.80	20.61
1.4	64QAM	1	0	20.71	20.90	20.85
1.4	64QAM	1	3	20.77	20.73	20.75
1.4	64QAM	1	5	20.68	20.71	20.93
1.4	64QAM	3	0	19.61	19.73	19.79
1.4	64QAM	3	1	19.59	19.82	19.69
1.4	64QAM	3	3	19.69	19.61	19.56
1.4	64QAM	6	0	19.62	19.71	19.79



**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	24.20	0.263	24.24	0.265	24.17	0.261
20	QPSK	1	49	24.21	0.264	24.15	0.260	24.01	0.252
20	QPSK	1	99	24.06	0.255	24.11	0.258	24.10	0.257
20	QPSK	50	0	23.09	0.204	23.19	0.208	23.11	0.205
20	QPSK	50	24	23.06	0.202	23.04	0.201	23.10	0.204
20	QPSK	50	50	22.99	0.199	22.99	0.199	23.00	0.200
20	QPSK	100	0	23.02	0.200	23.04	0.201	22.99	0.199
20	16QAM	1	0	23.22	0.210	23.38	0.218	23.27	0.212
20	16QAM	1	49	23.35	0.216	23.36	0.217	23.15	0.207
20	16QAM	1	99	23.24	0.211	23.33	0.215	23.31	0.214
20	16QAM	50	0	22.13	0.163	22.17	0.165	22.00	0.158
20	16QAM	50	24	21.97	0.157	22.12	0.163	22.01	0.159
20	16QAM	50	50	22.05	0.160	22.02	0.159	22.14	0.164
20	16QAM	100	0	21.89	0.155	22.03	0.160	22.07	0.161
20	64QAM	1	0	22.07	0.161	22.32	0.171	22.24	0.167
20	64QAM	1	49	22.04	0.160	21.97	0.157	22.21	0.166
20	64QAM	1	99	22.16	0.164	22.17	0.165	22.25	0.168
20	64QAM	50	0	21.13	0.130	21.20	0.132	21.12	0.129
20	64QAM	50	24	21.01	0.126	21.07	0.128	20.95	0.124
20	64QAM	50	50	21.10	0.129	20.97	0.125	21.00	0.126
20	64QAM	100	0	21.04	0.127	21.16	0.131	21.11	0.129



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	24.13	0.259	24.21	0.264	24.15	0.260
15	QPSK	1	37	24.09	0.256	24.20	0.263	24.06	0.255
15	QPSK	1	74	23.96	0.249	24.15	0.260	24.05	0.254
15	QPSK	36	0	23.07	0.203	23.30	0.214	23.19	0.208
15	QPSK	36	20	23.07	0.203	23.03	0.201	23.00	0.200
15	QPSK	36	39	22.99	0.199	22.98	0.199	22.98	0.199
15	QPSK	75	0	22.90	0.195	23.09	0.204	23.17	0.207
15	16QAM	1	0	23.37	0.217	23.38	0.218	23.32	0.215
15	16QAM	1	37	23.30	0.214	23.35	0.216	23.27	0.212
15	16QAM	1	74	23.12	0.205	23.30	0.214	23.16	0.207
15	16QAM	36	0	22.25	0.168	22.27	0.169	22.12	0.163
15	16QAM	36	20	22.18	0.165	22.06	0.161	21.98	0.158
15	16QAM	36	39	22.04	0.160	22.12	0.163	22.17	0.165
15	16QAM	75	0	21.94	0.156	22.06	0.161	22.06	0.161
15	64QAM	1	0	22.15	0.164	22.22	0.167	22.21	0.166
15	64QAM	1	37	22.01	0.159	22.17	0.165	22.32	0.171
15	64QAM	1	74	22.13	0.163	22.09	0.162	22.21	0.166
15	64QAM	36	0	21.11	0.129	21.25	0.133	21.02	0.126
15	64QAM	36	20	20.92	0.124	21.23	0.133	21.02	0.126
15	64QAM	36	39	21.06	0.128	20.95	0.124	21.00	0.126
15	64QAM	75	0	20.89	0.123	20.99	0.126	21.01	0.126



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	24.10	0.257	24.19	0.262	24.16	0.261
10	QPSK	1	25	24.17	0.261	24.09	0.256	23.99	0.251
10	QPSK	1	49	24.10	0.257	24.10	0.257	23.95	0.248
10	QPSK	25	0	23.11	0.205	23.20	0.209	23.14	0.206
10	QPSK	25	12	23.07	0.203	23.14	0.206	23.13	0.206
10	QPSK	25	25	23.02	0.200	23.02	0.200	23.08	0.203
10	QPSK	50	0	23.10	0.204	23.00	0.200	23.03	0.201
10	16QAM	1	0	23.27	0.212	23.33	0.215	23.31	0.214
10	16QAM	1	25	23.26	0.212	23.31	0.214	23.30	0.214
10	16QAM	1	49	23.08	0.203	23.21	0.209	23.29	0.213
10	16QAM	25	0	22.12	0.163	22.26	0.168	22.04	0.160
10	16QAM	25	12	22.13	0.163	22.05	0.160	22.12	0.163
10	16QAM	25	25	21.90	0.155	22.08	0.161	22.14	0.164
10	16QAM	50	0	21.98	0.158	22.12	0.163	22.02	0.159
10	64QAM	1	0	22.06	0.161	22.30	0.170	22.12	0.163
10	64QAM	1	25	22.14	0.164	22.10	0.162	22.21	0.166
10	64QAM	1	49	22.03	0.160	21.95	0.157	22.25	0.168
10	64QAM	25	0	21.04	0.127	21.21	0.132	21.10	0.129
10	64QAM	25	12	20.90	0.123	21.07	0.128	20.95	0.124
10	64QAM	25	25	21.11	0.129	20.89	0.123	20.88	0.122
10	64QAM	50	0	21.01	0.126	21.21	0.132	21.06	0.128



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	24.10	0.257	24.17	0.261	24.12	0.258
5	QPSK	1	12	24.10	0.257	23.95	0.248	23.98	0.250
5	QPSK	1	24	23.89	0.245	24.03	0.253	24.16	0.261
5	QPSK	12	0	23.03	0.201	23.20	0.209	23.13	0.206
5	QPSK	12	7	23.14	0.206	23.07	0.203	23.02	0.200
5	QPSK	12	13	23.00	0.200	23.00	0.200	22.93	0.196
5	QPSK	25	0	22.95	0.197	22.95	0.197	22.99	0.199
5	16QAM	1	0	23.17	0.207	23.31	0.214	23.22	0.210
5	16QAM	1	12	23.27	0.212	23.27	0.212	23.21	0.209
5	16QAM	1	24	23.31	0.214	23.22	0.210	23.30	0.214
5	16QAM	12	0	22.11	0.163	22.18	0.165	21.90	0.155
5	16QAM	12	7	21.95	0.157	21.98	0.158	22.00	0.158
5	16QAM	12	13	21.94	0.156	22.14	0.164	22.08	0.161
5	16QAM	25	0	21.79	0.151	22.02	0.159	21.98	0.158
5	64QAM	1	0	22.13	0.163	22.24	0.167	22.09	0.162
5	64QAM	1	12	22.17	0.165	22.19	0.166	22.23	0.167
5	64QAM	1	24	22.17	0.165	22.05	0.160	22.17	0.165
5	64QAM	12	0	21.04	0.127	21.22	0.132	21.23	0.133
5	64QAM	12	7	21.05	0.127	21.12	0.129	21.06	0.128
5	64QAM	12	13	21.05	0.127	20.92	0.124	21.05	0.127
5	64QAM	25	0	20.92	0.124	21.21	0.132	21.03	0.127



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	24.04	0.254	24.14	0.259	24.10	0.257
3	QPSK	1	8	24.12	0.258	24.09	0.256	24.08	0.256
3	QPSK	1	14	23.99	0.251	24.11	0.258	24.00	0.251
3	QPSK	8	0	23.07	0.203	23.13	0.206	23.04	0.201
3	QPSK	8	4	23.09	0.204	22.91	0.195	22.92	0.196
3	QPSK	8	7	23.03	0.201	23.05	0.202	23.02	0.200
3	QPSK	15	0	23.07	0.203	23.12	0.205	23.02	0.200
3	16QAM	1	0	23.23	0.210	23.30	0.214	23.28	0.213
3	16QAM	1	8	23.33	0.215	23.27	0.212	23.32	0.215
3	16QAM	1	14	23.12	0.205	23.23	0.210	23.21	0.209
3	16QAM	8	0	22.17	0.165	22.22	0.167	21.98	0.158
3	16QAM	8	4	21.95	0.157	21.97	0.157	22.20	0.166
3	16QAM	8	7	21.87	0.154	22.11	0.163	22.06	0.161
3	16QAM	15	0	21.97	0.157	22.04	0.160	22.03	0.160
3	64QAM	1	0	22.15	0.164	22.21	0.166	22.32	0.171
3	64QAM	1	8	22.13	0.163	21.96	0.157	22.19	0.166
3	64QAM	1	14	22.13	0.163	22.04	0.160	22.22	0.167
3	64QAM	8	0	21.06	0.128	21.11	0.129	21.08	0.128
3	64QAM	8	4	21.06	0.128	21.24	0.133	20.99	0.126
3	64QAM	8	7	20.91	0.123	20.89	0.123	20.91	0.123
3	64QAM	15	0	20.99	0.126	21.14	0.130	20.94	0.124



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	24.07	0.255	24.15	0.260	24.09	0.256
1.4	QPSK	1	3	24.01	0.252	24.05	0.254	24.13	0.259
1.4	QPSK	1	5	24.07	0.255	24.08	0.256	23.92	0.247
1.4	QPSK	3	0	23.21	0.209	23.23	0.210	23.15	0.207
1.4	QPSK	3	1	23.18	0.208	23.18	0.208	23.17	0.207
1.4	QPSK	3	3	23.18	0.208	23.20	0.209	23.16	0.207
1.4	QPSK	6	0	23.05	0.202	23.04	0.201	23.08	0.203
1.4	16QAM	1	0	23.40	0.219	23.38	0.218	23.23	0.210
1.4	16QAM	1	3	23.17	0.207	23.34	0.216	23.29	0.213
1.4	16QAM	1	5	23.21	0.209	23.29	0.213	23.20	0.209
1.4	16QAM	3	0	22.18	0.165	22.25	0.168	22.15	0.164
1.4	16QAM	3	1	22.19	0.166	22.22	0.167	22.20	0.166
1.4	16QAM	3	3	22.16	0.164	22.15	0.164	22.18	0.165
1.4	16QAM	6	0	21.82	0.152	22.03	0.160	21.92	0.156
1.4	64QAM	1	0	22.06	0.161	22.25	0.168	22.09	0.162
1.4	64QAM	1	3	22.01	0.159	21.97	0.157	22.17	0.165
1.4	64QAM	1	5	22.07	0.161	22.05	0.160	22.05	0.160
1.4	64QAM	3	0	21.22	0.132	21.29	0.135	21.23	0.133
1.4	64QAM	3	1	21.16	0.131	21.24	0.133	21.21	0.132
1.4	64QAM	3	3	21.20	0.132	21.17	0.131	21.16	0.131
1.4	64QAM	6	0	21.06	0.128	21.14	0.130	21.02	0.126





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	23.07	0.203	23.14	0.206	23.11	0.205
20	QPSK	1	49	23.09	0.204	22.91	0.195	23.03	0.201
20	QPSK	1	99	23.00	0.200	23.06	0.202	22.98	0.199
20	QPSK	50	0	22.05	0.160	22.15	0.164	22.03	0.160
20	QPSK	50	24	22.11	0.163	21.97	0.157	22.05	0.160
20	QPSK	50	50	21.93	0.156	22.10	0.162	21.99	0.158
20	QPSK	100	0	22.01	0.159	22.03	0.160	21.97	0.157
20	16QAM	1	0	22.21	0.166	22.26	0.168	22.24	0.167
20	16QAM	1	49	22.21	0.166	22.21	0.166	22.18	0.165
20	16QAM	1	99	22.20	0.166	22.19	0.166	22.15	0.164
20	16QAM	50	0	21.03	0.127	21.18	0.131	21.01	0.126
20	16QAM	50	24	21.10	0.129	20.92	0.124	20.97	0.125
20	16QAM	50	50	21.01	0.126	21.00	0.126	20.94	0.124
20	16QAM	100	0	20.87	0.122	21.10	0.129	20.82	0.121
20	64QAM	1	0	21.19	0.132	21.36	0.137	21.24	0.133
20	64QAM	1	49	20.99	0.126	21.14	0.130	21.11	0.129
20	64QAM	1	99	21.03	0.127	21.03	0.127	21.04	0.127
20	64QAM	50	0	19.96	0.099	20.16	0.104	20.03	0.101
20	64QAM	50	24	19.89	0.097	20.11	0.103	19.92	0.098
20	64QAM	50	50	19.82	0.096	20.04	0.101	19.88	0.097
20	64QAM	100	0	20.01	0.100	20.10	0.102	19.95	0.099



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	23.03	0.201	23.10	0.204	23.04	0.201
15	QPSK	1	37	23.06	0.202	23.06	0.202	23.01	0.200
15	QPSK	1	74	23.04	0.201	22.97	0.198	23.05	0.202
15	QPSK	36	0	22.02	0.159	22.12	0.163	22.07	0.161
15	QPSK	36	20	22.04	0.160	21.97	0.157	21.94	0.156
15	QPSK	36	39	21.96	0.157	21.99	0.158	22.01	0.159
15	QPSK	75	0	22.08	0.161	22.02	0.159	22.06	0.161
15	16QAM	1	0	22.14	0.164	22.39	0.173	22.23	0.167
15	16QAM	1	37	22.27	0.169	22.34	0.171	22.05	0.160
15	16QAM	1	74	22.29	0.169	22.24	0.167	22.25	0.168
15	16QAM	36	0	21.05	0.127	21.19	0.132	21.11	0.129
15	16QAM	36	20	20.97	0.125	21.01	0.126	20.92	0.124
15	16QAM	36	39	20.87	0.122	20.97	0.125	20.97	0.125
15	16QAM	75	0	20.92	0.124	21.17	0.131	20.96	0.125
15	64QAM	1	0	21.03	0.127	21.31	0.135	21.17	0.131
15	64QAM	1	37	21.07	0.128	21.16	0.131	21.09	0.129
15	64QAM	1	74	21.14	0.130	21.00	0.126	21.03	0.127
15	64QAM	36	0	20.19	0.104	20.22	0.105	20.13	0.103
15	64QAM	36	20	20.10	0.102	20.14	0.103	20.08	0.102
15	64QAM	36	39	20.01	0.100	19.97	0.099	19.97	0.099
15	64QAM	75	0	20.02	0.100	19.98	0.100	20.07	0.102



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	23.08	0.203	23.11	0.205	23.04	0.201
10	QPSK	1	25	23.02	0.200	22.91	0.195	23.00	0.200
10	QPSK	1	49	22.90	0.195	22.99	0.199	22.88	0.194
10	QPSK	25	0	22.05	0.160	22.17	0.165	22.13	0.163
10	QPSK	25	12	22.03	0.160	22.04	0.160	21.86	0.153
10	QPSK	25	25	22.06	0.161	22.05	0.160	21.89	0.155
10	QPSK	50	0	21.99	0.158	22.04	0.160	22.09	0.162
10	16QAM	1	0	22.17	0.165	22.39	0.173	22.27	0.169
10	16QAM	1	25	22.35	0.172	22.22	0.167	22.15	0.164
10	16QAM	1	49	22.10	0.162	22.18	0.165	22.23	0.167
10	16QAM	25	0	21.15	0.130	21.20	0.132	21.04	0.127
10	16QAM	25	12	21.11	0.129	20.99	0.126	21.03	0.127
10	16QAM	25	25	21.01	0.126	20.86	0.122	20.99	0.126
10	16QAM	50	0	20.94	0.124	21.18	0.131	21.03	0.127
10	64QAM	1	0	21.13	0.130	21.34	0.136	21.14	0.130
10	64QAM	1	25	21.07	0.128	21.08	0.128	21.28	0.134
10	64QAM	1	49	21.01	0.126	21.16	0.131	21.09	0.129
10	64QAM	25	0	20.09	0.102	20.11	0.103	20.02	0.100
10	64QAM	25	12	19.85	0.097	20.11	0.103	19.83	0.096
10	64QAM	25	25	19.97	0.099	19.85	0.097	19.85	0.097
10	64QAM	50	0	20.03	0.101	20.01	0.100	19.92	0.098



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	23.04	0.201	23.07	0.203	23.05	0.202
5	QPSK	1	12	22.99	0.199	23.01	0.200	23.04	0.201
5	QPSK	1	24	23.06	0.202	23.00	0.200	22.88	0.194
5	QPSK	12	0	22.11	0.163	22.13	0.163	22.08	0.161
5	QPSK	12	7	22.06	0.161	21.88	0.154	21.86	0.153
5	QPSK	12	13	21.99	0.158	22.08	0.161	21.94	0.156
5	QPSK	25	0	21.85	0.153	22.11	0.163	22.06	0.161
5	16QAM	1	0	22.22	0.167	22.29	0.169	22.19	0.166
5	16QAM	1	12	22.19	0.166	22.23	0.167	22.10	0.162
5	16QAM	1	24	22.19	0.166	22.16	0.164	22.13	0.163
5	16QAM	12	0	21.05	0.127	21.16	0.131	20.95	0.124
5	16QAM	12	7	21.12	0.129	20.95	0.124	20.94	0.124
5	16QAM	12	13	21.03	0.127	20.94	0.124	21.06	0.128
5	16QAM	25	0	20.91	0.123	21.03	0.127	20.94	0.124
5	64QAM	1	0	21.07	0.128	21.26	0.134	21.09	0.129
5	64QAM	1	12	20.94	0.124	20.93	0.124	21.22	0.132
5	64QAM	1	24	21.10	0.129	21.14	0.130	21.05	0.127
5	64QAM	12	0	19.97	0.099	20.17	0.104	20.03	0.101
5	64QAM	12	7	20.03	0.101	20.15	0.104	20.00	0.100
5	64QAM	12	13	19.85	0.097	19.85	0.097	19.81	0.096
5	64QAM	25	0	19.84	0.096	20.13	0.103	20.04	0.101



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	22.99	0.199	23.08	0.203	23.04	0.201
3	QPSK	1	8	22.96	0.198	23.00	0.200	23.03	0.201
3	QPSK	1	14	23.04	0.201	22.99	0.199	22.97	0.198
3	QPSK	8	0	22.09	0.162	22.13	0.163	22.06	0.161
3	QPSK	8	4	22.03	0.160	22.07	0.161	21.92	0.156
3	QPSK	8	7	22.00	0.158	22.08	0.161	21.85	0.153
3	QPSK	15	0	21.87	0.154	22.10	0.162	22.13	0.163
3	16QAM	1	0	22.11	0.163	22.31	0.170	22.26	0.168
3	16QAM	1	8	22.28	0.169	22.29	0.169	22.28	0.169
3	16QAM	1	14	22.12	0.163	22.26	0.168	22.22	0.167
3	16QAM	8	0	21.04	0.127	21.16	0.131	21.03	0.127
3	16QAM	8	4	21.05	0.127	21.07	0.128	21.11	0.129
3	16QAM	8	7	20.91	0.123	20.96	0.125	21.05	0.127
3	16QAM	15	0	20.94	0.124	21.03	0.127	20.84	0.121
3	64QAM	1	0	21.20	0.132	21.26	0.134	21.13	0.130
3	64QAM	1	8	20.96	0.125	20.97	0.125	21.18	0.131
3	64QAM	1	14	21.00	0.126	21.06	0.128	21.24	0.133
3	64QAM	8	0	19.95	0.099	20.17	0.104	20.07	0.102
3	64QAM	8	4	20.05	0.101	20.18	0.104	19.86	0.097
3	64QAM	8	7	19.90	0.098	20.02	0.100	19.98	0.100
3	64QAM	15	0	19.98	0.100	20.00	0.100	19.88	0.097



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	23.07	0.203	23.09	0.204	23.04	0.201
1.4	QPSK	1	3	22.97	0.198	23.00	0.200	22.94	0.197
1.4	QPSK	1	5	23.01	0.200	23.06	0.202	23.02	0.200
1.4	QPSK	3	0	22.18	0.165	22.21	0.166	22.13	0.163
1.4	QPSK	3	1	22.16	0.164	22.11	0.163	22.18	0.165
1.4	QPSK	3	3	22.14	0.164	22.16	0.164	22.12	0.163
1.4	QPSK	6	0	22.00	0.158	22.04	0.160	22.17	0.165
1.4	16QAM	1	0	22.35	0.172	22.36	0.172	22.34	0.171
1.4	16QAM	1	3	22.35	0.172	22.34	0.171	22.07	0.161
1.4	16QAM	1	5	22.21	0.166	22.15	0.164	22.30	0.170
1.4	16QAM	3	0	21.15	0.130	21.17	0.131	21.13	0.130
1.4	16QAM	3	1	21.12	0.129	21.14	0.130	21.12	0.129
1.4	16QAM	3	3	21.14	0.130	21.12	0.129	21.11	0.129
1.4	16QAM	6	0	20.90	0.123	21.13	0.130	20.87	0.122
1.4	64QAM	1	0	21.27	0.134	21.28	0.134	21.06	0.128
1.4	64QAM	1	3	21.06	0.128	21.15	0.130	21.24	0.133
1.4	64QAM	1	5	20.97	0.125	20.92	0.124	21.28	0.134
1.4	64QAM	3	0	20.16	0.104	20.25	0.106	20.19	0.104
1.4	64QAM	3	1	20.12	0.103	20.21	0.105	20.18	0.104
1.4	64QAM	3	3	20.13	0.103	20.17	0.104	20.11	0.103
1.4	64QAM	6	0	20.06	0.101	20.12	0.103	20.00	0.100



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	18.79	0.076	18.91	0.078	18.84	0.077
10	QPSK	1	25	18.82	0.076	18.86	0.077	18.83	0.076
10	QPSK	1	49	18.68	0.074	18.75	0.075	18.66	0.073
10	QPSK	25	0	17.81	0.060	17.85	0.061	17.83	0.061
10	QPSK	25	12	17.73	0.059	17.74	0.059	17.78	0.060
10	QPSK	25	25	17.70	0.059	17.75	0.060	17.69	0.059
10	QPSK	50	0	17.66	0.058	17.82	0.061	17.70	0.059
10	16QAM	1	0	17.89	0.062	18.10	0.065	17.94	0.062
10	16QAM	1	25	17.91	0.062	17.97	0.063	17.98	0.063
10	16QAM	1	49	17.98	0.063	17.97	0.063	17.90	0.062
10	16QAM	25	0	16.80	0.048	16.85	0.048	16.72	0.047
10	16QAM	25	12	16.60	0.046	16.75	0.047	16.85	0.048
10	16QAM	25	25	16.59	0.046	16.76	0.047	16.83	0.048
10	16QAM	50	0	16.64	0.046	16.72	0.047	16.58	0.045
10	64QAM	1	0	16.79	0.048	16.99	0.050	16.73	0.047
10	64QAM	1	25	16.75	0.047	16.86	0.049	16.95	0.050
10	64QAM	1	49	16.77	0.048	16.83	0.048	16.82	0.048
10	64QAM	25	0	15.72	0.037	15.78	0.038	15.71	0.037
10	64QAM	25	12	15.66	0.037	15.76	0.038	15.68	0.037
10	64QAM	25	25	15.53	0.036	15.73	0.037	15.61	0.036
10	64QAM	50	0	15.65	0.037	15.75	0.038	15.67	0.037



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	18.77	0.075	18.85	0.077	18.79	0.076
5	QPSK	1	12	18.74	0.075	18.72	0.074	18.73	0.075
5	QPSK	1	24	18.63	0.073	18.72	0.074	18.60	0.072
5	QPSK	12	0	17.86	0.061	17.95	0.062	17.69	0.059
5	QPSK	12	7	17.84	0.061	17.70	0.059	17.73	0.059
5	QPSK	12	13	17.79	0.060	17.70	0.059	17.66	0.058
5	QPSK	25	0	17.65	0.058	17.82	0.061	17.73	0.059
5	16QAM	1	0	17.80	0.060	18.11	0.065	18.02	0.063
5	16QAM	1	12	17.92	0.062	18.06	0.064	17.98	0.063
5	16QAM	1	24	17.82	0.061	17.87	0.061	17.96	0.063
5	16QAM	12	0	16.81	0.048	16.87	0.049	16.69	0.047
5	16QAM	12	7	16.73	0.047	16.70	0.047	16.86	0.049
5	16QAM	12	13	16.65	0.046	16.69	0.047	16.81	0.048
5	16QAM	25	0	16.63	0.046	16.71	0.047	16.74	0.047
5	64QAM	1	0	16.83	0.048	16.94	0.049	16.88	0.049
5	64QAM	1	12	16.68	0.047	16.73	0.047	16.75	0.047
5	64QAM	1	24	16.70	0.047	16.81	0.048	16.83	0.048
5	64QAM	12	0	15.63	0.037	15.84	0.038	15.79	0.038
5	64QAM	12	7	15.68	0.037	15.70	0.037	15.66	0.037
5	64QAM	12	13	15.62	0.036	15.73	0.037	15.65	0.037
5	64QAM	25	0	15.66	0.037	15.71	0.037	15.70	0.037





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	18.79	0.076	18.83	0.076	18.78	0.076
3	QPSK	1	8	18.74	0.075	18.78	0.076	18.75	0.075
3	QPSK	1	14	18.72	0.074	18.76	0.075	18.60	0.072
3	QPSK	8	0	17.73	0.059	17.83	0.061	17.82	0.061
3	QPSK	8	4	17.77	0.060	17.74	0.059	17.69	0.059
3	QPSK	8	7	17.76	0.060	17.78	0.060	17.59	0.057
3	QPSK	15	0	17.69	0.059	17.68	0.059	17.68	0.059
3	16QAM	1	0	17.91	0.062	18.06	0.064	17.94	0.062
3	16QAM	1	8	17.87	0.061	18.05	0.064	17.93	0.062
3	16QAM	1	14	17.88	0.061	17.87	0.061	18.00	0.063
3	16QAM	8	0	16.80	0.048	16.80	0.048	16.74	0.047
3	16QAM	8	4	16.63	0.046	16.67	0.046	16.65	0.046
3	16QAM	8	7	16.69	0.047	16.63	0.046	16.68	0.047
3	16QAM	15	0	16.65	0.046	16.77	0.048	16.74	0.047
3	64QAM	1	0	16.79	0.048	16.93	0.049	16.86	0.049
3	64QAM	1	8	16.73	0.047	16.74	0.047	16.81	0.048
3	64QAM	1	14	16.77	0.048	16.72	0.047	16.81	0.048
3	64QAM	8	0	15.75	0.038	15.81	0.038	15.86	0.039
3	64QAM	8	4	15.75	0.038	15.81	0.038	15.71	0.037
3	64QAM	8	7	15.70	0.037	15.66	0.037	15.74	0.037
3	64QAM	15	0	15.71	0.037	15.86	0.039	15.69	0.037



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	18.71	0.074	18.86	0.077	18.74	0.075
1.4	QPSK	1	3	18.70	0.074	18.77	0.075	18.68	0.074
1.4	QPSK	1	5	18.70	0.074	18.67	0.074	18.61	0.073
1.4	QPSK	3	0	17.84	0.061	17.99	0.063	17.94	0.062
1.4	QPSK	3	1	17.85	0.061	17.85	0.061	17.84	0.061
1.4	QPSK	3	3	17.84	0.061	17.86	0.061	17.87	0.061
1.4	QPSK	6	0	17.56	0.057	17.72	0.059	17.67	0.058
1.4	16QAM	1	0	17.82	0.061	18.18	0.066	18.00	0.063
1.4	16QAM	1	3	17.87	0.061	17.93	0.062	17.81	0.060
1.4	16QAM	1	5	17.97	0.063	17.88	0.061	17.85	0.061
1.4	16QAM	3	0	16.86	0.049	16.85	0.048	16.82	0.048
1.4	16QAM	3	1	16.88	0.049	16.86	0.049	16.84	0.048
1.4	16QAM	3	3	16.82	0.048	16.83	0.048	16.81	0.048
1.4	16QAM	6	0	16.56	0.045	16.81	0.048	16.59	0.046
1.4	64QAM	1	0	16.91	0.049	16.88	0.049	16.86	0.049
1.4	64QAM	1	3	16.77	0.048	16.65	0.046	16.89	0.049
1.4	64QAM	1	5	16.73	0.047	16.70	0.047	16.78	0.048
1.4	64QAM	3	0	15.85	0.038	15.85	0.038	15.86	0.039
1.4	64QAM	3	1	15.81	0.038	15.89	0.039	15.88	0.039
1.4	64QAM	3	3	15.87	0.039	15.85	0.038	15.82	0.038
1.4	64QAM	6	0	15.51	0.036	15.68	0.037	15.74	0.037



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	20.76	0.119	20.87	0.122	20.82	0.121
20	QPSK	1	49	20.70	0.117	20.83	0.121	20.77	0.119
20	QPSK	1	99	20.67	0.117	20.71	0.118	20.64	0.116
20	QPSK	50	0	19.80	0.095	19.89	0.097	19.83	0.096
20	QPSK	50	24	19.81	0.096	19.83	0.096	19.77	0.095
20	QPSK	50	50	19.62	0.092	19.78	0.095	19.60	0.091
20	QPSK	100	0	19.62	0.092	19.71	0.094	19.78	0.095
20	16QAM	1	0	19.91	0.098	20.07	0.102	19.98	0.100
20	16QAM	1	49	19.90	0.098	20.06	0.101	19.96	0.099
20	16QAM	1	99	19.90	0.098	19.97	0.099	19.96	0.099
20	16QAM	50	0	18.80	0.076	19.02	0.080	18.74	0.075
20	16QAM	50	24	18.78	0.076	18.76	0.075	18.83	0.076
20	16QAM	50	50	18.71	0.074	18.82	0.076	18.76	0.075
20	16QAM	100	0	18.47	0.070	18.80	0.076	18.74	0.075
20	64QAM	1	0	18.96	0.079	19.12	0.082	18.86	0.077
20	64QAM	1	49	18.84	0.077	18.76	0.075	18.95	0.079
20	64QAM	1	99	18.63	0.073	18.80	0.076	18.90	0.078
20	64QAM	50	0	17.81	0.060	17.77	0.060	17.87	0.061
20	64QAM	50	24	17.71	0.059	17.77	0.060	17.61	0.058
20	64QAM	50	50	17.67	0.058	17.64	0.058	17.62	0.058
20	64QAM	100	0	17.73	0.059	17.91	0.062	17.72	0.059



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	20.80	0.120	20.83	0.121	20.82	0.121
15	QPSK	1	37	20.79	0.120	20.70	0.117	20.74	0.119
15	QPSK	1	74	20.67	0.117	20.72	0.118	20.64	0.116
15	QPSK	36	0	19.79	0.095	19.82	0.096	19.75	0.094
15	QPSK	36	20	19.77	0.095	19.76	0.095	19.60	0.091
15	QPSK	36	39	19.68	0.093	19.73	0.094	19.76	0.095
15	QPSK	75	0	19.60	0.091	19.73	0.094	19.66	0.092
15	16QAM	1	0	20.05	0.101	20.12	0.103	20.03	0.101
15	16QAM	1	37	20.02	0.100	20.08	0.102	20.01	0.100
15	16QAM	1	74	19.90	0.098	19.90	0.098	19.87	0.097
15	16QAM	36	0	18.86	0.077	18.88	0.077	18.79	0.076
15	16QAM	36	20	18.66	0.073	18.56	0.072	18.68	0.074
15	16QAM	36	39	18.73	0.075	18.62	0.073	18.74	0.075
15	16QAM	75	0	18.69	0.074	18.80	0.076	18.74	0.075
15	64QAM	1	0	18.93	0.078	19.03	0.080	18.82	0.076
15	64QAM	1	37	18.86	0.077	18.78	0.076	18.99	0.079
15	64QAM	1	74	18.81	0.076	18.73	0.075	19.00	0.079
15	64QAM	36	0	17.81	0.060	17.83	0.061	17.76	0.060
15	64QAM	36	20	17.73	0.059	17.73	0.059	17.61	0.058
15	64QAM	36	39	17.79	0.060	17.72	0.059	17.62	0.058
15	64QAM	75	0	17.59	0.057	17.90	0.062	17.83	0.061



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	20.69	0.117	20.84	0.121	20.78	0.120
10	QPSK	1	25	20.75	0.119	20.67	0.117	20.74	0.119
10	QPSK	1	49	20.63	0.116	20.71	0.118	20.69	0.117
10	QPSK	25	0	19.86	0.097	19.91	0.098	19.85	0.097
10	QPSK	25	12	19.77	0.095	19.71	0.094	19.79	0.095
10	QPSK	25	25	19.74	0.094	19.73	0.094	19.72	0.094
10	QPSK	50	0	19.67	0.093	19.65	0.092	19.81	0.096
10	16QAM	1	0	19.99	0.100	20.09	0.102	20.00	0.100
10	16QAM	1	25	19.91	0.098	19.91	0.098	19.89	0.097
10	16QAM	1	49	19.97	0.099	20.08	0.102	19.98	0.100
10	16QAM	25	0	18.81	0.076	18.91	0.078	18.81	0.076
10	16QAM	25	12	18.81	0.076	18.57	0.072	18.66	0.073
10	16QAM	25	25	18.67	0.074	18.65	0.073	18.79	0.076
10	16QAM	50	0	18.46	0.070	18.75	0.075	18.67	0.074
10	64QAM	1	0	18.85	0.077	19.00	0.079	18.96	0.079
10	64QAM	1	25	18.78	0.076	18.63	0.073	18.99	0.079
10	64QAM	1	49	18.88	0.077	18.65	0.073	18.94	0.078
10	64QAM	25	0	17.68	0.059	17.75	0.060	17.91	0.062
10	64QAM	25	12	17.73	0.059	17.81	0.060	17.70	0.059
10	64QAM	25	25	17.54	0.057	17.67	0.058	17.62	0.058
10	64QAM	50	0	17.59	0.057	17.75	0.060	17.69	0.059



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	20.80	0.120	20.82	0.121	20.74	0.119
5	QPSK	1	12	20.75	0.119	20.68	0.117	20.75	0.119
5	QPSK	1	24	20.73	0.118	20.70	0.117	20.67	0.117
5	QPSK	12	0	19.70	0.093	19.85	0.097	19.76	0.095
5	QPSK	12	7	19.76	0.095	19.62	0.092	19.60	0.091
5	QPSK	12	13	19.70	0.093	19.78	0.095	19.62	0.092
5	QPSK	25	0	19.78	0.095	19.72	0.094	19.79	0.095
5	16QAM	1	0	20.05	0.101	20.13	0.103	19.98	0.100
5	16QAM	1	12	19.99	0.100	20.03	0.101	19.86	0.097
5	16QAM	1	24	19.88	0.097	19.89	0.097	19.88	0.097
5	16QAM	12	0	18.82	0.076	18.84	0.077	18.70	0.074
5	16QAM	12	7	18.62	0.073	18.81	0.076	18.78	0.076
5	16QAM	12	13	18.70	0.074	18.71	0.074	18.76	0.075
5	16QAM	25	0	18.66	0.073	18.84	0.077	18.70	0.074
5	64QAM	1	0	18.94	0.078	19.00	0.079	18.83	0.076
5	64QAM	1	12	18.65	0.073	18.83	0.076	18.92	0.078
5	64QAM	1	24	18.63	0.073	18.82	0.076	18.78	0.076
5	64QAM	12	0	17.86	0.061	17.88	0.061	17.79	0.060
5	64QAM	12	7	17.70	0.059	17.72	0.059	17.65	0.058
5	64QAM	12	13	17.60	0.058	17.74	0.059	17.70	0.059
5	64QAM	25	0	17.77	0.060	17.74	0.059	17.72	0.059



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	20.76	0.119	20.81	0.121	20.69	0.117
10	QPSK	1	25	20.57	0.114	20.62	0.115	20.56	0.114
10	QPSK	1	49	20.62	0.115	20.63	0.116	20.59	0.115
10	QPSK	25	0	19.67	0.093	19.79	0.095	19.73	0.094
10	QPSK	25	12	19.68	0.093	19.58	0.091	19.67	0.093
10	QPSK	25	25	19.63	0.092	19.72	0.094	19.58	0.091
10	QPSK	50	0	19.54	0.090	19.70	0.093	19.65	0.092
10	16QAM	1	0	19.76	0.095	20.00	0.100	19.82	0.096
10	16QAM	1	25	19.86	0.097	19.98	0.100	19.70	0.093
10	16QAM	1	49	19.73	0.094	19.96	0.099	19.81	0.096
10	16QAM	25	0	18.69	0.074	18.75	0.075	18.51	0.071
10	16QAM	25	12	18.58	0.072	18.56	0.072	18.71	0.074
10	16QAM	25	25	18.52	0.071	18.67	0.074	18.71	0.074
10	16QAM	50	0	18.60	0.072	18.74	0.075	18.57	0.072
10	64QAM	1	0	18.74	0.075	18.96	0.079	18.72	0.074
10	64QAM	1	25	18.69	0.074	18.63	0.073	18.68	0.074
10	64QAM	1	49	18.65	0.073	18.71	0.074	18.75	0.075
10	64QAM	25	0	17.68	0.059	17.73	0.059	17.60	0.058
10	64QAM	25	12	17.55	0.057	17.72	0.059	17.53	0.057
10	64QAM	25	25	17.46	0.056	17.48	0.056	17.55	0.057
10	64QAM	50	0	17.48	0.056	17.65	0.058	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	20.70	0.117	20.77	0.119	20.63	0.116
5	QPSK	1	12	20.62	0.115	20.68	0.117	20.53	0.113
5	QPSK	1	24	20.64	0.116	20.69	0.117	20.59	0.115
5	QPSK	12	0	19.62	0.092	19.76	0.095	19.69	0.093
5	QPSK	12	7	19.81	0.096	19.52	0.090	19.44	0.088
5	QPSK	12	13	19.67	0.093	19.58	0.091	19.50	0.089
5	QPSK	25	0	19.48	0.089	19.54	0.090	19.74	0.094
5	16QAM	1	0	19.89	0.097	19.97	0.099	19.77	0.095
5	16QAM	1	12	19.84	0.096	19.88	0.097	19.70	0.093
5	16QAM	1	24	19.82	0.096	19.87	0.097	19.92	0.098
5	16QAM	12	0	18.69	0.074	18.74	0.075	18.65	0.073
5	16QAM	12	7	18.62	0.073	18.55	0.072	18.56	0.072
5	16QAM	12	13	18.52	0.071	18.62	0.073	18.61	0.073
5	16QAM	25	0	18.61	0.073	18.66	0.073	18.58	0.072
5	64QAM	1	0	18.71	0.074	18.80	0.076	18.63	0.073
5	64QAM	1	12	18.56	0.072	18.72	0.074	18.73	0.075
5	64QAM	1	24	18.50	0.071	18.61	0.073	18.68	0.074
5	64QAM	12	0	17.68	0.059	17.73	0.059	17.56	0.057
5	64QAM	12	7	17.55	0.057	17.64	0.058	17.51	0.056
5	64QAM	12	13	17.58	0.057	17.56	0.057	17.59	0.057
5	64QAM	25	0	17.52	0.056	17.73	0.059	17.69	0.059





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	20.68	0.117	20.76	0.119	20.66	0.116
3	QPSK	1	8	20.55	0.114	20.69	0.117	20.54	0.113
3	QPSK	1	14	20.51	0.112	20.59	0.115	20.63	0.116
3	QPSK	8	0	19.61	0.091	19.72	0.094	19.66	0.092
3	QPSK	8	4	19.65	0.092	19.69	0.093	19.67	0.093
3	QPSK	8	7	19.63	0.092	19.63	0.092	19.57	0.091
3	QPSK	15	0	19.50	0.089	19.64	0.092	19.65	0.092
3	16QAM	1	0	19.86	0.097	19.96	0.099	19.92	0.098
3	16QAM	1	8	19.74	0.094	19.94	0.099	19.77	0.095
3	16QAM	1	14	19.82	0.096	19.90	0.098	19.69	0.093
3	16QAM	8	0	18.61	0.073	18.64	0.073	18.59	0.072
3	16QAM	8	4	18.63	0.073	18.57	0.072	18.57	0.072
3	16QAM	8	7	18.61	0.073	18.59	0.072	18.59	0.072
3	16QAM	15	0	18.53	0.071	18.62	0.073	18.54	0.071
3	64QAM	1	0	18.72	0.074	18.94	0.078	18.79	0.076
3	64QAM	1	8	18.70	0.074	18.71	0.074	18.78	0.076
3	64QAM	1	14	18.58	0.072	18.63	0.073	18.73	0.075
3	64QAM	8	0	17.69	0.059	17.69	0.059	17.71	0.059
3	64QAM	8	4	17.56	0.057	17.67	0.058	17.49	0.056
3	64QAM	8	7	17.53	0.057	17.54	0.057	17.53	0.057
3	64QAM	15	0	17.41	0.055	17.68	0.059	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				23017		23095		23173	
Frequency (MHz)				699.7		707.5		715.3	
				dBm	W	dBm	W	dBm	W
1.4	QPSK	1	0	20.57	0.114	20.74	0.119	20.69	0.117
1.4	QPSK	1	3	20.61	0.115	20.63	0.116	20.51	0.112
1.4	QPSK	1	5	20.48	0.112	20.64	0.116	20.50	0.112
1.4	QPSK	3	0	19.65	0.092	19.79	0.095	19.71	0.094
1.4	QPSK	3	1	19.72	0.094	19.67	0.093	19.68	0.093
1.4	QPSK	3	3	19.70	0.093	19.72	0.094	19.74	0.094
1.4	QPSK	6	0	19.59	0.091	19.56	0.090	19.58	0.091
1.4	16QAM	1	0	19.79	0.095	19.90	0.098	19.88	0.097
1.4	16QAM	1	3	19.78	0.095	19.80	0.095	19.63	0.092
1.4	16QAM	1	5	19.67	0.093	19.90	0.098	19.90	0.098
1.4	16QAM	3	0	18.76	0.075	18.72	0.074	18.68	0.074
1.4	16QAM	3	1	18.71	0.074	18.71	0.074	18.70	0.074
1.4	16QAM	3	3	18.68	0.074	18.74	0.075	18.69	0.074
1.4	16QAM	6	0	18.49	0.071	18.63	0.073	18.62	0.073
1.4	64QAM	1	0	18.68	0.074	18.83	0.076	18.65	0.073
1.4	64QAM	1	3	18.47	0.070	18.69	0.074	18.75	0.075
1.4	64QAM	1	5	18.71	0.074	18.67	0.074	18.73	0.075
1.4	64QAM	3	0	17.65	0.058	17.82	0.061	17.71	0.059
1.4	64QAM	3	1	17.65	0.058	17.72	0.059	17.66	0.058
1.4	64QAM	3	3	17.71	0.059	17.64	0.058	17.65	0.058
1.4	64QAM	6	0	17.63	0.058	17.61	0.058	17.67	0.058



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	/	/	17.78	0.060	/	/
10	QPSK	1	25	/	/	17.67	0.058	/	/
10	QPSK	1	49	/	/	17.59	0.057	/	/
10	QPSK	25	0	/	/	16.68	0.047	/	/
10	QPSK	25	12	/	/	16.67	0.046	/	/
10	QPSK	25	25	/	/	16.57	0.045	/	/
10	QPSK	50	0	/	/	16.50	0.045	/	/
10	16QAM	1	0	/	/	16.91	0.049	/	/
10	16QAM	1	25	/	/	16.86	0.049	/	/
10	16QAM	1	49	/	/	16.89	0.049	/	/
10	16QAM	25	0	/	/	15.85	0.038	/	/
10	16QAM	25	12	/	/	15.65	0.037	/	/
10	16QAM	25	25	/	/	15.60	0.036	/	/
10	16QAM	50	0	/	/	15.57	0.036	/	/
10	64QAM	1	0	/	/	15.90	0.039	/	/
10	64QAM	1	25	/	/	15.63	0.037	/	/
10	64QAM	1	49	/	/	15.70	0.037	/	/
10	64QAM	25	0	/	/	14.68	0.029	/	/
10	64QAM	25	12	/	/	14.77	0.030	/	/
10	64QAM	25	25	/	/	14.58	0.029	/	/
10	64QAM	50	0	/	/	14.66	0.029	/	/



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	17.67	0.058	17.73	0.059	17.72	0.059
5	QPSK	1	12	17.70	0.059	17.61	0.058	17.63	0.058
5	QPSK	1	24	17.48	0.056	17.62	0.058	17.59	0.057
5	QPSK	12	0	16.61	0.046	16.69	0.047	16.65	0.046
5	QPSK	12	7	16.65	0.046	16.65	0.046	16.64	0.046
5	QPSK	12	13	16.62	0.046	16.60	0.046	16.61	0.046
5	QPSK	25	0	16.54	0.045	16.68	0.047	16.68	0.047
5	16QAM	1	0	16.73	0.047	16.87	0.049	16.85	0.048
5	16QAM	1	12	16.83	0.048	16.82	0.048	16.71	0.047
5	16QAM	1	24	16.83	0.048	16.84	0.048	16.81	0.048
5	16QAM	12	0	15.76	0.038	15.78	0.038	15.55	0.036
5	16QAM	12	7	15.58	0.036	15.64	0.037	15.59	0.036
5	16QAM	12	13	15.40	0.035	15.51	0.036	15.50	0.035
5	16QAM	25	0	15.54	0.036	15.58	0.036	15.56	0.036
5	64QAM	1	0	15.76	0.038	15.80	0.038	15.72	0.037
5	64QAM	1	12	15.73	0.037	15.74	0.037	15.79	0.038
5	64QAM	1	24	15.72	0.037	15.58	0.036	15.75	0.038
5	64QAM	12	0	14.59	0.029	14.63	0.029	14.68	0.029
5	64QAM	12	7	14.62	0.029	14.61	0.029	14.49	0.028
5	64QAM	12	13	14.50	0.028	14.57	0.029	14.63	0.029
5	64QAM	25	0	14.43	0.028	14.61	0.029	14.47	0.028



LTE Band 66				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				132072		132322		132572	
Frequency (MHz)				1720		1745		1770	
				dBm	W	dBm	W	dBm	W
20	QPSK	1	0	23.76	0.238	23.84	0.242	23.79	0.239
20	QPSK	1	49	23.73	0.236	23.69	0.234	23.67	0.233
20	QPSK	1	99	23.62	0.230	23.76	0.238	23.58	0.228
20	QPSK	50	0	22.75	0.188	22.80	0.191	22.76	0.189
20	QPSK	50	24	22.62	0.183	22.67	0.185	22.64	0.184
20	QPSK	50	50	22.52	0.179	22.66	0.185	22.56	0.180
20	QPSK	100	0	22.55	0.180	22.53	0.179	22.76	0.189
20	16QAM	1	0	22.74	0.188	22.99	0.199	22.82	0.191
20	16QAM	1	49	22.92	0.196	22.97	0.198	22.66	0.185
20	16QAM	1	99	22.86	0.193	22.82	0.191	22.79	0.190
20	16QAM	50	0	21.75	0.150	21.78	0.151	21.64	0.146
20	16QAM	50	24	21.68	0.147	21.60	0.145	21.67	0.147
20	16QAM	50	50	21.55	0.143	21.62	0.145	21.70	0.148
20	16QAM	100	0	21.64	0.146	21.81	0.152	21.60	0.145
20	64QAM	1	0	21.80	0.151	21.86	0.153	21.62	0.145
20	64QAM	1	49	21.61	0.145	21.72	0.149	21.75	0.150
20	64QAM	1	99	21.72	0.149	21.66	0.147	21.75	0.150
20	64QAM	50	0	20.59	0.115	20.72	0.118	20.59	0.115
20	64QAM	50	24	20.63	0.116	20.82	0.121	20.58	0.114
20	64QAM	50	50	20.54	0.113	20.56	0.114	20.56	0.114
20	64QAM	100	0	20.49	0.112	20.68	0.117	20.60	0.115



LTE Band 66				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				132047		132322		132597	
Frequency (MHz)				1717.5		1745		1772.5	
				dBm	W	dBm	W	dBm	W
15	QPSK	1	0	23.70	0.234	23.80	0.240	23.74	0.237
15	QPSK	1	37	23.76	0.238	23.67	0.233	23.66	0.232
15	QPSK	1	74	23.66	0.232	23.67	0.233	23.60	0.229
15	QPSK	36	0	22.72	0.187	22.74	0.188	22.66	0.185
15	QPSK	36	20	22.76	0.189	22.60	0.182	22.58	0.181
15	QPSK	36	39	22.69	0.186	22.68	0.185	22.61	0.182
15	QPSK	75	0	22.59	0.182	22.59	0.182	22.68	0.185
15	16QAM	1	0	22.84	0.192	22.90	0.195	22.96	0.198
15	16QAM	1	37	22.84	0.192	22.78	0.190	22.66	0.185
15	16QAM	1	74	22.73	0.187	22.94	0.197	22.83	0.192
15	16QAM	36	0	21.66	0.147	21.73	0.149	21.66	0.147
15	16QAM	36	20	21.49	0.141	21.42	0.139	21.67	0.147
15	16QAM	36	39	21.58	0.144	21.46	0.140	21.69	0.148
15	16QAM	75	0	21.49	0.141	21.65	0.146	21.50	0.141
15	64QAM	1	0	21.68	0.147	21.80	0.151	21.84	0.153
15	64QAM	1	37	21.66	0.147	21.69	0.148	21.66	0.147
15	64QAM	1	74	21.69	0.148	21.63	0.146	21.74	0.149
15	64QAM	36	0	20.60	0.115	20.63	0.116	20.69	0.117
15	64QAM	36	20	20.54	0.113	20.76	0.119	20.61	0.115
15	64QAM	36	39	20.62	0.115	20.56	0.114	20.63	0.116
15	64QAM	75	0	20.64	0.116	20.76	0.119	20.67	0.117



LTE Band 66				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				132022		132322		132622	
Frequency (MHz)				1715		1745		1775	
				dBm	W	dBm	W	dBm	W
10	QPSK	1	0	23.67	0.233	23.78	0.239	23.72	0.236
10	QPSK	1	25	23.57	0.228	23.57	0.228	23.60	0.229
10	QPSK	1	49	23.57	0.228	23.61	0.230	23.61	0.230
10	QPSK	25	0	22.67	0.185	22.80	0.191	22.75	0.188
10	QPSK	25	12	22.75	0.188	22.65	0.184	22.68	0.185
10	QPSK	25	25	22.65	0.184	22.63	0.183	22.61	0.182
10	QPSK	50	0	22.67	0.185	22.61	0.182	22.75	0.188
10	16QAM	1	0	22.88	0.194	22.98	0.199	22.84	0.192
10	16QAM	1	25	22.70	0.186	22.83	0.192	22.78	0.190
10	16QAM	1	49	22.69	0.186	22.84	0.192	22.85	0.193
10	16QAM	25	0	21.78	0.151	21.69	0.148	21.49	0.141
10	16QAM	25	12	21.58	0.144	21.57	0.144	21.60	0.145
10	16QAM	25	25	21.50	0.141	21.61	0.145	21.64	0.146
10	16QAM	50	0	21.46	0.140	21.64	0.146	21.50	0.141
10	64QAM	1	0	21.81	0.152	21.83	0.152	21.68	0.147
10	64QAM	1	25	21.54	0.143	21.53	0.142	21.78	0.151
10	64QAM	1	49	21.71	0.148	21.57	0.144	21.68	0.147
10	64QAM	25	0	20.68	0.117	20.60	0.115	20.64	0.116
10	64QAM	25	12	20.57	0.114	20.69	0.117	20.42	0.110
10	64QAM	25	25	20.60	0.115	20.51	0.112	20.41	0.110
10	64QAM	50	0	20.48	0.112	20.62	0.115	20.51	0.112



LTE Band 66				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				131997		132322		132647	
Frequency (MHz)				1712.5		1745		1777.5	
				dBm	W	dBm	W	dBm	W
5	QPSK	1	0	23.68	0.233	23.75	0.237	23.60	0.229
5	QPSK	1	12	23.59	0.229	23.60	0.229	23.58	0.228
5	QPSK	1	24	23.54	0.226	23.56	0.227	23.51	0.224
5	QPSK	12	0	22.77	0.189	22.81	0.191	22.64	0.184
5	QPSK	12	7	22.78	0.190	22.59	0.182	22.53	0.179
5	QPSK	12	13	22.57	0.181	22.69	0.186	22.50	0.178
5	QPSK	25	0	22.56	0.180	22.66	0.185	22.72	0.187
5	16QAM	1	0	22.70	0.186	22.91	0.195	22.79	0.190
5	16QAM	1	12	22.94	0.197	22.87	0.194	22.76	0.189
5	16QAM	1	24	22.81	0.191	22.93	0.196	22.75	0.188
5	16QAM	12	0	21.80	0.151	21.68	0.147	21.65	0.146
5	16QAM	12	7	21.51	0.142	21.74	0.149	21.73	0.149
5	16QAM	12	13	21.57	0.144	21.66	0.147	21.58	0.144
5	16QAM	25	0	21.50	0.141	21.61	0.145	21.55	0.143
5	64QAM	1	0	21.80	0.151	21.96	0.157	21.69	0.148
5	64QAM	1	12	21.59	0.144	21.67	0.147	21.81	0.152
5	64QAM	1	24	21.60	0.145	21.61	0.145	21.76	0.150
5	64QAM	12	0	20.62	0.115	20.64	0.116	20.58	0.114
5	64QAM	12	7	20.49	0.112	20.69	0.117	20.46	0.111
5	64QAM	12	13	20.61	0.115	20.53	0.113	20.45	0.111
5	64QAM	25	0	20.64	0.116	20.70	0.117	20.49	0.112





LTE Band 66				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				131987		132322		132657	
Frequency (MHz)				1711.5		1745		1778.5	
				dBm	W	dBm	W	dBm	W
3	QPSK	1	0	23.67	0.233	23.76	0.238	23.64	0.231
3	QPSK	1	8	23.62	0.230	23.63	0.231	23.66	0.232
3	QPSK	1	14	23.56	0.227	23.69	0.234	23.51	0.224
3	QPSK	8	0	22.55	0.180	22.64	0.184	22.62	0.183
3	QPSK	8	4	22.61	0.182	22.48	0.177	22.57	0.181
3	QPSK	8	7	22.70	0.186	22.55	0.180	22.48	0.177
3	QPSK	15	0	22.48	0.177	22.62	0.183	22.54	0.179
3	16QAM	1	0	22.79	0.190	22.94	0.197	22.93	0.196
3	16QAM	1	8	22.80	0.191	22.97	0.198	22.77	0.189
3	16QAM	1	14	22.74	0.188	22.85	0.193	22.88	0.194
3	16QAM	8	0	21.83	0.152	21.81	0.152	21.58	0.144
3	16QAM	8	4	21.66	0.147	21.63	0.146	21.61	0.145
3	16QAM	8	7	21.60	0.145	21.59	0.144	21.68	0.147
3	16QAM	15	0	21.59	0.144	21.69	0.148	21.54	0.143
3	64QAM	1	0	21.61	0.145	21.92	0.156	21.77	0.150
3	64QAM	1	8	21.72	0.149	21.72	0.149	21.70	0.148
3	64QAM	1	14	21.61	0.145	21.61	0.145	21.65	0.146
3	64QAM	8	0	20.58	0.114	20.59	0.115	20.61	0.115
3	64QAM	8	4	20.48	0.112	20.66	0.116	20.55	0.114
3	64QAM	8	7	20.61	0.115	20.49	0.112	20.54	0.113
3	64QAM	15	0	20.51	0.112	20.67	0.117	20.65	0.116



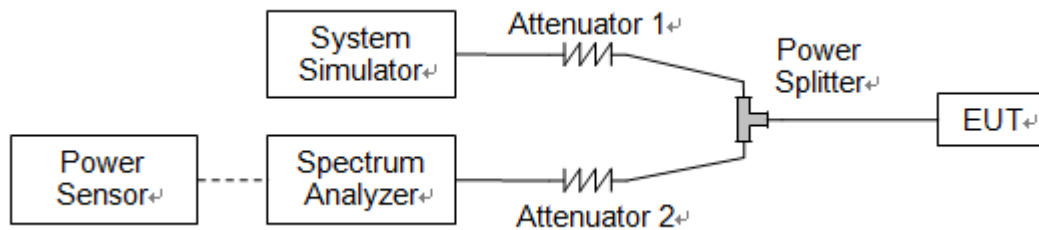
LTE Band 66				Measured E.I.R.P.					
BW [MHz]	Modulation	RB Size	RB Offset	Low Ch. / Freq.		Middle Ch. / Freq.		High Ch. / Freq.	
Channel				131979		132322		132665	
Frequency (MHz)				1710.7		1745		1779.3	
				dBm	W	dBm	W	dBm	W
1.4	QPSK	1	0	23.70	0.234	23.75	0.237	23.59	0.229
1.4	QPSK	1	3	23.70	0.234	23.57	0.228	23.58	0.228
1.4	QPSK	1	5	23.44	0.221	23.65	0.232	23.70	0.234
1.4	QPSK	3	0	22.76	0.189	22.77	0.189	22.74	0.188
1.4	QPSK	3	1	22.71	0.187	22.71	0.187	22.69	0.186
1.4	QPSK	3	3	22.69	0.186	22.70	0.186	22.71	0.187
1.4	QPSK	6	0	22.59	0.182	22.63	0.183	22.55	0.180
1.4	16QAM	1	0	22.83	0.192	22.92	0.196	22.74	0.188
1.4	16QAM	1	3	22.81	0.191	22.86	0.193	22.64	0.184
1.4	16QAM	1	5	22.73	0.187	22.88	0.194	22.75	0.188
1.4	16QAM	3	0	21.62	0.145	21.86	0.153	21.56	0.143
1.4	16QAM	3	1	21.71	0.148	21.57	0.144	21.69	0.148
1.4	16QAM	3	3	21.51	0.142	21.63	0.146	21.57	0.144
1.4	16QAM	6	0	21.58	0.144	21.69	0.148	21.50	0.141
1.4	64QAM	1	0	21.60	0.145	21.79	0.151	21.74	0.149
1.4	64QAM	1	3	21.66	0.147	21.62	0.145	21.64	0.146
1.4	64QAM	1	5	21.57	0.144	21.60	0.145	21.82	0.152
1.4	64QAM	3	0	20.50	0.112	20.62	0.115	20.68	0.117
1.4	64QAM	3	1	20.48	0.112	20.71	0.118	20.58	0.114
1.4	64QAM	3	3	20.58	0.114	20.50	0.112	20.45	0.111
1.4	64QAM	6	0	20.51	0.112	20.60	0.115	20.68	0.117

## 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	BW(MHz)	Channel Level	Channel	Frequency (MHz)	Modulation	99% BW (MHz)	26dB BW (MHz)	Verdict
B2	1.4	High	19193	1909.3	QPSK	1.10	1.23	PASS
B2	1.4	High	19193	1909.3	16QAM	1.10	1.24	PASS
B2	1.4	High	19193	1909.3	64QAM	1.10	1.23	PASS
B2	1.4	Low	18607	1850.7	QPSK	1.09	1.24	PASS
B2	1.4	Low	18607	1850.7	16QAM	1.10	1.24	PASS
B2	1.4	Low	18607	1850.7	64QAM	1.10	1.23	PASS
B2	1.4	Mid	18900	1880	QPSK	1.09	1.24	PASS
B2	1.4	Mid	18900	1880	16QAM	1.10	1.23	PASS
B2	1.4	Mid	18900	1880	64QAM	1.10	1.23	PASS
B2	3	High	19185	1908.5	QPSK	2.70	2.98	PASS
B2	3	High	19185	1908.5	16QAM	2.70	3.02	PASS
B2	3	High	19185	1908.5	64QAM	2.70	3.00	PASS
B2	3	Low	18615	1851.5	QPSK	2.69	3.00	PASS
B2	3	Low	18615	1851.5	16QAM	2.70	3.02	PASS
B2	3	Low	18615	1851.5	64QAM	2.70	2.99	PASS
B2	3	Mid	18900	1880	QPSK	2.70	3.00	PASS
B2	3	Mid	18900	1880	16QAM	2.70	3.02	PASS
B2	3	Mid	18900	1880	64QAM	2.70	2.99	PASS
B2	5	High	19175	1907.5	QPSK	4.51	4.95	PASS
B2	5	High	19175	1907.5	16QAM	4.51	4.97	PASS
B2	5	High	19175	1907.5	64QAM	4.51	5.01	PASS
B2	5	Low	18625	1852.5	QPSK	4.51	4.99	PASS
B2	5	Low	18625	1852.5	16QAM	4.51	4.97	PASS
B2	5	Low	18625	1852.5	64QAM	4.52	5.01	PASS
B2	5	Mid	18900	1880	QPSK	4.51	4.98	PASS
B2	5	Mid	18900	1880	16QAM	4.50	4.92	PASS
B2	5	Mid	18900	1880	64QAM	4.51	4.97	PASS
B2	10	High	19150	1905	QPSK	9.03	9.80	PASS
B2	10	High	19150	1905	16QAM	8.98	9.77	PASS
B2	10	High	19150	1905	64QAM	9.00	9.91	PASS
B2	10	Low	18650	1855	QPSK	8.99	9.82	PASS
B2	10	Low	18650	1855	16QAM	8.97	9.72	PASS
B2	10	Low	18650	1855	64QAM	9.00	9.84	PASS



B2	10	Mid	18900	1880	QPSK	9.01	9.85	PASS
B2	10	Mid	18900	1880	16QAM	8.99	9.76	PASS
B2	10	Mid	18900	1880	64QAM	9.00	9.81	PASS
B2	15	High	19125	1902.5	QPSK	13.52	14.70	PASS
B2	15	High	19125	1902.5	16QAM	13.48	14.72	PASS
B2	15	High	19125	1902.5	64QAM	13.46	14.75	PASS
B2	15	Low	18675	1857.5	QPSK	13.45	14.73	PASS
B2	15	Low	18675	1857.5	16QAM	13.49	14.73	PASS
B2	15	Low	18675	1857.5	64QAM	13.47	14.81	PASS
B2	15	Mid	18900	1880	QPSK	13.47	14.73	PASS
B2	15	Mid	18900	1880	16QAM	13.47	14.69	PASS
B2	15	Mid	18900	1880	64QAM	13.48	14.75	PASS
B2	20	High	19100	1900	QPSK	17.99	19.51	PASS
B2	20	High	19100	1900	16QAM	17.98	19.51	PASS
B2	20	High	19100	1900	64QAM	18.00	19.70	PASS
B2	20	Low	18700	1860	QPSK	17.95	19.48	PASS
B2	20	Low	18700	1860	16QAM	17.95	19.43	PASS
B2	20	Low	18700	1860	64QAM	17.96	19.43	PASS
B2	20	Mid	18900	1880	QPSK	17.96	19.61	PASS
B2	20	Mid	18900	1880	16QAM	18.01	19.53	PASS
B2	20	Mid	18900	1880	64QAM	18.00	19.79	PASS



LTE Band	BW(MHz)	Channel Level	Channel	Frequency (MHz)	Modulation	99% BW (MHz)	26dB BW (MHz)	Verdict
B4	1.4	High	20393	1754.3	QPSK	1.10	1.24	PASS
B4	1.4	High	20393	1754.3	16QAM	1.10	1.24	PASS
B4	1.4	High	20393	1754.3	64QAM	1.10	1.23	PASS
B4	1.4	Low	19957	1710.7	QPSK	1.09	1.23	PASS
B4	1.4	Low	19957	1710.7	16QAM	1.09	1.24	PASS
B4	1.4	Low	19957	1710.7	64QAM	1.10	1.23	PASS
B4	1.4	Mid	20175	1732.5	QPSK	1.09	1.23	PASS
B4	1.4	Mid	20175	1732.5	16QAM	1.10	1.24	PASS
B4	1.4	Mid	20175	1732.5	64QAM	1.10	1.24	PASS
B4	3	High	20385	1753.5	QPSK	2.70	3.00	PASS
B4	3	High	20385	1753.5	16QAM	2.70	3.01	PASS
B4	3	High	20385	1753.5	64QAM	2.71	2.99	PASS
B4	3	Low	19965	1711.5	QPSK	2.70	3.00	PASS
B4	3	Low	19965	1711.5	16QAM	2.70	3.00	PASS
B4	3	Low	19965	1711.5	64QAM	2.71	2.99	PASS
B4	3	Mid	20175	1732.5	QPSK	2.70	3.00	PASS
B4	3	Mid	20175	1732.5	16QAM	2.70	3.01	PASS
B4	3	Mid	20175	1732.5	64QAM	2.71	3.00	PASS
B4	5	High	20375	1752.5	QPSK	4.51	5.00	PASS
B4	5	High	20375	1752.5	16QAM	4.50	4.96	PASS
B4	5	High	20375	1752.5	64QAM	4.51	5.01	PASS
B4	5	Low	19975	1712.5	QPSK	4.51	5.00	PASS
B4	5	Low	19975	1712.5	16QAM	4.51	4.97	PASS
B4	5	Low	19975	1712.5	64QAM	4.52	4.98	PASS
B4	5	Mid	20175	1732.5	QPSK	4.50	4.97	PASS
B4	5	Mid	20175	1732.5	16QAM	4.50	4.98	PASS
B4	5	Mid	20175	1732.5	64QAM	4.51	5.00	PASS
B4	10	High	20350	1750	QPSK	9.01	9.79	PASS
B4	10	High	20350	1750	16QAM	8.99	9.79	PASS
B4	10	High	20350	1750	64QAM	9.02	9.80	PASS
B4	10	Low	20000	1715	QPSK	9.00	9.78	PASS
B4	10	Low	20000	1715	16QAM	8.98	9.75	PASS
B4	10	Low	20000	1715	64QAM	9.00	9.85	PASS
B4	10	Mid	20175	1732.5	QPSK	9.00	9.77	PASS
B4	10	Mid	20175	1732.5	16QAM	8.96	9.76	PASS



B4	10	Mid	20175	1732.5	64QAM	8.99	9.83	PASS
B4	15	High	20325	1747.5	QPSK	13.52	14.74	PASS
B4	15	High	20325	1747.5	16QAM	13.50	14.62	PASS
B4	15	High	20325	1747.5	64QAM	13.49	14.57	PASS
B4	15	Low	20025	1717.5	QPSK	13.50	14.73	PASS
B4	15	Low	20025	1717.5	16QAM	13.51	14.66	PASS
B4	15	Low	20025	1717.5	64QAM	13.45	14.76	PASS
B4	15	Mid	20175	1732.5	QPSK	13.48	14.59	PASS
B4	15	Mid	20175	1732.5	16QAM	13.47	14.62	PASS
B4	15	Mid	20175	1732.5	64QAM	13.45	14.67	PASS
B4	20	High	20300	1745	QPSK	17.99	19.53	PASS
B4	20	High	20300	1745	16QAM	18.00	19.65	PASS
B4	20	High	20300	1745	64QAM	18.03	19.64	PASS
B4	20	Low	20050	1720	QPSK	17.98	19.55	PASS
B4	20	Low	20050	1720	16QAM	17.97	19.54	PASS
B4	20	Low	20050	1720	64QAM	18.02	19.46	PASS
B4	20	Mid	20175	1732.5	QPSK	17.91	19.44	PASS
B4	20	Mid	20175	1732.5	16QAM	17.94	19.44	PASS
B4	20	Mid	20175	1732.5	64QAM	17.93	19.56	PASS



LTE Band	BW(MHz)	Channel Level	Channel	Frequency (MHz)	Modulation	99% BW (MHz)	26dB BW (MHz)	Verdict
B5	1.4	Low	20407	824.7	QPSK	1.09	1.24	PASS
B5	1.4	Low	20407	824.7	16QAM	1.09	1.24	PASS
B5	1.4	Low	20407	824.7	64QAM	1.10	1.24	PASS
B5	3	Low	20415	825.5	QPSK	2.70	2.98	PASS
B5	3	Low	20415	825.5	16QAM	2.70	3.02	PASS
B5	3	Low	20415	825.5	64QAM	2.71	3.01	PASS
B5	5	Low	20425	826.5	QPSK	4.51	4.99	PASS
B5	5	Low	20425	826.5	16QAM	4.51	4.96	PASS
B5	5	Low	20425	826.5	64QAM	4.52	4.98	PASS
B5	10	Low	20450	829	QPSK	9.00	9.81	PASS
B5	10	Low	20450	829	16QAM	8.96	9.79	PASS
B5	10	Low	20450	829	64QAM	8.98	9.82	PASS
B5	1.4	Mid	20525	836.5	QPSK	1.09	1.24	PASS
B5	1.4	Mid	20525	836.5	16QAM	1.10	1.24	PASS
B5	1.4	Mid	20525	836.5	64QAM	1.10	1.24	PASS
B5	3	Mid	20525	836.5	QPSK	2.70	3.00	PASS
B5	3	Mid	20525	836.5	16QAM	2.70	3.01	PASS
B5	3	Mid	20525	836.5	64QAM	2.71	2.99	PASS
B5	5	Mid	20525	836.5	QPSK	4.51	4.99	PASS
B5	5	Mid	20525	836.5	16QAM	4.50	4.97	PASS
B5	5	Mid	20525	836.5	64QAM	4.51	5.00	PASS
B5	10	Mid	20525	836.5	QPSK	9.01	9.79	PASS
B5	10	Mid	20525	836.5	16QAM	8.96	9.70	PASS
B5	10	Mid	20525	836.5	64QAM	8.99	9.85	PASS
B5	1.4	High	20643	848.3	QPSK	1.09	1.25	PASS
B5	1.4	High	20643	848.3	16QAM	1.10	1.23	PASS
B5	1.4	High	20643	848.3	64QAM	1.10	1.24	PASS
B5	3	High	20635	847.5	QPSK	2.70	3.00	PASS
B5	3	High	20635	847.5	16QAM	2.70	3.00	PASS
B5	3	High	20635	847.5	64QAM	2.70	2.97	PASS
B5	5	High	20625	846.5	QPSK	4.51	4.97	PASS
B5	5	High	20625	846.5	16QAM	4.50	4.98	PASS
B5	5	High	20625	846.5	64QAM	4.52	4.99	PASS
B5	10	High	20600	844	QPSK	8.98	9.78	PASS
B5	10	High	20600	844	16QAM	8.94	9.67	PASS





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B5	10	High	20600	844	64QAM	8.96	9.77	PASS
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LTE Band	BW(MHz)	Channel Level	Channel	Frequency (MHz)	Modulation	99% BW (MHz)	26dB BW (MHz)	Verdict
B7	5	High	21425	2567.5	QPSK	4.50	5.00	PASS
B7	5	High	21425	2567.5	16QAM	4.51	4.96	PASS
B7	5	High	21425	2567.5	64QAM	4.51	4.95	PASS
B7	5	Low	20775	2502.5	QPSK	4.50	4.92	PASS
B7	5	Low	20775	2502.5	16QAM	4.51	4.93	PASS
B7	5	Low	20775	2502.5	64QAM	4.52	4.96	PASS
B7	5	Mid	21100	2535	QPSK	4.50	5.01	PASS
B7	5	Mid	21100	2535	16QAM	4.51	4.97	PASS
B7	5	Mid	21100	2535	64QAM	4.50	4.96	PASS
B7	10	High	21400	2565	QPSK	8.99	9.82	PASS
B7	10	High	21400	2565	16QAM	8.96	9.71	PASS
B7	10	High	21400	2565	64QAM	8.99	9.77	PASS
B7	10	Low	20800	2505	QPSK	9.00	9.82	PASS
B7	10	Low	20800	2505	16QAM	8.97	9.82	PASS
B7	10	Low	20800	2505	64QAM	8.99	9.82	PASS
B7	10	Mid	21100	2535	QPSK	8.99	9.85	PASS
B7	10	Mid	21100	2535	16QAM	8.97	9.77	PASS
B7	10	Mid	21100	2535	64QAM	8.99	9.82	PASS
B7	15	High	21375	2562.5	QPSK	13.49	14.56	PASS
B7	15	High	21375	2562.5	16QAM	13.46	14.56	PASS
B7	15	High	21375	2562.5	64QAM	13.45	14.63	PASS
B7	15	Low	20825	2507.5	QPSK	13.43	14.59	PASS
B7	15	Low	20825	2507.5	16QAM	13.47	14.68	PASS
B7	15	Low	20825	2507.5	64QAM	13.45	14.57	PASS
B7	15	Mid	21100	2535	QPSK	13.49	14.65	PASS
B7	15	Mid	21100	2535	16QAM	13.46	14.62	PASS
B7	15	Mid	21100	2535	64QAM	13.46	14.55	PASS
B7	20	High	21350	2560	QPSK	17.92	19.42	PASS
B7	20	High	21350	2560	16QAM	17.97	19.48	PASS
B7	20	High	21350	2560	64QAM	17.94	19.52	PASS
B7	20	Low	20850	2510	QPSK	17.94	19.58	PASS
B7	20	Low	20850	2510	16QAM	17.96	19.43	PASS
B7	20	Low	20850	2510	64QAM	17.97	19.54	PASS
B7	20	Mid	21100	2535	QPSK	17.95	19.53	PASS
B7	20	Mid	21100	2535	16QAM	18.03	19.50	PASS



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B7	20	Mid	21100	2535	64QAM	18.02	19.60	PASS
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LTE Band	BW(MHz)	Channel Level	Channel	Frequency (MHz)	Modulation	99% BW (MHz)	26dB BW (MHz)	Verdict
B12	1.4	Low	23017	699.7	QPSK	1.09	1.23	PASS
B12	1.4	Low	23017	699.7	16QAM	1.10	1.23	PASS
B12	1.4	Low	23017	699.7	64QAM	1.10	1.23	PASS
B12	3	Low	23025	700.5	QPSK	2.70	3.02	PASS
B12	3	Low	23025	700.5	16QAM	2.71	2.99	PASS
B12	3	Low	23025	700.5	64QAM	2.70	2.99	PASS
B12	5	Low	23035	701.5	QPSK	4.50	4.98	PASS
B12	5	Low	23035	701.5	16QAM	4.50	4.96	PASS
B12	5	Low	23035	701.5	64QAM	4.51	4.95	PASS
B12	10	Low	23060	704	QPSK	8.98	9.77	PASS
B12	10	Low	23060	704	16QAM	8.94	9.72	PASS
B12	10	Low	23060	704	64QAM	8.95	9.79	PASS
B12	1.4	Mid	23095	707.5	QPSK	1.09	1.24	PASS
B12	1.4	Mid	23095	707.5	16QAM	1.10	1.23	PASS
B12	1.4	Mid	23095	707.5	64QAM	1.10	1.24	PASS
B12	3	Mid	23095	707.5	QPSK	2.70	3.00	PASS
B12	3	Mid	23095	707.5	16QAM	2.70	2.98	PASS
B12	3	Mid	23095	707.5	64QAM	2.70	2.96	PASS
B12	5	Mid	23095	707.5	QPSK	4.50	4.96	PASS
B12	5	Mid	23095	707.5	16QAM	4.50	4.96	PASS
B12	5	Mid	23095	707.5	64QAM	4.51	4.94	PASS
B12	10	Mid	23095	707.5	QPSK	8.99	9.82	PASS
B12	10	Mid	23095	707.5	16QAM	8.99	9.80	PASS
B12	10	Mid	23095	707.5	64QAM	8.97	9.80	PASS
B12	1.4	High	23173	715.3	QPSK	1.09	1.24	PASS
B12	1.4	High	23173	715.3	16QAM	1.10	1.24	PASS
B12	1.4	High	23173	715.3	64QAM	1.10	1.24	PASS
B12	3	High	23165	714.5	QPSK	2.70	2.99	PASS
B12	3	High	23165	714.5	16QAM	2.70	3.01	PASS
B12	3	High	23165	714.5	64QAM	2.70	2.98	PASS
B12	5	High	23155	713.5	QPSK	4.50	4.96	PASS
B12	5	High	23155	713.5	16QAM	4.52	5.02	PASS
B12	5	High	23155	713.5	64QAM	4.51	4.98	PASS
B12	10	High	23130	711	QPSK	9.04	9.84	PASS
B12	10	High	23130	711	16QAM	8.98	9.77	PASS



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B12	10	High	23130	711	64QAM	9.00	9.84	PASS
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LTE Band	BW(MHz)	Channel Level	Channel	Frequency (MHz)	Modulation	99% BW (MHz)	26dB BW (MHz)	Verdict
B13	5	Low	23205	779.5	QPSK	4.49	4.95	PASS
B13	5	Low	23205	779.5	16QAM	4.49	4.99	PASS
B13	5	Low	23205	779.5	64QAM	4.50	4.99	PASS
B13	5	Mid	23230	782	QPSK	4.49	4.97	PASS
B13	5	Mid	23230	782	16QAM	4.49	4.92	PASS
B13	5	Mid	23230	782	64QAM	4.51	4.96	PASS
B13	10	Mid	23230	782	QPSK	8.96	9.70	PASS
B13	10	Mid	23230	782	16QAM	8.93	9.76	PASS
B13	10	Mid	23230	782	64QAM	8.96	9.72	PASS
B13	5	High	23255	784.5	QPSK	4.52	4.96	PASS
B13	5	High	23255	784.5	16QAM	4.51	4.98	PASS
B13	5	High	23255	784.5	64QAM	4.52	4.98	PASS

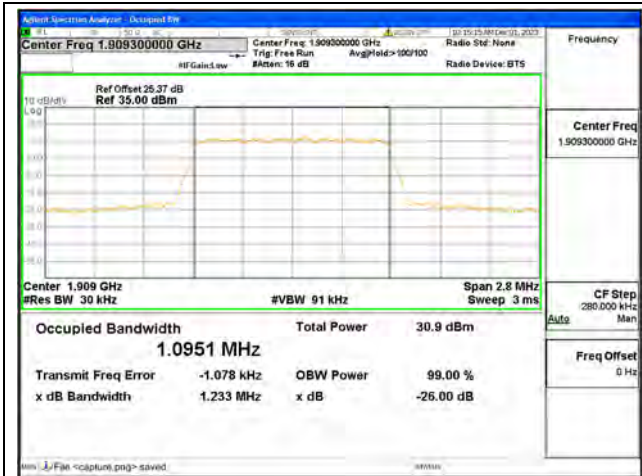


LTE Band	BW(MHz)	Channel Level	Channel	Frequency (MHz)	Modulation	99% BW (MHz)	26dB BW (MHz)	Verdict
B66	1.4	High	132665	1779.3	QPSK	1.09	1.24	PASS
B66	1.4	High	132665	1779.3	16QAM	1.10	1.24	PASS
B66	1.4	High	132665	1779.3	64QAM	1.10	1.23	PASS
B66	1.4	Low	131979	1710.7	QPSK	1.09	1.23	PASS
B66	1.4	Low	131979	1710.7	16QAM	1.10	1.23	PASS
B66	1.4	Low	131979	1710.7	64QAM	1.09	1.24	PASS
B66	1.4	Mid	132322	1745	QPSK	1.10	1.23	PASS
B66	1.4	Mid	132322	1745	16QAM	1.09	1.23	PASS
B66	1.4	Mid	132322	1745	64QAM	1.09	1.24	PASS
B66	3	High	132657	1778.5	QPSK	2.70	3.01	PASS
B66	3	High	132657	1778.5	16QAM	2.70	3.01	PASS
B66	3	High	132657	1778.5	64QAM	2.70	2.99	PASS
B66	3	Low	131987	1711.5	QPSK	2.70	2.98	PASS
B66	3	Low	131987	1711.5	16QAM	2.70	3.01	PASS
B66	3	Low	131987	1711.5	64QAM	2.71	3.00	PASS
B66	3	Mid	132322	1745	QPSK	2.70	2.99	PASS
B66	3	Mid	132322	1745	16QAM	2.71	3.02	PASS
B66	3	Mid	132322	1745	64QAM	2.71	3.00	PASS
B66	5	High	132647	1777.5	QPSK	4.50	4.94	PASS
B66	5	High	132647	1777.5	16QAM	4.51	4.95	PASS
B66	5	High	132647	1777.5	64QAM	4.51	4.95	PASS
B66	5	Low	131997	1712.5	QPSK	4.50	4.97	PASS
B66	5	Low	131997	1712.5	16QAM	4.50	4.97	PASS
B66	5	Low	131997	1712.5	64QAM	4.50	4.94	PASS
B66	5	Mid	132322	1745	QPSK	4.51	5.00	PASS
B66	5	Mid	132322	1745	16QAM	4.50	4.95	PASS
B66	5	Mid	132322	1745	64QAM	4.50	4.95	PASS
B66	10	High	132622	1775	QPSK	9.04	9.84	PASS
B66	10	High	132622	1775	16QAM	8.99	9.77	PASS
B66	10	High	132622	1775	64QAM	9.01	9.83	PASS
B66	10	Low	132022	1715	QPSK	9.02	9.86	PASS
B66	10	Low	132022	1715	16QAM	8.98	9.77	PASS
B66	10	Low	132022	1715	64QAM	8.98	9.84	PASS
B66	10	Mid	132322	1745	QPSK	9.01	9.80	PASS
B66	10	Mid	132322	1745	16QAM	8.97	9.77	PASS



B66	10	Mid	132322	1745	64QAM	9.00	9.83	PASS
B66	15	High	132597	1772.5	QPSK	13.51	14.63	PASS
B66	15	High	132597	1772.5	16QAM	13.50	14.70	PASS
B66	15	High	132597	1772.5	64QAM	13.48	14.63	PASS
B66	15	Low	132047	1717.5	QPSK	13.50	14.76	PASS
B66	15	Low	132047	1717.5	16QAM	13.46	14.77	PASS
B66	15	Low	132047	1717.5	64QAM	13.49	14.64	PASS
B66	15	Mid	132322	1745	QPSK	13.52	14.59	PASS
B66	15	Mid	132322	1745	16QAM	13.47	14.61	PASS
B66	15	Mid	132322	1745	64QAM	13.48	14.71	PASS
B66	20	High	132572	1770	QPSK	17.95	19.46	PASS
B66	20	High	132572	1770	16QAM	17.97	19.38	PASS
B66	20	High	132572	1770	64QAM	17.98	19.44	PASS
B66	20	Low	132072	1720	QPSK	17.98	19.59	PASS
B66	20	Low	132072	1720	16QAM	18.00	19.39	PASS
B66	20	Low	132072	1720	64QAM	17.99	19.45	PASS
B66	20	Mid	132322	1745	QPSK	17.96	19.42	PASS
B66	20	Mid	132322	1745	16QAM	18.00	19.48	PASS
B66	20	Mid	132322	1745	64QAM	17.97	19.48	PASS

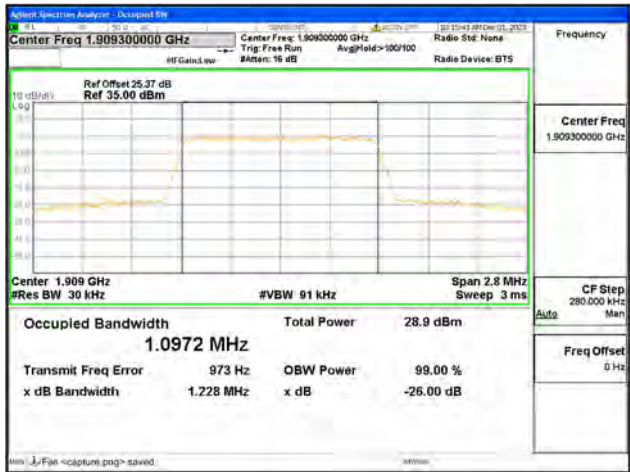




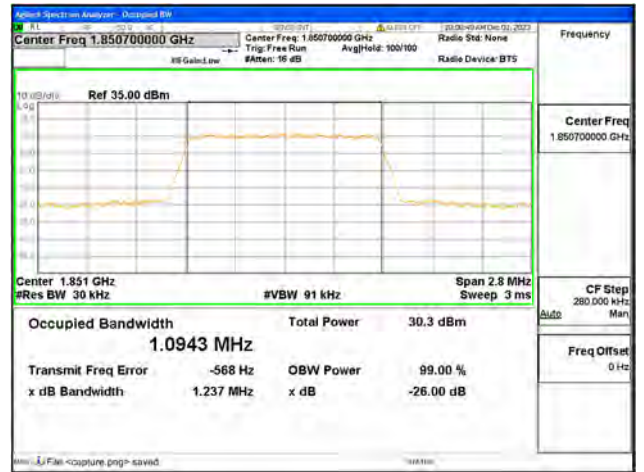
B2 / 1.4MHz / QPSK/ High CH



B2 / 1.4MHz / 16QAM/ High CH



B2 / 1.4MHz / 64QAM/ High CH



B2 / 1.4MHz / QPSK/ Low CH



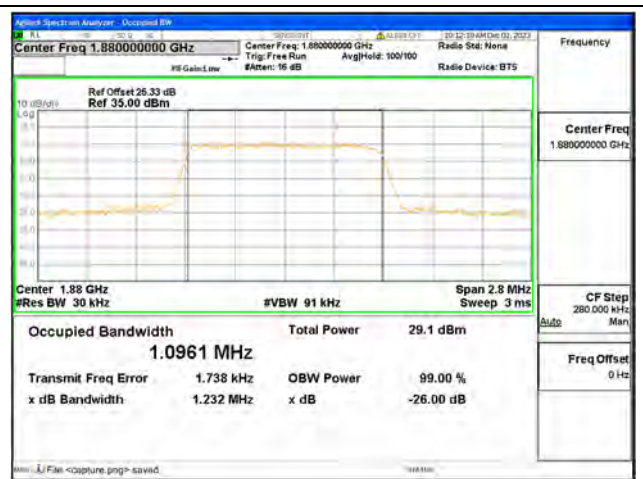
B2 / 1.4MHz / 16QAM/ Low CH



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 / 3MHz / QPSK/ High CH



B2 / 3MHz / 16QAM/ High CH



B2 / 3MHz / 64QAM/ High CH



B2 / 3MHz / QPSK/ Low CH



B2 / 3MHz / 16QAM/ Low CH



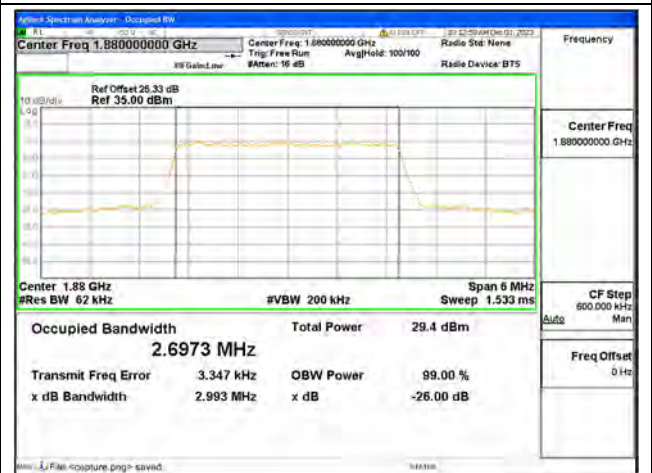
B2 / 3MHz / 64QAM/ Low CH



B2 / 3MHz / QPSK/ Mid CH



B2 / 3MHz / 16QAM/ Mid CH



B2 / 3MHz / 64QAM/ Mid CH



B2 / 5MHz / QPSK/ High CH



B2 / 5MHz / 16QAM/ High CH



B2 / 5MHz / 64QAM/ High CH



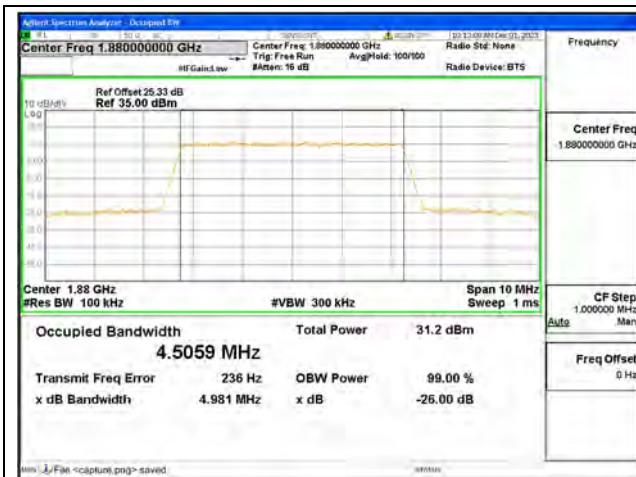
B2 / 5MHz / QPSK/ Low CH



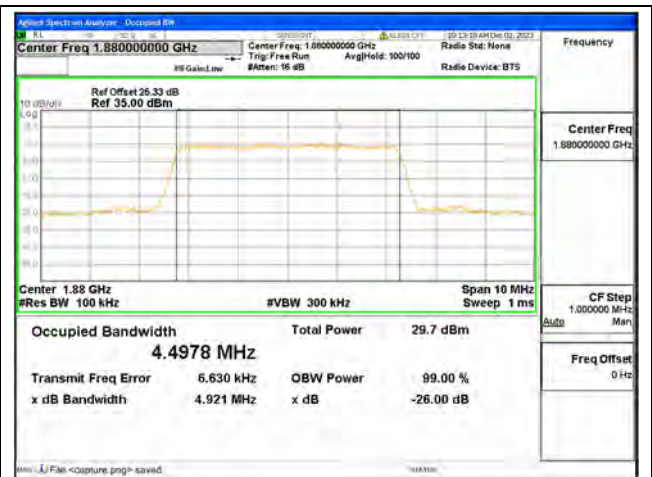
B2 / 5MHz / 16QAM/ Low CH



B2 / 5MHz / 64QAM/ Low CH



B2 / 5MHz / QPSK/ Mid CH



B2 / 5MHz / 16QAM/ Mid CH



B2 / 5MHz / 64QAM/ Mid CH



B2 / 10MHz / QPSK/ High CH



B2 / 10MHz / 16QAM/ High CH



B2 / 10MHz / 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 / 15MHz / QPSK/ High CH



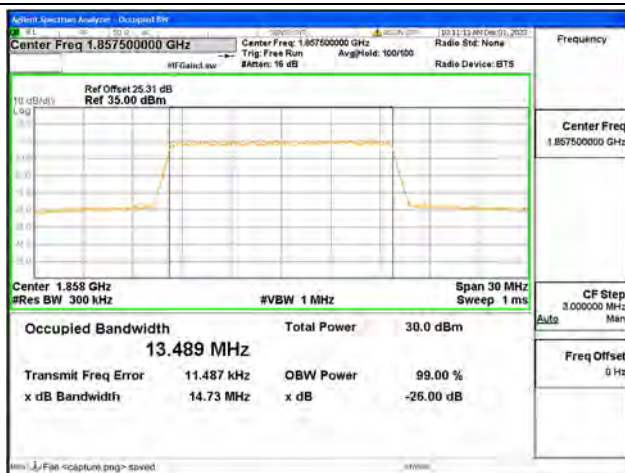
B2 / 15MHz / 16QAM/ High CH



B2 / 15MHz / 64QAM/ High CH



B2 / 15MHz / QPSK/ Low CH



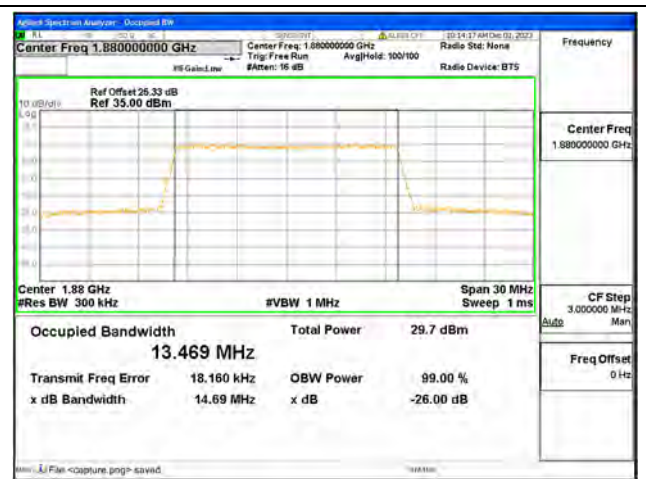
B2 / 15MHz / 16QAM/ Low CH



B2 / 15MHz / 64QAM/ Low CH



B2 / 15MHz / QPSK/ Mid CH



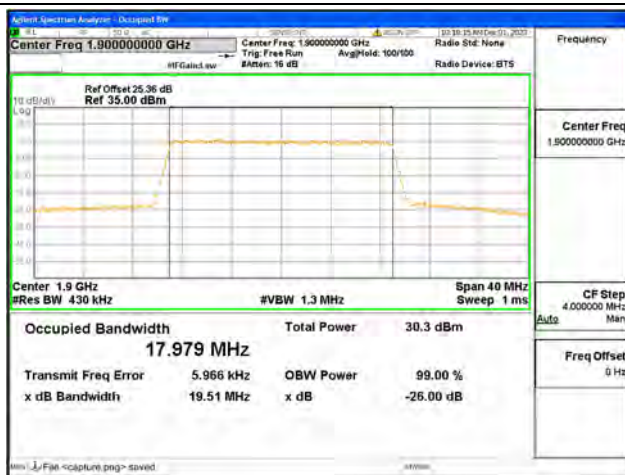
B2 / 15MHz / 16QAM/ Mid CH



B2 / 15MHz / 64QAM/ Mid CH



B2 / 20MHz / QPSK/ High CH



B2 / 20MHz / 16QAM/ High CH

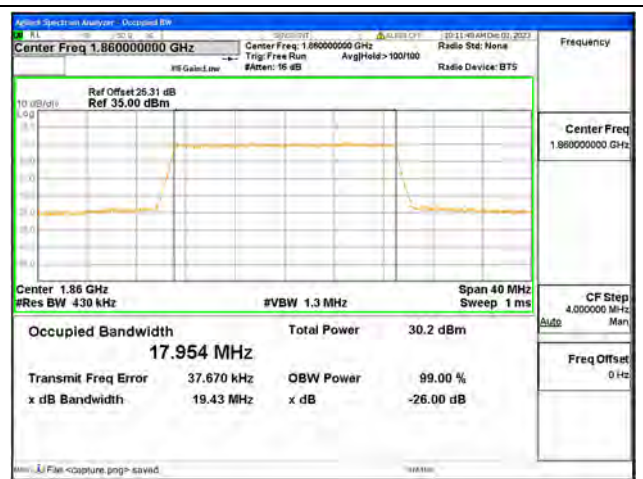


B2 / 20MHz / 64QAM/ High CH





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



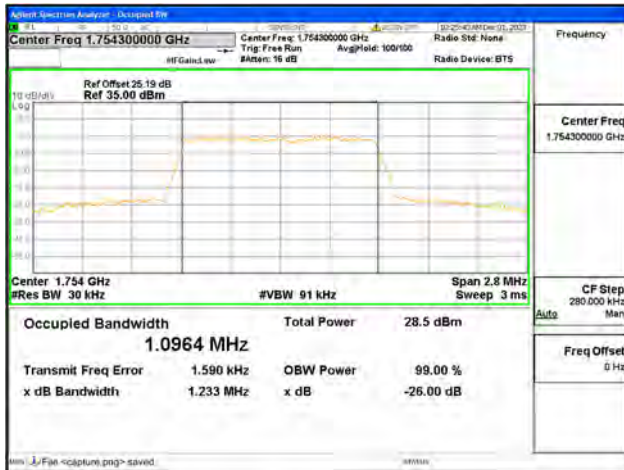
B2 / 20MHz / 64QAM / Mid CH



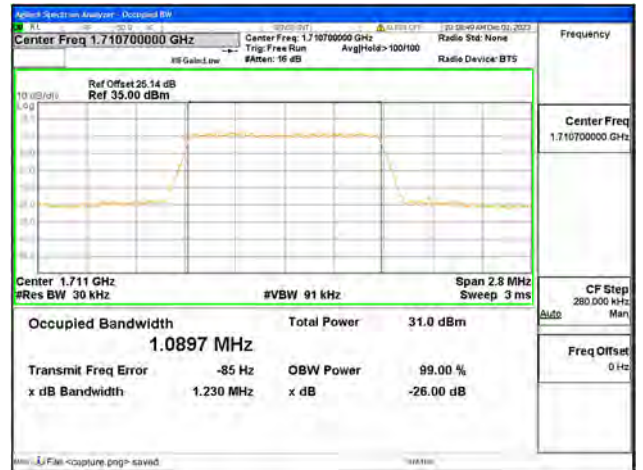
B4 / 1.4MHz / QPSK/ High CH



B4 / 1.4MHz / 16QAM/ High CH



B4 / 1.4MHz / 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 / 3MHz / QPSK/ High CH



B4 / 3MHz / 16QAM/ High CH



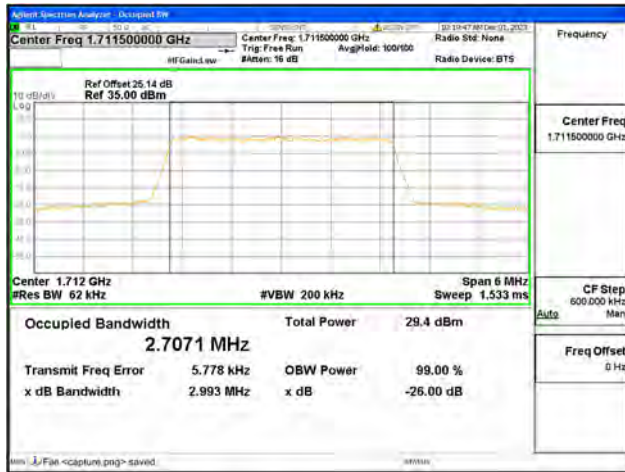
B4 / 3MHz / 64QAM/ High CH



B4 / 3MHz / QPSK/ Low CH



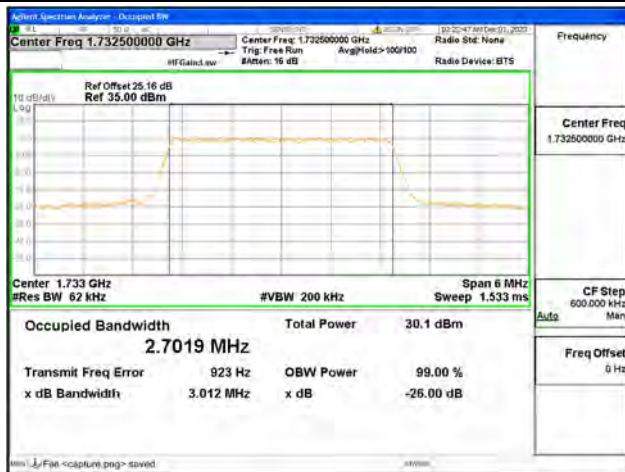
B4 / 3MHz / 16QAM/ Low CH



B4 / 3MHz / 64QAM/ Low CH



B4 / 3MHz / QPSK/ Mid CH



B4 / 3MHz / 16QAM/ Mid CH



B4 / 3MHz / 64QAM/ Mid CH



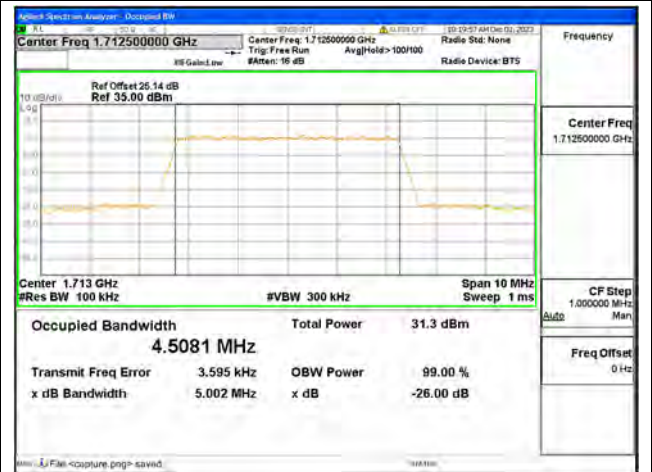
B4 / 5MHz / QPSK/ High CH



B4 / 5MHz / 16QAM/ High CH



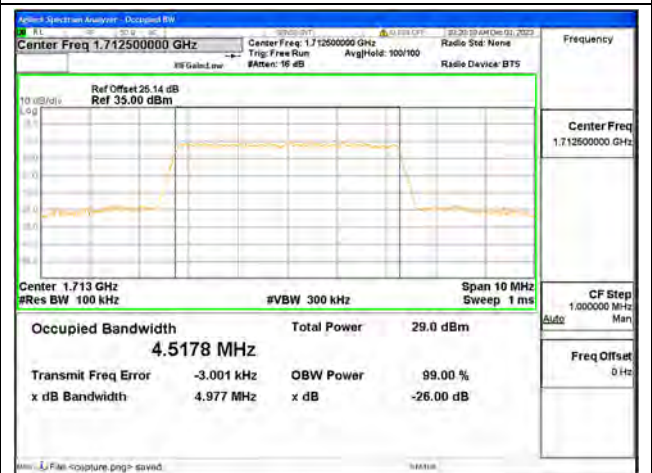
B4 / 5MHz / 64QAM/ High CH



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 / 10MHz / QPSK/ High CH



B4 / 10MHz / 16QAM/ High CH



B4 / 10MHz / 64QAM/ High CH



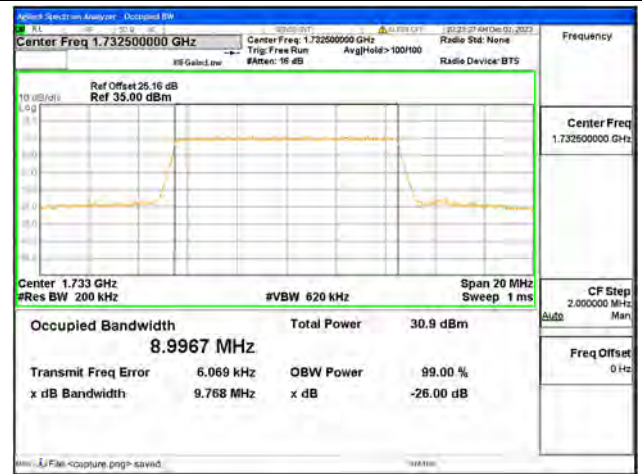
B4 / 10MHz / QPSK/ Low CH



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



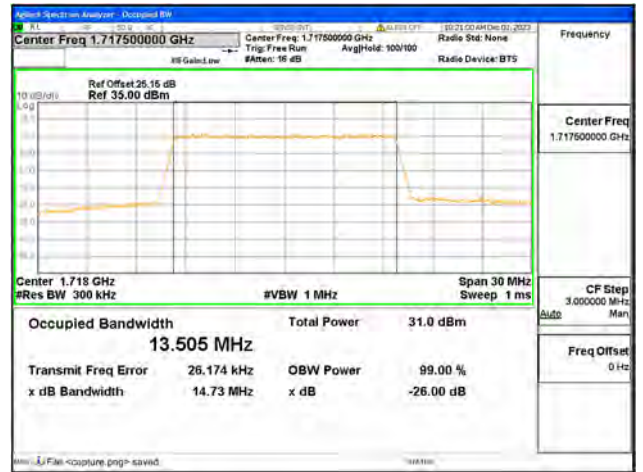
B4 / 15MHz / QPSK/ High CH



B4 / 15MHz / 16QAM/ High CH



B4 / 15MHz / 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 / 20MHz / QPSK/ High CH



B4 / 20MHz / 16QAM/ High CH



B4 / 20MHz / 64QAM/ High CH



B4 / 20MHz / QPSK/ Low CH



B4 / 20MHz / 16QAM/ Low CH



B4 / 20MHz / 64QAM/ Low CH



B4 / 20MHz / QPSK/ Mid CH



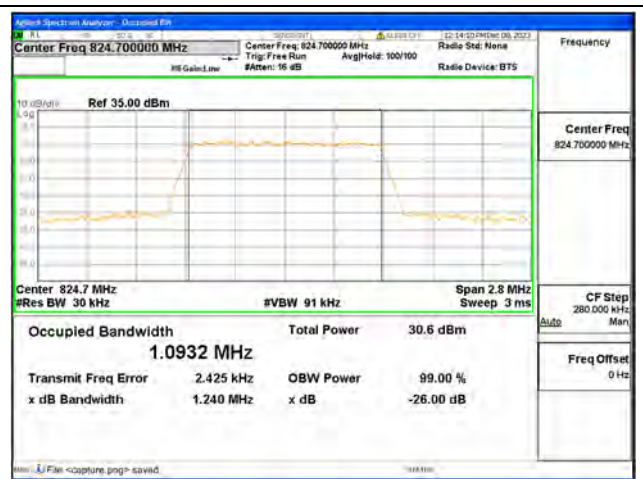
B4 / 20MHz / 16QAM/ Mid CH



B4 / 20MHz / 64QAM/ Mid CH



B5 / 1.4MHz / QPSK/ Low CH



B5 / 1.4MHz / 16QAM/ Low CH



B5 / 1.4MHz / 64QAM/ Low CH



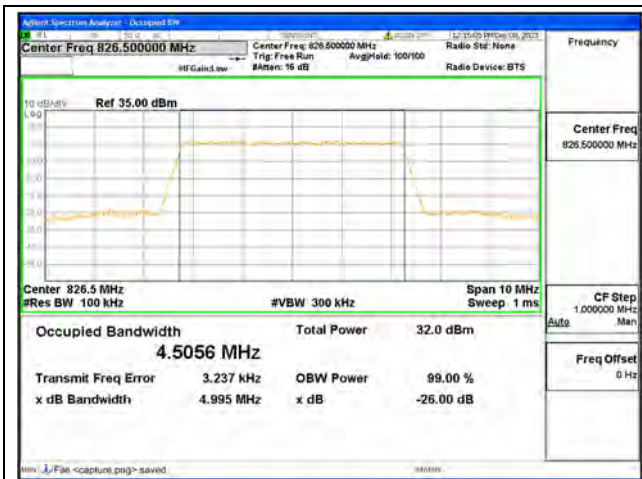
B5 / 3MHz / QPSK/ Low CH



B5 / 3MHz / 16QAM/ Low CH



B5 / 3MHz / 64QAM/ Low CH



B5 / 5MHz / QPSK/ Low CH



B5 / 5MHz / 16QAM/ Low CH



B5 / 5MHz / 64QAM/ Low CH



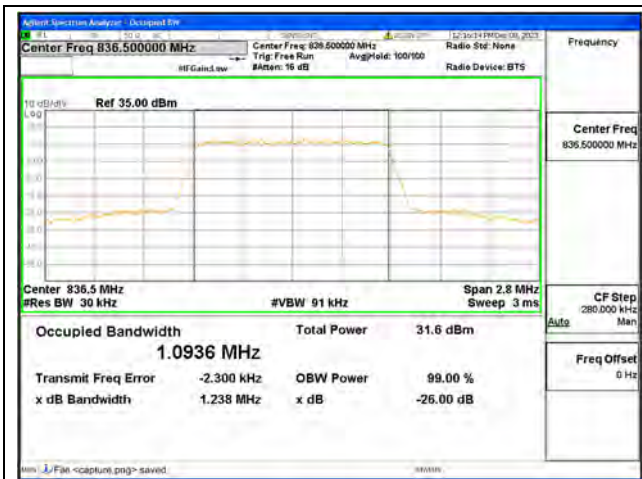
B5 / 10MHz / QPSK/ Low CH



B5 / 10MHz / 16QAM/ Low CH



B5 / 10MHz / 64QAM/ Low CH



B5 / 1.4MHz / QPSK/ Mid CH



B5 / 1.4MHz / 16QAM/ Mid CH



B5 / 1.4MHz / 64QAM/ Mid CH



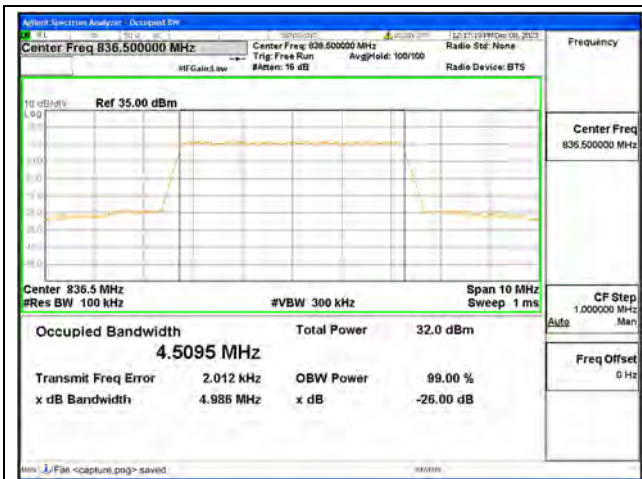
B5 / 3MHz / QPSK/ Mid CH



B5 / 3MHz / 16QAM/ Mid CH



B5 / 3MHz / 64QAM/ Mid CH



B5 / 5MHz / QPSK/ Mid CH



B5 / 5MHz / 16QAM/ Mid CH



B5 / 5MHz / 64QAM/ Mid CH



B5 / 10MHz / QPSK/ Mid CH



B5 / 10MHz / 16QAM/ Mid CH



B5 / 10MHz / 64QAM/ Mid CH



B5 / 1.4MHz / QPSK/ High CH



B5 / 1.4MHz / 16QAM/ High CH



B5 / 1.4MHz / 64QAM/ High CH



B5 / 3MHz / QPSK/ High CH



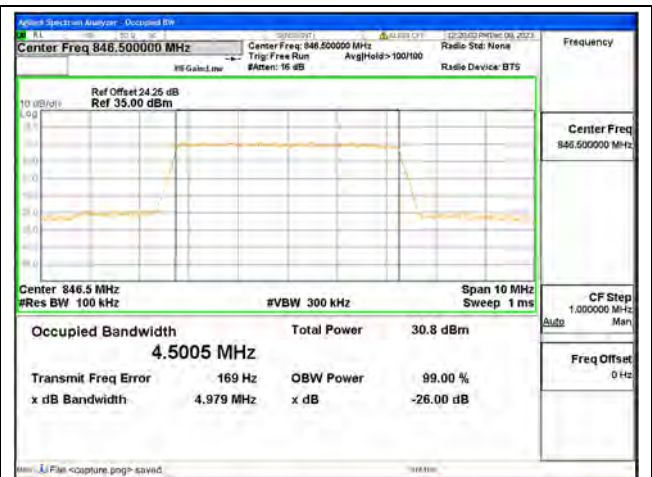
B5 / 3MHz / 16QAM/ High CH



B5 / 3MHz / 64QAM/ High CH



B5 / 5MHz / QPSK/ High CH



B5 / 5MHz / 16QAM/ High CH



B5 / 5MHz / 64QAM/ High CH



B5 / 10MHz / QPSK/ High CH



B5 / 10MHz / 16QAM/ High CH



B5 / 10MHz / 64QAM/ High CH





B7 / 5MHz / QPSK/ High CH



B7 / 5MHz / 16QAM/ High CH



B7 / 5MHz / 64QAM/ High CH



B7 / 5MHz / QPSK/ Low CH



B7 / 5MHz / 16QAM/ Low CH



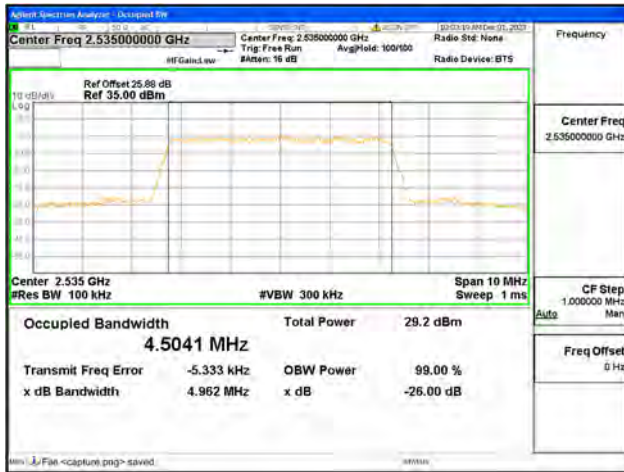
B7 / 5MHz / 64QAM/ Low CH



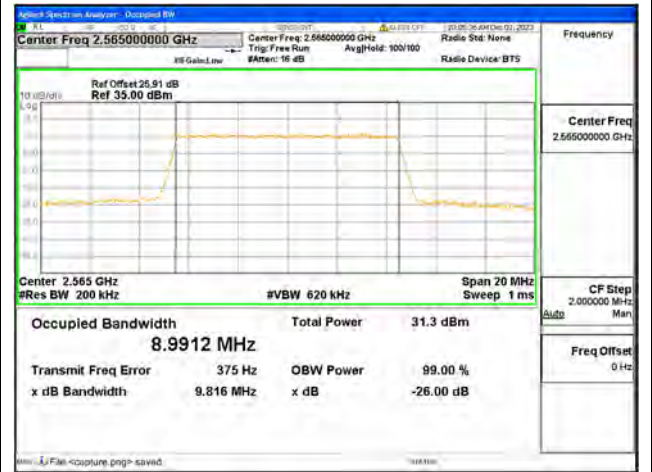
B7 / 5MHz / QPSK/ Mid CH



B7 / 5MHz / 16QAM/ Mid CH



B7 / 5MHz / 64QAM/ Mid CH



B7 / 10MHz / QPSK/ High CH



B7 / 10MHz / 16QAM/ High CH



B7 / 10MHz / 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 / 15MHz / QPSK/ High CH



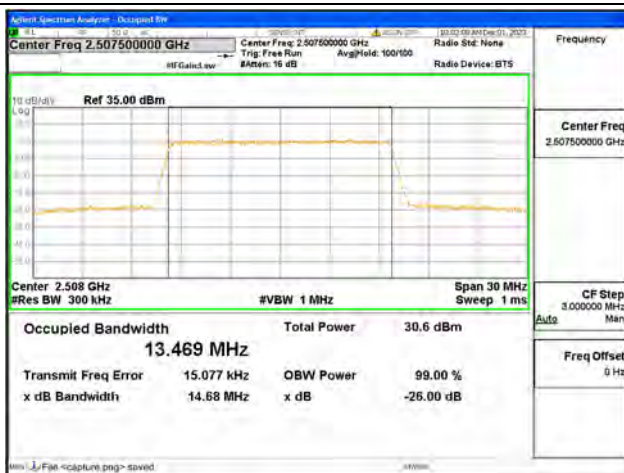
B7 / 15MHz / 16QAM/ High CH



B7 / 15MHz / 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 / 20MHz / QPSK/ High CH



B7 / 20MHz / 16QAM/ High CH



B7 / 20MHz / 64QAM/ High CH



B7 / 20MHz / QPSK/ Low CH



B7 / 20MHz / 16QAM/ Low CH



B7 / 20MHz / 64QAM/ Low CH



B7 / 20MHz / QPSK/ Mid CH



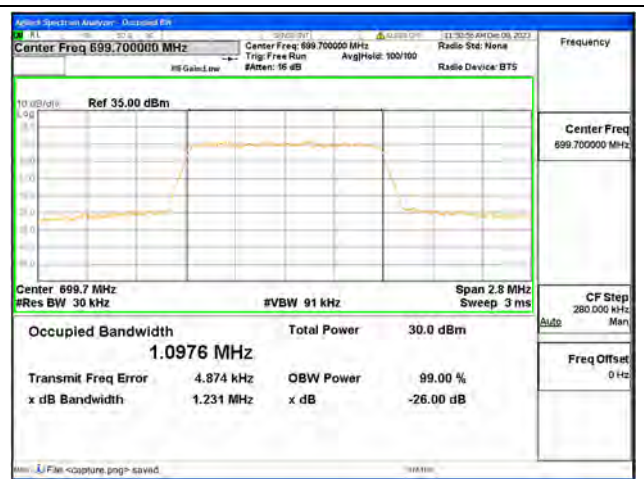
B7 / 20MHz / 16QAM/ Mid CH



B7 / 20MHz / 64QAM/ Mid CH



B12 / 1.4MHz / QPSK/ Low CH



B12 / 1.4MHz / 16QAM/ Low CH



B12 / 1.4MHz / 64QAM/ Low CH



B12 / 3MHz / QPSK/ Low CH



B12 / 3MHz / 16QAM/ Low CH



B12 / 3MHz / 64QAM/ Low CH



B12 / 5MHz / QPSK/ Low CH



B12 / 5MHz / 16QAM/ Low CH



B12 / 5MHz / 64QAM/ Low CH



B12 / 10MHz / QPSK/ Low CH



B12 / 10MHz / 16QAM/ Low CH



B12 / 10MHz / 64QAM/ Low CH





B12 / 1.4MHz / QPSK/ Mid CH



B12 / 1.4MHz / 16QAM/ Mid CH



B12 / 1.4MHz / 64QAM/ Mid CH



B12 / 3MHz / QPSK/ Mid CH



B12 / 3MHz / 16QAM/ Mid CH



B12 / 3MHz / 64QAM/ Mid CH



B12 / 5MHz / QPSK / Mid CH



B12 / 5MHz / 16QAM / Mid CH



B12 / 5MHz / 64QAM / Mid CH



B12 / 10MHz / QPSK / Mid CH



B12 / 10MHz / 16QAM / Mid CH



B12 / 10MHz / 64QAM / Mid CH



B12 / 1.4MHz / QPSK / High CH



B12 / 1.4MHz / 16QAM / High CH



B12 / 1.4MHz / 64QAM / High CH



B12 / 3MHz / QPSK / High CH



B12 / 3MHz / 16QAM / High CH



B12 / 3MHz / 64QAM / High CH



B12 / 5MHz / QPSK/ High CH



B12 / 5MHz / 16QAM/ High CH



B12 / 5MHz / 64QAM/ High CH



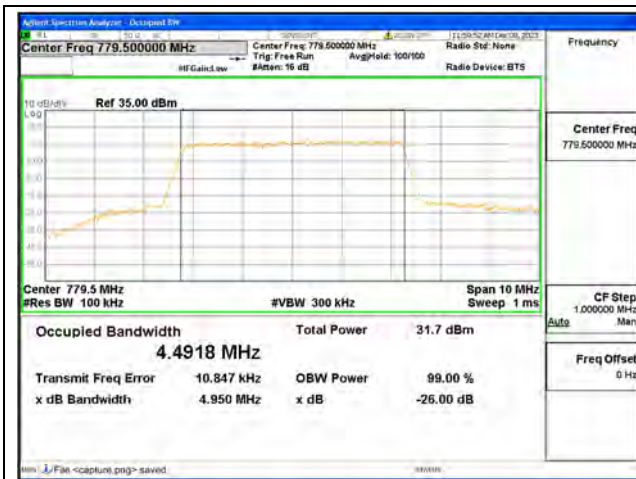
B12 / 10MHz / QPSK/ High CH



B12 / 10MHz / 16QAM/ High CH



B12 / 10MHz / 64QAM/ High CH



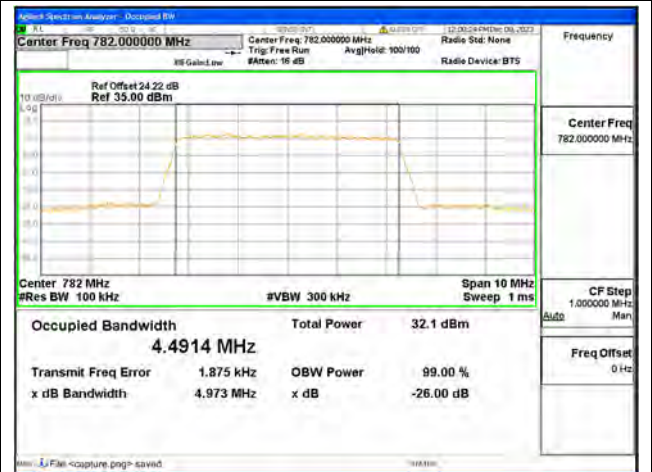
B13 / 5MHz / QPSK/ Low CH



B13 / 5MHz / 16QAM/ Low CH



B13 / 5MHz / 64QAM/ Low CH



B13 / 5MHz / QPSK/ Mid CH



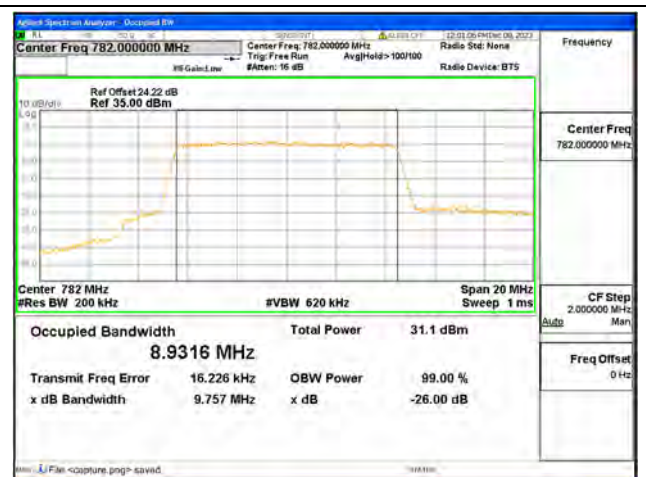
B13 / 5MHz / 16QAM/ Mid CH



B13 / 5MHz / 64QAM/ Mid CH



B13 / 10MHz / QPSK/ Mid CH



B13 / 10MHz / 16QAM/ Mid CH



B13 / 10MHz / 64QAM/ Mid CH



B13 / 5MHz / QPSK/ High CH



B13 / 5MHz / 16QAM/ High CH



B13 / 5MHz / 64QAM/ High CH



B66 / 1.4MHz / QPSK/ High CH



B66 / 1.4MHz / 16QAM/ High CH



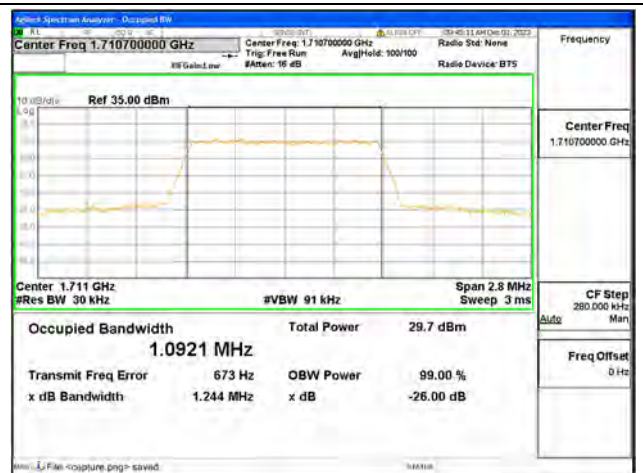
B66 / 1.4MHz / 64QAM/ High CH



B66 / 1.4MHz / QPSK/ Low CH



B66 / 1.4MHz / 16QAM/ Low CH



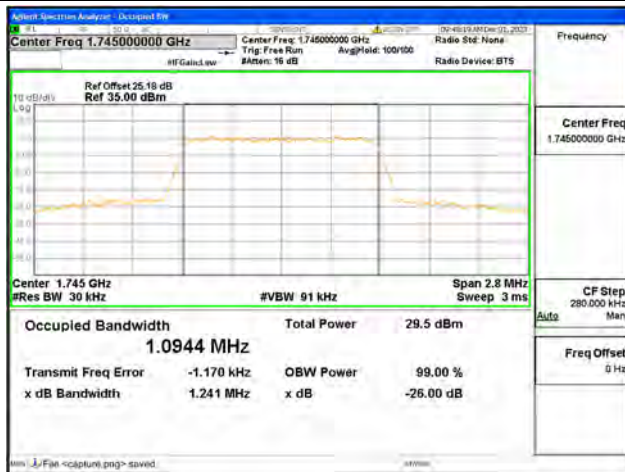
B66 / 1.4MHz / 64QAM/ Low CH



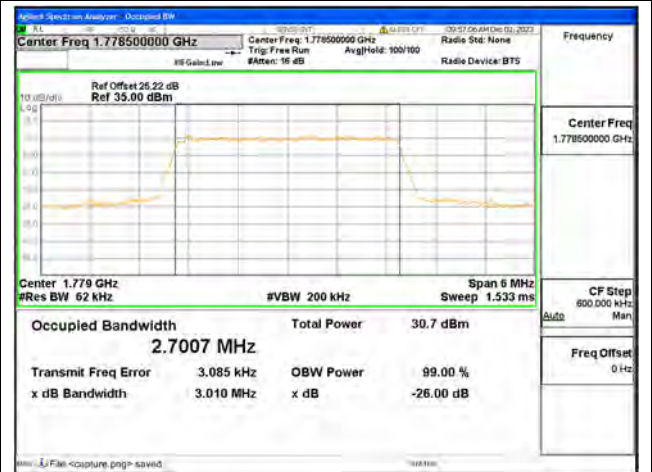
B66 / 1.4MHz / QPSK/ Mid CH



B66 / 1.4MHz / 16QAM/ Mid CH



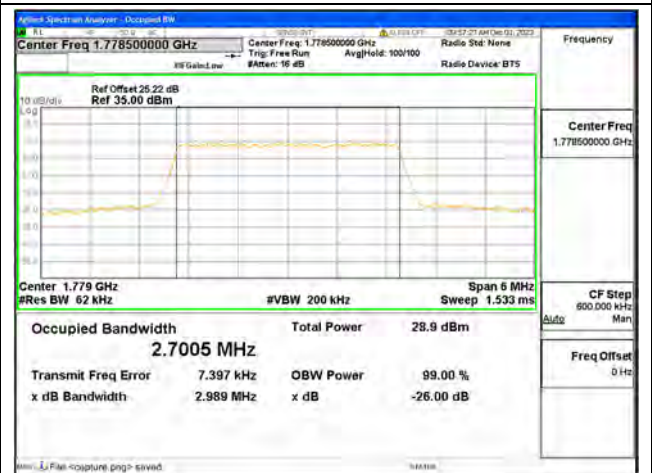
B66 / 1.4MHz / 64QAM/ Mid CH



B66 / 3MHz / QPSK/ High CH



B66 / 3MHz / 16QAM/ High CH



B66 / 3MHz / 64QAM/ High CH





B66 / 3MHz / QPSK / Low CH



B66 / 3MHz / 16QAM / Low CH



B66 / 3MHz / 64QAM / Low CH



B66 / 3MHz / QPSK / Mid CH



B66 / 3MHz / 16QAM / Mid CH



B66 / 3MHz / 64QAM / Mid CH



B66 / 5MHz / QPSK/ High CH



B66 / 5MHz / 16QAM/ High CH



B66 / 5MHz / 64QAM/ High CH



B66 / 5MHz / QPSK/ Low CH



B66 / 5MHz / 16QAM/ Low CH



B66 / 5MHz / 64QAM/ Low CH



B66 / 5MHz / QPSK/ Mid CH



B66 / 5MHz / 16QAM/ Mid CH



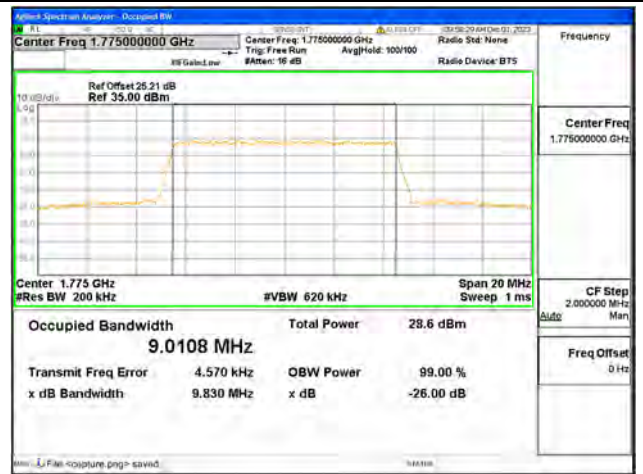
B66 / 5MHz / 64QAM/ Mid CH



B66 / 10MHz / QPSK/ High CH



B66 / 10MHz / 16QAM/ High CH



B66 / 10MHz / 64QAM/ High CH



B66 / 10MHz / QPSK/ Low CH



B66 / 10MHz / 16QAM/ Low CH



B66 / 10MHz / 64QAM/ Low CH



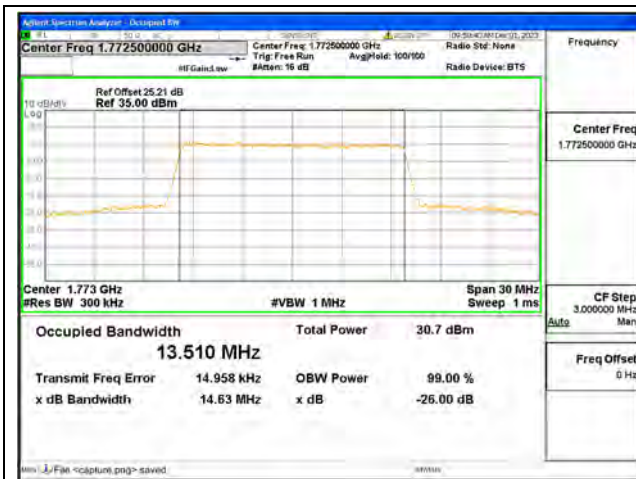
B66 / 10MHz / QPSK/ Mid CH



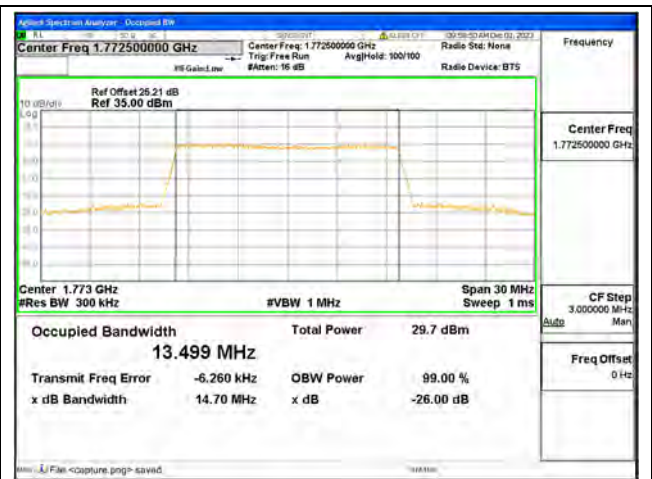
B66 / 10MHz / 16QAM/ Mid CH



B66 / 10MHz / 64QAM/ Mid CH



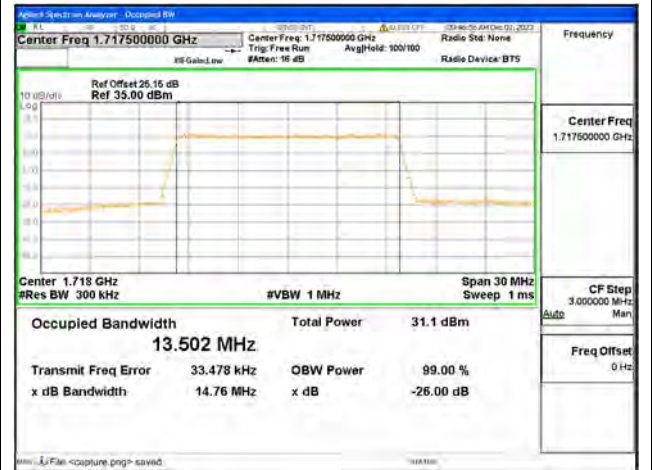
B66 / 15MHz / QPSK/ High CH



B66 / 15MHz / 16QAM/ High CH



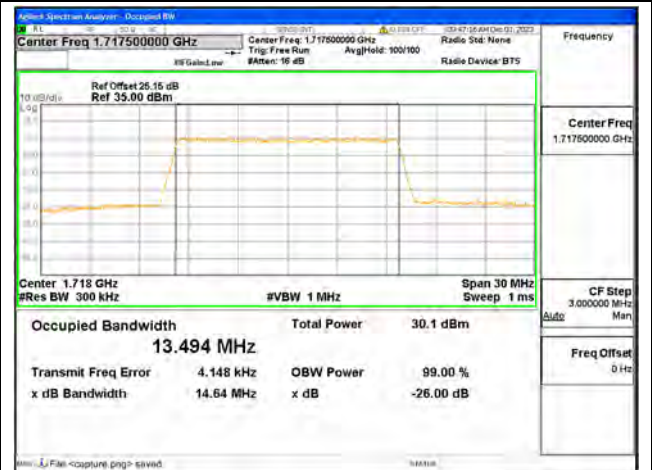
B66 / 15MHz / 64QAM/ High CH



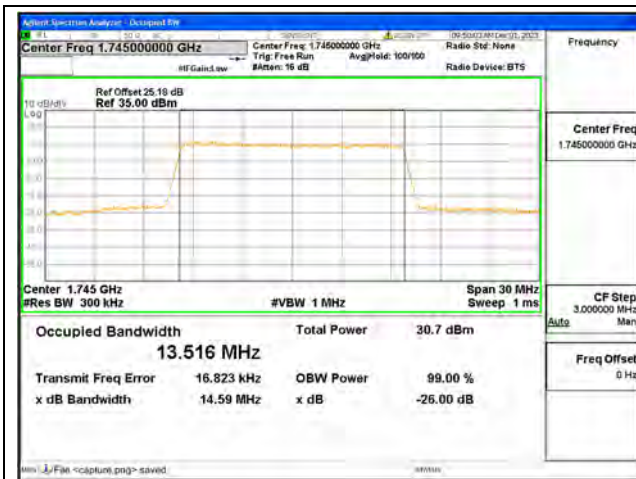
B66 / 15MHz / QPSK/ Low CH



B66 / 15MHz / 16QAM/ Low CH



B66 / 15MHz / 64QAM/ Low CH



B66 / 15MHz / QPSK/ Mid CH



B66 / 15MHz / 16QAM/ Mid CH



B66 / 15MHz / 64QAM/ Mid CH



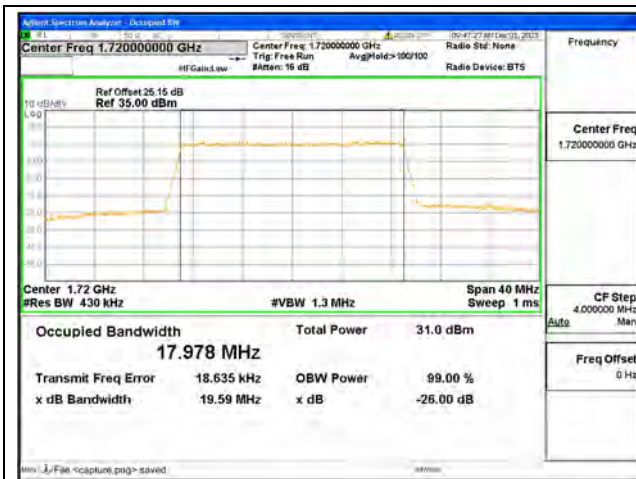
B66 / 20MHz / QPSK/ High CH



B66 / 20MHz / 16QAM/ High CH



B66 / 20MHz / 64QAM/ High CH



B66 / 20MHz / QPSK/ Low CH



B66 / 20MHz / 16QAM/ Low CH



B66 / 20MHz / 64QAM/ Low CH



B66 / 20MHz / QPSK/ Mid CH



B66 / 20MHz / 16QAM/ Mid CH



B66 / 20MHz / 64QAM/ Mid CH

## 2.3. Frequency Stability

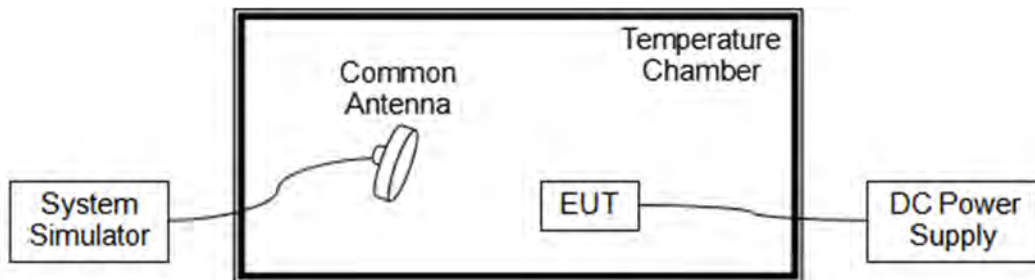
### 2.3.1. Requirement

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  $0^{\circ}\text{C}$  to  $45^{\circ}\text{C}$ , 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 3.89V, 4.48V and 3.60V, 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	3.89	+20(Ref)	14	0.007	PASS
Normal		0	18	0.010	
Normal		+10	20	<b>0.011</b>	
Normal		+20	16	0.009	
Normal		+30	10	0.005	
Normal		+40	20	<b>0.011</b>	
Normal		+45	16	0.009	
High		4.48	+20	-9	
BATT.ENDPOINT	3.60	+20	13	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	3.89	+20(Ref)	-11	-0.006	PASS
Normal		0	15	0.009	
Normal		+10	20	<b>0.012</b>	
Normal		+20	4	0.002	
Normal		+30	19	0.011	
Normal		+40	14	0.008	
Normal		+45	-19	-0.011	
High		4.48	+20	1	
BATT.ENDPOINT	3.60	+20	18	0.010	



LTE Band 5, 64QAM, Channel 20525, Frequency 836.5MHz Limit=±2.5ppm					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev.(Hz)	Deviation (ppm)	Result
Normal	3.89	+20(Ref)	15	0.018	PASS
Normal		0	-5	-0.006	
Normal		+10	19	0.023	
Normal		+20	20	<b>0.024</b>	
Normal		+30	-20	-0.024	
Normal		+40	-5	-0.006	
Normal		+45	17	0.020	
High	4.48	+20	15	0.018	
BATT.ENDPOINT	3.60	+20	18	0.022	

LTE Band 7, 64QAM, Channel 21100, Frequency 2535.0MHz Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev.(Hz)	Deviation (ppm)	Result
Normal	3.89	+20(Ref)	15	0.006	PASS
Normal		0	16	0.006	
Normal		+10	15	0.006	
Normal		+20	-8	-0.003	
Normal		+30	19	0.007	
Normal		+40	23	<b>0.009</b>	
Normal		+45	-3	-0.001	
High	4.48	+20	13	0.005	
BATT.ENDPOINT	3.60	+20	19	0.007	



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	3.89	+20(Ref)	18	<b>0.025</b>	PASS
Normal		0	-7	-0.010	
Normal		+10	17	0.024	
Normal		+20	6	0.008	
Normal		+30	13	0.018	
Normal		+40	-2	-0.003	
Normal		+45	16	0.023	
High	4.48	+20	14	0.020	
BATT.ENDPOINT	3.60	+20	-5	-0.007	

LTE Band 13, 64QAM, Channel 23230, Frequency 782MHz Limit=±2.5ppm					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev.(Hz)	Deviation (ppm)	Result
Normal	3.89	+20(Ref)	18	<b>0.023</b>	PASS
Normal		0	10	0.013	
Normal		+10	14	0.018	
Normal		+20	13	0.017	
Normal		+30	-6	-0.008	
Normal		+40	16	0.020	
Normal		+45	14	0.018	
High	4.48	+20	17	0.022	
BATT.ENDPOINT	3.60	+20	0	0.000	



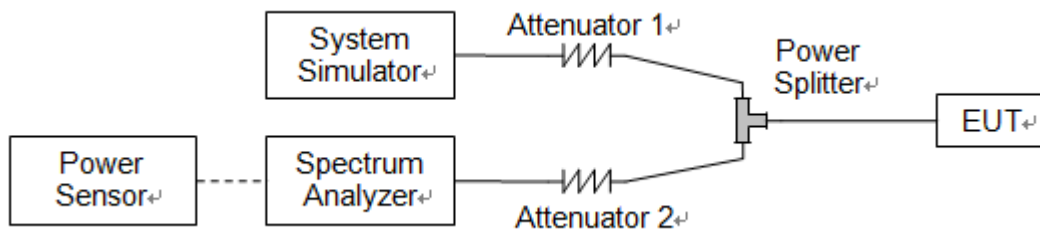
LTE Band 66, 64QAM, Channel 132322, Frequency 1745MHz Limit =Within Authorized Band					
Voltage (%)	Power (VDC)	Temp(°C)	Fre. Dev.(Hz)	Deviation (ppm)	Result
Normal	3.89	+20(Ref)	19	0.011	PASS
Normal		0	-21	-0.012	
Normal		+10	-3	-0.002	
Normal		+20	20	<b>0.011</b>	
Normal		+30	18	0.010	
Normal		+40	15	0.009	
Normal		+45	16	0.009	
High	4.48	+20	18	0.010	
BATT.ENDPOINT	3.60	+20	-2	-0.001	

## 2.4. Peak to Average Ratio

### 2.4.1. Requirement

According to FCC section 24.232(d), 27.50(d) and 27.50(j)(4), 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	BW(MHz)	Channel Level	Channel	Frequency (MHz)	Modulation	Peak to Average Radio(dB)	Verdict
B2	1.4	Low	18607	1850.7	QPSK	5.34	PASS
B2	1.4	Low	18607	1850.7	16QAM	6.14	PASS
B2	1.4	Low	18607	1850.7	64QAM	6.95	PASS
B2	1.4	Mid	18900	1880	QPSK	5.33	PASS
B2	1.4	Mid	18900	1880	16QAM	5.98	PASS
B2	1.4	Mid	18900	1880	64QAM	6.94	PASS
B2	1.4	High	19193	1909.3	QPSK	5.09	PASS
B2	1.4	High	19193	1909.3	16QAM	5.74	PASS
B2	1.4	High	19193	1909.3	64QAM	6.66	PASS
B2	3	Low	18615	1851.5	QPSK	5.31	PASS
B2	3	Low	18615	1851.5	16QAM	6.24	PASS
B2	3	Low	18615	1851.5	64QAM	6.80	PASS
B2	3	Mid	18900	1880	QPSK	5.21	PASS
B2	3	Mid	18900	1880	16QAM	6.23	PASS
B2	3	Mid	18900	1880	64QAM	6.80	PASS
B2	3	High	19185	1908.5	QPSK	5.04	PASS
B2	3	High	19185	1908.5	16QAM	5.99	PASS
B2	3	High	19185	1908.5	64QAM	6.63	PASS
B2	5	Low	18625	1852.5	QPSK	5.29	PASS
B2	5	Low	18625	1852.5	16QAM	6.15	PASS
B2	5	Low	18625	1852.5	64QAM	6.81	PASS
B2	5	Mid	18900	1880	QPSK	5.25	PASS
B2	5	Mid	18900	1880	16QAM	6.10	PASS
B2	5	Mid	18900	1880	64QAM	6.82	PASS
B2	5	High	19175	1907.5	QPSK	5.21	PASS
B2	5	High	19175	1907.5	16QAM	6.02	PASS
B2	5	High	19175	1907.5	64QAM	6.64	PASS
B2	10	Low	18650	1855	QPSK	5.31	PASS
B2	10	Low	18650	1855	16QAM	6.12	PASS
B2	10	Low	18650	1855	64QAM	6.69	PASS
B2	10	Mid	18900	1880	QPSK	5.31	PASS
B2	10	Mid	18900	1880	16QAM	6.07	PASS
B2	10	Mid	18900	1880	64QAM	6.73	PASS
B2	10	High	19150	1905	QPSK	5.32	PASS
B2	10	High	19150	1905	16QAM	6.03	PASS



B2	10	High	19150	1905	64QAM	6.63	PASS
B2	15	Low	18675	1857.5	QPSK	5.13	PASS
B2	15	Low	18675	1857.5	16QAM	5.95	PASS
B2	15	Low	18675	1857.5	64QAM	6.68	PASS
B2	15	Mid	18900	1880	QPSK	5.25	PASS
B2	15	Mid	18900	1880	16QAM	6.12	PASS
B2	15	Mid	18900	1880	64QAM	6.78	PASS
B2	15	High	19125	1902.5	QPSK	5.23	PASS
B2	15	High	19125	1902.5	16QAM	6.00	PASS
B2	15	High	19125	1902.5	64QAM	6.74	PASS
B2	20	Low	18700	1860	QPSK	5.09	PASS
B2	20	Low	18700	1860	16QAM	5.93	PASS
B2	20	Low	18700	1860	64QAM	6.59	PASS
B2	20	Mid	18900	1880	QPSK	5.23	PASS
B2	20	Mid	18900	1880	16QAM	6.12	PASS
B2	20	Mid	18900	1880	64QAM	6.69	PASS
B2	20	High	19100	1900	QPSK	5.27	PASS
B2	20	High	19100	1900	16QAM	6.09	PASS
B2	20	High	19100	1900	64QAM	6.73	PASS



LTE Band	BW(MHz)	Channel Level	Channel	Frequency (MHz)	Modulation	Peak to Average Radio(dB)	Verdict
B4	1.4	Low	19957	1710.7	QPSK	5.29	PASS
B4	1.4	Low	19957	1710.7	16QAM	6.16	PASS
B4	1.4	Low	19957	1710.7	64QAM	6.91	PASS
B4	1.4	Mid	20175	1732.5	QPSK	4.85	PASS
B4	1.4	Mid	20175	1732.5	16QAM	5.59	PASS
B4	1.4	Mid	20175	1732.5	64QAM	6.60	PASS
B4	1.4	High	20393	1754.3	QPSK	5.37	PASS
B4	1.4	High	20393	1754.3	16QAM	6.04	PASS
B4	1.4	High	20393	1754.3	64QAM	6.88	PASS
B4	3	Low	19965	1711.5	QPSK	5.45	PASS
B4	3	Low	19965	1711.5	16QAM	6.26	PASS
B4	3	Low	19965	1711.5	64QAM	6.82	PASS
B4	3	Mid	20175	1732.5	QPSK	4.84	PASS
B4	3	Mid	20175	1732.5	16QAM	5.76	PASS
B4	3	Mid	20175	1732.5	64QAM	6.47	PASS
B4	3	High	20385	1753.5	QPSK	5.32	PASS
B4	3	High	20385	1753.5	16QAM	6.19	PASS
B4	3	High	20385	1753.5	64QAM	6.88	PASS
B4	5	Low	19975	1712.5	QPSK	5.46	PASS
B4	5	Low	19975	1712.5	16QAM	6.17	PASS
B4	5	Low	19975	1712.5	64QAM	6.84	PASS
B4	5	Mid	20175	1732.5	QPSK	5.02	PASS
B4	5	Mid	20175	1732.5	16QAM	5.81	PASS
B4	5	Mid	20175	1732.5	64QAM	6.52	PASS
B4	5	High	20375	1752.5	QPSK	5.28	PASS
B4	5	High	20375	1752.5	16QAM	6.06	PASS
B4	5	High	20375	1752.5	64QAM	6.76	PASS
B4	10	Low	20000	1715	QPSK	5.35	PASS
B4	10	Low	20000	1715	16QAM	6.11	PASS
B4	10	Low	20000	1715	64QAM	6.88	PASS
B4	10	Mid	20175	1732.5	QPSK	5.10	PASS
B4	10	Mid	20175	1732.5	16QAM	5.87	PASS
B4	10	Mid	20175	1732.5	64QAM	6.50	PASS
B4	10	High	20350	1750	QPSK	5.29	PASS
B4	10	High	20350	1750	16QAM	6.11	PASS





B4	10	High	20350	1750	64QAM	6.69	PASS
B4	15	Low	20025	1717.5	QPSK	5.43	PASS
B4	15	Low	20025	1717.5	16QAM	6.15	PASS
B4	15	Low	20025	1717.5	64QAM	7.12	PASS
B4	15	Mid	20175	1732.5	QPSK	5.04	PASS
B4	15	Mid	20175	1732.5	16QAM	5.84	PASS
B4	15	Mid	20175	1732.5	64QAM	6.60	PASS
B4	15	High	20325	1747.5	QPSK	5.27	PASS
B4	15	High	20325	1747.5	16QAM	6.05	PASS
B4	15	High	20325	1747.5	64QAM	6.78	PASS
B4	20	Low	20050	1720	QPSK	5.49	PASS
B4	20	Low	20050	1720	16QAM	6.11	PASS
B4	20	Low	20050	1720	64QAM	6.77	PASS
B4	20	Mid	20175	1732.5	QPSK	5.04	PASS
B4	20	Mid	20175	1732.5	16QAM	5.87	PASS
B4	20	Mid	20175	1732.5	64QAM	6.58	PASS
B4	20	High	20300	1745	QPSK	5.19	PASS
B4	20	High	20300	1745	16QAM	6.03	PASS
B4	20	High	20300	1745	64QAM	6.68	PASS



LTE Band	BW(MHz)	Channel Level	Channel	Frequency (MHz)	Modulation	Peak to Average Radio(dB)	Verdict
B66	1.4	Low	131979	1710.7	QPSK	5.30	PASS
B66	1.4	Low	131979	1710.7	16QAM	6.12	PASS
B66	1.4	Low	131979	1710.7	64QAM	6.79	PASS
B66	1.4	Mid	132322	1745	QPSK	5.29	PASS
B66	1.4	Mid	132322	1745	16QAM	6.11	PASS
B66	1.4	Mid	132322	1745	64QAM	6.94	PASS
B66	1.4	High	132665	1779.3	QPSK	5.34	PASS
B66	1.4	High	132665	1779.3	16QAM	5.98	PASS
B66	1.4	High	132665	1779.3	64QAM	6.85	PASS
B66	3	Low	131987	1711.5	QPSK	5.16	PASS
B66	3	Low	131987	1711.5	16QAM	6.13	PASS
B66	3	Low	131987	1711.5	64QAM	6.72	PASS
B66	3	Mid	132322	1745	QPSK	5.27	PASS
B66	3	Mid	132322	1745	16QAM	6.27	PASS
B66	3	Mid	132322	1745	64QAM	6.90	PASS
B66	3	High	132657	1778.5	QPSK	5.32	PASS
B66	3	High	132657	1778.5	16QAM	6.11	PASS
B66	3	High	132657	1778.5	64QAM	6.85	PASS
B66	5	Low	131997	1712.5	QPSK	5.30	PASS
B66	5	Low	131997	1712.5	16QAM	6.09	PASS
B66	5	Low	131997	1712.5	64QAM	6.67	PASS
B66	5	Mid	132322	1745	QPSK	5.33	PASS
B66	5	Mid	132322	1745	16QAM	6.18	PASS
B66	5	Mid	132322	1745	64QAM	6.80	PASS
B66	5	High	132647	1777.5	QPSK	5.37	PASS
B66	5	High	132647	1777.5	16QAM	6.15	PASS
B66	5	High	132647	1777.5	64QAM	6.83	PASS
B66	10	Low	132022	1715	QPSK	5.43	PASS
B66	10	Low	132022	1715	16QAM	6.16	PASS
B66	10	Low	132022	1715	64QAM	6.76	PASS
B66	10	Mid	132322	1745	QPSK	5.35	PASS
B66	10	Mid	132322	1745	16QAM	6.16	PASS
B66	10	Mid	132322	1745	64QAM	6.76	PASS
B66	10	High	132622	1775	QPSK	5.41	PASS
B66	10	High	132622	1775	16QAM	6.17	PASS



B66	10	High	132622	1775	64QAM	6.83	PASS
B66	15	Low	132047	1717.5	QPSK	5.35	PASS
B66	15	Low	132047	1717.5	16QAM	6.17	PASS
B66	15	Low	132047	1717.5	64QAM	6.81	PASS
B66	15	Mid	132322	1745	QPSK	5.30	PASS
B66	15	Mid	132322	1745	16QAM	6.09	PASS
B66	15	Mid	132322	1745	64QAM	6.81	PASS
B66	15	High	132597	1772.5	QPSK	5.32	PASS
B66	15	High	132597	1772.5	16QAM	6.12	PASS
B66	15	High	132597	1772.5	64QAM	6.84	PASS
B66	20	Low	132072	1720	QPSK	5.44	PASS
B66	20	Low	132072	1720	16QAM	6.26	PASS
B66	20	Low	132072	1720	64QAM	6.82	PASS
B66	20	Mid	132322	1745	QPSK	5.29	PASS
B66	20	Mid	132322	1745	16QAM	6.10	PASS
B66	20	Mid	132322	1745	64QAM	6.76	PASS
B66	20	High	132572	1770	QPSK	5.23	PASS
B66	20	High	132572	1770	16QAM	6.08	PASS
B66	20	High	132572	1770	64QAM	6.73	PASS



B2 / 1.4MHz / Low CH / QPSK



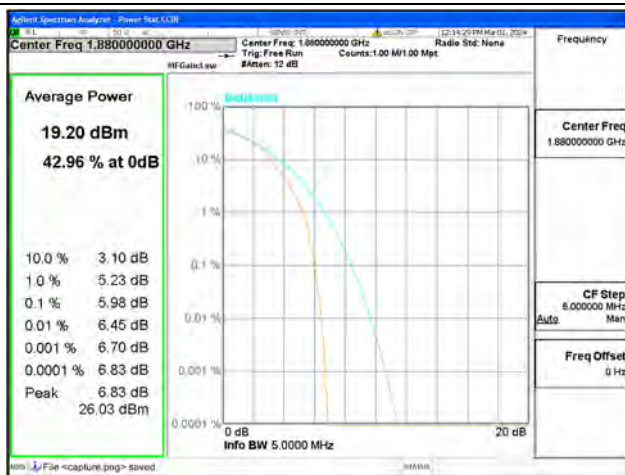
B2 / 1.4MHz / Low CH / 16QAM



B2 / 1.4MHz / Low CH / 64QAM



B2 / 1.4MHz / Mid CH / QPSK



B2 / 1.4MHz / Mid CH / 16QAM



B2 / 1.4MHz / Mid CH / 64QAM



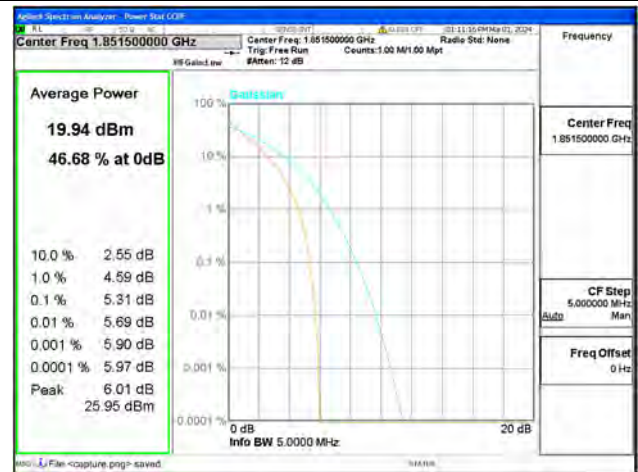
B2 / 1.4MHz / High CH / QPSK



B2 / 1.4MHz / High CH / 16QAM



B2 / 1.4MHz / High CH / 64QAM



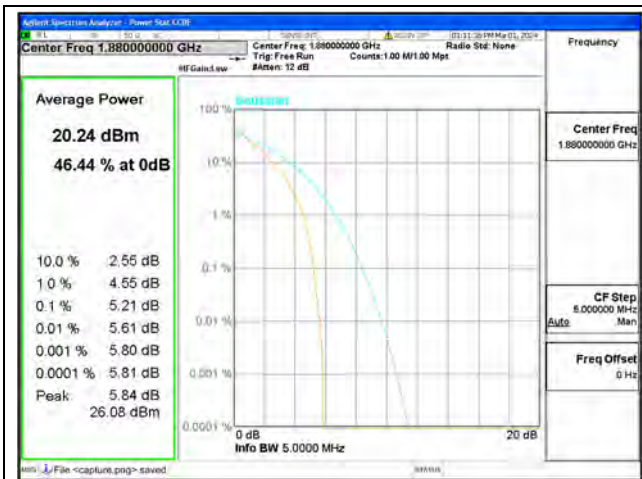
B2 / 3MHz / Low CH / QPSK



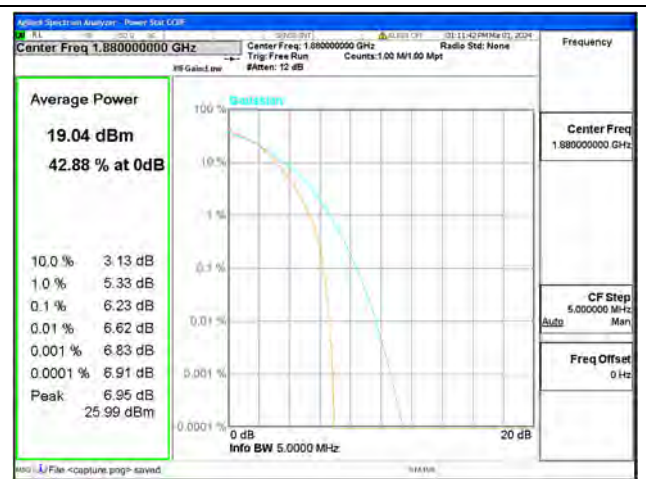
B2 / 3MHz / Low CH / 16QAM



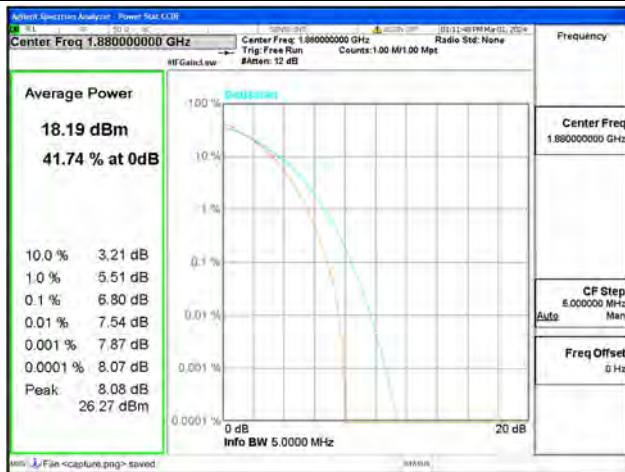
B2 / 3MHz / Low CH / 64QAM



B2 / 3MHz / Mid CH / QPSK



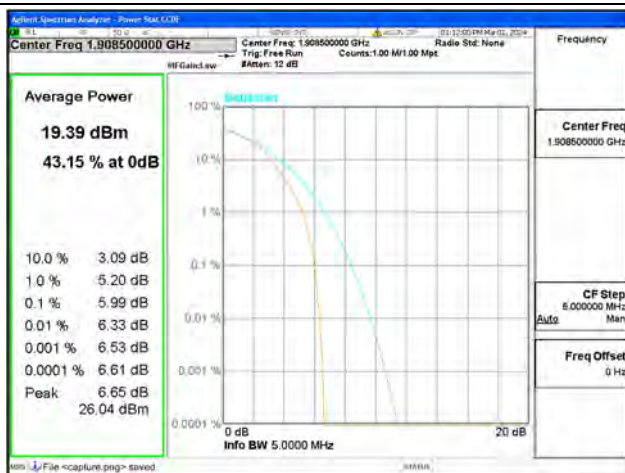
B2 / 3MHz / Mid CH / 16QAM



B2 / 3MHz / Mid CH / 64QAM



B2 / 3MHz / High CH / QPSK



B2 / 3MHz / High CH / 16QAM



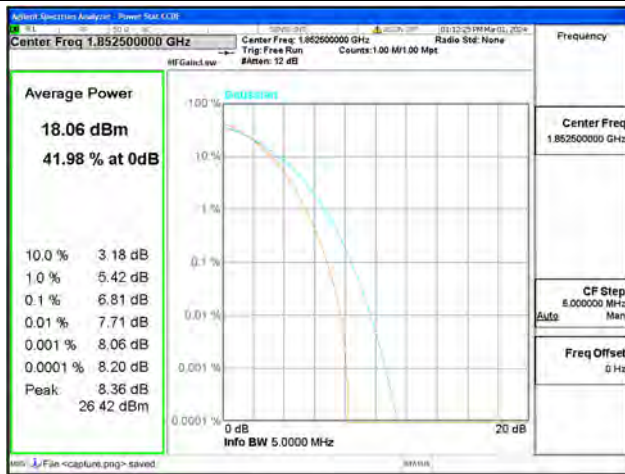
B2 / 3MHz / High CH / 64QAM



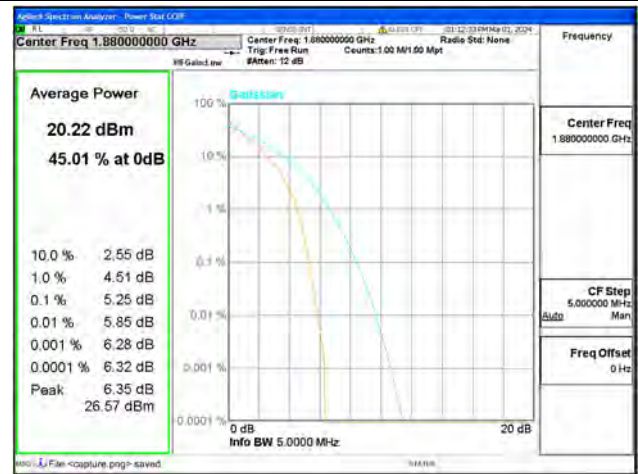
B2 / 5MHz / Low CH / QPSK



B2 / 5MHz / Low CH / 16QAM



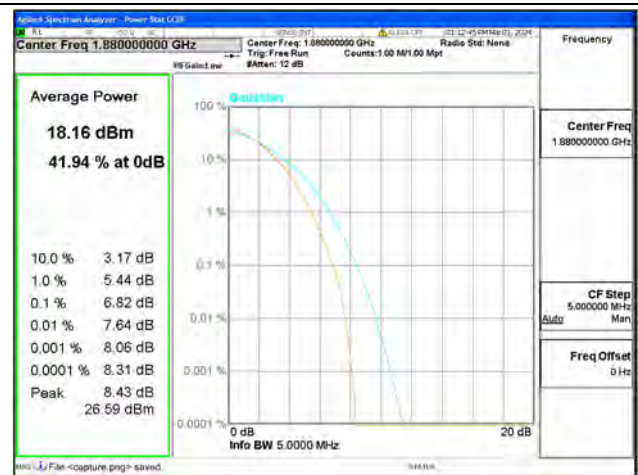
B2 / 5MHz / Low CH / 64QAM



B2 / 5MHz / Mid CH / QPSK



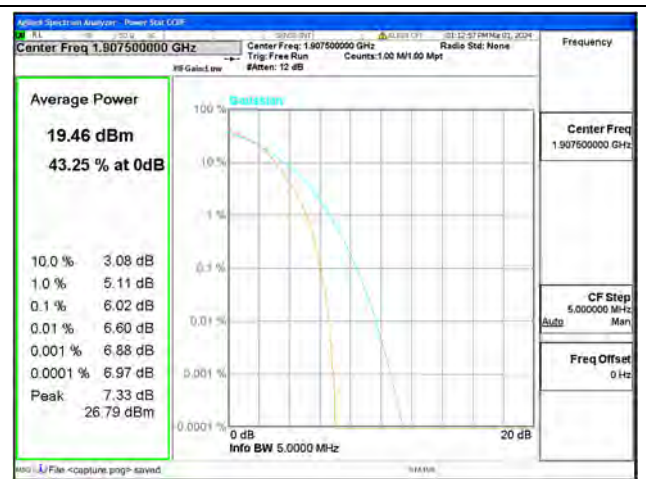
B2 / 5MHz / Mid CH / 16QAM



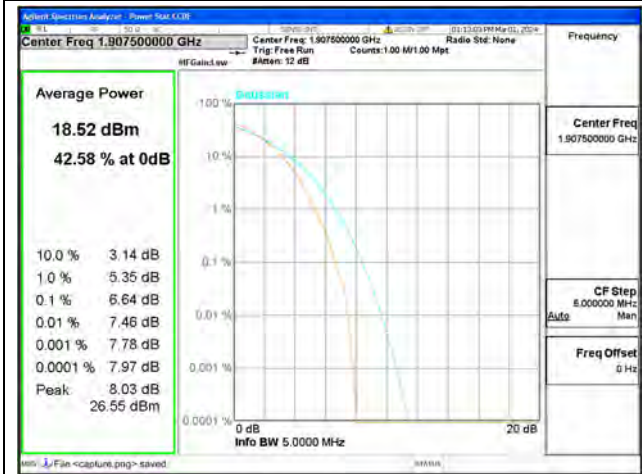
B2 / 5MHz / Mid CH / 64QAM



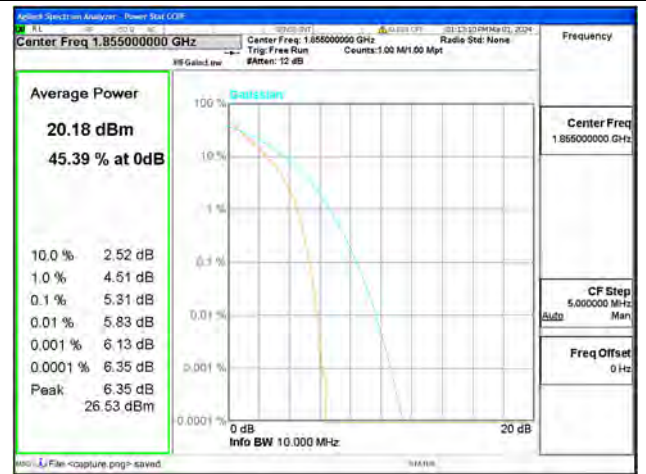
B2 / 5MHz / High CH / QPSK



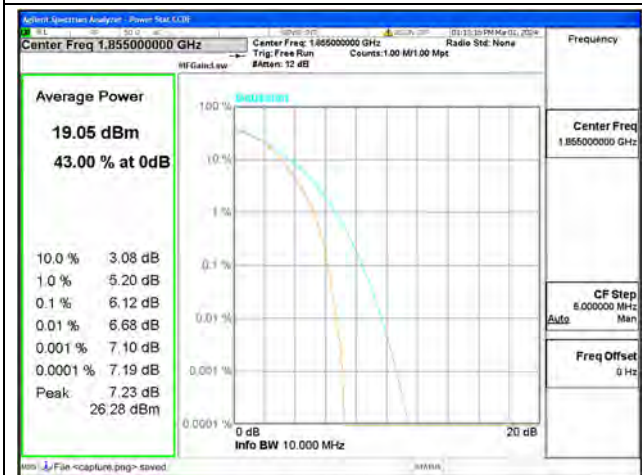
B2 / 5MHz / High CH / 16QAM



B2 / 5MHz / High CH / 64QAM



B2 / 10MHz / Low CH / QPSK



B2 / 10MHz / Low CH / 16QAM

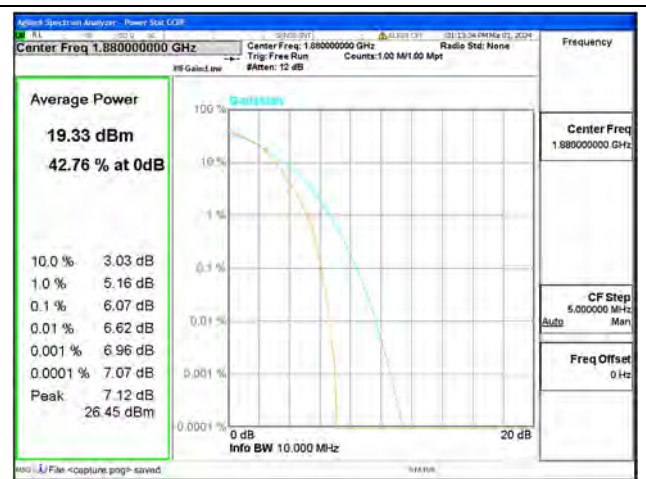


B2 / 10MHz / Low CH / 64QAM

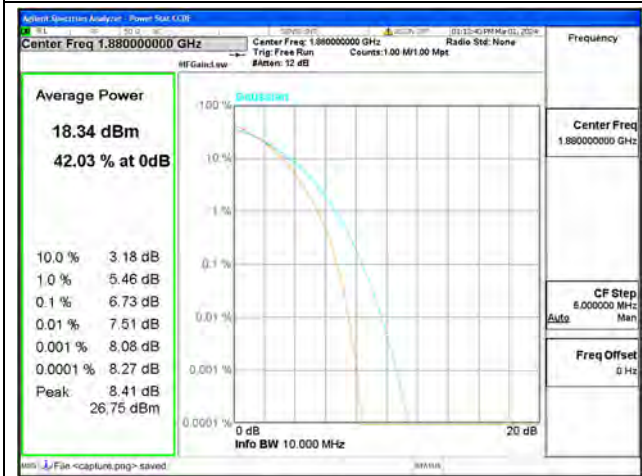




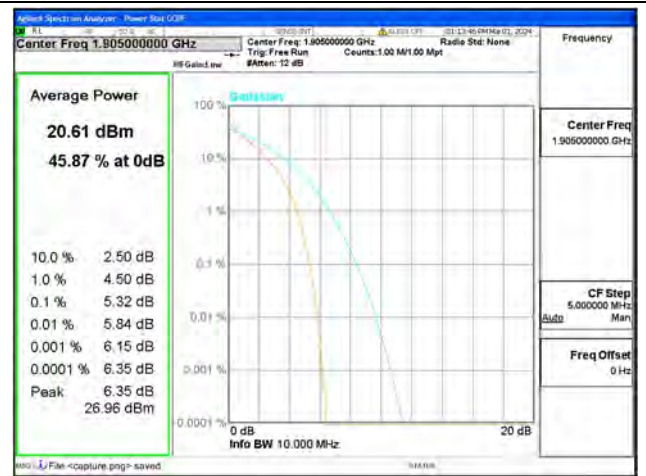
B2 / 10MHz / Mid CH / QPSK



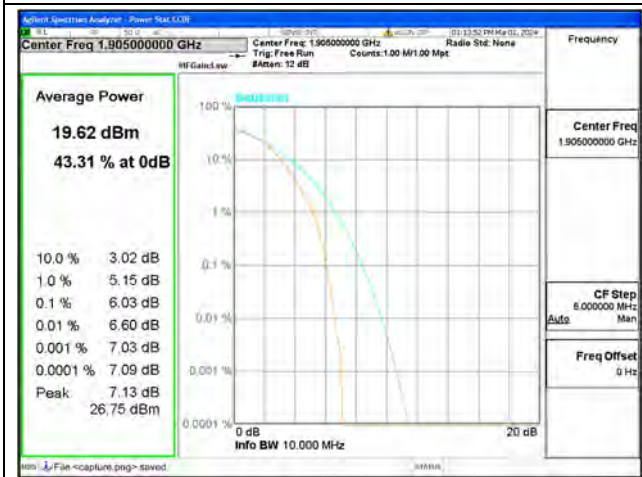
B2 / 10MHz / Mid CH / 16QAM



B2 / 10MHz / Mid CH / 64QAM



B2 / 10MHz / High CH / QPSK



B2 / 10MHz / High CH / 16QAM



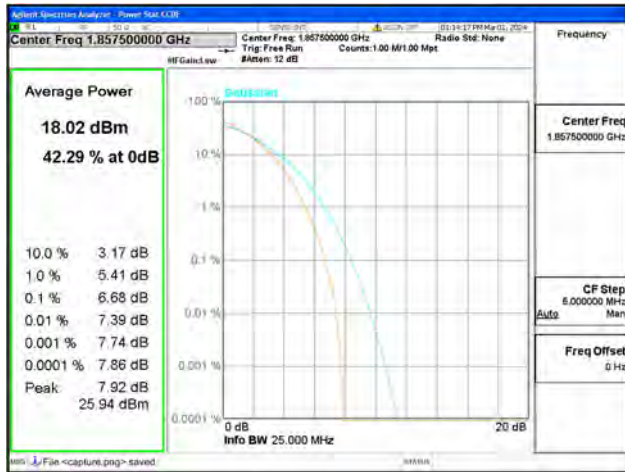
B2 / 10MHz / High CH / 64QAM



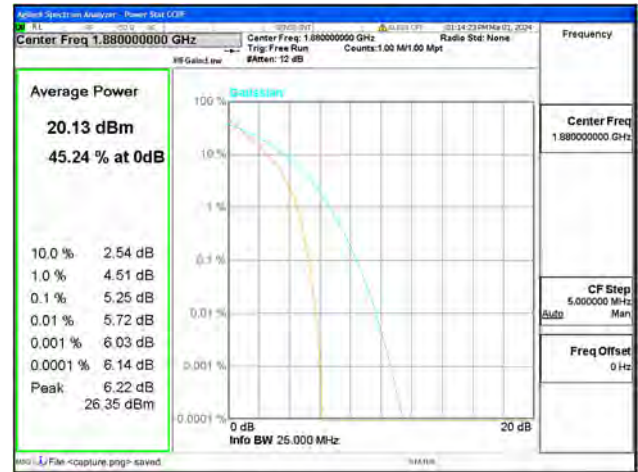
B2 / 15MHz / Low CH / QPSK



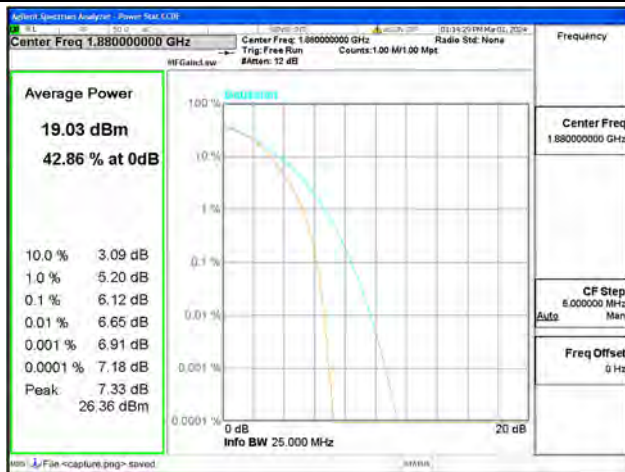
B2 / 15MHz / Low CH / 16QAM



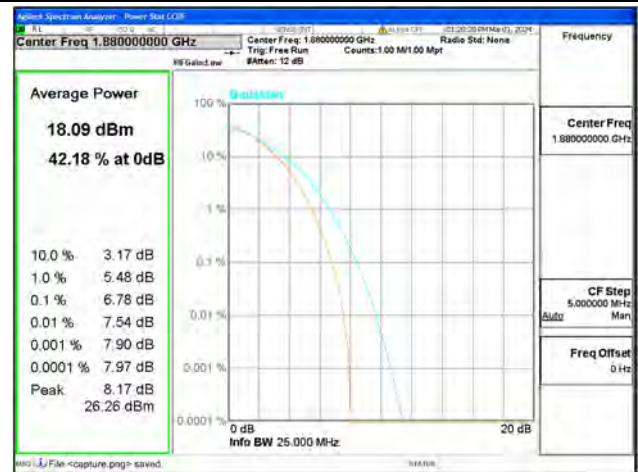
B2 / 15MHz / Low CH / 64QAM



B2 / 15MHz / Mid CH / QPSK



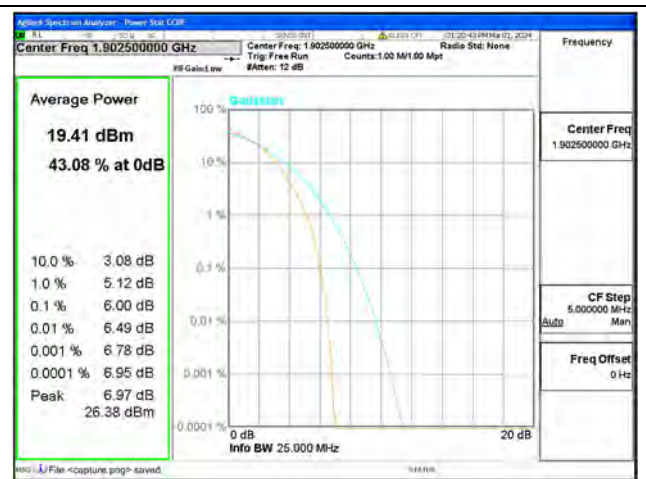
B2 / 15MHz / Mid CH / 16QAM



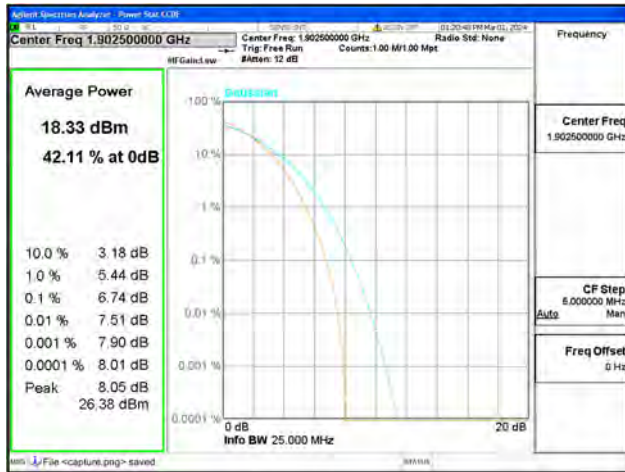
B2 / 15MHz / Mid CH / 64QAM



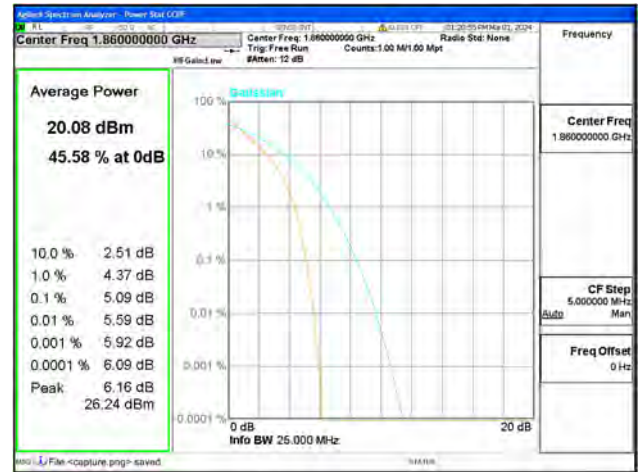
B2 / 15MHz / High CH / QPSK



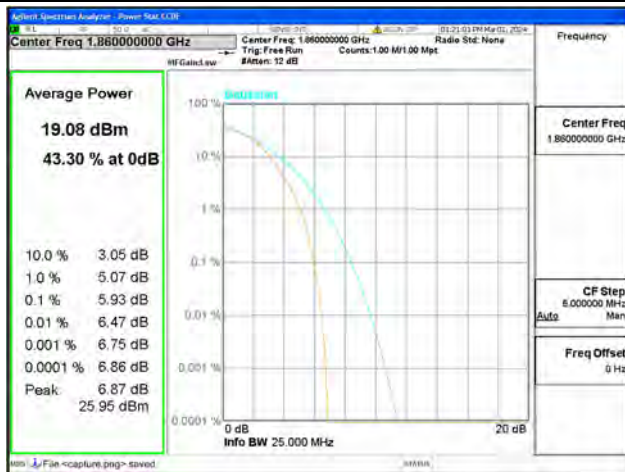
B2 / 15MHz / High CH / 16QAM



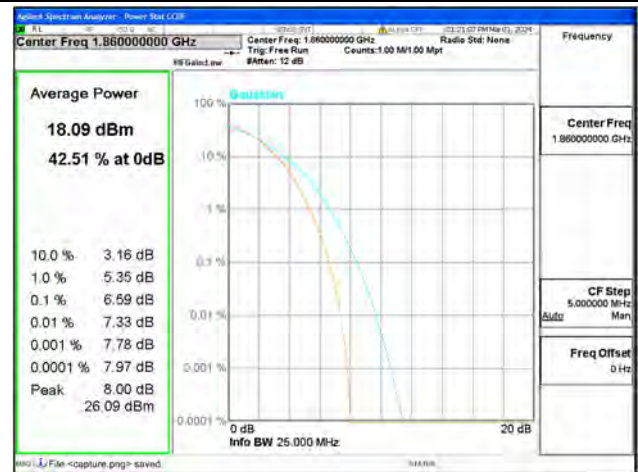
B2 / 15MHz / High CH / 64QAM



B2 / 20MHz / Low CH / QPSK



B2 / 20MHz / Low CH / 16QAM



B2 / 20MHz / Low CH / 64QAM