



REPORT No.: SZ20100035W08

TEST REPORT

APPLICANT : Shenzhen Chainway Information
Technology Co., Ltd.

PRODUCT NAME : Mobile Data Terminal

MODEL NAME : C60

BRAND NAME : CHAINWAY

FCC ID : 2AC6AC60

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

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Change History		
Version	Date	Reason for change
1.0	2020-12-29	First edition



1. Technical Information

Note: Provide by applicant.

1.1. Applicant and Manufacturer Information

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

1.2. Equipment Under Test (EUT) Description

Product Name:	Mobile Data Terminal	
Serial No.:	(N/A, marked #1 by test site)	
Hardware Version:	A115_MB_V2	
Software Version:	c60_yuancheng_gitb4ed7c0_20200924	
Modulation Type:	QPSK, 16QAM	
Carrier Aggregation:	Not support	
Operation Band:	Band 2 / 4 / 5 / 7 / 12 / 13 / 17 / 38 / 40 / 41	
Frequency Range:	LTE Band 2	Tx: 1850MHz–1910MHz
		Rx: 1930MHz–1990MHz
	LTE Band 4	Tx: 1710MHz–1755MHz
		Rx: 2110MHz–2155MHz
	LTE Band 5	Tx: 824MHz–849MHz
		Rx: 869MHz–894MHz
	LTE Band 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



Frequency Range:	LTE Band 17	Tx: 704MHz - 716MHz
		Rx: 734MHz – 746MHz
	LTE Band 38	Tx: 2570MHz–2620MHz
		Rx: 2570MHz–2620MHz
	LTE Band 40 Block A	Tx: 2305MHz–2315MHz
		Rx: 2305MHz–2315MHz
Channel Bandwidth:	LTE Band 40 Block B	Tx: 2350MHz–2360MHz
		Rx: 2350MHz–2360MHz
	LTE Band 41	Tx: 2555MHz–2655MHz
		Rx: 2555MHz–2655MHz
	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
Antenna Type:		Fixed Internal Antenna
Antenna Gain:	LTE Band 2	0.7dBi
	LTE Band 4	0.7dBi
	LTE Band 5	0.3dBi
	LTE Band 7	1.0dBi
	LTE Band 12	0.1dBi
	LTE Band 13	0.1dBi
	LTE Band 17	0.1dBi
	LTE Band 38	1.0dBi
	LTE Band 40	0.7dBi
	LTE Band 41	1.0dBi

Accessory Information:	Battery	
	Brand Name:	Hixon
	Model No.:	J855
	Serial No.:	(N/A, marked #1 by test site)
	Capacity:	4250.00mAh
	Rated Voltage:	3.80V
	Charge Limit:	4.35V
	Manufacturer:	Hixon(Shenzhen) Technology Limited
	AC Adapter	
	Brand Name:	
	Model No.:	NA010050020
	Serial No.:	(N/A, marked #1 by test site)
	Rated Output:	5V=2A
	Rated Input:	100-240V~50/60Hz, 0.5A
	Manufacturer:	Shenzhen Shi Ying Yuan Electronics Co., Ltd.

Note 1: According to the certificate holder, they declared that the model C60 has two internal models 4710 and 6603. The difference between the two internal models is that the scan head is different. Except for the above differences, their circuit design, layout and internal wiring are the same. Due to the above changes, we have evaluated and retested worst case of internal model 6603, the test results are better than internal model 4710, all other test items are no need to be retested. The main measuring internal model is 4710, only the results for 4710 were recorded in this report.

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

Note 3: 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

LTE Band 2	Maximum E.R.P./E.I.R.P. (W)		Emission Designator (99%OBW)	
BW(MHz)	QPSK	16QAM	QPSK	16QAM
20	0.294	0.193	17M9G7D	18M0W7D
15	0.288	0.206	13M4G7D	13M4W7D
10	0.266	0.204	8M99G7D	8M96W7D
5	0.275	0.199	4M50G7D	4M51W7D
3	0.252	0.201	2M71G7D	2M71W7D
1.4	0.284	0.222	1M10G7D	1M10W7D
LTE Band 4	Maximum E.R.P./E.I.R.P. (W)		Emission Designator (99%OBW)	
BW(MHz)	QPSK	16QAM	QPSK	16QAM
20	0.225	0.168	18M0G7D	18M0W7D
15	0.217	0.169	13M5G7D	13M4W7D
10	0.223	0.169	8M99G7D	8M96W7D
5	0.225	0.180	4M51G7D	4M51W7D
3	0.213	0.163	2M71G7D	2M70W7D
1.4	0.224	0.182	1M10G7D	1M10W7D
LTE Band 5	Maximum E.R.P./E.I.R.P. (W)		Emission Designator (99%OBW)	
BW(MHz)	QPSK	16QAM	QPSK	16QAM
10	0.108	0.083	9M04G7D	8M99W7D
5	0.101	0.083	4M51G7D	4M50W7D
3	0.104	0.080	2M70G7D	2M70W7D
1.4	0.111	0.085	1M10G7D	1M10W7D
LTE Band 7	Maximum E.R.P./E.I.R.P. (W)		Emission Designator (99%OBW)	
BW(MHz)	QPSK	16QAM	QPSK	16QAM
20	0.126	0.095	18M0G7D	18M0W7D
15	0.126	0.099	13M5G7D	13M5W7D
10	0.127	0.098	9M00G7D	8M96W7D
5	0.126	0.099	4M50G7D	4M50W7D
LTE Band 12	Maximum E.R.P./E.I.R.P. (W)		Emission Designator (99%OBW)	
BW(MHz)	QPSK	16QAM	QPSK	16QAM
10	0.108	0.083	9M00G7D	8M96W7D
5	0.106	0.083	4M50G7D	4M51W7D
3	0.107	0.088	2M70G7D	2M70W7D
1.4	0.108	0.094	1M10G7D	1M10W7D



LTE Band 13	Maximum E.R.P./E.I.R.P. (W)		Emission Designator (99%OBW)	
BW(MHz)	QPSK	16QAM	QPSK	16QAM
10	0.130	0.100	8M96G7D	8M92W7D
5	0.129	0.101	4M51G7D	4M50W7D
LTE Band 17	Maximum E.R.P./E.I.R.P. (W)		Emission Designator (99%OBW)	
BW(MHz)	QPSK	16QAM	QPSK	16QAM
10	0.104	0.086	8M97G7D	8M94W7D
5	0.108	0.082	4M50G7D	4M51W7D
LTE Band 38	Maximum E.R.P./E.I.R.P. (W)		Emission Designator (99%OBW)	
BW(MHz)	QPSK	16QAM	QPSK	16QAM
20	0.210	0.161	17M9G7D	17M9W7D
15	0.210	0.160	13M5G7D	13M5W7D
10	0.209	0.165	8M98G7D	8M95W7D
5	0.209	0.157	4M50G7D	4M50W7D
LTE Band 40 Block A	Maximum E.R.P./E.I.R.P. (W)		Emission Designator (99%OBW)	
BW(MHz)	QPSK	16QAM	QPSK	16QAM
10	0.221	0.168	8M91G7D	8M93W7D
5	0.221	0.166	4M50G7D	4M50W7D
LTE Band 40 Block B	Maximum E.R.P./E.I.R.P. (W)		Emission Designator (99%OBW)	
BW(MHz)	QPSK	16QAM	QPSK	16QAM
10	0.224	0.175	8M92G7D	8M91W7D
5	0.223	0.169	4M49G7D	4M50W7D
LTE Band 41	Maximum E.R.P./E.I.R.P. (W)		Emission Designator (99%OBW)	
BW(MHz)	QPSK	16QAM	QPSK	16QAM
20	0.215	0.163	17M8G7D	17M8W7D
15	0.216	0.161	13M4G7D	13M4W7D
10	0.206	0.158	8M91G7D	8M92W7D
5	0.205	0.157	4M50G7D	4M49W7D

1.4. Test Standards and Results

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

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

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

Section	Description	Test Date	Test Engineer	Result	Method Determination /Remark
2.1046 22.913(a)(2) 24.232(c) 27.50(a)(3) 27.50(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.	Dec 27, 2020	Chen Hao Peng Xuewei	PASS	No deviation
2.1049	Occupied Bandwidth	Oct 24&26&29, 2020	Zhou Xiaolong	PASS	No deviation
2.1055 22.355 24.235 27.54	Frequency Stability	Dec 25, 2020	Zhou Xiaolong	PASS	No deviation
24.232(d), 27.50(d)(5)	Peak to Average Radio	Oct 24&26&29, 2020	Zhou Xiaolong	PASS	No deviation
2.1051 22.917(a) 24.238(a) 27.53(a)(4) 27.53(c)(2) 27.53(g) 27.53(h)	Conducted Spurious Emissions	Oct 23&26&27&29, 2020 Nov 03, 2020 Dec 04&25, 2020	Zhou Xiaolong	PASS	No deviation

27.53(m)(4)					
2.1051 22.917(a) 24.238(a) 27.53(a)(4) 27.53(c)(2) 27.53(g) 27.53(h) 27.53(m)(4)	Band Edge	Oct 22&26&29, 2020 Dec 29, 2020	Zhou Xiaolong	PASS	No deviation
2.1051 22.917(a) 24.238(a) 27.53(a)(4) 27.53(c)(2) 27.53(g) 27.53(h) 27.53(m)(4)	Radiated Spurious Emissions	Dec 23, 2020	Peng Xuewei	PASS	No deviation
Note 1: The tests were performed according to the method of measurements prescribed in KDB971168 D01 v03 and ANSI/TIA-603-E-2016. Note 2: The path loss during the RF test is calibrated to correct the results by the offset setting in the test equipments. The ref offset 26.5dB contains two parts that cable loss 16.5dB and Attenuator 10dB. Note 3: Additions to, deviation, or exclusions from the method shall be judged in the "method determination" column of add, deviate or exclude from the specific method shall be explained in the "Remark" of the above table. Note 4: When the test result is a critical value, we will use the measurement uncertainty give the judgment result based on the 95% risk level.					

1.5. Environmental Conditions

During the measurement, the environmental conditions were within the listed ranges:

Temperature (°C):	15-35
Relative Humidity (%):	30-60
Atmospheric Pressure (kPa):	86-106



2.47 CFR Part 2, Part 22H, Part 24E, Part 27 D&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, Mobile and portable stations are limited to 2 watts E.I.R.P. and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

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

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

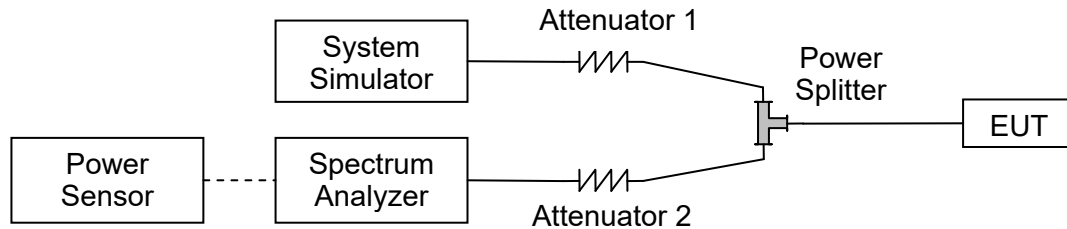
According to FCC section 27.50 (h)(2) for LTE Band 7/38/41, Mobile and other user stations. Mobile stations are limited to 2 watts E.I.R.P. All user stations are limited to 2 watts transmitter output power.

According to FCC section 27.50 (c)(10) for LTE Band 13/12/17, Portable stations (hand-held devices) operating in the 704-716MHz band are limited to 3watts E.R.P.

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

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

2.1.2. Test Description



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50 Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

2.1.3. Test Procedure

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

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

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

**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	23.51	23.56	23.54
20	QPSK	1	49	23.55	23.98	23.64
20	QPSK	1	99	23.60	23.73	23.71
20	QPSK	50	0	22.44	22.47	22.64
20	QPSK	50	24	22.40	22.49	22.53
20	QPSK	50	50	22.29	22.52	22.52
20	QPSK	100	0	22.37	22.63	22.54
20	16QAM	1	0	21.93	21.78	22.01
20	16QAM	1	49	22.07	21.93	22.08
20	16QAM	1	99	21.79	22.16	21.99
20	16QAM	50	0	21.43	21.42	21.58
20	16QAM	50	24	21.47	21.54	21.43
20	16QAM	50	50	21.22	21.68	21.38
20	16QAM	100	0	21.41	21.53	21.52



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	23.47	23.39	23.50
15	QPSK	1	37	23.64	23.89	23.87
15	QPSK	1	74	23.45	23.64	23.62
15	QPSK	36	0	22.39	22.53	22.54
15	QPSK	36	20	22.39	22.54	22.52
15	QPSK	36	39	22.42	22.50	22.51
15	QPSK	75	0	22.40	22.48	22.52
15	16QAM	1	0	22.43	22.05	22.17
15	16QAM	1	37	22.29	22.52	22.22
15	16QAM	1	74	22.10	22.06	22.38
15	16QAM	36	0	21.45	21.56	21.55
15	16QAM	36	20	21.44	21.54	21.49
15	16QAM	36	39	21.25	21.52	21.53
15	16QAM	75	0	21.35	21.54	21.59



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				18650	18900	19150
Frequency (MHz)				1855	1880	1905
10	QPSK	1	0	23.10	23.22	23.25
10	QPSK	1	25	23.55	23.47	23.51
10	QPSK	1	49	23.14	23.50	23.55
10	QPSK	25	0	22.44	22.62	22.46
10	QPSK	25	12	22.41	22.60	22.60
10	QPSK	25	25	22.43	22.62	22.53
10	QPSK	50	0	22.37	22.59	22.60
10	16QAM	1	0	22.05	22.30	22.38
10	16QAM	1	25	22.35	22.39	22.20
10	16QAM	1	49	21.98	21.92	22.15
10	16QAM	25	0	21.53	21.69	21.60
10	16QAM	25	12	21.68	21.54	21.48
10	16QAM	25	25	21.60	21.53	21.41
10	16QAM	50	0	21.49	21.66	21.50



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	23.22	23.20	23.24
5	QPSK	1	12	23.60	23.64	23.69
5	QPSK	1	24	23.29	23.63	23.33
5	QPSK	12	0	22.39	22.47	22.47
5	QPSK	12	7	22.42	22.57	22.53
5	QPSK	12	13	22.37	22.56	22.40
5	QPSK	25	0	22.43	22.45	22.48
5	16QAM	1	0	22.19	22.28	21.97
5	16QAM	1	12	22.29	22.25	21.85
5	16QAM	1	24	21.94	21.95	22.29
5	16QAM	12	0	21.61	21.45	21.52
5	16QAM	12	7	21.60	21.52	21.74
5	16QAM	12	13	21.43	21.56	21.56
5	16QAM	25	0	21.45	21.70	21.75



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	23.16	23.32	23.51
3	QPSK	1	8	23.27	23.32	23.31
3	QPSK	1	14	23.26	23.51	23.10
3	QPSK	8	0	22.53	22.47	22.55
3	QPSK	8	4	22.38	22.46	22.45
3	QPSK	8	7	22.44	22.59	22.46
3	QPSK	15	0	22.37	22.48	22.49
3	16QAM	1	0	22.34	22.00	22.05
3	16QAM	1	8	22.24	21.89	22.21
3	16QAM	1	14	22.21	21.95	21.99
3	16QAM	8	0	21.41	21.40	21.53
3	16QAM	8	4	21.41	21.68	21.31
3	16QAM	8	7	21.46	21.71	21.52
3	16QAM	15	0	21.40	21.52	21.67



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	23.41	23.51	23.69
1.4	QPSK	1	3	23.50	23.60	23.60
1.4	QPSK	1	5	23.52	23.57	23.55
1.4	QPSK	3	0	23.63	23.64	23.82
1.4	QPSK	3	1	23.84	23.63	23.77
1.4	QPSK	3	3	23.49	23.64	23.56
1.4	QPSK	6	0	22.41	22.62	22.56
1.4	16QAM	1	0	22.19	22.59	22.23
1.4	16QAM	1	3	22.17	22.64	22.33
1.4	16QAM	1	5	22.20	22.18	22.20
1.4	16QAM	3	0	22.46	22.68	22.67
1.4	16QAM	3	1	22.54	22.64	22.73
1.4	16QAM	3	3	22.72	22.64	22.76
1.4	16QAM	6	0	21.46	21.47	21.60



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	22.51	22.56	22.61
20	QPSK	1	49	22.59	22.64	22.99
20	QPSK	1	99	22.64	22.78	22.82
20	QPSK	50	0	21.61	21.50	21.93
20	QPSK	50	24	21.77	21.57	21.78
20	QPSK	50	50	21.50	21.49	21.84
20	QPSK	100	0	21.59	21.50	21.76
20	16QAM	1	0	21.16	21.29	21.33
20	16QAM	1	49	21.29	21.34	21.49
20	16QAM	1	99	21.20	21.56	21.50
20	16QAM	50	0	20.59	20.54	20.62
20	16QAM	50	24	20.52	20.40	20.59
20	16QAM	50	50	20.44	20.53	20.79
20	16QAM	100	0	20.53	20.47	20.77



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	22.44	22.43	22.42
15	QPSK	1	37	22.32	22.56	22.63
15	QPSK	1	74	22.46	22.50	22.67
15	QPSK	36	0	21.56	21.59	21.82
15	QPSK	36	20	21.57	21.48	21.74
15	QPSK	36	39	21.56	21.44	21.85
15	QPSK	75	0	21.46	21.54	21.74
15	16QAM	1	0	21.59	21.18	21.19
15	16QAM	1	37	21.25	21.48	21.52
15	16QAM	1	74	21.35	21.43	21.68
15	16QAM	36	0	20.62	20.49	20.79
15	16QAM	36	20	20.48	20.53	20.80
15	16QAM	36	39	20.49	20.48	20.74
15	16QAM	75	0	20.46	20.49	20.83



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	22.38	22.28	22.65
10	QPSK	1	25	22.68	22.56	22.78
10	QPSK	1	49	22.39	22.50	22.38
10	QPSK	25	0	21.66	21.54	21.79
10	QPSK	25	12	21.66	21.51	21.83
10	QPSK	25	25	21.59	21.49	21.78
10	QPSK	50	0	21.63	21.58	21.80
10	16QAM	1	0	21.59	21.18	21.41
10	16QAM	1	25	21.29	21.23	21.66
10	16QAM	1	49	21.31	21.19	21.39
10	16QAM	25	0	20.91	20.73	20.73
10	16QAM	25	12	20.78	20.52	20.77
10	16QAM	25	25	20.54	20.50	20.76
10	16QAM	50	0	20.61	20.48	20.62



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	22.48	22.39	22.64
5	QPSK	1	12	22.82	22.70	22.83
5	QPSK	1	24	22.34	22.55	22.34
5	QPSK	12	0	21.53	21.44	21.81
5	QPSK	12	7	21.69	21.64	21.87
5	QPSK	12	13	21.52	21.52	21.72
5	QPSK	25	0	21.64	21.48	21.79
5	16QAM	1	0	21.86	21.41	21.72
5	16QAM	1	12	21.58	21.49	21.79
5	16QAM	1	24	21.37	21.50	21.67
5	16QAM	12	0	20.36	20.35	20.77
5	16QAM	12	7	20.61	20.55	20.77
5	16QAM	12	13	20.57	20.50	20.61
5	16QAM	25	0	20.69	20.56	20.79



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	22.38	22.30	22.50
3	QPSK	1	8	22.29	22.13	22.32
3	QPSK	1	14	22.46	22.58	22.59
3	QPSK	8	0	21.75	21.47	21.63
3	QPSK	8	4	21.68	21.51	21.64
3	QPSK	8	7	21.62	21.55	21.61
3	QPSK	15	0	21.56	21.56	21.68
3	16QAM	1	0	21.11	21.09	21.43
3	16QAM	1	8	20.95	21.00	21.41
3	16QAM	1	14	21.36	21.11	21.40
3	16QAM	8	0	20.76	20.49	20.61
3	16QAM	8	4	20.58	20.58	20.56
3	16QAM	8	7	20.56	20.80	20.68
3	16QAM	15	0	20.46	20.44	20.38



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	22.44	22.52	22.77
1.4	QPSK	1	3	22.53	22.32	22.63
1.4	QPSK	1	5	22.61	22.39	22.57
1.4	QPSK	3	0	22.77	22.42	22.76
1.4	QPSK	3	1	22.68	22.40	22.81
1.4	QPSK	3	3	22.70	22.41	22.67
1.4	QPSK	6	0	21.70	21.58	21.60
1.4	16QAM	1	0	21.33	21.42	21.43
1.4	16QAM	1	3	21.51	21.59	21.50
1.4	16QAM	1	5	21.63	21.73	21.60
1.4	16QAM	3	0	21.63	21.43	21.45
1.4	16QAM	3	1	21.56	21.48	21.91
1.4	16QAM	3	3	21.90	21.42	21.86
1.4	16QAM	6	0	20.41	20.35	20.37



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	21.73	21.77	21.89
10	QPSK	1	25	21.84	22.19	21.79
10	QPSK	1	49	21.78	21.99	21.73
10	QPSK	25	0	20.86	20.96	20.96
10	QPSK	25	12	20.95	21.02	20.95
10	QPSK	25	25	20.98	20.99	20.99
10	QPSK	50	0	20.92	20.96	21.01
10	16QAM	1	0	20.56	20.68	20.97
10	16QAM	1	25	21.04	20.93	20.82
10	16QAM	1	49	20.54	20.88	20.91
10	16QAM	25	0	19.90	20.08	20.04
10	16QAM	25	12	20.06	19.96	20.04
10	16QAM	25	25	20.01	20.02	20.02
10	16QAM	50	0	19.93	20.05	20.03



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	21.58	21.49	21.67
5	QPSK	1	12	21.76	21.91	21.89
5	QPSK	1	24	21.51	21.82	21.72
5	QPSK	12	0	20.89	20.95	21.03
5	QPSK	12	7	20.89	21.02	21.00
5	QPSK	12	13	20.82	20.94	20.98
5	QPSK	25	0	20.86	21.07	20.92
5	16QAM	1	0	20.70	21.01	20.89
5	16QAM	1	12	21.04	20.85	20.85
5	16QAM	1	24	20.72	20.62	21.03
5	16QAM	12	0	19.68	20.04	20.03
5	16QAM	12	7	19.75	20.11	20.13
5	16QAM	12	13	19.75	19.99	20.06
5	16QAM	25	0	19.66	20.04	19.98



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	21.70	21.71	21.78
3	QPSK	1	8	21.79	22.01	21.84
3	QPSK	1	14	21.66	21.98	21.87
3	QPSK	8	0	20.76	20.98	20.98
3	QPSK	8	4	20.93	21.01	21.04
3	QPSK	8	7	20.87	21.04	20.97
3	QPSK	15	0	20.78	21.07	21.08
3	16QAM	1	0	20.90	20.51	20.76
3	16QAM	1	8	20.89	20.71	20.44
3	16QAM	1	14	20.89	20.74	20.43
3	16QAM	8	0	19.91	20.03	19.76
3	16QAM	8	4	19.91	20.14	20.09
3	16QAM	8	7	19.97	19.98	19.65
3	16QAM	15	0	19.78	19.78	19.98



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	21.75	21.75	21.84
1.4	QPSK	1	3	21.97	21.97	22.16
1.4	QPSK	1	5	22.06	22.06	22.04
1.4	QPSK	3	0	21.98	21.98	22.03
1.4	QPSK	3	1	21.99	21.99	22.29
1.4	QPSK	3	3	22.05	22.05	22.23
1.4	QPSK	6	0	20.97	20.97	21.06
1.4	16QAM	1	0	21.04	21.04	20.80
1.4	16QAM	1	3	21.05	21.06	20.82
1.4	16QAM	1	5	21.05	21.05	20.88
1.4	16QAM	3	0	21.04	21.04	20.92
1.4	16QAM	3	1	21.08	21.08	21.06
1.4	16QAM	3	3	21.13	21.13	20.84
1.4	16QAM	6	0	19.88	19.88	19.60



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	19.99	19.89	19.77
20	QPSK	1	49	19.88	20.15	20.10
20	QPSK	1	99	19.89	20.00	19.93
20	QPSK	50	0	19.26	19.38	19.17
20	QPSK	50	24	19.38	19.25	19.24
20	QPSK	50	50	19.24	19.03	19.17
20	QPSK	100	0	19.24	19.25	19.21
20	16QAM	1	0	18.55	18.80	18.80
20	16QAM	1	49	18.72	18.63	18.65
20	16QAM	1	99	18.67	18.54	18.54
20	16QAM	50	0	18.12	18.08	18.25
20	16QAM	50	24	18.24	17.94	18.22
20	16QAM	50	50	17.84	18.00	18.02
20	16QAM	100	0	17.70	17.93	18.11



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	19.52	19.91	20.02
15	QPSK	1	37	19.94	20.02	20.01
15	QPSK	1	74	19.85	19.91	20.01
15	QPSK	36	0	19.12	18.89	19.24
15	QPSK	36	20	19.11	18.94	19.31
15	QPSK	36	39	19.13	19.04	19.11
15	QPSK	75	0	19.11	19.02	19.24
15	16QAM	1	0	18.82	18.74	18.78
15	16QAM	1	37	18.70	18.65	18.62
15	16QAM	1	74	18.77	18.73	18.96
15	16QAM	36	0	17.68	17.90	18.17
15	16QAM	36	20	17.77	17.92	18.12
15	16QAM	36	39	17.75	17.95	18.12
15	16QAM	75	0	17.77	17.85	18.23



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	19.88	19.86	20.02
10	QPSK	1	25	19.93	20.04	20.01
10	QPSK	1	49	19.73	20.01	19.94
10	QPSK	25	0	19.22	18.85	19.28
10	QPSK	25	12	19.21	19.01	19.22
10	QPSK	25	25	18.80	19.04	19.13
10	QPSK	50	0	18.83	18.99	19.14
10	16QAM	1	0	18.85	18.72	18.91
10	16QAM	1	25	18.60	18.63	19.00
10	16QAM	1	49	18.57	19.01	18.91
10	16QAM	25	0	17.81	18.08	18.12
10	16QAM	25	12	17.73	17.99	18.02
10	16QAM	25	25	17.73	18.07	18.19
10	16QAM	50	0	18.02	18.11	18.24



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	19.99	19.68	20.00
5	QPSK	1	12	20.01	20.01	19.99
5	QPSK	1	24	19.89	19.77	19.83
5	QPSK	12	0	18.70	18.89	19.07
5	QPSK	12	7	18.77	18.98	19.17
5	QPSK	12	13	18.73	18.96	19.11
5	QPSK	25	0	18.71	18.99	19.18
5	16QAM	1	0	18.62	18.91	18.64
5	16QAM	1	12	18.62	18.80	18.55
5	16QAM	1	24	18.97	18.73	18.76
5	16QAM	12	0	17.82	17.99	18.02
5	16QAM	12	7	17.74	18.11	18.03
5	16QAM	12	13	17.68	17.89	18.02
5	16QAM	25	0	18.11	18.04	18.23



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	21.99	21.94	22.10
10	QPSK	1	25	22.39	21.98	22.38
10	QPSK	1	49	21.92	21.97	22.40
10	QPSK	25	0	21.20	21.18	21.37
10	QPSK	25	12	21.23	21.32	21.42
10	QPSK	25	25	21.28	21.27	21.40
10	QPSK	50	0	21.38	21.33	21.36
10	16QAM	1	0	20.75	21.18	21.07
10	16QAM	1	25	21.03	21.07	21.22
10	16QAM	1	49	20.82	21.23	21.01
10	16QAM	25	0	20.13	20.24	20.16
10	16QAM	25	12	20.12	20.29	20.35
10	16QAM	25	25	20.37	20.32	20.38
10	16QAM	50	0	20.34	20.25	20.35



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	21.81	21.98	22.02
5	QPSK	1	12	22.21	22.23	22.31
5	QPSK	1	24	21.86	21.98	22.08
5	QPSK	12	0	21.13	21.27	21.33
5	QPSK	12	7	21.22	21.31	21.39
5	QPSK	12	13	21.24	21.34	21.38
5	QPSK	25	0	21.23	21.29	21.31
5	16QAM	1	0	21.09	20.84	20.86
5	16QAM	1	12	21.01	21.22	21.00
5	16QAM	1	24	21.15	20.75	20.92
5	16QAM	12	0	20.17	20.11	20.41
5	16QAM	12	7	20.36	20.13	20.46
5	16QAM	12	13	20.24	20.11	20.10
5	16QAM	25	0	20.30	19.96	20.33



LTE Band 12						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23025	23095	23165
Frequency (MHz)				700.5	707.5	714.5
3	QPSK	1	0	22.05	22.14	22.30
3	QPSK	1	8	22.36	21.99	22.06
3	QPSK	1	14	22.13	21.94	21.96
3	QPSK	8	0	21.20	21.27	21.37
3	QPSK	8	4	21.20	21.28	21.36
3	QPSK	8	7	21.18	21.26	21.47
3	QPSK	15	0	22.15	22.30	22.36
3	16QAM	1	0	21.23	21.47	21.23
3	16QAM	1	8	21.20	21.49	21.08
3	16QAM	1	14	21.07	21.03	21.42
3	16QAM	8	0	20.10	20.30	20.29
3	16QAM	8	4	20.07	20.31	20.14
3	16QAM	8	7	20.10	20.28	20.33
3	16QAM	15	0	20.96	21.18	21.17



LTE Band 12						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23017	23095	23173
Frequency (MHz)				699.7	707.5	715.3
1.4	QPSK	1	0	22.10	22.31	22.27
1.4	QPSK	1	3	22.16	22.26	22.23
1.4	QPSK	1	5	22.11	22.24	22.11
1.4	QPSK	3	0	22.29	22.27	22.31
1.4	QPSK	3	1	22.18	22.38	22.39
1.4	QPSK	3	3	22.25	22.28	22.37
1.4	QPSK	6	0	21.15	21.26	21.34
1.4	16QAM	1	0	21.52	21.37	21.48
1.4	16QAM	1	3	21.71	21.52	21.80
1.4	16QAM	1	5	21.35	21.39	21.39
1.4	16QAM	3	0	21.21	21.20	21.24
1.4	16QAM	3	1	21.24	21.28	21.51
1.4	16QAM	3	3	21.22	21.35	21.52
1.4	16QAM	6	0	20.31	20.12	20.32



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	/	22.85	/
10	QPSK	1	25	/	23.18	/
10	QPSK	1	49	/	22.84	/
10	QPSK	25	0	/	22.11	/
10	QPSK	25	12	/	22.10	/
10	QPSK	25	25	/	22.01	/
10	QPSK	50	0	/	22.09	/
10	16QAM	1	0	/	21.66	/
10	16QAM	1	25	/	22.03	/
10	16QAM	1	49	/	21.53	/
10	16QAM	25	0	/	21.28	/
10	16QAM	25	12	/	21.07	/
10	16QAM	25	25	/	21.04	/
10	16QAM	50	0	/	21.19	/



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	22.67	22.90	22.90
5	QPSK	1	12	23.15	23.05	23.10
5	QPSK	1	24	22.79	22.84	22.84
5	QPSK	12	0	21.94	22.13	22.13
5	QPSK	12	7	22.14	22.11	22.11
5	QPSK	12	13	22.12	22.18	22.18
5	QPSK	25	0	22.14	22.17	22.17
5	16QAM	1	0	21.99	22.03	22.03
5	16QAM	1	12	22.04	22.00	22.09
5	16QAM	1	24	21.93	21.88	21.89
5	16QAM	12	0	21.02	21.24	21.24
5	16QAM	12	7	21.25	21.25	21.25
5	16QAM	12	13	21.25	21.01	21.01
5	16QAM	25	0	21.14	21.23	21.23



LTE Band 17						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23780	23790	23800
Frequency (MHz)				709	710	711
10	QPSK	1	0	21.94	22.11	21.88
10	QPSK	1	25	22.00	22.23	22.14
10	QPSK	1	49	22.21	22.08	22.08
10	QPSK	25	0	21.25	21.19	21.25
10	QPSK	25	12	21.33	21.22	21.27
10	QPSK	25	25	21.44	21.50	21.48
10	QPSK	50	0	21.31	21.30	21.32
10	16QAM	1	0	20.96	21.16	21.00
10	16QAM	1	25	21.41	21.10	21.36
10	16QAM	1	49	21.42	21.32	21.40
10	16QAM	25	0	20.14	20.00	20.10
10	16QAM	25	12	20.11	20.20	20.22
10	16QAM	25	25	20.22	20.21	20.31
10	16QAM	50	0	20.21	20.21	20.15



LTE Band 17						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				23755	23790	23825
Frequency (MHz)				706.5	710	713.5
5	QPSK	1	0	21.90	21.99	21.97
5	QPSK	1	12	22.13	22.37	22.35
5	QPSK	1	24	21.89	21.94	21.98
5	QPSK	12	0	21.15	21.14	21.37
5	QPSK	12	7	21.16	21.25	21.39
5	QPSK	12	13	21.21	21.32	21.37
5	QPSK	25	0	21.15	21.19	21.40
5	16QAM	1	0	20.86	21.08	20.96
5	16QAM	1	12	21.10	20.88	21.17
5	16QAM	1	24	20.82	20.79	21.11
5	16QAM	12	0	19.87	20.20	19.97
5	16QAM	12	7	19.95	20.24	20.35
5	16QAM	12	13	19.96	20.11	20.05
5	16QAM	25	0	20.00	20.25	20.45



LTE Band 38						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				37850	38000	38150
Frequency (MHz)				2580	2595	2610
20	QPSK	1	0	22.11	22.01	22.06
20	QPSK	1	49	22.23	22.02	22.04
20	QPSK	1	99	22.20	21.99	21.95
20	QPSK	50	0	21.42	21.27	21.20
20	QPSK	50	24	21.38	21.22	21.15
20	QPSK	50	50	21.31	21.17	21.05
20	QPSK	100	0	21.36	21.22	21.23
20	16QAM	1	0	21.06	21.04	20.73
20	16QAM	1	49	21.07	20.88	20.91
20	16QAM	1	99	20.83	20.97	20.73
20	16QAM	50	0	20.21	20.30	20.09
20	16QAM	50	24	20.30	20.11	20.05
20	16QAM	50	50	20.28	20.16	19.94
20	16QAM	100	0	20.32	20.10	20.13



LTE Band 38						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				37825	38000	38175
Frequency (MHz)				2577.5	2595	2612.5
15	QPSK	1	0	22.14	22.15	22.07
15	QPSK	1	37	22.13	22.19	21.99
15	QPSK	1	74	22.22	21.96	22.12
15	QPSK	36	0	21.38	21.20	21.20
15	QPSK	36	20	21.42	21.23	21.13
15	QPSK	36	39	21.36	21.21	21.11
15	QPSK	75	0	21.36	21.23	21.18
15	16QAM	1	0	21.04	20.84	20.70
15	16QAM	1	37	21.02	20.86	20.60
15	16QAM	1	74	20.97	20.68	20.66
15	16QAM	36	0	20.22	20.21	20.12
15	16QAM	36	20	20.33	20.17	20.17
15	16QAM	36	39	20.28	20.05	20.04
15	16QAM	75	0	20.29	20.21	20.05



LTE Band 38						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				37800	38000	38200
Frequency (MHz)				2575	2595	2615
10	QPSK	1	0	22.17	22.01	21.82
10	QPSK	1	25	22.21	22.06	21.97
10	QPSK	1	49	22.20	22.15	21.93
10	QPSK	25	0	21.47	21.28	21.12
10	QPSK	25	12	21.43	21.30	21.21
10	QPSK	25	25	21.45	21.23	21.13
10	QPSK	50	0	21.50	21.24	21.17
10	16QAM	1	0	21.07	20.93	20.77
10	16QAM	1	25	21.18	20.81	20.86
10	16QAM	1	49	20.92	20.70	20.94
10	16QAM	25	0	20.51	20.46	20.01
10	16QAM	25	12	20.48	20.50	20.05
10	16QAM	25	25	20.50	20.22	20.02
10	16QAM	50	0	20.45	20.24	20.16



LTE Band 38						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				37775	38000	38225
Frequency (MHz)				2572.5	2595	2617.5
5	QPSK	1	0	22.03	21.90	21.72
5	QPSK	1	12	22.20	22.12	22.03
5	QPSK	1	24	22.21	21.98	21.88
5	QPSK	12	0	21.52	21.24	21.16
5	QPSK	12	7	21.39	21.30	21.11
5	QPSK	12	13	21.35	21.22	21.12
5	QPSK	25	0	21.36	21.18	21.09
5	16QAM	1	0	20.86	20.68	20.61
5	16QAM	1	12	20.96	20.78	20.68
5	16QAM	1	24	20.84	20.55	20.49
5	16QAM	12	0	20.24	20.18	20.16
5	16QAM	12	7	20.45	20.34	20.21
5	16QAM	12	13	20.40	20.05	19.96
5	16QAM	25	0	20.43	20.49	20.20



LTE Band 40, Block A						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				/	38750	/
Frequency (MHz)				/	2310	/
10	QPSK	1	0	/	22.66	/
10	QPSK	1	25	/	22.61	/
10	QPSK	1	49	/	22.75	/
10	QPSK	25	0	/	21.80	/
10	QPSK	25	12	/	21.81	/
10	QPSK	25	25	/	21.75	/
10	QPSK	50	0	/	21.77	/
10	16QAM	1	0	/	21.49	/
10	16QAM	1	25	/	21.55	/
10	16QAM	1	49	/	21.26	/
10	16QAM	25	0	/	21.07	/
10	16QAM	25	12	/	20.90	/
10	16QAM	25	25	/	20.85	/
10	16QAM	50	0	/	20.87	/



LTE Band 40, Block A						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				38725	38750	38775
Frequency (MHz)				2307.5	2310	2312.5
5	QPSK	1	0	22.59	22.53	22.49
5	QPSK	1	12	22.71	22.66	22.74
5	QPSK	1	24	22.52	22.53	22.57
5	QPSK	12	0	21.77	21.82	21.84
5	QPSK	12	7	21.82	21.79	21.82
5	QPSK	12	13	21.79	21.79	21.81
5	QPSK	25	0	21.82	21.79	21.83
5	16QAM	1	0	21.31	21.31	21.32
5	16QAM	1	12	21.41	21.50	21.45
5	16QAM	1	24	21.17	21.29	21.35
5	16QAM	12	0	20.65	20.82	20.67
5	16QAM	12	7	20.89	20.89	20.84
5	16QAM	12	13	20.69	20.70	20.65
5	16QAM	25	0	20.83	20.92	20.87



LTE Band 40, Block B						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				/	39200	/
Frequency (MHz)				/	2355	/
10	QPSK	1	0	/	22.55	/
10	QPSK	1	25	/	22.79	/
10	QPSK	1	49	/	22.81	/
10	QPSK	25	0	/	21.90	/
10	QPSK	25	12	/	21.91	/
10	QPSK	25	25	/	21.89	/
10	QPSK	50	0	/	21.90	/
10	16QAM	1	0	/	21.60	/
10	16QAM	1	25	/	21.72	/
10	16QAM	1	49	/	21.40	/
10	16QAM	25	0	/	20.97	/
10	16QAM	25	12	/	20.98	/
10	16QAM	25	25	/	20.98	/
10	16QAM	50	0	/	20.98	/



LTE Band 40, Block B						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				39175	39200	39225
Frequency (MHz)				2352.5	2355	2357.5
5	QPSK	1	0	22.39	22.47	22.59
5	QPSK	1	12	22.68	22.75	22.78
5	QPSK	1	24	22.56	22.61	22.66
5	QPSK	12	0	21.81	21.91	21.93
5	QPSK	12	7	21.89	21.98	21.93
5	QPSK	12	13	21.84	21.83	21.90
5	QPSK	25	0	21.86	21.87	21.86
5	16QAM	1	0	21.39	21.42	21.44
5	16QAM	1	12	21.57	21.59	21.58
5	16QAM	1	24	21.35	21.34	21.49
5	16QAM	12	0	20.70	20.68	20.93
5	16QAM	12	7	20.96	21.07	21.03
5	16QAM	12	13	20.90	20.78	20.99
5	16QAM	25	0	21.16	21.17	20.98



LTE Band 41						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				40340	40740	41140
Frequency (MHz)				2565	2605	2645
20	QPSK	1	0	22.15	22.32	22.08
20	QPSK	1	49	22.21	22.16	22.17
20	QPSK	1	99	22.18	22.11	22.07
20	QPSK	50	0	21.25	21.41	21.25
20	QPSK	50	24	21.33	21.4	21.30
20	QPSK	50	50	21.44	21.28	21.31
20	QPSK	100	0	21.31	21.33	21.26
20	16QAM	1	0	20.89	20.89	20.82
20	16QAM	1	49	21.13	21.02	21.13
20	16QAM	1	99	21.11	20.48	20.84
20	16QAM	50	0	20.34	20.33	20.16
20	16QAM	50	24	20.42	20.2	20.32
20	16QAM	50	50	20.45	20.09	20.24
20	16QAM	100	0	20.31	20.10	20.29



LTE Band 41						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				40315	40740	41165
Frequency (MHz)				2562.5	2605	2647.5
15	QPSK	1	0	22.14	22.21	22.27
15	QPSK	1	37	22.22	22.35	22.24
15	QPSK	1	74	22.20	22.01	22.25
15	QPSK	36	0	21.15	21.36	21.33
15	QPSK	36	20	21.24	21.15	21.25
15	QPSK	36	39	21.33	21.46	21.28
15	QPSK	75	0	21.23	21.4	21.27
15	16QAM	1	0	20.93	20.89	21.06
15	16QAM	1	37	20.88	20.97	20.95
15	16QAM	1	74	21.04	20.58	20.73
15	16QAM	36	0	20.29	20.28	20.30
15	16QAM	36	20	20.27	20.36	20.21
15	16QAM	36	39	20.38	20.21	20.38
15	16QAM	75	0	20.32	20.21	20.38



LTE Band 41						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				40290	40740	41190
Frequency (MHz)				2560	2605	2650
10	QPSK	1	0	21.90	22.13	22.11
10	QPSK	1	25	22.01	22.10	22.03
10	QPSK	1	49	21.94	22.01	22.05
10	QPSK	25	0	21.24	21.36	21.29
10	QPSK	25	12	21.23	21.28	21.29
10	QPSK	25	25	21.20	21.20	21.29
10	QPSK	50	0	21.24	21.25	21.37
10	16QAM	1	0	20.71	21.00	20.87
10	16QAM	1	25	20.97	20.96	21.03
10	16QAM	1	49	20.85	20.90	20.78
10	16QAM	25	0	20.16	20.47	20.22
10	16QAM	25	12	20.25	20.24	20.23
10	16QAM	25	25	20.21	20.15	20.24
10	16QAM	50	0	20.14	20.24	20.39



LTE Band 41						
BW [MHz]	Modulation	RB Size	RB Offset	Average Power Low Ch. / Freq.	Average Power Middle Ch. / Freq.	Average Power High Ch. / Freq.
Channel				40265	40740	41215
Frequency (MHz)				2557.5	2605	2652.5
5	QPSK	1	0	21.81	21.97	21.95
5	QPSK	1	12	22.04	21.95	22.11
5	QPSK	1	24	21.81	21.90	22.01
5	QPSK	12	0	21.12	21.39	21.32
5	QPSK	12	7	21.14	21.20	21.30
5	QPSK	12	13	21.13	21.14	21.26
5	QPSK	25	0	21.13	21.10	21.28
5	16QAM	1	0	20.68	20.97	20.68
5	16QAM	1	12	20.80	20.59	20.93
5	16QAM	1	24	20.67	20.50	20.76
5	16QAM	12	0	20.24	20.61	20.14
5	16QAM	12	7	20.15	20.59	20.43
5	16QAM	12	13	20.12	20.63	20.39
5	16QAM	25	0	20.45	20.60	20.24

**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	24.21	0.264	24.26	0.267	24.24	0.265
20	QPSK	1	49	24.25	0.266	24.68	0.294	24.34	0.272
20	QPSK	1	99	24.30	0.269	24.43	0.277	24.41	0.276
20	QPSK	50	0	23.14	0.206	23.17	0.207	23.34	0.216
20	QPSK	50	24	23.10	0.204	23.19	0.208	23.23	0.210
20	QPSK	50	50	22.99	0.199	23.22	0.210	23.22	0.210
20	QPSK	100	0	23.07	0.203	23.33	0.215	23.24	0.211
20	16QAM	1	0	22.63	0.183	22.48	0.177	22.71	0.187
20	16QAM	1	49	22.77	0.189	22.63	0.183	22.78	0.190
20	16QAM	1	99	22.49	0.177	22.86	0.193	22.69	0.186
20	16QAM	50	0	22.13	0.163	22.12	0.163	22.28	0.169
20	16QAM	50	24	22.17	0.165	22.24	0.167	22.13	0.163
20	16QAM	50	50	21.92	0.156	22.38	0.173	22.08	0.161
20	16QAM	100	0	22.11	0.163	22.23	0.167	22.22	0.167



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	24.17	0.261	24.09	0.256	24.20	0.263
15	QPSK	1	37	24.34	0.272	24.59	0.288	24.57	0.286
15	QPSK	1	74	24.15	0.260	24.34	0.272	24.32	0.270
15	QPSK	36	0	23.09	0.204	23.23	0.210	23.24	0.211
15	QPSK	36	20	23.09	0.204	23.24	0.211	23.22	0.210
15	QPSK	36	39	23.12	0.205	23.20	0.209	23.21	0.209
15	QPSK	75	0	23.10	0.204	23.18	0.208	23.22	0.210
15	16QAM	1	0	23.13	0.206	22.75	0.188	22.87	0.194
15	16QAM	1	37	22.99	0.199	23.22	0.210	22.92	0.196
15	16QAM	1	74	22.80	0.191	22.76	0.189	23.08	0.203
15	16QAM	36	0	22.15	0.164	22.26	0.168	22.25	0.168
15	16QAM	36	20	22.14	0.164	22.24	0.167	22.19	0.166
15	16QAM	36	39	21.95	0.157	22.22	0.167	22.23	0.167
15	16QAM	75	0	22.05	0.160	22.24	0.167	22.29	0.169



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	23.80	0.240	23.92	0.247	23.95	0.248
10	QPSK	1	25	24.25	0.266	24.17	0.261	24.21	0.264
10	QPSK	1	49	23.84	0.242	24.20	0.263	24.25	0.266
10	QPSK	25	0	23.14	0.206	23.32	0.215	23.16	0.207
10	QPSK	25	12	23.11	0.205	23.30	0.214	23.30	0.214
10	QPSK	25	25	23.13	0.206	23.32	0.215	23.23	0.210
10	QPSK	50	0	23.07	0.203	23.29	0.213	23.30	0.214
10	16QAM	1	0	22.75	0.188	23.00	0.200	23.08	0.203
10	16QAM	1	25	23.05	0.202	23.09	0.204	22.90	0.195
10	16QAM	1	49	22.68	0.185	22.62	0.183	22.85	0.193
10	16QAM	25	0	22.23	0.167	22.39	0.173	22.30	0.170
10	16QAM	25	12	22.38	0.173	22.24	0.167	22.18	0.165
10	16QAM	25	25	22.30	0.170	22.23	0.167	22.11	0.163
10	16QAM	50	0	22.19	0.166	22.36	0.172	22.20	0.166



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	23.92	0.247	23.90	0.245	23.94	0.248
5	QPSK	1	12	24.30	0.269	24.34	0.272	24.39	0.275
5	QPSK	1	24	23.99	0.251	24.33	0.271	24.03	0.253
5	QPSK	12	0	23.09	0.204	23.17	0.207	23.17	0.207
5	QPSK	12	7	23.12	0.205	23.27	0.212	23.23	0.210
5	QPSK	12	13	23.07	0.203	23.26	0.212	23.10	0.204
5	QPSK	25	0	23.13	0.206	23.15	0.207	23.18	0.208
5	16QAM	1	0	22.89	0.195	22.98	0.199	22.67	0.185
5	16QAM	1	12	22.99	0.199	22.95	0.197	22.55	0.180
5	16QAM	1	24	22.64	0.184	22.65	0.184	22.99	0.199
5	16QAM	12	0	22.31	0.170	22.15	0.164	22.22	0.167
5	16QAM	12	7	22.30	0.170	22.22	0.167	22.44	0.175
5	16QAM	12	13	22.13	0.163	22.26	0.168	22.26	0.168
5	16QAM	25	0	22.15	0.164	22.40	0.174	22.45	0.176



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	23.86	0.243	24.02	0.252	24.21	0.264
3	QPSK	1	8	23.97	0.249	24.02	0.252	24.01	0.252
3	QPSK	1	14	23.96	0.249	24.21	0.264	23.80	0.240
3	QPSK	8	0	23.23	0.210	23.17	0.207	23.25	0.211
3	QPSK	8	4	23.08	0.203	23.16	0.207	23.15	0.207
3	QPSK	8	7	23.14	0.206	23.29	0.213	23.16	0.207
3	QPSK	15	0	23.07	0.203	23.18	0.208	23.19	0.208
3	16QAM	1	0	23.04	0.201	22.70	0.186	22.75	0.188
3	16QAM	1	8	22.94	0.197	22.59	0.182	22.91	0.195
3	16QAM	1	14	22.91	0.195	22.65	0.184	22.69	0.186
3	16QAM	8	0	22.11	0.163	22.10	0.162	22.23	0.167
3	16QAM	8	4	22.11	0.163	22.38	0.173	22.01	0.159
3	16QAM	8	7	22.16	0.164	22.41	0.174	22.22	0.167
3	16QAM	15	0	22.10	0.162	22.22	0.167	22.37	0.173



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	24.11	0.258	24.21	0.264	24.39	0.275
1.4	QPSK	1	3	24.20	0.263	24.30	0.269	24.30	0.269
1.4	QPSK	1	5	24.22	0.264	24.27	0.267	24.25	0.266
1.4	QPSK	3	0	24.33	0.271	24.34	0.272	24.52	0.283
1.4	QPSK	3	1	24.54	0.284	24.33	0.271	24.47	0.280
1.4	QPSK	3	3	24.19	0.262	24.34	0.272	24.26	0.267
1.4	QPSK	6	0	23.11	0.205	23.32	0.215	23.26	0.212
1.4	16QAM	1	0	22.89	0.195	23.29	0.213	22.93	0.196
1.4	16QAM	1	3	22.87	0.194	23.34	0.216	23.03	0.201
1.4	16QAM	1	5	22.90	0.195	22.88	0.194	22.90	0.195
1.4	16QAM	3	0	23.16	0.207	23.38	0.218	23.37	0.217
1.4	16QAM	3	1	23.24	0.211	23.34	0.216	23.43	0.220
1.4	16QAM	3	3	23.42	0.220	23.34	0.216	23.46	0.222
1.4	16QAM	6	0	22.16	0.164	22.17	0.165	22.30	0.170



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	23.21	0.209	23.26	0.212	23.31	0.214
20	QPSK	1	49	23.29	0.213	23.34	0.216	23.69	0.234
20	QPSK	1	99	23.34	0.216	23.48	0.223	23.52	0.225
20	QPSK	50	0	22.31	0.170	22.20	0.166	22.63	0.183
20	QPSK	50	24	22.47	0.177	22.27	0.169	22.48	0.177
20	QPSK	50	50	22.20	0.166	22.19	0.166	22.54	0.179
20	QPSK	100	0	22.29	0.169	22.20	0.166	22.46	0.176
20	16QAM	1	0	21.86	0.153	21.99	0.158	22.03	0.160
20	16QAM	1	49	21.99	0.158	22.04	0.160	22.19	0.166
20	16QAM	1	99	21.90	0.155	22.26	0.168	22.20	0.166
20	16QAM	50	0	21.29	0.135	21.24	0.133	21.32	0.136
20	16QAM	50	24	21.22	0.132	21.10	0.129	21.29	0.135
20	16QAM	50	50	21.14	0.130	21.23	0.133	21.49	0.141
20	16QAM	100	0	21.23	0.133	21.17	0.131	21.47	0.140