



RF TEST REPORT

Applicant ZTE Corporation
FCC ID SRQ-MF928
Product LTE ufi Hotspot
Model MF928
Report No. R2006A0416-R3
Issue Date July 16, 2020

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in **FCC CFR47 Part 2 (2019)/ FCC CFR47 Part 27C (2019)**. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

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Summary of Measurement Results

Number	Test Case	Clause in FCC rules	Verdict
1	RF Power Output and Effective Isotropic Radiated Power	2.1046/27.50(d)(4)/27.50(c)(10)/27.50(h)(2)	PASS
2	Occupied Bandwidth	2.1049	PASS
3	Band Edge Compliance	27.53(h) /27.53(g) /27.53(m)	PASS
4	Peak-to-Average Power Ratio	27.50(d)/KDB971168 D01(5.7)	PASS
5	Frequency Stability	2.1055 / 27.54	PASS
6	Spurious Emissions at Antenna Terminals	2.1051 /27.53(h) /27.53(g) /27.53(m)	PASS
7	Radiates Spurious Emission	2.1053 /27.53(h) /27.53(g) /27.53(m)	PASS

Date of Testing: March 9, 2018 ~ March 27, 2018 and June 23, 2020 ~ July 14, 2020

Note: PASS: The EUT complies with the essential requirements in the standard.

FAIL: The EUT does not comply with the essential requirements in the standard.

All indications of Pass/Fail in this report are opinions expressed by TA Technology (Shanghai) Co., Ltd. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only.



1 Test Laboratory

1.1 Notes of the Test Report

This report shall not be reproduced in full or partial, without the written approval of **TA technology (shanghai) co., Ltd.** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support regulatory compliance of the applicable standards stated above.

1.2. Test facility

FCC (Designation number: CN1179, Test Firm Registration Number: 446626)

TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

A2LA (Certificate Number: 3857.01)

TA Technology (Shanghai) Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.

1.3 Testing Location

Company: TA Technology (Shanghai) Co., Ltd.
Address: No.145, Jintang Rd, Tangzhen Industry Park, Pudong Shanghai, China
City: Shanghai
Post code: 201201
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Website: <http://www.ta-shanghai.com>
E-mail: xukai@ta-shanghai.com

2 General Description of Equipment under Test

2.1 Applicant and Manufacturer Information

Applicant	ZTE Corporation
Applicant address	ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China
Manufacturer	ZTE Corporation
Manufacturer address	ZTE Plaza, Keji Road South, Hi-Tech, Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P.R.China

2.2 General information

EUT Description			
Model	MF928		
IMEI	866987050000794		
Hardware Version	MF928-1.0.0		
Software Version	BD_RWMF928V0.0.0B02		
Power Supply	Battery/AC adapter		
Antenna Type	Internal Antenna		
Antenna Gain	LTE Band 4:	2.61 dBi	
	LTE Band 12:	0.26 dBi	
	LTE Band 66:	2.96 dBi	
	LTE Band 71	1.01 dBi	
Test Mode(s)	LTE Band 4, LTE Band 12, LTE Band 66, LTE Band 71;		
Test Modulation	QPSK 16QAM;		
LTE Category	4		
Maximum E.I.R.P./ E.R.P.	LTE Band 4:	26.39 dBm	
	LTE Band 12:	22.33 dBm	
	LTE Band 66:	27.61 dBm	
	LTE Band 71	23.46 dBm	
Rated Power Supply Voltage:	3.8V		
Extreme Voltage	Minimum: 3.4V Maximum: 4.35V		
Extreme Temperature	Lowest: -10°C Highest: +55°C		
Frequency Range(s)	Mode	Tx (MHz)	Rx (MHz)
	LTE Band 4	1710 ~ 1755	2110 ~ 2155
	LTE Band 12	699 ~ 716	729 ~ 746
	LTE Band 66	1710 ~ 1780	2110 ~ 2200
	LTE Band 71	663 ~ 698	617 ~ 652
EUT Accessory			



Adapter 1	Manufacturer: DONGGUAN AOHAI POWER TECHNOLOGY CO., LTD. Model: STC-A51D-Z
Adapter 2	Manufacturer: SHENZHEN RUIJING INDUSTRIAL CO LTD Model: STC-A51D-Z
Battery	Manufacturer: HARBIN COSLIGHT POWER CO LTD Model: Li3820T43P3h715345
USB Cable 1	Manufacturer: LUXSHARE-ICT 100cm Cable, Shielded
USB Cable 2	Manufacturer: kingpower-tech 100cm Cable, Shielded
<p>Note: 1. The EUT is sent from the applicant to TA and the information of the EUT is declared by the applicant.</p> <p>2. There is more than USB cable, each one should be applied throughout the compliance test respectively, and however, only the worst case (USB cable 1) will be recorded in this report.</p>	



3 Applied Standards

According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

Test standards:

FCC CFR47 Part 27C (2019)

ANSI C63.26 (2015)

Reference standard:

FCC CFR47 Part 2 (2019)

KDB 971168 D01 Power Meas License Digital Systems v03r01

4 Test Configuration

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes. EUT stand-up position (Z axis), lie-down position (X, Y axis). Receiver antenna polarization (horizontal and vertical), the worst emission was found in position (Z axis, horizontal polarization) and the worst case was recorded.

All mode and data rates and positions and RB size and modulations were investigated.

Subsequently, only the worst case emissions are reported.

The following testing in LTE is set based on the maximum RF Output Power.

The following testing in different Bandwidth is set to detail in the following table:

Test modes are chosen to be reported as the worst case configuration below for LTE Band 4/12/66/71:

Test items	Modes	Bandwidth (MHz)						Modulation		RB			Test Channel			
		1.4	3	5	10	15	20	QPSK	16QAM	1	50%	100%	L	M	H	
RF power output and Effective Radiated power	LTE 4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	LTE 12	○	○	○	○	-	-	○	○	○	○	○	○	○	○	○
	LTE 66	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	LTE 71	-	-	○	○	○	○	○	○	○	○	○	○	○	○	○
Occupied Bandwidth	LTE 4	○	○	○	○	○	○	○	○	-	-	○	○	○	○	○
	LTE 12	○	○	○	○	-	-	○	○	-	-	○	○	○	○	○
	LTE 66	○	○	○	○	○	○	○	○	-	-	○	○	○	○	○
	LTE 71	-	-	○	○	○	○	○	○	-	-	○	○	○	○	○
Band Edge Compliance	LTE 4	○	○	○	○	○	○	○	○	○	-	○	○	-	○	○
	LTE 12	○	○	○	○	-	-	○	○	○	-	○	○	-	○	○
	LTE 66	○	○	○	○	○	○	○	○	○	-	○	○	-	○	○
	LTE 71	-	-	○	○	○	○	○	○	○	-	○	○	-	○	○
Peak-to-Average Power Ratio	LTE 4	○	○	○	○	○	○	○	○	-	-	○	○	○	○	○
	LTE 12	○	○	○	○	-	-	○	○	-	-	○	○	○	○	○
	LTE 66	○	○	○	○	○	○	○	○	-	-	○	○	○	○	○
	LTE 71	-	-	○	○	○	○	○	○	-	-	○	○	○	○	○
Frequency Stability	LTE 4	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	LTE 12	○	○	○	○	-	-	○	○	○	○	○	○	○	○	○
	LTE 66	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	LTE 71	-	-	○	○	○	○	○	○	○	○	○	○	○	○	○
Spurious Emissions at Antenna Terminals	LTE 4	○	○	○	○	○	○	○	-	○	-	-	○	○	○	○
	LTE 12	○	○	○	○	-	-	○	-	○	-	-	○	○	○	○
	LTE 66	○	○	○	○	○	○	○	-	○	-	-	○	○	○	○
	LTE 71	-	-	○	○	○	○	○	-	○	-	-	○	○	○	○
Radiates Spurious Emission	LTE 4	○	-	○	-	-	○	○	-	○	-	-	○	○	○	○
	LTE 12	○	-	○	○	-	-	○	-	○	-	-	○	○	○	○



	LTE 66	O	-	O	-	-	O	O	-	O	-	-	O	O	O
	LTE 71	-	-	O	-	-	O	O	-	O	-	-	O	O	O
Note	1. The mark "O" means that this configuration is chosen for testing. 2. The mark "-" means that this configuration is not testing.														

5 Test Case Results

5.1 RF Power Output and Effective Isotropic Radiated Power

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Methods of Measurement

During the process of the testing, The EUT is controlled by the Base Station Simulator to ensure max power transmission and proper modulation.

1. The testing follows FCC KDB 971168 D01 v03r01 Section 5.8 and ANSI C63.26 (2015).

- a) Connect the equipment as illustrated. Mount the equipment with the manufacturer specified antenna in a vertical orientation on a manufacturer specified mounting surface located on a non-conducting rotating platform of a RF anechoic chamber (preferred) or a standard radiation site.
- b) Key the transmitter, then rotate the EUT 360° azimuthally and record spectrum analyzer power level (LVL) measurements at angular increments that are sufficiently small to permit resolution of all peaks. If a standard radiation test site is used, raise and lower the test antenna to obtain a maximum reading at each angular increment. (Note: several batteries may be needed to offset the effect of battery voltage droop, which should not exceed 5% of the manufactured specified battery voltage during transmission).
- c) Replace the transmitter under test with a vertically polarized half-wave dipole (or an antenna whose gain is known relative to an ideal half-wave dipole). The center of the antenna should be at the same location as the center of the antenna under test.
- d) Connect the antenna to a signal generator with a known output power and record the path loss (in dB) as LOSS. If a standard radiation test site is used, raise and lower the test antenna to obtain a maximum reading. $LOSS = \text{Generator Output Power (dBm)} - \text{Analyzer reading (dBm)}$
- e) Determine the effective radiated output power at each angular position from the readings in steps b) and d) using the following equation: $ERP \text{ (dBm)} = \text{LVL (dBm)} + \text{LOSS (dB)}$
- f) The maximum ERP is the maximum value determined in the preceding step.
- g) When calculating ERP, in addition to knowing the antenna radiation and matching characteristics, it is necessary to know the loss values of all elements (e.g. transmission line attenuation, mismatches, filters, combiners) interposed between the point where transmitter output power is measured, and the point where power is applied to the antenna. ERP can then be calculated as follows:

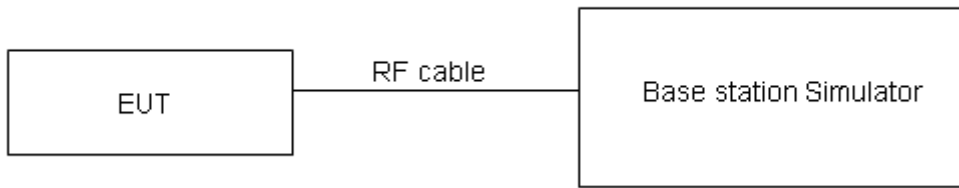
$$EIRP \text{ (dBm)} = \text{Output Power (dBm)} - \text{Losses (dB)} + \text{Antenna Gain (dBi)}$$

where: dBd refers to gain relative to an ideal dipole.

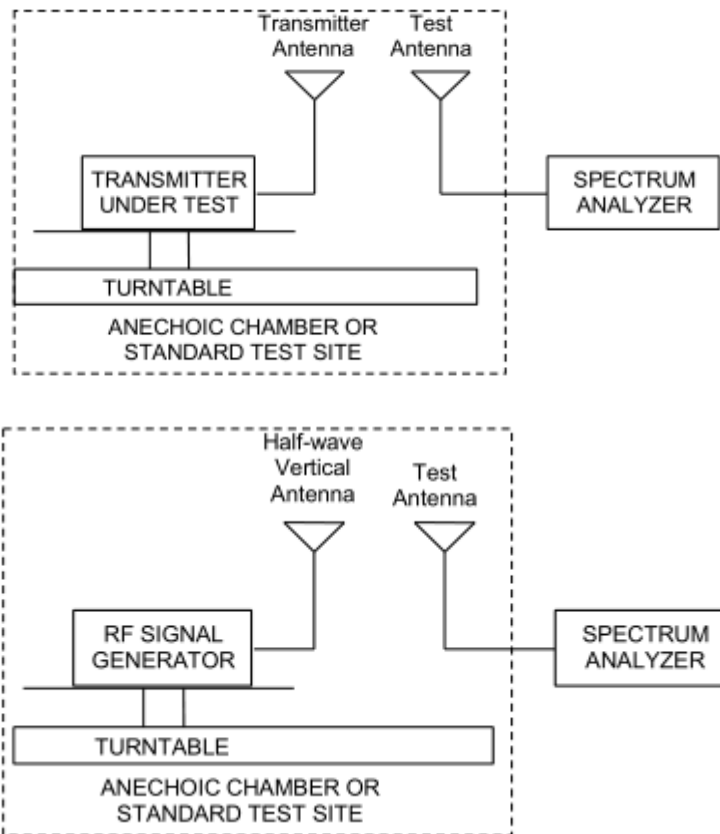
$$EIRP \text{ (dBm)} = ERP \text{ (dBm)} + 2.15 \text{ (dB.)}$$

The RB allocation refers to section 5.1, using the maximum output power configuration.

Test Setup



The loss between RF output port of the EUT and the input port of the tester has been taken into consideration.



Note: Area side:2.4mX3.6m

The radiated emission was measured in the following position: EUT stand-up position (Z axis), lie-down position (X, Y axis). The worst emission was found in stand-up position (Z axis) and the worst case was recorded.

Limits

No specific RF power output requirements in part 2.1046.

Rule Part 27.50(c) (10) specifies that “Portable stations (hand-held devices) in the 600 MHz uplink band and the 698-746 MHz band, and fixed and mobile stations in the 600 MHz uplink band are limited to 3 watts ERP”

Rule Part 27.50(d) (4) specifies that “Fixed, mobile and portable (hand-held) stations operating in the 1710–1755 MHz band are limited to 1 watt EIRP”



Part 27.50(c)(10)Limit	$\leq 3 \text{ W}$ (34.77 dBm)
Part 27.50(d)(4)Limit	$\leq 1 \text{ W}$ (30 dBm)

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U=0.4$ dB for RF power output, $k = 2$, $U= 1.19$ dB for ERP/EIRP.



Test Results

Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	EIRP (dBm)
LTE Band4	1.4	19957	1	#0	QPSK	23.70	26.31
LTE Band4	1.4	19957	1	#Mid	QPSK	23.52	26.13
LTE Band4	1.4	19957	1	#Max	QPSK	23.73	26.34
LTE Band4	1.4	19957	3	#0	QPSK	23.35	25.96
LTE Band4	1.4	19957	3	#Mid	QPSK	23.35	25.96
LTE Band4	1.4	19957	3	#Max	QPSK	23.35	25.96
LTE Band4	1.4	19957	6	#0	QPSK	22.44	25.05
LTE Band4	1.4	19957	1	#0	QAM16	22.21	24.82
LTE Band4	1.4	19957	1	#Mid	QAM16	22.92	25.53
LTE Band4	1.4	19957	1	#Max	QAM16	22.77	25.38
LTE Band4	1.4	19957	3	#0	QAM16	22.44	25.05
LTE Band4	1.4	19957	3	#Mid	QAM16	22.44	25.05
LTE Band4	1.4	19957	3	#Max	QAM16	22.47	25.08
LTE Band4	1.4	19957	6	#0	QAM16	21.33	23.94
LTE Band4	1.4	20175	1	#0	QPSK	23.28	25.89
LTE Band4	1.4	20175	1	#Mid	QPSK	23.43	26.04
LTE Band4	1.4	20175	1	#Max	QPSK	23.33	25.94
LTE Band4	1.4	20175	3	#0	QPSK	23.45	26.06
LTE Band4	1.4	20175	3	#Mid	QPSK	23.45	26.06
LTE Band4	1.4	20175	3	#Max	QPSK	23.51	26.12
LTE Band4	1.4	20175	6	#0	QPSK	22.54	25.15
LTE Band4	1.4	20175	1	#0	QAM16	22.76	25.37
LTE Band4	1.4	20175	1	#Mid	QAM16	22.92	25.53
LTE Band4	1.4	20175	1	#Max	QAM16	22.77	25.38
LTE Band4	1.4	20175	3	#0	QAM16	22.51	25.12
LTE Band4	1.4	20175	3	#Mid	QAM16	22.51	25.12
LTE Band4	1.4	20175	3	#Max	QAM16	22.61	25.22
LTE Band4	1.4	20175	6	#0	QAM16	21.53	24.14
LTE Band4	1.4	20393	1	#0	QPSK	23.37	25.98
LTE Band4	1.4	20393	1	#Mid	QPSK	23.53	26.14
LTE Band4	1.4	20393	1	#Max	QPSK	23.46	26.07
LTE Band4	1.4	20393	3	#0	QPSK	23.40	26.01
LTE Band4	1.4	20393	3	#Mid	QPSK	23.40	26.01
LTE Band4	1.4	20393	3	#Max	QPSK	23.38	25.99
LTE Band4	1.4	20393	6	#0	QPSK	22.46	25.07
LTE Band4	1.4	20393	1	#0	QAM16	22.44	25.05
LTE Band4	1.4	20393	1	#Mid	QAM16	22.49	25.10
LTE Band4	1.4	20393	1	#Max	QAM16	22.46	25.07
LTE Band4	1.4	20393	3	#0	QAM16	22.51	25.12
LTE Band4	1.4	20393	3	#Mid	QAM16	22.51	25.12



LTE Band4	1.4	20393	3	#Max	QAM16	22.52	25.13
LTE Band4	1.4	20393	6	#0	QAM16	21.39	24.00
LTE Band4	3	19965	1	#0	QPSK	23.23	25.84
LTE Band4	3	19965	1	#Mid	QPSK	23.23	25.84
LTE Band4	3	19965	1	#Max	QPSK	23.31	25.92
LTE Band4	3	19965	8	#0	QPSK	22.51	25.12
LTE Band4	3	19965	8	#Mid	QPSK	22.51	25.12
LTE Band4	3	19965	8	#Max	QPSK	22.43	25.04
LTE Band4	3	19965	15	#0	QPSK	22.52	25.13
LTE Band4	3	19965	1	#0	QAM16	23.03	25.64
LTE Band4	3	19965	1	#Mid	QAM16	22.38	24.99
LTE Band4	3	19965	1	#Max	QAM16	22.49	25.10
LTE Band4	3	19965	8	#0	QAM16	21.50	24.11
LTE Band4	3	19965	8	#Mid	QAM16	21.51	24.12
LTE Band4	3	19965	8	#Max	QAM16	21.58	24.19
LTE Band4	3	19965	15	#0	QAM16	21.54	24.15
LTE Band4	3	20175	1	#0	QPSK	23.32	25.93
LTE Band4	3	20175	1	#Mid	QPSK	23.31	25.92
LTE Band4	3	20175	1	#Max	QPSK	23.31	25.92
LTE Band4	3	20175	8	#0	QPSK	22.46	25.07
LTE Band4	3	20175	8	#Mid	QPSK	22.47	25.08
LTE Band4	3	20175	8	#Max	QPSK	22.57	25.18
LTE Band4	3	20175	15	#0	QPSK	22.54	25.15
LTE Band4	3	20175	1	#0	QAM16	23.14	25.75
LTE Band4	3	20175	1	#Mid	QAM16	22.78	25.39
LTE Band4	3	20175	1	#Max	QAM16	23.17	25.78
LTE Band4	3	20175	8	#0	QAM16	21.40	24.01
LTE Band4	3	20175	8	#Mid	QAM16	20.30	22.91
LTE Band4	3	20175	8	#Max	QAM16	20.26	22.87
LTE Band4	3	20175	15	#0	QAM16	20.26	22.87
LTE Band4	3	20385	1	#0	QPSK	22.50	25.11
LTE Band4	3	20385	1	#Mid	QPSK	22.76	25.37
LTE Band4	3	20385	1	#Max	QPSK	23.12	25.73
LTE Band4	3	20385	8	#0	QPSK	21.94	24.55
LTE Band4	3	20385	8	#Mid	QPSK	21.95	24.56
LTE Band4	3	20385	8	#Max	QPSK	21.98	24.59
LTE Band4	3	20385	15	#0	QPSK	22.00	24.61
LTE Band4	3	20385	1	#0	QAM16	21.81	24.42
LTE Band4	3	20385	1	#Mid	QAM16	21.43	24.04
LTE Band4	3	20385	1	#Max	QAM16	21.63	24.24
LTE Band4	3	20385	8	#0	QAM16	20.92	23.53
LTE Band4	3	20385	8	#Mid	QAM16	20.94	23.55
LTE Band4	3	20385	8	#Max	QAM16	20.82	23.43



LTE Band4	3	20385	15	#0	QAM16	20.96	23.57
LTE Band4	5	19975	1	#0	QPSK	23.32	25.93
LTE Band4	5	19975	1	#Mid	QPSK	23.21	25.82
LTE Band4	5	19975	1	#Max	QPSK	23.29	25.90
LTE Band4	5	19975	12	#0	QPSK	22.49	25.10
LTE Band4	5	19975	12	#Mid	QPSK	22.52	25.13
LTE Band4	5	19975	12	#Max	QPSK	22.38	24.99
LTE Band4	5	19975	25	#0	QPSK	22.56	25.17
LTE Band4	5	19975	1	#0	QAM16	22.49	25.10
LTE Band4	5	19975	1	#Mid	QAM16	22.24	24.85
LTE Band4	5	19975	1	#Max	QAM16	21.93	24.54
LTE Band4	5	19975	12	#0	QAM16	21.59	24.20
LTE Band4	5	19975	12	#Mid	QAM16	21.61	24.22
LTE Band4	5	19975	12	#Max	QAM16	21.48	24.09
LTE Band4	5	19975	25	#0	QAM16	21.45	24.06
LTE Band4	5	20175	1	#0	QPSK	22.39	25.00
LTE Band4	5	20175	1	#Mid	QPSK	22.36	24.97
LTE Band4	5	20175	1	#Max	QPSK	22.48	25.09
LTE Band4	5	20175	12	#0	QPSK	21.47	24.08
LTE Band4	5	20175	12	#Mid	QPSK	21.72	24.33
LTE Band4	5	20175	12	#Max	QPSK	21.83	24.44
LTE Band4	5	20175	25	#0	QPSK	21.48	24.09
LTE Band4	5	20175	1	#0	QAM16	21.63	24.24
LTE Band4	5	20175	1	#Mid	QAM16	22.37	24.98
LTE Band4	5	20175	1	#Max	QAM16	22.69	25.30
LTE Band4	5	20175	12	#0	QAM16	21.24	23.85
LTE Band4	5	20175	12	#Mid	QAM16	21.25	23.86
LTE Band4	5	20175	12	#Max	QAM16	21.33	23.94
LTE Band4	5	20175	25	#0	QAM16	21.34	23.95
LTE Band4	5	20375	1	#0	QPSK	23.20	25.81
LTE Band4	5	20375	1	#Mid	QPSK	23.43	26.04
LTE Band4	5	20375	1	#Max	QPSK	23.72	26.33
LTE Band4	5	20375	12	#0	QPSK	22.41	25.02
LTE Band4	5	20375	12	#Mid	QPSK	22.42	25.03
LTE Band4	5	20375	12	#Max	QPSK	22.61	25.22
LTE Band4	5	20375	25	#0	QPSK	22.43	25.04
LTE Band4	5	20375	1	#0	QAM16	22.41	25.02
LTE Band4	5	20375	1	#Mid	QAM16	22.49	25.10
LTE Band4	5	20375	1	#Max	QAM16	22.61	25.22
LTE Band4	5	20375	12	#0	QAM16	21.60	24.21
LTE Band4	5	20375	12	#Mid	QAM16	21.60	24.21
LTE Band4	5	20375	12	#Max	QAM16	21.48	24.09
LTE Band4	5	20375	25	#0	QAM16	21.57	24.18



LTE Band4	10	20000	1	#0	QPSK	23.17	25.78
LTE Band4	10	20000	1	#Mid	QPSK	23.37	25.98
LTE Band4	10	20000	1	#Max	QPSK	23.60	26.21
LTE Band4	10	20000	25	#0	QPSK	22.51	25.12
LTE Band4	10	20000	25	#Mid	QPSK	22.52	25.13
LTE Band4	10	20000	25	#Max	QPSK	22.58	25.19
LTE Band4	10	20000	50	#0	QPSK	22.49	25.10
LTE Band4	10	20000	1	#0	QAM16	22.61	25.22
LTE Band4	10	20000	1	#Mid	QAM16	22.28	24.89
LTE Band4	10	20000	1	#Max	QAM16	22.64	25.25
LTE Band4	10	20000	25	#0	QAM16	21.64	24.25
LTE Band4	10	20000	25	#Mid	QAM16	21.65	24.26
LTE Band4	10	20000	25	#Max	QAM16	21.59	24.20
LTE Band4	10	20000	50	#0	QAM16	21.54	24.15
LTE Band4	10	20175	1	#0	QPSK	23.56	26.17
LTE Band4	10	20175	1	#Mid	QPSK	23.59	26.20
LTE Band4	10	20175	1	#Max	QPSK	23.46	26.07
LTE Band4	10	20175	25	#0	QPSK	22.43	25.04
LTE Band4	10	20175	25	#Mid	QPSK	22.44	25.05
LTE Band4	10	20175	25	#Max	QPSK	22.50	25.11
LTE Band4	10	20175	50	#0	QPSK	22.48	25.09
LTE Band4	10	20175	1	#0	QAM16	22.99	25.60
LTE Band4	10	20175	1	#Mid	QAM16	23.02	25.63
LTE Band4	10	20175	1	#Max	QAM16	23.05	25.66
LTE Band4	10	20175	25	#0	QAM16	21.59	24.20
LTE Band4	10	20175	25	#Mid	QAM16	21.59	24.20
LTE Band4	10	20175	25	#Max	QAM16	21.74	24.35
LTE Band4	10	20175	50	#0	QAM16	21.58	24.19
LTE Band4	10	20350	1	#0	QPSK	23.42	26.03
LTE Band4	10	20350	1	#Mid	QPSK	23.45	26.06
LTE Band4	10	20350	1	#Max	QPSK	23.58	26.19
LTE Band4	10	20350	25	#0	QPSK	22.58	25.19
LTE Band4	10	20350	25	#Mid	QPSK	22.59	25.20
LTE Band4	10	20350	25	#Max	QPSK	22.42	25.03
LTE Band4	10	20350	50	#0	QPSK	22.56	25.17
LTE Band4	10	20350	1	#0	QAM16	22.39	25.00
LTE Band4	10	20350	1	#Mid	QAM16	22.10	24.71
LTE Band4	10	20350	1	#Max	QAM16	22.25	24.86
LTE Band4	10	20350	25	#0	QAM16	21.60	24.21
LTE Band4	10	20350	25	#Mid	QAM16	21.60	24.21
LTE Band4	10	20350	25	#Max	QAM16	21.47	24.08
LTE Band4	10	20350	50	#0	QAM16	21.40	24.01
LTE Band4	15	20025	1	#0	QPSK	23.17	25.78



LTE Band4	15	20025	1	#Mid	QPSK	23.60	26.21
LTE Band4	15	20025	1	#Max	QPSK	23.48	26.09
LTE Band4	15	20025	36	#0	QPSK	22.53	25.14
LTE Band4	15	20025	36	#Mid	QPSK	22.53	25.14
LTE Band4	15	20025	36	#Max	QPSK	22.67	25.28
LTE Band4	15	20025	75	#0	QPSK	22.52	25.13
LTE Band4	15	20025	1	#0	QAM16	22.50	25.11
LTE Band4	15	20025	1	#Mid	QAM16	22.11	24.72
LTE Band4	15	20025	1	#Max	QAM16	22.52	25.13
LTE Band4	15	20025	36	#0	QAM16	21.44	24.05
LTE Band4	15	20025	36	#Mid	QAM16	21.44	24.05
LTE Band4	15	20025	36	#Max	QAM16	21.55	24.16
LTE Band4	15	20025	75	#0	QAM16	21.51	24.12
LTE Band4	15	20175	1	#0	QPSK	23.48	26.09
LTE Band4	15	20175	1	#Mid	QPSK	23.34	25.95
LTE Band4	15	20175	1	#Max	QPSK	23.52	26.13
LTE Band4	15	20175	36	#0	QPSK	22.48	25.09
LTE Band4	15	20175	36	#Mid	QPSK	22.48	25.09
LTE Band4	15	20175	36	#Max	QPSK	22.53	25.14
LTE Band4	15	20175	75	#0	QPSK	22.47	25.08
LTE Band4	15	20175	1	#0	QAM16	23.29	25.90
LTE Band4	15	20175	1	#Mid	QAM16	22.89	25.50
LTE Band4	15	20175	1	#Max	QAM16	22.94	25.55
LTE Band4	15	20175	36	#0	QAM16	21.33	23.94
LTE Band4	15	20175	36	#Mid	QAM16	21.35	23.96
LTE Band4	15	20175	36	#Max	QAM16	21.75	24.36
LTE Band4	15	20175	75	#0	QAM16	21.50	24.11
LTE Band4	15	20325	1	#0	QPSK	23.37	25.98
LTE Band4	15	20325	1	#Mid	QPSK	23.31	25.92
LTE Band4	15	20325	1	#Max	QPSK	23.42	26.03
LTE Band4	15	20325	36	#0	QPSK	22.54	25.15
LTE Band4	15	20325	36	#Mid	QPSK	22.54	25.15
LTE Band4	15	20325	36	#Max	QPSK	22.38	24.99
LTE Band4	15	20325	75	#0	QPSK	22.51	25.12
LTE Band4	15	20325	1	#0	QAM16	22.44	25.05
LTE Band4	15	20325	1	#Mid	QAM16	22.26	24.87
LTE Band4	15	20325	1	#Max	QAM16	21.79	24.40
LTE Band4	15	20325	36	#0	QAM16	21.47	24.08
LTE Band4	15	20325	36	#Mid	QAM16	21.47	24.08
LTE Band4	15	20325	36	#Max	QAM16	21.42	24.03
LTE Band4	15	20325	75	#0	QAM16	21.68	24.29
LTE Band4	20	20050	1	#0	QPSK	23.15	25.76
LTE Band4	20	20050	1	#Mid	QPSK	23.78	26.39



LTE Band4	20	20050	1	#Max	QPSK	23.33	25.94
LTE Band4	20	20050	50	#0	QPSK	22.47	25.08
LTE Band4	20	20050	50	#Mid	QPSK	22.47	25.08
LTE Band4	20	20050	50	#Max	QPSK	22.64	25.25
LTE Band4	20	20050	100	#0	QPSK	22.65	25.26
LTE Band4	20	20050	1	#0	QAM16	22.30	24.91
LTE Band4	20	20050	1	#Mid	QAM16	23.07	25.68
LTE Band4	20	20050	1	#Max	QAM16	22.79	25.40
LTE Band4	20	20050	50	#0	QAM16	21.69	24.30
LTE Band4	20	20050	50	#Mid	QAM16	21.72	24.33
LTE Band4	20	20050	50	#Max	QAM16	21.67	24.28
LTE Band4	20	20050	100	#0	QAM16	21.49	24.10
LTE Band4	20	20175	1	#0	QPSK	23.67	26.28
LTE Band4	20	20175	1	#Mid	QPSK	23.70	26.31
LTE Band4	20	20175	1	#Max	QPSK	23.49	26.10
LTE Band4	20	20175	50	#0	QPSK	22.46	25.07
LTE Band4	20	20175	50	#Mid	QPSK	22.47	25.08
LTE Band4	20	20175	50	#Max	QPSK	22.56	25.17
LTE Band4	20	20175	100	#0	QPSK	22.57	25.18
LTE Band4	20	20175	1	#0	QAM16	22.26	24.87
LTE Band4	20	20175	1	#Mid	QAM16	22.29	24.90
LTE Band4	20	20175	1	#Max	QAM16	22.31	24.92
LTE Band4	20	20175	50	#0	QAM16	21.37	23.98
LTE Band4	20	20175	50	#Mid	QAM16	21.37	23.98
LTE Band4	20	20175	50	#Max	QAM16	21.55	24.16
LTE Band4	20	20175	100	#0	QAM16	21.52	24.13
LTE Band4	20	20300	1	#0	QPSK	23.54	26.15
LTE Band4	20	20300	1	#Mid	QPSK	23.72	26.33
LTE Band4	20	20300	1	#Max	QPSK	23.50	26.11
LTE Band4	20	20300	50	#0	QPSK	22.71	25.32
LTE Band4	20	20300	50	#Mid	QPSK	22.70	25.31
LTE Band4	20	20300	50	#Max	QPSK	22.62	25.23
LTE Band4	20	20300	100	#0	QPSK	22.66	25.27
LTE Band4	20	20300	1	#0	QAM16	22.45	25.06
LTE Band4	20	20300	1	#Mid	QAM16	22.88	25.49
LTE Band4	20	20300	1	#Max	QAM16	22.96	25.57
LTE Band4	20	20300	50	#0	QAM16	21.57	24.18
LTE Band4	20	20300	50	#Mid	QAM16	21.57	24.18
LTE Band4	20	20300	50	#Max	QAM16	21.49	24.10
LTE Band4	20	20300	100	#0	QAM16	21.51	24.12



Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	ERP (dBm)
LTE Band12	1.4	23017	1	#0	QPSK	23.55	21.66
LTE Band12	1.4	23017	1	#Mid	QPSK	23.67	21.78
LTE Band12	1.4	23017	1	#Max	QPSK	23.39	21.50
LTE Band12	1.4	23017	3	#0	QPSK	23.46	21.57
LTE Band12	1.4	23017	3	#Mid	QPSK	23.55	21.66
LTE Band12	1.4	23017	3	#Max	QPSK	23.44	21.55
LTE Band12	1.4	23017	6	#0	QPSK	22.59	20.70
LTE Band12	1.4	23017	1	#0	QAM16	22.57	20.68
LTE Band12	1.4	23017	1	#Mid	QAM16	22.88	20.99
LTE Band12	1.4	23017	1	#Max	QAM16	22.55	20.66
LTE Band12	1.4	23017	3	#0	QAM16	22.73	20.84
LTE Band12	1.4	23017	3	#Mid	QAM16	22.71	20.82
LTE Band12	1.4	23017	3	#Max	QAM16	22.40	20.51
LTE Band12	1.4	23017	6	#0	QAM16	21.60	19.71
LTE Band12	1.4	23095	1	#0	QPSK	23.94	22.05
LTE Band12	1.4	23095	1	#Mid	QPSK	24.08	22.19
LTE Band12	1.4	23095	1	#Max	QPSK	24.06	22.17
LTE Band12	1.4	23095	3	#0	QPSK	23.64	21.75
LTE Band12	1.4	23095	3	#Mid	QPSK	23.64	21.75
LTE Band12	1.4	23095	3	#Max	QPSK	23.71	21.82
LTE Band12	1.4	23095	6	#0	QPSK	22.82	20.93
LTE Band12	1.4	23095	1	#0	QAM16	22.96	21.07
LTE Band12	1.4	23095	1	#Mid	QAM16	23.31	21.42
LTE Band12	1.4	23095	1	#Max	QAM16	23.01	21.12
LTE Band12	1.4	23095	3	#0	QAM16	22.95	21.06
LTE Band12	1.4	23095	3	#Mid	QAM16	22.90	21.01
LTE Band12	1.4	23095	3	#Max	QAM16	22.79	20.90
LTE Band12	1.4	23095	6	#0	QAM16	21.99	20.10
LTE Band12	1.4	23173	1	#0	QPSK	23.83	21.94
LTE Band12	1.4	23173	1	#Mid	QPSK	23.74	21.85
LTE Band12	1.4	23173	1	#Max	QPSK	23.53	21.64
LTE Band12	1.4	23173	3	#0	QPSK	23.73	21.84
LTE Band12	1.4	23173	3	#Mid	QPSK	23.72	21.83
LTE Band12	1.4	23173	3	#Max	QPSK	23.61	21.72
LTE Band12	1.4	23173	6	#0	QPSK	22.90	21.01
LTE Band12	1.4	23173	1	#0	QAM16	23.34	21.45
LTE Band12	1.4	23173	1	#Mid	QAM16	23.32	21.43
LTE Band12	1.4	23173	1	#Max	QAM16	23.23	21.34
LTE Band12	1.4	23173	3	#0	QAM16	22.93	21.04
LTE Band12	1.4	23173	3	#Mid	QAM16	22.94	21.05



LTE Band12	1.4	23173	3	#Max	QAM16	22.96	21.07
LTE Band12	1.4	23173	6	#0	QAM16	21.95	20.06
LTE Band12	3	23025	1	#0	QPSK	23.51	21.62
LTE Band12	3	23025	1	#Mid	QPSK	23.55	21.66
LTE Band12	3	23025	1	#Max	QPSK	23.53	21.64
LTE Band12	3	23025	8	#0	QPSK	22.68	20.79
LTE Band12	3	23025	8	#Mid	QPSK	22.67	20.78
LTE Band12	3	23025	8	#Max	QPSK	22.76	20.87
LTE Band12	3	23025	15	#0	QPSK	22.74	20.85
LTE Band12	3	23025	1	#0	QAM16	22.52	20.63
LTE Band12	3	23025	1	#Mid	QAM16	22.55	20.66
LTE Band12	3	23025	1	#Max	QAM16	22.63	20.74
LTE Band12	3	23025	8	#0	QAM16	21.47	19.58
LTE Band12	3	23025	8	#Mid	QAM16	21.56	19.67
LTE Band12	3	23025	8	#Max	QAM16	21.67	19.78
LTE Band12	3	23025	15	#0	QAM16	21.60	19.71
LTE Band12	3	23095	1	#0	QPSK	23.75	21.86
LTE Band12	3	23095	1	#Mid	QPSK	23.76	21.87
LTE Band12	3	23095	1	#Max	QPSK	23.70	21.81
LTE Band12	3	23095	8	#0	QPSK	22.85	20.96
LTE Band12	3	23095	8	#Mid	QPSK	22.93	21.04
LTE Band12	3	23095	8	#Max	QPSK	22.96	21.07
LTE Band12	3	23095	15	#0	QPSK	22.94	21.05
LTE Band12	3	23095	1	#0	QAM16	23.65	21.76
LTE Band12	3	23095	1	#Mid	QAM16	23.34	21.45
LTE Band12	3	23095	1	#Max	QAM16	23.24	21.35
LTE Band12	3	23095	8	#0	QAM16	21.72	19.83
LTE Band12	3	23095	8	#Mid	QAM16	21.73	19.84
LTE Band12	3	23095	8	#Max	QAM16	21.85	19.96
LTE Band12	3	23095	15	#0	QAM16	21.69	19.80
LTE Band12	3	23165	1	#0	QPSK	23.74	21.85
LTE Band12	3	23165	1	#Mid	QPSK	23.79	21.90
LTE Band12	3	23165	1	#Max	QPSK	23.73	21.84
LTE Band12	3	23165	8	#0	QPSK	23.06	21.17
LTE Band12	3	23165	8	#Mid	QPSK	23.06	21.17
LTE Band12	3	23165	8	#Max	QPSK	22.89	21.00
LTE Band12	3	23165	15	#0	QPSK	23.03	21.14
LTE Band12	3	23165	1	#0	QAM16	22.54	20.65
LTE Band12	3	23165	1	#Mid	QAM16	22.45	20.56
LTE Band12	3	23165	1	#Max	QAM16	22.33	20.44
LTE Band12	3	23165	8	#0	QAM16	21.89	20.00
LTE Band12	3	23165	8	#Mid	QAM16	21.89	20.00
LTE Band12	3	23165	8	#Max	QAM16	21.73	19.84



LTE Band12	3	23165	15	#0	QAM16	21.97	20.08
LTE Band12	5	23035	1	#0	QPSK	23.40	21.51
LTE Band12	5	23035	1	#Mid	QPSK	23.74	21.85
LTE Band12	5	23035	1	#Max	QPSK	23.59	21.70
LTE Band12	5	23035	12	#0	QPSK	22.66	20.77
LTE Band12	5	23035	12	#Mid	QPSK	22.55	20.66
LTE Band12	5	23035	12	#Max	QPSK	22.74	20.85
LTE Band12	5	23035	25	#0	QPSK	22.67	20.78
LTE Band12	5	23035	1	#0	QAM16	22.55	20.66
LTE Band12	5	23035	1	#Mid	QAM16	22.78	20.89
LTE Band12	5	23035	1	#Max	QAM16	22.37	20.48
LTE Band12	5	23035	12	#0	QAM16	21.51	19.62
LTE Band12	5	23035	12	#Mid	QAM16	21.51	19.62
LTE Band12	5	23035	12	#Max	QAM16	21.59	19.70
LTE Band12	5	23035	25	#0	QAM16	21.83	19.94
LTE Band12	5	23095	1	#0	QPSK	23.71	21.82
LTE Band12	5	23095	1	#Mid	QPSK	23.83	21.94
LTE Band12	5	23095	1	#Max	QPSK	23.70	21.81
LTE Band12	5	23095	12	#0	QPSK	22.90	21.01
LTE Band12	5	23095	12	#Mid	QPSK	22.91	21.02
LTE Band12	5	23095	12	#Max	QPSK	23.01	21.12
LTE Band12	5	23095	25	#0	QPSK	22.95	21.06
LTE Band12	5	23095	1	#0	QAM16	23.22	21.33
LTE Band12	5	23095	1	#Mid	QAM16	23.01	21.12
LTE Band12	5	23095	1	#Max	QAM16	22.96	21.07
LTE Band12	5	23095	12	#0	QAM16	21.64	19.75
LTE Band12	5	23095	12	#Mid	QAM16	21.67	19.78
LTE Band12	5	23095	12	#Max	QAM16	21.79	19.90
LTE Band12	5	23095	25	#0	QAM16	21.72	19.83
LTE Band12	5	23155	1	#0	QPSK	23.88	21.99
LTE Band12	5	23155	1	#Mid	QPSK	23.84	21.95
LTE Band12	5	23155	1	#Max	QPSK	23.64	21.75
LTE Band12	5	23155	12	#0	QPSK	22.92	21.03
LTE Band12	5	23155	12	#Mid	QPSK	22.92	21.03
LTE Band12	5	23155	12	#Max	QPSK	22.88	20.99
LTE Band12	5	23155	25	#0	QPSK	22.97	21.08
LTE Band12	5	23155	1	#0	QAM16	22.86	20.97
LTE Band12	5	23155	1	#Mid	QAM16	22.97	21.08
LTE Band12	5	23155	1	#Max	QAM16	22.68	20.79
LTE Band12	5	23155	12	#0	QAM16	21.88	19.99
LTE Band12	5	23155	12	#Mid	QAM16	21.88	19.99
LTE Band12	5	23155	12	#Max	QAM16	21.77	19.88
LTE Band12	5	23155	25	#0	QAM16	21.91	20.02



LTE Band12	10	23060	1	#0	QPSK	23.45	21.56
LTE Band12	10	23060	1	#Mid	QPSK	23.71	21.82
LTE Band12	10	23060	1	#Max	QPSK	23.78	21.89
LTE Band12	10	23060	25	#0	QPSK	22.74	20.85
LTE Band12	10	23060	25	#Mid	QPSK	22.74	20.85
LTE Band12	10	23060	25	#Max	QPSK	22.91	21.02
LTE Band12	10	23060	50	#0	QPSK	22.81	20.92
LTE Band12	10	23060	1	#0	QAM16	22.57	20.68
LTE Band12	10	23060	1	#Mid	QAM16	22.83	20.94
LTE Band12	10	23060	1	#Max	QAM16	22.41	20.52
LTE Band12	10	23060	25	#0	QAM16	21.86	19.97
LTE Band12	10	23060	25	#Mid	QAM16	21.80	19.91
LTE Band12	10	23060	25	#Max	QAM16	21.96	20.07
LTE Band12	10	23060	50	#0	QAM16	21.73	19.84
LTE Band12	10	23095	1	#0	QPSK	23.83	21.94
LTE Band12	10	23095	1	#Mid	QPSK	24.01	22.12
LTE Band12	10	23095	1	#Max	QPSK	23.97	22.08
LTE Band12	10	23095	25	#0	QPSK	22.93	21.04
LTE Band12	10	23095	25	#Mid	QPSK	22.95	21.06
LTE Band12	10	23095	25	#Max	QPSK	22.98	21.09
LTE Band12	10	23095	50	#0	QPSK	22.88	20.99
LTE Band12	10	23095	1	#0	QAM16	23.38	21.49
LTE Band12	10	23095	1	#Mid	QAM16	23.60	21.71
LTE Band12	10	23095	1	#Max	QAM16	23.58	21.69
LTE Band12	10	23095	25	#0	QAM16	21.85	19.96
LTE Band12	10	23095	25	#Mid	QAM16	21.87	19.98
LTE Band12	10	23095	25	#Max	QAM16	22.13	20.24
LTE Band12	10	23095	50	#0	QAM16	21.96	20.07
LTE Band12	10	23130	1	#0	QPSK	23.66	21.77
LTE Band12	10	23130	1	#Mid	QPSK	24.22	22.33
LTE Band12	10	23130	1	#Max	QPSK	23.72	21.83
LTE Band12	10	23130	25	#0	QPSK	22.95	21.06
LTE Band12	10	23130	25	#Mid	QPSK	22.96	21.07
LTE Band12	10	23130	25	#Max	QPSK	23.05	21.16
LTE Band12	10	23130	50	#0	QPSK	23.04	21.15
LTE Band12	10	23130	1	#0	QAM16	22.37	20.48
LTE Band12	10	23130	1	#Mid	QAM16	22.67	20.78
LTE Band12	10	23130	1	#Max	QAM16	22.42	20.53
LTE Band12	10	23130	25	#0	QAM16	21.95	20.06
LTE Band12	10	23130	25	#Mid	QAM16	21.96	20.07
LTE Band12	10	23130	25	#Max	QAM16	21.98	20.09
LTE Band12	10	23130	50	#0	QAM16	21.93	20.04



Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	EIRP (dBm)
LTE Band66	1.4	131979	1	#0	QPSK	23.29	26.25
LTE Band66	1.4	131979	1	#Mid	QPSK	23.41	26.37
LTE Band66	1.4	131979	1	#Max	QPSK	23.32	26.28
LTE Band66	1.4	131979	3	#0	QPSK	23.11	26.07
LTE Band66	1.4	131979	3	#Mid	QPSK	23.10	26.06
LTE Band66	1.4	131979	3	#Max	QPSK	23.04	26.00
LTE Band66	1.4	131979	6	#0	QPSK	22.20	25.16
LTE Band66	1.4	131979	1	#0	QAM16	22.32	25.28
LTE Band66	1.4	131979	1	#Mid	QAM16	22.43	25.39
LTE Band66	1.4	131979	1	#Max	QAM16	22.29	25.25
LTE Band66	1.4	131979	3	#0	QAM16	22.22	25.18
LTE Band66	1.4	131979	3	#Mid	QAM16	22.22	25.18
LTE Band66	1.4	131979	3	#Max	QAM16	22.19	25.15
LTE Band66	1.4	131979	6	#0	QAM16	21.15	24.11
LTE Band66	1.4	132322	1	#0	QPSK	22.11	25.07
LTE Band66	1.4	132322	1	#Mid	QPSK	22.09	25.05
LTE Band66	1.4	132322	1	#Max	QPSK	22.10	25.06
LTE Band66	1.4	132322	3	#0	QPSK	22.34	25.30
LTE Band66	1.4	132322	3	#Mid	QPSK	22.34	25.30
LTE Band66	1.4	132322	3	#Max	QPSK	22.30	25.26
LTE Band66	1.4	132322	6	#0	QPSK	21.30	24.26
LTE Band66	1.4	132322	1	#0	QAM16	21.60	24.56
LTE Band66	1.4	132322	1	#Mid	QAM16	21.67	24.63
LTE Band66	1.4	132322	1	#Max	QAM16	21.62	24.58
LTE Band66	1.4	132322	3	#0	QAM16	21.33	24.29
LTE Band66	1.4	132322	3	#Mid	QAM16	21.33	24.29
LTE Band66	1.4	132322	3	#Max	QAM16	21.24	24.20
LTE Band66	1.4	132322	6	#0	QAM16	20.48	23.44
LTE Band66	1.4	132665	1	#0	QPSK	24.34	27.30
LTE Band66	1.4	132665	1	#Mid	QPSK	24.59	27.55
LTE Band66	1.4	132665	1	#Max	QPSK	24.39	27.35
LTE Band66	1.4	132665	3	#0	QPSK	24.55	27.51
LTE Band66	1.4	132665	3	#Mid	QPSK	24.53	27.49
LTE Band66	1.4	132665	3	#Max	QPSK	24.39	27.35
LTE Band66	1.4	132665	6	#0	QPSK	23.66	26.62
LTE Band66	1.4	132665	1	#0	QAM16	23.42	26.38
LTE Band66	1.4	132665	1	#Mid	QAM16	23.33	26.29
LTE Band66	1.4	132665	1	#Max	QAM16	23.02	25.98
LTE Band66	1.4	132665	3	#0	QAM16	23.49	26.45
LTE Band66	1.4	132665	3	#Mid	QAM16	23.63	26.59
LTE Band66	1.4	132665	3	#Max	QAM16	23.65	26.61



LTE Band66	1.4	132665	6	#0	QAM16	22.78	25.74
LTE Band66	3	131987	1	#0	QPSK	22.91	25.87
LTE Band66	3	131987	1	#Mid	QPSK	22.98	25.94
LTE Band66	3	131987	1	#Max	QPSK	22.95	25.91
LTE Band66	3	131987	8	#0	QPSK	22.28	25.24
LTE Band66	3	131987	8	#Mid	QPSK	22.25	25.21
LTE Band66	3	131987	8	#Max	QPSK	22.03	24.99
LTE Band66	3	131987	15	#0	QPSK	22.12	25.08
LTE Band66	3	131987	1	#0	QAM16	22.32	25.28
LTE Band66	3	131987	1	#Mid	QAM16	22.07	25.03
LTE Band66	3	131987	1	#Max	QAM16	21.95	24.91
LTE Band66	3	131987	8	#0	QAM16	21.09	24.05
LTE Band66	3	131987	8	#Mid	QAM16	21.19	24.15
LTE Band66	3	131987	8	#Max	QAM16	21.04	24.00
LTE Band66	3	131987	15	#0	QAM16	21.22	24.18
LTE Band66	3	132322	1	#0	QPSK	22.38	25.34
LTE Band66	3	132322	1	#Mid	QPSK	22.16	25.12
LTE Band66	3	132322	1	#Max	QPSK	22.18	25.14
LTE Band66	3	132322	8	#0	QPSK	21.42	24.38
LTE Band66	3	132322	8	#Mid	QPSK	21.43	24.39
LTE Band66	3	132322	8	#Max	QPSK	21.40	24.36
LTE Band66	3	132322	15	#0	QPSK	21.40	24.36
LTE Band66	3	132322	1	#0	QAM16	21.56	24.52
LTE Band66	3	132322	1	#Mid	QAM16	21.61	24.57
LTE Band66	3	132322	1	#Max	QAM16	21.56	24.52
LTE Band66	3	132322	8	#0	QAM16	20.74	23.70
LTE Band66	3	132322	8	#Mid	QAM16	20.74	23.70
LTE Band66	3	132322	8	#Max	QAM16	20.61	23.57
LTE Band66	3	132322	15	#0	QAM16	20.52	23.48
LTE Band66	3	132657	1	#0	QPSK	24.45	27.41
LTE Band66	3	132657	1	#Mid	QPSK	24.43	27.39
LTE Band66	3	132657	1	#Max	QPSK	24.50	27.46
LTE Band66	3	132657	8	#0	QPSK	23.70	26.66
LTE Band66	3	132657	8	#Mid	QPSK	23.67	26.63
LTE Band66	3	132657	8	#Max	QPSK	23.57	26.53
LTE Band66	3	132657	15	#0	QPSK	23.73	26.69
LTE Band66	3	132657	1	#0	QAM16	23.40	26.36
LTE Band66	3	132657	1	#Mid	QAM16	22.93	25.89
LTE Band66	3	132657	1	#Max	QAM16	23.35	26.31
LTE Band66	3	132657	8	#0	QAM16	22.93	25.89
LTE Band66	3	132657	8	#Mid	QAM16	22.90	25.86
LTE Band66	3	132657	8	#Max	QAM16	22.46	25.42
LTE Band66	3	132657	15	#0	QAM16	22.59	25.55



LTE Band66	5	131997	1	#0	QPSK	23.00	25.96
LTE Band66	5	131997	1	#Mid	QPSK	22.98	25.94
LTE Band66	5	131997	1	#Max	QPSK	22.92	25.88
LTE Band66	5	131997	12	#0	QPSK	22.28	25.24
LTE Band66	5	131997	12	#Mid	QPSK	22.29	25.25
LTE Band66	5	131997	12	#Max	QPSK	21.99	24.95
LTE Band66	5	131997	25	#0	QPSK	22.09	25.05
LTE Band66	5	131997	1	#0	QAM16	22.33	25.29
LTE Band66	5	131997	1	#Mid	QAM16	21.76	24.72
LTE Band66	5	131997	1	#Max	QAM16	21.60	24.56
LTE Band66	5	131997	12	#0	QAM16	21.35	24.31
LTE Band66	5	131997	12	#Mid	QAM16	21.12	24.08
LTE Band66	5	131997	12	#Max	QAM16	20.88	23.84
LTE Band66	5	131997	25	#0	QAM16	21.31	24.27
LTE Band66	5	132322	1	#0	QPSK	22.38	25.34
LTE Band66	5	132322	1	#Mid	QPSK	22.24	25.20
LTE Band66	5	132322	1	#Max	QPSK	22.23	25.19
LTE Band66	5	132322	12	#0	QPSK	21.48	24.44
LTE Band66	5	132322	12	#Mid	QPSK	21.49	24.45
LTE Band66	5	132322	12	#Max	QPSK	21.38	24.34
LTE Band66	5	132322	25	#0	QPSK	21.46	24.42
LTE Band66	5	132322	1	#0	QAM16	21.60	24.56
LTE Band66	5	132322	1	#Mid	QAM16	21.32	24.28
LTE Band66	5	132322	1	#Max	QAM16	21.50	24.46
LTE Band66	5	132322	12	#0	QAM16	20.29	23.25
LTE Band66	5	132322	12	#Mid	QAM16	20.35	23.31
LTE Band66	5	132322	12	#Max	QAM16	20.31	23.27
LTE Band66	5	132322	25	#0	QAM16	20.51	23.47
LTE Band66	5	132647	1	#0	QPSK	24.31	27.27
LTE Band66	5	132647	1	#Mid	QPSK	24.48	27.44
LTE Band66	5	132647	1	#Max	QPSK	24.49	27.45
LTE Band66	5	132647	12	#0	QPSK	23.54	26.50
LTE Band66	5	132647	12	#Mid	QPSK	23.52	26.48
LTE Band66	5	132647	12	#Max	QPSK	23.54	26.50
LTE Band66	5	132647	25	#0	QPSK	23.64	26.60
LTE Band66	5	132647	1	#0	QAM16	23.36	26.32
LTE Band66	5	132647	1	#Mid	QAM16	23.33	26.29
LTE Band66	5	132647	1	#Max	QAM16	23.69	26.65
LTE Band66	5	132647	12	#0	QAM16	22.68	25.64
LTE Band66	5	132647	12	#Mid	QAM16	22.65	25.61
LTE Band66	5	132647	12	#Max	QAM16	22.42	25.38
LTE Band66	5	132647	25	#0	QAM16	22.51	25.47
LTE Band66	10	132022	1	#0	QPSK	22.96	25.92



LTE Band66	10	132022	1	#Mid	QPSK	22.83	25.79
LTE Band66	10	132022	1	#Max	QPSK	22.69	25.65
LTE Band66	10	132022	25	#0	QPSK	22.19	25.15
LTE Band66	10	132022	25	#Mid	QPSK	22.19	25.15
LTE Band66	10	132022	25	#Max	QPSK	21.77	24.73
LTE Band66	10	132022	50	#0	QPSK	22.08	25.04
LTE Band66	10	132022	1	#0	QAM16	22.31	25.27
LTE Band66	10	132022	1	#Mid	QAM16	21.82	24.78
LTE Band66	10	132022	1	#Max	QAM16	21.72	24.68
LTE Band66	10	132022	25	#0	QAM16	21.33	24.29
LTE Band66	10	132022	25	#Mid	QAM16	21.34	24.30
LTE Band66	10	132022	25	#Max	QAM16	20.92	23.88
LTE Band66	10	132022	50	#0	QAM16	20.97	23.93
LTE Band66	10	132322	1	#0	QPSK	22.44	25.40
LTE Band66	10	132322	1	#Mid	QPSK	22.36	25.32
LTE Band66	10	132322	1	#Max	QPSK	22.49	25.45
LTE Band66	10	132322	25	#0	QPSK	21.44	24.40
LTE Band66	10	132322	25	#Mid	QPSK	21.46	24.42
LTE Band66	10	132322	25	#Max	QPSK	21.50	24.46
LTE Band66	10	132322	50	#0	QPSK	21.51	24.47
LTE Band66	10	132322	1	#0	QAM16	21.81	24.77
LTE Band66	10	132322	1	#Mid	QAM16	21.89	24.85
LTE Band66	10	132322	1	#Max	QAM16	22.01	24.97
LTE Band66	10	132322	25	#0	QAM16	20.54	23.50
LTE Band66	10	132322	25	#Mid	QAM16	20.56	23.52
LTE Band66	10	132322	25	#Max	QAM16	20.42	23.38
LTE Band66	10	132322	50	#0	QAM16	20.48	23.44
LTE Band66	10	132622	1	#0	QPSK	24.14	27.10
LTE Band66	10	132622	1	#Mid	QPSK	24.41	27.37
LTE Band66	10	132622	1	#Max	QPSK	24.65	27.61
LTE Band66	10	132622	25	#0	QPSK	23.47	26.43
LTE Band66	10	132622	25	#Mid	QPSK	23.45	26.41
LTE Band66	10	132622	25	#Max	QPSK	23.50	26.46
LTE Band66	10	132622	50	#0	QPSK	23.51	26.47
LTE Band66	10	132622	1	#0	QAM16	23.17	26.13
LTE Band66	10	132622	1	#Mid	QAM16	22.99	25.95
LTE Band66	10	132622	1	#Max	QAM16	23.08	26.04
LTE Band66	10	132622	25	#0	QAM16	22.56	25.52
LTE Band66	10	132622	25	#Mid	QAM16	22.51	25.47
LTE Band66	10	132622	25	#Max	QAM16	22.47	25.43
LTE Band66	10	132622	50	#0	QAM16	22.54	25.50
LTE Band66	15	132047	1	#0	QPSK	23.13	26.09
LTE Band66	15	132047	1	#Mid	QPSK	22.55	25.51



LTE Band66	15	132047	1	#Max	QPSK	22.31	25.27
LTE Band66	15	132047	36	#0	QPSK	22.09	25.05
LTE Band66	15	132047	36	#Mid	QPSK	22.08	25.04
LTE Band66	15	132047	36	#Max	QPSK	21.60	24.56
LTE Band66	15	132047	75	#0	QPSK	21.87	24.83
LTE Band66	15	132047	1	#0	QAM16	22.33	25.29
LTE Band66	15	132047	1	#Mid	QAM16	21.44	24.40
LTE Band66	15	132047	1	#Max	QAM16	20.97	23.93
LTE Band66	15	132047	36	#0	QAM16	21.08	24.04
LTE Band66	15	132047	36	#Mid	QAM16	21.08	24.04
LTE Band66	15	132047	36	#Max	QAM16	20.61	23.57
LTE Band66	15	132047	75	#0	QAM16	20.94	23.90
LTE Band66	15	132322	1	#0	QPSK	22.34	25.30
LTE Band66	15	132322	1	#Mid	QPSK	22.42	25.38
LTE Band66	15	132322	1	#Max	QPSK	22.39	25.35
LTE Band66	15	132322	36	#0	QPSK	21.45	24.41
LTE Band66	15	132322	36	#Mid	QPSK	21.47	24.43
LTE Band66	15	132322	36	#Max	QPSK	21.41	24.37
LTE Band66	15	132322	75	#0	QPSK	21.57	24.53
LTE Band66	15	132322	1	#0	QAM16	21.72	24.68
LTE Band66	15	132322	1	#Mid	QAM16	21.83	24.79
LTE Band66	15	132322	1	#Max	QAM16	22.23	25.19
LTE Band66	15	132322	36	#0	QAM16	20.45	23.41
LTE Band66	15	132322	36	#Mid	QAM16	20.45	23.41
LTE Band66	15	132322	36	#Max	QAM16	20.49	23.45
LTE Band66	15	132322	75	#0	QAM16	20.58	23.54
LTE Band66	15	132597	1	#0	QPSK	23.49	26.45
LTE Band66	15	132597	1	#Mid	QPSK	23.97	26.93
LTE Band66	15	132597	1	#Max	QPSK	24.31	27.27
LTE Band66	15	132597	36	#0	QPSK	23.12	26.08
LTE Band66	15	132597	36	#Mid	QPSK	23.16	26.12
LTE Band66	15	132597	36	#Max	QPSK	23.42	26.38
LTE Band66	15	132597	75	#0	QPSK	23.29	26.25
LTE Band66	15	132597	1	#0	QAM16	22.50	25.46
LTE Band66	15	132597	1	#Mid	QAM16	23.06	26.02
LTE Band66	15	132597	1	#Max	QAM16	22.56	25.52
LTE Band66	15	132597	36	#0	QAM16	22.05	25.01
LTE Band66	15	132597	36	#Mid	QAM16	22.02	24.98
LTE Band66	15	132597	36	#Max	QAM16	22.36	25.32
LTE Band66	15	132597	75	#0	QAM16	22.28	25.24
LTE Band66	20	132072	1	#0	QPSK	23.19	26.15
LTE Band66	20	132072	1	#Mid	QPSK	22.54	25.50
LTE Band66	20	132072	1	#Max	QPSK	22.27	25.23



LTE Band66	20	132072	50	#0	QPSK	21.92	24.88
LTE Band66	20	132072	50	#Mid	QPSK	21.91	24.87
LTE Band66	20	132072	50	#Max	QPSK	21.69	24.65
LTE Band66	20	132072	100	#0	QPSK	21.66	24.62
LTE Band66	20	132072	1	#0	QAM16	22.59	25.55
LTE Band66	20	132072	1	#Mid	QAM16	22.33	25.29
LTE Band66	20	132072	1	#Max	QAM16	21.82	24.78
LTE Band66	20	132072	50	#0	QAM16	21.00	23.96
LTE Band66	20	132072	50	#Mid	QAM16	21.01	23.97
LTE Band66	20	132072	50	#Max	QAM16	20.69	23.65
LTE Band66	20	132072	100	#0	QAM16	20.74	23.70
LTE Band66	20	132322	1	#0	QPSK	22.18	25.14
LTE Band66	20	132322	1	#Mid	QPSK	22.70	25.66
LTE Band66	20	132322	1	#Max	QPSK	22.88	25.84
LTE Band66	20	132322	50	#0	QPSK	21.46	24.42
LTE Band66	20	132322	50	#Mid	QPSK	21.44	24.40
LTE Band66	20	132322	50	#Max	QPSK	21.50	24.46
LTE Band66	20	132322	100	#0	QPSK	21.48	24.44
LTE Band66	20	132322	1	#0	QAM16	20.98	23.94
LTE Band66	20	132322	1	#Mid	QAM16	21.51	24.47
LTE Band66	20	132322	1	#Max	QAM16	21.37	24.33
LTE Band66	20	132322	50	#0	QAM16	20.55	23.51
LTE Band66	20	132322	50	#Mid	QAM16	20.48	23.44
LTE Band66	20	132322	50	#Max	QAM16	20.54	23.50
LTE Band66	20	132322	100	#0	QAM16	20.48	23.44
LTE Band66	20	132572	1	#0	QPSK	23.37	26.33
LTE Band66	20	132572	1	#Mid	QPSK	24.27	27.23
LTE Band66	20	132572	1	#Max	QPSK	24.42	27.38
LTE Band66	20	132572	50	#0	QPSK	22.77	25.73
LTE Band66	20	132572	50	#Mid	QPSK	22.78	25.74
LTE Band66	20	132572	50	#Max	QPSK	23.31	26.27
LTE Band66	20	132572	100	#0	QPSK	23.19	26.15
LTE Band66	20	132572	1	#0	QAM16	22.33	25.29
LTE Band66	20	132572	1	#Mid	QAM16	23.37	26.33
LTE Band66	20	132572	1	#Max	QAM16	23.34	26.30
LTE Band66	20	132572	50	#0	QAM16	21.90	24.86
LTE Band66	20	132572	50	#Mid	QAM16	21.91	24.87
LTE Band66	20	132572	50	#Max	QAM16	22.30	25.26
LTE Band66	20	132572	100	#0	QAM16	22.23	25.19



Band	Bandwidth (MHz)	UL Channel	RB Size	RB Position	Modulation	Power (dBm)	ERP (dBm)
LTE Band71	5	133147	1	#0	QPSK	23.85	22.71
LTE Band71	5	133147	1	#Mid	QPSK	23.83	22.69
LTE Band71	5	133147	1	#Max	QPSK	23.39	22.25
LTE Band71	5	133147	12	#0	QPSK	22.87	21.73
LTE Band71	5	133147	12	#Mid	QPSK	22.85	21.71
LTE Band71	5	133147	12	#Max	QPSK	22.77	21.63
LTE Band71	5	133147	25	#0	QPSK	22.83	21.69
LTE Band71	5	133147	1	#0	QAM16	22.86	21.72
LTE Band71	5	133147	1	#Mid	QAM16	23.11	21.97
LTE Band71	5	133147	1	#Max	QAM16	22.96	21.82
LTE Band71	5	133147	12	#0	QAM16	21.52	20.38
LTE Band71	5	133147	12	#Mid	QAM16	21.52	20.38
LTE Band71	5	133147	12	#Max	QAM16	21.70	20.56
LTE Band71	5	133147	25	#0	QAM16	21.91	20.77
LTE Band71	5	133297	1	#0	QPSK	22.84	21.70
LTE Band71	5	133297	1	#Mid	QPSK	23.09	21.95
LTE Band71	5	133297	1	#Max	QPSK	23.13	21.99
LTE Band71	5	133297	12	#0	QPSK	21.95	20.81
LTE Band71	5	133297	12	#Mid	QPSK	22.04	20.90
LTE Band71	5	133297	12	#Max	QPSK	22.20	21.06
LTE Band71	5	133297	25	#0	QPSK	22.06	20.92
LTE Band71	5	133297	1	#0	QAM16	21.97	20.83
LTE Band71	5	133297	1	#Mid	QAM16	22.17	21.03
LTE Band71	5	133297	1	#Max	QAM16	22.12	20.98
LTE Band71	5	133297	12	#0	QAM16	20.89	19.75
LTE Band71	5	133297	12	#Mid	QAM16	20.99	19.85
LTE Band71	5	133297	12	#Max	QAM16	21.14	20.00
LTE Band71	5	133297	25	#0	QAM16	21.02	19.88
LTE Band71	5	133447	1	#0	QPSK	21.86	20.72
LTE Band71	5	133447	1	#Mid	QPSK	23.21	22.07
LTE Band71	5	133447	1	#Max	QPSK	23.19	22.05
LTE Band71	5	133447	12	#0	QPSK	21.67	20.53
LTE Band71	5	133447	12	#Mid	QPSK	21.65	20.51
LTE Band71	5	133447	12	#Max	QPSK	22.23	21.09
LTE Band71	5	133447	25	#0	QPSK	22.11	20.97
LTE Band71	5	133447	1	#0	QAM16	20.69	19.55
LTE Band71	5	133447	1	#Mid	QAM16	21.86	20.72
LTE Band71	5	133447	1	#Max	QAM16	22.54	21.40
LTE Band71	5	133447	12	#0	QAM16	20.58	19.44
LTE Band71	5	133447	12	#Mid	QAM16	20.57	19.43



LTE Band71	5	133447	12	#Max	QAM16	21.34	20.20
LTE Band71	5	133447	25	#0	QAM16	21.13	19.99
LTE Band71	10	133172	1	#0	QPSK	23.35	22.21
LTE Band71	10	133172	1	#Mid	QPSK	23.63	22.49
LTE Band71	10	133172	1	#Max	QPSK	24.12	22.98
LTE Band71	10	133172	25	#0	QPSK	22.83	21.69
LTE Band71	10	133172	25	#Mid	QPSK	22.64	21.50
LTE Band71	10	133172	25	#Max	QPSK	22.78	21.64
LTE Band71	10	133172	50	#0	QPSK	22.71	21.57
LTE Band71	10	133172	1	#0	QAM16	22.63	21.49
LTE Band71	10	133172	1	#Mid	QAM16	22.97	21.83
LTE Band71	10	133172	1	#Max	QAM16	22.87	21.73
LTE Band71	10	133172	25	#0	QAM16	21.72	20.58
LTE Band71	10	133172	25	#Mid	QAM16	21.70	20.56
LTE Band71	10	133172	25	#Max	QAM16	21.89	20.75
LTE Band71	10	133172	50	#0	QAM16	21.63	20.49
LTE Band71	10	133297	1	#0	QPSK	23.45	22.31
LTE Band71	10	133297	1	#Mid	QPSK	23.16	22.02
LTE Band71	10	133297	1	#Max	QPSK	23.38	22.24
LTE Band71	10	133297	25	#0	QPSK	22.11	20.97
LTE Band71	10	133297	25	#Mid	QPSK	22.10	20.96
LTE Band71	10	133297	25	#Max	QPSK	22.29	21.15
LTE Band71	10	133297	50	#0	QPSK	22.13	20.99
LTE Band71	10	133297	1	#0	QAM16	22.91	21.77
LTE Band71	10	133297	1	#Mid	QAM16	23.17	22.03
LTE Band71	10	133297	1	#Max	QAM16	23.30	22.16
LTE Band71	10	133297	25	#0	QAM16	21.04	19.90
LTE Band71	10	133297	25	#Mid	QAM16	21.05	19.91
LTE Band71	10	133297	25	#Max	QAM16	21.35	20.21
LTE Band71	10	133297	50	#0	QAM16	21.12	19.98
LTE Band71	10	133422	1	#0	QPSK	22.19	21.05
LTE Band71	10	133422	1	#Mid	QPSK	22.02	20.88
LTE Band71	10	133422	1	#Max	QPSK	23.59	22.45
LTE Band71	10	133422	25	#0	QPSK	21.04	19.90
LTE Band71	10	133422	25	#Mid	QPSK	21.03	19.89
LTE Band71	10	133422	25	#Max	QPSK	22.02	20.88
LTE Band71	10	133422	50	#0	QPSK	21.56	20.42
LTE Band71	10	133422	1	#0	QAM16	21.09	19.95
LTE Band71	10	133422	1	#Mid	QAM16	20.45	19.31
LTE Band71	10	133422	1	#Max	QAM16	22.26	21.12
LTE Band71	10	133422	25	#0	QAM16	20.14	19.00
LTE Band71	10	133422	25	#Mid	QAM16	20.14	19.00
LTE Band71	10	133422	25	#Max	QAM16	21.22	20.08



LTE Band71	10	133422	50	#0	QAM16	20.55	19.41
LTE Band71	15	133197	1	#0	QPSK	23.49	22.35
LTE Band71	15	133197	1	#Mid	QPSK	23.91	22.77
LTE Band71	15	133197	1	#Max	QPSK	23.43	22.29
LTE Band71	15	133197	36	#0	QPSK	22.77	21.63
LTE Band71	15	133197	36	#Mid	QPSK	22.67	21.53
LTE Band71	15	133197	36	#Max	QPSK	22.77	21.63
LTE Band71	15	133197	75	#0	QPSK	22.87	21.73
LTE Band71	15	133197	1	#0	QAM16	22.73	21.59
LTE Band71	15	133197	1	#Mid	QAM16	22.97	21.83
LTE Band71	15	133197	1	#Max	QAM16	22.17	21.03
LTE Band71	15	133197	36	#0	QAM16	21.70	20.56
LTE Band71	15	133197	36	#Mid	QAM16	21.71	20.57
LTE Band71	15	133197	36	#Max	QAM16	21.74	20.60
LTE Band71	15	133197	75	#0	QAM16	21.83	20.69
LTE Band71	15	133297	1	#0	QPSK	23.72	22.58
LTE Band71	15	133297	1	#Mid	QPSK	23.12	21.98
LTE Band71	15	133297	1	#Max	QPSK	22.71	21.57
LTE Band71	15	133297	36	#0	QPSK	22.14	21.00
LTE Band71	15	133297	36	#Mid	QPSK	22.10	20.96
LTE Band71	15	133297	36	#Max	QPSK	22.27	21.13
LTE Band71	15	133297	75	#0	QPSK	22.10	20.96
LTE Band71	15	133297	1	#0	QAM16	23.24	22.10
LTE Band71	15	133297	1	#Mid	QAM16	22.49	21.35
LTE Band71	15	133297	1	#Max	QAM16	22.32	21.18
LTE Band71	15	133297	36	#0	QAM16	20.89	19.75
LTE Band71	15	133297	36	#Mid	QAM16	20.93	19.79
LTE Band71	15	133297	36	#Max	QAM16	21.22	20.08
LTE Band71	15	133297	75	#0	QAM16	21.11	19.97
LTE Band71	15	133397	1	#0	QPSK	23.07	21.93
LTE Band71	15	133397	1	#Mid	QPSK	21.85	20.71
LTE Band71	15	133397	1	#Max	QPSK	23.31	22.17
LTE Band71	15	133397	36	#0	QPSK	21.88	20.74
LTE Band71	15	133397	36	#Mid	QPSK	21.90	20.76
LTE Band71	15	133397	36	#Max	QPSK	21.60	20.46
LTE Band71	15	133397	75	#0	QPSK	21.81	20.67
LTE Band71	15	133397	1	#0	QAM16	21.83	20.69
LTE Band71	15	133397	1	#Mid	QAM16	20.39	19.25
LTE Band71	15	133397	1	#Max	QAM16	22.09	20.95
LTE Band71	15	133397	36	#0	QAM16	20.94	19.80
LTE Band71	15	133397	36	#Mid	QAM16	20.85	19.71
LTE Band71	15	133397	36	#Max	QAM16	20.24	19.10
LTE Band71	15	133397	75	#0	QAM16	20.72	19.58



LTE Band71	20	133222	1	#0	QPSK	22.95	21.81
LTE Band71	20	133222	1	#Mid	QPSK	24.60	23.46
LTE Band71	20	133222	1	#Max	QPSK	23.05	21.91
LTE Band71	20	133222	50	#0	QPSK	22.82	21.68
LTE Band71	20	133222	50	#Mid	QPSK	22.81	21.67
LTE Band71	20	133222	50	#Max	QPSK	22.29	21.15
LTE Band71	20	133222	100	#0	QPSK	22.60	21.46
LTE Band71	20	133222	1	#0	QAM16	22.11	20.97
LTE Band71	20	133222	1	#Mid	QAM16	23.86	22.72
LTE Band71	20	133222	1	#Max	QAM16	22.64	21.50
LTE Band71	20	133222	50	#0	QAM16	21.82	20.68
LTE Band71	20	133222	50	#Mid	QAM16	21.76	20.62
LTE Band71	20	133222	50	#Max	QAM16	21.30	20.16
LTE Band71	20	133222	100	#0	QAM16	21.62	20.48
LTE Band71	20	133322	1	#0	QPSK	23.64	22.50
LTE Band71	20	133322	1	#Mid	QPSK	23.53	22.39
LTE Band71	20	133322	1	#Max	QPSK	21.99	20.85
LTE Band71	20	133322	50	#0	QPSK	21.81	20.67
LTE Band71	20	133322	50	#Mid	QPSK	21.92	20.78
LTE Band71	20	133322	50	#Max	QPSK	21.96	20.82
LTE Band71	20	133322	100	#0	QPSK	21.89	20.75
LTE Band71	20	133322	1	#0	QAM16	22.17	21.03
LTE Band71	20	133322	1	#Mid	QAM16	21.83	20.69
LTE Band71	20	133322	1	#Max	QAM16	20.36	19.22
LTE Band71	20	133322	50	#0	QAM16	20.92	19.78
LTE Band71	20	133322	50	#Mid	QAM16	20.93	19.79
LTE Band71	20	133322	50	#Max	QAM16	20.80	19.66
LTE Band71	20	133322	100	#0	QAM16	20.92	19.78
LTE Band71	20	133372	1	#0	QPSK	23.00	21.86
LTE Band71	20	133372	1	#Mid	QPSK	22.58	21.44
LTE Band71	20	133372	1	#Max	QPSK	23.29	22.15
LTE Band71	20	133372	50	#0	QPSK	22.18	21.04
LTE Band71	20	133372	50	#Mid	QPSK	22.20	21.06
LTE Band71	20	133372	50	#Max	QPSK	21.51	20.37
LTE Band71	20	133372	100	#0	QPSK	21.81	20.67
LTE Band71	20	133372	1	#0	QAM16	22.05	20.91
LTE Band71	20	133372	1	#Mid	QAM16	21.76	20.62
LTE Band71	20	133372	1	#Max	QAM16	22.64	21.50
LTE Band71	20	133372	50	#0	QAM16	21.06	19.92
LTE Band71	20	133372	50	#Mid	QAM16	21.08	19.94
LTE Band71	20	133372	50	#Max	QAM16	20.46	19.32
LTE Band71	20	133372	100	#0	QAM16	20.87	19.73

5.2 Occupied Bandwidth

Ambient condition

Temperature	Relative humidity	Pressure
23°C ~25°C	45%~50%	101.5kPa

Method of Measurement

The EUT was connected to Spectrum Analyzer and Base Station Simulator via power Splitter. The occupied bandwidth is measured using spectrum analyzer.

RBW is set to 51 kHz, VBW is set to 160 kHz for LTE Band 4/12/66 (1.4MHz).

RBW is set to 100 kHz, VBW is set to 300 kHz for LTE Band 4/12/66 (3MHz).

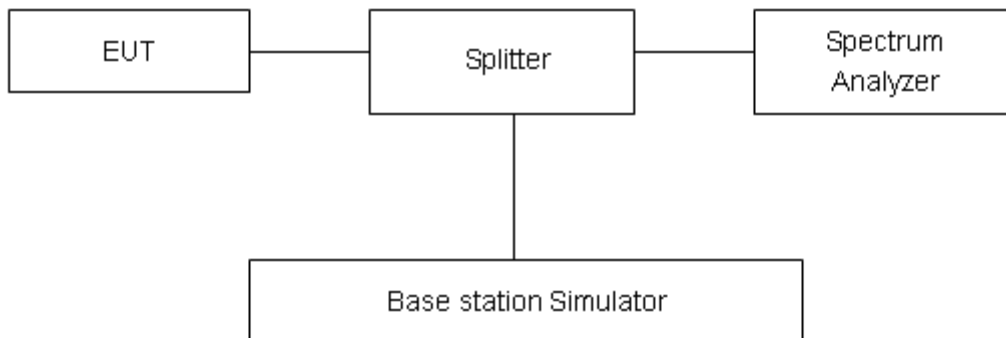
RBW is set to 100 kHz, VBW is set to 300 kHz for LTE Band 4/12/66/71 (5MHz).

RBW is set to 300 kHz, VBW is set to 1MHz for LTE Band 4/12/66/71 (10MHz).

RBW is set to 300 kHz, VBW is set to 1MHz for LTE Band 4/66/71 (15MHz/20MHz).

99% power and -26dBc occupied bandwidths are recorded. Spectrum analyzer plots are included on the following pages.

Test Setup



Limits

No specific occupied bandwidth requirements in part 2.1049.

Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor $k = 2$, $U=624\text{Hz}$.



Test Result

LTE Band 4						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	19957	1710.7	1.1295	1.411
			20175	1732.5	1.1298	1.339
			20393	1754.3	1.1284	1.353
		3	19965	1711.5	2.7491	3.076
			20175	1732.5	2.7477	3.063
			20385	1753.5	2.7417	3.070
		5	19975	1712.5	4.5301	5.014
			20175	1732.5	4.5175	5.032
			20375	1752.5	4.5123	5.030
		10	20000	1715	9.0638	10.290
			20175	1732.5	9.0233	10.100
			20350	1750	9.0616	10.140
		15	20025	1717.5	13.4650	14.820
			20175	1732.5	13.4150	14.650
			20325	1747.5	13.4440	14.820
		20	20050	1720	17.8920	19.240
			20175	1732.5	17.8560	19.280
			20300	1745	17.8750	19.530
	16QAM	1.4	19957	1710.7	1.1182	1.349
			20175	1732.5	1.1200	1.363
			20393	1754.3	1.1291	1.344
		3	19965	1711.5	2.7694	3.086
			20175	1732.5	2.7385	3.066
			20385	1753.5	2.7397	3.082
		5	19975	1712.5	4.5123	5.039
			20175	1732.5	4.5397	5.057
			20375	1752.5	4.5347	5.058
		10	20000	1715	9.0672	10.090
			20175	1732.5	9.0268	10.110
			20350	1750	9.0364	10.080
15		20025	1717.5	13.4790	14.670	
		20175	1732.5	13.4600	14.680	
		20325	1747.5	13.4630	14.700	
20		20050	1720	17.9260	19.310	
		20175	1732.5	17.8430	19.290	
		20300	1745	17.8620	19.380	



LTE Band 12						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	23017	699.7	1.1227	1.344
			23095	707.5	1.1191	1.354
			23173	715.3	1.1320	1.355
		3	23025	700.5	2.7406	3.066
			23095	707.5	2.7431	3.051
			23165	714.5	2.7448	3.071
		5	23035	701.5	4.5253	5.028
			23095	707.5	4.5148	5.012
			23155	713.5	4.5046	5.000
		10	23060	704	9.0427	10.140
			23095	707.5	9.0066	10.070
			23130	711	9.0185	10.140
	16QAM	1.4	23017	699.7	1.1282	1.331
			23095	707.5	1.1207	1.324
			23173	715.3	1.1204	1.335
		3	23025	700.5	2.7505	3.072
			23095	707.5	2.7343	3.064
			23165	714.5	2.7346	3.076
		5	23035	701.5	4.5078	5.006
			23095	707.5	4.5350	5.041
			23155	713.5	4.5291	5.021
10		23060	704	9.0376	10.020	
		23095	707.5	9.0130	9.998	
		23130	711	9.0059	9.998	

LTE Band 66						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	1.4	131979	1710.7	1.1351	1.373
			132322	1745	1.1281	1.387
			132665	1779.3	1.1279	1.409
		3	131987	1711.5	2.7491	3.092
			132322	1745	2.7476	3.060
			132657	1778.5	2.7455	3.075
		5	131997	1712.5	4.5386	5.038
			132322	1745	4.5156	5.052
			132647	1777.5	4.5103	5.043



		10	132022	1715	9.0576	10.270
			132322	1745	9.0000	10.040
			132622	1775	9.0490	10.040
		15	132047	1717.5	13.5000	14.840
			132322	1745	13.4170	14.700
			132597	1772.5	13.4310	14.810
		20	132072	1720	17.9080	19.240
			132322	1745	17.8540	19.280
			132572	1770	17.8630	19.320
	16QAM	1.4	131979	1710.7	1.1345	1.363
			132322	1745	1.1267	1.333
			132665	1779.3	1.1213	1.333
		3	131987	1711.5	2.7702	3.075
			132322	1745	2.7364	3.056
			132657	1778.5	2.7367	3.080
		5	131997	1712.5	4.5180	5.029
			132322	1745	4.5331	5.038
			132647	1777.5	4.5382	5.042
		10	132022	1715	9.0534	10.060
			132322	1745	9.0144	10.100
			132622	1775	9.0312	10.090
		15	132047	1717.5	13.4690	14.680
			132322	1745	13.4530	14.730
			132597	1772.5	13.4760	14.690
20	132072	1720	17.9030	19.480		
	132322	1745	17.8760	19.420		
	132572	1770	17.8820	19.390		



LTE Band 71						
RB	Modulation	Bandwidth (MHz)	Channel	Frequency (MHz)	99% Power Bandwidth(MHz)	-26dBc Bandwidth(MHz)
100%	QPSK	5	133147	665.5	4.5145	5.049
			133297	680.5	4.5133	5.023
			133447	695.5	4.5307	5.032
		10	133172	668	9.0245	10.120
			133297	680.5	9.0141	10.040
			133422	693	8.9867	10.090
		15	133197	670.5	13.4230	14.730
			133297	680.5	13.4600	14.800
			133397	690.5	13.4240	14.690
		20	133222	673	17.8290	19.210
			133322	683	17.8670	19.280
			133372	688	17.8700	19.260
	16QAM	5	133147	665.5	4.5303	5.044
			133297	680.5	4.5380	5.033
			133447	695.5	4.5149	5.023
		10	133172	668	9.0327	10.100
			133297	680.5	9.0227	10.030
			133422	693	8.9978	10.010
		15	133197	670.5	13.4860	14.670
			133297	680.5	13.4450	14.680
			133397	690.5	13.4580	14.670
20		133222	673	17.8570	19.320	
		133322	683	17.8650	19.430	
		133372	688	17.8750	19.380	

