

Industrial Internet Innovation Center (Shanghai) Co.,Ltd.**FCC LTE TEST REPORT**

PRODUCT	4G Wireless Smart Module
BRAND	SIMCom
MODEL	SIM8905A-R2
APPLICANT	SIMCom Wireless Solutions Limited
FCC ID	2AJYU-8PSA303
ISSUE DATE	September 16, 2022
STANDARD(S)	FCC Part 2, FCC Part 22, FCC Part 24, FCC Part 27, FCC Part 90

Prepared by: *Fan Yuhang*Reviewed by: *Yang Fan*Approved by: *Liu Long***CAUTION:**

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1. Summary of Test Report

1.1 Test Standard (s)

No.	Test Standard	Title	Version
1	FCC Part 2	FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS	2020
2	FCC Part 22	PUBLIC MOBILE SERVICES	2020
3	FCC Part 24	PERSONAL COMMUNICATIONS SERVICES	2020
4	FCC Part 27	MISCELLANEOUS WIRELESS COMMUNICATIONS SERVICES	2020
5	FCC Part 90	PRIVATE LAND MOBILE RADIO SERVICES	2020

1.2 Reference Documents

No.	Test Standard	Title	Version
1	ANSI/TIA-603-E	Land Mobile FM or PM Communications Equipment Measurement and Performance Standards	2016
2	ANSI C63.26	American National Standard of Procedures for Compliance Testing of Licensed Transmitters Used in Licensed Radio	2015
3	KDB 971168 D01	Measurement Guidance for Certification of Licensed Digital Transmitters	v03r01

1.3 Summary of Test Results

LTE Band 2

Items	Test Name	Clause in FCC rules	Verdict
1	Output Power	24.232(c)	Pass
2	Emission Limit	24.238(a), 2.1051	Pass(NOTE2)
3	Frequency Stability	24.235, 2.1055	Pass(NOTE2)
4	Occupied Bandwidth	2.1049(h)(i)	Pass(NOTE2)
5	Emission Bandwidth	24.238(a)	Pass(NOTE2)
6	Band Edge Compliance	24.238(a)	Pass(NOTE2)
7	Conducted Spurious Emission	24.238, 2.1057	Pass(NOTE2)
8	Peak to Average Power Ratio	24.232 (d)	Pass(NOTE2)

LTE Band 4

Items	Test Name	Clause in FCC rules	Verdict
1	Output Power	27.50(d)(4)	Pass
2	Emission Limit	27.53(h), 2.1051	Pass(NOTE2)
3	Frequency Stability	27.54, 2.1055	Pass(NOTE2)
4	Occupied Bandwidth	2.1049(h)(i)	Pass(NOTE2)
5	Emission Bandwidth	27.53(h)	Pass(NOTE2)
6	Band Edge Compliance	27.53(h)	Pass(NOTE2)
7	Conducted Spurious Emission	27.53(h), 2.1057	Pass(NOTE2)
8	Peak to Average Power Ratio	27.50(a)	Pass(NOTE2)

LTE Band 5

Items	Test Name	Clause in FCC rules	Verdict
1	Output Power	2.1046(a), 22.913(a)	Pass
2	Emission Limit	22.917, 2.1051	Pass(NOTE2)
3	Frequency Stability	22.235, 2.1055	Pass(NOTE2)
4	Occupied Bandwidth	2.1049(h)(i)	Pass(NOTE2)
5	Emission Bandwidth	22.917(b)	Pass(NOTE2)
6	Band Edge Compliance	22.917(b)	Pass(NOTE2)
7	Conducted Spurious Emission	22.917, 2.1057	Pass(NOTE2)

LTE Band 7

Items	Test Name	Clause in FCC rules	Verdict
1	Output Power	27.50(d)(4)	Pass
2	Emission Limit	27.53(m), 2.1051	Pass(NOTE2)
3	Frequency Stability	27.54, 2.1055	Pass(NOTE2)
4	Occupied Bandwidth	2.1049(h)(i)	Pass(NOTE2)
5	Emission Bandwidth	27.53(m)	Pass(NOTE2)
6	Band Edge Compliance	27.53(m)	Pass(NOTE2)
7	Conducted Spurious Emission	27.53(m), 2.1057	Pass(NOTE2)
8	Peak to Average Power Ratio	27.50(a)	Pass(NOTE2)

LTE Band 12

Items	Test Name	Clause in FCC rules	Verdict
1	Output Power	27.50(d)(4)	Pass
2	Emission Limit	27.53(h), 2.1051	Pass(NOTE2)

3	Frequency Stability	27.54, 2.1055	Pass(NOTE2)
4	Occupied Bandwidth	2.1049(h)(i)	Pass(NOTE2)
5	Emission Bandwidth	27.53(h)	Pass(NOTE2)
6	Band Edge Compliance	27.53(h)	Pass(NOTE2)
7	Conducted Spurious Emission	27.53(h), 2.1057	Pass(NOTE2)
8	Peak to Average Power Ratio	27.50(a)	Pass(NOTE2)

LTE Band 13

Items	Test Name	Clause in FCC rules	Verdict
1	Output Power	27.50(c)(10)	Pass
2	Emission Limit	27.53(g),2.1051	Pass(NOTE2)
3	Frequency Stability	27.54, 2.1055	Pass(NOTE2)
4	Occupied Bandwidth	2.1049(h)(i)	Pass(NOTE2)
5	Emission Bandwidth	27.53(g)	Pass(NOTE2)
6	Band Edge Compliance	27.53(g)	Pass(NOTE2)
7	Conducted Spurious Emission	27.53(g),2.1057	Pass(NOTE2)
8	Peak to Average Power Ratio	27.50(a)	Pass(NOTE2)

LTE Band 17

Items	Test Name	Clause in FCC rules	Verdict
1	Output Power	27.50(d)(4)	Pass
2	Emission Limit	27.53(h), 2.1051	Pass(NOTE2)
3	Frequency Stability	27.54, 2.1055	Pass(NOTE2)
4	Occupied Bandwidth	2.1049(h)(i)	Pass(NOTE2)
5	Emission Bandwidth	27.53(h)	Pass(NOTE2)
6	Band Edge Compliance	27.53(h)	Pass(NOTE2)
7	Conducted Spurious Emission	27.53(h), 2.1057	Pass(NOTE2)
8	Peak to Average Power Ratio	27.50(a)	Pass(NOTE2)

LTE Band 25

Items	Test Name	Clause in FCC rules	Verdict
1	Output Power	2.1046,24.232	Pass
2	Emission Limit	2.1053,24.238	Pass(NOTE2)
3	Frequency Stability	2.1055,24.235	Pass(NOTE2)
4	Occupied Bandwidth	2.1049,24.238	Pass(NOTE2)
5	Emission Bandwidth	2.1049,24.238	Pass(NOTE2)

6	Band Edge Compliance	2.1049,24.238	Pass(NOTE2)
7	Conducted Spurious Emission	2.1049,24.238	Pass(NOTE2)
8	Peak to Average Power Ratio	2.1049,24.238	Pass(NOTE2)

LTE Band 26

Items	Test Name	Clause in FCC rules	Verdict
1	Output Power	90.635(b)	Pass
2	Emission Limit	90.669	Pass(NOTE2)
3	Frequency Stability	90.213(a)	Pass(NOTE2)
4	Occupied Bandwidth	2.1049(h)(i)	Pass(NOTE2)
5	Emission Bandwidth	90.209 (b)	Pass(NOTE2)
6	Band Edge Compliance	90.669	Pass(NOTE2)
7	Conducted Spurious Emission	90.669	Pass(NOTE2)

LTE Band 41

Items	Test Name	Clause in FCC rules	Verdict
1	Output Power	27.50(d)(4)	Pass
2	Emission Limit	27.53(h), 2.1051	Pass(NOTE2)
3	Frequency Stability	27.54, 2.1055	Pass(NOTE2)
4	Occupied Bandwidth	2.1049(h)(i)	Pass(NOTE2)
5	Emission Bandwidth	27.53(h)	Pass(NOTE2)
6	Band Edge Compliance	27.53(h)	Pass(NOTE2)
7	Conducted Spurious Emission	27.53(h), 2.1057	Pass(NOTE2)
8	Peak to Average Power Ratio	27.50(a)	Pass(NOTE2)

NOTE1:

The SIM8905A-R2, manufactured by SIMCom Wireless Solutions Limited is a new product for testing.

This project is a variant project based on the C21T00135-RF02-V02, We tested the Output Power. The rest of the data are reference prototype report data.

Industrial Internet Innovation Center (Shanghai) Co., Ltd. only performed test cases which identified with Pass/Fail/Inc result in section 1.3.

Industrial Internet Innovation Center (Shanghai) Co., Ltd. has verified that the compliance of the tested device specified in section 5.3 of this test report is successfully evaluated according to the procedure and test methods as defined in type certification requirement listed in section 6 of this test report.

NOTE2:

The test verdict of this item come from the original report.

1.4 Data Provided by Applicant

No.	Item(s)	Data
1	Antenna gain of band 2	11 dbi
2	Antenna gain of band 4	6 dbi
3	Antenna gain of band 5	7.5 dbi
4	Antenna gain of band 7	11 dbi
5	Antenna gain of band 12	7.5 dbi
6	Antenna gain of band 13	7.5 dbi
7	Antenna gain of band 17	7.5 dbi
8	Antenna gain of band 25	6 dbi
9	Antenna gain of band 26	7.5 dbi
10	Antenna gain of band 41	11 dbi

Note: The data of Antenna gain is provided by the customer may affect the validity of the test results in this report, and the impact and consequences of this shall be undertaken by the customer.

2. General Information of The Laboratory

2.1 Testing Laboratory

Lab Name	Industrial Internet Innovation Center (Shanghai) Co.,Ltd.
Address	Building 4, No. 766, Jingang Road, Pudong, Shanghai, China
Telephone	021-68866880
FCC Registration No.	958356
FCC Designation No.	CN1177

2.2 Laboratory Environmental Requirements

Temperature	15°C~35°C
Relative Humidity	25%RH~75%RH
Atmospheric Pressure	101kPa

2.3 Project Information

Project Manager	Xu Yuting
Test Date	August 4, 2022 to August 5, 2022

3. General Information of The Customer

3.1 Applicant

Company	SIMCom Wireless Solutions Limited
Address	8F, Bldg3 No.289 Linhong Rd, ChangNing District Shanghai, PRC China
Telephone	02131575100/15102196457

3.2 Manufacturer

Company	SIMCom Wireless Solutions Limited
Address	8F, Bldg3 No.289 Linhong Rd, ChangNing District Shanghai, PRC China

4. General Information of The Product

4.1 Product Description for Equipment under Test (EUT)

Product	4G Wireless Smart Module
Model	SIM8905A-R2
Date of Receipt	August 4, 2022
EUT ID*	N03
SN/IMEI	861384050078167 861384050080205
FCC ID	2AJYU-8PSA303
Supported Radio Technology and Bands	LTE Band 2/4/5/7/12/13/17/25/26/41 BT BR EDR,BLE WLAN 802.11 b,g,n GPS/Glonass/BDS/Gallileo
Hardware Version	V1.03
Software Version	R2148.02
NOTE: EUT ID is the internal identification code of the laboratory.	

4.2 Description for Auxiliary Equipment (AE)

AE ID*	Description	Model	SN/Remark
AE1	RF Cable	N/A	N/A
NOTE: AE ID is the internal identification code of the laboratory.			

4.3 Additional Information

Type of modulation	QPSK/16QAM
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5. Test Configuration Information

5.1 Laboratory Environmental Conditions

5.1.1 Permanent Facilities

Relative Humidity	Min. = 45%, Max. = 55 %		
Atmospheric Pressure	101kPa		
Temperature	Normal	Minimum	Maximum
	25°C	-35°C	75°C
Working Voltage of EUT	Normal	Minimum	Maximum
	3.9V	3.4V	4.4V

5.2 Test Equipments Utilized

5.2.1 Conducted Test System

No.	Name	Model	S/N	Manufacturer	Cal. Date	Cal. Interval
1	Universal Radio Communication Tester	CMW500	148874	R&S	May 10,2021	1.5 Years
2	Vector Signal Analyzer	FSQ26	101091	R&S	May 10,2021	1.5 Years
3	DC Power Supply	ZUP60-14	LOC-220Z006-0007	TDL-Lambda	May 9,2021	1.5 Years
4	Eagle Test Software	Eagle V3.3 FCC	N/A	ECIT	N/A	N/A

5.2.2 Test Environment

Shielding Room1 (6.0 meters×3.0 meters×2.7 meters) did not exceed following limits along the conducted RF performance testing:

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 20 %, Max. = 75 %
Shielding effectiveness	> 100 dB
Ground system resistance	< 0.5 Ω
Temperature	Min. = 15 °C, Max. = 35 °C

Control room did not exceed following limits along the EMC testing:

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. =30 %, Max. = 60 %
Shielding effectiveness	> 100 dB

Electrical insulation	> 10 kΩ
Ground system resistance	< 0.5 Ω

Fully-anechoic chamber1 (6.9 meters×10.9 meters×5.4 meters) did not exceed following limits along the EMC testing:

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 25 %, Max. = 75 %
Shielding effectiveness	> 100 dB
Electrical insulation	> 10 kΩ
Ground system resistance	< 0.5 Ω
VSWR	Between 0 and 6 dB, from 1GHz to 18GHz
Site Attenuation Deviation	Between -4 and 4 dB,30MHz to 1GHz

5.3 Measurement Uncertainty

Measurement Items	Range	Confidence Level	Calculated Uncertainty
Peak Output Power-Conducted	2412MHz-2462MHz	95%	0.544dB

6. Test Results

6.1 Output Power

6.1.1 Summary

During the process of testing, the EUT was controlled via Rhode & Schwarz Digital Radio Communication tester (CMW500) to ensure max power transmission and proper modulation. In all cases, output power is within the specified limits.

CMW500 setting:

1: CMW500 is connected to the DUT

2: Set RX Expected PEP to 30 dBm

6.1.2 Conducted

6.1.2.1 Method of Measurements

The EUT was set up for the max output power with pseudo random data modulation. These measurements were done at 3 frequencies (bottom, middle and top of operational frequency range) for each bandwidth.

6.1.2.2 Measurement result

LTE FDD 02

Band	Frequency(MHz)	BandWidth	RB size/offset	QPSK(dBm)	Q16(dBm)
FDD02	1850.7	1.4	One Rb High	21.29	20.62
FDD02	1850.7	1.4	One Rb Low	21.53	20.64
FDD02	1850.7	1.4	One Rb Middle	21.58	20.84
FDD02	1850.7	1.4	Half Rb Low	21.57	20.37
FDD02	1850.7	1.4	Half Rb High	21.46	20.46
FDD02	1850.7	1.4	Fullrb	20.44	19.54
FDD02	1851.5	3	One Rb High	21.46	21.10
FDD02	1851.5	3	One Rb Low	21.41	20.73
FDD02	1851.5	3	One Rb Middle	21.43	20.78
FDD02	1851.5	3	Half Rb Low	20.51	19.50
FDD02	1851.5	3	Half Rb High	20.61	19.47
FDD02	1851.5	3	Fullrb	20.50	19.46
FDD02	1852.5	5	One Rb High	21.69	20.60
FDD02	1852.5	5	One Rb Low	21.33	20.56
FDD02	1852.5	5	One Rb Middle	21.24	20.59

FDD02	1852.5	5	Half Rb Low	20.39	19.47
FDD02	1852.5	5	Half Rb High	20.46	19.51
FDD02	1852.5	5	Fullrb	20.44	19.34
FDD02	1855	10	One Rb High	21.44	20.71
FDD02	1855	10	One Rb Low	21.58	20.93
FDD02	1855	10	One Rb Middle	21.74	20.75
FDD02	1855	10	Half Rb Low	20.55	19.57
FDD02	1855	10	Half Rb High	20.48	19.51
FDD02	1855	10	Fullrb	20.45	19.55
FDD02	1857.5	15	One Rb High	21.32	20.61
FDD02	1857.5	15	One Rb Low	21.43	20.76
FDD02	1857.5	15	One Rb Middle	21.43	20.70
FDD02	1857.5	15	Half Rb Low	20.77	20.81
FDD02	1857.5	15	Half Rb High	21.32	21.34
FDD02	1857.5	15	Fullrb	20.44	19.48
FDD02	1860	20	One Rb High	21.64	21.01
FDD02	1860	20	One Rb Low	21.49	21.04
FDD02	1860	20	One Rb Middle	21.78	20.98
FDD02	1860	20	Half Rb Low	20.44	19.42
FDD02	1860	20	Half Rb High	20.39	19.38
FDD02	1860	20	Fullrb	20.32	19.48
FDD02	1880	1.4	One Rb High	20.99	20.48
FDD02	1880	1.4	One Rb Low	21.24	20.55
FDD02	1880	1.4	One Rb Middle	21.27	20.43
FDD02	1880	1.4	Half Rb Low	21.12	19.89
FDD02	1880	1.4	Half Rb High	21.01	20.32
FDD02	1880	1.4	Fullrb	20.19	19.41
FDD02	1880	3	One Rb High	20.99	20.41

FDD02	1880	3	One Rb Low	21.29	20.56
FDD02	1880	3	One Rb Middle	21.12	20.94
FDD02	1880	3	Half Rb Low	20.31	19.42
FDD02	1880	3	Half Rb High	20.13	19.41
FDD02	1880	3	Fullrb	20.16	19.33
FDD02	1880	5	One Rb High	20.99	19.34
FDD02	1880	5	One Rb Low	21.10	19.42
FDD02	1880	5	One Rb Middle	20.90	19.88
FDD02	1880	5	Half Rb Low	20.18	19.23
FDD02	1880	5	Half Rb High	20.15	19.17
FDD02	1880	5	Fullrb	20.15	19.33
FDD02	1880	10	One Rb High	21.15	20.39
FDD02	1880	10	One Rb Low	21.32	20.77
FDD02	1880	10	One Rb Middle	21.17	20.73
FDD02	1880	10	Half Rb Low	20.24	19.23
FDD02	1880	10	Half Rb High	20.19	19.21
FDD02	1880	10	Fullrb	20.20	19.16
FDD02	1880	15	One Rb High	21.00	20.14
FDD02	1880	15	One Rb Low	21.29	20.81
FDD02	1880	15	One Rb Middle	21.08	20.58
FDD02	1880	15	Half Rb Low	20.78	20.79
FDD02	1880	15	Half Rb High	20.16	20.22
FDD02	1880	15	Fullrb	20.18	19.17
FDD02	1880	20	One Rb High	21.15	20.32
FDD02	1880	20	One Rb Low	21.32	20.48
FDD02	1880	20	One Rb Middle	21.10	20.17
FDD02	1880	20	Half Rb Low	20.27	19.39
FDD02	1880	20	Half Rb High	20.18	19.19

FDD02	1880	20	Fullrb	20.21	19.21
FDD02	1909.3	1.4	One Rb High	20.88	20.15
FDD02	1909.3	1.4	One Rb Low	20.86	20.09
FDD02	1909.3	1.4	One Rb Middle	21.05	20.22
FDD02	1909.3	1.4	Half Rb Low	20.92	20.16
FDD02	1909.3	1.4	Half Rb High	21.09	20.28
FDD02	1909.3	1.4	Fullrb	20.02	19.09
FDD02	1908.5	3	One Rb High	20.93	20.36
FDD02	1908.5	3	One Rb Low	20.95	20.35
FDD02	1908.5	3	One Rb Middle	21.05	20.28
FDD02	1908.5	3	Half Rb Low	20.11	19.02
FDD02	1908.5	3	Half Rb High	20.06	19.20
FDD02	1908.5	3	Fullrb	20.02	19.00
FDD02	1907.5	5	One Rb High	20.97	20.15
FDD02	1907.5	5	One Rb Low	21.02	19.98
FDD02	1907.5	5	One Rb Middle	20.85	20.18
FDD02	1907.5	5	Half Rb Low	19.95	19.07
FDD02	1907.5	5	Half Rb High	19.99	19.10
FDD02	1907.5	5	Fullrb	19.93	19.12
FDD02	1905	10	One Rb High	21.10	20.20
FDD02	1905	10	One Rb Low	20.93	20.22
FDD02	1905	10	One Rb Middle	20.98	20.62
FDD02	1905	10	Half Rb Low	20.00	19.05
FDD02	1905	10	Half Rb High	19.93	19.05
FDD02	1905	10	Fullrb	19.97	19.07
FDD02	1902.5	15	One Rb High	20.98	20.23
FDD02	1902.5	15	One Rb Low	21.18	20.34
FDD02	1902.5	15	One Rb Middle	20.73	20.52

FDD02	1902.5	15	Half Rb Low	20.51	20.52
FDD02	1902.5	15	Half Rb High	19.96	19.96
FDD02	1902.5	15	Fullrb	19.89	18.92
FDD02	1900	20	One Rb High	21.10	20.41
FDD02	1900	20	One Rb Low	21.31	20.59
FDD02	1900	20	One Rb Middle	21.51	20.76
FDD02	1900	20	Half Rb Low	20.07	19.14
FDD02	1900	20	Half Rb High	19.87	18.90
FDD02	1900	20	Fullrb	20.02	19.10

LTE FDD 04

Band	Frequency(MHz)	BandWidth	RB size/offset	QPSK(dBm)	Q16(dBm)
FDD04	1710.7	1.4	One Rb High	21.97	20.45
FDD04	1710.7	1.4	One Rb Low	22.04	21.10
FDD04	1710.7	1.4	One Rb Middle	22.15	21.04
FDD04	1710.7	1.4	Half Rb Low	22.12	21.16
FDD04	1710.7	1.4	Half Rb High	22.11	21.25
FDD04	1710.7	1.4	Fullrb	21.09	20.05
FDD04	1711.5	3	One Rb High	21.94	21.72
FDD04	1711.5	3	One Rb Low	21.99	21.26
FDD04	1711.5	3	One Rb Middle	22.21	21.17
FDD04	1711.5	3	Half Rb Low	21.22	20.21
FDD04	1711.5	3	Half Rb High	21.21	20.20
FDD04	1711.5	3	Fullrb	21.17	20.07
FDD04	1712.5	5	One Rb High	22.15	21.20
FDD04	1712.5	5	One Rb Low	21.94	21.21
FDD04	1712.5	5	One Rb Middle	22.12	21.30
FDD04	1712.5	5	Half Rb Low	21.13	20.00
FDD04	1712.5	5	Half Rb High	21.12	19.98

FDD04	1712.5	5	Fullrb	21.12	20.22
FDD04	1715	10	One Rb High	22.12	21.24
FDD04	1715	10	One Rb Low	22.07	21.45
FDD04	1715	10	One Rb Middle	22.14	21.23
FDD04	1715	10	Half Rb Low	21.18	20.23
FDD04	1715	10	Half Rb High	21.13	19.99
FDD04	1715	10	Fullrb	21.07	20.08
FDD04	1717.5	15	One Rb High	22.19	21.23
FDD04	1717.5	15	One Rb Low	22.21	21.61
FDD04	1717.5	15	One Rb Middle	22.03	21.10
FDD04	1717.5	15	Half Rb Low	21.37	21.34
FDD04	1717.5	15	Half Rb High	21.48	21.44
FDD04	1717.5	15	Fullrb	21.19	20.26
FDD04	1720	20	One Rb High	22.33	21.36
FDD04	1720	20	One Rb Low	22.17	21.63
FDD04	1720	20	One Rb Middle	22.64	21.58
FDD04	1720	20	Half Rb Low	21.12	20.05
FDD04	1720	20	Half Rb High	21.26	20.21
FDD04	1720	20	Fullrb	21.18	20.21
FDD04	1732.5	1.4	One Rb High	22.28	21.81
FDD04	1732.5	1.4	One Rb Low	22.44	21.55
FDD04	1732.5	1.4	One Rb Middle	22.21	21.82
FDD04	1732.5	1.4	Half Rb Low	22.35	21.56
FDD04	1732.5	1.4	Half Rb High	22.29	21.66
FDD04	1732.5	1.4	Fullrb	21.34	20.54
FDD04	1732.5	3	One Rb High	22.14	21.52
FDD04	1732.5	3	One Rb Low	22.12	21.42
FDD04	1732.5	3	One Rb Middle	22.26	21.67

FDD04	1732.5	3	Half Rb Low	21.34	20.65
FDD04	1732.5	3	Half Rb High	21.35	20.58
FDD04	1732.5	3	Fullrb	21.32	20.43
FDD04	1732.5	5	One Rb High	22.20	20.29
FDD04	1732.5	5	One Rb Low	22.08	21.00
FDD04	1732.5	5	One Rb Middle	22.04	20.97
FDD04	1732.5	5	Half Rb Low	21.34	20.31
FDD04	1732.5	5	Half Rb High	21.41	20.35
FDD04	1732.5	5	Fullrb	21.38	20.27
FDD04	1732.5	10	One Rb High	22.32	21.75
FDD04	1732.5	10	One Rb Low	22.41	21.69
FDD04	1732.5	10	One Rb Middle	22.36	21.69
FDD04	1732.5	10	Half Rb Low	21.43	20.46
FDD04	1732.5	10	Half Rb High	21.44	20.39
FDD04	1732.5	10	Fullrb	21.46	20.48
FDD04	1732.5	15	One Rb High	22.46	21.86
FDD04	1732.5	15	One Rb Low	22.35	21.17
FDD04	1732.5	15	One Rb Middle	22.12	21.68
FDD04	1732.5	15	Half Rb Low	21.71	21.52
FDD04	1732.5	15	Half Rb High	21.43	21.37
FDD04	1732.5	15	Fullrb	21.33	20.31
FDD04	1732.5	20	One Rb High	22.32	21.64
FDD04	1732.5	20	One Rb Low	22.19	21.27
FDD04	1732.5	20	One Rb Middle	22.31	21.17
FDD04	1732.5	20	Half Rb Low	21.31	20.30
FDD04	1732.5	20	Half Rb High	21.32	20.29
FDD04	1732.5	20	Fullrb	21.29	20.27
FDD04	1754.3	1.4	One Rb High	22.20	21.18

FDD04	1754.3	1.4	One Rb Low	21.93	20.83
FDD04	1754.3	1.4	One Rb Middle	21.93	21.07
FDD04	1754.3	1.4	Half Rb Low	22.13	21.17
FDD04	1754.3	1.4	Half Rb High	22.23	21.16
FDD04	1754.3	1.4	Fullrb	21.26	20.18
FDD04	1753.5	3	One Rb High	22.11	20.94
FDD04	1753.5	3	One Rb Low	22.18	21.56
FDD04	1753.5	3	One Rb Middle	22.22	21.31
FDD04	1753.5	3	Half Rb Low	21.28	20.06
FDD04	1753.5	3	Half Rb High	21.21	20.23
FDD04	1753.5	3	Fullrb	21.24	20.16
FDD04	1752.5	5	One Rb High	22.26	21.36
FDD04	1752.5	5	One Rb Low	22.00	21.46
FDD04	1752.5	5	One Rb Middle	22.24	20.82
FDD04	1752.5	5	Half Rb Low	21.26	20.14
FDD04	1752.5	5	Half Rb High	21.27	19.94
FDD04	1752.5	5	Fullrb	21.19	20.22
FDD04	1750	10	One Rb High	22.29	21.45
FDD04	1750	10	One Rb Low	22.32	21.64
FDD04	1750	10	One Rb Middle	22.34	21.53
FDD04	1750	10	Half Rb Low	21.38	20.45
FDD04	1750	10	Half Rb High	21.31	20.27
FDD04	1750	10	Fullrb	21.25	20.21
FDD04	1747.5	15	One Rb High	22.20	21.15
FDD04	1747.5	15	One Rb Low	22.42	21.65
FDD04	1747.5	15	One Rb Middle	22.30	21.30
FDD04	1747.5	15	Half Rb Low	21.70	21.84
FDD04	1747.5	15	Half Rb High	22.09	22.10

FDD04	1747.5	15	Fullrb	21.39	20.59
FDD04	1745	20	One Rb High	22.24	21.25
FDD04	1745	20	One Rb Low	22.48	21.52
FDD04	1745	20	One Rb Middle	22.53	21.77
FDD04	1745	20	Half Rb Low	21.37	20.42
FDD04	1745	20	Half Rb High	21.37	20.33
FDD04	1745	20	Fullrb	21.28	20.32

LTE FDD 05

Band	Frequency(MHz)	BandWidth	RB size/offset	QPSK(dBm)	Q16(dBm)
FDD05	824.7	1.4	One Rb High	23.16	21.78
FDD05	824.7	1.4	One Rb Low	23.14	22.25
FDD05	824.7	1.4	One Rb Middle	23.30	22.32
FDD05	824.7	1.4	Half Rb Low	23.15	22.02
FDD05	824.7	1.4	Half Rb High	23.22	22.06
FDD05	824.7	1.4	Fullrb	22.21	21.20
FDD05	825.5	3	One Rb High	23.10	22.35
FDD05	825.5	3	One Rb Low	23.15	22.52
FDD05	825.5	3	One Rb Middle	23.13	22.44
FDD05	825.5	3	Half Rb Low	22.34	21.27
FDD05	825.5	3	Half Rb High	22.28	21.16
FDD05	825.5	3	Fullrb	22.29	21.48
FDD05	826.5	5	One Rb High	23.24	22.36
FDD05	826.5	5	One Rb Low	23.21	22.40
FDD05	826.5	5	One Rb Middle	23.05	22.34
FDD05	826.5	5	Half Rb Low	22.30	21.25
FDD05	826.5	5	Half Rb High	22.30	21.35
FDD05	826.5	5	Fullrb	22.20	21.09
FDD05	829	10	One Rb High	22.99	22.49

FDD05	829	10	One Rb Low	23.31	22.62
FDD05	829	10	One Rb Middle	23.44	22.33
FDD05	829	10	Half Rb Low	22.29	21.31
FDD05	829	10	Half Rb High	22.16	21.20
FDD05	829	10	Fullrb	22.21	21.40
FDD05	836.5	1.4	One Rb High	23.21	21.94
FDD05	836.5	1.4	One Rb Low	23.06	21.98
FDD05	836.5	1.4	One Rb Middle	23.16	21.99
FDD05	836.5	1.4	Half Rb Low	23.11	22.42
FDD05	836.5	1.4	Half Rb High	23.19	22.55
FDD05	836.5	1.4	Fullrb	22.22	21.22
FDD05	836.5	3	One Rb High	22.87	22.46
FDD05	836.5	3	One Rb Low	23.21	22.82
FDD05	836.5	3	One Rb Middle	23.19	22.89
FDD05	836.5	3	Half Rb Low	22.14	21.48
FDD05	836.5	3	Half Rb High	22.16	21.40
FDD05	836.5	3	Fullrb	22.14	21.17
FDD05	836.5	5	One Rb High	22.80	21.21
FDD05	836.5	5	One Rb Low	22.96	21.24
FDD05	836.5	5	One Rb Middle	22.98	21.45
FDD05	836.5	5	Half Rb Low	22.16	20.94
FDD05	836.5	5	Half Rb High	22.01	20.89
FDD05	836.5	5	Fullrb	22.04	21.14
FDD05	836.5	10	One Rb High	22.82	21.95
FDD05	836.5	10	One Rb Low	23.27	22.26
FDD05	836.5	10	One Rb Middle	23.13	22.57
FDD05	836.5	10	Half Rb Low	22.08	21.04
FDD05	836.5	10	Half Rb High	22.04	21.00

FDD05	836.5	10	Fullrb	22.14	21.04
FDD05	848.3	1.4	One Rb High	22.94	22.11
FDD05	848.3	1.4	One Rb Low	22.94	22.16
FDD05	848.3	1.4	One Rb Middle	23.06	22.27
FDD05	848.3	1.4	Half Rb Low	22.89	21.90
FDD05	848.3	1.4	Half Rb High	22.81	22.03
FDD05	848.3	1.4	Fullrb	21.96	21.10
FDD05	847.5	3	One Rb High	22.90	22.23
FDD05	847.5	3	One Rb Low	23.01	22.26
FDD05	847.5	3	One Rb Middle	22.93	22.12
FDD05	847.5	3	Half Rb Low	22.08	20.93
FDD05	847.5	3	Half Rb High	21.96	20.99
FDD05	847.5	3	Fullrb	22.00	20.99
FDD05	846.5	5	One Rb High	23.11	21.93
FDD05	846.5	5	One Rb Low	23.23	22.15
FDD05	846.5	5	One Rb Middle	22.84	22.19
FDD05	846.5	5	Half Rb Low	22.10	20.93
FDD05	846.5	5	Half Rb High	22.04	20.90
FDD05	846.5	5	Fullrb	22.08	20.92
FDD05	844	10	One Rb High	22.81	22.28
FDD05	844	10	One Rb Low	23.11	22.30
FDD05	844	10	One Rb Middle	23.08	22.14
FDD05	844	10	Half Rb Low	22.01	21.12
FDD05	844	10	Half Rb High	22.01	21.08
FDD05	844	10	Fullrb	21.97	20.93

LTE FDD 07

Band	Frequency(MHz)	BandWidth	RB size/offset	QPSK(dBm)	Q16(dBm)
FDD07	2502.5	5	One Rb High	21.08	20.39

FDD07	2502.5	5	One Rb Low	21.12	20.00
FDD07	2502.5	5	One Rb Middle	20.96	20.14
FDD07	2502.5	5	Half Rb Low	20.24	19.49
FDD07	2502.5	5	Half Rb High	20.10	19.39
FDD07	2502.5	5	Fullrb	20.22	19.29
FDD07	2505	10	One Rb High	21.02	20.09
FDD07	2505	10	One Rb Low	21.11	20.12
FDD07	2505	10	One Rb Middle	21.33	20.40
FDD07	2505	10	Half Rb Low	20.17	19.38
FDD07	2505	10	Half Rb High	20.24	19.24
FDD07	2505	10	Fullrb	20.18	19.25
FDD07	2507.5	15	One Rb High	21.12	20.32
FDD07	2507.5	15	One Rb Low	21.32	20.56
FDD07	2507.5	15	One Rb Middle	21.20	20.47
FDD07	2507.5	15	Half Rb Low	20.78	20.61
FDD07	2507.5	15	Half Rb High	20.32	20.43
FDD07	2507.5	15	Fullrb	20.17	19.22
FDD07	2510	20	One Rb High	21.10	20.44
FDD07	2510	20	One Rb Low	21.44	20.78
FDD07	2510	20	One Rb Middle	21.48	20.62
FDD07	2510	20	Half Rb Low	20.29	19.37
FDD07	2510	20	Half Rb High	20.18	19.20
FDD07	2510	20	Fullrb	20.26	19.31
FDD07	2535	5	One Rb High	20.94	19.36
FDD07	2535	5	One Rb Low	20.95	19.54
FDD07	2535	5	One Rb Middle	20.87	19.64
FDD07	2535	5	Half Rb Low	20.28	19.09
FDD07	2535	5	Half Rb High	20.30	19.38

FDD07	2535	5	Fullrb	20.26	19.33
FDD07	2535	10	One Rb High	21.13	20.91
FDD07	2535	10	One Rb Low	21.22	20.54
FDD07	2535	10	One Rb Middle	21.16	20.67
FDD07	2535	10	Half Rb Low	20.26	19.28
FDD07	2535	10	Half Rb High	20.27	19.22
FDD07	2535	10	Fullrb	20.22	19.29
FDD07	2535	15	One Rb High	21.23	21.03
FDD07	2535	15	One Rb Low	21.13	20.75
FDD07	2535	15	One Rb Middle	20.96	20.40
FDD07	2535	15	Half Rb Low	20.49	20.49
FDD07	2535	15	Half Rb High	20.58	20.37
FDD07	2535	15	Fullrb	20.26	19.35
FDD07	2535	20	One Rb High	21.12	20.45
FDD07	2535	20	One Rb Low	21.07	19.95
FDD07	2535	20	One Rb Middle	21.16	20.37
FDD07	2535	20	Half Rb Low	20.28	19.36
FDD07	2535	20	Half Rb High	20.31	19.39
FDD07	2535	20	Fullrb	20.26	19.25
FDD07	2567.5	5	One Rb High	21.17	20.57
FDD07	2567.5	5	One Rb Low	21.25	20.57
FDD07	2567.5	5	One Rb Middle	21.36	20.54
FDD07	2567.5	5	Half Rb Low	20.25	19.41
FDD07	2567.5	5	Half Rb High	20.24	19.26
FDD07	2567.5	5	Fullrb	20.20	19.27
FDD07	2565	10	One Rb High	21.27	20.51
FDD07	2565	10	One Rb Low	21.40	20.70
FDD07	2565	10	One Rb Middle	21.31	20.46

FDD07	2565	10	Half Rb Low	20.41	19.39
FDD07	2565	10	Half Rb High	20.26	19.18
FDD07	2565	10	Fullrb	20.40	19.38
FDD07	2562.5	15	One Rb High	21.23	20.39
FDD07	2562.5	15	One Rb Low	21.53	20.82
FDD07	2562.5	15	One Rb Middle	21.13	20.91
FDD07	2562.5	15	Half Rb Low	21.46	21.46
FDD07	2562.5	15	Half Rb High	21.08	21.13
FDD07	2562.5	15	Fullrb	20.42	19.48
FDD07	2560	20	One Rb High	21.14	20.72
FDD07	2560	20	One Rb Low	21.37	20.71
FDD07	2560	20	One Rb Middle	21.46	20.59
FDD07	2560	20	Half Rb Low	20.47	19.56
FDD07	2560	20	Half Rb High	20.34	19.44
FDD07	2560	20	Fullrb	20.41	19.46

LTE FDD 12

Band	Frequency(MHz)	BandWidth	RB size/offset	QPSK(dBm)	Q16(dBm)
FDD12	699.7	1.4	One Rb High	22.57	21.51
FDD12	699.7	1.4	One Rb Low	22.58	21.76
FDD12	699.7	1.4	One Rb Middle	22.63	21.87
FDD12	699.7	1.4	Half Rb Low	22.78	21.90
FDD12	699.7	1.4	Half Rb High	22.77	22.02
FDD12	699.7	1.4	Fullrb	21.85	20.90
FDD12	700.5	3	One Rb High	22.54	22.23
FDD12	700.5	3	One Rb Low	22.79	21.65
FDD12	700.5	3	One Rb Middle	22.49	21.47
FDD12	700.5	3	Half Rb Low	21.67	20.69
FDD12	700.5	3	Half Rb High	21.68	20.81

FDD12	700.5	3	Fullrb	21.82	20.67
FDD12	701.5	5	One Rb High	22.67	21.34
FDD12	701.5	5	One Rb Low	23.02	21.72
FDD12	701.5	5	One Rb Middle	22.54	21.80
FDD12	701.5	5	Half Rb Low	21.73	20.48
FDD12	701.5	5	Half Rb High	21.63	20.59
FDD12	701.5	5	Fullrb	21.65	20.60
FDD12	704	10	One Rb High	22.55	22.29
FDD12	704	10	One Rb Low	22.80	21.95
FDD12	704	10	One Rb Middle	22.58	21.87
FDD12	704	10	Half Rb Low	21.72	20.82
FDD12	704	10	Half Rb High	21.78	20.91
FDD12	704	10	Fullrb	21.77	20.69
FDD12	707.5	1.4	One Rb High	22.58	22.02
FDD12	707.5	1.4	One Rb Low	22.78	22.09
FDD12	707.5	1.4	One Rb Middle	22.92	22.17
FDD12	707.5	1.4	Half Rb Low	22.76	21.94
FDD12	707.5	1.4	Half Rb High	22.75	22.16
FDD12	707.5	1.4	Fullrb	21.84	21.08
FDD12	707.5	3	One Rb High	22.56	21.81
FDD12	707.5	3	One Rb Low	22.81	21.84
FDD12	707.5	3	One Rb Middle	22.56	22.03
FDD12	707.5	3	Half Rb Low	21.81	21.26
FDD12	707.5	3	Half Rb High	21.87	21.02
FDD12	707.5	3	Fullrb	21.78	20.89
FDD12	707.5	5	One Rb High	22.45	20.91
FDD12	707.5	5	One Rb Low	22.61	20.93
FDD12	707.5	5	One Rb Middle	22.70	21.08

FDD12	707.5	5	Half Rb Low	21.78	20.84
FDD12	707.5	5	Half Rb High	21.72	20.66
FDD12	707.5	5	Fullrb	21.74	20.92
FDD12	707.5	10	One Rb High	22.42	21.63
FDD12	707.5	10	One Rb Low	22.63	21.89
FDD12	707.5	10	One Rb Middle	22.88	22.15
FDD12	707.5	10	Half Rb Low	21.70	20.78
FDD12	707.5	10	Half Rb High	21.58	20.69
FDD12	707.5	10	Fullrb	21.62	20.71
FDD12	715.3	1.4	One Rb High	22.56	21.47
FDD12	715.3	1.4	One Rb Low	22.42	21.97
FDD12	715.3	1.4	One Rb Middle	22.76	21.76
FDD12	715.3	1.4	Half Rb Low	22.62	21.72
FDD12	715.3	1.4	Half Rb High	22.79	21.79
FDD12	715.3	1.4	Fullrb	21.68	20.78
FDD12	714.5	3	One Rb High	22.70	22.02
FDD12	714.5	3	One Rb Low	22.72	21.82
FDD12	714.5	3	One Rb Middle	22.51	22.19
FDD12	714.5	3	Half Rb Low	21.69	20.59
FDD12	714.5	3	Half Rb High	21.62	20.72
FDD12	714.5	3	Fullrb	21.62	20.67
FDD12	713.5	5	One Rb High	22.84	21.83
FDD12	713.5	5	One Rb Low	22.53	21.78
FDD12	713.5	5	One Rb Middle	22.70	21.79
FDD12	713.5	5	Half Rb Low	21.60	20.55
FDD12	713.5	5	Half Rb High	21.50	20.80
FDD12	713.5	5	Fullrb	21.73	20.81
FDD12	711	10	One Rb High	22.53	21.85

FDD12	711	10	One Rb Low	22.86	22.23
FDD12	711	10	One Rb Middle	22.78	21.83
FDD12	711	10	Half Rb Low	21.66	20.71
FDD12	711	10	Half Rb High	21.72	20.62
FDD12	711	10	Fullrb	21.63	20.71

LTE FDD 13

Band	Frequency(MHz)	BandWidth	RB size/offset	QPSK(dBm)	Q16(dBm)
FDD13	779.5	5	One Rb High	22.72	21.37
FDD13	779.5	5	One Rb Low	22.73	21.83
FDD13	779.5	5	One Rb Middle	22.54	21.37
FDD13	779.5	5	Half Rb Low	22.06	21.09
FDD13	779.5	5	Half Rb High	21.97	20.90
FDD13	779.5	5	Fullrb	22.07	20.89
FDD13	782	10	One Rb High	22.65	22.26
FDD13	782	10	One Rb Low	22.86	22.46
FDD13	782	10	One Rb Middle	22.91	22.47
FDD13	782	10	Half Rb Low	22.10	21.03
FDD13	782	10	Half Rb High	21.98	21.05
FDD13	782	10	Fullrb	22.00	21.06
FDD13	782	5	One Rb High	22.76	21.76
FDD13	782	5	One Rb Low	22.72	21.24
FDD13	782	5	One Rb Middle	22.66	21.02
FDD13	782	5	Half Rb Low	21.97	21.05
FDD13	782	5	Half Rb High	22.06	21.11
FDD13	782	5	Fullrb	22.05	21.18
FDD13	782	10	One Rb High	22.63	22.20
FDD13	782	10	One Rb Low	22.93	22.24
FDD13	782	10	One Rb Middle	22.85	22.32

FDD13	782	10	Half Rb Low	21.97	21.15
FDD13	782	10	Half Rb High	21.94	21.10
FDD13	782	10	Fullrb	21.96	20.99
FDD13	784.5	5	One Rb High	22.70	21.98
FDD13	784.5	5	One Rb Low	22.73	22.09
FDD13	784.5	5	One Rb Middle	22.97	22.06
FDD13	784.5	5	Half Rb Low	21.97	21.06
FDD13	784.5	5	Half Rb High	21.88	20.71
FDD13	784.5	5	Fullrb	21.91	20.89
FDD13	782	10	One Rb High	22.77	22.49
FDD13	782	10	One Rb Low	22.93	22.17
FDD13	782	10	One Rb Middle	22.85	22.50
FDD13	782	10	Half Rb Low	22.05	21.07
FDD13	782	10	Half Rb High	21.94	21.03
FDD13	782	10	Fullrb	21.96	21.08

LTE FDD 17

Band	Frequency(MHz)	BandWidth	RB size/offset	QPSK(dBm)	Q16(dBm)
FDD17	706.5	5	One Rb High	23.22	22.10
FDD17	706.5	5	One Rb Low	23.02	21.78
FDD17	706.5	5	One Rb Middle	22.81	21.64
FDD17	706.5	5	Half Rb Low	22.00	21.03
FDD17	706.5	5	Half Rb High	22.05	20.75
FDD17	706.5	5	Fullrb	22.06	20.90
FDD17	709	10	One Rb High	23.00	22.22
FDD17	709	10	One Rb Low	23.19	22.51
FDD17	709	10	One Rb Middle	23.19	22.70
FDD17	709	10	Half Rb Low	22.13	21.22
FDD17	709	10	Half Rb High	22.07	21.08

FDD17	709	10	Fullrb	21.97	20.99
FDD17	710	5	One Rb High	22.56	21.51
FDD17	710	5	One Rb Low	22.86	21.89
FDD17	710	5	One Rb Middle	22.89	21.76
FDD17	710	5	Half Rb Low	21.98	20.89
FDD17	710	5	Half Rb High	22.01	20.84
FDD17	710	5	Fullrb	21.89	21.07
FDD17	710	10	One Rb High	23.16	22.47
FDD17	710	10	One Rb Low	22.90	22.24
FDD17	710	10	One Rb Middle	23.06	22.49
FDD17	710	10	Half Rb Low	22.11	21.15
FDD17	710	10	Half Rb High	22.03	20.99
FDD17	710	10	Fullrb	22.01	21.00
FDD17	713.5	5	One Rb High	23.15	22.06
FDD17	713.5	5	One Rb Low	23.10	22.11
FDD17	713.5	5	One Rb Middle	22.89	22.01
FDD17	713.5	5	Half Rb Low	22.03	20.91
FDD17	713.5	5	Half Rb High	22.10	20.74
FDD17	713.5	5	Fullrb	21.94	20.96
FDD17	711	10	One Rb High	23.02	22.25
FDD17	711	10	One Rb Low	23.31	22.44
FDD17	711	10	One Rb Middle	23.15	22.11
FDD17	711	10	Half Rb Low	21.89	20.84
FDD17	711	10	Half Rb High	22.06	21.01
FDD17	711	10	Fullrb	21.96	20.90

LTE FDD 25

Band	Frequency(MHz)	BandWidth	RB size/offset	QPSK(dBm)	Q16(dBm)
FDD25	1850.7	1.4	One Rb High	21.92	21.06

FDD25	1850.7	1.4	One Rb Low	21.96	21.00
FDD25	1850.7	1.4	One Rb Middle	21.80	21.44
FDD25	1850.7	1.4	Half Rb Low	21.88	20.47
FDD25	1850.7	1.4	Half Rb High	21.90	20.99
FDD25	1850.7	1.4	Fullrb	21.08	19.90
FDD25	1851.5	3	One Rb High	21.98	20.94
FDD25	1851.5	3	One Rb Low	21.79	20.66
FDD25	1851.5	3	One Rb Middle	21.79	20.41
FDD25	1851.5	3	Half Rb Low	20.91	20.15
FDD25	1851.5	3	Half Rb High	21.01	20.07
FDD25	1851.5	3	Fullrb	20.96	19.90
FDD25	1852.5	5	One Rb High	21.89	20.75
FDD25	1852.5	5	One Rb Low	21.71	20.62
FDD25	1852.5	5	One Rb Middle	21.65	20.71
FDD25	1852.5	5	Half Rb Low	20.93	20.06
FDD25	1852.5	5	Half Rb High	20.94	20.13
FDD25	1852.5	5	Fullrb	20.88	19.96
FDD25	1855	10	One Rb High	21.93	21.01
FDD25	1855	10	One Rb Low	22.13	20.97
FDD25	1855	10	One Rb Middle	22.08	20.81
FDD25	1855	10	Half Rb Low	20.91	20.18
FDD25	1855	10	Half Rb High	21.00	19.98
FDD25	1855	10	Fullrb	20.97	20.08
FDD25	1857.5	15	One Rb High	21.92	21.15
FDD25	1857.5	15	One Rb Low	21.88	21.37
FDD25	1857.5	15	One Rb Middle	21.81	21.30
FDD25	1857.5	15	Half Rb Low	21.24	21.23
FDD25	1857.5	15	Half Rb High	21.68	21.32

FDD25	1857.5	15	Fullrb	20.91	19.98
FDD25	1860	20	One Rb High	21.85	21.34
FDD25	1860	20	One Rb Low	22.11	21.51
FDD25	1860	20	One Rb Middle	22.30	21.94
FDD25	1860	20	Half Rb Low	21.06	19.95
FDD25	1860	20	Half Rb High	21.09	19.97
FDD25	1860	20	Fullrb	20.88	20.08
FDD25	1882.5	1.4	One Rb High	21.55	20.24
FDD25	1882.5	1.4	One Rb Low	21.52	20.28
FDD25	1882.5	1.4	One Rb Middle	21.81	20.83
FDD25	1882.5	1.4	Half Rb Low	21.70	20.67
FDD25	1882.5	1.4	Half Rb High	21.73	20.53
FDD25	1882.5	1.4	Fullrb	20.79	19.84
FDD25	1882.5	3	One Rb High	21.52	20.18
FDD25	1882.5	3	One Rb Low	21.57	20.85
FDD25	1882.5	3	One Rb Middle	21.50	20.30
FDD25	1882.5	3	Half Rb Low	20.75	19.92
FDD25	1882.5	3	Half Rb High	20.76	19.91
FDD25	1882.5	3	Fullrb	20.78	19.94
FDD25	1882.5	5	One Rb High	21.57	20.73
FDD25	1882.5	5	One Rb Low	21.56	20.64
FDD25	1882.5	5	One Rb Middle	21.60	20.68
FDD25	1882.5	5	Half Rb Low	20.70	19.63
FDD25	1882.5	5	Half Rb High	20.82	19.80
FDD25	1882.5	5	Fullrb	20.75	19.69
FDD25	1882.5	10	One Rb High	21.72	20.70
FDD25	1882.5	10	One Rb Low	21.84	20.85
FDD25	1882.5	10	One Rb Middle	21.80	20.87

FDD25	1882.5	10	Half Rb Low	20.81	19.90
FDD25	1882.5	10	Half Rb High	20.76	19.94
FDD25	1882.5	10	Fullrb	20.81	19.74
FDD25	1882.5	15	One Rb High	21.61	20.87
FDD25	1882.5	15	One Rb Low	21.75	21.10
FDD25	1882.5	15	One Rb Middle	21.62	20.88
FDD25	1882.5	15	Half Rb Low	21.26	21.26
FDD25	1882.5	15	Half Rb High	20.91	20.85
FDD25	1882.5	15	Fullrb	20.74	19.73
FDD25	1882.5	20	One Rb High	21.57	20.99
FDD25	1882.5	20	One Rb Low	21.98	21.46
FDD25	1882.5	20	One Rb Middle	21.73	21.25
FDD25	1882.5	20	Half Rb Low	20.91	19.90
FDD25	1882.5	20	Half Rb High	20.76	19.73
FDD25	1882.5	20	Fullrb	20.80	19.79
FDD25	1914.3	1.4	One Rb High	21.34	20.04
FDD25	1914.3	1.4	One Rb Low	21.40	20.60
FDD25	1914.3	1.4	One Rb Middle	21.46	20.49
FDD25	1914.3	1.4	Half Rb Low	21.44	20.35
FDD25	1914.3	1.4	Half Rb High	21.33	20.32
FDD25	1914.3	1.4	Fullrb	20.54	19.52
FDD25	1913.5	3	One Rb High	21.30	19.97
FDD25	1913.5	3	One Rb Low	21.59	20.08
FDD25	1913.5	3	One Rb Middle	21.29	20.10
FDD25	1913.5	3	Half Rb Low	20.51	19.64
FDD25	1913.5	3	Half Rb High	20.50	19.74
FDD25	1913.5	3	Fullrb	20.55	19.59
FDD25	1912.5	5	One Rb High	21.37	20.10

FDD25	1912.5	5	One Rb Low	21.46	20.14
FDD25	1912.5	5	One Rb Middle	21.45	20.12
FDD25	1912.5	5	Half Rb Low	20.61	19.57
FDD25	1912.5	5	Half Rb High	20.46	19.19
FDD25	1912.5	5	Fullrb	20.47	19.48
FDD25	1910	10	One Rb High	21.45	20.10
FDD25	1910	10	One Rb Low	21.51	20.48
FDD25	1910	10	One Rb Middle	21.51	20.47
FDD25	1910	10	Half Rb Low	20.55	19.44
FDD25	1910	10	Half Rb High	20.58	19.46
FDD25	1910	10	Fullrb	20.45	19.62
FDD25	1907.5	15	One Rb High	21.43	20.84
FDD25	1907.5	15	One Rb Low	21.41	20.87
FDD25	1907.5	15	One Rb Middle	21.42	20.78
FDD25	1907.5	15	Half Rb Low	20.82	20.82
FDD25	1907.5	15	Half Rb High	20.72	20.75
FDD25	1907.5	15	Fullrb	20.49	19.55
FDD25	1905	20	One Rb High	21.42	21.08
FDD25	1905	20	One Rb Low	22.04	21.46
FDD25	1905	20	One Rb Middle	21.54	21.00
FDD25	1905	20	Half Rb Low	20.65	19.74
FDD25	1905	20	Half Rb High	20.57	19.53
FDD25	1905	20	Fullrb	20.57	19.54

LTE FDD 26A

Band	Frequency(MHz)	BandWidth	RB size/offset	QPSK(dBm)	Q16(dBm)
FDD26A	814.7	1.4	One Rb High	22.61	21.79
FDD26A	814.7	1.4	One Rb Low	22.54	21.62
FDD26A	814.7	1.4	One Rb Middle	22.54	21.62

FDD26A	814.7	1.4	Half Rb Low	22.47	21.73
FDD26A	814.7	1.4	Half Rb High	22.54	21.58
FDD26A	814.7	1.4	Fullrb	21.61	20.64
FDD26A	815.5	3	One Rb High	22.57	21.99
FDD26A	815.5	3	One Rb Low	22.67	21.75
FDD26A	815.5	3	One Rb Middle	22.55	21.57
FDD26A	815.5	3	Half Rb Low	21.62	20.69
FDD26A	815.5	3	Half Rb High	21.68	20.76
FDD26A	815.5	3	Fullrb	21.67	20.77
FDD26A	816.5	5	One Rb High	22.52	21.86
FDD26A	816.5	5	One Rb Low	22.83	21.85
FDD26A	816.5	5	One Rb Middle	22.48	21.83
FDD26A	816.5	5	Half Rb Low	21.68	20.83
FDD26A	816.5	5	Half Rb High	21.71	20.85
FDD26A	816.5	5	Fullrb	21.80	20.74
FDD26A	819	1.4	One Rb High	22.41	21.89
FDD26A	819	1.4	One Rb Low	22.79	21.95
FDD26A	819	1.4	One Rb Middle	22.76	21.99
FDD26A	819	1.4	Half Rb Low	22.64	21.54
FDD26A	819	1.4	Half Rb High	22.61	21.50
FDD26A	819	1.4	Fullrb	21.83	20.98
FDD26A	819	3	One Rb High	22.41	22.04
FDD26A	819	3	One Rb Low	22.85	21.81
FDD26A	819	3	One Rb Middle	22.55	21.69
FDD26A	819	3	Half Rb Low	21.78	20.98
FDD26A	819	3	Half Rb High	21.67	20.96
FDD26A	819	3	Fullrb	21.82	20.94
FDD26A	819	5	One Rb High	22.29	21.00

FDD26A	819	5	One Rb Low	22.51	21.12
FDD26A	819	5	One Rb Middle	22.61	21.12
FDD26A	819	5	Half Rb Low	21.78	20.69
FDD26A	819	5	Half Rb High	21.61	20.76
FDD26A	819	5	Fullrb	21.59	20.76
FDD26A	819	10	One Rb High	22.65	21.98
FDD26A	819	10	One Rb Low	22.82	21.83
FDD26A	819	10	One Rb Middle	22.71	21.98
FDD26A	819	10	Half Rb Low	21.73	20.78
FDD26A	819	10	Half Rb High	21.73	20.82
FDD26A	819	10	Fullrb	21.73	20.78
FDD26A	823.3	1.4	One Rb High	22.62	21.88
FDD26A	823.3	1.4	One Rb Low	22.50	21.50
FDD26A	823.3	1.4	One Rb Middle	22.57	21.69
FDD26A	823.3	1.4	Half Rb Low	22.65	21.80
FDD26A	823.3	1.4	Half Rb High	22.62	21.79
FDD26A	823.3	1.4	Fullrb	21.75	20.92
FDD26A	822.5	3	One Rb High	22.66	21.93
FDD26A	822.5	3	One Rb Low	22.63	21.83
FDD26A	822.5	3	One Rb Middle	22.64	22.12
FDD26A	822.5	3	Half Rb Low	21.80	20.86
FDD26A	822.5	3	Half Rb High	21.75	21.00
FDD26A	822.5	3	Fullrb	21.69	20.54
FDD26A	821.5	5	One Rb High	22.49	21.83
FDD26A	821.5	5	One Rb Low	22.59	21.80
FDD26A	821.5	5	One Rb Middle	22.54	21.83
FDD26A	821.5	5	Half Rb Low	21.58	20.43
FDD26A	821.5	5	Half Rb High	21.71	20.73

FDD26A	821.5	5	Fullrb	21.70	20.64
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LTE TDD 41

Band	Frequency(MHz)	BandWidth	RB size/offset	QPSK(dBm)	Q16(dBm)
TDD41	2537.5	5	One Rb High	21.07	20.17
TDD41	2537.5	5	One Rb Low	20.78	20.15
TDD41	2537.5	5	One Rb Middle	20.87	20.15
TDD41	2537.5	5	Half Rb Low	20.08	19.16
TDD41	2537.5	5	Half Rb High	20.12	19.26
TDD41	2537.5	5	Fullrb	20.09	19.00
TDD41	2540	10	One Rb High	21.29	20.11
TDD41	2540	10	One Rb Low	21.31	20.30
TDD41	2540	10	One Rb Middle	21.35	20.30
TDD41	2540	10	Half Rb Low	20.14	19.11
TDD41	2540	10	Half Rb High	20.14	19.13
TDD41	2540	10	Fullrb	20.07	19.06
TDD41	2542.5	15	One Rb High	21.22	20.32
TDD41	2542.5	15	One Rb Low	21.14	20.38
TDD41	2542.5	15	One Rb Middle	21.04	20.13
TDD41	2542.5	15	Half Rb Low	20.36	20.36
TDD41	2542.5	15	Half Rb High	20.53	20.53
TDD41	2542.5	15	Fullrb	20.09	19.20
TDD41	2545	20	One Rb High	21.32	20.44
TDD41	2545	20	One Rb Low	21.22	20.37
TDD41	2545	20	One Rb Middle	21.13	20.25
TDD41	2545	20	Half Rb Low	20.21	19.19
TDD41	2545	20	Half Rb High	20.21	19.22
TDD41	2545	20	Fullrb	20.16	19.24
TDD41	2593	5	One Rb High	21.15	20.70

TDD41	2593	5	One Rb Low	21.14	20.33
TDD41	2593	5	One Rb Middle	21.00	20.26
TDD41	2593	5	Half Rb Low	20.17	19.08
TDD41	2593	5	Half Rb High	20.22	19.22
TDD41	2593	5	Fullrb	20.21	19.15
TDD41	2593	10	One Rb High	21.25	20.04
TDD41	2593	10	One Rb Low	21.48	20.48
TDD41	2593	10	One Rb Middle	21.30	20.48
TDD41	2593	10	Half Rb Low	20.35	19.39
TDD41	2593	10	Half Rb High	20.19	19.30
TDD41	2593	10	Fullrb	20.28	19.23
TDD41	2593	15	One Rb High	21.14	20.22
TDD41	2593	15	One Rb Low	21.50	20.50
TDD41	2593	15	One Rb Middle	21.08	20.33
TDD41	2593	15	Half Rb Low	20.80	20.79
TDD41	2593	15	Half Rb High	20.37	20.39
TDD41	2593	15	Fullrb	20.47	19.37
TDD41	2593	20	One Rb High	21.18	20.28
TDD41	2593	20	One Rb Low	21.52	21.01
TDD41	2593	20	One Rb Middle	21.44	20.45
TDD41	2593	20	Half Rb Low	20.42	19.43
TDD41	2593	20	Half Rb High	20.05	19.19
TDD41	2593	20	Fullrb	20.31	19.24
TDD41	2652.5	5	One Rb High	20.99	20.27
TDD41	2652.5	5	One Rb Low	20.84	20.20
TDD41	2652.5	5	One Rb Middle	20.83	20.09
TDD41	2652.5	5	Half Rb Low	20.05	19.10
TDD41	2652.5	5	Half Rb High	19.91	19.04

TDD41	2652.5	5	Fullrb	19.91	18.98
TDD41	2650	10	One Rb High	21.12	20.01
TDD41	2650	10	One Rb Low	21.05	20.14
TDD41	2650	10	One Rb Middle	21.20	20.15
TDD41	2650	10	Half Rb Low	19.96	19.00
TDD41	2650	10	Half Rb High	20.13	19.15
TDD41	2650	10	Fullrb	20.15	18.91
TDD41	2647.5	15	One Rb High	20.83	20.09
TDD41	2647.5	15	One Rb Low	20.89	20.66
TDD41	2647.5	15	One Rb Middle	20.88	20.21
TDD41	2647.5	15	Half Rb Low	20.62	20.61
TDD41	2647.5	15	Half Rb High	20.09	20.01
TDD41	2647.5	15	Fullrb	19.99	19.01
TDD41	2645	20	One Rb High	21.11	20.20
TDD41	2645	20	One Rb Low	21.52	20.50
TDD41	2645	20	One Rb Middle	21.14	20.25
TDD41	2645	20	Half Rb Low	20.20	19.23
TDD41	2645	20	Half Rb High	19.95	18.93
TDD41	2645	20	Fullrb	20.14	19.09

6.1.3 Radiated

6.1.3.1 Description

This is the test for the maximum radiated power from the EUT.

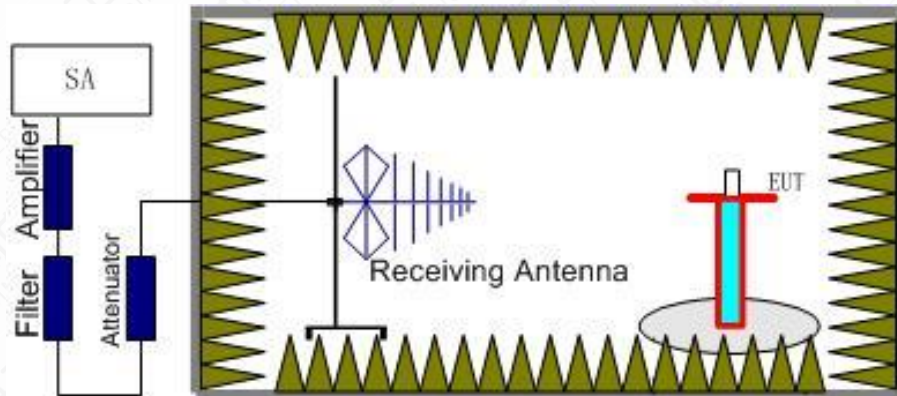
Rule Part 24.232(b) specifies, "Mobile/portable stations are limited to 2 watts e.i.r.p. Peak power" and 24.232(c) specifies that "Peak transmit power must be measured over any interval of continuous transmission using instrumentation calibrated in terms of an rms-equivalent voltage."

Rule Part 27.50(d) specifies "Fixed, mobile, and portable (handheld) stations operating in the 1710–1755 MHz band are limited to 1 watt EIRP".

Rule Part 27.50(h)(2) specifies "Mobile stations are limited to 2.0 watts EIRP.".

Rule Part 27.50(c) specifies "Portable stations (hand-held de-vices) are limited to 3 watts ERP."

6.1.3.2 Method of Measurement

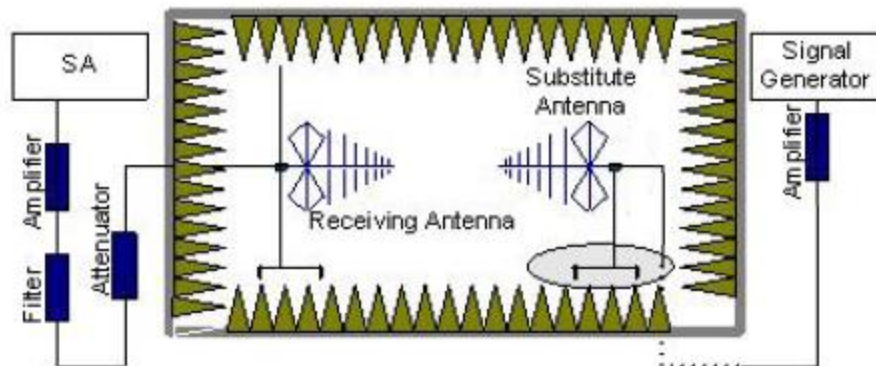


The measurements procedures in TIA-603E-2016 are used.

EUT was placed on a 1.5 meter high non-conductive stand at a 3 meter test distance from the receive antenna. A receiving antenna was placed on the antenna mast 3 meters from the EUT for emission measurements. The height of receiving antenna is 1.5m. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the EUT through 360° and adjusting the receiving antenna polarization. The radiated emission measurements of all transmit frequencies in three channels (High, Middle, Low) were measured with peak detector.

The EUT is then put into continuously transmitting mode at its maximum power level during the test. And the maximum value of the receiver should be recorded as (Pr).

The EUT shall be replaced by a substitution antenna. The test setup refers to figure below.



In the chamber, a substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power (PMea) is applied to the input of the substitution antenna. Adjust the level of the signal generator output until the value of the receiver reaches the previously recorded (Pr). The power of signal source (PMea) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.

An amplifier should be connected to the Signal Source output port. And the cable should be connected between the amplifier and the substitution antenna.

The cable loss (Pcl), the substitution antenna Gain (Ga) and the amplifier Gain (PAG) should be recorded after test.

The measurement results are obtained as described below:

$$\text{Power (EIRP)} = \text{PMea} + \text{PAG} - \text{Pcl} + \text{Ga}$$

This value is EIRP since the measurement is calibrated using an antenna of known gain (unit dBi) and known input power.

ERP can be calculated from EIRP by subtracting the gain of the dipole, ERP = EIRP -2.15dBi.

6.1.3.3 Measurement result

LTE Band 2- EIRP 24. 232(b)

Limits: ≤33dBm (2W)

LTE Band 2_1.4MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1850.7	32.58	33.00	H
1880	32.27	33.00	H
1909.3	32.09	33.00	H

LTE Band 2_3MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1851.5	32.46	33.00	H
1880	32.29	33.00	H
1908.5	32.05	33.00	H

LTE Band 2_5MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1852.5	32.69	33.00	H
1880	32.1	33.00	H
1907.5	32.02	33.00	H

LTE Band 2_10MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1855	32.74	33.00	H
1880	32.32	33.00	H
1905	32.1	33.00	H

LTE Band 2_15MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1857.5	32.43	33.00	H
1880	32.29	33.00	H
1902.5	32.18	33.00	H

LTE Band 2_20 MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1860	32.78	33.00	H
1880	32.32	33.00	H
1900	32.51	33.00	H

LTE Band 2_1.4MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1850.7	31.84	33.00	H
1880	32.55	33.00	H
1909.3	31.28	33.00	H

LTE Band 2_3MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1851.5	32.1	33.00	H

1880	31.94	33.00	H
1908.5	31.36	33.00	H

LTE Band 2_5MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1852.5	31.6	33.00	H
1880	30.88	33.00	H
1907.5	31.18	33.00	H

LTE Band 2_10MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1855	31.93	33.00	H
1880	31.77	33.00	H
1905	31.62	33.00	H

LTE Band 2_15MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1857.5	32.34	33.00	H
1880	31.81	33.00	H
1902.5	31.52	33.00	H

LTE Band 2_20 MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1860	32.04	33.00	H
1880	31.48	33.00	H
1900	31.76	33.00	H

LTE Band 4- EIRP 27.50(d)

Limits: ≤30dBm (1W)

LTE Band 4_1.4MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1710.7	28.15	30.00	H
1732.5	28.44	30.00	H
1754.3	28.23	30.00	H

LTE Band 4_3MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1711.5	28.21	30.00	H
1732.5	28.26	30.00	H
1753.5	28.22	30.00	H

LTE Band 4_5MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1712.5	28.15	30.00	H
1732.5	28.2	30.00	H
1752.5	28.26	30.00	H

LTE Band 4_10MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1715	28.14	30.00	H
1732.5	28.41	30.00	H

1750	28.34	30.00	H
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LTE Band 4_15MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1717.5	28.21	30.00	H
1732.5	28.46	30.00	H
1747.5	28.42	30.00	H

LTE Band 4_20MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1720	28.64	30.00	H
1732.5	28.32	30.00	H
1745	28.53	30.00	H

LTE Band 4_1.4MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1710.7	27.25	30.00	H
1732.5	27.82	30.00	H
1754.3	27.18	30.00	H

LTE Band 4_3MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1711.5	27.72	30.00	H
1732.5	27.67	30.00	H
1753.5	27.56	30.00	H

LTE Band 4_5MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1712.5	27.57	30.00	H
1732.5	26.84	30.00	H
1752.5	27.35	30.00	H

LTE Band 4_10MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1715	27.3	30.00	H
1732.5	27	30.00	H
1750.5	27.64	30.00	H

LTE Band 4_15MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1717.5	27.61	30.00	H
1732.5	27.86	30.00	H
1747.5	28.1	30.00	H

LTE Band 4_20MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1720	27.63	30.00	H
1732.5	27.64	30.00	H
1745	27.77	30.00	H

LTE Band 5- ERP/EIRP 22.913(a)
Limits: ≤38.45dBm (7W)

LTE Band 5_1.4MHz_QPSK

Frequency(MHz)	EIRP(dBm)	ERP(dBm)	Limit(dBm)	Polarization
824.70	30.8	28.65	38.45	H
836.50	30.71	28.56	38.45	H
848.30	30.56	28.41	38.45	H

LTE Band 5_3MHz_QPSK

Frequency(MHz)	EIRP(dBm)	ERP(dBm)	Limit(dBm)	Polarization
825.50	30.65	28.5	38.45	H
836.50	30.71	28.56	38.45	H
847.50	30.51	28.36	38.45	H

LTE Band 5_5MHz_QPSK

Frequency(MHz)	EIRP(dBm)	ERP(dBm)	Limit(dBm)	Polarization
826.50	30.74	28.59	38.45	H
836.50	30.48	28.33	38.45	H
846.50	30.73	28.58	38.45	H

LTE Band 5_10MHz_QPSK

Frequency(MHz)	EIRP(dBm)	ERP(dBm)	Limit(dBm)	Polarization
829.00	30.94	28.79	38.45	H
836.50	30.77	28.62	38.45	H
844.00	30.61	28.46	38.45	H

LTE Band 5_1.4MHz_16QAM

Frequency(MHz)	EIRP(dBm)	ERP(dBm)	Limit(dBm)	Polarization
824.70	29.82	27.67	38.45	H
836.50	30.05	27.9	38.45	H
848.30	27.99	27.62	38.45	H

LTE Band 5_3MHz_16QAM

Frequency(MHz)	EIRP(dBm)	ERP(dBm)	Limit(dBm)	Polarization
825.50	30.02	27.87	38.45	H
836.50	30.39	28.24	38.45	H
847.50	29.76	27.61	38.45	H

LTE Band 5_5MHz_16QAM

Frequency(MHz)	EIRP(dBm)	ERP(dBm)	Limit(dBm)	Polarization
826.50	29.9	27.75	38.45	H
836.50	28.95	26.8	38.45	H
846.50	29.69	27.54	38.45	H

LTE Band 5_10MHz_16QAM

Frequency(MHz)	EIRP(dBm)	ERP(dBm)	Limit(dBm)	Polarization
829.00	30.12	27.97	38.45	H
836.50	30.07	27.92	38.45	H
844.00	29.8	27.65	38.45	H

LTE Band 7- EIRP 27.50(h)(2)
Limits: ≤33 dBm (2W)

LTE Band 7_5MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2502.5	31.12	33.00	H
2535	31.95	33.00	H
2567.5	32.36	33.00	H

LTE Band 7_10MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2505	32.33	33.00	H
2535	32.22	33.00	H
2565	32.4	33.00	H

LTE Band 7_15MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2507.5	32.32	33.00	H
2535	32.23	33.00	H
2562.5	32.53	33.00	H

LTE Band 7_20MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2510	32.48	33.00	H
2535	32.16	33.00	H
2560	32.46	33.00	H

LTE Band 7_5MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2502.5	31.39	33.00	H
2535	30.64	33.00	H
2567.5	31.57	33.00	H

LTE Band 7_10MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2505	31.4	33.00	H
2535	31.91	33.00	H
2565	31.7	33.00	H

LTE Band 7_15MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2507.5	31.61	33.00	H
2535	32.03	33.00	H
2562.5	32.46	33.00	H

LTE Band 7_20MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2510	31.78	33.00	H
2535	31.45	33.00	H
2560	31.72	33.00	H

LTE Band 12- ERP 27.50(c)
Limits: ≤38.45dBm (7W)

LTE Band 12_1.4MHz_QPSK

Frequency(MHz)	ERP(dBm)	Limit(dBm)	Polarization
699.7	28.13	38.45	H
707.5	28.27	38.45	H
715.3	28.14	38.45	H

LTE Band 12_3MHz_QPSK

Frequency(MHz)	ERP(dBm)	Limit(dBm)	Polarization
700.5	28.14	38.45	H
707.5	28.16	38.45	H
714.5	28.07	38.45	H

LTE Band 12_5MHz_QPSK

Frequency(MHz)	ERP(dBm)	Limit(dBm)	Polarization
701.5	28.37	38.45	H
707.5	28.05	38.45	H
713.5	28.19	38.45	H

LTE Band 12_10MHz_QPSK

Frequency(MHz)	ERP(dBm)	Limit(dBm)	Polarization
704	28.15	38.45	H
707.5	28.23	38.45	H
711	28.21	38.45	H

LTE Band 12_1.4MHz_16QAM

Frequency(MHz)	ERP(dBm)	Limit(dBm)	Polarization
699.7	27.37	38.45	H
707.5	27.28	38.45	H
715.3	27.32	38.45	H

LTE Band 12_3MHz_16QAM

Frequency(MHz)	ERP(dBm)	Limit(dBm)	Polarization
700.5	27.58	38.45	H
707.5	27.38	38.45	H
714.5	27.54	38.45	H

LTE Band 12_5MHz_16QAM

Frequency(MHz)	ERP(dBm)	Limit(dBm)	Polarization
701.5	27.15	38.45	H
707.5	26.43	38.45	H
713.5	27.18	38.45	H

LTE Band 12_10MHz_16QAM

Frequency(MHz)	ERP(dBm)	Limit(dBm)	Polarization
704	27.64	38.45	H
707.5	27.5	38.45	H
711	27.58	38.45	H

LTE Band 13- ERP 27.50(c)
Limits: ≤38.45dBm (7W)

LTE Band 13_5MHz_QPSK

Frequency(MHz)	ERP(dBm)	Limit(dBm)	Polarization
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779.5	28.08	38.45	H
782	28.11	38.45	H
784.5	28.32	38.45	H

LTE Band 13_10MHz_QPSK

Frequency(MHz)	ERP(dBm)	Limit(dBm)	Polarization
782	28.26	38.45	H
782	28.28	38.45	H
782	28.28	38.45	H

LTE Band 13_5MHz_16QAM

Frequency(MHz)	ERP(dBm)	Limit(dBm)	Polarization
779.5	27.18	38.45	H
782	27.11	38.45	H
784.5	27.44	38.45	H

LTE Band 13_10MHz_16QAM

Frequency(MHz)	ERP(dBm)	Limit(dBm)	Polarization
782	27.82	38.45	H
782	27.67	38.45	H
782	27.85	38.45	H

LTE Band 17- ERP 27.50(c)(10)
Limits: ≤34.77dBm (3W)

LTE Band 17_5MHz_QPSK

Frequency(MHz)	ERP(dBm)	Limit(dBm)	Polarization
706.5	28.57	34.77	H
710	28.24	34.77	H
713.5	28.5	34.77	H

LTE Band 17_10MHz_QPSK

Frequency(MHz)	ERP(dBm)	Limit(dBm)	Polarization
709	28.54	34.77	H
710	28.51	34.77	H
711	28.66	34.77	H

LTE Band 17_5MHz_16QAM

Frequency(MHz)	ERP(dBm)	Limit(dBm)	Polarization
706.5	27.45	34.77	H
710	27.24	34.77	H
713.5	27.46	34.77	H

LTE Band 17_10MHz_16QAM

Frequency(MHz)	ERP(dBm)	Limit(dBm)	Polarization
709	28.05	34.77	H
710	27.84	34.77	H

711	27.79	34.77	H
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LTE Band 25- EIRP 24.229(c)
Limits: ≤30dBm (1W)
LTE Band 25_1.4MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1850.7	27.96	30.00	H
1882.5	27.81	30.00	H
1914.3	27.46	30.00	H

LTE Band 25_3MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1851.5	27.98	30.00	H
1882.5	27.57	30.00	H
1913.5	27.59	30.00	H

LTE Band 25_5MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1852.5	27.89	30.00	H
1882.5	27.6	30.00	H
1912.5	27.46	30.00	H

LTE Band 25_10MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1855	28.13	30.00	H
1882.5	27.84	30.00	H
1910	27.51	30.00	H

LTE Band 25_15MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1857.5	27.92	30.00	H
1882.5	27.75	30.00	H
1907.5	27.43	30.00	H

LTE Band 25_20MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1860	28.3	30.00	H
1882.5	27.98	30.00	H
1905	28.04	30.00	H

LTE Band 25_1.4MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1850.7	27.44	30.00	H
1882.5	26.83	30.00	H
1914.3	26.6	30.00	H

LTE Band 25_3MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1851.5	26.94	30.00	H
1882.5	26.85	30.00	H
1913.5	26.1	30.00	H

LTE Band 25_5MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1852.5	26.87	30.00	H
1882.5	26.85	30.00	H
1912.5	26.09	30.00	H

LTE Band 25_10MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1855	26.75	30.00	H
1882.5	26.73	30.00	H
1910	26.14	30.00	H

LTE Band 25_15MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1857.5	27.37	30.00	H
1882.5	27.26	30.00	H
1907.5	26.87	30.00	H

LTE Band 25_20MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
1860	27.94	30.00	H
1882.5	27.46	30.00	H
1905	27.46	30.00	H

LTE Band 26(part90)- ERP 22.913(a)

Limits: ≤30dBm (1W)

LTE Band 26(part90)_1.4MHz_QPSK

Frequency(MHz)	ERP(dBm)	Limit(dBm)	Polarization
814.7	27.96	30.00	H
819.0	28.14	30.00	H
823.3	28	30.00	H

LTE Band 26(part90)_3MHz_QPSK

Frequency(MHz)	ERP(dBm)	Limit(dBm)	Polarization
815.5	28.02	30.00	H
819.0	28.2	30.00	H
822.5	28.01	30.00	H

LTE Band 26(part90)_5MHz_QPSK

Frequency(MHz)	ERP(dBm)	Limit(dBm)	Polarization
816.5	28.18	30.00	H
819.0	27.96	30.00	H
821.5	27.94	30.00	H

LTE Band 26(part90)_10MHz_QPSK

Frequency(MHz)	ERP(dBm)	Limit(dBm)	Polarization
819.0	28.17	30.00	H

LTE Band 26(part90)_1.4MHz_16QAM

Frequency(MHz)	ERP(dBm)	Limit(dBm)	Polarization
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814.7	27.14	30.00	H
819.0	27.34	30.00	H
823.3	27.23	30.00	H

LTE Band 26(part90)_3MHz_16QAM

Frequency(MHz)	ERP(dBm)	Limit(dBm)	Polarization
815.5	27.34	30.00	H
819.0	27.39	30.00	H
822.5	27.47	30.00	H

LTE Band 26(part90)_5MHz_16QAM

Frequency(MHz)	ERP(dBm)	Limit(dBm)	Polarization
816.5	27.21	30.00	H
819.0	26.47	30.00	H
821.5	27.18	30.00	H

LTE Band 26(part90)_10MHz_16QAM

Frequency(MHz)	ERP(dBm)	Limit(dBm)	Polarization
819.0	27.33	30.00	H

LTE Band 41- EIRP 27.50(h)(2)
Limits: ≤33 dBm (2W)

LTE Band 41_5MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2498.5	32.07	33.00	H
2593	32.15	33.00	H
2687.5	31.99	33.00	H

LTE Band 41_10MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2501	32.35	33.00	H
2593	32.48	33.00	H
2685	32.2	33.00	H

LTE Band 41_15MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2503.5	32.22	33.00	H
2593	32.5	33.00	H
2682.5	31.89	33.00	H

LTE Band 41_20MHz_QPSK

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2506	32.32	33.00	H
2593	32.52	33.00	H
2680	32.52	33.00	H

LTE Band 41_5MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2498.5	31.17	33.00	H
2593	31.7	33.00	H
2687.5	31.27	33.00	H

LTE Band 41_10MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2501	31.3	33.00	H
2593	31.48	33.00	H
2685	31.15	33.00	H

LTE Band 41_15MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2503.5	31.53	33.00	H
2593	31.79	33.00	H
2682.5	31.66	33.00	H

LTE Band 41_20MHz_16QAM

Frequency(MHz)	EIRP(dBm)	Limit(dBm)	Polarization
2506	31.44	33.00	H
2593	32.01	33.00	H
2680	31.5	33.00	H

ANALYZER SETTINGS:

RBW = VBW = 8MHz for occupied bandwidths equal to or less than 5MHz.

RBW = VBW = 20MHz for occupied bandwidths equal to or greater than 10MHz.

Annex A: Revised History

Version	Revised Content
V00	Initial
V01	Add the test lab's registered MRA test site number

Annex B: Accreditation Certificate



Accredited Laboratory

A2LA has accredited

**INDUSTRIAL INTERNET INNOVATION CENTER
(SHANGHAI) CO., LTD.**
Shanghai, People's Republic of China

for technical competence in the field of
Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 12th day of April 2021.



Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 3682.01
Valid to February 28, 2023

For the tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.

END OF REPORT