FCC Test Report

Report No.: AGC00408210203FE07

FCC ID	:	2AL95-M7
APPLICATION PURPOSE	:	Original Equipment
PRODUCT DESIGNATION	:	Smart phone
BRAND NAME	:	AGM
MODEL NAME	:	M7, M7 SE, M7 PRO
APPLICANT	:	AGM Group Limited
DATE OF ISSUE	:	Apr. 25, 2021
STANDARD(S)	:	FCC Part 22 Rules FCC Part 24 Rules FCC Part 27 Rules
REPORT VERSION	:	V1.0

***A**ttestation of **G**lobal **C**ompliance (Shenzhen) Co., Ltd.*

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REPORT REVISE RECORD

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Apr. 25, 2021	Valid	Initial Release

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VERIFICATION OF COMPLIANCE

Applicant	AGM Group Limited
Address	Level 5, Development Bank of Samoa Building. Beach Road, Apia, Samoa
Manufacturer	SHENZHEN AIJIEMO SCIENCE AND TECHNOLOGY CO.,LTD
Address	1st Floor101 and Floor 201 Building A2,Huafeng Century Technology Park,Nanchang Community xixiang Baoan District,Shenzhen China
Factory	SHENZHEN AIJIEMO SCIENCE AND TECHNOLOGY CO.,LTD
Address	1st Floor101 and Floor 201 Building A2,Huafeng Century Technology Park,Nanchang Community xixiang Baoan District,Shenzhen China
Product Designation	Smart phone
Brand Name	AGM
Test Model	M7
Series Model	M7 SE, M7 PRO
Difference Description	All the same except the model name.
Date of test	Feb. 06, 2021~Apr. 25, 2021
Deviation	No any deviation from the test method.
Condition of Test Sample	Normal

WE HEREBY CERTIFY THAT:

The above equipment was tested by Attestation of Global Compliance(Shenzhen) Co., Ltd. The data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI/TIA-603-E-2016. The sample tested as described in this report is in compliance with the FCC Rules Part 22, 24, 27. The test results of this report relate only to the tested sample identified in this report.

Prepared By

Donjon Huang
(Project Engineer) Apr. 25, 2021

Reviewed By

Calvin Liu
(Reviewer) Apr. 25, 2021

Approved By

Forrest Lei
Authorized Officer Apr. 25, 2021

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1. GENERAL INFORMATION

1.1 PRODUCT DESCRIPTION

A major technical description of EUT is described as following:

Radio System Type:	LTE FUNCTION			
Frequency Bands:	☒FDD Band 2	☒FDD Band 4	☒FDD Band 5	☒FDD Band 7
	☐FDD Band 12	☐FDD Band 13	☐FDD Band 14	☐FDD Band 17
	☐FDD Band 30	☐TDD Band 40	☐TDD Band 41	☐TDD Band 66
	☐FDD Band 71	(U.S. Bands)		
	☒FDD Band 1	☒FDD Band 3	☒FDD Band 7	☒FDD Band 8
	☒FDD Band 20	☐FDD Band 28	☐TDD Band 38	☐TDD Band 39
	(Non-U.S. Bands)			
Transmission Frequency Range:	LTE-Band 2	1850.7 MHz – 1909.3 MHz---(1.4MHz)		
		1851.5 MHz – 1908.5 MHz---(3.0MHz)		
		1852.5 MHz – 1907.5 MHz---(5.0MHz)		
		1855.0 MHz – 1905.0 MHz---(10.0MHz)		
		1857.5 MHz – 1902.5 MHz---(15.0MHz)		
		1860.0 MHz – 1900.0 MHz---(20.0MHz)		
	LTE-Band 4	1710.7 MHz – 1754.3 MHz---(1.4MHz)		
		1711.5 MHz – 1753.5 MHz---(3.0MHz)		
		1712.5 MHz – 1752.5 MHz---(5.0MHz)		
		1715.0 MHz – 1750.0 MHz---(10.0MHz)		
		1717.5 MHz – 1747.5 MHz---(15.0MHz)		
		1720.0 MHz – 1745.0 MHz---(20.0MHz)		
	LTE-Band 5	824.7 MHz – 848.3 MHz---(1.4MHz)		
		825.5 MHz – 847.7 MHz---(3.0MHz)		
		826.5 MHz – 846.5 MHz---(5.0MHz)		
		829.0 MHz – 844.0 MHz---(10.0MHz)		
	LTE-Band 7	2502.5 MHz – 2567.5 MHz---(5.0MHz)		
		2505.0 MHz – 2565.0 MHz---(10.0MHz)		
		2507.5 MHz – 2562.5 MHz---(15.0MHz)		
		2510.0 MHz – 2560.0 MHz---(20.0MHz)		
Hardware Version:	V1.0			
Software Version:	V1.0			
Antenna Type:	PIFA Antenna			
Type of Modulation:	QPSK/16QAM			

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Antenna gain:	Band 2:1.28dBi Band 4:1.42dBi Band 5: 1.22dBi Band 7: 1.34dBi
Power Supply:	DC 3.7V by battery
Single Card:	WCDMA/LTE Card Slot
Power Class:	3
Extreme Vol. Limits:	DC 3.15V to 4.26V (Normal: 4.2V)
Temperature range:	5℃ to +25℃
Note1: The High Voltage DC4.26V and Low Voltage DC3.15V were declared by manufacturer, The EUT couldn't be operating normally with higher or lower voltage..	

1.2 RELATED SUBMITTAL(S) / GRANT (S)

This submittal(s) (test report) is intended for **FCC ID:2AL95-M7**, filing to comply with the FCC Part 22, Part 24 and Pant 27 requirements.

1.3 TEST METHODOLOGY

The tests were performed according to following standards:
FCC Part 22 Public Mobile Services.
FCC Part 24 Personal Communications Services.
FCC Part 27 Miscellaneous Wireless Communications Services.
FCC Part 2 Frequency allocations and radio treaty matters, general rules and regulations.
TIA/EIA 603 E: March 2016 Land Mobile FM or PM Communications Equipment Measurement and Performance Standards.
ANSI-C63.26:2015 American National Standard for Compliance Testing of Transmitters Used in Licensed Radio Services
KDB971168 D01 v03r01 Measurement Guidance For Certification Of Licensed Digital Transmitters.

1.4 DEVICE CAPABILITIES

This device contains the following capabilities:
850/1900 GSM/GPRS/EGPRS,850/1900 WCDMA/HSPA, Multi-Band LTE,802.11 b/g/n for WLAN,802.11 a/n/ac for UNII,Bluetooth (1X,EDR,LE),GPS.
This device uses a tuner circuit that dynamically updates the antenna impedance parameters to optimize antenna performance for certain bands and modes of operation. The tuner for this device was set to simulate a "free space"condition where the transmit antenna is matched to the medium into which it is transmitting and, thus, the power is at its maximum level.
For emissions from 1GHz – 18GHz, low, mid, and high channels were tested with highest power and worst case configuration.
The emissions below 1GHz and above 18GHz were tested with the highest transmitting power channel and the worst case configuration.
The EUT was manipulated through three orthogonal planes of X-orientation (flatbed), Y-orientation (landscape),and Z-orientation (portrait) during the testing. Only the worst case emissions were reported in this

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test report.

1.5 ADDRESS OF THE TEST LABORATORY

Laboratory: Attestation of Global Compliance (Shenzhen) Co., Ltd

Address: 1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

1.6 TEST FACILITY

The test facility is recognized, certified, or accredited by the following organizations:

CNAS-Lab Code: L5488

Attestation of Global Compliance (Shenzhen) Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC17025: 2017 General Requirements) for the Competence of Testing and Calibration Laboratories

A2LA-Lab Cert. No.: 5054.02

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

FCC-Registration No.: 975832

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files with Registration 975832.

IC-Registration No.: 24842

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the Certification and Engineering Bureau of Industry Canada. The acceptance letter from the IC is maintained in our files with Registration 24842

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1.7 ENVIRONMENTAL CONDITIONS

	NORMAL CONDITIONS	EXTREME CONDITIONS
Temperature range	15~35℃	-20℃~50℃
Humidty range	20 % to 75 %.	20 % to 75 %.
Pressure range	86-106kPa	86-106kPa
Power supply	DC 3.7V	DC3.15V or 4.26V
Note: The Extreme Temperature and Extreme Voltages declared by the manufacturer.		

1.8 MEASUREMENT UNCERTAINTY

Test	Measurement Uncertainty	Notes
Transmitter power conducted	±0.57 dB	(1)
Transmitter power Radiated	±2.20 dB	(1)
Conducted spurious emission 9KHz-40 GHz	±2.20 dB	(1)
Occupied Bandwidth	±0.01ppm	(1)
Radiated Emission 30~1000MHz	±4.10dB	(1)
Radiated Emission Above 1GHz	±4.32dB	(1)
Conducted Disturbance0.15~30MHz	±3.20dB	(1)
Radio Frequency	± 6.5 x 10-8	(1)
RF Power, Conducted	± 0.9 dB	(1)

Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

1.9 SPECIAL ACCESSORIES

The battery was supplied by the applicant were used as accessories and being tested with EUT intended for FCC grant together.

1.10 EQUIPMENT MODIFICATIONS

Not available for this EUT intended for grant.

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2. SYSTEM TEST CONFIGURATION

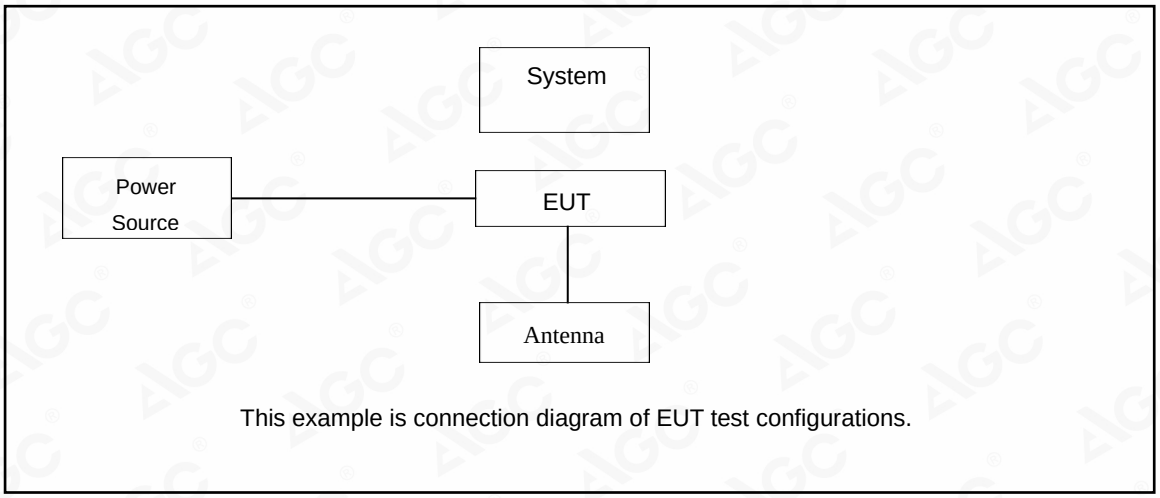
2.1 EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

2.2 EUT EXERCISE

The Transmitter was operated in the maximum output power mode through Communication Tester. The TX frequency was fixed which was for the purpose of the measurements.

2.3 CONFIGURATION OF EUT SYSTEM



This example is connection diagram of EUT test configurations.

Table 2-1 Equipment Used in EUT System

Item	Equipment	Model No.	ID or Specification	Remark
1	Smart phone	M7	2AL95-M7	EUT
2	Adapter 1	TPA-97H050100UW01	Input: 100-240V AC 50/60Hz, 0.15A Output: DC 5.0V 1A	AE
3	Adapter 2	DCS10-0501000F	Input: 100-240V AC 50/60Hz, 0.3A Output: DC 5.0V 1A	AE
4	Adapter 3	TPA-46B050100UU	Input: 100-240V AC 50/60Hz, 0.2A Output: DC 5.0V 1A	AE
5	Battery	M2500	DC 3.7V 2500mAh	AE

Note:

1. All the accessories have been used during the test. The following "EUT" in setup diagram means EUT system.
2. The battery is full-charged during the test

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3. SUMMARY OF TEST RESULTS

3.1 TEST CONDITION : CONDUCTED TEST

Item	Test Description	FCC Rules	Result
1	Occupied Bandwidth	§2.1049	Pass
2	Band Edge / Spurious and Harmonic Emissions at Antenna Terminal	§2.1051, §27.53(g), §27.53(c) §27.53(h) §24.238(a) §27.53(m) (4)	Pass
5	Conducted Output Power	§2.1046	Pass
6	Frequency stability / variation of ambient temperature	§2.1055, §27.54, §24.235	Pass
7	Peak- to- Average Ratio	27.50(d)(5) §24.232(d)	Pass

3.2 TEST CONDITION : RADIATED TEST

Item	Test Description	FCC Rules	Result
1	Effective Radiated Power Equivalent Isotropic Radiated Power	§22.913(a)(5), §27.50(c)(10) §27.50(h)(2) §27.50(b), 27.50(d)(4), §24.232(c)	Pass
2	Radiated Spurious and Harmonic Emissions	§2.1053, §22.917(a), §27.53(g) §27.53(m) (4), §27.53(c), §27.53(h), §24.238(a)	Pass

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4. DESCRIPTION OF TEST MODES

During the testing, the EUT was controlled via Rhode & Schwarz Digital Radio Communication Tester (CMW 500) to ensure max power transmission and proper modulation. Three channels (The top channel, the middle channel and the bottom channel) were chosen for testing on both LTE frequency band.

The worst condition was recorded in the test report if no other modes test data.

LTE Band 2 Channel and Frequency List				
BW [MHz]	Channel/Frequency (MHz)	Lowest	Middle	Highest
20	Channel	18700	18900	19100
	Frequency	1860	1880	1900
15	Channel	18675	18900	19125
	Frequency	1857.5	1880	1902.5
10	Channel	18650	18900	19150
	Frequency	1855	1880	1905
5	Channel	18625	18900	19175
	Frequency	1852.5	1880	1907.5
3	Channel	18615	18900	19185
	Frequency	1851.5	1880	1908.5
1.4	Channel	18607	18900	19193
	Frequency	1850.7	1880	1909.3

LTE Band 4 Channel and Frequency List				
BW [MHz]	Channel/Frequency (MHz)	Lowest	Middle	Highest
20	Channel	20050	20175	20300
	Frequency	1720	1732.5	1745
15	Channel	20025	20175	20325
	Frequency	1717.5	1732.5	1747.5
10	Channel	20000	20175	20350
	Frequency	1715	1732.5	1750
5	Channel	19975	20175	20375
	Frequency	1712.5	1732.5	1752.5
3	Channel	19965	20175	20385
	Frequency	1711.5	1732.5	1753.5
1.4	Channel	19957	20175	20393
	Frequency	1710.7	1732.5	1754.3

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LTE Band 5 Channel and Frequency List				
BW [MHz]	Channel/Frequency (MHz)	Lowest	Middle	Highest
10	Channel	20450	20525	20600
	Frequency	829	836.5	844
5	Channel	20425	20525	20625
	Frequency	826.5	836.5	846.5
3	Channel	20415	20525	20635
	Frequency	825.5	836.5	847.5
1.4	Channel	20407	20525	20643
	Frequency	824.7	836.5	848.3

LTE Band 7 Channel and Frequency List				
BW [MHz]	Channel/Frequency (MHz)	Lowest	Middle	Highest
20	Channel	20850	21100	21350
	Frequency	2510	2535	2560
15	Channel	20825	21100	21375
	Frequency	2507.5	2535	2562.5
10	Channel	20800	21100	21400
	Frequency	2505	2535	2565
5	Channel	20775	21100	21425
	Frequency	2502.5	2535	2567.5

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Test Mode	Test Modes Description
LTE BAND 2	LTE system, QPSK modulation
	LTE system, 16QAM modulation
LTE BAND 4	LTE system, QPSK modulation
	LTE system, 16QAM modulation
LTE BAND 5	LTE system, QPSK modulation
	LTE system, 16QAM modulation
LTE BAND 7	LTE system, QPSK modulation
	LTE system, 16QAM modulation

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ACCORDING TO 3GPP 36.521 SUB-CLAUSE 6.2.3.3, THE MAXIMUM OUTPUT POWER IS ALLOWED TO BE REDUCED BY FOLLOWING THE TABLE.

TABLE 6.2.3.3-1: MAXIMUM POWER REDUCTION (MPR) FOR POWER CLASS 3

Modulation	Channel bandwidth / Transmission bandwidth configuration [RB]						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2

The device supports MPR to solve linearity issues (ACLR or SEM) due to the higher peak-to average ratios (PAR) of the HSUPA signal. This prevents saturating the full range of the TX DAC inside of device and provides a reduced power output to the RF transceiver chip according to the Cubic Metric (For PRACH, PUCCH and SRS transmission, the allowed MPR is according to that specified for PUSCH QPSK modulation for the corresponding transmission bandwidth.).

When PRACH, PUCCH are present the beta gains on those channels are reduced firsts to try to get the power under the allowed limit. If the beta gains are lowered as far as possible, then a hard limiting is applied at the maximum allowed level.

For each subframe, the MPR is evaluated per slot and given by the maximum value taken over the transmission(s) within the slot, the maximum MPR over the two slots is then applied for the entire subframe.

For the UE maximum output power modified by MPR, the power limits specified in subclause 6.2.5.3 apply. The normative reference for this requirement is TS 36.101 clause 6.2.3.

The end effect is that the DUT output power is identical to the case where there is no MPR in the device.

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4.1 EMISSION DESIGNATOR

GSM Emission Designator

Emission Designator = 249KGXW
GSM BW = 249 kHz
G = Phase Modulation
X = Cases not otherwise covered
W = Combination (Audio/Data)

EDGE Emission Designator

Emission Designator = 249KG7W
GSM BW = 249 kHz
G = Phase Modulation
7 = Quantized/Digital Info
W = Combination (Audio/Data)

WCDMA Emission Designator

Emission Designator = 4M17F9W
WCDMA BW = 4.17 MHz
F = Frequency Modulation
9 = Composite Digital Info
W = Combination (Audio/Data)

QPSK Modulation

Emission Designator = 4M48G7D
LTE BW = 4.48 MHz
G = Phase Modulation
7 = Quantized/Digital Info
D = Data transmission; telemetry; telecommand

QAM Modulation

Emission Designator = 4M48W7D
LTE BW = 4.48 MHz
W = Amplitude/Angle Modulated
7 = Quantized/Digital Info
D = Data transmission; telemetry; telecommand

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5. LIST OF TEST EQUIPMENT

Equipment	Manufacturer	Model	S/N	Cal. Date	Cal. Due
TEST RECEIVER	R&S	ESPI	101206	May 15, 2020	May 14, 2021
LISN	R&S	ESH2-Z5	100086	Jul. 03, 2020	Jul. 02, 2021
TEST RECEIVER	R&S	ESCI	10096	May 15, 2020	May 14, 2021
EXA Signal Analyzer	Aglient	N9010A	MY53470504	Dec.07, 2020	Dec.06, 2021
EXA Signal Analyzer	Aglient	N9020B	MY56101792	Jul. 15, 2020	Jul. 14, 2021
Horn antenna	SCHWARZBECK	BBHA 9170	768	Oct. 09, 2019	Oct. 08, 2021
preamplifier	ChengYi	EMC184045SE	980508	Sep. 21, 2020	Sep. 20, 2021
Double-Ridged Waveguide Horn	ETS LINDGREN	3117	00034609	May. 17, 2019	May. 16, 2021
Broadband Preamplifier	SCHWARZBECK	00073	BBHA 9120 J	Sep. 27, 2019	Sep. 26, 2021
ANTENNA	SCHWARZBECK	VULB9168	D69250	Sep.20, 2019	Sep.19, 2021
SIGNAL ANALYZER	Agilent	N9020A	MY52090123	Sep. 03, 2020	Sep. 02, 2021
USB Wideband Power Sensor	Agilent	U2021XA	MY54110007	Jun. 08, 2020	Jun. 07, 2021
Wireless communicationtest	R&S	CMW500	120909	Oct. 24, 2020	Oct. 23, 2021
Power Splitter	Agilent	11636A	34	Jun.10, 2020	Jun.09, 2021
Attenuator	JFW	50FHC-006-50	N/A	Jun.10, 2020	Jun.09, 2021

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6. CONDUCTED OUTPUT POWER

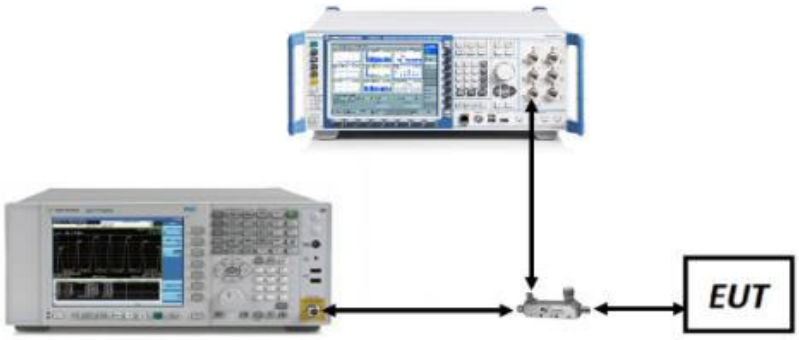
6.1 MEASUREMENT OVERVIEW

The conduction test is carried out in a shielded room.
According to the test, connect the device under test to the antenna port on the non-conductive platform directly to the test device for evaluation and measurement (ANSI-C63.26-2015 Clause 5.4)

6.2 MEASUREMENT METHOD

-The transmitter output port was connected to base station.
-Set EUT at maximum power through base station.
-Select lowest, middle, and highest channels for each band and different test mode.

6.3 MEASUREMENT SETUP



6.4 MEASUREMENT RESULT

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LTE Band 2

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)
20MHz	18700	1860.0	QPSK	1	0	0	22.66
				1	49	0	22.06
				1	99	0	22.28
				50	0	1	20.94
				50	25	1	20.92
				50	49	1	21.28
				100	0	1	21.16
			16QAM	1	0	1	21.11
				1	49	1	20.90
				1	99	1	20.48
				50	0	2	20.32
				50	25	2	19.95
				50	49	2	19.97
				100	0	2	20.18
	18900	1880.0	QPSK	1	0	0	22.44
				1	49	0	21.61
				1	99	0	21.87
				50	0	1	21.34
				50	25	1	20.84
				50	49	1	20.65
				100	0	1	20.70
			16QAM	1	0	1	20.60
				1	49	1	20.93
				1	99	1	20.51
				50	0	2	20.28
				50	25	2	19.76
				50	49	2	20.41
				100	0	2	19.92
	19100	1900.0	QPSK	1	0	0	22.68
				1	49	0	22.04
				1	99	0	21.74
				50	0	1	20.56
				50	25	1	20.56
				50	49	1	21.07
				100	0	1	21.07
			16QAM	1	0	1	20.30
				1	49	1	20.54
				1	99	1	21.14
				50	0	2	19.64
				50	25	2	19.68
				50	49	2	20.22
				100	0	2	20.07

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BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)
15MHz	18675	1857.5	QPSK	1	0	0	21.86
				1	38	0	22.41
				1	74	0	22.01
				38	0	1	20.75
				38	18	1	20.94
				38	37	1	20.95
				75	0	1	21.11
			16QAM	1	0	1	21.44
				1	38	1	20.83
				1	74	1	20.96
				38	0	2	20.91
				38	18	2	20.82
				38	37	2	20.97
				75	0	2	20.10
	18900	1880.0	QPSK	1	0	0	21.48
				1	38	0	21.56
				1	74	0	21.58
				38	0	1	20.68
				38	18	1	20.60
				38	37	1	20.74
				75	0	1	20.79
			16QAM	1	0	1	20.71
				1	38	1	20.61
				1	74	1	20.69
				38	0	2	20.77
				38	18	2	20.80
				38	37	2	20.61
				75	0	2	19.87
	19125	1902.5	QPSK	1	0	0	21.93
				1	38	0	22.11
				1	74	0	21.74
				38	0	1	20.76
				38	18	1	20.48
				38	37	1	20.62
				75	0	1	20.86
			16QAM	1	0	1	20.65
				1	38	1	20.42
				1	74	1	21.04
				38	0	2	20.46
				38	18	2	20.66
				38	37	2	20.97
				75	0	2	19.95

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BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)
10MHz	18650	1855.0	QPSK	1	0	0	22.50
				1	24	0	22.16
				1	49	0	21.92
				25	0	1	21.11
				25	12	1	21.09
				25	25	1	21.06
				50	0	1	21.05
			16QAM	1	0	1	21.05
				1	24	1	20.88
				1	49	1	21.50
				25	0	2	20.12
				25	12	2	20.12
				25	25	2	20.08
				50	0	2	20.11
	18900	1880.0	QPSK	1	0	0	21.63
				1	24	0	21.72
				1	49	0	21.69
				25	0	1	20.91
				25	12	1	20.89
				25	25	1	20.59
				50	0	1	20.82
			16QAM	1	0	1	20.47
				1	24	1	20.55
				1	49	1	20.56
				25	0	2	19.66
				25	12	2	19.99
				25	25	2	19.98
				50	0	2	19.85
	19150	1905.0	QPSK	1	0	0	22.19
				1	24	0	21.98
				1	49	0	21.92
				25	0	1	21.18
				25	12	1	20.80
				25	25	1	21.19
				50	0	1	21.03
			16QAM	1	0	1	20.86
				1	24	1	20.74
				1	49	1	20.64
				25	0	2	19.88
				25	12	2	20.57
				25	25	2	20.25
				50	0	2	20.10

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BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)
5MHz	18625	1852.5	QPSK	1	0	0	22.09
				1	12	0	22.21
				1	24	0	22.58
				12	0	1	21.11
				12	6	1	21.16
				12	13	1	21.08
				25	0	1	21.10
			16QAM	1	0	1	21.42
				1	12	1	21.08
				1	24	1	20.96
				12	0	2	20.04
				12	6	2	20.16
				12	13	2	20.16
				25	0	2	20.16
	18900	1880.0	QPSK	1	0	0	21.65
				1	12	0	21.70
				1	24	0	21.79
				12	0	1	20.94
				12	6	1	20.85
				12	13	1	20.67
				25	0	1	21.08
			16QAM	1	0	1	20.73
				1	12	1	20.83
				1	24	1	20.72
				12	0	2	20.01
				12	6	2	19.83
				12	13	2	20.24
				25	0	2	20.20
	19175	1907.5	QPSK	1	0	0	22.18
				1	12	0	22.18
				1	24	0	22.19
				12	0	1	21.25
				12	6	1	21.23
				12	13	1	20.96
				25	0	1	21.16
			16QAM	1	0	1	20.93
				1	12	1	20.88
				1	24	1	21.05
				12	0	2	20.34
				12	6	2	20.36
				12	13	2	20.05
				25	0	2	20.25

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BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)
3MHz	18615	1851.5	QPSK	1	0	0	22.08
				1	8	0	22.63
				1	14	0	22.23
				8	0	1	21.11
				8	4	1	21.15
				8	8	1	21.18
				15	0	1	21.12
			16QAM	1	0	1	21.11
				1	8	1	21.06
				1	14	1	21.64
				8	0	2	20.19
				8	4	2	20.17
				8	8	2	20.16
				15	0	2	20.16
	18900	1880.0	QPSK	1	0	0	21.80
				1	8	0	21.80
				1	14	0	21.82
				8	0	1	21.03
				8	4	1	21.19
				8	7	1	21.25
				15	0	1	21.27
			16QAM	1	0	1	20.57
				1	8	1	20.56
				1	14	1	20.62
				8	0	2	20.24
				8	4	2	20.21
				8	8	2	20.12
				15	0	2	20.22
	19185	1908.5	QPSK	1	0	0	22.14
				1	8	0	22.18
				1	14	0	22.53
				8	0	1	21.20
				8	4	1	21.23
				8	8	1	21.16
				15	0	1	21.14
			16QAM	1	0	1	20.85
				1	8	1	20.84
				1	14	1	20.84
				8	0	2	20.21
				8	4	2	20.17
				8	8	2	20.23
				15	0	2	20.08

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BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)
1.4MHz	18607	1850.7	QPSK	1	0	0	22.70
				1	2	0	22.79
				1	5	0	22.65
				3	0	0	22.68
				3	1	0	22.67
				3	2	0	22.71
				6	0	1	21.65
			16QAM	1	0	1	21.53
				1	2	1	21.38
				1	5	1	21.38
				3	0	1	21.52
				3	1	1	21.50
				3	2	1	21.52
				6	0	2	20.48
	18900	1880.0	QPSK	1	0	0	22.23
				1	2	0	22.26
				1	5	0	22.44
				3	0	0	22.38
				3	1	0	22.35
				3	2	0	22.41
				6	0	1	21.26
			16QAM	1	0	1	20.97
				1	2	1	20.94
				1	5	1	21.08
				3	0	1	21.13
				3	1	1	21.12
				3	2	1	21.13
				6	0	2	20.25
	19193	1909.3	QPSK	1	0	0	22.86
				1	2	0	22.74
				1	5	0	22.65
				3	0	0	22.47
				3	1	0	22.20
				3	2	0	22.39
				6	0	1	21.31
			16QAM	1	0	1	21.63
				1	2	1	21.36
				1	5	1	21.44
				3	0	1	20.96
				3	1	1	20.98
				3	2	1	21.17
				6	0	2	20.28

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LTE Band 4

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)
20MHz	20050	1720.0	QPSK	1	0	0	22.89
				1	49	0	23.23
				1	99	0	23.00
				50	0	1	22.06
				50	25	1	22.11
				50	49	1	22.08
				100	0	1	22.07
			16QAM	1	0	1	21.99
				1	49	1	22.27
				1	99	1	21.90
				50	0	2	21.12
				50	25	2	21.12
				50	49	2	21.13
				100	0	2	21.09
	20175	1732.5	QPSK	1	0	0	23.24
				1	49	0	22.22
				1	99	0	22.50
				50	0	1	21.46
				50	25	1	21.43
				50	49	1	21.48
				100	0	1	21.42
			16QAM	1	0	1	21.24
				1	49	1	21.67
				1	99	1	21.25
				50	0	2	20.54
				50	25	2	20.49
				50	49	2	20.51
				100	0	2	20.53
	20300	1745.0	QPSK	1	0	0	22.26
				1	49	0	22.64
				1	99	0	22.31
				50	0	1	21.34
				50	25	1	21.32
				50	49	1	21.49
				100	0	1	21.47
			16QAM	1	0	1	21.40
				1	49	1	21.44
				1	99	1	21.58
				50	0	2	20.42
				50	25	2	20.39
				50	49	2	20.54
				100	0	2	20.45

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BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)
15MHz	20025	1717.5	QPSK	1	0	0	23.44
				1	37	0	23.63
				1	74	0	23.66
				36	0	1	22.43
				36	16	1	22.66
				36	35	1	22.65
				75	0	1	22.74
			16QAM	1	0	1	22.60
				1	37	1	22.45
				1	74	1	22.66
				36	0	2	22.61
				36	16	2	22.44
				36	35	2	22.69
				75	0	2	21.67
	20175	1732.5	QPSK	1	0	0	22.85
				1	37	0	22.97
				1	74	0	22.85
				36	0	1	21.84
				36	16	1	21.83
				36	35	1	21.97
				75	0	1	22.08
			16QAM	1	0	1	22.00
				1	37	1	21.85
				1	74	1	21.81
				36	0	2	21.98
				36	16	2	21.83
				36	35	2	21.86
				75	0	2	21.08
	20325	1747.5	QPSK	1	0	0	22.93
				1	37	0	22.92
				1	74	0	22.81
				36	0	1	22.01
				36	16	1	21.87
				36	35	1	21.99
				75	0	1	22.07
			16QAM	1	0	1	21.98
				1	37	1	21.89
				1	74	1	22.00
				36	0	2	21.87
				36	16	2	21.99
				36	35	2	21.99
				75	0	2	21.06

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BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)
10MHz	20000	1715.0	QPSK	1	0	0	23.70
				1	24	0	23.82
				1	49	0	23.64
				25	0	1	22.75
				25	12	1	22.72
				25	25	1	22.78
				50	0	1	22.70
			16QAM	1	0	1	22.72
				1	24	1	22.63
				1	49	1	22.67
				25	0	2	21.73
				25	12	2	21.77
				25	25	2	21.76
				50	0	2	21.79
	20175	1732.5	QPSK	1	0	0	23.00
				1	24	0	23.00
				1	49	0	23.09
				25	0	1	22.06
				25	12	1	22.10
				25	25	1	22.08
				50	0	1	22.10
			16QAM	1	0	1	21.97
				1	24	1	21.98
				1	49	1	22.07
				25	0	2	21.11
				25	12	2	21.12
				25	25	2	21.07
				50	0	2	21.08
	20350	1750.0	QPSK	1	0	0	23.03
				1	24	0	23.12
				1	49	0	22.96
				25	0	1	21.98
				25	12	1	22.10
				25	25	1	21.96
				50	0	1	22.00
			16QAM	1	0	1	21.86
				1	24	1	21.81
				1	49	1	21.75
				25	0	2	21.19
				25	12	2	21.06
				25	25	2	21.05
				50	0	2	21.07

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BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)
5MHz	19975	1712.5	QPSK	1	0	0	23.62
				1	12	0	23.76
				1	24	0	23.63
				12	0	1	22.66
				12	6	1	22.63
				12	11	1	22.73
				25	0	1	22.74
			16QAM	1	0	1	22.65
				1	12	1	22.79
				1	24	1	22.69
				12	0	2	21.80
				12	6	2	21.72
				12	11	2	21.78
				25	0	2	21.75
	20175	1732.5	QPSK	1	0	0	22.95
				1	12	0	22.95
				1	24	0	23.05
				12	0	1	21.98
				12	6	1	22.03
				12	11	1	21.94
				25	0	1	22.01
			16QAM	1	0	1	21.86
				1	12	1	21.98
				1	24	1	21.89
				12	0	2	21.02
				12	6	2	20.98
				12	11	2	21.05
				25	0	2	21.05
	20375	1752.5	QPSK	1	0	0	22.92
				1	12	0	23.09
				1	24	0	23.04
				12	0	1	22.01
				12	6	1	21.98
				12	11	1	22.01
				25	0	1	22.01
			16QAM	1	0	1	21.92
				1	12	1	21.99
				1	24	1	22.11
				12	0	2	21.07
				12	6	2	21.09
				12	11	2	21.10
				25	0	2	21.03

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BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)
3MHz	19965	1711.5	QPSK	1	0	0	23.69
				1	7	0	23.65
				1	14	0	23.70
				8	0	1	22.69
				8	4	1	22.69
				8	7	1	22.68
				15	0	1	22.69
			16QAM	1	0	1	22.72
				1	7	1	22.68
				1	14	1	22.71
				8	0	2	21.74
				8	4	2	21.77
				8	7	2	21.71
				15	0	2	21.78
	20175	1732.5	QPSK	1	0	0	22.98
				1	7	0	22.99
				1	14	0	22.94
				8	0	1	21.96
				8	4	1	21.93
				8	7	1	21.97
				15	0	1	21.95
			16QAM	1	0	1	21.94
				1	7	1	21.97
				1	14	1	21.93
				8	0	2	21.06
				8	4	2	21.02
				8	7	2	21.02
				15	0	2	21.02
	20385	1753.5	QPSK	1	0	0	23.12
				1	7	0	23.12
				1	14	0	23.09
				8	0	1	22.04
				8	4	1	22.05
				8	7	1	22.04
				15	0	1	21.99
			16QAM	1	0	1	21.80
				1	7	1	21.85
				1	14	1	21.81
				8	0	2	21.01
				8	4	2	21.04
				8	7	2	21.01
				15	0	2	20.97

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BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)
1.4MHz	19957	1710.7	QPSK	1	0	0	23.55
				1	2	0	23.41
				1	5	0	23.33
				3	0	0	23.32
				3	1	0	23.46
				3	2	0	23.55
				6	0	1	22.69
			16QAM	1	0	1	22.42
				1	2	1	22.31
				1	5	1	22.41
				3	0	1	22.34
				3	1	1	22.37
				3	2	1	22.46
				6	0	2	21.71
	20175	1732.5	QPSK	1	0	0	22.91
				1	2	0	22.89
				1	5	0	23.04
				3	0	0	23.02
				3	1	0	23.04
				3	2	0	23.01
				6	0	1	21.99
			16QAM	1	0	1	21.82
				1	2	1	21.76
				1	5	1	21.94
				3	0	1	21.80
				3	1	1	21.84
				3	2	1	21.82
				6	0	2	20.99
	20393	1754.3	QPSK	1	0	0	23.16
				1	2	0	23.10
				1	5	0	23.06
				3	0	0	23.05
				3	1	0	23.10
				3	2	0	23.04
				6	0	1	22.11
			16QAM	1	0	1	21.93
				1	2	1	21.78
				1	5	1	21.78
				3	0	1	21.88
				3	1	1	21.86
				3	2	1	21.87
				6	0	2	20.90

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LTE Band 5

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)
10MHz	20450	829	QPSK	1	0	0	22.44
				1	24	0	22.49
				1	49	0	22.39
				25	0	1	21.40
				25	12	1	21.41
				25	25	1	21.42
				50	0	1	21.35
			16QAM	1	0	1	21.15
				1	24	1	21.12
				1	49	1	21.24
				25	0	2	20.41
				25	12	2	20.44
				25	25	2	20.43
				50	0	2	20.39
	20525	836.5	QPSK	1	0	0	23.36
				1	24	0	22.68
				1	49	0	22.68
				25	0	1	21.67
				25	12	1	21.49
				25	25	1	21.53
				50	0	1	21.54
			16QAM	1	0	1	21.68
				1	24	1	21.34
				1	49	1	21.66
				25	0	2	20.66
				25	12	2	20.41
				25	25	2	20.48
				50	0	2	20.50
	20600	844	QPSK	1	0	0	22.91
				1	24	0	22.66
				1	49	0	22.71
				25	0	1	21.79
				25	12	1	21.69
				25	25	1	21.77
				50	0	1	21.68
			16QAM	1	0	1	21.72
				1	24	1	21.46
				1	49	1	21.46
				25	0	2	20.78
				25	12	2	20.75
				25	25	2	20.71
				50	0	2	20.69

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BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)
5MHz	20425	826.5	QPSK	1	0	0	23.18
				1	12	0	23.25
				1	24	0	23.11
				12	0	1	22.14
				12	6	1	22.15
				12	11	1	22.09
				25	0	1	22.17
			16QAM	1	0	1	22.09
				1	12	1	22.07
				1	24	1	21.97
				12	0	2	21.14
				12	6	2	21.16
				12	11	2	21.14
				25	0	2	21.15
	20525	836.5	QPSK	1	0	0	22.52
				1	12	0	22.67
				1	24	0	22.76
				12	0	1	21.52
				12	6	1	21.57
				12	11	1	21.63
				25	0	1	21.62
			16QAM	1	0	1	21.41
				1	12	1	21.61
				1	24	1	21.53
				12	0	2	20.67
				12	6	2	20.59
				12	11	2	20.59
				25	0	2	20.63
	20625	846.5	QPSK	1	0	0	22.67
				1	12	0	22.76
				1	24	0	22.85
				12	0	1	21.78
				12	6	1	21.75
				12	11	1	21.67
				25	0	1	21.78
			16QAM	1	0	1	21.79
				1	12	1	21.73
				1	24	1	21.68
				12	0	2	20.80
				12	6	2	20.82
				12	11	2	20.72
				25	0	2	20.70

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BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)
3MHz	20415	825.5	QPSK	1	0	0	23.18
				1	7	0	23.12
				1	14	0	23.21
				8	0	1	22.18
				8	4	1	22.22
				8	7	1	22.13
				15	0	1	22.16
			16QAM	1	0	1	22.09
				1	7	1	22.15
				1	14	1	22.12
				8	0	2	21.11
				8	4	2	21.14
				8	7	2	21.14
				15	0	2	21.15
	20525	836.5	QPSK	1	0	0	22.61
				1	7	0	22.63
				1	14	0	22.65
				8	0	1	21.72
				8	4	1	21.60
				8	7	1	21.63
				15	0	1	21.62
			16QAM	1	0	1	21.69
				1	7	1	21.54
				1	14	1	21.67
				8	0	2	20.67
				8	4	2	20.62
				8	7	2	20.59
				15	0	2	20.61
	20635	847.5	QPSK	1	0	0	22.86
				1	7	0	22.77
				1	14	0	22.76
				8	0	1	21.75
				8	4	1	21.66
				8	7	1	21.76
				15	0	1	21.67
			16QAM	1	0	1	21.56
				1	7	1	21.59
				1	14	1	21.54
				8	0	2	20.72
				8	4	2	20.70
				8	7	2	20.67
				15	0	2	20.65

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BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)
1.4MHz	20407	824.7	QPSK	1	0	0	23.22
				1	2	0	23.39
				1	5	0	23.24
				3	0	0	23.24
				3	1	0	23.27
				3	2	0	23.27
				6	0	1	22.19
			16QAM	1	0	1	21.97
				1	2	1	22.16
				1	5	1	21.94
				3	0	1	22.07
				3	1	1	22.08
				3	2	1	22.08
				6	0	2	21.08
	20525	836.5	QPSK	1	0	0	22.62
				1	2	0	22.58
				1	5	0	22.78
				3	0	0	22.69
				3	1	0	22.68
				3	2	0	22.60
				6	0	1	21.68
			16QAM	1	0	1	21.44
				1	2	1	21.66
				1	5	1	21.45
				3	0	1	21.48
				3	1	1	21.51
				3	2	1	21.51
				6	0	2	20.61
	20643	848.3	QPSK	1	0	0	22.74
				1	2	0	22.78
				1	5	0	22.80
				3	0	0	22.79
				3	1	0	22.80
				3	2	0	22.82
				6	0	1	21.78
			16QAM	1	0	1	21.78
				1	2	1	21.49
				1	5	1	21.56
				3	0	1	21.62
				3	1	1	21.60
				3	2	1	21.62
				6	0	2	20.58

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LTE Band 7

BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)
20MHz	20850	2510	QPSK	1	0	0	23.06
				1	49	0	22.96
				1	99	0	22.66
				50	0	1	21.68
				50	25	1	21.66
				50	49	1	21.86
				100	0	1	21.76
			16QAM	1	0	1	21.76
				1	49	1	21.48
				1	99	1	21.85
				50	0	2	20.85
				50	25	2	20.69
				50	49	2	20.74
				100	0	2	20.78
	21100	2535	QPSK	1	0	0	23.03
				1	49	0	22.93
				1	99	0	23.41
				50	0	1	22.20
				50	25	1	22.26
				50	49	1	22.25
				100	0	1	22.15
			16QAM	1	0	1	21.98
				1	49	1	22.00
				1	99	1	22.40
				50	0	2	21.14
				50	25	2	21.21
				50	49	2	21.20
				100	0	2	21.16
	21350	2560	QPSK	1	0	0	23.05
				1	49	0	21.70
				1	99	0	21.81
				50	0	1	20.89
				50	25	1	20.79
				50	49	1	20.93
				100	0	1	20.66
			16QAM	1	0	1	20.83
				1	49	1	20.49
				1	99	1	20.64
				50	0	2	19.90
				50	25	2	19.86
				50	49	2	19.68
				100	0	2	19.79

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BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)
15MHz	20825	2507.5	QPSK	1	0	0	22.70
				1	37	0	22.74
				1	74	0	22.75
				36	0	1	21.65
				36	16	1	21.74
				36	35	1	21.74
				75	0	1	21.88
			16QAM	1	0	1	21.65
				1	37	1	21.69
				1	74	1	21.73
				36	0	2	21.73
				36	16	2	21.64
				36	35	2	21.73
				75	0	2	20.78
	21100	2535	QPSK	1	0	0	23.10
				1	37	0	22.77
				1	74	0	23.14
				36	0	1	22.08
				36	16	1	22.26
				36	35	1	22.09
				75	0	1	22.32
			16QAM	1	0	1	22.10
				1	37	1	22.26
				1	74	1	22.00
				36	0	2	22.06
				36	16	2	22.16
				36	35	2	22.23
				75	0	2	21.29
	21375	2562.5	QPSK	1	0	0	21.37
				1	37	0	21.77
				1	74	0	21.46
				36	0	1	20.30
				36	16	1	20.29
				36	35	1	20.31
				75	0	1	20.45
			16QAM	1	0	1	20.43
				1	37	1	20.40
				1	74	1	20.29
				36	0	2	20.42
				36	16	2	20.33
				36	35	2	20.33
				75	0	2	19.58

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BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)
10MHz	20800	2505	QPSK	1	0	0	22.89
				1	24	0	22.88
				1	49	0	22.89
				25	0	1	21.83
				25	12	1	21.79
				25	25	1	21.91
				50	0	1	21.80
			16QAM	1	0	1	21.82
				1	24	1	21.79
				1	49	1	21.93
				25	0	2	20.87
				25	12	2	20.81
				25	25	2	20.79
				50	0	2	20.82
	21100	2535	QPSK	1	0	0	22.01
				1	24	0	22.08
				1	49	0	22.10
				25	0	1	21.24
				25	12	1	21.25
				25	25	1	21.25
				50	0	1	21.25
			16QAM	1	0	1	22.27
				1	24	1	22.20
				1	49	1	22.31
				25	0	2	22.21
				25	12	2	22.28
				25	25	2	22.29
				50	0	2	22.22
	21400	2565	QPSK	1	0	0	21.64
				1	24	0	21.82
				1	49	0	21.81
				25	0	1	20.50
				25	12	1	20.85
				25	25	1	20.73
				50	0	1	20.78
			16QAM	1	0	1	21.85
				1	24	1	21.50
				1	49	1	20.69
				25	0	2	20.60
				25	12	2	20.94
				25	25	2	20.53
				50	0	2	21.90

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BW (MHz)	Ch	Freq. (MHz)	Mode	UL RB Allocation	UL RB Offset	MPR	Average power (dBm)
5MHz	20775	2502.5	QPSK	1	0	0	21.46
				1	12	0	21.37
				1	24	0	21.48
				12	0	1	20.29
				12	6	1	20.33
				12	13	1	21.38
				25	0	1	21.38
			16QAM	1	0	1	20.40
				1	12	1	20.39
				1	24	1	20.31
				12	0	2	19.27
				12	6	2	20.41
				12	13	2	19.30
				25	0	2	20.39
	21100	2535	QPSK	1	0	0	22.75
				1	12	0	23.32
				1	24	0	23.19
				12	0	1	22.17
				12	6	1	22.17
				12	13	1	22.15
				25	0	1	22.20
			16QAM	1	0	1	22.13
				1	12	1	22.25
				1	24	1	22.20
				12	0	2	21.20
				12	6	2	21.21
				12	13	2	21.20
				25	0	2	21.14
	21425	2567.5	QPSK	1	0	0	21.96
				1	12	0	22.04
				1	24	0	21.90
				12	0	1	20.95
				12	6	1	20.96
				12	13	1	20.94
				25	0	1	20.98
			16QAM	1	0	1	20.91
				1	12	1	20.76
				1	24	1	20.81
				12	0	2	19.88
				12	6	2	19.90
				12	13	2	19.89
				25	0	2	19.94

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7. RADIATED POWER

7.1 MEASUREMENT OVERVIEW

The radiation test is carried out in a semi-anechoic chamber.

According to the test, put the device under test on a non-conductive platform 3 meters away from the receiving antenna (ANSI/TIA-603-E-2016 Article 2.2.17).

The following rules are for the maximum radiated power limit requirements of the product:

Mode	Nominal Peak Power
LTE Band 2	< 2 Watts max. EIRP (33dBm)
LTE Band 4	< 1 Watts max. EIRP (30dBm)
LTE Band 5	< 7 Watts max. ERP (38.45dBm)
LTE Band 7	< 2 Watts max. EIRP (33dBm)

7.2 MEASUREMENT METHOD

1. Radiated power measurements are performed using the signal analyzer's "channel power" measurement capability for signals with continuous operation.
2. RBW = 1 – 5% of the expected OBW, not to exceed 1MHz
3. VBW ≥ 3 x RBW
4. Span = 1.5 times the OBW
5. No. of sweep points > 2 x span / RBW
6. Detector = RMS
7. Trigger is set to "free run" for signals with continuous operation with the sweep times set to "auto".
8. The integration bandwidth was roughly set equal to the measured OBW of the signal for signals with continuous operation.
9. Trace mode = trace averaging (RMS) over 100 sweeps
10. The trace was allowed to stabilize.

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Radiation Construction Method：

1. The turntable is rotated through 360 degrees, and the receiving antenna scans in order to determine the level of the maximized emission.
2. A half wave dipole is then substituted in place of the EUT. For emissions above 1GHz, a horn antenna is substituted in place of the EUT. The substitute antenna is driven by a signal generator and the previously recorded signal was duplicated.

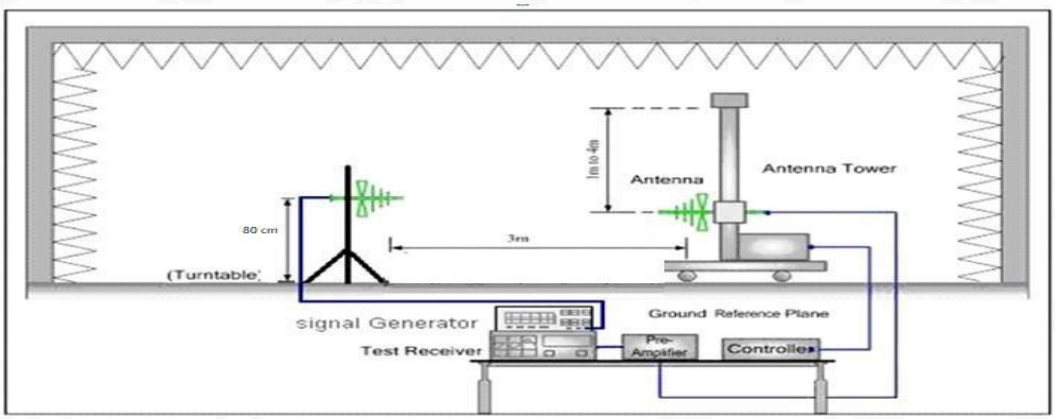
   The power is calculated by the following formula：

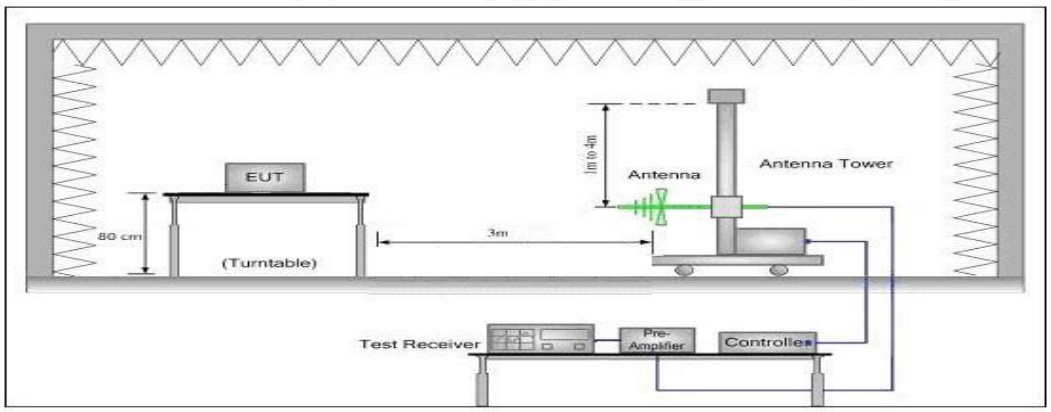
   Pd(dBm) = Pg(dBm) – cable loss (dB) + antenna gain (dB)

   Where: Pd is the dipole equivalent power and Pg is the generator output power into the substitution antenna.
3. The maximum value is calculated by adding the forward power to the calibrated source plus its appropriate gain value. These steps are repeated with the receiving antenna in both vertical and horizontal polarization. the difference between the gain of the horn and an isotropic antenna are taken into consideration
4. The EUT was tested in three orthogonal planes (X, Y, Z) and in all possible test configurations and positioning.
5. All measurements are performed as RMS average measurements while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies.

7.3 MEASUREMENT SETUP

Radiated Below1GHz





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