TEST REPORT

Applicant:	CT Cellutions, Inc
Address of Applicant:	5705 Commerce Blvd. Alpharetta, Georgia 30004, United States
Manufacturer/Factory:	Z-TECH COMMUNICATION(SZ)CO LTD
Address of Manufacturer/Factory:	7/F BLK D BAO'AN ZHI'GU YIN'TIAN RD. NO.4 XI'XIANG ST' BAO'AN SZ CN

Equipment Under Test (EUT)

Product Name:	MOBILE PHONES
Model No.:	PADUA
Trade mark:	CELLUTION
FCC ID:	2AT3DPADUA
Applicable standards:	FCC CFR Title 47 Part 2 FCC CFR Title 47 Part 22 FCC CFR Title 47 Part 24 FCC CFR Title 47 Part 27
Date of sample receipt:	September 09, 2020
Date of Test:	September 10-30, 2020
Date of report issued:	September 30, 2020
Test Result :	PASS *

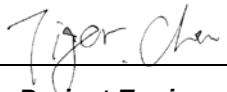
* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Robinson Lo
Laboratory Manager

2 Version

Version No.	Date	Description
00	*September 30, 2020*	*Original*

Prepared By:  ***Date:*** *September 30, 2020*

Project Engineer

Check By:  ***Date:*** *September 30, 2020*

Reviewer

3 Contents

Page

4 Test Summary

Test Item	Section in CFR 47	Result
RF Exposure (SAR)	Part 1.1307 Part 2.1093	Pass* (Please refer to SAR Report)
RF Output Power	Part 2.1046 Part 22.913 (a) Part 24.232 (c) Part 27.50(c)(10)/(d)(4)	Pass
Peak-to-Average Ratio	Part 22.913(d) FCC part24.232(d) FCC Part 27.50(a)	Pass
Modulation Characteristics	Part 2.1047	N/A
99% & -26 dB Occupied Bandwidth	Part 2.1049 Part 22.917(b) Part 24.238 Part 27.53(h)/(g)	Pass
Spurious Emissions at Antenna Terminal	Part 2.1051 Part 22.917 Part 24.238 (a) Part 27.53(h)/(g)	Pass
Field Strength of Spurious Radiation	Part 2.1053 Part 22.917 Part 24.238 (a) Part 27.53(h)/(g)	Pass
Out of band emission, Band Edge	Part 24.238 (a) Part 22.917 Part 27.53(h)/(g)	Pass
Frequency stability vs. temperature	Part 2.1055(a)(1)(b)	Pass
Frequency stability vs. voltage	Part 2.1055(d)(1)(2)	Pass

Remarks:

1. *Pass: The EUT complies with the essential requirements in the standard.*
2. *N/A: Not applicable.*

5 General Information

5.1 General Description of EUT

Product Name:	MOBILE PHONES
Model No.:	PADUA
Serial No.:	0123456789ABCDEF
Hardware Version:	Y391I_MB_V1
Software Version:	PADUA_Cellution_V3
Tested Sample(s) ID:	GTS202009000106-1
Support Networks:	LTE
Support Bands:	LTE Band 2/4/5/12/13/17/25/26/41/66
Channel Bandwidth:	LTE Band 2: 1.4MHz; 3MHz; 5MHz; 10MHz; 15MHz; 20MHz LTE Band 4: 1.4MHz; 3MHz; 5MHz; 10MHz; 15MHz; 20MHz LTE Band 5: 1.4MHz; 3MHz; 5MHz; 10MHz LTE Band 12: 1.4MHz; 3MHz; 5MHz; 10MHz LTE Band 13: 5MHz; 10MHz LTE Band 17: 5MHz; 10MHz LTE Band 25: 1.4MHz; 3MHz; 5MHz; 10MHz; 15MHz; 20MHz LTE Band 26: 1.4MHz; 3MHz; 5MHz; 10MHz; 15MHz LTE Band 41: 5MHz; 10MHz; 15MHz; 20MHz LTE Band 66: 1.4MHz; 3MHz; 5MHz; 10MHz; 15MHz; 20MHz
TX Frequency:	LTE Band 2: 1850.70MHz-1909.30MHz LTE Band 4: 1710.70MHz-1754.30MHz LTE Band 5: 824.7MHz-848.3MHz LTE Band 12: 699.70MHz-715.30MHz LTE Band 13: 779.50MHz-784.50MHz LTE Band 17: 706.5MHz -713.5MHz LTE Band 25: 1850.7MHz-1914.3MHz LTE Band 26 : 824.7MHz-848.3MHz LTE Band 41: 2557.5MHz ~2625MHz LTE Band 66: 1710.7MHz-1779.3MHz
Modulation type:	QPSK, 16QAM
Antenna type:	PIFA antenna
Antenna gain:	Band 2: 1.27dBi Band 4: 1.38dBi Band 5: -4.02dBi Band 12: -4.29dBi Band 13: -4.27dBi Band 17: -4.36dBi Band 25: 1.31dBi

	Band 26: -4.07dBi Band 41: 1.57dBi Band 66: 1.62dBi
Power supply:	Adaptor Model: Padua Input: AC 100-240V, 50/60Hz, 0.15A Output: DC 5.0V, 1Amp Or DC 3.8V 2800mAh Li-ion Battery

Test Frequency

Test Mode	Channel Bandwidth	RF Channel		
		Lowest channel	Middle channel	Highest channel
LTE Band 2	1.4M	Channel 18607	Channel 18900	Channel 19193
		1850.7 MHz	1880 MHz	1909.3 MHz
	3M	Channel 18615	Channel 18900	Channel 19185
		1851.5 MHz	1880 MHz	1908.5 MHz
	5M	Channel 18625	Channel 18900	Channel 19175
		1852.5 MHz	1880 MHz	1907.5 MHz
	10M	Channel 18650	Channel 18900	Channel 19150
		1855 MHz	1880 MHz	1905 MHz
	15M	Channel 18675	Channel 18900	Channel 19125
		1857.5 MHz	1880 MHz	1902.5 MHz
	20M	Channel 18700	Channel 18900	Channel 19100
		1860 MHz	1880 MHz	1900 MHz

Test Mode	Channel Bandwidth	RF Channel		
		Lowest channel	Middle channel	Highest channel
LTE Band 4	1.4M	Channel 19957	Channel 20175	Channel 20393
		1710.7 MHz	1732.5 MHz	1754.3 MHz
	3M	Channel 19965	Channel 20175	Channel 20385
		1711.5 MHz	1732.5 MHz	1753.5 MHz
	5M	Channel 19975	Channel 20175	Channel 20375
		1712.5 MHz	1732.5 MHz	1752.5 MHz
	10M	Channel 20000	Channel 20175	Channel 20350
		1715 MHz	1732.5 MHz	1750 MHz
	15M	Channel 20025	Channel 20175	Channel 20325
		1717.5 MHz	1732.5 MHz	1747.5 MHz
	20M	Channel 20050	Channel 20175	Channel 20300
		1720 MHz	1732.5 MHz	1745 MHz

Test Mode	Channel Bandwidth	RF Channel		
		Lowest channel	Middle channel	Highest channel
LTE Band 5	1.4M	Channel 20407	Channel 20525	Channel 20643
		824.7 MHz	836.5 MHz	848.3 MHz
	3M	Channel 20415	Channel 20525	Channel 20635
		825.5 MHz	836.5 MHz	847.5 MHz
	5M	Channel 20425	Channel 20525	Channel 20625
		826.5 MHz	836.5 MHz	846.5 MHz
	10M	Channel 20450	Channel 20525	Channel 20600
		829.0 MHz	836.5 MHz	844.0 MHz

Test Mode	Channel Bandwidth	RF Channel		
		Lowest channel	Middle channel	Highest channel
LTE Band 12	1.4M	Channel 23017	Channel 23095	Channel 23173
		699.7MHz	707.5MHz	715.3MHz
	3M	Channel 23025	Channel 23095	Channel 23165
		700.5MHz	707.5MHz	714.5MHz
	5M	Channel 23035	Channel 23095	Channel 23155
		701.5MHz	707.5MHz	713.5MHz
	10M	Channel 23060	Channel 23095	Channel 23130
		704.0MHz	707.5MHz	711.0MHz

Test Mode	Channel Bandwidth	RF Channel		
		Lowest channel	Middle channel	Highest channel
LTE Band 13	5M	Channel 23205	Channel 23230	Channel 23255
		779.5MHz	782MHz	784.5MHz
	10M	Channel 23230	Channel 23230	Channel 23230
		782MHz	782MHz	782MHz

Test Mode	Channel Bandwidth	RF Channel		
		Lowest channel	Middle channel	Highest channel
LTE Band 17	5M	Channel 23755	Channel 23790	Channel 23825
		706.5 MHz	710 MHz	713.5 MHz
	10M	Channel 23780	Channel 23790	Channel 23800
		709 MHz	710 MHz	711 MHz

Test Mode	Channel Bandwidth	RF Channel		
		Lowest channel	Middle channel	Highest channel
LTE Band 25	1.4M	Channel 26047	Channel 26365	Channel 26683
		1850.7 MHz	1882.5 MHz	1914.3 MHz
	3M	Channel 26055	Channel 26365	Channel 26675
		1851.5 MHz	1882.5 MHz	1913.5 MHz
	5M	Channel 26065	Channel 26365	Channel 26665
		1852.5 MHz	1882.5 MHz	1912.5 MHz
	10M	Channel 26090	Channel 26365	Channel 26640
		1855 MHz	1882.5 MHz	1910 MHz
	15M	Channel 26115	Channel 26365	Channel 26615
		1857.5 MHz	1882.5 MHz	1907.5 MHz
	20M	Channel 26140	Channel 26365	Channel 26590
		1860 MHz	1882.5 MHz	1905 MHz

Test Mode	Channel Bandwidth	RF Channel		
		Lowest channel	Middle channel	Highest channel
LTE Band 26	1.4M	Channel 26797	Channel 26915	Channel 27033
		824.7MHz	836.5 MHz	848.3 MHz
	3M	Channel 26805	Channel 26915	Channel 27025
		825.5 MHz	836.5 MHz	847.5 MHz
	5M	Channel 26815	Channel 26915	Channel 27015
		826.5 MHz	836.5 MHz	846.5 MHz
	10M	Channel 26840	Channel 26915	Channel 26990
		829.0 MHz	836.5 MHz	844.0 MHz
	15M	Channel 26865	Channel 26915	Channel 26965
		831.5 MHz	836.5 MHz	841.5 MHz

Test Mode	Channel Bandwidth	RF Channel		
		Lowest channel	Middle channel	Highest channel
LTE Band 41	5M	Channel 40265	Channel 40740	Channel 41215
		2557.5 MHz	2605.0 MHz	2652.5 MHz
	10M	Channel 40290	Channel 40740	Channel 41190
		2560.0 MHz	2605.0 MHz	2650.0 MHz
	15M	Channel 40315	Channel 40740	Channel 41165
		2562.5 MHz	2605.0 MHz	2647.5 MHz
	20M	Channel 40340	Channel 40740	Channel 41140
		2565.0 MHz	2605.0 MHz	2645.0 MHz

Test Mode	Channel Bandwidth	RF Channel		
		Lowest channel	Middle channel	Highest channel
LTE Band 66	1.4M	Channel 131979	Channel 132322	Channel 132665
		1710.7MHz	1745.0 MHz	1779.3 MHz
	3M	Channel 131987	Channel 132322	Channel 132657
		1711.5 MHz	1745.0 MHz	1778.5 MHz
	5M	Channel 131997	Channel 132322	Channel 132647
		1752.5 MHz	1745.0 MHz	1777.5 MHz
	10M	Channel 132022	Channel 132322	Channel 132622
		1715.0 MHz	1745.0 MHz	1775.0 MHz
	15M	Channel 132047	Channel 132322	Channel 132597
		1717.5 MHz	1745.0 MHz	1772.5 MHz
	20M	Channel 132072	Channel 132322	Channel 132572
		1720.0 MHz	1745.0 MHz	1770.0 MHz

5.2 Related Submittal(s) / Grant (s)

This submittal(s) (test report) is filing to comply with Section Part 22/24/27 of the FCC CFR 47 Rules.

5.3 Test Methodology

Both conducted and radiated testing were performed according to the procedures document on ANSI C63.26:2015 and FCC CFR 47.1046, 2.1047, 2.1049, 2.1051, 2.1053, 2.1055 and 2.1057

5.4 Test Facility

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

● **FCC —Registration No.: 381383**

Global United Technology Services Co., Ltd., Shenzhen 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 files. Registration 381383.

● **IC —Registration No.: 9079A**

The 3m Semi-anechoic chamber of Global United Technology Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 9079A.

● **NVLAP (LAB CODE:600179-0)**

Global United Technology Services Co., Ltd., is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP). LAB CODE:600179-0

5.5 Test Location

All tests were performed at:

Global United Technology Services Co., Ltd.

Address: No. 123-128, Tower A, Jinyuan Business Building, No.2, Laodong Industrial Zone, Xixiang Road, Baoan District, Shenzhen, Guangdong, China 518102

Tel: 0755-27798480

Fax: 0755-27798960

6 Test Instruments list

Radiated Emission:

Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	3m Semi- Anechoic Chamber	ZhongYu Electron	9.2(L)*6.2(W)* 6.4(H)	GTS250	July. 02 2020	July. 01 2025
2	Control Room	ZhongYu Electron	6.2(L)*2.5(W)* 2.4(H)	GTS251	N/A	N/A
3	EMI Test Receiver	Rohde & Schwarz	ESU26	GTS203	June. 25 2020	June. 24 2021
4	BiConiLog Antenna	SCHWARZBECK MESS-ELEKTRONIK	VULB9163	GTS214	June. 25 2020	June. 24 2021
5	Double -ridged waveguide horn	SCHWARZBECK MESS-ELEKTRONIK	BBHA 9120 D	GTS208	June. 25 2020	June. 24 2021
6	Horn Antenna	ETS-LINDGREN	3160	GTS217	June. 25 2020	June. 24 2021
7	EMI Test Software	AUDIX	E3	N/A	N/A	N/A
8	Coaxial Cable	GTS	N/A	GTS213	June. 25 2020	June. 24 2021
9	Coaxial Cable	GTS	N/A	GTS211	June. 25 2020	June. 24 2021
10	Coaxial cable	GTS	N/A	GTS210	June. 25 2020	June. 24 2021
11	Coaxial Cable	GTS	N/A	GTS212	June. 25 2020	June. 24 2021
12	Amplifier(100kHz-3GHz)	HP	8347A	GTS204	June. 25 2020	June. 24 2021
13	Amplifier(2GHz-20GHz)	HP	84722A	GTS206	June. 25 2020	June. 24 2021
14	Amplifier (18-26GHz)	Rohde & Schwarz	AFS33-18002 650-30-8P-44	GTS218	June. 25 2020	June. 24 2021
15	Band filter	Amindeon	82346	GTS219	June. 25 2020	June. 24 2021
16	Power Meter	Anritsu	ML2495A	GTS540	June. 25 2020	June. 24 2021
17	Power Sensor	Anritsu	MA2411B	GTS541	June. 25 2020	June. 24 2021
18	Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	GTS575	June. 25 2020	June. 24 2021
19	Splitter	Agilent	11636B	GTS237	June. 25 2020	June. 24 2021
20	Loop Antenna	ZHINAN	ZN30900A	GTS534	June. 25 2020	June. 24 2021
21	Breitband hornantenne	SCHWARZBECK	BBHA 9170	GTS579	Oct. 19 2019	Oct. 18 2020
22	Amplifier	TDK	PA-02-02	GTS574	Oct. 19 2019	Oct. 18 2020
23	Amplifier	TDK	PA-02-03	GTS576	Oct. 19 2019	Oct. 18 2020
24	PSA Series Spectrum Analyzer	Rohde & Schwarz	FSP	GTS578	June. 25 2020	June. 24 2021

General used equipment:

Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	Humidity/ Temperature Indicator	KTJ	TA328	GTS243	June. 25 2020	June. 24 2021
2	Barometer	ChangChun	DYM3	GTS255	June. 25 2020	June. 24 2021

RF Conducted Test:

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
1	MXA Signal Analyzer	Agilent	N9020A	GTS566	June. 25 2020	June. 24 2021
2	EMI Test Receiver	R&S	ESCI 7	GTS552	June. 25 2020	June. 24 2021
3	Spectrum Analyzer	Agilent	E4440A	GTS533	June. 25 2020	June. 24 2021
4	MXG vector Signal Generator	Agilent	N5182A	GTS567	June. 25 2020	June. 24 2021
5	ESG Analog Signal Generator	Agilent	E4428C	GTS568	June. 25 2020	June. 24 2021
6	USB RF Power Sensor	DARE	RPR3006W	GTS569	June. 25 2020	June. 24 2021
7	RF Switch Box	Shongyi	RFSW3003328	GTS571	June. 25 2020	June. 24 2021
8	Programmable Constant Temp & Humi Test Chamber	WEWON	WHTH-150L-40-880	GTS572	June. 25 2020	June. 24 2021

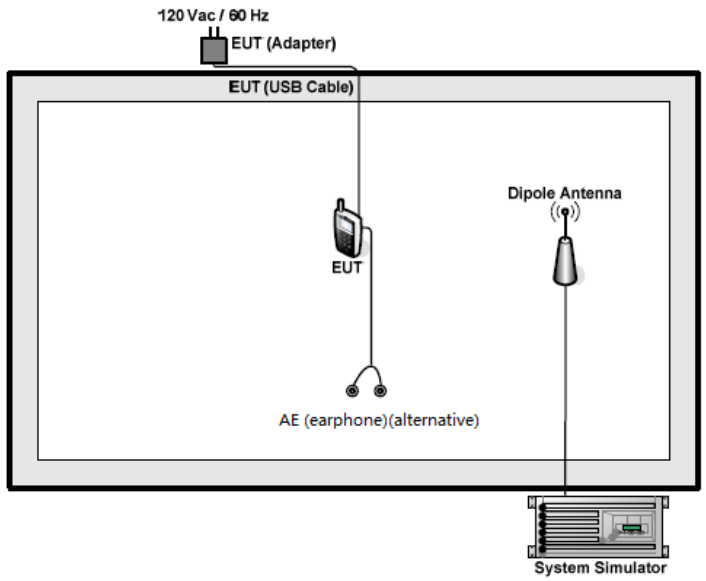
7 System test configuration

7.1 Test mode

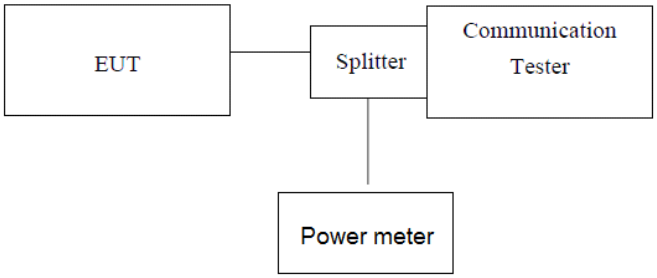
During all testing, EUT is in link mode with base station emulator at maximum power level. The spurious emission measurements were carried out in semi-anechoic chamber with 3-meter test range, and EUT is rotated on three test planes to find out the worst emission.

Test modes		
Band	Radiated	Conducted
LTE Band 2	■ QPSK and 16QAM link	■ QPSK and 16QAM link
LTE Band 4	■ QPSK and 16QAM link	■ QPSK and 16QAM link
LTE Band 5	■ QPSK and 16QAM link	■ QPSK and 16QAM link
LTE Band 12	■ QPSK and 16QAM link	■ QPSK and 16QAM link
LTE Band 13	■ QPSK and 16QAM link	■ QPSK and 16QAM link
LTE Band 17	■ QPSK and 16QAM link	■ QPSK and 16QAM link
LTE Band 25	■ QPSK and 16QAM link	■ QPSK and 16QAM link
LTE Band 26	■ QPSK and 16QAM link	■ QPSK and 16QAM link
LTE Band 41	■ QPSK and 16QAM link	■ QPSK and 16QAM link
LTE Band 66	■ QPSK and 16QAM link	■ QPSK and 16QAM link

7.2 Configuration of Tested System

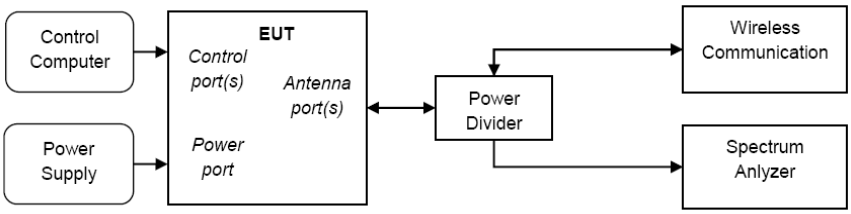


7.3 Conducted Output Power

Test Requirement:	FCC part 22.913, Part 24.232; Part 27.50
Test Method:	FCC part2.1046
Limit:	LTE Band 4/66: 1W LTE Band 5/26: 7W LTE Band 2/25/41/7: 2W LTE Band 12/13/17: 3W
Test setup:	 *Note: Measurement setup for testing on Antenna connector*
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 6.1 for details
Test results:	Pass

Measurement Data: The detailed test data see Appendix

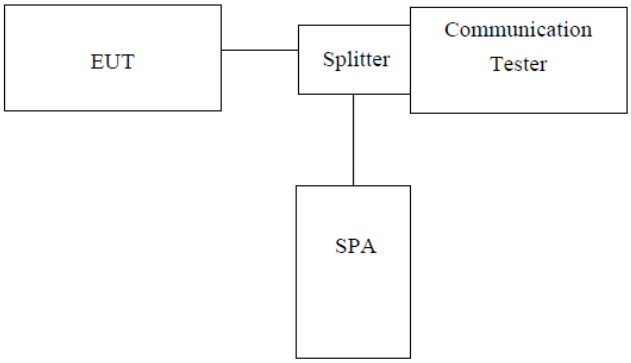
7.4 Peak-to-Average Ratio

Test Requirement:	FCC part 22.913(d) & part24.232(d) & FCC Part 27.50
Test Method:	FCC part2.1046
Limit:	13db
Test setup:	
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 7.1 for details
Test results:	Pass

Remark: Both modulation modes have been tested, showing only the worst QPSK test data.

Measurement data: The detailed test data see Appendix

7.5 Occupy Bandwidth

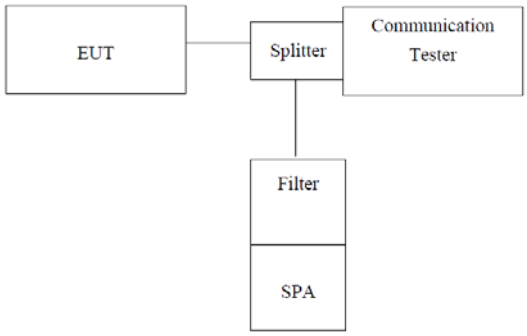
Test Requirement:	FCC Part 24.238; Part 27.53; part 22.917
Test Method:	FCC part2.1049
Test setup:	 *Note: Measurement setup for testing on Antenna connector*
Test Procedure:	1. The EUT's output RF connector was connected with a short cable to the spectrum analyzer 2. RBW was set to about 1% of emission BW, VBW= 3 times RBW. 3. -26dBc display line was placed on the screen (or 99% bandwidth), the occupied bandwidth is the delta frequency between the two points where the display line intersects the signal trace.
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 6.1 for details
Test results:	Pass

Measurement Data: The detailed test data see Appendix

7.6 MODULATION CHARACTERISTIC

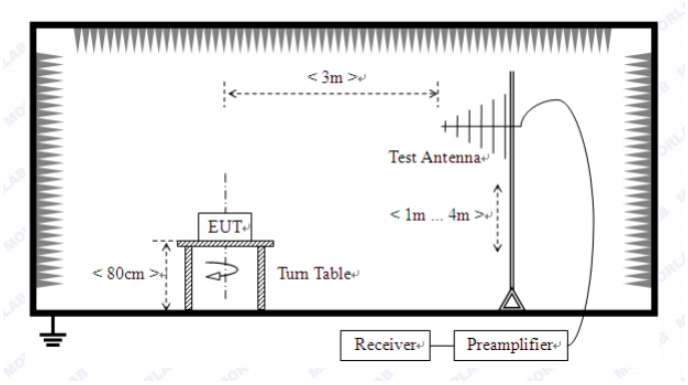
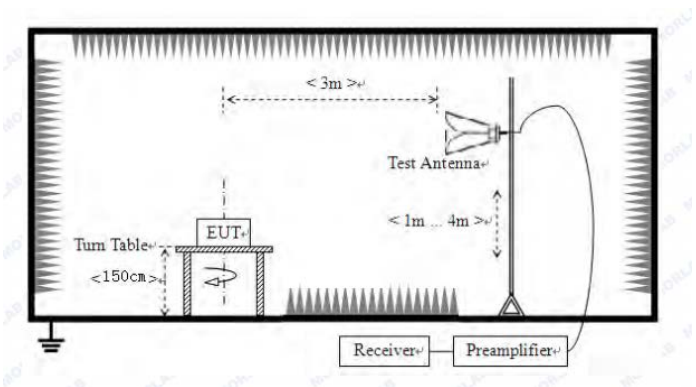
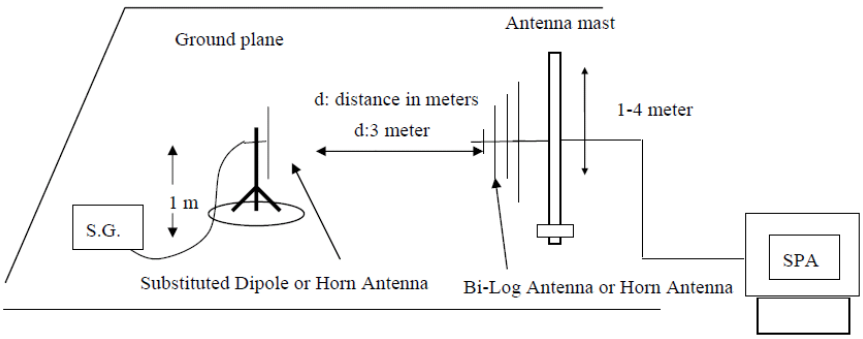
According to FCC § 2.1047(d), Part 27 there is no specific requirement for digital modulation, therefore modulation characteristic is not presented.

7.7 Out of band emission at antenna terminals

Test Requirement:	FCC Part 24.238; Part 27.53; Part 22.917
Test Method:	FCC part2.1051
Test setup:	 *Note: Measurement setup for testing on Antenna connector*
Test Procedure:	1 The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation. 2 The resolution bandwidth of the spectrum analyzer was set at 1MHz, sufficient scans were taken to show the out of band Emissions if any up to 10th harmonic. 3 For the out of band: Set the RBW, VBW = 1MHz, Start=30MHz, Stop= 10th harmonic. 4 Band Edge Requirements: In the 1 MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 1 percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to measure the out of band Emissions.
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 6.1 for details
Test results:	Pass

Measurement Data: The detailed test data see Appendix

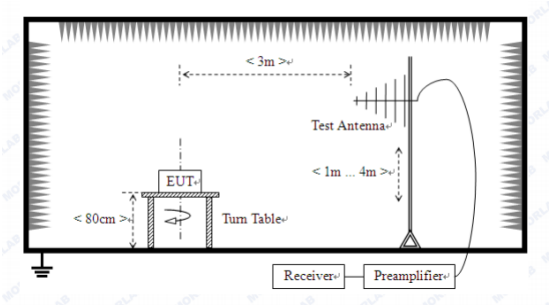
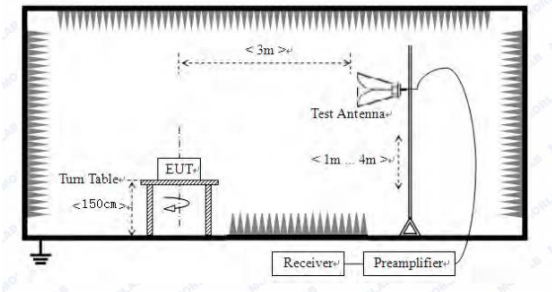
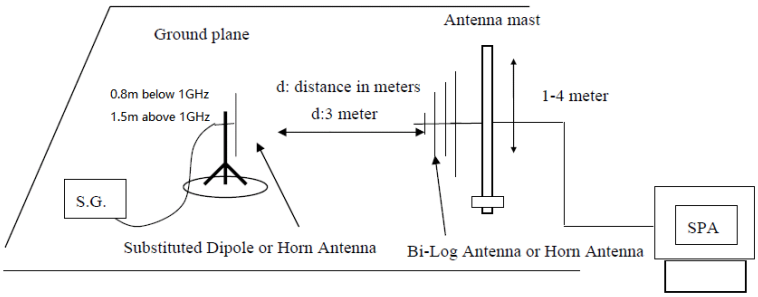
7.8 ERP, EIRP Measurement

Test Requirement:	FCC part 22.913(a), Part 24.238 (a); Part 27.50
Test Method:	FCC part 2.1046 and ANSI C63.26:2015
Limit:	LTE Band 4/66: 1W LTE Band 5/26: 7W LTE Band 2/25/41/7: 2W LTE Band 12/13/17: 3W
Test setup:	Below 1GHz  Above 1GHz  Substituted method: 
Test Procedure:	1. The EUT was placed on an non-conductive turntable using a non-

	conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer. 2. During the measurement, the EUT was communication with the station. The highest emission was recorded with the rotation of the turntable and the lowering of the test antenna from 4m to 1m. The reading was recorded and the field strength (E in dBuV/m) was calculated. 3. ERP in frequency band 777–787MHz were measured using a substitution method. The EUT was replaced by dipole antenna connected, the S.G. output was recorded and ERP was calculated asfollows: ERP = S.G. output (dBm) + Antenna Gain (dBd) – Cable Loss (dB) 4. EIRP in frequency band 1710–1755MHz were measured using a substitution method. The EUT was replaced by or horn antenna connected, the S.G. output was recorded and EIRP was calculated as follows: EIRP = S.G. output (dBm) + Antenna Gain (dBi) – Cable Loss (dB)
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 7.1 for details
Test results:	Pass

Measurement Data: The detailed test data see Appendix

7.9 Field strength of spurious radiation measurement

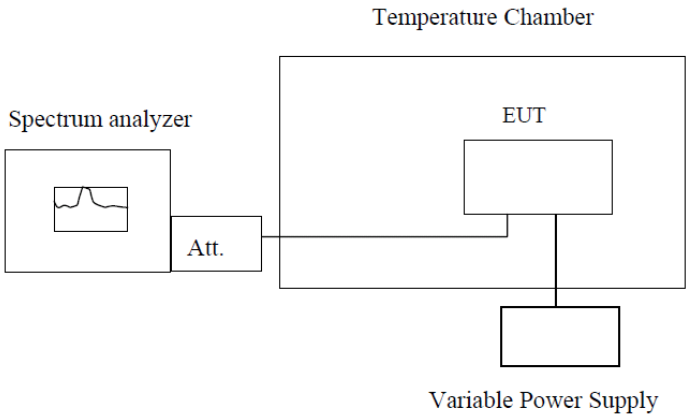
Test Requirement:	Part 24.238 (a); FCC Part 27.53(h)/(g)
Test Method:	FCC part 2.1053 and ANSI C63.26:2015
Test setup:	Below 1GHz  Above 1GHz  Substituted method: 
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 6.1 for details
Test results:	Pass

Measurement Data: only the worst test result Band 41 report

LTE Band 41 @20MHz								
Channel	**Frequency(MHz)**	**Polarization**	**SGP [dBm]**	**Substitution Gain[dBi]**	**Cable loss[dB]**	**EIRP (dBm)**	**Limit (dBm)**	**Over Limit (dBm)**
Lowest	5130.00	H	-59.61	13.10	5.38	-51.89	-25.00	-26.89
	7695.00	H	-50.32	11.30	7.12	-46.14	-25.00	-21.14
	10260.00	H	-44.32	12.10	8.06	-40.28	-25.00	-15.28
	5130.00	V	-60.39	13.10	5.38	-52.67	-25.00	-27.67
	7695.00	V	-50.05	11.30	7.12	-45.87	-25.00	-20.87
	10260.00	V	-45.23	12.10	8.06	-41.19	-25.00	-16.19
Middle	5210.00	H	-58.56	13.10	5.42	-50.88	-25.00	-25.88
	7815.00	H	-50.57	11.30	7.02	-46.29	-25.00	-21.29
	10420.00	H	-43.63	12.10	8.07	-39.6	-25.00	-14.6
	5210.00	V	-59.64	13.10	5.42	-51.96	-25.00	-26.96
	7815.00	V	-51.04	11.30	7.02	-46.76	-25.00	-21.76
	10420.00	V	-43.82	12.10	8.07	-39.79	-25.00	-14.79
Highest	5290.00	H	-58.85	13.10	5.76	-51.51	-25.00	-26.51
	7935.00	H	-50.40	11.30	7.02	-46.12	-25.00	-21.12
	10580.00	H	-44.28	12.10	8.06	-40.24	-25.00	-15.24
	5290.00	V	-60.45	13.10	5.76	-53.11	-25.00	-28.11
	7935.00	V	-50.61	11.30	7.02	-46.33	-25.00	-21.33
	10580.00	V	-44.27	12.10	8.06	-40.23	-25.00	-15.23

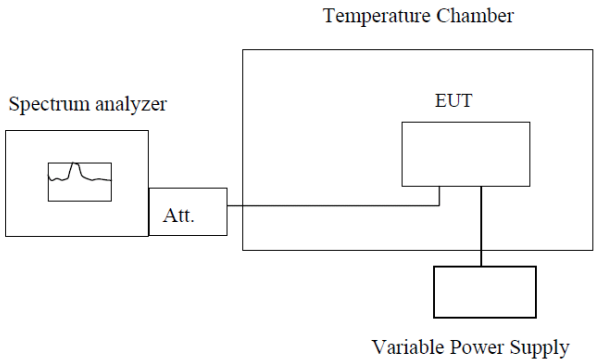
Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit

7.10 Frequency stability V.S. Temperature measurement

Test Requirement:	FCC Part2.1055(a)(1)(b)
Test Method:	FCC Part2.1055(a)(1)(b)
Limit:	2.5ppm
Test setup:	 **Note :** Measurement setup for testing on Antenna connector
Test procedure:	1. The equipment under test was connected to an external DC power supply and input rated voltage. 2. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. 3. The EUT was placed inside the temperature chamber. 4. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 25°C operating frequency as reference frequency. 5. Turn EUT off and set the chamber temperature to –20°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. 6. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached.
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 6.1 for details
Test results:	Pass

Measurement Data: The detailed test data see Appendix

7.11 Frequency stability V.S. Voltage measurement

Test Requirement:	FCC Part2.1055(d)(1)(2)
Test Method:	FCC Part2.1055(d)(1)(2)
Limit:	2.5ppm
Test setup:	 **Note :** Measurement setup for testing on Antenna connector
Test procedure:	1. Set chamber temperature to 25°C. Use a variable DC power source to power the EUT and set the voltage to rated voltage. 2. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency. 3. Reduce the input voltage to specified extreme voltage variation (+/- 15%) and endpoint, record the maximum frequency change.
Test Instruments:	Refer to section 6.0 for details
Test mode:	Refer to section 6.1 for details
Test results:	Pass

Measurement Data: The detailed test data see Appendix

8 Test Setup Photo

Reference to the **appendix I** for details.

9 EUT Constructional Details

Reference to the **appendix II** for details.

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