

TEST REPORT

Report No.: BCTC2309208793-5E

Applicant: Shenzhen FreeYond Technology Co Ltd

Product Name: Tablet

Model/Type

reference:

P6

Tested Date: 2023-09-23 to 2023-10-19

Issued Date: 2023-10-30

Shenzhen BCTC Testing Co., Ltd.



No.: BCTC/RF-EMC-007 Page: 1 of 38 / / / / Edition B.C



FCC ID: 2A8FE-P6

Product Name: Tablet

Trademark: N/A

Model/Type reference: P6

Prepared For: Shenzhen FreeYond Technology Co Ltd

Unit 203,Block A,Tengfei Industrial Building, No.6 Taohua Road,Futian

Address:

Bonded Area ,Shenzhen ,Guangdong, China

Manufacturer: Shenzhen FreeYond Technology Co Ltd

Unit 203,Block A,Tengfei Industrial Building , No.6 Taohua Road ,Futian Address:

Bonded Area , Shenzhen , Guangdong, China

Prepared By: Shenzhen BCTC Testing Co., Ltd

Address: 1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Tangwei,

Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China

Sample Received Date: 2023-09-22

Sample tested Date: 2023-09-23 to 2023-10-19

Report No.: BCTC2309208793-5E

Test Standards: FCC CFR Title 47 Part 2

FCC CFR Title 47 Part 27

Test Results: PASS

Remark: This is radio test report for 4G in US full bands.

Tested by:

Brave 2emg

Brave Zeng/ Project Handler

Approved by:

Zero Zhou/Reviewer

The test report is effective only with both signature and specialized stamp. This result(s) shown in this report refer only to the sample(s) tested. Without written approval of Shenzhen BCTC Testing Co., Ltd, this report can't be reproduced except in full. The tested sample(s) and the sample information are provided by the client.

No.: BCTC/RF-EMC-007 Page: 2 of 38 / / / / / Edition Bi0



Table Of Content

Test	Report Declaration	Page
1.	Version	5
2.	Test Summary	6
3.	Measurement Uncertainty	7
4.	Product Information And Test Setup	88
4.1	Product Information	8
4.2	Test Setup Configuration	g
4.2	Emission Designator	g
4.3	Description Operation Frequency	11
4.4	Test Mode	
4.5	Support Equipment	16
4.6	Measurement Results Explanation Example	16
5.	Test Facility And Test Instrument Used	17
5.1	Test Facility	
5.2	Test Instrument Used	17
6.	RF Output Power	18
6.1	Block Diagram Of Test Setup	18
6.2	Limit	20
6.3	Test procedure	20
6.4	Test Result	21
7.	Peak-To-Average Ratio(PAR) Of Transmitter	
7.1	Block Diagram Of Test Setup	27
7.2	Limit	27
7.3	Test procedure	
7.4	Test Result	
8.	Emission Bandwidth	
8.1	Block Diagram Of Test Setup	
8.2	Standard Applicable	28
8.3	Test procedure	28
8.4	Test Result	
9.	Out of Band Emissions at Antenna Terminal	
9.1	Block Diagram Of Test Setup	29
9.2	Limit	29
9.3	Test procedure	29
9.4	Test Result	29
	Spurious Radiated Emissions	30
10.1	Block Diagram Of Test Setup	30
10.2	Limit	31
10.3	lest procedure	3 I
10.4	Test Result	
11.	Frequency Stability	
11.1	Block Diagram Of Test Setup	36

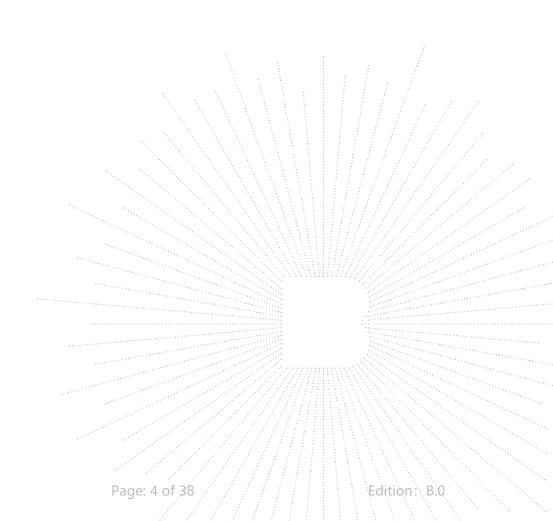


No.: BCTC/RF-EMC-007

Report No.: BCTC2309208793-5E

11.2	Limit	36
11.3	Test procedure	36
11.4	Test Result	36
12 F	IIT Test Setup Photographs	37

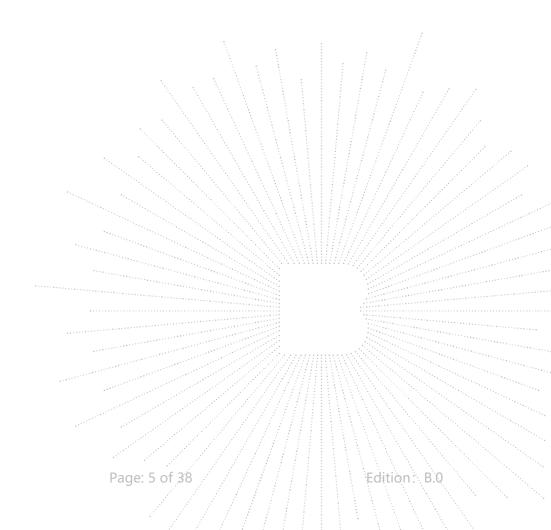
(Note: N/A Means Not Applicable)





1. Version

Report No.	Issue Date	Description	Approved
BCTC2309208793-5E	2023-10-30	Original	Valid





2. Test Summary

The Product has been tested according to the following specifications:

No.	Test Parameter	Clause No	Results
1	RF Exposure	§1.1307,§2.1093	PASS
		§2.1046; §22.913;	
2	RF Output Power	§22.913 (a)	PASS
_	The Galpan Tower	§24.232(c); §27.50(d);	17100
		§27.50(c); §27.50(b);	
		§22.913	
3	Peak-to-average Ratio(PAR) of Transmitter	§2.1046; §24.232(d)	PASS
	o Tour to average realio(17114) of Transmitter	§27.50(d);§27.50(c); §27.50(b);	.,,,,,,
4	Emission Bandwidth	§22.917 (b)	DACC
4	Emission bandwidth	§2.1049; §24.238(b);§27.53;	PASS
5	Spurious Emissions at Antenna Terminal	§22.917 (a), §24.238 (a), §27.53(g),§27.53(h)	PASS
		§22.917 (a)	/
6	Spurious Radiation Emissions	§2.1051; §22.917(a);	PASS
	Sparious regulation Emissions	§27.53(h); §27.53(g);	/ /
		§27.53(c); §24.238(a);	
		§22.917 (a)	1777.
7	Out of Band Emissions	§2.1051; §22.917(a);	PASS PASS PASS
		§27.53(h); §27.53(c); §27.53(g); §24.238(a);	
8	Frequency Stability	§2.1055;§22.355; §27.54; §24.235;	PASS

No.: BCTC/RF-EMC-007 Page: 6 of 38 / / / / Edition B.0



3. Measurement Uncertainty

The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	3m chamber Radiated spurious emission(30MHz-1GHz)	U=4.3dB
2	3m chamber Radiated spurious emission(9KHz-30MHz)	U=3.7dB
3	3m chamber Radiated spurious emission(1GHz-18GHz)	U=4.5dB
4	3m chamber Radiated spurious emission(18GHz-40GHz)	U=3.34dB
5	Conducted Emission (150kHz-30MHz)	U=3.20dB
6	Conducted Adjacent channel power	U=1.38dB
7	Conducted output power uncertainty Above 1G	U=1.576dB
8	Conducted output power uncertainty below 1G	U=1.28dB
9	humidity uncertainty	U=5.3%
10	Temperature uncertainty	U=0.59℃

No.: BCTC/RF-EMC-007 Page: 7 of 38 / / / Edition B.



4. Product Information And Test Setup

4.1 Product Information

Model/Type reference: P6
Model differences: N/A
Hardware Version: N/A
Software Version: N/A

LTE Band 7: 2500MHz-2570MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 17: 704MHz-716MHz

Tx Frequency: LTE Band 38: 2570 MHz -2620 MHz

LTE Band 41: 2496MHz ~ 2690MHz LTE Band 66: 1710 MHz -1780 MHz LTE Band 7: 2620MHz-2690MHz LTE Band 12: 729 MHz ~ 746 MHz LTE Band 17: 734MHz-746MHz

Rx Frequency: LTE Band 38: 2570 MHz -2620 MHz

LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 66: 2110 MHz -2180 MHz

LTE Band 7: 5MHz /10MHz /15MHz /20MHz LTE Band 12: 1.4MHz /3MHz /5MHz /10MHz

Bandwidth: LTE Band 17: 5MHz /10MHz

LTE Band 38: 5MHz /10MHz /15MHz /20MHz LTE Band 41: 5MHz /10MHz /15MHz /20MHz

LTE Band 66: 1.4MHz /3MHz /5MHz /10MHz /15MHz /20MHz

LTE Band 7: 22.98 dBm LTE Band 12: 23.66 dBm

Maximum Output Power to LTE Band 17: 23.23 dBm

Antenna:

LTE Band 38: 22.93 dBm LTE Band 41: 22.97 dBm LTE Band 66: 23.41 dBm LTE Band 7: 18M0G7D LTE Band 12: 9M04G7D

99% Occupied Bandwidth: LTE Band 17: 9M05W7D LTE Band 38: 18M0G7D

LTE Band 41: 18M1W7D LTE Band 66: 18M0W7D

Type of Modulation: QPSK/16QAM
Antenna installation: Internal antenna

LTE Band 7: 2.45 dBi LTE Band 12: -9.69 dBi LTE Band 17: -9.69 dBi

Antenna Gain: LTE Band 38: 2.42 dBi

LTE Band 41: 2.77 dBi LTE Band 66: 0.53 dBi

power supply: AC 100-240,50/60Hz

Battery: DC3.8V,6000mAh/22.8Wh

Model: EE05020-P25

Adapter: Input:AC100-240V,50/60Hz,0.5A

Output:DC5V,2.0A

No.: BCTC/RF-EMC-007 Page: 8 of 38 / / / / / / Edition Bit



4.2 Test Setup Configuration

See test photographs attached in *EUT TEST SETUP PHOTOGRAPHS* for the actual connections between Product and support equipment.

Radiated Spurious Emission

E-1 EUT

4.2 Emission Designator

LTE Band 7	QPSK		160	MAQ
BW(MHz)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)
5	4M53G7D	0.148	4M53W7D	0.137
10	9M00G7D	0.152	9M02W7D	0.157
15	13M5G7D	0.149	13M6W7D	0.143
20	18M0G7D	0.163	18M0W7D	0.157

LTE Band 12	QP	SK	16C	QAM .
BW(MHz)	Emission Designator (99%OBW)	Maximum ERP(W)	Emission Designator (99%OBW)	Maximum ERP(W)
1.4	1M10G7D	0.137	1M11W7D	0.147
3	2M71G7D	0.137	2M71W7D	0.137
5	4M52G7D	0.149	4M50W7D	0.144
10	9M04G7D	0.155	9M02W7D	0.151

LTE Band 17	QP	SK	160	QAM
BW(MHz)	Emission Designator (99%OBW)	Maximum ERP(W)	Emission Designator (99%OBW)	Maximum ERP(W)
5	4M52G7D	0.124	4M52W7D	0.120
10	9M04G7D	0.133	9M05W7D	0.130

LTE Band 38	QPSK		16Q	AM
BW(MHz)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)
5	4M51G7D	0.152	4M50W7D	0.138
10	8M99G7D	0.147	9M00W7D	0.136

No.: BCTC/RF-EMC-007 Page: 9 of 38 / / / / Edition B.C



15	13M5G7D	0.142	13M6W7D	0.145
20	18M0G7D	0.154	18M0W7D	0.152

LTE Band 41	QPSK		16Q	AM
BW(MHz)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)
5	5M12G7D	0.139	4M96W7D	0.124
10	9M00G7D	0.148	9M00W7D	0.133
15	13M5G7D	0.147	13M5W7D	0.133
20	18M0G7D	0.149	18M1W7D	0.141

LTE Band 66	QPSK		16Q	АМ
BW(MHz)	Emission Designator (99%OBW)	Maximum EIRP(W)	Emission Designator (99%OBW)	Maximum EIRP(W)
1.4	1M11G7D	0.104	1M11W7D	0.128
3	2M72G7D	0.128	2M72W7D	0.127
5	4M52G7D	0.121	4M53W7D	0.133
10	9M01G7D	0.102	9M01W7D	0.136
15	13M5G7D	0.130	13M5W7D	0.136
20	18M0G7D	0.138	18M0W7D	0.149

No.: BCTC/RF-EMC-007 Page: 10 of 38/// Edition: B,0



4.3 Description Operation Frequency

LTE Ba	nd 7(5MHz)	LTE Band 7(10MHz)					
Channel	Frequency (MHz)	Channel	Frequency (MHz)				
20775	2502.5	20800	2505				
21100	2535	2535					
21425	2567.5	21400	2565				
LTE Bar	nd 7(15MHz)	LTE Ban	d 7(20MHz)				
Channel	Frequency (MHz)	Channel	Frequency (MHz)				
20825	2507.5	20850	2510				
21100	2535	21100	2535				
21375	2562.5	21350	2560				

LTE Band	l 12(1.4MHz)	LTE Band 12(3MHz)					
Channel	Frequency (MHz)	Channel	Frequency (MHz)				
23017	699.7	23025	700.5				
23095	707.5	23095	707.5				
23173	715.3	23165	714.5				
LTE Ban	d 12(5MHz)	LTE Band	d 12(10MHz)				
Channel	Frequency (MHz)	Channel	Frequency (MHz)				
23035	701.5	23060	704				
23095	707.5	23095	707.5				
23155	713.5	23130	. 711				

LTE Band	17(5MHz)	LTE Band 17(10MHz)					
Channel	Frequency (MHz)	Channel	Frequency (MHz)				
23755	706.5	23780	709				
23790	710	23790	710				
23825	713.5	23800	711				

LTE Band	I 38(5MHz)	LTE Band	38 (10MHz)
Channel	Frequency (MHz)	Channel	Frequency (MHz)
37775	2572.5	37800	2575
38000	2595	38000	2595
38225	2617.5	38200	2615
LTE Band	38 (15MHz)	LTE Band	38 (20MHz)
LTE Band Channel	38 (15MHz) Frequency (MHz)	LTE Band :	38 (20MHz) Frequency (MHz)
	1		,
Channel	Frequency (MHz)	Channel 37850	Frequency (MHz)

No.: BCTC/RF-EMC-007 Page: 11 of 38/ / / / | Edition; B,0



LTE Band	l 41(5MHz)	LTE Band 41(10MHz)					
Channel	Frequency (MHz)	Channel	Frequency (MHz)				
39675	2498.5	39700	2501				
40620	2593	40620	2593				
41565	2687.5	41540	2685				
LTE Band	41(15MHz)	LTE Band	41(20MHz)				
Channel	Frequency (MHz)	Channel	Frequency (MHz)				
39725	2503.5	39750	2506				
40620	2593	40620	2593				
41515	2682.5	41490	2680				

LTE Band 6	66(1.4MHz)	LTE Band 66((3MHz)					
Channel	Frequency (MHz)	Channel	Frequency (MHz)				
131979	1710.7	131987	1711.5				
132322	1745	132322	1745				
132665	1779.3	132657	1778.5				
LTE Band	66(5MHz)	LTE Band	66((10MHz)				
Channel	Frequency (MHz)	Channel	Frequency (MHz)				
131997	1712.5	132022	1715				
132322	1745	132322	1745				
132647	1777.5	132622	1775				
LTE Band 6	6((15MHz)	LTE Band	66((20MHz)				
Channel	Frequency (MHz)	Channel	Frequency (MHz)				
132047	1717.5	132072	1720				
132322	1745	132322	1745				
132597	1772.5	132572	1770 / /				

No.: BCTC/RF-EMC-007 Page: 12 of 38/// Edition: B,0



4.4 Test Mode

Test modes are chosen to be reported as the worst case configuration below:

Test Mode										
Band	Radiated TCs	Conducted TCs								
LTE Band 7	QPSK Link (5MHz /10MHz / 15MHz / 20MHz)	16QAM Link (5MHz /10MHz / 15MHz / 20MHz)								
LTE Band 12	QPSK Link (1.4MHz / 3MHz / 5MHz / 10MHz)	16QAM Link (1.4MHz / 3MHz / 5MHz / 10MHz)								
LTE Band 17	QPSK Link (5MHz /10MHz)	16QAM Link (5MHz /10MHz)								
LTE Band 38	QPSK Link (5MHz /10MHz / 15MHz / 20MHz)	16QAM Link (5MHz /10MHz / 15MHz / 20MHz)								
LTE Band 41	QPSK Link (5MHz /10MHz / 15MHz / 20MHz)	16QAM Link (5MHz /10MHz / 15MHz / 20MHz)								
LTE Band 66	QPSK Link (1.4MHz / 3MHz /5MHz /10MHz / 15MHz / 20MHz)	16QAM Link (1.4MHz / 3MHz /5MHz /10MHz / 15MHz / 20MHz)								

Note 1: All modes and data rates and positions were investigated.

Note 2: Both the SIM 1 and SIM 2 were tested, the worst mode is the SIM 1, the data recording in the report.

Antenna port conducted and radiated test items were performed according to KDB 971168 D01 Power Meas License Digital Systems v03 with maximum output power.

EUT Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core				
/	1						
/	1 %, %,	X					

Auxiliary Equipment List and Details

Description	Manufacturer	Model Serial Number
/	1	

Special Cable List and Details

Cable Description	Length (M)	Shielded/Unshielded	With Core/Without Core
/	/	1	-



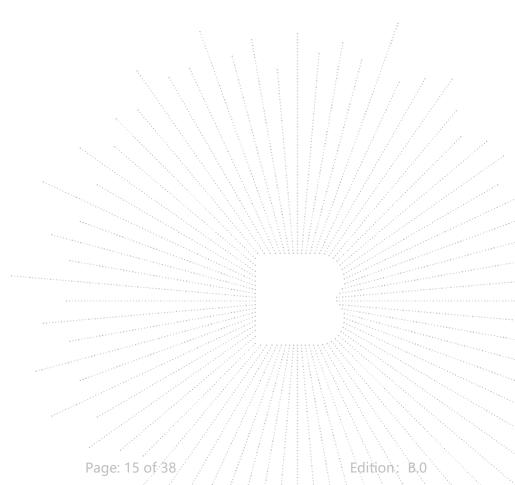
Radiated measurements were performed with rotating EUT in different three orthogonal test planes to find the maximum emission

the maximum er	nissio	Դ.						ı		ı					
Test Items	Band	Bandwidth (MHz)					Mod	ulation		RB #		Test Channel			
		1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full	L	M	Н
	7	-	-	٧	٧	V	٧	V	V	٧	٧	V	٧	٧	٧
	12	V	V	٧	٧	-	-	V	V	٧	٧	V	٧	٧	٧
Max.Output	17	-	-	٧	٧	-	-	V	V	٧	٧	٧	٧	٧	٧
Power	38	-	-	٧	٧	V	٧	V	V	٧	٧	V	٧	٧	٧
	41	-	-	٧	٧	V	٧	V	V	٧	٧	V	٧	٧	٧
	66	٧	V	٧	٧	V	٧	V	V	٧	٧	V	٧	٧	٧
	7			٧	٧	V	٧	V	V	٧	٧	٧	٧	٧	٧
	12	٧	V	٧	٧	-	-	V	V	٧	٧	٧	٧	٧	٧
Peak-to-Averag	17			٧	٧			V	V	٧	٧	V	٧	٧	٧
e Ratio	38	-	-	٧	٧	V	٧	V	V	٧	V	V	٧	٧	٧
	41	-	-	٧	٧	٧	٧	V	V	٧	V	V	٧	٧	٧
	66	٧	V	٧	٧	V	٧	V	V	٧	V	V	٧	٧	٧
7	7			٧	٧	٧	٧	V	V	٧	V	V	٧	٧	٧
	12	٧	V	٧	٧	-	-	V	V	٧	V	V	٧	٧	٧
26dB and 99%	17	-	-	٧	٧	-	-	V	V	٧	V	V	٧	٧	٧
Bandwidth	38	-	-	٧	٧	V	٧	V	V	٧	V	V	٧	٧	٧
	41	1	-	٧	٧	V	٧	V	* V	٧	Ý	ν,	٧	V	٧
	66	٧	V	٧	٧	V	٧	V	V	V	V	V	; V	٧	٧
	7			٧	٧	٧	٧	V	٧	V	V	٧	٧	Ņ	/ V
	12	٧	V	٧	٧	-	-	V	V	٧	٧	ν	٧	V	٧
Conducted	17			٧	٧			V	V	V	٧	v	V	٧	٧
Band Edge	38	-	-	٧	٧	V	٧٠	v	V	٧	٧	٧	٧	٧	٧
	41	1	-	٧.	, V	٧.	٧	v	V	٧	٧	V	ν	٧	٧
	66	٧	V	٧	٧	V	V	ν	V	٧	٧	v	٧	٧	٧
	7			٧	٧	*** V	٧	٧	V	٧	٧	V	٧	V	٧
	12	V	V	٧	٧	···· <u>·</u> ···.	-	V	V	٧	V	V	V	٧	٧
Conducted	17			V	V	********		V	V	v	V	V	٧	٧	٧
Spurious Emission	38	-	-	٧	٧	V	V	V	V	V	V	V	٧	ν	٧
-	41	-	-	٧,	, , V	V	V	V	V	V	V	V	٧	V	V
	66	٧	V	٧	٧.	V	٧	V	v	V.	V	V	V	٧	٧
	7			٧				٧	V	٧	÷ :	-	٧	٧	٧
Frequency	12			٧				٧	V	ν		-	٧	٧	٧
tability	17			٧				V	V	V	-	-	V	٧	٧
	38			V		,.		v	v	٧	· ·	-	٧	٧	٧
				1							1 1 1				L

No.: BCTC/RF-EMC-007 Page: 14 of 38 / / / Edition; B,0



	41			٧				V	V	٧	-	-	>	٧	٧
	66			٧				V	V	٧	-	-	٧	٧	٧
	7			٧	٧			V	V	٧	٧	V	٧	٧	٧
	12	٧	V	٧	٧	-	-	V	V	٧	٧	٧	٧	٧	٧
E.R.P./ E.I.R.P.	17	-	-	٧	٧	-	-	V	V	٧	٧	V	٧	٧	٧
E.R.P./ E.I.R.P.	38	-	-	٧	٧	٧	٧	V	V	٧	٧	٧	٧	٧	٧
	41	-	-	٧	٧	٧	٧	٧	V	٧	٧	٧	٧	٧	٧
	66	V	٧	٧	٧	٧	٧	V	V	٧	٧	٧	٧	٧	٧
	7			٧				V	V	٧			٧	٧	٧
	12			٧				V	V	٧			٧	٧	٧
Radiated	17			٧				V	V	٧			٧	٧	٧
Spurious Emission	38			٧				V	V	٧			٧	٧	٧
	41			٧				V	V	٧			٧	٧	٧
	66			٧				V	V	٧			٧	٧	٧
Note		1. The mark "v" means that this configuration is chosen for testing 2. The mark "-" means that this bandwidth is not supported.													





4.5 Support Equipment

No.	Device Type	Brand	Model	Series No.	Note
E-1	Tablet	N/A	P6	N/A	EUT
E-2	Adapter	N/A	N/A	N/A	EUT

Item	Shielded Type Ferrite Core		Length	Note
C-1	N/A	N/A	1M	DC cable unshielded

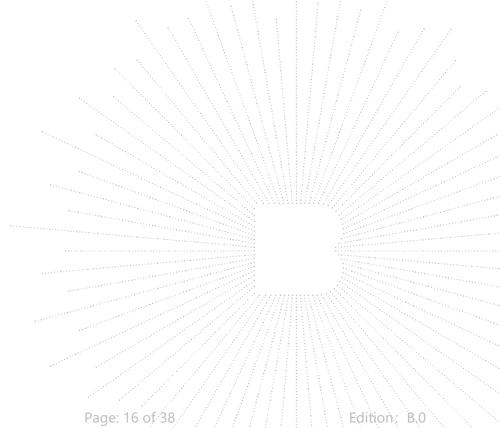
Notes:

- 1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during
- 2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between RF conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level will be exactly the RF output level. The spectrum analyzer offset is derived from RF cable loss and attenuator factor. Offset = RF cable loss + attenuator factor.





5. Test Facility And Test Instrument Used

5.1 Test Facility

All measurement facilities used to collect the measurement data are located at Shenzhen BCTC Testing Co., Ltd. Address: 1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Zhancheng, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China. The site and apparatus are constructed in conformance with the requirements of ANSI C63.4 and CISPR 16-1-1 other equivalent standards.

FCC Test Firm Registration Number: 712850 A2LA certificate registration number is: CN1212

ISED Registered No.: 23583 ISED CAB identifier: CN0017

5.2 Test Instrument Used

5.2 Test instrument used							
	Radia	ated Emissions	Test (966 Cham	per01)			
Equipment	Manufacturer	Model#	Serial#	Last Cal.	Next Cal.		
966 chamber	ChengYu	966 Room	966	May 15, 2023	May 14, 2026		
Receiver	R&S	ESR3	102075	May 15, 2023	May 14, 2024		
Receiver	R&S	ESRP	101154	May 15, 2023	May 14, 2024		
Amplifier	Schwarzbeck	BBV9744	9744-0037	May 15, 2023	May 14, 2024		
TRILOG Broadband Antenna	Schwarzbeck	VULB9163	942	May 29, 2023	May 28, 2024		
Loop Antenna(9KHz -30MHz)	Schwarzbeck	FMZB1519B	00014	May 31, 2023	May 30, 2024		
Amplifier	SKET	LAPA_01G18 G-45dB	\ \	May 15, 2023	May 14, 2024		
Horn Antenna	Schwarzbeck	BBHA9120D	1541	May 31, 2023	May 30, 2024		
Amplifier(18G Hz-40GHz)	MITEQ	TTA1840-35- HG	2034381	May 15, 2023	May 14, 2024		
Horn Antenn(18GHz -40GHz)	Schwarzbeck	BBHA9170	00822	May 31, 2023	May 30, 2024		
Spectrum Analyzer9kHz- 40GHz	R&S	FSP40	100363	May 15, 2023	May 14, 2024		
Communication test set	R&S	CMW500	126173	Nov. 08, 2022	Nov. 07, 2023		
Software	Frad	EZ-EMC	FA-03A2 RE				

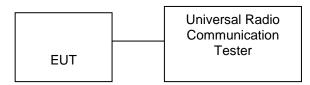
No.: BCTC/RF-EMC-007 Page: 17 of 38 / / / / / Edition; B,0



RF Output Power 6.

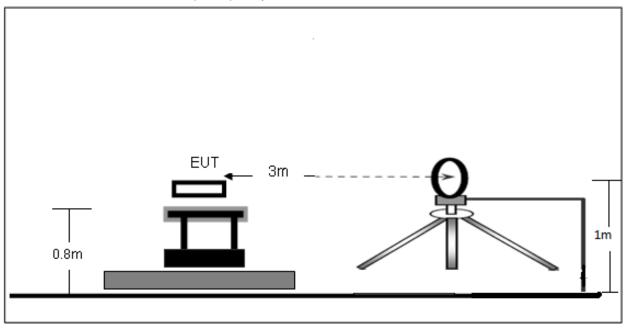
Block Diagram Of Test Setup 6.1

Conducted output power test method:



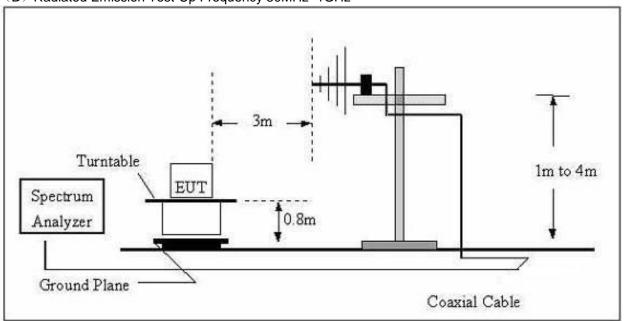
Radiated power test method:

(A) Radiated Emission Test-Up Frequency Below 30MHz

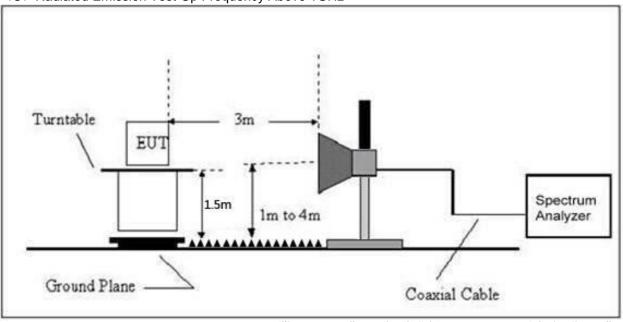




(B) Radiated Emission Test-Up Frequency 30MHz~1GHz



(C) Radiated Emission Test-Up Frequency Above 1GHz



No.: BCTC/RF-EMC-007 Page: 19 of 38/ / / Edition: B,0



6.2 Limit

According to §22.913(a)(2),The ERP of mobileand portable stations transmitters and auxiliary test transmitters must not exceed 7 Watts.

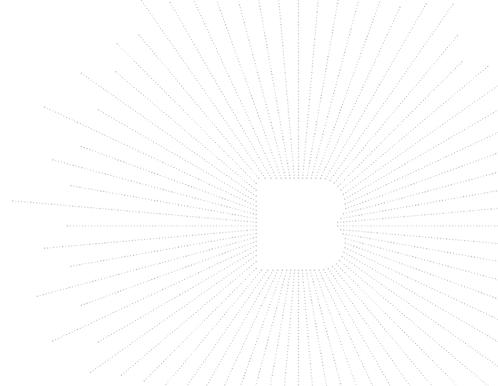
According to §24.232 (c), Mobile and portable stations are limited to 2 watts EIRP and the equipment must employ a means for limiting power to the minimum necessary for successful communications.

According to §27.50(d)(4), Fixed, mobile, and portable (hand-held) stations operating in the 1710-1755 MHz band and mobile and portable stations operating in the 1695-1710 MHz and 1755-1780 MHz bands are limited to 1 watt EIRP.

6.3 Test procedure

Radiated power test method:

- 1.The setup of EUT is according with per ANSI/TIA Standard 603D and ANSI C63.4-2014 measurement procedure.
- 2. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.
- 3. The frequency range up to tenth harmonic of the fundamental frequency was investigated.
- 4. Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.



No.: BCTC/RF-EMC-007 Page: 20 of 38/ / / / Edition: B,0



6.4 Test Result

Max Radiated Power:

FDD-LTE Band 7

T DD-LTL Dang T	Channel Band	dwidth: 5MHz		
Modulation	Channel	E.R.P(dBm)	Verdict	
	LCH	21.61	PASS	
QPSK	MCK	21.70	PASS	
	HCH	21.61	PASS	
	LCH	21.36	PASS	
16QAM	MCK	20.88	PASS	
	HCH	20.39	PASS	
		width: 10MHz		
Modulation	Channel	E.R.P(dBm)	Verdict	
	LCH	21.74	PASS	
QPSK	MCK	21.82	PASS	
	HCH	21.61	PASS	
	LCH	21.95	PASS	
16QAM	MCK	20.90	PASS	
	HCH	20.76	PASS	
	Channel Band			
Modulation	Channel	E.R.P(dBm)	Verdict	
	LCH	21.72	PASS	
QPSK	MCK	21.74	PASS	
	HCH	21.62	PASS	
	LCH	21.04	PASS	
16QAM	MCK	20.86	PASS /	
	HCH	21.56	PASS	
		width: 20MHz		
Modulation	Channel	E.R.P(dBm)	Verdict	
	LCH	21.83	PASS	
QPSK	MCK	22.12	PASS	
	HCH	21.72	PASS	
	LCH	21.09	PASS	
16QAM	MCK	20.88	PASS	
	HCH	21.97	PASS	

No.: BCTC/RF-EMC-007 Page: 21 of 38/ / / / | Edition; B,0



FDD-LTE Band 12

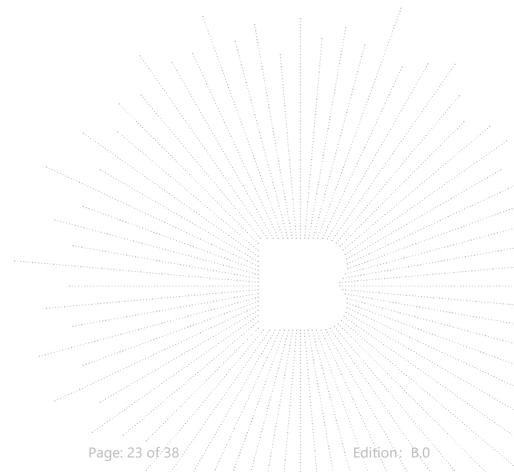
Channel Bandwidth: 1.4MHz						
Modulation	Channel	E.R.P(dBm)	Verdict			
	LCH	21.38	PASS			
QPSK	MCK	21.34	PASS			
	HCH	21.05	PASS			
	LCH	21.66	PASS			
16QAM	MCK	20.32	PASS			
	HCH	20.03	PASS			
	Channel Ba	ndwidth: 3MHz				
Modulation	Channel	E.R.P(dBm)	Verdict			
	LCH	21.27	PASS			
QPSK	MCK	21.36	PASS			
	HCH	21.02	PASS			
	LCH	21.38	PASS			
16QAM	MCK	21.30	PASS			
	HCH	20.97	PASS			
		ndwidth: 5MHz				
Modulation	Channel	E.R.P(dBm)	Verdict			
	LCH	20.30	PASS			
QPSK	MCK	21.27	PASS			
	HCH	21.74	PASS			
	LCH	21.58	PASS			
16QAM	MCK	21.33	PASS			
	HCH	20.81	PASS			
	Channel Bar	ndwidth: 10MHz				
Modulation	Channel	E.R.P(dBm)	Verdict			
	LCH	21.29	PASS			
QPSK	MCK	21.32	PASS /			
	HCH	21.90	PASS /			
	LCH	21.22	PASS			
16QAM	MCK	21.05	PASS			
	HCH	21.80	PASS			

No.: BCTC/RF-EMC-007 Page: 22 of 38/// Edition: B,0



FDD-LTE Band 17

Channel Bandwidth: 5MHz					
Modulation	Channel	E.R.P(dBm)	Verdict		
	LCH	20.06	PASS		
QPSK	MCK	20.10	PASS		
	HCH	20.94	PASS		
	LCH	20.80	PASS		
16QAM	MCK	20.56	PASS		
	HCH	20.30	PASS		
	Channel Band	dwidth: 10MHz			
Modulation	Channel	E.R.P(dBm)	Verdict		
	LCH	21.23	PASS		
QPSK	MCK	20.99	PASS		
	HCH	20.96	PASS		
	LCH	21.14	PASS		
16QAM	MCK	20.02	PASS		
	HCH	20.76	PASS		





FDD-LTE Band38

Channel Bandwidth: 5MHz							
Modulation	Channel	E.R.P(dBm)	Verdict				
	LCH	21.83	PASS				
QPSK	MCK	21.60	PASS				
	HCH	21.74	PASS				
	LCH	20.56	PASS				
16QAM	MCK	21.41	PASS				
	HCH	20.32	PASS				
	Channel Ba	ndwidth: 10MHz					
Modulation	Channel	E.R.P(dBm)	Verdict				
	LCH	21.19	PASS				
QPSK	MCK	21.02	PASS				
	HCH	21.67	PASS				
	LCH	21.34	PASS				
16QAM	MCK	20.58	PASS				
	HCH	21.03	PASS				
		ndwidth: 15MHz					
Modulation	Channel	E.R.P(dBm)	Verdict				
	LCH	20.92	PASS				
QPSK	MCK	21.09	PASS				
	HCH	21.51	PASS				
	LCH	21.60	PASS				
16QAM	MCK	20.51	PASS				
	HCH	20.80	PASS				
		ndwidth: 20MHz					
Modulation	Channel	E.R.P(dBm)	Verdict				
	LCH	21.87	PASS ,				
QPSK	MCK	21.60	PASS/				
	HCH	21.64	PASS				
	LCH	20.84	PASS				
16QAM	MCK	21.82	PASS				
	HCH	20.96	PASS				

No.: BCTC/RF-EMC-007 Page: 24 of 38 / / / Edition; B,0



FDD-LTE Band 41

Channel Bandwidth: 5MHz						
Modulation	Channel	E.R.P(dBm)	Verdict			
	LCH	21.00	PASS			
QPSK	MCK	21.42	PASS			
	HCH	21.57	PASS			
	LCH	20.52	PASS			
16QAM	MCK	20.95	PASS			
	HCH	20.25	PASS			
	Channel Ba	ndwidth: 10MHz				
Modulation	Channel	E.R.P(dBm)	Verdict			
	LCH	21.14	PASS			
QPSK	MCK	21.69	PASS			
	HCH	21.41	PASS			
	LCH	21.20	PASS			
16QAM	MCK	19.87	PASS			
	HCH	21.23	PASS			
		ndwidth: 15MHz				
Modulation	Channel	E.R.P(dBm)	Verdict			
	LCH	21.22	PASS			
QPSK	MCK	21.66	PASS			
	HCH	21.25	PASS			
	LCH	21.25	PASS			
16QAM	MCK	19.95	PASS			
	HCH	20.90	PASS			
		ndwidth: 20MHz				
Modulation	Channel	E.R.P(dBm)	Verdict			
	LCH	21.74	PASS ,			
QPSK	MCK	21.68	PASS			
	HCH	21.72	PASS			
	LCH	21.48	PASS			
16QAM	MCK	20.28	PASS			
	HCH	20.85	PASS			

No.: BCTC/RF-EMC-007 Page: 25 of 38//// Edition; B,0



FDD-LTE Band 66

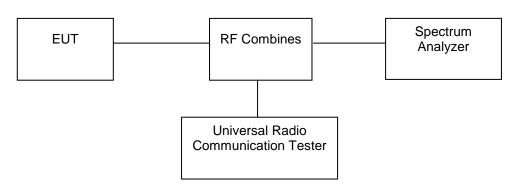
T DD-LTL Balla 00	Channel Band	dwidth: 1.4MHz	
Modulation	Channel	E.R.P(dBm)	Verdict
	LCH	20.17	PASS
QPSK	MCK	20.10	PASS
	HCH	20.08	PASS
	LCH	20.12	PASS
16QAM	MCK	20.24	PASS
·	HCH	21.08	PASS
		dwidth: 3MHz	
Modulation	Channel	E.R.P(dBm)	Verdict
	LCH	21.05	PASS
QPSK	MCK	21.03	PASS
	HCH	21.06	PASS
	LCH	20.28	PASS
16QAM	MCK	20.17	PASS
	HCH	21.03	PASS
		dwidth: 5MHz	17.00
Modulation	Channel	E.R.P(dBm)	Verdict
	LCH	20.12	PASS
QPSK	MCK	20.21	PASS
α. σ	HCH	20.84	PASS
	LCH	20.21	PASS
16QAM	MCK	21.23	PASS
100,111	HCH	20.61	PASS
		dwidth: 10MHz	1 400
Modulation	Channel	E.R.P(dBm)	Verdict
modulation	LCH	20.10	PASS
QPSK	MCK	20.07	PASS :
Q. O. (HCH	20.10	PASS
	LCH	21.33	PASS
16QAM	MCK	20.76	PASS
TOQAW	HCH	20.79	PASS
		dwidth: 15MHz	I NOO
Modulation	Channel	E.R.P(dBm)	Verdict
Woddiation	LCH	21.14	PASS
QPSK	MCK %	21.14	PASS
Qi SiX	HCH	20.92	PASS
	LCH	21.34	PASS
16QAM	MCK	20.86	PASS
TOQAW	HCH	20.86	PASS
		dwidth: 20MHz	HHHAAAAAA X X
Modulation			Verdict
Modulation	Channel LCH	E.R.P(dBm) 20.23	PASS
QPSK	MCK	20.23	PASS
QF3N	HCH	177112	PASS
		20.10	*******************************
160 4 14	LCH	20.35	PASS
16QAM	MCK	21.73	PASS
	HCH ·····	20.40	PASS

Max Conducted output Power:
Please refer to appendix A: Conducted Output Power
Test Result: Pass



7. Peak-To-Average Ratio(PAR) Of Transmitter

7.1 Block Diagram Of Test Setup



7.2 Limit

According to §24.232(d), Power measurements for transmissions by stations authorized under this section may be made either in accordance with a Commission-approved average power technique or in compliance with paragraph (e) of this section. In both instances, equipment employed must be authorized in accordance with the provisions of §24.51. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

According to §27.50(B), the peak-to-average power ratio (PAPR) of the transmitter output power must not exceed 13 dB. The PAPR measurements should be made using either an instrument with complementary cumulative distribution function (CCDF) capabilities to determine that PAPR will not exceed 13 dB for more than 0.1 percent of the time or other Commission approved procedure. The measurement must be performed using a signal corresponding to the highest PAPR expected during periods of continuous transmission.

7.3 Test procedure

The RF output terminal of the transmitter was connected to the input of the spectrum analyzer via a suitable attenuation. The RBW of the spectrum analyzer was set to 30kHz and the peak-to-average ratio (PAR) of the transmission was recorded. Record the maximum PAPR level associated with a probability of 0.1%.

7.4 Test Result

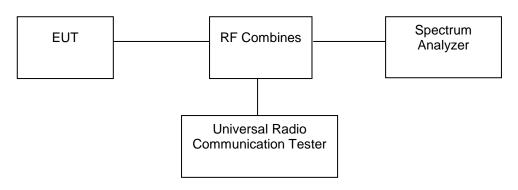
Please refer to Appendix 3: Peak-to-Average Ratio Test Result: Pass

No.: BCTC/RF-EMC-007 Page: 27 of 38/ / / / / Edition; B,0



8. Emission Bandwidth

8.1 Block Diagram Of Test Setup



8.2 Standard Applicable

According to §22.917(b), The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

According to §24.238(b), The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

According to §27.53, The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

8.3 Test procedure

- 1. The testing follows FCC KDB 971168 D01v03 Section 4.2.
- 2. The EUT was connected to the spectrum analyzer and system simulator via a power divider.
- 3. The RF output of the EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
- 4. The 99% occupied bandwidth were measured, set RBW= 1% of OBW, VBW= 3*RBW, sample detector, trace maximum hold.
- 5. The 26dB bandwidth were measured, set RBW= 1% of EBW, VBW= 3*RBW, peak detector, trace maximum hold.

8.4 Test Result

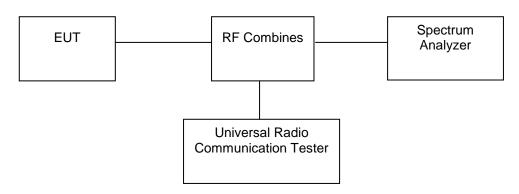
Please refer to Appendix 4: Occupied BandWidth Test Result: Pass

No.: BCTC/RF-EMC-007 Page: 28 of 38/ / / / / Edition; B,0



9. Out of Band Emissions at Antenna Terminal

9.1 Block Diagram Of Test Setup



9.2 Limit

According to §22.917(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

According to §24.238(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

According to §27.53 (h), the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 log10 (P) dB.

9.3 Test procedure

The RF output terminal of the transmitter was connected to the input of the spectrum analyzer via a suitable attenuation. The RBW of the spectrum analyzer was set to 100kHz and 1MHz for the scan frequency from 30MHz to 1GHz and the scan frequency from 1GHz to up to 10th harmonic.

9.4 Test Result

Please refer to Appendix 5: Band Edge & Appendix 6: Out-of-band Emissions Test Result: Pass

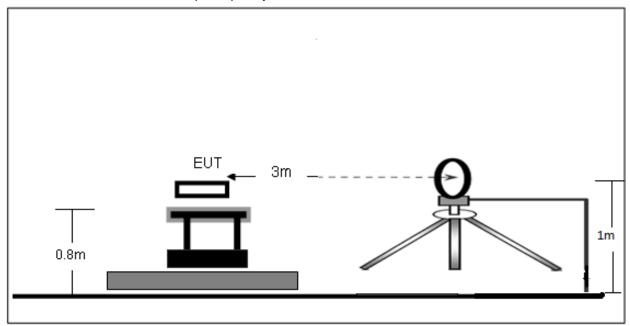
No.: BCTC/RF-EMC-007 Page: 29 of 38/ / / / | Edition: B,0



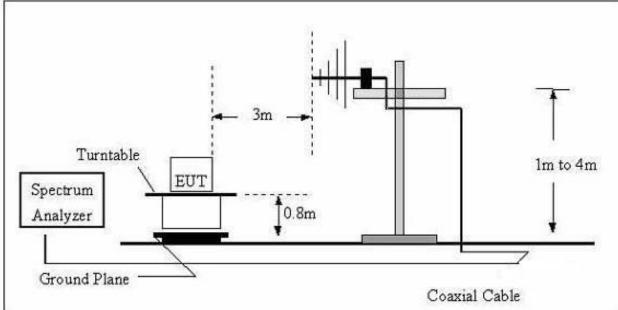
10. Spurious Radiated Emissions

10.1 Block Diagram Of Test Setup

(A) Radiated Emission Test-Up Frequency Below 30MHz



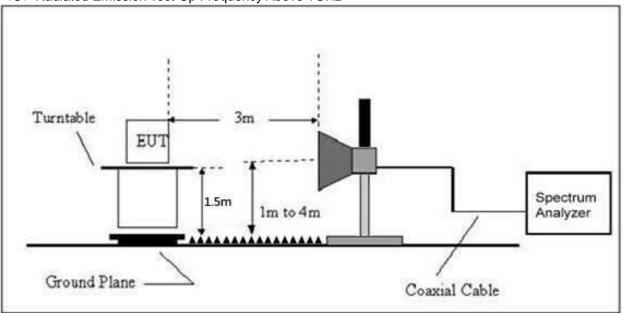
(B) Radiated Emission Test-Up Frequency 30MHz~1GHz



No.: BCTC/RF-EMC-007 Page: 30 of 38 / / / Edition: B,0



(C) Radiated Emission Test-Up Frequency Above 1GHz



10.2 Limit

According to §22.917(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

According to §24.238(a), the power of any emissions outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.

According to §27.53 (h), the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least 43 + 10 log10 (P) dB.

10.3 Test procedure

- 1. The setup of EUT is according with per ANSI/TIA Standard 603D and ANSI C63.4-2014 measurement procedure.
- 2. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and polarization as well as EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. The test was performed by placing the EUT on 3-orthogonal axis.
- 3. The frequency range up to tenth harmonic of the fundamental frequency was investigated.
- 4. Remove the EUT and replace it with substitution antenna. A signal generator was connected to the substitution antenna by a non-radiating cable. The absolute levels of the spurious emissions were measured by the substitution.

Spurious attenuation limit in dB =43+10 Log₁₀ (power out in Watts)

No.: BCTC/RF-EMC-007 Page: 31 of 38/ / / / Edition: B,0



10.4 Test Result

For FDD-LTE Band 7 Mode

Frequency	Reading	Correct	Result	Limit	Margin	Polar
(MHz)	(dBm)	dB	(dBm)	(dBm)	(dB)	H/V
		Low C	Channel (2502.5	SMHz)		
74.25	-43.73	-30.57	-74.30	-13.00	-61.30	Н
5005.00	-26.94	-22.20	-49.14	-13.00	-36.14	Н
7507.50	-31.21	-19.32	-50.53	-13.00	-37.53	Н
74.25	-43.16	-30.57	-73.73	-13.00	-60.73	V
5005.00	-27.85	-22.20	-50.05	-13.00	-37.05	V
7507.50	-28.02	-19.32	-47.34	-13.00	-34.34	V
		Middle	Channel (2535	MHz)		
74.25	-43.41	-30.57	-73.98	-13.00	-60.98	Н
5070.00	-26.96	-22.08	-49.04	-13.00	-36.04	Н
7605.00	-31.22	-19.28	-50.50	-13.00	-37.50	Н
74.25	-42.88	-30.57	-73.45	-13.00	-60.45	V
5070.00	-29.91	-22.08	-51.99	-13.00	-38.99	V
7605.00	-28.99	-19.28	-48.27	-13.00	-35.27	V
		High (Channel (2567.5	MHz)		
74.25	-42.06	-30.57	-72.63	-13.00	-59.63	Н
5135.00	-26.42	-21.96	-48.38	-13.00	-35.38	Н
7702.50	-32.00	-19.24	-51.24	-13.00	-38.24	Н
74.25	-44.02	-30.57	-74.59	-13.00	-61.59	V
5135.00	-29.42	-21.96	-51.38	-13.00	-38.38	V
7702.50	-30.52	-19.24	-49.76	-13.00	-36.76	V

For FDD-LTE Band 12 Mode

Frequency	Reading	Correct	Result	Limit	Margin	Polar		
(MHz)	(dBm)	dB	(dBm)	(dBm)	(dB)	H/V		
	Low Channel (699.7MHz)							
74.25	-44.24	-30.57	-74.81	-13.00	-61.81	/ /H/ /		
1399.40	-19.60	-27.37	-46.97	-13.00	-33.97	/ H		
2099.10	-26.53	-25.18	-51.71	-13.00	-38.71	/ H /		
74.25	-42.42	-30.57	-72.99	-13.00	-59.99	V		
1399.40	-20.19	-27.37	-47.56	-13.00	-34.56	V		
2099.10	-26.78	-25.18	-51.96	-13.00	-38.96	V		
		Middle	Channel (707.	5MHz)				
74.25	-43.92	-30.57	-74.49	-13.00	-61.49	H		
1415.00	-18.46	-27.32	-45.78	-13.00	-32.78	H		
2122.50	-25.53	-25.07	-50.60	-13.00	-37.60	Н		
74.25	-42.63	-30.57	-73.20	-13.00	-60.20	V		
1415.00	-21.04	-27.32	-48.36	-13.00	-35.36	V		
2122.50	-25.69	-25.07	-50.76	-13.00	-37.76	V		
		High-	Channel (715.3	MHz)		***************************************		
74.25	-44.70	-30.57	-75.27	-13.00	-62.27	H		
1430.60	-19.79	-27.27	-47.06	-13.00	-34.06	Н		
2145.90	-24.54	-24.96	-49.50	-13.00	-36.50	Н		
74.25	-45.00	-30.57	-75.57	-13.00	-62.57	V		
1430.60	-20.31	-27.27	-47.58	-13.00	-34.58	V		
2145.90	-23.57	-24.96	-48.53	-13.00	-35.53	V		

No.: BCTC/RF-EMC-007 Page: 32 of 38/ / / / Edition; B,0



For FDD-LTE Band 17 Mode

Frequency	Reading	Correct	Result	Limit	Margin	Polar		
(MHz)	(dBm)	dB	(dBm)	(dBm)	(dB)	H/V		
	Low Channel (706.5MHz)							
74.25	-41.91	-30.57	-72.48	-13.00	-59.48	Н		
1413.00	-21.94	-27.37	-49.31	-13.00	-36.31	Н		
2119.50	-26.94	-25.18	-52.12	-13.00	-39.12	Н		
74.25	-44.45	-30.57	-75.02	-13.00	-62.02	V		
1413.00	-18.54	-27.37	-45.91	-13.00	-32.91	V		
2119.50	-25.45	-25.18	-50.63	-13.00	-37.63	V		
		Middl	e Channel (710	MHz)				
74.25	-43.42	-30.57	-73.99	-13.00	-60.99	Н		
1420.00	-21.23	-27.32	-48.55	-13.00	-35.55	Н		
2130.00	-24.84	-25.07	-49.91	-13.00	-36.91	Н		
74.25	-43.22	-30.57	-73.79	-13.00	-60.79	V		
1420.00	-20.62	-27.32	-47.94	-13.00	-34.94	V		
2130.00	-23.45	-25.07	-48.52	-13.00	-35.52	V		
	High Channel (713.5MHz)							
74.25	-41.22	-30.57	-71.79	-13.00	-58.79	Н		
1427.00	-20.39	-27.27	-47.66	-13.00	-34.66	Н		
2140.50	-24.10	-24.96	-49.06	-13.00	-36.06	Н		
74.25	-41.74	-30.57	-72.31	-13.00	-59.31	V		
1427.00	-21.98	-27.27	-49.25	-13.00	-36.25	V		
2140.50	-26.02	-24.96	-50.98	-13.00	-37.98	V		

For FDD-LTE Band 38 Mode

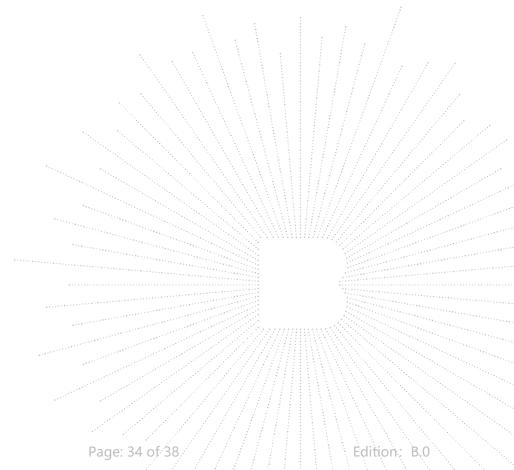
Frequency	Reading	Correct	Result	Limit	Margin	Polar	
(MHz)	(dBm)	dB	(dBm)	(dBm)	(dB)	H/V	
Low Channel (2572.5MHz)							
74.25	-42.59	-30.56	-73.15	-13.00	-60.15	/H	
5145.00	-25.08	-22.19	-47.27	-13.00	-34.27	, / Н	
7717.50	-32.45	-19.32	-51.77	-13.00	-38.77	/ H	
74.25	-42.45	-30.57	-73.02	-13.00	-60.02	V	
5145.00	-27.98	-22.19	-50.17	-13.00	-37.17	V	
7717.50	-28.31	-19.32	-47.63	-13.00	-34.63	V	
Middle Channel (2595MHz)							
74.25	-43.59	-30.56	-74.15	-13.00	-61.15	//H//	
5190.00	-27.02	-22.08	-49.10	-13.00	-36.10	/ / H	
7785.00	-32.61	-19.28	-51.89	-13.00	-38.89	/ / H/	
74.25	-41.17	-30.57	-71.74	-13.00	-58.74	V	
5190.00	-29.76	-22.08	-51.84	-13.00	-38.84	V	
7785.00	-31.35	-19.28	-50.63	-13.00	-37.63	V	
High Channel (2612.5MHz)							
74.25	-43.16	-30.56	-73.72	-13.00	-60.72	H	
5225.00	-25.74	-21.97	-47.71	-13.00	-34.71	H	
7837.50	-31.96	-19.24	-51.20	-13.00	-38.20		
74.25	-41.05	-30.57	-71.62	-13.00	-58.62	······································	
5225.00	-28.51	-21.97	-50.48	-13.00	-37.48	V	
7837.50	-30.85	-19.24	-50.09	-13.00	-37.09	V	

No.: BCTC/RF-EMC-007 Page: 33 of 38/ / / / Edition: B,0



For FDD-LTE Band 41 Mode

Frequency	Reading	Correct	Result	Limit	Margin	Polar	
(MHz)	(dBm)	dB	(dBm)	(dBm)	(dB)	H/V	
Low Channel (2498.5MHz)							
74.25	-42.00	-30.57	-72.57	-13.00	-59.57	Н	
4997.00	-25.82	-22.20	-48.02	-13.00	-35.02	Н	
7495.50	-31.32	-19.32	-50.64	-13.00	-37.64	Н	
74.25	-42.53	-30.57	-73.10	-13.00	-60.10	V	
4997.00	-27.34	-22.20	-49.54	-13.00	-36.54	V	
7495.50	-29.61	-19.32	-48.93	-13.00	-35.93	V	
Middle Channel (2593MHz)							
74.25	-43.06	-30.57	-73.63	-13.00	-60.63	Н	
5186.00	-26.16	-22.08	-48.24	-13.00	-35.24	Н	
7779.00	-31.28	-19.28	-50.56	-13.00	-37.56	Н	
74.25	-43.75	-30.57	-74.32	-13.00	-61.32	V	
5186.00	-28.44	-22.08	-50.52	-13.00	-37.52	V	
7779.00	-29.71	-19.28	-48.99	-13.00	-35.99	V	
High Channel (2687.5MHz)							
74.25	-44.45	-30.57	-75.02	-13.00	-62.02	Н	
5375.00	-26.80	-21.96	-48.76	-13.00	-35.76	Н	
8062.50	-32.71	-19.24	-51.95	-13.00	-38.95	Н	
74.25	-42.63	-30.57	-73.20	-13.00	-60.20	V	
5375.00	-28.28	-21.96	-50.24	-13.00	-37.24	V	
8062.50	-30.71	-19.24	-49.95	-13.00	-36.95	V	





For FDD-LTE Band 66 Mode

Frequency	Reading	Correct	Result	Limit	Margin	Polar		
(MHz)	(dBm)	dB	(dBm)	(dBm)	(dB)	H/V		
Low Channel (1710.7MHz)								
74.25	-43.97	-30.56	-74.53	-13.00	-61.53	I		
3421.40	-27.17	-22.19	-49.36	-13.00	-36.36	I		
5132.10	-31.73	-19.32	-51.05	-13.00	-38.05	H		
74.25	-42.74	-30.57	-73.31	-13.00	-60.31	V		
3421.40	-27.28	-22.19	-49.47	-13.00	-36.47	V		
5132.10	-31.10	-19.32	-50.42	-13.00	-37.42	V		
Middle Channel (1745MHz)								
74.25	-43.79	-30.56	-74.35	-13.00	-61.35	H		
3490.00	-24.48	-22.08	-46.56	-13.00	-33.56	I		
5235.00	-32.84	-19.28	-52.12	-13.00	-39.12	I		
74.25	-43.85	-30.57	-74.42	-13.00	-61.42	V		
3490.00	-28.77	-22.08	-50.85	-13.00	-37.85	V		
5235.00	-29.72	-19.28	-49.00	-13.00	-36.00	V		
High Channel (1779.3MHz)								
74.25	-42.04	-30.56	-72.60	-13.00	-59.60	I		
3558.60	-25.69	-21.97	-47.66	-13.00	-34.66	I		
5337.90	-32.91	-19.24	-52.15	-13.00	-39.15	Н		
74.25	-43.81	-30.57	-74.38	-13.00	-61.38	V		
3558.60	-29.23	-21.97	-51.20	-13.00	-38.20	V		
5337.90	-30.74	-19.24	-49.98	-13.00	-36.98	V		

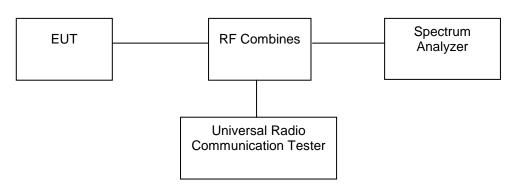
Note: Result=Reading+ Correct, Margin= Result- Limit
Note: Testing is carried out with frequency rang 9kHz to the tenth harmonics, other than listedin the table above are attenuated more than 20dB below the permissible limits or the field strength is too small to be

measured.



11. Frequency Stability

11.1 Block Diagram Of Test Setup



11.2 Limit

±2.5 ppm

11.3 Test procedure

Test Procedures for Temperature Variation

- 1. The testing follows FCC KDB 971168 D01v03 Section 9.0.
- 2. The EUT was set up in the thermal chamber and connected with the system simulator.
- 3. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
- 4. With power OFF, the temperature was raised in 10°C steps up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

Test Procedures for Voltage Variation

- 1. The testing follows FCC KDB 971168 D01v03 Section 9.0.
- 2. The EUT was placed in a temperature chamber at 25±5° C and connected with the system simulator.
- 3. The power supply voltage to the EUT was varied from BEP to 115% of the nominal value measured at the input to the EUT.
- 4. The variation in frequency was measured for the worst case.
- 5. The worst case(worst bandwidth) for frequency stability reported in the Test Data.

11.4 Test Result

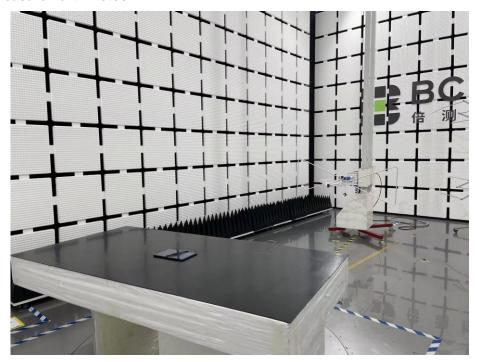
Please refer to Appendix 2: Frequency Stability Test Result: Pass

No.: BCTC/RF-EMC-007 Page: 36 of 38/ / / / / Edition; B,0



12. EUT Test Setup Photographs

Radiated Measurement Photos





No.: BCTC/RF-EMC-007 Page: 37 of 38/ / / Edition: B,0



STATEMENT

- 1. The equipment lists are traceable to the national reference standards.
- 2. The test report can not be partially copied unless prior written approval is issued from our lab.
- 3. The test report is invalid without the "special seal for inspection and testing".
- 4. The test report is invalid without the signature of the approver.
- 5. The test process and test result is only related to the Unit Under Test.
- 6. Sample information is provided by the client and the laboratory is not responsible for its authenticity.
- 7. The quality system of our laboratory is in accordance with ISO/IEC17025.
- 8. If there is any objection to this test report, the client should inform issuing laboratory within 15 days from the date of receiving test report.

Address:

1-2/F., Building B, Pengzhou Industrial Park, No.158, Fuyuan 1st Road, Zhancheng, Fuhai Subdistrict, Bao'an District, Shenzhen, Guangdong, China

TEL: 400-788-9558

P.C.: 518103

FAX: 0755-33229357

Website: http://www.chnbctc.com

E-Mail: bctc@bctc-lab.com.cn

***** END *****

No.: BCTC/RF-EMC-007 Page: 38 of 38/ / / / / Edition: B₀0