

Report No: JYTSZB-R12-2101309

FCC REPORT

Applicant:	INFINIX MOBILITY LIMITED
Address of Applicant:	FLAT 39 8/F BLOCK D WAH LOK INDUSTRIAL CENTRE 31- 35 SHAN MEI STREET FOTAN NT
Equipment Under Test (B	EUT)
Product Name:	Mobile Phone
Model No.:	X697
Trade mark:	Infinix
FCC ID:	2AIZN-X697
Applicable standards:	FCC CFR Title 47 Part 15 Subpart C Section 15.247
Date of sample receipt:	12 Jul., 2021
Date of Test:	13 Jul., to 30 Jul., 2021
Date of report issued:	02 Aug., 2021
Test Result:	PASS *

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

Authorized Signature:



Bruce Zhang Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the JYT product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



Version 2

Version No.	Date	Description
00	02 Aug., 2021	Original

Tested by:

Mike.DU Test Engineer

Date: 02 Aug., 2021

Winner Thang

Reviewed by:

Project Engineer

02 Aug., 2021 Date:



3 Contents

			Page
1	COV	ER PAGE	
2	VFR	SION	2
		TENTS	
3			-
4	TES	T SUMMARY	4
5	GEN	ERAL INFORMATION	5
	5.1	CLIENT INFORMATION	5
	5.2	GENERAL DESCRIPTION OF E.U.T.	
	5.3	TEST ENVIRONMENT AND MODE, AND TEST SAMPLES PLANS	-
	5.4	DESCRIPTION OF SUPPORT UNITS	6
	5.5	MEASUREMENT UNCERTAINTY	6
	5.6	LABORATORY FACILITY	6
	5.7	LABORATORY LOCATION	6
	5.8	TEST INSTRUMENTS LIST	7
6	TES	T RESULTS AND MEASUREMENT DATA	8
	6.1	ANTENNA REQUIREMENT:	8
	6.2	CONDUCTED EMISSION	
	6.3	CONDUCTED OUTPUT POWER	
	6.4	OCCUPY BANDWIDTH	
	6.5	POWER SPECTRAL DENSITY	
	6.6	BAND EDGE	
	6.6.1	Conducted Emission Method	
	6.6.2	Radiated Emission Method	
	6.7	SPURIOUS EMISSION	
	6.7.1	Conducted Emission Method	
	6.7.2	Radiated Emission Method	
7	TES	Г SETUP PHOTO	41
8	FUT	CONSTRUCTIONAL DETAILS	12
0	201		



4 Test Summary

Test Items		Section in CFR 47	Test Data	Result		
Antenna requirement		15.203 & 15.247 (b)	See Section 6.1	Pass		
AC Power Lir	ne Conducted Emission	15.207	See Section 6.2	Pass		
Conducted	Peak Output Power	15.247 (b)(3)	Appendix A - BLE	Pass		
	nission Bandwidth ccupied Bandwidth	15.247 (a)(2)	Appendix A - BLE	Pass		
Power	Spectral Density	15.247 (e)	Appendix A - BLE	Pass		
Conducted Band Edge		15 047 (d)	Appendix A - BLE	Pass		
Radia	ated Band Edge	15.247 (d)	See Section 6.6.2	Pass		
Conducted	Spurious Emission	15.205 & 15.209	Appendix A - BLE	Pass		
Radiated	Spurious Emission	15.205 & 15.209	See Section 6.7.2	Pass		
Remark: 1. Pass: The EUT complies with the essential requirements in the standard. 2. N/A: Not Applicable. 3. The cable insertion loss used by "RF Output Power" and other conduction measurement items is 0.5dB (provided by the customer). ANSI C63.10-2013						
Test Method:	KDB 558074 D01 15.247	Meas Guidance v05r02				



5 General Information

5.1 Client Information

Applicant:	INFINIX MOBILITY LIMITED
Address:	FLAT 39 8/F BLOCK D WAH LOK INDUSTRIAL CENTRE 31-35 SHAN MEI STREET FOTAN NT
Manufacturer:	INFINIX MOBILITY LIMITED
Address:	FLAT 39 8/F BLOCK D WAH LOK INDUSTRIAL CENTRE 31-35 SHAN MEI STREET FOTAN NT
Factory:	SHENZHEN TECNO TECHNOLOGY CO., LTD.
Address:	101, Building 24, Waijing Industrial Park, Fumin Community, Fucheng Street, Longhua District, Shenzhen City, P.R.China

5.2 General Description of E.U.T.

Product Name:	Mobile Phone
Model No.:	X697
Operation Frequency:	2402-2480 MHz
Channel numbers:	40
Channel separation:	2 MHz
Modulation technology:	GFSK
Data speed :	1Mbps & 2Mbps & 500Kbps & 125Kbps
Antenna Type:	Internal Antenna
Antenna gain:	1.2 dBi
Power supply:	Rechargeable Li-ion Polymer Battery DC3.87V, 4900mAh
AC adapter:	Model: U330XSA
	Input: AC100-240V, 50/60Hz, 1.5A
	Output: DC 5.0V=3.0A or 10V=3.3A
Test Sample Condition:	The test samples were provided in good working order with no visible defects.

Operation Frequency each of channel								
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency	
0	2402MHz	10	2422MHz	20	2442MHz	30	2462MHz	
1	2404MHz	11	2424MHz	21	2444MHz	31	2464MHz	
2	2406MHz	12	2426MHz	22	2446MHz	32	2466MHz	
3	2408MHz	13	2428MHz	23	2448MHz	33	2468MHz	
4	2410MHz	14	2430MHz	24	2450MHz	34	2470MHz	
5	2412MHz	15	2432MHz	25	2452MHz	35	2472MHz	
6	2414MHz	16	2434MHz	26	2454MHz	36	2474MHz	
7	2416MHz	17	2436MHz	27	2456MHz	37	2476MHz	
8	2418MHz	18	2438MHz	28	2458MHz	38	2478MHz	
9	2420MHz	19	2440MHz	29	2460MHz	39	2480MHz	

Note:

In section 15.31(*m*), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test. Channel No. 0, 20 & 39 were selected as Lowest, Middle and Highest channel.



5.3 Test environment and mode, and test samples plans

Operating Environment:

opolating Environmont.	
Temperature:	24.0 °C
Humidity:	54 % RH
Atmospheric Pressure:	1010 mbar
Test mode:	
Transmitting mode	Keep the EUT in continuous transmitting with modulation

Radiated Emission: The sample was placed 0.8m (below 1GHz)/1.5m (above 1GHz) above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages. Duty cycle setting during the transmission is 100% with maximum power setting for all modulations.

Test Samples Plans:

Samples Number Used for Test Items				
2#	Conducted measurements test method			
1# Radiated measurements test method				
1# EUT constructional details				
Remark: Jian Yan Testing Group Shenzhen Co., Ltd. is only responsible for the test project data of the above samples,				

Remark: Jian Yan Testing Group Shenzhen Co., Ltd. is only responsible for the test project data of the above and will keep the above samples for a month.

5.4 Description of Support Units

The EUT has been tested as an independent unit.

5.5 Measurement Uncertainty

Parameters	Expanded Uncertainty
Conducted Emission (9kHz ~ 30MHz)	±1.60 dB (k=2)
Radiated Emission (9kHz ~ 30MHz)	±3.12 dB (k=2)
Radiated Emission (30MHz ~ 1000MHz)	±4.32 dB (k=2)
Radiated Emission (1GHz ~ 18GHz)	±5.16 dB (k=2)
Radiated Emission (18GHz ~ 40GHz)	±3.20 dB (k=2)

5.6 Laboratory Facility

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

• FCC - Designation No.: CN1211

JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.

• ISED – CAB identifier.: CN0021

The 3m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

• A2LA - Registration No.: 4346.01

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: https://portal.a2la.org/scopepdf/4346-01.pdf

5.7 Laboratory Location

JianYan Testing Group Shenzhen Co., Ltd. Address: No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.

Tel: +86-755-23118282, Fax: +86-755-23116366

Email: info-JYTee@lets.com, Website: http://www.ccis-cb.com



5.8 Test Instruments list

Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
3m SAC	ETS	9m*6m*6m	966	01-19-2021	01-18-2024
BiConiLog Antenna	SCHWARZBECK	VULB9163	497	03-03-2021	03-02-2022
Biconical Antenna	SCHWARZBECK	VUBA9117	359	06-18-2020	06-17-2021
biconical Antenna	SURWARZDEUK	VUBA9117	309	06-18-2021	06-17-2022
Horn Antenna	SCHWARZBECK	BBHA9120D	916	03-03-2021	03-02-2022
Horn Antenna	SCHWARZBECK	BBHA9120D	1805	06-18-2020	06-17-2021
	SCHWARZBECK	DBHA9120D	1805	06-18-2021	06-17-2022
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170582	11-18-2020	11-17-2021
EMI Test Software	AUDIX	E3	V	/ersion: 6.110919b)
Pre-amplifier	HP	8447D	2944A09358	03-03-2021	03-02-2022
Pre-amplifier	CD	PAP-1G18	11804	03-03-2021	03-02-2022
Spectrum analyzer	Rohde & Schwarz	FSP30	101454	03-03-2021	03-02-2022
Spectrum analyzer	Rohde & Schwarz	FSP40	100363	11-18-2020	11-17-2021
EMI Test Receiver	Rohde & Schwarz	ESRP7	101070	03-03-2021	03-02-2022
Spectrum Analyzer	Agilent	N9020A	MY50510123	11-18-2020	11-17-2021
Signal Generator	Rohde & Schwarz	SMX	835454/016	03-03-2021	03-02-2022
Signal Generator	R&S	SMR20	1008100050	03-03-2021	03-02-2022
RF Switch Unit	MWRFTEST	MW200	N/A	N/A	N/A
Test Software	MWRFTEST	MTS8200		Version: 2.0.0.0	
Cable	ZDECL	Z108-NJ-NJ-81	1608458	03-03-2021	03-02-2022
Cable	MICRO-COAX	MFR64639	K10742-5	03-03-2021	03-02-2022
Cable	SUHNER	SUCOFLEX100	58193/4PE	03-03-2021	03-02-2022
DC Power Supply	XinNuoEr	WYK-10020K	1409050110020	09-25-2020	09-24-2021
Temperature Humidity Chamber	HengPu	HPGDS-500	20140828008	11-01-2020	10-31-2021
Simulated Station	Rohde & Schwarz	CMW500	140493	07-22-2020	07-21-2021
Simulated Station	Ronde & Schwarz	CIVIV500	140493	07-22-2021	07-21-2022
10m SAC	ETS	RFSD-100-F/A	Q2005	03-31-2021	04-01-2024
BiConiLog Antenna	SCHWARZBECK	VULB 9168	1249	03-31-2021	04-01-2022
BiConiLog Antenna	SCHWARZBECK	VULB 9168	1250	03-31-2021	04-01-2022
EMI Test Receiver	R&S	ESR 3	102800	04-06-2021	04-07-2022
EMI Test Receiver	R&S	ESR 3	102802	04-06-2021	04-07-2022
Pre-amplifier	Bost	LNA 0920N	2016	04-06-2021	04-07-2022
Pre-amplifier	Bost	LNA 0920N	2019	04-06-2021	04-07-2022
Test Software	R&S	EMC32	Version: 10.50.40		

Conducted Emission:							
Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)		
EMI Test Receiver	Rohde & Schwarz	ESCI	101189	03-03-2021	03-02-2022		
Pulse Limiter	SCHWARZBECK	OSRAM 2306	9731	03-03-2021	03-02-2022		
LISN	CHASE	MN2050D	1447	03-03-2021	03-02-2022		
	Rohde & Schwarz	ESH3-Z5	8438621/010	06-18-2020	06-17-2021		
LISN				06-18-2020	06-17-2021		
Cable	HP	10503A	N/A	03-03-2021	03-02-2022		
EMI Test Software	AUDIX	E3	Version: 6.110919b				



Conducted method:									
Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)				
Spectrum Analyzer	Keysight	N9010B	MY60240202	11-27-2020	11-26-2021				
Vector Signal Generator	Keysight	N5182B	MY59101009	11-27-2020	11-26-2021				
Analog Signal Generator	Keysight	N5173B	MY59100765	11-27-2020	11-26-2021				
Power Detector Box	MWRF-test	MW100-PSB	MW201020JYT	11-27-2020	11-26-2021				
Simulated Station	Rohde & Schwarz	CMW270	102335	11-27-2020	11-26-2021				
RF Control Box	MWRF-test	MW100-RFCB	MW200927JYT	N/A	N/A				
PDU	MWRF-test	XY-G10	N/A	N/A	N/A				
Test Software	MWRF-tes	MTS 8310		Version: 2.0.0.0					
DC Power Supply	Keysight	E3642A	MY60296194	11-27-2020	11-26-2021				

6 Test results and Measurement Data

6.1 Antenna requirement:

Standard requirement:	FCC Part 15 C Section 15.203 /247(b)
responsible party shall be us antenna that uses a unique so that a broken antenna ca electrical connector is prohil 15.247(b) (4) requirement: (4) The conducted output po antennas with directional ga section, if transmitting anter power from the intentional ra	be designed to ensure that no antenna other than that furnished by the sed with the device. The use of a permanently attached antenna or of an coupling to the intentional radiator, the manufacturer may design the unit in be replaced by the user, but the use of a standard antenna jack or bited. be the intervence of the end of the end of the use of the use of ins that do not exceed 6 dBi. Except as shown in paragraph (c) of this in as of directional gain greater than 6 dBi are used, the conducted output adiator shall be reduced below the stated values in paragraphs (b)(1), tion, as appropriate, by the amount in dB that the directional gain of the
E.U.T Antenna:	
The BLE antenna is an Interr antenna is 1.2dBi.	hal antenna which cannot replace by end-user, the best-case gain of the



6.2 Conducted Emission

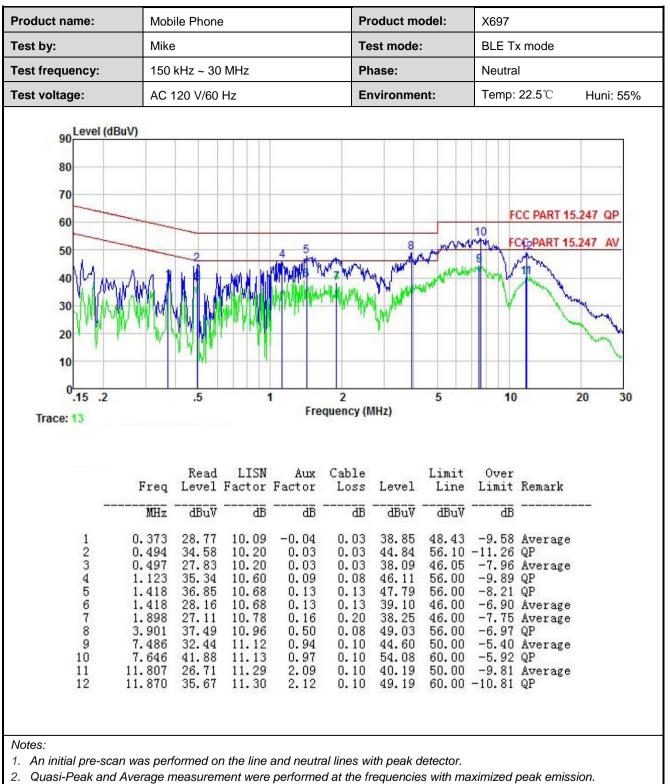
Test Requirement:	FCC Part 15 C Section 15.207	7					
Test Frequency Range:	150 kHz to 30 MHz						
Class / Severity:	Class B						
Receiver setup:	RBW=9kHz, VBW=30kHz						
Limit:	Frequency range (MHz)	Limit (,				
	Quasi-peak Average						
	0.15-0.5 66 to 56* 56 to 46*						
	0.5-5	56	46				
	5-30 * Decreases with the logarithm	60	50				
Test procedure:	 The E.U.T and simulators line impedance stabilizati 50ohm/50uH coupling im The peripheral devices ar LISN that provides a 50ol termination. (Please refer photographs). Both sides of A.C. line ard interference. In order to fi positions of equipment ar according to ANSI C63.10 	are connected to the ma on network (L.I.S.N.), wh pedance for the measuring re also connected to the hm/50uH coupling imped to the block diagram of the checked for maximum and the maximum emission and all of the interface cab	hich provides a ng equipment. main power through a ance with 500hm the test setup and conducted on, the relative les must be changed				
Test setup:	Reference	80cm Filter EMI Receiver	– AC power				
Test Instruments:	Refer to section 5.9 for details						
Test mode:	Refer to section 5.3 for details						
Test results:	Passed						



Measurement Data:

Product name:	Mobil	e Phone			Pro	oduct mo	odel:	X697		
Test by:	Mike				Те	st mode:		BLE T	k mode	
Test frequency:	150 k	Hz ~ 30 MH	z	Phase:				Line		
Test voltage:	AC 1	20 V/60 Hz			En	vironme	nt:	Temp:	22.5℃	Huni: 55%
90 Level (dE 80 70 60 50 40 40 40 40 40 40 40 40 40 40 40 40 40	SUV)		5					11 MAR FC	C PART 15.	
0.15 .2 Trace: 15		.5	1	Freq	2 Juency (M	Hz)	5	10		20 30
0.15 .2	Freq		LISN	Aux	uency (M Cable	Hz) Level	5 Limit Line	Over	 Remark	20 30
0.15 .2	Freq MHz	Read I	LISN	Aux	uency (M Cable		Limit	Over		20 30

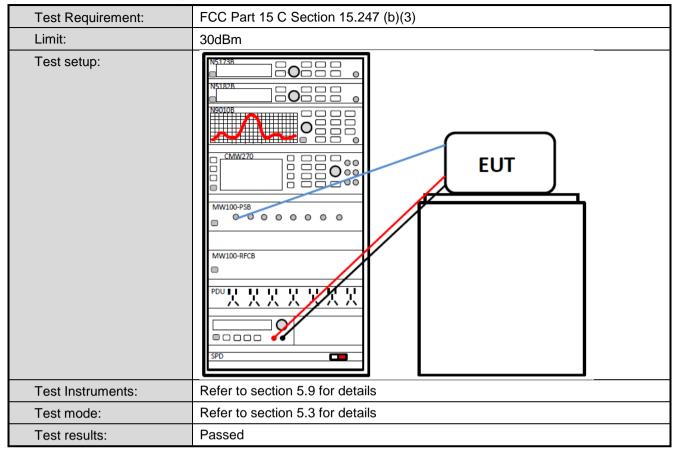




3. Final Level = Receiver Read level + LISN Factor + Aux Factor + Cable Loss.

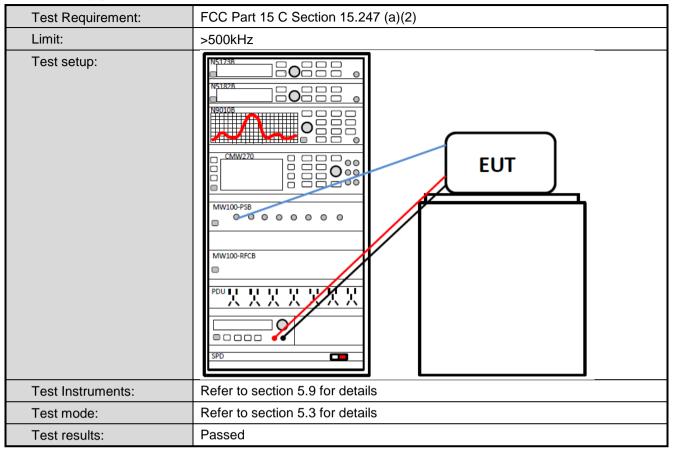


6.3 Conducted Output Power



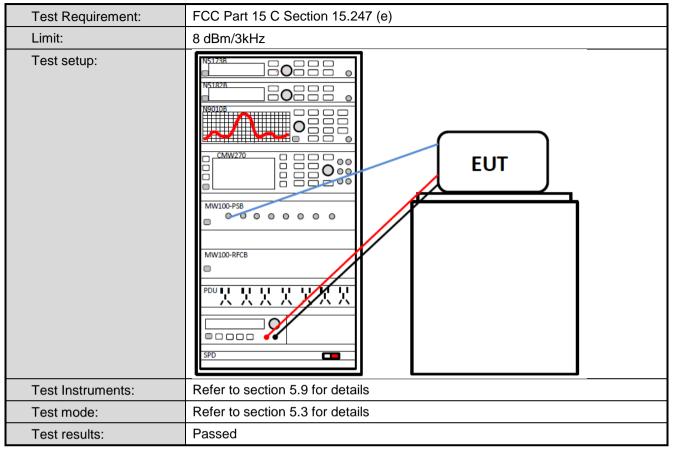


6.4 Occupy Bandwidth





6.5 Power Spectral Density





6.6 Band Edge

6.6.1 Conducted Emission Method

Test Requirement:	FCC Part 15 C Section 15.247 (d)
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.
Test setup:	
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed



6.6.2 Radiated Emission Method

Test Requirement:	FCC Part 15 C	Section 15.	205 and 15.209			
Test Frequency Range:	2310 MHz to 2	2390 MHz an	d 2483.5MHz to 2	2500 MHz	<u>-</u>	
Test Distance:	3m					
Receiver setup:	Frequency	Detector	RBW	VBW	Remark	
	Above 1GHz	Peak	1MHz	3MHz		
	Frequency		1MHz	3MHz		
Limit:	Frequen	icy I	<u>imit (dBuV/m @:</u> 54.00	3m)	Remark Average Value	
	Above 10	GHz –	74.00		Peak Value	
Test Procedure:	 the groun to determ 2. The EUT antenna, tower. 3. The anter the groun Both horiz make the 4. For each case and meters ar to find the 5. The test-r Specified 6. If the emist the limit s of the EU have 10 c 	d at a 3 meter ine the positi was set 3 meter which was me and height is d to determine contal and ver measurement suspected en then the anter a maximum re receiver syste Bandwidth we ssion level of pecified, then T would be re B margin wo	er camber. The ta on of the highest eters away from t ounted on the top varied from one in the the maximum entical polarization nt. mission, the EUT enna was tuned to ble was turned fre eading. em was set to Pe vith Maximum Ho the EUT in peak in testing could be eported. Otherwis	able was ro radiation. he interfer of a varia meter to for value of the so of the an was arrar o heights om 0 degr ak Detect Id Mode. so the emi one by on	rence-receiving able-height antenna our meters above he field strength. Intenna are set to inged to its worst from 1 meter to 4 rees to 360 degrees Function and is 10 dB lower than and the peak values issions that did not e using peak, quasi-	
Test setup:		LEUT urntable) Gro Test Receive	Horn Antenna 3m Horn Antenna 3m Horn Antenna are the second	Antenna Tower	Swwwww	
Test Instruments:	Refer to section	on 5.9 for det	ails			
Test mode:	Refer to section	on 5.3 for det	ails			
Test results:	Passed					

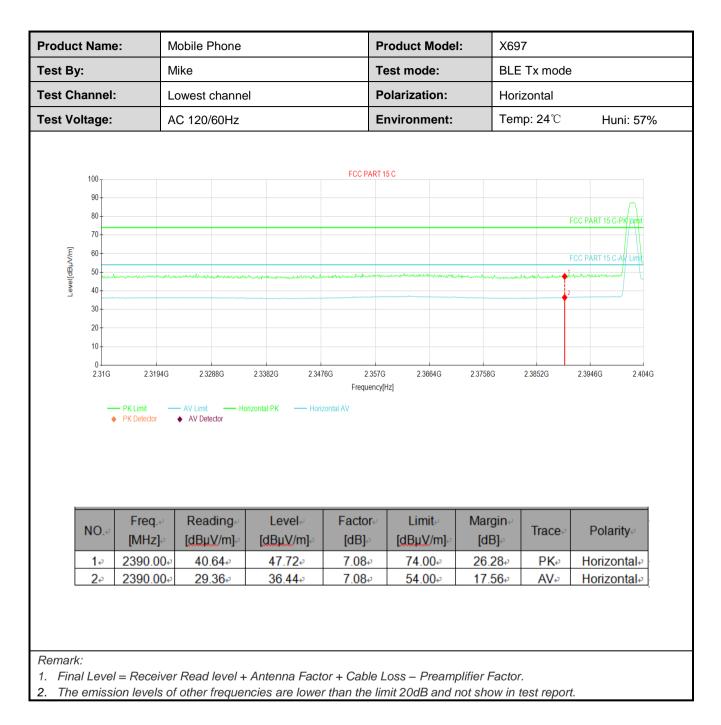
Project No.: JYTSZE2107028



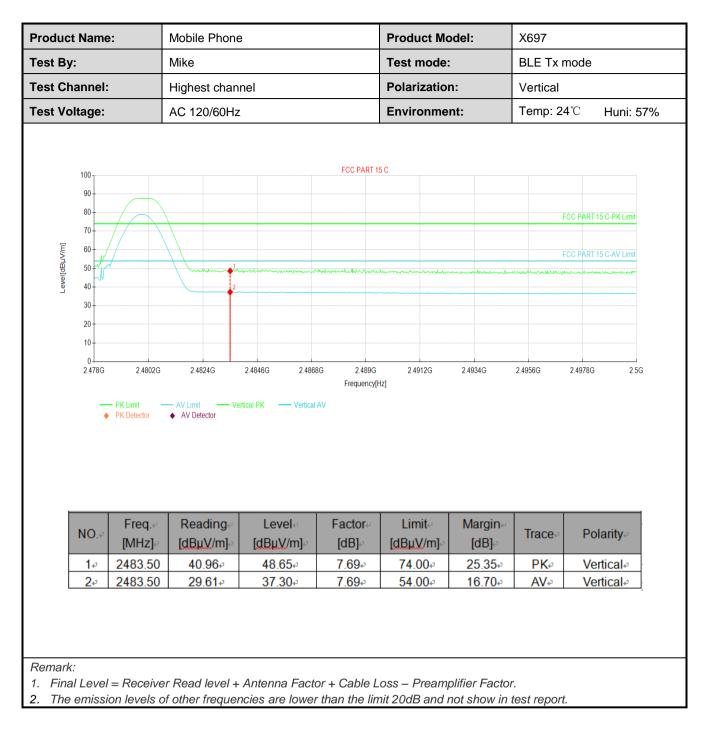
1M PHY

Product Name:		Mobile Phor	ıe		Product Model: X697					
Fest By	:		Mike			Test mode:	:	BLE Tx n	node	
Fest Ch	annel:	:	Lowest char	nnel		Polarizatio	n:	Vertical		
Fest Vo	Itage:		AC 120/60H	z		Environme	nt:	Temp: 24°C Huni: 57%		
Level[dBµV/m]	100 90 80 70 60 50 40 30				FCC PART 1	5 C			CC PART 15 C-PK Limit	
30 20 10			2 3288G AV Limit AV Detector	2.3382G 2.347 Vertical PK — Vertical	Frequency[H		2.3758G	2.3852G	23946G 2404G	
	NO.®	Freq [MHz]	Reading⊮ [dBµV/m]⊮	Level.₀ [dBµV/m]₀	Factor⊮ [dB]₀	Limit⊮ [dBµV/m]⊮	Margin⊮ [dB]⊮	Trace	Polarity	
	1 e	[MHz] 2390.00≁	[dBµV/m]₀ 41.12ℯ	[dBµV/m]⊮ 48.20₽	[dB]∂ 7.08₽	[dBµV/m]⊮ 74.00⊮	[dB]∉ 25.80∉	PK₽	Vertical	
_		[MHz]@	[dBµV/m]₀	[dBµV/m]∂	[dB]₽	[dBµV/m]₀	[dB]₽			

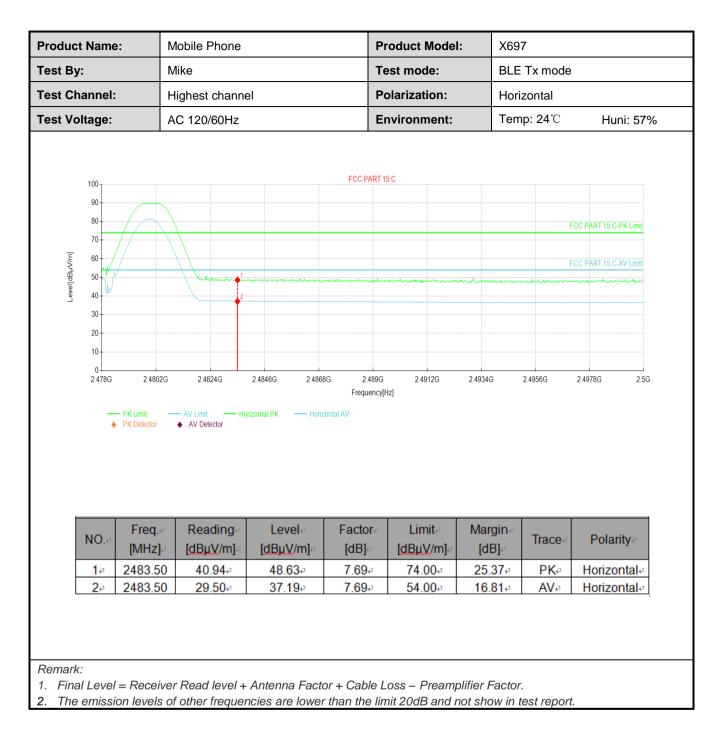










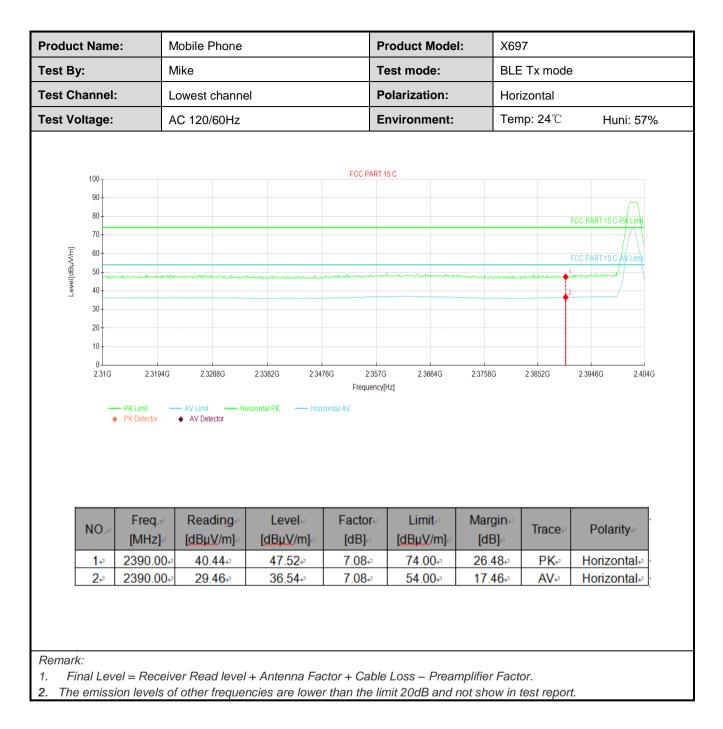




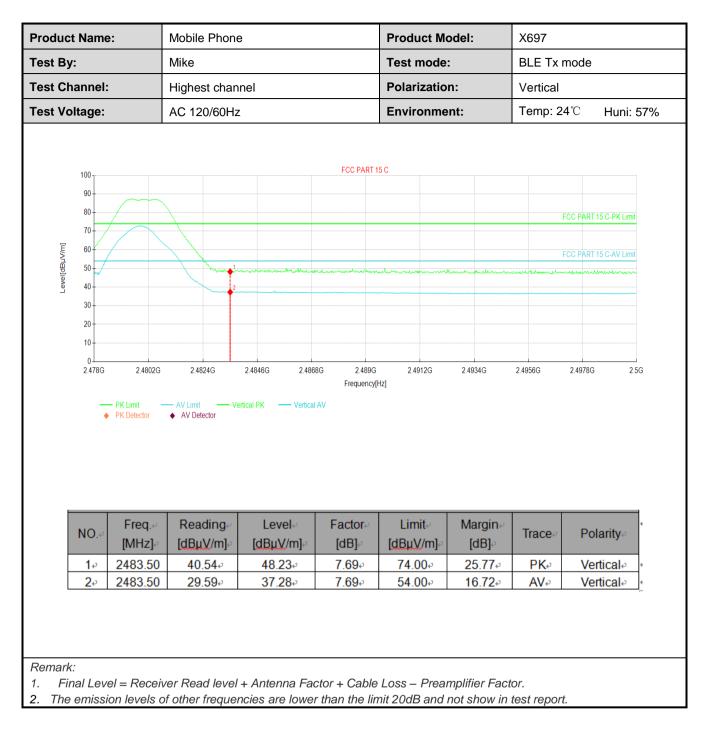
2M PHY

Product Name:		Mobile Phone			Product Model: X697			X697		
est By:		Mike			Test mode	:	BLE Tx m	ode		
est Channe	el:	Lowest chan	nel		Polarizatio	on:	Vertical			
Test Voltage:		AC 120/60Hz	2		Environme	ent:	Temp: 24	24℃ Huni: 57%		
100				FCC PART 1	5 C					
100 90										
80 -								\bigcap		
70-							FC	C PART 15 C-PK Limit		
							50			
							FC	C PART 15 C-AV Limit		
40							2			
30 -										
20										
10										
0 2.310	G 2.3194G	2.3288G	2.3382G 2.347	'6G 2.357G	2.3664G	2.3758G	2.3852G	2.3946G 2.404G		
NO.	PK Limit - PK Detector Freq.e [MHz]e	AV Limit	rtical PK — Vertical Level⊷ [dBμV/m]⊷	AV Factor⊮ [dB]₀	Limit⊬ [dBµV/m]⊮	Margin⊮ [dB]∂	Trace₽	Polarity⇔		
NO. 1₽	PK Detector	 AV Detector Reading 	Level	Factor		_	Trace.₀ PK.₀	Polarity₀ Vertical₀		
	 PK Detector Freq. 4 [MHz] 4 2390.004 	 AV Detector Reading [dBµV/m] 40.42 	Level⊎ [dBµV/m]⊮	Factor⊮ [dB]₽	[dBµV/m]∂	[dB]∘		-		

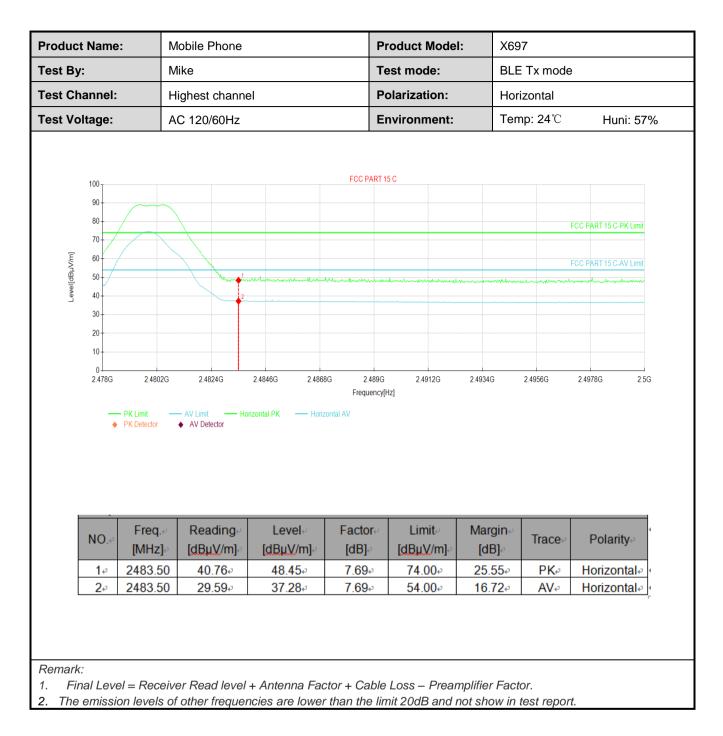










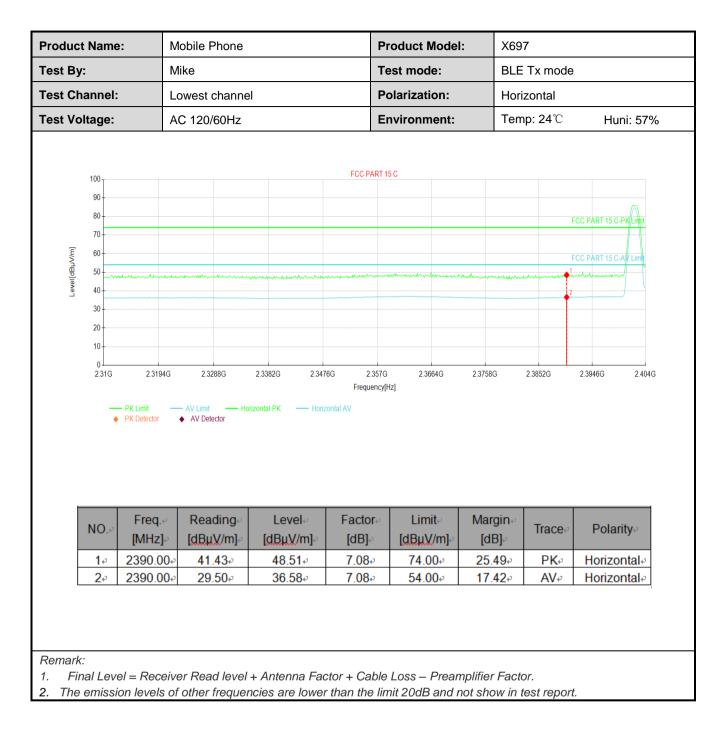




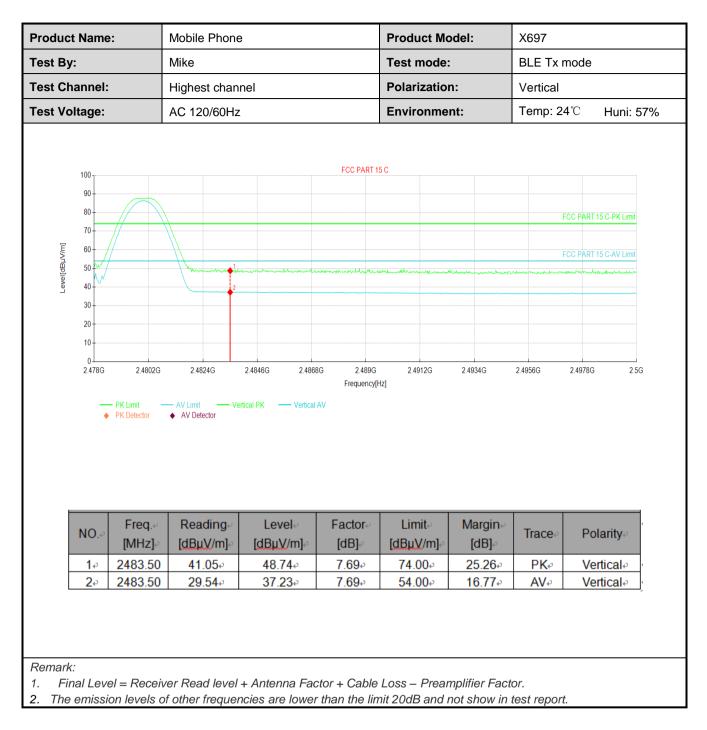
Coded PHY, S=2

Product Name:		e:	Mobile Phone	9		Product Model: X697				
est By:	:		Mike Test mode: BLE Tx mo		node					
Fest Cha	annel:	:	Lowest chan	nel		Polarizatio	n:	Vertical		
Fest Voltage:			AC 120/60Hz	2		Environme	nt:	Temp: 24°C Huni: 57%		
	100 ₁				FCC PART 1	5 C				
	90									
	80								CC PART 15 C-PKLimit	
	70									
[ɯ//	60							F	CC PART 15 C-AV Limit	
Level[dBµV/m]	50	wanne	www.man	~www.warkanter	mountermethor	muunmunder	warman war	Malunma	- management	
Leve	40							2		
	30									
	20									
	10 0 2.31G	2.3194G	2.3288G	2.3382G 2.347	76G 2.357G Frequency[ł		2.3758G	2.3852G	2.3946G 2.4040	
	0	2.3194G – PK Limit – PK Detector		2.3382G 2.347 ertical PK — Vertical	Frequency[ł		2.3758G	2.3852G	2.3946G 2.4040	
	0	– PK Limit –	— AV Limit —— Ve		Frequency[ł		2.3758G Margin.√ [dB].∞	2.3852G	2.3946G 2.4040 Polarity⊮	
	0 2.31G	PK Limit PK Delector	AV Limit Ve AV Detector	ertical PK Vertical	Frequency[ł AV Factor⊷	Hz] Limit⊮	Margin∉			

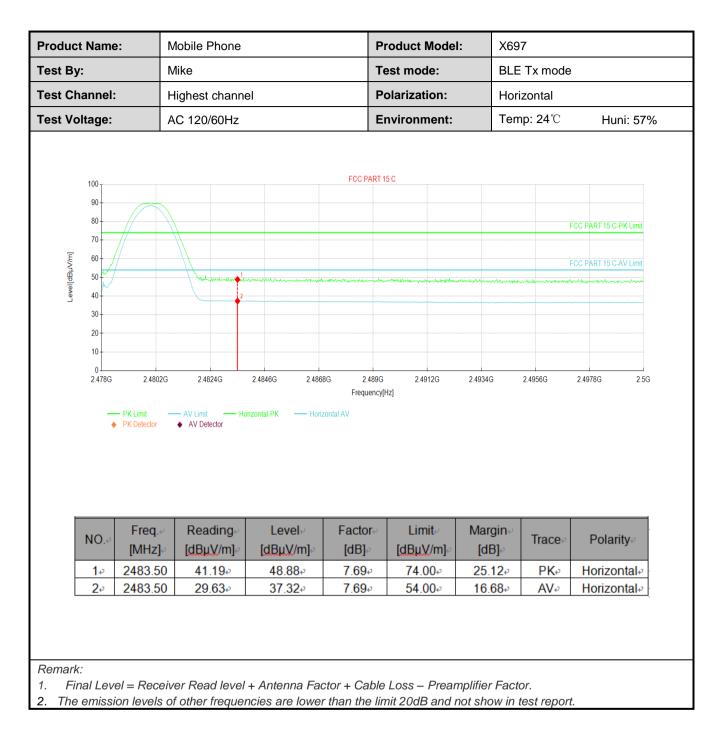










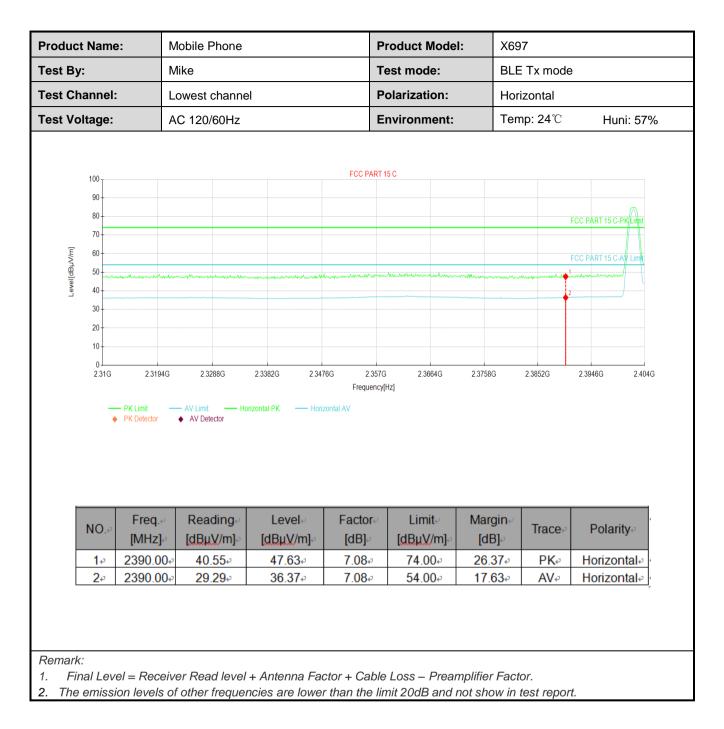




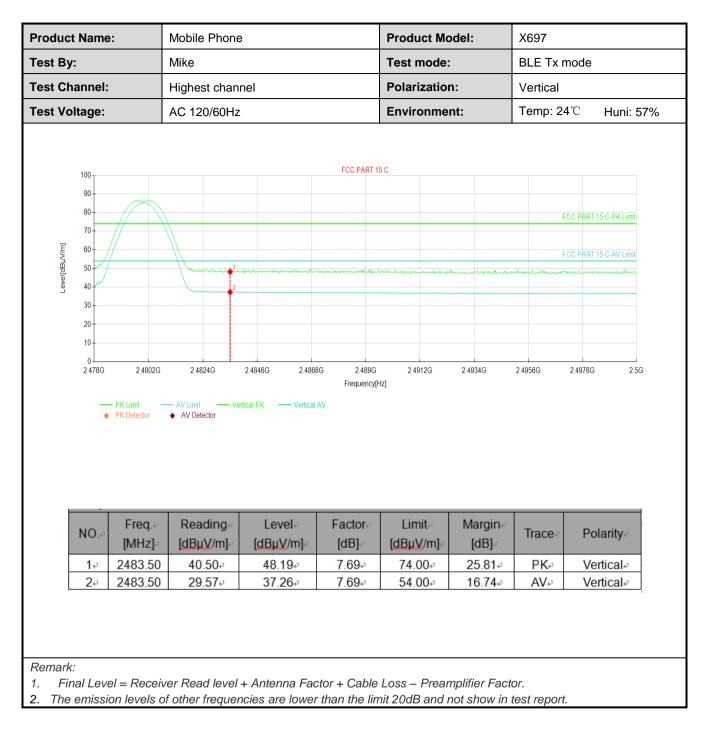
Coded PHY, S=8

Product Name:		e:	Mobile Phon	е		Product Me	odel:	X697		
Fest By:	:		Mike			Test mode	:	BLE Tx I	mode	
Fest Cha	annel:	:	Lowest chan	inel		Polarization: Vertical				
Test Voltage:			AC 120/60H	Z		Environment: Temp: 24°C Huni: 5				
	100				FCC PART 1	5 C				
	90									
	80								FCC PART 15 C-PKLimit	
	70									
[m//	60								FCC PART 15 C-AV Limit	
_evel[dBµV/m]	50	man malun	munimum	mammul market where the second	mmmhmm	personal market and the second second	-		ano particular and the second	
Leve	40							2		
	30									
	20									
	10									
					76G 2.357G Frequency[I		2.3758G	2.3852G	2.3946G 2.404G	
	NO.«	PK Limit PK Detector	♦ AV Detector Reading	Vertical PK — Vertical	Frequency[IAV Factor⊷	Hz] Limit	Margin∉			
	∙ NO.₽	► PK Detector Freq.** [MHz]**	♦ AV Detector Reading [dBµV/m]	Level⊌ [dBµV/m]∂	Frequency[AV Factor.e [dB].e	Limit⊮ [dBµV/m]∍	Margin⊮ [dB]⊮	Trace	Polarity	
	NO.* 1.2 2.2	PK Detector Freq.*'	♦ AV Detector Reading	Level	Frequency[IAV Factor⊷	Hz] Limit	Margin∉			

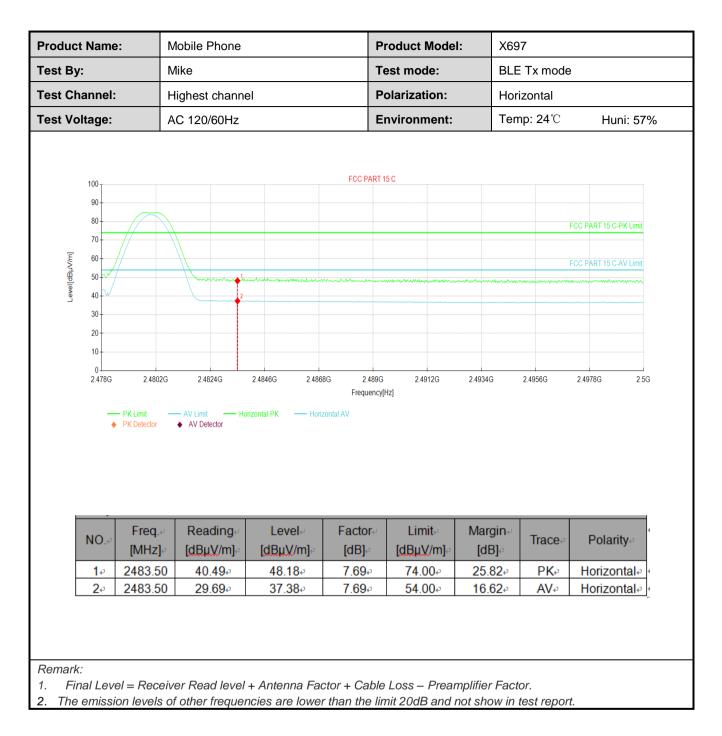














6.7 Spurious Emission

6.7.1 Conducted Emission Method

Test Requirement:	FCC Part 15 C Section 15.247 (d)
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.
Test setup:	
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed



6.7.2 Radiated Emission Method

Test Requirement:	FCC Part 15 C Section 15.205 and 15.209							
Test Frequency Range:	9kHz to 25GHz							
Test Distance:	3m or 10m							
Receiver setup:	Frequency	Detector	r	RBW	VB	W	Remark	
· ·	30MHz-1GHz	Quasi-pea	ak	120KHz	300ł	≺Нz	Quasi-peak Value	
	Above 1GHz	Peak		1MHz	3M		Peak Value	
		RMS		1MHz	3M	Hz	Average Value	
Limit:			Lim	<u>nit (dBuV/m @</u>	10m)		Remark	
	30MHz-88M			<u> </u>			Quasi-peak Value Quasi-peak Value	
							uasi-peak Value	
	960MHz-1G		44.0			luasi-peak Value		
	Frequency		Lir	nit (dBuV/m @	3m)		Remark	
	Above 1GH	1-7		54.0			Average Value	
				74.0			Peak Value table 0.8m(below	
Test Procedure:	 (below 1G rotated 36 radiation. 2. The EUT w away from on the top of 3. The antenr the ground Both horizo make the m 4. For each s case and t meters and to find the r 5. The test-re Specified B 6. If the emiss the limit sp of the EUT have 10 dB 	Hz)or 3 r 0 degrees vas set 10 the interfe of a variable a height i to detern ontal and v neasureme suspected hen the ar I the rota ta maximum r eceiver sy andwidth v sion level of ecified, the would be margin w	meters to meters to reference le-h is van mine vert ent. em nten able reaco vster with of th en te e rep vould	er chamber(a o determine ters(below 10 nce-receiving eight antenna aried from or the maximu ical polarizat ission, the E ma was turned ling. m was set to Maximum H ne EUT in pe esting could b ported. Other d be re-tested	Above the p BHz) or antenia tower ne met um valu ions of UT wa d to he from 0 to Pea old Mod ak mod be stop wise th I one b	1GHz cosition 3 me na, wh er to f the a as arra- eights degre k Det de. de was ped ar e emis y one	10 meter chamber). The table was in of the highest eters(above 1GHz) hich was mounted four meters above the field strength. Intenna are set to anged to its worst from 1 meter to 4 es to 360 degrees tect Function and a 10 dB lower than hid the peak values ssions that did not using peak, quasi- reported in a data	
Test setup:		10m < 4m			S A RF	Antenna To earch intenna Test ceiver	ower	

Project No.: JYTSZE2107028



	Above 1GHz
	AE EUT Horn Artianna Antenna Tower Ground Reference Plane Test Receiver
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed
Remark:	 Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis is the worst case. 9 kHz to 30MHz is lower than the limit 20dB, so only shows the data of above 30MHz in this report.



Measurement Data (worst case):

Below 1GHz:

roduct Na	ame:	Mobile Phone				Product Model:		X697		
st By: Mike			Test mode:		BLE Tx m	BLE Tx mode				
est Frequ	st Frequency: 30 MHz ~ 1 GHz				Polarizat	ion:	Vertical &	Horizontal		
est Voltag	est Voltage: AC 120/60Hz					nent:	Temp: 24	്C Huni: 57%		
				Full Spect	rum					
	45 +	······································					FOC PART 1	15.247 10m		
	40+									
	30									
evel in dBuV/							*	u * 0		
	5									
	20			•••••••••••••••••••••••••••••••••••••••						
	*	4		.*			and the state of the second	11 A.		
- i										
	لا اليم ال	w7. +	÷	1487	a National III.	المراجع والأراج	a share of the second			
ā 	A L. March			UNI	M. Albert					
	10- 10-10				N.M.		the second second second			
<u>a</u>	A L. March									
	10									
	10-0-0-0									
	10	50 60	80 100		200	300 40		800 1G		
	10-0-0-0	50 60	80 100		200 ncy in Hz					
	10-0-0-0	50 60	80 100							
	10-0-0-0	50 60	80 100							
	10-0-0-0	50 60	80 100							
	10-0-0-0	50 60	80 100							
	10-0-0-0	50 60	80 100							
	10		80 100M	Frequer	ncy in Hz					
	10-0-0-0	MaxPeak↓ (dB μ V/m).				300 40	00 500	800 1G		
	10	MaxPeak↓ (dB	Limit↓ (dB	Frequer Margin↓ (dB)-∂ 11.80+∂	ncyin Hz Height↓ (cm)∾ 100.0≁	300 40 Pol₽ V₽	Azimuth↓ (deg)- 109.0+	Corr.↓ (dB/m)₀ -17.7₀)*		
	10 - 10 0 - 30M Frequency∔ (MHz)↔ 30.000000.4 44.162000.4	MaxPeak↓ (dBµ V/m)↩ 18.20↩ 15.28↩	Limit↓ (dB ዞ V/m)↩ 30.00↩ 30.00↩	Frequer (dB)-∂ 11.80+∂ 14.72+∂	Height∔ (cm)∉ 100.0∉ 100.0∉	300 40 Pol - ² V- ² V- ²	Azimuth↓ (deg) 109.0.↓ 184.0.↓	Corr.↓ (dB/m)↔ -17.7↔ -15.7↔		
	10 - 0 0 - 30M Frequency↓ (MHz)↔ 30.000000↔ 44.162000↔ 66.763000↔	MaxPeak↓ (dBµV/m)∂ 18.20↔ 15.28↔ 14.10↔	Limit↓ (dB ዞ V/m)∲ 30.00∲ 30.00∲ 30.00∳	Frequer (dB).₀ 11.80.₀ 14.72.₀ 15.90.₀	Height↓ (cm)₀ 100.0₀ 100.0₀ 100.0₀	300 40 Ve Ve Ve Ve	Azimuth↓ (deg)- 109.0- 184.0- 226.0-	Corr.↓ (dB/m)↔ -17.7↔ -15.7↔ -17.7↔		
	10 - 0 30M Frequency∔ (MHz)- 30.000000- 44.162000- 66.763000- 155.809000-	MaxPeak↓ (dB µ V/m)↩ 18.20↩ 15.28↩ 14.10↩ 17.85↩	Limit↓ (dB↓V/m)∉ 30.00∉ 30.00∉ 33.50∉	Frequer (dB)-∂ 11.80-∂ 14.72-∂ 15.90-∂ 15.65-₽	Height↓ (cm)ℯ 100.0ℯ 100.0ℯ 100.0ℯ 100.0ℯ	300 40 Ve Ve Ve Ve Ve Ve Ve Ve	Azimuth↓ (deg)- 109.0- 184.0- 226.0- 63.0+	Corr.↓ (dB/m)↔ -17.7↔ -15.7↔ -17.7↔ -15.5↔		
	10 - 0 0 - 30M Frequency↓ (MHz)↔ 30.000000↔ 44.162000↔ 66.763000↔	MaxPeak↓ (dBµV/m)∂ 18.20↔ 15.28↔ 14.10↔	Limit↓ (dB ዞ V/m)∲ 30.00∲ 30.00∲ 30.00∳	Frequer (dB).₀ 11.80.₀ 14.72.₀ 15.90.₀	Height↓ (cm)₀ 100.0₀ 100.0₀ 100.0₀	300 40 Ve₂ Ve₂ Ve₂ Ve₂ Ve₂ Ve₂ Ve₂ Ve₂	Azimuth↓ (deg)- 109.0- 184.0- 226.0-	Corr.↓ (dB/m)↔ -17.7↔ -15.7↔ -17.7↔		

Remark:

- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- 2. The emission levels of other frequencies are lower than the limit 20dB and not show in test report.
- 3. The Aux Factor is a notch filter switch box loss, this item is not used.



Above 1GHz

PHY: 1MHz

			annel: Lowest ch			
		Det	tector: Peak Valu	Ie		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarization
4804.00	57.61	-9.60	48.01	74.00	25.99	Vertical
4804.00	57.70	-9.60	48.10	74.00	25.90	Horizontal
		Dete	ctor: Average Va	llue		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4804.00	49.54	-9.60	39.94	54.00	14.06	Vertical
4804.00	49.77	-9.60	40.17	54.00	13.83	Horizonta
		Test ch	annel: Middle ch	annel		
			ector: Peak Valu			
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4884.00	57.60	-9.04	48.56	74.00	25.44	Vertical
4884.00	57.68	-9.04	48.64	74.00	25.36	Horizonta
	1	Dete	ctor: Average Va	llue	•	
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4884.00	49.88	-9.04	40.84	54.00	13.16	Vertical
4884.00	49.28	-9.04	40.24	54.00	13.76	Horizonta
		Test cha	annel: Highest cl	nannel		
	T	Det	ector: Peak Valu		T	
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4960.00	57.95	-8.45	49.50	74.00	24.50	Vertical
4960.00	57.49	-8.45	49.04	74.00	24.96	Horizonta
		Dete	ctor: Average Va	lue		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4960.00	49.74	-8.45	41.29	54.00	12.71	Vertical
						Horizonta

1. Final Level =Receiver Read level + Factor.



PHY: 2MHz

		Test ch	annel: Lowest ch	nannel		
		De	tector: Peak Valu	ie		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarization
4804.00	57.92	-9.60	48.32	74.00	25.68	Vertical
4804.00	56.51	-9.60	46.91	74.00	27.09	Horizontal
		Dete	ctor: Average Va	alue		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarization
4804.00	49.37	-9.60	39.77	54.00	14.23	Vertical
4804.00	49.12	-9.60	39.52	54.00	14.48	Horizontal
		Test ch	annel: Middle ch	annel		
		Det	tector: Peak Valu	le		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarization
4884.00	57.98	-9.04	48.94	74.00	25.06	Vertical
4884.00	56.67	-9.04	47.63	74.00	26.37	Horizontal
		Dete	ctor: Average Va	alue		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarization
4884.00	49.14	-9.04	40.10	54.00	13.90	Vertical
4884.00	48.73	-9.04	39.69	54.00	14.31	Horizontal
		Testak				
			annel: Highest cl			
	Deedleyel	De	tector: Peak Valu		Morgin	
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarization
4960.00	58.04	-8.45	49.59	74.00	24.41	Vertical
4960.00	56.76	-8.45	48.31	74.00	25.69	Horizontal
	1	Dete	ctor: Average Va	alue	1	
Frequency	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarization
(MHz)			10.01	54.00	40.40	Martinal
(MHz) 4960.00	49.29	-8.45	40.84	54.00	13.16	Vertical



Coded PHY, S=2

			annel: Lowest ch			
		De	tector: Peak Valu	IE	T	
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4804.00	56.79	-9.60	47.19	74.00	26.81	Vertical
4804.00	57.85	-9.60	48.25	74.00	25.75	Horizonta
		Dete	ctor: Average Va	lue		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4804.00	49.01	-9.60	39.41	54.00	14.59	Vertical
4804.00	49.17	-9.60	39.57	54.00	14.43	Horizonta
		Test ch	annel: Middle ch	annel		
		Det	tector: Peak Valu	ie		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizati
4884.00	56.58	-9.04	47.54	74.00	26.46	Vertical
4884.00	57.61	-9.04	48.57	74.00	25.43	Horizonta
		Dete	ctor: Average Va	lue		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizati
4884.00	48.83	-9.04	39.79	54.00	14.21	Vertical
4884.00	49.18	-9.04	40.14	54.00	13.86	Horizonta
			annel: Highest ch tector: Peak Valu			
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizati
4960.00	56.74	-8.45	48.29	74.00	25.71	Vertical
4960.00	57.65	-8.45	49.20	74.00	24.80	Horizonta
			ctor: Average Va			
	Read Level	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizati
Frequency (MHz)	(dBuV)		(uDu v/m)	(
	(dBuV) 48.41	-8.45	39.96	54.00	14.04	Vertical



Coded PHY, S=8

			annel: Lowest ch			
	1	Det	tector: Peak Valu	ie	1	
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4804.00	56.55	-9.60	46.95	74.00	27.05	Vertical
4804.00	56.84	-9.60	47.24	74.00	26.76	Horizonta
		Dete	ctor: Average Va	lue		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4804.00	49.23	-9.60	39.63	54.00	14.37	Vertical
4804.00	48.84	-9.60	39.24	54.00	14.76	Horizonta
		Test ch	annel: Middle ch	annel		
		Det	tector: Peak Valu	le	1	
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4884.00	56.19	-9.04	47.15	74.00	26.85	Vertical
4884.00	56.34	-9.04	47.30	74.00	26.70	Horizonta
		Dete	ctor: Average Va	alue		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4884.00	48.83	-9.04	39.79	54.00	14.21	Vertical
4884.00	49.04	-9.04	40.00	54.00	14.00	Horizonta
			annel: Highest cl tector: Peak Valu			
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizati
4960.00	55.79	-8.45	47.34	74.00	26.66	Vertical
4960.00	56.16	-8.45	47.71	74.00	26.29	Horizonta
		Dete	ctor: Average Va	lue		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizati
	49.05	-8.45	40.60	54.00	13.40	Vertical
4960.00						