

Report No: JYTSZB-R12-2102450

FCC REPORT

Applicant:	PCD, LLC
Address of Applicant:	1500 Tradeport Drive, Suite A, Orlando. Fl 32824
Equipment Under Test (E	EUT)
Product Name:	4G LTE smart phone
Model No.:	P55
Trade mark:	PCD
FCC ID:	2ALJJP55
Applicable standards:	FCC CFR Title 47 Part 15 Subpart C Section 15.247
Date of sample receipt:	04 Nov., 2021
Date of Test:	05 Nov., to 07 Dec., 2021
Date of report issued:	10 Dec., 2021

* 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	10 Dec., 2021	Original

Tested by:

Reviewed by:

Mike.OU Test Engineer

10 Dec., 2021 Date:

Winner Thang

Project Engineer

Date: 10 Dec., 2021

Project No.: JYTSZE2111012



3 Contents

		Page
1	COVER PAGE	1
2	VERSION	2
	CONTENTS	
3		
4	TEST SUMMARY	
5	GENERAL INFORMATION	5
5	5.1 Client Information	5
5	5.2 GENERAL DESCRIPTION OF E.U.T.	5
5	5.3 TEST ENVIRONMENT AND MODE	
•	5.4 DESCRIPTION OF SUPPORT UNITS	
	5.5 Measurement Uncertainty	
-	5.6 ADDITIONS TO, DEVIATIONS, OR EXCLUSIONS FROM THE METHOD	
-	5.7 LABORATORY FACILITY	
-	 5.8 LABORATORY LOCATION 5.9 Test Instruments list 	
5		
6	TEST RESULTS AND MEASUREMENT DATA	8
6	6.1 ANTENNA REQUIREMENT	8
6	6.2 CONDUCTED EMISSION	9
6	6.3 CONDUCTED OUTPUT POWER	
-	6.4 OCCUPY BANDWIDTH	-
6	6.5 POWER SPECTRAL DENSITY	
6	δ.6 BAND EDGE	
	6.6.1 Conducted Emission Method	
	6.6.2 Radiated Emission Method	
6	6.7 Spurious Emission	
	6.7.1 Conducted Emission Method	
	6.7.2 Radiated Emission Method	
7	TEST SETUP PHOTO	41
8	EUT CONSTRUCTIONAL DETAILS	42



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 Line Conducted Emission	15.207	See Section 6.2	Pass	
Duty Cycle	ANSI C63.10-2013	Appendix A – 2.4G Wi-Fi	Pass	
Conducted Peak Output Power	15.247 (b)(3)	Appendix A – 2.4G Wi-Fi	Pass	
6dB Emission Bandwidth 99% Occupied Bandwidth	15.247 (a)(2)	Appendix A – 2.4G Wi-Fi	Pass	
Power Spectral Density	al Density 15.247 (e) Appendix A -		Pass	
Conducted Band Edge		Appendix A – 2.4G Wi-Fi	Pass	
Radiated Band Edge	15.247 (d)	See Section 6.6.2	Pass	
Conducted Spurious Emission		Appendix A – 2.4G Wi-Fi	Pass	
Radiated Spurious Emission	15.205 & 15.209	See Section 6.7.2	Pass	

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).

Test Method:

ANSI C63.10-2013 KDB 558074 D01 15.247 Meas Guidance v05r02



5 General Information

5.1 Client Information

Applicant:	PCD, LLC
Address: 1500 Tradeport Drive, Suite A, Orlando. FI 32824	
Manufacturer/ Factory:	SHENZHEN TOPWELL TECHNOLOGY CO., LTD.
Address:	15/F, Building A1, Qiaode Science & Technology Park, No.7 Road, Hi- Tech Industry Park, Guangming new district, Shenzhen, China.

5.2 General Description of E.U.T.

Product Name:	4G LTE smart phone		
Model No.:	P55		
Operation Frequency:	2412MHz~2462MHz: 802.11b/802.11g/802.11n(HT20)		
	2422MHz~2452MHz: 802.11n(HT40)		
Channel numbers:	11: 802.11b/802.11g/802.11(HT20)		
	7: 802.11n(HT40)		
Channel separation:	5MHz		
Modulation technology:	Direct Sequence Spread Spectrum (DSSS)		
(IEEE 802.11b)			
Modulation technology:	Orthogonal Frequency Division Multiplexing(OFDM)		
(IEEE 802.11g/802.11n)			
Data speed (IEEE 802.11b):	1Mbps, 2Mbps, 5.5Mbps, 11Mbps		
Data speed (IEEE 802.11g):	6Mbps, 9Mbps, 12Mbps, 18Mbps, 24Mbps, 36Mbps, 48Mbps, 54Mbps		
Data speed (IEEE 802.11n):	Up to 150Mbps		
Antenna Type:	Internal Antenna		
Antenna gain:	1.0dBi		
Power supply:	Rechargeable Li-ion Battery DC3.8V, 2500mAh		
AC adapter:	Model: P55		
	Input: AC100-240V, 50/60Hz, 0.2A		
	Output: DC 5.0V, 1.0A		
Test Sample Condition:	The test samples were provided in good working order with no visible defects.		

Operation Frequency each of channel for 802.11b/g/n(HT20)							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2412MHz	4	2427MHz	7	2442MHz	10	2457MHz
2	2417MHz	5	2432MHz	8	2447MHz	11	2462MHz
3	2422MHz	6	2437MHz	9	2452MHz		

Note:

1. For 802.11n-HT40 mode, the channel number is from 3 to 9;

2. Channel 1, 6 & 11 selected for 802.11b/g/n-HT20 as Lowest, Middle and Highest channel. Channel 3, 6 & 9 selected for 802.11n-HT40 as Lowest, Middle and Highest Channel.



5.3 Test environment and mode

Operating Environment:				
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. We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:

Per-scan all kind of data rate, the follow list were the worst case.

Mode	Data rate
802.11b	1Mbps
802.11g	6Mbps
802.11n(HT20)	6.5Mbps
802.11n(HT40)	13.5Mbps

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 Additions to, deviations, or exclusions from the method No

5.7 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 and 10m 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.

• CNAS - Registration No.: CNAS L15527

JianYan Testing Group Shenzhen Co., Ltd. is accredited to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L15527.

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: <u>https://portal.a2la.org/scopepdf/4346-01.pdf</u>



5.8 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

5.9 Test Instruments list

Radiated Emission:					
Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Date (mm-dd-yy)	Cal.Due date (mm-dd-yy)
3m SAC	ETS	RFD-100	Q1984	04-14-2021	04-13-2024
BiConiLog Antenna	SCHWARZBECK	VULB9163	9163-1246	03-07-2021	03-06-2022
Biconical Antenna	SCHWARZBECK	VUBA 9117	9117#359	06-17-2021	06-17-2022
Horn Antenna	SCHWARZBECK	BBHA9120D	912D-916	03-07-2021	03-06-2022
Broad-Band Horn Antenna	SCHWARZBECK	BBHA9170	1067	04-02-2021	04-01-2022
Broad-Band Horn Antenna	SCHWARZBECK	BBHA9170	1068	04-02-2021	04-01-2022
EMI Test Receiver	Rohde & Schwarz	ESRP7	101070	03-03-2021	03-02-2022
Spectrum analyzer	Rohde & Schwarz	FSP30	101454	03-03-2021	03-02-2022
Spectrum analyzer	Keysight	N9010B	MY60240202	10-27-2021	10-26-2022
Simulated Station	Anritsu	MT8820C	6201026545	03-03-2021	03-02-2022
Low Pre-amplifier	SCHWARZBECK	BBV9743B	00305	03-07-2021	03-06-2022
High Pre-amplifier	SKET	LNPA_0118G-50	MF280208233	03-07-2021	03-06-2022
Cable	Qualwave	JYT3M-1G-NN-8M	JYT3M-1	03-07-2021	03-06-2022
Cable	Qualwave	JYT3M-18G-NN-8M	JYT3M-2	03-07-2021	03-06-2022
Cable	Qualwave	JYT3M-1G-BB-5M	JYT3M-3	03-07-2021	03-06-2022
Cable	Bost	JYT3M-40G-SS-8M	JYT3M-4	04-02-2021	04-01-2022
EMI Test Software	Tonscend	TS+	Version:3.0.0.1		
10m SAC	ETS	RFSD-100-F/A	Q2005	04-28-2021	04-27-2024
BiConiLog Antenna	SCHWARZBECK	VULB 9168	1249	04-02-2021	04-01-2022
BiConiLog Antenna	SCHWARZBECK	VULB 9168	1250	04-02-2021	04-01-2022
EMI Test Receiver	R&S	ESR 3	102800	04-08-2021	04-07-2022
EMI Test Receiver	R&S	ESR 3	102802	04-08-2021	04-07-2022
Low Pre-amplifier	Bost	LNA 0920N	2016	04-06-2021	04-05-2022
Low Pre-amplifier	Bost	LNA 0920N	2019	04-06-2021	04-05-2022
Cable	Bost	JYT10M-1G-NN-10M	JYT10M-1	04-02-2021	04-01-2022
Cable	Bost	JYT10M-1G-NN-10M	JYT10M-2	04-02-2021	04-01-2022
Test Software	R&S	EMC32	N	/ersion: 10.50.4	0

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 3	101189	03-03-2021	03-02-2022
LISN	Rohde & Schwarz	ENV432	101602	04-06-2021	04-05-2022
LISN	Rohde & Schwarz	ESH3-Z5	843862/010	06-18-2020	06-17-2022
ISN	Schwarzbeck	CAT3 8158	#96	03-03-2021	03-02-2022
ISN	Schwarzbeck	CAT5 8158	#166	03-03-2021	03-02-2022
ISN	Schwarzbeck	NTFM 8158	#126	03-03-2021	03-02-2022
RF Switch	TOP PRECISION	RSU0301	N/A	03-03-2021	03-02-2022
Cable	Bost	JYTCE-1G-NN-2M	JYTCE-1	03-03-2021	03-02-2022
Cable	Bost	JYTCE-1G-BN-3M	JYTCE-2	03-03-2021	03-02-2022
EMI Test Software	AUDIX	E3	V	ersion: 6.110919	b

Project No.: JYTSZE2111012



Conducted method:

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	10-27-2021	10-26-2022
Vector Signal Generator	Keysight	N5182B	MY59101009	10-27-2021	10-26-2022
Analog Signal Generator	Keysight	N5173B	MY59100765	10-27-2021	10-26-2022
Power Detector Box	MWRF-test	MW100-PSB	MW201020JYT	11-19-2021	11-18-2022
Simulated Station	Rohde & Schwarz	CMW270	102335	10-27-2021	10-26-2022
RF Control Box	MWRF-test	MW100-RFCB	MW200927JYT	N/A	N/A
PDU	MWRF-test	XY-G10	N/A	N/A	N/A
DC Power Supply	Keysight	E3642A	MY60296194	11-27-2020	11-26-2023
Temperature Humidity Chamber	Deli	8840	N/A	03-08-2021	03-07-2022
Test Software	MWRF-tes	MTS 8310		Version: 2.0.0.0	

6 Test results and Measurement Data

6.1 Antenna requirement

Standard requirement: FCC Part 15 C Section 15.203 /247(b)

15.203 requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

15.247(b) (4) requirement:

(4) The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

E.U.T Antenna:

The Wi-Fi antenna is an Internal antenna which cannot replace by end-user, the best case gain of the antenna is 1.0 dBi.



6.2 Conducted Emission

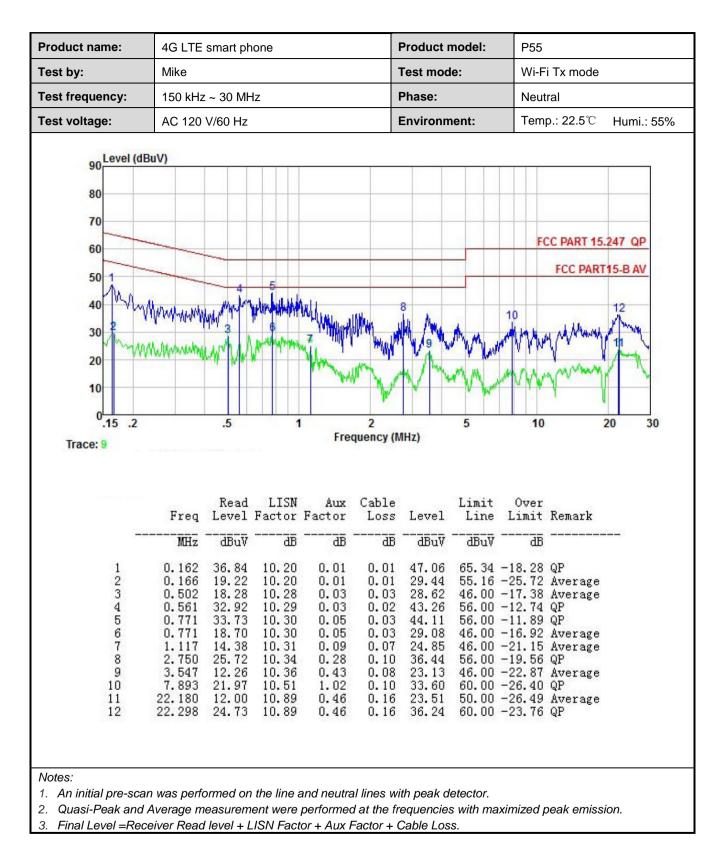
Test Requirement:	FCC Part 15 C Section 15.2	207	
Test Frequency Range:	150 kHz to 30 MHz		
Class / Severity:	Class B		
Receiver setup:	RBW=9 kHz, VBW=30 kHz		
Limit:	Frequency range (MHz)	Limit (d	dBuV)
	,	Quasi-peak	Average
	0.15-0.5	66 to 56*	56 to 46*
	0.5-5	56	46
	5-30	60	50
	* Decreases with the logarith		
Test procedure	 line impedance stabiliza 50ohm/50uH coupling i The peripheral devices LISN that provides a 50 termination. (Please ref photographs). Both sides of A.C. line a interference. In order to positions of equipment 	brs are connected to the mation network (L.I.S.N.), w mpedance for the measur are also connected to the Dohm/50uH coupling imper fer to the block diagram of are checked for maximum of find the maximum emissi and all of the interface cal .10(latest version) on cond	hich provides a ing equipment. main power through a dance with 500hm the test setup and conducted on, the relative oles must be changed
Test setup:		st	er — AC power
Test Instruments:	Refer to section 5.9 for deta	ils	
Test mode:	Refer to section 5.3 for deta	ils	
Test results:	Passed		



Measurement Data:

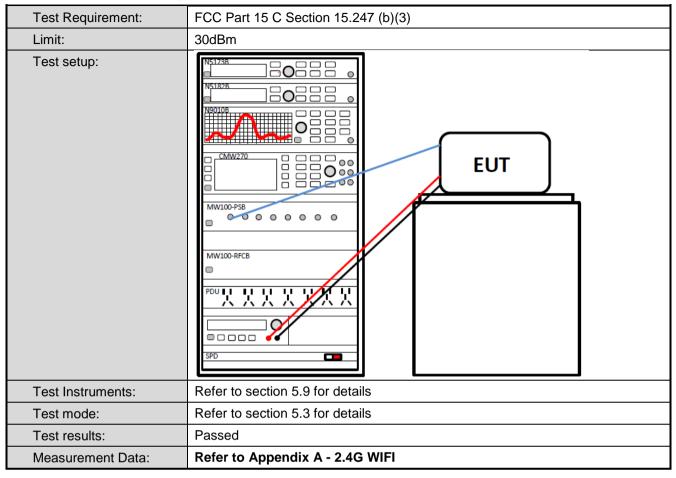
Product name:	4G LTE	smart p	hone			Product I	model:	P55		
Test by:	Mike					Test mod	le:	Wi-F	i Tx mode	
Test frequency:	150 kH:	z ~ 30 M	Hz			Phase:		Line		
Test voltage:	AC 120	V/60 Hz	<u>.</u>			Environn	nent:	Tem	p.: 22.5℃	Humi.: 55%
90 Level (d 80 70 60 50 2 40 10 0.15 .2 Trace: 11	IBUV)			1 Fre	2 equency (M	8 * * * * * * * * * * * *	5	10 10 10 10 10 10	CC PART 15.3 FCC PART	
	Freq	Read Level dBuV	LISN Factor dB	Aux Factor dB	Cable Loss dB	Level	Limit Line dBuV	Over Limit dB	Remark	





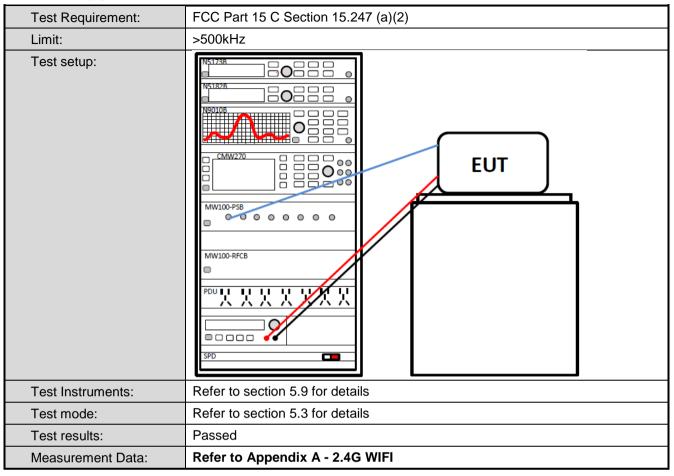


6.3 Conducted Output Power



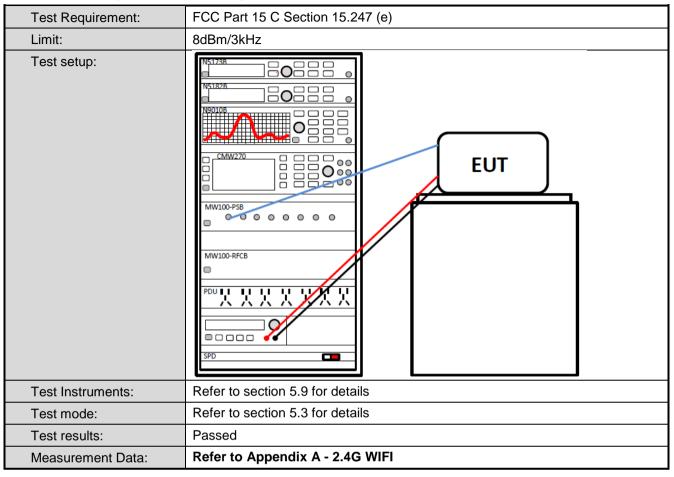


6.4 Occupy Bandwidth





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. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph(b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.
Test setup:	
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed
Measurement Data:	Refer to Appendix A - 2.4G WIFI



6.6.2 Radiated Emission Method

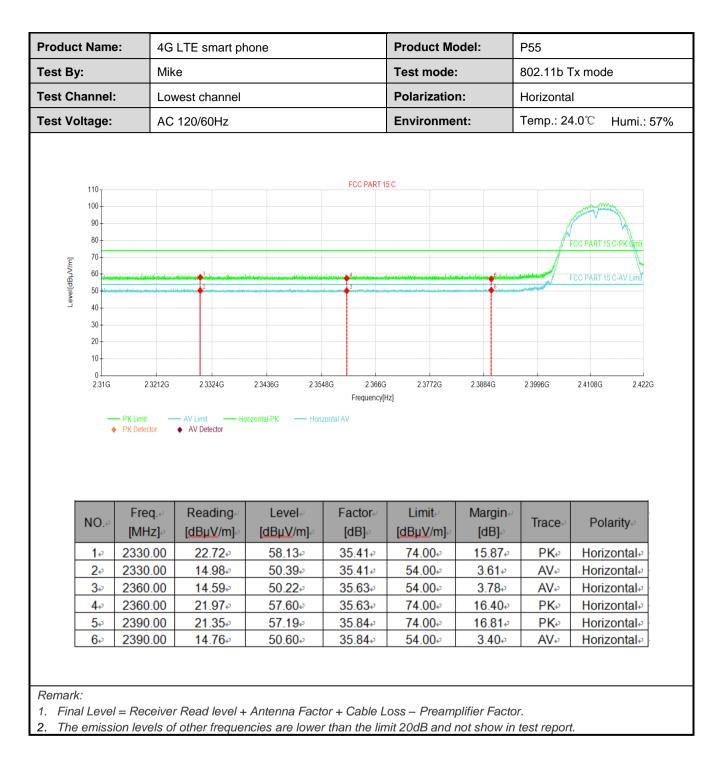
Test Requirement:	FCC Part 15 C Se	ection 15.209	and 15.205		
Test Frequency Range:	2310 MHz to 2390) MHz and 24	83.5 MHz to 2	500 MHz	
Test Distance:	3m				
Receiver setup:	Frequency	Detector	RBW	VBW	Remark
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
	Frequency	RMS	1MHz nit (dBuV/m @	3MHz	Average Value Remark
Limit:			54.00	,	Average Value
	Above 1GH		74.00		Peak Value
Test Procedure:	 the ground at determine the 2. The EUT was antenna, whit tower. 3. The antenna ground to det horizontal an measuremen 4. For each sus and then the and the rota to maximum rea 5. The test-rece Specified Bat 6. If the emission limit specified the EUT wou 10dB margin 	t a 3 meter ca e position of t s set 3 meters ch was moun height is vari- termine the m d vertical pola t. pected emiss antenna was table was turr ading. viver system v ndwidth with I on level of the d, then testing Id be reported would be re-	imber. The tak he highest radi s away from the ted on the top ed from one m aximum value arizations of the ion, the EUT w tuned to heigh ned from 0 deg was set to Peal Maximum Hold EUT in peak r could be stop d. Otherwise th	ble was rotati iation. e interferenc of a variable eter to four r of the field s e antenna ar vas arranged its from 1 me rees to 360 of k Detect Fun I Mode. node was 10 ped and the ne emissions one using pe	-height antenna neters above the strength. Both e set to make the l to its worst case eter to 4 meters degrees to find the ction and dB lower than the peak values of that did not have ak, quasi-peak or
Test setup:	150cm	AE EUT (Turntable)	Horn	Antenna To	wer
Test Instruments:	Refer to section 5	.9 for details			
Test mode:	Refer to section 5	.3 for details			
Test results:	Passed				



802.11b mode:

	Name		LTE smart pho	one		Product I	Model:	P55		
est By:		Mik	Э			Test mod	le:	802.11b T>	x mode	
est Cha	annel:	Low	est channel			Polarizat	ion:	Vertical		
est Volt	tage:	AC	120/60Hz			Environm	nent:	Temp.: 24.	.0℃ Hur	ni.: 57%
Level[dB,LV/m]	110 100 90 80 70 60 50	مەر يەرە بىلەر يەرە يەرە يەرە يەرە يەرە يەرە يەرە ي	and a state of the		FCC PART 15	5 C			CC PART 15 C-PK	\mathcal{T}
Lev	40 30 20 10 0 2.31G	2.3212G - PK Limit - • PK Detector	2.3324G AV Limit Ve AV Detector	2 3436G 2 354 ertical PK — Vertical	Frequency[H		2 3884G	2.3996G	2.4108G	2.422G
	30 20 10 0	– PK Limit –	— AV Limit — Ve		Frequency[H		23884G Margin⊷ [dB]₊	2.3996G Trace₽	2.4108G Polarity	_
	30 20 10 2.31G	PK Limit PK Detector	AV Limit Ve AV Detector Ve	ertical PK — Vertical	Frequency(H AV	Limit-	Margin∉			1 42
	30 20 10 0 2.31G ■ NO. • 1+2 2+2	- PK Limit • PK Detector Freq. ↔ [MHz]-∍ 2330.00 2330.00	AV Limit Ve ◆ AV Detector Ve (dBµV/m]= 22.47+3 14.36+3	ertical PK Vertical Level∉ [dBµV/m]₊₂	Frequency(H AV Factor↓ [dB]- 35.41.€ 35.41.€	Limit- [dBµV/m]- 74.00. 54.00.	Margin.⊎ [dB].⊎ 16.12.₽ 4.23.₽	Trace∗	Polarity Vertical Vertical	م م
	30 20 10 2.31G NO.4 1.2	- PK Limit • PK Detector Freq.↔ [MHz]↔ 2330.00	AV Limit Ve ♦ AV Detector Ve Reading (dBµV/m) 22.47.2	Level∉ [dBµV/m]₽ 57.88₽	Frequency(H AV Factor [dB] 35.41	Limit.√ [dBµV/m]↔ 74.00↔	Margin⊮ [dB]⊮ 16.12₽	Trace.∘ PK⊷	Polarity Vertical	م م
	30 20 10 0 2.31G NO.4 1+2 2+2 3+2 4+2	- PK Limit PK Detector - PK Detec	AV Limit Ve AV Detector Ve (dBµV/m]= 22.47+ 14.36+ 14.28+ 21.43+ 21.43+	Level↔ [dBµV/m]↔ 57.88↔ 49.77↔ 49.91↔ 57.06↔	Frequency(H AV [dB]- ³ 35.41.e ³ 35.63.e ³ 35.63.e ³	Limit-/ [dBµV/m]-/ 74.00/ 54.00/ 54.00/ 74.00/	Margin [dB] 16.12 4.23 4.09 16.94	Trace PK AV AV PK	Polarity Vertical Vertical Vertical Vertical	4) 44 44 44 44 44 44 44 44 44 44 44 44 4
	30 20 10 0 2.31G NO. 1+2 2+2 3+2	Freq. 4 [MHz] 2330.00 2360.00	AV Limit Ve AV Detector Ve AV Detector Ve [dBµV/m]↔ 22.47↔ 14.36↔ 14.28↔	Level [dBµV/m] 57.88 49.77 49.91 2	Frequency(H AV [dB]- 35.41- 35.41- 35.63- 35.63-	Limit- [dBµV/m]+ 74.00+ 54.00+ 54.00+	Margin.↓ [dB],↓ 16.12,↓ 4.23,↓ 4.09,↓	Trace₀ PK₊₀ AV₊₀ AV₊₀	Polarity Vertical Vertical Vertical	







	ie: 4		phone		Product	Model:	P55		
est By:	Ν	ike			Test mod	le:	802.11b	Tx mode	
est Channe	l: ⊦	ighest chan	nel		Polarizat	ion:	Vertical		
est Voltage	: A	C 120/60Hz			Environn	nent:	Temp.: 2	4.0℃ Humi.:	: 57%
110 100 90 80 70 60 90 60 50				FCC PART	15 C	and the state of the		FCC PART 15 C-PK Limit	
	 ⇒ 2.456 → PK Limit ◆ PK Detector 		2.4664G — Vertical PK — V	2.4712G 2.476C Frequency Vertical AV		2.4856G	2.4904G	2.4952G 2.50	G
40 30 20 10	PK Limit PK Detector	AV Limit AV Detector Readin	- Vertical PK - V	Frequency Vertical AV		2.4856G Margin⊮ [dB]	2 4904G	2.4952G 2.50	G
	PK Limit PK Detector	AV Limit AV Detector Readin (dBµV/r	- Vertical PK \ g.⊬ Level₊ ı].₽ [dBµV/m	Frequency Vertical AV P Factor ← n] ← [dB] ←	Hz]	Margin⊮	_		G
10 10 2 4520 NO.	→ PK Limit → PK Detector Freq. [MHz]	AV Limit AV Detector Readin [dBµV/r) 22.25	Vertical PK V g+/ Level+ g]-/ [dBµV/m g-/ 57.97+	Frequency Vertical AV Factor n] 2 [dB] 3 35.72	Hz] Limit↩ [dBµV/m]↩	Margin⊮ [dB]₽	Trace	Polarity⊳	G
10 20 10 0 2.4520 NO.4	 PK Limit PK Detector PK Detector Freq. [MHz] 2483.5 2483.5 2489.0 	 AV Limit AV Detector AV Detector Reading [dBµV/r 22.25 14.30 14.52 		Frequency Vertical AV P Factor n] [dB] 35.72 35.72	Hz] Limit⊷ [dBµV/m]⊷ 74.0043	Margin⊮ [dB]∘ 16.03⊷	Trace.	Polarity.⊧ Vertical.⊧	G
NO.+ 1+3 20 10 0 2.4520 10 0 2.4520 10 0 2.4520 10 0 2.4520 10 0 2.4520 10 10 0 10 10 10 10 10 10 10	 PK Limit PK Detector Freq. [MHz] 2483.5 2483.5 	 AV Limit AV Detector AV Detector Reading [dBµV/r 22.25 14.30 14.52 	- Vertical PK \ Q.₽ Level+ 1].₽ [dBµV/m 2 57.97+ 2 50.02+ 3 50.23+	Frequency Vertical AV P Factor ← n] ← [dB] ← 2 35.72 ← 3 35.72 ← 3 35.71 ←	H₂] Limit₊ [dBµV/m]↓ 74.00₊³ 54.00₊³	Margin⊮ [dB]≠ 16.03₽ 3.98₽	Trace.	Polarity₀ Vertical₀ Vertical₀	G
NO.+ 1+3 24520 NO.+ 1+3 2+3 3+3	 PK Limit PK Detector PK Detector Freq. [MHz] 2483.5 2483.5 2489.0 	AV Limit AV Detector AV Detector Readin [dBµV/r) 22.25) 14.30) 14.52) 22.07	Vertical PK Vertical PK 0 Level 1] [dBµV/m 2 57.97+ 3 50.02+ 3 50.23+ 3 57.78+	Frequency Vertical AV Image: Second state s	Hz] Limit₊/ [dBµV/m]↓ 74.00₊² 54.00₊² 54.00₊²	Margin₊ [dB]≠ 16.03↓ 3.98↓ 3.77↓	Trace	Polarity₀ Vertical₀ Vertical₀ Vertical₀	G



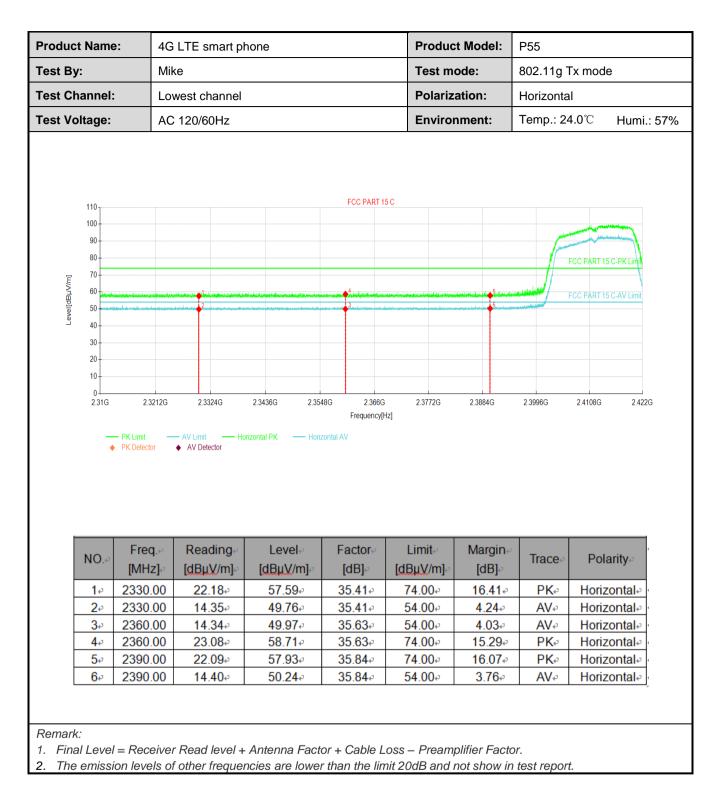
	ame:	1-01	TE smar	phone	е		Product	Model:	P55			
Test By:		Mike	;				Test mo	de:	802.11b	Tx mod	е	
Test Chann	nel:	High	nest chanr	nel			Polarizat	ion:	Horizonta	al		
Fest Voltag	ge:	AC	120/60Hz				Environ	nent:	Temp.: 24	4.0 ℃	Humi.:	: 57%
110 - 100 - 90 - 80 - 또 70 - 오고 60 -		~~	~~~~~	~~~~~		FCC PART	15 C	1	4. 3	FCC PART 1	5 C-PK Limit	
BD 9 50 - 40 - 30 - 20 - 10 - 0 -) - 		2.4616G – AV Limit – AV Detector	2.4 — Horizon	1664G 2.471 tal PK — Hori	Frequency		2.4856G	2.4904G	2.4952G	2.5	5G
40 - 30 - 20 - 10 - 0 -	452G PK Lim PK Det	it —	– AV Limit –	— Horizon		Frequency		2.4856G Margin⊮ [dB]₽	2.4904G		2.5 arity⊮	5G
40- 30- 20- 10- 2.45	452G PK Lim PK Det	it — ector eq.+ ¹	AV Limit - AV Detector Readin	- Horizon 9년] 문 [ıtal PK — Hori Level≁	Frequency zontal AV Factor	Hz]	Margin⊮	_	Pol	_	
10- 20- 10- 245 NO	 → → → → → → → PK Lim → → → PK Det → <	it ector eq.≁ Hz]₽	AV Limit → AV Detector Readine [dBµV/n	— Horizon	Level [dBµV/m] 57.45 49.71	Frequency zontal AV Factor⊷ [dB]⊷ 35.72↔ 35.72↔	Hz] Limit⊸ [dBµV/m]⊸ 74.00↔ 54.00↔	Margin⊮ [dB]∘ 16.55¢ 4.29¢	Trace	Pol Horiz Horiz	arity⊭ zontal⊮ zontal⊮	
40- 30- 20- 10- 2.45 NO	→ PK Lim → PK Det	it ector eq.≁ Hz]₽ 3.50	AV Limit → AV Detector Readin [dBµV/n 21.73	Horizon	Level [dBµV/m] 57.45+	Frequency zontal AV Factor↓ [dB]↓ 35.72↓	Hz] Limit-/ [dBµV/m]-/ 74.00	Margin⊮ [dB]₽ 16.55₽	Trace.	Pol Horiz Horiz	arity₊	
10- 10- 10- 245 NO 1+ 2+ 3+ 4+	0	eq Hz] 3.50 3.50 9.00 9.00	- AV Limit → AV Detector AV Detector [dBµV/n 21.73 13.99 14.55 21.80	Horizon	Level↔ [dBµV/m]↔ 57.45↔ 49.71↔ 50.26↔ 57.51↔	Frequency zontal AV Factor [dB] 35.72¢ 35.72¢ 35.71¢ 35.71¢	Hz] Limit-/ [dBµV/m]-/ 74.00/ 54.00/ 54.00/ 74.00/	Margin⊮ [dB]≠ 16.55≠ 4.29≠ 3.74≠ 16.49≠	Trace PK AV AV PK	Pol Horiz Horiz Horiz	arity≠ zontal≠ zontal≠ zontal≠ zontal≠	
40- 30- 20- 10- 245 NO 1+ 245 S- 3-		it ector Hz]₀ 3.50 3.50 9.00	- AV Limit → AV Detector AV Detector [dBµV/n 21.73- 13.99- 14.55-	- Horizon	Level↔ [dBµV/m]↔ 57.45↔ 49.71↔ 50.26↔	Frequency zontal AV Factor [dB] 35.72 35.72 35.71 35.71	Hz] Limit-/ [dBµV/m]-/ 74.00/ 54.00/ 54.00/	Margin₊ [dB]↔ 16.55↔ 4.29↔ 3.74↔	Trace PKe AVe AVe	Pol Horiz Horiz Horiz Horiz	arity⊭ zontal⊮ zontal⊮ zontal⊮	



802.11g mode:

	Name		GLTE smart p	none		Product	Model:	P55	
est By:	:	Mi	ke			Test mo	de:	802.11g T	Tx mode
est Ch	annel:	: Lo	west channel			Polariza	tion:	Vertical	
est Vo	ltage:	AC	C 120/60Hz			Environ	ment:	Temp.: 24	4.0℃ Humi.:
Level[dBµV/m]	110 100 90 80 70 60 50 40				FCC PART 15	5 C	6. 6.		FCC PART 15 C-PK Limit
		2.3212G PK Limit - PK Detector	2.3324G AV Limit Ve AV Detector	2.3436G 2.354 ertical PK — Vertical	Frequency[H	2.3772G z]	2.3884G	2.3996G	2.4108G 2.422G
	20 10 0 2.31G	— PK Limit —	— AV Limit — Ve		Frequency[H		23884G Margin⊷ [dB]₀	2.3996G	24108G 2.422G
	20 10 0 2.31G	PK Limit PK Detector	AV Limit Ve AV Detector	ertical PK Vertical	Frequency(H AV Factor+	z] Limite	Margin⊭		
	20 10 0 2.31G • NO.* 1 *	PK Limit PK Detector Freq.* [MHz].2	AV Limit → Ve AV Detector → AV Detector →	ertical PK — Vertical Level⊷ [dBµV/m].∘	Frequency(H AV Factor+ [dB]- 35.41+ 35.41+	z] Limit⊮ [dBµV/m]⊬	Margin⊮ [dB]∂	Trace	Polarity₀
	20 10 0 2.31G NO.¢ 1¢ 2¢ 3¢	PK Limit PK Detector [MHZ]. ² 2330.00 2330.00 2360.00	AV Limit Ve AV Detector Reading ([dBµV/m] 22.79+ 14.16+ 13.90+	Eevel↔ [dBµV/m]↔ 58.20↔ 49.57↔ 49.53↔	Frequency(H AV [dB]= 35.41= 35.41= 35.63=	z] Limit⊷ [dBµV/m]⊷ 74.00↔ 54.00↔ 54.00↔	Margin⊷ [dB]∘ 15.80₊ 4.43₊ 4.43₊	Trace. PK. AV. AV.	Polarity Vertical Vertical
	20 10 0 2.31G NO.* ² 1.* ³ 2.* ² 3.* ³ 4.* ³	PK Limit PK Detector [MHz].P 2330.00 2360.00 2360.00	AV Limit Ve AV Detector Ve (dBµV/m) 22.79+ 14.16+ 13.90+ 22.19+ 22.19+	Eevel↔ [dBµV/m]↔ 58.20↔ 49.57↔ 49.53↔ 57.82↔	Frequency(H AV [dB]	Limit [dBµV/m]• 74.00.• 54.00.• 54.00.• 74.00.•	Margin⊷ [dB]₀ 15.80₊₀ 4.43₊₀ 4.47₊₀ 16.18₊₀	Trace PK↔ AV↔ AV↔ PK↔	Polarity Vertical Vertical Vertical
	20 10 0 2.31G NO.¢ 1¢ 2¢ ³ 3¢	PK Limit PK Detector [MHZ]. ² 2330.00 2330.00 2360.00	AV Limit Ve AV Detector Reading ([dBµV/m] 22.79+ 14.16+ 13.90+	Eevel↔ [dBµV/m]↔ 58.20↔ 49.57↔ 49.53↔	Frequency(H AV [dB]= 35.41= 35.41= 35.63=	z] Limit⊷ [dBµV/m]⊷ 74.00↔ 54.00↔ 54.00↔	Margin⊷ [dB]∘ 15.80₊ 4.43₊ 4.43₊	Trace. PK. AV. AV.	Polarity Vertical Vertical





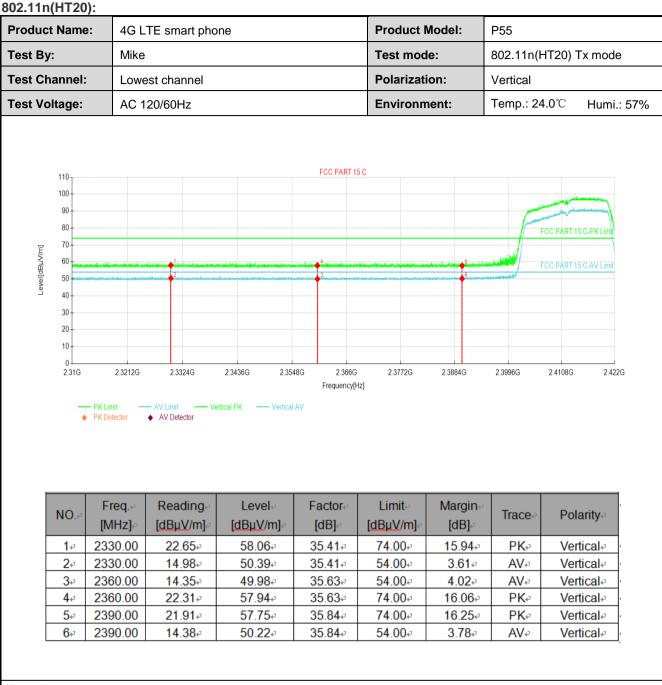


		LTE smart p	none		Product	Model:	P55		
est By:	Mi	ke			Test mod	de:	802.11g	Tx mode	
est Channel	: Hig	ghest channel			Polarizat	tion:	Vertical		
est Voltage:	AC	2120/60Hz			Environn	nent:	Temp.: 2	4.0℃ ⊦	lumi.: 57%
				FCC PART 1		1		FCC PART 15 C-F	K Limit
40 30 20 10 0 2.452G	2.4568G PK Limit – PK Detector	2.4616G — AV Limit — Ve AV Detector	2.4664G 2.471 ertical PK — Vertical	Frequency[H	2.4808G Z]	2.4856G	2.4904G	2.4952G	2.5G
40 30 20 10 0 2.452G	— PK Limit —	— AV Limit — Ve		Frequency[H		24856G Margin	2.4904G	24952G Polarit	4
40 30 20 10 0 2.452G	PK Limit - PK Detector -	AV Limit Ve ◆ AV Detector	ertical PK — Vertical Level+	Frequency[F	z] Limit.	Margin⊮			y⇔ t
40 30 20 10 0 2.452G	PK Limit PK Detector Freq.4 [MHz]+2	AV Limit Ve AV Detector ve Readinge [dBµV/m]e	ertical PK — Vertical Level [dBµV/m]. ²	Frequency(H IAV Factor⊷ [dB]⊷	z] Limit⊮ [dBµV/m]⊬	Margin⊮ [dB]∌	Trace	Polarit	y₽ al₽
40 30 20 10 0 2.452G NO2	PK Limit PK Detector Freq.↔ [MHz].⇒ 2483.50	AV Limit Va AV Detector Va Reading Va [dBµV/m] Va 23.59+3	Level⊮ [dBµV/m]⊮ 59.31₽	Frequency(F AV Factor↓ [dB]₀ 35.72₊	Limit. [dBµV/m]⊷ 74.00₊3	Margin⊷ [dB]∘ 14.69⊷	Trace.₀ PK₀	Polarit	y≠ 1 10 1
NO	PK Limit PK Detector Freq.4 [MHZ].2 2483.50 2483.50	AV Limit Ve AV Detector Ve Reading V [dBµV/m] V 23.59 V 14.48 V	Eevel⊮ [dBµV/m]⊮ 59.31₽ 50.20₽	Frequency(F AV Factor [dB] 35.72+- 35.72+-	z] Limit⊌ [dBµV/m]• 74.00₊² 54.00₊²	Margin⊷ [dB]∘ 14.69₊³ 3.80₊³	Trace. PK. AV.	Polarit Vertica Vertica	y≠ ३।२ ३।२ ३।२ ३।२
NO*	PK Limit PK Detector [MHz],2 2483.50 2483.50 2489.00	AV Limit Va AV Detector Va (dBµV/m] 23.59+ 14.48+ 14.73+	Eevel↔ [dBµV/m]↔ 59.31↔ 50.20↔ 50.44↔	Frequency(H AV [dB]- 35.72- 35.72- 35.71- 35.71-	Limit₄ [dBµV/m]↔ 74.00↔ 54.00↔ 54.00↔	Margin⊮ [dB]∳ 14.69¢ 3.80∳ 3.56∳	Trace PK. PK. AV.	Polarit Vertica Vertica	y≠ ३।२ ३।२ ३।२ ३।२ ३।२



			.TE smart pl	none		Produc	t Model:	P55		
Test By:		Mike	1			Test mo	ode:	802.11g	Tx mode	
Test Channe	el:	High	est channel			Polariza	ation:	Horizonta	ıl	
Test Voltage):	AC 1	20/60Hz			Enviror	nment:	Temp.: 24	4.0℃ Hui	mi.: 57%
110	ſ				FCC PART 15		1		FCC PART 15 C-PK Lin	
	IG 2 PK Limi PK Dete		2.4616G AV Limit P AV Detector	2.4664G 2.471 orizontal PK — Hori:	Frequency[H	2.4808G z]	2.4856G	2.4904G	2.4952G	2.5G
40 30 20 10 0	PK Limi PK Dete	t —	· AV Limit — H		Frequency[H		2.4856G Margin⊮ [dB]⊮	2.4904G	2.4952G	
40 30 20 10 2.452	PK Limi PK Dete	t cctor • eq.₊ Hz]₊	AV Limit - F AV Detector	orizontal PK — Hori:	Frequency(H zontal AV	2] Limit-	Margin⊬			
10 20 10 2.452	PK Limi PK Dete	eq.₊ Hz]₊ 3.50	AV Limit + AV Detector Reading - [dBµV/m] -	orizontal PK — Hori: Level⊮ [dBµV/m]⊮	Frequency(H zontal AV Factor [dB]	Limit⊮ [dBμV/m]⊬	Margin⊮ [dB]∳	Trace	Polarity∉	
40 30 20 10 2,452 NO	 PK Limit PK Dete PK Dete [MI 248: 248: 248: 	eq.₊ Hz]₊ 3.50 9.00	AV Limit AV Detector Reading [dBµV/m] 22.64 14.76 15.52 3	orizontal PK — Hori: Level→ [dBµV/m]→ 58.36+→ 50.48+→ 51.23+→	Frequency(H zontal AV Factor+ [dB]+ 35.72+ 35.72+ 35.71+	ی Limit [dBµV/m] 74.00↔ 54.00↔ 54.00↔	Margin [dB] 15.64. 3.52. 2.77.	Trace PK AV AV	Polarity. Horizontal	а -
10 20 10 2452 NO 14 ³ 24 ³ 24 ³ 3 ⁴² 4 ⁴³	 PK Limi PK Dete PK Dete [MI 2483 2483 2483 2483 2483 	eq.≁ Hz]- 3.50 3.50 9.00 9.00	AV Limit + AV Detector Reading - [dBµV/m] - 22.64 - 14.76 - 15.52 - 22.19 - 22.19 -	Level Hor: [dBµV/m] 58.36+ 50.48+ 51.23+ 57.90+ 57.90+	Frequency(H zontal AV Factor⊷ [dB]∘ 35.72. 35.72. 35.71. 35.71. 35.71.	Limit. [dBµV/m]- 74.00. 54.00. 54.00.	Margin - [dB]- 15.64- 3.52- 2.77+ 16.10-	Trace- PK- AV- AV- PK-	Polarity Horizontal Horizontal Horizontal Horizontal	4 4
NO. 143 10 10 2452 NO. 143 2452 343	 PK Limi PK Dete PK Dete [MI 2483 2483 2483 2483 2483 2483 2483 	eq. 4 Hz] - 3.50 3.50 9.00 9.00 5.00	AV Limit AV Detector Reading [dBµV/m] 22.64 14.76 15.52 3	orizontal PK — Hori: Level→ [dBµV/m]→ 58.36+→ 50.48+→ 51.23+→	Frequency(H zontal AV Factor+ [dB]+ 35.72+ 35.72+ 35.71+	ی Limit [dBµV/m] 74.00↔ 54.00↔ 54.00↔	Margin [dB] 15.64. 3.52. 2.77.	Trace PK AV AV	Polarity. Horizontal Horizontal Horizontal	4 4 4 4

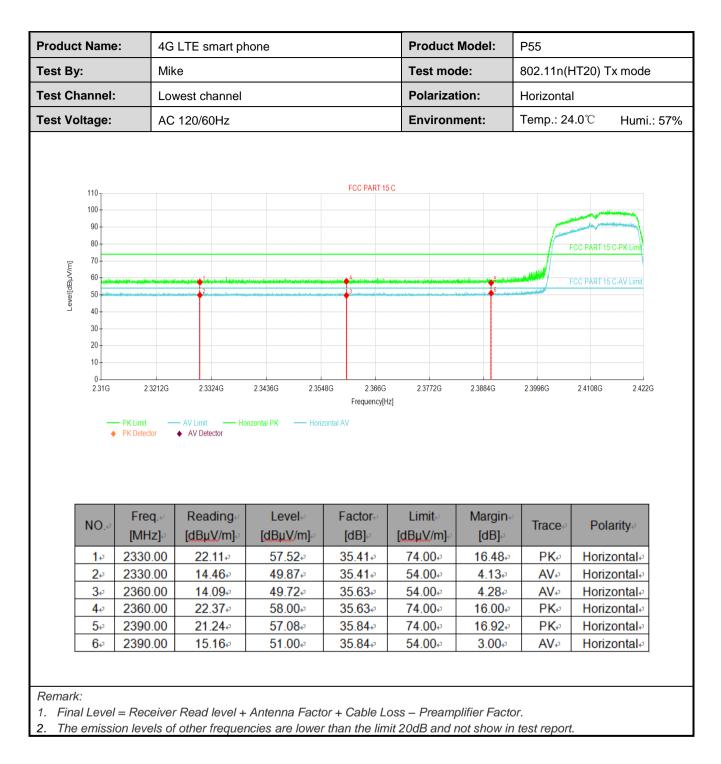




Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.







		4G LTE smart phone				Model:	P55		
est By:	Mi	ke			Test mo	ode:	802.11n(l	HT20) T	x mode
est Channel	: Hig	ghest channel			Polariza	tion:	Vertical		
est Voltage:	AC	2120/60Hz			Environ	ment:	Temp.: 24	4.0 ℃	Humi.: 579
110 100 90 80 70 100 100 90 80 70 100 100 100 100 100 100 100 100 90 80 100 90 80 100 90 80 100 90 80 100 100 90 80 100 100 90 80 100 100 90 80 100 100 100 100 100 100 100 100 100						te derete der Die die der der	4 4	FCC PART 15	C-PK Limit
40 30 20 10 0 2.452G	2.4568G PK Limit PK Detector	2.4616G — AV Limit — Ve ♦ AV Detector	2.4664G 2.471 ertical PK — Vertical	Frequency[H	2.4808G [z]	2.4856G	2.4904G	2.4952G	2.5G
40 30 20 10 0 2.452G	— PK Limit —	— AV Limit —— Ve		Frequency[H		2.4856G Margin - [dB]-	2.4904G		2.5G
40 30 20 10 0 2.452G	PK Limit PK Detector	AV Limit Ve AV Detector	ertical PK Vertical	Frequency(H AV	z] Limite	Margin∉		Pola	_
10 20 10 0 2.452G	PK Limit PK Detector	AV Limit ve ♦ AV Detector ve Reading v [dBµV/m] v	ertical PK Vertical Level↓ [dBµV/m]₽	Frequency(H AV Factor- [dB]-2	z] Limit⊮ [dBµV/m]⊬	Margin⊷ [dB]∘	Trace	Pola	rity₽
10 30 20 10 0 2.452G NO0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.	PK Limit PK Detector Freq.4 [MHz]-2 2483.50	AV Limit Ve AV Detector Ve Reading v [dBµV/m]v 21.93v ³	ertical PK — Vertical Level↔ [dBµV/m]↔ 57.65↔	Frequency(H AV Factor-/ [dB]-/ 35.72+/	z] Limit-/ [dBµV/m]↔ 74.00↔	Margin⊮ [dB]∉ 16.35⊮	Trace. PK.	Pola Vert Vert	nrity <i>⇔</i> ical≁
NO.~ 1.~ 1.~ 2.452G	PK Limit PK Detector Freq.44 [MHz].49 2483.50 2483.50	AV Limit Ve AV Detector Ve AV Detector Ve [dBµV/m]₂ 21.93₽ 14.71₽	Eevel [dBµV/m]₂ 57.65₽ 50.43₽	Frequency(H AV Factor	Limit↓ [dBµV/m]↓ 74.00↓ 54.00↓	Margin⊷ [dB]∘ 16.35₊ 3.57₊	Trace⇒ PK₂ AV₂	Pola Vert Vert Vert	ırity⊭ ical⊮ ical⊮
NO. 10 2452G	PK Limit PK Detector Freq.↔ [MHz].→ 2483.50 2483.50 2489.00	AV Limit Ve AV Detector Ve AV Detector [dBµV/m]e ² 21.93e ³ 14.71e ³ 14.34e ³	Eevel↔ [dBµV/m]↔ 57.65↔ 50.43↔ 50.05↔	Frequency(H AV [dB]- 35.72+ 35.72+ 35.71+	Limit- [dBµV/m]↔ 74.00↔ 54.00↔ 54.00↔	Margin⊷ [dB]∘ 16.35⊷ 3.57⊷ 3.95⊷	Trace. PK. AV. AV.	Pola Vert Vert Vert Vert	rrity⊭ ical⊭ ical⊭ ical₽



			4G LTE smart phone				Model:	P55			
fest By:		Mi	ke			Test mod	de:	802.11n(HT20) Tx mo	de	
Fest Chani	nel:	Hię	ghest channe			Polarizat	tion:	Horizonta	al		
est Voltag	ge:	AC	120/60Hz			Environr	ment:	Temp.: 24	4.0℃ Hur	Humi.: 57%	
110 100 90 80 Euro 100 70 60 50 50 00					FCC PART 15			4	FCC PART 15 C-PK Lin		
40 30 20 10 0	0 0 0 0 452G		2.4616G — AV Limit — Ho ◆ AV Detector	2.4664G 2.471 rizontal PK — Horiz	Frequency[H	2.4808G Z]	2.4856G	2.4904G	2.4952G	2.5G	
40 30 20 10 0 2.4	0 0 0 0 452G	PK Limit —	— AV Limit —— Ho		Frequency[H		2.4856G Margin⊷ [dB]⊷	2.4904G	24952G	2.56	
40 30 20 10 2.4	0 0 0 0 452G (+)	Freq [MHz] 2483.50	AV Limit Ho AV Detector Ho Readinge	rizontal PK Horiz Level↔	Frequency[H contal AV Factor⊷ [dB]₀ 35.72.€	z] Limit-	Margin⊮ [dB]∘ 14.82₽				
40 30 20 10 0 2.4 N (1 2	0 0 0 0 452G • •	Freq [MHz] 2483.50 2483.50	AV Limit Ho AV Detector Reading.↓ [dBµV/m].₂ 23.46.↓ 14.79.↓	rizontal PK — Horiz Level↔ [dBµV/m]↔ 59.18↔ 50.51↔	Frequency[H contal AV Factor↓ [dB]₀ 35.72↓₀ 35.72↓₀	z] Limit↓ [dBµV/m]↓ 74.00↔ 54.00↔	Margin⊷ [dB]∘ 14.82₊⁰ 3.49₊⁰	Trace.∞ PK.₀ AV.₀	Polarity⊮ Horizontal Horizontal		
40 30 20 10 0 2.4 NC 1 2 2 3	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Freq.4 [MHZ]-2 2483.50 2489.00	AV Limit Ho AV Detector Reading ↓ [dBµV/m] ↓ 23.46+3 14.79+3 14.37+3	izontal PK — Horiz Level↔ [dBμV/m]↔ 59.18↔ 50.51↔ 50.08↔	Frequency[H contal AV Factor	z] Limit-/ [dBµV/m]* 74.00* 54.00* 54.00*	Margin [dB]↔ 14.82↔ 3.49↔ 3.92↔	Trace. PK. AV. AV.	Polarity⊮ Horizontal Horizontal Horizontal	, 	
40 30 20 10 2.4 NC 1 2.4	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Freq	AV Limit Ho AV Detector AV Detector Reading.⊮ [dBµV/m].⊎ 23.46.⊎ 14.79.⊎ 14.37.⊎ 22.16.⊎	izontal PK — Horiz Level ↔ [dBµV/m].• 59.18+• 50.51+• 50.08+• 57.87+•	Frequency[H contal AV Factor-/ [dB]-/ 35.72.4 35.72.4 35.71.4 35.71.4	z] Limit-/ [dBµV/m]-/ 74.00./ 54.00./ 54.00./ 74.00./	Margin→ [dB]→ 14.82↔ 3.49↔ 3.92↔ 16.13↔	Trace PK AV AV PK	Polarity. Horizontal Horizontal Horizontal Horizontal		
40 30 20 10 2.4 NO 2.4	0 0 0 0 452G (452G) (457) (457) (457) (457) (457) (457) (457) (Freq.4 [MHZ]-2 2483.50 2489.00	AV Limit Ho AV Detector Reading ↓ [dBµV/m] ↓ 23.46+3 14.79+3 14.37+3	izontal PK — Horiz Level↔ [dBμV/m]↔ 59.18↔ 50.51↔ 50.08↔	Frequency[H contal AV Factor	z] Limit-/ [dBµV/m]* 74.00* 54.00* 54.00*	Margin [dB]↔ 14.82↔ 3.49↔ 3.92↔	Trace. PK. AV. AV.	Polarity⊮ Horizontal Horizontal Horizontal		

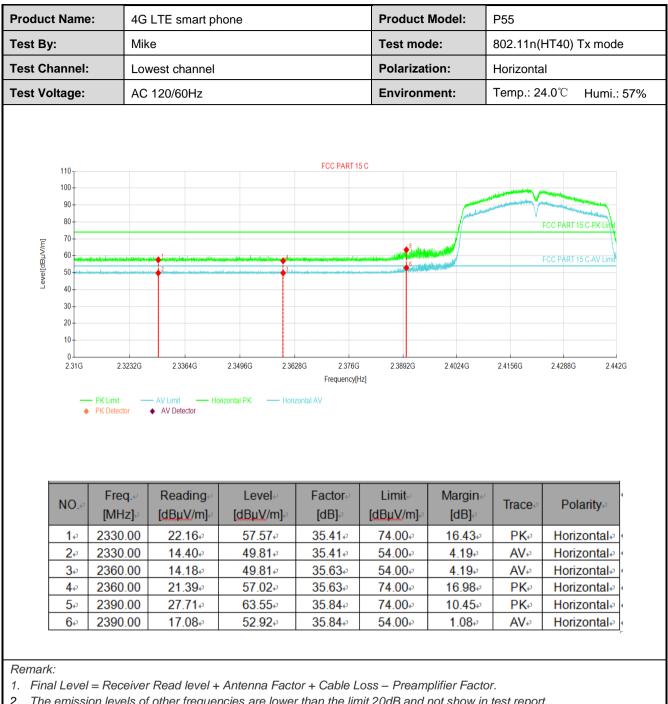
Project No.: JYTSZE2111012



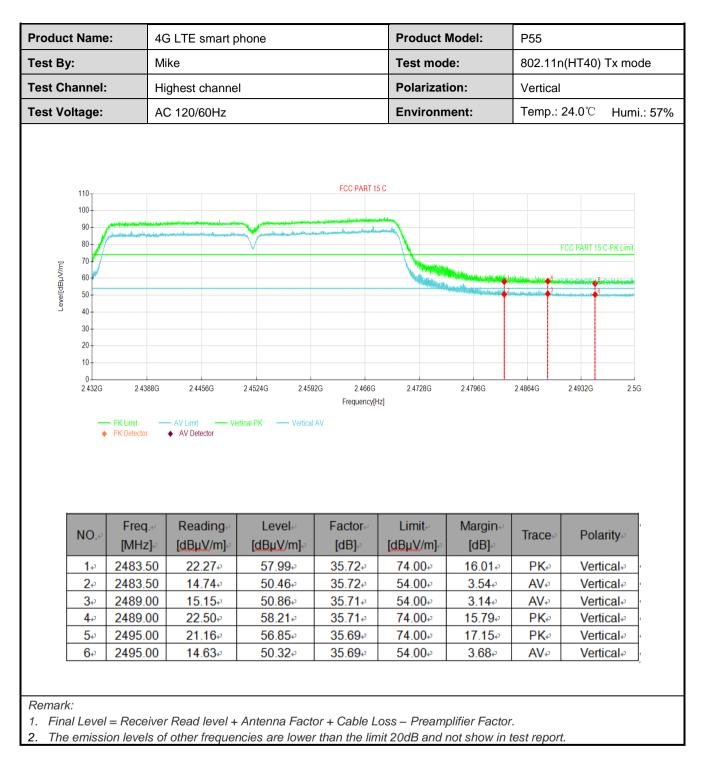
802.11n(HT40):

	Name	- 40	4G LTE smart phone				Model:	P55		
est By:		Mik	е			Test mo	de:	802.11n(HT4	0) Tx mode	
est Cha	annel:	Lov	vest channel			Polariza	ition:	Vertical		
est Vol	tage:	AC	AC 120/60Hz				ment:	Temp.: 24.0°C	C Humi.: 579	
Level[dBµV/m]	110 100 90 80 70 60 50		no tan ya di ak taka di sa ak sa di sa di sa di sa		FCC PART 15				IRT 15 C-PK Limit	
Level	40 30 20 10 0 2.31G	2.3232G – PK Limit • PK Detector		2.3496G 2.36 ertical PK — Vertical	Frequency[H	2.3892G Z]	2.4024G	2.4156G 2.420	88G 2.442G	
	30 20 10 0 2.31G	— PK Limit	— AV Limit — V		Frequency[H		2.4024G Margin⊷ [dB]⊷		BBG 2442G	
	30 20 10 2.31G	PK Limit PK Detector Freq.*	AV Limit V AV Detector V	ertical PK — Vertical Level+	Frequency(H AV Factor+	z] Limit	Margin∉	Trace F		
	30 20 10 0 2.31G	PK Limit PK Detector Freq. 4/ [MHz].2	AV Limit V	ertical PK Vertical Level₊ [dBµV/m]₊∂	Frequency(H AV Factor [dB]	z] Limit⊮ [dBµV/m]⊬	Margin⊮ [dB]⊮	Trace.₂ F	⊃olarity₀	
	30 20 10 0 2.31G • •	Freq. [MHz] 2330.00	AV Limit V ♦ AV Detector V Reading [dBµV/m] 21.60+ ³	ertical PK — Vertical Level [dBµV/m] 57.01+ ³	Frequency(H AV Factor+ [dB]+ 35.41+	Limit⊮ [dBµV/m]⊮ 74.00∗	Margin⊮ [dB]⊮ 16.99₽	Trace F PK M	² olarity₀ √ertical₊₃_⁴	
	30 20 10 0 2.31G NO.* 1.* 2.*	 PK Limit PK Detector Freq. 4 [MHz] 2330.00 2330.00 2360.00 2360.00 	AV Limit V AV Detector V AV Detector V Reading [dBµV/m] 21.60+ ² 14.05+ ³	ertical PK — Vertical Level+J [dBµV/m]₊ ² 57.01₊ ² 49.46₊ ³	Frequency(H AV Factor+/ [dB]-/ 35.41+/ 35.41+/	z] Limit⊍ [dBµV/m]∘ 74.00₊² 54.00₊²	Margin⊮ [dB]⊮ 16.99₽ 4.54₽	Trace F PK 3 AV 3 AV 4	Polarity₂ Vertical₊₂ Vertical₊₂	
	30 20 10 0 2.31G NO. 2 1 2 2 2 2 3	 PK Limit PK Detector Freq.↔ [MHz]→ 2330.00 2330.00 2360.00 	AV Limit V AV Detector V AV Detector V (dBµV/m] 21.604 ³ 14.054 ³ 14.624 ³	ertical PK Vertical Level↔ [dBµV/m]↔ 57.01↔ 49.46↔ 50.25↔	Frequency(H AV [dB] 35.41.4 35.41.4 35.63.4	Limit- [dBµV/m]∘ 74.00₊² 54.00₊² 54.00₊²	Margin.⊷ [dB].∘ 16.99.∘ 4.54.∘ 3.75.∘	Trace F PK N AV N AV N PK N	Polarity Vertical Vertical Vertical	











lest By:		4G LTE smart phone				Product Model:		P55		
est By:		ke			Test mo	de:	802.11	n(HT40)	Tx mode	
Fest Channel	: Hi	ghest channel	l		Polariza	tion:	Horizor	ntal		
Fest Voltage:	A	C 120/60Hz			Environ	Environment:		24.0 ℃	Humi.: 579	
110 100 90 80 70 70 60 60 50 40				FCC PART 15		Mention in a second free of		FCC PART 15	C-PK Limit	
30 20 10 2.432G	2.4388G PK Limit PK Detector	2.4456G — AV Limit — Ho AV Detector	2.4524G 2.459 rizontal PK — Horiz	Frequency[H	2 4728G z]	2.4796G	2.4864G	2.4932G	2.5G	
20 10 0 2.432G	— PK Limit —	— AV Limit —— Ho		Frequency[H		2.4796G Margin.√ [dB]-	2.4864G		2.5G	
20 10 0 2.432G	PK Limit PK Detector Freq.+	AV Limit Ho AV Detector	rizontal PK Horiz Level₊≀	Frequency(H contal AV	z] Limit~	Margin∉		Pola		
20 10 2.432G NO*	PK Limit PK Detector	AV Limit Ho ◆ AV Detector Reading ⊮ [dBµV/m] ₽	rizontal PK — Horiz Level₊ [dBµV/m]₊⊃	Frequency[H contal AV Factor+ [dB]+2	z] Limit⊮ [dBµV/m]⊬	Margin.∉ [dB]-₂	Trace	Pola	arity₽	
20 10 0 2.432G	PK Limit PK Detector Freq.≁ [MHz],∂ 2483.50	AV Limit Ho AV Detector Reading [dBµV/m] 23.01	rizontal PK — Horiz Level↔ [dBµV/m]₽ 58.73₽	Frequency(H ontal AV Factor [dB] 35.72+	z] Limit⊶ [dBµV/m]• 74.00∗ ³	Margin.∉ [dB]∍ 15.27₊	Trace.₀ PK₀	Pola Horizo Horizo	arity.₀ ontal.₀	
20 10 0 2432G NO.~ 1+7 2+3	PK Limit PK Detector Freq.≠ [MHz]≠ 2483.50 2483.50	AV Limit Ho AV Detector Reading (dBµV/m) 23.01+ 15.36+	rizontal PK — Horiz Level ↔ [dBµV/m] ↔ 58.73 ↔ 51.08 ↔	Frequency[H contal AV Factor↓ [dB]↓ 35.72↓ 35.72↓	z] Limit⊸ [dBµV/m]⊷ 74.00₊ 54.00₊	Margin.∉ [dB]∉ 15.27¢ 2.92¢	Trace.₀ PK.₀ AV.₀	Pola Horizo Horizo Horizo	arity.∂ ontal.∂ ontal.₽	
20 10 0 2.432G NO	PK Limit PK Detector [MHz],2 2483.50 2483.50 2489.00	AV Limit Ho AV Detector Ho AV Detector [dBµV/m]e ² 23.01e ³ 15.36e ³ 14.89e ³	rizontal PK — Horiz Level↔ [dBµV/m]↔ 58.73↔ 51.08↔ 50.60↔	Frequency[H contal AV Factor [dB] 35.72¢ 35.72¢ 35.71¢	z] Limit-/ [dBµV/m]+/ 74.00.+/ 54.00.+/ 54.00.+/	Margin.∉ [dB]. 15.27.€ 2.92.€ 3.40.€	Trace PK AV AV	Pola Horizo Horizo Horizo	arity ontal ontal ontal	



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. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph(b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.
Test setup:	
Test Instruments:	Refer to section 5.9 for details
Test mode:	Refer to section 5.3 for details
Test results:	Passed
Measurement Data:	Refer to Appendix A - 2.4G WIFI



6.7.2 Radiated Emission Method

Test Requirement:	FCC Part 15 C Se	ction 15	.209 an	d 15.205			
Test Frequency Range:	9kHz to 25GHz						
Test Distance:	3m or 10m						
Receiver setup:	Frequency	Dete	ctor	RBW	V	BW	Remark
	30MHz-1GHz	Quasi-			300KHz		Quasi-peak Value
		Pea	ak	1MHz	31	ЛНz	Peak Value
	Above 1GHz RI		IS	1MHz	31	ЛНz	Average Value
Limit:	Frequency		Limit	(dBuV/m @10)m)		Remark
	30MHz-88MH	z		30.0		Q	uasi-peak Value
	88MHz-216MH			33.5		1	uasi-peak Value
	216MHz-960M			36.0		1	uasi-peak Value
	960MHz-1GH	z		44.0		Q	uasi-peak Value
	Frequency		Limi	t (dBuV/m @3	m)		Remark
	Above 1GHz	<u> </u>		54.0			Average Value
Test Procedure:				74.0			Peak Value table 0.8m(below
Test setup:	 (below 1GHz) 360 degrees 2. The EUT was away from th the top of a va 3. The antenna ground to det horizontal and measuremen 4. For each sus and then the and the rota to maximum rea 5. The test-rece Specified Bar 6. If the emission limit specified the EUT woul 10dB margin average meth)or 3 me to detern s set 10 he interfe ariable-h height is ermine t d vertica t. pected e antenna able was ading. iver syst n level o l, then te ld be rep would be	eter cha mine the meters rence-in reight a varied he max l polariz mission was tu s turned em was with Ma f the El sting co ported. (e re-tes	mber(above e position of t s(below 1GH receiving ant ntenna tower from one me timum value of zations of the timum value of zations of the timum the EUT wo ned to height d from 0 degr s set to Peak to peak me ould be stopp Otherwise the ted one by o	1GHz the hi z) or enna, c. eter to of the ante as arr rees to Dete mode v bed ar e emis ne us	z). The ghest r 3 me which o four m field st nna are ranged n 1 me o 360 c ct Fund was 10 nd the p ssions ing pea	ters (above 1GHz) was mounted on heters above the trength. Both e set to make the to its worst case ter to 4 meters legrees to find the ction and dB lower than the peak values of that did not have ak, quasi-peak or
	Below 1GHz		4m			Anter Searc Anter RF Test Receive	nna

Project No.: JYTSZE2111012



Report No: JYTSZB-R12-2102450

	AE EUT Horn Antenna Tower usof (Turntable) 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:

duct I	Name:	4G LTE smar	t phone		Produc	ct Model:	P55	
t By:		Mike			Test m	ode:	Wi-Fi Tx m	ode
t Frec	quency:	30 MHz ~ 1 G	iHz		Polariz	ation:	Vertical & I	Horizontal
t Volt	age:	AC 120/60Hz			Enviro	nment:	Temp.: 24.	0℃ Humi.: 57
				Full	Spec	tru m		
	4 5							P-A-R-T
	4 .			******				

	Ţ							0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	≥ 3			*****				*
	Levelin dBµV						Jan David	
	<u>.</u> 2	*			ւ	*	- unit	
	ě 🚺			*	*		المعين أستكم المعطور	
	- T'N	WWW		1 .		In a harder	and the second second	
	1 🖯 💾	A NUL SUMUL				And the Astrony of the		
	<u>'''</u>		لينار (۱۹۷۸ ليک	and the second second	and the state			
		1						
	0+	+ + +	- <u>} } .</u>			+ +	+++	
	3 0	M 506	0 8 01 0		200	3 0 04		800G
				Fre	quen	cy in	Ηz	
	Frequency (MHz)↩	(dB + V/m)	ଜ (dB ዞ V/m)୶	Margin↓ (dB)⊮	Height↓ (cm)↩	Polℯ	Azimuth↓ (deg)⊮	Corr.↓ (dB/m)⊷
	30.970			9.46	100.0 ↔	Ve	306.0	-17.4
-	36.402 158.428	000⊷ 19.20 000⊷ 15.70	i≓ 30.00≓ i≓ 33.50≓	10.74₊ 17.74₊	100.0₊ 100.0₊	V.∂ V.a	306.0↔ 267.0↔	-16.4+ -15.4+
	233.991	000↔ 15.76 000↔ 18.26	r- 33.50∉ }≓ 36.00∉	17.74÷ 17.74÷	100.0↔ 100.0↔	Ve Ve	267.0↔ 0.0↔	-15.4+ -16.1+
F	337.975	000+ 10.20	4 36.00€	16.69	100.04	V.	60.0∉	-13.2+3
	897.471			8.12 ↔			287.0	-0.8

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

			802.11b			
			annel: Lowest ch tector: Peak Valu			
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4824.00	54.72	-9.46	45.26	74.00	28.74	Vertical
4824.00	54.63	-9.46	45.17	74.00	28.83	Horizonta
		Dete	ctor: Average Va	llue		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4824.00	47.02	-9.46	37.56	54.00	16.44	Vertical
4824.00	47.07	-9.46	37.61	54.00	16.39	Horizonta
		Test ch	annel: Middle ch	annel		
			tector: Peak Valu			
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4874.00	54.73	-9.11	45.62	74.00	28.38	Vertical
4874.00	55.07	-9.11	45.96	74.00	28.04	Horizonta
		Dete	ctor: Average Va	llue		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4874.00	46.73	-9.11	37.62	54.00	16.38	Vertical
4874.00	46.69	-9.11	37.58	54.00	16.42	Horizonta
		Test ch	annel: Highest cl	nannel		
			tector: Peak Valu			
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4924.00	54.49	-8.74	45.75	74.00	28.25	Vertical
4924.00	54.72	-8.74	45.98	74.00	28.02	Horizonta
		Dete	ctor: Average Va	llue		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4924.00	46.62	-8.74	37.88	54.00	16.12	Vertical
4924.00	47.36	-8.74	38.62	54.00	15.38	Horizonta



			802.11g			
			annel: Lowest ch			
		De	tector: Peak Valu			
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4824.00	54.82	-9.46	45.36	74.00	28.64	Vertical
4824.00	54.22	-9.46	44.76	74.00	29.24	Horizonta
		Dete	ctor: Average Va	alue		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4824.00	46.87	-9.46	37.41	54.00	16.59	Vertical
4824.00	47.16	-9.46	37.70	54.00	16.30	Horizonta
		Test ch	annel: Middle ch	annel		
		De	tector: Peak Valu	le	1	
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4874.00	54.81	-9.11	45.70	74.00	28.30	Vertical
4874.00	55.08	-9.11	45.97	74.00	28.03	Horizonta
		Dete	ctor: Average Va	alue		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4874.00	47.22	-9.11	38.11	54.00	15.89	Vertical
4874.00	46.96	-9.11	37.85	54.00	16.15	Horizonta
			annel: Highest cl			
_	I	De	tector: Peak Valu		I	
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4924.00	54.48	-8.74	45.74	74.00	28.26	Vertical
4924.00	54.27	-8.74	45.53	74.00	28.47	Horizonta
	1	Dete	ctor: Average Va	alue	1	-
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4924.00	46.41	-8.74	37.67	54.00	16.33	Vertical
4924.00	47.73	-8.74	38.99	54.00	15.01	Horizonta
	Receiver Read level		er than the limit 20	dB and not show in te	est report	



			802.11n(HT20)	annal		
			annel: Lowest ch			
	Des 11 a st	De	tector: Peak Valu		Manain	
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4824.00	54.85	-9.46	45.39	74.00	28.61	Vertical
4824.00	54.76	-9.46	45.30	74.00	28.70	Horizonta
		Dete	ctor: Average Va	lue		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4824.00	46.61	-9.46	37.15	54.00	16.85	Vertical
4824.00	47.30	-9.46	37.84	54.00	16.16	Horizonta
		Test ch	annel: Middle ch	annel		
			tector: Peak Valu			
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4874.00	55.03	-9.11	45.92	74.00	28.08	Vertical
4874.00	55.55	-9.11	46.44	74.00	27.56	Horizonta
		Dete	ctor: Average Va	llue		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4874.00	47.15	-9.11	38.04	54.00	15.96	Vertical
4874.00	47.04	-9.11	37.93	54.00	16.07	Horizonta
		Test cha	annel: Highest ch	nannel		
		Det	tector: Peak Valu	ie		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4924.00	54.44	-8.74	45.70	74.00	28.30	Vertical
4924.00	54.29	-8.74	45.55	74.00	28.45	Horizonta
		Dete	ctor: Average Va	lue		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4924.00	46.34	-8.74	37.60	54.00	16.40	Vertical
4924.00	47.82	-8.74	39.08	54.00	14.92	Horizonta



			802.11n(HT40) annel: Lowest ch	annal		
F	Des 11 a st	Del	tector: Peak Valu		Manain	
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4844.00	54.85	-9.32	45.53	74.00	28.47	Vertical
4844.00	54.76	-9.32	45.44	74.00	28.56	Horizonta
		Dete	ctor: Average Va	lue		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4844.00	46.61	-9.32	37.29	54.00	16.71	Vertical
4844.00	47.30	-9.32	37.98	54.00	16.02	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
4874.00	55.03	-9.11	45.92	74.00	28.08	Vertical
4874.00	55.55	-9.11	46.44	74.00	27.56	Horizonta
		Dete	ctor: Average Va	lue	1	
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4874.00	47.15	-9.11	38.04	54.00	15.96	Vertical
4874.00	47.04	-9.11	37.93	54.00	16.07	Horizonta
		Test ch	annel: Highest ch	annel		
			ector: Peak Valu			
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4904.00	54.44	-8.90	45.54	74.00	28.46	Vertical
4904.00	54.29	-8.90	45.39	74.00	28.61	Horizonta
		1 1	ctor: Average Va			
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4904.00	46.34	-8.90	37.44	54.00	16.56	Vertical
4904.00	47.82	-8.90	38.92	54.00	15.08	Horizonta