

FCC REPORT

Applicant: Address of Applicant:	SHENZHEN YUNJI INTELLIGENT TECHNOLOGY CO., LTD A2 2F BUILDING ENET NEW INDUSTRIAL PARK, DAFU INDUSTRIAL ZONE, GUANLAN, LONGHUA SHENZHEN CHINA		
Equipment Under Test (E	EUT)		
Product Name:	Smart Phone		
Model No.:	WP15		
Trade mark:	OUKITEL		
FCC ID:	2ANMU-WP15		
Applicable standards:	FCC CFR Title 47 Part 15 Subpart C Section 15.225		
Date of sample receipt:	17 Jun., 2021		
Date of Test:	17 Jun., to 28 Jul., 2021		
Date of report issue:	28 Jul., 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 orfalsification 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	28 Jul., 2021	Original

 Tested by:
 Mike.OU
 Date:
 28 Jul., 2021

 Test Engineer
 Date:
 28 Jul., 2021

 Reviewed by:
 Winner thang
 Date:
 28 Jul., 2021

 Project Engineer
 Date:
 28 Jul., 2021

Date: 28 Jul., 2021

Project No.: JYTSZE2106052



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4 Test Summary

Test Item	Section in CFR 47	Result	
Antenna requirement	15.203	Pass	
Field strength of the fundamental signal	15.225 (a)	Pass	
Spurious emissions	15.225(d)& 15.209	Pass	
20dB Bandwidth	15.215(c)	Pass	
Frequency tolerance	15.225 (e)	Pass	
Conducted Emission	15.207	Pass	
Remark: 1. Pass: The EUT complies with the essential req 2. The coble incortion loss used by "BE Output Pe			

2. The cable insertion loss used by "RF Output Power" and other conduction measurement items is 0.5dB (provided by the customer).

Test Method:	ANSI C63.4-2014
rest wethou.	ANSI C63.10-2013



5 General Information

5.1 Client Information

Applicant:	SHENZHEN YUNJI INTELLIGENT TECHNOLOGY CO., LTD
Address:	A2 2F BUILDING ENET NEW INDUSTRIAL PARK, DAFU INDUSTRIAL ZONE, GUANLAN, LONGHUA SHENZHEN CHINA
Manufacturer:	SHENZHEN YUNJI INTELLIGENT TECHNOLOGY CO., LTD
Address:	A2 2F BUILDING ENET NEW INDUSTRIAL PARK, DAFU INDUSTRIAL ZONE, GUANLAN, LONGHUA SHENZHEN CHINA

5.2 General Description of E.U.T.

Product Name:	Smart Phone
Model No.:	WP15
Operation Frequency:	13.56MHz
Channel numbers:	1
Modulation type:	ASK
Antenna Type:	Induction Coil Antenna
Power supply:	Rechargeable Li-ion Polymer Battery DC3.87V, 15600mAh
AC adapter:	Model: HJ-FC017K7-US
	Input: AC100-240V, 50/60Hz 0.6A
	Output: DC 5.0V, 2.0A or DC 7.0V, 2.0A,
	or DC 9.0V, 2.0A or DC 12V, 1.5A
Test Sample Condition:	The test samples were provided in good working order with no visible defects.

5.3 Test mode and test samples plans

Transmitting mode:	Keep the EUT in transmitting mode with modulation						
Pre-Test Mode:	Pre-Test Mode:						
CCIS has verified the construction and function in typical operation, The EUT was placed on three different polar directions; i.e. X axis, Y axis, Z axis. which was shown in this test report and defined as follows:							
Axis	X Y Z						
Field Strength(dBuV/m)	dBuV/m) 55.36 56.65 55.74						
Final Test Mode:							
According to ANSI C63.4 standards, the test results are both the "worst case" and "worst setup": Y axis (see the test setup photo).							

5.4 Description of Support Units

Manufacturer	Description	Model Serial Number		FCC ID/DoC
No				

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)

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 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: <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: <u>http://www.ccis-cb.com</u>

5.9 Test Instrumentslist

Radiated Emission:

Radiated Emission:						
Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)	
3m SAC	SAEMC	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	06-17-2021	06-16-2022	
Horn Antenna	SCHWARZBECK	BBHA9120D	916	03-03-2021	03-02-2022	
Horn Antenna	SCHWARZBECK	BBHA9120D	1805	06-17-2021	06-16-2022	
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170582	11-18-2020	11-17-2021	
Loop Antenna	SCHWARZBECK	FMZB 1519 B	00044	03-03-2021	03-02-2022	
EMI Test Software	AUDIX	E3	Version: 6.110919b		9b	
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	
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	
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	

Conducted Emission:						
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Date	Cal.Due date	
				(mm-dd-yy)	(mm-dd-yy)	
Chielding Deem	ZhongShuo Electron	11.0(1)))/1.0(14/))/2.0(11)	CCIS0061	07-22-2020	07-21-2021	
Shielding Room		11.0(L)x4.0(W)x3.0(H)		07-21-2021	07-20-2022	
EMI Test Receiver	Rohde & Schwarz	ESCI	CCIS0002	03-03-2021	03-02-2022	
LISN	CHASE	MN2050D	CCIS0074	03-03-2021	03-02-2022	
LISN	Rohde & Schwarz	ESH3-Z5	8438621/010	06-17-2021	06-16-2022	
Coaxial Cable	CCIS	N/A	CCIS0086	03-03-2021	03-02-2022	
EMI Test Software	AUDIX	E3	Version: 6.110919b			

Project No.: JYTSZE2106052



6 Test results and Measurement Data

6.1 Antenna requirement

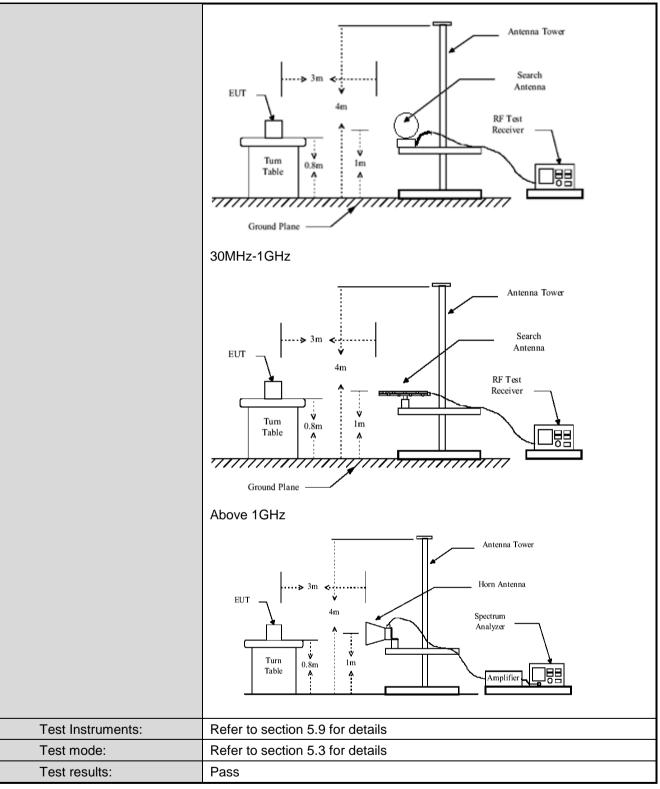
Standard requirement:	FCC Part15 C Section 15.203
responsible party shall be us antenna that uses a unique c	be designed to ensure that no antenna other than that furnished by the ed with the device. The use of a permanently attached antenna or of an oupling to the intentional radiator, the manufacturer may design the unit so e replaced by the user, but the use of a standard antenna jack or electrical
E.U.T Antenna:	
The EUT make use of an Indu	uction coil antenna.



6.2 Radiated Emission

TestFrequencyRange: 9 kHz to 1000MHz Test site: Measurement Distance: 3m(Semi-Anechoic Chamber) Receiver setup: 9kHz-150kHz Quasi-peak 200Hz 600Hz Quasi-peak Value 150kHz:30MHz Quasi-peak 200Hz 600Hz Quasi-peak Value 150kHz:30MHz Quasi-peak Value 30MHz:10Hz Quasi-peak 120kHz 30KHz Quasi-peak Value 150kHz:30MHz:13.553MHz 130Hz 30KHz Quasi-peak Value 13.410MHz:13.553MHz:13.553MHz 1334 90.5 13.110MHz:14.310MHz 106 80.5 13.410MHz:14.3410MHz 106 80.5 13.710MHz:14.010MHz 106 80.5 Remark: Per FCC part 15.31, when performing measurements at a distance which is closer than specified, the field strength results shall be extrapolated to the specified distance by using the square of an inverse linear distance ethered in §15.3(ht) of this part. Limit: (Spurious Emissions) 0.009-0.490 2400F(kHz) 30 0.009-0.490 2400F(kHz) 30 30 30 16 Test Procedure: 1 1.705-30 30 30 30 <th>Test Requirement:</th> <th colspan="5">FCC Part15 C Section 15.225(a) and 15.209</th> <th></th>	Test Requirement:	FCC Part15 C Section 15.225(a) and 15.209						
Receiver setup: Frequency Detector RBW VBW Remark 9kHz-150Htz Quasi-peak 200Hz 600Hz Quasi-peak Value 150Hz-20MHz Quasi-peak 120kHz Quasi-peak Qu	TestFrequencyRange:	9 kHz to 1000M	Hz					
9kHz-150kHz Quasi-peak 200Hz 600Hz Quasi-peak Value 30MHz Quasi-peak 9kHz 300Hz Quasi-peak Value Quasi-peak Value 30MHz-10Hz Quasi-peak 120kHz 300Hz Quasi-peak Value Above 10Hz Peak 1MHz 30Hz Peak Value (Field strength of the fundamental signal) 13.553MHz-13.5677MHz 15848 1124.0 13.553MHz-13.5677MHz 334 90.5 13.110MHz-13.410MHz 106 80.5 13.110MHz-13.410MHz 106 80.5 13.710MHz-14.010MHz 106 30.3 13.110MHz-13.410MHz 106 80.5 13.710MHz-14.010MHz 30.0 10.3 13.110Mz-13.410MHz 106 80.5 13.710MHz-14.010MHz 30.0 10.3	Test site:	Measurement D	istance: 3	3m(S	emi-Anechoic	Charr	nber)	
Isolation Isolation Isolation Isolation Isolation Image: transmission of the function of the transmission of the transmissin of the transmission of the transmission of the transmi	Receiver setup:	Frequency Detector		RBW			Remark	
30MHz-1GHz Quasi-peak 120kHz 300KHz Quasi-peak Value Above 1GHz Peak 11MHz MHzz Quasi-peak Value Peak Value Limit Frequency Limit (UV/m @ 30m) Limit (QV/m @ 30m) L		9kHz-150kHz	Quasi-p	eak	200Hz	60	0Hz	Quasi-peak Value
Above 1GHz Peak IMHz 3MHz Peak Value Limit (Field strength of the fundamental signal) Frequency Limit (V/m (@ 30m) Limit (dBu/Vm @ 30m) Limit		150kHz-30MHz	Quasi-p	eak	9kHz	30)kHz	Quasi-peak Value
Limit: (Field strength of the fundamental signal) Frequency Limit (uV/m @30m) Limit (dBuV/m @30m) 13.553MHz-13.557MHz 15848 124.0 13.557MHz-13.567MHz 334 90.5 13.567MHz-13.710MHz 334 90.5 13.100HFz-14.010MHz 106 80.5 13.710MHz-14.010MHz 106 80.5 7.710MHz-14.010MHz 106 80.5 Remark: Per FCC part 15.31, when performing measurements at a distance which is closer than specified, the field strength results shall be extrapolated to the specified distance by using the square of an inverse linear distance extrapolation factor (i.e., 40 dB/decade) in conjunction with the slant-range distance defined in §15.3(ht) of this part. Limit: (Spurious Emissions) Frequency (MHz) Limit (uV/m @3m) Distance (m) 0.009-0.490 24000F(kHz) 300 0.490-1.705 240000F(kHz) 30 30 30 30 10.50 3 216-960 200 3 32 10.90 3 30-88 100 3 36 216-960 200 3 3 30-98 3 3 30-8		30MHz-1GHz	Quasi-p	eak	120kHz	30	0KHz	Quasi-peak Value
(Field strength of the fundamental signal) 13.553MH2-13.567MH2 15848 124.0 13.410MH2-13.533MH2 & 334 90.5 13.410MH2-13.533MH2 & 334 90.5 13.110H12-13.710MH2 334 90.5 90.5 13.110H12-13.710MH2 106 80.5 80.5 80.5 13.101412-13.710MH2 106 13.110H12-13.710MH2 106 80.5 80.5 80.5 Remark: Per FCC part 15.31, when performing measurements at a distance which is closer than specified, the field strength results shall be extrapolated to the specified distance by using the square of an inverse linear distance extrapolation factor (i.e., 40 dB/decade) in conjunction with the slant-range distance defined in §15.3(th) of this part. Limit: (Spurious Emissions) 1.705-30 30 30		Above 1GHz	Peak	(1MHz	31	MHz	Peak Value
fundamental signal) 13.410MHz-13.553MHz & 334 90.5 13.567MHz-13.710MHz 106 80.5 Remark: Per FCC part 15.31, when performing measurements at a distance which is closer than specified, the field strength results shall be extrapolated to the specified distance by using the square of an inverse linear distance defined in §15.3(ht) of this part. Limit: Frequency (MHz) Limit (uV/m @3m) Distance (m) (Spurious Emissions) 0.090-0.490 2400/F(kHz) 300 0.090-0.490 2400/F(kHz) 300 30 1.705-30 30 30 30 216-960 200 3 216-960 200 3 216-960 200 3 30 30 30 30 30-88 100 3 88-216 150 3 216-960 200 3 36 80 90 3 36 90 30	Limit:	Frequency	ý	Li	imit (uV/m @30r	n)	Lim	it (dBuV/m @3m)
13.567MHz-13.710MHz 334 90.5 13.110MHz 13.110MHz 106 80.5 Remark: Per FCC part 15.31, when performing measurements at a distance which is closer than specified, the field strength results shall be extrapolated to the specified distance by using the square of an inverse linear distance extrapolation factor (i.e., 40 dB/decade) in conjunction with the slant-range distance defined in §15.3(ht) of this part. Limit: Frequency (MHz) Limit (uV/m @3m) Distance (m) (Spurious Emissions) 0.490-1.705 24000/F(kHz) 30 0.490-1.705 24000/F(kHz) 30 1.705-30 30 30 3.8-216 150 3 216-960 200 3 Above 1GHz 500 3 Above 1GHz 500 3 Could a a meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation. b. The EUT was part and meter samice concerce-receiving antenna, whichwas mounted on the top of a variable-height antenna tower. c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. d. For each suspected emission, the EUT was arranged to its worst case and then to atabletable was tuned from 0 degrees to 360 degrees to find the maximum reading. e. The test-receiver system was set to Pe	(Field strength of the	13.553MHz-13.5	67MHz		15848			124.0
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Tast sature	Test Procedure:	 the grounda 360 degrees b. The EUT wa antenna, wh tower. c. The antenna ground to de horizontal a measureme d. For each su and thenthe and the rota find the max e. The test-reco SpecifiedBa f. If the emissi the limitspec of the EUT whave 10dB m peak or ave 	t a 3 met s todetern as set 3 m ichwas m a height is etermine nd vertica nt. spected e antenna tabletable cimum rea eiver sys ndwidth v ion level o cified, the wouldbe r margin wo	er se nine t neters nount s vari the m al pola emiss was e was ading tem v with N of the n tes report ould b	mi-anechoic ca the position of s away from the red on the top of ed from one m naximum value arizations of the sion, the EUT v tuned to heigh s turned from 0 was set to Peal Maximum Hold EUT in peak r ting could be s ted. Otherwise pere-tested one	ambe the hi e inte of a vante of the e ante vas all ts from degr k Dete mode toppe the e e by c	r. The t ighest r rference ariable o four r e field s enna ar rrangeo m 1 me ees to ect Fur e. was 10 ed and emission one usin	table was rotated radiation. ce-receiving -height antenna meters above the strength. Both re set to make the d to its worst case eter to 4 meters 360 degrees to notion and DdB lower than the peak values ns that did not ng peak, quasi-
	Test setup:	9kHz-30MHz						

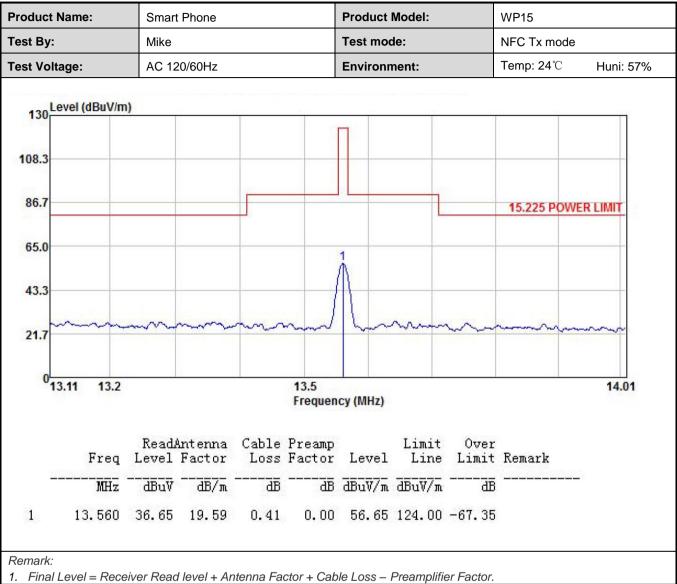






Measurement Data:

Field Strength of fundamental signal:





Spurious Emissions:

roduct Name:	Sma	rt Phone			Pro	Product Model: Test mode:		WP1	WP15 NCF Tx mode		
est By:	Mike				Tes			NCF			
est Frequency:	150 k	150 kHz ~ 30 MHz			Pol	arization	:	Verti	ical		
est Voltage:	AC 1	AC 120/60Hz				vironmen	t:	Tem	p: 24 ℃	Hur	ni: 57%
150 Level (dBuV/	m)			1994 - 4914 - 493		11					٦
125.0											-
100.0		L,I									
75.0									EC	C 01/ 300	
75.0						~			FC	C 9K-30	M
	Marta alexan		2	3							
	han internet way way and	human	2 Mirthur Mirthur	3 high Warnahalan	nonymy	Male have a large	thum and a	5			
50.0 1 WWWWWWWWW	har internet was a second a	hustomany	2 Mirthur Mirthur	3	nonymy	water and and the	thous thousand	5			
	.05		2 Mirthur Mart		5 1			5 14			
50.0 1 W.Malywww/Mu 25.0									6 Andren	marten	54 7 1
50.0 1 50.0 1 25.0 0 0.009 .02	.05	5.1	.2 Cable	frequen Preamp	5 1 ncy (MHz)	2 Limit		5	6 mum 10	marten	54 7 1
50.0 1 50.0 1 25.0 0 0.009 .02	.05 Read/ Level	5.1	.2 Cable	Frequen Preamp Factor	5 1 ncy (MHz) Level	2 Limit	Over Limit	5	6 mum 10	marten	54 7 1

Remark:

6

10.451

6.75

20.23

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

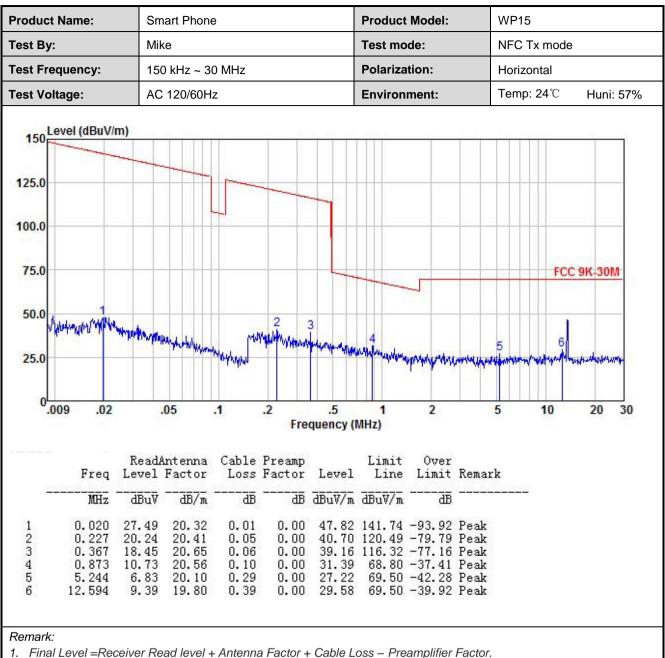
0.38

The emission levels of 9 kHz~150 kHz are background noise and very lower than the limit, not show in test report. 2.

0.00 27.36

69.50 -42.14 Peak





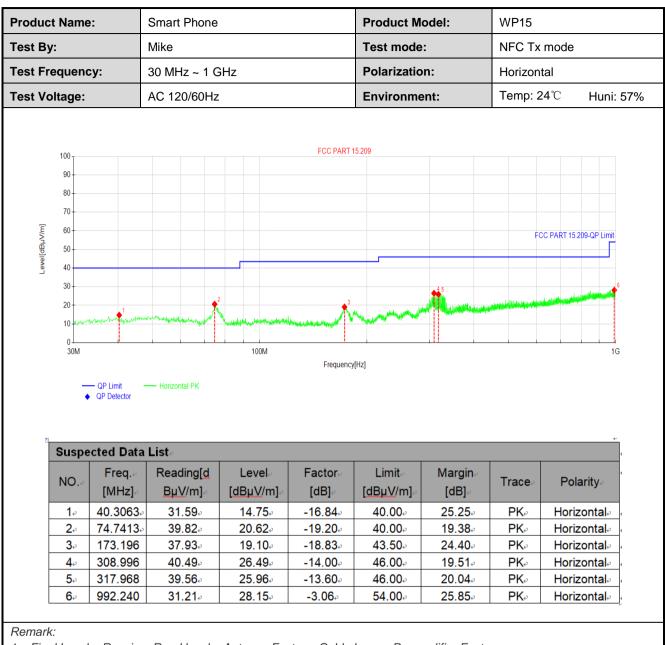
The emission levels of 9 kHz~150 kHz are background noise and very lower than the limit, not show in test report. 2



Test frequency range: 30MHz-1000MHz

Floauc	tName	ame: Smart Phone			Product M	odel:	WP15		
Fest By	y: Mike				Test mode	:	NFC Tx mode		
Test Fr	equenc	;y:	y: 30 MHz ~ 1 GHz Polarization: Vertical						
Test Vo	ltage:		AC 120/60Hz			Environme	ent:	Temp: 24	4℃ Huni: 579
Level[dBµV/m]	100 90 80 70 60 50 40 30 20	m. Mar Mar		2 3	FCC PART 1				C PART 15209-QP Limit
	10 0 30M	- QP Limit - QP Detector	- Vertical PK	100M	Frequency	[Hz]			16
21	0 30M			100M	Frequency	(Hz]			1G
2	0 30M	QP Detector		100M	Frequency Factor [dB]	(Hz) Limit [dBµV/m]-	Margin.₀ [dB]₀	Trace	1G Te Polarity.⇒
	₀ 30M ◆	ected Data Freq.~ [MHz]. 48.5513.	List Reading[d BµV/m] 44.89	Level	Factor	Limit	-	Trace PK.	
	0 30M Suspe NO 1 2	QP Detector ected Data Freq [MHz] 48.5513 76.3175	List Reading[d <u>BµV/m]</u> 44.89 42.39	Level- [dBµV/m]- 27.68- 23.12-	Factor [dB] -17.21 -19.27	Limit⊮ [dBµV/m]∞ 40.00∞ 40.00∞	[dB] 12.32 16.88	PK. PK.	Polarity Vertical Vertical
<u>8</u> .	0 30M ♦ Suspe NO 2 3	QP Detector ected Data Freq [MHz] 48.5513 76.3175 94.7475	List Reading[d BµV/m]- 44.89,- 42.39,- 38.90,-	Level- [dBµV/m]- 27.68-	Factor [dB] -17.21 -19.27 -19.17	Limit- [dBµV/m]- 40.00- 40.00- 43.50-	[dB] 12.32. 16.88. 23.77.	PK. PK. PK.	Polarity Vertical Vertical Vertical
2	0 30M Suspe NO 1 2	QP Detector ected Data Freq [MHz] 48.5513 76.3175 94.7475 172.468	List Reading[d BµV/m]• 44.89• 42.39• 38.90• 42.44•	Level [dBµV/m] 27.68 23.12 19.73 23.61	Factor [dB] -17.21 -19.27 -19.17 -18.83	Limit [dBµV/m]= 40.00= 40.00= 43.50= 43.50=	[dB] 12.32, 16.88, 23.77, 19.89,	PK. PK. PK.	Polarity Vertical Vertical Vertical
	0 30M ♦ Suspe NO 2 3	QP Detector ected Data Freq [MHz] 48.5513 76.3175 94.7475	List Reading[d BµV/m]- 44.89,- 42.39,- 38.90,-	Level [dBµV/m] 27.68. 23.12. 19.73.	Factor [dB] -17.21 -19.27 -19.17	Limit- [dBµV/m]- 40.00- 40.00- 43.50-	[dB] 12.32. 16.88. 23.77.	PK. PK. PK.	Polarity Vertical Vertical Vertical





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

2. The emission levels of other frequencies are very lower than the limit and not show in test report.



6.3 20dB Bandwidth

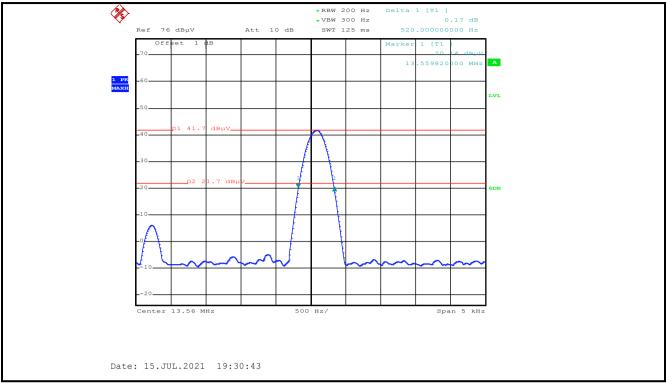
Test Requirement:	FCC Part15 C Section 15.215 (c)				
Receiver setup:	RBW=200Hz, VBW=300Hz, detector: Peak				
Limit:	The fundamental emission be kept within at least the central 80% of the permitted band				
Test Procedure:	 According to the follow Test-setup, keep the relative position between the artificial antenna and the EUT. Set the EUT to proper test channel. Max hold the radiated emissions, mark the peak power frequency point and the -20dB upper and lower frequency points. Read 20dB bandwidth. 				
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane				
Test Instruments:	Refer to section 5.9 for details				
Test mode:	Refer to section 5.3 for details				
Test results:	Passed				

Measurement Data

20dB bandwidth (kHz)	Limit (kHz)	Results
0.520	11.2	Passed
Note: For 13.56MHz, permitted Band is	14 kHz, so the Limit is 11.2 kHz.	



Test plot as follows:





6.4 Frequency Tolerance

Test Requirement:	FCC Part15 C Section 15.225 (e)			
Receiver setup:	RBW=200Hz, VBW=300Hz, span=14kHz, detector: Peak			
Limit:	±0.01% of the operating frequency			
Test mode:	Transmitting mode			
Test Procedure:	Frequency stability V.S. Temperature measurement			
	 The equipment under test was powered by a fresh battery. RF output was connected to spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -20°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached Frequency stability V.S. Voltage measurement Set chamber temperature to 25°C. Use a variable DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency. 			
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane			
Test Instruments:	Refer to section 5.9 for details			
Test mode:	Refer to section 5.3 for details			
Test results:	Passed			



Measurement Data:

a) Frequency stability V.S. Temperature measurement

Voltage (Vdc)	Temperature (℃)	Frequency Tolerance (MHz)	Frequency Error (%)	Limit (%)	Results
	-20	0.078	0.0058	±0.01	Pass
	-10	0.085	0.0063	±0.01	Pass
	0	-0.074	-0.0055	±0.01	Pass
3.87	+10	0.079	0.0058	±0.01	Pass
3.07	+20	-0.066	-0.0049	±0.01	Pass
	+30	0.084	0.0062	±0.01	Pass
	+40	0.067	0.0049	±0.01	Pass
	+50	-0.036	-0.0027	±0.01	Pass

b) Frequency stability V.S. Voltage measurement

Temperature (℃)	Voltage (Vdc)	Frequency Tolerance (MHz)	Frequency Error (%)	Limit (%)	Results
	3.50	-0.085	-0.0063	±0.01	Pass
25.0	3.87	0.071	0.0052	±0.01	Pass
	4.45	0.092	0.0068	±0.01	Pass



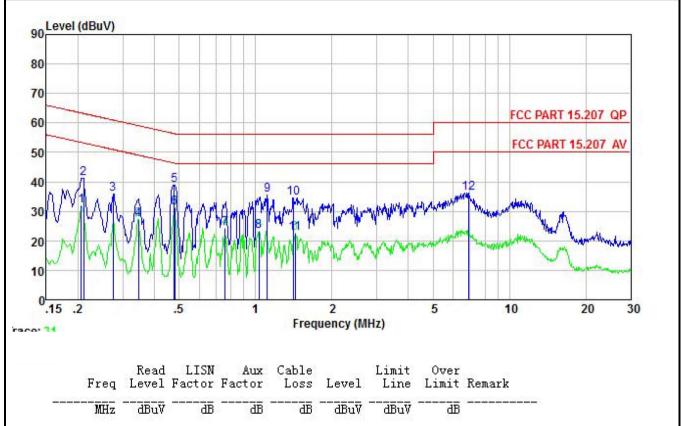
6.5 Conducted Emission

Test Requirement:	FCC Part15 B Section 15	.207			
TestFrequencyRange:	150kHz to 30MHz				
Class / Severity:	Class B				
Receiver setup:	RBW=9kHz, VBW=30kHz	2			
Limit:	Frequency range (MHz)				
		Quasi-peak	Average		
	0.15-0.5	66 to 56*	56 to 46*		
	0.5-5	56	46		
	0.5-30	60	50		
	* Decreases with the loga	rithm of the frequency.			
Test setup:	AUX E.U.T Equipment E.U.T Test table/Insulation plane Remark: E.U.T: Equipment Under Test LISN: Line Impedence Stabilization Networks Test table height=0.8m	80cm Filter AC Filter AC EMI Receiver	power		
Test procedure	 The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.).It provide a 50ohm/50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.4: 2014 on conducted measurement. 				
Test Instruments:	Refer to section 5.9 for de	etails			
Test mode:	Refer to section 5.3 for de	etails			
Test results:	Pass				



Measurement Data:

Product name:	Smart Phone	Product model:	WP15
Test by:	Mike	Test mode:	NFC Tx mode
Test frequency:	150 kHz ~ 30 MHz	Phase:	Line
Test voltage:	AC 120 V/60 Hz	Environment:	Temp: 22.5℃ Huni: 55%



Notes:

5 6 7

8

9

10

11

12

0.206

0.211

0.274

0.346

0.479

0.481

0.759

1.032

1.111

1.411

1.433

6.914

22.01

31.27

26.00

17.00

28.67

20.96

13.92

12.26

24.61

23.92

11.86

24.10

10.15

10.15

10.19

10.25

10.33

10.33

10.43

10.48

10.49

10.51

10.51

10.73

1. An initial pre-scan was performed on the line and neutral lines with peak detector.

-0.17

-0.17

-0.24

-0.21

-0.24

-0.20

0.42

0.34

0.07

0.06

1.27

0.08

2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.

0.04

0.03

0.02

0.02

0.03

0.03

0.03

0.06

0.07

0.13

0.13

0.10

32.03

41.28

35.97

27.35

38.82

31.08

24.18

23.22

35.51

34.63

22.56

36.20

53.36 -21.33 Average

49.05 -21.70 Average 56.36 -17.54 QP

46.32 -15.24 Average

46.00 -21.82 Average

46.00 -22.78 Average 56.00 -20.49 QP

46.00 -23.44 Average

63.18 -21.90 QP

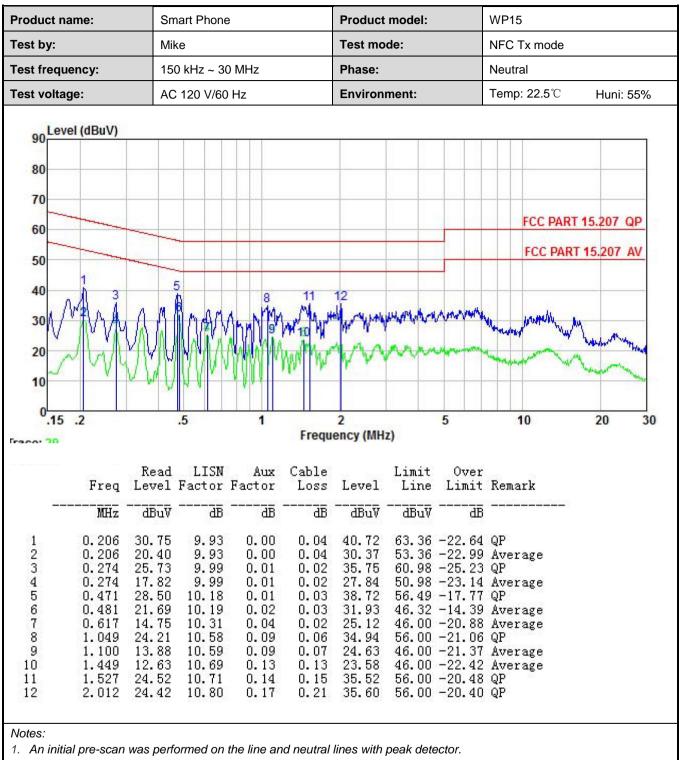
60.98 -25.01 QP

56.00 -21.37 QP

60.00 -23.80 QP

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





2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.

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



8 EUT Constructional Details

Reference to the test report No.: JYTSZB-R12-2101118

-----End of report-----