

Report No: JYTSZB-R12-2100363

FCC REPORT

Applicant:	JiangXi Lesia Technology Co., Limited		
Address of Applicant:	Yangjiahu District(South Of Xiangxing Avenue), Industrial Park, Gao'An City, Jlangxi Province, China		
Equipment Under Test (E	EUT)		
Product Name:	SMARTPHONE		
Model No.:	C5, KC5512		
Trade mark:	LESIA		
FCC ID:	2ATFDLESIAC5		
Applicable standards:	FCC CFR Title 47 Part 15 Subpart C Section 15.247		
Date of sample receipt:	16 Mar., 2021		
Date of Test:	16 Mar., to 12 Apr., 2021		
Date of report issued:	16 Apr., 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.

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Version 2

Version No.	Date	Description
00	12 Apr., 2021	Original
01	16 Apr., 2021	Updated adapter on P.5.

Tested by:

Mike.DU Test Engineer

Date: 16 Apr., 2021

Winner Thang

Reviewed by:

Project Engineer

Date: 16 Apr., 2021



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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	15.247 (e)	Appendix A – 2.4G Wi-Fi	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	45.005.8.45.000	Appendix A – 2.4G Wi-Fi	Pass
Radiated Spurious Emission	15.205 & 15.209	See Section 6.7.2	Pass
Remark:	1	•	

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:	JiangXi Lesia Technology Co., Limited
Address:	Yangjiahu District(South Of Xiangxing Avenue), Industrial Park, Gao'An City, Jlangxi Province, China
Manufacturer/ Factory:	JiangXi Lesia Technology Co., Limited
Address:	Yangjiahu District(South Of Xiangxing Avenue), Industrial Park, Gao'An City, Jlangxi Province, China

5.2 General Description of E.U.T.

Product Name:	SMARTPHONE
Model No.:	C5, KC5512
Operation Frequency:	2412MHz~2462MHz: 802.11b/802.11g/802.11n(HT20)
Channel numbers:	11: 802.11b/802.11g/802.11(HT20)
Channel separation:	5MHz
Modulation technology: (IEEE 802.11b)	Direct Sequence Spread Spectrum (DSSS)
Modulation technology: (IEEE 802.11g/802.11n)	Orthogonal Frequency Division Multiplexing(OFDM)
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 72.2Mbps
Antenna Type:	Internal Antenna
Antenna gain:	0.8dBi
Power supply:	Rechargeable Li-ion Battery DC3.8V, 2500mAh
AC adapter:	Model: SMART SERIES Input: AC100-240V, 50/60Hz, 0.2A Output: DC 5.0V, 1000mA
Remark:	Model No.: C5, KC5512 were identical inside, the electrical circuit design, layout, components used and internal wiring, with only difference being model name.
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	3 2422MHz 6 2437MHz 9 2452MHz							
Note:								
1. Channel 1, 6 & 11 selected for 802.11b/g/n-HT20 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

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 17025:2005 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>

5.7 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@ccis-cb.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
Horn Antenna	SCHWARZBECK	BBHA9120D	916	03-03-2021	03-02-2022
Horn Antenna	SCHWARZBECK	BBHA9120D	1805	06-18-2020	06-17-2021
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

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
LISN	Rohde & Schwarz	ESH3-Z5	8438621/010	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	Test Equipment Manufacturer		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	N N	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:								
responsible party shall be us antenna that uses a unique so that a broken antenna ca electrical connector is prohib 15.247(b) (4) requirement: (4) The conducted output po antennas with directional ga section, if transmitting anten 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 n be replaced by the user, but the use of a standard antenna jack or bited. ower limit specified in paragraph (b) of this section is based on the use of ins that do not exceed 6 dBi. Except as shown in paragraph (c) of this nas of directional gain greater than 6 dBi are used, the conducted output adiator shall be reduced below the stated values in paragraphs (b)(1), ion, as appropriate, by the amount in dB that the directional gain of the							
E.U.T Antenna:								
The Wi-Fi antenna is an Inter antenna is 0.8 dBi.	nal antenna which cannot replace by end-user, the best case gain of the							



6.2 Conducted Emission

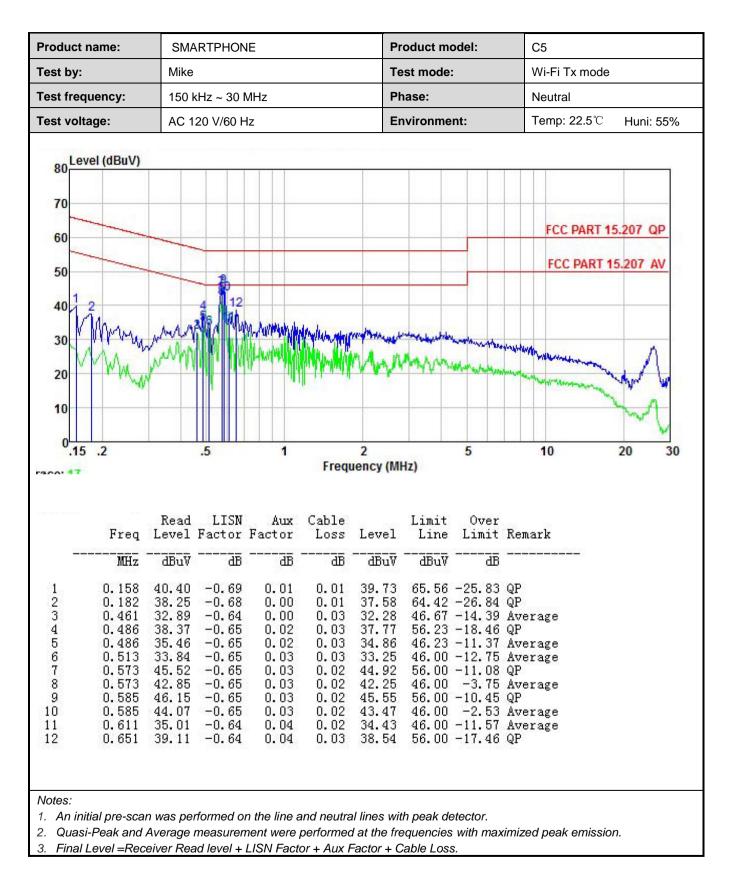
Test Requirement:	FCC Part 15 C Section 15.2	207						
Test Frequency Range:	150 kHz to 30 MHz							
Class / Severity:	Class B							
Receiver setup:	RBW=9 kHz, VBW=30 kHz							
Limit:	Frequency range (MHz)	Limit (c	dBuV)					
	,	Quasi-peak	Average					
	0.15-0.5	66 to 56*	56 to 46*					
		0.5-5 56 46						
	5-30	60	50					
	* Decreases with the logarit							
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 	 The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.), which provides 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). 						
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:

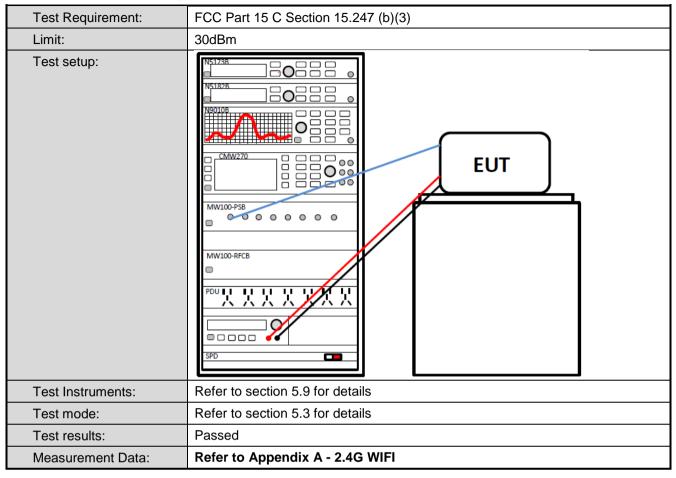
ike 50 kHz ~ 30 MHz C 120 V/60 Hz		Test mode: Phase: Environment:	Wi-Fi Tx mode Line Temp: 22.5°C Huni: 55%
		Environment:	Temp: 22.5°C Huni: 55% FCC PART 15.207 QP FCC PART 15.207 AV
C 120 V/60 Hz			FCC PART 15.207 QP FCC PART 15.207 AV
		htter have been and the second s	FCC PART 15.207 AV
WAR WAR	Shull my my mark	My who was man	water and the second se
.5		5 cy (MHz)	10 20 30
LISN Aux Factor Factor	Cable Loss Level	Limit Over Line Limit Remark	ζ
<u>a</u> <u>a</u> -	dBdBu∛	dBuVdB	
$\begin{array}{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr$	$\begin{array}{ccccc} 0.01 & 36.07 \\ 0.03 & 34.17 \\ 0.03 & 25.84 \\ 0.03 & 34.59 \\ 0.02 & 38.16 \\ 0.02 & 28.56 \\ 0.02 & 41.76 \\ 0.02 & 31.69 \\ 0.03 & 35.00 \\ 0.03 & 29.76 \\ 0.04 & 25.93 \\ 0.05 & 23.62 \end{array}$	64.77 -28.70 QP 64.02 -29.85 QP 46.19 -20.35 Averaş 56.10 -21.51 QP 56.00 -17.84 QP 46.00 -17.44 Averaş 56.00 -14.24 QP 46.00 -14.31 Averaş 56.00 -21.00 QP 46.00 -16.24 Averaş 46.00 -20.07 Averaş 46.00 -22.38 Averaş	ge ge
	LISN Aux Factor Factor \overline{dB} \overline{dB} -0.58 $-0.11-0.59$ $-0.14-0.44$ $-0.26-0.43$ $-0.32-0.47$ $-0.37-0.47$ $-0.37-0.48$ $-0.37-0.48$ $-0.37-0.57$ $-0.05-0.57$ $-0.05-0.57$ $-0.05-0.59$ $0.15-0.61$ 0.32	$\begin{array}{c cccccc} & \text{Frequen} \\ \\ LISN & Aux & Cable \\ Factor & Factor & Loss & Level \\ \hline \\ $	Frequency (MHz)LISNAuxCableLimitOverFactorFactorLossLevelLineLimitTotal \overline{dB} $\overline{-0.59}$ -0.14 0.01 36.07 64.77 -28.70 $\overline{0.44}$ -0.37 0.02 38.16 56.00 -17.44 $Averai$ -0.47 -0.37 0.02 28.56 46.00 -14.24 QP -0.48 -0.37 0.02 31.69 46.00 -14.31 $Averai$ -0.57 -0.05 0.03 29.76 46.00 -16.24 $Averai$ -0.59 0.15 0.04 25.93 46.00 -20.07 $Averai$





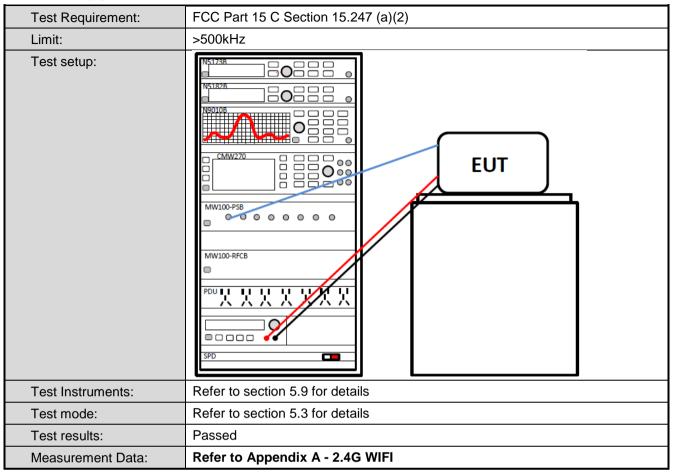


6.3 Conducted Output Power



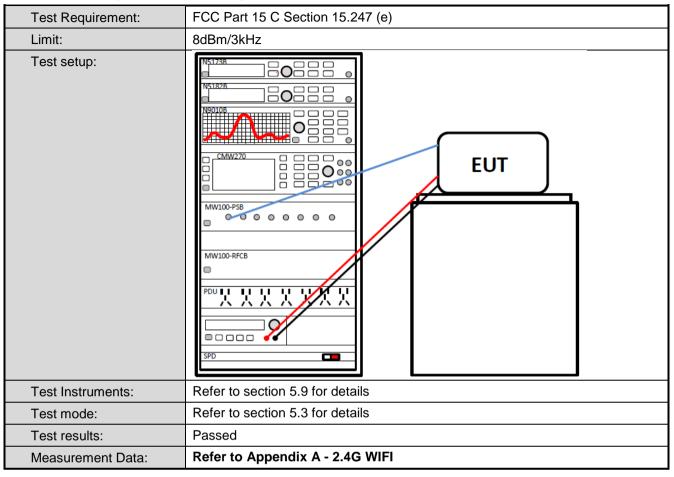


6.4 Occupy Bandwidth





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

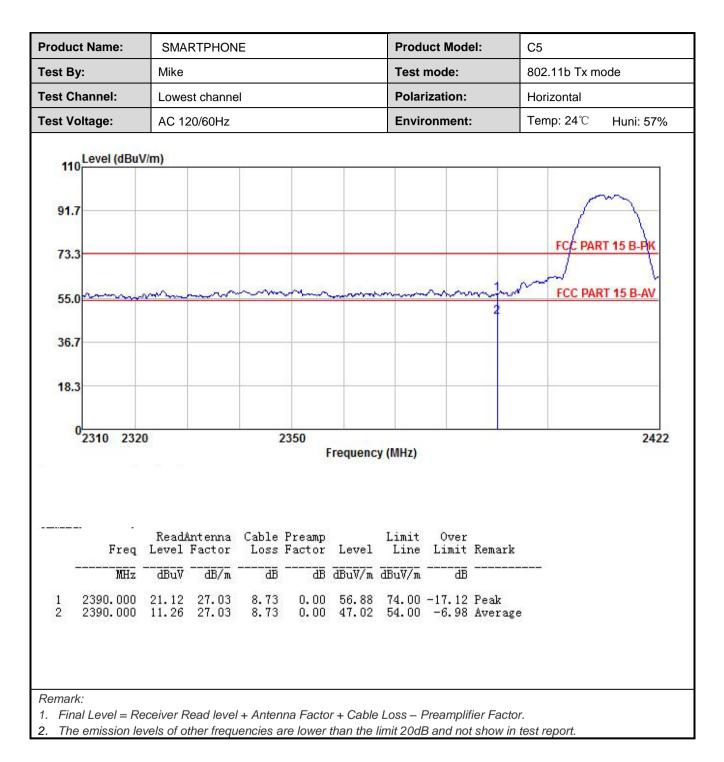
Test Requirement:	FCC Part 15 C Section 15.209 and 15.205							
Test Frequency Range:	2310 MHz to 2390) MHz and 24	83.5 MHz to 2	500 MHz				
Test Distance:	3m							
Receiver setup:	Frequency	Detector	RBW	VBW	Remark			
	Above 1GHz	Peak	1MHz	3MHz	Peak Value			
Limite	RMS 1MHz 3MHz Average Value Frequency Limit (dBuV/m @3m) Remark							
Limit:			54.00	511)	Average Value			
	Above 1GHz 74.00 Peak Value							
Test Procedure:	 the ground at determine 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 t maximum rea 5. The test-rece Specified Bar 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 l on level of the d, then testing ld be reported would be re-	amber. The tak he highest rad s away from the ted on the top ed from one m naximum value arizations of the sion, the EUT v tuned to heigh ned from 0 deg was set to Peal Maximum Holo EUT in peak r g could be stop d. Otherwise th	ole was rota iation. e interferen of a variabl eter to four of the field e antenna a vas arrange ths from 1 m prees to 360 k Detect Fu Mode. node was 1 ped and the ne emission one using p	e-height antenna meters above the strength. Both are set to make the ed to its worst case heter to 4 meters degrees to find the nction and OdB lower than the e peak values of s that did not have eak, quasi-peak or			
Test setup:	150cm	AE EUT (Turntable)	Horr	Antenna	Tower			
Test Instruments:	Refer to section 5	.9 for details						
Test mode:	Refer to section 5	.3 for details						
Test results:	Passed							



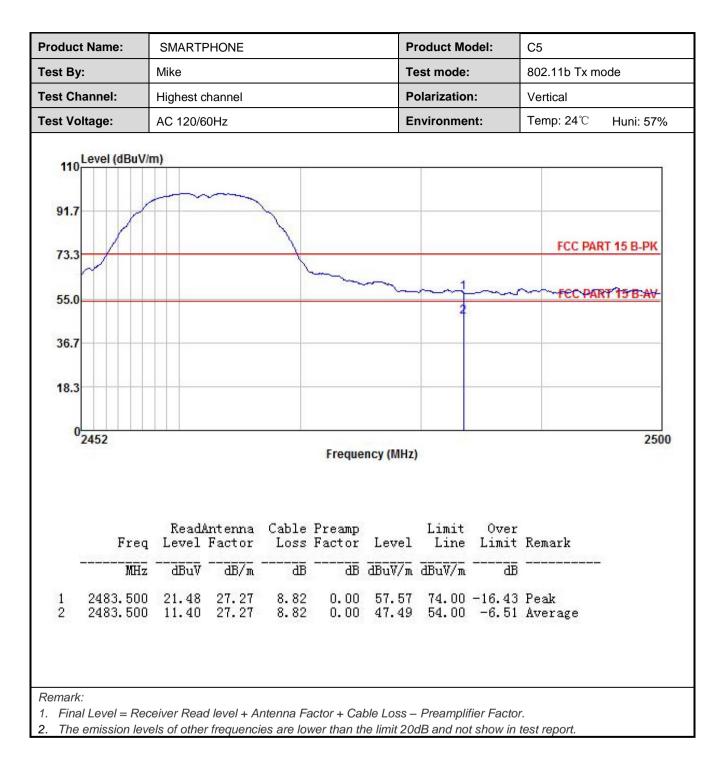
802.11b mode:

	Name:	SMARTE	PHONE				Product	Model:	C5			
st By:		Mike					Test mo	de:	802.11b Tx n	802.11b Tx mode		
st Cha	nnel:	Lowest c	Lowest channel Pol			Polariza	tion:	Vertical	rtical			
st Volta	age:	AC 120/60Hz				Environ	ment:	Temp: 24 ℃	Huni: 57%			
110 91.7 73.3 55.0	vel (dBuV/n	n)	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		~~~~~	~~~~		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	FCC PART	l		
36.7												
18.3								_				
0	40 0000			0050								
023	10 2320 Freq	Read/	Antenna Factor	2350 Cable Loss	Freque Preamp	ency (MHz Level	Limit	Over Limit		2422		
023		Level	Antenna Factor dB/m	Cable Loss	Freque Preamp Factor	Level	Limit Line	Limit	Remark	2422		

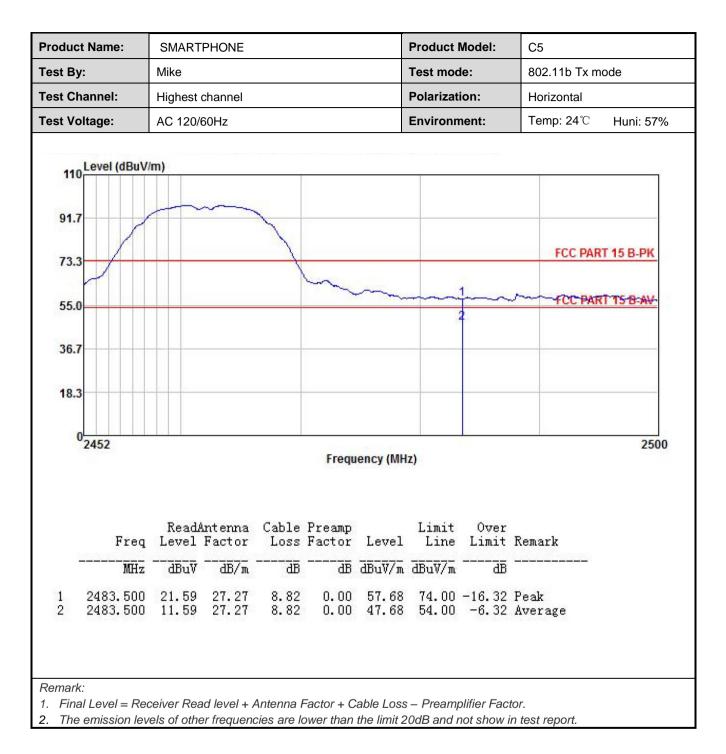










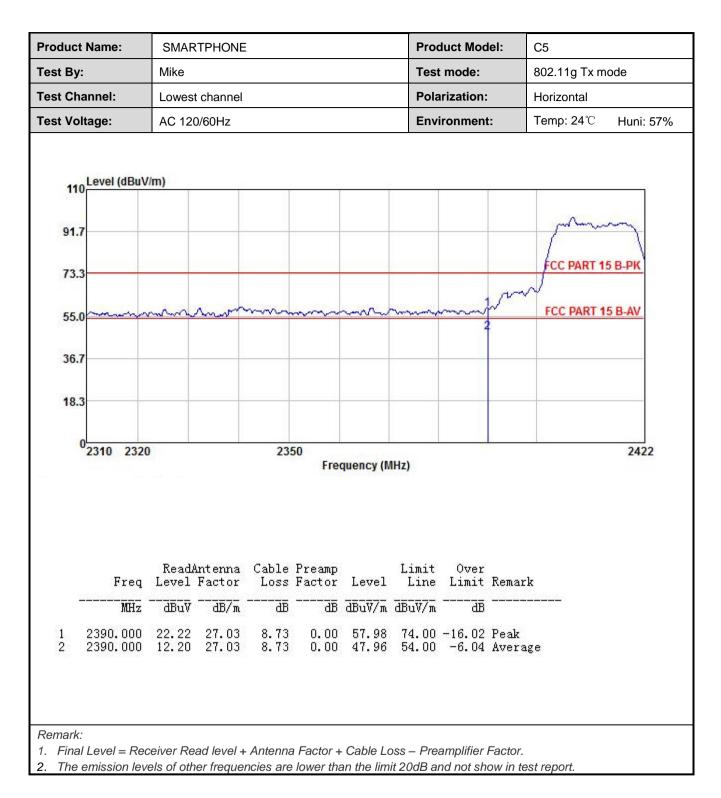




802.11g mode:

	SMARTPHONE					Product N	lodel:	C5		
st By:	Mike					Test mod	802.11g Tx m	ode		
st Channel:	Lowest	Lowest channel Polarization: AC 120/60Hz Environment:				on:				
st Voltage:	AC 120					Temp: 24 ℃	Huni: 57%			
110 Level (dBu 91.7 73.3 55.0 36.7	V/m)			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	FCC PART		
18.3			2350						2422	
0 2310 232	20			Freque	ncy (MHz)					
		Antenna Factor	Cable Loss	Preamp		Limit		Remark		
	Read q Level	Factor	Loss	Preamp Factor	Level	Limit	Limit	Remark		



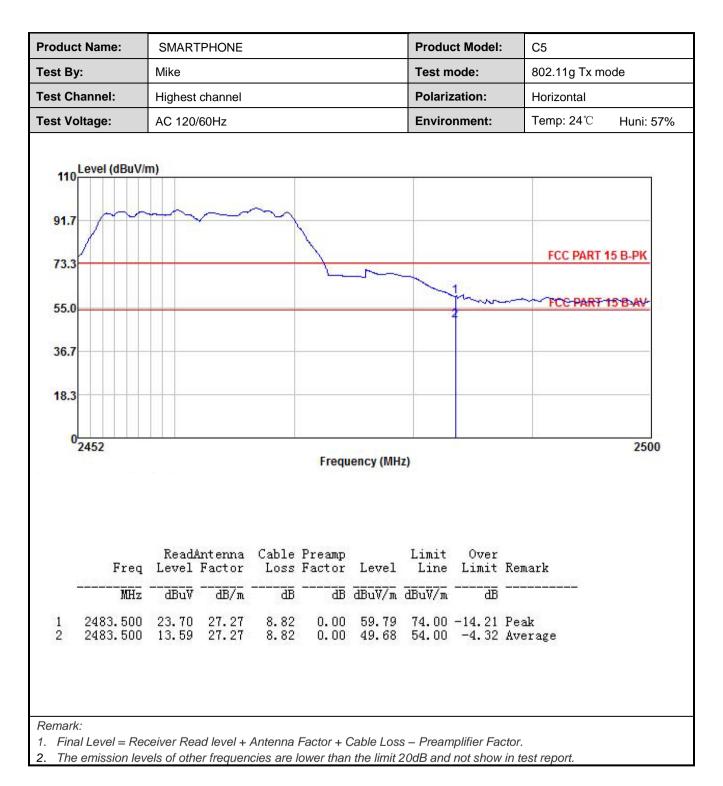






2. The emission levels of other frequencies are lower than the limit 20dB and not show in test report.



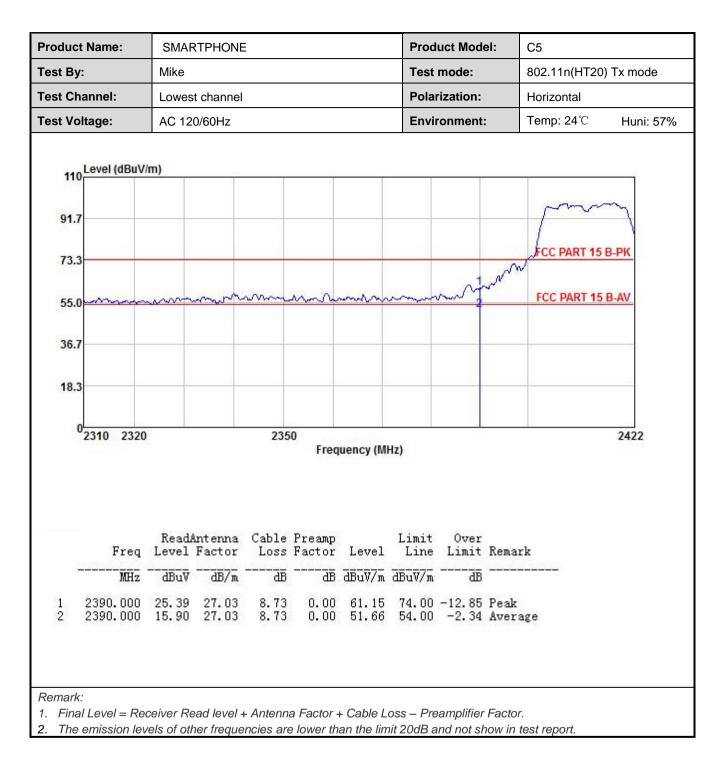




802.11n(HT20):

oduct Name:	SMART	PHONE				Prod	uct Mod	el: (C5		
est By:	Mike					Test	mode:	8	802.11n(HT20) Tx mode		
est Channel:	Lowest	Lowest channel			Pola	rization:	1	Vertical			
est Voltage:	AC 120/	0/60Hz Environment:		:	Гетр: 24 ℃	Huni: 57%					
110 Level (dBu)	//m)				Ì	1	1				
91.7									pm	m	
73.3		_						1 1		15 B-PK	
55.0	m		~~~~	-nm		·····	m	mm."	FCC PART	15 B-AV	
36.7											
18.3											
0 2310 232	0		23		quency (MHz)				2422	
Free	Read/ Level	Antenna Factor	Cable Loss	Preamp Factor	Level	Limit Line	Over Limit				
MH2	dBu∛		<u>d</u> B	<u>d</u> B	dBuV/m	dBuV/m					
1 2390.000 2 2390.000	27.03 15.27	27.03 27.03	8.73 8.73	0.00 0.00	62.79 51.03	74.00 54.00	-11.21 -2.97	Peak Average			

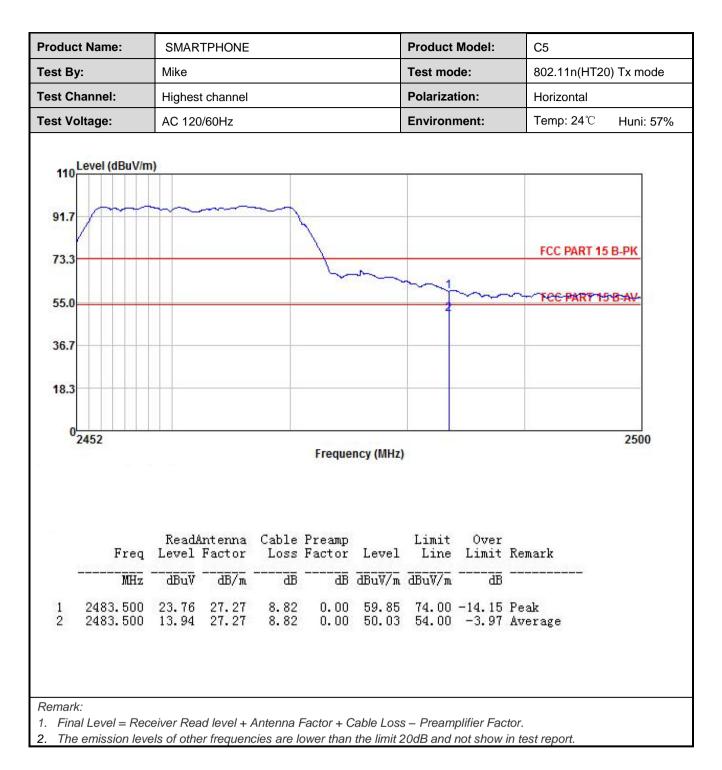






roduct Name:	me: SMARTPHONE Mike						Model:	C5	C5		
est By:							Test mo	de:	802.11n(HT	802.11n(HT20) Tx mode	
est Channel:	Highest channel				Polariza	tion:	Vertical				
est Voltage:	e: AC 120/60Hz					ment:	Temp: 24 ℃	Huni: 57%			
110 Level (dBuV/m 91.7 73.3 55.0 36.7			Jun			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	FCC PART				
18.3											
0 2452			Freque	ncy (MHz)	ļ.			2500			
Freq	ReadAntenna Level Factor	Cable i Loss i	Preamp Factor	Level	Limit Line	Over Limit	Remark				
Freq MHz	ReadAntenna Level Factor 	Loss 1	Factor	Level	Limit Line dBuV/m	Limit	Remark				







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 Section 15.209 and 15.205								
Test Frequency Range:	9kHz to 25GHz								
Test Distance:	3m								
Receiver setup:	Frequency	Detector		RBW	VBW		Remark		
	30MHz-1GHz	Quasi-	•	120KHz		KHz Quasi-peak Value			
	Above 1GHz			1MHz	3MHz		Peak Value		
	RMS 1MHz 3MHz Average Value								
Limit:	Frequency Limit (dBuV/m @3m) Remark								
	30MHz-88MHz 40.0 Quasi-peak Value								
	88MHz-216MH 216MHz-960M			43.5 46.0			uasi-peak Value uasi-peak Value		
	960MHz-1GH			54.0			uasi-peak Value		
				54.0			Average Value		
	Above 1GHz	<u> </u>		74.0			Peak Value		
Test extense	 The table was highest radiated highest radiated in the table was antenna, which tower. The EUT was antenna, which tower. The antenna ground to det horizontal and measurement in the rotated the table. The test-recensional Barrow Specified Barrow If the emission limit specified the EUT woul 10dB margin average methods. 	above 10 s rotated tion. s set 3 m ch was m height is ermine th d vertical d vertical t. pected e antenna able was ading. iver syste ndwidth v n level o l, then te ld be rep would be	GHz) at 360 de eters a nounted varied ne max polariz missior was turned turned turned turned the El sting co orted. (e re-tes	way from the grees to deta way from the d on the top of from one me timum value of zations of the n, the EUT wa ned to height d from 0 degr s set to Peak tximum Hold UT in peak mo ould be stopp Otherwise the sted one by o	ind at ermin of a va eter to of the ante as arr s fror ees to Dete Mode voed ar e emis ne us	a 3 m e the p ference ariable- four m field s nna are ranged n 1 me o 360 c ct Fund was 10 od the p ssions ing pea	eter chamber. bosition of the e-receiving height antenna neters above the trength. Both e set to make the to its worst case ter 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:	Below 1GHz	e 0.8m	4m			5			



Report No: JYTSZB-R12-2100363

	Horn Antenna Tower Horn 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.

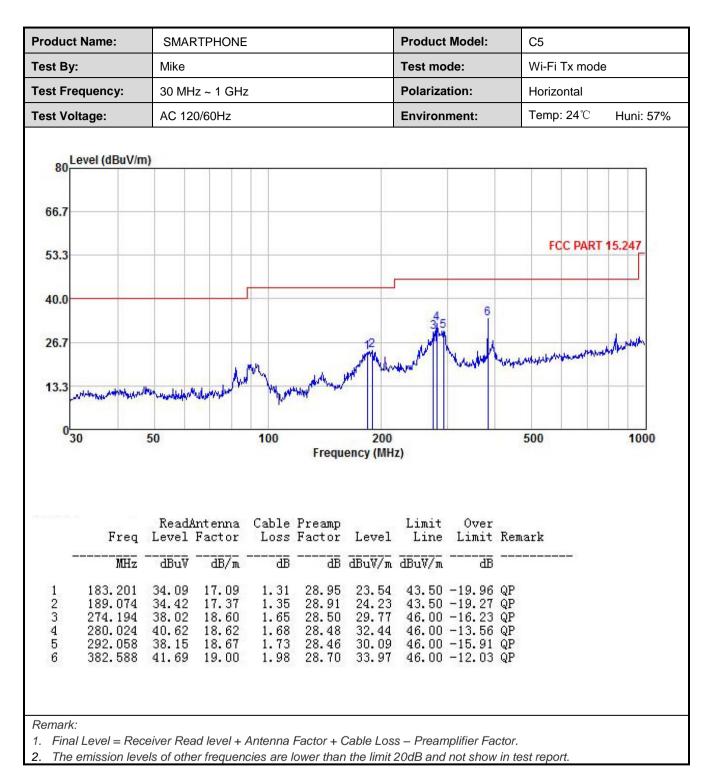


Measurement Data (worst case):

Below 1GHz:

roauct	Name:	Me: SMARTPHONE			Prod			odel:	C5 Wi-Fi Tx mode		
est By:	st By: Mike						est mode	:			
Test Frequency: Test Voltage:		30 MHz ~ 1 GHz AC 120/60Hz				Р	Polarization: Environment:		Vertical		
						E			Temp	: 24 ℃	Huni: 57%
80 Le	vel (dBuV/m)									1	
66.7											
53.3									F	CC PART	15.247
40.0			Г					-			
26.7	mm	Jum	2 WHAT WY	ĥ		+ Mary Lange	and the second	ween the sta	enterellitert	hunanters	more and
13.3	1	W		have	al margaret						
13.3 0 30		50		100	Frequen	200 icy (MHz)			500		1000
		Read	antenna Factor	Cable		icy (MHz)	Limit	Over Limit		k	1000
		Read/ Level		Cable	Preamp Factor	icy (MHz)	Line	Limit		k	1000







Above 1GHz

				000							
				802.11b							
Test channel: Lowest channel											
Detector: Peak Value											
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4824.00	53.65	30.81	6.81	41.82	49.45	74.00	-24.55	Vertical			
4824.00	52.50	30.81	6.81	41.82	48.30	74.00	-25.70	Horizontal			
Detector: Average Value											
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4824.00	45.00	30.81	6.81	41.82	40.80	54.00	-13.20	Vertical			
4824.00	45.42	30.81	6.81	41.82	41.22	54.00	-12.78	Horizontal			
				annel: Middl							
				ector: Peak	Value		[
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4874.00	53.66	30.93	6.85	41.84	49.60	74.00	-24.40	Vertical			
4874.00	52.97	30.93	6.85	41.84	48.91	74.00	-25.09	Horizontal			
			Deteo	ctor: Average	e Value						
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4874.00	44.93	30.93	6.85	41.84	40.87	54.00	-13.13	Vertical			
4874.00	45.45	30.93	6.85	41.84	41.39	54.00	-12.61	Horizontal			
			Test cha	nnel: Highe	st channel						
				ector: Peak							
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4924.00	53.90	31.05	6.89	41.86	49.98	74.00	-24.02	Vertical			
4924.00	52.76	31.05	6.89	41.86	48.84	74.00	-25.16	Horizontal			
			Detec	ctor: Average	e Value						
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4924.00	44.87	31.05	6.89	41.86	40.95	54.00	-13.05	Vertical			
4924.00	45.74	31.05	6.89	41.86	41.82	54.00	-12.18	Horizontal			
					oss – Preampl nit 20dB and no	lifier Factor. ot show in test i	report.				

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				802.11g				
			Test cha	annel: Lowes	st channel			
			Det	ector: Peak	Value			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4824.00	54.23	30.81	6.81	41.82	50.03	74.00	-23.97	Vertical
4824.00	52.43	30.81	6.81	41.82	48.23	74.00	-25.77	Horizontal
			Deteo	ctor: Average	e Value			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4824.00	44.42	30.81	6.81	41.82	40.22	54.00	-13.78	Vertical
4824.00	45.81	30.81	6.81	41.82	41.61	54.00	-12.39	Horizontal
			Test ch	annel: Middl	e channel			
				ector: Peak				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4874.00	54.06	30.93	6.85	41.84	50.00	74.00	-24.00	Vertical
4874.00	52.89	30.93	6.85	41.84	48.83	74.00	-25.17	Horizontal
		L	Deteo	ctor: Average	e Value			L
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4874.00	44.42	30.93	6.85	41.84	40.36	54.00	-13.64	Vertical
4874.00	46.15	30.93	6.85	41.84	42.09	54.00	-11.91	Horizontal
				annel: Highe ector: Peak				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4924.00	54.15	31.05	6.89	41.86	50.23	74.00	-23.77	Vertical
4924.00	52.59	31.05	6.89	41.86	48.67	74.00	-25.33	Horizontal
			Deteo	ctor: Average	e Value		1	
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4924.00	44.15	31.05	6.89	41.86	40.23	54.00	-13.77	Vertical
4924.00	45.91	31.05	6.89	41.86	41.99	54.00	-12.01	Horizontal
		Read level + A other frequence				lifier Factor. ot show in test i	report.	

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			8	302.11n(HT2	20)						
				annel: Lowes	,						
Detector: Peak Value											
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4824.00	52.85	30.81	6.81	41.82	48.65	74.00	-25.35	Vertical			
4824.00	51.66	30.81	6.81	41.82	47.46	74.00	-26.54	Horizontal			
Detector: Average Value											
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4824.00	44.52	30.81	6.81	41.82	40.32	54.00	-13.68	Vertical			
4824.00	46.95	30.81	6.81	41.82	42.75	54.00	-11.25	Horizontal			
				annel: Middl							
			1	ector: Peak	Value		-				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4874.00	53.21	30.93	6.85	41.84	49.15	74.00	-24.85	Vertical			
4874.00	51.91	30.93	6.85	41.84	47.85	74.00	-26.15	Horizontal			
107 1.00	01.01	00.00		ctor: Average		7 1.00	20.10	Tionzontai			
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4874.00	44.16	30.93	6.85	41.84	40.10	54.00	-13.90	Vertical			
4874.00	46.55	30.93	6.85	41.84	42.49	54.00	-11.51	Horizontal			
			I		I		I				
			Test cha	annel: Highe	st channel						
			Det	ector: Peak	Value						
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4924.00	53.71	31.05	6.89	41.86	49.79	74.00	-24.21	Vertical			
4924.00	52.23	31.05	6.89	41.86	48.31	74.00	-25.69	Horizontal			
			Detec	ctor: Average	e Value						
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4924.00	43.80	31.05	6.89	41.86	39.88	54.00	-14.12	Vertical			
4924.00	46.07	31.05	6.89	41.86	42.15	54.00	-11.85	Horizontal			
					.oss – Preampl nit 20dB and no	lifier Factor. ot show in test i	report.				

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