

JianYan Testing Group Shenzhen Co., Ltd.

Report No: JYTSZB-R12-2100606

FCC REPORT

Applicant: TECNO MOBILE LIMITED

Address of Applicant: FLAT 39 8/F BLOCK D WAH LOK INDUSTRIAL CENTRE 31-35

SHAN MEI STREET FOTAN NT

Equipment Under Test (EUT)

Product Name: Mobile Phone

Model No.: W5006S

Trade mark: TECNO

FCC ID: 2ADYY-W5006S

Applicable standards: FCC CFR Title 47 Part 15 Subpart C Section 15.247

Date of sample receipt: 21 Apr., 2021

Date of Test: 22 Apr., to 22 Jun., 2021

Date of report issued: 23 Jun., 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.

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2 Version

Version No.	Date	Description
00	23 Jun., 2021	Original

Tested by: Tanet Wei Date: 23 Jun., 2021

Test Engineer

Reviewed by: Date: 23 Jun., 2021

Project Engineer





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4 Test Summary

<u> </u>			
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	45.047.(4)	Appendix A – 2.4G Wi-Fi	Pass
Radiated Band Edge	15.247 (d)	15.247 (d) See Section 6.6.2	
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. 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

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5 General Information

5.1 Client Information

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

5.2 General Description of E.U.T.

Product Name:	Mobile Phone		
Model No.:	W5006S		
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:	1.21dBi		
Power supply:	Rechargeable Li-ion Battery DC3.8V, 2400mAh		
AC adapter:	Model: A18A-050100U-US2		
	Input: AC100-240V, 50/60Hz, 0.2A Output: DC 5.0V, 1A		
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.



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

5.7 Laboratory Location

JianYan Testing Group Shenzhen Co., Ltd.

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

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

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



6 Test results and Measurement Data

6.1 Antenna requirement

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

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 1.21 dBi.

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6.2 Conducted Emission

Test Requirement:	FCC Part 15 C Section 15.207							
Test Frequency Range:	150 kHz to 30 MHz	150 kHz to 30 MHz						
Class / Severity:	Class B							
Receiver setup:	RBW=9 kHz, VBW=30 kHz							
Limit:	Fraguenov rango (MHz)	Limit (dBuV)						
	Frequency range (MHz)	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	hm of the frequency.						
Test procedure	 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). 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 C63.10(latest version) on conducted measurement. 							
Test setup:	LISN	st	er — AC power					
Test Instruments:	Refer to section 5.9 for deta	ails						
Test mode:	Refer to section 5.3 for deta	ails						
Test results:	Passed							

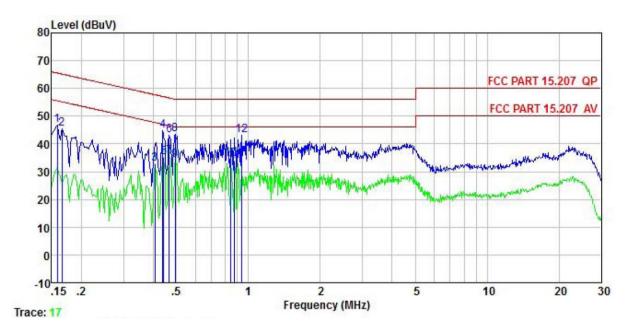
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Measurement Data:

Product name:	Mobile Phone	Product model:	W5006S
Test by:	Janet	Test mode:	Wi-Fi Tx mode
Test frequency:	150 kHz ~ 30 MHz	Phase:	Line
Test voltage:	AC 120 V/60 Hz	Environment:	Temp: 22.5℃ Huni: 55%



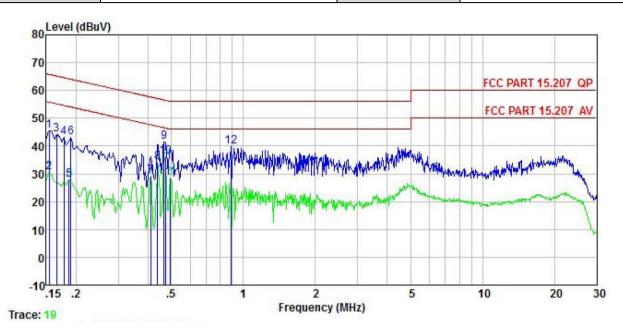
	Freq	Read Level		Aux Factor	Cable Loss	Level	Limit Line		Remark
	MHz	dBu∜	<u>dB</u>	<u>dB</u>	<u>ab</u>	dBu₹	dBu∜	dB	
1	0.158	36.77	10.20	-0.07	0.01	46.91		-18.65	
2	0.166	35.21	10.20	-0.09	0.01	45.33	65.16	-19.83	QP
3	0.406	22.23	10.20	0.36	0.04	32.83	47.73	-14.90	Average
4	0.437	34.43	10.20	0.11	0.03	44.77	57.11	-12.34	QP
2 3 4 5 6	0.442	24.90	10.20	0.08	0.03	35.21	47.02	-11.81	Average
6	0.466	33.13	10.20	-0.12	0.03	43.24	56.58	-13.34	QP
7 8 9	0.466	25.29	10.20	-0.12	0.03	35.40	46.58	-11.18	Average
8	0.494	33.68	10.20	-0.32	0.03	43.59	56.10	-12.51	QP
9	0.494	24.24	10.20	-0.32	0.03	34.15	46.10	-11.95	Average
10	0.844	24.29	10.20	0.05	0.04	34.58	46.00	-11.42	Average
11	0.876	23.33	10.20	0.13	0.04	33.70			Average
12	0.938	32.60	10.20	0.30	0.04	43.14		-12.86	

Notes:

- 1. An initial pre-scan was performed on the line and neutral lines with peak detector.
- 2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
- 3. Final Level =Receiver Read level + LISN Factor + Aux Factor + Cable Loss.



Product name:	Mobile Phone	Product model:	W5006S
Test by:	Janet	Test mode:	Wi-Fi Tx mode
Test frequency:	150 kHz ~ 30 MHz	Phase:	Neutral
Test voltage:	AC 120 V/60 Hz	Environment:	Temp: 22.5℃ Huni: 55%



	Freq	Read Level	LISN Factor	Aux Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBu₹	<u>dB</u>	<u>d</u> B		dBu₹	dBu∜		
1	0.154	35.29	10.20	0.01	0.01	45.51	65.78	-20.27	QP
2	0.154	20.20	10.20	0.01	0.01	30.42	55.78	-25.36	Average
3	0.166	34.04	10.20	0.01	0.01	44.26	65.16	-20.90	QP
4	0.178	32.90	10.20	0.00	0.01	43.11	64.59	-21.48	QP
5	0.186	17.76	10.20	0.00	0.02	27.98	54.20	-26.22	Average
6	0.190	32.79	10.20	0.00	0.03	43.02	64.02	-21.00	QP
1 2 3 4 5 6 7 8 9	0.410	18.88	10.20	-0.05	0.04	29.07	47.64	-18.57	Average
8	0.437	23.91	10.20	-0.02	0.03	34.12	47.11	-12.99	Average
9	0.466	31.28	10.20	0.00	0.03	41.51	56.58	-15.07	QP
10	0.471	25.95	10.20	0.01	0.03	36.19	46.49	-10.30	Average
11	0.497	18.18	10.20	0.03	0.03	28.44	46.05	-17.61	Average
12	0.885	29.46	10.20	0.07	0.04	39.77	56.00	-16.23	QP

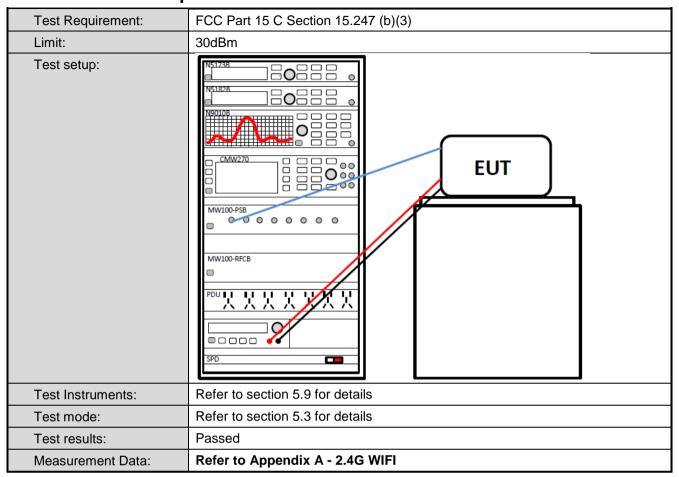
Notes:

- 1. An initial pre-scan was performed on the line and neutral lines with peak detector.
- 2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
- 3. Final Level =Receiver Read level + LISN Factor + Aux Factor + Cable Loss.





6.3 Conducted Output Power

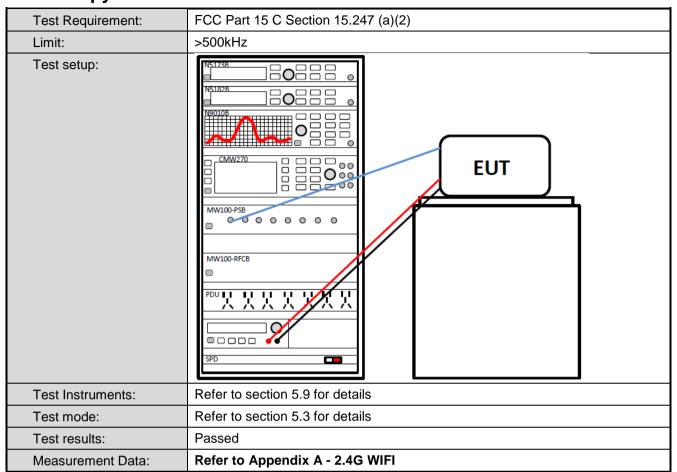


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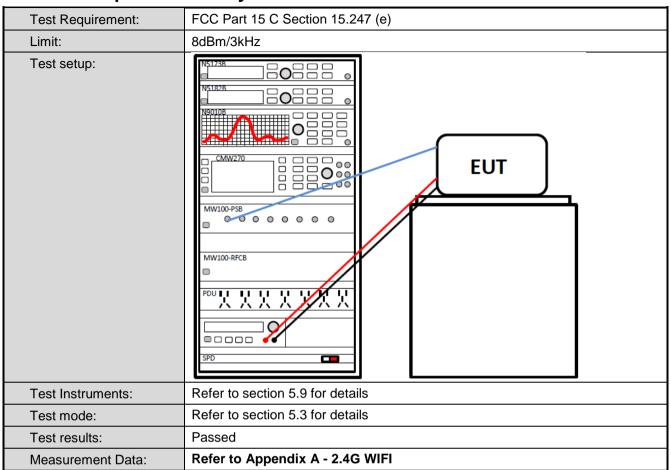


6.4 Occupy Bandwidth





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:	NS182B NS18B NS18					
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					



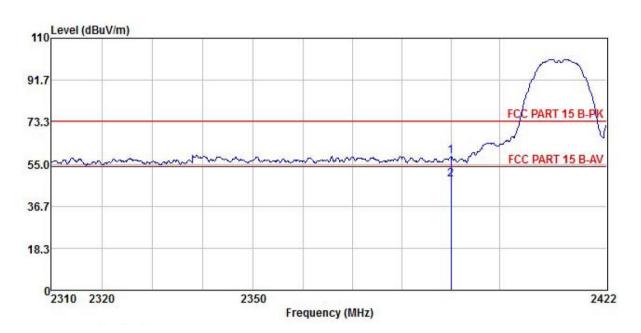
6.6.2 Radiated Emission Method

Test Requirement:	FCC Part 15 C Section 15.209 and 15.205						
Test Frequency Range:	2310 MHz to 2390 MHz and 2483.5 MHz to 2500 MHz						
Test Distance:	3m						
Receiver setup:	Frequency	Detector	RBW	RBW VBW		Remark	
	Above 1GHz	Peak	1MHz	3MH		eak Value	
l insta	Frequency	RMS	1MHz nit (dBuV/m @	3MH		erage Value nark	
Limit:			54.00	3111)		e Value	
	Above 1GH	Z	74.00			Value	
Test Procedure:	 The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 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. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. 						
Test setup:	average method as specified and them reported in a data sheet. Horn Antenna Tower Ground Reference Plane Test Receiver Amplifier Controller						
Test Instruments:	Refer to section 5	.9 for details					
Test mode:	Refer to section 5	.3 for details					
Test results:	Passed						



802.11b mode:

Product Name:	Mobile Phone	Product Model:	W5006S
Test By:	Janet	Test mode:	802.11b Tx mode
Test Channel:	Lowest channel	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%



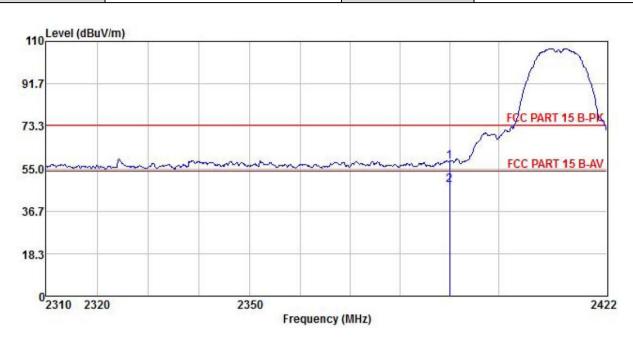
	Freq		Antenna Factor				Limit Line		
	MHz	dBu∇		<u>ab</u>	dB	dBu√/m	dBuV/m	<u>d</u> B	
1 2	2390.000 2390.000								

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.



Product Name:	Mobile Phone	Product Model:	W5006S
Test By:	Janet	Test mode:	802.11b Tx mode
Test Channel:	Lowest channel	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%



	Freq		Antenna Factor						Remark
	MHz	dBu₹	dB/m	₫B	₫B	dBuV/m	dBuV/m	₫B	
1 2	2390.000 2390.000								

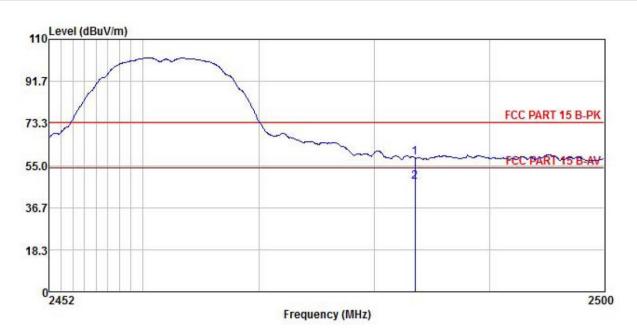
- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- 2. The emission levels of other frequencies are lower than the limit 20dB and not show in test report.

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Project No.: JYTSZE2104081



Product Name:	Mobile Phone	Product Model:	W5006S
Test By:	Janet	Test mode:	802.11b Tx mode
Test Channel:	Highest channel	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%



	Freq		Antenna Factor						
	MHz	dBu₹	dB/m	₫B	₫B	dBuV/m	dBuV/m	₫B	
1 2	2483.500 2483.500								

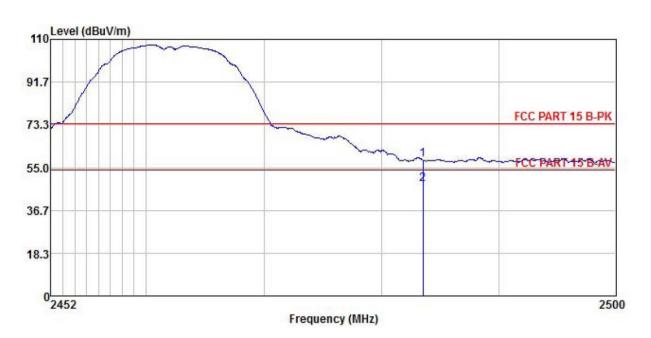
Remark

- 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.

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Product Name:	Mobile Phone	Product Model:	W5006S		
Test By:	Janet	Test mode:	802.11b Tx mode		
Test Channel:	Highest channel	Polarization:	Horizontal		
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%		



	Freq		Antenna Factor				Limit Line	57-1.080	Remark
	MHz	dBu∀	$\overline{-dB}/\overline{m}$	dB	dB	dBuV/m	dBuV/m	<u>d</u> B	
1 2	2483.500 2483.500								

- 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.

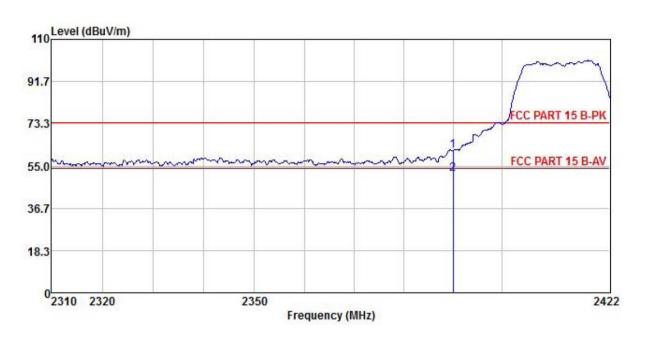
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802.11g mode:

Product Name:	Mobile Phone	Product Model:	W5006S		
Test By:	Janet	Test mode:	802.11g Tx mode		
Test Channel:	Lowest channel	Polarization:	Vertical		
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%		



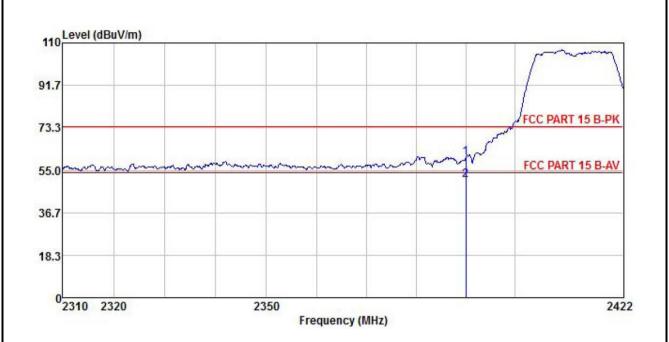
	Freq		Antenna Factor						Remark
	MHz	dBu∇	dB/m	<u>d</u> B	dB	$\overline{dBuV/m}$	dBu∀/m	<u>d</u> B	
1 2	2390.000 2390.000								

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.



Product Name:	Mobile Phone	Product Model:	W5006S		
Test By:	Janet	Test mode:	802.11g Tx mode		
Test Channel:	Lowest channel	Polarization:	Horizontal		
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%		



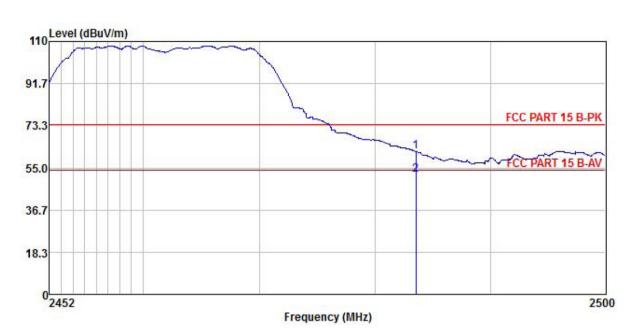
	Freq		Antenna Factor					Over Limit	
	MHz	dBu∇	dB/m	dB	<u>dB</u>	$\overline{dBuV/m}$	dBu√/m	<u>d</u> B	21 100 010 10 10 10 10 10 10 10 10 10 10
1 2	2390.000								
2	2390.000	15.03	21.03	8.13	0.00	50. (9	54.00	-3.21	Average

- 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.

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Product Name:	Mobile Phone	Product Model:	W5006S		
Test By:	Janet	Test mode:			
Test Channel:	Highest channel	Polarization:	Vertical		
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%		



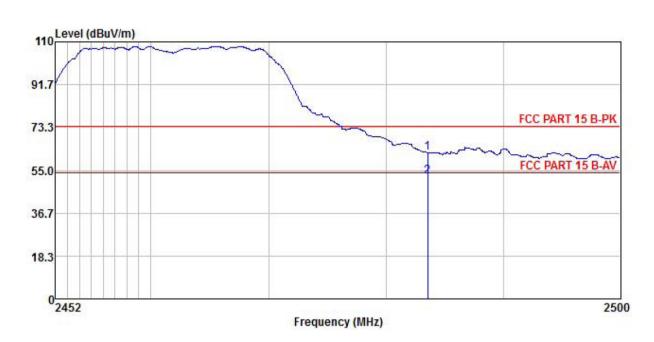
	Freq		Antenna Factor						Remark
	MHz	dBu₹	dB/m	₫B	₫B	dBuV/m	dBu∜/m	₫B	
1 2	2483.500 2483.500								

- 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.

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Product Name:	Mobile Phone	Product Model:	W5006S		
Test By:	Janet	Test mode:	802.11g Tx mode		
Test Channel:	Highest channel	Polarization:	Horizontal		
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%		



	Freq		Antenna Factor				Limit Line	17-16 PARTIES	Remark
	MHz	dBu∇	<u>dB</u> /m		dB	$\overline{dBuV/m}$	dBuV/m	<u>dB</u>	
1 2	2483.500 2483.500			1705/07/20					

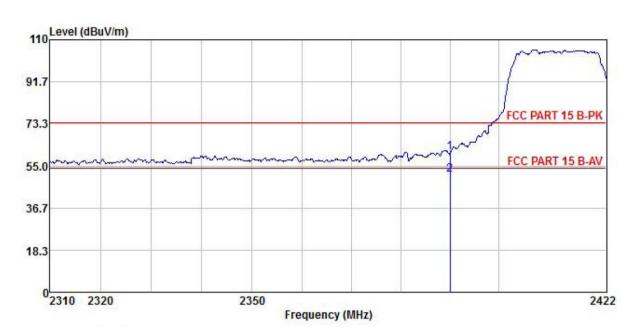
- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- The emission levels of other frequencies are lower than the limit 20dB and not show in test report.

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802.11n(HT20):

Product Name:	Mobile Phone	Product Model:	W5006S		
Test By:	Janet	Test mode:	802.11n(HT20) Tx mode		
Test Channel:	Lowest channel	Polarization:	Vertical		
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%		



	Freq		Antenna Factor					Over Limit	
	MHz	₫BuV	<u>dB</u> /π		<u>dB</u>	$\overline{dBuV/m}$	dBu√/m	<u>d</u> B	
1	2390.000	25.08	27.03	8.73	0.00	60.84	74.00	-13.16	Peak
2	2390.000	15.41	27.03	8.73	0.00	51.17	54.00	-2.83	Average

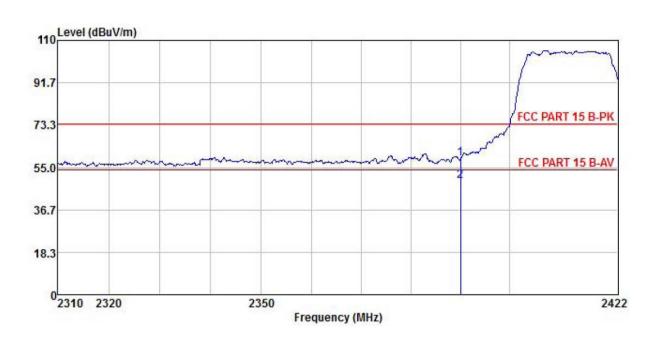
Remark:

- 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.

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Product Name:	Mobile Phone	Product Model:	W5006S
Test By:	Janet	Test mode: 802.11n(HT	
Test Channel:	Lowest channel	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%



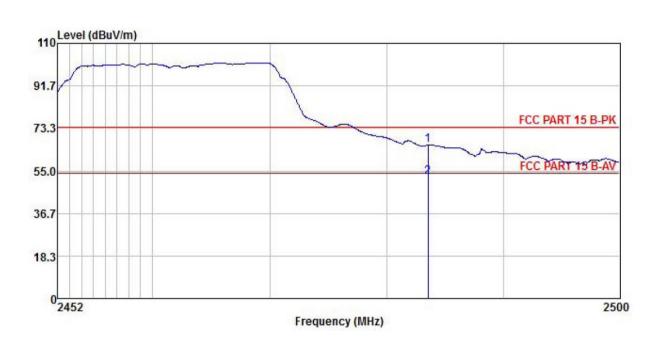
	Freq	ReadAntenna Level Factor						Over Limit	Remark
	MHz	dBu∇	dB/m	dB	dB	$\overline{dBuV/m}$	$\overline{dBuV/m}$	<u>d</u> B	
1 2	2390.000 2390.000					58.84 49.20			

- 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.

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Product Name:	Mobile Phone	Product Model:	W5006S		
Test By:	Janet Test n		802.11n(HT20) Tx mode		
Test Channel:	Highest channel	Polarization:	Vertical		
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%		



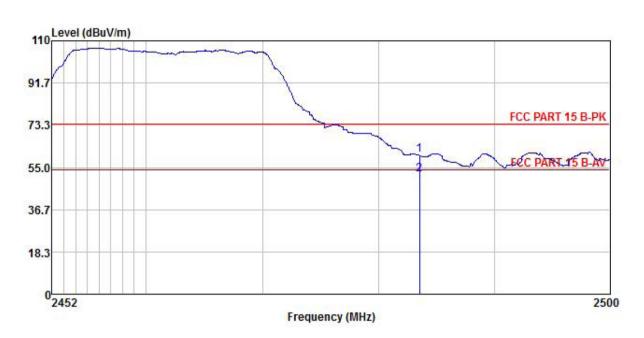
	Freq		Antenna Factor				Limit Line	
	MHz	dBu∇		<u>d</u> B	<u>dB</u>	dBu√/m	$\overline{dBuV/m}$	
1 2	2483.500 2483.500							

- 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.

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Product Name:	Mobile Phone	Product Model:	W5006S
Test By:	Janet	Test mode:	802.11n(HT20) Tx mode
Test Channel:	Highest channel	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%



	Freq		Antenna Factor					Over Limit	Remark
	MHz	dBu∜	dB/m	₫B	₫B	dBuV/m	dBuV/m	₫B	
1 2	2483.500 2483.500								

- 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.

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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:	NS182R NS18R NS182R NS18R NS182R NS18R NS					
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					

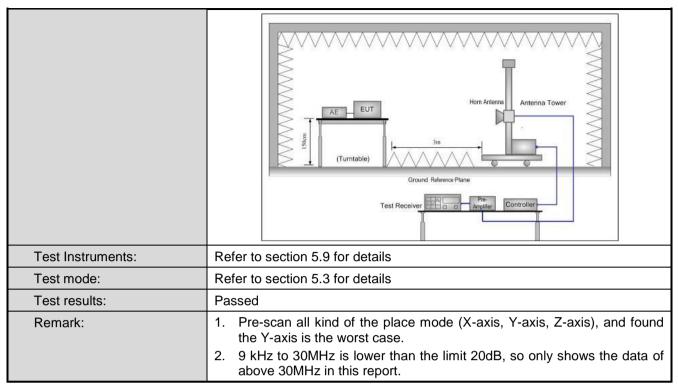
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6.7.2 Radiated Emission Method

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		BW	Remark
·	30MHz-1GHz	Quasi-	peak	120KHz	300)KHz	Quasi-peak Value
	Above 1GHz	Pea	ak	1MHz	31	ИHz	Peak Value
	RMS 1MHz 3MHz				Average Value		
Limit:	Frequency		Limi	t (dBuV/m @3	m)		Remark
	30MHz-88MH			40.0			uasi-peak Value
	88MHz-216MH			43.5			uasi-peak Value
	216MHz-960M			46.0			uasi-peak Value
	960MHz-1GH	Z		54.0			uasi-peak Value
	Above 1GHz	<u>, </u>		54.0 74.0		,	Average Value Peak Value
Test Procedure:	 The EUT was placed on the top of a rotating table 0.8m(below 1GHz)/1.5m(above 1GHz) above the ground at a 3 meter chamber. The table was rotated 360 degrees to determine the position of the highest radiation. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 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. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or 						
Test setup:	average meth Below 1GHz EUT Turn Table Ground I	3m ·				Ant	tenna Tower Search ntenna



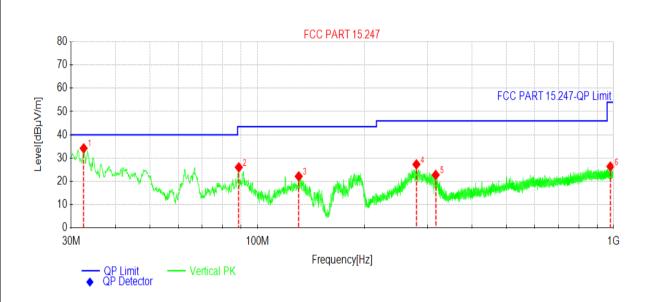




Measurement Data (worst case):

Below 1GHz:

Product Name:	Mobile Phone	Product Model:	W5006S
Test By:	Janet	Test mode:	Wi-Fi Tx mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%



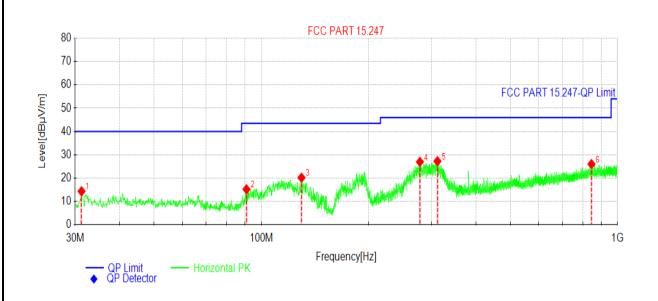
NO.₽	Freq.√ [MHz]∂	Reading⊬ [dBµV/m]⊮	Level⊍ [dBµV/m]₽	Factor⊍ [dB]∉	Limit⊬ [dBµV/m]∂	Margin⊬ [dB]∉	Trace₽	Polarity₽
1₽	32.5223₽	52.07₽	34.18₽	-17.89₽	40.00₽	5.82₽	PK₽	Vertical₽
2↩	88.6909₽	45.59₽	26.00₽	-19.59₽	43.50₽	17.50₽	PK₽	Vertical₽
3₽	130.696	41.45₽	22.12₽	-19.33₽	43.50₽	21.38₽	PK₽	Vertical₽
4₽	279.703	41.87₽	27.27₽	-14.60₽	46.00₽	18.73₽	PK₽	Vertical₽
5₽	316.857	36.37₽	22.72₽	-13.65₽	46.00₽	23.28₽	PK₽	Vertical₽
6↩	980.404	29.50₽	26.34₽	-3.16₽	54.00₽	27.66₽	PK₽	Vertical₽

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.



Product Name:	Mobile Phone	Product Model:	W5006S
Test By:	Janet	Test mode:	Wi-Fi Tx mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%



NO.₽	Freq.√ [MHz]∂	Reading⊬ [dBµV/m]∂	Level⊬ [dBµV/m]∂	Factor⊍ [dB]∉	Limit⊬ [dBμV/m]∂	Margin⊬ [dB]∉	Trace₽	Polarity∂
1₽	31.2611₽	32.48₽	14.31₽	-18.17₽	40.00₽	25.69₽	PK₽	Horizontal₽
2↩	90.8251₽	34.72₽	15.20₽	-19.52₽	43.50₽	28.30₽	PK₽	Horizontal₽
3↩	129.629	39.40₽	20.16₽	-19.24₽	43.50₽	23.34₽	PK₽	Horizontal₽
4₽	278.829	41.59₽	26.97₽	-14.62₽	46.00₽	19.03₽	PK₽	Horizontal₽
5₽	312.201	41.12₽	27.24₽	-13.88₽	46.00₽	18.76₽	PK₽	Horizontal₽
6₽	845.560	30.26₽	25.99₽	-4.27₽	46.00₽	20.01₽	PK₽	Horizontal₽

- 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.

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Above 1GHz

Above 1GHz								
802.11b								
Test channel: Lowest channel								
Detector: Peak Value								
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization		
4824.00	64.93	-10.33	54.60	74.00	19.40	Vertical		
4824.00	62.47	-10.33	52.14	74.00	21.86	Horizontal		
		Dete	ctor: Average Va	alue				
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization		
4824.00	62.52	-10.33	52.19	54.00	1.81	Vertical		
4824.00	59.28	-10.33	48.95	54.00	5.05	Horizontal		
			nannel: Middle ch					
Detector: Peak Value								
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization		
4874.00	65.21	-10.17	55.04	74.00	18.96	Vertical		
4874.00	62.20	-10.17	52.03	74.00	21.97	Horizontal		
	Detector: Average Value							

Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization		
4874.00	65.21	-10.17	55.04	74.00	18.96	Vertical		
4874.00	62.20	-10.17	52.03	74.00	21.97	Horizontal		
Detector: Average Value								
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization		
, ,		Factor(dB) -10.17				Polarization Vertical		
(MHz)	(dBuV)	` ,	(dBuV/m)	(dBuV/m)	(dB)			

Test channel: Highest channel									
Detector: Peak Value									
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4924.00	64.74	-10.02	54.72	74.00	19.28	Vertical			
4924.00	62.20	-10.02	52.18	74.00	21.82	Horizontal			
	Detector: Average Value								
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4924.00	62.85	-10.02	52.83	54.00	1.17	Vertical			
4924.00	59.01	-10.02	48.99	54.00	5.01	Horizontal			

Remark

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^{1.} Final Level = Receiver Read level + Factor.

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





			000.44						
802.11g									
Test channel: Lowest channel									
_	Detector: Peak Value								
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4824.00	64.86	-10.33	54.53	74.00	19.47	Vertical			
4824.00	62.73	-10.33	52.40	74.00	21.60	Horizontal			
		Dete	ctor: Average Va	alue					
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4824.00	62.88	-10.33	2.46	54.00	51.54	Vertical			
4824.00	59.72	-10.33	2.46	54.00	51.54	Horizontal			
			annel: Middle ch						
	Detector: Peak Value								
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4874.00	64.89	-10.17	54.72	74.00	19.28	Vertical			
4874.00	62.50	-10.17	52.33	74.00	21.67	Horizontal			
		Dete	ctor: Average Va	alue					
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4874.00	62.39	-10.17	52.22	54.00	1.78	Vertical			
4874.00	59.69	-10.17	49.52	54.00	4.48	Horizontal			
		Test cha	annel: Highest c	hannel					
	ı	Det	tector: Peak Valu		1				
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4924.00	65.32	-10.02	55.30	74.00	-18.70	Vertical			
4924.00	62.36	-10.02	52.34	74.00	-21.66	Horizontal			
		Dete	ctor: Average Va	alue					
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4924.00	62.55	-10.02	52.53	54.00	1.47	Vertical			
4924.00	59.82	-10.02	49.80	54.00	4.20	Horizontal			

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^{1.} Final Level = Receiver Read level + Factor.

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





802.11n(HT20)									
	Test channel: Lowest channel								
		De	tector: Peak Valu						
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4824.00	64.74	-10.33	54.41	74.00	19.59	Vertical			
4824.00	62.45	-10.33	52.12	74.00	21.88	Horizontal			
		Dete	ctor: Average Va	alue					
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4824.00	62.63	-10.33	52.30	54.00	1.70	Vertical			
4824.00	59.43	-10.33	49.10	54.00	4.90	Horizontal			
		Test ch	annel: Middle ch	nannel					
		Det	tector: Peak Valu	ie					
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4874.00	64.67	-10.17	54.50	74.00	19.50	Vertical			
4874.00	62.38	-10.17	52.21	74.00	21.79	Horizontal			
		Dete	ctor: Average Va	alue					
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4874.00	62.33	-10.17	52.16	54.00	1.84	Vertical			
4874.00	59.89	-10.17	49.72	54.00	4.28	Horizontal			
			annel: Highest cl						
	ı	Det	tector: Peak Valu			1			
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4924.00	64.85	-10.02	54.83	74.00	19.17	Vertical			
4924.00	62.72	-10.02	52.70	74.00	21.30	Horizontal			
		Dete	ctor: Average Va	alue					
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4924.00	62.90	-10.02	52.88	54.00	1.12	Vertical			
4924.00	59.26	-10.02	49.24	54.00	4.76	Horizontal			

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^{1.} Final Level = Receiver Read level + Factor.

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