

## Shenzhen Zhongjian Nanfang Testing Co., Ltd.

Report No: CCISE200707504

# FCC REPORT (WIFI)

**Applicant:** Shenzhen Huafurui Technology Co., Ltd.

Address of Applicant: Unit 1401 &1402, 14/F, Jingi zhigu mansion (No. 4 building of

Chongwen Garden), Crossing of the Liuxian street and Tangling road, Taoyuan street, Nanshan district, Shenzhen, P.R. China

## **Equipment Under Test (EUT)**

Product Name: Smartphone

Model No.: C30

Trade mark: CUBOT

FCC ID: 2AHZ5C30

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

Date of sample receipt: 22 Jul., 2020

**Date of Test:** 22 Jul., to 10 Aug., 2020

Date of report issued: 17 Aug., 2020

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 CCIS 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

Version No.	Date	Description
00	17 Aug., 2020	Original

Test Engineer

Winner thang Tested by: Date: 17 Aug., 2020

Reviewed by: Date: 17 Aug., 2020 **Project Engineer** 



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## 4 General Information

## 4.1 Client Information

Applicant:	Shenzhen Huafurui Technology Co., Ltd.
Address:	Unit 1401 &1402, 14/F, Jinqi zhigu mansion (No. 4 building of Chongwen Garden), Crossing of the Liuxian street and Tangling road, Taoyuan street, Nanshan district, Shenzhen, P.R. China
Manufacturer/ Factory:	Shenzhen Huafurui Technology Co., Ltd.
Address:	Unit 1401 &1402, 14/F, Jinqi zhigu mansion (No. 4 building of Chongwen Garden), Crossing of the Liuxian street and Tangling road, Taoyuan street, Nanshan district, Shenzhen, P.R. China

4.2 General Description of E.U.T.

Product Name:	Smartphone
Model No.:	C30
Operation Frequency:	2412MHz~2462MHz (802.11b/802.11g/802.11n(HT20))
Channel numbers:	2422MHz~2452MHz (802.11n(HT40)) 11 for 802.11b/802.11g/802.11(HT20) 7 for 802.11n(HT40)
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 150Mbps
Antenna Type:	Internal Antenna
Antenna gain:	-1.8dBi
Power supply:	Rechargeable Li-ion Battery DC3.85V-4200mAh
AC adapter:	Model: HJ-0502000W2-US Input: AC100-240V, 50/60Hz, 0.3A Output: DC 5.0V, 2A
Test Sample Condition:	The test samples were provided in good working order with no visible defects.



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## 4.3 Test environment and mode, and test samples plans

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

Radiated Emission: The sample was placed 0.8m (below 1GHz)/1.5m (above 1GHz) above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages. We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:

Per-scan all kind of data rate, the follow list were the worst case.				
Mode	Data rate			
802.11b	1Mbps			
802.11g	6Mbps			
802.11n(HT20)	6.5Mbps			
802.11n(HT40)	13.5Mbps			

## 4.4 Description of Support Units

The EUT has been tested as an independent unit.

#### 4.5 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)

## 4.6 Laboratory Facility

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

#### FCC - Designation No.: CN1211

Shenzhen Zhongjian Nanfang Testing 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 Shenzhen Zhongjian Nanfang Testing 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: <a href="https://portal.a2la.org/scopepdf/4346-01.pdf">https://portal.a2la.org/scopepdf/4346-01.pdf</a>

## 4.7 Laboratory Location

Shenzhen Zhongjian Nanfang Testing Co., Ltd.

Address: No.110~116, Building B, Jinyuan Business Building, Xixiang Road,

Bao'an District, Shenzhen, Guangdong, China Tel: +86-755-23118282, Fax: +86-755-23116366

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

Shenzhen Zhongjian Nanfang Testing Co., Ltd. No.110~116, Building B, Jinyuan Business Building, Xixiang Road, Bao'an District, Shenzhen, Guangdong, China Telephone: +86 (0) 755 23118282 Fax: +86 (0) 755 23116366



## 4.8 Test Instruments list

Radiated Emission:						
Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)	
3m SAC	SAEMC	9m*6m*6m	966	07-21-2020	07-20-2021	
Loop Antenna	SCHWARZBECK	FMZB1519B	044	03-07-2020	03-06-2021	
BiConiLog Antenna	SCHWARZBECK	VULB9163	497	03-07-2020	03-06-2021	
Horn Antenna	SCHWARZBECK	BBHA9120D	916	03-07-2020	03-06-2021	
Horn Antenna	SCHWARZBECK	BBHA9120D	1805	06-20-2020	06-19-2021	
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170582	11-18-2019	11-17-2020	
EMI Test Software	AUDIX	E3	\	/ersion: 6.110919k	)	
Pre-amplifier	HP	8447D	2944A09358	03-07-2020	03-06-2021	
Pre-amplifier	CD	PAP-1G18	11804	03-07-2020	03-06-2021	
Spectrum analyzer	Rohde & Schwarz	FSP30	101454	03-05-2020	03-04-2021	
Spectrum analyzer	Rohde & Schwarz	FSP40	100363	11-18-2019	11-17-2020	
EMI Test Receiver	Rohde & Schwarz	ESRP7	101070	03-05-2020	03-04-2021	
Cable	ZDECL	Z108-NJ-NJ-81	1608458	03-07-2020	03-06-2021	
Cable	MICRO-COAX	MFR64639	K10742-5	03-07-2020	03-06-2021	
Cable	SUHNER	SUCOFLEX100	58193/4PE	03-07-2020	03-06-2021	
RF Switch Unit	MWRFTEST	MW200	N/A	N/A	N/A	
Test Software	MWRFTEST	MTS8200		Version: 2.0.0.0	_	

Conducted Emission:						
Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)	
EMI Test Receiver	Rohde & Schwarz	ESCI	101189	03-05-2020	03-04-2021	
Pulse Limiter	SCHWARZBECK	OSRAM 2306	9731	03-05-2020	03-04-2021	
LISN	CHASE	MN2050D	1447	03-05-2020	03-04-2021	
LISN	Rohde & Schwarz	ESH3-Z5	8438621/010	06-18-2020	07-17-2021	
Cable	HP	10503A	N/A	03-05-2020	03-04-2021	
EMI Test Software	AUDIX	E3	Version: 6.110919b		b	



## 5 Test results and Measurement Data

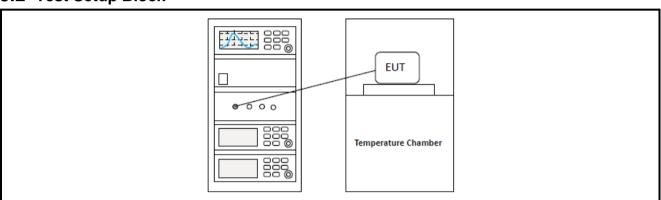
## 5.1 Test Configuration of EUT

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

#### Note:

- 1. For 802.11n-HT40 mode, the channel number is from 3 to 9;
- 2. Channel 1, 6 & 11 selected for 802.11b/g/n-HT20 as Lowest, Middle and Highest channel. Channel 3, 6 & 9 selected for 802.11n-HT40 as Lowest, Middle and Highest Channel.

## 5.2 Test Setup Block



## 5.3 Test Result Summary

	Test Items	Section in CFR 47	Test Data	Result	
Aı	ntenna requirement	15.203 & 15.247 (b)	See Section 5.4	Pass	
AC Powe	r Line Conducted Emission	15.207	See Section 5.5	Pass	
Condu	cted Peak Output Power	15.247 (b)(3)			
	Emission Bandwidth Occupied Bandwidth	15.247 (a)(2)	Appendix A – 2.4G Wi-Fi	Pass	
Pov	wer Spectral Density	15.247 (e)	Appendix A – 2.4G Wi-Fi	Pass	
Dand Edge	Conducted Emission Method	45 047 (4)	Appendix A – 2.4G Wi-Fi	Dana	
Band Edge	Radiated Emission Method	15.247 (d)	See Section 5.6.1	Pass	
Spurious	Conducted Emission Method	45,005,8,45,000	Appendix A – 2.4G Wi-Fi	Dana	
Emission	Radiated Emission Method	15.205 & 15.209	See Section 5.7.1	Pass	
Remark:	<ol> <li>Pass: The EUT complies with</li> <li>The cable insertion loss used to 0.5dB (provided by the custom)</li> </ol>	by "RF Output Power" and other		ems is	
Test Method:	1. ANSI C63.10-2013 2. KDB 558074 D01 15.247 Mea	s Guidance v05r02			



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## 5.4 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 -1.8 dBi.



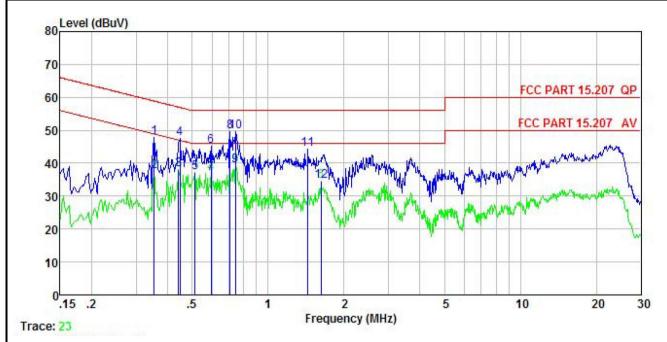
## 5.5 Conducted Emission

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:		Limit (c	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	line impedance stabiliz 50ohm/50uH coupling 2. The peripheral devices LISN that provides a 50 termination. (Please re photographs).  3. Both sides of A.C. line interference. In order to positions of equipment	ors are connected to the mation network (L.I.S.N.), wimpedance for the measure are also connected to the Dohm/50uH coupling imperfer to the block diagram of are checked for maximum of find the maximum emission and all of the interface calculatest version) on conditions.	hich provides a ing equipment. main power through a dance with 500hm the test setup and conducted on, the relative bles must be changed	
Test setup:	LISN 40	E.U.T EMI	er — AC power	
	Remark: E.U.T. Equipment Under Test LISN: Line Impedence Stabi	on plane		
Test Instruments:	Refer to section 5.9 for deta	nils		
Test mode:	Refer to section 5.3 for deta	nils		
Test results:	Passed			



#### **Measurement Data:**

Product name:	Smartphone	Product model:	C30
Test by:	Yaro	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%



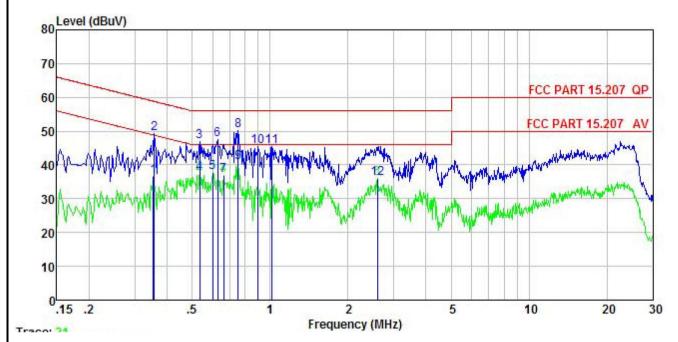
	Freq	Read Level	LISN Factor	Cable Loss	Aux Factor	Level	Limit Line	Over Limit	Remark
<u>=</u>	MHz	dBu₹	<u>dB</u>		<u>dB</u>	dBu₹	dBu∀	<u>ab</u>	
1	0.354	37.36	-0.51	10.73	0.14	47.72	58.87	-11.15	QP
2	0.354	27.22	-0.51	10.73	0.14	37.58	48.87	-11.29	Average
3	0.442	27.71	-0.46	10.74	0.08	38.07	47.02	-8.95	Average
4	0.447	37.23	-0.46	10.74	0.05	47.56	56.93	-9.37	QP
1 2 3 4 5 6 7 8 9	0.513	27.28	-0.44	10.76	-0.35	37.25	46.00	-8.75	Average
6	0.595	35.28	-0.48	10.77	-0.38	45.19	56.00	-10.81	QP
7	0.595	27.09	-0.48	10.77	-0.38	37.00	46.00	-9.00	Average
8	0.708	39.71	-0.53	10.77	-0.38	49.57	56.00	-6.43	QP
9	0.743	29.21	-0.54	10.79	-0.26	39.20	46.00	-6.80	Average
10	0.747	39.70	-0.55	10.79	-0.24	49.70	56.00	-6.30	QP
11	1.441	33.87	-0.56	10.92	0.05	44.28	56.00	-11.72	QP
12	1.619	24.31	-0.54	10.93	-0.08	34.62	46.00	-11.38	Average

#### 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:	Smartphone	Product model:	C30
Test by:	Yaro	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	Cable Loss	Aux Factor	Level	Limit Line	Over Limit	Remark
<u>2</u>	MHz	dBu∇	<u>dB</u>		<u>dB</u>	dBu∀	dBu₹	<u>dB</u>	
1	0.354	26.65	-0.65	10.73	-0.03	36.70	48.87	-12.17	Average
2	0.358	39.37	-0.65	10.73	-0.03	49.42	58.78	-9.36	QP
3	0.535	36.75	-0.65	10.76	0.03	46.89	56.00	-9.11	QP
4	0.535	27.39	-0.65	10.76	0.03	37.53	46.00	-8.47	Average
5	0.601	27.56	-0.64	10.77	0.04	37.73	46.00	-8.27	Average
6	0.627	37.48	-0.64	10.77	0.04	47.65	56.00	-8.35	QP
7	0.661	26.68	-0.64	10.77	0.04	36.85	46.00	-9.15	Average
8	0.751	40.11	-0.65	10.79	0.05	50.30	56.00	-5.70	QP
2 3 4 5 6 7 8 9	0.751	30.44	-0.65	10.79	0.05	40.63	46.00	-5.37	Average
10	0.899	35.22	-0.67	10.84	0.07	45.46	56.00	-10.54	QP
11	1.016	35.26	-0.68	10.87	0.08	45.53	56.00	-10.47	QP
12	2.594	25.56	-0.67	10.93	0.26	36.08	46.00	-9.92	Average

#### 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.



## 5.6 Band Edge

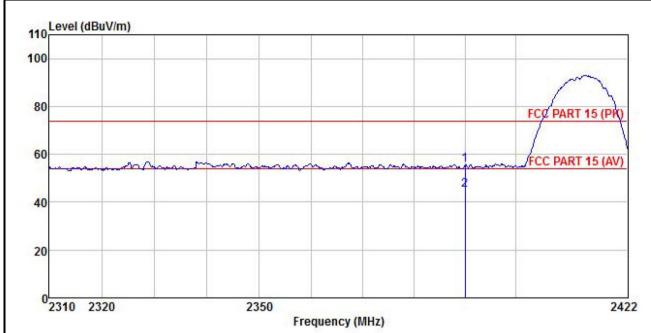
## 5.6.1 Radiated Emission Method

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	VBW				
	Above 1GHz	Peak	1MHz	3MHz				
111	Eroguenev	RMS	1MHz nit (dBuV/m @	3MHz	z Average Value Remark			
Limit:	Frequency		54.00	3111)	Average Value			
	Above 1GH	z 🗀	74.00		Peak Value			
Test Procedure:	<ol> <li>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.</li> <li>The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</li> <li>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.</li> <li>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.</li> <li>The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</li> <li>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.</li> </ol>							
Test setup:		AE EUT (Turntable)	Ground Reference Plane	Antenna Antenn	na 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:

Product Name:	Smartphone	Product Model:	C30		
Test By:	Yaro	Test mode:	802.11b Tx mode		
Test Channel:	Lowest channel	Polarization:	Vertical		
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%		



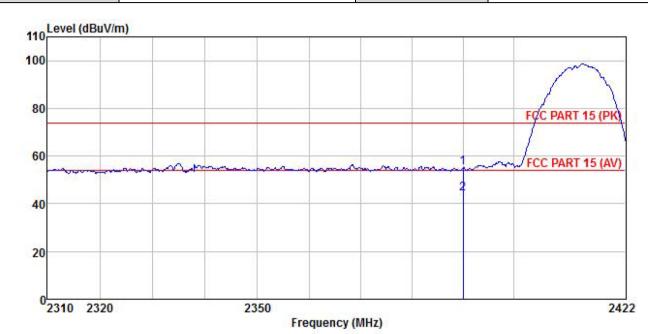
Freq		Antenna Factor						
<del>MH</del> z	—dBu∜	— <u>d</u> B/m	 <u>ab</u>	<u>ab</u>	dBuV/m	dBuV/m	<u>ab</u>	
2390.000 2390.000								

#### 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:	Smartphone	Product Model:	C30
Test By:	Yaro	Test mode:	802.11b Tx mode
Test Channel:	Lowest channel	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%

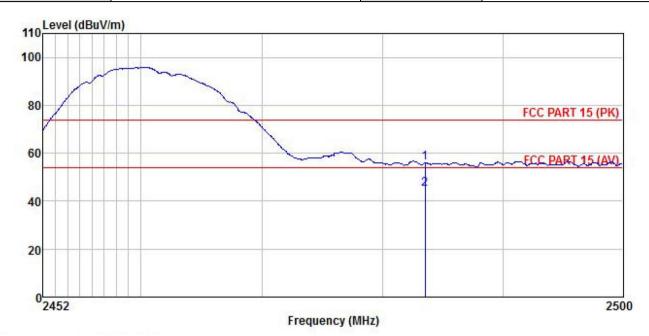


Freq		Antenna Factor						Over Limit	
MHz	dBu₹	<u>dB</u> /m	dB	<u>d</u> B	<u>dB</u>	$\overline{dBuV/m}$	$\overline{dBuV/m}$	<u>dB</u>	
2390.000 2390.000									

- 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.



Product Name:	Smartphone	Product Model:	C30		
Test By:	Yaro	Test mode:	802.11b Tx mode		
Test Channel:	Highest channel	Polarization:	Vertical		
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%		

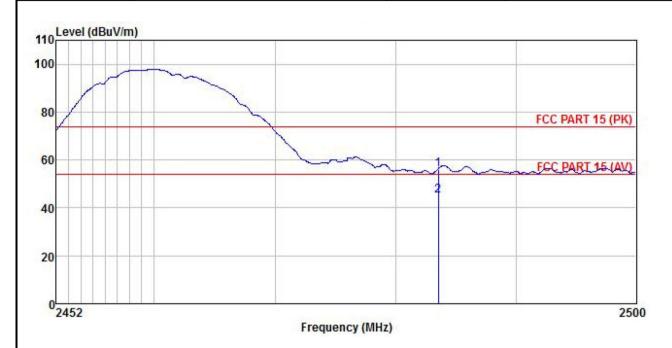


Freq	Read Level	Antenna Factor	Cable Loss	Aux Factor	Preamp Factor	Level	Limit Line	Over Limit	Remark
MHz	dBu∜	<u>dB</u> /π		<u>ab</u>	<u>dB</u>	$\overline{dBuV/m}$	dBuV/m	<u>dB</u>	
2483.500 2483.500									

- 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.



Product Name:	Smartphone	Product Model:	C30
Test By:	Yaro	Test mode:	802.11b Tx mode
Test Channel:	Highest channel	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%



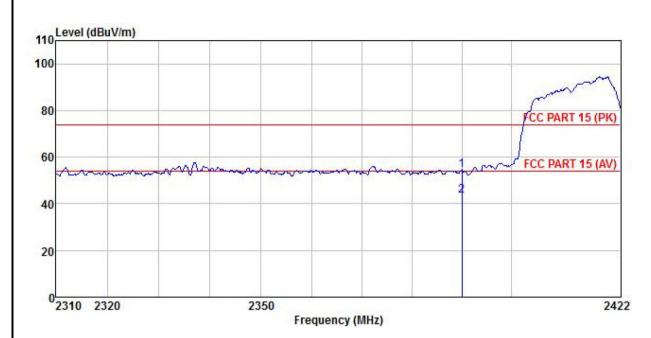
	Freq		Antenna Factor						
	MHz	—dBu∜	— <u>dB</u> /π	 <u>ab</u>	<u>ab</u>	$\overline{dBuV/m}$	$\overline{dB}\overline{uV}/\overline{m}$	<u>ab</u>	
1 2	2483.500 2483.500								

- 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.



#### 802.11g mode:

Product Name:	Smartphone	Product Model:	C30
Test By:	Yaro	Test mode:	802.11g Tx mode
Test Channel:	Lowest channel	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%



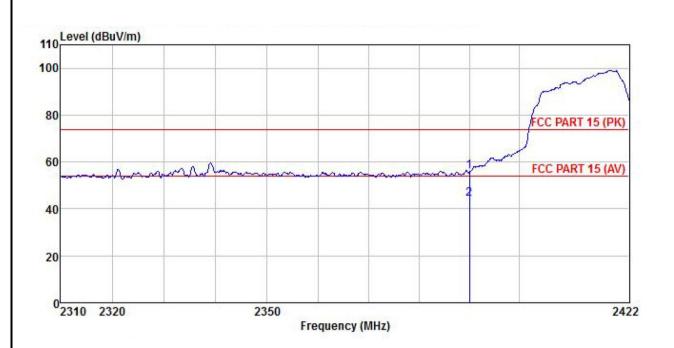
Freq	Read/ Level	Antenna Factor	Cable Loss	Aux Factor	Preamp Factor	Level		Over Limit	
	dBu∜	— <u>dB</u> /m		<u>ab</u>	<u>ab</u>	$\overline{dBuV/m}$	$\overline{dB} \overline{uV}/\overline{m}$	<u>ab</u>	
2390.000 2390.000									

#### 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:	Smartphone	Product Model:	C30
Test By:	Yaro	Test mode:	802.11g Tx mode
Test Channel:	Lowest channel	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%

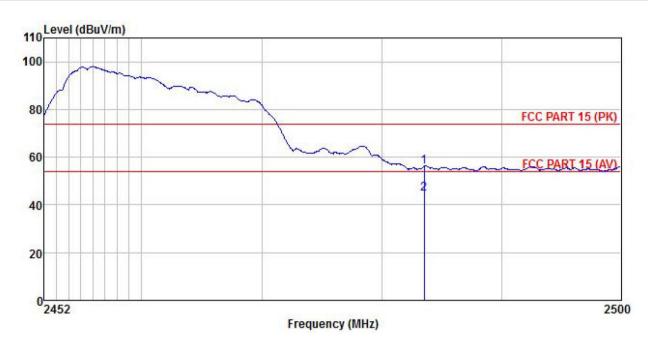


Freq		Antenna Factor							
MHz	dBu₹	<u>dB/m</u>	₫B	<u>dB</u>	<u>dB</u>	dBuV/m	dBuV/m	<u>dB</u>	
2390.000 2390.000									

- 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.



Product Name:	Smartphone	Product Model:	C30		
Test By:	Yaro	Test mode:	802.11g Tx mode		
Test Channel:	Highest channel	Polarization:	Vertical		
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%		

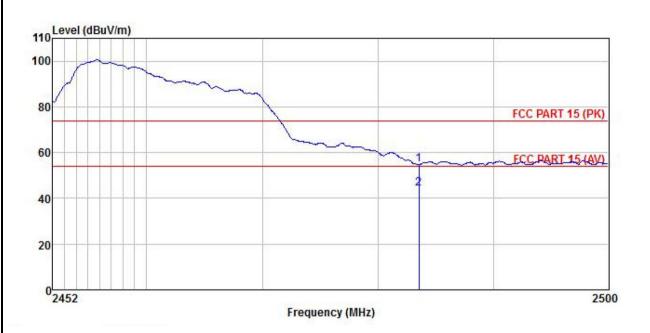


	Freq	Read Level	Antenna Factor	Cable Loss	Aux Factor	Preamp Factor	Level	Limit Line		
2	MHz	dBu∜	<u>d</u> B/π		<u>ab</u>	<u>dB</u>	$\overline{dBuV/m}$	$\overline{dBuV/m}$	<u>dB</u>	
	2483,500 2483,500									

- 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.



Product Name:	Smartphone	Product Model:	C30		
Test By:	Yaro	Test mode:	802.11g Tx mode		
Test Channel:	Highest channel	Polarization:	Horizontal		
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%		



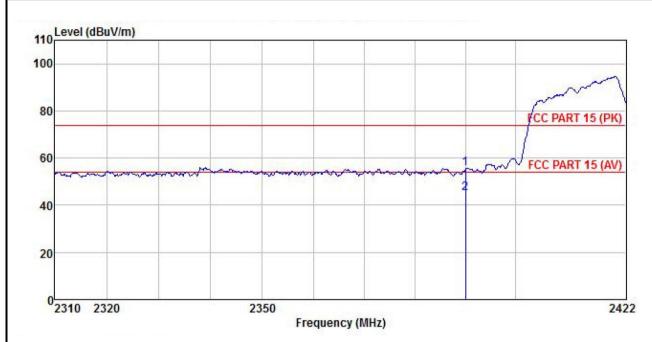
Freq		Antenna Factor					Limit Line		Remark
MHz	dBu₹	<u>−−dB</u> /m	<u>d</u> B	<u>d</u> B	dB	dBuV/m	dBuV/m	<u>dB</u>	
2483.500 2483.500									

- 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.



#### 802.11n(HT20):

Product Name:	Smartphone	Product Model:	C30
Test By:	Yaro	Test mode:	802.11n(HT20) Tx mode
Test Channel:	Lowest channel	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%



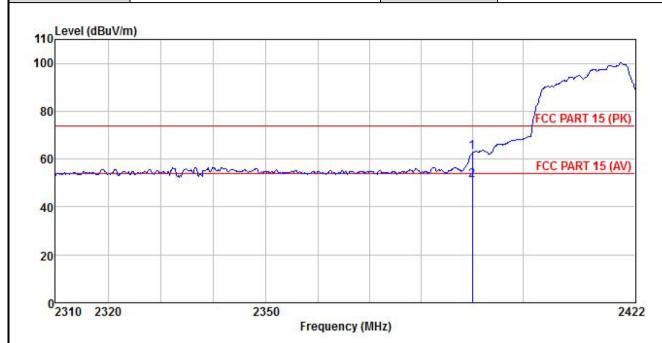
Freq	Read Level	Antenna Factor	Cable Loss	Aux Factor	Preamp Factor	Level	Limit Line	Over Limit	Remark
MHz	—dBu∜	— <u>d</u> B/m	<u>ab</u>	<u>ab</u>	<u>ab</u>	dBuV/m	dBuV/m	<u>ab</u>	
2390.000 2390.000									

#### 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:	Smartphone	Product Model:	C30
Test By:	Yaro	Test mode:	802.11n(HT20) Tx mode
Test Channel:	Lowest channel	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%

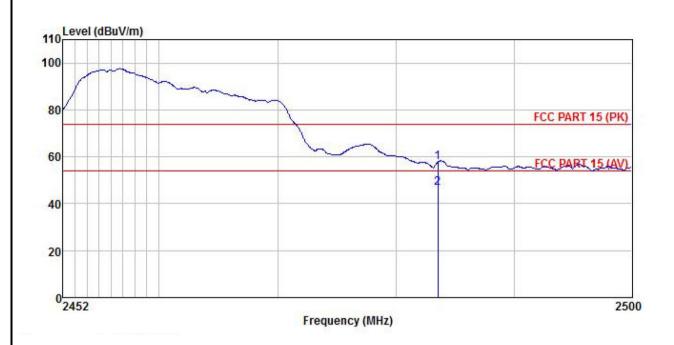


Freq		Antenna Factor						
MHz	dBu∇	— <u>d</u> B/m	<u>ab</u>	<u>ab</u>	<u>dB</u>	dBuV/m	dBuV/m	 
2390.000 2390.000								

- 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.



Product Name:	Smartphone	Product Model:	C30		
Test By:	Yaro	Test mode:	802.11n(HT20) Tx mode		
Test Channel:	Highest channel	Polarization:	Vertical		
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%		

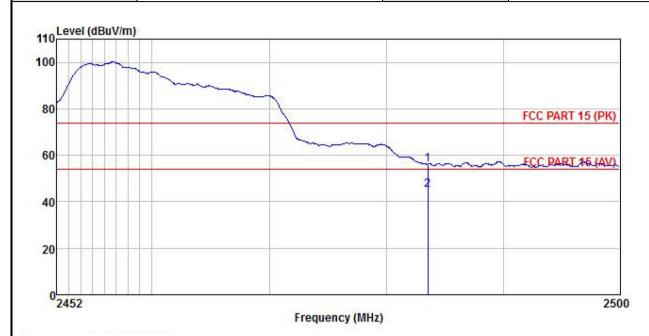


	Freq		Antenna Factor							
-	MHz	dBu∜	<u>dB</u> /m	<u>d</u> B	<u>ab</u>	<u>ab</u>	$\overline{dBuV/m}$	$\overline{dBuV/m}$	<u>dB</u>	
	2483.500 2483.500									

- 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.



Product Name:	Smartphone	Product Model:	C30
Test By:	Yaro	Test mode:	802.11n(HT20) Tx mode
Test Channel:	Highest channel	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%



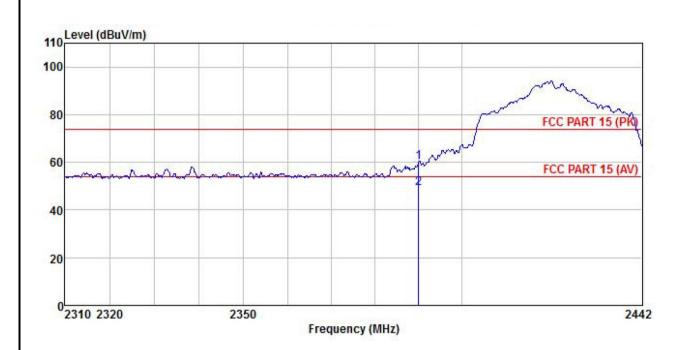
	Freq		Antenna Factor							Remark
2	MHz	dBuV	$-\overline{dB}/\overline{m}$	<u>d</u> B	<u>d</u> B	<u>d</u> B	$\overline{dBuV/m}$	dBuV/m	<u>dB</u>	
	2483.500 2483.500									

- 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.



#### 802.11n(HT40):

Product Name:	Smartphone	Product Model:	C30
Test By:	Yaro	Test mode:	802.11n(HT40) Tx mode
Test Channel:	Lowest channel	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%



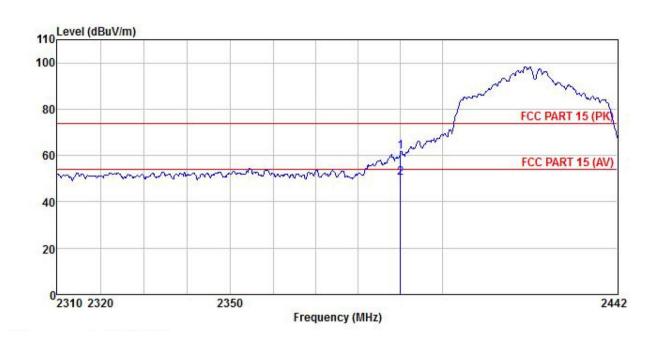
	Freq	Level	Antenna Factor	Loss	Factor	Factor	Level	Line	Limit	Remark
	MHz	dBu∜	dB/m	dB	dB	dB	dBuV/m	dBuV/m	dB	
1 2	2390.000 2390.000	27.05 16.27	27.03 27.03	4.28 4.28	1.68 1.68	0.00 0.00	60.04 49.26	74.00 54.00	-13.96 -4.74	Peak Average

#### 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.



Product Name:	Smartphone	Product Model:	C30
Test By:	Yaro	Test mode:	802.11n(HT40) Tx mode
Test Channel:	Lowest channel	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%

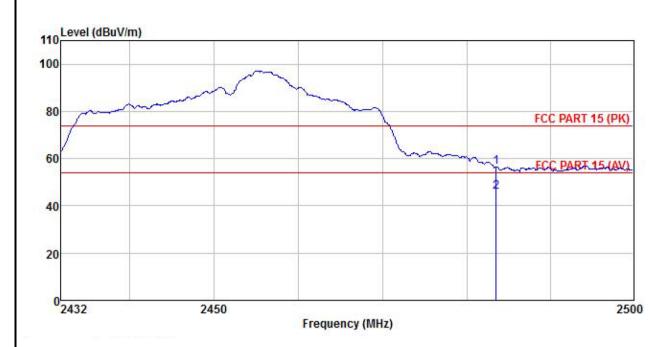


	Freq		Antenna Factor						Over Limit	
2	MHz	dBu∀	<u>dB</u> /m	₫B	<u>dB</u>	<u>dB</u>	$\overline{dBuV/m}$	dBuV/m	<u>dB</u>	
	2390.000 2390.000									

- 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.



Product Name:	Smartphone	Product Model:	C30		
Test By:	Yaro	Test mode:	802.11n(HT40) Tx mode		
Test Channel:	Highest channel	Polarization:	Vertical		
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%		

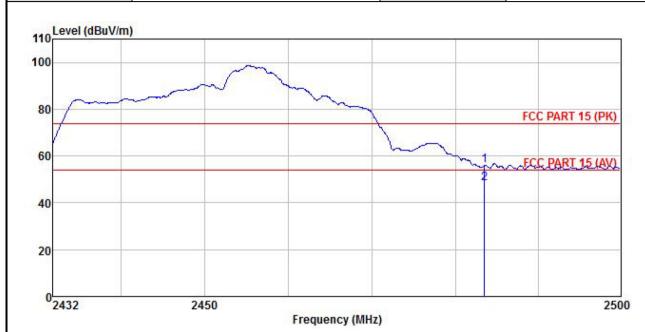


	Freq	Read Level	Antenna Factor	Cable Loss	Aux Factor	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBu∇	<u>d</u> B/π		<u>ab</u>	<u>ab</u>	$\overline{dBuV/m}$	$\overline{dBuV/m}$	<u>dB</u>	
1 2	2483,500 2483,500									

- 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.



Product Name:	Smartphone	Product Model:	C30
Test By:	Yaro	Test mode:	802.11n(HT40) Tx mode
Test Channel:	Highest channel	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%



	Freq		Antenna Factor							
	MHz	dBu₹	<u>dB</u> /m	₫B	dB	dB	$\overline{dBuV/m}$	dBuV/m	dB	
1 2	2483.500 2483.500	22.47 14.91	27.27 27.27	4.38 4.38	1.70 1.70	0.00 0.00	55.82 48.26	74.00 54.00	-18.18 -5.74	Peak 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.

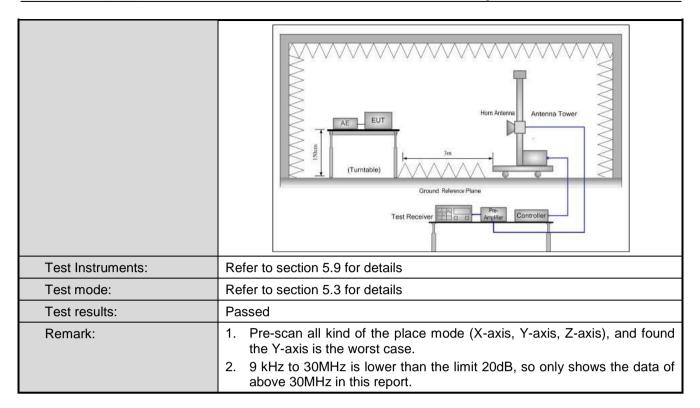


## 5.7 Spurious Emission

### 5.7.1 Radiated Emission Method

	Wethod						
Test Requirement:	FCC Part 15 C Se	ction 15.2	209 an	nd 15.205			
Test Frequency Range:	9kHz to 25GHz						
Test Distance:	3m						
Receiver setup:	Frequency	Detec	tor	RBW	V	BW	Remark
·	30MHz-1GHz	Quasi-p	eak	120KHz	300	KHz	Quasi-peak Value
	Above 1GHz	Peal	k	1MHz		ЛHz	Peak Value
	710070 10112	RMS		1MHz		ИHz	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:	1. The EUT was	nlaced c	n tha		ina ta	bla 0.8	
Tost sotup:	The table was highest radiated antenna, which tower.  3. The antenna ground to det horizontal and measurement and then the and the rotated and the rotated and the rotated and the self-reced specified Bares.  5. The test-reced specified Bares.  6. If the emission limit specified the EUT would average method.	s rotated tion. s set 3 me ch was me height is ermine the divertical t. pected er antenna value was ading. iver system of l, then tested be reported be would be	eters a counted varied as max polarizanission was turned the Electing coorted. (core-tes	way from the d on the top of from one medimum value of the top of	ermin inter if a valeter to of the ante as arr ees to Dete Mode vo oed ar ee emis ne us	ference ariable- o four maged	e-receiving height antenna neters above the trength. Both e set to make the to its worst case ter to 4 meters legrees to find the etion and dB lower than the beak values of that did not have ak, quasi-peak or
Test setup:	Below 1GHz  EUT  Tum Table  Ground F	0.8m	4m			s	



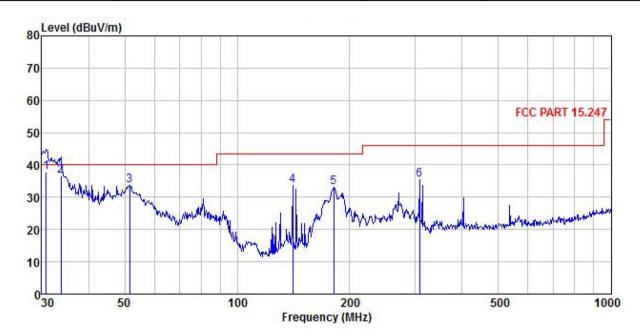




#### Measurement Data (worst case):

#### **Below 1GHz:**

Product Name:	Smartphone	Product Model:	C30
Test By:	Yaro	Test mode:	Wi-Fi Tx mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%



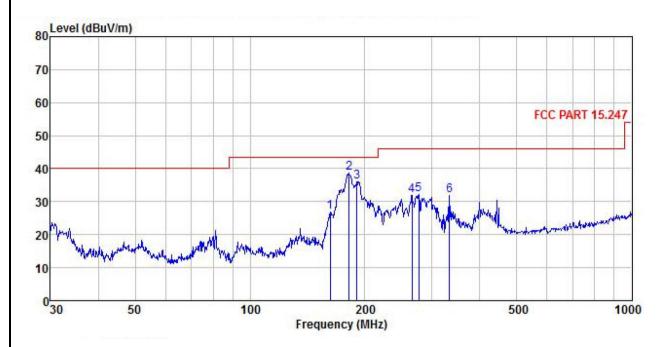
	Freq		ReadAntenna evel Factor					Limit Line		Remark
=	MHz	—dBu∜	<u>dB</u> /π		<u>ab</u>	<u>ab</u>	$\overline{\mathtt{dBuV/m}}$	dBu√/m	<u>ab</u>	
1	30.853	55.43	11.95	0.39	0.00	29.97	37.80	40.00	-2.20	QP
2	33.799	53.81	12.42	0.35	0.00	29.96	36.62	40.00	-3.38	QP
2	51.481	50.47	12.64	0.39	0.00	29.81	33.69	40.00	-6.31	QP
4 5 6	140.835	48.42	13.82	0.60	0.00	29.27	33.57	43.50	-9.93	QP
5	181.283	44.45	16.98	0.68	0.00	28.96	33.15	43.50	-10.35	QP
6	307.831	44.20	18.72	0.87	0.00	28.47	35.32	46.00	-10.68	QP

#### 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:	Smartphone	Product Model:	C30
Test By:	Yaro	Test mode:	Wi-Fi Tx mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%



				Cable Aux Preamp Loss Factor Factor			Limit Line		Remark	
	MHz	dBu₹	dB/m	₫B	<u>d</u> B	<u>dB</u>	$\overline{dBuV/m}$	dBuV/m	<u>dB</u>	
1	162.041	39.71	15.54	0.64	0.00	29.12	26.77	43.50	-16.73	QP
2	181.920	49.84	17.01	0.68	0.00	28.96	38.57	43.50	-4.93	QP
2 3 4 5	190.405	46.85	17.45	0.70	0.00	28.90	36.10	43.50	-7.40	QP
4	265.676	41.13	18.57	0.81	0.00	28.51	32.00	46.00	-14.00	QP
5	277.094	41.11	18.61	0.83	0.00	28.49	32.06	46.00	-13.94	QP
6	332.519	40.58	18.77	0.91	0.00	28.52	31.74	46.00	-14.26	QP

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



#### **Above 1GHz**

	-			8	302.11b							
Test channel: Lowest channel												
Detector: Peak Value												
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4824.00	48.34	30.81	6.81	2.46	41.82	46.60	74.00	-27.40	Vertical			
4824.00	48.08	30.81	6.81	2.46	41.82	46.34	74.00	-27.66	Horizontal			
				Detector:	Average \	/alue						
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4824.00	40.42	30.81	6.81	2.46	41.82	38.68	54.00	-15.32	Vertical			
4824.00	40.81	30.81	6.81	2.46	41.82	39.07	54.00	-14.93	Horizontal			
Test channel: Middle channel												
Detector: Peak Value												
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4874.00	48.32	30.93	6.85	2.47	41.84	46.73	74.00	-27.27	Vertical			
4874.00	47.99	30.93	6.85	2.47	41.84	46.40	74.00	-27.60	Horizontal			
				Detector:	Average \	/alue						
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4874.00	40.11	30.93	6.85	2.47	41.84	38.52	54.00	-15.48	Vertical			
4874.00	40.64	30.93	6.85	2.47	41.84	39.05	54.00	-14.95	Horizontal			
			Te	est channe	el: Highest	channel						
					r: Peak Va	lue						
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4924.00	48.16	31.05	6.89	2.48	41.86	46.72	74.00	-27.28	Vertical			
4924.00	47.65	31.05	6.89	2.48	41.86	46.21	74.00	-27.79	Horizontal			

Detector: Average Value

Preamp

Factor

(dB)

41.86

41.86

Level

(dBuV/m)

38.61

39.34

Limit

Line

(dBuV/m)

54.00

54.00

Over

Limit

(dB)

-15.39

-14.66

#### Remark:

Frequency

(MHz)

4924.00

4924.00

Cable

Loss

(dB)

6.89

6.89

Aux

Factor

(dB)

2.48

2.48

Antenna

Factor

(dB/m)

31.05

31.05

Read

Level

(dBuV)

40.05

40.78

Project No.: CCISE2007075

Polarization

Vertical

Horizontal

<sup>1.</sup> Final Level = Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor.

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



	802.11g												
	Test channel: Lowest channel												
			16										
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	r: Peak Val Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization				
4824.00	48.81	30.81	6.81	2.46	41.82	47.07	74.00	-26.93	Vertical				
4824.00	48.48	30.81	6.81	2.46	41.82	46.74	74.00	-27.26	Horizontal				
				Detector:	Average V	alue							
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization				
4824.00	40.33	30.81	6.81	2.46	41.82	38.59	54.00	-15.41	Vertical				
4824.00	41.13	30.81	6.81	2.46	41.82	39.39	54.00	-14.61	Horizontal				
Test channel: Middle channel													
	Detector: Peak Value												
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization				
4874.00	48.54	30.93	6.85	2.47	41.84	46.95	74.00	-27.05	Vertical				
4874.00	48.04	30.93	6.85	2.47	41.84	46.45	74.00	-27.55	Horizontal				
				Detector:	Average V	alue							
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization				
4874.00	40.16	30.93	6.85	2.47	41.84	38.57	54.00	-15.43	Vertical				
4874.00	40.90	30.93	6.85	2.47	41.84	39.31	54.00	-14.69	Horizontal				
			Te		l: Highest c								
		_			r: Peak Val	ue		_					
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization				
4924.00	48.64	31.05	6.89	2.48	41.86	47.20	74.00	-26.80	Vertical				
4924.00	48.14	31.05	6.89	2.48	41.86	46.70	74.00	-27.30	Horizontal				
				Detector:	Average V	alue							
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization				
4924.00	40.02	31.05	6.89	2.48	41.86	38.58	54.00	-15.42	Vertical				
	l	04.05						1					
4924.00	40.50	31.05	6.89	2.48	41.86	39.06	54.00	-14.94	Horizontal				

<sup>1.</sup> Final Level = Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor.

<sup>2.</sup> 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												
Detector: Peak Value												
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4824.00	47.86	30.81	6.81	2.46	41.82	46.12	74.00	-27.88	Vertical			
4824.00	47.58	30.81	6.81	2.46	41.82	45.84	74.00	-28.16	Horizontal			
Detector: Average Value												
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4824.00	41.24	30.81	6.81	2.46	41.82	39.50	54.00	-14.50	Vertical			
4824.00	39.47	30.81	6.81	2.46	41.82	37.73	54.00	-16.27	Horizontal			
Test channel: Middle channel												
Detector: Peak Value												
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4874.00	48.17	30.93	6.85	2.47	41.84	46.58	74.00	-27.42	Vertical			
4874.00	47.97	30.93	6.85	2.47	41.84	46.38	74.00	-27.62	Horizontal			
Detector: Average Value												
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4874.00	40.84	30.93	6.85	2.47	41.84	39.25	54.00	-14.75	Vertical			
4874.00	39.68	30.93	6.85	2.47	41.84	38.09	54.00	-15.91	Horizontal			
			Ta	et channel	: Highest c	hannel						
					: Peak Val							
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4924.00	48.50	31.05	6.89	2.48	41.86	47.06	74.00	-26.94	Vertical			
4924.00	48.23	31.05	6.89	2.48	41.86	46.79	74.00	-27.21	Horizontal			
				Detector:	Average V	alue						
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
4924.00	40.36	31.05	6.89	2.48	41.86	38.92	54.00	-15.08	Vertical			
4924.00	40.12	31.05	6.89	2.48	41.86	38.68	54.00	-15.32	Horizontal			
Remark:		D 1 1		<b></b>	0-1-1-1	_ Proamplifie						

<sup>1.</sup> Final Level = Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor.

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



				902.4	14p/UT40\								
	802.11n(HT40)  Test channel: Lowest channel												
	Detector: Peak Value												
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization				
4844.00	48.10	30.87	6.83	2.46	41.83	46.43	74.00	-27.57	Vertical				
4844.00	47.64	30.87	6.83	2.46	41.83	45.97	74.00	-28.03	Horizontal				
				Detector:	Average V	alue							
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization				
4844.00	40.89	30.87	6.83	2.46	41.83	39.22	54.00	-14.78	Vertical				
4844.00	39.32	30.87	6.83	2.46	41.83	37.65	54.00	-16.35	Horizontal				
Test channel: Middle channel													
Detector: Peak Value													
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization				
4874.00	48.02	30.93	6.85	2.47	41.84	46.43	74.00	-27.57	Vertical				
4874.00	47.54	30.93	6.85	2.47	41.84	45.95	74.00	-28.05	Horizontal				
				Detector:	Average V	alue							
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization				
4874.00	40.57	30.93	6.85	2.47	41.84	38.98	54.00	-15.02	Vertical				
4874.00	39.73	30.93	6.85	2.47	41.84	38.14	54.00	-15.86	Horizontal				
			Те		l: Highest o								
					r: Peak Val	ue			I				
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization				
4904.00	48.04	30.99	6.87	2.48	41.85	46.53	74.00	-27.47	Vertical				
4904.00	48.00	30.99	6.87	2.48	41.85	46.49	74.00	-27.51	Horizontal				
				Detector:	Average V	alue							
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization				
4904.00	40.27	30.99	6.87	2.48	41.85	38.76	54.00	-15.24	Vertical				
4904.00	39.53	30.99	6.87	2.48	41.85	38.02	54.00	-15.98	Horizontal				
Remark:													

<sup>1.</sup> Final Level = Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor.

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