

JianYan Testing Group Shenzhen Co., Ltd.

Report No: JYTSZB-R12-2000049

FCC REPORT (WIFI)

Applicant: SKY PHONE LLC

Address of Applicant: 1348 Washington Av. Suite 350, Miami Beach, FL 33139

Equipment Under Test (EUT)

Product Name: 4G Smart Phone

Model No.: Elite C55

Trade mark: SKY DEVICES

FCC ID: 2ABOSSKYELITEC55

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

Date of sample receipt: 25 Dec., 2020

Date of Test: 26 Dec., 2020 to 04 Mar., 2021

Date of report issued: 04 Mar., 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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Version

Version No.	Date	Description	
00	08 Feb., 2021	Original	
01	03 Mar., 2021	Updated PSD data.	
02	04 Mar., 2021	Updated PSD data.	

Tested by:	NO WW	Date:	04 Mar., 2021
	Test Engineer		
Davioused by	Winner thang	Data	04 Mar. 2024
Reviewed by:	$\boldsymbol{\nu}$	Date:	04 Mar., 2021

Project Engineer





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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	45 247 (4)	Appendix A – 2.4G Wi-Fi	Pass
Radiated Band Edge	15.247 (d)	See Section 6.6.2	Pass
Conducted Spurious Emission	45 205 8 45 200	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:	SKY PHONE LLC
Address:	1348 Washington Av. Suite 350, Miami Beach, FL 33139
Manufacturer:	SKY PHONE LLC
Address:	1348 Washington Av. Suite 350, Miami Beach, FL 33139

5.2 General Description of E.U.T.

Product Name:	4G Smart Phone
Model No.:	Elite C55
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:	0.82dBi
Power supply:	Rechargeable Li-ion Battery DC3.7V-2000mAh
AC adapter:	Model: Elite C55 Input: AC100-240V, 50/60Hz, 0.2A Output: DC 5.0V, 1.0A
Test Sample Condition:	The test samples were provided in good working order with no visible defects.

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							

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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.

Tel: +86-755-23118282, Fax: +86-755-23116366

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

JianYan Testing Group Shenzhen Co., Ltd.

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.





5.8 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
Hom Antenna	SCHWARZBECK	DDITA 9170	DDI 1A9 17 0302	11-18-2020	11-17-2021
EMI Test Software	AUDIX	E3	Version: 6.110919b)
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
Cnostrum analyzar	Dobdo & Cobwerz	ECD40	100262	11-18-2019	11-17-2020
Spectrum analyzer	Rohde & Schwarz	FSP40	100363	11-18-2020	11-17-2021
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	\	ersion: 6.110919	0

Conducted method:					
Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due date
				(mm-dd-yy)	(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

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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 0.82 dBi.

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6.2 Conducted Emission

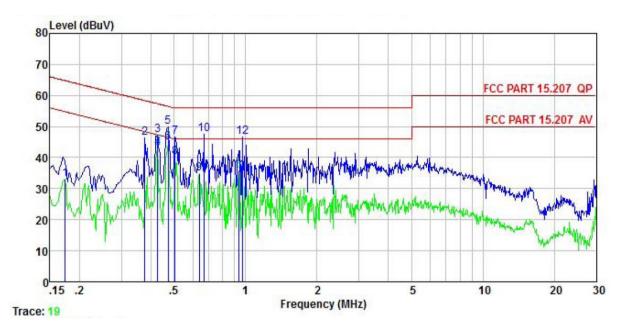
Test Requirement:	FCC Part 15 C Section 15.2	207					
Test Frequency Range:	150 kHz to 30 MHz						
Class / Severity:	Class B						
Receiver setup:	RBW=9 kHz, VBW=30 kHz						
Limit:	Fraguenov rango (MHz)	Limit (d	dBuV)				
	Frequency range (MHz)	Quasi-peak	Average				
	0.15-0.5	66 to 56*	56 to 46*				
	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 rephotographs). 3. Both sides of A.C. line interference. In order to positions of equipment	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:	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:	4G Smart Phone	Product model:	Elite C55
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%



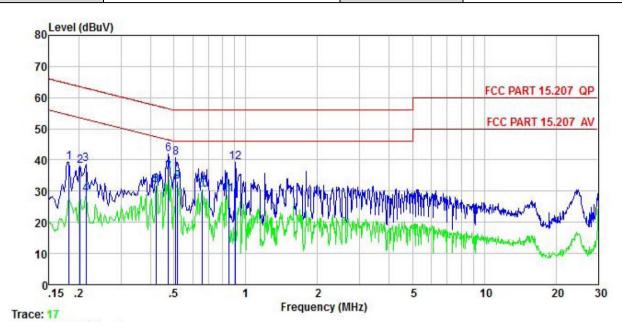
	Freq	Read Level	LISN Factor	Aux Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBu₹	₫B	₫B	₫B	dBu∀	₫BuV	dB	* <u></u>
1	0.174	23.11	-0.58	-0.11	10.77	33.19			Average
2	0.377	35.95	-0.50	0.27	10.72	46.44	58.34	-11.90	QP
3	0.426	36.83	-0.47	0.19	10.73	47.28	57.33	-10.05	QP
4	0.426	32.77	-0.47	0.19	10.73	43.22	47.33	-4.11	Average
1 2 3 4 5 6 7	0.471	39.64	-0.44	-0.15	10.75	49.80	56.49	-6.69	QP
6	0.471	34.57	-0.44	-0.15	10.75	44.73	46.49	-1.76	Average
7	0.505	36.78	-0.43	-0.35	10.76	46.76	56.00	-9.24	QP
8	0.505	30.02	-0.43	-0.35	10.76	40.00	46.00	-6.00	Average
9	0.637	24.96	-0.50	-0.39	10.77	34.84	46.00	-11.16	Average
10	0.668	37.58	-0.52	-0.39	10.77	47.44	56.00	-8.56	QP
11	0.938	25.07	-0.60	0.30	10.85	35.62	46.00		Average
12	0.968	36.10	-0.61	0.38	10.86	46.73	56.00	-9.27	

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:	4G Smart Phone	Product model:	Elite C55
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%



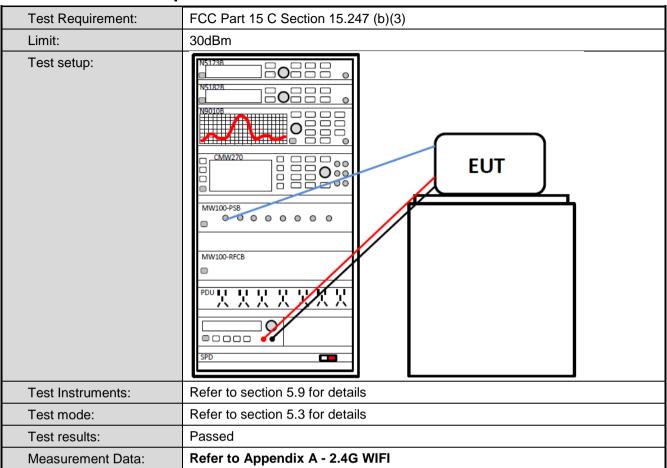
	Freq	Read Level	LISN Factor	Aux Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBu∇	<u>dB</u>	<u>d</u> B	dB	dBu₹	dBu√	<u>d</u> B	
1	0.182	29.30	-0.68	0.00	10.77	39.39	64.42	-25.03	QP
2	0.202	27.93	-0.67	0.00	10.76	38.02	63.54	-25.52	QP
2	0.214	28.57	-0.67	0.00	10.76	38.66	63.05	-24.39	QP
4	0.214	18.95	-0.67	0.00	10.76	29.04	53.05	-24.01	Average
5	0.421	21.85	-0.63	-0.04	10.73	31.91			Average
4 5 6 7	0.474	31.86	-0.65	0.01	10.75	41.97	56.45	-14.48	QP
7	0.474	25.91	-0.65	0.01	10.75	36.02	46.45	-10.43	Average
8	0.510	30.56	-0.65	0.03	10.76	40.70	56.00	-15.30	QP
8	0.518	22.79	-0.65	0.03	10.76	32.93	46.00	-13.07	Average
10	0.654	20.24	-0.64	0.04	10.77	30.41			Average
11	0.848	18.71	-0.66	0.06	10.82	28.93	46.00	-17.07	Average
12	0.904	28.88	-0.67	0.07	10.84	39.12		-16.88	

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.

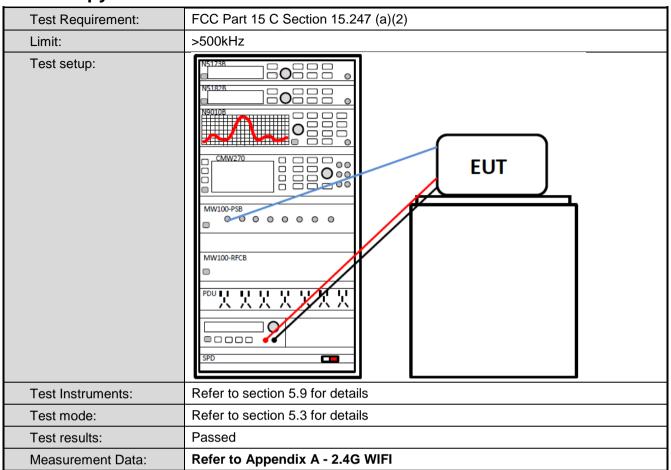


6.3 Conducted Output Power



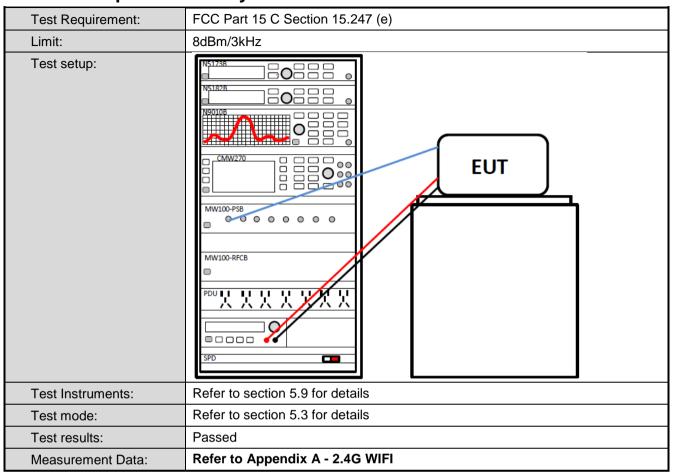


6.4 Occupy Bandwidth





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					



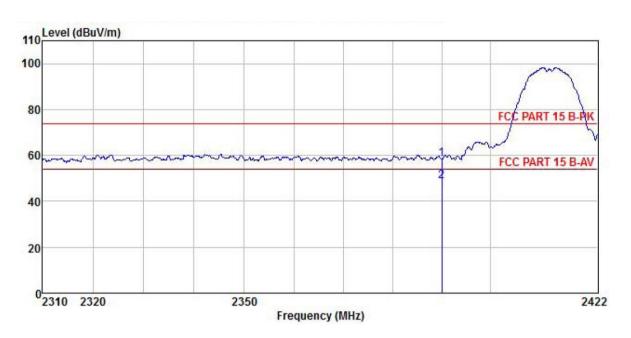
6.6.2 Radiated Emission Method

Test Requirement:	FCC Part 15 C Section 15.209 and 15.205							
Test Frequency Range:	2310 MHz to 2390	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	<u> </u>			
1		RMS	1MHz nit (dBuV/m @	3MH:	Iz Average Value Remark			
Limit:	Frequency		54.00	3111)	Average Value			
	Above 1GH	z	74.00		Peak 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:	150cm	AE EUT (Turntable)	Ground Reference Plane		enna 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:	4G Smart Phone	Product Model:	Elite C55
Test By:	Yaro	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						
	MHz	—dBu∇		 <u>d</u> B	<u>d</u> B	$\overline{dBuV/m}$	$\overline{dBuV/m}$	<u>d</u> B	
1 2	2390.000 2390.000								

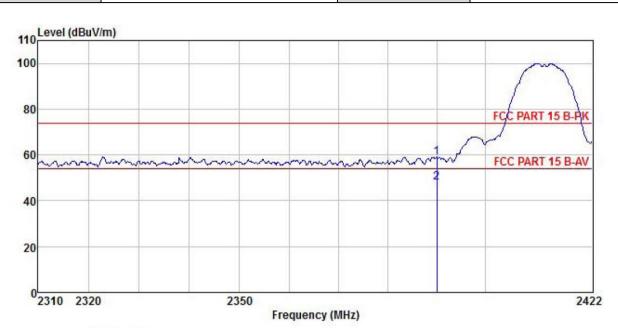
Remark:

- 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.

Project No.: JYTSZE2012053



Product Name:	4G Smart Phone	Product Model:	Elite C55
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							
	MHz	dBu₹	$\overline{dB/m}$	dB	<u>d</u> B	<u>dB</u>	dBuV/m	dBuV/m	<u>d</u> B	
1 2	2390.000 2390.000									

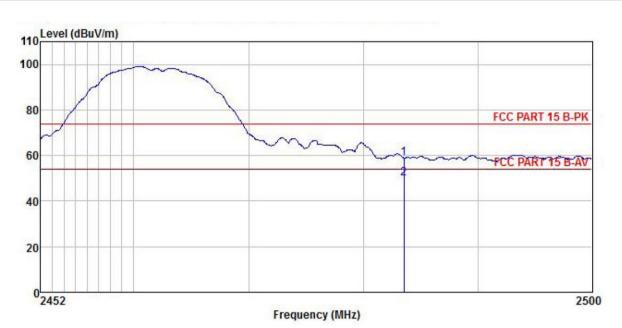
Remark:

- 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.

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Product Name:	4G Smart Phone	Product Model:	Elite C55
Test By:	Yaro	Test mode:	802.11b Tx mode
Test Channel:	Highest channel	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%



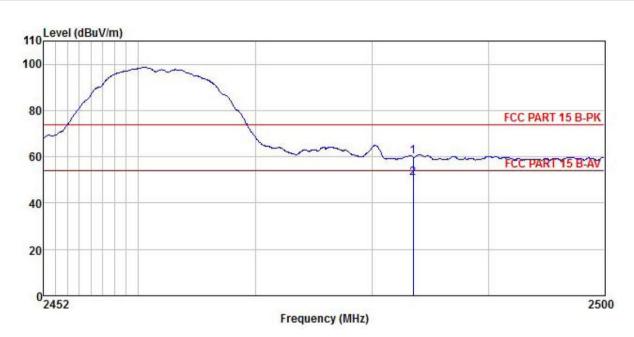
	Freq		Antenna Factor							
	MHz	dBu∇		<u>ab</u>	<u>dB</u>	<u>dB</u>	dBuV/m	dBuV/m	<u>dB</u>	
1	2483.500 2483.500									

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.



Product Name:	4G Smart Phone	Product Model:	Elite C55
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>d</u> B	<u>dB</u>	<u>dB</u>	dBuV/m	dBuV/m	<u>dB</u>	
1 2	2483.500 2483.500									

Remark:

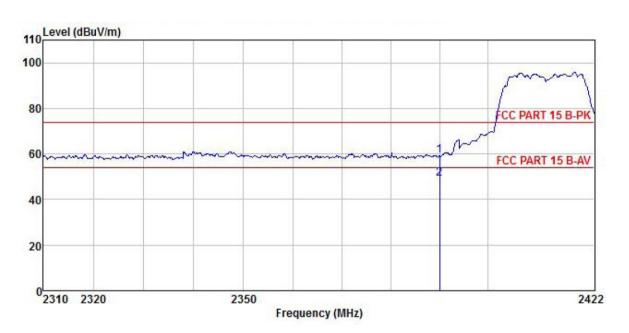
- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- 2. The emission levels of other frequencies are lower than the limit 20dB and not show in test report.

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802.11g mode:

Product Name:	4G Smart Phone	Product Model:	Elite C55
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%



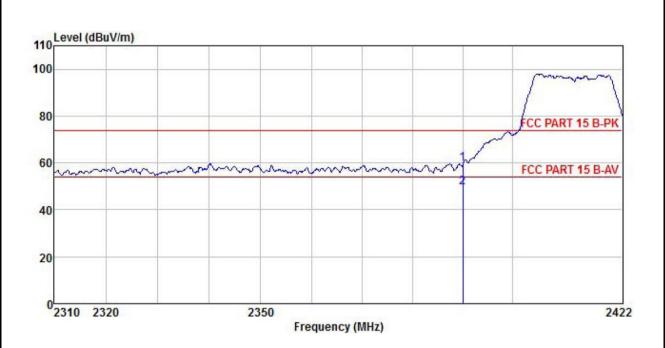
	Freq		Antenna Factor					Limit Line		Remark
	MHz	dBu₹	<u>dB</u> /m	dB	<u>dB</u>	<u>dB</u>	dBuV/m	dBuV/m	<u>dB</u>	
1 2	2390.000 2390.000			100 Carlot (100 Ca						

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:	4G Smart Phone	Product Model:	Elite C55
Test By:	Yaro	Test mode:	802.11g Tx mode
Test Channel:	Lowest channel Polarization:		Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%



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

Remark:

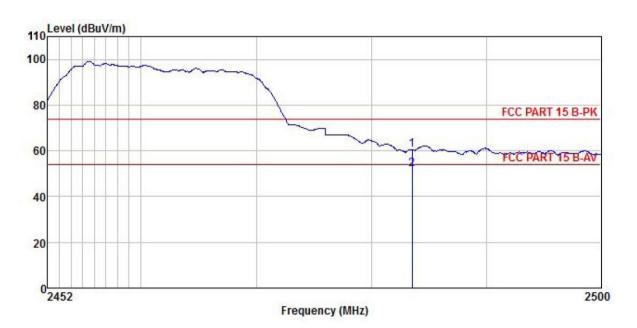
- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- 2. The emission levels of other frequencies are lower than the limit 20dB and not show in test report.

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Product Name:	4G Smart Phone	Product Model:	Elite C55		
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%		



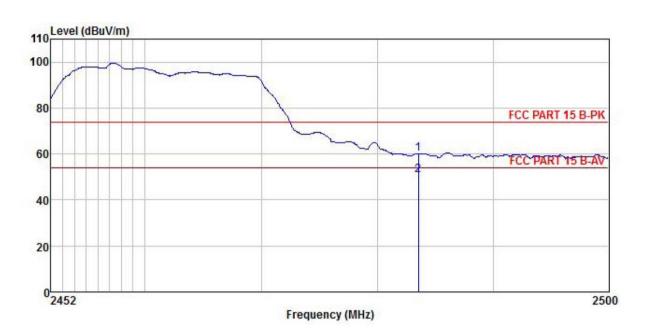
Freq		Antenna Factor							
MHz	dBu∇	dB/m	<u>dB</u>	<u>d</u> B	<u>dB</u>	$\overline{dBuV/m}$	dBuV/m	<u>dB</u>	
2483.500 2483.500									

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.



Product Name:	4G Smart Phone	Product Model:	Elite C55		
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∜	$\overline{-dB}/\overline{m}$	 <u>d</u> B	<u>dB</u>	$\overline{dBuV/m}$	dBuV/m	<u>d</u> B	
1 2	2483.500 2483.500								

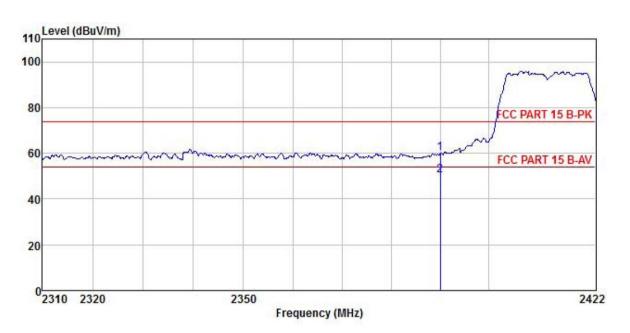
Remark:

- 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.



802.11n(HT20):

Product Name:	4G Smart Phone	Product Model:	Elite C55		
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		Antenna Factor						
MHz	dBu∜	dB/π	 <u>ab</u>	<u>dB</u>	dBuV/m	dBuV/m	<u>dB</u>	
2390,000 2390,000								

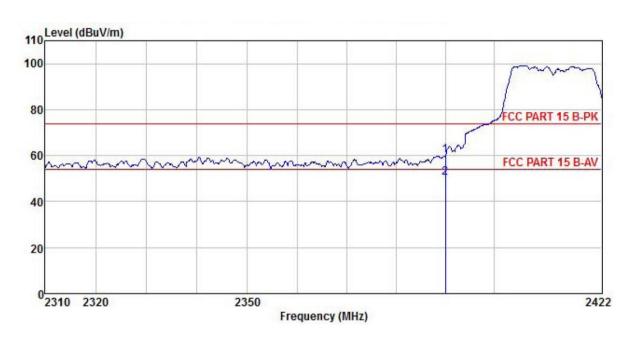
Remark:

- 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.

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Product Name:	4G Smart Phone	Product Model:	Elite C55		
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				Limit Line	Over Limit	Remark
	MHz	dBu₹	dB/m	 <u>dB</u>	<u>dB</u>	$\overline{dBuV/m}$	dBuV/m		
1 2	2390.000 2390.000								

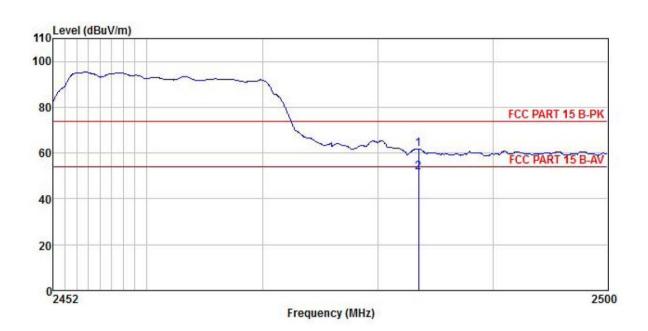
Remark

- 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.

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Product Name:	4G Smart Phone	Product Model:	Elite C55		
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₹	dB/m	 <u>dB</u>	<u>d</u> B	dBuV/m	dBuV/m	<u>dB</u>	
2483.500 2483.500								

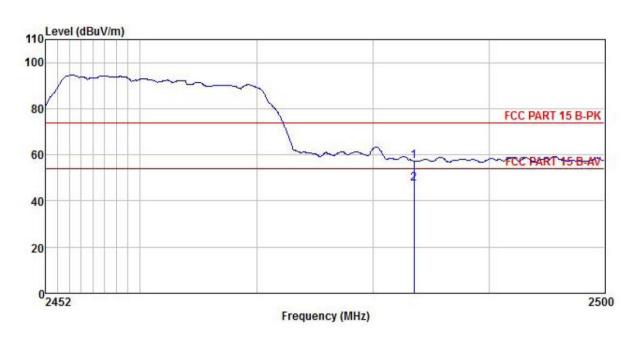
Remark:

- 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:	4G Smart Phone	Product Model:	Elite C55		
Test By:	Yaro	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			Cable Aux Pr Loss Factor Fa						
	MHz	dBu∀	<u>dB</u> /m	dB	<u>d</u> B	<u>dB</u>	dBuV/m	dBuV/m	<u>dB</u>	
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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6.7 Spurious Emission

6.7.1 Conducted Emission Method

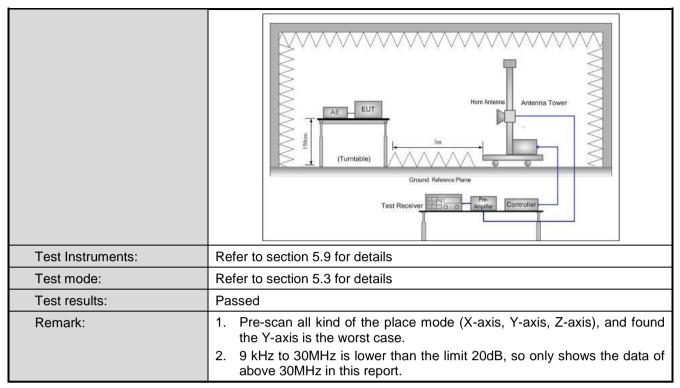
Test Requirement:	FCC Part 15 C Section 15.247 (d)								
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz 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 NS1								
Test Instruments:	Refer to section 5.9 for details								
Test mode:	Refer to section 5.3 for details								
Test results:	Passed								
Measurement Data:	Refer to Appendix A - 2.4G WIFI								



6.7.2 Radiated Emission Method

Test Requirement:	FCC Part 15 C Se	ction 15.	.209 ar	nd 15.205			
Test Frequency Range:	9kHz to 25GHz						
Test Distance:	3m						
Receiver setup:	Frequency	Detec	ctor	RBW	V	BW	Remark
·	30MHz-1GHz	Quasi-	peak	120KHz 30		OKHz	Quasi-peak Value
	Above 1GHz	Pea	ak	1MHz	31	ИHz	Peak Value
	Above Toriz	RM		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		<u> </u>	Average Value Peak Value
Test Procedure:	The table was highest radiated. 2. The EUT was antenna, which tower. 3. The antenna ground to det horizontal and measuremen. 4. For each sus and then the and the rota to maximum reas. 5. The test-rece Specified Bar. 6. If the emission limit specified the EUT would the radiated the reason.	above 10 s rotated tion. s set 3 m ch was m height is ermine the divertical t. pected e antenna able was ading. iver system dwidth was not level of l, then teld be repwould be	eters and anounted varied he maximus turned et urned et u	from one mediations of the EUT was need to height different Degree of the eximum the eximum the eximum the eximum the EUT was need to height different to different to the eximum the eximu	eter to of the as arress from the Model Node Node and e emisen ne us	t a 3 mile the properties the properties of four mile field son and are considered as 100 conditions as 100 conditions sing peaking pe	eter chamber. Position of the e-receiving Cheight antenna neters above the trength. Both e set to make the to its worst case ter to 4 meters degrees to find the ection and dB lower than the peak values of that did not have ak, quasi-peak or
Test setup:	Below 1GHz EUT Turn Table Ground I	3m → 3m → 0.8m				Ant	tenna Tower Search ntenna



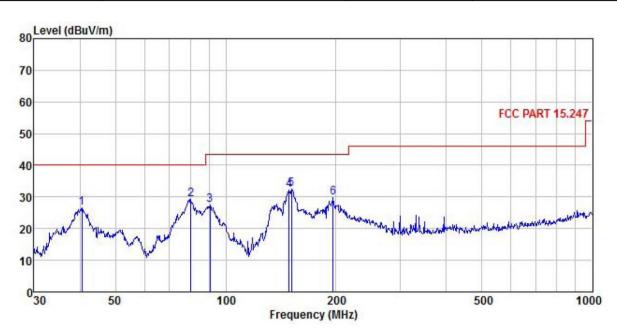




Measurement Data (worst case):

Below 1GHz:

Product Name:	4G Smart Phone	Product Model:	Elite C55
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					Preamp Factor		Limit Line		Remark
	MHz	dBu∜		<u>d</u> B	<u>d</u> B	<u>dB</u>	$\overline{dBuV/m}$	dBuV/m	<u>dB</u>	
1	40.559	43.16	12.81	0.35	0.00	29.90	26.42	40.00	-13.58	QP
2	80.362	45.71	12.73	0.47	0.00	29.64	29.27	40.00	-10.73	QP
1 2 3	90.537	46.97	9.49	0.49	0.00	29.57	27.38	43.50	-16.12	QP
4	148.963	46.51	14.22	0.61	0.00	29.23	32.11	43.50	-11.39	QP
5	151.067	46.81	14.32	0.62	0.00	29.21	32.54	43.50	-10.96	QP
6	196.510	39.92	17.94	0.71	0.00	28.85	29.72	43.50	-13.78	QP

Remark.

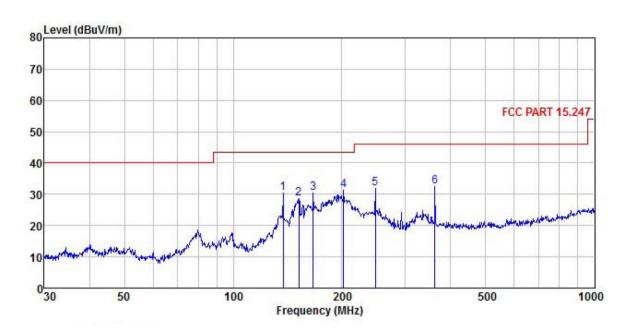
- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- 2. The emission levels of other frequencies are lower than the limit 20dB and not show in test report.
- 3. The Aux Factor is a notch filter switch box loss, this item is not used.

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Project No.: JYTSZE2012053



Product Name:	4G Smart Phone	Product Model:	Elite C55
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°C Huni: 57%



	Freq		Antenna Factor			Preamp Factor		Limit Line	Over Limit	Remark
_	MHz	dBu₹	<u>d</u> B/m		<u>d</u> B	<u>d</u> B	$\overline{dBuV/m}$	dBuV/m	<u>dB</u>	
1	137.420	45.47	13.65	0.60	0.00	29.29	30.43	43.50	-13.07	QP
2	152.130	42.96	14.34	0.62	0.00	29.20	28.72	43.50	-14.78	QP
3	166.651	42.86	15.90	0.65	0.00	29.08	30.33	43.50	-13.17	QP
3	202.100	41.13	18.31	0.72	0.00	28.82	31.34	43.50	-12.16	QP
5	247.682	41.15	18.49	0.78	0.00	28.55	31.87	46.00	-14.13	QP
6	361.714	41.22	18.87	0.94	0.00				-13.58	The second secon

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.

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Above 1GHz

Test channel: Lowest channel Detector: Peak Value
Frequency (MHz) Read Level (dBuV) Antenna Loss (dB/m) Cable Loss (dB) Aux Factor (dB) Preamp Factor (dB) Level (dBuV/m) Limit Line (dBuV/m) Over Limit (dBuV/m) Polarization (dB) 4824.00 49.09 30.81 6.81 2.46 41.82 47.35 74.00 -26.65 Vertical 4824.00 49.57 30.81 6.81 2.46 41.82 47.83 74.00 -26.17 Horizonta
Frequency (MHz)
4824.00 49.57 30.81 6.81 2.46 41.82 47.83 74.00 -26.17 Horizonta
Detector: Average Value
Frequency (MHz) Read Antenna Level Factor (dBuV) (dB/m) (dB) Read Loss (dB) Factor (dB) (dB) Level (dBuV/m) Level (dBuV/m) Level (dBuV/m) (dB) Polarization
4824.00 45.92 30.81 6.81 2.46 41.82 44.18 54.00 -9.82 Vertical
4824.00 44.10 30.81 6.81 2.46 41.82 42.36 54.00 -11.64 Horizonta

	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	49.42	30.93	6.85	2.47	41.84	47.83	74.00	-26.17	Vertical				
4874.00	49.27	30.93	6.85	2.47	41.84	47.68	74.00	-26.32	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	44.92	30.93	6.85	2.47	41.84	43.33	54.00	-10.67	Vertical				
4874.00	44.16	30.93	6.85	2.47	41.84	42.57	54.00	-11.43	Horizontal				

Test channel: Highest 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				
4924.00	49.37	31.05	6.89	2.48	41.86	47.93	74.00	-26.07	Vertical				
4924.00	49.54	31.05	6.89	2.48	41.86	48.10	74.00	-25.90	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				
4924.00	45.57	31.05	6.89	2.48	41.86	44.13	54.00	-9.87	Vertical				
4924.00	45.60	31.05	6.89	2.48	41.86	44.16	54.00	-9.84	Horizontal				

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.





	802.11g												
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	49.16	30.81	6.81	2.46	41.82	47.42	74.00	-26.58	Vertical				
4824.00	49.71	30.81	6.81	2.46	41.82	47.97	74.00	-26.03	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				
4824.00	45.24	30.81	6.81	2.46	41.82	43.50	54.00	-10.50	Vertical				
4824.00	45.17	30.81	6.81	2.46	41.82	43.43	54.00	-10.57	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	49.63	30.93	6.85	2.47	41.84	48.04	74.00	-25.96	Vertical				
4874.00	49.87	30.93	6.85	2.47	41.84	48.28	74.00	-25.72	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	45.83	30.93	6.85	2.47	41.84	44.24	54.00	-9.76	Vertical				
4874.00	45.27	30.93	6.85	2.47	41.84	43.68	54.00	-10.32	Horizontal				

Test channel: Highest 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				
4924.00	49.89	31.05	6.89	2.48	41.86	48.45	74.00	-25.55	Vertical				
4924.00	49.34	31.05	6.89	2.48	41.86	47.90	74.00	-26.10	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	45.18	31.05	6.89	2.48	41.86	43.74	54.00	-10.26	Vertical				
4924.00	45.79	31.05	6.89	2.48	41.86	44.35	54.00	-9.65	Horizontal				

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^{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 1	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	49.78	30.81	6.81	2.46	41.82	48.04	74.00	-25.96	Vertical		
4824.00	49.62	30.81	6.81	2.46	41.82	47.88	74.00	-26.12	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	45.15	30.81	6.81	2.46	41.82	43.41	54.00	-10.59	Vertical		
4824.00	44.53	30.81	6.81	2.46	41.82	42.79	54.00	-11.21	Horizontal		
Test channel: Middle channel											
					: 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		
4874.00	49.79	30.93	6.85	2.47	41.84	48.20	74.00	-25.80	Vertical		
4874.00	49.31	30.93	6.85	2.47	41.84	47.72	74.00	-26.28	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	45.85	30.93	6.85	2.47	41.84	44.26	54.00	-9.74	Vertical		
4874.00	45.19	30.93	6.85	2.47	41.84	43.60	54.00	-10.40	Horizontal		
			Te		: Highest c						
					: 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	49.87	31.05	6.89	2.48	41.86	48.43	74.00	-25.57	Vertical		
4924.00	49.52	31.05	6.89	2.48	41.86	48.08	74.00	-25.92	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	44.16	31.05	6.89	2.48	41.86	42.72	54.00	-11.28	Vertical		
4924.00	44.00	31.05	6.89	2.48	41.86	42.56	54.00	-11.44	Horizontal		

Remark

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^{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.