

# JianYan Testing Group Shenzhen Co., Ltd.

Report No: JYTSZB-R12-2102931

# **FCC REPORT**

(Bluetooth)

Applicant: INFINIX MOBILITY 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.: X670

Trade mark: Infinix

FCC ID: 2AIZN-X670

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

Date of sample receipt: 22 Dec., 2021

**Date of Test:** 23 Dec., 2021 to 14 Feb., 2022

Date of report issued: 16 Feb., 2022

Test Result: PASS \*

### Authorized Signature:



## Bruce Zhang Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the JYT product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

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<sup>\*</sup> In the configuration tested, the EUT complied with the standards specified above.





## 2 Version

Version No.	Date	Description
00	16 Feb., 2022	Original

Tested by:	Mike.ou	Date:	16 Feb., 2022
	Test Engineer		
	Winner Thang		

Reviewed by: Date: 16 Feb., 2022

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
Conducted Peak Output Power	15.247 (b)(1)	Appendix A – BT	Pass
20dB Occupied Bandwidth	15.247 (a)(1)	Appendix A – BT	Pass
Carrier Frequencies Separation	15.247 (a)(1)	Appendix A – BT	Pass
Hopping Channel Number	15.247 (a)(1)	Appendix A – BT	Pass
Dwell Time	15.247 (a)(1)	Appendix A – BT	Pass
Conducted Band Edge	45 005 8 45 000	Appendix A – BT	Pass
Radiated Band Edge	15.205 & 15.209	See Section 6.9.2	Pass
Conducted Spurious Emission	45.047(-1)	Appendix A – BT	Pass
Radiated Spurious Emission	15.247(d)	See Section 6.10.2	Pass

### Remark:

- 1. Pass: The EUT complies with the essential requirements in the standard.
- 2. N/A: Not Applicable.
- 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:	INFINIX MOBILITY LIMITED
Address:	FLAT 39 8/F BLOCK D WAH LOK INDUSTRIAL CENTRE 31-35 SHAN MEI STREET FOTAN NT
Manufacturer:	INFINIX MOBILITY 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.

oiz Contra Bocompt	
Product Name:	Mobile Phone
Model No.:	X670
Operation Frequency:	2402MHz~2480MHz
Transfer rate:	1/2/3 Mbits/s
Number of channel:	79
Modulation type:	GFSK, π/4-DQPSK, 8DPSK
Modulation technology:	FHSS
Antenna Type:	Internal Antenna
Antenna gain:	1.2 dBi
Antenna Number:	2
Antenna transmit mode:	SISO
Power supply:	Rechargeable Li-ion Polymer Battery DC3.87V, 4900mAh
AC adapter:	Model: U330XSA
	Input: AC100-240V, 50/60Hz, 1.5A
	Output: DC 5.0V, 3.0A 15.0W or DC 10.0V, 3.3A 33.0W MAX
Test Sample Condition:	The test samples were provided in good working order with no visible defects.

Operation	Operation Frequency each of channel for GFSK, π/4-DQPSK, 8DPSK						
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
0	2402MHz	20	2422MHz	40	2442MHz	60	2462MHz
1	2403MHz	21	2423MHz	41	2443MHz	61	2463MHz
2	2404MHz	22	2424MHz	42	2444MHz	62	2464MHz
3	2405MHz	23	2425MHz	43	2445MHz	63	2465MHz
4	2406MHz	24	2426MHz	44	2446MHz	64	2466MHz
5	2407MHz	25	2427MHz	45	2447MHz	65	2467MHz
15	2417MHz	35	2437MHz	55	2457MHz	75	2477MHz
16	2418MHz	36	2438MHz	56	2458MHz	76	2478MHz
17	2419MHz	37	2439MHz	57	2459MHz	77	2479MHz
18	2420MHz	38	2440MHz	58	2460MHz	78	2480MHz
19	19 2421MHz 39 2441MHz 59 2461MHz						
Remark: Cha	Remark: Channel 0, 39 &78 selected for GFSK, π/4-DQPSK and 8DPSK.						

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

Operating Environment:	
Temperature:	24.0 °C
Humidity:	54 % RH
Atmospheric Pressure:	1010 mbar
Test Modes:	
Non-hopping mode:	Keep the EUT in continuous transmitting mode with worst case data rate.
Hopping mode:	Keep the EUT in hopping mode.
Remark	GFSK (1 Mbps) is the worst case mode.

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.

Test Samples Plans:

Samples Number	Used for Test Items	
3#	Conducted measurements test method	
1#	Radiated measurements test method	
2#	EUT constructional details	

**Remark:** JianYan Testing Group Shenzhen Co., Ltd. is only responsible for the test project data of the above samples, and will keep the above samples for a month.

## 5.4 Description of Support Units

The EUT has been tested as an independent unit.

## **5.5 Measurement Uncertainty**

Parameter	Expanded Uncertainty (Confidence of 95%)
Conducted Emission (9kHz ~ 150KHz) for V-AMN	3.11 dB
Conducted Emission (150kHz ~ 30MHz) for V-AMN	2.62 dB
Radiated Emission (9kHz ~ 30MHz electric field) for 3m SAC	3.13 dB
Radiated Emission (9kHz ~ 30MHz magnetic field) for 3m SAC	3.13 dB
Radiated Emission (30MHz ~ 1GHz) for 3m SAC	4.45 dB
Radiated Emission (1GHz ~ 18GHz) for 3m SAC	5.34 dB
Radiated Emission (18GHz ~ 40GHz) for 3m SAC	5.34 dB

## 5.6 Additions to, deviations, or exclusions from the method

No

## 5.7 Laboratory Facility

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

## • FCC - Designation No.: CN1211

JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.

### ● ISED - CAB identifier.: CN0021

The 3m Semi-anechoic chamber and 10m 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.

## • CNAS - Registration No.: CNAS L15527

JianYan Testing Group Shenzhen Co., Ltd. is accredited to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L15527.

A2LA - Registration No.: 4346.01

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This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: https://portal.a2la.org/scopepdf/4346-01.pdf

## 5.8 Laboratory Location

JianYan Testing Group Shenzhen Co., Ltd.

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

Tel: +86-755-23118282, Fax: +86-755-23116366 Email: info-JYTee@lets.com, Website: http://jyt.lets.com

## 5.9 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	ETS	RFD-100	Q1984	04-14-2021	04-13-2024	
BiConiLog Antenna	SCHWARZBECK	VULB9163	9163-1246	03-07-2021	03-06-2022	
Biconical Antenna	SCHWARZBECK	VUBA 9117	9117#359	06-17-2021	06-17-2022	
Horn Antenna	SCHWARZBECK	BBHA9120D	912D-916	03-07-2021	03-06-2022	
Broad-Band Horn Antenna	SCHWARZBECK	BBHA9170	1067	04-02-2021	04-01-2022	
Broad-Band Horn Antenna	SCHWARZBECK	BBHA9170	1068	04-02-2021	04-01-2022	
EMI Test Receiver	Rohde & Schwarz	ESRP7	101070	03-03-2021	03-02-2022	
Spectrum analyzer	Rohde & Schwarz	FSP30	101454	03-03-2021	03-02-2022	
Spectrum analyzer	Keysight	N9010B	MY60240202	10-27-2021	10-26-2022	
Low Pre-amplifier	SCHWARZBECK	BBV9743B	00305	03-07-2021	03-06-2022	
High Pre-amplifier	SKET	LNPA_0118G-50	MF280208233	03-07-2021	03-06-2022	
Cable	Qualwave	JYT3M-1G-NN-8M	JYT3M-1	03-07-2021	03-06-2022	
Cable	Qualwave	JYT3M-18G-NN-8M	JYT3M-2	03-07-2021	03-06-2022	
Cable	Qualwave	JYT3M-1G-BB-5M	JYT3M-3	03-07-2021	03-06-2022	
Cable	Bost	JYT3M-40G-SS-8M	JYT3M-4	04-02-2021	04-01-2022	
EMI Test Software	Tonscend	TS+	Version:3.0.0.1			

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 3	101189	03-03-2021	03-02-2022	
LISN	Schwarzbeck	NSLK 8127	QCJ001-13	03-18-2021	03-17-2022	
LISN	Rohde & Schwarz	ESH3-Z5	843862/010	06-18-2020	06-17-2022	
RF Switch	TOP PRECISION	RSU0301	N/A	03-03-2021	03-02-2022	
Cable	Bost	JYTCE-1G-NN-2M	JYTCE-1	03-03-2021	03-02-2022	
Cable	Bost	JYTCE-1G-BN-3M	JYTCE-2	03-03-2021	03-02-2022	
EMI Test Software	AUDIX	E3	Version: 6.110919b			

Conducted method:								
Test Equipment	Manufacturer	Manufacturer Model No. Serial No.		Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)			
Spectrum Analyzer	Keysight	N9010B	MY60240202	10-27-2021	10-26-2022			
Vector Signal Generator	Keysight	N5182B	MY59101009	10-27-2021	10-26-2022			
Analog Signal Generator	Keysight	N5173B	MY59100765	10-27-2021	10-26-2022			
Power Detector Box	MWRF-test	MW100-PSB	MW201020JYT	11-19-2021	11-18-2022			
Simulated Station	Rohde & Schwarz	CMW270	102335	10-27-2021	10-26-2022			
RF Control Box	MWRF-test	MW100-RFCB	MW200927JYT	N/A	N/A			
PDU	MWRF-test	XY-G10	N/A	N/A	N/A			
DC Power Supply	Keysight	E3642A	MY60296194	11-27-2020	11-26-2023			

JianYan Testing Group Shenzhen Co., Ltd.

Project No.: JYTSZE2112067

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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Temperature Humidity Chamber	Deli	8840	N/A	03-08-2021	03-07-2022
Test Software	MWRF-tes	MTS 8310	Version: 2.0.0.0		

## 6 Test results and measurement data

## 6.1 Antenna Requirement

Standard requirement:	FCC Part 15 C Section 15.203 & 247(	b)	)
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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 Bluetooth antenna is an Internal antenna which permanently attached, and the best case gain of the antenna is 1.2 dBi.

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## **6.2 Conducted Emissions**

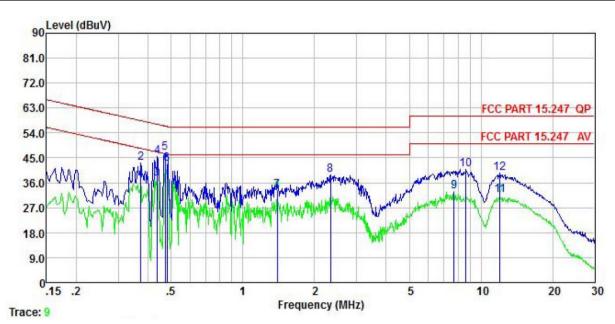
Test Requirement:	FCC Part 15 C Section 15.207				
Test Frequency Range:	150 kHz to 30 MHz				
Class / Severity:	Class B				
Receiver setup:	RBW=9 kHz, VBW=30 kHz	z, Sweep time=auto			
Limit:	Frequency range (MHz)	Limit (c	dBuV)		
		Quasi-peak	Average		
	0.15-0.5	66 to 56*	56 to 46*		
	0.5-5	56	46		
	5-30	60	50		
Test setup:	* Decreases with the logari	•			
Toot procedure:	Remark E. U.T. Equipment Under Test LISN Filter AC power  Remark E. U.T. Equipment Under Test LISN: Line impedence Stabilization Network Test table height=0.8m				
Test procedure:	<ol> <li>The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm/50uH coupling impedance for the measuring equipment.</li> <li>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).</li> <li>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.</li> </ol>				
Test Instruments:	Refer to section 5.9 for details				
Test mode:	Hopping mode				
Test results:	Pass				

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### **Measurement Data:**

Product name:	Mobile Phone	Product model:	X670
Test by:	Mike	Test mode:	BT Tx mode
Test frequency:	150 kHz ~ 30 MHz	Phase:	Line
Test voltage:	AC 120 V/60 Hz	Environment:	Temp: 19.1℃ Huni: 53%



	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
-	MHz	dBu∇	<u>dB</u>	dB	dBu₹	dBu∇	<u>dB</u>	
1	0.373	36.72	0.04	0.03	36.79	48.43	-11.64	Average
2	0.373	43.01	0.04	0.03	43.08	58.43	-15.35	QP
3	0.435	37.44	0.04	0.03	37.51	47.15	-9.64	Average
4	0.437	45.42	0.04	0.03	45.49	57.11	-11.62	QP
1 2 3 4 5 6 7 8 9	0.471	46.74	0.04	0.03	46.81	56.49	-9.68	QP
6	0.481	42.74	0.04	0.03	42.81	46.32	-3.51	Average
7	1.396	32.87	0.06	0.13	33.06	46.00	-12.94	Average
8	2.334	38.45	0.08	0.16	38.69	56.00	-17.31	QP
9	7.687	32.67	0.17	0.10	32.94	50.00	-17.06	Average
10	8.637	40.62	0.19	0.11	40.92		-19.08	
11	11.996	31.08	0.24	0.10	31.42	50.00	-18.58	Average
12	11.996	39.02	0.24	0.10	39.36		-20.64	

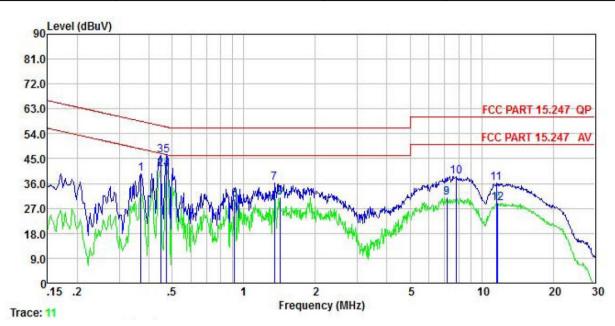
## Notes:

- 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.

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Product name:	Mobile Phone	Product model:	X670
Test by:	Mike	Test mode:	BT Tx mode
Test frequency:	150 kHz ~ 30 MHz	Phase:	Neutral
Test voltage:	AC 120 V/60 Hz	Environment:	Temp: 19.1℃ Huni: 53%



	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBu∇	<u>dB</u>	₫B	dBu₹	dBu∇	<u>dB</u>	
1	0.369	39.47	0.04	0.03	39.54	58.52	-18.98	QP
2	0.447	41.05	0.04	0.03	41.12	46.93	-5.81	Average
3	0.447	46.26	0.04	0.03	46.33	56.93	-10.60	QP
1 2 3 4 5 6 7 8 9	0.474	41.12	0.04	0.03	41.19	46.45	-5.26	Average
5	0.474	46.00	0.04	0.03	46.07	56.45	-10.38	QP
6	0.914	30.05	0.05	0.04	30.14	46.00	-15.86	Average
7	1.345	36.08	0.05	0.12	36.25	56.00	-19.75	QP
8	1.418	30.58	0.06	0.13	30.77	46.00	-15.23	Average
9	7.137	30.67	0.14	0.10	30.91	50.00	-19.09	Average
10	7.852	38.29	0.16	0.10	38.55	60.00	-21.45	QP
11	11.559	35.99	0.21	0.11	36.31	60.00	-23.69	QP
12	11.683	28.73	0.21	0.10	29.04	50.00	-20.96	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.





# **6.3 Conducted Output Power**

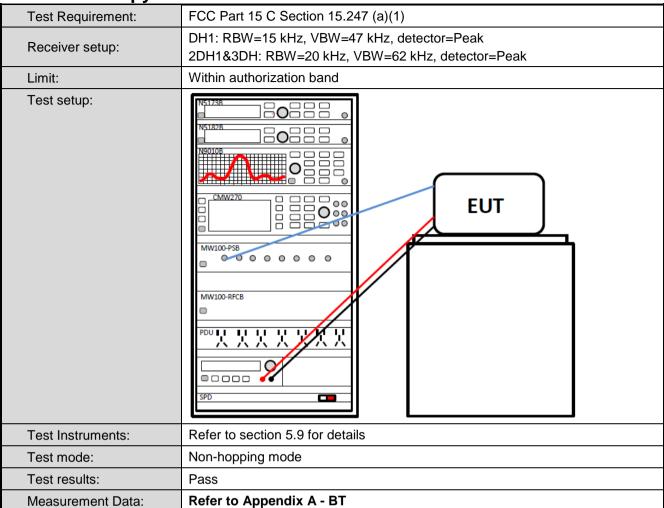
no conaactea ca	-part arra-				
Test Requirement:	FCC Part 15 C Section 15.247 (b)(1)				
Receiver setup:	RBW=1MHz, VBW=3MHz, Detector=Peak (If 20dB BW ≤1 MHz) RBW=2MHz, VBW=6MHz, Detector=Peak (If 20dB BW > 1 MHz and < 3MHz)				
Limit:	For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.				
Test setup:	NS173B  NS173B				
Test Instruments:	Refer to section 5.9 for details				
Test mode:	Non-hopping mode				
Test results:	Pass				
Measurement Data:	Refer to Appendix A - BT				

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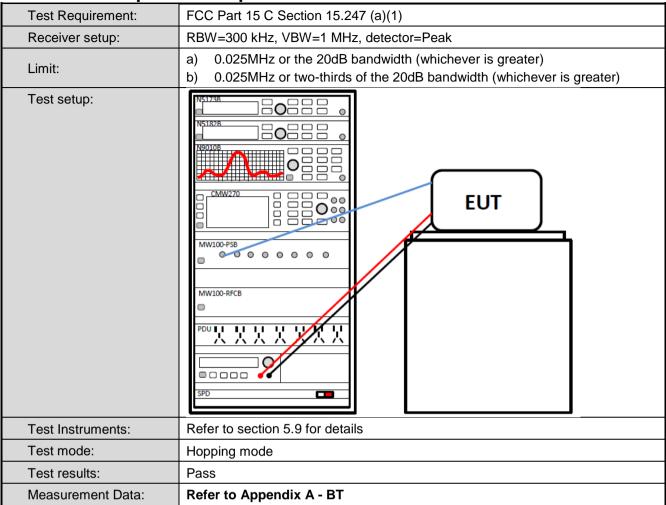
6.4 20dB Occupy Bandwidth







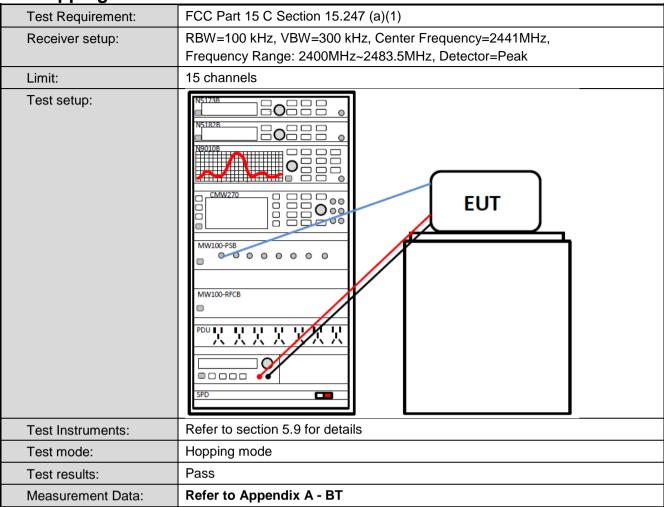
6.5 Carrier Frequencies Separation







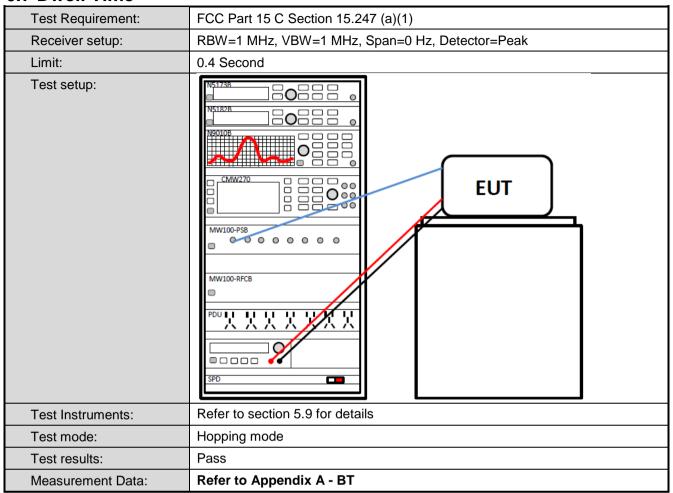
6.6 Hopping Channel Number



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## 6.7 Dwell Time



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## 6.8 Pseudorandom Frequency Hopping Sequence

### **Test Requirement:**

## FCC Part 15 C Section 15.247 (a)(1) requirement:

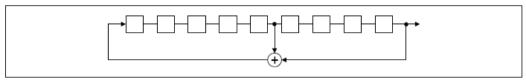
Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

Alternatively. Frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a Pseudorandom ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

## **EUT Pseudorandom Frequency Hopping Sequence**

The pseudorandom sequence may be generated in a nine-stage shift register whose 5th and 9th stage outputs are added in a modulo-two addition stage. And the result is fed back to the input of the first stage. The sequence begins with the first ONE of 9 consecutive ONEs; i.e. the shift register is initialized with nine ones.

- Number of shift register stages: 9
- Length of pseudo-random sequence:  $2^9-1 = 511$  bits
- · Longest sequence of zeros: 8 (non-inverted signal)



Linear Feedback Shift Register for Generation of the PRBS sequence

An example of Pseudorandom Frequency Hopping Sequence as follow:



Each frequency used equally on the average by each transmitter.

The system receivers have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shift frequencies in synchronization with the transmitted signals.

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## 6.9 Band Edge

## 6.9.1 Conducted Emission Method

Test Requirement:	FCC Part 15 C Section 15.247 (d)				
•	, ,				
Receiver setup:	RBW=100 kHz, VBW=300 kHz, Detector=Peak				
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.				
Test setup:	NS172B  NS182B  NS18B  NS18				
Test Instruments:	Refer to section 5.9 for details				
Test mode:	Non-hopping mode and hopping mode				
Test results:	Pass				
Measurement Data:	Refer to Appendix A - BT				

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## 6.9.2 Radiated Emission Method

Test Requirement:	FCC Part 15 C Section 15.209 and 15.205						
Test Frequency Range:	2310 MHz to 23	90 MHz and	d 24	83.5 MHz to 25	500 M	Hz	
Test Distance:	3m						
Receiver setup:	Frequency	Detecto	r	RBW	V	BW	Remark
	Ab 21/2 4 C	Peak		1MHz	3MHz		Peak Value
	Above 1GHz	RMS		1MHz	31	ИНz	Average Value
Limit:	Frequenc	су	Lim	it (dBuV/m @3	3m)		Remark
	Above 1G	Ц-		54.00		Av	erage Value
	Above 10	112		74.00	F		Peak Value
Test setup:	Horn Anlenna Tower  AE EUT  Ground Reference Plane  Test Receiver  Test Receiver  Controller						
Test Procedure:	<ol> <li>The EUT was placed on the top of a rotating table 1.5meters 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 Instruments:	Refer to section 5.9 for details						
Test mode:	Non-hopping mode						
Test results:	Passed						

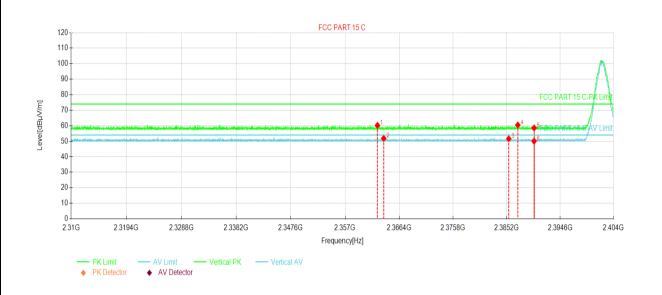
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### ANT1

## **GFSK Mode:**

Product Name:	Mobile Phone	Product Model:	X670
Test By:	Mike	Test mode:	DH1 Tx mode
Test Channel:	Lowest channel	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 21.8℃ Huni: 57%



Suspe	Suspected Data List								
NO	Freq.	Reading	Level	Factor	Limit	Margin	Trace	Delerity	
NO.	[MHz]	[dBµV/m]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	Trace	Polarity	
1	2362.62	24.59	60.23	35.64	74.00	13.77	PK	Vertical	
2	2363.72	16.17	51.82	35.65	54.00	2.18	AV	Vertical	
3	2385.55	15.78	51.59	35.81	54.00	2.41	AV	Vertical	
4	2387.13	24.65	60.47	35.82	74.00	13.53	PK	Vertical	
5	2390.00	22.73	58.57	35.84	74.00	15.43	PK	Vertical	
6	2390.00	14.22	50.06	35.84	54.00	3.94	AV	Vertical	

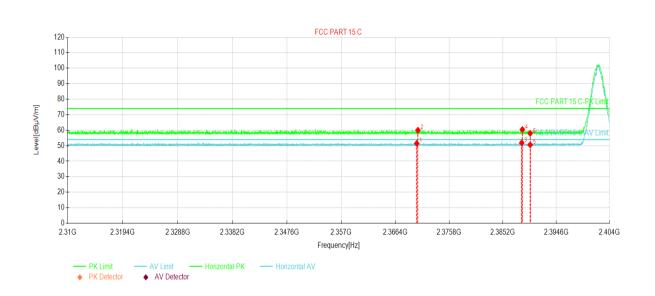
### Remark:

- 1. Final Level = Receiver Read level + Factor(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:	X670
Test By:	Mike	Test mode:	DH1 Tx mode
Test Channel:	Lowest channel	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 21.8℃ Huni: 57%



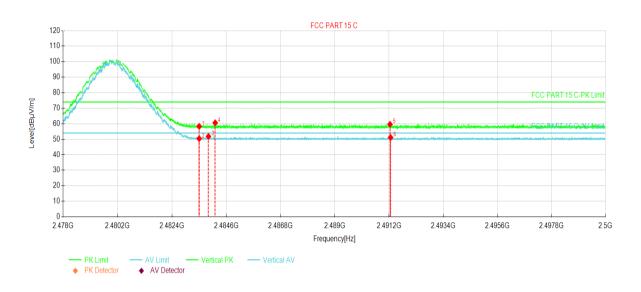
Suspe	Suspected Data List								
NO.	Freq.	Reading	Level	Factor	Limit	Margin	Trans	Dolority	
NO.	[MHz]	[dBµV/m]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	Trace	Polarity	
1	2370.13	15.80	51.50	35.70	54.00	2.50	AV	Horizontal	
2	2370.33	24.27	59.97	35.70	74.00	14.03	PK	Horizontal	
3	2388.51	16.04	51.87	35.83	54.00	2.13	AV	Horizontal	
4	2388.63	24.60	60.43	35.83	74.00	13.57	PK	Horizontal	
5	2390.00	14.74	50.58	35.84	54.00	3.42	AV	Horizontal	
6	2390.00	22.11	57.95	35.84	74.00	16.05	PK	Horizontal	

- 1. Final Level = Receiver Read level + Factor(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:	X670
Test By:	Mike	Test mode:	DH1 Tx mode
Test Channel:	Highest channel	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 21.8°C Huni: 57%



Suspe	Suspected Data List								
NO.	Freq.	Reading	Level	Factor	Limit	Margin	Tropo	Dolority	
NO.	[MHz]	[dBµV/m]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	Trace	Polarity	
1	2483.50	22.55	58.27	35.72	74.00	15.73	PK	Vertical	
2	2483.50	14.66	50.38	35.72	54.00	3.62	AV	Vertical	
3	2483.87	16.06	51.78	35.72	54.00	2.22	AV	Vertical	
4	2484.14	24.89	60.61	35.72	74.00	13.39	PK	Vertical	
5	2491.23	23.90	59.60	35.70	74.00	14.40	PK	Vertical	
6	2491.25	15.41	51.11	35.70	54.00	2.89	AV	Vertical	

- 1. Final Level = Receiver Read level + Factor(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:	X670
Test By:	Mike	Test mode:	DH1 Tx mode
Test Channel:	Highest channel	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 21.8℃ Huni: 57%



Suspe	Suspected Data List								
NO.	Freq.	Reading	Level	Factor	Limit	Margin	Tropo	Dolority	
NO.	[MHz]	[dBµV/m]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	Trace	Polarity	
1	2483.50	23.07	58.79	35.72	74.00	15.21	PK	Horizontal	
2	2483.50	14.97	50.69	35.72	54.00	3.31	AV	Horizontal	
3	2484.74	16.04	51.76	35.72	54.00	2.24	AV	Horizontal	
4	2484.96	24.50	60.21	35.71	74.00	13.79	PK	Horizontal	
5	2491.21	24.89	60.59	35.70	74.00	13.41	PK	Horizontal	
6	2491.37	15.33	51.03	35.70	54.00	2.97	AV	Horizontal	

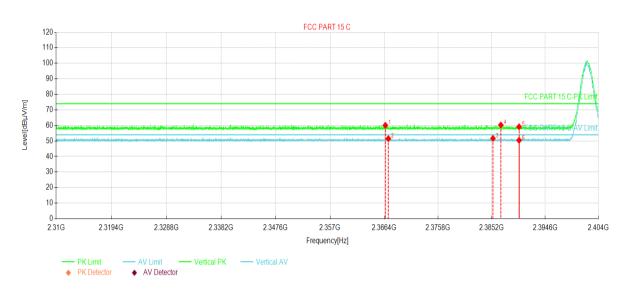
- 1. Final Level = Receiver Read level + Factor(Antenna Factor + Cable Loss Preamplifier Factor).
- The emission levels of other frequencies are lower than the limit 20dB and not show in test report.

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### π/4-DQPSK mode

Product Name:	Mobile Phone	Product Model:	X670
Test By:	Mike	Test mode:	2DH1 Tx mode
Test Channel:	Lowest channel	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 21.8°C Huni: 57%



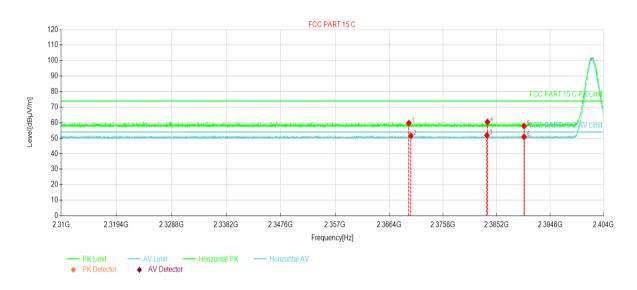
Suspe	Suspected Data List								
NO	Freq.	Reading	Level	Factor	Limit	Margin	Trans	Dolority	
NO.	[MHz]	[dBµV/m]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	Trace	Polarity	
1	2366.61	24.38	60.05	35.67	74.00	13.95	PK	Vertical	
2	2367.14	15.81	51.49	35.68	54.00	2.51	AV	Vertical	
3	2385.41	15.86	51.67	35.81	54.00	2.33	AV	Vertical	
4	2386.79	24.44	60.26	35.82	74.00	13.74	PK	Vertical	
5	2390.00	23.30	59.14	35.84	74.00	14.86	PK	Vertical	
6	2390.00	14.60	50.44	35.84	54.00	3.56	AV	Vertical	

## Remark:

- 1. Final Level = Receiver Read level + Factor(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:	X670
Test By:	Mike	Test mode:	2DH1 Tx mode
Test Channel:	Lowest channel	Polarization: Horizontal	
Test Voltage:	AC 120/60Hz	Environment:	Temp: 21.8℃ Huni: 57%



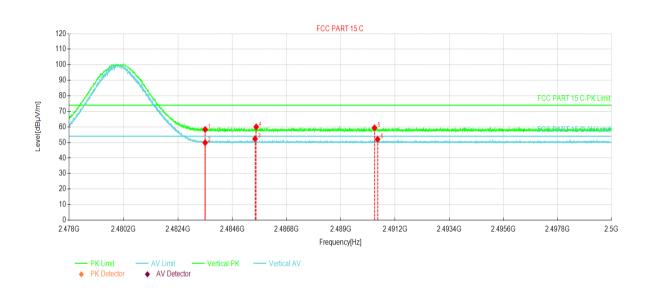
Suspe	Suspected Data List								
NO.	Freq.	Reading	Level	Factor	Limit	Margin	Tropo	Dolority	
NO.	[MHz]	[dBµV/m]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	Trace	Polarity	
1	2369.84	24.02	59.72	35.70	74.00	14.28	PK	Horizontal	
2	2370.19	15.83	51.53	35.70	54.00	2.47	AV	Horizontal	
3	2383.48	16.08	51.87	35.79	54.00	2.13	AV	Horizontal	
4	2383.57	24.69	60.48	35.79	74.00	13.52	PK	Horizontal	
5	2390.00	22.01	57.85	35.84	74.00	16.15	PK	Horizontal	
6	2390.00	15.04	50.88	35.84	54.00	3.12	AV	Horizontal	

- 1. Final Level = Receiver Read level + Factor(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:	X670
Test By:	Mike	Test mode:	2DH1 Tx mode
Test Channel:	Highest channel	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 21.8℃ Huni: 57%



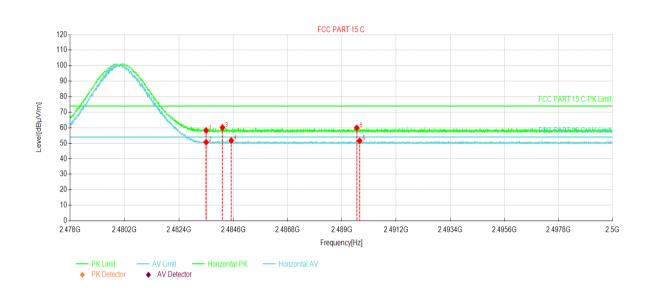
Suspe	Suspected Data List							
NO	Freq.	Reading	Level	Factor	Limit	Margin	Trace	Delerity
NO.	[MHz]	[dBµV/m]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	Trace	Polarity
1	2483.50	22.61	58.33	35.72	74.00	15.67	PK	Vertical
2	2483.50	14.11	49.83	35.72	54.00	4.17	AV	Vertical
3	2485.52	16.63	52.34	35.71	54.00	1.66	AV	Vertical
4	2485.56	24.33	60.04	35.71	74.00	13.96	PK	Vertical
5	2490.36	23.70	59.40	35.70	74.00	14.60	PK	Vertical
6	2490.49	16.35	52.05	35.70	54.00	1.95	AV	Vertical

- 1. Final Level = Receiver Read level + Factor(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:	X670
Test By:	Mike	Test mode:	2DH1 Tx mode
Test Channel:	Highest channel	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 21.8℃ Huni: 57%



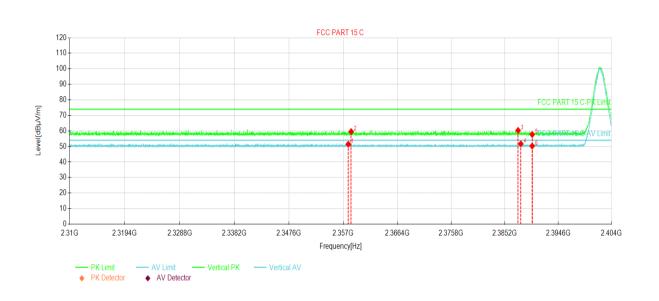
Suspe	Suspected Data List								
NO	Freq.	Reading	Level	Factor	Limit	Margin	Trace	Delevity	
NO.	[MHz]	[dBµV/m]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	Trace	Polarity	
1	2483.50	22.45	58.17	35.72	74.00	15.83	PK	Horizontal	
2	2483.50	14.90	50.62	35.72	54.00	3.38	AV	Horizontal	
3	2484.16	24.42	60.14	35.72	74.00	13.86	PK	Horizontal	
4	2484.51	16.04	51.76	35.72	54.00	2.24	AV	Horizontal	
5	2489.60	24.16	59.86	35.70	74.00	14.14	PK	Horizontal	
6	2489.72	15.85	51.55	35.70	54.00	2.45	AV	Horizontal	

- 1. Final Level = Receiver Read level + Factor(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.



### 8DPSK mode

Product Name:	Mobile Phone	Product Model:	X670
Test By:	Mike	Test mode:	3DH1 Tx mode
Test Channel:	Lowest channel	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 21.8℃ Huni: 57%



Suspe	Suspected Data List								
NO	Freq.	Reading	Level	Factor	Limit	Margin	Trans	Dolority	
NO.	[MHz]	[dBµV/m]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	Trace	Polarity	
1	2357.88	15.85	51.46	35.61	54.00	2.54	AV	Vertical	
2	2358.37	23.97	59.58	35.61	74.00	14.42	PK	Vertical	
3	2387.52	24.49	60.31	35.82	74.00	13.69	PK	Vertical	
4	2388.00	15.91	51.73	35.82	54.00	2.27	AV	Vertical	
5	2390.00	21.87	57.71	35.84	74.00	16.29	PK	Vertical	
6	2390.00	14.44	50.28	35.84	54.00	3.72	AV	Vertical	

## Remark:

- 1. Final Level = Receiver Read level + Factor(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:	X670
Test By:	Mike	Test mode:	3DH1 Tx mode
Test Channel:	Lowest channel	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 21.8°C Huni: 57%

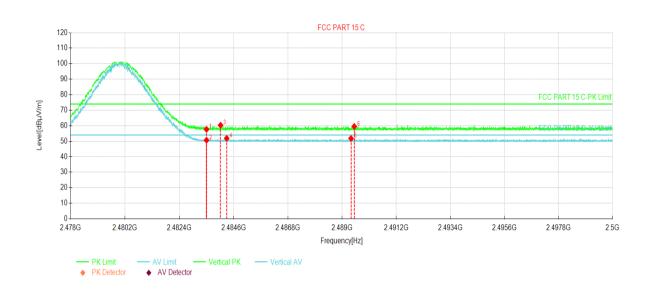


Suspe	Suspected Data List							
NO	Freq.	Reading	Level	Factor	Limit	Margin	Tropo	Dolority
NO.	[MHz]	[dBµV/m]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	Trace	Polarity
1	2360.24	16.06	51.69	35.63	54.00	2.31	AV	Horizontal
2	2361.06	25.00	60.63	35.63	74.00	13.37	PK	Horizontal
3	2380.98	16.09	51.86	35.77	54.00	2.14	AV	Horizontal
4	2384.13	24.15	59.95	35.80	74.00	14.05	PK	Horizontal
5	2390.00	22.55	58.39	35.84	74.00	15.61	PK	Horizontal
6	2390.00	14.57	50.41	35.84	54.00	3.59	AV	Horizontal

- 1. Final Level = Receiver Read level + Factor(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:	X670
Test By:	Mike	Test mode:	3DH1 Tx mode
Test Channel:	Highest channel	Polarization: Vertical	
Test Voltage:	AC 120/60Hz	Environment:	Temp: 21.8℃ Huni: 57%



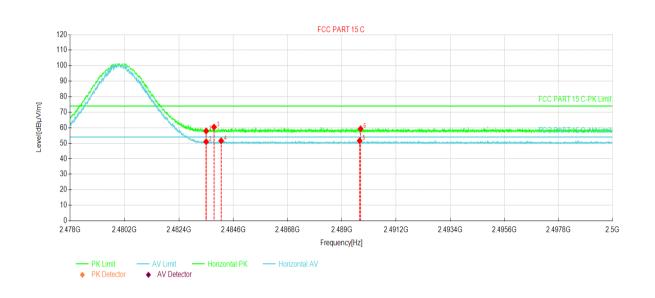
Suspe	Suspected Data List								
NO	Freq.	Reading	Level	Factor	Limit	Margin	Trace	Delevity	
NO.	[MHz]	[dBµV/m]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	Trace	Polarity	
1	2483.50	21.96	57.68	35.72	74.00	16.32	PK	Vertical	
2	2483.50	14.95	50.67	35.72	54.00	3.33	AV	Vertical	
3	2484.06	24.58	60.30	35.72	74.00	13.70	PK	Vertical	
4	2484.31	16.13	51.85	35.72	54.00	2.15	AV	Vertical	
5	2489.36	16.08	51.78	35.70	54.00	2.22	AV	Vertical	
6	2489.49	23.81	59.51	35.70	74.00	14.49	PK	Vertical	

- 1. Final Level = Receiver Read level + Factor(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:	X670
Test By:	Mike	Test mode:	3DH1 Tx mode
Test Channel:	Highest channel	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 21.8℃ Huni: 57%



Suspe	Suspected Data List							
NO	Freq.	Reading	Level	Factor	Limit	Margin	Trans	Dolority
NO.	[MHz]	[dBµV/m]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	Trace	Polarity
1	2483.50	22.18	57.90	35.72	74.00	16.10	PK	Horizontal
2	2483.50	15.24	50.96	35.72	54.00	3.04	AV	Horizontal
3	2483.81	24.68	60.40	35.72	74.00	13.60	PK	Horizontal
4	2484.10	15.84	51.56	35.72	54.00	2.44	AV	Horizontal
5	2489.71	15.92	51.62	35.70	54.00	2.38	AV	Horizontal
6	2489.75	23.60	59.30	35.70	74.00	14.70	PK	Horizontal

- 1. Final Level = Receiver Read level + Factor(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.

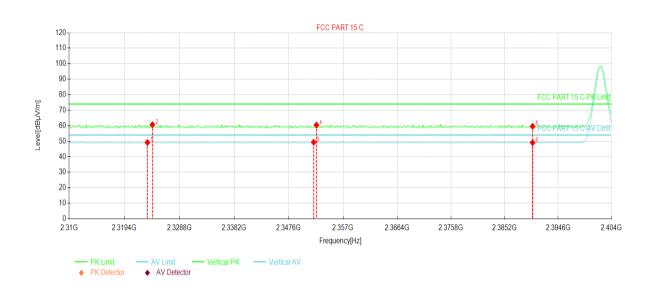
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### ANT2

## **GFSK Mode:**

Product Name:	Mobile Phone	Product Model:	X670
Test By:	Mike	Test mode:	DH1 Tx mode
Test Channel:	Lowest channel	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 21.8℃ Huni: 57%



Susp	Suspected Data List									
NO.	Freq.	Freq. Reading Level	Factor	Factor Limit	Margin	Trace	Polarity			
NO.	[MHz]	[dBµV/m]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	Hace	Foldfilly		
1	2323.34	13.84	49.21	35.37	54.00	4.79	AV	Vertical		
2	2324.19	25.33	60.70	35.37	74.00	13.30	PK	Vertical		
3	2351.92	13.76	49.33	35.57	54.00	4.67	AV	Vertical		
4	2352.39	24.86	60.43	35.57	74.00	13.57	PK	Vertical		
5	2390.08	23.78	59.62	35.84	74.00	14.38	PK	Vertical		
6	2390.08	13.25	49.09	35.84	54.00	4.91	AV	Vertical		

### Remark:

- 1. Final Level = Receiver Read level + Factor(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:	X670
Test By:	Mike	Test mode:	DH1 Tx mode
Test Channel:	Lowest channel	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 21.8°C Huni: 57%



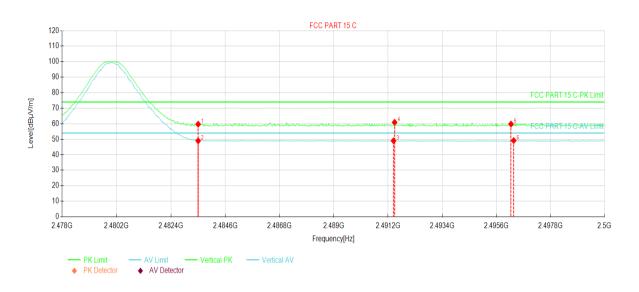
Susp	Suspected Data List									
NO.	Freq.	Freq. Reading	Level	el Factor	Limit	Margin	Trace	Polarity		
	[MHz]	[dBµV/m]	[dBµV/m]	[dB]	[dBµV/m]	[dB]				
1	2342.80	13.70	49.20	35.50	54.00	4.80	AV	Horizontal		
2	2342.99	25.13	60.64	35.51	74.00	13.36	PK	Horizontal		
3	2369.87	25.47	61.17	35.70	74.00	12.83	PK	Horizontal		
4	2370.44	13.52	49.22	35.70	54.00	4.78	AV	Horizontal		
5	2390.00	23.03	58.87	35.84	74.00	15.13	PK	Horizontal		
6	2390.08	13.22	49.06	35.84	54.00	4.94	AV	Horizontal		

- 1. Final Level = Receiver Read level + Factor(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:	X670
Test By:	Mike	Test mode:	DH1 Tx mode
Test Channel:	Highest channel	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 21.8°C Huni: 57%



Susp	Suspected Data List								
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Polarity	
1	2483.50	23.97	59.69	35.72	74.00	14.31	PK	Vertical	
2	2483.50	13.25	48.97	35.72	54.00	5.03	AV	Vertical	
3	2491.42	13.31	49.01	35.70	54.00	4.99	AV	Vertical	
4	2491.46	25.18	60.88	35.70	74.00	13.12	PK	Vertical	
5	2496.19	24.10	59.79	35.69	74.00	14.21	PK	Vertical	
6	2496.30	13.47	49.16	35.69	54.00	4.84	AV	Vertical	

- 1. Final Level = Receiver Read level + Factor(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:	X670
Test By:	Mike	Test mode:	DH1 Tx mode
Test Channel:	Highest channel	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 21.8℃ Huni: 57%



Susp	Suspected Data List									
NO.	Freq.	Reading	Level	Factor	Limit	Margin	Trace	Polarity		
NO.	[MHz]	[dBµV/m]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	Hace			
1	2483.50	23.49	59.21	35.72	74.00	14.79	PK	Horizontal		
2	2483.50	13.64	49.36	35.72	54.00	4.64	AV	Horizontal		
3	2490.73	13.51	49.21	35.70	54.00	4.79	AV	Horizontal		
4	2490.87	24.26	59.96	35.70	74.00	14.04	PK	Horizontal		
5	2495.88	24.28	59.97	35.69	74.00	14.03	PK	Horizontal		
6	2496.01	13.39	49.08	35.69	54.00	4.92	AV	Horizontal		

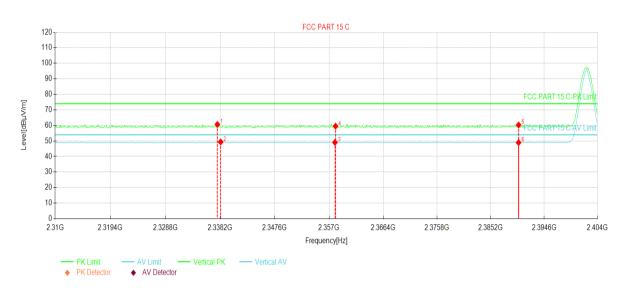
- 1. Final Level = Receiver Read level + Factor(Antenna Factor + Cable Loss Preamplifier Factor).
- The emission levels of other frequencies are lower than the limit 20dB and not show in test report.

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### π/4-DQPSK mode

Product Name:	Mobile Phone	Product Model:	X670	
Test By:	Mike	Test mode:	2DH1 Tx mode	
Test Channel:	Lowest channel	Polarization:	Vertical	
Test Voltage:	AC 120/60Hz	Environment:	Temp: 21.8℃ Huni: 57%	



Susp	Suspected Data List								
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Polarity	
1	2337.73	25.16	60.63	35.47	74.00	13.37	PK	Vertical	
2	2338.29	13.90	49.37	35.47	54.00	4.63	AV	Vertical	
3	2358.03	13.48	49.09	35.61	54.00	4.91	AV	Vertical	
4	2358.12	23.90	59.51	35.61	74.00	14.49	PK	Vertical	
5	2390.08	24.43	60.27	35.84	74.00	13.73	PK	Vertical	
6	2390.08	13.11	48.95	35.84	54.00	5.05	AV	Vertical	

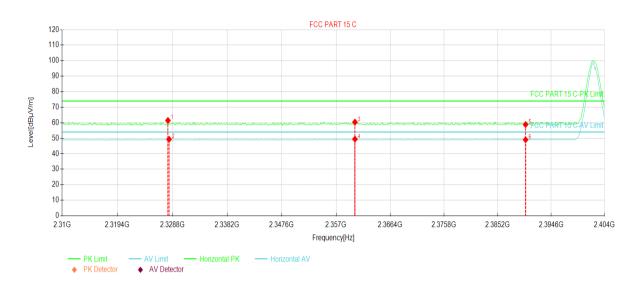
### Remark:

- 1. Final Level = Receiver Read level + Factor(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:	X670
Test By:	Mike	Test mode:	2DH1 Tx mode
Test Channel:	Lowest channel	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 21.8℃ Huni: 57%



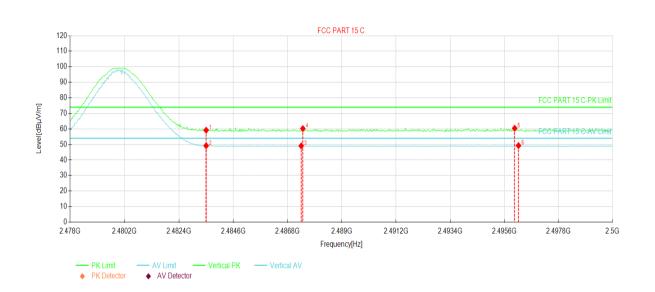
Susp	Suspected Data List								
NO.	Freq.	Reading	Level	Factor	Limit	Margin	Trace	Polarity	
NO.	[MHz]	[dBµV/m]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	Hace	Polatity	
1	2328.04	26.06	61.46	35.40	74.00	12.54	PK	Horizontal	
2	2328.23	13.90	49.30	35.40	54.00	4.70	AV	Horizontal	
3	2360.29	24.75	60.38	35.63	74.00	13.62	PK	Horizontal	
4	2360.29	13.82	49.45	35.63	54.00	4.55	AV	Horizontal	
5	2390.08	22.99	58.83	35.84	74.00	15.17	PK	Horizontal	
6	2390.08	13.18	49.02	35.84	54.00	4.98	AV	Horizontal	

- 1. Final Level = Receiver Read level + Factor(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:	X670
Test By:	Mike	Test mode:	2DH1 Tx mode
Test Channel:	Highest channel	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 21.8°C Huni: 57%



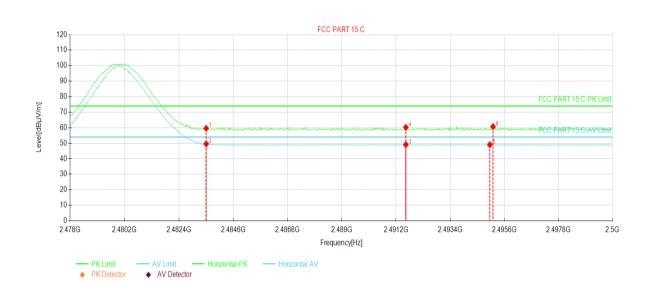
Susp	Suspected Data List								
NO	Freq.	Reading	Level	Factor	Limit	Margin	Trace	Polarity	
NO.	[MHz]	[dBµV/m]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	Hace	Folamy	
1	2483.50	23.46	59.18	35.72	74.00	14.82	PK	Vertical	
2	2483.50	13.46	49.18	35.72	54.00	4.82	AV	Vertical	
3	2487.35	13.39	49.10	35.71	54.00	4.90	AV	Vertical	
4	2487.41	24.52	60.23	35.71	74.00	13.77	PK	Vertical	
5	2496.01	24.74	60.43	35.69	74.00	13.57	PK	Vertical	
6	2496.17	13.60	49.29	35.69	54.00	4.71	AV	Vertical	

- 1. Final Level = Receiver Read level + Factor(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:	X670
Test By:	Mike	Test mode:	2DH1 Tx mode
Test Channel:	Highest channel	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 21.8℃ Huni: 57%



Susp	Suspected Data List								
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Polarity	
1	2483.50	23.87	59.59	35.72	74.00	14.41	PK	Horizontal	
2	2483.50	13.84	49.56	35.72	54.00	4.44	AV	Horizontal	
3	2491.59	13.37	49.07	35.70	54.00	4.93	AV	Horizontal	
4	2491.59	24.51	60.21	35.70	74.00	13.79	PK	Horizontal	
5	2495.00	13.34	49.03	35.69	54.00	4.97	AV	Horizontal	
6	2495.13	24.99	60.68	35.69	74.00	13.32	PK	Horizontal	

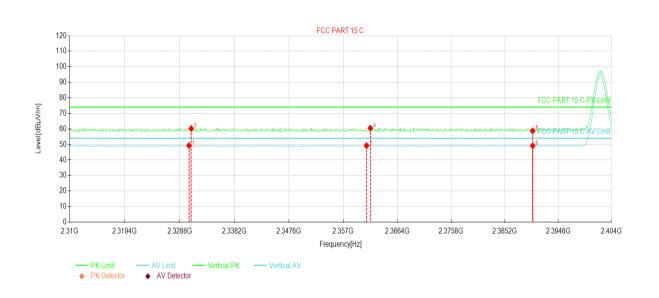
- 1. Final Level = Receiver Read level + Factor(Antenna Factor + Cable Loss Preamplifier Factor).
- 2. The emission levels of other frequencies are lower than the limit 20dB and not show in test report.

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## 8DPSK mode

Product Name:	Mobile Phone	Product Model:	X670
Test By:	Mike	Test mode:	3DH1 Tx mode
Test Channel:	Lowest channel	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 21.8℃ Huni: 57%



Susp	Suspected Data List								
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Polarity	
1	2330.39	13.87	49.29	35.42	54.00	4.71	AV	Vertical	
2	2330.77	24.83	60.25	35.42	74.00	13.75	PK	Vertical	
3	2361.04	13.63	49.26	35.63	54.00	4.74	AV	Vertical	
4	2361.70	24.82	60.46	35.64	74.00	13.54	PK	Vertical	
5	2390.08	22.89	58.73	35.84	74.00	15.27	PK	Vertical	
6	2390.08	13.32	49.16	35.84	54.00	4.84	AV	Vertical	

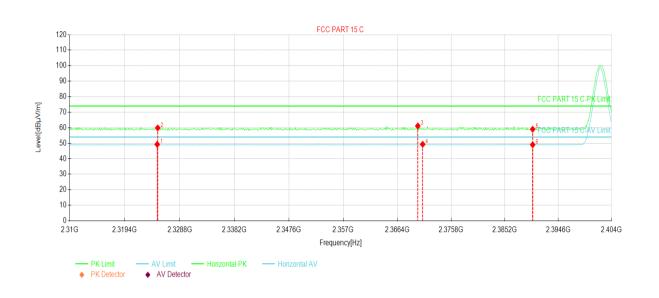
#### Remark:

- 1. Final Level = Receiver Read level + Factor(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:	X670
Test By:	Mike	Test mode:	3DH1 Tx mode
Test Channel:	Lowest channel	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 21.8℃ Huni: 57%



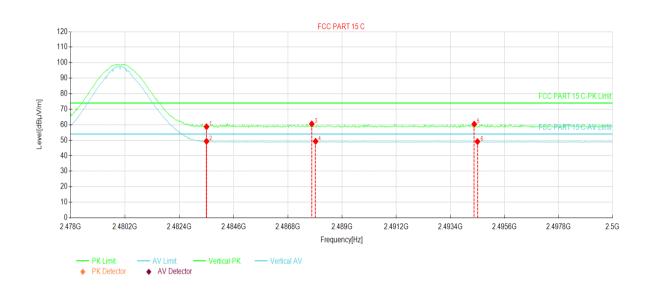
Susp	Suspected Data List								
NO.	Freq.	Reading	Level	Factor	Limit	Margin	Trace	Polarity	
	[MHz]	[dBµV/m]	[dBµV/m]	[dB]	[dBµV/m]	[dB]		,	
1	2324.94	13.87	49.25	35.38	54.00	4.75	AV	Horizontal	
2	2325.04	24.48	59.86	35.38	74.00	14.14	PK	Horizontal	
3	2369.97	25.45	61.15	35.70	74.00	12.85	PK	Horizontal	
4	2370.81	13.61	49.31	35.70	54.00	4.69	AV	Horizontal	
5	2390.08	23.18	59.02	35.84	74.00	14.98	PK	Horizontal	
6	2390.08	13.19	49.03	35.84	54.00	4.97	AV	Horizontal	

- 1. Final Level = Receiver Read level + Factor(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:	X670
Test By:	Mike	Test mode:	3DH1 Tx mode
Test Channel:	Highest channel	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 21.8℃ Huni: 57%



Susp	Suspected Data List								
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Polarity	
1	2483.50	22.98	58.70	35.72	74.00	15.30	PK	Vertical	
2	2483.50	13.60	49.32	35.72	54.00	4.68	AV	Vertical	
3	2487.76	24.81	60.52	35.71	74.00	13.48	PK	Vertical	
4	2487.92	13.57	49.28	35.71	54.00	4.72	AV	Vertical	
5	2494.36	24.67	60.36	35.69	74.00	13.64	PK	Vertical	
6	2494.50	13.42	49.11	35.69	54.00	4.89	AV	Vertical	

- 1. Final Level = Receiver Read level + Factor(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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Product Name:	Mobile Phone	Product Model:	X670
Test By:	Mike	Test mode:	3DH1 Tx mode
Test Channel:	Highest channel	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 21.8℃ Huni: 57%



Susp	Suspected Data List										
NO.	Freq.	Reading	Level	Factor	Limit	Margin	Trace	Dolority			
NO.	[MHz]	[dBµV/m]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	Hace	Polarity			
1	2483.50	24.06	59.78	35.72	74.00	14.22	PK	Horizontal			
2	2483.50	13.56	49.28	35.72	54.00	4.72	AV	Horizontal			
3	2490.16	13.27	48.97	35.70	54.00	5.03	AV	Horizontal			
4	2490.27	24.65	60.35	35.70	74.00	13.65	PK	Horizontal			
5	2497.03	24.06	59.75	35.69	74.00	14.25	PK	Horizontal			
6	2497.05	13.40	49.09	35.69	54.00	4.91	AV	Horizontal			

- 1. Final Level = Receiver Read level + Factor(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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# **6.10 Spurious Emission**

# 6.10.1 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.					
Test setup:	NS1828 NS					
Test Instruments:	Refer to section 5.9 for details					
Test mode:	Non-hopping mode					
Test results:	Pass					
Measurement Data:	Refer to Appendix A - BT					

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## 6.10.2 Radiated Emission Method

Test Requirement:	FCC Part 15 C S	Section 15.209				
Test Frequency Range:	9 kHz to 25 GHz	<u>,                                      </u>				
Test Distance:	3m					
Receiver setup:	Frequency	Detector	RBW	VBW	Remark	
	30MHz-1GHz	Quasi-peak	120kHz	300kHz	z Quasi-peak Value	
	Above 1GHz	Peak	1MHz	3MHz	Peak Value	
	Above IGHZ	RMS	1MHz	3MHz	Average Value	
Limit:	Frequenc	y Li	mit (dBuV/m	@3m)	Remark	
	30MHz-88N	ИНz	40.0		Quasi-peak Value	
	88MHz-216I	MHz	43.5		Quasi-peak Value	
	216MHz-960	MHz	46.0		Quasi-peak Value	
	960MHz-10	GHz	54.0		Quasi-peak Value	
	Above 1Cl	Ш-	54.0		Average Value	
	Above 1GI	HZ	74.0		Peak Value	
Test setup:	Below 1GHz	<u> </u>			Antenna Tower	
	7777777	ble	0.8m lm			
	Above 1GHz					
	Artenna Towe  Ground Reference Plane  Test Receiver  Architer Controller					
Total	A The FUT	.1 1 11 .	1	C (al.l.	0.0 (4.1)	
Test Procedure:	/1.5m(above was rotated 3 radiation.  2. The EUT was	1GHz) above to 60 degrees to set 3 meters	the ground at determine the away from the	a 3 mete e position e interfere	0.8m(below 1GHz) or chamber. The table of the highest ence-receiving ble-height antenna	





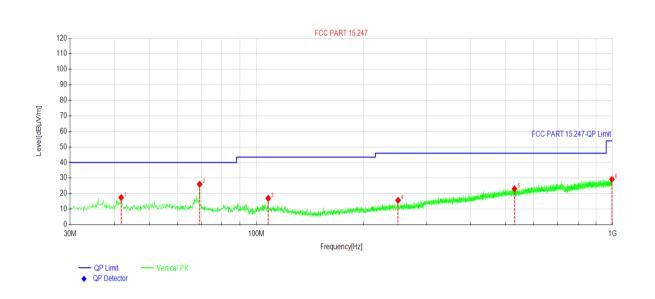
-				
tower.				
3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.				
4. For each suspected emission, the EUT was arranged to 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.				
5. The test-receiver system was set to Peak Detect Function and Specifie Bandwidth with Maximum Hold Mode.				
6. 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.				
Refer to section 5.9 for details				
Non-hopping mode				
Pass				
<ol> <li>Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis is the worst case.</li> <li>9 kHz to 30 MHz is noise floor and lower than the limit 20dB, so only shows the data of above 30MHz in this report.</li> </ol>				



## Measurement Data (worst case):

## **Below 1GHz:**

Product Name:	Mobile Phone	Product Model:	X670
Test By:	Mike	Test mode:	BT Tx mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 22.1 °C Huni: 55%



Susp	Suspected Data List									
NO.	Freq.	Reading[d	Level	Factor	Limit	Margin	Trace	Dolority		
	[MHz]	BµV/m]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	Trace	Polarity		
1	41.7382	32.09	17.43	-14.66	40.00	22.57	PK	Vertical		
2	69.2889	42.76	26.01	-16.75	40.00	13.99	PK	Vertical		
3	107.995	32.89	16.95	-15.94	43.50	26.55	PK	Vertical		
4	250.018	29.44	15.65	-13.79	46.00	30.35	PK	Vertical		
5	530.764	29.90	23.04	-6.86	46.00	22.96	PK	Vertical		
6	996.798	29.79	29.21	-0.58	54.00	24.79	PK	Vertical		

#### Remark

- 1. Final Level = Receiver Read level + Factor(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:	X670
Test By:	Mike	Test mode:	BT Tx mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 22.1℃ Huni: 55%



Susp	Suspected Data List									
NO.	Freq.	Reading[d BuV/m]	Level	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Trace	Polarity		
1	36.7907	29.15	14.34	-14.81	40.00	25.66	PK	Horizontal		
2	56.7747	28.24	13.48	-14.76	40.00	26.52	PK	Horizontal		
3	107.995	30.80	14.86				PK			
				-15.94	43.50	28.64		Horizontal		
4	304.246	29.41	16.82	-12.59	46.00	29.18	PK	Horizontal		
5	502.437	30.11	23.17	-6.94	46.00	22.83	PK	Horizontal		
6	915.892	30.69	29.48	-1.21	46.00	16.52	PK	Horizontal		

- 1. Final Level = Receiver Read level + Factor(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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## **Above 1GHz:**

## ANT1:

ANT1:						
		Test ch	annel: Lowest ch	nannel		
		Def	tector: Peak Valu	ie		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarization
4804.00	59.69	-9.60	50.09	74.00	23.91	Vertical
4804.00	58.71	-9.60	49.11	74.00	24.89	Horizontal
		Dete	ctor: Average Va	alue		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarization
4804.00	51.74	-9.60	42.14	54.00	11.86	Vertical
4804.00	55.16	-9.60	45.56	54.00	8.44	Horizontal
			annel: Middle ch			
		Det	tector: Peak Valu		T	
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarization
4882.00	59.34	-9.05	50.29	74.00	23.71	Vertical
4882.00	58.81	-9.05	49.76	74.00	24.24	Horizontal
		Dete	ctor: Average Va	alue		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarization
4882.00	52.19	-9.05	43.14	54.00	10.86	Vertical
4882.00	55.40	-9.05	46.35	54.00	7.65	Horizontal
			annel: Highest cl			
_	T	Det	ector: Peak Valu		1	
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarization
4960.00	59.78	-8.45	51.33	74.00	22.67	Vertical
4960.00	59.05	-8.45	50.60	74.00	23.40	Horizontal
		Dete	ctor: Average Va	alue		_
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarization

43.03

46.45

54.00

54.00

(dB)

10.97

7.55

## Remark:

4960.00

4960.00

51.48

54.90

-8.45

-8.45

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Vertical

Horizontal

Final Level =Receiver Read level + Factor.

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





## ANT2:

Test channel: Lowest channel									
	Detector: Peak Value								
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarization			
4804.00	59.37	-9.60	49.77	74.00	24.23	Vertical			
4804.00	58.98	-9.60	49.38	74.00	24.62	Horizontal			
	Detector: Average Value								
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarization			
4804.00	51.91	-9.60	42.31	54.00	11.69	Vertical			
4804.00	55.01	-9.60	45.41	54.00	8.59	Horizontal			
	Test channel: Middle channel								

Test channel: Middle channel							
Detector: Peak Value							
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarization	
4882.00	59.11	-9.05	50.06	74.00	23.94	Vertical	
4882.00	58.75	-9.05	49.70	74.00	24.30	Horizontal	
		Dete	ctor: Average Va	alue			
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarization	
4882.00	52.08	-9.05	43.03	54.00	10.97	Vertical	
4882.00	54.65	-9.05	45.60	54.00	8.40	Horizontal	

Test channel: Highest channel						
Detector: Peak Value						
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarization
4960.00	59.48	-8.45	51.03	74.00	22.97	Vertical
4960.00	58.51	-8.45	50.06	74.00	23.94	Horizontal
Detector: Average Value						
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarization
4960.00	51.74	-8.45	43.29	54.00	10.71	Vertical
4960.00	54.22	-8.45	45.77	54.00	8.23	Horizontal
D	•	•			•	

## Remark:

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<sup>1.</sup> Final Level =Receiver Read level + Factor.

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





## **8 EUT Constructional Details**

Reference to the test report No.: JYTSZB-R12-2102928.

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