

Report No: JYTSZB-R12-2102446

# FCC REPORT (Bluetooth)

TECNO MOBILE LIMITED		
FLAT 39 8/F BLOCK D WAH LOK INDUSTRIAL CENTRE 35 SHAN MEI STREET FOTAN NT		
UT)		
Mobile Phone		
KG5j		
TECNO		
2ADYY-KG5J		
FCC CFR Title 47 Part 15 Subpart C Section 15.247		
05 Nov., 2021		
06 Nov., to 25 Nov., 2021		
26 Nov., 2021		
PASS*		

\* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



#### 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.

This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



### 2 Version

Version No.	Date	Description
00	26 Nov., 2021	Original

Janet Wei Test Engineer Winner Thang Project Engineer

Date: 26 Nov., 2021

Tested by:

Reviewed by:

Date: 26 Nov., 2021

Project No.: JYTSZE2111024



# 3 Contents

	Page
1 COVER PAGE	1
2 VERSION	2
3 CONTENTS	3
4 TEST SUMMARY	4
5 GENERAL INFORMATION	5
5.1 CLIENT INFORMATION	5
5.2 GENERAL DESCRIPTION OF E.U.T.	
5.3 TEST ENVIRONMENT AND MODE, AND TEST SAMPLES PLANS	
5.4 DESCRIPTION OF SUPPORT UNITS	
5.5 M EASUREMENT UNCERTAINTY	-
5.6 ADDITIONS TO, DEVIATIONS, OR EXCLUSIONS FROM THE METHOD	
5.8 LABORATORY LOCATION	
6 TEST RESULTS AND MEASUREMENT DATA	8
6.1 ANTENNA REQUIREMENT	8
6.2 CONDUCTED EMISSIONS	
6.3 CONDUCTED OUTPUT POWER	12
6.3 CONDUCTED OUTPUT POWER	12 13
6.3 CONDUCTED OUTPUT POWER	12 13 14
6.3 CONDUCTED OUTPUT POWER 6.4 20DB OCCUPY BANDWIDTH 6.5 CARRIER FREQUENCIES SEPARATION 6.6 HOPPING CHANNEL NUMBER.	12 13 14 15
<ul> <li>6.3 CONDUCTED OUTPUT POWER</li> <li>6.4 20DB OCCUPY BANDWIDTH</li> <li>6.5 CARRIER FREQUENCIES SEPARATION</li> <li>6.6 HOPPING CHANNEL NUMBER</li> <li>6.7 DWELL TIME</li> </ul>	12 13 14 15 16
<ul> <li>6.3 CONDUCTED OUTPUT POWER</li> <li>6.4 20DB OCCUPY BANDWIDTH</li> <li>6.5 CARRIER FREQUENCIES SEPARATION</li> <li>6.6 HOPPING CHANNEL NUMBER</li> <li>6.7 DWELL TIME</li> <li>6.8 PSEUDORANDOM FREQUENCY HOPPING SEQUENCE</li> <li>6.9 BAND E DGE</li> </ul>	12 13 14 15 16 17 18
<ul> <li>6.3 CONDUCTED OUTPUT POWER</li> <li>6.4 20DB OCCUPY BANDWIDTH</li> <li>6.5 CARRIER FREQUENCIES SEPARATION</li> <li>6.6 HOPPING CHANNEL NUMBER</li> <li>6.7 DWELL TIME</li> <li>6.8 PSEUDORANDOM FREQUENCY HOPPING SEQUENCE</li> <li>6.9 BAND E DGE</li> <li>6.9.1 Conducted Emission Method</li> </ul>	12 13 14 15 16 17 18 18
<ul> <li>6.3 CONDUCTED OUTPUT POWER</li> <li>6.4 20DB OCCUPY BANDWIDTH</li> <li>6.5 CARRIER FREQUENCIES SEPARATION</li> <li>6.6 HOPPING CHANNEL NUMBER</li> <li>6.7 DWELL TIME</li> <li>6.8 PSEUDORANDOM FREQUENCY HOPPING SEQUENCE</li> <li>6.9 BAND E DGE</li> <li>6.9.1 Conducted Emission Method</li> <li>6.9.2 Radiated Emission Method</li> </ul>	12 13 14 15 16 17 18 18 18
<ul> <li>6.3 CONDUCTED OUTPUT POWER</li> <li>6.4 20DB OCCUPY BANDWIDTH</li> <li>6.5 CARRIER FREQUENCIES SEPARATION</li> <li>6.6 HOPPING CHANNEL NUMBER</li> <li>6.7 DWELL TIME</li> <li>6.8 PSEUDORANDOM FREQUENCY HOPPING SEQUENCE</li> <li>6.9 BAND E DGE</li> <li>6.9.1 Conducted Emission Method</li> <li>6.9.2 Radiated Emission Method</li> <li>6.10 S PURIOUS E MISSION</li> </ul>	12 13 14 15 16 16 18 18 18 19 32
<ul> <li>6.3 CONDUCTED OUTPUT POWER</li> <li>6.4 20DB OCCUPY BANDWIDTH</li> <li>6.5 CARRIER FREQUENCIES SEPARATION</li> <li>6.6 HOPPING CHANNEL NUMBER</li> <li>6.7 DWELL TIME</li> <li>6.8 PSEUDORANDOM FREQUENCY HOPPING SEQUENCE</li> <li>6.9 BAND E DGE</li> <li>6.9.1 Conducted Emission Method</li> <li>6.9.2 Radiated Emission Method</li> <li>6.10 SPURIOUS EMISSION</li> <li>6.10.1 Conducted Emission Method</li> </ul>	12 13 14 15 16 16 17 18 18 19 32 32
<ul> <li>6.3 CONDUCTED OUTPUT POWER.</li> <li>6.4 20DB OCCUPY BANDWIDTH</li> <li>6.5 CARRIER FREQUENCIES SEPARATION.</li> <li>6.6 HOPPING CHANNEL NUMBER.</li> <li>6.7 DWELL TIME</li> <li>6.8 PSEUDORANDOM F REQUENCY HOPPING SEQUENCE</li> <li>6.9 BAND E DGE</li> <li>6.9.1 Conducted Emission Method</li> <li>6.10 S PURIOUS E MISSION.</li> <li>6.10.1 Conducted Emission Method</li> <li>6.10.2 Radiated Emission Method</li> </ul>	12 13 14 15 16 16 17 18 18 18 19 32 32 33
<ul> <li>6.3 CONDUCTED OUTPUT POWER</li> <li>6.4 20DB OCCUPY BANDWIDTH</li> <li>6.5 CARRIER FREQUENCIES SEPARATION</li> <li>6.6 HOPPING CHANNEL NUMBER</li> <li>6.7 DWELL TIME</li> <li>6.8 PSEUDORANDOM FREQUENCY HOPPING SEQUENCE</li> <li>6.9 BAND E DGE</li> <li>6.9.1 Conducted Emission Method</li> <li>6.9.2 Radiated Emission Method</li> <li>6.10 SPURIOUS EMISSION</li> <li>6.10.1 Conducted Emission Method</li> </ul>	12 13 14 15 16 16 17 18 18 18 19 32 32 33



### **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)	247 (a)(1) Appendix A – BT	
Hopping Channel Number	15.247 (a)(1)	Appendix A – BT	Pass
Dwell Time	15.247 (a)(1)	Appendix A – BT	Pass
Conducted Band Edge	15 205 8 15 200	Appendix A – BT	Pass
Radiated Band Edge	- 15.205 & 15.209	See Section 6.9.2	Pass
Conducted Spurious Emission		Appendix A – BT	Pass
Radiated Spurious Emission	15.247(d)	See Section 6.10.2	Pass

Pass: The EUT complies with the essential requirements in the standard. 1.

2. N/A: Not Applicable.

З. The cable insertion loss used by "RF Output Power" and other conduction measurement items is 0.5dB (provided by the customer).

Test Method:	ANSI C63.10-2013
	KDB 558074 D01 15.247 Meas Guidance v05r02



# **5** General Information

# **5.1 Client Information**

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

# 5.2 General Description of E.U.T.

Product Name:	Mobile Phone
Model No .:	KG5j
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:	1.2dBi
Power supply:	Rechargeable Li-ion Polymer Battery DC3.85V, 4900mAh
AC adapter:	Model: U100TSA
	Input: AC100-240V, 50/60Hz, 0.3A
	Output: DC 5.0V, 2A
Test Sample Condition:	The test samples were provided in good working order with no visible defects.

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	2421MHz	39	2441MHz	59	2461MHz		
Remark: Channel 0, 39 &78 selected for GFSK, π/4-DQPSK and 8DPSK.							



### 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.				
•	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					
3#	Conducted Emission				
1#	Radiated Emission				
4#	EUT constructional details				

**Remark:** Jian Yan 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
Conducted Emission (150kHz ~ 30MHz) for AAN	3.54 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
Radiated Emission (30MHz ~ 1GHz) for 10m SAC	4.32 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 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 17025:2017 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: <u>https://portal.a2la.org/scopepdf/4346-01.pdf</u>



### **5.8 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-JYTee@lets.com, Website: http://www.ccis-cb.com

### 5.9 Test Instruments list

Radiated Emission:							
Test Equipment	Manufacturer Model No.		Serial No.	Cal.Date	Cal.Due date		
			oonanto.	(mm-dd-yy)	(mm-dd-yy)		
3m SAC	ETS	RFD-100	Q1984	04-14-2021	04-13-2024		
Loop Antenna	SCHWARZBECK	FMZB 1519 B	1519B-044	03-07-2021	03-06-2022		
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	11-27-2020	11-26-2021		
Simulated Station	Anritsu	MT8820C	6201026545	03-03-2021	03-02-2022		
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			
10m SAC	ETS	RFSD-100-F/A	Q2005	04-28-2021	04-27-2024		
BiConiLog Antenna	SCHWARZBECK	VULB 9168	1249	04-02-2021	04-01-2022		
BiConiLog Antenna	SCHWARZBECK	VULB 9168	1250	04-02-2021	04-01-2022		
EMI Test Receiver	R&S	ESR 3	102800	04-08-2021	04-07-2022		
EMI Test Receiver	R&S	ESR 3	102802	04-08-2021	04-07-2022		
Low Pre-amplifier	Bost	LNA 0920N	2016	04-06-2021	04-05-2022		
Low Pre-amplifier	Bost	LNA 0920N	2019	04-06-2021	04-05-2022		
Cable	Bost	JYT10M-1G-NN-10M	JYT10M-1	04-02-2021	04-01-2022		
Cable	Bost	JYT10M-1G-NN-10M	JYT10M-2	04-02-2021	04-01-2022		
Test Software	R&S	EMC32	\	/ersion: 10.50.4	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 3	101189	03-03-2021	03-02-2022	
LISN	Rohde & Schwarz	ENV432	101602	04-06-2021	04-05-2022	
LISN	Rohde & Schwarz	ESH3-Z5	843862/010	06-18-2020	06-17-2022	
ISN	Schwarzbeck	CAT3 8158	#96	03-03-2021	03-02-2022	
ISN	Schwarzbeck	CAT5 8158	#166	03-03-2021	03-02-2022	
ISN	Schwarzbeck	NTFM 8158	#126	03-03-2021	03-02-2022	
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	

Jian Yan 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. Telephone: +86 (0) 755 23118282 Fax: +86 (0) 755 23116366 Project No.: JYTSZE2111024



EMI Test Software AUDIX	E3	Version: 6.110919b
-------------------------	----	--------------------

Conducted method:						
Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)	
Spectrum Analyzer	Keysight	N9010B	MY60240202	11-27-2020	11-26-2021	
Vector Signal Generator	Keysight	N5182B	MY59101009	11-27-2020	11-26-2021	
Analog Signal Generator	Keysight	N5173B	MY59100765	11-27-2020	11-26-2021	
Power Detector Box	MWRF-test	MW100-PSB	MW201020JYT	11-27-2020	11-26-2021	
Simulated Station	Rohde & Schwarz	CMW270	102335	11-27-2020	11-26-2021	
RF Control Box	MWRF-test	MW100-RFCB	MW200927JYT	N/A	N/A	
PDU	MWRF-test	XY-G10	N/A	N/A	N/A	
DC Power Supply	Keysight	E3642A	MY60296194	11-27-2020	11-26-2021	
Temperature Humidity Chamber	Deli	8840	N/A	03-08-2021	03-07-2022	
Test Software	MWRF-tes	MTS 8310	N	/ersion: 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)
responsible party shall be us antenna that uses a unique so that a broken antenna ca electrical connector is prohib 15.247(b) (4) requirement: (4) The conducted output po antennas with directional ga section, if transmitting anten power from the intentional ra	be designed to ensure that no antenna other than that furnished by the sed with the device. The use of a permanently attached antenna or of an coupling to the intentional radiator, the manufacturer may design the unit n be replaced by the user, but the use of a standard antenna jack or bited. ower limit specified in paragraph (b) of this section is based on the use of ins that do not exceed 6 dBi. Except as shown in paragraph (c) of this nas of directional gain greater than 6 dBi are used, the conducted output adiator shall be reduced below the stated values in paragraphs (b)(1), tion, as appropriate, by the amount in dB that the directional gain of the
E.U.T Antenna:	
The Bluetooth antenna is an the antenna is 1.2 dBi.	Internal antenna which permanently attached, and the best case gain of



### **6.2 Conducted Emissions**

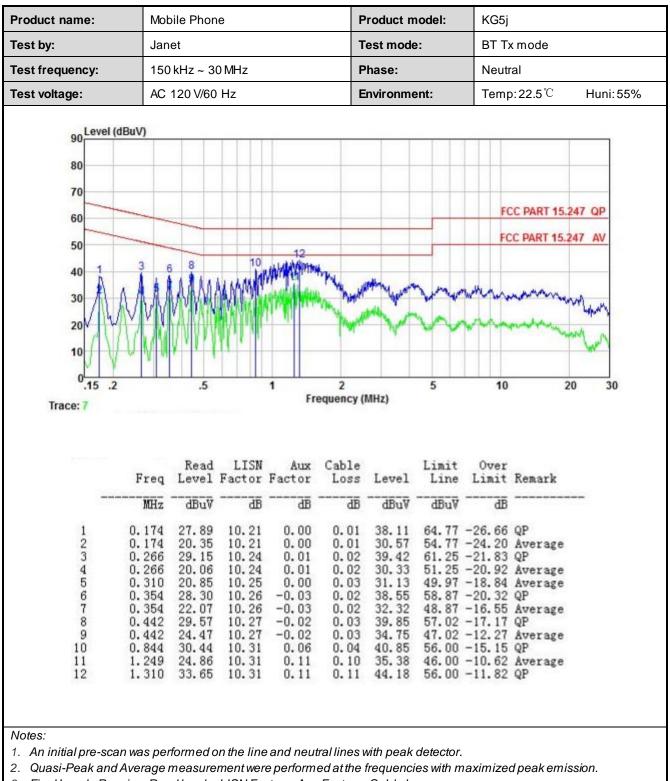
Test Requirement:	FCC Part 15 C Section 15.	207				
Test Frequency Range:	150 kHz to 30 MHz					
Class / Severity:	Class B					
Receiver setup:	RBW=9 kHz, VBW=30 kHz, Sweep time=auto					
Limit:	Frequency range (MHz) Limit (dBuV)					
		Quasi-peak	Average			
	0.15-0.5	66 to 56*	56 to 46*			
	0.5-5 56 46					
	5-30	60	50			
Test setup:	* Decreases with the logari	• •				
	AUX         Equipment         Equipment         Test table/Insulation plane         Remark:         E.U.T: Equipment Under Test         LISN: Line impedence Stabilization Networ         Test table height=0.8m	Creation Contraction Contracti				
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 det	ails				
Test mode:	Hopping mode					
Test results:	Pass					



#### Measurement Data:

roduct name:	Mobile	Mobile PhoneProduct model:JanetTest mode:150 kHz ~ 30 MHzPhase:		P			KG5j BT Tx mode			
est by:	Janet			т						
est frequency:	150 k			Line	Line					
est voltage:	AC 12	20 V/60 Hz		E	nvironme	ent:	Temp:22.5℃ Huni:55%			
90 Level (dE 80 70 60 50 40 40 1 30 20 10				N'Ilden ordelle Velan provinsi		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		C PART 15.		
0.15 .2 Trace: 5		.5	1 Fre	2 equency (I	MHz)	5	10	:	20 30	
	Freq 1	.5 Read LISN Level Factor	Fre Aux	-		Limit	10 Over Limit		20 30	
	Freq 1	Read LISN	Fre Aux Factor	Cable		Limit	Over		20 30	





3. Final Level = Receiver Read level + LISN Factor + Aux Factor + Cable Loss.



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:	
Test Instruments:	Refer to section 5.9 for details
Test mode:	Non-hopping mode
Test results:	Pass
Measurement Data:	Refer to Appendix A - BT

### 6.3 Conducted Output Power



# 6.4 20dB Occupy Bandwidth

Test Requirement:	FCC Part 15 C Section 15.247 (a)(1)
Receiver setup:	DH1: RBW=15 kHz, VBW=47 kHz, detector=Peak 2DH1&3DH: RBW=20 kHz, VBW=62 kHz, detector=Peak
Limit:	Within authorization band
Test setup:	
Test Instruments:	Refer to section 5.9 for details
Test mode:	Non-hopping mode
Test results:	Pass
Measurement Data:	Refer to Appendix A - BT

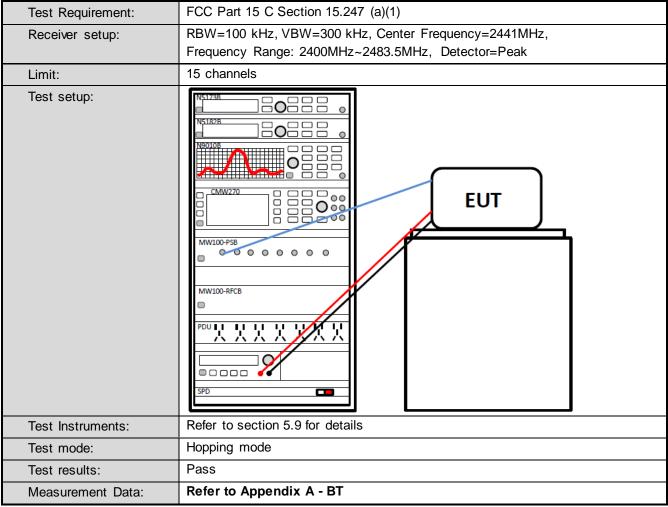


# 6.5 Carrier Frequencies Separation

Test Requirement:	FCC Part 15 C Section 15.247 (a)(1)
Receiver setup:	RBW=300 kHz, VBW=1 MHz, detector=Peak
Limit:	<ul><li>a) 0.025MHz or the 20dB bandwidth (whichever is greater)</li><li>b) 0.025MHz or two-thirds of the 20dB bandwidth (whichever is greater)</li></ul>
Test setup:	
Test Instruments:	Refer to section 5.9 for details
Test mode:	Hopping mode
Test results:	Pass
Measurement Data:	Refer to Appendix A - BT



### 6.6 Hopping Channel Number





### 6.7 Dwell Time

Test Requirement:	FCC Part 15 C Section 15.247 (a)(1)			
Receiver setup:	RBW=1 MHz, VBW=1 MHz, Span=0 Hz, Detector=Peak			
Limit:	0.4 Second			
Test setup:				
Test Instruments:	Refer to section 5.9 for details			
Test mode:	Hopping mode			
Test results:	Pass			
Measurement Data:	Refer to Appendix A - BT			



### 6.8 Pseudorandom Frequency Hopping Sequence

Test Requirement:		
	FCC Part 15 C Section 15.247 (a)(1) r	equirement:
25 kHz or the 20 dB bandwi Alternatively. Frequency hop channel carrier frequencies hopping channel, whichever than 125 mW. The system s rate from a Pseudorandom on the average by each tran	s shall have hopping channel carrier freque dth of the hopping channel, whichever is pping systems operating in the 2400-2483 that are separated by 25 kHz or two-thirds is greater, provided the systems operate shall hop to channel frequencies that are so ordered list of hopping frequencies. Each nosmitter. The system receivers shall have s of their corresponding transmitters and so nosmitted signals.	greater. 3.5 MHz band may have hopping s of the 20 dB bandwidth of the with an output power no greater selected at the system hopping frequency must be used equally input bandwidths that match the
EUT Pseudorandom Frequ	uency Hopping Sequence	
outputs are added in a mode	sequence: $2^9 - 1 = 511$ bits	ed back to the input of the first
	Chift Register for Generation of the PRB	
	Chift Register for Generation of the PRB om Frequency Hopping Sequence as follo 62 64 78 1	1



### 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:				
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			



#### 6.9.2 Radiated Emission Method

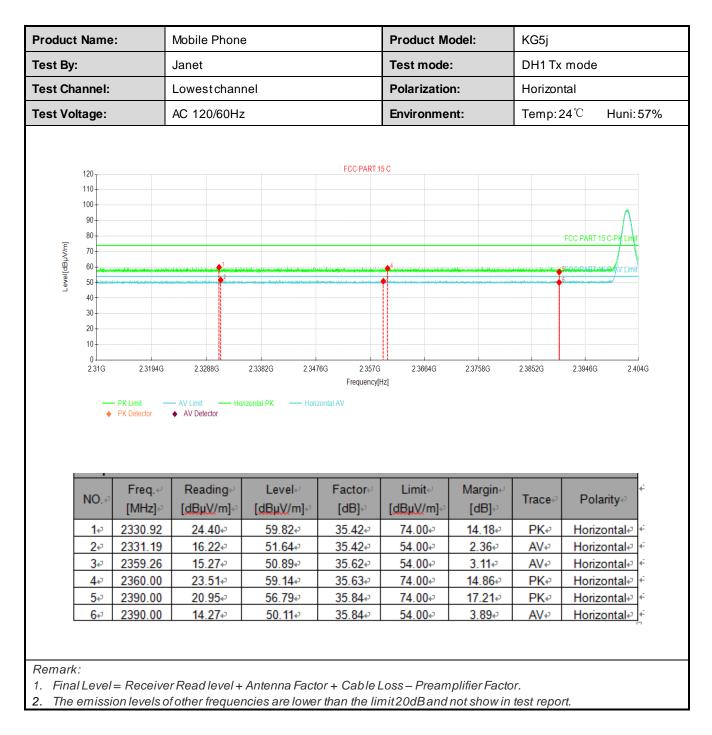
Test Requirement:	FCC Part 15 C Section 15.209 and 15.205						
Test Frequency Range:	2310 MHz to 2390 MHz and 2483.5 MHz to 2500 MHz						
Test Distance:	3m						
Receiver setup:	Frequency Detector RBW VBW Rem				Remark		
	Above 1GHz	Peak		1MHz	31	ЛНz	Peak Value
	Above 19Hz	RMS		1MHz	3MHz Average Valu		
Limit:	Frequency Limit (dBuV/m @3m) Remark						Remark
	Above 1GHz		54.00		Average Value		
	/ 10010 10			74.00 Peak Value			Peak Value
Test setup:	Horn Antenna Tower Horn Antenna Tower Horn Antenna Tower Ground Reference Plane Test Receiver						
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						
Test mode:	Non-hopping m	ode					
Test results:	Passed						



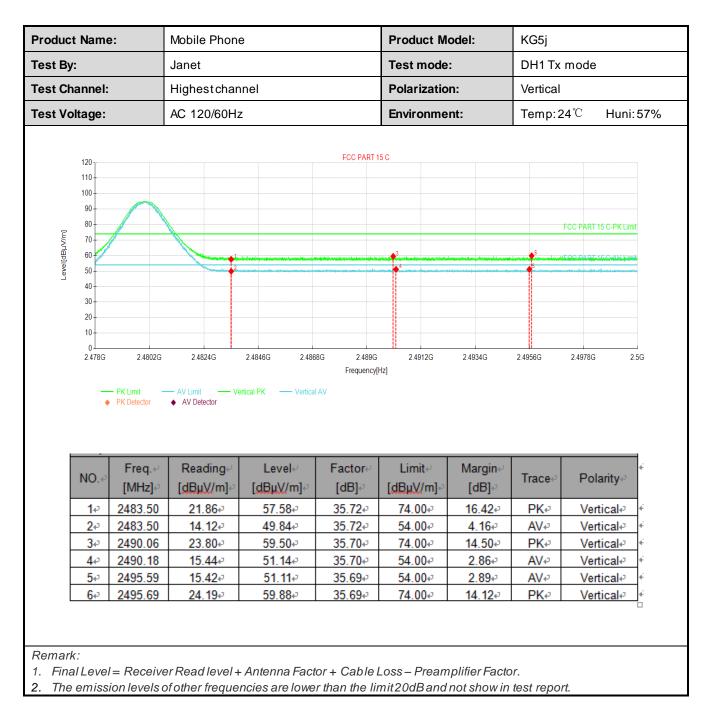
#### **GFSK Mode:**

est By:	Product Name:		Mobile Phone			lodel:	KG5j			
Гest By: Гest Channel:		Janet Lowestchannel			Test mode	):	DH1 Tx	DH1 Tx mode		
					Polarization:		Vertical			
est Voltage:		AC 120/60H	z		Environme	ent:	Temp:2	24℃ Huni:5	57%	
120 110 100 90 80 70 60 40 30				FCC PART	15 C			FCC PART 15 C-PK Limit		
20- 10- 2.31G	2 3194G PK Limit PK Detector	2.3288G AV Limit Ve AV Detector	2.3382G 2.34 ertical PK — Vertical	Frequency[		2.3758G	2.3852G	2.3946G 2.404	4G	
10 0 2.31G	PK Limit PK Detector	AV Limit Ve AV Detector	ertical PK — Vertical Leveled	Frequency IAV Factor⊷	Hz] Limite	Margin⇔	23852G		4G	
10 0 231G	PK Limit PK Defector	AV Limit Ve AV Detector Reading	ertical PK — Vertical Level↔ [dBµV/m]+2	Frequency AV Factor [dB]+2	Hz] Limit⊮ [dBµV/m]₽	Margin⊷ [dB]↩	Trace₽	Polarity∉	4G	
10 0 231G NO.* <b>1</b> ₽	PK Limit     PK Detector     Freq     [MHz] -     2339.06	AV Limit Ve AV Detector Ve	ertical PK — Vertical Level↩ [dBµV/m]↩ 51.61↩	Frequency AV Factor [dB] 35.48+ <sup>3</sup>	Limit. [dBµV/m] 54.00+	Margin⊮ [dB]₄ 2.39₄ <sup>3</sup>	Trace.	Polarity₽ Vertical₽	4G	
10 0 2.31G NO.* 1€ <sup>3</sup> 2€ <sup>3</sup>	PK Limit PK Detector Freq. + <sup>2</sup> [MHz] + <sup>2</sup> 2339.06 2339.22	AV Limit Ve AV Detector Ve AV Detector Ve (dBµV/m) 16.13↔ 24.45↔	Eevel↔ [dBµV/m]↔ 51.61↔ 59.93↔	Frequency AV Factor-P [dB]-P 35.48+P 35.48+P	Limit.⊍ [dBµV/m].⊍ 54.00.€ 74.00.€	Margin.⊌ [dB].₽ 2.39.₽ 14.07.₽	Trace↔ AV↔ PK↔	Polarity⇔ Vertical⊷ Vertical⊷ ↔	4G	
10 0 231G NO.* 1+ <sup>3</sup> 2+ <sup>3</sup> 3+ <sup>3</sup>	PK Limit PK Detector [MHz] - <sup>2</sup> 2339.06 2339.22 2361.08	AV Limit	Level↔ [dBµV/m]↔ 51.61↔ 59.93↔ 59.52↔	Frequency AV Factor+ [dB]+ <sup>2</sup> 35.48+ <sup>2</sup> 35.48+ <sup>2</sup> 35.63+ <sup>3</sup>	Limit-/ [dBµV/m]-/ 54.00-/ 74.00-/ 74.00-/	Margin.⊌ [dB].₽ 2.39.₽ 14.07.₽ 14.48.₽	Trace↩ AV↩ PK↩ PK↩	Polarity Vertical≁ Vertical≁ Vertical≁	4G 2 2 2	
10 0 231G NO.* 1+ <sup>3</sup> 2+ <sup>3</sup> 3+ <sup>3</sup> 4+ <sup>3</sup>	<ul> <li>PK Limit</li> <li>PK Detector</li> <li>Freq. +<sup>2</sup></li> <li>[MHz] +<sup>2</sup></li> <li>2339.06</li> <li>2339.22</li> <li>2361.08</li> <li>2361.94</li> </ul>	AV Limit	Level↔ [dBµV/m]↔ 51.61↔ 59.93↔ 59.52↔ 51.03↔	Frequency AV Factor [dB] 35.48+ 35.63+ 35.63+ 35.64+	Limit+/ [dBµV/m]-/ 54.00+/ 74.00+/ 74.00+/ 54.00+/ 54.00+/	Margin [dB] 2.39 14.07 14.48 2.97	Trace↔ AV↔ PK↔ PK↔ AV↔	Polarity Vertical Vertical Vertical Vertical + Vertical	4G	
10 0 231G NO.* 1+ <sup>3</sup> 2+ <sup>3</sup> 3+ <sup>3</sup>	PK Limit PK Detector [MHz] - <sup>2</sup> 2339.06 2339.22 2361.08	AV Limit	Level↔ [dBµV/m]↔ 51.61↔ 59.93↔ 59.52↔	Frequency AV Factor+ [dB]+ <sup>2</sup> 35.48+ <sup>2</sup> 35.48+ <sup>2</sup> 35.63+ <sup>3</sup>	Limit-/ [dBµV/m]-/ 54.00-/ 74.00-/ 74.00-/	Margin.⊌ [dB].₽ 2.39.₽ 14.07.₽ 14.48.₽	Trace↩ AV↩ PK↩ PK↩	Polarity Vertical≁ Vertical≁ Vertical≁	4G 2 2 2 2 2 2 2 2	











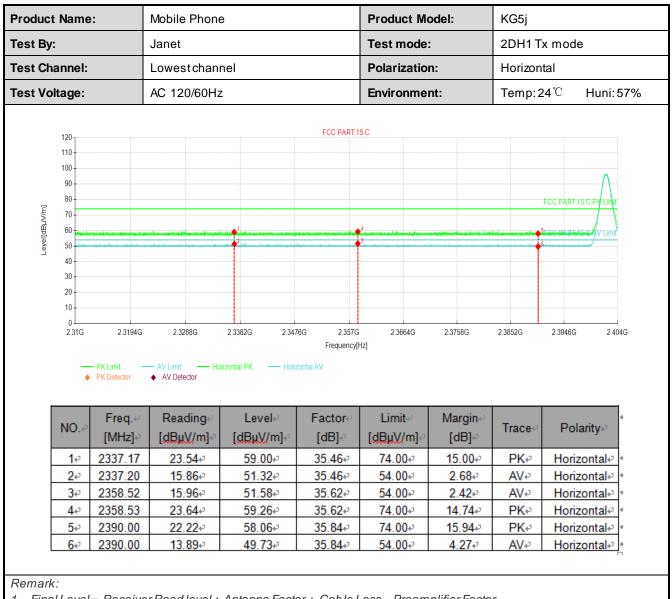
Γest By: Γest Chai Γest Volta	nnel:			e	Product M	odel:	KG5j		
	nnel:	Test By:			Test mode	:	DH1 Tx mode		
Test Volta			Highestchan	nel	Polarization:		Horizontal		
	age:		AC 120/60Hz	2		Environme	nt:	Temp:2	24℃ Huni:57%
	•								
	120				FCC PART	15 C			
	110								
	100								
	90		<b>X</b>						
C	80								FCC PART 15 C-PK Limit
Level[dBµV/m]	70	,							
/el[dE	60 50		2	****		de des 16 de se dépendences de la companya de la c	hinding in star different of prostarial and other	alden Auforder Produkteren	a, Maran Maran Managara ang Kalandha
Lei	40								
	30								
	20								
	10								
	0								
	2 / 78C	2 48020	2 4824 G	2 4846C 2 486	8C 2480C	2 40120	2 4034G	2 40560	2 4078G 2 5G
	2.478G	2.4802G	2.4824G	2.4846G 2.486	8G 2.489G Frequency[		2.4934G	2.4956G	2.4978G 2.5G
	2.478G				Frequency[		2.4934G	2.4956G	2.4978G 2.5G
	_	2.4802G – PK Limit PK Detector		2.4846G 2.486 rizontal PK — Hori:	Frequency[		2.4934G	2.4956G	2.4978G 2.5G
_	_	- PK Limit	— AV Limit — Ho		Frequency[		2.4934G	2.4956G	2.4978G 2.5G
	•	- PK Limit	— AV Limit — Ho		Frequency[		2.4934G Margine		¢
	_	- PK Limit PK Detector	AV Limit Ho	rizontal PK — Horiz	Frequency[ zontal AV	Hz]		2.4956G	2.4978G 2.5G
1	•	- PK Limit PK Detector Freq.**	AV Limit Ho AV Detector Ho Reading	rizontal PK — Hori: Leveled	Frequency[ zontal AV Factor⊷	Hz] Limite	Margin⊷		¢
	• NO.*	- PK Limit PK Detector Freq.≁ [MHz]≁	AV Limit Ho ◆ AV Detector Reading ↓ [dBµV/m] ↓	rizontal PK Horiz Level≁ [dBµV/m]≁	Frequency zontal AV Factor& [dB]&	Hz] Limit⊮ [dBμV/m]₽	Margin⊷ [dB]↩	Trace₄	¢
	• NO.₽ 1₽	- PK Limit PK Detector Freq. 44 [MHz] 49 2483.50	AV Limit Ho AV Detector Reading⊮ [dBµV/m]₽ 21.67₽	rizontal PK Hort Level↔ [dBµV/m]↔ 57.39↔	Frequency zontal AV Factor⊌ [dB]₽ 35.72₽	Hz] Limit⊮ [dBµV/m]⊮ 74.00ℯ	Margin↩ [dB]↩ 16.61↩	Trace≓ PK⊷	Polarity₀ Horizontal₀ ≮
	• NO.₽ 1₽ 2₽	- PK Limit PK Detector Freq. 4/ [MHz].4/ 2483.50 2483.50	AV Limit Ho AV Detector Reading ↓ [dBµV/m] ↓ 21.67+3 14.10+3	rizontal PK — Hor. Level↔ [dBµV/m]↔ 57.39↔ 49.82↔	Frequency zontal AV Factor [dB] 35.72+ 35.72+	Hz] Limit⊮ [dBµV/m]₽ 74.00₽ 54.00₽	Margin↩ [dB]↩ 16.61↩ 4.18↩	Trace+ PK+ AV+	Polarity- Horizontal- Horizontal- €
	• NO.₽ 1₽ 2₽ 3₽	- PK Limit PK Detector [MHz] -2 2483.50 2483.50 2489.08	AV Limit — Ho AV Detector Reading 4 [dBµV/m] 4 21.674 14.104 15.414	nizontal PK — Hori Level↔ [dBµV/m]↔ 57.39↔ 49.82↔ 51.12↔	Frequency zontal AV Factor (-) [dB] (-) 35.72 (-) 35.72 (-) 35.71 (-)	لنسنt [dBµV/m] 74.00 54.00 54.00 54.00	Margin⊷ [dB]⊷ 16.61⊷ 4.18⊷ 2.88⊷	Trace+ PK+3 AV+3 AV+3	Polarity Horizontal Horizontal Horizontal €



#### $\pi/4$ -DQPSK mode

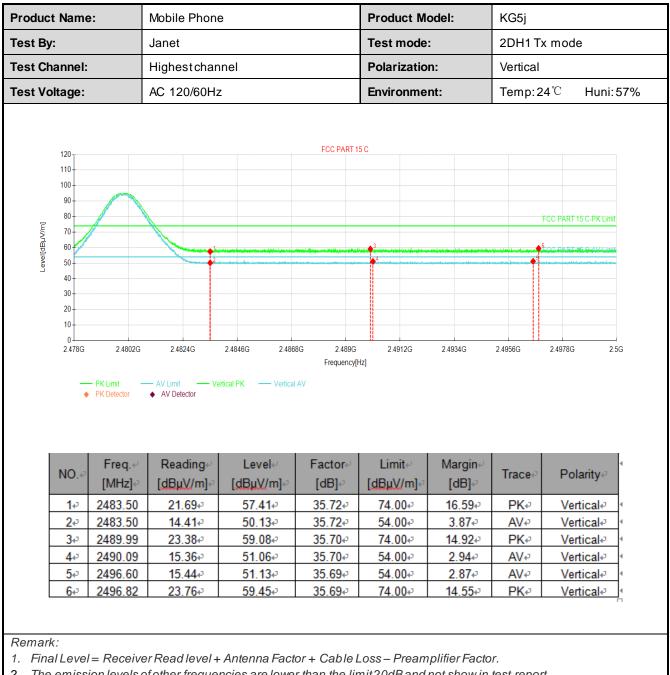
Product Name:		Mobile Phone			Product M	odel:	KG5j			
Test By:	:		Janet			Test mode	:	2DH1 Tx mode		
Test Channel:		:	Lowestchannel			Polarization:		Vertical		
Test Voltage:			AC 120/60H	z		Environme	nt:	Temp:2	24℃ H	luni: 57%
	120 J.				FCC PART	15 C				
	110									
	100									^
	90 80									
<u>ال</u>	70								FCC PART 15 C-	PKLimit
2 Pu B	60	Bits a start, the state of states are a		<b>●</b> 1	3				Second and the second	AV Limit
Level[dBµV/m]	50		un de la constante de la const	careful a construction of a standard and a standard	*	turilata (12-1) ha itan dhei haladi saasii.			6	CV LINK
	40									
30										
	20									
		2.3194G	2.3288G	2.3382G 2.34			2.3758G	2.3852G	2.3946G	2.404G
	20 10 0 2.31G	PK Limit PK Detector	AV Limit V AV Detector V Reading	ertical PK — Vertica Level+J	Frequency IAV Factor	[Hz]	Margin ~	23852G	2.3946G Polarit	4
	20 10 0 2.31G	PK Limit PK Detector Freq.≪ [MHz]≁	AV Limit V ◆ AV Detector V Reading	ertical PK — Vertica Level↔ [dBµV/m]₽	Frequency I AV Factore [dB]	Hz] Limit⊷ [dBµV/m]⊷	Margin∛ [dB]∂	Trace⊮	Polarit	<b>y</b> ₊ <sup>3</sup> *
[	20 10 0 2.31G NO.	PK Limit PK Detector Freq. ↔ [MHz] ↔ 2335.43	AV Limit V AV Detector V Reading ↓ [dBµV/m] ↓ 24.09↓	ertical PK — Vertica Level↔ [dBµV/m]↔ 59.54≁	Frequency IAV Factor⊮ [dB]⊮ 35.45+3	Limit₊ [dBµV/m]₊ 74.00₊3	Margin⊮ [dB]⊮ 14.46⊷	Trace≓ PK⊷	Polarit Vertica	y₄ <sup>3</sup> àl₄3 ≮
	20 10 0 2.31G NO.4 14 <sup>3</sup> 24 <sup>3</sup>	PK Limit PK Detector [MHz] 42 2335.43 2336.17	AV Limit V AV Detector V Reading V [dBµV/m] 2 24.09 2 15.62 4	ertical PK — Vertica Level [dBµV/m] 59.54 51.08 2	Frequency IAV Factor [dB] 35.45+ 35.46+	Hz] Limit↔ [dBµV/m]↔ 74.00↔ 54.00↔	Margin.⊌ [dB].₽ 14.46₽ 2.92₽	Trace+ <sup>3</sup> PK+ <sup>3</sup> AV+ <sup>3</sup>	Polarit Vertica Vertica	y₊⊃ al₄⊃ ≰
	20 10 0 2.31G NO. 1 2 4 3 4 3	PK Limit PK Detector [MHz]-2 2335.43 2336.17 2356.83	AV Limit AV Detector Reading-↓ [dBµV/m]-↓ 24.09+↓ 15.62+↓ 23.80+↓	ertical PK — Vertica Level↔ [dBµV/m]↔ 59.54↔ 51.08↔ 59.40↔	Frequency Factor [dB] 35.45+ 35.46+ 35.60+	Hz] Limit↔ [dBµV/m]↔ 74.00↔ 54.00↔ 74.00↔	Margin.↓ [dB].↓ 14.46+ <sup>3</sup> 2.92↓ <sup>3</sup> 14.60+ <sup>3</sup>	Trace≓ PK+³ AV⊷ PK+³	Polarit Vertica Vertica Vertica	y ← <sup>2</sup> al ← <sup>2</sup> ≮ al ← ¢ +
	20 10 0 231G NO.4 14 24 34 34	PK Limit PK Detector [MHz] ₽ 2335.43 2336.17 2356.83 2357.37	AV Limit V AV Detector V Reading V [dBµV/m] ✓ 24.09+ <sup>3</sup> 15.62+ <sup>3</sup> 23.80+ <sup>3</sup> 15.84+ <sup>3</sup>	ertical PK — Vertica Level↔ [dBµV/m]↔ 59.54↔ 51.08↔ 59.40↔ 51.45↔	Frequency [AV Factor [dB] 35.45+ <sup>3</sup> 35.46+ <sup>3</sup> 35.60+ <sup>3</sup> 35.61+ <sup>3</sup>	Hz] Limit↔ [dBµV/m]↔ 74.00↔ 54.00↔ 74.00↔ 54.00↔	Margin⊮ [dB]⊮ 14.46⊷ 2.92↔ 14.60↔ 2.55↔	Trace PK AV PK AV AV AV	Polarit Vertica Vertica Vertica	y≠ ३ ≠ ३ ≠ ३ ≠ ३ ≠ * ३ ≠ *
	20 10 0 2.31G NO. 1 2 4 3 4 3	PK Limit PK Detector [MHz]-2 2335.43 2336.17 2356.83	AV Limit AV Detector Reading-↓ [dBµV/m]-↓ 24.09+↓ 15.62+↓ 23.80+↓	ertical PK — Vertica Level↔ [dBµV/m]↔ 59.54↔ 51.08↔ 59.40↔	Frequency Factor [dB] 35.45+ 35.46+ 35.60+	Hz] Limit↔ [dBµV/m]↔ 74.00↔ 54.00↔ 74.00↔	Margin.↓ [dB].↓ 14.46+ <sup>3</sup> 2.92↓ <sup>3</sup> 14.60+ <sup>3</sup>	Trace≓ PK+³ AV⊷ PK+³	Polarit Vertica Vertica Vertica	y+□ 2 +□ 4 +□ 4 +□ 4 +□ 4 +□ 4 +□ 4 +□ 4 +□ 4





1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Preamplifier Factor.











#### 8DPSK mode

Product Name:		Mobile Phone			Product M	odel:	KG5j			
est By:			Janet			Test mode	:	3DH1 Tx mode		
lest Ch	est Channel:		Lowestchannel			Polarization:		Vertical		
lest Vo	ltage:		AC 120/60Hz	<u>.</u>		Environme	nt:	Temp:2	24℃ H	uni: 57%
Level[dBµV/m]	120 110 90 80 70 60 50 40				FCC PART 1	15 C		daalaa aa wadaa ahaa ahaa ahaa ahaa ahaa aha	FCC PART 15 C-F	
	30 20 10 2.31G	2.3194G – PK Limit – – PK Detector	2.3288G AV Limit Ve AV Detector	2.3382G 2.347 rtical PK — Vertical	Frequency[		2.3758G	2.3852G	2.3946G	2.404G
	20 10 0 2.31G	– PK Limit –	— AV Limit — Ve		Frequency[		2.3758G Margin⊮ [dB]⊮	2.3852G	2 3946G Polarity	4-
	20 10 2.31G	- PK Limit - → PK Detector Freq. +/	AV Limit Ve AV Detector Ve	rtical PK — Vertical Level⊷¹	Frequency( AV Factor⊷	Hz] Limit⊷	Margin⊎			<i>€</i>
	20- 10- 2.31G NO.≁ 1+2- 2+3	PK Limit PK Detector Freq. 4/ [MHz] 4/2 2330.00 2330.00	AV Limit Ve AV Detector Ve Reading- [dBµV/m]-2 22.19-2 14.25-3	rtical PK — Vertical Level↔ [dBµV/m]+2	Frequency AV Factor [dB]	Limit.↔ [dBµV/m].↔ 74.00.↔ 54.00.↔	Margin⊮ [dB]₽ 16.40₽ 4.34₽	Trace+P PK+P AV+P	Polarity Vertica Vertica	/→ ←  ↓ ← +
	20 10 0 2316	PK Limit PK Detector Freq. 4 <sup>J</sup> [MHz] 4 <sup>J</sup> 2330.00 2330.00 2360.00	AV Limit Ve ♦ AV Detector Reading ( [dBµV/m] 22.19+ 14.25+ 14.35+ 3	rtical PK — Vertical Level↔ [dBµV/m]↔ 57.60↔ 49.66↔ 49.98↔	Frequency AV Factor [dB] 35.41+ <sup>3</sup>	Limit↔ [dBµV/m]↔ 74.00↔ 54.00↔ 54.00↔	Margin⊮ [dB]₽ 16.40₽	Trace PKe AVe AVe	Polarity Vertica Vertica Vertica	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
	20- 10- 2.31G NO.≁ 1+2- 2+3	PK Limit PK Detector [MHz] * <sup>2</sup> 2330.00 2360.00 2360.00	AV Limit Ve AV Detector Ve (dBµV/m) 22.19 14.25 14.35 22.23 22.23 Ve	rtical PK	Frequency( AV [dB]-2 35.41+2 35.63+2 35.63+2 35.63+3	Limit.↔ [dBµV/m].↔ 74.00.↔ 54.00.↔	Margin+ [dB]+ <sup>2</sup> 16.40+ <sup>2</sup> 4.34+ <sup>2</sup> 4.02+ <sup>2</sup> 16.14+ <sup>2</sup>	Trace+P PK+P AV+P AV+P PK+P	Polarity Vertica Vertica	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
	20 10 0 2.31G NO 1+- 2+- 3+-	PK Limit PK Detector Freq. 4 <sup>J</sup> [MHz] 4 <sup>J</sup> 2330.00 2330.00 2360.00	AV Limit Ve ♦ AV Detector Reading ( [dBµV/m] 22.19+ 14.25+ 14.35+ 3	rtical PK Vertical Level↔ [dBµV/m]↔ 57.60↔ 49.66↔ 49.98↔	Frequency( AV Factor [dB] 35.41 35.41 35.43 35.63 35.63	Limit↔ [dBµV/m]↔ 74.00↔ 54.00↔ 54.00↔	Margin⊮ [dB]₽ 16.40₽ 4.34₽ 4.02₽	Trace PKe AVe AVe	Polarity Vertica Vertica Vertica	는 다 -

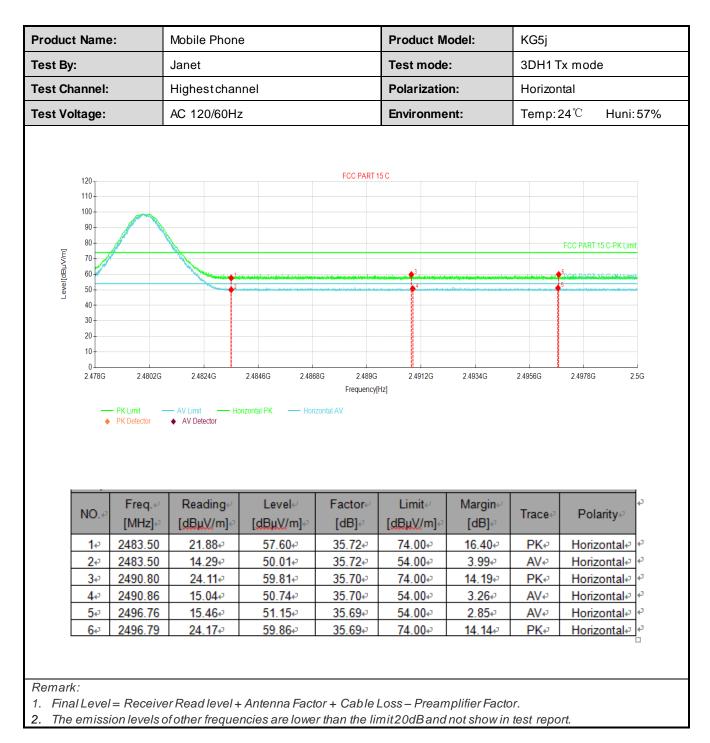














### 6.10 Spurious Emission 6.10.1 Conducted Emission Method

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:	
Test Instruments:	Refer to section 5.9 for details
Test mode:	Non-hopping mode
Test results:	Pass
Measurement Data:	Refer to Appendix A - BT



#### 6.10.2 Radiated Emission Method

Peak1MHz3MHzPeak ValueAbove 1GHzRMS1MHz3MHzAverage ValueRMS1MHz3MHzAverage ValueLimit:FrequencyLimit (dBuV/m @3m)Remark30MHz-88MHz40.0Quasi-peak Value88MHz-216MHz43.5Quasi-peak Value216MHz-960MHz46.0Quasi-peak Value960MHz-1GHz54.0Quasi-peak Value	Test Requirement:	FCC Part 15 C S	Section 15.2	209				
Receiver setup:         Frequency         Detector         RBW         VBW         Remark           30MHz-1GHz         Quasi-peak         120kHz         300kHz         Quasi-peak Value           Above 1GHz         Peak         1MHz         3MHz         Peak Value           Imit:         Frequency         Limit (BuV/m @3m)         Remark           30MHz-216MHz         40.0         Quasi-peak Value           30MHz-216MHz         43.5         Quasi-peak Value           216MHz-960MHz         46.0         Quasi-peak Value           960MHz-1GHz         54.0         Quasi-peak Value           960MHz-1GHz         54.0         Average Value           Above 1GHz         74.0         Peak Value           Test setup:         Below 1GHz         74.0         Peak Value           Above 1GHz         50.0         Quasi-peak Value         Quasi-peak Value           Test setup:         Below 1GHz         Test Procedure:         Above 1GHz         Test Procedure:	Test Frequency Range:	9 kHz to 25 GHz	,					
30MHz-1GHz     Quasi-peak     120KHz     300KHz     Quasi-peak     Value       Above     1GHz     Peak     1MHz     3MHz     Peak     Value       Itimit:     Frequency     Limit (dBU/m @3m)     Remark     Average Value       30MHz-88MHz     40.0     Quasi-peak     Value       30MHz-960MHz     40.0     Quasi-peak     Value       30MHz-960MHz     46.0     Quasi-peak     Value       960MHz-1GHz     54.0     Quasi-peak     Value       960MHz-1GHz     54.0     Average     Value       Above     1GHz     74.0     Peak     Value       Test setup:     Below 1GHz     Image     Search     Average       Above     1GHz     Average     Value       Above     1GHz     Average     Value       Above     1GHz     Average     Value       Above     1GHz     Average     Value       Above     1GHz     Image     Average     Value       Above     1GHz     Image     Average     Value       Above     1GHz     Image     Image     Average       Above     1GHz     Image     Image     Image       Above     1GHz     Image <th>Test Distance:</th> <th>3m</th> <th></th> <th></th> <th></th> <th></th> <th></th>	Test Distance:	3m						
Above 1GHz     Peak RMS     1MHz     3MHz     Peak Value Average Value       Limit:     Frequency     Limit (BUV/m @3m)     Remark 30MHz-88MHz     40.0     Quasi-peak Value 88MHz-216MHz       216MHz-960MHz     43.5     Quasi-peak Value 960MHz-1GHz     54.0     Quasi-peak Value 74.0       Test setup:     Below 1GHz     Frequency     Frequency     Below 1GHz       Above 1GHz     54.0     Average Value 74.0     Peak Value       Test setup:     Below 1GHz     Sach Antenna Tower     Sach Antenna Tower       Above 1GHz     Sach Antenna Tower     Sach Antenna Tower     Sach Antenna Tower       Above 1GHz     Test setup:     Below 1GHz     Sach Antenna Tower       Test setup:     Below 1GHz     Test Antenna Tower     Sach Antenna Tower       Above 1GHz     Test Procedure:     1. The EUT was placed on the top of a rotating table 0.8m(below 1GHz /1.5m(above 1GHz) above the ground at a 3 meter chamber. The table vas rotated 360 degrees to determine the position of the highest	Receiver setup:	Frequency	Detecto	or	RBW VBW		Remark	
Above 1GHz     IMHz     3MHz     Average Val       Limit:     Frequency     Limit (dBuV/m @3m)     Remark       30MHz-88MHz     40.0     Quasi-peak Vali       88MHz/216MHz     43.5     Quasi-peak Vali       216MHz/960MHz     46.0     Quasi-peak Vali       960MHz/1GHz     54.0     Quasi-peak Vali       960MHz/1GHz     54.0     Average Value       Test setup:     Below 1GHz     74.0       Peak Value     Feature     Maximum Town       Above 1GHz     54.0     Average Value       Above 1GHz     Sarch     Sarch       Above 1GHz     Maximum Town     Sarch       Above 1GHz     Maximum Town     Sarch       Above 1GHz     Test setup:     Below 1GHz       Test Procedure:     1. The EUT was placed on the top of a rotating table 0.8m(below 1GHz/1.5m(above 1GHz) above the ground at a 3 meter chamber. The tat was rotated 360 degrees to determine the position of the highest		30MHz-1GHz	Quasi-pe	ak	120kHz	300kHz	Quasi-peak Value	
RMS       11MHz       3MHz       Average Value         Frequency       Limit (dBuV/m @3m)       Remark         30MHz-88MHz       40.0       Quasi-peak Value         88MHz-21GHz       40.0       Quasi-peak Value         960MHz-1GHz       54.0       Quasi-peak Value         960MHz-1GHz       54.0       Quasi-peak Value         960MHz-1GHz       54.0       Average Value         74.0       Peak Value         Remark         Below 1GHz         Above 1GHz         Test Procedure:         1. The EUT was placed on the top of a rotating table 0.8m(below 1GHz /1.5m(above 1GHz) above the ground at a 3 meter chamber. The table vas rotated 360 degrees to determine the position of the highest			Peak		1MHz	3MHz	Peak Value	
30MHz-38MHz       40.0       Quasi-peak Value         88MHz-216MHz       43.5       Quasi-peak Value         960MHz-1GHz       54.0       Quasi-peak Value         Above 1GHz       54.0       Quasi-peak Value         Below 1GHz       74.0       Peak Value         Below 1GHz       74.0       Peak Value         Above 1GHz       0rout 1GHz       74.0         Test setup:       Below 1GHz       74.0       Peak Value         Above 1GHz       0rout 1GHz       74.0       Peak Value         Verage Value       0rout 1GHz       0rout 1GHz       0rout 1GHz         Test setup:       Below 1GHz       0rout 1GHz       0rout 1GHz         Above 1GHz       1       1       1       1         Above 1GHz       1       1       1       1         Test Procedure:       1       1       1       1       1       1       1         Test Procedure:       1 <t< th=""><th></th><th>Above IGHZ</th><th>RMS</th><th></th><th>1MHz</th><th>3MHz</th><th>Average Value</th></t<>		Above IGHZ	RMS		1MHz	3MHz	Average Value	
88MHz-216MHz       43.5       Quasi-peak Value         216MHz-960MHz       46.0       Quasi-peak Value         960MHz-1GHz       54.0       Quasi-peak Value         Above 1GHz       54.0       Average Value         Test setup:       Below 1GHz       74.0       Peak Value         Above 1GHz       0.00000000000000000000000000000000000	Limit:	Frequenc	у	Lin	nit (dBuV/m	@3m)	Remark	
216MHz-960MHz       46.0       Quasi-peak Value         960MHz-1GHz       54.0       Quasi-peak Value         Above 1GHz       74.0       Peak Value         Test setup:         Below 1GHz         Average Value         Construction of the fightest         Above 1GHz         Average Value         Delow 1GHz         Above 1GHz         Above 1GHz         Above 1GHz         Above 1GHz         Test Procedure:         1. The EUT was placed on the top of a rotating table 0.8m(below 1GHz / 1.5m(above 1GHz) above the ground at a 3 meter chamber. The tat / vas rotated 360 degrees to determine the position of the highest		30MHz-88M	/Hz		40.0		Quasi-peak Value	
960MHz-IGHz       54.0       Quasi-peak Value         Above 1GHz       74.0       Peak Value         Test setup:         Below 1GHz         Antenna Torr         Under the setup:         Below 1GHz         Antenna Torr         Under the setup:         Below 1GHz         Above 1GHz         Above 1GHz         Descent the setup of a cotating table 0.8m(below 1GHz)         Test Procedure:         1. The EUT was placed on the top of a rotating table 0.8m(below 1GHz)         1.Sm(above 1GHz) above the ground at a 3 meter chamber. The tat vasor tated 360 degrees to determine the position of the highest		88MHz-216	MHz		43.5		Quasi-peak Value	
Above 1GHz       54.0       Average Value         Test setup:       Below 1GHz       Image: Value       Image: Value         Above 1GHz       Image: Value       Image: Value       Image: Value         Test Procedure:       1. The EUT was placed on the top of a rotating table 0.8m(below 1GHz)       1.5m(above 1GHz) above the ground at a 3mteer chamber. The tab was rotated 360 degrees to determine the position of the highest		216MHz-960	MHz		46.0		Quasi-peak Value	
Above 1GHz       74.0       Peak Value         Test setup:       Below 1GHz       Image: Constraint of the position of the highest         Above 1GHz       Image: Constraint of the position of the highest		960MHz-10	GHz		54.0		Quasi-peak Value	
Test setup:       Below 1GHz         Function of the setup is a setup in the position of the highest       Antenna Tower for the setup in		Above 10	<b>∐</b> →		54.0		Average Value	
Down Hold       Image: Construction of the lightest         Above 1GHz       Image: Construction of the lightest         Test Procedure:       1. The EUT was placed on the top of a rotating table 0.8m(below 1GHz) above to GHz) above to GHz of a meter chamber. The table was rotated 360 degrees to determine the position of the highest		Above rol			74.0		Peak Value	
Test Procedure:       1. The EUT was placed on the top of a rotating table 0.8m(below 1GHz)         /1.5m(above 1GHz) above the ground at a 3 meter chamber. The tak was rotated 360 degrees to determine the position of the highest		EUT T Ta Groun	urm 0.8m	44m			Search Antenna	
2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna	Test Procedure:	<ul><li>/1.5m(above was rotated 3 radiation.</li><li>2. The EUT was</li></ul>	1GHz) abov 60 degrees set 3 mete	the	top of a rotat ne ground at determine the way from the	ting table 0 a 3 meter e position o e interferen	0.8m(below 1GHz) chamber. The table of the highest ce-receiving	

Jian Yan 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. Telephone: +86 (0) 755 23118282 Fax: +86 (0) 755 23116366

Project No.: JYTSZE2111024



	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 Specified 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.
Test Instruments:	Refer to section 5.9 for details
Test mode:	Non-hopping mode
Test results:	Pass
Remark:	1. Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis is the worst case.
Nenidik.	<ol> <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>

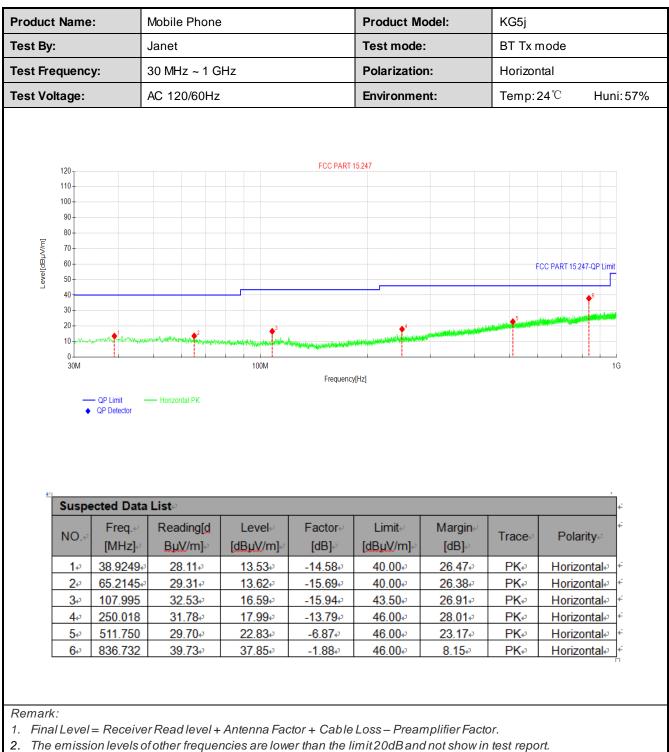


#### Measurement Data (worst case):

#### Below 1GHz:

	Product Name:		Mobile Phone			odel:	KG5j		
Fest By:		Janet			Test mode	:	BT Tx mode Vertical		
Test Frequenc	sy:	30 MHz ~ 1 GHz			Polarization:				
Test Voltage:		AC 120/60Hz			Environment:		Temp:2	<b>24</b> ℃	Huni: 57%
120 110 100 90 80 80 80 0 90 80 50 50				FCC PART	15 247			CC PART 152	17. ()P 1 imit
40 30 20			100M	Frequenc	(Hz]		<b>6</b>		16
	- QP Limit -	- Vertical PK			(HZ)		5		♦ <sup>6</sup>
	OP Limit     OP Detector	- Vertical PK			(Hz]	Margin/ [dB]-/	Trace	Pola	▲ ▲
40 30 20 10 0 30M Susp NO.4	ected Data Freq.4 [MHZ]42 43.484342	Vertical PK	100M Level⊷ [dBµV/m]⊷ 13.34⊷	Frequence Factor₊ [dB]- -14.86₊	Limit [dBµV/m]₽ 40.00₽	[dB]∂ 26.66⊷	Trace. PK.	Pola	rity a *
40 30 20 10	QP Limit QP Detector ected Data Freq.₄ [MHz]₄ 43.4843₄ 58.5209₄	Vertical PK List. <sup>2</sup> Reading[d BµV/m]. <sup>2</sup> 28.20. <sup>2</sup> 28.03. <sup>2</sup>	Level- [dBµV/m]- 13.34- 13.13-	Frequency Factor+ [dB]- -14.86+ -14.90+	Limit-/ [dBµV/m]-/ 40.00.0 40.00.0	[dB]↔ 26.66↔ 26.87↔	Trace PKe PKe	Pola Verti Verti	• • • rity→ cal+→ cal+→ *
40 30 20 10 30M 30M	QP Limit QP Detector ected Data Freq.₄ [MHz]₄ 43.4843₄ 58.5209₄ 107.995	Vertical PK List. Reading[d BµV/m] 28.20+ 28.03+ 39.47+	100M Level⊷ [dBµV/m]⊷ 13.34⊷ 13.13⊷ 23.53⊷	Frequency Factor⊷ [dB] -14.86+- -14.90+- -15.94+-	Limit-/ [dBµV/m]-/ 40.00.e/ 40.00.e/ 43.50.e/	[dB]. <u>26.66</u> . <u>26.87</u> . <u>19.97</u> .	Trace. PK. PK. PK.	Pola	• 6 • 6 • 16 16 • • • • • • • • • • • • • • • • • • •
40 30 20 10	QP Limit QP Detector ected Data Freq.₄ [MHz]₄ 43.4843₄ 58.5209₄	Vertical PK List. <sup>2</sup> Reading[d BµV/m]. <sup>2</sup> 28.20. <sup>2</sup> 28.03. <sup>2</sup>	Level- [dBµV/m]- 13.34- 13.13-	Frequency Factor+ [dB]- -14.86+ -14.90+	Limit-/ [dBµV/m]-/ 40.00.0 40.00.0	[dB]↔ 26.66↔ 26.87↔	Trace PKe PKe	Pola Verti Verti	• • • • • • • • • • • • • • • • • • •





3. The Aux Factor is a notch filter switch box loss, this item is not used.



#### Above 1GHz:

			annel: Lowest cl			
_		Det	ector: Peak Valu		T	
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarization
4804.00	54.80	-9.60	45.20	74.00	28.80	Vertical
4804.00	55.20	-9.60	45.60	74.00	28.40	Horizontal
		Dete	ctor: Average Va	alue		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4804.00	47.91	-9.60	38.31	54.00	15.69	Vertical
4804.00	47.61	-9.60	38.01	54.00	15.99	Horizonta
	·					
		Test ch	annel: Middle ch	nannel		
		Det	ector: Peak Valu	Je		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4882.00	54.90	-9.05	45.85	74.00	28.15	Vertical
4882.00	55.27	-9.05	46.22	74.00	27.78	Horizonta
		Dete	ctor: Average Va	alue		
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
4882.00	47.79	-9.05	38.74	54.00	15.26	Vertical
4882.00	47.39	-9.05	38.34	54.00	15.66	Horizonta
		Test ch	annel: Highest cl	hannel		
			ector: Peak Valu			
Frequency (MHz)	Read Level (dBuV)	Factor(dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Margin (dB)	Polarizatio
( <i>)</i>	54.88	-8.45	46.43	74.00	27.57	Vertical
4960.00					26.88	Horizonta
4960.00 4960.00		-8.45	47.12	74.00	20.00	
4960.00 4960.00	55.57	-8.45 Dete	47.12 ctor: Average Va	74.00 alue	20.00	TIONZONIC
4960.00 Frequency	55.57 Read Level		ctor: Average Va Level	alue Limit Line	Margin	Polarizatio
4960.00	55.57	Dete	ctor: Average Va	alue	1	