

JianYan Testing Group Shenzhen Co., Ltd.

Report No: JYTSZE201009203

FCC REPORT

(Bluetooth)

Applicant: SKY PHONE LLC

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

Equipment Under Test (EUT)

Product Name: 3G Smart Phone

Model No.: Platinum K55

Trade mark: SKY DEVICES

FCC ID: 2ABOSSKYPLATK55

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

Date of sample receipt: 26 Oct., 2020

Date of Test: 27 Oct., to 11 Dec., 2020

Date of report issued: 16 Dec., 2020

Test Result: PASS *

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

Authorized Signature:



Bruce Zhang Laboratory Manager

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

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2 Version

Version No.	Date	Description
00	16 Dec., 2020	Original

Tested by: Mike DU Date: 16 Dec., 2020

Test Engineer

Reviewed by: Date: 16 Dec., 2020

Project Engineer





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 5.2 GENERAL DESCRIPTION OF E.U.T. 5.3 TEST ENVIRONMENT AND MODE 5.4 DESCRIPTION OF SUPPORT UNITS 5.5 MEASUREMENT UNCERTAINTY 5.6 ADDITIONS TO, DEVIATIONS, OR EXCLUSIONS FROM THE METHOD 5.7 LABORATORY FACILITY 5.8 LABORATORY LOCATION 5.9 TEST INSTRUMENTS LIST	
6 TEST RESULTS AND MEASUREMENT DATA	8
6.1 ANTENNA REQUIREMENT 6.2 CONDUCTED EMISSIONS 6.3 CONDUCTED OUTPUT POWER 6.4 20DB OCCUPY BANDWIDTH 6.5 CARRIER FREQUENCIES SEPARATION 6.6 HOPPING CHANNEL NUMBER 6.7 DWELL TIME 6.8 PSEUDORANDOM FREQUENCY HOPPING SEQUENCE 6.9 BAND EDGE 6.9.1 Conducted Emission Method 6.9.2 Radiated Emission Method 6.10 SPURIOUS EMISSION 6.10.1 Conducted Emission Method 6.10.2 Radiated Emission Method	9 12 13 14 15 16 17 18 18 19 32
7 TEST SETUP PHOTO	38
8 EUT CONSTRUCTIONAL DETAILS	39
APPENDIX A - BT	40





4 Test Summary

Test Items	Section in CFR 47	Result
Antenna Requirement	15.203 & 15.247 (b)	Pass
AC Power Line Conducted Emission	15.207	Pass
Conducted Peak Output Power	15.247 (b)(1)	Pass
20dB Occupied Bandwidth	15.247 (a)(1)	Pass
Carrier Frequencies Separation	15.247 (a)(1)	Pass
Hopping Channel Number	15.247 (a)(1)	Pass
Dwell Time	15.247 (a)(1)	Pass
Spurious Emission	15.205 & 15.209	Pass
Band Edge	15.247(d)	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





5 General Information

5.1 Client Information

Applicant:	SKY PHONE LLC
Address:	1348 Washington Av. Suite 350, Miami Beach, FL 33139
Manufacturer:	SKY PHONE LLC
Address:	1348 Washington Av. Suite 350, Miami Beach, FL 33139

5.2 General Description of E.U.T.

OIZ CONOTAL DOO	
Product Name:	3G Smart Phone
Model No.:	Platinum K55
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:	0.5 dBi
Power supply:	Rechargeable Li-ion Battery DC3.8V-2000mAh
AC adapter:	Input: AC100-240V, 50/60Hz, 0.2A
	Output: DC 5.0V, 1000mA
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	2421MHz	39	2441MHz	59	2461MHz		
Remark: Channel 0, 39 &78 selected for GFSK, π/4-DQPSK and 8DPSK.							



5.3 Test environment and mode

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.

5.4 Description of Support Units

The EUT has been tested as an independent unit.

5.5 Measurement Uncertainty

Parameters	Expanded Uncertainty
Conducted Emission (9kHz ~ 30MHz)	±1.60 dB (k=2)
Radiated Emission (9kHz ~ 30MHz)	±3.12 dB (k=2)
Radiated Emission (30MHz ~ 1000MHz)	±4.32 dB (k=2)
Radiated Emission (1GHz ~ 18GHz)	±5.16 dB (k=2)
Radiated Emission (18GHz ~ 40GHz)	±3.20 dB (k=2)

5.6 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 17025:2005 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: https://portal.a2la.org/scopepdf/4346-01.pdf

5.8 Laboratory Location

JianYan Testing Group Shenzhen Co., Ltd.

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

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

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





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	SAEMC	9m*6m*6m	966	07-21-2020	07-20-2021
Loop Antenna	SCHWARZBECK	FMZB1519B	044	03-07-2020	03-06-2021
BiConiLog Antenna	SCHWARZBECK	VULB9163	497	03-07-2020	03-06-2021
Horn Antenna	SCHWARZBECK	BBHA9120D	916	03-07-2020	03-06-2021
Horn Antenna	SCHWARZBECK	BBHA9120D	1805	06-20-2020	06-19-2021
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170582	11-18-2019	11-17-2020
Hom Antenna	SCHWARZBECK	DDITA 9170	BBHA9170582	11-18-2020	11-17-2021
EMI Test Software	AUDIX	E3	Version: 6.110919b)
Pre-amplifier	HP	8447D	2944A09358	03-07-2020	03-06-2021
Pre-amplifier	CD	PAP-1G18	11804	03-07-2020	03-06-2021
Spectrum analyzer	Rohde & Schwarz	FSP30	101454	03-05-2020	03-04-2021
Cnostrum analyzar	Dobdo & Cobwerz	ECD40	100262	11-18-2019	11-17-2020
Spectrum analyzer	Rohde & Schwarz	FSP40	100363	11-18-2020	11-17-2021
EMI Test Receiver	Rohde & Schwarz	ESRP7	101070	03-05-2020	03-04-2021
Cable	ZDECL	Z108-NJ-NJ-81	1608458	03-07-2020	03-06-2021
Cable	MICRO-COAX	MFR64639	K10742-5	03-07-2020	03-06-2021
Cable	SUHNER	SUCOFLEX100	58193/4PE	03-07-2020	03-06-2021
RF Switch Unit	MWRFTEST	MW200	N/A	N/A	N/A
Test Software	MWRFTEST	MTS8200	Version: 2.0.0.0		

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



6 Test results and measurement data

6.1 Antenna Requirement

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

15.203 requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

15.247(b) (4) requirement:

(4) The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

E.U.T Antenna:

The Bluetooth antenna is an Internal antenna which permanently attached, and the best case gain of the antenna is 0.5 dBi.



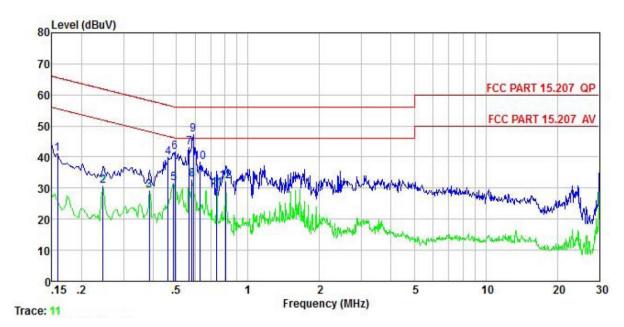
6.2 Conducted Emissions

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 (d	dBuV)
		Quasi-peak	Average
	0.15-0.5	66 to 56*	56 to 46*
	0.5-5	56	46
	5-30	60	50
	* Decreases with the logari	• •	
Test setup:	Reference P	lane	•
	AUX Equipment Test table/Insulation plane Remark E.U.T: Equipment Under Test LISN: Line Impedence Stabilization Netwo Test table height=0.8m		
Test procedure:	 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. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10(latest version) on conducted measurement. 		
Test Instruments:	Refer to section 5.9 for det	ails	
Test mode:	Hopping mode		
Test results:	Pass		



Measurement Data:

Product name:	3G Smart Phone	Product model:	Platinum K55
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: 22.5℃ Huni: 55%



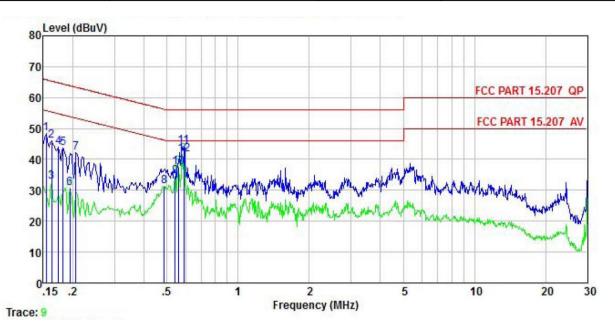
	Freq	Kead Level	Factor	Factor	Cable Loss	Level	Limit	Over Limit	Remark
-	MHz	dBu₹	₫B	dB	₫B	dBu₹	dBu∜	<u>d</u> B	
1	0.158	30.96	-0.57	-0.07	10.77	41.09	65.56	-24.47	QP
2	0.246	20.65	-0.57	-0.21	10.75	30.62	51.91	-21.29	Average
2	0.385	18.78	-0.49	0.33	10.72	29.34	48.17	-18.83	Average
4	0.461	29.67	-0.45	-0.06	10.74	39.90	56.67	-16.77	QP
4 5 6	0.486	21.40	-0.44	-0.26	10.76	31.46	46.23	-14.77	Average
	0.494	31.68	-0.43	-0.32	10.76	41.69	56.10	-14.41	QP
7	0.567	33.33	-0.47	-0.37	10.76	43.25	56.00	-12.75	QP
8	0.582	22.98	-0.48	-0.37	10.76	32.89	46.00	-13.11	Average
9	0.589	37.40	-0.48	-0.37	10.76	47.31	56.00	-8.69	QP
10	0.630	28.58	-0.50	-0.38	10.77	38.47	56.00	-17.53	QP
11	0.739	19.96	-0.54	-0.28	10.79	29.93	46.00	-16.07	Average
12	0.809	22.02	-0.57	-0.05	10.81	32.21	46.00	-13.79	Average

Notes:

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



Product name:	3G Smart Phone	Product model:	Platinum K55
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: 22.5℃ Huni: 55%



	Freq	Read Level	LISN Factor	Aux Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	dBu₹	<u>db</u>	<u>ā</u> B	dB	dBu₹	dBu∜	<u>ab</u>	
1 2	0.154 0.162	38.18 35.98	-0.69 -0.68	0.01 0.01	10.78 10.77	48.28 46.08		-17.50 -19.26	3430 - 1 40 km.
3 4	0.162 0.174	22.80 33.79	-0.68		10.77	32.90 43.88	55.34		Average
2 3 4 5 6 7	0.182 0.194	33.65 20.69	-0.68	0.00	10.77 10.76	43.74 30.78	64.42	-20.68	
7 8	0.206 0.486	32.17 21.19	-0.67 -0.65	0.00	10.76 10.76	42.26 31.32	63.36	-21.10	
8 9 10	0.541 0.558	24.32 27.41	-0.65 -0.65	0.03	10.76 10.76	34.46 37.55		-11.54	Average Average
11 12	0.589 0.589	34.25 31.43	-0.65 -0.65	0.03 0.03	10.76 10.76	44.39 41.57	56.00 46.00	-11.61	

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

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:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane						
Test Instruments:	Refer to section 5.9 for details						
Test mode:	Non-hopping mode						
Test results:	Pass						

Measurement Data: Refer to Appendix A - BT





6.4 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:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane						
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:	a) 0.025MHz or the 20dB bandwidth (whichever is greater)b) 0.025MHz or two-thirds of the 20dB bandwidth (whichever is greater)						
Test setup:	Spectrum Analyzer Non-Conducted Table Ground Reference Plane						
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

Test Requirement:	FCC Part 15 C Section 15.247 (a)(1)					
Receiver setup:	RBW=100 kHz, VBW=300 kHz, Center Frequency=2441MHz, Span= 100MHz, Detector=Peak					
Limit:	15 channels					
Test setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane					
Test Instruments:	Refer to section 5.9 for details					
Test mode:	Hopping mode					
Test results:	Pass					

Measurement Data: Refer to Appendix A - BT



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:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane						
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) requirement:

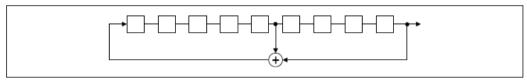
Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

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

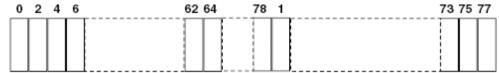
The pseudorandom sequence may be generated in a nine-stage shift register whose 5th and 9th stage outputs are added in a modulo-two addition stage. And the result is fed back to the input of the first stage. The sequence begins with the first ONE of 9 consecutive ONEs; i.e. the shift register is initialized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

- Number of shift register stages: 9
- Length of pseudo-random sequence: 29-1 = 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.





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:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane					
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



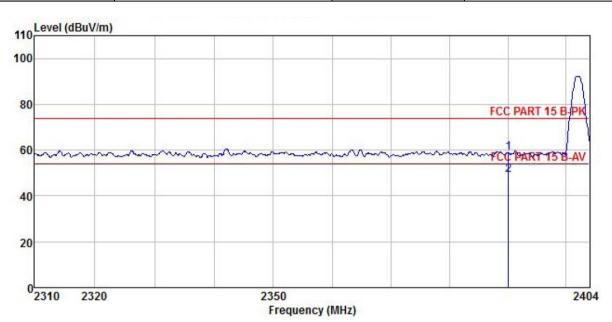
6.9.2 Radiated Emission Method

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 De		tor RBW		VBW		Remark	
	Al 4011-	Peak		1MHz	31	ИНz	Peak Value	
	Above 1GHz	RMS		1MHz	31	ИНz	Average Value	
Limit:	Frequenc	су	Lim	it (dBuV/m @3	3m)		Remark	
	Above 1G	LI-7		54.00		Av	erage Value	
	Above 10	1112		74.00		F	Peak Value	
Test setup:	Horn Antenna Tower AE EUT Ground Reference Plane Test Receiver Ampilier Controller							
Test Procedure:	 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. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. 							
Test Instruments:	Refer to section 5.9 for details							
Test mode:	Non-hopping mode							
Test results:	Passed							



GFSK Mode:

Product Name:	3G Smart Phone	Product Model:	Platinum K55
Test By:	Mike	Test mode:	DH1 Tx mode
Test Channel:	Lowest channel	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%



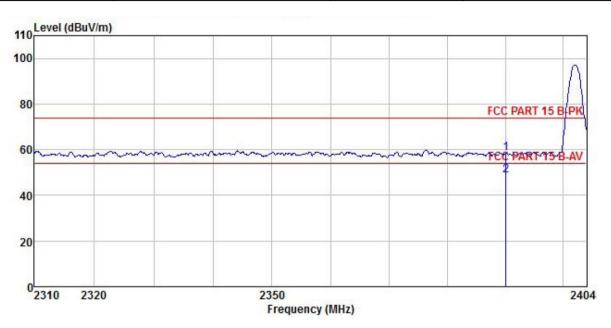
	Freq		Antenna Factor				Limit Line		Remark
	MHz	dBu₹	dB/m	 <u>d</u> B	<u>dB</u>	$\overline{dBuV/m}$	dBu√/m	dB	
1 2	2390.000 2390.000								

Remark:

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



Product Name:	3G Smart Phone	Product Model:	Platinum K55
Test By:	Mike	Test mode:	DH1 Tx mode
Test Channel:	Lowest channel	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%

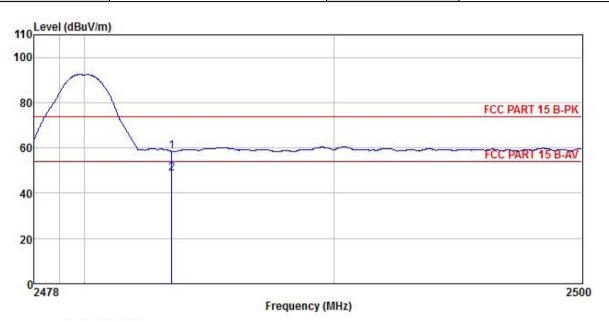


			Antenna Factor							Remark
		MHz dBuV dB/m	<u>dB</u> /m				dBuV/m	dBuV/m	<u>а</u> В	
1 2	2390.000 2390.000			100000000000000000000000000000000000000						

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



Product Name:	3G Smart Phone	Product Model:	Platinum K55
Test By:	Mike	Test mode:	DH1 Tx mode
Test Channel:	Highest channel	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%

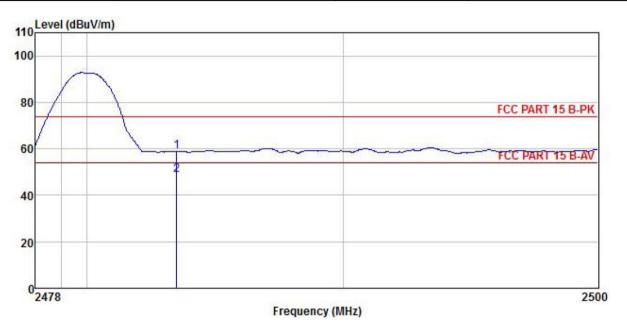


	Freq		Antenna Factor					Limit Line		Remark
	MHz	dBuV	$\overline{-dB/m}$	<u>d</u> B	<u>d</u> B	<u>dB</u>	dBuV/m	dBuV/m	<u>d</u> B	
1 2	2483.500 2483.500									

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



Product Name:	3G Smart Phone	Product Model:	Platinum K55
Test By:	Mike	Test mode:	DH1 Tx mode
Test Channel:	Highest channel	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%



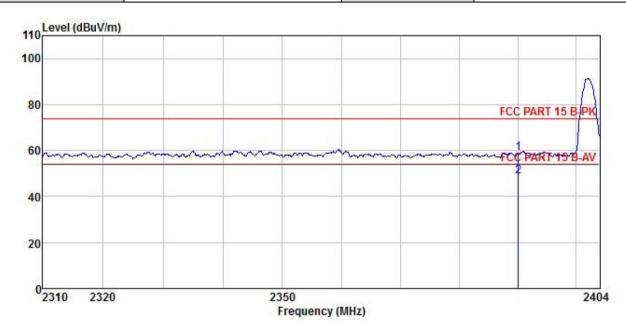
	Freq			Antenna Factor						
		Hz	—dBu∀		 <u>dB</u>	<u>ab</u>	$\overline{dBuV/m}$	$\overline{dBuV/m}$	<u>dB</u>	
1 2	2483.5 2483.5									Peak Average

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



π/4-DQPSK mode

Product Name:	3G Smart Phone	Product Model:	Platinum K55
Test By:	Mike	Test mode:	2DH1 Tx mode
Test Channel:	Lowest channel	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%



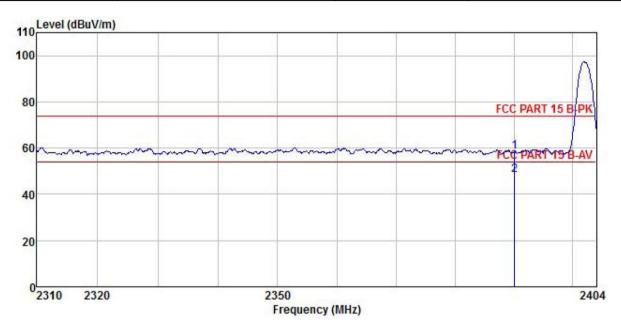
	Freq MHz		Antenna Factor						
		dBu₹	<u>d</u> B/π	 <u>ab</u>	<u>dB</u>	$\overline{dBuV/m}$	dBuV/m	<u>d</u> B	
1 2	2390.000 2390.000								

Remark:

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



Product Name:	3G Smart Phone	Product Model:	Platinum K55
Test By:	Mike	Test mode:	2DH1 Tx mode
Test Channel:	Lowest channel	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%

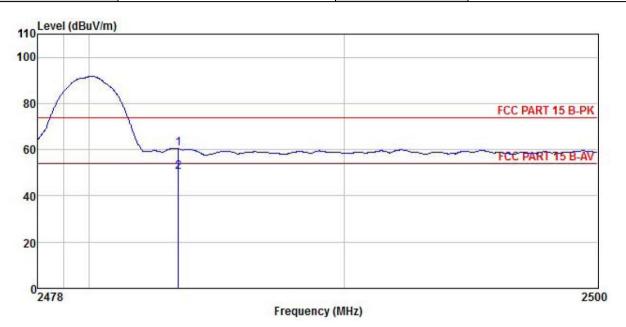


	Freq		Antenna Factor							
	MHz	dBu∜	-dB/m	d <u>B</u>	<u>d</u> B	<u>dB</u>	$\overline{dBuV/m}$	$\overline{dBuV/m}$	dB	
1 2	2390.000 2390.000									

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



Product Name:	3G Smart Phone	Product Model:	Platinum K55		
Test By:	Mike	Test mode:	2DH1 Tx mode		
Test Channel:	Highest channel	Polarization:	Vertical		
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%		

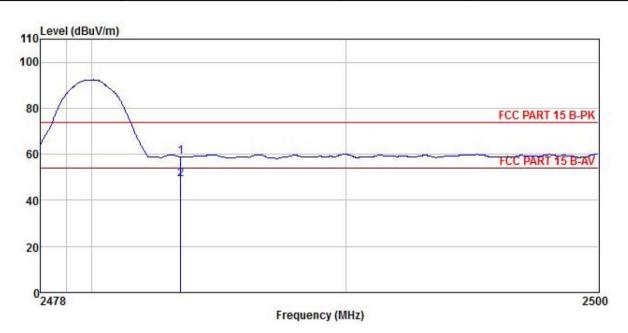


			Antenna Factor							
		dBu∜		<u>d</u> B	<u>dB</u>	<u>dB</u>	dBuV/m	dBuV/m	<u>dB</u>	
1 2	2483.500 2483.500									

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



Product Name:	3G Smart Phone	Product Model:	Platinum K55	
Test By:	Mike	Test mode:	2DH1 Tx mode	
Test Channel:	Highest channel	Polarization:	Horizontal	
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%	



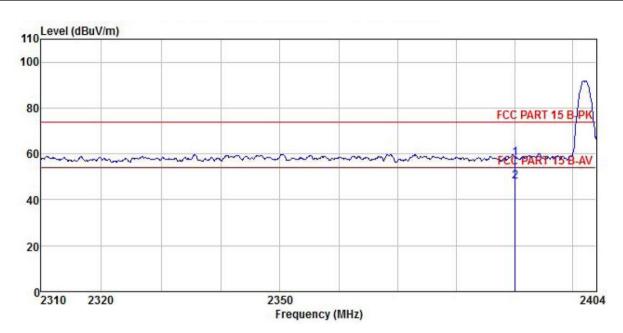
	Freq		Antenna Factor				Limit Line		
	MHz	dBu∜	<u>d</u> B/m	 <u>ab</u>	<u>dB</u>	$\overline{dBuV/m}$	dBuV/m	<u>dB</u>	
1 2	2483.500 2483.500								

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



8DPSK mode

Product Name:	3G Smart Phone	Product Model:	Platinum K55
Test By:	Mike	Test mode:	3DH1 Tx mode
Test Channel:	Lowest channel	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%



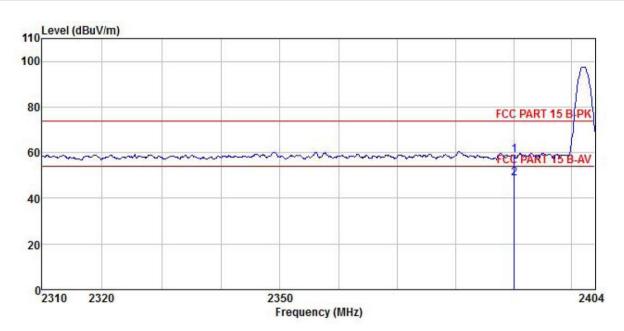
	Freq		Antenna Factor							
	MHz	dBu₹	<u>dB</u> /m	d <u>B</u>	<u>dB</u>	dB	$\overline{dBuV/m}$	dBuV/m	<u>dB</u>	
1 2	2390.000 2390.000									

Remark:

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



Product Name:	3G Smart Phone	Product Model:	Platinum K55	
Test By:	Mike	Test mode:	3DH1 Tx mode	
Test Channel:	Lowest channel	Polarization:	Horizontal	
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%	

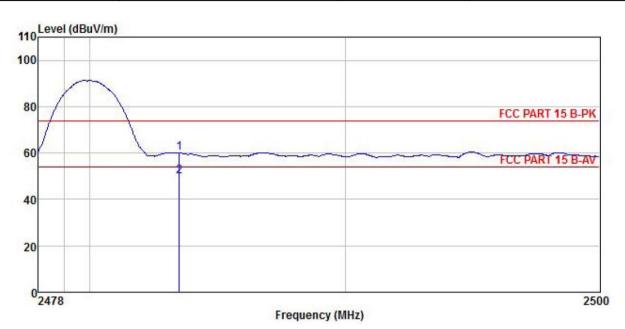


	Freq		Antenna Factor					Limit Line		Remark
	MHz	dBu∜	dB/m	dB	<u>dB</u>	dB	dBu√/m	dBuV/m	dB	
1 2	2390.000 2390.000									

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



Product Name:	3G Smart Phone	Product Model:	Platinum K55
Test By:	Mike	Test mode:	3DH1 Tx mode
Test Channel:	Highest channel	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%

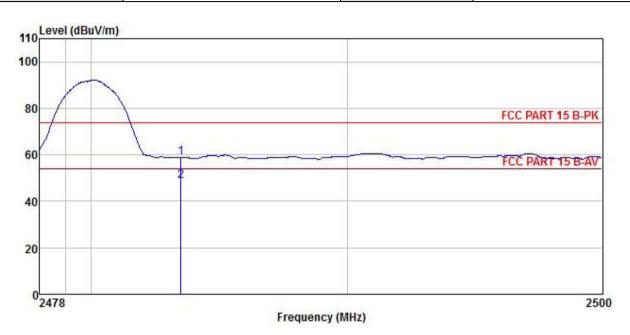


	Freq		Antenna Factor							
	MHz	dBu∜	dB/m	dB	dB	dB	$\overline{dBuV/m}$	dBuV/m	dB	
1	2483.500 2483.500									

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



Product Name:	3G Smart Phone	Product Model:	Platinum K55	
Test By:	Mike	Test mode:	3DH1 Tx mode	
Test Channel:	Highest channel	Polarization:	Horizontal	
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%	



	ReadAnten Freq Level Facto		Antenna Factor	Cable Aux Preamp Loss Factor Factor			Level	Limit Line		
	MHz	dBu₹	<u>d</u> B/m	<u>d</u> B	<u>ab</u>	<u>dB</u>	dBuV/m	dBuV/m		
1 2	2483.500 2483.500									

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



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:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane					
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

6.10.2 Radiated Emission					-	
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	300kH	Iz Quasi-peak Value	
	Above 1GHz	Peak	1MHz	3MHz	z Peak Value	
	7.5575 15112	RMS	1MHz	3MHz		
Limit:	Frequenc	•	mit (dBuV/m	@3m)	Remark	
	30MHz-88N		40.0		Quasi-peak Value	
		88MHz-216MHz 43.5 Quasi-peak Value				
	216MHz-960		46.0		Quasi-peak Value	
	960MHz-10	GHz	54.0		Quasi-peak Value	
	Above 1GI	Hz —	54.0		Average Value	
	7 100 7 0		74.0		Peak Value	
Test setup:	7777777	ble		Horn Antenna A	Antenna Tower Search Antenna RF Test Receiver	
Test Procedure:	/1.5m(above was rotated 3 radiation. 2. The EUT was	placed on the 1GHz) above to 60 degrees to	top of a rota he ground at determine th	a 3 mete e position e interfer	e 0.8m(below 1GHz) er chamber. The table n of the highest	





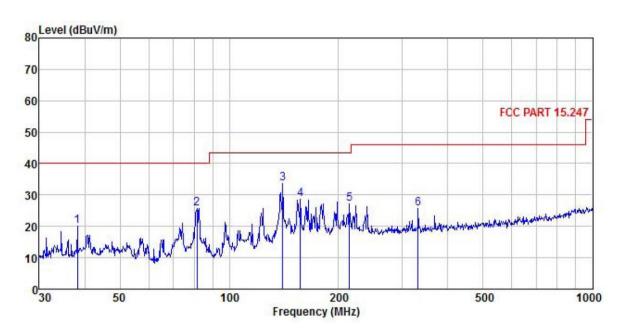
	 tower. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the
	 maximum reading. 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:	 Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis is the worst case. 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.



Measurement Data (worst case):

Below 1GHz:

Product Name:	3G Smart Phone	Product Model:	Platinum K55
Test By:	Mike	Test mode:	BT Tx mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%



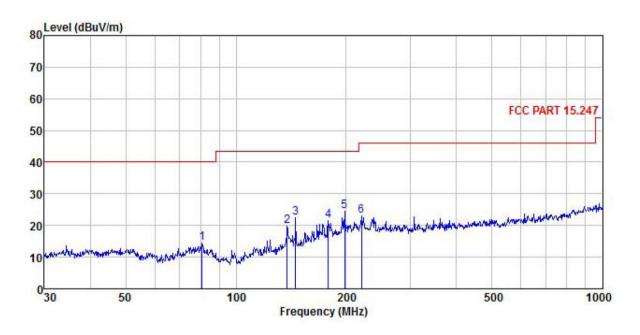
	Freq		Antenna Factor					Limit Line	Over Limit	Remark
	MHz	dBu∜			<u>ab</u>	<u>dB</u>	$\overline{dBuV/m}$	dBuV/m	<u>ab</u>	
1 2 3 4 5 6	157.007 214.514	37.06 42.53 48.48 42.23 36.93 34.50	12.45 13.81 14.89 18.36	0.47	0.00 0.00 0.00	29.63 29.27 29.16 28.74	25.82 33.62 28.59	40.00 43.50 43.50 43.50	-9.88 -14.91 -16.22	QP QP QP QP

Remark

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



Product Name:	3G Smart Phone	Product Model:	Platinum K55
Test By:	Mike	Test mode:	BT Tx mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Huni: 57%



	Freq		Intenna Factor					Limit Line		Remark
	MHz	dBu∀	dB/m		<u>d</u> B	<u>dB</u>	$\overline{dBuV/m}$	dBuV/m	<u>dB</u>	
1	80.927	31.09	12.59	0.47	0.00	29.63	14.52	40.00	-25.48	QP
2	137.903	34.88	13.68	0.60	0.00	29.28	19.88	43.50	-23.62	QP
3	145.351	37.18	13.94	0.61	0.00	29.24	22.49	43.50	-21.01	QP
4	178.758	32.93	16.88	0.68	0.00	28.98	21.51	43.50	-21.99	QP
5	197.893	34.46	18.09	0.72	0.00	28.84	24.43	43.50	-19.07	QP
6	219.845	32.52	18.38	0.74	0.00	28.71	22.93	46.00	-23.07	QP

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





Above 1GHz:

Test channel: Lowest channel											
Detector: Peak Value											
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization		
4804.00	49.53	30.78	6.80	2.44	41.81	47.74	74.00	-26.26	Vertical		
4804.00	53.75	30.78	6.80	2.44	41.81	51.96	74.00	-22.04	Horizontal		
				Detector:	Average Va	alue					
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization		
4804.00	39.74	30.78	6.80	2.44	41.81	37.95	54.00	-16.05	Vertical		
4804.00	42.47	30.78	6.80	2.44	41.81	40.68	54.00	-13.32	Horizontal		

Test channel: Middle channel											
Detector: Peak Value											
Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
49.93	30.96	6.86	2.47	41.84	48.38	74.00	-25.62	Vertical			
53.98	30.96	6.86	2.47	41.84	52.43	74.00	-21.57	Horizontal			
			Detector:	Average Va	alue						
Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization			
39.47	30.96	6.86	2.47	41.84	37.92	54.00	-16.08	Vertical			
42.50	30.96	6.86	2.47	41.84	40.95	54.00	-13.05	Horizontal			
[(c	Level dBuV) 49.93 53.98 Read Level dBuV)	Level Factor (dB/m) 49.93 30.96 53.98 30.96 Read Antenna Factor (dB/m) 49.93 30.96 Read Antenna Factor (dB/m) 49.93 30.96	Read Antenna Cable Level Factor Loss dBuV) (dB/m) (dB) 49.93 30.96 6.86 53.98 30.96 6.86 Read Antenna Cable Level Factor Loss dBuV) (dB/m) (dB) 39.47 30.96 6.86	Detector	Detector: Peak Value Read	Detector: Peak Value	Detector: Peak Value	Detector: Peak Value			

Test channel: Highest channel											
Detector: Peak Value											
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization		
4960.00	49.96	31.11	6.91	2.49	41.87	48.60	74.00	-25.40	Vertical		
4960.00	53.74	31.11	6.91	2.49	41.87	52.38	74.00	-21.62	Horizontal		
				Detector:	Average Va	alue					
Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Aux Factor (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization		
4960.00	39.43	31.11	6.91	2.49	41.87	38.07	54.00	-15.93	Vertical		
4960.00	42.56	31.11	6.91	2.49	41.87	41.20	54.00	-12.80	Horizontal		

Remark:

^{1.} Final Level =Receiver Read level + Antenna Factor + Cable Loss + Aux Factor - Preamplifier Factor.

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