Report No: CCISE181114904

# **FCC REPORT**

Applicant: Interglobe Connection Corp

Address of Applicant: 8228 NW 30th Terrace. Doral, Miami, FL 33122

**Equipment Under Test (EUT)** 

Product Name: Mobile Phone

Model No.: EKO Star 5.0 G50

Trade mark: EKO

FCC ID: 2AC7IEKONG50

**Applicable standards:** FCC CFR Title 47 Part 15 Subpart B

Date of sample receipt: 12 Dec., 2018

**Date of Test:** 12 Dec., to 21 Dec., 2018

Date of report issued: 22 Dec., 2018

Test Result: PASS \*

### Authorized Signature:



### Bruce Zhang Laboratory Manager

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

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

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.

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





### 2 Version

Version No.	Date	Description
00	22 Dec., 2018	Original

Test Engineer

Reviewed by: Date: 22 Dec., 2018

Project Engineer





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# 4 Test Summary

Test Item	Section in CFR 47	Result
Conducted Emission	Part 15.107	Pass
Radiated Emission	Part 15.109	Pass

Remark:

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

N/A: The EUT not applicable of the test item.



5 General Information

### 5.1 Client Information

Applicant: Interglobe Connection Corp		
Address of Applicant: 8228 NW 30th Terrace. Doral, Miami, FL 33122		
Manufacturer/ Factory:	INTERGLOBE CONNECTION LTD	
Address:	RM 1101 11F SAN TOI BLDG 139 CONNAUGHT RD CENTRAL HK	

Report No: CCISE181114904

### 5.2 General Description of E.U.T.

Product Name:	Mobile Phone
Model No.:	EKO Star 5.0 G50
Power supply:	Rechargeable Li-ion Battery DC3.8V-2000mAh
AC adapter:	Model: Omega LTE Q60 Input: AC100-240V, 50/60Hz, 0.15A Output: DC 5.0V, 1000mA
Test Sample Condition:	The test samples were provided in good working order with no visible defects.

### 5.3 Test Mode

Operating mode	Detail description	
PC mode Keep the EUT in Downloading mode(Worst case)		
Charging+Recording mode	Keep the EUT in Charging+Recording mode	
Charging+Playing mode	Keep the EUT in Charging+Playing mode	
FM mode	Keep the EUT in FM receiver mode	
GPS mode	Keep the EUT in GPS receiver mode	

The sample was placed 0.8m 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 Measurement Uncertainty**

Parameters	Expanded Uncertainty	
Conducted Emission (9kHz ~ 30MHz)	±2.22 dB (k=2)	
Radiated Emission (9kHz ~ 30MHz)	±2.76 dB (k=2)	
Radiated Emission (30MHz ~ 1000MHz)	±4.28 dB (k=2)	
Radiated Emission (1GHz ~ 18GHz)	±5.72 dB (k=2)	
Radiated Emission (18GHz ~ 40GHz)	±2.88 dB (k=2)	



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### 5.5 Description of Support Units

Manufacturer	Description	Model	Serial Number	FCC ID/DoC
DELL	PC	OPTIPLEX745	N/A	DoC
DELL	MONITOR	E178FPC	N/A	DoC
DELL	KEYBOARD	SK-8115	N/A	DoC
DELL	MOUSE	MOC5UO	N/A	DoC
LENOVO	Laptop	SL510	2847A65	DoC

### 5.6 Related Submittal(s) / Grant (s)

This is an original grant, no related submittals and grants.

### 5.7 Laboratory Facility

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

#### FCC - Registration No.: 727551

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

### • IC - Registration No.: 10106A-1

The 3m Semi-anechoic chamber of Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

### • CNAS - Registration No.: CNAS L6048

Shenzhen Zhongjian Nanfang Testing Co., Ltd. is accredited to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L6048.

#### A2LA - Registration No.: 4346.01

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: <a href="https://portal.a2la.org/scopepdf/4346-01.pdf">https://portal.a2la.org/scopepdf/4346-01.pdf</a>

# 5.8 Laboratory Location

Shenzhen Zhongjian Nanfang Testing Co., Ltd.

Address: No. B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road,

Bao'an District, Shenzhen, Guangdong, China

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

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

Shenzhen Zhongjian Nanfang Testing Co., Ltd.
No. B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road,
Bao'an District, Shenzhen, Guangdong, China
Telephone: +86 (0) 755 2311 8282 Fax: +86 (0) 755 2311 6366

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# 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	07-22-2017	07-21-2020	
Loop Antenna	SCHWARZBECK	FMZB1519B	00044	03-16-2018	03-15-2019	
BiConiLog Antenna	SCHWARZBECK	VULB9163	497	03-16-2018	03-15-2019	
Horn Antenna	SCHWARZBECK	BBHA9120D	916	03-16-2018	03-15-2019	
Horn Antenna	SCHWARZBECK	BBHA9120D	1805	06-22-2017	06-21-2020	
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170582	11-21-2018	11-21-2019	
EMI Test Software	AUDIX	E3	Version: 6.110919b		b	
Pre-amplifier	HP	8447D	2944A09358	03-07-2018	03-06-2019	
Pre-amplifier	CD	PAP-1G18	11804	03-07-2018	03-06-2019	
Spectrum analyzer	Rohde & Schwarz	FSP30	101454	03-07-2018	03-06-2019	
Spectrum analyzer	Rohde & Schwarz	FSP40	100363	11-21-2018	11-21-2019	
EMI Test Receiver	Rohde & Schwarz	ESRP7	101070	03-07-2018	03-06-2019	
Cable	ZDECL	Z108-NJ-NJ-81	1608458	03-07-2018	03-06-2019	
Cable	MICRO-COAX	MFR64639	K10742-5	03-07-2018	03-06-2019	
Cable	SUHNER	SUCOFLEX100	58193/4PE	03-07-2018	03-06-2019	

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	03-07-2018	03-06-2019
Pulse Limiter	SCHWARZBECK	OSRAM 2306	9731	03-07-2018	03-06-2019
LISN	CHASE	MN2050D	1447	03-19-2018	03-18-2019
LISN	Rohde & Schwarz	ESH3-Z5	8438621/010	07-21-2018	07-20-2019
Cable	HP	10503A	N/A	03-07-2018	03-06-2019
EMI Test Software	AUDIX	E3	Version: 6.110919b		



# 6 Test results and Measurement Data

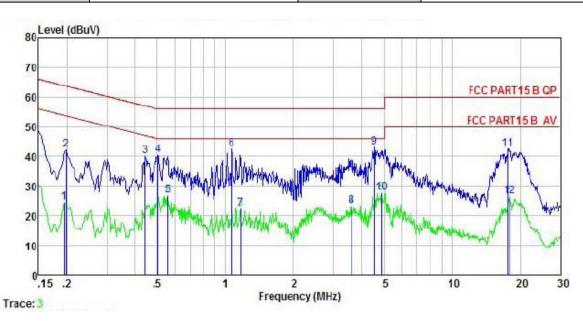
### **6.1 Conducted Emission**

Test Requirement:	FCC Part 15 B Section 15.10	FCC Part 15 B Section 15.107			
Test Method:	ANSI C63.4:2014				
Test Frequency Range:	150kHz to 30MHz				
Class / Severity:	Class B				
Receiver setup:	RBW=9kHz, VBW=30kHz				
Limit:	Frequency range (MHz)	Lir	mit (dBµV)		
	, , , ,	Quasi-peak	Average		
	0.15-0.5	66 to 56*	56 to 46*		
	0.5-5	56	46		
	0.5-30	60	50		
	* Decreases with the logarith				
Test setup:	Reference Plan	ne			
	AUX Filter AC power Equipment E.U.T  Remark: EUT: Equipment Under Test LISN: Line Impedence Stabilization Network Test table height=0.8m				
Test procedure	<ol> <li>The E.U.T and simulators are connected to the main power through a line impedance stabilization network(L.I.S.N.). The provide 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 refers 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 C63.4: 2014 on conducted measurement.</li> </ol>				
Test environment:	Temp.: 22.5 °C Humid.: 57% Press.: 101kPa				
Test Instruments:	Refer to section 5.9 for details				
Test mode:	Refer to section 5.3 for details				
Test results:	Pass				



#### Measurement data:

Product name:	Mobile Phone	Product model:	EKO Star 5.0 G50	
Test by:	Carey	Test mode:	PC mode	
Test frequency:	150 kHz ~ 30 MHz	Phase:	Line	
Test voltage:	AC 120 V/60 Hz	Environment:	Temp: 22.5℃ Huni: 55%	



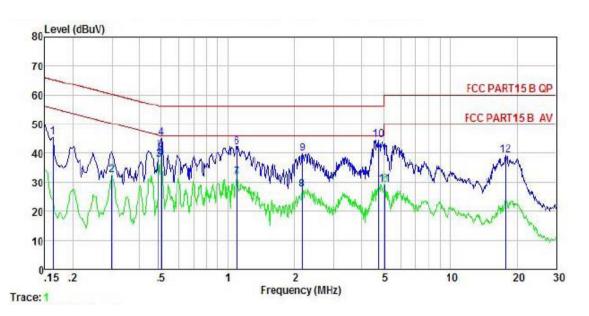
	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
_	MHz	₫₿u₹	Œ	<u>ā</u> B	—dBu⊽	dBu∜	<u>ab</u>	
1	0.194	12.94	0.73	10.76	24.43	53.84	-29.41	Average
2	0.198	30.59	0.73	10.76	42.08	63.71	-21.63	QP
3	0.442	28.80	0.75	10.74	40.29	57.02	-16.73	QP
1 2 3 4 5 6 7 8	0.505	28.80	0.76	10.76	40.32	56,00	-15.68	QP
5	0.555	15.37	0.76	10.76	26.89	46.00	-19.11	Average
6	1.065	30.92	0.78	10.88	42.58	56.00	-13.42	QP
7	1.166	10.80	0.78	10.89	22.47	46.00	-23.53	Average
8	3.603	11.72	0.77	10.90	23.39	46.00	-22.61	Average
9	4.549	31.51	0.76	10.87	43.14	56.00	-12.86	QP
10	4.874	16.28	0.76	10.85	27.89	46.00	-18.11	Average
11	17.568	31.02	0.70	10.92	42.64	60.00	-17.36	QP
12	17.849	14.95	0.70	10.92	26.57	50.00	-23.43	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 + Cable Loss.



Product name:	Mobile Phone	Product model:	EKO Star 5.0 G50
Test by:	Carey	Test mode:	PC mode
Test frequency:	150 kHz ~ 30 MHz	Phase:	Neutral
Test voltage:	AC 120 V/60 Hz	Environment:	Temp: 22.5℃ Huni: 55%



	Freq	Read Level	LISN Factor	Cable Loss	Level	Limit Line	Over Limit	Remark
	MHz	₫₿u₹		₫B	√dBu∀	dBu₹	<u>ab</u>	1. <u>2. cm (2. martis 10. m</u>
1 2 3 4 5 6 7 8 9	0.162 0.299 0.486 0.502 0.502 1.100 1.100 2.155 2.167 4.746	34. 10 21. 20 26. 38 33. 78 27. 35 30. 61 19. 94 15. 82 28. 34 33. 14	0.70 0.64 0.61 0.61 0.67 0.67 0.67 0.67	10.77 10.74 10.76 10.76 10.76 10.88 10.88 10.95 10.95	45.57 32.58 37.75 45.15 38.72 42.16 31.49 27.44 39.96 44.70	50, 28 46, 23 56, 00 46, 00 56, 00 46, 00 56, 00 56, 00	-8.48 -10.85 -7.28 -13.84 -14.51 -18.56 -16.04 -11.30	Average Average QP Average QP Average Average QP QP
11 12	5.085 17.755	17. 78 27. 61	0.70 0.69	10.85 10.92	29.33 39.22		-20.67 -20.78	Average QP

#### 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 + Cable Loss.



# 6.2 Radiated Emission

0.2 Radiated Lillission		2 11 4	5 400							
Test Requirement:	FCC Part 15 B Section 15.109									
Test Method:	ANSI C63.4:201									
Test Frequency Range:	30MHz to 6000MHz									
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)									
Receiver setup:	Frequency	Dete		RBW	VB		Remark			
	30MHz-1GHz	Quasi-		120kHz	300k		Quasi-peak Value			
	Above 1GHz	Pe		1MHz	3Mł		Peak Value			
1 inste.	Frequenc	RM		1MHz (dBuV/m @	3MF	HZ I	Average Value Remark			
Limit:	30MHz-88M		LIIIII	40.0	<i>(</i> 3111)	(	Quasi-peak Value			
	88MHz-216N			43.5			Quasi-peak Value			
	216MHz-960			46.0			Quasi-peak Value			
	960MHz-1G	Hz		54.0			Quasi-peak Value			
	Above 1GI	<del>-1</del> 7		54.0			Average Value			
	7,5070 101			74.0			Peak Value			
Test setup:	Turn Table 0.8  Ground Plane —  Above 1GHz	EUT EUT				enna Tow				





Test Procedure:		eters above the as rotated 360 n.					
	2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.						
	3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.						
	4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable 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 10d 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 environment:	Temp.: 24 °C Humid.: 57% Press.: 1 01kPa						
Test Instruments:	Refer to section 5.9 for details						
Test mode:	Refer to section 5.3 for details						
Test results:	Passed						
Remark:	All of the observed value above 6GHz ware the niose floor , which were no recorded						

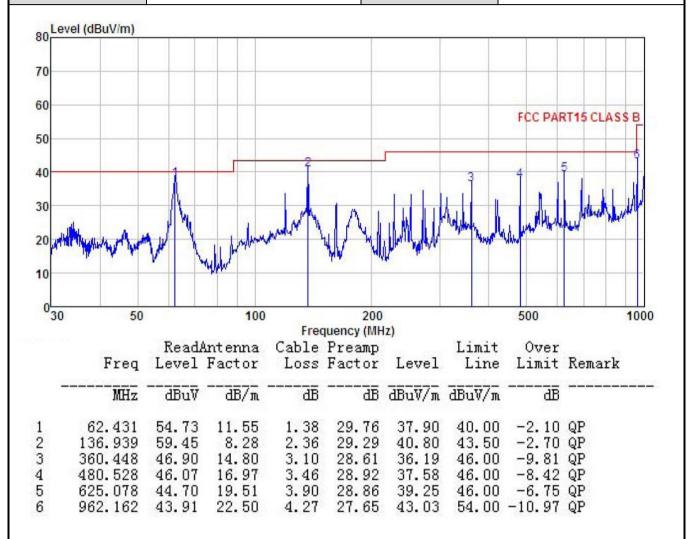




#### **Measurement Data:**

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

Product Name:	Mobile Phone	Product model:	EKO Star 5.0 G50
Test By:	Carey	Test mode:	PC mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%



#### Remark:

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

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



dΒ

-2.51 QP

-2.63 QP

-8.71 QP

-6.20 QP

-9.10 QP

40.00 -10.17 QP

43.50

43.50

46.00

46.00

54.00



Product Name:	Mobile Pho	Mobile Phone			model:	EKO Star 5.0 G50 PC mode		
Гest By:	Carey			Test mo	ode:			
Test Frequency:	30 MHz ~ 1	l GHz		Polariza	ntion:	Horizontal		
Гest Voltage:	AC 120/60	Hz		Environ	ment:	Temp: 24℃	Huni: 57%	
Level (dBuV/m)				•				
80 Ecver (dbdv/m)								
70								
60					1	FCC PART15	CLASS B	
50							6	
40			1			4 5		
30	1				John I	was been been been been been been been bee	AN Laboral	
20	- N	1 leston	Hay and Johnson	"HANNA	Willy Many	MAN TIME PARTY BATH		
10 Markedon and good house	Name A	And Market	γ,					
030 50		100		200		500	1000	

dB dBuV/m dBuV/m

29.83

40.99

40.87

37.29

39.80

44.90

#### Remark:

2

3

4

5

6

MHz

62.431

162.041

177.509

480.528

625.078

962.162

dBuV

46.66

58.35

57.45

45.78

45.25

45.78

dB/m

11.55

9.16

9.70

16.97

19.51

22.50

dΒ

29.76

29.12

28.99

28.92

28.86

27.65

1.38

2.60

2.71

3.46

3.90

4.27

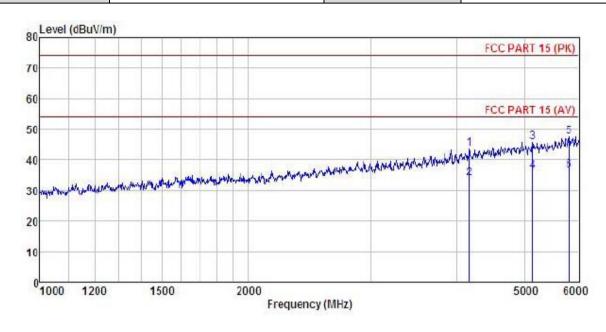
<sup>1.</sup> Final Level = Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor.

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



#### **Above 1GHz:**

Product Name:	Mobile Phone	Product model:	EKO Star 5.0 G50
Test By:	Carey	Test mode:	PC mode
Test Frequency:	1 GHz ~ 6 GHz	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%



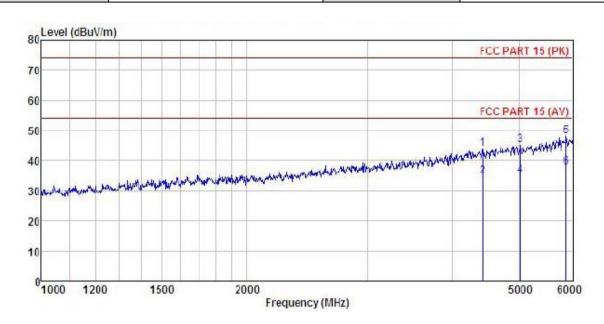
	Freq		Antenna Factor				Limit Line	Over Limit	Remark
	MHz	dBu7		<u>dB</u>	<u>dB</u>	dBuV/m	dBuV/m	<u>qp</u>	
1	4170.485	46.36	30.52	6.36	41.81	43.69	74.00	-30.31	Peak
2	4170.485	36.54	30.52	6.36	41.81	33, 87	54.00	-20.13	Average
2	5143.163	46.17	32.05	7.05	41.93	45.88		-28.12	
	5143.163	36.54	32.05	7.05	41.93	36, 25	54.00	-17.75	Average
4 5	5809.577	45.92	32.97	7.89	42.02	47.51	74.00	-26.49	Peak
6	5809.577	35.06	32.97	7.89	42.02	36, 65			Average

### Remark:

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



Product Name:	Mobile Phone	Product model:	EKO Star 5.0 G50		
Test By:	Carey	Test mode:	PC mode		
Test Frequency:	1 GHz ~ 6 GHz	Polarization:	Horizontal		
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24℃ Huni: 57%		



	Freq		Antenna Factor				Limit Line	Over Limit	Remark
-	MHz	dBu7	<u>dB</u> /m	dB	<u>dB</u>	$\overline{dBuV/m}$	$\overline{dBuV/m}$	<u>d</u> B	
1 2 3 4 5	4432.448 4432.448 5024.748 5024.748 5872.370 5872.370	46.04 36.73 45.69 35.58 46.50 36.21	30.98 30.98 31.93 31.93 33.08	6.74 6.74 6.96 6.96 7.90	41.99 41.89 41.89	45. 19 35. 08 48. 21	54.00 74.00 54.00 74.00	-28.81 -18.92 -25.79	Average Peak Average

#### Remark:

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