



## FCC PART 15 B TEST REPORT

For

## **Interglobe Connection Corp**

8228 NW 30th Terrace, Doral, Florida, United States, 33122

FCC ID: 2AC7IEKOP180E

Report Type:		Product Type:
Original Report		Mobile Phone
Report Number:	RDG180621002-	00A
Report Date:	2018-07-07	
Reviewed By:	Jerry Zhang EMC Manager	Jerry Zhang
Test Laboratory:	No.69 Pulongcun	858891

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#### **GENERAL INFORMATION**

#### **Product Description for Equipment Under Test (EUT)**

EUT Name:		Mobile Phone			
EUT Model:		Pocket P180			
FCC ID:		2AC7IEKOP180E			
Rated Input Voltage:		DC3.7V from Battery or DC5V from adapter			
Adapter	Input:	AC 100-240V~50/60Hz			
Information	Output:	5.0V, 0.5A			
E	xternal Dimension:	Length (92 mm)*Width (42.3 mm)*High (19.3 mm)			
Highest Operation Frequency:		2480 MHz			
Serial Number:		180621002			
F	CUT Received Date:	2018.06.21			

#### **Objective**

This test report is prepared on behalf of *Interglobe Connection Corp* In accordance with Part 2, Subpart J, and Part 15-Subparts A and B of the Federal Communications Commission's rules.

The objective of the manufacturer is to determine the compliance of EUT with FCC Part 15 B Class B.

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

FCC Part 15C DSS submissions with FCC ID: 2AC7IEKOP180E FCC Part 22H, 24E PCE submissions with FCC ID: 2AC7IEKOP180E

#### **Test Methodology**

All measurements contained in this report were conducted with ANSI C63.4-2014, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

All radiated and conducted emissions measurement was performed at Bay Area Compliance Laboratories Corp. (Dongguan).

#### **Measurement Uncertainty**

Parameter	Measurement Uncertainty					
	30M~200MHz: 4.58 dB for Horizontal, 4.59 dB for Vertical					
Unwanted Emissions, radiated	200M~1GHz: 4.83 dB for Horizontal, 5.85 dB for Vertical					
	1G~6GHz: 4.45 dB, 6G~26.5GHz: 5.23 dB					
Temperature	±1℃					
Humidity	±5%					
AC Power Lines Conducted Emission	3.12 dB (150 kHz to 30 MHz)					

#### **Test Facility**

The Test site used by Bay Area Compliance Laboratories Corp. (Dongguan) to collect test data is located on the No.69 Pulongcun, Puxinhu Industry Area, Tangxia, Dongguan, Guangdong, China

The test site has been approved by the FCC under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No.: 897218,the FCC Designation No.: CN1220.

The test site has been registered with ISED Canada under ISED Canada Registration Number 3062D.

#### **SYSTEM TEST CONFIGURATION**

#### **Description of Test Configuration**

The system was configured for testing in operating and downloading mode.

#### **EUT Exercise Software**

The software "Withrax" was used during test.

#### **Equipment Modifications**

No modification was made to the EUT tested.

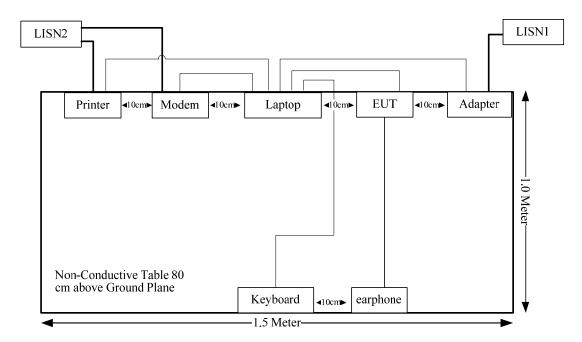
#### **Local Support Equipment List and Details**

Manufacturer	Description	Model	Serial Number	
DELL	Laptop	PP11L	QDS-BRCM1017	
HP	Printer	C3941A	JPTVOB2337	
DELL	Keyboard	L100	CNORH656658907BL05DC	
SAST	SAST Modem		0293	

#### **Support Cable List and Details**

Cable Description	Shielding Type	Ferrite Core	Length (m)	From Port	То
Serial Cable	yes	No	1.2	Serial Port of Laptop	Modem
Parallel Cable	yes	No	1.2	Parallel Port of Laptop	Printer
Keyboard Cable	yes	No	1.8	USB Port of Laptop	Keyboard
USB Cable	yes	No	1.04	USB Port of Laptop	EUT
Earphone Cable	No	No	1.2	EUT	Earphone

#### **Configuration of Test Setup**



§15.109

# FCC Rules Description of Test Results §15.107 Conducted Emissions Compliance

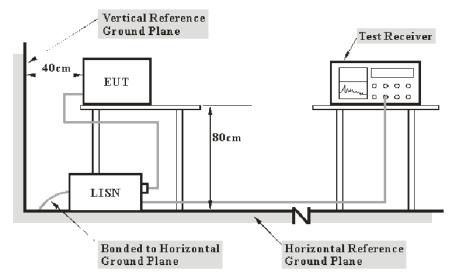
Radiated Emissions

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Compliance

### FCC§15.107 - CONDUCTED EMISSIONS

#### **EUT Setup**



Note: 1. Support units were connected to second LISN.

2. Both of LISNs (AMN) 80 cm from EUT and at the le

Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with per ANSI C63.4-2014 measurement procedure. The specification used was with the FCC Part 15 B Class B limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The adapter was connected to the Main LISN with 120V/60Hz AC power source.

#### **EMI Test Receiver Setup**

The EMI test receiver was set to investigate the spectrum from 150 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
150 kHz – 30 MHz	9 kHz

#### **Test Equipment List and Details**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI Test Receiver	ESCS 30	830245/006	2017-12-11	2018-12-11
R&S	L.I.S.N	ESH2-Z5 892107/02		2017-09-25	2018-09-25
R&S	Two-line V-network	ENV 216	101614	2017-12-08	2018-12-08
R&S	Test Software	EMC32	Version8.53.0	N/A	N/A
Unknown	Coaxial Cable	C-NJNJ-50	C-0200-01	2017-09-05	2018-09-05

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#### **Test Procedure**

During the conducted emission test, the adapter of laptop was connected to the outlet of the first LISN and the other support equipments were connected to the outlet of the second LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak and average detection mode.

#### **Corrected Amplitude & Margin Calculation**

The basic equation is as follows:

$$V_C = V_R + A_C + VDF$$

Herein,

V<sub>C</sub>: corrected voltage amplitude

V<sub>R</sub>: reading voltage amplitude

A<sub>c</sub>: attenuation caused by cable loss

VDF: voltage division factor of AMN or ISN

The "Margin" column of the following data tables indicates the degree of compliance within the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin = Limit – Corrected Amplitude

<sup>\*</sup> Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed traceable to National Primary Standards and International System of Units (SI).

#### **Test Results Summary**

According to the recorded data in following table, the EUT complied with the FCC Part 15 B Class B.

#### **Test Data**

#### **Environmental Conditions**

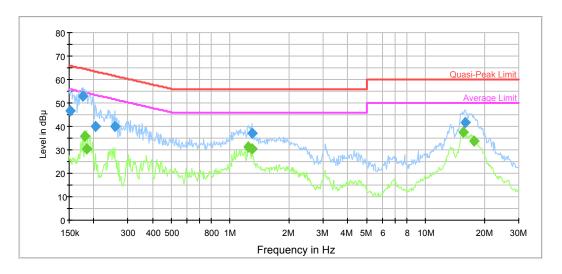
Temperature:	30.8 °C
Relative Humidity:	60 %
ATM Pressure:	101.4 kPa

The testing was performed by Sider Huang on 2018-06-25.

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#### Test Mode: Downloading

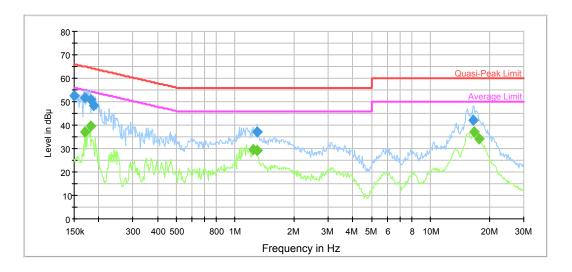
#### AC120V, 60Hz, Line:



Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.152410	46.6	9.000	L1	11.2	19.3	65.9	Compliance
0.175915	52.9	9.000	L1	10.9	11.8	64.7	Compliance
0.204669	40.0	9.000	L1	10.6	23.4	63.4	Compliance
0.255827	40.2	9.000	L1	10.3	21.4	61.6	Compliance
1.289541	37.5	9.000	L1	9.8	18.5	56.0	Compliance
15.994231	41.9	9.000	L1	10.0	18.1	60.0	Compliance

Frequency (MHz)	Average (dBμV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.180171	35.6	9.000	L1	10.8	18.9	54.5	Compliance
0.184529	30.5	9.000	L1	10.8	23.8	54.3	Compliance
1.239175	31.0	9.000	L1	9.8	15.0	46.0	Compliance
1.289541	30.6	9.000	L1	9.8	15.4	46.0	Compliance
15.616430	37.6	9.000	L1	10.0	12.4	50.0	Compliance
17.739864	33.5	9.000	L1	10.0	16.5	50.0	Compliance

#### AC120V, 60Hz, Neutral:



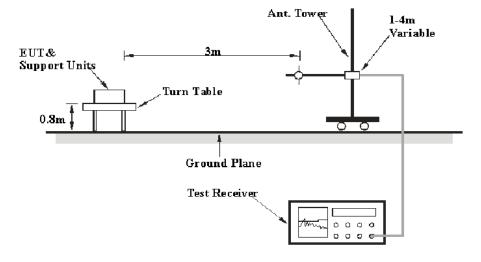
Frequency (MHz)	QuasiPeak (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.150000	52.2	9.000	N	11.2	13.8	66.0	Compliance
0.170396	51.6	9.000	N	10.9	13.3	64.9	Compliance
0.181612	50.9	9.000	N	10.8	13.5	64.4	Compliance
0.188994	48.2	9.000	N	10.7	15.9	64.1	Compliance
1.289541	37.2	9.000	N	9.8	18.8	56.0	Compliance
16.512221	42.1	9.000	N	10.0	17.9	60.0	Compliance

Frequency (MHz)	Average (dBµV)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dBµV)	Comment
0.170396	37.3	9.000	N	10.9	17.6	54.9	Compliance
0.181612	39.5	9.000	N	10.8	14.9	54.4	Compliance
1.239175	29.5	9.000	N	9.8	16.5	46.0	Compliance
1.289541	29.2	9.000	N	9.8	16.8	46.0	Compliance
16.777473	37.0	9.000	N	10.0	13.0	50.0	Compliance
17.739864	34.3	9.000	N	10.0	15.7	50.0	Compliance

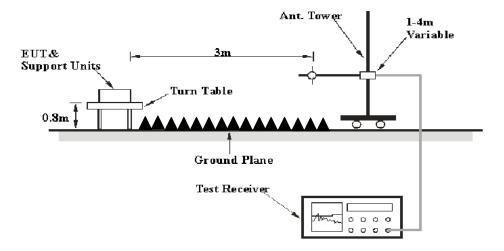
### FCC §15.109 - RADIATED SPURIOUS EMISSIONS

#### **EUT Setup**

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



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



The radiated emission tests were performed in the 3 meters chamber test site for the range 30MHz to 1GHz and the 3 meters chamber test site for above 1GHz, using the setup accordance with the ANSI C63.4-2014. The specification used was the FCC Part 15.109 Class B limits.

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#### **EMI Test Receiver Setup**

The system was investigated from 30 MHz to 13 GHz.

During the radiated emission test, the EMI test receiver was set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Measurement
30 MHz – 1000 MHz	120 kHz	300 kHz	120 kHz	QP
Above 1 GHz	1 MHz	3 MHz	/	Peak
ADOVE I GHZ	1 MHz	10 Hz	/	AVG

#### **Test Procedure**

During the radiated emissions, the adapter of laptop was connected to the first AC floor outlet and the other support equipments were connected to the second AC floor outlet.

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

The data was recorded in the Quasi-peak detection mode for below 1 GHz, peak and average detection mode above 1 GHz.

#### **Test Equipment List and Details**

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
R&S	EMI Test Receiver	ESCI	100224	2017-12-11	2018-12-11
Sunol Sciences	Antenna	JB3	A060611-1	2017-11-10	2020-11-10
HP	Amplifier	8447D	2727A05902	2017-09-05	2018-09-05
Agilent	Spectrum Analyzer	E4440A	SG43360054	2017-12-08	2018-12-08
ETS-Lindgren	Horn Antenna	3115	000 527 35	2016-01-05	2019-01-04
Ducommun Technolagies	Horn Antenna	ARH-4223-02	1007726-01 1304	2016-11-18	2019-11-18
MITEQ	Amplifier	AFS42-00101800-2 5-S-42	2001271	2017-09-05	2018-09-05
Unknown	Coaxial Cable	C-NJNJ-50	C-0400-01	2017-09-05	2018-09-05
Unknown	Coaxial Cable	C-NJNJ-50	C-0075-01	2017-09-05	2018-09-05
Unknown	Coaxial Cable	C-NJNJ-50	C-1000-01	2017-09-05	2018-09-05
Unknown	Coaxial Cable	C-SJSJ-50	C-0800-01	2017-09-05	2018-09-05
Farad	Test Software	EZ-EMC	V1.1.4.2	N/A	N/A

<sup>\*</sup> Statement of Traceability: Bay Area Compliance Laboratories Corp. (Dongguan) attests that all calibrations have been performed, traceable to National Primary Standards and International System of Units (SI).

#### **Corrected Amplitude & Margin Calculation**

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

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Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain

The "Margin" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7 dB means the emission is 7 dB below the limit. The equation for margin calculation is as follows:

Margin = Limit – Corrected Amplitude

#### **Test Data**

#### **Environmental Conditions**

Temperature:	25.7~26.5°C
Relative Humidity:	39~48 %
ATM Pressure:	101.3~101.8kPa

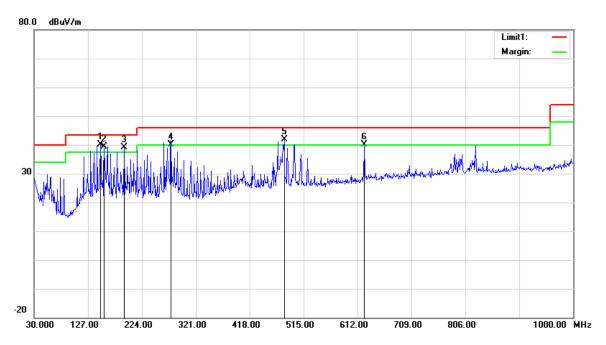
<sup>\*</sup> The testing was performed by Tyler Pan and Suny Cen on 2018-06-26~2018-07-03

Test Result: Compliance

Test Mode: Downloading

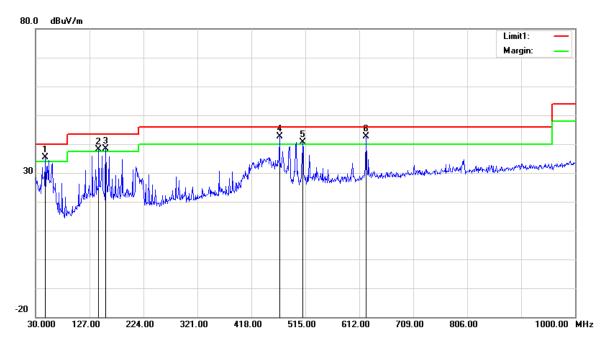
#### 1) Below 1GHz:

#### Horizontal



Frequency (MHz)	Receiver Reading (dBµV)	Detector	Correction Factor (dB/m)	Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)
149.3100	46.10	QP	-6.00	40.10	43.50	3.40
156.1000	45.34	QP	-5.94	39.40	43.50	4.10
191.9900	46.30	QP	-7.20	39.10	43.50	4.40
276.3800	44.39	QP	-4.19	40.20	46.00	5.80
480.0800	42.17	QP	-0.37	41.80	46.00	4.20
624.6100	38.35	QP	1.66	40.01	46.00	5.99

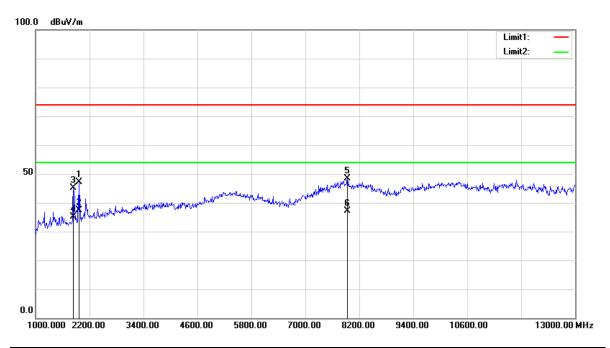
#### Vertical



Frequency (MHz)	Receiver Reading (dBµV)	Detector	Correction Factor (dB/m)	Cord. Amp. (dBμV/m)	Limit (dBμV/m)	Margin (dB)
47.4600	45.72	QP	-10.42	35.30	40.00	4.70
143.4900	44.08	QP	-5.98	38.10	43.50	5.40
156.1000	44.34	QP	-5.94	38.40	43.50	5.10
468.4400	43.10	QP	-0.50	42.60	46.00	3.40
510.1500	40.86	QP	-0.26	40.60	46.00	5.40
624.6100	41.04	QP	1.66	42.70	46.00	3.30

#### 2) Above 1GHz:

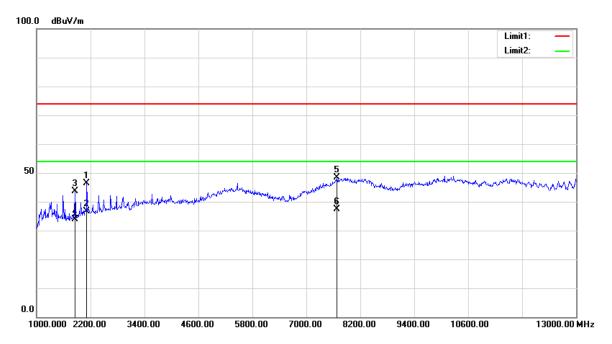
#### Horizontal



Frequency (MHz)	Receiver Reading (dBµV)	Detector	Correction Factor (dB/m)	Cord. Amp. (dBµV/m)	Limit (dBμV/m)	Margin (dB)
1972.000	54.37	peak	-7.28	47.09	74.00	26.91
1972.000	44.75	AVG	-7.28	37.47	54.00	16.53
1846.000	52.73	peak	-7.67	45.06	74.00	28.94
1846.000	42.69	AVG	-7.67	35.02	54.00	18.98
7936.000	43.69	peak	4.63	48.32	74.00	25.68
7936.000	32.41	AVG	4.63	37.04	54.00	16.96

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#### Vertical



Frequency (MHz)	Receiver Reading (dBµV)	Detector	Correction Factor (dB/m)	Cord. Amp. (dBµV/m)	Limit (dBμV/m)	Margin (dB)
2116.000	53.38	peak	-6.97	46.41	74.00	27.59
2116.000	43.58	AVG	-6.97	36.61	54.00	17.39
1852.000	51.23	peak	-7.65	43.58	74.00	30.42
1852.000	41.52	AVG	-7.65	33.87	54.00	20.13
7684.000	44.65	peak	3.81	48.46	74.00	25.54
7684.000	33.46	AVG	3.81	37.27	54.00	16.73

\*\*\*\*END OF REPORT\*\*\*\*