

FCC TEST REPORT

For

ActivConnect G Series Android PC

Model Number: PRM-X6PRO-01

FCC ID: QAM018

Report Number : WT168003326

Test Laboratory : Shenzhen Academy of Metrology and Quality
Inspection
National Digital Electronic Product Testing Center
Site Location : NETC Building, No.4 Tongfa Rd., Xili, Nanshan,
Shenzhen, China
Tel : 0086-755-86928965
Fax : 0086-755-86009898-31396
Web : www.smq.com.cn
E-mail : emcrf@smq.com.cn

TEST REPORT DECLARATION

Applicant : PROMETHEAN LIMITED
Address : PROMETHEAN HOUSE, LOWER PHILIPS RD WHITEBIRK
BLACKBURN,BB1 5TH UNITED KINGDOM
Manufacturer : PROMETHEAN LIMITED
Address : PROMETHEAN HOUSE, LOWER PHILIPS RD WHITEBIRK
BLACKBURN,BB1 5TH UNITED KINGDOM
EUT Description : ActivConnect G Series Android PC
Model No : PRM-X6PRO-01
Trade mark : Promethean
Serial Number : /
FCC ID : QAM018

Test Standards:

KDB 447498 D01 General RF Exposure Guidance v06

The EUT described above is tested by Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory to determine the maximum emissions from the EUT. Shenzhen Academy of Metrology and Quality Inspection EMC Laboratory is assumed full responsibility for the accuracy of the test results.

The test report is valid for above tested sample only and shall not be reproduced in part without written approval of the laboratory.

Project Engineer: 陈司林 Date: May.13, 2016
(Chen Silin 陈司林)
Checked by: 林奕翔 Date: May.13, 2016
(Lin Yixiang 林奕翔)
Approved by: 林斌 Date: May.13, 2016
(Lin Bin 林斌)

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1. TEST RESULTS SUMMARY

Table 1 Test Results Summary

Test Items	Test Results
RF Exposure	Pass

Remark: "N/A" means "Not applicable."

2. GENERAL INFORMATION

2.1. Report information

- 2.1.1. This report is not a certificate of quality; it only applies to the sample of the specific product/equipment given at the time of its testing. The results are not used to indicate or imply that they are application to the similar items. In addition, such results must not be used to indicate or imply that SMQ approves recommends or endorses the manufacture, supplier or use of such product/equipment, or that SMQ in any way guarantees the later performance of the product/equipment.
- 2.1.2. The sample/s mentioned in this report is/are supplied by Applicant, SMQ therefore assumes no responsibility for the accuracy of information on the brand name, model number, origin of manufacture or any information supplied.
- 2.1.3. Additional copies of the report are available to the Applicant at an additional fee. No third part can obtain a copy of this report through SMQ, unless the applicant has authorized SMQ in writing to do so.

2.2. Laboratory Accreditation and Relationship to Customer

The testing report were performed by the Shenzhen Academy of Metrology and quality Inspection EMC Laboratory (Guangdong EMC compliance testing center), in their facilities located at Bldg. of Metrology & Quality Inspection, Longzhu Road, Nanshan District, Shenzhen, Guangdong, China. At the time of testing, Laboratory is accredited by the following organizations:

China National Accreditation Committee for Laboratories (CNAS) accredits the Laboratory for conformance to FCC standards, EMC international standards and EN standards. The Registration Number is L0579.

The Laboratory is listed in the United States of American Federal Communications Commission (FCC), and the registration number are 446246 806614 994606(semi anechoic chamber).

The Laboratory is registered to perform emission tests with Industry Canada (IC), and the registration number is IC4174.

TUV Rhineland accredits the Laboratory for conformance to IEC and EN standards, the registration number is E2024086Z02.

Measurement Uncertainty

3. PRODUCT DESCRIPTION

3.1.EUT Description

Table 2 Specification of the Equipment under Test

Product Type:	ActivConnect G Series Android PC
Hardware Version:	PRM-X6PRO-01
Software Version :	V1.0.9
FCC-ID:	QAM018
Frequency:	Wifi:2412MHz-2462MHz; U-NII 1(5150~5250MHz); U-NII 3(5725~5850MHz) Bluetooth: 2402MHz-2480MHz
Type(s) of Modulation:	DSSS (DBPSK, DQPSK, CCK) for 802.11b OFDM (BPSK, QPSK, 16QAM, 64QAM) for 802.11a/g/n OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM) for 802.11ac Bluetooth : GFSK, pi/4-DQPSK, 8DPSK
Antenna Type:	PIFA Antenna 2dBi
Operating voltage:	120V AC Adapter; 4.8V (Low)/5.0V (Nominal)/ 5.3V (Max)

Remark: /

4. RF EXPOSURE

4.1.LIMIT FOR MAXIMUM PERMISSIBLE EXPOSURE(MPE)

4.1. This product can be classified as mobile device, so the 20cm separation distance warning is required. In this section, the power density at 20cm location is calculated to examine if it is lower than the limit.

4.1.1. Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6

1.1.2. Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

F = frequency in MHz *Plane-wave equivalent power density

*Plane-wave equivalent power density

4.2.MPE Calculation Method

$$\text{Power Density: } Pd(\text{Mw/cm}^2) = P * G / 4 \pi d^2$$

P=Peak RF output power (mW)

G=EUT Antenna numeric gain (numeric)

d=Separation distance between radiator and human body (m)

4.3.CALCULATED RESULT

BT

P=-2.00dBm(max:0.00063W)

G=2dBi (numeric:1.59)

d=200mm

$P_d=0.00063*1.59/4*3.14*0.04=0.002<1$

BLE

P=5.88dBm (max:0.0038W)

G=2dBi (numeric:1.59)

d=200mm

$P_d=0.0038*1.59/4*3.14*0.04=0.012<1$

WLAN 2.4G

P=15.49dBm (max:0.0354W)

G=2dBi (numeric:1.59)

d=200mm

$P_d=0.0354*1.59/4*3.14*0.04=0.112<1$

WLAN 5G

P=14.32dBm (max:0.027W)

G=2dBi (numeric:1.59)

d=200mm

$P_d=0.027*1.59/4*3.14*0.04=0.086<1$