

Test Report No.:  
**FCC2021-0032-MPE**

# Test Report

**EUT** : **Promethean WIFI Module (Titanium)**  
**MODEL** : **AP-WIFI-BC**  
**BRAND NAME** : **Promethean**  
**APPLICANT** : **Promethean Limited**  
**Classification Of Test** : **N/A**

**CVC Testing Technology Co., Ltd.**



# CVC Testing Technology Co., Ltd.

• Test Report No.: FCC2021-0032-MPE		Page 2 of 8	
<b>Client</b>		Name : Promethean Limited Address : Promethean House, Lower Philips Rd, whitebirk Industrial Estate, Blackburn, Bb1 5th United Kingdom	
<b>Manufacturer</b>		Name : Guangzhou Lango Electronics Technology Co., Ltd. Address : 4/f. NO.136. Gaopu Road. Tianhe District. Guangzhou. 510663. P.R. China	
<b>Equipment Under Test</b>		Name : Promethean WIFI Module (Titanium) Model/Type: AP-WIFI-BC Trade mark : Promethean SerialNO.:N/A Sampe NO.:3-1	
Date of Receipt	2021.11.08	Date of Testing	2021.11.08 ~ 2021.12.10
<b>Test Specification</b>		<b>Test Result</b>	
FCC Part 2 (Section 2.1091) KDB 447498 D01 IEEE C95.1		PASS	
<b>Evaluation of Test Result</b>	The equipment under test was found to comply with the requirements of the standards applied.  <b>Issue Date: 2021.12.15</b>		
Tested by:  Xu ZhenFei Name                      Signature	Reviewed by:  Liu YongHai Name                      Signature	Approved by:  Chen HuaWen Name                      Signature	
<b>Other Aspects: NONE.</b>			
Abbreviations:OK,    Pass= passed                      Fail = failed                      N/A= not applicable                      EUT= equipment, sample(s) under tested			
This test report relates only to the EUT, and shall not be reproduced except in full, without written approval of CVC.			



## TABLE OF CONTENTS

RELEASE CONTROL RECORD.....	4
1. GERTIFICATION.....	5
2. RF EXPOSURE LIMIT.....	5
3. MPE CALCULATION FORMULA.....	5
4. CLASSIFICATION.....	6
5. ANTENNA GAIN.....	6
6. CALCULATION RESULT OF MAXIMUM CONDUCTED AV POWER.....	7



**RELEASE CONTROL RECORD**

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FCC2021-0032-MPE	Original release	2021.12.15



## 1. GERTIFICATION

<b>FCC ID</b>	QAM-AP-WIFI-BC
<b>PRODUCT</b>	Promethean WIFI Module (Titanium)
<b>BRAND</b>	Promethean
<b>MODEL</b>	AP-WIFI-BC
<b>ADDITIONAL MODEL</b>	N/A
<b>APPLICANT</b>	Promethean Limited
<b>STANDARDS</b>	FCC Part 2 (Section 2.1091)
	KDB 447498 D01
	IEEE C95.1

For trading purposes, the product is available in three different exterior colors

## 2. RF EXPOSURE LIMIT

### LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

FREQUENCY RANGE (MHz)	ELECTRIC FIELD STRENGTH (V/m)	MAGNETIC FIELD STRENGTH (A/m)	POWER DENSITY (mW/cm <sup>2</sup> )	AVERAGE TIME (minutes)
<b>LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE</b>				
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30

F = Frequency in MHz

## 3. MPE CALCULATION FORMULA

$$Pd = (Pout \cdot G) / (4 \cdot \pi \cdot r^2)$$

where

Pd = power density in mW/cm<sup>2</sup>

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

R = distance between observation point and center of the radiator in cm



## 4. CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

## 5. ANTENNA GAIN

The antennas provided to the EUT, please refer to the following table:

Transmitter Circuit	Chain 0 Peak Gain (dBi)	Chain 1 Peak Gain (dBi)	Antenna Type
U-NII-2A	4.95	4.95	External Antenna
U-NII-2C	4.95	4.95	External Antenna



## 6. CALCULATION RESULT OF MAXIMUM CONDUCTED AV POWER

The measured conducted Average Power

MODE	AVERAGED POWER (DBM)
U-NII-2A	16.46
U-NII-2C	15.92

The tuned conducted Average Power (declared by client)

MODE	FREQUENCY (MHZ)	TARGET POWER (DBM)	TOLERANCE (DBM)	LOWER TOLERANCE (DBM)	UPPER TOLERANCE (DBM)
U-NII-2A	5260 ~ 5320MHz	15	+2	13	17
U-NII-2C	5500 ~ 5720MHz	15	+2	13	17

FREQUENCY BAND (MHz)	Max power (dBm)	Antenna gain (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
5260 ~ 5320MHz	17	4.95	20	0.031	1
5500 ~ 5720MHz	17	4.95	20	0.031	1



## Important

- (1) The test report is valid with the official seal of the laboratory and the signatures of Test engineer, Author and Reviewer simultaneously.
- (2) The test report is invalid if altered.
- (3) Any photocopies or part photocopies in the test report are forbidden without the written permission from the laboratory.
- (4) Objections to the test report must be submitted to the laboratory within 15 days.
- (5) Generally, commission test is responsible for the tested samples only.

*Address of the laboratory:*

*CVC Testing Technology Co., Ltd.*

*Address: No.3, Tiantaiyi Road, Kaitai Avenue, Science City, Guangzhou, China*

*Post Code: 510663*

*Tel: 020-32293888*

*FAX: 020-32293889*

*E-mail: office@cvc.org.cn*