

FCC TEST REPORT FCC ID:2AQURWF37

Product	:	Wi-Fi Smart Plug	
Model Name	:	WF37	
Additional model	:	WF36,MP20W,MP21W	
Brand	:	EVA LOGIK	
Report No. : PTC21052805401E-FC02		PTC21052805401E-FC02	

Prepared for

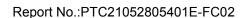
NIE-TECH CO., LTD

Jinlian commercial center 9001, Jinxiu road No.2, Changan Town, Dongguan City, Guang Dong Prov., CHINA

Prepared by

Precise Testing & Certification Co., Ltd

Building 1, No. 6, Tongxin Road, Dongcheng Street, Dongguan, Guangdong, China





TEST RESULT CERTIFICATION

Applicant's name : NIE-TECH CO., LTD

Address Jinlian commercial center 9001, Jinxiu road No.2, Changan

Town, Dongguan City, Guang Dong Prov., CHINA

Manufacture's name : NIE-TECH CO., LTD

Address Jinlian commercial center 9001, Jinxiu road No.2, Changan

Town, Dongguan City, Guang Dong Prov., CHINA

Product name : Wi-Fi Smart Plug

Model name : WF37

Test procedure KDB 447498 D01 General RF Exposure Guidance v06

Test Date : Jun. 14, 2021 to Jun. 18, 2021

Date of Issue : Jun. 18, 2021

Test Result : Pass

This device described above has been tested by PTS, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Test Engineer:

Leo Yang / Engineer

Leo Yang

Technical Manager:

Chris Du / Manager



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2 Test Summary

Test Items	Test Requirement	Result
Maximum Permissible Exposure (Exposure of Humans to RF Fields)	1.1307(b)(1)	PASS
Remark:		
N/A: Not Applicable		



3 General Information

3.1 GeneralDescription of E.U.T.

Product Name	:	Wi-Fi Smart Plug		
Model Name	:	WF37		
Additional model		WF36,MP20W,MP21W		
Model Description		The exterior color is different, the others are the same, choose WF37 as the main test model		
Operating frequency	:	802.11b/g/n HT20: 2412-2462MHz		
Max. RF output power	:	16.32dBm		
Type of Modulation		DSSS with DBPSK/DQPSK/CCK for 802.11b; OFDM with BPSK/QPSK/16QAM/64QAM for 802.11g/n;		
Antenna installation:	:	PCB antenna		
Antenna Gain:	:	1 dBi		
Power supply	:	AC120V 60HZ		
Adapter	:	N/A		



4 RF Exposure

Test Requirement : FCC Part 1.1307(b)(1)

Evaluation Method : FCC Part 2.1091

4.1 Requirements

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device.

4.2 The procedures / limit

(A) Limits for Occupational / Controlled Exposure

Frequency Range	Electric Field	Magnetic Field	Power Density (S)	Averaging Time
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

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range	Electric Field	Magnetic Field	Power Density (S)	Averaging Time
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	21.0	0.070	F/1500	30
300-1300			171300	30
1500-100,000			1.0	30

Note: f = frequency in MHz; *Plane-wave equivalent power density





4.3 MPE Calculation Method

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d}$$
 Power Density: Pd (W/m²) = $\frac{E^2}{377}$

E = Electric field (V/m)

P = Peak RF output power (W)

G = EUT Antenna numeric gain (numeric)

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

The formula can be changed to

$$Pd = \frac{30 \times P \times G}{377 \times d^2}$$

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained

4.4 Test Result

Item	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Peak Output Power (W)	Power Density (mW/cm2)	Limit of Power Density (mW/cm2)	Result
WIFI	1	16.32	0.042855	0.0852	1	Pass

NOTE:802.11G 2462 worst case

******THE END REPORT*****