



FCC TEST REPORT

FCC ID: 2AQUR-WF36SU

Product	:	Wi-Fi Dual Smart Plug
Model Name	:	WF36SU,BR-PL-WF-001-WT
Brand	:	NA
Report No.	:	PTC24092304101 E-FC02
Prepared for		
NIE-TECH Co., Ltd		
Jilian commercial center 9001, Jinxiu road No.2, Changan Town Dongguan City, Guangdong Province, China		
Prepared by		
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Report No.: PTC24092304101E-FC02

TEST RESULT CERTIFICATION

Applicant's name : NIE-TECH Co., Ltd

Address : Jilian commercial center 9001, Jinxiu road No.2, Changan Town
Dongguan City, Guangdong Province, China

Manufacture's name : Ultra Tech industries Co.. Ltd.

Address : Industrial cluster Non Sao, Tan Dint commune, Lang Giang
district, BacGiang

Product name : Wi-Fi Dual Smart Plug

Model name : WF36SU,BR-PL-WF-001-WT

Test procedure : FCC CFR47 Part 1.1307(b)(1)

Test Date : Sep. 23, 2024 to Oct. 14, 2024

Date of Issue : Oct. 14, 2024

Test Result : PASS

This device described above has been tested by PTC, 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:

A handwritten signature in black ink, appearing to read 'Jack Zhou'.

Jack zhou / Engineer

Technical Manager:

A handwritten signature in black ink, appearing to read 'Simon Pu'.

Simon Pu / Manager



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2 Test Summary

Test Items	Test Requirement	Result
Maximum Permissible Exposure (Exposure of Humans to RF Fields)	15.247 (i)	PASS
Remark:		
N/A: Not Applicable		



3 General Information

3.1 General Description of E.U.T.

Product Name	:	Wi-Fi Dual Smart Plug
Model Name	:	WF36SU
Additional model	:	BR-PL-WF-001-WT
Specification	:	802.11b/g/n HT20
Operation Frequency	:	2412-2462MHz for 802.11b/g/ n(HT20)
Number of Channel	:	11 channels for 802.11b/g/ n(HT20)
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	:	-0.24 dBi
Power supply	:	Input: 125V AC 60Hz Output: 125V AC 15A
Hardware Version	:	2.1
Software Version	:	1.1.23



4 RF Exposure

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

Evaluation Method : KDB 447498 D01 General RF Exposure Guidance v06

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			F/1500	30
1500-100,000			1.0	30

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



4.3 MPE Calculation Method

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

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

$$P_d = \frac{30 \times P \times G}{377 \times d^2} \theta \varphi$$

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

Mode	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Tune up tolerance (dBm)	Max Tune Up Power (mW)	Power Density (mW/cm ²)	Limit of Power Density (mW/cm ²)	Result
2412(11B)	0.95	12.23	12.23±1	21.037784	0.003960	1	Pass

Conclusion:

1. Calculate in the worst-case mode.
2. Max. Tune Up Power is declared by manufacturer, and used to calculate.

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