



F2 Labs
16740 Peters Road
Middlefield, Ohio 44062
United States of America
www.f2labs.com

CERTIFICATION TEST REPORT

Manufacturer: **PCTEL, Inc**
471 Brighton Drive
Bloomingdale, Illinois 60108-3102 USA

Applicant: **Same as Above**

Product Name: **Remote Access Point**

Product Description: **Rugged 802.11ac Access Point**

Model: **AP-WIFI-1200-US**

FCC ID: **NYPWIFIAP1200**

Testing Commenced: **2020-10-09**

Testing Ended: **2021-05-03**

Test Results: **In Compliance**

The EUT complies with the EMC requirements when manufactured identically as the unit tested in this report, including any required modifications. Any changes to the design or build of this unit subsequent to this testing may deem it non-compliant.

Standards:

- **KDB447498**
- **CFR 47 Part 1.1310**



Order Number: F2P19923A

Applicant: PCTEL Inc
Model: AP-WIFI-1200-US

Evaluation Conducted by:

Julius Chiller, EMC/Wireless Engineer

Report Reviewed by:

Ken Littell, Vice President of EMC

F2 Labs
26501 Ridge Road
Damascus, MD 20872
Ph 301.253.4500

F2 Labs
16740 Peters Road
Middlefield, OH 44062
Ph 440.632.5541

F2 Labs
8583 Zionsville Road
Indianapolis, IN 46268
Ph 317.610.0611

This test report may be reproduced in full; partial reproduction only may be made with the written consent of F2 Labs. The results in this report apply only to the equipment tested.



Order Number: F2P19923A

Applicant: PCTEL Inc
Model: AP-WIFI-1200-US

TABLE OF CONTENTS

Section	Title	Page
1	ADMINISTRATIVE INFORMATION	4
2	SUMMARY OF TEST RESULTS/MODIFICATIONS	5
3	ENGINEERING STATEMENT	6
4	EUT INFORMATION AND DATA	7
5	RF EXPOSURE FOR DEVICE >20cm FROM HUMAN	8



Order Number: F2P19923A

Applicant: PCTEL Inc
Model: AP-WIFI-1200-US

1 ADMINISTRATIVE INFORMATION

1.1 Measurement Location:

F2 Labs in Middlefield, Ohio. Site description and attenuation data are on file with the FCC's Sampling and Measurement Branch at the FCC Laboratory in Columbia, MD.

1.2 Measurement Procedure:

All measurements were performed according to KDB558074.

1.4 Document History

Document Number	Description	Issue Date	Approved By
F2P19923A-04E	First Issue	2021-05-03	K. Littell
F2P19923A-04E Rev. 1	Calculation Revisions	2021-07-26	K. Littell



Order Number: F2P19923A

Applicant: PCTEL Inc
Model: AP-WIFI-1200-US

2 SUMMARY OF TEST RESULTS

Test Name	Standard(s)	Results
RF Exposure for Device >20cm from Human	KDB447498	Complies

Modifications Made to the Equipment
None



Order Number: F2P19923A

Applicant: PCTEL Inc

Model: AP-WIFI-1200-US

3 ENGINEERING STATEMENT

This report has been prepared on behalf of PCTEL, Inc to provide documentation for the testing described herein. This equipment has been tested and found to comply with KDB447498. The test results found in this test report relate only to the item(s) tested.

4 EUT INFORMATION AND DATA

4.1 Equipment Under Test:

Product: **Rugged 802.11ac Access Point**

Model: AP-WIFI-1200-US

Serial No.: Proto 2

Software Version: Procomm Plus v4.8, TI Smart Studio 7 v2.12.0

FCC ID: **NYPWIFIAP1200**

4.2 Trade Name:

PCTEL, Inc

4.3 Power Supply:

PoE Supply: PhiHong POE29U-1AT(PL)

4.4 Applicable Rules:

- KDB447498

4.5 Equipment Category:

Radio Transmitter-DTS

4.6 Antenna:

6dBi External Omni-Directional

4.7 Accessories:

Device	Manufacturer	Model Number	Serial Number
PoE Supply	PhiHong	POE29U-1AT(PL)	None Specified
TI Uart Interface	PCTEL, Inc	None Specified	None Specified
Antenna	PCTEL, Inc	BOA24006NM	None Specified
Laptop	Dell	Latitude E6430s	3ZQ24X1

4.8 Test Item Condition:

The equipment to be tested was received in good condition.



Order Number: F2P19923A

Applicant: PCTEL Inc
Model: AP-WIFI-1200-US

5. RF EXPOSURE FOR DEVICE >20cm FROM HUMAN

5.1 Requirements: **Distance used is 20cm**

Limit: $1,500-100,000 \text{ MHz} = 1.0 \text{mW/cm}^2$

Formula used for result:
$$\frac{\text{E.I.R.P.}}{4 \pi R^2}$$

Results: $\text{E.I.R.P.} = 1261.83 \text{mW}$ for 5GHz band
 $\text{E.I.R.P.} = 3213.66 \text{mW}$ for 2.4GHz Wi-Fi
 $\text{E.I.R.P.} = 7.821 \text{mW}$ for Bluetooth

1261.83mW summed from port 1 and port 2 on the HT20 modulation Mid Channel at 5785 MHz which is the highest.

3221.48mW summed from port 1 and port 2 on the HT40 modulation Low Channel at 2422 MHz which was the highest.

7.821mW for the 2480 High Channel on Bluetooth which was the highest.

Total combined EIRP for the 2.4GHz band is
 $3213.66 \text{mW} + 7.821 \text{mW} = 2865.481 \text{mW}$.

$$\frac{3221.48 \text{mW}}{4 \pi R^2} = \frac{3221.48 \text{mW}}{5026.55} = 0.6410 \text{mW/cm}^2$$

Total combined EIRP for all bands is
 $3213.66 \text{mW} + 1261.83 \text{mW} + 7.821 \text{mW} = 4483.3125 \text{mW}$

$$\frac{4483.31 \text{mW}}{4 \pi R^2} = \frac{4483.31 \text{mW}}{5026.55} = 0.892 \text{mW/cm}^2$$