



**F2 Labs**  
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## CERTIFICATION TEST REPORT

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

**Applicant:** Same as Above

**Product Name:** Industrial IoT Radio Module

**Product Description:** 2x2, 802.11ac, 5 GHz, mPCIe radio module

**Model:** RM-WIFI-AC-2X2-HP-US

**FCC ID:** NYPRMWIFIAC2X2

**Testing Commenced:** 2021-09-07

**Testing Ended:** 2022-04-28

**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 FCC Part 1.1310



Order Number: F2P19924D

Applicant: PCTE, Inc  
FCC ID: NYPRMWIFIAC2X2

**Evaluation Conducted by:**

Julius Chiller, EMC/Wireless Engineer

**Report Reviewed by:**

Ken Littell, Vice President of EMC

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## 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
F2P19924D-09E	First Issue	2022-08-24	K. Littell



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## 2 SUMMARY OF TEST RESULTS

Test Name	Standard(s)	Results
RF Exposure for Device >20cm from Human	KDB447498 CFR 47 FCC Part 1.1310	Complies

Modifications Made to the Equipment
None



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### **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 and CFR 47 FCC Part 1.1310. The test results found in this test report relate only to the item(s) tested.



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## 4 EUT INFORMATION AND DATA

### 4.1 Equipment Under Test:

Product: Industrial IoT Radio Module

Model: RM-WIFI-AC-2X2-HP-US

Serial No.: 928504a24210004

Software Version: *Manufacturer documentation states there is no software for this device (refer to Section 7 of document titled "RM-WIFI-AC-2x2-HP FCC Theory of Operation."*

FCC ID: NYPRMWIFIAC2X2

### 4.2 Trade Name:

PCTEL, Inc

### 4.3 Power Supply:

PhiHong PSAC60W-120

### 4.4 Applicable Rules:

- KDB447498
- CFR 47 FCC Part 1.1310

### 4.5 Equipment Category:

Radio Transmitter-UNII

### 4.6 Antenna:

External, Detachable 7dBi Dipole was highest gain antenna.

### 4.7 Accessories:

Device	Manufacturer	Model Number	Serial Number
Access Point	Qualcomm	None Specified	None Specified
Laptop	Hewlett Packard	G42	None Specified
Power Supply	PhiHong	PSAC60W-120	P73102761A1
Accessory Software/ Version	Qualcomm	Procomm Plus v4.8, Qualcomm QRCT v4.0.00050	

### 4.8 Test Item Condition:

The equipment to be tested was received in good condition.



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## 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:  $\text{E.I.R.P.} = 3953.67 \text{ mW}$

3953.67mW summed from port 1 and port 2 on the HT40 modulation at 5755 MHz which is the highest.

$$\frac{3953.67 \text{ mW}}{4 \pi R^2} = \frac{3953.67 \text{ mW}}{5026.55} = 0.786 \text{ mW/cm}^2$$