

File No.: U1-2304-01 Version: A0 Date: 04/08/2023



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latest version of the relevant information.

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**Specification of UHF Reader Writer U1-PK-01** 

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1.Product Introduction

Fongwah U1-PK-01 is a portable UHF reader based on domestic chips of independent

development. The reader has an integrated HID chip and a built-in on-board antenna. Its tiny

size is good for desktop applications and portable demand. Moreover, it can be connected via

PC or Android cellphones.

This reader complies with protocols including EPC global UHF class 1 Gen 2/ISO 18000-6C

and GB/T 29768-2013. We even offer multi-platform open API as to support your software

development accordingly. The module is is applicable for a small number of tags or places

Where short-range identification, read/write function and high security is required; it will

generate a promising future in various industries such as logistics, retail, personal identification.

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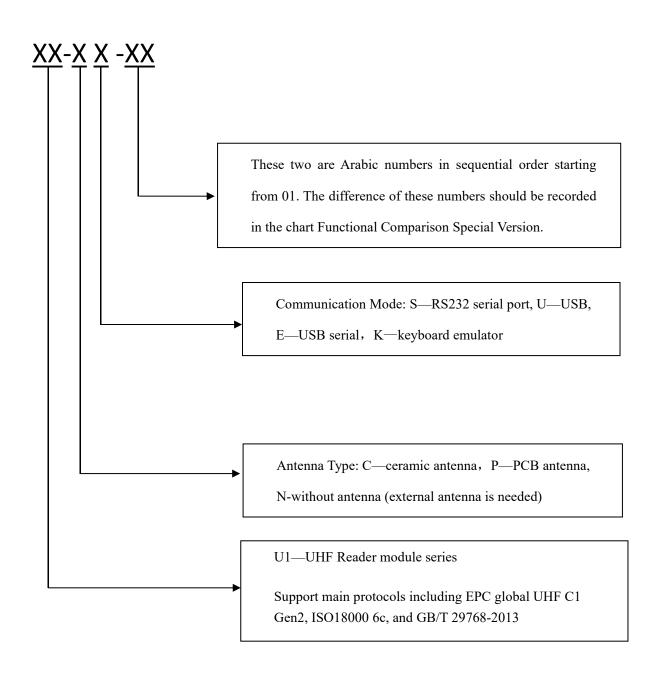


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### 2. Model Type Description

Users can choose their model types on their demands. Below is the model type description for

Fongwah U1 series UHF Reader Writer.





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#### **3.Product Features**

| Items                   | Specifications   |  |  |  |
|-------------------------|--|--|--|--|
| Performance Parameters  |  |  |  |  |
| Protocols Compliance    | EPC Global UHF Class1 Gen2, ISO18000-6C,               |  |  |  |
|                         | GB/T29768-2013   |  |  |  |
| Output Power            | 3~20dBm  |  |  |  |
| Output Power Accuracy   | ±1dB   |  |  |  |
| Output Power Flatness   | ±0.2dB   |  |  |  |
| Receiver Sensitivity    | -67dBm   |  |  |  |
| Working Frequency       | GB 920~925MHz/FCC 902~928MHz                           |  |  |  |
| Peak Power              | 30 pcs/second  |  |  |  |
| Tags Buffer Zone        | 100 pcs@96bit EPC                                      |  |  |  |
| Tags Read Write Range   | 0-50mm (depending on tags' performance and the working |  |  |  |
|                         | environment)   |  |  |  |
| Interface Parameters    |  |  |  |  |
| Communication Port      | USB Type-C   |  |  |  |
| Maximum Baud Rate       | 115200bps  |  |  |  |
| Communication Interface | USB  |  |  |  |
| Antenna Type            | PCB antenna  |  |  |  |
| Antenna Port            | 1 port   |  |  |  |
| Antenna Impedance       | 50Ω  |  |  |  |
| Man-machine Interface   |  |  |  |  |
| Support Systems         | Windows Me, 2K, XP, 2003, Vista, Unix, Linux, WinCE,   |  |  |  |
|                         | Win7   |  |  |  |
| Power Parameters        |  |  |  |  |
| Working Voltage         | 5V   |  |  |  |



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| Working Current          | 65mA~116mA   |  |
|--------------------------|--|--|
| Working Temperature      | -40°C~70°C   |  |
| Working Humidity         | 10%~95%  |  |
| Physical Parameters      |  |  |
| Product Dimension        | 81mm x 55mm x 8mm  |  |
| Product Weight           | about 24g  |  |
| Service Support          |  |  |
| Software Development Kit | Including dynamic link library(DLL), application examples, user manual and demo software, operation  |  |
| Supporting Service       | Our professional sales technician answers any technical issues in your software development process. |  |

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#### 4. Product Advantages

- Self-interference cancellation circuit
- Support mainstream protocols including EPC Global UHF Class 1 Gen 2, ISO 18000-6C and GB/T 29786-2013
- Support anti-collision
- Support multi tags identification, reading/writing data
- Support RSSI tags
- Contactless modules are provided to be embedded into users' own equipment.
- The device can be custom-made according to any specific request of users.
- The UHF reader module can be used via a PC and be embedded into other self-designed equipment of users.
- The attached CD provides most driver SDKs and program examples on regular platforms.
   Users simply call specific functions and they can accomplish the software development,
   reducing the difficulty of software development and the development circle of products.
- The attached demo program includes all functions to read and write UHF tags.

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#### **5.Product Applications**

- Smart Garbage Collection Truck
- Smart Warehouse Inventory
- Smart Car Park
- Assembly Line Management
- Automatic Equipment Manufacturer
- Parcel Sorting
- Counting Conveyor System
- Smart Lock Industry
- Retail
- Books and Achieve
- Identification

Note: RFID module is sensitive to its environment. Metals reflect and shield electromagnetic waves, which means metals affect the performance of both readers and tags. If the module is placed near metals, the reading rate of tags shall be lower. Therefore, please try to keep away metal objects and other items like electronic coils while installing this device.