



The information in this document may be updated in the near future and we, Shenzhen Fongwah Technology Co., Ltd. reserves the right to change the product or terminate it without prior notice. Customers can always contact Fongwah for the latest version of the relevant information.

**SHENZHEN FONGWAH TECHNOLOGY CO., LTD**

**Address: Room 502, Building A, Dakan Industrial Park, 2<sup>nd</sup> Road, No.19, Xili  
Town, Nanshan District, Shenzhen City, Guangdong Province**

**Tel: (086-755) 26923337**

**Fax: (086-755) 26922227**

**E-mail: [market@fongwah.com](mailto:market@fongwah.com)**

**Website: <http://www.fongwah.com>**

# Menu

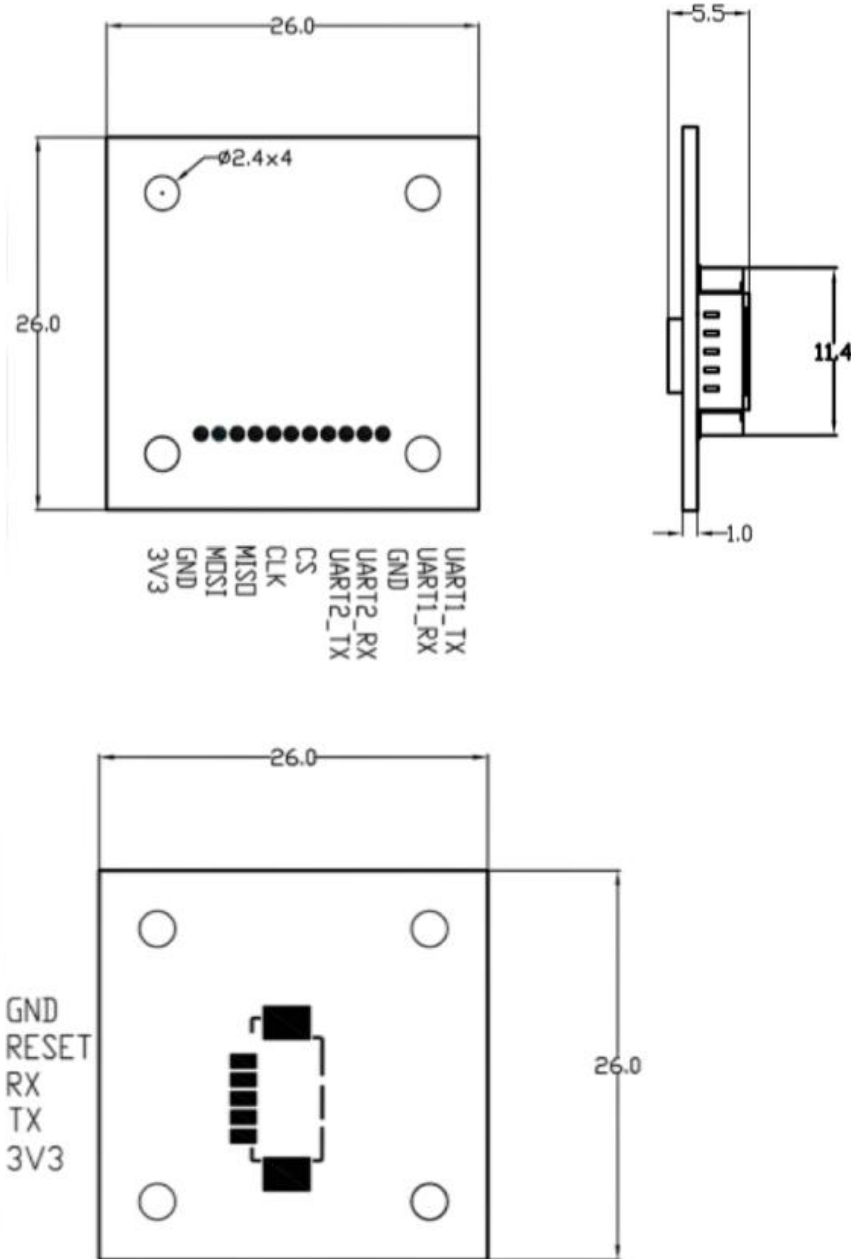
1. Product Introduction .....	3
2. Dimension and Interfaces .....	3
3. Model Type Description .....	5
4. Product Features .....	6
5. Product Advantages .....	7
6. Product Applications .....	8

## 1. Product Introduction

Fongwah U1-PT-02 UHF Reader Module is produced based on domestic chip of independent development with compact size high integrated, low cost and integrated PCB antenna. It is for various desktop applications, embedded applications and portable demand.

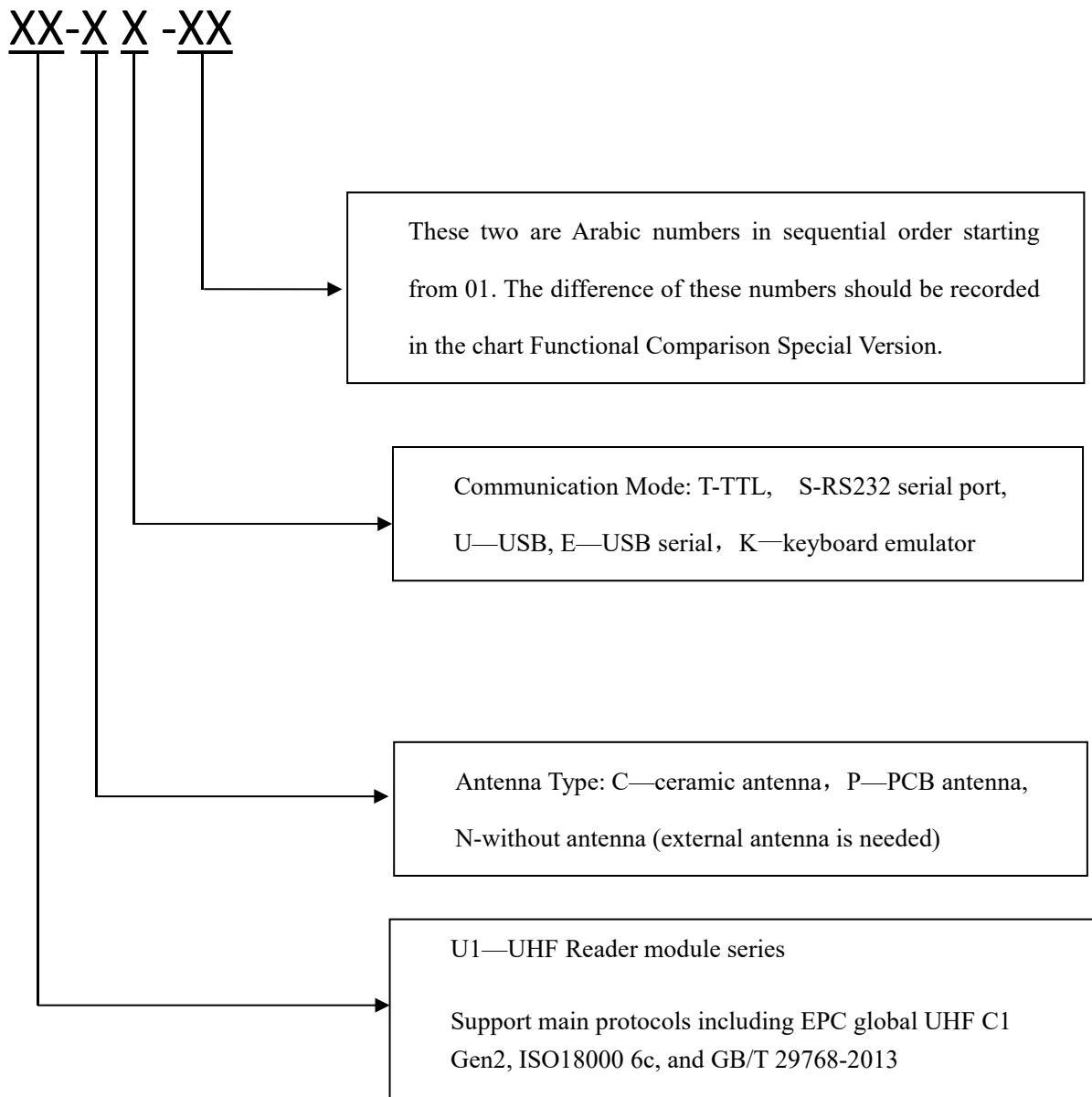
This module complies with protocols including EPC global UHF class 1 Gen 2/ISO 18000-6C and GB/T 29768-2013. We even offer multi-platform open API as to support your software development accordingly. The module is applicable for a small number of tags or places where short-range identification, read/write function and high security are required; it also supports to read/write our self-designed temperature sensing tags.

## 2.Product Dimension and Interfaces



## 3. 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.



## 4.Product Features

Items	Specifications
<b>Performance Parameters</b>	
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
Working Frequency	GB 920~925MHz/FCC 902~928MHz
Peak Power	100 pcs/second
Tags Buffer Zone	100 pcs@96bit EPC
Tags Read Write Range	< 5cm (depending on tags' performance and the working environment)
<b>Interface Parameters</b>	
Communication Port	TTL UART port
Maximum Baud Rate	115200bps
Communication Interface	TTL
Antenna Type	Built-in PCB antenna
Antenna Port	1 port
Antenna Impedance	50Ω
<b>Man-machine Interface</b>	
Indicator	To indicate the power status
Support Systems	Windows Me, 2K, XP, 2003, Vista, Unix, Linux, WinCE, Win7
<b>Power Parameters</b>	

## Specification of UHF Reader Module U1-PT-02

File No. : U1-2308-01    Version: A0    Date: 15/08/2023

Working Voltage	3.3V
Working Current	50mA~100mA
Working Temperature	-40℃~70℃
Working Humidity	10%~95%
<b>Physical Parameters</b>	
Product Dimension	26mm x 26mm x 5.5mm (cable socket included)
Product Weight	about 1.9g
<b>Service Support</b>	
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.

### 5.Product Advantages

- Self-interference cancellation circuit
- Support main 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.



## 6.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.