

File No.: U8-2303-01 Version: A0 Date: 03/23/2023



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latest version of the relevant information.

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1.Product Introduction

Developed based on domestic chips of independent intellectual property, Fongwah Module U8

Series are highly integrated, of high performance and highly robust UHF Reader Modules

equipped with 4 antenna ports. The module complies with protocols of EPC global C1 Gen 2,

ISO 18000-6C and GB/T 29768-2013.

Compared with devices U2 Series, the U8 series have further optimized the receiving link in

physical layer and improved the receiver sensitivity and system robustness. Dual CPU processor

chips are sealed on the module where the master CPU is in charge of tags polling and the slave

one is responsible for data management. The parallel CPUs can greatly enhance the overall

performance of the module since polling tags and sending data are processed simultaneously.

We offer multi-platform open SDK as to support any software development. The module is

applied for occasions where group uhf tags and long distance reading, data transmission and

high security are required. In the near future, it will enjoy a promising market in a variety of

industries including storage, retail, authentication, identification, medical and aviation etc.

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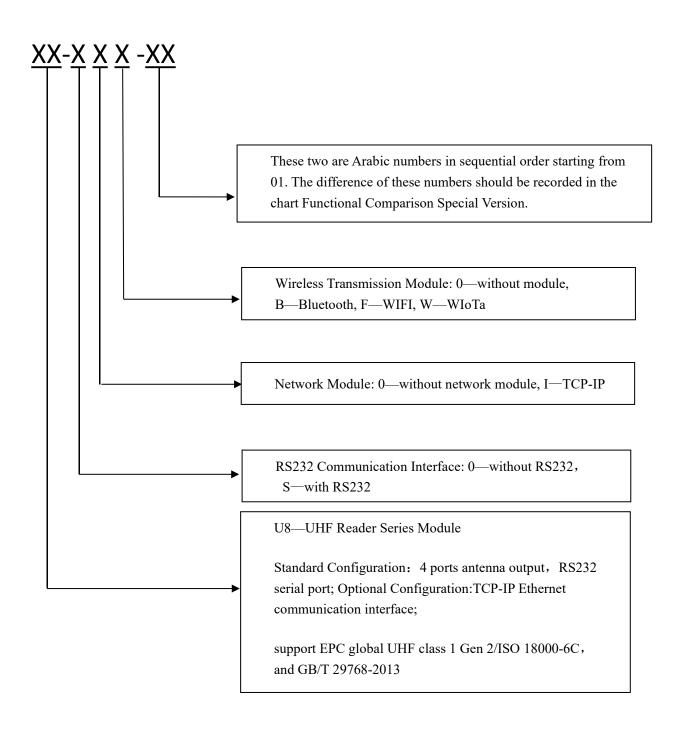


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### 2. Model Type Description

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

Fongwah U8 series UHF Reader Module.





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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	6~32dBm			
Output Power Accuracy	±1dB			
Output Power Flatness	±0.2dB			
Receiver Sensitivity	-80dBm			
Working Frequency	FCC 902~928MHz/GB 920~925MHz/ETSI 865-868MHz			
Peak Power	500 pcs/second			
Read Write Range for Tags	0-10m (depending on tags' performance and the working			
	environment)			
Interface Parameters				
Communication Port	USB/RJ45			
Maximum Baud Rate	115200bps			
Communication Interface	RS232/TCP-IP			
Antenna Type	SMA			
Antenna Port	4 ports			
Antenna Impedance	50Ω			
Man-machine Interface				
Indicator	To indicate the power or communication status			
Buzzer	Monotone			
Support Systems	Windows Me, 2K, XP, 2003, Vista, Unix, Linux, WinCE,			
	Win7			



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Power Parameters	ver Parameters		
Working Voltage	5.0-5.5 V		
Working Current	300mA~920mA		
Working Temperature	-40℃~70℃		
Working Humidity	10%~90%		
Physical Parameters			
Product Dimension	204mm*160mm*48mm		
Product Weight	about 450g		
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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#### **5.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
- 4 ports antenna (8 ports optional)
- Support anti-collision
- Support multi tags identification, reading/writing data
- 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.
- Support OTG communication interface
- Support RS232 communication interface or TCP-IP Ethernet communication interface
- 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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### **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.