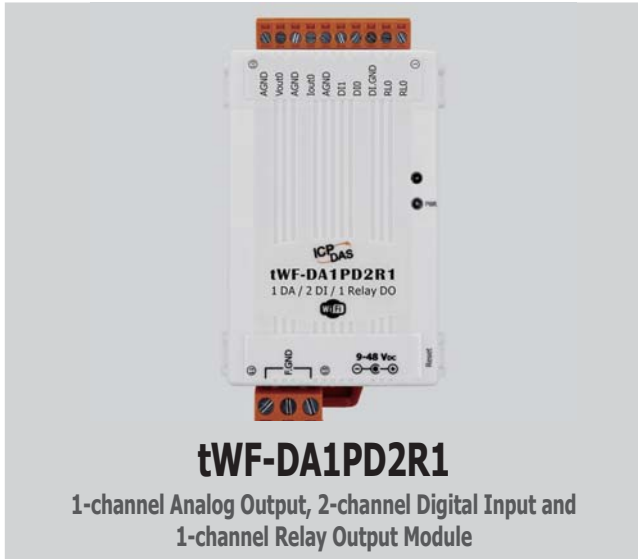


# Tiny Wi-Fi Multi Function Controller



## tWF-DA1PD2R1

1-channel Analog Output, 2-channel Digital Input and 1-channel Relay Output Module

### Introduction

The tWF-DA1PD2R1 controller have WLAN connection complies with the IEEE802.11b/g/n standards. With the popularity of 802.11 network infrastructure, the tWF-DA1PD2R1 controller make an easy way to incorporate wireless connectivity into monitoring and control systems. They also support Modbus TCP protocol and the network encryption configuration, which makes perfect integration to SCADA software, HMI Modbus APP and offer easy and safe access for users from anytime and anywhere.

### System Specifications

Communication	
Interface	Wi-Fi 2.4G
Standard	IEEE 802.11 b/g/n
Encryption	WEP, WPA/WPA2-PSK
Mode	Access Point (AP) & Station (STA)
IP Configuration	DHCP Server (AP, 1 client), DHCP Client, Static IP (STA)
Service	TCP, HTTP, Modbus TCP
LED Indicators	
Power	One 2 colors LED, Blue for System status, Red for Connective status/Locator
Isolation	
Intra-module Isolation, Field-to-Logic	3000 Vdc
EMS Protection	
ESD (IEC 61000-4-2)	±4 kV Contact for Each Terminal ±8 kV Air for Random Point
EFT (IEC 61000-4-4)	±4 kV for Power
Power Requirements	
Reverse Polarity Protection	Yes
Powered from Power Jack	9 ~ 48 VDC
Consumption	0.7 W Max.
Mechanical	
Dimensions (W x L x H)	52 mm x 97 mm x 27 mm
Installation	DIN-Rail Mounting
Environment	
Operating Temperature	-25 ~ +75°C
Storage Temperature	-30 ~ +75°C
Humidity	10 ~ 95% RH, Non-condensing

### Features

- Wi-Fi communication remote I/O controller.
- Both Access Point (AP) & Station (STA) mode support
- PC utility, Android APP, Web browser support (HTML)
- MODBUS TCP support
- Wide power supply range
- Wide operating temperature range
- Photo couple Isolation input, Relay Isolation output
- Digital input 32-bit counter
- 0~10V 12 bit 4096 resolution DA Converter output
- Simplify Light control function



### Applications

- Building Automation
- Security Automation
- Machine Automation
- Factory Automation
- Remote Diagnosis
- Remote Maintenance
- Simplify Light control system
- Testing Equipment

### Software Utility

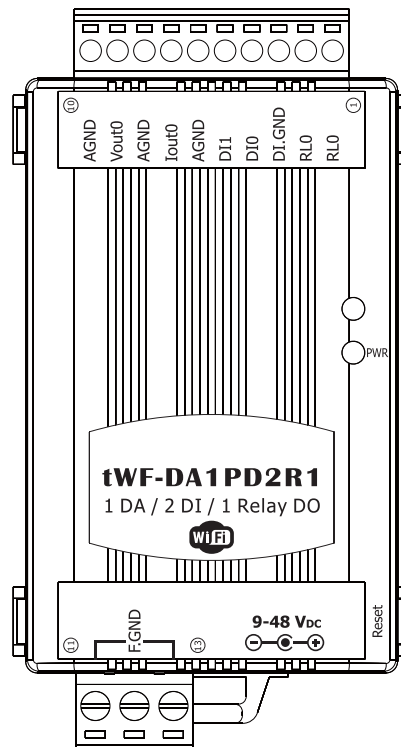
OS	Access Point(AP)	Station(STA)
Windows	Utility	IP Scanner (1) & Utility
Android	APP	IP Scanner (1) & APP
Web Browser	Yes	Yes
Modbus TCP	Yes (2)	Yes (2)

- (1) Free IP Scanner  
(2) PC or Android Freeware

### I/O Specifications

Model	tWF-DA1PD2R1	
Analog Output		
Channels	1	
Type	0 ~ 10 V, 0 ~ 20 mA, 4 ~ 20 mA	
Resolution	12-bit	
Accuracy	+/-0.1% of FSR	
DA Output Response Time	10ms	
Voltage Output Capability	20mA	
Current Load Resistance	500Ω	
Digital Input		
Channels	2	
Input Type	Dry Contact: Sink	
Dry Contact Level	Off Voltage Level: Open On Voltage Level: Close to GND	
Counters	Channels	2
	Max. Counts	32-bit (4294967295)
	Max. Input Frequency	20 HZ
Photo-Isolation	3750 VDC	
Digital Output		
Channels	1	
Output Type	Form A Relay	
Contact Rating (Resistive Load)	DC 30V/5A AC 250V/5A	
Relay Operate Time	5 ms (Max.)	
Relay Release Time	5 ms (Max.)	

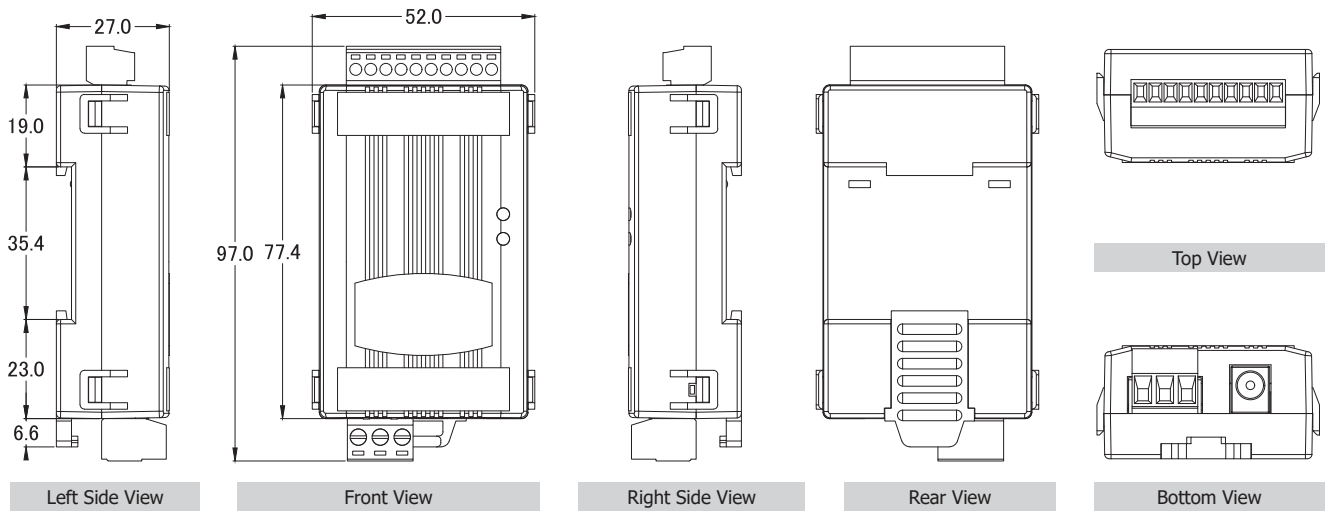
## Pin Assignments



## Wire Connections

Digital Input wiring		
Digital Input/Counter	ON State	OFF State
Dry Contact	Close to GND	OPEN
Digital Output Relay wiring		
	ON State	OFF State
Form A Relay		
Analog Voltage Output wiring		
Analog Current Output wiring		

### ■ Dimensions (Units: mm)



### ■ Ordering Information

<b>tWF-DA1PD2R1 CR</b>	1-channel DA Output, 2-channel Isolated Dry Digital Input, 1-channel Relay Output Module (RoHS)
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