



WF-2255

Wi-Fi I/O Module with Isolated 8-ch (Dry, Wet) DI, Isolated 8-ch (Sink, NPN) DO (Asia Only)

### **₱** Features

- Compatible with IEEE 802.11a/b/g/n standards
- Support WEP, WPA and WPA2 wireless encryption
- Support Modbus TCP protocols
- Support I/O pair connection mode
- Built-in Watchdog
- Built-in I/O
  - -DI/Counter: 8 Channels
  - -DO: 8 Channels





### **■** Introduction

The WF-2255 is a dual bands 2.4/5 GHz Wi-Fi interface and 8-channel isolated digital input with 32-bit counters, 8-channel sink type isolated digital outputmodule. With the popularity of 802.11 network infrastructure, the WF-2255 makes an easy way to incorporate wireless connectivity into monitoring and control systems. The WF-2255 also supports Modbus TCP protocol and the network encryption configuration, which makes perfect integration to SCADA software and offer easy and safe access for users from anytime and anywhere.

### Specifications

Isolation		
Intra-module Isolation	DI: 3750 VDC DO: 3750 VDC	
Wi-Fi		
Transmission Distance (LoS)	50 meters (LOS)	
Standard	IEEE 802.11 a/b/g/n	
RX Sensitivity	-95 dBm @ 2.4 GHz -90 dBm @ 5 GHz	
Output Power	15 dBm (Max.)	
Operation Mode	Infrastructure & Limit-AP	
Encryption	WEP, WPA and WPA2	
Antenna	Omni-Directional	
	3 dBi @ 2.4 GHz 5.5 dBi @ 5 GHz	
Digital Input/Counter	Digital Input/Counter	
Channels	8 Counters: 8	
Туре	Dry Contact Wet Contact	
Sink/Source (NPN/PNP)	Dry: Source Wet: Sink/Source	
ON Voltage Level	Dry: Close to GND Wet: +10 ~ 50 VDC	
OFF Voltage Level	Dry:Open Wet: +4 VDC Max	
Max. Counts	32-bit (4294967295)	
Frequency	8K Hz Max.	

Digital Output		
Channels	8	
Туре	Open Collector	
Digital Output		
Sink/Source (NPN/PNP)	Sink (NPN)	
Load Voltage	+3.5 VDC ~ +50 VDC	
Load Current	700 mA per channel	
Overvoltage Protection	60 VDC	
Power		
Input Range	+10 VDC ~ +30 VDC	
Consumption	1.9 W	
Mechanical		
Dimensions (mm)	33 x 127 x 107 (W x L x H) (Without antenna)	
Installation	DIN-Rail Mounting	
Environment		
Operating Temperature	-25 ∼ +75 °C	
Storage Temperature	-30 ∼ +80 °C	
Humidity	10 ~ 90% RH, Non- condensing	

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# **■ Applications**



# **■** Dimensions (Units: mm)

Pin Assignment	Terminal No.	Pin Assignment
EXT.GND	20 19	DI.GND
DO0	18	DI0
DO1	16 15	DI1
DO2	14	DI2
DO3	12	SI3
DO4	10 09	DI4
DO5	08 07	DI5
DO6	06 05	DI6
DO7	04 03	DI1
EXT.PWR	02 01	DI.COM

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# **■** Wire Connections

Input Type Wet Contact	ON State LED ON Readback as 0	OFF State LED OFF Readback as 1
Relay Contact (Dry)	Relay Close DIX DI.GND	Relay Open DIX DI.GND
Open Collector (Dry)	ON - DIX DI.GND	OFF-₹, × □⇔ □DIx □⇔ □DI.GND
Relay Contact (Wet)	+ □ □ □ DI.COM DIX	+ DI.COM
NPN Output (Wet)	ON KILL THE DI.COM DIX	
Output	ON State LED ON	OFF State LED OFF

Output Type	ON State LED ON Readback as 1	OFF State LED OFF Readback as 0
Drive Relay	Ext.PWR DOX Ext.GND	Ext.PWR DOX Ext.GND
Resistance Load	±±±±±±±±±±±±±±±±±±±±±±±±±±±±±±±±±±±±±	+ □ □ Ext.PWR DOx Ext.GND

# **■ Ordering Information**

WF-2255CR	Wi-Fi I/O Module with Isolated 8-ch (Dry, Wet) DI, Isolated 8-ch (Sink, NPN) DO (Asia Only) (RoHS)
WI-2233CR	Includes ANT-225-5 Antenna and CA-0910 Cable

# Accessories

3S001-1 CR	Antenna Extension Cable, RG58A/U, RP-SMA Male to RP-SMA Female, 1 M (RoHS)
3S003-1 CR	Antenna Extension Cable, RG58A/U, RP-SMA Male to RP-SMA Female, 3 M (RoHS)
3S005-1 CR	Antenna Extension Cable, RG58A/U, RP-SMA Male to RP-SMA Female, 5 M (RoHS)
3S008-1 CR	Antenna Extension Cable, RG58A/U, RP-SMA Male to RP-SMA Female, 8 M (RoHS)

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