

WF-2051

Wi-Fi I/O Module with Isolated 16-ch DI (Asia Only)

Features

- Support sink/source type digital inputs
- Compatible with IEEE 802.11b/g standards
- Support infrastructure and ad hoc modes for wireless networks
- Support WEP, WPA and WPA2 wireless encryption
- Support Modbus/TCP and UDP protocols
- Support DHCP network configuration
- Built-in Watchdog
- Wide Operating Temperature Range
- 4 kV ESD Protection

Introduction

The WF-2051 is a 16-channel isolated digital input with 32-bit counters module and it is one of the members of the WF-2000 wireless product family. In addition, the WF-2051 has WLAN connection complies with the IEEE802.11b/g standards. With the popularity of 802.11 network infrastructure, the WF-2051 makes an easy way to incorporate wireless connectivity into monitoring and control systems. The WF-2051 also supports Modbus/TCP and UDP protocols and the network encryption configuration, which makes perfect integration to SCADA software and offer easy and safe access for users from anytime and anywhere.

System Specifications

Isolation	
Intra-module Isolation	3750 VDC
Wi-Fi	
Transmission Range	50 meters (LOS)
Standards	IEEE 802.11 b/g (non-RevB version) IEEE 802.11 b/g/n (RevB version)
Receive Sensitivity	-83 dBm @ 11 Mbps (non-RevB version) -93 dBm @ 11 Mbps (RevB version)
Output Power	8 dBm @ 11 Mbps (non-RevB version) 14 dBm @ 11 Mbps (RevB version)
Mode	Infrastructure & Ad-hoc (non-RevB version) Infrastructure & Limit-AP (RevB version)
Encryption	WEP, WPA and WPA2
Antenna	5 dBi (Omni-Directional)
Power	
Input Range	+10 VDC ~ +30 VDC
Consumption	1.2 W
Mechanical	
Dimensions (W x L x H)	33 mm x 127 mm x 107 mm (Without antenna)
Installation	DIN-Rail Mounting
Environmental	
Operating Temperature	-25 ~ +75 °C
Storage Temperature	-30 ~ +80 °C
Humidity	10 ~ 90% RH, Non-condensing

I/O Specifications

Digital Input/Counter		
Channels		16 Counters: 8
Type		Dry Contact Wet Contact
Sink/Source (NPN/PNP)		Dry Contact: Source Wet Contact: Sink/Source
Wet Contact	ON Voltage Level	+10 ~ +50 V
	OFF Voltage Level	+4 VDC Max.
Dry Contact	ON Voltage Level	Close to GND
	OFF Voltage Level	Open
Max. Counts		32-bit (4294967295)
Frequency		8K Hz Max.

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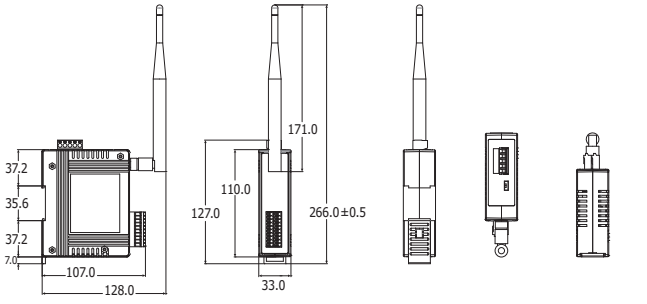
Applications



Pin Assignments

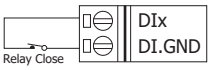
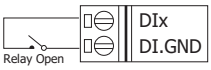
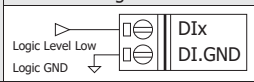
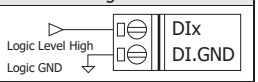
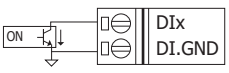
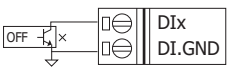
Pin Assignment	Terminal No.		Pin Assignment
DI.GND	20	19	DI.GND
DI8	18	17	DI0
DI9	16	15	DI1
DI10	14	13	DI2
DI11	12	11	DI3
DI12	10	09	DI4
DI13	08	07	DI5
DI14	06	05	DI6
DI15	04	03	DI7
DI.COM	02	01	DI.COM

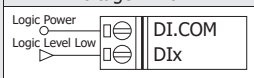
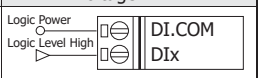
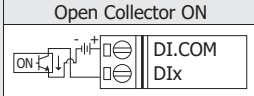
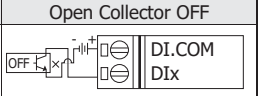
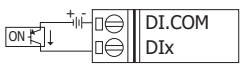
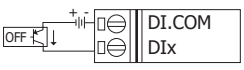
Dimensions (Units: mm)



Left View | Front View | Rear View | Top View | Bottom View

Wire Connections

Input Type Dry Contact	ON State LED ON Readback as 0	OFF State LED OFF Readback as 1
Relay Contact	Relay ON	Relay OFF
		
TTL/CMOS Logic	Voltage < 4 V	Voltage > 10 V
		
Open Collector	Open Collector ON	Open Collector OFF
		

Input Type Wet Contact	ON State LED ON Readback as 0	OFF State LED OFF Readback as 1
Relay Contact	Relay ON	Relay OFF
		
TTL/ CMOS Logic	Voltage > 10V	Voltage < 4V
		
NPN Output	Open Collector ON	Open Collector OFF
		
PNP Output	Open Collector ON	Open Collector OFF
		

Ordering Information

WF-2051 CR	Wi-Fi I/O Module with Isolated 16-ch DI (Dry, Wet) (Asia Only) (RoHS) Includes ANT-124-05 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)
ANT-8 CR	8 dBi, 2.4 GHz omni-directional antenna (RP SMA Male Plug) (RoHS)
ANT-15 CR	15 dBi, 2.4 GHz omni-directional antenna (RP SMA Male Plug) (RoHS)
ANT-15YG-1 CR	15 dBi, 2.4 GHz directional yagi antenna (RP SMA Male Plug) (RoHS) Includes 3S004 Cable (HDF 200 cable, N type male to RP-SMA male, 1 M)
ANT-18 CR	18 dBi, 2.4 GHz directional panel antenna (RP SMA Male Plug) (RoHS)
ANT-21 CR	21 dBi, 2.4 GHz directional grid antenna (RP SMA Male Plug) (RoHS)
ANT-124-03 CR	3 dBi, 2.4 GHz omni-directional antenna (RP SMA Male Plug) (RoHS)

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