

WF-2055

Wi-Fi I/O Module with Isolated 8-ch DI and 8-ch DO (Asia Only)

Features

- Support sink type digital outputs
- 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 pair connection mode
- Support DO power on value & safe value mechanism
- Built-in Watchdog

Introduction

The WF-2055, one member of ICP DAS WF-2000 (Wi-Fi) wireless product family, is an 8-channel isolated digital input with 32-bit counters, 8-channel sink type isolated digital output module. WF-2055 in WLAN connection complies with the IEEE802.11b/g standards. With the popularity of 802.11 network infrastructure, the WF-2055 makes an easy way to incorporate wireless connectivity into monitoring and control systems. The WF-2055 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	DI: 3750 VDC DO: 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	1.9 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

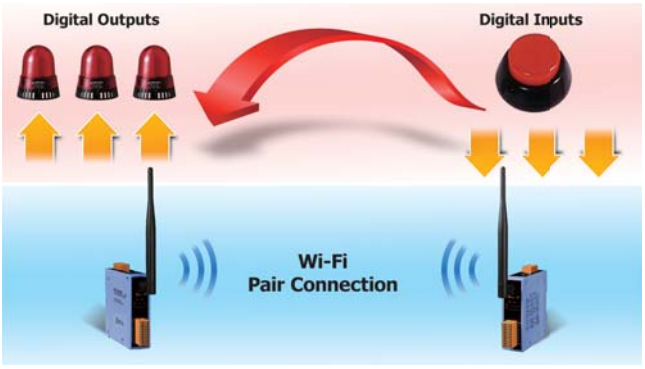
I/O Specifications

Digital Input/Counter		
Channels		8 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.
Digital Output		
Channels		8
Type		Open Collector
Sink/Source (NPN/PNP)		Sink (NPN)
Load Voltage		+3.5 VDC ~ +50 VDC
Max. Load Current		700 mA per channel
Overvoltage Protection		60 VDC

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Applications





Wire Connections

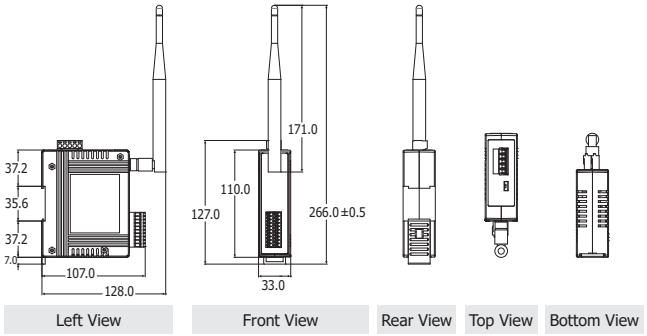
Input Type	ON State LED ON Readback as 0	OFF State LED OFF Readback as 1
Relay Contact (Dry)	Relay Close DIx DI.GND	Relay Open DIx DI.GND
Open Collector (Dry)	ON DIx DI.GND	OFF DIx DI.GND
Relay Contact (Wet)	DI.COM DIx	DI.COM DIx
NPN Output (Wet)	ON DI.COM DIx	OFF DI.COM DIx

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	Ext.PWR DOx Ext.GND

Pin Assignments

Pin Assignment	Terminal No.		Pin Assignment
EXT.GND	20	19	DI.GND
DO0	18	17	DI0
DO1	16	15	DI1
DO2	14	13	DI2
DO3	12	11	DI3
DO4	10	09	DI4
DO5	08	07	DI5
DO6	06	05	DI6
DO7	04	03	DI7
EXT.PWR	02	01	DI.COM

Dimensions (Units: mm)



Ordering Information

WF-2055 CR	Wi-Fi I/O Module with Isolated 8-ch DI (Dry, Wet), and 8-ch DO (Sink, NPN) (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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