**WISE-4050**

4-ch Digital Input and 4-ch Digital Output IoT Wireless I/O Module

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**Main Features**

- 4-ch digital input and 4-ch digital output
- 2.4GHz Wi-Fi reducing the wiring cost during big data acquisition
- Easily extend the existing network by adding APs, and share existing Ethernet software
- Configured by mobile devices directly without installing any software or Apps
- Zero data loss using the log function with RTC time stamp
- Data can be automatically pushed to Dropbox or computer
- Supports RESTful web API in JSON format for IoT integration

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**Introduction**

The WISE-4000 series is an Ethernet-based wireless IoT device, integrated with IoT data acquisition, processing, and publishing functions. As well as various I/O types, the WISE-4000 series provides data pre-scaling, data logic, and data logger functions. These data can be accessed via mobile devices and be published to the cloud with security at anytime and anywhere.

**Features**

**IEEE 802.11 b/g/n 2.4GHz Wi-Fi with AP Mode**

The Wi-Fi interface is easily integrated with wired or wireless Ethernet devices, users only need to add a wireless router or AP to extend existing Ethernet network to wireless. The limited AP mode enables the WISE-4000 to be accessed via other Wi-Fi devices directly as an AP.

**HTML5 Web Configuration Interface**

All the configuration interfaces are applied in web service, and the web pages are based on HTML5, so users can configure the WISE-4000 without the limitation of OS/devices. You can use your mobile phone or tablet to directly configure the WISE-4000.

**RESTful Web Service with Security Socket**

As well as supporting Modbus/TCP, the WISE-4000 series also supports IoT communication protocol, RESTful web service. Data can be polled or even be pushed automatically from the WISE-4000 when the I/O status is changed. The I/O status can be retrieved by internet media types like JSON. The WISE-4000 also supports HTTPS which has security that can be used in a Wide Area Network (WAN).

**Data Storage**

The WISE-4000 can log up to 10,000 samples of data with a time stamp. The I/O data can be logged periodically, and also when the I/O status changes. Once the memory is full, users can choose to overwrite the old data to ring log or just stop the log function.

**Cloud Storage**

Data logger can push the data to file-based cloud services like Dropbox using pre-configured criteria. With RESTful API, the data can also been pushed to a private cloud server in the format of JSON. Users can setup their private cloud server using the provided RESTful API and their own platform.

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Last updated: 6-Feb-2017

All product specifications are subject to change without notice.
Specifications

Digital Input
- Channels: 4
- Logic Level:
  - Dry Contact: 0: Open
  - Wet Contact: 0: 0 ~ 3 VDC
  - 1: 10 ~ 30 VDC (3 mA min.)
- Isolation: 3,000 Vrms
- Supports 3 kHz Counter Input (32-bit + 1-bit overflow)
- Keep/Discard Counter Value when Power-off
- Supports 3 kHz Frequency Input
- Supports Inverted DI Status

Digital Output
- Channels: 4
  - Open collector to 30 V, 400 mA max. for resistance load
- Isolation: 3,000 Vrms
- Supports 5 kHz Pulse Output
- Supports High-to-Low and Low-to-High Delay Output

General
- WLAN: IEEE 802.11b/g/n 2.4GHz
- Outdoor Range: 110 m with line of sight
- Connectors: Plug-in screw terminal block (I/O and power)
- Watchdog Timer: System (1.6 second) and Communication (programmable)
- Certification: CE, FCC, R&TTE, NCC, SRRC, RoHS, KC, ANATEL
- Dimensions (W x H x D): 80 x 148 x 25 mm
- Enclosure: PC
- Mounting: DIN 35 rail, wall, and stack
- Power Input: 10 ~ 30 VDC
- Power Consumption: 2.2 W @ 24 VDC
- Power Reversal Protection
- Supports User Defined Modbus Address
- Supports Data Log Function: Up to 10000 samples with RTC time stamp
- Supported Protocols: Modbus/TCP, TCP/IP, UDP, DHCP, and HTTP
- Supports RESTful Web API in JSON format
- Supports Web Server in HTML5 with JavaScript & CSS3
- Supports System Configuration Backup and User Access Control

Environment
- Operating Temperature: -25 ~ 70°C (-13 ~ 158°F)
- Storage Temperature: -40 ~ 85°C (-40 ~ 185°F)
- Operating Humidity: 20 ~ 95% RH (non-condensing)
- Storage Humidity: 0 ~ 95% RH (non-condensing)

Pin Assignment

Ordering Information
- WISE-4050-AE: 4-ch Digital Input and 4-ch Digital Output IoT Wireless I/O Module

Selection Table

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<tr>
<th>Model Name</th>
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Accessories
- PWR-242-AE: DIN-rail Power Supply (2.1A Output Current)
- PWR-244-AE: Panel Mount Power Supply (4.2A Output Current)