Wi-Fi 802.11b/g Modbus TCP to 16 A/D, 2 D/A, 8 Open-Collector Outputs, 8 Isolated Inputs Multifunction Module

Part: 470W | **Model:** SeaI/O-470W

Designed using the Maxim MAX197 successive approximation-type A/D chip, the SeaI/O-470W provides a wireless network connection to eight differential or 16 single-ended 12-bit inputs and two 12-bit D/A output channels. The A/D inputs are software selectable for 0-5V, 0-10V, +/-5V, and +/-10V ranges and each channel can be configured via hardware for measuring 4-20mA current loop. The two 12-bit D/A channels are jumper selectable for 0-5V and 0-10V output ranges.

Additionally, the SeaI/O-470W module provides eight optically isolated inputs rated for 5-30VDC and feature 300V external isolation, while eight open-collector outputs can sink up to 580mA – ideal for switching 24V devices commonly found in industrial environments. Perfect for a variety of data acquisition/control and test & measurement applications, the SeaI/O-470W includes removable screw terminals, which simplify field-wiring connections. The SeaI/O-470W is powered from your 9-30VDC source, or select from a variety of Sealevel power supply options.

Communicate with the SeaI/O-470W over Wi-Fi (802.11b and 802.11g) networks using industry-standard Modbus TCP protocol or use the Sealevel SeaMAX API software libraries from your application program. Sealevel's SeaMAX software drivers and utilities make installation and operation easy using Microsoft Windows and Linux operating systems. Security features include WEP and the latest WPA-TKIP and WPA2-AES encryption standards.

The Sealevel Modbus Connect app for iOS allows you to access the registers, coils and discrete I/O of your Sealevel Modbus devices and is available on the App Store. Use the app to remotely access I/O in the field or for testing and troubleshooting during application development.

Expand your I/O network with SeaI/O N-series products. SeaI/O modules are available with Reed and Form C relays, optically isolated inputs, TTL interfaces, A/D and D/A functionality. Up to 246 additional expansion modules can be added using convenient pass-through connectors.

Get a jump start on your digital I/O development with The Digital I/O Handbook that will provide helpful information that you will use again and again. Check out Chapter 1 for an overview of logic principles.

Features & Specifications

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Features

- Complies with 802.11g and 802.11b (2.4GHz) networking standards
- Wireless security supports WEP, WPA-TKIP, and WPA2-AES encryption standards
- 8 differential or 16 single-ended 12-bit inputs
- Two 12-bit D/A output channels
- 8 optically isolated inputs
- 8 open-collector outputs
- Removable screw terminals simplify field wiring
- Status indicator LEDs for Communication, Fault, and Power
- Input power via terminal block or modular connector
- DIN rail or table mount
- Sealevel SeaMAX software supports Microsoft Windows and Linux operating systems

Specifications

A/D Chip	Maxim MAX197
Input Isolation	300V
A/D Range	0-5V, 0-10V, +/-5V, +/-10V
A/D Resolution	12-bits
Analog I/O	A/D Inputs, D/A Outputs
Family	SeaI/O
D/A Range	0-5V, 0-10V
D/A Resolution	12-bits
Digital I/O	Isolated Inputs, Open-Collector Outputs
Dimensions	7.5 (L) x 5.1 (W) x 1.3 (H)
Extended Temperature	Call for Options
Frequency Range	2.412 – 2.484 GHz
Humidity Range	10 – 90% Relative Humidity, Non-Condensing
A/D Inputs	8 Differential or 16 Single-Ended
Host Interface(s)	Wi-Fi (802.11bgn)
Input Range	5-30 VDC
Number of Inputs/ Outputs	8 Inputs, 8 Outputs
Operating Temperature	0°C to 70°C (32°F to 158°F)
Output Power	14dBm +1.5/-1.0 dBm
Output Type	Open-Collector
# of Ports	16/2/8/8
Power Requirement	9-30 VDC @ 3.5W
RoHS Compliant	Yes
Storage Temperature	-50°C to 105°C (-58°F to 221°F)
Wireless Channels	11 (US)13 (Europe, Japan)
Wireless Range	328’ (Indoors)
Wireless Data Rates	54Mbps Max.1Mbps Min.
Wireless Standards	802.11b802.11g802.11i