

# ADAM-6050W

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**Wireless LAN-enabled 18-channel  
DI/O Module**

**Wireless LAN-enabled 16-channel  
Isolated I/O with Counter Module**

**Wireless LAN-enabled 6-channel  
Relay Output Module**



CE FCC

## Features

- Supports IEEE802.11b wireless LAN
- Embedded web server with built-in web page
- Supports Modbus/TCP & UDP protocols
- Supports event trigger function

## Introduction

ADAM-6050W, ADAM-6051W, and ADAM-6060W bring wireless LAN communication to your network. The hardware design of the modules were based on ADAM-6050, 6051, and 6060, but a wireless LAN interface has replaced the RJ-45 Ethernet port. With support for the common IEEE802.11b, these modules can be accessed on your wireless LAN without any hardwiring. A sensible choice for environments with wiring limitations, or expensive wiring requirements.

## Specifications

### General

- **Certifications** CE, FCC class A
- **Connectors** Plug-in screw terminal block (#14 ~ 28 AWG)
- **Dimensions (WxHxD)** 70 x 112 x 25 mm
- **Enclosure** ABS+PC
- **LAN** IEEE802.11b WLAN
- **LED Indicators** Power, communication, signal, strength
- **Mounting** DIN 35 rail, stack, wall
- **Power Consumption** ADAM-6050W, ADAM-6060W: 2 W (typical)  
ADAM-6051W: 2.5 W
- **Power Input** Unregulated 10 ~ 30 V<sub>DC</sub>

### Communications

- **Channels** ADAM-6050W: 12 DI, 6 DO  
ADAM-6051W: 12 DI/2 DO/2 Counter  
ADAM-6060W: 6 DI, 6 Relay
- **Counter** Maximum Count: 4,294,967,285 (32 bit)  
Input frequency: 0.3 ~ 4500 Hz max. (frequency mode)  
4500 Hz max. (counter mode)  
Modes: Counter (Up/Down, Bi-direction), Frequency
- **Digital Input**
  - Dry Contact: Logic level 0: Close to GND  
Logic level 1: Open (Status inversable by utility)
  - Wet Contact (ADAM-6050W and ADAM-6051W only)  
Logic level 0: +3 V (max.)  
Logic level 1: +10 to 30 V
  - Counter Mode: Up to 3 kHz for ADAM-6050W/6060W  
Up to 4.5 kHz for ADAM-6051W
  - Frequency Mode: Up to 3 kHz for ADAM-6050W/6060W  
Up to 4.5 kHz for ADAM-6051W
- **Digital Output** Open collector to 30 V, 200 mA max. load  
Pulse output : up to 5 kHz for ADAM-6050W and ADAM-6051W

- **Relay Output (Form A)** Contact rating: AC: 120 V @ 0.5 A, DC: 30 V @ 1 A  
Breakdown voltage: 500 V<sub>AC</sub> (50/60 Hz)  
Relay on time: 7 msec; Relay off time: 3 ms  
Total switching time: 10 ms  
Insulation resistance: 1 G $\Omega$  minimum at 500 V<sub>DC</sub>

### Protection

- **Optical Isolation** ADAM-6050W: 5,000 V<sub>RMS</sub>  
ADAM-6051W, ADAM-6060W: 2,000 V<sub>RMS</sub>

### Power Reversal Protection

### Software

- **Support Protocol** Modbus/TCP and UDP
- **Watchdog Timer** Yes, programmable (Comm.)
- **Web Server** Embedded, with web page for configuration

### Environment

- **Humidity** 5 ~ 95 % RH, non-condensing
- **Operating Temperature** -10 ~ 60 °C (14 ~ 140 °F)
- **Storage Temperature** -25 ~ 85 °C (-13 ~ 185 °F)

## Ordering Information

- **ADAM-6050W-A** Wireless LAN-enabled 18-channel DI/O Module
- **ADAM-6051W-A** Wireless LAN-enabled 16-channel Isolated I/O with Counter Module
- **ADAM-6060W-A** Wireless LAN-enabled 6-channel Relay Output Module

## Feature Details

### Communication

ADAM-6050W, ADAM-6051W and ADAM-6060W support IEEE802.11b, so they can connect to most wireless LAN access points.

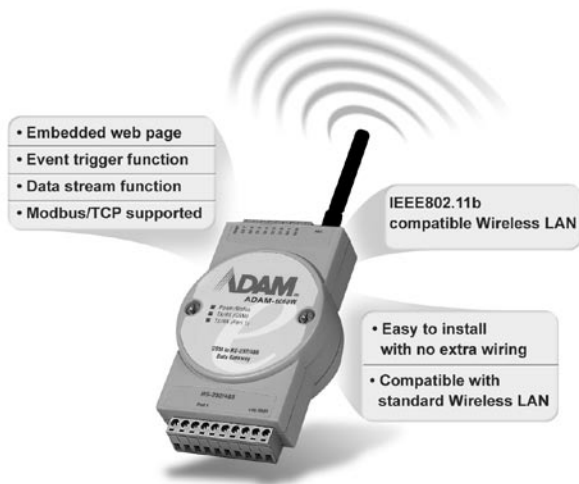
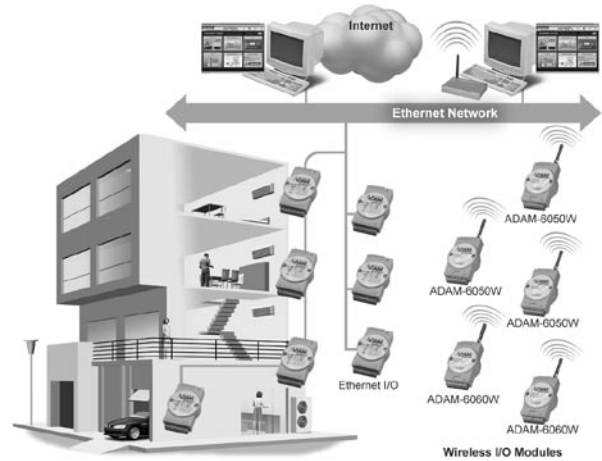
Like other ADAM-6000 modules, ADAM-6050W, ADAM-6051W and ADAM-6060W also support the Modbus/TCP and UDP protocols. You can use HMI/SCADA software to communicate with the modules through Modbus/TCP. The pre-built UDP protocol supports event trigger and data streaming functions for critical and real time responses.

### Embedded web server with built-in web page

The modules have an embedded web server with a built-in webpage that can be configured by an utility for: Tag Name, Status Label (for example, Start/Stop, Run/Stop, Enable/Disable and Alarm/Normal), and Channel Enable.

Although it is based on Java technology, there is no need to learn how to write Java applets to design a customized web page. By using ADAM-6000 utility software, the webpage can be customized to exact requirements.

## Home/Building Application



## Port Crane Monitoring & Control Application

