



ADW002 'Osprey'

Cloud-Connected Wi-Fi Input/Output

Connecting your device to the cloud just got a whole lot easier

IT'S ALL ABOUT THE CLOUD

Using a Wi-Fi module to connect your device to the internet only solves half the problem. ACKme Wi-Fi modules bridge the gap by providing ultra-low power cloud connectivity coupled with an easy-to-use serial communication command set.

FEATURES

- Automatically sense and report the open/close state of 4 inputs
- Control the open/close state of 4 relay outputs up to 250VAC via the cloud
- Double-throw outputs with normally open and normally closed terminal connections
- Integrated Wi-Fi networking connectivity including onboard or external antenna
- Network connections secured by industry standard TLS/HTTPS security
- Setup via wireless web browser or UART serial interface using intuitive commands
- Automatic (or manual) secure upgrades via wireless network, FTP or serial interface
- Real-time clock syncs with network time
- Supports Wi-Fi security types: Open, WEP, WPA, WPA2 and WPA/WPA2-mixed
- Wi-Fi Protected Setup (WPS) for one-step push-button connection to your AP
- AC or DC power supply
- Fully compatible with goHACKme

APPLICATIONS

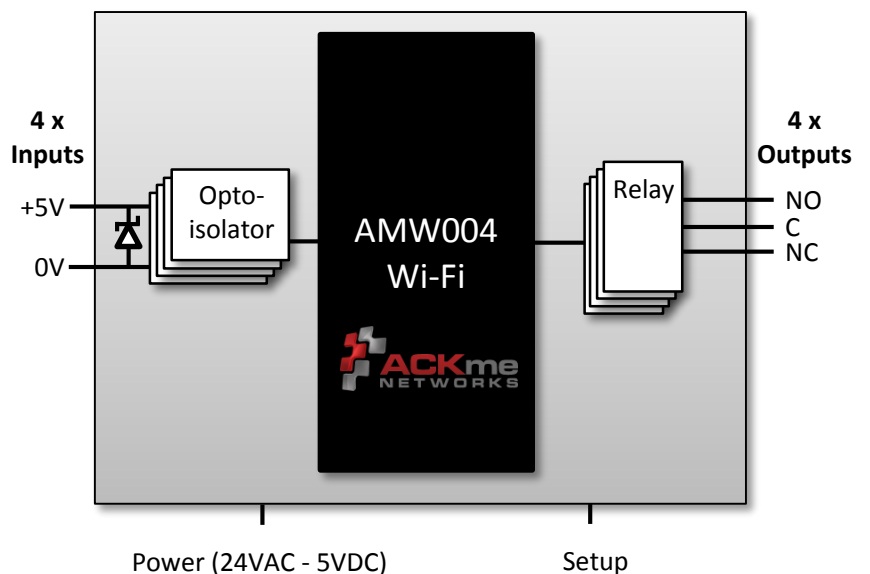
- Wireless sensing, remote data logging
- Power, light, machinery, appliance control
- Alarms
- Door and entry control

HIGHLIGHTS

The ADW002 'Osprey' board enables simultaneous sensing of four inputs and the ability to control the state of four relay outputs rated up to 250VAC. The board uses an AMW004 Wallaby module to offer wireless operation and integrated cloud connectivity. Wallaby is our fully certified small form factor, low power and secure Wi-Fi networking module.

Connecting Osprey to your wireless network is complete in just a few easy steps using a web browser with a Wi-Fi client such as a smartphone, tablet or PC together with the in-built WiConnect application. You'll be talking to your widget from the cloud in no time using the in-built cloud connectivity option powered by [sensors.com!](#)

ADW002 SYSTEM ARCHITECTURE



ADW002 SPECIFICATIONS

Sensor Inputs	4 x monitored inputs
Control Outputs	4 x controllable relay-driven outputs rated to 250VAC with NC/NO options
Networking Standards	802.11b/g/n
Frequency Band	2.4GHz – Channels 1-14
Wi-Fi Security	Open, WEP, WPA, WPA2
Network Protocols	UDP, TCP, ARP, ICMP, DNS, SNTP, HTTP, DHCP, SMTP, Sensors.com
Network Security	SSL3.0/TLS1.2, HTTPS, Secure OTA Upgrade
Microprocessor & Memory	ARM CM4 @ 120MHz incl. 1MB flash and 128kB RAM, on-board 8Mbit (1MByte) SPI-serial flash
Peripherals	GPIO, ADC, DAC, PWM, I2S
Real Time Clock	Time-of-day, 200-year calendar
Max. RF Transmit Power	+19dBm (11b max.), +16dBm (11g max.), +14dBm (11n max.)
Min. Receive Sensitivity	-94dBm (11b/g), -86dBm (11n)
Communications Range	>330m (1000ft) line of sight
Antenna	On-board PCB-style & u.FL connector for external antenna
Power Consumption	500mA – 800mA
Supply Voltage	7-24VAC or +5VDC
Operating Temperature	0°C to +70°C
Size	95mm x 95mm
Certifications	FCC, IC, CE (AMW004 module)
Software	Pre-programmed with WiConnect (serial Wi-Fi networking application) customised for Osprey

ADW002 and WiConnect

Using the ADW002 module with ACKme’s WiConnect serial Wi-Fi software is easy. Press the Setup button, connect to the board’s Wi-Fi access point, open a telnet connection to the board and start typing WiConnect commands!

WiConnect provides:

- Easy Wi-Fi connection
- OTA (Over-The-Air) software upgrades in conjunction with ACKme’s OTA server
- Automated and manual control of the AMW004 module’s features
- Interaction with the goHACKme and sensors.com IoT clouds



➔ Contact us:
<http://ack.me/contact>
 or +1 (408) 402 5708
 Or for more information, visit us online at <http://ack.me>

ADW002 (Osprey)

Wi-Fi Input/Output Reference Design

Related Products:

AMW004 (Wallaby)

AMW004 surface mount module

AMW004-E03 (Mackerel)

AMW004 surface-mounted on WiConnect Evaluation Board



ABOUT ACKme NETWORKS, INC.

ACKme Networks offers a range of industry leading cloud-connected wireless communication modules including Wi-Fi, Bluetooth, Bluetooth Low Energy and GPRS cellular. ACKme is headquartered in Silicon Valley, USA with a design centre in Sydney, Australia and a range of international distributors.