ADW001 (Condor)

Wi-Fi Temperature, Humidity and Accelerometer Sensor using the AMW004 Wi-Fi module

Overview

T he **ADW001** 'Condor' wireless sensor provides a range of Wi-Fi sensing options including temperature, humidity, motion, acceleration and tamper. Condor includes an AMW004 Wallaby module to provide a wireless connection and seamless cloud connectivity. Wallaby is our fully certified small form factor, low power and secure Wi-Fi networking module.

Connecting Condor 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. Configuration of the onboard sensors is likewise achieved using a web browser on the local network, or via the Sensors.com cloud solution.

FEATURES

- Network connections secured by industry standard TLS/HTTPS security
- Temperature measurement using internal RTD or external pluggable temperature probe
- Instrumentation quality Relative Humidity (RH) sensor
- High-performance 3D motion sensing using a MEMS accelerometer
- Ultra low power ball-in-tube sensor for wakeup on motion
- Onboard tamper detection reed switch
- External open/close switch detection for door/window monitoring
- Integrated Wi-Fi networking connectivity including onboard or external antenna option
- Battery or mains power option
- Setup and configuration via wireless web browser
- Automatic (or manual) secure upgrades via wireless network
- Real-time clock automatically syncs with network time
- Supports Wi-Fi security types: Open, WEP, WPA, WPA2 and various WPA/WPA2-mixed combinations
- Wi-Fi Protected Setup (WPS) for one-step push-button connection to your AP

APPLICATIONS

Industrial, M2M and Automation

- Environmental Monitoring
- Wireless sensing, remote data logging
- Fridge/Freezer Datalogging & Alarms

Security

- Door and entry control
- Alarms
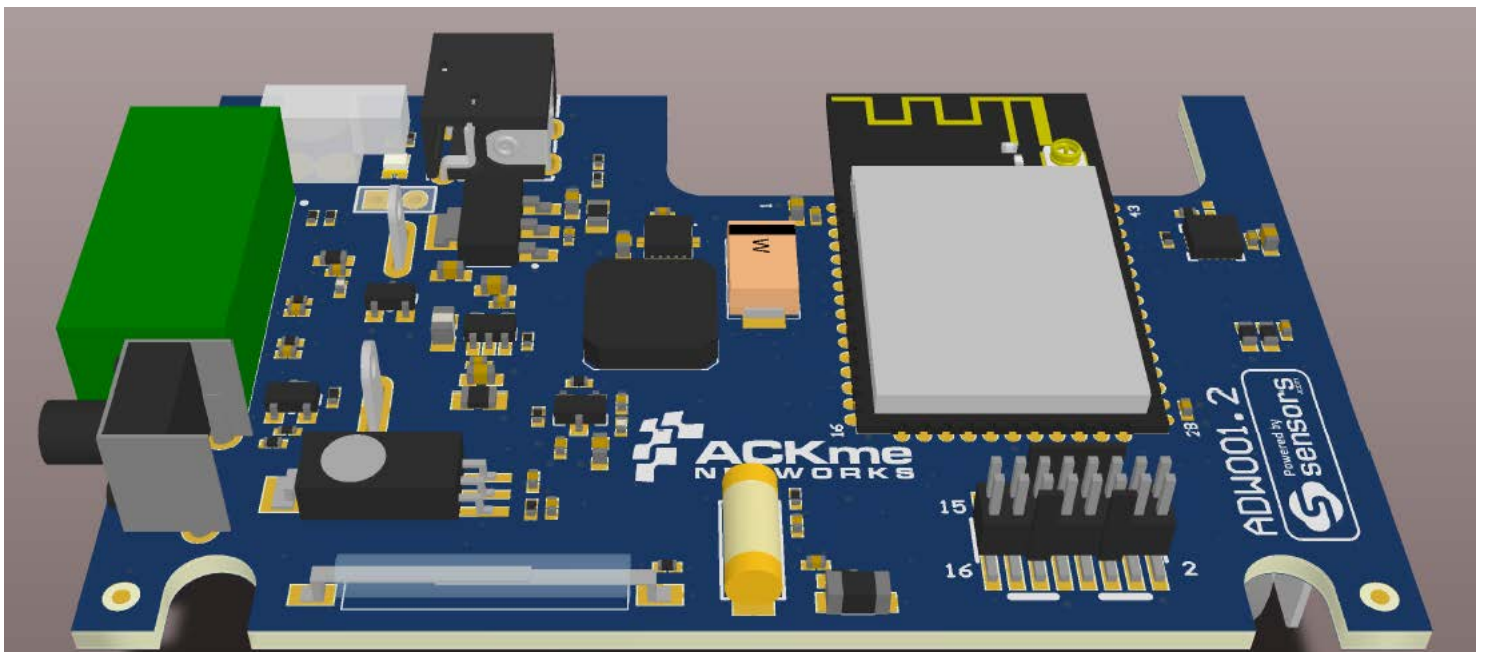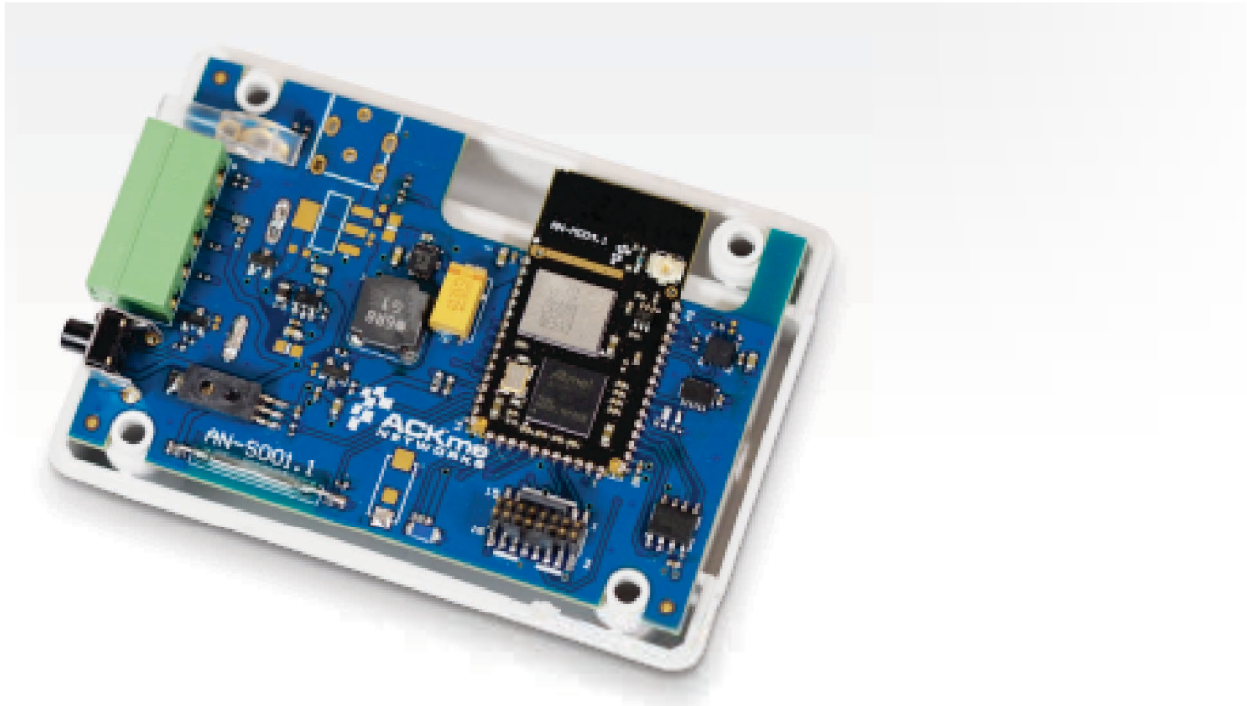
Consumer & Health

- Room temperature and humidity monitoring

Specs

Internal Temperature Sensor	Accuracy: 1°C, Range: 0 – 70°C
External Temperature Sensor	Accuracy: 1°C, Range: Dependent on probe
Humidity Sensor	Accuracy: +/-3%RH (11%RH - 89%RH)
3D Motion Sensor	Free-fall and motion detection, 6D/4D orientation detection
Wake-on-motion Sensor	Omnidirectional motion detection for low-power wakeup
Tamper/Position Sensor	Integrated reed switch for tamper or position sensing
Networking Standard & Data rates	802.11b: 1,2, 5.5,11 Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 802.11n: MCS0 - MCS7
Frequency Band	2.412 - 2.484 GHz (Channels 1-14)
Wi-Fi Security	Open, WEP-40, WEP-104, WPA, WPA2-PSK, WPA/WPA2-mixed
Network Protocols	ARP, ICMP, DHCP client/server, DNS, NTP, SMTP UDP, TCP, HTTP client/webserver, Sensors.com
Network Security	SSL3.0/TLS1.1, HTTPS
Communications Range	>1000ft (330m) line of sight
Microprocessor & Memory	ARM CM4 @ 120MHz with integrated 1MB flash and 128kB RAM, onboard 8Mbit (1MByte) SPI-serial flash
Real Time Clock	Time-of-day, 200-year calendar

RF Transmit Power	+19dBm (11b max.), +16dBm (11g max.), +14dBm (11n max.)
Antenna	Integrated PCB antenna
Power consumption	TBD
Power supply	2 x 'AA' batteries or external +5V supply
Operating Temperature	0 – 70°C
Size	TBD
Weight	TBD oz
Certifications	FCC, IC, CE
Software	WiConnect customised for Condor

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