

### FEATURES

- Self-hosted network stack supports various network protocols including UDP, TCP, HTTP, DHCP client/server, SMTP
- Industry standard SSL/TLS security for end-end Secure TCP & HTTPS transactions
- UART/SPI streaming & command modes for flexible, device friendly data transfer
- Multi-megabit throughput for highbandwidth applications
- Configuration & setup options including UART, SPI, Wi-Fi softAP/webserver, WPS
- Fully encrypted Over-the-Air (OTA) firmware upgrade capability
- GPIO-controlled network connections
- Peripheral API provides access to digital GPIOs and analogue functions
- Intelligent power management with programmable wakeup options

#### APPLICATIONS

- Environmental & energy monitoring
- Wireless sensing, remote data logging
- HVAC, power, light & thermostat control
- Appliance control
- Security cameras
- Door/window monitoring
- Fitness equipment
- Home health monitoring
- Medical devices
- Audio
- Toys & robots
- And more...

## **Wi**Connect

# WiConnect? Because ACKme makes it easy!

Connect your device with just a few easy-to-use serial commands.

#### YOUR DEVICE. CONNECTED.

Connect your device in no time flat using an ACKme Wi-Fi module and WiConnect – the easy-to-use Wi-Fi networking application.

WiConnect avoids costly Wi-Fi software development effort, and provides the added bonus of integrated cloud connectivity for data sensing and device remote control.

#### **HIGHLIGHTS**

- Provides a host processor with a high-speed, low power wireless networking connection
- Efficient API, even the smallest microcontrollers can connect
- Integrated Sensors.com commands provide your device with instant cloud connectivity for always connected reporting and control
- Works with all ACKme Wi-Fi modules



#### APPLICATION EXAMPLE



Cloud-Connected Thermostat with WiConnect and Sensors.com

#### ABBREVIATED COMMAND SET

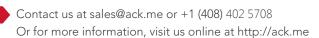
| Wi-Fi & Networking Commands          |   |
|--------------------------------------|---|
| scan                                 | Scan for Wi-Fi networks in range  |
| setup                                | Enter setup mode. Enables Wi-Fi setup using an on-board Wi-Fi Access Point and client web browser |
| http_get                             | Download an HTTP or secure HTTPS web page   |
| http_post                            | Post a query (or data) to a remote webserver  |
| tcp                                  | Open a TCP connection with a remote server  |
| udp                                  | Open a UDP connection with a remote server  |
| tls                                  | Open a secure TLS connection to a remote server   |
| ntp                                  | Get the time from a network server  |
| email                                | Send an email to a pre-configured email address   |
| Cloud Commands Using Sensors.com API |   |
| sdc_identify                         | Register a device with the Sensors.com cloud service  |
| sdc_sample                           | Send a sensor sample to the Sensors.com cloud service   |
| sdc_get_params                       | Get control parameters from the cloud service   |
| Peripheral Commands                  |   |
| gpio_set                             | Set the value of a general purpose I/O pin  |
| gpio_get                             | Get the value of a general purpose I/O pin  |
| ioconn_gpio                          | Use a GPIO to open a connection to a network host   |
| wlan_status_gpio                     | Use a GPIO to indicate wireless network status  |
| System Commands                      |   |
| bus_mode                             | Set serial bus to streaming or command mode   |
| ota                                  | Initiate a secure Over-the-Air Firmware Upgrade   |
| time                                 | Get the local time from the real time clock   |

#### WiConnect EVALUATION BOARD

Evaluating WiConnect using ACKme's Wi-Fi modules is easy. Simply plug the board into a PC using a standard USB cable, open a terminal application and start typing!

The evaluation board includes:

- USB-serial interface for simplified UART communications & power
- Two buttons & two LEDs to demonstrate I/O control
- Expansion headers to break out every pin on the module
- Reset button





#### 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.