Product Brief

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Secure Socket iWiFi™

Serial-to-Wireless LAN Device Server

General Description:

Secure Socket iWiFi™ is a secure serial-to-wireless LAN device server module that also acts as a bridge to connect serial devices to 802.11b/g wireless LANs. It includes the iChip™ CO2128 IP Communication Controller™ chip and Marvell 88W8686 WiFi chipset. It is packaged in RoHS-compliant compact form factor and uses a standard industry pin-out.

Secure Socket iWiFi offers much more than many other device servers on the market. It acts as a security gap between the application and the network; supports up to 10 simultaneous TCP/UDP sockets; two listening sockets; a web server with two websites; SMTP and POP3 clients; MIME attachments; FTP and Telnet clients, and SerialNET™ mode for serial-to-IP bridging.

Secure Socket iWiFi supports the SSL3/TLS1 protocol for secure sockets, HTTPS and FTPS, WEP, WPA and WPA2 WiFi encryption.

Secure Socket iWiFi minimizes the need to redesign the host device hardware. It easily inserts into headers on the host PCB and connects to an external antenna. Minimal or no software configuration is needed for Secure Socket iWiFi to access the wireless LAN.

Connect One's high-level AT+i™ API eliminates the need to add WiFi drivers, security and networking protocols and tasks to the host application. The AT+i SerialNET operating mode offers a true plug-and-play mode that eliminates any changes to the host application.

Secure Socket iWiFi firmware – the IP stack and Internet configuration parameters – are stored in an on-board flash memory. The module is power-efficient: the core operates at 1.2V, while I/Os operate at 3.3V. Power Save mode further reduces power consumption.

The II-EVB-361MW evaluation board provides an easy environment for testing the Secure Socket iWiFi prior to designing it into your product.

Hardware Description:

- Size: 64.5x27.4x6.6mm (2.54x1.08x0.26")
- Core CPU: 32-bit RISC ARM7TDMI, low-leakage, 0.13 micron, running at 48MHz
- Operating Voltage: +3.3V+/-10%
- Operating Humidity: 90% maximum (non-condensing)
- Operating Temperature Range: -20° to 75°C (-4° to 167°F)
- Power Consumption:
  - Transmit – 260mA (typical)
  - Receive – 190mA (typical)
  - Power Save mode – 8mA
- Connector: U.FL ultra-miniature coax to antenna
- Host Interface: TTL serial interface
- RoHS-compliant; lead-free

Performance Specifications:

- Host Data Rate: up to 3Mbps in serial mode
- Serial Data Format (AT+i mode): Asynchronous character; binary; 8 data bits; no parity; 1 stop bit
- Serial Data Format (SerialNET mode): Asynchronous character; binary; 7 or 8 data bits; odd, even, or no parity; 1 stop bit
- Flow Control: Hardware (RTSH, CTSH) and software flow control.

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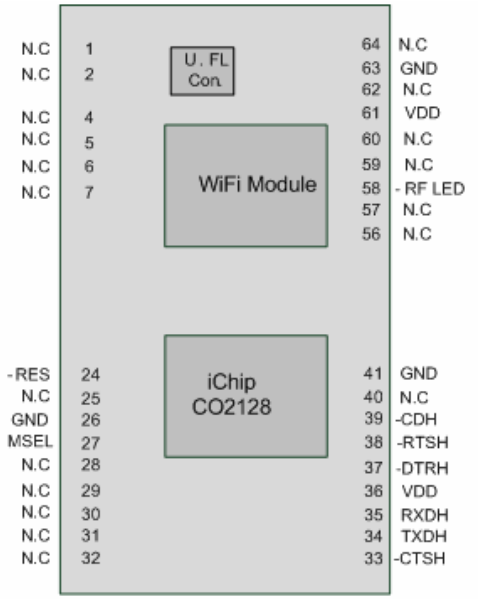
Internet Protocols:

- ARP, ICMP, IP, UDP, TCP, DHCP, DNS, NTP, SMTP, POP3, MIME, HTTP, FTP and Telnet
- Security protocols: SSL3/TLS1, HTTPS, FTPS, RSA, AES-128/256, 3DES, RC-4, SHA-1, MD-5, WEP, WPA and WPA2
- Protocols accelerated in hardware: AES, 3DES and SHA

Wireless Specifications:

- Standards supported: IEEE 802.11b, IEEE 802.11g
- Frequency: Europe – 2.412-2.472GHz
  USA – 2.412-2.462GHz
- Channels: Europe – 13 channels
  USA – 11 channels

Pin Assignments:



Application Program Interface:

- Connect One's AT+i protocol
- SerialNET mode for transparent serial data-to-Internet bridging

Warranty:

One year

Certifications:

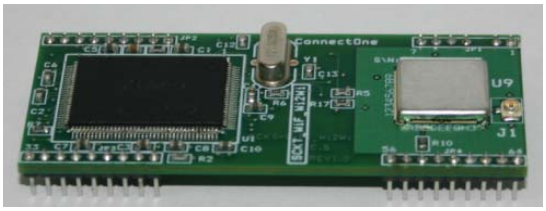
- CE, FCC
- Radio: FCC part 15, subpart C; EN 301 489 (EMC Directive 89/336/EEC)
- EMC: FCC part 15, subpart B; EN 300 328 (R&TTE Directive 1999/5/EC)
- Safety: EN 60950-1:2004

Installation Requirements:

The Secure Socket iWiFi must be installed within a full-enclosure device that is safety certified.

Safety Warning:

Power supply output to the Secure Socket iWiFi must be limited to 2A Max.



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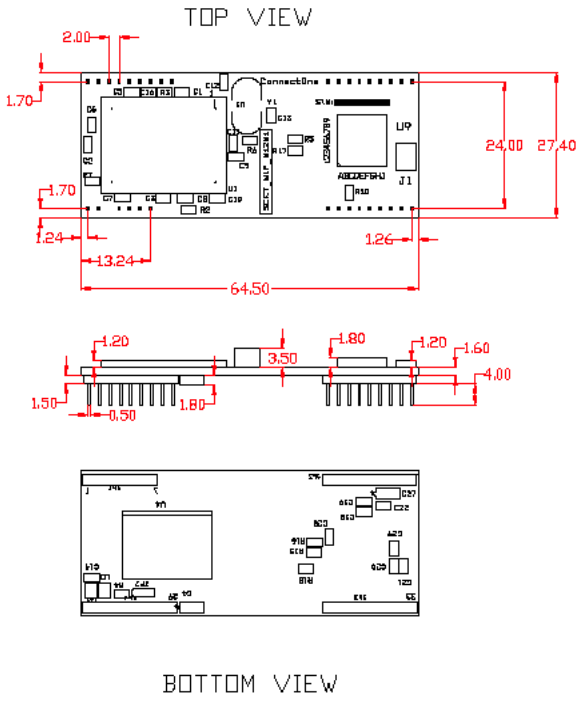
Mechanical View:



Ordering Information

Part Number	Description
iW-SM2128MW-US	Secure Socket iWiFi module, for USA
iW-SM2128MW-EU	Secure Socket iWiFi module, for Europe
iW-SM2128MW-JP	Secure Socket iWiFi module, for Japan
II-EVB-361MW-US-0 II-EVB-361MW-US-110	Evaluation board for Secure Socket iWiFi module, for USA, without power supply/110V
II-EVB-361MW-EU-0 II-EVB-361MW-EU-220	Evaluation board for Secure Socket iWiFi module, for Europe, without power supply/220V
II-EVB-361MW-JP-0 II-EVB-361MW-JP-110	Evaluation board for Secure Socket iWiFi module, for Japan, without power supply/110V

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