# Commercial-Grade Embedded WiFi for Climate-Controlled Settings



Connect One released commercial-grade

versions of its popular Nano WiReach and Nano Socket iWiFi modules at a 25% cost reduction. Unlike the original modules that were designed for harsher conditions and an extended temperature range (-20°C to 75°C), the commercial-grade modules deliver wireless connectivity environments to in-building or climatecontrolled areas in a narrow temperature range (-10°C to 65°C). Applications targeting more moderate conditions can choose the commercial-grade Nano WiReach and Nano Socket iWiFi for designs because they are 100% compatible in form, fit and function to the original, extended-temperature versions.

Based on Connect One's iChipSec CO2144 IP controller chip, Nano WiReach and Nano Socket iWiFi include a full suite of Internet Protocols and applications, enabling full-featured secure connectivity. Tailored for seamless integration, the modules offer immediate connectivity without WiFi driver development or porting and support several modes of operation:

• Embedded Router—LAN or WiFi clients gain a single cellular WAN connection to the Internet (3G router) or routing between LAN and WiFi networks,

• Embedded Access Point—Devices containing WiFi can connect to the product's embedded access point to control or manage processes,

• LAN to WiFi Bridge—Transparent bridging of LAN over WiFi enables direct RMII connection to existing MAC hardware. Any microcontroller with a built-in Ethernet MAC can be connected to WiFi with zero development effort,

• Serial to LAN/WiFi Bridge—Transparent bridging of serial data over LAN or WiFi is boosted by the module's speedy 3-Mbps UART,

• Full Internet Controller mode—Simple microcontrollers can use the WiFi modules' rich protocol and application capabilities to perform complex Internet operations, such as e-mail, FTP, SSL, embedded Web server and others. Internet controller mode can be used with any hardware interface, and

• PPP emulation—Existing (e.g., cellular modem) designs currently using PPP to interface to the cellular modem can connect transparently over WiFi with no changes to application or drivers.

To ensure Nano WiReach and Nano Socket iWiFi are fully protected from industrial network targeting by hackers—a phenomena more common of late—the WiFi modules offer a highly advanced level of Internet security. Nano WiReach and Nano Socket iWiFi include the latest WiFi encryption algorithms (WPA/WPA2, in both PSK and enterprise modes) and Internet SSL encryption algorithms, as well as serving as an inherent firewall for the industrial application. In providing this level of security, Connect One safeguards the industrial network from attacks originating from the Internet.

Nano WiReach and Nano Socket iWiFi each support 10 simultaneous TCP/UDP sockets; two listening TCP sockets; SMTP, MIME, POP3, FTP, Telnet and HTTP/HTTPS clients; an HTTP/HTTPS embedded Web server with a Web site for the host application and one for configuring the module. Nano WiReach supports 64/128-bit WEP, WPA/WPA2 (PSK and Enterprise) encryption, AES-128/256, SHA-128/192/256, 3DES, the SSL3/TLS1 protocol for a secure client socket session and a secure FTP session.

"Wireless connectivity offers industries a secure, much more flexible and less expensive way to achieve M2M connectivity for the typical, climate-controlled workplace," noted Erez Lev, Vice President Sales for Connect One. "These commercial-grade versions honor Connect One's tradition of offering its customers a wide range of product choices, each economically priced to fit the customer's application. We encourage anyone who can to use these modules and take advantage of this 25% price reduction."

New and existing Connect One customers are urged to check their product temperature requirements to see if they can benefit from the reduced cost of the commercial-grade Nano WiReach and Nano Socket iWiFi modules. Because the form, fit and function is 100% compatible with extended-grade modules, no redesign of the products is required.

#### Availability and Evaluation Board

Commercial-grade Nano WiReach and Nano Socket iWiFi versions for climatecontrolled and extended range temperature settings are available now. For more information about these products, please visit <u>www.connectone.com</u> [1].

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### Links:

[1] http://www.connectone.com