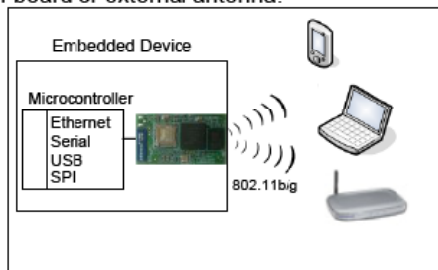## General Description:

Nano WiReach™ SMT is a secure embedded Wireless LAN module that easily connects embedded devices to 802.11b/g Wireless LAN, 10/100BaseT wired LAN and cellular WAN. It includes the iChip™ CO2144 IP Communication Controller™ chip and Marvell 88W8686 WiFi chipset. It is packaged in a 37x20mm RoHS-compliant ultra-slim low profile 44-pin SMT module form factor with an on-board or external antenna.

Nano WiReach SMT makes adding Internet connectivity to embedded devices a breeze. It does not require any kind of WiFi driver development on the host CPU, and its multiple interfaces (UART, SPI, RMII and USB 1.1) minimize the need to redesign the host device hardware.

Connect One's high-level AT+i™ API eliminates the need to add WiFi, LAN or cellular drivers, security and networking protocols or communication tasks to the host application.

Nano WiReach SMT supports the SSL3/TLS1 protocol for secure sockets, HTTPS and FTPS, WEP, WPA/WPA2 (PSK and Enterprise) WiFi encryption.
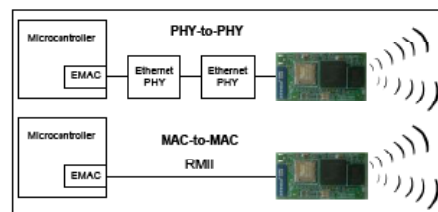
Nano WiReach SMT firmware and configuration parameters are stored in on-board flash memory. The module is power-efficient: the core operates at 1.2V, while I/Os operate at 3.3V. Power Save mode further reduces power consumption.

Typical applications:

❖ Adding WiFi to serial embedded devices
❖ Replacing LAN cable using WiFi (bridge)
❖ WiFi/LAN/Cellular Router
❖ Adding SSL security to M2M solutions

Nano WiReach SMT supports several operation modes:

- LAN to WiFi Bridge - allowing transparent bridging of LAN over WiFi, using direct RMII connection to existing MAC hardware or direct PHY-to-PHY connection.

- SerialNet™ Serial to WiFi Bridge - allowing transparent bridging of Serial over WiFi, using a 3Mbps fast UART. This is a true plug-and-play mode that eliminates any changes to the host application.

- PPP modem emulation – allowing existing (e.g. modem) designs currently using PPP to connect transparently over WiFi

- Embedded Router – Providing routing facilities between a wired LAN subnet a WiFi subnet and a cellular WAN connection. Includes a DHCP server, NAT and port forwarding.

- Full Internet Controller mode – allowing simple MCU to use the Nano WiReach SMT's rich protocol and application capabilities to perform complex Internet operations such as E-mail, FTP, SSL, embedded web server and others. It also acts as a firewall, providing a security gap between the application and the network.

The II EVB 365SMT evaluation board provides an easy environment for evaluating the Nano WiReach SMT.