WizFi™ family provides the easiest way to connect any embedded device to wireless network. It's more than just a Wi-Fi card, or a Wi-Fi module – it's an integrated platform that handle wireless connectivity process. Customers can reduce RF design time dramatically, be free from the burden of testing and certification and focus on their core application, products and expertise.

**Proven, ready-to-use**

- Serial to Wi-Fi
  - Brings Wi-Fi connectivity to any device with UART or SPI

**High Efficiency in Operation**

- Ultra low-power consumption through dynamic power management

**Easy Configuration**

- Built-In Web Server
- Comprehensive serial command
- Windows Utility

**Advanced Wi-Fi Security**

- WEP 64/128bit
- WPA/WPA2-PSK, AES/TKIP
- Enterprise

**802.11 Regulatory Certification**

- CE (EU)
- FCC (US)
- KC (Korea)

**Environment Friendly**

- RoHS Compliant
- PFOS Free
- REACH Compliant
- DMF Free

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WizFi630

High Performance 802.11b/g/n Embedded Wi-Fi Module

WizFi630 enables an embedded device with RS-232 serial interface to connect to TCP/IP network through Wi-Fi. As it has an embedded switch inside for IP-Router function, WizFi630 operates as "Serial to Wi-Fi" gateway and Access Point simultaneously. By supporting 3 Ethernet ports, it offers the unique ability to transparently bridge existing Ethernet-ready devices to a wireless network.

Features

• Complies with IEEE 802.11 b/g/n
• Physical link rate up to 150Mbps (Effective Rate : 90Mbps)
• Operation Mode : Wi-Fi Router, AP, AP-Client, Client, AD-HOC
• Supports 3 Ethernet Ports
• Supports 2 UARTs
• Security : 64/128bit, WPA/WPA2-PSK TKIP, AES and 802.1x
• Easy Configuration : Built-in WebServer, Serial Command, Windows Utility
• Size : 33 x 43 x 4.5(mm)
• CE, FCC, KCC Certified

WizFi630 Evaluation Kit

• WizFi630 Evaluation Board
• WizFi630 Module
• RS-232 Cable
• Ethernet Cable
• Antenna
• Power Adaptor (5V 2A)

WizFi630 Operation Mode as AP Router

AP Mode

Client Mode

Gateway Mode
WizFi210 / WizFi220

Compact, Ultra-low Power Embedded Wi-Fi Module

The WizFi210/WizFi220 offers a quick, easy, and cost effective way for device and appliance manufacturers to add Wi-Fi capabilities to their products. The module provides serial UART or SPI interface which enables connection to any embedded design utilizing an 8/16/32-bit microcontroller via simple commands. The module supports data rates up to 11 Mbps, and is compliant with 802.11b. The WizFi220 is a RF-enhanced Product. Except for [RF Output Power], the WizFi220 is same in management and development as the WizFi210. The WizFi220 will consume more power but it has the improved Wi-Fi range.

Features
- Supports Wi-Fi connectivity via serial host interface (UART or SPI)
- Quick booting time : less than 20msec
- Ultra low power through dynamic power management (34µA at the standby mode)
- Complies with IEEE802.11b at speed up to 11Mbps
- Security : WEP, WPA, WPA2-PSK, Enterprise
- Limited Access Point : supports direct Wi-Fi connection from PC, Laptop, Smart Phone and etc
- Operation Temperature : -40 ~ 85°C
- Compact Size : 32 x 23.5 x 2.9(mm)

System Block Diagram

WizFi210 / WizFi220 Module

The Wi-Fi part of the equation is handled by a WIZnet WizFi210 embedded Wi-Fi module. It has a standard serial interface that makes for a simple connection to the Propeller. But it’s the module’s built-in intelligence that really makes things easy.

The WizFi210 has dozens of built-in commands that make it easy to navigate the web. They’re called ‘AT’ commands and trace their roots back to the dial-up modem days. One nice aspect is the WizFi210 commands and responses are all ASCII, so using a terminal emulator (ex: Hyperterm) you can just type commands in and see what happens.

Building the ‘Wi-Fi Orb’

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Extracted from the article written by Tom Cantrell, Circuit Cellar Analyst

WizFi210 / 220 Evaluation Kit

- WizFi210/220 Evaluation Board
- WizFi210/220_CON with interface board
- RS-232 Cable
- USB Cable
- Antenna(W5I-BO-07)
Application References

WizFi630 in Solar Inverter

- Customer: V Company in Korea (End Customer in Australia)
- Application: Solar Inverter
- WizFi630 Operation Mode: Serial to Wi-Fi & Client Mode
- Solar Inverter transmits the updated value of inverter status to WizFi630 through UART. WizFi630 converts the serial data to TCP/IP and displays them in the web page. Using built-in Web Server of WizFi630, we provided the customized web page for the device monitoring.

WizFi210 in Electronic Scale

- Customer: C Company in China
- Application: Electronic Scale
- WizFi210 Operation Mode: Serial to WiFi
- Electronic scale requires timely price updates. As scales are not always installed in the fixed area, the data needs to be transmitted through wireless network. WizFi210 can easily satisfy this requirement just by interfacing to main processor of the scale through UART.

WizFi220 in Vehicle System

- Customer: D Company in Korea,
- Application: Public Vehicle System
- WizFi220 Operation Mode: Serial to WiFi
- WizFi220 provides serial to WiFi connectivity for the tachograph to transmit the data in the smart card in the system. Acting as a client, WizFi210 establishes wireless networking by automatically connecting to access point. It also converts the serial data into TCP/IP and sends to the management server.

WizFi Shield

- Maker: WIZnet
- Product: WizFi Shield
- WizFi Shield supports both wired and wireless! It adds Wi-Fi communication capabilities to any Arduino. Instead of using UART interface of Wi-Fi modules on the market, we use WizFi210 having SPI interface & low power consumption, and Wiz820io, the plug-in internet offload module.

WizFi210 Arduino Mega Shield

- Maker: Ben (Open Hardware Partner in Netherland)
- Product: WizFi210 Arduino Mega Shield
- This is a working Arduino Mega WizFi210 shield. Two buttons on the GPIO, three LEDs and power regulator with shutdown, connected to two soft serial ports on the Arduino.