ZG2100 Wi-Fi PICtail®: Built for Microchip Microcontrollers

The ZeroG ZG2100 Wi-Fi PICtail® is an "add-on" hardware module designed for Microchip Explorer 16 and PICDEM.net2 development boards. Designers can quickly add Wi-Fi to applications using the Microchip PIC18, PIC24, PIC32, or dsPIC® DSC. It contains the ZG2100 class of Wi-Fi modules:

ZG2100P PICtail® contains the ZG2100M module with an on-board PCB antenna.
ZG2101P PICtail® contains the ZG2101M module with an external antenna for enhanced range.

The PICtail® connects seamlessly to standard 802.11b/g access points. In managing the connection, the ZG2100M/ZG2101M module controls the MAC and baseband layers and is connected to the host MCU via an SPI interface. The 8/16/32-bit Microchip MCU that resides on the Microchip development board controls the TCP/IP networking stack and runs the system application.

Build a Wi-Fi application with the ZG2100 Wi-Fi PICtail® using:

ZeroG Easy-Fi® software suite
ZeroG example Wi-Fi applications
Microchip PIC18, PIC24, PIC32, dsPIC® DSC
Microchip Explorer OR PICDEM.net2
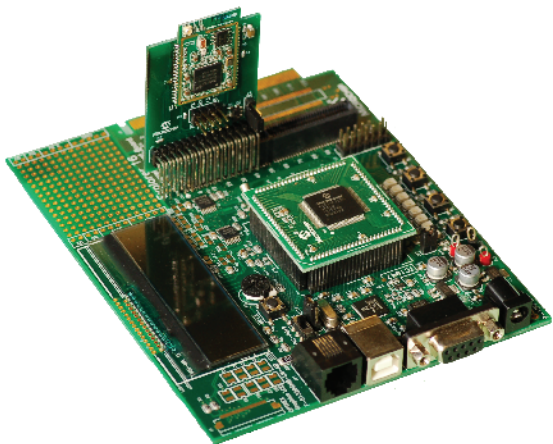Microchip MPLAB IDE
Microchip C Compiler
Microchip ICD 2

Simplified Wireless Development

Small Memory Footprint

Low Power Consumption

On-Chip Hardware Encryption

Modular Certified for Regulatory and Industry Compliance

Pro System Dev Kit

Enhanced System Dev Kit

Basic System Dev Kit

| ZeroG Wi-Fi PICtail® | Software drivers® | Example Applications | Pre-configured access point |

| Explorer 16 Starter Kit | OR | PICDEM.net2 Starter Kit |

http://www.zerogwireless.com/

zeroG

CONNECTING THE INTERNET OF THINGS

Simplified Wireless Development

The Wi-Fi PICtail® contains a ZG2100M or ZG2101M module that works with any 8/16/32-bit Microchip host microcontroller. The Wi-Fi PICtail™ can be used to develop simple applications without using an operating system or adding external memory. For complex applications, the ZG2100M/ZG2101M module supports any operating system and any size memory.

The ZeroG SDK supports the existing standard libraries for Microchip MPLAB® IDE and contains example applications. For designers who are familiar with MPLAB® IDE, design configuration and implementation using the ZeroG SDK becomes very simple. For increased flexibility, designers have the ability to use a built-in PCB antenna or an external antenna through an on-board connector.

On-Chip Encryption Hardware Accelerator

The on-chip encryption engine from ZeroG performs secure networking over the wireless link. It supports WEP, as well as advanced security keying for WPA and WPA2 encryption standards.

Low Power Consumption

The ZG2100M/ZG2101M Wi-Fi module contains power management modes (Active, Sleep, Hibernate and Off) controlling power consumption based on data transfer rate. During low data-rate intervals, the transceiver automatically reduces power and assumes low-power modes without intervention by the host.

Small Memory Footprint

The Wi-Fi radio contains on-chip SRAM and ROM used in the operations of wireless networking tasks. The combined a ZG2100M/ZG2101M module and Microchip MCU work efficiently together in allocating memory resources. For most systems, designs using the PICtail® do not require external memory to perform wireless networking functions thus reducing system cost.

Modular Certified for Regulatory and Industry Compliance

To reduce time for product development and integration, ZG2100M/ZG2101M production module is certified for regulatory compliance and Wi-Fi compatibility for 802.11. The built-in antenna facilitates integration of Wi-Fi radio functionality by allowing designers to plug the module into an existing design. The external antenna can be used to enhance performance for specific applications. A list of 14 antennas certified for production modules is available.

Ordering

Part Numbers
ZG2100P: PICtail with an on-board PCB antenna
ZG2101P: PICtail configured for an external antenna
ZG2100MC: Module with an on-board PCB antenna
ZG2101MC: Module configured for an ext. antenna

Microchip Direct
http://www.microchipdirect.com/productsearch.aspx?Keywords=zg2100

ZeroG Wireless
255 Geronimo Way, Sunnyvale, CA 94085
http://www.zerogwireless.com/buy/

North America   ZGSales@ZeroGWireless.com
Europe   ZGSalesEurope@ZeroGWireless.com
Asia   ZGSalesAsia@ZeroGWireless.com

http://www.zerogwireless.com/