



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



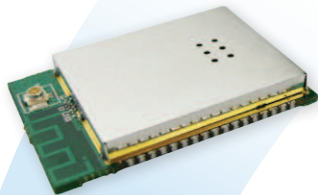
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**WLM100 WITH U.FL AND WLM101 WITH INTEGRATED ANTENNA**

The WLM10x family of fully certified modules offers a quick, easy and cost effective way for device and appliances manufacturers to add WiFi capabilities to their products. The module provides multiple serial UART or SPI interfaces, enabling connection to any embedded design utilizing a 8/16/32-bit microcontroller via simple commands. The WLM10x is an ideal solution for organizations with limited or no WiFi or RF expertise, as it not only dramatically reduces RF design time but also removes the burden of testing and certification, allowing customers to focus on their core application, product or expertise. The module supports data rates up to 11 Mbps, is compliant with 802.11b and meets regulatory and WiFi Alliance requirements.

Multiple software configurations are available for the stack running on the module. For applications utilizing a small 8 bit microcontroller host, the module supports a serial to WiFi function and runs the full WiFi and TCP/IP networking stacks, completely offloading the host. For applications utilizing more powerful microcontrollers, the networking stack and services can reside on the host while the module provides the IP to WiFi functionality. In addition, it supports WEP/WPA/WPA2 security, Adhoc as well as WiFi Protected Setup (WPS) for ease of provisioning. The module family consists of four different SKU's for antenna configuration and output power. The module SKU's are single sided, pin compatible with castellation on the edges for I/O connection so module can be soldered down on customer application base-board.

**FEATURES**

- Operates with standard 802.11 b/g/n access points at speed up to 11 Mbps (802.11b)
- Infrastructure or Adhoc mode
- Multiple UART and SPI interfaces
- Supports SPI Master and Slave
- Up to 11 Mbps in SPI Master Mode
- Up to 3 Mbps in SPI Slave Mode
- Up to 921.6 kbps on UART
- Full WiFi stack including WPS and optional networking stack and services
- 802.11i Security
- WEP, WPA, WPA2-PSK, Enterprise

**APPLICATION AREAS**

- Healthcare and fitness
- Smart Energy
- Industrial Controls
- Commercial/building automation
- Consumer electronics

**global solutions: local support™**

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Europe: +44.1628.858.940

Asia: +852.2268.6567

wirelessinfo@lairdtech.com

www.lairdtech.com/wireless

| PARAMETER                     |  |
|-------------------------------|--|
| Radio Protocol                | IEEE 802.11b/g/n Compatible  |
| RF Output Power (Typical)     | 18 dBm   |
| RF Operating Frequency        | 2.4 - 2.497 GHz  |
| Supported Data Rates          | 11, 5.5, 2, 1 Mbps (802.11b)                                       |
| Antenna Options               | PCB Trace and U.FL connector for external antenna                  |
| Operating Temperature         | Industrial (-40° to +85°C)   |
| Security Protocols            | WEP, WPA/WPA2 – PSK, Enterprise, EAP-FAST, EAP-TLS, EAP-TTLS, PEAP |
| Networking Protocols          | UDP, TCP/IP (IPv4), DHCP, ARP, DNS, HTTP/HTTPS Client and Server   |
| Certifications and Compliance | WiFi, FCC, IC, Japan, ETSI, RoHS                                   |
| I/O Interface                 | UART (2), SPI (2), I2C, ADC (2), WAKE, ALARM (2), GPIOs, PWM, JTAG |
| Dimensions                    | 1.45 in X 0.9 in   |
| Power Source                  | 3.3 V  |
| Standby Power (Typical)       | < 7uA  |

Preliminary specifications – subject to change. Please consult Laird Technologies before starting design work.

### ORDERING INFORMATION

|            |  |
|------------|--|
| WLM101     | Low power 802.11b WLAN module with Ext. PA, PCB Trace Antenna      |
| WLM100     | Low power 802.11b WLAN module with Ext. PA, Ext. Antenna Connector |
| DVK-WLM101 | Evaluation Kit, serial to WiFi                                     |
| DVK-WLM100 | Evaluation Kit, Serial to WiFi                                     |

The details contained within the document are subject to change. Download the product specification from [www.lairdtech.com/wireless](http://www.lairdtech.com/wireless) for the most current specification.



Innovative **Technology**  
for a **Connected** World

# Low Power WLAN Module WLM10x

## LAIRD TECHNOLOGIES—WIRELESS MODULES FOR EVERY APPLICATION

### Bluetooth®

- Modules for data and multimedia applications
- Pre-qualified modules for rapid integration

### 802.11

- Modules for connection to WiFi networks
- Low power M2M modules
- Video streaming modules

### Proprietary

- Modules for 868 MHz, 900 MHz and 2.4 GHz

### ZigBee™

- Modules for low power mesh networking

**Development Kits are available for all the above wireless modules.**

### Telematics

- End-to-end wireless telematics hardware and solutions

### Industrial

- Rugged wireless connectivity products, bridges, and access points

Visit [www.lairdtech.com/wireless](http://www.lairdtech.com/wireless) for details on our full range of wireless products, as well as extensive range of white papers and applications notes.

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LWS-DS-WLM10x 1111

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