

**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

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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

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|------------|--|
| 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 for the most current specification.



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for a **Connected** World

Low Power WLAN Module WLM10x

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- Pre-qualified modules for rapid integration

802.11

- Modules for connection to WiFi networks
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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.

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- End-to-end wireless telematics hardware and solutions

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- Rugged wireless connectivity products, bridges, and access points

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LWS-DS-WLM10x 1111

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