



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

Wireless Development Kits

Proprietary RF Modules



THE FASTEST WAY TO WIRELESS

Size, speed, range, power consumption, and cost are all important issues to engineers integrating RF connectivity. Laird Technologies addresses these issues with compact 2.4GHz, 900MHz, and 868MHz modules. Designed for fast OEM integration, our radios suit applications where both high reliability and long range are essential.

Laird Technologies' Development Kits provide a complete design environment to help engineers get up and running with our solutions in a matter of minutes. Each system includes the radio modules and accessories required to install and test RF, allowing for reduced R&D costs, quick agency certification, and fast time to market.

Development Kits are not just for engineers working with tight resources, limited time or varying experience. All OEMs can benefit from our comprehensive tools and highly technical expertise in the complex field of RF.

SOFTWARE

In an easy menu-driven format, our Windows-compatible software provides several helpful development utilities, allowing OEMs to quickly begin performing tests for configuration modes, range measurements, antenna evaluations, power management, and data throughput. Designers can easily program the radio modules to any desired configuration with the EEPROM Viewer/Editor feature.

CONFIGURATION

All Laird Technologies' radio modules have configuration parameters stored in EEPROM that are used to customize the serial interface mode and provide for general system set-up. The modules ship with default parameters already configured to enable plug-and-play (these can be changed using our development tools or with custom interfaces developed by the OEM.)

FEATURES

- Testing and tuning antennas
- Hardware and software integration
- Increasing transmission range
- Finding best mode for data rate and network

ANTENNAS

Antenna type, gain, and location are among the most critical elements of a wireless system. Laird Technologies' kit allows OEMs to connect different antennas and evaluate their performance in various situations. In addition, our engineers can provide a comprehensive antenna review during the design process to determine the best antenna and location for the application.

COMPLIANCE

RF products are required to meet regulatory compliance such as FCC (USA), IC (Canada), and CE(Europe). Our radio module approvals help eliminate significant costs and time, even when regulatory compliance is still required for the final product. Laird Technologies' experts can help guide OEMs through the approval process.

- Optimizing system timing
- Finding best configuration for application
- Lowest Cost

global solutions: local support™

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Wireless development kits are also available for our range of standards based wireless modules, covering Bluetooth, 802.11 and ZigBee. Please contact Laird Technologies for further information or visit www.lairdtech.com/wireless.

What's Included:

- Two (2) RF Modules** Choose from Laird Technologies' 2.4GHz, 900MHz or 868MHz RF Modules
- Two (2) Adapter Boards** RS232, RS485, 5V/3.3V serial TTL, and USB interfaces are supported. Features include:
 - 1) loop-back for distance-testing using one computer
 - 2) status/communications LED indicators
 - 3) switches for easy configuration & reset
 - 4) test points for troubleshooting
- One (1) Utilities CD** Script-driven utilities include:
 - 1) transmit/receive emulator
 - 2) single-line command interface
 - 3) EEPROM viewer/editor; configuration information storage file
 - 4) "What's This?" Help File format provides descriptions of each configuration option
 - 5) Error checker prevents configuration errors
- Two (2) AC Power Adapters** Power for adapter board and radio module; USB and battery power optional
- Two (2) DB9 Serial Cables** Connect the adapter boards to a PC via DB9
- Two (2) USB Cables** Connect the adapter boards to a PC via USB
- Two (2) Antennas** Convenient, small antennas plug directly into the radio module's connector. Longer range antennas are also available for external antenna modules.

2.4GHz Systems:

- PRM110** RF modules, -40° to +80°C, 3.3V, serial interface, u.fl antenna connector, +4dBm to +21dBm power output DVK-PRM110
- PRM111** RF module, -40° to +80°C, 3.3V, serial interface, integral antenna, +4dBm to +21dBm power output DVK-PRM111
- AC4424** RF Modules, -40° to +80°C, 5V, TTL serial interface, MMCX antenna connector, 200mW power output SDK-AC4424-200
- AC4424** RF Modules, -40° to +80°C, 5V, TTL serial interface, MMCX antenna connector, 100mW power output SDK-AC4424-100
- AC4424** RF Modules, -40° to +80°C, 5V, TTL serial interface, MMCX antenna connector, 10mW power output SDK-AC4424-9
- AC4424** RF Modules, -40° to +80°C, 5V, TTL serial interface, integral antenna, 10mW power output SDK-AC4424-9A

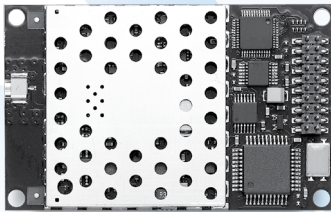
900MHz Systems:

- AC4790** RF Modules, -40° to +80°C, 3.3V, TTL serial interface, MMCX antenna connector, 5mW–1000mW variable power output SDK-AC4790-1000M
- AC4790** RF Modules, -40° to +80°C, 3.3V-5.5V, TTL serial interface, MMCX antenna connector, 5mW–200mW variable power output SDK-AC4790-200M
- AC4790** RF Modules, -40° to +80°C, 3.3V-5.5V, TTL serial interface, integral antenna, 5mW–200mW variable power output SDK-AC4790-200A
- AC4790-1x1** tiny RF Modules, -40° to +80°C, 3.3V, TTL serial interface, 10mW variable power output SDK-AC4790-1x1
- AC4490** RF Modules, -40° to +80°C, 3.3V, TTL serial interface, MMCX antenna connector, 5mW–1000mW variable power output SDK-AC4490-1000M
- AC4490** RF Modules, -40° to +80°C, 3.3V-5.5V, TTL serial interface, MMCX antenna connector, 5mW–200mW variable power output SDK-AC4490-200M
- AC4490** RF Modules, -40° to +80°C, 3.3V-5.5V, TTL serial interface, integral antenna, 5mW–200mW variable power output SDK-AC4490-200A
- AC4490-1x1** tiny RF Modules, -40° to +80°C, 3.3V, TTL serial interface, 10mW variable power output SDK-AC4490-1x1

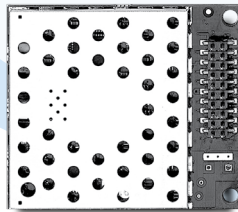
868MHz Systems:

- AC4868** RF Modules, -40° to +80°C, 3.3V, TTL serial interface, MMCX antenna connector, 5–250mW power output SDK-AC4868-250M
- AC4486** RF Modules, -40° to +80°C, 3.3V-5.5V, TTL serial interface, integral antenna, 5mW power output SDK-AC4486-5A
- AC4486** RF Modules, -40° to +80°C, 3.3V-5.5V, TTL serial interface, MMCX antenna, 5mW power output SDK-AC4486-5M

2.4 GHz Models



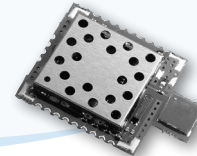
900/863 GHz Model



1X1-inch Model



LT2510 Model



LWS-SPEC-LDKit 0109

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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