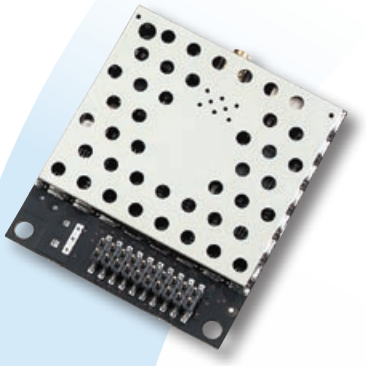
Laird TECHNOLOGIES

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

AC4486
868MHz Radio Module



THE FASTEST WAY TO WIRELESS

Compact, low-cost 868MHz radio modules can replace miles of cable in harsh industrial environments. Using field-proven technology that needs no additional ETSI (Europe) licensing, OEMs with little or no previous RF experience can easily make existing systems wireless.

AC4486s feature a number of on-the-fly control commands, providing OEMs with a very versatile interface for any application. The modules can be used as direct wire replacements, requiring no special host software for communication. All synchronization and RF system data transmission/reception is performed by the radio module.

AC4486s operate in a point-to-point or point-to-multipoint, client/server or peer-to-peer architecture. They are (socket-compatible network-wide) with 2.4GHz and 900MHz models, preserving OEMs' hardware/software investments while providing solutions that meet different market, regulatory and environmental needs.

FEATURES

- Approved for European use
- Seamless cable-to-radio module replacement
- High 868MHz data rate: 76.8 Kbps
- Small form factor: 1.65 x 1.9 inches
- Operates in –40ºC to +80ºC temperatures
- Socket-compatible with 2.4GHz models

MARKETS

- Recreation Areas
- Pool & Spa Control
- Point of Sale
- Gaming Devices
- Utilities Management

global solutions: local support™

USA: +1.800.492.2320
Europe: +44.1628.858.940
Asia: +852.2268.6567

wirelessinfo@lairdtech.com
www.lairdtech.com/wireless

Laird TECHNOLOGIES

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

AC4486
868MHz Radio Module

FLEXIBLE RF PROTOCOL

Laird Technologies' embedded transparent protocol simplifies the OEM's integration process by utilizing drop-in installation. As each radio module receives raw data, it manages its over-the-air protocol to assure successful communication. Headers, data packet length, and CRCs are not required. The RF232 supports simple cable-replacement to complex peer-to-peer configurations; and broadcast communication to all radio modules or address packets to a specific destination using unique MAC addresses embedded in each radio module.

SPECIFICATIONS

Parameter	AC4486–5
Interface	20-pin mini connector
Frequency	869.7-869.65 MHz
Modulation	FSK
Serial interface options	3V TTL
Serial interface data rate	Up to 115.2 Kbps
Output power (w/ 2dBi antenna)	5mW variable
Power consumption (transmit/receive)	40mA typical
Security	One-byte system ID
Sensitivity (w/ 2dBi antenna)	-100 dB typical @ 76.8 Kbps RF Data Rate
Voltage	3.3V nominal +/-2%, +/-30mV
Range	Up to 1000 meters line of sight
Temperature	-40° to +80°C
Humidity (non-condensing)	10% to 90%
Dimensions	1.90 x 1.65 x 0.20" (49 x 42 x 5 mm)
Weight	< 0.75 oz (< 21 g)
Antenna	External MMCX connector

ORDERING INFORMATION

AC4486 - 5M	868MHz transceiver, TTL serial RS232, 0–250mW, -40° to +80° C, MMCX antenna
AC4486 - 5M - 485	868MHz transceiver, TTL serial RS485, 0–250mW, -40° to +80° C, MMCX antenna
AC4486 - 5A	868MHz transceiver, TTL serial RS232, 0–250mW, -40° to +80° C, integral antenna
AC4486 - 5A - 485	868MHz transceiver, TTL serial RS485, 0–250mW, -40° to +80° C, integral antenna

RF PROTOCOL MODES

a) Communication
   - Unicast (one-to-one addressing)
   - Broadcast (one-to-multiple addressing)

b) Acknowledgement mode (ACK)
   - API with hardware and/or software ACK indication

INTERFACE PROTOCOL

a) On-the-fly radio module configuration:
   - Destination address
   - RF transmit power
   - Broadcast/addressed

b) 9-bit serial interface mode

c) A/D, D/A generic I/Os

d) Variable baud rate

e) RF packet size, timeout control

f) Onboard temperature sensor

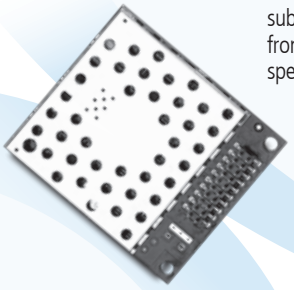
g) Handshaking, CTS/RTS

h) In-range indicator

i) Error detection
   - Onboard CRC
   - Duplicate packet filtering

j) Data encryption standard (DES)

The details contained within the document are subject to change. Download the product specification from www.lairdtech.com/wireless for the most current specification.



LWS-SPEC-AC4486 0309

Any information furnished by Laird Technologies and its agents is believed to be accurate and reliable. Responsibility for the use and application of Laird Technologies materials rests with the end user since Laird Technologies and its agents cannot be aware of all potential uses. Laird Technologies makes no warranties as to the fitness, merchantability, or suitability of any Laird Technologies materials or products for any specific or general uses. Laird Technologies shall not be liable for incidental or consequential damages of any kind. All Laird Technologies products are sold pursuant to the Laird Technologies terms and conditions of sale in effect from time to time, a copy of which will be furnished upon request. For further information please visit our website at www.lairdtech.com. Alternatively contact: wirelessinfo@lairdtech.com. Bluetooth® is a trademark owned by Bluetooth SIG, Inc., USA and licensed to Laird Technologies.

© 2009 All Rights Reserved. Laird Technologies is a registered trademark of Laird Technologies, Inc..

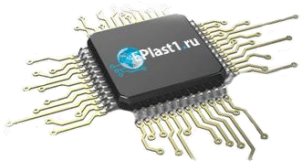
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)
Факс: 8 (812) 320-02-42
Электронная почта: org@eplast1.ru
Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.