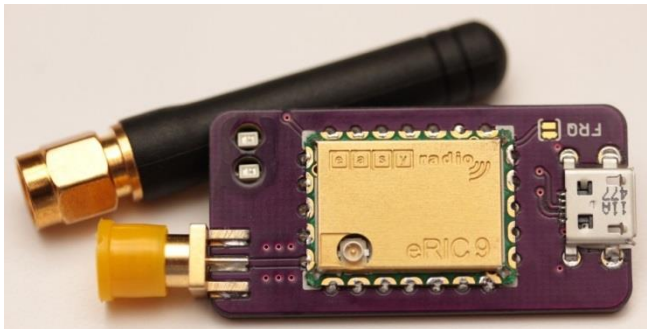




Utilising proprietary LPRS 'easyRadio' technology operating in the 434MHz or 868/915MHz Industrial Scientific & Medical (ISM) bands a pair of eRIC USB 'dongles' can provide a simple 'wireless bridge' between any host devices that support USB serial communications such as a PC or Raspberry Pi TM or BeagleBone Black etc.

These devices provide considerably greater range and less power consumption than similar WiFi or Bluetooth dongles operating in the overcrowded 2.4GHz bands.

Frequency, bandwidth, power output and data rate can (optionally) be configured to allow multiple devices to communicate free from interference from each other and any other RF devices.

Features	Benefits
LPRS easyRadio RF Transceiver technology	Bi-directional link, no RF protocol software required
USB Connection	'Plug & Play' operation, appears as a 'Com' port
Low current consumption	Can be powered directly from USB port
Integral SMA Antenna connector	Allows use of extension for optimal antenna position
FTDI FT232 USB IC	Linux & Windows drivers available (see below)
Transmit & Receive LEDs	Diagnostics
Configurable RF parameters (optional)	Fine tune for optimum performance
Up to 250 Bytes per packet	Ideal for 'Sense & Control' applications
Built-in Temperature Sensor	Usable by host program

Host devices can send and receive (half duplex) up to 250 Bytes of data per packet that will be seamlessly delivered and presented to other hosts within range. There is no need for any complicated 'bit balancing' or elaborate coding schemes.

Easy: Data In and Data Out !

Specifications

Supply: +5V $\pm$ 5%, Temperature 20°C

Parameter	Min	Typical /Default	Max	Units	Notes
Supply Voltage		5V		Volts	Powered by USB connection
Supply Current		25		mA	Receive (Idle state)
		35		mA	Transmit
USB Host Data Rate	2.4	19.2	115.2	Kbps	Configurable - See Note 1 below
Packet Size	1		250	Bytes	Auto detect end of packet
Frequency (Default)		434		MHz	Configurable
		868		MHz	Europe
		915		MHz	US
Receive Sensitivity		-107	-117	dBm	Configurable
RF Output Power	-5	+9	+10	dBm	Configurable
Antenna		50		Ω	Via SMA Connector
Range		200		m	Dependant on conditions/terrain
Operating Temperature	-40	20	85	°C	
Mechanical					
Size	80 x 22 x 10			mm	Including connectors, excluding antenna
Weight	11			g	Without antenna
USB Connector	USB Type A Plug				Cable not supplied

Notes

- Parameters can be configured using 'easyRadio Companion' software available from: www.lprs.co.uk
- Please read this datasheet in conjunction with the eRIC Radio Transceiver datasheet available from www.lprs.co.uk
- The board is supplied with either an eRIC4 or eRIC9 module fitted together with a matching 434MHz 868/915 MHz antenna.

The dongle uses an FTDI FT232 USB to serial device. FTDI offers royalty-free virtual com port drivers for the following operating systems:

Windows 98, 98SE, ME, 2000, Server 2003, XP and Server 2008
 Windows 7 32,64-bit
 Windows XP and XP 64-bit
 Windows Vista and Vista 64-bit
 Windows XP Embedded Windows CE 4.2, 5.0 and 6.0
 Mac OS 8/9, OS-X
 Linux 2.4 and greater

Acknowledgements

Raspberry Pi is a Trademark of the Raspberry Pi Foundation.
 The design is 'Open Hardware' designed and published by Rick Winscot. Details: www.quilix.com

Product Order Codes

Name	Description	Frequency	Order Code
eRIC400 USB Dongle	UK/European Version (Can Marked '4')	433MHz	eRIC4-USB
eRIC900 USB Dongle	Europe/US Version (Can Marked '9')	868/915MHz	eRIC9-USB
Antenna	UK & Europe	433MHz	ANTSR433
Antenna	Europe & USA	868/915MHz	ANTST900

Document History

Issue	Date	Notes/Comments
VI.0	May 2015	This document internal draft

Copyright

The information contained in this data sheet is the property of Low Power Radio Solutions Ltd and copyright is vested in them with all rights reserved. Under copyright law this documentation may not be copied, photocopied, reproduced, translated or reduced to any electronic medium or machine readable form in whole or in part without the written consent of Low Power Radio Solutions Ltd.

The circuitry and design of the modules are also protected by copyright law.

Disclaimer

Low Power Radio Solutions Ltd has an on-going policy to improve the performance and reliability of their products; we therefore reserve the right to make changes without notice. The information contained in this data sheet is believed to be accurate however we do not assume any responsibility for errors or any liability arising from the application or use of any product or circuit described herein. This data sheet neither states nor implies warranty of any kind, including fitness for any particular application.

easyRadio modules are a component part of an end system product and should be treated as such. Testing to fitness is the sole responsibility of the manufacturer of the device into which easyRadio products are fitted, and is expected BEFORE deployment into the field.

Any liability from defect or malfunction is limited to the replacement of product ONLY, and does not include labour or other incurred corrective expenses.

Using or continuing to use these devices hereby binds the user to these te

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru

moschip.ru_4

moschip.ru_6

moschip.ru_9