RCM4400W RabbitCore®

MODELS | RCM4400W |

Wi-Fi Core Module

Key Features

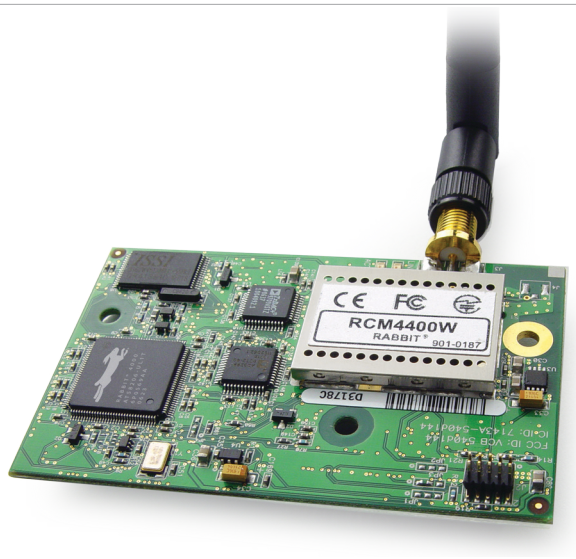
- RabbitCore module running @ 58.98 MHz
- Integrated Wi-Fi/802.11 wireless connectivty
- 512K flash memory, 512K data SRAM, 512K fast program-execution SRAM
- Up to 35 general-purpose I/O lines configurable
- 3.3 V I/O lines
- Low-power modes down to 2 kHz
- Small size: 1.84" × 2.85" × 0.50" (47 mm × 72 mm × 13 mm)

Design Advantages:

- Embedded wireless networking
- Stable, proprietary 802.11 implementation
- Serial to Wi-Fi bridge capability

Applications

- Industrial Control
- Remote Terminal Unit (RTU)
- Building Automation



RCM4400W RabbitCore – The On-Core Wi-Fi Solution

The RCM4400W RabbitCore modules combines Wi-Fi/802.11 functionality with existing Rabbit® 4000 microprocessor features, allowing you to create a low-cost, low-power, Wi-Fi based control and communications solution for your embedded system.

At the heart of the RCM4400W is the Rabbit 4000 microprocessor which features a clock speed of up to 58.98 MHz along with on-chip Ethernet and other features to make designing embedded applications easier.

The RCM4400W RabbitCore modules are easily interchangeable with other RCM4xxx based products due to electrical and functional compatibility. With a small footprint of 1.84"x2.85" (47mm x 72mm), the RCM4400 is compact and can easily be mounted directly onto a user-designed motherboard, along with CMOS-compatible digital devices.

Developing with the RCM4400W

The RCM4400W Development Kit has the essentials that you need to design your own wireless microprocessor-based system. The kit comes complete with a Wi-Fi/802.11 enabled RCM4400W RabbitCore module, a prototyping board, accessory parts and all development tools specifically designed to get you up and running in minutes. Development kits

come with our industry-proven Dynamic C® integrated development software that includes an editor, compiler, and in-circuit debugger. Programming is easy with hundreds of samples and libraries that can be used as building blocks to your code.

Dynamic C Add-on Modules

Increase functionality and customize your embedded application with software available via web download or CD-ROM.

Secure Socket Layer
Industry standard web security for embedded applications

RabbitWeb
Easily create web interfaces to monitor and control embedded applications

Advanced Encryption Standard
128-bit encryption for transfer of sensitive data

Point-to-Point Protocol
TCP/IP functionality for serial and PPPoE connections

Simple Network Management Protocol (SNMP)
Management software for networked devices

µC/OS-II Real-Time Kernel
Real-time preemptive, prioritized operating system

RCM4400W RabbitCore® Specifications	
Features	RCM4400W
Microprocessor	Rabbit®4000 @ 58.98 MHz
Data SRAM	512K
Program Execution Fast SRAM	512K
Flash Memory	512K
Backup Battery	Connection for user-supplied backup battery (to support RTC and data SRAM)
General Purpose I/O	up to 35 parallel digital I/0 lines configurable with four layers of alternate functions
Additional Inputs	Startup mode (2), reset in
Additional Outputs	Status, reset out
Auxiliary I/O Bus	Can be configured for 8 data lines and 6 address lines (shared with parallel I/O lines), plus I/O read/write
Wi-Fi	802.11b standard, ISM 2.4 GHz
Serial Ports	6 high-speed, CMOS-compatible ports: • All 6 configurable as asynchronous (with IrDA), 4 as clocked serial (SPI), and 2 as SDLC/HDLC • 1 asynchronous clocked serial port shared with programming port • 1 clocked serial port shared with serial flash
Serial Rate	Maximum asynchronous baud rate = CLK/8
Slave Interface	Slave port allows the RCM4400W to be used as an intelligent peripheral device slaved to a master processor
Real Time Clock	Yes
Timers	Ten 8-bit timers (6 cascadable from the first), one 10-bit timer with 2 match registers, and one 16-bit timer with 4 outputs and 8 set/reset registers
Watchdog/Supervisor	Yes
Pulse-Width Modulators	4 channels synchronized PWM with 10-bit counter 4 channels variable-phase or synchronized PWM with 16-bit counter
Input Capture	2-channel input capture can be used to time input signals from various port pins
Quadrature Decoder	2-channel quadrature decoder accepts inputs from external incremental encoder modules
Power (pins unloaded)	3.3 V.DC ±5% 450 mA @ 3.3 V while transmitting/receiving 80 mA @ 3.3 V while not transmitting/receiving
Operating Temperature	-20° C to +85° C
Humidity	5% to 95%, non-condensing
Connectors	One RP-SMA antenna connector One 2 × 25, 1.27 mm pitch IDC signal header One 2 × 5, 1.27 mm pitch IDC programming header
Board Size	1.84" × 2.85" × 0.50" (47 mm × 72 mm × 13 mm)
Pricing	
Pricing (qty. 1/100) Part Number	$119 / 99 20-101-1140
Development Kit (FCC, IC, CE Certified) Part Number	$299 20-101-1202
Japan Only Development Kit Part Number (Telec Certified) (FCC and Telec Approved)	$299 101-1229 20-101-1221

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