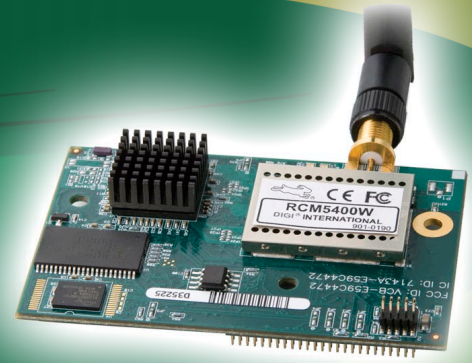


# RabbitCore® RCM5400W

Microprocessor Core Module

The RabbitCore RCM5400W series provides Wi-Fi 802.11b/g functionality for I/O intensive applications requiring multiple device communication and control.

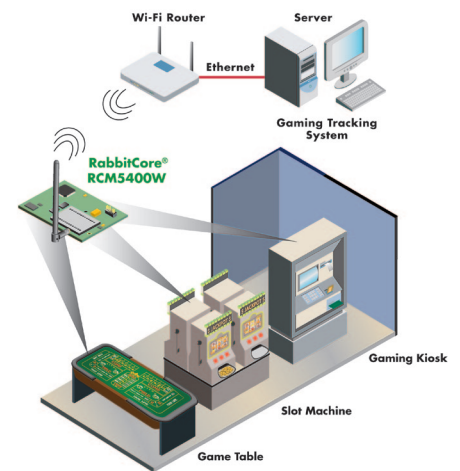


## Overview

The RabbitCore RCM5400W is ideal for applications that are I/O intensive and require secure wireless connectivity. The RCM5400W offers a unique solution which not only delivers faster data throughput, but also allows users to have improved control and monitoring capabilities with an embedded web server. The included software libraries such as RabbitWeb™ and Remote Program Update greatly reduce the time needed to write complex CGI web applications and enable remote firmware updates from anywhere in the world. Other popular web development languages such as AJAX, Javascript and XML can be supported by the embedded web server.

The RabbitCore RCM5400W Application Kit provides all the necessary hardware and software to evaluate the module and quickly get started with your design. Please visit [www.rabbit.com/products/rcm5400W/](http://www.rabbit.com/products/rcm5400W/) to learn more about the RabbitCore RCM5400W.

## Application Highlight



**Potential Applications:** Industrial control, gaming (player tracking), building automation, remote monitoring and communications, security and surveillance

## Features and Benefits

- Rabbit 5000 running at 74 MHz
- Up to 2 MB of serial flash for data intensive applications utilizing FAT file system
- 39 digital I/O lines and up to 6 serial ports
- Integrated IEEE 802.11b/g Wi-Fi
- 802.11i security compliance supporting WPA and WPA2 enterprise authentication
- Wireless web server capability
- Easy C-language program development and debugging
- Low design risk – deploy with confidence into any Wi-Fi network, reduce development time by 50%

## Development Kit

Development kit includes everything you need to get started



# RabbitCore® RCM5400W Specifications

Features	RCM5400W	RCM5450W	
Microprocessor	Rabbit® 5000 @ 74 MHz		
Data SRAM	512K	512K	
Program Execution Fast SRAM	512K	1 MB	
Flash Memory	512K	1 MB	
Serial Flash Memory	1 MB	2 MB	
Wi-Fi Compliance	802.11b/g standard, ISM 2.4 GHz		
Backup Battery Connection	Supports RTC and data SRAM		
General Purpose I/O	Up to 39 parallel digital I/O lines configurable with 4 layers of alternate functions		
Additional Inputs	Startup mode (2), reset in		
Additional Outputs	Status, reset out		
External 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		
Serial Ports	6 high-speed, CMOS-compatible ports: <ul style="list-style-type: none"> <li>• All 6 configurable as asynchronous (with IrDA), 4 as clocked serial (SPI), and 2 as SDLC/HDLC</li> <li>• 1 asynchronous clocked serial port shared with programming port</li> <li>• 1 clocked serial port shared with serial flash</li> </ul>		
Serial Rate	Maximum asynchronous baud rate = CLK/8		
Slave Interface	Use the RCM5400W 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	Incremental encoder modules		
Power (Pins Unloaded)	3.3 V DC ±5% 625 mA @ 3.3V while transmitting/receiving 175 mA @ 3.3V while not transmitting/receiving		
Operating Temperature	-30° C to +75° 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" × 0.55" (47 mm × 72 mm × 14 mm)		
Wi-Fi			
	<b>Region</b>	<b>802.11b</b>	<b>802.11g</b>
Typical Average Antenna Output Power	Americas, Japan	19 dBm	15 dBm
	Other Regions	18 dBm	
Compliance	802.11b/g, 2.4 GHz		
Pricing			
Price (qty. 1/100) Part Number	20-101-1246	20-101-1247	
Development Kit Part Number	U.S. and International (non-Japan): 101-1262 Japan: 101-1263		



### RabbitWeb

Easily create web interfaces to monitor and control embedded applications



### Secure Socket Layer

Industry standard web security for embedded applications



### Fat File System

Popular, network-accessible file system for flash memories



### Rabbit Program Update

Allows for remote firmware updates from anywhere in the world using an Internet connection



### Wi-Fi Authentication

Provides strongest Wi-Fi security available via WPA-2 and 802.11i



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