RCM5400W RabbitCore® Series

MODELS | RCM5400W | RCM5450W |
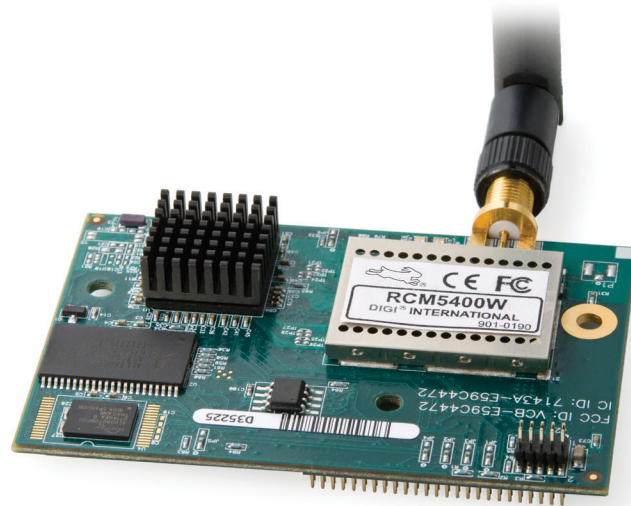
Advanced Wi-Fi Connectivity

Key Features

- Rabbit® 5000 running @ 73.73 MHz
- Up to 2 MB of serial flash
- 39 lines of digital I/O
- Integrated IEEE 802.11b/g Wi-Fi
- Up to 6 serial ports
- Small size: 1.84" × 2.85" × 0.50" (47 mm × 72 mm × 13 mm)

Design Advantages

- Faster development time using a fully engineered, "ready-to-run/ready-to-program" microprocessor core module
- Easy C-language program development and debugging
- Large memory resources
- Easily scalable for commercial deployment applications

Applications

- Industrial control
- Remote Terminal Unit (RTU)
- Serial-to-Ethernet bridge
- Building automation
- Remote monitoring and communications
- Security and surveillance

RCM5400W – High-Performance Wi-Fi Connectivity

The RCM5400W RabbitCore module series provides Wi-Fi/802.11b/g functionality, enabling you to create low-cost, embedded wireless control and communications solutions for embedded control applications.

The RCM5400W series is a fast and efficient solution for a wide range of wireless embedded applications. RabbitCore modules mount directly on a user-designed motherboard and act as the controlling microprocessor for the system. Measuring only 1.84" × 2.85" × 0.55" (47 mm × 72 mm × 14 mm), the Rabbit® 5000 microprocessor-based RCM5400W series delivers the capability to integrate real-time control and wireless connectivity to your design. In addition, the RCM5400W series offers built-in low-EMI features, including a clock spectrum spreader to reduce EMI problems, helping OEMs pass CE and regulatory RF emissions tests.

The Rabbit 5000 delivers the same proven architecture as our industry-proven Rabbit 4000 microprocessor, along with features including hardware DMA, higher clock speeds, more I/O lines, six serial ports, and more instructions to reduce code size and improve processing speed.

Developing with RabbitCores

RabbitCore modules are designed to ease implementation of embedded systems. Develop programs with our Dynamic C® integrated development environment that provides compiling, linking, editing and debugging capabilities in a single tool.

RABBIT™

Download the program from your PC via a USB or serial port, and debug right on the target hardware – no in-circuit emulation is required. Dynamic C reduces effort and speeds hardware and software integration. Rabbit provides an extensive library of drivers and sample programs, along with a royalty-free TCP/IP stack with source.

RCM5400W RabbitCore® Specifications		
Features	RCM5400W	RCM5450W
Microprocessor	Rabbit® 5000 @ 73.73 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	
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	
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, one 10-bit timer, and one 16-bit timer	
Watchdog/Supervisor	Yes	
Pulse-Width Modulators	4 channels	
Input Capture	2-channel	
Quadrature Decoder	2-channel	
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%, noncondensing	
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)	
Pricing		
Price (qty. 1/100) Part Number	$119 / $99 20-101-1246	$134 / $111 20-101-1247
Development Kit Part Number	$299 U.S. and International (non-Japan): 101-1262 Japan: 101-1263	