MICROPROCESSOR
CORE MODULE

RABBITCORE® RCM5400W SERIES

Provides Wi-Fi 802.11b/g functionality for I/O intensive applications requring multiple device communication and control

The RabbitCore RCM5400W series is ideal for applications that are I/O intensive and require secure wireless connectivity. The RCM5400W series 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.

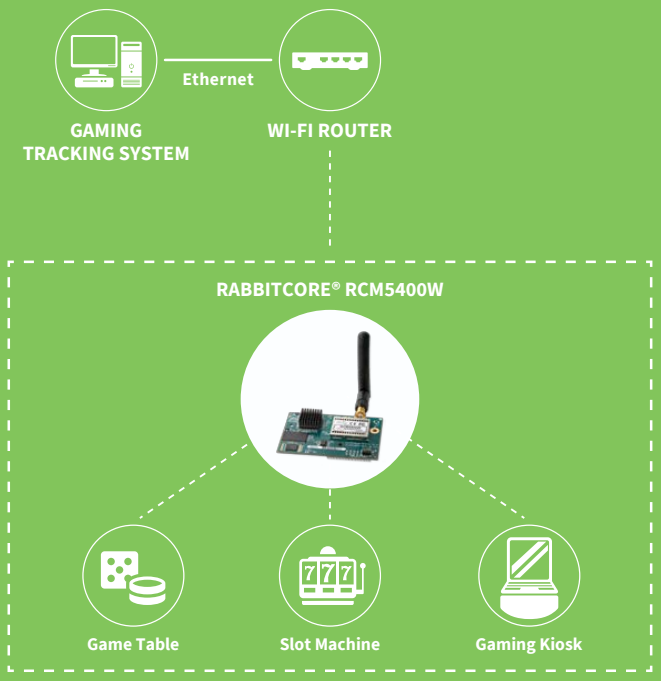
Other popular web development languages such as AJAX, Javascript and XML can be supported by the embedded web server.

The RabbitCore RCM5400W development kit provides all the necessary hardware and software to evaluate the module and quickly get started with your design.

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%

APPLICATION EXAMPLE



RELATED PRODUCTS


Rabbit MiniCore® RCM6700


Rabbit MiniCore® RCM6600W

Dynamic C


ConnectCard® for i.MX28


Digi Connect® Wi-ME

SPECIFICATIONS	RCM5400W	RCM5450W
FEATURES		
MICROPROCESSOR	Rabbit® 4000 at 59 MHz	
DATA SRAM	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: • 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	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 VDC ±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		
TYPICAL AVERAGE ANTENNA OUTPUT POWER	Americas and Japan: 802.11b - 19 dBm Other Regions: 802.11b - 18 dBm	802.11g - 15 dBm
COMPLIANCE	802.11b/g, 2.4 GHz	

RABBITWEB

Easily create web interfaces to monitor and control embedded applications

FAT FILE SYSTEM

Popular, network-accessible file system for flash memories

SECURE SOCKET LAYER

Industry standard web security for embedded applications

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

PART NUMBERS	DESCRIPTION
20-101-1246	RCM5400W
20-101-1247	RCM5450W
101-1262	RCM5400W RabbitCore Development Kit

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