



MICROPROCESSOR
CORE MODULE



RABBITCORE® RCM5400W SERIES

Provides Wi-Fi 802.11b/g functionality for I/O intensive applications requiring 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%

RELATED PRODUCTS



Rabbit
MiniCore®
RCM6700



Rabbit
MiniCore®
RCM6600W



Dynamic C

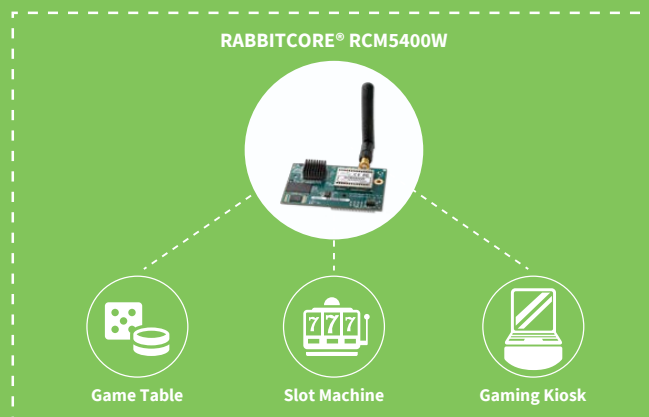
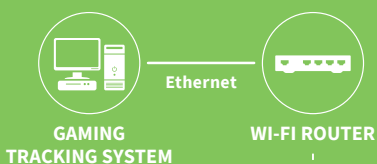


ConnectCard® for
i.MX28



Digi Connect®
Wi-ME

APPLICATION EXAMPLE



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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