

# RabbitCore<sup>®</sup> RCM3309 Series

Microprocessor Core Module

Ideal for engineers who want to rapidly develop and implement serial Flash with 10/100Base-T Ethernet connectivity into their embedded application.

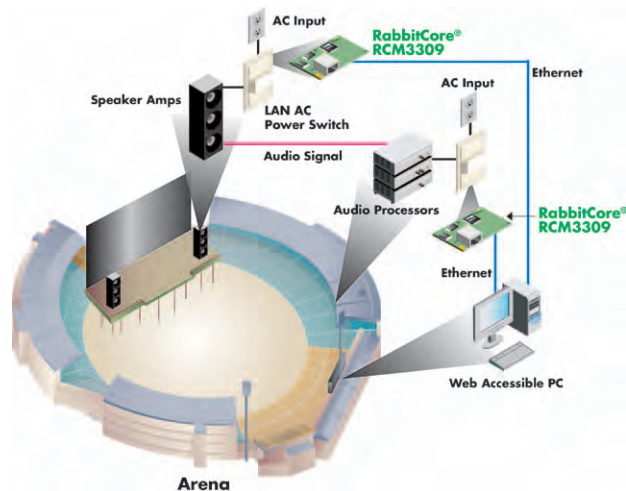


## Overview

The RCM3309 core module series is powered by the Rabbit 3000 processor and is fully loaded with 4 MB or 8 MB of serial Flash and 10/100Base-T network connectivity. The on-board mass storage and fast network connectivity makes the RCM3309 series ideal for industrial level applications.

The RCM3309 series and Dynamic C<sup>®</sup> are an integrated hardware and software solution which allows for an extremely quick time to market. Rabbit's industry-proven Dynamic C is a C language environment that includes an editor, compiler and in-circuit debugger; no in-circuit emulator is required. With the additional software components such as RabbitWeb<sup>™</sup>, FAT File System and SSL, the RCM3309 series becomes a perfect fit for applications requiring data logging, industrial control, remote access and security. An extensive library of drivers, sample programs and royalty-free TCP/IP stack with source code is included.

## Application Highlight



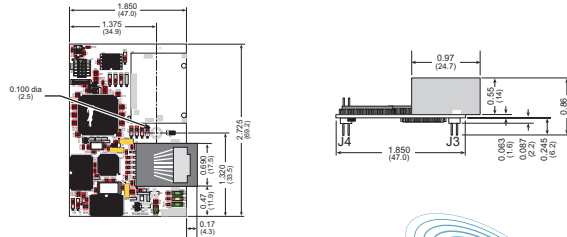
**Potential Applications:** Network based embedded systems, access systems, home automation, HVAC systems and industrial controls.

## Features/Benefits

- Rabbit<sup>®</sup> 3000 microprocessor at 44 MHz
- 10/100Base-T Ethernet, RJ-45
- 512K Flash/512K SRAM/512K program execution SRAM
- 4 MB or 8 MB serial Flash
- 49 digital I/O and 5 serial ports
- Plenty of storage with safe and secure firmware and data transfers
- Debug software directly on target hardware



Feature		
Microprocessor	Rabbit® 3000 at 44 MHz	
EMI Reduction	Spectrum spreader for reduced EMI (radiated emissions)	
Ethernet Port	10/100Base-T, RJ-45, 3 LEDs	
SRAM	512K program (fast SRAM) + 512K data	
Flash Memory (program)	512K	
Memory (data storage)	8 MB (serial Flash)	4 MB (serial Flash)
LED Indicators	LINK/ACT (link/activity); FDX/COL (full-duplex/collisions); SPEED (on for 100Base-T Ethernet connection); CE/BSY (serial flash enabled/user-programmable)	
Backup Battery	Connection for user-supplied backup battery (to support RTC and data SRAM)	
General-Purpose I/O	49 parallel digital I/O lines: <ul style="list-style-type: none"> <li>• 43 configurable I/O</li> <li>• 3 fixed inputs</li> <li>• 3 fixed outputs</li> </ul>	
Additional Inputs	Startup mode (2), reset in	
Additional Outputs	Status, reset out	
Auxiliary I/O Bus	Can be configured for 8 data lines and 5 address lines (shared with parallel I/O lines), plus I/O read/write	
Serial Ports	Five 3.3V, CMOS-compatible ports (shared with I/O) <ul style="list-style-type: none"> <li>• All 5 configurable as asynchronous (with IrDA)</li> <li>• 3 configurable as clocked serial (SPI)</li> <li>• 2 configurable as SDLC/HDLC</li> <li>• 1 asynchronous serial port dedicated for programming</li> </ul>	
Serial Rate	Maximum asynchronous baud rate = CLK/8	
Slave Interface	A slave port allows the RCM3309/RCM3319 to be used as an intelligent peripheral device slaved to a master processor, which may either be another Rabbit 3000 or any other type of processor	
Real-Time Clock	Yes	
Timers	Ten 8-bit timers (6 cascadable, 3 reserved for internal peripherals), one 10-bit timer with 2 match registers	
Watchdog/Supervisor	Yes	
Pulse-Width Modulators	4 PWM registers with 10-bit free-running counter and priority interrupts	
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	3.15–3.45VDC 325 mA @ 44.2 MHz, 3.3V	
Operating Temperature	-40° C to +85° C	
Humidity	5% to 95%, non-condensing	
Connectors	Two 2 × 17, 2 mm pitch; One 2 × 5 for programming with 1.27 mm pitch	
Board Size	1.850" × 2.725" × 0.86" (47 mm × 69 mm × 22 mm)	
Pricing		
Price and Part Number	\$119; 20-101-1194	\$99; 20-101-1195
Development Kit and Part Number	\$399; 101-1069	None



Visit [www.digiembedded.com](http://www.digiembedded.com) for part numbers.

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