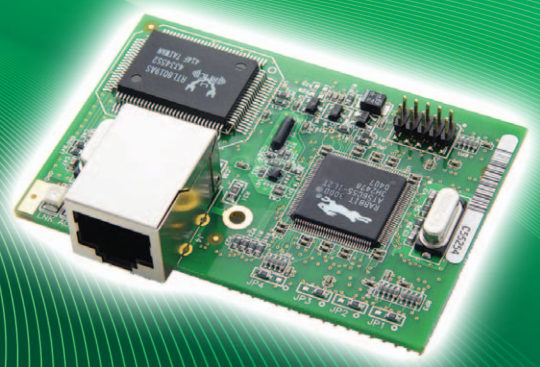
RabbitCore® RCM3000 Series

Microprocessor Core Module

Ideal for engineers who want to rapidly develop and implement embedded systems with fully integrated Ethernet connectivity.

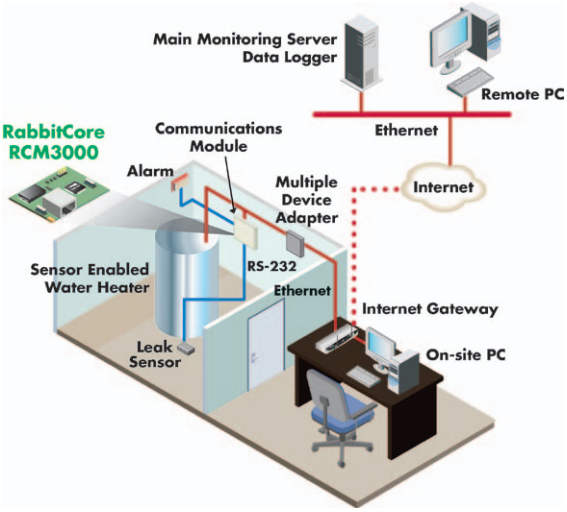


Overview

The RabbitCore RCM3000 series, featuring the Rabbit® 3000 microprocessor, boasts powerful features and integrated 10Base-T Ethernet to simplify integration. When paired with Dynamic C®, the RCM3000 series allows engineers to add device intelligence and I/O control for many of today's embedded designs. Its small form factor and low-power modes make the RCM3000 series perfect for remote device applications. The RCM3000 series is pin-compatible with the RCM3100 series, facilitating cost-effective implementation of both Ethernet and non-Ethernet systems.

Rabbit hardware and Dynamic C are designed in a complementary fashion for maximum performance and ease of use in embedded systems. The additional software components in Dynamic C allow you to add functionality for embedded application customization.

Application Highlight

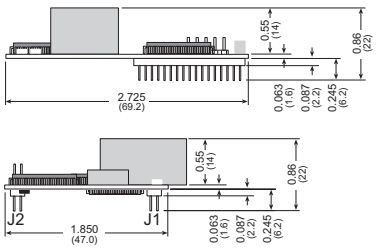


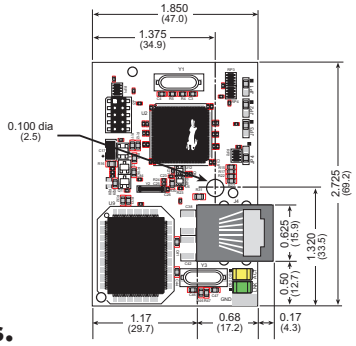
Potential Applications: Serial-to-Ethernet conversion, device web server applications, Ethernet connectivity with I/O and intelligence, device monitoring and data logging.

Features/Benefits

- **Rabbit 3000 microprocessor at 30 MHz**
- **Up to 512K Flash/512K SRAM**
- **52 digital I/O and 6 serial ports (IrDA, HDLC, asynch, SPI)**
- **3.3V operation, low power "sleepy" modes (< 2mA)**
- **Small form factor**
- **Royalty-free TCP/IP stack in source code**
- **Low-cost embedded microprocessor module**
- **Security software add-on modules available**

Specifications	RCM3000	RCM3010
Feature		
Microprocessor	Rabbit® 3000 at 30 MHz	
EMI Reduction	Spectrum spreader for reduced EMI (radiated emissions)	
Ethernet Port	10Base-T interface, RJ-45, 2 LEDs	
Flash Memory	512K (2 × 256K)	256K
SRAM	512K	128K
Backup Battery	Connection for user-supplied backup battery (to support RTC and SRAM)	
General-Purpose I/O	52 parallel digital I/O lines: • 44 configurable I/O • 4 fixed inputs • 4 fixed outputs	
Additional Digital Inputs	2 startup mode, reset in	
Additional Digital Outputs	Status, reset out	
Auxiliary I/O Bus	8 data lines and 6 address lines (shared with I/O) plus I/O read/write	
Serial Ports	6 shared high-speed, CMOS-compatible ports: • 6 configurable as asynchronous (with IrDA), 4 as clocked serial (SPI), and 2 as SDLC/HDLC (with IrDA) • 1 asynchronous serial port dedicated for programming • Support for MIR/SIR IrDA transceiver	
Serial Rate	Max. asynchronous baud rate = CLK/8	
Slave Interface	A slave port allows the RCM3000 to be used as a master or as an intelligent peripheral device with Rabbit-based or any other type of processor	
Real-Time Clock	Yes	
Timers	Ten 8-bit timers (6 cascadable from the first), one 10-bit timer with 2 match registers	
Watchdog/Supervisor	Yes	
Pulse-Width Modulators	10-bit free-running counter and four pulse-width registers	
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	3.15V to 3.45VDC 150 mA @ 3.3V	
Operating Temperature	–40° C to +70° C	
Humidity	5% to 95%, non-condensing	
Connectors (for connection to headers J4 and J5)	Two 2 × 17, 2 mm pitch	
Board Size	1.850" × 2.725" × 0.86" (47 mm × 69 mm × 22 mm)	
Pricing		
Price and Part Number	$79; 20-101-0507	$59; 20-101-0508
Development Kit and Part Number	$299; 101-0523	None





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