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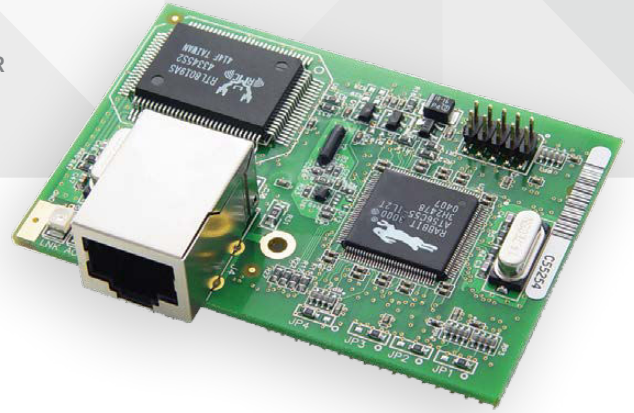
RABBITCORE® RCM3000 SERIES

Ideal for engineers who want to rapidly develop and implement embedded systems with fully integrated Ethernet connectivity
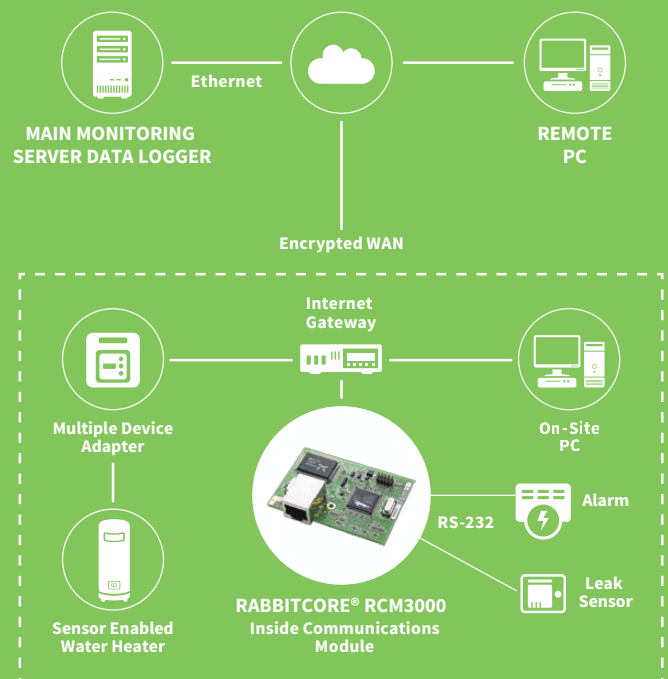
The RabbitCore RCM3000 series, featuring the Rabbit® 3000 microprocessor, boasts powerful features and integrated 10Base-T Ethernet to simplify integration. When paired with Dynamic C®, the RCM3000 series allows engineers to add device intelligence and I/O control for many of today's embedded designs. 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.

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

APPLICATION EXAMPLE

MAIN MONITORING SERVER DATA LOGGER

Ethernet

REMOTE PC

Encrypted WAN

Internet Gateway

Multiple Device Adapter

On-Site PC

RS-232

Alarm

Leak Sensor

RABBITCORE® RCM3000 Inside Communications Module

Sensor Enabled Water Heater

RELATED PRODUCTS

RabbitCore® RCM3209 Series

RabbitCore® RCM3700 Series

Rabbit MiniCore® RCM6700 Series

ConnectCard® for i.MX28

Dynamic C®

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/0 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 4 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 3.45 VDC 150 mA @ 3.3V		
OPERATING TEMPERATURE	–40° C to +70° C		
HUMIDITY	5% to 95%, non-condensing		
CONNECTORS	Two 2 × 17, 2 mm pitch (for connection to headers J4 and J5)		
BOARD SIZE	1.850" × 2.725" × 0.86" (47 mm × 69 mm × 22 mm)		
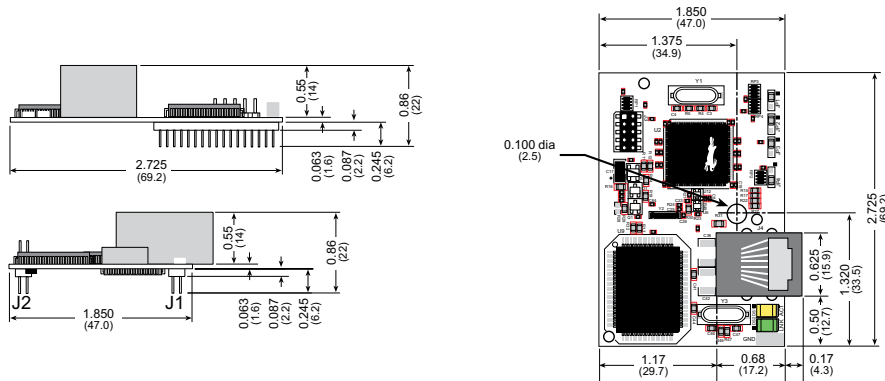
PART NUMBERS	DESCRIPTION
20-101-0507	RCM3000. 512K Flash/512K SRAM
20-101-0508	RCM3010. 256K Flash/128K SRAM

91001602
C2/816

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