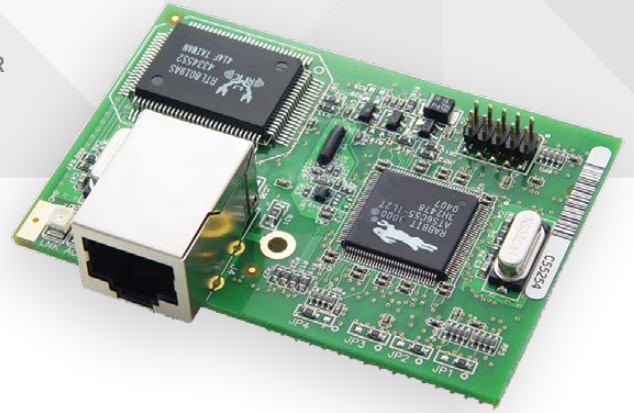




MICROPROCESSOR
CORE MODULE



RABBITCORE® RCM3000 SERIES

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

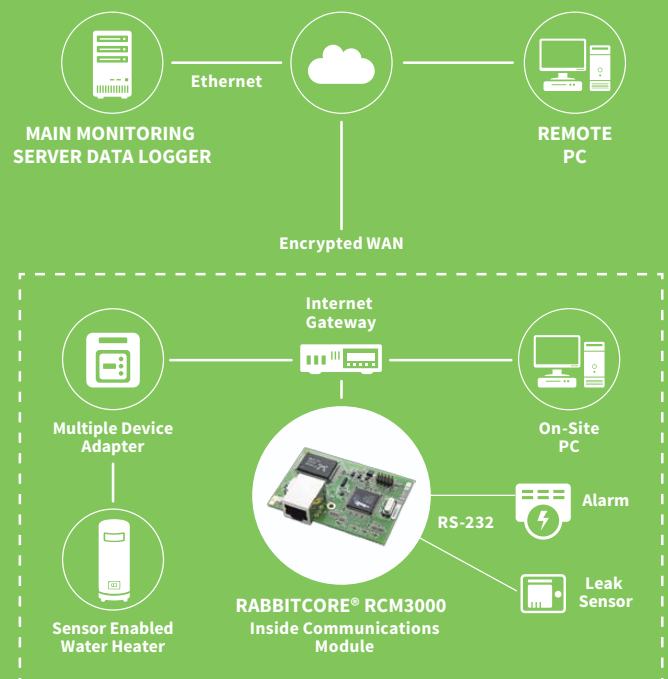
The RabbitCore RCM3000 series, featuring the Rabbit® 3000 microprocessor, boasts powerful features and integrated 10Base-T Ethernet to simplify integration. When paired with Dynamic C®, the RCM3000 series allows engineers to add device intelligence and I/O control for many of today’s embedded designs.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



RELATED PRODUCTS



RabbitCore®
RCM3209
Series



RabbitCore®
RCM3700
Series



Rabbit MiniCore®
RCM6700
Series



ConnectCard®
for i.MX28



Dynamic C®

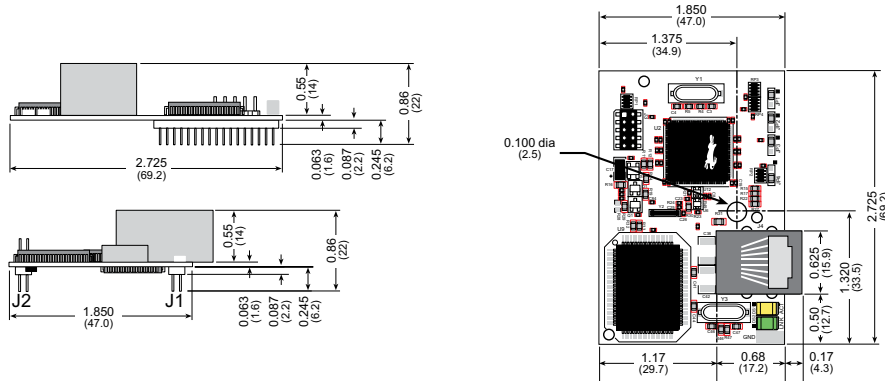
SPECIFICATIONS

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: <ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • 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

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DIGI INTERNATIONAL WORLDWIDE HQ
877-912-3444 / 952-912-3444 / www.digi.com

DIGI INTERNATIONAL GERMANY
+49-89-540-428-0

DIGI INTERNATIONAL JAPAN
+81-3-5428-0261 / www.digi-intl.co.jp

DIGI INTERNATIONAL SINGAPORE
+65-6213-5380

DIGI INTERNATIONAL CHINA
+86-21-50492199 / www.digi.com.cn

