



THE DATASHEET OF
20-101-0507





MICROPROCESSOR
CORE MODULE



DIGI 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

RELATED PRODUCTS



RabbitCore®
RCM3209
Series



RabbitCore®
RCM3700
Series



Rabbit MiniCore®
RCM6700
Series

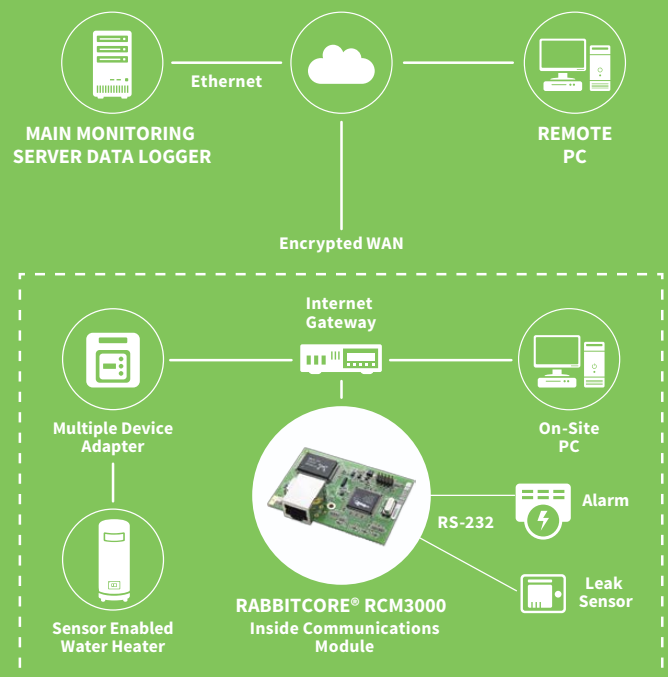


ConnectCard®
for i.MX28



Dynamic C®

APPLICATION EXAMPLE



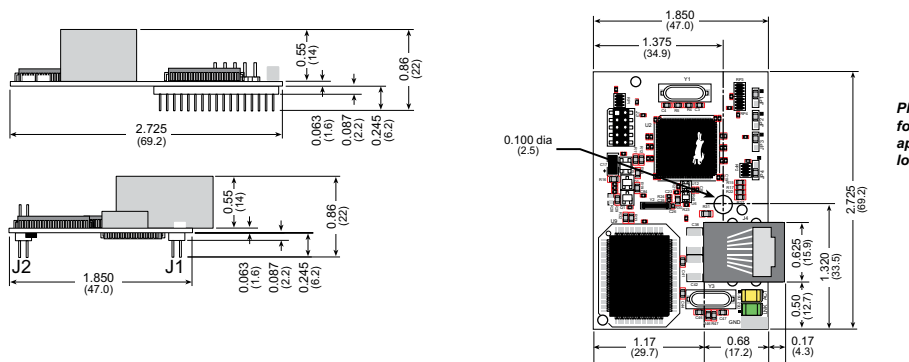
SPECIFICATIONS

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)	
PRODUCT WARRANTY	3 year	



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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

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