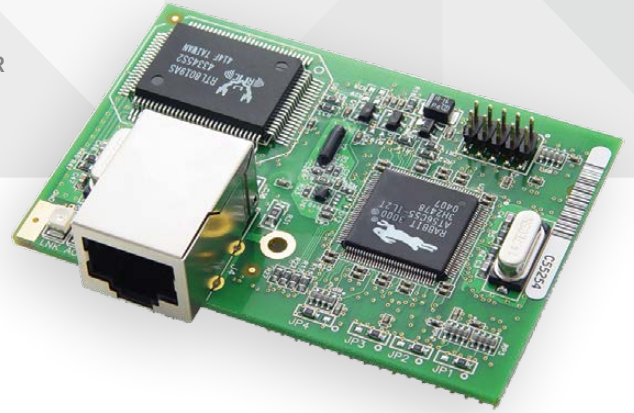




MICROPROCESSOR  
CORE MODULE



# 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

## RELATED PRODUCTS



RabbitCore®  
RCM3209  
Series



RabbitCore®  
RCM3700  
Series



Rabbit MiniCore®  
RCM6700  
Series

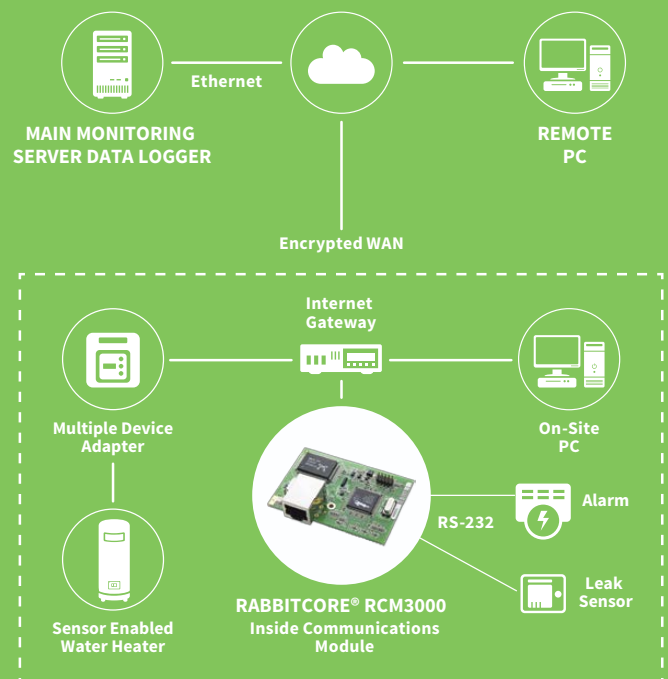


ConnectCard®  
for i.MX28



Dynamic C®

## APPLICATION EXAMPLE



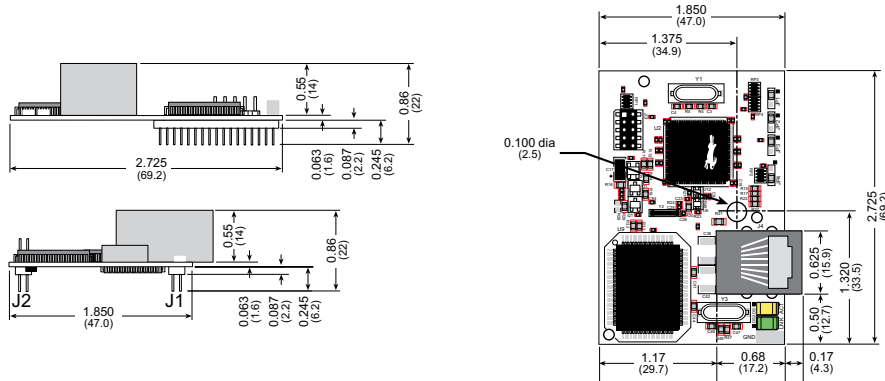
# SPECIFICATIONS

## RCM3000

## RCM3010

### FEATURE

<b>MICROPROCESSOR</b>	Rabbit® 3000 at 30 MHz	
<b>EMI REDUCTION</b>	Spectrum spreader for reduced EMI (radiated emissions)	
<b>ETHERNET PORT</b>	10Base-T interface, RJ-45, 2 LEDs	
<b>FLASH MEMORY</b>	512K (2 × 256K)	256K
<b>SRAM</b>	512K	128K
<b>BACKUP BATTERY</b>	Connection for user-supplied backup battery (to support RTC and SRAM)	
<b>GENERAL-PURPOSE I/O</b>	52 parallel digital I/O lines: <ul style="list-style-type: none"> <li>• 44 configurable I/O</li> <li>• 4 fixed inputs</li> <li>• 4 fixed outputs</li> </ul>	
<b>ADDITIONAL DIGITAL INPUTS</b>	2 startup mode, reset in	
<b>ADDITIONAL DIGITAL OUTPUTS</b>	Status, reset out	
<b>AUXILIARY I/O BUS</b>	8 data lines and 6 address lines (shared with I/O) plus I/O read/write	
<b>SERIAL PORTS</b>	6 shared high-speed, CMOS-compatible ports: <ul style="list-style-type: none"> <li>• 6 configurable as asynchronous (with IrDA), 4 as clocked serial (SPI), and 2 as SDLC/HDLC (with IrDA)</li> <li>• 1 asynchronous serial port dedicated for programming</li> <li>• Support for MIR/SIR IrDA transceiver</li> </ul>	
<b>SERIAL RATE</b>	Max. asynchronous baud rate = CLK/8	
<b>SLAVE INTERFACE</b>	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	
<b>REAL-TIME CLOCK</b>	Yes	
<b>TIMERS</b>	Ten 8-bit timers (6 cascadable from the first), one 10-bit timer with 2 match registers	
<b>WATCHDOG/SUPERVISOR</b>	Yes	
<b>PULSE-WIDTH MODULATORS</b>	10-bit free-running counter and 4 pulse-width registers	
<b>INPUT CAPTURE</b>	2-channel input capture can be used to time input signals from various port pins	
<b>QUADRATURE DECODER</b>	2-channel quadrature decoder accepts inputs from external incremental encoder modules	
<b>POWER</b>	3.15V to 3.45 VDC 150 mA @ 3.3V	
<b>OPERATING TEMPERATURE</b>	-40° C to +70° C	
<b>HUMIDITY</b>	5% to 95%, non-condensing	
<b>CONNECTORS</b>	Two 2 × 17, 2 mm pitch (for connection to headers J4 and J5)	
<b>BOARD SIZE</b>	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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