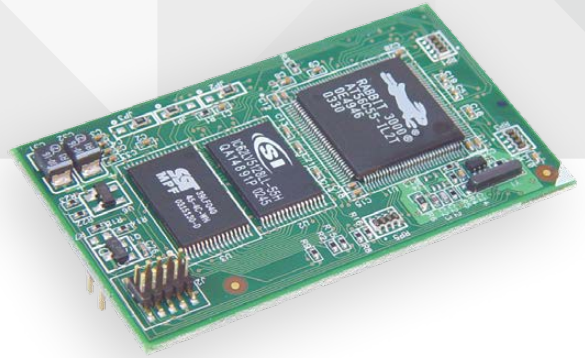




MICROPROCESSOR  
CORE MODULE



# RABBITCORE® RCM3600 SERIES

Extremely compact and low-cost Rabbit® 3000 microprocessor based core module designed for a wide variety of applications

The RabbitCore RCM3600 series is a perfect introduction into embedded control and monitoring. Its small size and ease of integration when paired with Dynamic C® allow engineers to develop a control and monitoring solution for many of today's applications. The RCM3600 mounts directly onto a user-designed motherboard with a single 2x20 dual row IDC header, interfacing with all types of CMOS-compatible digital devices. Built-in low EMI features, including a clock spectrum spreader, practically eliminate EMI problems, which helps with passing CE and RF emissions tests.

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 customized embedded applications.

## BENEFITS

- Rabbit 3000 microprocessor at 22 MHz
- Up to 512K Flash/512K SRAM
- 33 parallel digital I/O with configurable options
- 4 serial ports (IrDA, HDLC, async, SPI)
- 5 VDC input, 3.3VDC interface
- Compact footprint: 2.11" x 1.23" x 0.62" (54 mm x 31 mm x 16 mm)
- Ready-made platform for fast time-to-market – save up to 3 months of design integration time
- Low-cost embedded microprocessor module

## RELATED PRODUCTS



RabbitCore®  
RCM3100  
Series



RabbitCore®  
RCM3400  
Series



RabbitCore®  
RCM3700  
Series

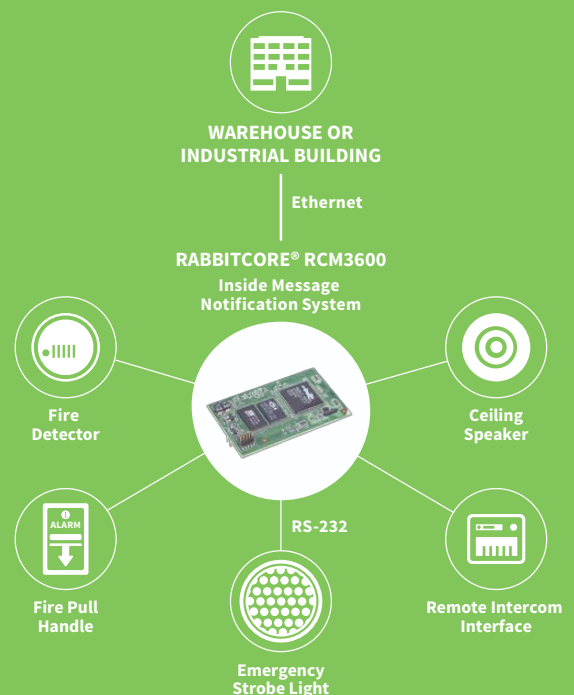


RabbitCore®  
RCM3900  
Series

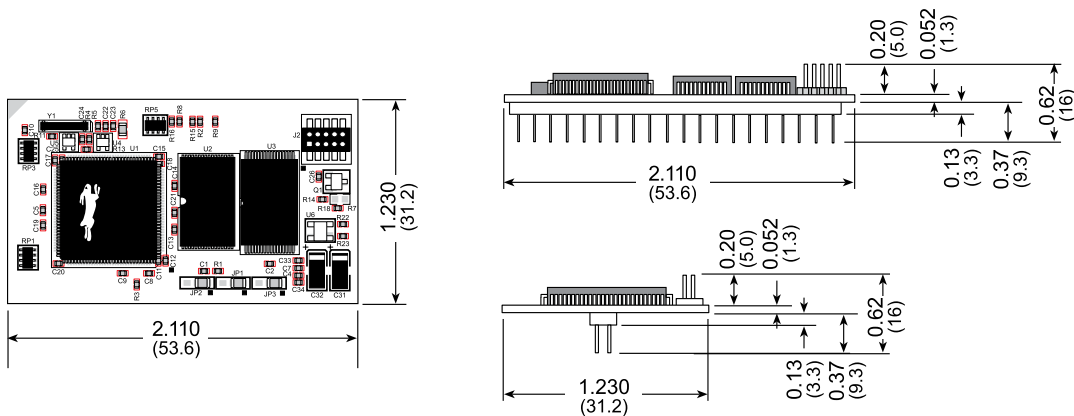


Dynamic C®

## APPLICATION EXAMPLE



| SPECIFICATIONS                  |  | RCM3600 | RCM3610 |
|---------------------------------|--|---------|---------|
| FEATURE                         |  |         |         |
| MICROPROCESSOR                  | Rabbit® 3000 at 22 MHz   |         |         |
| FLASH MEMORY                    | 512K   |         | 256K    |
| SRAM                            | 512K   |         | 128K    |
| BACKUP BATTERY                  | Connection for user-supplied backup battery (to support RTC and SRAM)  |         |         |
| GENERAL-PURPOSE I/O             | 33 parallel digital I/O lines: <ul style="list-style-type: none"> <li>• 31 configurable I/O</li> <li>• 2 fixed outputs</li> </ul>  |         |         |
| ADDITIONAL I/O                  | Reset  |         |         |
| AUXILIARY I/O BUS               | Can be configured for 8 data lines and 5 address lines (shared with parallel I/O lines), plus I/O read/write   |         |         |
| SERIAL PORTS                    | Four 3.3V CMOS-compatible ports configurable as: <ul style="list-style-type: none"> <li>• 4 asynchronous serial ports (with IrDA) or</li> <li>• 3 clocked serial ports (SPI) plus 1 HDLC (with IrDA) or</li> <li>• 1 clocked serial port (SPI) plus 2 HDLC serial ports (with IrDA)</li> </ul> |         |         |
| SERIAL RATE                     | Maximum asynchronous baud rate = CLK/8   |         |         |
| SLAVE INTERFACE                 | A slave port allows the RCM3600 to be used as an intelligent peripheral device slaved to a master processor, which may either be another Rabbit 3000 or any other type of processor  |         |         |
| REAL-TIME CLOCK                 | Yes  |         |         |
| TIMERS                          | Ten 8-bit timers (6 cascable), one 10-bit timer with 2 match registers   |         |         |
| WATCHDOG/SUPERVISOR             | Yes  |         |         |
| PULSE-WIDTH MODULATORS          | 4 PWM output channels with 10-bit free-running counter and priority interrupts   |         |         |
| INPUT CAPTURE/QUADATURE DECODER | 2-channel input capture can be used to time input signals from various port pins <ul style="list-style-type: none"> <li>• 1 quadrature decoder unit accepts inputs from external incremental encoder modules or</li> <li>• 1 quadrature decoder unit shared with 2 PWM channels</li> </ul>     |         |         |
| POWER                           | 5V ±0.25 VDC 60 mA @ 22.1 MHz, 5V; 38 mA @ 11.06 MHz, 5V   |         |         |
| OPERATING TEMPERATURE           | -40° C to +85° C   |         |         |
| HUMIDITY                        | 5% to 95%, non-condensing  |         |         |
| CONNECTORS                      | One 2 × 20, 0.1" pitch   |         |         |
| BOARD SIZE                      | 1.23" × 2.11" × 0.62" (31 mm × 54 mm × 16 mm)  |         |         |



| PART NUMBERS | DESCRIPTION                        |
|--------------|------------------------------------|
| 20-101-0672  | RCM3600                            |
| 20-101-0673  | RCM3610                            |
| 101-0679     | RCM3600 RabbitCore Development Kit |

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