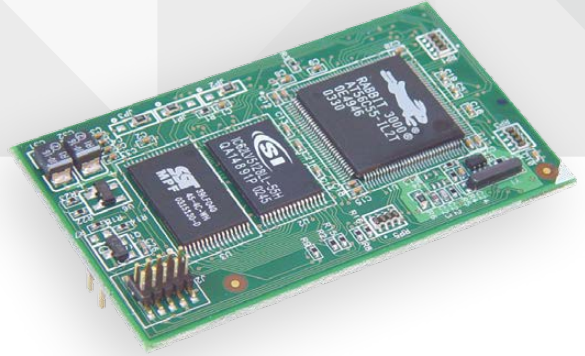




MICROPROCESSOR  
CORE MODULE



# 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

## APPLICATION EXAMPLE



## RELATED PRODUCTS



RabbitCore®  
RCM3100  
Series



RabbitCore®  
RCM3400  
Series



RabbitCore®  
RCM3700  
Series



RabbitCore®  
RCM3900  
Series



Dynamic C®

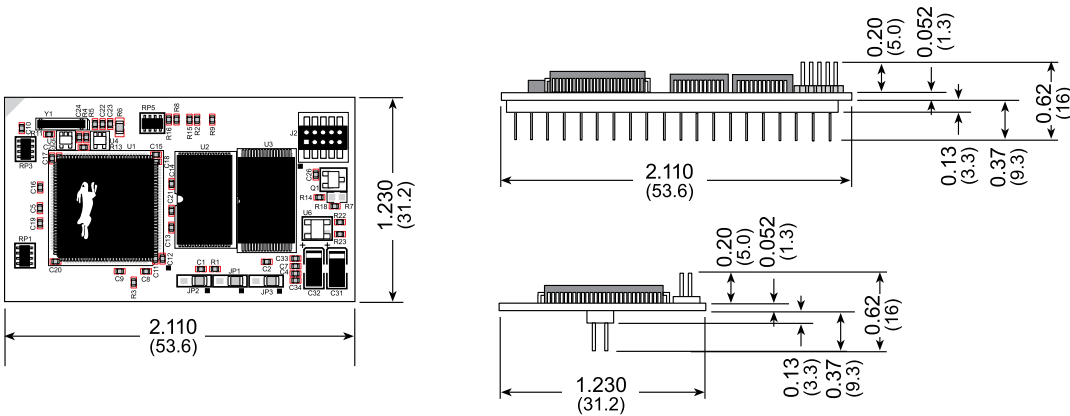
## SPECIFICATIONS

# RCM3600

# RCM3610

### FEATURE

<b>MICROPROCESSOR</b>	Rabbit® 3000 at 22 MHz	
<b>FLASH MEMORY</b>	512K	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>	33 parallel digital I/O lines: <ul style="list-style-type: none"> <li>• 31 configurable I/O</li> <li>• 2 fixed outputs</li> </ul>	
<b>ADDITIONAL I/O</b>	Reset	
<b>AUXILIARY I/O BUS</b>	Can be configured for 8 data lines and 5 address lines (shared with parallel I/O lines), plus I/O read/write	
<b>SERIAL PORTS</b>	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>	
<b>SERIAL RATE</b>	Maximum asynchronous baud rate = CLK/8	
<b>SLAVE INTERFACE</b>	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	
<b>REAL-TIME CLOCK</b>	Yes	
<b>TIMERS</b>	Ten 8-bit timers (6 cascadable), one 10-bit timer with 2 match registers	
<b>WATCHDOG/SUPERVISOR</b>	Yes	
<b>PULSE-WIDTH MODULATORS</b>	4 PWM output channels with 10-bit free-running counter and priority interrupts	
<b>INPUT CAPTURE/QUADATURE DECODER</b>	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>	
<b>POWER</b>	5V ±0.25 VDC 60 mA @ 22.1 MHz, 5V; 38 mA @ 11.06 MHz, 5V	
<b>OPERATING TEMPERATURE</b>	-40° C to +85° C	
<b>HUMIDITY</b>	5% to 95%, non-condensing	
<b>CONNECTORS</b>	One 2 × 20, 0.1" pitch	
<b>BOARD SIZE</b>	1.23" × 2.11" × 0.62" (31 mm × 54 mm × 16 mm)	



## PART NUMBERS

## DESCRIPTION

20-101-0672	RCM3600
20-101-0673	RCM3610

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