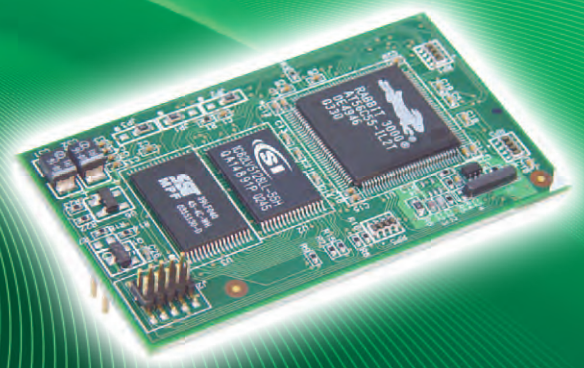
RabbitCore® RCM3600 Series

Microprocessor Core Module



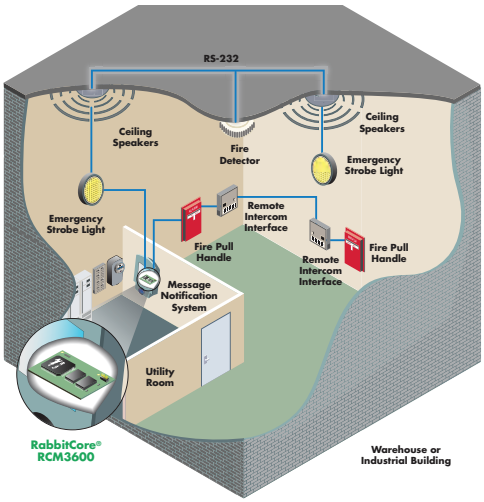
Extremely compact and low-cost Rabbit® 3000 microprocessor based core module designed for a wide variety of applications.

Overview

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.

Application Highlight

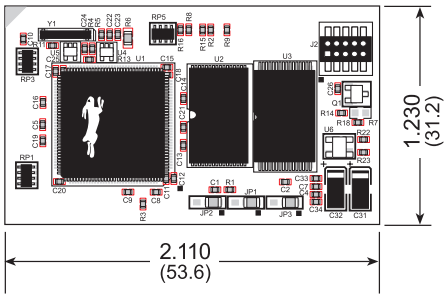


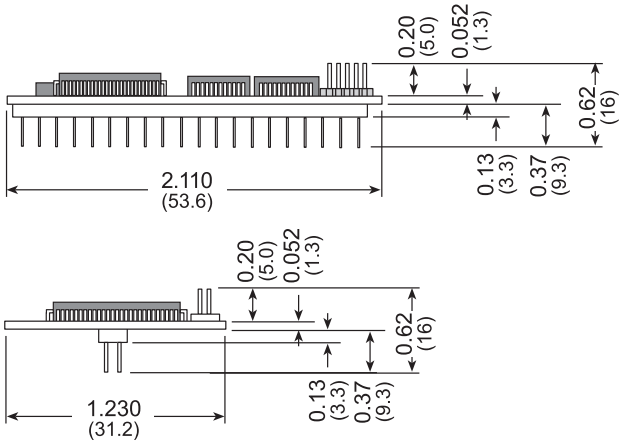
Potential Applications: Device intelligence, embedded control, sensor reading, serial device coordinator, handheld remote devices, and GPS/AVL applications.

Features/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)**
- **5VDC 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**

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: • 31 configurable I/O • 2 fixed outputs	
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: • 4 asynchronous serial ports (with IrDA) or • 3 clocked serial ports (SPI) plus 1 HDLC (with IrDA) or • 1 clocked serial port (SPI) plus 2 HDLC serial ports (with IrDA)	
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 cascadable), 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 • 1 quadrature decoder unit accepts inputs from external incremental encoder modules or • 1 quadrature decoder unit shared with 2 PWM channels	
Power	5V ±0.25VDC 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 x 20, 0.1" pitch	
Board Size	1.23" × 2.11" × 0.62" (31 mm × 54 mm × 16 mm)	
Pricing		
Price and Part Number	$49; 20-101-0672	$45; 20-101-0673
Development Kit and Part Number	$239; 101-0679	





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