



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®

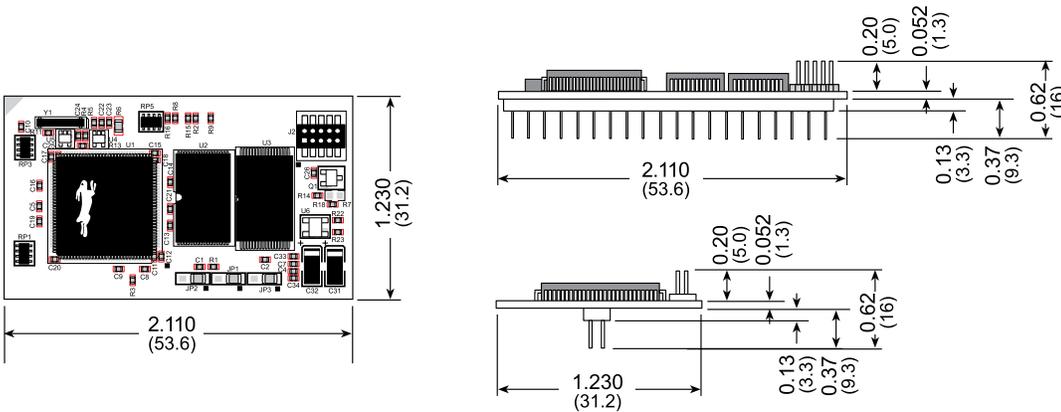
SPECIFICATIONS

RCM3600

RCM3610

FEATURE

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"> • 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: <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 1 quadrature decoder unit accepts inputs from external incremental encoder modules or • 1 quadrature decoder unit shared with 2 PWM channels
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

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