



RCM3600 RabbitCore™

Microprocessor Core Module

Models RCM3600, RCM3610

The RCM3600 RabbitCore is the lowest priced Rabbit 3000 microprocessor based core module designed for a wide variety of applications. The RCM3600 features 512K Flash / 512K SRAM or 256K Flash / 256K SRAM, 4 serial ports, and an extremely small footprint (2.11" × 1.23" / 54 × 31 mm). The RCM3610 is the least expensive of the Rabbit 3000 microprocessor based RabbitCores. The development kit price is \$239. Extensive demo programs and software application templates make it easy to get the RCM3600 up and running in record time.

This RabbitCore mounts directly on a user-designed motherboard with a single 0.1" (2.54 mm) 2x20 dual-row IDC header and can interface with all manner of CMOS-compatible digital devices. 33 digital I/O (shared with serial ports), power, and other signals are routed directly to the motherboard. Built-in low-EMI features, including a clock spectrum spreader, practically eliminate EMI problems, helping OEMs pass European CE and other regulatory RF emissions tests.

The RCM3600 is equipped with +5 VDC tolerant I/O, quadrature encoder inputs, PWM outputs, and pulse capture and measurement capabilities. The RCM3600 also features a battery-backable real-time clock, glueless memory and I/O interfacing, and low-power "sleepy" modes. An alternate I/O bus can be configured for 8 data lines and 6 address lines (shared with parallel I/O).

Programmed with Rabbit Semiconductor's Dynamic C®, the RCM3600 executes math, logic, and I/O exceptionally quickly. The Rabbit 3000 microprocessor, RCM3600, and Dynamic C were designed in a complementary fashion for maximum performance and ease of use in embedded systems. Rabbit Semiconductor's industry-proven Dynamic C development system is a C-language environment that includes an editor, compiler, and in-circuit debugger. User programs can be compiled, executed, and debugged using Dynamic C and a programming cable—no in-circuit emulator is required. An extensive library of drivers and sample programs is provided.

Features

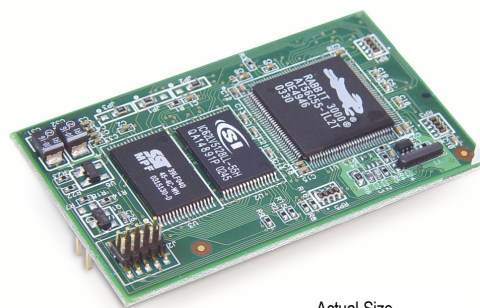
- Powerful Rabbit 3000™ microprocessor
- Low-profile footprint: 2.11" x 1.23" x 0.62" (54 x 31 x 16mm)
- Up to 512K Flash / 512K SRAM
- 33 digital I/O, alternate I/O bus
- 4 serial ports (IrDA, HDLC, asynch, SPI)
- 5 VDC input, 3.3 VDC interface

Design Advantages

- Low-cost solution
- Ready-made platform for fast time-to-market, up to 3 months design integration time savings.
- Compact size
- Dynamic C® development environment for real-time development and debugging
- Exceptionally fast performance for math, logic, I/O

Applications

- Handheld devices & Instrumentation
- Remote Data Logging



Actual Size
2.11" × 1.23" × 0.62"
(54 × 31 × 16 mm)

RabbitCore RCM3600 Specifications & Features

FEATURE	RCM3600	RCM3610
Microprocessor	Rabbit 3000A at 22.1 MHz	
EMI Reduction	Spectrum spreader for reduced EMI (radiated emissions)	
Flash	512K	256K
SRAM	512K	128K
Backup Battery	Connection for user-supplied battery	
General-Purpose I/O	33 digital I/O <ul style="list-style-type: none"> ▪ 31 configurable I/O ▪ 2 fixed outputs 	
Additional Input	Reset	
Auxiliary I/O Bus	Can be configured for 8 data and 5 address lines (shared with parallel I/O lines), plus I/O read/write	
Serial Ports	Four 3.3 V CMOS-compatible: <ul style="list-style-type: none"> ▪ 4 configurable as asynchronous (with IrDA) ▪ 3 as clocked serial (SPI) and 1 as HDLC (with IrDA), or 1 SPI and 2 SDLC/HDLC ▪ 1 asynchronous serial port dedicated for programming 	
Power	Input : 5 VDC, 60 mA @ 22.1 MHz ; 38 mA @ 11.06 MHz	
Operating Temp.	-40°C to +85°C	
Humidity	5-95%, noncondensing	
Connectors	Single 2 x 20, 0.1" header	
Board Size	2.11" x 1.23" x 0.62" (54 x 31 x 16 mm)	
Part Number	101-0672	101-0673
Development Kit Part Number	U.S. 101-0678	Int'l 101-0679

Complete Development Kit includes:

- RCM3600 RabbitCore (512K Flash/512K SRAM)
 - Development board with prototyping area
 - AC adapter (U.S./Canada only)
- Dynamic C v.8 development system (not a trial version) and complete documentation on CD-ROM
 - Serial cable for programming and debugging
 - *Getting Started* manual