RabbitCore 2000™
RCM2000

Shown at actual size

- *Clock speed up to 25.8 MHz*

- *40 I/O pins*

- *4 serial ports*

- *7 timers*

- *128K–512K SRAM*

- *256K flash*

- *Battery-backable time/date clock*

- *Slave port*

- *Remote cold boot*

- *Excellent math processing*

Design a custom board around the compact RabbitCore 2000™. This microprocessor core provides everything you need to begin immediate development. Simply add peripheral circuitry specific to your application.

The RabbitCore 2000, based on the Rabbit 2000™ microprocessor will jump-start your design and lower production costs. Included are general-purpose I/O, memory I/O interface, five 8-bit and one 10-bit timer with 2 match registers, 4 CMOS-compatible serial ports and more. Fast number crunching is provided by a 25.8 MHz clock. Flash and SRAM are onboard, providing a development-ready memory interface.

The RabbitCore 2000 is supported by industry-proven Dynamic C® software along with highly developed software libraries for the Rabbit microprocessor. The close integration of hardware and software simplifies your design effort and reduces time-to-market.

The RabbitCore and Prototyping Board included in the Development Kit allow you to immediately develop and compile a complete software program. The host PC downloads executable code into flash memory or battery-backed RAM. The Rabbit 2000 microprocessor handles approximately 50,000 C statements.

Programming the RCM2000

Programs are developed for the RCM2000 using the Dynamic C® SE software development system included in the Development Kit shown on the opposite page.

Make the RabbitCore 2000™ the heart of your custom board design. A low-cost manufacturing license is also available.
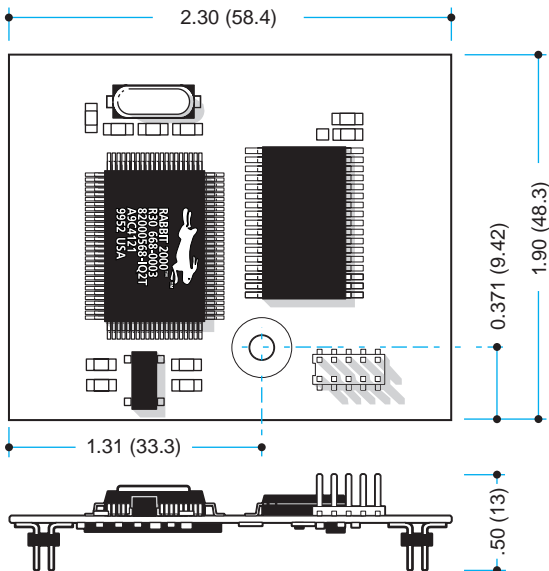
RCM2000 Specifications

Board Size	1.90" x 2.30" x 0.50"
Operating Temp.	–40°C to +85°C
Humidity	5% to 95%, non-condensing
Power Requirements	4.75–5.25 V DC, 130 mA at 25.8 MHz or 98 mA at 18.432 MHz
General Purpose I/O	40 parallel I/O lines grouped in five 8-bit ports (shared with serial ports)
Memory, I/O Interface	13 address lines, 8 data lines, I/O read/write, buffer enable, status, clock
Additional Digital Inputs	2 status mode (for master/slave), reset in
Additional Digital Outputs	Watchdog output, reset out
Processor	Rabbit 2000 at 25.8 MHz
SRAM	512K, surface mount
Flash EPROM	256K, surface mount
Timers	Five 8-bit timers, one 10-bit timer with 2 match registers. 5 timers are cascadable in pairs
Serial Ports	Four 5 V CMOS-compatible ports with asynchronous baud rates of up to 230,400 bps. 2 ports are configurable as synchronous clocked ports
Watchdog/Supervisor	Yes
Time/Date Clock	Yes
Backup Battery	Connections for user-supplied battery
Slave Interface	A slave port allows the RabbitCore 2000™ to be used as an intelligent peripheral device slaved to a master processor. The master can be another Rabbit microprocessor or any other type of processor

RabbitCore 2000™ Development Kit

The RabbitCore RCM2000 Development Kit provides everything you need: RabbitCore module RCM2020, Dynamic C® SE software, manual, schematics, AC adapter, Prototyping Board, programming cable, and documentation on CD-ROM. International orders do not include the AC adapter unless specifically requested.

Versions

RCM2000 Full-featured microprocessor core (see specifications above)

RCM2010 RCM2000 with 128K SRAM

RCM2020 RCM2010 with 18.423 MHz clock

Options and Upgrades

Dynamic C Premier. Provides additional functionality, such as the real-time operating system, MicroC/OS-II and PPP drivers. See page 6 for complete description

2.30 (58.4)

1.90 (48.3)

0.371 (9.42)

RABBIT 2000™
R30 668-0003
82000568-0Z1
A9C1121
9952 USA

1.31 (33.3)

.50 (13)

RCM2000 Dimensions