

# RCM2300 RabbitCore™

MODELS | RCM2300 |

Microprocessor Core Module

## Key Features

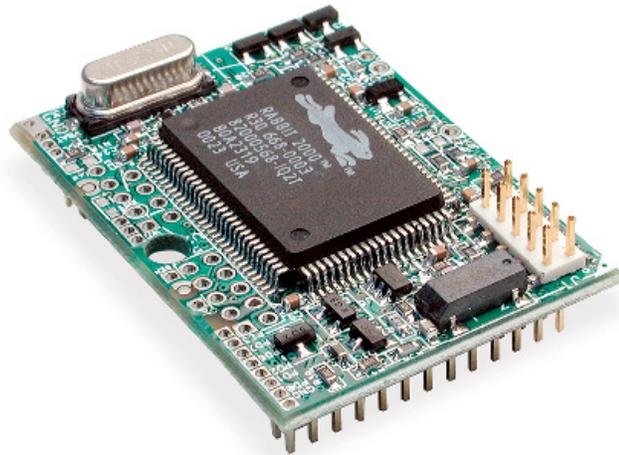
- Rabbit® 2000 microprocessor at 22.1 MHz
- Compact size: 1.60" x 1.15" x 0.55"
- 256K Flash, 128K SRAM
- 29 general-purpose I/O (17 configurable)
- 4 address lines, 8 data lines available on header pins
- Four serial ports available

## Design Advantages:

- Compact size for simple daughterboard interfacing
- Low-cost embedded I/O control
- Industry proven integrated development environment
- Hundreds of samples and libraries
- Easily links to other serial devices

## Applications

- Device intelligence
- Embedded control
- Sensor reading
- Serial device coordinator



## RCM2300 – Intelligence in a small package

The ultra-compact RCM2300 RabbitCore microprocessor core module measures a mere 1.60 x 1.15 inches (41 x 29 mm), simplifying integration and opening up a world of new design options for economical control products.

The RCM2300 includes 22.1 MHz clock, 256K of Flash, 128K of SRAM, real-time clock, 29 general-purpose I/O, and 4 serial ports. The RCM2300 is also pin-compatible with the RCM2200 Ethernet core module for future Ethernet implementation of user designs.

### Developing with RabbitCores

The RabbitCore family of microprocessor core modules is designed to facilitate rapid development and implementation of embedded systems. RabbitCores are powered by high-performance 8-bit Rabbit

microprocessors with extensive integrated features and a C-friendly instruction set designed for use with the Dynamic C® development system. The RabbitCore mounts on a user-designed motherboard and acts as the controlling microprocessor for the user's system. Small in size, but packed with powerful features, these core modules give designers a complete package for control and communication.

### Programming RCM2300

Programs are developed using Rabbit Semiconductor's industry-proven

Dynamic C® software development system. An extensive library of drivers and sample programs is provided

## Dynamic C Add-on Modules

Dynamic C Add-on software modules provide added functionality and customization to your embedded applications. Software is available via download or CD-ROM.



### Point-to-Point Protocol

TCP/IP functionality for serial and PPPoE connections



### Library Encryption Executable

Program to encrypt Dynamic C library source files



### Advanced Encryption Standard

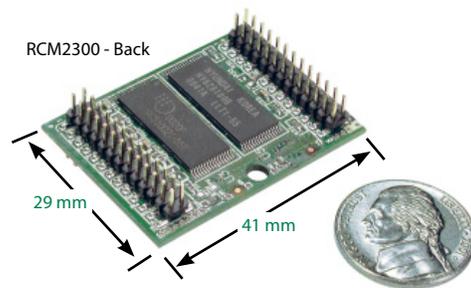
128-bit encryption for transfer of sensitive data

## Rabbit Field Utility (RFU)

Source code for the Rabbit Field Utility

## µC/OS-II Real-Time Kernel

Real-time preemptive, prioritized operating system



| RCM2300 RabbitCore Specifications |  |
|-----------------------------------|--|
| Features                          | RCM2300  |
| Microprocessor                    | Rabbit® 2000 at 22.1 MHz   |
| Flash Memory                      | 256K   |
| SRAM                              | 128K   |
| Backup Battery                    | Connection for user-supplied backup battery (to support RTC and SRAM)  |
| General-Purpose I/O               | 29 parallel I/O lines grouped in five 8-bit ports (shared with serial ports): <ul style="list-style-type: none"> <li>• 17 configurable I/O</li> <li>• 8 fixed inputs</li> <li>• 4 fixed outputs</li> </ul> |
| Additional Digital Inputs         | 2 startup mode, reset  |
| Additional Digital Outputs        | Status, reset  |
| Memory I/O Interface              | 8 data lines and 6 address lines (shared with I/O) plus I/O read/write   |
| Serial Ports                      | Four 5 V CMOS-compatible ports. <ul style="list-style-type: none"> <li>• 2 ports are configurable as clocked ports,</li> <li>• 1 is a dedicated RS-232 programming port.</li> </ul>                        |
| Serial Rate                       | Max. burst rate = CLK/32 , Max. sustained rate = CLK/64  |
| Slave Interface                   | A slave port allows the RCM2300 to be used as an intelligent peripheral device slaved to a master processor, which may either be another Rabbit 2000 or any other type of processor                        |
| Real-Time Clock                   | Yes  |
| Timers                            | Five 8-bit timers cascadable in pairs, one 10-bit timer with 2 match registers that each have an interrupt   |
| Watchdog/Supervisor               | Yes  |
| Pulse-Width Modulators            | 10-bit free-running counter and four pulse-width registers   |
| Input Capture                     | 2-channel input capture can be used to time input signals from various port pins   |
| Power                             | 4.75 V to 5.25 V DC, 108 mA  |
| Operating Temperature             | -40°C to +85°C   |
| Humidity                          | 5% to 95%, non-condensing  |
| Connectors                        | Two IDC headers 2 × 13, 2 mm pitch   |
| Board Size                        | 1.15" × 1.60" × 0.55" (29 mm × 41 mm × 14 mm)  |
| Pricing                           |  |
| Pricing (qty. 1/100)              | \$42 / 33  |
| Part Number                       | 20-101-0453  |
| Development Kit                   | \$199  |
| Part Number                       | U.S. 101-0480 Int'l 101-0481   |

## RCM2300 Development Kit comes complete with:

- RCM2300 RabbitCore
- Development Board with prototyping area
- AC Adapter (U.S./Canada Only)
- Dynamic C Development System
- Complete Documentation on CD-ROM
- Serial cable for programming and debugging
- Getting Started Manual



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.