

# MiniCore™ RCM5700 Module

MODELS | RCM5700 |

*Mini-Microprocessor Core Module*

## Key Features

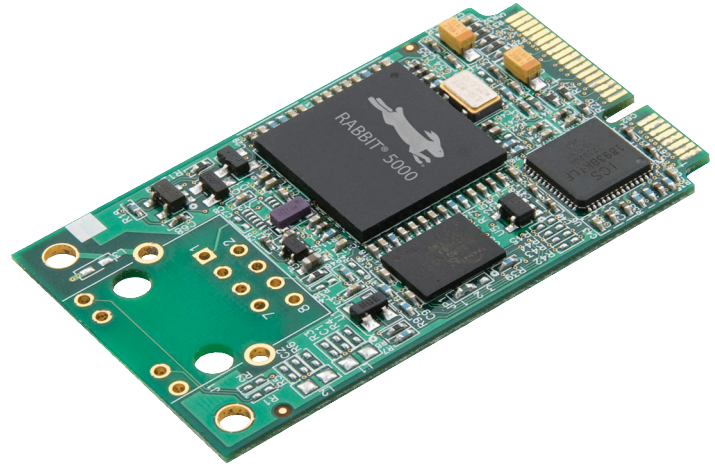
- Rabbit® 5000 microprocessor @ 50 MHz
- Small, low-profile board (1.186" × 2.006" × 0.11")
- 10/100Base-T Ethernet
- PCI Express form factor

## Design Advantages

- Small form factor
- Very low cost
- Known good hardware reduces design risk
- Complete, easy-to-use integrated design environment

## Applications

- Data archiving and upload
- Tank monitoring
- Automatic meter reading
- Remote energy management
- Security and surveillance



## RCM5700 – Affordable Low-Profile Core Module

Rabbit's MiniCore product line offers an embedded solution on a mini PCI Express Card form factor at a dramatically low price.

The RCM5700 has a Rabbit 5000 microprocessor operating at up to 50 MHz, flash memory, two clocks (main oscillator and timekeeping), and the circuitry necessary for reset and management of battery backup of the Rabbit 5000's internal real-time clock and the on-chip SRAM. An edge connector brings out the RCM5700 I/O bus lines, parallel ports and serial ports to a 52-pin mini PCI Express socket on the motherboard.

The RCM5700 is mounted on a customer-designed motherboard, from which it receives its +3.3V power.

## Software Development

Rabbit's MiniCore modules are designed to facilitate rapid development and implementation of embedded systems. Develop programs with our industry-proven Dynamic C® development system, a C-language environment that includes an editor, compiler and in-circuit debugger.

Download the program from your PC via USB or serial port, and debug right on the target hardware – no in-circuit emulation is required. This environment reduces effort and speeds hardware and software integration. Rabbit provides an extensive library of drivers and sample programs,



[www.rabbit.com](http://www.rabbit.com)

along with royalty-free TCP/IP stack with source.

Two Development Kit options are available to get you started developing and testing software. The standard Development Kit has the essentials needed to design your own microprocessor based system, plus a complete Dynamic C software development system. It also contains a development board to evaluate the RCM5700, and digital I/O and serial accessory boards to illustrate the RCM5700 features by running the sample programs included with Dynamic C. You will also be able to write and test software for the RCM5700 modules, including Ethernet or TCP/IP applications.

The RCM5700 Deluxe Development Kit delivers everything that is in the standard development kit, plus:

- Universal AC adapter, 12 V DC, 1 A (includes Canada/Japan/U.S., Australia/N.Z., U.K. and European style plugs). Development Kits sold in North America may contain an AC adapter with only a North American style plug.
- Digital I/O and serial communication accessory boards for use with certain sample programs.
- CAT 5/6 Ethernet cable

Features	MiniCore™ RCM5700 Specifications
Microprocessor	Rabbit 5000 @ 50 MHz
EMI Reduction	Spectrum spreader for reduced EMI (radiated emissions)
Ethernet Port	10/100Base-T
Flash Memory	1 MB
SRAM	128K (Rabbit® 5000 on-chip)
Backup Battery	Connection for user-supplied backup battery (to support RTC and SRAM)
General-Purpose I/O	Up to 32 parallel digital I/O lines configurable with 4 layers of alternate functions
Additional Inputs	Reset in
Additional Outputs	Status, reset out
External I/O Bus	Can be configured for 8 data lines and 6 address lines (shared with parallel I/O lines), plus I/O read/write
Serial Ports	6 high-speed, CMOS-compatible ports: <ul style="list-style-type: none"> <li>• All 6 configurable as asynchronous (with IrDA), 4 as clocked serial (SPI), and 2 as SDL/HDLC</li> <li>• 1 asynchronous clocked serial port shared with programming port</li> </ul>
Serial Rate	Maximum asynchronous baud rate = CLK/8
Slave Interface	Slave port allows the RCM5700 to be used as an intelligent peripheral device slaved to a master processor
Real-Time Clock	Yes
Timers	Ten 8-bit timers (6 cascadable from the first), one 10-bit timer with 2 match registers, and one 16-bit timer with 4 outputs and 8 set/reset registers
Watchdog/Supervisor	Yes
Pulse-Width Modulators	4 channels synchronized PWM with 10-bit counter 4 channels variable-phase or synchronized PWM with 16-bit counter
Input Capture	2-channel input capture can be used to time input signals from various port pins
Quadrature Decoder	2-channel quadrature decoder accepts inputs from external incremental encoder modules
Power	215 mA @ 3.3 V
Operating Temperature	-40° C to +85° C
Humidity	5% to 95%, non-condensing
Connectors	Edge connectors for interface with 52-pin mini PCI Express socket
Board Size	1.186" × 2.006" × 0.11" (30 mm × 51 mm × 3 mm)
Pricing	
Pricing (Qty. 1/100)	\$35 / \$33.40
Part Number	20-101-1235
Standard Development Kit	\$99
Part Number	101-1274
Deluxe Development Kit	\$199
Part Number	101-1275

