

# RCM2100 RabbitCore®

MODELS | RCM2100 | RCM2110 | RCM2120 | RCM2130 |

Microprocessor Core Module

## Key Features

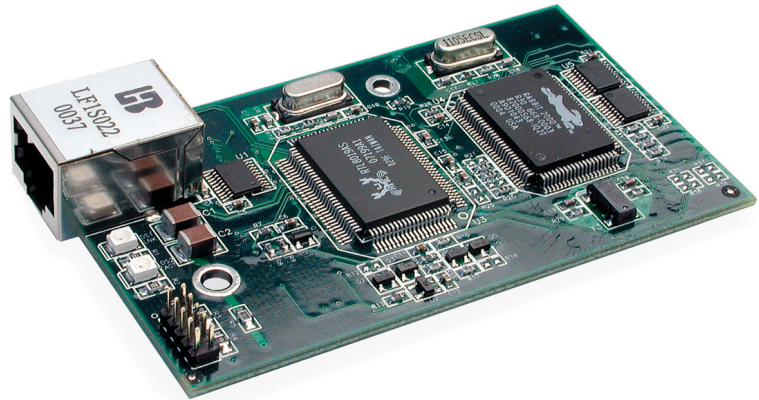
- Ethernet and non-Ethernet models
- Rabbit® 2000 @ 22.1 MHz
- Up to 512K SRAM
- Up to 512K Flash
- 34 or 40 general-purpose I/O

## Design Advantages:

- 5 V design
- 10Base-T Ethernet on-board
- Plug-in design

## Applications

- Embedded Control
- Process Control
- Test and Measurement



## RCM2100 – Our First Ethernet Enabled Core Module

The RabbitCore RCM2100 family of microprocessor modules is designed to be the heart of embedded control systems. In addition to the array of I/O and addressing available on other Rabbit Semiconductor products, the RCM2100 series offers an optional integrated Ethernet port. These modules permit LAN and Internet-enabled systems to be built as easily as serial communications only systems.

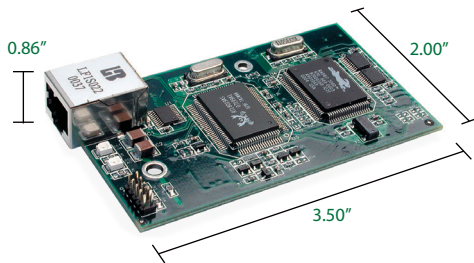
The RCM2100 has a Rabbit 2000 microprocessor, a static RAM, up to two flash memory chips, two quartz crystals (main oscillator and timekeeping), and the circuitry necessary for reset and management of battery backup of the Rabbit 2000's internal real-time clock and the static RAM. Two 40-pin headers bring out the Rabbit 2000 I/O bus, address lines, data lines, parallel ports, and serial ports. The RCM2100 receives its +5 V power from

the user board on which it is mounted. The RCM2100 can interface with all kinds of CMOS-compatible digital devices through the user board.

## Developing with RabbitCores

RabbitCores mount directly onto a user-designed motherboard, and can interface with CMOS-compatible digital devices via the user's motherboard. Programs are developed with our industry-proven

Dynamic C development system, a C language environment that includes an editor, compiler, and in-circuit debugger. Programming is easy with hundreds of samples and libraries that are pre-developed, for a user to be up and running in no time. No in-circuit emulator is required, no third party tools needed. Dynamic C ensures optimal support for Rabbit 2000-based solutions. Dynamic C enhanced compiler generates smaller code, support for far pointers and far data for easy access to external memory devices, improvements to AES encryption libraries, and a new I/O configuration utility that helps assign pin functions and guides those selections so that conflicts can be avoided.



RCM2100 RabbitCore Specifications				
Features	RCM2100	RCM2110	RCM2120	RCM2130
Microprocessor	Rabbit® 2000 @ 22.1 MHz			
Ethernet Port	10Base-T, RJ-45, 2 LEDs		None	
Flash Memory	512K	256K	512K	256K
SRAM	512K	128K	512K	128K
Backup Battery	Connection for user-supplied backup battery (to support RTC and SRAM)			
General-Purpose I/O	34 parallel I/O lines grouped in five 8-bit ports (and shared with serial ports): <ul style="list-style-type: none"> <li>• 20 configurable I/O</li> <li>• 8 fixed inputs</li> <li>• 6 fixed outputs</li> </ul>		40 parallel I/O lines grouped in five 8-bit ports (and shared with serial ports): <ul style="list-style-type: none"> <li>• 26 configurable I/O</li> <li>• 8 fixed inputs</li> <li>• 6 fixed outputs</li> </ul>	
Additional Inputs	2 startup mode (for master/slave), reset			
Additional Outputs	Status, clock, watchdog, reset			
Memory, I/O Interface	13 address lines, 8 data lines, I/O read/write, buffer enable			
Serial Ports	Four 5 V CMOS-compatible ports. Two ports are configurable as clocked ports; one is a dedicated RS-232 programming port.			
Serial Rate	Maximum burst rate = CLK/32 Maximum sustained rate = CLK/64			
Slave Interface	A slave port allows the RCM2100 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			
Power	4.75 V to 5.25 V DC, 140 mA			
Operating Temperature	-40°C to +70°C		-40°C to +85°C	
Humidity	5% to 95%, noncondensing			
Connectors	Two IDC headers 2 × 20, 2 mm pitch			
Board Size	2.00" × 3.50" × 0.86" (51 mm × 89 mm × 22 mm)		2.00" × 3.50" × 0.5" (51 mm × 89 mm × 13 mm)	
Pricing				
Pricing (qty. 1/100)	\$89 / \$69	\$59 / \$49	\$69 / \$55	\$49 / \$39
Part Number	20-101-0434	20-101-0435	20-101-0436	20-101-0446
Development Kit	\$279			
Part Number	U.S. 101-0451		Int'l 101-0452	