



# RCM3700 RabbitCore™

## Microprocessor Core Module

The RCM3700 RabbitCore™ Family is the lowest priced Rabbit 3000® microprocessor based core module designed for Ethernet/Internet applications. The RCM3700 features 512K Flash / 512K SRAM or 256K Flash / 256K SRAM, 4 serial ports, and an extremely small footprint (2.95" × 1.20" / 75 × 30 mm). The RCM3710 is the least expensive of the Ethernet/Internet enabled Rabbit 3000 microprocessor based RabbitCores starting at \$32, qty. 100. The development kit price starts at \$199. Extensive demo programs and software application templates make it easy to get the RCM3700 up and running in record time. Software bundles added to the development kit enable rapid development of secure web browser interfaces for embedded system control.

### RabbitWeb: HTTP/HTML Rapid Web Development Extension for Embedded Devices

- Read and write program variables remotely, while eliminating complex CGI programming
- Easily create controls such as pull-down menus or control buttons
- Ensure valid input values and proper user authorization
- Elegantly indicate input errors for easy correction
- 10X reduction in CGI programming and debugging time

### File Allocation Table (FAT) File System: Ready to Run Flash Based File System

- Works with Dynamic C® HTTP server to reliably update content
- Reliable storage: data bases and web pages
- Supports battery backed wear-reducing cache system to protect file system during power loss

### Secure Socket Layer (SSL): HTTPS Security for 8-Bit Embedded Devices

- Fast processing of complex encryption algorithms: up to 120 Kbits/sec
- Supports HTTPS with SSL version 3 and Transport Layer Security (TLS) version 1
- Royalty and license free with digital certificate creation utility
- Secure existing web application in minutes with < 10 lines of code

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.

### Features

- Powerful Rabbit 3000 microprocessor
- Small Footprint
- Up to 512K Flash / 512K SRAM
- 33 digital I/O, alternate I/O bus
- 4 serial ports capable of (IrDA, HDLC, asynch, sync, SPI)

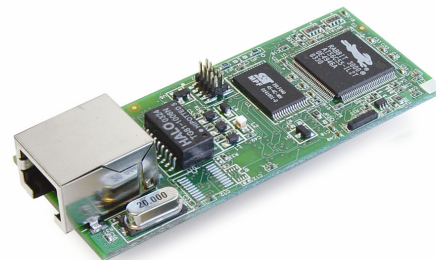
### Design Advantages

- Low-cost solution
- Ready-made platform for fast time-to-market, up to 3 months design integration timesavings.
- Compact size

### Applications

- Remote Data Logging
- OEM Serial to Ethernet products

## RCM3700



Actual Size  
2.95" × 1.20" × 0.89"  
(75 × 30 × 23 mm)

## RabbitCore RCM3700 Specifications & Features

FEATURE	RCM3700	RCM3710	RCM 3720
Microprocessor	Rabbit 3000A at 22.1 MHz		
Ethernet Connectivity	10Base-T, RJ-45		
Flash	512K	256K	512K
SRAM	512K	128K	256K
Serial Flash	1MB		
Backup Battery	Connection for user-supplied battery		
General-Purpose I/O	33 digital I/O <ul style="list-style-type: none"> <li>▪ 31 configurable I/O</li> <li>▪ 2 fixed outputs</li> </ul>		
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"> <li>▪ 4 configurable as asynchronous (with IrDA)</li> <li>▪ 3 as clocked serial (SPI) and 1 as HDLC (with IrDA), or 1 SPI and 2 SDLC/HDLC</li> </ul> 1 asynchronous serial port dedicated for programming		
Power	Input : 4.75-5.25 V DC, 100 mA @ 22.1 MHz ; 78 mA @ 11.06 MHz		
Operating Temp.	-40°C to +70°C		
Humidity	5-95%, noncondensing		
Connectors	Single 2 x 20, 0.1" (2.54 mm) header		
Board Size	2.95" x 1.20 " x 0.89" (75 x 30 x 23 mm)		
Part Number	101-0674	101-0675	101-0961
Secure Embedded Web Kit	\$699		
Part Number	U.S. 101-0897		Int'l 101-0898
Development Kit			
Part Number	U.S. 101-0680	Int'l 101-0681	U.S. 101-0963 Int'l 101-0964
RabbitWeb Software Module			
Part Number	Shipped CD 101-0900	Download 101-0910	
FAT File System Software Module			
Part Number	Shipped CD 101-0905	Download 101-0916	
SSL Software Module			
Part Number	Shipped CD 101-0896	Download 101-0895	

**Development Kit** includes:

- RCM3700 or RCM3720 RabbitCore
  - 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

**Secure Embedded Web Application Kit** comes complete with: SSL, RabbitWeb, and FAT File System, software modules in addition to all the above.

Programmed with Rabbit Semiconductor's Dynamic C®, the RCM3700 executes math, logic, and I/O very quickly. The Rabbit 3000 microprocessor, RCM3700, 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, including royalty-free TCP/IP stack with source code.