



Secure Embedded Web Application Kit

Rapidly develop secure web interfaces for your embedded systems

As more embedded applications feature access via the Internet, secure transmission of data is growing increasingly critical. The Secure Embedded Web Application Kit provides optimized software development tools to easily build secure web interfaces for your new and existing applications. Built around the RCM3700 RabbitCore powered by the Rabbit3000 microprocessor, the Secure Embedded Web Application Kit offers Secure Socket Layer (SSL), which implements a 128-bit lock and key solution to encrypt data transfers. Software modules included in the Secure Embedded Web Application 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)

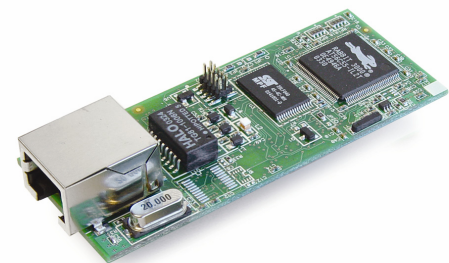
Design Advantages

- 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"> ▪ 31 configurable I/O ▪ 2 fixed outputs 		
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"> ▪ 4 configurable as asynchronous (with IrDA) ▪ 3 as clocked serial (SPI) and 1 as HDLC (with IrDA), or 1 SPI and 2 SDLC/HDLC 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)		
Pricing (qty. 1/100/1000)	\$59/49/42	\$49/39/32	\$43/35/30
Part Number	101-0674	101-0675	101-0961
Secure Embedded Web Kit	\$699		
Part Number	U.S. 101-0897		Int'l 101-0898

Secure Embedded Web Application Kit includes:

- RCM3700 RabbitCore
 - Development board with prototyping area
 - AC adapter (U.S./Canada only)
 - Dynamic C development system (not a trial version) and complete documentation on CD-ROM
- SSL, RabbitWeb, and Fat File System software modules.
 - Serial cable for programming and debugging
 - *Getting Started* manual

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.