RCM3365 RabbitCore® Series

Microprocessor Core Module

Key Features

- Rabbit® 3000 microprocessor @ 44.2 MHz
- 32 MB NAND Flash
- Supports up to 128 MB of hot-swappable memory
- 512K Flash/512K SRAM
- 10/100Base-T, RJ-45 port
- 52 parallel digital I/O
- 6 serial ports
- 3.3 V (with 5 V-tolerant I/O)
- Small footprint

Design Advantages

- Ideal for network-enabling security and access systems, remote automation, data logging, and industrial controls
- Plenty of storage with safe secure firmware and data transfers
- Complete microprocessor, on-board memory, royalty-free TCP/IP stack and hundreds of sample programs reduces time-to-market by months

Applications

- Network-enabling security
- Access systems
- Building automation
- HVAC systems
- Industrial controls

RCM3365 RabbitCore Series — Removable - Memory Core Module

The RCM3365 and RCM3375 RabbitCore modules present a new form of embedded flexibility with removable "hot-swappable" memory cards. Supporting an on-board 32 MB NAND Flash as well as memory cards of up to 128 MB, these RabbitCore modules are ideal for data intensive applications requiring low-power operation.

Derived from industrial client feedback and combining traditional RabbitCore product strengths into one device, the RCM3365 takes microprocessor core modules to the next level.
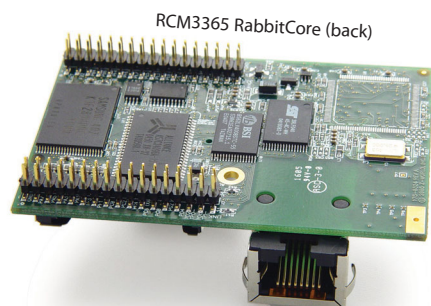
RabbitCores mount directly on a user-designed motherboard and act as the controlling microprocessor for the user's system. RabbitCores can interface with all manner of CMOS-compatible digital devices through the user's motherboard.

Programs are developed with our industry proven Dynamic C® integrated development environment, a C language software package that includes an editor, compiler and in-circuit debugger. Efficient hardware and software integration facilitates rapid design and development. 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

RABBIT™

www.rabbit.com

provided, along with royalty-free TCP/IP stack with source. To enable security features, there is an available Embedded Security Pack, which includes the SSL/TLS software module and the AES software module.

RCM3365 RabbitCore (back)

RCM3365 RabbitCore® Specifications		
Features	RCM3365	RCM3375
Microprocessor	Low-EMI Rabbit® 3000 @ 44.2 MHz	
EMI Reduction	Spectrum spreader for reduced EMI (radiated emissions)	
Ethernet Port	10/100Base-T, RJ-45, 3 LEDs	
SRAM	512K program (fast SRAM) + 512K data	
Flash Memory (Program)	512K	
Flash Memory (Mass Data Storage)	32 MB (fixed) + xD-Picture Card with up to 128 MB (NAND flash)	xD-Picture Card with up to 128 MB (NAND flash)
LED Indicators	ACT (activity) LINK (link) SPEED (on for 100Base-T Ethernet connection) FM (flash memory, NAND) USR (user-programmable)	
Backup Battery	Connection for user-supplied backup battery (to support RTC and data SRAM)	
General-Purpose I/O	52 parallel digital I/0 lines: • 44 configurable I/O • 4 fixed inputs • 4 fixed outputs	
Additional Inputs	Startup mode (2), reset in	
Additional Outputs	Status, reset out	
External I/O Bus	Can be configured for 8 data lines and 5 address lines (shared with parallel I/O lines), plus I/O read/write	
Watchdog/ Supervisor	Yes	
Pulse-Width Modulators	4 PWM registers with 10-bit free-running counter and priority interrupts	
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	3.15–3.45 V DC 250 mA @ 44.2 MHz, 3.3 V	
Operating Temperature	0° C to +70° C	
Humidity	5% to 95%, non-condensing	
Connectors	Two 2 × 17, 2 mm pitch One 2 × 5 for programming with 1.27 mm pitch One xD-Picture Card slot (RCM3365/RCM3375)	
Serial Ports	Six 3.3 V, CMOS-compatible ports (shared with I/O) • All 6 configurable as asynchronous (with IrDA) • 4 configurable as clocked serial (SPI) • 2 configurable as SDLC/HDLC • 1 asynchronous serial port dedicated for programming	
Serial Rate	Maximum asynchronous baud rate = CLK/8	
Slave Interface	A slave port allows the RCM3365/RCM3375 to be used as an intelligent peripheral device slaved to a master processor, which may either be another Rabbit 3000 or any other type of processor	
Real-Time Clock	Yes	
Timers	Ten 8-bit timers (6 cascadable, 3 reserved for internal peripherals), one 10-bit timer with 2 match registers	
Board Size	1.850" × 2.725" × 0.86" (47 mm × 69 mm × 22 mm)	
Pricing		
Price (Qty 1/100) Part Number	$105 / $89 20-101-1051	$98 / $79 20-101-1055
Development Kit Part Number	$399 U.S. 101-1053 Int'l 101-1054	
Embedded Security Pack	Web Download: $289 101-1238 Shipped CD: $299 101-1240	