



MiniCore™ RCM5700

Affordable Low-Profile Core Module



Description

The MiniCore™ family is ideally suited for cost sensitive applications as each module packs a rich embedded feature set on an ultra-compact mini PCI Express form factor. As an added benefit the MiniCore RCM5700 offers the lowest profile of any embedded solution giving it an unprecedented flexibility to place network connectivity into any new or existing application. With up to 6 serial ports and 32 I/Os the RCM5700 provides a single connection point to multiple devices allowing for greater control and monitoring.

Embedded Web solutions

With an embedded web server the RCM5700 family of products gives users greater control and monitoring capabilities from virtually any where in the world. RabbitWeb drastically reduces development efforts by eliminating the need for complex CGI programming. With only a few lines of code you can easily control outputs and monitor inputs of any MiniCore device via a web page. There is also ready support for other web based programming languages such as AJAX and JavaScript.

Pin compatible solution

The MiniCore RCM5700 modules are pin compatible with the current RCM5600W Wi-fi products and future versions of MiniCore products. This gives any application the flexibility for interchangeable networking options. The RCM5700 series also has the option to include the RJ-45 jack ideal for getting your products to market quicker.

Effective Network Management

The MiniCore allows for remote firmware updates on the RCM5750 and RCM5760 which not only reduces maintenance costs but with increased memory configurations the modules can also function as compact data loggers.

The use of Digi's ADDP protocol allows any authorized user to discover any Rabbit device on a network. ADDP is now included with Dynamic C 10.60 so to request a copy of the software please use this link:
<http://www.rabbit.com/support/downloads/dc/dc10.shtml>



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Developing with MiniCores

Rabbit's MiniCore modules are designed to facilitate rapid development and implementation of embedded systems. Develop programs with our industry-proven [Dynamic C® integrated development environment](#), a C-language environment that includes an editor, linker, loader and compiler.

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 accelerates hardware and software integration. Rabbit provides an extensive library of drivers and sample programs, along with royalty-free TCP/IP stack with source.

There are two options for a development kit to get you started developing and testing software. The Standard Development Kit has the essentials that you need to design your own microprocessor-based system, and includes a complete Dynamic C software development system. The RCM5700 Standard Development Kit also contains an Interface Board that will allow you to evaluate the RCM5700.

The Deluxe Development kit includes Digital I/O and Serial Communication accessory boards to help illustrate the RCM5700 features by running additional 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, 5 V DC, 2 A (includes Canada/Japan/U.S., Australia/N.Z., U.K., and European style plugs).
- Digital I/O and Serial Communication accessory boards for use with certain sample programs.
- CAT 5/6 Ethernet cable



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MiniCore™ RCM5700 Specifications

Features	RCM5700	RCM5710	RCM5750	RCM5760
Microprocessor	Rabbit® 5000 @ 50MHz			
Connectivity	10/100Base-T (Ethernet Signals Only)	10/100Base-T w/RJ-45 connector	10/100Base-T (Ethernet Signals Only)	10/100Base-T w/RJ-45 connector
Flash Memory (code)	1 MB parallel flash			
Program Execution SRAM	128K internal to Rabbit 5000		128KB internal to Rabbit 5000; 512K external Fast SRAM	
Battery-Backable SRAM	None			
Mass Storage Option	None		2 MB serial flash	
Backup Battery	Connection for user-supplied backup battery (to be used for RTC)			
General Purpose I/O	Up to 32 parallel digital I/O			
Serial Ports	6 high-speed, CMOS-compatible ports: <ul style="list-style-type: none"> • All 6 configurable as asynchronous (with IrDA), 4 as clocked serial (SPI), and 2 as SDLC/HDLC • 1 asynchronous clocked serial port shared with programming port 			
Serial Rate	Max. async = CLK/8, Max. sync = CLK/2			
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			
Power	3.15 - 3.45 V DC 70 mA @ 3.3 V (typical — without Ethernet) 200 mA @ 3.3 V (typical — with Ethernet)			
Operating Temperature	-40° C to +85° C			
Humidity	5% to 95% non-condensing			
Connectors	Edge connectors for 52-pin Mini PCI Express socket	Edge connectors for 52-pin Mini PCI Express socket RJ45 (Ethernet)	Edge connectors for 52-pin Mini PCI Express socket	Edge connectors for 52-pin Mini PCI Express socket , RJ45 (Ethernet)
Board Size	1.20" × 2.00" × 0.12" (30 mm × 51 mm × 3mm)			



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