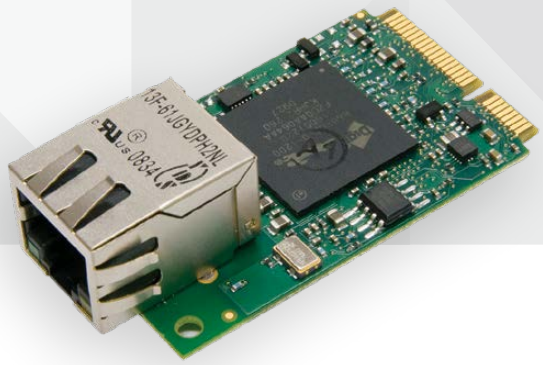
HIGH PERFORMANCE
EMBEDDED DEVICE
SERVERS



DIGI MINICORE RCM6700 SERIES

An easily scalable cloud-computing infrastructure, extending remote device control and management with tremendous savings in development cost

The ultra-compact MiniCore RCM6700 is ideal for today's smart energy initiatives as well as other applications that require a cost effective web-enabled device server. The RCM6700 series provides up to 6 serial ports, configurable I/O and control features such as PWM. Furthermore, the RCM 6700 series offers a much greater feature set then comparable device servers, while at a lower cost.

The RCM6700 series is fully programmable, taking advantage of processor peripherals. The programming environment, Dynamic C, is an ANSI C compatible development environment that provides a royalty free TCP/IP stack and Wi-Fi support.

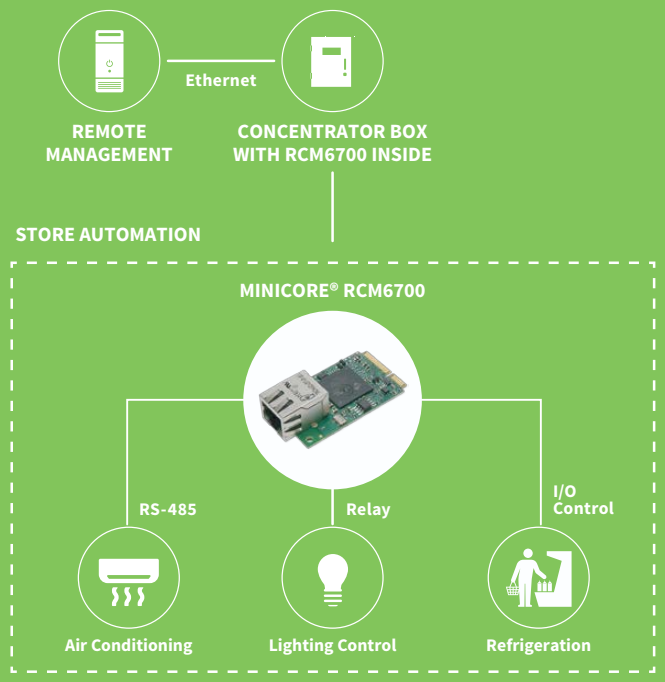
Various protocol support such as ZigBee, Modbus and BACnet are also available to help reduce development costs and time-to-market.

In additon to proccessor and protocol support, Dynamic C supports Digi Remote Manager®. Digi Remote Manager simplifies device deployment by allowing devices to easily pass through firewalls, eliminating server maintainance and costly on-site visits. Digi Remote Manager supports remote firmware updates and data storage for greater device control and monitoring.

BENEFITS

- Rabbit® 6000 running up to 200 MHz
- 10/100 Ethernet and pin-compatible with MiniCore 802.11b/g wireless modules
- 1 MB of internal RAM for program storage
- Up to 4 MB of serial Flash for data logging or web page storage
- Digi Remote Manager provides cost-effective cloud computing for remote device management
- Seamless migration to chip level design
- 5X greater throughput performance

APPLICATION EXAMPLE



RELATED PRODUCTS



SOFTWARE

The Dynamic C® integrated development environment reduces the time and effort to write real-time software for embedded systems that use a Rabbit microprocessor, enabling easy development of a wide range of applications.

Rabbit products and Dynamic C integrate editing, compiling, linking, loading and debugging into a single development environment as one function. There are no compatibility issues when moving from one stage to another. Once the design is complete, you can debug it on the target hardware and see how your code works. Because it is a dialect of C, the Dynamic C language has all the statements and constructions of traditional C, plus extensions that make it easier to write reliable, real-time multi-tasking software. The Dynamic C integrated development environment allows for easy hardware migration, moving from a single-board computer to chip level production.

Dynamic C also includes highly useful software components that can add functionality and value to your applications. This functionality includes web server capability, filing system, remote firmware updates, and wired and wireless security. Compatible software components are listed below.

SOFTWARE COMPONENTS

COMPONENT	DESCRIPTION
RABBITWEB	System of HTML tags used to easily create web interfaces to monitor and control embedded applications
REMOTE PROGRAM UPDATE (RPU)	Allows for remote firmware updates from anywhere in the world using an Internet connection
FILE ALLOCATION TABLE (FAT)	Popular network-accessible file system for flashed based memories
SECURE SOCKETS LAYER (SSL) / TRANSPORT LAYER SECURITY (TLS)	The industry standard for web security in embedded applications
ADVANCED ENCRYPTION STANDARD (AES)	128-bit encryption for transferring sensitive data

RABBITCORE® RCM6700 DEVELOPMENT KITS





THE RCM6700 STANDARD DEVELOPMENT KIT CONTENTS:

- RCM6700 module
- Interface board with standoffs/connectors
- Prototyping board with standoffs/connectors
- USB cable to program RCM5700 via interface board
- Dynamic C, including product documentation on disk
- Getting Started instructions
- Registration card

THE RCM6700 DELUXE DEVELOPMENT KIT CONTENTS:
Includes everything in the Standard Development Kit, plus the following items:

- Universal AC adapter, 5VDC, 2 A (includes Canada/Japan/U.S., Australia/N.Z., U.K., and European style plugs) Development Kits sold in North America may contain an AC adapter with only a North American style plug
- Digital I/O and serial communication accessory boards for use with certain sample programs
- CAT 5/6 Ethernet cable and DB-9 to 10-pin header serial cable
- Rabbit 5000 Processor Easy Reference poster

SPECIFICATIONS	RCM6700	RCM6710	RCM6750	RCM6760
FEATURES				
MICROPROCESSOR	Rabbit® 6000 up to 200 MHz			
NETWORK INTERFACE	10/100Base-T (Ethernet signals only)	10/100Base-T RJ-45 connector	10/100Base-T (Ethernet signals only)	10/100Base-T RJ-45 connector
FLASH MEMORY (CODE AND FILE SYSTEM)	1 MB serial Flash		4 MB serial Flash	
INTERNAL SRAM (CODE AND DATA)	1 MB			
BATTERY-BACKABLE SRAM	32 KB (Internal)		32 KB (Internal), 1 MB (External)	
FLEXIBLE INTERFACE MODULE(FIM)	400 MHz DRPIC165X CPU 1k program/192 bytes data RAM			
MASS STORAGE	On-board serial Flash			
GENERAL-PURPOSE I/O	Up to 32 parallel digital I/O			
SERIAL PORTS	6 high-speed, CMOS compatible ports, 4 configureable as clocked serial (SPI)			
SERIAL RATE	Maximum asynchronous baud rate = CLK/8			
REAL-TIME CLOCK	Yes			
TIMERS	Ten 8-bit timers (6 cascadable from the first) , one 10-bit timer with 2 match 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			
I^2C	1 channel, standard (100 Kbits/s) and (400 Kbits/s) clock modes			
QUADRATURE DECODER	2-channel quadrature decoder accepts inputs from external incremental encoder modules			
INPUT CAPTURE	2-channel input capture can be used to time input signals from various port pins			
POWER - WITH ETHERNET	210 mA @ 3.3V	250 mA @ 3.3V	250 mA @ 3.3V	260 mA @ 3.3V
POWER - WITHOUT ETHERNET	120 mA @ 3.3V	130 mA @ 3.3V	130 mA @ 3.3V	140 mA @ 3.3V
OPERATING TEMPERATURE	-40° C to +85° C			
SUPPORTED PROTOCOLS	HTTP, HTTPS, SSLv3, DHCP, UDP, TCP, SNMP, Telnet, FTP, TFTP, SMTP, POP3			
HUMIDITY	5% to 95%, non-condensing			
CONNECTORS - HEADERS	52-pin Mini PCI Express	52-pin Mini PCI Express RJ-45 10/100Base-T connector	52-pin Mini PCI Express	52-pin Mini PCI Express RJ-45 10/100Base-T connector
BOARD SIZE	1.20” x 2.00” x 0.12” (30 mm x 51 mm x 3 mm)	1.20” x 2.00” x 0.70” (30 mm x 51 mm x 18 mm)	1.20” x 2.00” x 0.27” (30 mm x 51 mm x 7 mm)	1.20” x 2.00” x 0.73” (30 mm x 51 mm x 19 mm)
PRODUCT WARRANTY	1 year			

PART NUMBERS	DESCRIPTION
20-101-1318	RCM6700
20-101-1319	RCM6710
20-101-1320	RCM6750
20-101-1321	RCM6760
101-1326	RCM6700 Deluxe Development Kit
101-1327	RCM6700 Standard Development Kit

DIGI SERVICE AND SUPPORT / You can purchase with confidence knowing that Digi is always available to serve you with expert technical support and our industry leading warranty. For detailed information visit www.digi.com/support.

© 1996-2019 Digi International Inc. All rights reserved.
All trademarks are the property of their respective owners.

91001616
B5/319

DIGI INTERNATIONAL WORLDWIDE HQ
877-912-3444 / 952-912-3444 / www.digi.com

DIGI INTERNATIONAL GERMANY
+49-89-540-428-0

DIGI INTERNATIONAL JAPAN
+81-3-5428-0261 / www.digi-intl.co.jp

DIGI INTERNATIONAL SINGAPORE
+65-6213-5380

DIGI INTERNATIONAL CHINA
+86-21-50492199 / www.digi.com.cn