

# MiniCore® RCM6700 Series

High Performance Embedded Device Servers

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



## Overview

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 than 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 addition to processor and protocol support, Dynamic C supports the iDigi® platform. The iDigi platform simplifies device deployment by allowing devices to easily pass through firewalls, eliminating server maintenance and costly on-site visits. The iDigi platform supports remote firmware updates and data storage for greater device control and monitoring.

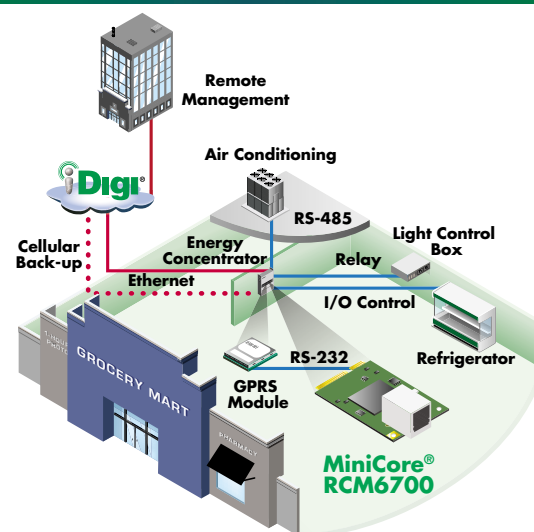
### Development Kit

The RCM6700 Development Kit includes everything you need to get started

**\$99**



### Application Highlight



**Potential Applications:** Smart metering, energy management, building automation & security, point-of-sale, medical, motor control

### Features/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
- Flexible Interface Module (FIM) provides protocol support for CANbus or SD/SDIO
- iDigi platform provides cost-effective cloud computing for remote device management
- Seamless migration to chip level design
- 5X greater throughput performance



| Specifications                      | RCM6700                                                                                                              | RCM6710                                                    | RCM6750                                         | RCM6760                                                    |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-------------------------------------------------|------------------------------------------------------------|
| Features                            |                                                                                                                      |                                                            |                                                 |                                                            |
| Microprocessor                      | Rabbit® 6000 up to 200 MHz                                                                                           |                                                            |                                                 |                                                            |
| Network Interface                   | 10/100Base-T<br>(Ethernet signals only)                                                                              | 10/100Base-T<br>RJ-45 connector                            | 10/100Base-T<br>(Ethernet signals only)         | 10/100Base-T<br>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), 512 KB (External)             |                                                            |
| Flexible Interface Module(FIM)      | 400 MHz DRPIC165X CPU<br>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<br>4 channels variable-phase or synchronized PWM with 16-bit counter |                                                            |                                                 |                                                            |
| I²C                                 | 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<br>RJ-45 10/100Base-T<br>connector | 52-pin Mini PCI Express                         | 52-pin Mini PCI Express<br>RJ-45 10/100Base-T<br>connector |
| Board Size                          | 1.20" x 2.00" x 0.12"<br>(30 mm x 51 mm x 3 mm)                                                                      | 1.20" x 2.00" x 0.70"<br>(30 mm x 51 mm x 18 mm)           | 1.20" x 2.00" x 0.27"<br>(30 mm x 51 mm x 7 mm) | 1.20" x 2.00" x 0.73"<br>(30 mm x 51 mm x 19 mm)           |
| Pricing                             |                                                                                                                      |                                                            |                                                 |                                                            |
| Price (qty. 1/100)<br>Part Number   | \$35 / \$29.50<br>20-101-1318                                                                                        | \$45 / \$39.50<br>20-101-1319                              | \$50 / \$44.50<br>20-101-1320                   | \$60 / \$54.50<br>20-101-1321                              |
| Standard Development Kit            | \$99<br>101-1327                                                                                                     | N/A                                                        | N/A                                             | N/A                                                        |
| Deluxe Development Kit              | \$199<br>101-1326                                                                                                    | N/A                                                        | N/A                                             | N/A                                                        |

Visit [www.digi.com](http://www.digi.com) for part numbers.

**DIGI SERVICE AND SUPPORT** - You can purchase with confidence knowing that Digi is here to support you with expert technical support and a strong one-year warranty. [www.digi.com/support](http://www.digi.com/support)

**Digi International**  
877-912-3444  
952-912-3444  
[info@digi.com](mailto:info@digi.com)

**Digi International  
France**  
+33-1-55-61-98-98  
[www.digi.fr](http://www.digi.fr)

**Digi International  
KK**  
+81-3-5428-0261  
[www.digi-intl.co.jp](http://www.digi-intl.co.jp)

**Digi International  
(HK) Limited**  
+852-2833-1008  
[www.digi.cn](http://www.digi.cn)



91001616  
B1/111

**BUY ONLINE • [www.digi.com](http://www.digi.com)**

© 2010-2011 Digi International Inc.  
All rights reserved. Digi, Digi International, the Digi logo, iDigi, the Making Wireless M2M Easy logo, Rabbit, RabbitCore and Dynamic C are trademarks or registered trademarks of Digi International Inc. in the United States and other countries worldwide. All other trademarks are the property of their respective owners. All information provided is subject to change without notice.

