

MICROPROCESSOR CORE MODULE



## RABBITCORE® RCM3400 SERIES

The compact, analog-enabled RabbitCore is designed for embedded applications that require analog functionality

The RabbitCore RCM3400 series, featuring the Rabbit® 3000 microprocessor, is designed for embedded control and monitoring applications requiring analog functionality. Its small size and ease of use when paired with Dynamic C® allow engineers to develop a control and monitoring solution for many of today's embedded applications.

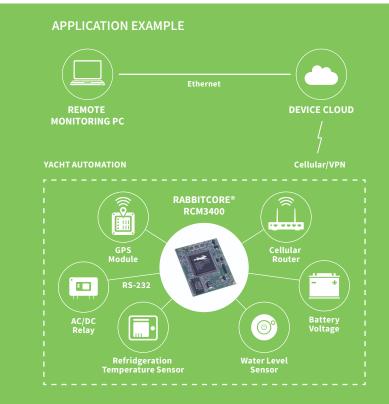
The Ethernet-ready RCM3400 series comes pre-assigned with a MAC ID, along with a development board 10Base-T reference design. Built-in low EMI features, including a clock spectrum spreader, practically eliminate EMI problems, helping to pass CE and RF emissions tests.

Rabbit hardware and Dynamic C are designed in a complementary fashion for maximum performance and ease of use in embedded systems. The additional software components in Dynamic C allow you to add functionality for embedded application customization.

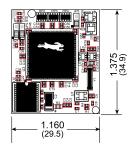
## **BENEFITS**

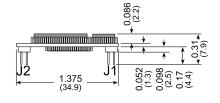
- Rabbit 3000 microprocessor at 30 MHz
- Up to 512K Flash/512K SRAM
- 8 channel 12-bit A/D with programmable gain
- 47 digital I/O and 5 serial ports (IrDA, HDLC, asynch, SPI)
- MAC ID installed
- Compact size simplifies integration
- Ready-made platform for fast time-to-market, up to 3 months of design integration time savings
- Low-cost embedded microprocessor module

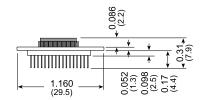
## RELATED PRODUCTS RabbitCore® RCM3000 Series RCM3100 Series RCM3600 Series Price RCM3600 Series RCM3600 Series Price RCM3600 Series RCM3600 Series RCM3600 Series Price RCM3600 Series RCM3600 Series Price RCM3600 Series RCM3600 Series Price RCM3600 Series Price



| SPECIFICATIONS                                                                                            | RCM3400                                                                                                                                                                                                                          | RCM3410 |
|-----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| FEATURE                                                                                                   |                                                                                                                                                                                                                                  |         |
| MICROPROCESSOR                                                                                            | Rabbit® 3000 at 30 MHz                                                                                                                                                                                                           |         |
| FLASH MEMORY                                                                                              | 512K                                                                                                                                                                                                                             | 256K    |
| SRAM                                                                                                      | 512K                                                                                                                                                                                                                             | 256K    |
| BACKUP BATTERY                                                                                            | Connection for user-supplied backup battery (to support RTC and SRAM)                                                                                                                                                            |         |
| ANALOG INPUTS - A/D CONVERTER RESOLUTION - A/D CONVERSION TIME (INCLUDING 120 MS RAW COUNT AND DYNAMIC C) | 8 channels single-ended or 4 channels differential Programmable gain 1, 2, 4, 5, 8, 10, 16, and 20 V/V                                                                                                                           |         |
|                                                                                                           | 12 bits (11 bits single-ended)                                                                                                                                                                                                   |         |
|                                                                                                           | 180 µs                                                                                                                                                                                                                           |         |
| GENERAL-PURPOSE I/O                                                                                       | 47 parallel digital I/0 lines:  • 41 configurable I/O  • 3 fixed inputs  • 3 fixed outputs                                                                                                                                       |         |
| ADDITIONAL INPUTS                                                                                         | Startup mode (2), reset in, CONVERT                                                                                                                                                                                              |         |
| ADDITIONAL OUTPUTS                                                                                        | Status, reset out, VREF                                                                                                                                                                                                          |         |
| AUXILIARY I/O BUS                                                                                         | Can be configured for 8 data lines and 6 address lines (shared with parallel I/O lines), plus I/O read/write                                                                                                                     |         |
| SERIAL PORTS                                                                                              | 5 shared high-speed, CMOS-compatible ports:  • All 5 configurable as asynchronous, 3 as clocked serial (SPI), and 2 as SDLC/HDLC  • 1 asynchronous serial port dedicated for programming  • Support for MIR/SIR IrDA transceiver |         |
| SERIAL RATE                                                                                               | Maximum asynchronous baud rate = CLK/8                                                                                                                                                                                           |         |
| SLAVE INTERFACE                                                                                           | A slave port allows the RCM3400 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), one 10-bit timer with 2 match registers                                                                                                                                                         |         |
| WATCHDOG/SUPERVISOR                                                                                       | Yes                                                                                                                                                                                                                              |         |
| PULSE-WIDTH MODULATORS                                                                                    | 10-bit free-running counter and four pulse-width registers                                                                                                                                                                       |         |
| 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                                                                                                     | 3.0-3.45 VDC @ 29.4 MHz, 2.8-3.45 VDC @ 14.7 MHz 97 mA @ 3.3V, 29.4 MHz; 57 mA @ 3.0V, 14.7 MHz                                                                                                                                  |         |
| OPERATING TEMPERATURE                                                                                     | -40° C to +85° C                                                                                                                                                                                                                 |         |
| HUMIDITY                                                                                                  | 5% to 95%, non-condensing                                                                                                                                                                                                        |         |
| CONNECTORS                                                                                                | Two 2 × 17, 1.27 mm pitch                                                                                                                                                                                                        |         |
| BOARD SIZE                                                                                                | 1.160" × 1.375" × 0.31" (29.5 mm × 34.9 mm × 7.9 mm)                                                                                                                                                                             |         |







| PART NUMBERS | DESCRIPTION |
|--------------|-------------|
| 20-101-0561  | RCM3400     |
| 20-101-0562  | RCM3410     |

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

© 1996-2016 Digi International Inc. All rights reserved. All trademarks are the property of their respective owners.

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

DIGI INTERNATIONAL FRANCE

+33-1-55-61-98-98 / www.digi.fr

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



## **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for System-On-Modules - SOM category:

Click to view products by Digi International manufacturer:

Other Similar products are found below:

COMX-CORE-310 COMX-P4040-4G-ENP2 PICOIMX6U10R1GBNI4G PICOIMX6U10R1GBNI4GBW RM-F6SO1-SMC MC27561-TIGER MC27561-LION AM335XBBLK-SYSTEM MC27561-FOX CC-WMX6UL-SMPL CB-52-PUS-110-SX BD63725BEFV-EVK-002 A00150 COMX\_P4080 A20-SOM-EVB RK3188-SOM RK3188-SOM-4GB PICOIMX6Q10R1GBNI4G PER-TAICX-A10-001 PER-TAIX2-A10-2280 EDL-mPCIe-MA2485 SOM-5897C7-U0A1E SOM-5897C7-U8A1E SOM-6896C7-U2A1E Q7M311-N4200-4GB SCM180-Dual-2G\_Industrial SCM180-Quad-4G-Industrial 3354-HX-X38-RC 5728-PJ-4AA-RC 6455-JE-3X5-RC ET876-X7LV IFC6301-10-P2 IFC6502-00-P1 IFC67A1-00-P1 iW-G27M-SCQM-4L008G-E032G-BIG iW-G33M-SCMQ-4L002G-E008G-BII CS-DEPTHAI-04 MYC-C8MMQ6-8E2D-180-C MYC-Y7Z020-4E512D-766-I MYD-C4378-4E512D-100-I MOD5213-100IR MODM7AE70-100IR A20-SOM204-1GS16ME16G-MC AM3352-SOM-EVB BS2-IC 102110278 SLS16Y2\_792C\_256R\_256N\_0SF\_I SLS12RT52 528C 0R 40SPI 0SF I SLS12RT52 528C 0R 40SPI 0SF I