



8051 Microcontroller Kits

AT89STK-06 Starter Kit

The AT89STK-06 Starter Kit is dedicated to the T89C51CC01/CC02 and AT89C51CC03 CAN microcontrollers. The AT89STK-06 can also be used for AT89C51AC3, T89C51AC2 and T89C5115 (Flash microcontroller with ADC).

For T89C51CC02 CAN and T89C5115, optional adaptor is required: CANADAPT28. The board is designed to allow an easy evaluation of the product using demonstration software.

AT89STK-06-ND Starter Kit..... \$150.00

ATWEBEVK-01 Evaluation Kit

The @Web Evaluation Kit allows the user to evaluate the full range of options available in integrating TCP/IP software into Atmel C51 Flash MCUs. Once the user has completed the demo he will be able to Read and Write information to and from the Flash memory of the microcontroller through the Internet.

Moreover, the user will see how all of the information recorded on the microcontroller is available using standard PC tools such as a Web browser, Hyperterminal, and Dial-up Networking.

Kit Includes:

- Evaluation Board with T89C51AC2 Controller • External speaker • Serial RS-232 Null Modem Cable • 9V battery and cable • CD-ROM including documentation and software

ATWEBEVK-01-ND \$266.00

AT89C5131 MCU/USB Starter Kit

This starter kit is designed to help developers using AT89C5131 USB Flash microcontroller. The kit comprises an evaluation board, the In-System Programming Tool (FLIP), and a HID (Human Interface Device) keyboard demonstration program.

AT89STK-05-ND Starter Kit for AT89C5131..... \$150.00

AT89STK-10 Quick Start

This kit includes an evaluation board dedicated to the AT89C5130/31A and AT8x5122D microcontrollers, enabling you to run an application based on the Mass Storage Package.

Kit Includes:

- Flash Evaluation Board • Nand Flash memory • DataFlash Card • USB products CD-ROM

AT89STK-10-ND..... \$150.00

AT89STK-11 Starter Kit

The AT89STK-11 Starter Kit is dedicated to the In-System Programmable Flash C51 microcontrollers. The board is designed to allow an easy evaluation of the product using demonstration software.

AT89STK-11-ND — RoHS Compliant..... \$150.00

ATOCD51 Emulator System

The AT890CD emulator system is designed to allow an easy connection to Atmel AT8x51 microcontrollers and uses the USB interface (standard USB B plug to A plug cable) connection to PC platforms. The Software package is fully integrated into Keil@µvision IDE.

AT890CD-01-ND — RoHS Compliant..... \$150.00



89C51SND1 MP3 Player Emulator

The AT89EMK-01 Development System for Atmel 89C51SND1 Microcontrollers derivatives with 6/12 clocks/cycle is very effective in meeting the diverse demands of emulation operations.

Features: • Emulates 89C51SND1 Derivatives with 6/12 Clocks/Cycle • 62K Code Memory • Real-Time Emulation • Frequency up to 20MHz/3V • ISP and X2 Mode Support • MS-Windows Debugger for C and Assembler • Keil µVision2 Debugger Compatible • QFP and PLCC Emulation Headers • ISP Programmer Included • Serially Linked to PC at 115Kbaud

AT89EMK-01-ND Emulator for MP3 SND1 MCU..... \$1531.01



Smart Card Development Kits

AT89RFD-02: The USB Smart Card Reader reference design allows to quickly read and write any kind of smart card through a USB link. It is based on a single-chip turnkey solution which combines the Atmel AT83C220K/AT83C230K microcontrollers and OMNIKEY® Firmware (smart@key and smart@link).

AT89RFD-05: The Serial Smart Card Reader reference design allows to quickly read and write any kind of smart card through a serial link. It is based on a single-chip ready-to-use solution which combines Atmel AT83C21GC microcontroller with Gemplus GemCore® Serial Lite Pro Software.

AT89RFD-06: The PCMCIA Smart Card Reader reference design allows to quickly read and write any kind of smart card through a PCMCIA link. It is based on a single-chip turnkey solution which combines the Atmel AT83C25OK microcontroller and OMNIKEY smart@bus Firmware.

AT89RFD-02-ND AT83C220K/230K Reference Design..... \$250.00

AT89RFD-05-ND AT83C21GC Reference Design..... \$250.00

AT89RFD-06-ND PCMCIA Reader Reference Design..... \$250.00

AT8x5122/23 Smart Card Reader Starter Kit

The Evaluation Board included in AT89STK-03 Starter Kit dedicated to the AT8x5122/23 Smart Card Reader microcontrollers. This board is designed to allow an easy evaluation of the product using demonstration software.

Features: The AT89STK-03-ND Evaluation Board provides the following features: • Possibility to choose between three packages: PLCC 68-pin package, VQFP 64-pin package, PLCC 28-pin package • On-board power supply circuitry with low drop regulator: From an external power connector, an external battery, and the USB line via the USB on-board connector • ISO7816 connector for Smart Card

AT89STK-03-ND Starter Kit for MCU AT8XC5122/23..... \$250.00

AT89STK-09 Evaluation Board for AT83C26 Smart Card Reader IC

The AT89STK09 is a starter kit for the AT83C26 device. The AT83C26 is a smart card reader interface with 2 DC/DC converters allowing to manage up to 5 smart cards including level shifters. This device needs TWI commands to configure its registers. This device requires a host microcontroller with one or two ISO7816 Smart Card Interfaces.

Features: • AT89STK09 board with 2 ISO7816-3 connectors and 4 SIM/SAM connectors • 2 Gemplus GemClub Smart cards • Smart Card Reader IC CD-ROM • 2 VQFP48 and 2 QFN48 samples • AT89STK09 user guide document

AT89STK-09-ND..... \$250.00



@Web Hardwired TCP/IP Ethernet Solutions

@Web LAN51H Development Kit

The @Web LAN51H Development Kit is designed for testing high-speed Internet connectivity with Atmel 80C51 Flash MCU and the WIZnet i2Chip®, a unique hardwired embedded Ethernet TCP/IP chip.

The customer can change functions and reload firmware using In-System Programming capability. Error messages can be displayed on the LCD screen, allowing easy debug of user's application. After evaluation, the drop-in network module (IIM7010) supplied in the kit can be re-used.

ATWEBDVK-02-ND \$266.00

Gateway Modules

ATWEBEVK-05-ND RS232 to Ethernet Evaluation Board..... \$190.27

ATWEBEVK-06-ND Can to Ethernet Evaluation Board..... \$239.40

@Web LAN51H Modules

Atmel provides @Web LAN51H Development Kits with additional modules directly connected to the @Web LAN51H development board. These additional modules can run the functions of either a Remote Power On-off Control, or Voice Transmission (VoIP), or Network Web Camera.

Remote Controller Features:

- On-off Control Function Using Web Server • LED On-off Control and Text LCD Display Using Web Browser 3 x 110V ~ 220V Relay Switches

Voice Transmission (VoIP) Features:

- Full-duplex Voice Transmission through Internet • Supports G723.1 Standard True Speech Voice Codec • Normal Microphone Input and Speaker Output • Audio DAC (MC745483) and DSP (CT8022A) • Included Loudspeaker Connector

Network WebCam Features:

- Four-channel Cmos Web Camera with Standard JPEG Coding • Video Coding: Hardware MFPEG Codec (LC82210 from Sanyo) • Video Mode: VGA, CIF, QCIF • CMOS Sensor: 1/3" Color CMOS Image Sensor (OV7620 from OmniVision), Maximum Frame Rate: 3fps with Standard C51

ATWEBDVK-02RC-ND LAN51H and Remote Controller Kit..... \$465.50

ATWEBDVK-02VOIP-ND LAN51H and Voice Transmission Kit..... \$665.00

ATWEBDVK-02WC-ND LAN51H and Network WebCam Kit..... \$931.00

More Product Available Online: www.digikey.com

Toll-Free: 1-800-344-4539 • Phone 218-681-6674 • Fax: 218-681-3380

(T091) 613



Digi Connect[®] SP Family

The Digi Connect SP device server delivers a powerful, compact and cost-effective off-the-shelf hardware platform for embedded networking solutions. The device server is the ideal platform for your custom web and network enabled embedded applications. Combining Digi and NetSilicon[®] technology, it eliminates the hardware design effort and delivers a true device networking solution that is powerful enough to meet your future performance requirements.

Features:

• 32-bit NET+ARM high-performance RISC processor (NS7520 55MHz) • 4MB Flash and 16MB RAM integrated • Switch-selectable RS-232/422/485 interface (DB-9M); Throughput up to 230,400 bps, 7, 8 data bits; 1, 1.5, 2 stop bits; Mark/space/even/odd parity; Full signal support with software/hardware flow control • Auto-sensing 10/100 Mbit Ethernet interface and network link

Description	Digi-Key Part No.	Price Each	Digi-International Part No.
Device Server Adapter	602-1035-ND	189.00	DC-SP-01-C
Adapter Development Kit	602-1013-ND	1495.00	DC-SP-01-GN
Adapter Development Kit (No Raven Debugger)	602-1014-ND	895.00	DC-SP-01-GN-NR
Adapter Customizable model with JTAG interface	602-1015-ND	249.00	DC-SP-01-JT

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Digi Connect[®] ME Family

The Digi Connect ME is a connector-style embedded module that enables manufacturers to keep pace with ever-evolving networking technology by easily adding secure web-enabled network connectivity to their products. The Digi Connect ME combines true plug-and-play functionality with the freedom and flexibility of complete product customization options.

Features:

• 32-bit NET+ARM high-performance RISC processor (NS7520 @ 55MHz) • Wired 10/100Base-T network interface • 1 high-speed TTL serial interface • Five shared General Purpose Input/Output (GPIO) ports • Data rate: 10/100 Mbps (auto-sensing) • 3.3VDC @ 250mA typical (825mW)

Description	Digi-Key Part No.	Price Each	Digi-International Part No.
8MB SDRAM, 2MB Flash, Std. Firmware	602-1053-ND◆	49.00	DC-ME-01T-S
8MB SDRAM, 2MB Flash, Std. Firmware, 10-pc.	602-1029-ND◆	450.00	DC-ME-01T-S-10
8MB SDRAM, 2MB Flash, Customizable	602-1054-ND◆	49.00	DC-ME-01T-C
8MB SDRAM, 2MB Flash, Customizable, 10-pc.	602-1030-ND◆	450.00	DC-ME-01T-C-10
8MB SDRAM, 4MB Flash, Customizable	602-1055-ND◆	55.00	DC-ME-01T-C
8MB SDRAM, 4MB Flash, Customizable, 10-pc.	602-1031-ND◆	500.00	DC-ME-01T-C-10
Integration Kit (for use with "S" models)	602-1057-ND◆	249.00	DC-ME-01T-KT
Development Kit (for use with "C" models)	602-1033-ND	1495.00	DC-ME-01T-GN
Development Kit without Raven Debugger (for use with "C" models)	602-1034-ND	895.00	DC-ME-01T-GN-NR
Development Kit without JTAG (for use with "C" Debugger)	602-1076-ND◆	249.00	DC-ME-01T-DB
JumpStart Kit for ME with NET+OS	602-1086-ND	499.00	DC-ME-NET
Customizable with JTAG Interface, 8MB SDRAM, 2MB Flash	602-1058-ND◆	99.00	DC-ME-01T-JT
Customizable with JTAG Interface, 8MB SDRAM, 4MB Flash	602-1059-ND	99.00	DC-ME-01T-JT
Development Kit for LxNETES Linux	602-1050-ND	299.00	FS-9060
JumpStart Kit for Microsoft .NET Micro Framework	602-1088-ND	299.00	DC-ME-MF

◆ RoHS Compliant

Digi Connect[®] EM Family

The Digi Connect EM board-mount embedded module delivers true web-enabled and secure device networking that is easy and cost-effective to implement, while being powerful enough to meet future performance needs.

Features:

• 32-bit NET+ARM high-performance RISC processor (NS7520 @ 55MHz) • Wired 10/100Base-T network interface • 2 high-speed TTL serial interfaces • 4MB Flash memory, 8MB RAM • 32-bit NET+ARM high-performance RISC processor (NS7520 @ 55MHz) • Serial Peripheral Interface (SPI) • 9 shared General Purpose Input/Output (GPIO) ports • Data rate: 10/100 Mbps (auto-sensing) • 3.3VDC @ 270mA max (891mW)

Description	Digi-Key Part No.	Price Each	Digi-International Part No.
8MB SDRAM, 4MB Flash, Std. Firmware	602-1039-ND◆	79.00	DC-EM-02T-S
8MB SDRAM, 4MB Flash, Customizable	602-1040-ND◆	79.00	DC-EM-02T-C
Development Kit without Raven Debugger (for use with "C" models)	602-1005-ND	895.00	DC-EM-02T-GN-NR
JumpStart Kit for EM with NET+OS	602-1087-ND	499.00	DC-EM-NET

◆ RoHS Compliant

ConnectCore[™] 7U

Universal 32-bit NET+ARM embedded core processor module offers a wide range of component connectivity options and superior software design flexibility through complete development platform support options. **Features:** • Core processor module in compact 48-pin DIP form factor • Powerful 32-bit NET+ARM processor: 55MHz NS7520 with ARM7TDMI core • Integrated 10/100 Ethernet MAC/PHY • Up to 2 high speed serial ports, UART and SPI (Master) configurations • Standard mode I²C software interface

Description	Digi-Key Part No.	Price Each	Digi-International Part No.
16MB SDRAM, 2MB Flash	602-1056-ND	99.00	FS-355
16MB SDRAM, 8MB Flash, Fingerprint License	602-1042-ND	159.00	FS-353
16MB SDRAM, 8MB Flash	602-1060-ND	119.00	FS-352
FS Forth UNC90 with 32MB SDRAM, 16MB Flash, (Atmel AT91RM9200 MCU @ 180MHz)	602-1046-ND	159.00	FS-373
Development Kit for LxNETES Linux	602-1052-ND	299.00	FS-997
Development Kit for NET+OS	602-1018-ND	1495.00	FS-998
Biometric Design Kit - IKENDI Fingerprint	602-1019-ND	895.00	FS-9007
Compact Flash Design Kit with 802.1b wireless	602-1020-ND	895.00	FS-9021
Java Design Kit - Java (Mika)	602-1021-ND	895.00	FS-9022
JTAG SuperBooster for programming flash memories with software - 3 volt.	602-1036-ND◆	795.00	FS-985
JTAG SuperBooster for programming flash memories with software - 5 volt.	602-1028-ND	795.00	FS-984
JumpStart Kit for 7U with NET+OS	602-1085-ND	499.00	CC-7U-NET

◆ RoHS Compliant

ConnectCore[™] 9C

Highly-integrated, compact DIMM form factor module based on the 155MHz NS9360 ARM9 processor provides core processing functionality with integrated network connectivity.

It enables original equipment manufacturers to design in main processor functionality and networking capabilities with a single, high performance solution.

Features: • 32-bit NS9360 high performance RISC processor (155MHz) with MMU • Up to 4 high-speed TTL serial ports • Up to 4 SPI ports • I²C v1.0 bus interface • USB 2.0 Host/Device Interface • LCD Controller • General Purpose Timers/Counters/PWM • 4 programmable external interrupts • Up to 55 shared General Purpose Input/Output (GPIO) ports • Real-time clock

Description	Digi-Key Part No.	Price Each	Digi-International Part No.
16MB SDRAM, 4MB Flash, Ethernet Dual Stacked USB Connectors	602-1061-ND	139.00	CC-9C-V212
Development Kit for NET+OS with Raven Hardware Debugger	602-1022-ND	2495.01	CC-9C-GN
Development Kit for NET+OS with Software Debugger	602-1023-ND	1894.99	CC-9C-GN-NR
JumpStart Kit for 9C with NET+OS	602-1079-ND◆	499.00	CC-9C-NET
JumpStart Kit for 9C with Windows CE	602-1080-ND◆	499.00	CC-9C-CE6
JumpStart Kit for 9C with Embedded Linux	602-1081-ND	499.00	CC-9C-LX

◆ RoHS Compliant

ConnectCore[™] 9P

Compact high-performance 32-bit NET+ARM processor module family combines superior performance and design integration flexibility with complete embedded software platform support. ConnectCore 9P modules are a complete set of integrated peripherals and component connectivity options in a compact and versatile form factor.

Features:

ConnectCore9P 9750: • 32-bit NET+ARM (ARM926EJ-S) high-performance RISC processor NS9750 @ 200MHz • Up to 128MB NAND Flash and 64MB SDRAM: Standard population 32MB Flash and 16MB RAM • Integrated 32-bit PCI v2.2/Carbus Bridge (33MHz) • 16 General Purpose Timers/Counters • Up to 50 GPIO port options

ConnectCore9P 9360: • 32-bit NET+ARM (ARM926EJ-S) high-performance RISC processor NS9360 @ 177MHz • Up to 128MB NAND Flash and 128MB SDRAM: Standard population 32MB Flash and 32MB RAM • 8 General Purpose Timers/Counters or 4 PWM functions • Up to 73 GPIO port options

ConnectCore9P Family: • Integrated 10/100 Mbps Ethernet MAC/PHY • Up to four serial interfaces w/UART and SPI mode • Integrated USB 2.0 compliant host/device interface • On-chip I²C bus interface (100/400 kHz) • Flexible LCD controller with support for TFT/STN displays • External memory bus interface • Real-Time Clock (RTC) with support for external battery backup • 8KB serial EEPROM for configuration storage • On-board JTAG interface

Description	Digi-Key Part No.	Price Each	Digi-International Part No.
16MB SDRAM, 32MB Flash with NS9750	602-1062-ND	235.00	FS-364
64MB SDRAM, 32MB Flash with NS9750	602-1043-ND◆	320.00	FS-380
32MB SDRAM, 32MB Flash with NS9360	602-1063-ND◆	215.00	FS-382
64MB SDRAM, 64MB Flash with NS9360	602-1044-ND	229.00	FS-383
(9360) Development Kit for LxNETES - Linux	602-1026-ND◆	2495.01	FS-9064
(9750) Development Kit for LxNETES - Linux	602-1025-ND	2495.01	FS-9053
(9750) Development Kit of NET+OS	602-1024-ND	2495.01	FS-9032
(9360) JumpStart Kit for 9P with 2.5NET+OS	602-1082-ND	499.00	CC-9P-NET
(9360) JumpStart Kit for 9P with Windows CE	602-1083-ND◆	499.00	CC-9P-CE6
(9360) JumpStart Kit for 9P with Embedded Linux	602-1084-ND	499.00	CC-9P-LX

◆ RoHS Compliant

ConnectCore[™] XP

High-performance core module with Marvel[®] XScale[®] processor provides complete embedded platform support, combining industry-leading performance, multimedia capabilities and low power requirements in an ultra-compact form factor. It provides the core processor platform solution of choice for applications demanding the combination of scalable Intel PXA270 performance at speeds up to 520MHz, on-chip video and audio capabilities, low power requirements, integrated network connectivity, and complete embedded software platform flexibility.

Kit Includes: • LxNETES v3.2 Embedded Linux Distribution (2.6.12 kernel) with GNU Host Development Tools ConnectCore XP Development Board and module, power supply and cables with schematics • 5.7" OVGA LCD Display • One JTAG Flash Programming Tool (JTAG Booster)

Description	Digi-Key Part No.	Price Each	Digi-International Part No.
64MB SDRAM, 32MB Flash	602-1045-ND◆	295.00	FS-377
Development Kit for LxNETES - Linux	602-1027-ND	2495.01	FS-9077

◆ RoHS Compliant

Embedded Core Modules

These high performance, Samsung processor based, modules are members of FS Forth-System's ModARM9 family of modular solutions for embedded systems. These modules include SDRAM, flash and control logic in a compact 60x44mm form factor. Low power consumption allows for battery powered applications. Other typical applications include those in Industrial Automation, Retail Point-Of-Sale, Medical Instrumentation and Data Acquisition.

Features: • LCD Controller (STN and TFT) • Touch screen interface • USB 1.1 Host and Device Controller • 32/64/128 Mbytes NAND Flash • 16/32/64/128Mbytes SDRAM • 3 UART channels **A9M2410:** • Samsung's S3C2410 microcontroller • ARM920T core (200MHz) with MMU

Description	Digi-Key Part No.	Price Each	Digi-International Part No.
FS Forth A9M2410 Module with 32MB SDRAM, 32MB Flash No Ethernet	602-1047-ND	169.00	FS-365
FS Forth A9M2410 Module with 32MB SDRAM, 32MB Flash with 10Mbps Ethernet	602-1048-ND	215.00	FS-362

Digi One[™] SP

The Digi One SP delivers efficient serial-to-Ethernet connectivity and is ideal for applications where TCP Socket, UDP Socket or UDP multicast functionality is needed.

Description	Digi-Key Part No.	Price Each	Digi-International Part No.
Device Server 1-port Serial to Ethernet	602-1075-ND	182.00	70001851

More Product Available Online: www.digkey.com

Toll-Free: 1-800-344-4539 • Phone 218-681-6674 • Fax: 218-681-3380



Jackrabbit™ Low-Cost Single-Board Computer



Model BL1800:

• **Board Size:** 2.50" x 3.50" x 0.94" (64mm x 89mm x 24mm) • **Input Voltage:** 8VDC – 40VDC, switching regulator, 49 mA typical at 24VDC • **General Purpose I/O:** 14 bi-directional, 6 inputs, 4 outputs (CMOS compatible) • **High Power Outputs:** 3 sinking (1 Amp) and 1 sourcing (500mA) • **1 Analog Input:** 9-bit resolution, 8-bit accuracy, 0.1V – 2.8V input range, 75ms typical acquisition time • **2 Analog Outputs:** Filtered/buffered PWM outputs • **Processor:** Rabbit 2000, clock, 29.5MHz • **Memory:** SRAM 128K, flash 256K • **Timers:** Five 8-bit cascaded timers, one 10-bit timer with 2 match registers • **Serial Ports:** (2) RS-232 (or one with CTS/RTS) rated at 1KV ESD, (1) RS-485 rated at 15KV ESD, (1) 5V CMOS compatible (programming port), 2 serial ports can be clocked • **Serial Rate:** Selectable baud rates up to 115,200 bps

(RS-232), 230,400bps (RS-485), 5 Volt CMOS compatible port up to 7.37Mbps • **Additional Features:** watchdog/supervisor, time/date clock, and backup battery

Model BL1810:

Same as BL1800, except with 14.7MHz clock, 128K flash, linear regulator (7.5–25V), 3 sinking (200mA) and 1 sourcing (100mA) high-voltage outputs, and CMOS port baud rate of 3.69Mbps.

Model BL1820:

Same as BL1810, except with no battery backup, (2) RS-232 and (2) 5V CMOS compatible (programming port)

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
Model BL1800	316-1079-ND	99.00	20-101-0356
Model BL1810	316-1080-ND	69.00	20-101-0357
Model BL1820	316-1081-ND	49.00	20-101-0358

Jackrabbit™ Development Kit

Digi-Key Part No. 316-1000-ND (101-0363) Only **\$139.00**

Includes Jackrabbit BL1810, manual, schematics, AC adapter, prototyping board, programming cable, documentation on CD ROM, additional parts, and complete Dynamic C SE software development system (not a trial version).

Low-Cost Single-Board Computer

Features:

• Rabbit 3000® microprocessor operating at up to 7.4MHz • 512K static RAM and 512K flash memory options • 26 Digital I/O: 16 protected digital inputs and 10 high-current digital outputs • 8 Single-ended or 4 differential analog channels with Vcc monitoring option: 11-bit single-ended or 12-bit differential channels • 3 PWM outputs • Six serial ports • Battery-backed real-time clock • Watchdog supervisor

The LP3500 can be mounted to a panel or on a plastic-enclosure base.

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
Fox Tool Kit for 3500	316-1056-ND	200.00	101-0529
LP3500 Fox	316-1115-ND	199.00	20-101-0525

◆ **RoHS Compliant**

Interface OP7200 with Touchscreen

Features:

• Small Size: 4.4" x 5.7" x 1.7" (112mm x 144mm x 43mm) • 1/4 VGA LCM display (320 x 240 pixels) with white LED backlight • 9-key keypad • LCD controller and SRAM compatible with OP7100 • 4 Status LED's • 24 Digital I/O • Rabbit 2000® microprocessor operating at 22.1MHz • Audible alarm buzzer • 128K static RAM and 256K flash memory standard • One RJ-45 Ethernet port • Four serial ports • On-board backup battery • Watchdog • External reset input • Meets NEMA 4 watertightness specifications when front-panel mounted

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
20" Cable for Panel Mount			
Keyboard/display	316-1052-ND	15.00	540-0066
OP7200 Tool Kit	316-1057-ND	200.00	101-0543

Interface OP6800 with Ethernet Port

Features:

• 122 x 32 Graphic display • 7-key keypad • 7 LED's • 24 Digital I/O • Rabbit 2000® microprocessor at 22.1MHz • 128K static RAM and 256K flash memory • One RJ-45 Ethernet port • Four serial ports • Battery-backable real-time clock, battery included • Watchdog • Reset generator • Meets NEMA 4 watertightness specifications when front-panel mounted

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
Model OP6800 with Ethernet Port	316-1060-ND	249.00	101-0492

RabbitCore™ Application Development Kits

Wi-Fi Application Kit

• Jumpstart your wireless application design with a complete application kit. Integrating Wi-Fi (IEEE 802.11b) with a RabbitCore™ Development Kit, embedded system integrators can now enable a wireless embedded system. Wireless connectivity eliminates Ethernet cables allowing for greater flexibility and mobility of wireless embedded networks. **Includes:** • Links Wi-Fi card • RCM3100 microprocessor core module • Prototyping board • Dynamic C development system and complete documentation on CD-ROM • Serial cable for programming and debugging • 10-pin DB15 Conversion Cable • Manuals • AC adapter (U.S./Canada only)

316-1039-ND (101-0911) \$599.00

Machine to Machine Kit

• Jumpstart your M2M application design with a complete application kit. **Includes:** • Wavecom Fastrack Modem • Device antenna • RCM3200 microprocessor core module • Prototyping board • Dynamic C development system and complete documentation on CD-ROM • Serial cable for programming and debugging • 10-pin DB15 Conversion Cable • Ethernet Crossover Cable • Manuals • AC adapter (U.S./Canada only)

316-1040-ND (101-0721) \$699.00

Secure Embedded Web Kit

As more embedded applications feature access via the Internet, secure transmission of data is growing increasingly critical. The Secure Embedded Web Application Kit provides optimized software development tools to easily build secure web interfaces for your new and existing applications. Built around the RCM3700 RabbitCore powered by the Rabbit3000 microprocessor, the Secure Embedded Web Application Kit offers Secure Socket Layer (SSL), which implements a 128-bit lock and key solution to encrypt data transfers. **Includes:** • RCM3700 microprocessor core module • Development board with prototyping area • Dynamic C development system and complete documentation on CD-ROM • SSL • RabbitWeb • FAT file system • Serial cable for programming and debugging • Getting Started manual • AC adapter (U.S./Canada only)

316-1041-ND (101-0897) \$752.61

Serial to Ethernet Kit

Designers now have a Serial-to-Ethernet Application Kit that is easy to use. The simple 3-Step Setup for transmitting data from a digital volt meter via a serial port to a TCP/IP stream enables even the newest user to quickly develop a Serial-to-Ethernet application. The kit features digital volt meter software libraries, sample programs and a menuing system, in addition to the Dynamic C® integrated development environment. **Includes:** • RCM3010 microprocessor core module • Prototyping board • Dynamic C development system and complete documentation on CD-ROM • Serial cable for programming and debugging • DB9 Null Modem Cable • 10-pin DB9 Conversion Cable • Ethernet Crossover Cable • Getting Started manual • Keypad/display unit • AC adapter (U.S./Canada only)

316-1042-ND (101-0689) \$349.00

Embedded PLC Application Kit

This kit enables a Rabbit 3000 based single-board computer to be programmed using a standard software environment that is commonly used to program PLC's (Programmable Logic Controllers). **Features:** • Communication parameters are configurable using the Embedded PLC Utility for the Rabbit Processor • Rabbit 3000 at 44.2MHz • 10Base-T, RJ-45 (standard) • Flash Memory: 512K • SRAM: 256K + 512K • Digital Inputs: 16 • Digital Outputs: 8 • Analog Inputs: One 10-bit resolution • Analog Outputs: Two 9-bit PWM • 6 serial ports

316-1120-ND (101-1108) \$599.00

Color Touchscreen Application Kit

• The Reach Technology Color Touchscreen with a RabbitCore creates an application kit that provides embedded systems integrators the ability to add advanced interface functionality to embedded systems. Color touchscreens provide real-time feedback, allowing for better control in industrial-automation applications. **Includes:** • RCM3720 RabbitCore with Prototyping Board • Reach Technology SLCD Graphics Touch Terminal with NEMA 4 steel enclosure • Supplemental CD's • Dynamic C development system and complete documentation on CD-ROM • User manuals, sample programs and libraries • 5 serial and conversion cables • Two AC adapters (U.S./Canada only)

316-1075-ND (101-1062) \$1062.50

ZigBee™ Application Kit

This kit combines MaxStream®'s XBee™ RF modem with the popular RCM3720 RabbitCore module along with an easy-to-use interface to help customers build a practical ZigBee wireless control network. **Features:** • Rabbit 3000 processor at 22.1MHz • 10Base-T interface, RJ-45, 2 LEDs • Flash Memory: 512K • SRAM: 256K • MaxStream XBee (ISM 2.4GHz) • 802.15.4 standard (ZigBee compliant) • Transmit Power Output = 1mW (0 dBm) • Receiver Sensitivity = -92 dBm (1% PER) • Supported Network Topologies: Point-to-point, Point-to-multipoint, Peer-to-peer, Mesh

316-1118-ND (101-1137) \$399.54

Camera Interface Application Kit

This kit combines a VGA camera with a popular RabbitCore module that has removable memory to provide an event-capture application. **Features:** • RabbitCore module at 44MHz, and 10/100Base-T Ethernet • 512K Flash/512K SRAM, 16MB NAND and socket for removable memory • VGA camera module, servo motors and IR motion sensor • Time stamped photos and event notification options such as email notification and FTP upload • Image Resolution: 640 x 480 (VGA) / 320 x 240 (QVGA) / 160 x 128 / 80 x 64 • Color: Up to 8-bit gray, 16-bit RGB or standard JPEG preview images • Sensor Type: Passive infrared sensor • Motor Type: Micro-servo

316-1119-ND (101-1121) \$499.00

(Continued)

More Product Available Online: www.digkey.com

Toll-Free: 1-800-344-4539 • Phone 218-681-6674 • Fax: 218-681-3380

(T091) 615



GPRS/GSM Application Kit

• This Kit provides all the tools necessary to sample and develop applications that **combine a Rabbit based control device with a GSM/GPRS modem**. The libraries and sample programs allow for a device connected to the cellular network to send SMS (text) messages to a RabbitCore module (RCM) that can interpret messages as commands and in turn execute control function. The RCM can also send/receive GPRS e-mail wirelessly to/from PC, GSM device or cell phone.

Highlights: • Hardware/Software for wireless RCM communication and control via GPRS/GSM • Enfora™ Spider SA-GL Quad Band wireless modem and antenna • GUI and Keypad configuration menu system • Royalty-free TCP/IP stack in source code • Sample programs/libraries for generic modem operation • Fully integrated development software: compiler, editor and debugger for control applications

316-1063-ND (101-0948)	\$649.00
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Bluetooth Application/Add On Kits

• This kit provides all of the hardware and software necessary to develop a Bluetooth application. It includes an RCM3100, Embedded Blue eb506-AHC-IN Bluetooth Radio Module, prototyping board and miscellaneous cables and hardware. This kit also includes the Dynamic C Integrated Development Environment, Bluetooth drivers, libraries, sample programs and manuals.

Features: • Bluetooth radio modules plug directly into supported RCMs and SBCs • Simple serial UART communications and control • Seamless connectivity with any Bluetooth device • 2.4GHz FHSS (Frequency Hopping Spread Spectrum) technology ensures high reliability and is robust to interference • Low current consumption for long battery life • Complete with sample applications and source code • Internal Surface-mount antenna

316-1072-ND (101-1040) Application Kit	\$399.00
316-1073-ND (101-1042) Add-On Kit	\$99.00

Rabbit Cloning Board

The Rabbit Cloning Board copies designated portions of flash memory from one Rabbit-based controller (the master) to another (the clone). Dynamic C® version 6.50 or later is needed to use the cloning board.

Benefits: • The Rabbit Cloning Board replaces a PC or EPROM burner as the primary tool to load programs, thus reducing costs and workspace • Programs may be loaded quickly onto blank, soldered on flash devices • High-speed transfers at 57,600 bps or 115,200 bps • Higher-speed data transfer of up to 921,600 bps starting with Dynamic C version 7.05 • Ideal for low-volume cloning production

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
Cloning Board	316-1101-ND	89.00	20-101-0589

Rabbit 3000A™ Microprocessor

Programming the Rabbit 3000A: Microprocessor hardware and software development is easy for Rabbit users. The Rabbit 3000A is programmed using the industry-proven Dynamic C® software development system from sister division Z-World.

Key Features: • Low-EMI: typically <10 dB µV/m @ 3m • Ultra-low power modes • 1.8-3.6V (5V tolerant I/O) • 55.5MHz clock speed • 56+ digital I/O • 6 serial ports supporting IrDA and ASync (4 of which support SPI; 2 support SDL/HDLC) • Pulse capture and measurement • Quadrature encoder inputs • PWM outputs

Standard Features: • Glueless memory and I/O interface • Direct support for 1MB code/data space (up to 6MB with glueless interface) • Battery-backable real-time clock • Watchdog timer • Remote boot/program • Slave port interface

Design Advantages: • Extensive Ethernet/Internet support and royalty-free TCP/IP stack with source and sample programs • Dynamic C® development environment for real-time development and debugging • Exceptionally fast performance for math, logic and I/O

Description	Digi-Key Part No.	Price Each			Rabbit Part No.
		2	10	100	
Rabbit 3000A					
55.5MHz, 128LQFP	316-1061-ND	14.50	13.13	12.50	20-668-0011

Rabbit 3000A/RCM3000 Development Kit
Digi-Key Part No. 316-1017-ND (101-0523) Only \$299.00

The Rabbit 3000A/RCM3000 Development Kit includes an RCM3010 Ethernet core module (with Rabbit 3000A microprocessor, Flash, SRAM, Ethernet hardware), a prototyping board, complete Dynamic C SE software development system (not a trial version) with TCP/IP stack and documentation on CD-ROM, power supply and serial cable for programming and debugging.

RabbitCore™ RCM3400 Analog Core Module

Features: • 3.3V operation • Powerful Rabbit 3000 microprocessor • Low-EMI (typically <10dB µV/m@3m) • RCM3400: 512K Flash/512K SRAM, RCM3410: 256K Flash/256K SRAM • 8 channel 12-bit A/D with programmable gain • 47 digital I/O, Auxiliary I/O bus • 5 serial ports (IrDA, SDL/HDLC, Async, SPI) • MAC ID installed

Design Advantages: • Ready-made platform for fast time-to-market • Compact size simplifies integration • Dynamic C development environment for real-time development and debugging • Exceptionally fast performance for math, logic, and I/O

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
RCM3400	316-1099-ND	69.00	20-101-0561
RCM3410	316-1100-ND	59.00	20-101-0562

Rabbit RCM3400 RabbitCore Development Kit
Digi-Key Part No. 316-1027-ND (101-0587) Only \$399.00

The RCM3400 Development Kit includes an RCM3400 core module, a prototyping board, AC adapter (U.S. only), 10-pin header to DE9 programming cable with integrated level-matching circuitry, complete Dynamic C SE software development system (not a trial version) with documentation on CD-ROM and a bag of accessory parts for use on the Prototyping Board.

RabbitCore Wi-Fi Add On Kit
Digi-Key Part No. 316-1067-ND (101-0998) Only \$199.00

The Wi-Fi Add On Kit includes Interposer Board (boards are not interchangeable between RCMs with different footprints, CompactFlash Wi-Fi Board, LinkSys Wi-Fi CompactFlash Card, 20-pin to 20-pin IDC header connection ribbon cable, 10-pin IDC header to DE9F serial cable, Sample Programs and software related specifically to the Wi-Fi Add on Kits on CD, Dynamic C upgrade to 9.21 or higher on CD, Getting Started instruction and Miscellaneous connection and mounting hardware including standoffs, if necessary

RabbitCore™ RCM3100 Core Module

The RCM3100 features a battery-backable real-time clock, glueless memory and I/O interfacing, and ultra-low power "sleepy" modes. A fully enabled 8-bit slave port permits easy master-slave interfacing with another processor-based system, and an alternate I/O bus can be configured for 8 data lines and 6 address lines (shared with parallel I/O).

Features: • Actual Size: 1.85" x 1.65" x 0.55" (47mm x 42mm x 14mm) • 29.4 MHz clock speed • 3.3V operation • Powerful Rabbit 3000™ microprocessor • Low-EMI (typically <10 dB µV/m @ 3m) • RCM3100: 512K Flash/512K SRAM • RCM3110: 256K Flash and 128K SRAM • 54 digital I/O • 6 serial ports (IrDA, SDL/HDLC, Async, SPI) • Auxiliary I/O bus • Ultra-low power "sleepy" modes • Pulse capture and measurement • Quadrature encoder inputs • PWM outputs

Design Advantages: • Ready-made platform for fast time-to-market • Compact size simplifies integration • Pin compatible with Ethernet RCM3000 for parallel product development • Dynamic C® development environment for real-time development and debugging • Exceptionally fast performance for math, logic, and I/O

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
RCM3100	316-1095-ND	65.00	20-101-0517
RCM3110	316-1096-ND	45.00	20-101-0518

Rabbit RCM3100 RabbitCore Development Kit
Digi-Key Part No. 316-1020-ND (101-0533) Only \$239.00

The RCM3100 Development Kit includes an RCM3110 core module (with Rabbit 3000 microprocessor, Flash, SRAM, serial ports, and I/O ports), a prototyping board, complete Dynamic C SE software development system (not a trial version) with documentation on CD-ROM, AC adapter (U.S. only) and serial cable for programming and debugging.

RabbitCore™ RCM3000 Core Module

Features: • Actual Size: 2.73" x 1.85" x .086" (69mm x 47mm x 22mm) • 29.4MHz clock speed • 10Base-T • Powerful Rabbit 3000™ microprocessor • Low-EMI (typically <10 dB µV/m @ 3m) • Built-in Ethernet for simplified connectivity • 3.3V operation • RCM3000: Up to 512K Flash/512K SRAM • RCM3010: 256K Flash and 128K SRAM • 52 digital I/O • 6 serial ports (IrDA, SDL/HDLC, Async, SPI) • Auxiliary I/O bus • Ultra-low power "sleepy" modes • Pulse capture and measurement • Quadrature encoder inputs • PWM outputs

Design Advantage: • Ready-made platform for fast time-to-market • Dynamic C® development environment for real-time development and debugging

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
RCM3000	316-1093-ND	79.00	20-101-0507
RCM3010	316-1094-ND	59.00	20-101-0508

More Product Available Online: www.digkey.com

Toll-Free: 1-800-344-4539 • Phone 218-681-6674 • Fax: 218-681-3380



Rabbit 2000™ 8-Bit Microprocessor



Rabbit 2000 Advantages:

- Architecture for enhanced math performance
- Glueless memory and I/O interface
- Remote cold boot
- Slave interface
- 4 serial ports
- 40-plus multifunctional I/O pins
- Battery-backable real-time clock
- Watchdog timer
- Five 8-bit cascaded timers and one 10-bit timer with match registers
- 488 microsecond periodic interrupt
- Clocking options for low power applications

Rabbit 2000 Development Kit

Digi-Key Part No. 316-1003-ND (101-0359) Only **\$139.00**

Kit includes Jackrabbit single board computer, manual, schematics, AC adapter, prototyping board, programming cable, documentation on CD-ROM, additional parts and complete Dynamic C SE software development system (not a trial version).

Description	Digi-Key Part No.	2	10	100	Rabbit Part No.
Rabbit 2000	316-1062-ND	12.34	11.38	10.41	20-668-0003

Rabbit 2000™ 8-Bit Microprocessor with TCP/IP Support

Features:

- 18.432 MHz Rabbit 2000 Processor
- 10Base-T Ethernet Interface
- 4 High-Current Outputs (200 mA @ 40VDC)
- 4 Digital Input Points (0 – 5 VDC Nominal)
- RS-232 Serial Port
- RS-485 Serial Port
- 512K Flash Memory (2 x 256K)
- 128K SRAM
- 7 Built-in Timers
- Time/Date Real-Time Clock
- Watchdog Timer

Rabbit 2000 TCP/IP Development Kit

Digi-Key Part No. 316-1005-ND (101-0401) Only **\$258.70**

Kit includes Rabbit 2000™ TCP/IP development board (with Rabbit 2000 microprocessor, flash, SRAM, Ethernet hardware, 8 digital I/O), demonstration board, power supply, PC serial cable for real-time debugging and complete Dynamic C SE software development system (not a trial version) with TCP/IP on CD-ROM.

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
Rabbit 2000 TCP/IP Toolkit	316-1006-ND	99.00	101-0403

RabbitCore 2000™ Microprocessor Core Module



RABBITCORE 2000

- **Board Size:** 1.90" x 2.30" x 0.55" (48.3mm x 58.4mm x 14.0mm)
 - **Input Voltage:** 4.75–5.25VDC
 - **Current:** 98mA at 18.432 MHz, 5VDC (130mA at 25.8 MHz, 5VDC)
 - **Processor:** Rabbit 2000 at 25.8MHz (18.432MHz for 2010 and 2020)
 - **General Purpose I/O:** 40 parallel I/O lines grouped in five 8-bit ports (shared with serial ports)
 - **Memory, I/O Interface:** 13 Address lines, 8 data lines, I/O read/write, buffer enable, status, clock
 - **Additional Digital Inputs:** (2), start up mode (for master/slave), reset in
 - **Additional Digital Outputs:** Watchdog output, reset out
 - **Clock:** 25.8 Mhz
 - **SRAM:** 512K (128K for 2010 and 2020)
 - **Flash:** 256K
 - **Timers:** Five 8-bit cascaded timers, one 10-bit timers with 2 match registers
 - **Serial Ports:** 4 CMOS-compatible ports. Max asynchronous baud rate is 806,400bps, maximum synchronous is 6.45Mbps. Two ports are configurable as clocked ports
 - **Slave Interface:** Allows the RabbitCore 2000 to be used as an intelligent peripheral device slaved to a master processor
- Additional Features:** Watchdog supervisor, time/date clock, backup battery circuitry and connections for user-supplied battery. Mates to your board via dual 40-pin male connectors.

RabbitCore 2000 Development Kit

Digi-Key Part No. 316-1007-ND (101-0398) Only **\$169.00**

Kit includes a model RCM2020, manual with schematics and documentation on CD-ROM, getting started guide, AC adapter, prototyping board, programming cable and complete Dynamic C SE software development system (not a trial version) on CD-ROM.

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
RCM2020	316-1082-ND	39.00	20-101-0383
RCM2000	316-1083-ND	69.00	20-101-0404
RCM2010	316-1084-ND	49.00	20-101-0405

RabbitLink™ EG2110

Rabbit-based embedded systems are normally programmed using a direct connection between a PC and the programming port of the Rabbit-based system.

The RabbitLink provides an indirect connection between the two for remote downloading and debugging.

- Features:**
- Rabbit 2000™ microprocessor operating at 22.1 MHz
 - RJ-45 Ethernet port compliant with IEEE 802.3 standard for 10 Base-T Ethernet protocol
 - 2 Serial Ports
 - 3 Status LED's, labeled USER, ACT and LINK
 - 128K static RAM and 512K flash memory
 - Firmware installed
 - Easy setup with DHCP or simple console commands
 - Password protection
 - Remote program downloading and debugging

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
EG2110 RabbitLink Board	316-1049-ND	129.00	101-0580

RabbitCore™ RCM2100 Series Microprocessor Core Module



Features:

- Ethernet Port for 2100 and 2110 series only
- 512K SRAM (128K for 2110 and 2130)
- 512K Flash (256K for 2110 and 2130)

Specifications:

- **Microprocessor:** Rabbit 2000 at 22.1 MHz
- **General Purpose I/O:** 34 parallel I/O (20 configurable I/O, 8 fixed inputs, and 6 fixed outputs) (40 parallel I/O with 26 configurable I/O for 2120 and 2130)
- **Additional Inputs:** 2 Startup Mode, Reset in
- **Additional Outputs:** Status, Clock, Watchdog Out, Reset out
- **Memory I/O:** 13 buffered address, 8 buffered data, plus I/O Read-Write and Buffer Enable
- **Serial Ports:** Four 5V CMOS-compatible; 2 configurable as clocked ports
- **Serial Rate:** Max. burst rate = CLK/32 Maximum sustained rate = Burst/2
- **Connectors:** Two 2 x 20, 2mm IDC headers
- **Slave Interface:** Allows use as master or intelligent peripheral with Rabbit-based or other master controller
- **Real-Time Clock:** Yes
- **Timers:** Five 8-bit timers (4 cascaded from the first) and one 10-bit timer with 2 match registers
- **Watchdog/Supervisor:** Yes
- **Power:** 4.75–5.25VDC, 140mA
- **Operating Temperature:** -40°C – 70°C (-40°C – 85°C for 2120 and 2130)
- **Humidity:** 5–95%, non-condensing
- **Board Size:** 3.5" x 2.0" x 0.86" (89 x 51 x 22mm); 3.5" x 2.0" x 0.5" (89 x 51 x 13mm) for 2120 and 2130

RabbitCore 2000/RCM2100 Low-Cost Development Kit

Digi-Key Part No. 316-1028-ND (101-0451) Only **\$279.00**

Jumpstart your evaluation and design efforts with a complete development kit, which includes RCM2100 microprocessor core module, prototyping board, Dynamic C SE software development system (not a trial version) and complete documentation on CD-ROM, serial cable for programming and debugging, Getting Started manual, and AC adapter (U.S./Canada only).

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
RCM2110	316-1086-ND	59.00	20-101-0435
RCM2120	316-1087-ND	69.00	20-101-0436
RCM2130	316-1088-ND	49.00	20-101-0446

RabbitCore™ RCM2200 Microprocessor Core Module



- **Board Size:** 1.60" x 2.30" x 0.86" (41 mm x 59 mm x 22 mm)
- **Input Voltage:** 4.75–5.25VDC
- **Current:** 134 mA at 5VDC
- **Processor:** Rabbit 2000
- **General Purpose I/O:** 26 parallel I/O lines grouped in five 8-bit ports (shared with serial ports)
- **Memory, I/O Interface:** 4 address lines, 8 data lines, I/O Read-Write
- **Additional Digital Inputs:** Startup mode, reset
- **Additional Digital Outputs:** Status, reset
- **Clock:** 22.1 MHz
- **SRAM:** 128K (512K for 2250)
- **Flash:** 256K (512K for 2250)
- **Timers:** Five 8-bit timers, one 10-bit timer. Five timers are cascaded in pairs
- **Serial Ports:** 4 CMOS-compatible ports. Max asynchronous baud rate is 691,000 bps, max synchronous is 5.53 Mbps. Two ports are configurable as clocked ports
- **Slave Interface:** Allows the RCM2200 to be used as an intelligent peripheral device slaved to a master processor
- Ethernet Port: 10Base-T, RJ-45, 2 LEDs (10Base-T, No RJ-45 for 2210)

Additional Features: Watchdog/supervisor, time/date clock, backup battery circuitry, and connection for user-supplied battery

RabbitCore RCM2200 Development Kit

Digi-Key Part No. 316-1012-ND (101-0475) Only **\$239.00**

Kit includes RCM2200 core module (Ethernet, 256K Flash, 128K SRAM), Getting Started manual with schematics, DC power supply (U.S. only), prototyping board, PC serial cable, and complete Dynamic C SE software development system (not a trial version) and complete documentation on CD-ROM.

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
RCM2200	316-1090-ND	55.00	20-101-0454
RCM2210	316-1091-ND	59.00	20-101-0488
RCM2250	316-1092-ND	79.00	20-101-0494

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RabbitCore™ RCM2300 Microprocessor Core Module



RabbitCore RCM2300:

• **Board Size:** 1.15" x 1.60" x 0.55" (29 mm x 41 mm x 14 mm) • **Input Voltage:** 4.75–5.25VDC • **Current:** 108 mA at 5VDC • **Processor:** Rabbit 2000 • **General Purpose I/O:** 29 parallel I/O lines grouped in five 8-bit ports (shared with serial ports) • **Memory, I/O Interface:** 4 address lines, 8 data lines, I/O Read-Write (extra address line and Buffer Enable via separate connections) • **Additional Digital Inputs:** Startup mode, reset • **Additional Digital Outputs:** Status, reset • **Clock:** 22.1 MHz • **SRAM:** 128K • **Flash:** 256K • **Timers:**

Five 8-bit timers, one 10-bit timer. Five timers are cascadable in pairs • **Serial Ports:** 4 CMOS-compatible ports. Max asynchronous baud rate is 691,000 bps, maximum synchronous is 5.53 Mbps. Two ports are configurable as clocked ports • **Slave Interface:** Allows the RCM2300 to be used as an intelligent peripheral device slaved to a master processor

Additional Features: Watchdog/supervisor, time/date clock, backup battery circuitry, and connection for user-supplied battery

RabbitCore RCM2300 Development Kit

Digi-Key Part No. 316-1015-ND (101-0480) Only **\$199.00**

Kit includes RCM2300 core module (256K Flash, 128K SRAM), Getting Started manual with schematics, DC power supply (U.S. only), prototyping board, PC serial cable, and complete Dynamic C SE software development system (not a trial version) and complete documentation on CD-ROM.

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
RCM2300	316-1089-ND	42.00	20-101-0453

C

RabbitCore™ RCM3200 Microprocessor Core Module



Designing with RabbitCores: RabbitCores are powered by high-performance 8-bit Rabbit microprocessors with extensive integrated features and a C-friendly instruction set designed for use with the Dynamics C® development system. Embedded systems using the Ethernet RabbitCore module can be controlled and monitored (as well as programmed and debugged when using appropriate accessory hardware) across any network or the Internet.

Programming the RCM3200: Programs are developed using our industry-proven Dynamics C software development system (SE version included in low-cost development kits). An extensive library of drivers and sample programs is provided, along with royalty-free TCP/IP stack with source.

RabbitCore RCM3200: • **Board Size:** 2.73" x 1.85" x 0.86" (69 mm x 47 mm x 22 mm) (2.73" x 1.85" x 0.48"

(69 x 47 x 12mm) for 3220) • **Power:** 3.15–3.45VDC • **Current:** 255 mA at 3.3V • **Processor:** Rabbit 3000 at 44.2 MHz • **General Purpose I/O:** 52 digital I/O (44 configurable I/O, 4 fixed inputs, and 4 fixed outputs) • **Additional Digital Inputs:** 2 Startup Mode, Reset in • **Additional Digital Outputs:** Status, Reset out • **Real-Time Clock:** Yes • **SRAM:** 512K program + 256K data • **Flash:** 512K • **Timers:** Ten 8-bit timers (6 cascadable from the first) and one 10-bit timer with 2 match registers • **Serial Ports:** 6 CMOS-compatible: 6 configurable as asynchronous (with IrDA), 4 as clocked serial (SPI), and 2 as SDLC/HDLC (with IrDA), 1 asynchronous clocked serial port dedicated for programming, Support for MIR/SIR IrDA transceiver • **Slave Interface:** Allows use as master or intelligent peripheral with Rabbit-based or other master controller

Additional Features: Ethernet Port for 3200 series only, Watchdog/Supervisor, Pulse-Width Modulators, Quadrature Decoder and Backup Battery

RabbitCore RCM3200 Low-Cost Development Kit

Digi-Key Part No. 316-1023-ND (101-0552) Only **\$349.00**

Kit includes RCM3200 RabbitCore, Getting Started manual, DC power supply (U.S. only), prototyping board, Serial Cable for Programming and debugging, and complete Dynamic C SE software development system (not a trial version) and complete documentation on CD-ROM.

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
RCM3200	316-1097-ND	89.00	20-101-0520
RCM3220	316-1098-ND	79.00	20-101-0522

RabbitCore™ RCM3600 Core Module



Features:

• 3.3V operation • Powerful Rabbit 3000A processor • 256K (3610) – 512K (3600) Flash Memory • 128K (3610) – 512K (3600) SRAM • 33 digital I/O • 4 Serial Ports • Size: 2.11" x 1.23" (54mm x 31mm)

Design Advantages:

• Low Cost Solution • Ready made platform for easy design implementation • Compact Size • Dynamic C® development environment for real-time developing and debugging • Fast performance for math, Logic, and I/O

RabbitCore RCM3600 Development Kit

Digi-Key part number 316-1037-ND (101-0678) Only **\$299.00**

The RCM3600 Development Kit includes RCM3600 core module, proto board, AC Adapter (U.S. Only), Programming Cable, Complete Dynamic C software development system (not a trial version) with documentation on CD-ROM and a bag of accessory parts for use on the proto board.

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
RCM3600	316-1102-ND	49.00	20-101-0672
RCM3610	316-1103-ND	45.00	20-101-0673

RabbitCore™ RCM3370 Core Module

The RCM3370 modules present a new form of embedded flexibility with removable xD-Picture Cards™. Supporting on-board 16 MB NAND Flash as well as memory cards of up to 128 MB, this RabbitCore is ideal for large data applications requiring low-power operation.

Features:

• Powerful Rabbit 3000 microprocessor @ 44 MHz clock • 10/100 Base-T Ethernet connectivity • 3.3V operation • 512K Flash/512K Program + 512K data SRAM • 49 digital I/O and 5 serial ports (RCM3300/3310) • 52 digital I/O and 6 serial ports (RCM3370) • Board size 1.85" x 2.73" x 0.86" (47mm x 69mm x 22mm)

Design Advantages:

• Ideal for network enabling security and access systems, home automation, HVAC systems, and industrial controls

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
RCM3370	316-1045-ND	98.00	101-0950

RabbitCore™ RCM3700 Core Module



Features:

• 512K Flash (256K for 3710) • 512K SRAM (128K for 3710 and 256K for 3720) • 3.3V operation • Powerful Rabbit 3000A processor • 33 digital I/O • 4 Serial Ports

Design Advantages: • Low Cost Solution • Ready Made platform for easy design implementation • Compact Size • Dynamic C® development environment for real-time developing and debugging • Fast performance for math, Logic, and I/O

RabbitCore RCM3700 Development Kit

Digi-Key part number 316-1038-ND (101-0680) Only **\$299.00**

The RCM3700 Development Kit includes RCM3700 core module, proto board, AC Adapter (U.S. Only), Programming Cable, Complete Dynamic C software development system (not a trial version) with documentation on CD-ROM and a bag of accessory parts for use on the proto board.

RabbitCore Wi-Fi Add On Kit

Digi-Key part number 316-1068-ND (101-0999) Only **\$199.46**

The Wi-Fi Add On Kit includes Interposer Board (boards are not interchangeable between RCMs with different footprints), CompactFlash Wi-Fi Board, LinkSys Wi-Fi CompactFlash Card, 20-pin – 20-pin IDC header connection ribbon cable, 10-pin IDC header to DE9F serial cable. Sample programs and software related specifically to the Wi-Fi Add-On Kits on CD, Dynamic C upgrade to 9.21 or higher on CD, Getting Started instruction and Miscellaneous connection and mounting hardware including standoffs, if necessary

RabbitCore RCM3720 Development Kit

Digi-Key part number 316-1065-ND (101-0963) Only **\$199.00**

The RCM3720 Development Kit includes RCM3720 core module, proto board, AC Adapter (U.S. Only), Programming Cable, Complete Dynamic C software development system (not a trial version) with documentation on CD-ROM and a bag of accessory parts for use on the proto board.

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
RCM3700	316-1104-ND	59.00	20-101-0674
RCM3710	316-1105-ND	49.00	20-101-0675
RCM3720	316-1107-ND	55.00	20-101-0961

More Product Available Online: www.digikey.com



PowerCore Flex™ 3800/3810



With available on-board power supply, analog features, and the fastest Rabbit 3000 microprocessor the PowerCore bridges the gap between microcontrollers and single board computers. With the introduction of the PowerCore, Rabbit Semiconductor has added over 1000 new core modules to its product line through FLEXible manufacturing. Featuring customizable options such as microprocessor speed, power supply, memory, analog features and Ethernet capability, PowerCore Rabbit Core Modules can be customized at the Rabbit Semiconductor website via the user-friendly On-Line Flex Configurator Tool.

Features: • Clock speed up to 51.6MHz • On-board Power Supply (10VAC ~ 60VAC, 8VDC ~ 43VDC) • On-board analog (AC Crossover, ramp generator, temperature sensor) • 512K Flash • Maximum 1MB SRAM (512K code/512K data) • Maximum 1MB Serial Flash • 39 general-purpose I/O • 10/100 Compatible Ethernet

PowerCore RCM3800 Development Kit

Digi-Key part number 316-1070-ND (101-1016) Only **\$169.00**

Jumpstart your evaluation and design efforts with a development kit. The kit includes a PowerCore, prototyping board, serial cable for programming and debugging, Dynamic C with royalty-free TCP/IP stack and source, Getting Started Manual, AC Transformer and miscellaneous parts and connectors.

PowerCore RCM3810 Development Kit

Digi-Key part number 316-1071-ND (101-1018) Only **\$143.75**

Jumpstart your evaluation and design efforts with a development kit. The kit includes a PowerCore, prototyping board, serial cable for programming and debugging, Dynamic C with royalty-free TCP/IP stack and source, Getting Started Manual, AC Transformer and miscellaneous parts and connectors.

PowerCore Flex Kit

Digi-Key part number 316-1064-ND (101-0956) Only **\$99.00**

Includes our Dynamic C development system and complete documentation on CD-ROM, a demo board with 4 LED's, 4 switches and buzzer, serial cable for programming and debugging, Getting Started manual and AC adapter

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
RCM3800	316-1108-ND	124.13	20-101-1006
RCM3810	316-1109-ND	70.00	20-101-1007
LCD/Keypad Panel Mount	316-1116-ND	99.00	20-101-0541

RabbitCore™ 4000/4100/4200 Series



The Rabbit 4000 is fast, running at up to 60MHz, with compact code and direct software support for 16-bit memory devices. It operates at 3.3V I/O standard or can be set to 1.8V for lower power. The Rabbit 4000 boasts 6 serial ports with IrDA, 40+ digital I/O, quadrature decoder, PWM outputs, pulse capture and measurement capabilities, battery-backable real-time clock, glueless memory and I/O interfacing and ultra-low power modes.

The RCM4100 series is the first of the next generation core modules to take advantage of the new Rabbit 4000 microprocessor.

RCM4100 Features: • Rabbit 4000 microprocessor @ 58.98MHz (29.49MHz for 4110) • 512K Flash • 512K data SRAM (256K for 4110) • Program-Execution Fast SRAM: 512K (None for 4110) • 40 parallel I/O (29 for 4100) • 6 high-speed, CMOS-compatible Ports • Ten 8-bit timers, one 10-bit timer and one 16-bit timer • Power: 125mA (typical) @ 3.3V (65mA (typical) @ 3.3V for 4110) • Board Size: 1.41" x 1.88" x 0.49" (36 x 48 x 12mm)

The RCM4200 RabbitCore modules are equipped with 10/100 Ethernet connectivity, combined with 4Mbytes or 8Mbytes serial flash memory storage for intensive communication and data logging applications. At the heart of the RCM4200 is the Rabbit 4000 microprocessor which features a clock speed of up to 58.98MHz. The rabbit 4000 boasts and additional 500+ new operational code instructions that increases the processing efficiency, from its predecessor the Rabbit 3000. The RCM4200 RabbitCore modules are easily interchangeable with other RCM4xxx based products due to electrical and functional compatibility.

RCM4200 Features: • Rabbit 4000 microprocessor @ 58.98MHz (29.49MHz for 4210) • Spectrum spreader for reduced EMI • Ethernet Port: 10/100Base-T, RJ-45, 3 LEDs • 512K (8-bit) SRAM and Flash • Serial Flash Memory: 8Mbytes (4 Mbytes for 4210) • 25 parallel digital I/O (35 parallel digital for 4210) • A/D: 12 bits • Up to 4 serial ports (up to 5 for 4210) • Real Time Clock • Ten 8-bit timers, one 10-bit timer and one 16-bit timer • Watchdog/Supervisor • Power: 240mA (typical) @ 3.3V (200mA @ 3.3V for 4210) • Board Size: 1.84" x 2.42" x 0.84" (47 x 61 x 21mm)

All Development Kits include a core module, a development board with prototyping are, Dynamic C 10 development system and complete documentation on CD-ROM, serial cable for programming and debugging, Getting Started manual and AC adapter (U.S./Canada only).

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
CPU RABBIT 4000	316-1078-ND	12.50	20-668-0024
RCM4100	316-1121-ND	75.00	20-101-1105
RCM4120	316-1122-ND	64.00	20-101-1154
RCM4200	316-1124-ND	109.43	20-101-1131
RCM4210	316-1125-ND	99.00	20-101-1132
RCM4010 Development Kit	316-1077-ND	239.00	101-1114
RCM4100 Development Kit	316-1123-ND	229.00	101-1157
RCM4110 Development Kit	316-1076-ND	199.00	101-1101
RCM4200 Development Kit	316-1126-ND	269.00	101-1155

RabbitCore™ 3360/3365/3375 Series



The RCM3360/RCM3365/RCM3375 modules present a new form of embedded flexibility with removable xD-Picture Cards™. Supporting on-board 16 MB NAND Flash as well as memory cards of up to 128 MB, this RabbitCore is ideal for large data applications requiring low-power operation. (xD-picture card socket only for 3375 Series)

Features:

• Powerful Rabbit 3000 microprocessor @ 44.2MHz • Ethernet Port: 10/100Base-T, RJ-45, 3 LEDs • 3.3V operation • 512K Flash/512K Program + 512K data SRAM • 49 digital I/O and 5 serial ports • 52 digital I/O and 6 serial ports • Board Size: 1.85" x 2.73" x 0.86" (47 x 69 x 22mm)

RabbitCore RCM3365 Development Kit

Digi-Key Part No. 316-1074-ND (101-1053) Only **\$399.00**

The RCM3365 Development Kit includes RCM3365 microprocessor core module, development board with prototyping area, 2 CDs – Dynamic C and Dynamic FAT File System module – with complete product documentation on disk, 32MB xD-Picture Card™, Screwdriver and Ethernet Cable, serial cable for programming and debugging, Getting Started manual and AC adapter (U.S./Canada only).

RabbitSys™ Development Kit

Digi-Key Part No. 316-1130-ND (101-1088) Only **\$406.98**

Features: • Remote Firmware and Application Update Mechanism • Remote Debugging and Monitoring Systems • Software-Crash Recovery System • Enhanced Memory Protection Features • Event Handler and Corrective Action Operations • Console and Preloaded Device Drivers

Jumpstart your evaluation and design efforts with a complete development kit, which includes RCM3365 RabbitSys Core Module, Prototyping Board, xD-Picture Card, Dynamic C 9.3x to support RabbitSys, RabbitSys CD, FAT File v.2.11, Cables and Accessories, Getting Started Manual and Power Supply (U.S./Canada only).

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
RCM3365	316-1111-ND	105.00	20-101-1051
RCM3375	316-1112-ND	98.00	20-101-1055

RabbitCore™ 3305/3310/3315 Series



Features: • 3.3V Operation • Powerful Rabbit 3000A microprocessor • 512K Flash/512K SRAM • 8 Mbyte Serial Flash for 3305 and 4 Mbyte for 3315 • 49 digital I/O • 5 Serial Ports

Design Advantages: • Ready-Made Platforms for quick design to market • Compact size • Dynamic C® development environment for real-time developing and debugging • Fast performance for math, logic and I/O

RabbitCore RCM3305 Development Kit

Digi-Key Part No. 316-1129-ND (101-1069) Only **\$399.00**

The RCM3305 Development Kit includes RCM3305 microprocessor core module, development board with prototyping area, Dynamic C development system and complete documentation on CD-ROM, serial cable for programming and debugging, Getting Started manual and AC adapter (U.S./Canada only).

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
RCM3305	316-1113-ND	119.00	20-101-1067
RCM3315	316-1114-ND	99.00	20-101-1068

RabbitCore™ 3750 Series



The RCM3750 RabbitCore mounts directly onto a user-designed motherboard using a single dual-row IDC header and can interface with all CMOS-compatible digital devices. Digital I/O (shared with serial ports), power and other signals are directly routed to the motherboard. Built-in low EMI features, including a clock spectrum spreader, practically eliminate EMI problems, which helps OEMs pass European CE and other regulatory RF emissions tests.

Features:

• Rabbit 3000 microprocessor at 22.1MHz • 512K Flash and SRAM • 1MB Serial Flash • 33 digital I/O (31 configurable I/O and 2 fixed outputs) • Four 3.3V CMOS-compatible Serial Ports • Real-Time Clock • Ten 8-bit timers • Watchdog/Supervisor • 4 PWM output channels • Input: 4.75 ~ 5.25VDC, 175mA @ 22.1MHz; 150mA @ 11.05MHz • Board Size: 2.95" x 1.20" x 0.89" (75 x 30 x 23mm)

RabbitCore RCM3750 Development Kit

Digi-Key Part No. 316-1117-ND (101-1049) Only **\$329.00**

The RCM3750 Development Kit includes RCM3750 microprocessor core module, development board with prototyping area, Dynamic C development system and complete documentation on CD-ROM, serial cable for programming and debugging, Getting Started manual and AC adapter (U.S./Canada only).

Description	Digi-Key Part No.	Price Each	Rabbit Part No.
RCM3750	316-1110-ND	74.00	20-101-1028

More Product Available Online: www.digkey.com

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