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Understanding [Embedded - Microprocessors](#)

Embedded microprocessors are specialized computing chips designed to perform specific tasks within an embedded system. Unlike general-purpose microprocessors found in personal computers, embedded microprocessors are tailored for dedicated functions within larger systems, offering optimized performance, efficiency, and reliability. These microprocessors are integral to the operation of countless electronic devices, providing the computational power necessary for controlling processes, handling data, and managing communications.

Applications of [Embedded - Microprocessors](#)

Embedded microprocessors are utilized across a broad spectrum of applications, making them indispensable in

Details

Product Status	Not For New Designs
Core Processor	Rabbit 4000
Number of Cores/Bus Width	1 Core, 8-Bit
Speed	60MHz
Co-Processors/DSP	-
RAM Controllers	-
Graphics Acceleration	No
Display & Interface Controllers	-
Ethernet	10Mbps (1)
SATA	-
USB	-
Voltage - I/O	3.3V
Operating Temperature	-55°C ~ 85°C (TA)
Security Features	-
Package / Case	128-LQFP
Supplier Device Package	128-LQFP (14x14)
Purchase URL	https://www.e-xfl.com/product-detail/digi-international/20-668-0024

Rabbit® 4000

Low-EMI, High-Performance Microprocessor

High-performance, low-EMI microprocessor designed specifically for embedded control, communications and Ethernet connectivity.

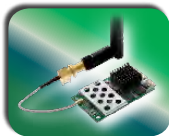


Overview

The Rabbit 4000 offers a host of industrial peripherals along with 1 MB of code support to meet the most demanding applications. The Rabbit 4000 offers on chip Ethernet which reduces overall component costs and optimizes communication performance. Its compact instruction set and high clock speeds give the Rabbit 4000 exceptionally fast math, logic and I/O performance.

The Rabbit 4000 is programmed using the industry-proven Dynamic C® development system. Dynamic C is easy to use, allowing developers to write, compile and test both C and Assembly code without leaving the Dynamic C environment, and no costly in-circuit emulators are required. Full TCP/IP stack with source code is provided royalty-free.

Complete Solutions



Modules



SBCs

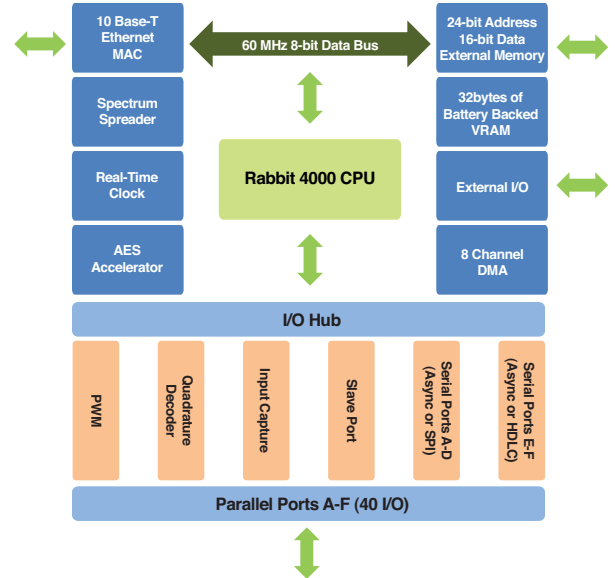


Development Kits

Dynamic C®

Supported Software Platforms

Application Highlight

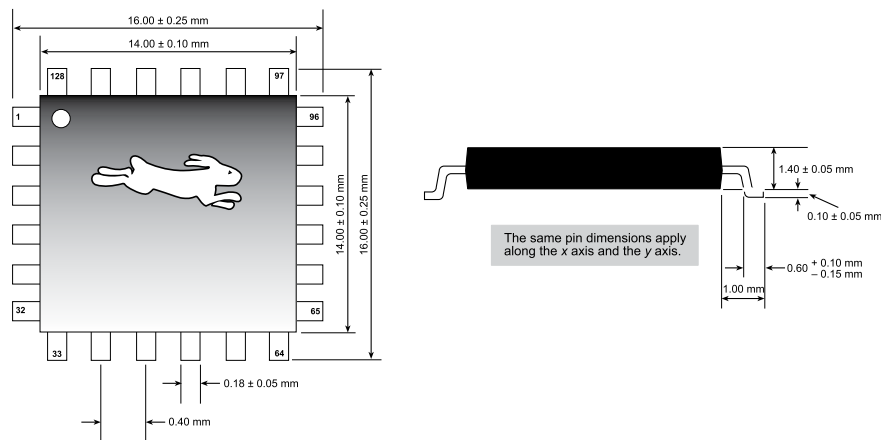


Features/Benefits

- 60 MHz max clock speed
- Integrated 10Base-T Ethernet
- Supports 8-bit or 16-bit Flash and SRAM memories
- Extended low-power "sleepy" modes
- Watchdog timer
- Battery backed option for protected data storage



Feature	
Packaging	128-pin LQFP
Package Size	16 x 16 x 1.5 mm
Maximum Clock Speed	60 MHz
Operating Voltage	1.8V Core (3.3V I/O) or 1.8V Core and I/O
Ethernet	Integrated 10Base-T Ethernet controller
DMA	8 independent channels with 2 external DMA request inputs
Operating Temperature	-55° C to +85° C
Digital I/O	40+ (arranged in five 8-bit ports)
Serial Ports	6 CMOS-compatible
Baud Rate	Clock speed/8 max asynchronous
Address Bus	24-bit
Data Bus	8/16-bit
Timers	Ten 8-bit, one 10-bit with two match registers, one 16-bit timer
Real-Time Clock	Yes, battery-backable
RTC Oscillator Circuitry	External
Watchdog Timer/Supervisor	Yes
Clock Modes	1x, 2x, /2, /3, /4, /6, /8
Power Down Modes	Sleepy (32 kHz) Ultra-Sleepy (16, 8, 2 kHz)
Auxiliary I/O Bus	8 data, 8 address lines
Pricing	
Part Number (Sample 2-pack)	20-101-1186
Part Number	20-668-0024



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