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Training & Support

Multicore Resources

processors

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QorlQ Multicore Development Tools

Wireless LAN

(01:21 min)

Application and CPU

Offloading - Demo

Software, tools and tips to ease your migration to QorlQ multicore

Q

Freescale ▶ QorlQ Processing Platforms: 64-bit Multicore SoCs ▶ QorlQ Communications Processors Value-Performance Tier

Software & Tools

P1023: QorIQ P1023/17 Low-End Single- and Dual-Core Communications Processors with Data Path 🛱

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Documentation 🥦 Data Sheet | Application Notes | Buy



Overview 0

The P1023 and P1017 processors offer the unique value of integrated high-performance data path offload for networking protocols and dual e500 Power Architecture® cores for application software. The P1023 and P1017 are ideally suited for high-performance enterprise
WLAN, fixed routers and security gateway
applications. The P1023 device supports a

400–800 MHz performance range, along with advanced security and a rich set of interfaces—all delivered on 45 nm technology for low-power implementation.

The P1023 processor includes a performance optimized implementation of the QorlQ data path acceleration architecture (DPAA). This architecture provides the infrastructure to support simplified sharing of networking interfaces and accelerators by multiple CPU cores. The DPAA significantly reduces software overhead associated with high touch packet forwarding operations. Examples of the types of packet processing services this architecture is optimized to support include traditional routing and bridging, firewall, VPN termination for IPsec and MACsec (a standardized form of Ethernet encapsulation that can be used to provide confidentiality)

QorlQ P1023/17 Communication Processors 32 KB I-Cache P1017-Single Core On Core Complex (CPU and L2 Cache) Basic Periph Accelerators and Memory Control Networking Elements

Featured Documentation

QORIQP1023FS: P1023 Fact Sheet

Target Applications

Networking

Features

- CORE COMPLEX
- ▶ NETWORKING ELEMENTS
- **▶** ACCELERATORS AND MEMORY CONTROL
- BASIC PERIPHERALS AND INTERCONNECT
- ADDITIONAL FEATURES
- ▶ PACKAGE

This product is included in Freescale's product longevity program, with assured supply for a minimum of 10 year's after launch

Related Products

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