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Freescale ▸ QorIQ Processing Platforms: 64-bit Multicore SoCs ▸ QorIQ Communications Processors Value-Performance Tier

LS1020A: QorIQ LS1020A and LS1022A Dual-Core Processors ☆

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PREPRODUCTION

The QorIQ LS1 family, which includes the LS1020A and LS1022A communications processors, is built on Layerscape architecture, the industry's first software-aware, core-agnostic networking architecture to offer unprecedented efficiency and scale.

Members of the value-performance tier, the QorIQ LS1020A and LS1022A processors provide extensive integration and power efficiency for fanless, small form factor enterprise and consumer networking applications. Incorporating dual ARM® Cortex®-A7 cores running up to 1.0 GHz, the LS1020A and LS1022A processors deliver pre-silicon CoreMark® performance of over 6,000, as well as virtualization support, advanced security features and broadest array of high-speed interconnects and optimized peripheral features ever offered in a sub-3 W processor (LS1022A processor is sub-2W typical).

The QorIQ LS1020A and LS1022A processors features support for multiple industrial protocols, DDR3L/4 running up to 1600 MHz, integrated hardware-based security engine and QUICC Engine, and ECC protection on both L1 and L2 caches. The QorIQ LS1020 and LS1022A processors are pin- and software-compatible with the QorIQ LS1021A processor.

This page contains information on a preproduction product. Specifications and information herein are subject to change without notice.

For additional information and sample availability, contact your local Freescale Sales Office or Freescale Authorized Distributor.
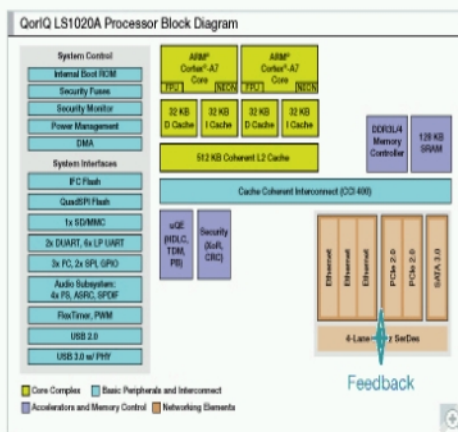
Features

▸ Core Complex

▸ Networking Elements

▸ Accelerators and Memory Control

▸ Basic Peripherals and Interconnect

Related Products

LS1021A: QorIQ LS1021A Dual-Core Processor with LCD Controller

QorIQ LS1020A Processor Block Diagram

Feedback

Featured Documentation

LS1020ALS1022AFS: QorIQ LS1021A and LS1022A - Fact Sheet
M2MGATEWAYWP: Machine-to-Machine (M2M) Gateway: Trusted and Connected Intelligence - White Paper
QORIQINDIOTWP: Networking for Industrial and IoT Applications - White Paper

Target Applications

⊞ Connectivity

⊞ Industrial

⊞ Networking

Multicore Resources

QorIQ Multicore Development Tools
Software, tools and tips to ease your migration to QorIQ multicore processors

Read More

White Paper: Networking for IoT and Industrial Applications

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Featured Video

QorIQ LS1 Family and IoT Synergy at ARMTeck - Interview (02:42 min)

QorIQ LS1 family comparison

	Cores	Core Frequency	SerDes	Security	DDR 4	USB 3.0	LCD Support
LS1021A	2	Up to 1 GHz	4 Lanes	SEC 5.4	Yes	Yes	Yes
LS1020A	2	Up to 1 GHz	4 Lanes	SEC 5.4	Yes	Yes	No
LS1022A	2	Up to 600 MHz	1 Lane	None	No	No	No