

QorIQ® Layerscape 1021A Dual-Core Communications Processor with LCD Controller

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Overview

The QorIQ® LS1 family, which includes the LS1021A communications processor, is built on Layerscape architecture, the industry's first software-aware, core-agnostic networking architecture to offer unprecedented efficiency and scale.

A member of the value-performance tier, the QorIQ LS1021A processor provides extensive integration and power efficiency for fanless, small form factor enterprise networking applications. Incorporating dual Arm® Cortex®-A7 cores running up to 1.2 GHz, the LS1021A processor is engineered to deliver CoreMark® performance of over 7,000, as well as virtualization support, advanced security features and the broadest array of high-speed interconnects and optimized

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Features

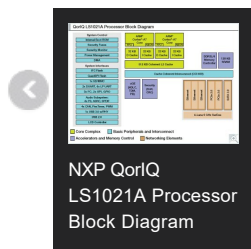
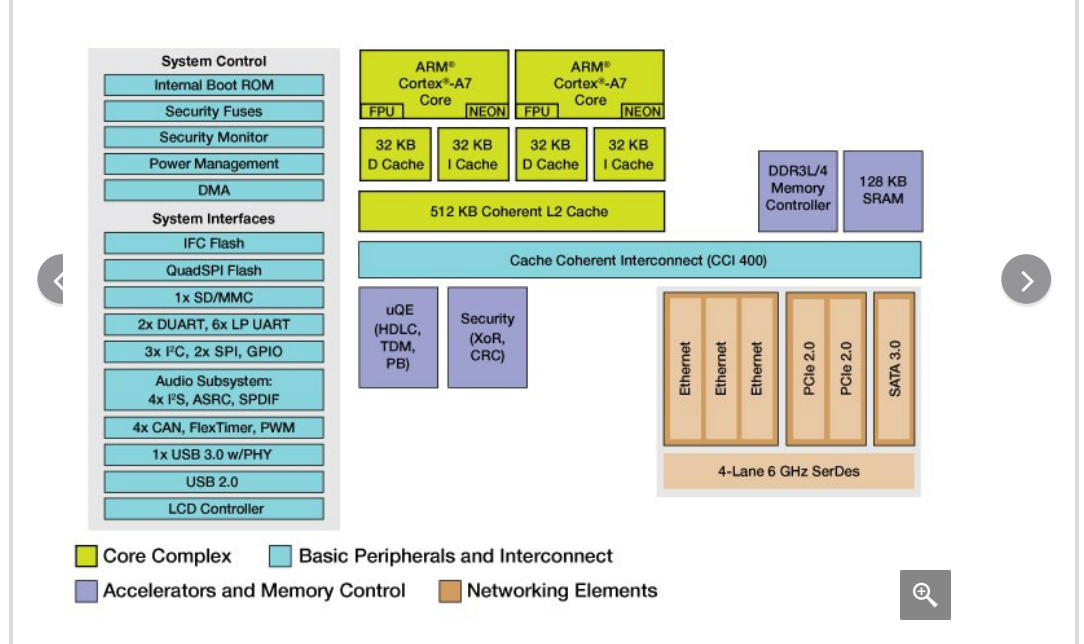
- Core Complex
- Networking Elements
- Accelerators and Memory Control
- Basic Peripherals and Interconnect
- Additional Features

Data Sheets

Application Notes

Buy

NXP QorIQ LS1021A Processor Block Diagram



NXP Priority Support- helping you to get to market faster



QorIQ® LS1 Family and IoT Synergy at ArmTeck - Interview

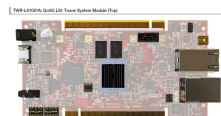


Introducing the QorIQ® LS1 Processor Family



QorIQ® LS1 Far for Networking Applications

Development Boards



TWR-
LS1021A:QorIQ®
LS1021A Tower®
System Module

Application Boards

Show:

- ▼ RBZ LS1021A module by RBZ Embedded Logics
- ▼ Rakun LS1 system IP block by Borea
- ▼ Rakun LS1 uQseven module by Borea
- ▼ TQMLS102xA by TQ-Systems GmbH

Target Applications

Communication Infrastructure

Industrial Gateway

IoT Gateway

M2M Gateway

[Wireless LAN \(WLAN\) Access Point](#)

Industrial

[Industrial HMI Entry Tier](#)

[Programmable Logic Controller \(PLC\)](#)

Motor Control

[Motion Control and Robotics](#)

LS1021A Development Tools

- **Software**
 - [Software Development Kits](#)
 - [Layerscape Software Development Kit](#)
 - [Linux® SDK for QorIQ® Processors](#)
 - [Development Software](#)
 - [CodeWarrior for Networked Applications](#)
 - [Double Data Rate RAM Memory Validation \(DDRV\)](#)
 - [QorIQ Configuration and Validation Suite](#)
- **Hardware**
 - [Reference Designs](#)
 - [QorIQ® LS1021A-IoT Gateway Reference Design](#)
 - [QorIQ® LS1021A TSN Solution Reference Design](#)
 - [Development Boards](#)
 - [QorIQ® LS1021A Tower® System Module](#)
 - [Emulators/Probes](#)
 - [QorIQ LS Processor Probe Tips for CodeWarrior TAP](#)
 - [CodeWarrior® TAP](#)
- **Support**
 - [Security Consultation for QorIQ](#)
 - [QorIQ® Linux SDK Support](#)

Comparison Table

	LS1021A	LS1020A	LS1022A
Cores	2	2	2
Core Frequency	Up to 1.2 GHz	Up to 1.2 GHz	Up to 600 MHz
SerDes	4 Lanes	4 Lanes	1 Lanes
Security	SEC 5.4	SEC 5.4	SEC 5.4
DDR 4	Yes	Yes	No
USB 3.0	Yes	Yes	No
LCD Support	Yes	No	No

Other Recommended Products

[NX5P3090UK](#) :
USB PD and type
C current-limited
power switch

[SA56004X](#) :
SMBus-
Compatible, 8-Pin,
Remote/Local
Digital
Temperature
Sensor

[PCAL6416A](#) :
Low-voltage
translating 16-bit
I²C-bus/SMBus I/O
expander

[PCA9555](#) : 16-bit
I²C-bus and
SMBus I/O port
with interrupt

[NTB010](#)
supply i
transce
directio
3-state



Similar Products

[LS1028A : QorIQ®](#)
[Layerscape 1028A](#)
[Industrial Applications](#)
[Processor](#)

We recommend the following Power Management IC for LS1021A Processors

Select the specifications below to find the perfect fit for your design

Show entries

Search:

PMIC Part Number	Description	External Memory Voltage (V)	Ambient Operating Temperature (Min-Max) (°C)	Qualification Tier
		<input type="checkbox"/> 1.35	<input type="checkbox"/> -40 to 105	<input type="checkbox"/> Industrial
MC34VR500V1ES	Regulator, Buck, Quad with up to 4.5A Output and Triple User-programmable LDOs, QFN 56	1.35	-40 to 105	Industrial
MC34VR500V2ES	Regulator, Buck, Quad with up to 4.5A Output and Factory programmed LDOs, QFN 56	1.35	-40 to 105	Industrial

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