

## P2040: QorIQ P2040/P2041 Quad-Core Communications Processors with Data Path ☆

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The QorIQ P2040 (to 1.2 GHz) and higher performance pin-compatible P2041 (to 1.5 GHz) quad-core processors, built on Power Architecture® technology, bring high-end architectural features pioneered in the P4 platform into the low-end (P2040) and mid-range (P2041) quad-core space. They are software-compatible with members of the P1 family and all devices in the P3, P4 and P5 families. This enables customers to

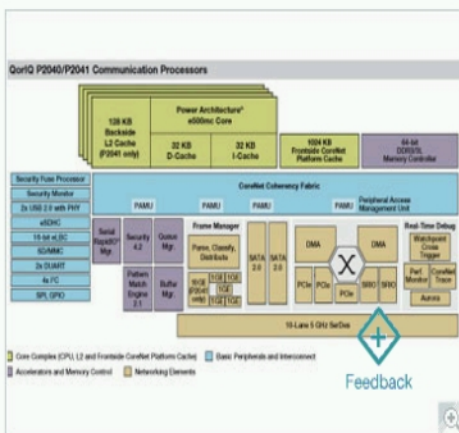
scale software up and down the QorIQ product line. The P2040 and P2041 are pin-compatible, sharing a 23 x 23 mm package.

### Features

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

### Related Products

- [P1023:QorIQ P1023/17 Low-End Single- and Dual-Core Communications Processors with Data Path](#)
- [P3041:QorIQ P3041 Quad-Core Communications Processors with Data Path](#)
- [P4080:QorIQ P4080/P4040/P4081 Communications Processors with Data Path](#)

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### Featured Documentation

- [QP2040FS: QP2040/P2041 Fact Sheet](#)
- [P2P3P5APBRF: QorIQ P2040/P2041, P3 and P5 Series - Brochures](#)
- [P2041RDBFS: P2041 Reference Design Board](#)

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### Featured Software and Tools

- [CW-PA: CodeWarrior Development Studio for Power Architecture® Technology \(Eclipse\) v10.4](#)

### Target Applications

- Industrial
- Networking

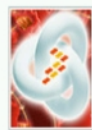
### Featured White Paper

[Tuning QorIQ Processor Performance with Prism Software Analysis \(pdf\)](#)
[Managing Machine Safety and Productivity with QorIQ Multicore Processors \(pdf\)](#)

### Multicore Resources

[QorIQ Multicore Development Tools](#) Software, tools and tips to ease your migration to QorIQ multicore processors

### Featured Software



**VortiQa Software-Defined Networking (SDN) Solutions** including VortiQa open network director software and VortiQa open network switch software

### Featured Videos



[QorIQ P2040 and P2041 - Introduction \(4:15 min\)](#)



[Freescale and CriticalBlue - Simplifying Multicore Software \(05:32 min\)](#)

### Comparison Table

	Cores	Core Frequency	L2 Cache	L3/Platform Cache	DDR3	Gigabit Ethernet	SERDES	Security
P2040	4	667 to 1.2 GHz	-	1 MB	1x 32/64-bit	-	10 Lanes	Trust
P2041	4	1.2 to 1.5 GHz	128 KB/core	1 MB	1x 32/64-bit	5x 1 Gigabit Ethernet 1x 10 Gigabit Ethernet	10 Lanes	Trust

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[P3041: QorIQ P3041 Quad-Core C...](#)  
[P4080: QorIQ P4080/P4040/P4081...](#)

**Documentation**  
[QP2040/P2041 Fact Sheet](#)  
[P2041 Reference Design Board](#)  
[P2041 QorIQ Integrated Process...](#)

**Software and Tools**  
[SDKLINUX: Linux® SDK for ...](#)  
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**Applications**  
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