PowerQUICC® II Pro Processor with DDR2, PCI, PCI Express, 1 GB Ethernet, USB, Security

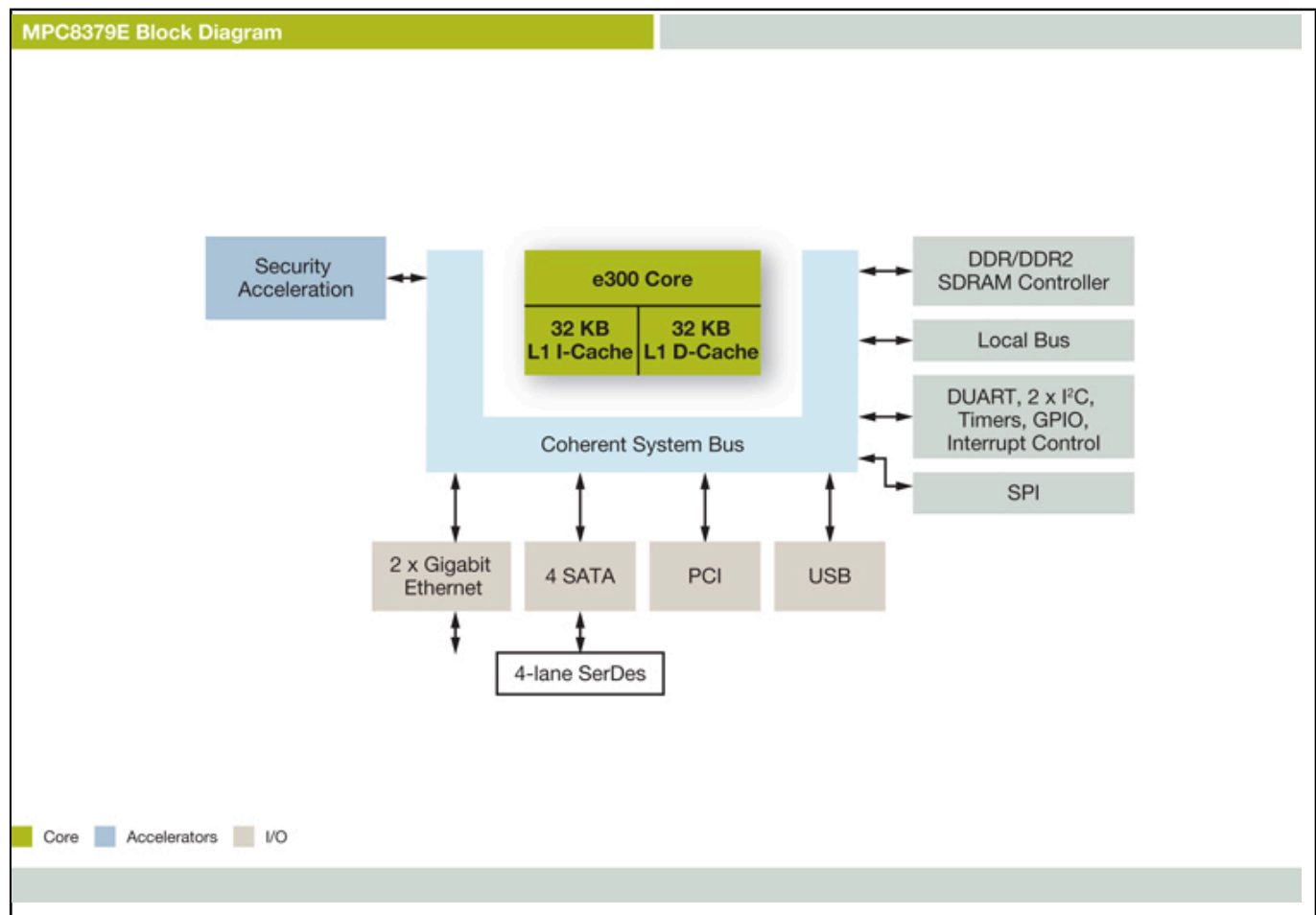## MPC8378E

Not Recommended for New Designs

This page contains information on a product that is not recommended for new designs.

Last Updated: Dec 15, 2024

MPC837X device is "Not recommended for new designs", please use the replacement families Power Architecture (T1013), Arm Architecture (LS1012, LS1023).

Today's small-to-medium businesses and consumer applications are driving the need for highly integrated, cost-effective solutions that deliver high performance. The MPC8378E provides a high-performance Power Architecture® e300 core up to 800MHz with 32K I/D L1 cache and integrated x2 PCI Express® controllers that help to reduce overall BOM cost. The system-on-chip (SoC) includes two Gigabit Ethernet (GbE) controllers with an SGMII interface for network connectivity, as well as a security engine for encryption algorithm offload. The MPC8378E, based in 90 nm process technology, provides high integration that simplifies board design and provides a cost-effective solution for applications such as wireless access points and routers.

NXP PowerQUICC MPC837XE Communications Processor Block Diagram Block Diagram

MPC8379E Block Diagram

- Security Acceleration
- e300 Core
  - 32 KB L1 I-Cache
  - 32 KB L1 D-Cache
- Coherent System Bus
- DDR/DDR2 SDRAM Controller
- Local Bus
- DUART, 2 x I²C, Timers, GPIO, Interrupt Control
- SPI
- 2 x Gigabit Ethernet
- 4 SATA
- PCI
- USB
- 4-lane SerDes

Legend: Core | Accelerators | I/O

View additional information for PowerQUICC® II Pro Processor with DDR2, PCI, PCI Express, 1 GB Ethernet, USB, Security.

Note: The information on this document is subject to change without notice.