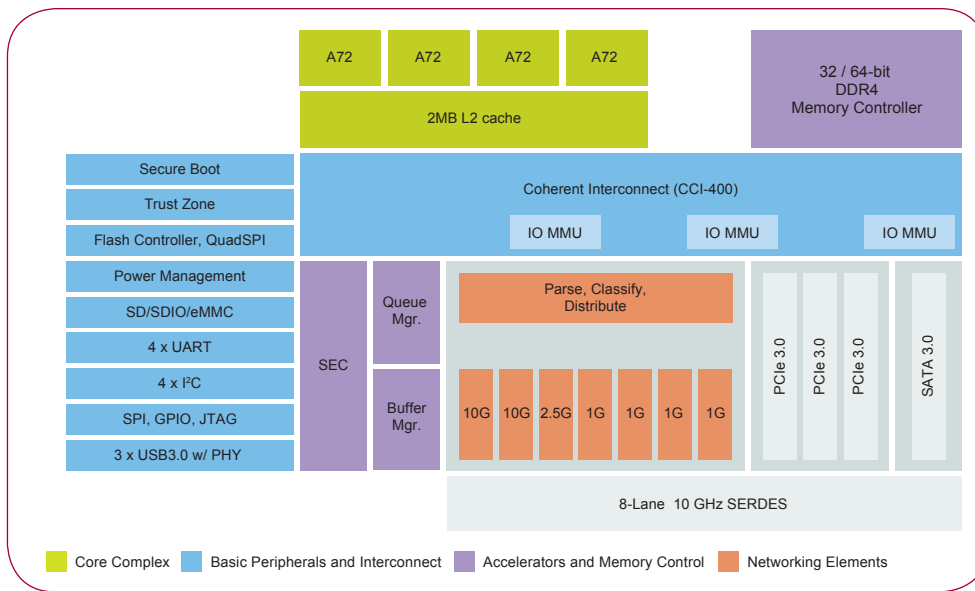


QorIQ LS1046A PROCESSOR BLOCK DIAGRAM



QorIQ LS1046A FEATURES

Features	Benefits
Four ARM® Cortex®-A72 cores 2 MB L2 cache	<ul style="list-style-type: none"> Performance in excess of 32,000 CoreMarks® Total power under 10 W at 1.2 GHz for convection cooled designs
Packet processing acceleration	<ul style="list-style-type: none"> Efficient packet classification and distribution; hardware work scheduling, shaping, and buffer management, offloading the general purpose processors to concentrate their processing cycles on value added operations.
Integrated security engine	<ul style="list-style-type: none"> High-speed security protocol processing, including IPsec, SSL, DTLS, and IKE SEC also supports high speed XORing for RAID 5 acceleration
ARM TrustZone® and NXP QorIQ trust architecture	<ul style="list-style-type: none"> Secure boot, secure debug, tamper detection, secure key storage
Rich connectivity <ul style="list-style-type: none"> Two 10 Gigabit Ethernet controllers One 2.5 Gigabit Ethernet controller Four 1 Gigabit Ethernet controllers Three PCIe® 3.0 Controllers, x 4, x 2, x 1 Three USB 3.0 with integrated PHY SATA 3.0 controller Quad SPI 	<ul style="list-style-type: none"> High versatility that enables support for 802.11ac modules and high bandwidth connectivity for ASICs, 4G/LTE, SATA and low-cost NAND/NOR Flash Multiple USB 3.0 for redundant WAN fail over, storage and configuration Advanced XFI, Quad SGMII for maximum Ethernet flexibility
Support for hardware-based virtualization	<ul style="list-style-type: none"> Enables partitioning of physical and virtual resources on LS1046A multicore devices for increased system flexibility

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