

# Marvell ARMADA 375

## High-performance Dual-core CPU System-on-Chip (SoC)

### PRODUCT OVERVIEW

The Marvell® ARMADA® 375 is a complete system-on-chip (SoC) solution based on the ARM® Cortex™ A9 high-performance, dual-core CPU technology. The ARMADA 375 is ideally suited for a wide range of applications, including networked attached storage (NAS) devices, media servers, networking applications and video surveillance applications. With its innovative architecture and high integration, the ARMADA 375 brings a new level of performance, and power efficiency to enable high-performance systems at a very affordable cost.

### KEY FEATURES

- Dual-core Cortex A9 ARMv7 CPU with NEON SIMD and Floating Point Unit (FPU)
- Up to 1GHz per core
- Symmetrical/asymmetric multiprocessing (SMP/AMP) operational modes
- 32 KB-instruction/data (4-way) set associative L1 cache per core
- 256 KB shared and unified 16-way set associative L2 cache
- High-bandwidth, low-latency coherency fabric
- High-speed, low-latency, tightly coupled DDR3/3L DRAM memory controller with advanced transaction re-ordering and prefetch engine
- Integrated dual Gigabit Ethernet PHYs with EEE
- USB3.0/USB2.0
- Four multiplexed high-speed SERDES interfaces
- Advanced I/O peripherals, including PCI Express (PCIe) Gen 2.0x1, SATA 2.0 and Gigabit Ethernet ports
- Audio, TDM, SDIO 2.0 and Flash interfaces
- Supports boot from NAND, SPI, SATA, PCIe or UART
- Acceleration engines for storage and security
- Advanced power management
- Integrated power-on-reset supervisory circuits
- RTC and thermal sensor
- TFBGA 19 x 19 mm, 0.65 mm ball pitch, green-compliant package

### BLOCK DIAGRAM

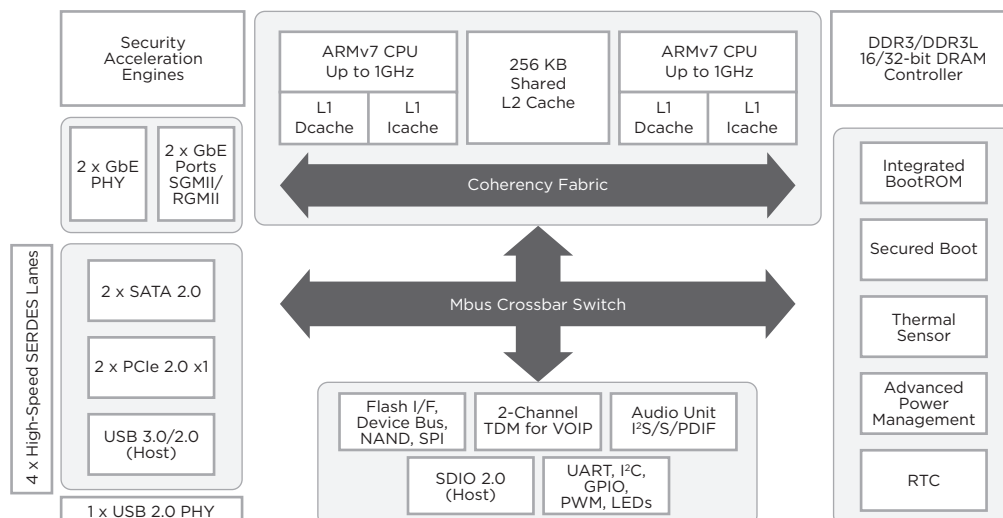


Fig 1. Marvell ARMADA 375 (88F6720) Block Diagram

## COMPREHENSIVE DEVELOPMENT TOOLS

Marvell offers complete development platforms for the ARMADA 375 SoCs, enabling customers to start system development without waiting for their own hardware. Complete reference design platforms include software drivers and board support packages to help accelerate customer product development cycles.

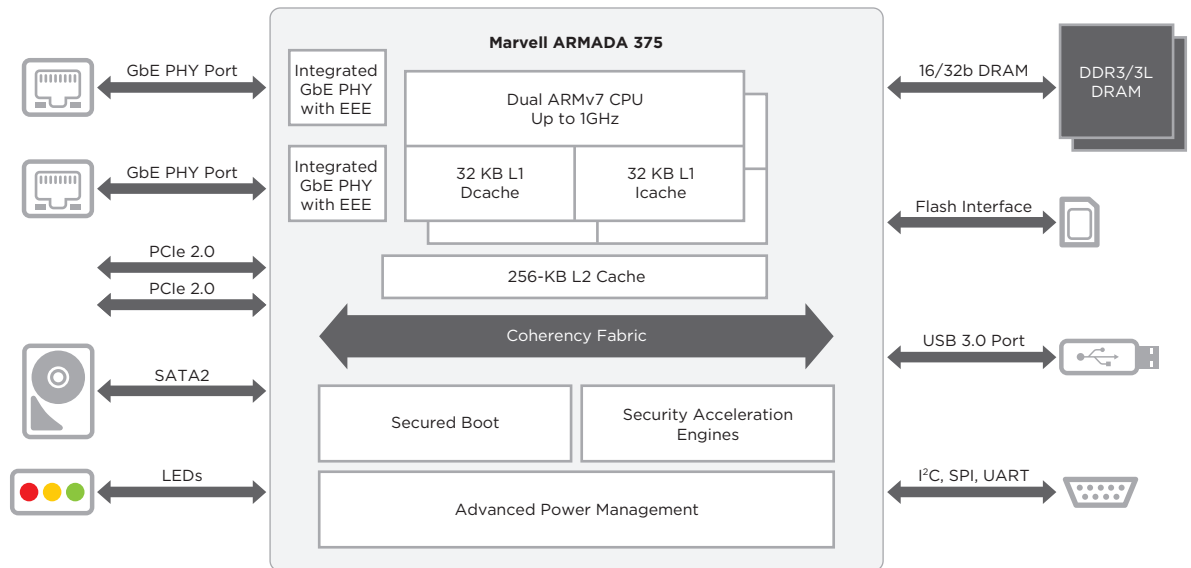


Fig 2. System Block Diagram

**THE MARVELL ADVANTAGE:** Marvell chipsets come with complete reference designs which include board layout designs, software, manufacturing diagnostic tools, documentation and other items to assist customers with product evaluation and production. Marvell's worldwide field application engineers collaborate closely with end customers to develop and deliver new leading-edge products for quick time-to-market. Marvell utilizes world-leading semiconductor foundry and packaging services to reliably deliver high-volume and low-cost total solutions.

**ABOUT MARVELL:** Marvell (NASDAQ: MRVL) is a global leader in providing complete silicon solutions enabling the digital connected lifestyle. From mobile communications to storage, cloud infrastructure, digital entertainment and in-home content delivery, Marvell's diverse product portfolio aligns complete platform designs with industry-leading performance, security, reliability and efficiency. At the core of the world's most powerful consumer, network and enterprise systems, Marvell empowers partners and their customers to always stand at the forefront of innovation, performance and mass appeal. By providing people around the world with mobility and ease of access to services adding value to their social, private and work lives, Marvell is committed to enhancing the human experience. As used in this release, the term "Marvell" refers to Marvell Technology Group Ltd. and its subsidiaries. For more information, please visit [www.Marvell.com](http://www.Marvell.com).



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