

Marvell ARMADA 510 Platform

High-end Smartbook, MID and Tablet Designs Based on ARMADA 510 Application Processor



▶ PRODUCT OVERVIEW

Marvell® is a semiconductor company uniquely positioned to provide complete solutions for the entire spectrum of devices ranging from smartphones to mobile internet devices (MID) to smartbooks and netbooks. The Marvell ARMADA™ 510 platform offers developers a complete platform with best-in-class solutions for performance, power, and maximum value for ARM-based smartbook, MID and tablet applications. The ARMADA 510 platform features a complete solution of validated hardware and software, enabling the quickest time-to-market while maintaining the highest quality at low cost.



Fig 1. ARMADA 510 Platform Reference Designs

▶ KEY FEATURES AND BENEFITS

FEATURES	BENEFITS
<ul style="list-style-type: none"> • Superior multi-media experience • Excellent power management 	<ul style="list-style-type: none"> • 3D graphics engine supports 3-dimensional interface and Adobe® Flash® accelerations • Video engine decode up to 1080p 60Hz for supreme viewing experience • Comprehensive display interface support for LCD panel, VGA, TV-out, HDMI and display port • Complete fanless design • Low-cost, two cells polymer Li-ion battery • Mobile phone-like power scheme provides long battery life for connected devices • Lowest power implementation on DDR3
<ul style="list-style-type: none"> • Complete software options • Complete connectivity options 	<ul style="list-style-type: none"> • Android, Chrome, Ubuntu Linux, and WinCE • Browser and multi-media players • Adobe Flash 10 • Wi-Fi • SATA • Ethernet • PCI Express • SDIO • USB 2.0 host and device

▶ APPLICATIONS

The Marvell ARMADA 510 platform offers solutions for smartbook, MID and tablet applications. The platform offers the portability and low power/long battery life features of a smartphone, while at the same time offers "PC-like" performance to enable a rich Internet browser and multimedia experience. The ARMADA 510 platform bridges the gap between smart phones and PCs by providing a powerful yet cost-effective design for smartbook, MID and tablet devices.

▶ **DIAGRAMS**

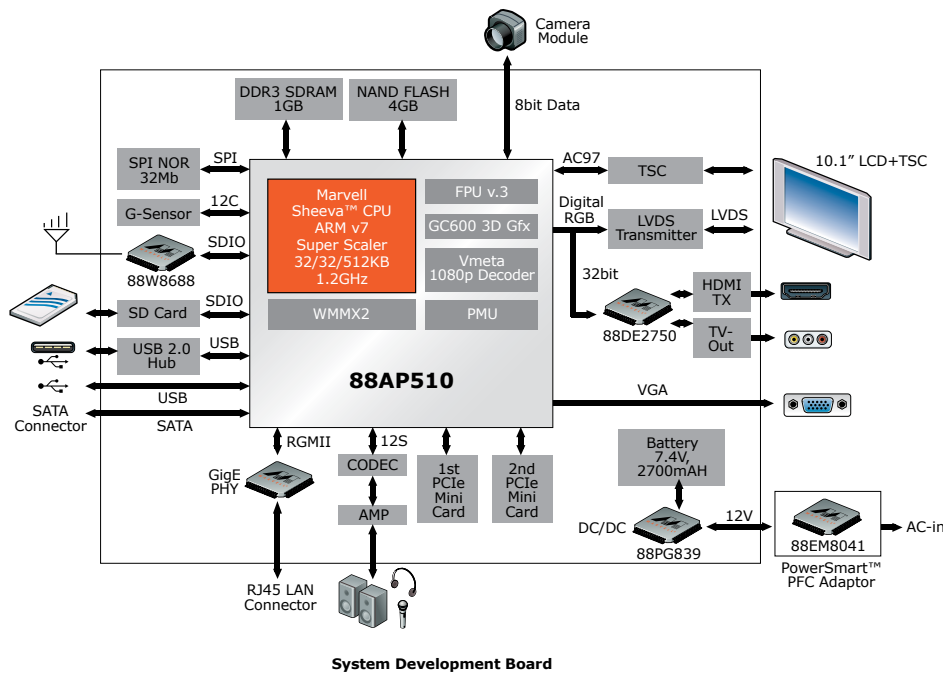


Fig 3. System Development Board Block Diagram

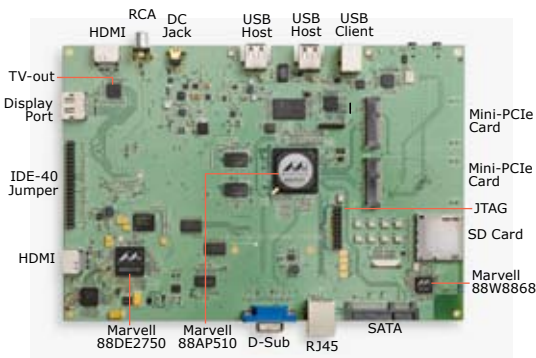


Fig 4. Development PCB Board (Front)

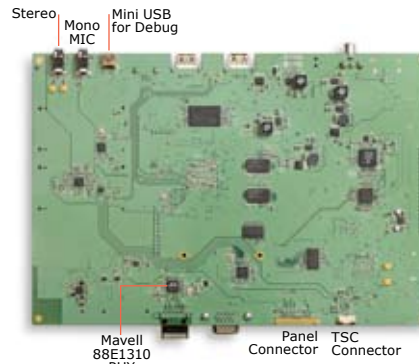


Fig 5. Development PCB Board (Back)

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 is a leader in storage, communications, and consumer silicon solutions. Marvell's diverse product portfolio includes switching, transceiver, communications controller, processor, wireless, power management, and storage solutions that power the entire communications infrastructure, including enterprise, metro, home, storage, and digital entertainment solutions. For more information, visit our Web site at www.marvell.com.



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