

Marvell ARMADA 610 Platform

1GHz, 1080p Encode/decode, 45 MTPS 3D, Security Enabled



▶ PRODUCT OVERVIEW

Marvell® is a semiconductor company uniquely positioned to provide complete solutions for the entire spectrum of connected devices. The ARMADA™ 610 processor is Marvell's next-generation application processor that is designed for mainstream Mobile Internet Devices (MIDs), connected consumer products, e-readers, smartphones, media players and new personal information appliances. The ARMADA 610, the lowest power processor in the ARMADA lineup, delivers the best combination of fast, PC-caliber processing, an uncompromised Internet experience, and full 1080p HD quality video and 3D graphics — all in the lightweight form factors with extended battery life that consumers want.

The Marvell ARMADA 610 platform offers developers a complete platform with best-in-class solutions for performance, power, and maximum value for smartphones, mainstream Mobile Internet Devices (MIDs), connected consumer products, e-readers, media players and new personal information appliances. The ARMADA 610 platform is a highly compact, easy-to-use reference solution with a wide range of Operating System support and is perfect for software development.



Fig 1. ARMADA 610 Platform Reference Design

▶ KEY FEATURES AND BENEFITS

FEATURES	BENEFITS
<ul style="list-style-type: none"> • Superior Multimedia Performance 	<ul style="list-style-type: none"> • ARMADA 610 application processor at 1GHz • Video decode up to 1080p 30fps, h.264 High Profile • Video encode up to 1080p 30fps, h.264 High Profile • Up to 45MTPS 3D performance with integrated 2D • 8MP Camera • WVGA Display with Capacitive touchscreen • HDMI v1.3a Output
<ul style="list-style-type: none"> • Excellent Power Management 	<ul style="list-style-type: none"> • Lowest power member of the ARMADA 610 family • Tightly coupled power management IC • Integrated battery or USB charging
<ul style="list-style-type: none"> • Complete Software Solutions 	<ul style="list-style-type: none"> • Android, Windows Mobile 6.5, Windows CE 6, Windows CE 7, Linux, Maemo • Browser and multimedia players • Flash 10 support
<ul style="list-style-type: none"> • Complete Connectivity Options 	<ul style="list-style-type: none"> • Marvell Wi-Fi • Marvell Cellular Baseband • SD card slot • USB OTG and USB 2.0 Host • Two board connection options for 3rd party components

▶ APPLICATIONS

The Marvell ARMADA 610 platform offers a compact development platform for creating ARMADA 610 based smartphones, mainstream Mobile Internet Devices (MIDs), connected consumer products, e-readers, media players and new personal information appliances. The platform demonstrates the ARMADA 610's high performance, low power operation in a compact form factor that is easy for developers to use with powerful expansion options for adding more platform capabilities.

▶ DIAGRAMS

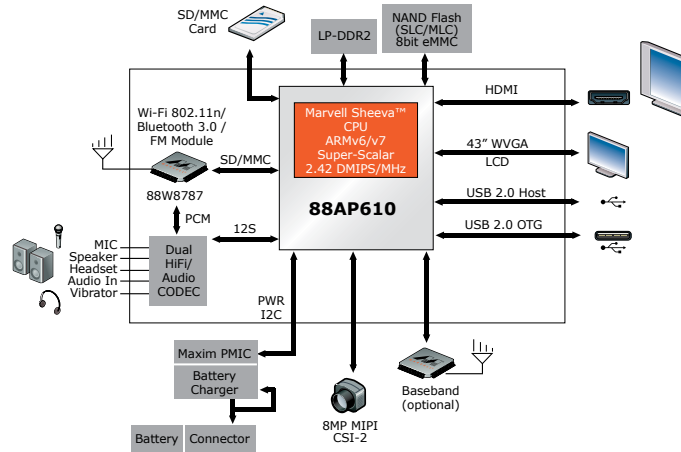


Fig 2. System Development Board Block Diagram



Fig 3. Development PCB Board (Front)

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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