## Arasan Chip Systems Announces SD 4.0 Host Controller IP

Designed for 3.12Gbps-Half Duplex SD 4.0 Cards, Arasan SD Host Controller IP is Suitable for Next Generation Mobile Devices with 3D TV and HD Video Streaming Capability

San Jose, California – November 3, 2011 – Arasan Chip Systems, Inc.("Arasan"), a leading provider of Total IP Solutions, announced today the availability of SD 4.0 Host Controller IP Core, the latest addition to its flagship Secure Digital (SD) IP product family portfolio. Arasan's SD Host Controller IP family has been adopted by most tier-one mobile SoC's vendors which integrate the IP into hundreds of products including smart phones, tablets, cameras, and others.

Arasan SD 4.0 Host Controller IP is compliant with the latest SD specifications, Physical Layer v4.0 and Host Controller v4.0. Arasan SD 4.0 Host Controller IP supports FD156 or full duplex 1.56 Gbps, and HD312 or half duplex 3.12 Gbps operations. SoC's integrating Arasan SD Host Controller IP can take advantage of the security and enhanced SD card data management features supported by SD standards. SoC designers have been looking for a standard, scalable solution to future proof their systems' ever growing need for data storage and high-performance I/O. By integrating Arasan's SD4.0 Host Controller IP, designers can be the first-to-market with the best performance for the most demanding mobile data storage requirements.

Multi-Controller IP

Through popular requests and Arasan's years of silicon integration experiences, Arasan SD 4.0 Host Controller IP is designed to integrate SDIO 4.0 and eMMC 4.5 Host Controller into a single IP for best cost, power, and performance ratio. "Arasan is the first IP provider to

integrate three of the high performance memory specifications into a single, high-quality IP core," said Andrew Haines, Vice-President of Marketing at Arasan. "Designers building consumer and mobile electronics can optimize their data storage interfaces to meet their cost, power, performance, security, and expanding application requirements of their next generation platforms."

About Arasan SD/SDIO/eMMC Multi-Controller IP

Arasan's SD 4.0 / eMMC 4.5 Host IP reduces BOM cost by combining multiple host controllers into one to reduce the silicon area. It also accommodates the increasing capacity for rapidly growing embedded software. The SD 4.0 / eMMC 4.5 Host IP has native support for all SD/SDIO/eMMC commands. It is also backward compatible to earlier specifications, including SD, SDHC, SDXC, SDIO, MMC, and eMMC. It has built-in hardware support for multiple data protection schemes such as mechanical switch-based, password, temporary, or permanent write protection. In addition to traditional password based, host configurable write protection schemes, the SD 4.0 / eMMC 4.5 Host Controller IP also supports the Replay Protected Memory Block (RPMB) feature of eMMC 4.5. System designers can also use this Host Controller IP to boot from embedded eMMC devices thereby eliminating the need and cost of a NOR flash for code storage.

Arasan enables technology adoption by providing a "Total IP Solution" for its SD/SDIO/eMMC Host Controller IP, consisting of RTL code, synthesis scripts, verification IP, software stacks, hardware development platform (HDP), and documentation all backed by its world-class customer support.

## Availability

Arasan's SD4.0/SDIO4.0/eMMC4.5 Host Controller IP is available immediately for licensing including IP core, Verification IP, software stack, hardware development platform (HDP), and documentation. It is also available with AXI bus, or alternative buses such as AHB/OCP bus.

## About Arasan

Arasan Chip Systems is a leading provider of Total IP Solutions for mobile storage and connectivity applications. Arasan's high-quality, silicon-proven, Total IP Solutions include digital IP cores, analog PHY interfaces, verification IP, hardware verification kits, protocol analyzers, software stacks and drivers, and optional customization services for MIPI, USB, SD, SDIO, MMC/eMMC, CF, UFS, xD and many other popular standards. Arasan's Total IP products serve system architects and chip design teams in mobile, gaming and desktop computing systems that require silicon-proven, validated IP, delivered with the ability to integrate and verify both digital, analog and software components in the shortest possible time with the lowest risk.

Unlike many other IP providers, Arasan's Total IP Solution encompasses all aspects of IP development and integration, including analog and digital cores, hardware development kits, protocol analyzers, validation IP and software stacks and drivers and optional architecture consulting and customization services. Based in San Jose, CA, USA, Arasan Chip Systems has a 16 year track record of IP and IP standards development leadership.

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