

SDIO Host Hardware Validation Platform

Features

SDIO Port:

- Meets SDIO card v2.0 specification
- Meets SD Memory Card Physical Layer specification v2.0
- Supports SDIO SPI, 1-bit, and 4-bit SD modes
- Host clock rate up to 50 MHz
- Single SDIO function interface
- Three I/O mode selection pins

UART Port:

- Supports 5, 6, 7, or 8-bit characters
- 1, 1/2, or 2 stop bit generation
- Even, odd, or no parity bit
- 0 - 921.6 Kbaud generation

APB Interface:

- Operating frequency up to 100 MHz

Custom Bus:

- Parallel processor bus up to 100MHz

I2C:

- Interfaces EEPROMs and I/Os

Sample Device Drivers:

- WinCE, Windows Mobile, WinXP, and Palm

Overview

The core of the SDIO Host Hardware Validation Platform (HVP) is an Arasan AC2600ie SDIO Combo Controller that is fully compliant with the SDIO card version 2.0 and SD Memory Card Physical Layer version 2.0 specifications. The SDIO host HVP contains everything you need to launch your products in the shortest time frame possible.

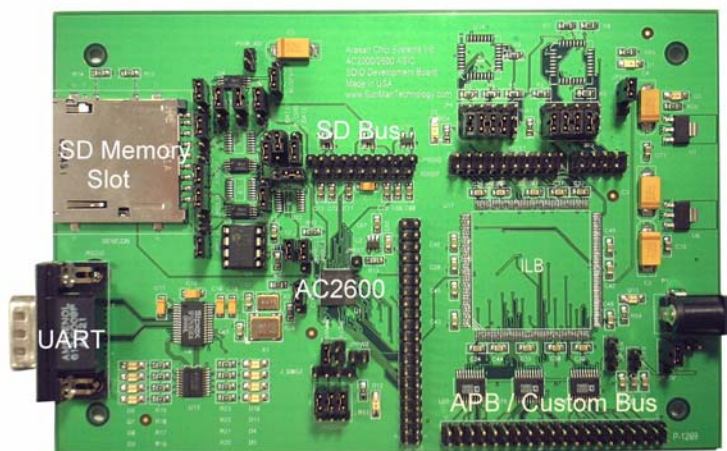
The SDIO HVP consists of the AC2600ie based PCB, SDIO extender card, serial cable, universal power adaptor, sample drivers, debug applications with source code for Win CE, Windows Mobile, WinXP, and Palm OS. The HVP eliminates the need for software driver development. All required drivers and debug applications are provided along with the HVP that allow you to build your prototype in the shortest time.

The SDIO host HVP provides a number of interfaces including SDIO, SD memory, RS-232, APB, custom, 8051, and I2C for hardware development.

At power-up, when an SDIO host communicates with the HVP through the SD bus, the operating conditions of AC2600ie can be obtained by reading the register values stored in the Common I/O Area (CIA). Configuration and initialization of the AC2600ie can be controlled by an EEPROM (no included) during power-up. The AC2600ie operates at its default settings when an EEPROM is not present.

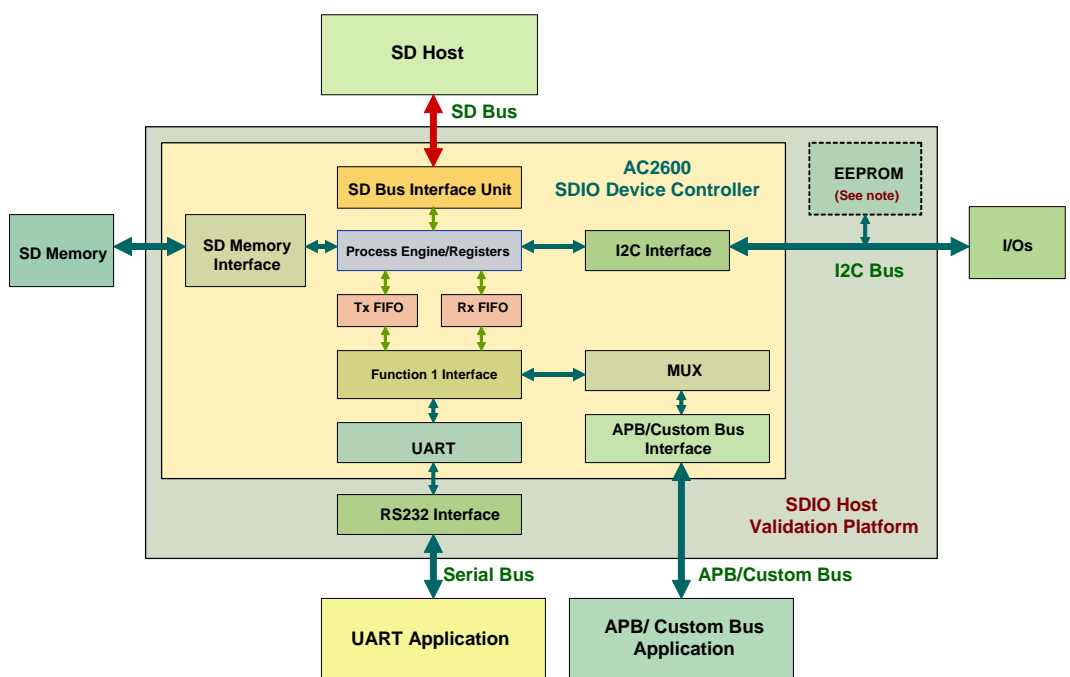
The flexible system interface of the SDIO host HVP allows target system devices such as PDA, Bluetooth, Wi-Fi, or GPS devices to connect directly to the SDIO host HVP. The SDIO host HVP allows interfaces such as APB, 8051, or UART to connect seamlessly. In such configurations, the HDK acts as a direct bridge, ie. SDIO-APB or SDIO-UART, that provides a communication link between the SDIO host and desired target devices.

SDIO host HVP



SDIO Host Hardware Validation Platform

SDIO host HVP block diagram



Note: The EEPROM is an optional item and not included in the SDIO host HVP.

Benefits:

- Premier direct support from Arasan IP core designers
- Commercial/industrial standard testbench development platforms
- Customer training available
- RoHS compliant

Deliverables:

- Hardware Validation Platform
- HVP board
 - Schematics
 - Bill of material
 - Hardware manual

Sample Device Drivers

- WinCE 5.0
- Windows Mobil 6.0
- Debug applications
- Drivers user guide

EEPROM File:

- Data and hex files for loading EEPROM

Optional:

- Design source
- Driver source code



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Related Links:

AC2600 SDIO Controller:
<http://www.arasan.com/datasheets/login.php>
 For a complete directory of Arasan IPs, please visit: www.arasan.com