



Stream Processors, Inc.

Parallel Processing.
Made Simple.

Product Brief



Storm-1 Development Kit

Designed for flexibility and ease-of-use, the Storm-1™ Development Kit is a hardware platform supporting efficient software development of embedded solutions based on SPI's Storm-1 family of stream processors.

Hardware Components

Storm-1 HDK Board

- Storm-1 stream processor
- PCI 2.2 33/66 MHz, 32-bit host/agent, 3.3/5V
- 512 MB DDR2 SDRAM 267 MHz
- 32 MB NOR flash (expandable to 80 MB)
- 10/100/1000 Ethernet interface
- 1 analog audio in/output
- 1 digital audio in/output

HD Video Board (Optional)

- Input: HDMI, VGA, HD component, SD composite
- Output: HDMI, VGA, HD component, SD composite

SD Video Board (Optional)

- Input: 8 x SD composite
- Output: 1 x SD composite

Included Accessories

Basic Package

- 5V, 6A power supply
- 2 x DB9 to DB9 serial cables
- 1 x 6' CAT5 Ethernet cable

HD Video Board Option

- 2 x component video cables
- 2 x VGA cables
- 2 x composite RCA video cables

SD Video Board Option

- 2 x DB15-BNC breakout cables
- 9 x RCA-BNC adapters

Target Applications

- Multi-channel video/audio decode, encode and transcoding
- HD video conferencing endpoints and MCUs
- Video surveillance DVRs, encoders, and intelligent video analytics
- Print/copy/scan image processing for mid to high-end

Features and Benefits

- Stand-alone operation for comprehensive system development
- Accessible over Ethernet
- Boots from on-board flash and is configurable via browser and embedded web server
- Configurations include network settings, diagnostics, firmware updates, and sample demo applications
- Optional I/O cards that connect to Storm-1 HDK board support HD or SD video and data in/outputs
- SPI's RapiDev™ tool suite includes all required C compiler, profiling and debugging tools offering shorter design time
- Full Linux distribution for Storm-1 stream processors including board support package
- Comprehensive product documentation facilitates hardware evaluation and board design

Documentation

- Storm-1 Development Kit User Guide
- Storm-1 Development Kit Getting Started Guide
- Schematics and BOM

Development Kit Boards ▾



Storm-1 HDK Board



Storm-1 SD Video Board



Storm-1 HD Video Board

Software Components

RapiDev Tool Suite

- Fast Functional Debugger (FFD) host simulation libraries
- SPC compiler for Storm-1 stream processors
- Cycle accurate Target Code Simulator (TCS), including MIPSsim hardware simulation of DSP MIPS CPU
- Eclipse open-source debug and performance optimization IDE
- Multi-tasking application framework runtime
- Cross compilers for Linux (Red Hat® Enterprise Linux® 3, Fedora Core 5) and Windows® XP
- Board support package:
 - Embedded Linux Development Kit (EDLK), SPI Linux distribution, and drivers for Storm-1 HDK and SD/HD Video boards
 - Sample applications, source code

Documentation

- RapiDev Release Notes
- RapiDev User's Guide
- TCS User's Guide
- StreamC Language Reference Manual
- Stream Processor Architecture
- SP16 MIPS Programmer's Interface
- SPI Solution Framework

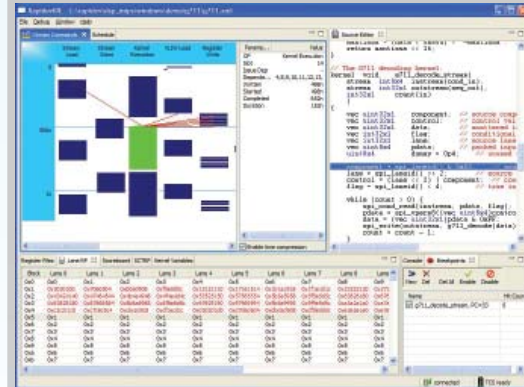
Host PC System Requirements

- Linux, Cygwin, or Windows XP PC with
 - MS Visual Studio under Windows XP
 - gcc-core and gcc-g++ packages installed under Cygwin
 - cpp and gcc under Linux
- 2 GHz processor recommended
- 2 GB RAM recommended
- 10 GB hard disk
- Ethernet support

Ordering Information

Please contact SPI at +1 (408) 616-3338 for further product information, pricing, or to schedule a training session for the RapiDev tool suite and Storm-1 Development Kit.

TCS Code Simulator



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Document number: PB001-DevKit (March 2007)