Sil9387

Applications

- LCD, plasma, OLED and front and rear projection DTV

Key Features

- Five HDMI ports
- HDMI Ethernet Channel
- Audio Return Channel with S/PDIF input
- Content Type
- InstaPort™ technology
- Built-in HDCP decryption engines
- Integrated EDID NVRAMs

Port Processor

Featuring HDMI® 1.4 Ethernet Channel and Audio Return Channel, plus Silicon Image's InstaPort™ Technology

The Sil9387 is a second-generation, five-input port processor with InstaPort™ technology for single-second switching, integrated HDMI Ethernet Channel enabling IP-based content via 100Mb/sec Ethernet and Audio Return Channel for transmitting digital audio from DTV to A/V receiver. The Sil9387 eliminates the need for separate Ethernet or S/PDIF cables and connectors.

HDTVs are evolving to accept new IP-based content and services. Consumers expect to enjoy their content in high-definition—delivered anywhere. HDMI Ethernet Channel simplifies the creation of home entertainment networks and enables new applications to run over TCP/IP and UPnP protocols to create a new personal entertainment experience.

The Silicon Image family of port processors enable OEMs to differentiate with innovative features offering consumers real value. The SiI9387 port processor outputs to the HDMI interface, requiring no change to the system architecture while providing the flexibility to introduce features as the market demands.

The SiI9387 switches between five HDMI 1.4 input ports. All ports support HDMI 1.3 signals, including audio, video, EDID, HDCP and CEC. Content Type, which specifies the video type in the HDMI data stream, are also supported on all ports. HDMI Ethernet Channel, a high-speed, 100 Mb/sec full-duplex networking data channel, and S/PDIF Audio Return Channel are supported on any one port.

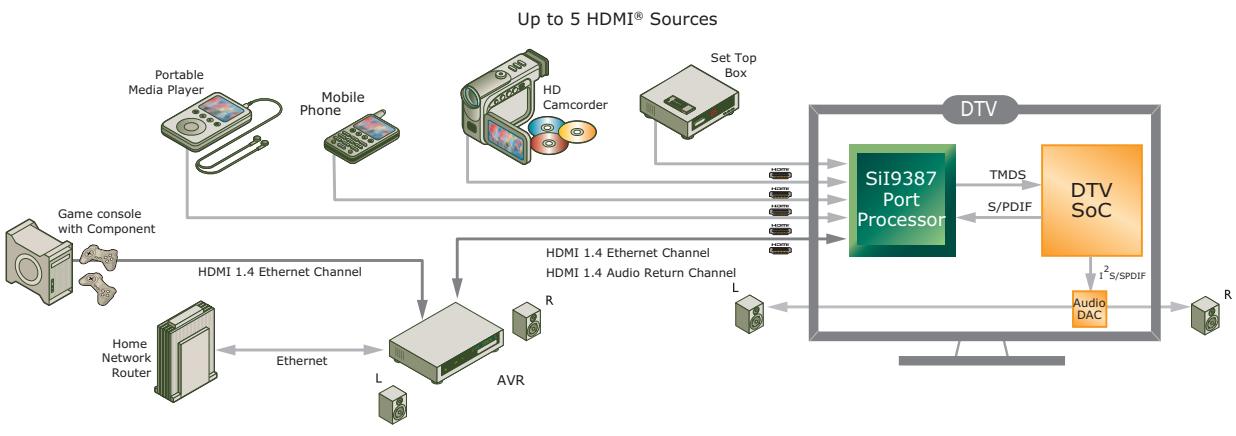
The SiI9387 features Silicon Image's InstaPort technology which can dramatically reduce switching time between different sources to a single second.

The SiI9387 feature set is matched by the SiI9334 HDMI transmitter for source devices.

HDMI® HIGH-DEFINITION MULTIMEDIA INTERFACE

instaport™

Sil9387 System Diagram



Sil9387 Features

Sil9387 Starter Kit (CP9387HDMI)

Contents include:

Hardware
- Sil9387 sink board
- HDMI Ethernet cable

Software
- SilMon receiver software tool

Documentation
- User's guide
- Schematics
- Bill of materials (BOM)

Industry-Standard Compliance
- HDMI 1.4
- DVI 1.0
- EIA/CEA-861E
- HDCP 1.1
- TMDS Transmitter @ 225MHz

HDMI Inputs
- Five HDMI 1.4 ports with
  - Content Type on all ports
  - HDMI Ethernet Channel/Audio Return Channel on any one port
- InstaPort fast HDMI port switching
- 36 bit color depth resolutions up to 1080p @ 60Hz or 720p/1080i @ 120Hz
- Shared EDID NVRAM for HDMI andVGA ports
- DDC/EDID for VGA
- Integrated CEC Consumer Electronics Control

System Operation
- Register-programmable via slave I^2C interface

Content Protection
- Integrated HDCP cipher engine
- Built-in HDCP BIST (self-test)
- Pre-programmed HDCP keys:

Power Management
- Low standby power mode with auxiliary power mode for CEC and EDID support
- Network “On”, TV “Standby” power mode enables networking functionality while the TV display is not powered
- < 2.0W power consumption

Package
- 100-pin, 14mm X 14mm, 0.5mm pitch QFP

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instaport™

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Digital Content Anywhere

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