SiI9489A HDMI 1.4a Port Processor

Featuring HDMI® 1.4a, MHL™ Technology, Audio Return Channel (ARC), HDMI Ethernet Channel (HEC) and Silicon Image's ViaPort and InstaPort™ S Technologies

The SiI9489A port processor featuring Silicon Image's ViaPort technology provides a new HDMI audio output that vastly simplifies operation of home audio equipment by sending HDMI content out of the DTV. ViaPort also allows multiple displays to be daisy chained together with a single source. The SiI9489A supports MHL™ technology, providing the ability to seamlessly connect, control and charge MHL-enabled mobile devices such as smartphones and tablets.

Applications

- DTVs
- Digital signage
- Surround sound speakers

Key Features

- Five HDMI input ports
- Two HDMI outputs
- HDMI Ethernet Channel (HEC)
- Audio Return Channel (ARC)
- ViaPort technology
- InstaPort™ S technology
- MHL technology support
- Built-in HDCP engines (encrypt/decrypt)

Benefits Summary

- Advanced connectivity with a second HDCP protected output allows daisy chain of multiple displays and simplified connection to audio equipment
- Connect, control and charge the latest MHL-enabled mobile devices

Supported Standards

- HDMI 1.4a
- DVI 1.0
- EIA/CEA-861E
- HDCP 1.4
- MHL 1.0

HDMI Inputs

- Five HDMI 1.4a input ports
  - HDMI Ethernet Channel
  - Audio Return Channel
- Content Type detection and InfoFrame on all ports
- InstaPort™ S fast HDMI port switching
- Two HDMI outputs
- 36-bit deep color resolutions up to 1080p @ 60Hz and 720p/1080i @ 120Hz
- Integrated DDC and EDID NVRAM for HDMI and VGA ports
- Two integrated CEC (Consumer Electronics Control)
- TMDS Core @ 225 MHz

MHL Input

- One MHL auto-sensing, auto-switching input port
  - 24-bit color depth
  - Converts MHL to HDMI compliant TMDS

System Operation

- Register-programmable via slave I²C interface

Content Protection

- Integrated HDCP cipher (encrypt/decrypt) engine
- Built-in HDCP BIST (self-test)
- Pre-programmed HDCP keys

Power Management

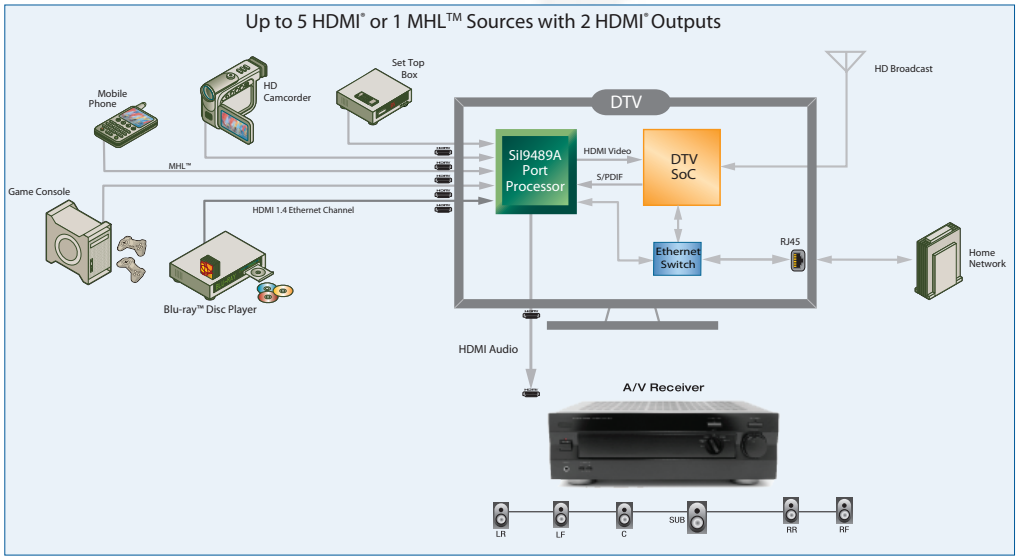
- 400kHz local I²C bus

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

Package

- 128-pin, (14mm X 14mm), 0.4mm pitch TQFP



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