# Silicon Image

SiI 1364 and SiI 1362 PanelLink Transmitters

Applications

- PC Motherboards

- Notebook PCs

- Add-In-Boards

The SiI 1364 and SiI 1362 are the world's first fully compliant Serial Digital Video Output (SDVO)-based DVI transmitters that support the full operating range of Intel's SDVO input port (1-2 GHz) and the full scalable DVI output bandwidth (25-165 MHz). Incorporating the latest PanelLink® technology, the SiI 1362 and SiI 1364 support display resolutions ranging from VGA to UXGA (1600×1200) in a single link interface. Both chips are designed explicitly to accommodate the 1-2 Gbps ultra-high speeds required for SDVO signaling.
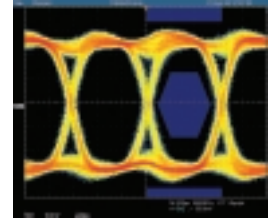
With the Integrated Graphics Chipset (IGC) market shifting to PCI Express, a new DVI transmitter solution is required to support Intel's new SDVO interface. The SiI 1364 and SiI 1362 address this new market need for DVI transmitters compatible with PCI Express chipsets implementing SDVO.

The SiI 1364 is available in a low-cost 64-pin TQFP package, and the SiI 1362 is available in a low-cost 48-pin LQFP package. The SiI 1362 is targeted for desktop and notebook motherboard applications and requires configuration content to be pro-grammed into the system BIOS ROM. Targeted for ADD2 card applications, the SiI 1364 requires a dedicated external EEPROM to store its configuration data. By incorporating the most advanced PanelLink DVI technology available today, the SiI 1364 and SiI 1362 transmitters bring the highest performance to your DVI applications.

DVI-compliant Quality

The DVI 1.0 specification defines the precise system-level signaling at the output of a DVI transmitter system and at the input of a DVI receiver system. As a result, any DVI-compliant host will always interoperate with any DVI-compliant display. The most comprehensive method to deter-mine the quality and compliance of a DVI transmitter is to measure the TMDS "eye" diagram as defined by the DVI 1.0 specification and the DVI Test & Measurement Guide. Only high-performance PanelLink DVI transmitters, such as the SiI 1364 and 1362, yield consistently robust differential signal "eyes" that exceed the minimum "eye" width & height requirements of the DVI specification at the full DVI bandwidth of 25-165 MHz.

PanelLink®
DIGITAL

PanelLink DIGITAL
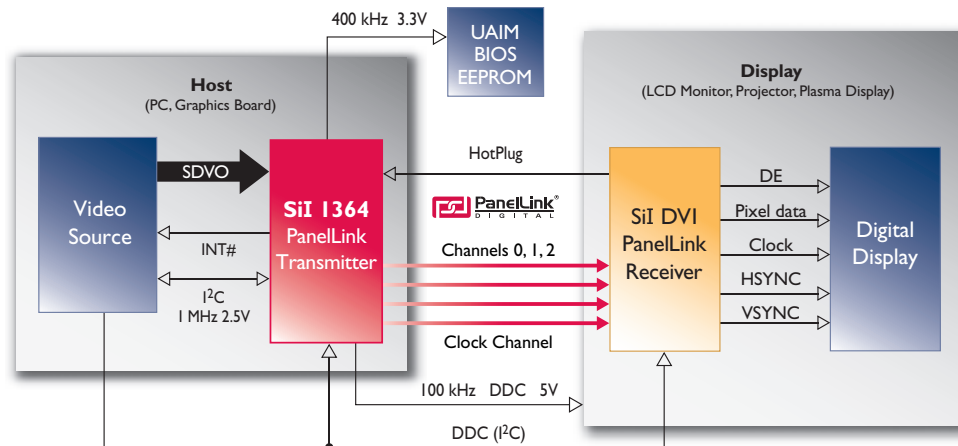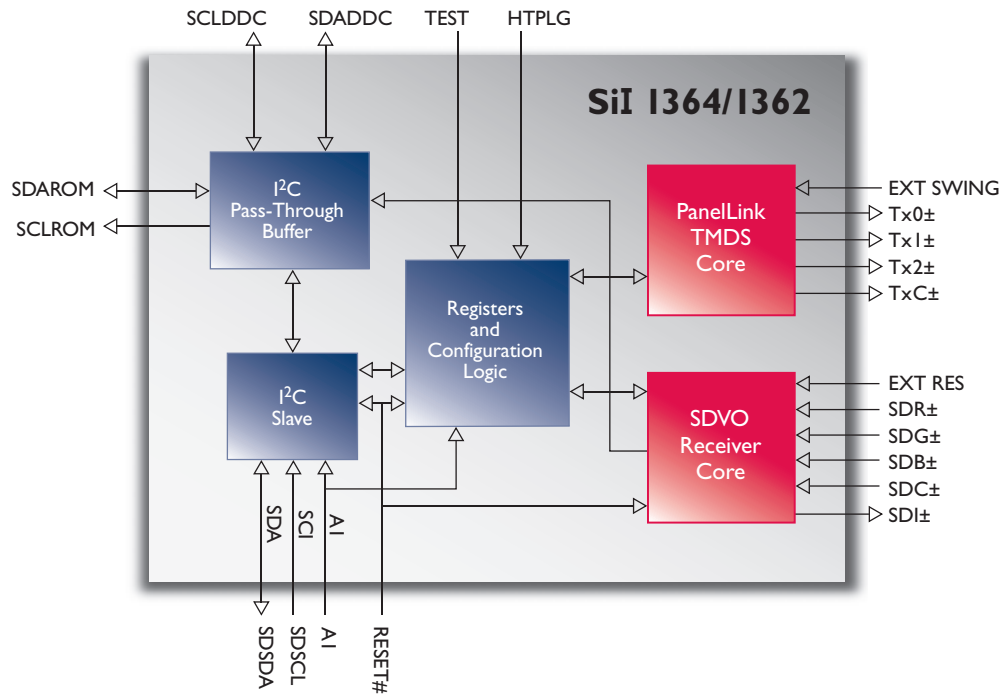
SiI 1364/1362

SiI 1364 and SiI 1362 Features
PanelLink Transmitters

General
- Scalable output bandwidth from 25 to 165 MHz
- Supports Intel SDVO technology
- I²C slave interface for access to internal registers
- Dual I²C pass-through interfaces for host I²C access of EDID (via DDC) and configuration EEPROM (on ADD2 Card)
- Low-voltage input signaling interface: 175mV to 1.2V
- Monitor detection supported through Hot Plug or Receiver Sense

- Cable distance support greater than 10 meters
- DVI 1.0 compliant, with significantly greater margin than competitive solutions
- SiI 1362: 48-pin LQFP package without EEPROM interface (motherboard applications)
- SiI 1364: 64-pin TQFP package with EEPROM interface (ADD2 card applications)

Power Management
- Low-power 1.8V core operation
- Built-in ACPI power management
- Power Down mode

Silicon Image's SiI 1364 Starter Kit

SiI 1364 starter kit is available for evaluation from Silicon Image. For details of this starter kit, please see StarterKits/Reference Designs on the Silicon Image website at **www.siliconimage.com**

Part Number -   **SiI 1364CTU: 64-pin TQFP package**
 SiI 1362CLU: 48-pin LQFP package