

The SiI 1000 series of DVI receivers incorporate the most advanced PanelLink® technology to bring the highest performance DVI connection to any digital display. Differentiated by the bandwidth and resolutions supported, the SiI 1161, SiI 1153, SiI 1151 and SiI 1143 receivers are based on an innovative and new scalable PLL architecture that enables interoperability with a broader range of DVI transmitters. A new programmable equalizer takes the SiI 1000 series receivers to unprecedented performance levels over longer cable lengths. The flagship of the new series, the SiI 1161 supports DVI bandwidths from 25 to 165 MHz for display resolutions that range from VGA to UXGA (1600 x 1200).

All SiI 1000 series receivers incorporate three TMDSTM data channels for RGB receive data at up to 1.65 Gbps per channel and feature industry-standard 24-bit and 48-bit TTL outputs for true color (16.7 million) support. Built-in flexibility enables customers to use pins to configure settings or the I²C interface to access new features in registers.

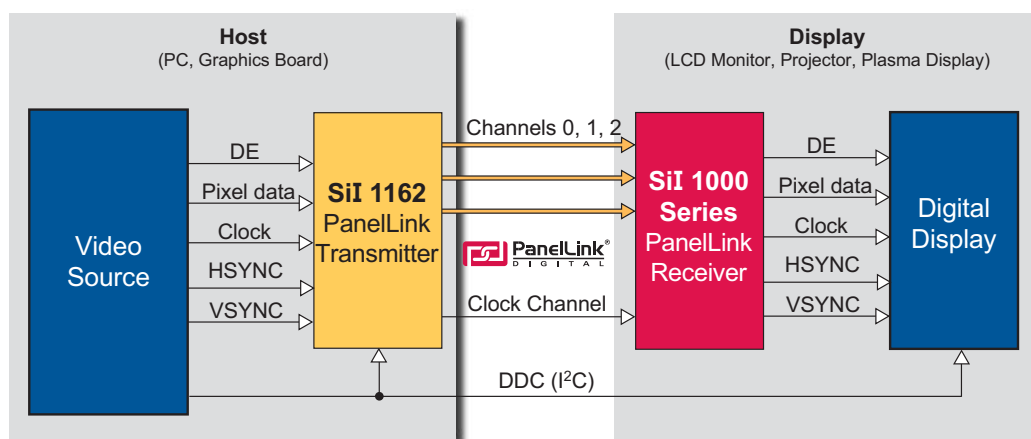
Available in a low-cost 100-pin TQFP package, the SiI 1000 series receivers are pin-compatible with previous-generation PanelLink receivers and cost-optimized for an easy migration to the highest DVI performance available.

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. As defined by the DVI 1.0 specification and the DVI Test & Measurement Guide, all DVI receivers are required to implement a clocking & decoding architecture that will accurately recover a DVI-compliant signal that may include certain levels of system skew & jitter. Only DVI-compliant receivers, such as the flagship SiI 1161, yield consistently robust receiver performance for guaranteed interoperability throughout the full DVI bandwidth of 25-165 MHz.

Applications

- LCD Flat Panel Monitors
- Data, Video & Multimedia Projectors
- Plasma Displays



SiI 1000 Series Features

PanelLink® Receiver

- Scalable bandwidth from 25 to 165 MHz (VGA to UXGA)
- Interoperates with a broad range of DVI transmitters, including all DVI-compliant transmitters
- Programmable equalizer supports long cable lengths beyond 10m with twisted-pair; fiber-optics ready
- Three TMDS™ data channels capable of transferring up to 1.65 Gbps per channel
- Time-staggered data output for reduced ground bounce and lower EMI
- Sync Detect feature for Plug & Display

- HSYNC de-jitter circuitry enables stable operation with high-jitter HSYNC signal

Power Management

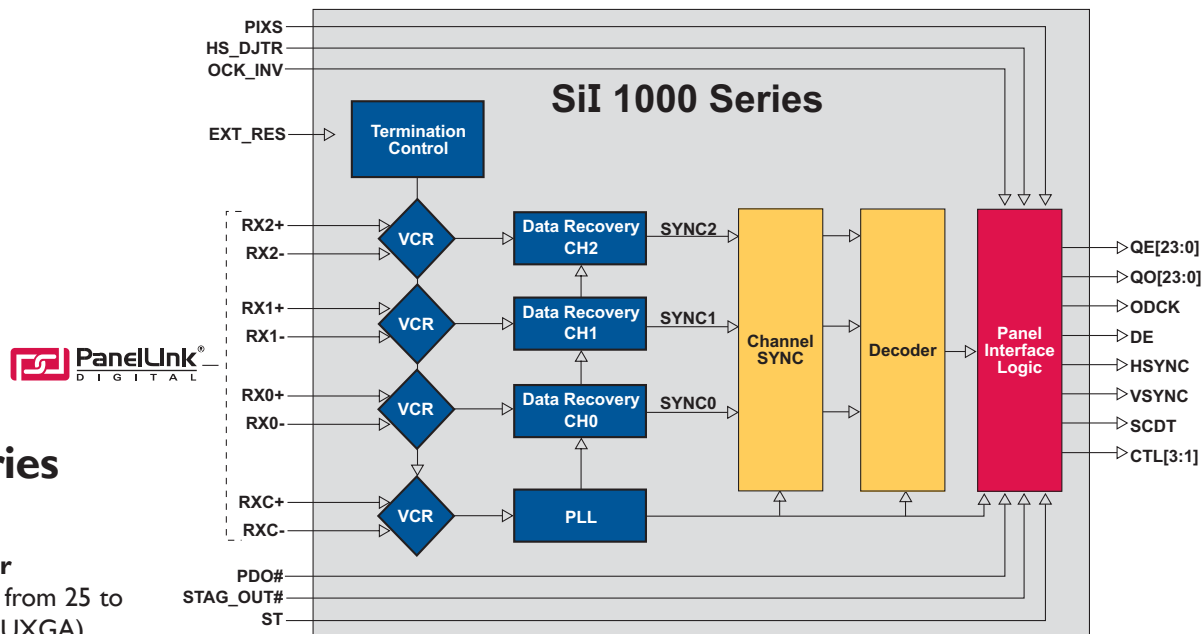
- 3.3V core provides low-power operation
- Automatic entry into standby mode with clock detect circuitry
- Low-power standby mode

Part

Bandwidth

SiI 1161	25-165 MHz (VGA-UXGA)
SiI 1153	25-140 MHz (VGA-high refresh SXGA)
SiI 1151	25-112 MHz (VGA-SXGA)
SiI 1143	25-86 MHz (VGA-high refresh XGA)

Part Numbers - SiI1161CT100 / SiI1153CT100 / SiI1151CT100 / SiI1143CT100



Silicon Image's SiI 1000 Series Starter Kits

SiI 1000 series starter kits are available for evaluation from Silicon Image. For details, please see Starter Kits/Reference Designs on the Silicon Image website at www.siliconimage.com