

**FPD-link, 30Bits Color LVDS Receiver, 90Mhz (SVGA/WXGA)
LVDS de-serializer 5:35 channel decompression**

Overview:

V-Trans 's FPD Link Receiver Macro is based on National Semiconductor openLDI specification v0.95 dated May 13th 1999 that allow the transfer of digital display data between a display source and a display device.

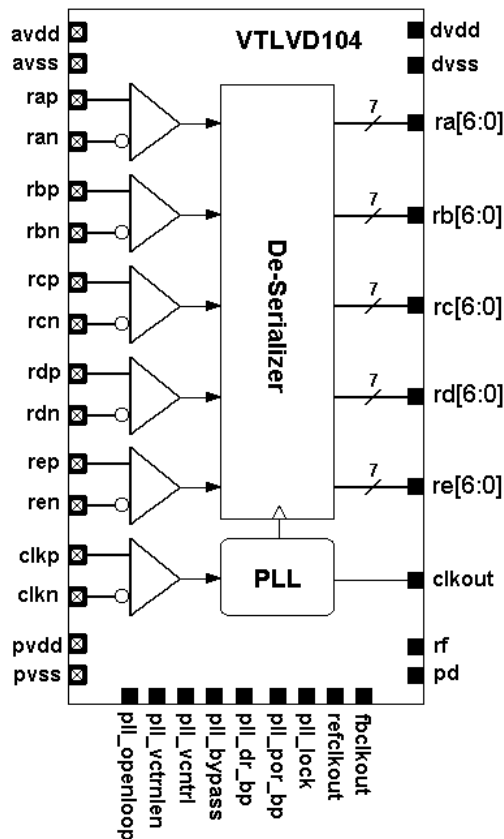
This receiver converts 5 LVDS, (low voltage differential signaling) data streams, into 30bits (single pixel) CMOS data plus 5 control signals (VSYNC, HSYNC, DE, and 2 user-defined signals).

At a maximum pixel rate of 90Mhz, LVDS data line speed is 630Mbps, providing a total maximum bandwidth of 3.15Gb/s (394Mbytes per second).

Features:

- 1P6M layout structure based on 0.18um 1P6M 1.8V generic logic process.
- 3.3V/1.8V ±10% supply voltage, 0/+125°C
- Complies with OpenLDI specification for digital display interfaces and LVDS IEEE Standard 1596.3-1996+ ANSI/TIA/EIA-644-A Specifications.
- Up to 3.15Gbps bandwidth (20 to 90Mhz pixel clock) per pixel channel
- Parallel output clock edge is programmable
- Spread-spectrum input clock support (can be used in SS systems)
- Core cell area : [contact us]
- Built-in power pads with ESD protection.
- Low leakage power-down mode <1uA.
- Equivalent part : Thine's THC63LVD104A

Block Diagram:



Deliverables:

V-Trans provides 2 separate kits depending on licensing agreement.
In most cases, the physical is merged on foundry site.

Design Kit

Design kit includes :

- LEF view and abstract gdsII
- Verilog HDL behavioral model
- Liberty (.lib) timing constraints for typical, worse and best corner case
- Full Datasheet /Application Note with integration guidelines document
- Silicon characterization report when available

Tapeout Kit

Tapeout kit includes the design kit plus physical view:

- gdsII
- LVS netlist and report
- DRC/ERC/ESD/ANT report

Portfolio and Design Services:

V-Trans Microelectronics has been combining all the best practices and methodologies in analog and mixed-signal high speed interfaces design to answer the demanding market of high performance analog IPs using cheaper technologies such as 0.18um.

Our Portfolio covers a wide range of applications and can be customized on demand to answer exactly your specific needs.

Custom layout and back-end services are also available if you have a tied project schedule.

Our experience includes high integration circuit such as network SOC, CPU and FPGA which allow us to provide a full solution for even more complex chip.

Please contact us to tell us how we could help you or for any analog IP information.

- High speed interfaces (LVDS serdes, Display Interfaces, DDRII, DDR3, PCI-X, HDMI rev1.1)
- Converters (video ADC 10b 170Mhz, Triple video DAC)
- Timing circuits (Audio PLL, Video PLL, DDR memory PLL, custom PLL.)
- Low noise Crystal Oscillators
- Power management (LDO regulators, Power On Reset..)
- Video and WIMAX Analog Front end

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