

High speed Serdes PHY macro Datasheet

SerDes PHY for TSMC 28nm HPC+

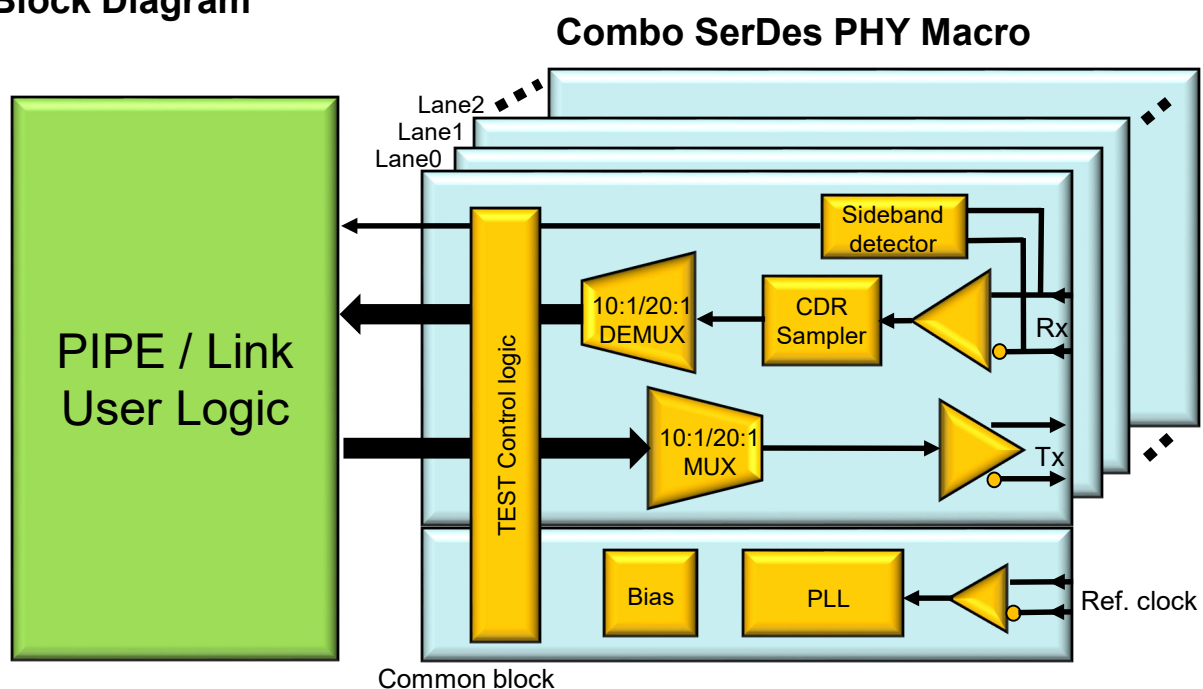
Overview

The Renesas SerDes PHY is useful analog transceiver hard macro for various high speed serial interface PHY layer of TSMC 28nm HPC+ process. This macro is designed for PCI Express 2.1 / USB3.0 SuperSpeed.

Key Features

- Renesas SerDes PHY can be used for analog transceiver of following interface .
 - PCI Express 2.1 (compliant with "PCI-Express Base Specification Revision 2.1")
 - USB3.0 SuperSpeed (compliant with "Universal Serial Bus 3.0 Specification Revision 1.0)
- PCI Express 2.1 and USB3.0 SuperSpeed can be used as Combo macro.
- Multi-lane support for PCI Express 2.1 (1 / 2 / 4 / 8 lanes available).
- Technology is TSMC 28nm HPC+ 1p10M (5x2y2r).
- Supply voltage can be applied 0.90V for nominal and 1.0V for overdrive of core voltage, 1.8V for IO voltage.
- Selectable 10bit / 20bit for parallel side interface.
- 2Tap FIR filter for Tx equalizer / Tunable peaking amplifier for Rx equalizer.
- Built-in differential input buffer for clean reference clock.

Block Diagram



**This IP is contract design IP. Please contact for detail.*

*1 There are some restrictions for use case of these standards. Please contact and consult to Renesas Electronics for detail information before purchasing product.