

## Interface IP

# 16Gbps SerDes for TSMC 28nm HPC

### Overview

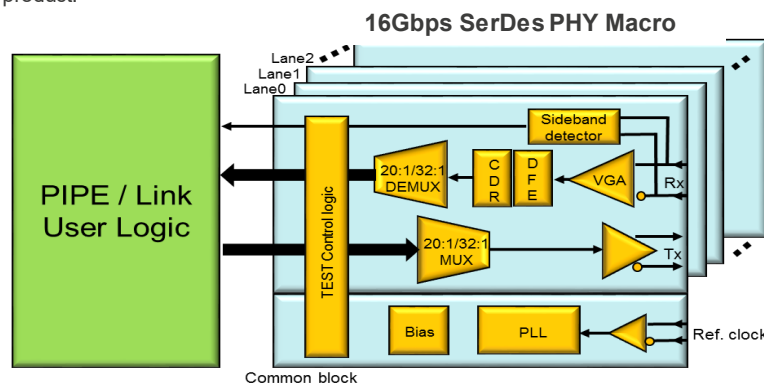
The Renesas SerDes PHY is useful analog transceiver hard macro for various high speed serial interface PHY layer of TSMC 28nm HPC process. This macro can be used as 1.25~ 16Gbps various high speed interface standards PHY..

### Key Features

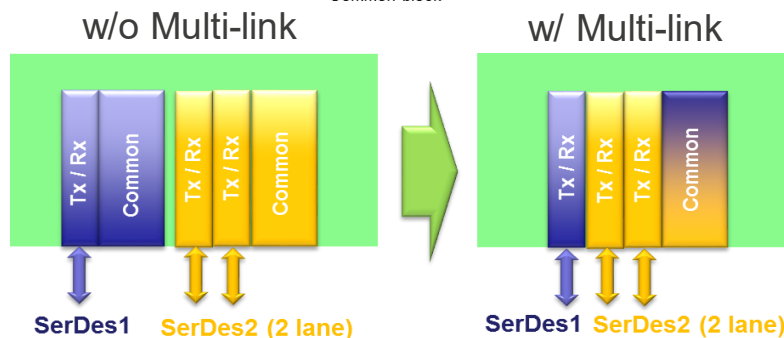
- Renesas SerDes PHY can be used for analog transceiver of following interface.
  - PCI Express 4.0 / USB3.1 gen2 superspeed / Serial ATA 3.1/ 10GKR / SGMII \*1
- Multi-link support for area reduction in using multiple SerDes
- Technology is TSMC 28nm HPC 1p10M
- Supply voltage can be applied 0.90V for nominal and 1.0V for overdrive of core voltage, 1.8V for IO voltage.
- 3Tap FIR filter for Tx equalizer / Adaptive 5Tap DFE for Rx equalizer.
- Built-in differential input buffer for clean reference clock

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

### Block Diagram



### Multi-link



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

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