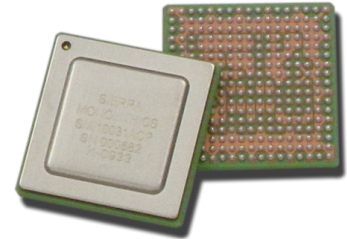


Product Brief



OPTICAL TRANSPORT & DATACOM PRODUCTS



SMI10031

100-113 Gbps 4:10 CDR/Demultiplexer with Dual/Single DQPSK Decoder for Short Reach Applications

Product Description

SMI10031 is 4:10 demultiplexer with user selectable dual/single DQPSK decoder function that supports the data rates from 100 – 113 Gbps.

Product Highlights

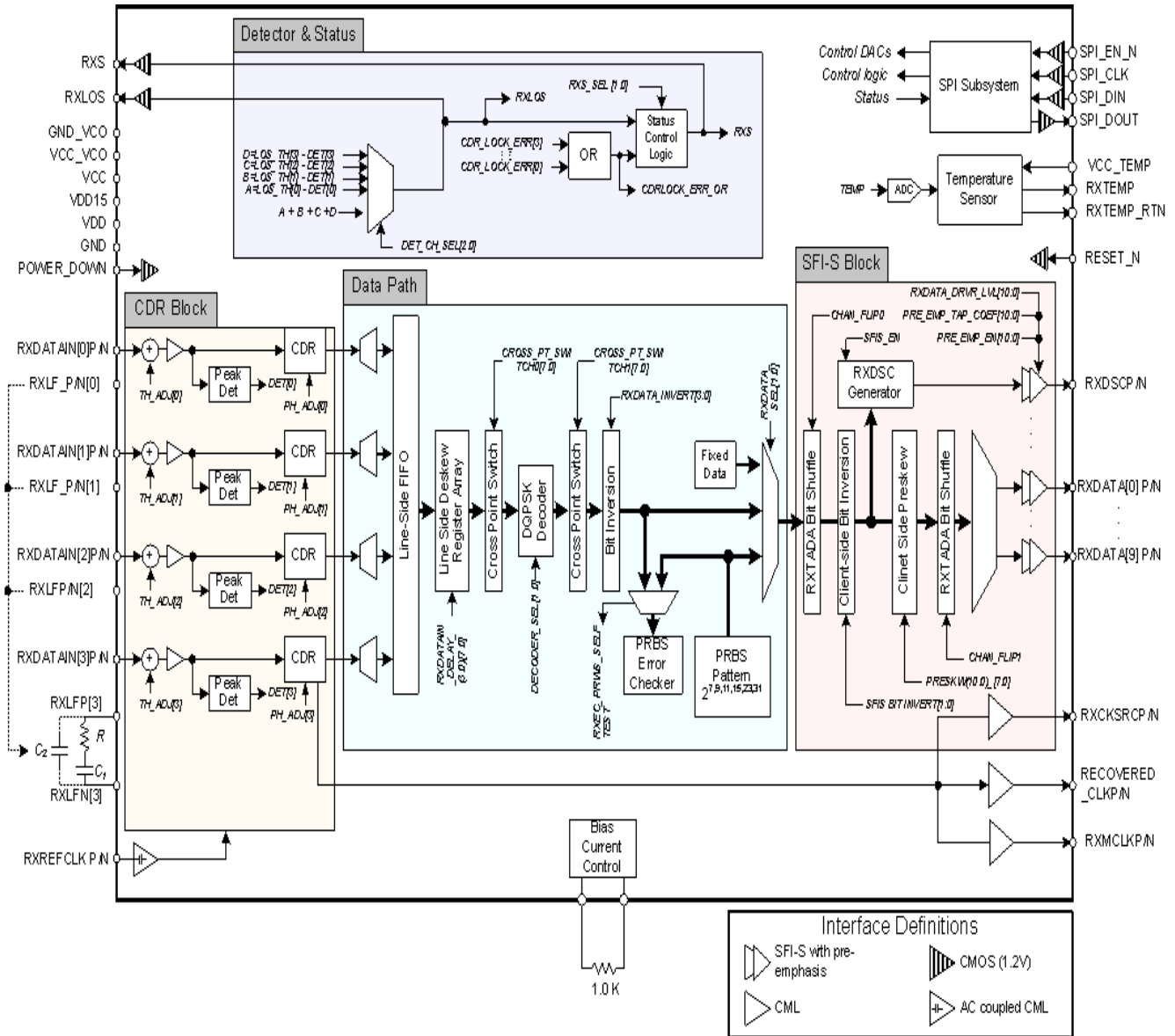
- ▶ Quad Serial Input Ports operating at rates from 25.0 to 28.3 Gbaud
 - CML differential inputs
 - 60 mVp-p Input Sensitivity for NRZ input signal (TBR)
 - Optional Input Threshold Slicing and Sample Clock Phase Adjustments for each input channel through SPI interface
 - Optional Line-side deskew function for MLD/CAUI application
- ▶ Quad On-Chip Clock and Data Recovery Units (CDR's)
- ▶ CDR Lock Status Indicators
- ▶ 10 by 10 -11Gbps CAUI/MLD-Compatible Client-Side Interface
 - Optional preskew mode compatible with OIF-defined SFI-S interface
 - Compatible with CEI-02.0-11G-SR common electrical parameters
- User-enabled client-side pre-emphasis function to mitigate interconnection losses
- Recovered_clk at client-side 1/16 baud rate
- Monitor clock at line-side 1/8 baud rate
- ▶ On-Chip PRBS Error Checker and Pattern Generator: 2^7-1 , 2^9-1 , $2^{11}-1$, $2^{15}-1$, $2^{23}-1$ or $2^{31}-1$ industry-standard patterns
 - On-chip bit and error counters for BER measurement
 - Parallel and Lane-by-lane error checking capacities
 - Programmable 80-bit arbitrary pattern generator
- ▶ SPI Control Interface
- ▶ Hardware reset for FIFO, line-side deskew register arrays and SFI.S state machine with 1.5V LVCOMS Logic
- ▶ Temperature Sense Output Voltage
- ▶ Power Supplies: +1.2V, +1.5V and +2.8V
- ▶ Package: Full BGA-style package

Applications

- ▶ OTU4/100GE Modules and Transponders
- ▶ Routers and Switches

Product Brief

SMI10031 Block Diagram — 100-113 Gbps 4:10 CDR/Demultiplexer with Dual/Single DQPSK Decoder



Sierra Monolithics Inc. is now part of Semtech Incorporated. To view the most current product specifications and datasheets, contact your local Semtech Field Applications Engineer.