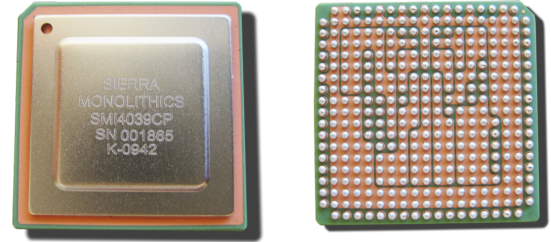


Product Brief



OPTICAL TRANSPORT & DATACOM PRODUCTS



SMI4039

SMI4039 40-45 Gbps 2:16 DQPSK CDR/Demultiplexer

Product Description

SMI4039 accepts single-ended or differential 40 to 45 Gbps NRZ serial data streams and demultiplexes the data into sixteen parallel output channels consistent with the SFI-5 standard.

Product Highlights

- ▶ 2:16 CDR/Demultiplexer with Integrated DQPSK decoder function
- ▶ CML for dual serial input ports (differential) each operating at rates from 19.9 to 22.3 Gbaud/s
- ▶ Full BGA package including the serial input ports
- ▶ SFI-5.1 compatible data and clock interfaces
- ▶ Dual on-chip Clock and Data Recovery (CDR) units with full-rate recovered clock output from 19.9 to 22.3 GHz
- ▶ CDR lock status indicators
- ▶ On-chip PRBS error checker and pattern generator
- ▶ 40 mVp-p input sensitivity for NRZ input signal
- ▶ 100 mVp-p input sensitivity for RZ input signal

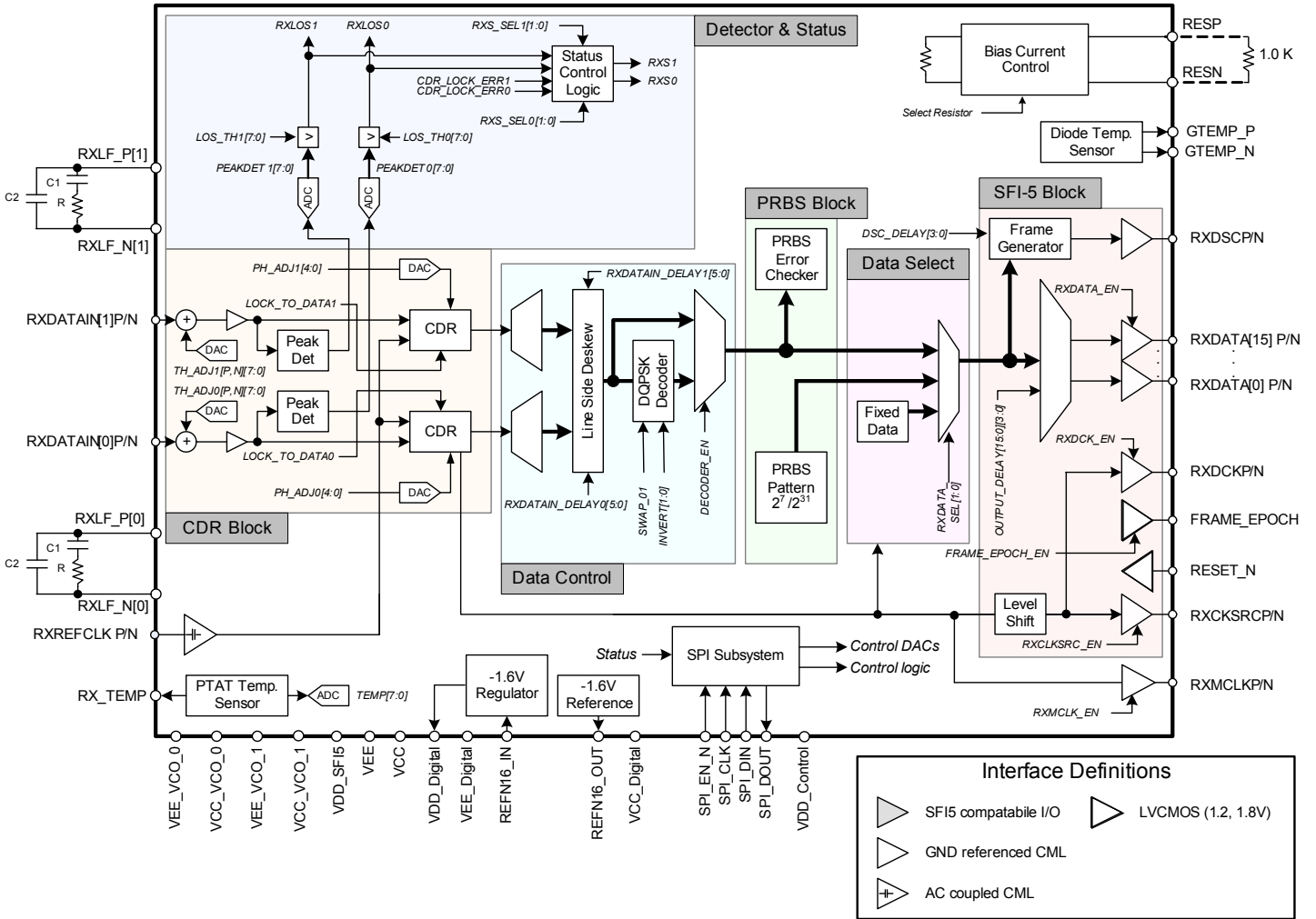
- ▶ Adjustable input threshold and sample clock phase for each input channel
- ▶ Reference clock input port at 1/4th of the SFI-5.1 baud rate
- ▶ Control interfaces support wide range of logic families
- ▶ 1.2V or 1.8V LVCMOS
- ▶ Temperature sense output voltage
- ▶ BiCMOS Silicon Germanium technology for high reliability
- ▶ Power supplies: 1.2 to 1.8V, and - 2.8V
- ▶ Lower power consumption: 2.2 Watts

Applications

- ▶ OC768/OTU3 Modules and Transponders
- ▶ MSPP, ADM and Cross-connects
- ▶ IP Routers and Switches

Product Brief

SMI4039 Block Diagram



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.