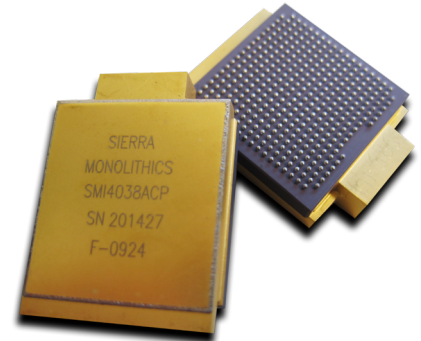


Product Brief



OPTICAL TRANSPORT & DATACOM PRODUCTS



SMI4038

45 to 49 Gbps 2:16 DQPSK CDR/Demultiplexer

Product Description

SMI4038 accepts single-ended 45 to 49 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
- ▶ Dual Ground-Referenced Serial Input Ports operating at rates from 22.5 to 24.5 Gbaud
- ▶ Ground-Referenced Serial Input Ports
- ▶ SFI-5+ Compatible Data and Clock Interfaces
- ▶ Dual On-Chip Clock and Data Recovery Units (CDR's) with Full-Rate Recovered Clock Output
- ▶ CDR Lock Status Indicators
- ▶ On-Chip PRBS Error Checker and Pattern Generator: 2^7-1 or $2^{31}-1$ Industry-Standard Patterns
- ▶ 100 mVp-p Input Sensitivity
- ▶ Adjustable Input Threshold and Sample Clock Phase for each input channel

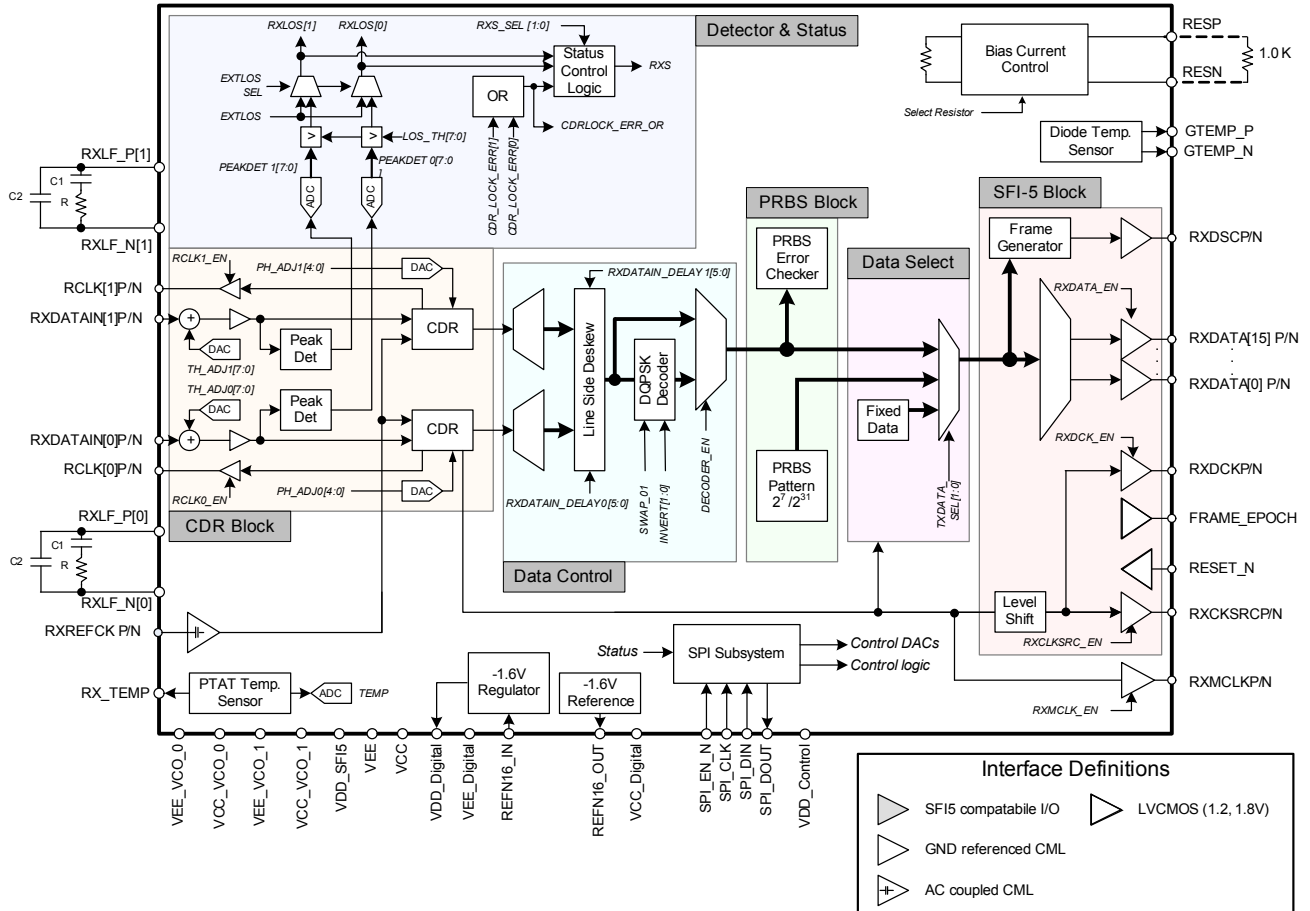
- ▶ User-Selectable Reference Clock Inputs
- ▶ SPI Control Interfaces Supports 1.2V or 1.8V LVCMOS
- ▶ Temperature Sense Output Voltage
- ▶ Power Supplies: 1.2 to 1.8V, and -2.8V (V_{ee})
- ▶ Low Power Consumption: 3.1 Watts (typical)

Applications

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

Product Brief

SMI4038 Block Diagram — 45 to 49 Gbps 2:16 DQPSK CDR/Demultiplexer



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.