PM5981

PM5981: DIGI-100GX OTN Procw/o

Status: In Production

View CAD Symbols

Features:

- Industry's first sub-wavelength Layer 1 OTN encryption solution to secure the cloud
- Industry's first 25G granularity flexible OTN framer to DSP interface providing scalable line-rates to next-generation Coherent DSPs
- Transport SDN-ready features, enabling OpenFlow extensions such as network element neighbor discovery
- High-density 10G, 40G and 100G multi-service support, including Ethernet, Storage, IP/MPLS and SONET/SDH

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Device Overview

Summary

The PM5981 DIGI-100GX is a member of Microchip's fourth-generation family of OTN processing solutions for next-generation OTN switching and packet-optical transport (POTP / P-OTN), WDM / ROADM, and hyperscale data center interconnect (DCI) equipment. Building on the innovations in Microchip's DIGI-120G, which is widely deployed in service provider and hyperscale data center WAN networks today, the DIGI-100GX is a high-density, multi-service 100G OTN processor that addresses the requirements of SDN-ready, encrypted optical transport infrastructure. Reusing Microchip's proven, service provider-qualified DIGI family OTN switching software development kit (SDK), DIGI-100GX can be leveraged across multiple applications and equipment platforms, providing OEMs with the lowest risk, fastest time-to-market and lowest cost of development.

Variants available with OTN encryption (PM5980) and without OTN encryption (PM5981).

Benefits for Service Providers & OEMs:

• Lowers CAPEX & OPEX of service provider 100G deployments
  • High-capacity hybrid packet/OTN switching & aggregation maximizes 100G wavelength utilization
  • Universal line card solution simplifies line card inventory management
• Supports emerging hyperscale data center interconnect transport requirements
  • Flexible, low latency, protocol agnostic AES-256 certified Layer 1 OTN payload encryption
  • Flexible on-chip OTN switch & Interlaken interconnects enable design of compact, scalable, 'rack-and-stack' data center interconnect WAN transport platforms
• Supports transition to transport SDN-based network architectures
  • Flexible hybrid packet/OTN mapping, aggregation & switching enables virtualization of 100G optical infrastructure
  • Hitless, on-demand scaling of optical connections
  • Features to enable OpenFlow extensions such as network element neighbor discovery
• Accelerates time-to-market & lowers development costs for OEMs
  • High-performance, field-proven OTN SDK built upon the DIGI family code base

• Connects directly to many off-the-shelf Network Processors & Switch Fabrics
• Integrated PLLs & GCC processor reduces the need for auxiliary components

Additional Features

- Industry's first sub-wavelength Layer 1 OTN encryption solution to secure the cloud
- Industry's first 25G granularity flexible OTN framer to DSP interface providing scalable line-rates to next-generation Coherent DSPs
- Transport SDN-ready features, enabling OpenFlow extensions such as network element neighbor discovery
- High-density 10G, 40G and 100G multi-service support, including Ethernet, Storage, IP/MPLS and SONET/SDH

Parametrics

Name	Value
Max Bandwidth (Gbps)	200
Line Rates	OTU2/OTU3/OTU4
Client Interfaces	GbE/FC/SDH/SONET/OTUk
Max SERDES Rates (Gbps)	28
ODUk Switching	Yes (ODU0+)
System Interfaces	Interlaken
RoHS	Yes
Description	DIGI-100GX OTN Processor (without e...

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