PM5984 ☆

META-120GX OTN/Ethernet PHY 12x10G/3x40G/100G

Status: In Production

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Features:

- Support for OTN wrapping of 10GE to OTU2/2e/1e, 40GE to OTU3 and 100GE to OTU4
- Support for flexible packet-mapping of Ethernet, IP and MPLS from Interlaken into ODUk channels
- Supports glueless interconnect to NPs and switches via Interlaken or Ethernet system interfaces
- AES-256 datapath encryption engine with flexible key management for SDN control (PM5984-only)
- Integrated IEEE 802.3 compatible physical coding sub-layer (PCS) and media access controllers (MAC) for 10GE, 40GE and 100GE

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Device Overview

Summary

The PM5984 META-120GX is part of Microchip's family of Router PHY devices that enable high density Ethernet and OTN line cards on routers, carrier Ethernet switches and packet-optical transport equipment. By providing converged OTN and Ethernet interfaces in 12x 10G, 3x 40G or 1x 100G configurations, the META-120GX delivers a single-chip solution that OEMs can use for multiple applications.

IP/MPLS into OTN, and transparent Ethernet mapping using GMP or BMP as specified in G.709. All 10G ports support mapping 10GE traffic into OTU2 in accordance with G.709/G.Sup43. Integrated 10G/40G/100G Ethernet MAC/PCS provide standards-compatible, rich performance monitoring.

Designed for leading edge carrier routing and switching solutions, the META-120GX provides OEMs with industry-leading carrier Ethernet functions. In addition to 802.3ah Link OAM, the device supports packet-based timing distribution via Synchronous Ethernet and IEEE 1588v2 Precision Timing Protocol. This enables carriers to deliver the performance required for packetbased wireless backhaul infrastructure.

Variants available with OTN encryption (PM5984) and without OTN encryption (PM5985).

Additional Features

Support for OTN wrapping of 10GE to OTU2/2e/1e, 40GE to OTU3 and 100GE to OTU4

Support for flexible packet-mapping of Ethernet, IP and MPLS from Interlaken into ODUk channels

Supports glueless interconnect to NPs and switches via Interlaken or Ethernet system interfaces

AES-256 datapath encryption engine with flexible key management for SDN control (PM5984-only)

Integrated IEEE 802.3 compatible physical coding sub-layer (PCS) and media access controllers (MAC) for 10GE, 40GE and 100GE

Industry compatible ITU-T 10G, 40G and 100G FECs

Support for IEEE 1588v2 PTP and Synchronous Ethernet timing protocols, enabling packet-based mobile backhaul and packet transport networks

Integrated 100G Gearbox and Multi-rate SERDES support up to 28 Gbps to connect directly to SFP+, QSFP+, CFP, CFP2, CFP4 and QSFP28 optics

Reduces bill of materials and footprint by utilizing a single external reference clock

PCIe for microprocessor access

Leverages common Software Development Kit across META and DIGI family code base

Parametrics

Name	Value
Max Bandwidth (Gbps)	120
Line Rates	OTU2/OTU3/OTU4
OTN Encyption	Yes
RoHS	Yes
Description	META-120GX OTN/Ethernet PHY
# Ports / Rates	1x100G or 3x40G or 12x10G
Ethernet Line Rates	10/40/100 GbE

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RoHS Information

Part Number	Device Weight (g)	Shipping Weight (Kg)	Lead Count	Package Type	Package Dimension	Solder Composition	JEDEC Indicator	RoHS	China EFUP
PM5984B-FEI	34.11480	44.25000	1932	BBGA	45x45x4.00mm	SAC305	e1	RoHS	50

To see a complete listing of RoHS data for this device, please Click here
Shipping Weight = Device Weight + Packing Material weight. Please contact sales office if device weight is not available.

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