Channelized SONET/SDH OC3/STM1 (Multi-Rate) MICs with SFP

Figure 25: 4-Port Channelized SONET/SDH OC3/STM1 (Multi-Rate) MIC with SFP

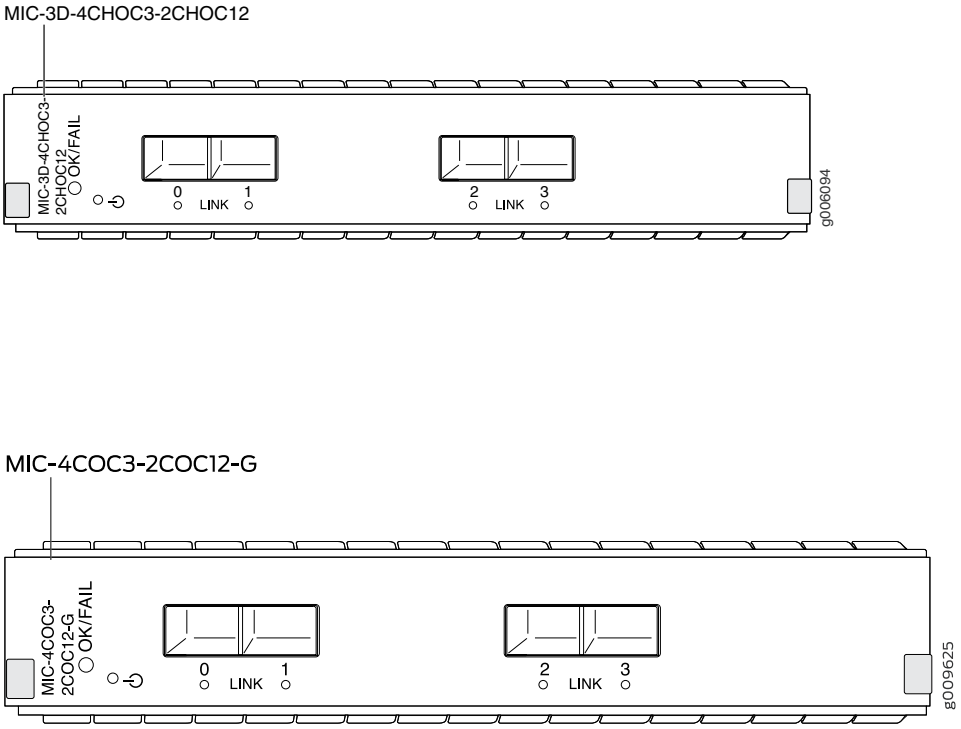
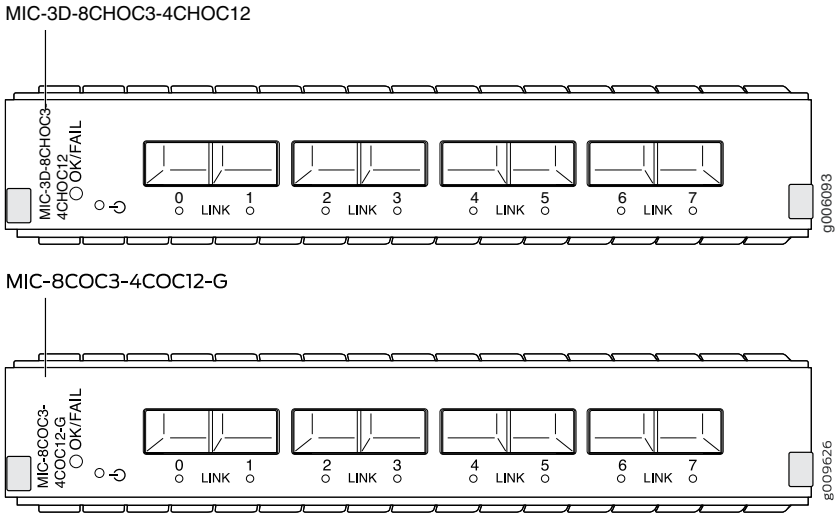


Figure 26: 8-Port Channelized SONET/SDH OC3/STM1 (Multi-Rate) MIC with SFP



Software release	• Junos OS Release 11.4 and later For information on which MPCs support these MICs, see "MIC/MPC Compatibility" on page 26. For information on which MICs are supported on MX Series routers, see "MICs Supported by MX Series Routers" on page 18.

Description	• 4-port: Rate-selectable using one of the following rates:
	  • 4-port OC3/STM1
	  • 2-port OC12/STM4
	• 8-port: Rate-selectable using one of the following rates:
	  • 8-port OC3/STM1
	  • 4-port OC12/STM4
	• Channelization: OC3, DS3, DS1, DS0, E3, E1. For information on channelization numbers, see *Channelized Interfaces Feature Guide for Routing Devices*.
	• Power requirement:
	  • 4-port: 4.56 A @ 9 V (41 W)
	  • 8-port: 5.78 A @ 9 V (52 W)
	• Weight:
	  • 4-port: 4.4 lb (2 kg)
	  • 8-port: 4.4 lb (2 kg)
	• Model number:
	  • 4-port: MIC-3D-4CHOC3-2CHOC12
	  • 4-port: MIC-4COC3-2COC12-G
	  • 8-port: MIC-3D-8CHOC3-4CHOC12
	  • 4-port: MIC-4COC3-2COC12-G
	  • 8-port: MIC-3D-8CHOC3-4CHOC12
	  • 8-port: MIC-8COC3-4COC12-G
	
	NOTE: MIC-4COC3-2COC12-G and MIC-8COC3-4COC12-G are RoHS 6/6 compliant.

Hardware features	• The ports are labeled:
	  • 4-port: 0-3
	  • 8-port: 0-7

Software features	• Maximum transmission units (MTUs) of up to 9192 bytes
	• Per-port SONET/SDH framing
	• Local and remote loopback on each port
	• Optical diagnostics and monitoring
	• Clocking options: internal or external/loop mode
	• Encapsulations:
	  • MPLS fast reroute
	  • MPLS CCC (circuit cross-connection)
	  • MPLS TCC (translational cross-connection)
	  • Cisco High-Level Data Link Control (cHDLC)
	  • Cisco HDLC CCC
	  • Cisco HDLC TCC
	  • Point-to-Point Protocol (PPP)
	  • PPP for CCC
	  • PPP for TCC
	  • Flexible Frame Relay
	  • Frame Relay
	  • Frame Relay for CCC
	  • Frame Relay for TCC
	  • PPP over Frame Relay
	  • Multilink-based protocols (Junos OS Release 12.1 and later):
	  • Multilink Point-to-Point Protocol (MLPPP)
	  • Multiclass MLPPP
	  • Multilink Frame Relay (MLFR) end-to-end (FRF.15)
	  • Multilink Frame Relay (MLFR) UNI NNI (FRF.16, also referred to as MFR)
	  • Compressed Real-Time Transport Protocol (CRTP)
	NOTE: When you configure multilink services on a MIC in an MX Series router, ensure that a Multiservices DPC is present in the same router.
	NOTE: Ethernet over Frame Relay is not supported.

Cables and connectors	TIP: You can use the Hardware Compatibility Tool to find information about the pluggable transceivers supported on your Juniper Networks device. The list of supported transceivers for the MX Series is located at https://pathfinder.juniper.net/hct/category/#catKey=100001&modelType;=All&pf;=MX+Series.

LEDs	**OK/FAIL** LED, one bicolor: • Green—MIC is functioning normally • Red—MIC has failed **LINK** LED, one green per port: • Off—Not enabled • Green—Online with no alarms or failures • Yellow—Online with alarms for remote failures • Red—Active with a local alarm; router has detected a failure
Alarms, errors, and events	SONET alarms: • Loss of light (LOL) • Loss of signal (LOS) • Loss of frame (LOF) • Phase lock loop (PLL) • Severely errored frame (SEF) • Alarm indicator signal–line (AIS-L) • Alarm indicator signal–path (AIS-P) • Remote defect indicator–line (RDI-L) • Remote defect indicator–path (RDI-P) • Loss of pointer–path (LOP-P) • Bit error rate–signal degrade (BERR-SD) • Bit error rate–signal fail (BERR-SF) • Payload label mismatch–Path (PLM-P) • Unequipped–path (UNEQ-P) • Remote error indicator–path (REI-P) • Alarm indicator signal–virtual container (V-AIS) • Loss of pointer–virtual container (V-LOP) • Remote defect indicator–virtual container (V-RDI) • Unequipped–virtual container (V-UNEQ) • Mismatch–virtual container (V-MIS) SDH alarms: • Loss of light (LOL) • Phase lock loop (PLL) • Loss of frame (LOF) • Loss of signal (LOS) • Severely errored frame (SEF) • Multiplex-section alarm indicator signal (MS-AIS) • Higher order path–alarm indication signal (HP-AIS) • Loss of pointer (LOP) • Bit error rate–signal degrade (BER-SD) • Bit error rate–signal fail (BER-SF) • Multiplex section–far end receive failure (MS-FERF) • Higher order path—far-end receive failure (HP-FERF) • Higher order path—payload label mismatch (HP-PLM) • Remote error indicator (REI)

- Unequipped (UNEQ)
- Tributary unit–alarm indicator signal (TU-AIS)
- Tributary unit–loss of pointer (TU-LOP)
- Tributary unit–remote defect indicator (TU-RDI)
- Tributary unit–unequipped (TU-UNEQ)
- Tributary unit–mismatch (TU-MIS)

DS3 alarms:

- Alarm indication signal (AIS)
- Loss of frame (LOF)
- Loss of signal seconds (LOS)
- Phase lock loop (PLL)

DS3 error detection:

- C-bit code violations (CCV)
- C-bit errored seconds (CES)
- C-bit severely errored seconds (CSES)
- CRC errors
- Excessive zeros (EXZ)
- Far-end block error (FEBE)
- Far-end receive failure (FERF)
- Line errored seconds (LES)
- Parity bit (P-bit) code violations (PCV)
- Parity bit (P-bit) errored seconds (PES)
- Parity bit (P-bit) severely errored framing seconds (PSES)
- Severely errored framing seconds (SEFS)
- Unavailable seconds (UAS)

Related Documentation

- MX Series MIC Overview on page 17