

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

Figure 37: 4-Port SONET/SDH OC3/STM1 (Multi-Rate) MIC with SFP

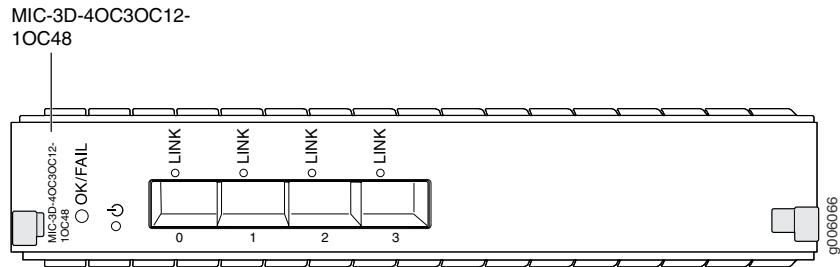
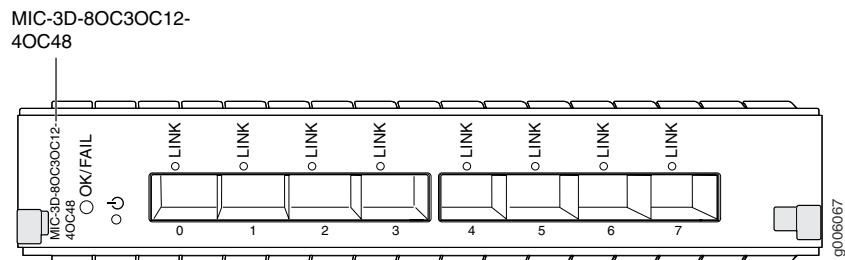


Figure 38: 8-Port SONET/SDH OC3/STM1 (Multi-Rate) MIC with SFP



Software release

- 4-port: Junos OS Release 11.2 and later
- 8-port: Junos OS Release 11.2 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: 4 OC3/STM1 or OC12/STM4 ports
 - Each port is rate-selectable and supports OC3, OC12, or OC48.
 - The ports can be configured to support a combination of OC3, OC12, and OC48 rates. In the combination, you can configure only one port to support OC48, whereas OC3 or OC12 can be configured on all four ports.
- 8-port: 8 OC3/STM1 or OC12/STM4 ports
 - Each port is rate-selectable and supports OC3, OC12, or OC48.
 - The ports can be configured to support a combination of OC3, OC12, and OC48 rates. In the combination, you can configure only four ports to support OC48, whereas OC3 or OC12 can be configured on all eight ports.
- Power requirement:
 - 4-port: 2.6 A @ 9 V (23.4 W)
 - 8-port: 3.1 A @ 9 V (27.9 W)
- Weight:
 - 4-port: 1.27 lb (0.58 kg)
 - 8-port: 1.47 lb (0.67 kg)
- Model number:
 - 4-port: MIC-3D-4OC3OC12-1OC48
 - 8-port: MIC-3D-8OC3OC12-4OC48

Hardware features

- The ports are labeled:
 - 4-port: 0-3
 - 8-port: 0-7
- Maximum transmission units (MTUs) of up to 9192 bytes

Software features

- Per-port SONET/SDH framing
- Local and remote loopback on each port
- Optical diagnostics and monitoring
- Clocking options: internal or external/loop mode.
- Unified in-service software upgrade (unified ISSU)
- Encapsulations:
 - Multiprotocol Label Switching (MPLS) fast reroute
 - MPLS CCC (circuit cross-connect)
 - MPLS TCC (translational cross-connect)
 - Cisco High-Level Data Link Control
 - 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

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)

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)
- H Path alarm indicator 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)
- High order path–far end receive failure (HP-FERF)
- High order path–payload label mismatch (HP-PLM)
- Remote error indicator (REI)
- Unequipped (UNEQ)