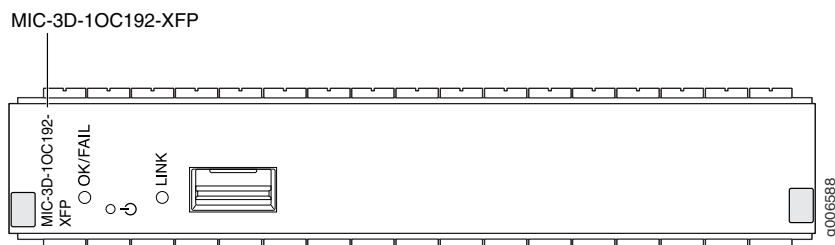


## SONET/SDH OC192/STM64 MIC with XFP

Figure 42: SONET/SDH OC192/STM64 MIC with XFP



### Software release

- Junos OS Release 12.2 and later

For information on which MPCs support this MIC, 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

- One OC192 port
- Clear channel functionality
- Power requirement: 4.25 A @ 9 V (38.25 W)
- Weight: 1.34 lb (0.61 kg)
- Model number: MIC-3D-1OC192-XFP

### Hardware features

- Maximum transmission units (MTUs) of up to 9192 bytes
- MIC bandwidth of up to 10 Gbps

### Software features

- SONET/SDH framing
- Multiprotocol Label Switching (MPLS) fast reroute
- Ingress behavior aggregate (BA) classification
- Internal and loop clocking
- 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

**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>.

**NOTE:** To extend the life of the laser, when a MIC is not being actively used with any valid links, take the MIC offline until you are ready to establish a link to another device. For information about taking a MIC offline, see the **request chassis pic offline** command in the [CLI Explorer](#).

#### LEDs

**OK/FAIL LED**, one bicolor:

- Green—MIC is functioning normally
- Red—MIC has failed

**LINK LED**, one tricolor 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)
- Phase lock loop (PLL)
- Loss of signal (LOS)
- Loss of frame (LOF)
- 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)
  - 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)
-