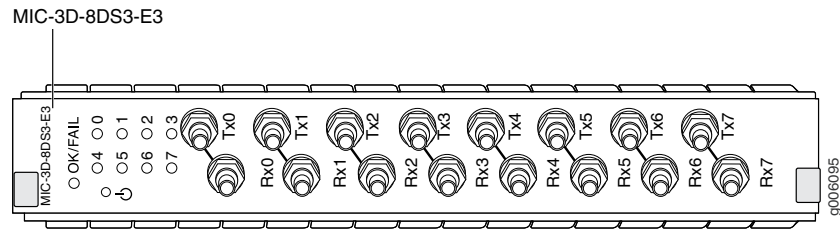


DS3/E3 MIC

Figure 9: DS3/E3 MIC



Software release

- Junos OS Release 11.4 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

- Eight E3 or DS3 ports
- DS3/E3 MIC ports can be configured as one of the following:
 - 8 clear-channel DS3 ports
 - 8 channelized DS3 ports
 - 8 clear-channel E3 ports

NOTE: You can upgrade the DS3/E3 MIC with the S-MIC-3D-8CHDS3 software license (purchased separately) to support DS3 channelization. Channelized DS3/E3 MIC is supported only on queuing MPCs. On the MX80 router, you also need an S-MX80-Q software license.

- DS3 or E3 is configurable on a per-port granularity
- DS3 channelization for the 8-port Channelized DS3/E3 MIC:
 - 8 DS3 channels
 - 224 DS1 channels
 - 2038 DS0 channels
- Power requirement: 4.0 A @ 9 V (36W)
- Weight: 4.4 lb (2 kg)
- Model numbers:
 - DS3/E3 MIC: MIC-3D-8DS3-E3
 - Channelized DS3/E3 MIC: MIC-3D-8CHDS3-E3-B

Hardware features

- Ports are numbered 0 through 7, Tx0 through Tx7 and Rx0 through Rx7

Software features

- Maximum transmission units (MTUs) of up to 9192 bytes
- Framing: M13, C-bit parity, framed clear channel
- Subrate and scrambling:

NOTE: Only DS3 interfaces support subrate and scrambling.

- Digital Link/Quick Eagle
- Kentrox
- Larscom
- ADTRAN
- Verilink
- Internal and look clocking
- DS3 far-end alarm and control (FEAC) channel
- Full bit error rate test (BERT) for DS0, DS1, and DS3
- 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.

- Encapsulations available only for Channelized DS3/E3 MIC (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.

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>.

- Coaxial:
 - Custom 10-ft (3-m) mini-SMB to BNC cable (model number: CBL-DS3-E3-M-S), set of 8 cables (bundled RX and TX)

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

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)
-