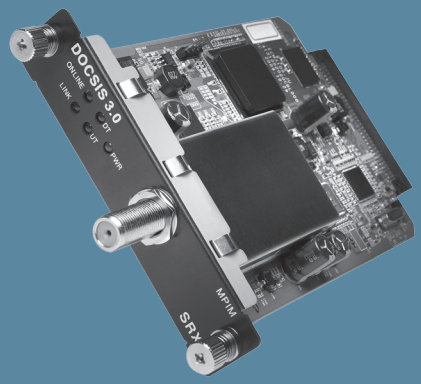

SINGLE-PORT DOCSIS 3.0 CABLE MODEM MINI-PHYSICAL INTERFACE MODULE (MINI-PIM)

Product Overview

The Juniper Networks single-port DOCSIS 3.0 cable modem Mini-Physical Interface Module (Mini-PIM) for the Juniper Networks SRX200 line provides DOCSIS 3.0 WAN connectivity for high-speed data transfer over cable television networks with download speeds over 150 Mbps.

Product Description

The DOCSIS 3.0 cable modem Mini-PIM is for use with the SRX200 line consisting of the Juniper Networks® SRX210 Services Gateway, SRX220 Services Gateway, and SRX240 Services Gateway products. The Mini-PIM connects to a CMTS network via the single DOCSIS 3.0 interface. It is backwards compatible to DOCSIS 2.0, 1.1, and 1.0 protocols for flexibility to support multiple cable services with a single line. The DOCSIS 3.0 cable modem Mini-PIM has interoperability with leading vendor products. Please refer to Juniper Networks technical publications or your local Juniper Sales Representative or Reseller for the latest information on interoperability and supported cable operators.

Features and Benefits

- One F-Type standard coaxial interface
- Supports DOCSIS 3.0; backwards compatible with DOCSIS 2.0, 1.1, and 1.0 protocols on the same interface card
- Single wideband tuner design
- Provides higher data transfer rates of over 150 Mbps downstream
- Supports four downstream and four upstream channel bonding
- Supports quality of service (QoS)
- Provides interoperability with DOCSIS-compliant CMTS equipment
- Supports Advanced Encryption Standard (AES)
- Supports baseline privacy encryption (BPI+)
- IPv6 and IPv4 support for the modem management interface

Specifications

DOCSIS Mini-PIM Network Interface Properties

SPECIFICATIONS	DOWNSTREAM	UPSTREAM
Modulation	64 or 256 quadrature amplitude modulation (QAM)	Quadrature Phase Shift Keying (QPSK) and 8, 16, 32, 64, 128 QAM
Bandwidth	6 MHz (US)	200 KHz, 400 KHz, 800 KHz, 1.6 MHz, 3.2 MHz, 6.4 MHz
Symbol rate	64 QAM 5.057 Msym/s, 256 QAM 5.361 Msym/s	160, 320, 640, 1280, 2560, and 5120 ksym/s
Operating level range	-15 to +15 dBmV	A-TDMA +8 to +54 dBmV (32 QAM, 64 QAM); +8 to +55 dBmV (8 QAM, 16 QAM); +8 to +58 dBmV (QPSK); S-CDMA +8 to +53 dBmV (all modulations)
Input Impedance	75Ω (nominal)	75Ω (nominal)
Frequency range	108 to 1002 MHz (edge to edge)	5 to 42 MHz (U.S.)
Channel bonding	Up to 4 channels	Up to 4 channels

Dimensions (W x H X D) and Weight

- 3.75 x 0.8 x 5.9 in (9.5 x 2.0 x 14.5 cm)
- 0.275 lb

Environmental

- Operating temperature: 0° to 40° C
- Storage temperature: -40° to 70° C
- Relative humidity: 5% to 90% noncondensing

LEDs

Mini-PIM LEDs indicate port status with the following LED states:

- Power—Green solid has been powered on and completed the power-on self-test (POST); red solid has failed the POST.
- DT (Downstream)—Green blinking scans for a valid downstream DOCSIS channel to lock onto a downstream channel; green solid has locked onto the DOCSIS downstream channel.
- UT (Upstream)—Green blinking scans for a valid upstream DOCSIS channel to lock onto an upstream channel; green solid has locked onto the DOCSIS upstream channel.
- Link (to CMTS)—Green blinking has an active link with the CPE device, but data communication is not taking place. Green solid has an active link with the CPE device, and data communication is taking place. (Note: The Link LED does not blink for data traffic that originates or terminates at the cable modem.)
- Online—Green blinking has established a connection to the SRX Series device; green solid is synchronized with the SRX Series device.

Management Capabilities

- Telnet/Console/Web/Juniper Networks Network and Security Manager: Remote and local configuration, monitoring, and troubleshooting

Standards and Compliance

EMC (Emissions)

- FCC Class A

Immunity

- EN 55024
- EN-61000-4-2 ESD
- EN-61000-4-3 Radiated Immunity
- EN-61000-4-4 EFT
- EN-61000-4-5 Surge
- EN-61000-4-6 Low Frequency Common Immunity
- EN-61000-4-11 Voltage Dips and Sags

Telecom

- IC CS-03
- CableLabs DOCSIS 3.0 Certification

Standards

- DOCSIS 3.0 (CMD31T)

Juniper Networks Services and Support

Juniper Networks is the leader in performance-enabling services and support, which are designed to accelerate, extend, and optimize your high-performance network. Our services allow you to bring revenue-generating capabilities online faster so you can realize bigger productivity gains and faster rollouts of new business models and ventures. At the same time, Juniper Networks ensures operational excellence by optimizing your network to maintain required levels of performance, reliability, and availability. For more details, please visit **www.juniper.net/us/en/products-services/.**

Ordering Information

PART NUMBER	DESCRIPTION
SRX-MP-1DOCSIS3	1-port DOCSIS 3.0 Cable Modem Mini-PIM for branch SRX Series; backwards compatible with DOCSIS 2.0, 1.1, and 1.0

About Juniper Networks

Juniper Networks, Inc. is the leader in high-performance networking. Juniper offers a high-performance network infrastructure that creates a responsive and trusted environment for accelerating the deployment of services and applications over a single network. This fuels high-performance businesses. Additional information can be found at **www.juniper.net**.

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