



ADSL2/2+ MINI-PIM

Product Overview

The Juniper Networks ADSL2/2+ Mini-Physical Interface Modules (Mini-PIMs) for the Juniper Networks SSG20 Secure Services Gateway complements the five on-board 10/100 Ethernet interfaces with expanded WAN connectivity by providing optional DSL connectivity in a single Mini-PIM. The ADSL2/2+ Mini-PIMs are available in two versions—one supporting Annex A over plain old telephone service (POTS) and the other Annex B over ISDN, each version includes one physical asymmetric digital subscriber line (ADSL) port that supports ADSL, ADSL2, or ADSL2+ protocols.

Product Description

The Juniper Networks single-port ADSL2/2+ Mini-PIMs for the Juniper Networks® SSG20 Secure Services Gateway can be used to provide ADSL WAN connectivity. It eliminates the need to deploy several separate external devices and provides an integrated DSL modem solution that consolidates devices to reduce capital expenditures, save valuable space, and simplify management. The ADSL2/2+ Annex A (over POTS) and ADSL2/2+ Annex B (over ISDN) support ADSL, ADSL2, and ADSL2+ protocols.

Features and Benefits:

- Cost effective integrated DSL Modem
- Complete configuration and management by command-line interface (CLI), Web user interface, or Juniper Networks Network and Security Manager (NSM)
- Automatic configuration of ADSL line after negotiating with the digital subscriber line access multiplexer (DSLAM), minimizing configuration
- Supports ADSL, ADSL2, and ADSL2+ protocols on the same interface card
- Dying Gasp support
- Multilink Point-to-Point Protocol (MLPPP) over two ADSL cards
- Supports ATM Adaption Layer 5 (AAL5) with constant bit rate (CBR), variable bit rate nonreal time (VBR-NRT), and unspecified bit rate (UBR) traffic types

Table 1: ADSL/ADSL2/ADSL2+ Features and Benefits

Feature	Feature Description	Benefit
ADSL/ADSL2/ADSL2+ support	Same module can be used in ADSL, ADSL2, and ADSL2+ environments	Provides investment protection when upgrading WAN connectivity
Automatic configuration	Automatically configures the ADSL line after negotiating with the DSL access multiplexer (DSLAM)	Minimizes configuration and support overhead
Dedicated network processor	Provides additional processing resources	Helps maintain predictable WAN performance by offloading the J Series or SSG Series CPU
Dying gasp support	Notifies the DSLAM, in the event of power loss, that the SSG Series or J Series is about to go offline	Reduces downtime associated with unplanned power outages



1-Port ADSL 2/2+ Mini-PIM with Annex A
(Over POTS)



1-Port ADSL 2/2+ Mini-PIM with Annex B
(Over ISDN)

Specifications

Dimensions (W x H x D) and Weight

- 3.75 x 0.8 x 5.9 in (9.5 x 2 x 14.5 cm)
- 0.17 lb (77.1 g)

Interface Connector

- RJ-11 ADSL interface (JXM-1ADSL2-A-S)
- RJ-45 ADSL interface (JXM-1ADSL2-B-S)

ATM

- ATM Adaptation Layer 5 (AAL5)
- Up to 10 permanent virtual connections (PVCs) per card
- CBR, VBR-NRT, and UBR

Environmental

- Operating temperature: 32° to 104° F (0° to 40° C)
- Storage temperature: -40° to 158° F (-40° to 70° C)
- Relative humidity: 5% to 90% noncondensing

Diagnostics

- Operation, Administration, and Maintenance (OAM) F4 far loopback test
- OAM F4 near loopback test
- OAM F5 far loopback test
- OAM F5 near loopback test

LEDs

PIM LEDs indicate port status with the following LED states:

- SYNC – Green
- TX/RX – Green

Standards and Compliance

Safety

- CAN/CSA-C22.2 No. 60950-1-03/UL 60950-1 Third Edition, Safety of Information Technology Equipment
- EN 60950-1:2001+A11, Safety of Information Technology Equipment
- IEC 60950-1:2001 First Edition, Safety of Information Technology Equipment

EMC (Emissions)

- AS/NZS CISPR22 Class B
- EN-61000-3-2 Harmonic current emissions
- EN-61000-3-3 Voltage fluctuations
- FCC Part 15 Class B (USA)
- EN 55022 Class B (Europe)
- VCCI Class B (Japan)
- BSMI Class B (Taiwan)

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

European Telecommunications Standardization Institute (ETSI)

- ETSI EN-300386-2: Telecommunication Network Equipment Electromagnetic Compatibility Requirements

Telecom

- FCC Part 68/TIA-968
- IC CS-03

Standards

- ANSI T1.413 II compliant (vendor version 1)
- G994.1 (G.HS) Version 05/03 + Amendment 1 (02/04)
 - Annex A (POTS overlay)
 - Annex B (ISDN overlay)
 - Appendix 1 (ATM Interface – Utopia)
- G992.1 (G.DMT; ADSL)
 - Annex A (POTS Overlay)
 - Annex B (ISDN Overlay)
 - Appendix 1 (ATM Interface-Utopia)
- G992.3 (G.DMTbis; ADSL2) + Amendment 1,2
 - Annex A (POTS overlay)

Specifications (continued)

Standards (continued)

- Annex B (ISDN overlay)
 - Annex L (Reach Extended)
 - Appendix 1 (ATM Interface – Utopia)
- G992.5 (ADSL2+) + Corrigendum 1 + Amendment 2
 - Annex A (POTS overlay)
 - Annex B (ISDN overlay)
 - Appendix 1 (ATM Interface – Utopia)
- ETSI TS 101 388 V1.3.1

Juniper Networks Services and Support

Juniper Networks is the leader in performance-enabling services that are designed to accelerate, extend, and optimize your high-performance network. Our services allow you to maximize operational efficiency while reducing costs and minimizing risk, achieving a faster time to value for your network. Juniper Networks ensures operational excellence by optimizing the network to maintain required levels of performance, reliability, and availability. For more details, please visit www.juniper.net/us/en/products-services.

Ordering Information

Model Number	Description
JXM-1ADSL2-A-S	1-port ADSL 2/2+ interface card with Annex A (over POTS) support, RJ-11
JXM-1ADSL2-B-S	1-port ADSL 2/2+ interface card with Annex B (over ISDN) support, RJ-45

ScreenOS Software Release

ADSL2/2+ Annex A and Annex B functionality is supported in Juniper Networks ScreenOS® Software 5.4 or higher.

About Juniper Networks

Juniper Networks is in the business of network innovation. From devices to data centers, from consumers to cloud providers, Juniper Networks delivers the software, silicon and systems that transform the experience and economics of networking. The company serves customers and partners worldwide. Additional information can be found at www.juniper.net.

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