



ADSL2/2+ MINI-PIM

Product Overview

The ADSL2/2+ Mini-Physical Interface Modules (Mini-PIMs) are for use with the Juniper Networks SSG20 Secure Services Gateway. The ADSL2/2+ Mini-PIMs, one supporting Annex A over plain old telephone service (POTS) and the other Annex B over ISDN, each include 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. The ADSL2/2+ Annex A (over POTS) and ADSL2/2+ Annex B (over ISDN) support ADSL, ADSL2, and ADSL2+ protocols.

Features and Benefits:

- Automatic configuration of ADSL line after negotiating with the digital subscriber line access multiplexer (DSLAM), minimizing configuration
- One RJ-11 or RJ-45 ADSL interface
- 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)

ATM

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

Environmental

- Operating temperature: 0 to 40°C
- Storage temperature: -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

Management Capabilities

- Telnet/Console/Web: Remote and local configuration, monitoring, and troubleshooting

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

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Ordering Information

| PRODUCT 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 ScreenOS 5.4 or greater.

About Juniper Networks

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