



Juniper Networks ADSL/ADSL2/ADSL2+ Physical Interface Modules (PIMs)

Product Description

The Juniper ADSL/ADSL2/ADSL2 + PIMs provide a single physical interface to ADSL/ADSL2/ADSL2 + network media types, receiving incoming packets from the network and transmitting outgoing packets to the network. The Juniper ADSL/ADSL2/ADSL2 + PIMs are equipped with a dedicated network processor that forwards incoming data packets to the Routing Engine, and receives outgoing data packets from the Routing Engine. During this process, the PIMs perform framing and line-speed signaling.

The Juniper Networks ADSL Physical Interface Modules (PIMs) are for use with the Secure Services Gateway 140 (SSG 140), SSG 300 Series, SSG 500 Series, and J2320, J2350, J4300, J4350, J6300, and J6350 J-series Services Routers. These PIMs support Annex A and Annex B, and include one physical port that supports ADSL, ADSL2 or ADSL2+ protocols.

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 CPU
Dying Gasp Support	Notifies the DSLAM, in the event of power loss, that the SSG or J-series platform is about to go offline	Reduces downtime associated with unplanned power outages

Specifications

Specification	Value
Minimum Software Releases	JUNOS 7.2 – ADSL Annex A and Annex B functionality is supported on J-series routers JUNOS 7.3 – ADSL 2/2+ Annex A functionality is supported on J-series routers ScreenOS 6.0 – ADSL/ADSL2/ADSL2+ Annex A and Annex B functionality is supported on SSG 140 and SSG 500 Series platforms ScreenOS 6.0r2 – ADSL/ADSL2/ADSL2+ Annex A and Annex B functionality is supported on the SSG 300 Series platforms
Dimensions and Weight (H x W x D)	0.63 in. x 5.45 in. x 6.5 in. 1.6 cm. x 13.8 cm. x 16.5 cm.
ATM	ATM Adaptation Layer 5 (AAL5) Up to 32 Permanent Virtual Circuits (PVCs) per PIM
Environmental	Operating temperature: 0-40C Storage temperature: -40 to 70 Relative humidity: 5% to 90% non-condensing
Diagnostics	
Loopbacks	UTOPIA Loopback at IXP side UTOPIA Loopback at STM side
Network alarms	Loss of Signal (LOS) Loss of Frame (LOF) Loss of Margin (LOM) Loss of Power (LOP) Loss of Cell Delineation Interleaved (LOCDNI) Loss of Cell Delineation non-interleave (LOCDI)

Diagnostics cont'd

LEDs	PIM LED's indicate port status with the following LED states:		
	Color	State	Description
	Green	On steadily	Online with no alarms or failures.
	Red	On steadily	Active with a local alarm; router has detected a failure.

Management Capabilities	Telnet/Console/JWeb: Remote and local configuration, monitoring, and troubleshooting
	SNMP
	ADSL MIB - RFC 2662

Standards and Compliance

Safety	<ul style="list-style-type: none"> · CAN/CSA-C22.2 No.60950/UL 60950 Third Edition, Safety of Information Technology Equipment · EN 60950 (2000) Third edition - Safety of Information Technology Equipment · IEC 60950 (1999) Third edition - Safety of Information Technology Equipment
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EMC (Emissions)	<ul style="list-style-type: none"> FCC Part 15 Class B (USA) EN 55022 Class B (Europe) AS 3548 Class B (Australia) VCCI Class B (Japan) BSMI Class B (Taiwan)
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Immunity	<ul style="list-style-type: none"> 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
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ETSI	ETSI EN-300386-2: Telecommunication Network Equipment. Electromagnetic Compatibility Requirements
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Telecom	<ul style="list-style-type: none"> FCC Part 68/TIA-968 IC CS-03
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Standards	<ul style="list-style-type: none"> · ANSI T1.413 II compliant (vendor version 1) · G994.1 (G.HS) Version 05/03 + Amendment 1 (02/04) <ul style="list-style-type: none"> - Annex A (POTS overlay) - Annex B (ISDN overlay) - Appendix 1 (ATM Interface - Utopia) · G992.3 (G.DMTbis; ADSL2) + Amendment 1,2 <ul style="list-style-type: none"> - Annex A (POTS overlay) - Annex B (ISDN overlay) - Annex L (Reach Extended) - Appendix 1 (ATM Interface - Utopia) · G992.5 (ADSL2+) + Corrigendum 1 + Amendment 2 <ul style="list-style-type: none"> - 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

Part Number	Description
JX-1ADSL-A-S	1 Port ADSL 2/2+ interface card with Annex A (over POTS) support
JX-1ADSL-B-S	1 Port ADSL 2/2+ interface card with Annex B (over ISDN) support

About Juniper

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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