

SSR1000 LINE OF ROUTERS DATASHEET

Product overview

SSR Series Routers enable enterprises to build service-centric fabrics for any size distributed enterprise. Powered by [Session Smart](#) technology, these purpose-built, high-performance campus, hub, and [data center](#) routers support the software for the Juniper [SD-WAN](#) driven by [Mist AI](#). The routers are preloaded with Juniper Session Smart software (subscription licenses sold separately), allowing businesses to build networking environments that deliver the agility they need to move with their customers and outpace their competitors.

Product Description

Juniper Networks® SSR1000 line of Routers for campus, hub, and data center enables enterprises to build service-centric fabrics for any size distributed enterprise. SSR1000 routers—which include the SSR1200, SSR1300, SSR1400, and SSR1500 appliances—have the capacity and interface functionality to support campus, hub, and data center environments.

Administrators can deploy and manage the SSR1000 line of Routers in a cloud network by using [Juniper® Mist™ WAN Assurance](#), or on-premises with the Juniper Session Smart™ Conductor (included with Juniper [Session Smart Routing](#)).

SSR1000 routers complement the Juniper Networks [SSR100 line of Routers](#) for branch use cases, providing higher capacity options to support the greater throughput needs of large campus and data center environments.

To use the SSR1000 line of Routers, you must purchase an SSR Series software subscription license that is sold separately.



SSR1000 line of Routers

Architecture and Key Components

By combining the Mist AI™ in Juniper Mist WAN Assurance with the SSR Series routers, enterprises gain industry-leading automation and insight to ensure the best user, device, and application experiences in branch and remote locations. The Juniper WAN Assurance cloud service enables simpler operations, provides better visibility into end-user experiences, and reduces mean time to repair (MTTR) SD-WAN issues. For detailed features and benefits of Juniper Mist WAN Assurance, see the [WAN Assurance Data Sheet](#).

The Juniper Networks SSR1000 line of Routers provides a service-centric control plane and service-aware data plane that offers IP routing, feature-rich policy management, improved visibility, and proactive analytics.

The four fixed configuration 1 U appliances in the SSR1000 line are:

- The **SSR1200** for large branch and small data center or campus deployments
- The **SSR1300** for medium data center or campus deployments
- The **SSR1400** for large data center or campus deployments
- The **SSR1500** for extra large data center or campus deployments

These appliances run the FIPS 140-2 Level 1 compliant Session Smart Router software, which provides secure and resilient [WAN](#) connectivity.

SSR1200: Small Campus, Hub, and Data Center



The SSR1200 Router is ideal for small data center or campus environments.

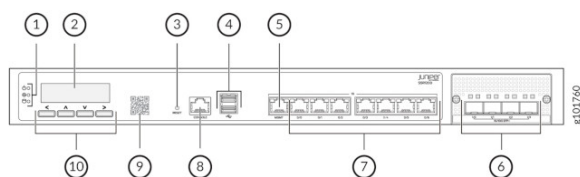


Figure 1: Front panel components of an SSR1200

SSR1200 Front panel Components

- | | |
|----|---|
| 1 | Chassis LEDs |
| 2 | LCD screen |
| 3 | Reset button |
| 4 | USB 3.0 ports |
| 5 | 1GbE management port (for Mist AI operations) |
| 6 | 1GbE/10GbE SFP+ ports (1/0 through 1/3) |
| 7 | 1GbE Ethernet ports (0/0 through 0/6) |
| 8 | Console port |
| 9 | Claim code |
| 10 | Navigation buttons for LCD screen (reserved for future use) |

The SSR1200 supports:

- 4 x 1GbE/10GbE SFP+ ports
- 7 x 1GbE ports
- 1 x 1GbE management port for Mist AI operations

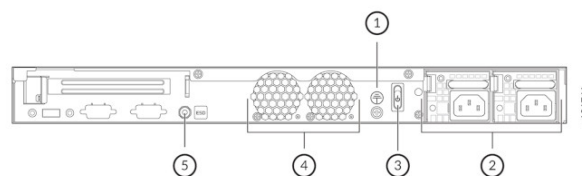


Figure 2: Rear panel components of an SSR1200

SSR1200 Rear panel Components

- | | |
|---|-------------------------------------|
| 1 | Earth grounding |
| 2 | AC power supply units |
| 3 | Power switch |
| 4 | Fans |
| 5 | Electrostatic discharge (ESD) point |

The SSR1200 includes redundant fans and power supplies.

SSR1300: Medium Campus, Hub, and Data Center



The SSR1300 Router is ideal for medium data center or campus deployments.

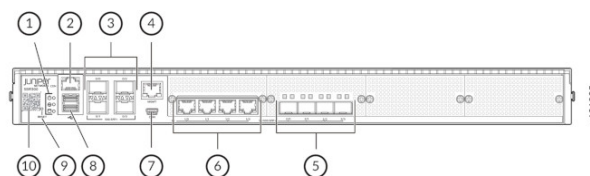


Figure 3: Front panel components of an SSR1300

SSR1300 Front panel Components

- | | |
|----|---|
| 1 | Chassis LEDs |
| 2 | RJ-45 console port |
| 3 | 10GbE SFP+ ports (0/0 through 0/3) |
| 4 | 1GbE management port (for Mist AI operations) |
| 5 | 1GbE/10GbE SFP+ ports (2/0 through 2/3) |
| 6 | 1GbE Ethernet ports (1/0 through 1/3) |
| 7 | Micro-USB console port |
| 8 | USB 3.0 ports |
| 9 | Reset button |
| 10 | Claim code |

The SSR1300 supports:

- 4 x 10GbE SFP+ ports
- 4 x 1GbE/10GbE SFP+ ports
- 4 x 1GbE ports
- 1 x 1GbE management port for Mist AI operations

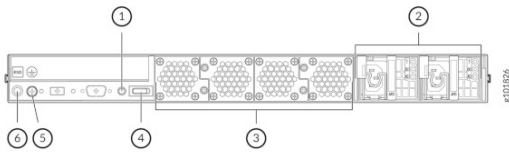


Figure 4: Rear panel components of an SSR1300

SSR1300 Rear panel components

- | | |
|---|-----------------------|
| 1 | Alarm switch |
| 2 | AC power supply units |
| 3 | Fans |
| 4 | Power switch |
| 5 | Earth grounding |
| 6 | ESD point |

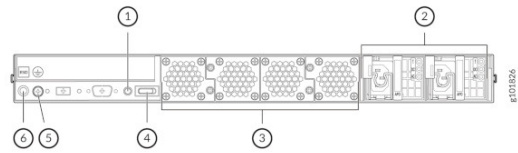


Figure 6: Rear panel components of an SSR1400

SSR1400 Rear panel components

- | | |
|---|-----------------------|
| 1 | Alarm switch |
| 2 | AC power supply units |
| 3 | Fans |
| 4 | Power switch |
| 5 | Earth grounding |
| 6 | ESD point |

The SSR1300 supports two AC power supplies and four fans for very high redundancy.

The SSR1400 supports two AC power supplies and four fans for very high redundancy.

SSR1400: Large Campus, Hub, and Data Center

SSR1500: Extra Large Campus, Hub, and Data Center

The SSR1400 Router is ideal for large data center or campus deployments.

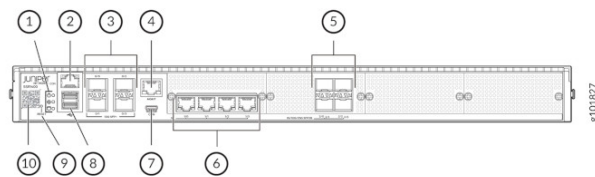


Figure 5: Front panel components of an SSR1400

SSR1400 Front panel components

- | | |
|----|--|
| 1 | Chassis LEDs |
| 2 | RJ-45 console port |
| 3 | 10GbE SFP+ ports (0/0 through 0/3) |
| 4 | 1GbE management port (for Mist AI operations) |
| 5 | 1GbE/10GbE/25GbE SFP28 ports (2/0 through 2/3) |
| 6 | 1GbE Ethernet ports (1/0 through 1/3) |
| 7 | Micro-USB console port |
| 8 | USB 3.0 ports |
| 9 | Reset button |
| 10 | Claim code |

The SSR1400 supports:

- 4 x 10GbE SFP+ ports
- 4 x 1GbE/10GbE/25GbE SFP28 ports
- 4 x 1GbE ports
- 1 x 1GbE management port for Mist AI operations

The SSR1500 Router is ideal for extra large data center or campus deployments.

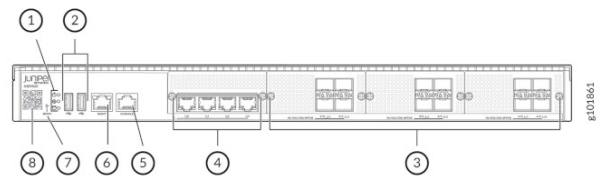


Figure 7: Front panel components of an SSR1500

SSR1500 Front panel components

- | | |
|---|---|
| 1 | Chassis LEDs |
| 2 | USB 3.0 ports |
| 3 | 3. 1GbE/10GbE/25GbE SFP28 ports (2/0 through 4/3) |
| 4 | 1GbE Ethernet ports (1/0 through 1/3) |
| 5 | RJ-45 console port |
| 6 | 1GbE management port (for Mist AI operations) |
| 7 | Reset button |
| 8 | Claim code |

The SSR1500 supports:

- 12 x 1GbE/10GbE/25GbE SFP28 ports
- 4 x 1GbE ports
- 1 x 1GbE management port for Mist AI operations

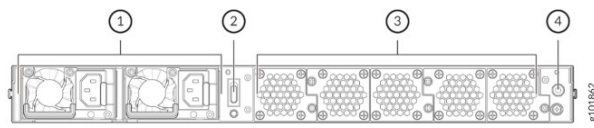


Figure 8: Rear panel components of an SSR1500

SSR1500 rear panel components

- | | |
|---|-----------------------|
| 1 | AC power supply units |
| 2 | Power switch |
| 3 | Fans |
| 4 | ESD point |

The SSR1500 supports two AC power supplies and five fans for very high redundancy.

Accessories

Note: All SSR1000 appliances run Juniper Session Smart Networking software. The units also ship with the rackmount kit as default. For the features and benefits of Juniper Session Smart Networking, as well as ordering information, see the [Session Smart Router Data Sheet](#).

Features and Benefits

Zero Trust Security

The SSR1000 line of Routers ensures zero trust security by authenticating all routes and encrypting all session traffic.

Specifications

Performance and Connectivity for the SSR1000 Line

		SSR1200	SSR1300	SSR1400	SSR1500
Performance (as observed on Session Smart software v5.4.9 on SSR1500 and v5.4.4 on other SSR1000 platforms)					
Encrypted + HMAC (aggregate)	(IMIX)	2.5 Gbps	5 Gbps	10 Gbps	30 Gbps
	(1500 byte)	5 Gbps	12 Gbps	15 Gbps	50 Gbps (Max throughput on single NIC)
Encrypted only (aggregate)	(IMIX)	7 Gbps	18 Gbps	25 Gbps	45 Gbps
	(1500 byte)	17 Gbps	20 Gbps (Max throughput on single NIC)	50 Gbps (Max throughput on single NIC)	50 Gbps (Max throughput on single NIC)
Unencrypted (aggregate)	(IMIX)	10 Gbps	20 Gbps (Max throughput on single NIC)	40 Gbps	50 Gbps (Max throughput on single NIC)
	(1500 byte)	20 Gbps (Max throughput on single NIC)	20 Gbps (Max throughput on single NIC)	50 Gbps (Max throughput on single NIC)	50 Gbps (Max throughput on single NIC)

Applications, devices, or users cannot initiate any session that does not comply with the authentication policies and access rules. These appliances support Layer 2 through Layer 5 stateful firewall functions, including denial of service (DoS) and distributed denial of service (DDoS) protection, Network Address Translation (NAT), encryption, VPN, and traffic filtering.

Adaptive Encryption

The SSR1000 line of Routers automatically detects traffic encrypted using HTTPS or IPsec and does not re-encrypt such traffic. This capability results in improved performance and reduced overhead due to double encryption.

Simplified Onboarding and Monitoring with Juniper Mist WAN Assurance

You can quickly onboard SSR1000 appliances to the Juniper Mist Cloud using the claim code or QR code on the device. This helps reduce operational complexity and simplifies the deployment and configuration process. For more information regarding onboarding, configuration, and management of SSR Series devices, see the [WAN Assurance datasheet](#).

	SSR1200	SSR1300	SSR1400	SSR1500
Connectivity				
Onboard RJ-45 ports	7 x 1GbE RJ-45 (NICs/ports are not field configurable/ replaceable)	4 x 1GbE RJ-45 (NICs/ports are not field configurable/ replaceable)	4 x 1GbE RJ-45 (NICs/ports are not field configurable/ replaceable)	4 x 1GbE RJ-45 (NICs/ports are not field configurable/ replaceable)
Onboard SFP transceiver ports	4 x 1GbE/10GbE SFP+ (NICs/ports are not field configurable/ replaceable)	4 x 10GbE SFP+ 4 x 1GbE/10GbE SFP+ (NICs/ports are not field configurable/ replaceable)	4 x 10GbE SFP+ 4 x 1GbE/10GbE/ 25GbE SFP28 (NICs/ports are not field configurable/ replaceable)	12 x 1GbE/10GbE/25GbE SFP28 (NICs/ports are not field configurable/ replaceable)
Onboard management port	1 x 1GbE RJ-45	1 x 1GbE RJ-45	1 x 1GbE RJ-45	1 x 1GbE RJ-45
LTE modules	Not supported	Not supported	Not supported	Not supported
Console	1 x 1GbE RJ-45	1 x 1GbE RJ-45	1 x 1GbE RJ-45	1 x 1GbE RJ-45
USB	2 x USB 3.0	2 x USB 3.0	2 x USB 3.0	2 x USB 3.0
PoE+ ports	Not supported	Not supported	Not supported	Not supported

Memory and Storage; Dimensions and Power

	SSR1200	SSR1300	SSR1400	SSR1500
Memory and Storage				
Memory (RAM)	64 GB	128 GB	256 GB	512 GB
Storage (SSD)	256 GB	256 GB	512 GB	1 TB
Dimensions and Power				
Form factor	1 U Rackmount kit (SSR1200-RMK) included	1 U Rackmount kit (JNP-RMK-SSRHE) included	1 U Rackmount kit (JNP-RMK-SSRHE) included	1 U Rackmount kit (JNP-RMK-SSRHE) included
System size (W x D x H)	438 mm x 431 mm x 44 mm	438 mm x 650 mm x 44 mm	438 mm x 650 mm x 44 mm	438 mm x 610 mm x 44 mm
System weight	16.5 kg (36.38 lbs.)	19.2 kg (42.33 lbs.)	19.2 kg (42.33 lbs.)	22 kg (48.51 lbs.)
Packaged size (W x D x H)	549 mm x 582 mm x 182 mm	588 mm x 841mm x 215 mm	588 mm x 841mm x 215 mm	582 mm x 739 mm x 215 mm
Packaged weight	18.6 kg (41 lbs)	21.3 kg (47 lbs)	21.3 kg (47 lbs)	24 kg (53 lbs)
Fan trays	Non-removable (2 x fan trays)	Removable (4 x fan trays)	Removable (4 x fan trays)	Removable (5 x fan trays)
Power supply	Redundant AC PSUs (1+1) included	Redundant AC PSUs (1+1) included	Redundant AC PSUs (1+1) included	Redundant AC PSUs (1+1) included
External power adapter input (AC)	100-240 V AC, 50-60 Hz	100-240 V AC, 50-60 Hz	100-240 V AC, 50-60 Hz	100-240 V AC, 50-60 Hz
Maximum power draw (estimated)	232.26 W	411.75 W	472.80 W	545.62 W

Environmental Parameters

	SSR1200	SSR1300	SSR1400	SSR1500
Environmental				
Operating temperature	32°F to 104°F (0°C to 40°C)	32°F to 104°F (0°C to 40°C)	32°F to 104°F (0°C to 40°C)	32°F to 104°F (0°C to 40°C)
Storage temperature	-4°F to 158°F (-20°C to 70°C)	-4°F to 158°F (-20°C to 70°C)	-4°F to 158°F (-20°C to 70°C)	-4°F to 158°F (-20°C to 70°C)
Mean time between failures (MTBF)	156,467 hours	165,381 hours	164,964 hours	117,397 hours

Safety and Compliance

Safety

- UL 62368-1
- CAN/CSA-C22.2 No. 62368-1
- EN 62368-1
- IEC 62368-1 (All country deviations): CB scheme

Electromagnetic Compatibility (EMC)

- EN 55032
- EN 55035
- EN 55024
- EN 300 386 for SSR1300, SSR1400, and SSR1500
- CISPR 32
- IEC/EN 61000 Series
- FCC 47 CFR Part 15
- ICES-003 / ICES-GEN
- AS/NZS CISPR 32
- VCCI-CISPR 32

Environmental

- EU Restriction of Hazardous Substances (RoHS II) Directive 2011/65/EU and 2015/863
- EN IEC 63000:2018

Other

- **Telco** : CLEI Codes
- **TAA compliance** : Compliant
- **FIPS** : 140-2 Level 1 compliance (through Session Smart software)

Juniper Care Support Services Definitions

Juniper Networks includes Enhanced Limited Lifetime Warranty (eLLW) for SSR100 and SSR1000 Line of Routers by default. The offering provides next day ship hardware replacement for the lifetime of the appliances and support the entitlements offered under the previous Juniper Care Core and Juniper Care Core Plus contract service levels. For more information on eLLW, please refer: <https://support.juniper.net/support/warranty/>

Juniper Care Next-Day Delivery

Juniper will deliver FRU replacements to the ship-to address in advance of receiving returned defective hardware on the next business day, provided the RMA is issued by 3 p.m. local time (based on ship-to address), on a business day. If the RMA is issued after 3 p.m., Juniper will deliver the replacement FRU on the second business day. "Next-day delivery" is subject to availability.

Juniper Care Same-Day

Juniper Networks will deliver FRU replacements to the ship-to address, 24 hours a day, 7 days a week, within 4 hours of issuance of RMA in advance of receipt of defective hardware. "Same-day delivery" is subject to availability.

For additional information on Juniper Care Services, refer to the [Juniper Care Service Description](#).

SSR1200 Service Option SKUs

Hardware SKU	Juniper Care Next-Day Delivery	Juniper Care Same-Day
SSR1200	SVC-ND-SSR1200	SVC-SD-SSR1200

SSR1300 Service Option SKUs

Hardware SKU	Juniper Care Next-Day Delivery	Juniper Care Same-Day
SSR1300	SVC-ND-SSR1300	SVC-SD-SSR1300

SSR1400 Service Option SKUs

Hardware SKU	Juniper Care Next-Day Delivery	Juniper Care Same-Day
SSR1400	SVC-ND-SSR1400	SVC-SD-SSR1400

SSR1500 Service Option SKUs

Hardware SKU	Juniper Care Next-Day Delivery	Juniper Care Same-Day
SSR1500	SVC-ND-SSR1500	SVC-SD-SSR1500

Ordering Information

To order Juniper Networks SSR1000 line appliances and to access licensing information, visit the How to Buy page at <https://www.juniper.net/us/en/how-to-buy/>.

SKU	Description
SSR1200 Router: Large Branch and Small Size Campus/Data Center	
SSR1200	SSR1200 hardware only (1 U; 64 GB RAM; 256 GB SSD; redundant power supply (RPS); Intel-based NICs; 7x1GbE RJ45, 4x1GbE/10GbE SFP+; includes rackmounts). SSN software license and optics sold separately. Check for homologation certs. TAA compliant.
SSR1200-RMK	Rackmount kit for SSR1200.
SSR1200-CHAS	SSR1200 chassis. No AC power supply units and no rackmount kit.
SSR1300 Router: Medium Size Campus/Data Center	
SSR1300	SSR1300 hardware only (1 U; 128 GB RAM; 256 GB SSD; redundant power supply (RPS); Intel-based NICs; 4x1GbE RJ45, 4x10GbE SFP+, 4x1GbE/10GbE SFP+; includes rackmounts). SSN software license and optics sold separately. Check for homologation certs. TAA compliant.
JNP-RMK-SSRHE	Rackmount kit for SSR1300, SSR1400, and SSR1500.
JNP-FAN-SSRHE	Fan tray unit for SSR1300, SSR1400, and SSR1500.
SSR1300-CHAS	SSR1300 chassis; no AC power supply units, no fan tray units, and no rackmount kit.
SSR1400 Router: Large Size Campus/Data Center	
SSR1400	SSR1400 hardware only (1 U; 256 GB RAM; 512 GB SSD; redundant power supply (RPS); Intel-based NICs; 4x1GbE RJ45, 4x10GbE SFP+, 4x1GbE/10GbE/25GbE SFP28; includes rackmounts). SSN software license and optics sold separately. Check for homologation certs. TAA compliant.
JNP-RMK-SSRHE	Rackmount kit for SSR1300, SSR1400, and SSR1500.
JNP-FAN-SSRHE	Fan tray unit for SSR1300, SSR1400, and SSR1500.
SSR1400-CHAS	SSR1400 chassis. No AC power supply units, no fan tray units, and no rackmount kit.
SSR1500 Router: Extra Large Size Campus/Data Center	
SSR1500	SSR1500 hardware only (1 U; 512 GB RAM; 1 TB SSD; redundant power supply (RPS); Intel-based NICs; 4x1GbE RJ45, 12x1GbE/10GbE/25GbE SFP28; includes rackmounts). SSN software license and optics sold separately. Check for homologation certs. TAA compliant.
JNP-RMK-SSRHE	Rackmount kit for SSR1300, SSR1400, and SSR1500.
JNP-FAN-SSRHE	Fan tray unit for SSR1300, SSR1400, and SSR1500.

SKU	Description
SSR1500-CHAS	SSR1500 chassis. No AC power supply units, no fan tray units, and no rackmount kit.

About Juniper Networks

At Juniper Networks, we are dedicated to dramatically simplifying network operations and driving superior experiences for end users. Our solutions deliver industry-leading insight, [automation](#), [security](#), and [AI](#) to drive real business results. We believe that powering connections will bring us closer together while empowering us all to solve the world's greatest challenges of well-being, sustainability, and equality.

Corporate and Sales Headquarters

Juniper Networks, Inc.
1133 Innovation Way
Sunnyvale, CA 94089 USA

Phone: 888.JUNIPER (888.586.4737)

or +1.408.745.2000

www.juniper.net

APAC and EMEA Headquarters

Juniper Networks International B.V.
Boeing Avenue 240 1119 PZ Schiphol-Rijk
Amsterdam, The Netherlands

Phone: +31.207.125.700

