ASR1001-X Datasheet





Overview

Cisco ASR 1000-X is designed for high-end enterprise, data center, service provider edging network in order to handle explosive traffic through the network. It supports only software redundancy, and it is based on a Quad-core 2.13GHz processor with 4GB memory, 8GB flash memory, 1 SPA bay, SPA interface processor 10 (SIP10).

This ASR1001-X is similar with the ASR1001-X=. The ASR1001-X= is a spare one.

Quick Specs

Figure 1 shows the appearance of the Cisco ASR 1001-X.

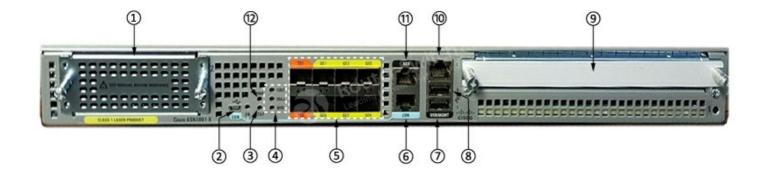


Table 1 shows the Quick Specs.

| Product Code | Cisco ASR 1001-X |
|------------------------------------|---|
| Rack Height | 1RU |
| System Bandwidth | 2.5G (default) / 5G, 10G, 20G (upgrade) |
| Router Processor (RP) | Quad-core 2.13Ghz processor |
| Build-in Gigabit Ethernet port | 6 x SFP ports, 2 x SFP+ ports |
| Redundancy | Software (license purchase separately) |
| SIP and Ethernet line card | Integrated in chassis; not upgradable |
| Embedded hardware-based encryption | up to 8-Gbps crypto support throughput |
| Rack-mounting | 19-inch |
| DRAM Memory | 8 GB |
| Flash Memory | 8 GB |
| Shared port adapters | 1 SPA slot |
| External USB flash memory | 1-GB USB flash-memory support |

Product Details

Figure 2 shows the front panel of Cisco ASR 1001-X.



Note:

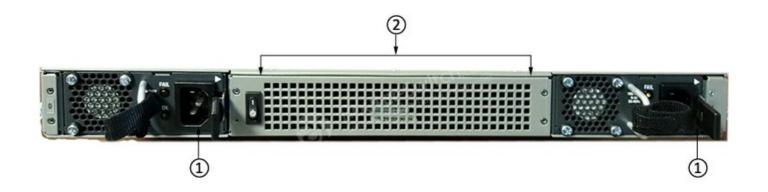
- (1) NIM slots
- (2) CON-One mini eUSB por
- (3) STAT—Status LED
- (4) CRIT LED—Critical alarm indicator; MAJ LED—Major alarm indicator; MIN LED—Minor alarm indicator
- (5) 6 x SFP ports, 2 x SFP+ ports
- (6) CON—One RJ-45/RS-232 compatible console port
- (7) USB port 1
- (8) USB port 0
- (9) Shared port adapter slot
- (10) MGMT—One RJ-45 10/100/1000 management Ethernet port.
- (11) AUX—One RJ-45/RS-232 compatible auxiliary port
- (12) PWR—Power LED

·Six built-in 1 GE SFP-only interfaces (do not support SFP+), and two built-in 10 GE SFP+ interfaces (support only 10-GE rate)

Table 2 shows some LEDs' Descriptions.

| LEDs | Color | Description |
|----------------------------|----------------|---|
| PWR (Power) | Solid green | All power requirements are within specification. |
| | Off | The router is in standby mode. |
| STAT (System Status) | Solid green | Cisco IOSD and other required processes have loaded successfully and are operating. |
| | Yellow | ROMMON is running (including a permanent failure of RP software) or the Process Manager has declared a critical RP process (including IOSD) dead. A user can log in to recover. |
| | Red | Occurs during system failure or power-up. |
| CRIT (Critical) | Solid Red | Functions as a critical alarm indicator. The LED is Iso a solid red during the boot process. |
| MAJ (Major) | Solid Red | Major alarm indicator. |
| MIN (Minor) | Amber | Minor alarm indicator. |

Figure 3 shows the back panel of ASR1001-X.



Note

- (1) Two power supplies, either two AC power supplies or two DC power supplies are accessed from the rear of the router and are hot-swappable.
- (2) Four internal fans draw cooling air into the chassis and across internal components to maintain an acceptable operating temperature.

The Configuration

The ASR1001-X should be configured with some modules and accessories for normal operation.

Table 3 shows the recommended configuration.

| Items | Quantity | Descriptions |
|------------------|----------|---|
| ASR1001-X-PWR-AC | 2 | Cisco ASR1001-X AC Power Supply |
| CAB-L620P-C13-US | 2 | Power Cord, 250VAC, 15A, NEMA L6-20 to C13, US |
| SASR1K1XU-313S | 1 | Cisco ASR1001-X IOS XE UNIVERSAL – NO ENCRYPTION |
| NIM-BLANK | 1 | Blank faceplate for NIM slot on Cisco ISR 4400 |
| SPA-BLANK | 1 | Blank Cover for regular SPA |
| M-ASR1001X-8GB | 1 | Cisco ASR1001-X 8GB DRAM |
| ASR1K-OTHER | 1 | ASE1K-other applications for Enterprise or SP-Tracking only |
| L-SLASR1-IPB= | 1 | Cisco ASR1001 License L-SLASR1-IPB= Cisco ASR 1000 IP BASE E-Delivery PAK |

Get more information

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Specification

| ASR1001-X Specifications | | | |
|---|---|--|--|
| Physical specifications Note: Depth applies to chassis edge-to-edge dimension and does not include protrusions such as card handles, power-supply handles, and cable management brackets. Refer to the applicable hardware installation guide for additional details. | Height: 1.71 in. (43.43 mm) Width: 17.3 in. (439.42 mm) Depth: 18.17 in. (461.5 mm) Weight: 1. 25 lb (11.35 kg) fully loaded Note: The Cisco ASR 1001-X Router has the route processor, ESP, and SIP integrated. | | |
| Default memory | 8-GB DRAM shared across route processor, ESP, and SIP | | |

| Number of SIPs or Ethernet line cards supported | Integrated in chassis |
|--|---|
| Shared port adapters | 1 single-height SPA slot |
| Ethernet port adapters | N/A |
| Cisco ASR 1000 Series ESP | Integrated in chassis |
| Route processor | Integrated in the chassis: Cisco ASR 1001-X Series Route Processor with Quad Core Processor |
| Redundancy | Software: Yes |
| Built-in Gigabit Ethernet ports | Yes: 6 Gigabit Ethernet Small Form-Factor Pluggable (SFP) ports |
| Built-in 10 Gigabit Ethernet port | Yes: Two 10 Gigabit Ethernet Small Form-Factor Plus Pluggable (SFP+) ports Note:Built-in 10-GB ports cannot be reduced to 1-GB speed. |
| Network interface module | Yes |
| Cisco ASR 1000 Series | Cisco ASR 1001-X |
| ESP support | Cisco ASR 1000 Series 2.5-Gbps ESP (default) Upgradable through a software-activated feature license to 5, 10, or 20 Gbps |
| ESP bandwidth | 2.5 to 20 Gbps |
| ESP memory | Share the same control memory on route processor |
| SIPs and Ethernet line cards | Integrated in chassis; not upgradable |
| Embedded hardware-based encryption | Yes: Up to 8-Gbps crypto support throughput |
| Minimum Cisco IOS XE Software release | Cisco IOS XE Software Release 3.12.0 |
| Rack-mounting | Yes: 19-inch |
| Wall-mounting | No |
| External USB flash memory | 1-GB USB flash-memory support |
| Redundant power supply | Yes: Dual power supplies by default; option of either AC or DC power supply Note: A mix of one AC and one DC power supply is not supported. |
| Power input | Worldwide ranging AC input range (85 to 264 VAC) Worldwide ranging DC (-40 to -72V; 48V nominal) |
| Power consumption | Maximum (DC): 242WMaximum (AC): 250WMaximum (out): 250W |
| Airflow | Front-to-back |
| Operating temperature (nominal) | 32 to 104°F (0 to 40°C) |
| | 32 to 122°F |
| Operating temperature (short-term) | (0 to 50°C) |
| Operating temperature (short-term) Operating humidity (nominal) (relative humidity) | (0 to 50°C) 10 to 85% |
| | |

| Storage humidity (relative humidity) | 5 to 95% |
|---|---|
| Operating altitude | -500 to 10,000 feet (152 to 3048 meters) |
| Network Equipment Building Standards (NEBS) | GR-1089 and GR-63 (in progress) |
| EMC standards | FCC 47 CFR Part 15 Class A VCCI Class A AS/NSZ Class A ICES-003 Class A EN55022/CISPR 22 Information Technology Equipment (Emissions) EN55024/CISPR 24 Information Technology Equipment (Immunity) EN300 386 Telecommunications Network Equipment (EMC) EN50082-1/EN61000-6-1 Generic Immunity Standard |
| Safety Standard | UL60950-1 CSA C22.2 No. 60950-1-03 EN 60950-1 IEC 60950-1 AS/NZS 60950.1 |

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- Tel: +1-626-655-0998 (USA) +852-3050-1066 / +852-3174-6166
- Fax: +852-3050-1066 (Hong Kong)
- Email: sales@router-switch.com