# ASR1001X-20G-K9

router-switch.com/asr1001x-20g-k9.html

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|---|---|
| Model: | ASR1001X-20G-K9 - Cisco ASR 1000 Series Router |
| Detail: | ASR1001-X Router, 20G Base Bundle, K9, AES, Built-in 6x1G, 2x10G |

## Quick Specs

**Table 1 shows the Quick Specs.**

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| **Product Code** | ASR1001X-20G-K9 |
| **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) |

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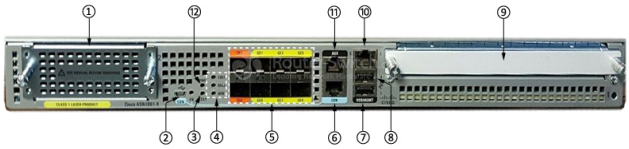
| **SIP and Ethernet line card** | Integrated in chassis; not upgradable |
| **Embedded hardware-based encryption** | up to 8-Gbps crypto support throughput |
| **Rack-mounting** | 19-inch |
| **DRAM Memory** | 4 GB |
| **Flash Memory** | 8 GB |
| **Shared port adapters** | 1 SPA slot |
| **External USB flash memory** | 1-GB USB flash-memory support |

## Product Details

**Figure 2 shows the front panel of ASR1001X-20G-K9.**




Note:

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| ① | NIM slots | ⑦ | USB port 1 |
| ② | CON—One mini eUSB por | ⑧ | USB port 0 |
| ③ | STAT—Status LED | ⑨ | Shared port adapter slot |
| ④ | CRIT LED—Critical alarm indicator<br>MAJ LED—Major alarm indicator<br>MIN LED—Minor alarm indicator | ⑩ | MGMT—One RJ-45 10/100/1000 management Ethernet port. |

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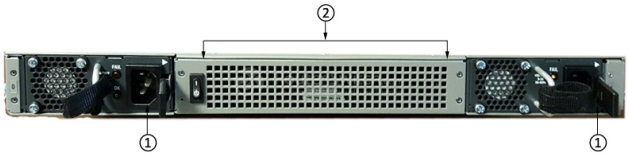
| ⑤ | 6 x SFP ports, 2 x SFP+ ports | ⑪ | AUX—One RJ-45/RS-232 compatible auxiliary port |
| ⑥ | CON—One RJ-45/RS-232 compatible console port | ⑫ | PWR—Power LED |

*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)

**Figure 3 shows the back panel of ASR1001X-20G-K9.**




Note:

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| 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 ASR1001X-20G-K9 should be configured with some accessories for normal operation.

**Table 2 shows the recommended configuration.**

| Model | Description |
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| **Card** | |
| SPA-5X1GE-V2 | Cisco 5-Port Gigabit Ethernet Shared Port Adapter |
| **License** | |

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| FLASR1-CUBEE-100R | Unified Border Element Ent, 100 Sessions, Redundancy |
| FLASR1-CUBEE-100P | Unified Border Element - Enterprise Edition 100 Sessions |
| FLASR1-CUBEE-4KP | Unified Border Element - Enterprise Edition 4000 Sessions |
| FLASR1-CUBEE-4K-R | Unified Border Element Ent, 4000 Sessions, Redundancy |

## Compare to Similar Items

**Table 3 shows the comparison between ASR1001X-20G-K9 and ASR1001.**

| **Models** | ASR1001X-20G-K9 | ASR1001 |
|---|---|---|
| **Scalability** | 2.5 to 20 Gbps | 2.5 to 5 Gbps |
| **Rack Height** | 1U | 1U |
| **SFP Ports** | 6 x 1 G | 4 x 1G |
| **SPA slots** | 1 | 1 |
| **SIP Slots** | Integrated | Integrated |
| **ESP Slots** | Integrated | Integrated |
| **RP Slots** | Integrated | Integrated |

| **ASR1001X-20G-K9 Specifications** |
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| Physical specifications<br><br>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.<br><br>Refer to the applicable hardware installation guide for additional details. | Height: 1.71 in. (43.43 mm)<br><br>Width: 17.3 in. (439.42 mm)<br><br>Depth: 18.17 in. (461.5 mm)<br><br>Weight:<br><br>● 25 lb (11.35 kg) fully loaded<br><br>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<br><br>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)<br><br>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<br><br>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)<br><br>Worldwide ranging DC<br><br>(-40 to -72V; 48V nominal) |

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| Power consumption | • Maximum (DC): 242W<br>• Maximum (AC): 250W<br>• Maximum (out): 250W |
| Airflow | Front-to-back |
| Operating temperature (nominal) | 32 to 104°F<br>(0 to 40°C) |
| Operating temperature (short-term) | 32 to 122°F<br>(0 to 50°C) |
| Operating humidity (nominal) (relative humidity) | 10 to 85% |
| Operating humidity (short-term) | 5 to 90% |
| Storage temperature | -40 to 150°F<br>(-40 to 70°C) |
| Storage humidity (relative humidity) | 5 to 95% |
| Operating altitude | -500 to 10,000 feet<br>(152 to 3048 meters) |
| Network Equipment Building Standards (NEBS) | GR-1089 and GR-63 (in progress) |

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| EMC standards | ● FCC 47 CFR Part 15 Class A<br>● VCCI Class A<br>● AS/NSZ Class A<br>● ICES-003 Class A<br>● EN55022/CISPR 22 Information Technology Equipment<br>(Emissions)<br>● EN55024/CISPR 24 Information Technology Equipment<br>(Immunity)<br>● EN300 386 Telecommunications Network Equipment<br>● (EMC)<br>● EN50082-1/EN61000-6-1 Generic Immunity Standard |
| Safety Standard | UL60950-1<br>CSA C22.2 No. 60950-1-03<br>EN 60950-1<br>IEC 60950-1<br>AS/NZS 60950.1 |