



# Cisco Aggregation Services Routers 1000 Series Datasheet



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## OVERVIEW

The Cisco ASR 1000 Series Router, a critical part of the Cisco Borderless Network Architecture, is the industry's first aggregation services router and the first system within the Cisco portfolio to use the Cisco QuantumFlow Processor, a processor built for edge-based service delivery. You can deploy the Cisco ASR 1000 Series Routers at the enterprise to provide secure WAN aggregation services; integrated threat and defense services at the WAN or Internet edge; data center interconnect (DCI) router; managed customer premises-equipment (CPE) services; or to deliver complex residential quadruple-play (data, voice, video, and mobile) or business services from the provider edge.

## APPEARANCE

**Figure 1.** Cisco ASR 1000 Series



## KEY FEATURES AND BENEFITS

### Application-centric SD-WAN

- See, prioritize, and optimize application performance securely over any connection for more than 1000 applications with intelligence and data center-class quality of service (QoS).

### High performance and scale

Built on the Cisco QuantumFlow Processor, the ASR 1000 Series has a separate control and forwarding plane, supporting a multiservice design. Increase the performance and resiliency of integrated WAN edge services without hardware upgrades.

### Unified communications

- Flexible deployment options help you cut costs and maximize your investment. Remote workers get single sign-on access with Cisco Expressway. Latest encryption secures communications. Cisco EnergyWise helps reduce costs in off-work hours.

### Virtualization-ready platform

- Go beyond WAN connectivity with Open Service Containers. Host in-house, Cisco, or third-party lightweight applications directly on the ASR 1000 Series routers.

## PRODUCT SPECIFICATIONS OF CISCO ROUTER ASR 1000

Model	Cisco ASR 1001-X	Cisco ASR 1002-X	Cisco ASR 1001-HX	Cisco ASR 1002-HX
<b>Physical specifications</b> <b>Note:</b> 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: 25 lb (11.35 kg) fully loaded <b>Note:</b> The Cisco ASR 1001-X Router has the route processor, ESP, and SIP integrated.	Height: 3.5 in. (88.9 mm) Width: 17.2 in. (437.4 mm) Depth: 18.15 in. (461.0 mm) Weight: 38.25 lb (17.36 kg) (with dual AC power supply and SPA blank covers) <ul style="list-style-type: none"> <li>• 39.05 lb (17.72 kg) (with dual DC power supply and blank covers)</li> <li>• No SPAs included</li> </ul> <b>Note:</b> The Cisco ASR 1002-X has the	Height: 1.71 in. (43.43 mm) Width: 17.3 in. (439.42 mm) Depth: 18.38 in. (466.85 mm) Weight: 23 lb (10.44 kg) with dual AC power supplies <ul style="list-style-type: none"> <li>• 22.5 lb (10.21 kg) with dual DC power supplies</li> </ul>	Height: 3.5 in. (88.9 mm) Width: 17.3 in. (439.4 mm) Depth: 19.25 in. (489.0 mm) Weight: 34 lb (15.45 kg) (with dual AC power supplies) <ul style="list-style-type: none"> <li>• 34 lb (15.45 kg) (with dual DC power supplies)</li> </ul>

		route processor, ESP, and SIP integrated.		
<b>Default memory</b>	8-GB DRAM shared across route processor, ESP, and SIP	4-GB DRAM shared across route processor, ESP, and SIP	8-GB DRAM shared across route processor, ESP, and MIP	16-GB DRAM shared across route processor, ESP, and MIP
<b>Number of SIPs or Ethernet line cards supported</b>	Integrated in chassis	Integrated in chassis	Integrated in chassis	Integrated in chassis
<b>Shared port adapters</b>	1 single-height SPA slot	3 SPA slots	N/A	N/A
<b>Ethernet port adapters</b>	N/A	N/A	N/A	1 EPA slot
<b>Cisco ASR 1000 Series ESP</b>	Integrated in chassis	Integrated in chassis	Integrated in chassis	Integrated in chassis
<b>Route processor</b>	Integrated in the chassis: Cisco ASR 1001-X Series Route Processor with Quad Core Processor	Integrated in the chassis: Cisco ASR 1002-X Series Route Processor with Quad Core Processor	Integrated in the chassis: Cisco ASR 1001-HX Series Route Processor	Integrated in the chassis: Cisco ASR 1002-HX Series Route Processor
<b>Redundancy</b>	Software: Yes	Software: Yes	Software: Yes	Software: Yes
<b>Built-in Gigabit Ethernet ports</b>	Yes: 6 Gigabit Ethernet Small Form-Factor Pluggable (SFP) ports	Yes: 6 Gigabit Ethernet SFP ports	Yes: 8 Gigabit Ethernet SFP ports, plus optional 4 configurable 1GE/10GE ports	Yes: 8 Gigabit Ethernet SFP ports
<b>Built-in 10 Gigabit Ethernet port</b>	Yes: Two 10 Gigabit Ethernet Small Form-Factor Plus Pluggable (SFP+) ports <b>Note:</b> Built-in 10-GB ports cannot be reduced to 1-GB speed.	No	Yes, Four 10 Gigabit Ethernet Small Form-Factor Plus Pluggable (SFP+) ports, plus optional 4 configurable 1GE/10GE ports	Yes: Eight 10 Gigabit Ethernet Small Form-Factor Plus Pluggable (SFP+) ports <b>Note:</b> Built-in 10-GB ports cannot be reduced to 1-GB speed.
<b>Network interface module</b>	Yes	No	No	Yes

Model	Cisco ASR 1004	Cisco ASR 1006	Cisco ASR 1006-X	Cisco ASR 1009-X	Cisco ASR 1013
<p><b>Physical specifications</b></p> <p><b>Note:</b> Depth applies to chassis edge-to-edge dimension and does not include protrusions such as card handles, power-supply handles, and cable management brackets.</p> <p>Refer to the applicable hardware installation guide for additional details.</p>	<p>Height: 7 in. (177.8 mm)</p> <p>Width: 17.2 in. (437.4 mm)</p> <p>Depth: 18.15 in. (461.0 mm)</p> <p>Weight:</p> <ul style="list-style-type: none"> <li>● 68.7 lb (31.16 kg) (with dual AC power supply, SPA blank covers, Cisco ASR 1000 Series 10-Gbps ESP [ASR1000-ESP10] or ASR 1000 Series 40-Gbps ESP [ASR1000-ESP-40], Cisco ASR 1000 Series Route Processor 1 [RP1] [ASR1000-RP1], two Cisco ASR 1000 Series 10-Gbps SIPs [ASR1000-SIP10] or ASR1000 Series 40-Gbps SIPs [ASR1000-SIP-40], and no SPAs)</li> </ul>	<p>Height: 10.5 in. (266.7 mm)</p> <p>Width: 17.2 in. (437.4 mm)</p> <p>Depth: 18.15 in. (461.0 mm)</p> <p>Weight:</p> <ul style="list-style-type: none"> <li>● 98.70 lb (44.77 kg) (with dual AC power supply, SPA, route processor, two Cisco ASR 1000 Series 10-Gbps ESPs [ASR1000-ESP10] or ASR 1000 Series 40-Gbps ESPs [ASR1000-ESP-40] or ASR1000 Series 100-Gbps ESPs [ASR1000-ESP100], two Cisco ASR 1000 Series RP1s [ASR1000-RP1], three Cisco ASR 1000 Series 10-Gbps SIPs [ASR1000-SIP10] or ASR1000 Series 40-Gbps SIPs [ASR1000-SIP-40], and no SPAs)</li> </ul>	<p>Height: 10.47 in. (265.9 mm)</p> <p>Width: 17.2 in. (437.4 mm)</p> <p>Depth: 18.15 in. (461.0 mm)</p> <p>Weight:</p> <ul style="list-style-type: none"> <li>● 36.5 lb empty</li> <li>● 112 lb (50.91 kg) (with two fan modules, three AC power supplies, three power bay blanks, two Cisco ASR1000 Series 100-Gbps ESPs [ASR1000-ESP100], two Cisco ASR 1000 Series RP2s [ASR1000-RP2], two Cisco ASR 1000 Series 100-Gbps MIPs [ASR1000-MIP100], four EPA blanks, and no EPAs)</li> </ul>	<p>Height: 15.72 in. (399.3 mm)</p> <p>Width: 17.2 in. (437.4 mm)</p> <p>Depth: 18.15 in. (461.0 mm)</p> <p>Weight:</p> <ul style="list-style-type: none"> <li>● 50 lb empty</li> <li>● 154 lb (70 kg) (with three fan modules, four AC power supplies, two power bay blanks, two Cisco ASR1000 Series 200-Gbps ESPs [ASR1000-ESP200], two Cisco ASR 1000 Series RP2s [ASR1000-RP2], three Cisco ASR 1000 Series 100-Gbps MIPs [ASR1000-MIP100], six EPA blanks, and no EPAs)</li> </ul>	<p>Height: 22.8 in. (579.1 mm)</p> <p>Width: 17.2 in. (437.4 mm)</p> <p>Depth: 18.15 in. (461.0 mm)</p> <p>Weight:</p> <ul style="list-style-type: none"> <li>● 184.0 lb (83.46 kg) (with redundant AC power supply, SPA, route processor, SIP blank covers, two Cisco ASR 1000 Series 40-Gbps ESPs [ASR1000-ESP40] or ASR1000 Series 100-Gbps ESPs [ASR1000-ESP100] or ASR1000 Series 200-Gbps ESPs [ASR1000-ESP200], two Cisco ASR 1000 Series RP2s [ASR1000-RP2], six Cisco ASR 1000 Series 40-Gbps SIPs [ASR1000-SIP40], and no SPAs)</li> </ul>
<b>Default memory</b>	4-GB DRAM RP1	4-GB DRAM RP1	8-GB DRAM RP2	8-GB DRAM RP2	8-GB DRAM RP2

	8-GB DRAM RP2	8-GB DRAM RP2	8-GB DRAM RP3	8-GB DRAM RP3	8-GB DRAM RP3
<b>Number of SIPs or Ethernet line cards supported</b>	2	3	2	3	6
<b>Shared port adapters</b>	8 SPA slots	12 SPA slots	8 SPA slots	12 SPA slots	24 SPA slots
<b>Ethernet port adapters</b>	N/A	N/A	4 EPA slots	6 EPA slots	12 EPA slots
<b>Cisco ASR 1000 Series ESP</b>	1 ESP slot	2 ESP slots	2 ESP slots	2 ESP slots	2 ESP slots
<b>Route processor</b>	1 route-processor slot	2 route-processor slots	2 route-processor slots	2 route-processor slots	2 route-processor slots
<b>Redundancy</b>	Software: Yes	Hardware: Yes	Hardware: Yes	Hardware: Yes	Hardware: Yes
<b>Built-in Gigabit Ethernet ports</b>	0	0	0	0	0
<b>Built-in 10 Gigabit Ethernet port</b>	No	No	No	No	No
<b>Network interface module</b>	No	No	No	No	No

## CISCO ROUTER ASR 1000 BASIC ORDERING INFORMATION

### Ordering Information for Cisco ASR 1000 Series Chassis

Product Number	Product Description
<b>Cisco ASR 1000 Series Chassis</b>	
<a href="#">ASR1001-X</a>	Cisco ASR 1001-X System, Crypto, 6 built-in GE, Dual P/S
ASR1001-X=	Cisco ASR 1001-X System, Crypto, 6 built-in GE, Dual P/S, Spare
ASR 1001-HX	Cisco ASR1001-HX System, 8x10GE+8x1GE, 2xP/S, optional crypto
ASR 1001-HX=	Cisco ASR1001-HX System, 8x10GE+8x1GE, 2xP/S, optional crypto, spare

ASR1002-HX	Cisco ASR 1002-HX System, 4x10GE+4x1GE built-in, Dual P/S, optional crypto
<a href="#">ASR1002-HX=</a>	Cisco ASR 1002-HX System, 4x10GE+4x1GE built-in, Dual P/S, optional crypto, spare
<a href="#">ASR1002-X</a>	Cisco ASR 1002-X System, Crypto, 6 Built-In GE, Dual P/S
ASR1002-X=	Cisco ASR 1002-X System, Crypto, 6 Built-In GE, Dual P/S, Spare
<a href="#">ASR1004</a>	Cisco ASR 1004 Chassis, Dual P/S
ASR1004=	Cisco ASR 1004 Chassis, Dual P/S, Spare
<a href="#">ASR1006</a>	Cisco ASR 1006 Chassis, Dual P/S
ASR1006=	Cisco ASR 1006 Chassis, Dual P/S, Spare
<a href="#">ASR1006-X</a>	Cisco ASR 1006-X Chassis
ASR1006-X=	Cisco ASR 1006-X Chassis, Spare
<a href="#">ASR1009-X</a>	Cisco ASR 1009-X Chassis
ASR1009-X=	Cisco ASR 1009-X Chassis, Spare
<a href="#">ASR1013</a>	Cisco ASR 1013 Chassis, Redundant P/S
ASR1013=	Cisco ASR 1013 Chassis, Redundant P/S, Spare
<b>Cisco ASR 1000 Series USB Memory Options</b>	
<a href="#">MEMUSB-1024FT</a>	1 GB USB Flash Token for Cisco ASR 1000 Series
MEMUSB-1024FT=	1 GB USB Flash Token for Cisco ASR 1000 Series, Spare

#### Ordering Information for Processor Modules

Product Number	Product Description
<b>Cisco ASR 1000 Series Embedded Services Processor</b>	
<a href="#">ASR1000-ESP20</a>	Cisco ASR 1000 Embedded Services Processor, 20 Gb
ASR1000-ESP20=	Cisco ASR 1000 Embedded Services Processor, 20 Gb, Spare



<a href="#">ASR1000-ESP40</a>	Cisco ASR 1000 Embedded Services Processor, 40 Gb
ASR1000-ESP40=	Cisco ASR 1000 Embedded Services Processor, 40 Gb Spare
ASR1000-ESP100	Cisco ASR 1000 Embedded Services Processor, 100 Gb
<a href="#">ASR1000-ESP100=</a>	Cisco ASR 1000 Embedded Services Processor, 100 Gb Spare
ASR1000-ESP200	Cisco ASR 1000 Embedded Services Processor, 200 Gb
<a href="#">ASR1000-ESP200=</a>	Cisco ASR 1000 Embedded Services Processor, 200 Gb Spare

#### Cisco ASR 1000 Series Route Processor

<a href="#">ASR1000-RP2</a>	Cisco ASR 1000 Route Processor 2
ASR1000-RP2=	Cisco ASR 1000 Route Processor 2, Spare
<a href="#">ASR1000-RP3</a>	Cisco ASR 1000 Route Processor 3
ASR1000-RP3=	Cisco ASR 1000 Route Processor 3, Spare
ASR1000-RP3-32G-2P	Cisco ASR1000 RP3 w/ 32 GB, 2 Pack
ASR1000-RP3-64G-2P	Cisco ASR1000 RP3 w/ 64 GB, 2 Pack

#### Ordering Information for Interfaces and Modules

Product Number	Product Description
<b>Cisco ASR 1000 Series SPA Interface Processor and Ethernet Line Cards</b>	
<a href="#">ASR1000-SIP40</a>	Cisco ASR 1000 SPA Interface Processor 40
ASR1000-SIP40=	Cisco ASR 1000 SPA Interface Processor 40, SPARE
ASR1000-6TGE	Cisco ASR 1000 Fixed Ethernet Line Card, 6X10GE
ASR1000-6TGE=	Cisco ASR 1000 Fixed Ethernet Line Card, 6X10GE, Spare
ASR1000-2T+20X1GE	Cisco ASR 1000 Fixed Ethernet Line Card, 2X10GE + 20X1GE
ASR1000-2T+20X1GE=	Cisco ASR 1000 Fixed Ethernet Line Card, 2X10GE + 20X1GE, Spare
ASR1000-MIP100	Cisco ASR 1000 Ethernet Line Card, 100 Gb Modular Interface Processor
ASR1000-MIP100=	Cisco ASR 1000 Ethernet Line Card, 100 Gb Modular Interface Processor, spare
EPA-1X100GE	Cisco ASR 1000 1x100GE Ethernet Port Adapter

EPA-1X100GE=	Cisco ASR 1000 1x100GE Ethernet Port Adapter, spare
EPA-CPAK-2X40GE	Cisco ASR 1000 2x40GE Ethernet Port Adapter (breakout cable)
EPA-CPAK-2X40GE=	Cisco ASR 1000 2x40GE Ethernet Port Adapter (breakout cable), spare
EPA-10X10GE	Cisco ASR 1000 10x10GE Ethernet Port Adapter
EPA-10X10GE=	Cisco ASR 1000 10x10GE Ethernet Port Adapter, spare
EPA-18X1GE	Cisco ASR 1000 18x1GE Ethernet Port Adapter
EPA-18X1GE=	Cisco ASR 1000 18x1GE Ethernet Port Adapter, spare

## ADDITIONAL INFORMATION

[Guide to Select Cisco Network Edge Router](#)

[Find Your New Network Edge Routers/ASR 1000 Series](#)

[Updated: Cisco Gigabit Ethernet Transceiver Modules for ASR 1000 Series Router](#)

## WHERE TO BUY

**Want to buy this series of products? please contact:**

- Tel: +1-626-239-8066 (USA)/ +852-3050-1066 / +852-3174-6166
- Fax: +852-3050-1066 (Hong Kong)
- Email: [sales@router-switch.com](mailto:sales@router-switch.com) (Sales Inquiries)

**Or visit:** [Cisco ASR 1000 Series Routers](#)

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## SOURCES

<https://www.cisco.com/c/en/us/products/collateral/routers/asr-1000-series-aggregation-services-routers/datasheet-c78-731632.html>