



Technical Specifications

This appendix lists the specifications for the VSM card for the Cisco ASR 9000 Series Aggregation Services Router.

The specifications are presented in the following tables:

[Table A-1, “Cisco ASR9000 VSM Card Ordering Information”](#)

[Table A-2, “Cisco ASR 9000 Series Environmental Specifications”](#)

[Table A-3, “Card and Fan Tray Power Consumption Specifications”](#)

[Table A-4, “VSM Card Technical Specifications”](#)

[Table A-1](#) provides ordering information for the Cisco ASR 9000 Virtualized Services Module (VSM) Card.

Table A-1 Cisco ASR9000 VSM Card Ordering Information

Product Name	Part Number
Cisco ASR 9000 Virtualized Services Module (VSM) Card	A9K-VSM-500(=)
Cisco ASR9000 CGN License (1 per 5 million translations) ¹	A9K-XLAT-LIC-5M(=)
Virtual Machine License for Cisco ASR 9000 Router	A9K-VM-LIC(=)

1. In IOS XR Release 5.1.1, the user must select at least one unit of CGN license. Up to sixteen units of CGN license (1 per 5 million translations) supported per Cisco ASR 9000 Virtualized Services Module (VSM) Card.

[Table A-2](#) lists the environmental specifications for the Cisco ASR 9000 Series Router.

Table A-2 Cisco ASR 9000 Series Environmental Specifications

Description	Value
Operating Temperature:	41 degrees to 104 degrees F (5 degrees to 40 degrees C)
Operating Temperature (Short term) ¹ :	23 degrees to 131 degrees F (-5 degrees to 55 degrees C) ²

Table A-2 Cisco ASR 9000 Series Environmental Specifications (continued)

Description	Value
Nonoperating Temperature	–4 degrees to 149 degrees F (–20 degrees to 65 degrees C)
Humidity	Operating: 10 to 85 percent noncondensing Nonoperating: 5 to 95 percent noncondensing
Altitude	Operating: 0 to 13,000 ft (0 to 4,000 m) Nonoperating: 0 to 15,000 ft (0 to 4,570 m)
Power Dissipation (Cisco ASR 9010 Router)	7600 W maximum
Power Dissipation (Cisco ASR 9006 Router)	4556 W maximum
Acoustic noise	78 dB at 80.6 degrees F (27 degrees C) maximum
Shock	Operating (halfsine): 21 in/sec (0.53 m/sec) Nonoperating (trapezoidal pulse): 20 G ³ , 52 in/sec (1.32 m/sec)
Vibration	Operating: 0.35 Grms ⁴ from 3 to 500 Hz Nonoperating: 1.0 Grms from 3 to 500 Hz

1. Short-term refers to a period of not more than 96 consecutive hours and a total of no more than 15 days in 1 year. (This refers to a total of 360 hours in any given year, but no more than 15 occurrences during that 1-year period.)
2. Operating temperature specifications for the router will differ from those listed in this table when 40-port Gigabit Ethernet line cards using GLC-GE-100FX SFP transceiver modules are installed in the router. This is due to the lower temperature specifications of the SFP module. Please contact a Cisco representative for more information.
3. G is a value of acceleration, where 1G equals 32.17 ft/sec² (9.81 m/sec²).
4. Grms is the root mean square value of acceleration.

Table A-3 lists the power consumption specifications for the RSP card, line cards, and fan tray.

**Caution**

Be sure that the chassis configuration complies with the required power budgets. Failure to properly verify the configuration may result in an unpredictable state if one of the power units fails. Contact your local sales representative for assistance.

Table A-3 Card and Fan Tray Power Consumption Specifications

Description	Value
RSP Card	
Power consumption	170 W at 86 degrees F (30 degrees C) 195 W at 104 degrees F (40 degrees C) 205 W at 131 degrees F (55 degrees C)
VSM Card	
Power consumption	750 W at 86 degrees F (30 degrees C) 800 W at 104 degrees F (40 degrees C) 850 W at 131 degrees F (55 degrees C)

Table A-3 Card and Fan Tray Power Consumption Specifications

Description	Value
Fan Tray	
Power consumption	160 W at 86 degrees F (30 degrees C)
	300 W at 104 degrees F (40 degrees C)
	475 W at 131 degrees F (55 degrees C)

[Table A-4](#) lists the technical specifications for the VSM card.

Table A-4 VSM Card Technical Specifications

Description	Value
Height	14 in (35.56 cm)
Width	1.72 in (4.37 cm)
Depth	20.5 in (52.07 cm)
Weight	21.2 lb (9.6 kg)

