



# APPENDIX **A**

## Wide Area Application Engine 7326 Hardware Specifications

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This appendix provides hardware specifications for the WAE-7326 appliance and the optional Cisco WAE inline network adapter. It contains the following sections:

- [Appliance Specifications, page A-1](#)
- [Adapter Specifications, page A-5](#)

## Appliance Specifications

[Table A-1](#) provides a summary of the features and specifications of the Wide Area Application Engine (WAE) 7326.


**Table A-1**      *WAE 7326 Features and Specification*

Specification	Description
Microprocessor	<ul style="list-style-type: none"><li>• 2 3.2-GHz Nocona processors</li><li>• 1 MB Level 2 cache</li><li>• 800-MHz front-side bus (FSB)</li></ul>
	 <b>Note</b> Use the Configuration/Setup utility program to determine the type and speed of the microprocessors.

**Table A-1** WAE 7326 Features and Specification (continued)

Memory	<ul style="list-style-type: none"> <li>• Minimum: 512 MB</li> <li>• Maximum: 16 GB</li> <li>• Type: 2-way interleaved PC3200, ECC DDR II SDRAM, registered DIMMs only</li> <li>• Sizes: 256 MB, 512 MB, 1 GB, or 2 GB</li> </ul>
Drives standard	<ul style="list-style-type: none"> <li>• CD-ROM</li> </ul>
Expansion bays	<ul style="list-style-type: none"> <li>• 6 hot-swap, 3.5-inch disk drive bays</li> <li>• 1 5.25-inch (13.34-cm) bay (CD-ROM drive installed)</li> </ul>
Hot-swap Fans	<ul style="list-style-type: none"> <li>• Minimum: 6</li> <li>• Maximum: 12—Provide redundant cooling</li> </ul>
Hot-swap Power supplies	625 watts (100–240 V AC) <ul style="list-style-type: none"> <li>• Minimum: 1</li> <li>• Maximum: 2—Provide redundant power</li> </ul>
Expansion slots	<ul style="list-style-type: none"> <li>• 2 PCI-X non-hot-pluggable 133-MHz/64-bit</li> <li>• 2 PCI-X non-hot-pluggable 100-MHz/64-bit (low profile)</li> </ul>
Size	<ul style="list-style-type: none"> <li>• Height: 3.36 in. (85.4 mm)</li> <li>• Depth: 27.64 in. (702.0 mm)</li> <li>• Width: 17.5 in. (443.6 mm)</li> </ul>
Weight	Weight: 46.5 lb (21.09 kg) to 64 lb (29.03 kg) depending upon configuration

**Table A-1** WAE 7326 Features and Specification (continued)

Integrated functions	<ul style="list-style-type: none"> <li>• Baseboard management controller</li> <li>• Two Broadcom 10/100/1000 Ethernet controllers (dual-port design) with Wake on LAN® support</li> <li>• One serial port</li> <li>• One external and one internal Ultra320 SCSI port (dual-channel controller with integrated RAID)</li> </ul> <p> <b>Note</b> The baseboard management controller is also known as the service processor.</p>
Electrical Input	<ul style="list-style-type: none"> <li>• Sine wave input (50 - 60 Hz) required</li> <li>• Input voltage range automatically selected</li> <li>• Input voltage low range: <ul style="list-style-type: none"> <li>– Minimum: 100 V AC</li> <li>– Maximum: 137 V AC</li> </ul> </li> <li>• Input voltage high range: <ul style="list-style-type: none"> <li>– Minimum: 200 V AC</li> <li>– Maximum: 240 V AC</li> </ul> </li> <li>• Input kilovolt-amperes (kVA) approximately: <ul style="list-style-type: none"> <li>– Minimum: 0.36 kVA</li> <li>– Maximum: 0.83 kVA</li> </ul> </li> </ul>

**Table A-1** WAE 7326 Features and Specification (continued)

Environment	<ul style="list-style-type: none"> <li>• Air temperature: <ul style="list-style-type: none"> <li>– Server on: 50 to 95°F (10 to 35°C); altitude: 0 to 2133 m (6998.0 ft)</li> <li>– Server off: 50° to 109.4°F (10° to 43°C); maximum altitude: 2133 m (6998.0 ft)</li> </ul> </li> <li>• Humidity <ul style="list-style-type: none"> <li>– Server on: 8% to 80%</li> <li>– Server off: 8% to 80%</li> </ul> </li> </ul>
<sup>1</sup> Acoustical noise emissions	<ul style="list-style-type: none"> <li>• Declared sound power, idle: 6.6 bel<sup>2</sup></li> <li>• Declared sound power, operating: 6.6 bel</li> </ul>
<sup>3</sup> Heat Output	<ul style="list-style-type: none"> <li>• Minimum configuration: 1230 Btu<sup>4</sup> (360 watts)</li> <li>• Maximum configuration: 2840 Btu (830 watts)</li> </ul>

1. These levels were measured in controlled acoustical environments according to the procedures specified by the American National Standards Institute (ANSI) S12.10 and ISO 7779 and are reported in accordance with ISO 9296. Actual sound-pressure levels in a given location might exceed the average values stated because of room reflections and other nearby noise sources. The declared sound-power levels indicate an upper limit, below which a large number of computers will operate.
2. In acoustics, logarithm of the ratio of a quantity to a reference quantity of the same kind is called a level. The base of the logarithm (always ten, unless otherwise specified), the reference quantity, and the kind of level shall be specified. bel is a unit of level when the base of the logarithm is ten, and the quantities concerned are proportional to power.
3. Power consumption and heat output vary depending on the number and type of optional features installed, and the power-management optional features in use.
4. British Thermal Unit

# Adapter Specifications

Table A-2 describes the Fibre Channel adapter specifications.

**Table A-2** *Fibre Channel Adapter Specifications*

Fibre Channel adapter	<ul style="list-style-type: none"> <li>• Bus type: Fiber-optic media (shortwave 50-micron)</li> <li>• Bus transfer rate: 2 gigabits per second (Gbps) maximum at half duplex and 4 Gbps at full duplex</li> <li>• Protocols: Supports FCP<sup>1</sup>-SCSI protocol</li> </ul>
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1. FCP = Fibre Channel Protocol

Table A-3 describes the inline network adapter technical and general specifications.



**Note**

The minimum software release required for the inline network adapter is WAAS 4.0.7.

**Table A-3** *Inline Network Adapter Specifications*

Specification	Description
<b>Copper Gigabit Ethernet Specifications</b>	
IEEE standard	Gigabit Ethernet, 1000BASE-T Fast Ethernet, 100BASE-T Ethernet, 10BASE-T
Full duplex and half duplex	Supports both half-duplex and full-duplex operation in all operating speeds
Autonegotiation	Autonegotiates between full-duplex and half-duplex operations and between 1000-Mbps, 100-Mbps, and 10-Mbps speeds

**Table A-3** *Inline Network Adapter Specifications (continued)*

<b>Specification</b>	<b>Description</b>
Data transfer rate	1000-Mbps, 100-Mbps, and 10-Mbps speeds per port in half-duplex mode  2000-Mbps, 200-Mbps, and 20-Mbps speeds per port in full-duplex mode
<b>General Technical Specifications</b>	
Interface standard	PCI v2.2 32/64 bit, 33/66 MHz  PCI-X v1.0 32/64 bit, 66/100/133 MHz
Size	6.6 in. x 4.2 in. (167.64 mm x 106.68 mm)
PCI connector	Universal 64-bit connector
PCI voltage	+12V (minimum 11.4V, maximum 12.6V)  +3.3V (minimum 3.0V, maximum 3.6V)
Weight	6.18 oz (175 grams)
Operating humidity	0 to 90 percent, noncondensing
Operating temperature	32° to -122° F (0° to 50° C)
Storage temperature	-4° to -149° F (-20° to -65° C)