

# 9

## Optixia XL10 Chassis

This chapter provides details about Optixia XL10 chassis—its specifications and features.

Optixia XL10 is a highly modular design intended for long-term continuous use and ease of maintenance. The modular design allows for the replacement of load modules and power supplies without the need to take the chassis offline. The number and position of load modules may similarly be changed without taking the chassis offline. All of the critical components of an Optixia XL10 chassis may be removed without removing the chassis from its rack mount. Upgrades to the power supply and processing components are also possible through simple module interchange while the Optixia XL10 remains rack mounted.

The chassis supports 240 ports of 10/100/1000Mbps modes.

The Optixia XL10 chassis has 10 slots for Optixia XL10 Load Modules. The Optixia XL10 power is organized with two separate AC inputs which in turn feed 1-4 1200W power supplies. To use Optixia XL10 in a minimal power configuration, power supplies number 1 and 2 are installed for use with up to 5 blades. Power supplies number 3 and 4 are installed for use with all 10 blades.

**Note:** In the event of indications of inadequate power, remove load modules starting from the low-number slots (slot 1, 2, 3), then working upward toward slot 10 until the problem is solved.



**Caution:** This equipment is intended to be installed and maintained by Service Personnel.

The Optixia XL10 is shown in [Figure 9-1](#) on page 9-2.



**Warning:** To prevent accidental injury to personnel, do not leave unused SFP (or SFP+) ports on load modules uncovered. When transceivers are not installed, end caps must be used. For details, see [Use End Caps on Open Ports](#) on page xxxvii.

Figure 9-1. Optixia XL10 Chassis



**Warning**  
Multiple Sources  
of Supply. Disconnect  
All Sources before  
Servicing

**Avertissement**  
Présence de plusieurs  
sources d'alimentation  
électrique. Débrancher  
toutes les sources  
d'alimentation  
avant intervention

**Achtung**  
Mehrfachstromquellen!  
Alle Versorgungskabel  
vor Wartung entfernen.

警告  
複数のパワーサ  
プライがあります  
ので、保守する  
際には必ず全て  
の電源ケーブル  
を抜いてください

**Warning**

High Touch Current.  
Earth Connection  
Essential Before  
Connecting Supply

**Avertissement**

Fort courant  
de contact  
Raccordement à la  
Terre impératif  
Avant branchement  
de l'alimentation

**Achtung**

Stellen Sie eine  
sichere Erdverbindung  
her, bevor Sie  
die Stromquelle  
anschließen.

警告  
高漏洩電流に気を  
付け、適切に設置  
してから電源を  
接続してください

## Specifications

### XL10 Chassis

Optixia XL10 computer and chassis specifications are contained in [Table 9-1](#).

Table 9-1. Optixia XL10 Specifications


CPU	Intel Celeron 1.2 GHz
	 <p><b>Caution-Battery replacement</b></p> <p>There is danger of explosion if battery is incorrectly replaced. Do not attempt to replace the battery.</p> <p>Return to Ixia Customer Service for replacement with the same or equivalent type of battery. Ixia disposes of used batteries according to the battery manufacturer's instructions.</p>
Memory	2 GB
Disk	IDE disk: 20 GB, removable
Operating System	Windows XP Professional
CD-ROM	Integrated CD-ROM drive
Physical	
Load Module Slots	10
Size	17.5" w x 35.5" h x 22.5" d (44.5cm x 90.5cm x 57.5cm)
Weight (empty)	150lbs (68kg)
Avg. Shipping Wt.	160lbs (72.5kg)
Shipping Vibration	FED-STD-101C, Method 5019.1/5020.1
Environmental	
Temperature	
Operating	41°F to 104°F, (5°C to 40°C)
	<b>Note:</b> Some high-density/high performance load modules may require a lower operating temperature; if this is the case, the operating temperature is specified in the load module datasheet.
Storage	41°F to 122°F, (5°C to 50°C)
Humidity	
Operating	10% to 90%, non-condensing
Storage	5% to 95%, non-condensing
Power	Line cord 1: 200-240V 60/50Hz 15A Line cord 2: 200-240V 60/50Hz 15A
	<b>Note:</b> Both power cords must be connected to the AC power source to provide sufficient power to the chassis.

Table 9-1. Optixia XL10 Specifications




		<b>Caution:</b> The socket/outlets used to power the unit must be installed near the equipment and be easily accessible because the power plug may be used to disconnect the unit from the power source.
		<b>Caution:</b> The chassis' safety approvals (UL and CE) are only valid when the unit is operating from 200-240VAC mains.
		<b>Caution:</b> Replacement of the power supply cord must be conducted by a Service Person. The same type cord and plug configuration shall be utilized.
Clearance		Front and Rear: 4 in (10 cm); fan openings should be clear of all cables or other obstructions. Sides: 2 in (5 cm) unless rack mounted
Front Panel Switches		On/Off momentary power push button
Front Panel Indicators		System Power (behind sliding door) LEDs: System System Ready System Fault System Temperature CPU Power Standby Power GPS Enabled* Time Stamp 1, 2, 3* Satellite Lock* Arm OK Lock Sync Master Ext. Sync. CDROM * = optional features
Front Panel Connectors		
Mouse		PS/2 6-pin DIN with or without Y-connector, for external mouse
Keyboard		PS/2 6-pin DIN with or without Y-connector, for external keyboard
Video		HD-DB15 Super VGA for external monitor
Parallel (Printer)		Female DB25 parallel port for external printer
10/100 Ethernet		RJ-45 10/100Mbps Fully integrated PC with 10/100 NIC.
Com 1 (Serial)		1 male DB9 serial port
USB		4 USB dual type A, 4-pin jack connectors

Table 9-1. Optixia XL10 Specifications

Sync In	4-pin RJ11
Sync Out	4-pin RJ11
Trigger In	BNC
Power	2 male receptacles (IEC 60320-C19)
XM2 Noise Spec(Fan db)	Condition:Ixia XM2 Front Back Right Left Plugged in not started 56 54 57 58 Only CPU Running On Low Speed 58 56 58 60 On Medium Speed- On Full Speed 70 67 70 73

## Supported Modules

The modules that are supported on the Optixia XL10 are listed in [Table 9-2..](#)

Table 9-2. Optixia XL10 Supported Modules

Module	SFF - Requires Adapter	Function
OLM1000STXS24		24-Port Dual-PHY (RJ45 and SFP) 10/100/1000 Mbps Ethernet Optixia XL10 full-featured Load Module (does not include transceivers)
OLM1000STX24		24-Port Dual-PHY (RJ45 and SFP) 10/100/1000 Ethernet Optixia XL10 Load Module (does not include SFP transceivers); Reduced features - NO support for routing protocols, Linux SDK, and L4-7 applications
LSM10GXL6-02		6-port 10GE LAN/WAN, single slot, full featured load module for Optixia XL10. Supports routing/bridging protocols, Linux SDK, and L4-7 applications. Requires 6 XFP transceivers (not included - options are either 948-0003 (XFP-850), XFP-1310, or XFP-1550)

## Hot-Swap Procedure

Each Optixia XL10 chassis provides the ability of removing and reinstalling a Load Module without requiring the removal of power from the rest of the chassis. The process of removing/installing a Load Module does not impact either the operation of the OS or load modules installed in the chassis.

The hot-swap procedure is detailed in Appendix D, *Hot-Swap Procedure*.

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## Installing Filler Panels

The airflow in an Optixia XL10 chassis can be inefficient if a load module is installed in one slot and the other is left open. For best cooling results, filler panels are required. Filler panels must be used in situations where the slots in the chassis are not all in use.

An empty Optixia XL10 chassis includes:

- 7 ea. 1 slot wide XL10 Filler Panel/Air Baffle units (p/n 652-0517)

### Prerequisites for Filler Panel Installation:

The technician should use industry-standard grounding techniques, such as wrist and ankle grounding straps, to prevent damage to electronic components on any Ixia Load Modules.

### Filler Panel Installation Procedure:

**ESD Caution:** Use industry-standard grounding techniques to prevent Electrostatic Damage to the delicate electronic components on the Ixia Load Modules.

**Example:** Slide the one-slot filler panel, with the Ixia logo at the top, into the correct slot. The panel slides in on the slot rails in the chassis. Secure the faceplate of the filler panel to the chassis with two of the supplied screws.



**Caution:** Use extreme care to prevent damage to delicate electronic components on an adjacent load module.  
Not using baffles could cause random failures in port operations or damage installed modules.

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## Rack Mount Cautions



**Caution:** If this unit is installed in a Rack Mount, observe the following precautions:

- a:** Elevated Operating Ambient Temperature: If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient temperature. Therefore, consider installing the equipment in an environment that is compatible with the maximum allowable ambient temperature specified for the chassis (40° C).
- b:** Reduced Air Flow: Install the equipment in a rack so that the amount of air flow required for safe operation of the equipment is not reduced.

Do not block the back or sides of the chassis, and leave approximately two inches of space around the unit for proper ventilation.

- c:** Mechanical Loading: Mount the equipment in the rack so that a hazardous condition is not caused due to uneven mechanical loading.
- d:** Circuit Overloading: Consider the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Pay attention to equipment nameplate ratings when addressing this concern.
- e:** Reliable Earthing: Maintain reliable earthing (grounding) of rack-mounted equipment. Pay special attention to supply connections other than direct connections to the branch circuit (such as use of power strips).
- f:** Replacement of the power supply cord must be conducted by a Service Person. The same type cord and plug configuration shall be utilized.