

Standard Features

HPE Edgeline EL1000 System

HPE Edgeline is the industry's first "Converged IoT System" - leading the expansion from data center and cloud computing to the edge, and the integration of precision data capture and control systems, all in one converged box. These rugged and compact systems are designed to thrive in harsh edge environments and can handle extremes of shock, vibration and temperature. They are designed to accelerate IoT insights and control actions in real-time through three points of convergence in one box:

1. Unprecedented deep edge compute and high capacity storage based on open standards

Traditional data center or cloud compute solutions for IoT require data to be transferred from the edge – exposing them to issues of latency, bandwidth, cost, security, duplication, corruption and compliance. HPE Edgeline can acquire data with precision, analyze it on an industry-standard x86 deep compute platform and initiate a control action from the edge itself - eliminating these concerns, and resulting in faster insight for better business agility.

HPE Edgeline Converged IoT Systems run unmodified enterprise-class analytics software such as HPE Vertica and each server is engineered to deliver very high performance e.g. ingest, repair and load of millions of Smart Meter datasets per second, with just nanoseconds of latency - equivalent performance to a typical 2P rack server, but at the edge!

2. Unique integration of precision data acquisition, measurement and control systems based on open standards

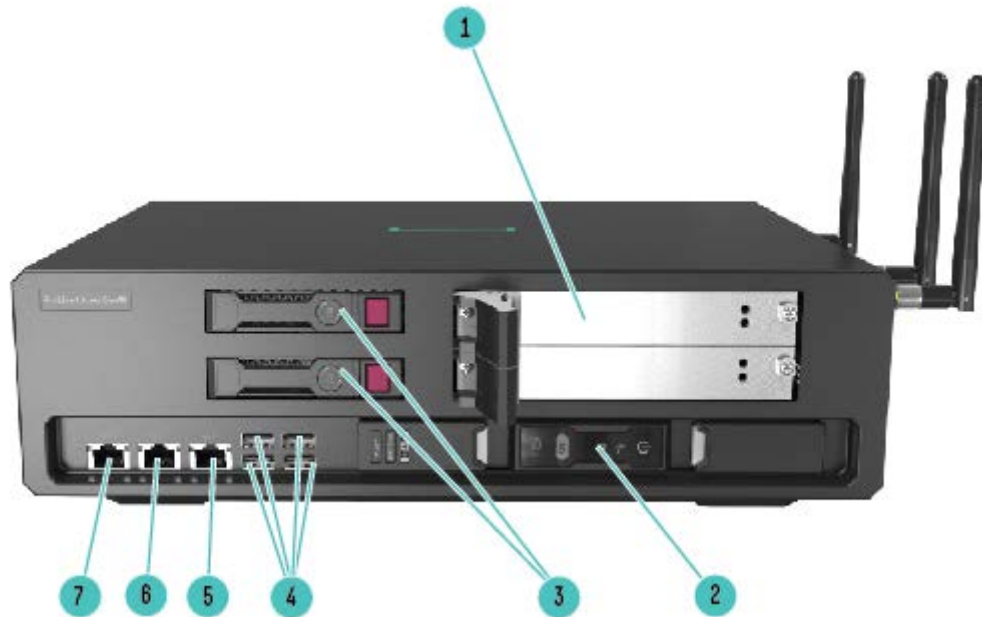
Precision data capture and control capability is achieved through open PXI standards, and when coupled with automated machine learning, opens up new horizons for equipment monitoring and management, predictive analytics to detect impending failures and augmented reality for manual-less servicing – key facets of Smart Factory initiatives such as Industry 4.0.

3. Data center class security, device and remote systems management

HPE Edgeline brings our industry leading Integrated Lights Out (iLO) systems management and security technology to the edge. These systems are also fully compatible with popular IoT security solutions such as Aruba ClearPass for automated authentication, threat protection and recovery of systems in the high-risk edge environment. Aruba Virtual Intranet Access (VIA) enables seamless Virtual Private Network (VPN) tunnels for secure connectivity between edge locations and the corporate network.

The **HPE Edgeline EL1000 System** allows deployment of 1 HPE ProLiant server cartridge, along with associated storage and I/O options to locations both inside and outside the traditional datacenter (e.g. factories, branch office and retail outlet).

Standard Features

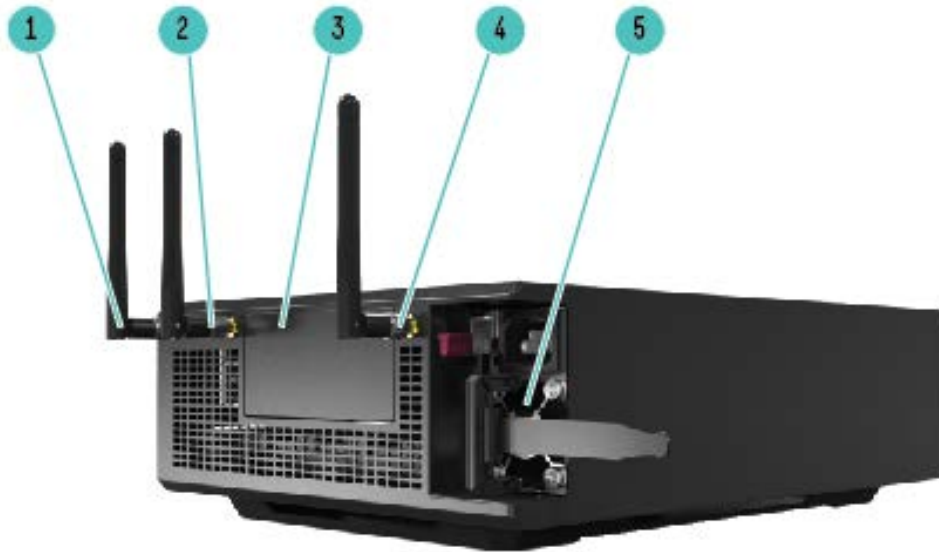


HPE Edgeline EL1000 Front View

Item	Description
1.	Two (2) PXI/PXIe modules (<i>PXI SKU</i>) -or- Blank (<i>PCIe SKU</i>)
2.	HPE ProLiant server cartridge (<i>selectable option; integrates power, health and UID LEDs/Buttons</i>)
3.	Two (2) 2.5" SFF HDD or SSDs
4.	Four (4) USB 3.0 Ports
5.	Network Port 1* - 1GbE RJ45 or 10GbE SFP+
6.	Network Port 2* - 1GbE RJ45 or 10GbE SFP+
7.	iLO Network Port -1GbE RJ45

* Network connections are available in 1GbE RJ45 and 10GbE SFP+. Only the 1GbE option is shown.

Standard Features

**HPE Edgeline EL1000 Right View**

Item	Description
1.	Antenna 1 Connector
2.	Antenna 2 Connector
3.	Two (2) PCIe cards (<i>PCIe SKU</i>) -or- Blank (<i>PXI SKU</i>)*
4.	Antenna 3 Connector
5.	Power supply

* Only the PXI SKU with blanks is shown in the picture

Standard Features

Enclosure

The HPE Edgeline EL1000 system holds 1 HPE ProLiant server cartridge (supported types are listed in this document). The base system is available in a variety of SKUs:

- 1) PCIe I/O cards with 1G networking (Enterprise)
- 2) PCIe I/O cards with 10G networking (Enterprise), or
- 3) PXI modules with 1G networking (Data Capture and Control).

The PCIe SKUs support 1-2 Full-Height Half-Length PCIe I/O cards (x16 physical), while the PXI SKU supports 1-2 PXI or PXIe modules (hybrid slot) for precision data capture and control.

The core network is not switched (i.e. pass-through). A separate 1G RJ45 network port is provided for access to the iLO management network.

All HPE Edgeline EL1000 SKUs support 2 SFF 2.5" HDDs or SSDs, 2 ports for 1G (RJ45) or 10G (SFP+) network and 4 ports for USB 3.0. An optional carrier supports 2 mini-PCIe cards with SIM slots, and which can be wired to 3 chassis antennas for wireless connectivity. Three non-hot swappable fans are used for left-to-right cooling airflow, with an optional dust filter. One HPE Flex Slot power supply can be installed per system. The system is designed to connect all power and I/O along just 2 sides, and with left-to-right cooling airflow – features which permit shelf placement against a wall.

The HPE Edgeline EL1000 System is rated for extended operating temperatures which allows it to be located in environments unsuitable for traditional servers.

NOTE: Allowable system operating temperature will be determined by the I/O and drive options selected. Refer to the appendix for details.

Server Cartridges

HPE Edgeline EL1000 System uses proven HPE ProLiant server cartridges from the HPE Moonshot family. One (1) modular hot-pluggable server of a supported type can be installed in each system. Examples:

- HPE ProLiant m510 Server (Intel® Xeon® D – 8 or 16 cores, up to 128GB RAM)
- HPE ProLiant m710x Server (Intel® Xeon® E3 – 4 cores with GPU, up to 64GB RAM)

HPE Flexible Slot Power Supply

HPE Flexible Slot (Flex Slot) Power Supplies share a common electrical and physical design that allows for hot plug, tool-less installation into HPE ProLiant servers. HPE's Flex Slot power supplies are certified for high-efficiency operation and offer multiple power output options, allowing users to "right-size" a power supply for specific server configurations. This flexibility helps to reduce power waste, lower overall energy costs, and avoid "trapped" power capacity in the data center.

The HPE Edgeline EL1000 system supports 1 HPE Flex Slot power supply (both AC and DC input options are available).

Standard Features

Embedded Management Each HPE ProLiant server cartridge plugged into a HPE Edgeline EL1000 has its own iLO 4 management processor, which can be accessed directly through the management network.

The HPE Edgeline EL1000 System implements a light-weight chassis controller to monitor and control common chassis elements. The iLO4 on the server cartridge communicates with the Chassis Controller to gather and report status information on the chassis itself.

Monitor your servers for ongoing management, service alerting, reporting and remote management with HPE iLO. Learn more

at <http://www.hpe.com/info/ilo>.

HPE Edgeline Component Pack The HPE Edgeline Component Pack, is the delivery mechanism for firmware updates on the HPE Edgeline System. Before using your system for the first time, verify that you have the latest drivers, firmware, and system software installed. Update your system with the Edgeline Component Pack.

For more information, see the Edgeline Component Pack Update Guide on the Hewlett Packard Enterprise website: <http://www.hpe.com/info/edgeline-docs>

Warranty

This product is covered by a global limited warranty and supported by Hewlett Packard Enterprise Services and a worldwide network of Hewlett Packard Enterprise Authorized Partner Ready Resellers. Hardware diagnostic support and repair is available for three years from date of purchase. Support for software and initial setup is available for 90 days from date of purchase. Enhancements to the warranty services are available through HPE services or customized service agreements. Hard drives have either a one year or three-year warranty; refer to the specific hard drive QuickSpecs for details.

NOTE: Chassis Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support. Additional information regarding worldwide limited warranty and technical support is available at: <http://h20564.www2.hpe.com/hpsc/wc/public/home>

Additional Features

HPE Insight Cluster Management Utility

HPE Insight Cluster Management Utility (CMU) is an Hewlett Packard Enterprise-licensed and Hewlett Packard Enterprise-supported suite of tools that are used to manage large-scale systems. Insight CMU includes software for the centralized provisioning, management and monitoring of nodes. Insight CMU makes the administration of clusters more user friendly, efficient, and error free than if they were being managed by scripts, or on a node-by-node basis. For more information on Hewlett Packard Enterprise Insight Cluster Management Utility, please contact your sales representative or go to:

<http://www8.hp.com/us/en/products/server-software/product-detail.html?oid=3296361>

HPE StoreVirtual VSA

HPE StoreVirtual VSA Software provides complete storage array functionality for virtualized environments without the need for external array hardware. Built on proven technology, HPE StoreVirtual VSA delivers software-defined storage by virtualizing up to 50TB of disk capacity on a server running VMware vSphere, Microsoft Hyper-V or Linux KVM. The HPE StoreVirtual VSA eliminates the need for external shared storage required to implement advanced hypervisor features. For more details refer to:

<https://www.hpe.com/us/en/storage/storevirtual.html>

NOTE: A free 1TB StoreVirtual license is available with the purchase of any Intel® Xeon® based server cartridge. For details on this offer refer to:

<http://www8.hp.com/us/en/products/data-storage/free-vsa.html>

Factory Express Portfolio for Servers and Storage

HPE Factory Express offers configuration, customization, integration and deployment services for Hewlett Packard Enterprise servers and storage products. Customers can choose how their factory solutions are built, tested, integrated, shipped and deployed. Factory Express offers service packages for simple configuration, racking, installation, complex configuration and design services as well as individual factory services, such as asset tagging, and custom packaging. Hewlett Packard Enterprise products supported through Factory Express include a wide array of servers and storage: HPE Moonshot, HPE Integrity, HPE ProLiant, HPE ProLiant Server Blades, and HPE BladeSystem, HPE 9000 servers as well as the MSAXxxx, VA7xxx, EVA, XP, rackable tape libraries and configurable network switches.

For more information on Factory Express services for your specific server model please contact your sales representative or go to: **<http://www.hp.com/go/factory-express>**.

Services and Support

Services and Support

HPE Technology Services

HPE Technology Services delivers confidence, reduces risk and helps customers realize agility and stability.

Protect your business beyond warranty with HPE Services

HPE Services enable you to order the right service level, length of coverage and response time as you purchase your new server, giving you full entitlement for the selected support.

Recommended HPE Services for your HPE Product

(4 and 5 year Service offerings are also available)

Optimized Care

Foundation Care 24x7, three-year Service

HPE Foundation Care 24x7 connects you to Hewlett Packard Enterprise 24 hours a day, seven days a week for assistance on resolving issues. Hardware onsite response within four hours if needed. Collaborative software included in this service provides troubleshooting assistance on industry leading software running on your HPE server. Simplify your support experience and make Hewlett Packard Enterprise your first call for hardware or software questions.

<https://www.hpe.com/h20195/V2/GetDocument.aspx?docname=4AA4-8876ENW&cc=us&lc=en>

Standard Care

Foundation Care NBD, three-year Service

HPE Foundation Care Next Business Day (NBD) gives you support during business hours for assistance on resolving issues – features next business day hardware onsite response if needed and software with a call back within two hours. Collaborative software support is included and provides troubleshooting assistance on industry leading software running on your HPE server. Simplify your support experience and make Hewlett Packard Enterprise your first call for hardware or software questions.

<https://www.hpe.com/h20195/V2/GetDocument.aspx?docname=4AA4-8876ENW&cc=us&lc=en>

Related Services

HPE Edgeline Installation & Startup Service

HPE Installation and Startup Service for the Edgeline System provides for the installation of one system and its associated ProLiant servers, as well as operating system deployment and basic configuration of OS network parameters to establish network connectivity

HPE Datacenter Care service

HPE Datacenter Care helps you improve IT stability and security, increase the value of IT, and enable agility and innovation. It is a structured framework of repeatable, tested, and globally available services “building blocks.” You can deploy, operate, and evolve your datacenter wherever you are on your IT journey. With HPE Datacenter Care, you benefit from a personalized relationship with Hewlett Packard Enterprise via a single point of accountability for Hewlett Packard Enterprise and others’ products. For more information, visit

<http://www.hpe.com/services/datacentercare>

Services and Support

HPE Self-Service Spares Service

HPE Self-Service Spares Service answers the question: What do you do when you need parts? We can set it up so that you get spare parts onsite through our automated self-service spares. You simply go to the part of your data center where the parts live, scan them out, scan in the broken one, and you're done. We maintain your inventory of good spares, so that what you need is ready to go when you need it. And we provide monthly service excellence reports illustrating onsite inventory performance.

Defective Media Retention (DMR) and Comprehensive Defective Material Retention (CMDR)

If your business deals with sensitive or legally protected data, you know that it's not a simple matter to return a defective hardware component, but keeping it conflicts with the terms and conditions of many standard warranty agreements. If you don't return the component, you'll be charged for the replacement part.

HPE Foundation Care services are available with defective media retention or comprehensive defective material retention of those other data-retentive components, such as hard drives, memory, switches and processors. This is critical for customers who:

- Need to control and secure their classified, proprietary and confidential data.
- Are subject to current data privacy regulations.
- Want a simpler, more cost-effective solution when choosing not to return a malfunctioning disk drive or other data retentive component.

Other Services

HPE Technology Services Support Credits offer flexible services and technical skills to meet your changing IT demands. With a menu of services tailored to suit your needs, you get additional resources and specialist skills to help you maintain peak performance of your IT with technical and operational services. There is even a custom deliverable where we work with you to develop exactly what meets your needs. Offered as annual credits, you can plan your budgets while proactively responding to your dynamic business.

HPE Education Services keep your IT staff trained making sure they have the right skills to deliver on your business outcomes. Book on a class today and learn how to get the most from your technology investment. <http://www.hpe.com/ww/learn>

HPE Support Center

Hewlett Packard Enterprise provides several tools that make it simpler to get help from Hewlett Packard Enterprise:

HPE Support Center is personalized online support portal with access to information, tools and experts to support Hewlett Packard Enterprise business products. Submit support cases online, chat with Hewlett Packard Enterprise experts, access support resources or collaborate with peers. Learn more: <http://www.hpe.com/support/hpesc>

The HPE Support Center Mobile App allows you to resolve issues yourself or quickly connect to an agent for live support. Now, you can get access to personalize IT support anywhere, anytime. HPE Support Center are available at no additional cost with a Hewlett Packard Enterprise warranty, HPE support package or Hewlett Packard Enterprise contractual support agreement.

NOTE: HPE Support Center Mobile App is subject to local availability.

Parts and Materials

Hewlett Packard Enterprise will provide HPE-supported replacement parts and materials necessary to maintain the covered hardware product in operating condition, including parts and materials for available and recommended engineering improvements.

Services and Support

Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product QuickSpecs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by Hewlett Packard Enterprise due to malfunction.

For more information

To learn more on HPE Edgeline System, please contact your Hewlett Packard Enterprise sales representative.

Configuration Information – Factory Integrated Models

NOTES:

This section lists some of the steps required to configure a Factory Integrated Model. To ensure only valid configurations are ordered, Hewlett Packard Enterprise recommends the use of a Hewlett Packard Enterprise approved configurator. Contact your local sales representative for information on configurable product offerings and requirements.

Factory Integrated Models must start with an HPE Edgeline EL1000 System. Each HPE Edgeline System can be ordered without Servers or Power Supplies if needed, but functional configurations require at a minimum:

- One (1) HPE ProLiant Server Cartridge
- One (1) HPE Flex Slot Power Supply

Networking (1G or 10G) and option I/O type (PCIe or PXI) cannot be changed once the HPE Edgeline EL1000 system has been ordered. However, the server cartridge, I/O cards and SFF drives can be replaced.

Step 1: Base Configuration (Choose System)

HPE Edgeline EL1000 System	HPE EL1000 1Gb System	853995-B21
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Step 2: Configure Server Cartridge (Min:0, Max:1)

HPE ProLiant Server Cartridge **NOTE: See HPE ProLiant Server Cartridge QuickSpecs for Cartridge Configurations**

HPE ProLiant m510 Server Cartridge

<http://www8.hp.com/us/en/products/proliant-servers/product-detail.html?oid=1009019439>

HPE ProLiant m710x Server Cartridge

<http://www8.hp.com/us/en/products/proliant-servers/product-detail.html?oid=1009011712>

NOTE: Functional systems require atleast 1 server cartridge to be configured

Step 3: Choose Required Power Options

Power Supplies **HPE Flex Slot Power Supplies (Min:0, Max:1)**

HPE 500W Flex Slot Platinum Hot Plug Power Supply Kit

720478-B21

HPE 800W Flex Slot -48VDC Hot Plug Power Supply Kit

720480-B21

NOTES:

1. Functional systems require atleast 1 power supply to be configured. Only 1 power supply is supported per system.
2. All x86 server cartridges support power-capping.

Configuration Information – Factory Integrated Models

Step 4: Choose Factory Integration Options

	Storage Controllers (Min:0, Max:1)	
HPE Storage Controllers	HPE Smart Array P440/4GB FBWC 12Gb 1-port Int SAS Controller	726821-B21
	NOTES:	
	<ul style="list-style-type: none"> When this option is selected the EL1000 P440 specific cable for linking the I/O card to the 2 SFF drives in the system will automatically be provided. If no Smart Array kit is configured in the Edgeline system, the 2 SFF drives will be connected to the SATA HBA integrated on the server cartridge by default. This controller cannot be connected to any M.2 SSDs on the server cartridge. Refer to the Smart Array P440 controller documentation for technical details: https://www.hpe.com/h20195/v2/gethtml.aspx?docname=c04346277 	
	Drives (Min:0, Max:2)	
HPE Drives	HPE 2TB 6G SATA 7.2K rpm SFF (2.5-inch) SC 512e 1yr Warranty Hard Drive	765455-B21
	Standard PCIe I/O Options (Min:0, Max: 2)	
	NOTE: Power limit is 50W per card in a PCIe x16 physical slot (x8 Gen3 electrical). Only Full-Height Half-Length (FHHL) cards are supported.	

Step 5: Choose Additional Options

Mounting Kits	HPE Edgeline EL1000 Rack Rail Kit	866690-B21
	HPE Edgeline EL1000 ETSI Rack Rail Kit	866692-B21
Cable Kits	HPE m710x Front I/O Cable Kit	867893-B21
	NOTE:	
	This optional kit provides the following cables for connecting the HPE ProLiant m710x server directly to a monitor, keyboard, mouse or other accessories.	
	<ul style="list-style-type: none"> Mini Displayport (DP) to Displayport (DP) Female Adapter Mini Displayport (DP) to HDMI Adapter Micro-USB to USB Type-A Female Adapter 	
HPE Insight Cluster Management Utility (CMU)	HPE Insight Cluster Management Utility Media	BD477A
	NOTE: For additional license kits please see the QuickSpecs at: https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111735	
HPE StoreVirtual VSA	HPE StoreVirtual Free 1TB VSA	VSA1TB-S (Free License)
	NOTE: Get free Software Defined Storage of up to 1TB using HPE StoreVirtual VSA. The free license is available with the order of any Intel® Xeon® based server cartridge. For details on this offer refer to: http://www8.hp.com/us/en/products/data-storage/free-vsa.html . Full license upgrades to 4TB, 10TB or 50 TB capacities can also be purchased. Refer to the QuickSpecs at: https://www.hpe.com/h20195/v2/GetPDF.aspx%2Fc04111621.pdf	
Install and Startup Services	HPE Startup Edgeline EL1000 SVC (Flexible)	HA114A1#5BR
Support Services	HPE Startup Edgeline EL1000 SVC (Fixed)	H2US7E
	Flexible – 3 Year	
	HW Next Day Foundation Care	H7J32A3

Configuration Information – Factory Integrated Models

Next Day Foundation Care w/DMR Support	H7J33A3
Foundation Care 24X7	H7J34A3
Foundation Care 24X7 w/DMR	H7J35A3
Foundation Care 6 hour CTR	H7J36A3
Foundation Care 6 hour CTR w/DMR	H7J37A3
Flexible – 4 Year	
HW Next Day Foundation Care	H7J32A4
Next Day Foundation Care w/DMR Support	H7J33A4
Foundation Care 24X7	H7J34A4
Foundation Care 24X7 w/DMR	H7J35A4
Foundation Care 6 hour CTR	H7J36A4
Foundation Care 6 hour CTR w/DMR	H7J37A4
Flexible – 5 Year	
HW Next Day Foundation Care	H7J32A5
Next Day Foundation Care w/DMR Support	H7J33A5
Foundation Care 24X7	H7J34A5
Foundation Care 24X7 w/DMR	H7J35A5
Foundation Care 6 hour CTR	H7J36A5
Foundation Care 6 hour CTR w/DMR	H7J37A5
Fixed – 3 Year	
HPE 3Y FC NBD Edgeline 1000 SVC	H2EG8E
HPE 3Y FC NBD wDMR Edgeline 1000 SVC	H2EG9E
HPE 3Y FC 24x7 Edgeline 1000 SVC	H2EH1E
HPE 3Y FC 24x7 wDMR Edgeline 1000 SVC	H2EH2E
HPE 3Y FC CTR Edgeline 1000 SVC	H2EH4E
HPE 3Y FC CTR wDMR Edgeline 1000 SVC	H2EH5E
HPE 3Y FC NBD wCDMR Edgeline 1000 SVC	H2EH0E
HPE 3Y FC 24x7 wCDMR Edgeline 1000 SVC	H2EH3E
HPE 3Y FC CTR wCDMR Edgeline 1000 SVC	H2EH6E

Configuration Information – Factory Integrated Models

HPE 3Y FC SBD Edgeline 1000 SVC	H2EK5E
HPE 3Y FC SBD wDMR Edgeline 1000 SVC	H2EK6E
Fixed – 4 Year	
HPE 4Y FC NBD Edgeline 1000 SVC	H2EH7E
HPE 4Y FC NBD wDMR Edgeline 1000 SVC	H2EH8E
HPE 4Y FC 24x7 Edgeline 1000 SVC	H2EJ0E
HPE 4Y FC 24x7 wDMR Edgeline 1000 SVC	H2EJ1E
HPE 4Y FC CTR Edgeline 1000 SVC	H2EJ3E
HPE 4Y FC CTR wDMR Edgeline 1000 SVC	H2EJ4E
HPE 4Y FC NBD wCDMR Edgeline 1000 SVC	H2EH9E
HPE 4Y FC 24x7 wCDMR Edgeline 1000 SVC	H2EJ2E
HPE 4Y FC CTR wCDMR Edgeline 1000 SVC	H2EJ5E
HPE 4Y FC SBD Edgeline 1000 SVC	H2EK7E
HPE 4Y FC SBD wDMR Edgeline 1000 SVC	H2EK8E
Fixed – 5 Year	
HPE 5Y FC NBD Edgeline 1000 SVC	H2EJ6E
HPE 5Y FC NBD wDMR Edgeline 1000 SVC	H2EJ7E
HPE 5Y FC 24x7 Edgeline 1000 SVC	H2EJ9E
HPE 5Y FC 24x7 wDMR Edgeline 1000 SVC	H2EK0E
HPE 5Y FC CTR Edgeline 1000 SVC	H2EK2E
HPE 5Y FC CTR wDMR Edgeline 1000 SVC	H2EK3E
HPE 5Y FC NBD wCDMR Edgeline 1000 SVC	H2EJ8E
HPE 5Y FC 24x7 wCDMR Edgeline 1000 SVC	H2EK1E
HPE 5Y FC CTR wCDMR Edgeline 1000 SVC	H2EK4E
HPE 5Y FC SBD Edgeline 1000 SVC	H2EK9E
HPE 5Y FC SBD wDMR Edgeline 1000 SVC	H2EL0E

Configuration Information – Factory Integrated Models

HPE Power Cords	HPE C13 - Nema 5-15P US/CA 110V 10Amp 1.83m Power Cord	AF556A
	HPE C13 - GB-1002 CN 250V 10Amp 1.83m Power Cord	AF557A
	HPE C13 - IRAM -2073 AR 250V 10A 2.5m Power Cord	AF558A
	HPE C13 - Nema 5-15P TH/PH 250V 10Amp 1.83m Power Cord	AF559A
	HPE C13 - CNS-690 TW 110V 13Amp 1.83m Power Cord	AF561A
	HPE C13 - IS-1293 IN 240V 6Amp LV 2.0m Power Cord	AF562A
	HPE C13 - KSC- 8305 KR 250V 10Amp 1.83m Power Cord	AF560A
	HPE C13 - SI-32 IL 250V 10Amp 1.83m Power Cord	AF564A
	HPE C13 - SEV 1011 CH 250V 10Amp 1.83m Power Cord	AF565A
	HPE C13 - DK-2.5A DK 250V 10Amp 1.83m Power Cord	AF566A
	HPE C13 - SABS-164 ZA 250V 10Amp 2.5m Power Cord	AF567A
	HPE C13 - CEE-VII EU 250V 10Amp 1.83m Power Cord	AF568A
	HPE C13 - AS3112-3 AU 250V 10Amp 2.5m Power Cord	AF569A
	HPE C13 - BS-1363A UK/HK/SG 250V 10Amp 1.83m Power Cord	AF570A
	HPE C13 - CEI-23-50 IT/CL 250V 10Amp 1.83m Power Cord	AF571A
	HPE C13 - JIS C8303 JP 100V 12Amp 2.0m Power Cord	AF572A
	HPE C13 - IS-1293 IN 250V 10Amp HV 2.5m Power Cord	SG579A
	HPE C13 - C14 WW 250V 10Amp Flint Gray 2.0m Jumper Cord	AF573A
	HPE C13 - NBR-14136 BR 250V 10Amp 1.83m Power Cord	AF591A
	HPE C13 - C14 WW 250V 10Amp 2.0m Jumper Cord	A0K02A
	HPE C13 - C14 WW 250V 10A Gray 0.7m Jumper Cord	A0K03A
	HPE C13 - C14 WW 250V 10A Gray 1.37m Jumper Cord	A0K04A
	HPE C13 - C14 WW 250V 10A Gray 3.0m Jumper Cord	A0K06A
	HPE C13 - Nema 6-15P US 250V 15A JP 3.6m Power Cord	A0N33A
HPE Rack Series	HPE Intelligent Series Rack	
	HPE 636 1200mm Shock Intelligent Rack	BW900A
	HPE 642 1200mm Pallet Intelligent Rack	BW907A
	HPE 642 1200mm Shock Intelligent Rack	BW908A
	HPE 647 1200mm Pallet Intelligent Rack	BW913A
	HPE 647 1200mm Shock Intelligent Rack	BW914A

NOTE: Rack chosen is required to have 1200mm to provide space for cable management arm at the rear of the chassis and host PDU in the rear of the rack.

NOTE: Please see the QuickSpecs for Technical Specifications such as height, width, depth, weight, and color: <https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04123237>

NOTE: For additional information regarding Rack Cabinets, please see the following URL: <http://www.hp.com/go/rackandpower>

Configuration Information – Factory Integrated Models

	HPE 110000 G2 Series Racks	
	HPE 11642 1075mm Pallet Rack	H6J65A
	HPE 11642 1075mm Shock Rack	H6J66A
	HPE 11648 1075mm Pallet Rack	H6J87A
	HPE 11648 1075mm Shock Rack	H6J88A
	HPE 11636 1075mm Pallet Universal Rack	H6J77A
	HPE 11636 1075mm Shock Universal Rack	H6J78A
	HPE 11622 1075mm Pallet Rack	H6J83A
	HPE 11622 1075mm Shock Rack	H6J84A
	HPE 11614 1075mm Shock Universal Rack	H6J82A
HPE Rack Options	KVM Consoles	
	HPE TFT7600 G2 KVM Console Rackmount Keyboard US Monitor	AZ870A
	HPE TFT7600 G2 KVM Console Rackmount Keyboard UK Monitor	AZ871A
	HPE TFT7600 G2 KVM Console Rackmount Keyboard DE Monitor	AZ872A
	HPE TFT7600 G2 KVM Console Rackmount Keyboard FR Monitor	AZ873A
	HPE 647 1200mm Shock Intelligent Rack	BW914A
	HPE TFT7600 G2 KVM Console Rackmount Keyboard ES Monitor	AZ875A
	HPE TFT7600 G2 KVM Console Rackmount Keyboard DK Monitor	AZ876A
	HPE TFT7600 G2 KVM Console Rackmount Keyboard NO Monitor	AZ877A
	HPE TFT7600 G2 KVM Console Rackmount Keyboard SE/FI Monitor	AZ878A
	HPE TFT7600 G2 KVM Console Rackmount Keyboard CH Monitor	AZ879A
	HPE TFT7600 G2 KVM Console Rackmount Keyboard PT Monitor	AZ880A
	HPE TFT7600 G2 KVM Console Rackmount Keyboard BE Monitor	AZ881A
	HPE TFT7600 G2 KVM Console Rackmount Keyboard JP Monitor	AZ882A
	HPE TFT7600 G2 KVM Console Rackmount Keyboard RU Monitor	AZ883A
	HPE TFT7600 G2 KVM Console Rackmount Keyboard Intl Monitor	AZ884A
	HPE TFT7600 G2 KVM Console Rackmount Keyboard US TAA Monitor	AZ885A
	HPE 0x2x16 KVM Server Console Switch G2 with Virtual Media CAC Software	AF618A
	HPE 0x2x32 KVM Server Console Switch G2 with Virtual Media CAC Software	AF619A
	HPE 1x1Ex8 KVM IP Console Switch G2 with Virtual Media CAC Software	AF620A
	HPE 2x1Ex16 KVM IP Console Switch G2 with Virtual Media CAC Software	AF621A
	HPE 4x1Ex32 KVM IP Console Switch G2 with Virtual Media CAC Software	AF622A

Configuration Information – Factory Integrated Models

HPE Uninterruptible Power Systems	HPE Rack-mountable UPS	
	HPE R1500 G3 Uninterruptible Power Supply (UPS)	
	HPE R1.5kVA G3 1U NA Uninterruptible Power System	AF469A
	HPE R1.5kVA G3 1U JP/TW Uninterruptible Power System	AF470A
	HPE R1.5kVA G3 1U INTL Uninterruptible Power System	AF471A
	NOTE: Please see the QuickSpecs for additional information:	
	<u>http://h18000.www1.hp.com/products/QuickSpecs/14059_div/14059_div.html</u>	
	HPE R/T3000 G2 Uninterruptible Power System (UPS)	
	HPE R/T3000 G2 2U L530 Low Voltage NA/JP Uninterruptible Power System	AF466A
	HPE R/T3000 G2 2U L620 High Voltage NA/JP Uninterruptible Power System	AF467A
	HPE R/T3000 G2 2U Detachable Cord High Voltage INTL Uninterruptible Power System	AF468A
	NOTE: Please see the QuickSpecs for additional information:	
	<u>https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04154342</u>	
NOTE: For additional information on Hewlett Packard Enterprise Uninterruptible Power Systems please go to: <u>http://www.hp.com/servers/rackups</u>		
NOTE: For additional information on sizing your server, please reference: <u>http://www.upssizer.com</u>		
NOTE: Please see the UPS and PDU cable matrix's on the HPE Power Protection and Management page. Under Power Cords, click on the "HPE Power Cord Matrix" link. That link will list cable descriptions, requirements, and specifications for UPS and PDU units. Please see the following link: <u>http://www.hp.com/products/powercords</u>		
HPE Intelligent Power Distribution Units (iPDU)	iPDU Core Units	
	HPE 4.9kVA 24A Single Phase NA/JP Core Intelligent Modular Power Distribution Unit	AF520A
	HPE 8.3kVA 40A Single Phase NA/JP Core Intelligent Modular Power Distribution Unit	AF521A
	HPE 8.6kVA 24A Three Phase NA/JP Core Intelligent Modular Power Distribution Unit	AF522A
	HPE 17.3kVA 48A Three Phase NA/JP Core Intelligent Modular Power Distribution Unit	AF523A
	HPE 7.3kVA 32A Single Phase INTL Core Intelligent Modular Power Distribution Unit	AF525A
	HPE 11kVA 16A Three Phase INTL Core Intelligent Modular Power Distribution Unit	AF526A
	HPE 22kVA 32A Three Phase INTL Core Intelligent Modular Power Distribution Unit	AF527A
	HPE 14.4kVA 40A Three Phase NA/JP Intelligent Modular Power Distribution Unit	AF533A
	iPDU Extension Bars	
	HPE 5xC13 Intelligent PDU Extension Bar G2 Kit	AF547A
	HPE 5xC13 Outlets Power and UID LEDs Pair Standard Extension Bar	AF528A
	NOTE: Please see the QuickSpecs for Technical Specifications and additional information:	
	<u>https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04123329</u>	

Configuration Information – Factory Integrated Models

HPE Basic Power	HPE 2.8kVA 120 Volt L5-30 Input (18xNEMA 5-20R) NA/JP Basic PDU	H5M55A
Distribution Units	HPE 3.6kVA 200-240 Volt Detachable C20 Input (12xC13) WW Basic PDU	H5M56A
	HPE 3.6kVA 200-240 Volt Detachable C20 Input (18xC13) WW Basic PDU	H5M57A
	HPE 4.9kVA 208 Volt L6-30 Input (20xC13) NA/JP Basic PDU	H5M58A
	HPE 4.9kVA 208 Volt L6-30 Input (24xC13/6xC19) NA/JP Basic PDU	H5M59A
	HPE 8.3kVA 208 Volt CS8265C Input (30xC13/6xC19) NA/JP Basic PDU	H5M60A
	HPE 8.6kVA 208 Volt L15-30 3-Phase Input (18xC13) NA/JP Basic PDU	H5M61A
	HPE 8.6kVA 208 Volt L15-30 3-Phase Input (24xC13/6xC19) NA/JP Basic PDU	H5M62A
	HPE 5.7kVA 208 Volt L21-20 3-Phase Input (24xC13/3xNEMA 5-20R) NA/JP Basic PDU	H5M63A
	HPE 8.6kVA 208 Volt L21-30 3-Phase Input (24xC13/3xC19/3xNEMA 5-20R) NA/JP Basic PDU	H5M64A
	HPE 7.3kVA 230 Volt IEC309 32A Input (20xC13) INTL Basic PDU	H5M68A
	HPE 7.3kVA 230 Volt IEC309 32A Input (24xC13/6xC19) INTL Basic PDU	H5M70A
	HPE 11kVA 230 Volt IEC309 63A Input (30xC13/6xC19) INTL Basic PDU	H5M71A
	HPE 11kVA 400 Volt IEC309 16A 3-Phase Input (30xC13/6xC19) INTL Basic PDU	H5M72A
	HPE Hardwired 200-240 Volt Input (30xC13/6xC19) WW Basic PDU	H5M75A
	HPE 13.2kVA 480 Volt IEC309 30A 3-Phase Input (15 Outlet) NA Basic PDU	H3X07A
	HPE 277 Volt options for H3X07A and H3X08A	
	HPE 800VA - 277V Input / 230V Output NA Rack Mount Transformer	H3X09A

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:

<https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111392>

NOTE: Additional HPE Power Distribution Units are available. For a complete list of all HPE PDUs and additional information please visit: <http://www.hp.com/go/rackandpower>

Configuration Information – Factory Integrated Models

HPE Remote Monitored Power Distribution Units	HPE 2.8kVA 120 Volt L5-30 Input (12xNEMA 5-20R) NA/JP Monitored PDU	D9N43A
	HPE 3.6kVA 200-240 Volt Detachable C20 Input (12xC13) WW Monitored PDU	D9N46A
	HPE 4.9kVA 208 Volt L6-30 Input (12xC13) NA/JP Monitored PDU	D9N44A
	HPE 3.6kVA 200-240 Volt Detachable C20 Input (16xC13) WW Monitored PDU	D9N45A
	HPE 4.9kVA 208 Volt L6-30 Input (20xC13/4xC19) NA/JP Monitored PDU	D9N47A
	HPE 7.3kVA 230 Volt IEC309 32A Input (20xC13/4xC19) INTL Monitored PDU	D9N48A
	HPE 7.3kVA 230 Volt IEC309 32A Input (32xC13/4xC19) INTL Monitored PDU	D9N50A
	HPE 8.3kVA 208 Volt CS8265C Input (30xC13/3xC19) NA Monitored PDU	D9N49A
	HPE 5.7kVA 208 Volt L21-20 3-Phase Input (18xC13/3xNEMA 5-20R) NA/JP Monitored PDU	D9N52A
	HPE 8.6kVA 208 Volt L21-30 3-Phase Input (20xC13/3xC19/3xNEMA 5-20R) NA/JP Monitored PDU	D9N53A
	HPE 8.6kVA 208 Volt L15-30 3-Phase Input (18xC13/3xC19) NA/JP Monitored PDU	D9N51A
	HPE 11kVA 400 Volt IEC309 16A 3-Phase Input (18xC13/3xC19) INTL Monitored PDU	D9N55A
	HPE 11kVA 400 Volt IEC309 16A 3-Phase Input (30xC13/3xC19) INTL Monitored PDU	D9N57A
	HPE 14.4kVA 208 Volt CS8365C 3-Phase Input (12xC13/12xC19) NA Monitored PDU	D9N58A
	HPE 16.6kVA 400 Volt IEC309 30A 3-Phase Input (12xC13/12xC19) NA Monitored PDU	D9N62A
	HPE 16.6kVA 400 Volt IEC309 30A 3-Phase Input (30xC13/3xC19) NA Monitored PDU	D9N61A
	HPE 17.3kVA 208 Volt IEC309 60A 3-Phase Input (12xC13/12xC19) NA/JP Monitored PDU	D9N59A
	HPE 17.3kVA 208 Volt IEC309 60A 3-Phase Input (24xC13/3xC19) NA/JP Monitored PDU	D9N54A
	HPE 19.9kVA 480 Volt 3-Phase (30 Outlet) NA Monitored PDU	D9N63A
	HPE 22kVA 400 Volt IEC309 32A 3-Phase Input (12xC13/12xC19) INTL Monitored PDU	D9N60A
	HPE 22kVA 400 Volt IEC309 32A 3-Phase Input (30xC13/3xC19) INTL Monitored PDU	D9N56A

Technical Specifications

Power Supply Specifications

HPE 500W Flex Slot Platinum Hot Plug Power Supply Kit

Part Number	720478-B21							
Input Voltage Range (V rms)	100-240							
Frequency Range (Nominal) (Hz)	50-60							
Nominal Input Voltage (V rms)	100	120	127	200	208	220	230	240
Maximum Rated Output Wattage Rating (Watts)	500	500	500	500	500	500	500	500
Nominal Input Current (A rms)	5.6	4.6	4.3	2.7	2.6	2.5	2.4	2.3
Maximum Rated Input Wattage Rating (Watts)	558	550	543	539	538	538	537	537
Maximum Rated VA (Volt-Amp)	564	556	549	544	544	543	542	542
Efficiency (%)	89.6	90.9	92.1	92.8	92.9	93.0	93.1	93.1
Power Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Leakage Current (mA)	0.32	0.38	0.40	0.63	0.65	0.69	0.72	0.75
Maximum Inrush Current (A peak)	30							
Maximum Inrush Current duration (ms)	10							
Maximum British Thermal Unit Rating (BTU-Hr)	1904	1877	1853	1839	1837	1834	1832	1832

HPE 800W Flex -48VDC Hot Plug Power Supply Kit

Part Number	720480-B21		
Input Voltage Range (V DC)	-40 to -72		
Frequency Range (Nominal) (Hz)	DC		
Nominal Input Voltage (V DC)	-40	-48	-72
Maximum Rated Output Wattage Rating (Watts)	800	800	800
Nominal Input Current (A DC)	22.0	18.1	11.9
Maximum Rated Input Wattage Rating (Watts)	882	871	858
Maximum Rated VA (Volt-Amp)	882	871	858
Efficiency (%)	90.7	91.9	93.2
Power Factor	1.0		
Leakage Current (mA)	0.0		
Maximum Inrush Current (A peak)	30		
Maximum Inrush Current duration (ms)	10		
Maximum British Thermal Unit Rating (BTU-Hr)	3008	2971	2929

To review typical system power ratings use the HPE Power Advisor which is available via the online tool located at URL: <http://www.hp.com/go/hppoweradvisor>

NOTE: Power Specification and Technical Content for supported power supplies can be found at:
<https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111541>

Technical Specifications

HPE Edgeline EL1000 System

Chassis Dimensions

(H x W x D)

173mm (6.81") tall, 480mm (18.90") wide, 380mm (14.96") deep

Weight

853995-B21: HPE Edgeline EL1000 1Gb System - 8.36 KG (18.43 lbs)

NOTE: Configuration used includes 1 server cartridge, 1 power supply, 2 SFF HDDs, 2 PCIe I/O cards

Power

Typical: 100-150W

Maximum: 225W

System Inlet Temperature

Standard Operating

10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000ft) above sea level to a maximum of 3050m (10,000ft), no direct sustained sunlight. Maximum rate of change is 20°C/hr (36°F/hr). The upper limit and rate of change may be limited by the type and number of options installed.

System performance during standard operating support may be reduced if operating with a fan fault or above 30°C (86°F).

Extended Operating

For approved hardware configurations, the supported system inlet range can be extended. The approved hardware configurations for this system are listed in the appendix.

Non-Operating

-30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).

Relative Humidity

Operating

8 to 90% relative humidity (Rh), 28°C (82.4°F) maximum wet bulb temperature, noncondensing.

Non-Operating

5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.

Altitude

Operating

3050 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).

Non-Operating

9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).

Technical Specifications

Acoustic Noise

Listed are the declared A-Weighted sound power levels (LWAd) and declared average bystander position A-Weighted sound pressure levels (LpAm) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109).

	Idle	
L Wad		TBA
L pAm		TBA
	Operating	
L Wad		TBA
L pAm		TBA

Emissions Classification (EMC)

FCC Rating Class A
 Normative Standards CISPR 22; EN55022; EN55024; FCC CFR 47, Pt 15; ICES-003; CNS13438; K22;K24; EN 61000-3-2; EN 61000-3-3; EN 60950-1; IEC 60950-1

NOTE: Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This product or family of products is eligible to bear the appropriate compliance logos and statements.

Technical Specifications

Hewlett Packard Enterprise Extended Ambient Operating Temperature Support

The American Society of Heating Refrigeration and Air-Conditioning Engineers set standards for building systems, energy efficiency, indoor air quality, refrigeration and sustainability. The ASHRAE A3 and A4 classes are the latest classes that have been defined in an effort to support the Fresh Air Data cooling initiative. Hewlett Packard Enterprise Extended Ambient Operating Support is defined below as comparable to an ASHRAE class.

The following table provides a summary of environmental ranges supported, with altitude de-ratings, by Hewlett Packard Enterprise ProLiant servers. Items in bold are ProLiant features that exceed the ASHRAE comparable class feature set.

Extended Ambient Operating Support Specification	Dry bulb temp range (°C)	Relative humidity range (%RH)	Dew point limits (°C)	Maximum altitude	Altitude de-rating*
Standard Operating	10°C to 35°C (50°F to 95°F)	8% to 90%	-12°C (min) to 24°C (max)	3050 meters	1.0°C/305m above sea level
Extended Ambient 40°C Operating (ASHRAE Class A3 compliant)	5°C to 40°C (41°F to 104°F)	8% to 90%	-12°C (min) to 24°C (max)	3050 meters	1.0°C/175m above 900m
Extended Ambient 45°C Operating (ASHRAE Class A4 compliant)	5°C to 45°C (41°F to 113°F)	8% to 90%	-12°C (min) to 24°C (max)	3050 meters	1.0°C/125m above 900m

* Altitude de-rating assumes no direct sustained sunlight

The maximum rate of change for Inlet Ambient Temperature is 20°C/hr (36°F/hr). The upper limit and rate of change can be limited by the type and number of options selected.

HPE Edgeline EL1000 System Specific Ambient Operating Temperature Support

Configuration	Hewlett Packard Enterprise Standard Operating Support	Hewlett Packard Enterprise Extended Ambient 40°C Operating Support (ASHRAE Class A3 compliant)	Hewlett Packard Enterprise Extended Ambient 45°C Operating Support (ASHRAE Class A4 compliant)
853995-B21: HPE Edgeline EL1000 1Gb System	All Configurations	TBA	TBA

Technical Specifications

Environment-friendly Products and Approach

End-of-life Management and Recycling

Hewlett Packard Enterprise offers end-of-life Hewlett Packard Enterprise product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to: <http://www.hp.com/go/green>. To recycle your product, please go to: <http://www.hp.com/go/green> or contact your nearest Hewlett Packard Enterprise sales office. Products returned to Hewlett Packard Enterprise will be recycled, recovered or disposed of in a responsible manner.

The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard Enterprise web site at: <http://www.hp.com/go/green>. These instructions may be used by recyclers and other WEEE treatment facilities as well as HEWLETT PACKARD ENTERPRISE OEM customers who integrate and re-sell Hewlett Packard Enterprise equipment.

Summary of Changes

Date	Version History	Action	Description of Change
26-Sep-2016	Version 1	Created	Create QS for HPE Edgeline EL1000 System



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For hard drives, 1GB = 1 billion bytes. Actual formatted capacity is less.

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