

Overview

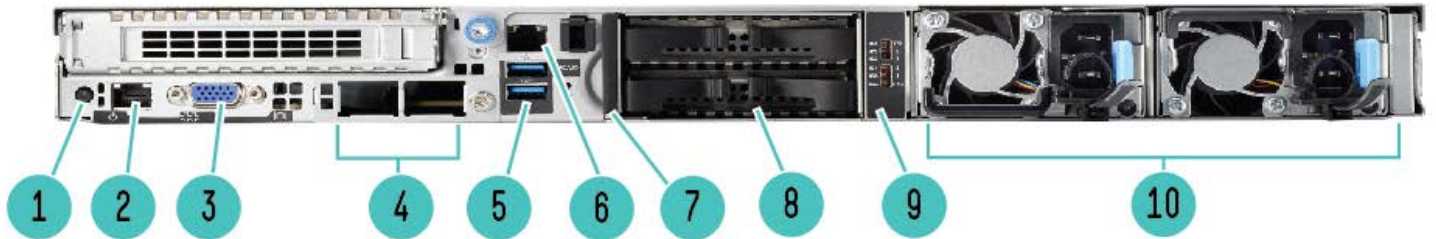
HPE Cloudline CL3100 G3 Server

The HPE Cloudline CL3100 G3 is a new 1U 2P dense storage server for Cloud Service Providers that Features the latest Intel Xeon E5-2600v3 / v4 processors, choice of 12LFF, 24SFF or 4 SSD hard drives. Without any extras, this server is ideal for Hadoop/Cassandra workloads to meet the storage needs of Service Providers.



Front View

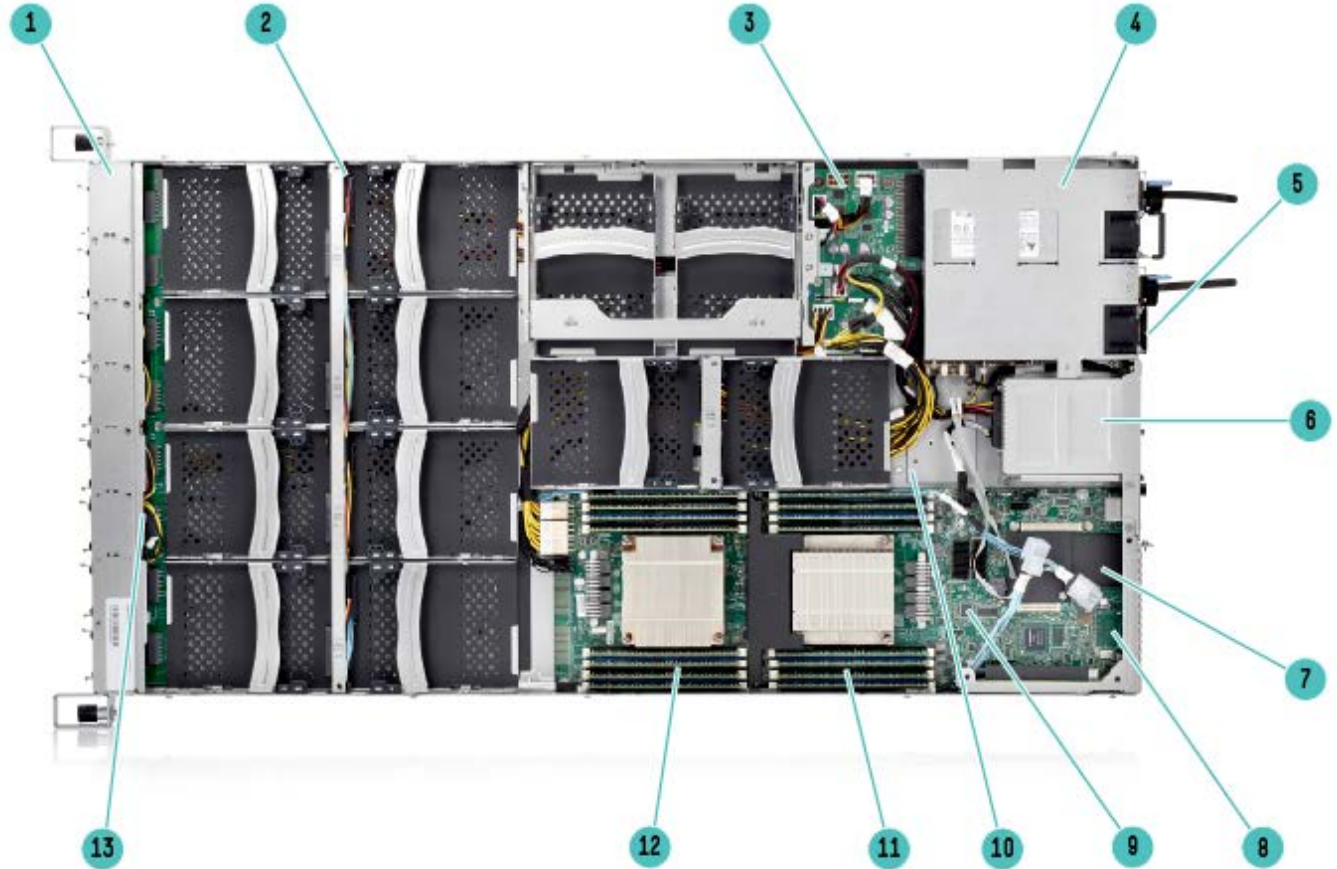
(8) Hot-plug fans



Rear View

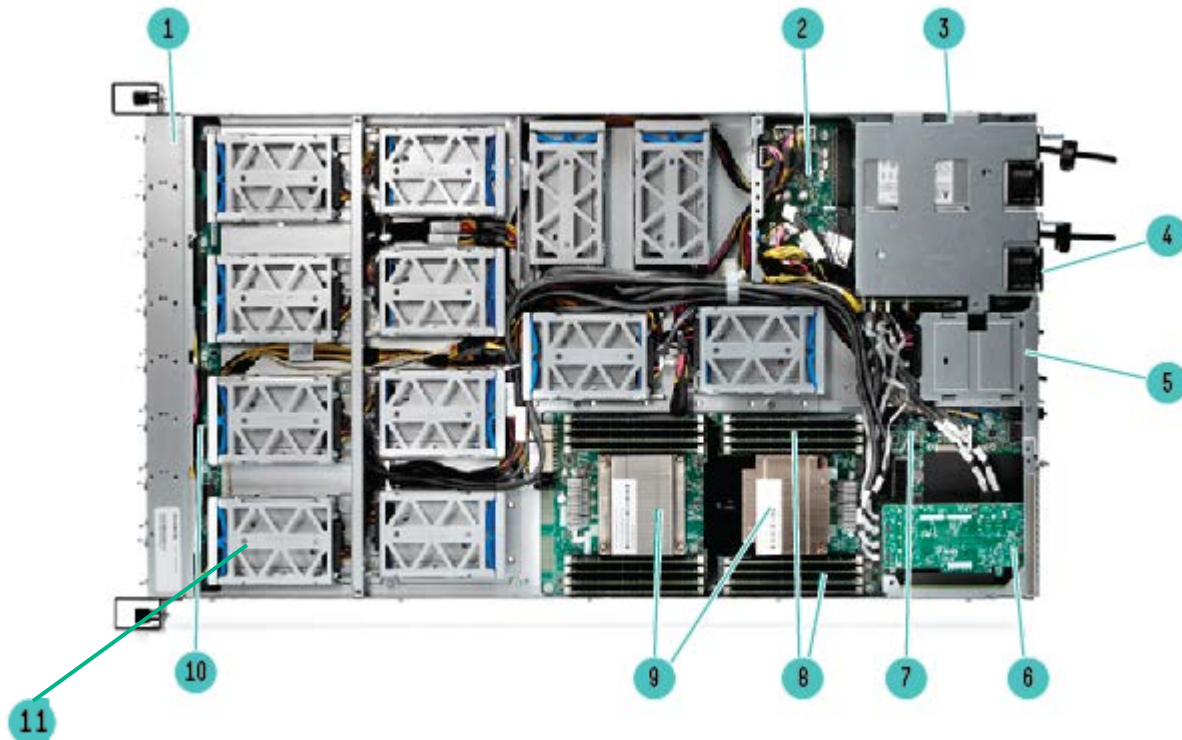
1. Power button with LED
2. RJ45 for serial console
3. VGA port
4. OCP mezzanine card
5. (2) USB 3.0 Ports
6. RJ45
7. Service Tag
8. (2) 2.5" HDD or (4) SSD/SFF
9. LED panel
10. (2) Redundant PSUs

Overview

**Internal View – 12 LFF**

1. (8) Hot-plug fans
2. (1) HDD Backplane optional
3. (1) Power Interposer Board
4. (2) Redundant PSUs
5. (1) LED Board
6. (4) SSD or (2) 2.5" SFF
7. (1) OCP Mezzanine Card
8. (1) PCIE Add-on Card
9. (12) 3.5" LFF HDD
10. (1) Super Cap for HBA card
11. (16) DIMM slot
12. (2) CPU/ CPU Heat sink
13. (1) Fan Control Board

Overview



Internal View – 24 SFF

1. Hot-swappable fan (8)
2. Power Interposer Board (1)
3. Redundant PSUs (2)
4. LED Board (1)
5. (4) SSD or (2) 2.5" SFF
6. PCIE Add-on Card (1)
7. System Board (1)
8. DIMM slot (16)
9. CPU/ CPU Heat sink (2)
10. Fan Control Board (1)
11. 2.5" SFF (24)

Standard Features

Processor

NOTE: For more information regarding Intel Xeon processors, please see the following <http://www.intel.com/xeon>.

NOTE: Up to 2 processors supported. Mixing different processor models is not supported.

Intel® Xeon® processor E5-2600 v4 product family

Model	CPU frequency	Cores	L3 Cache	TDP	QPI	DDR4 Maximum Speed
E5-2695v4	2.1GHz	18	45MB	120W	9.6GT/s	2400 MHz
E5-2690v4	2.6GHz	14	35MB	135W	9.6GT/s	2400 MHz
E5-2680v4	2.4GHz	14	35MB	120W	9.6GT/s	2400 MHz
E5-2660v4	2.0GHz	14	35MB	105W	9.6GT/s	2400 MHz
E5-2650v4	2.2GHz	12	30MB	105W	9.6GT/s	2400 MHz
E5-2640v4	2.4GHz	10	25MB	90W	8.0GT/s	2133 MHz
E5-2630v4	2.2GHz	10	25MB	85W	8.0GT/s	2133 MHz
E5-2620v4	2.1GHz	8	20MB	85W	8.0GT/s	2133 MHz
E5-2609v4	1.7GHz	8	20MB	85W	6.4GT/s	1866 MHz
E5-2603v4	1.7GHz	6	20MB	85W	6.4GT/s	1866 MHz

Chipset

Intel® C610 Series Chipset

NOTE: For more information regarding Intel chipsets, please see the following URL: <http://www.intel.com/products/server/chipsets/>

Upgradeability

Upgradeable to 2 processors (36 Cores)
Up to 16 DIMM slots available for higher Memory capacity
OCP Mezzanine connector for 10 Gigabit networking options
12LFF + 2 x 2.5"HDD, 24SFF or 4 SSD Drive Cage Bay

On System Management Processor

iBMC ASPEED AST2400 with KVM Support

Memory

Industry Standard DDR4 Registered (RDIMM)
DIMM Slots Available 16 (8 DIMM slots per processor, 4 channels per processor, 2 DIMMs per channel)
Maximum Capacity 512GB (16 x 32GB RDIMM) 16GB/32GB DDR4 up to 2400MT/s

Memory Protection

Advanced ECC
Advanced ECC uses single device data correction to detect and correct single and all multibit error that occurs within a single DRAM chip.
Online spare
Memory online spare mode detects a rank that is degrading and switches operation to the spare rank.

Expansion Slots One of the following depending on model

Expansion Slots #	Technology	Bus Width	Connector Width	Form Factor	Notes
Slot 1	PCIe 3.0	X16	X16	Low profile	RAID/HBA
OCP Mezz	PCIe 3.0	X16	X16	OCP Mezz	Networking

NOTE: Bus Width data indicates the number of physical electrical lanes running to the connector.

Standard Features

Internal Storage Devices One of the following depending on model	Optical Drive	None
	Hard Drives	None ship standard
	Drive Bays	12 LFF or 4 SSD

Maximum Internal Storage	LFF SATA	96 TB	12 x 8 TB
	SFF SATA	48 TB	24 x 2TB
	SFF SAS	28.8 TB	24 x 1.2TB
	SFF SATA SSD	3.84 TB	4 x 960 GB

Power Supply	HPE CL 550W Redundant Platinum PSU HPE CL 800W Redundant Platinum PSU
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System Fans	(8) 4028 Hot Plug fans, Front to Back, N+0 redundant (135W CPU), N+1 redundant (up to 120W CPU)
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Interfaces	Serial	1
	Video	1
	OCP NIC ports	2x SFP+ ports (for OCP NIC Mezzanine card) - depending on model
	IPMI management port	dedicated 10/100M LAN port
	USB 3.0 Ports	Up to 2

Operating Systems Test for CL3100 Server	RHEL 7.0
	CentOS 6.6
	Windows Server 2012 R2
	SLES 12
	Ubuntu 12.04.5

Industry Standard Compliance	ACPI 2.0b Complaint
	PCIe 3.0 Complaint
	PXE Support
	WOL Support
	USB 2.0 Support

Graphics	Integrated PCIe VGA/2D Controller via ASPEED 2400 BMC, 1920 x 1200 @ 60Hz (32 bpp)
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Form Factor	1.69" x 17.18" x 36" (43.00 mm x 436.50mm x 914.40mm) 1U Rack form factor
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Security	Power-on password
	Administrator's password
	UEFI

Standard Features

Warranty

This product is covered by a global limited warranty and supported by Hewlett Packard Enterprise Services. The Limited Warranty Period for a Hewlett Packard Enterprise hardware Product is a specified, fixed period commencing on the date of purchase. Your HPE Limited Warranty may include a parts only warranty service.

Additional information regarding worldwide limited warranty and technical support is available at http://www.hp.com/support/cloudline_warranty_en

Warranty

HPE Support Services

HPE Technology Services delivers confidence, reduces risk and helps customers realize agility and stability. Enhancements to warranty services are available through HPE Services or customized service agreements. Connect to Hewlett Packard Enterprise to help prevent problems and solve issues faster. Our support technology lets you to tap into the knowledge of millions of devices and thousands of experts to stay informed and in control, anywhere, any time.

Protect your business beyond warranty with HPE Support Services

HPE Support 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 term you select.

Standard Support recommendation

Connect to Hewlett Packard Enterprise for faster problem resolution. Cloudline Support Services provides hardware onsite response. Simplify your support experience and make Hewlett Packard Enterprise your first call for hardware or software questions.

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. 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.

Configuration Information - Factory Integrated Models

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.

1. Factory Integrated Models must start with a CTO Server.
2. FIO indicates that this option is only available as a factory installable option.
3. All Factory Integrated Models will be populated with sufficient hard drive blanks
4. Some options may not be integrated at the factory. Contact your local sales representative for additional information.

Step 1: Base Configuration (choose one of the following configurable models)

SKU Number	855087-B21	855088-B21	855089-B21
Processor	2 (optional)		
DIMMSlots	16 DIMM slots for RDIMM DDR4 Memory		
Storage Controller	Embedded SATA 3.0 controller via Intel PCH (standard) HPE CL LSI-2308 SAS Host Bus Adaptor Mezzanine Card (optional) HPE CL LSI 9271-8i RAID PCIe Card (optional)		
PCIe	1 Full height half-length PCIe 3.0 slot, 1 OCP Mezz Slot PCIe Riser Kit		
Drive Cage	12LFF Hot Plug without HDD Backplane	12LFF Hot Plug with HDD Backplane	24SFF Non Hot Plug
Fans	8 hot plug fans, redundant		
Management	ASPEED AST2400 with a dedicated 10/100M management LAN port and share 1GbE/10GbE LAN port, IPMI v2.0 compliant, on board "KVM over IP" support		
USB	2 USB 3.0 Ports rear		

Step 2: Choose Required Options (only one of the following from each list unless otherwise noted)

HPE Processors Segmented Optimized - E5-2600v4 series Processor

HPE CL G3 Intel® Xeon® E5-2695v4 (2.1GHz/18-core/45MB/120W) FIO Processor Kit 857635-L21

Advanced - E5-2600v4 series Processors

HPE CL G3 Intel® Xeon® E5-2690 v4 (2.6GHz/14-core/35MB/135W) FIO Processor Kit 847786-L21

HPE CL G3 Intel® Xeon® E5-2680 v4 (2.4GHz/14-core/35MB/120W) FIO Processor Kit 847792-L21

HPE CL G3 Intel® Xeon® E5-2660 v4 (2.0GHz/14-core/105W) FIO Processor Kit 847798-L21

HPE CL G3 Intel® Xeon® E5-2650 v4 (2.2GHz/12-core/105W) FIO Processor Kit 847810-L21

Standard - E5-2600v4 series Processors

HPE CL G3 Intel® Xeon® E5-2620 v4 (2.1GHz/8-core/85W) FIO Processor Kit 848499-L21

HPE CL G3 Intel® Xeon® E5-2630 v4 (2.2GHz/10-core/85W) FIO Processor Kit 847822-L21

HPE CL G3 Intel® Xeon® E5-2640 v4 (2.4GHz/10-core/90W) FIO Processor Kit 847812-L21

Basic - E5-2600v4 series Processors

HPE CL G3 Intel® Xeon® E5-2603 v4 (1.7GHz/6-core/85W) FIO Processor Kit 847824-L21

HPE CL G3 Intel® Xeon® E5-2609v4 (1.7GHz/8-core/20MB/85W) FIO Processor Kit 857634-L21

NOTE: If two processors are desired, select one xxxxxx-L21 and one xxxxxx-B21.

NOTE: Up to 2 processors supported. Mixing different processor models is not supported.

NOTE: DDR4 speed is the maximum memory speed of the processor. Actual memory speed may depend on the quantity and type of DIMMs installed.

Configuration Information - Factory Integrated Models

NOTE: If 12 or more Hard Drives are selected along with this Processor then Qty 2 of 800W Power Supply must be selected

NOTE: Must select 847545-B21 (HPE CL3100 G3 P1 HS Kit) with every -L21 Processor.

HPE Heatsink	NOTE: Each processor needs a dedicated heatsink	
	HPE CL3100 G3 Processor 2 Heat Sink FIO Kit	847545-B21
	HPE CL3100 G3 Processor 1 Heat Sink FIO Kit	847487-B21
<hr/>		
HPE Memory	HPE CL 16GB (1x16GB) Dual Rank x4 DDR4-2400 CAS-15-15-15 Registered Memory Kit	851005-B21
	HPE CL 32GB (1x32GB) Dual Rank x4 DDR4-2400 CAS-15-15-15 Registered Memory Kit	851007-B21
	HPE CL 64GB (1x64GB) Dual Rank x4 DDR4-2400 LR Registered Memory Kit	859992-B21
	NOTE: Select one or more memory. A minimum of two memory kits are required if server is configured with two processors.	
	NOTE: If only one processor is installed, only half of the total DIMM slots are available. When populating with two processors, all DIMM slots are available.	
	NOTE: Depending on the memory configuration and processor model, the memory speed may run at 2133MHz, 1866MHz, or 1600MHz.	
HPE Power Supply	HPE CL2100 806R 550W Redundant Power Supply Unit	847548-B21
	HPE CL 800W ARC HVDC Platinum Redundant Power Supply Kit	847551-B21
	HPE CL Power Supply Unit Blank FIO Kit	847562-B21

Step 3: Choose Additional Options

NOTE: Some options may not be integrated at the factory. 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 additional information.

HPE Chassis Option	HPE CL3100 G3 LED Display Module FIO Kit	847572-B21
	HPE CL LFF to SFF Converter Kit	847565-B21
HPE Drive Cage	HPE CL3100 G3 2xSFF Hard Drive Cage FIO Kit	847584-B21
	HPE CL3100 G3 4xSFF Hard Drive Cage FIO Kit	847586-B21
HPE Storage Controllers	SAS Array Controllers 12Gb/s LSI Kit	
	HPE CL LSI 9361-16i W Cache CVP02 Adapter	857143-B21
	HPE CL LSI Mega RAID SAS 9361-8i Adapter	859912-B21
	HPE CL LSI MegaRAID SAS 9361-24i 12Gb W Cache Vault CPM02 Kit	863382-B21
	SAS Host Bus Adapters 12Gb/s Adapter Kit	
	HPE CL LSI SAS 9305-16i 12Gb Host Bus Adapter Kit	862627-B21
	HPE CL LSI SAS 9305-24i 12Gb Host Bus Adapter Kit	865332-B21
	HPE CL PMC-AFM-700 Super Capacitor Flash Module Device for 8885e RAID Adapter	860046-B21
	HPE CL PMC-ASR-8885 RAID Adapter Kit	860004-B21
	HPE CL LSI MegaRAID SAS 9300-8i Host Bus Adapter Kit	859916-B21
HPE Processors	Advanced - E5-2600v4 series Processors	
	HPE CL G3 Intel® Xeon® E5-2695v4 (2.1GHz/18-core/45MB/120W) FIO Processor Kit	857635-L21
	HPE CL G3 Intel® Xeon® E5-2690 v4 (2.6GHz/14-core/35MB/135W) FIO Processor Kit	847786-L21
	HPE CL G3 Intel® Xeon® E5-2680 v4 (2.4GHz/14-core/35MB/120W) FIO Processor Kit	847792-L21
	HPE CL G3 Intel® Xeon® E5-2660 v4 (2.0GHz/14-core/105W) FIO Processor Kit	847798-L21

Configuration Information - Factory Integrated Models

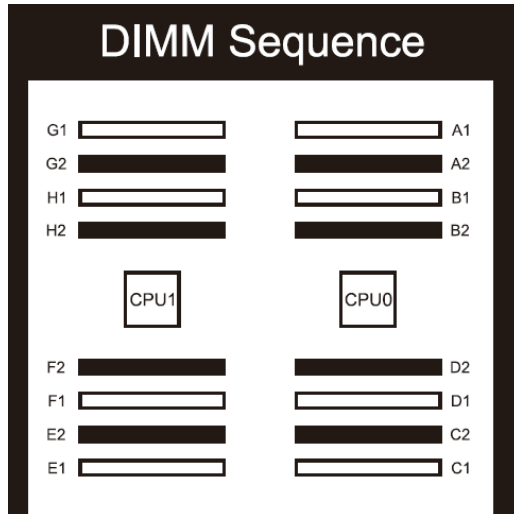
	HPE CL G3 Intel® Xeon® E5-2650 v4 (2.2GHz/12-core/105W) FIO Processor Kit	847810-L21
	Standard - E5-2600v4 series Processors	
	HPE CL G3 Intel® Xeon® E5-2620 v4 (2.1GHz/8-core/85W) FIO Processor Kit	848499-L21
	HPE CL G3 Intel® Xeon® E5-2630 v4 (2.2GHz/10-core/85W) FIO Processor Kit	847822-L21
	HPE CL G3 Intel® Xeon® E5-2640 v4 (2.4GHz/10-core/90W) FIO Processor Kit	847812-L21
	Basic - E5-2600v4 series Processors	
	HPE CL G3 Intel® Xeon® E5-2603 v4 (1.7GHz/6-core/85W) FIO Processor Kit	847824-L21
	HPE CL G3 Intel® Xeon® E5-2609 v4 (1.7GHz/8-core/85W) Processor Kit	857634-B21
HPE Memory	HPE CL 16GB (1x16GB) Dual Rank x4 DDR4-2400 CAS-15-15-15 Registered Memory Kit	851005-B21
	HPE CL 32GB (1x32GB) Dual Rank x4 DDR4-2400 CAS-15-15-15 Registered Memory Kit	851007-B21
	HPE CL 64GB (1x64GB) Dual Rank x4 DDR4-2400 LR Registered Memory Kit	859992-B21
HPE HDD	Hot Plug LFF (3.5-inch) SATA HDD – 6Gb/s	
	HPE CL 6TB 6G SATA 7.2K rpm LFF (3.5in) Seagate Midline Hard Drive	847820-B21
	HPE CL 8TB 6G SATA 7.2K rpm LFF (3.5in) 512e Seagate Midline Hard Drive	848539-B21
	HPE CL 6TB 6G SATA 7.2k 3.5 MDL HDD Kit	851232-B21
	HPE CL 10TB 6GB SATA 7.2k HG LFF MDL HDD	860038-B21
	HPE CL10T 6GB SATA 7.2k SG LFF MDL HDD	860036-B21
	Hot Plug SFF (2.5-inch) SAS SFF – 12Gb/s	
	HPE CL 1.6TB 6G SATA Read Intensive-2 SFF 2.5-in Intel S3520 3yr Wty Solid State Drive	872624-B21
	HPE CL 600GB 12G SAS 10K rpm SFF (2.5in) Enterprise Hard Drive	848513-B21
	Hot Plug SFF (2.5-inch) SATA SSD – 6Gb/s	
	HPE CL 256GB 6G SATA SFF VE SNDK SDD KIT	851019-B21
	HPE CL 800G 6G SATA INTL-s3610 SSD Kit	867477-B21
	HPE CL 960GB 6G SATA SM-PM863 VE SSD KIT	858337-B21
HPE Networking	10 Gigabit Ethernet OCP mezzanine Adapters	
	HPE CL Ethernet 10Gb 2-port SFP+ OCP Mezzanine Adapter	851279-B21
	HPE CL X540 DUAL 10GBase-T OCP MEZZ KIT	847932-B21
	25 Gigabit Ethernet OCP mezzanine Card	
	HPE CL Ethernet 25Gb 2-port SFP28 Mellanox OCP Mezzanine Adapter	847936-B21
	40 Gigabit Ethernet OCP mezzanine Kit	
	HPE CL 40GbE QSFP28 Dual Port Mellanox OCP Mezzanine Adapter	847934-B21
Networking- Upgrades	HPE CL3100 G3 Bundle Bracket Kit	
	NOTE: This kit is for field upgrad only.	
HPE Rack Options	HPE CL3100 G3 Tool Less Friction Rail Kit	847588-B21
	HPE CL3100 G3 Sliding Rail Kit	847592-B21
	HPE CL3100 G3 Cable Management Adapter Kit	847594-B21

Memory

Memory Subsystem Architecture

Each Intel® Xeon® E5-2600v3/v4 family processor socket contains four memory channels per installed processor with two DIMM per channel for a total of eight (8) DIMMs or a grand total of sixteen (16) DIMMs for the server.

Memory Population guidelines



General Memory Population Rules and Guidelines

Install DIMMs only if the corresponding processor is installed.
 If only one processor is installed in a two processor system, only half of the DIMM slots are available.
 To maximize performance, it is recommended to balance the total memory capacity between all installed processors and load the channels similarly whenever possible.
 When two processors are installed, balance the DIMMs across the two processors.
 Quad rank RDIMMs are not supported in CL 3100 G3 Servers
 DIMMs of different speeds may be mixed in any order; the server will select a common optimal speed. The maximum memory speed is a function of the memory type, memory configuration, and processor model.
 The maximum memory capacity is a function of the memory type and number of installed processors.

Memory Bandwidth and Capacity

[DIMM Type]	Registered Dimms (RDIMMs)			
DIMM Rank	Single Rank	Dual Rank		
DIMM Capacity	8GB	8GB	16GB	32GB
Voltage	Standard Voltage 1.2V			
16 slot servers	16			
MAXIMUM CAPACITY (GB)	128	128	256	512

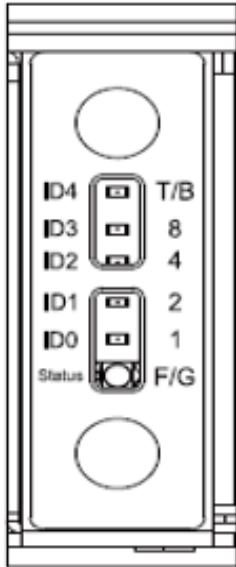
Memory Speed by Processor Model E5-2600v4

Processor Models	Supported Memory Speeds
E5-2603v4, e5-2609V4	1866MHz
E5-2620v4, E5-2630v4, E5-2640v4	2133MHz
E5-2650v4, E5-2660v4, E5-2680v4, E5-2690v4, E5-2695v4	2400MHz

NOTE: Capacity references are rounded to the common gigabyte (GB) values.

- 2GB = 2,048MB
- 4GB = 4,096MB
- 8GB = 8,192MB
- 16GB = 16,384MB
- 32GB = 32,768MB
- 64GB = 65,536MB

Memory



HDD ID LEDs		
ID LED	Behavior	Description
ID (4)	OFF	Bay Locates in bottom layer
	ON	Bay locates in top layer
ID (3:0)	All OFF	No Bay number being denoted.
	Any Bit ON	Bay number of a RAID rebuilding drive when Status LE show steadt red. If more than one bay number need to be displayed, then each number will be shown for 5 seconds duration and loops repeatedly.

HDD STATUS LED	
Behavior	Description
OFF	No signal input. Drive is not detected.
Blinking Green	Drive is being accessed. No RAID rebuild, drive is active.
Steady Green	No drive being accessed. No RAID rebuild, drive is good and no active.

Technical Specifications

Rear View



12x LFF Hot Pluggable Hard Drive Bays

Technical Specifications

System Unit	Dimensions (H x W x D)	1.69"(3.4cm) x 17.185"(43.65cm) x 36.0"(91.44cm)
	Weight (approximate)	<p>Maximum: (all hard drives, power supplies, and processors installed)</p> <p>12LFF 80.52 lb (26.3 kg) 24SFF 68.28 lb (22.3 kg)</p>
Input Requirements	Rated Line Voltage	AC input: 100~240V
	Rated Input Current	<p>For 550W Power Supply: 7.1 A (at 100 VAC) 3.4 A (at 200 VAC)</p> <p>For 800W Power Supply: 9.4A (at 100 VAC) 4.72A (at 200 VAC)</p>
	Rated Input Frequency	47/63Hz
	Rated Input Power	<p>For 550W Power Supply: < 710 W (at 100 VAC), < 680 W (at 200 VAC),</p> <p>For 800W Power Supply: < 940 W (at 100 VAC), < 944 W (at 200 VAC),</p>
BTU Rating	Maximum	<p>For 550 W Power Supply: 2423 BTU/hr (at 100 VAC), 2321 BTU/hr (at 200 VAC)</p> <p>For 800 W Power Supply: 3208 BTU/hr (at 100 VAC), 3222 BTU/hr (at 200 VAC)</p>
Power Supply Output	Rated Steady-State Power	<p>For 550 W Power Supply: 550 W (at 100 VAC), 550 W (at 200 VAC),</p> <p>For 800 W Power Supply: 800 W (at 100 VAC), 800 W (at 200 VAC),</p>
	Maximum Peak Power	<p>For 550 W Power Supply: 612 W (at 100 VAC), 612 W (at 200 VAC),</p> <p>For 800 W Power Supply: 912 W/15ms (at 100 VAC), 912 W/15ms (at 200 VAC),</p>
System Inlet Temperature	Standard Operating Support	5° to 35°C (45° to 95°F) at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level to a maximum of 3050 m (10,000 ft), 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 35°C (95°F).
	Non-operating	-40° to 70°C (-40° to 158°F). Maximum rate of change is 25°C/hr (36°F/hr).

Technical Specifications

Relative Humidity	Operating	Minimum to be the higher (more moisture) of -12°C (10.4°F) dew point or 8% relative humidity. Maximum to be the lower (less moisture) of 24°C (75.2°F) dew point or 90% relative humidity.
	Non-operating (non-condensing)	5% to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.

Altitude	Operating	3048 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 304.8 m/min (1000 ft/min).
	Non-operating	10668 m (35,000 ft). Maximum allowable altitude change rate is 304.8 m/min (1000 ft/min).

Emissions Classification (EMC)	FCC Rating	Class A
	Normative Standards	CISPR 22; EN55022; EN55024; FCC CFR 47, Pt 15; ICES-003; CNS13438; GB9254; EN 61000-3-2; EN 61000-3-3;

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.

NOTE: The listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels.

PCH SATA controller	Storage protocol support	SATA
	SAS/SATA peak data transfer rate	6 Gb/s
	Number of SAS/SATA links	9 links
	SAS/SATA connectivity	2xMiniSAS4i connectors(option model); 1xSATA connectors
	Drives supported (max)	Up to 9 Internal Drives
	RAID support	0, 1, 10, 5 SATA
	Warranty	Server warranty
	HPE Secure Encryption license	Not Supported
	Storage protocol support	SATA
	SAS/SATA peak data transfer rate	6 Gb/s

Summary of Changes

Date	Version History	Action	Description of Change
27-Mar-2017	From version 5 to 6	Updated	Update Standard Features and Configuration information
13-Feb-2017	From version 4 to 5	Updated	Add HPE CL 1.6TB 6G SATA Read Intensive solid state drive
9-Dec-2016	From version 3 to 4	Changed	Remove some SKUS
2-Sept-2016	From version 2 to 3	Changed	Change information throughout the QuickSpecs
15-Aug-2016	From version 1 to 2	Updated	Update information in Standard Features section and Configuration Information
6-Jun-2016	Version 1	Created	Create QS for HE Cloudline CL3100 G3 Server



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

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