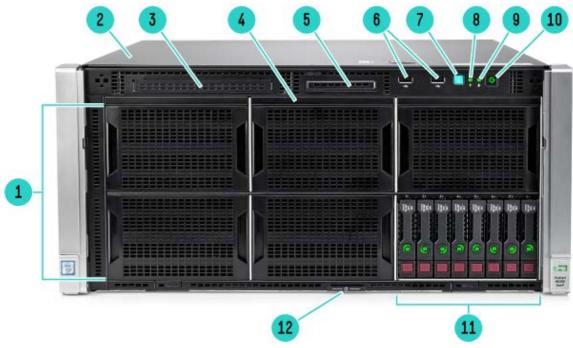
QuickSpecs

Overview

HPE ProLiant ML350 Generation 9 (Gen9)

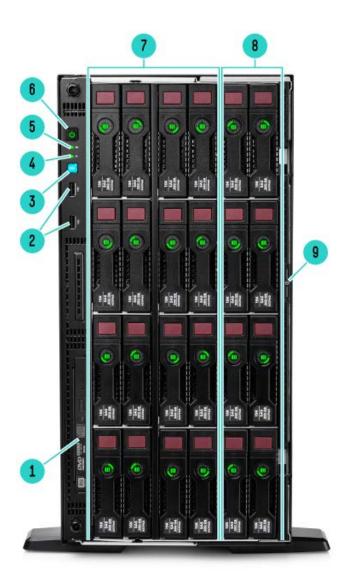
The ML350 Gen9 is the 2P premium server which delivers a class-leading combination of performance, availability, expandability, manageability, reliability and serviceability making it the choice for remote offices, growing businesses and data centers.



Front View Rack Model (SFF)

- Optional HDD cage Drive Cage Bays (Rack shown with blanks. Tower shown with 16 LFF Optional drives)
- 3 Slim Height Drive Bay for Optional Slim Height SATA DVD-ROM or DVD RW Optical Drive (shown on Tower)
- 5 Systems Insight Display Bay for Optional SID (Rack models only)
- 7 Unit ID LED button
- 9 NIC Activity LED
- 11 Eight (8) SFF (Rack)/LFF (Tower) SAS/SATA HDD cage

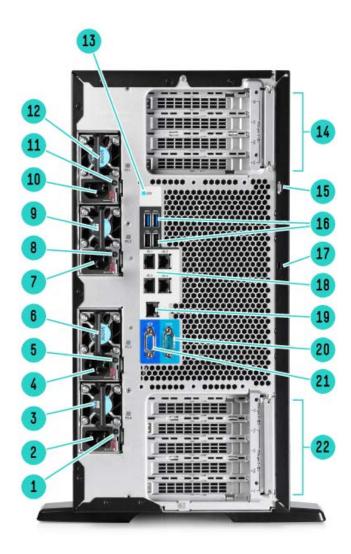
- 2 Quick removal access panel
- 4 Media Drive Cage Bays (Rack supports two half height or one full height device; Tower supports one half height device)
- 6 Two (2) USB 2.0 connectors
- 8 Health LED
- 10 Power On /Standby button & system power LED button
- 12 Serial label pull tab



Front View Tower Model (LFF)

- 1 Slim Height Drive Bay for Optional Slim Height SATA DVD-ROM or DVD RW Optical Drive
- 3 Unit ID LED button
- 5 NIC Activity LED
- 7 Optional HDD cage Drive Cage Bays (Rack shown with blanks. Tower shown with 16 LFF Optional drives)
- 9 Serial label pull tab

- 2 Two (2) USB 2.0 connectors
- 4 Health LED
- 6 Power On /Standby button & system power LED button
- 8 Eight (8) SFF (Rack)/LFF (Tower) SAS/SATA HDD cage



Rear View (Tower Model)

- 1 Power supply Power LED
- 3 HPE Flexible Slot 4 Power Supply (Optional 500w Power Supply shown)
- 5 Power supply Power LED
- 7 Power supply Power connection
- 9 HPE Flexible Slot 2 Power Supply (Optional 500w Power Supply shown)
- 11 Power supply Power LED
- 13 Unit ID LED
- 15 Padlock

NOTE: Chassis mechanical feature only to support Padlock.

NOTE: HPE do not offer padlock options or provide qualified part numbers. Customers will need to source from other 3rd party vendors to get this Hardware security feature enabled.

- 2 Power supply Power connection
- 4 Power supply Power connection
- 6 HPE Flexible Slot 3 Power Supply (Optional 500w Power Supply shown)
- 8 Power supply Power LED
- 10 Power supply Power connection
- 12 HPE Flexible Slot 1 Power Supply (Standard Entry Model 500w Power Supply shown)
- 14 PCI Slots (Slots 1-4) Slot 1 and 3 can support Optional GPU
- 16 USB 3.0 Connectors (2) top & USB 2.0 Connectors (2) bottom
- 18 Embedded 4 x 1GbE Network Adapter
- 20 Serial Connector
- 22 PCI Slots (Slots 5-9) requires Optional second processor–Slot 6 and 8 can support Optional GPU

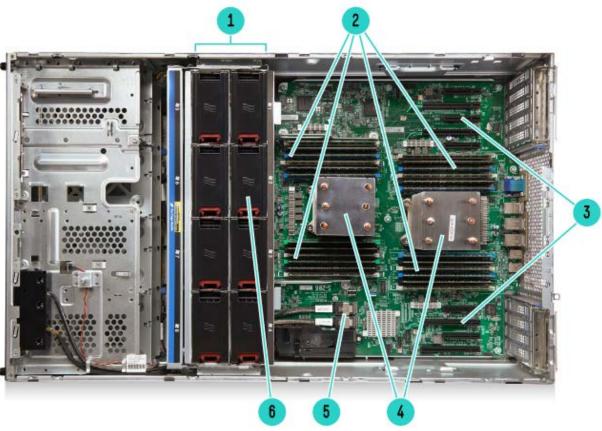
17 Kensington Security Lock

NOTE: Chassis mechanical feature only to support Kensington Security lock.

NOTE: HPE do not offer Kensington security lock options or provide qualified part numbers.

Customers will need to source from other 3rd party vendors to get this Hardware security feature enabled.

- 19 Dedicated iLO Connector
- 21 Video Connector



Internal View (Rack Model)

- 1 System fans: Three (3) fans are standard Optional Five (5) systems fans are shown.
- 3 Nine (9) PCIe expansion slots (8 PCIe Gen3 and 1 PCIe Gen2)
- 5 Optional HPE Flexible Smart Array or Smart HBA (not shown here)
- 2 Twenty four DIMM slots: DDR4 Registered (RDIMM) or Load Reduced Registered (LRDIMM) memory
- 4 Two (2) processors and heatsinks (Second Processor is Optional)
- 6 Optional HPE Smart Storage Battery is under the system fans

What's New

- HPE OneView Standard is now supported starting with version 3.1
- New graphic support of NVIDIA® Quadro P2000 and P4000 GPU modules
- ClearOS, an easy to use OS with an application marketplace, allows you to build a fully functional server that is
 just right for you at no upfront cost. To learn more on what you can do, please
 visit http://www.hpe.com/servers/clearos
- HPE DDR4 2400MHz SmartMemory RDIMM/LRDIMM offering 8/16/32/64/128 GB, maximum HOST memory capacity support up to 3 TB

- New HPE 25GbE network adapter option offering, providing breakthrough performance at 2.5X increase over previous generation 10GbE
- New 10 TB SATA LFF HDD option offering, maximum internal storage capacity up to 240 TB

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

Processor

One of the following depending on model

Model	CPU frequency	Cores	L3 Cache	Power	QPI	DDR4 Hz
E5-2699v3	2.3GHz	18	45MB	145W	9.6GT/s	2133
E5-2698v3	2.3GHz	16	40MB	135W	9.6GT/s	2133
E5-2697v3	2.6GHz	14	35MB	145W	9.6GT/s	2133
E5-2695v3	2.3GHz	14	35MB	120W	9.6GT/s	2133
E5-2690v3	2.6GHz	12	30MB	135W	9.6GT/s	2133
E5-2683v3	2.0GHz	14	35MB	120W	9.6GT/s	2133
E5-2680v3	2.5GHz	12	30MB	120W	9.6GT/s	2133
E5-2670v3	2.3GHz	12	30MB	120W	9.6GT/s	2133
E5-2667v3	3.2GHz	8	20MB	135W	9.6GT/s	2133
E5-2660v3	2.6GHz	10	25MB	105W	9.6GT/s	2133
E5-2650v3	2.3GHz	10	25MB	105W	9.6GT/s	2133
E5-2650Lv3	1.8GHz	12	30MB	65W	9.6GT/s	2133
E5-2643v3	3.4GHz	6	20MB	135W	9.6GT/s	2133
E5-2640v3	2.6GHz	8	20MB	90W	8.0GT/s	1866
E5-2637v3	3.5GHz	4	15MB	135W	9.6GT/s	2133
E5-2630v3	2.4GHz	8	20MB	85W	8.0GT/s	1866
E5-2630Lv3	1.8GHz	8	20MB	55W	8.0GT/s	1866
E5-2623v3	3.0GHz	4	10MB	105W	8.0GT/s	1866
E5-2620v3	2.4GHz	6	15MB	85W	8.0GT/s	1866
E5-2609v3	1.9GHz	6	15MB	85W	6.4GT/s	1600
E5-2603v3	1.6GHz	6	15MB	85W	6.4GT/s	1600
E5-2699v4	2.2GHz	22	55MB	145W	9.6GT/s	2400
E5-2698v4	2.2GHz	20	50MB	135W	9.6GT/s	2400
E5-2697v4	2.3GHz	18	45MB	145W	9.6GT/s	2400
E5-2697Av4	2.6GHz	16	40MB	145W	9.6GT/s	2400
E5-2695v4	2.1GHz	18	45MB	120W	9.6GT/s	2400
E5-2690v4	2.6GHz	14	35MB	135W	9.6GT/s	2400
E5-2683v4	2.1GHz	16	40MB	120W	9.6GT/s	2400
E5-2680v4	2.4GHz	14	35MB	120W	9.6GT/s	2400
E5-2667v4	3.2GHz	8	25MB	135W	9.6GT/s	2400
E5-2660v4	2.0GHz	14	35MB	105W	9.6GT/s	2400
E5-2650v4	2.2GHz	12	30MB	105W	9.6GT/s	2400
E5-2650Lv4	1.7GHz	14	35MB	65W	9.6GT/s	2400
E5-2643v4	3.4GHz	6	20MB	135W	9.6GT/s	2400
E5-2640v4	2.4GHz	10	25MB	90W	8.0GT/s	2133
E5-2637v4	3.5GHz	4	15MB	135W	9.6GT/s	2400
E5-2630v4	2.2GHz	10	25MB	85W	8.0GT/s	2133
E5-2630Lv4	1.8GHz	10	25MB	55W	8.0GT/s	2133
E5-2623v4	2.6GHz	4	10MB	85W	8.0GT/s	2133
E5-2620v4	2.1GHz	8	20MB	85W	8.0GT/s	2133
E5-2609v4	1.7GHz	8	20MB	85W	6.4GT/s	1866
E5-2603v4	1.7GHz	6	15MB	85W	6.4GT/s	1866

Chipset Intel® C610 Series Chipset

Intel® E5-2600v3 Processor Family Intel® E5-2600v4 Processor Family

NOTE: For more information regarding Intel® chipsets, please see the following URL:

http://www.intel.com/products/server/chipsets/

On System

HPE iLO (Firmware HPE iLO4 2.0 or later) 4GB NAND

Management Chipset NOTE: 1GB USB user space configurable via UEFI and accessible via iLO. Read and learn more in

the iLO QuickSpecs.

Memory

Type:

One of the following HPE SmartMemory

depending on model

DDR4 Registered (RDIMM) or Load Reduced (LRDIMM)

NOTE: The following shows the support with E5-2600v3 processors.

DIMM Slots Available 24 (12 DIMM slots per processor, 4 channels per processor, 3 DIMMs

per channel)

Maximum Capacity

(LRDIMM)

1.5TB (24 x 64GB LRDIMM)

Maximum Capacity 7

(RDIMM)

768GB 24 x 32GB RDIMM

NOTE: Refer to the Memory section in this document for more memory support detail.

Type:

NOTE: The following shows the support with E5-2600v4 processors.

DIMM Slots Available 24 (12 DIMM slots per processor, 4 channels per processor, 3 DIMMs

per channel)

Maximum Capacity

3TB

(24 x 128GB LRDIMM)

(LRDIMM)

Maximum Capacity

768GB 24 x 32GB RDIMM

(RDIMM)

NOTE: Refer to the Memory section in this document for more memory support detail.

NOTE: Mixing of 2133 and 2400MHz memory is not supported.

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.

Network Controller

HPE 1Gb Ethernet 4-port 331i Adapter

Expansion Slots

Expansion Slots #	Technology	Bus Width	Connector Width	Bus Number	Form Factor	Notes
9	PCIe 3.0	x4	x8		Full-height, full-length slot	For processor 2
8	PCIe 3.0	x16	x16		Full-height, full-length slot	For processor 2
7	PCIe 3.0	x4	x8		Full-height, full-length slot	For processor 2
6	PCIe 3.0	x16	x16		Full-height, full-length slot	For processor 2

5	PCIe 2.0	x4	x8		Full-height, half- length slot	For processor 2
4	PCIe 3.0	x4	x8	0	Full-height, full-length slot	For processor 1
3	PCIe 3.0	x16	x16	0	Full-height, full-length slot	For processor 1
2	PCIe 3.0	x4	x8	0	Full-height, full-length slot	For processor 1
1	PCIe 3.0	x8	x16	0	Full-height, full-length slot	For processor 1

NOTE: Bus number - Default bus assignment (in decimal). Inserting cards with PCI bridges may alter the actual bus assignment number.

NOTE: Nine total expansion slots. Three PCle 3.0 x16 (x16 speed); One PCle 3.0 x16 (x8 speed); Four PCle 3.0 x8 (x4 speed); One PCle 2.0 x8 (x4 speed).

Storage Controller Entry Models

One of the following depending on model

HPE Dynamic Smart Array B140i

Embedded SATA controller

Base Models HPE Flexible Smart Array P440ar/2GB Performance Models HPE Flexible Smart Array P440ar/2GB

Internal Storage Devices

One of the following

depending on model

Optical Drive

Hard Drive Bays

Optional SATA 9.5mm DVD-ROM Optical Drive Optional SATA 9.5mm DVD RW Optical Drive

NOTE: Optical is optional in entry, base and performance models.

8 Hot plug SFF SAS/SATA HDD bays; upgradable to 48 8 Hot plug LFF SAS/SATA HDD Bays; upgradable to 24

NOTE: All Pre-configured Models come populated with some hard drive blanks installed. Should the customer need additional hard drive blanks. they can order more using either HPE SFF HDD Blank Kit (666987-B21) or HPE LFF HDD Blank Kit (666986-B21). These part numbers for single HDD blanks below are also provided should the customer require

replacement HDD blanks for their server.

Hard Drives None ship standard

Storage
One of the following
depending on
model

Maximum Internal

	CAPACITY	CONFIGURATION
Hot Plug LFF SAS	240TB	24 x 10TB
Hot Plug LFF SATA	240TB	24 x 10TB
Hot Plug LFF SAS SSD	38.4TB	24 x 1.6TB
Hot Plug LFF SATA SSD	92.16TB	24 x 3.84TB
Hot Plug SFF SAS	96TB	48 x 2TB
Hot Plug SFF SATA	96TB	48 x 2TB
Hot Plug SFF SAS SSD	184.32TB	48 x 3.84TB
Hot Plug SFF SATA SSD	184.32TB	48 x 3.84TB
Hot Plug SFF NVMe PCle SSD	7.2TB	6 x 1.2TB

Power Supply

HPE 500W Flex Slot Platinum Hot Plug Power Supply

depending on

One of the following NOTE: The 500W Flex Slot PSU was not qualified or supported with the X4 RPS Enablement Kit.

HPE 800W Flex Slot Platinum Hot Plug Power Supply model HPE 1400W Flex Slot Platinum Plus Hot Plug 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 Gen9 Performance Servers. 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.

To review the power requirements for your selected system, please use the HPE Power Advisor Tool located at http://www.hpe.com/info/hppoweradvisor.

Power specifications and technical content for all HPE Server power supplies can be found at http://www.hp.com/go/proliant/powersupply.

Syste	m l	Fan	S	
_		•		

One of the following 1P model depending on model

Non-redundant Redundant

3 fans 6 fans

NOTE: Fan Redundancy is standard in performance model. ML350 Gen9 Redundant Fan option kit (725878-B21) consists of four system fans and two PCIe air baffles.

> Non-redundant Redundant

2P model 4 fans 8 fans

NOTE: Refer to ML350 Gen9 User Guide for fan configuration rules.

1

Interfaces

Serial

Video 1 (rear)

Network RJ-45 (Ethernet)

HPE iLO Remote Management 1 Gb Dedicated

Network Port

SD Slot 1 (internal)

NOTE: The Micro-SD slot is not a hot-pluggable device. Customers should not attempt to plug a

Micro-SD card into the Micro-SD slot while the server is powered. USB 2.0 Ports 5 (2 front, 2 rear, 1 internal)

USB 3.0 3 (2 rear, 1 internal)

Operating Systems Microsoft Windows Server

and Virtualization **Software Support** for ProLiant **Servers**

Canonical Ubuntu

Red Hat Enterprise Linux (RHEL)

SUSE Linux Enterprise Server (SLES)

VMware

Citrix XenServer

ClearOS

NOTE: ClearOS allows you to build a fully functional server that is just right for you at no upfront cost. It is available via CTO preload, Intelligent Provisioning or via download. For more information on ClearOS, please visit http://www.hpe.com/servers/clearos.

NOTE: For more information on Hewlett Packard Enterprise Certified and Supported ProLiant Servers for OS and Virtualization Software and latest listing of software drivers available for your server, please visit our Support Matrix at: http://www.hpe.com/info/ossupport and our driver download

page.

Upgradeability

Upgradeable to 2 processors (up to 22 cores)

NOTE: Total 4, 6, 8, 10, 12, 14, 16, 18, 20 & 22 cores.

Up to 24 DIMM slots available for higher Memory capacity Up to 48 SFF Hard Drive Bays; Or 24 LFF Hard Drive Bays

Up to 6 SFF NVMe PCle SSD drives

NOTE: The ML350 Gen9 6SFF Express Bay kit MUST be installed and it takes up one SFF drive cage space. For detail, refer to Express Bay kit and NVMe SSD section.

8 PCIe 3.0 and 1 PCIe 2.0 I/O slots for additional communications and storage expansion

4 redundant hot-plug power supplies

Redundant Fan

Optional optical drive (up to 1)

NOTE: Support of 9.5mm DVD-RW or DVD-ROM.

Optional SFF or LFF media bay kit to support RDX or tape device(s)

Tower to rack conversion Optional System Insight Display

NOTE: Rack model only.

Industry Standard ACPI 2.0b Compliant Compliance

PCIe 3.0 Compliant

PXE Support WOL Support Novell Certified

IPMI 2.0, SMASH CLP, DCMI 1.0 compliant

Microsoft® Logo certifications

USB 3.0 Support **SMBIOS 2.7.1** ASHRAE A3/A4 **Energy Star**

Graphics

16 bit color: maximum resolution of 1920 x 1200

Integrated Matrox G200 video standard

32 bit color: maximum resolution of 1280 x 1024

- 16 MB Flash
- 256 MB DDR3

HPE Server UEFI/Legacy ROM

Unified Extensible Firmware Interface (UEFI) is an industry standard that provides better manageability and more secured configuration than the legacy ROM while interacting with your server at boot time. HPE ProLiant Gen9 platform defaults to UEFI and can be factory or field configured for Legacy BIOS Boot Mode.

NOTE: The UEFI System Utilities function is analogous to the HPE ROM-Based Setup Utility (RBSU) of legacy BIOS. For more information, please visit http://www.hpe.com/servers/uefi.

UEFI enables numerous new capabilities specific to HPE ProLiant servers such as:

- Secure Boot
- Operating system specific functionality
- Support for > 2.2 TB (using GPT) boot drives
- USB 3.0 Stack
- **Embedded UEFI Shell**
- Mass Configuration Deployment Tool using RESTful API for iLO 4
- PXE boot support for IPv6 networks
- Boot support for option cards that only support a UEFI option ROM

Network Stack configurations

NOTE: For UEFI Boot Mode, boot environment and OS image installations should be configured properly to support UEFI.

NOTE: UEFI FIO Setting (758959-B22) can be selected to configure the system in Legacy mode in the factory for your HPE ProLiant Gen9 Server.

Form Factor

Tower or Rack (5U)

Embedded Management

Lights-Out (HPE iLO)

HPE Integrated Monitor your servers for ongoing management, service alerting, reporting and remote management with HPE iLO. Learn more at http://www.hpe.com/info/ilo.

UEFI

Configure and boot your servers securely with industry standard Unified

Extensible Firmware Interface (UEFI). Learn more

at http://www.hpe.com/servers/uefi.

RESTful API

RESTful API for iLO 4 is Redfish 1.0 conformance for simplified server management such as configuration and maintenance tasks based on modern industry standards. Learn more at http://www.hpe.com/info/restfulapi.

Intelligent **Provisioning** Hassle free server and OS provisioning for 1 or few servers with Intelligent

Provisioning. Learn more

at http://www.hpe.com/servers/intelligentprovisioning.

Embedded

The Hewlett Packard Enterprise embedded remote support, when used with Remote Support Insight Online direct connect or HPE Insight Remote Support, allows HPE ProLiant servers to transmit hardware events directly to Hewlett Packard Enterprise or a Hewlett Packard Enterprise Authorized Partner for automated

phone home support. Learn more

at http://www.hpe.com/info/insightonline/explore.

utilitie

s

Server Smart Update

Optimize firmware and driver updates with Smart Update solutions including Smart Update Manager (SUM) and Service Pack for ProLiant (SPP). Learn more

at http://www.hpe.com/servers/smartupdatemanager.

HPE Systems (HPE SIM)

HPE SIM allows you to monitor the health of your HPE ProLiant Servers and HPE **Insight Manager** Integrity Servers, and also provides you with basic support for non-HPE servers. HPE SIM also integrates with Smart Update Manager to provide guick and seamless firmware updates. Learn more at http://www.hpe.com/servers/hpsim.

Scripting Tool Kit and Windows

Provision 1 to many servers using your own scripts to discover and deploy them with Scripting Tool Kit (STK) for Windows and Linux or Scripting Tools for Windows PowerShell. Learn more at http://www.hpe.com/servers/proliant/stk

PowerShell or http://www.hpe.com/servers/powershell.

RESTful Interface Tool

RESTful Interface tool is a scripting tool to provision using RESTful API for iLO

4 to discover and deploy servers at scale. Learn more

at http://www.hpe.com/info/resttool.

HPE iLO Mobile Enables the ability to access, deploy, and manage your server anytime from **Application** anywhere from select smartphones and mobile devices. For additional information

please visit: http://www.hpe.com/info/ilo/mobileapp.

HPE Insight Online

HPE Insight Online, available at no additional cost as part of your Hewlett Packard Enterprise warranty or contractual support agreement with Hewlett Packard Enterprise, is a personalized dashboard for simplified tracking of IT operations

and support information from anywhere, anytime. Learn more

at http://www.hpe.com/info/insightonline/explore.

NOTE: The Service Pack for ProLiant (which includes SUM) can be downloaded from http://www.hpe.com/servers/spp/download. More information can be found

on: http://www.hpe.com/info/smartupdate, http://www.hpe.com/servers/spp and http://www.hpe.com/servers/hpsum

.

Security

Power-on password

Setup password Serial interface control Power switch security Administrator's password

UEFI TPM 1.2

NOTE: Refer to Additional Options section in this document for detail.

TPM 2.0

NOTE: Need to upgrade BIOS before using the TPM 2.0. Refer to Additional Options section in this document for detail.

Security Front Bezel

NOTE: Refer to Additional Options section in this document for detail.

Chassis mechanical support of padlock and Kensington Security lock (located at system rear)

NOTE: HPE do not offer padlock or Kensington security lock options or provide qualified part
numbers. Customers will need to source from other 3rd party vendors to get these Hardware
security features enabled.

Warranty

This product is covered by a global limited warranty and supported by HPE Services and a worldwide network of HPE Authorized Channel Partners 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 warranty services are available through HPE Pointnext operational 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: Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response. Warranty repairs may be accomplished through the use of Customer Self Repair (CSR) parts. These parts fall into two categories: 1) Mandatory CSR parts are designed for easy replacement. A travel and labor charge will result when customers decline to replace a Mandatory CSR part; 2) Optional CSR parts are also designed for easy replacement but may involve added complexity. Customers may choose to have HPE replace Optional CSR parts at no charge. Additional information regarding worldwide limited warranty and technical support is available

at: http://h17007.www1.hpe.com/us/en/enterprise/servers/warranty/.

Optional Features

Embedded Management

iLO Advanced

HPE iLO Advanced licenses offer smart remote functionality without compromise, for all HPE ProLiant servers. The license includes the full integrated remote console, virtual keyboard, video, and mouse (KVM), multi-user collaboration, console record and replay, and GUI-based and scripted virtual media and virtual folders. You can also activate the enhanced security and power management

functionality. Learn more about HPE iLO Advanced at http://www.hpe.com/servers/iloadvanced.

Server Management

HPE Insight Control

HPE Insight Control, lets you deploy, migrate, monitor, remote control, and optimize your IT infrastructure through a single, simple management console. For

more information, see http://www.hpe.com/info/insightcontrol.

HPE Insight Cluster Management **Utility (CMU)** HPE Insight Cluster Management Utility is a HyperScale management framework that includes software for the centralized provisioning, management

and monitoring of nodes and infrastructure. Learn more

at http://www.hpe.com/info/cmu.

Rack and Power Infrastructure

HPE Rack and Power Infrastructure products and services create highly efficient and intelligent solutions for existing or new IT data centers. HPE Rack and Power infrastructure solutions – rack infrastructure, power protection and management, performance optimized data centers (PODs) – are the foundation you are looking for to help secure your long-term IT success. These products are designed to help you react to changes in the industry. They deliver efficient, easy-to-use capabilities to manage, monitor, deploy and provision infrastructure from entry to enterprise. As an industry leader, Hewlett Packard Enterprise is uniquely positioned to address the key concerns of power, cooling, cable management and system access.

Learn more at HPE Rack and Power Infrastructure.

Clusters

High Performance HPE Cluster Platforms are specifically engineered, factory-integrated large-scale ProLiant clusters optimized for High Performance Computing, with a choice of servers, networks and software. Operating system options include specially priced offerings for Red Hat Enterprise Linux and SUSE Linux Enterprise Server, as well as Microsoft Windows HPEC Server. A Cluster Platform Configurator simplifies ordering. http://www.hp.com/go/clusters.

> HPE Insight Cluster Management Utility (CMU) is a Hewlett Packard Enterprise licensed and supported suite of tools that are used for lifecycle management of hyperscale clusters of Linux ProLiant systems. CMU includes software for the centralized provisioning, management and monitoring of nodes. CMU makes the administration of clusters user friendly, efficient, and effective. http://www.hp.com/go/cmu.

> NOTE: High Performance Computing (HPC) interconnect technologies are available for this server as part of the HPE Cluster Platform portfolio. These high-speed InfiniBand and Gigabit interconnects are fully supported by Hewlett Packard Enterprise when integrated within a Hewlett Packard Enterprise cluster. Flexible, validated solutions can be defined with the help of configuration

tools. http://www.hp.com/techservers/clusters/ucp/index.html.

HPC Interconnects NOTE: High Performance Computing (HPC) interconnect technologies are available for this server under the HPE Cluster Platform product portfolio. These high-speed interconnects are fully supported by Hewlett Packard Enterprise when they are part of these configure to order clusters. Solutions can be defined with a lot of flexibility with the help of configuration tools. Please visit the following URL to configure HPEC Clusters with InfiniBand

Interconnects: http://www.hp.com/techservers/clusters/ucp/index.html.

Storage Software

Whether you need to solve a specific data protection, archiving, or storage command and control challenge, or deliver on strategic consolidation, compliance, or continuity initiatives, look no further

Optional Features

than Hewlett Packard Enterprise storage software. Our storage software helps you reduce costs, simplify storage infrastructure, protect vital assets and respond faster to business opportunities. Storage software that gets the job done:

Data Protection and Recovery Software

Whether you're a large enterprise or a smaller business. Hewlett Packard Enterprise data protection and recovery software will cost-effectively protect you against disaster and ensure business continuity.

Data Archive and Migration Software

Hewlett Packard Enterprise storage software enables you to comply with data retention and retrieval requirements, improve application performance, and reduce costs by efficiently migrating infrequently accessed or less valuable data to lower cost storage.

Storage Resource Management Software (SRM)

Hewlett Packard Enterprise storage resource management software reduces operational costs and provides the command and control foundation you need to efficiently manage and visualize your physical and virtual environments.

Data Replication Software

Hewlett Packard Enterprise offers array-based and host-based replication software for use in disaster recovery, testing, application development and reporting.

Storage Device Management Software

Maximize your investment in Hewlett Packard Enterprise storage and networking with software that enables hardware-specific configuration, performance tuning and connectivity management.

HPE StoreVirtual VSA

Make the move to virtualized storage with HPE StoreVirtual VSA. Transform unused capacity inside your servers into a virtual storage array. Add StoreVirtual VSA to multiple servers, manage it as a single pool of shared storage capacity, and scale it to match your evolving needs. HPE ProLiant Gen9 servers include a 3-year limited license for HPE software-defined storage at no extra cost. You have the option to install free 1TB-capacity StoreVirtual VSA software during server setup within Intelligent Provisioning. More information, instructional videos, and free management software are available at http://www.hpe.com/storage/tryVSA.

NOTE: For more information about Storage Software including QuickSpecs, please see: http://www.hp.com/go/storage/software.

ClearOS

HPE and ClearCenter will help you lower the cost of building on-premise solutions without sacrificing security and ease of use. HPE ProLiant servers with ClearOS give you a simple, secure, and affordable operating system with an intuitive web based graphical user interface that provides a cloud-like experience on-premise, and an Application Marketplace with over 100 apps and growing. Whether you're starting out or scaling, you decide what applications you need and pay as you grow.

NOTE: For more information on ClearOS, please visit http://www.hpe.com/servers/clearos.

(SCE)

One Config Simple SCE is a guided self-service tool to help sales and non-technical people provide customers with initial configurations in 3 to 5 minutes. You may then send the configuration on for configuration help, or use in your existing ordering processes. If you require "custom" rack configuration or configuration for products not available in SCE, please contact Hewlett Packard Enterprise Customer Business Center or an Authorized Partner for assistance. http://ocs.ext.hpe.com/.

Service and Support

HPE Support Services

HPE Technology Services delivers confidence, reduces risk and helps customers realize agility and stability. Connect to Hewlett Packard Enterprise to help prevent problems and solve issues faster. HPE Support Services enable you to choose the right service level, length of coverage and response time as you purchase your new server, giving you full entitlement to the support for need for your IT and business.

Connect your devices

Unlock all of the benefits of your technology investment by connecting your products to Hewlett Packard Enterprise. Achieve up to 77% reduction in down time, near 100% diagnostic accuracy and a single consolidated view of your environment. By connecting, you will receive 24x7monitoring, pre-failure alerts, automatic call logging, and automatic parts dispatch. HPE Proactive Care Service and HPE Datacenter Care Service customers will also benefit from proactive activities to help prevent issues and increase optimization. All of these benefits are already available to you with your server storage and networking products, securely connected to Hewlett Packard Enterprise support. 1- IDC 2 - HP CSC reports 2014 - 2015

Recommended Support

Standard: HPE Proactive Care* with 24x7 coverage, three year Support Service

HPE Proactive Care gives customers an enhanced call experience. When your products are connected to Hewlett Packard Enterprise. Proactive Care helps prevent problems and maintains IT stability by utilizing personalized proactive reports with recommendations and advice. This service combines three years proactive reporting and advice with our 24x7 coverage, four hour hardware response time when there is a problem. This service also includes collaborative software support for Independent Software Vendors (ISVs), (Red Hat, VMWare, Microsoft, etc.) running on your HPE servers.

https://www.hpe.com/h20195/v2/GetPDF.aspx/4AA3-8855ENW.pdf

Optimized HPE Proactive Care* with 6 hour call-to-repair commitment, three year Support Service

HPE Proactive Care gives customers an enhanced call experience. When your products are connected to Hewlett Packard Enterprise, Proactive Care helps prevent problems and maintains IT stability by utilizing personalized proactive reports with recommendations and advice. This service combines three years' proactive reporting and advice with our highest level of hardware support – Hewlett Packard Enterprise 24x7, six hour hardware call-to-repair. Hewlett Packard Enterprise is the only leading manufacturer who makes this level of coverage available as a standard service offering for your most valuable servers. This service also includes collaborative software support for Independent Software Vendors (ISVs), (Red Hat, VMWare, Microsoft, etc.) running on your HPE servers.

https://www.hpe.com/h20195/v2/GetPDF.aspx/4AA3-8855ENW.pdf

Parts and Materials Hewlett Packard Enterprise will provide Hewlett Packard Enterprise-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.

Related Services

HPE Server Hardware Installation

Provides for the basic hardware installation of Hewlett Packard Enterprise branded servers, storage devices and networking options to assist you in bringing your new hardware into operation in a timely and professional manner.

https://www.hpe.com/h20195/V2/GetPDF.aspx/5981-9356EN.pdf

HPE Installation and Startup Service

Provides for the installation and startup of Hewlett Packard Enterprise technology including BladeSystems, C-Class enclosure, HPE ProLiant c-Class and Integrity server blades, storage blades, SAN switch blades, HPE Virtual Connect modules (Ethernet and Fibre Channel), Ethernet network interconnects, and InfiniBand, as well as the installation of one supported operating system type (Windows® or Linux).

Service and Support

HPE Technology Services Support Credits

Offer flexible services and technical skills to meet your changing IT demands. With a menu of service that is tailored to suit your needs, you get additional resources and specialist skills to help you maintain peak performance of your IT. 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 The HPE Support Center is a 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 Hewlett Packard Enterprise 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 personalized IT support anywhere,

HPE Insight Remote Support and HPE Support Center are available at no additional cost with a Hewlett Packard Enterprise warranty, HPE Support Service or Hewlett Packard Enterprise contractual support agreement.

*HPE Support Center Mobile App is subject to local availability.

For more information: http://www.hpe.com/services

Page 16

For the Standard Features shipped in the "Factory Integrated Models", please see the "Configuration Information - Factory Integrated Models" section.

- 1. Pre-configured models ship with the configurations below. Options can be selected from the Core or Additional options section of this QuickSpecs.
- 2. Hewlett Packard Enterprise does not allow factory integration of options into pre-configured models. Any additional options purchased will be shipped separately.
- 3. If you desire a custom configuration please see "Configuration Information Factory Integrated Models" section of this QuickSpecs.
- 4. Not all models are available in all regions. Check with your local country Hewlett Packard Enterprise offices for availability. NOTE:NOTE: All Pre-configured Models come populated with some hard drive blanks installed. Should the customer need additional hard drive blanks, they can order more using either HPE SFF Hard Drive Blank Kit (666987-B21) or HPE LFF Hard Drive Blank Kit (666986-B21).

NOTE:NOTE: All pre-configured servers ship with a standard 6-foot IEC C-13/C-14 jumper cord (A0K02A). This jumper cord is also included with each standard AC power supply option kit. If a different power cord is required, please check the ProLiant Power Cables web page.

CAUTION: CAUTION: Hewlett Packard Enterprise recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.

Entry Models

Base Models

[SKU Number]

765819-001

835262-001

765820-001

835263-001

Model Name

HPE ProLiant ML350 Gen9 E5-2609v3 8GB-R B140i 8LFF 500W PS Entry Tower Server HPE ProLiant ML350 Gen9 E5-2609v4 1P 8GB-R B140i 8LFF 500W PS Entry Server

HPE ProLiant ML350 Gen9 E5-2620v3 16GB-R P440ar 8SFF 500W PS Base Tower Server

HPE ProLiant ML350 Gen9 E5-2620v4 16GB-R P440ar 8SFF 500W PS Base Server

Processor

Intel® Xeon® E5-2609v3

Intel® Xeon® E5-2609v4

Intel® Xeon® E5-2620v3

Intel® Xeon® E5-2620v4

Number of Processors

One

Memory

8GB (1x8GB Registered DIMMs, 2133 MHz)

8GB (1x8GB Registered DIMMs, 2400 MHz)

16GB (1x16GB Registered DIMMs, 2133 MHz)

16GB (1x16GB Registered DIMMs, 2400 MHz)

Network Controller

HPE Embedded 1Gb Ethernet 4-port 331i Adapter

Storage Controller HPE Dynamic Smart Array B140i HPE Smart Array P440ar/2G Controller

Hard Drive

None ship standard; includes 6 LFF hard drive blanks None ship standard; includes 6 SFF hard drive blanks

Internal Storage

8 LFF HDD Bays (upgradable to 24) 8 Hot plug SFF SAS/SATA HDD Bays; upgradeable to 48

Optical Drive Bay

Optional LFF Media Cage Kit (726561-B21) Optional SFF Media Cage Kit (726545-B21)

Optical Drive

Optional Slim Optical Bay (SATA DVD-RW/ROM Optical Drive)

PCI-Express Slots 9 PCIe slots

Power Supply

(1) HPE 500W Flex Slot Platinum Power Supply

Fans

3 hot swap fans, non-redundant

Management

iLO Management (standard), Intelligent Provisioning (standard), iLO Advanced (optional), Insight Control (optional), HPE OneView (optional)

Energy Star

Meets Energy Star requirements

Meets Energy Star requirements

Form Factor

Tower (5U)

Warranty

Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response

Performance Rack Models Performance Models

[SKU Number]

765821-001

835264-001

765822-001

835265-001

Model Name

HPE ProLiant ML350 Gen9 2xE5-2630v3 2P 32GB-R P440ar 8SFF 2x800W PS ES Rack Server HPE ProLiant ML350 Gen9 2xE5-2630v4 2P 32GB-R P440ar 8SFF 2x800W PS Perf ES Rack Server HPE ProLiant ML350 Gen9 2xE5-2650v3 2P 32GB-R P440ar 8SFF 2x800W PS ES Tower Server HPE ProLiant ML350 Gen9 E5-2650v4 2P 32GB-R P440ar 8SFF 2x800W PS Perf Server

Processor

Intel® Xeon® E5-2630v3

Intel® Xeon® E5-2630v4

Intel® Xeon® E5-2650v3

Intel® Xeon® E5-2650v4

Number of Processors

Two

Memory

32GB (2x16GB Registered DIMMs, 2133 MHz)

32GB (2x16GB Registered DIMMs, 2400 MHz)

32GB (2x16GB Registered DIMMs, 2133 MHz)

32GB (2x16GB Registered DIMMs, 2400 MHz)

Network Controller

HPE Embedded 1Gb Ethernet 4-port 331i Adapter

Storage Controller

HPE Smart Array P440ar/2G Controller

Hard Drive

None ship standard; includes 6 SFF hard drive blanks

Internal Storage

8 Hot plug SFF SAS/SATA HDD Bays; upgradeable to 48

Optical Drive Bay

Optional SFF Media Cage Kit (726545-B21)

Optical Drive

Optional Slim Optical Bay (SATA DVD-RW/ROM Optical Drive)

PCI-Express Slots

9 PCIe slots

Power Supply

(2) HPE 800W Flex Slot Platinum Power Supply

Fans

8 hot plug fans, redundant

Management

iLO Management (standard), Intelligent Provisioning (standard), iLO Advanced (optional), Insight Control (optional), HPE OneView (optional)

Energy Star

Meets Energy Star requirements

Accessories

Rack Kit included

Form Factor

Rack (5U) HPE Easy Install Rails with CMA Tower (5U)

Warranty

Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response

Smart Buy Models

	E5-2600v4 Smart Buy Models						
[SKU Number]	835850-S01	875708-S01	HPE ProLiant ML350 Gen9 E5-2640v4 2.4GHz 10-core 1P 16GB-R P440ar 8SFF 2x800W PS US Server/S-Buy	835852-S01			
Model Name	HPE ProLiant ML350 Gen9 E5-2609v4 LFF US Svr/S-B	HPE ProLiant ML350 Gen9 E5-2620v4 8LFF US Svr/S-B	HPE ProLiant ML350 Gen9 E5-2620v4 SFF US Svr/S-B	HPE ProLiant ML350 Gen9 E5-2640v4 SFF US Svr/S-B			
Processor	Intel® Xeon® E5-2609v4	Intel® Xeon®	Intel® Xeon® E5- 2640v4				
Number of Processors	one						
Memory	8GB (1x8GB Registered DIMMs, 2400MHz) NOTE: DIMMs will operate at 1866MHz with this processor.	8GB (1x8GB Registered DIMMs, 2400MHz) NOTE: DIMMs will operate at 2133MHz with this processor.		16GB (1x16GB Registered DIMMs, 2400MHz) NOTE: DIMMs will operate at 2133MHz with this processor.			
Network Controller	HPE Embedded 1Gb Ethernet 4-port 331i Adapter						
Storage Controller	HPE S		ontroller + Smart Storage B	attery			
Hard Drive		None ship	p standard				
Internal Storage	Up to	8 LFF	Up to	8 SFF			
Optical Drive		HP 9.5mm SATA	A DVD ROM Jb Kit				
PCI-Express Slots		9 PCI	le slots				
Power Supply	(1) HPE 50	00W Flex Slot Platinum Po	(2) HPE 800W Flex Slot Platinum Power Supplies				
Fans		3 hot plug fans	s, non-redundant				
Management	Standard: iLO Management Optional: iLO Advanced, Insight Control, HP OneView						
Form Factor		Tower (5U)					
Warranty	3-Year Parts, 3	-Year Labor, 3-Year Onsite	e support with next busines	s day response			
	-						

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 an HPE 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 based on the number of initial hard drives ordered with the server.
- 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)

CTO Server	HPE ProLiant ML350 Gen9 Hot Plug 8SFF Configure-to- order Rack Server	HPE ProLiant ML350 Gen9 Hot Plug 8SFF Configure-to- order Tower Server	HPE ProLiant ML350 Gen9 Hot Plug 8LFF Configure-to- order Tower Server		
SKU Number	754534-B21	754536-B21	754537-B21		
Processor	2 (optional) x HPE Smart Socket Guide				
DIMM Slots	24 DIMM slots for RDIMM, LRDIMM DDR4 Memory				
Storage Controller	HPE Dynamic Smart Array B140i				
PCle	9 Standard (8 FH/FL, 1 FH/HL)				
Drive Cage	8SFF Hot Plug 8LFF Hot Plug				
Network Controller	HPE Embedded 1Gb Ethernet 4-port 331i Adapter				
Fans	3 hot swap fans, non-redundant				
Management	iLO Management (standard), Intelligent Provisioning (standard)				
USB		2 front, 2 internal, 4 rear			

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

HPE E5-2600v4 series Processors Processors HPE ML350 Gen9 Intel® Xeon® E5-2620v4 (2.1GHz/8-core/20MB/85W) FIO Processor Kit

HPE ML350 Gen9 Intel® Xeon® E5-2620v4 (2.1GHz/8-core/20MB/85W) FIO Processor Kit	801232-L21
HPE ML350 Gen9 Intel® Xeon® E5-2609v4 (1.7GHz/8-core/20MB/85W) FIO Processor Kit	801233-L21
HPE ML350 Gen9 Intel® Xeon® E5-2603v4 (1.7GHz/6-core/15MB/85W) FIO Processor Kit	801234-L21
HPE ML350 Gen9 Intel® Xeon® E5-2650Lv4 (1.7GHz/14-core/35MB/65W) FIO Processor Kit	801250-L21
HPE ML350 Gen9 Intel® Xeon® E5-2630Lv4 (1.8GHz/10-core/25MB/55W) FIO Processor Kit	801251-L21
HPE ML350 Gen9 Intel® Xeon® E5-2643v4 (3,4GHz/6-core/20MB/135W) FIO Processor Kit	801255-L21
HPE ML350 Gen9 Intel® Xeon® E5-2637v4 (3.5GHz/4-core/15MB/135W) FIO Processor Kit	801256-L21
HPE ML350 Gen9 Intel® Xeon® E5-2623v4 (2.6GHz/4-core/10MB/85W) FIO Processor Kit	801258-L21
HPE ML350 Gen9 Intel® Xeon® E5-2690v4 (2.6GHz/14-core/35MB/135W) FIO Processor Kit	801225-L21
HPE ML350 Gen9 Intel® Xeon® E5-2680v4 (2.4GHz/14-core/35MB/120W) FIO Processor Kit	801226-L21
HPE ML350 Gen9 Intel® Xeon® E5-2660v4 (2GHz/14-core/35MB/105W) FIO Processor Kit	801228-L21
HPE ML350 Gen9 Intel® Xeon® E5-2650v4 (2.2GHz/12-core/30MB/105W) FIO Processor Kit	801229-L21
HPE ML350 Gen9 Intel® Xeon® E5-2640v4 (2.4GHz/10-core/25MB/90W) FIO Processor Kit	801230-L21
HPE ML350 Gen9 Intel® Xeon® E5-2697v4 (2.3GHz/18-core/45MB/145W) FIO Processor Kit	801252-L21
HPE ML350 Gen9 Intel® Xeon® E5-2695v4 (2.1GHz/18-core/45MB/120W) FIO Processor Kit	801253-L21
HPE ML350 Gen9 Intel® Xeon® E5-2667v4 (3,2GHz/8-core/25MB/135W) FIO Processor Kit	801254-L21
HPE ML350 Gen9 Intel® Xeon® E5-2683v4 (2.1GHz/16-core/40MB/120W) FIO Processor Kit	801257-L21
HPE ML350 Gen9 Intel® Xeon® E5-2699v4 (2.2GHz/22-core/55MB/145W) FIO Processor Kit	801259-L21

Configuration Information - Factory Integrated Models

HPE ML350 Gen9 Intel® Xeon® E5-2698v4 (2.2GHz/20-core/50MB/135W) FIO Processor Kit 801271-L21 HPE ML350 Gen9 Intel® Xeon® E5-2697Av4 (2.6GHz/16-core/40MB/145W) FIO Processor Kit 839989-L21 Kit

HPE ML350 Gen9 Intel® Xeon® E5-2630v4 (2.2GHz/10-core/25MB/85W) FIO Processor Kit 801231-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.

NOTE: When v4 Processor is selected, then only PC4-2400T Memory Kit can be selected.

NOTE: For the Intel® C600 Chipset E5-2600 Series, the letter preceding the model number indicates the Product Line (E3, E5, E7); 2600x v#, 2= number of CPUs in a Node, 6 is socket/segment designation, 00= Processor SKU, x= L for low power SKUs and v# (not yet designated)= version number.

HPE Memory

NOTE: Select one or more memory kits from below.

NOTE: LRDIMM, RDIMM are all distinct memory technologies and cannot be mixed within a server. The majority of ProLiant Gen9 servers support LRDIMM and RDIMM

NOTE: HPE memory from previous generation servers are not qualified or warranted with this HPE ProLiant Server. HPE SmartMemory is required to realize the memory performance improvements and enhanced functionality listed in this document for Gen9.

NOTE: Kits described as LP include Low Power DIMMs. For more information on ProLiant Energy Efficient Features, see: http://www.hp.com/go/proliant-energy-efficient

NOTE: Depending on the memory configuration and processor model, the memory speed may run at 2400MHz, 2133MHz, 1866MHz, 1600MHz or 1333MHz. Please see Memory Population Table or the Online Memory Configuration Tool at: **Online Memory Configuration Tool**.

Registered DIMMs (RDIMMs) for E5-2600v4 Series

HP 8GB (1x8GB) Single Rank x8 DDR4-2400 CAS-17-17-17 Registered Memory Kit	805347-B21
HP 16GB (1x16GB) Single Rank x4 DDR4-2400 CAS-17-17-17 Registered Memory Kit	805349-B21
HP 32GB (1x32GB) Dual Rank x4 DDR4-2400 CAS-17-17-17 Registered Memory Kit	805351-B21
HP 16GB (1x16GB) Dual Rank x4 DDR4-2400 CAS-17-17-17 Registered Memory Kit	836220-B21
Load Reduced DIMMs (LRDIMMs) for E5-2600v4 Series	
HP 32GB (1x32GB) Dual Rank x4 DDR4-2400 CAS-17-17-17 Load Reduced Memory Kit	805353-B21
HP 64GB (1x64GB) Quad Rank x4 DDR4-2400 CAS-17-17-17 Load Reduced Memory Kit	805358-B21
HPE 128GB (1x128GB) Octal Rank x4 DDR4-2400 CAS-20-18-18 Load Reduced Memory	809208-B21
Kit	

HPE Power Supplies

NOTE: Mixing of power supplies in the same server is not supported. All power supplies must be of the same input voltage, output rating, and efficiency rating. If non-matching power supplies are installed, you may receive an error message and/or experience operational issues with your server.

NOTE: Prior to selecting a power supply option, it is highly recommended that you review your server configuration in the HP Power Advisor Tool to determine the right size power supply for your server configuration. The HP Power Advisor is located at: **HPE Power Advisor Online**

HPE Flex Slot Hot-Plug Power Supplies

HP 500W Flex Slot Platinum Hot Plug Power Supply Kit	720478-B21
HP 800W Flex Slot Platinum Hot Plug Power Supply Kit	720479-B21
HP 1400W Flex Slot Platinum Plus Hot Plug Power Supply Kit	720620-B21
HP 800W Flex Slot -48VDC Hot Plug Power Supply Kit	720480-B21
HP 800W Flex Slot Titanium Hot Plug Power Supply Kit	720482-B21
HP 800W Flex Slot Universal Hot Plug Power Supply Kit	720484-B21

Configuration Information - Factory Integrated Models

Enablement Kit

HP ML350 Gen9 X4 Redundant Power Supply Enablement FIO Kit

725870-B21

NOTE: If more than quantity two of 800W or 1400W Power Supplies are ordered, then X4 Redundant Power Supply FIO Kit must be selected. This kit does not support the 500W Power Supply.

Step 3: Choose Additional Factory Integratable Options (only one from each category unless otherwise noted)

HPE Storage Controllers **NOTE:** The embedded B140i controller will be used as the primary controller if no controller has been selected from the list below. Embedded SATA controller can support up to 8 SATA hard drives.

	_		_	
HPE	Smart	Arrav	Contro	llers

HP Smart Array P440ar/2GB FBWC 12Gb 2-ports Int FIO SAS Controller

749974-B21

NOTE: Supports up to 8 internal SAS/SATA drives without using a PCle slot.

NOTE: Includes the HP Smart Storage Battery

HP Smart Array P440/4GB FBWC 12Gb 1-port Int FIO SAS Controller 761872-B21

NOTE: Includes the HP Smart Storage Battery

HP Smart Array P840/4GB FBWC 12Gb 2-ports Int FIO SAS Controller 761874-B21

NOTE: Includes the HP Smart Storage Battery

HPE Smart Host Bus Adapters

HP H240ar 12Gb 2-ports Int FIO Smart Host Bus Adapter 749976-B21

NOTE: Supports up to 8 internal SAS/SATA drives without using a PCle slot.

HP H240 12Gb 2-ports Int FIO Smart Host Bus Adapter 761873-B21

Expander Kits

HP 12Gb SAS Expander Card for ML350 Gen9 769635-B21

NOTE: Does not support H240ar or P440ar. It contains three cables from expander card to

HDD backplanes, and one cable from Smart Array or HBA to expander card.

HP ML350 Gen9 Second Expander FIO Kit 769637-B21

NOTE: Cannot be selected when HP 12Gb SAS Expander Card for ML350 Gen9 (769635-B21) is not in order. If selected, 2nd processor and X4 RPS Enablement FIO Kit (725870-B21) and P840 controller (761874-B21) must also be ordered.

HPE Cable Options

HP ML350 Gen9 Host Bus Adapter Mini-SAS Cable Kit 765648-B21

NOTE: If HP H240 12Gb 2-ports Int FIO Smart Host Bus Adapter (761873-B21) is selected then this option kit must be selected. One card per kit.

HP ML350 Gen9 Smart Array Cable Kit 765650-B21

NOTE: If HP Smart Array P440/4GB FBWC 12Gb 1-port Int FIO SAS Controller (761872-B21) or HP H240ar 12Gb 2-ports Int FIO Smart Host Bus Adapter (749976-B21) is selected, this option kit must be selected. One card per kit.

HP ML350 Gen9 Flexible Smart Array Controller Mini-SAS Cable Kit 765652-B21

NOTE: If HP Smart Array P440ar/2GB FBWC 12Gb 2-ports Int FIO SAS Controller (749974-B21) or HP H240ar 12Gb 2-ports Int FIO Smart Host Bus Adapter (749976-B21) is selected, this option kit must be selected.

HP ML350 Gen9 Mini-SAS Cable FIO Kit 765654-B21

NOTE: If no SAS controller is selected and using B140i as primary, this option kit is required.

BIOS Mode HP Legacy FIO Mode Setting 758959-B22

NOTE: If selected, then B140i will not be supported and can no longer be a primary controller therefore, SAS internal controller must be selected to be the primary controller.

HP FIO Enable B140i Setting 784308-B21

NOTE: Must be selected when B140i is used as the primary controller and RAID is desired.

Service

Configuration Information - Factory Integrated Models

Controller HP Mfg FIO Enable HBA Mode Setting 792962-B21 State NOTE: When selected if H240ar/H240 are used as the primary controller then RAID is not allowed. **HPE Insight** HP Insight Controller including 1yr 24x7 Support ProLiant ML/DL/BL-bundle Single Server C6N36A FIO License **Software** HPE HPE OneView Advanced (with HPE iLO Advanced) Converged HPE OneView for ProLiant DL Server including 3yr 24x7 Support FIO Bundle Physical 1-E5Y43A Infrastructure server LTU Management HPE OneView Advanced (without HPE iLO Advanced) **Software** HPE OneView w/o iLO including 3yr 24x7 Support 1-server FIO LTU P8B31A **Rail Kits** HP ML350 Gen9 5U FIO Rail Kit 790357-B21 **HPE Location** HP ML350 Gen9 Discovery Service FIO Kit 726549-B21 **Discovery**

Step 4: Choose Additional Options for Factory Integration from Core and Additional Options sections below.

CAUTION: Hewlett Packard Enterprise recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.

HPE Unique Options

Core 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 an HPE approved configurator. Contact your local sales representative for additional information.

HP ML350 Gen9 8LFF Hot Plug Drive Cage Kit NOTE: Additional 8LFF Hard Drive Cage/backplane assembly, allowing for up to 24FF Drive Bays.	726547-B21
HP ML350 Gen9 8SFF Hard Drive Cage Kit NOTE: Additional 8SFF Hard Drive Cage/Backplane assembly, allowing for up to 48SFF Drive Bays.	778157-B21
HP ML350 Gen9 Redundant Fan Kit NOTE: This kit consists of four additional system fans and two PCle air baffles to support fan redundancy.	725878-B21
HP ML350 Gen9 LFF Media Cage Kit NOTE: Cage for converting LFF drive bays to a media device. Supports 1*Half-Height tape storage/ Disk-Based Backup device. (RDX)	726561-B21
HP ML350 Gen9 SFF Media Cage Kit NOTE: Cage for converting SFF drive bays to a media device. Supports 2*Half-Height/ 1*Full-Height tape storage/ Disk-Based Backup device (RDX).	726545-B21
HP ML350 Gen9 Flexible Smart Array Controller Mini-SAS Cable Kit NOTE: Mini-SAS Cable Kit for Flexible Smart Array Controller (AROC).	765652-B21
HP ML350 Gen9 Smart Array Cable Kit NOTE: Mini-SAS Cable Kit for stand-up P-series Smart Array Card.	765650-B21
HP ML350 Gen9 Host Bus Adapter Mini-SAS Cable Kit NOTE: Mini-SAS Cable kit for Host Bus Adapter.	765648-B21
HP ML350 Gen9 Graphic Card Support Kit NOTE: Required to support graphic accelerators except for K2200.	726565-B21
HP ML350 Gen9 Tower to Rack Conversion Kit NOTE: For converting a tower model to a rack model. It is consist of a 5U rail kit, cable management arm (CMA) and rack enablement kit (rack ear, rack handle, SID blank etc.)	726567-B21
HP ML350 Gen9 System Insight Display Kit NOTE: For rack model only.	726563-B21
HP Security Bezel Kit NOTE: For ML350 Rack model only.	660584-B21
HP 12Gb SAS Expander Card for ML350 Gen9 NOTE: The SAS Expander card supports 24 drives. The SAS Expander card must be used in conjunction with an HPE Smart Array P840 or P440 controller, or an H240 Host Bus Adapter. The SAS Expander card cannot be connected to H240ar or P440ar Flexible Smart Array Controller cards. NOTE: The SAS Expander kit includes two cables to connect from the Smart Array controller or HBA to the SAS Expander and the other to connect from the Expander to the HDD backplane. NOTE: It DOES NOT support tape storage/ Disk-Based Backup device (RDX).	769635-B21
HP ML350 Gen9 X4 RPS Enablement Kit NOTE: ML350 Gen9 supports maximum four Power Supply slots. If Power supply selection quantity is more than two, then X4 RPS Enablement Kit must be selected - to support the 3rd and 4th Power Supply Units. Minimum Power Supply quantity selection to configure with X4 RPS Enablement Kit is three.	802988-B21

NOTE: And this option is not supported with 720478-B21 (HPE 500W FS Plat Ht Plg Pwr Supply Kit).

NOTE: If hard drive cage selection quantity is more than three, this X4 RPS Enablement Kit must be selected - to get proper quantity of HDD backplane power connectors.

NOTE: If DW GPU card selection quantity is more than two, this X4 RPS Enablement Kit MUST be selected - in order to get proper quantity of GPU external power connectors.

HP ML350 Gen9 NVMe 6 Solid State Drive Express Bay Enablement Kit **NOTE:** Support for SFF model only. Maximum installation of NVMe express bay in ML350 Gen9 is one - installation limited to Box 1 or Box 4 for optimized cooling, which supports up to 6 SFF NVMe PCle SSDs.

NOTE: One express bay bridge card is included in the enablement kit, with installation limited to PCIe slot 3, 6 or 8. If slot 6 or 8 is selected, a 2nd processor must be installed.

NOTE: For NVMe PCIe SSD selection, refer to drive section in this document.

726551-B21

HPE Processors

E5-2600v4 series Processors

HPE ML350 Gen9 Intel® Xeon® E5-2609v4 (1.7GHz/8-core/20MB/85W) Processor Kit	801233-B21
HPE ML350 Gen9 Intel® Xeon® E5-2603v4 (1.7GHz/6-core/15MB/85W) Processor Kit	801234-B21
HPE ML350 Gen9 Intel® Xeon® E5-2650Lv4 (1.7GHz/14-core/35MB/65W) Processor Kit	801250-B21
HPE ML350 Gen9 Intel® Xeon® E5-2630Lv4 (1.8GHz/10-core/25MB/55W) Processor Kit	801251-B21
HPE ML350 Gen9 Intel® Xeon® E5-2620v4 (2.1GHz/8-core/20MB/85W) Processor Kit	801232-B21
HPE ML350 Gen9 Intel® Xeon® E5-2643v4 (3.4GHz/6-core/20MB/135W) Processor Kit	801255-B21
HPE ML350 Gen9 Intel® Xeon® E5-2637v4 (3.5GHz/4-core/15MB/135W) Processor Kit	801256-B21
HPE ML350 Gen9 Intel® Xeon® E5-2623v4 (2.6GHz/4-core/10MB/85W) Processor Kit	801258-B21
HPE ML350 Gen9 Intel® Xeon® E5-2690v4 (2.6GHz/14-core/35MB/135W) Processor Kit	801225-B21
HPE ML350 Gen9 Intel® Xeon® E5-2680v4 (2.4GHz/14-core/35MB/120W) Processor Kit	801226-B21
HPE ML350 Gen9 Intel® Xeon® E5-2660v4 (2.0GHz/14-core/35MB/105W) Processor Kit	801228-B21
HPE ML350 Gen9 Intel® Xeon® E5-2650v4 (2.2GHz/12-core/30MB/105W) Processor Kit	801229-B21
HPE ML350 Gen9 Intel® Xeon® E5-2640v4 (2.4GHz/10-core/25MB/90W) Processor Kit	801230-B21
HPE ML350 Gen9 Intel® Xeon® E5-2697v4 (2.3GHz/18-core/45MB/145W) Processor Kit	801252-B21
HPE ML350 Gen9 Intel® Xeon® E5-2695v4 (2.1GHz/18-core/45MB/120W) Processor Kit	801253-B21
HPE ML350 Gen9 Intel® Xeon® E5-2667v4 (3.2GHz/8-core/25MB/135W) Processor Kit	801254-B21

HPE ML350 Gen9 Intel® Xeon® E5-2683v4 (2.1GHz/16-core/40MB/120W) Processor Kit	801257-B21
HPE ML350 Gen9 Intel® Xeon® E5-2699v4 (2.2GHz/22-core/55MB/145W) Processor Kit	801259-B21
HPE ML350 Gen9 Intel® Xeon® E5-2698v4 (2.2GHz/20-core/50MB/135W) Processor Kit	801271-B21
HPE ML350 Gen9 Intel® Xeon® E5-2697Av4 (2.6GHz/16-core/40MB/145W) Processor Kit	839989-B21
HPE ML350 Gen9 Intel® Xeon® E5-2630v4 (2.2GHz/10-core/25MB/85W) Processor Kit	801231-B21
E5-2600v3 series Processors	
HP ML350 Gen9 Intel® Xeon® E5-2609v3 (1.9GHz/6-core/15MB/85W) Processor Kit	726661-B21
HP ML350 Gen9 Intel® Xeon® E5-2603v3 (1.6GHz/6-core/15MB/85W) Processor Kit	726664-B21
HP ML350 Gen9 Intel® Xeon® E5-2640v3 (2.6GHz/8-core/20MB/90W) Processor Kit	726651-B21
HP ML350 Gen9 Intel® Xeon® E5-2630v3 (2.4GHz/8-core/20MB/85W) Processor Kit	726654-B21
HP ML350 Gen9 Intel® Xeon® E5-2620v3 (2.4GHz/6-core/15MB/85W) Processor Kit	726658-B21
HP ML350 Gen9 Intel® Xeon® E5-2630Lv3 (1.8GHz/8-core/20MB/55W) Processor Kit	726671-B21
HP ML350 Gen9 Intel® Xeon® E5-2623v3 (3GHz/4-core/10MB/105W) Processor Kit	779834-B21
HP ML350 Gen9 Intel® Xeon® E5-2637v3 (3.5GHz/4-core/15MB/135W) Processor Kit	726686-B21
HP ML350 Gen9 Intel® Xeon® E5-2690v3 (2.6GHz/12-core/30MB/135W) Processor Kit	726636-B21
HP ML350 Gen9 Intel® Xeon® E5-2680v3 (2.5GHz/12-core/30MB/120W) Processor Kit	726639-B21
HP ML350 Gen9 Intel® Xeon® E5-2670v3 (2.3GHz/12-core/30MB/120W) Processor Kit	726642-B21
HP ML350 Gen9 Intel® Xeon® E5-2660v3 (2.6GHz/10-core/25MB/105W) Processor Kit	726645-B21
HP ML350 Gen9 Intel® Xeon® E5-2650v3 (2.3GHz/10-core/25MB/105W) Processor Kit	726648-B21
HP ML350 Gen9 Intel® Xeon® E5-2650Lv3 (1.8GHz/12-core/30MB/65W) Processor Kit	726668-B21
HP ML350 Gen9 Intel® Xeon® E5-2697v3 (2.6GHz/14-core/35MB/145W) Processor Kit	726674-B21
HP ML350 Gen9 Intel® Xeon® E5-2695v3 (2.3GHz/14-core/35MB/120W) Processor Kit	726677-B21
HP ML350 Gen9 Intel® Xeon® E5-2667v3 (3.2GHz/8-core/20MB/135W) Processor Kit	726680-B21
HP ML350 Gen9 Intel® Xeon® E5-2643v3 (3.4GHz/6-core/20MB/135W) Processor Kit	726683-B21
HP ML350 Gen9 Intel® Xeon® E5-2683v3 (2GHz/14-core/35MB/120W) Processor Kit	765794-B21

	HP ML350 Gen9 Intel® Xeon® E5-2699v3 (2.3GHz/18-core/45MB/145W) Processor Kit	781828-B21
	HP ML350 Gen9 Intel® Xeon® E5-2698v3 (2.3GHz/16-core/40MB/135W) Processor Kit	781830-B21
HPE Memory	Registered DIMMs (RDIMMs) for E5-2600v3 Series	
	HP 4GB (1x4GB) Single Rank x8 DDR4-2133 CAS-15-15-15 Registered Memory Kit	726717-B21
	HP 8GB (1x8GB) Single Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit	726718-B21
	HP 8GB (1x8GB) Dual Rank x8 DDR4-2133 CAS-15-15-15 Registered Memory Kit	759934-B21
	HP 16GB (1x16GB) Dual Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit	726719-B21
	HP 32GB (1x32GB) Dual Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit	728629-B21
	NOTE: Depending on Processor selected this memory will run at 1600, 1866 or 213 NOTE: Mixing of DIMM types is not supported. NOTE: Mixing of 2133 and 2400MHz DIMMs is not supported.	3MHz.
	Load Reduced DIMMs (LRDIMMs) for E5-2600v3 Series	
	HP 16GB (1x16GB) Dual Rank x4 DDR4-2133 CAS-15-15-15 Load Reduced Memory Kit	726720-B21
	HP 32GB (1x32GB) Quad Rank x4 DDR4-2133 CAS-15-15-15 Load Reduced Memory Kit	726722-B21
	HP 64GB (1x64GB) Quad Rank x4 DDR4-2133 CAS-15-15-15 Load Reduced Memory Kit	726724-B21
	NOTE: Depending on Processor selected this memory will run at 1600, 1866 or 213 NOTE: Mixing of DIMM types is not supported.	3MHz.
	NOTE: Mixing of 2133 and 2400MHz DIMMs is not supported.	
	Registered DIMMs (RDIMMs) for E5-2600v4 Series	
	NOTE: The following memory is supported by the E5-2600v4 series Processor only. HP 8GB (1x8GB) Single Rank x8 DDR4-2400 CAS-17-17-17 Registered Memory Kit	805347-B21
	HP 16GB (1x16GB) Single Rank x4 DDR4-2400 CAS-17-17-17 Registered Memory Kit	805349-B21
	HP 32GB (1x32GB) Dual Rank x4 DDR4-2400 CAS-17-17-17 Registered Memory Kit	805351-B21
	HPE 16GB (1x16GB) Dual Rank x4 DDR4-2400 CAS-17-17-17 Registered Memory Kit	836220-B21
	NOTE: Depending on Processor selected this memory will run at 1866, 2133 or 240	OMHz.
	NOTE: Mixing of DIMM types is not supported.	
	NOTE: Mixing of 2133 and 2400MHz DIMMs is not supported.	
	Load Reduced DIMMs (LRDIMMs) for E5-2600v4 Series	
	NOTE: The following memory is supported by the E5-2600v4 series Processor only.	
	HPE 32GB (1x32GB) Dual Rank x4 DDR4-2400 CAS-17-17-17 Load Reduced Memory Kit	805353-B21
	HPE 64GB (1x64GB) Quad Rank x4 DDR4-2400 CAS-17-17-17 Load Reduced Memory Kit	805358-B21
	HPE 128GB (1x128GB) Octal Rank x4 DDR4-2400 CAS-20-18-18 Load Reduced Memory Kit	809208-B21

NOTE: Depending on Processor selected this memory will run at 1866, 2133 or 2400MHz.

NOTE: Mixing of DIMM types is not supported.

NOTE: Mixing of 2133 and 2400MHz DIMMs is not supported.

HPE Optical Dri	ives HP 9.5mm SATA DVD-ROM JackBlack Gen9 Optical Drive HP 9.5mm SATA DVD-RW JackBlack G9 Optical Drive	726536-B21 726537-B21
HPE Drives	NOTE: For a complete list of the drive, controller and cable options please check the compatibility matrix: https://www.hpe.com/h20195/V2/GetDocument.aspx?docname=4AA	
	5-4154ENW&cc=us&lc=en	
	12G SAS Hot Plug LFF (3.5-inch) Enterprise (ENT) Drives	
	HPE 600GB SAS 12G Enterprise 15K LFF (3.5in) SC 3yr Wty HDD	765424-B21
	HPE 450GB SAS 12G Enterprise 15K LFF (3.5in) SCC 3yr Wty HDD	737394-B21
	HPE 300GB SAS 12G Enterprise 15K LFF (3.5in) SCC 3yr Wty HDD	737261-B21
	12G SAS Hot Plug LFF (3.5-inch) Midline (MDL) Drives	
	HPE 10TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	857644-B21
	HPE 8TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	861590-B21
	HPE 8TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	819201-B21
	HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD	861754-B21
	HPE 6TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	846514-B21
	HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD	861756-B21
	HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	872487-B21
	HPE 4TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD	818367-B21
	HPE 3TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	846528-B21
	HPE 2TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	872485-B21
	HPE 2TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD	818365-B21
	HPE 1TB SAS 12G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	846524-B21
	6G SATA Hot Plug LFF (3.5-inch) Midline (MDL) Drives	
	HPE 10TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	857648-B21
	HPE 8TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Helium 512e Digitally Signed Firmware HDD	861594-B21
	HPE 8TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	819203-B21
	HPE 6TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD	861750-B21
	HPE 6TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	846510-B21

HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty 512e HDD

861752-B21

HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	872491-B21
HPE 4TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD	861678-B21
HPE 3TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	861693-B21
HP 3TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	628061-B21
HPE 2TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty Digitally Signed Firmware HDD	872489-B21
HPE 2TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD	861676-B21
HPE 1TB SATA 6G Midline 7.2K LFF (3.5in) SC 1yr Wty HDD	861691-B21
6G SATA Hot Plug LFF (3.5-inch) Mixed Use Solid State Drives	
HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	875480-B21
HPE 1.6TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty SSD	804634-B21
HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	872350-B21
HPE 480GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	872346-B21
6G SATA Hot Plug LFF (3.5-inch) SC Read Intensive Solid State Drives	
HPE 1.6TB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	869388-B21
HPE 480GB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	869380-B21
12G SAS Hot Plug SFF (2.5-inch) Enterprise (ENT) Drives	
HPE 2.4TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD	881457-B21
HPE 1.8TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD	872481-B21
HPE 1.8TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty 512e HDD	791034-B21
HPE 1.2TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	872479-B21
HPE 1.2TB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty HDD	781518-B21
HPE 900GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	870759-B21
HPE 900GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD	870765-B21
HPE 900GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty HDD	785069-B21
HPE 600GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	870757-B21
HPE 600GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty 512e Digitally Signed Firmware HDD	870763-B21
HPE 600GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	872477-B21
HPE 600GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty 512e HDD	748387-B21
HPE 600GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty HDD	759212-B21
HPE 600GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty HDD	781516-B21
HPE 450GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty HDD	759210-B21
HPE 300GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	870753-B21

HPE 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty Digitally Signed Firmware HDD	872475-B21
HPE 300GB SAS 12G Enterprise 15K SFF (2.5in) SC 3yr Wty HDD	759208-B21
HPE 300GB SAS 12G Enterprise 10K SFF (2.5in) SC 3yr Wty HDD	785067-B21
12G SAS Hot Plug SFF (2.5-inch) Midline (MDL) Drives	
HPE 2TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e HDD	765466-B21
HPE 1TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	765464-B21
HPE 1TB SAS 12G Midline 7.2K SFF (2.5in) SC 1yr Wty Digitally Signed Firmware HDD	832514-B21
6G SATA Hot Plug SFF (2.5-inch) Midline (MDL) Drives	
HPE 2TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	765455-B21
HPE 1TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty Digitally Signed Firmware HDD	655710-B21
HPE 1TB SATA 6G Midline 7.2K SFF (2.5in) SC 1yr Wty 512e Digitally Signed Firmware HDD	765453-B21
12G SAS Hot Plug SFF (2.5-inch) Read Intensive Solid State Drives	
HPE 7.68TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	870144-B21
HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	872394-B21
HPE 3.84TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	875330-B21
HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	872392-B21
HPE 1.92TB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	875326-B21
HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	872390-B21
HPE 960GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	875313-B21
HPE 480GB SAS 12G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	875311-B21
12G SAS Hot Plug SFF (2.5-inch) Write Intensive Solid State Drives	
HPE 1.6TB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	873357-B21
HPE 800GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	873355-B21
HPE 400GB SAS 12G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	873351-B21
12G SAS Hot Plug LFF (3.5-inch) Mixed Use Solid State Drives	
HPE 800GB SAS 12G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	872378-B21
12G SAS Hot Plug SFF (2.5-inch) Mixed Use Solid State Drives	
HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	873367-B21
HPE 3.2TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	872386-B21

HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	873365-B21
HPE 1.6TB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	872382-B21
HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	873363-B21
HPE 800GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	872376-B21
HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	873359-B21
HPE 400GB SAS 12G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	872374-B21
6G SATA Hot Plug WI-3 SFF (2.5-inch) SC Solid State Drives	
HPE 400GB SATA 6G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	872355-B21
HPE 800GB SATA 6G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	872359-B21
HPE 1.6TB SATA 6G Write Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	872363-B21
6G SATA Hot Plug SFF (2.5-inch) Mixed Use Solid State Drives	
HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	877788-B21
HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	875478-B21
HPE 1.92TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	872352-B21
HPE 1.6TB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty SSD	804631-B21
HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	877782-B21
HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	875474-B21
HPE 960GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	872348-B21
HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	877776-B21
HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	875470-B21
HPE 480GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	872344-B21
HPE 240GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	880295-B21
HPE 240GB SATA 6G Mixed Use SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	875483-B21
6G SATA Hot Plug LFF (3.5-inch) Mixed Use Solid State Drives	
HPE 1.92TB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	877790-B21
HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	877784-B21

HPE 960GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	875476-B21
HPE 480GB SATA 6G Mixed Use LFF (3.5in) SCC 3yr Wty Digitally Signed	875472-B21
Firmware SSD	

Mixed Use - 6G SATA - M.2 - Solid State Drives	
HPE 960GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware	875492-B21
SSD	075/00 021
HPE 480GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware SSD	875490-B21
HPE 240GB SATA 6G Mixed Use M.2 2280 3yr Wty Digitally Signed Firmware	875488-B21
SSD 4.0 SATA List Divis LEE (7.5 in sh.) SC Dood Intensive Solid State Drives	
6G SATA Hot Plug LFF (3.5-inch) SC Read Intensive Solid State Drives HPE 1.92TB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed	877760-B21
Firmware SSD	0///OU-DZI
HPE 960GB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	877754-B21
HPE 480GB SATA 6G Read Intensive LFF (3.5in) SCC 3yr Wty Digitally Signed Firmware SSD	877748-B21
6G SATA Hot Plug SFF (2.5-inch) SC Read Intensive Solid State Drives	
HPE 3.84TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	877764-B21
HPE 3.8TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed	868830-B21
Firmware SSD	
HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	877758-B21
HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed	868826-B21
Firmware SSD	
HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed	875513-B21
Firmware SSD	074770 004
HPE 1.92TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	871770-B21
HPE 1.6TB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	869386-B21
HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	877752-B21
HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed	868822-B21
Firmware SSD	
HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed	875511-B21
Firmware SSD	04070/ D21
HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	869384-B21
HPE 960GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty SSD	871768-B21
HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed	877746-B21
Firmware SSD HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed	868818-B21
Firmware SSD	000010-021
LIDE (OOGD CATA (C Davidlatoria CEE (C E) NCC 7 - W/ - D) W H C	075500 504
HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	875509-B21
HPE 480GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	869378-B21

HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	877740-B21
HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	868814-B21
HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	875503-B21
HPE 240GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	869376-B21
HPE 150GB SATA 6G Read Intensive SFF (2.5in) SC 3yr Wty Digitally Signed Firmware SSD	869374-B21
Read Intensive - 6G SATA - M.2 - Solid State Drives	
HPE 960GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD	875500-B21
HPE 480GB SATA 6G Read Intensive M.2 2280 3yr Wty Digitally Signed Firmware SSD	875498-B21
HPE NVMe PCIe Read Intensive SFF (2.5 inch) Solid State Drives	
HPE 1.92TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	875591-B21
HPE 1TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	877984-B21
HPE 1.2TB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty SSD	764906-B21
HPE 960GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	875589-B21
HPE 480GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	875587-B21
HPE 400GB NVMe x4 Lanes Read Intensive SFF (2.5in) SCN 3yr Wty SSD	764904-B21
NOTE: ML350 Gen9 6SFF Express Bay Enablement Kit (726551-B21) is required to support these drives.	
NOTE: HPE has qualified the NVMe drive portfolio using the Operating System inbox drivers, full detail on the HPE Solid State Drive QuickSpecs .	
HPE NVMe PCIe Mixed Use SSDs	
HPE 1.6TB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	875597-B21
HPE 800GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	875595-B21
HPE 800GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty SSD	765036-B21
HPE 400GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty Digitally Signed Firmware SSD	875593-B21
HPE 400GB NVMe x4 Lanes Mixed Use SFF (2.5in) SCN 3yr Wty SSD	765034-B21
NOTE: ML350 Gen9 6SFF Express Bay Enablement Kit (726551-B21) is	
required to support these drives.	
NOTE: HPE has qualified the NVMe drive portfolio using the Operating System inbox drivers, full detail on the HPE Solid State Drive QuickSpecs .	
HPE NVMe PCIe Write Intensive SFF (2.5-inch) Solid State Drives	
HPE 800GB NVMe x4 Lanes Write Intensive SFF (2.5in) SCN 3yr Wty SSD	736939-B21
HPE 400GB NVMe x4 Lanes Write Intensive SFF (2.5in) SCN 3yr Wty SSD	736936-B21
NOTE: ML350 Gen9 6SFF Express Bay Enablement Kit (726551-B21) is required to support these drives.	

Core Options

NOTE: HPE has qualified the NVMe drive portfolio using the Operating System inbox drivers, full detail on the HPE Solid State Drive QuickSpecs.

M.2 SSD

HPE Universal SATA HHHL 3yr Wty M.2 Kit	878783-B21
HPE 340GB SATA 6G Read Intensive 3yr Wty Dual M.2 Kit	835565-B21
HPE 340GB SATA 6G Read Intensive 3yr Wty M.2 Kit	835563-B21

NOTE: M.2 SSD ML-DL Enablmt Kit can be used to build RAID 0, 1 by using B140i controller.

- When HPE 120GB or 340GB M.2 SSD ML-DL Dual Enablmt Kit is ordered, it can support RAID 0, 1.
- When HPE 120GB or 340GB M.2 SSD ML-DL Sngl Enablmt Kit is ordered, it can support RAID 0.

NOTE: M.2 SSD ML-DL Enablmt Kit CANNOT support RAID setting when AROC card (P440ar or H240ar) is selected. Embedded B140i controller CANNOT be used when AROC is ordered.

Hard Drive Blank Kits

HPE Large Form Factor Hard Drive Blank Kit	666986-B21
HPE Small Form Factor Hard Drive Blank Kit	666987-B21
Hard Drive Kits	
HP ML350 Gen9 SFF Media Cage Kit	726545-B21
HP ML350 Gen9 8LFF Hot Plug Drive Cage Kit	726547-B21
HP ML350 Gen9 LFF Media Cage Kit	726561-B21
HP ML350 Gen9 8SFF Hard Drive Cage Kit	778157-B21
HPE ML350 Gen9 NVMe 6 Solid State Drive Express Bay Enablement Kit	726551-B21

NOTE: The ML350 Gen9 6SFF Express Bay kit is consist of one x6 SFF NVMe drive cage assembly, one Express Bay Bridge card, etc.

HPE Networking

1 Gigabit Ethernet adapters

HP Ethernet 1Gb 4-port 331T Adapter	647594-B21
HP Ethernet 1Gb 2-port 361T Adapter	652497-B21
HP Ethernet 1Gb 2-port 332T Adapter	615732-B21
HP Ethernet 1Gb 4-port 366T Adapter	811546-B21
10 Gigabit Ethernet adapters	
HP Ethernet 10Gb 2-port 560SFP+ Adapter	665249-B21
HP Ethernet 10Gb 2-port 530T Adapter	656596-B21
HP Ethernet 10Gb 2-port 530SFP Adapter	652503-B21
HP Ethernet 10Gb 2-port 561T Adapter	716591-B21
HP Ethernet 10Gb 2-port 546SFP+ Adapter	779793-B21
HP Ethernet 10Gb 2-port 557SFP+ Adapter	788995-B21
HPE Ethernet 10Gb 2-port 562SFP+ Adapter	727055-B21
25 Gigabit Ethernet adapters	

HPE Ethernet 10/25Gb 2-port 640SFP28 Adapter	817753-B21
HPE Ethernet 4x25Gb 1-port 620QSFP28 Adapter	817762-B21

NOTE: The ML350 Gen9 ships with 4x1Gb ports Embedded.

NOTE: Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately. Please see the related NIC QuickSpecs for Technical Specifications and additional information: http://www.hp.com/go/ProLiantNICs

Core Options

HPE InfiniBand	HP InfiniBand FDR 2-port 545QSFP Adapter	702211-B21
HPE Power	HPE Flex Slot Platinum Hot-plug Power supplies	
Supplies	HPE 500W Flex Slot Platinum Hot Plug Power Supply Kit	720478-B21
	HPE 800W Flex Slot Platinum Hot Plug Power Supply Kit	720479-B21
	HPE 1400W Flex Slot Platinum Plus Hot Plug Power Supply Kit	720620-B21
	HPE 800W Flex Slot -48VDC Hot Plug Power Supply Kit	720480-B21
	HPE 800W Flex Slot Titanium Hot Plug Power Supply Kit	720482-B21
	HPE 800W Flex Slot Universal Hot Plug Power Supply Kit	720484-B21
	HP ML350 Gen9 X4 RPS Enablement Kit NOTE: If Power supply selection quantity is more than two, then X4 RPS Enablement Kit must be selected (minimum Power Supply quantity selection to configure with X4 RPS Enablement Kit is three). NOTE: And this option is not supported with 720478-B21 (HPE 500W FS Plat Ht Plg Pwr Supply Kit). NOTE: If hard drive cage selection quantity is more than three, this X4 RPS Enablement Kit must be selected - to get proper quantity of HDD backplane power connectors. NOTE: If DW GPU card selection quantity is more than two, this X4 RPS Enablement Kit MUST be selected - in order to get proper quantity of GPU external power connectors.	802988-B21
HPE Computation and Graphics Accelerators	HP ML350 Gen9 Graphic Card Support Kit NOTE: One Graphic Card Support Kit- 726565-B21 is required for each	726565-B21
	computation or graphics accelerator except for K2200 or M2000. NVIDIA Tesla K40C 12GB Computational Accelerator NOTE: A maximum of four of these cards can be selected. Each requires one Graphic Card Support Kit (726565-B21). NOTE: If this SKU is selected then minimum quantity = 2 of 800W Power Supply Kit (725870-B21) must be selected.	753960-B21
	HP AMD FirePro W7100 Accelerator Kit NOTE: A maximum of four of these cards can be selected. Each requires one Graphic Card Support Kit (726565-B21).	JOH10A
	HPE NVIDIA Quadro M4000 Graphics Accelerator NOTE: A maximum of four of these cards can be selected. Each requires one Graphic Card Support Kit (726565-B21). NOTE: Only supported with E5-2600v4 processors.	M9X58A
	HP NVIDIA Quadro M5000 Graphics Accelerator NOTE: A maximum of four of these cards can be selected. Each requires one Graphic Card Support Kit (726565-B21). NOTE: Only supported with E5-2600v4 processors.	M9R60A
	HPE NVIDIA Quadro M2000 Graphics Accelerator	P8Y48A
	HPE NVIDIA Quadro P2000 Graphics Accelerator HPE NVIDIA Quadro P4000 Graphics Accelerator	Q0V77A Q0V78A
	NOTE: A maximum of four of these cards can be selected. NOTE: Only supported with E5-2600v4 processors.	

Core Options

NOTE: If more than two Double Wide Graphics options are selected, then HPE ML350 Gen9 X4 RPS Enablement Kit must be selected in order to get the third and fourth supporting power connectors to supply power to the GPU cards.

NOTE: Only the above listed Graphics cards are HPE standard supported options in this server.

NOTE: The NVIDIA Quadro modules are supported only on 64-bit versions of Linux and Windows operating systems as well as on Virtual Machine client operating systems. The supported bare metal operating systems are RHEL6, SLES 11 and Windows Server 2012 R2.

NOTE: Please see the HPE Power Advisor for estimated power consumption of your individual system configuration prior to installing GPUs. The HPE Power Advisor is located

at: http://www.hpe.com/info/hppoweradvisor.

NOTE: All GPU Accelerators are restricted to equal less than 1024GB for system HOST memory.

HPE Cooling Options

HP ML350 Gen9 Redundant Fan Kit

NOTE: This kit consists of four system fans and two PCIe air baffles.

725878-B21

NOTE: Some options may not be integrated at the factory. To ensure only valid configurations are ordered, Hewlett Packard Enterprise recommends the use of an HPE approved configurator. Contact your local sales representative for additional information

information.		
HPE Insight Software	HPE Insight Control	C/N27A
Jonware	HPE Insight Control including 1yr 24x7 Technical Support and Updates 1-server LTU	C6N27A
	HPE Insight Management Media Kit	C6N31A
Embedded	HPE iLO Advanced	
Management	HPE iLO Advanced including 3yr 24x7 Tech Support and Updates 1-server LTU	BD505A
	HPE iLO Advanced including 1yr 24x7 Technical Support and Updates E-LTU	E6U59ABE
	HPE iLO Advanced including 1yr 24x7 Technical Support and Updates 1-server LTU	512485-B21
	HPE iLO Advanced including 3yr 24x7 Technical Support and Updates E-LTU	E6U64ABE
HPE Converged	HPE OneView Advanced (with HPE iLO Advanced)	
Infrastructure	HPE OneView including 3yr 24x7 Support Physical 1-server LTU	E5Y34A
Management	HPE OneView including 3yr 24x7 Support Flexible Quantity E-LTU	E5Y35AAE
Software	HPE OneView Advanced (without HPE iLO Advanced)	
	HPE OneView w/o iLO including 3yr 24x7 Support 1-server LTU	P8B24A
	HPE OneView w/o iLO including 3yr 24x7 Support Flexible Quantity E-LTU	P8B26AAE
	HPE OneView Physical Media Kit LTU	E5Y37A
	NOTE: Full licenses of HPE OneView Advanced also provide the right-to-use	
	HPE Insight Control without additional charge.	
	NOTE: Server provisioning (via 'HPE Insight Control server provisioning') is	
	licensed as part of HPE OneView Advanced and provides multi-server OS and	
	driver provisioning. Media kit #BD883A can be ordered for a physical copy of	
	this software (USB flash drive).	
	NOTE: Licenses ship without media. The HPE OneView Media Kit can be	

ordered separately, or can be downloaded

at: http://www.hpe.com/info/hpeoneview

NOTE: HPE OneView 3.1 Advanced simplifies Lifecycle Operations with Proactive Insight and Automated Updates.

NOTE: HPE OneView delivers proactive insights into the health of your entire infrastructure. An intuitive dashboard provides an at-a-glance view of the status of your servers, storage pools and enclosures. Color-coded icons clearly show which systems are functioning properly and which ones need attention. **NOTE:** Integrated remote support automatically logs hardware failures with Hewlett Packard Enterprise support to speed problem resolution and accelerate parts or service technician dispatch.

High Performance HPE Cluster Management Utility Clusters HPE Insight Cluster Management I

HPE Insight Cluster Management Utility 1yr 24x7 Flexible LTU HPE Insight Cluster Management Utility 3yr 24x7 Flexible LTU

NOTE: These part numbers can be used to purchase one certificate for multiple licenses and support with a single activation key. Each license is for one node (server). Customer will receive a printed end user license agreement and license entitlement certificate via physical shipment. The license entitlement certificate must be redeemed online in order to obtain a license key. Customer also will receive a support agreement.

HPE Insight Cluster Management Utility Media

QL803B

BD476A

BD477A

HPE PCIe

Light Endurance (LE) PCIe Workload Accelerators

Workload Accelerator **Options**

HPE 5.2TB FH/HL Light Endurance (LE) PCIe Workload Accelerator

775672-B21

HPE Security HP Security Bezel Kit NOTE:NOTE: Rack model only. 660584-B21

HP Trusted Platform Module Option NOTE:NOTE: The HPE Trusted Platform Module Option (488069-B21) is the TPM 1.2 version. Compatible server platforms include Gen8 and Gen9 servers.

NOTE:NOTE: HPE server systems can have a TPM replaced with any other TPM module.

microcontroller chip that can securely store artifacts used to authenticate the server platform. These artifacts can include passwords, certificates and encryption keys. Windows® BitLocker™ Drive Encryption (BitLocker) is a data protection feature available in Windows Server® 2008. BitLocker leverages the enhanced security capabilities of a Trusted Platform Module (TPM) version 1.2. The TPM HP Trusted Platform Module 2.0 Kit ensure that a server running Windows Server 2008 has not been tampered with while the system was

NOTE: NOTE: ProLiant OS pre-installed units will come with the partition required for TPM deployment.

offline. For more information about TPM, go to:

ame=c04939549.

NOTE: NOTE: The TPM key is unique to every TPM deployed server and must be retained. Misplacing or losing the key could result in data loss. 488069-B21

HP Trusted Platform Module 2.0 Kit NOTE: NOTE: HPE Trusted Platform Module 2.0 Option works with Gen9 servers with UEFI Mode not Legacy Mode. It is not compatible with HPE ProLiant Gen8 servers or earlier generation variants. NOTE:NOTE: HPE Gen9 servers purchased earlier may need the latest firmware update to be compatible with the TPM 2.0 Option. NOTE:NOTE: HPE server systems can have a TPM module (of any type) installed only once. It cannot be replaced with any other TPM module.

HP Security Bezel Kit **NOTE:** Rack model only.

HP Trusted Platform Module Option

NOTE: The HPE Trusted Platform Module Option (488069-B21) is the TPM 1.2 version. Compatible server platforms include Gen8 and Gen9 servers.

NOTE: HPE server systems can have a TPM module (of any type) installed only once. It cannot be replaced with any other TPM module.

NOTE: The TPM (Trusted Platform Module) is a microcontroller chip that can securely store artifacts used to authenticate the server platform. These artifacts can include passwords, certificates and encryption keys. Windows® BitLocker™ Drive Encryption (BitLocker) is a data protection feature available in Windows module (of any type) installed only once. It cannot be Server® 2008. BitLocker leverages the enhanced security capabilities of a Trusted Platform Module (TPM) version 1.2. The TPM works with BitLocker to NOTE:NOTE: The TPM (Trusted Platform Module) is a help protect user data and to ensure that a server running Windows Server 2008 has not been tampered with while the system was offline. For more information about TPM, go

to: https://www.hpe.com/h20195/v2/gethtml.aspx?docname=c04939549.

NOTE: ProLiant OS pre-installed units will come with the partition required for TPM deployment.

NOTE: The TPM key is unique to every TPM deployed server and must be retained. Misplacing or losing the key could result in data loss.

works with BitLocker to help protect user data and to NOTE: HPE Trusted Platform Module 2.0 Option works with Gen9 servers with UEFI Mode not Legacy Mode. It is not compatible with HPE ProLiant Gen8 servers or earlier generation variants.

NOTE: HPE Gen9 servers purchased earlier may need the latest firmware https://www.hpe.com/h20195/v2/gethtml.aspx?docn update to be compatible with the TPM 2.0 Option.

NOTE: HPE server systems can have a TPM module (of any type) installed only once. It cannot be replaced with any other TPM module.

NOTE: ML350 Gen9 supports both TPM 1.2 (488069-B21) and TPM 2.0 (745823-B21). However, once the TPM version 1.2 is installed on the system board, it can no longer be upgraded to TPM version 2.0.

NOTE: A new TPM (1.2 or 2.0) can only be installed on a Gen9 server if there is no TPM already installed. Once a TPM is installed with the security rivet, it is not designed to be removed. This means that if a customer already has a TPM 1.2 module riveted down on their Gen9 server, they cannot remove it and change it to a TPM 2.0 module.

NOTE: For more information about TPM, go

to: https://www.hpe.com/h20195/v2/gethtml.aspx?docname=c04939549.

NOTE:NOTE: ML350 Gen9 supports both TPM 1.2 (488069-B21) and TPM 2.0 (745823-B21). However, once the TPM version 1.2 is installed on the system board, it can no longer be upgraded to TPM version 2.0.

NOTE:NOTE: A new TPM (1.2 or 2.0) can only be installed on a Gen9 server if there is no TPM already installed. Once a TPM is installed with the security rivet, it is not designed to be removed. This means that if a customer already has a TPM 1.2 module riveted down on their Gen9 server, they cannot remove it and change it to a TPM 2.0 module.

NOTE:NOTE: For more information about TPM, go to: https://www.hpe.com/h20195/v2/gethtml.aspx?docn ame=c04939549.

745823-B21

HPE Storage	SAS Controllers	
Controllers	HPE Flexible Smart Array Controllers	
	HP Smart Array P440ar/2GB FBWC 12Gb 2-ports Int SAS Controller	726736-B21
	NOTE: Provides support for up to 8 internal SAS/SATA drives without using a PCIe slot.	
	NOTE: Includes the HPE Smart Storage Battery.	
	HPE Smart Array Controllers	
	HP Smart Array P440/4GB FBWC 12Gb 1-port Int SAS Controller	726821-B21
	NOTE: Provides support for up to 8 internal SAS/SATA drives, consumes 1 PCle slot.	
	HP Smart Array P840/4GB FBWC 12Gb 2-ports Int SAS Controller	726897-B21
	HP Smart Array P441/4GB FBWC 12Gb 2-ports Ext SAS Controller	726825-B21
	HP Smart Array P841/4GB FBWC 12Gb 4-ports Ext SAS Controller	726903-B21
	HPE Smart Host Bus Adapters	
	HP H240ar 12Gb 2-ports Int Smart Host Bus Adapter	726757-B21
	NOTE: Provides support for up to 8 internal SAS/SATA drives without using a PCIe slot.	
	HP H240 12Gb 2-ports Int Smart Host Bus Adapter	726907-B21
	HP H241 12Gb 2-ports Ext Smart Host Bus Adapter	726911-B21
	Optional Upgrades	
	HP 12Gb SAS Expander Card for ML350 Gen9	769635-B21
	NOTE: The SAS Expander card supports 24 drives. The SAS Expander card	
	must be used in conjunction with an HPE Smart Array P440 or P840 controller,	
	or an H240 Host Bus Adapter. The SAS Expander card cannot be connected to	
	H240ar or P440ar Flexible Smart Array Controller (AROC) cards. The SAS	
	Expander kit includes two cables to connect from the Smart Array controller or HBA to the SAS Expander and the other to connect from the Expander to the	
	HDD backplane.	

NOTE: It DOES NOT support tape storage/ Disk-Based Backup device (RDX).	
HP ML350 Gen9 2nd Expander Card	811216-B21
NOTE: The ML350 Gen9 2nd Expander Card must be used in conjunction with	
ML350 Gen9 SAS Expander kit (769635-B21, see config. guideline described in	
above item), a 2nd processor kit, ML350 Gen9 x4 RPS enablement kit	
(802988-B21) and P840 controller. This configuration can support maximum	
48 drives in SFF chassis system.	
NOTE: This kit DOES NOT support tape storage or disk-based backup devices	
(RDX) either.	
HP 96W Smart Storage Battery with 145mm Cable for DL/ML/SL Servers	727258-B21
HPE SmartCache No Media 24x7 Technical Support 1-server LTU	D7S26A
HPE SmartCache No Media 24x7 Technical Support Flexible LTU	D7S27A
HPE SmartCache No Media 24x7 Technical Support E-LTU	D7S27AAE
HPE Cable Options	
HP ML350 Gen9 Flexible Smart Array Controller Mini-SAS Cable Kit	765652-B21
NOTE: Mini-SAS Cable Kit for Flexible Smart Array (AROC) Controller.	
HP ML350 Gen9 Smart Array Cable Kit	765650-B21
NOTE: Mini-SAS Cable Kit for stand-up P-series Smart Array Card.	
HP ML350 Gen9 Host Bus Adapter Mini-SAS Cable Kit	765648-B21
NOTE: Mini-SAS Cable kit for Host Bus Adapter.	

HPE Tape Backup

NOTE: For the complete range of tape drives, autoloaders, libraries and media see: http://www.hp.com/go/tape. For hardware and software compatibility of Hewlett Packard Enterprise tape backup products see: http://www.hp.com/storage/SPOCK and http://www.hp.com/go/ebs.

Tape Drives

- ap	
HPE StoreEver LTO-4 Ultrium 1760 SAS External Tape Drive	EH920B
HPE StoreEver LTO-4 Ultrium 1760 SAS Internal WW Tape Drive	EH919B
HPE StoreEver LTO-5 Ultrium 3000 SAS External Tape Drive	EH958B
HPE StoreEver LTO-5 Ultrium 3000 SAS Internal Tape Drive	EH957B
HPE StoreEver LTO-5 Ultrium 3000 SAS Tape Drive in a 1U Rack Mount Kit	EJ014B
HPE StoreEver LTO-6 Ultrium 6250 External Tape Drive	EH970A
HPE StoreEver LTO-6 Ultrium 6250 Internal Tape Drive	EH969A
HPE StoreEver 1/8 G2 LTO-6 Ultrium 6250 Fibre Channel Tape Autoloader	COH19A
HPE StoreEver LTO-6 Ultrium 6250 Tape Drive in a 1U Rack Mount Kit	COL99A
HPE StoreEver Mini-SAS High Density to 4-lane Mini-SAS External Fanout 2m Cable	K2R09A
HPE StoreEver Mini-SAS High Density to 4-lane Mini-SAS External Fanout 4m Cable	K2R10A
HPE StoreEver LTO-7 Ultrium 15000 Internal Tape Drive	BB873A
HPE StoreEver LTO-7 Ultrium 15000 External Tape Drive	BB874A
HPE Tape Storage Systems	
HPE StoreEver MSL6480	
HPE StoreEver MSL6480 Scaleable Expansion Module	QU626A
NOTE: Please see the HPE StoreEver MSL6480 Tape Library QuickSpecs for	
Technical Specifications and additional information.	
HPE StoreEver MSL6480 Scalable Base Module	QU625A
HPE StoreEver MSL2024 0-drive Tape Library	AK379A
HPE StoreEver MSL4048 0-drive Tape Library	AK381A

HPE Disk Backup	HPE RDX Removable Disk Backup Systems USB	D7D//A
	HPE RDX500 USB3.0 Internal Disk Backup System	B7B64A
	HPE RDX1000 USB3.0 Internal Disk Backup System	B7B67A
	HPE RDX 2TB USB3.0 Internal Disk Backup System	E7X52A
	HP RDX+ 500GB External Backup System	B7B66B
	HP RDX+ 1TB External Backup System	B7B69B
	HP RDX 2TB USB3.0 External Disk Backup System	E7X53B
	HPE RDX+ External Docking System	C8S07B
	HPE RDX USB 3.0 Internal Docking Station	C8S06A
	HPE RDX 3TB USB 3.0 Internal Disk Backup System	P9L71A
	HPE RDX+ 3TB USB 3.0 External Disk Backup System	P9L72A
	NOTE: For the complete range of RDX drives and media see: http://www.hp.com/g and software compatibility of HPE disk backup products see: http://www.hp.com/s	
HPE Storage	NOTE: The following is a list of all Fibre Channel Host Bus Adapters for Windows an	nd Linux. For detailed
Options	compatibility information please	
	see: http://h18006.www1.hp.com/storage/saninfrastructure/hba.html	
	Emulex Fibre Channel HBAs	A 17/2D
	HPE 81E 8Gb 1-port PCIe Fibre Channel Host Bus Adapter	AJ762B
	HPE 82E 8Gb 2-port PCIe Fibre Channel Host Bus Adapter	AJ763B
	HPE StoreFabric SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter	C8R38A
	HPE StoreFabric SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter	C8R39A
	HPE StoreFabric SN1600E 32Gb Single Port Fibre Channel Host Bus Adapter	QOL11A
	HPE StoreFabric SN1600E 32Gb Dual Port Fibre Channel Host Bus Adapter	QOL12A
	HPE StoreFabric SN1200E 16Gb Single Port Fibre Channel Host Bus Adapter	Q0L13A
	HPE StoreFabric SN1200E 16Gb Dual Port Fibre Channel Host Bus Adapter	Q0L14A
	QLogic Fibre Channel HBAs	
	HPE 81Q 8Gb 1-port PCle Fibre Channel Host Bus Adapter	AK344A
	HPE 82Q 8Gb 2-port PCle Fibre Channel Host Bus Adapter	AJ764A
	HPE StoreFabric SN1000Q 16GB 1-port PCle Fibre Channel Host Bus Adapter	QW971A
	HPE StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter	QW972A
	HPE StoreFabric 84Q 4-port 8Gb Fibre Channel Host Bus Adapter	P9D91A
	HPE StoreFabric SN1100Q 16Gb Single Port Fibre Channel Host Bus Adapter	P9D93A
	HPE StoreFabric SN1100Q 16Gb Dual Port Fibre Channel Host Bus Adapter	P9D94A
	HPE StoreFabric SN1600Q 32Gb Single Port Fibre Channel Host Bus Adapter	P9M75A
	HPE StoreFabric SN1600Q 32Gb Dual Port Fibre Channel Host Bus Adapter	P9M76A
	Converged Network Adapter	
	HPE StoreFabric CN1100R Dual Port Converged Network Adapter	QW990A
	HPE StoreFabric CN1200E 10Gb Converged Network Adapter	E7Y06A
	HPE StoreFabric CN1100R 10GBASE-T Dual Port Converged Network Adapter	N3U52A
	HPE StoreFabric CN1200E 10GBASE-T Dual Port Converged Network Adapter	N3U51A
HPE Data Center	HPE Advanced Series Racks	11/1074
Racks	HPE 11648 1075mm Pallet Universal Rack	H6J87A
	HPE 11648 1075mm Shock Universal Rack	H6J88A
	HPE 11642 1075mm Pallet Universal Rack	H6J65A
	HPE 11642 1075mm Shock Universal Rack	H6J66A
	HPE 11642 1200mm Pallet Universal Rack	H6J67A
	HPE 11642 1200mm Shock Universal Rack	H6J68A
	HPE 11636 1075mm Pallet Universal Rack	H6J77A

	UDE 44/7/407E - CL LIL: LD	11/1704
	HPE 11636 1075mm Shock Universal Rack	H6J78A
	HPE 11622 G2 1075mm Pallet Universal Rack	H6J83A
	HPE 11622 G2 1075mm Shock Universal Rack	H6J84A
	HPE 11614 1075mm Shock Universal Rack	H6J82A
	NOTE: Please see the HPE Advanced Series Racks QuickSpecs for information	
	on additional racks options and rack specifications.	
	HPE Enterprise Series Racks	5,1,044
	HPE 647 1075mm Pallet Intelligent Series Rack	BW911A
	HPE 647 1075mm Shock Intelligent Series Rack	BW912A
	HPE 647 1200mm Pallet Intelligent Series Rack	BW913A
	HPE 647 1200mm Shock Intelligent Series Rack	BW914A
	HPE 642 1075mm Pallet Intelligent Series Rack	BW903A
	HPE 642 1075mm Shock Intelligent Series Rack	BW904A
	HPE 642 1200mm Pallet Intelligent Series Rack	BW907A
	HPE 642 1200mm Shock Intelligent Series Rack	BW908A
	HPE 636 1075mm Pallet Intelligent Series Rack	BW895A
	HPE 636 1075mm Shock Intelligent Series Rack	BW896A
	HPE 842 1075mm Pallet Intelligent Series Rack	BW917A
	HPE 842 1075mm Shock Intelligent Series Rack	BW918A
	NOTE: Please see the HPE Enterprise Series Racks QuickSpecs for information	
	on additional racks options and rack specifications.	
HPE Power	HPE Metered Power Distribution Units (PDU)	
Distribution Units	HPE Metered 2.8kVA/L5-30P 24A/120V Outlets (12) 5-20R/Horizontal NA/JP	D9N43A
(PDUs)	PDU	
	HPE Metered 3.6kVA/60320 C20 Detachable 16A/230V Outlets (16) C13/Vertical WW PDU	D9N45A
	HPE Metered 4.9kVA/L6-30P 24A/208V Outlets (20) C13 (4) C19/Vertical NA/JP PDU	D9N47A
	HPE Metered 3Ph 17.3kVA/60309 60A 4-wire 48A/208V Outlets (12) C13 (12) C19/Vertical NA/JP PDU	D9N59A
	NOTE: Please see the HPE Metered Power Distribution Units (PDU) QuickSpecs for information on additional options and product specifications.	
	HPE Intelligent Power Distribution Unit (PDU)	
	HPE Intelligent Modular 4.9kVA/L6-30P 24A/208V Outlets (6) C19/Horizontal NA/JP PDU	AF520A
	HPE Intelligent Modular 8.3kVA/CS8265C 40A/208V Outlets (6) C19/Horizontal NA/JP PDU	AF521A
	HPE Intelligent Modular 3Ph 8.6kVA/L15-30P 24A/208V Outlets (6) C19/Horizontal NA/JP PDU	AF522A
	HPE Intelligent Modular 3Ph 17.3kVA/60309 60A 4-wire 48A/208V (6) C19/Horizontal NA/JP PDU	AF523A
	HPE Intelligent Modular 3Ph 17.3kVA/IEC 60309 60A 4-wire 48A/208V (12) C19/Horizontal NA/JP PDU	AF535A
		455744
	HPE Intelligent Modular 4.9kVA/L6-30P 24A/208V Outlets (20) C13 (6) C19/Horizontal NA/JP PDU	AF531A
		AF531A AF532A
	C19/Horizontal NA/JP PDU HPE Intelligent Modular 3Ph 8.6kVA/L15-30P 24A/208V Outlets (20) C13 (6)	

Services

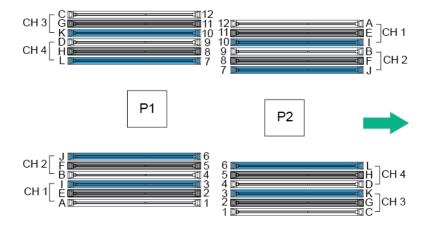
Additional Options

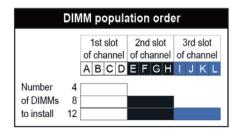
HPE Rack Mount	Rack location options	
Consoles, KVM	HP ML350 Gen9 System Insight Display Kit	726563-B21
Switches, and	HPE 36U Location Discovery Kit	BW945A
Keyboards	HPE 42U Location Discovery Kit	BW946A
	HPE 47U Location Discovery Kit	BW947A
	HPE Location Discovery Services LCD8500 Kit	TL052A
	Rail Kits	
	HP ML350 Gen9 Tower to Rack Conversion Kit	726567-B21
	NOTE: For converting a tower model to a rack model. It is consist of a 5U rail kit,	
	cable management arm (CMA) and rack enablement kit (rack ear, rack handle,	
	SID blank etc.).	
	HPE Rack Mount Consoles	. = . = .
	HP LCD8500 1U US Rackmount Console Kit	AF630A
	HP LCD8500 1U US TAA Rackmount Console Kit	AF645A
	HPE KVM Switches	
	NOTE: To learn more, please visit the HPE KVM Switches web page.	
	HP 1x1Ex8 KVM IP Console Switch G2 with Virtual Media CAC Software	AF620A
	HP 2x1Ex16 KVM IP Console Switch G2 with Virtual Media CAC Software	AF621A
	HP 0x2x16 KVM Server Console Switch G2 with Virtual Media CAC Software	AF618A
	HP 1x4 USB/PS2 KVM Console Switch	AF611A
	HP 0x2x32 KVM Server Console Switch G2 with Virtual Media CAC Software	AF619A
	HP 4x1Ex32 KVM IP Console Switch G2 with Virtual Media CAC Software	AF622A
	HP KVM Console USB Interface Adapter	AF628A
	HP KVM Console USB 2.0 Virtual Media CAC Interface Adapter	AF629A
	HP USB Remote Access Key for G3 KVM Console Switches	AF650A
	HP 0x1x8 G3 KVM Console Switch	AF651A
	HP 0x2x16 G3 KVM Console Switch	AF652A
	HP TAA 0x2x16 G3 KVM Console Switch	AF653A
	HPE USB Keyboard and Mouse	
	HP USB BFR with PVC Free US Keyboard/Mouse Kit	631341-B21
	NOTE: Please see the HPE USB Keyboard and Mouse QuickSpecs	
	for information on additional options and product specifications.	
HPE Uninterruptil	ole HPE Tower UPS	
Power Systems	HPE T750 G4 NA/JP Uninterruptible Power System	J2P85A
(UPS)	HPE T1000 G4 NA/JP Uninterruptible Power System	J2P86A
	HPE T1500 G4 NA/JP Uninterruptible Power System	J2P87A
	HPE R5000 3U L630 High Voltage NA/JP Uninterruptible Power System	AF460A
	HPE Rack-mountable UPS	
	HPE R7000 4U 50A High Voltage NA/JP Uninterruptible Power System	AF462A
	NOTE: To learn more, please visit the HPE Uninterruptible Power Systems (UPS)	
UDE UCD 4 CD		
HPE USB and SD	HPE 32GB microSD Mainstream Flash Media Kit	700139-B21
Options	HPE 8GB microSD Enterprise Mainstream Flash Media Kit	726116-B21
	HP 8GB USB Enterprise Mainstream Flash Media Drive Key Kit	737953-B21
	HP Dual 8GB microSD Enterprise Midline USB Kit	741279-B21
HPE Support	Installation & Start-up Services	
Sorvices		

Page 46

HPE Install ProLiant ML350(p) Service	U4522E
HPE Installation and Startup ML350(p) Service	U4523E
Proactive Care	
HPE 3 year Proactive Care 24x7 ML350 Gen9 Service	U7BG4E
HPE 3 year Proactive Care Call to Repair ML350 Gen9 Service	U7BH0E
HPE 3 year Proactive Care 24x7 with DMR ML350 Gen9 Service	U7BG5E
HPE 3 year Proactive Care 24x7 with CDMR ML350 Gen9 Service	U7BG6E
HPE 3 year Proactive Care Call to Repair 24x7 with DMR ML350 Gen9 Service	U7BH1E
HPE 3 year Proactive Care Call to Repair with CDMR ML350 Gen9 Service	U7BH2E

Memory Population guidelines





General Memory Population Rules and Guidelines:

- . A minimum of one DIMM is required per server.
- . White DIMM slots denote the first slot to be populated in a channel.
- . 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.
- . Place the DIMMs with the highest number of ranks in the white slot when mixing DIMMs of different ranks on the same channel.
- . Do not mix RDIMMs or LRDIMMs.
- . Quad rank RDIMMs are not supported in HPE ProLiant ML350 Gen9 servers.
- . Quad rank LRDIMMs are capable of up to three DIMMs per channel.
- . RDIMMs operating at 1.2V
- . 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.
- . To realize the performance memory capabilities listed in this document, HPE SmartMemory is required. For additional information, please see the HPE SmartMemory QuickSpecs

at: https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04111535.

- . For memory population rules and additional memory guidelines, please see the ML350 Gen9 user guide at https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04431235
- . There are four (4) channels per processor; eight (8) channels per server. There are three (3) DIMM slots for each memory channel; twenty-four (24) total slots Memory channels 1 and 3 consists of the

- three (3) DIMMs that are furthest from the processor Memory channel 2 and 4 consists of the three (3) DIMMs that are closest to the processor
- . All GPU Accelerators are restricted to equal less than 1024GB for system HOST memory.

Intel Gen9 Supported Memory Bandwidth for HPE ProLiant Gen9 Intel® Xeon® E5-2600v3 Series Processor Family

Memory Bandwidth	and Capacity	у							
[DIMM Type]		Registered DIMMs (RDIMMs)					Load Reduced (LRDIMMs)		
HPE SKU P/N	726717- B21	726718- B21	759934- B21	726719- B21	728629- B21	726720- B21	726722- B21	726724- B21	
DIMM Rank	Single Rank	Single Rank	Dual Rank	Dual Rank	Dual Rank	Dual Rank	Quad Rank	Quad Rank	
DIMM Capacity	4GB	8GB	8GB	16GB	32GB	16GB	32GB	64GB	
Voltage	Std Voltage 1.2V	Std Voltage 1.2V	Std Voltage 1.2V	Std Voltage 1.2V	Std Voltage 1.2V	Std Voltage 1.2V	Std Voltage 1.2V	Std Voltage 1.2V	
DRAM Depth [bit]	512M	1G	512M	1G	1G	2G	2G	2G	
DRAM Width [bit]	x8	x4	x8	х4	х4	x4	х4	x4	
DRAM Density	4Gb	4Gb	4Gb	4Gb	4Gb	8Gb	8Gb	8Gb	
CAS Latency	15-15-15	15-15-15	15-15-15	15-15-15	15-15-15	15-15-15	15-15-15	15-15-15	
DIMM Native Speed (MT/s)	2133	2133	2133	2133	2133	2133	2133	2133	
SLOTS THAT CAN	BE POPULAT	ED	•			•	•	•	
24 slot servers	24	24	24	24	24	24	24	24	
MAXIMUM CAPACI	TY (GB)	•	•			•		•	
	96	192	192	384	768	384	768	1536	
POPULATED DIMM	SPEED (MT/	s)		l	l				
1 DIMM Per Channel	2133	2133	2133	2133	2133	2133	2133	2133	
2 DIMM Per Channel	2133	2133	2133	2133	2133	2133	2133	2133	
3 DIMM Per Channel	1600	1600	1600	1600	1866	1600	1866	1866	

Intel Gen9 Supported Memory Bandwidth for HPE ProLiant Gen9 Intel® Xeon® E5-2600v4 Series Processor Family

Memory Bandwidth and Capacity								
[DIMM Type]	Registered DIMMs (RDIMMs)			IMM Type] Registered DIMMs (RDIMMs) Lo		Load	Reduced (LRD	IMMs)
HPE SKU P/N	805347-B21	805349-B21	836220-B21	805351-B21	805353-B21	805358-B21	809208-B21	
DIMM Rank	Single Rank	Single Rank	Dual Rank	Dual Rank	Dual Rank	Quad Rank	Octal Rank	
DIMM Capacity	8GB	16GB	16GB	32GB	32GB	64GB	128GB	

Voltage	Std Voltage 1.2V						
DRAM Depth [bit]	1G	2G	1G	2G	2G	2G	2G
DRAM Width [bit]	x8	x4	x4	x4	x4	x4	x4
DRAM Density	8Gb	8Gb	4Gb	8Gb	8Gb	8Gb	8Gb
CAS Latency	17-17-17	17-17-17	17-17-17	17-17-17	17-17-17	17-17-17	20-18-18
DIMM Native Speed (MT/s)	2400	2400	2400	2400	2400	2400	2400
SLOTS THAT CAN BE	POPULATED						
24 slot servers	24	24	24	24	24	24	24
MAXIMUM CAPACITY	(GB)						
	192	384	384	768	768	1536	3072
POPULATED DIMM SF	PEED (MT/s)						
1 DIMM Per Channel	2400	2400	2400	2400	2400	2400	2400
2 DIMM Per Channel	2133	2133	2400	2400	2400	2400	2400
3 DIMM Per Channel	1866	1866	1866	1866	2133	2133	2133

DIMM slot and configuration diagram

DIMM slot and configuration diagrams

- \bullet Population order; start with "A" first, "B" second, "C" third, etc.
- When one processor is installed, install DIMMs in sequential alphabetic order: A, B, C, D, E, F.
- When two processors are installed, install DIMMs in sequential alphabetic order: CPU1-A, CPU2-A,CPU1-B,CPU2-B,CPU1-C, CP2-C

		CPU 1		CPU 2		
	Slot #	population order	Slot#	Slot # population order		
Chnl 1	1	А	1	С		Chnl 4
	2	Е	2	G		1
	3		3	K		<u>l</u>
		CPU 1		CPU 2		
	Slot #	population order	Slot#	oopulation order		
Chnl 2	4	В	4	D		Chnl 3
	5	F	5	Н		1
	6	J	6	L		
		CPU 1		CPU 2		
	Slot #	population order	Slot#	oopulation order		
Chnl 3	7	L	7	J		Chnl 2
	8	Н	8	F		1
	9	D	9	В		

	CPU 1			CPU 2	
	Slot #	population order	Slot#	population order	
Chnl 4	10	K	10	l.	Chnl 1
	11	G	11	E	
	12	С	12	A	

Memory Speed by Processor Model

Processor Models	Supported Memory Speeds
E5-2609v3, E5-2603v3	1600MT/s
E5-2640v3, E5-2630v3, E5-2620v3, E5-2630Lv3, E5-2623v3	.1866MT/s
E5-2637v3, E5-2690v3, E5-2680v3, E5-2670v3, E5-2660v3, E5-2650v3, E5-2650Lv3, E5-2697v3, E5-2695v3, E5-2667v3, E5-2643v3, E5-2683v3, E5-2699v3, E5-2698v3	·
E5-2609v4, E5-2603v4	1866MT/s
E5-2630Lv4, E5-2620v4, E5-2623v4, E5-2640v4, E5-2630v4	,2133MT/s
E5-2650Lv4, E5-2643v4, E5-2637v4, E5-2690v4, E5-2680v4, E5-2660v4, E5-2650v4, E5-2697v4, E5-2695v4, E5-2697v4, E5-2698v4, E5-2697v4, E5-2698v4, E5-2697Av4	2400MT/s

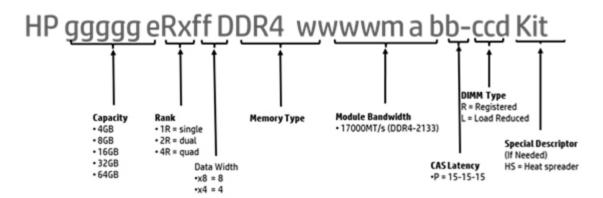
Standard and Maximum Memory Capacity (Preconfigured Models)

Pre Configured Models	Standard Memory	Maximum Memory Plus Optional Memory	Standard Memory Replaced with Optional Memory
E5-2650v4, E5-2650v3, E5-2630v4, E5-2630v4	32GB (2x16GB)	736GB (22x32GB, 2x16GB)	1536GB (24x64GB)
E5-2620v4, E5-2620v3	16GB (1x16GB)	752GB (23x32GB, 1x16GB)	1536GB (24x64GB)
E5-2609v4, E5-2609v3	8GB (1x8GB)	744GB (23x32GB, 1x8GB)	1536GB (24x64GB)

DDR4 memory options part number decoder

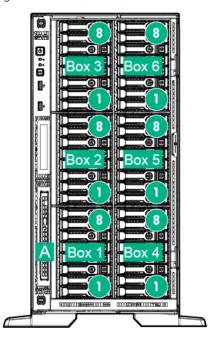
NOTE: Capacity references are rounded to the common gigabyte (GB) values.

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



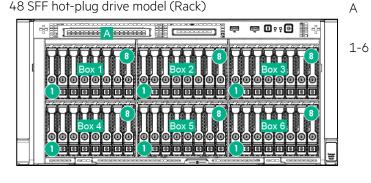
Storage

48 SFF hot-plug drive model (Tower)



- Optional Slim DVD-ROM/DVD-RW Α
- 1-6 8 x SFF SATA/SAS/SSD Hot Pluggable Hard Drive Bays

48 SFF hot-plug drive model (Rack)



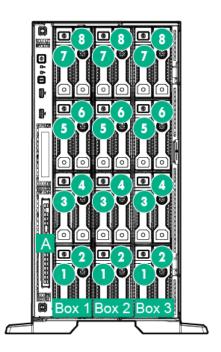
Optional Slim DVD-ROM/DVD-RW

8 x SFF SATA/SAS/SSD Hot Pluggable Hard Drive Bays

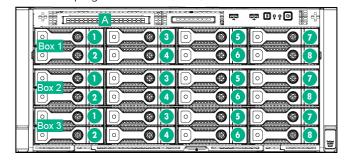
24 LFF hot-plug drive model (Tower)

- Α Optional Slim DVD-ROM/DVD-RW
- 1-3 8 x LFF SATA/SAS/SSD Hot Pluggable Hard Drive Bays

Storage



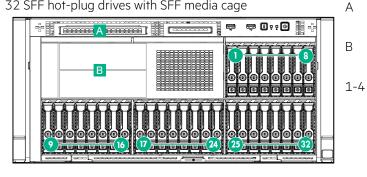
24 LFF hot-plug drive model (Rack)



Α Optional Slim DVD-ROM/DVD-RW

8 x LFF SATA/SAS/SSD Hot Pluggable Hard Drive Bays

32 SFF hot-plug drives with SFF media cage



Optional Slim DVD-ROM/DVD-RW

SFF Media Cage

Remark: Support up to 2 RDX or Tape devices.

8 x SFF SATA/SAS/SSD Hot Pluggable Hard Drive

Bays

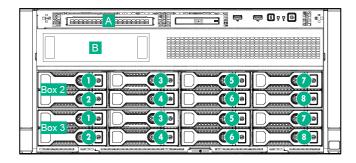
1-3

Image shown a ML350 Gen9 Rack model

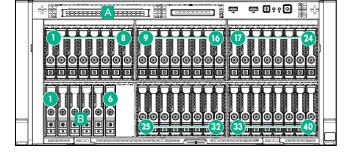
- 16 LFF hot-plug drives with LFF media cage
- Α Optional Slim DVD-ROM/DVD-RW
- В LFF Media Cage
- 1-2 8 x LFF SATA/SAS/SSD Hot Pluggable Hard Drive Bays

Image shown a ML350 Gen9 Rack model

Storage



40 SFF hot-plug drives with 6 SFF NVMe SSD



Optional Slim DVD-ROM/DVD-RW

1 SFF Express Bay to support 6 x SFF PCIe NVMe SSDs

1-5 8 x SFF SATA/SAS/SSD Hot Pluggable Hard Drive Bays

Image shown a ML350 Gen9 Rack model

NOTE: For additional storage configuration guidelines, please see the ML350 Gen9 user guide

at https://www.hpe.com/h20195/v2/GetHTML.aspx?docname=c04431235

NOTE: For maximum storage capacity information with different types of drives installation, refer to the "Standard Features" section in this document.

Α

В

NOTE: For drive options and part numbers supported by ML350 Gen9, refer to the "Core Options" section in this document. **NOTE:** For controller options and part numbers supported by ML350 Gen9, refer to the "Additional Options" section in this document.

System Unit Tower 18.27(H) x 8.62(W) x 30.28(D) in (46.4 x 21.9 x 76.9 cm)

Dimensions

Rack Dimensions 8.58(H) x 17.51(W) x 29.37(D) in (21.8 x 44.5 x 74.6 cm)

Tower Weight Minimum: 66.14lb(30kg)

> Maximum: 121.30lb (55kg)

Rack Weight 57.3lb(26kg) Minimum:

112.4lb(51kg) Maximum:

Input Range Line 100 to 120 VAC Requirements Voltage 200 to 240 VAC

BTU Rating Maximum For 1400W Power Supply: 5459 BTU/hr (at 200 VAC), 5459

BTU/hr (at 240 VAC), 5459 BTU/hr (at 240 VAC) for China

Only

For 800W Power Supply: 3207 BTU/hr (at 100 VAC), 3071 BTU/hr (at 200 VAC), 3112 BTU/hr (at 240 VAC) for China

For 500W Power Supply: 1979 BTU/hr (at 100 VAC), 1911 BTU/hr (at 200 VAC), 1965 BTU/hr (at 240 VAC) for China

Power Supply Output

Rated Steady-State Power

For 1400W Power Supply: 1400W (at 240 VAC), 1400W (at

240 VAC)

For 800W Power Supply: 800W (at 100 VAC), 800W (at 240

VAC), 800W (at 240 VAC) input for China only

For 500W Power Supply: 500W (at 100 VAC), 500W (at 240

VAC), 500W (at 240 VAC) input for China only

Maximum Peak

Power

For 1400W Power Supply: 1400W (at 200 to 240 1VAC).

1400W (at 240 VAC) input for China only

For 800W Power Supply: 800W (at 100 to 127 VAC), 800W (at 200 to 240 1VAC), 800W (at 240 VAC) input for China

only

For 500W Power Supply: 500W (at 100 to 127 VAC), 500W (at 200 to 240 VAC), 500W (at 240 VAC) input for China only

System Inlet **Temperature** Standard

10° to 35°C (50° to 95°F) at sea level with an altitude derating Operating Support 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. For approved hardware

configurations, the supported system inlet range is extended to be: 5° to 40°C (41° to 104°F) at sea level with an altitude derating of 1.0°C per every 175 m (1.8°F per every 574 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL: http://www.hpe.com/servers/ashrae. For approved hardware configurations, the supported system inlet range is extended to be: 5° to 45°C (41° to 113°F) at sea level with an altitude derating of 1.0°C per every 125 m (1.8°F per every 410 ft) above 900 m (2953 ft) to a maximum of 3050 m

(10,000 ft). The approved hardware configurations for this

system are listed at the

URL: http://www.hpe.com/servers/ashrae.

-30° to 60°C (-22° to 140°F). Maximum rate of change is Non-operating

20°C/hr (36°F/hr).

Relative Operating Minimum to be the higher (more moisture) of -12°C (10.4°F) **Humidity**

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 5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet

bulb temperature, non-condensing.

Altitude 3050 m (10,000 ft). This value may be limited by the type and Operating

number of options installed. Maximum allowable altitude change

rate is 457 m/min (1500 ft/min).

9144 m (30,000 ft). Maximum allowable altitude change rate is Non-operating

457 m/min (1500 ft/min).

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 3.6 Bels (1P LFF Entry)

3.5 Bels (1P SFF Base)

3.6 Bels (2P SFF E-star Rack) 3.4 Bels (2P SFF E-star Tower)

L pAm 21 dBA (1P LFF Entry)

> 21 dBA (1P SFF Base) 20 dBA (2P SFF E-star Rack) 19 dBA (2P SFF E-star Tower)

Operating

L WAd 3.7 Bels (1P LFF Entry)

3.6 Bels (1P SFF Base)

4.5 Bels (2P SFF E-star Rack) 4.5 Bels (2P SFF E-star Rack)

L pAm 21 dBA (1P LFF Entry)

> 22 dBA (1P SFF Entry) 28 dBA (2P SFF E-star Rack) 28 dBA (2P SFF E-star Tower)

NOTE: Configurations tested for 1P LFF Entry models included two (2) 500GB

LFF SATA Midline HDD and Windows 2012 Enterprise 64-bit.

NOTE: Configurations tested for 1P and 2P SFF models included two (2) 500GB

SFF SATA Midline HDD and Windows 2012 Enterprise 64-bit.

NOTE: The Listed sound levels apply to standard shipping configurations.

Additional options may result in increased sound levels.

Emissions Classification FCC Rating Class A

Normative CISPR 22; EN55022; EN55024; FCC CFR 47, Pt 15; ICES-003; Standards

CNS13438; GB9254; 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.

HPE Dynamic Smart Array B140i links Controller

Number of PCI

PCI link rate

Four

4Gb/s

Storage protocol SATA

support

SAS/SATA peak 6Gb/s

data transfer

rate

Number of 10 links

SAS/SATA links

2x4 connectors; 2x1 connectors SAS/SATA

connectivity **Expander** No

support

Drives supported Up to 10 Internal Drives

(max)

0, 1, 10, 5 SATA **RAID** support HPE SSA, SMH, SIM Software

management

Warranty Server warranty **HPE Secure** Not Supported

Encryption license

HPE SmartCache Not Supported

License

HPE Smart

Supported

Storage **Administrator**

HPE Ethernet 1Gb Network 4-port 331i

Adapter

Interface

10Base-T/100Base-TX/1000Base-TX

Compatibility IEEE 802.3 10Base-T

> IEEE 802.3ab 1000Base-T IEEE 802.3u 100Base-TX

Method

Data Transfer PCI Express, two lanes (x2)

Controller BCM5719 **Network** 10Base-T (Half-

Transfer Rate Duplex) 10 Mb/s per port, 40 Mb/s combined

10Base-T (Full-

Duplex) 20 Mb/s per port, 80 Mb/s combined

100Base-TX (Half-

100 Mb/s per port, 400 Mb/s combined Duplex)

100Base-TX (Full-

Duplex) 200 Mb/s per port, 800 Mb/s combined

100Base-TX (Half-

Duplex) 1000 Mb/s per port, 4000 Mb/s combined

100Base-TX (Full-

2000 Mb/s per port, 8000 Mb/s combined Duplex)

RJ-45 Connector

Cable Support Categories 3, 4 or 5 UTP; up to 328 ft (100 m) 10 Base-T

10/100/1000 Base-TX Category 5 or higher UTP; up to 328 ft (100 m)

Environmentfriendly Products and Approach

End-of-life Management and Recycling

Hewlett Packard Enterprise offers end-of-life product return, trade-in, and recycling programs, in many geographic areas, for our products. Products returned to Hewlett Packard Enterprise will be recycled, recovered or disposed of in a responsible manner.

http://www.hpe.com/recycle

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. 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.

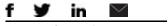
http://www.hpe.com/recycle

Date	Version History	Action	Description of Change
23-Oct-2017	From Version 28 to 29	Changed	Care Pack naming and Service and Support- Parts and Materials updated.
25-Sep-2017	From Version 27 to 28	Added	Added new Solid State Drives offering to the HPE Drives section.
		Changed	Core Options section was revised.
7-Aug-2017	From Version 26 to 27	Added	Added new Solid State Drives offering to the HPE Drives section.
11-July-2017	From Version 25 to 26	Added	Added support for HPE OneView 3.1 and new GPU offering.
5-Jun-2017	From Version 24 to 25	Added	Added new HPE Digitally Signed (DS) Firmware Solid State Drive and Hard Disk Drive options.
8-May-2017	From Version 23 to 24	Added	Added support for ClearOS.
·		Changed	Operating Systems and Virtualization Software Support for ProLiant Servers and HPE Drives were revised.
		Removed	Obsolete SKUs were removed from the QuickSpecs.
27-Mar-2017	From Version 22 to 23	Added	Added new Hard Drives.
13-Feb-2017	From Version 21 to 22	Added	Added new HDD and SSD offering to the HPE Drives section.
		Changed	HPE StoreVirtual VSA content was revised.
28-Nov-2016	From Version 20 to 21	Added	Added new Hard Drives offering.
		Changed	Maximum Internal Storage and HPE Storage Options were revised.
		Removed	Obsolete SKUs were removed from the QuickSpecs.
28-Oct-2016	From version 19 to version 20	Removed	Obsolete Hard Drives were removed from the QuickSpecs.
26-Sep-2016	From Version 18 to 19	Added	Added new SATA & SAS LFF HDD offering and 16Gb/32Gb FC HBAs. Added new 128GB LRDIMM memory.
		Changed	Standard features was revised to reflect the system support with the new option offering eg. 128GB DIMM, max memory capacity 3TB, etc. What's new and memory table were updated.
15-Aug-2016	From Version 17 to 18	Added	Added new Networking and Storage option offering.
		Changed	PCIe expansion slot 5 support revised to support FH/HL cards in Standard Features section.
		Removed	Removed K4200 & K5200 from the Computation and Graphics Accelerators section along with a few PCIe workload accelerators for option EOL.
24-Jun-2016	From Version 16 to 17	Changed	Expansion Slot 5 under the Standard Features section was revised.
6-Jun-2016	From Version 15 to 16	Added	New option offering incl. NVIDIA Quadro M2000, 340GB M.2 kits, LTO-7, new HDD options, dual 32GB micro-SD USB kit, RDX 3TB.
		Changed	Updated 2400MHz memory table in the Standard Features section. Updated memory speed, memory configuration guidelines in the memory section. Added notes to the storage section.

		Removed	Removed EOL drive options.
22-Apr-2016	From Version 14 to 15	Changed	Part numbers for the E5-2600v4 Smart Buy Models in the NA version were revised.
8-Apr-2016	From version 13 to 14	Changed	HPE Processors section was revised.
31-Mar-2016	From version 12 to 13	Added	New E5-2600 v4 CPU, new 2400MHz DIMM, new M4000 & M5000 GPU, new networking cards, TPM2.0 and new drives added. Added mechanical features for HW security: padlock, Kensington lock. Added new E5-2600 v4 BTO SKUs.
		Changed	Internal Storage Devices, Upgradeability, Embedded Management, Service and Support, Pre- configured Models, HPE Security, HPE Tape Backup, and Memory sections were revised.
			Storage section - added additional front views of different storage configuration among HDD/SSD, SFF/LFF media cage, NVMe SSD.
		Removed	Obsolete SKUs were removed from the QuickSpecs.
26-Feb-2016	From Version 11 to 12	Removed	340GB M.2 options (835563-B21 & 835565-B21) were removed from Core Options.
16-Feb-2016	From version 10 to 11	Added	New 12G SAS Drives and M.2 offering was added to HPE Drives.
1-Dec-2015	From version 9 to 10	Added	New HDD offering was added to HPE Drives.
			New options added to HPE Unique Options, HPE Security, HPE Tape Backup, and HPE Disk Storage Systems.
		Changed	On System Management Chipset, Maximum Internal Storage, Embedded Management, and Server utilities were revised.
			Product images were updated.
		Removed	Obsolete SKUs were removed from the QuickSpecs.
16-Nov-2015	From version 8 to 9	Added	New Solid State Drives offering was added to HPE Drives.
		Changed	Maximum Internal Storage, and Additional Options were updated. X4 RPS Enablement Kit note was updated. iLO FW updated to iLO4 2.3
17-Aug-2015	From version 7 to 8	Added	New Solid State Drives offering was added to HPE Drives.
			New graphic options were added to HPE Computation and Graphics Accelerators.
		Changed	Memory, Maximum Internal Storage, and Additional Options were updated.
		Removed	Obsolete SKUs were removed from QuickSpecs.
1-Jun-2015	From version 6 to 7	Added	New Hard Drives were added to QuickSpecs.
			New RDX+ external backup options were added.

		Changed	Number of fans for Energy Star Models and Performance Models were revised.
			HPE Memory was revised.
		Removed	Obsolete SKUs were removed from QuickSpecs.
30-Mar-2015	From version 5 to 6	Added	New Hard Drives offering.
			Optional Software added to HPE Storage Controllers.
		Changed	HPE Power Supplies, HPE Storage Controllers, HPE Disk Storage Systems, Micro SD Options were updated.
9-Feb-2015	From version 4 to 5	Added	Added new HPE Drives, HPE Disk Backup, and new G4 UPS models.
			HPE Drives, HPE Computation and Graphics Accelerators, HPE Tape Backup, HPE Rack Mount Consoles, KVM Switches, and Keyboards, and HPE Uninterruptible Power Systems (UPS) sections were revised.
1-Dec-2014	From version 3 to 4	Changed	Changes made throughout the entire QuickSpecs.
13-Oct-2014	From version 2 to 3	Added	6G SATA Enterprise Value G1 Solid State Drives were added to Core Option section.
			High Performance Clusters, HPE PCIe Workload Accelerator Options, HPE USB and SD options, and HPE Pointnext operational services were added to the Additional Options section.
		Changed	Standard Features, Optional Features, Core Options, Additional Options, and Memory sections were revised.
19-Sep-2014	From Version 1 to 2	Changed	Changes made throughout the entire QuickSpecs.





Sign up for updates



Intel® and Xeon® are registered trademarks of Intel Corporation in the U.S. and other countries.

 $Microsoft^{@}, Windows^{@}, and Windows Server^{@} are U.S. \ registered \ trademarks \ of the \ Microsoft \ group \ of \ companies.$

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

c04375628 - 15035 - North America - V29 - 23-October-2017

