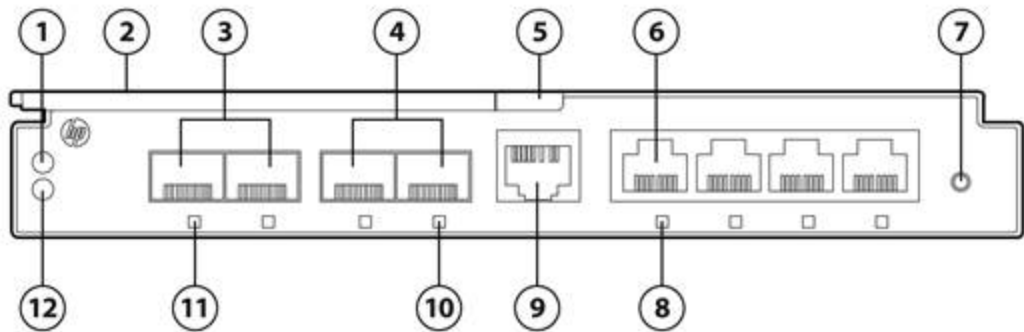


Overview

HPE 6125G Ethernet Blade Switch

The innovative features of HPE Networking products are now available in a 1Gb blade switch designed exclusively for the c-Class BladeSystem enclosure. The HPE 6125G is designed specifically for budget-conscious customers who require 1Gb switching and routing. HPE 6125G basic functionality includes the resiliency of IRF (intelligent Resilient Networking) stacking and the stability of Comware features previously only available on much higher end switching products. With sixteen 1Gb downlink (server) ports, up to eight 1Gb uplink ports, up to two 10Gb IRF stacking ports, and one 10Gb cross-link port, the HPE 6125G reduces costs while increasing datacenter efficiency and capability. Using IRF, HPE 6125G and HPE 6125G/XG switches can be combined together at the enclosure, rack or datacenter level into a single virtual switch and managed through a single IP address for powerful mixed bandwidth applications. The HPE resilient Comware operating system provides a common level of features, service and security levels from edge to core. And all network elements can be managed through IMC (Intelligent Management Center) providing comprehensive single pane provisioning of the entire network. The HPE 6125G is perfect for remote office applications, clustering, virtual machine applications or wherever IPv6, full layer 3 routing and distributed trunking are required for 1Gb applications. If you're looking for a switch that provides ample performance at a low cost, the 6125G is the optimal choice for any data center



HPE 6125G Blade Switch

- | | |
|---|--|
| 1. Unit ID (UID) LED | 7. Reset button |
| 2. Ejector lever | 8. 10/100/1000Base-T Ethernet port LED |
| 3. IRF/SFP port | 9. Console port |
| 4. SFP port | 10. SFP port LED |
| 5. Release tab | 11. IRF/SFP port LED |
| 6. 10/100/1000Base-T auto-sensing Ethernet port | 12. Health LED |

Models

HPE 6125G Ethernet Blade Switch	658247-B21
HPE 6125G Ethernet Blade Switch with TAA	737220-B21

Compatibility

HPE ProLiant Servers	HPE ProLiant BL2x220c G7
	HPE ProLiant BL2x220c G5
	HPE ProLiant BL260c G5
	HPE ProLiant BL280c G6
	HPE ProLiant BL420c Gen8
	HPE ProLiant BL460c Gen9
	HPE ProLiant BL460c Gen8
	HPE ProLiant BL460c G7
	HPE ProLiant BL460c G6
	HPE ProLiant BL460c G5
	HPE ProLiant BL460c
	HPE ProLiant BL465c Gen8
	HPE ProLiant BL465c Gen9
	HPE ProLiant BL465c G7

HPE ProLiant BL465 G5
 HPE ProLiant BL465c
 HPE ProLiant BL480c
 HPE ProLiant BL490c G7
 HPE ProLiant BL490c G6
 HPE ProLiant BL495c G6
 HPE ProLiant BL495c G5
 HPE ProLiant BL620c G7
 HPE ProLiant BL660c Gen8
 HPE ProLiant BL660c Gen9
 HPE ProLiant BL680c G5
 HPE ProLiant BL680c G7
 HPE ProLiant BL685c G7
 HPE ProLiant BL685 G6
 HPE ProLiant BL685 G5
 HPE ProLiant BL685c

NOTE: Some servers listed above may be discontinued.

HPE Integrity Servers	HPE Integrity BL860c Server Blade HPE Integrity BL860c i2 Server Blade HPE Integrity BL860c i4 Server Blade HPE Integrity BL870c Server Blade HPE Integrity BL870c i2 Server Blade HPE Integrity BL870c i4 Server Blade HPE Integrity BL890c i2 Server Blade HPE Integrity BL890c i4 Server Blade
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ProLiant BL c-Class Server Blade Enclosures	HPE BladeSystem c3000 Enclosure HPE BladeSystem c7000 Enclosure
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Standard Features

- | | |
|-------------|---|
| Performance | <ul style="list-style-type: none"> • Non-blocking architecture • Wire speed switching and IPv4/IPv6 routing on all ports • Separate 10Gb Internal cross connect between switches • Combine up to 10 switches into a single virtual switch • RJ45 and SFP ports support 1Gb • Ports 1 and 2 can be used as 1Gb SFP uplinks or as 10Gb IRF connections • Mix any combination of HPE 6125G and HP6125G/XG in a single IRF domain • Store and Forward Switching • Hardware-based wire-speed access control lists (ACLs) |
| Management | <ul style="list-style-type: none"> • Remote configuration and management through Web browser or CLI • Secure Web-based management through HTTPS • Standards based SNMP management via SNMPv1, v2c and v3 • OOBM via Onboard Administrator • GUI Management via Intelligent Management Center • RJ45 console port • sFlow and RMON network monitoring • Manager and operator privilege levels • Command authorization via RADIUS • Complete session logging for problem resolution • LLDP Discovery protocol • IPv6 management |

- Dual flash images
- Multiple configuration files
- Syslog
- Network Time Protocol (NTP)

Management

- IEEE 802.1X user authentication
- MAC-based authentication with RADIUS server
- Access Control Lists (ACLs)
- Secure FTP
- STP Root Guard
- DHCP Protection from unauthorized DHCP servers
- IP Source Guard
- Dynamic ARP protection to prevent eavesdropping
- Guest VLAN
- Endpoint Admission Defense (EAD)
- RADIUS/TACACS+
- Secure management via SSHv2 and SNMPv3
- Unicast Reverse Path Forwarding (URPF)

Layer 2 Switching

- 32K MAC addresses
- 4094 VLANs
- IEEE 802.1ad QinQ VLANs
- Jumbo packet support
- GVRP VLAN Registration Protocol
- Port Aggregation
- Spanning Tree Protocol, PVST, MSTP, RSTP, STP Root Guard
- Smart Link fast uplink failure recovery
- IP Multicast Snooping and data-driven IGMP
- Policy Based Routing

Layer 3 Routing

- IPv4 routing protocols - static routes, RIP, OSPF and BGP
- IPv6 routing protocols - static routes, RIPng, OSPFv3 and BGP+
- IPv6 tunneling
- IP Multicast - PIM-SSM, PIM-DM, PIM-SM, IGMP for IPv4 and IPv6
- Equal-Cost Multipath (ECMP)
- Policy-based routing
- DHCP and DHCPv6 client
- VRRP

Quality of Service (QoS)

- Advanced classifier-based QoS - classifies traffic using multiple match criteria based on Layer 2, 3 and 4 information; applies QoS policies such as priority level and rate limit to selected traffic on a per-port or per-VLAN basis
- Traffic policing - supports Committed Access Rate (CAR) and line rate
- Powerful QoS feature - creates traffic classes based on access control lists (ACL), IEEE 802.1p precedence, IP, DSCP or Type of Service (ToS) precedence; supports filter, redirect, mirror or remark; supports the following congestion actions: strict priority (SP) queuing, weighted round robin (WRR), weighted fair queuing (WFQ), and weighted random early discard (WRED)
- Storm restraint - allows limitation of broadcast, multicast, and unknown unicast traffic rate to cut down on unwanted broadcast traffic on the network

Resiliency and High Availability

- Intelligent Resilient Fabric (IRF) - Creates virtual resilient switching fabrics, where two or more switches perform as a single Layer 2 switch and Layer 3 router; Switches do not have to be co-located and can be part of a disaster recovery system; Servers or switches can be attached using standard LACP for automatic load balancing and high availability; Simplifies network operation by eliminating Spanning Tree, ECMP and VRRP
- Device Link Detection Protocol (DLDP) - Monitors Link connectivity and shuts down ports at both ends if unidirectional traffic is detected
- Rapid Ring Protection Protocol (RRPP) - Connects multiple switches in a high-performance ring using standard Ethernet technology; traffic can be rerouted around the ring in less than 50 ms upon failure

- Smart Link - Allows 50 ms failover between links
- Virtual Router Redundancy Protocol (VRRP)

Monitoring and Diagnostics

- OAM (802.3ah) - Detects data link layer problems in the "last mile"; monitors link status between two devices
- CFD (802.1ag) - Connectivity Fault Detection (CFD) provides L2 link OAM mechanism used for link connectivity detection and fault location Mirroring - Port mirroring enables traffic on a port to be simultaneously sent to a network analyzer for monitoring; Flow-based mirroring
- sFlow

Security

- FIPS 140-2
- IPsec
- IKE (Internet Key Exchange)
- Self-signed certificate for HTTPS
- Disable password recovery

Service and Support

Service and Support

HPE Technology Services

When you buy HPE BladeSystem Options for your HPE BladeSystem, it is also good time to think about services. HPE Technology Services offers you technical consultants and support expertise to solve your most complex infrastructure problems, giving you one call to make, fast answers, and global reach. We help keep your business running, boost availability, and avoid downtime.

Protect your business beyond warranty with HPE Pointnext operational services

HPE Pointnext operational services provide total care and support expertise with committed response choices designed to meet your IT and business needs.

HPE Foundation Care services offer scalable reactive support-packages for Hewlett Packard Enterprise industry-standard servers and software. You can choose the type and level of service that is most suitable for your IT and business needs. If you are running business critical environments, Hewlett Packard Enterprise offers Proactive Care. This service helps you deliver high levels of system availability through proactive service management and advanced technical response.

Recommended HPE Pointnext operational services for your HPE product

Recommended Services

3-Year HPE 24x7 4 hour response, Proactive Care Service*

This service gives you combined reactive and proactive support including rapid access to our Advanced Solution Center to manage and prevent problems and a Technical Support Specialist with a broad level of technical knowledge that will engage with additional technical expertise as needed from the Hewlett Packard Enterprise vast global resources.

<https://www.hpe.com/h20195/v2/getpdf.aspx/4aa3-8855eee.pdf>

HPE Installation of ProLiant Add On Options Service

This easy-to-buy, easy-to-use HPE Care Pack service helps ensure that your new Hewlett Packard Enterprise hardware is installed smoothly, efficiently, and with minimal disruption of your IT and business operations.

Related HPE Pointnext operational services to enhance your HPE product experience

Related Services

3-Year HPE 6 hour Call to Repair Response, Proactive Care*

Combined reactive and proactive support for hardware and software helping optimize your systems and delivering high levels of availability through proactive service management and advanced technical response. Hardware problem resolution to return the hardware in operating condition within 6 hours of the initial service request. A Technical Account Manager, as your single point of contact, will own your call or issue end to end until resolved.

<https://www.hpe.com/h20195/v2/getpdf.aspx/4aa3-8855eee.pdf>

Additional Services	HPE Proactive Select Service Provides a flexible way to purchase Hewlett Packard Enterprise best-in-class consultancy and technical services. You can buy Proactive Select Service Credits when you purchase your hardware and then use the credits over the next 12 months. http://h20195.www2.hp.com/V2/GetPDF.aspx/4AA2-3842ENN.pdf NOTE: Additional HPE Pointnext operational services can be found at: http://h20558.www2.hp.com/portal/site/cpc
Insight Online/Insight Remote Support	HPE Insight Remote Support provides 24 X 7 remote monitoring, proactive notifications, and problem resolution. This comes at no additional cost with your Hewlett Packard Enterprise solution*. Learn more about Insight Remote Support http://www.hp.com/go/insightremotesupport and Insight Online http://h18013.www1.hp.com/products/servers/management/insight-online/index.html NOTE: Insight Remote Support is a prerequisite for HPE Proactive Care referenced in Additional Services above.
HPE Support Center	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.hp.com/go/hpsc The HPE Support Center Mobile App allows you to resolve issues yourself or quickly connect to an agent for live support. Now, you can get access to personalized IT support anywhere, anytime. HPE Insight Remote Support and HPE Support Center are available at no additional cost with a Hewlett Packard Enterprise warranty, HPE Care Pack or Hewlett Packard Enterprise contractual support agreement. NOTE: HPE Support Center Mobile App above is subject to local availability.
Parts and materials	Hewlett Packard Enterprise will provide HPE-supported replacement parts and materials necessary to maintain the covered hardware product in operating condition, including parts and materials for available and recommended engineering improvements. 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 quick-specs, 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.
Service Coverage	HPE Pointnext operational services for the c7000 and c3000 enclosures cover the HPE 6125G Ethernet Blade Switch.
For more information	To learn more on HPE BladeSystem services, please contact your Hewlett Packard Enterprise sales representative or Hewlett Packard Enterprise Authorized ServiceONE Channel Partner. Or visit: http://www.hpe.com/services/bladesystem

Related Options

SFP Options	HPE X125 1G SFP LC LH40 1310nm Transceiver	JD061A
	HPE X125 1G SFP LC LH70 Transceiver	JD063B
	HPE X120 1G SFP RJ45 T Transceiver	JD089B
	HPE X120 1G SFP LC SX Transceiver	JD118B
	HPE X120 1G SFP LC LX Transceiver	JD119B
	HPE X120 1G SFP LC LH40 1550nm Transceiver	JD062A
SFP+ Options	HPE X130 10G SFP+ LC SR Transceiver	JD092B
	HPE X130 10G SFP+ LC LRM Transceiver	JD093B

Direct Attach Cables	HPE X130 10G SFP+ LC LR Transceiver	JD094B
	HPE FlexNetwork X240 10G SFP+ to SFP+ 0.65m Direct Attach Copper Cable	JD095C
	HPE FlexNetwork X240 10G SFP+ to SFP+ 1.2m Direct Attach Copper Cable	JD096C
	HPE FlexNetwork X240 10G SFP+ to SFP+ 3m Direct Attach Copper Cable	JD097C
	HPE FlexNetwork X240 10G SFP+ to SFP+ 5m Direct Attach Copper Cable	JG081C
	HPE FlexNetwork X240 10G SFP+ SFP+ 7m Direct Attach Copper Cable	JC784C
NOTE: The above SFP+ and cable options only apply to uplink ports configured as IRF links. NOTE: The transceivers and cables listed above have been qualified and certified to work with this product. Transceiver and DAC cables from any manufacturer will be accepted, but they will not be supported by Hewlett Packard Enterprise.		
Service and Support Offerings	Hardware Services On-site Service	
	HPE 3 year Proactive Care 24x7 c7000 Enclosure Service	U3C33E
	HPE 3 year Proactive Care Call to Repair c7000 Enclosure Service	U3C36E
	Installation Services	
	HPE Installation of ProLiant Add On/In Options Service	UH745E
NOTE: Additional HPE Pointnext operational services can be found at: http://h20558.www2.hp.com/portal/site/cpc NOTE: For more HPE BladeSystem information, customer/resellers can contact: http://www.hp.com/services/bladeSystemservices		

Technical Specifications

Shipping Dimensions	Length	11.54 in (293 mm)
	Width	14.57 in (370 mm)
	Height	3.54 in (95 mm)
Shipping Weight		1.9 kg (4.19 lbs)
Product Specifications Hardware	Performance	26 Gbps uplink port bandwidth; 16 Gbps downlink (server) port bandwidth; 10Gbps cross-link port bandwidth
		Forwarding rate 1.5 million pps per Gigabit port, (64-byte packets) and 14.8 million pps per 10 Gig port
		Non-blocking, full-wire speed for all connections; Auto-MDI/MDIX, auto-negotiation and auto-sensing with full-duplex support.
		Forwarding Mode Store and forward
		MAC Addresses Supports 32K MAC addresses per switch in a BladeSystem Enclosure
		Forwarding Table 10 to 1,000,000 seconds
		Age Time (default: 300 seconds)
		(Maximum age)
		VLAN IDs 4094
		Jumbo Frame 9220 Byte
		IGMP Groups 1024
		Memory 1 GB Main, 256MB flash and 3MB packet buffer
	Connectors and Cabling	4 RJ-45 (1 Gb) 2 SFP (1 Gb)

		2 SFP+ IRF (10Gb)/2 SFP (1Gb)
		1 RJ45 Management
	Cable Support	FCC Class A
		ICES-003 Class A
		AS/NZS 3548 Class A
		VCCI Class A
Indicators	Module health, amber/green	
	Module locator (UID), blue	
	10/100/100Base-T port speed/link/activity, amber/green	
	SFP port link/activity, green	
	SFP+ port link/activity, green	
	IRF/SFP port link/activity, green	
Dimensions	Length	10.5 in (267.7 mm)
	Width	7.5 in (192.79 mm)
	Height	1.1 in (27.94 mm)
Weight		1.32 kg (2.9 lbs)
Environmental Ranges	Temperature Range	
	Operating	50° to 95° F (10° to 35° C)
	Non-operating	-40° to 158° F (-40° to 70° C)
	Relative Humidity (non-condensing)	Operating 5% to 95%
Power Specification	Power Requirements	26W

Standards Support

General protocols
 IEEE 802.1ag Service Layer OAM
 IEEE 802.1D MAC Bridges
 IEEE 802.1p Priority
 IEEE 802.1Q VLANs
 IEEE 802.1s (MSTP)
 IEEE 802.1v VLAN classification by Protocol and Port
 IEEE 802.1w Rapid Reconfiguration of Spanning Tree
 IEEE 802.1X PAE
 IEEE 802.3ad Link Aggregation Control Protocol (LACP)
 IEEE 802.3ae 10-Gigabit Ethernet
 IEEE 802.3x Flow Control
 RFC 768 UDP
 RFC 792 ICMP
 RFC 793 TCP
 RFC 826 ARP
 RFC 854 TELNET
 RFC 925 Multi-LAN Address Resolution
 RFC 951 BOOTP
 RFC 1058 RIPv1
 RFC 1350 TFTP Protocol (revision 2)
 RFC 1519 CIDR
 RFC 1542 BOOTP Extensions
 RFC 2131 DHCP
 RFC 2453 RIPv2
 RFC 3768 VRRP
 RFC 4675 RADIUS VLAN & Priority
 802.1r - GARP Proprietary Attribute Registration Protocol (GPRP)

IP Multicast

RFC 2934 Protocol Independent Multicast MIB for IPv4

RFC 3376 IGMPv3 (host joins only)
RFC 3618 Multicast Source Discovery Protocol (MSDP)
RFC 3973 Draft 2 PIM Dense Mode
RFC 4601 PIM Sparse Mode

IPv6
RFC 4443 ICMPv6
RFC 4541 IGMP & MLD Snooping Switch
RFC 4861 IPv6 Neighbor Discovery
RFC 4862 IPv6 Stateless Address Auto-configuration

MIBs
IEEE 8021-PAE-MIB
IEEE 8021-CFM-MIB
IEEE 8023-LAG-MIB
RFC 1213 MIB II
RFC 1493 Bridge MIB
RFC 1657 BGP-4 MIB
RFC 1724 RIPv2 MIB
RFC 1850 OSPFv2 MIB
RFC 2011 SNMPv2 MIB for IP
RFC 2013 SNMPv2 MIB for UDP
RFC 2096 IP Forwarding Table MIB
RFC 2233 Interface MIB
RFC 2273 SNMP-NOTIFICATION-MIB
RFC 2452 IPV6-TCP-MIB
RFC 2454 IPV6-UDP-MIB
RFC 2465 IPv6 MIB
RFC 2466 ICMPv6 MIB
RFC 2571 SNMP Framework MIB
RFC 2572 SNMP-MPD MIB
RFC 2573 SNMP-Notification MIB
RFC 2618 RADIUS Client MIB
RFC 2620 RADIUS Accounting MIB
RFC 2665 Ethernet-Like-MIB
RFC 2674 802.1p and IEEE 802.1Q Bridge MIB
RFC 2688 MAU-MIB
RFC 2787 VRRP MIB
RFC 2819 RMON MIB
RFC 2925 Ping MIB
RFC 2933 IGMP MIB
RFC 3414 SNMP-User based-SM MIB
RFC 3415 SNMP-View based-ACM MIB
RFC 3418 MIB for SNMPv3
RFC 3636 IEEE 802.3 MAU MIB
RFC 3826 AES for SNMP's USM MIB
RFC 4133 Entity MIB (Version 3)
RFC 4878 Ethernet OAM MIB
LLDP-EXT-DOT1-MIB
LLDP-EXT-DOT3-MIB
LLDP-MIB

Safety and Compliance	Complies with UL 60950-1, CAN/CSA C22.2 No. 60950-1 and EN 60950-1. UL certified.
Safety	CE Marking
Certifications	RoHS 6/6 compliant

Electromagnetic Emissions	FCC Part 15 Class A
Certifications	EN 55022: 1998 (CISPR22)
	EN 55024: 1998 (CISPR24)
	VCCI Class A

Environment-friendly Products
and Approach

End-of-life
Management and
Recycling

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

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

Summary of Changes

Date	Version History	Action	Description of Change
23-Oct-2017	Version 10	Changed	Care Pack naming and Service and Support-Parts and Materials updated.
08-April-2016	From Version 8 to 9	Changed	Minor changes made on Standard Features, SKU descriptions updated.
17-Dec-2015	From Version 7 to 8	Changed	Overview and Related Options sections were updated.
15-Nov-2014	From Version 6 to 7	Changed	Compatibility section was updated.
21-Oct-2014	From Version 5 to 6	Changed	Service and Support, Service Coverage were revised
18-Apr-2014	From Version 4 to 5	Changed	Related Services was revised.
30-Sep-2013	From Version 3 to 4	Changed	Changes made within the Overview and Related Options sections.
15-Mar-2013	From Version 2 to 3	Changed	Changes made throughout the Standard Features Section- Added Security information Changes made in the Related Options Section- Added new part numbers and descriptions as well as deleted part numbers and descriptions
25-Sep-2012	From Version 1 to 2	Changed	Changes made throughout the QuickSpecs.

   
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