Overview

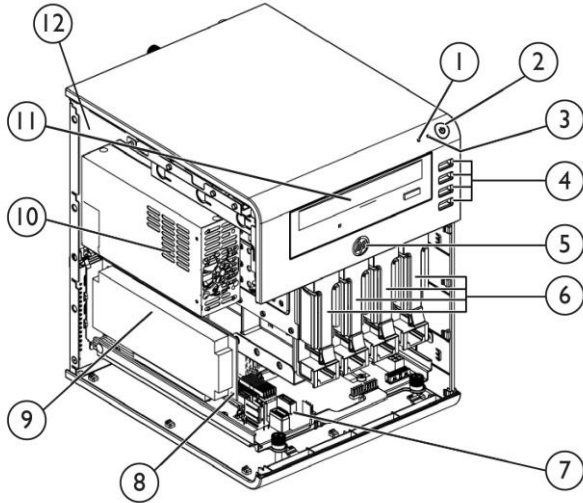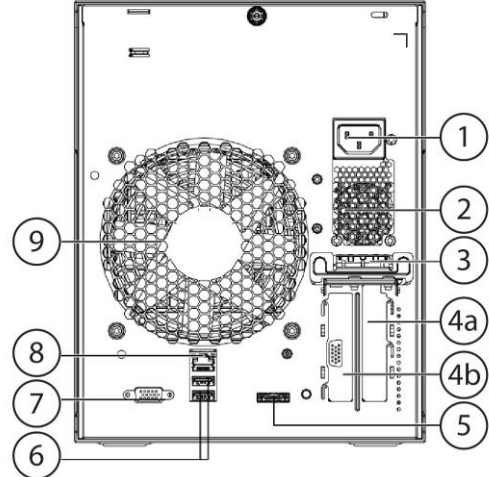## HP ProLiant MicroServer

Front View:
1. NIC LED
2. Power Button
3. HDD LED
4. USB Ports
5. Health LED
6. Hard Drive Bays
7. System Board
8. Remote Access Card slot
9. PCIe slot
10. Power Supply
11. Optical Drive Bay
12. Front view drawing is for reference only. The side panel is not removable.

Rear View:
1. Power Supply Outlet
2. PSU Fan
3. PCI Holder
4a. PCI Bracket 1
4b. PCI Bracket 2
5. e-SATA Connector
6. USB 2.0 Ports
7. VGA Port
8. Embedded NIC Port
9. Rear System Fan

What's New
- New pre-configured BTO model with 4GB UDIMM

At A Glance
- **Processor**:
  - AMD Turion™ II Neo N54L (2.2GHz)
  - AMD RS785E/SB820M chipset
- **Memory**:
  - Two (2) DIMM slots
  - 4GB (1x4GB) Standard/8GB Maximum, using PC3-10600E DDR3 Unbuffered (UDIMM) ECC memory, operating at max. 800MHz
- **Storage Controller**:
  - Embedded AMD SATA controller with RAID 0, 1
  - Embedded AMD eSATA controller for connecting external storage devices via the eSATA connector in the rear of the server

Overview

- **Internal Drive Support**:
  - 4 Internal HDD Support
  - Maximum internal SATA storage capacity of up to 8.0TB (4 x 2TB 3.5" SATA drives)
- **Network Controller**:
  - Embedded NC107i PCI Express Gigabit Ethernet Server Adapter
- **Expansion Slots**:
  - Slot 1: PCI-Express Gen 2 x16 connector with x16 link
  - Slot 2: PCI-Express Gen 2 x1 connector with x1 Link
  - Slot 2-2: PCI-Express x4 slot for optional management card
- **USB 2.0 Ports**:
  - Seven (7) USB 2.0 ports: 4 front , 2 rear, 1 internal (for tape)
- **Power Supply**:
  - 150 Watts Non-Hot Plug, Non Redundant Power Supply
- **Management**:
  - Optional MicroServer Remote Access Card
- **Operating System**:
  - Supports Windows and Red Hat Linux
- **Form Factor**:
  - Ultra Micro tower
- **Warranty**:
  - This product is covered by a global limited warranty and supported by HP Services and a worldwide network of HP Authorized Channel Partners. Hardware diagnostic support and repair is available for one year 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 HP Care Pack 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 1 year Next Day Parts replacement, 0-Years Labor, 0-Years Onsite support. Additional information regarding worldwide limited warranty and technical support is available at: http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html.

QuickSpecs

HP ProLiant MicroServer

Standard Features

Processor	**Dual-Core Processor**	
	AMD Turion II Processor Model Neo N54L (2.20 GHz, 15W, 2MB)	

Cache Memory	2x 1MB Level 2 cache

Chipset	AMD RS785E/SB820M

Memory Protection	ECC

Memory	Type	PC3-10600E unbuffered DDR3 ECC operating at 800MHz
	Standard	1 GB (1x1GB)
		4GB (1x4GB)
	Maximum	8 GB

Network Controller	Embedded NC107i PCI Express Gigabit Ethernet Server Adapter

Expansion Slots #	Technology	Bus Width**	Connector Width	Bus Number*	Form Factor	Notes
1	PCI-e	x16	x16	1h	Half height, half length slot	
2	PCI-e	x1	x1	2h	Half height, half length slot	

* Default bus assignment (in decimal). Inserting cards with PCI bridges may alter the actual bus assignment number.
** Indicates the number of physical electrical lanes running to a PCI-e connector.

Storage Controller	Integrated SATA controller with embedded RAID (0, 1)
	NOTE: Embedded RAID setup instructions are located in the MicroServer User Guide.

Internal Storage Devices	Optical Drive	Optional: Half-Height SATA DVD-RW drive
	Hard Drives	None included

Maximum Internal Storage	Non-Hot Plug SATA	8TB (4 x 2TB) 3.5" SATA

Interfaces	Graphics	On board VGA
	USB 2.0 Ports	7 total (2 rear, 4 front panel, 1 internal)
	Network RJ-45 (Ethernet)	1 (10/100/1000 bits/s)
	eSATA Gen 2	1 rear

Graphics	128MB shared supporting 1920x1200 @ 60Hz

Form Factor	Ultra Micro Tower

Industry Standard Compliance	ACPI V2.0 Compliant
	PCI 2.3 Compliant
	PXE Support
	WOL Support

Standard Features

	IPMI 2.0 compliant
	USB 2.0
	SATA Gen 2
Security	Setup password
Server Power Cords	7 country specific, lowline NEMA power cord.
Power Supply	150 Watts Non-Hot Plug, Non redundant Power Supply
System Fans	One (1) - Non-redundant system fan shipped standard
Operating Systems	Microsoft Windows Server
	Red Hat Enterprise Linux (RHEL)

Operating Systems

Microsoft Windows Server
Red Hat Enterprise Linux (RHEL)

NOTE: For more information on HP's 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.hp.com/go/ossupport and our driver download page: http://www.hp.com/support/MicroServer

Service and Support

Service and Support	**HP Technology Services for Industry Standard Servers** HP Technology Services delivers confidence, reduces risk and helps customers realize agility and stability. Connect to HP to help prevent problems and solve issues faster. Our support technology lets you to tap into the knowledge of millions of devices and thousands of experts to stay informed and in control, anywhere, any time. **Protect your business beyond warranty with HP Care Pack Services** HP Care Pack Services enable you to order the right service level, length of coverage and response time as you purchase your new server, giving you full entitlement for the term you select.
Optimized Care	**Supports maintaining servers at optimum performance availability** **Foundation Care 24x7, three-year Care Pack Service** HP Foundation Care 24x7 connects you to HP 24 hours a day, seven days a week for assistance on resolving issues. Hardware onsite response within four hours if needed; collaborative software included in this Care Pack service provides troubleshooting assistance on industry leading software running on your HP server. Simplify your support experience and make HP your first call for hardware or software questions. http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=4AA4-8876ENW&cc=us&lc=en
Standard Care	**Service recommendation that maintains high level of server availability** **Foundation Care NBD, three-year Care Pack Service** HP Foundation Care Next Business Day connects you to HP during business hours for assistance on resolving issues - features next business day hardware onsite response if needed and software call back within two hours. Collaborative software support is included and provides troubleshooting assistance on industry leading software running on your server. Simplify your support experience and make HP your first call for hardware or software questions. http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=4AA4-8876ENW&cc=us&lc=en
Related Services	**HP ProLiant Server Hardware Installation** Provides for the basic hardware installation of HP branded servers, storage devices and networking options to assist you in bringing your new hardware into operation in a timely and professional manner. http://h20195.www2.hp.com/V2/GetPDF.aspx/5981-9356EN.pdf
Get connected to HP to improve your support experience	Prevent problems with innovative, automated monitoring tools and proactive services. Combining Proactive Care Services with our remote support technology such as Insight Online provides you with expert advice and personalized, cloud-based automated IT support, helping to prevent unplanned down time and solve problems quickly. For more information, visit: www.hp.com/go/proactiveinsightexperience
Parts and Materials	HP will provide HP-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 HP due to malfunction.
Additional Services	To learn more on HP ProLiant servers and HP BladeSystem, please contact your HP sales

Service and Support

Information   representative or HP Authorized Channel Partner, or visit: www.hp.com/services/proliant or www.hp.com/services/bladesystem

Models

SATA Models

HP ProLiant MicroServer G7 N54L 1P 4GB-U Non-hot Plug SATA 150W PS Server
744900-001

Processor	(1) AMD Turion™ II Neo N54L processor (2.2 GHz, 15W, 2MB)
Cache Memory	2x 1MB Level 2
Memory	4GB (1 x 4GB) PC3-10600E DDR3 UB ECC **NOTE:** Total of 2 DIMM slots.
Network Controller	Embedded NC107i PCI Express Gigabit Ethernet Server Adapter
Storage Controller	Embedded SATA Controller with Embedded RAID (0, 1)
Hard Drive	None
Internal Storage	Non-Hot Plug SATA 8.0TB (4 x 2TB) Maximum
Optical Drive	None ships standard
Power Supply	150W Non-Hot Plug, Non-Redundant Power Supply
Operating System	None
Warranty	1-0-0
Form Factor	Ultra Micro Tower

Core Options

HP Memory	HP 4GB (1x4GB) Dual Rank x8 PC3-10600 (DDR3-1333) Unbuffered CAS-9 Memory Kit	593923-B21
	NOTE: All DDR3 memory option kits consist of one DIMM per kit. For detailed memory configuration rules and guidelines, please use the Online DDR3 Memory Configuration Tool: www.hp.com/go/ddr3memory-configurator.	
HP Optical Drives	HP Half-Height SATA DVD RW JackBlack Optical Drive	624192-B21
	HP Half-Height SATA DVD ROM JackBlack Optical Drive	624189-B21
HP Hard Drives	**NOTE:** The components of a storage subsystem (e.g. the drive, the HBA/controller, and the server backplane) should operate at the same data transfer rate or the system bandwidth will be negotiated down to an acceptable level for all components.	
	NOTE: Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.	
	SATA Non-Hot Plug LFF (3.5-inch) Midline (MDL) Drives	
	HP 2TB 3G SATA 7.2K rpm LFF (3.5-inch) Non-hot Plug Midline 1yr Warranty Hard Drive	507774-B21
	HP 1TB 3G SATA 7.2K rpm LFF (3.5-inch) Non-hot Plug Midline 1yr Warranty Hard Drive	507772-B21
	HP 500GB 3G SATA 7.2K rpm LFF (3.5-inch) Non-hot Plug Midline 1yr Warranty Hard Drive	458941-B21
	NOTE: Please see the QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/13021_na/13021_na.html	
HP Networking	HP NC112T PCI Express Gigabit Server Adapter	503746-B21
	NOTE: Please see the QuickSpecs for Technical Specifications and additional information: www.hp.com/go/ProLiantNICs	

Additional Options

HP Remote Management	HP MicroServer Remote Access Card Kit	615095-B21

HP Security	HP Trusted Platform Module Option	488069-B21

HP Security — HP Trusted Platform Module Option — 488069-B21

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 Server® 2008. BitLocker leverages the enhanced security capabilities of a Trusted Platform Module (TPM) version 1.2. The TPM works with BitLocker to 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, including a white paper, go to: www.hp.com/go/TPM.

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.

HP 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 HP tape backup products see: http://www.hp.com/storage/SPOCK.

HP Disk Backup

NOTE: For the complete range of RDX drives and media see: http://www.hp.com/go/rdx. For hardware and software compatibility of HP disk backup products see: http://www.hp.com/storage/SPOCK.

USB Removable Media RDX Disk Backup Systems

HP RDX320 USB3.0 Internal Disk Backup System	B7B62A
HP RDX320 USB3.0 External Disk Backup System	B7B63A
HP RDX500 USB3.0 Internal Disk Backup System	B7B64A
HP RDX500 USB3.0 External Disk Backup System	B7B66A
HP RDX1000 USB3.0 Internal Disk Backup System	B7B67A
HP RDX1000 USB3.0 External Disk Backup System	B7B69A

HP RDX USB 3.0 Internal Docking Station

HP RDX USB 3.0 Internal Docking Station	C8S06A

HP RDX USB 3.0 External Docking Station

HP RDX USB 3.0 External Docking Station	C8S07A

NOTE: Please see the QuickSpecs for additional part numbers, Technical Specifications, and additional information: http://h18000.www1.hp.com/products/quickspecs/13036_na/13036_na.html

HP Uninterruptible Power Systems

HP DirectFlow Three Phase UPS Power Unit (1U UPS)

NOTE: #0D1 will appear after the part number on the sales order if HP factory integration is indicated.

HP R12000 DirectFlow - 1U Rackmount Uninterruptible Power System	G9Y75A
HP R12000 DirectFlow - POD 1U Rackmount Uninterruptible Power System	AF478A

Input/Output Module Options for 1U UPS

NOTE: Choose one I/O Module per UPS.

NOTE: #0D1 will appear after the part number on the sales order if HP factory integration is indicated.

Additional Options

HP 30A 400-415 Volt Three Phase NA R10000 DirectFlow UPS IEC309 Input/Output Module	AF489A
HP 30A 480 Volt Three Phase NA R12000 DirectFlow UPS L22-30 Input/Output Module	AF491A
HP 30A 480 Volt Three Phase NA R12000 DirectFlow UPS IEC309 Input/Output Module	AF492A
HP 30A 400-415 Volt Three Phase NA R12000 DirectFlow UPS IEC309 Input/Output Module	G9Y76A

NOTE: All Input/Output Modules support dual output outlets except the AF484A.

HP Tower UPS

HP T750 G4 UPS Models

HP T750 G4 NA/JP Uninterruptible Power System	J2P85A

HP T1000 G4 UPS Models

HP T1000 G4 NA/JP Uninterruptible Power System	J2P86A

HP T1500 G4 UPS Models

HP T1500 G4 NA/JP Uninterruptible Power System	J2P87A

HP Rack/Tower UPS

HP R/T2200 G4 UPS Models

HP R/T2200 G4 NA/JP Uninterruptible Power System	J2R00A

HP R/T3000 G4 UPS Models

HP R/T3000 G4 Low Voltage NA/JP Uninterruptible Power System	J2R01A
HP R/T3000 G4 High Voltage NA/JP Uninterruptible Power System	J2R02A

HP R1500 G4 Uninterruptible Power Supply (UPS)

HP R1500 G4 NA Uninterruptible Power System	J2Q99A

HP Tower - UPS

HP T750 G2 750VA NA Tower Uninterruptible Power System	AF446A

NOTE: For additional information please go to:
http://www.hp.com/go/rackandpower (Worldwide)
NOTE: Please see QuickSpecs for Technical Specifications and additional information:
http://h18004.www1.hp.com/products/quickspecs/13160_na/13160_na.html
NOTE: For additional information on sizing your server, please reference:
http://www.upssizer.com

HP Rack Options	**HP LCD8500 1U Rackmount Console Kit Models**	
	HP LCD8500 1U US Rackmount Console Kit	AF630A
	HP LCD8500 1U US TAA Rackmount Console Kit	AF645A
	HP LCD8500 1U Rackmount Console Kit Options	
	HP Kit LCD 1.83m Latch Display Port Cable	G7T29A
	HP Location Discovery Services LCD8500 Kit	TL052A
	HP Rack LED Light Kit	BW939A
	HP Server Console Switches	
	HP 0x1x8 G3 KVM Console Switch	AF651A
	HP 0x2x16 G3 KVM Console Switch	AF652A
	HP TAA 0x2x16 G3 KVM Console Switch	AF653A
	HP USB Remote Access Key for G3 KVM Console Switches	AF650A
	HP USB Keyboard and Mouse	

Additional Options

HP USB BFR with PVC Free US Keyboard/Mouse Kit	631341-B21

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:
http://h18000.www1.hp.com/products/quickspecs/13972_na/13972_na.html

HP USB and SD options	**Other USB and SD Options**	
	HP USB Standard Keyboard DT528A ABA	DT528A#ABA

HP Care Pack Services	**Foundation Care**	
	HP 3 year Next business day Microserver Foundation Care Service	U2EF7E
	HP 3 year Next business day with Defective Media Retention MicroserverFoundation Care Service	U2EF8E
	HP 3 year Next business day with Comprehensive Defective Material Retention Microserver Foundation Care Service	U2EF9E
	HP 3 year 24x7 Microserver Foundation Care Service	U2EG0E
	HP 3 year 24x7 with Defective Media Retention Microserver Foundation Care Service	U2EG1E
	HP 3 year 24x7 with Comprehensive Defective Material Retention Microserver Foundation Care Service	U2EG2E
	HP 3 year Call to Repair Microserver Foundation Care Service	U2EG3E
	HP 3 year Call to Repair with Defective Media Retention Microserver Foundation Care Service	U2EG4E
	HP 3 year CTR with Comprehensive Defective Material Retention Microserver Foundation Care Service	U2EG5E
	HP 4 year Next business day Microserver Foundation Care Service	U2EG6E
	HP 4 year Next business day with Defective Media Retention Microserver Foundation Care Service	U2EG7E
	HP 4 year Next business day wComprehensive Defective Material Retention Microserver Foundation Care SVC	U2EG8E
	HP 4 year 24x7 Microserver Foundation Care Service	U2EG9E
	HP 4 year 24x7 with Defective Media Retention Microserver Foundation Care Service	U2EH0E
	HP 4 year 24x7 with Comprehensive Defective Material Retention Microserver Foundation Care Service	U2EH1E
	HP 5 year Next business day Microserver Foundation Care Service	U2EH2E
	HP 5 year Next business day with Defective Media Retention MicroserverFoundation Care Service	U2EH3E
	HP 5 year Next business day Comprehensive Defective Material Retention Microserver Foundation Care SVC	U2EH4E
	HP 5 year 24x7 Microserver Foundation Care Service	U2EH5E
	HP 5 year 24x7 with Defective Media Retention Microserver Foundation Care Service	U2EH6E
	HP 5 year 24x7 with Comprehensive Defective Material Retention Microserver Foundation Care Service	U2EH7E
	Installation Services	

NOTE: Reduce the time required to get your system up and running and help minimize disruptions to your business.

HP Install ProLiant MicroServer Service	UR508E

NOTE: For more information, customer/resellers can contact:
http://www.hp.com/services/carepack.

Memory

HP ProLiant Micro Server

Standard Memory
4GB (1x4GB) of PC3-10600E DDR3 UDIMM Memory kit installed

Standard Memory Replaced with Optional Memory
Up to 8GB of memory is available with the optional installation of 1 x 4 GB PC3-10600E DDR3 UDIMM Memory kits.
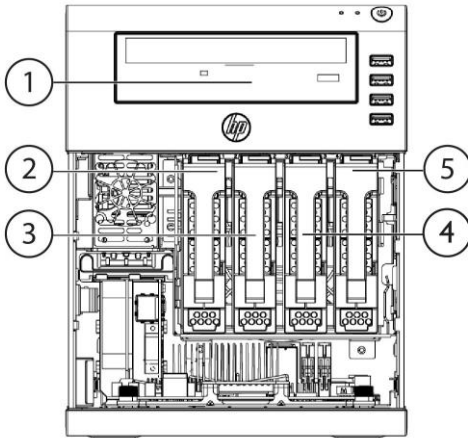**NOTE:** The below chart does not represent all possible memory configurations.

Memory		Slot	
		1A	2B
Optional	1 GB	1 GB	Empty
Optional	2 GB	1 GB	1 GB
Standard	4 GB	4 GB	Empty
Maximum	8 GB	4 GB	4 GB

Following are memory options available from HP:

HP Memory	HP 4GB (1x4GB) Dual Rank x8 PC3-10600 (DDR3-1333) Unbuffered CAS-9 Memory Kit	593923-B21

Storage

1   Optical Drive Bay
2, 3, 4, 5   Four (4) Non-Hot Plug Drive Bays

Drive Support

	Quantity Supported	Position Supported	Controller
Removable Media			
DVD-RW JackBlack Optical Drive	1	1	Integrated SATA
DVD ROM JackBlack Optical Drive	1	1	Integrated SATA

Hard Drives (SATA Models only)
NOTE: The components of a storage subsystem (e.g. the drive, the HBA/controller, and the server backplane) should operate at the same data transfer rate or the system bandwidth will be negotiated down to an acceptable level for all components.
NOTE: Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.

SATA Non-Hot Plug LFF (3.5-inch) Midline (MDL) Drives

	Quantity Supported	Position Supported	Controller
2TB 3G SATA 7.2K 1TB 3G SATA 7.2K 500GB 3G SATA 7.2K	Up to 4	2-5	SATA controller with Embedded RAID on Motherboard (0,1)

Maximum Storage Capacity

Internal	SATA	8.0TB (4 x 2TB)

Tape Drives and Disk-Based Backup

NOTE: For the complete range of tape drives, autoloaders, libraries and media, including the internal fitting models, see: http://www.hp.com/go/tape. For the complete range of D2D Backup Systems see: http://www.hp.com/go/d2d. For the complete range of RDX drives and media see: http://www.hp.com/go/rdx. For hardware and software compatibility of HP disk and tape backup products see: http://www.hp.com/storage/SPOCK.

Position	Recommended Controller	Part Number

Storage

HP USB RDX Removable Disk Backup System RDX160 RDX320	Internal or External	USB 2.0 port	N/A

Power Specifications

Part Number	630295-001					
Operational Input Voltage Range (Vrms)	100 to 127 and 200 to 240 V auto ranging					
Frequency Range (Nominal) (Hz)	50 to 60 Hz					
Nominal Input Voltage (Vrms)	**100**	**115**	**208**	**220**	**230**	**240**
Max Rated Output Wattage Rating	150	150	150	150	150	150
Nominal Input Current (A rms)	N/A	3.5	N/A	2	2	N/A
Max Rated Input Wattage Rating (Watts)	191.4	N/A	N/A	N/A	184.9	N/A
Max. Rated VA (Volt-Amp)	N/A	N/A	N/A	N/A	N/A	N/A
Efficiency (%)	70%	70%	N/A	N/A	70%	N/A
Power Factor	N/A	0.9	N/A	N/A	0.9	N/A
Leakage Current (mA)	N/A	3.5	N/A	N/A	3.5	N/A
Maximum Inrush Current (A peak)	N/A	No component was damaged and input fuse shall not blow	N/A	N/A	No component was damaged and input fuse shall not blow	N/A
Maximum Inrush Current duration (mS)	N/A	N/A	N/A	N/A	N/A	N/A

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

To drill down to calculators:
- Click on: "ProLiant Servers"
- Click on the Server of interest
- Click on: "Power Calculator" link. (You may need to scroll down to see it)

QuickSpecs

System Specifications

	Power**
HP ProLiant MicroServer Fully Configured	(see**)
Fully Loaded System output Wattage (W)	72.3 W
Fully Loaded System Input Current (A rms)	0.63A@115V; 0.35A@230V
Fully Loaded System Thermal (BTU- Hr)	115v@247.055; 230v@274.505
Fully Loaded System VA (Volt-Amp)	115v@72.45; 230v@80.5
System Leakage with all power supplies loaded (mA)	0.91
System Inrush Current with all power supplies loaded (A)	No component damaged
Power cord requirements	Nema 5-15P to IEC320-C13
	IEC320-C13 to IEC320-C14
	**Power shown is for a fully configured system consisting of (1) CPU, (2) double-sided DIMMs, (4) HDDs, (1) DVD-ROM, (1) PCIe X16 card & (1) PCIe X1 card and (1) power supply.

Power Cord Part Number	121565-001

Technical Specifications

System Unit	Dimensions (HxWxD) (with feet)	10.5 x 8.3 x 10.2 in (26.7x 21.0 x 26.0 cm)	
	Weight (approximate)	Maximum (all hard drives, power supplies, and processors installed)	21.16 lb (9.6 kg)
		Minimum (one hard drive, power supply, and processor installed)	13.18 lb (5.98 kg)
	Input Requirements (per power supply)	Rated Line Voltage	100 -- 127 VAC, 200 - 240 VAC
		Rated Input Current	3.5 A (at 110 VAC), 2 A (at 200 VAC)
		Rated Input Frequency	47 to 63 Hz
		Rated Input Power	191.4 W (at 100 VAC), 184.9 W (at 200 VAC)
	BTU Rating	Maximum	247.055 BTU/hr (at 100 VAC), 274.505 BTU/hr (at 200 VAC)
	Power Specifications	To review typical system power ratings use the Power Advisor which is available via the online tool located at URL: http://www.hp.com/go/hppoweradvisor	
	Power Supply Output (per power supply)	Rated Steady-State Power	150 W (at 100 VAC), 150 W (at 200 VAC)
		Maximum Peak Power	200 W (at 100 VAC), 200 W (at 200 VAC
	System Inlet Temperature	Operating	10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level to a maximum of 3050 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 10°C/hr (18°F/hr). The upper limit may be limited by the type and number of options installed. System performance may be reduced if operating with a fan fault or above 35°C (95°F).
		Non-operating	10 to 90% relative humidity (Rh), 28°C 5 to 95% relative humidity (Rh), 38.7°C
	Altitude	Operating	3050 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
		Non-operating	9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
	Acoustic Noise (Fully Loaded)	Idle	
		L WAd	3.9 BELS
		L pAm	22.3 dBA
		Operating	
		L WAd	4.1 BELS

Technical Specifications

Acoustic Noise (Lightly Loaded)	Idle	L pAm	24.4 dBA
		L WAd	3.7 BELS
		L pAm	21.3 dBA
	Operating		
		L WAd	3.8 BELS
		L pAm	22.0 dBA
Emissions Classification (EMC)	FCC Rating	Class B	
	Normative Standards	CISPR 22; EN55022; EN55024; FCC CFR 47, Pt 15; ICES-003; 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.

Embedded SATA controller	**SATA Protocol**	SATA 2, 3Gb/s
	SATA Ports	5 internal
	Port transfer rate	3Gb/s total
	Maximum Capacity	up to 8.0TB (4 x 2TB non-hot plug SATA HDD)
	RAID Levels Supported	RAID 1 (Mirroring) RAID 0 (Striping)
	Logical RAID Volumes Supported	**NOTE:** On SATA models with embedded RAID, setup instructions are located in the MicroServer User Guide

Embedded NC107i PCIe Gigabit Server Adapter	**Network Interface Compatibility**	10Base-T/100Base-TX/1000Base-TX	
		IEEE 802.3 10Base-T	
		IEEE 802.3ab 1000Base-T	
		IEEE 802.3u 100Base-TX	
	Data Transfer Method	Single lane (x1), 100MHz PCI Express Reference Clock	
	Controller	BCM5723	
	Network Transfer Rate	10Base-T (Half-Duplex)	10 Mb/s
		10Base-T (Full-Duplex)	20 Mb/s
		100Base-TX (Half-Duplex)	100 Mb/s
		100Base-TX (Full-Duplex)	200 Mb/s
		1000Base-TX (Half and Full-Duplex)	2000Mb/s
	Connector	RJ-45 connector	
	Cable Support	10Base-T	Categories 3, 4 or 5 UTP; up to 328 ft (100 m)
		10/100/1000Base-TX	Category 5 UTP; up to 328 ft (100 m)

Environment-friendly Products and Approach	**End-of-life Management and Recycling**	Hewlett-Packard offers end-of-life HP 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 HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.

Technical Specifications

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 web site at: http://www.hp.com/go/green. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

Summary of Changes

Date	Version History	Action	Description of Change
09-Feb-2015	From Version 27 to 28	Added	New Hard Drives, DirectFlow UPS, Rack and Tower G4 Models, LCD8500 1U Rackmount Models and Options were added to the Additional Options section.
		Changed	HP Uninterruptible Power Systems, HP Rack Options, and HP Care Pack Services in Additional Options section were revised.
01-Dec-2014	From Version 26 to 27	Removed	Support services were removed from HP Care Pack Services.
01-Nov-2014	From Version 25 to 26	Changed	Service and Support section was revised.
08-Jul-2014	From Version 24 to 25	Removed	Europe Country Code Key was removed from SATA Models. HP Wireless 802.11 b/g/n PCIe Card was removed from HP Unique Options in Core Options.
18-Apr-2014	From Version 23 to 24	Changed	Service and Support, Recommended Services, and Optional Services were revised.
31-Mar-2014	From Version 22 to 23	Removed	HP ProLiant MicroServer G7 N54L 1P 4GB-U Non-hot Plug SATA 150W PS Server and HP ProLiant MicroServer G7 N54L 1P 2GB-U Non-hot Plug SATA 250GB 150W PS Server were removed from Models HP 1GB Single Rank x8 PC3-10600 (DDR3-1333) Unbuffered CAS-9 Memory Kit was removed from Memory
09-Dec-2013	From Version 21 to 22	Changed	HP ProLiant MicroServer G7 N54L 1P 48GB-U Non-Hot Plug SATA 150W PS Server was added HP 2GB Dual Rank Unbuffered Memory Kit was removed from Memory HP Half-Height SATA DVD-ROM Optical Drive was removed from Optical Drives SATA Non-Hot Plug LFF Entry Drives was removed from Hard Drives HP Disk Backup was revised in Additional Options