

Huawei CH121 V5 VS Servers of HPE, Lenovo, Dell and H3C

Server Model		Huawei CH121 V5 Server	HPE BL460c/Synergy 480 Gen10	Lenovo SN550 Server (single-width type)	Dell PowerEdge FC640 Server	Dell PowerEdge M640 Server	Dell EMC PowerEdge MX740c Server	H3C B10000 Server
Advantages of Dell Servers		Dell blade server supports the installation of built-in SD card, m.2 SSD		M640 supports built-in redundant SD modules	Building blocks for future data centers	Proven enterprise-level fusion architecture	A new generation of converged architectures	
Disadvantages of Dell Servers		Huawei's CH121 V5 memory slot number is more than Dell's		SN550 supports 480G m. 2 SSD and supports 24 memory slots			Slightly lower density, no support for IB	
CPU	Model	Intel® Xeon® Scalable processors	1 -2 Intel® Xeon® processors 8100/6100/5100/4100/3100 series	Intel Xeon Bronze, Silver, Gold, or Platinum processors	Intel® Xeon® Scalable processors	Intel® Xeon® Scalable processors	Full range of Intel® Xeon® Scalable processors. But for the upcoming Cascade Lake, only 15 have been opened in Gii	
	CPU model	8180 28Core 2.5Ghz	8164	Intel Xeon Platinum 8176 28C	8180M	8180M	Full range, no configuration restrictions	
Chipset		Intel C622	Intel C621	Intel C624	Intel C621	Intel C621	Intel C628	

Server Model		Huawei CH121 V5 Server	HPE BL460c/Synergy 480 Gen10	Lenovo SN550 Server (single-width type)	Dell PowerEdge FC640 Server	Dell PowerEdge M640 Server	Dell EMC PowerEdge MX740c	H3C B10000 Server
RAM	Model	CH121 V5 supports single chip memory of 8GB, 16GB, 32GB, 64GB and 128GB	128GB/2666MHz/LRDIMM	24 DDR4 DIMM slots, up to 2666MT/s	128GB/2667MHz/LRDIMM	128GB/2667MHz/LRDIMM	128GB/2667MHz/LRDIMM/NVDIMM-N/AEP	
	Total Capacity	24 DIMM (dual in-line memory module) slots with a maximum capacity of 3TB when full.	Synergy: 3TB; C7000; 2TB	RDIMMs supports up to 768GB. LRDIMMs supports up to 1.5TB. 3DS RDIMMs supports up to 3TB.	2TB	2TB	3TB	
Storage controller	Model	The CH121 V5 supports LSI SAS3008 chip model and Avago SAS3508 chip model RAID control buckle CARDS. LSI SAS3008 supports RAID 0 and 1 RAID modes. Avago SAS3508 supports RAID 0, 1, 5, 6, 10, 50, and 60 RAID modes, and only supports two RAID modes, RAID	P204	6Gbps SATA Controller: Onboard AHCI (non-RAID) / Intel RSTe (RAID) 12Gbps RAID Controller: ThinkSystem RAID 530-4i 2 Drive Adapter ThinkSystem RAID 930-4i-2GB 2 Drive Adapter	H740p	H740p	H745p	

Server Model		Huawei CH121 V5 Server	HPE BL460c/Synergy 480 Gen10	Lenovo SN550 Server (single-width type)	Dell PowerEdge FC640 Server	Dell PowerEdge M640 Server	Dell EMC PowerEdge MX740c Server	H3C B10000 Server
		0 and RAID 1, configured on the CH121 V5.						
	Cache Size/Maximum	2GB	1GB	None、 2GB	8GB	8GB	8GB	
	Cache Protection Type			None(Onboard、 RAID 530-4i)、 Flash backup (930-4i)				
	Battery or Capacitance	Battery	Battery	Capacitance	Battery	Battery	Battery	
	Main technical characteristics	Support and RAID 0, 1 two RAID modes		Controller Chips: SAS3404(530-4i)、 SAS3504(930-4i) RAID Support: 530-4i(0\1)、 930-4i(0\1)			2 modes * PERC exclusive mode, H745p can put the server side of the local hard disk and MX5016s hard disk into a RAID group; * HBA Shared mode, perfectly matching SDS environment.HBA330	
SD Card	Number of SD cards	N/A	1	N/A	2	2	2	

Server Model		Huawei CH121 V5 Server	HPE BL460c/Synergy 480 Gen10	Lenovo SN550 Server (single-width type)	Dell PowerEdge FC640 Server	Dell PowerEdge M640 Server	Dell EMC PowerEdge MX740c Server	H3C B10000 Server
	SD card capacity	N/A	8GB/32GB	N/A	64GB	64GB	64GB	
	SD cards can form RAID levels	N/A	1	N/A	1	1	1	
M.2	M.2 quantity	4	2	1 or 2	2	2	2	
	M.2 single chip capacity	N/A	960GB	ThinkSystem M.2 CV1 32GB ThinkSystem M.2 CV3 128GB ThinkSystem M.2 5100 480GB	240GB	240GB	240GB	
	M.2 RAID levels	0, 1, 5, 6, or 10	1	RAID0、RAID1	1	1	1	
Network card	Sub-Card (NDC Card Type)	2 10GE, 4 1GE interfaces, or 4 10GE interfaces	2*10/20G Converged Network Adapter; Options10Gb CNA, 25/50GbE (Synergy only)	embedded Intel 4-port 10Gb controller Network adapters ThinkSystem Mellanox ConnectX-3 Mezz 40Gb 2-Port Ethernet Adapter Flex System CN4052S 2-port 10Gb Virtual Fabric Adapter	2 10GE plus 2 1GE interfaces, or 4 10GE interfaces	2 10GE plus 2 1GE interfaces, or 4 10GE interfaces	2 25GE or 4 25GE interfaces	

Server Model		Huawei CH121 V5 Server	HPE BL460c/Synergy 480 Gen10	Lenovo SN550 Server (single-width type)	Dell PowerEdge FC640 Server	Dell PowerEdge M640 Server	Dell EMC PowerEdge MX740c Server	H3C B10000 Server
				Advanced (with FCoE / iSCSI) Flex System CN4052S 2-port 10Gb Virtual Fabric Adapter Flex System CN4054S 4-port 10Gb Virtual Fabric Adapter Advanced (with FCoE / iSCSI) Flex System CN4054S 4-port 10Gb Virtual Fabric Adapter ThinkSystem Mellanox ConnectX-3 Mezz FDR 2-Port InfiniBand Adapter				
	PCIe (occupies a standard slot)	Yes	N/A	Yes	Yes	Yes	Yes	
GPU	GPU Max Supported Blocks	0	1(Synergy), 0(C7000)	N/A	0	0	0	
	GPU model	N/A	N/A	N/A	N/A	N/A	N/A	
FPGA	FPGA Maximum	0	0	N/A	0	0	0	

Server Model		Huawei CH121 V5 Server	HPE BL460c/Synergy 480 Gen10	Lenovo SN550 Server (single-width type)	Dell PowerEdge FC640 Server	Dell PowerEdge M640 Server	Dell EMC PowerEdge MX740c Server	H3C B10000 Server
	Supported Blocks							
	FPGA model	N/A	N/A	N/A	N/A	N/A	N/A	
Hard drive backplane	Type (including the maximum number of supported hard disks)	2 2.5-inch HDDS and SSDS (including SAS SSD/SATA SSD)	2*2.5"	2 2.5-inch hot plug SAS/SATA/NVMe hard drives	2*2.5"	2*2.5"	6*2.5"	
	Whether to support hard disk hot swap	Yes	Yes	Yes	Yes	Yes	Yes	
Hard disk configuration	Model and quantity	SAS SSD/SATA SSD hard drive	SAS/SATA/NVMe	2.5-inch 12Gbps SAS hard drive: 300GB 15K、600GB 15K、900GB 15K 300GB 10K、600GB 10K、900GB 10K、1.2TB 10K、1.8TB 10K、2.4TB 10K 2.5-inch 12Gbps nl-sas hard drive: 1TB 7.2K、2TB 7.2 2.5-inch 6Gbps SATA	SAS/SATA/NVMe;2	SAS/SATA/NVMe;2	SAS/SATA/NVMe;6	

Server Model		Huawei CH121 V5 Server	HPE BL460c/Synergy 480 Gen10	Lenovo SN550 Server (single-width type)	Dell PowerEdge FC640 Server	Dell PowerEdge M640 Server	Dell EMC PowerEdge MX740c Server	H3C B10000 Server
				hard drive: 1TB 7.2K、2TB 7.2K 2.5-inch SSD hard drive: SAS interface: PM1633a 3.84TB、 PM1633a 7.68TB、 PM1633a 15.36TB、 HUSMM32 400GB、 HUSMM32 800GB、 PM1635a 400GB、 PM1635a 800GB、 PM1635a 1.6TB				
Chassis	Dimensions (cm)	Dimensions (height x width x depth) 60.46mm x 210mm x 537.2mm	18.07x5,54x51,76cm	Height: 51 mm (2.0 in) Width: 215 mm (8.5 in) Depth: 493 mm (19.4 in)	40.3mm x 211 mm x 535.8 mm	50.4mm x 198mm x 544.3 mm	50.35mm x 197.9mm x 564.9 mm	
	Ventilation method	Air-cooled	Air-cooled	Wind after wind	Air-cooled	Air-cooled	Air-cooled	
Temperature	Equipment operating temperature range (°C)	Operating temperature: 5°C ~ 40°C (41°F ~ 104°F)	10°C to 35°C	ASHRAE Class A3: 5 °C - 40 °C (41 °F - 104 °F); for altitudes above 900 m (2,953 ft), decrease the maximum	5°C to 40°C	5°C to 40°C	5°C to 40°C	

Server Model		Huawei CH121 V5 Server	HPE BL460c/Synergy 480 Gen10	Lenovo SN550 Server (single-width type)	Dell PowerEdge FC640 Server	Dell PowerEdge M640 Server	Dell EMC PowerEdge MX740c Server	H3C B10000 Server
				ambient temperature by 1 °C for every 175-m (574-ft) increase in altitude ASHRAE Class A2: 10 °C - 35 °C (50 °F - 95 °F); for altitudes above 900 m (2,953 ft), decrease the maximum ambient temperature by 1 °C for every 300-m (984-ft) increase in altitude				
	Equipment working humidity range	Working humidity: 5% RH ~ 85% RH (no condensation)	10% to 90%	ASHRAE Class A3: 8% - 85% (non-condensing); maximum dew point: 24 °C (75 °F) ASHRAE Class A2: 8% - 80% (non-condensing); maximum dew point: 21 °C (70 °F)	10% to 80%	10% to 80%	10% to 80%	
Hot-swappable power	Nominal power of single	E9000 blade server chassis AC power module	2400/2650w		Platinum 1600W, 2000W and 2400W	Depends on the knife frame (M1000e and VRTX)	MX7000 chassis, single 3000W	

Server Model		Huawei CH121 V5 Server	HPE BL460c/Synergy 480 Gen10	Lenovo SN550 Server (single-width type)	Dell PowerEdge FC640 Server	Dell PowerEdge M640 Server	Dell EMC PowerEdge MX740c Server	H3C B10000 Server
supplies	power supply (W)	includes 2000W and 3000W 2 models: 2000W platinum ac power module model is EPW2000-12A;The 2000W titanium AC power module is PAC200012-TE;The 3000W platinum ac power module is 3000-12A.						
	Quantity	6	6		2	M1000e: 6; VRTX:4	6	
	Dual power mode	Redundancy	N + N redundancy		Redundancy	Redundancy	Redundancy	
	Input method	220VDC/48VDC/380HVDC/240HVDC	200-240VAC/48VDC/380VDC		220VDC/48VDC/380HVDC/240HVDC	220VDC/48VDC/380HVDC/240HVDC	220VDC/48VDC/380HVDC/240HVDC	
PCI-E (I/O)	Quantity	3	Synergy: 3 x16 mezzanine; C7000: 2 x16 mezzanine	2 IO slots (PCIe 3.0x16) No support for the Flex SystemPCIe Expansion Node.	2 x8 mezzanine; 8 (FX2s chassis)	2 x8 mezzanine; 8 (VRTX chassis)	3 x16 mezzanine	
USB port	Quantity	2	1	Total 1 USB interface Front panel :1x USB 3.0	2	2	2	

Server Model		Huawei CH121 V5 Server	HPE BL460c/Synergy 480 Gen10	Lenovo SN550 Server (single-width type)	Dell PowerEdge FC640 Server	Dell PowerEdge M640 Server	Dell EMC PowerEdge MX740c Server	H3C B10000 Server
Out-of-band management	Yes or No	Yes	Yes	XClarity Controller (XCC) Advanced Optionally upgrade to Enterprise by Features on Demand (FoD) Mobile management function is supported (Xclarity Mobile App+ USB interface), and Mobile App supports Android or iOS	Yes	Yes	Yes	
	The main function	MM910 is the management module of the E9000 chassis, which is used to manage all hardware devices in the chassis. One case is configured with two mm910s, which are run in master and standby mode and support primary and standby switching	HPE iLO Standard with smart configuration (embedded), HPE OneView Standard (download required) (Standard), HPE iLO Advanced、HPE iLO Advanced Premium Security Edition and HPE OneView Advanced (optional)	Yes, Lenovo XClarity Energy Manager	IPMI 2.0 compliant iDRAC9 with life cycle controller (Express edition, Enterprise edition)	IPMI 2.0 compliant iDRAC9 with life cycle controller (Express edition, Enterprise edition)	IPMI 2.0 compliant iDRAC9 with life cycle controller (Express edition, Enterprise edition)	

Server Model		Huawei CH121 V5 Server	HPE BL460c/Synergy 480 Gen10	Lenovo SN550 Server (single-width type)	Dell PowerEdge FC640 Server	Dell PowerEdge M640 Server	Dell EMC PowerEdge MX740c	H3C B10000 Server
		and hot plugging. Supported protocols include IPMI 2.0, SNMP v3, SNMP Trap v1, SNMP Trap v2c, SNMP Trap v3, SSL, SSH, SFTP, HTTPS, NTP, DNS, LDAP and SMTP.						
Energy management	Yes or No	Yes	Yes		Yes	Yes	Yes	
System cooling fan		Air baffle	Yes	N / A, using Light path diagnostics	Air baffle	Air baffle	Air baffle	
LCD display		On the blade chassis	Yes	N/A	Host frame without	Host frame without	Host frame without	
Host front panel with keyhole and key		N/A	N/A	N/A	Yes	Yes	Yes	
Other					OpenManage connections:Nagios Core and Nagios XI, Oracle Enterprise Manager, HPE Operations Manager i (OMi)	OpenManage connections:Nagios Core and Nagios XI, Oracle Enterprise Manager, HPE Operations Manager i (OMi)	OpenManage Modular Edition; connections:Nagios Core and Nagios XI, Oracle Enterprise Manager, HPE Operations Manager i (OMi)	

Related Sources

Learn More about the server comparisons of Huawei and competitors:

[Huawei RH1288H V5 VS Servers of HPE, H3C, Lenovo, Dell, Inspur and Sugon](#)

[Huawei RH2288H V5 VS Servers of HPE, H3C, Lenovo, Dell, Inspur and Sugon](#)

[Huawei RH2488H V5 VS Servers of HPE, H3C, Lenovo, Dell, Inspur and Sugon](#)

[Huawei RH5885H V5 VS Servers of HPE, H3C, Lenovo, Dell, Inspur and Sugon](#)

[Huawei FusionServer X6000, XH321 v5 VS Servers of HPE, Lenovo, Dell and Inspur](#)

[Huawei CH242 V5 VS Servers of HPE, Lenovo, Dell and H3C](#)

Where To Buy

Want to buy this series of products? please contact:

- Tel: +1-626-239-8066 (USA) +852-3050-1066 / +852-3174-6166
- Fax: +852-3050-1066 (Hong Kong)
- Email: sales@router-switch.com (Sales Inquiries)

Why Router-switch.com

As a leading network hardware supplier, Router-switch.com focuses on original new ICT equipment of [Cisco](#), [Huawei](#), [HPE](#), [Dell](#), [Uniview](#), [Juniper](#), [Fortinet](#), etc.



200+

Countries we Sold



16,000+

Customers Trusted



\$20,000,000

Inventory Available



50%-98%

Off Global List Price



100%

Safe Online Shopping



Global

Price List Tool



Router-Switch.com
Leading Network Hardware Supplier