Huawei RH2288H V5 VS Servers of HPE, H3C, Lenovo, Dell, Inspur and Sugon

Server Model		Huawei RH2288H V5 Rack Server	HPE Proliant DL380 G10 Server	H3C UniServer R4900 G3 Server	Lenovo ThinkSystem SR650 Rack Server	Dell PowerEdge R740 Rack Server	Dell PowerEdge R740xd Rack Server
Advantages of Dell Servers		Security characteristics;There are more choices on the guiding medium of SDS;Network sub-card support 25Gb;H740P can be configured with up to 8GB of cache capacity;DELL supports dual SD CARDS; Quick Sync 2 intelligent management panel;NVDIMM support, support more gpus;Support for more power options	R740(xd) supports higher CPU, 8G Raid cache, up to 6 single width gpus,R740xd supports more hard drives	R740(xd) supports NV DIMM/Quick Sync/750W Titanium power supply/mirco-b iDrac/25GbE NDC/ larger capacity memory 8G Raid cache/6 single width gpus R740XD supports up to 32 hard disks	R740Xd supports more hard disks, 8GB cache RAID CARDS, built-in redundant SD modules, and NVDIMM R740Xd supports more gpus;R740Xd supports more PCIE slots;Support for Quick Sync wireless management	1. Supports NVDIMM/Quick Sync/750W Titanium power supply/micro-b iDrac/25GbE NDC 2. Powerful management function with life cycle management 3. Consistent security features of 14 generation servers, Root Trust	1. Supports NVDIMM/Quick Sync/750W Titanium power supply/micro-b iDrac/25GbE NDC 2. Powerful management function with life cycle management 3. Consistent security features of 14 generation servers, Root Trust
Disadvantages of Dell Servers		RAID CARDS do not support ultracapacitors	More 3.5 "disks are supported than the R740	The R4900 supports up to 40 2.5" disks and 10 PCIe slots.R740 does not support NVMe		Does not support NVMe	Does not support NVMe
CPU	Model	Support 1-2Intel® Xeon® Scalable processors, 3100, 4100, 5100, 6100, 8100 Series	1 -2 Intel® Xeon® processors 8100/6100/5100/4100/ 3100 Series	(2) Intel® Xeon® Scalable processors, 4/8/12/16/18/20/22/2 4/26/28 cores with a	Intel Xeon Bronze, Silver, Gold, or Platinum processors	(2)Intel® Xeon® Scalable processors （1st and 2nd Generation） Bronze, Silver, Gold,	(2)Intel® Xeon® Scalable processors （1st and 2nd Generation） Bronze,

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				maximum power support of 205W		Platinum	Silver, Gold, Platinum
	CPU model	8180(28c/2.5GHz)	8080/8010M	Platinum 8180M	Intel Xeon Platinum 8180 28C	Platinum 8180M (205W)	Platinum 8180M (205W)
Chipset		Lewisburg LBG-2(Intel C622)	Intel C621	Intel C621	Intel C624	Intel C621	Intel C621
RAM	Model	24 DDR4 DIMM slots, up to 2666MT/s.	24 128GB/2667MHz/LRDIMM 32GB/2667MHZ/RDIMM	24 DDR4 memory sticks, up to 2666MT/s, RDIMM or LRDIMM	24 DDR4 DIMM slots, up to 2666MT/s	24 128GB/2667MHz/LRDIMM Support for 2933MHz RDIMM since April 2019	24 128GB/2667MHz/LRDIMM Support for 2933MHz RDIMM since April 2019
	Total Capacity	RDIMM supports up to 1.5TB and LRDIMM supports up to 3TB	3.0TB	1.5TB	3TB	3TB	3TB
Permanent memory		No	1216GB NVDIMM, up to 192GB	No	No	12 NVDIMM, up to 192GB	12 NVDIMM, up to 192GB
Storage controller	Model	Supports 8-port 12Gbps pass-through card and array card: SR130-M（LSI SAS3008） does not support RAID, supports IT working mode, and supports iBMC out-of-band management	1 S100i 1 E208i-a/E208e-p 1 P408i-a/P408e-p 1 P816i-a	Standard 9-port onboard array controller RSTe supports SATA RAID 0/1/10/5 Optional 8 port HBA card based on array card special slot, support SATA/SAS RAID 0/1/10	8/16/24 port 12Gbps array card option 12Gbps RAID controller: ThinkSystem RAID 530-8i PCIe 12Gb Adapter ThinkSystem RAID 730-8i 1GB Cache PCIe 12Gb Adapter ThinkSystem RAID	6Gbps SATA Controller: onbord SW RAID S140 12Gbps RAID Controller: RAID Controller H730P, 12Gb/s SAS, 6Gb/s SATA , 2GB DDR3 NV SDRAM, PCIe, support SAS/SATA/SSD; RAID Controller H740P,	6Gbps SATA Controller: onbord SW RAID S140 12Gbps RAID Controller: RAID Controller H730P, 12Gb/s SAS, 6Gb/s SATA , 2GB DDR3 NV SDRAM, PCIe, support SAS/SATA/SSD; RAID Controller H740P,

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		SR430C-M(LSI SAS3108) support RAID 0/1/10/5 50/6/6 0, support the super capacitor protection, support iBMC out-of-band management.		Optional eight arrays based on proprietary slot array card card, support raid 0/1/10/5 60/1/6/50 / e/Simple Volume Optional 8-port HBA and smart array card options based on the standard pci-e 3.0 slot	930-8i 2GB Flash PCIe 12Gb Adapter ThinkSystem RAID 930-16i 4GB Flash PCIe 12Gb Adapter ThinkSystem RAID 930-24i 4GB Flash PCIe 12Gb Adapter **12Gbps non-RAID HBA card:** ThinkSystem 430-8i SAS/SATA 12Gb HBA ThinkSystem 430-16i SAS/SATA 12Gb HBA **NVMe PCIe interfaces (non-RAID)** Onboard NVMe interface (4-port) ThinkSystem 1610-4P NVMe Switch Adapter	12Gb/s SAS, 6Gb/s SATA , 8GB DDR4-2133 NV DRAM, PCIe, support SAS/SATA/SSD; RAID Controller H330, 12Gb/s SAS, 6Gb/s SATA, support SAS/SATA/SSD, no cache, PCIe **Internal controller:** HBA330 12Gb/s SAS, 6Gb/s SATA, No Cache, No RAID, Pass through only **External PERC(RAID):** RAID Controller H840 RAID Controller H840, 2Gb/s SAS, 6Gb/s SATA, 8GB NV, PCIe, support SAS/SATA/SSD, 0/1/5/6/10/50/60 **External HBA(No RAID) : 12 Gbps SAS HBA** No Cache, No RAID, Pass through only	12Gb/s SAS, 6Gb/s SATA , 8GB DDR4-2133 NV DRAM, PCIe, support SAS/SATA/SSD; RAID Controller H330, 12Gb/s SAS, 6Gb/s SATA, support SAS/SATA/SSD, no cache, PCIe **Internal controller:** HBA330 12Gb/s SAS, 6Gb/s SATA, No Cache, No RAID, Pass through only **External PERC(RAID):** RAID Controller H840 RAID Controller H840, 2Gb/s SAS, 6Gb/s SATA, 8GB NV, PCIe, support SAS/SATA/SSD, 0/1/5/6/10/50/60 **External HBA(No RAID): 12 Gbps SAS HBA** No Cache, No RAID, Pass through only

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	Cache Size/Maximum	0/4GB	4GB	2G	None、1GB、2GB、4GB	8GB	8GB
	Cahce Protection Type	Capacitance		flash	None(530-8i、730-8i)、Flash backup（930-8i、930-16i、930-24i）		
	Battery or Capacitance	Capacitance	Battery	Capacitance	Capacitance	Battery	Battery
	Main technical characteristics	Support for RAID 0/1/00/5/6/50/60, hot disk backup, read-write cache, data drop protection, CacheCade, disk patrol, automatic s.m.a.r.t-scan, hard drive energy saving, hard drive roaming, and more	12Gb SAS, up to 240 pieces	Up to 2GB DDR3-1,866 MHz, 72-bit wide bus, 14.9 GB/s IO performance	Controller Chip：SAS3408(530-8i)、SAS3108(730-8i)、SAS3508(930-8i、930-24i)、SAS3516(930-16i)、SAS3408(430-8i)、SAS3416(430-16i) RAID Support：530-8i(0\1\10\5\50)、730-8i(0\1\10\5\50)、930-8i(0\1\10\5\50\6\60)、930-16i(0\1\10\5\50\6\60)、930-24i(0\1\10\5\50\6\60)	Controller Chip：H730P(LSISAS 3108)，H740P(LSISAS 3508)，H330(LSI SAS3008) RAID Support：H730P (0/1/5/6/10/50/60), H740P(0/1/5/6/10/50/60), H330 (0/1/5/10/50), S140 (0/1/5/10)	Controller Chip：H730P(LSISAS 3108)，H740P(LSISAS 3508)，H330(LSI SAS3008) RAID Support：H730P (0/1/5/6/10/50/60), H740P(0/1/5/6/10/50/60), H330 (0/1/5/10/50), S140 (0/1/5/10)
SD Card	Number of SD	Does not support SD	1 (optional 2)	2	Does not support SD	2	2

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	cards						
	SD card capacity	N/A	8GB dual MicroSD card pack or 32GB single MicroSD card pack	32GB dual MicroSD card pack	N/A	64GB	64GB
	SD cards can form RAID levels	N/A	N/A	Unknown	N/A	1	1
M.2	M.2 quantity	2	2	2	1 or 2	2	2
	M. 2 single chip capacity	N/A	1.92TB	256G	ThinkSystem M.2 CV1 32GB ThinkSystem M.2 CV3 128GB	240GB	240GB
	M.2 RAID levels	N/A	RAID 1	Unknown	RAID0、RAID1	1	1
Network card	Sub-Card (NDC Card Type)	Onboard 2 gigabit and 2 10 gigabit interfaces; 2 gigabit /4 gigabit /2 gigabit /1 or 2 56G FDR IB interfaces are optional through the LOM slot SM211-2*GE Intel i350 chip 2 ports 1Gb Base-T SM212-4*GE Intel i350 chip 4 ports 1Gb Base-T	Default 4x1Gb (FlexibleLOM) Optional 2x10Gb/4x10Gb/2x25Gb	Board 1 1Gbps HDM management network port MLOM supports extension of 4xGE port, 2x10GE port and 2x10GE optical port interface through mLOM. MLOM supports NCSI function and supports network	**No onboard, 1 LOM slot, LOM CARDS (Intel X722, incompatible 10/100mb rate)** ThinkSystem 1Gb 2-port RJ45 LOM ThinkSystem 1Gb 4-port RJ45 LOM ThinkSystem 10Gb 2-port Base-T LOM ThinkSystem 10Gb	4 1GE interfaces, or 2 10GE plus 2 1GE interfaces, or 4 10GE interfaces, or 2 25GE interfaces	4 1GE interfaces, or 2 10GE plus 2 1GE interfaces, or 4 10GE interfaces, or 2 25GE interfaces

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		SM233 2*10GE Intel X540 chip 2 ports 10Gb Base-T SM210 4*GE Qlogic Broadcom 5719 chip 4 ports 1Gb Base-T		adapter options of standard pci-e 3.0.	2-port SFP+ LOM ThinkSystem 10Gb 4-port Base-T LOM ThinkSystem 10Gb 4-port SFP+ LOM		
	PCIe (occupies a standard slot)	Intel I350 4 ports 1Gb Base-T NIC Intel I350 2 ports 1Gb Base-T NIC Intel X540 2 ports 10Gb Base-T NIC Intel X710 2 ports 10Gb SFP+ NIC Intel X710 4 ports 10Gb SFP+ NIC 1 or 2 Emulex/Qlogic 16Gb/8Gb FC HBA card	No (embedded, no slot occupied)	Yes	Yes	Yes	Yes
GPU	GPU Max Supported Blocks		3 full widths or 5 single widths	Up to 3 double-wide GPUs	Up to 2 double widths	3 full-width 300W or 6 single-width 150W	3 full-width 300W or 6 single-width 150W
	GPU model	nVidia Tesla M60 nVidia Tesla M10 nVidia Tesla P4 nVidia Tesla P40 nVidia Tesla P100	Nvidia Tesla P4/P40/P100/V100/M60 Quadro P2000/P4000/P6000 AMD Radeon Instinct	M4000, K80, M60, M4	NVIDIA Tesla M60 GPU, PCIe (Passive) NVIDIA Tesla P100 16GB PCIe Passive GPU	Nvidia Tesla V100/P100, K80, K40, Grid M60, M10, P4, Quadro P4000.	Nvidia Tesla V100/P100, K80, K40, Grid M60, M10, P4, Quadro P4000.

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			MI25				
FPGA	FPGA Maximum Supported Blocks	No support at present	/	Unknown	N/A	Unknown	Unknown
	FPGA model	No support at present	/	Unknown	N/A	POST RTS	POST RTS
Hard drive backplane	Type (including the maximum number of supported hard disks)	8*2.5 "hard disk configuration - 1*RAID control card 16*3.5 "EXP hard disk configuration (front 12+ rear 4) -- 1*RAID control card 24*2.5 inch pass-through hard disk configuration -- 3*RAID control card (one RAID card for every 8 hard disks) 27*2.5 "EXP hard disk configuration - front 25 and rear 2-1*RAID control card	Max 24+6x2.5", Max 12+4+3x3.5" and 2x2.5"; Max 20 front NVMe	Support SAS/SATA HDD/SSD hard drives;Maximum support for front 12x3.5", internal expansion 4x3.5", rear expansion 4x3.5" + 4x2.5" Maximum support for front 25x2.5", internal expansion 8x2.5", rear expansion 3x3.5" + 4x2.5"* Support front/internal NVMe hard disk, support up to 24 front NVMe hard disk	**16 2.5-inch SAS/SATA hot plug hard drives** a. 8 2.5" SAS/SATA + 8 2.5" SAS/SATA b. 4 2.5" SAS/SATA & 4 2.5" AnyBay + 8 2.5" SAS/SATA c. 4 2.5" SAS/SATA & 4 2.5" AnyBay + 4 2.5" SAS/SATA & 4 2.5" AnyBay **24 2.5-inch SAS/SATA hot plug hard drives** a. 8 2.5" SAS/SATA + 8 2.5" SAS/SATA + 8 2.5" SAS/SATA b. 4 2.5" SAS/SATA & 4	**Supports up to 16 x 2.5" hard drives** a. 16 x 2.5" SAS/SATA b. 8 x 2.5" SAS/SATA **Supports up to 8 x 3.5 "hard drives** a. 8 x 2.5" SAS/SATA **No support for rear or internal hard drives**	**Supports up to 16 x 2.5" hard drives** a. 16 x 2.5" SAS/SATA b. 8 x 2.5" SAS/SATA **Supports up to 8 x 3.5 "hard drives** a. 8 x 2.5" SAS/SATA **No support for rear or internal hard drives**

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		Available with 8 2.5-inch SAS/SATA/SSD drives Configurable 12/16/20 3.5-inch SAS/SATA hard drives Configurable 4/8/12/24/28 NVMe SSD disks Available with 31 2.5-inch SAS/SATA/SSD drives		Supports 256GB SATA M.2 option	2.5" AnyBay + 8 2.5" SAS/SATA + 8 2.5" SAS/SATA **8 3.5-inch SAS/SATA hot plug hard drives** **14 3.5-inch SAS/SATA hot plug hard drives** a. 12 3.5" SAS/SATA (front) + 2 3.5" SAS/SATA (rear) b. 8 3.5" SAS/SATA & 4x 3.5" AnyBay (front) + 2 3.5" SAS/SATA (rear)		
	Whether to support hard disk hot swap	Yes	Yes	Yes	Yes	Yes	Yes
Hard disk configuration	**Model and quantity**	300GB / 600GB / 900GB / 1.2TB 10K to SAS 300GB / 600GB 15K to SAS 2TB / 3TB / 4TB 7.2K to NL-SAS 1TB / 3TB / 4TB 7.2K to SATA 1.2TB / 1.6TB / 1.92TB / 240GB / 3.84TB / 480GB	SATA/SAS HDD/SSD	Up to 31 hard disks, support SAS/SATA HDD/SSD hard disks;Maximum support for front 12x3.5", internal expansion 4x3.5", rear expansion 4x3.5"" + 4x2.5" Maximum support for	2.5-inch 12Gbps SAS hard drive： 3.5-inch 12Gbps SAS hard drive： 2.5-inch 12Gbps NL-SAS hard drive： 3.5-inch 12Gbps NL-SAS hard drive： 3.5-inch 6Gbps SATA hard drive：	SAS/SATA/SSD; 16*2.5''/8*3.5''	SAS/SATA/SSD; 16*2.5''/8*3.5''

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		/ 800GB / 960GB SSD supports NVMe 1.2TB / 2TB / 3.2TB / 1.6TB / 800GB SSD		front 25x2.5", internal expansion 8x2.5", rear expansion 3x3.5" + 4x2.5"* Support front/internal NVMe hard disk, support up to 24 front NVMe hard disk Supports 256GB SATA M.2 option	2.5-inch 6Gbps SATA hard drive： 2.5-inch SSD hard drive： NVMe PCIe interface： U.2 PX04PMB 800GB、 U.2 PX04PMB 1.6TB、U.2 PX04PMB 960GB、 U.2 PX04PMB 1.92TB、 U.2 PM963 1.92TB、 U.2 PM963 3.84TB		
Chassis	Dimensions (cm)	3.5-inch hard disk case: 86.1mm x 447mm x 748mm (3.39in. x 17.60in. x 29.45in.) 2.5-inch hard disk case: 86.1mm x 447mm x 708mm (3.39in. x 17.60in. x 27.87in.)	x2.5"：8.73 x 44.55 x 67.94 cm x3.5"：8.73 x 44.55 x 73.02 cm	87.5mm (height) x 445.5mm (width) x 748mm (depth) (without security panel) 87.5mm (height) x 445.5mm (width) x 769mm (depth) (without security panel)	2U height Height: 87 mm (3.4 in) Width: 445 mm (17.5 in) Depth: 720 mm (28.3 in)	86.5mm (height) * 482mm (width) * 751.34mm (depth) (including safety panel) 28.6kg	86.5mm (height) * 482mm (width) * 751.34mm (depth) (including safety panel) 28.6kg
	Ventilation method	Wind after wind	Forward wind	Forward wind	Wind after wind	Air-cooled	Air-cooled

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Temperature	Equipment operating temperature range (℃)	Operating temperature: 5℃ ～ 45℃（41℉ ～ 113℉）（ASHRAE CLASS A3 and A4 standards）	ASHARE A4 5-45℃	5-50℃（conditionally supported）	ASHRAE Class A4: 5 ℃- 45 ℃ (41 ℉ - 113 ℉); for altitudes above 900 m (2,953 ft), decrease the maximum ambient temperature by 1 ℃ for every 125-m (410-ft) increase in altitude ASHRAE Class A3: 5 ℃ - 40 ℃ (41 ℉ - 104 ℉); for altitudes above 900 m (2,953 ft), decrease the maximum ambient temperature by 1 ℃ for every 175-m (574-ft) increase in altitude ASHRAE Class A2: 10 ℃ - 35 ℃ (50 ℉ - 95 ℉); for altitudes above 900 m (2,953 ft), decrease the maximum ambient temperature by 1 ℃ for every 300-m (984-ft) increase in altitude	10℃ to 35℃	10℃ to 35℃
	Equipmen	Working humidity: 8%	8% - 90%	Unknown	ASHRAE Class A4: 8% -	10% to 80%	10% to 80%

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	t working humidity range	RH ~ 90% RH non-condensation			90% (non-condensing); maximum dew point: 24 ℃ (75 ℉) ASHRAE Class A3: 8% - 85% (non-condensing); maximum dew point: 24 ℃ (75 ℉) ASHRAE Class A2: 8% - 80% (non-condensing); maximum dew point: 21 ℃ (70 ℉)		
Hot-swappable power supplies	Nominal power of single power supply (W)	500W/900W/1200W/1500W,titanium/platinum power supply	HPE universal slot redundant power module 550 w /800 w /1600 w, up to 96% efficiency conversion	Optional up to 2 550W/800W/1200W high efficiency redundant power supply, certified by 80Plus, up to 96% efficiency conversion rate (supported in the first half of 2018) Supports up to 6 N + 1 redundant hot plug fans	550W/750W/1100W/1600W, optional platinum, titanium power supply ThinkSystem 550W (230V/115V) Platinum Hot-Swap Power Supply ThinkSystem 750W (230/115V) Platinum Hot-Swap Power Supply ThinkSystem 750W (230V) Titanium Hot-Swap Power Supply ThinkSystem 1100W (230V/115V) Platinum Hot-Swap Power Supply ThinkSystem 1600W	Titanium gold 750W，Platinum class 495W、750W、1100W、1600W and 2000W 240V HVDC 750W 336V HVDC 1100W -48V DC 1100W	Titanium gold 750W，Platinum class 495W、750W、1100W、1600W and 2000W 240V HVDC 750W 336V HVDC 1100W -48V DC 1100W

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					(230V) Platinum Hot-Swap Power Supply		
	Quantity	2	1-2	2	2	2	2
	Dual power mode	1+1 redundancy	Redundancy	Redundancy	N+N	Redundancy	Redundancy
	Input method	110V/220V AC or 240V/380V DC or -48v--60v DC power supply	240VAC/48VDC/380VDC		Up to two redundant hot-swap 550 W, 750 W, or 1100 W (100 - 240 V), or 1600 W (200 - 240 V) High Efficiency Platinum AC power supplies, or 750 W (200 - 240 V) High Efficiency Titanium AC power supplies.	220VAC/48VDC/380HVDC/240HVDC	220VAC/48VDC/380HVDC/240HVDC
PCI-E (I/O)	Quantity	Up to 9 PCIe expansion slots IO module 1 and IO module 2 support the following PCIe specifications: Support 2 full-height full-length pcie3.0x16 standard CARDS (signal PCIe3.0x8) and 1 full-height half-length PCIe3.0x16 standard	Up to 8 standard PCI-E 3.0 slots, 1 array card proprietary slot, and 1 FlexLOM network card slot	Up to 10 PCIe 3.0 available slots (8 standard slots, 1 special slot for array CARDS, 1 special slot for mLOM network CARDS)	Up to 7 PCIE 3.0 slots (including 1 dedicated RAID adapter PCIE) LOM card slot Slot 1: PCIe 3.0 x16 or PCIe 3.0 x8; full-height, half-length (PCIe x16 slot is double-wide) Slot 2: PCIe 3.0 x8; full-height, half-length (not present if the slot 1 is PCIe x16 or slot 3 is	Up to 8 Gen3 slot (4 x16)	Up to 8 Gen3 slot (4 x16)

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		CARDS (signal PCIe3.0x8). Supports 1 full-height full-length PCIe3.0x16 standard card and 1 full-height half-length PCIe3.0x16 standard card (signal is PCIe 3.0x8). IO module 3 supports the following specifications: Support 1 full height and half length PCIe 3.0x16 standard card (signal is PCIe 3.0x8) and 1 full height and half length PCIe 3.0x8 standard card. Support 1 full height and half length PCIe 3.0x16 standard card. "PCIe expansion slot supports huawei's independent development of PCIe SSD memory card,			ML2 x16) Slot 3: PCIe 3.0 x8, or ML2 x8, or ML2 x16; full-height, half-length Slot 4: PCIe 3.0 x8; low profile (vertical slot on system planar) Slot 5: PCIe 3.0 x16; full-height, half-length Slot 6: PCIe 3.0 x16; full-height, half-length Slot 7: PCIe 3.0 x8 (dedicated to an internal storage controller)		

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		which can greatly improve I/O performance in search business, Cache business, download business and other application fields.					
USB port	Quantity	The front panel provides 2 USB 2.0 ports and 1 USB 3.0 port The back panel provides 2 USB 3.0 ports Built-in 1 USB3.0 port	5 standard USB 3.0 (front 1, rear 1, internal 2), 2 additional USB ports can be added through Universal Media Bay (8x3.5" chassis standard)	Up to 6 USB 3.0 (1 for front part, optional 1, 2 for back part, 2 for inside part);	Total 4 USB ports Front panel :1x USB 2.0 port with XClarity Controller access, 1x USB 3.0 port Rear panel :2x USB 3.0 ports	5	5
Out-of-band management	Yes or No	Yes	Yes	Yes	Yes	Yes	Yes
	The main function	UEFI iBMC Support the independent interface SNMP v1/v2c/v3、IPMI 2.0、Redfish 1.0，provides a GUI, virtual KVM virtual media, SOL, depth, and fault detection (PFA), intelligent power supply, remote control,	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)	HDM has no agent management tools (with independent management port) and H3C FIST management software	XClarity Controller (XCC) Standard, Advanced, Enterprise Standard features are included by default and can be upgraded to Advanced or Enterprise via Features on Demand (FoD) Support mobile management function (Xclarity Mobile App +	IPMI 2.0 compliant IDRAC9 with life cycle controller (Express edition, Enterprise edition) Optional Quick Sync 2 wireless module	IPMI 2.0 compliant IDRAC9 with life cycle controller (Express edition, Enterprise edition) Optional Quick Sync 2 wireless module

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		such as hardware monitoring features. Support NCSI. Support is huawei eSight management software, support VMware vCenter, Microsoft SystemCenter, Nagios third party management system integration, etc.			front USB interface connection), Mobile App supports Android or iOS		
Energy managemen t	Yes or No	Yes	Yes	Yes	Yes, Lenovo XClarity Energy Manager	Yes	Yes
System cooling fan		4 hot plug fans, support single fan failure	6	Supports up to 6 N + 1 redundant hot plug fans	6 hot plug fans, support N+1 redundancy, 5 for 1 CPU, 6 for 2 CPU	Wind deflector plate, vector heat dissipation	Wind deflector plate, vector heat dissipation
LCD display		Support (only supported in 8 2.5" hard disk slot configurations)	Systems Insight Display	See no	N/A is diagnosed by Light path diagnostics	Optional	Optional
Host front panel with keyhole and key		Support (security panel)	Yes	Yes	Support, optional lock panel (ThinkSystem 1U Security Bezel)	Yes	Yes
Other		Power code Administrator password TPM Safety panel	UEFI starts safely Trusted silicon root technology FIPS 140-2	UEFI starts safely Management module HDM supports network firewall functions	Boot password and administrator password TPM 1.2, 2.0 (set by UEFI)	Cryptographically signed firmware; Hardware Root of Trust; Secure Boot; System	Cryptographically signed firmware; Hardware Root of Trust; Secure Boot;

Server Model	Huawei RH2288H V5 Rack Server	HPE Proliant DL380 G10 Server	H3C UniServer R4900 G3 Server	Lenovo ThinkSystem SR650 Rack Server	Dell PowerEdge R740 Rack Server	Dell PowerEdge R740xd Rack Server
		Common Criteria Certification Configurable for PCI DSS the Compliance The browser side supports AES and 3DES encryption CNSA Tamper-proof upgrade Firmware safety recovery Firmware rollback technology Safety erasure technology TPM 1.2/2.0 Security panel Optional case intrusion detection	(custom access restrictions via IP address, port number, time period and MAC address) TPM 2.0 TCM 1.0 Lockable security panel Case intrusion detection	TCM Optional lockable security panel	Lockdown; System Erase; OpenManage connections: Nagios & Nagios XI,Oracle Enterprise Manager, HP Operations Manager, IBM Tivoli Netcool/OMNIbus, IBM Tivoli® Network Manager, CA Network and Systems Management	System Lockdown; System Erase; OpenManage connections: Nagios & Nagios XI,Oracle Enterprise Manager, HP Operations Manager, IBM Tivoli Netcool/OMNIbus, IBM Tivoli® Network Manager, CA Network and Systems Management

Server Model		Huawei RH2288H V5 Rack Server	Inspur NF5280 M5 Server	Inspur SA5212M5 Server	Inspur NF5290 M5 Server(no data available)	Sugon I620-G30 Server
Advantages of Dell Servers		Security characteristics;There are more choices on the guiding medium of SDS;Network sub-card support 25Gb;H740P can be configured with up to 8GB of cache capacity;DELL supports dual SD CARDS; Quick Sync 2 intelligent management panel;NVDIMM support, support more gpus; Support for more power options	Security features;Support more GPU CARDS;There are more choices on the guiding medium of SDS;Network sub-card support 25Gb;(inspur NF5280M5 supports 1 OCP network card and 4 GPU CARDS)	Support high TDP CPU (higher than 165W);Inspur does not support Omni Path, CPU+FPGA, QAT, or IDSDM		NVDIMM,more hard drive support, support 24x NVMe
Disadvantages of Dell Servers		RAID CARDS do not support ultracapacitors		8 Dell PCIe losts (Inspur 9)		No 25GbE NDC/LOM
CPU	Model	Support 1-2Intel® Xeon® Scalable processors, 3100, 4100, 5100, 6100, 8100 Series	Intel Skylake 3/4/5/6/8 Series	Intel® Xeon® processors purley series, Max TDP supports 165W		Intel® Xeon® Scalable processors
	CPU model	8180(28c/2.5GHz)	N/A			Unknown
Chipset		Lewisburg LBG-2(Intel C622)	N/A			
RAM	Model	24 DDR4 DIMM slots, up to 2666MT/s.	24 memory slots, up to DDR4-2666 memory	24 DIMM DDR4, support RDIMM/LRDIMM, Max memory operating		24 memory slots, up to 3T

Server Model		Huawei RH2288H V5 Rack Server	Inspur NF5280 M5 Server	Inspur SA5212M5 Server	Inspur NF5290 M5 Server(no data available)	Sugon I620-G30 Server
				frequency 2666MHz		
	Total Capacity	RDIMM supports up to 1.5TB and LRDIMM supports up to 3TB	One 128G supports up to 3TB			RDIMM LRDIMM NVDIMMM NVDIMM-N
Permanent memory		No		Support for 12 AEP memory modules (Cascade CPU required)		Support
Storage controller	Model	Supports 8-port 12Gbps pass-through card and array card: SR130-M(LSI SAS3008) does not support RAID, supports IT working mode, and supports iBMC out-of-band management SR430C-M(LSI SAS3108) support RAID 0/1/10/5 50/6/6 0, support the super capacitor protection, support iBMC out-of-band management.	N/A			Integrated 12-port SATA hard disk controller; can be flexibly configured with SAS cards, support RAID0 / 1/10 SAS RAID cards, support RAID 0/1/5/6/50/60, support cache super capacitor protection, provide RAID state migration, RAID configuration Memory and other functions
	Cache Size/Maximum	0/4GB	N/A			Unknown
	Cahce	Capacitance	N/A			

Server Model		Huawei RH2288H V5 Rack Server	Inspur NF5280 M5 Server	Inspur SA5212M5 Server	Inspur NF5290 M5 Server(no data available)	Sugon I620-G30 Server
	Protection Type					
	Battery or Capacitance	Capacitance	N/A			Capacitance
	Main technical characteristics	Support for RAID 0/1/00/5/6/50/60, hot disk backup, read-write cache, data drop protection, CacheCade, disk patrol, automatic s.m.a.r.t-scan, hard drive energy saving, hard drive roaming, and more	Configurable storage controller with cache to support power-off protection module			
SD Card	Number of SD cards	Does not support SD	N/A			2
	SD card capacity	N/A	N/A			
	SD cards can form RAID levels	N/A	N/A			
M.2	M.2 quantity	2	2	2 SATA M.2 SSD		2
	M. 2 single chip capacity	N/A	N/A			
	M.2 RAID levels	N/A	N/A			
Network card	Sub-Card (NDC	Onboard 2 gigabit and 2 10	Support 1 OCP network card	Opt-out ocp-c dual 10		Optional set of 2 /4 1GE

Server Model		Huawei RH2288H V5 Rack Server	Inspur NF5280 M5 Server	Inspur SA5212M5 Server	Inspur NF5290 M5 Server(no data available)	Sugon I620-G30 Server
	Card Type)	gigabit interfaces; 2 gigabit /4 gigabit /2 gigabit /1 or 2 56G FDR IB interfaces are optional through the LOM slot SM211-2*GE Intel i350 chip 2 ports 1Gb Base-T SM212-4*GE Intel i350 chip 4 ports 1Gb Base-T SM233 2*10GE Intel X540 chip 2 ports 10Gb Base-T SM210 4*GE Qlogic Broadcom 5719 chip 4 ports 1Gb Base-T	slot	gigabit fiber card, 40 gigabit fiber card, dual 10 gigabit power port card, 4 gigabit power port card Ocp-a dual 10 gigabit fiber network card, dual 10 gigabit port network card and 25G dual port network card are optional		interfaces, or 2 10GE (optical or electrical ports)
	PCIe (occupies a standard slot)	Intel I350 4 ports 1Gb Base-T NIC Intel I350 2 ports 1Gb Base-T NIC Intel X540 2 ports 10Gb Base-T NIC Intel X710 2 ports 10Gb SFP+ NIC Intel X710 4 ports 10Gb SFP+ NIC 1 or 2 Emulex/Qlogic 16Gb/8Gb FC HBA card	Supports up to 10 standard PCIE extensions, including 8 full height + 2 half height and half length			Yes
GPU	GPU Max		4	4		0

Server Model		Huawei RH2288H V5 Rack Server	Inspur NF5280 M5 Server	Inspur SA5212M5 Server	Inspur NF5290 M5 Server(no data available)	Sugon I620-G30 Server
	Supported Blocks					
	GPU model	nVidia Tesla M60 nVidia Tesla M10 nVidia Tesla P4 nVidia Tesla P40 nVidia Tesla P100	NA			
FPGA	FPGA Maximum Supported Blocks	No support at present	NA			Unknown
	FPGA model	No support at present	NA			Unknown
Hard drive backplane	Type (including the maximum number of supported hard disks)	8*2.5 "hard disk configuration - 1*RAID control card 16*3.5 "EXP hard disk configuration (front 12+ rear 4) -- 1*RAID control card 24*2.5 inch pass-through hard disk configuration -- 3*RAID control card (one RAID card for every 8 hard disks) 27*2.5 "EXP hard disk configuration - front 25 and rear 2-1*RAID control card	28 2.5in/20 3.5in Front: supports up to 24 front 2.5-inch hard drives, or 12 front 3.5-inch hard drives.Supports 24 NVMe SSD full flash configurations. Built-in: supports up to 4 3.5-inch hard drives and 2 M.2 SSDS Rear: supports up to 4 3.5 "and 4 2.5" hard drives	Max support 3.5* 12 + 3.5" *4+2.5 *4, including 8 pre-nvme Maximum support for 32 blocks 2.5"" (24 +4 +4), including 6 pre-nvme - supports 24SAS/SSD, with 6NVMe or 24 NVMe 4GPU model, with 4 GPU supporting 8 hard disks		8-bay models: up to 8 LFFLFF / SFF / SFF / SFF, which can support 8 U.2 SSDs12-bay models: up to 12 LFF12 LFF12 LFF12 LFF12 LFF / SFF / SFF / SFF, of which, Among them, it can support 8 U.2 SSDs. 24 disk models: up to 24 SFF 25 disk models: up to 25 SFF All models support optional hard disk mixing

Server Model		Huawei RH2288H V5 Rack Server	Inspur NF5280 M5 Server	Inspur SA5212M5 Server	Inspur NF5290 M5 Server(no data available)	Sugon I620-G30 Server
		Available with 8 2.5-inch SAS/SATA/SSD drives Configurable 12/16/20 3.5-inch SAS/SATA hard drives Configurable 4/8/12/24/28 NVMe SSD disks Available with 31 2.5-inch SAS/SATA/SSD drives				and optional 2 or 4 LFF / SFF
	Whether to support hard disk hot swap	Yes	Yes			Yes
Hard disk configuration	Model and quantity	300GB / 600GB / 900GB / 1.2TB 10K to SAS 300GB / 600GB 15K to SAS 2TB / 3TB / 4TB 7.2K to NL-SAS 1TB / 3TB / 4TB 7.2K to SATA 1.2TB / 1.6TB / 1.92TB / 240GB / 3.84TB / 480GB / 800GB / 960GB SSD supports NVMe 1.2TB / 2TB / 3.2TB / 1.6TB / 800GB SSD	Front: supports up to 24 front 2.5-inch hard drives, or 12 front 3.5-inch hard drives.Supports 24 NVMe SSD full flash configurations. Built-in: supports up to 4 3.5-inch hard drives and 2 M.2 SSDS Rear: supports up to 4 3.5-inch and 4 2.5-inch hard disks			SAS/SATA/NVMe; 29*2.5''/8*3.5''
Chassis	Dimensions (cm)	3.5-inch hard disk case: 86.1mm x 447mm x 748mm (3.39in. x 17.60in. x	N/A			87.8mm (height) x 448 mm (width) x 794.4mm (depth) 87.8mm (height) x 482

Server Model		Huawei RH2288H V5 Rack Server	Inspur NF5280 M5 Server	Inspur SA5212M5 Server	Inspur NF5290 M5 Server(no data available)	Sugon I620-G30 Server
		29.45in.) 2.5-inch hard disk case: 86.1mm x 447mm x 708mm (3.39in. x 17.60in. x 27.87in.)				(including box ears) mm (width) x 801.2 (including thumb screws) mm (depth)
	Ventilation method	Wind after wind	N/A			Air-cooled
Temperature	Equipment operating temperature range (℃)	Operating temperature: 5℃ ～ 45℃(41℉ ～ 113℉)(ASHRAE CLASS A3 and A4 standards)	10℃ -35℃			Operating time: 5℃ ～ 40 ℃(41 ℉ ～ 104 ℉) Storage -40 ℃～ 60 ℃ (-40 ℉～ 140 ℉)
	Equipment working humidity range	Working humidity: 8% RH ~ 90% RH non-condensation	20-80% relative humidity			Unknown
Hot-swappable power supplies	Nominal power of single power supply (W)	500W/900W/1200W/1500 W,titanium/platinum power supply	Single/dual power 550W/800W/1300W/1600W and above output power 1+1 redundant power supply, can support high voltage dc and titanium gold grade power supply	Platinum redundant dual power, can support active-standby, high-voltage dc and other functions, can support single and double power;Support PMbus, Smart Power Power management technology		Standard platinum level, support titanium level Optional 550W or 1200W CRPS CRPSCRPS efficient platinum power supply, can be added to 1+1 redundancy
	Quantity	2	2	2		2
	Dual power mode	1+1 redundancy	Redundancy			Redundancy
	Input method	110V/220V AC or 240V/380V DC or -48v--60v	High voltage DC support			Unknown

Server Model		Huawei RH2288H V5 Rack Server	Inspur NF5280 M5 Server	Inspur SA5212M5 Server	Inspur NF5290 M5 Server(no data available)	Sugon I620-G30 Server
		DC power supply				
PCI-E (I/O)	Quantity	Up to 9 PCIe expansion slots IO module 1 and IO module 2 support the following PCIe specifications: Support 2 full-height full-length pcie3.0x16 standard CARDS (signal PCIe3.0x8) and 1 full-height half-length PCIe3.0x16 standard CARDS (signal PCIe3.0x8). Supports 1 full-height full-length PCIe3.0x16 standard card and 1 full-height half-length PCIe3.0x16 standard card (signal is PCIe 3.0x8). IO module 3 supports the following specifications: Support 1 full height and half length PCIe 3.0x16 standard card (signal is PCIe 3.0x8) and 1 full height and half length PCIe 3.0x8 standard card.	Up to 10 standard PCIe slots can be supported	Supports up to 9 PCIE, including one dedicated slot for OCP network card		Supports up to 10 PCIe 3.0 slots

Server Model		Huawei RH2288H V5 Rack Server	Inspur NF5280 M5 Server	Inspur SA5212M5 Server	Inspur NF5290 M5 Server(no data available)	Sugon I620-G30 Server
		Support 1 full height and half length PCIe 3.0x16 standard card. "PCIe expansion slot supports huawei's independent development of PCIe SSD memory card, which can greatly improve I/O performance in search business, Cache business, download business and other application fields.				
USB port	Quantity	The front panel provides 2 USB 2.0 ports and 1 USB 3.0 port The back panel provides 2 USB 3.0 ports Built-in 1 USB3.0 port	2 rear USB 3.0 ports, 2 built-in USB 3.0 ports and 2 front USB ports			Unknown
Out-of-band management	Yes or No	Yes	Yes			Yes
	The main function	UEFI iBMC Support the independent interface SNMP v1/v2c/v3、 IPMI 2.0、 Redfish 1.0，provides a GUI, virtual KVM virtual media, SOL, depth, and fault detection (PFA),	Integrated with a single 1000Mbps network interface for remote management of IPMI	Integrated independent management network port, can support redfish, IPMI 2.0, KVM over IP, virtual media and other management functions;Support data interface management		Integrated BMC, support IPMI2.0, SOL, KVM Over IP, virtual media and other advanced management functions, provide a 1Gbps RJ45 management port, can support NCSI functions

Server Model		Huawei RH2288H V5 Rack Server	Inspur NF5280 M5 Server	Inspur SA5212M5 Server	Inspur NF5290 M5 Server(no data available)	Sugon I620-G30 Server
		intelligent power supply, remote control, such as hardware monitoring features. Support NCSI. Support is huawei eSight management software, support VMware vCenter, Microsoft SystemCenter, Nagios third party management system integration, etc.		reuse function;Support for inspur ICM server management and deployment software		
Energy management	Yes or No	Yes	NA			Yes
System cooling fan		4 hot plug fans, support single fan failure	NA			Power consumption capping and dynamic phase switching
LCD display		Support (only supported in 8 2.5" hard disk slot configurations)	Support LCD module			Double-key LCM monitor screen is optional for 8-bit models, while 12-bit or 24-bit models do not support LCM monitor screen
Host front panel with keyhole and key		Support (security panel)	No			Unknown
Other		Power code Administrator password	N/A			Off-line optical path diagnosis technology, fine

Server Model	Huawei RH2288H V5 Rack Server	Inspur NF5280 M5 Server	Inspur SA5212M5 Server	Inspur NF5290 M5 Server(no data available)	Sugon I620-G30 Server
	TPM Safety panel				fault alarm

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 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

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