

Cisco Unified Computing System Hardware



Cisco UCS C-Series Rack Servers								
	C22 M3	C24 M3	C220 M3	C240 M3	C420 M3	C260 M2	C460 M2	C460 M4
Form Factor								
Number of Sockets	2	2	2	2	4	2	4	2 or 4
Intel® Xeon® Processor Family	E5-2400 and E5-2400 v2		E5-2600 and E5-2600 v2		E5-4800	E7-2800 and E7-8800	E7-4800 and E7-8800	E7-4800 v2 and E7-8800 v2
Processor Model	E5-2403 (4 c, 1.8) E5-2407 (4 c, 2.2) E5-2420 (6 c, 1.9) E5-2430 (6 c, 2.2) E5-2430L (6 c, 2.0) E5-2440 (6 c, 2.4) E5-2450 (8 c, 2.1) E5-2470 (8 c, 2.3)	E5-2403 (4 c, 1.8) E5-2407 (4 c, 2.4) E5-2420 (6 c, 2.2) E5-2430 (6 c, 2.5) E5-2430L (6 c, 2.4) E5-2440 (8 c, 1.9) E5-2450 (8 c, 2.5) E5-2470 (10 c, 2.4)	E5-2600 E5-2609 (4 c, 2.4) E5-2620 (6 c, 2.0) E5-2630 (6 c, 2.3) E5-2630L (6 c, 2.0) E5-2640 (6 c, 2.5) E5-2643 (4 c, 3.3) E5-2650 (8 c, 2.0) E5-2650L (8 c, 1.8) E5-2660 (8 c, 2.2) E5-2665 (8 c, 2.4) E5-2667 (6 c, 2.9) E5-2670 (8 c, 2.6) E5-2680 (8 c, 2.7) E5-2690 (8 c, 2.9)	E5-2600 v2 E5-2630 (6 c, 2.6) E5-2630L (6 c, 2.4) E5-2637 (4 c, 3.5) E5-2640 (8 c, 2.0) E5-2643 (6 c, 3.5) E5-2650 (8 c, 2.6) E5-2650L (10 c, 1.7) E5-2658 (10 c, 2.4) E5-2660 (10 c, 2.2) E5-2667 (8 c, 3.3) E5-2670 (10 c, 2.5) E5-2680 (10 c, 2.8) E5-2690 (10 c, 3.0) E5-2695 (12 c, 2.4) E5-2697 (12 c, 2.7)	E5-4603 (4 c, 2.0) E5-4607 (6 c, 2.2) E5-4610 (6 c, 2.4) E5-4620 (8 c, 2.2) E5-4640 (8 c, 2.4) E5-4650 (8 c, 2.7)	E7-2803 (6 c, 1.73) E7-2830 (8 c, 2.13) E7-2850 (10 c, 2.00) E7-8867L (10 c, 2.13) E7-2860 (10 c, 2.26) E7-2870 (10 c, 2.40)	E7-4807 (6 c, 1.86) E7-4830 (8 c, 2.13) E7-8837 (8 c, 2.66) E7-4850 (10 c, 2.00) E7-8867L (10 c, 2.13) E7-4860 (10 c, 2.26) E7-4870 (10 c, 2.4)	E7-4809 v2 (6 cores, 1.9 GHz) E7-4820 v2 (8 cores, 2.0 GHz) E7-4830 v2 (10 cores, 2.2 GHz) E7-4850 v2 (12 cores, 2.3 GHz) E7-4860 v2 (12 cores, 2.6 GHz) E7-4870 v2 (15 cores, 2.3 GHz) E7-4880 v2 (15 cores, 2.5 GHz) E7-4890 v2 (15 cores, 2.8 GHz) E7-8857 v2 (12 cores, 3.0 GHz) E7-8880L v2 (15 cores, 3.2 GHz) E7-8891 v2 (10 cores, 3.2 GHz) E7-8893 v2 (6 cores, 3.4 GHz)
Memory	384 GB (12 DIMMs)	384 GB (12 DIMMs)	512 GB (16 DIMMs)	768 GB (24 DIMMs)	1.5 TB (48 DIMMs)	1 TB (64 DIMMs) Expansion to 64 DIMM slots requires optional memory riser board: one per socket	2 TB (64 DIMMs) Expansion to 64 DIMM slots requires optional memory riser board: one per socket	6 TB (96 DIMMs)*
Network Ports	Dual Gigabit Ethernet	Dual Gigabit Ethernet	Dual Gigabit Ethernet	Quad Gigabit Ethernet	Quad Gigabit Ethernet	Dual GE and Dual 10-Gbps SFP+	Dual GE and Dual 10 GE	Dual GE and Dual 10 GE
Internal Disks	Up to 8 SFF drives: 146 GB 15K, 300 GB 15K, 300 GB 10K, 600 GB 10K, and 900 GB 10K SAS; and 500 GB 7.2K and 1 TB 7.2K SATA Up to 4 LFF drives: 500 GB 7.2K, 1 TB 7.2K, 2 TB 7.2K, 3 TB 7.2K	Up to 16 or 24 SFF drives: 146 GB 15K, 300 GB 15K, 300 GB 10K, 600 GB 10K, and 900 GB 10K SAS; and 500 GB 7.2K and 1 TB 7.2K SATA; Up to 12 LFF drives: 500 GB 7.2K, 1 TB 7.2K, 2 TB 7.2K, 3 TB 7.2K	Up to 4 LFF or 8 SFF drives LFF drive options: 300 GB 15K, 450 GB 15K, 600 GB 15K, 1 TB 7.2K, 2 TB 7.2K, 3 TB 7.2K SAS; and 500 GB 7.2K SATA; SFF drive options: 146 GB 15K, 300 GB 10K, 300 GB 15K, 600 GB 10K, and 900 GB 10K SAS; and 500 GB 7.2K, and 1 TB 7.2K SATA; and 100 GB, 200 GB, 300 GB, and 400 GB SSD	Up to 12 LFF or 16/24 SFF drives	Up to 16 SFF drives: 300 GB 10K, 300 GB 15K, 600 GB 10K, and 900 GB 10K SAS; and 500 GB 7.2K and 1 TB 7.2K SATA; and 100 GB, 200 GB, 300 GB, and 400 GB SSD	Up to 16 SFF drives: 300 GB 10K, 300 GB 15K, 600 GB 10K, and 900 GB 10K SAS; and 500 GB 7.2K and 1 TB 7.2K SATA; and 100 GB, 200 GB, 300 GB, and 400 GB SSD	Up to 16 SFF drives: 146 GB 15K, 300 GB 10K, 300 GB 15K, 400 GB SSD, 600 GB 10K, and 900 GB 10K SAS; and 500 GB 7.2K and 1 TB 7.2K SATA; and 100 GB, 200 GB, 300 GB, and 400 GB SSD	Up to 12 SFF drives: 10K SAS; 300 GB, 600 GB, 900 GB, and 1.2 TB 7.2K SAS; 1 TB Enterprise Performance or Value SSD; 100 GB, 200 GB, 400 GB, 800 GB, and 1.6 TB
RAID	Embedded 3G SAS/SATA RAID controller (RAID 0, 1, 5 and 10) 6G LSI MegaRAID SAS 9270cv-8i with SuperCap (RAID 0, 1, 5, 6, 10, 50) 6G LSI MegaRAID 9240-8i RAID controller (RAID 0, 1, 10) 6G LSI MegaRAID 9220-4i controller (RAID 0, 1, 10)		Embedded 3G SAS and SATA RAID controller (RAID 0, 1, and 10) and optional 6G LSI MegaRAID SAS 9271CV-8i with SuperCap (RAID 0, 1, 5, 6, 10, 50, and 60), LSI MegaRAID SAS 9286CV-e, and 6G Cisco UCS RAID SAS 2008M-8i (RAID 0, 1, 5, 10, and 50)	Embedded 3G SAS and SATA RAID controller (RAID 0, 1, and 10) and optional 6G LSI MegaRAID SAS 9271CV-8i with SuperCap (RAID 0, 1, 5, 6, 10, 50, and 60), LSI MegaRAID SAS 9286CV-e, and 6G Cisco UCS RAID SAS 2008M-8i (RAID 0, 1, 5, 10, and 50)	LSI MegaRAID SAS 9271CV-8i (RAID 0, 1, 5, 6, 10); LSI MegaRAID SAS 9286CV-8e (RAID 0, 1, 5, 6, 10)	Optional LSI MegaRAID 9261-8i with BBWC (RAID 0, 1, 5, 6, 50, and 60)	Optional LSI MegaRAID 9240-8i (RAID 0, 1, and 10) and LSI MegaRAID 9260-8i 512WC (RAID 0, 1, 5, 6, 10, 50, and 60)	LSI 12G SAS MegaRAID SAS 9361CV-8e with FBWC (RAID 0, 1, 5, and 6)
	These servers include onboard SATA controller offering RAID 0 and 1 and optional LSI MegaRAID controllers listed above.							
Power Supplies	1 650W or 450W	N+1 (2) 450W or 650W	N+N (2) 450W or 650W	N+N (2) 650W or 1200W	N+N (2) 1200W	N+N (2) 1200W	N+N (4) 850W	N+N (2) 1400W
PCI Slots (Lane Widths)	2 PCIe Gen 3 Slots: X16 half length, full height X 8 half length, half height	5 PCIe Gen 3 Slots: X16 ¾ length, full height X 8 half-height, half length X 8 half-height, half length X 8 half-height, half length X 4 half length, full height	2 PCIe slots: 1 x 8 half length and half length 1 x 16 full height and half length	PCIe 1, 3-full-height, half-length, x 8 PCIe 2, 5-full-height, 3/4-length (10.5 in.), x16 PCIe 4-half-height, 3/4-length, x 8	7 PCIe Gen 3 Slots: 2 x 16 full height, half length, 5 x 8 half height, half length	6 PCIe Gen 2 Slots: 3 x 8 low profile and half length 2 x 16 full height and half length 1 x 4 low profile and half length	4 PCIe Gen 2 x 8 (3/4 length, full height), 3 PCIe Gen 2 x 4 (1/2 length, full height), 1 PCIe Gen 2 x 16 (3/4 length, full height), 1 x PCIe Gen 1 x 4 (half length, full height), 1 x PCIe Gen 1 x 4 (1/2 length, full height)	10 full height PCIe Gen 3 slots: 1 x 4 3/4 length, 2 x 8 1/2 length, 2 x 8 3/4 length, 2 x 8 full length, 1 x 16 3/4 length, 2 x 16 full length
Interfaces (Front Panel (FP)) and (Internal (Int))	VGA port, 4 USB 2.0 ports, 1 serial port, 1 GE Mgmt port, 2 1 GE network ports, 2 (FP) USB 2.0 ports	1 RJ45 serial port, 2 USB 2.0 ports, 1 VGA port, 1GB Mgmt, 2 GE Ntwk ports	1 RJ45 serial port, 2 USB 2.0 ports, 1 VGA port, 1GB Mgmt, 2 GE Ntwk ports	1 RJ45 serial port, 2 USB 2.0 ports, 1 VGA port, 1GB Mgmt, 2 GE Ntwk ports	1 serial port, 3 USB 2.0, 1 VGA, 1 GE Mgmt, 4 GE Ntwk	1 serial port, 4 USB ports, 1 VGA port, 2 10/100 Mgmt port, 2 GE Ntwk ports	1 serial port, 2 USB 2.0 ports, 1 VGA ports, 2 10/100 GB Mgmt, 2 1GE Netwk; FP: 1 VGA, 3 US B 2.0 ports	1 VGA port, 5 USB ports, 1 serial port, 1 GE management port

* With 96x64GB DIMMs when available



Cisco UCS B-Series Blade Servers

	B22 M3	B200 M3		B230 M2	B260 M4	B420 M3	B440 M2	B460 M4
Form Factor	Half width	Half width		Half width	Full width	Full width	Full width	Double, Full width
Number of Sockets	2	2		2	2	4	4	4
Intel® Xeon® Processor Family	E5-2400	E5-2600 and E5-2600 v2		E7-2800/E7-8800	E7-2800 v2, E7-4800 v2, E7-8800 v2	E5-4600	E7-4800/E7-8800	E7-4800 v2, E7-8800 v2
Processor Model	E5-2403 (4 c, 1.8) E5-2430L (6 c, 2.0) E5-2420 (6 c, 1.9)	E5-2600 E5-2637 (2 c, 3.0) E5-2609 (4 c, 2.4)	E5-2600 v2 E5-2643 (6 c, 3.5) E5-2637 (4 c, 3.5)	E7-2803 (6 c, 1.73) E7-2830 (8 c, 2.13) E7-8867L (10 c, 2.13)	E7-2850 (12 cores, 2.3 GHz) E7-2870 (15 cores, 2.3 GHz) E7-2880 (15 cores, 2.5 GHz)	E5-4603 (4 c, 2.0) E5-4607 (6 c, 2.2) E5-4610 (6 c, 2.4)	E7-4807 (6 c, 1.86) E7-4830 (8 c, 2.13) E7-8837 (8 c, 2.66)	E7-4809 (6 cores, 1.9 GHz) E7-4820 (8 cores, 2.0 GHz) E7-4830 (10 cores, 2.2 GHz)
Number of Cores (c)	E5-2440 (6 c, 2.4) E5-2450 (8 c, 2.1) E5-2470 (8 c, 2.3)	E5-2643 (4 c, 3.3) E5-2630L (6 c, 2.0) E5-2620 (6 c, 2.0)	E5-2667 (8 c, 3.3) E5-2690 (10 c, 3.0) E5-2680 (10 c, 2.8)	E7-2850 (10 c, 2.00) E7-2860 (10 c, 2.26) E7-2870 (10 c, 2.40)	E7-2890 (15 cores, 2.8 GHz) E7-4809 (6 cores, 1.9 GHz) E7-4820 (8 cores, 2.0 GHz)	E5-4617 (6 c, 2.9) E5-4620 (8 c, 2.2) E5-4640 (8 c, 2.4)	E7-4850 (10 c, 2.0) E7-4860 (10 c, 2.26) E7-4870 (10 c, 2.4)	E7-4850 (12 cores, 2.3 GHz) E7-4860 (12 cores, 2.6 GHz) E7-4870 (15 cores, 2.3 GHz)
Clock Speed (GHz)		E5-2630 (6 c, 2.3) E5-2640 (6 c, 2.5) E5-2667 (6 c, 2.9) E5-2650L (8 c, 1.8) E5-2650 (8 c, 2.0) E5-2660 (8 c, 2.2) E5-2665 (8 c, 2.4) E5-2670 (8 c, 2.6) E5-2680 (8 c, 2.7) E5-2690 (8 c, 2.9)	E5-2697 (12 c, 2.7) E5-2630 (6 c, 2.6) E5-2650 (8 c, 2.6) E5-2670 (10 c, 2.5) E5-2695 (12 c, 2.4) E5-2658 (10 c, 2.4) E5-2630L (6 c, 2.4) E5-2660 (10 c, 2.2) E5-2640 (8 c, 2.0)		E7-4830 (10 cores, 2.2 GHz) E7-4850 (12 cores, 2.3 GHz) E7-4860 (12 cores, 2.6 GHz) E7-4870 (15 cores, 2.3 GHz) E7-4880 (15 cores, 2.5 GHz) E7-4890 (15 cores, 2.8 GHz) E7-8857 (15 cores, 3.0 GHz) E7-8880L (15 cores, 2.2 GHz) E7-8891 (10 cores, 3.2 GHz) E7-8893 (6 cores, 3.4 GHz)	E5-4650 (8 c, 2.7) E5-4650L (8 c, 2.6)	E7-8867L (10 c, 2.13)	E7-4870 (15 cores, 2.3 GHz) E7-4880 (15 cores, 2.5 GHz) E7-4890 (15 cores, 2.8 GHz) E7-8857 (15 cores, 3.0 GHz) E7-8880L (15 cores, 2.2 GHz) E7-8891 (10 cores, 3.2 GHz) E7-8893 (6 cores, 3.4 GHz)
Maximum Memory	384 GB (12 DIMMs)	768 GB (24 DIMMs)		512 GB (32 DIMMs)	1.5 TB (48 DIMMs)	1.5 TB (48 DIMMs)	1 TB (32 DIMMs)	3.0 TB (96 DIMMs)
Maximum Bandwidth	80 Gbps	80 Gbps		80 Gbps	160 Gbps	160 Gbps	160 Gbps	320 Gbps
Internal Disks	Up to 2 SFF drives: 146 GB 15K, 300 GB 15K, 300 GB 10K, 500 GB 7.2k, 600 GB 10K SAS; 900 GB 10k SAS, 1 TB 7.2k SATA and 100 GB, 400 GB SSD	Up to 2 SFF drives: 146 GB 15K, 300 GB 10K, 300 GB 15K, 600 GB 10K, and 900 GB 10K SAS; and 500 GB 7.2K and 1 TB 7.2K SATA; and 100 GB, 200 GB, 300 GB, 400 GB SSD		Up to 2 drives: 32-GB, 100 GB, 200 GB, 300 GB and 400 GB SSD	Up to 2 SFF drives: 300 GB 15K, 300 GB 10K, 450 GB 15K, 600 GB 15K, 600 GB 10K, 900 GB 10K, 1.2 TB 10K SAS, and 2 TB 7.2K SAS; and 100 GB 7.2K, 200 GB 7.2K, 400 GB 7.2K SATA; and 100-GB, 200-GB, 400-GB, 800-GB SSD	Up to 4 SFF drives: 146 GB 15K, 300 GB 15K, 300 GB 10K, and 900 GB 10K SAS; and 500 GB 7.2K and 1 TB 7.2K SATA; and 100 GB, 200 GB, 300 GB, 400 GB SSD	Up to 4 SFF drives: 146 GB 15K, 300 GB 10K, and 600 GB 10K, 300 GB 15K, 500 GB 10K, 900 GB 10k SAS; and 100 GB, 200 GB, 300 GB, 400 GB SSD	Up to 4 SFF drives: 300 GB 15K, 300 GB 10K, 450 GB 15K, 600 GB 15K, 600 GB 10K, 900 GB 10K, 1.2 TB 10K SAS; and 2 TB 7.2K SAS; and 2 TB 7.2K SAS; and 100 GB 7.2K, 200 GB 7.2K, 400 GB 7.2K SATA; and 100-GB, 200-GB, 400-GB, 800-GB SSD
Internal RAID	RAID 0 and 1	RAID 0 and 1		RAID 0 and 1	RAID 0 and 1	RAID 0, 1, 5, and 10	RAID 0, 1 and 5	RAID 0 and 1
Mezzanine Cards	1 + 1 Cisco UCS VIC 1240	1 + 1 Cisco UCS VIC 1240		1	2 + 1 Cisco UCS VIC 1240	2 + 1 Cisco UCS VIC 1240	2 + 1 Cisco VIC 1280	4 + 2 Cisco UCS VIC 1240



Cisco UCS® 6200 Series Fabric Interconnects		
	Cisco UCS 6296UP 96-Port Fabric Interconnect	Cisco UCS 6248UP 48-Port Fabric Interconnect
Form Factor	2RU	1RU
Maximum Ports	96	48
Cisco UCS Manager Version	Cisco UCS Manager 2.0 (2)	Cisco UCS Manager 2.0 (1)
Expansion Modules	Up to 3x 16-port UP	Up to 1x 16-port UP
Fixed Base Ports	48	32
Prelicensed Base Ports	18	12
Fans	4	2
Power Supply Units	2	2
Throughput	1920 Gbps	960 Gbps
Maximum Chassis per System	20	20

Cisco UCS Virtual Interface Cards					
	Cisco UCS 1280 Virtual Interface Card	Cisco UCS 1240 Virtual Interface Card	Cisco UCS 1225 Virtual Interface Card	Cisco UCS M81KR Virtual Interface Card	Cisco UCS P81E Virtual Interface Card
Maximum Number of Interfaces (vNICs or vHBAs)	256	256	256	128	128
Interface Type	Dynamic	Dynamic	Dynamic	Dynamic	Dynamic
Cisco Data Center VM-FEX	Hardware	Hardware	Hardware	Hardware	Hardware
Failover Handling	Fabric failover; no driver required				
Form Factor	Mezzanine card	Modular LOM	PCI Express (half height)	Mezzanine card	PCI Express (full height)
Network Throughput	80 Gbps	40 Gbps 80 Gbps with Port Expander	20 Gbps	20 Gbps	20 Gbps
Cisco UCS Server Compatibility	Cisco UCS M3 blade servers, Cisco UCS B230 M2, and Cisco UCS B440 M2	Cisco UCS M3 blade servers	Cisco UCS M3 rack servers, Cisco UCS C260 M2, and Cisco UCS C460 M2	Cisco UCS M1 and M2 blade servers	Cisco UCS M1 and M2 rack servers

Cisco R-Series Racks	
	Cisco R42610 Rack
Tested with Cisco UCS	Industry-standard, EIA-310-D 42RU, 2100 lb (161 kg) capacity rack that has been optimized for Cisco UCS rack and blade servers
Standard and Expansion Racks	Standard and expansion racks ideal for single- or multiple-rack Cisco UCS deployments
Front and Rear Doors	80 percent perforation increases airflow; locks added for additional security; split rear doors reduce clearance required at rear of rack
PDU Mounting	Sidewall spaces and PDU trays allow quick installation of 0-RU and 1-RU PDUs; toolless mounting for optional 0-RU Cisco RP-Series PDUs

Cisco UCS 5108 Blade Server Chassis	
	Cisco UCS 5108 Blade Server Chassis
Chassis	6RU with flexible bay configurations supporting up to 8 half-width or 4 full-width blade servers
Fabric Extenders	Up to 2 Cisco UCS 2204XP or 2208XP Fabric Extenders
I/O Bandwidth	Maximum of 80 Gbps to each half-width blade and 160 Gbps to each full-width blade
Power Supply Units	4 N+N 2500W

Cisco® Fabric Extenders			
	Cisco UCS 2208XP Fabric Extender	Cisco UCS 2204XP Fabric Extender	Cisco Nexus® 2232PP 10 GE Fabric Extender
Form Factor	Chassis fabric extender (up to 2 per chassis)	Chassis fabric extender (up to 2 per chassis)	Rack fabric extender (1RU)
Server-Facing Ports	32	16	32
Port Speeds	10 GE with FCoE	10 GE with FCoE	1 GE and 10 GE with FCoE
10-Gbps Fabric Ports	8	4	8
Throughput	80 Gbps	40 Gbps	80 Gbps