















Cisco Unified Computing Systems Hardware





Cisco UCS C-Series Rack Servers							
	C22 M3	C24 M3	C250 M2	C220 M3	C240 M3	C260 M2	C460 M2
Form Factor							
Form Factor	1RU	2RU	2RU	1RU	2RU	2RU	4RU
Number of Sockets	2	2	2	2	2	2	4
Intel® Xeon® Processor Family	E5-2400	E5-2400	5500 and 5600	E5-2600		E7-2800 and E7-8800	E7-4800 and E7-8800
Processor Model	E5-2403 (4 cores, 1.8 GHz) E5-2430L (6 cores, 2.0 GHz) E5-2420 (6 cores, 1.9 GHz) E5-2440 (6 cores, 2.4 GHz) E5-2450 (8 cores, 2.1 GHz) E5-2470 (8 cores, 2.3 GHz)	E5-2403 (4 cores, 1.8 GHz) E5-2430L (6 cores, 2.0 GHz) E5-2420 (6 cores, 1.9 GHz) E5-2440 (6 cores, 2.4 GHz) E5-2450 (8 cores, 2.1 GHz) E5-2470 (8 cores, 2.3 GHz)	E5620 (4 cores, 2.40 GHz) E5640 (4 cores, 2.66 GHz) E5649 (6 cores, 2.53 GHz) X5650 (6 cores, 2.66 GHz) X5670 (6 cores, 2.93 GHz) X5675 (6 cores, 3.06 GHz) X5680 (6 cores, 3.06 GHz) X5690 (6 cores, 3.46 GHz)	E5-2609 (4 cores, 2.4 GHz) E5-2643 (4 cores, 3.3 GHz) E5-2630L (6 cores, 2.0 GHz) E5-2620 (6 cores, 2.0 GHz) E5-2630 (6 cores, 2.3 GHz) E5-2640 (6 cores, 2.5 GHz) E5-2667 (6 cores, 2.9 GHz)	E5-2650L (8 cores, 1.8 GHz) E5-2650 (8 cores, 2.0 GHz) E5-2660 (8 cores, 2.2 GHz) E5-2665 (8 cores, 2.4 GHz) E5-2670 (8 cores, 2.6 GHz) E5-2680 (8 cores, 2.7 GHz) E5-2690 (8 cores, 2.9 GHz)	E7-2803 (6 cores, 1.73 GHz) E7-2830 (8 cores, 2.13 GHz) E7-2850 (10 cores, 2.00 GHz) E7-8867L (10 cores, 2.13 GHz) E7-2860 (10 cores, 2.26 GHz) E7-2870 (10 cores, 2.40 GHz)	E7-4807 (6 cores, 1.86 GHz) E7-4830 (8 cores, 2.13 GHz) E7-8837 (8 cores, 2.66 GHz) E7-4850 (10 cores, 2.00 GHz) E7-8867L (10 cores, 2.13 GHz) E7-4860 (10 cores, 2.26 GHz) E7-4870 (10 cores, 2.4 GHz)
Number of Cores							
Clock Speed							
Memory	192 GB (12 DIMMs)	192 GB (12 DIMMs)	384 GB (48 DIMMs)	512 GB (16 DIMMs)	768 GB (24 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
Network Ports	Dual Gigabit Ethernet	Dual Gigabit Ethernet	Dual Gigabit Ethernet	Dual Gigabit Ethernet	Quad Gigabit Ethernet	Dual GE and Dual 10-Gbps SFP+	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 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 8 SFF drives: 146 GB 15K, 300 GB 10K, and 600 GB 10K SAS; and 500 GB and 1 TB SATA	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 7.2 SATA SFF drive options: 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; and 100-GB, 200-GB, and 300-GB SSD	Up to 12 LFF or 24 SFF drives	Up to 16 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, and 300-GB SSD	Up to 12 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, and 300-GB SSD
RAID	Optional LSI MegaSR Software RAID (RAID 0, 1, 5, and 10), LSI MegaRAID 9265CV-8i (RAID 0, 1, 5, 6, 50, and 60), 9240-8i (RAID 0, 1, 5, 10, and 50) and 9220-8i or 9220-4i (RAID 0, 1, and 10)	Optional LSI MegaRAID 9265CV-8i (RAID 0, 1, 5, 6, 50, and 60), 9240-8i (RAID 0, 1, 5, 10, and 50), and 9220-8i (RAID 0, 1, and 10)	Optional LSI MegaRAID SAS3081E-R or LSI MegaRAID 9261-8i 512WC (RAID 0, 1, 5, 6, 10, and 60)	Embedded 3G SAS and SATA RAID controller (RAID 0, 1, and 10) and optional 6G LSI MegaRAID SAS 9266CV-8i with SuperCap (RAID 0, 1, 5, 6, 10, 50, and 60) 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 9266CV-8i with SuperCap (RAID 0, 1, 5, 6, 10, 50, and 60) and 6G Cisco UCS RAID SAS 2008M-8i (RAID 0, 1, 5, 10, and 50)	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)
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) 850W	N + N (2) 450W or 650W	N + N (2) 650W or 1200W	N+N (2) 1200W	N+N (4) 850W
PCI Slots	2 PCI Express (PCIe) Generation (Gen) 3 slots: 1 x16 half height and half length 1 x16 full height	5 PCIe slots: 1 Gen 3 x16 slots: full height and half length 2 Gen 3 x8 slots: half height and half length 2 x4 slots: 1 Gen3 half height and half length, and 1 Gen 2 half height and half length	5 PCIe slots: 3 x8 low profile 2 x16 full height and half length	2 PCIe slots: 1 x8 half height and half length 1 x16 full height and half length	5 PCIe slots: 1 x8 half height and three-quarter length 3 x8 full height and half length 1 x16 full height and three quarter length	6 PCIe Slots: 3 x8 low profile and half length 2 x16 full height and half length 1 x4 low profile and half length	10 full height PCIe slots: 4 x4 or x8 half-length 6 Gen 2 x8 or x16 three-quarter length 2 Gen 1 x4 (1 three-quarter length and 1 half-length)
Connectors	DB-15 VGA port, 4 USB 2.0 ports, DB-9 serial port, 1 10/100/1000 Ethernet management port, 2 1GE network ports, 2 front-panel USB 2.0 ports, and 1 internal USB 2.0 port	DB-15 VGA port, 4 USB 2.0, serial console ports, and DB-9 serial port	VGA port, 2 USB 2.0 ports, RJ45 serial port, and 1 GE management port	VGA port, 2 USB 2.0 ports, RJ45 serial port, and 1 GE management port	DB-15 VGA port, 4 USB 2.0 ports, and DB-9 serial port	2 VGA ports, 5 USB 2.0 ports, and serial port	


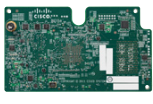
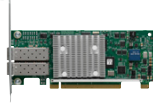





Cisco UCS B-Series Blade Servers


	B22 M3	B200 M3	B200 M2	B250 M2	B230 M2	B420 M3	B440 M2
							
Form Factor	Half width	Half width	Half width	Full width	Half width	Full width	Full width
Number of Sockets	2	2	2	2	2	4	4
Intel® Xeon® Processor Family	E5-2400	E5-2600	5500 and 5600	5500 and 5600	E7-2800	E5-4600	E5-4600
Processor Model	E5-2403 (4 cores, 1.8 GHz) E5-2430L (6 cores, 2.0 GHz) E5-2420 (6 cores, 1.9 GHz) E5-2440 (6 cores, 2.4 GHz) E5-2450 (8 cores, 2.1 GHz) E5-2470 (8 cores, 2.3 GHz)	E5-2637 (2 cores, 3.0 GHz) E5-2609 (4 cores, 2.4 GHz) E5-2643 (4 cores, 3.3 GHz) E5-2630L (6 cores, 2.0 GHz) E5-2620 (6 cores, 2.0 GHz) E5-2630 (6 cores, 2.3 GHz) E5-2640 (6 cores, 2.5 GHz) E5-2667 (6 cores, 2.9 GHz) E5-2650L (8 cores, 1.8 GHz) E5-2650 (8 cores, 2.0 GHz) E5-2660 (8 cores, 2.2 GHz) E5-2665 (8 cores, 2.4 GHz) E5-2670 (8 cores, 2.6 GHz) E5-2680 (8 cores, 2.7 GHz) E5-2690 (8 cores, 2.9 GHz)	X5687(4 cores, 3.60 GHz) X5570 (4 cores, 2.93 GHz) X5550 (4 cores, 2.66 GHz) E5540 (4 cores, 2.53 GHz) E5520 (4 cores, 2.26 GHz) L5520 (4 cores, 2.26 GHz) E5620 (4 cores, 2.40 GHz) X5690 (6 cores, 3.46 GHz) X5680 (6 cores, 3.33 GHz) X5675 (6 cores, 3.06 GHz) X5670 (6 cores, 2.93 GHz) X5650 (6 cores, 2.66 GHz) E5649 (6 cores, 2.53 GHz) E5645 (6 cores, 2.40 GHz) L5640 (6 cores, 2.26 GHz) E5640 (8 cores, 2.66 GHz)	X5687 (4 cores, 3.60 GHz) X5570 (4 cores, 2.93 GHz) X5550 (4 cores, 2.66 GHz) E5640 (4 cores, 2.66 GHz) E5540 (4 cores, 2.53 GHz) E5520 (4 cores, 2.26 GHz) L5520 (4 cores, 2.26 GHz) E5620 (4 cores, 2.40 GHz) E5620 (4 cores, 2.40 GHz) X5690 (6 cores, 3.46 GHz) X5680 (6 cores, 3.33 GHz) X5675 (6 cores, 3.06 GHz) X5670 (6 cores, 2.93 GHz) X5650 (6 cores, 2.66 GHz) E5649 (6 cores, 2.53 GHz)	E7-2803 (6 cores, 1.73 GHz) E7-8867L (10 cores, 2.13 GHz) E7-2830 (8 cores, 2.13 GHz) E7-2850 (10 cores, 2.00 GHz) E7-2860 (10 cores, 2.26 GHz) E7-2870 (10 cores, 2.40 GHz)	E5-4603 (4 cores, 2.0 GHz) E5-4607 (6 cores, 2.2 GHz) E5-4610 (6 cores, 2.4 GHz) E5-4620 (8 cores, 2.2 GHz) E5-4640 (8 cores, 2.4 GHz) E5-4650 (8 cores, 2.7 GHz)	E7-4807 (6 cores, 1.86 GHz) E7-8867L (10 cores, 2.13 GHz) E7-4830 (8 cores, 2.13 GHz) E7-4850 (10 cores, 2.0 GHz) E7-4860 (10 cores, 2.26 GHz) E7-4870 (10 cores, 2.4 GHz)
Number of Cores							
Clock Speed							
Maximum Memory	192 GB (12 DIMMs)	768 GB (24 DIMMs)	192 GB (12 DIMMs)	384 GB (48 DIMMs)	512 GB (32 DIMMs)	1.5 TB (48 DIMMs)	1 TB (32 DIMMs)
Maximum Bandwidth	80 Gbps	80 Gbps	40 Gbps	40 Gbps	80 Gbps	160 Gbps	80 Gbps
Internal Disks	Up to 2 SFF drives: 146 GB 15K, 300 GB 15K, 300 GB 10K, and 600 GB 10K SAS; and 100-GB	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 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 SSD	Up to 2 SFF drives:146 GB 15K, 300 GB 10K, 300 GB 15K, 500 GB 7.2K, 600 GB 10K, and 900 GB 10K SAS; and 1 TB 7.2K SATA; and 100-GB SSD	Up to 2 drives: 32-GB or 100-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 SSD	Up to 4 SFF drives: 146 GB 15K, 300 GB 10K, and 600 GB 10K SAS; and 100-GB SSD
Internal RAID	RAID 0 and 1	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, 5, and 6 with batterybacked write cache (BBWC)
Mezzanine Cards	1 + 1 Cisco UCS VIC 1240	1 + 1 Cisco UCS VIC 1240	1	2	1	2 + 1 Cisco UCS VIC 1240	2






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