

Brocade Products



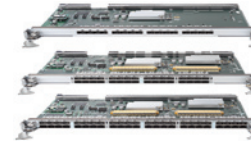
Model	Brocade 300 Switch	Brocade 5100 Switch	Brocade 5300 Switch
Number of Ports	8, 16, 24	24, 32, 40	48, 64, 80
Port Speed	1, 2, 4, 8Gb/sec	1, 2, 4, 8Gb/sec	1, 2, 4, 8Gb/sec
Expandability	Ports on Demand, 8 ports	Ports on Demand, 8 ports	Ports on Demand, 16 ports
Hardware Features	<ul style="list-style-type: none"> • Supports 4km and 10km LWL SFPs • 3 fixed redundant fans • Singular Switch FRU • Fixed rackmount included on 320 and 360 models 	<ul style="list-style-type: none"> • Supports 4km and 10km LWL SFPs • Slide rail rackmount kit included 	<ul style="list-style-type: none"> • Supports 4km and 10km LWL SFPs • 3 hot-swappable redundant fans • Slide rail rackmount kit included
Software	<p>Standard — Full Fabric (optional on 310; Web Tools and Adv. Zoning incl. in FOS 6.1); Ent. Bundle and EGM (Enhanced Group Management) for HD-360-1004 and HD-360-1008; SAO (Server Application Optimization) included with FOS 6.0 or higher</p> <p>Optional — Full Fabric Upgrade (applicable to 310), ISL Trunking, Extended Fabrics, Advanced Performance Monitoring, Fabric Watch, Adaptive Networking, EGM, and Ent. Bundle (if not already included)</p>	<p>Standard — Full Fabric (Web Tools and Adv. Zoning incl. in FOS 6.1) and EGM; Ent. Bundle for HD-5140-1004 and HD-5140-1008; SAO included with FOS 6.0 or higher</p> <p>Optional — ISL Trunking, Extended Fabrics, Adv. Perf. Monitoring, Fabric Watch, Adaptive Networking, IBM® FICON® CUP, Integrated Routing, Ent. Bundle (if not already included)</p>	<p>Standard — Full Fabric (Web Tools and Adv. Zoning incl. in FOS 6.1) and EGM; Ent. Bundle for HD-5340-1004 and HD-5340-1008; SAO included with FOS 6.0 or higher</p> <p>Optional — ISL Trunking, Extended Fabrics, Adv. Perf. Monitoring, Fabric Watch, Adaptive Networking, FICON CUP, Integrated Routing, Ent. Bundle (if not already included)</p>
Power	Single fixed power supplies	2 hot-swappable power supplies	2 hot-swappable power supplies
Target Customer	<ul style="list-style-type: none"> • SMB (small and medium business) SAN • Cost sensitive • High availability • DAS to SAN migration • Entry • Workgroup • Department • Edge 	<ul style="list-style-type: none"> • Workgroup • Midsize SAN • High availability • Projected growth • Department • Workgroup • High-performance edge 	<ul style="list-style-type: none"> • Workgroup • Midsize SAN • High availability • Consolidation • Enterprise edge • Fabric core switch • Mainframe environments
SFPs	<ul style="list-style-type: none"> • 4Gb/sec and 8Gb/sec SWL SFPs • 4Gb/sec, 4km, 10km, 30km LWL SFPs • 8Gb/sec, 10km, LWL SFPs • 4Gb/sec, 30km, ELWL SFPs 	<ul style="list-style-type: none"> • 4Gb/sec and 8Gb/sec SWL SFPs • 4Gb/sec 4km, 10km, 30km LWL SFPs • 8Gb/sec 10km LWL SFPs • 4Gb/sec 30km ELWL SFPs 	<ul style="list-style-type: none"> • 4Gb/sec and 8Gb/sec SWL SFPs • 4Gb/sec 4km, 10km, 30km LWL SFPs • 8Gb/sec 10km LWL SFPs • 4Gb/sec 30km ELWL SFPs
Hitachi Storage System Alignment	<ul style="list-style-type: none"> • Simple Modular Storage • Adaptable Modular Storage 2100 	<ul style="list-style-type: none"> • Adaptable Modular Storage 2300 	<ul style="list-style-type: none"> • Adaptable Modular Storage 2500
Hitachi Data Systems Part Number	<p>4Gb/sec SFP Models —</p> <ul style="list-style-type: none"> • HD-310-0004-M.P (8 ports, 0 e-port, 1 ps, 8 SWL 4Gb/sec BR SFPs) • HD-320-0004-M.P (8 ports, full fabric, 8 SWL 4Gb/sec BR SFPs, fixed rackmount) • HD-360-0004-M.P (24 ports, full fabric, 24 SWL 4Gb/sec BR SFPs, fixed rackmount) • HD-360-1004-M.P (24 ports, Ent. Bundle, EGM, full fabric, 24 SWL 4Gb/sec BR SFPs, fixed rackmount) • XBR-SMEDPOD4-01 (8 port upgrade w/8 SWL 4Gb/sec BR SFPs) <p>8Gb/sec SFP Models —</p> <ul style="list-style-type: none"> • HD-320-0008-M.P (8 ports, full fabric, 8 SWL 8Gb/sec BR SFPs, fixed rackmount) • HD-360-0008-M.P (24 ports, full fabric, 24 SWL 8Gb/sec BR SFPs, fixed rackmount) • HD-360-1008-M.P (24 ports, Ent. Bundle, EGM, full fabric, 24 SWL 8Gb/sec BR SFPs, fixed rackmount) • XBR-SMEDPOD8-01 (8 port upgrade w/8 SWL 8Gb/sec BR SFPs) 	<p>4Gb/sec SFP Models —</p> <ul style="list-style-type: none"> • HD-5120-0004-M.P (24 ports, 24 SWL 4Gb/sec BR SFPs, EGM) • HD-5140-0004-M.P (40 ports, 40 SWL 4Gb/sec BR SFPs, EGM) • HD-5140-1004-M.P (40 ports, 40 SWL 4Gb/sec BR SFPs, Ent. Bundle, EGM) • XBR-MIDRPOD-0002 (8 port upgrade, 8 SWL 4Gb/sec BR SFPs) • XHD-MIDRPOD4-10 (8 port upgrade, 8 4km LWL 4Gb/sec BR SFPs) <p>8 Gb/sec SFP Models —</p> <ul style="list-style-type: none"> • HD-5120-0008-M.P (24 ports, 24 SWL 8Gb/sec BR SFPs, EGM) • HD-5140-0008-M.P (40 ports, 40 SWL 8Gb/sec BR SFPs, EGM) • HD-5140-1008-M.P (40 ports, 40 SWL 8Gb/sec BR SFPs, Ent. Bundle, EGM) • XBR-MIDRPOD8-01 (8 port upgrade, 8 SWL 8 Gb/sec BR SFPs) • XHD-MIDRPOD8-10 (Port on Demand 8 port upgrade, 8 10km LWL 8GB BR SFPs) 	<p>4Gb/sec SFP Models —</p> <ul style="list-style-type: none"> • HD-5320-0004-M.P (48 ports, 48 SWL 4Gb/sec BR SFPs, EGM) • HD-5340-0004-M.P (80 ports, 80 SWL 4Gb/sec BR SFPs, EGM) • HD-5340-1004-M.P (80 ports, 80 SWL 4Gb/sec BR SFPs, Ent. Bundle, EGM) • XBR-4900POD-0002 (16 port upgrade, 16 SWL 4Gb/sec BR SFPs) • XHD-MENTPOD4-10 (16 port pgrade, 16 4km LWL 4Gb/sec BR SFPs) <p>8Gb/sec SFP Models —</p> <ul style="list-style-type: none"> • HD-5320-0008-M.P (48 ports, 48 SWL 8Gb/sec BR SFPs, EGM) • HD-5340-0008-M.P (80 ports, 80 SWL 8Gb/sec BR SFPs, EGM) • HD-5340-1008-M.P (80 ports, 80 SWL 8Gb/sec BR SFPs, Ent. Bundle, EGM) • XBR-MENTPOD8-01 (16 port upgrade, 16 SWL 8Gb/sec BR SFPs) • XHD-MENTPOD8-10 (Port on Demand 16 port Upgrade, 16 10km LWL 8Gb/sec BR SFPs)

Brocade Products



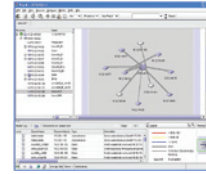
Model	Brocade DCX Backbone	Brocade DCX-4S Backbone	Brocade 48000 Director
Number of Ports	Up to 384 ports for device connectivity; the ICL option provides an additional 512Gb/sec of BW between two DCX chassis	Up to 192 ports for device connectivity; the ICL option provides an additional 256Gb/sec of BW between two backbone chassis	Up to 384 ports
Port Speed	1, 2, 4, 8, 10Gb/sec	1, 2, 4, 8, 10Gb/sec	1, 2, 4, 8Gb/sec
Expandability	16, 32 and 48 port 8Gb/sec Fibre Channel blades; 6 port 10Gb/sec Fibre Channel blade; routing blade — 16 port Fibre Channel and 2 port GbE (Gigabit Ethernet)	16, 32 and 48 port 8Gb/sec Fibre Channel blades; 6 port 10Gb/sec Fibre Channel blade; routing blade — 16 port Fibre Channel and 2 port GbE	16, 32 and 48 port 4Gb/sec and 8Gb/sec Fibre Channel blades; 6 port 10Gb/sec Fibre Channel blade; routing blade — 16 port Fibre Channel and 2 port GbE; iSCSI blade — 8 Fibre Channel and 8 iSCSI ports
Hardware Features	<ul style="list-style-type: none"> • Supports 4km and 10km LWL SFPs • 3 hot-swappable redundant blowers • Brocade standard rackmount included 	<ul style="list-style-type: none"> • Supports 4km and 10km LWL SFPs • 2 hot-swappable redundant blowers • Brocade standard rackmount included 	<ul style="list-style-type: none"> • Supports 4km and 10km LWL SFPs that are qualified • Hot-swappable blades (CP and port) • 3 hot-swappable, redundant fans • Brocade standard
Software	<p>Standard — Extended Fabric, Fabric Watch, Advanced Performance Monitoring, Adaptive Networking, ISL Trunking, EGM, SAO (Server Application Optimization) included with FOS 6.0 or higher. Note: the Security Policy feature is bundled in Fabric OS</p> <p>Optional — Extend Fabrics, ICL (InterChassis Link) option (provides an additional 512Gb/sec of BW between two DCX chassis using copper cabling between Core Switching Blade ports), FICON CUP, Integrated Routing</p>	<p>Standard — Fabric Watch, Advanced Performance Monitoring, Adaptive Networking, ISL Trunking, EGM, and SAO; SAO included with FOS 6.0 or higher. Note: the Security Policy feature is bundled in Fabric OS.</p> <p>Optional — Extend Fabrics; ICL option (provides an additional 256Gb/sec of BW between two DCX-4S chassis using copper cabling between Core Switching Blade ports); FICON CUP, Integrated Routing</p>	<p>Standard — Full Fabric, Web Tools, Advanced Zoning, Fabric Watch (optional on "Lite"), ISL Trunking (optional on "Lite"), Advanced Performance Monitoring, Monitor (optional on "Lite"). Note: the Security Policy feature is now bundled in Fabric OS 5.3 and higher</p> <p>Optional — ISL Trunking (for "Lite" only), Extended Fabrics, Advanced Performance. Monitoring, Fabric Watch (for "Lite" only), FICON CUP</p>
Power	Hot-swappable redundant power supplies	Hot-swappable redundant power supplies	2 hot-swappable power supplies
Target Customer	<ul style="list-style-type: none"> • Enormous data centers supporting worldwide entities • Building out environments for the next 10-15 years • Require equipment that will scale with their need for bandwidth and evolving protocols • Need to leverage existing resources and environments, avoiding a rip-and-replace approach 	<ul style="list-style-type: none"> • Large enterprises needing backbone-class capabilities at the edge and midsize enterprises at the core • Require equipment that will scale with their need for bandwidth and evolving protocols • SAN consolidation and refresh of M-Series environments 	<ul style="list-style-type: none"> • Large mission critical SAN • High availability • Future expandability to 10Gb/sec and IP
SFPs	<ul style="list-style-type: none"> • 4Gb/sec and 8Gb/sec SWL SFPs • 4Gb/sec 4km, 10km, 30km LWL SFPs • 8Gb/sec 10km LWL SFPs • 4Gb/sec 30km ELWL SFPs • Fibre Channel 10-6 blade: 10Gb/sec SWL, LWL, 40km and 80km ELWL XFPs 	<ul style="list-style-type: none"> • 4Gb/sec and 8Gb/sec SWL SFPs • 4Gb/sec 4km, 10km, 30km LWL SFPs • 8Gb/sec 10km LWL SFPs • 4Gb/sec 30km ELWL SFPs • Fibre Channel 10-6 blade: 10Gb/sec SWL, LWL, 40km and 80km ELWL XFPs 	<ul style="list-style-type: none"> • 4Gb/sec and 8Gb/sec SWL SFPs • 4Gb/sec 4km, 10km, 30km LWL SFPs • 8Gb/sec 10km LWL SFPs • 4Gb/sec 30km ELWL SFPs • Fibre Channel 10-6 blade: 10Gb/sec SWL, LWL, 40km and 80km ELWL XFPs
Hitachi Storage System Alignment	<ul style="list-style-type: none"> • Universal Storage Platform® V • Universal Storage Platform VM 	<ul style="list-style-type: none"> • Universal Storage Platform V • Universal Storage Platform VM 	<ul style="list-style-type: none"> • Universal Storage Platform V • Universal Storage Platform VM
Hitachi Data Systems Part Number	<p>HD-DCX-0001-M.P (Enterprise Software Bundle: EXF, FW, APM, TRK, AN, EGM) 8Gb/sec Port Blades:</p> <ul style="list-style-type: none"> • BR-DCX-1101.P (16 ports w/4Gb/sec SFPs) • BR-DCX-2101.P (16 ports w/8Gb/sec SFPs) • BR-DCX-1102.P (32 ports w/4Gb/sec SFPs) • BR-DCX-2102.P (32 ports w/8Gb/sec SFPs) • BR-DCX-1148.P (48 ports w/4Gb/sec SFPs) • BR-DCX-2148.P (48 ports w/8Gb/sec SFPs) • HD-48000-0150-M.P (FR4-18i FCR and FCIP blade, 0 SFPs) • BR-48000-0153-M.P (Fibre Channel 10-6 6 port 10Gb/sec Fibre Channel Blade, no XFP) 	<p>HD-DCX4S-0002-M.P (Enterprise Software Bundle: EGM, FW, APM, TRK, AN, SAO) 8Gb/sec Port Blades:</p> <ul style="list-style-type: none"> • BR-DCX-1101.P (16 ports w/4Gb/sec SFPs) • BR-DCX-2101.P (16 ports w/8Gb/sec SFPs) • BR-DCX-1102.P (32 ports w/4Gb/sec SFPs) • BR-DCX-2102.P (32 ports w/8Gb/sec SFPs) • BR-DCX-1148.P (48 ports w/4Gb/sec SFPs) • BR-DCX-2148.P (48 ports w/8Gb/sec SFPs) • HD-48000-0150-M.P (FR4-18i FCR and FCIP blade, 0 SFPs) • BR-48000-0153-M.P (Fibre Channel 10-6 6 port 10Gb/sec Fibre Channel Blade, no XFP) 	<p>HD-48000-R0000-M.P (0-port, 2CP, 2PS, FOS, WT, AZ, FW, T, APM)</p> <ul style="list-style-type: none"> • HD-48000-0010-M.P "48K Lite" (0-port, 2CP, 2PS, WT, AZ) • HD-48000-0101.P (16 port, 4Gb/sec blade, 16 SWL 4Gb SFPs) • HD-48000-0102.P (32 port, 4Gb/sec blade, 32 SWL 4Gb SFPs) • HD-48000-0148.P (48 port, 4Gb/sec blade, 48 SWL 4Gb SFPs) • HD-48000-0150-M.P (FR4-18i FCR and FCIP blade, 0 SFPs) (Qty.: 4 power supplies required on the Brocade 48000) • HD-48000-0152-M.P (8 4Gb Fibre Channel Ports, 8 iSCSI, 0 SFP) FC4-16IP Blade (Requires FOS 6.1 and Qty. 4 power supplies on the Brocade 48000) • BR-48000-0153-M.P (Fibre Channel 10-6 6 port 10Gb/sec Fibre Channel Blade, no XFP) (Qty.: 4 power supplies required on the Brocade 48000) • HD-48000-1101.P (16 port port blade, w/16 4Gb/sec 10km LWL SFPs) • HD-48000-1102.P (32 port, 4Gb blade, 32 SWL 4Gb/sec SFPs) • Supports all DCX 8Gb/sec Port Blades with FOS 6.1; see DCX for part numbers

Brocade Products



Model	Brocade FR4-18i Extension Blade	Brocade Fibre Channel 10-6 Blade	Brocade Fibre Channel Blade	Brocade 7500E Extension
Number of Ports	18 ports: 16 Fibre Channel (E, F, FL, EX) ports and 2 1Gb/sec Ethernet (VE, Vex) ports	6 ports, each 10Gbit/sec Fibre Channel	16, 32 and 48 ports	18 ports with 2 Fibre Channel ports and 2 1Gb/sec Ethernet ports active
Port Speed	1, 2, 4Gb/sec Fibre Channel routing ports and GbE extension ports	10Gb/sec	1, 2, 4, 8Gb/sec	1, 2, 4Gb/sec Fibre Channel routing ports and 1Gb/sec Ethernet ports rate limited to 50Mb/sec
Expandability	N/A	N/A	N/A	7500E Upgrade License: 14 port Activation, Fast Write over Fibre Channel, Tape Pipelining over FCIP or Fibre Channel, IPsec
Hardware Features	<ul style="list-style-type: none"> Supports 4km and 10km LWL SFPs that are qualified 	<ul style="list-style-type: none"> Supports SWL, LWL, 40km and 80km ELWL XFPs 	<ul style="list-style-type: none"> Supports SWL, LWL, 40km and 80km ELWL SFPs 	<ul style="list-style-type: none"> Supports 4km and 10km LWL SFPs that are qualified Slide rail rackmount kit included
Software	<p>Standard — Web Tools, Advanced Zoning, Full Fabric, Extended Fabrics</p> <p>Optional — ISL Trunking, Advanced Performance Monitoring, Fabric Watch, High-performance Fibre Channel extension over IP (FCIP)</p>	<p>Web Tools; Fabric Watch; Telnet; SNMP (FE MIB, Fibre Channel Management MIB); third party applications utilizing the Brocade SMI Agent</p>	<p>Standard — Web Tools, Advanced Zoning, Full Fabric, Extended Fabrics</p> <p>Optional — ISL Trunking, Advanced Performance Monitoring, Fabric Watch, FCIP</p>	<p>Standard — Web Tools, Advanced Zoning, Full Fabric, Extended Fabrics, FCIP with Fast Write and HW compression</p> <p>Optional — ISL Trunking, Advanced Performance Monitoring, Fabric Watch</p>
Power				Dual redundant
Target Customer	<ul style="list-style-type: none"> Legacy Brocade Legacy McDATA Open systems environment 	<ul style="list-style-type: none"> Legacy Brocade Legacy McDATA Open systems environment 	<ul style="list-style-type: none"> Legacy Brocade Legacy McDATA Open systems environment 	<ul style="list-style-type: none"> Legacy Brocade Legacy McDATA Open systems environment
SFPs	4Gb/sec SFPs	10Gb/sec XFPs	4Gb/sec and 8Gb/sec SFPs	4Gb/sec SFPs
Hitachi Storage System Alignment	<ul style="list-style-type: none"> Universal Storage Platform V Universal Storage Platform VM 	<ul style="list-style-type: none"> Universal Storage Platform V Universal Storage Platform VM 	<ul style="list-style-type: none"> Universal Storage Platform V Universal Storage Platform VM 	<ul style="list-style-type: none"> Adaptable Modular Storage
Hitachi Data Systems Part Number	<p>FR4-18i FCR and FCIP Blade:</p> <ul style="list-style-type: none"> HD-48000-0150-M.P (16 Fibre Channel, 2 GigE ports, 0 SFPs) HD-48KFCI-02-M.P (FCIP License for FR4-18i blade in a 48000) HD-DCXFCI-02-M.P (FCIP License for FR4-18i blade in a DCX) 	<p>Fibre Channel 10-6 6 port 10Gb/sec Fibre Channel Blade, no XFP</p> <ul style="list-style-type: none"> BR-48000-0153-M.P 	<p>8Gb/sec Port Blades:</p> <ul style="list-style-type: none"> BR-DCX-1101.P (16 ports w/4Gb/sec SFPs) BR-DCX-2101.P (16 ports w/8Gb/sec SFPs) BR-DCX-1102.P (32 ports w/4Gb/sec SFPs) BR-DCX-2102.P (32 ports w/8Gb/sec SFPs) BR-DCX-1148.P (48 ports w/4Gb/sec SFPs) BR-DCX-2148.P (48 ports w/8Gb/sec SFPs) 	<ul style="list-style-type: none"> HD-7500E-0000-M.P (4 ports, 0 SFPs) HD-7500E-0001-M.P (4 ports, 4 4Gb/sec SWL SFPs) HD-7500EUP-0000-M (18 port, 0 SFPs) HD-7500EUP-0001-M (18 port, 18 4Gb/sec SWL SFPs) BR-7500EUG-01-M (7500E Upgrade License and 14 port Activation, 0 SFPs) XBR-7500EUG-0001-M (7500E Upgrade License and 14 port Activation, 14 4Gb/sec SWL SFPs)

Brocade Products



Model	Brocade 815 Host Bus Adapter (HBA)	Brocade 825 Host Bus Adapter	Brocade Data Center Fabric Manager	Brocade EasySAN Kit
Number of Ports	<ul style="list-style-type: none"> • Single 	<ul style="list-style-type: none"> • Dual 		<ul style="list-style-type: none"> • Brocade 300 switch: Kit features 8 Fibre Channel ports active and populated • Brocade 815 HBA: Single
Port Speed	<ul style="list-style-type: none"> • 8Gb/sec 	<ul style="list-style-type: none"> • 8Gb/sec 		<ul style="list-style-type: none"> • Brocade 300 switch: 1, 2, 4, 8Gb/sec • Brocade 815 HBA: 8Gb/sec
Expandability				Brocade 300 Switch: Ports on Demand, 8 ports
Hardware Features	<ul style="list-style-type: none"> • BUS TYPE PCIe 2.0 x 8 	<ul style="list-style-type: none"> • BUS TYPE PCIe 2.0 x 8 		<ul style="list-style-type: none"> • Brocade 300 Switch: Supports 4km and 10km LWL SFPs • Brocade 815 HBA: BUS TYPE PCIe 2.0 x 8
Software	<ul style="list-style-type: none"> • Microsoft® Windows® • Linux • Sun Solaris • VMWare 	<ul style="list-style-type: none"> • Windows • Linux • Solaris • VMWare 	<ul style="list-style-type: none"> • DCFM Enterprise Management Software DVD • DCFM Enterprise Management Software (Serialized) 	<ul style="list-style-type: none"> • Free DCFM Professional software: • Centralizes management of up to 1000 ports in a single FOS-based fabric • Unifies management of HBAs and SAN fabrics • Reduces operating expenses and maximizes productivity by automating tasks through easy-to-use, wizard-driven operations • Delivers real time performance monitoring to enable proactive problem diagnosis, maximize resource utilization and facilitate capacity planning
Power				Brocade 300 Switch: Single fixed power supplies
Target Customer	<ul style="list-style-type: none"> • Windows • Linux • Solaris • VMware environments 	<ul style="list-style-type: none"> • Windows • Linux • Solaris • VMware environments 	<ul style="list-style-type: none"> • Enterprise class director-based installations • FICON environments • Fabrics leveraging routing and extension • HBAs • Virtualization 	<ul style="list-style-type: none"> • SMB SAN • Cost sensitive • High availability • DAS to SAN migration • Entry • Workgroup • Department • Edge • Windows, Linux, Solaris, VMware Environments
SFPs	LC-style pluggable SFP/SFP+	LC-style pluggable SFP/SFP+		
Hitachi Storage System Alignment	All	All		All
Hitachi Data Systems Part Number	<ul style="list-style-type: none"> • HD-815-0010 	<ul style="list-style-type: none"> • HD-825-0010 	<ul style="list-style-type: none"> • BR-DCFM-ENT-M 	<ul style="list-style-type: none"> • HD-320-815-BNDL

Cisco Products



Model	Cisco MDS 9124 Multilayer Fabric Switch	Cisco MDS 9134 Multilayer Fabric Switch	Cisco MDS 9222i Multiservice Modular Switch	Cisco MDS 9506 Multilayer Director
Number of Ports	24 4Gb Fibre Channel	32 4Gb Fibre Channel, 10Gb Fibre Channel	56 4/8Gb Fibre Channel and 4 Ethernet	192
Port Speed	1, 2, 4Gb autosensing	1, 2, 4Gb autosensing and 10Gb	1, 2, 4, 8Gb Fibre Channel autosensing and 1GbE	4, 8, 10Gb Fibre Channel and 1GbE
Expandability	Licensed in 8 port increments; base switch has 8 ports enabled; second power supply	Expandable to 68 ports in a stacked configuration	1 Blade Slot	4 Blade Slots
Hardware Features	<ul style="list-style-type: none"> Line speed ports High availability with redundant power supplies and fans Ports on demand available in 8, 16 or 24 port configurations Ports activated via 8 port upgrade license Includes plug-and-play "Quick Configuration Wizard" for streamlined deployment Competitively priced with enterprise-class capabilities: VSANs, PortChannels, nondisruptive code upgrade and switch diagnostics Available with single or dual power supplies 	<ul style="list-style-type: none"> Line speed ports High availability with redundant power supplies and fans Flexible configuration 1 RU fabric switch with dual power supplies 32 4Gb/sec and 2 10Gb/sec dedicated Fibre Channel ports Additionally, the Cisco MDS 9134 can be stacked in pairs to form a 64 port 4Gb/sec Fibre Channel switch; includes plug-and-play "Quick Configuration Wizard" for streamlined deployment Competitively priced with enterprise class capabilities: VSANs, PortChannel 	<ul style="list-style-type: none"> Long distance Fibre Channel support with extended buffer-to-buffer credits Modular, multiservice, multiprotocol 3RU chassis with 18 4Gb/sec Fibre Channel ports 4 GbE ports, and an expansion slot High-performance FCIP SAN extension (bundled) Support for Fibre Channel, iSCSI, FCIP and IBM FICON Platform for Intelligent Fabric Services such as network-hosted volume management, SANTap-enabled third party applications, Fibre Channel Write Acceleration, Security Media Encryption (SME) and Data Mobility Manager (DMM) 	<ul style="list-style-type: none"> Nonblocking high availability architecture Modular, multilayer, multiprotocol, highly available chassis includes dual supervisor modules delivering up to 2.2Tb/sec of fully redundant crossbar bandwidth per system The MDS 9506 (7RU) has four open slots
Software	<ul style="list-style-type: none"> NX-OS Quick Configuration Wizard VSANs Port Channeling and ISSU 	<ul style="list-style-type: none"> NX-OS VSAN, Fabric Manager 	<ul style="list-style-type: none"> NX-OS, SAN Extension (bundled) 	<ul style="list-style-type: none"> NX-OS, VSAN, Fabric Manager
Power	100-240V AC and 8A @ -48V to -60V DC	100-240V AC	100-240V AC	100-240V AC
Target Customer	<ul style="list-style-type: none"> SMBs SAN edge deployments 	<ul style="list-style-type: none"> SMBs SAN edge deployments High speed SAN extension 	<ul style="list-style-type: none"> Departmental SAN Remote branch office with SAN extension Intelligent fabric application requirements 	<ul style="list-style-type: none"> SAN core Medium to large enterprise Service provider
SFPs	<ul style="list-style-type: none"> SW MR LW 	<ul style="list-style-type: none"> SW MR LW 4Gb Fibre Channel CWDM X2 10Gb 	<ul style="list-style-type: none"> SW MR LW Fibre Channel CWDM DWDM Ethernet 	N/A
Hitachi Storage System Alignment	<ul style="list-style-type: none"> Simple Modular Storage Workgroup Modular Storage Adaptable Modular Storage 	<ul style="list-style-type: none"> Adaptable Modular Storage Hitachi Content Archive Platform Hitachi NAS, powered by BlueArc® 	<ul style="list-style-type: none"> Adaptable Modular Storage 	<ul style="list-style-type: none"> Universal Storage Platform Adaptable Modular Storage
Hitachi Data Systems Part Number	DS-C9124-K9.P	DS-C9134-K9.P	DS-C9222i-K9.P	DS-C9506-2K9.P

Cisco Products



Model	Cisco MDS 9509 Multilayer Director	Cisco MDS 9513 Multilayer Director	Cisco MDS 9000 16 Port Storage Services Node Module	Cisco MDS 9000 4/44 Port 8Gb/sec Host Optimized Fibre Channel Switching Module
Number of Ports	336	528	16 1GbE	4 8Gb Fibre Channel and 44 4Gb Fibre Channel
Port Speed	4, 8, 10Gb Fibre Channel and 1GbE	4, 8, 1Gb Fibre Channel and 1GbE	1GbE	1, 2, 4, 8Gb autosensing
Expandability	7 Blade Slots	11 Blade Slots	N/A	N/A
Hardware Features	<ul style="list-style-type: none"> • Nonblocking high availability architecture • Modular, multilayer, multiprotocol, highly available chassis includes dual supervisor modules delivering up to 2.2Tb/sec of fully redundant crossbar bandwidth per system • The MDS 9509 (14RU) has seven open slots 	<ul style="list-style-type: none"> • Nonblocking high availability architecture • Modular, multilayer, multiprotocol, highly available chassis includes dual supervisor modules delivering up to 2.2Tb/sec of fully redundant crossbar bandwidth per system • The MDS 9513 (14RU) has 11 open slots that support all MDS 9000 Family backward and forward compatible modules for superior investment protection; includes Fabric Manager software at no additional cost 	4x capability of 18/4 port multiservice module	<ul style="list-style-type: none"> • 96 Gb/sec of full duplex bandwidth • Cost effective solution for the vast majority of today's standard servers • 4 8Gb/sec ports and 44 4Gb/sec ports
Software	<ul style="list-style-type: none"> • NX-OS • VSAN • Fabric Manager 	<ul style="list-style-type: none"> • NX-OS • VSAN • Fabric Manager 	<ul style="list-style-type: none"> • SAN Extension • I/O Acceleration • Security Media Encryption 	<ul style="list-style-type: none"> • NX-OS • FICON • QoS • Security
Power	100-240V AC	100-240V AC	100-240V AC	100-240V AC
Target Customer	<ul style="list-style-type: none"> • SAN core • Medium to large enterprise • Service provider 	<ul style="list-style-type: none"> • SAN core • Large enterprise • Service provider 	<ul style="list-style-type: none"> • Multiprotocol connectivity • Fibre Channel • iSCSI 	<ul style="list-style-type: none"> • Cost effective solution for consolidating standard servers into the smallest number of SAN switches
SFPs	N/A	N/A	<ul style="list-style-type: none"> • FICON • Intelligent fabric applications • SX • LX Ethernet 	<ul style="list-style-type: none"> • SW • MR • LW • 4Gb Fibre Channel — SW, LW • 8Gb — CWDM, DWDM
Hitachi Storage System Alignment	<ul style="list-style-type: none"> • Universal Storage Platform • Adaptable Modular Storage 	<ul style="list-style-type: none"> • Universal Storage Platform • Adaptable Modular Storage 	<ul style="list-style-type: none"> • Universal Storage Platform • Adaptable Modular Storage 	<ul style="list-style-type: none"> • Universal Storage Platform • Adaptable Modular Storage
Hitachi Data Systems Part Number	DS-C9509-2K9.P	DS-C9513-3K9.P	DS-X9316-SSNK9=.P	DS-X9248-48HVK9=.P

Cisco Products



Model	Cisco MDS 9000 48 Port 8Gb/sec Fibre Channel Switching Module	Cisco MDS 9000 24 Port 8Gb/sec Fibre Channel Switching Module	Cisco MDS 9000 18/4 Port Multiservice Module
Number of Ports	48 8Gb Fibre Channel	24 8Gb Fibre Channel	18 4Gb Fibre Channel and 4 1GbE
Port Speed	1, 2, 4, 8Gb autosensing	1, 2, 4, 8Gb autosensing	1, 2, 4Gb Fibre Channel autosensing and 1GbE
Expandability	N/A	N/A	N/A
Hardware Features	<ul style="list-style-type: none"> • 192Gb/sec of full duplex bandwidth • Optimized performance and port density for connection of highly virtualized servers • 48 8Gb/sec ports supporting 4Gb/sec SFP and 8Gb/sec SFP+ devices 	<ul style="list-style-type: none"> • 192Gb/sec of full duplex bandwidth • 24 8Gb/sec ports supporting 4Gb/sec SFP and 8Gb/sec SFP+ devices 	<ul style="list-style-type: none"> • Long distance Fibre Channel support with extended buffer-to-buffer credits • 4GbE ports for long distance SAN extension • Hardware-based compression and encryption • IPsec authentication • FCIP Write Acceleration for enhanced remote copy • FCIP Tape Acceleration for improved tape extension
Software	<ul style="list-style-type: none"> • NX-OS • FICON • QoS • Security 	<ul style="list-style-type: none"> • NX-OS • FICON • QoS • Security 	<ul style="list-style-type: none"> • SAN Extension • I/O Acceleration • Security Media Encryption • Data Mobility Manager
Power	100-240V AC	100-240V AC	100-240V AC
Target Customer	<ul style="list-style-type: none"> • Optimized performance and port density for connection of high performance and virtualized servers 	<ul style="list-style-type: none"> • Highest performance for high end storage systems and for interswitch link (ISL) connectivity 	<ul style="list-style-type: none"> • Multiprotocol connectivity (Fibre Channel, iSCSI, FICON) and intelligent fabric applications
SFPs	<ul style="list-style-type: none"> • SW • MR • LW • 4Gb Fibre Channel — SW, LW • 8Gb Fibre Channel — CWDM, DWDM 	<ul style="list-style-type: none"> • SW • MR • LW • 4Gb Fibre Channel — SW, LW • 8Gb — CWDM, DWDM 	<ul style="list-style-type: none"> • SW • MR • LW • Fibre Channel — CWDM, DWDM — Ethernet
Hitachi Storage System Alignment	<ul style="list-style-type: none"> • Universal Storage Platform • Adaptable Modular Storage 	<ul style="list-style-type: none"> • Universal Storage Platform • Adaptable Modular Storage 	<ul style="list-style-type: none"> • Universal Storage Platform • Adaptable Modular Storage
Hitachi Data Systems Part Number	DS-X9248-96HVK9=.P	DS-X9224-96HVK9=.P	DS-X9304-18K9=.P

Emulex Products



Model	8Gb Fibre Channel Host Bus Adapter (HBA), Dual Channel	8Gb Fibre Channel HBA, Single Channel	4Gb Fibre Channel HBA, Dual Channel	4Gb Fibre Channel HBA, Single Channel	4Gb Fibre Channel HBA, Dual Channel
Number of Ports	Two	One	Two	One	Two
Port Speed	8Gb, 4Gb, 2Gb autosensing	8Gb, 4Gb, 2Gb autosensing	4Gb, 2Gb, 1Gb autosensing	4Gb, 2Gb, 1Gb autosensing	4Gb, 2Gb, 1Gb autosensing
Hardware Features	<ul style="list-style-type: none"> • PCI Express 2.0 • Low profile • Smart Optics • RoHS • MSI-X • NPIV Virtualization • Fibre Channel-SP Security Compliant • End-to-end Parity/CRC • FDMI Common Management Interface 	<ul style="list-style-type: none"> • PCI Express 2.0 • Low profile • Smart Optics • RoHS • MSI-X • NPIV Virtualization • Fibre Channel-SP Security Compliant • End-to-end Parity/CRC • FDMI Common Management Interface 	<ul style="list-style-type: none"> • PCI Express 1.0a • Low profile • Smart Optics • RoHS • MSI • NPIV Virtualization • Fibre Channel-SP Security Compliant • End-to-end Parity/CRC • FDMI Common Management Interface 	<ul style="list-style-type: none"> • PCI Express 1.0a • Low profile • Smart Optics • RoHS • MSI • NPIV Virtualization • Fibre Channel-SP Security Compliant • End-to-end Parity/CRC • FDMI Common Management Interface 	<ul style="list-style-type: none"> • PCI-X 2.0 • PCI 3.0 • Low profile • Smart Optics • RoHS • MSI • NPIV Virtualization • Fibre Channel-SP Security Compliant • End-to-end Parity/CRC • FDMI Common Management Interface
Software	Common driver by OS: Windows, Linux, VMware, Solaris; HBAnyware Management Application	Common driver by OS: Windows, Linux, VMware, Solaris; HBAnyware Management Application	Common driver by OS: Windows, Linux, VMware, Solaris; HBAnyware Management Application	Common driver by OS: Windows, Linux, VMware, Solaris; HBAnyware Management Application	Common driver by OS: Windows, Linux, VMware, Solaris; HBAnyware Management Application
Power	+3.3v DC, +12v DC	+3.3v DC, +12v DC	+3.3v DC	+3.3v DC	+3.3v DC, +5v DC
Target Customer	Enterprise Storage	Enterprise Storage	Enterprise Storage	Enterprise Storage	Enterprise Storage
SFPs	Fixed SFF	Fixed SFF	Fixed SFF	Fixed SFF	Fixed SFF
Hitachi Data Systems Part Number	LPe12002-M8	LPe12000-M8	LP11002-M4-H	LP11000-M4-H	LPe11002-M4-H

Emulex Products



Model	4Gb Fibre Channel HBA, Single Channel	4Gb Fibre Channel HBA, Single Channel	4Gb Fibre Channel HBA, Single Channel	4Gb Fibre Channel HBA, Single Channel
Number of Ports	One	One	One	One
Port Speed	4Gb, 2Gb, 1Gb autosensing	4Gb, 2Gb, 1Gb autosensing	4Gb, 2Gb, 1Gb autosensing	4Gb, 2Gb, 1Gb autosensing
Hardware Features	<ul style="list-style-type: none"> • PCI-X 2.0 • PCI 3.0 • Low profile • Smart Optics • RoHS • MSI • NPIV Virtualization • Fibre Channel-SP Security Compliant • End-to-end Parity/CRC • FDMI Common Management Interface 	<ul style="list-style-type: none"> • PCI Express 1.0a • Low profile • Smart Optics • RoHS • MSI • NPIV Virtualization • Fibre Channel-SP Security Compliant • End-to-end Parity/CRC • FDMI Common Management Interface 	<ul style="list-style-type: none"> • PCI Express 1.0a • Low profile • Smart Optics • RoHS • MSI • NPIV Virtualization • Fibre Channel-SP Security Compliant • End-to-end Parity/CRC • FDMI Common Management Interface 	<ul style="list-style-type: none"> • PCI Express 1.0a • Low profile • Smart Optics • RoHS • MSI • NPIV Virtualization • Fibre Channel-SP Security Compliant • End-to-end Parity/CRC • FDMI Common Management Interface
Software	Common driver by OS: Windows, Linux, VMware, Solaris; HBAnyware Management Application	Common driver by OS: Windows, Linux, NetWare HBAnyware Management Application	Common driver by OS: Windows, Linux, NetWare HBAnyware Management Application	Common driver by OS: Windows, Linux, HBAnyware Management Application
Power	+3.3v DC, +5v DC	+3.3v DC	+3.3v DC, +5v DC	+3.3v DC
Target Customer	Enterprise Storage	Midrange Storage	Midrange Storage	Small and Medium Enterprise
SFPs	Fixed SFF	Fixed SFF	Fixed SFF	Fixed SFF
Hitachi Data Systems Part Number	LPe11000-M4-H	LP1150-F4-H	LPe1150-F4-H	LPe111-H

QLogic Products



Model	QLogic SB5600 and 5602 Stackable Fibre Channel Switches	ISR6140 and 6142 Router
Number of Ports	16 4Gb Fibre Channel device ports and 4 10Gb Fibre Channel ports for ISLs for stacking	2 Fibre Channel, 2 Ethernet (iSCSI), 2 management ports
Port Speed	4Gb, 2Gb, 1Gb, 10Gb Fibre Channel	4, 2, 1Gb Fibre Channel, 10GbE iSCSI
Expandability	From 8 to 64 Fibre Channel ports	Two units provide high availability
Hardware Features	<ul style="list-style-type: none"> Stackable switches using 10Gb Fibre Channel ISLs for up to 64 ports 1U switch; SB5602 has dual power supplies 	<ul style="list-style-type: none"> Connect SANs over WAN with SmartWrite and Hitachi TrueCopy® Synchronous/Extended Distance software Connect iSCSI to SAN storage 1U half rack
Software	QLogic Quicktools switch management software with GUI and configuration wizards	SANsurfer Router Manager, GUI and configuration wizard
Power	100-240V AC, 50-60Hz	100-240V AC, 50-60Hz
Target Customer	<ul style="list-style-type: none"> SMBs and midrange businesses that want a scalable switch that grows for future investment protection 	<ul style="list-style-type: none"> SMBs Midrange businesses that want an intelligent router
SFPs	<ul style="list-style-type: none"> 4Gb 2Gb 1Gb 	<ul style="list-style-type: none"> 2Gb 1Gb Fibre Channel
Hitachi Storage System Alignment	Adaptable Modular Storage 200, Workgroup Modular Storage 100, Simple Modular Storage 100, Adaptable Modular Storage 500, Adaptable Modular Storage 1000 and Adaptable Modular Storage 2100	Adaptable Modular Storage 200, Workgroup Modular Storage 100, Simple Modular Storage 100, Adaptable Modular Storage 500, Adaptable Modular Storage 1000, Adaptable Modular Storage 2300, Adaptable Modular Storage 2500, Universal Storage Platform V and Universal Storage Platform VM
Hitachi Data Systems Part Number	<ul style="list-style-type: none"> SB5602Q-08-02 SB5602Q-16-02 SB5602Q-20-02 SB5600Q-08-02 SB5600Q-16-02 SB5600Q-20-02 	<ul style="list-style-type: none"> ISR6140-HDS-SP ISR6142-HDS-SP

QLogic Products



Model	QLogic QLE 2560 and 2562 8Gb Fibre Channel PCI Express Host Bus Adapters (HBAs)	QLogic QLE 2460 and 2462 4Gb Fibre Channel PCI Express HBAs	QLogic QLA 2460 and 2462 4Gb Fibre Channel PCI-X HBAs
Number of Ports	Single port QLE 2560 and dual port QLE2562	Single port QLE 2460 and dual port QLE 2462	Single port QLA 2460 and dual port QLA 2462
Port Speed	8, 4, 2Gb Fibre Channel	4, 2, 1Gb Fibre Channel	4, 2, 1Gb Fibre Channel
Expandability	Up to dual Fibre Channel ports	Up to dual Fibre Channel ports	Up to dual Fibre Channel ports
Hardware Features	PCI Express	PCI Express	PCI-X 2.0
Software	SANsurfer software	SANsurfer software	SANsurfer software
Power	5W single port, 6.5W dual port	5.5W single port, 6.2W dual port	6.5W single port, 8W dual port
Target Customer	<ul style="list-style-type: none"> • SMB • Midrange • Enterprise businesses 	<ul style="list-style-type: none"> • SMB • Midrange • Enterprise businesses 	<ul style="list-style-type: none"> • SMB • Midrange • Enterprise businesses
SFPs	<ul style="list-style-type: none"> • 8Gb Fibre Channel 	<ul style="list-style-type: none"> • 4Gb Fibre Channel 	<ul style="list-style-type: none"> • 4Gb Fibre Channel
Hitachi Storage System Alignment	Adaptable Modular Storage 200, Workgroup Modular Storage 100, Simple Modular Storage 100, Adaptable Modular Storage 500, Adaptable Modular Storage 1000, Adaptable Modular Storage 2300, Adaptable Modular Storage 2500, Universal Storage Platform V and Universal Storage Platform VM	Adaptable Modular Storage 200, Workgroup Modular Storage 100, Simple Modular Storage 100, Adaptable Modular Storage 500, Adaptable Modular Storage 1000, Adaptable Modular Storage 2300, Adaptable Modular Storage 2500, Universal Storage Platform V and Universal Storage Platform VM	Adaptable Modular Storage 200, Workgroup Modular Storage 100, Simple Modular Storage 100, Adaptable Modular Storage 500, Adaptable Modular Storage 1000, Adaptable Modular Storage 2300, Adaptable Modular Storage 2500, Universal Storage Platform V and Universal Storage Platform VM
Hitachi Data Systems Part Number	<ul style="list-style-type: none"> • QLE2560 • QLE2562 	<ul style="list-style-type: none"> • QLE2460 • QLE2462 	<ul style="list-style-type: none"> • QLA 2460 • QLA2462

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