



Lenovo B6505 and B6510 FC SAN Switches Product Guide

The Lenovo B6505 and B6510 FC SAN Switches (Machine Type 3873) provide exceptional price/performance value by delivering market-leading 16 Gb Gen 5 Fibre Channel technology and combining flexibility, simplicity, and enterprise-class functionality that supports highly virtualized environments to meet the demands of hyper-scale, private cloud storage.

Designed to enable maximum flexibility and reliability, the Lenovo B6505 and B6510 are compact 1U rack-mount switches that offer low-cost access to industry-leading Storage Area Network (SAN) technology while providing “pay-as-you-grow” scalability to meet the needs of an evolving storage environment.

The Lenovo B6505 offers up to 24 ports (12 ports licensed by default; the remaining 12 ports can be licensed by purchasing a 12-port software license pack), and the Lenovo B6510 offers up to 48 ports (24 ports licensed by default; the remaining ports can be licensed in 12-port increments). Lenovo FC SAN switch ports support 2/4/8/16 Gbps speeds to deliver easy integration into the existing SAN environments while realizing the benefits of Gen 5 Fibre Channel connectivity. The switches offer a rich set of standard software features with the options to expand their capabilities as needed.

The Lenovo B6505 and B6510 feature the EZSwitchSetup wizard and can be configured in Access Gateway Mode to simplify deployment. The switches provide full non-blocking performance with Ports On Demand scalability to support SAN expansion and enable long-term investment protection. The following figure shows the Lenovo B6510.



Figure 1. Lenovo B6510

Did you know?

The Lenovo B6505 and B6510 leverage storage connectivity technologies from Brocade, the market share leader in Fibre Channel networking that is deployed in 90% of the Fortune 1000 data centers.

The Lenovo B6505 and B6510 offer dual functionality as either a full-fabric SAN switch or as an N_Port ID Virtualization (NPIV)-enabled Access Gateway that simplifies server connectivity.

Fabric Vision technology, an extension of Gen 5 Fibre Channel, provides unprecedented insight and visibility across the SAN with powerful built-in monitoring, management, and diagnostic tools.

With Lenovo FC SAN Switch offerings, Lenovo can be your trusted partner that offers "one stop shop" and single point of contact for delivery of leading edge technologies and innovations from Lenovo and other leading IT vendors. These offerings can satisfy the wide range of your end-to-end IT infrastructure needs, including end-user devices, servers, storage, networking, services, management software, and financing.

Key features

The Lenovo B6505 and B6510 FC SAN switches offer the following features and benefits:

- Provide exceptional price/performance value, combining flexibility, simplicity, and enterprise-class functionality in a 24-port (B6505) or 48-port (B6510) switch
- Deliver up to 24 ports (B6505) or 48 ports (B6510) of 16 Gbit/sec performance in an energy-efficient, optimized 1U form factor to support the most demanding server and cloud deployments.
- Consume less than 3.3 watts (B6505) or 2.3 watts (B6510) of power per 16 Gbps port for exceptional power and cooling efficiency.
- Simplify configuration and management with easy-to-use EZSwitch Setup.
- Enable “pay-as-you-grow” scalability from single-switch fabric to full-fabric enterprise capabilities with Ports On Demand scalability from 12 or 24 to 24 or 48 ports in 12-port increments.
- Optimize fabric behavior and ensure sufficient bandwidth for mission-critical applications with advanced traffic management capabilities and adaptive networking.
- Offer dual functionality as either a full-fabric SAN switch or as an NPIV-enabled Access Gateway (requires 24 ports [B6505] or 48 ports [B6510] be licensed) that enhances fabric scalability and simplifies management.
- Protect existing device investments with auto-sensing 2 (8 Gb SFP+ modules only), 4, 8, and 16 Gbit/sec capabilities and native operation with Brocade and Brocade M-Series fabrics.
- Run Fabric OS, which delivers distributed intelligence throughout the network and enables a wide range of value-added features.
- Leverage Fabric Vision technology’s powerful monitoring, management, and diagnostic tools to simplify administration, increase uptime, and reduce costs.
- Supply a rich set of standard features at no extra cost, including fabric services, advanced zoning, adaptive networking, full fabric and access gateway operations, and diagnostic tools.
- Expand fabric capabilities with optional licensed functions, including trunking, advanced monitoring and alerting, long-distance fabrics, FC-FC routing (B6510 only), and integrated 10 Gb FC (B6510 only).
- Compress and encrypt in-flight data on up to two ports for more efficient link utilization and higher security (B6510 only).
- Virtualize physical FC SAN switches and fabrics into logical entities for better flexibility, utilization, management, and efficiency (B6510 only).
- Allow organizations to seamlessly integrate Gen 5 Fibre Channel networks with the next generation of flash storage – NVMe over Fibre Channel – by being NVMe-ready, without a disruptive rip and replace, to achieve faster application response times and harness the performance of solid state drives for better scalability across virtual data centers with flash storage.
- Maximize resiliency with non-disruptive software upgrades and redundant hot-swap power supplies.
- Accelerate troubleshooting with built-in advanced diagnostics tools featuring ClearLink Diagnostics with D_Ports on 16 Gb FC optics and select adapters from QLogic and Emulex.

The following figure shows the Lenovo B6505.



Figure 2. Lenovo B6505

Components and connectors

The following figure shows the port-side view of the Lenovo B6505.

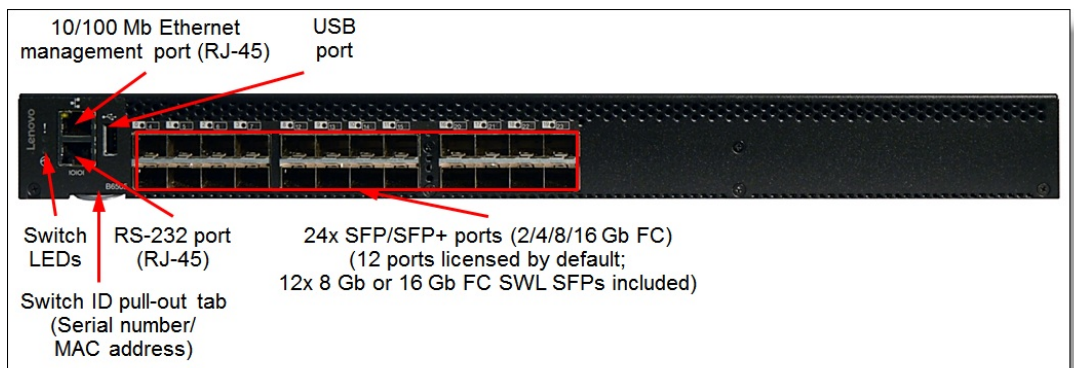


Figure 3. Lenovo B6505 port-side view

The following figure shows the port-side view of the Lenovo B6510.

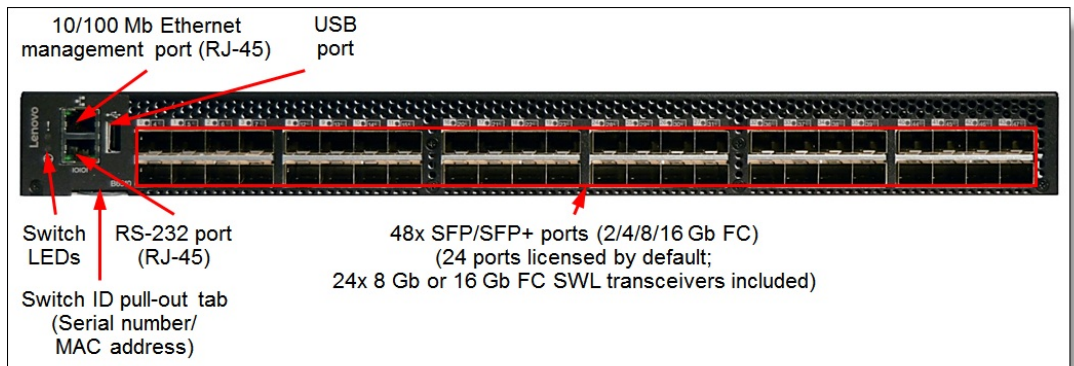


Figure 4. Lenovo B6510 port-side view

The following figure shows the non-port side view of the Lenovo B6505 and B6510.

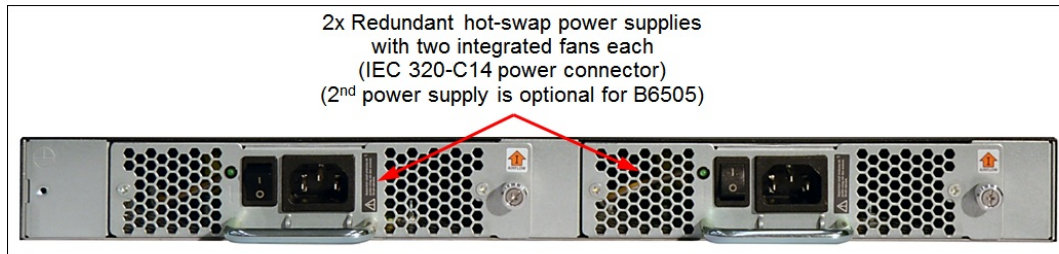


Figure 5. Lenovo B6505 and B6510 non-port-side view

System specifications

The following table lists the Lenovo B6505 and B6510 system specifications.

Table 1. System specifications

Component	Specification
Form factor	Standalone or 1U rack mount
Ports	<ul style="list-style-type: none"> B6505: Up to 24 SFP/SFP+ ports. 12 ports licensed by default; 12x 8 Gb or 16 Gb FC SWL SFP+ modules included with the switch; optional 12-port activation bundle (license pack + 8 Gb or 16 Gb FC SWL SFP+ modules). B6510: Up to 48 SFP/SFP+ ports. 24 ports licensed by default; up to two optional 12-port activation bundles (license pack + 8 Gb or 16 Gb FC SWL SFP+ modules).
Media types	8 Gb FC and 16 Gb SFP+ transceivers: short-wave (SW), long-wave (LW), extended long-wave (ELW). 10 Gb FC SFP+ transceivers (Lenovo B6510 only; require Integrated 10G FC license): short-wave (SW), long-wave (LW).
Port speeds	2/4/8 Gbps auto-sensing, full-duplex (8 Gb FC SFP+ transceivers) 4/8/10 Gbps auto-sensing, full-duplex (10 Gb FC SFP+ transceivers; Lenovo B6510 only) 4/8/16 Gbps auto-sensing, full-duplex (16 Gb FC SFP+ transceivers)
FC port types	Full Fabric mode: FL_Port, F_Port, M_Port (Mirror Port), E_Port, D_Port (Diagnostic Port). Access Gateway mode: F_Port and NPIV-enabled N_Port.
Data traffic types	Unicast (Class 2 and Class 3), multicast (Class 3 only), broadcast (Class 3 only).
Classes of service	Class 2, Class 3, Class F (inter-switch frames).
Standard software	Full Fabric mode, Access Gateway, Advanced Zoning, Adaptive Networking, Advanced Diagnostic Tools, Virtual Fabrics (Lenovo B6510 only), In-flight Compression (Lenovo B6510 only), In-flight Encryption (Lenovo B6510 only).
Optional software	ISL Trunking, Fabric Vision, Extended Fabric, Integrated Routing (Lenovo B6510 only), Integrated 10G FC (Lenovo B6510 only).

Component	Specification
Performance	Non-blocking architecture with wire-speed forwarding of traffic: <ul style="list-style-type: none"> • 2.125 Gbit/sec line speed, full duplex • 4.25 Gbit/sec line speed, full duplex • 8.5 Gbit/sec line speed, full duplex • 10.51875 Gbit/sec line speed, full duplex (Lenovo B6510 only) • 14.025 Gbit/sec line speed, full duplex • Aggregated throughput <ul style="list-style-type: none"> ◦ B6505: 384 Gbps ◦ B6510: 768 Gbps • Up to 0.7 microseconds local switching latency <ul style="list-style-type: none"> ◦ Forward error correction (FEC): Adds up to 0.4 microseconds between E_Ports ◦ Encryption/compression: Adds up to 5.5 microseconds per node
Scalability	<ul style="list-style-type: none"> • Maximum number of switches in the fabric: 239 • Maximum frame size: 2,112-byte payload • Maximum number of frame buffers per switch: 8,192 • Maximum number of ports per ISL trunk: 8 (Requires an optional license)
Cooling	Two fans built into each power supply; 2+2 cooling redundancy with two power supplies. Non-port to port side airflow.
Power supply	Up to two redundant hot-swap 150 W AC (100 - 240 V) power supplies (IEC 320-C14 connector).
Hot-swap parts	SFP/SFP+ transceivers, power supplies with fans.
Management ports	One 10/100 Mb Ethernet port (UTP, RJ-45); one RS-232 port (RJ-45); one USB port (for additional firmware/log/configuration files storage).
Management interfaces	EZSwitch Setup; Web-based GUI (Web Tools); CLI; SMI-S; SNMP. Optional Brocade Network Advisor.
Security features	Secure Socket Layer (SSL); Secure Shell (SSH); Secure Copy (SCP); Secure FTP (SFTP); user level security, Role-based Access Control (RBAC); LDAP, RADIUS, and TACACS+ authentication; access control lists (ACLs); IP security (IPsec)
Hardware warranty	One-year customer-replaceable unit, parts-only warranty with 9x5 next business day terms. Optional warranty service upgrades are available through Lenovo: on-site coverage, 24x7 coverage, 2-hour or 4-hour response time, 1-year or 2-year warranty extensions, Remote Technical Support.
Software maintenance	Three-year software support and subscription license is included. Optional 1-year and 2-year software support extension licenses are available through Lenovo.
Dimensions	Height: 43 mm (1.7 in.); width: 438 mm (17.2 in.); depth: 443 mm (17.4 in.)
Weight	<ul style="list-style-type: none"> • B6505 (with one power supply, without SFPs): 7.8 kg (17.3 lb) • B6510 (with two power supplies, without SFPs): 9.2 kg (20.2 lb)

Models

The following table lists the Lenovo B6505 and B6510 models.

Table 2. Lenovo B6505 and B6510 models

Description	Part number	Machine Type-Model	Feature code
Lenovo B6505, 12 ports activated w/ 8Gb SWL SFPs, 1 PS, Rail Kit	3873AR4	3873-HC5	ATSN
Lenovo B6505, 12 ports activated w/ 16Gb SWL SFPs, 1 PS, Rail Kit	3873AR5	3873-HC5	ATSP
Lenovo B6510, 24 ports activated w/ 8Gb SWL SFPs, 2 PS, Rail Kit	3873BR2	3873-HC6	ATSQ
Lenovo B6510, 24 ports activated w/ 16Gb SWL SFPs, 2 PS, Rail Kit	3873BR3	3873-HC6	ATSR

The Lenovo B6505 and B6510 part numbers include the following items:

- One FC SAN Switch
 - B6505: With 12 ports activated and 12x 8 Gb or 16 Gb FC SWL SFP+ transceivers included
 - B6510: With 24 ports activated and 24x 8 Gb or 16 Gb FC SWL SFP+ transceivers included
- Serial cable (DB-9/RJ-45 to RJ-45)
- Rubber feet for setting up the switch as a standalone unit
- Fixed rack mount kit
- EZSwitch Setup CD
- Lenovo B6505 or B6510 QuickStart Guide
- Access Gateway Quick Start Guide
- Documentation CD
- Warranty information

Note: The switches come standard without power cords; one or two power cables must be purchased together with the switch (see "Power supplies and cables" for details).

The Lenovo B6505 comes standard with 12 licensed ports and with 12x 8 Gb or 16 Gb FC SWL SFP+ Transceivers. The remaining 12 unlicensed ports can be activated by purchasing and installing the Ports on Demand (POD) bundle that includes software licenses for 12 ports and 12x 8 Gb or 16 Gb FC SWL SFP+ transceivers. By default, ports 0 through 11 are enabled on the Lenovo B6505. To enable ports 12 through 23, install a POD license key.

The Lenovo B6510 comes standard with 24 licensed ports and with 24x 8 Gb or 16 Gb FC SWL SFP+ transceivers. The remaining 24 unlicensed ports can be activated in 12-port increments by purchasing and installing the Ports on Demand (POD) bundles that include software licenses for 12 ports and 12x 8 Gb or 16 Gb FC SWL SFP+ transceivers. By default, ports 0 through 23 are enabled on the Lenovo B6510. To enable ports 24 through 35, install a POD license key. To enable ports 36 through 47, install another POD license.

The following table lists additional POD bundles for the Lenovo B6505 and B6510.

Table 3. POD bundle options

Description	Part number	Feature code	Max qty supported
POD software license for the Lenovo B6505			
Lenovo B6505 12-port license w/ 12x 8G SWL SFP+	00WF812	ATST	1
Lenovo B6505 12-port license w/ 12x 16G SWL SFP+	00WF810	ATSU	1
POD software license for the Lenovo B6510			
Lenovo B6510 12-port license w/ 12x 8G SWL SFP+	00WF808	ATSV	2
Lenovo B6510 12-port license w/ 12x 16G SWL SFP+	00WF806	ATSW	2

If needed, the Lenovo B6505 and B6510 can be mounted in a 2-post rack cabinet by using the optional mid-mount rack kit that is listed in the following table.

Table 4. Rack-mount options

Description	Part number	Feature code	Max qty supported
Lenovo B65xx Mid-mount Rack Kit	00MY760	ASKL	1

The optional mid-mount rack kit for the Lenovo B6505 and B6510 is shown in the following figure.

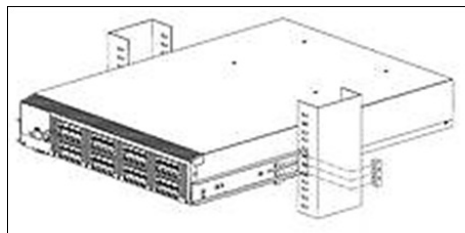


Figure 6. Lenovo B65xx Mid-mount Rack Kit

Transceivers and cables

The Lenovo B6505 comes with 12x 8 Gb or 16 Gb FC SWL SFP+ transceivers, and the Lenovo B6510 comes with 24x 8 Gb or 16 Gb FC SWL SFP+ transceivers. The optional 12-port POD bundles for the Lenovo B6505 come with 12x 8 Gb or 16 Gb FC SWL SFP+ transceivers, and the optional 24-port POD bundles for the Lenovo B6510 come with 24x 8 Gb or 16 Gb FC SWL SFP+ transceivers. Additional SWL, LWL, and EWL SFP+ transceivers can be ordered for the switches, if needed.

The following table lists the supported SFP+ options and optical cables.

Table 5. Supported SFP+ transceivers and optical cables

Description	Part number	Feature code	Max qty supported (6505/6510)
16 Gb FC SFP+ transceivers			
Brocade 16Gb SW SFP+ Optical Transceiver	88Y6393	A22R	24 / 48
Brocade 16Gb 10km LW SFP+ Transceiver	00MY768	ASK2	24 / 48
Brocade 16Gb 25km ELW SFP+ Transceiver	00MY770	ASK3	24 / 48*
10 Gb FC SFP+ transceivers (Require Integrated 10G FC License)			
Brocade 10Gb FC SWL SFP+ Transceiver	00YH933	ATSY	- / 8
Brocade 10Gb FC LWL SFP+ Transceiver	00YH929	ATSX	- / 8
8 Gb FC SFP+ transceivers			
Brocade 8Gb SW SFP+ Optical Transceiver	88Y6416	5084	24 / 48
Brocade 8Gb 10km LW SFP+ Transceiver	00MY764	ASK0	24 / 48
Brocade 8Gb 25km ELW SFP+ Transceiver	00MY766	ASK1	24 / 48*
Optical cables for 8 Gb and 16 Gb FC SW SFP+ transceivers			
Lenovo 0.5m LC-LC OM3 MMF Cable	00MN498	ASR5	24 / 48
Lenovo 1m LC-LC OM3 MMF Cable	00MN502	ASR6	24 / 48
Lenovo 3m LC-LC OM3 MMF Cable	00MN505	ASR7	24 / 48

Description	Part number	Feature code	Max qty supported (6505/6510)
Lenovo 5m LC-LC OM3 MMF Cable	00MN508	ASR8	24 / 48
Lenovo 10m LC-LC OM3 MMF Cable	00MN511	ASR9	24 / 48
Lenovo 15m LC-LC OM3 MMF Cable	00MN514	ASRA	24 / 48
Lenovo 25m LC-LC OM3 MMF Cable	00MN517	ASRB	24 / 48
Lenovo 30m LC-LC OM3 MMF Cable	00MN520	ASRC	24 / 48

* When using ELW SFP+ transceivers over distances over 10 km, the Extended Fabric feature is required on a SAN switch to drive the maximum bandwidth over the extended links (see Table 7 for ordering information).

The following table lists the cabling requirements for the switch.

Table 6. Lenovo B6505 and B6510 cabling requirements

Transceiver	Cable	Connector
16 Gb Fibre Channel		
16 Gb FC SW SFP+ Module	Up to 30 m with fiber optic cables supplied by Lenovo (see Table 2); OM4 (up to 125 m at 16 Gbps; up to 150 m at 8 Gbps; up to 400 m at 4 Gbps) or OM3 (up to 100 m at 16 Gbps; up to 150 m at 8 Gbps; up to 380 m at 4 Gbps) multimode fiber optic cables	LC
16 Gb FC LW SFP+ Module	1310 nm single-mode fiber optic cable (9 μ) up to 10 km	LC
16 Gb FC ELW SFP+ Module	1310 nm single-mode fiber optic cable (9 μ) up to 25 km	LC
10 Gb Fibre Channel		
10 Gb FC SW SFP+ Module	Up to 30 m with fiber optic cables supplied by Lenovo (see Table 2); up to 550 m with OM4 or up 300 m with OM3 multimode fiber optic cables	LC
10 Gb FC LW SFP+ Module	1310 nm single-mode fiber optic cable (9 μ) up to 10 km	LC
8 Gb Fibre Channel		
8 Gb FC SW SFP+ Module	Up to 30 m with fiber optic cables supplied by Lenovo (see Table 2); OM3 multimode fiber optic cables (up to 150 m at 8 Gbps; up to 380 m at 4 Gbps; up to 500 m at 2 Gbps)	LC
8 Gb FC LW SFP+ Module	1310 nm single-mode fiber optic cable (9 μ) up to 10 km	LC
8 Gb FC ELW SFP+ Module	1310 nm single-mode fiber optic cable (9 μ) up to 25 km	LC
Management ports		
10/100 Mb Ethernet port	UTP Category 5, 5E, and 6 up to 100 meters	RJ-45
RS-232 serial port	DB-9/RJ-45-to-RJ-45 console cable (comes with the switch)	RJ-45

Software

The Lenovo B6505 and B6510 come standard with the following software features:

- Advanced Fabric Services
 - Full Fabric mode: Enables high performance 8 Gb or 16 Gb switching in multi-switch fabric.
 - Advanced Zoning (default zoning, port/WWN zoning, broadcast zoning)
 - Dynamic fabric provisioning (DFP): Fabric-assigned port World Wide Names (FA-PWWNs).
 - Dynamic path selection (DPS): Distributes input traffic across multiple paths proportionally to the bandwidth of each path.
 - Dynamic load sharing (DLS): Distributes traffic across multiple equivalent paths between switches.

- Fabric Shortest Path First (FSPF)
 - Buffer-to-Buffer (BB) credit flow control
 - Enhanced BB credit loss recovery
 - Fabric Device Management Interface (FDMI)
 - Frame order delivery
 - Frame redirection
 - FC login services
 - Registered State Change Notification (RSCN)
 - Reliable Commit Service (RCS)
 - Simple Name Server (SNS)
 - Fibre Channel Authentication Protocol (FCAP) switch authentication
 - Management Server (MS): Assists in the auto-discovery of switch-based fabrics.
 - In-flight compression on up to two ports (Lenovo B6510 only)
 - In-flight encryption on up to two ports (Lenovo B6510 only)
- Adaptive Networking
 - Bottleneck detection: Identifies devices attached to the fabric that are slowing down traffic.
 - Ingress rate limiting: Restricts the speed of traffic from a particular device to the switch port.
 - Traffic isolation zoning (TIZ): Creates a dedicated path for traffic flowing from a specific set of source ports (F_Ports).
 - Quality of Service (QoS): SID/DID traffic prioritization
- Virtualization
 - N_Port ID virtualization (NPIV): Enables a single FC port to appear as multiple, distinct ports with separate port identification within the fabric.
 - Access Gateway: Leverages NPIV to connect to any fabric without adding switch domains to reduce management complexity.
 - Virtual Fabrics (Logical Switch, Logical Fabric): Allows SAN design and management at the granularity of a port (Lenovo B6510 only).
- Management
 - IPv4 and IPv6 addressing
 - Firmware upload and download
 - Hot code load and activation
 - Network Time Protocol (NTP) v3
 - EZ Switch Setup Wizard
 - Command line interface (CLI)
 - Web Tools
 - Brocade Network Advisor (purchased separately)
 - SNMPv1, SNMPv3, and MIBs
 - SMI-S compliant
 - Syslog
- Security
 - Local switch user accounts
 - LDAP, RADIUS, TACACS+ user authentication
 - Role-based access control (RBAC)
 - Administrative Domains: Partition the fabric into logical groups and allocate administration of these groups to different user accounts
 - IP Security (IPsec)
 - IP filtering
 - HTTPS
 - Secure Copy (SCP)
 - Secure RPC
 - Secure FTP (SFTP)
 - Secure Shell (SSH) v2
 - Secure Sockets Layer (SSL)
 - Federal Information Processing Standards (FIPS) 140-2 L2-compliant

- Advanced Diagnostic Tools
 - Power-on self-test (POST)
 - MAPS basic monitoring: Monitors system resources and overall switch health status.
 - Event logging
 - Environmental monitoring
 - FCping
 - Pathinfo (FC traceroute)
 - Non-disruptive daemon restart
 - Port mirroring
 - Port fencing: Disables a port if specified error conditions are met.
 - RAS trace logging
 - ClearLink Diagnostics with Diagnostic Port (D_Port) (16 Gb optics only): Helps ensure optical and signal integrity for Gen 5 Fibre Channel optics and cables.
 - Optics health monitoring
 - Power monitoring
 - Rolling Reboot Detection (RRD)

The following optional software features are available for the Lenovo B6505 and B6510:

- ISL Trunking: Allows frame-based consolidation of up to 8 inter-switch links (ISLs) into fault-tolerant and load-balanced trunks with bandwidth of up to 128 Gbps.
- Fabric Vision
 - Monitoring and Alerting Policy Suite (MAPS): Provides a policy-based, fabric-wide threshold monitoring and alerting tool.
 - Flow Vision: Allows to identify, monitor, and analyze specific application flows.
 - Top Talkers: Provide real-time information about the top bandwidth-consuming flows passing through a specific port in the network.
- Extended Fabric: Extends Fibre Channel SANs beyond 10 km distance limitations for replication and backup at full bandwidth.
- Integrated Routing (Lenovo B6510 only): The FC-FC routing service provides Fibre Channel routing between two or more fabrics without merging those fabrics.
- Integrated 10G FC License (Lenovo B6510 only): Allows 10 Gb FC operations on up to eight 16 Gb FC ports for metro connectivity by directly utilizing a fiber-optic cable between sites or by creating multiple channels on an optical cable between sites, utilizing Wave Division Multiplexing (WDM) technology (the Extended Fabric license is *NOT* required for long distance 10 Gb FC connectivity).

The following table lists ordering information for the optional software features for the Lenovo B6505 and B6510 (one software license per switch).

Table 7. Optional software features

Description	Part number	Feature code
Software licenses for Lenovo B6505		
Lenovo B300/6505 S/W, ISL Trunking	00MY787	ASK7
Lenovo B300/6505 S/W, Fabric Vision	00MY788	ASK8
Lenovo B300/6505 S/W, Extended Fabric	00MY789	ASK9
Lenovo B300/6505 S/W, Enterprise Bundle (TRK, FV, EF)*	00MY790	ASKB
Software licenses for Lenovo B6510		
Lenovo B6510 S/W, ISL Trunking	00MY778	ASKC
Lenovo B6510 S/W, Fabric Vision	00MY779	ASKD
Lenovo B6510 S/W, Extended Fabric	00MY780	ASKF

Description	Part number	Feature code
Lenovo B6510 S/W, Enterprise Bundle (TRK, FV, EF)*	00MY781	ASKJ
Lenovo B6510 S/W, Integrated Routing	00MY776	ASKG
Lenovo B6510 S/W, Integrated 10G FC License	00MY777	ASKH

* Enterprise Bundle includes ISL Trunking, Fabric Vision, and Extended Fabric licenses.

Software subscription and maintenance is included with the Lenovo B6505 and B6510 and provides 3-year software support with the option to extend it up to 7 years in 1-year or 2-year increments.

Ordering information for the software maintenance extension options is listed in the following table.

Table 8. Software maintenance extension options

Description	Part number	Feature code
Software maintenance extension for Lenovo B6505		
Lenovo B6505 FC SAN FW Renewal, 1-Year	00YH952	ATW7
Lenovo B6505 FC SAN FW Renewal, 2-Year	00YH953	ATW8
Software maintenance extension for Lenovo B6510		
Lenovo B6510 FC SAN FW Renewal, 1-Year	00YH960	ATW9
Lenovo B6510 FC SAN FW Renewal, 2-Year	00YH961	ATWA

Lenovo offers optional Brocade Network Advisor, a fabric management application, to efficiently manage the network operations lifecycle, including monitoring, diagnostics, change management, and troubleshooting.

Lenovo offers the following Network Advisor editions:

- Network Advisor Professional Plus: A SAN management application designed for mid-sized SANs for managing up to 36 physical or virtual fabrics and up to 2,560 switch ports.
- Network Advisor Enterprise: A SAN management application designed for enterprise-class SANs for managing up to 100 physical or virtual fabrics and up to 15,000 switch ports.

Brocade Network Advisor supports the a wide variety of Brocade SAN offerings, including Lenovo B300, B6505, B6510, FC5022, and more. For a complete list of supported products and edition features, refer to the Brocade Network Advisor Installation and Migration Guide:

<http://www.brocade.com/en/support/document-library/dl-segment-products-os-detail-page.bna.product.html>

The following table lists ordering information for the optional Brocade Network Advisor management application.

Table 9. Brocade Network Advisor licenses

Description	Part number	Feature code
Brocade Network Advisor Professional Plus License	01KP108	AVK4
Brocade Network Advisor SAN Enterprise License	01KP105	AVK3
Brocade Network Advisor SAN Upgrade Professional Plus to Enterprise License	01KP111	AVK5

Fibre Channel standards

The Lenovo B6505 and B6510 support the following standards:

- FC-AL-2 INCITS 332-1999
- FC-BB-2 INCITS 372-2003
- FC-BB-3 INCITS 414-2006
- FC-BB-4 INCITS 419-2008
- FC-BB-5 INCITS 462-2010 + Amendment 1
- FC-BB-6 INCITS 509-2014
- FC-DA INCITS TR-36-2004
- FC-DA-2 INCITS TR-49-2012
- FC-FLA INCITS TR-20-1998
- FC-FS INCITS 373-2003
- FC-FS-2 ANSI/INCITS 424-2006
- FC-FS-3 INCITS 470-2011
- FC-GS-4 ANSI INCITS 387-2004
- FC-GS-5 ANSI INCITS 427-2007
- FC-GS-6 INCITS 463-2010
- FC-IFR INCITS 475-2011
- FC-LS INCITS 433: 2007
- FC-LS-2 INCITS 477-2011
- FC-MI-2 ANSI/INCITS TR-39-2005
- FC-MI-3 INCITS TR-48-2012
- FCP ANSI X3.269-1996
- FCP-2 INCITS 350-2003
- FCP-3 INCITS 416-2006
- FCP-4 INCITS 481-2012
- FC-PI INCITS 352-2002
- FC-PI-2 INCITS 404-2005
- FC-PI-3 INCITS 460-2012
- FC-PI-4 INCITS 450-2009
- FC-PI-5 INCITS 449-2011
- FC-PLDA INCIT S TR-19-1998
- FC-SB ANSI X3.271-1996
- FC-SB-2 INCITS 374-2001
- FC-SB-3 INCITS 374-2003 + Amendment 1
- FC-SB-4 INCITS 466-2011
- FC-SB-5 INCITS 485-2014
- FC-SP INCITS 426-2007
- FC-SP-2 INCITS 496-2012 + Amendment 1
- FC-SW-3 INCITS 384-2004
- FC-SW-4 INCITS 418-2006
- FC-SW-5 INCITS 461-2010
- FC-TAPE INCITS TR-24-1999
- FC-VI INCITS 357-2002
- INCITS 332:1999/AM 1-2003
- INCITS 332:1999/AM 2-2006
- MIB-FA INCITS TR-32-2003
- RFC 4044 Fibre Channel Management MIB
- RFC 4338 Transmission of IPv6, IPv4, and ARP over FC
- SNIA Storage Management Initiative Specification (SMI-S) Version 1.03 ISO standard IS24775-2006 (replaces ANSI INCITS 388: 2004)
- SNIA Storage Management Initiative Specification (SMI-S) Version 1.1
- SNIA Storage Management Initiative Specification (SMI-S) Version 1.2
- SNIA Storage Management Initiative Specification (SMI-S) Version 1.4

Power supplies and cables

The Lenovo B6505 and B6510 support up to two redundant hot-swap 150 W AC power supplies. Each power supply has an IEC 309-C14 connector. The Lenovo B6505 comes standard with one power supply, and the Lenovo B6510 comes standard with two power supplies. The following table lists ordering information for the optional power supply for the Lenovo B6505.

Table 10. Power supply for the Lenovo B6505.

Description	Part number	Feature code
Lenovo B6505 Redundant Power Supply	00MY807	ASKT

The switches come standard without a power cord; one or two rack power cables or country-specific line cords must be ordered together with the switch depending on the quantity of power supplies in the switch (see the following table).

Table 11. Part numbers and feature codes for ordering power cords

Description	Part number	Feature code
Rack power cables		
1.5m, 10A/100-250V, C13 to IEC 320-C14 Rack Power Cable	39Y7937	6201
1.8m, 10A/100-250V, 2xC13PM to IEC 320-C14 Rack Power Cable	None*	6568
2.8m, 10A/100-250V, C13 to IEC 320-C14 Rack Power Cable	None*	6311
2.8m, 10A/100-250V, C13 to IEC 320-C20 Rack Power Cable	39Y7938	6204
4.3m, 10A/100-250V, C13 to IEC 320-C14 Rack Power Cable	39Y7932	6263
Country-specific line cords		
10A/125V C13 to NEMA 5-15P 4.3m line cord	39Y7931	6207
10A/250V C13 to NEMA 6-15P 2.8m line cord	46M2592	A1RF
Argentina 10A/250V C13 to IRAM 2073 2.8m line cord	39Y7930	6222
Australia/NZ 10A/250V C13 to AS/NZ 3112 2.8m line cord	39Y7924	6211
Brazil 10A/125V C13 to NBR 6147 2.8m line cord	39Y7929	6223
China 10A/250V C13 to GB 2099.1 2.8m line cord	39Y7928	6210
Denmark 10A/250V C13 to DK2-5a 2.8m line cord	39Y7918	6213
European 10A/230V C13 to CEE7-VII 2.8m line cord	39Y7917	6212
India 10A/250V C13 to IS 6538 2.8m line cord	39Y7927	6269
Israel 10A/250V C13 to SI 32 2.8m line cord	39Y7920	6218
Italy 10A/250V C13 to CEI 23-16 2.8m line cord	39Y7921	6217
Japan 12A/125V C13 to JIS C-8303 2.8m line cord	46M2593	A1RE
Korea 12A/250V C13 to KETI 2.8m line cord	39Y7925	6219
South Africa 10A/250V C13 to SABS 164 2.8m line cord	39Y7922	6214
Switzerland 10A/250V C13 to SEV 1011-S24507 2.8m line cord	39Y7919	6216
Taiwan 10A/250V C13 to CNS 10917-3 2.8m line cord	00CG265	A53E
Taiwan 15A/125V C13 to CNS 10917-3 2.8m line cord	00CG267	A53F
United Kingdom 10A/250V C13 to BS 1363/A 2.8m line cord	39Y7923	6215

* Available for factory-built custom configurations and solutions only.

Physical specifications

The Lenovo B6505 and B6510 have the following dimensions and weight (approximate):

- Height: 43 mm (1.7 in.)
- Width: 438 mm (17.2 in.)
- Depth: 443 mm (17.4 in.)
- Weight (without SFPs):
 - Lenovo B6505 (with one power supply): 7.8 kg (17.3 lb)
 - Lenovo B6510 (with two power supplies): 9.2 kg (20.2 lb)

Operating environment

The Lenovo B6505 and B6510 are supported in the following environment:

- Air temperature:
 - Operating: 0°C to 40°C (32°F to 104°F)
 - Non-operating: -25°C to +70°C (-13°F to 158°F)
- Maximum altitude:
 - Operating: 3,000 m (9,842 ft)
 - Non-operating: 12,000 m (39,370 ft)
- Humidity:
 - Operating: 10% to 85% at 40°C (104°F)
 - Non-operating: 10% to 90% at 70°C (158°F)
- Electrical power:
 - Voltage range: 100 V AC - 240 V AC (nominal)
 - Frequency: 50 Hz - 60 Hz (nominal)
 - Power consumption:
 - Lenovo B6505:
 - Idle: 60 watts
 - Maximum: 80 watts
 - Lenovo B6510:
 - Idle: 72 watts
 - Typical: 110 watts
 - Maximum: 123 watts
- Heat dissipation:
 - Lenovo B6505 (maximum): 338 BTU per hour
 - Lenovo B6510 (typical): 375 BTU per hour
 - Lenovo B6510 (maximum): 420 BTU per hour
- Acoustical noise emission: 70 dB

Warranty

The Lenovo B6505's and B6510's hardware has a one-year Customer Replaceable Unit (CRU), parts-only warranty with 9x5/next business day (NBD) terms. Lenovo offers the service upgrades through warranty maintenance upgrades and post-warranty maintenance agreements with a well-defined scope of services, including service hours, response time, term of service, and service agreement terms and conditions.

Lenovo warranty service upgrade offerings are country-specific; that is, each country might have its own service types, service levels, response times, and terms and conditions. Not all covered types of warranty service upgrades might be available in a particular country or area. For more information about Lenovo warranty service upgrade offerings that are available in your country, refer to the Data Center Advisor and Configurator (DCACT; formerly known as LESC):

<http://lesc.lenovo.com>

The warranty service definitions for the Lenovo B6505 and B6510 are listed in the following table.

Table 12. Warranty service definitions

Term	Description
On-site service	A service technician arrives at the client's location for equipment service.
24x7x2 hour	A service technician is scheduled to arrive at the client's location within two hours after remote problem determination is completed. Lenovo provides service around the clock, every day, including Lenovo holidays.
24x7x4 hour	A service technician is scheduled to arrive at the client's location within four hours after remote problem determination is completed. Lenovo provides service around the clock, every day, including Lenovo holidays.
9x5x4 hour	A service technician is scheduled to arrive at the client's location within four business hours after remote problem determination is completed. Lenovo provides service 8:00 am - 5:00 pm in the client's local time zone, Monday - Friday, excluding Lenovo holidays. For example, if a customer reports an incident at 3:00 pm on Friday, the technician will arrive by 10:00 am the following Monday.
9x5 next business day	A service technician is scheduled to arrive at the client's location on the business day after remote problem determination is completed. Lenovo provides service 8:00 am - 5:00 pm in the client's local time zone, Monday - Friday, excluding Lenovo holidays. Calls received after 4:00 pm local time require an extra business day for service dispatch. Next business day service is not guaranteed.

In general, the following types of Lenovo warranty service upgrades for the Lenovo B6505 and B6510 are available:

- Warranty and maintenance service upgrades:
 - Onsite support for 9x5 NBD coverage
 - One, three, four, or five years of 9x5 or 24x7 service coverage
 - Onsite response from next business day to four or two hours
 - Up to five years of warranty extension for all service levels in one or two year increments
- Remote Technical Support Services (RTS) - 1 or 3 years
 RTS provides comprehensive technical call center support. RTS can reduce problem resolution time, which decreases the cost to address technical problems and increases uptime.

Regulatory compliance

The Lenovo B6505 and B6510 conform to the following regulations:

- Electromagnetic compatibility
 - FCC Part 15, Subpart B (Class A)
 - EN 55022 (Class A)
 - EN 55024
 - ICES-003 (Class A)
 - VCCI (Class A)
 - KN22 and KN24
 - GB 9254-2008
 - CNS 13438
 - CISPR22
- Safety
 - UL/CSA 60950-1
 - EN 60950-1
 - IEC 60950-1
 - GB 4943.1-2011
 - CNS 14336-1:99
 - EU RoHS

Fibre Channel SAN switches

The following table lists the FC SAN switches that are offered by Lenovo that can be used with the Lenovo B6505 and B6510 in FC SAN solutions.

Table 13. FC SAN switches

Description	Part number
Rack-mount switches - 8 Gb FC	
Lenovo B300, 8 ports activated w/ 8Gb SWL SFPs, 1 PS, Rail Kit	3873AR3
Embedded FC SAN modules for Flex System - 16 Gb FC	
Lenovo Flex System FC5022 16Gb SAN Scalable Switch	88Y6374
Lenovo Flex System FC5022 24-port 16Gb SAN Scalable Switch (includes two 16 Gb SFPs)	00Y3324
Lenovo Flex System FC5022 24-port 16Gb ESB SAN Scalable Switch	90Y9356
Embedded FC SAN modules for Flex System - 8 Gb FC	
Lenovo Flex System FC3171 8Gb SAN Switch*	69Y1930
Lenovo Flex System FC3171 8Gb SAN Pass-thru	69Y1934
Embedded FC SAN modules for BladeCenter - 8 Gb FC	
Brocade 20-port 8Gb SAN Switch Module for BladeCenter	44X1920
Brocade Enterprise 20-port 8Gb SAN Switch Module for BladeCenter	42C1828

* Supported only in Pass-thru mode with the Lenovo B6505 and B6510.

For more information, see the list of Product Guides in the following categories:

- Rack-mount SAN switches
<http://lenovopress.com/storage/switches/rack>
- Embedded SAN switches
<http://lenovopress.com/storage/switches/embedded>

External storage systems

The following table lists the external storage systems that are currently offered by Lenovo that can be used in Lenovo FC SAN storage solutions.

Table 14. External storage systems

Description	Part number
Lenovo Storage S Series	
Lenovo Storage S2200 LFF Chassis FC/iSCSI Single Controller, Rack Kit, 9x5NBD	64114B1
Lenovo Storage S2200 LFF Chassis FC/iSCSI Dual Controller, Rack Kit, 9x5NBD	64114B2
Lenovo Storage S2200 SFF Chassis FC/iSCSI Single Controller, Rack Kit, 9x5NBD	64114B3
Lenovo Storage S2200 SFF Chassis FC/iSCSI Dual Controller, Rack Kit, 9x5NBD	64114B4
Lenovo Storage S3200 LFF Chassis FC/iSCSI Single Controller, Rack Kit, 9x5NBD	64116B1
Lenovo Storage S3200 LFF Chassis FC/iSCSI Dual Controller, Rack Kit, 9x5NBD	64116B2
Lenovo Storage S3200 SFF Chassis FC/iSCSI Single Controller, Rack Kit, 9x5NBD	64116B3
Lenovo Storage S3200 SFF Chassis FC/iSCSI Dual Controller, Rack Kit, 9x5NBD	64116B4
Lenovo Storage V Series	
Lenovo Storage V3700 V2 LFF Control Enclosure	6535C1D
Lenovo Storage V3700 V2 LFF Control Enclosure (TopSeller)	6535EC1
Lenovo Storage V3700 V2 SFF Control Enclosure	6535C2D
Lenovo Storage V3700 V2 SFF Control Enclosure (TopSeller)	6535EC2
Lenovo Storage V3700 V2 XP LFF Control Enclosure	6535C3D
Lenovo Storage V3700 V2 XP LFF Control Enclosure (TopSeller)	6535EC3
Lenovo Storage V3700 V2 XP SFF Control Enclosure	6535C4D
Lenovo Storage V3700 V2 XP SFF Control Enclosure (TopSeller)	6535EC4
Lenovo Storage V5030 LFF Control Enclosure 3Yr S&S	6536C12
Lenovo Storage V5030 LFF Control Enclosure 5Yr S&S	6536C32
Lenovo Storage V5030 SFF Control Enclosure 3Yr S&S	6536C22
Lenovo Storage V5030 SFF Control Enclosure 5Yr S&S	6536C42
Lenovo Storage V5030F SFF Control Enclosure 3Yr S&S	6536B1F
Lenovo Storage V5030F SFF Control Enclosure 5Yr S&S	6536B2F
IBM Storwize for Lenovo	
IBM Storwize V3500 3.5-inch Dual Control Storage Controller Unit	6096CU2**
IBM Storwize V3500 2.5-inch Dual Control Storage Controller Unit	6096CU3**
IBM Storwize V3700 3.5-inch Storage Controller Unit	6099L2C
IBM Storwize V3700 2.5-inch Storage Controller Unit	6099S2C
IBM Storwize V3700 2.5-inch DC Storage Controller Unit	6099T2C
IBM Storwize V5000 LFF Control Enclosure, w/3 Yr S&S	6194L2C†
IBM Storwize V5000 LFF Control Enclosure, w/3 Yr S&S (LA)	6194L2L‡
IBM Storwize V5000 LFF Control Enclosure, w/5 Yr S&S	61941A1†
IBM Storwize V5000 LFF Control Enclosure, w/5 Yr S&S (LA)	61941AL‡
IBM Storwize V5000 SFF Control Enclosure, w/3 Yr S&S	6194S2C†
IBM Storwize V5000 SFF Control Enclosure, w/3 Yr S&S (LA)	6194S2L‡

Description	Part number
IBM Storwize V5000 SFF Control Enclosure, w/5 Yr S&S	61941C1†
IBM Storwize V5000 SFF Control Enclosure, w/5 Yr S&S (LA)	61941CL‡
IBM Storwize V7000 2.5-inch Storage Controller Unit, w/3 Yr S&S (Model 524)	6195SC5†
IBM Storwize V7000 2.5-inch Storage Controller Unit, w/3 Yr S&S (LA) (Model 524)	6195SCL‡
IBM Storwize V7000 2.5-inch Storage Controller Unit, w/5 Yr S&S (Model 524)	61951F1†
IBM Storwize V7000 2.5-inch Storage Controller Unit, w/5 Yr S&S (LA) (Model 524)	61951FL‡
IBM Storwize V7000 SFF Control Enclosure, 3YR SWMA (Model HC1 [Gen2+])	6195C32†
IBM Storwize V7000 SFF Control Enclosure, 3YR SWMA, LA (Model HC1 [Gen2+])	6195C3L‡
IBM Storwize V7000 SFF Control Enclosure, 5YR SWMA (Model HC1 [Gen2+])	6195C52†
IBM Storwize V7000 SFF Control Enclosure, 5YR SWMA, LA (Model HC1 [Gen2+])	6195C5L‡

* x represents a geo-specific letter (for example: U = North America, G = EMEA). Ask a Lenovo representative for specifics.

** Available only in China.

† Available worldwide except Latin America.

‡ Available only in Latin America.

For more information, see the list of Product Guides in the following categories:

- Lenovo S Series and V Series storage: <http://lenovopress.com/storage/san/lenovo>
- IBM Storwize for Lenovo storage: <http://lenovopress.com/storage/san/ibm>

External backup units

The following table lists the external backup options that are offered by Lenovo that can be used in Lenovo FC SAN solutions.

Table 15. External backup options

Description	Part number
External tape backup libraries	
IBM TS3100 Tape Library Model L2U	61732UL
IBM TS3200 Tape Library Model L4U	61734UL
Fibre Channel backup drives for TS3100 and TS3200 Tape Libraries	
6173 LTO Ultrium 5 Fibre Channel Drive	00NA107
6173 LTO Ultrium 5 Half High Fibre Drive Sled	00NA113
6173 LTO Ultrium 6 Fibre Channel Drive	00NA115
6173 LTO Ultrium 6 Half High Fibre Drive Sled	00NA119
6173 LTO Ultrium 7 Fibre Channel Drive	00WF765
6173 LTO Ultrium 7 Half High Fibre Drive Sled	00WF769

For more information, see the list of Product Guides in the Backup Units category:

<http://lenovopress.com/servers/options/backup>

Rack cabinets

The following table lists the rack cabinets that are offered by Lenovo that can be used in Lenovo FC SAN solutions.

Table 16. Rack cabinets

Description	Part number
25U S2 Standard Rack (1000 mm deep; 2 sidewall compartments)	93072RX
25U Static S2 Standard Rack (1000 mm deep; 2 sidewall compartments)	93072PX
42U S2 Standard Rack (1000 mm deep; 6 sidewall compartments)	93074RX
42U 1100mm Enterprise V2 Dynamic Rack (6 sidewall compartments)	93634PX
42U 1100mm Enterprise V2 Dynamic Expansion Rack (6 sidewall compartments)	93634EX
42U 1200mm Deep Dynamic Rack (6 sidewall compartments)	93604PX
42U 1200mm Deep Static Rack (6 sidewall compartments)	93614PX
42U Enterprise Rack (1105 mm deep; 4 sidewall compartments)	93084PX
42U Enterprise Expansion Rack (1105 mm deep; 4 sidewall compartments)	93084EX

For more information, see the list of Product Guides in the Rack cabinets category:
<http://lenovopress.com/servers/options/racks>

Power distribution units

The following table lists the power distribution units (PDUs) that are offered by Lenovo that can be used in Lenovo FC SAN solutions.

Table 17. Power distribution units

Description	Part number
0U Basic PDUs	
0U 36 C13/6 C19 24A/200-240V 1 Phase PDU with NEMA L6-30P line cord	00YJ776
0U 36 C13/6 C19 32A/200-240V 1 Phase PDU with IEC60309 332P6 line cord	00YJ777
0U 21 C13/12 C19 32A/200-240V/346-415V 3 Phase PDU with IEC60309 532P6 line cord	00YJ778
0U 21 C13/12 C19 48A/200-240V 3 Phase PDU with IEC60309 460P9 line cord	00YJ779
Switched and Monitored PDUs	
0U 20 C13/4 C19 Switched and Monitored 24A/200-240V/1Ph PDU w/ NEMA L6-30P line cord	00YJ781
0U 20 C13/4 C19 Switched and Monitored 32A/200-240V/1Ph PDU w/ IEC60309 332P6 line cord	00YJ780
0U 18 C13/6 C19 Switched / Monitored 32A/200-240V/346-415V/3Ph PDU w/ IEC60309 532P6 cord	00YJ782
0U 12 C13/12 C19 Switched and Monitored 48A/200-240V/3Ph PDU w/ IEC60309 460P9 line cord	00YJ783
1U 9 C19/3 C13 Switched and Monitored DPI PDU (without line cord)	46M4002
1U 9 C19/3 C13 Switched and Monitored 60A 3Ph PDU with IEC 309 3P+Gnd cord	46M4003
1U 12 C13 Switched and Monitored DPI PDU (without line cord)	46M4004
1U 12 C13 Switched and Monitored 60A 3 Phase PDU with IEC 309 3P+Gnd line cord	46M4005
Ultra Density Enterprise PDUs (9x IEC 320 C13 + 3x IEC 320 C19 outlets)	
Ultra Density Enterprise C19/C13 PDU Module (without line cord)	71762NX
Ultra Density Enterprise C19/C13 PDU 60A/208V/3ph with IEC 309 3P+Gnd line cord	71763NU

Description	Part number
C13 Enterprise PDUs (12x IEC 320 C13 outlets)	
DPI C13 Enterprise PDU+ (without line cord)	39M2816
DPI Single Phase C13 Enterprise PDU (without line cord)	39Y8941
C19 Enterprise PDUs (6x IEC 320 C19 outlets)	
DPI Single Phase C19 Enterprise PDU (without line cord)	39Y8948
DPI 60A 3 Phase C19 Enterprise PDU with IEC 309 3P+G (208 V) fixed line cord	39Y8923
Front-end PDUs (3x IEC 320 C19 outlets)	
DPI 30amp/125V Front-end PDU with NEMA L5-30P line cord	39Y8938
DPI 30amp/250V Front-end PDU with NEMA L6-30P line cord	39Y8939
DPI 32amp/250V Front-end PDU with IEC 309 2P+Gnd line cord	39Y8934
DPI 60amp/250V Front-end PDU with IEC 309 2P+Gnd line cord	39Y8940
DPI 63amp/250V Front-end PDU with IEC 309 2P+Gnd line cord	39Y8935
Universal PDUs (7x IEC 320 C13 outlets)	
DPI Universal 7 C13 PDU (with 2 m IEC 320-C19 to C20 rack power cord)	00YE443
NEMA PDUs (6x NEMA 5-15R outlets)	
DPI 100-127V PDU with fixed NEMA L5-15P line cord	39Y8905
Line cords for PDUs that ship without a line cord	
DPI 30a Line Cord (NEMA L6-30P)	40K9614
DPI 32a Line Cord (IEC 309 P+N+G)	40K9612
DPI 32a Line Cord (IEC 309 3P+N+G)	40K9611
DPI 60a Cord (IEC 309 2P+G)	40K9615
DPI 63a Cord (IEC 309 P+N+G)	40K9613
DPI Australian/NZ 3112 Line Cord (32A)	40K9617
DPI Korean 8305 Line Cord (30A)	40K9618

For more information, see the list of Product Guides in the Power Distribution Units category:
<http://lenovopress.com/servers/options/pdu>

Uninterruptible power supply units

The following table lists the uninterruptible power supply (UPS) units that are offered by Lenovo that can be used in Lenovo FC SAN solutions.

Table 18. Uninterruptible power supply units

Description	Part number
RT1.5kVA 2U Rack or Tower UPS (100-125VAC)	55941AX
RT1.5kVA 2U Rack or Tower UPS (200-240VAC)	55941KX
RT2.2kVA 2U Rack or Tower UPS (100-125VAC)	55942AX
RT2.2kVA 2U Rack or Tower UPS (200-240VAC)	55942KX
RT3kVA 2U Rack or Tower UPS (100-125VAC)	55943AX
RT3kVA 2U Rack or Tower UPS (200-240VAC)	55943KX
RT5kVA 3U Rack or Tower UPS (200-240VAC)	55945KX
RT6kVA 3U Rack or Tower UPS (200-240VAC)	55946KX
RT8kVA 6U Rack or Tower UPS (200-240VAC)	55948KX
RT11kVA 6U Rack or Tower UPS (200-240VAC)	55949KX
RT8kVA 6U 3:1 Phase Rack or Tower UPS (380-415VAC)	55948PX
RT11kVA 6U 3:1 Phase Rack or Tower UPS (380-415VAC)	55949PX

For more information, see the list of Product Guides in the Uninterruptible Power Supply Units category: <http://lenovopress.com/servers/options/ups>

Lenovo Financial Services

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For your region specific offers please ask your Lenovo sales representative or your technology provider about the use of Lenovo Financial Services. For more information, see the following Lenovo website: <http://www.lenovofs.com>

Related publications and links

For more information, see the following resources:

- Lenovo B6505 FC SAN Switch product page
<http://shop.lenovo.com/us/en/systems/storage/san/fibre-channel-switches/b6505>
- Lenovo B6510 FC SAN Switch product page
<http://shop.lenovo.com/us/en/systems/storage/san/fibre-channel-switches/b6510>
- Lenovo B6505 and B6510 FC SAN Switch product publications, available from the Lenovo support web site (<http://support.lenovo.com>) or Brocade 6505 and 6510 Resource Libraries:
<http://www.brocade.com/en/products-services/storage-networking/fibre-channel/6505-switch.html>
<http://www.brocade.com/en/products-services/storage-networking/fibre-channel/6510-switch.html>
 - *Hardware Installation Guide*
 - *Access Gateway Administrator's Guide*
 - *EZSwitchSetup Administrator's Guide*
 - *Fabric OS Administrator's Guide*
 - *Flow Vision Administrator's Guide*
 - *Monitoring and Alerting Policy Suite Administrator's Guide*
 - *Web Tools Administrator's Guide*
 - *Fabric OS Troubleshooting and Diagnostics Guide*
 - *Fabric OS Command Reference*
 - *Fabric OS Message Reference*
 - *Fabric OS MIB Reference*
- How to download firmware for Lenovo B Series FC SAN switches:
<http://go.brocade.com/x0L0000S2lg0GwG00ZAGBB4>

Related product families

Product families related to this document are the following:

- [Rack SAN Switches](#)

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