Lenovo ThinkSystem NE10032O RackSwitch
Product Guide (withdrawn product)

The Lenovo ThinkSystem NE10032O RackSwitch that uses 100 Gb QSFP28 and 40 Gb QSFP+ Ethernet technology is designed for big data, cloud, and enterprise workloads in the data center. The switch delivers line-rate, low-latency, and high-bandwidth switching, while providing high availability for business sensitive traffic with the hot-swap redundant power supplies and fans.

The NE10032O RackSwitch has 32x QSFP+/QSFP28 ports that support 40 GbE and 100 GbE optical transceivers, active optical cables (AOCs), and direct attach copper (DAC) cables. The QSFP+/QSFP28 ports can also be split out into two 50 GbE (for 100 GbE ports), or four 10 GbE (for 40 GbE ports) or 25 GbE (for 100 GbE ports) connections by using breakout cables.

The NE10032O RackSwitch is shown in the following figure.

Figure 1. Lenovo ThinkSystem NE10032O RackSwitch

Did you know?

With exceptional port density and flexibility with break-out cables, the NE10032O RackSwitch can support up to 128x 10 GbE / 25 GbE Ethernet connections, or a mix of 10 GbE / 25 GbE server and storage connections with 40 GbE or 100 GbE upstream network connections, or up to 32x 40 GbE / 100 GbE connections in a 1U rack form factor.

The NE10032O RackSwitch includes the Open Network Install Environment (ONIE) which is an open, standards-based boot code that provides a deployment environment for loading certified ONIE networking operating systems onto networking devices.

Key features

The NE10032O RackSwitch provides a simple and open network infrastructure designed to scale for your business needs. Its intelligent, cloud-scale performance delivers a software-defined Ethernet solution that is simple to manage and easy to deploy using common management tools. The switch is based on industry standards for better data center interoperability, and it enables support of network virtualization, automation, and orchestration applications for tight integration into the data center ecosystem.

The NE10032O RackSwitch is considered particularly suited for the following environments:

- Open networking architectures that are based on the certified ONIE networking operating systems, such as Cumulus Linux.
- Mixed 10 GbE, 25 GbE, 40 GbE, and 100 GbE server and storage connectivity and upstream aggregation
- Data center interconnect fabric for accelerated, low-latency communications across clustered applications
- Cloud and virtualization solutions
- Web-scale and hyperconverged solutions

The NE10032O RackSwitch offers the following features and benefits:

- High performance
  The 10 Gb/25 Gb/40 Gb/100 Gb Ethernet NE10032O RackSwitch provides a combination of low latency and non-blocking line-rate switching.

- Lower power and better cooling
  The rear-to-front cooling design of the NE10032O RackSwitch reduces data center air conditioning costs by having airflow match the servers in the rack cabinet. In addition, variable speed fans help reduce power consumption.

- Fault tolerance
  The NE10032O RackSwitch offers redundant hot-swap hardware components to provide availability for network communications across business-critical applications.

- Open Network Install Environment (ONIE)
  The NE10032O RackSwitch provides an open install environment for networking devices without operating systems. ONIE enables a network switch ecosystem for end users to choose among different Network Operating Systems by discovering NOS installer images and loading them onto the switch.

- Seamless interoperability
  Based on industry standards, the NE10032O RackSwitch interoperates seamlessly with other vendors' switches.

Components and connectors

The following figure shows the front (port-side) panel of the NE10032O RackSwitch.
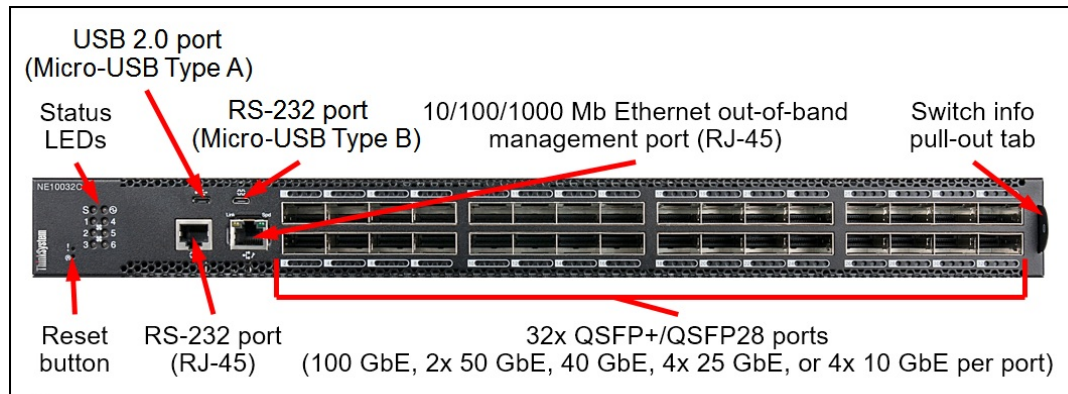

Figure 2. Front panel of the NE10032O RackSwitch

The front panel of the NE10032O RackSwitch includes the following components:

- 32x QSFP+/QSFP28 ports to attach QSFP+/QSFP28 transceivers, DAC cables and AOCs for 40 Gb or 100 Gb Ethernet connections or breakout cables for 4x 10 Gb Ethernet connections out of a 40 GbE port, or 2x 50 GbE or 4x 25 GbE connections out of a 100 GbE port.
- One RJ-45 10/100/1000 Mb Ethernet port for out-of-band management.
- One RJ-45 RS-232 console port that provides another means to configure the switch.
- One Micro-USB Type B RS-232 console port that provides another means to configure the switch.
- One Micro-USB Type A port for mass storage devices.
- LEDs that display the status of the switch and the network.
- Reset button.
- Switch information pull-out tab.

The following figure shows the rear (non-port-side) panel of the NE10032O RackSwitch.
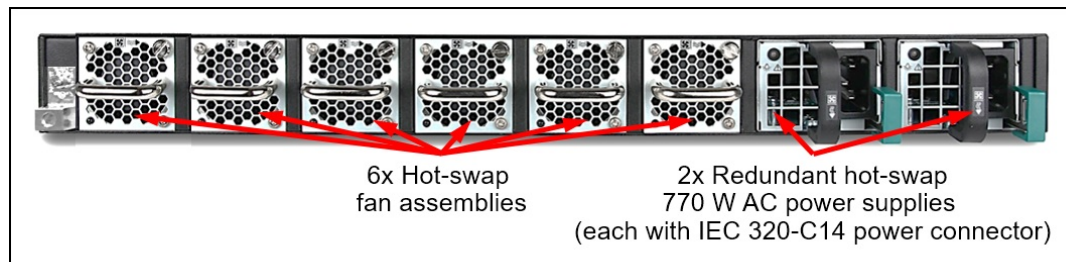

Figure 3. Rear panel of the NE10032O RackSwitch

The rear panel of the NE10032O RackSwitch includes the following components:

- Two redundant hot-swap 770 W AC power supplies (each with the IEC 320-C14 power connector).
- Six N+1 redundant hot-swap fan assemblies.

System specifications

The following table lists the NE10032O RackSwitch system hardware specifications.

Table 1. NE10032O RackSwitch system hardware specifications

Attribute	Specification
Form factor	1U rack mount
Ports	32x QSFP+/QSFP28 ports
Media types	100 Gb Ethernet QSFP28: ● 100 GbE short-range (SR4) QSFP28 transceivers ● 100 GbE long-range (LR4) QSFP28 transceivers ● 100 GbE QSFP28 to QSFP28 active optical cables (AOCs) ● 100 GbE QSFP28 to 4x 25 GbE SFP28 active optical breakout cables ● 100 GbE QSFP28 to QSFP28 direct attach copper (DAC) cables ● 100 GbE QSFP28 to 4x 25 GbE SFP28 DAC breakout cables ● 100 GbE QSFP28 to 2x 50 GbE QSFP28 DAC breakout cables (not supplied by Lenovo) 40 Gb Ethernet QSFP+: ● 40 GbE short-range (SR4) QSFP+ bi-directional (BiDi) transceivers ● 40 GbE short-range (SR4/iSR4/eSR4) QSFP+ transceivers ● 40 GbE long-range (LR4) QSFP+ transceivers ● 40 GbE QSFP+ to QSFP+ active optical cables (AOCs) ● 40 GbE QSFP+ to 4x 10 GbE SFP+ active optical breakout cables ● 40 GbE QSFP+ to QSFP+ direct attach copper (DAC) cables ● 40 GbE QSFP+ to 4x 10 GbE SFP+ DAC breakout cables
Port speeds	● 100 GbE QSFP28 DAC cables: 100 Gbps, 2x 50 [2x 25] Gbps, or 4x 25 Gbps ● 100 GbE QSFP28 SR4 transceivers and AOCs: 100 Gbps or 4x 25 Gbps ● 100 GbE QSFP28 LR4 transceivers: 100 GbE ● 40 GbE QSFP+ SR BiDi/SR4/LR4 transceivers: 40 GbE ● 40 GbE QSFP+ iSR4/eSR4 transceivers, DAC cables and AOCs: 40 GbE or 4x 10 GbE
Performance	Non-blocking architecture with wire-speed forwarding of traffic: ● 100% line-rate performance ● Up to 6.4 Tbps switching throughput ● Up to 3125 Million packets per second (Mpps) (128-byte packets)
Cooling	Six N+1 redundant hot-swap fans. Rear (non-port side) to front (port side) airflow.
Power supply	Two load-sharing, redundant hot-swap 770 W AC (100 - 240 V) Platinum power supplies (each power supply has an IEC 320-C14 connector).
Hot-swap parts	QSFP+/QSFP28 transceivers, QSFP+/QSFP28 DAC cables and AOCs, power supplies, fans.
Management ports	1x 10/100/1000 Mb Ethernet port (RJ-45); 1x RS-232 port (RJ-45), 1x RS-232 port (Micro-USB Type B); 1x USB 2.0 port (Micro-USB Type A) for additional firmware, log, and configuration files storage.
Security features	Trusted Platform Module (TPM) 1.2.
Hardware warranty	Three-year customer-replaceable unit and onsite limited warranty with 9x5 next business day parts delivered.
Warranty upgrades and services	Optional warranty upgrades and services are available through Lenovo: 9x5 next business day onsite response, 24x7 2-hour or 4-hour onsite response, 6-hour or 24-hour committed repair (select countries), 1-year or 2-year warranty extensions, Premier support, and basic installation services.
Mean Time Between Failures	230 018 hours MTBF.
Dimensions	Height: 44 mm (1.7 in.); width: 441 mm (17.3 in.); depth: 487 mm (19.2 in.)
Weight	11.3 kg (24.9 lb).

Models

The following table lists the NE10032O RackSwitch models.

Table 2. NE10032O RackSwitch models

Description	Part number	Machine Type-Model	Feature code
Lenovo ThinkSystem NE10032O RackSwitch (Rear to Front, ONIE)	7Z210O11WW	7Z21CTO1WW	B4PM

The part numbers for the NE10032O RackSwitch models include the following items:

- One NE10032O RackSwitch with two power supplies and six fan assemblies
- Generic Rack Mount Kit (2-post)
- Cable Kit that includes the following items:
  - DB-9 (plug) to RJ-45 (plug) serial console cable
  - Micro-USB Type B (plug) to USB Type A (plug) serial console cable
  - Micro-USB Type A (plug) to USB Type A (jack) data cable
- *Electronic Publications Flyer*

Configuration notes:

- Power cables are not included and must be ordered together with the switch (see Power supplies and cables for details).

- QSFP28 and QSFP+ transceivers and cables are not included and should be ordered together with the switch (see Transceivers and cables for details).

Transceivers and cables

With the flexibility of the NE10032O RackSwitch, customers can choose the following connectivity technologies:

- For 10 GbE links, customers can split out four 10 GbE ports for each 40 GbE port by using QSFP+ to 4x SFP+ DAC or active optical breakout cables for distances up to 5 meters. The 40GBASE-iSR4 QSFP+ transceivers can be used for distances up to 100 meters on OM3 or up to 150 meters on OM4 MMF MPO-to-LC breakout cables. For longer distances, the 40GBASE-eSR4 transceivers can be used for up to 300 meters on OM3 or up to 400 meters on OM4 MMF MPO-to-LC breakout cables.

- For 25 GbE links, customers can split out four 25 GbE ports for each 100 GbE port by using QSFP28 to 4x SFP28 DAC breakout cables for distances up to 5 meters or active optical breakout cables for distances up to 20 meters. For longer distances, the 100GBASE-SR4 QSFP28 transceivers can be used for up to 70 meters on OM3 or up to 100 meters on OM4 MMF MPO-to-LC breakout cables.

- For 40 GbE links, customers can use the QSFP+ to QSFP+ DAC cables for distances up to 7 meters or QSFP+ to QSFP+ active optical cables for distances up to 20 meters. These DAC cables and AOCs have QSFP+ connectors on each end, and they do not need separate transceivers.

  For longer distances, customers can use the 40GBASE QSFP+ bi-directional transceivers or 40GBASE-SR4/iSR4 QSFP+ transceivers for distances up to 100 meters on OM3 or up to 150 meters on OM4 MMF cables. The 40GBASE-eSR4 QSFP+ transceiver can be used for distances up to 300 meters on OM3 or up to 400 meters on OM4 MMF cables. The 40GBASE-LR4 QSFP+ transceiver can be used for distances up to 10 kilometers on SMF cables.

- For 50 GbE links, customers can split out two 50 GbE ports for each QSFP28 port by using the QSFP28-2xQSFP28 DAC breakout cables (not supplied by Lenovo).

- For 100 GbE links, customers can use the QSFP28 DAC cables for distances up to 5 meters or QSFP28 active optical cables (AOCs) for distances up to 20 meters. These DAC cables and AOCs have QSFP28 connectors on each end, and they do not need separate transceivers.

  For longer distances, the 100GBASE-SR4 QSFP28 transceivers support distances up to 70 meters on OM3 or up to 100 meters on OM4 MMF cables. The 100GBASE-LR4 QSFP28 transceiver can be used for distances up to 10 kilometers on SMF LC cables.

The following table lists the supported cables and transceivers.

Table 3. Transceivers and cables

Description	Part number	Feature code	Maximum quantity
QSFP28 transceivers - 100 GbE			
Lenovo 100GBase-SR4 QSFP28 Transceiver	7G17A03539	AV1D	32
Lenovo 100GBase-LR4 QSFP28 Transceiver	7G17A03540	AV1E	32
Optical cables for 100 GbE QSFP28 SR4 transceivers			
Lenovo 5m MPO-MPO OM4 MMF Cable	7Z57A03567	AV25	32
Lenovo 7m MPO-MPO OM4 MMF Cable	7Z57A03568	AV26	32
Lenovo 10m MPO-MPO OM4 MMF Cable	7Z57A03569	AV27	32
Lenovo 15m MPO-MPO OM4 MMF Cable	7Z57A03570	AV28	32
Lenovo 20m MPO-MPO OM4 MMF Cable	7Z57A03571	AV29	32
Lenovo 30m MPO-MPO OM4 MMF Cable	7Z57A03572	AV2A	32
Optical breakout cables for 100 GbE QSFP28 SR4 transceivers			
Lenovo 1m MPO-4xLC Breakout OM4 MMF Cable	7Z57A03573	AV2B	32
Lenovo 3m MPO-4xLC Breakout OM4 MMF Cable	7Z57A03574	AV2C	32
Lenovo 5m MPO-4xLC Breakout OM4 MMF Cable	7Z57A03575	AV2D	32
QSFP28 active optical cables - 100 GbE			
Lenovo 3m 100G QSFP28 Active Optical Cable	7Z57A03546	AV1L	32
Lenovo 5m 100G QSFP28 Active Optical Cable	7Z57A03547	AV1M	32
Lenovo 10m 100G QSFP28 Active Optical Cable	7Z57A03548	AV1N	32
Lenovo 15m 100G QSFP28 Active Optical Cable	7Z57A03549	AV1P	32
Lenovo 20m 100G QSFP28 Active Optical Cable	7Z57A03550	AV1Q	32
QSFP28 active optical breakout cables - 100 GbE to 4x 25 GbE			
Lenovo 3m 100G to 4x25G Breakout Active Optical Cable	7Z57A03551	AV1R	32
Lenovo 5m 100G to 4x25G Breakout Active Optical Cable	7Z57A03552	AV1S	32
Lenovo 10m 100G to 4x25G Breakout Active Optical Cable	7Z57A03553	AV1T	32
Lenovo 15m 100G to 4x25G Breakout Active Optical Cable	7Z57A03554	AV1U	32
Lenovo 20m 100G to 4x25G Breakout Active Optical Cable	7Z57A03555	AV1V	32
QSFP28 direct attach copper cables - 100 GbE			
Lenovo 1m Passive 100G QSFP28 DAC Cable	7Z57A03561	AV1Z	32
Lenovo 3m Passive 100G QSFP28 DAC Cable	7Z57A03562	AV20	32
Lenovo 5m Passive 100G QSFP28 DAC Cable	7Z57A03563	AV21	32
QSFP28 direct attach copper breakout cables - 100 GbE to 4x 25 GbE			
Lenovo 1m 100G QSFP28 to 4x25G SFP28 Breakout DAC Cable	7Z57A03564	AV22	32
Lenovo 3m 100G QSFP28 to 4x25G SFP28 Breakout DAC Cable	7Z57A03565	AV23	32

Description	Part number	Feature code	Maximum quantity
Lenovo 5m 100G QSFP28 to 4x25G SFP28 Breakout DAC Cable	7Z57A03566	AV24	32
QSFP+ transceivers - 40 GbE			
Lenovo 40GBase QSFP+ Bi-Directional Transceiver	00YL631	ATYW	32
Lenovo 40GBASE-SR4 QSFP+ Transceiver	49Y7884	A1DR	32
Lenovo 40GBASE-iSR4 QSFP+ Transceiver	00D9865	ASTM	32
Lenovo 40GBASE-eSR4 QSFP+ Transceiver	00FE325	A5U9	32
Lenovo 40GBASE-LR4 QSFP+ Transceiver	00D6222	A3NY	32
Optical cables for 40 GbE QSFP+ SR4/iSR4/eSR4 transceivers			
Lenovo 10m MPO-MPO OM3 MMF Cable	00VX003	AT2U	32
Lenovo 30m MPO-MPO OM3 MMF Cable	00VX005	AT2V	32
OM3 optical cables for 40 GbE SR QSFP+ BiDi transceivers			
Lenovo 0.5m LC-LC OM3 MMF Cable	00MN499	ASR5	32
Lenovo 1m LC-LC OM3 MMF Cable	00MN502	ASR6	32
Lenovo 3m LC-LC OM3 MMF Cable	00MN505	ASR7	32
Lenovo 5m LC-LC OM3 MMF Cable	00MN508	ASR8	32
Lenovo 10m LC-LC OM3 MMF Cable	00MN511	ASR9	32
Lenovo 15m LC-LC OM3 MMF Cable	00MN514	ASRA	32
Lenovo 25m LC-LC OM3 MMF Cable	00MN517	ASRB	32
Lenovo 30m LC-LC OM3 MMF Cable	00MN520	ASRC	32
OM4 optical cables for 10 GbE SR SFP+, 25 GbE SR SFP28, and 40 GbE SR QSFP+ BiDi transceivers			
Lenovo 0.5m LC-LC OM4 MMF Cable	4Z57A10845	B2P9	32
Lenovo 1m LC-LC OM4 MMF Cable	4Z57A10846	B2PA	32
Lenovo 3m LC-LC OM4 MMF Cable	4Z57A10847	B2PB	32
Lenovo 5m LC-LC OM4 MMF Cable	4Z57A10848	B2PC	32
Lenovo 10m LC-LC OM4 MMF Cable	4Z57A10849	B2PD	32
Lenovo 15m LC-LC OM4 MMF Cable	4Z57A10850	B2PE	32
Lenovo 25m LC-LC OM4 MMF Cable	4Z57A10851	B2PF	32
Lenovo 30m LC-LC OM4 MMF Cable	4Z57A10852	B2PG	32
Optical breakout cables for 40 GbE QSFP+ iSR4/eSR4 transceivers			
Lenovo 1m MPO-4xLC OM3 MMF Breakout Cable	00FM412	A5UA	32
Lenovo 3m MPO-4xLC OM3 MMF Breakout Cable	00FM413	A5UB	32
Lenovo 5m MPO-4xLC OM3 MMF Breakout Cable	00FM414	A5UC	32
QSFP+ active optical cables - 40 GbE			
Lenovo 3m QSFP+ to QSFP+ Active Optical Cable	00YL652	ATZ3	32
Lenovo 5m QSFP+ to QSFP+ Active Optical Cable	00YL655	ATZ4	32
Lenovo 7m QSFP+ to QSFP+ Active Optical Cable	00YL658	ATZ5	32
Lenovo 15m QSFP+ to QSFP+ Active Optical Cable	00YL661	ATZ6	32
Lenovo 20m QSFP+ to QSFP+ Active Optical Cable	00YL664	ATZ7	32
QSFP+ active optical breakout cables - 40 GbE to 4x10 GbE			
Lenovo 1m QSFP+ to 4xSFP+ Active Optical Cable	00YL667	ATZ8	32
Lenovo 3m QSFP+ to 4xSFP+ Active Optical Cable	00YL670	ATZ9	32

Description	Part number	Feature code	Maximum quantity
Lenovo 5m QSFP+ to 4xSFP+ Active Optical Cable	00YL673	ATZA	32
QSFP+ direct-attach copper cables - 40 GbE			
Lenovo 1m Passive QSFP+ DAC Cable	49Y7890	A1DP	32
Lenovo 3m Passive QSFP+ DAC Cable	49Y7891	A1DQ	32
Lenovo 5m Passive QSFP+ DAC Cable	00D5810	A2X8	32
Lenovo 7m Passive QSFP+ DAC Cable	00D5813	A2X9	32
QSFP+ breakout cables - 40 GbE to 4x 10 GbE			
Lenovo 1m Passive QSFP+ to SFP+ Breakout DAC Cable	49Y7886	A1DL	32
Lenovo 3m Passive QSFP+ to SFP+ Breakout DAC Cable	49Y7887	A1DM	32
Lenovo 5m Passive QSFP+ to SFP+ Breakout DAC Cable	49Y7888	A1DN	32

The network cables that can be used with the switch are listed in the following table.

Table 4. NE10032O network cabling requirements

Transceiver	Standard	Cable	Connector
100 Gb Ethernet			
100Gb SR4 QSFP28 (7G17A03539)	100GBASE-SR4	Up to 30 m with MPO-MPO fiber optic cables or up to 5 m with MPO-4xLC breakout cables supplied by Lenovo (see Table 3); up to 70 m with OM3 or up to 100 m with OM4 multimode fiber optic cables	MPO
100Gb LR4 QSFP28 (7G17A03540)	100GBASE-LR4	1310 nm single-mode fiber optic cable up to 10 km	LC
Active optical cable	100GBASE-SR4	QSFP28 to QSFP28 active optical cables up to 20 m; QSFP28 to 4x SFP28 active optical breakout cables up to 20 m for 4x 25 GbE connections out of a 100 GbE port (see Table 3)	QSFP28
Direct attach copper cable	100GBASE-CR4	QSFP28 to QSFP28 DAC cables up to 5 m; QSFP28 to 4x SFP28 DAC breakout cables up to 5 m for 4x 25 GbE connections out of a 100 GbE port (see Table 3)	QSFP28
50 Gb (2x 25 Gb) Ethernet			
Direct attach copper cable	25G/50G Eth. Consortium	QSFP28 to 2x QSFP28 DAC breakout cables (not supplied by Lenovo)	QSFP28
40 Gb Ethernet			
40Gb SR QSFP+ BiDi (00YL631)	40GBASE-SR BiDi	Up to 30 m with fiber optic cables supplied by Lenovo (see Table 3); up to 100 m with OM3 or up to 150 m with OM4 multimode fiber optic cables	LC
40Gb SR4 QSFP+ (49Y7884)	40GBASE-SR4	10 m or 30 m MPO fiber optic cables supplied by Lenovo (see Table 3); up to 100 m with OM3 or up to 150 m with OM4 multimode fiber optic cables	MPO
40Gb iSR4 QSFP+ (00D9865)	40GBASE-SR4	10 m or 30 m MPO fiber optic cables or MPO-4xLC breakout cables up to 5 m supplied by Lenovo (see Table 3); up to 100 m with OM3 or up to 150 m with OM4 multimode fiber optic cables	MPO

Transceiver	Standard	Cable	Connector
40Gb eSR4 QSFP+ (00FE325)	40GBASE-SR4	10 m or 30 m MPO fiber optic cables or MPO-4xLC breakout cables up to 5 m supplied by Lenovo (see Table 3); up to 300 m with OM3 or up to 400 m with OM4 multimode fiber optic cables	MPO
40Gb LR4 QSFP+ (00D6222)	40GBASE-LR4	1310 nm single-mode fiber optic cable up to 10 km	LC
Active optical cable	40GBASE-SR4	QSFP+ to QSFP+ active optical cables up to 20 m; QSFP+ to 4x SFP+ active optical break-out cables up to 5 m for 4x 10 GbE SFP+ connections out of a 40 GbE port (see Table 3)	QSFP+
Direct attach copper cable	40GBASE-CR4	QSFP+ to QSFP+ DAC cables up to 7 m; QSFP+ to 4x SFP+ DAC break-out cables up to 5 m for 4x 10 GbE SFP+ connections out of a 40 GbE port (see Table 3)	QSFP+
Management ports			
1 GbE mgmt. port	1000BASE-T	UTP Category 5, 5E, and 6 up to 100 meters	RJ-45
RJ-45 serial port	RS-232	DB-9 to RJ-45 cable (comes with the switch)	RJ-45
Micro-USB serial port	RS-232	Micro-USB (Type B) to USB (Type A) cable (comes with the switch)	Micro-USB (Type B)
Micro-USB storage port	USB 2.0	Micro-USB (Type A) to USB (Type A) cable (comes with the switch)	Micro-USB (Type A)

Software

The NE10032O RackSwitch includes the Open Network Install Environment (ONIE) which is a small Linux-based operating system that provides an open install environment for networking devices without operating systems. ONIE enables a network switch ecosystem for end users to choose among different Network Operating Systems by discovering NOS installer images and loading them onto the switch.

The following operating systems are certified for the NE10032O RackSwitch:

- Cumulus Linux

The following table lists ordering information for the Cumulus software license and support options.

Table 5. Cumulus software license and support options

Description	Part number	Feature code
Cumulus Linux for Spine Nodes		
Cumulus Linux for Spine Nodes (40G, 100G) w/1Yr Cumulus Support	7S0D0004WW	B3DL
Cumulus Linux for Spine Nodes (40G, 100G) w/3Yr Cumulus Support	7S0D0005WW	B3DM
Cumulus Linux for Spine Nodes (40G, 100G) w/5Yr Cumulus Support	7S0D0006WW	B3DN
Cumulus NetQ		
Cumulus NetQ (1G/10G/25G/40G/100G) w/1Yr Cumulus Support	7S0D0007WW	B3DP
Cumulus NetQ (1G/10G/25G/40G/100G) w/3Yr Cumulus Support	7S0D0008WW	B3DQ
Cumulus NetQ (1G/10G/25G/40G/100G) w/5Yr Cumulus Support	7S0D0009WW	B3DR
Cumulus Linux Spine Packages		
Cumulus Linux Spine Package (Linux and NetQ) w/1Yr Cumulus Support	7S0D000GWW	B3DY
Cumulus Linux Spine Package (Linux and NetQ) w/3Yr Cumulus Support	7S0D000HWW	B3DZ
Cumulus Linux Spine Package (Linux and NetQ) w/5Yr Cumulus Support	7S0D000JWW	B3E0

Software support: Lenovo does not provide support for third-party software that is certified with the switch. Customers should contact a third-party software vendor directly to submit a software support request, and the software vendor will own the software-related problem resolution until closure.

Ethernet standards

The NE10032O RackSwitch supports the following Ethernet standards:

- IEEE 802.1Q VLAN tagging
- IEEE 802.3 10BASE-T Ethernet (Ethernet management port only)
- IEEE 802.3ab 1000BASE-T copper twisted pair Gigabit Ethernet (Ethernet management port only)
- IEEE 802.3ae 10GBASE-SR short range fiber optics 10 Gb Ethernet
- IEEE 802.3ba 40GBASE-SR4 short range fiber optics 40 Gb Ethernet
- IEEE 802.3ba 40GBASE-CR4 copper 40 Gb Ethernet
- IEEE 802.3ba 100GBASE-LR4 long range fiber optics 100 Gb Ethernet
- IEEE 802.3bj 100GBASE-CR4 copper 100 Gb Ethernet
- IEEE 802.3bm 100GBASE-SR4 short range fiber optics 100 Gb Ethernet
- IEEE 802.3u 100BASE-TX Fast Ethernet (Ethernet management port only)
- SFF-8431 10 Gb SFP+ Direct attach copper cable
- SFF-8436 40 Gb QSFP+ Direct attach copper cable
- 25G/50G Ethernet Consortium

Cooling

The NE10032O RackSwitch ships with six variable speed, hot-swap fan assemblies that provide N+1 cooling redundancy.

Power supplies and cables

The NE10032O RackSwitch supports up to two load-sharing, redundant hot-swap 770 W AC Platinum power supplies (two power supplies come standard with the switch).

The NE10032O RackSwitch ships without any power cables. The part numbers and feature codes to order the power cables (two power cables are required per switch) are listed in the following table.

Table 6. AC power cable options

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	43V6034	6568
2.8m, 10A/100-250V, C13 to IEC 320-C14 Rack Power Cable	4L67A08366	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
Line cords		
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

Description	Part number	Feature code
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
United States 10A/125V C13 to NEMA 5-15P 4.3m line cord	39Y7931	6207
United States 10A/250V C13 to NEMA 6-15P 2.8m line cord	46M2592	A1RF

Rack installation

The NE10032O RackSwitch ships with the 2-post rack mount kit. For 4-post rack installations, the NE10032O RackSwitch supports the optional adjustable 19-inch, 4-post rail kit and the air inlet duct (optional for the 4-post rail kit).

The following table lists rack installation options for the NE10032O RackSwitch switches with rear to front and front to rear airflow.

Table 7. Rack installation options

Description	Part number	Feature code
Lenovo RackSwitch Adjustable 19" 4 Post Rail Kit	00D6185	A3KP
Air Inlet Duct for 487 mm RackSwitch	00FM507	ASTN

Physical specifications

The NE10032O RackSwitch features the following physical specifications:

- Height: 44 mm (1.7 in.)
- Width: 441 mm (17.3 in.)
- Depth: 487 mm (19.2 in.)
- Maximum weight: 11.3 kg (24.9 lb)

Operating environment

The NE10032O RackSwitch is supported in the following operating environment:

- Temperature: 0 - 40 ºC (32 - 104 ºF).
- Relative humidity: 10 - 90% (non-condensing)
- Altitude: Up to 2000 m (6,561 feet)
- Acoustic noise: Less than 90 dB
- Airflow: Rear-to-front cooling with variable speed fans for reduced power draw
- Electrical input: 50 / 60 Hz, 100 - 240 V AC auto-switching
- Power consumption (maximum): 530 W
- Heat dissipation (maximum): 1808 BTU/hour

Hardware warranty and service upgrades

The NE10032O RackSwitch comes with a 3-year Customer Replaceable Unit (CRU) hardware limited warranty with 9x5 Next Business Day (NBD) parts delivered. The hardware options that are installed in the switch assume the switch's base warranty and any Lenovo warranty service upgrade for the switch.

Software support: Lenovo does not provide support for third-party software that is certified with the switch. Customers should contact a third-party software vendor directly to submit a software support request, and the software vendor will own the software-related problem resolution until closure.

Some countries might have different warranty terms and conditions than the standard warranty. This is due to local business practices or laws in the specific country. Local service teams can assist in explaining country-specific terms when needed. Examples of country-specific warranty terms are second or longer business day parts delivery or parts-only base warranty.

If warranty terms and conditions include onsite labor for repair or replacement of parts, Lenovo will dispatch a service technician to the customer site to perform the replacement. Onsite labor under base warranty is limited to labor for replacement of parts that have been determined to be field-replaceable units (FRUs). Parts that are determined to be customer-replaceable units (CRUs) do not include onsite labor under base warranty.

If warranty terms include parts-only base warranty, Lenovo is responsible for delivering only replacement parts that are under base warranty (including FRUs) that will be sent to a requested location for self-service. Parts-only service does not include a service technician being dispatched onsite. Parts must be changed at customer's own cost and labor and defective parts must be returned following the instructions supplied with the spares parts.

Also available are Lenovo Services 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. Not all warranty service upgrades are available in every country. For information about Lenovo warranty service upgrade offerings that are available in your country or area, refer to the following resources:

- Service part numbers in Lenovo Data Center Solutions Configurator (DCSC): http://dcsc.lenovo.com/#/services
- Lenovo Services Availability Locator https://lenovolocator.com/

In general, the following Lenovo warranty service upgrades are available:

- Warranty and maintenance service upgrades:
  - 3, 4, or 5 years of warranty service coverage
  - 1-year or 2-year post-warranty extensions
  - Foundation Service: 9x5 service coverage with next business day onsite response
  - Essential Service: 24x7 service coverage with 4-hour onsite response or 24-hour committed repair (available only in select countries)
  - Advanced Service: 24x7 service coverage with 2-hour onsite response or 6-hour committed repair (available only in select countries)
- Premier Support
  Premier Support service offers direct access to Lenovo's most advanced technicians for faster troubleshooting with single point of contact for end-to-end problem resolution and collaborative third-party software support.
- Basic Hardware Installation Services
  Lenovo experts can seamlessly manage the physical installation of your server, storage, or networking hardware. Working at a time convenient for you (business hours or off shift), the technician will unpack and inspect the systems on your site, install options, mount in a rack cabinet, connect to power and network, check and update firmware to the latest levels, verify operation, and dispose of the packaging, allowing your team to focus on other priorities.

For service definitions, country-specific details, and service limitations, please refer to the following documents:

- Lenovo Statement of Limited Warranty for Infrastructure Solutions Group (ISG) Servers and System Storage
  http://pcsupport.lenovo.com/us/en/solutions/ht503310
- Lenovo Data Center Services Agreement
  http://support.lenovo.com/us/en/solutions/ht116628

Regulatory compliance

The NE10032O RackSwitch conforms to the following regulations:

- Argentina IEC60950-1
- AS/NZS CISPR 22, Class A
- Canada ICES-003, Issue 4, Class A
- CE Mark (EN55022 Class A, EN60950-1, EN55024, EN61000-3-2, and EN61000-3-3)
- China CCC GB4943, GB9254 Class A, GB17625.1
- CISPR 22, Class A
- CSA C22.2 No. 60950-1
- FCC: Verified to comply with Part 15 of the FCC Rules, Class A
- IEC 60950-1 (CB Certificate and CB Test Report)
- Japan VCCI, Class A
- Korea KN22, Class A; KN24
- NOM-019
- Russia/GOST ME01, IEC-60950-1, GOST R 51318.22, 51318.24, 51317.3.2, and 51317.3.3
- Taiwan BSMI CNS13438, Class A; CNS14336-1
- TUV-GS (EN60950-1/IEC60950-1, EK1-ITB2000)
- UL/IEC 60950-1
- Reduction of Hazardous Substances (ROHS)

Network connectivity

The following table lists the network switches with rear-to-front airflow that are offered by Lenovo that can be used with the NE10032O RackSwitch in network connectivity solutions for ThinkSystem, System x, and ThinkServer hosts.

Table 8. Rack-mount network switches (rear-to-front airflow)

Description	Part number
1 Gb Ethernet switches (10 Gb uplink ports)	
Lenovo RackSwitch G7028 (Rear to Front)	7159BAX
Lenovo RackSwitch G7052 (Rear to Front)	7159CAX
Lenovo RackSwitch G8052 (Rear to Front)	7159G52
10 Gb Ethernet switches	
Lenovo ThinkSystem NE1032 RackSwitch (Rear to Front)	7159A1X
Lenovo ThinkSystem NE1032T RackSwitch (Rear to Front)	7159B1X
Lenovo ThinkSystem NE1072T RackSwitch (Rear to Front)	7159C1X
Lenovo RackSwitch G8124E (Rear to Front)	7159BR6
Lenovo RackSwitch G8272 (Rear to Front)	7159CRW
Lenovo RackSwitch G8296 (Rear to Front)	7159GR6
25 Gb Ethernet switches	
Lenovo ThinkSystem NE2572 RackSwitch (Rear to Front)	7159E1X
Lenovo ThinkSystem NE2572O RackSwitch (Rear to Front, ONIE)	7Z210O21WW

For more information, see the list of Product Guides in the Top-of-rack Switches category:
http://lenovopress.com/servers/options/switches#rt=product-guide

The following table lists currently available embedded Ethernet switches and pass-thru modules that can be used with the NE10032O RackSwitch in network connectivity solutions for Flex System hosts.

Table 9. Embedded Ethernet switches for Flex System

Description	Part number
1 Gb Ethernet switches (10 Gb uplink ports)	
Lenovo Flex System EN2092 1Gb Ethernet Scalable Switch	49Y4294
10 Gb Ethernet switches and modules	
Lenovo Flex System Fabric EN4093R 10Gb Scalable Switch	00FM514
Lenovo Flex System SI4091 10Gb System Interconnect Module	00FE327
Lenovo Flex System Fabric SI4093 System Interconnect Module	00FM518
25 Gb Ethernet switches	
Lenovo ThinkSystem NE2552E Flex Switch	4SG7A08868
Pass-thru modules (10 GbE pass-thru connectivity)	
Lenovo Flex System EN4091 10Gb Ethernet Pass-thru	88Y6043

For more information, see the list of Product Guides in the Blade Network Modules category:
http://lenovopress.com/servers/blades/networkmodule#rt=product-guide

Storage connectivity

The following table lists the external storage systems that are currently offered by Lenovo that can be used with the NE10032O RackSwitch for external NAS or iSCSI SAN storage connectivity.

Table 10. External storage systems: DE Series

Description	Part number	
	Worldwide	Japan
Lenovo ThinkSystem DE Series Storage (iSCSI connectivity)		
Lenovo ThinkSystem DE2000H 10GBASE-T Hybrid Flash Array LFF	7Y70A003WW	7Y701001JP
Lenovo ThinkSystem DE2000H 10GBASE-T Hybrid Flash Array SFF	7Y71A002WW	7Y711005JP
Lenovo ThinkSystem DE2000H iSCSI Hybrid Flash Array LFF	7Y70A004WW	7Y701000JP
Lenovo ThinkSystem DE2000H iSCSI Hybrid Flash Array SFF	7Y71A003WW	7Y711006JP
Lenovo ThinkSystem DE4000H iSCSI Hybrid Flash Array 4U60	7Y77A000WW	7Y771002JP
Lenovo ThinkSystem DE4000H iSCSI Hybrid Flash Array LFF	7Y74A002WW	7Y74A002JP
Lenovo ThinkSystem DE4000H iSCSI Hybrid Flash Array SFF	7Y75A001WW	7Y75A001JP
Lenovo ThinkSystem DE4000F iSCSI All Flash Array SFF	7Y76A002WW	7Y76A002JP
Lenovo ThinkSystem DE6000H iSCSI Hybrid Flash Array 4U60	7Y80A002WW	7Y801000JP
Lenovo ThinkSystem DE6000H iSCSI Hybrid Flash Array SFF	7Y78A002WW	7Y781000JP
Lenovo ThinkSystem DE6000F iSCSI All Flash Array SFF	7Y79A002WW	7Y79A002JP

Table 11. External storage systems: DM Series

Description	Part number
Lenovo ThinkSystem DM Series Storage (NAS or iSCSI connectivity)	
Lenovo ThinkSystem DM3000H Hybrid Storage Array (2U12 LFF, CTO only)	7Y42CTO1WW
Lenovo ThinkSystem DM3000H 48TB (12x 4TB HDDs) (Universal SFP+)	7Y420001EA*
Lenovo ThinkSystem DM3000H 48TB (12x 4TB HDDs) (10GBASE-T)	7Y420002EA*
Lenovo ThinkSystem DM5000H Hybrid Storage Array (2U24 SFF, CTO only)	7Y57CTO1WW
Lenovo ThinkSystem DM5000H 11.5TB (12x 960GB SSDs) (Universal SFP+)	7Y570001EA*
Lenovo ThinkSystem DM5000H 11.5TB (12x 960GB SSDs) (10GBASE-T)	7Y570002EA*
Lenovo ThinkSystem DM5000H 29TB (24x 1.2TB 10K HDDs) (Universal SFP+)	7Y570003EA*
Lenovo ThinkSystem DM5000H 29TB (24x 1.2TB 10K HDDs) (10GBASE-T)	7Y570004EA*
Lenovo ThinkSystem DM5000F Flash Storage Array (2U24 SFF, CTO only)	7Y41CTO1WW
Lenovo ThinkSystem DM7000H Hybrid Storage Array (3U, CTO only)	7Y56CTO1WW
Lenovo ThinkSystem DM7000F Flash Storage Array (3U, CTO only)	7Y40CTO1WW

* Available only in EMEA.

Table 12. External storage systems: DS Series

Description	Part number		
	Worldwide	Japan	PRC
Lenovo ThinkSystem DS Series Storage (iSCSI connectivity)			
Lenovo ThinkSystem DS2200 LFF FC/iSCSI Dual Controller Unit	4599A31	4599A3J	4599A3C
Lenovo ThinkSystem DS2200 SFF FC/iSCSI Dual Controller Unit	4599A11	4599A1J	4599A1C
Lenovo ThinkSystem DS4200 LFF FC/iSCSI Dual Controller Unit	4617A31	4617A3J	4617A3C
Lenovo ThinkSystem DS4200 SFF FC/iSCSI Dual Controller Unit	4617A11	4617A1J	4617A1C
Lenovo ThinkSystem DS6200 SFF FC/iSCSI Dual Controller Unit	4619A11	4619A1J	4619A1C
DS6200F 12x 400GB 10DWD SSDs, 1x 8Gb FC SFP, 512 Snapshots, Replication	4619A1F	4619J1F	4619C1F
DS6200F 12x 800GB 3DWD SSDs, 1x 8Gb FC SFP, 512 Snapshots, Replication	4619A2F	4619J2F	4619C2F
DS6200F 12x 1.6TB 3DWD SSDs, 1x 8Gb FC SFP, 512 Snapshots, Replication	4619A3F	4619J3F	4619C3F
DS6200F 12x 3.84TB 1DWD SSDs, 1x 8Gb FC SFP, 512 Snapshots, Replication	4619A4F	4619J4F	4619C4F

Table 13. External storage systems: V Series and Storwize for Lenovo

Description	Part number
Lenovo Storage V Series (iSCSI connectivity)	
Lenovo Storage V3700 V2 LFF Control Enclosure	6535C1D
Lenovo Storage V3700 V2 SFF Control Enclosure	6535C2D
Lenovo Storage V3700 V2 XP LFF Control Enclosure	6535C3D
Lenovo Storage V3700 V2 XP SFF Control Enclosure	6535C4D
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
Lenovo Storage V7000 SFF Control Enclosure 3Yr S&S PRC	6538R11^
Lenovo Storage V7000 SFF Control Enclosure 5Yr S&S PRC	6538R21^
Lenovo Storage V7000F SFF Control Enclosure 3Yr S&S PRC	6538R1G^
Lenovo Storage V7000F SFF Control Enclosure 5Yr S&S PRC	6538R2G^
IBM Storwize for Lenovo (iSCSI connectivity)	
IBM Storwize V7000 SFF Control Enclosure, 3YR SWMA	6195C32†
IBM Storwize V7000 SFF Control Enclosure, 3YR SWMA, LA	6195C3L‡
IBM Storwize V7000 SFF Control Enclosure, 5YR SWMA	6195C52†
IBM Storwize V7000 SFF Control Enclosure, 5YR SWMA, LA	6195C5L‡

^ Available only in PRC.
† Available worldwide except Latin America.
‡ Available only in Latin America.

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

- Lenovo DE Series, DM Series, DS Series, and V Series storage:
  http://lenovopress.com/storage/san/lenovo#rt=product-guide
- IBM Storwize for Lenovo storage:
  http://lenovopress.com/storage/san/ibm#rt=product-guide

Rack cabinets

The following table lists the rack cabinets that are offered by Lenovo that can be used with the NE10032O RackSwitch in IT solutions.

Table 14. 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#rt=product-guide

Power distribution units

The following table lists the power distribution units (PDUs) that are offered by Lenovo that can be used with the NE10032O RackSwitch in IT solutions.

Table 15. 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 a line cord)	46M4002

Description	Part number
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 a 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 a line cord)	71762NX
Ultra Density Enterprise C19/C13 PDU 60A/208V/3ph with IEC 309 3P+Gnd line cord	71763NU
C13 Enterprise PDUs (12x IEC 320 C13 outlets)	
DPI C13 Enterprise PDU+ (without a line cord)	39M2816
DPI Single Phase C13 Enterprise PDU (without a line cord)	39Y8941
C19 Enterprise PDUs (6x IEC 320 C19 outlets)	
DPI Single Phase C19 Enterprise PDU (without a 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#rt=product-guide

Uninterruptible power supply units

The following table lists the uninterruptible power supply (UPS) units that are offered by Lenovo that can be used with the NE10032O RackSwitch in IT solutions.

Table 16. Uninterruptible power supply units

Description	Part number
Worldwide models	
RT1.5kVA 2U Rack or Tower UPS (100-125VAC) (8x NEMA 5-15R 12A outlets)	55941AX
RT1.5kVA 2U Rack or Tower UPS (200-240VAC) (8x IEC 320 C13 10A outlets)	55941KX
RT2.2kVA 2U Rack or Tower UPS (100-125VAC) (8x NEMA 5-20R 16A outlets)	55942AX
RT2.2kVA 2U Rack or Tower UPS (200-240VAC) (8x IEC 320 C13 10A, 1x IEC 320 C19 16A outlets)	55942KX
RT3kVA 2U Rack or Tower UPS (100-125VAC) (6x NEMA 5-20R 16A, 1x NEMA L5-30R 24A outlets)	55943AX
RT3kVA 2U Rack or Tower UPS (200-240VAC) (8x IEC 320 C13 10A, 1x IEC 320 C19 16A outlets)	55943KX
RT5kVA 3U Rack or Tower UPS (200-240VAC) (8x IEC 320 C13 10A, 2x IEC 320 C19 16A outlets)	55945KX
RT6kVA 3U Rack or Tower UPS (200-240VAC) (8x IEC 320 C13 10A, 2x IEC 320 C19 16A outlets)	55946KX
RT8kVA 6U Rack or Tower UPS (200-240VAC) (4x IEC 320-C19 16A outlets)	55948KX
RT11kVA 6U Rack or Tower UPS (200-240VAC) (4x IEC 320-C19 16A outlets)	55949KX
RT8kVA 6U 3:1 Phase Rack or Tower UPS (380-415VAC) (4x IEC 320-C19 16A outlets)	55948PX
RT11kVA 6U 3:1 Phase Rack or Tower UPS (380-415VAC) (4x IEC 320-C19 16A outlets)	55949PX
ASEAN, HTK, INDIA, and PRC models	
ThinkSystem RT3kVA 2U Standard UPS (200-230VAC) (2x C13 10A, 2x GB 10A, 1x C19 16A outlets)	55943KT
ThinkSystem RT3kVA 2U Long Backup UPS (200-230VAC) (2x C13 10A, 2x GB 10A, 1x C19 16A outlets)	55943LT
ThinkSystem RT6kVA 5U UPS (200-230VAC) (2x C13 10A outlets, 1x Terminal Block output)	55946KT
ThinkSystem RT10kVA 5U UPS (200-230VAC) (2x C13 10A outlets, 1x Terminal Block output)	5594XKT

For more information, see the list of Product Guides in the Uninterruptible Power Supply Units category:
http://lenovopress.com/servers/options/ups#rt=product-guide

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Related publications and links

For more information about the NE10032O RackSwitch, see the following resources:

- Lenovo RackSwitch InfoCenter:
    - *Lenovo ThinkSystem NE10032O RackSwitch Installation Guide*
    - *Lenovo ThinkSystem NE10032O ONIE User Guide*
- Lenovo Data Center Support:
  http://datacentersupport.lenovo.com
- Cumulus Linux User Guide
  http://docs.cumulusnetworks.com/display/DOCS/Cumulus+Linux+User+Guide

Related product families

Product families related to this document are the following:

- 100 Gb Ethernet Connectivity
- Top-of-Rack Switches

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