Lenovo CE0128P Switch (Gigabit Ethernet) with Power over Ethernet

Product Guide

The Lenovo CE0128P Switch is a 1 Gb Ethernet (GbE) switch with Power over Ethernet (PoE) that delivers a compact, high-density, cost-effective GbE solution for small network environments where space and power are at a premium. Featuring a small, 1U footprint, this switch is designed for access-layer deployments in branches, retail and workgroup environments, and converged network access in larger networks.

The CE0128P Switch offers 24x 10/100/1000BASE-T ports with Power over Ethernet (PoE) for powering attached network devices, such as such as telephones, video cameras, IEEE 802.11ac WLAN access points, and videophones. The switch also has 4x 1 GbE SFP uplink ports for connections to higher-layer devices.

The CE0128P Switch supports an extensive set of L2 and L3 features that provide performance, availability, security, and manageability for campus networks.

The Lenovo CE0128P Switch is shown in the following figure.

Figure 1. Lenovo CE0128P Switch

Did you know?

The CE0128P Switch is designed to deliver non-blocking, line-rate throughput.

The CE0128P Switch can simultaneously deliver up to 15.4 watts of standards-based 802.3af Class 3 PoE to a maximum of 24 ports or 30 watts of standards-based 802.3at PoE+ to a maximum of 12 ports, based on a total system PoE budget of 370 watts.

The CE0128P Switch supports stacking, enabling up to eight interconnected CE0128P Switch devices to be managed as a single logical device.

The CE1028P Switch supports Zero Touch Provisioning, which enables a switch to automatically provision itself using the resources available on the network, without manual intervention.

The CE0128P Switch supports OpenFlow, which allows customers to easily create user-controlled virtual networks, optimize performance dynamically, and minimize complexity when the switch is used with an industry-compliant OpenFlow controller.

Key features

The CE0128P Switch is considered particularly suited for the following customers:

- Customers who are implementing Power over Ethernet (PoE) standards for supporting networked devices such as telephones, video cameras, IEEE 802.11ac WLAN access points, and videophones in converged networks.
- Customer who need economical network connectivity solution for access layer deployments in branch and remote offices, as well as enterprise campus networks.
- Customers who want to use GbE in their infrastructure (servers and networking).
- Customers who are implementing a virtualized environment and require multiple GbE ports.
- Customers who want to reduce total cost of ownership (TCO) and improve performance while maintaining high levels of availability and security.
- Customers who want to implement a converged infrastructure with NAS or iSCSI.

The CE0128P Switch offers the following key features and benefits:

- High performance
  The CE0128P Switch provides a combination of non-blocking line-rate GbE switching with as low as 4 microseconds latency and 256 Gbps switching capacity.

- Converged environments
  The CE0128P Switch provides flexibility for the most demanding converged data, voice, and video environments, delivering a reliable platform for unifying enterprise communications. By providing PoE to VoIP telephones, videophones, closed-circuit security cameras, wireless access points, and other IP-enabled devices, the CE0128P Switch delivers a future-proofed solution for converging disparate networks onto a single IP infrastructure.

- High availability
  To avoid the complexities of the Spanning Tree Protocol (STP) without sacrificing network resiliency, the CE0128P Switch employs the Ethernet Ring Protection Switching (ERPS, also known as G.8032), which enables loop elimination and link recovery with fast convergence. It also supports cross-member link aggregation, which allows redundant link aggregation connections between devices in a single Virtual Switching Unit configuration, providing an additional level of reliability and availability.

- Layer 3 functionality
  In addition to Layer 2 switching, the CE0128P Switch includes Layer 3 functionality, which provides security and performance benefits of inter-VLAN routing with support for static routes, RIP routing protocols, and policy-based routing.

- Quality of Service
  The CE0128P Switch supports traffic classification and processing to provide consistent network performance and efficient use of network bandwidth by allocating and scheduling resources based on service levels requirements for different data streams.

- Security
  Working as an enforcement point, the CE0128P Switch provides standards-based 802.1x port-level access control for multiple devices per port, as well as Layer 2-4 policy enforcement with Access Control Lists (ACLs).

- Simplified management
  To ease deployment, the CE0128P Switch supports the industry-standard Link Layer Discovery Protocol (LLDP) and GARP VLAN Registration Protocol (GVRP) protocols, enabling the switches to automatically discover Ethernet-enabled devices and automate VLAN configuration.

- Stacking
  The CE0128P Switch supports stacking, enabling up to eight interconnected CE0128P Switch devices to be managed as a single logical device, delivering a scalable, pay-as-you-grow solution for expanding network environments.
- Zero Touch Provisioning
  The CE1028P supports CPE WAN Management Protocol (CWMP) for zero-touch provisioning (ZTP). ZTP enables a switch to automatically provision itself using the resources available on the network, without manual intervention. ZTP automatically handles the process of upgrading the switch software image and installing configuration files.
- Software Defined Networking with OpenFlow
  The CE0128P Switch offers benefits of OpenFlow for the use with industry-compliant OpenFlow controllers. OpenFlow is the open API that enables the network administrators to easily configure and manage virtual networks that control traffic on a “per-flow” basis. It creates multiple independent virtual networks and related policies without dealing with the complexities of the underlying physical network and protocols.

Components and connectors

The front panel of the CE0128P Switch is shown in the following figure.

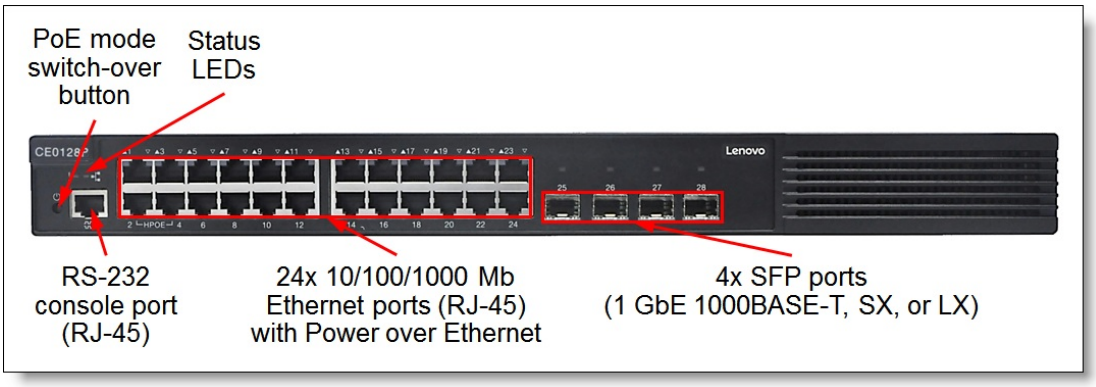

Figure 2. Front panel of the CE0128P Switch

The front panel of the CE0128P Switch contains the following components:

- 24x 1000BASE-T Ethernet ports with PoE for 10/100/1000 Mbps connections.
- 4x SFP ports for 1 GbE transceivers: 1000BASE-T, SX, or LX.
- 1x RJ-45 RS-232 console port for configuring the switch.
- PoE mode switch-over button to switch the display between the PoE mode and port rate mode.
- LEDs that display the status of the switch and the network.

The rear panel of the CE0128P Switch is shown in the following figure.

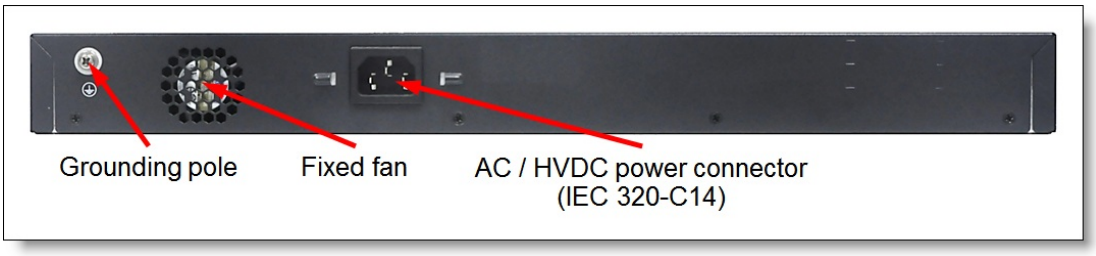

Figure 3. Rear panel of the CE0128P Switch

The rear panel of the CE0128P Switch contains the following components:

- AC / HVDC power connector (IEC 320-C14).
- Variable-speed fixed fan.
- Grounding pole.

System specifications

The following table lists system specifications for the CE0128P Switch.

Table 1. System specifications

Attribute	Specification
Form factor	1U rack mount
Ports	• 24x Gigabit Ethernet (GbE) RJ-45 fixed ports with PoE • 4x SFP ports
Media types	1 Gb Ethernet fixed ports (1000BASE-T): • RJ-45 UTP Category 5, 5e, or 6 1 Gb Ethernet SFP: • 1 GbE RJ-45 SFP transceivers • 1 GbE short-wavelength (SX) SFP transceivers • 1 GbE long-wavelength (LX) SFP transceivers
Port speeds	• 1 Gb Ethernet RJ-45 fixed ports: 10/100/1000 Mbps auto-sensing • 1 Gb Ethernet SFP RJ-45 transceivers: 1 Gbps • 1 Gb Ethernet SFP optical transceivers: 1 Gbps
Data traffic types	Unicast, multicast, broadcast.
Software features	Layer 2 switching, Layer 3 switching, virtual local area networks (VLANs), VLAN tagging, Q-in-Q VLAN tunneling, spanning tree protocol (STP), link aggregation groups (LAGs), uplink protection, L2 and L3 link failure detection, IPv4/IPv6 management, IPv4/IPv6 routing, Virtual Router Redundancy Protocol (VRRP), policy-based routing, stacking, zero-touch provisioning (CWMP), OpenFlow.
Performance	Non-blocking architecture with wire-speed forwarding of traffic: • Up to 256 Gbps switching capacity. • Up to 96 Million packets per second (Mpps) forwarding rate. • As low as 4 microseconds port-to-port switching latency • Up to 9216-byte jumbo frames. • Buffer size: 1.5 MB.

Attribute	Specification
Scalability	• MAC address forwarding database entries: 16000 • VLANs: 4094 • Multiple STP (MSTP) instances: 64 • Link aggregation groups: 28 • Ports in a link aggregation group: 8 • Maximum ingress ACL entries: 1500 • Maximum egress ACL entries: 500 • Maximum switches in the stack: 8
Cooling	One fixed variable-speed system fan. Left and right sides-to-rear (non-port side) airflow.
Power supply	One fixed 100 - 240 V AC / 192 - 290 V HVDC power supply with IEC 320-C14 connector.
Power over Ethernet (PoE)	• RJ-45 fixed ports: Up to 30 W power output (PoE/PoE+) • SFP ports: No PoE support • Maximum PoE/PoE+ power output for the switch on all ports: 370 W
Hot-swap parts	SFP transceivers.
Management ports	1x RS-232 port (RJ-45).
Management interfaces	CLI; Web-based GUI; SNMP v1, v2c, and v3.
Security features	Secure Shell (SSH); HTTPS; user level security, Role-based Access Control (RBAC); RADIUS and TACACS+ authentication; access control lists (ACLs); port-based network access control (IEEE 802.1x); port security.
Warranty	1-year hardware warranty with return-to-factory switch replacement.
Dimensions	Height: 44 mm (1.7 in.); width: 440 mm (17.4 in.); depth: 260 mm (12.2 in.)
Weight	5.5 kg.

Models

The following table lists the Lenovo CE0128P Switch models.

Product availability: The Lenovo CE0128P Switch is available only in China.

Table 2. Lenovo CE0128P Switch models

Description	Part number	Machine Type	Feature code
Lenovo CE0128P Switch	7Y050012CN	7Y05	B13C

The CE0128P Switch models ship with the following items:

- Two mounting brackets
- Four rubber feet
- Documentation package

Configuration notes:

- The power cable is not included and must be ordered together with the switch (see Power supplies and cables for details).
- SFP transceivers and cables are not included and should be ordered for the switch, if required (see Transceivers and cables for details).

Transceivers and cables

With the flexibility of the CE0128P Switch, customers can choose the following connectivity technologies:

- Fixed 10/100/1000 Mb Ethernet ports: Customers can use RJ-45 UTP cables for distances up to 100 meters.
- SFP ports:
  - For distances up to 100 meters, customers can use the 1000BASE-T transceivers with RJ-45 UTP cables.
  - For distances up to 550 meters, customers can use the 1000BASE-SX transceivers with 50 µ OM2 multimode fiber optic (MMF) cables.
  - For distances up to 10 kilometers, customers can use the 1000BASE-LX transceivers with 9 µ single-mode fiber optic (SMF) cables.

The supported SFP transceiver and cable options are listed in the following table.

Table 3. SFP transceivers and cables

Description	Part number	Feature code	Maximum quantity supported
SFP transceivers - 1 GbE			
Lenovo 1000BASE-T (RJ-45) SFP Transceiver (no 10/100 Mbps support)	00FE333	A5DL	4
Lenovo RJ45 1Gbps SFP Transceiver (no 10/100 Mbps support)	00AY240	A4M8	4
Lenovo 1000BASE-SX SFP Transceiver	81Y1622	3269	4
Lenovo 1000BASE-LX SFP Transceiver	90Y9424	A1PN	4
Optical cables for 1 GbE SFP SX transceivers			
Lenovo 1m LC-LC OM3 MMF Cable	00MN502	ASR6	4
Lenovo 3m LC-LC OM3 MMF Cable	00MN505	ASR7	4
Lenovo 5m LC-LC OM3 MMF Cable	00MN508	ASR8	4
Lenovo 10m LC-LC OM3 MMF Cable	00MN511	ASR9	4
Lenovo 15m LC-LC OM3 MMF Cable	00MN514	ASRA	4
Lenovo 25m LC-LC OM3 MMF Cable	00MN517	ASRB	4
Lenovo 30m LC-LC OM3 MMF Cable	00MN520	ASRC	4

The network cables that can be used with the CE0128P Switch are listed in the following table.

Table 4. CE0128P network cabling requirements

Transceiver	Type	Cable	Connector
1 Gb Ethernet			
RJ-45 ports (fixed) 1Gb RJ-45 SFP (00FE333, 00AY240)	1000BASE-T	UTP Category 5, 5E, or 6 up to 100 meters.	RJ-45
1Gb SX SFP (81Y1622)	1000BASE-SX	Lenovo fiber optic cables up to 30 m (see Table 3); 50/125 µ OM2 multimode fiber optic cable up to 550 m.	LC
1Gb LX SFP (90Y9424)	1000BASE-LX	9/125 µ single-mode fiber optic cable up to 10 km.	LC
Management ports			
RS-232 serial console port	RS-232	DB-9-to-RJ-45 console cable (purchased separately)	RJ-45

Software features

The CE0128P Switch has the following software features:

- Scalability and performance:
  - Media access control (MAC) address learning
  - Static and LACP (IEEE 802.3ad) link aggregation groups (LAGs)
  - Broadcast storm control
  - IGMP snooping for limit flooding of IP multicast traffic
  - IGMP filtering to control multicast traffic for hosts participating in multicast groups
  - Configurable traffic distribution schemes over LAGs based on source/destination IP or MAC
- Availability and redundancy:
  - IEEE 802.1D STP for providing L2 redundancy
  - IEEE 802.1s Multiple STP (MSTP) for topology optimization
  - IEEE 802.1w Rapid STP (RSTP) (rapid convergence for delay-sensitive traffic such as voice)
  - Ethernet Ring Protection Switching (ERPS) for preventing L2 loops and fast convergence
  - Rapid Ethernet Uplink Protection Protocol (REUP) for basic link redundancy without STP
  - Rapid Link Detection Protocol (RLDP) for L2 link failure detection
  - Data Link Detection Protocol (DLDP) for L3 link failure detection
- VLAN support:
  - Port-based and protocol-based VLANs
  - Up to 4094 VLANs supported per switch
  - 802.1Q VLAN tagging support on all ports
  - 802.1Q-in-Q VLAN tunneling
  - 802.1x with dynamic VLAN assignment
  - Private VLANs
- Stacking:
  - Up to 8 switches in a stack
  - Single IP management
  - Less than 100 milliseconds failover time in case of a member switch failure
  - Line and ring stacking topologies
  - Link aggregation across member devices
  - Multi-Active Detection (MAD) via bi-directional forwarding detection (BFD) or link aggregation
- Software-defined networking: OpenFlow 1.0.0 and 1.3.0
- Security:
  - MAC-based and IP-based access control lists (ACLs)
  - Port security and 802.1x port-based network access control
  - Multiple local user IDs and passwords
  - User access control
  - Radius and TACACS+ authentication and authorization
  - Protection from Denial of Service (DoS) attacks
  - DHCP snooping (IPv4/IPv6)
- Quality of Service (QoS):
  - IEEE 802.1p, IP ToS/DSCP, MAC/IP, and port traffic classification and processing
  - Traffic shaping and re-marking based on defined policies
  - Eight priority queues per port for processing qualified traffic
    - Strict-Priority (SP) scheduling
    - Weighted Round Robin (WRR) scheduling
    - Weighted Fair Queueing (WFQ) scheduling
  - IPv4/IPv6 ACL metering

- IP v4 Layer 3 functions:
  - Host management
  - IP filtering with ACLs
  - Virtual Router Redundancy Protocol
  - Static routes
  - RIP v1 and RIP v2 routing protocols
  - Policy-based routing (PBR)
  - DHCP server, client and relay operations
  - IGMP v1/v2 snooping
- IP v6 Layer 3 functions:
  - IPv6 host management
  - IPv6 filtering with ACLs
  - Virtual Router Redundancy Protocol
  - Static routes
  - RIPng routing protocol
  - Policy-based routing
  - DHCPv6 server, client and relay operations
- Manageability:
  - Command Line Interface (CLI)
    - Serial console
    - Telnet
    - SSH v1.5 and v2
  - Web-based management graphical user interface (GUI): HTTP/HTTPS
  - Simple Network Management Protocol (SNMP v1, v2c, and v3)
  - Firmware image and configuration file management: TFTP
  - Link Layer Discovery Protocol (LLDP) for discovering network devices
  - GARP VLAN Registration Protocol (GVRP) for automated VLAN configuration
  - CPE WAN Management Protocol (CWMP) for auto-configuration and dynamic service provisioning
  - Network Time Protocol (NTP) / Simple NTP (SNTP) for switch clock synchronization
- Monitoring:
  - Status LEDs for port status and switch status indication
  - Remote Monitoring (RMON) agent to collect statistics and proactively monitor switch performance
  - Switched Port Analyzer (SPAN) / Remote SPAN (RSPAN) for monitoring network traffic
  - Syslog feature for change tracking and remote logging
  - sFLOW agent for monitoring traffic in data networks (separate sFLOW analyzer required elsewhere)

Ethernet standards

The CE0128P Switch supports the following Ethernet standards:

- IEEE 802.1AB: Link Layer Discovery Protocol (LLDP)
- IEEE 802.1D Spanning Tree Protocol (STP)
- IEEE 802.1s Multiple STP (MSTP)
- IEEE 802.1w Rapid STP (RSTP)
- IEEE 802.1p Class of Service (CoS) prioritization
- IEEE 802.1Q VLAN tagging
- IEEE 802.1Q-in-Q VLAN tunneling
- IEEE 802.1x port-based authentication
- IEEE 802.3 10BASE-T Ethernet
- IEEE 802.3u 100BASE-TX copper Fast Ethernet
- IEEE 802.3ab 1000BASE-T copper twisted-pair Gigabit Ethernet
- IEEE 802.3z 1000BASE-SX short range fiber optics Gigabit Ethernet
- IEEE 802.3z 1000BASE-LX long range fiber optics Gigabit Ethernet
- IEEE 802.3x Full-duplex Flow Control
- IEEE 802.3af Power over Ethernet (PoE)
- IEEE 802.3at Power over Ethernet Plus (PoE+)
- IEEE 802.3bt High Power over Ethernet (HPoE)
- IEEE 802.3az Energy Efficient Ethernet (EEE)
- IEEE 802.3ad Link Aggregation Control Protocol (LACP)

Power supplies and cables

The CE0128P Switch has one fixed AC / HVDC power supply with an IEC 320-C14 connector.

The CE0128P Switch ships without any power cables. The part numbers and feature codes to order the AC power cables are listed in the following table (one cable is required per switch).

Table 5. AC power cable options

Description	Part number	Feature code
4.3m, 10A/100-250V, C13 to IEC 320-C14 Rack Power Cable	39Y7932	6263

Installation

The CE0128P Switch can be mounted on a wall or in 2-post or 4-post rack cabinets by using the two mounting brackets that come with the switch. Also, the CE0128P Switch can be placed on a desk or other level surface by using the four rubber feet that come with the switch.

Physical specifications

The CE0128P Switch has the following approximate dimensions and weight:

- Height: 44 mm
- Width: 440 mm
- Depth: 260 mm
- Weight: 4.5 kg

Operating environment

The CE0128P Switch is supported in the following environment:

- Operating temperature: 0° to 50° C
- Storage temperature: -40° to 70° C
- Operating altitude: up to 5000 m
- Relative humidity operating: 10% to 90%
- Relative humidity non-operating: 5% to 95%
- Electrical:
    - AC input:
        - 100 - 240 V AC (nominal); 50 Hz or 60 Hz
        - AC rated current: 6.8 A
    - HVDC input:
        - 192 - 290 V HVDC
        - HVDC rated current: 2.5 A - 3.5 A
- Power consumption
    - Maximum (non-PoE): 31.2 W
    - Maximum (PoE/PoE+): 420 W
    - Idle: 27 W
- Heat dissipation
    - Maximum (non-PoE): 107 BTU/hour
    - Maximum (PoE/PoE+): 1433 BTU/hour
    - Idle: 92 BTU/hour

Warranty

The CE0128P Switch has a 1-year hardware warranty that provides return-to-factory switch replacement.

Regulatory compliance

The CE0128P Switch conforms to the following regulations:

- China CCC GB4943, GB9254 Class A, GB17625.1
- China CECP
- China MII
- China RoHS
- China REACH
- China WEEE

Network connectivity

The following table lists the network switches that are offered by Lenovo that can be used with the CE0128P Switch in IT solutions.

Table 6. Ethernet LAN switches

Description	Part number
1 Gb Ethernet switches	
Lenovo CE0128T Switch	7Y050011CN
Lenovo CE0152T Switch	7Y060021CN
Lenovo RackSwitch G7028 (Rear to Front)	7159BAX
Lenovo RackSwitch G7052 (Rear to Front)	7159CAX
Lenovo RackSwitch G8052 (Rear to Front)	7159G52
Juniper EX2300-C PoE Switch	7165H1X
Juniper EX2300-24p PoE Switch	7165H2X
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 G8264 (Rear to Front)	7159G64
Lenovo RackSwitch G8264CS (Rear to Front)	7159DRX
Lenovo RackSwitch G8272 (Rear to Front)	7159CRW
Lenovo RackSwitch G8296 (Rear to Front)	7159GR6

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

Storage connectivity

The following table lists the storage systems that Lenovo offers in China that can be used with the CE0128P Switch for external 1 GbE NAS or 1 Gb iSCSI SAN storage connectivity.

Table 7. External storage systems

Description	Part number
Lenovo ThinkSystem DS Series Storage (1 Gb iSCSI connectivity)	
Lenovo ThinkSystem DS2200 LFF FC/iSCSI Dual Controller Unit (Simplified Chinese documentation)	4599A3C
Lenovo ThinkSystem DS2200 SFF FC/iSCSI Dual Controller Unit (Simplified Chinese documentation)	4599A1C
Lenovo ThinkSystem DS4200 LFF FC/iSCSI Dual Controller Unit (Simplified Chinese documentation)	4617A3C
Lenovo ThinkSystem DS4200 SFF FC/iSCSI Dual Controller Unit (Simplified Chinese documentation)	4617A1C
Lenovo ThinkSystem DS6200 SFF FC/iSCSI Dual Controller Unit (Simplified Chinese documentation)	4619A1C
Lenovo Storage V Series (1 Gb iSCSI connectivity)	
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
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 (1 Gb iSCSI connectivity)	
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 V7000 SFF Control Enclosure, 3YR SWMA	6195C32
IBM Storwize V7000 SFF Control Enclosure, 5YR SWMA	6195C52
Lenovo Storage DX8200N Series (1 GbE NAS, 1 Gb iSCSI connectivity)	
Lenovo Storage DX8200N with 1x N2226 HBA (Requires a supported external drive enclosure)	5128C1C
Lenovo Storage DX8200N with 2x N2226 HBAs (Requires a supported external drive enclosure)	5128C2C
Lenovo Storage DX8200C Series (1 GbE S3 cloud storage)	
Lenovo Storage DX8200C 56TB (14x 4TB HDDs) with Cloudian HyperStore - 3yr HW/SW S&S	5120D1C
Lenovo Storage DX8200C 84TB (14x 6TB HDDs) with Cloudian HyperStore - 3yr HW/SW S&S	5120D2C

Description	Part number
Lenovo Storage DX8200C 112TB (14x 8TB HDDs) with Cloudian HyperStore - 3yr HW/SW S&S	5120D3C
Lenovo Storage DX8200C 140TB (14x 10TB HDDs) with Cloudian HyperStore - 3yr HW/SW S&S	5120D4C

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

- Lenovo 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
- Lenovo Cloud storage:
  http://lenovopress.com/storage/cloud#rt=product-guide
- Lenovo NAS storage:
  http://lenovopress.com/storage/nas#rt=product-guide

Rack cabinets

The following table lists the rack cabinets that are offered by Lenovo that can be used with the CE0128P Switch in IT solutions.

Table 8. 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:
https://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 CE0128P Switch in IT solutions.

Table 9. Power distribution units

Description	Part number
0U Basic PDUs	
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 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
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 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
Line cords for PDUs that ship without a line cord	
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

For more information, see the list of Product Guides in the PDU category:
https://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 CE0128P Switch in IT solutions.

Table 10. Uninterruptible power supply units

Description	Part number
RT1.5kVA 2U Rack or Tower UPS (200-240VAC) (8x IEC 320 C13 10A outlets)	55941KX
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 (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

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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We finance your entire solution. Unlike others, we allow you to bundle everything you need from hardware and software to service contracts, installation costs, training fees, and sales tax. If you decide weeks or months later to add to your solution, we can consolidate everything into a single invoice.

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Related publications and links

For more information, see these resources:

- Lenovo Networking
  http://www3.lenovo.com/us/en/data-center/networking/c/networking
- Standalone Solutions Configuration Tool:
  http://lesc.lenovo.com/ssct
- Lenovo Enterprise Solutions Configurator (LESC):
  http://lesc.lenovo.com
- Lenovo Data Center Support
  http://datacentersupport.lenovo.com

Related product families

Product families related to this document are the following:

- 1 Gb Ethernet Connectivity
- Campus Networking
- Top-of-Rack Switches

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