ThinkSystem Intel E835-XXVDA2 10/25GbE SFP28 Ethernet Adapters

Product Guide

The ThinkSystem Intel E835-XXVDA2 10/25GbE SFP28 Ethernet Adapters are high-performance, dual-port network adapters designed to provide reliable, low-latency connectivity for modern cloud, enterprise, and communications workloads.

Based on the Intel Ethernet Controller E835, the Intel E835-XXV adapters support advanced networking technologies, modern security capabilities, and shared software drivers across the Intel Ethernet 800 Series portfolio, the adapters help organizations simplify deployment while delivering the performance, scalability, and manageability required by today's data center environments.

The following figure shows the ThinkSystem Intel E835-XXVDA2 10/25GbE SFP28 2-Port PCIe Ethernet Adapter(Generic FW).



Figure 1. ThinkSystem Intel E835-XXVDA2 10/25GbE SFP28 2-Port PCIe Ethernet Adapter(Generic FW)

Did you know?

The Intel E835-XXVDA2 adapters are built on the latest Intel Ethernet 800 Series architecture and adds modern capabilities that were not available on many previous-generation 10/25GbE adapters, including support for both RoCEv2 and iWARP RDMA, Dynamic Device Personalization (DDP), enhanced security features such as secure boot and hardware root of trust, and IEEE 1588 Precision Time Protocol (PTP). These capabilities help improve application performance, reduce CPU overhead, and support increasingly demanding cloud, AI, storage, and virtualized workloads.

Part number information

The following table provides the ordering part numbers and feature codes for the Intel E835-XXV adapters.

Part numbers: The part numbers listed below are planned to be orderable from December 22, 2026.

Table 1. Ordering information

Part number	Feature code	Description
4XC7B13329	CJ8D	ThinkSystem Intel E835-XXVDA2 10/25GbE SFP28 2-Port PCIe Ethernet Adapter(Generic FW)
4XC7B13330	CJ8E	ThinkSystem Intel E835-XXVDA2 10/25GbE SFP28 2-Port OCP Ethernet Adapter(Generic FW)

The option part numbers includes the following items:

- One Intel Ethernet adapter
- PCIe adapter: Low profile (2U) bracket attached with full-height (3U) bracket included in the box
- Documentation flyer

Note: The adapters ship without any SFP28 transceivers or direct attach cables. These items must be ordered separately as listed in the following section.

Supported transceivers and cables

The Intel E835-XXV adapters have empty SFP28 cages for connectivity.

The following table lists the supported transceivers.

Table 2. Transceivers

Part number	Feature code	Description	NVIDIA part number
1Gb Transceivers			
00FE333	A5DL	SFP 1000Base-T (RJ-45) Transceiver	-
10Gb Transceivers			
4TC7B13092	CFPW	Lenovo Accelink RTXL185-510_V4.0 10G BaseT SFP+	-
4TC7B12410	CEHQ	Lenovo FTLX1475D3BCL 10GBASE-LR SFP+ Optical Transceiver	-
00FE331	B0RJ	10GBASE-LR SFP+ Transceiver	-
00MY034	ATTJ	Lenovo Dual Rate 1G/10GB SFP+ Transceiver	-
46C3447	5053	SFP+ SR Transceiver	-
4TC7A78615	BNDR	ThinkSystem Accelink 10G SR SFP+ Ethernet transceiver	-
25Gb Transceivers			
4TC7A88638	BYBJ	ThinkSystem Finisar Dual Rate 10G/25G SR SFP28 Transceiver	-

The following table lists the supported optical cables.

Table 3. Optical cables

Part number	Feature code	Description	NVIDIA part number
LC-LC OM3 Fiber Optic Cables (these cables require a 10 GbE SFP+ SR or 25 GbE SFP28 SR transceiver)			
00MN499	ASR5	Lenovo 0.5m LC-LC OM3 MMF Cable	-
00MN502	ASR6	Lenovo 1m LC-LC OM3 MMF Cable	-
00MN505	ASR7	Lenovo 3m LC-LC OM3 MMF Cable	-
00MN508	ASR8	Lenovo 5m LC-LC OM3 MMF Cable	-
00MN511	ASR9	Lenovo 10m LC-LC OM3 MMF Cable	-
00MN514	ASRA	Lenovo 15m LC-LC OM3 MMF Cable	-
00MN517	ASRB	Lenovo 25m LC-LC OM3 MMF Cable	-
00MN520	ASRC	Lenovo 30m LC-LC OM3 MMF Cable	-
MTP-4xLC OM3 MMF Breakout Cables (these cables require a transceiver)			
00FM412	A5UA	Lenovo 1m MPO-4xLC OM3 MMF Breakout Cable	-
00FM414	A5UC	Lenovo 5m MPO-4xLC OM3 MMF Breakout Cable	-
SFP+ 10Gb Active Optical Cables			
00YL634	ATYX	Lenovo 1M SFP+ to SFP+ Active Optical Cable	-
00YL637	ATYY	Lenovo 3M SFP+ to SFP+ Active Optical Cable	-
00YL640	ATYZ	Lenovo 5M SFP+ to SFP+ Active Optical Cable	-
00YL643	ATZ0	Lenovo 7M SFP+ to SFP+ Active Optical Cable	-
00YL646	ATZ1	Lenovo 15M SFP+ to SFP+ Active Optical Cable	-

Part number	Feature code	Description	NVIDIA part number
00YL649	ATZ2	Lenovo 20M SFP+ to SFP+ Active Optical Cable	-
SFP28 25Gb Active Optical Cables			
4X97A94008	AV1F	Lenovo 3m 25G SFP28 Active Optical Cable	-
4X97A94011	AV1G	Lenovo 5m 25G SFP28 Active Optical Cable	-
4X97A94012	AV1H	Lenovo 10m 25G SFP28 Active Optical Cable	-
4X97A94013	AV1J	Lenovo 15m 25G SFP28 Active Optical Cable	-
4X97A94702	AV1K	Lenovo 20m 25G SFP28 Active Optical Cable	-
OM4 LC to LC Cables (these cables require a transceiver)			
4Z57A10845	B2P9	Lenovo 0.5m LC-LC OM4 MMF Cable	-
4Z57A10846	B2PA	Lenovo 1m LC-LC OM4 MMF Cable	-
4Z57A10847	B2PB	Lenovo 3m LC-LC OM4 MMF Cable	-
4Z57A10848	B2PC	Lenovo 5m LC-LC OM4 MMF Cable	-
4Z57A10849	B2PD	Lenovo 10m LC-LC OM4 MMF Cable	-
4Z57A10850	B2PE	Lenovo 15m LC-LC OM4 MMF Cable	-
4Z57A10851	B2PF	Lenovo 25m LC-LC OM4 MMF Cable	-
4Z57A10852	B2PG	Lenovo 30m LC-LC OM4 MMF Cable	-

The following table lists the supported direct-attach copper (DAC) cables.

Table 4. Copper cables

Part number	Feature code	Description	NVIDIA part number
SFP+ 10Gb Passive DAC Cables			
00D6288	A3RG	0.5m Passive DAC SFP+ Cable	-
90Y9427	A1PH	1m Passive DAC SFP+ Cable	-
00AY764	A51N	1.5m Passive DAC SFP+ Cable	-
00AY765	A51P	2m Passive DAC SFP+ Cable	-
90Y9430	A1PJ	3m Passive DAC SFP+ Cable	-
90Y9433	A1PK	5m Passive DAC SFP+ Cable	-
00D6151	A3RH	7m Passive DAC SFP+ Cable	-
SFP+ 10Gb Active DAC Cables			
00VX111	AT2R	Lenovo 1m Active DAC SFP+ Cables	-
00VX114	AT2S	Lenovo 3m Active DAC SFP+ Cables	-
00VX117	AT2T	Lenovo 5m Active DAC SFP+ Cables	-
SFP28 25Gb Passive DAC Cables			
7Z57A03557	AV1W	Lenovo 1m Passive 25G SFP28 DAC Cable	-
7Z57A03558	AV1X	Lenovo 3m Passive 25G SFP28 DAC Cable	-
7Z57A03559	AV1Y	Lenovo 5m Passive 25G SFP28 DAC Cable	-
QSFP28 100G-to-4x25G Ethernet Breakout Cables			
7Z57A03564	AV22	Lenovo 1m 100G QSFP28 to 4x25G SFP28 Breakout DAC Cable	-
4Z57A85043	BS32	Lenovo 1.5m 100G to 4x25G Breakout SFP28 Breakout DAC Cable	-
4Z57A85044	BS33	Lenovo 2m 100G to 4x25G Breakout SFP28 Breakout DAC Cable	-
7Z57A03565	AV23	Lenovo 3m 100G QSFP28 to 4x25G SFP28 Breakout DAC Cable	-
7Z57A03566	AV24	Lenovo 5m 100G QSFP28 to 4x25G SFP28 Breakout DAC Cable	-

Features

The ThinkSystem Intel E835-XXVDA2 10/25GbE SFP28 Ethernet Adapters offer leading performance, security, manageability, and interoperability without the technical complexity and the high cost of proprietary technologies. The Intel E835-XXV adapters support solutions across Cloud, Enterprise, and Communications with concurrent support of iWARP and RoCEv2 RDMA, modern security features, and key timing protocols. The low power design enables decreased energy consumption across the system to reduce costs and environmental impact, solving increasingly important power density challenges.

Optimized for Intel Xeon processors

Every data center and workload need computing capacity and powerful ways to move data securely. Intel architecture offers both. Deployment-ready, reliable, and affordable, Intel Ethernet E830 Network Adapters are the perfect choice for amplifying performance for servers with Intel Xeon 6 processors.

Remote Direct Memory Access (RDMA)

Both RoCEv2 and iWARP protocols are offered, and for added flexibility, RoCEv2 and iWARP can run concurrently.

Programmable Pipeline / Dynamic Device Personalization (DDP)

DDP improves packet processing performance by using the E835 Controller's programmable pipeline to classify frames instead of the CPU. DDP increases throughput, lowers latency, and reduces host CPU overhead in both network functions virtualization (NFV) workloads and cloud-native architectures.

Data Plane Development Kit (DPDK)

DPDK enabled to deliver faster NFV, advanced packet forwarding, and efficient packet processing resulting in effective use of CPU cycles and reduced overhead.

Open vSwitch (OVS) Optimization

DPDK integration with OVS increases performance by eliminating extra layers in the architecture and native OVS stack. Results depend on platform, configuration, and workload.

Precision Time Synchronization and Measurement

Growth in 5G RAN and edge deployments is driving demand for high-precision timing synchronization across the network.

Intel Ethernet E830 Network Adapters enable service providers to build open, disaggregated vRAN solutions with off-the-shelf components to meet unique customer needs, including system size and budget.

- Compliant with IEEE 1588 Precision Time Protocol (PTP) v2.
- Includes Precision Time Measurement (PTM) v1.0a, a protocol used to synchronize a CPU with other devices in a server platform, such as E835 network adapters. Applications benefiting from PTM sub-microsecond timing accuracy include financial services, network monitoring, and distributed database systems.

Manageability

Broad system manageability capabilities using the latest DMTF (Distributed Management Task Force) protocols.

- MCTP over SMBus 2.0 and PCIe VDM (Vendor Defined Messages).
- NC-SI 1.2 protocol compliance. Transport options include NC-SI over MCTP. (OCP adapter only)
- PLDM over MCTP with an extended list of message types, including PLDM command types T2, T4, T5, and T6.

Modern Standards-based Security

Intel offers modern standards-based cryptographic security anchored by a hardware Root of Trust (RoT).

- Signed SPDM and device attestation in compliance with Security Protocol and Data Model (SPDM) 1.1.2.
- Secure Boot isolates sensitive parameters and keys used for boot and operation.
- Secure Firmware Update verifies digital signatures of new firmware binaries.
- Recovery Mode Failsafe mode is activated upon detection of abnormal device operation.

Specifications

The Intel E835-XXV adapters have the following key specifications:

- **Network connectivity**
  - Dual-port 10/25GbE Ethernet adapter
  - SFP28 network interfaces
  - Supports 25GbE, 10GbE, and 1GbE link speeds
  - Available in both PCIe and OCP 3.0 form factors
  - Based on the Intel Ethernet Controller E835
- **Host interface**
  - PCIe 4.0 x8 host interface
  - Up to 16 GT/s PCIe transfer rate per lane
  - Designed for compatibility with modern Intel Xeon-based servers and other industry-standard platforms
- **Performance and acceleration**
  - Remote Direct Memory Access (RDMA) support
  - Supports both RoCEv2 and iWARP RDMA protocols
  - Dynamic Device Personalization (DDP) for application-aware packet processing
  - Intelligent hardware offloads to reduce CPU utilization
  - Data Plane Development Kit (DPDK) support
- **Virtualization and cloud features**
  - Intel Virtualization Technology for Connectivity (VT-c)
  - Single Root I/O Virtualization (SR-IOV)
  - Virtual Machine Device Queues (VMDq)
  - Flexible Port Partitioning (FPP)
  - Hardware-based QoS and traffic management
  - Optimized for cloud, enterprise, and communications workloads
- **Timing and synchronization**
  - IEEE 1588 Precision Time Protocol (PTP) v2 support
  - Intel Precision Time Measurement (PTM) support
  - Designed for timing-sensitive networking and communications applications
- **Security and manageability**
  - Signed firmware
  - Secure boot support
  - Hardware root of trust (RoT)
  - Commercial National Security Algorithm (CNSA) 1.0 compliance
  - Shared driver architecture with Intel Ethernet 800 Series adapters for simplified deployment and management

Server support

The following tables list the ThinkSystem servers that are compatible.

Table 5. Server support - Current servers (Part 1 of 2)

Part Number	Description	AMD V3					Intel V3			Intel V4				1S V3			
		SR635 V3 (7D9H / 7D9G)	SR655 V3 (7D9F / 7D9E)	SR645 V3 (7D9D / 7D9C)	SR665 V3 (7D9B / 7D9A)	SD535 V3 (7DD8 / 7DD1)	ST650 V3 (7D7B / 7D7A)	SR630 V3 (7D72 / 7D73)	SR650 V3 (7D75 / 7D76)	SR450 V4 (7DQX)	SR630 V4 (7DG8 / 7DG9)	SR650 V4 (7DGC / 7DGD)	SR650a V4 (7DGC / 7DGD)	ST45 V3 (7DH4 / 7DH5)	ST50 V3 (7DF4 / 7DF3)	ST250 V3 (7DCF / 7DCE)	SR250 V3 (7DCM / 7DCL)
4XC7B13329	ThinkSystem Intel E835-XXVDA2 10/25GbE SFP28 2-Port PCIe Ethernet Adapter(Generic FW)	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N
4XC7B13330	ThinkSystem Intel E835-XXVDA2 10/25GbE SFP28 2-Port OCP Ethernet Adapter(Generic FW)	N	N	N	N	N	N	N	N	Y	N	N	N	N	N	N	N

Table 6. Server support - Current servers (Part 2 of 2)

Part Number	Description	4S 8S Intel V3/V4					AI Servers				Edge		Super computing			
		SR850 V3 (7D97 / 7D96)	SR860 V3 (7D94 / 7D93)	SR950 V3 (7DC5 / 7DC4)	SR850 V4 (7DJT / 7DJS)	SR860 V4 (7DJQ / 7DJN)	SR675 V3 (7D9Q / 7D9R)	SR680a V3 B200 (7DM9)	SR780a V3 (7DJ5)	SR680a V4 (7DMK)	SE100 (7DGR)	SE455 V3 (7DBY)	SD665 V3 (7D9P)	SC750 V4 (7DDJ)	SC777 V4 (7DKA)	SC755 V5 (7DN6)
4XC7B13329	ThinkSystem Intel E835-XXVDA2 10/25GbE SFP28 2-Port PCIe Ethernet Adapter(Generic FW)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
4XC7B13330	ThinkSystem Intel E835-XXVDA2 10/25GbE SFP28 2-Port OCP Ethernet Adapter(Generic FW)	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Support of adapters with generic firmware

One or more of the adapters described in this product guide uses standard vendor firmware (look for "Generic FW" or "Generic" in the adapter names). These adapters are supported in Lenovo servers and with Lenovo management tools.

Support in Lenovo XClarity management tools for adapters with generic firmware is per the following table.

Tip: Always use firmware that is obtained from Lenovo sources to ensure the firmware is fully tested by Lenovo and is supported. You should not use firmware that is obtained from the vendor web site, unless directed to do so by Lenovo support.

Table 10. Lenovo XClarity management tools support for adapters with generic firmware

Function	Lenovo XClarity Provisioning Manager	Lenovo XClarity OneCLI (out-of-band)	Lenovo XClarity OneCLI (in-band)	Lenovo XClarity Administrator
Adapter configuration	Supported (in-band via UEFI)	Supported with latest UEFI firmware*	Supported with latest UEFI firmware*	Supported with latest UEFI firmware*

* Minimum supported UEFI firmware is as follows: SR630 V4, SR650 V4, SR650a V4: Release IHE116I; SR850 V4, SR860 V4: Release RVE106I.

Physical specifications

The PCIe adapters have a Low Profile form factor with the following dimensions:

- Length: 168 mm (6.6 in.)
- Height: 69 mm (2.7 in.)

The OCP adapter has the following dimensions:

- Width: 76 mm (3 in.)
- Depth: 115 mm (4.5 in.)

Operating environment

The Intel E835-XXV adapters are supported in the following environment:

- Operating temperature: 0 to 55 °C (32 to 131 °F)
- Storage temperature: -40 °C to 70 °C (-40 °F to 158 °F)
- Relative humidity (non-operating): 10% to 90%

Warranty

One-year limited warranty. When installed in a supported server, these adapters assume the server's base warranty and any warranty upgrade.

Agency approvals

The adapter conforms to the following standards:

- CE Mark (European Union)
- UKCA Mark (United Kingdom)
- FCC Part 15, Class B (United States)
- CAN ICES-003 (B) / NMB-003(B) (Canada)
- VCCI Class B (Japan)
- BSMI (Taiwan)
- KC (Korea)
- RCM (Australia and New Zealand)
- RoHS compliant (European Union)
- WEEE compliant (European Union)

Related publications

For more information, see the following resources:

- ThinkSystem Ethernet and InfiniBand Adapter Reference
  https://lenovopress.lenovo.com/lp1594-thinksystem-ethernet-infiniband-adapter-reference
- Intel E835-XXVDA2 product web page
  https://www.intel.com/content/www/us/en/products/sku/245161/intel-ethernet-network-adapter-e835xxvda2/specifications.html
- Lenovo ServerProven compatibility information
  http://serverproven.lenovo.com

Related product families

Product families related to this document are the following:

- Ethernet Adapters

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This document, LP2534, was created or updated on November 17, 2026.

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