

# ThinkSystem Broadcom 57504 10/25GbE SFP28 4-port Ethernet Adapters

## Product Guide

The ThinkSystem Broadcom 57504 10/25GbE SFP28 4-port adapters are high-performance low-power 25 Gb Ethernet adapters with a PCIe 4.0 host interface that offers TruFlow intelligent flow processing and supports advanced networking technologies such as VXLAN, NVGRE, Geneve, RoCE, SDN and NFV, to facilitate the management of data networks and to enable service provider solutions. The adapters are available in both PCIe or OCP 3.0 form factors.

The following figure shows the 4-Port PCIe Ethernet adapter.



Figure 1. ThinkSystem Broadcom 57504 10/25GbE SFP28 4-Port PCIe Ethernet Adapter

### Did you know?

These adapters are based on the Broadcom BCM57504 scalable Ethernet controller architecture, which is designed to build highly-scalable, feature-rich networking solutions. The adapters are an ideal choice for enterprise and cloud-scale networking and storage applications, including high-performance computing, telco, machine learning, storage disaggregation, and data analytics.

## Part number information

The ordering information is listed in the following table.

Table 1. Part number information

Part number	Feature code	Description
4XC7A80566	BNWM	ThinkSystem Broadcom 57504 10/25GbE SFP28 4-Port PCIe Ethernet Adapter
4XC7A80567	BPPW	ThinkSystem Broadcom 57504 10/25GbE SFP28 4-Port OCP Ethernet Adapter

The adapters, when shipped as a stand-alone option part number, includes the following items:

- One Broadcom adapter
- PCIe adapters: Full-height (3U) bracket attached with low-profile (2U) bracket included in the box
- Documentation flyer

The following figure shows the 4-port OCP adapter.



Figure 2. ThinkSystem Broadcom 57404 10/25GbE SFP28 4-port OCP Ethernet Adapter

## Supported transceivers and cables

The adapters have empty SFP28 cages for connectivity. The adapters either support a connection to a 10 Gb or 25 Gb switch or can share a connection to a 100 Gb switch using a 4:1 breakout cable.

The following table lists the supported transceivers.

Table 2. Transceivers

Part number	Feature code	Description
10Gb Transceivers		
00FE331	B0RJ	10GBASE-LR SFP+Transceiver
49Y4216	0069	Brocade 10Gb SFP+ SR Optical Transceiver
49Y4218	0064	QLogic 10Gb SFP+ SR Optical Transceiver
46C3447	5053	SFP+ SR Transceiver
69Y0389	6416	SFP+ Transceiver 10GbE SR 300m MMF
4TC7A78615	BNDR	ThinkSystem Accelink 10G SR SFP+ Ethernet transceiver
25Gb Transceivers		
4M27A67041	BFH2	Lenovo 25Gb SR SFP28 Ethernet Transceiver
4TC7A69045	BF10	Lenovo Dual Rate 10G/25G SR SFP28 85C Transceiver
7G17A03537	AV1B	Lenovo Dual Rate 10G/25G SR SFP28 Transceiver
4TC7A88638	BYBJ	ThinkSystem Finisar Dual Rate 10G/25G SR SFP28 Transceiver

**25Gb transceivers:** When installed in this 25Gb Ethernet adapter, 25Gb transceivers are designed to operate at either 25 Gb/s or 10 Gb/s speeds as listed in the description of the transceiver, however the speed also depends on the negotiation with the connected switch. In most configurations, this negotiation is automatic, however in some configurations you may have to manually set the link speed or FEC mode.

The following table lists the supported fiber optic cables and Active Optical Cables.

Table 3. Optical cables

Part number	Feature code	Description
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
00FM413	A5UB	Lenovo 3m 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
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
QSFP28 100Gb Ethernet Breakout Active Optical Cables		
7Z57A03554	AV1U	Lenovo 15m 100G to 4x25G Breakout 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
<b>SFP+ 10Gb Passive DAC Cables</b>		
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
<b>SFP+ 10Gb Active DAC Cables</b>		
00VX111	AT2R	Lenovo 1m Active DAC SFP+ Cables
00VX114	AT2S	Lenovo 3m Active DAC SFP+ Cables
00VX117	AT2T	Lenovo 5m Active DAC SFP+ Cables
<b>SFP28 25Gb Passive DAC Cables</b>		
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
<b>QSFP28 100G-to-4x25G Ethernet Breakout Cables</b>		
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

Driven by the growing need for higher server bandwidth and storage capacity to support new and emerging applications (Machine Learning, HPC, Multi-node containers, NVMe, Web 2.0, NVMe storage disaggregation, HCI), enterprises, telcos and cloud providers are modernizing their data centers by adopting latest networking technologies, such as server virtualization and NVMe-oF™. The resulting expansion in data volumes increases server-to-server traffic and CPU loads for networking tasks.

With its market-leading hardware acceleration technologies, the ThinkSystem Broadcom 57504 10/25GbE SFP28 4-port Ethernet Adapters addresses these performance and service demands of mega-scale data center networks with high throughput and advanced flow processing. Features such as TruFlow™ increase VM density up to 50 percent, freeing more CPU cycles for additional virtual machines. On-chip tunneling protocol processing for Geneve, VXLAN, and NVGRE provides up to a 5X throughput increase while lowering CPU utilization up to 90 percent compared to software-only solutions.

The adapters have the following features:

- 4x 25GbE network connectivity for high availability features eliminating throughput bottlenecks for data-intensive applications
- Industry's best performing and longest-reach 25G NRZ SerDes dramatically lowering TCO by reducing cable costs by 50% and doubling port density
- PCIe 4.0 x16 support maximizing the full potential of servers compliant with the PCI Express® 4.0 specification, providing seamless interoperability and doubling server throughput while saving PCIe lanes
- Third generation Broadcom TruFlow™ engine for intelligent flow processing to increase server VM density and accelerate vSwitch processing of traffic flows with data path Acceleration. TruFlow enables efficient network flow processing, increases Virtual Machine density by offloading the server CPU to improve application performance.
- RoCE (RDMA over Converged Ethernet), allows Remote Direct Memory Access (RDMA) traffic to be communicated over Converged Ethernet using DCB. GPU Compute over RoCE enables scalable GPU clusters up to hundreds of nodes using Ethernet for HPC, AI, and ML applications.
- Broadcom's Smart Congestion Control provides consistent and predictable performance for real world workloads plus scaling for heavily loaded network traffic making it ideal for clients looking for deterministic low latency.
- Broadcom adapters are the industry's most secure PCIe Ethernet controller solution, leveraging Broadcom's BroadSAFE® technology to provide unparalleled platform security via Silicon Root of Trust (RoT). Broadcom is the first Ethernet Adapter vendor to store authentication key and code in silicon to protect clients from maliciously modified firmware.
- Broadcom's TruManage™ enhances server manageability, network management, and security for data center deployments. TruManage supports widely deployed management standards including DMTF NC-SI, MCTP, PLDM, and SPDM specifications.
- Support for SR-IOV which bypasses the hypervisor, reducing the latency by removing data copies and context switches between VM address space and hypervisor address space, when transmitting or receiving data over the network. The implementation supports 802.1Qbg Edge Virtual Bridging (EVB).
- Support for Data Center Bridging (DCB), including IEEE 802.1Qbb Priority based Flow Control (PFC) and 802.1Qaz Enhanced Transmission Selection (ETS). DCB technology allows the device to provide lossless data delivery, prioritize low latency traffic, and share bandwidth among data center physical links.
- In-band Network Telemetry features provide end-to-end real-time monitoring capability, enabling data center operators to fine tune their networks for maximum performance.

## Specifications

The adapter has the following technical specifications:

- Based on the Broadcom BCM57504 (4-port) controller
- Supports 10/25Gb/s connectivity; other speeds currently not supported
- PCIe 4.0 x16 host interface
- Available adapter form factors:
  - PCIe low profile form factor
  - OCP 3.0 SFF form factor
- Supports Message Signal Interrupt (MSI-X)
- Interrupt coalescing
- Four SFP28 external connectors supporting a transceiver, direct-attach copper (DAC) cable or active optical cable (AOC).
- Network boot - PXE, UEFI
- Support for PXE boot (Wake-on-LAN (WOL) are not supported)
- iSCSI boot is only supported via server UEFI; iSCSI boot is not supported by the adapter in legacy mode
- Fully compliant with the SFF-8402 standard
- Networking Features
  - Jumbo frames (up to 9600-Byte)
  - 3x flow control
  - Link Aggregation (802.3ad)
  - Virtual LANs-802.1q VLAN tagging
  - Configurable Flow Acceleration
  - Advanced Congestion Avoidance
  - IEEE 1588 and Time Sync
  - Forward Error Correction Clause 74, Clause 91 support over 25 Gbps
- Performance Features
  - 100M Packet Per Second
  - Low latency
  - Bidirectional wire speed throughput
- Stateless Offload Features
  - TCP, UDP, IPv4, IPv6 checksum offloads
  - Large Send Offload (LSO)
  - Receive Segment Coalescing
  - TCP Segmentation offload (TSO)
  - Large Receive Offload (LRO)
  - Generic Receive Offload (GRO)
  - Receive Side Scaling (RSS)
  - Transmit Side Scaling (TSS)
  - Header-Payload Split
  - Accelerated Received Flow Steering (aRFS)
- Virtualization
  - vSwitch Acceleration
  - NetQueue, VMQueue, and Multiqueue
  - PCI SIG SR-IOV compliant with support for 1024 Virtual Functions
  - Virtual NIC (vNIC) / Network Partitioning (NPAR) with support for up to 16 Physical Functions
  - VXLAN-aware stateless offloads
  - NVGRE-aware stateless offloads
  - Geneve-aware stateless offloads

- IP-in-IP-aware stateless offloads
  - GRE-aware stateless offloads
  - Per Virtual Function (VF) statistics
  - Virtual Ethernet Bridge (VEB)
  - Virtual Ethernet Port Aggregator (VEPA)
  - MAC/VLAN filtering and Mirroring
  - VF Isolation, Source pruning, Anti-spoofing checks
  - Stateless and packet steering offloads per VF
- RDMA over Converged Ethernet (RoCE)
  - RoCEv2
  - Data Center Bridging with RoCE
  - Reliable Connection (RC) Queue Pair
  - Unreliable Datagram (UD) Queue Pair
  - Raw Ethernet Queue Pair
  - Up to 1 million Queue Pairs
  - Up to 64K Shared Receive Queues
  - Up to 1 million Completion Queues
  - Up to 1 million Memory Regions and Memory Windows
  - Up to 1 million Protection Domains
  - Up to 256 outstanding RDMA Reads or Atomics per Queue Pair
  - Congestion Avoidance (hardware-based flows tracking and rate adjustment)
  - Fast Memory Register
  - Linux OFED 3.5 and later
  - MS-Windows Network Direct Kernel Provider Interface and SMBDirect
  - MS-Windows Network Direct Service Provider Interface
  - GPU Direct RDMA
  - MPI
- Integrated Flow Processing
  - Exact Match Flow Lookup
  - Wildcard Match Flow Lookup
  - VLAN insertion/deletion
  - VLAN PRI Edits
  - NAT/NAPT
  - Tunnel Encapsulation/De-capsulation
  - Flow tracking and aging
  - Mirroring
  - Metering
  - Flow counters/statistics
  - Custom tunnel header support
  - Connection tracking
- Data Center Bridging
  - Priority-based flow control (PFC; IEEE 802.1Qbb)
  - Enhanced transmission selection (ETS; IEEE 802.1Qaz)
  - Quantized Congestion Notification (QCN; IEEE 802.1Qau)
  - Data Center Bridging Capability eXchange (DCBX; IEEE 802.1Qaz)
  - Up to 8 traffic classes per port; fully DCB compliant per 802.1Qbb
- Manageability
  - TruManage Technology based on Distributed Management Task Force (DMTF) standards and protocols, support for NC-SI, MCTP, PLDM, and SPDM specifications
  - Management Component Transport Protocol (MCTP) – MCTP/SMBus 2.0 and MCTP/PCIe VDM
  - NC-SI – 1.1 spec compliance, both NC-SI/RBT and NC-SI/MCTP supported
  - PLDM – Monitoring and control, Firmware Update, NIC Model
  - SPDM 1.1 support for device attestation and firmware measurements
  - NIC Inventory, Monitoring and Control

- Temperature reporting
- Out-Of-Band Firmware update
- Link and Media Management
- In-Band Network Telemetry
- Power Saving
  - ACPI compliant power management
  - PCI Express Active State Power Management (ASPM)
  - PCI Express eCLKREQ support
  - PCI Express unused lane powered down

## Server support

The following tables list the ThinkSystem servers that are compatible.

Table 5. Server support (Part 1 of 4)

Part Number	Description	AMD V3				2S Intel V3/V4				4S 8S Intel V3				Multi Node V3/V4				GPU Rich			
		SR635 V3 (7D9H / 7D9G)	SR655 V3 (7D9F / 7D9E)	SR645 V3 (7D9D / 7D9C)	SR665 V3 (7D9B / 7D9A)	ST650 V3 (7D7B / 7D7A)	SR630 V3 (7D72 / 7D73)	SR650 V3 (7D75 / 7D76)	SR630 V4 (7DG8 / 7DG9)	SR850 V3 (7D97 / 7D96)	SR860 V3 (7D94 / 7D93)	SR950 V3 (7DC5 / 7DC4)	SD535 V3 (7DD8 / 7DD1)	SD530 V3 (7DDA / 7DD3)	SD550 V3 (7DD9 / 7DD2)	SD520 V4 (7DFZ / 7DFY)	SR670 V2 (7Z22 / 7Z23)	SR675 V3 (7D9Q / 7D9R)	SR680a V3 (7DHE)	SR685a V3 (7DHC)	SR780a V3 (7DJ5)
4XC7A80566	ThinkSystem Broadcom 57504 10/25GbE SFP28 4-Port PCIe Ethernet Adapter	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	N	N	N	
4XC7A80567	ThinkSystem Broadcom 57504 10/25GbE SFP28 4-Port OCP Ethernet Adapter	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N	Y	Y	Y	N	N	Y	N	N	N

Table 6. Server support (Part 2 of 4)

Part Number	Description	1S V3			Edge				Super Computing				1S Intel V2		2S Intel V2				
		ST50 V3 (7DF4 / 7DF3)	ST250 V3 (7DCE / 7DCE)	SR250 V3 (7DCM / 7DCL)	SE350 (7Z46 / 7D1X)	SE350 V2 (7DA9)	SE360 V2 (7DAM)	SE450 (7D8T)	SE455 V3 (7DBY)	SD665 V3 (7D9P)	SD665-N V3 (7DAZ)	SD650 V3 (7D7M)	SD650-I V3 (7D7L)	SD650-N V3 (7D7N)	ST50 V2 (7D8K / 7D8J)	ST250 V2 (7D8G / 7D8F)	SR250 V2 (7D7R / 7D7Q)	ST650 V2 (7Z75 / 7Z74)	SR630 V2 (7Z70 / 7Z71)
4XC7A80566	ThinkSystem Broadcom 57504 10/25GbE SFP28 4-Port PCIe Ethernet Adapter	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	Y	Y
4XC7A80567	ThinkSystem Broadcom 57504 10/25GbE SFP28 4-Port OCP Ethernet Adapter	N	N	N	N	N	N	Y	N	N	N	N	N	N	N	N	N	Y	Y

Table 7. Server support (Part 3 of 4)

Part Number	Description	AMD V1			Dense V2			4S V2	8S	4S V1	1S Intel V1									
		SR635 (7Y98 / 7Y99)	SR655 (7Y00 / 7Z01)	SR655 Client OS	SR645 (7D2Y / 7D2X)	SR665 (7D2W / 7D2V)	SD630 V2 (7D1K)	SD650 V2 (7D1M)	SD650-N V2 (7D1N)	SN550 V2 (7Z69)	SR850 V2 (7D31 / 7D32)	SR860 V2 (7Z59 / 7Z60)	SR950 (7X11 / 7X12)	SR850 (7X18 / 7X19)	SR850P (7D2F / 2D2G)	SR860 (7X69 / 7X70)	ST50 (7Y48 / 7Y50)	ST250 (7Y45 / 7Y46)	SR150 (7Y54)	SR250 (7Y52 / 7Y51)
4XC7A80566	ThinkSystem Broadcom 57504 10/25GbE SFP28 4-Port PCIe Ethernet Adapter	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	N	N	N	N	N	N	N	N
4XC7A80567	ThinkSystem Broadcom 57504 10/25GbE SFP28 4-Port OCP Ethernet Adapter	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	N	N	N	N	N	N	N	N

Table 8. Server support (Part 4 of 4)

Part Number	Description	2S Intel V1								Dense V1			
		ST550 (7X09 / 7X10)	SR530 (7X07 / 7X08)	SR550 (7X03 / 7X04)	SR570 (7Y02 / 7Y03)	SR590 (7X98 / 7X99)	SR630 (7X01 / 7X02)	SR650 (7X05 / 7X06)	SR670 (7Y36 / 7Y37)	SD530 (7X21)	SD650 (7X58)	SN550 (7X16)	SN850 (7X15)
4XC7A80566	ThinkSystem Broadcom 57504 10/25GbE SFP28 4-Port PCIe Ethernet Adapter	N	N	N	N	N	N	N	N	N	N	N	N
4XC7A80567	ThinkSystem Broadcom 57504 10/25GbE SFP28 4-Port OCP Ethernet Adapter	N	N	N	N	N	N	N	N	N	N	N	N

## Operating system support

The following table indicates which operating systems can be preloaded in the Lenovo factory for CTO server orders where this adapter is included in the server configuration.

Table 9. OS preload support

Operating system	Preload support
Windows Server 2016	No support as a preload
Windows Server 2019	No support as a preload
Windows Server 2022	No support as a preload
VMware ESXi 6.5 U3	No support as a preload
VMware ESXi 6.7 U3	No support as a preload
VMware ESXi 7.0	No support as a preload
VMware ESXi 7.0 U1	No support as a preload
VMware ESXi 7.0 U2	No support as a preload
VMware ESXi 7.0 U3	No support as a preload
VMware ESXi 8.0	No support as a preload
VMware ESXi 8.0 U1	No support as a preload
VMware ESXi 8.0 U2	No support as a preload
VMware ESXi 8.0 U3	No support as a preload

**Tip:** If an OS is listed as "No support" above, but it is listed in one of the support tables below, that means the OS is supported by the adapter, just not available to be preloaded in the Lenovo factory in CTO orders.

The following tables list the supported operating systems:

- [ThinkSystem Broadcom 57504 10/25GbE SFP28 4-port PCIe Ethernet Adapter, 4XC7A80566](#)
- [ThinkSystem Broadcom 57504 10/25GbE SFP28 4-Port OCP Ethernet Adapter, 4XC7A80567](#)

**Tip:** These tables are automatically generated based on data from [Lenovo ServerProven](#).

Table 10. Operating system support for ThinkSystem Broadcom 57504 10/25GbE SFP28 4-port PCIe Ethernet Adapter, 4XC7A80566 (Part 1 of 2)

Operating systems	SE455 V3	SD530 V3	SD535 V3	SD550 V3	SR630 V3 (4th Gen Xeon)	SR630 V3 (5th Gen Xeon)	SR635 V3	SR645 V3	SR650 V3 (4th Gen Xeon)	SR650 V3 (5th Gen Xeon)	SR655 V3	SR665 V3	SR675 V3	SR850 V3	SR860 V3	SR950 V3	ST650 V3 (4th Gen Xeon)	ST650 V3 (5th Gen Xeon)
Microsoft Windows 10	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N
Microsoft Windows 11	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N
Microsoft Windows Server 2019	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
Microsoft Windows Server 2022	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.10	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
Red Hat Enterprise Linux 8.6	Y	N	N	N	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	N
Red Hat Enterprise Linux 8.7	N	N	N	N	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	N
Red Hat Enterprise Linux 8.8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.9	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Red Hat Enterprise Linux 9.0	Y	N	N	N	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	N
Red Hat Enterprise Linux 9.1	N	N	N	N	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	N
Red Hat Enterprise Linux 9.2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 9.3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Red Hat Enterprise Linux 9.4	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
SUSE Linux Enterprise Server 15 SP4	Y	N	N	N	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	N
SUSE Linux Enterprise Server 15 SP4 with Xen	Y	N	N	N	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	N
SUSE Linux Enterprise Server 15 SP5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP5 with Xen	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP6	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N
Ubuntu 22.04 LTS	N	N	N	N	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	N	Y	N
Ubuntu 22.04.2 LTS	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Ubuntu 22.04.3 LTS	N	Y	Y	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	Y
Ubuntu 24.04 LTS	Y	Y	N	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7 U3	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 7.0	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 7.0 U1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 7.0 U2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 7.0 U3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y
VMware vSphere Hypervisor (ESXi) 8.0	N	N	N	N	Y	N	Y	Y	Y	N	Y	Y	N	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 8.0 U1	Y	N	N	N	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	N	Y	N
VMware vSphere Hypervisor (ESXi) 8.0 U2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 8.0 U3	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N

Table 11. Operating system support for ThinkSystem Broadcom 57504 10/25GbE SFP28 4-port PCIe Ethernet Adapter, 4XC7A80566 (Part 2 of 2)

Operating systems	SR630 V2	SR650 V2	SR670 V2	SR850 V2	SR860 V2	SR645	SR655	SR665
Microsoft Windows 10	N	N	N	N	N	N	Y	N
Microsoft Windows 11	N	N	N	N	N	N	Y	N
Microsoft Windows Server 2019	Y	Y	Y	Y	Y	Y	Y	Y
Microsoft Windows Server 2022	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.10	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.6	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.7	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.8	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.9	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 9.0	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 9.1	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 9.2	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 9.3	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 9.4	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP4	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP4 with Xen	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP5	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP5 with Xen	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP6	N	N	N	N	N	N	N	N
Ubuntu 22.04 LTS	Y	Y	Y	Y	Y	Y	Y	Y
Ubuntu 22.04.2 LTS	N	N	N	N	N	N	N	N
Ubuntu 22.04.3 LTS	N	N	N	N	N	N	N	N
Ubuntu 24.04 LTS	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7 U3	Y	Y	Y	N	N	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 7.0	N	N	N	N	N	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 7.0 U1	N	N	N	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 7.0 U2	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 7.0 U3	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 8.0	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 8.0 U1	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 8.0 U2	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 8.0 U3	N	N	N	N	N	N	N	N

Table 12. Operating system support for ThinkSystem Broadcom 57504 10/25GbE SFP28 4-Port OCP Ethernet Adapter, 4XC7A80567 (Part 1 of 2)

Operating systems	SE455 V3	SD530 V3	SD535 V3	SD550 V3	SR630 V3 (4th Gen Xeon)	SR630 V3 (5th Gen Xeon)	SR635 V3	SR645 V3	SR650 V3 (4th Gen Xeon)	SR650 V3 (5th Gen Xeon)	SR655 V3	SR665 V3	SR675 V3	SR850 V3	SR860 V3	SR630 V2	SR650 V2	SR670 V2	SR850 V2	SR860 V2
Microsoft Windows 10	N	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N
Microsoft Windows 11	N	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N
Microsoft Windows Server 2019	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Microsoft Windows Server 2022	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.10	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.6	Y	N	N	N	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.7	N	N	N	N	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.9	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 9.0	Y	N	N	N	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 9.1	N	N	N	N	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 9.2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 9.3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 9.4	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP4	Y	N	N	N	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP4 with Xen	Y	N	N	N	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP5 with Xen	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP6	Y	N	N	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N
Ubuntu 22.04 LTS	N	N	N	N	Y	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Ubuntu 22.04.2 LTS	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Ubuntu 22.04.3 LTS	N	Y	Y	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Ubuntu 24.04 LTS	Y	Y	N	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7 U3	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	Y	N	N
VMware vSphere Hypervisor (ESXi) 7.0	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 7.0 U1	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y
VMware vSphere Hypervisor (ESXi) 7.0 U2	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 7.0 U3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 8.0	N	N	N	N	Y	N	Y	Y	Y	N	Y	Y	N	N	N	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 8.0 U1	Y	N	N	N	Y <sup>1</sup>	N	Y	Y	Y <sup>1</sup>	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 8.0 U2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Operating systems	SE455 V3
	SD530 V3
	SD535 V3
	SD550 V3
	SR630 V3 (4th Gen Xeon)
	SR630 V3 (5th Gen Xeon)
	SR635 V3
	SR645 V3
	SR650 V3 (4th Gen Xeon)
	SR650 V3 (5th Gen Xeon)
	SR655 V3
	SR665 V3
	SR675 V3
	SR850 V3
	SR860 V3
	SR630 V2
SR650 V2	
SR670 V2	
SR850 V2	
SR860 V2	

VMware vSphere Hypervisor (ESXi) 8.0 U3	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N
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<sup>1</sup> For limitation, please refer [Support Tip 104278](#)

Table 13. Operating system support for ThinkSystem Broadcom 57504 10/25GbE SFP28 4-Port OCP Ethernet Adapter, 4XC7A80567 (Part 2 of 2)

<b>Operating systems</b>	<b>SR645</b>	<b>SR655</b>	<b>SR665</b>
Microsoft Windows 10	N	Y	N
Microsoft Windows 11	N	Y	N
Microsoft Windows Server 2019	Y	Y	Y
Microsoft Windows Server 2022	Y	Y	Y
Red Hat Enterprise Linux 8.10	Y	Y	Y
Red Hat Enterprise Linux 8.6	Y	Y	Y
Red Hat Enterprise Linux 8.7	Y	Y	Y
Red Hat Enterprise Linux 8.8	Y	Y	Y
Red Hat Enterprise Linux 8.9	Y	Y	Y
Red Hat Enterprise Linux 9.0	Y	Y	Y
Red Hat Enterprise Linux 9.1	Y	Y	Y
Red Hat Enterprise Linux 9.2	Y	Y	Y
Red Hat Enterprise Linux 9.3	Y	Y	Y
Red Hat Enterprise Linux 9.4	Y	Y	Y
SUSE Linux Enterprise Server 15 SP4	Y	Y	Y
SUSE Linux Enterprise Server 15 SP4 with Xen	Y	Y	Y
SUSE Linux Enterprise Server 15 SP5	Y	Y	Y
SUSE Linux Enterprise Server 15 SP5 with Xen	Y	Y	Y
SUSE Linux Enterprise Server 15 SP6	N	N	N
Ubuntu 22.04 LTS	Y	Y	Y
Ubuntu 22.04.2 LTS	N	N	N
Ubuntu 22.04.3 LTS	N	N	N
Ubuntu 24.04 LTS	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.7 U3	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 7.0	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 7.0 U1	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 7.0 U2	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 7.0 U3	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 8.0	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 8.0 U1	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 8.0 U2	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 8.0 U3	N	N	N

## Physical specifications

The PCIe adapter has the following dimensions:

- Length: 167 mm (6.6 in.)
- Height: 63 mm (2.5 in)

The OCP adapter has the following dimensions:

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

## Operating environment

The adapters are supported in the following environment:

- Temperature (operating): 0 to 55 °C (32 to 131 °F)
- Temperature (storage): -40 to 70 °C (-40 to 158 °F)
- Humidity: 5 to 90% non-condensing

## 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 adapters conform to the following standards:

- EN 55022:2010 + AC:2011 Class B (CE EU)
- EN 55024 Class B (EU)
- CFR47, Part 15 Class B (USA FCC)
- ICES-003 Class B (Canada)
- CNS13438 Class B (BSMI Taiwan)
- RRL KN22 Class B (S. Korea)
- KN24 (ESD) (S. Korea)
- V-3 / 2014 / 04 (VCCI Japan)
- EN 60950-1
- UL 60950-1
- CTUVus UL
- CSA 22.2 No. 950
- CNS14336 Class B
- ICES 003
- UL 1977 (connector safety)
- UL 796 (PCB wiring safety)
- UL 94 (flammability of parts)

## Related publications

For more information, see the following resources:

- Networking Options for ThinkSystem Servers  
<https://lenovopress.com/lp0765-networking-options-for-thinksystem-servers>
- Lenovo ServerProven compatibility information:  
<http://www.lenovo.com/us/en/serverproven/>

## Related product families

Product families related to this document are the following:

- [25 Gb Ethernet Connectivity](#)
- [Ethernet Adapters](#)

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