



Lenovo 57416 ThinkSystem Broadcom 10GBASE-T Ethernet Adapters User Guide

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Lenovo 57416 ThinkSystem Broadcom 10GBASE-T Ethernet Adapters User Guide



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installation instruction

The Broadcom 57416 10Gb BASE-T Ethernet Adapters are dual-port 10GBASE-T adapters that are fully compliant with the IEEE 802.3an standard and provide a low-cost solution for 10 Gb Ethernet using copper wiring.

The adapters are available in PCIe low-profile, OCP 3.0, or ML2 form factor for use in Lenovo ThinkSystem servers.

The following figure shows the ThinkSystem Broadcom 57416 10GBASE-T 2-Port PCIe Ethernet Adapter.



Figure 1. ThinkSystem Broadcom 57416 10GBASE-T 2-Port PCIe Ethernet Adapter

Did you know?

10GBASE-T is a low-cost way to enter the 10 Gb Ethernet space. By using standard UTP twisted pair cabling, you eliminate the need for transceivers or fiber optic cabling.

The OCP and ML2 adapters support the Network Controller Sideband Interface (NC-SI) for communication with the server’s onboard service processor. This support enables sharing the network interface with the service processor and the operating system, thereby eliminating the need for a separate management network

Part number information

The following table provides the ordering information.

Table 1. Ordering information

Part number	Feature code	Description
PCIe adapter		
7ZT7A00496	AUKP	ThinkSystem Broadcom 57416 10GBASE-T 2-Port PCIe Ethernet Adapter
OCP 3.0 adapters		
4XC7A08236	B5ST	ThinkSystem Broadcom 57416 10GBASE-T 2-port OCP Ethernet Adapter
4XC7A08239	B5SS	ThinkSystem Broadcom 57416 10GBASE-T 2-port + 5720 1GbE 2-port OCP Ethernet Adapter

Note: The PCIe and ML2 adapters were previously named the ThinkSystem Broadcom NX-E PCIe 10Gb 2-Port Base-T Ethernet Adapter and ThinkSystem Broadcom NX-E ML2 10Gb 2-Port Base-T Ethernet Adapter,

respectively.

The adapter option part numbers include the following items:

- One Ethernet adapter with RJ45 connectors
- PCIe adapters: Full-height (3U) bracket attached with low-profile (2U) bracket included in the box
- Installation and warranty documentation

The following figure shows the ThinkSystem Broadcom 57416 10GBASE-T 2-port + 5720 1GbE 2-port OCP Ethernet Adapter, 4XC7A08239. This adapter has two ports that connect to the 5720 Gigabit Ethernet controller also on the adapter (ports 1 & 2 – left-most ports), and two ports that connect to the 57416 10Gb Ethernet controller on the adapter (ports 3 & 4 – right-most ports).



Figure 2. ThinkSystem Broadcom 57416 10GBASE-T 2-port + 5720 1GbE 2-port OCP Ethernet Adapter

Network cabling requirements

The network cables that can be used with the adapters are as follows:

- 10GBASE-T
 - UTP Category 7 (100 m maximum)
 - UTP Category 6a (100 m maximum)
 - UTP Category 6 (55 m maximum)

The following table lists the supported Category 6 (CAT 6) cables

Table 2. CAT6 cables

Part number	Feature code	Description
CAT6 Green Cables		
00WE123	AVFW	0.75m Green Cat6 Cable
00WE127	AVFX	1.0m Green Cat6 Cable
00WE131	AVFY	1.25m Green Cat6 Cable
00WE135	AVFZ	1.5m Green Cat6 Cable
00WE139	AVG0	3m Green Cat6 Cable
90Y3718	A1MT	10m Green Cat6 Cable
90Y3727	A1MW	25m Green Cat6 Cable
CAT6 Blue Cables		
90Y3721	A1MU	10m Blue Cat6 Cable
90Y3730	A1MX	25m Blue Cat6 Cable
CAT6 Yellow Cables		
90Y3715	A1MS	10m Yellow Cat6 Cable
90Y3724	A1MV	25m Yellow Cat6 Cable

Specifications

The adapters have the following specifications:

- Dual-channel 10 Gbps Ethernet controller connected to two RJ45 ports
 - 10GBASE-T IEEE 802.3an support
 - 1000BASE-T IEEE 802.3ab support
- Based on the BCM57416 controller
- Adapter 4XC7A08239 also includes a Broadcom 5720 Gigabit Ethernet controller connected to two additional RJ45 ports
 - Ports 1 & 2 are connected to the 5720 Gigabit controller
 - Ports 3 & 4 are connected to the 57416 10 Gbps controller
- Supports IPv4 and IPv6
- Broadcom TruFlow flow processing engine
- PCI Express 3.0 x8 host interface
- **Form factor:**
 - PCIe low-profile form factor (7ZT7A00496)
 - OCP 3.0 form factor (4XC7A08236 and 4XC7A08239)
 - ML2 form factor (7ZT7A00497)

Virtualization features

- SR-IOV support with up to 128 VFs

- VXLAN, NVGRE, Geneve, GRE encapsulation and decapsulation
- vSwitch acceleration
- Multiqueue, NetQueue, and VMQ
- Tunnel-aware stateless offloads
- Message Signal Interrupts (MSI-X) support

Ethernet and NIC features:

- IPv4 and IPv6 offloads
- TCP, UDP, and IP checksum offloads
- Large Send Offload (LSO)
- Large Receive Offload (LRO)
- TCP Segmentation Offload (TSO)
- Receive-side Scaling (RSS)
- Transmit-side Scaling (TSS)
- VLAN insertion/removal
- Interrupt coalescing
- Jumbo frames up to 9 KB
- Network boot-PXE, UEFI
- Data Plane Development Kit (DPDK) support
- iSCSI boot is only supported via the UEFI of the server; iSCSI boot is not supported by the adapter in legacy mode

Remote Direct Memory Access (RDMA):

- Supports RDMA over converged Ethernet (RoCE) specifications

Data Center Bridging / Converged Enhanced Ethernet (DCB/CEE):

- Hardware Offloads of Ethernet TCP/IP
- 802.1Qbb Priority Flow Control (PFC)
- 802.1 Qaz Enhanced Transmission Selection (ETS)
- 802.1 Qaz Data Center Bridging Exchange (DCBX)

Management:

- SMBus 2.0
- MCTP over SMBus
- NC-SI support (ML2 and OCP adapters; for 4XC7A08239, NC-SI can be configured on any one of the four ports)

The following figure shows the 2-port 10GBASE-T OCP 3.0 adapter.



Figure 3. ThinkSystem Broadcom 57416 10GBASE-T 2-port OCP Ethernet Adapter

Server support

The following tables list the ThinkSystem servers that are compatible.

Table 3. Server support (Part 1 of 3)

Part Number	Description	Edge				1S Intel V2			AMD V3					Intel V3					
		SE350 (7Z46 / 7D1X)	SE350V2 (7DA9)	SE360V2 (7DAM)	SE450 (7D8T)	ST50V2 (7D8K / 7D8J)	ST250V2 (7D8G / 7D8F)	SR250V2 (7D8R / 7D8Q)	SR635V3 (7D9H / 7D9G)	SR665V3 (7D9F / 7D9E)	SR665V3 (7D9D / 7D9C)	SR665V3 (7D9B / 7D9A)	SR665V3 (7D97 / 7D9R)	ST650V3 (7D7B / 7D7A)	SR665V3 (7D73 / 7D76)	SR665V3 (7D75 / 7D78)	SR855V3 (7D70 / 7D73)	SR886V3 (7D70 / 7D73)	SR955V3 (7D70 / 7D73)
PCIe adapter																			
7ZT7A00496	ThinkSystem Broadcom 57416 10GBASE-T 2-Port PCIe Ethernet Adapter	Y	N	N	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	N
OCP 3.0 adapters																			
4XC7A08236	ThinkSystem Broadcom 57416 10GBASE-T 2-port OCP Ethernet Adapter	N	N	N	N	N	N	N	Y	Y	Y	Y	N	N	Y	Y	Y	Y	N
4XC7A08239	ThinkSystem Broadcom 5741610GBASE-T 2-port + 5720 1GbE 2-port OCP Ethernet Adapter	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N

Table 4. Server support (Part 2 of 3)

Part Number	Description	Dense V3				2S Intel V2				AMD V1					Dense V2				4S V2		8 S	
		S D 6 6 5 V 3 (7 D 9 P)	S D 6 6 5 - N V 3 (7 D A Z)	S D 6 6 5 0 V 3 (7 D 7 M)	S D 6 6 5 0 - I V 3 (7 D 7 L)	S T 6 5 0 V 2 (7 7 Z 7 5 / 7 7 Z 7 4)	S R 6 3 0 V 2 (7 7 Z 7 0 / 7 7 Z 7 1)	S R 6 5 0 V 2 (7 7 Z 7 2 / 7 7 Z 7 3)	S R 6 7 0 V 2 (7 7 Z 7 2 / 7 7 Z 7 3)	S R 6 3 5 (7 Y 9 8 / 7 Y 9 9)	S R 6 5 5 (7 Y 0 0 / 7 Y Z 0 1)	S R 6 5 5 C l i e n t O S	S R 6 4 5 (7 D 2 Y / 7 D 2 X)	S R 6 6 5 (7 D 2 W / 7 D 2 V)	S D 6 3 0 V 2 (7 D 1 K)	S D 6 5 0 V 2 (7 D 1 M)	S D 6 5 0 - N V 2 (7 D 1 N)	S N 5 5 0 V 2 (7 Z 6 9)	S R 8 5 0 V 2 (7 D 3 1 / 7 D 3 2)	S R 8 6 0 V 2 (7 7 Z 5 9 / 7 7 Z 6 0)	S R 9 5 0 (7 X 1 1 / 7 X 1 2)	
PCIe adapter																						
7ZT7A00496	ThinkSystem Broadcom 57416 10GBASE-T 2-Port PCIe Ethernet Adapter	N	N	N	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	N	N	N	Y	Y	Y	
OCF 3.0 adapters																						
4XC7A08236	ThinkSystem Broadcom 57416 10GBASE-T 2-port OCF Ethernet Adapter	N	N	N	N	N	Y	Y	N	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	N	
4XC7A08239	ThinkSystem Broadcom 57416 10GBASE-T 2-port + 57201GbE 2-port OCF Ethernet Adapter	N	N	N	N	N	Y	Y	N	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	N	

Table 5. Server support (Part 3 of 3)

Part Number	Description	4S V1			1S Intel V1			2S Intel V1								Dense V1					
		S R 8 5 0 (7 X 1 8 / 7 X 1 9)	S R 8 5 0 P (7 D 2 F / 2 D 2 G)	S R 8 6 0 (7 X 6 9 / 7 X 7 0)	S T 5 0 (7 Y 4 8 / 7 Y 5 0)	S T 2 5 0 (7 Y 4 5 / 7 Y 4 6)	S R 1 5 0 (7 Y 5 4)	S R 2 5 0 (7 Y 5 1)	S T 5 5 0 (7 X 0 1 0)	S R 5 3 0 (7 X 0 0 8)	S R 5 5 0 (7 X 0 0 4)	S R 5 7 0 (7 Y 0 0 3)	S R 5 9 0 (7 X 0 9 2)	S R 6 3 0 (7 X 0 0 6)	S R 6 5 0 (7 X 0 0 6)	S R 6 7 0 (7 Y 3 6 / 7 Y 3 7)	S D 5 3 0 (7 X 2 1)	S D 6 5 0 (7 X 5 8)	S N 5 5 0 (7 X 1 6)	S N 8 5 0 (7 X 1 5)	
PCIe adapter																					
7ZT7A00496	ThinkSystem Broadcom 57416 10GBASE-T 2-Port PCIe Ethernet Adapter	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	
OCP 3.0 adapters																					
4XC7A08236	ThinkSystem Broadcom 57416 10GBASE-T 2-port OCP Ethernet Adapter	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
4XC7A08239	ThinkSystem Broadcom 57416 10GBASE-T 2-port + 5720 1GbE2-port OCP Ethernet Adapter	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	

Operating system support

The following tables list the supported operating systems for the two adapters:

- ThinkSystem Broadcom 57416 10GBASE-T 2-Port PCIe Ethernet Adapter, 7ZT7A00496
- ThinkSystem Broadcom 57416 10GBASE-T 2-port OCP Ethernet Adapter, 4XC7A08236
- ThinkSystem Broadcom 57416 10GBASE-T 2-port + 5720 1GbE 2-port OCP Ethernet Adapter, 4XC7A08239

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

Table 6. Operating system support for ThinkSystem Broadcom 57416 10GBASE-T 2-Port PCIe Ethernet Adapter, 7ZT7A00496 (Part 1 of 4)

[illegible]

[illegible]

Operating systems	S D 63 0 V 2	S R 63 0 V 2	S R 65 0 V 2	S R 85 0 V 2	S R 86 0 V 2	S T 65 0 V 2	S R 63 5	S R 64 5	S R 65 5	S R 66 5
Red Hat Enterprise Linux 9.0	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 9.1	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
SUSE Linux Enterprise Server 11 SP4	N	N	N	N	N	N	N	N	N	N
SUSE Linux Enterprise Server 11 SP4 with Xen	N	N	N	N	N	N	N	N	N	N
SUSE Linux Enterprise Server 12 SP2	N	N	N	N	N	N	N	N	N	N
SUSE Linux Enterprise Server 12 SP2 with Xen	N	N	N	N	N	N	N	N	N	N
SUSE Linux Enterprise Server 12 SP3	N	N	N	N	N	N	N	N	N	N
SUSE Linux Enterprise Server 12 SP3 with Xen	N	N	N	N	N	N	N	N	N	N
SUSE Linux Enterprise Server 12 SP4	N	N	N	N	N	N	Y 1	N	Y 1	N
SUSE Linux Enterprise Server 12 SP4 with Xen	N	N	N	N	N	N	Y 1	N	Y 1	N
SUSE Linux Enterprise Server 12 SP5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 12 SP5 with Xen	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15	N	N	N	N	N	N	N	N	N	N
SUSE Linux Enterprise Server 15 SP1	N	N	N	N	N	N	Y 1	Y 1	Y 1	Y 1
SUSE Linux Enterprise Server 15 SP1 with Xen	N	N	N	N	N	N	Y 1	Y 1	Y 1	Y 1
SUSE Linux Enterprise Server 15 SP2	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP2 with Xen	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP3 with Xen	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP4	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 SP4 with Xen	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
SUSE Linux Enterprise Server 15 SP5 with Xen	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
SUSE Linux Enterprise Server 15 with Xen	N	N	N	N	N	N	N	N	N	N
Ubuntu 18.04.5 LTS	Y	Y	Y	N	N	Y	N	N	N	N

Ubuntu 18.04.6 LTS	N	N	N	N	N	N	N	N	N	N
Ubuntu 20.04 LTS	N	Y	Y	N	N	N	N	N	N	N
Ubuntu 20.04.5 LTS	N	N	N	N	N	N	N	N	N	N
Ubuntu 22.04 LTS	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 6.0 U3	N	N	N	N	N	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 6.5	N	N	N	N	N	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 6.5 U1	N	N	N	N	N	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 6.5 U2	N	N	N	N	N	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 6.5 U3	N	N	N	N	N	N	Y 1	N	Y 1	N
VMware vSphere Hypervisor (ESXi) 6.7	N	N	N	N	N	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 6.7 U1	N	N	N	N	N	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 6.7 U2	N	N	N	N	N	N	N	N	N	N
VMware vSphere Hypervisor (ESXi) 6.7 U3	Y	Y	Y	N	N	Y	Y	Y	Y	Y

1. The OS is not supported with EPYC 7003 processors.
2. ISG will not sell/preload this OS, but compatibility and cert only.

Table 8. Operating system support for ThinkSystem Broadcom 57416 10GBASE-T 2-Port PCIe Ethernet Adapter, 7ZT7A00496 (Part 3 of 4)

Operating systems	S D 5 3 0 (X e o n G e n 2)	S R 5 3 0 (X e o n G e n 2)	S R 5 5 0 (X e o n G e n 2)	S R 5 7 0 (X e o n G e n 2)	S R 5 9 0 (X e o n G e n 2)	S R 6 3 0 (X e o n G e n 2)	S R 6 5 0 (X e o n G e n 2)	S R 8 5 0 (X e o n G e n 2)	S R 8 5 0 P (X e o n G e n 2)	S R 8 6 0 (X e o n G e n 2)	S R 9 5 0 (X e o n G e n 2)	S T 5 5 0 (X e o n G e n 2)
Microsoft Windows 10	N	N	N	N	N	N	N	N	N	N	N	N
Microsoft Windows 11	N	N	N	N	N	N	N	N	N	N	N	N
Microsoft Windows Server 2012 R2	N	N	N	N	N	N	N	N	N	N	N	N
Microsoft Windows Server 2016	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Microsoft Windows Server 2019	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
Microsoft Windows Server version 1709	N	N	N	N	N	N	N	N	N	N	N	N
Microsoft Windows Server version 1803	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 6 Server x64 Edition	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 6.10	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 6.9	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 7.3	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 7.4	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 7.5	N	N	N	N	N	N	N	N	N	N	N	N
Red Hat Enterprise Linux 7.6	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.7	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 7.9	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.0	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.1	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

Table 9. Operating system support for ThinkSystem Broadcom 57416 10GBASE-T 2-Port PCIe Ethernet Adapter, 7ZT7A00496 (Part 4 of 4)

[illegible][illegible]

[illegible]

[illegible]

VMware vSphere Hypervisor (ESXi) 7.0 U3	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 8.0	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
VMware vSphere Hypervisor (ESXi) 8.0 U1	Y	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

1. For limitation, please refer Support Tip 104278
2. The OS is not supported with EPYC 7003 processors.
3. ISG will not sell/preload this OS, but compatibility and cert only.

Table 11. Operating system support for ThinkSystem Broadcom 57416 10GBASE-T 2-port + 5720 1GbE 2- port OCP Ethernet Adapter, 4XC7A08239

Operating systems	S R 63 0 V 2	S R 65 0 V 2	S R 85 0 V 2	S R 86 0 V 2	S R 63 5	S R 64 5	S R 65 5	S R 66 5
Microsoft Windows 10	N	N	N	N	N	N	Y 2	N
Microsoft Windows 11	N	N	N	N	N	N	Y 2	N
Microsoft Windows Server 2016	Y	Y	Y	Y	Y	Y	Y	Y
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 7.6	N	N	N	N	Y 1	Y 1	Y 1	Y 1
Red Hat Enterprise Linux 7.7	N	N	N	N	Y 1	Y 1	Y 1	Y 1
Red Hat Enterprise Linux 7.8	N	N	N	N	Y 1	Y 1	Y 1	Y 1
Red Hat Enterprise Linux 7.9	Y	Y	Y	Y	Y 1	Y 1	Y 1	Y 1
Red Hat Enterprise Linux 8.0	N	N	N	N	Y 1	N	Y 1	N
Red Hat Enterprise Linux 8.1	N	N	N	N	Y 1	Y 1	Y 1	Y 1
Red Hat Enterprise Linux 8.2	Y	Y	Y	Y	Y 1	Y 1	Y 1	Y 1
Red Hat Enterprise Linux 8.3	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.4	Y	Y	Y	Y	Y	Y	Y	Y
Red Hat Enterprise Linux 8.5	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 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
SUSE Linux Enterprise Server 12 SP4	N	N	N	N	Y 1	N	Y 1	N
SUSE Linux Enterprise Server 12 SP5	Y	Y	Y	Y	Y	Y	Y	Y

The OS is not supported with EPYC 7003 processors.
ISG will not sell/preload this OS, but compatibility and cert only.

Physical specifications

The adapters have the following physical specifications:

The PCIe low profile adapter has the following specifications (approximate, without bracket):

- **Length:** 168 mm (6.6 in.)
- **Width:** 69 mm (2.7 in.)
- **Height:** 15 mm (0.6 in.)

The OCP adapters have the following dimensions:

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

The ML2 adapter has the following physical specifications:

- **Height:** 69 mm (2.7 in.)
- **Length:** 168 mm (6.6 in.)
- **Width:** 17 mm (0.7 in.)
- Operating environment

These adapters are supported in the following environment:

- Storage temperature: -40°C to 65°C
- Storage humidity: 5% to 95% non-condensing

Warranty

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

Agency approvals

The adapters conform to the following standards:

- CE/European Union EN60950-1
- UL/USA UL60950-1
- CTUVus UL
- Canada: CSA 22.2 No. 950
- Taiwan: CNS14336 Class A
- EN55022:2010 + *AC:2011 Class A
- EN55024 Class A
- FCC CFR47, Part 15 Class A
- Canada: ICES-003 Class A
- Australia, New Zealand: EN 5022:2010 + *AC:2011

- Taiwan: BSMI CNS13438 Class A
- South Korea: MIC RRL KN22 Class A
- South Korea: KN24 (ESD)
- Japan: VCCI V-3 04/2014
- EN55024:2010 Air/Direct discharge

Related publications

For more information, see the following documents:

- Lenovo ThinkSystem network adapter summary
<https://lenovopress.com/lp0765-networking-options-for-thinksystem-servers>
- Lenovo server options product page
<https://www.lenovo.com/us/en/data-center/options/>
- Lenovo ServerProven compatibility information for network adapters:
<http://www.lenovo.com/us/en/serverproven>
- 10Gb Top-of-rack switch publications – Lenovo Press
<https://lenovopress.com/networking/tor/10gb>

Related product families

Product families related to this document are the following:

- 10 Gb Ethernet Connectivity
- Ethernet Adapters

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