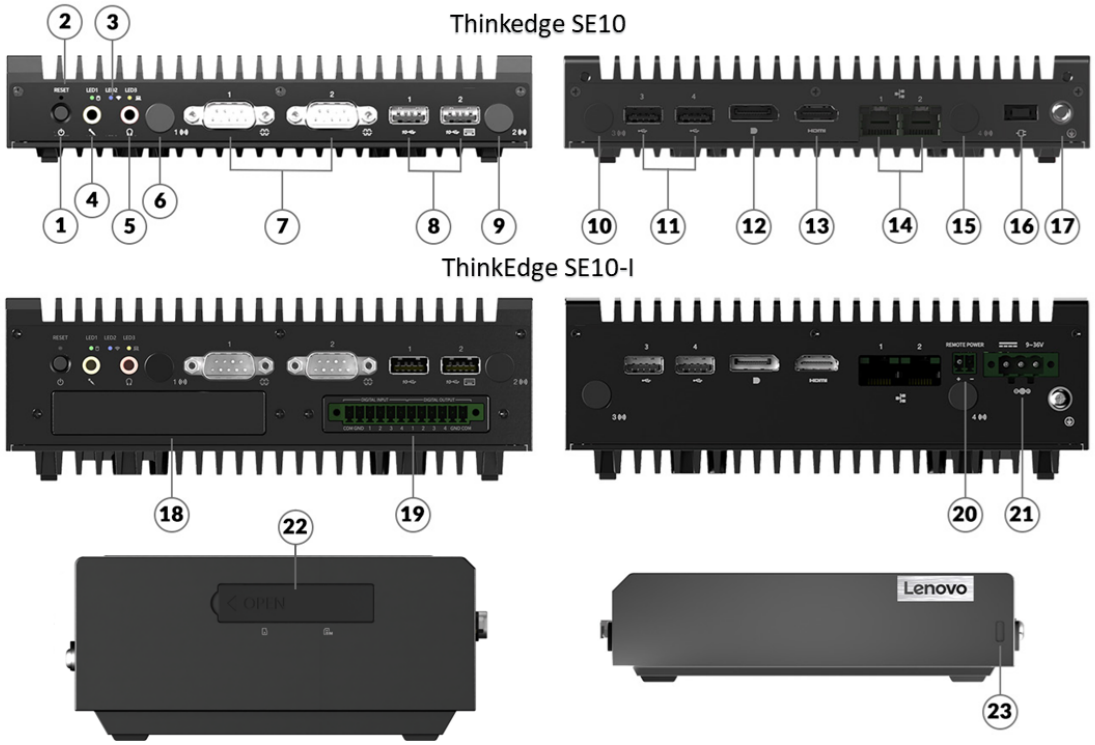
OVERVIEW



1. Power button	13. HDMI 1.4b
2. Reset switch	14. 2x Ethernet (2.5GbE RJ-45)
3. 3x LED indicator	15. Wi-Fi antenna (Optional) *
4. Mic-in (3.5mm)	16. AC Power-in
5. Line-out (3.5mm)	17. Chassis Grounding
6. WWAN antenna (Optional) *	18. Expansion IO (SE10-I only, Optional) *
7. 2x Serial (RS232 / RS422 / RS485), D-sub9	19. 4x DI/4x DO with ISO (SE10-I only, Optional) *
8. 2x USB 3.2 Gen 2	20. Remote power switch (SE10-I only) *
9. WWAN antenna (Optional) *	21. 3-pin Phoenix 9-36V WDC in (SE10-I only) *
10. Wi-Fi antenna (Optional) *	22. Nano SIM slot, SD Card slot
11. 2x USB 2.0	23. Kensington Security Slot
12. DisplayPort 1.4	

Notes:

- Items with * are only available on selected models

PERFORMANCE

Processor

Processor Family

Intel® Atom X Series

Processor

Processor Name	Cores	Threads	Base Frequency	Cache	Memory Support	Processor Graphics
Intel® Atom x6214RE	2	2	1.4GHz	1.5MB	DDR4-3200	Intel® HD Graphics
Intel® Atom x6425RE	4	4	1.9GHz	1.5MB	DDR4-3200	Intel® HD Graphics

Operating System

Operating System

- Windows® 11 IoT Enterprise LTSC 2024
- Windows® 10 IoT Enterprise LTSC 2021
- Ubuntu Core 22 64 Bit (kernel 5.15)
- Ubuntu (Server) 22.04 LTS 64 Bit (kernel 5.15)
- IGEL Linux
- No preload operating system

Graphics

Graphics

Graphics	Type	Memory	Max Resolution	Connector	Key Features
Intel® UHD Graphics	Integrated	Shared	3840x2160@30Hz(HDMI®), 4096x2160@60Hz(DP)	1x HDMI® 1.4b , 1x DP 1.4	DirectX® 12

Monitor Support

Monitor Support

Supports up to 2 independent displays via onboard ports (DisplayPort™ and HDMI®)

Chipset

Chipset

Intel® SoC (System on Chip) platform

Memory

Max Memory

Up to 32GB DDR4-3200

Memory Slots

Two DDR4 SODIMM slots, dual-channel capable

Memory Type

DDR4-3200

Memory Protection[1]

IB-ECC

Notes:

[1] IB-ECC is hardware function ready and support by Yocto OS according to Intel® POR.

Storage

Max Storage Support

- SE10:
  One drive, up to 1TB M.2 SSD
- SE10-I:
  Up to two drives, 64GB eMMC 5.1 on systemboard + 1x M.2 SSD
  - M.2 SSD up to 1TB
  - 64GB eMMC 5.1, for SE10-I (-20~60°C) only

Storage Type

Disk Type	Interface
Flash Memory	eMMC 5.1
M.2 2230 SSD[1]	PCIe® NVMe®, PCIe® 3.0

Notes:

[1] M.2 PCIe® Gen 4 SSD in a M.2 PCIe® Gen 3 slot runs at PCIe® Gen 3 speeds.

Power Supply

Power Supply

Power	Type	Efficiency	Key Features	Dimensions
65W[1]	Adapter	88%	100-240V, for SE10 (0~50°C) only	108 x 46 x 29 mm, 1800 mm cable
65W	Adapter	89%	100-240V, for SE10-I (-20~60°C) only	129 x 53 x 30 mm, 1800 mm cable
90W	Adapter	89%	100-240V, for SE10-I only, System temperature will downgrade to 0°C-40°C (0°F-104°F)	129 x 53 x 30 mm, 1800 mm cable
WDC-in	Connector only	-	3 Pin Phoenix Connector, 9-36V, for SE10-I (-20~60°C) only	-

Notes:

[1] The power adapter is EOL

DESIGN

Input Device

Keyboard

No keyboard

Mouse

No mouse

Mechanical

Dimensions (WxDxH)[1]

Models	Dimensions
0.8L models (SE10)	179 x 135 x 34.5 mm (7.04 x 5.31 x 1.36 inches)
1.4L models (SE10-I)	179 x 135 x 60 mm (7.04 x 5.31 x 2.36 inches)

Packaging Dimensions (WxDxH)

- SE10-I: 285 x 121 x 266 mm (11.22 x 4.76 x 10.47 inches)
- SE10: 303 x 84 x 256 mm (11.92 x 3.31 x 10.08 inches)

Weight[2]

Models	Weight
0.8L models (SE10)	1.5 kg (3.31 lbs)
1.4L models (SE10-I)	2.0 kg (4.41 lbs)

Packaging Weight

- SE10: Around 1.9 kg (4.19 lbs)
- SE10-I: Around 3 kg (6.41 lbs)

Case Color

Black

Mounting

- Supports VESA mount 75mm and 100mm

- (Optional) ThinkCentre® Tiny VESA mount, for SE10 (0~50°C) only
- (Optional) ThinkCentre® Tiny sandwich kit, for SE10 (0~50°C) only
- (Optional) ThinkEdge™ DIN rail mount kits

Notes:

[1] The system dimensions may vary depending on configurations.

[2] The system weight is approximate and based on results in Lenovo® lab, which varies depending on the source of component, variance of the distribution of each component, and manufacturing process. It may not be the exact weight for each specific model.

CONNECTIVITY

Network

Ethernet

Dual 2.5GbE, Intel® Ethernet Controller I225-IT, 2x RJ-45, supports Wake-on-LAN

WLAN + Bluetooth®[1][2]

- SE10-I:
  Intel® Wireless-AC 9260, Wi-Fi® 5, 802.11ac Dual Band 2x2 Wi-Fi® + Bluetooth® 5.1, M.2 card
  Intel® Wi-Fi® 6E AX210, 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.1, M.2 card
  No WLAN and Bluetooth®
- SE10:
  MediaTek Wi-Fi® 6 MT7921, 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.1, M.2 card
  Intel® Wi-Fi® 6E AX210, 802.11ax 2x2 Wi-Fi® + Bluetooth® 5.1, M.2 card
  No WLAN and Bluetooth®

WWAN[3]

- Quectel EM05-G, 4G LTE CAT4[4]
- No support

Notes:

[1] Wi-Fi® operation (including Wi-Fi® 6, Wi-Fi® 6E, Wi-Fi® 7, etc.) is subject to the regulatory requirements of each country. Bluetooth® may operate at a lower version than hardware design depending on the factors such as operating system, driver, etc.

[2] Wi-Fi® M.2 card and Wi-Fi® antenna are pre-configured only.

[3] eSIM function only works on Windows® 10 and Windows® 11 IoT LTSC.

[4] WWAN card and WWAN antenna are pre-configured only.

Ports[1]

Front Ports

- 2x USB 3.2 Gen 2
- 1x line-out (3.5mm)
- 1x microphone (3.5mm)
- 2x serial (RS232 / RS422 / RS485, BIOS selectable)
- 3x LED (LED1: storage / LED2: Wireless / LED3: User defined or WWAN)

Optional Front Ports[2]

- Expansion IO (SE10-I only):
  2x 2.5 GbE (RJ-45, PoE, PSE 15.4W) or
  2x CAN (BUS / OPEN) or
  2x Serial (RS232 / RS422 / RS485, Driver selectable)[3]
- 4x DI / 4x DO (SE10-I only)
- 2x RP-SMA Female, WWAN antenna
- None

Rear Ports

- 1x HDMI® 1.4b
- 1x DisplayPort™ 1.4
- 1x 2pin remote power switch (SE10-I only)
- 1x DC-in 3pin Phoenix connector for 9-36V WDC (SE10-I only)
- 1x Slim Tip (rectangle) power connector (SE10 only)
- 2x 2.5GbE Ethernet (RJ-45)
- 2x USB 2.0

Optional Rear Ports

2x RP-SMA Female, Wi-Fi® antenna

Left Ports

- 1x Nano SIM slot[4]
- 1x SD card slot

Notes:

[1] The transfer speed of following ports will vary and, depending on many factors, such as the processing speed of the host device, file attributes and other factors related to system configuration and your operating environment, will be slower than theoretical speed.
USB 2.0: 480 Mbit/s;
USB 3.2 Gen 1 (SuperSpeed USB 5Gbps, formerly USB 3.0 / USB 3.1 Gen 1): 5 Gbit/s;
USB 3.2 Gen 2 (SuperSpeed USB 10Gbps, formerly USB 3.1 Gen 2): 10 Gbit/s;
USB4® 20Gbps / USB 3.2 Gen 2x2 (SuperSpeed USB 20Gbps): 20 Gbit/s;
USB4® 40Gbps (USB 40Gbps): 40 Gbit/s;
Thunderbolt™ 3/4: 40 Gbit/s.
Thunderbolt™ 5: 80 Gbit/s (bidirectional), up to 120 Gbit/s in bandwidth boost mode for video-intensive applications.
[2] Depending on user cases, the actual transfer rate using the Ethernet ports on this device may slower than 2.5Gbps.
[3] Expansion IO can choose one of 2x 2.5 GbE RJ-45 / 2x CAN / 2x Serial.
[4] Nano SIM slot only function with optional 4G WWAN. Card holder is optional, card holder only comes with card.

SECURITY & PRIVACY

Security

Security Chip

Discrete TPM 2.0, TCG certified

Other Security

- ThinkShield
- NITS SP800-147B compliant

MANAGEABILITY

System Management

System Management

XClarity In-Band manageability

SERVICE

Warranty[1]

Base Warranty

- 1-year courier or carry-in service
- 1-year limited onsite service
- 3-year limited onsite service
- No base warranty

Notes:

[1] The warranty upgrades may be bundled with some models, please check the "Included upgrade" column in the specific model's configurations. For more service extensions, please go to https://smartfind.lenovo.com/. To learn more details of warranty policy, please access https://support.lenovo.com/warrantylookup/warrantypolicy.

ACCESSORIES

Bundled Accessories

Bundled Accessories***

- DP to VGA dongle

- IP50 dust cover kits

OPERATING REQUIREMENTS

Operating Environment

Temperature

- SE10-I:
  Operating: IEC60068-2-1 Test A: Cold, IEC 60068-2-2 Test B: Dry heat, -20°C (-4°F) to 60°C (140°F), with airflow 0.7m/s
  Operating: IEC60068-2-1 Test A: Cold, IEC 60068-2-2 Test B: Dry heat, -40°C (-40°F) to 70°C (158°F), with airflow 0.7m/s
  Non-operating: IEC60068-2-1 Test A: Cold, IEC 60068-2-2 Test B: Dry heat, -40°C (-4°F) to 85°C (185°F)[1]
- SE10:
  Operating: IEC60068-2-1 Test A: Cold, IEC 60068-2-2 Test B: Dry heat, 0°C (32°F) to 50°C (122°F), with airflow 0.7m/s
  Non-operating: IEC60068-2-1 Test A: Cold, IEC 60068-2-2 Test B: Dry heat, -40°C (-4°F) to 85°C (185°F)

Relative Humidity

- Relative humidity operating: IEC 60068-2-66 Damp heat, steady state 95%@40°C non-condensing
- Relative humidity storage: IEC 60068-2-66 Damp heat, steady state 90%@60°C

Shock Protection

IEC 60068-2-27, shock, operating, 30G / 11ms, half sine

Vibration Protection

IEC 60068-2-64, Vibration, Operating, 3Grms, random, 5 ~ 500Hz, 1hr/axis

MTBF Prediction

MTBF @60°C / @40°C

HALT

HALT testing methodology, LOL / UOL depends on real test result

Ingress Protection

IP50 standard

Flowing Mixed Gas Corrosion

IEC 60068-2-60, 25°C/75%RH Gas concentration: H2S/0.01ppm, SO2/0.2ppm, NO2/0.2ppm, Cl2/0.01ppm, 21days

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Notes:

[1] SE10-I (operating -20°C to 60°C) models include: 12NK, 12NL, 12NS, 12NT.
SE10-I (operating -40°C to 70°C) models include: 12NM, 12NN. Supports -40□ to 70□ with 6W CPU SKU by limit SBB scope due to thermal limitations on extreme conditions.

CERTIFICATIONS

Green Certifications

Green Certifications

- ErP Lot 6/26
- Low Halogen
- REACH
- RoHS compliant
- TED (The ECO-declaration)
- WEEE

Other Certifications

EMC

- EMC CE / FCC Class B
- FCC for USA
- CE for Europe
- IC for Canada
- RCM for Australia / New Zealand
- VCCI for Japan
- BSMI for Taiwan
- CCC for China

- KCC for Korea

Safety

- CB for WW
- CE for Europe
- NRTL (ETL, cETL) for USA / Canada
- EAC for Russia/Kazakhstan/Armenia/Kyrgyzstan
- Ukrsepro for Ukraine
- GS for Germany
- CM for Morocco
- CCC for China
- BIS for India
- KEBS for Kenya
- KUCAS for Kuwait
- KVALITET for Serbia
- NOM-019 for Mexico
- SABS for South Africa
- SONCAP for Nigeria
- STZ for Uzbekistan
- UKCA for United Kingdom

RF

- CE for Europe
- SRRC for China
- SUBTEL for Chile
- UKCA for United Kingdom
- WPC for India
- TELEC/JATE for Japan
- IC for Canada
- KCC for Korea
- NBTC for Thailand
- NCC for Taiwan
- NOM-208 for Mexico
- NTC for Philippines
- SDPPI for Indonesia
- SIRIM for Malaysia
- ANRT for Morocco
- FCC for USA

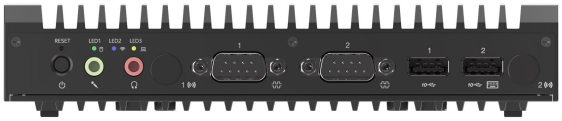
Other Certifications

- AWS IoT Greengrass Certified
- Microsoft® Azure IoT Edge Certified
- Red Hat Enterprise Linux Certified
- Ubuntu Core Certified
- Ubuntu Server Certified

Mil-Spec Test

MIL-STD-810H military test passed

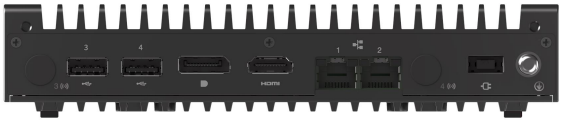
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