# **OVERVIEW**



| 1. Power connector                               | 8. Power button                               |
|--|---|
| 2. HDMI (for Celeron, i3) / DisplayPort (for i5) | 9. Serial                                     |
| 3. USB 3.2 Gen 2                                 | 10. Serial                                    |
| 4. Thunderbolt 4                                 | 11. USB-C 3.2 Gen 2                           |
| 5. Ethernet (RJ-45)                              | 12. USB 3.2 Gen 2                             |
| 6. Ethernet (RJ-45)                              | 13. USB 3.2 Gen 2                             |
| 7. Kensington Security Slot                      | 14. Headphone / microphone combo jack (3.5mm) |

# ThinkEdge SE30

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# PERFORMANCE

# Processor

## **Processor Family**

Intel® Celeron® or 11th Generation Intel Core™ i3 / i5 Processor

## Processor\*\*[1]

| Processor Name                 | Cores | Threads | Base Frequency | Cache | Memory Support | Processor Graphics      |
|--------------------------------|-------|---------|----------------|-------|----------------|-------------------------|
| Celeron 6305E <sup>[2]</sup>   | 2     | 2       | 1.8GHz         | 4MB   | DDR4-3200      | Intel UHD Graphics      |
| Core i3-1115GRE <sup>[3]</sup> | 2     | 4       | 1.7GHz         | 6MB   | DDR4-3200      | Intel UHD Graphics      |
| Core i5-1145G7E <sup>[4]</sup> | 4     | 8       | 1.5GHz         | 8MB   | DDR4-3200      | Intel Iris® Xe Graphics |
| Core i5-1145GRE <sup>[5]</sup> | 4     | 8       | 1.1GHz         | 8MB   | DDR4-3200      | Intel Iris Xe Graphics  |

Notes:

[1] The Intel<sup>®</sup> Turbo Boost is disabled. The maximum Thermal Design Power (TDP) of microprocessor might be 12W, 15W, or 28W, which depends on different microprocessor series. The max frequency might not be obtainable at high work levels, so the microprocessor will adjust the frequency to obtain the maximum TDP allowed.

[2] The maximum Thermal Design Power (TDP) is 15W.

[3], [5] The maximum Thermal Design Power (TDP) is 12W.

[4] The maximum Thermal Design Power (TDP) is 28W.

# **Operating System**

### **Operating System**\*\*

- Ubuntu Core 20.04<sup>[1]</sup>
- Ubuntu Core 22.04<sup>[2]</sup>
- Ubuntu Server 20.04<sup>[3]</sup>
- Ubuntu Server 22.04<sup>[4]</sup>
- Windows<sup>®</sup> 10 IoT Enterprise LTSC 2019<sup>[5]</sup>
- Windows 10 IoT Enterprise LTSC 2021
- No operating system

#### Notes:

[1], [3], [5] For 11NA, 11NB, 11NC, 11NJ models

[2], [4] For 11NK, 11NH models

## Graphics

## Graphics\*\*

| Graphics                  | Туре       | Memory | Connector                                     | Max Resolution   | Key<br>Features |
|---------------------------|------------|--------|---|--|-----------------|
| Intel UHD<br>graphics     | Integrated | Shared | 1x HDMI® 1.4b, 1x USB-<br>C®, 1x Thunderbolt™ | 3840x2160@30Hz(HDMI), 3840x2160@60Hz(USB-<br>C), 3840x2160@60Hz(Thunderbolt) | DirectX®<br>12  |
| Intel Iris Xe<br>Graphics | Integrated | Shared | 1x DP 1.4a, 1x USB-C, 1x<br>Thunderbolt       | 3840x2160@60Hz(DP), 3840x2160@60Hz(USB-<br>C), 3840x2160@60Hz(Thunderbolt)   | DirectX 12      |

## **Monitor Support**

## **Monitor Support**

Supports up to 3 independent displays via onboard ports (Celeron, i3 models supports HDMI, USB-C, and Thunderbolt; i5 models supports DisplayPort™, USB-C, and Thunderbolt)

## Chipset

## Chipset

Intel SoC (System on Chip) platform

## Memory

## Max Memory

Up to 16GB soldered memory, not upgradable

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## **Memory Slots**

Memory soldered to systemboard, no slots, dual-channel

Memory Type

DDR4-3200

### Memory Protection<sup>[1]</sup>

IB-ECC<sup>[2]</sup>

Notes:

IB-ECC needs to be enabled in BIOS.
For 11NA, 11NB, 11NC, 11NJ models only

## Storage

## Storage Support<sup>[1]</sup>

Up to two drives, 2x M.2 SSD

• M.2 2280 SSD up to 2TB each

• M.2 2230 SSD up to 1TB each

• RAID 0/1 support

### Storage Type\*\*\*

| Disk Type                   | Interface                          | Security |
|-----------------------------|------------------------------------|----------|
| M.2 2230 SSD                | PCle® NVMe®, PCle 3.0              | -        |
| M.2 2230 SSD                | PCIe NVMe, PCIe 3.0                | Opal     |
| M.2 2280 SSD <sup>[2]</sup> | PCIe NVMe, PCIe 4.0 x4             | Opal 2.0 |
| M.2 2280 SSD                | PCIe NVMe, PCIe 4.0 x4 Performance | Opal 2.0 |

## RAID<sup>[3]</sup>

RAID 0/1 support

Notes:

[1] M.2 2280 SSD is for 11NK, 11NH models.

M.2 2230 SSD is for 11NA, 11NB, 11NC, 11NJ models.

[2] For 11NK, 11NH models, M.2 PCIe Gen 4 SSD in a M.2 PCIe Gen 3 slot runs at PCIe Gen 3 speeds.

[3] RAID preset is available via special bid, limited to the models with Windows 10 IoT Enterprise.

# **Power Supply**

## Power Supply\*\*

| Power           | Туре    | Efficiency | Key Features                    | Dimensions                      |
|-----------------|---------|------------|---------------------------------|---------------------------------|
| 65W             | Adapter | 89%        | 100-240V                        | 129 x 53 x 30 mm, 1800 mm cable |
| 65W             | Adapter | 88%        | 100-240V, for SE30 (11NK, 11NH) | 108 x 46 x 29 mm, 1800 mm cable |
| No power supply | -       | -          | -                               | -                               |

# DESIGN

## **Input Device**

## Keyboard\*\*

- Lenovo® Calliope Keyboard (USB connector), black
- Lenovo Calliope Wireless Keyboard, black
- Lenovo Traditional Keyboard (USB connector), black
- No keyboard

## Mouse\*\*

- Lenovo Calliope Mouse (USB connector), black
- Lenovo Fingerprint Mouse (USB connector), black (EOL on Jan, 2023)
- No mouse

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## **Mechanical**

#### Dimensions (WxDxH)[1]

| Models         | Dimensions                                     |
|----------------|--|
| IO box         | 178 x 88 x 25.6 mm (7.01 x 3.46 x 1.00 inches) |
| ThinkEdge SE30 | 179 x 88 x 51.5 mm (7.05 x 3.46 x 2.03 inches) |

#### Packaging Dimensions (WxDxH)

- SE 30 (Mini package): 245 x 113 x 258 mm (9.65 x 4.45 x 10.16 inches)
- SE 30 (Standard package): 491 x 153 x 264 mm (19.33 x 6.02 x 10.39 inches)

#### Weight<sup>[2]</sup>

| Models         | Weight                     |
|----------------|----------------------------|
| IO box         | Around 0.499 kg (1.10 lbs) |
| ThinkEdge SE30 | Around 1.02 kg (2.25 lbs)  |

#### Packaging Weight<sup>[3]</sup>

- SE 30 (Mini package): Around 1.65 kg (3.63 lbs)
- SE 30 (Standard package): Strat at 4.11 kg (9.06 lbs)

#### Case Color

Black

IO Box<sup>[4]</sup>

ThinkEdge SE30 IO box: 2x serial (RS232 / RS422 / RS485) and 2x gigabit Ethernet (RJ-45) on front, 1x DIO (4DI / 4DO), USB-C 3.2 Gen 1 (connect to SE30), and DC-in connector (9V - 36V) on rear

# • No IO box

#### Mounting\*\*

- VESA mount bracket kit with adapter holder, supports VESA mount 75mm and 100mm
- VESA mount bracket kit, supports VESA mount 75mm and 100mm
- DIN rail mount bracket kit
- Z hook
- None

#### 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.

[3] The packaging weight is varies depending on the selected accessories.

[4] For more details, please go to https://pcsupport.lenovo.com.

# CONNECTIVITY

#### Network

## Ethernet

- Gigabit Ethernet (Realtek® RTL8111KI) and 2.5 Gigabit Ethernet (Intel I225-V), 2x RJ-45, supports Wake-on-LAN<sup>[1]</sup>
- Gigabit Ethernet (Realtek RTL8111KI) and 2.5 Gigabit Ethernet (Intel I225-LM), 2x RJ-45, supports Wake-on-LAN<sup>[2]</sup>
- Gigabit Ethernet (Realtek RTL8111KI) and 2.5 Gigabit Ethernet (Intel I225-IT), 2x RJ-45, supports Wake-on-LAN<sup>[3]</sup>

## WLAN + Bluetooth®\*\*[4]

- Intel Wireless-AC 9260, 802.11ac Dual Band 2x2 Wi-Fi $^{\rm s}$  + Bluetooth 5.1, M.2 card
- Intel Wireless-AC 9260, 802.11ac Dual Band 2x2 Wi-Fi + Bluetooth 5.1, Intel vPro® technology support, M.2 card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, Intel vPro technology support, M.2 Card
- Intel Wi-Fi 6 AX201, 802.11ax 2x2 Wi-Fi + Bluetooth 5.1, M.2 Card
- No WLAN and Bluetooth

## WWAN\*\*[5]

- Qualcomm<sup>®</sup> Snapdragon<sup>™</sup> X24, 4G LTE CAT16, M.2 card
- Qualcomm Snapdragon X55 5G Modem-RF System, Sub-6 GHz, M.2 card
- No support

Notes:

[1] For 11NK, 11NH Celeron models

- [2] For 11NK, 11NH i5 models
- [3] For 11NA, 11NB, 11NC, 11NJ models
- [4] Bluetooth 5.1 is hardware ready but may run at a lower version due to OS limitations.
- [5] WWAN cards for 11NA, 11NB, 11NC, 11NJ models only

## **Ports**<sup>[1]</sup>

### Front Ports

- 1x USB-C 3.2 Gen 2 (support data transfer and display)
- 2x USB 3.2 Gen 2
- 1x headphone / microphone combo jack (3.5mm)
- 2x serial (RS232 / RS422 / RS485, BIOS selectable)

### **Optional Front Ports**\*\*\*

- 2x gigabit Ethernet (RJ-45) on SE30 IO box
- 2x serial (RS232 / RS422 / RS485, SDK selectable) on SE30 IO box

#### Rear Ports<sup>[2]</sup>

- 1x Thunderbolt 4 / USB4<sup>®</sup> 40Gbps (support data transfer, Power Delivery 5V@3A and display)
- 1x USB 3.2 Gen 2
- 1x HDMI 1.4b (for Celeron, i3 models)
- 1x DisplayPort 1.4a (for i5 models)
- 1x power connector
- 2x Ethernet (RJ-45)

### **Optional Rear Ports**\*\*\*

- 1x USB-C 3.2 Gen 1 on SE30 IO box, connect to SE30
- 1x DC-in 3pin Phoenix connector on SE30 IO box
- 1x DIO (4DI / 4DO) on SE30 IO box

#### 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.

[2] If IO box gets power supply from ThinkEdge SE30, need to connect USB-C (on IO box) with Thunderbolt 4 port (on SE30).

## Monitor Cable

#### Monitor Cable\*\*\*

- USB-C to DP dongle
- USB-C to HDMI dongle
- USB-C to VGA dongle
- DP to VGA dongle
- DP to Dual DP (MST) dongle
- DP to Dual DP (SST) dongle
- DP to HDMI dongle
- No monitor cable

# **SECURITY & PRIVACY**

## Security

Security Chip Discrete TPM 2.0, TCG certified Kensington<sup>®</sup> Security Slot<sup>™</sup>, 3 x 7 mm

### **Chassis Intrusion Switch**

Chassis intrusion switch

## **BIOS Security**

- Self-healing BIOS
- Self-healing BIOS (EC-based)

# MANAGEABILITY

## System Management

### System Management

- Intel vPro with Intel AMT 15
- Non-vPro

# SERVICE

## **Warranty**<sup>(1)</sup>

### 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 <u>https://smartfind.lenovo.com/</u>. To learn more details of warranty policy, please access <u>https://pcsupport.lenovo.com/warranty</u>.

# **ENVIRONMENTAL**

## **Operating Environment**<sup>III</sup>

#### Temperature

- 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 0.7m/s air flow<sup>[2]</sup>
- 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 0.7m/s air flow
- Storage: IEC60068-2-1 Test A: Cold, IEC 60068-2-2 Test B: Dry heat, -40°C (-40°F) to 85°C (185°F)

#### Humidity

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

### **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

#### Notes:

- [1] The temperature spec is not applicable for hardware accessories.
- [2] For 11NA, 11NB, 11NC, 11NJ models
- [3] For 11NK, 11NH models

# CERTIFICATIONS

# **Green Certifications**<sup>III</sup>

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#### **Green Certifications**

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

#### Notes:

[1] The items listed under the "Green Certifications" section may not only refer to certification but also registration or selfdeclaration.

## Other Certifications

### EMC

- EMC CE / FCC Class B
- BSMI
- CCC

#### Safety

- UL(ETL)
- BSMI
- CB
- CCC

• Feature with \*\* means that only one offering listed under the feature is configured on selected models.

- Feature with \*\*\* means that one or more offerings listed under the feature could be configured on selected models.
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