

STX-1001

Mini-STX Motherboard



KEY FEATURES

- Intel® Elkhart Lake SoC Processor
- 1 x 260-pin SO-DIMM DDR4 3200 MHz, up to 32GB
- 1 x USB 3.2 Gen2, 4 x USB 3.2 Gen1, 6 x USB 2.0, 1 x M.2 Key E, 1 x M.2 Key B, 1 x M.2 Key M, 2 x COM, 1 x SATA3
- 1 x Realtek 2.5 Gigabit LAN, 1 x Realtek 1 Gigabit LAN
- Supports triple display, 2 x DP1.2, 1 x LVDS or eDP
- TPM Header
- 12~28V DC-In

SPECIFICATIONS

Form Factor

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|------------|---|
| Dimensions | Mini-STX (5.5-in x 5.8-in x 1-in, 14.0 cm x 14.7 cm x 2.5 cm) |
|------------|---|

Processor System

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|---------|---|
| CPU | Intel® Elkhart Lake SoC Processor -STX-1001D (J6426, QC, Max Speed Up to 3.0GHz, 10 W) -STX-1001J (J6412, QC, Max Speed Up to 2.6GHz, 10 W) -STX-1001N (N6415, QC, Max Speed Up to 3.0GHz, 6.5 W) -STX-1001L (N6210, DC, Max Speed Up to 2.6GHz, 6.5 W) |
| Chipset | SoC |
| BIOS | AMI SPI 128 Mbit |

Memory

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|------------|------------------------------|
| Technology | Single Channel DDR4 3200 MHz |
| Capacity | 32 GB |
| Socket | 1 x 260-pin SO-DIMM |

Graphics

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|--------------|---|
| Controller | Intel® Gen11 Graphics |
| DisplayPort | DisplayPort 1.2 and DP1.2++ Max resolution up to 4096x2160@60Hz |
| LVDS | Dual channel 24 bit up to 1920 x 1080@60Hz (Connector shared with eDP) |
| eDP | Max resolution up to 1920 x 1080@60Hz (Connector shared with LVDS) |
| MultiDisplay | Triple Display |

Expansion Slot

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|------------|--|
| M.2 | 1 x M.2 (Key E, 2230) with PCIe Gen3 x1 and USB 2.0 for Wireless 1 x M.2 (Key B, 3042/3052) with PCIe Gen3 x1, USB 3.2 Gen2, and USB 2.0 and SIM for 4G/5G |
| SIM Socket | 1 x Socket connected to M.2 Key_B |

Audio

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|-----------|---|
| Interface | Realtek ALC897, High Definition Audio. Line-out, Mic-in |
|-----------|---|

Ethernet

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|-------------------|---|
| Controller/ Speed | LAN1: Realtek RTL8111H-CG with 10/100/1000 Mbps LAN2: Realtek RTL8125BG with 10/100/1000/2500 Mbps |
| Connector | 2 x RJ-45 |

Rear I/O

| | |
|-------------|--|
| DisplayPort | DISPLAY1: DP1.2++, DISPLAY2: DP1.2 |
| Ethernet | 1 x 1 Gigabit LAN 1 x 2.5 Gigabit LAN |
| USB | 2 x USB 3.2 (Gen1) 2 x USB 2.0 |

Front I/O

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|-------|----------------------|
| USB | 2 x USB 3.2 (Gen1) |
| Audio | 2 (Mic-in, Line-out) |

Internal Connector

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|-----------------|---|
| USB | 1 x USB 3.2 Gen2 (1 x Type-A vertical con) 4 x USB 2.0 (2 x 2.54 pitch header) |
| COM | COM1, COM3 (RS-232/422/485) |
| GPIO | 4 x GPI, 4 x GPO |
| TPM | TPM Header |
| LVDS | 1 (Connector with LVDS/eDP signal, switch by BIOS) |
| SATA PWR Output | 1 |
| Speaker Header | 1 |
| CAN Bus | 2 x CAN Bus (1 x 2.00 pitch header) (Supported by STX-1001D, STX-1001N) |

Storage

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|------|--|
| M.2 | 1 x M.2 (Key M, 2242/2280) with PCIe Gen3 x1 for SSD |
| SATA | 1 x SATA3 (6Gb/s) |

Watchdog Timer

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|----------|----------------------------------|
| Output | From Super I/O to drag RESETCON# |
| Interval | 256 Segments, 0, 1, 2, ...255sec |

Power Requirements

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|-----------|---|
| Input PWR | 12~28V DC-In |
| Power On | AT/ATX Supported - AT : Directly PWR on as power input ready - ATX : Press button to PWR on after power input ready |

Environment

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|--------------------|----------------|
| Operating Temp | 0°C ~ 60°C |
| Storage Temp | -40° C ~ 85° C |
| Operating Humidity | 5% ~ 90% |
| Storage Humidity | 5% ~ 90% |