



### KEY FEATURES

- Intel® Tiger Lake-UP3 MCP Processor
- 2 x 260-pin SO-DIMM, Support Dual Channel up to 64GB DDR4 3200 MHz
- 3 x USB 3.2 Gen2, 5 x USB 2.0, 1 x M.2 Key E, 1 x M.2 Key M, 1 x M.2 Key B, 2 x COM, 2 x SATA3
- 1 x Intel 2.5 Gigabit LAN, 1 x Intel 1 Gigabit LAN
- Support Quad display, 4 x HDMI 2.0a, 1 x LVDS, 1 x eDP1.4
- TPM Header (STX-1500E/STX-1500V)  
TPM 2.0 IC onboard, supports Intel® vPro (STX-1500M/STX-1500P)
- Supports RAID 0/1
- 12~28V DC-In

### SPECIFICATIONS

#### Form Factor

|            |                            |
|------------|----------------------------|
| Dimensions | Mini-STX (5.5-in x 5.8-in) |
|------------|----------------------------|

#### Processor System

|         |                                                                                                                                                                                                                                                                                                            |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CPU     | Intel® 11th Gen (Tiger Lake-UP3) Core™ Processors<br>- STX-1500P (i7-1185G7E, QC, Max Speed up to 4.4GHz, up to 28W)<br>- STX-1500M (i5-1145G7E, QC, Max Speed up to 4.1GHz, up to 28W)<br>- STX-1500V (i3-1115G4E, DC, Max Speed up to 3.9GHz, up to 28W)<br>- STX-1500E (Celeron 6305E, DC, 1.8GHz, 15W) |
| Chipset | MCP                                                                                                                                                                                                                                                                                                        |
| BIOS    | AMI SPI 256 Mbit                                                                                                                                                                                                                                                                                           |

#### Memory

|            |                            |
|------------|----------------------------|
| Technology | Dual Channel DDR4 3200 MHz |
| Capacity   | 64GB (32GB per DIMM)       |
| Socket     | 2 x 260-pin SO-DIMM        |

#### Graphics

|              |                                                                                  |
|--------------|----------------------------------------------------------------------------------|
| Controller   | Intel® Iris® Xe Graphics for i7/i5 CPU<br>Intel® UHD Graphics for i3/Celeron CPU |
| HDMI         | HDMI 2.0a<br>Max resolution up to 4096x2160@60Hz                                 |
| LVDS         | Dual channel 24 bit up to 1920 x 1200@60Hz                                       |
| eDP          | eDP 1.4 Max resolution up to 4096x2304@60Hz                                      |
| MultiDisplay | Quad display                                                                     |

#### Expansion Slot

|            |                                                                                                                                                      |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| M.2        | 1 x M.2 (Key E, 2230) with PCIe x1, USB 2.0 and CNVi for Wireless<br>1 x M.2 (Key B, 3042/3052/2280) with PCIe x1, USB 3.2, USB2.0 and SIM for 4G/5G |
| SIM Socket | 1x SIM socket connected to M.2 key B                                                                                                                 |

#### Audio

|           |                                                              |
|-----------|--------------------------------------------------------------|
| Interface | Realtek ALC897 HD , High Definition Audio. Mic-In / Line-Out |
|-----------|--------------------------------------------------------------|

#### Ethernet

|                   |                                                                                                                                                                                                                                                                     |
|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Controller/ Speed | STX-1500E/STX-1500V:<br>LAN1: Intel® I225LM/I255V with 10/100/1000/2500 Mbps<br>LAN2: Intel® I219V with 10/100/1000 Mbps<br>STX-1500M/STX-1500P:<br>LAN1: Intel® I225LM/I255V with 10/100/1000/2500 Mbps<br>LAN2: Intel® I219LM with 10/100/1000 Mbps, support vPro |
| Connector         | 2 x RJ-45                                                                                                                                                                                                                                                           |

#### Front I/O

|       |                              |
|-------|------------------------------|
| USB   | 1 x USB 3.2 Gen2, 1 x USB2.0 |
| HDMI  | 1 x HDMI 2.0a                |
| Audio | 2 (Mic-In, Line-Out)         |

#### Rear I/O

|          |                                          |
|----------|------------------------------------------|
| HDMI     | 3 x HDMI 2.0a                            |
| Ethernet | 1 x 2.5 Gigabit LAN<br>1 x 1 Gigabit LAN |
| USB      | 2 x USB 3.2 Gen2, 2 x USB2.0             |
| DC Jack  | 1                                        |

#### Internal Connector

|                 |                                      |
|-----------------|--------------------------------------|
| USB             | 2 x USB 2.0 (1x2.54 pitch header)    |
| COM             | COM1 (RS232/422/485)<br>COM2 (RS232) |
| GPIO            | 4 x GPI, 4 x GPO                     |
| LVDS            | 1                                    |
| eDP             | 1                                    |
| SATA PWR Output | 1                                    |
| Speaker Header  | 1                                    |

#### Storage

|      |                                                                                              |
|------|----------------------------------------------------------------------------------------------|
| M.2  | 1 x M.2 (Key M, 2242/2260/2280) with SATA3 and PCIe Gen4 x4 for SSD<br>* Shared with SATA3_0 |
| SATA | 2 x SATA3 (6Gb/s)                                                                            |
| RAID | Intel® SATA RAID 0/1                                                                         |

#### Security

|     |                                                                            |
|-----|----------------------------------------------------------------------------|
| TPM | STX-1500M/STX-1500P: TPM 2.0 IC onboard<br>STX-1500E/STX-1500V: TPM Header |
|-----|----------------------------------------------------------------------------|

#### Watchdog Timer

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

#### Power Requirements

|           |                                                                                                                           |
|-----------|---------------------------------------------------------------------------------------------------------------------------|
| Input PWR | 12~28V DC-In with 4-pin wafer PWR cable or DC Jack                                                                        |
| Power On  | AT/ATX Supported<br>- AT : Directly PWR on as power input ready<br>- ATX : Press button to PWR on after power input ready |

#### Environment

|                    |                |
|--------------------|----------------|
| Operating Temp     | -20°C ~ 70°C   |
| Storage Temp       | -40° C ~ 85° C |
| Operating Humidity | 5% ~ 90%       |
| Storage Humidity   | 5% ~ 90%       |