



# STX-1500

Mini-STX Motherboard



## 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 Quadruple display, 1 x LVDS, 1 x eDP1.4, 4 x HDMI 2.0a
- TPM Header (STX-1500E/STX-1500V)  
TPM 2.0 IC onboard, supports Intel® vPro, AMT (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)
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### Processor System

CPU	Intel® 11th Gen (Tiger Lake-UP3) Core™ Processors - STX-1500P (i7-1185G7E, QC, Max Speed up to 4.4GHz, up to 28W) - STX-1500M (i5-1145G7E, QC, Max Speed up to 4.1GHz, up to 28W) - STX-1500V (i3-1115G4E, DC, Max Speed up to 3.9GHz, up to 28W) - 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® X <sup>e</sup> Graphics for i7/i5 CPU Intel® UHD Graphics for i3/Celeron Processor
HDMI	HDMI 2.0a Max resolution up to 4096x2160@60Hz
DisplayPort	N/A
VGA	N/A
LVDS	Dual channel 24 bit up to 1920 x 1200@60Hz
eDP	eDP 1.4 Max resolution up to 4096x2304@60Hz
DVI	N/A
MultiDisplay	Quadruple display

### Expansion Slot

PCIe	N/A
PCI	N/A
mini-PCIe	N/A
M.2	1 x M.2 (Key E, 2230) with PCIe x1, USB 2.0 and CNVi for Wireless 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
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### Ethernet

Controller/ Speed	STX-1500E/STX-1500V: LAN1: Intel® I225LM with 10/100/1000/2500 Mbps LAN2: Intel® I219V with 10/100/1000 Mbps STX-1500M/STX-1500P: LAN1: Intel® I225LM with 10/100/1000/2500 Mbps LAN2: Intel® I219LM with 10/100/1000 Mbps
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
DisplayPort	N/A
VGA	N/A
DVI	N/A
Ethernet	1 x 2.5 Gigabit LAN 1 x 1 Gigabit LAN
USB	2 x USB 3.2 (Gen2), 2 x USB2.0
DC Jack	1

### Internal Connector

USB	1 x USB 2.0 (1x2.54 pitch header)
COM	1 x COM (RS232/422/485) 1 x COM (RS232)
Parallel	N/A
GPIO	4 x GPI, 4 x GPO
TPM	STX-1500M/STX-1500P: TPM 2.0 IC onboard STX-1500E/STX-1500V: TPM Header
LVDS	1
eDP	1
VGA	N/A
SATA PWR Output	1
Speaker Header	1

### Storage

M.2	1 x M.2 (Key M, 2242/2260/2280) with SATA3 and PCIe Gen4x4 for SSD * Shared with SATA3_0
mSATA	N/A
SATA	2 x SATA3 (6Gb/s)
RAID	Intel® SATA RAID 0/1
eMMC	N/A

### 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 - AT : Directly PWR on as power input ready - ATX : Press button to PWR on after power input ready

### Environment

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

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### US

[sales@assured-systems.com](mailto:sales@assured-systems.com)

Sales: +1 347 719 4508  
Support: +1 347 719 4508

1309 Coffeen Ave  
Ste 1200  
Sheridan  
WY 82801  
USA

### EMEA

[sales@assured-systems.com](mailto:sales@assured-systems.com)

Sales: +44 (0)1785 879 050  
Support: +44 (0)1785 879 050

Unit A5 Douglas Park  
Stone Business Park  
Stone  
ST15 0YJ  
United Kingdom

VAT Number: 120 9546 28  
Business Registration Number: 07699660