



The 1ST-MITX-TL10 is an embedded motherboard supporting Intel® latest 11th Gen. Core™ i3/ i5/ i7 processor or Celeron® 6305 processor and provides a complete PC platform with high performance. This board features 4K Resolution HD Displays via 4x HDMI 2.0.

It carries 2x DDR4 SO-DIMM slots up to 64GB. TPM module for added security is optional.

- 2x 10/100/1000Mbps BASE-T GB LAN (Intel® i211)
- 2x USB3.0, 6x USB 2.0
- 2x M.2 for WiFi and 4G/5G, 1x PCIe x2
- Supports 4G/5G network
- SATA, M.2 for NVMe SSD

The 1ST-MITX-TL10 is an ideal solution for applications requiring a high-speed communication front-end like a mini-server or high-resolution display products like electronic gaming machines, medical imaging, interactive digital signage, thin clients, or POS terminals.

### Applications

- Vertical markets: medical imaging, smart school, high-end gaming
- Stock trading: multitasking, multiple displays
- Industrial control: factory control and testing, security systems
- Digital signage: split display, shopping mall billboard, scoreboard

	Items	Descriptions
Motherboard	CPU	Intel® Core™ i3-1115G4(1.7GHz up to 4.1GHz, dual-core CPU, TDP 12-28W), Intel® Core™ i5-1145G7(1.1GHz up to 4.4GHz, quad-core CPU, TDP 12-28W), Intel® Core™ i7-1165G7(1.2GHz up to 4.7GHz, quad-core CPU, TDP 12-28W) Intel® Celeron® 6305 (1.8GHz, dual-core CPU, TDP 15W)
	System Memory	2x SO-DIMM DDR4 up to 64GB
	GPU	Intel® Iris® XE (Based on CPU)
	BIOS	AMI 256MB SPI
Display		4x HDMI 2.0, 4K Resolution HD Displays
Ethernet	Speed	10/100/1000Mbps
	Controller	Intel® i211
	Interface	2x RJ45
Hardware Monitoring		CPU/System temperature, onboard DC-IN voltage, watchdog
Storage		1x M.2 for NVMe SSD 1x SATA
Expansions		1x M.2 for WiFi 1x M.2 for 4G/5G module 1x PCIe x2
Rear Panel I/O		2x LAN RJ45 10/100/1000Mbps 2x USB3.0 2x USB2.0 1x HDMI 1x LPC TPM2.0 onboard optional 1x DC-IN Audio 1x Line-out , 1x Mic-in
I/O Headers		1x COM (RS232 default or RS485/RS422) 4x USB2.0 header Audio header, amplifier header
Power	Standard Input	12V/19V DC-IN, 4 Pin Power
Mechanical & Environmental	Type	Mini ITX
	Dimensions (LxW)	170mm x 170mm (LxW)
	Operating temperature	-20°C ~ 60°C non condensing
	Storage temperature	-40°C ~ 80°C
Supported OS		Windows10 64bit, Linux 64bit

## Ordering Information

Part No.	Descriptions
1ST-MITX-TL10-i3-1115G4	Thin Mini ITX Embedded Motherboard with Intel® Core™ i3-1115G4
1ST-MITX-TL10-i5-1145G7	Thin Mini ITX Embedded Motherboard with Intel® Core™ i5-1145G7
1ST-MITX-TL10-i7-1165G7	Thin Mini ITX Embedded Motherboard with Intel® Core™ i7-1165G7
1ST-MITX-TL10-6305	Thin Mini ITX Embedded Motherboard with Intel® Celeron® 6305

## 1ST-MITX-TL10 Functional Block Diagram

