

03 PICO-TGU4-SEMI

Pico-ITX Embedded Barebone with 11th Generation Intel® Core™ i7/i5/i3/Celeron® U-Series Processor SoC

Pico-ITX Boards

Front View
Lite version



Rear View



Features

- 11th Gen Intel® Core™ i7/i5/i3/Celeron Processor SoC
- LPDDR4x on board memory, up to 32 GB
- 2.5GbE Intel i225 + 1GbE Intel i219
- HDMI2.0b x 1, 4K x 2K
- M.2 2280 M key (PCIe Gen4 x 4 as default) x 1
- Full size mPCIe/mSATA x 1
- USB 3.2 Gen 2 x 2
- RS-232/422/485 x 2 (Optional)
- Line-out (Optional)



Video Output	HDMI2.0b x 1 (4K x 2K 60Hz)
I/O	
Storage/SSD	—
USB Port	USB3.2 Gen 2 x 2 (rear I/O)
Serial Port	RS-232/422/485 x 2 (Optional)
Audio	High Definition Audio Interface, Line-out (Optional)
Expansion Slot	M.2 M Key 2280 x 1 (PCIe Gen 4 [x4] as default, SATA select by HW BOM) Full size mSATA/mPCIe or USB2.0 x 1 (mSATA as default, select by BIOS option) eSPI and SMBUS/I2C x 1 (SMBUS as default, I2C select by HW BOM) TPM2.0 (Optional)
Certification	
Certification	CE/FCC Class A

Specifications

System	
Form Factor	PICO-ITX
Processor	11th Generation Intel® Core™ i7/i5/i3/Celeron SoC i7-1185G7E (4C/8T, 1.8GHz, up to 4.4GHz) i5-1145G7E (4C/8T, 1.5GHz, up to 4.1GHz) i3-1115G4E (2C/4T, 2.2GHz, up to 3.9GHz) Celeron® 6305E (2C/2T, 1.8GHz)
System Memory	On Board LPDDR4x 3200MHz, up to 32GB, In-Band ECC (select SKUs)
Chipset	11th Generation Intel® Core™ i7/i5/i3/Celeron SoC
Ethernet	Intel® i225, 10/100/1000/2500Base, RJ45 x 1 Intel® i219, 10/100/1000Base, RJ45 x 1
BIOS	UEFI
Wake on LAN	Yes
Watchdog Timer	255 Levels
Expansion Interface	—
Power Requirement	+12V ATX
Power Supply Type	Lockable DC Jack
Power Consumption	2.89A at +12V, i7-1185G7E, LPDDR4x on board 32GB
System Size	4.80" x 3.18" x 1.98" (122mm x 80.8mm x 50.4 mm)
Gross Weight	0.84 lbs. (0.38 kg)
Operation Temp.	32°F ~ 122°F (0°C ~ 50°C)
Storage Temperature	-40°F ~ 176°F (-40°C ~ 80°C)
Humidity	0% ~ 90% relative humidity, non-condensing
MTBF	424,208
OS support	Windows 10 (64bit), Linux Ubuntu 20.04.2/Kernel 5.8
Display	
Chipset	Intel® Iris® Xe (i5/i7 support) Intel® UHD Graphics (i3/Celeron support)

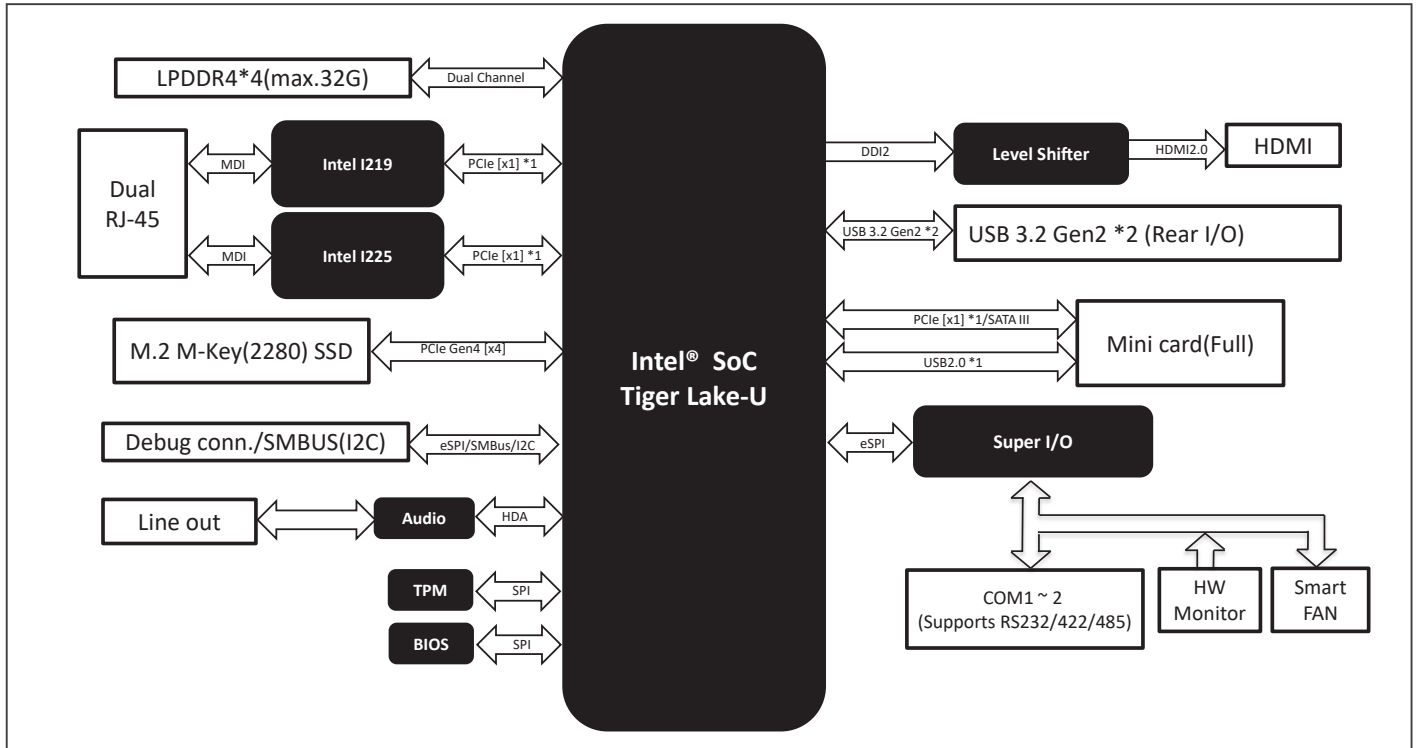
Packing List

Description	Qty.
PICO-TGU4-SEMI	1

Optional Accessories

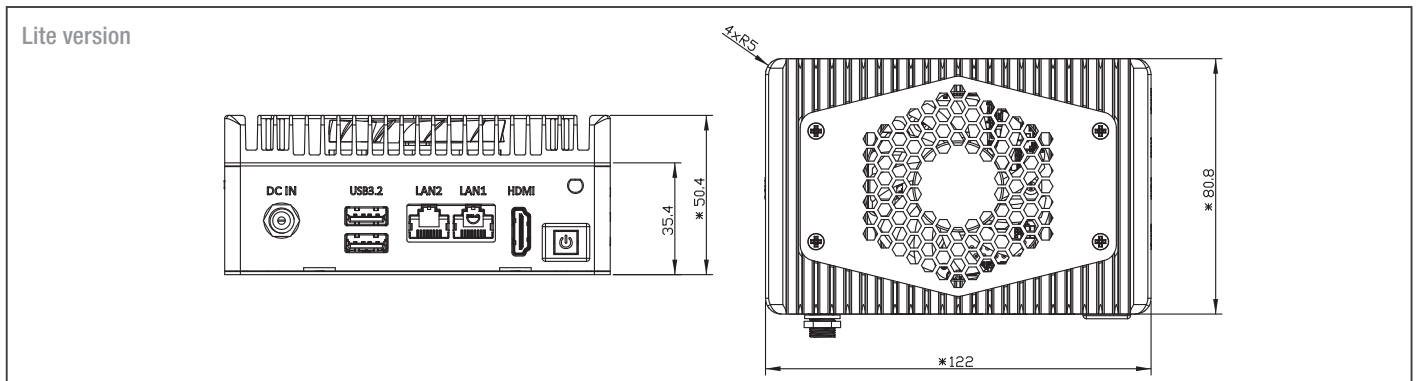
Part Number	Description	Qty.
1702031802	Power Cord (US Type)	1
1702031803	Power Cord (Europe Type)	1
170203180E	Power Cord (Japan)	1
1255201200	Power Adapter 12V/10A 120W FSP120-AHAN3/9NA1206701	1
170X000482	Line out cable	1
170X000483	Dual COM port cable	1
PICO-TGU4-SEMI-VESA1	PICO-TGU4-SEMI VESA bracket kit	1
PICO-TGU4-SEMI-WMT1	PICO-TGU4-SEMI Wallmount bracket kit	1
PICO-TGU4-SEMI-DIN1	Din rail kit	1

Block Diagram



Dimension

Unit: mm



Ordering Information

Part number	CPU	Memory	Thermal	Display	LAN	USB	Expansion slot	Power	Operating Temp	Others
PICO-TGU4-SEMI-A10-0001	Celeron 6305E	4GB	Fan	HDMI x 1	Intel i225 2.5GbE x 1, Intel i219 GbE x 1	USB3.2 Gen 2 x 2	M.2 2280 M-key x 1 mini-PCIe(Full) x 1	+12V ATX	0~50°C	SMBUS/eSPI x 1 (I2C Optional)
PICO-TGU4-SEMI-A10-0002	i3-1115G4E	8GB	Fan	HDMI x 1	Intel i225 2.5GbE x 1, Intel i219 GbE x 1	USB3.2 Gen 2 x 2	M.2 2280 M-key x 1 mini-PCIe(Full) x 1	+12V ATX	0~50°C	SMBUS/eSPI x 1 (I2C Optional)
PICO-TGU4-SEMI-A10-0003	i5-1145G7E	8GB	Fan	HDMI x 1	Intel i225 2.5GbE x 1, Intel i219 GbE x 1	USB3.2 Gen 2 x 2	M.2 2280 M-key x 1 mini-PCIe(Full) x 1	+12V ATX	0~50°C	SMBUS/eSPI x 1 (I2C Optional)
PICO-TGU4-SEMI-A10-0004	i7-1185G7E	8GB	Fan	HDMI x 1	Intel i225 2.5GbE x 1, Intel i219 GbE x 1	USB3.2 Gen 2 x 2	M.2 2280 M-key x 1 mini-PCIe(Full) x 1	+12V ATX	0~50°C	SMBUS/eSPI x 1 (I2C Optional)