

## Specifications

System	
Form Factor	PICO-ITX
CPU	Intel® 11th Generation Core™ i7/i5/i3/Celeron SoC i7-1185G7E (4C, 1.8GHz, up to 4.4GHz, TDP-up 28W) i5-1145G7E (4C, 1.5GHz, up to 4.1GHz, TDP-up 28W) i3-1115G4E (2C, 2.2GHz, up to 3.9GHz, TDP-up 28W) Celeron® 6305E (2C, 1.8GHz, TDP 15W) (i7-1185GRE/i5-1145GRE/i3-1115GRE by customer's request)
CPU Frequency	Up to 4.4GHz
Chipset	Intel® Tiger Lake-UP3 SoC Processor
Memory Type	LPDDR4x 3200 MHz on board memory, In-Band ECC (select SKUs)
Max. Memory Capacity	Up to 32GB
BIOS	AMI UEFI
Wake On LAN	Yes
Watchdog Timer	255 Levels
Power Requirement	+12V AT/ATX (default)
Power Supply Type	Lockable & phoenix Terminal co-lay
Power Consumption (Typical)	Intel® i7-1185G7E, LPDDR4x on board 32GB, 2.89A@ +12V
System Cooling	Heat-spreader and cooler optional
Dimension	3.94" x 2.84" (100mm x 72mm)
Gross Weight	0.55 lb (0.25 Kg)
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)
Storage Temperature	-40°F ~ 176°F (-40°C ~ 80°C)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
MTBF (Hours)	424,208
Certification	CE/FCC Class A
OS Support	Windows 10 (64bit) Linux Ubuntu 20.04.2/Kernel 5.8

## Features

- 11th Gen Intel® Core™ i7/i5/i3/Celeron Processor SoC
- LPDDR4x on board memory, Max. 32 GB
- 2.5GbE Intel i225 + 1GbE Intel i219
- HDMI2.0b x 1, 4Kx2K + eDP, up to HBR3 8K
- M.2 2280 M key(PCIE by4 GEN4/SATA) x 1
- SATA 6.0 Gb/s x 1
- Full size mPCIe/mSATA x 1
- 2 x USB 3.2 Gen 2, 2 x USB 3.2 Gen 1, 4 x USB 2.0
- RS-232/422/485 x 2
- Line-in/Line-out/MIC
- DIO 8 bit



Display	
Chipset	11th Generation Intel® Core™ i7/i5/i3/Celeron SoC
Resolution	HDMI2.0b x 1, 4Kx2K 60Hz eDP x 1, up to HBR3, 8Kx4K 30Hz
LCD Interface	—
I/O	
Storage/SSD	SATA x 1 SATA Power (5V) x 1
Ethernet	Intel® i225, 10/100/1000/2500Base, RJ45 x1 Intel® i219, 10/100/1000Base, RJ45 x1
USB Port	2 x USB3.2 Gen 2/rear IO 2 x USB3.2 Gen 1/header 4 x USB2.0/header
Serial Port	RS-232/422/485 x 2
Audio	High Definition Audio Interface, Line-in/Line-out/MIC (optional)
DIO	8-bit
Expansion Slot	M.2 M key 2280 x 1 (PCIe GEN4 as default, SATA select by HW BOM) Full size mPCIe/mSATA or USB2.0 x 1 (PCIe as default, SATA select by BIOS) SMBUS/I2C and eSPI x 1 (SMBUS as default, I2C select by HW BOM)
SIM	—
TPM	2.0

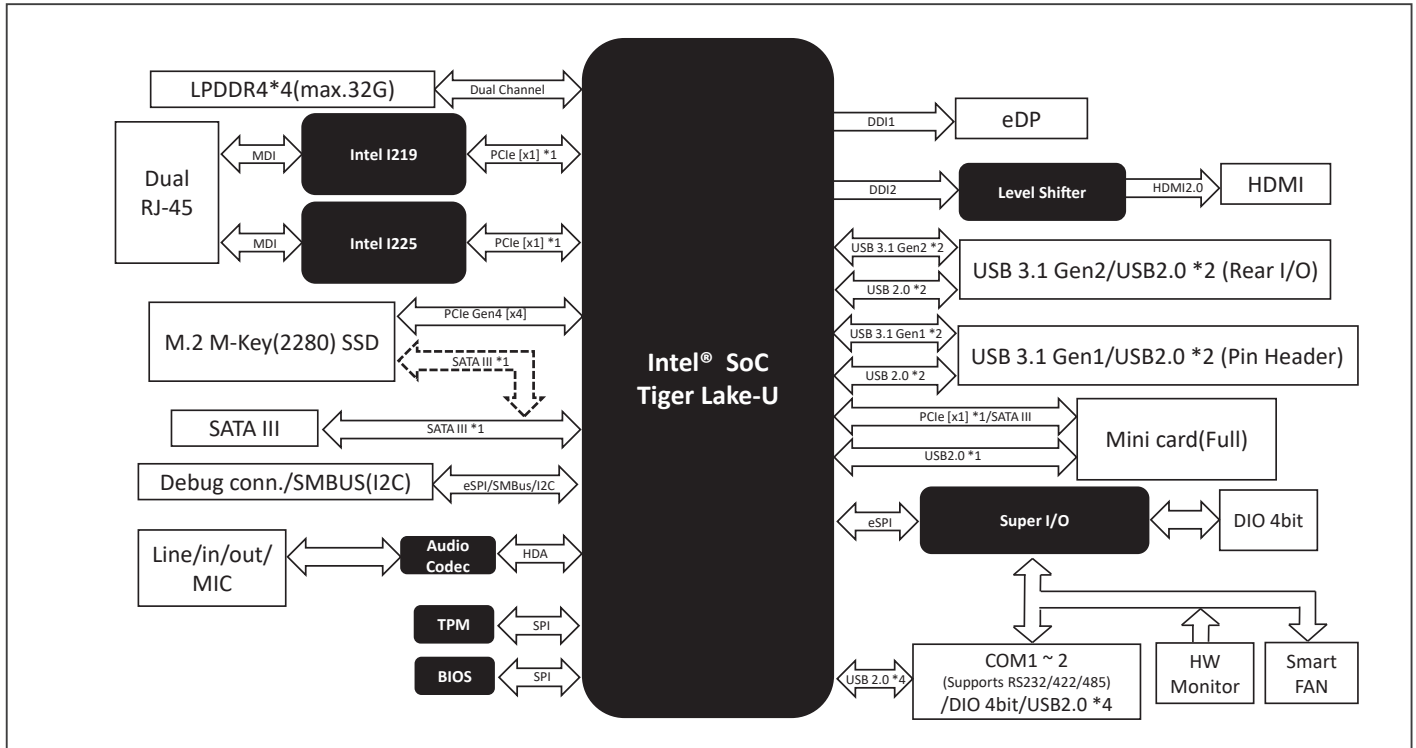
## Packing List

- PICO-TGU4

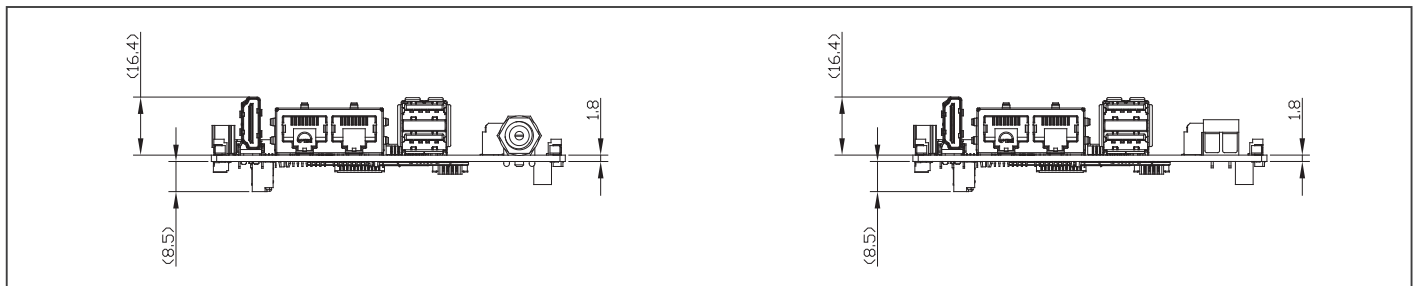
## Optional Accessories

Part Number	Description	Qty.
170X000285	USB3.2 GEN 1 cable	1
170X000284	USB2.0 x 4 + COM x 2 +DIO 4bit x 1 cable	1
170X000287	Front panel cable	1
170X000156	250mm Audio cable	1
1709070500	(TF)SATA CABLE.7P Pitch 1.27mm.50cm	1
170X000322	SATA power cable	1
PICO-TGU4-FAN01	Integrated Cooler for PICO-TGU4, assemble with PICO-TGU4 directly	1
PICO-TGU4-HSP01	Integrated Heat Spreader for PICO-TGU4, assemble with PICO-TGU4 directly	1

### Block Diagram



### Dimension Unit: mm



### Ordering Information

Part Number	CPU	Memory	Display	Storage	LAN	USB	RS-232/422/485	Expansion Slot	Power	Power Temp	Audio	Others
PICO-TGU4-A10-0001	Celeron® 6305E	4G	HDMI x 1 eDP x 1	SATAIII x 1	2.5GbE x 1, Intel i225 GbE x 1, Intel i219	USB3.2 GEN2 x 2 (Rear) USB3.2 GEN1 x 2 (header) USB2.0 x4 (header)	2	M.2 2280 M-key x 1 mini-PCIe(Full) x 1	+12V (Terminal block)	0°C ~ 60°C	Line-in/Line-out/MIC (optional)	DIO, SMBUS/eSPI x 1 (I2C optional)
PICO-TGU4-A10-0002	i3-1115G4E	4G	HDMI x 1 eDP x 1	SATAIII x 1	2.5GbE x 1, Intel i225 GbE x 1, Intel i219	USB3.2 GEN2 x 2 (Rear) USB3.2 GEN1 x 2 (header) USB2.0 x4 (header)	2	M.2 2280 M-key x 1 mini-PCIe(Full) x 1	+12V (Terminal block)	0°C ~ 60°C	Line-in/Line-out/MIC (optional)	DIO, SMBUS/eSPI x 1 (I2C optional)
PICO-TGU4-A10-0003	i3-1115G4E	8G	HDMI x 1 eDP x 1	SATAIII x 1	2.5GbE x 1, Intel i225 GbE x 1, Intel i219	USB3.2 GEN2 x 2 (Rear) USB3.2 GEN1 x 2 (header) USB2.0 x4 (header)	2	M.2 2280 M-key x 1 mini-PCIe(Full) x 1	+12V (Terminal block)	0°C ~ 60°C	Line-in/Line-out/MIC (optional)	DIO, SMBUS/eSPI x 1 (I2C optional)
PICO-TGU4-A10-0004	i5-1145G7E	8G	HDMI x 1 eDP x 1	SATAIII x 1	2.5GbE x 1, Intel i225 GbE x 1, Intel i219	USB3.2 GEN2 x 2 (Rear) USB3.2 GEN1 x 2 (header) USB2.0 x4 (header)	2	M.2 2280 M-key x 1 mini-PCIe(Full) x 1	+12V (Terminal block)	0°C ~ 60°C	Line-in/Line-out/MIC (optional)	DIO, SMBUS/eSPI x 1 (I2C optional)
PICO-TGU4-A10-0005	i7-1185G7E	8G	HDMI x 1 eDP x 1	SATAIII x 1	2.5GbE x 1, Intel i225 GbE x 1, Intel i219	USB3.2 GEN2 x 2 (Rear) USB3.2 GEN1 x 2 (header) USB2.0 x4 (header)	2	M.2 2280 M-key x 1 mini-PCIe(Full) x 1	+12V (Terminal block)	0°C ~ 60°C	Line-in/Line-out/MIC (optional)	DIO, SMBUS/eSPI x 1 (I2C optional)
PICO-TGU4-A10-0006	i7-1185G7E	32G	HDMI x 1 eDP x 1	SATAIII x 1	2.5GbE x 1, Intel i225 GbE x 1, Intel i219	USB3.2 GEN2 x 2 (Rear) USB3.2 GEN1 x 2 (header) USB2.0 x4 (header)	2	M.2 2280 M-key x 1 mini-PCIe(Full) x 1	+12V (Terminal block)	0°C ~ 60°C	Line-in/Line-out/MIC (optional)	DIO, SMBUS/eSPI x 1 (I2C optional)