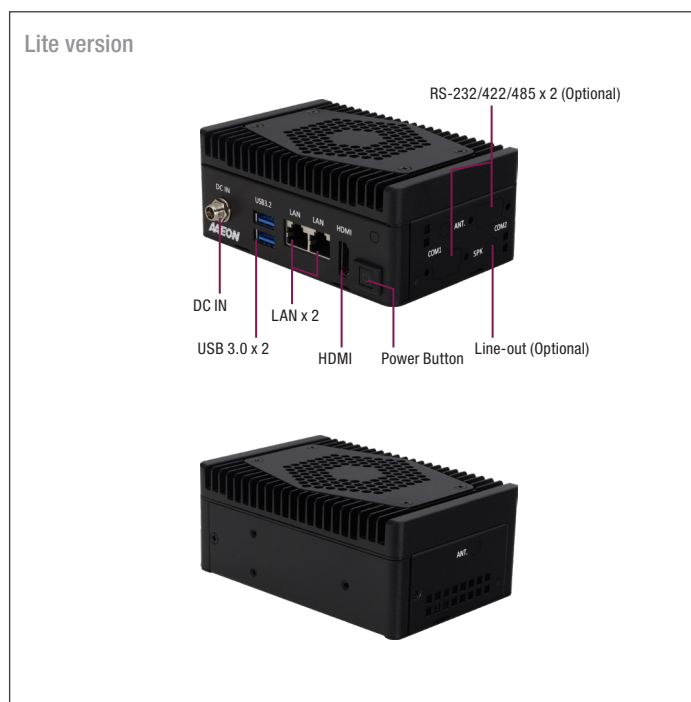




PICO-SEMI Embedded with 11th Generation Intel® Core™ i7/i5/i3/Celeron® U-Series Processor SoC



Features

- 11th Gen Intel® Core™ i7/i5/i3/Celeron Processor SoC
- LPDDR4x onboard 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 (By request)



Internal I/O	
USB	—
Serial Port	—
Video	—
SATA	—
Audio	Line-out (By request)
DIO/GPIO	—
SMBus/I2C	—
Fan	4pins Smart Fan x 1
Front Panel	HDD LED, PWR LED, Power Button, Buzzer, Reset
Others	—
Expansion	
Mini PCIe/mSATA	Full-Size mSATA/mPCIe x 1 (Default: mPCIe, select with BIOS)
M.2	M.2 2280 M-Key x 1 (PCIe 4.0 [x4]/SATA, Default: PCIe [x4], select with HW BOM)
Others	—
Environment & Certification	
Operating Temp	32°F ~ 122°F (0°C ~ 50°C)
Storage Temp	-40°F ~ 185°F (-40°C ~ 85°C)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
MTBF (Hours)	424,208
EMC	CE/FCC Class A

Specifications

System	
Form Factor	PICO-SEMI
CPU	Intel® 11th Generation Core™ / Celeron Processors: i7-1185G7E (4C/8T, 1.80GHz, 15W) i5-1145G7E (4C/8T, 1.5GHz, 15W) i3-1115G4E (2C/4T, 2.20GHz, 15W) 6305E (2C/2T, 1.80GHz, 15W)
Chipset	Integrated with Intel® SoC
Memory Type	Onboard LPDDR4x 3200, Dual Channel, In-Band ECC (select SKUs, Max.32GB)
BIOS	UEFI
Wake on LAN	Yes
Watchdog Timer	255 Levels
Security	TPM2.0 (Optional)
RTC Battery	Lithium Battery 3V/240mAh
Dimension	4.80" x 3.18" x 1.98" (122mm x 80.8mm x 50.4 mm)
Gross Weight	0.84 lbs (0.38 kg)
OS Support	Windows 10 (64bit) Linux Ubuntu 20.10.2/Kernel 5.8.0-33-generic
Power	
Power Requirement	+12V
Power Supply Type	ATX
Connector	DC Jack Connector
Power Consumption	Intel® i7-1185G7E, LPDDR4x 32GB, 2.89A@ +12V (TYPICAL)
Display	
Controller	Intel® Iris® Xe (i5/i7 support) Intel® UHD Graphics (i3/Celeron support)
LVDS/eDP	—
Display Interface	HDMI2.0 x 1, 3840 x 2160 @60Hz
Multiple Display	Single display
Audio	
Codec	Realtek ALC269 (By request)
Audio Interface	Line-out (By request)
Speaker	—
External I/O	
Ethernet	Intel® i225/226, 2.5GbE, RJ-45 x 1 Intel® i219, 1GbE, RJ-45 x 1
USB	USB3.2 Gen2 x 2
Serial Port	COM1~2 (RS232/422/485, support 5V/12V/RI, Optional)
Video	HDMI2.0 x 1

Packing List

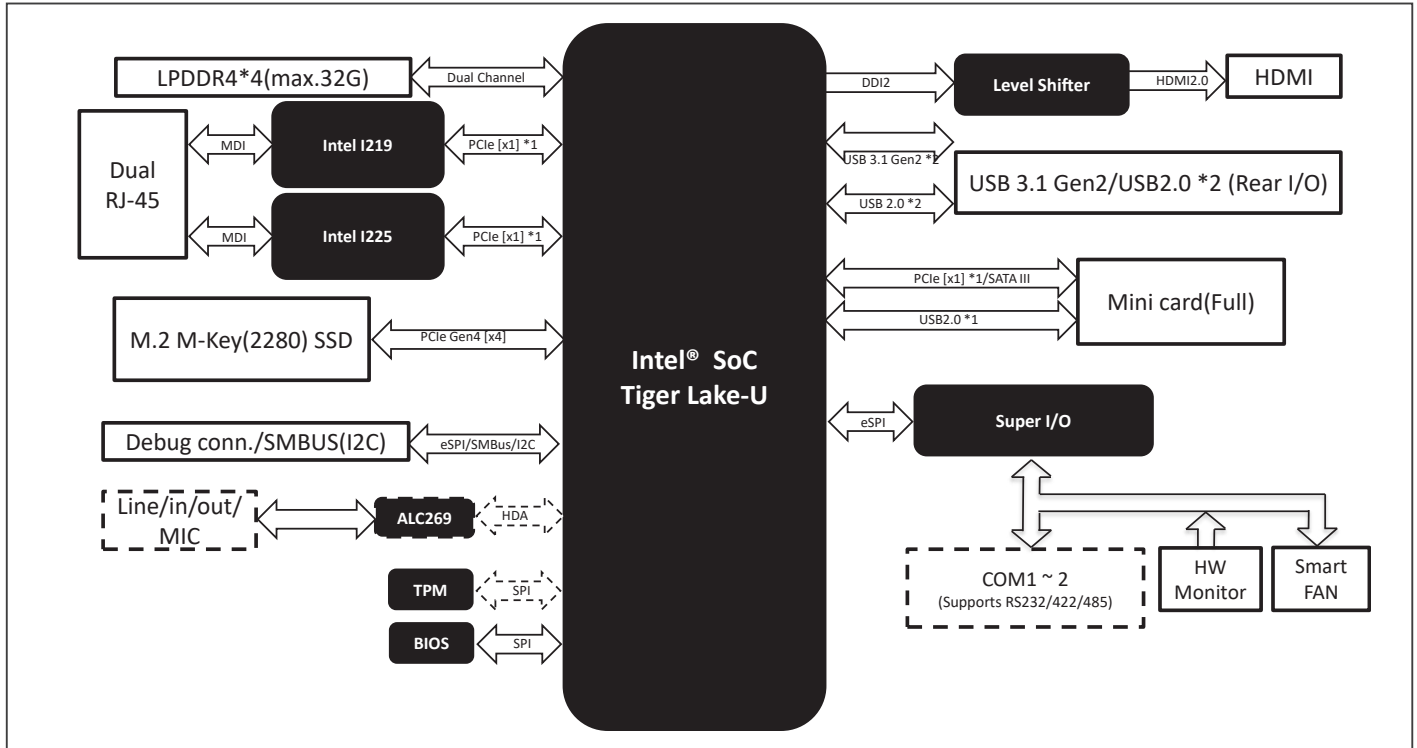
- PICO-TGU4-SEMI

Optional Accessories

Part Number	Description	Qty.
1702031802	POWER CORD.3P-125V 10A 180D.1.8M (US Type)	1
1702031803	POWER CORD.3P-250V 10A 180D.1.8M.VDE (Europe Type)	1
170203180E	Power cord.3P.125V/7A.1.8M.PSE (Japan type)	1
1255X00063	Power Adapter 12V/12.5A 150W	1
170X000482	Audio cable.50mm	1
170X000483	Dual COM cable. 120mm	1
PICO-TGU4-SEMI-VESA1	VESA bracket kit	1
PICO-TGU4-SEMI-WMT1	Wallmount bracket kit	1
PICO-V2K4-SEMI-DIN1	Din rail kit	1

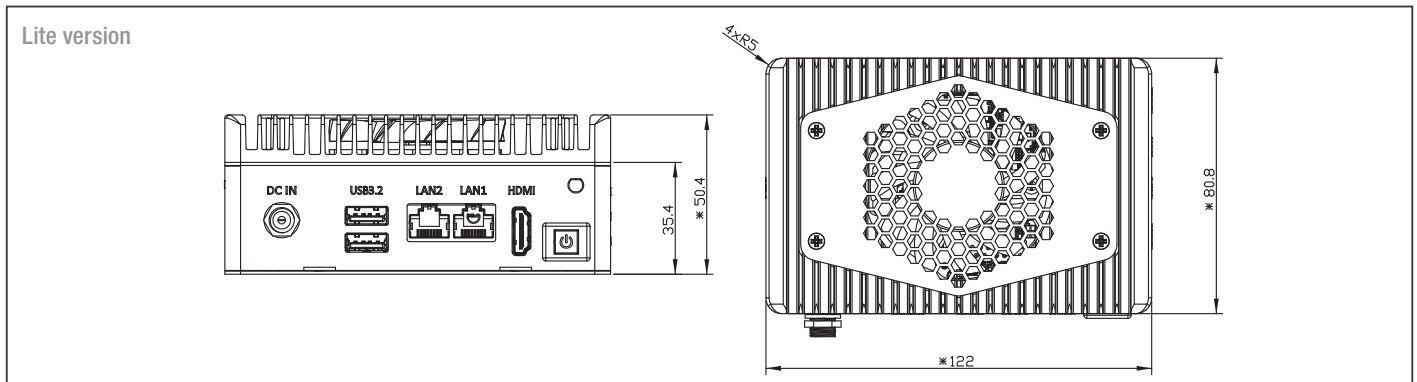


Block Diagram



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	Cooler	HDMI x 1	2.5GbE x 1, 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
PICO-TGU4-SEMI-A10-0002	i3-111564E	8GB	Cooler	HDMI x 1	2.5GbE x 1, 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
PICO-TGU4-SEMI-A10-0003	i5-114567E	8GB	Cooler	HDMI x 1	2.5GbE x 1, 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
PICO-TGU4-SEMI-A10-0004	i7-118567E	8GB	Cooler	HDMI x 1	2.5GbE x 1, 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