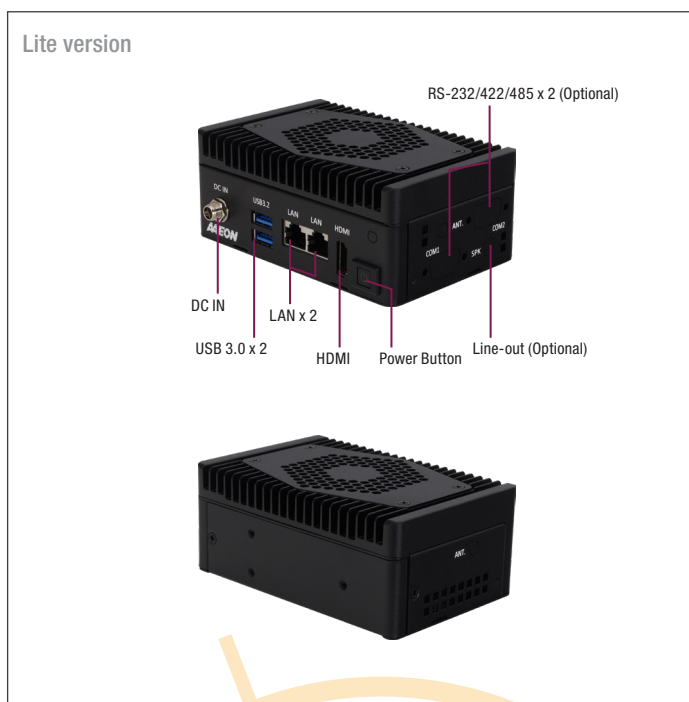


PICO-TGU4-SEMI

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

PICO-SEMI



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

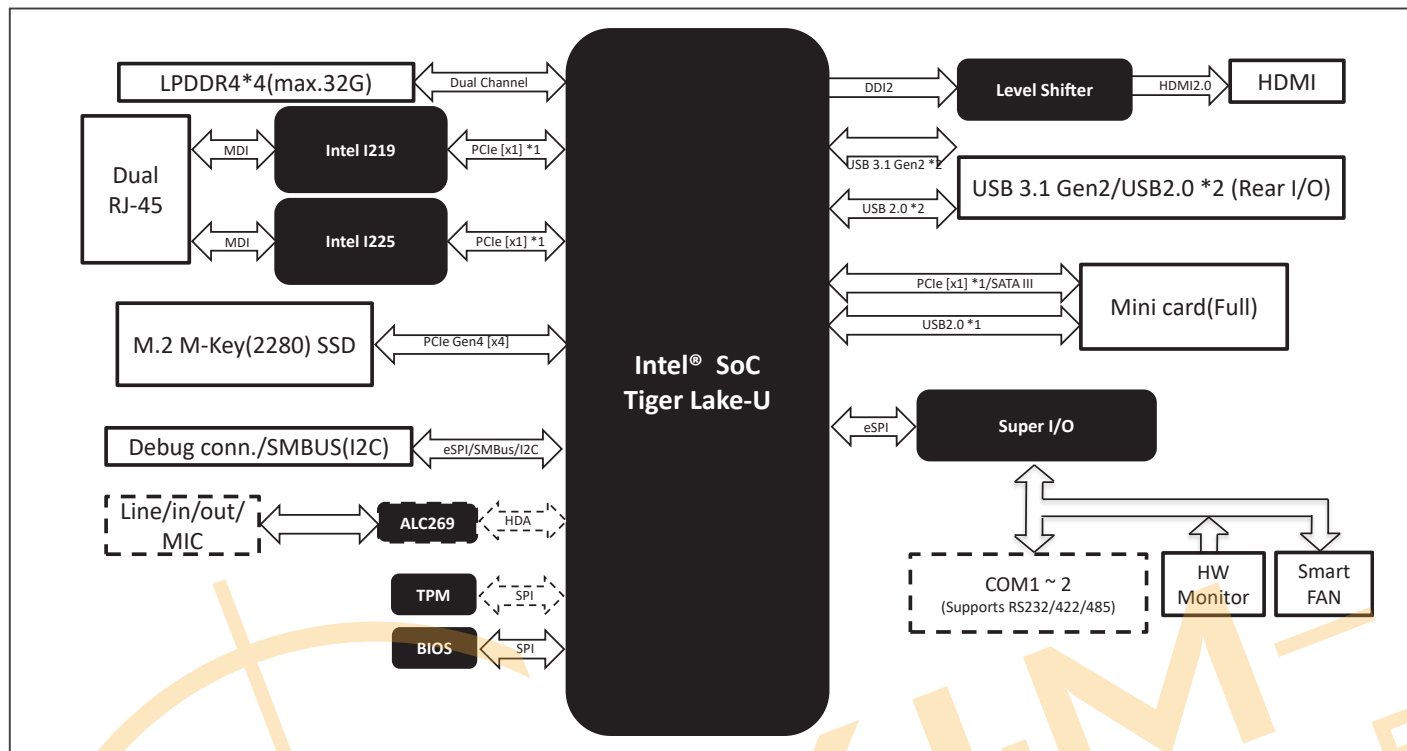
- PICO-TGU4-SEMI

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

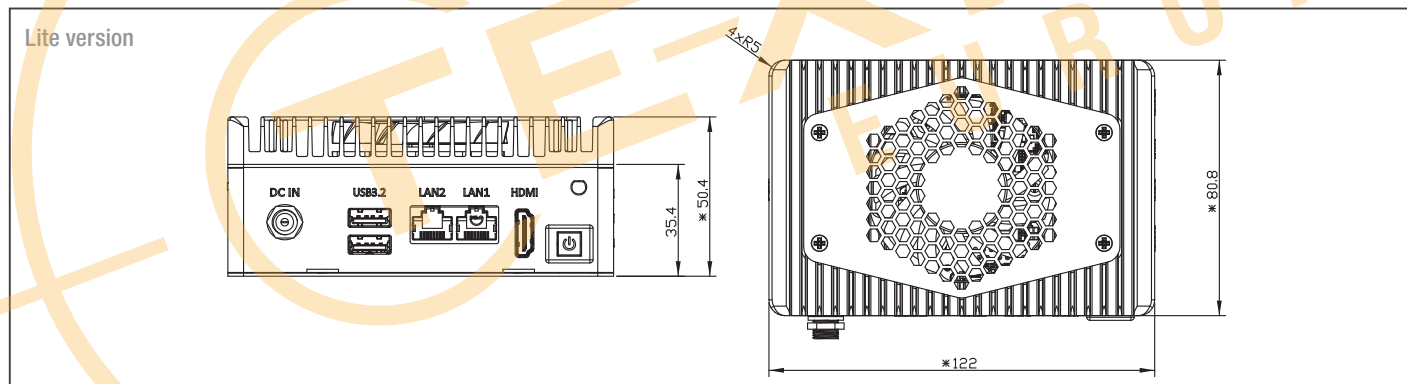


Block Diagram



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

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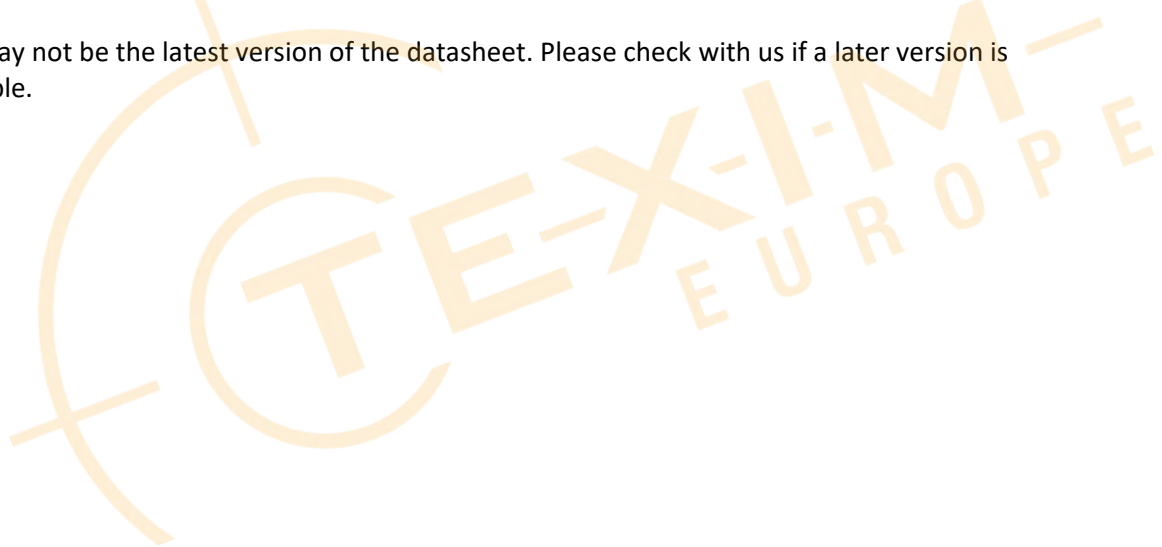
It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application.

Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time.

All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts.

Please contact us if you have any questions about the contents of the datasheet.

This may not be the latest version of the datasheet. Please check with us if a later version is available.





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