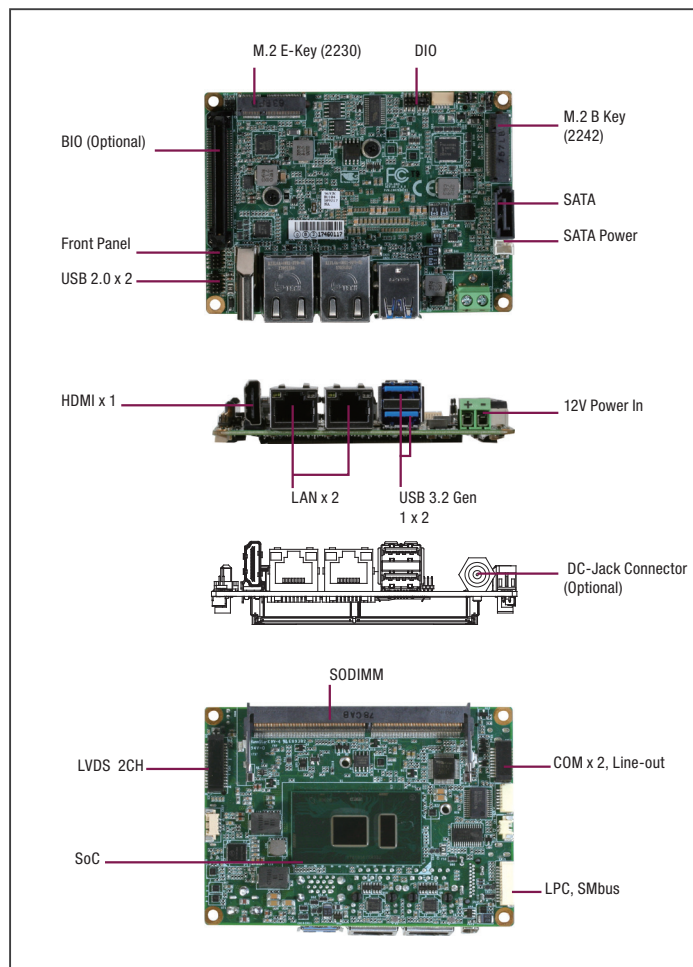


Pico-ITX Board with 7th Generation Intel® Core™ i7/i5/i3/Celeron® U-Series Processor SoC



## Specifications

System	
Form Factor	Pico-ITX
CPU	7th Generation Intel® Core™ i processor U series, Intel® i7-7600U, i5-7300U, i3-7100U series & Celeron® 3965U (optional)
CPU Frequency	Up to 3.9/2.8 GHz
Chipset	7th Generation Intel® Core™ i processor U series, Intel® i7-7600U, i5-7300U, i3-7100U series & Celeron® 3965U (optional)
Memory Type	DDR4 1866/2133MHz SODIMM x 1, Max. 16 GB
Max. Memory Capacity	Up to 16 GB
BIOS	AMI/SPI
Wake On LAN	Yes
Watchdog Timer	255 Levels
Power Requirement	+12V AT/ATX (default)
Power Supply Type	AT/ATX (default)
Power Consumption (Typical)	i7-7600@DDR4 16GB, 12V@2.3A
System Cooling	Heat-spreader, heatsink & cooler (Smart FAN) 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)	163,000
Certification	CE, FCC
OS support	Windows 10 (64 bit)

## Features

- 7th Generation Intel® Core™ i7/i5/i3/Celeron® Processor SoC
- DDR4 SODIMM Slot x 1, up to 16 GB
- Dual Gigabit Ethernet Support
- HDMI 1.4b, LVDS 2CH Display
- USB 3.2 Gen 1 x 2, USB 2.0 x 2, SATA 6.0Gb/s x 1
- COM1: RS-232; COM2: RS-232/422/485
- M.2 B Key (2242) x 1, M.2 E Key (2230) x 1
- BIO (Optional)



Display	
Chipset	7th Generation Intel® Core™ i processor U series, Intel® i7-7600U, i5-7300U, i3-7100U series & Celeron® 3965U (Optional)
Resolution	LVDS (18/24-bit 2CH) 1920 x 1200 HDMI 1.4b up to 4096 x 2304 (4K) DDI (BIO)
LCD Interface	18/24-bit 2CH LVDS
I/O	
Storage/SSD	SATA 6.0 Gb/s x 1, M.2 B-key (2242)
Ethernet	Realtek 8111 Gigabit Ethernet 10/100/1000Base-TX, RJ-45 x 2
USB Port	USB 3.2 Gen 1 x 2 Rear I/O, USB 2.0 x 2 Pin header
Serial Port	COM1: RS-232 x 1, COM2: RS-232/422/485 x 1 (Ring/ +5V/ +12V)
Audio	Line-out x1
DIO	4-bit (2-in, 2-out)
Expansion Slot	M.2 E-Key (2230), BIO ( optional), Smbus x 1
SIM	—
TPM	—

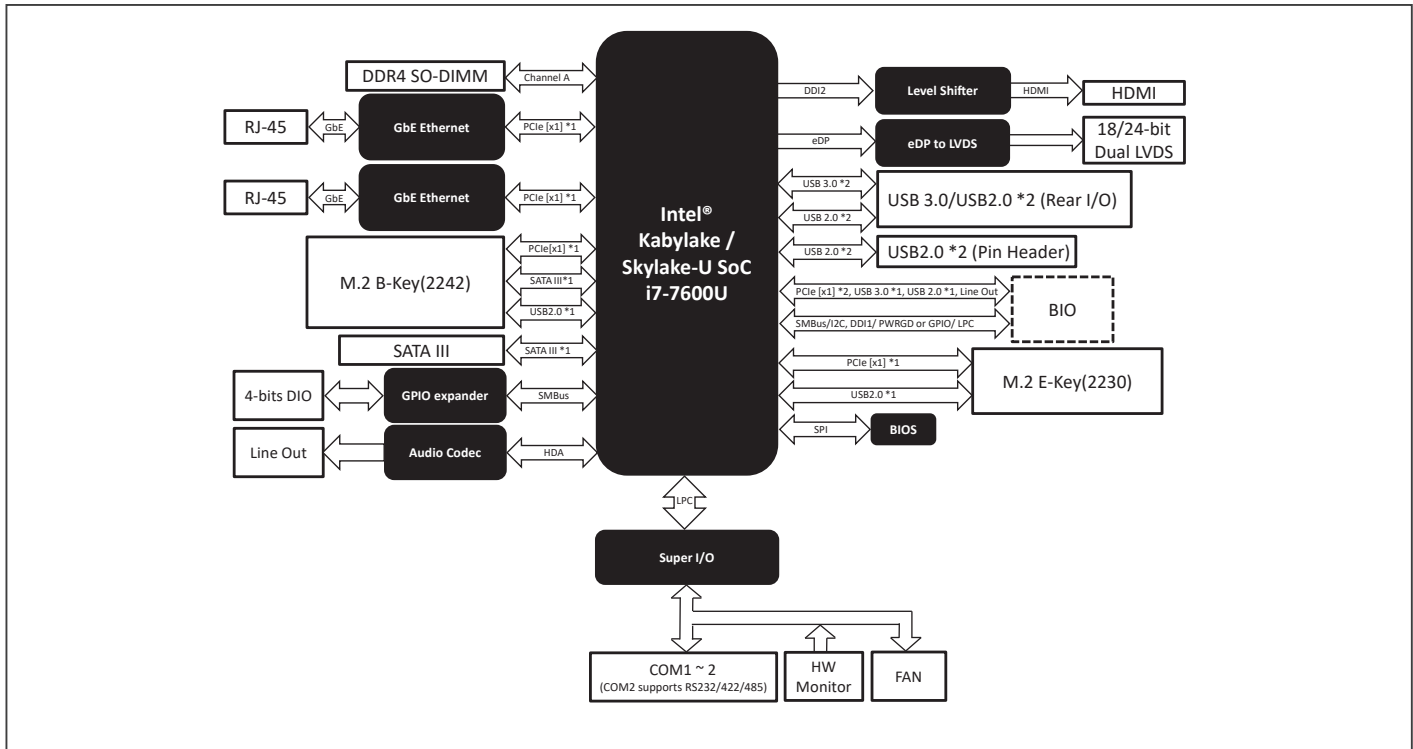
## Packing List

- PICO-KBU4

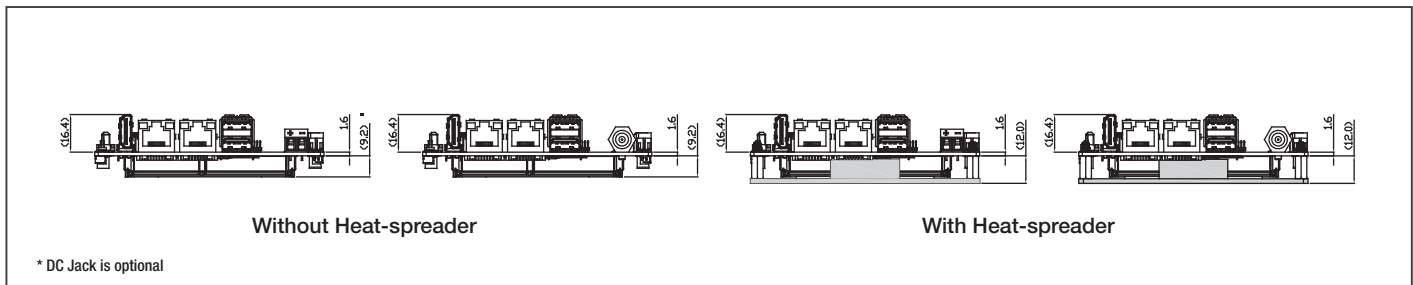
## Optional Accessories

Part Number	Description	Qty.
1709070500	SATA CABLE. 7P Pitch. 27mm. 50cm	1
1702150155	SATA Power Cable, 15cm	1
170010010D	USB cable (2 Port), 10cm	1
1701200101	Cable for COM x 2 & line-out, 10 cm	1
PICO-KBU4-HSP01	Heat-spreader for PICO-KBU4	1
PICO-KBU4-FAN01	Integrated Cooler for PICO-KBU4, assemble with PICO-KBU4 directly.	1

## Block Diagram



## Dimension Unit: mm



## Ordering Information

Part Number	CPU	Memory	Thermal	Display	Storage	LAN	USB	RS-232	RS-232/422/485	Expansion Slot	Power	Power Temp	Others
PICO-KBU4-A10-0001	Celeron® 3965	DDR4 Socket	optional	HDMI x 1 LVDS x 1	SATAIII x 1 M.2 2242 (B Key) x 1	GbE x 2	USB 3.2 Gen 1 x 2 (Rear) USB 2.0 x 2 (Internal)	1	1	M.2 2230 (E Key) x 1	+12V (Terminal block)	0°C ~ 60°C	DIO x 4 bit BIO (Optional)
PICO-KBU4-A10-0002	i3-7100U	DDR4 Socket	optional	HDMI x 1 LVDS x 1	SATAIII x 1 M.2 2242 (B Key) x 1	GbE x 2	USB 3.2 Gen 1 x 2 (Rear) USB 2.0 x 2 (Internal)	1	1	M.2 2230 (E Key) x 1	+12V (Terminal block)	0°C ~ 60°C	DIO x 4 bit BIO (Optional)
PICO-KBU4-A10-0003	i5-7300U	DDR4 Socket	optional	HDMI x 1 LVDS x 1	SATAIII x 1 M.2 2242 (B Key) x 1	GbE x 2	USB 3.2 Gen 1 x 2 (Rear) USB 2.0 x 2 (Internal)	1	1	M.2 2230 (E Key) x 1 BIO x 1	+12V (Terminal block)	0°C ~ 60°C	DIO x 4 bit
PICO-KBU4-A10-0004	i7-7600U	DDR4 Socket	optional	HDMI x 1 LVDS x 1	SATAIII x 1 M.2 2242 (B Key) x 1	GbE x 2	USB 3.2 Gen 1 x 2 (Rear) USB 2.0 x 2 (Internal)	1	1	M.2 2230 (E Key) x 1 BIO x 1	+12V (Terminal block)	0°C ~ 60°C	DIO x 4 bit
PICO-KBU4-A10-0005	Celeron® 3955 (6th Gen)	DDR4 Socket	optional	HDMI x 1 LVDS x 1	SATAIII x 1 M.2 2242 (B Key) x 1	GbE x 2	USB 3.2 Gen 1 x 2 (Rear) USB 2.0 x 2 (Internal)	1	1	M.2 2230 (E Key) x 1	+12V (Terminal block)	0°C ~ 60°C	DIO x 4 bit BIO (Optional)
PICO-KBU4-A10-DC06	i3-7100U	DDR4 Socket	optional	HDMI x 1 LVDS x 1	SATAIII x 1 M.2 2242 (B Key) x 1	GbE x 2	USB 3.2 Gen 1 x 2 (Rear) USB 2.0 x 2 (Internal)	1	1	M.2 2230 (E Key) x 1	+12V (DC Jack)	0°C ~ 60°C	DIO x 4 bit BIO (Optional)
PICO-KBU4-A10-0007	i5-6300U (6th Gen)	DDR4 Socket	optional	HDMI x 1 LVDS x 1	SATAIII x 1 M.2 2242 (B Key) x 1	GbE x 2	USB 3.2 Gen 1 x 2 (Rear) USB 2.0 x 2 (Internal)	1	1	M.2 2230 (E Key) x 1 BIO x 1	+12V (Terminal block)	0°C ~ 60°C	DIO x 4 bit
PICO-KBU4W1-A10-0004	i7-7600U	DDR4 Socket	optional	HDMI x 1 LVDS x 1	SATAIII x 1 M.2 2242 (B Key) x 1	GbE x 2	USB 3.2 Gen 1 x 2 (Rear) USB 2.0 x 2 (Internal)	1	1	M.2 2230 (E Key) x 1 BIO x 1	+12V (Terminal block)	-20°C ~ 70°C	DIO x 4 bit