

PB-Atom-E39x0

PC/104 board with low-power ext. temp. CPU
Intel Atom E39x0 Processor Series

PC/104-Plus™



The PB-Atom-E39x0 is based on the Intel® Atom® Apollo Lake X5-E3930 or E3940 processor. The performance is currently 1,30/1.60 GHz and up to 1.80 GHz burst. The DDR3L RAM supports up to 8 GB and is added via SO-DIMM socket. The integrated graphics unit Intel® HD Graphics 500 supports CRT displays up to a resolution of 1920x1200 and LVDS displays up to a resolution of 1920x1200. This interfaces are available: 2x RS232 (1x RS232, 1x RS232/422/485), 2x USB 3.0, 4x USB 2.0, 1x SATA, 1x M.2 and dual Gigabit LAN as well as a HD Audio interface.

Technical Data	
System	
CPU Type	Intel Atom® Apollo Lake X5-E3930 Intel Atom® Apollo Lake X5-E3940
Chipset	Integrated
Memory Type	Max. 8GB DDR3L SO-DIMM Slot
BIOS	AMI® 64M bits SPI FLASH
Super I/O	F81803
Watchdog Timer	1-255 sec. or 1-255 min. setup by software
Expansion Slot	
Expansion Interface	1x PC/104Plus™
Display	
Chipset	Integrated Intel® HD Graphics 500
Onboard VGA	VGA output (1920x1200 resolution) with 2x8 pin header
LVDS	24-bit single channel LVDS connector with 2x20 pin header
Dual Display Capability	VGA + LVDS
Audio	
Codec	Audio card with Line IN/ Line OUT/ MIC IN (Optional)
Ethernet	
Chipset	2x Intel® i211AT Gigabit Ethernet
Interface	2x IEEE 802.3 10/100/1000 Mbit/s compliant physical layer
I/O	
SATA port	1x SATAII up to 3Gbit/s
USB Port	2x USB 3.0 or 4x USB2.0
COM port	COM 1 port : RS-232 COM 2 port : RS-232/422/485
LAN Port	2x GbE Copper by 2x10 pin connector
Storage	1x SATA, 1x M.2
Fan Connector	1x 12V
GPIO	4x in 4xout
Mechanical and Environment	
Form Factor	PC/104
Power Type	AT mode (5V DC +/-5%)
Dimension	116mm (L) x 96mm (W)
Operating Temp.	-20°C ~ +85°C
Storage Temp.	-40°C ~ +85°C
Relative humidity	10% ~ 97% (operating, non-condensing) 5% ~ 97% (non-operating, non-condensing)

Features

- Intel® Atom E3940 (1.60Ghz/4C/2M)
- Low power consumption 9.5W
- Up to 8GB DDR3L 1866
- Dual LAN connector (2 x GbE)
- 1x SATA, 1x M.2 socket (2242)
- 8GB eMMC 5.0 Flash onboard
- GPIO 4x in & 4x out
- Supports PC/104+ and PC/104 connector

Order Information

Article	Part-No.	Description
PB-Atom-E3930	tbd	Intel Apollo Lake E3930
PB-Atom-E3940	tbd	Intel Apollo Lake E3940
Accessories	Part-No.	Description

