

# Axiomtek PICO319 2.5" Intel Atom x5-E3940 Pico-ITX SBC with DisplayPort, LVDS, 2 GbE LAN and Audio

## Key Features:

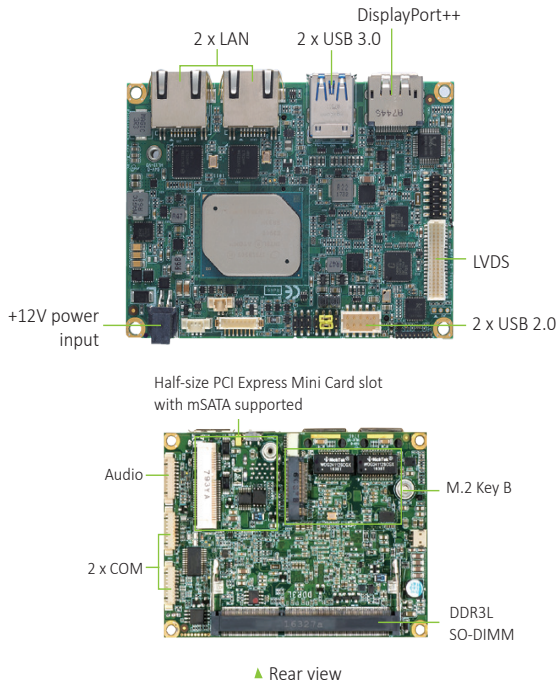
- Intel Atom x5-E3940 processor
- 1 DDR3L SO-DIMM for up to 8GB of memory
- 2 GbE LAN
- 1 PCI Express Mini Card slot with mSATA supported
- Supports M.2 Key B

## Description

The PICO319 is powered by the onboard Intel Atom x5-E3940 quad-core processor. The noise-free pico-ITX motherboard offers combinations of ruggedness, high computing capabilities and enhanced graphics capability in an extremely compact size of only 100 x 72 mm. Moreover, the board features 12V DC power supply input with AT Auto Power On function. A dual-display capability is available through DisplayPort++ and 18/24-bit single/dual channel LVDS ports. For extensive storage needs, this compact embedded motherboard has one M.2 Key B slot (22 x 42 mm or 30 x 42 mm) for SATA or PCIe x2 SSD card and one half-size PCI Express Mini Card slot in support of mSATA. The Intel Atom-based pico-ITX board comes with rich I/O connectors, including two USB 2.0 ports, two USB 3.0 (USB 3.1 Gen1) ports, one RS-232/422/485 port, one RS-232 port, one HD Codec audio, and 4-channel digital I/O. It also supports SMBus that is compatible with I2C for smart battery support. The PICO319 offers watchdog timer and hardware monitoring function for reliable operation.

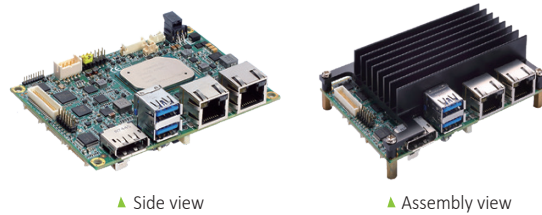
# PICO319

Pico-ITX SBC with Intel Atom® x5-E3940 Processor, DisplayPort++, LVDS, 2 GbE LAN, and Audio



## Features

- Intel Atom® x5-E3940 processor
- 1 DDR3L SO-DIMM for up to 8GB of memory
- 1 PCI Express Mini Card slot with mSATA supported
- 2 GbE LAN
- M.2 Key B



## Specifications

### Core System

CPU	Intel Atom® x5-E3940 processor onboard
System Memory	1 x 204-pin DDR3L-1867 SO-DIMM, up to 8GB
Chipset	SoC integrated
BIOS	AMI
SSD	1 x M.2 Key B (SATA, USB 2.0, USB 3.0, PCIe x2 optional) in 22 x 42 or 30 x 42 1 x mSATA (optional)
Watchdog Timer	65536 levels, 1 to 65535 sec.
Expansion Interface	1 x Half-size PCI Express Mini Card slot
Battery Lithium	Lithium 3V/220 mAh
Power Input	2 x 2-pin connector +12V DC-in only AT Auto Power On function supported
Power Requirements	Intel Atom® x5-E3940 @1.6 GHz 8GB DDR3L, min. RMS: +12V @1.3A

### Display

Chipset	Intel® integrated Gfx graphic engine
Memory Size	Share system memory
Display Interface	1 x DisplayPort++ 1 x LVDS; 18/24-bit single/dual channel

**I/O**

SATA	N/A
Hardware Monitoring	Detect CPU/system temperature and voltage
Ethernet	2 x 10/100/1000 Mbps Ethernet with Intel® I210-AT; support Wake-on-LAN, PXE Boot ROM
Audio	HD Codec audio as MIC-in/Line-in/Line out with Realtek ALC662
USB	2 x USB 2.0 2 x USB 3.0
Serial	1 x RS-232/422/485 1 x RS-232
TPM	N/A
SMBus	Yes; compatible with I <sup>2</sup> C
Digital I/O	4-channel in/out programmed

**Mechanical and Environmental**

Dimensions	100 x 72 mm
Board Thickness	1.6 mm
Operating Temperature	-40°C to +70°C (-40°F to 158°F)
Humidity	10% to 95% relative humidity, non-condensing

**Packing List**

**Accessories**

594H3160400E	Power cable, L=100 mm
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**Ordering Information**

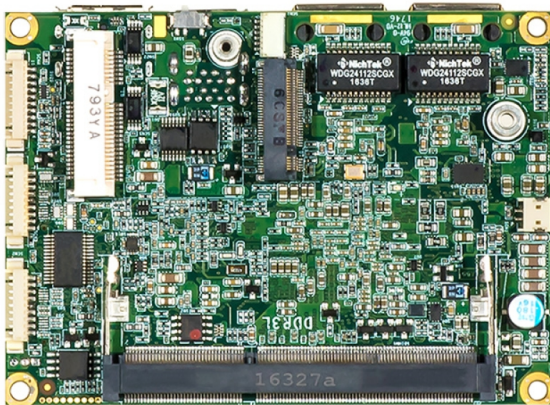
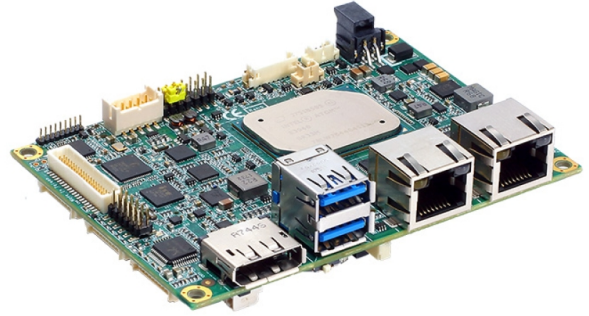
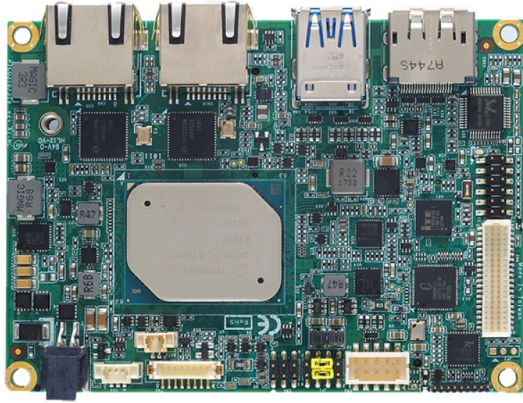
**Standard**

PICO319PGGA-E3940 (P/N: E38H319100)	Pico-ITX SBC with Intel Atom® x5-E3940 processor (1.6 - 1.8 GHz, 2MB cache, 9.5W), DisplayPort++, LVDS, 2 GbE LAN, 2 USB 2.0, and 2 USB 3.0 (without heatsink)
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**Optional**

PICO319PGGA-E3940 (P/N: E38H319101)	Pico-ITX SBC with Intel Atom® x5-E3940 processor (1.6 - 1.8 GHz, 2MB cache, 9.5W), DisplayPort++, LVDS, 2 GbE LAN, 2 USB 2.0, and 2 USB 3.0 (with heatsink)
7128H319000E	Heatspreader
594H3180400E	Power cable for adapter, L=180mm
50966124050E	Adapter 12V 60W FSP060-DHAN3 with screw
59312260020E	Audio cable with bracket, P=1.25 mm, L=450 mm
59380880250E	COM port cable DB9-9 x 1-pin, P=1.25 mm, L=250 mm
594E8422800E	2 x USB 2.0 cable with bracket, L=180 mm
594H3186800E	Buzzer cable 9 x 5.5 mm 2-pin, L=40 mm
E393A19100	AX93A19 SIM card slot board

## Images



## Ordering Information

**PICO319PGGA-E3940 (P/N-E38H319100):** Pico-ITX SBC with Intel Atom x5-E3940 processor (1.6 – 1.8 GHz, 2MB cache, 9.5W), DisplayPort++, LVDS, 2 GbE LAN, 2 USB 2.0, and 2 USB 3.0 (without heatsink)

**PICO319PGGA-E3940 70°C (P/N-E38H319101):** Pico-ITX SBC with Intel Atom x5-E3940 processor (1.6 – 1.8 GHz, 2MB cache, 9.5W), DisplayPort++, LVDS, 2 GbE LAN, 2 USB 2.0, and 2 USB 3.0 (with heatsink)

## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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