

## Axiomtek CAPA310 3.5" Intel Atom x5-E3940 Embedded SBC w/ LVDS, HDMI & 2 GbE LAN

### Key Features:

- Intel Atom x5-E3940 processor
- 1 x DDR3L SO-DIMM for up to 8GB of memory
- 2 x USB 2.0 and 4 x USB 3.0
- 1 x PCI Express Mini Card slot
- ZIO connector

## Description

The Axiomtek CAPA310 features the onboard quad-core Intel Atom x5-E3940 processor (codename: Apollo Lake). The fanless small form factor embedded board is highly reliable with an extended operating temperature range of -40°C to +80°C and a wide range power input of 12V to 24V DC. This industrial-grade 3.5-inch embedded board is feature-rich and expandable, with stunning graphical performance. The CAPA310 is a highly versatile platform designed for Industrial IoT and intelligent systems such as industrial automation, self-service terminals, digital signage, POS/kiosk displays, medical, and more. To ensure flexible configuration and expandability, the CAPA310 has an emphasis on expandability with a full-size PCIe Mini Card slot and an optional ZIO connector for additional PCIe, LPC, USB and SMBus. Additionally, this compact embedded board features the Intel integrated Gfx graphic engine to deliver high-resolution HD support for display interfaces: HDMI, LVDS and optional VGA. It is perfectly suited for gaming and signage applications.

## Website Specification

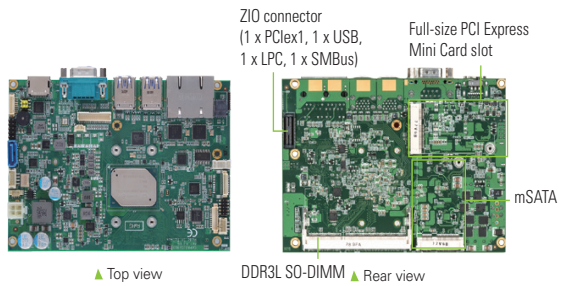
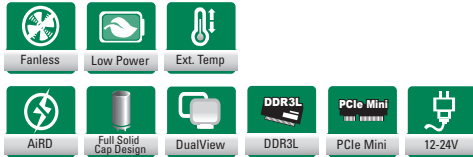
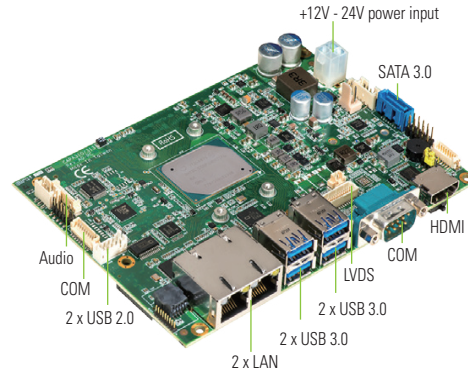
CPU	Intel Atom x5-E3940 processor onboard
Chipset	SoC integrated
System Memory	1 x 204-pin DDR3L-1867 SO-DIMM, up to 8GB
BIOS	AMI
COM	1 x RS-232/422/485, 1 x RS-232
USB	2 x USB 2.0, 4 x USB 3.0
Ethernet	2 x 10/100/1000 Mbps (Intel i211-AT);
Display	1 x HDMI, 1 x LVDS, 1 x VGA (optional)
Digital I/O	8-channel in/out programmed
Audio	MIC-in/Line-in/Line out
Storage	1 x mSATA, 1 x SATA-600
Expansion	1 x Full-size PCI Express Mini Card slot, 1 x USB, 1x PCIe x1, 1x LPC, 1 x SMBus through a ZIO connector
Others	ST ST33HTPH2E32AHA6 with TPM 2.0 compliant (optional), 1 x I2C
Battery	Lithium 3V/220mAH
Power Input	2 x 2 pin connector, +12V to 24 VDC-in, AT Auto Power On function supported
Power Requirements	Intel Atom x5-E3940 @1.6GHz 8GB DDR3L, Max. RMS: +24V @0.8A
Watchdog Timer	65536 levels, 1 to 65535 sec.
Hardware Monitoring	Yes
Operating Temperature	-40°C to +80°C (-40°F to 185°F)
Relative Humidity	10% to 95% relative humidity, non-condensing
Dimensions	146 x 104 mm
Board Thickness	1.6 mm
Certifications	CE

# CAPA310 NEW

3.5" Embedded SBC with Intel® Atom® x5-E3940 Processor, LVDS, HDMI, 2 GbE LANs and Audio

## Features

- Intel® Atom® x5-E3940 processor
- 1 DDR3L SO-DIMM for up to 8GB of memory
- 2 USB 2.0 and 4 USB 3.0
- 1 PCI Express Mini Card slot
- ZIO connector



▲ Top view      DDR3L SO-DIMM ▲ Rear view

### 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 mSATA
Watchdog Timer	65536 levels, 1 to 65535 sec.
Expansion Interface	1 x Full-size PCI Express Mini Card slot 1 x USB, 1x PCIe x1, 1x LPC, 1 x SMBus through a ZIO connector
Battery Lithium	Lithium 3V/220mAh
Power Input	2 x 2 pin connector +12V to 24 VDC-in AT Auto Power On function supported
Power Requirements	Intel® Atom® x5-E3940 @1.6GHz 8GB DDR3L Max. RMS: +24V @0.8A
Dimensions	146 x 104 mm
Board Thickness	1.6 mm
Operating Temperature	-40°C to +80°C (-40°F to 185°F)
Humidity	10% to 95% relative humidity, non-condensing

### I/O

SATA	1 x SATA-600
Hardware Monitoring	Detect CPU/system temperature and voltage
Ethernet	2 x 10/100/1000 Mbps Ethernet with Intel® i211-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 4 x USB 3.0
Serial	1 x RS-232/422/485 1 x RS-232
TPM	ST ST33HTPH2E32AHA6 with TPM 2.0 compliant (optional)
SMBus	Yes
Others	1 x I <sup>2</sup> C
Digital I/O	8-channel in/out programmed

### Display

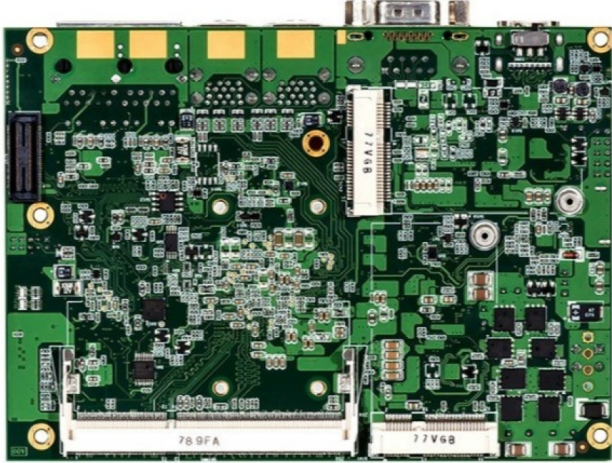
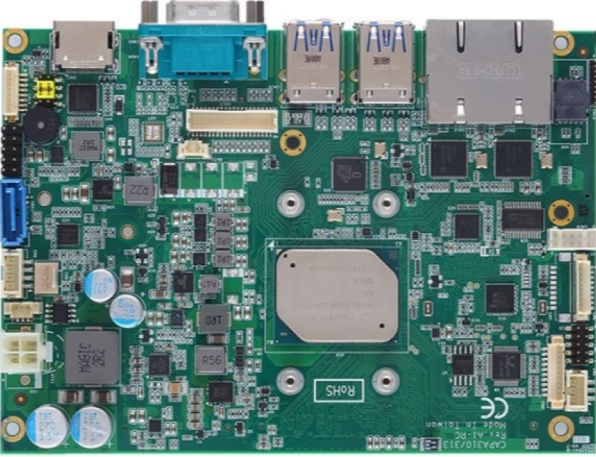
Chipset	Intel® integrated Gfx graphic engine
Memory Size	Share system memory
Display Interface	1 x HDMI 1 x LVDS; 18/24-bit single/dual channel 1 x VGA (optional)

### Ordering Information

Standard	
CAPA310HGA-E3940-ZIO	3.5" embedded SBC with Intel® Atom® x5-E3940 processor (1.6 to 1.8 GHz, 2MB Cache, 9.5W), HDMI, LVDS, 2 GbE LANs, audio, ZIO and heatsink

Optional	
AX93262 (P/N: E393262100)	ZIO module for 2 RS-232/422/485, 2 RS-232, 1 PCI Express Mini Card slot
AX93285 (P/N: E393285100)	ZIO module for 2 RS-232, 32-bit programmable DIO
AX93291 (P/N: E393291100)	ZIO module for 2 RS-232, 2 GbE LAN
AX93295 (P/N: E393295100)	ZIO module for 2 isolated RS-232, 2 USB 3.0
59380880250E	COM port cable DB9-9 x 1-pin, P=1.25 mm, L=250 mm
59382631000E	2 x USB 2.0 cable with bracket, L= 180 mm

# Images



## 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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