

POC-40

Intel® Elkhart Lake Atom® x6211E Extreme-compact Embedded Computer with 2x GbE and 2x USB 3.1



CE FC

Key Features

- Intel® Elkhart Lake Atom® x6211E dual-core processor
- 52 x 89 x 112 mm extremely compact form factor
- Rugged -25°C to 70°C fanless wide-temperature operation
- Two GigE ports, two USB 3.1 Gen1 ports and two USB2.0 ports
- M.2 2280 M key SATA storage interface
- One M.2 B key socket supporting 5G/ 4G 3042/ 3052 modules
- One M.2 E key socket for WiFi 5/ WiFi 6 modules
- One COM port with RS-232/ 422/ 485 modes and three RS-232 COM ports

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Introduction

POC-40 is an extremely compact fanless computer with dimensions measuring just 52 x 89 x 112 mm. It features Elkhart Lake Atom® processor and is designed for space-restricted applications such as factory data collection, rugged edge computing and mobile gateway.

Utilizing Intel's 10nm process technology, the new Elkhart Lake Atom® x6211E dual-core processor can deliver up to 1.8 times the performance boost over its previous generation. In comparison to POC-200, POC-40 provides 1.9 times computing performance at only half the size. It features generic I/O functions, such as two Gigabit Ethernet ports, four USB 3.1 Gen1/ 2.0 ports, four COM ports and optional isolated digital I/Os for industrial communication and control. In addition, by adopting dedicated M.2 B key and E key slots, the POC-40 can fully harness the bandwidth of 5G and WiFi 6 wireless communications to provide wide-area coverage and real-time data transmission for industrial and mobile gateway applications.

With a similar footprint as a PICO-ITX motherboard, Neosys' POC-40 is perfect for projects that require above par performance in an extremely compact package. Ideal for both edge computing and gateway applications, it is a low power consumption and lightweight fanless computer that offers wide-temperature operation for harsh environments.

Specifications

System Core

Processor	Intel® Elkhart Lake Atom® x6211E dual-core 1.3GHz/ 3.0GHz 6W processor
Graphics	Integrated Intel® UHD Graphics
Memory	Up to 32 GB DDR4-3200 SDRAM (one SODIMM slot)
TPM	Supports fTPM 2.0

Panel I/O Interface

Ethernet	2x Gigabit Ethernet ports by Intel® I210 GbE controllers
USB 3.1	2x USB 3.1 Gen1 (5 Gbps) ports
USB 2.0	2x USB 2.0 ports
Video Port	1x DisplayPort connector, supporting 4096 x 2160 resolution @ 60Hz
Serial Port	1x software-programmable RS-232/ 422/ 485 port (COM1) 3x 3-wire RS-232 ports (COM2/COM3/COM4)
Isolated Digital I/O	Optional 4-ch isolated digital input and 4-ch isolated digital output

Storage Interface

M.2	1x M.2 2280 M key SATA interface
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Internal Expansion Bus

M.2 B key	1x M.2 3042/ 3052 B key socket with internal SIM socket for 4G/ 5G module
M.2 E key	1x M.2 2230 E key socket for WiFi 5/ WiFi 6 module

Power Supply

DC Input	1x 4-pin pluggable terminal block for 12-20V DC input with optional ignition power control
Remote Control	1x 4-pin pluggable terminal block for remote control

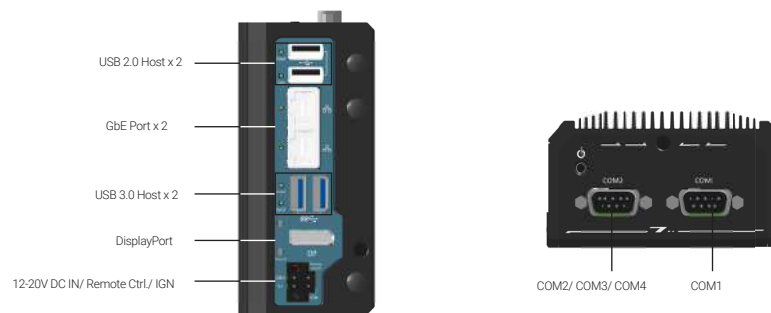
Mechanical

Dimension	52 mm (W) x 89 mm (D) x 112 mm (H)
Weight	0.6 kg
Mounting	DIN-rail mount (standard) or Wall-mount (optional)

Environmental

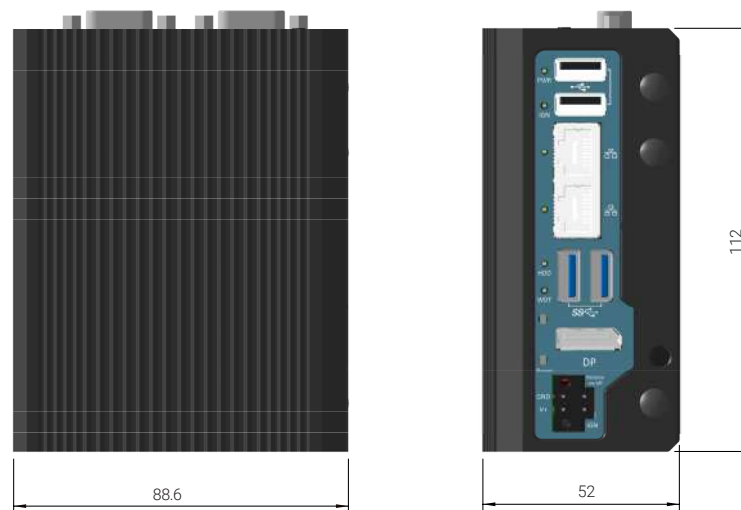
Operating Temperature	-25°C ~ 70°C
Storage Temperature	-40°C ~ 85°C
Humidity	10%~90% , non-condensing
Vibration	Operating, MIL-STD-810G, Method 514.6, Category 4
Shock	Operating, MIL-STD-810G, Method 516.6, Procedure I, Table 516.6-II
EMC	CE/FCC Class A, according to EN 55032 & EN 55024

Appearance



Dimensions

Unit : mm



Ordering Information

Model No.	Product Description
POC-40	Intel® Elkhart Lake Atom® x6211E Extreme-compact Embedded Computer with 2x GbE and 2x USB 3.1
POC-40-DIO	Intel® Elkhart Lake Atom® x6211E Extreme-compact Embedded Controller with 2x GbE and 2x USB 3.1 and 8x isolated DIO
POC-40-IGN	Intel® Elkhart Lake Atom® x6211E Extreme-compact Embedded Controller with 2x GbE, 2x USB 3.1 and ignition power control

Optional Accessories

PA-60W-OW	60W AC/DC power adapter with 12V, 5A DC output, cord end terminals for terminal block. Operating temperature : -30 to 60 °C
Wmkit-V-POC40	Wall-mount assembly for POC-40 series, vertical type
Cbl-DB9F-3DB9M-15CM	1x DB9 (Female) to 3x DB9 (Male), length: 15CM