



SBC-250

3.5" SBC Motherboard



KEY FEATURES

- Intel® Elkhart Lake SoC Processors
- 2 x 260-pin SO-DIMM DDR4 3200 MHz, up to 32GB(16GB per DIMM)
- 1 x USB 3.2 Gen2, 1 x USB 3.2 Gen1, 6 x USB 2.0, 1 x M.2 Key E, 1 x M.2 Key M, 1 x M.2 Key B, 4 x COM, 1 x SATA3
- 2 x Intel 2.5 Gigabit LAN
- Support Triple display, 1 x LVDS or eDP, 1 x HDMI2.0b, 1 x VGA
- TPM 2.0 onboard IC
- 9~36V DC-In

SPECIFICATIONS

Form Factor

Dimensions	3.5" SBC (5.8-in x 4-in x 0.87-in, 14.7 cm x 10.2 cm x 2.20 cm)
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Processor System

CPU	Intel® Elkhart Lake SoC Processors SBC-250J (J6412, QC, Max Speed Up to 2.6GHz, 10W) SBC-250D (J6426, QC, Max Speed Up to 3.0GHz, 10W) SBC-250L (N6210, DC, Max Speed Up to 2.6GHz, 6.5W) SBC-250N (N6415, QC, Max Speed Up to 3.0GHz, 6.5W)
Chipset	SoC
BIOS	AMI SPI 256 Mbit

Memory

Technology	Dual Channel DDR4 3200 MHz
Capacity	32GB (16GB per DIMM)
Socket	2 x 260-pin SO-DIMM

Graphics

Controller	Intel® Gen 11 Graphics
HDMI	HDMI 2.0b Max resolution up to 4096 x 2160@60Hz
VGA	Max resolution up to 1920 x 1200
LVDS	Dual channel 24 bit up to 1920 x 1200@60Hz (Connector shared with eDP)
eDP	Max resolution up to 1920 x 1080@60Hz (Connector shared with LVDS)
MultiDisplay	Triple display

Expansion Slot

M.2	1 x M.2 (Key B, 3042/3052) with PCIe x1/USB3.2 and USB2.0 and SIM for 4G/5G 1 x M.2 (Key E, 2230) with PCIe x1 and USB 2.0 for Wireless
SIM Socket	1x SIM socket connected to M.2 key B

Audio

Interface	Realtek ALC233 HD, High Definition Audio.
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Ethernet

Controller/ Speed	LAN1: Intel® I225LM with 10/100/1000/2500 Mbps LAN2: Intel® I225LM with 10/100/1000/2500 Mbps
Connector	2 x RJ-45

Rear I/O

HDMI	1 x HDMI2.0b
VGA	1
Ethernet	2 x 2.5 Gigabit LAN
USB	1 x USB 3.2 Gen2, 1 x USB 2.0

Internal Connector

USB	1 x USB 3.2 Gen1 (1 x USB 3.1 header) 1 x USB 2.0 (1 x USB 3.1 header) 4 x USB 2.0 (2 x 2.54 pitch header)
COM	COM1, COM2, COM4 (RS-232) COM3 (RS-232/422/485)
GPIO	4 x GPI, 4 x GPO
LVDS	1 (Connector with LVDS/eDP signal, switch by BIOS)
TPM	TPM 2.0 onboard IC
SATA PWR Output	1
Speaker Header	1

Storage

M.2	1 x M.2 (Key M, 3042/3060/2280) with PCIe x1 for SSD
SATA	1 x SATA3 (6Gb/s)

Watchdog Timer

Output	From Super I/O to drag RESETCON#
Interval	256 Segments, 0, 1, 2, ..., 255sec

Power Requirements

Input PWR	9~36V DC-In with 4-pin wafer PWR
Power On	AT/ATX Supported - AT : Directly PWR on as power input ready - ATX : Press button to PWR on after power input ready

Environment

Operating Temp	0°C ~ 70°C
Storage Temp	-40°C ~ 85°C
Operating Humidity	5% ~ 90%
Storage Humidity	5% ~ 90%