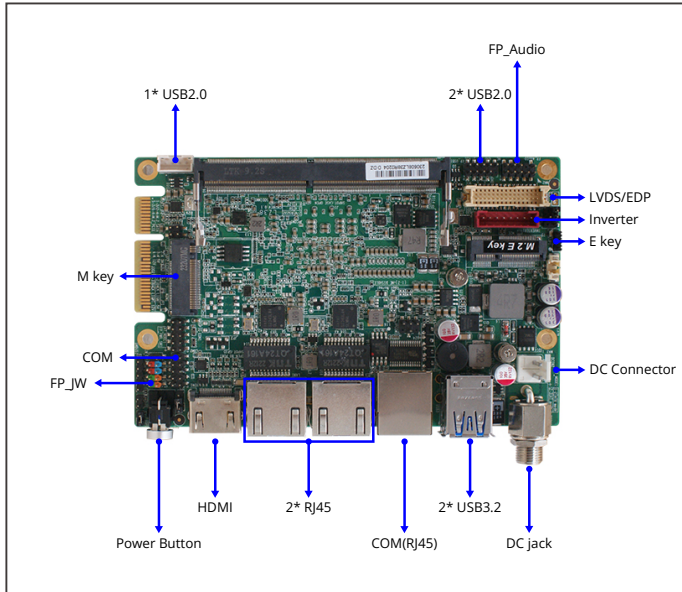


Embedded board with Intel® Celeron® Processor J6412 (formerly Elkhart Lake)



Specifications

SYSTEM	
FORM FACTOR	SBC
CPU	Onboard Intel® Processor J-series Processors (formerly Elkhart Lake-J) Intel® Processor J6412 *For additional compatible CPUs, please contact regional sales
CPU TDP	10W
CHIPSET	Integrated with Intel® SoC
MEMORY TYPE	1 x DDR4 3200MHz, Single Channel SODIMM, up to 32GB
BIOS	UEFI
WAKE ON LAN	Yes
WATCHDOG TIMER	255 Levels
SECURITY	TPM2.0 (optional)
RTC BATTERY	Lithium Battery
DIMENSION (L X W)	125mm x 80mm (4.9" x 3.1")
OS SUPPORT	Windows® 10 (64bit), Windows® 11 (64bit) Linux
POWER	
POWER REQUIREMENT	+12V
POWER SUPPLY TYPE	AT/ATX
CONNECTOR	PH3.96 2-pin Connector + DC Jack
DISPLAY	
CONTROLLER	Intel® UHD Graphics
LVDS/eDP/MIPI-DSI	—
DISPLAY INTERFACE	1 x HDMI 2.0, up to 4K x 2K @60Hz 1 x 24 Bit Dual Channel LVDS, up to 1920 x 1080 @60Hz (Co-Lay eDP , up to 1920 x 1080 @60Hz)
MULTIPLE DISPLAY	Support 2 Displays
AUDIO	
CODEC	Realtek ALC897 with 3W Amp.
AUDIO INTERFACE	—
Speaker	—
EXTERNAL I/O	
ETHERNET	2 x Intel® i225V, 10/100/2500Base
USB	2 x USB3.2 Gen 1
SERIAL PORT	1 x RS232/422/485 (with 5V/12V selectable)
VIDEO	1 x HDMI 2.0
OTHERS	1 x Power Button 1 x Power LED
INTERNAL I/O	
USB	3 x USB2.0 (PH2.0)
SERIAL PORT	1 x RS232 (PH2.0)
VIDEO	1 x 24 Bit Dual Channel LVDS, up to 1920 x 1080 @60Hz (Co-Lay eDP ,up to 1920 x 1080@60Hz)
AUDIO	1 x Audio Header (PH2.0)
GPIO	8-Bit (PH2.0)
SMBUS	Yes (PH2.0)
I2C	—
FAN	—
SIM	—
FRONT PANEL	PWR LED HDD LED Power Button Reset Button
OTHERS	—
STORAGE	
SATA	—
MINI PCI-E/MSATA	—
M.2	1 x M-Key 2280 (PCIe3.0 x2, support NVMe)
eMMC	—
EXPANSION	
M.2	1 x E-key 2230 (USB2.0/PCIe 3.0x1)
OTHERS	—
ENVIRONMENT & CERTIFICATION	
OPERATING TEMPERATURE	0°C ~ 60°C (32°F ~ 140°F)
STORAGE TEMPERATURE	-20°C ~ 70°C (-4°F ~ 158°F)
OPERATING HUMIDITY	10% ~ 90% relative humidity, non-condensing
CERTIFICATION	Meet CE/FCC Class A

Features

- 1 x DDR4 SODIMM Slot, up to 32GB
- 1 x HDMI 2.0, 1 x LVDS or eDP
- 2 x 2.5GbE
- 2 x USB 3.2 Gen1, 3 x USB2.0
- 1 x RS232/422/485, 1 x RS232
- 1 x M.2 M-key 2280, 1 x M.2 E-key 2230

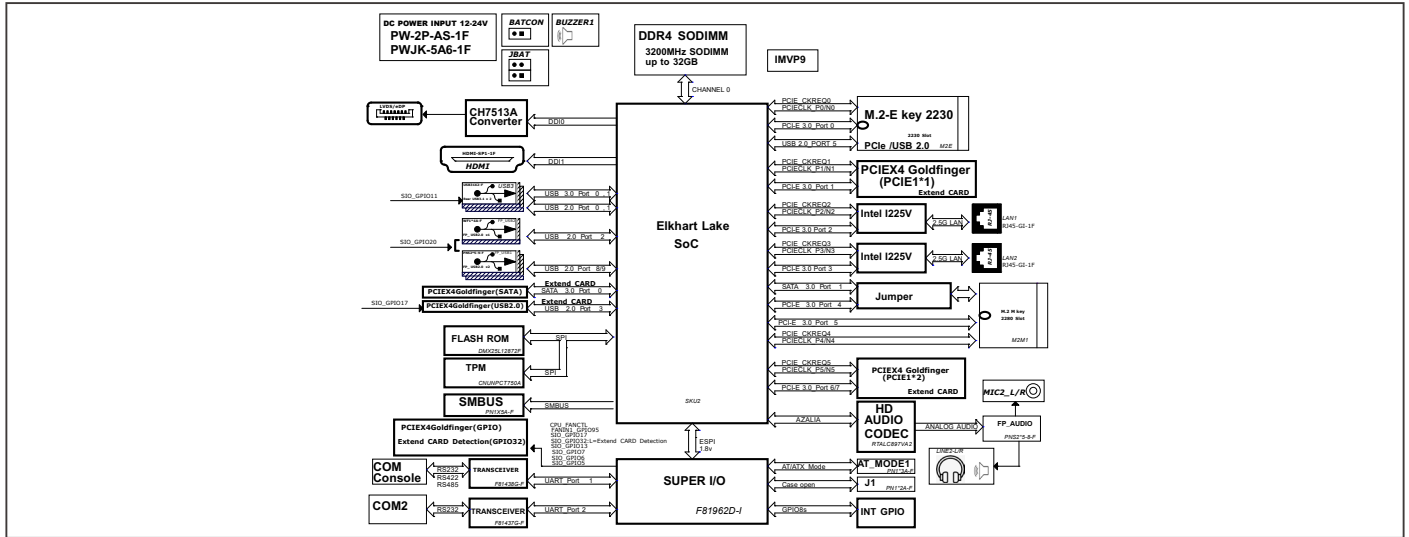
Applications

- Industrial Automation
- Panel PC
- Kiosk

Packing List

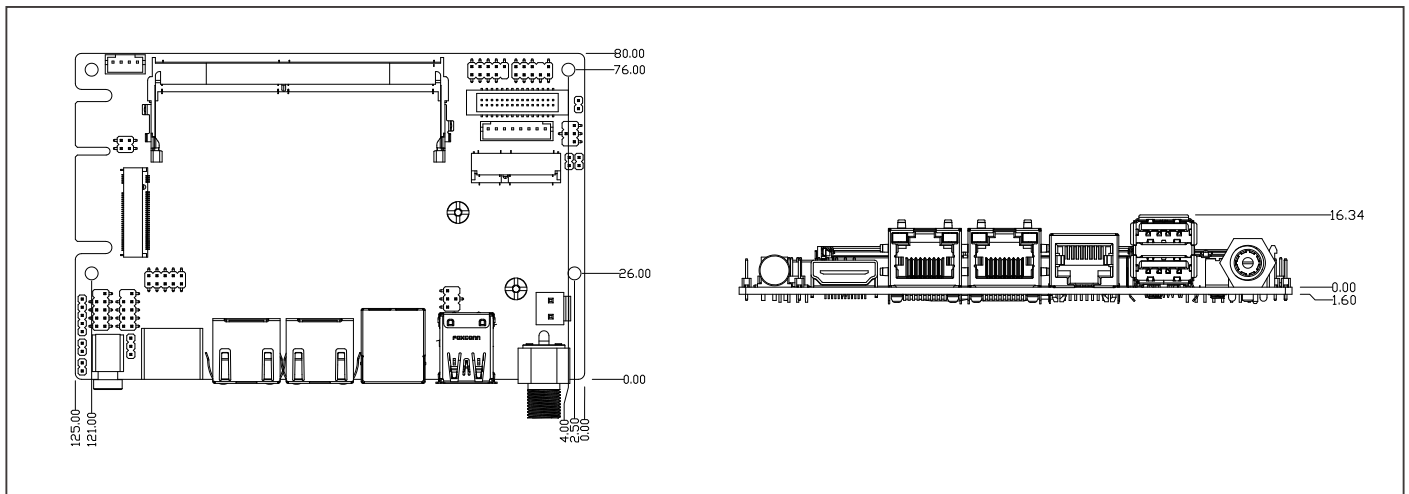
Part Number	Description	QTY per Board
	LZ38 MB	1

Block Diagram



Dimension

Unit: mm



Ordering Information

Part Number	LZ38-64120	LZ38-64122	LZ38-62100	LZ38-62102
CPU	Intel® Celeron® Processor J6412	Intel® Celeron® Processor J6412	Intel® Celeron® Processor N6210	Intel® Celeron® Processor N6210
DISPLAY	1 x HDMI 1 x LVDS / eDP	1 x HDMI 1 x LVDS / eDP	1 x HDMI 1 x LVDS / eDP	1 x HDMI 1 x LVDS / eDP
LAN	2 x 2.5GbE	2 x 2.5GbE	2 x 2.5GbE	2 x 2.5GbE
USB	2 x USB 3.2 Gen 1 3 x USB 2.0	2 x USB 3.2 Gen 1 3 x USB 2.0	2 x USB 3.2 Gen 1 3 x USB 2.0	2 x USB 3.2 Gen 1 3 x USB 2.0
RS-232	1	1	1	1
RS-232/422/485	1	1	1	1
STORAGE	1 x M.2 M Key 2280	1 x M.2 M Key 2280	1 x M.2 M Key 2280	1 x M.2 M Key 2280
EXPANSION SLOT	1 x M.2 E Key 2230	1 x M.2 E Key 2230	1 x M.2 E Key 2230	1 x M.2 E Key 2230
TPM	—	2.0	—	2.0
POWER	12V	12V	12V	12V
OPERATING TEMP	0°C ~ 60°C	0°C ~ 60°C	0°C ~ 60°C	0°C ~ 60°C
OTHERS	DIO x 8	DIO x 8	DIO x 8	DIO x 8
eMMC	—	—	—	—
MIPI	—	—	—	—