

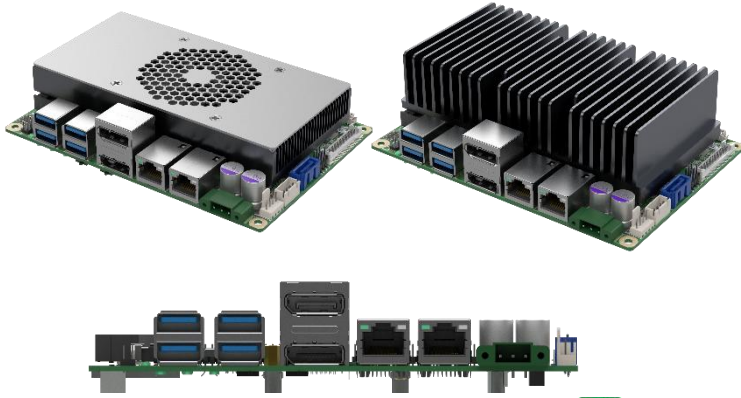
ECM-I718

Intel® Elkhart lake Soc CPU, single channel DDR4, 1*HDMI, 1*DP, 2*LAN, 4*USB3.1, 4*COM, 1*8bit DIO, 1*M.2 B-key/1*M.2 E-key, 1*mSATA, 1*SATA3.0, DC 12V power

JHCTECH

IoT Computer
Connecting the Dots

Single Board Computer-SBC



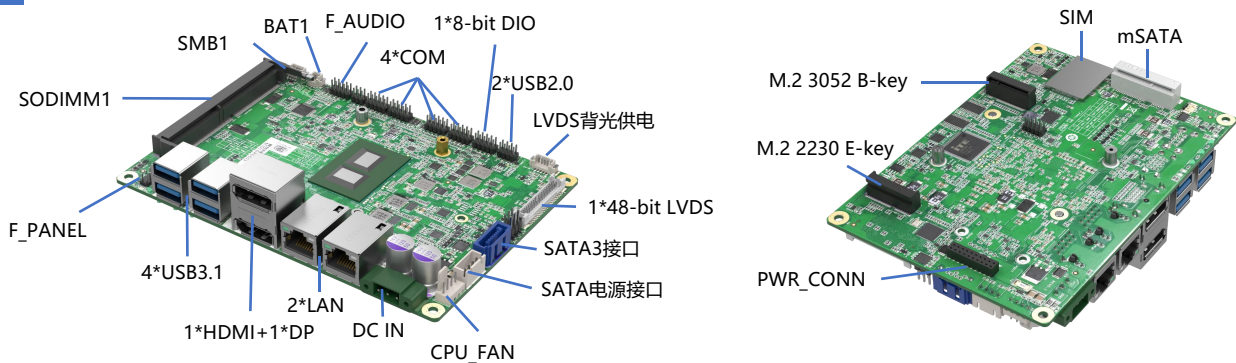
Key Features

- Intel® Elkhart lake Soc CPU
- Single channel DDR4 SODIMM, support 3200MHz, up to 64GB
- 1*HDMI, 1*DP, 1*48-bit LVDS, 3 independent displays
- 2*LAN, 4*USB3.1, 2*USB2.0, 4*COM, 1*8-bit DIO
- 1*M.2 2230 E-key supports WIFI/BT or 1*M.2 3052 B-key with SIM card slot, supports 4G LTE/5G NR
- 1*SATA3.0 HDD/SSD, 1*mSATA(with USB2.0 signal) for storage
- Active or passive, two different thickness radiator selection
- DC IN12V, 9-36V wide power input for optional (OFX-075)

Description

ECM-I718 is a 3.5-inch embedded mainboard equipped with Intel® Elkhart lake Soc CPU. It has complete IO functions, flexible selection of power supply, active and passive radiators, and the compact size is suitable for installation in limited space scenarios. It is very suitable for AGV and AMR, medical inspection, machine vision, industrial control, digital city and smart security and other industries and fields.

I/O View

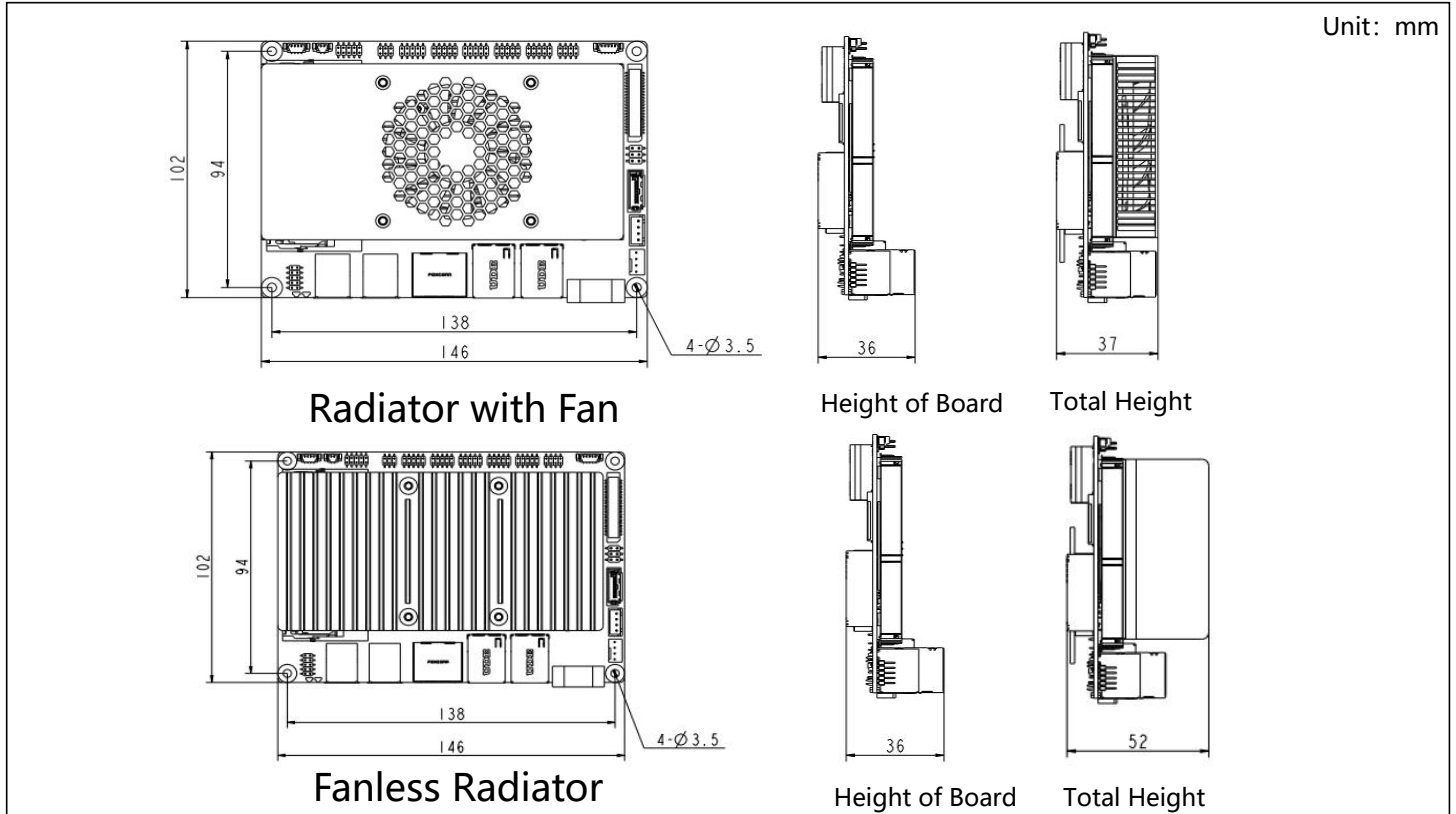


SPEC.

CPU	Intel® Elkhart lake SoC CPU: Celeron J6412 2.0-2.6GHz 4Cores and 4Threads or Celeron N6210 1.2-2.6GHz 2Cores and 2Threads
System Memory	1*260-pin DDR4 SODIMM, supports 3200MHz, up to 32GB
Expansion	1* M.2 2230 E-key (USB2.0 signal and PCIeX1 signal), supports WiFi5/BT5.0 1*M.2 B-key 3052 (USB2.0 signal and PCIeX1 signal), with SIM slot, supports 4G LTE/5G NR
Graphics	Intel Gen10 UHD Graphics, HW Encode: H.265/HEVC, H.264/MPEG-4 AVC, MPEG-2, JPEG/MJPEG ,VP8; HW Decode: H.265/HEVC, H.264/MPEG-4 AVC, MPEG-2, VC-1/WMV9, JPEG/MJPEG, VP8, VP9 HDMI up to 4096*2304@60Hz, DP up to 4096*2160@60Hz, LVDS up to 1920*1200@60Hz,
Audio	1*Line out + Line in+ 1*Mic, Realtek ALC897 HD audio chip, support 5.1 channels
LAN	2*Realtek 8111H, 10/100/1000Mbps, support WOL
Storage	1*SATA3.0 port, supports up to 6 Gbps transmission speed; 1*mSATA (with USB2.0 signal)
Rear I/O	2*LAN(RJ45); 1*HDMI+1*DP; 4*USB3.1 gen.2.0(Type A), up to 10 Gbps
Internal I/O	2*USB2.0(2*4pin dupont pin), 1*RS232/422/485(one 2*5pin dupont pins), 3*RS232(three 2*5pin dupont pins), 1*8-bit DIO(2*5pin dupont pin), 1*F-audio(2*5pin dupont pin), 1*48-bit LVDS(2*20pin DF13 port), 1*SM BUS(1*4pin wafer) , 1*SATA 3.0, 1*FAN
Switch & LED	1*HDD LED; 1*PWR LED; 3*CPU Temp.LED (Red is warning, Yellow is high, Green is normal) 1*F Panel(PowerSW, Reset, Power LED, HDD-LED), 2x5pin dupont pin; 1*AT/ATX jumper, 1*Clear CMOS jumper, 1*USB 5V/SB jumper
Power Supply	DC 12V (1*3pin phoenix socket, colay 2*10pin Dupont mother), it can be connected to OFX-075 75W power board and supports 9-36V wide voltage input TDP: 15.6W (CPU: Celeron J6412/32G DDR4/128 SSD)
Watchdog Timer	Programmable timeout interrupt or system reset, 1 to 255 seconds
OS Support	Windows 10/Windows 11 64 bit, SUSE, Ubuntu, Wind River, Linux

Dimension	(W*H) : 146*102mm
Height	Signal board: 36mm, the radiator with fan: 37mm, fanless radiator: 52mm, PCB: 1.6mm
Operating Temperature	0 ~ 60°C
Storage Temperature	-40°C~85°C
Storage Humidity	10~95%@40°C, Non-condensing
EMC/Certification	CE/FCC Class A

Dimension



Ordering Info

Model No.	CPU	Introduction
ECM-I718/S001	Celeron J6412	3.5" Embedded Single Board Computer, 1*SODIMM DDR4, 2*LAN, 4*USB3.1, 2*USB2.0, 1*M.2 2230 E-Key, 1*M.2 3052 B-Key, 1* mSATA, 4*COM, 1*8-bit DIO, 1*DP, 1*HDMI, 1*LVDS, 1*SM BUS, 1*Audio, 1*SATA3.0, DC 12V
ECM-I718/S002	Celeron N6210	
ECM-I718/S001/WP	Celeron J6412	3.5" Embedded Single Board Computer, 1*SODIMM DDR4, 2*LAN, 4*USB3.1, 2*USB2.0, 1*M.2 2230 E-Key, 1*M.2 3052 B-Key, 1* mSATA, 4*COM, 1*8-bit DIO, 1*DP, 1*HDMI, 1*LVDS, 1*SM BUS, 1*Audio, 1*SATA3.0, DC 9~36V
ECM-I718/S001/WP	Celeron N6210	
Radiator with Fan(Opt.)	Pure copper+Aluminium alloy heat radiator, four-wire intelligent temperature control ball-bearing fan, silent ultra-thin design, fan cable 100mm, size: 137*70*24.2mm (After installation, the total thickness of the motherboard is 37mm)	
Fanless Radiator(Opt.)	Pure copper+Aluminium alloy heat radiator, size: 137*70*39.3mm (After installation, the total thickness of the motherboard is 52mm)	

Accessory Pack

Standard configuration			Selectinve configuration	
Accessory	description	Amount	Accessory	description
Serial ports cable	DB9 male, 300mm	4	DIO cable	DB9 male, 300mm
SATA cable	(7+15)pin SATA power supply +SATA data cable, 300mm	1	Audio cable	Three in a row(Line-out/Line-in/Mic) 3.5mm phone jack, 300mm
Screw jumper package	Two M2 screws +Two jumper caps (spare)	1	USB2.0 cable	Two in a row Type A, 300mm
DC – IN pin	3.81 pitch 3pin phoenix plug with earhole	1		