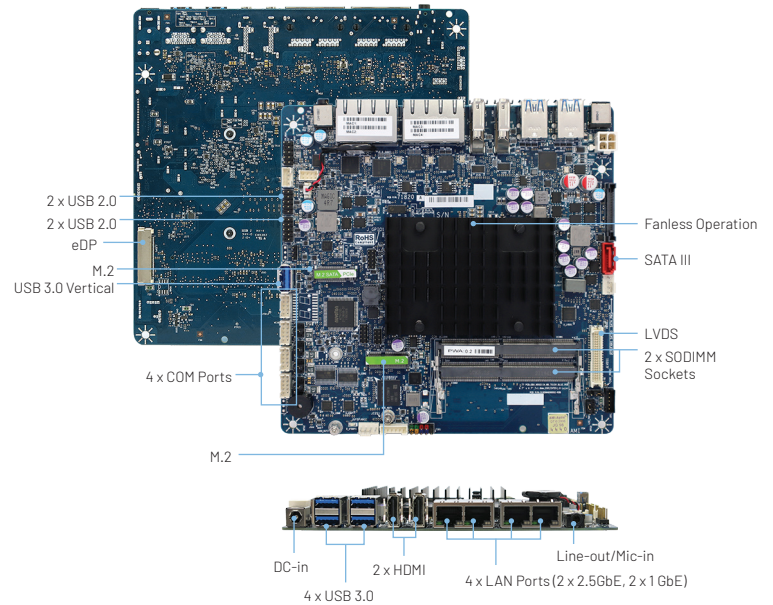


Features

- Four (4) LAN/Ethernet Ports onboard
- Intel® Celeron J6412 Quad Core SoC up to 2.6GHz Burst Frequency, Elkhart Lake Platform
- 4 x RJ45 LAN Ports, 2 x 2.5GbE, 2 x 1GbE
- Supports Three Independent Displays
- 5 x USB 3.0 and 4 x USB 2.0
- 1 x M.2 E Key, 1 x M.2 NVMe
- 4 x COM Ports, 1 x SATA III, GPIO, I²C
- TPM 2.0
- Fanless Operation
- 12-24V DC-in

Specifications

System	
CPU	Intel® Celeron J6412 Quad Core SoC, 1.2 GHz up to 2.6GHz Burst Frequency, Elkhart Lake Platform
System Memory	2 x 260-pin SODIMM DDR4 Memory Slots, support up to 32GB
BIOS	AMI® 256Mb SPI BIOS
Super I/O	Nuvoton® NCT6126D
Ethernet	LAN 1: Intel® I225-LM (2.5GbE) Ethernet Controller LAN 2: Intel® I225-LM (2.5GbE) Ethernet Controller LAN 3: Intel® I210-AT (1GbE) Ethernet Controller LAN 4: Intel® I210-AT (1GbE) Ethernet Controller
Audio	Realtek HD Audio
Expansion	1 x M.2 E-Key 2230 (with PCIe x1 & USB 2.0 Signal) 1 x M.2 M-Key 2280/2242 (with PCIe x2 & SATA III Signal)
Storage	Onboard eMMC (Optional)
TPM	TPM 2.0
Watchdog Timer	1 Sec ~ 255 Sec
H/W Status Monitor	Monitoring System Temperature and Voltage with Auto Throttling Control
Supported OS	Windows 10 64-bit Linux Ubuntu 20.04
Display	
Integrated Graphics	Intel® Gen11LP Graphic
Resolution	2 x HDMI: Max. Resolution 4096x2160, 4K @ 30Hz
LVDS	18/24 bits Dual Channel LVDS
Multi-Display	Supports Three Independent Display



External I/O	
Display	2 x HDMI
USB	4 x USB 3.0
LAN	4 x RJ45
Audio	Line-out/Mic-in
DC-in	1 x Barrel Type DC-In Connector
Internal I/O	
Display	2 x RS-232/422/485 Header 2 x RS-232 Header
USB	2 x USB 2.0 Header (4 x USB 2.0 Ports) 1 x Dual Mode USB 3.0 Vertical Type A Connector
I²C	1 x I ² C Header
LVDS/eDP	1 x LVDS/eDP Header, 1 x Backlight Header
GPIO	1 x 8-bits GPIO Header (4 In/4 Out)
SATA	1 x SATA III Connector (Red) 1 x 15-pin SATA Power Connector
DC-in	1 x 4-Pin DC-In Connector
Other	1 x SPI Header, 1 x eSPI Header, Front Audio, Front Panel, 1 x Amplifier Locking Type Header, CMOS Battery

Mechanical & Environment

Power Requirement	12V – 24V Wide Range DC-In
Operating Temp	0°C to 60°C (32°F ~ 140°F)
Storage Temp	-10°C to 60°C (-14°F ~ 140°F)
Operating Humidity	5% to 85% Non-condensing
Form Factor	Mini-ITX
Dimensions	6.7" x 6.7" (170mm x 170mm)
Certification Information	FCC Class B/CE/UL/CB, RoHS
Weight	0.88 lbs
Certification	FCC Class B/CE, RoHS Compliant

Ordering Info

MX6412J	Intel Celeron J6412 Quad Core Mini-ITX Motherboard
Accessories	1 x SATA Signal Cable 1 x SATA Power Cable 1 x Full Size I/O Shield 1 x Half Size I/O Shield
18300000006	2.00mm pitch 12" length Serial cable
182437200040	2.54mm pitch 14" length Dual port USB cable w/ full height bracket

* All product specifications and images are subject to change without notice. Last update: 09/29/2023



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