

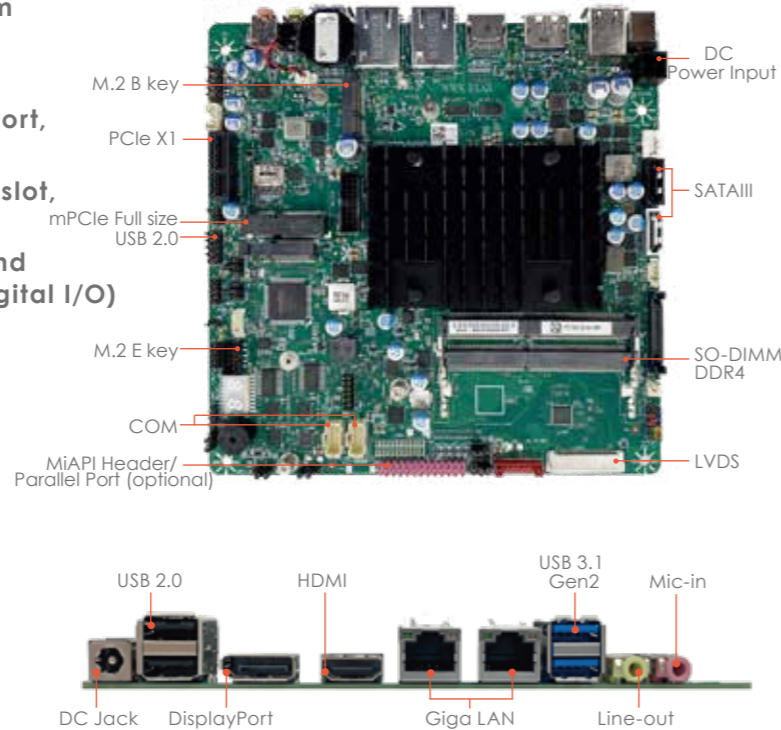
PD10EHI

Thin Mini-ITX Form Factor
Intel® Elkhart Lake Processor



Features

- Intel® Elkhart Lake Celeron/Pentium/Atom BGA Processor (TDP up to 10W)
- Support 2 x DDR4 SO-DIMM (Up to 32GB)
- Support Triple Display for HDMI, DisplayPort, and LVDS/eDP
- Support 1 x PCIe X1 (Gen 3) slot, 2 x M.2 slot, 2 x SATA III and 1 x mPCIe slot
- 4 x USB 2.0, 2 x USB 3.1 Gen2, 6 x COM and 1 x Parallel Port / MiAPI (configurable digital I/O)
- 8V~24V wide voltage power input



ATOM

PENTIUM

CELERON

DC Jack

M.2 Support

USB3.1

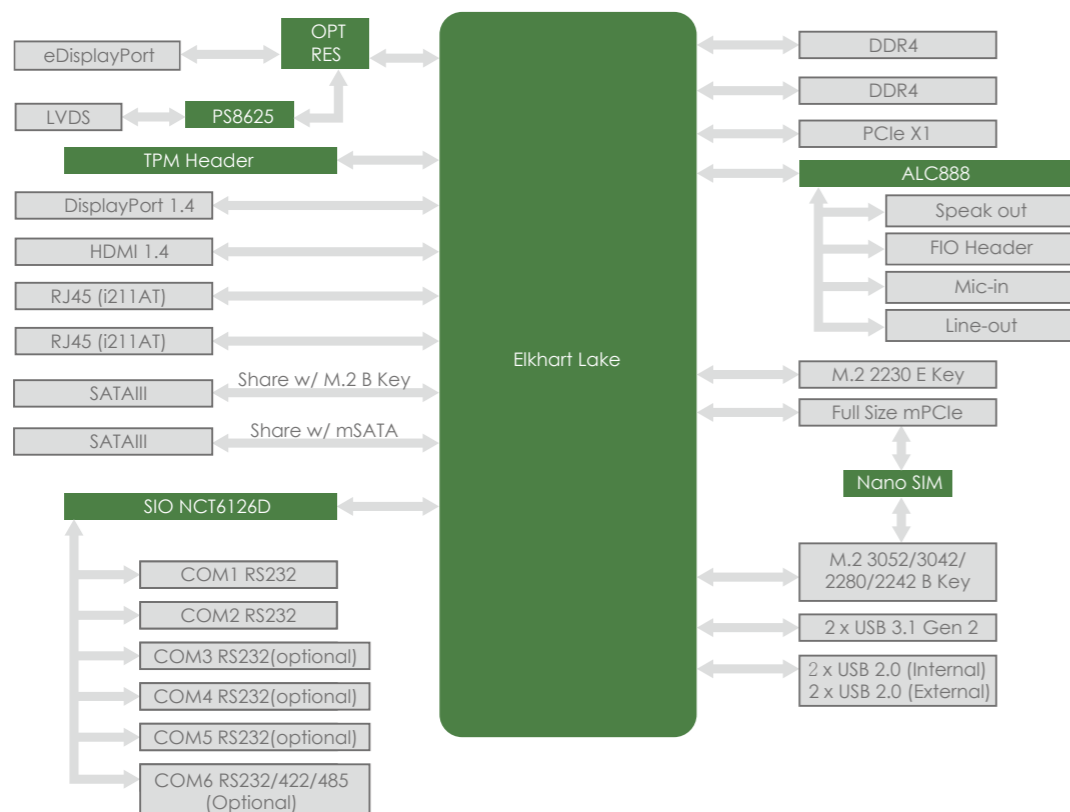
All Solid Capacitor

MiAPI

EMC Class B

FCC Class B

Block Diagram



PD10EHI Thin Mini-ITX

MECHANICAL	
Form Factor	Thin Mini-ITX: 6.7" x 6.7" (170 mm x 170 mm)
SYSTEM	
Processor	Intel® Elkhart Lake Celeron J6413, Pentium N6415, Celeron N6211, Celeron N6210, and Atom x6413E
Chipset	Intel® SoC Integrated
Memory	DDR4 3200, 2 x 260-pin SO-DIMM, Max. 32 GB (Non-ECC)
Graphics	Intel® HD Graphics
Ethernet	2 x Intel® i211AT Giga LAN
Audio	Realtek® ALC888S
I/O Chipset	Nuvoton NCT6126D
TPM	Nuvoton NPCT750AABYX TPM2.0 (Optional)
Expansion Slot	1 x M.2 2260 / 2280 / 2242 / 3042 / 3052 B key (USB2.0, SATAIII, *PCIe X1) *Not support M.2 M Key NVMe SSD 1 x PCIe 3.0 X1 slot, 1 x M.2 2230 E key (PCIe X1, USB2.0) 1 x mPCIe Full size (USB2.0 / PCIe X1 / SATAIII)
BIOS	AMI BIOS
H / W Monitor	Temperature Monitor, Voltage Monitor, Fan Monitor
Watchdog Timer	1~255 Steps by Software Program
Smart Fan Control	CPU Fan
GRAPHICS	
VGA	—
DVI	—
HDMI	Up to 4K (4096 x 2160) @60 Hz
DisplayPort	Up to 4K (4096 x 2160) @60 Hz
LVDS	Up to 1920 x 1200 @60 Hz
eDP (Option)	Up to 4K (4096 x 2160) @60 Hz
REAR I/O	
USB	2 x USB 3.1 Gen2, 2 x USB 2.0
Display I/O	1 x HDMI 1.4, 1 x DisplayPort 1.4
Audio I/O	1 x Mic-in, 1 x Line-out
LAN I/O	2 x RJ45
Serial Port	—
PS/2 Port	—
Others	DC-in Jack 8~24V (2.5mm/ ID, 5.5mm/ OD)
INTERNAL CONNECTORS	
Storage	2 x SATAIII (Multiplexed with M.2 and mSATA port)
USB	2 x USB 2.0 Header
Display I/O	1 x LVDS 1 x Backlight Connector
Audio I/O	1 x Speaker Header 1 x Front Audio Header (Mic-in / Line-out)
Serial Port	2 x RS232 Header (Extra 1 x RS232/422/485 Header + 3 x RS232 Header for Option, total 6 x COM)
PS/2 Port	—
Parallel Port	1 x MiAPI Header (Optional for Parallel Port Header)
GPIO	—
Fan	1 x 4-pin CPU Fan Header
Power	1 x AT / ATX Mode Select Jumper / 1 x ATX 4-pin Power Connector
Others	1 x Clear CMOS Button / MiAPI: Programmable header (support 10 x GPIO, 1 x SMBUS, 1 x UART, 1 x Watchdog) with API library supported for Windows OS 1 x Buzzer / 1 x 3-pin CAN-FD Bus Header
POWER REQUIREMENT	
Power Input	DC-in 8~24V/ ATX 4-pin Power Connector + DC Jack
ENVIRONMENTAL	
Operating Temperature	0 ~ 60°C (32 ~140°F)
Storage Temperature	-40 ~ 85°C (-40 ~185°F)
Operating Humidity	10% ~ 95% R/H, non-condensing
Certification	CE & FCC Class B
OS	
OS Support	Windows® 10 IoT LTSB 64bit Linux (Support by request)

Ordering Information

Model Number	Processor	HS Configuration	Model Number	Processor	HS Configuration
PD10EHI-J6413	Celeron J6413	MB + Heatsink	PD10EHI-N6210	Celeron N6210	MB + Heatsink
PD10EHI-N6415	Pentium N6415	MB + Heatsink	PD10EHI-X6413E	Atom x6413E	MB + Heatsink
PD10EHI-N6211	Celeron N6211	MB + Heatsink			

*5G card support might be by BOM option. Please check with sales about the M.2 B Key 3052 5G card spec if you have any request

Packing List

Packing			
• 1 x Motherboard	• 2 x I/O Bracket (Half and Full Height)	• 1 x 50cm SATA Cable	• 1 x 45cm SATA Power Cable