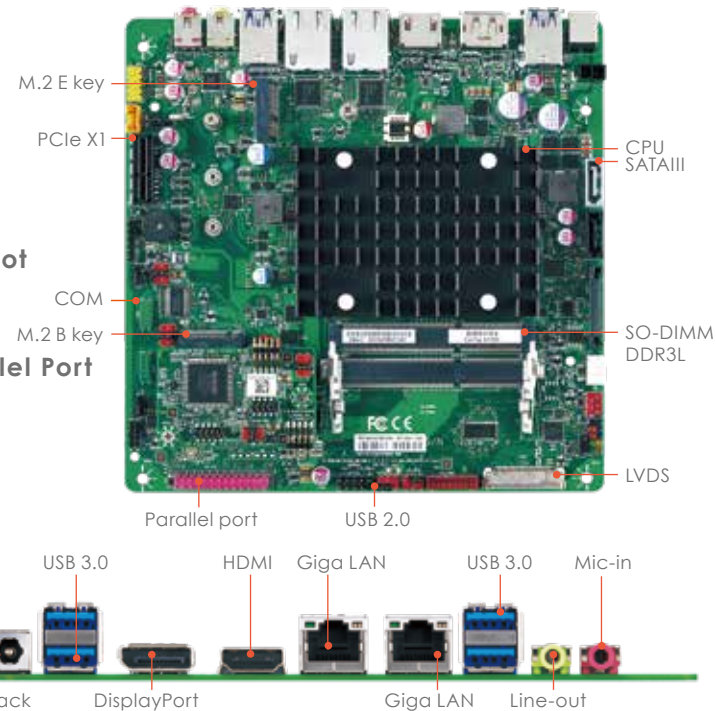
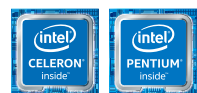


PD10AI

Thin Mini-ITX Form Factor
Intel® Apollo Lake Processor

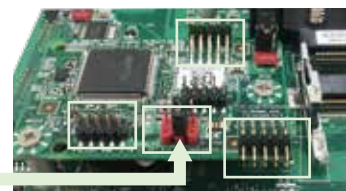
Features

- Intel® Apollo Lake / Celeron/Pentium BGA processor
- 2 x DDR3L SO-DIMM and support up to 8GB
- Support triple display for HDMI, DisplayPort and LVDS / eDP
- Support 1 x PCIe X1 (Gen 2) slot and 2 x M.2 slot
- 2 x SATA III
- 2 x Intel® Gigabit Ethernet
- 2 x USB 2.0, 4 x USB 3.0, 2 x COM and 1 x Parallel Port / MiAPI (configurable digital I/O)
- 8V~24V wide voltage power input



Legacy I/O Expansion

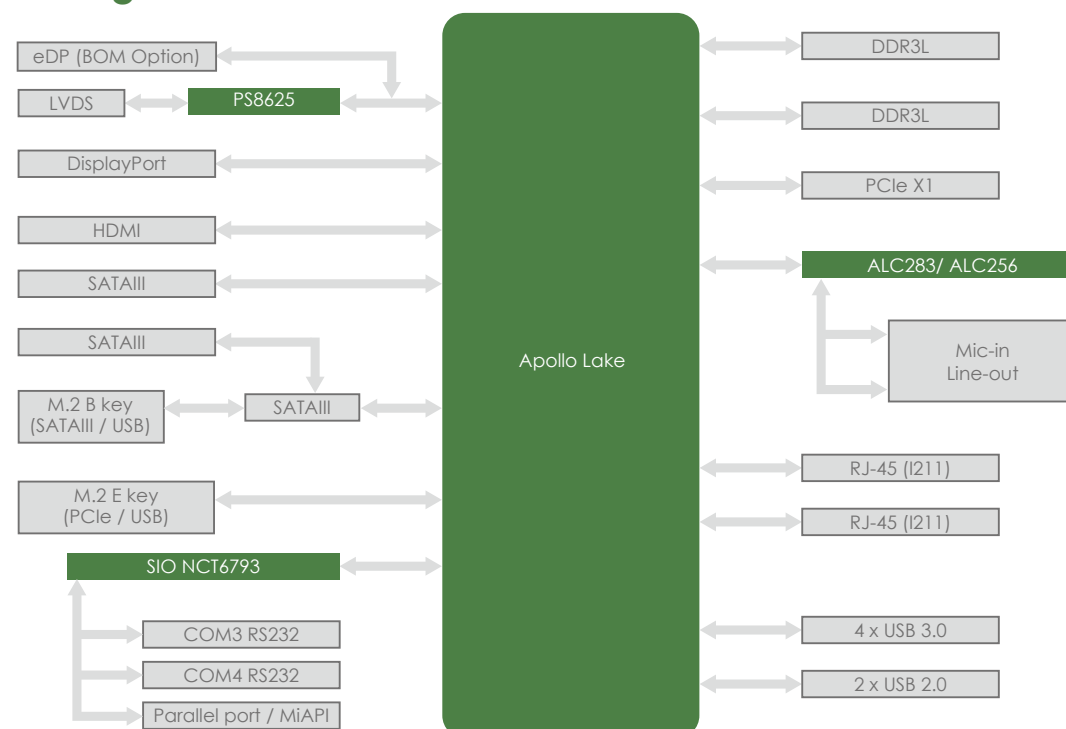
2 x Configurable Power RS232
2 x Configurable RS232/422/485



6 x COM port

- 2 x RS232 from Motherboard
- 4 x RS232 from Legacy I/O Board

Block Diagram



PD10AI Thin Mini-ITX

MECHANICAL	
Form Factor	Thin Mini-ITX: 6.7" x 6.7" (170mm x 170mm)
SYSTEM	
Processor	Intel® Apollo Lake-M N3350 Processor Option: N4200
Chipset	Intel® SoC Integrated
Memory	DDR3L 1866MHz, 2 x 204-pin SO-DIMM, Max. 8GB (Non-ECC)
Graphics	Intel® HD Graphics
Ethernet	Intel® I211-AT Giga LAN + Intel® I211-AT Giga LAN
Audio	Realtek® ALC283 / ALC256
I/O Chipset	Nuvoton NCT6793D
TPM	Nuvoton NPCT650AAAWX TPM2.0 (Optional)
Expansion Slot	1 x PCIe X1 slot 1 x M.2 2280/2260/2242 B key (SATA / USB) 1 x M.2 2230 E key (PCIe / USB)
BIOS	AMI BIOS
H / W Monitor	Temperature Monitor, Voltage Monitor, Fan Monitor
Watchdog Timer	1~255 Steps by Software Program
Smart Fan Control	—
GRAPHICS	
VGA	—
DVI	—
HDMI	Up to 4K (3840 x 2160) @30 Hz
DisplayPort	Up to 4K (4096 x 2160) @60 Hz
LVDS	Up to 1920 x 1200 @60 Hz
eDP (Option)	Up to 4K (3840 x 2160) @60 Hz
REAR I/O	
USB	4 x USB 3.0
Display I/O	1 x HDMI 1.4, 1 x DisplayPort 1.2
Audio I/O	1 x Mic-in, 1 x Line-out
LAN I/O	2 x RJ-45
Serial Port	—
PS/2 Port	—
Others	DC-in Jack 8-24V (2.5mm/ ID, 5.5mm/ OD)
INTERNAL CONNECTORS	
Storage	2 x SATAIII (One SATA is multiplexed with an M.2 port)
USB	2x USB 2.0
Display I/O	1 x LVDS, 1 x eDP 1 x Backlight Connector
Audio I/O	1 x Stereo Speaker Header 1 x Front Audio Header (Mic/HP)
Serial Port	2x RS232
PS/2 Port	—
Parallel Port	1 x MiAPI Header (Programmable, Support 10-bit GPIO)
GPIO	—
Fan	2 x 4-pin PWM Fan Header
Power	1 x 2-pin Power Connector, 1 x AT/ATX Mode Select Jumper
Others	MiAPI (Optional): Programmable header (support 10 x GPIO, 1 x SMBUS, 1 x UART, 1 x Watchdog) with API library supported for Windows OS 1 x CMOS Jumper 1 x Legacy I/O Board Header (Optional Legacy I/O Board for Extra RS232*2 and RS232/422/485*2 Expansion)
POWER REQUIREMENT	
Power Input	2-pin Internal Power Connector + DC Jack DC-in 8-24
ENVIRONMENTAL	
Operating Temperature	0 ~ 60°C (32 ~ 140°F)
Storage Temperature	-20 ~ 80°C (-4 ~ 176°F)
Operating Humidity	10% ~ 95% R/H, non-condensing
Certification	CE, FCC Class B
OS	
OS Support	Windows® 10 64bit, Linux (support by request)

Ordering Information

Model Number	Processor	DisplayPort / HDMI	LVDS / eDP	Mic-in / Line-out	USB3.0 / 2.0	LAN	SATA	M.2 2230 E key / M.2 2280 B key	Parallel / MiAPI	PCIe X1	Power
PD10AI-N3350	N3350	1 / 1	1 / 1	1 / 1	4 / 2	2	1	1 / 1	1 / 0	1	DC-in Jack 8-24V
PD10AI-N4200	N4200	1 / 1	1 / 1	1 / 1	4 / 2	2	1	1 / 1	0 / 1	1	DC-in Jack 8-24V

Legacy I/O Board	RS232 with 5V/12V	RS232/422/485
MS-04COM-D10	2	2

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
---------	-------------------	--	-----------------------	-----------------------------