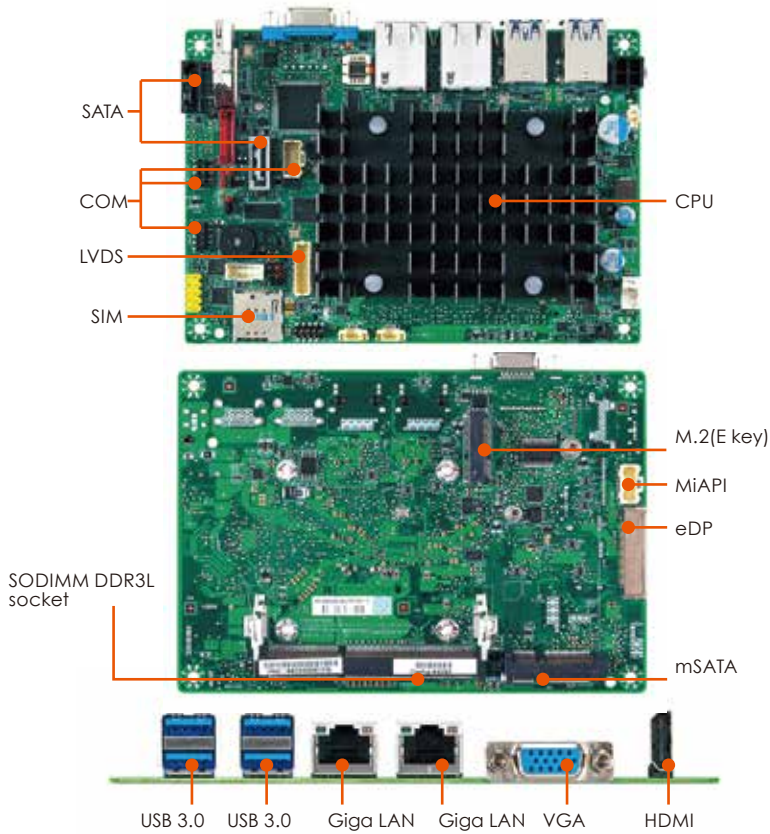


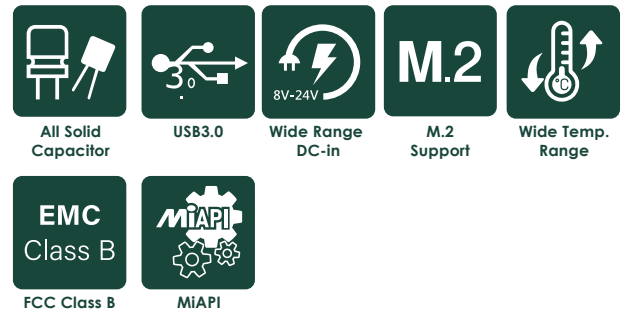
PD10AS

3.5" SBC Form Factor
Intel® Apollo Lake Processor

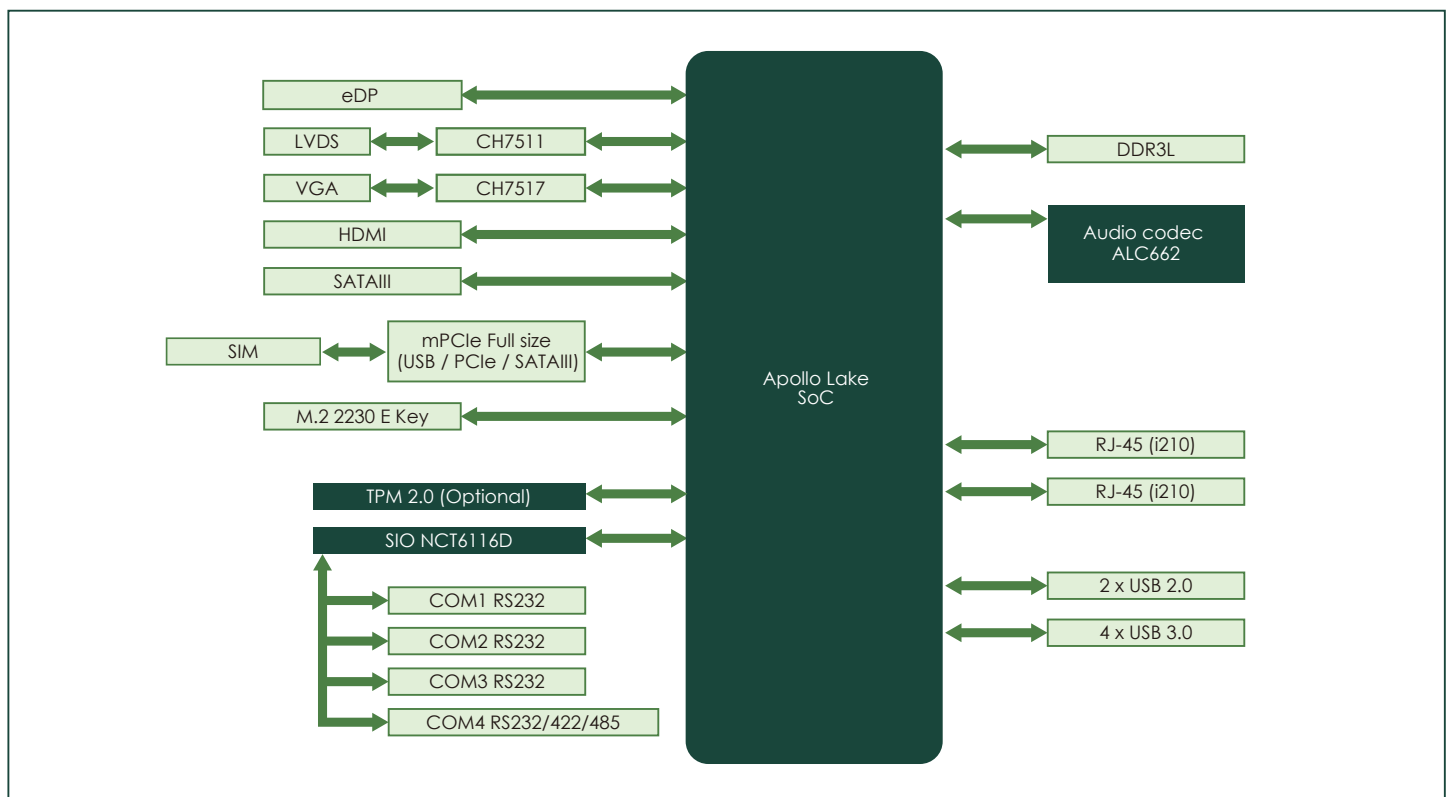


Features

- Intel® Apollo Lake Atom/Celeron/Pentium BGA processor
- 1 x DDR3L SO-DIMM and support up to 8GB
- Support triple display for HDMI, VGA and LVDS/eDP
- 1 x Mini PCIe + 1 x M.2 slot
- 1 x SATA III,
- 2 x Intel® Gigabit Ethernet
- 2 x USB 2.0, 4 x USB 3.0 and 4 x COM
- 8V~24V wide voltage power input
- mPCIe with SIM card holder



Block Diagram



PD10AS

3.5" SBC

Industrial Motherboard

MECHANICAL

Form Factor 3.5" SBC Embedded: 4" x 5.8" (102mm x 147mm)

SYSTEM

Processor	Intel® Apollo Lake-M N3350 Processor Option: N4200
Chipset	Intel® Apollo Lake-I E3930 Processor Option: E3940 / E3950
Memory	Intel® SoC Integrated
Graphics	DDR3L 1867, 1 x 204-pin SO-DIMM, Max. 8GB (Non-ECC)
Ethernet	Intel® HD Graphics
Audio	2 x Intel® I210-IT Giga LAN
I/O Chipset	Realtek® ALC662
TPM	Nuvoton NCT6116D
Expansion Slot	Nuvoton NPCT650ABCYX TPM2.0 (Optional) Storage: Mini PCIe Full size (USB / PCIe / SATA), w/ SIM Card Holder Wireless: M.2 2230 E key (PCIe / USB)
BIOS	AMI BIOS
H / W Monitor	Temperature Monitor, Voltage Monitor
Watchdog Timer	1~255 Steps by Software Program
Smart Fan Control	—

GRAPHICS

VGA	Up to 1920 x 1200 @60 Hz
DVI	—
HDMI	Up to 4K (3840 x 2160) @30 Hz
DisplayPort	—
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 VGA
Audio I/O	—
LAN I/O	2 x RJ-45
Serial Port	—
PS/2 Port	—
Others	—

INTERNAL CONNECTORS

Storage	1 x SATAIII
USB	2 x USB 2.0
Display I/O	1 x LVDS, 1 x eDP 1 x Backlight Connector
Audio I/O	—
Serial Port	4 x RS232 (One Supports RS232/422/485)
PS/2 Port	—
Parallel Port	—
GPIO	1 x MiAPI Header (Programmable)
Fan	—
Power	1 x 8~24V ATX Power Connector, 1 x AT/ATX Mode Select Jumper
Others	1 x Front Audio Header (Mic-in/ Line-out), 1 x CMOS Jumper

POWER REQUIREMENT

Power Input	ATX 4-pin DC-in 8~24V
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ENVIRONMENTAL

Operating Temperature	Normal Temperature: 0 ~ 70°C (32 ~ 158°F) Wide Temperature (Optional*): -40 ~ 85°C (-40 ~ 185°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 64-bit Linux (support by request)
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* Must use the wide-temp modules for wide temperature SKU

Ordering Information

Model Number	Processor	VGA	HDMI	LVDS / eDP	USB 3.0/2.0	LAN	mPCIe	M.2 (2230)	TPM	Operating Temp.	Power	HS Configuration
PD10AS-E3930-WT	E3930	1	1	1 / 1	4/2	2	1	1	Optional	-40 ~ 85°C	ATX 4-pin DC-in 8~24V	MB + Heatsink
PD10AS-E3930-NT	E3930	1	1	1 / 1	4/2	2	1	1	Optional	0 ~ 70°C	ATX 4-pin DC-in 8~24V	MB + Heatsink
PD10AS-N3350-NT	N3350	1	1	1 / 1	4/2	2	1	1	Optional	0 ~ 70°C	ATX 4-pin DC-in 8~24V	MB + Heatsink
PD10AS-N4200-NT	N4200	1	1	1 / 1	4/2	2	1	1	Optional	0 ~ 70°C	ATX 4-pin DC-in 8~24V	MB + Heatsink

Packing List

Packing

- 1 x Motherboard
- 1 x 50cm SATA Cable
- 1 x 45cm SATA Power Cable
- 1 x Driver CD
- 1 x Quick Guide