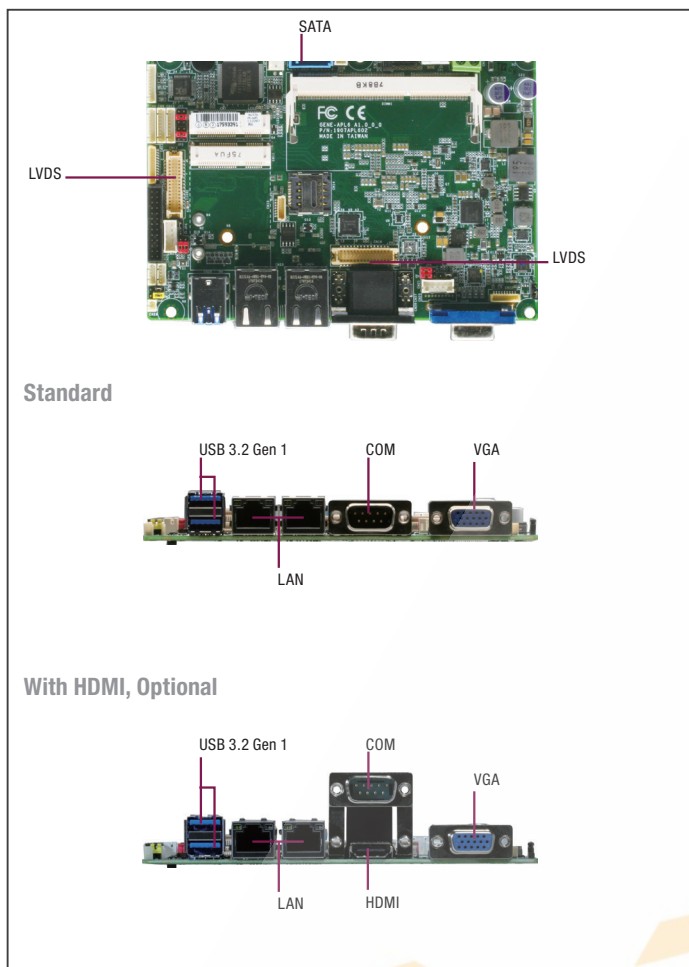


GENE-APL6

3.5" SubCompact Board with Intel® Pentium® N4200/ Celeron® N3350 Processor SoC



Standard

With HDMI, Optional

Features

- DDR3L 1866 MHz SODIMM x 1, up to 8 GB
- VGA/LVDS/LVDS2 (HDMI Co-layout with LVDS2 Optional)
- 2 CH Audio, SATA 6.0 Gb/s x 1, eMMC up to 64G (Optional)
- Supports 8-bit Digital I/O, USB 2.0 x 2, USB 3.2 Gen 1 x 2, COM x 4
- Mini Card x 1 (Full-size), mSATA x 1 (Half-size)
- 9~36V wide DC input or +12V only (Optional), AT/ATX Mode
- Supports TPM (Optional)



DISPLAY INTERFACE	VGA x 1, up to 1920 x 1200
MULTIPLE DISPLAY	Up to 3 Simultaneous Displays
AUDIO	
CODEC	Realtek ALC897/892
AUDIO INTERFACE	Line-in/Line-out/MIC
SPEAKER	—
EXTERNAL I/O	
ETHERNET	Intel® i210/i211, 10/100/1000Base, RJ-45 x 2
USB	USB3.2 Gen 1 x 2
SERIAL PORT	COM1 (RS232)
VIDEO	VGA x 1
INTERNAL I/O	
USB	USB 2.0 x 2
SERIAL PORT	COM2, COM3 (RS232/422/485, support 5V/12V/RI) COM4 (RS232)
VIDEO	LVDS1 x 1 LVDS2/HDMI x 1(Default: LVDS2)
SATA	SATA III x 1 +5V SATA Power Connector x 1
AUDIO	Audio Header x 1
DIO/GPIO	8-bit
SMBus/I2C	I2C/SMBus x 1 (Default: I2C)
TOUCH	4/5/8-wire Touch Controller x 1 (optional)
FAN	DC Fan x 1 (optional: Smart Fan)
SIM	Micro SIM x 1 (Optional)
FRONT PANEL	HDD LED, PWR LED, Power Button, Buzzer, Reset
OTHERS	eMMC 16G/32G/64G (optional) Parallel Port(SPP/EPP/ECP) x 1 (optional, select by BIOS)
EXPANSION	
Mini PCI-E/mSATA	Full-size mPCIe x 1 Half-size mSATA x 1
M.2	—
OTHERS	—
ENVIRONMENT & CERTIFICATION	
OPERATING TEMP.	32°F ~ 140°F (0°C ~ 60°C), WITAS2 -40°F ~ 185°F (-40°C ~ 85°C)
STORAGE TEMP.	-40°F ~ 185°F (-40°C ~ 85°C)
OPERATING HUMIDITY	0% ~ 90% relative humidity, non-condensing
MTBF (HOURS)	374,567
EMC	CE/FCC Class A

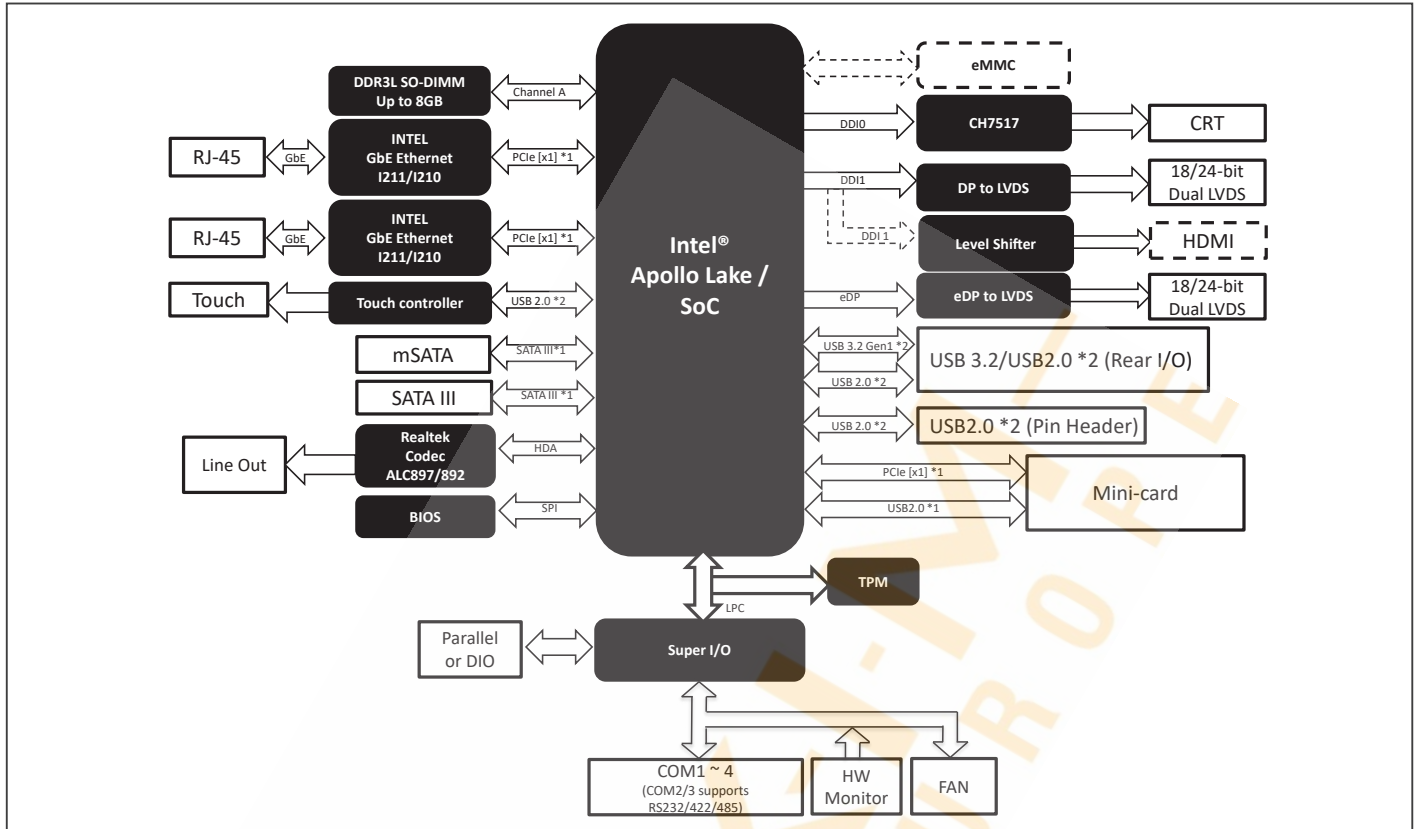
Specifications

SYSTEM	
FORM FACTOR	3.5" SubCompact Board
CPU	Intel® Atom®/Celeron®/Pentium® Processor: Pentium N4200 (4C/4T,1.10GHz,up to 2.50GHz, 6W) Celeron N3350 (2C/2T,1.10GHz,up to 2.40GHz, 6W) Atom E3950 (4C/4T,1.60GHz, up to 2.00GHz, 9.5W) Atom E3940 (4C/4T,1.60GHz,up to 1.80GHz, 9.5W) Atom E3930 (2C/2T,1.30GHz,up to 1.80GHz, 6.5W)
CHIPSET	Integrated with Intel® SoC
MEMORY TYPE	DDR3L 1600MHz (max.8GB)/1866MHz (max.4GB), SODIMM x 1, Non-ECC *1866MHz is limited to the verified DDR module in AAEON's Approved Vendor List
BIOS	UEFI
WAKE ON LAN	Yes
WATCHDOG TIMER	255 Levels
SECURITY	TPM 2.0 (Optional)
RTC BATTERY	Lithium Battery 3V/240mAh
DIMENSION	5.75" x 4" (146mm x 101.7mm)
OS SUPPORT	Windows 10 (64bit) Linux Ubuntu 21.04.0/Kernel 5.10
POWER	
POWER REQUIREMENT	+9~36V (Optional: +12V)
POWER SUPPLY TYPE	AT/ATX
CONNECTOR	Phoenix 2-pin Connector
POWER CONSUMPTION	Intel® E3950, DDR3L 1866MHz 8G, 2.36A @+12V(TYPICAL) Intel® E3950, DDR3L 1866MHz 8G, 2.41A @+12V(MAX)
DISPLAY	
CONTROLLER	Intel® HD Graphics 500/505
LVDS/eDP	LVDS1 Dual Channel 18/24bit x 1, up to 1920 x 1080 LVDS2 Dual Channel 18/24bit x 1 (Optional: HDMI1.4b, up to 3840 x 2160)

Optional Accessories

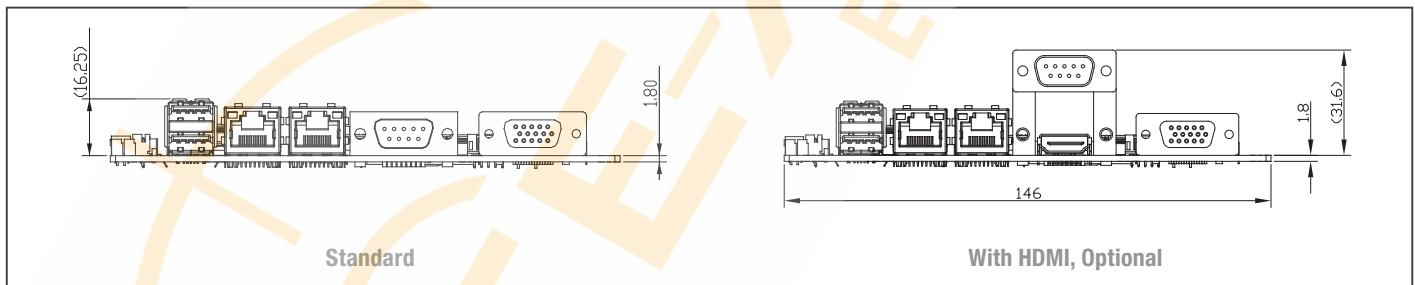
Part Number	Description	QTY per Board
1700050207	USB Cable, 20cm	2
1701090150	COM Cable, 15cm	3
1709100254	Audio Jack Cable, 25cm	1
1709070500	SATA Cable, 50cm	1
1702150155	SATA Power Cable, 15cm	1
170220020B	ATX Power Cable, 20cm	1
170204010R	Power Cable, 10cm	1
GENE-APL6-HSK01	HeatSink.146X80X14mm.GENE-APL6.(used with heat spreader)	1

Block Diagram



Dimension

Unit: mm



Packing List

Part Number	Description	QTY
GENE-APL6	GENE-APL6 MB	1
TH3APL6010	Heat spreader for CPU N Series	1
M16APL6001	Heat spreader for CPU E Series	1

Ordering Information

Part Number	CPU	Display	LAN	USB	RS-232	RS-232/422/485	Storage	Expansion Slot	TPM	Power	Operating Temp	Others
GENE-APL6-A11-F001	N3350	VGA, LVDS, LVDS2	GbE x 2	USB 3.2 Gen1 x 2 USB 2.0 x 2	2	2	SATA x 1 mSATA x 1	MiniCard x 1 (Full)	—	9~36V	0°C ~ 60°C	DIO x 8
GENE-APL6-A11-F002	N3350	VGA, LVDS, LVDS2	GbE x 2	USB 3.2 Gen1 x 2 USB 2.0 x 2	2	2	SATA x 1 32GB eMMC	MiniCard x 1 (Full)	2.0	9~36V	0°C ~ 60°C	Touch Controller, SIM, DIO x 8
GENE-APL6-A11-F003	N4200	VGA, LVDS, LVDS2	GbE x 2	USB 3.2 Gen1 x 2 USB 2.0 x 2	2	2	SATA x 1 mSATA x 1	MiniCard x 1 (Full)	—	9~36V	0°C ~ 60°C	DIO x 8
GENE-APL6-A11-F004	N4200	VGA, LVDS, LVDS2	GbE x 2	USB 3.2 Gen1 x 2 USB 2.0 x 2	2	2	SATA x 1 32GB eMMC	MiniCard x 1 (Full)	2.0	9~36V	0°C ~ 60°C	Touch Controller, SIM, DIO x 8
GENE-APL6W2-A11-F005	E3950	VGA, LVDS, HDMI	GbE x 2	USB 3.2 Gen1 x 2 USB 2.0 x 2	2	2	SATA x 1 mSATA x 1	MiniCard x 1 (Full)	2.0	12V	WITAS2 (-40~85°C)	SIM, DIO x 8