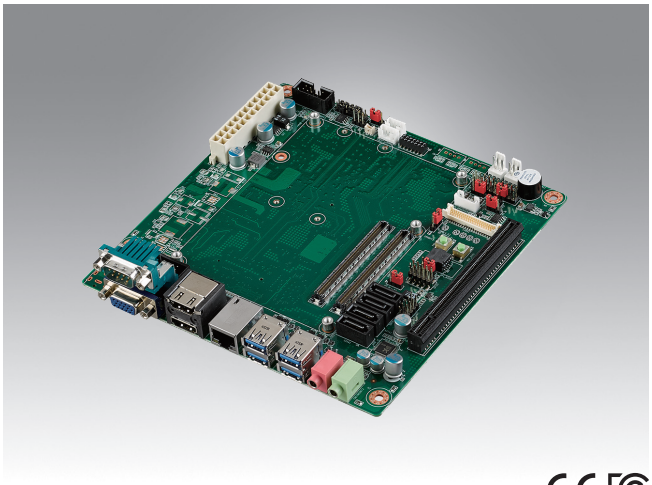
SOM-AB5810

Extended Temp Mini-ITX Application Board



Features

- Mini-ITX form factor with slim type I/O connector under 25.4mm
- Compatible to COM Express Basic/Compact with Type 6 pin-out module
- Supports Wide-range operating temperature from -40 to +85 degree
- Supports Standard ATX Power or DC-in 19V
- Supports VGA, 2xHDMI, PCIe x16, mini-PCIe, SATA, and USB3.0

Specifications

Form Factor		Mini-ITX
Support Model	Form Factor	COM Express Basic (125 x 95 mm)/Compact (95 x 95 mm) Module
	Pin-out Type	Type 6 pin-out Compatible
Display	VGA	1
	LCD	2-CH 18/24-bit LVDS (optional 4-Lane eDP)
	HDMI	2
Expansion	PCI Express x16 Slot	ATX SKU: 1 PCIe x16, DC SKU: 1 PCIe x1
	mini-PCIe	2 (include PCIe x1 & USB2.0)
	LPC	Yes
Serial Bus	SMBus	Yes
	I2C Bus	Yes
Ethernet	Connector	RJ-45
	Speed	10/100/1000Mbps
I/O	SATA	ATX SKU: 4, DC SKU: 2
	mSATA	Optional support 1 socket
	USB3.0/2.0	4
	USB2.0	2
	Audio	Support Line-out(L/R), MIC (Realtek ALC892)
	SPI Bus	Yes
	GPIO	8
	Watchdog output	1
	COM Port	2, COM1: RS-232, COM2: RS-232/422/485
	Smart Fan	1, support 12V fan only
Power	Type	ATX SKU: ATX, DC-in SKU: DC-in 19V
	Supply Voltage	ATX SKU: Vin: 12V±5%, 5V±5%, 3.3V±5% VSB: 5V±5% DC-in SKU: VDC-in: 19V±5%
Environment	Temperature	Operating: 0 ~ 60° C (32 ~ 140° F) Storage: -40 ~ 85° C (-40 ~ 185° F)
	Humidity	Operating: 40° C @ 95% relative humidity, non-condensing Storage: 60° C @ 95%relative humidity, non-condensing
	Vibration Resistance	3.5 Grms
Mechanical	Dimensions	170 x 170 mm (6.7" x 6.7")

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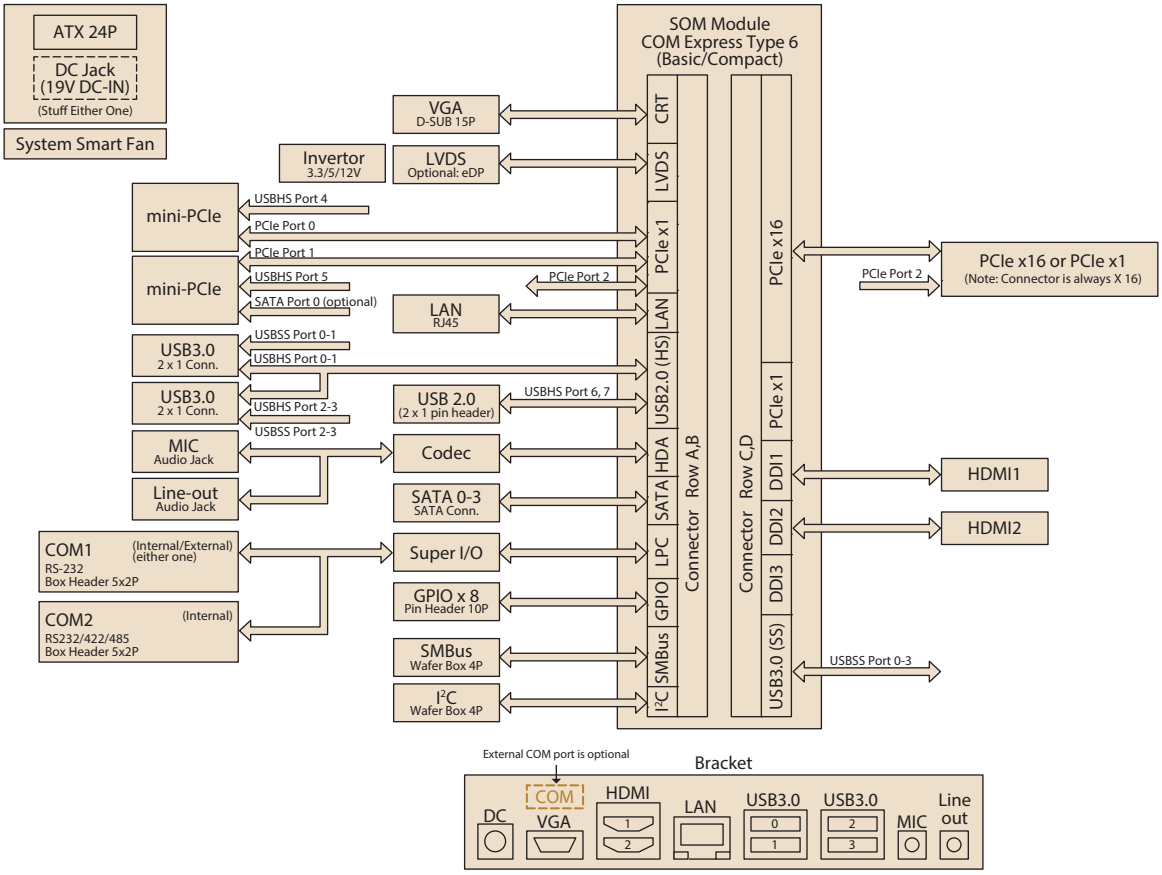
All product specifications are subject to change without notice.

Block Diagram



Ordering Information

Part No.	VGA	HDMI	LVDS	PCIe x16 (PEG)	PCIe x1	mini-PCIe	GbE	SATA	USB 3.0	USB 2.0	COM Port	ATX Power	DC-in	Operating Temperature
SOM-AB5810AC-00A1E	1	2	1	1	-	2	1	4	4	2	2	Yes	-	0 ~ 60° C
SOM-AB5810DC-00A1E	1	2	1	-	1	2	1	2	4	2	2	-	Yes	0 ~ 60° C

Packing List

Part No.	Description	Quantity
-	SOM-AB5810 Module	1
1700008894	Serial ATA Cable 7P/7P 30cm	1
1701100300	Flat COM Port Cable	1
1910001675	POST M2.5*5L	1
1920001128	NUT M2.5 x 5 x 3 mm	1
1700100170	A Cable 2*5P-2.54/USB-A (F)*2 17.5cm W/BKT F/5	1
1700018785	A CABLE SATA 15P/1*4P-2.5 35cm for AIMB-213 (For DC-in SKU only)	2

Optional Accessories

Part No.	Description
1757002944	ADAPTER 100-240V 90W 19V 4.74A W/PFC 9NA0900508
1700001524	Power Cord 3P UL 10A 125V 180cm
1960048819N001	Semi-Cooler 95 x 95 x 33.5 mm with 12V fan
1960048820N001	Semi-Cooler 125x95x33.5mm with 12V Fan

I/O View

(ATX SKU)

(DC-in SKU)