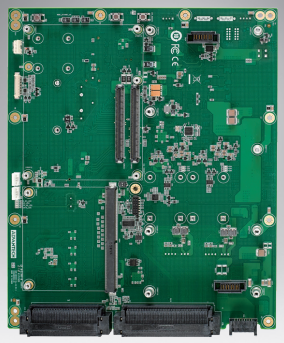
SOM-AB5800

MIL-Grade Application Board for COM Express® Type 6 Pin-out Modules

Preliminary



Features

- PICMG COM.0 R3.0 Type 6 Pin Out
- COM Express® Basic/Compact Modules
- Graphic NVIDIA MXM, 2 mini-PCIe/Acropack, mini-PCIe/mSATA, M.2 2242/2280, Micro-SD, 2 SATA
- I/O Interface 3 DDI, 4 DP (MXM), LVDS, 2 Ethernet, 4 USB 3.1, Audio, 6 Serial, 8 GPIO
- Design to Meet MIL-STD-810G, IPC-A-610G Class 3

Specifications

Compatible Models		Advantech COM Express Basic Modules (125 x 95 mm)/Compact Modules (95 x 95 mm)
M.2		1 M.2 2242/ 2280 (B Key, SATA/PCIe)
SATA		2 SATA
Expansion	mini-PCIe	2 mini-PCIe/ Acropack (port 2 shared USB 2.0 interface through USB HUB) 1 mini-PCIe/ mSATA
Display	VGA	1 pin header (from COMe module)
TPM		TPM 2.0
I/O 500 Pins Connector	DDI	1 DDI (port 0)
	LVDS	1 LVDS (single channel)
	Ethernet	2 Gigan LAN (10/100/1000)
	Audio	1 Audio input/ output
	USB	2 USB 3.0/USB 2.0 2 USB 2.0
	COM Port	2 RS-232 (From COMe) 4 RS-232/422/485 (from PCIe to UART bridge)
	GPIO	8 GPIO with 8 bits (4 in/ 4 out w/ +3.3 & +5V selectable)
	I^2C Bus	1
	SM Bus	1
	Rapid Shutdown	1
I/O 400 Pins Connector	DDI	2 DDI (port 1, 2)
	Display port	4 DP (from MXM slot)
	SATA	2 SATA-III
	USB	2 USB 3.0/ USB 2.0 2 USB 2.0
Samtec Board to Board (Power)	Type	ATX: Vin, VSB; AT: Vin or Vdc
	Supply Voltage	Vin: +16~48V (w/o Power Board SOM-EA8710) Vin: +16~48V (w/ Power Board SOM-EA8710, nominal volotage +28V)
Environment	Temperature	Operating: -40 ~ 85° C (-40 ~ 185° 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
Mechanical	Dimensions	215 x 260 mm (8.46" x 10.24")

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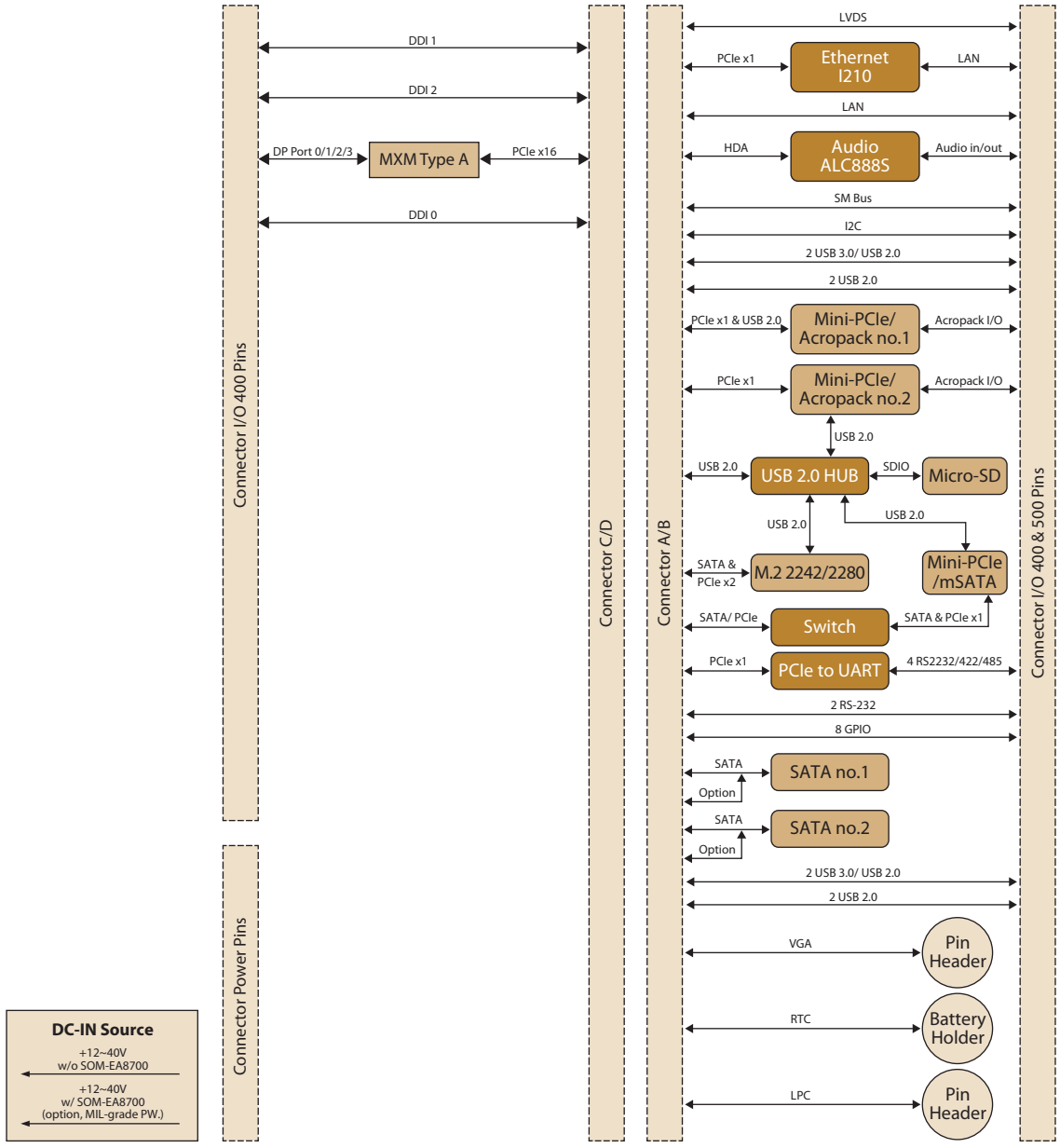
Block Diagram



Ordering Information

Part No.	Description
Contact sales	COM Express Type 6 Application Board SOM-AB5800
Contact sales	COM Express Type 6 MIL-I/O Board SOM-EA8620
Contact sales	COM Express Type 6 Power Board SOM-EA8710
Contact sales	MIL-DTL-38999 to Commerical Adapter Cable (for SOM-EA8620)
SOM-DK5800S-00A1	COMe Type 6 System Evaluation Kit