

ADM-PA120 Quick Start Guide

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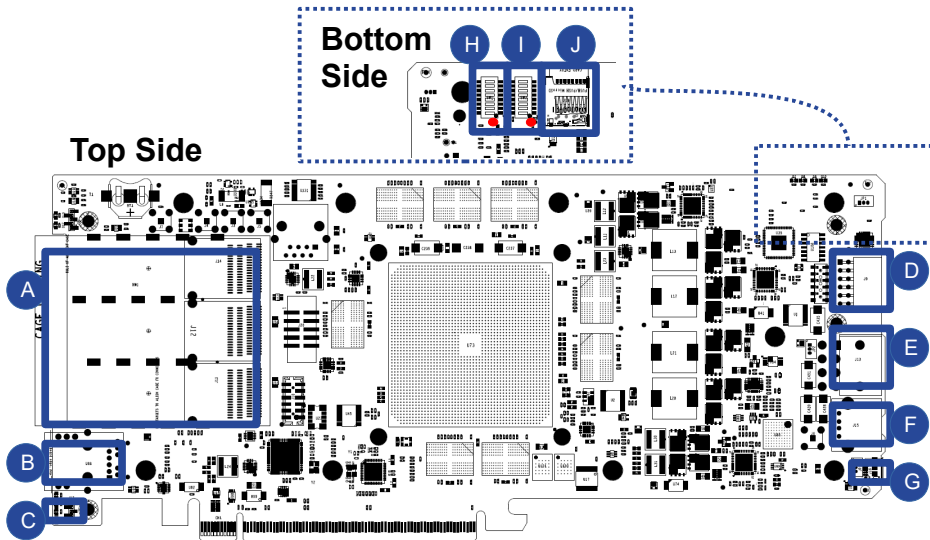


The components on this board can be damaged by Electrostatic Discharge (ESD). To prevent damage, observe SSD precautions:

- Always wear a wrist-strap when handling the card
- Hold the board by the edges
- Avoid touching any components
- Store in ESD safe bag

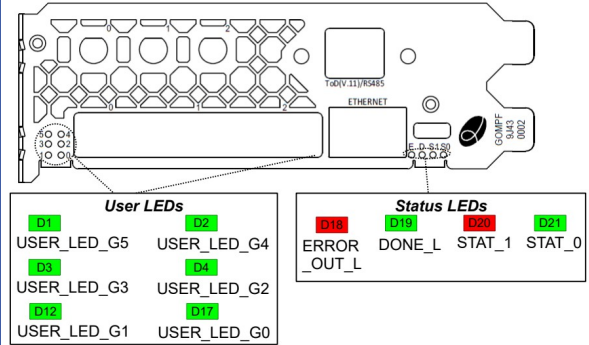
Initial installation sequence

1. Ensure boot mode is set to SD Card - SD 3.0 (SW2-4 to SW2-1 : OFF, OFF, OFF, ON). Ensure other switches are in factory default positions (see switch table below).
2. Ensure host machine is off, including standby power, using mains power switch on host machine.
3. Plug ADM-PA120 into PCIe slot in host machine.
4. Connect PCIe auxiliary power cable of host machine to ADM-PA120 - External PSU Socket (E).
5. Connect micro-USB cable from development machine to ADM-PA120 - USB either (C) or (G) below.
6. Power on host machine.
7. Check UART communication port available over the micro-USB connection for boot message and Linux command prompt - 115200 baud, 8 data bits, no-parity, 1 stop bit. Terminal emulator needed e.g. TeraTerm.
8. Visit ADM-PA120 product web page for links to user manual and other documentation: <https://www.alpha-data.com/product/adm-pa120>



- A – QSFP-DD (3x)
- B – RJ45 10/100/1000Base-T Ethernet
- C – USB-micro (front panel*)
- D – PMOD interface
- E – PCIe aux. power socket
- F – USB-A (Processor ULPI interface)
- G – USB-micro (rear edge*)
- H – SW1 (8-way DIP SW2-1 at red dot)
- I – SW2 (8-way DIP SW1-1 at red dot)
- J – SD Card slot

*UART serial communication port to the Versal processor is available at the micro USB sockets on the front panel (C) or rear edge (G).



STAT_0	STAT_1	Board Status
ON	OFF	System good – no alarms
ON	ON	Standby (powered off)
Flashing together		Attention – critical alarm
Flashing alternating		Service mode
Flashing	ON	Attention – alarm active
OFF	ON	Missing or invalid application firmware
OFF	Flashing	ACAP configuration cleared to protect board

Switch	Factory default	Function	Off state	On State
SW1-1	OFF	Reserved	TBD	TBD
SW1-2	OFF	SI5402_I2C Isolate	Connect Si5402 I2C to PL	Isolate Si5402 I2C from PL
SW1-3	OFF	HOST_I2C_EN	AVR sysmon on PCIe slot I2C	AVR sysmon I2C isolated
SW1-4	OFF	Service Mode	AVR sysmon normal operation	AVR sysmon service mode
SW1-5	OFF	PERST to POR_B	PCIE reset isolated from POR_B	PCIE reset drives POR_B low
SW1-6	OFF	POR_B	Versal POR_B released	Versal POR_B driven low
SW1-7	OFF	Reserved	TBD	TBD
SW1-8	OFF	Reserved	TBD	TBD
SW2-1	ON	Boot Mode 0	See boot mode table to the right	
SW2-2	OFF	Boot Mode 1		
SW2-3	OFF	Boot Mode 2		
SW2-4	OFF	Boot Mode 3		
SW2-5	OFF	Reserved	TBD	TBD
SW2-6	OFF	12V Auto-detect	12V auto-detect enabled	8-pin ATX cable required
SW2-7	OFF	Reserved	TBD	TBD
SW2-8	OFF	Power Off	Board will power up	Immediately power down

SW2				Boot Mode
4	3	2	1	
ON	ON	ON	ON	JTAG
ON	ON	OFF	ON	Quad SPI
OFF	OFF	OFF	ON	SD Card SD 3.0

Note that boot mode can be set by software using Alpha Data's avr2util software. See user guide for more details.

ADM-PA120 Board File: https://alpha-data.com/pdfs/admpa120_board_file-v1_0.pdf
 ADM-PA120 product web page: <https://www.alpha-data.com/product/adm-pa120>
 ADM-PA120 SDK: Contact support@alpha-data.com for login details

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