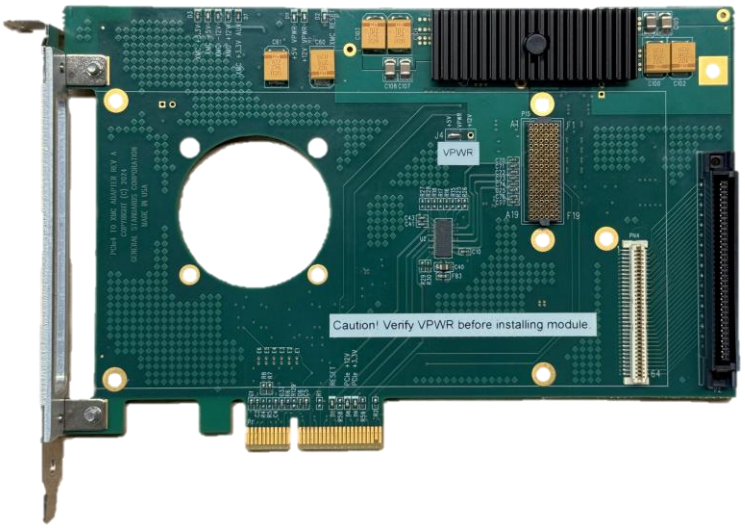
PCIe4 to XMC Adapter

(PCIe4-XMC-A)

DATA SHEET



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1. OVERVIEW

The PCIe4 to XMC Adapter (Figure 1.1) allows a single width XMC module to be installed on a standard height PCI Express board. The PCI Express x4 link from the host board is connected to the XMC module via a PCIe redriver. Other options include RIO, external fan, and a selectable VPWR.

This Adapter requires +12V and +3.3V from the PCIe bus connector. The +12V from the PCIe bus connector is used to generate the supplies for the XMC card providing up to 25W(all supplies combined). The +3.3V from the PCIe bus connector is used for the redriver device.

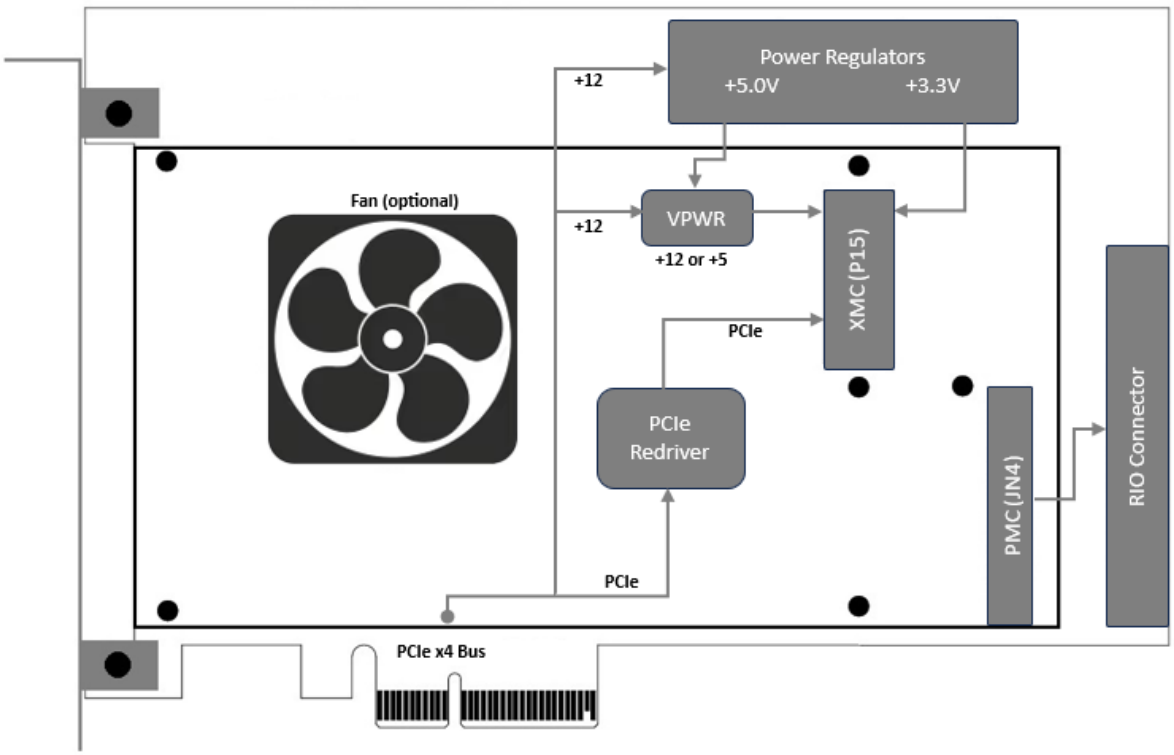


Figure 1.1 PCIe4 to PMC Adapter; Functional Organization

RIO connections are made through a single 68-pin I/O connector. Power requirements consist of +3.3 VDC and +12V, in compliance with the PCIe specification, and operation over the specified temperature range is achieved with conventional convection cooling.

2. Technical Information

2.1 Mechanical and Electrical Interfaces

PCI Express
PCI Express x4, Revision 3.0
Standard Height and Length (1/2 length PCIe board).

XMC Site
ANSI/VITA 42 (ANSI/VITA 61 optional)
Single-Width
Connect Access via Front Panel I/O or Rear I/O

3. Power, Mechanical, and Environmental Specifications

3.1 Power Requirements

PCIe Power
+3.3VDC ± 0.2VDC
+12VDC ± 0.4VDC

XMC Power	
+3.3V	3.0A max
+5.0V	3.0A max
+12V	1.25A max
+3.3Vaux	0.5A max
-12V	0.5A max

3.2 Mechanical Characteristics

Height	Depth	Width
~15.0 mm (0.59 in)	~167.6 mm (6.60 in)	~106.7 mm (4.20 in)

3.3 Environmental Requirements

Ambient Temperature Range	
Operating	-40°C to +85°C
Storage	-65°C to +150°C

Relative Humidity	
Operating	0% to 80%, non-condensing
Storage	0% to 95%, non-condensing

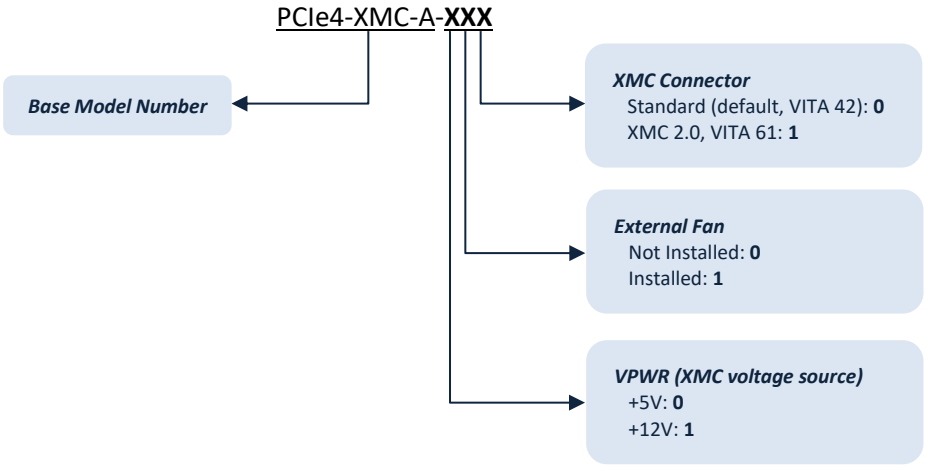
Altitude	Cooling
Operation to 10,000ft	Conventional air cooling, 150 LFPM

4. Ordering Information

4.1 Product Options

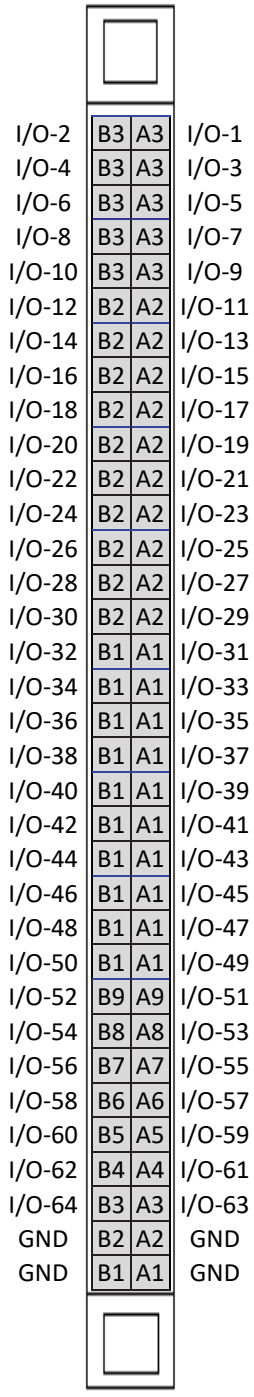
Specify the basic product model number followed by an option suffix “XXX”, as indicated below.

Contact the Sales Department for more information.



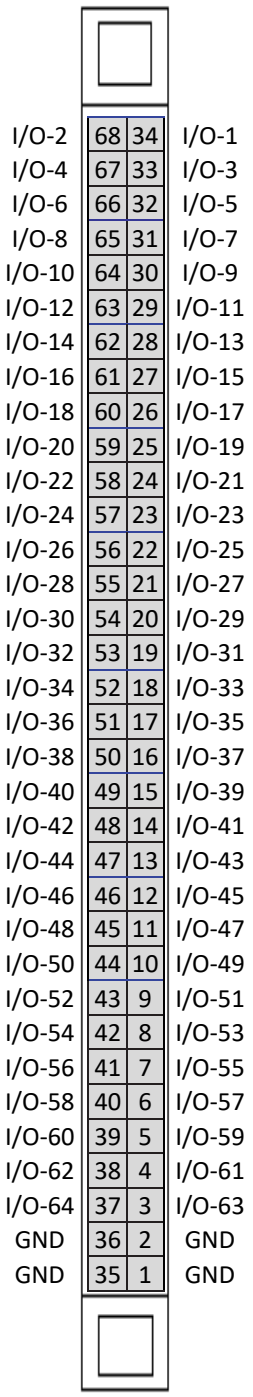
5. REAR IO CONNECTOR: (P2)

Rear I/O Connector Pin Assignment
(AMP 787170-7, 68 Position D-Type Receptacle)
(Original pin list shown below)



I/O-2	B3	A3	I/O-1
I/O-4	B3	A3	I/O-3
I/O-6	B3	A3	I/O-5
I/O-8	B3	A3	I/O-7
I/O-10	B3	A3	I/O-9
I/O-12	B2	A2	I/O-11
I/O-14	B2	A2	I/O-13
I/O-16	B2	A2	I/O-15
I/O-18	B2	A2	I/O-17
I/O-20	B2	A2	I/O-19
I/O-22	B2	A2	I/O-21
I/O-24	B2	A2	I/O-23
I/O-26	B2	A2	I/O-25
I/O-28	B2	A2	I/O-27
I/O-30	B2	A2	I/O-29
I/O-32	B1	A1	I/O-31
I/O-34	B1	A1	I/O-33
I/O-36	B1	A1	I/O-35
I/O-38	B1	A1	I/O-37
I/O-40	B1	A1	I/O-39
I/O-42	B1	A1	I/O-41
I/O-44	B1	A1	I/O-43
I/O-46	B1	A1	I/O-45
I/O-48	B1	A1	I/O-47
I/O-50	B1	A1	I/O-49
I/O-52	B9	A9	I/O-51
I/O-54	B8	A8	I/O-53
I/O-56	B7	A7	I/O-55
I/O-58	B6	A6	I/O-57
I/O-60	B5	A5	I/O-59
I/O-62	B4	A4	I/O-61
I/O-64	B3	A3	I/O-63
GND	B2	A2	GND
GND	B1	A1	GND

Table 5.1 Rear I/O Original Pin Assignment



I/O-2	68	34	I/O-1
I/O-4	67	33	I/O-3
I/O-6	66	32	I/O-5
I/O-8	65	31	I/O-7
I/O-10	64	30	I/O-9
I/O-12	63	29	I/O-11
I/O-14	62	28	I/O-13
I/O-16	61	27	I/O-15
I/O-18	60	26	I/O-17
I/O-20	59	25	I/O-19
I/O-22	58	24	I/O-21
I/O-24	57	23	I/O-23
I/O-26	56	22	I/O-25
I/O-28	55	21	I/O-27
I/O-30	54	20	I/O-29
I/O-32	53	19	I/O-31
I/O-34	52	18	I/O-33
I/O-36	51	17	I/O-35
I/O-38	50	16	I/O-37
I/O-40	49	15	I/O-39
I/O-42	48	14	I/O-41
I/O-44	47	13	I/O-43
I/O-46	46	12	I/O-45
I/O-48	45	11	I/O-47
I/O-50	44	10	I/O-49
I/O-52	43	9	I/O-51
I/O-54	42	8	I/O-53
I/O-56	41	7	I/O-55
I/O-58	40	6	I/O-57
I/O-60	39	5	I/O-59
I/O-62	38	4	I/O-61
I/O-64	37	3	I/O-63
GND	36	2	GND
GND	35	1	GND

Table 5.2 Rear I/O Alternate Pin Assignment

System Cable Mating Connector:
68-pin 0.050" Subminiature connector: with metal shield: AMP #749621-7 or equivalent.

6. REVISION HISTORY:

Revision	Date	Description
1.0	July 29, 2026	Origination

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General Standards Corporation.

8302A Whitesburg Drive

Huntsville, Alabama
35802

Telephone: (256) 880-8787

FAX: (256) 880-8788

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