



Connect Tech Inc.
Embedded Computing Experts

www.connecttech.com

USERS GUIDE

XMC to PCIe/104 Adapter



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Preface

Disclaimer

The information contained within this user's guide, including but not limited to any product specification, is subject to change without notice.

Connect Tech assumes no liability for any damages incurred directly or indirectly from any technical or typographical errors or omissions contained herein or for discrepancies between the product and the user's guide.

Customer Support Overview

If you experience difficulties after reading the manual and/or using the product, contact the Connect Tech reseller from which you purchased the product. In most cases the reseller can help you with product installation and difficulties.

In the event that the reseller is unable to resolve your problem, our highly qualified support staff can assist you. Our support section is available 24 hours a day, 7 days a week on our website at: www.connecttech.com/sub/support/support.asp. See the contact information section below for more information on how to contact us directly. Our technical support is always free.

Contact Information

Mail/Courier

Connect Tech Inc.
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Email/Internet

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Note:

Please go to the [Download Zone](#) or the [Knowledge Database](#) in the [Support Center](#) on the Connect Tech website for product manuals, installation guides, device driver software and technical tips. Submit your technical support questions to our customer support engineers via the [Support Center](#) on the Connect Tech website.

Telephone/Facsimile

Technical Support representatives are ready to answer your call Monday through Friday, from 8:30 a.m. to 5:00 p.m. Eastern Standard Time. Our numbers for calls are:

Toll Free: 800-426-8979 (North America only)

Telephone: 519-836-1291 (Live assistance available 8:30 a.m. to 5:00 p.m. EST, Monday to Friday)

Facsimile: 519-836-4878 (on-line 24 hours)



Limited Product Warranty

Connect Tech Inc. provides a 2 year Warranty for the XMC to PCIe/104 Adapter. Should this product, in Connect Tech Inc.'s opinion, fail to be in good working order during the warranty period, Connect Tech Inc. will, at its option, repair or replace this product at no charge, provided that the product has not been subjected to abuse, misuse, accident, disaster or non-Connect Tech Inc. authorized modification or repair.

You may obtain warranty service by delivering this product to an authorized Connect Tech Inc. business partner or to Connect Tech Inc. along with proof of purchase. Product returned to Connect Tech Inc. must be pre-authorized by Connect Tech Inc. with an RMA (Return Material Authorization) number marked on the outside of the package and sent prepaid, insured and packaged for safe shipment. Connect Tech Inc. will return this product by prepaid ground shipment service.

The Connect Tech Inc. Limited Warranty is only valid over the serviceable life of the product. This is defined as the period during which all components are available. Should the product prove to be irreparable, Connect Tech Inc. reserves the right to substitute an equivalent product if available or to retract the Warranty if no replacement is available.

The above warranty is the only warranty authorized by Connect Tech Inc. Under no circumstances will Connect Tech Inc. be liable in any way for any damages, including any lost profits, lost savings or other incidental or consequential damages arising out of the use of, or inability to use, such product.

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ESD Warning



Electronic components and circuits are sensitive to ElectroStatic Discharge (ESD). When handling any circuit board assemblies including Connect Tech COM Express carrier assemblies, it is recommended that ESD safety precautions be observed. ESD safe best practices include, but are not limited to:

- Leaving circuit boards in their antistatic packaging until they are ready to be installed.
- Using a grounded wrist strap when handling circuit boards, at a minimum you should touch a grounded metal object to dissipate any static charge that may be present on you.
- Only handling circuit boards in ESD safe areas, which may include ESD floor and table mats, wrist strap stations and ESD safe lab coats.
- Avoiding handling circuit boards in carpeted areas.
- Try to handle the board by the edges, avoiding contact with components.

Revision History

Revision	Date	Changes
0.00	2016-09-27	Initial Release



Introduction

Connect Tech's XMC to PCIe/104 Adapter Board is an engineering tool for the purpose of enabling rapid development of systems requiring the use of next generation form factor peripheral cards. This product complies with the VITA 42 specification.

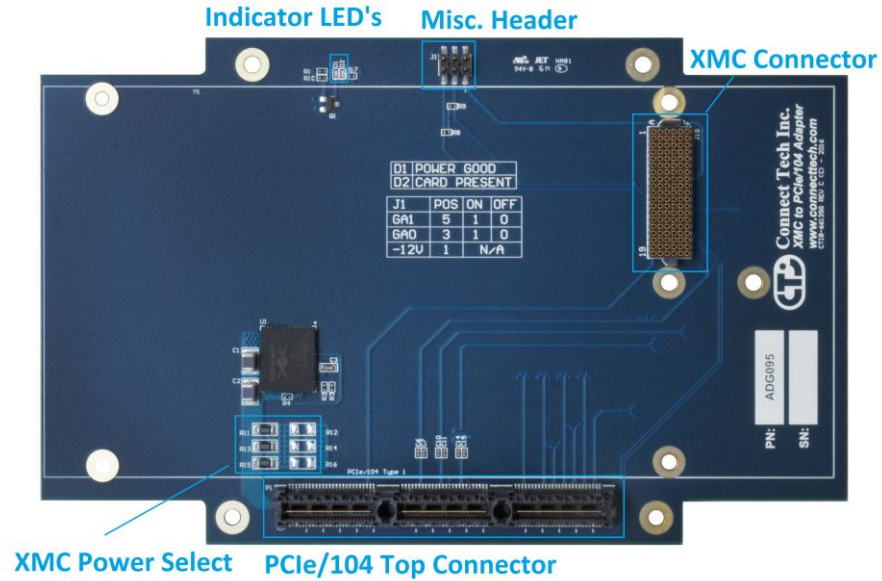
Product Features and Specifications

Specifications	
Form Factor	PCIe/104 oversize, XMC
Dimensions	96.018 mm x 152.4 mm (3.780" x 6.000"), 1-up
Expansion Slots	XMC, PCIe x8 Gen 2.0
Connectors	PCIe/104 Type 1, XMC
Power input	+5V over PCIe/104
Power to XMC	+5V (default). May be modified to +12V if required, contact sales or support.
Operating Temperature	Industrial -40C to +85C
Compliance	ROHS

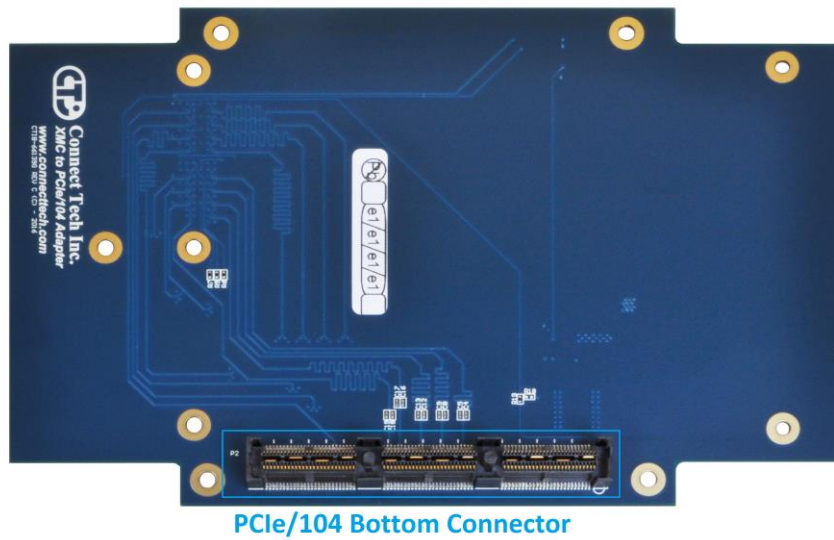
Product Overview

Connector Summary & Locations

ADG095 Top View



ADG095 Bottom



View

Designator	Description
P1	PCIe/104 Top Connector
P2	PCIe/104 Bottom Connector
J15	XMC Connector
D1	Power Good LED
D2	Card Present LED

Jumper Summary & Locations

Designator	Description
J1	Miscellaneous Header


Detailed Feature Description


PCIe/104 Connector

Description

PCIe/104 interface to CPU module

Connectors & Jumpers

Function	PCIe/104 Top Interface	
Location	P1	
Type	Samtec fine pitch stacking connector, part number: ASP129637-03	
Pinout	Refer to PCI/104-Express & PCIe/104 Specification, Rev 2.01	

Function	PCIe/104 Bottom Interface	
Location	P2	
Type	Samtec fine pitch stacking connector part number: ASP-129646-03	
Pinout	Refer to PCI/104-Express & PCIe/104 Specification, Rev 2.01	

XMC Expansion Slot

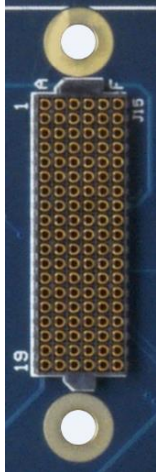
Description

M.2 interface slots for expansion cards. Can be ordered in either key E or key BM. Card type support is listed below.


See Part Numbers/Ordering Information section for more ordering details.

Connectors & Jumpers

Function	XMC Expansion Slot	
Location	J15	
Type	Connector for XMC peripheral cards PN: ASP-103612-04	
Pinout	See ANSI/VITA 42.3 Specification for full details	



Function	Miscellaneous Header	
Location	J1	
Type	PN: TMM-103-01-L-D-SM	
Pinout	Pin	Description
	1	-12V input
	2	-12V input
	3	GA1
	4	GND
	5	GA0
	6	GND




Indicator LEDs

Description

Indicator LED's

Connectors & Jumpers

Function	Indicator LED's	
Location	D1, D2	
	D1	Power good
	D2	Card Present



Typical Installation

Card may be installed in a stack-up or stack-down configuration. 10mm height, M2.5 standoffs required between XMC adapter and XMC expansion card. Example stack-up on Connect Tech's Com Express Type 6 104e Carrier shown below:

