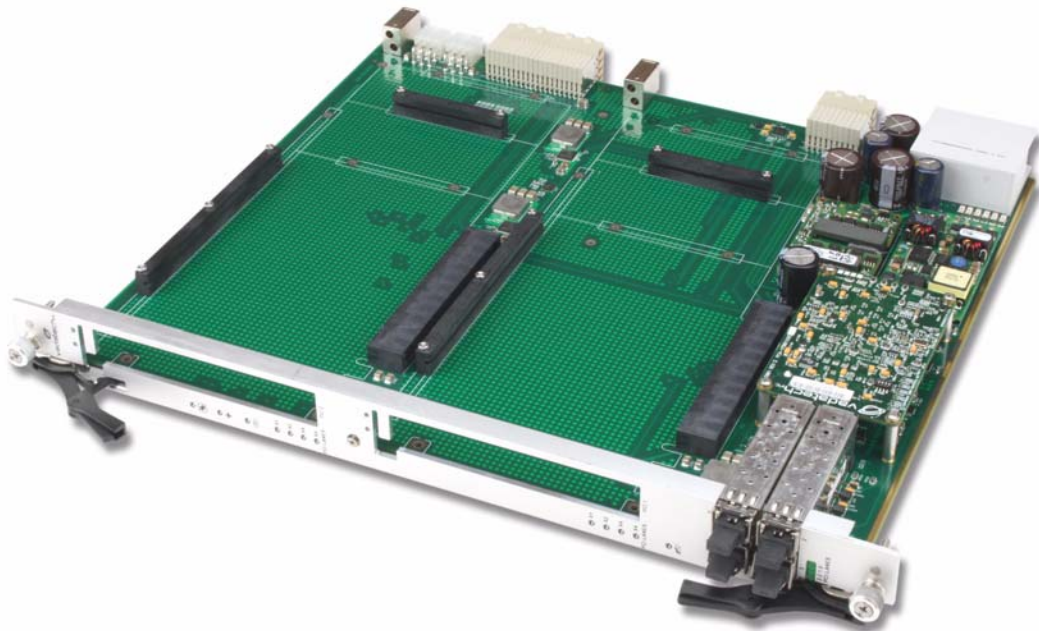# ATCA Carrier for Two PCIe Modules

ATC105

KEY FEATURE

- Two PCI Express x16 slots
- Configurable PCIe lanes as x1, x2 or x4
- PCIe up/downstream to the host via front panel or rear I/O (Zone 3) with fiber or copper interface (the PCIe slot may also be the upstream port)
- PCIe up/downstream to an ATC103/ATC104/ATC106/ATC107/ATC108/AMC103 or the PCI103 carrier boards via front panel or rear I/O
- Adjustable hold down brackets
- AdvancedTCA 3.0 Release 2.0 compliant
- IPMI Version 2.0 compliant
- RoHS compliant
- OS support for:
  — Linux
  — Windows
  — Solaris
  — VxWorks

The ATC105 provides two PCIe x16 style right angle connectors that can accept any PCIe standard size card. Any of the PCIe x4 lanes can be configured as the up stream port. This allows the host (root complex) to be an external host connected to the ATC105 via front or rear. Further, the host could reside on one of the PCIe slots that are on the ATC105.

This modular approach allows an AdvancedTCA chassis to utilize widely available high-end PCIe modules such as PC graphics cards to capitalize on the economies of scale within the PC market.

The ATC105 can be configured as a Shelf Manager or a Node board. As a Shelf Manger, the ATC105 eliminates the shelf managers in the system which reduces the total system cost. The shelf manager implements IPMI management, FRU management, and shelf environment management for power, thermal, E-keying, etc.

VadaTech can modify this product to meet special customer requirements without NRE (minimum order placement is required).

SPECIFICATIONS

Architecture		
Physical	Dimensions	Width: 12.69 in. (322.25 mm)
		Depth: 11.02 in. (280 mm)
Type	ATCA Carrier	Two PCIe cards
Standard		
Module Management	IPMI	IPMI Version 2.0
PCIe	Lanes	x4 lanes to each slot in addition to x4 lanes to the front and rear
PICMG	ATCA	PICMG 3.0 R2.0
Configuration		
Power	ATC105	8W with no PCIe cards
		Up to 150 watts is available for the PCIe cards
Environmental	Temperature	Operating Temperature: 0° to 60° C (Air flow requirement is to be greater than 200 LFM)
		Storage Temperature: -40° to +90° C
	Vibration	1G, 5-500Hz each axis
	Shock	30Gs each axis
	Relative Humidity	5 to 95 percent, noncondensing
Rear I/O	Zone Three**	PCIe x4 lanes are routed to the rear for expandability
		PCIe Lane Good LEDs
		IPMI Controller (VadaTech VT001 product) Debug port
Front Panel	Interface Connectors	Four front panel copper or fiber SFP connectors for PCIe up/downstream
	LEDs	IPMI Management Control
		PCIe Lane Good
	Mechanical	Hot Swap Ejector Handle
Software Support	Operating Systems	Linux, Windows, Solaris and VxWorks
Other		
MTBF	MIL Spec 217-F > 235,000 Hrs.	
Certifications	Designed to meet FCC, CE and UL certifications where applicable	
Standards	VadaTech is certified to both the ISO9001:2000 and AS9100B:2004 standards	
Compliance	RoHS and NEBS	
Warranty	Two (2) years	
Trademarks and Logos	The VadaTech logo is a registered trademark of VadaTech, Inc. Other registered trademarks are the property of their respective owners. AdvancedTCA™ and the AdvancedMC™ logo are trademarks of the PCI Industrial Computers Manufacturers Group. All rights reserved. Specification subject to change without notice.	

FIGURE 1. ATC105 Functional Block Diagram and a typical application (the module could run standalone)
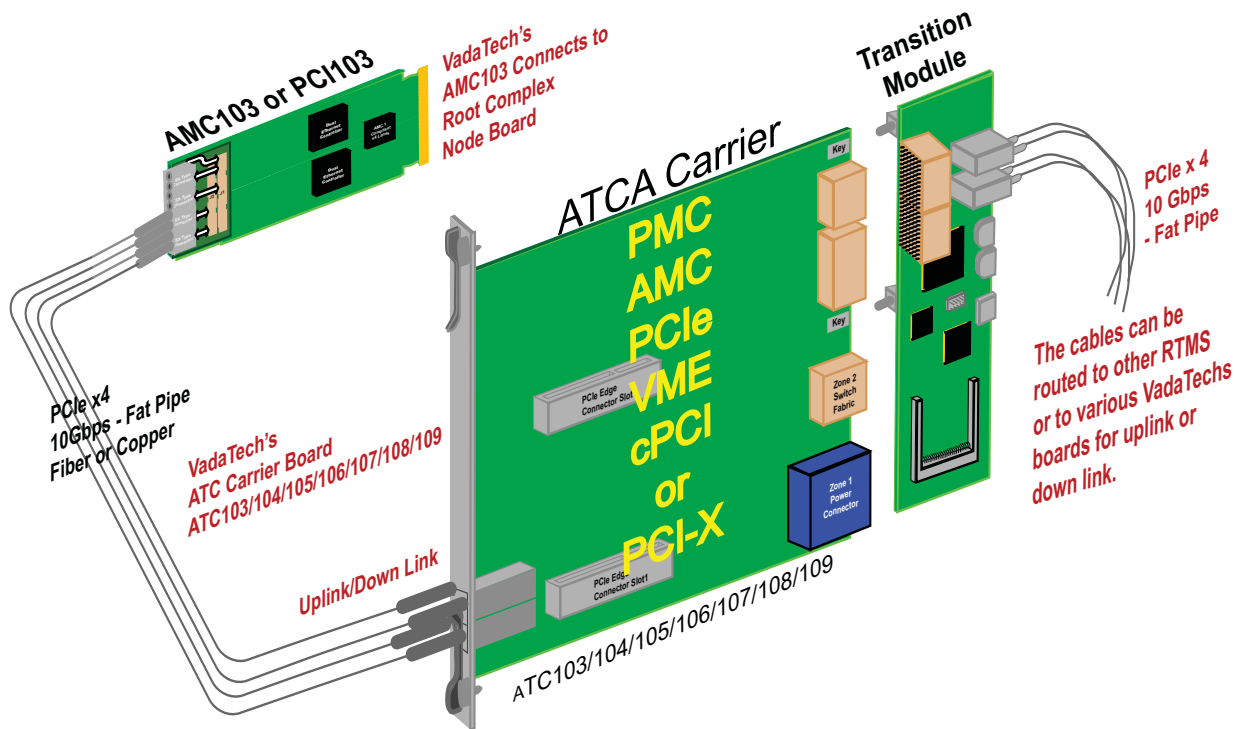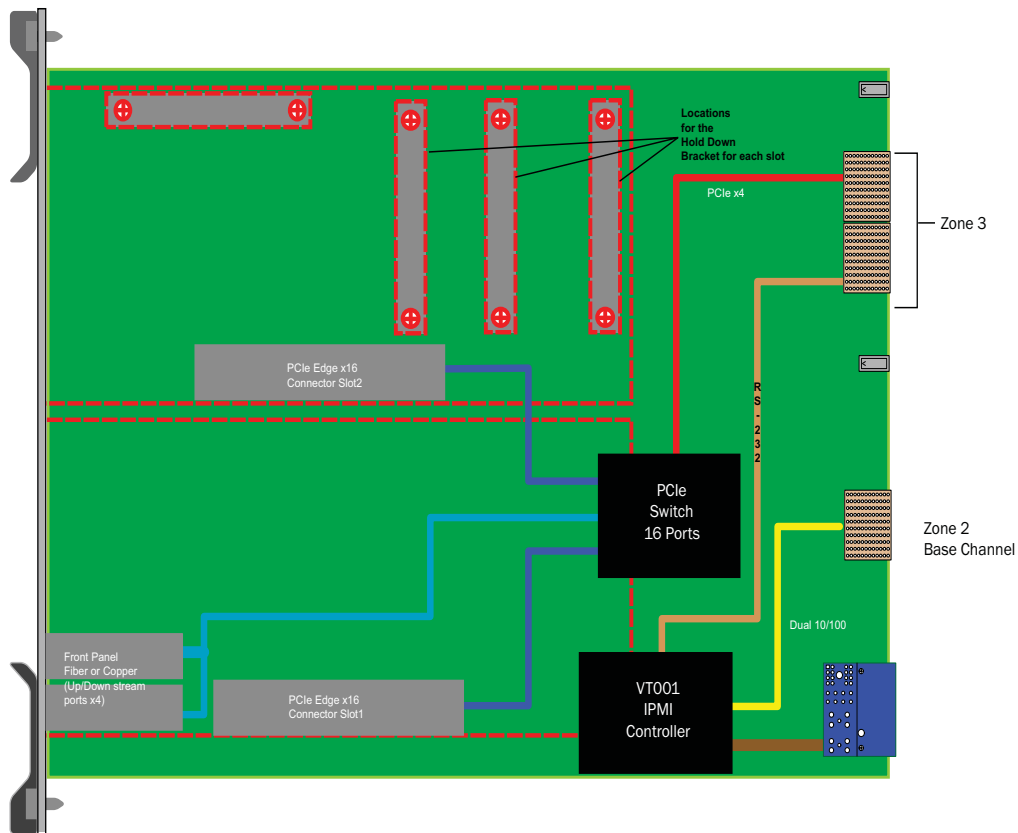
ORDERING OPTIONS

ATC105 - AB0 - D00 - 00J

A = Front Panel Up/Downstream

0 = No load
1 = Fiber LC/SX transceivers (850 nm)
2 = Fiber LC/LX transceivers (1310 nm)
3 = Copper
4 = Reserved

D = Upstream port

0 = Front fiber
1 = Rear fiber
2 = Rear copper
3 = PCIe slot 1
4 = PCIe slot 2
5 = Front copper

J = Conformal Coating

0 = None
1 = Humiseal 1A33 Polyurethane
2 = Humiseal 1B31 Acrylic

B = Management controller*

0 = Node board
1 = Shelf Manager

*The ATC105 IPMI Controller can be configured as Shelf Manager or Node board (Contact your Sales representative for information).
**VadaTech can design custom Rear Transition Modules (RTMs) for this product or any ATCA carrier board with a minimum order and no NRE.

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