

KEY FEATURES

- Four PMC, XMC or PrPMC sites
 - Dedicated PCI-X @ 133MHz per Module
 - PCIe x4 lanes for XMC
- 32 lane PCIe switch
 - PCIe expansion via front panel with fiber or copper interface
 - Expansion to another ATC103 or to a AMC103, ATC104, ATC105, ATC106, ATC107, ATC108, or PCI103
- An external host may configure the bus via the PCIe upstream port
- 17-port managed layer two GbE switch
- PICMG 2.15 PMC/PrPMC 10/100/1000 Ethernet routed to the Gigabit switch
- Allows the PCIe root complex to be on any PMC or external source via front panel or rear
- RoHS compliant

The ATC103, integrates four PMC/XMC/PrPMC sites onto a single Advanced Telecommunication Computing Architecture (AdvancedTCA) node carrier. The ATC103 allows for integration of readily available PMC, XMC and PrPMC modules into the AdvancedTCA environment.

The ATC103 provides four sites that can accept any PMC, XMC or PrPMC module. The ATC103 brings three of the PMC J4 I/Os to the front panel. One of PMC J4 I/Os is routed to Zone 3 of the ATC103. For PMC modules that route their GbE to their J4 connector, the ATC103 routes these connections directly to the onboard GbE switch.

The module has a 32-lane PCIe switch divided into eight ports of x4 lanes each. The ATC103 can be connected to additional ATC103, ATC104, ATC105, ATC106, ATC107, or ATC108 carrier boards or the AMC103 or PCI103 to increase the number of I/O slots via PCIe fiber or copper expansion interconnects. This PCIe expansion is available through the front or the rear.

The ATC103 can be configured as a Shelf Manager or a Node board. As a Shelf Manager, the ATC103 eliminates the need for other shelf managers resulting in reduced total system cost.

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

AdvancedTCA®

ATCA Carrier for PMC/XMC/PrPMC

SPECIFICATIONS

Architecture		
Physical	Dimensions	Width: 12.687in. (322.25 mm)
		Depth: 11.024 in. (280 mm)
Type	ATCA Carrier	PMC, XMC and PrPMC modules
Standard		
PMC	Type	PCI-X @ 133Mhz per PMC slot
XMC	VITA 42.3	XMC.3
Module Management	IPMI	IPMI Version 2.0
PCIe	Lanes	32-lane switch
PICMG	ATCA	PICMG 3.0 R2.0
Gigabit Ethernet	Managed Layer 2	17-port managed layer two switch with 802.1QVLAN, 802.1p QoS, 802.x MAC security, DHCP, RSTP, etc.
Configuration		
Power	ATC103	18W without PMC/XMC/PrPMCs
		Up to 150 watts is available for the PMC/XMC/PrPMCs
Rear I/O	Via Zone Three	PMC site 1 routes the PMC I/O signals to Zone 3
		Three PCIe x4 are routed to the rear for expandability.
		PCIe Lane Good LED
		Two 10/100/1000 Ethernet from the Gigabit Ethernet switch
		Link/Activity for the Gigabit Ethernet ports
		IPMI Debug port
		IPMI 10/100 Ethernet
Front Panel	Interface Connectors	Three high-density connectors for the PMC J4 user I/Os PCIe expansion via fiber or copper
	LEDs	IPMI Management Control PCIe Lane Good
	Mechanical	Hot Swap Ejector Handle
Environmental	Temperature	Operating Temperature: 0° to 65° 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, non-condensing
Software Support	Operating Systems	Linux, Windows, Solaris and VxWorks
Other		
MTBF	MIL Spec 217-F > 185,000 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. AdvancedMC™ and the AdvancedTCA™ logo are trademarks of the PCI Industrial Computers Manufacturers Group. All rights reserved. Specification subject to change without notice.	

ATCA Carrier for PMC/XMC/PrPMC

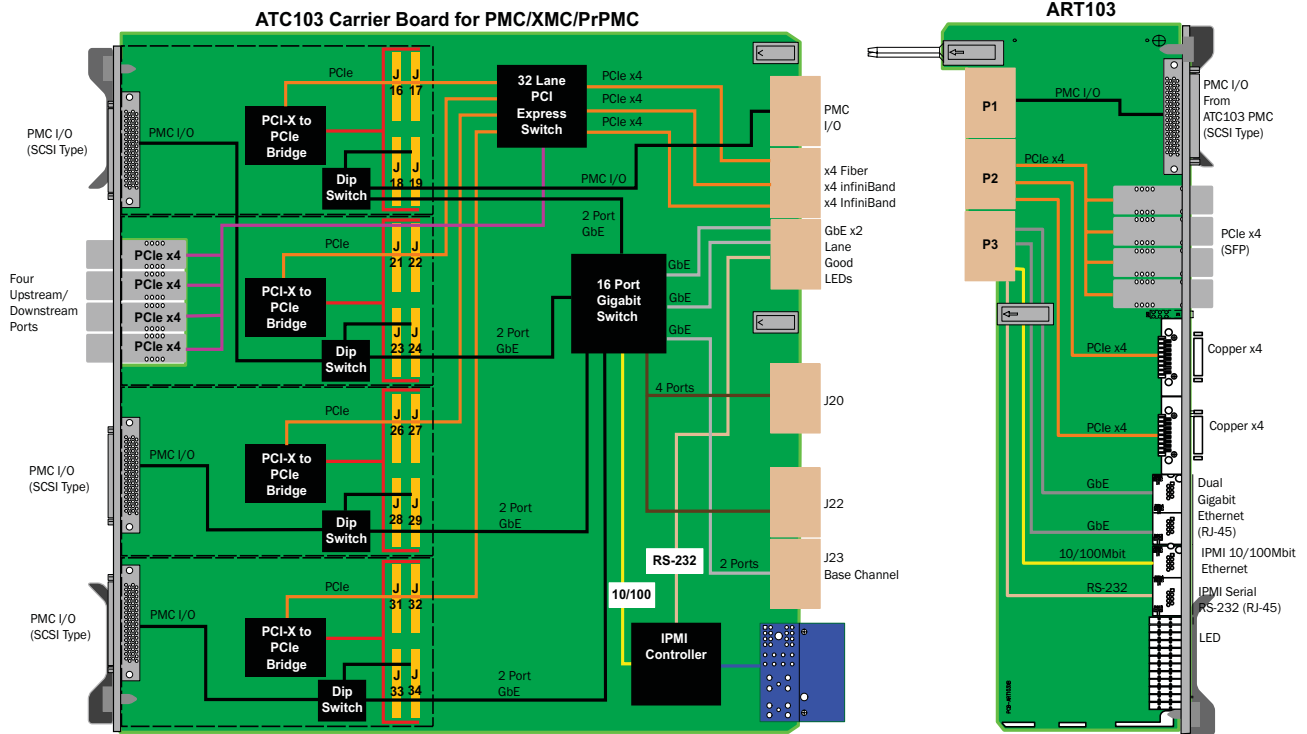


FIGURE 1. ATC103 Functional Block Diagram

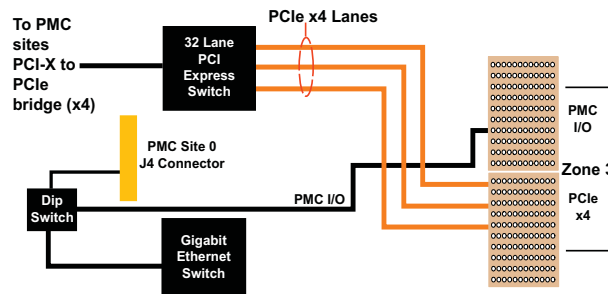


FIGURE 2. PMC Site Routing for I/O to Zone Three

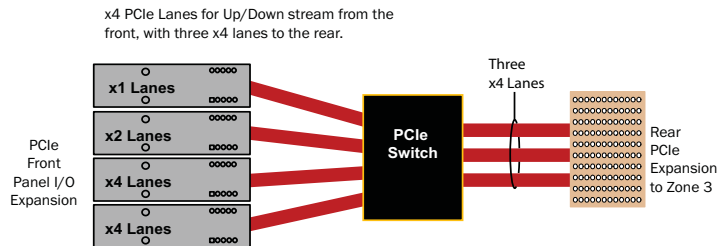
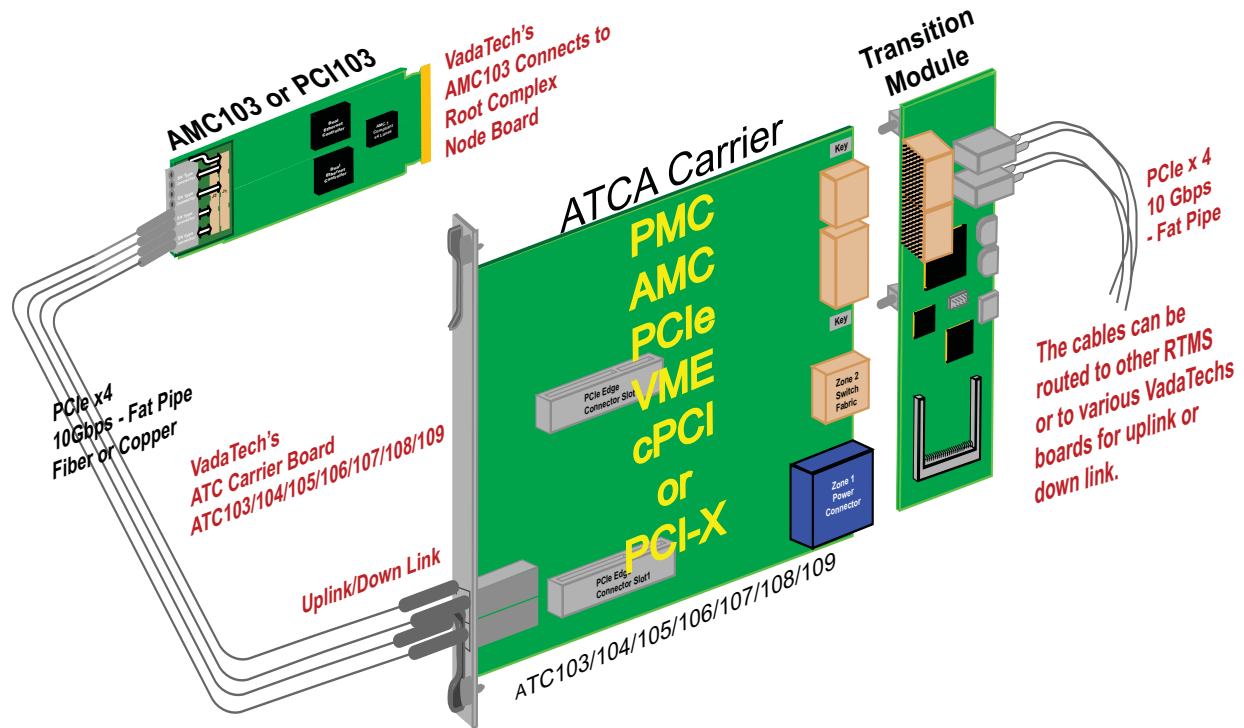


Figure 3. PCIe Routing to the front and rear (Zone three)

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FIGURE 4. An Example of using the carrier with the PCIe up/down stream ports



ORDERING OPTIONS

ATC103 - ABC - D00 - 00J

A = Front Panel Upstream/Downstream

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

B = Management Controller*

- 0 = Node Board
- 1 = Shelf Manager

C = PMC Interface

- 1 = PCI-X Only
- 2 = XMC Only

D = Upstream Port

- 0 = Front
- 1 = Rear fiber
- 2 = Rear copper
- 3 = PMC/XMC site 0
- 4 = PMC/SMC site 1
- 5 = PMC/XMC site 2
- 6 = PMC/SMC site 3

J = Conformal Coating

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

*The ATC103 can be purchased as either a Shelf Manager or Node board (contact your Vadatech Sales representative for information).

**Vadatech can design custom Rear Transition Modules (RTM) for this product and any ATCA carrier board with a minimum order and no NRE.

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