ATCA Carrier for PMC/XMC/PrPMC

ATC113

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ATC113KEY FEATURES

- Four PMC, XMC or PrPMC sites
  — Dedicated PCI-X @ 133MHz per Module
  — PCIe x4 lanes for XMC
- 48 lane PCIe Gen2 switch
- PCIe expansion front panel via QSFP
- PCIe expansion rear Zone 3
- Expansion to another ATC113 or to a AMC113, ATC114, ATC115, ATC116, ATC117, ATC118, or PCI113
- PCIe expansion at 20Gb/sec
- An external host may configure the bus via the PCIe upstream port
- Allows the PCIe root complex to be on any PMC or external source via front panel or rear
- RoHS compliant

The ATC113 is VadaTech next generation carrier four PMC/XMC/PrPMC sites onto a single Advanced Telecommunication Computing Architecture (AdvancedTCA) node carrier. The ATC113 allows for integration of readily available PMC, XMC and PrPMC modules into the AdvancedTCA environment.

The ATC113 provides four sites that can accept any PMC, XMC or PrPMC module. The ATC113 brings the PMC J4 I/Os to the front panel.

The module has a 48-lane PCIe Gen2. The ATC113 can be connected to additional ATC113, ATC114, ATC115, ATC116, ATC117, ATC118, AMC113 or PCI113 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.

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

AdvancedTCA®

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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**	48-lane PCIe Gen2 switch
PICMG	**ATCA**	PICMG 3.0 R2.0
Configuration		
Power	**ATC113**	16W without PMC/XMC/PrPMCs
		Up to 150 watts is available for the PMC/XMC/PrPMCs
Rear I/O	**Via Zone Three**	IPMI Debug port
		Single PCIe x8 (or dual x4) are routed to the rear for expandability.
Front Panel	**Interface Connectors**	Four high-density connectors for the PMC J4 user I/Os
		PCIe expansion via fiber or copper (QSFP)
	LEDs	IPMI Debug port
		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.	

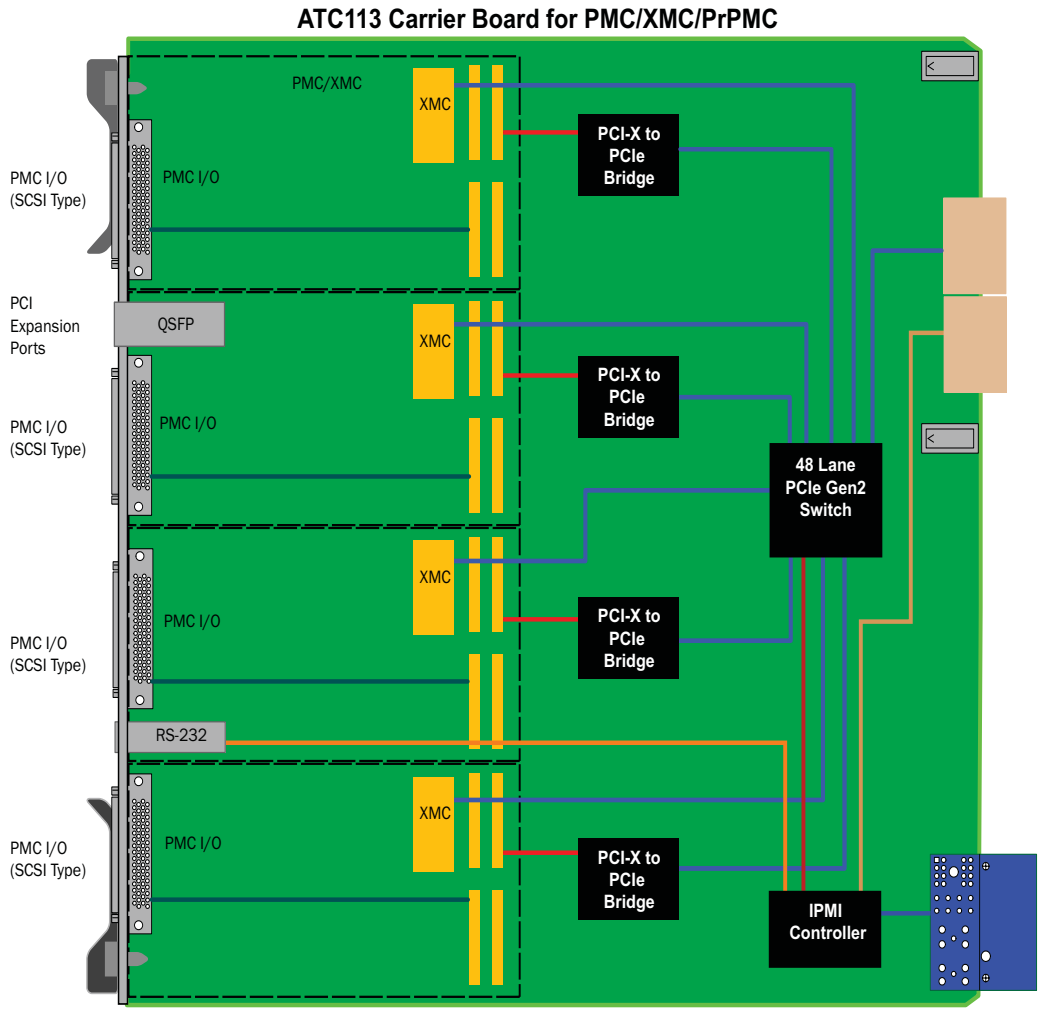


FIGURE 1. ATC113 Functional Block Diagram

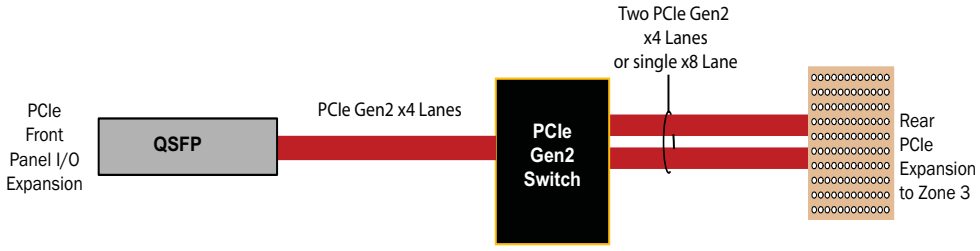
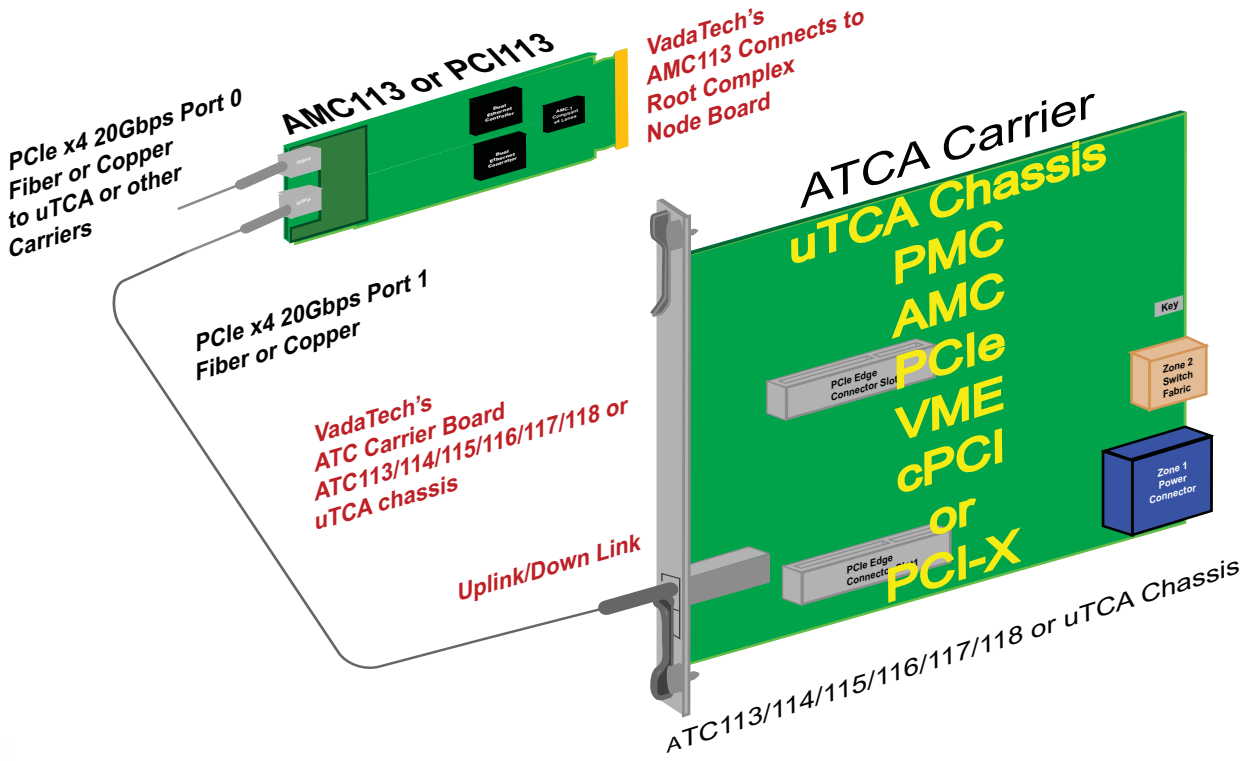


Figure 2. PCIe Routing to the front and rear (Zone three)

FIGURE 3. An Example of using the carrier with the PCIe up/down stream ports



ORDERING OPTIONS

ATC113 - A00 - 000 - 00J

A = XMC VPWR*

0 = +12V
1 = +5V

J = Conformal Coating

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

*Per VITA specification the XMC VPWR can be powered from +5V or +12V. Please consult the XMC module that will be used.

**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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