ATC132

ATCA 100G/40G Carrier with Quad AMC Slots

ATC132

Key Features

- ATCA cut-away carrier with four full-size AMC slots
  - Carrier could also take two double-width modules or single double-width with dual single-width
- Accepts AMCs modules complaint to AMC.2 specification
- 100GbE Switch Fabric
  - Layer 2/3 Managed
  - Each AMC slot receives 40GbE on ports 4-7 and 8-11 (configurable as quad 10G or 1G per each of the four lanes)
  - 10GbE/1GbE on AMC ports 0 and 1
  - Four 100GbE ATCA backplane fabric ports
  - Two 1GbE ATCA backplane base ports
- Optional full mesh interconnect using AMC ports 12-14
- Optional bussed Clocks/Triggers on AMC ports 17-20
- Each AMC slot has its CLKA and CLKB routed to a Cross Bar Switch (CBS)
- ATCA backplane M-LVDS clocks routed to the CBS
  - CLK1/A, CLK1/B, CLK2/A, CLK2/B, CLK3/A, CLK3/B
- Rear Transition Module (RTM) for I/O expansion

Benefits

- High performance rugged processor blade
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company

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100G

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ATC132

The ATC132 is VadaTech's fourth generation AdvancedTCA AMC carrier that provides four full-size AMC slots. The Carrier has a high-end 100GbE switch with managed layer 2/3 switch stack.

The carrier has two 1GbE to the ATCA backplane Base Channels as well as four 100GbE/40GbE to the ATCA backplane Fabric Channels.

The carrier has dual 40GbE routed to ports 4-7 and 8-11 to each of the AMC slots. Each 40GbE port could be configured as four 10GbE or 1GbE or any combination. The carrier also routes 10GbE/1GbE to ports 0 and 1 of each AMC.

The ATC132 has the CLKA/CLKB of each of the AMC modules routed to a Cross Bar Switch (CBS). The CBS is also connected to the ATCA backplane M-LVDS clocks (CLK1/A/B, CLK2/A/B, and CLK3/A/B). The CBS provides a flexible way of having any of the AMCs as the source of the clock or receiver of the clock. All clock configurations are via software

The ATC132 optionally routes AMC ports 12-14 routed as a full mesh among the four AMC slots. This allows high speed communication among the AMC slots without going thru the switch fabric.

The ATC132 optionally routes AMC ports 17-20 as a bussed configuration across the four slots as M-LVDS. This allows synchronization clocks or triggers to be passed among the four slots with minimum latency.

The Carrier has a 500W power supply.

Figure 1: ATC132

Block Diagram

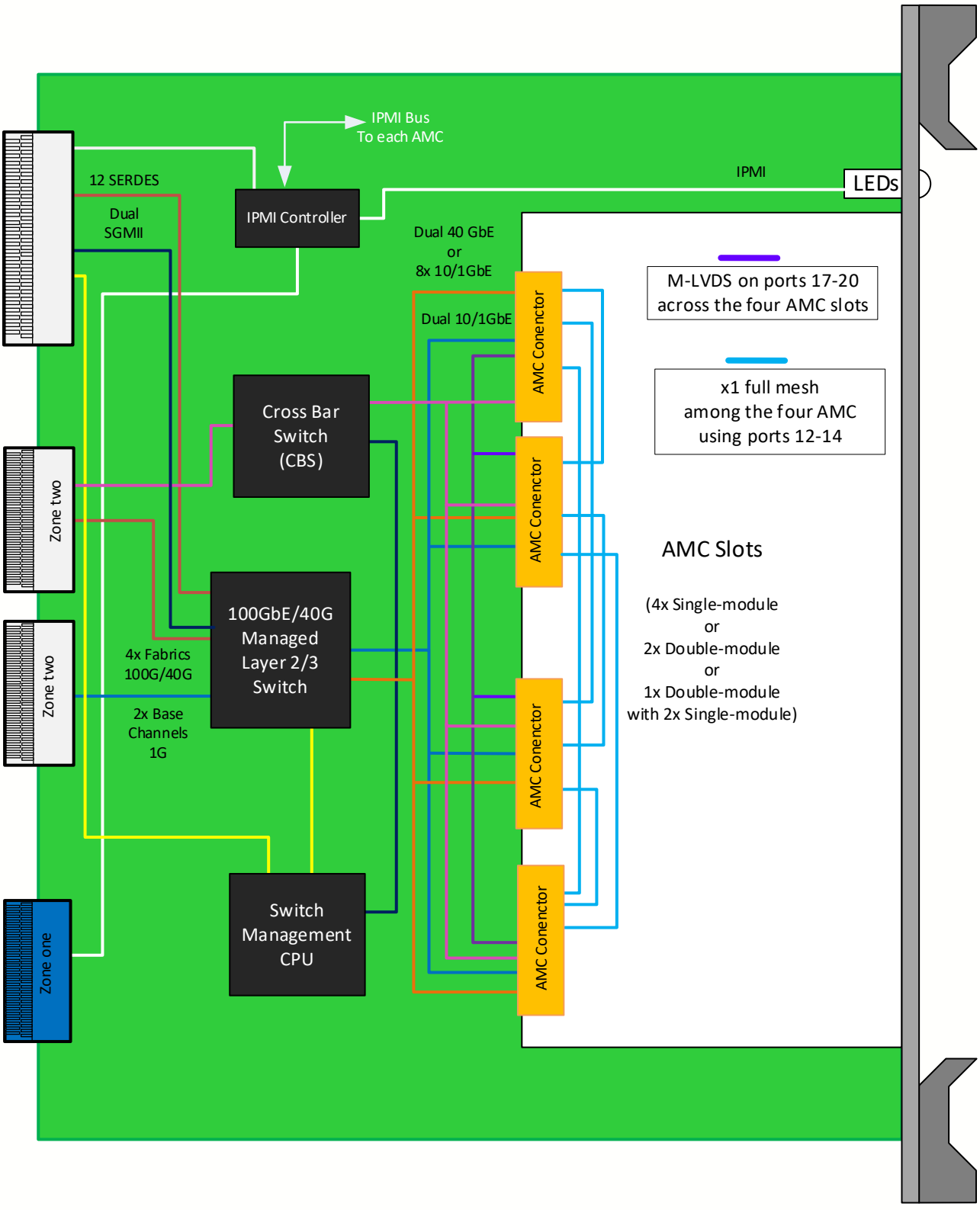

Figure 2: ATC132 Functional Block Diagram

Specifications

Architecture		
Physical	**Dimensions**	Width: 12.687” (322.25 mm)
		Depth: 11.024” (280 mm)
Type	**ATCA Carrier**	Quad AMC.2 Slots
	Fabric	100GbE
Standards		
ATCA	**Type**	PICMG 3.0 Revision 3.0
Module Management	**IPMI**	IPMI v2.0
Configuration		
Power	**ATC132**	150W (AMC load module dependent)
Environmental	**Temperature**	See Ordering Options
		Storage Temperature: –40° to +85°C
	Vibration	0.5G 5 to 500 Hz on each axis
	Shock	Operating 30Gs on each axis
	Relative Humidity	5 to 95% non-condensing
Front Panel	**Interface Connectors**	None
		All front I/O are via the AMC module
	LEDs	IPMI, Activity, Status and User defined
	Ejector Handles	Hot-swap with micro-switch
Software Support	**Operating System**	Linux
Other		
MTBF	MIL Hand book 217-F@ TBD hrs	
Certifications	Designed to meet FCC, CE and UL certifications, where applicable	
Standards	VadaTech is certified to both the ISO9001:2015 and AS9100D standards	
Warranty	Two (2) years, see VadaTech Terms and Conditions	

INTEGRATION SERVICES AND APPLICATION-READY PLATFORMS

VadaTech has a full ecosystem of OpenVPX, ATCA and MTCA products including chassis platforms, shelf managers, AMC modules, Switch and Payload Boards, Rear Transition Modules (RTMs), Power Modules, and more. The company also offers integration services as well as pre-configured Application-Ready Platforms. Please contact VadaTech Sales for more information.

Ordering Options

ATC132 – AB0-000-0HJ

A = Ports 17-20 of the AMC		
0 = Not routed 1 = Ports are routed as bussed M-LVDS		
B = Ports 12-14 of the AMC		**H = Temperature Range**
0 = Not routed 1 = As a full mesh among the AMCs		0 = Commercial 1 = Industrial
		J = Conformal Coating
		0 = No coating 1 = Humiseal 1A33 Polyurethane 2 = Humiseal 1B31 Acrylic

Notes:.

Related Products

ATC126

- Dual 14-core Intel® Xeon® E5-2658, 2680, 2648L, 2618L, 2620, 2630 v4 processors
- Eight banks of DDR4 for up to 256 GB memory
- 10/40GbE Fabric channels

ATC129

- Dual socket 24-core Intel® Xeon® Platinum Processors - Scalable Performance (SP)
- Twelve banks of DDR4 for up to 384 GB with ECC per socket (total of 768 GB)
- Dual 100G ethernet to Zone Two

VT830

- 19" rackmount 6U ATCA Chassis with integrated Switch and Shelf Manager
- 10GbE/GbE Managed Layer 2
- 40GbE/10GbE/GbE Managed Layer 3

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