

# ATC806

## ATCA 40GbE/10GbE Scalable Switch with Dual AMC Slots



ATC806

### Key Features

- 40GbE or 10GbE Managed Layer 3 switch, compliant to PICMG 3.1 specifications
- Scalable throughput based on desired performance level
- Managed Layer 3 Switch software
- Dual mid-size AMC slots
- Octal 10/100/1000 Ethernet, 1x GbE, and 1x RS-232 port via RJ-45
- VadaTech's proven IPMI Management Controller

### Benefits

- 40/10GbE Managed Layer 3 switch performance with the versatility of 2 AMC slots
- Choose your performance level needed – 320G or 640G throughput
- Dual10G ports routed to RTM (Zone 3)
- Design utilizes proven VadaTech subcomponents and engineering techniques
- Electrical, mechanical, software, and system-level expertise in house
- Full ecosystem of front and rear boards, enclosures, specialty modules, and test/dev products from one source
- AS9100 and ISO9001 certified company

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# ATC806

The ATC806 is ideal for broadband media servers or other applications requiring the versatility of a powerful 40GbE or 10GbE ATCA switch with dual integrated AMC slots. The Switch provides two ports of 40GbE/10GbE to Zone 3 RTM, 13 ports to the Fabric Channel and one port to the Update Channel.

Each slot can run 10G or 40G speeds for up to 640G of aggregate bandwidth. A mux selection allows the 40GE or 10GbE to interface together with the GbE signals. Two ports also have a mux selection for routing to the RTM. An RTM can be ordered separately, contact VadaTech for details.

Linux OS is standard on the ATC806, consult VadaTech for other options.



Figure 1: ATC806



Figure 2: ATC806 Top View



Figure 3: ATC806 Front Panel View

# Block Diagram

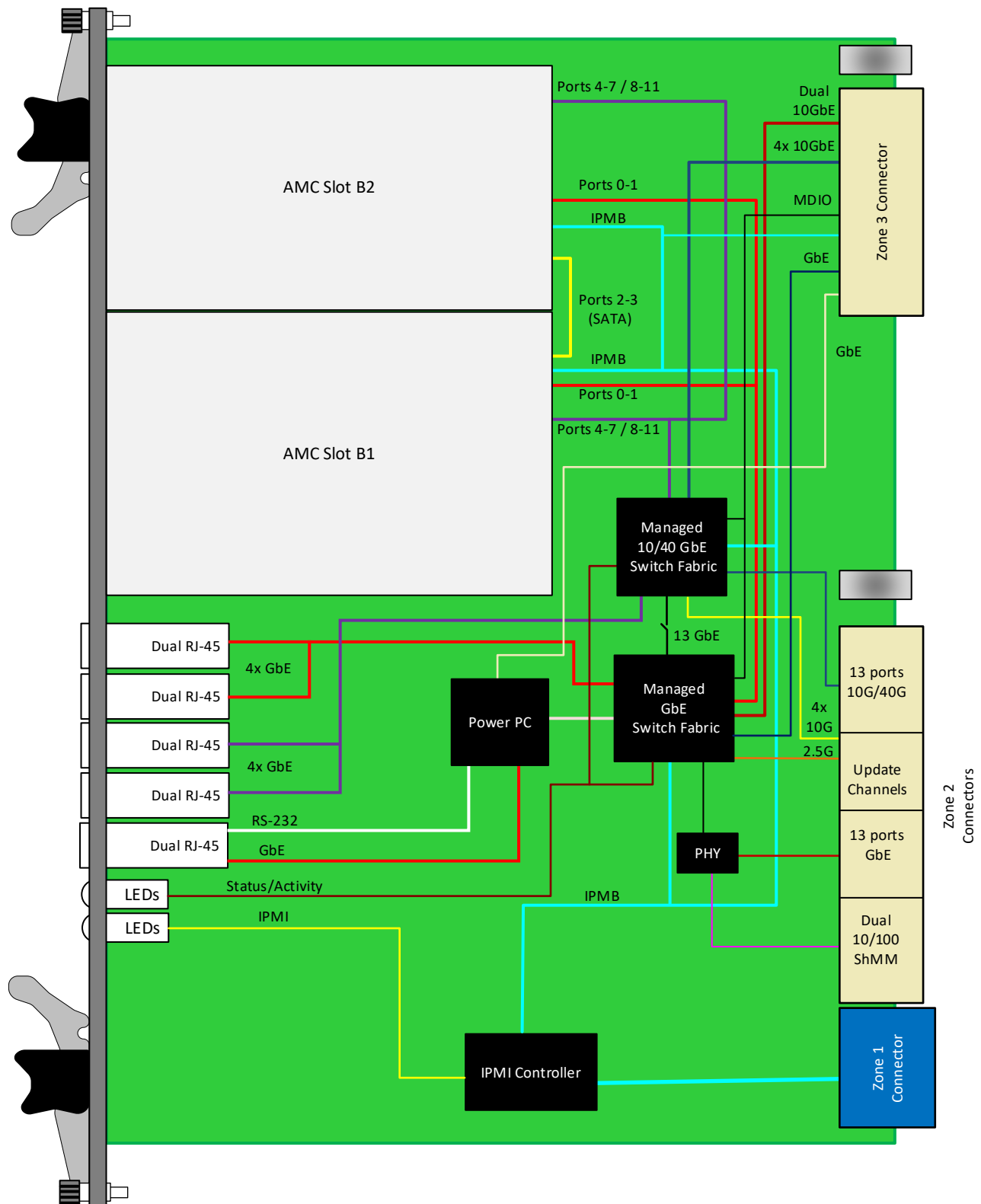


Figure 4: ATC806 Functional Block Diagram for Option B = 0

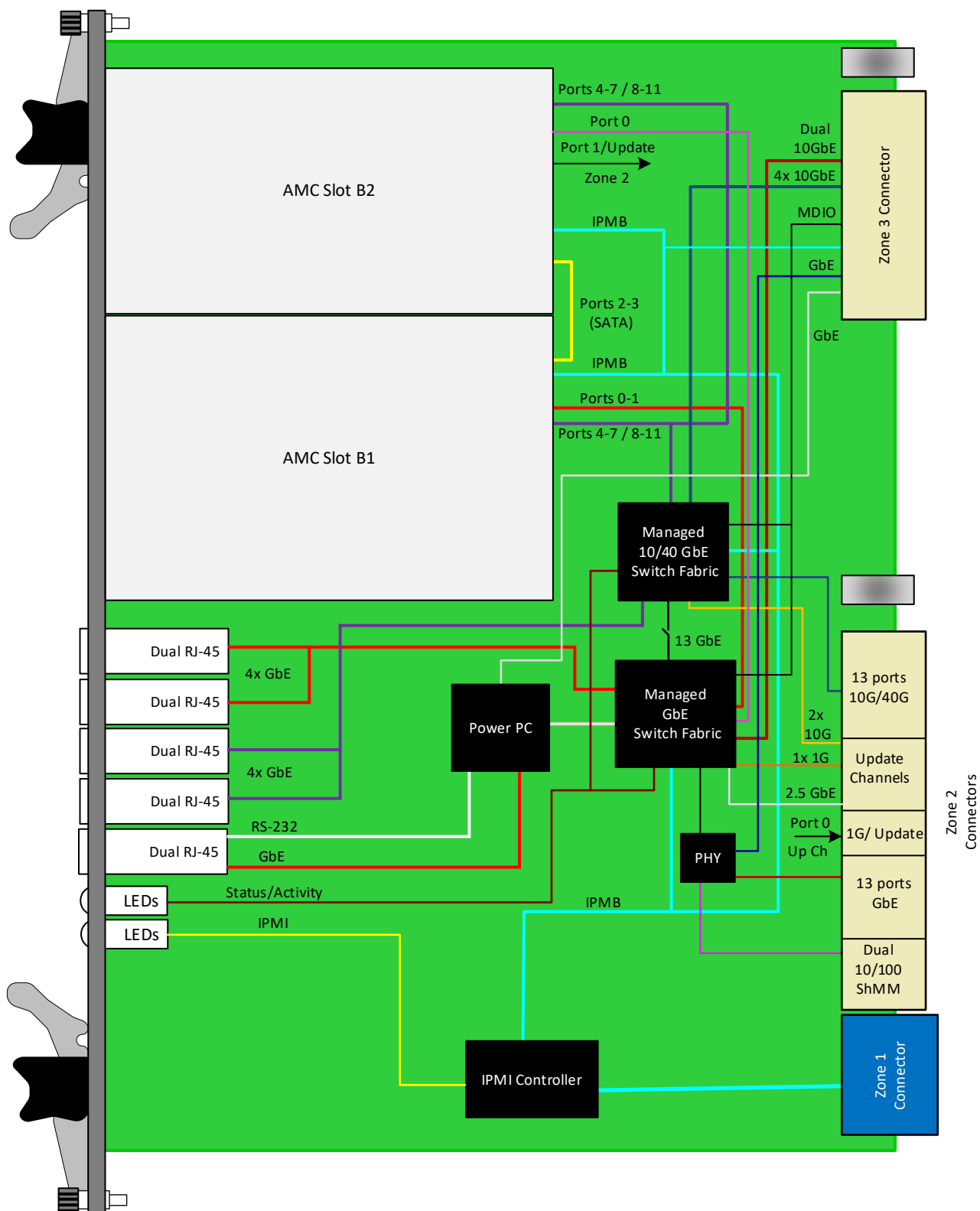


Figure 5: ATC806 Functional Block Diagram for Option B = 1

## Managed Layer 3 Switch

The Managed Layer 3 40GbE or 10GbE Switch routes 13 ports to the Fabric Channel and one port to the Update Channel. Two ports are also routed to the RTM. There are four uplink ports from the 40GbE/10GbE switch and four from the GbE switch routed to the front panel RJ-45 connectors for expansion. The features include Spanning Tree (+ Rapid), VLANs, GMRP, GVRP, Port Authentication, IGMP/Snooping Proxy, and Multi-cast Listener Discovery.

## GbE Managed Layer 3 Switch

The Managed Layer 3 GbE Switch routes 13 ports to the Base channels, Update, and 2x 10/100 for Shelf management. The features include Switching, Multi-cast, Source Port Filtering, Storm Control Per-Port, Spanning Tree, Double Tagging, and Mirroring.

## GbE Redundancy

ATC806 provides an option for GbE Switch redundancy, when used with a second ATC806. Select ordering option B=1 for GbE redundancy routing. In this configuration, when the GbE Switch on primary ATC806 fails a redundant GbE link is established to the GbE Switch of the secondary ATC806. Please note that the redundancy is only available for Slot B2 AMC.

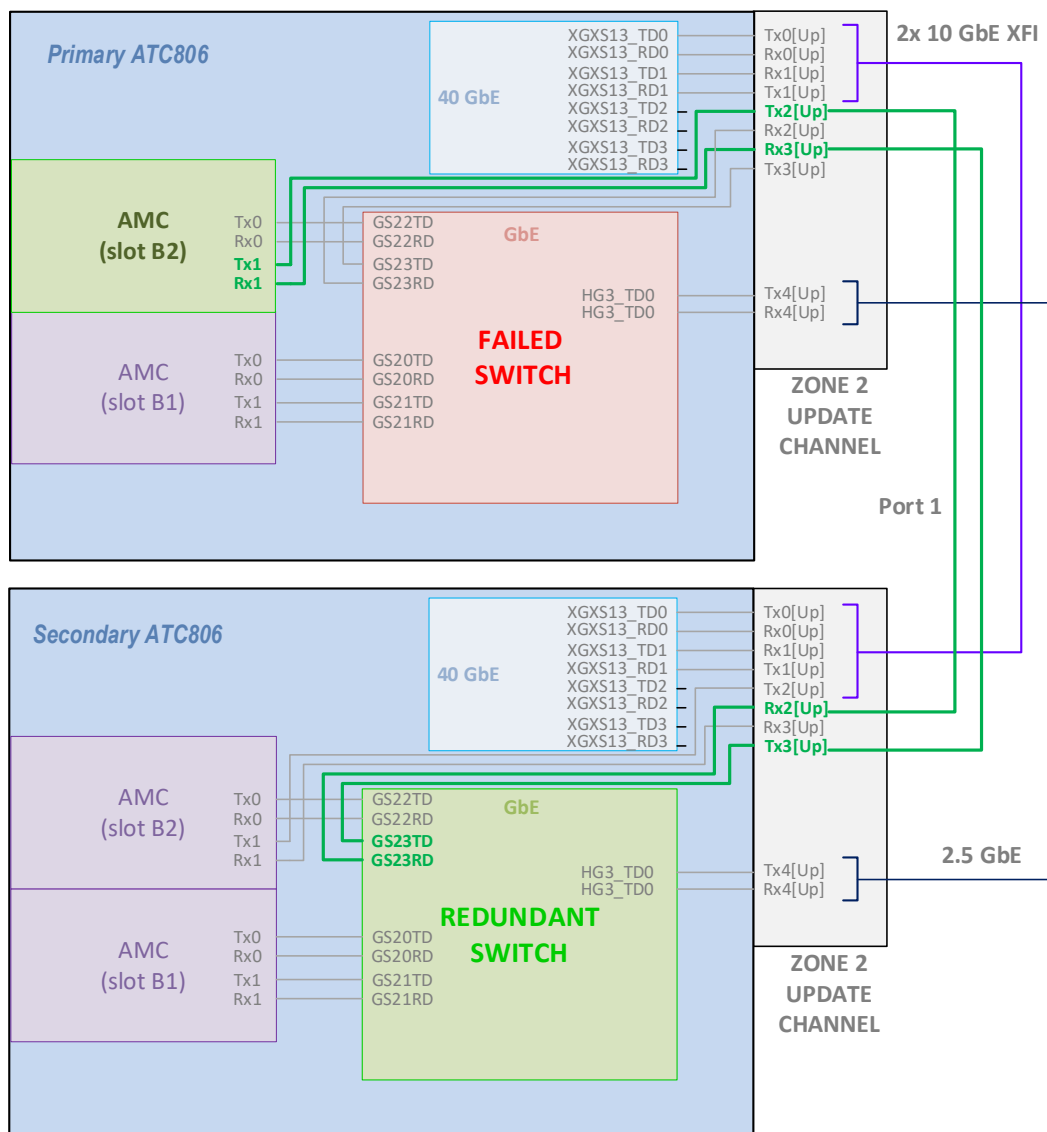


Figure 6: ATC806 GbE Redundancy Use Example

# Specifications

Architecture		
Physical	Dimensions	Width: 12.69" (322.25 mm)
		Depth: 11.02" (280 mm)
Type	ATCA Switch/Carrier	Layer three managed Switch with Two AMC slots (single width, mid-size)
Standards		
Module Management	IPMI	IPMI version 2.0 and PICMG 3.0
Processor	ARM	For management
ATCA	PICMG	PICMG 3.0 R2.0
Configuration		
Power	ATC806	~100W (SKU dependent)
Environmental	Temperature	Operating temperature: -5° to 55°C (Air flow requirements is to be greater than 200 LFM), Available in industrial temperature range (See <a href="#">environmental spec sheet</a> )
		Storage Temperature: -40° to +85°C
	Vibration	Operating 9.8 m/s <sup>2</sup> (1G), 5 to 500Hz on each axis
	Shock	Operating 30Gs each axis
	Relative Humidity	5 to 95 per cent, non-condensing
Front Panel	Interface Connectors	4x RJ-45 to Base Switch
		4x RJ-45 to Fabric Switch
		RJ-45 for GbE out-of-band management CPU
		RJ-45 for RS-232 management CPU
	LEDs	IPMI management control Activity / Link LEDs
	Mechanical	Hot swap ejector handle
Software Support	Operating System	Linux
Conformal Coating		Humiseal 1A33 Polyurethane (Optional)
		Humiseal 1B31 Acrylic (Optional)
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 ISO9001:2000 and AS9100B:2004 standards
Warranty		Two (2) years, see <a href="#">VadaTech Terms and Conditions</a>

## 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

## ATC806 – AB0-000-GHJ

A = Total Switch Aggregate Throughput		G = Ethernet Switch Management
0 = 320G 1 = Reserved 2 = 640G		0 = Reserved 1 = VadaTech stack (Routing and Switching protocols)
B = GbE Routing		H = Temperature Range
0 = Standard Routing* 1 = GbE Redundancy Routing**		0 = Commercial 1 = Industrial
		J = Conformal Coating
		0 = None 1 = Humiseal 1A33 Polyurethane 2 = Humiseal 1B31 Acrylic

Note: \* See Figure 4  
\*\* See Figure 5 and 6

## Related Products

VT830



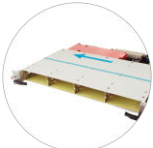
- 19" rackmount 6U ATCA Chassis with integrated Switch and Shelf Manager
- 10GbE/GbE Managed Layer 2
- 40GbE/10GbE/GbE Managed Layer 3

AMC735



- Cavium OCTEON CN67xx Multi-Core
- Core processors ROM 8 to 16 and
- Speeds from 800 MHz to 1.5 GHz

ATC133



- 10G ATCA Carrier
- Managed Layer 2 software
- Xilinx Virtex-7 FPGA

# Contact

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- Constant innovation
- Open systems expertise

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- Partnerships power innovation
- Collaborative approach
- Mutual success

## We deliver complexity

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- System management
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- Accelerated deployment
- AS9100 accredited



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