VT836

3U ATCA Hybrid Chassis with 8 AMCs (Mid-size), Forced Air Cooled

VT836

Key Features

- Rugged 19” rack mount 3U ATCA Hybrid AMC Chassis
- 1x ATCA slot, 8 mid-size AMC slots and 1x ATCA RTM slots
- x8 PCIe Gen3, x4 SRIO Gen3, or Layer 2 / 3 managed 10GbE / 40GbE dual XAUI
- Integrated dual shelf managers, switch and AMC carrier
- Front to back forced air cooling
- Passive Backplane
- Internal Orifice Plate Provision to Optimize Airflow
- High Strength .190-32 UNF-2A Captive Fastener Front Mounting Provision
- Rear Mechanical Support Provision via dagger pin receptacles
- Full redundancy for all FRUs
- Redundant AC or DC Power Modules

Benefits

- Combines the processing power of AdvancedTCA with the versatility of MicroTCA in one chassis
- Unprecedented performance density with 1 ATCA and 8 mid-size AMC in 3U height
- Qualified to MIL-STD-810 for Humidity, Temperature, Altitude, Crash Acceleration, Shock and Vibration.
- Qualified to MIL-STD-461.
- The VT836 was designed with a unique airflow baffle provision integrated into the module guides to enable the system integrator to balance impedance between slots
- Superior shelf management solution from VadaTech

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VT836

The VT836 offers unprecedented performance density with 1 ATCA node slot and 8 mid-size, single width AMCs in 3U height. Typically, only 4 mid-sized AMCs can fit on an ATCA carrier, with VadaTech's unique design, 8 AMCs can fit in a single chassis to provide AMC's versatility of processors, FPGAs, storage, graphics, I/O options and much more. Double-width AMCs can also be implemented.

Additional I/O is available through a standard ATCA RTM. The VT836 has full redundancy support for all FRUs, including dual Shelf Managers.

Figure 1: VT836 Front

Power Supply

The VT836 is capable of providing single input power or redundant input power.

Cooling and Temperature Sensors

The chassis is designed for front-to-back forced air cooling. EMI honeycomb vents utilized for air inlet and exhaust openings.

Figure 2: VT836 Rear

Scorpionware™ Software

VadaTech's Scorpionware software can be used to access information about the current state of the Shelf or the Carrier, obtain information such as the FRU population, or monitor alarms, power management, current sensor values, and the overall health of the Shelf. The software GUI is very powerful, providing a Virtual Carrier and FRU construct for a simple, effective interface.

Chassis Configuration

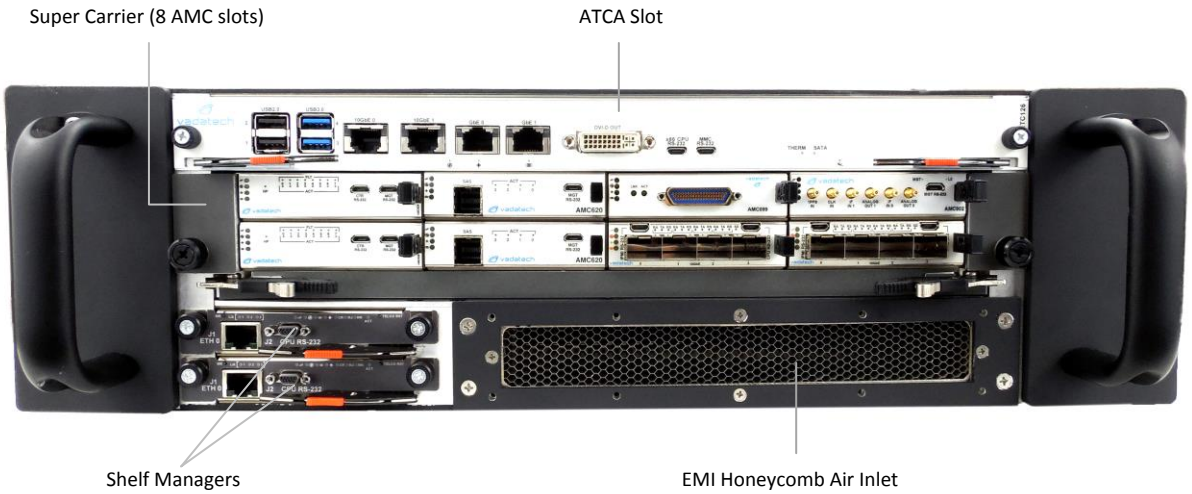

Figure 3: VT836 Chassis Layout- Front

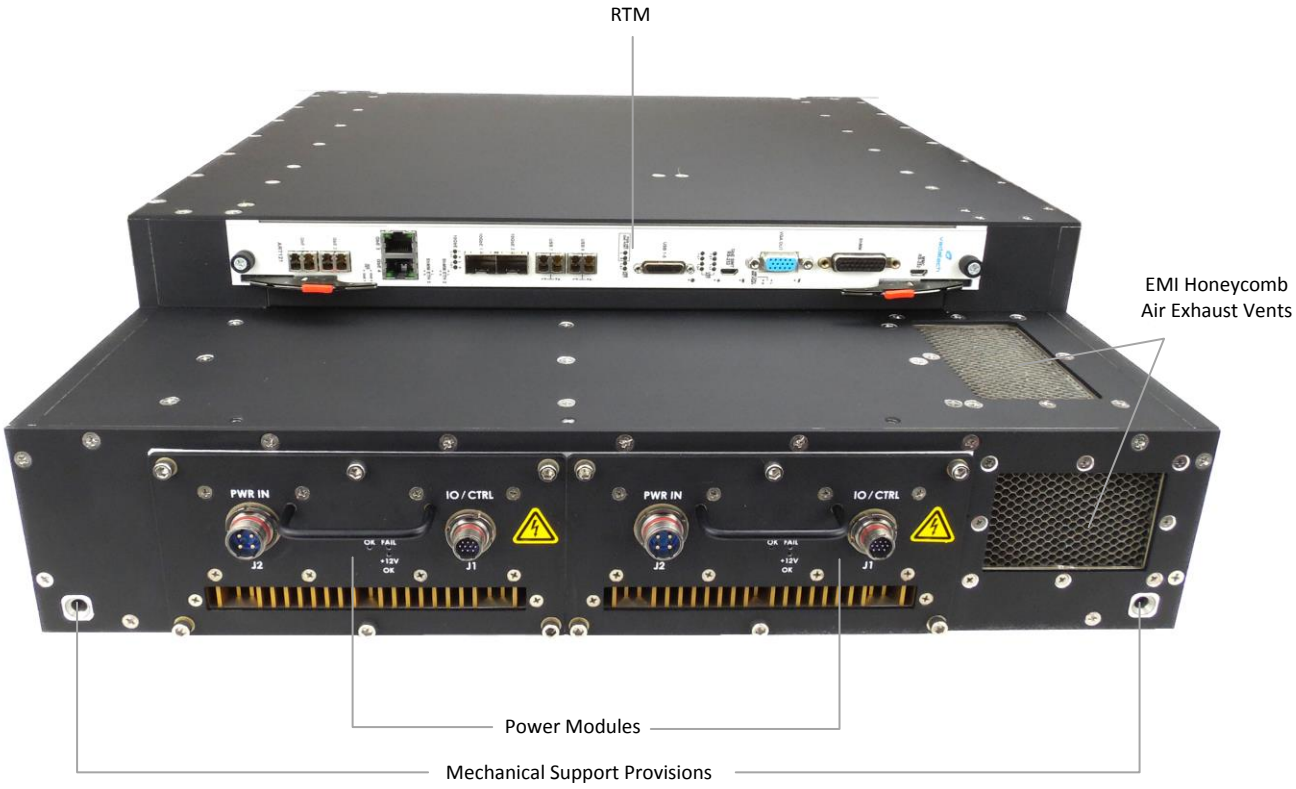

Figure 4: VT836 Chassis Layout - Rear

Block Diagram

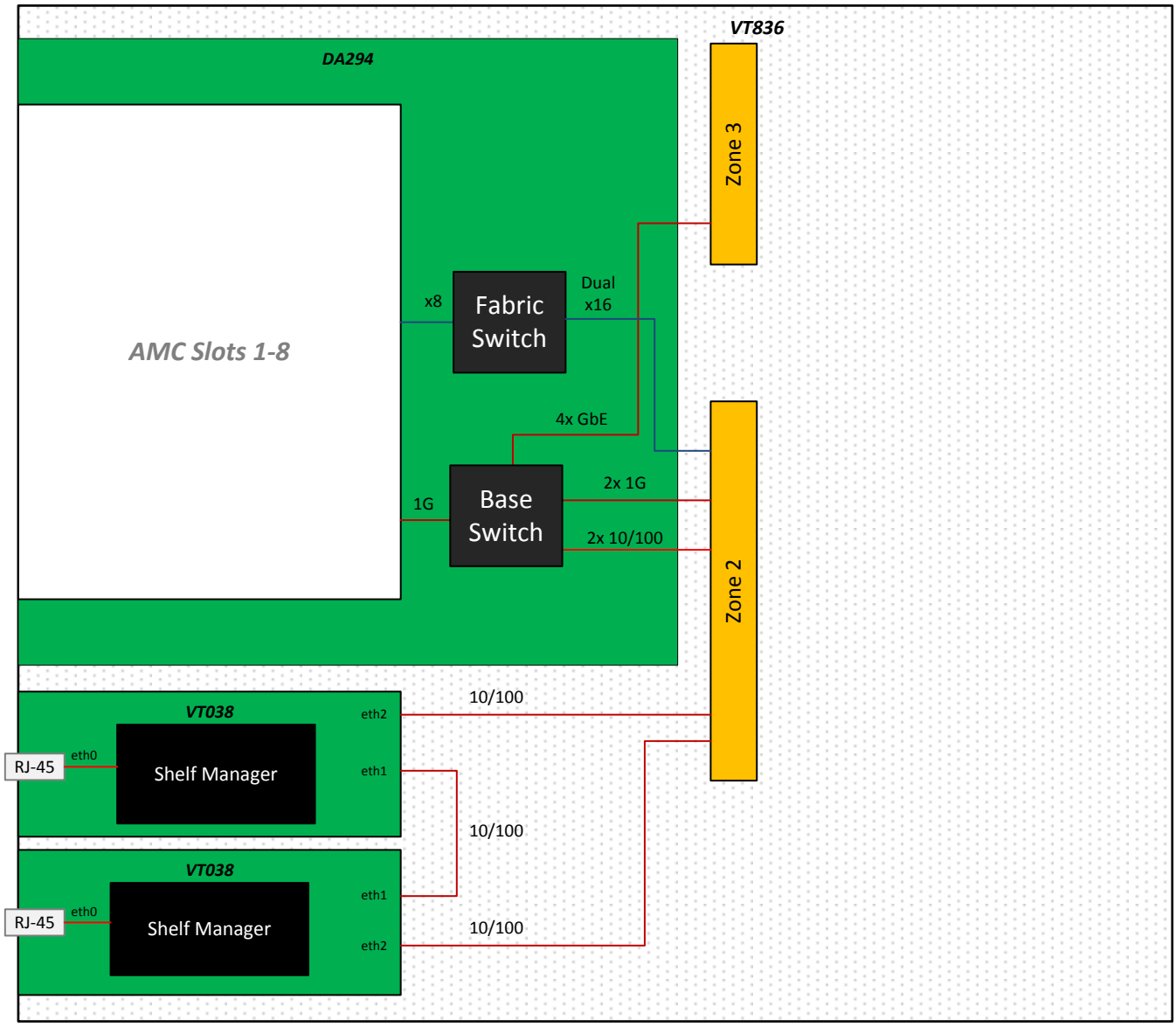

Figure 5:VT836 with GbE Switch

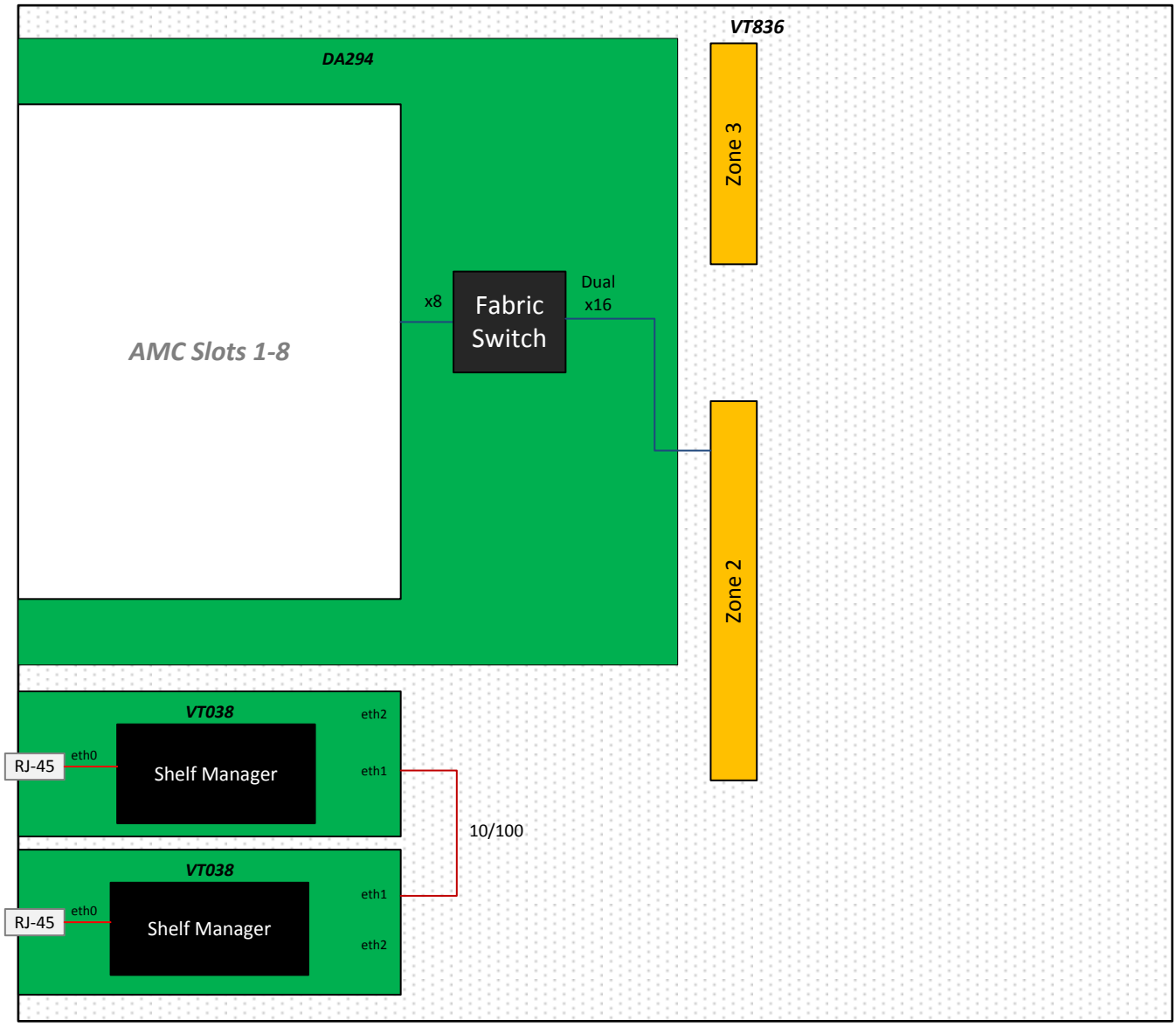

Figure 6: VT836 without GbE Switch

Carrier Options

The following illustrations show various carrier options with its associated fabrics (Ordering option C).

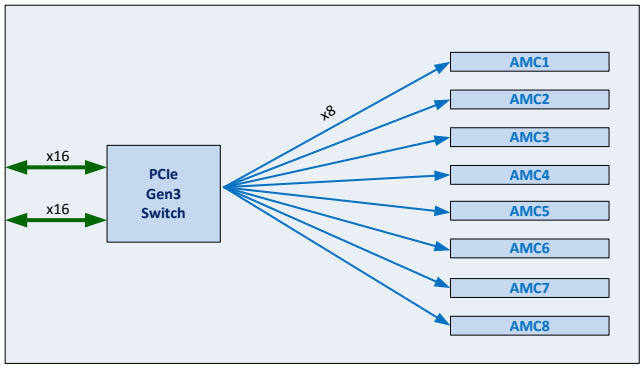

Figure 7: Option C = 1

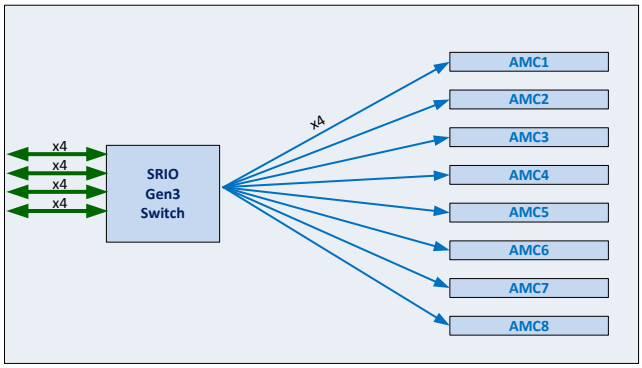

Figure 8: Option C = 2

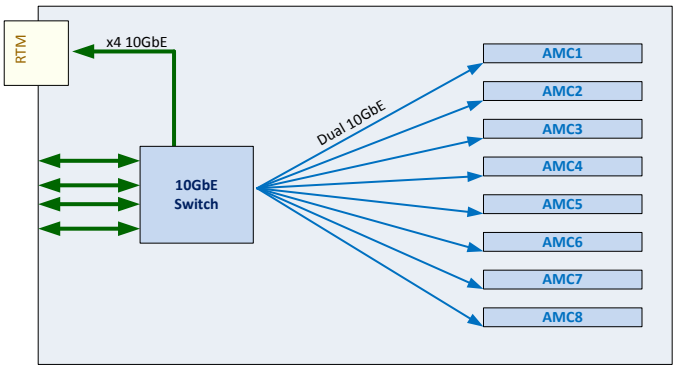

Figure 9: Option C = 3

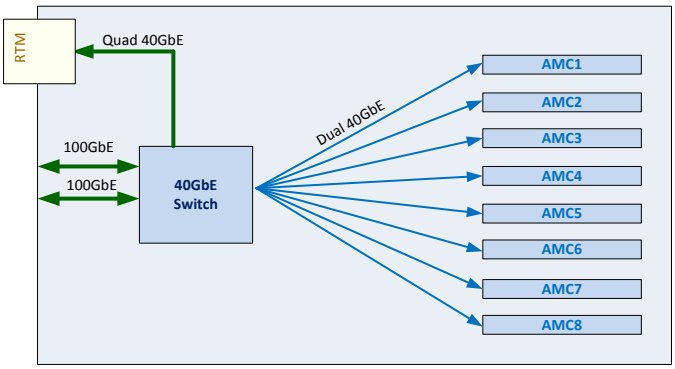

Figure 10: Option C =4

Specifications

Architecture		
Physical	**Dimensions**	Height: 3U
		Width: 19”
		Depth: ~20”
Type	**ATCA Hybrid Chassis**	1 Slot for ATCA node, 8 mid-size AMC slots (special carrier)
Standards		
ATCA	**Type**	PICMG 3.0 Rev 3.0
AMC	**Type**	AMC.0, AMC.1, AMC.2, AMC.3 and AMC.4
Configuration		
Power	**VT836**	–36 to –75 VDC, 270 AC 400 Hz input
Environmental	**Temperature**	Operating: 0° to 55° C
		Storage Temperature: –40° to +70°C
	Altitude	Functional: 15.31 (psia) to 9.72 psia. per MIL-STD-810G, Method 520.1 Procedure III
		Non-Operational: Up to 2.6 psia per MIL-STD-810G, Method 520.2 Procedure III
	Relative Humidity	Aggravated Humidity per MIL-STD-810G, Method 507.5 Procedure II
	Vibration	MIL-STD-810G, Method 514.6 Procedure I, 6 Hours per Axis
	Functional Shock	MIL-STD-810G, Method 516.6 Procedure I 15G’s, 11ms Half Sine Pulse
	Acceleration	16G Crash Load Factor
	EMI	CE102,CS101,CS114,CS115,CS116, RE102, RS103 per MIL-STD-461
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	

INTEGRATION SERVICES AND APPLICATION-READY PLATFORMS

VadaTech has a full ecosystem of ATCA and µTCA products including chassis platforms, shelf managers, AMC modules, Switch and Payload Boards, Rear Transition Modules (RTM), 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

VT836 – ABC-000-0HJ

A = Power Module		
0 = Single (AC 270V 400Hz) 1 = Dual (AC 270V 400Hz) 2 = Single (DC -36 to -75V) 3 = Dual (DC -36 to -75V)		
B = Shelf Managers		**H= Temperature Range**
0 = Single 1 = Dual (redundant))		0 = Commercial 1 = Industrial
C = Carrier Fabric*		**J = Conformal Coating**
0 = Reserved 1 = PCIe Gen3 x8 to each AMC 2 = SRIO Gen3 x4 to each AMC 3 = 10GbE Layer 2 (Dual XAUI) 4 = 40GbE Layer 3		0 = None 1 = Humiseal 1A33 Polyurethane 2 = Humiseal 1B31 Acrylic

* See Carrier Options for each option with its associated Fabrics.

Related Products

AMC735

- Cavium OCTEON CN67xx Multi-Core
- Core processors rom 8 to 16 and Speeds from 800 MHz to 1.5 GHz
- Dual SFP+ socket supporting 10GbE

ATC126

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

AMC534

- Altera Stratix V GT FPGA in FFG-1517 package
- Dual zQSFP+ ports to the front panel
- Front panel Port 0 at 100G, Port 1 at up to 40G

Contact

VadaTech Corporate Office

198 N. Gibson Road, Henderson, NV 89014
Phone: +1 702 896-3337 | Fax: +1 702 896-0332

Asia Pacific Sales Office

7 Floor, No. 2, Wenhu Street, Neihu District, Taipei 114, Taiwan
Phone: +886-2-2627-7655 | Fax: +886-2-2627-7792

VadaTech European Sales Office

VadaTech House, Bulls Copse Road, Southampton, SO40 9LR
Phone: +44 2380 016403

info@vadatech.com | www.vadatech.com

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