

# 5U E-Z ATCA INTEGRATED SYSTEM



## Features

- 19" rack mount system, fully compliant to PICMG 3.0
- 5U H x 444mm W x 385mm D
- Integrated ZNYX switch card, 2 x SBC cards, and Elma shelf manager
- GigE fabric, dual low voltage 2.8GHz processors
- 5 slot full mesh backplane connectivity
- Single or dual 1200W AC input PSU providing 48V @ 25A
- Side-to-side cooling in push-pull configuration, redundant cooling
- Single or dual pluggable ATCA Shelf manager optional
- Demo Application Software included
- Quick ship platform - fully tested and ready-to-run

System integration for AdvancedTCA can be challenging, particularly when it involves highly-available, network-centric applications. Interoperability of vendor's cards is a critical issue, so Elma and our partners have done the heavy lifting for you. Plus, we can help you optimize the modular solution to your exact requirements.

The 5U E-Z ATCA Integrated System is fully integrated, tested, and ready-to-run. The unit features 1 x ZX7000 switch card from ZNYX Networks and 2 x SBC cards. The ZNYX and SBC cards are both compliant to the PICMG 3.0 base specification and PICMG 3.1 fabric interface for Gigabit Ethernet. Elma's IPM Sentry shelf manager is also included.

The chassis features full redundancy with dual redundant fan trays, shelf managers, and A/C power supplies. It can be configured quickly for AC or DC input via removable patch panels. Redundant side-to-side cooling is achieved with fan trays on each side of the card cage. The left side fan tray has (8x) 80mm fans at 52 CFM each and provides cooling to front card cage and rear modules. The other fan tray has (6x) 80mm fans for only the front cards ensuring a push/pull configuration and redundancy. The fan trays have tach output. Chassis configurations with dual redundant shelf managers are optional.



## ZNYX ZX7000 Modular Switching Platform

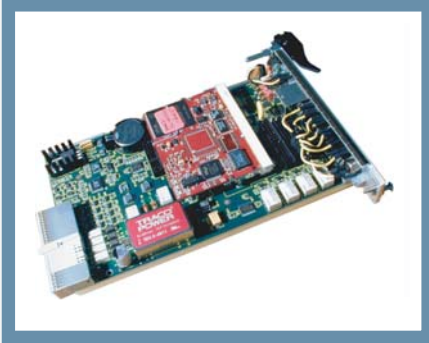
- 48 port ATCA Hub compliant with PICMG 3.0/3.1
- Modular switching platform supporting PICMG 3.1 Fabric Channel Options 1 & 2
- Full management of Layer 2 and Layer 3 packet switching, VLAN, QoS parameters, etc
- 11 front panel egress ports for maximum connectivity
- RS-232 serial console and Ethernet ports for out-of-band access to control CPU
- Optional RTMs available with additional 1G egress ports, Master Clock Generator, etc.
- OpenArchitect 3 w/Linux Kernel for transport system configuration and control
- Complete, industry-leading high-availability features for Ethernet transport subsystem
- SNMP and HTTP browser-based management
- PowerPC Processor, 256MB SDRAM, 48MB FlashROM, and CompactFlash socket
- See ZNYX datasheet (LINK) for further details



## Single Board Computer Blades

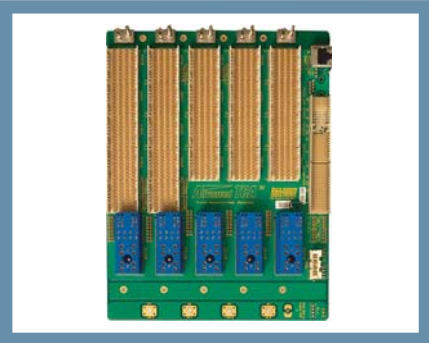
- Dual high-performance, industry standard CPUs @ 2.8GHz, 2GB RAM
- Redundant GigE Base interfaces and multiple GigE Fabric interfaces
- Front panel I/O via USB, serial, and GigE ports
- Integrated demonstration application with video streaming software
- Contact Elma for datasheet and further details

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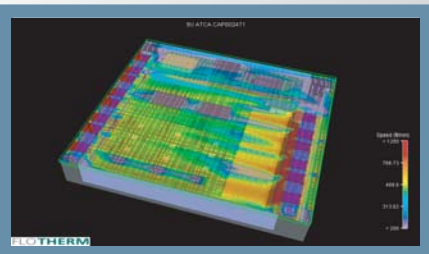
## ATCA Shelf Manager

- 3U x 160mm x 4HP (or fixed mount options)
- Available in ATCA 3.X & PICMG 2.X version
- Incorporates industry accepted ShMM 500
- Accommodates I<sup>2</sup>C output from up to 8 temperature sensors (LM75)
- Accommodates Tach output/PWM input for up to 8 fans
- I<sup>2</sup>C Interface for PSU monitoring & control
- Monitors and controls up to 4 DC voltages
- Manages all line cards with or without E-keying
- Manages all IPMI compliant FRUs, radial or bussed IPMB
- Uses 2 x STD 2mm hard metric connector for backplane interface
- On board 48V to 5V converter
- Fully compliant to PICMG 3.0 & 2.9 System Management Spec



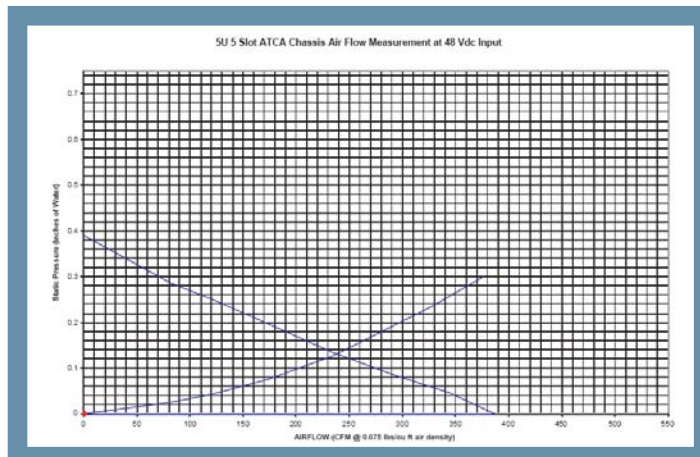
## ATCA 5-Slot Replicated Mesh Backplane

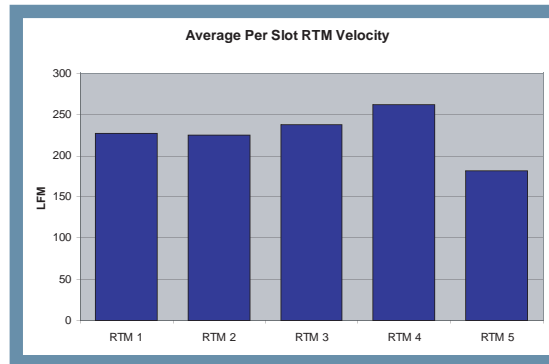
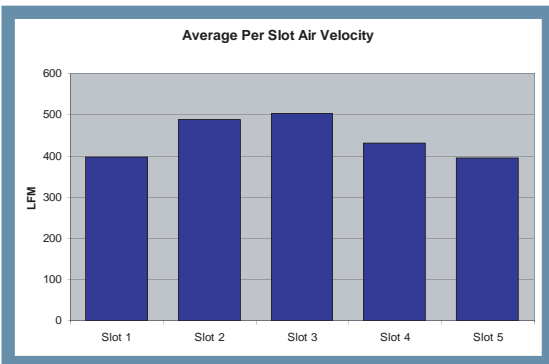
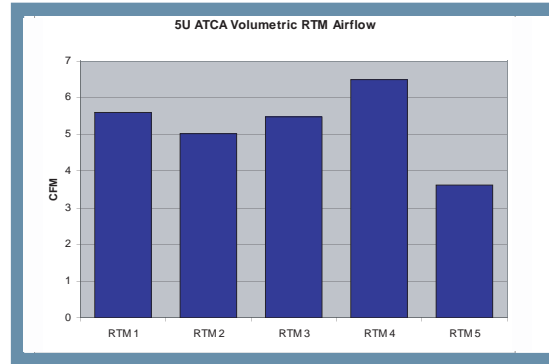
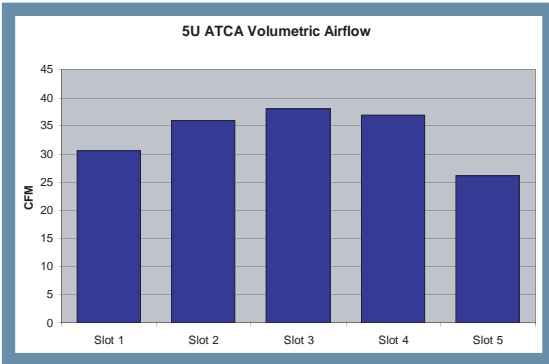
- According to ATCA spec PICMG 3.0
- Pluggable shelf manager
- Dual Star or standard Full Mesh implementable
- Replicated Mesh topology
- Gigabyte/Terabyte per second bandwidth per shelf
- Connections for IPM Sentry Shelf Manager plugging
- Signal integrity optimized via simulation/characterization studies



## Thermal Simulation and Airflow Testing

Below is the thermal, airflow, and operating point results for the 5U ATCA chassis. The operating point was determined by combining the airflow curve of the fans with the impedance curve of the chassis using an airflow chamber. With the exception of the intake and exhaust, the enclosure was fully sealed to prevent air leakage. The airflow charts show both front card cage and RTM figures, in both volumetric and air velocity.





## Environmental Specifications

	Operating	Storage/Transit
Temperature:	0°C to +50°C	-20°C to +70°C
Altitude:	6000 ft. (1,829m)	50,000 ft. (15,240m)
Humidity:	5% to 95% Non condensing	5% to 95% Non condensing
Shock:	10 G's @ 11ms	15 G's @ 11ms (per ASTM 0775)
Vibration:	1.0 G's @ 10 to 330 Hz	1.2 G's @ 5 to 330 Hz
Agencies:	Designed to meet UL 1950, FCC, A, B, CE, NEBS	

## Order Information

Description	Part Number
5U E-Z ATCA 5U Integrated System	89A-5ZD-ZS-IP-1