AdvanedTCA 5U SYSTEM PLATFORM

ELMA
Your Solution Partner

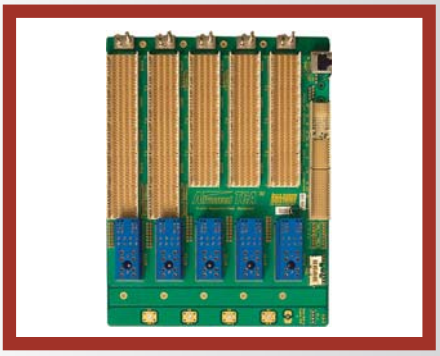
Features

- 19" rack mount, fully compliant to PICMG 3.0
- 5U H x 444mm W x 385mm D
- Rugged steel Construction
- Fits into Zone 4 Seismic Rack (NEBS 3)
- 5 slot full mesh backplane connectivity, 6 slot optional
- 700W input PSU providing 48V @ 15A
- Side to side airflow configuration
- Plug in ATCA Shelf manager in 3U x 160mm form factor

The PICMG 3.0-compliant 5U ATCA horizontal chassis is an ideal unit for prototyping and demonstrations. The chassis features an AC input, so that the unit can be plugged directly into a conventional wall outlet. This provides a much more favorable way of powering up the unit, as opposed to being limited to 48V DC power only. With the AC input, the chassis is also more convenient when transporting the unit for demonstrations. The 700W AC input PSU provides 48V @ 15A.

The unit offers a unique 5-slot (standard) or 6-slot (optional) ATCA backplane that is also versatile for prototyping. Full Mesh, Replicated Mesh, and Dual Star topologies can be implemented on the same backplane. It also has options for plugging with the IPM Sentry Shelf Manager -- an advanced solution that goes beyond standard monitoring. On the side of the slots, the backplane has 2mm HM connectors for direct plugging the 3U x 160mm IPM Sentry Shelf Manager Carrier Card.

Side-to-side cooling is achieved via a plug-in fan tray with dual 170 CFM fans with PWM (pulse width modulation) control. The chassis is a 19" rackmount version with rugged steel construction. For serviceability, the filter tray and fan tray are separately removable. Other chassis features include Elma's unique design of the board mating receptacle (patent pending), which provides secure grounding, accurate alignment and accepts wide tolerances of the alignment pin spacing.



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

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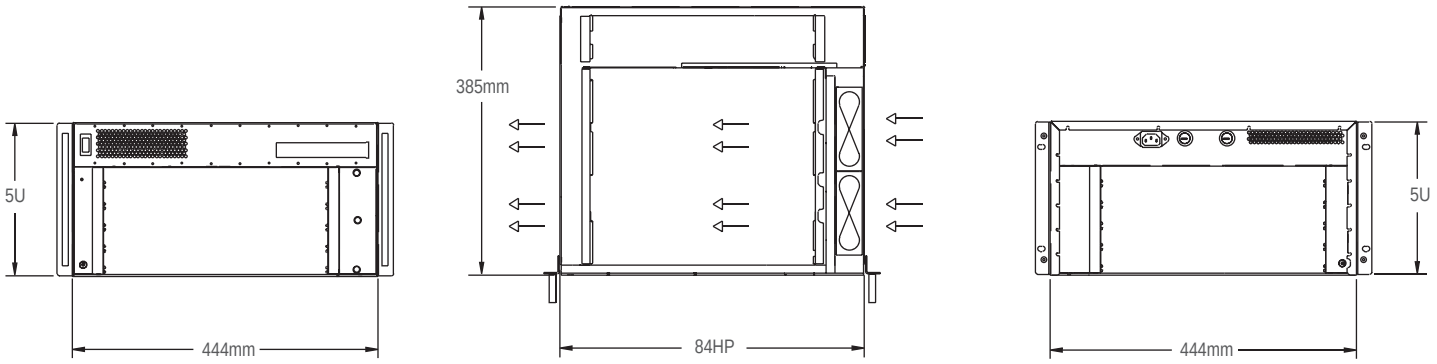
Line Drawings



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	

Order Information

Description	Model Number
AdvancedTCA 19" rackmount chassis	11A05EJA58Y4HC6X
• 5UH x 84HP W x385mm D • Holds 5, 8U x 280mm Cards • 5 Slot Mesh backplane • 700 watt PSU • Shelf Manager not installed	
ATCA 5-slot Replicated Mesh Backplane	69-RM505-ZD
• Compliant to PICMG 3.0 Rev. 1.0 specification • 3 x Replicated Mesh topology • Connections to IPM Sentry shelf manager • 18-layer stripline design • Optimized via signal integrity studies	

AdvancedTCA 5U SYSTEM PLATFORM - Custom Configurations

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11A ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___
1 2 3 4 5 6 7 8 9 10 11 12 13

1,2) Num. of Slots BP
00-21: Single BP AY-YA: Split
• 05 = 5 slot

3) BP Bare board
• E = 1 x SM
• F = 2 x SM (Bussed IPMB)
• G = 2 x SM (Radial IPMB)*
• Z = Custom

4) Fabric Architecture
• G = Dual Star
• H = Mesh
• J = Replicated Mesh
• Z = Custom

5) Cooling
• A = 1 x Tray (plug in)
• B = 2 x Tray (plug in)
• C = 3 x Tray (Plug in)
• Z = Custom

6) Height
• 5 = 5U

7) Width
• 8 = 84T

8) Rear I/O
• N = No
• Y = Yes

9) Depth
• 4 = 400mm-499mm

10) Card Orientation
• H = Horizontal

11) PSU Input
• C = 90-230VAC (Fixed)
• G = 90-230VAC (Plug In)
• H = 48VDC
• M = Dual 48VDC
• P = 90-230VAC(2 x HS, N+1)
• Q = 90-230VAC(3 x HS, N+1)
• X = No PSU

12) PSU Output (Note: Not all PSU combinations available)
• 2 = 200-299 watt
• 3 = 300-399 watt
• 4 = 400-599 watt
• 6 = 600-799 watt
• 8 = 800-999 watt
• A = 1000-1199 watt
• B = 1200 watt
• C = 1600-1799 watt
• D = 1800-1999 watt
• E = 2000-2199 watt
• F = 2200-2399 watt
• G = 2400-2599 watt
• H = 2600-2799 watt
• X = Not installed

13) Shelf Manager (Installed)
• S= 1 x Plug in
• D = 2 x Plug in
• X = Not installed

* Elma's radial IPMB signals are radially connected across the backplane to the Shelf Manager Carrier Card. The Shmm 500 IPM module resides on the carrier card where these connections are bussed.