



## FEATURES

- Compliant to PICMG 3.0 specification
- Lowest profile in the industry (uses 33% less rack space)
- A/C input or up to 500W 48V D/C output options
- Side-to-side cooling
- Point-to-point mesh backplane in 2-slot size
- Switch cards are not needed for prototyping
- Optional slim-line 4HP power supplies
- Single or dual IPM Sentry shelf manager (optional)
- Customization available

The 2U ATCA chassis features a 48V DC input or an option for AC input up to 500W. This design makes prototyping and development much easier as the unit can be plugged into a conventional wall outlet (ATCA standardly uses 48V direct and does not have power supplies.) Although ATCA is geared towards the telecom central office market, Elma's unique A/C units allow much more flexibility and are used in a wide range of high-end applications. It incorporates slim-line power supply (4HP high) that saves space. The power supply can also be reduced to 250W output by using a smaller version. A single removable fan tray and filter comes standard, with an option for dual fan trays.

Elma offers AC and DC horizontal enclosures in 2U and 5U heights and a DC-only version in 4U height. They include a wide range of backplane, shelf management, and other options. Pluggable and redundant fan trays, PEMs and shelf managers provide the highest level of availability (99.999%). The units have been optimized via backplane signal integrity studies and chassis thermal simulation.



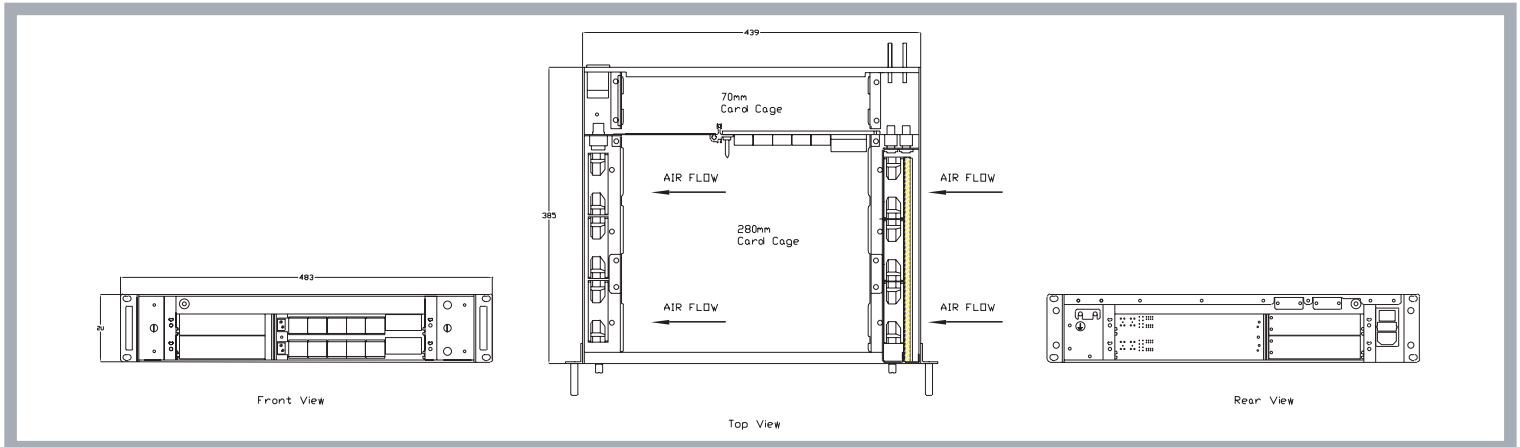
## ATCA POINT-TO-POINT MESH BACKPLANE

- Compliant to PICMG 3.0 specifications
- Switchless 15x Replicated Mesh with point-to-point links between the slots
- Various Mesh topologies can also be implemented on the backplane
- Does not require switch cards for prototyping
- 10-layer stripline design
- Optimized routing through signal integrity studies
- Includes connectors for direct plugging of shelf manager

Compliant to PICMG 3.0 specifications, the 2-slot ATCA has a theoretical performance of 20 Gbps. Elma Bustronic's Signal Integrity (SI) lab has performed simulation and backplane characterization to ensure the highest performance.

# AdvancedTCA 2U SYSTEM PLATFORM

## Line Drawings



## Environmental Specifications

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

## Order Information

Description	Model Number
ATCA 2U System - AC rear I/O • 2UH x 84HP W x 400mm D • Holds 2, 8U x 280mm Cards • 2 Slot Replicated Mesh backplane • 250 watt AC input PSU • Shelf Manager not installed	11A02GJB28Y4HC2X
ATCA 2U System - DC • 2UH x 84HP W x 400mm D • Holds 2, 8U x 280mm Cards • Redundant plug-in fan trays • 2 Slot Replicated Mesh backplane • Dual 48V DC input • Shelf Manager not installed	11A02GJB28Y4HMX
ATCA 2U System - AC no rear I/O • 2UH x 84HP W x 400mm D • Holds 2, 8U x 280mm Cards • 2 Slot Replicated Mesh backplane • 500 watt A/C PSU • Shelf Manager not installed	11A02GJB28N4HC5X
2-slot Mesh Backplane • Compliant to PICMG 3.0 Rev. 1.0 specification • 3 x Replicated Mesh topology • Connections to IPM Sentry shelf manager • 10-layer stripline design • Optimized via signal integrity studies	CAE013973

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  
• 02 = 2 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

- F = Star
- 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

- 2 = 2U

## 7) Width

- 8 = 84T

## 8) Rear I/O

- N = No
- Y = Yes

## 9) Depth

- 2 = 200mm-299mm
- 3 = 300mm-399mm
- 4 = 400mm-499mm

## 10) Card Orientation

- V = Vertical
- 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 = 400-499 watt
- 5 = 500-599 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
- R = 1 x Fixed
- 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.