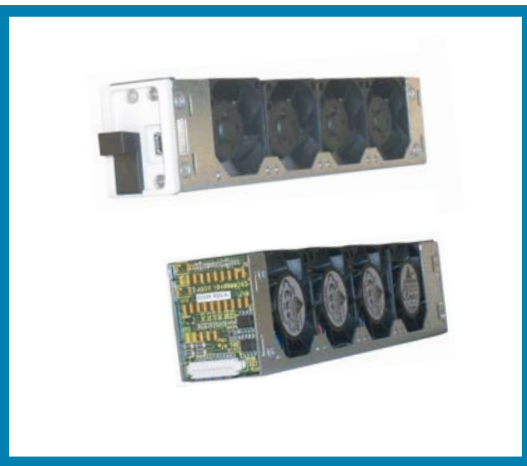# MicroSlim 1U MicroTCA Shelf

FEATURES

- Low profile, 1U height
- 19" rack mountable (210mm depth)
- Optimized performance density
- Mounting for 6 x AMC modules (single-width/mid-size)
  - 380 watt, 48VDC input, plug-in PSU (single-width/full-size)
  - 4 tongue MCH (single-width/full-size)
  - JSM (J-TAG Switch Module)
- Superior cooling (96CFM @ 0.75″ H$_2$O)
  - Right to left Push-Pull airflow
  - Redundant, hot-swappable Cooling Units (CUs)
  - 4 x 20CFM @ 1.5"H$_2$0 fans per CU
  - J-TAG compatible with USB diagnostics port
  - IPMB-0 managed FRUs
  - Speed controlled fans for noise reduction
- JSM (J-TAG Switch)
  - Provides: Advanced testing, remote upgrade and diagnostic capability
  - Supports face plate mounted J-TAG diagnostic input and MCH/J-TAG interface
  - USB I/O
- Backplane
  - Star Topology (20-layer stripline design)
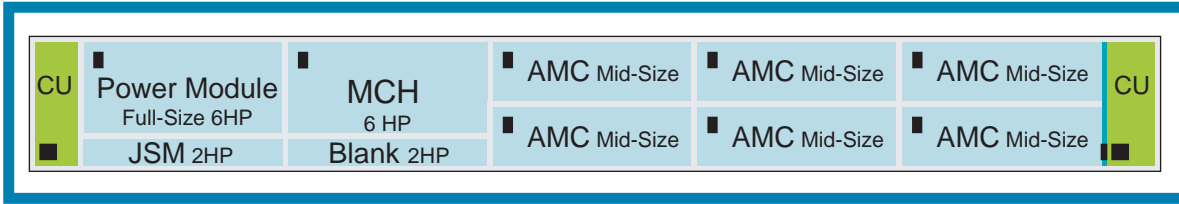 - Optimized via signal integrity studies

Cooling Unit

Compliant to MicroTCA.0 specification, the MicroSlim Shelf is designed to offer the performance benefits of MicroTCA within a space-saving 1U high platform. Optimizing the available space (up to 10, mid-sized, single-width modules) the MicroSlim Shelf holds 6 x AMC modules while providing MCH and J-TAG Switch Module (JSM) capability. Powered by a robust 380 watt PSU, the MicroSlim Shelf converts 48VDC efficiently to the 3.3V and 12V's needed to power the modules.
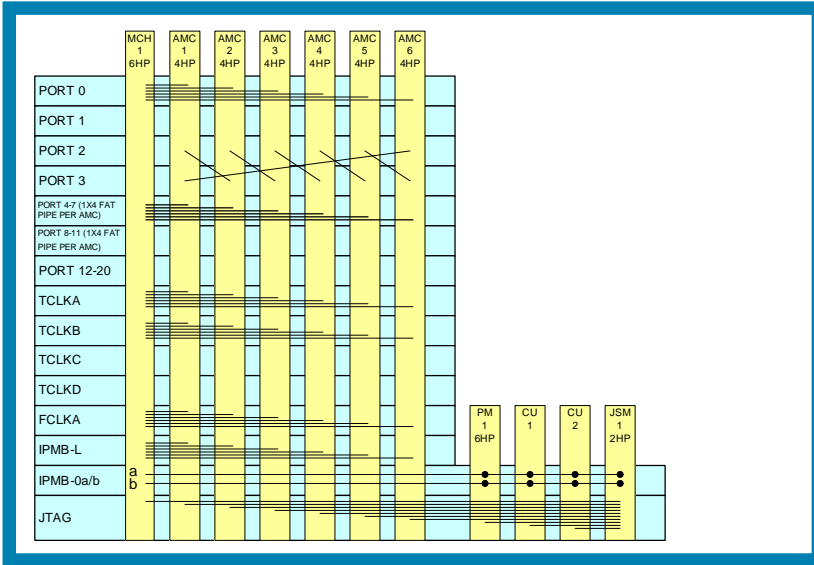
Cooling is a critical element in MicroTCA solutions. The MicroSlim Shelf features redundant plug-in Cooling Units (CUs) in a side-to-side airflow (push/pull) configuration. This airflow layout includes 2 sets of 4 fans providing a total of 96CFM @ .75" H2O of cooling capacity. To ensure proper performance, the unit has a separately removable and manageable air filter. The result is tremendous thermal performance, cooling even the densest AMC modules with a heat dissipation of 36W each. The MicroSlim Shelf's robust 380W power module converts the 48VDC input voltage to the needed voltages of 3.3V (signal) and 12V (power).

MicroSlim 1U MicroTCA Shelf

MODULE CONFIGURATION

CU	Power Module Full-Size 6HP	MCH 6 HP	AMC Mid-Size	AMC Mid-Size	AMC Mid-Size	CU
	JSM 2HP	Blank 2HP	AMC Mid-Size	AMC Mid-Size	AMC Mid-Size	

BACKPLANE MAPPING

The backplane for the MicroSlim Shelf features slots for 6 AMC, 1 PM (Power Module), 1 MCH (MicroTCA Carrier Hub), 1 JSM (J-TAG Switch Module)and 2 CUs (Cooling Units). Compression-mount connectors are used in the backplane for increased reliability and superior (easier and more flexible) routing. If a connector is damaged in the field, it has two screws securing it in place that can be easily removed for replacing the connector. The backplane features Star routing for most of the signals and point-to-point connections for the PCI Express signals.The backplane has undergone signal integrity studies to optimize the performance and has a 20-layer stripline design.

Order Information

Description	Model Number
MicroSlim Shelf	39M-MB186-_ _ _-C1

- 1U H, 19" rack mount (1.75" H x 18.3" W x 210mm D)
- 6, AMC's slots (mid-size/single)
- 1, 380W, 48VDC input Power Module
- System Management and Diagnostics: 1 MCH, 1 JSM
- 2 plug removable Cooling Units (96CFM @ .075" H2O)
- 20 layer, Star topology backplane

J = JSM
X = Not Installed

P = Power Module
X = Not Installed

M = MCH
X = Not Installed