Netarium-14

14U 14-Slot AdvancedTCA Reference Systems

Features

- 14U 14-slot 19" rackmount ATCA shelf with integrated switches and server blades
- 12 node + 2 hub slots with power distribution for over 350W per slot
- 14 rear transition module (RTM) slots
- Supports two redundant Shelf Managers, and two redundant Shelf FRU Data and Telco Alarms boards
- 40G ATCA-compliant backplane, with dual star topology on fabric channel and base channel, supporting up to 10 Gbps per differential pair for the fabric
- Redundant AC and DC power options
- Front-to-rear Pull Cooling Mode
- Hot swappable FRUs (blades, RTMs, fan trays, power modules, and ShMM)
- PICMG 3.0 (AdvancedTCA Base Specification) Compliance

Advanced TCA® RoHS COMPLIANT 2002/95/EC

Introduction

Advantech's Netarium series of ATCA reference systems are specifically targeted to help network equipment providers reach superior levels of performance over traditional rackmount servers or appliances and extend their product range at the high end. The series represents a new generation of systems which offer higher performance, greater scalability and extreme flexibility by using the latest 40 Gigabit Ethernet (40G) backplanes, switches and application blades. Advantech optimizes the systems to achieve the highest possible density at the rack level, enabling a maximum number of processor cores, network ports and switching capacity.

Each system is tailored for customers to rapidly deploy in data communication markets for applications which require faster and deeper packet processing such as policy and charging enforcement, network security, real-time traffic monitoring, load balancing, subscriber analytics and content optimization among others. As ATCA was designed to meet the carrier-grade constraints of the telecom industry, the systems integrate the chassis, cooling, power distribution and shelf management into an off-the-shelf platform solution capable of superior 5 NINES availability and reliability.

Rising volumes of data traffic, media-rich applications and data center consolidation are driving the need for increased bandwidth scalability and high-speed connections. To meet these challenges, Advantech's flagship Netarium-14 targets the high-end market where equipment providers require superior performance, scalability and deployment flexibility for their large enterprise, managed security service provider or carrier customers.

Many different payloads can be integrated into Advantech Netarium systems and configured to address diverse industry applications. For more details on integrating a specific configuration please contact your local sales representative.

Specifications

Number of slots	Front blades	14 ATCA compliant node or hub blades (12 node blades and 2 hub blades)
	RTM's	14 ATCA rear transition modules
Backplane	IPMB	Bussed
	Base interface	Dual star, 1000 Base-T
	Fabric interface	Dual star, up to 10Gbps per differential pair
Cooling	Technology	Four front pluggable, hot swappable high pressure fan trays with N+1 redundant fans (no degradation with a single fan failure)
	Max. Capacity	350W for front board and 35W for RTM
	Air filter	Front pluggable air inlet filter with redundant presence sensor
Accessibility	Front	ATCA blades, fan trays, air filter, and AC PSU's
	Rear	RTM's, ShMC's, and PEM's
Power	AC	Up to five redundant (N+1) power supply units with separate AC inlets, 1600W (at high line) and 1200W (at low line)
	PSU cooling	Self cooled
	DC feed	2 redundant, hot swappable PEMs w. integrated EMI filters
	DC voltage	-48V / -60V
	Current rating	105A@-48V and 84A@-60V via 4 studs
Shelf management	Full featured	Dual, redundant carrier board for Pigeon Point Shelf Management Mezzanine 500 (ShMM-500)
	Interfaces	RMCP, SSH, SNMP, CLI, Web and serial interfaces
	Telco alarms	Dual, redundant Shelf FRU Data and Telco alarm boards (Optional)
	Sensors	FRU presence, fan health, PSU health, temperatures, input voltages
Miscellaneous	ESD plug	Front and rear
	Cable management	Front and rear cable management trays (optional)

Specifications

Physical Characteristics	Dimensions (H x W x D)	14U x 19 x 500 mm	
	Weight	40kg (chassis weight only)	
Environment		Operating	Non-operating
	Temperature	0 ~ 55° C (32 ~ 131° F)	- 40 ~ 70° C (-40 ~ 158° F)
	Humidity	5 to 93% @ 40° C (non condensing)	95% @ 40° C (non-condensing)
	Altitude	Up to 1800m (w/o cooling degradation)	Up to 4000m
Compliance	Environment	ETSI EN300019-2-1 Class1.2, EN300019-2-2 Class 2.3, ETSI EN300019-2-3 Class 3.1E	
		Designed to meet GR63-CORE	
	PICMG	3.0 R3.0, 3.1 R1.0, HPM.1	
	Safety & EMC	CB report (IEC60950-1), CE mark (EN60950-2001), UL60950-1/CSAC22.2 FCC47 CFR Part15, Class A, CE Mark (EN55022/EN55024/EN300386) Designed to meet GR1089-CORE	

Ordering Information

Model Series	Configuration
Netarium-14 (AC)	14U, 14-slot ATCA chassis with 5x 1600W AC PSUs, 4 fan trays, air filter, dual star backplane, optional ShMM & Shelf Alarm Module
Netarium-14 (DC)	14U, 14-slot ATCA chassis with 2 PEMs, 4 fan trays, air filter, dual star backplane, optional ShMM & Shelf Alarm Module

Note: Please contact your local Advantech sales representative for more information.

Related Products

| Model Series	Description
MIC-5332	AdvancedTCA 10GbE Dual Socket CPU Blade with Intel® Xeon® E5-2600 Processors
MIC-5342	AdvancedTCA 40GbE Dual Socket CPU Blade with Intel® Xeon® E5-2600 v3/v4 Processors for Telecom Applications
MIC-5345	AdvancedTCA 40GbE Dual/Single Socket CPU Blade with Intel® Xeon® E5-2600 v3/v4 Processors for Server and NFV Applications
RTM-5104	AdvancedTCA RTM for MIC-5332
RTM-5107	AdvancedTCA Rear Transition Module for MIC-5333 and MIC-5342
ATCA-9112	40GbE AdvancedTCA Switch Blade support up to 16 slots
Telco Systems T-HUB4	40GbE AdvancedTCA Switch Blade support up to 16 slots
Telco Systems T-ATCA510	100GbE AdvancedTCA Switch Blade

Front View

Netarium-14 (AC)
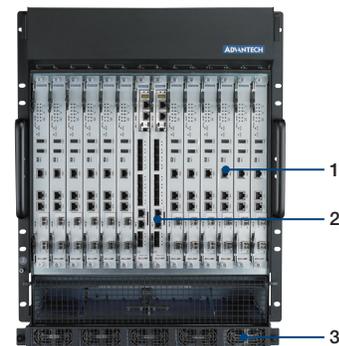
Rear View

Netarium-14 (AC) Shelf
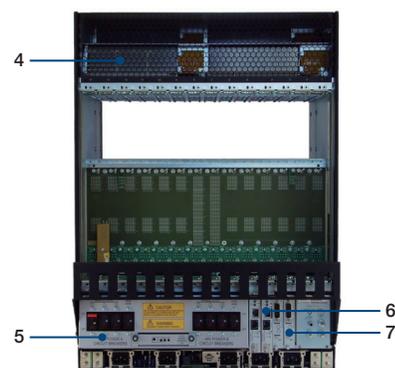
1. MIC-5333 node board
2. ATCA-9112 Switch board
3. Power Supply Unit
4. Fan Tray
5. Power Entry Module
6. Shelf Manager
7. Shelf FRU Data and Telco Alarms board