UTCA-6302

MicroTCA 4U/14-Slot Chassis with UTCA-5504 MCH

Features

- 19" rackmount, 4U/5U MicroTCA chassis
- Dual star GbE, SATA and PCIex4 ready backplane supports up to 12 full-size AMCs
- 40W per slot cooling capacity
- 600W redundant power supplies with 48V DC
- Redundant MCHs, PMs
- Hot swappable MCHs, CUs, PMs
- Intelligent MCH including iA control plane CPU, GbE uplinks and T1/E1 backhaul
- NEBS ready platform
- RoHS compliant

Introduction

The UTCA-6302 is a MicroTCA system preconfigured with one or two MCHs, two or four power supplies, and up to twelve full-size AMCs for optimal cooling in just a 3U to 5U form factor. The system introduces an innovative front-to-rear cooling scheme and advanced redundant -48V DC power design. The system is ideal for high performance computing and for application service providers where blade density is important. Telecom equipment manufacturers and network equipment providers will benefit from the performance, cost and reliability gains which the platform offers. When equipped with Advantech's Dual Core Processor AMCs, the system provides exceptional levels of scalability for software designed hardware functions such as radio or host media processing. They provide the building blocks for unprecedented levels of reliability, performance and power savings. The MIC-5602Rev2 PrAMCs loaded in the system support Intel® Core™2 Duo processors, 45 nm Low Voltage with up to 4 GB memory.

The chassis is cooled by four hot-swappable fans providing redundant cooling while four rear -48V DC power supplies provide true 600W redundancy. By extending the depth of the chassis and moving the power modules to the rear, all the front-side slots are available for the AMC payload needs and the entire system fits in a 3U height envelope for bottom-to-top cooling. For front-to-rear cooling needs, the system comes with unique top and bottom angled air-duct designs allowing 4U lossless stacking between adjacent systems in a rack. The backplane design combines dual star Gigabit Ethernet packet switching along with local PCI Express and SATA connectivity, supporting high density clustering and expansion technologies in a cost efficient design.

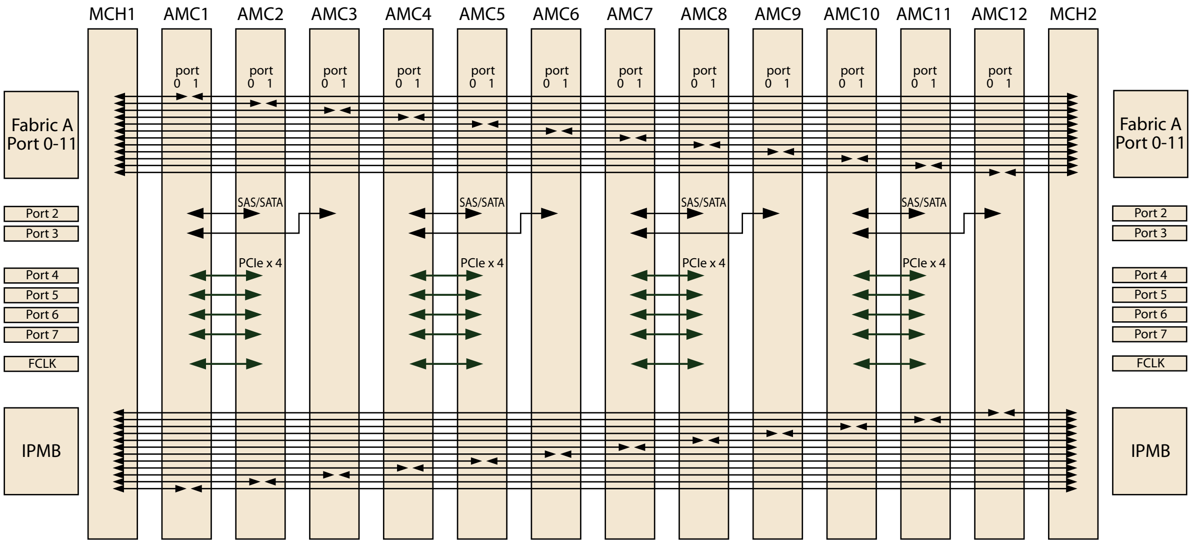
The UTCA-5504 MicroTCA Carrier Hub (MCH) combines x86 processing, switching, management and backhaul in to a single MCH element. It supports all the functions needed to control, network, connect and manage a full system configuration, freeing up as many as three AMC slots for application payload. The UTCA-5504 offers extended MCH features and facilitates user specific x86 application software development. The onboard carrier and shelf manager, 24-port non-blocking L2+ Ethernet switch and Intel® EP80579 integrated processor with Intel® QuickAssist provide Intel® Pentium® M-class processing performance and a range of connectivity options. Four GbE and four optional T1/E1 ports meet infrastructure backhaul and gateway needs while the on-chip accelerator provides security co-processing options for functions such as encryption.

Specifications

Number of Slots	MCH	2 x redundant MCHs (1 MCH included)	
	AMC	12 AMCs	
	Power Module	2x -48V DC in power modules (4 x included upon configuration)	
Backplane	IPMB	Radial	
	Update Channel	MCH#1 & 2 redundancy	
	Common Options Region	Single-star (single MCH) / Dual-star (dual MCHs), channel 0 as MCH#1 interconnect; channel 1 as MCH#2 interconnect SATA connectivity	
	Fat Pipes Region	Point-to-point PCIe fabric (ports 4-7)	
Cooling	Technology	Front accessible push fan trays with 4 modules (8 fans total)	
	Max. Capacity	40W per slot @ 45° C ambient	
Accessibility	Front	MCHs, AMCs, CUs	
	Rear	PMs	
Power	PSU Cooling	Self-cooled	
	DC Feed	2x/4x redundant, hot swappable PMs	
	DC Voltage	-48V DC	
Miscellaneous	ESD Plug	Front	
Physical Characteristics	Dimensions	3U (bottom-to-top cooling)/4U (front-to-rear cooling when stacked with air-ducts)/5U (std. air ducts) x 19" x 420 mm	
	Weight	19.25 kg	
Environment		Operating	Non-operating
	Temperature	0 ~ 45° C	-40 ~ 60° C
	Humidity	95 %@ 40° C (non-condensing)	95 %@ 60° C (non-condensing)
	Shock	10 G, 11 ms	30 G, 11 ms
	Vibration (5-500 Hz)	1.5 Grms	3.0 Grms
Regulatory	Conformance	UL, FCC, CE, RoHS	
	NEBS Level 3	Designed for GR-63-CORE and GR-1089-CORE	
Compliance	Standards	PICMG MTCA.0, AMC.0, AMC.1, AMC.2,AMC.3,IPMI v1.5,HPM.1	

Dimensions

Unit: mm



Ordering Information

Model Number	Configuration
UTCA-6302-A1E	4U, 14 slot MicroTCA chassis with air-ducts, 2 PMs, 4 CUs, dual star backplane & 1 UTCA-5504
UTCA-6302-A2E	4U, 14 slot MicroTCA chassis with air-ducts, 4 PMs, 4 CUs, dual star backplane & 1 UTCA-5504
UTCA-6302-B1E	5U, 14 slot MicroTCA chassis with air-ducts, 2 PMs, 4 CUs, dual star backplane & 1 UTCA-5504
UTCA-6302-B2E	5U, 14 slot MicroTCA chassis with air-ducts, 4 PMs, 4 CUs, dual star backplane & 1 UTCA-5504

*Note: UTCA-6302 only supports UTCA-5504; it is not compliant with other MCH.

Related Products

Model Number	Configuration
UTCA-5504	MicroTCA carrier hub Layer 2 GbE switch with MCMC
MIC-5602 Rev2	Intel Core 2 Duo Processor AMC
MIC-5401	SAS HDD Carrier AMC
9680013406	Single/Full size filler panel with fixed air baffle