» AM453x «



Features

» Cost-competitive NAS storage solution for MicroTCA and ATCA platforms
» AM4530 and AM4531 available with multiple SATA/HDD capacity options
» Base or/and Fabric access via VLAN
» AMC.0, AMC.1, AMC.2 and AMC.3 compliant
» IPMC, Dual IPMB, IPMI v2.0

Kontron AM453x NAS AMC Module

Unique in the market, the Kontron AM453x AMC module is a cost-competitive storage solution for MicroTCA and ATCA platforms that require Network Attached Storage connectivity. Specifically for MicroTCA-based systems, the AM453x module provides storage access for Processor AMC modules that are without a SATA connection, such as the AM4100 PPC AMC for control plane applications or the AM42xx Cavium OCTEON Plus AMC for data plane applications.

From an ATCA platform standpoint, the AM453x can be a single point of code storage for the entire system when populated in one or both AMC slots of the Kontron AT89xx switch. This makes it an ideal solution for fast boot code or application code updates. Two AM453x modules can be set up in a redundant configuration for increased storage reliability, and are accessible by all blades and AMCs in the system via the base and/or fabric interface.

In terms of media, the AM453x supports both Hard Disk Drives and Solid State Drives using the 2.5" form factor and SATA interconnect. Basic NFS NAS is available via port 0 and 1 in the Common Option Region (Base Interface or Control Plane) and/or port 8 and 9 in the FAT Pipes Region (Fabric Interface or Data Plane) with VLAN support provided in all flavors.

Included into the module design are extensive sensors for monitoring and event generation on thresholds, and there are two redundant Boot Block Flash BIOS and IPMI firmware with rollover.

Technical Information

Hard Disk Features	AM4530 and AM4531 available with multiple SATA/HDD capacity options
Processor	Marvell 88F6281, 1.2 Ghz ARMv5TE-compliant with a 256KB L2 Cache
Memory	512 MB DDR2-800MHz
File Systems	NFS support PXE Boot for x86 processors at release date DHCP or Static IP address
Compliance	PICMG AMC.0 R2.0, AMC.1 R2.0, AMC.2 R1.0 & AMC.3 R1.0
IPMI Features	Management Controller compliant to PICMG 3.0, AMC.0 and IPMI v1.5 rev 1.1. Management Controller is run time field reprogrammable without payload impact. Robust fail safe reprogrammation implementation (which includes two firmware images) that could perform automatic or manual rollback if a problem occurs during critical reprogramation phase. Remote upgrade capability from all IPMI interfaces (via IPMB)
Supervisory	Hardware system monitor through IPMI (voltage, currents, temperature), temperature monitor / alarm; board temperature sensor, power failure.
Mechanical	181.5 x 75 x 30.16 mm, single-width full-size; 181.5 x 75 x 18.96 mm, single-width mid-size; Weight: 350 g
Power Requirements	Management power is less than 100mA peak at 3.3V Payload power is 6W without hard drive
Environmental Temperature*	Operating: 0-55°C/32-131°F HDD, 0-70°C/32-158°F SSD version; Storage and Transit: -40 to +70°C/-40 to 158°F
Environmental Humidity*	Operating: 15% to 90% @55°C/131°F non-condensing; Storage&Transit: 5% to 95% @ 40°C/104°F non-condensing
Environmental Altitude*	Operating: 4,000 m / 13,123 ft; Storage and Transit: 15,000 m / 49,212 ft
Environmental Shock*	Operating: 30G, half-sine 11ms, each axis; Storage and Transit: Bellcore GR-63-CORE Section 4.3
Environmental Vibration*	Operating: 1.0G, 5-500Hz each axis; Storage and Transit: 0.5G, 5-50Hz; 3.0G, 50-500Hz each axis
Safety / EMC	Meet or exceed: Safety: UL 60950-1; CSA C22.2 No 60950-1-03; EN 60950-1:2001; IEC60950-1 EMI/EMC: FCC 47 CFR Part 15, Class B; CE Mark to EN55022/EN55024/EN300386
Warranty	Two years limited warranty

CORPORATE OFFICES

Europe, Middle East & Africa
Lise-Meitner-Str. 3-5
86156 Augsburg
Germany
Tel.: +49 (0) 821 4086-0
Fax: +49 (0) 821 4086 111
sales@kontron.com

North America
14118 Stowe Drive
Poway, CA 92064-7147
USA
Tel.: +1 888 294 4558
Fax: +1 858 677 0898
info@us.kontron.com

Asia Pacific
17 Building,Block #1, ABP.
188 Southern West 4th Ring Road
Beijing 100070, P.R.China
Tel.: +86 10 63751188
Fax: +86 10 83682438
info@kontron.cn

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