kontron

» AM4520 «

AdvancedMC SAS Storage Module

» Mid-Size / Full-Size
» AMC.3 compliant
» Up to 600 GB capacity
» 10,000 rpm, 4.1ms average seek time
» 8-Mbyte cache buffer for improved performance
» S.M.A.R.T. technology capable
» Management through IPMI 1.5 implementation
» Power On Hour (POH) IPMI counter support to diagnose disk usage in terms of number of hours

AM4520

AdvancedMC SAS Storage Module - Full-Size / Mid-Size

AdvancecdMC modules are the key to extending the value of AdvancedTCA platforms designed for multiple applications in the wireless / wireline network infrastructure. The Kontron AM4520 AdvancedMC SAS module is the ideal high performance, highly reliable storage media for open modular communications solutions that need to achieve higher IOPs (input/output per second) performance in space-constrained network infrastructures. Available in either Mid-Size or Full-Size formfactors, the Kontron AM4520 SAS module offers up to 600 GByte storage capacity.

Built in accordance to the AMC.0* and AMC.3 specifications, the AM4520 features a 10,000 rpm spindle plus the industry's highest reliability of 1.4M hours MTBF. As a hot-swappable field replaceable unit (FRU), the AM4520 also follows the same stringent carrier grade RASM feature set, namely - Reliability, Availability, Serviceability, Maintainability. When integrated with AdvancedTCA platforms, the AM4520 SAS module helps conserve valuable system AdvancedTCA system slots, ensuring greater economies of scale and reduced OPEX.

Technical Information

Hard Disk Features	Storage capacity: 146GB & 600GB Seek time Track to Track: 0.2 ms typ. Average: 4.1 ms typ. (read), 4.5 ms typ. (write) Maximum: 8.1 ms typ. Average latency: 3 msec Rotational speed: 10 000 RPM Data transfer to/from host: 300 MBytes/sec Interface: SAS Buffer size: 8MB	
Compliancy	AMC.0 R2.0*; AMC.3 R1.0 * Mid-Size version height exceeds component envelope as outlined in the AMC.0 R 2.0 specification.	
OS Compliancy	RedHat Linux Enterprise	
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); Management Controller self test, which can detect failure under its code integrity and trigger an automatic rollback	
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, Full-Size; 181.5 x 75 x 18.96 mm, Mid-Size	
Power Requirements	Management power is less than 100 mA peak at 3.3V, Payload power is 2A peak and 1A normal operation	
Environmental	**Operating**	**Storage and Transit**
Temperature**	0°C to 55°C / 32 to 131° F	-40°C to 70°C / -40 to 158° F
Humidity**	5% to 90% @55° C / 131° F, non-condensing	5% to 95% @40° C / 104° F, non-condensing
Altitude**	4 000 m / 13,123 ft	15 000 m / 49,212 ft
Shock**	30 G, half-sine 11ms, each axis	Belcore GR-63-CORE, Section 4.3
Vibration**	5-500 Hz. 1 G, each axis	5-50 Hz, 2 G; 50-500 Hz, 3 G each axis
Airflow	TBD	
** Designed to meet or exceed		
Reliability	MTBF: > 895 000 hours @ 40°C / 104°F (Telcordia SR-332, Issue1)	
Safety / EMC	Designed to meet or exceed: Safety: UL60950 3rd ED.; CSA C22.2 Ho 60950-00; EN 60950:2000; IEC60950-1 EMI/EMC: FCC 47 CFR Part 15, Class B; CE Mark to EN55022/EN55024	
Warranty	Two years limited warranty	

AM4520

AMC Everywhere

Kontron makes all of its AdvancedTCA platforms 'AMC Everywhere' enabled, offering support for AdvancedMC modules with its processor, hub and carrier Advanced-TCA products. This is a major factor in providing TEMs with unprecedented flexibility in the design of new, IMS/FMC-based applications, as well as increase economies of scale by freeing up valuable AdvancedTCA system slots for other payload blades. AdvancedMC modules are the smallest Field Replaceable Units (FRU) on the market that are hot swappable and support the RASM concept of "Reliability, Availability, Serviceability, and Maintainability".
Ultimately for Service Providers and Carriers, this translates into a significantly lower OPEX with easy upgrades in the field, reduced risk for the introduction of new subscriber services, and the ability to expand networks.

Software Compatible with Kontron AM42xx Series and OM6061 MicroTCA NEBS-compliant Platform

The Kontron AM4211 AMC supports GbE on Ports 0 and 1 connected to the CN6335 processor for control plane functions, and is fully software compatible with the existing Kontron AM4204, AM4210 and AM4220 packet processor modules, ensuring it is an ideal candidate for configurations in the Kontron MicroTCA™ 1U platform OM6061. 4G network equipment vendors seeking a faster time to deployment using standards based hardware platforms such as AdvancedTCA® and MicroTCA™ can use the AM4211 as part of a system design of eNodeB, MME, Serving Gateway, and Packet Data Network (PDN) Gateway systems, among others. The Kontron OM6061 1U MicroTCA platform can be configured with the AM4211 along with any other Kontron processor, IO and storage modules, as well as any 3rd party AMC modules.

AM42xx PP IO Series
AM4204, AM4210, AM4220

AM42020 PrAMC

AM4530 NAS AMC

OM6061 1U
MicroTCA Platform

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