

A3806-XMC-CC

Conduction Cooled XMC Serial Attached SCSI Host Bus Adapter



Rugged, Reliable, Extreme Performance

The Astek A3806 provides PCI-Express (PCIe) to Serial Attached SCSI (SAS) and Serial ATA (SATA) connectivity on a conduction cooled XMC. The board is available with Environmental Stress Screening (ESS) and optional Conformal Coating to ensure survival in the harshest environments. Based on the industry leading LSISAS2008 host controller, you can count on the interoperability and rock solid storage bus performance with any media choice, SAS, SATA and Solid State Disk (SSD). In addition to leading performance and stability over generic SATA controllers, the SAS bus supports the use of external expanders, with the proven ability to drive upwards of 200 target disks from a single controller, ensuring that system builders can scale up to any storage needs. The A3806 also has blazing performance, up to 4 GBytes/second when matched to 6Gb target media.

A3806-XMC Ordering Information

A3806-XMC-CC-01CE	8 Channels RTM (P16), RoHS-6, Conduction Cooled, Conformal Coated, ESS Tested
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KEY APPLICATIONS

- VME, VPX and cPCI Single Board Computers (SBC's)
- Direct Attached Storage (DAS)
- Storage Area Networking (SAN)
- Data recorders, video surveillance, embedded databases

PRODUCT FEATURES

- ANSI VITA 20
- ANSI VITA 42.0
- ANSI VITA 42.3
- 8 PCIe ports routed to P15
 - x8, x4, x2 and x1 PCIe
 - Supports Gen1 (2.5Gbps) and Gen2 (5.0 Gbps) PCIe
- 8 SAS ports routed to P16
 - Supports SAS 1.5, 3 and 6Gbps media
 - Supports SATA 1.5, 3 and 5Gbps media
 - Supports standard block, optical CD/DVD, DLT, LTO and SSD media types
 - Supports SAS expanders
 - Supports 200+ target disks attached (via SAS expanders)
- 1 year limited warranty
- Wide operating systems support



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Technical Specifications

Host Bus Type	PCI-Express (PCIe) 2.0, X8, X4, X2 or X1 lanes @ 5 GT/s	
Compliance	PCIe 2.0, IEEE 1386.1, VITA-39	
Data Transfer	250 MB/s (PCIe X1 v1.x @ 2.5 GT/s) 500 MB/s (PCIe X1 v2.0 @ 5.0 GT/s) 1000 MB/s (PCIe X4 v1.x @ 2.5 GT/s) 2000 MB/s (PCIe X4 v2.0 @ 5.0 GT/s) 4000 MB/s (PCIe X8 v2.0 @ 5.0 GT/s)	
Modes	Bus master DMA	
PCI Voltage	+3.3V +/- 5%	
PCI Power	< 13 Watts	
Form Factor	2.913" x 5.659", (143.75 x 74 mm) PCI Mezzanine Card (XMC), Conduction Cooled	
SAS Bus	Eight 6 Gb/s SAS/SATA ports	
SAS Bandwidths	Single lane – 600 MBy/s Wide Port (2 lanes) – 1200 MBy/s Wide Port (4 lanes) – 2400 MBy/s	
Connectors	Internal: 8 SAS lanes routed to P16 8 PCIe lanes routed to P15 External: None	
Protocols	ANSI Serial Attached SCSI 2.0, SCSI Initiator, SCSI Target	
Device Support	Thousands of SAS WWIDs, more than 256 target disks with SAS fan-out expanders	
Agency Approval	<i>pending</i>	
Environments	Operating	Storage
Temperature	-20° to 50° C, Sea Level -30° to 20° C, 25K ft. altitude	-40° to +125° C
Relative Humidity (non-conformal coated)	5 to 90% non-condensing	5 to 90% non-condensing

Software Support

OS Support	Versions
Windows	XP (32-bit), XP (64-bit), Vista, 7, Server 2003, Server 2008
RedHat Linux	EL4, EL5
Linux generic	2.6.19+
OpenSolaris	<i>pending</i>
VxWorks	5.5.1, 6.x

WARRANTY

Astek host adapters are assembled and tested in world-class facilities to assure superior product reliability and performance. Astek's host adapters carry a one-year limited warranty.

For more information please visit the Astek web site at:

www.astekcorp.com

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