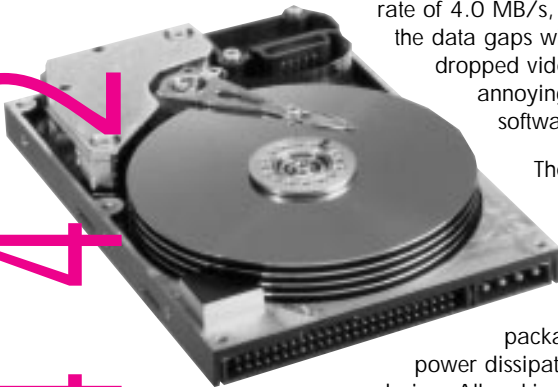


4421AV

Designed for Audio/Video Applications

The ARIES 2 Model 4421AV one-inch high disk drive is the newest member of the Micropolis AV Gold Series of drives. This Series is specifically designed for critical digital video and audio performance applications, such as multimedia, desktop publishing, digital video editing and video servers.

By taking advantage of our extensive experience in the design of high-performance disk drives, we've provided the higher uninterrupted data rates required for digital media applications. Available with a Fast SCSI-2 interface and a guaranteed minimum sustained transfer rate of 4.0 MB/s, the 4421AV eliminates the data gaps which can result in dropped video frames, jerky motion, annoying sound pauses, or even software hang-ups.



The model 4421AV features high uninterrupted data transfer rates combined with quiet operation, small package size, and the low power dissipation of a 5400 RPM design. All making it the ideal storage solution for cost sensitive AV applications at the 2 GB capacity point.

Benefits

- Eliminate disk related video or audio drop-outs
- Eliminate jerkiness during playback
- Better compression ratios with guaranteed high minimum sustained data rate
- Improved read and write performance with advanced caching techniques
- Reduced latency with improved housekeeping
- Improved error handling to maintain data stream
- Reduce cost with smaller external buffers
- Reduce overhead with highly predictable data delivery

Features

- Minimum sustained data rate: 4.0 MB/s
- Maximum sustained data rate: 7.3 MB/s

- Hybrid servo system provides T-CAL-less operation
- SCAM provides ease of integration for plug-and-play installation
- Predictive Failure Analysis and S.M.A.R.T. technology for alert condition monitoring
- Tagged Command Queuing for increased data throughput
- Read-Ahead Caching for improved read performance
- Hardware-implemented ECC with near track head de-gaussing
- Write-Behind Caching with Write Coalescing for improved write performance
- Multiple Zone Recording™ (MZR) provides greater capacity and faster data rate
- Active termination support
- Five-Year Warranty available through Micropolis Authorized Distributors

What is an AV Drive?

Today's demanding digital video and audio applications require disk drives to sustain a pre-determined minimum data transfer rate. Any interruptions in this data rate are detrimental to AV applications that require constant delivery of data at 30 frames per second minimum. In standard drives utilized for data processing requirements, the error correction and thermal calibration methods employed are not optimized for continuous delivery of data. These routine housekeeping tasks will produce gaps in the data stream as long as 850 ms, resulting in jumps, gaps, and stutters in motion and sound when used in most AV applications.

Micropolis was the first company to specifically design an "AV Optimized" disk drive. Employing advanced cache management, T-CAL-less operation and superior error correction handling, the Micropolis AV Gold Series Disk Drives smooth out the fluctuation of data rates due to the drive's housekeeping tasks. The result is a minimum uninterrupted 4.0 MB/s data transfer rate, which is required for virtually all digital video applications. So, the next time you need high capacity and superior AV performance, look to Micropolis AV Gold!

Formatted Capacity

2.05 GB Formatted

Form Factor

3.5", one inch high

Internal Data Rate

Up to 80.0 MHz

Data Rate

Maximum Sustained:

Up to 7.2 MB/s

Minimum Sustained:

4.0 MB/s

Rotation Speed

5400 rpm

Interface

Fast SCSI-2, narrow single-ended

Specifications**4421AV****Formatted Capacity**

Per Drive	2,050 MB
Per Sector	512 B
Sectors/Track	Variable
Cylinders	4,050
Data Heads	7

AV Data Rate Specifications

Maximum Sustained	7.2 MB/s
Minimum Sustained	4.0 MB/s

Performance

Internal Data Rates	
Inner Zone	47.4 MHz
Outer Zone	80.0 MHz
Seek Time	
Track-to-Track (read)	1.1 ms
Average	8.8 ms
Maximum	22.5 ms
Average Latency	5.56 ms
Rotational Speed	5400 RPM

Host Interface

Fast SCSI-2, Narrow Single Ended	
Transfer Rate	
Synchronous	10 MB/s max.
Asynchronous	5 MB/s max.
Cache Buffer Size	512 KB

Reliability

MTBF (poh)	650,000
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Power Requirements

Requirements (typical)	
+12 VDC (average)	.36 A
+12 VDC (start-up)	1.60 A
+5 VDC (average)	.64 A
Dissipation (typical)	
Idle	7.5 W
Seeking	8.2 W

Drive Dependent Specifications**Drive Features**

Fast SCSI-2 Compliant
 SMART SCSI Code
 SCAM Compliant
 PRML Read Channel
 Read Ahead Caching
 Write Coalescing
 Write Caching
 Tagged Command Queuing
 Downloadable SCSI & DSP Code
 126-Bit Reed-Solomon ECC with on-the-fly error correction
 Automatic sector reallocation: (ARRE, AWVRE) option
 Active Termination, jumpers enable/disable
 Drive supplies termination power option
 On-board or remote LED option
 Industry standard mounting in any orientation
 5-Year Warranty

Acoustic Noise (typical)

Idle	34 dBA
Seeking	38 dBA

Environmental

Operating	
Temperature	0° C to 50° C
Shock	10 g for 11 ms
Vibration	1.5 g peak
Non Operating	
Temperature	-40° C to 65° C
Shock	60 g for 11 ms
Vibration	2 g peak

Physical

Height	25.4 mm (1.0 in)
Width	101.6 mm (4.0 in)
Depth	146.1 mm (5.75 in)
Weight	0.636 kg (1.4 lb.)



CERTIFICATE OF AWARD
 ISO 9001:2000
 CERTIFICATION ISO92:2-0018
 Singapore Manufacturing Location

For more information, contact the Micropolis office nearest you or call 1-800-395-DRIVE

MICROPOLIS**Micropolis (USA) Inc**

21211 Nordhoff Street
 Chatsworth, CA 91311
 Tel: 818-709-3300
 World Wide Web: <http://www.micropolis.com>

U.S. Sales Offices

- Irvine, CA 714-476-0411
- San Jose, CA 408-441-0333
- Lawrenceville, GA 404-963-4841
- North Potomac, MD 301-948-6099
- Salem, NH 603-898-3550
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European Offices

- Reading, England 44/1734-751315
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- Stockholm, Sweden 46/8580-32095

Asia/Pacific Offices

- Singapore 65/482-4191
- Tokyo, Japan 81/3-3543-8961

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