



# TEMPEST Level I Dual LTO-Tape Rackmount Storage System

Model - DAT-401 (Level I)

Product Data

## Description

API's DAT-401 TEMPEST Level I Rackmount Storage System is capable of holding up to two HP StorageWorks LTO-4 Ultrium 1760 SAS tape drives. The HP StorageWorks LTO-4 Ultrium 1760 Tape Drive is HP's fourth-generation of half-height LTO tape drive technology capable of storing up to 1.6 TB per cartridge in under 3 hours. HP Ultrium drives are designed for server customers in direct attached storage (DAS) environments where hard disk and system bottlenecks can impede data transfer rates. To further protect the most sensitive data, AES 256-bit hardware data encryption provides easy-to-enable security to prevent unauthorized access of tape cartridges. By using LTO-4 hardware data encryption, not only is data fully capable of being compressed therefore maximizing capacity, encrypted backups are completed without a loss in performance. Capable of data transfer rates up to 160 MB/sec, HP's exclusive Data Rate Matching feature further optimizes performance by matching speed of host to keep drives streaming and enabling the fastest performance of any tape drive in the industry. The Ultrium 1760 provides investment protection with full read and write support with LTO-4 and LTO-3 media, and the ability to read LTO-2 cartridge. By doubling the capacity of previous generation Ultrium drives, HP customers now require fewer data cartridges to meet their storage needs, significantly reducing their IT costs and increasing their ROI.

## Features

- Certified to NSTISSAM TEMPEST/1-92 Level I and NATO SDIP-27 A standard (formerly AMSG 720B)
- Delivers a capacity of 1.6 TB of compressed data on a single cartridge.
- Fastest half-height LTO drive with a compressed data transfer rate of 160 MB/sec.
- AES 256-bit hardware data encryption prevents unauthorized access of tape cartridges
- Support WORM (Write-Once, Read-Many) media for meeting regulatory compliance
- SAS interfaces
- Industry leading three-year warranty



### HEADQUARTERS - UNITED STATES

Advanced Programs, Inc.  
7125 Riverwood Drive  
Columbia, MD 21046 U.S.A.  
Phone: 410-312-5800 Fax 410-312-5850  
<http://www.advprograms.com>

### UNITED KINGDOM

API Europe Limited  
Vanitec House, Cornbrash Park  
Chippenham, Wiltshire, SN14 6RA, UK  
Phone +44(0)1249 448777 Fax +44(0)1249 448765  
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## Specifications

### Capacity

Native ..... 800 GB  
Compressed (assumes 2:1 data compression)..... 1.6 TB

Maximum capacity of 3.2TB when using two Ultrium 1760 SAS tape drives

### Performance

Sustained transfer rate, native..... 80 MB/s  
Sustained transfer rate, compressed ..... 160 MB/s  
Burst transfer rate..... 300 MB/s (with 3Gb/sec SAS)  
Data rate matching range..... 33-80 MB/s (native)  
Data access time (from BOT) ..... 64 s typical for a 800 GB tape (native)  
Average load time ..... 17 s  
Average unload time ..... 16 s  
Rewind time from EOT ..... 121 s (200 GB tape)

### Media Compatibility

LTO Ultrium 2 (Read only);  
LTO Ultrium 3 (Read and Write)

### Tape Format

Recording method ..... 16-channel linear serpentine  
Recording format ..... LTO Ultrium 4LTO Ultrium 3 (for 400 GB tape)  
Data compressionLTO DC dual mode compression (an enhanced version of ALDC)  
Error detection/correction ..... Reed-Solomon  
Read channel technology ..... Partial Response Maximum Likelihood (PRML)

### Power Specifications

Power requirements, External 100 to 240 VAC, 50-60 Hz, auto-ranging, 0.7A max  
Power consumption ..... 13 Watts idle, 20 Watts typical, 33 Watts max

### Physical Specifications

Height (2U) ..... 3.5 in. (8.89 cm)  
Width ..... 17.12 in. (43.7 cm)  
Depth ..... 15.28 in. (38.8 cm)  
Weight ..... 10 lbs. (4.5 kg)

### Operating Environment

Temperature  
Operating..... 50° F to 95° F (10° C to 40° C) at a minimum of 6CFM airflow  
Storage ..... -40° F to 151° F (-40° C to 66° C)  
Humidity  
Operating ..... 20-80%  
Storage ..... 10-95%

### Warranty

3-year on parts and labor

Advanced Programs, Inc. is an NSA-endorsed test services facility and an NSA-endorsed TEMPEST manufacturing facility.

Technical Specifications are subject to change without notice. U.S.A. export controls apply to these products.

E & OE - 9/8/10



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