

Benchmark ValuSmart Tape™ 640 Blade

Introducing the Industry's First 2U DLT Autoloader

The Benchmark ValuSmart Tape 640 Blade is a significant advancement in automation innovation, a reassuring extension of the industry-standard DLT technology but a revolutionary development in tape automation.

First 2-Unit high DLT autoloader.

First automation product to utilize the industry-first Benchmark ValuSmart Tape 80 half-high DLT tape drive.

First DLT autoloader with a truly integrated drive.

First rack-optimize DLT autoloader.

Total Value Delivery

Users small and large rely on automation because it reduces I.T. overhead, offers increases in capacity over standalone tape drives, provides random access to several cartridges, and eliminates human intervention, the number one cause of data loss. The ValuSmart Tape 640 Blade provides all of these benefits at a price that is comparable to some stand-alone tape drives! This is an unparalleled value for reliable industry-standard DLT automation.

Rack Optimized for Slim Spaces

Data center space in computer environments has been filling up at an unprecedented rate. The industry has moved toward efficient footprints for servers and storage. Data protection is following that trend by replacing stand-alone “shoehorn” solutions that add cost and installation complexity. The Benchmark ValuSmart Tape 640 Blade is the next step toward greater density in computer environments. The combination of the high capacity provided by the industry's only half-high DLT drive and the new 2U autoloader provides best-of-breed data density when implemented in rack-optimized installations.

Easy and Reliable

Even the most inexperienced user can operate the Benchmark ValuSmart Tape 640 Blade because it displays the following features:

- **Simple User Interface** – The Benchmark ValuSmart Tape 640 Blade uses an LCD display to operate the loader so that it is like any accessorized drive with a natural language menu-driven interface.
- **Magazine Free** – The ValuSmart Tape 640 Blade features automated cartridge management for import and export of data cartridges. Users are presented with cartridges for export and prompted for import.
- **Optimal Backup Configuration** – Only one drive and eight cartridges. The ValuSmart Tape 80 drive is truly integrated into the ValuSmart Tape 640 Blade autoloader architecture. The eight DLTtape™IV cartridges rotate in a carousel around the center-mounted ValuSmart Tape 80 and insert into the drive individually. There is a slot for each day of the week and an additional slot that could be used for a Benchmark Cleaning Tape.

The Sensible Solution

I.T. managers demand rapid deployment, cost-effect platforms and improved manageability for modular data centers. Valuable time or precious data center space cannot be wasted. The ValuSmart Tape 640 Blade is the groundbreaking yet sensible solution to the data explosion storage dilemma.

Benchmark ValuSmart Tape™ 640 Blade

Functional/Technical Specifications

Performance Specifications (with Benchmark ValuSmart Tape 80)

Sustained Transfer Rate	
Native	3.0MB/sec
Compressed	6MB/sec
Burst Transfer Rate	20MB/sec
Capacity	
Native	320GB
Compressed	640GB*
Interface	Wide Ultra SCSI-2 Low-Voltage Differential (LVD)

Benchmark ValuSmart Tape 640 Blade Operation

Cartridge Loading	Single front loading slot (import port)
Access Mode	Sequential and random cartridge access

Worst Case Dismount Cartridge and <25 seconds**
Mount New Cartridge

Cartridge Inventory Time	
With Barcode	<25 seconds
Without Barcode	<13 seconds

Manual entry of Cartridge to Carousel	<5 seconds
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Benchmark ValuSmart Tape 640 Blade Format Specifications

Recording Format	168 tracks (84 logical track pairs)
Recording Density	123Kbpi
Track Density	336 tpi
Encoding Method	RLL (1,7) code
Data Compression	DLZ

Reliability Specifications

MCBF	>250,000 cycles***
MTBF	>100,000 hours
Drive Head Life	30,000 tape motion hours
Error Rate (Unrecoverable)	1 in 10 ¹⁷ bits

Physical Specifications

Dimensions – inches (mm)	
Height	3.34 (84)
Width	16.5 (419)
Length	24 (609)
Weight – pounds (kg)	< 33 lbs
Configurations	Table top and rack mount
Orientation	Horizontal

Environmental Limits

Operating		
Temperature F (C)		50 to 104 (10 to 40)
Non-condensing Humidity		20% to 80%
Non-operating		
Temperature F (C)		-40 to 140 deg F (-40 to 60 deg C)
Humidity		20% to 80%
Power Specifications		
Power Requirements		96-264 VAC auto-ranging, 47-63 Hz
Voltage (DC)		+5v, +12v
Power Consumption		55 watts

Media/ Format Compatibility

Benchmark DLTtapeIV	40 GB native capacity
Benchmark DLT Cleaning Tape	20 uses
Read Compatible with the DLT 4000 format	

Media Life

Archive Storage	30 years with less than 5% loss in demagnetization (@20°and 40% non-condensing humidity)
Durability	1,000,000 head passes

*Actual capacity and transfer rate is highly dependent on data type.

** Worst case assumes dismount of cartridge into carrier at home position, movement of carrier in position 8 to home position, and mounting of the cartridge; excludes drive take-up of leader.

***A cycle is defined as dismount of cartridge from drive into carrier at current position, move 3 carrier positions, mount cartridge into drive.

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