ZETA ⬤

SKM-125X

D I S K / T A P E · S U B S Y S T E M S

Zetaco's **SKM-125X** series of data storage subsystems provide <u>both</u> disk and tape in one compact unit for Data General MV Systems.

Now you can combine the high performance and value of 5¼″ winchester disks with the high capacity and space-saving conven-ience of helical scan cartridge tape, all in an aesthetically compat-ible, rack-mountable enclosure for Data General MV Systems.

Up to 7 devices are supported in one SKM-125X, yet only one SCSI bus is used. It's cost effective, since only one controller is needed.

Configuration Flexibility. SKM-125X provides you a flexible environment with selections of four available disk drives (330MB, 601MB, 665MB, 1037MB), and 8*mm* helical scan tape drives.

High Capacity. SKM-125X supports up to 7 SCSI targets. A typical configuration could include:

1 disk @ 665 MB = 665 MB capacity
4 disks @ 1037 MB = 4.15 GB capacity
2 tapes @ 2 GB = 4 GB capacity

High Performance. SKM-125X Subsystems provide high disk transaction rates – as high as 130 transactions per second! The high-speed, sequential reads of the disks support 246 *KB/sec* streaming performance with 8*mm* tape.

Full DG Compatibility. SKM-125X Subsystems are compatible with Data General's latest DPJ disk driver and MTJ tape driver, operating without modification to any Data General software under AOS/VS or AOS/VS-II.

SKM-125X products maxi-mize your peripheral investment by using industry standard periph-erals and peripheral interfaces.

Reliability. The disk drives used in SKM-125X Subsystems use thin film media, thin film heads, and surface mount technology to produce an MTBF of 100,000 hours. Drives are based on evolutionary field-proven technology with over 2,000,000 units installed. SKM-125X's 8*mm* tape drives also have a field-proven reliability rating of 20,000 hours MTBF, as specified by the vendor at typical usage.

Small Footprint. Up to four drives (maximum of two tapes) fit in a single 5¼″ rack-mountable enclosure. Two enclosures containing 6.2GB of disk storage, with a 2GB tape backup device, fit into the same space required by <u>one</u> Argus disk drive.

Low Media Cost. The 8*mm* backup media costs under 2 cents per megabyte. Small enough to fit into your pocket, these tapes can be mailed without damage, or stored conveniently virtually anywhere.

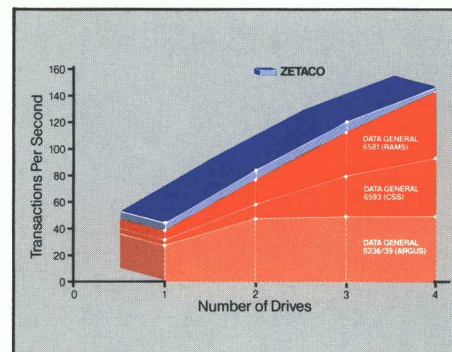## Mass Storage for Your Entire System

SKM-125X Subsystems fulfill your data storage needs with high performance, high capacity mass storage products. These are the only mass storage systems available for the MV user that provide (1) high-transaction-rate disk storage and (2) high capacity, unattended backup . . . all in one fully-compatible subsystem.

SKM-125X is designed using Data General-compatible system interfaces, and industry-compatible peripheral interfaces to allow Zetaco to qualify additional future peripherals for the SKM-125X customer.

High Performance Disk Subsystem

SKM-125X provides high performance. You can expect up to 130 random access disk transactions per second (*TA/sec*) using four 330MB or 665MB SKM-125X drives, (the

highest four-drive *TA/sec* available for MV systems) and up to 112 *TA/sec* using the 601MB or 1037MB drives.

High transaction rates result from SKM-125X Subsystems low overhead, high speed bus, and ability to overlap both disk drive seek and latency delays in a multi-drive subsystem.
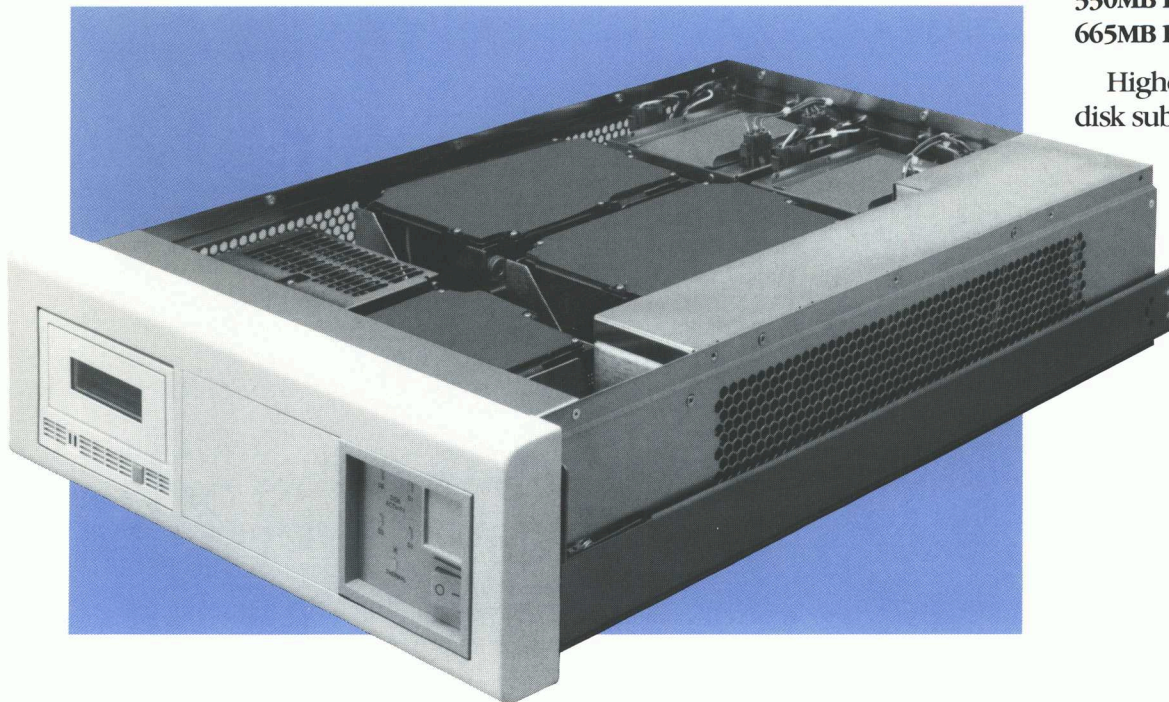
Because of a Read/Look-Ahead feature, you can also expect high sequential disk performance with subsequent disk reads from the same track directly from the drive buffers. An entire track is buffered. This minimizes or eliminates drive latency, and allows transfers at the bus transfer rate rather than being limited by the data rate on the media.

Unlike traditional SMD interface disk subsystems, SKM-125X disks achieve higher transfer rates and additional overlapping of disk mechanical functions. Disk drive buffers and synchronous SCSI transmission are key in providing this functionality for the user.
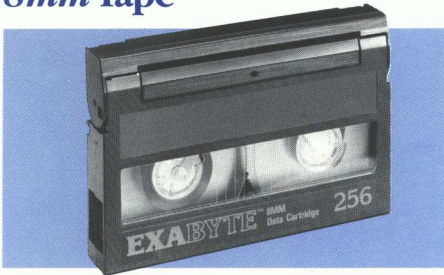
In addition, the 330MB and 665MB drives have the fastest seek time of any drives available for Data General systems:

330MB Disk. . . . . . **10.7** *ms* **seek time**
665MB Disk. . . . . . . **11.9** *ms* **seek time**

Higher performance of the disk subsystem can directly affect your system via faster response time at the terminals . . . consequently yielding more efficiency for your users and overall improved productivity.
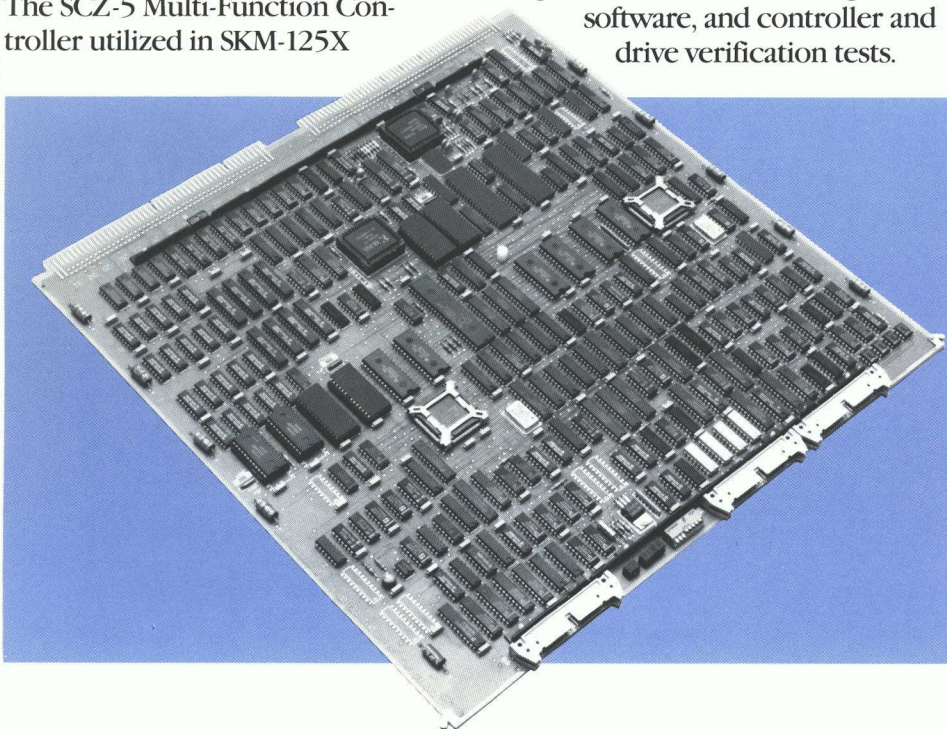
High-Capacity, Unattended Backup to 8mm Tape

SKM-125X configurability allows for tape capacity large enough to allow unattended backup of virtually any winchester drive, and the full disk capacity of many MV systems without changing media. Each 8mm helical scan cartridge holds 2 gigabytes of data.

Tape drive transfer rates are well matched to the sequential transfer rate of the disk drives using a Read/Look-Ahead feature, even with a small element size of 4. Actual backup performance varies from installation to installation depending on the degree of file fragmentation; typically, you can expect about 246 KB/sec.

Advanced Controller Design

The SCZ-5 Multi-Function Controller utilized in SKM-125X

Subsystems is based on Zetaco's emulation of Data General's Argus technology, which we first introduced with the ARZ-1 Disk Controller in 1986, and which served as the foundation for controllers that take advantage of newer, more advanced synchronous SCSI bus technology.

The disk firmware of the SCZ-5 Controller has been specifically tailored to support the advanced system features that Data General supports in its R.A.M.S. disk subsystem, such as disk mirroring.

The tape firmware has been tailored to support high capacity cartridge backup tape under the MTJ driver.

This controller provides support for the maximum number of targets that SCSI standards allow. The controller employs separate microprocessors to manage the peripheral interface and the DG interface. The controller is programmed in C for ease of support, to allow updates with evolving peripheral technology.

The controller incorporates integral installation and diagnostic features including self-test on power up, device address switches on the edge of the controller, configuration software, and controller and drive verification tests.

Configure to Suit Your Needs

SKM-125X Subsystems are designed in a modular fashion to be configured to unique customer requirements. They are provided complete with all required cables, software support tapes, technical manual, and rack mounting hardware. They are designed and tested for compatibility with Data General's FCC-compliant MV systems, running unmodified AOS/VS and AOS/VS-II operating systems.

Although 9-ft cables are standard, the SKM-125X products use differential SCSI technology to allow maximum total cable lengths up to 25 meters (82 feet). Cables in various lengths are available optionally from Zetaco.

Packaging includes power supplies compatible with your power requirements. A 120 volt AC/60 Hz power supply is standard, so please specify if you need something else.

SKM-125X Subsystem peripheral enclosures are UL and CSA recognized, and the entire subsystem has been certified for FCC Class A compliance.

Choose the Capacity/Speed Combination That's Right for Your System

DISK DRIVES FORMATTED CAPACITY	AVERAGE SEEK TIME
330MB	10.7ms
601MB	16.5ms
665MB	11.9ms
1037MB	15ms

For More Information . . .

. . . please contact our Authorized Stocking Distributors, or the Zetaco Sales Team:

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