

SONY

ADVANCED INTELLIGENT TAPE™ SOLUTIONS.



THE SMART STORAGE INVESTMENT



## THE TIME IS RIGHT FOR AIT, ADVANCED INTELLIGENT TAPE™ STORAGE.

The old business environment could tolerate the old data storage solutions: bulky, slow tape drives using "linear" scanning technology and conventional tape. But the pressures of business today demand something better. Something faster. Something smarter. Today's business environment calls for AIT solutions from Sony, the smart storage investment.



### ARE YOUR SOLUTIONS MEETING YOUR NEW REQUIREMENTS?

Tape storage has never been more important to the continuity, the integrity and the life of your business. As you face even tougher business requirements, your tape storage becomes ever more important to your business. Your old storage tape may not meet these new challenges.

- **SPIRALING STORAGE COSTS.** Companies already spend more for storage than they do for servers. And IDC currently projects 87% annual growth in storage requirements.\*
- **GOVERNMENT MANDATES** from HIPAA and the SEC are requiring better archiving and storage practices for certain types of data.
- **DEMAND FOR BUSINESS CONTINUITY.** The potential cost of downtime is staggering.
- **OVERBURDENED BACKUP WINDOWS.** 24 hours may not be enough to do your work — and back it up as well.
- **ADMINISTRATIVE NIGHTMARES.** Too many different, incompatible data tape formats and too much manpower devoted to managing tapes equals inefficiencies for any business.

\*Source IDC, 2000.

### SONY HAS THE INTELLIGENT SOLUTION.

Old technology may not meet these challenges. That's why Sony invented AIT, Advanced Intelligent Tape™ storage. To create AIT, Sony tape engineers worked side-by-side with Sony drive engineers, maximizing performance with proven technologies like helical scanning, a protective air cushion, a Memory In Cassette chip and Advanced Metal Evaporated (AME) tape. The differences are dramatic.

You'll hold down costs with the highest data density available today.<sup>1</sup> You'll shorten backup windows with fast data transfer, plus faster load times and faster file access times.<sup>2</sup> You'll run cleaner for 24/7 reliability.<sup>3</sup> And you'll have a wide choice of AIT-1, AIT-2 and AIT-3 storage solutions.

1. Compares data density (media compressed capacity divided by media area) for Sony AIT-3 cartridge with that of Mammoth-2, VXA-2, DLT8000, S-DLT 220 and LTO Ultrium 1, based on manufacturer's published specifications as of 10/9/01.

2. Compares media load time and file access time of Sony MIC enabled AITi260/S drive to that of IBM 3580 Ultrium, Seagate Viper Ultrium, HP Surestore Ultrium 230 and Quantum S-DLT 220 drives, based on manufacturer's published specifications as of 10/9/01.

3. Compares cleaning cartridge requirements and MTBF reliability (Power-On Hours) duty cycle of Sony AITi260/S AIT-3 drive to that of IBM 3580 Ultrium, Seagate Viper Ultrium, HP Surestore Ultrium 230 and Quantum S-DLT 220 drives, based on manufacturer's published specifications as of 10/9/01.





## ANTICIPATING YOUR EVERY NEED.

### WHATEVER YOUR TAPE STORAGE NEED, CHANCES ARE THERE'S AN AIT SOLUTION THAT FITS PERFECTLY.

From desktop to enterprise class environments Sony's AIT tape storage spans across an organization's backup requirements and provide a chance of perfect solutions for data protection and backup.

■ **DRIVES.** If you're currently backing up on DDS or DLT, or if you have no backup at all, AIT drives are the smart investment. Sony's 3.5-inch form factor means that the internal drives will fit your current DDS drive bay. And free bundled NovaStor TapeCopy software for AIT SCSI drives makes it considerably easier to migrate from other storage formats.

■ **AUTOLOADERS.** If you need even higher capacity, Sony offers AIT autoloaders. These are single-drive systems with capacity for up to 4 AIT-1 or AIT-2 cartridges.

■ **LIBRARIES.** If you're considering storage automation, Sony library systems provide the convenience of multiple drives and multiple cartridges. A Sony AIT library can deliver 2.1 Terabytes of compressed storage in just one rack unit of space — an industry first.



■ **NETWORKED ATTACHED STORAGE.** If you're tired of administering so many separate, server-attached tape drives, you're ready for AIT storage that connects directly to your network. Sony file servers and backup servers work hand-in-hand with Sony AIT libraries for smooth operation and simple administration.

■ **MASS STORAGE.** If your concern is Enterprise-class storage, Sony works with a long list of tape automation vendors to provide AIT enterprise solutions. These scale up to 76,000 cartridges, for more than 7,500 Terabytes of native storage.

## SONY AND STORAGE.

It's no surprise that breakthroughs like AIT come from Sony. After all, we have 52 years of experience in tape recording, and over 20 years in data media. Only Sony is a world leader in both data media and data drives. And Sony is a prime innovator in data storage, inventing, co-inventing and spearheading the data formats that define the industry.



## THE AIT FORMAT: THE SMART STORAGE INVESTMENT.

You may neither know nor care about the scanning and tape technology inside your storage systems. But you'll definitely appreciate the profound benefits that AIT storage delivers — benefits made possible by helical scanning and Advanced Metal Evaporated tape.



### ABOUT HELICAL SCANNING.

Unlike the old "linear serpentine" recording system, AIT drives use helical scanning, for spectacular data density and high reliability. How reliable is helical scanning? It's the technology Sony uses in \$100,000 professional camcorders that routinely work in the Costa Rican jungle, the Sahara desert, and the bottom of the Atlantic, where the nearest repair technician is thousands of miles away. All told, more than a dozen pro video formats use helical scan technology. The pro video formats using linear serpentine recording? Zero.





## ■ THE HIGHER CAPACITY YOU NEED.

With storage needs growing every year, the capacity of your data cartridges is not just a specification; it's a mission-critical concern. AIT storage meets your needs with a choice of three compatible formats: AIT-1, AIT-2 and AIT-3, featuring 35 GB, 50 GB and 100 GB of uncompressed data storage. This alone can change your life for the better. As one IT manager put it, "Instead of taking 25 tapes off-site, I take four." And thanks to Sony's Advanced Metal Evaporated tape, an AIT cartridge is small enough to fit in your shirt pocket.

## ■ A ROADMAP FOR FUTURE DATA GROWTH.

Not only does AIT tape offer vast storage now, the AIT roadmap should keep you ahead of data growth in the future. We've mapped the future out to AIT-6\* (800 GB native capacity).

\* This is a projection only and Sony makes no representation or warranty that it will actually develop or market AIT-4, AIT-5 or AIT-6 products.

## ■ HIGHEST DENSITY SAVES SPACE.

Hosted data center space can cost you \$300 per square foot per month. Desktop space is always at a premium. Fortunately, AIT tape delivers the highest data density available today.<sup>1</sup> Thanks to Sony's AME tape and helical scanning, AIT internal drives are currently 73% smaller than LTO® drives.<sup>2</sup> So they can fit in a standard 3.5-inch drive bay. And Sony used AIT technology to create the world's first tape library that's just a single rack unit high.

## ■ PROTECTS YOUR DATA BETTER.

Conventional tapes shed so much debris that the drives require frequent cleaning. This not only gums up the drive, it exposes your data to loss. AIT tape is different. The magnetic surface is protected by Sony's Diamond-Like Carbon coating that's 20 times harder than iron oxides, for far cleaner running. In addition, Sony's helical scanning requires 88% less tape tension than a typical linear scanning drive<sup>3</sup> and it protects the tape with an air cushion around the head drum. As a result, AIT-3 drives are specified to run at 100% duty cycle for 400,000 power-on hours — as much as 60% longer than competing drives.<sup>4</sup>

## ■ SHORTER BACKUP WINDOWS.

More and more business applications run 24/7. But with data growth, the tape storage that supports these applications needs longer and longer backup windows. Even Sony's entry-level AIT-1 drives solve this problem, transferring your data far faster than DDS-4, DLT4000, DLT1, SLR50, VXA-1 or Mammoth drives.<sup>5</sup>

## ■ FASTER DATA RECOVERY.

File restoration can be a nightmare, especially with nervous executives waiting for results. AIT cartridges can help. They're faster to load than single-reel tapes. And Sony's Memory In Cassette (MIC) chip enables the drive to fast-forward to the exact location of a specific file. Data load and access times for AIT Drives are on average 53% faster than LTO® Ultrium® 1 or S-DLT drives.<sup>6</sup>

1. Compares data density (media compressed capacity divided by media area) for Sony AIT-3 cartridge with that of Mammoth-2, VXA-2, DLT8000, S-DLT 220 and LTO Ultrium 1, based on manufacturer's published specifications as of 10/9/01.

2. Sony AITi260/S AIT-3 drive compared to Seagate Viper 200 LVD Internal Ultrium drive, based on manufacturer's published specifications as of 10/9/01.

3. Tape tension is 4 to 15 g for AIT-2 drives, 133 g for DLT4000 and DLT700 drives.

4. Compares cleaning cartridge requirements and MTBF reliability (POH) duty cycle of Sony AITi260/S AIT-3 drive to that of IBM 3580 Ultrium, Seagate Viper Ultrium, HP Surestore Ultrium 230 and Quantum S-DLT 220 drives, based on manufacturer's published specifications as of 10/9/01.

5. Based on manufacturers' published specifications as of 10/9/01.

6. Compares media load time and file access time of Sony AITi260/S AIT-3 drive to that of IBM 3580 Ultrium, Seagate Viper Ultrium, HP Surestore Ultrium 230 and Quantum S-DLT 220 drives, based on manufacturer's published specifications as of 10/9/01.

## AIT PRODUCTS: SMART SOLUTIONS TO REAL PROBLEMS.

As your storage needs evolve, it's easy to accumulate an array of incompatible data tape formats: one at the desktop, another for the workgroup, and still another for the data center. AIT solutions change all that. You can mix and match affordable AIT-1, advanced AIT-2 and high-capacity AIT-3 solutions. There's even an AIT write-once solution for long term file retention. And you get maximum interchangeability, because each of the three generations of AIT drives now shipping is fully read/write compatible with every previous generation of AIT tape.

### ENTERPRISE-CLASS SERVICE.

Sony AIT systems come with a 3-year limited warranty and a 24-hour swap coverage. For additional protection, Sony service contracts offer 4-hour response times (where available).

### BROAD INDUSTRY SUPPORT.

**AIT storage is one of the fastest growing data tape formats ever, attracting a full spectrum of support.**

- **BACKUP SOFTWARE.** Sony's AIT hardware is certified for Computer Associates BrightStor™ ARCserve, Veritas Backup Exec™ and NetBackup, Legato NetWorker®, Dantz® Retrospect™, IBM® Tivoli® Storage Manager, BakBone Netvault™ and CommVault® Galaxy™ software solutions.
- **OPERATING SYSTEMS.** AIT drives work with many flavors of UNIX®, Linux® and Microsoft® Windows® clients and servers.
- **DATABASE EXTENSIONS.** AIT products support Microsoft SQL Server, Microsoft Exchange Server, Sybase®, SAP, Informix®, and Oracle®.
- **RECORDING MEDIA.** AIT media is widely available from numerous sources, including our resellers and distributors- as well as our OEM partners (see [www.mediabysony.com](http://www.mediabysony.com) for details).

### TAKE THE NEXT STEP.

A Sony storage expert can survey your current storage practices, project your future needs, and propose a comprehensive, customized solution. To get started, speak to your Sony representative today.





**INFORMATION**



**SONY®**

**Sony Electronics Inc.**

Business Solutions and Systems Company

3300 Zanker Road, San Jose, CA 95134

[www.sony.com/storagebysony](http://www.sony.com/storagebysony)

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