

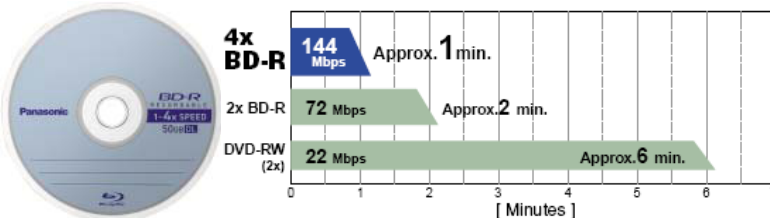


**Introduction**

CIT introduces 20TB Electronic Data Archive System to replace and reduce the currently used physical storage for conventional films with digital archiving system having 50+ years of data life. It is actually a jukebox device conceived to handle Blu-ray optical storage technologies. The biggest advantage of CIT/DRSAM-20TB Electronic Data Archive System is that it completely eliminates the degradation and ageing of currently stored radiographic data.

**Permanent Archive Media**

The CIT/DRSAM-20TB Electronic Data Archive System employs Blu-ray disk as the archive media to permanently store NDE data for a longer period of time. Blu-ray disk, which is the next generation optical storage technology, offers larger storage capacity and more data reliability as compared to other optical storage disks. Another vital benefit provided by Blu-ray disks is the fast 4x recording speed (upto 144 Mbps), which is accomplished through phase change technology. Therefore, Blu-ray is considered to be the best archive media for digital radiographic applications.



**Overview**

The CIT/DRSAM-20TB Electronic Data Archive System has been designed to meet the challenging requirements to store vast amount of NDE digitised and digital radiographic data. This system enables you to archive 20TB of your radiographic data on 400 Blu-ray disk media of storage capacity 50GB (single sided) each. The system is designed as a scalable unit i.e. you can further upgrade the system by mounting 200 additional disk media to increase storage capacity up to 30TB.

The CIT/DRSAM-20TB jukebox device can be used seamlessly with the CIT/DR4200 NDE retrieval management system, which is actually a system used for retrieving the data from electronic permanent archives efficiently and speedily. Multiple DRSAMs may also be setup in a distributed or centralized way with synchronisation among several archives connected to various CIT's digitised or digital radiographic systems. This enables the enterprise to manage multiple projects and the product life cycles.



Initially (400 Disks)  
Upgradeable to (600 disks)



**What Does It Do?**

Replaces the conventional film radiographs archives system with electronic archiving.

**While Conventional Film Archive Requires**

- ♣ Physical space (buildings, storage spaces)
- ♣ Environment controlled
- ♣ Radiography ancillary items wrappers, labels, films, shelves
- ♣ Transportation cost for referral
- ♣ Complicated archive retrieval
- ♣ Slower exchange of or access to data
- ♣ Misfiling
- ♣ Cumbersome operations
- ♣ Time consuming
- ♣ Expensive retrieval

**CIT/DRSAM-20TB Electronic Data Archive System Offers**

- ♣ Computing solutions on Blu-ray disks
- ♣ Information archived in structured data format
- ♣ Minimum storage space requirement
- ♣ Local or remote data retrieval
- ♣ Maximum system availability
- ♣ Same information can be reviewed and shared by more than one person at the same time from different locations around the globe operating on the same objective
- ♣ 50+ years of data life
- ♣ Comfortable operating facility
- ♣ Time efficient
- ♣ Extremely powerful
- ♣ Cost-effective solution
- ♣ Faster retrieval

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## **Technical Specifications**

### **1. Product Archival**

- Digitised radiograph films
- Digitally captured radiographs
- Digitised NDE documents and reports
- Other digital records

### **2. Disk Storage Capacity and Details**

- Blu-ray: 50GB (Single Sided)
- Media Type: High-density optical disk
- Encoding: MPEG-2, H-264/MPEG-4 AVC, VC-1
- Laser wavelength: 405nm (blue laser)
- Data transfer speed: 9MB/s
- Disk diameter: 120mm
- Disk thickness: 1.2mm
- Protection layer: 0.1mm
- Media life: 50+ years
- Media supplier: Multiple

### **3. DRSAM Physical Architecture**

- A module of 400 disk capacity
- Maximum 600 disk capacity
- Estimated formatted: 20TB (Maximum 30TB)
- Bar code disk identity

### **4. Media Capacity**

- 400 disks (Upgradeable to 600 disks)

### **5. Total Storage Capacity**

- 20TB (Upgradeable to 30TB)

### **6. Number of Magazines**

- 8 (Max 12)

### **7. Number of Disks per Magazines**

- 50

### **8. Number of Drives**

- 6 (Max 12)

### **9. Changeover Time**

- 4.5 Sec

### **10. Interface Drives**

- High speed LVD SCSI interface (160MB/sec) shielded 68P (Pin Type, SCSI III compliant)

### **11. Robotics Interface**

- High Speed LVD SCSI Interface

### **12. Other Interfaces**

- RS-232 (for diagnosis); 10/100BaseTX(NAS)

### **13. Media Handling**

- Tray based media handling for optimal lifespan

### **14. Housing Features**

- Dust proof housing with internal air filter mechanism

### **15. Dimensions (W \* H \* D)**

- 777\*1641\*807

### **16. Weight (Empty)**

- 104 Kg

### **17. Power Consumption**

- 140w

### **18. MSBF (Mean Swaps Between Failures)**

- 2.5 million swap cycles

### **19. DRSAM Storage Functions**

- Mounts/dismounts of disk media
- Houses 400 disk slots
- Formatting of disk media utility
- Disk space utilization management
- Disk media identification via bar code
- Project information management and segregation of disk details
- House keeping quality statistics
- Disk status
- Fault logging and log in statistics
- Archive management statistics add in
- Remove volume
- Historic logs

### **20. Radiographic Image Data Storage**

File Size	Number of Files Stored
25MB	838861 (Approx)
50MB	419430 (Approx)
100MB	209715 (Approx)

### **21. Product Ordering Code**

Part Code	Description
CIT/DRSAM-20TB [Blu-ray]	CIT Digital Radiography Scalable Archive Management 400 Disk Slots
CIT/DRSAM-200 Upgrade	Add 200 slots in the above product to upgrade storage capacity up to 30TB
CIT/DRSAM Blu-ray disk media	50GB media with bar codes
CIT/DRSAM UPS	Uninterruptible power supply unit for DRSAM

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