Professional Optical Disc Library using Blu-ray Discs™. Ideal for Extended Storage of Important Data, such as High-Definition Images, Videos, Drawings, and Customer Data.

- High Reliability — Ideal for Extended Data Storage
- Low Power Consumption and Low Running Costs
- Large-Capacity, Space-Saving System with High-Speed Access
- NAS Connection to an Existing LAN Environment
The Data Archiver is an optical disc library for the safe, extended storage of valuable data. Up to 90 optional Data Archiver Magazines, each holding 12 archival, recordable Blu-ray Discs™, are automatically mounted to the drive system for reading and writing. This provides the high reliability, low running costs, and space-saving efficiency that are exclusive to optical discs. In addition, parallel operation of 12 drive units enables high-speed transfer of large-volume data. All of this makes the Data Archiver ideal for extended storage of data such as official documents, medical images, engineering drawings, videos and photos.

- **Data Capacity:** 108 TB max.
- **Transfer Rate:** 216 MB/s max. (using RAID 0)
- **RAID 0, 5, 6 supported.**
Data Archiver Unit Specifications

Product Number: SAS Interface Model: LB-DM90A (1 Port Model)  
LB-DM90B (2 Port Model)  
LB-DM90S (1 Port Model)  
LB-DM90T (2 Port Model)  
LB-DM90F (1 Port Model)  
LB-DM90G (2 Port Model)

iSCSI Interface Model: LB-DM90S (1 Port Model)  
LB-DM90T (2 Port Model)

FC Interface Model: LB-DM90F (1 Port Model)  
LB-DM90G (2 Port Model)

Dimensions (W x H x D): 447 mm x 260 mm x 1,040 mm  
(17.6 inches x 10.3 inches x 41.0 inches) excluding protrusions  
483 mm x 262 mm x 1,061 mm  
(19.1 inches x 10.4 inches x 41.8 inches) including mounting hardware and protrusions

Weight: Approx. 58 kg (128 lb) excluding magazines in the unit

Power Consumption: 5 A (approx. 7 W at stand-by mode)

Host Interface:  
LB-DM90A: SAS 6 Gbps, 1 Port  
LB-DM90B: SAS 6 Gbps, 2 Ports  
LB-DM90S: iSCSI 10 Gbps, 1 Port  
LB-DM90T: iSCSI 10 Gbps, 2 Ports  
LB-DM90F: FC 8 Gbps, 1 Port  
LB-DM90G: FC 8 Gbps, 2 Ports

Management Interface:  
LAN: 1 Gbps, 2 Ports (for web interface, SNMP and Wake on LAN)  
USB2.0: 2 Ports (for software update, save/restore of setting data, log data saving and maintenance)  
I/O: 1 Port (monitoring and control external power supply)

Available Media: Data Archiver Magazine (option)

Amount of Magazines: Max. 90 magazines to hold in the unit

Recording/Playback System: Drive system (consists of 12 drive units)

Max. Data Capacity: 108 TB*: (when RAID 0 is applied)  
99 TB*: (when RAID 5 is applied)  
90 TB*: (when RAID 6 is applied)

Data Transfer Rate: 216 MB/s: (when RAID 0 is applied)  
198 MB/s: (when RAID 5 is applied)  
180 MB/s: (when RAID 6 is applied)

Access Time: 1,100 ms (average)

Magazine Transport Time: 65 sec. (from the magazine stack to the drive system)

Management Interface:  
LAN: 1 Gbps, 2 Ports (for web interface, SNMP and Wake on LAN)  
USB2.0: 2 Ports (for software update, save/restore of setting data, log data saving and maintenance)  
I/O: 1 Port (monitoring and control external power supply)

Supplied Accessories: 24V power cable (3 m, 1 pc), Magazine stack (10 pcs),  
19 inch rack mounting angles (2 pcs), Installing handles (4 pcs)

*1: 1 TB=1,000,000,000,000 bytes (before formatting)

Disc Carrier  
The carrier loads and unloads the Data Archiver Magazine discs transferred by the Magazine Carrier to the 12 drive units.

Drive System  
The 12 drive units simultaneously provide distributed recording and playback for the 12 discs.

Magazine Carrier  
Transfers and returns the magazines to and from the Disc Carrier.

Status Monitor

Specifications are subject to change without notice.

Data Archiver Magazine (option) Specifications

Product Number: LM-BM12LB1*2

Data Capacity: 1.2 TB*2 (Each magazine holds 12 archival, recordable Blu-ray Discs™)

Dimensions (W x H x D): 129.5 mm x 20.8 mm x 131.3 mm (5.10 inches x 0.82 inches x 5.17 inches)

Weight: Approx. 300 g (0.66 lb)

Temperature/Humidity:  
Operation: Temperature: 10 °C to 55 °C (50 °F to 131°F)  
(gradient: 15 °C/h (27 °F/h) or less)  
Humidity: 20 % to 80 % RH (with no condensation)

Transport: Temperature: 20 °C to 60 °C (68°F to 140°F)  
Humidity: 10 % to 90 % RH (with no condensation)

*1: 1 TB=1,000,000,000,000 bytes (before formatting)

Data Archiver Manager Software (option) System Requirement

Product Number: LB-AM10AN

System Requirements

OS: Microsoft® Windows Server® 2008 R2 (64bit) Standard Edition

Middleware: Microsoft® SQL Server® 2012 Express (64bit) or Microsoft® SQL Server® 2012 (64bit)

Hardware: Satisfy the OS and database requirement*1

DVD-ROM Drive: Necessary to install this software

HDD Capacity: 600 MB or more for installation and 1.2 TB or more for cache-memory are necessary**

Monitor: Satisfy the OS requirement

Interface: Connecting to storage device  
(conform the storage device, SAS/FC/network)

*1: The necessary resource changes with utilization status.

** Specifications are subject to change without notice.
Data Archiver Unit Dimensions

Unit: mm (inches)

1040 (41)
1061 (41.8)
447 (17.6)
260 (10.3)
262 (10.4)
483 (19.1)

Front

Rear

Front Terminal

Rear Terminal

SAS Interface Model
- 1 Port Model (LB-DM90A)
- 2 Port Model (LB-DM90B)

iSCSI Interface Model
- 1 Port Model (LB-DM90S)
- 2 Port Model (LB-DM90T)

FC Interface Model
- 1 Port Model (LB-DM90F)
- 2 Port Model (LB-DM90G)

* Both ports of 2-port models cannot be used simultaneously. Pass failover is also not supported.
Valuable data is safely stored for an extended time by using a Data Archiver Magazine to hold 12 archival, recordable Blu-ray Discs™, each of which has a data storage life* of 50 years or more. RAID technology is used to add parity to the data in the 12 optical discs for protection from unforeseen damage. The drive units feature a highly reliable pickup, a structure that prevents dust from penetrating the drive interior, and other design elements specific to professional systems.

*An estimated value derived from accelerated tests conducted by Panasonic at a temperature of 30 ºC and humidity of 70 %.

**Low Power Consumption and Low Running Costs**

Unlike hard disks and magnetic tape, long-life archival, recordable Blu-ray Discs™ do not require periodic migration (transferring to a new storage medium) for a long period of time. This greatly reduces the labor involved in migration, the cost of purchasing new media, and the power required for the process. The Data Archiver is also compatible with the Wake on LAN function, and consumes only about 7 watts while on standby.

**Large-Capacity, Space-Saving System with High-Speed Access**

In addition to the use of compact magazines, we have pursued the maximum capacity ratio (the data storage capacity per unit of volume). The Data Archiver can hold up to 90 magazines, giving it a maximum data storage capacity of 108 TB. The magazines can also be removed from the drawers at the front of the Data Archiver for external archiving. As for performance, distributed recording and playback enable continuous data reading and writing at a maximum speed of 216 MB/s (using RAID 0).

**NAS Connection to an Existing LAN Environment**

Using optional Data Archiver Magazine software,* the Data Archiver can be easily connected to an existing IT system via LAN. CIFS network protocol supports the NAS head function, and allows multiple Data Archivers and all of the Data Archiver Magazines to be managed as a single logical volume.

*Compatible with Windows Server 2008 R2.

**Blu-ray Disc™**

Optical discs have evolved into highly reliable data storage media due to a vast accumulation of achievements over their long history. Archival, recordable Blu-ray Discs™ have inherited those achievements and further raised the level of reliability to attain a data storage life* of 50 years or more. They require no power for storing data, and produce no heat. They are highly resistant to changes in temperature and humidity, and can be stored at room temperature.

*An estimated value derived from accelerated tests conducted by Panasonic at a temperature of 30ºC and humidity of 70%. 

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**Data Archiver Magazine LM-BM12LB1**

The Data Archiver Magazine is a medium designed exclusively for data archiving. It holds 12 archival, recordable Blu-ray Discs™ within a shell that is only 20.8 mm thick, for a total of 1.2 TB of archival storage. It protects the discs from dust, fingerprints, and scratches. By distributing and recording data onto 12 discs, it achieves maximum reading and writing speeds of 216 MB/s (using RAID 0). It also applies RAID technology to increase reliability in order to protect valuable data from unforeseen damage. The magazine has a built-in HF-band RFID. It also allows barcode label* management.

*1-Dimensional Code 39, 2-Dimensional Code: QR Code (Model 2) supported.
Recommendation Products

HFE1600-24/S
Power supply unit

HFE1600-S1U
Shelf rack
AC Code : Z-J

TDK-Lambda Corporation  http://www.tdk-lambda.com/