# **Bering**

# **OptiPac**™

### Magneto-Optical Disk Subsystems For Hewlett-Packard Computers

Mass Storage Solutions For Legacy and New HP 9000 and 1000 Computers

**HP-IB** and MAC Interfaces



Magneto-Optical Disk Drive Subsystems (With Combination Hard Disk)

MO Storage for High Capacity Data Archiving

Magneto-Optical removable media drives can store and retrieve up to 4.86GB of data. MO technology offers significant advantages over other removable storage devices, tape backup, and fixed hard disks—long data archival life, safety, and reliability. MO media cartridges are resistant to environmental conditional and electromagnetic interference. Projected archival and electromagnetic interference. Projected archival life of the disk media is over twenty-five years. This makes the OptiPac MO subsystem the best choice for keeping data safe for a long, long time.

OptiPacs are great for many chores that require long archival life, data security, data exchange, and transportation of large databases. **Store** large image files. Archive important information (AKA: data) to keep it safe. **Expand** your storage capacity. **Transport** data, pick up a cartridge and carry it with you. **Exchange** data with other OptiPac systems. **Backup** the hard disk. It walks, it talks, it crawls on its belly like a reptile...Need we say more?

**Drop-In Replacements**Retrofitting your HP computer is relatively simple.
OptiPacs do not require additional software utilities or need any hardware changes. Most importantly, there is no need to "regenerate" the operating system when installing the new disk—just plug it in, configure, and get to work. This saves time and massive headaches, particularly when retrofitting an older HP 1000 system with RTE.

OptiPac Models

There are two basic model configurations for the OptiPac MO series: single 5.6GB MO drive and a combination MO drive with HDD. The combination MO/HDD subsystem creates a storage symbiotic relationship; the HDD generates the data and can then copy it to the MO drive stores for safekeeping.

The OptiPac MO Series 7605 and 7652 models support HP 9000 and HP 1000 systems to replace HP's standard CS/80 disk drives with HP-IB interfaces. The 7652B supports AMIGO disk drives with HP-IB interfaces and the 2452M supports AMIGO disk drives interfaces and the 2652M supports AMIGO disk drives with the MAC disk controller. Bering includes a separate 2000MX Disk Controller Kit with the 2652M to replace the computer's existing HP 13037A-D MAC Disk Controller.

## MAC Multi-Disk Support—System + Peripheral

Bering also offers a special multiple disk configuration on single HP 1000 (M, E, or F) systems with MAC disk controller. The MultiPac 2652S serves as the "System"

disk and supports up to six 2652P "Peripheral" disk subsystems.

**Disk Emulation** 

Many legacy HP systems are limited in supporting specific HP disk drives. Bering's OptiPac can emulate these older HP disk drives such as HP 7906 or HP 17907. In these cases Bering emulates the original disk drive by partitioning the HDD or MO media cartridge into multiple 10MB volumes or 20MB volumes or "RINGS." This limitation does not apply to CS/80 disk drives and the OptiPac does not need to specifically emulate a HP disk drive. (Note that a specific disk emulation may distant the actual disk volume size.) emulation may dictate the actual disk volume size.)

#### LCD Controls and Disk Utilities

The OptiPac includes a front-panel LCD with push-button controls to use the system's built-in disk utilities. These utilities are useful for system configuration, set addresses, perform basic diagnostics, Ring-to-Ring copy, and to do off-line "disk-to-disk" copy functions. perform

HP Compatibility
Refer to Bering's Selection Guide on our website at
www.bering.com for specific O/S, Disk Emulation, and
Bus Interface support on HP 1000 and HP 9000
computers. Alternatively, you may call Bering directly
for assistance in selecting the right storage system for you.

Bering Technology, Inc. is the mass storage specialist for Hewlett-Packard 9000, 3000 and 1000 computers since 1981. Our company provides hard disk, removable disk, and tape solutions for a wide range of HP legacy systems.

# ptiPac Magneto-Optical Specifications<sup>1</sup>

M	odels	Description	Interface	Disk Protocol
	7605 7652	OptiPac 5.2GB MO, Single Drive OptiPac 5.2GB MO + 2.6GB HDD	HP-IB HP-IB	CS/80 and SS/80 CS/80 and SS/80
	7652B	OptiPac 5.2GB MO + 1.0GB HDD	HP-IB	AMIGO
	2652M	OptiPac 5,2GB MO + 1.3GB HDD	MAC	AMIGO
	2652S	OptiPac 5.2GB MO + 1.3GB HDD, System Disk Multiple Disk Support	MAC	AMIGO
	2652P	OptiPac 5.2GB MO + 1.3GB HDD, Peripheral Disk (Connects to 2652S)	SCSI	AMIGO

#### Performance

#### **Power Requirements**

Formatted Capacity (MB) <sup>2</sup>	$4.86GB^3$	1.0GB to 2.6GB	Line Voltage 90-260V
Avg. Seek Time (ms) <sup>2</sup>	10/12 (r/w)	10	Line Frequency 47Hz-440Hz
Rotational Speed (RPM)	3300	4500	Max Current 1.1 Amp
Maximum HP-IB Speed (MB/sec) <sup>4</sup>	1.0 1.0		
Maximum MAC Speed(MB/sec) <sup>4</sup>	4.0 4.0		

#### Miscellaneous

Interface HP-IB (7600x)

MAC (2652x)

MO HDD

Rackmount HP Standard Rack or EIA/RETMA 19" Standard (Bering Model Number: ACCS-7204)

5" x 12.8" x 11" (127mm x 325mm x 279mm) **Unit Dimensions** Model 76xxy/26xxy

Net Weight Up to 27 lbs. (12.6kg)

One Year Limited System Warranty Warranty

All information is subject to change without notice.

Formatted capacity at 1024 bytes/sector. Capacity is limited to specific volume size for HP disk emulation. MO media cartridge is double-sided.

All transfer rates are dependent on computer types and application environment.



### Bering Technology, Inc.

1400 Dell Avenue, Ste. B Campbell, CA 95008-6620 USA

#### Find Out About It—Contact Bering Today!

Worldwide Tel@ 408.364.6500 USA Toll-Free@ 800.237.4641 Fax@ 408.364.6501 E-mail@ info@bering.com Web@ www.bering.com