



# NEW **OPTICAL STORAGE TECHNOLOGIES**

Blu-ray | HD DVD | HOLOGRAPHIC

**maxell**  
[www.maxell.com](http://www.maxell.com)

# MAXELL LEADS OPTICAL MEDIA TECHNOLOGY NOW AND INTO THE FUTURE.

Optical media performance has been accelerating at an extraordinary rate. Capacities double regularly, and transfer rates increase constantly. Going forward into the future, the landscape promises to change even faster, and Maxell will continue to lead the charge – developing new technologies and innovative solutions to meet the ever-increasing demand for data storage.



## Blu-ray

**MAXELL Blu-RAY DISCS ARE IDEAL FOR STORING LARGE AMOUNTS OF DATA AND RECORDING HIGH DEFINITION (HD) VIDEO.**

Maxell Blu-ray discs have been especially designed to meet the ever-increasing demands of business-critical data storage.

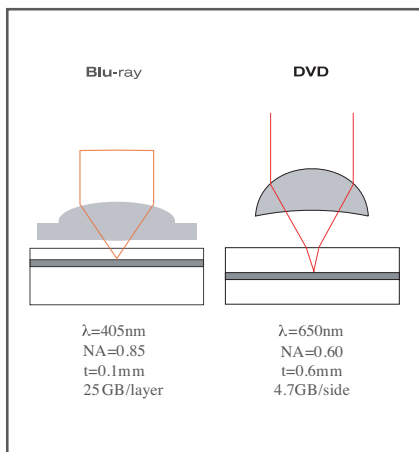
### FEATURES

- A recordable disc that offers the speed and capacity for the most demanding data storage applications
- Storage for data, images and video
- Capacity for over 25,000,000 pages of text (Approx. 83,000 300-page books)
- More than 5 times the capacity of DVD (4.7GB vs. 25GB)
- More than 5 times the capacity of dual layer DVD (8.5GB vs. 50GB)
- More than 3 times the transfer rate of DVD (11.08Mbps vs. 35.97Mbps)
- Durable hard coat that resists scratches, fingerprints and ink marks
- Read compatibility expected with current CD and DVD media formats

### APPLICATIONS

- Specifically designed for high-capacity data backup and archival storage
- Dual layer ideal for recording more than 50 gigabytes of data and information without turning the disc over

SCHEMATIC COMPARISON



### Blu-ray SPECIFICATIONS

Blu-ray	BD-R	BD-RE
TYPE	WRITE ONCE	REWITABLE
Capacity (single layer)	25GB	25GB
Capacity (dual layer)	50GB	50GB
Data Transfer Rate	35.965~71.930Mbps (1X~2X)	35.965~71.930Mbps (1X~2X)
Disc Diameter	120mm	120mm
Disc Thickness	1.2mm (0.1mm cover + 1.1mm)	1.2mm (0.1mm cover + 1.1mm)
Cartridge	Optional	Optional
Recording Film	Inorganic Dye	Phase Change
Laser Wavelength	405nm (blue violet)	405nm (blue violet)
Lens N/A	0.85	0.85

# HD DVD



HD DVD

**MAXELL HD DVDS ARE PERFECT FOR STORING LARGE AMOUNTS OF DATA AND FOR HIGH-DEFINITION (HD) VIDEO RECORDING.**

Maxell HD DVDs are the next generation in storage media. Using a similar disc structure as conventional DVDs, they offer the advantage of high volume data storage at an affordable cost.

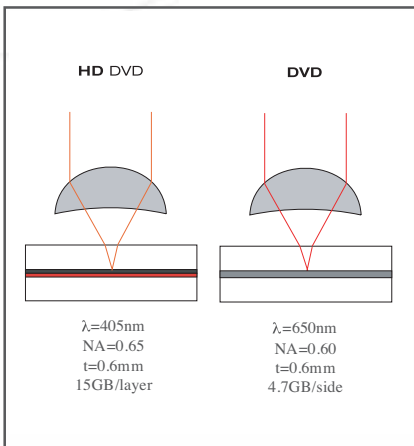
## FEATURES

- A recordable disc that offers the speed and capacity for the most demanding data storage applications
- Storage for data, images and video
- Capacity for over 15,000,000 pages of text (Approx. 50,000 300-page books)
- Read compatibility expected with current CD and DVD media formats
- More than 3 times the capacity of DVD (4.7GB vs. 15GB)
- More than 3.5 times the capacity of dual layer DVD (8.5GB vs. 30GB)
- More than 3 times the transfer rate of DVD (11.08Mbps vs. 36.55Mbps)

## APPLICATIONS

- Specifically designed for high-capacity data backup and archival storage
- Dual layer ideal for recording up to 30 gigabytes of data and information without turning the disc over

SCHEMATIC COMPARISON



## HD DVD SPECIFICATIONS

HD DVD	HD DVD-R	HD DVD-RW
TYPE	WRITE ONCE	REWITABLE
Capacity (single layer)	15GB	15GB
Capacity (dual layer)	30GB	30GB
Data Transfer Rate	36.55 Mbps (1X)	36.55 Mbps (1X)
Disc Diameter	120mm	120mm
Disc Thickness	1.2mm (0.6mm x 2)	1.2mm (0.6mm x 2)
Cartridge	Optional	Optional
Recording Film	Organic Dye	Phase Change
Laser Wavelength	405nm (blue violet)	405nm (blue violet)
Lens N/A	0.65	0.65

**maxell**

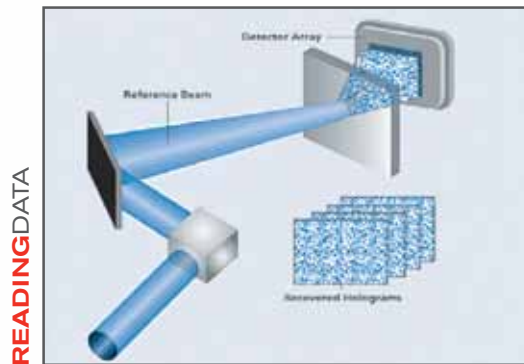
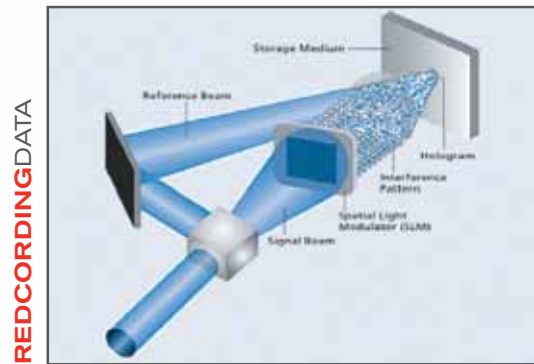


# HOLOGRAPHIC

## MAXELL HOLOGRAPHIC DISCS PROVIDE THE ULTIMATE OPTICAL MEDIA SOLUTION FOR DATA STORAGE AND HIGH-DEFINITION (HD) VIDEO RECORDING.

Maxell Holographic discs offer unsurpassed capacities and extremely fast transfer rates that are ideal for storing and archiving data, images and video. Holography breaks through the density limits of conventional technology by going beyond only recording on the surface and recording to the full depth of the disc. Unlike other technologies that record and read one data bit at a time, holographic technology records and reads one million bits of data with a single flash of light.

- Holds approximately 150,000,000 pages of text (Approx. 500,000 300-page books) on a single disc at 160Mbps
- Records and reads 1.2 million bits of data at a time
- Comparable to mid-range tape with high capacity and transfer rate
- Conversion from tape to holographic disc saves space, decreases maintenance and increases longevity of data life
- More than 63 times the capacity of DVD (4.7GB vs 300GB)
- Approximately 35 times the capacity of double layer DVD (8.5GB vs. 300GB)
- More than 14 times the transfer rate of DVD (11.08Mbps vs. 160Mbps)



- Joint Development with InPhase Technologies, Inc.
- Perfect for storing large amounts of data
- Meets compliance policies and regulations

### HOLOGRAPHIC SPECIFICATIONS\*

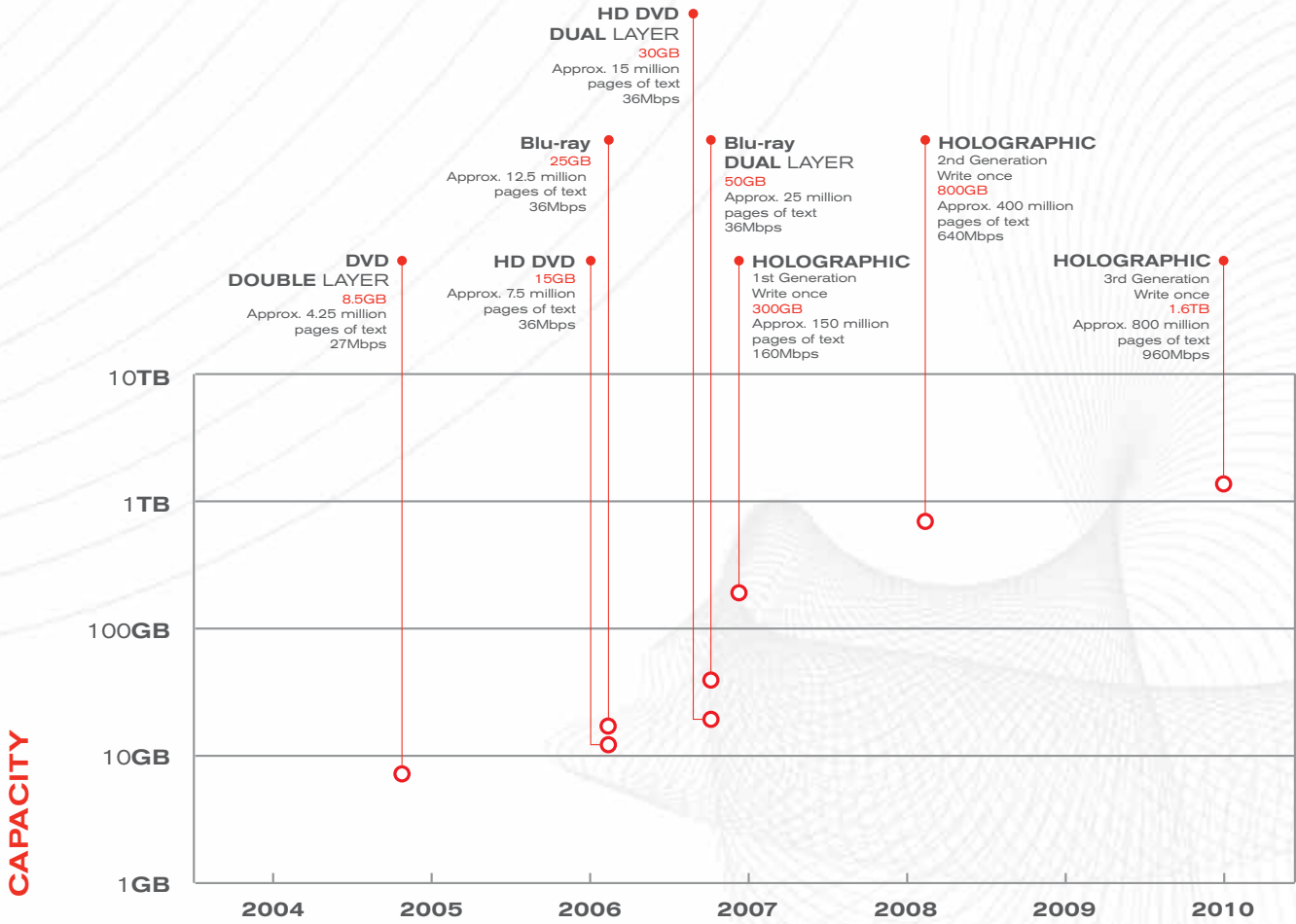
YEAR	CAPACITY	TRANSFER RATE
2006	300GB	160Mb/sec
2008	800GB	640Mb/sec
2010	1.6TB	960Mb/sec

- **DISK DIAMETER** 130mm
- **WAVELENGTH SENSITIVITY** 407nm
- **WRITE ONCE**
- **3 YEAR SHELF LIFE**
- **50+ YEARS ARCHIVAL LIFE**

\*All specifications are preliminary and subject to change



# NEW TECHNOLOGIES ROADMAP





**maxell**

For more information, visit our website at [www.maxell.com](http://www.maxell.com).  
For technical support call **1-800-377-5887**.

**Maxell Corporation of America** 22-08 Route 208, Fair Lawn, New Jersey 07410  
**Maxell Canada** 50 Locke St. Unit #2, Concord, Ontario, Canada L4K5R4  
**Maxell Latin America** Plaza Btsh, Calle 50, Panama City, Panama

© 2006 Maxell Corporation of America