

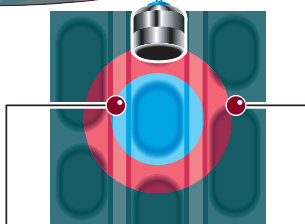
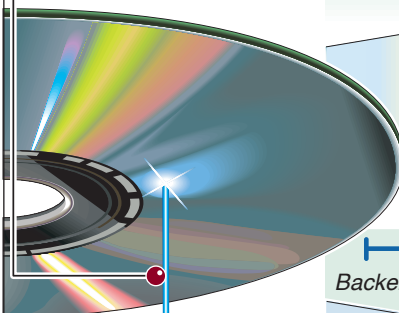
# Next-generation DVD format war looms

A battle for the future of home video is set to erupt as technology and entertainment giants line up behind two rival standards for high-capacity, high-definition DVDs. But despite their technical merits, the prize will go to whichever brings consumers the best web-linked, interactive content

## Blue laser technology

Used by both formats for up to 3.5x higher data density

Double layer discs of both formats – with two reflective **memory layers** – can hold double capacity



## Blue laser

Wavelength 405nm\*.  
Smaller focal spot  
can read smaller  
data-carrying **pits**  
in tighter **tracks**

## Red laser

650nm  
(standard DVD)



## BLU-RAY (BD-ROM)

Single-sided: 23-27Gb

3+ hours high-definition video

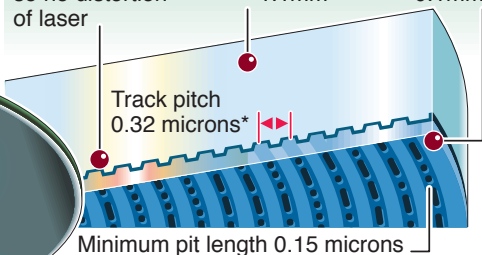
Backers include Sony, Philips, MGM, Fox

## Memory layer

Close to surface  
so no distortion  
of laser

Polymer  
substrate  
– 1.1mm

Protective  
silica coat  
– 0.1mm

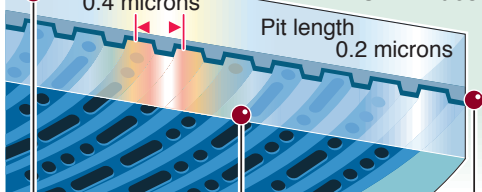


## HD-DVD

Backers include Toshiba, Sanyo, Time Warner

Single sided: 15-20Gb

2 hrs HD video



Polycarbonate  
substrate, 0.6mm

Optical layer  
– 0.6mm

Memory  
layer

*HD-DVDs manufactured using same process and equipment as standard DVDs. BDs are cheaper to produce but require new tooling and application of protective coat*