

For Immediate Release:

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**JVC Develops Low Cost  
“Extended DUV” Mastering System**

*New Technology Glass Master Recording System*

*Uses Deep Ultraviolet (DUV) Laser to Create Read-only Blu-ray Disc*

*Masters for the Same Cost as DVD Masters*

Victor Company of Japan, Ltd. (JVC) developed a proprietary “Extended Deep Ultraviolet Mastering System” (provisional name) that manufactures read-only Blu-ray master discs known as BD-ROM for the same cost as DVD master discs. BD-ROM and Blu-ray discs store over 2 hours of high-definition video.

JVC’s new system records this master optical disc. It shines a laser beam corresponding to the formatted content signal on a spinning glass disc coated with photoresist made of photosensitive polymer resin. This optically activates the photoresist to create a small pit or depression that stores the signal.

In the DVD mass replication process, the glass master is what stampers are in turn made from. The final stamped disc is what is standard in any retail DVD software or music product.

Until now, manufacturing high-capacity BD-ROM glass masters required an expensive electron beam system with a beam finer than a laser beam, as well as special optics and photoresist material created in a vacuum. The manufacturing cost of BD-ROM master discs was therefore significantly higher than DVD master discs.

JVC’s newly developed Extended Deep Ultraviolet Mastering System uses a deep ultraviolet laser beam to manufacture BD-ROM masters with just a small modification to a conventional DVD master recording system which uses blue violet to ultraviolet rays. For this reason it produces BD-ROM master discs for the same cost as DVD master discs.

JVC anticipates the spread of BD-ROM mass production systems using this system.

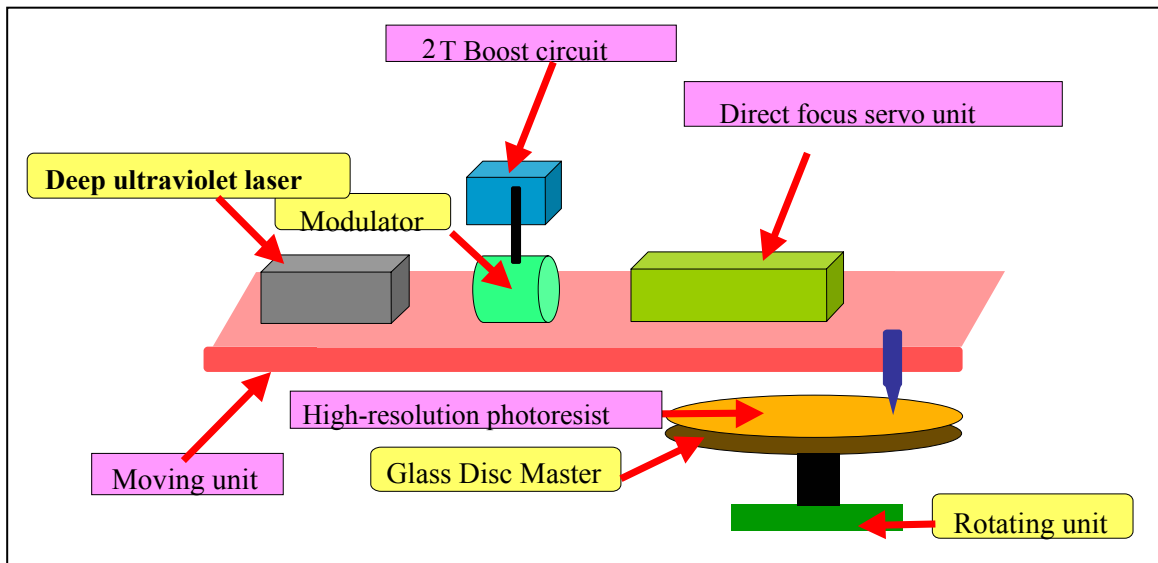
< Extended DUV Mastering System >

(1) The system is based on a conventional DVD master recording system, but uses a deep ultraviolet laser with a shorter wavelength than lasers used for DVDs. JVC improved the

precision of the moving unit that holds the laser beam housing to enable highly accurate signal recording on the optical disc master.

- (2) The newly developed Direct Focus Servo Unit dramatically improved lens height precision and stability during master recording. This reduced focus variation by over 90% compared to conventional servo circuits. It successfully stabilizes recording on spinning BD-ROM masters.
- (3) To create the microscopic pits or small depressions made during signal recording, JVC developed a new “2T Boost” record compensation circuit that uses a proprietary method to create clear pit formations and strengthen the signal. Playback signal jitter was reduced by 3%.
- (4) JVC uses a newly developed high-resolution photoresist for the BD-ROM master disc recording material. This increased the finest pit resolution, reduced pit edge roughness, and thus significantly reduced noise. Additionally, the new photoresist is applied to the spinning disc without needing vacuum equipment, and this allows its use in unmodified DVD manufacturing equipment.

<Schematic Diagram of Extended DUV Mastering System >

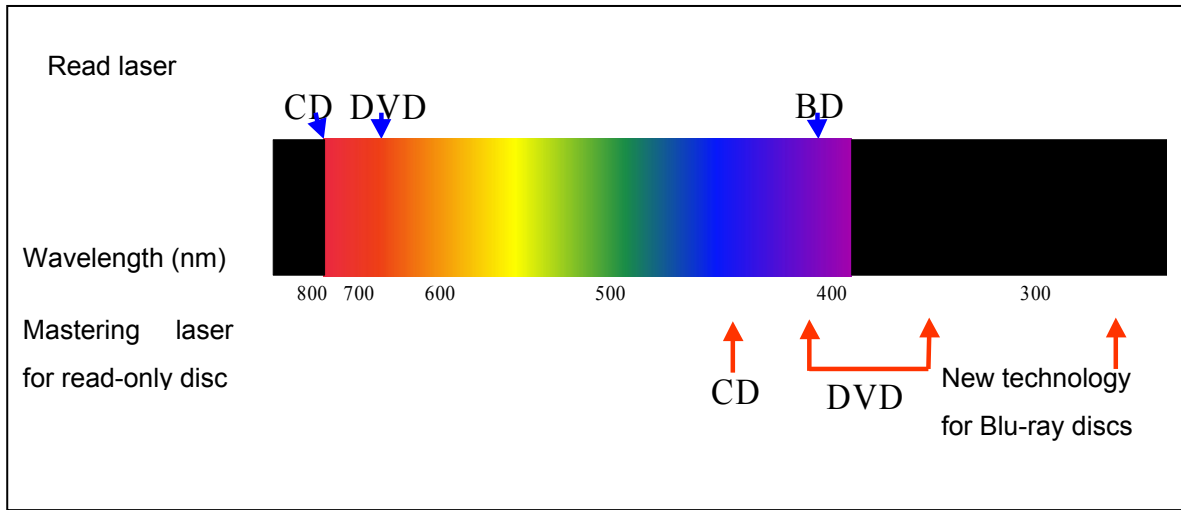


<About Read-only Blu-ray Discs>

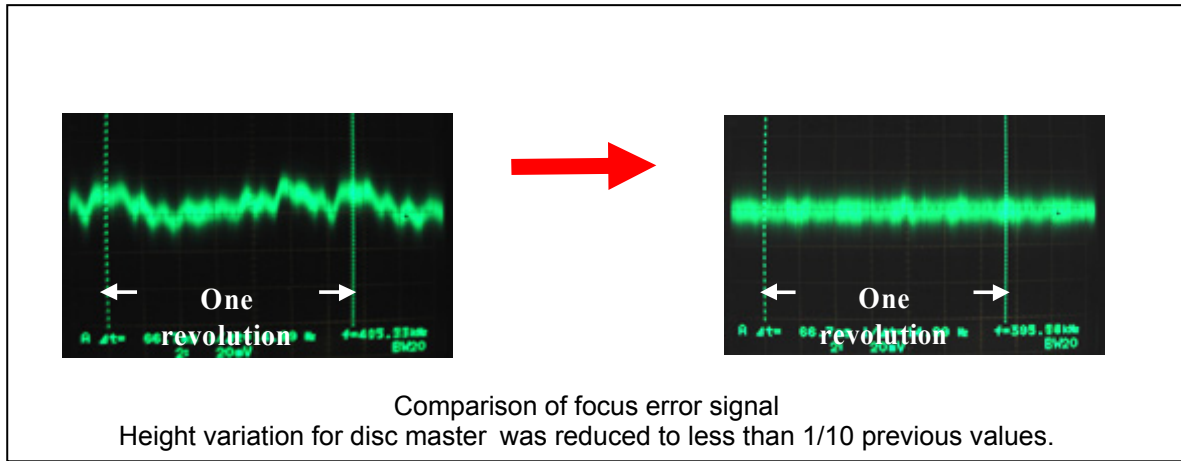
The Blu-ray Disc Founders (BDF), made up of 13 leading Consumer electronic, PC and Media manufacturers, are currently finalizing the read-only Blu-ray disc standard, as well as developing and promoting Blu-ray discs.

The BDF was created in May 2002. The 13 companies comprising the BDF are Dell Computer, Hewlett-Packard, Hitachi, LG Electronics, Matsushita Electric Industrial, Mitsubishi Electric, Pioneer, Philips, Samsung Electronics, Sharp, Sony, TDK, and Thomson Multimedia.

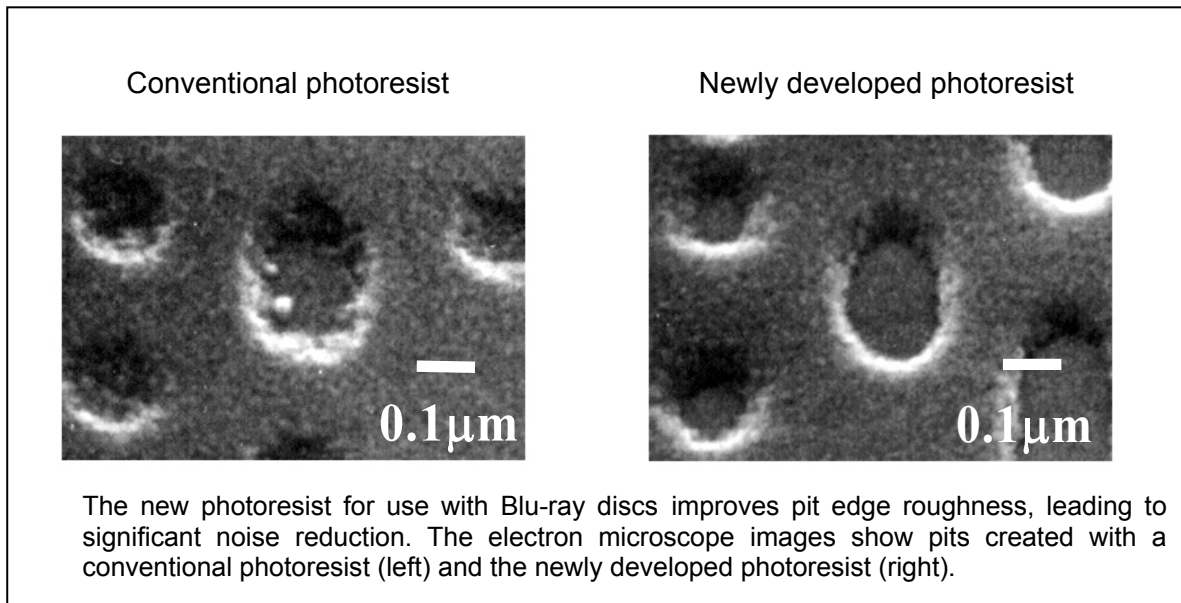
<Light Wavelength used for Optical Discs>



<Effect of Direct Focus Servo Unit>



<Newly Developed High-Resolution Photoresist>



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