

# JVC

The Perfect Experience /

## P R E S S   R e l e a s e

For Immediate Release:

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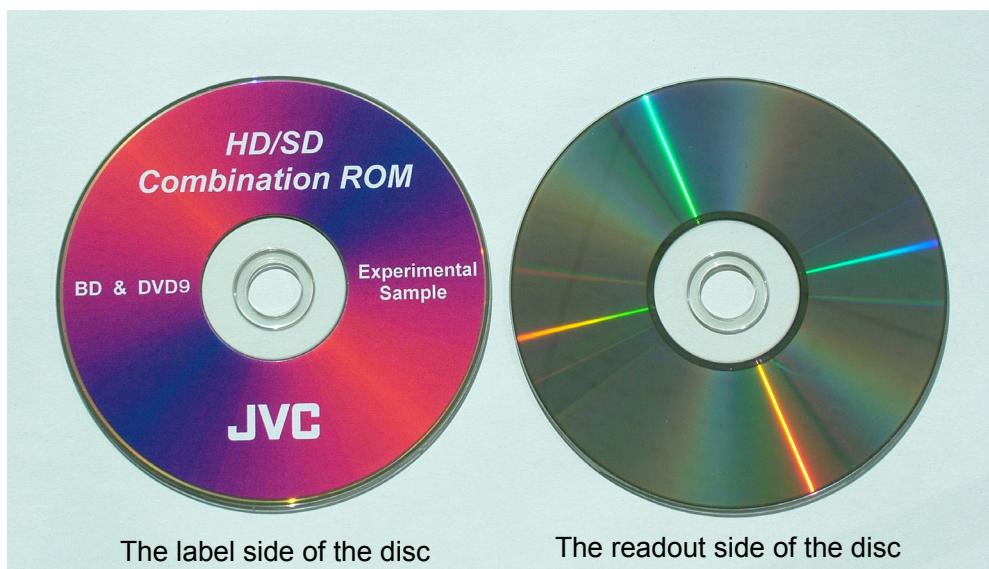
### JVC Develops World's First\* Blu-ray/ DVD Combo ROM Disc Technology, Enabling 33.5GB Storage Capacity

*Development of Proprietary, High-Performance Reflective Film Enables Triple Layer Structure  
Comprised of Blu-ray Disc Layer and DVD Dual Layer*

*New Media Format Capable of Storing Both High Definition Video and Standard Definition Video on a Single Disc*

Victor Company of Japan, Ltd. (JVC) is pleased to announce that it has developed the world's first Blu-ray/ DVD combo ROM disc technology, which enables storage of video content in both high definition and standard definition. The new ROM disc, which has a total storage capacity of 33.5GB, uses a triple layer structure made possible by JVC's development of a proprietary, high-performance reflective film.

\* As of Dec. 24, 2004.



**The picture shows the Blu-ray/ DVD combo ROM disc (prototype)**

The new Blu-ray/ DVD combo ROM disc has a one-side readout, triple layer structure comprised of an outside Blu-ray disc (BD) layer and inner DVD dual layer (Fig. 1). The outer BD layer is capable of storing high definition video signals up to a capacity of 25GB. The inner DVD dual layer can store up to 8.5GB of standard definition video signals. During Blu-ray reproduction, blue laser read the outer BD layer, while red laser read the inner DVD dual layer during DVD reproduction (Fig. 2). The triple layer structure was made possible by the development of a high-performance reflective film that reflects blue laser used for Blu-ray reproduction, but is transparent to red laser used in DVD reproduction. The proprietary technology builds upon JVC's past developments in the field of disc processing technology.

The inner DVD layer of the Blu-ray/ DVD combo ROM disc has an 8.5GB dual layer structure, the current mainstream structure for commercially available DVD software releases. The new disc is capable of storing all of the data currently contained in commercially available DVD software.

The development of the Blu-ray/ DVD combo ROM disc opens the way for the emergence of video releases containing content in both Blu-ray and DVD formats on a single disc. Users can purchase a single disc that can be reproduced at high definition BD video quality on a large screen home theater system, or play back the disc at standard definition DVD video quality on a smaller TV set, a home PC or laptop computer. Users that do not have a Blu-ray disc player can view the video content at standard definition using their current DVD player, and enjoy the same content at high definition resolution when upgrading to a Blu-ray disc player in the future.

The new Blu-ray/ DVD combo ROM disc also creates new possibilities for future software releases that take advantage of the large 33.5GB storage capacity by combining video content with commercials, music or games on a single disc. JVC also hopes that the new media format will contribute to resource and energy conservation by eliminating the need to create separate Blu-ray and DVD format discs.

JVC will forward a proposal to the Blu-ray Disc Association (BDA) to have the technology accepted as a specification for future commercialization. The company is also working on a Blu-ray/ DVD combo ROM disc with an even larger 58.5GB storage capacity. The proposed disc will be comprised of a 50GB Blu-ray dual layer and 8.5GB DVD dual layer structure.

Fig. 1: Cross-section of Blu-ray/ DVD combo ROM disc

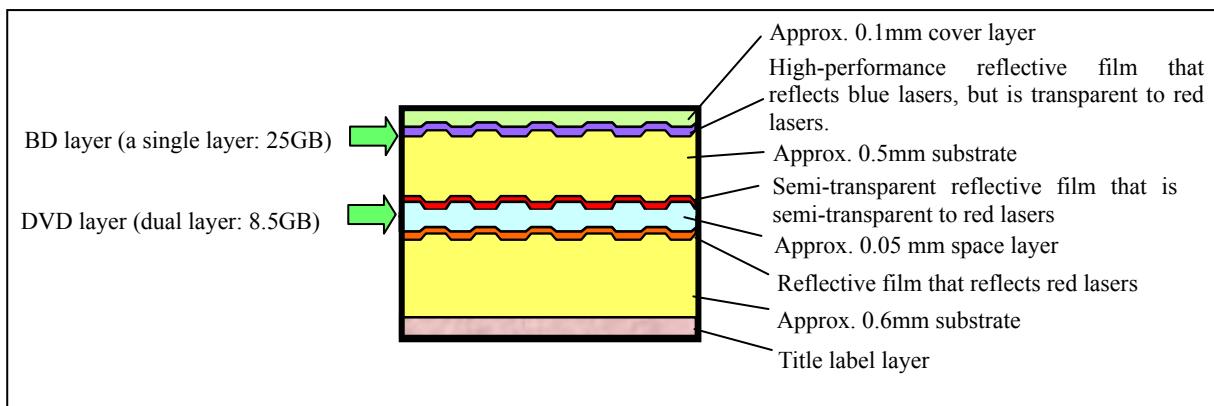
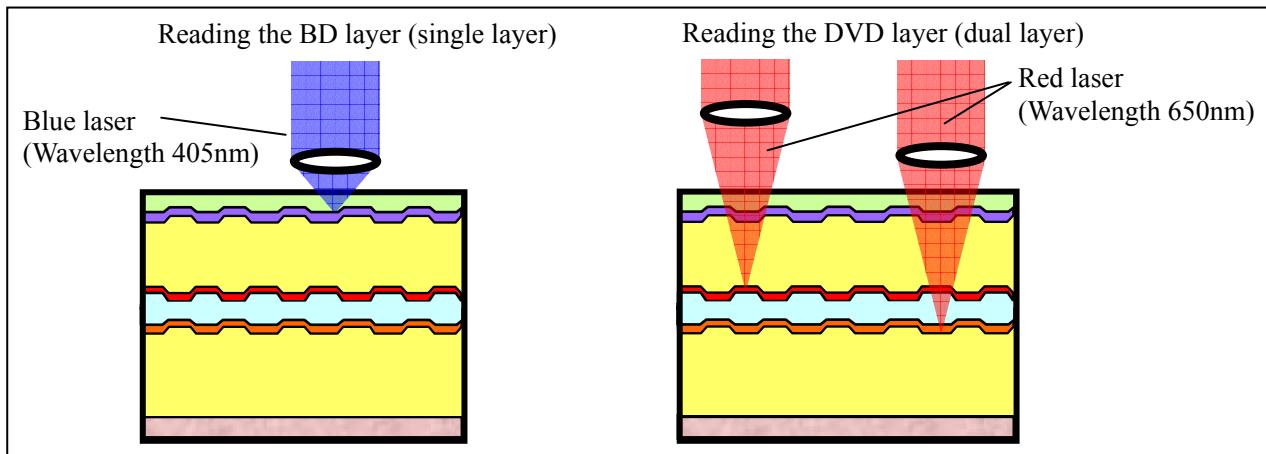


Fig. 2: Reading the Blu-ray/ DVD combo ROM disc



## Main Features

### 1. World's First Combined Storage Media for Blu-ray and DVD Content

- World's first Blu-ray/ DVD combo ROM disc uses advanced positioning and bonding technology to produce a one-side readout, read-only disc comprised of an outer BD layer is capable of storing high definition video signals, while the inner DVD dual layer is capable of storing standard definition video signals.
- JVC has developed a proprietary, high performance reflective film that reflects blue laser light but is transparent to red laser light. The reflective film is applied to the BD layer to enable DVD reproduction using red laser through the BD layer.
- The inner layer uses an 8.5GB DVD dual layer structure, the current mainstream structure for commercially available DVD video and software releases. Combined with the 25GB capacity of the BD layer, the new media format has a total storage capacity of 33.5GB.

### 2. Triple layer structure using double-faced substrate molding

The fabrication technology used for the new Blu-ray/ DVD combo ROM disc brings together JVC's ultra-fine nanotechnology developed for Blu-ray disc fabrication and the company's experience with DVD fabrication. By using double-faced substrate molding featuring a BD layer on one side and one of the DVD layers on the other side, JVC has found a way to make it possible to fabricate Blu-ray/ DVD combo ROM discs with approximately the same efficiency as conventional Blu-ray ROMs.

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