

## The Technology Of DVD Media

A Digital Video Disc or DVD is one of the most popular forms of storage media nowadays. It is an optical disc and mainly used to store videos. However, data in any form can be stored on a DVD. The dimensions of a DVD are generally the same as a common compact disc but the amount of data that can be stored is six times greater. The different variations of DVD are based on the way data is being stored on it. A DVD-ROM has pre-written data that can only be read. A DVD+R and DVD-R are the ones on which the data can be written only once; and on a DVD+RW the data can be written and erased more than once. The lasers used to read DVDs are typically of 650 nm wavelength. The terms DVD-Audio and DVD-Video discs are DVDs with suitably structured and formatted audio and video content respectively. Other types of DVDs are called DVD-data discs. The term `DVD` is used for an unofficial full form `digital video disc`. However, it was officially announced that it stands for `digital versatile disc`. A typical DVD has a 4.7 GB storage capacity. These discs are one sided and single layered i.e. the data is stored only on one side of the disc and only at one level. The size is enough for a high quality 133-minute movie. The double sided and dual layered DVDs can store about 17 GB of data in any form. The capacity dwarfs a compact disc easily. The writing speeds on a DVD vary from 1350 KB/s (1 x) to 26 MB/s (18 x to 20 x). For a CD, the speed 1 x means only 153.6 KB/s. Initially, the burning or the duplication of DVD was an expensive work and required skilled persons to do it. Today, the process of writing on a DVD has become a piece of cake and any one with a little knowledge of computers can do it at a click of the mouse. Producing DVDs requires certain authentication. Also, certain processes and rules are needed to be followed to handle their production. Present day markets are full of illegal and fake DVDs. Especially in Asia, Africa and Brazil. So, certain security measures are applied to check this illegal business. Copy prevention techniques are used that prevents illegal replicating of the original disk. A DVD-Video is standard for storage of video content on the media. Typically the format in which video is stored in the DVDs is MPEG-2, 16:9 aspect ratio videos. The resolution used are 720\*576 (PAL) or 720\*480 (NTSC) at 25 or 29.97 FPS. The audio on the disc is stored in DTS (Digital Theatre System) or AC-3 (Dolby Digital) formats. However, a number of other resolutions and formats are also supported. Other features like selectable language in subtitles, menus, multiple audio tracks and more than one camera angle is also supported by DVD-Video. The DVD-Audio format is used to deliver high-quality audio content. A number of channel configuration choices (like from mono to 5.1 or 7.1 surround sound) at a number of sampling frequencies are offered by the DVD-Audio. The higher storage capacities enable it to store a considerable higher amount of music or a much higher audio quality. Although the DVD-Audio has higher technical specifications, the debate on whether the audio enhancements that are being included are actually distinguishable or not in a typical listening environment is still on. There are a number of possible successors to the DVD. The strongest being the Blu-Ray Disc. Others are Maxell's HVD (Holographic Versatile Disc) and the 3D optical storage discs that are being developed actively.

## About the Author

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