

DVD ROM – Audio Extraction Rate

Overview

The Audio Extraction Rate for a DVD-ROM is based on the listed speed. This bulletin provides a formula to calculate the audio extraction rate in kilobits for the following models with a 12X audio extraction rate:

- DVD-114 (10X DVD/40X CD, ATAPI, Tray Load)
- DVD-104S (10X DVD/40X CD, ATAPI, Slot Load)
- DVD-304S (10X DVD/40X CD, ATAPI, Slot Load)

Explanation

To calculate the extraction rate of a Pioneer DVD-ROM drive in to kilobits, apply the formula stated below.

CD: Drive Speed multiplied by 150 Kilobytes equals the total Kilobytes
Total Kilobytes multiplied by 8 (number of bits in a byte) equals the audio extraction rate in Kilobits

DVD: Drive Speed multiplied by 1.385 Megabytes equals the Kilobytes
Total Kilobytes multiplied by 8 (number of bits in a byte) equals the audio extraction rate in Kilobits

Being as audio is based on the combined peak speeds of DVD technology and CD compatibility, the audio extraction rate is usually faster than the base DVD speed but slower than the peak performance available on a CD-ROM drive.

Example:

The DVD-114 Audio Extraction Rate is 12X thus the audio extraction rate is 144000 Kilobits

$$\begin{aligned} 12X \times 150\text{KB/s} &= 18000 \text{ KB/s} \\ 18000 \text{ KB/s} \times 8 &= 144000 \text{ Kb/s} \end{aligned}$$