OPTICAL PICKUP DEVICE AND REPRODUCING APPARATUS OF OPTICAL RECORDING MEDIUM

ABSTRACT

A reproducing apparatus of an optical recording medium which is capable of reproducing at least two types of optical recording mediums including an optical recording medium, such as a so-called compact disk composed of a substrate having a thickness of 1.2 mm and an optical recording medium composed of a substrate having a thickness of 1.0 mm or smaller. The apparatus has a light source, an objective lens and a control portion. The light source emits light beams having a wavelength of 700 nm or shorter. The objective lens condenses the light beams emitted from the light source through the substrate of the optical recording medium. The objective lens has a numerical aperture of 0.45 or greater. The control portion controls the surface on which the light beams are focused by the objective lens to be positioned between the paraxial image surface and the minimum-wave-aberration image surface when data is recorded and/or reproduced to and from the optical recording medium composed of the substrate having a thickness of 1.0 mm or smaller.

Figure 2