ABSTRACT

An optical system for holographic storage includes a reference light path, a signal light path, a servo light path and a reproduction light path. The reference light path and the signal light path both contain a first Fourier lens and a second Fourier lens for transmitting reference light and signal light carrying data information, and adjusting the incident position and angle of the reference light and the signal light on a storage medium. The optical system further includes a reference light objective lens for converging the reference light, a third Fourier lens for performing Fourier transformation on a signal light field, and a fourth Fourier lens for performing Fourier transformation on a reproduced signal light field to read the data information. The first Fourier lens, the second Fourier lens, the third Fourier lens, the fourth Fourier lens and the reference light objective lens is respectively a Fresnel lens or a meta lens.

[Fig. 1]