

HOLOGRAM RECORDING AND REPRODUCTION APPARATUS

ABSTRACT

A hologram recording and reproduction apparatus is disclosed which can raise the degree of freedom in design to achieve miniaturization thereof and can raise the hologram recording density of the shift multiplexing type. Upon recording, recording light specially optically modulated by a spatial optical modulator and reference light having a wave front disturbed at random by a randomizing phase mask are coupled so as to have a common optical axis and introduced to a recording area of a hologram recording medium. As a result, the number of lenses to be moved so as to follow up the variation of the position of a recording area or a reproduction area can be reduced. Further, the random disturbance of the wave front of the reference light makes the shift selectivity sharp in both of the along-track direction and the cross-track direction.

FIG.1