Method and Device for Capturing An Image of A Target Object

Abstract

A method for capturing the image of a target object illuminated by an illumination laser is described, with which it is possible to stabilise the image and correct higher order imaging aberrations. By splitting off the partial beam from the pulsed laser beam of the illumination laser and by delaying the partial beam laser light, it becomes possible to distinguish between the laser light that is aimed at the target object through the illumination beam by means of the illumination optics unit and reflected therefrom, and the laser light that is reflected from the target object due to the partial beam laser light that is guided "backwards" through the receiving optics unit, so that the light from both that is reflected by the target object can be distinguished from the pulsed light beams that have been temporally offset by the optical delay device.

(Fig. 1)