

ABSTRACT

A three-dimensional shape measuring apparatus that can perform accurate measurements in pinhole array scanning using a confocal optical system is provided. According to one

5 embodiment, a three-dimensional shape measuring apparatus includes at least an aperture plate that is provided with a plurality of confocal apertures which are two-dimensionally arranged to have a predetermined arrangement period, and an aperture plate displacement portion that displaces the
10 aperture plate at a constant speed in a predetermined direction perpendicular to the optical axis direction. The apparatus controls a moving speed of the aperture plate, a rotation speed of the rotating member, and an exposure time and exposure timing of the photo-detector group so that the
15 exposure time of the photo-detector group coincides with a time during which the aperture plate is moved by a distance obtained by multiplying the predetermined arrangement period by an integer n equal to or greater than 2.

[Figure 1]