

ABSTRACT

A laser light source 11; a light sending lens 12 configured to form laser light L emitted from the laser light source 11 into a spot shape; a scanner 13 configured to perform irradiation while performing scanning, with the laser light L formed into the spot shape, in a horizontal direction X and a vertical direction Y of an area to be measured A; a light receiving lens 16 configured to receive reflected light R reflected from the area to be measured A; a light receiving optical system 17 configured to condense the reflected light R received by the light receiving lens 16, in each of the horizontal direction X and vertical direction Y; and an information generating unit 21 configured to generate, based on a received signal output by the light receiving element 18, three dimensional information of the area to be measured A.