

Title (en)

METHOD AND APPARATUS FOR GENERATING THREE-DIMENSIONAL IMAGE INFORMATION

Title (de)

VERFAHREN UND VORRICHTUNG ZUR ERZEUGUNG VON INFORMATIONEN ZU DREIDIMENSIONALEN BILDERN

Title (fr)

PROCÉDÉ ET APPAREIL DE GÉNÉRATION D'INFORMATIONS D'IMAGES TRIDIMENSIONNELLES

Publication

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Application

EP 11868356 A 20111222

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Abstract (en)

[origin: CN103827730A] A method and apparatus for generating three-dimensional image information is disclosed. The apparatus includes a lens having a single imaging path operable to direct light captured within a field of view of the lens to an aperture plane of the lens. The apparatus also includes a polarizer located proximate the aperture plane, the polarizer including a first portion disposed to transmit light having a first polarization state through a first portion of the single imaging path and a second portion disposed to transmit light having a second polarization state through a second portion of the single imaging path, the first and second portions of the single imaging path providing respective first and second perspective viewpoints within the field of view of the lens. The apparatus further includes a modulator disposed in the single imaging path, the modulator being operable to selectively change a polarization state of light passing through the modulator to alternate between forming a first image through the first portion of the single imaging path and forming a second image through the second portion of the single imaging path, the first image representing objects within the field of view from the first perspective viewpoint and the second image representing the objects from the second perspective viewpoint, the first and second images together being operable to represent three dimensional spatial attributes of the objects. The apparatus may have an image sensor having color filter elements configured for enhanced performance in the red and near-infrared range.

IPC 8 full level

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Citation (search report)

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