
Problems in creation of stereoscopic lens for video endoscope

© A.S. Machikhin¹, V.I. Batshev²

¹Laboratory of Acousto-Optic Spectroscopy of the RAS Scientific and Technological Centre of Unique Instrumentation Engineering, Moscow, 117342, Russia

²Bauman Moscow State Technical University, Moscow, 105005, Russia

Issues of stereoscopic measurement in video endoscopy are discussed. Problems with synthesis of removable lens for stereoscopy are analyzed. Such lens is designed to be used in standard video endoscopes for fixed object distance (80 mm). Methods to improve this lens are offered.

Keywords: *endoscope, 3D metrology, stereoscopy, biprism.*

Machikhin A.S. (b. 1984) graduated from Bauman Moscow State Technical University in 2007. Ph.D., Researcher of the Laboratory of Acousto-Optic Spectroscopy in the RAS Scientific and Technological Center of Unique Instrumentation Engineering. Specializes in the field of acoustooptics, infrared imaging, machine vision and digital image processing. Author of 30 publications. e-mail: aalexanderr@mail.ru

Batshev V.I. (b. 1984) graduated from Bauman Moscow State Technical University in 2007. Ph.D., Assoc. Professor of the Optoelectronic Research Devices Department of Bauman Moscow State Technical University. Specializes in the field of optical metrology and astronomical optics. Author of 7 publications. e-mail: batshev.vlad@gmail.com
