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CHIMERA. New holographic printer, combining low-power CW lasers and fast printing 11

***Annotation***

***This article presents holographic printer CHIMERA which belongs to the third generation of systems of digital printing and solves the problems of two previous systems. Three CW RGB low power lasers are the base of holographic printer. Using high resolution silver halide photographic plates Ultimate U04 and modern optical modulators, the holographic printer allows to print full-color, 120-degree viewing angle, digital reflection holograms with full parallax at a print speed equal to or exceeding 25 hogels per second, as well as holographic optical elements up to 60x80 cm size and a hogel size from 250 to 500 microns. A 3D scanner equipped with a 4K video camera has been specially developed for scanning real objects, which improves the accuracy of color rendition and opens up new opportunities for using holograms printed on a CHIMERA. The creation of the new CHIMERA holographic printer is a step forward not only in the development of new digital holographic applications, but also in holography in general.***

***Keywords: holography, hologram, holographic printer, laser, hogel, silver halide material, photopolymer, color rendition, parallax***

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