

# The Review of Laser Engineering

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### Development of Hybrid Hologram Screen for a Large Auto-Stereoscopic Display

(Production and Performance Measurement of a 40 inch screen)

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**Abstract:** The hybrid hologram screen, or HHS for short, is a system that enables the display of auto-stereoscopic images. Two of its main advantages are that the size of the view zone can be controlled, and that chromatic dispersion and chromatic aberration can be reduced by a small reference angle of the laser light when the hologram is recorded. We calculated the theoretical size of the view zone in which color images can be observed in the case of the 40 inch HHS. After actually building one, we measured the size of the view zone as it appears in practice.

**Key Words:** [Auto-stereoscopic display](#), [Large hologram screen](#), [View-zone](#), [Fresnel lens](#), [Color dispersion](#), [Color aberration](#)

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