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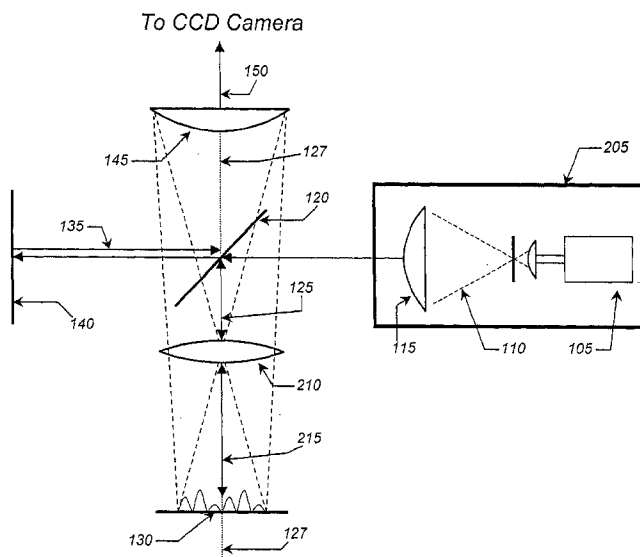
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(54) Title: RAPID ACQUISITION FUSED OFF-AXIS ILLUMINATION DIRECT-TO-DIGITAL HOLOGRAPHY



(57) Abstract: Systems and methods are described for rapid acquisition of fused off-axis illumination direct-to-digital holography. A method of recording a plurality of off-axis illuminated spatially heterodyne holograms, each of the off-axis illuminated spatially heterodyne holograms including spatially heterodyne fringes for Fourier analysis, includes digitally recording, with a first illumination source of an interferometer, a first off-axis illuminated spatially heterodyne hologram including spatially heterodyne fringes for Fourier analysis; and digitally recording, with a second illumination source of the interferometer, a second off-axis illuminated spatially heterodyne hologram including spatially heterodyne fringes for Fourier analysis.

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