



Fig. 3. Dual-comb interferometry for inline Fresnel holography. (a) Set-up for implementation with electro-optic modulators. Two continuous-wave lasers feed two amplitude modulators driven at slightly different repetition frequencies. Per modulator, two combs, of the same line spacing but with independently adjustable center frequencies, are generated. The object comb wave is scattered by the object and interferes at a detector matrix with the reference comb wave. (b) Dual-comb amplitude spectrum of pixel (160,128) of about 100 lines, with inset showing three individual comb lines. The amplitude and phase of the complex spectrum at one comb line position across all pixels generates the complex hologram at a given frequency.