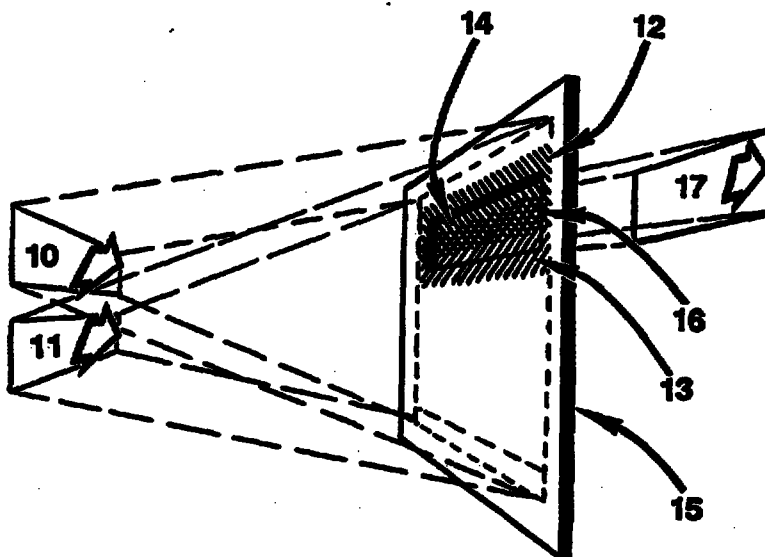




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(54) Title: FREQUENCY-MULTIPLEXED LOGIC, AMPLIFICATION, AND ENERGY BEAM CONTROL USING INTERFERENCE



(57) Abstract

A means and method are disclosed for performing frequency-multiplexed logic, amplification, and energy beam control functions on individual channels simultaneously within a single device by using a plurality of frequency-multiplexed inputs (10, 11), each having beam sets of matching channel frequencies. A set of interference images (12, 13), one for each channel, are simultaneously produced, and energy from the images is separated to produce a frequency-multiplexed output (17). The individual functions performed on individual channels are the result of constructive and destructive interference within each channel's image.