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(54) **Title:** ACOUSTO-OPTIC HARMONIC IMAGING WITH OPTICAL SENSORS

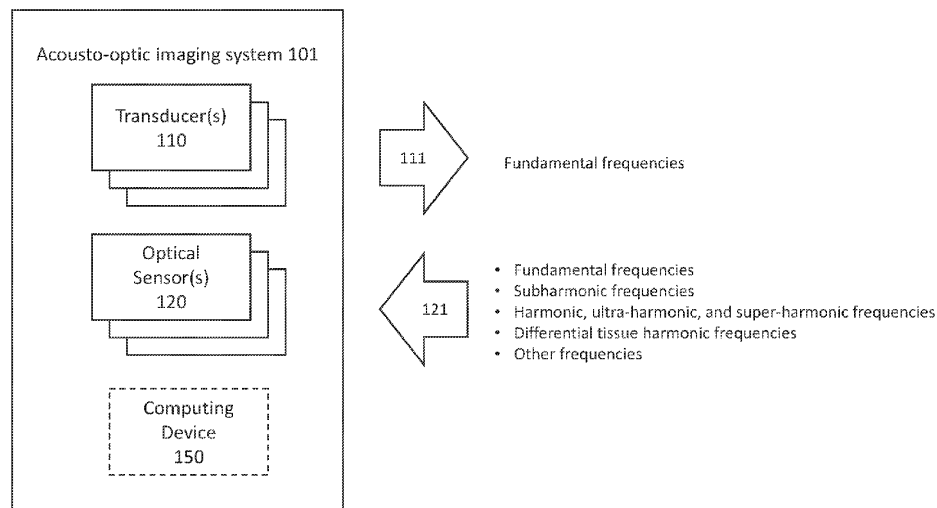


FIG. 1

(57) **Abstract:** An acousto-optic imaging system may include at least one transducer that transmits an ultrasound signal having a fundamental frequency f . The acousto-optic imaging system includes at least one optical sensor that may produce one or more optical responses upon receiving harmonic-related ultrasound echoes corresponding to the transmitted ultrasound signal. For example, the one or more optical sensors may have a bandwidth ranging from at least f/M to Nf , where M and N are integers greater than 1.

[Continued on next page]

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