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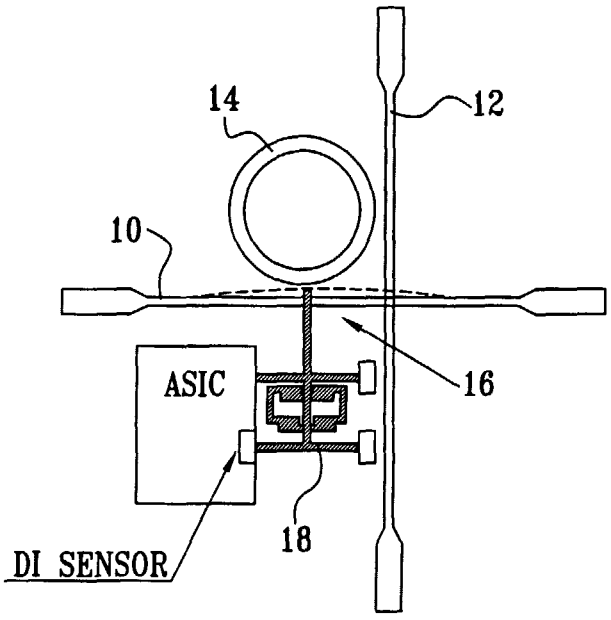
(54) Title: OPTOMECHANICAL TUNABLE RING RESONATOR



(57) Abstract: A variable optical ring resonator constructed as a Micro-Electro-Mechanical System (MEMS) device is described, which operates by means of bending, stressing or straining sections of suspended waveguide of the optical circuit in the plane of the device substrate, by means of micro-actuators. Stretching of a section of the resonator ring changes the resonant frequency of the ring. The device can be used as a variable filter, and altering the proximity of the ring to a coupling input or output waveguide changes the Q-factor of the filter.

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