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(54) Title: OPTICAL SENSOR CIRCUIT AND OPTICAL SENSING METHOD

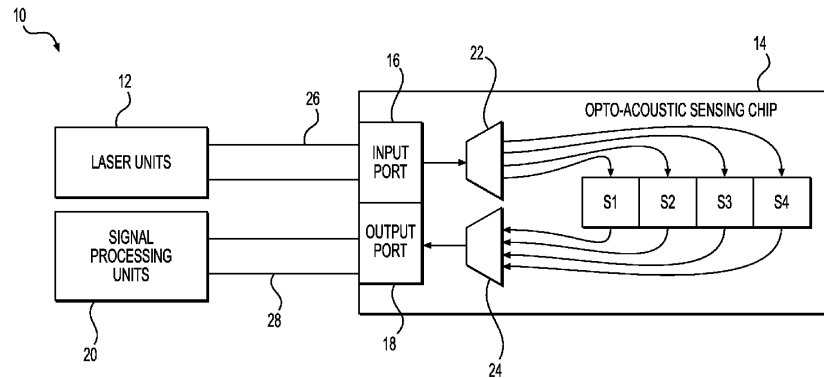


FIG. 1

(57) **Abstract:** The optical sensor circuit (10) is an optical circuit for routing input optical signals through an array of optical sensors (S1, S2, S3, S4). The optical sensor circuit (10) includes an input port (16) for receiving a plurality of input optical signals within a single input channel. A wavelength-division demultiplexer (22) is coupled to the input port (16) to demultiplex the plurality of input optical signals, and a plurality of optical sensors (S1, S2, S3, S4) are coupled to the wavelength-division demultiplexer (22) for receiving the plurality of input optical signals and outputting a plurality of output optical signals. A wavelength-division multiplexer (24) is coupled to the plurality of optical sensors (S1, S2, S3, S4) to multiplex the plurality of output optical signals into a single output channel. An output port (18) is coupled to the wavelength-division multiplexer (24) for outputting the output optical signals in the single output channel.

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