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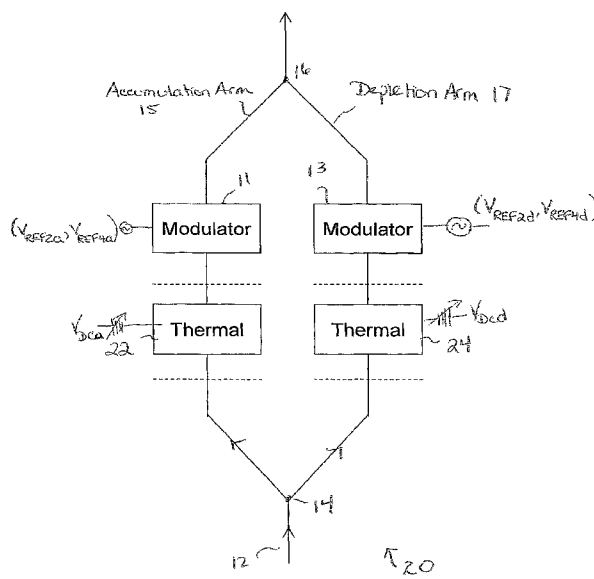
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(54) Title: SILICON MODULATOR OFFSET TUNING ARRANGEMENT



(57) Abstract: A silicon-based optical modulator structure includes one or more separate localized heating elements for changing the refractive index of an associated portion of the structure and thereby providing corrective adjustments to address unwanted variations in device performance. Heating is provided by thermo-optic devices such as, for example, silicon-based resistors, suicide resistors, forward-biased PN junctions, and the like, where any of these structures may easily be incorporated with a silicon-based optical modulator. The application of a DC voltage to any of these structures will generate heat, which then transfers into the waveguiding area. The increase in local temperature of the waveguiding area will, in turn, increase the refractive index of the waveguiding in the area. Control of the applied DC voltage results in controlling the refractive index

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