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COUPLING RESPONSES TOWARDS WAVELENGTH AND COUPLING GEOMETRIES FOR SYMMETRIC AND ASYMMETRIC DIRECTIONAL COUPLERS

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ABSTRACT

The coupling responses towards wavelength and coupling geometries for symmetric and asymmetric directional couplers are discussed. Their behaviors were studied using beam propagation method (BPM). 50% ± 5% wavelength flattened coupling characteristics over a wide range from 1.33 μm to 1.55 μm are obtained for directional coupler with waveguide asymmetric width in the coupling region. Symmetric structure was finding its application in wavelength division multiplexer/demultiplexer and asymmetric structure has the capability for 3 dB directional coupler for broadband region.

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