Abstracts

Velocity-Matched Electrodes for Compound Semiconductor Traveling-Wave Electrooptic Modulators: Experimental Results

N.A.F. Jaeger, F. Rahmatian, H. Kato, R. James, E. Berolo and Z.K.F. Lee. "Velocity-Matched Electrodes for Compound Semiconductor Traveling-Wave Electrooptic Modulators: Experimental Results." 1996 Microwave and Guided Wave Letters 6.2 (Feb. 1996 [MGWL]): 82-84.

Coplanar strips, capacitively loaded with fins and pads and capable of achieving the microwave/optical wave velocity-match condition in GaAs- and InP-based electrooptic modulators, are described. Measurements on electrodes, fabricated to have dimensions appropriate for use in conventional, Mach-Zehnder-type modulators in the 5-40 GHz range, show that these electrode structures can be made to obtain the desired match between the microwave effective index and the effective indexes of AlGaAs and InGaAsP optical waveguides, while having loss coefficients ~0.7 Np/cm at 40 GHz.

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