Abstracts

Analysis of CPW for LiNbO/sub 3/ Optical Modulator by Extended Spectral-Domain Approach

T. Kitazawa, D. Polifko and H. Ogawa. "Analysis of CPW for LiNbO/sub 3/ Optical Modulator by Extended Spectral-Domain Approach." 1992 Microwave and Guided Wave Letters 2.8 (Aug. 1992 [MGWL]): 313-315.

A LiNbO/sub 3/ optical modulator using CPW with a SiO/sub 2/ buffer layer is analyzed accurately by incorporating the TW electrode thickness effect as well as anisotropic effect. By introducing a finite electrode thickness, the loss calculation becomes available for the lines with thinner as well as thicker conductors. Numerical computations show that the electrode thickness is as a dominant parameter as is the buffer layer thickness for the line characteristics. The use of thicker electrodes increases the velocity of microwaves in the interaction part and decreases the conductor loss significantly, and it can be utilized advantageously for the modulator's design.

❑ Return to main document.