

Abstracts

Fiber Optic Microwave Links Using Balanced Laser Harmonic Generation, and Balanced/Image Cancellation Laser Mixing (Dec. 1992 [T-MTT])

H. Ogawa and H. Kamitsuna. "Fiber Optic Microwave Links Using Balanced Laser Harmonic Generation, and Balanced/Image Cancellation Laser Mixing (Dec. 1992 [T-MTT])." 1992 Transactions on Microwave Theory and Techniques 40.12 (Dec. 1992 [T-MTT] (1992 Symposium Issue)): 2278-2284.

This paper proposes three fiber optic link configurations for use in microwave transmission. Two laser diodes are used to generate balanced harmonics and the optical power from each diode is combined and detected by photodiodes. The fundamental and odd harmonics are suppressed and even harmonics added. The balanced and image cancellation laser mixing which utilizes a combination of microwave components and optical devices can suppress the local and image frequencies, respectively. These configurations are experimentally investigated at microwave frequencies and frequency suppression is successfully demonstrated.

 [Return to main document.](#)