

Abstracts

Fiber Optic Microwave Links Using Balanced Laser Harmonic Generation, and Balanced/Image Cancellation Laser Mixing (1992 Vol. II [MWSYM])

H. Ogawa and H. Kamitsuna. "Fiber Optic Microwave Links Using Balanced Laser Harmonic Generation, and Balanced/Image Cancellation Laser Mixing (1992 Vol. II [MWSYM])." 1992 MTT-S International Microwave Symposium Digest 92.2 (1992 Vol. II [MWSYM]): 559-562.

This paper proposes three configurations of fiber optic links for use in microwave transmission. Two laser diodes are used for balanced harmonic generation 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 the combination of microwave components and optical devices can suppress the local and image frequencies, respectively. These configurations are experimentally investigated at microwave frequencies and the frequency suppression is successfully demonstrated.

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