Abstracts

Optical Receiver and Modulator Frequency Response Measurement with a Nd:YAG Ring Laser Heterodyne Technique

T.S. Tan, R.L. Jungerman and S.S. Elliott. "Optical Receiver and Modulator Frequency Response Measurement with a Nd:YAG Ring Laser Heterodyne Technique." 1989 Transactions on Microwave Theory and Techniques 37.8 (Aug. 1989 [T-MTT]): 1217-1222.

The frequency response of optical receivers is accurately calibrated by measuring a heterodyne signal generated by mixing two NdYAG ring lasers. The heterodyne system offers more than 50 dB of dynamic range. Calibration of optical phase and amplitude modulators is achieved by down-converting a sideband of the modulated optical carrier to a fixed IF frequency with another laser. This technique eliminates the need for a high-speed receiver.

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