Abstracts

Optimizing the ultrawide-band photonic link

L.T. Nichols, K.J. Williams and R.D. Estman. "Optimizing the ultrawide-band photonic link." 1997 Transactions on Microwave Theory and Techniques 45.8 (Aug. 1997, Part II [T-MTT]): 1384-1389.

Performance of wide-band photonic links (PLs) using Mach-2ehnder modulators (MZMs) is reported. Comparison parameters include loss, noise figure, and spur-free dynamic range (SPDR). The feasibility of a 0-dB noise-figure link even with passive matching is given and the advantages of dual-output MZMs are presented. A new figure of merit is introduced to quantitatively optimize link performance with or without a preamplifier.

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