Abstracts

Gigahertz Bandwidth Multibit Phase Sampling and Reconstruction of Microwave Signals

G.B. Wordsworth and D.G.D. Clark. "Gigahertz Bandwidth Multibit Phase Sampling and Reconstruction of Microwave Signals." 1986 MTT-S International Microwave Symposium Digest 86.1 (1986 [MWSYM]): 371-374.

This paper presents novel techniques for digitally sampling and reconstructing the phase of microwave signals. A practical implementation giving two bits of phase resolution and a one gigahertz bandwidth using silicon ECL and GaAs CDFL devices is described, outlining the constructional techniques developed to implement this high speed logic design. The performance observed is shown to be in agreement with computer simulations and future extensions to wider bandwidth and better phase resolution are discussed.

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