

Influence of crosstalk in switchable optical time-delay networks for microwave array antennas

C. Schaffer. "Influence of crosstalk in switchable optical time-delay networks for microwave array antennas." 1997 Transactions on Microwave Theory and Techniques 45.8 (Aug. 1997, Part II [T-MTT]): 1519-1521.

Switchable optical time-delay (TD) networks are used for the phase control of array antennas and for microwave signal processing because of their wide instantaneous bandwidth. In each optical switch, crosstalk signals are generated and its influence on the microwave phase accuracy is investigated. Due to the crosstalk of the switches, each stage forms an interferometer which converts the phase noise of the optical source into amplitude noise whose influence on the microwave phase is analyzed.

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