Abstracts

An Active Phased Array with Optical Input and Beam-Scanning Capability

S.T. Chew, T.K. Tong, M.C. Wu and T. Itoh. "An Active Phased Array with Optical Input and Beam-Scanning Capability." 1994 Microwave and Guided Wave Letters 4.10 (Oct. 1994 [MGWL]): 347-349.

An active antenna array with optical input and beam scanning capability was developed. The phase shift between antenna elements is controlled by means of unilateral injection locking. The reference signal for injection locking is launched into optical fiber by a multiquantum-well InGaAs-InGaAsP distributed feedback laser. The RF signal is recovered by a photodetector at the other end of the link and fed to the RF circuit. Experimental result is presented and discussed.

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