Abstracts

Solid State 6x6 Transfer Switch for Cylindrical Array Radar

M.E. Knox, P.J. Sbuttoni, J.J. Stangel, M. Kumar and P. Valentino. "Solid State 6x6 Transfer Switch for Cylindrical Array Radar." 1993 MTT-S International Microwave Symposium Digest 93.3 (1993 Vol. III [MWSYM]): 1225-1228.

This paper describes an L-band solid state 6x6 transfer switch for a cylindrical array radar. Si PIN diodes are used as switching elements to achieve low-loss, high reliability, low life cycle cost, and enhanced performance. The 6x6 transfer switch contains a novel compact 3x3 transfer switch as a building block. A low cost, batch fabrication manufacturing process is presented to reduce production cost. The 6x6 transfer switch operates over 1.2 - 1.4 GHz with insertion loss of 1.3 dB, isolation of 36 dB, and amplitude and phase error of ±0.25 dB and 2.7° RMS, respectively.

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