

Abstracts

A K-band full-duplex transmit-receive lens array

M. Forman, J. Vian and Z. Popovic. "A K-band full-duplex transmit-receive lens array." 2001 MTT-S International Microwave Symposium Digest 01.3 (2001 Vol. III [MWSYM]): 1831-1834 vol.3.

A K-band full-duplex transmit-receive lens antenna array using uniplanar circuitry is reported. The array transmits at 19 GHz and receives at 21 GHz by means of two independent unit cells. Orthogonal antenna polarization and bandpass circuitry provide a simulated isolation of 42 dB between transmit and receive channels. The measured gains of the active array are 3.0 and 8.3 dB above passive with an on-off ratio of 10 and 15 dB for transmit and receive modes respectively.

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