Abstracts

Coherent Power Combining of Ultra-Wideband Pulsed Radiation in Free Space

E.E. Funk, S.E. Saddow, L.J. Jasper, Jr. and C.H. Lee. "Coherent Power Combining of Ultra-Wideband Pulsed Radiation in Free Space." 1995 MTT-S International Microwave Symposium Digest 95.3 (1995 Vol. III [MWSYM]): 1299-1302.

Photoconductive switches are used to trigger an array of three pulsed ultra-wideband antennas. The jitter-free pulses radiated by each antenna add together in free space to produce a radiated field pattern that is steerable via true optical time-delay techniques. This technique can be applied to an N-element phased array for increased radiated power and beam-steering capabilities.

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