Abstracts

Pulse Power Enhancement Using Mode Locked Arrays of Automatic Level Control Oscillators

J.J. Lynch and R.A. York. "Pulse Power Enhancement Using Mode Locked Arrays of Automatic Level Control Oscillators." 1994 MTT-S International Microwave Symposium Digest 94.2 (1994 Vol. II [MWSYM]): 969-972.

A millimeter wave pulse generation system using mode locked arrays of coupled automatic level control oscillators is analyzed. Previous analyses have shown that 90 degrees of coupling phase maximizes the entrainment region size, however this paper shows that pulse power can be significantly enhanced by choosing 0 degrees of coupling phase. A comparison of the entrainment size and phase sensitivity shows that for large arrays peak power enhancement can be utilized without a significant reduction in overall system robustness.

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