

Abstracts

A Wideband Linear FM Ramp Generator for the Long-Range Imaging Radar

D.R. Bromaghim and J.P. Perry. "A Wideband Linear FM Ramp Generator for the Long-Range Imaging Radar." 1978 Transactions on Microwave Theory and Techniques 26.5 (May 1978 [T-MTT] (Special Issue on High-Power Microwaves)): 322-325.

This paper describes the linear FM ramp generator that provides the wideband transmitted signal and correlation receiver reference for the long-term imaging radar (LRIR) developed and operated by the M.I.T. Lincoln Laboratory. The signal generated has a bandwidth of 1000 MHz and a duration of 250 μ s. Because of its large time-bandwidth product, the signal is generated actively by sweeping a voltage-controlled oscillator. Special attention is given to the means for achieving linearity, reproducibility, and coherence of the generated ramps.

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