Abstracts

A High-Power Ferroelectric Limiter (Jan. 1965 [T-MTT])

M. Cohn and A.F. Eikenberg. "A High-Power Ferroelectric Limiter (Jan. 1965 [T-MTT])." 1965 Transactions on Microwave Theory and Techniques 13.1 (Jan. 1965 [T-MTT]): 47-54.

Ferroelectric limiters capable of handling peak input power levels in excess of 25 kW with a small signal insertion loss of 0.5 dB have been built. The measured performance and a theoretical analysis have shown that excellent limiting characteristics can be obtained, and that saturation power output levels ranging from a few watts up to megawatts can be obtained with ferroelectric pellets that can be conveniently fabricated. The limited available material data indicates that ferroelectric limiters will offer their greatest advantage in the HF, VHF, and UHF bands. The theoretical analysis of the expected temperature rise within the ferroelectric pellet has shown that, by proper design, very-high-average power levels also can be handled. A recovery time of less than ten microseconds has been measured.

❑ Return to main document.