Abstracts

An Optoelectronic Attenuator for the Control of Microwave Circuits

S.E. Saddow, B.J. Thedrez and C.H. Lee. "An Optoelectronic Attenuator for the Control of Microwave Circuits." 1993 Microwave and Guided Wave Letters 3.10 (Oct. 1993 [MGWL]): 361-362.

An optoelectronic technique suitable for the control of microwave circuits has been demonstrated. Using a coplanar waveguide-photoconductive switch (CPW-PCS), the RF impedance is varied with a laser diode is varied. Using a fiber pigtailed AlGaAs laser diode and a silicon CPW-PCS, it is shown that 30 dB of RF attenuation can be achieved with a laser peak power of 375 mW. Intensity saturation of the Si:CPW-PCS was also observed and characterized to improve the attenuator performance.

❑ Return to main document.