Abstracts

A 335 GHz Quasi-Optical Schottky Receiver

W.Y. Ali-Ahmad and G.M. Rebeiz. "A 335 GHz Quasi-Optical Schottky Receiver." 1994 Microwave and Guided Wave Letters 4.2 (Feb. 1994 [MGWL]): 37-39.

A quasi-optical Schottky receiver based on an integrated planar antenna-mixer structure has been developed and tested at 335 GHz. The receiver antenna is based on the quasi-integrated horn antenna with 23 dB directivity. At room temperature, the measured DSB antenna-mixer conversion loss and noise temperature at 335 GHz are 8.5 dB and 1750K, respectively. This simple and tunerless design has a noise figure within 1 dB of the best tuned room temperature waveguide mixer using a similar planar GaAs Schottky diode.

❑ Return to main document.