Abstracts

Low-Power X-Band Radar for Indoor Burglar Alarms

S. Battiboia, A. Caliumi, S. Catena, E. Marazzi and L. Masini. "Low-Power X-Band Radar for Indoor Burglar Alarms." 1995 Transactions on Microwave Theory and Techniques 43.7 (Jul. 1995, Part II [T-MTT] (Special Issue on Emerging Commercial and Consumer Circuits, Systems, and Their Applications)): 1710-1714.

Design and realization of a hybrid microwave integrated circuit (HMIC) for a low-power X-band Doppler effect radar system is presented. The radar operates within the range 9.9 ÷ 10.5 GHz. The system is able to detect the frequency shift between the transmitted and the target reflected signal, providing an IF signal output that can be used for different types of post-processing. The design of the different units composing the system is detailed. Application of this system to indoor intrusion alarms is also fully described.

❑ Return to main document.