

Abstracts

IF-based polarimetric receivers

N.S. Barker and G.M. Rebeiz. "IF-based polarimetric receivers." 1997 Microwave and Guided Wave Letters 7.3 (Mar. 1997 [MGWL]): 81-83.

A low-cost low-power polarimetric receiver has been developed based on the idea of IF processing. This architecture allows accurate measurement of the incident wave polarization and greatly reduces the cost and size of the receiver. An X-band polarimetric receiver with a dual-polarized microstrip antenna has been designed and tested. The results show a maximum $\pm 5^\circ$ polarization error using low-cost IF components and demonstrate the feasibility of performing inexpensive polarimetric processing at IF frequencies.

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