Abstracts

Line-loss and size-reduction techniques for millimeter-wave rf front-end boards by using a polyimide/alumina-ceramic multilayer configuration

M. Nakatsugawa, A. Kanda, H. Okazaki, K. Nishikawa and M. Muraguchi. "Line-loss and size-reduction techniques for millimeter-wave rf front-end boards by using a polyimide/alumina-ceramic multilayer configuration." 1997 MTT-S International Microwave Symposium Digest 2. (1997 Vol. II [MWSYM]): 509-512.

This paper proposes a concept for constructing low-loss and small-size millimeter-wave RF front-end boards by using a polyimide/alumina-ceramic multilayer configuration. This configuration enables us to design wide line-width low-loss microstrip lines. In addition, the board size can be reduced by compactly arranging all RF and DC lines in the intermediate layers of the polyimide/alumina-ceramic substrate. A prototype board designed for the quasi-millimeter-wave region was successfully demonstrated with good performance.

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