Abstracts

Improved Microwave Repeaters for Hungarian All-Solid-State Communications Systems

T. Berceli, G. Hammer, F. Rakosi, G. Reiter and S. Szenasi. "Improved Microwave Repeaters for Hungarian All-Solid-State Communications Systems." 1975 Transactions on Microwave Theory and Techniques 23.4 (Apr. 1975 [T-MTT] (Special Issue on Microwave Communications)): 341-348.

Improvements in microwave repeaters are outlined utilizing new circuit concepts for the receiver, transmitter, and branching-filter systems. In this way, a 1.5-dB decrease in the receiver noise figure and a 1-dB reduction in the attenuation of branching-filter systems are obtained with a simultaneous 2-dB overall increase of transmitter-multiplier and upconverter efficiencies, resulting in a higher signal-to-noise ratio. An improvement is achieved in the AM-to-PM conversion and group-delay characteristics, too. The new circuits have been developed for Hungarian all-solid-state communications systems operating in the 4-, 6-, and 8-GHz frequency bands.

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