

Abstracts

An Integrated DQPSK Demodulator for 14-GHz Satellite Communications Applications

W.H. Childs, C.E. Mahle and J. Potukuchi. "An Integrated DQPSK Demodulator for 14-GHz Satellite Communications Applications." 1978 MTT-S International Microwave Symposium Digest 78.1 (1978 [MWSYM]): 64-66.

An MIC assembly for direct DQPSK demodulation at 14 GHz is described. A time delay of 16.6 ns (120 Mbit/s) is achieved by edge-coupled bandpass filters. Quadrature phase detection is provided by a novel MIC topology that causes RF and IF ports to occur in adjacent pairs. An electronic phase shifter provides near linear phase shift with bias voltage. Temperature compensation maintains the phase errors to within 5° for a 20°C temperature change.

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