Abstracts

Microwave QPSK Demodulation Techniques at the Receiver Front End

C.L. Cuccia. "Microwave QPSK Demodulation Techniques at the Receiver Front End." 1975 MTT-S International Microwave Symposium Digest of Technical Papers 75.1 (1975 [MWSYM]): 40-42.

Quadriphase modulation of microwave or mm-wave carriers involves the rapid shifting of the phase of the carrier between one of four orthogonal positions by binary data included on two parallel data streams. The received quadriphase (QPSK) carrier can be demodulated by mixing this carrier with an appropriately phased local oscillator signal in a doubly-balanced mixer. One of the problems in demodulation of quadriphase carriers is the generation of the local oscillator having carrier frequency and phase information. This can be accomplished either at RF from the incoming QPSK carrier or at baseband by comparing the crosstalk associated with the two demodulated data streams. This paper will describe the applicable microwave technologies utilizing special quadruple frequency multipliers which provide microwave carrier reconstruction which facilitates the demodulation of data information from the carrier.

❑ Return to main document.