

Abstracts

High-Speed Millimeter-Wave Modulator/Demodulator

M.V. Schneider, R. Trambarulo, A. Gnauck and M.J. Gans. "High-Speed Millimeter-Wave Modulator/Demodulator." 1990 MTT-S International Microwave Symposium Digest 90.1 (1990 Vol. I [MWSYM]): 611-614.

We report for the first time on the performance of a millimeter-wave quaternary phase shift keyed (QPSK) modulator/demodulator at information rates up to 8 Gbit/s. The circuits operate in the 40 GHz range and are subharmonically pumped by local oscillators at half the carrier frequencies. The demodulated output data streams showed clean eye diagrams with corresponding bit error rates of less than 10^{-11} up to the highest rate measured (8 Gbit/s total information rate).

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