Abstracts

A subharmonically pumped I/Q vector modulator MMIC for Ka band satellite communication

W. Philibert and R. Verbiest. "A subharmonically pumped I/Q vector modulator MMIC for Ka band satellite communication." 2000 Radio Frequency Integrated Circuits (RFIC) Symposium 00. (2000 [RFIC]): 183-186.

We have developed a direct linear vector modulator MMIC for Ka band satellite communication. The modulator is of the parallel I/Q type and includes on-chip phase tuning for correcting the quadrature phase error. Using the tuning possibilities, excellent modulation results are obtained. This is illustrated for QPSK operation where quasi-perfect modulation is obtained in a 20% wide RF bandwidth, completely covering the FSS (Fixed-Satellite Service) Ka band downlink frequencies as allocated by the ITU.

❑ Return to main document.