Abstracts

Optical architectures for programmable filtering and correlation of microwave signals

D. Dolfi, J. Tabourel, O. Durand, V. Laude, J.-P. Huignard and J. Chazelas. "Optical architectures for programmable filtering and correlation of microwave signals." 1997 Transactions on Microwave Theory and Techniques 45.8 (Aug. 1997, Part II [T-MTT]): 1467-1472.

New optoelectronic architectures are presented, based on parallel delay lines, performing programmable filtering of microwave signals. According to current performances of optoelectronic components, they can process optically carried microwave signals over frequency bandwidths as large as 20 GHz, with a time-frequency product up to 10/sup 3/. The operating principle of these structures is detailed and followed by the preliminary experimental demonstration at 1.3 GHz of a 53-dB rejection filter.

❑ Return to main document.