Abstracts

Wide-Bandwidth Optical Phased Array Based on Remote Coding Configuration (Short Papers)

A.P. Goffer, M. Kam and P.R. Herczfeld. "Wide-Bandwidth Optical Phased Array Based on Remote Coding Configuration (Short Papers)." 1991 Transactions on Microwave Theory and Techniques 39.7 (Jul. 1991 [T-MTT]): 1216-1219.

Wide-bandwidth weighted array processing requires the weighting function, applied to each element in the array, be a function of the frequency. In many applications this requirement leads to the use of costly and bulky true-time delay (TTD) based weighting devices. In this paper, the equivalence between a filter embodiment and a corretator embodiment of the weighting function is used to show that the remote coding configuration can serve as a correlation embodiment of the weighting function, thus avoiding the need for TTD's in the signal path.

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