

A quick and efficient method for determining the scattering matrix of lossless microwave circuits

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The measurements of scattering coefficients of an n-port lossless circuit with a VNA may be tedious because the experimental results may be incompatible with each other and do not verify the conditions which relate the coefficients of the unitary matrix. In this letter, we show that it is efficient to fuse the data by calculating, in one step, the unitary part of the primary experimental scattering matrix.

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