

## Generalized Y-matrix of arbitrary 3D waveguide junctions by the BI-RME method

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This paper describes the extension of the BI-RME method to the determination of the generalized Y-matrix of arbitrary 3D waveguide junctions. The method yields the Y-matrix in the form of a modified pole expansion in the frequency domain. This representation of the generalized Y-matrix is very useful for the wideband analysis of complex structures that include the junction as a building block. Some examples demonstrate the advantages of this extension of the BI-RME method.

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