Abstracts

Integrated CAD procedure for iris design in a multi-mode waveguide environment

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A fast integrated CAD procedure for designing irises in multi-mode coupled cavity filters is presented. A reduced generalized scattering matrix (GSM), obtained by using adaptive frequency sampling for analysis, is combined with aggressive space mapping for coupling structures. The technique reduces the number of computational electromagnetic (CEM) analysis points needed for the design of an iris, achieving a reduction factor of up to 50 for a design coupling 3 modes across one iris.

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