Abstracts

Channel Expansion and Tolerance Analysis of Waveguide Manifold Multiplexer (Short Papers)

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A computer aided optimization procedure is introduced to enable the addition of extra channels to an already existing waveguide manifold multiplexer, without changing any of the existing multiplexer elements. The process provides the important advantage of the ability to expand the number of channels as required, a property which was only feasible before for channel dropping type multiplexer. The process is illustrated by practical examples that show its validity. Analysis of the effect of mechanical tolerances on the multiplexer performance is also presented to provide guide lines for the tolerance ranges in manifold multiplexer fabrication.

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