



MULTILAYER WAVEGUIDE

A multilayer waveguide with at least one transition device between layers of this guide

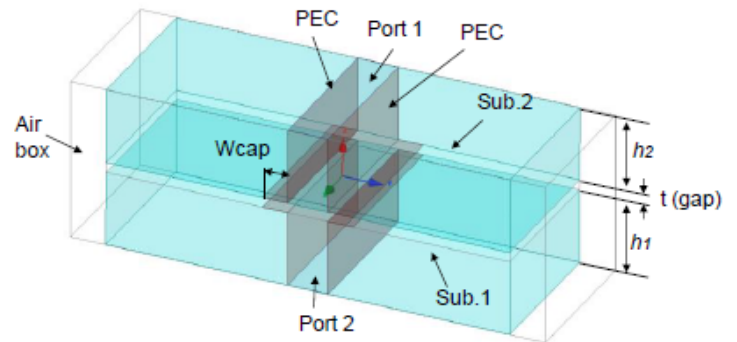
Technological benefits

A more permissive technology

- The waveguide is tolerant to manufacturing defects
- Absence of metal vias
- Circuit with many layers

More efficient technology

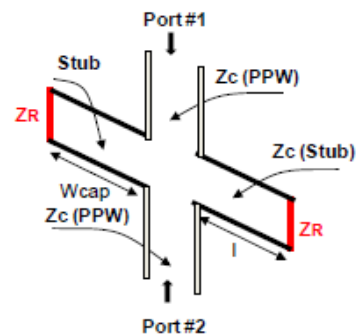
- Optimal transmission of power between two layers of this waveguide and comparable to conventional technologies (metal vias)



Invention overview

The aim of the invention is to propose a multilayer waveguide that ensures the guided electromagnetic wave optimum power transmission between two layers of this multilayer waveguide. No electrical contact is needed.

The invention comprises several layers acting as channels guiding an electromagnetic wave, and at least one transition device.



Potential applications

Antennas

- Guide usable for the construction of flat-waveguide antennas (PPW), antennas with radial slots ...

Signal transmission

- Guide for the production of beam formers (BFN): buttler, nolen etc ...

Electronic

- The guide can be used in technologies requiring a multilayer circuit without vertical electrical contact

Commercial benefits

Money saving

- The guide is less costly to manufacture

More effective technology

- Number of layers more important than conventional technologies

TRL : 4

Property 100% CNES