

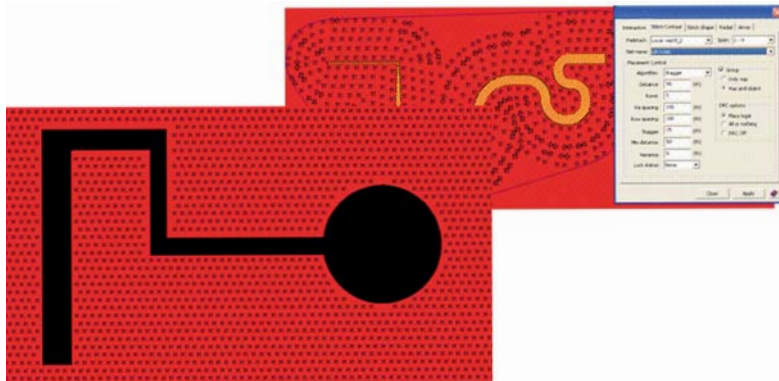
Simulating the RF section of a real PCB has been difficult, and often included cumbersome translations of non-intelligent layout data, such as GDSII or Gerber. This new methodology transfers layout data over the dynamic link and includes arbitrary metal shapes, cutouts and external connections. The dynamic link supports simultaneous connections to different RF simulation tools. On large, complex RF circuits, the simulation can be distributed to multiple computing platforms to reduce simulation time.

RF Layout Features

To further reduce design time, a large number of layout features have been added to the RF Design Tool. New RF layout features have been added to the RF Toolkit, which is a modeless and RF-centric environment of XE/Expedition. By keeping RF specific functions separated, the layout tool learning curve is minimized.

Stitchvias

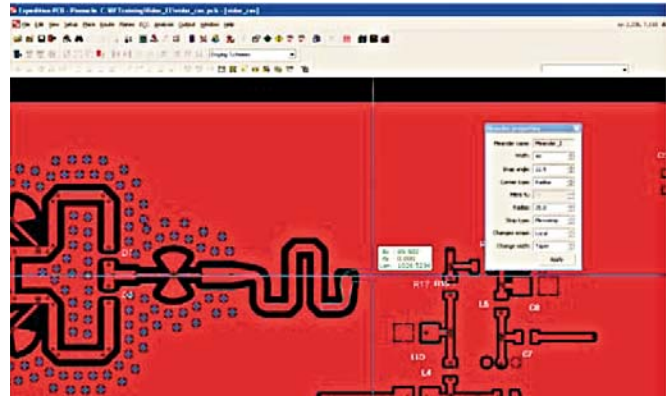
Adding ground vias to shield RF circuits has been time consuming. Now, large number of vias can be added in seconds. Vias can be grouped to allow easy movement or deletion. Vias are added based on user-provided rules.



Quickly add any number of ground vias.

Clearance Rules

RF designs often have very restrictive clearance requirements. A sophisticated graphical interface allows the user to control clearance in all directions of RF elements. The clearance can be controlled on the layer where the circuit is placed, and also on adjacent layers using z-axis clearance.



Meanders can be added at any time

Clearance, including the z-axis clearance, can be defined globally for circuit or for individual elements of the circuit.

Meanders

Meanders can be added at any time in layout and allow connection between elements in a controlled manner. The meander is an RF shape in the context that it supports sophisticated clearance rules. The meander can be broken down into elements and be simulated in a circuit simulation. The meander can also be sent over the dynamic link as layout data for EM simulation.

Auto Arrangement

The auto arranger can handle partial selections from a RF circuit or arrange the full circuit. RF shapes connect to each other at a natural angle but can be micromanaged by the user using a user friendly GUI.

RF Groups

RF circuits can be grouped to ensure that the circuit stays intact on the main system board. A circuit can also be divided into subgroups for partial simulations or to protect parts of the circuit.

Non-RF objects like highspeed traces, plane shapes or cutouts can be added into RF groups to be included in real PC-board simulations.

Note: Dynamic link integration requires additional software from Agilent or AWR.

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