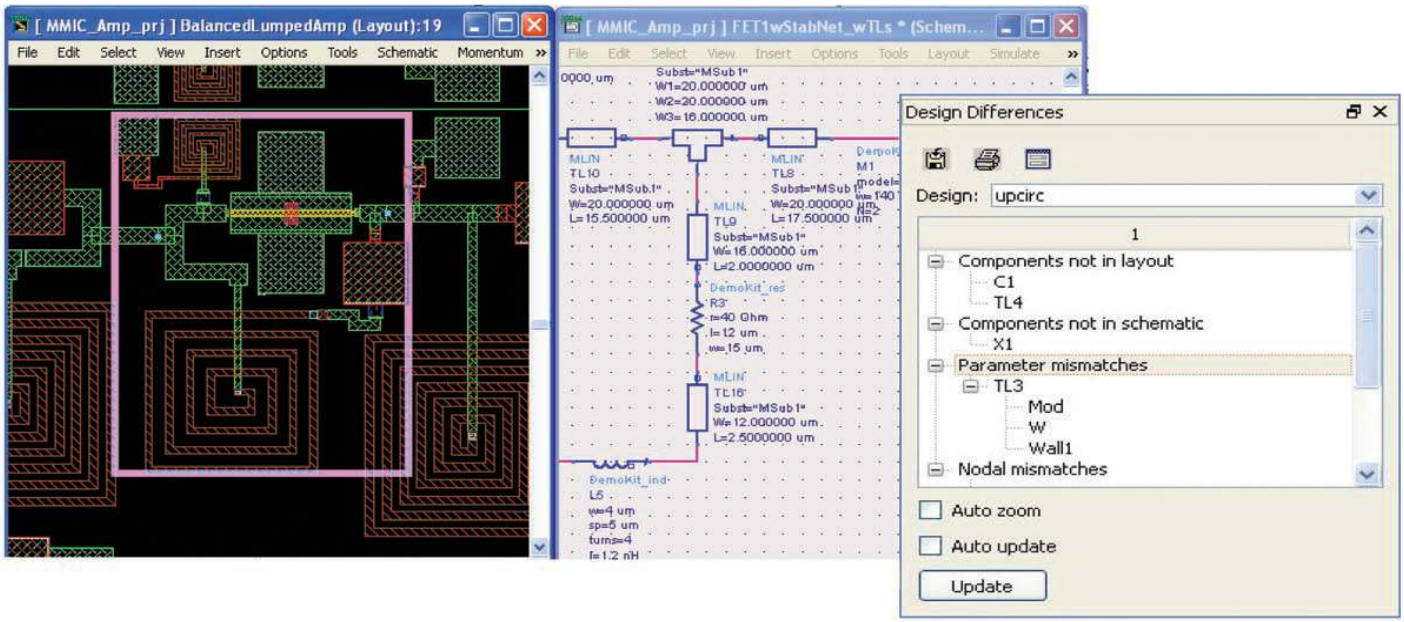
Keysight Technologies
EEsof EDA
W2321 Layout Element



Use the layout versus schematic difference report to synchronize layout and schematic – automatically or with full user control.

The W2331 Layout Element provides a complete high-frequency physical design environment for the Advanced Design System (ADS). ADS is the flagship product from Keysight Technologies Inc. EEsof EDA, the technology and innovation leader in high-frequency mixed-signal electronic design automation (EDA). ADS is the only design simulation platform that enables the co-design of IC, package, and board in high-frequency and high-speed applications. It seamlessly integrates system, circuit, and full 3D electromagnetic simulation with the Keysight test instrumentation, resulting in repeatable, first-pass electronic design success.

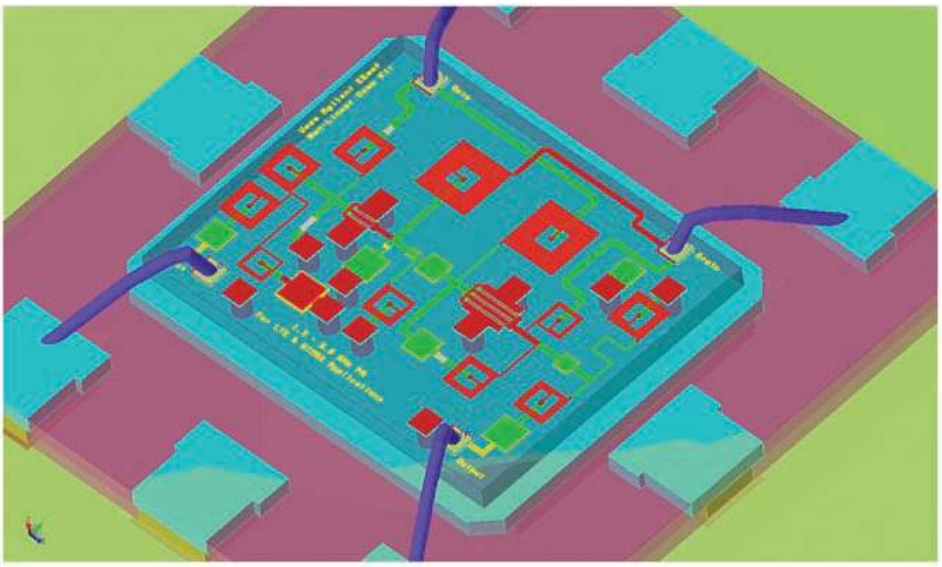
The ADS Layout Element was developed specifically for the physical design of high- frequency layouts in MMICs, RF Modules, RF PC boards, and printed antennas where the physical geometries, dimensions, and proximity must be carefully calculated and positioned to give optimum performance at RF and microwave frequencies. It is seamlessly integrated with the ADS schematic environment, where editing of dimensions in layout updates the schematic and vice-versa in a process called design synchronization, allowing layout changes to be instantly simulated by the circuit, planar, full 3D electromagnetic, or system simulators in ADS. MMIC designers particularly benefit from the features of ADS Layout because the design can begin more intuitively and positioning of edge pin connections can be precisely defined instead of always starting from schematic.

KEYSIGHT TECHNOLOGIES

The ADS Layout Element includes:

- Automatic layout synthesis and insertion of microwave and RF structures such as transmission lines, discontinuities, transitions, spirals, couplers, splitters, meanders wire bonds, and vias.
- An extensive and complete set of standard and advanced layout editing capabilities for creating production-ready, high-frequency layouts for MMIC, RF Module, and RF PC board design.
- Synchronization between layout and schematic environment to update changes in either one, with full user control of automatic or manual modes.
- User-defined layout macro and environment customization, and Graphical Cell Compiler technology to reduce manual programming.
- Industry-standard file format support, including GDSII, Gerber, DXF, and ODB++.
- 3D visualization with vertical stretching and sliding cut planes to verify placements of interconnects in multi-layer structures.
- Generation of layout look-alike components in schematic for error-free hookup with circuit or system components.
- Integration with Cadence Allegro and Mentor Expedition for designing RF/mixed signal PC boards
- Integration with Design Rule Check W2323 (DRC) element to ensure a correct MMIC layout before foundry tapeout.
- Integration with Momentum G2 Advanced Model Composer to generate layouts of arbitrary scalable passive 3D planar structures with accurate simulation models.
- Integration with Momentum G2 and EMDS G2 elements to enable EM optimization and viewing of electromagnetic surface currents and fields.

Unlike other high-frequency layout design tools where automatic schematic synchronization can sometimes misinterpret a manually refined layout, the ADS database architecture provides full user control of automatic or manual synchronization between layout and schematic to prevent unintended layout changes. The W2321 Layout Element integrates seamlessly with full 3D and planar EM simulators in ADS to provide the 3D planar drawing environment for EM simulation and viewing of surface currents and fields.



View layouts in 3 dimensions to verify correct component and bond wire placement.

KEYSIGHT TECHNOLOGIES

For more information on Keysight Technologies' products, applications or services, please contact your local Keysight office. The complete list is available at: www.keysight.com/find/contactus

Americas

Canada	(877) 894 4414
Brazil	55 11 3351 7010
Mexico	001 800 254 2440
United States	(800) 829 4444

Asia Pacific

Australia	1 800 629 485
China	800 810 0189
Hong Kong	800 938 693
India	1 800 112 929
Japan	0120 (421) 345
Korea	080 769 0800
Malaysia	1 800 888 848
Singapore	1 800 375 8100
Taiwan	0800 047 866
Other AP Countries	(65) 6375 8100

Europe & Middle East

Austria	0800 001122
Belgium	0800 58580
Finland	0800 523252
France	0805 980333
Germany	0800 6270999
Ireland	1800 832700
Israel	1 809 343051
Italy	800 599100
Luxembourg	+32 800 58580
Netherlands	0800 0233200
Russia	8800 5009286
Spain	800 000154
Sweden	0200 882255
Switzerland	0800 805353 Opt. 1 (DE) Opt. 2 (FR) Opt. 3 (IT)
United Kingdom	0800 0260637

For other unlisted countries:
www.keysight.com/find/contactus
(BP-09-23-14)

www.keysight.com/find/eesof-ads
www.keysight.com/find/eesof

This information is subject to change without notice.
© Keysight Technologies, 2009 - 2014
Published in USA, July 31, 2014
5990-3692EN
www.keysight.com