



AWR & CapeSym
Collaborative
Thermal Simulation

OVERVIEW

High-power RF components not only produce “high-power” but also generate heat – making it important to not only understand the electrical performance of the end device but also its thermal profile/impact as well.

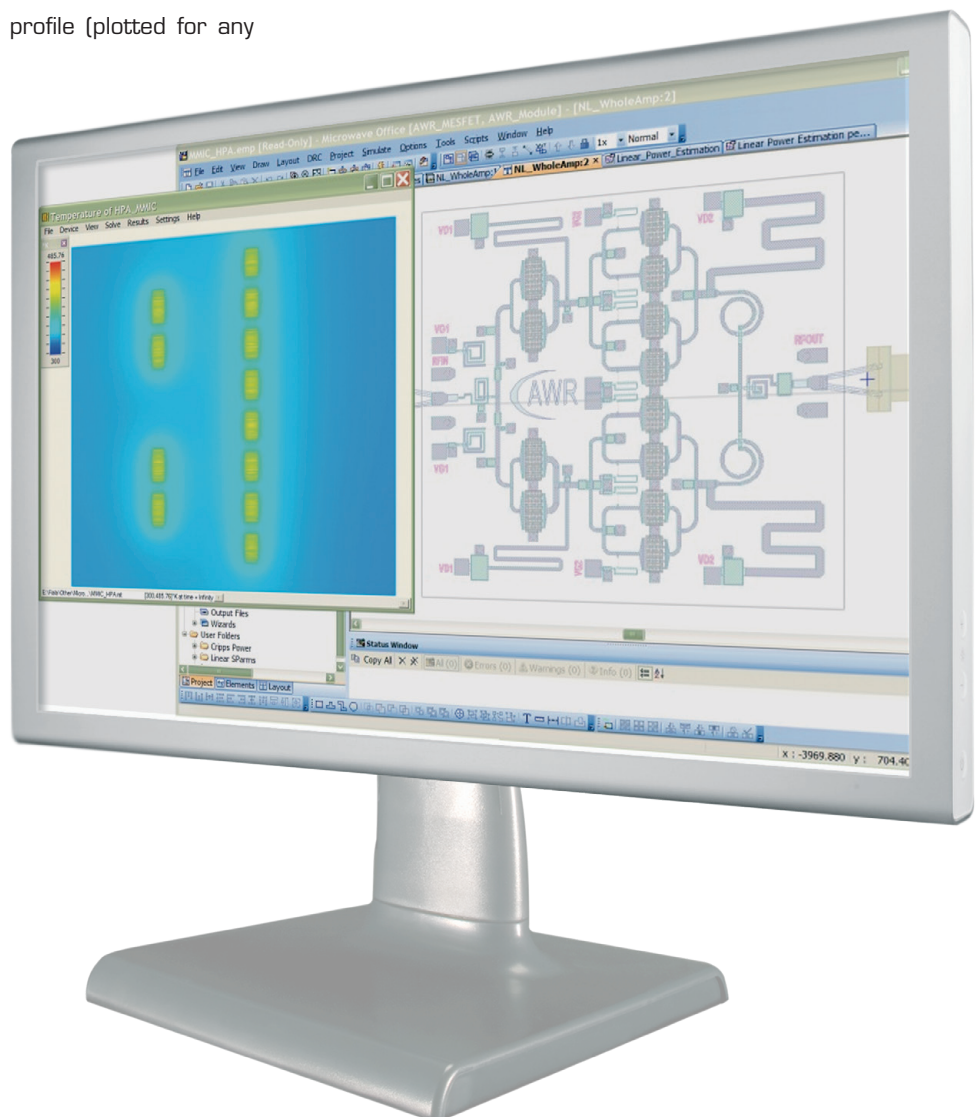
AWR Connected for SYMMIC is a unidirectional interface flow targeted at Monolithic Microwave Integrated Circuit (MMIC) designers that take AWR’s Microwave Office® designs into CapeSym’s SYMMIC software package for thermal analysis.

Together, AWR & CapeSym provide high-power RF designers with the ability to obtain optimal electrical performance with proper consideration given to thermal operating properties as well – resulting in next-generation RF and power systems designed more robustly and reliably.

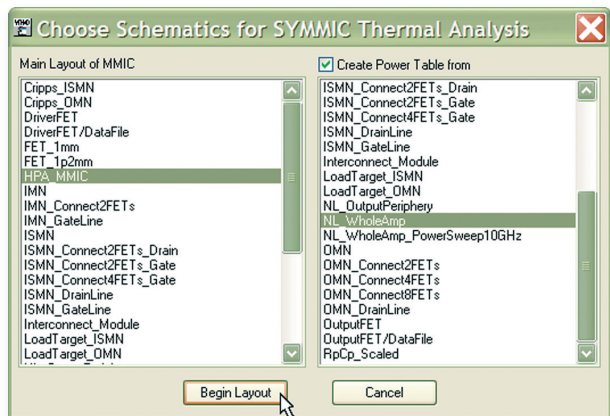
FEATURES AT A GLANCE

- ◀ Design export of the layout from AWR’s Microwave Office software
 - Specify individual, groups of or all circuit elements
 - Power levels and tables
- ◀ Easy-to-use script for streamlining design flow from Microwave Office to SYMMIC
- ◀ Thermal analysis of both constant and pulsed-power conditions
- ◀ Visualization of 3D temperature profile (plotted for any axis & animated through time)

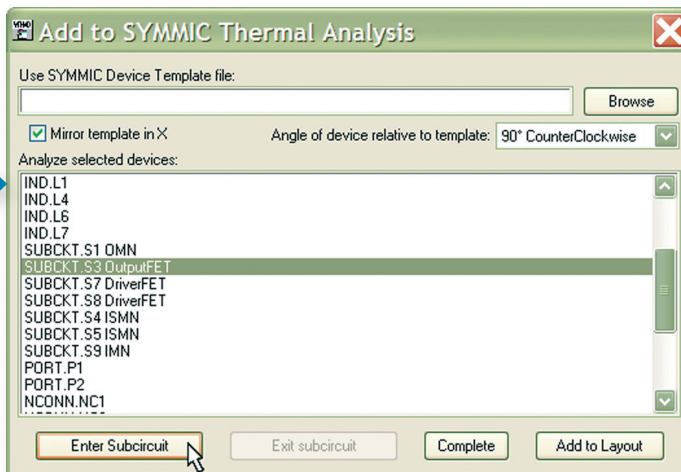
AWR Connected for CapeSym enables high-power designers to analyze the thermal effects of the MMICs.



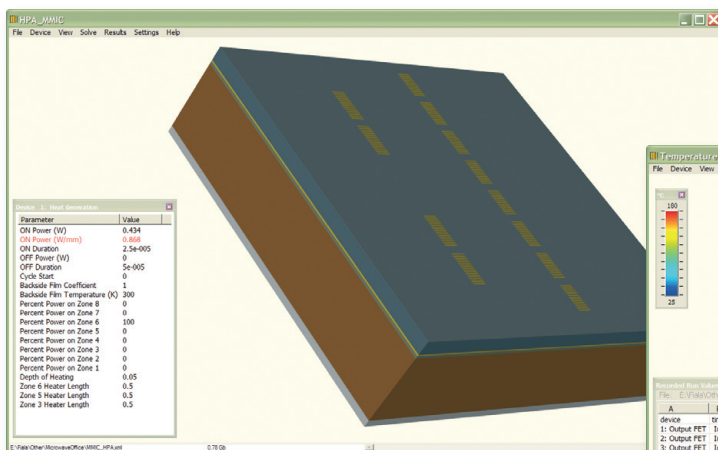
HOW IT WORKS



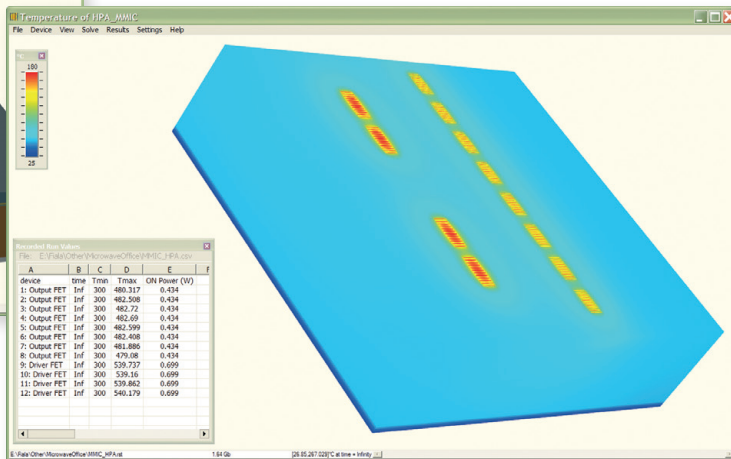
Step 1: Identify the relevant MMIC design from within Microwave Office



Step 2: Run the "Layout to SYMMIC" script in Microwave Office that selects individual / all circuit components for inclusion in SYMMIC thermal simulation



Step 3: View the resulting layout in 3D and run thermal simulation to see temperature gradients/profile



ABOUT CAPESYM AND SYMMIC

CapeSym (www.capesym.com), founded in 1992, is a multi-faceted engineering services company providing electronic materials processing, process optimization, and thermal management solutions to key clients worldwide.

SYMMIC (www.symmimic.net) is a software package for design-stage thermal analysis of high-power RF components. The easy-to-use simulator facilitates detailed analysis of heating in Field Effect Transistors (FETs) and MMICs.



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