

Overview

Power-amplifier (PA) designers can take advantage of the **Modelithics MACOM GaN Library**, which contains nonlinear simulation models for MACOM GaN packaged transistor devices. Among the features included within the MACOM GaN transistor models are variable bias conditions, temperature scaling, self-heating effects, and intrinsic I-V sensing. All models are validated using accurate broadband multi-bias S-parameters and multi-frequency load pull measurements.

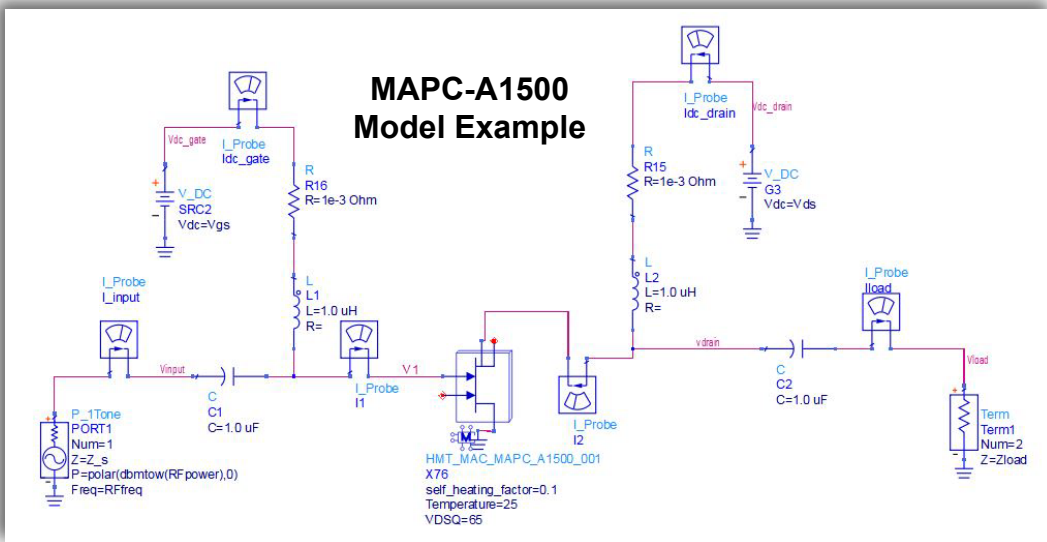
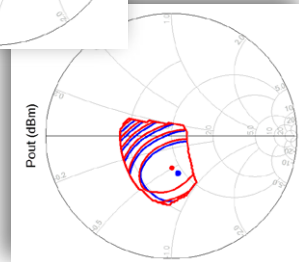
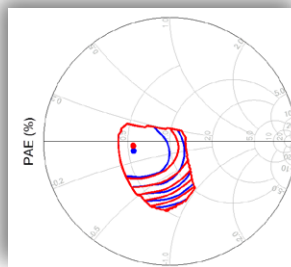
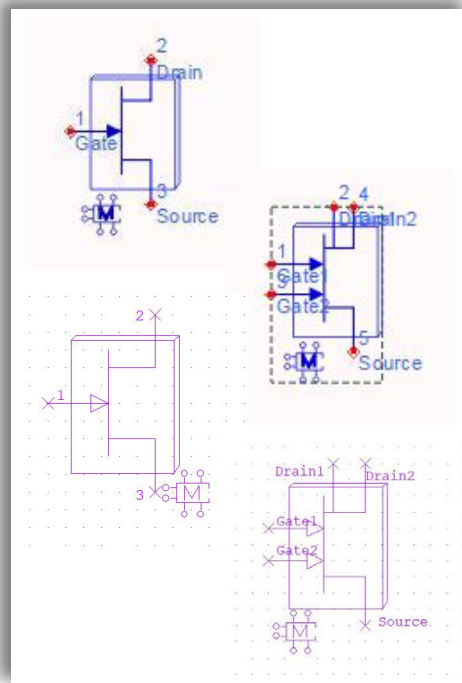
Model Features

With the Modelithics MACOM GaN Library models, designers have a solution that offers many advantages in comparison to ideal or file-based models. Model features include:

- **Compatibility with today's popular simulation software tools** - Models are available for both Keysight PathWave Advanced Design System (ADS) and the Cadence® AWR Design Environment® platform.
- **Measurement-based models** - Multiple precision measurements are performed under device-specific test conditions to develop each non-linear model.
- **Example projects** - Example design project files are included with the library. These example projects demonstrate the model features, illustrate various test bench simulation setups, and plot simulated results.
- **Thorough documentation** - Each model comes with its own model datasheet that lists recommended model validity parameters, measurement and test-fixture details, and model-to-measurement comparisons.

MACOM®









Modelithics®
Vendor Partner



(Above) Load pull Pout and PAE using MACOM MAPC-A1101 packaged transistor device
Red = model, Blue = measured

MACOM PURE CARBIDE™

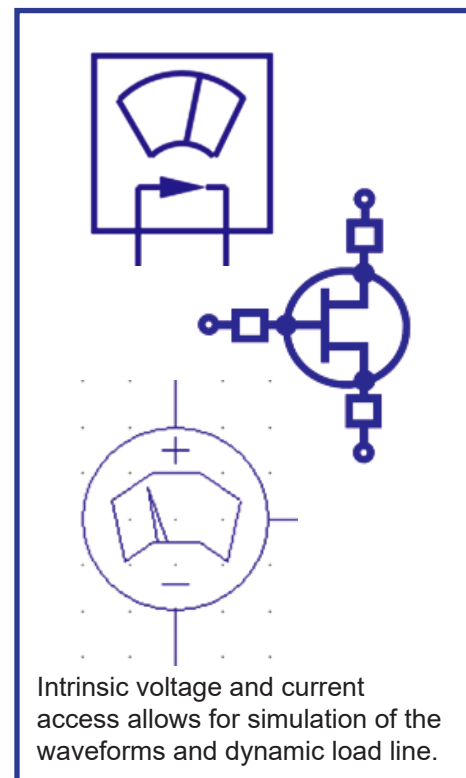
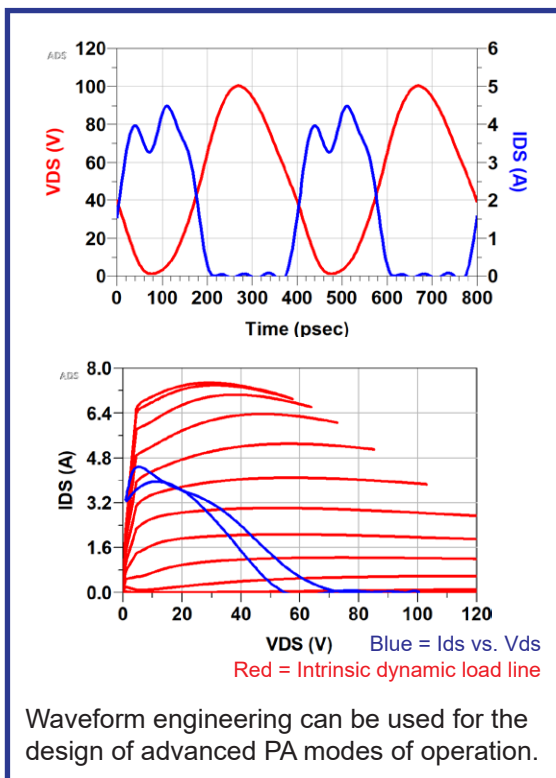
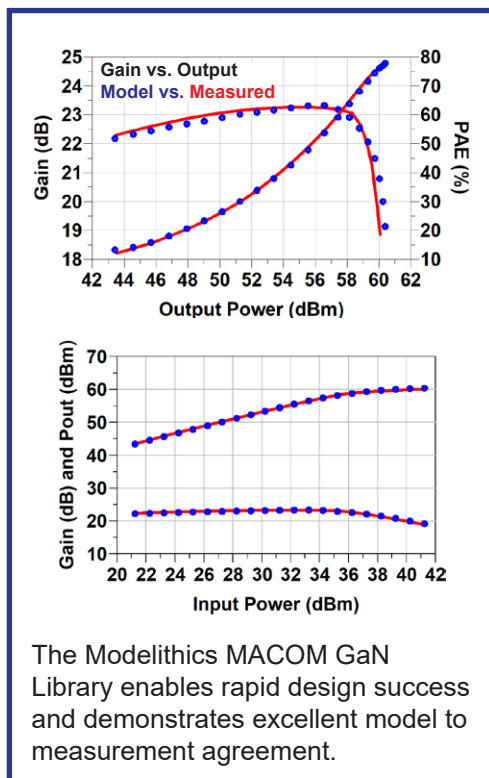
The Modelithics MACOM GaN Library includes models for these devices:

<p>MAPC-A1500 Industry Leading L-Band Performance</p>  <p>2.6 kW, 960-1215 MHz</p>	<p>MAPC-A1101</p>  <p>85 W, DC-3.5 GHz</p>	<p>MAPC-A1501</p>  <p>1.3 kW, 960-1215 MHz</p>	<p>MAPC-A1102</p>  <p>150 W, DC-3.5 GHz</p>
<p>MAPC-S1101</p>  <p>15 W DC - 12 GHz</p>	<p>MAPC-A1103</p>  <p>270 W, DC-2.7 GHz</p>	<p>MAPC-A1000</p>  <p>25 W, 30-2700 MHz, 50 Ω Input Matched</p>	<p>MAPC-A1100</p>  <p>65 W, DC-3.5 GHz</p>

More to come! More models are in development. Visit our website for an updated complete list.
www.Modelithics.com/MVP/MACOM

v22.1.7

Power Amplifier Design



What's in **YOUR** DREAM LIBRARY?

Help us build **YOUR** dream library! Pre-Release models are added based on customer demand. Share your desired models with [sales@modelithics.com!](mailto:sales@modelithics.com)

Visit the **MACOM MVP Page on the Modelithics website to:**

- Explore the current list of available MACOM component models
 - View model datasheets
 - Browse literature collection for application notes, presentations, etc.
 - Request* the Modelithics MACOM GaN Library
- www.Modelithics.com/MVP/MACOM

*with approval and/or valid registration

Modelithics
Vendor Partner