Modelithics’ non-linear GaN HEMT modeling service brings the trusted measurement and proven modeling expertise of Modelithics to the GaN technology area, where high accuracy, scalability and advanced model features are integral to the design process when using these devices. Every aspect of the modeling process is handled by Modelithics: From the precision characterization of the device, to the accurate modeling using Modelithics’ detailed processes and various topologies, to the packaging of the model and formatting for multiple popular EDA software tools.

Measurement Capabilities
- MMIC and package devices
- S-Parameters: 30 kHz to 170 GHz
- High Power Pulsed I-V to 30 A
- Measurements over temp (-55 - +200°C)
- Non-linear with Load Pull (0.2-50 GHz)

Model Features Offered
- Accurate small-signal performance
- Accurate large signal model
- Intrinsic I-V for waveform analysis
- Quiescent bias to capture trapping
- Low & high frequency noise behavior
- Self heat factor/electrothermal model

Simulator Compatibility
- Keysight Advanced Design System (ADS) and Genesys
- National Instruments AWR Design Environment (AWRDE)
- Cadence Spectre
- ANSYS HFSS
- PSPICE

Excellence in Modeling Since 2001
Non-Linear Transistor Modeling Process

Characterizations
- Static/Pulsed IV, CV, S-Parameters

Model Topology
- Angelov, EEHMET, CFET, etc.

Parameter Extraction

Advanced Testing
- Load Pull, Time Domain, Pulsed RF Measurements, etc.

Model Validation

Optimization/Tuning

Testing/QA

Final Model

Modelithics GaN Modeling Features

Trapping and Self-Heating Effects

Load Pull Validations

Packaged and Die Device Modeling

Intrinsic I/V Sensing for Waveform Analysis

For more information on Modelithics’ GaN Modeling Services:
Visit: www.Modelithics.com
Email: sales@Modelithics.com
Call: 888.359.MDLX (6359)