# Article information:

Getting to the heart of the matter: considerations for large-signal modeling of microwave field-effect transistors | IEEE Journals & Magazine | IEEE Xplore  
<https://ieeexplore.ieee.org/abstract/document/7054701>

# Article summary:

1. The field-effect transistor (FET) is widely accepted as a workhorse in microwave applications, but there are complicated interactions hidden between its terminals.

2. Characterizing FETs can be difficult due to dependence on how they are measured and a seeming lack of repeatability.

3. To model the active region of an FET, it is necessary to determine and characterize a model for the access network that can be subtracted from measured data to de-embed the intrinsic FET.

# Article rating:

Appears well balanced: The article presents the information in a reliable and balanced way, without biases and prejudices. The claims made in the article are well supported and, where applicable, all sides of the argument are given opportunity to present their point of view. The article appears trustworthy and reliable.

# Article analysis:

The article “Getting to the Heart of the Matter: Considerations for Large-Signal Modeling of Microwave Field-Effect Transistors” provides an overview of the complexities involved in modeling field-effect transistors (FETs). The article is well written and provides a comprehensive overview of the challenges associated with modeling FETs, including their dependence on how they are measured, their lack of repeatability, and the need to determine and characterize a model for the access network in order to de-embed the intrinsic FET.

The article does not appear to have any biases or one-sided reporting; rather, it presents both sides equally by providing an overview of both the challenges associated with modeling FETs as well as potential solutions. Additionally, all claims made in the article are supported by evidence from sources such as [1], [2], [3], [4], [5], and [6]. Furthermore, all possible risks associated with modeling FETs are noted throughout the article.

In conclusion, this article appears to be trustworthy and reliable; it provides an unbiased overview of both sides of large-signal modeling of microwave field-effect transistors while also providing evidence for all claims made throughout.

# Topics for further research:

* Large-Signal Modeling of FETs
* FET Measurement Techniques
* Access Network Characterization
* De-embedding of Intrinsic FET
* FET Modeling Challenges
* FET Modeling Solutions

# Report location:

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