

Extract more accurate compact transistor models with AM3200 pulsed IV



Solution Overview

AMCAD's AM3200-series pulsed IV system has been designed by modeling engineers for modeling engineers, with an emphasis on extracting III-V and MOS compact transistor models. With its fully integrated architecture consisting of multiple A/D measurement units in each pulser head, the AM3200 has been optimized to characterize a transistor over its entire IV plane while maintaining the highest levels of accuracy. The AM3200 can provide pulse widths down to 200ns for quasi-iso thermal transistor operation, and up to 200s to characterize trapping effects. With non-zero quiescent bias control, gate-lag and drain-lag effects are easily identified. The AM3200 has been designed to work seamlessly with the IVCAD software platform, which provides a turnkey solution for pulsed IV measurements, compact model extraction and load pull for model validation and refinement. The AM3200 will help you extract more accurate compact models in a shorter time and bring your designs to market quicker.



Features

- > Turnkey operation with integrated DC power supplies and measurement units (A/Ds)
- > Bipolar gate pulser rated at +/- 25V/A
- > High-power drain pulser rated at 250V/30A
- > Mix-and-match up to 32 pulsed channels
- > Provides voltages and currents with pulse widths down to 200ns
- > Asynchronous mode provides long pulse widths up to 200s
- > Internal and external synchronization and triggering
- > Embedded protection circuitry (electronic fuse)



Benefits

- > Extract more accurate models quicker with the highest resolution measurements
- > Do more with one state-of-the-art instrument that provides both short pulses for nonlinear modeling and long pulses for trapping characterization
- > One software platform supports a seamless transition from measurement to model extraction to validation and refinement



Applications

- > Linear and nonlinear compact model extraction
- > Electro-thermal compact model extraction
- > Trapping-effect compact model extraction