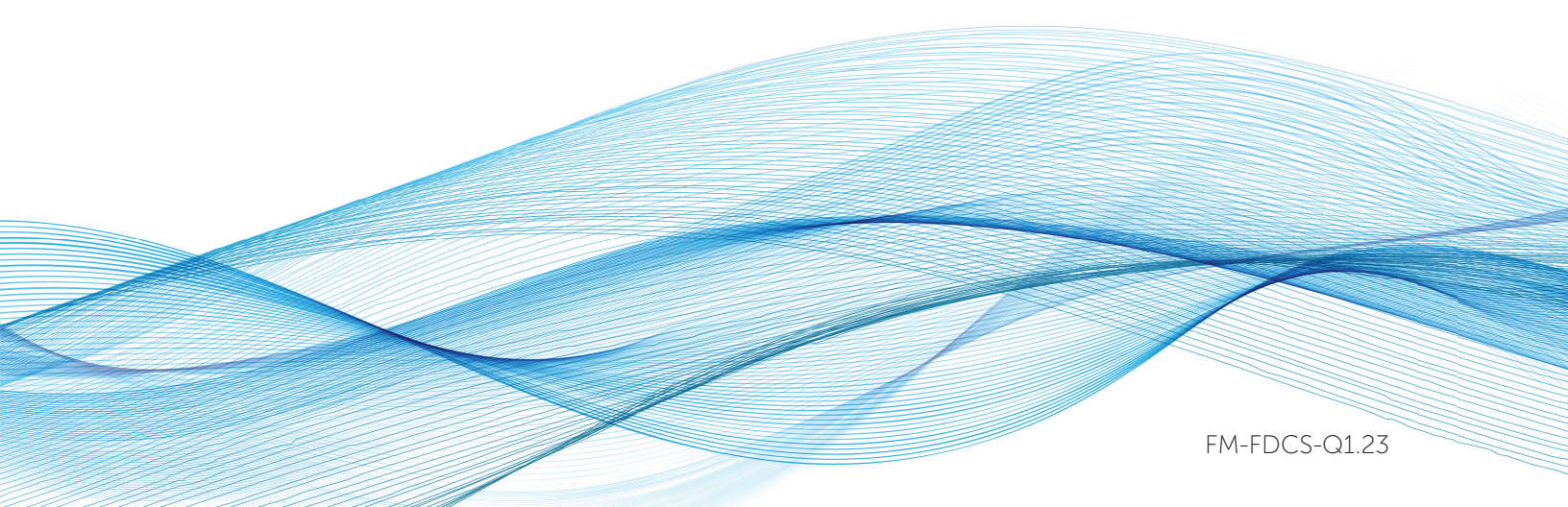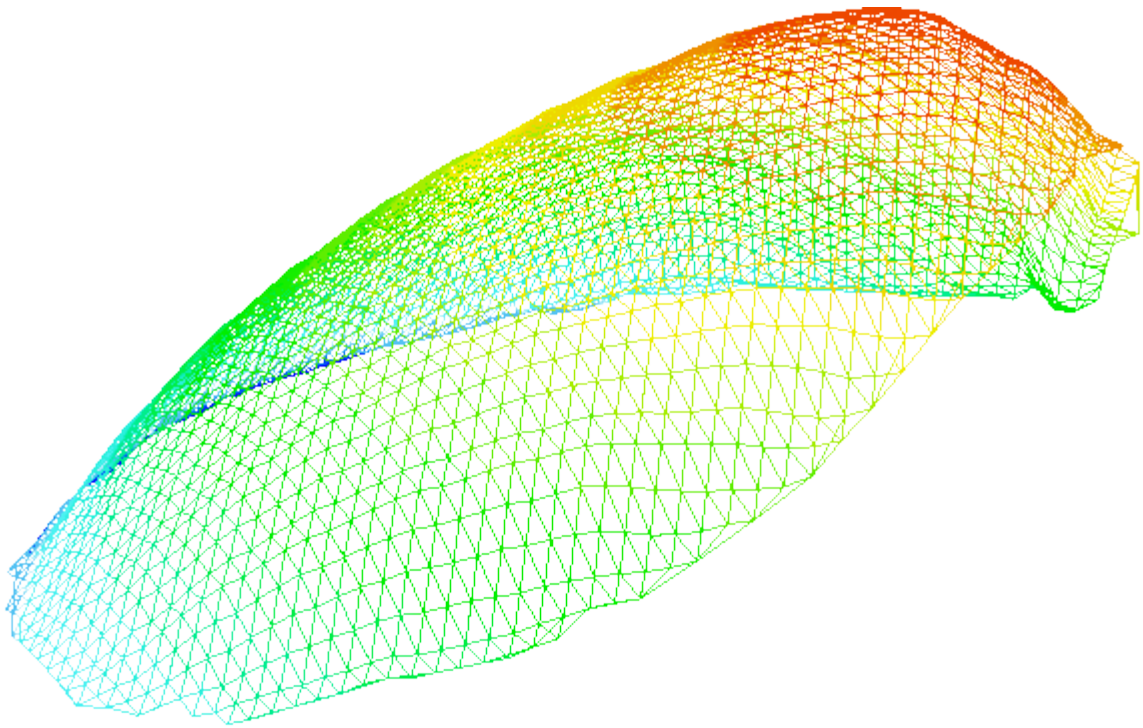# FOCUS MICROWAVES

FDCS
Focus Device Characterization Suite

Introduction | FDCS Focus Device Characterization Suite

FDCS includes several software products aimed at characterizing transistor devices. These comprise of Load pull, Noise parameters extraction, data plotting and API functionalities. Advanced utilities are available for tuner control/calibration, driver-based instrument communication, and reference plane de-embedding. FDCS incorporates advanced software routines for Scalar Load Pull, Time-domain based Vector Load Pull and Hybrid active injection Load Pull allowing the combination of active injection and passive tuning.
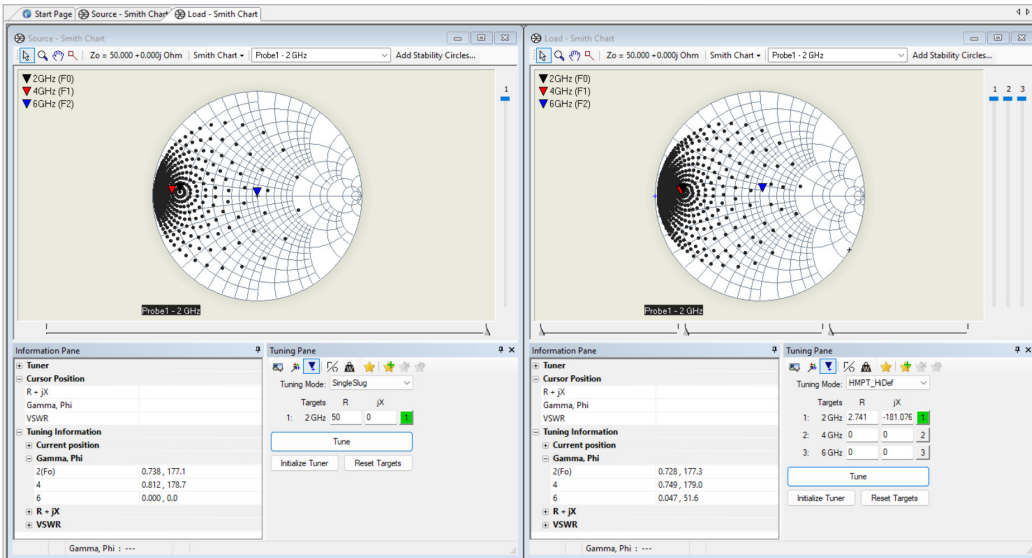
Load Pull User Interface

Data Explorer

Data Explorer is included in FDCS for graphical display of any measurement data produced from Load Pull, Noise or I/V measurements.
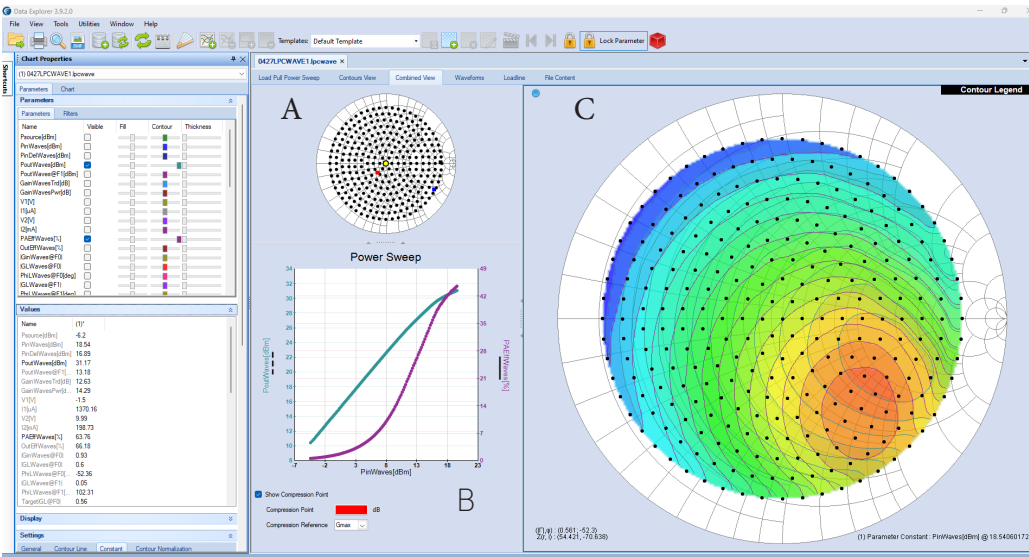
Plot A: Measured Impedance Points
Plot B: Power Sweep Curve
Plot C: Contour for Pout and PAE

FDCS Licences and Options

Focus Device Characterization Suite (FDCS)
Licences and Options

CalEx & GraphEx

Sparameter measurements and proprietary software algorithms to perform a variety of Tuner calibration operations using a Vector Network Analyzer.
Fundamental Tuner Control on any ActiveX platform using Telnet commands with on-board calibration upload and tuning. Allows FDCS independent tuner control.

CalEx-Lite & GraphEx

Non-upgradable software license with the same capability as CalEx & GraphEx.

MPT-ActiveX-Lite

Tuner movement and impedance control with harmonic tuners in ActiveX compatible programming platform. Requires FDCS installed on the PC for tuner control.

LFT-ActiveX-Lite

Tuner movement and impedance control with Low Frequency Tuners (LFT) in ActiveX compatible programming platform. Requires FDCS installed on the PC for tuner control.

Noise Parameter Extraction

NPEx

Automated Noise Parameter Extraction

NP-Macro

Noise Measurement Automation in any ActiveX platform

Scalar Load Pull

LP-Basic

Automated Load Pull Measurement using power meters for scalar power, Gain, Efficiency and DC Measurements.

LP-2H, LP-3H

Harmonic tuning functionality using proprietary impedance synthesis algoritms.

LP-Spectrum

Automated Spectrum Analyzer Measurements.

LP-Macro

Load Pull Measurement Automation in any ActiveX Platform.

Vector Load Pull

LP-Wave

Automated Vector-Receiver Measurements using Focus' 8 terms method.

LP-Active

Hybrid Active impedance synthesis using the combination of passive and active impedance synthesis techniques.

LP-PR

Time Domain Measurements using Mesuro Phase Reference.

CM+

Cardiff Behavioural Model Generation from Time Domain Load Pull Data.

LP-User

User generated custom measurement driver support. EVM and ACPR measurements. Wave-Based IMD/2-tone measurements.

LP-Pulse

Pulsed DC-IV & Pulsed Load Pull Measurement Support using Focus MPIV or Auriga Pulsed IV Systems (AU4850/AU5 with AU5 software.

UserDriverTuner

Third-Party Tuner Control.