# **EPS150TESLA**

A dedicated 150 mm manual probing solution for high-power device characterization



#### BENEFITS

#### Make everyone a measurement expert

Best-known methods for high-voltage and high-current test

## Ensure measurement accuracy up to 10,000 V and 100 A

High-isolation, low-resistance, low-leakage dedicated chucks and accessories

# Minimize time to data – start testing right away

Seamless instrument integration and fast setup

#### Protect your investment for the future

Re-configure and upgrade as requirements grow

#### **Minimize training efforts**

Designed for convenience and ease of use

The EPS150TESLA is a dedicated probing solution that comes with everything you need to achieve accurate measurement results in the shortest time, with maximum confidence. The system incorporates best-known methods for high-voltage probing of power MOSFET, IGBT, BJT and other power devices at breakdown voltages up to 3,000 V (triaxial) /10,000 V (coaxial), and high-current probing up to 100 A for lowest on-state resistance.

The EPS150TESLA allows you to achieve on-wafer test accuracy through the most stable system platform design with a vibrationisolation solution to protect contact quality over measurement time. Optimized optics and backlash-free X-Y-Z movement of industry-standard positioners, and a contact separation drive with 1  $\mu$ m repeatability, enable precise probe placement comparable to semi-automatic systems. A shielded environment reduces noise and provides safe operating conditions. The high-current and high-voltage probes with replaceable tips and the low-noise, high-power thermal and non-thermal chuck options allow you to measure at the wafer level with a high degree of confidence.

An intuitive operation workflow with pull-out chuck, single-handed chuck adjustment, and a highly-planar chuck surface and movement, as well as an interlocking shield enclosure, ensures safety and ease of operation for both the novice and the expert user.

Designed for upgradability and extendable with unique SIGMA<sup>™</sup> options, you can seamlessly integrate instrumentation, such as the Agilent B1505A parameter analyzer, to reduce time-to-data. To optimize device design without sacrificing space, a non-arcing probe card option is also available. Replaceable HC/HV probe tips reduce cost of ownership. The EPS150TESLA system is easily reconfigured to meet your future project requirements.



# EPS150TESLA

#### Stereo zoom microscope with C-mount

- Optimized long working distance
- Stable scope transport on solid bridge

#### High-voltage/current probes

• Accurate measurements up to 3,000 V (triax), 10,000 V (coaxial) and 100 A (pulsed)

#### Tailored HV platen for 10,000 V probing

- Up to eight positioners for lateral BJTs
- HV probe card option

#### Dedicated SIGMA solutions

• Seamless integration with Agilent B1505A and Curve Tracers CT-3100/3200 for optimum measurement accuracy

#### Unique 200 µm platen contact/ separation stroke

- <±1 µm accuracy for repeatable contact quality
- Convenient and easy to use

#### Chuck stage with 90 mm roll out

• Quick, risk-free and convenient wafer loading



#### Safety and shield enclosure

- Safety interlock integrated
- EMI and light-tight protection
- Feedthroughs for signal and media

### Industry-standard positioners

Consistent contact force and overtravel

#### **Patented chuck terminals**

• Easy reconfiguration

#### **Dedicated high-power chuck**

- Enabling 10,000 V, 100 A and triaxial 3,000 V
- Lowest surface resistance
- Thin-wafer handling
- Non thermal and thermal up to 300°C

#### Non-arcing probe card option

 For safe 10,000 V on-wafer probing and optimized IC design

### - Vibration-isolation solution

• Ensures contact and minimizes pad damage



*SIGMA option for Agilent B1505A* (*EPS-ACC-150T-AG*)



*SIGMA option for Curve Tracer CT-3100/3200 (EPS-ACC-150T-IW)* 



Application setup using triaxial probes

## **ORDERING INFORMATION**

Part Number

<u>Description</u>

EPS150TESLA	150 mm manual probing solution* for high-power applications (chuck option required)
OPT-EPS-150T-NT	Non-thermal chuck for EPS150TESLA
OPT-EPS-150T-300C	Thermal chuck for EPS150TESLA (ambient to 300°C)
EPS-ACC-150T-AG	SIGMA for Agilent B1505A, complete application integration including positioners, probes, tips, cables, adapters and interface
EPS-ACC-150T-AG-LT	SIGMA for Agilent B1505A light, application integration including cables, adapters and interface
EPS-ACC-150T-IW	SIGMA for Curve Tracer CT-3100/3200, complete application integration including positioners, probes, tips, cables, adapters and interface
EPS-ACC-150T-IW-LT	SIGMA for Curve Tracer CT-3100/3200 light, application integration including cables, adapters and interface
EPS-ACC-150T-PCH	Probe card holder option for EPS150TESLA for non-arcing 4.5" probe cards
EPS-ACC-TV	Analog TV option for EPS packages containing C-mount PAL TV camera, cables, power supply and 19" TV monitor

\* The EPS150TESLA manual probing solution includes: MPS150 probe station with a 150 mm chuck stage, a platen (20 mm height adjustment), fine chuck rotation, manual scope transport on bridge, camera-ready stereo zoom microscope with 15x - 100x magnification and LED illumination, vibration-isolation solution, EMI-shielded safety enclosure, mounted on a table, tweezers, and all tools for setup and operation. Requires thermal or non-thermal chuck option.

For more information contact us at 1-800-550-3279 (1-503-601-1000) or email sales\_support@cmicro.com

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