Cascade
TESLA200

200 mm On-Wafer Power Semiconductor Probing System - Semi-automatic

**TUV-certified probing environment**
- Enclosure for operator safety
- Interlock connection for test instruments
- Regulatory-approved high-voltage and high-current cables and connectors

**High-stability microscope mount**
- Manual or programmable
- Gross Z lift with repeatable focus for easy access to probes

**Connection panels**
- Coaxial, triaxial, and pin jack feed-throughs available
- Limit cable strain and motion for measurement stability
- Instrument stays connected to back of panel
- Probe connection made at front of panel
- Simple to re-arrange cabling when needed

**MicroChamber®**
- EMI-shielding for low-noise measurements
- Environmentally sealed for moisture-free, low-temperature measurements
- Low volume for the fastest purge
- Light-tight to eliminate the need for a dark box

**TopHat™**
- New TopHat covers for easier and higher-accuracy probe setup
- Allows full access to positioners and microscope at any temperature
- Allows probe adjustments without exposing wafer and chamber to external environment

**AttoGuard®**
- Extends instrument guard to completely surround wafer
- Makes the station invisible to the instrument
- Extremely low capacitance and leakage characteristics
- Fast settling times

**PureLine™ technology**
- Enhanced EMI-shielding
- Ideal for low-level IV and CV measurements

**Platen lift**
- Easy and safe contact and separate function for probe cards and positioners
- Available micrometer adjustment to set probe card contact

**MicroChamber access door**
- Autolocking door to protect wafers at cold temperatures
- Full width for easy access to wafers and cal substrates
- Hardware interlock to protect user from hazardous chuck bias voltage

**Rollout stage**
- Full wafer access for safe and easy loading
- Maintains chuck integrity without contaminating layers
- Easy access to calibration substrates on auxiliary chucks
- New lift pin technology for fast manual load/unload of hot wafers

**eVue™ IV Digital Imaging System**
- Fast probe set-up with wide field-of-view and single objective in MicroChamber
- Easy navigation with multiple live video views of probes and wafer
- New high-speed focus system for faster and accurate die stepping
- New safety features for probes and usability

**Velox™ probe station control software**
- Innovative operating software for advanced probe operation, temperature control, 2-profiling and stepping
- Wafer mapping, automated wafer alignment, and auto XY and theta correction for sub-micron stepping

**Probes / Probe cards**
- High voltage (3 kV / 10 kV)
- High current (300 A)
- Low leakage
- Anti-arcing support

**Contact Intelligence™ Technology**
- Integrated HTS (High Thermal Stability) reduces probe drift and thermal soak time
- Optional VueTrack™ reduces thermal soak time (faster time to data)
- Enables unattended test over multiple temperatures

**Auxiliary chucks**
- High voltage 10 kV compatible multi-purpose mounts for substrates (cleaning, contact)
- Automated probe cleaning capabilities

**Manual mode stage control**
- Intuitive manual chuck XY stage controls in semi-automatic engineering mode
- Safe mode: automatically disables manual controls in automation mode

**Precision 200 mm motorized wafer stage**
- New user-selectable performance modes for standard, fast and high accuracy
- Increased test throughput with up to 100 mm/sec speed
- High reliability 24/7 operation

**Scalable system**
- In-field upgradable wafer loading and automation
- Add test accuracy improvements for increased test performance

**Patented TESLA chuck technologies**
- HV FemtoGuard(R) 3kV (triax) / 10kV (coax), and low leakage
- Gold-plated MicroVac(TM) surface for minimal chuck-to-wafer contact resistance
- 3kV coaxial and high current (600A) options
- Wide range of temperature options from -55°C to 300°C and higher
- Specialty chucks for +400°C, and low inductance / Cap(res) for UIS (unclamped inductance switching)

**Compact small footprint**
- Integrated vibration isolation for reliable small pad probing
- Integrated system electronics with power loss wafer safety protection