

Cascade SUMMIT200

200 mm Semi-automated Probe System



“The new SUMMIT200 advanced probing system enables up to 5X faster time to accurate data.”

Versatile microscope mount

- High stability or large area
- Boom stand for low power optics
- Gross Z lift with repeatable focus for easy access to probes
- Manual or programmable
- Field-upgradable

Connection panels

- Coaxial, triaxial, and pin jack feed-troughs 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

Platen lift

- Easy and safe contact and separate function for probe cards and positioners
- Available micrometer adjustment to set probe card contact
- Probe and device safety interlock

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
- ProbeView window for probe and device visibility

PureLine™ technology

- Enhanced EMI-shielding
- Lowest spectral noise floor and system AC noise
- Ideal for low-level and 1/f measurements

AttoGuard®

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

MicroChamber®

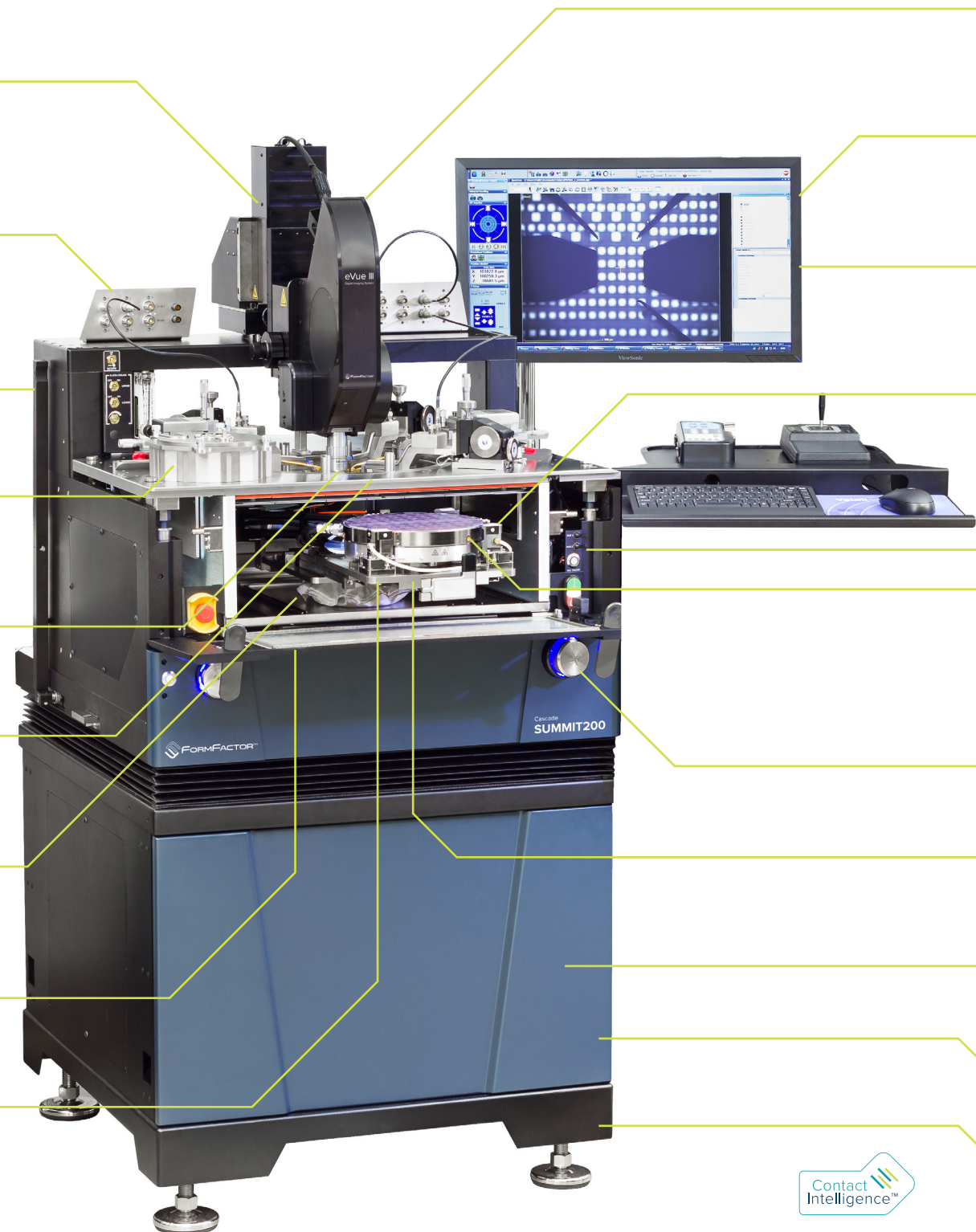
- EMI-shielding for low-noise measurements
- Environmentally sealed for moisture-free, low-temperature measurements
- Low volume for the fastest purge
- Light-tight to eliminate the need for a dark box

MicroChamber access door

- Auto-locking 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 prober operation, temperature control, z-profiling and stepping
- Wafer mapping, automated wafer alignment, and auto XYZ and theta correction for sub-micron stepping

WinCal XE™ RF Calibration Software

- Comprehensive and intuitive on-wafer RF measurement calibration software
- Achieve the most accurate and repeatable calibrations every time
- Supports advanced calibration algorithms, e.g. LRRM, eLRRM, Hybrid LRRM, SOLR
- Supports up to 12 VNA ports

Auxiliary chucks

- Up to 3 integrated multi-purpose mounts (calibration, cleaning, contact)
- New microwave absorber and material options (ceramic, steel)
- Thermally isolated to prevent load drift over temperature
- Automated probe cleaning capabilities
- Optional probe alignment fiducial

Chuck vacuum control

- Independent zones for various wafer sizes, dies and shards
- Easy access controls for auxiliary chucks

Modular chucks

- FemtoGuard® triaxial and coax versions available
- MicroVac option for thin wafer support and best thermal conductivity
- High-performance thermal and economical non-thermal options
- Wide range of temperature options from -60 °C to 300 °C and higher

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 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

Contact Intelligence™ Technology

- Integrated HTS (High Thermal Stability) reduces probe drift and thermal soak time
- Optional VueTrack™ enables fast time to data even when measuring over a large thermal range
- Enables unattended test over multiple temperatures

Scalable system

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

Compact small footprint

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



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