

A. CHASE CENTRAL LAB : Www.chase.uconn.edu/scheduling

a. Zeiss Xradia Versa 510



Technical Specification

Spatial Resolution	700 nanometer
Resolution at a Distance (50mm)	1 micron
Minimum achievable voxel size	70 nanometer
X-ray source Maximum Out put	10 Watts
X-ray source voltage range	30-160 KV
Detectors	0.4X-1X-4X-10X-20X-40X
Sample size limit	300 mm
Stage load capacity	15 Kg

b. Keyence VHX2000 Super resolution Digital Microscope



Technical Specification

Magnification ¹		250×	300×	500×	1000×	1500×	2000×	2500×
Field-of-view (mm inch)	Horizontal	1.22 0.05"	1.02 0.04"	0.61 0.02"	0.31 0.01"	0.2 0.01"	0.15 0.005"	0.12 0.004"
	Vertical	0.92 0.04"	0.76 0.03"	0.46 0.02"	0.23 0.01"	0.15 0.005"	0.11 0.004"	0.09 0.003"
	Diagonal	1.52 0.06"	1.27 0.05"	0.76 0.03"	0.38 0.01"	0.25 0.009"	0.19 0.007"	0.15 0.005"
Working distance (mm inch)					6.5 0.26"			

c. Cascade MPS 15 Probe Station



Technical Specifications

MPS150

A modular 150 mm manual probe system designed for upgradability

Wide selection of microscope movements

- Manual up to 150 mm x 100 mm
- High-resolution manual 50 mm x 50 mm
- Motorized 50 mm x 50 mm

Application-specific 150 mm chucks

- Coaxial, triaxial and RF/mmW with AUX sites
- Non-thermal or thermal up to 300°C
- Support single chip down to 3 mm x 5 mm
- $< \pm 3 \mu\text{m}$ chuck planarity

Dedicated probe platens

- Rigid and stable design
- mmW platen for RF, mmW, sub-THz, load-pull and RF noise applications
- Cooled platen for chucks up to 300°C

Platen movement

- 40 mm travel range for maximum flexibility
- Quick and easy reconfiguration from wafer to package board application

Unique 200 μm platen contact/separation stroke

- $< \pm 1 \mu\text{m}$ accuracy for repeatable contact quality
- Convenient and easy to use

Chuck theta rotation

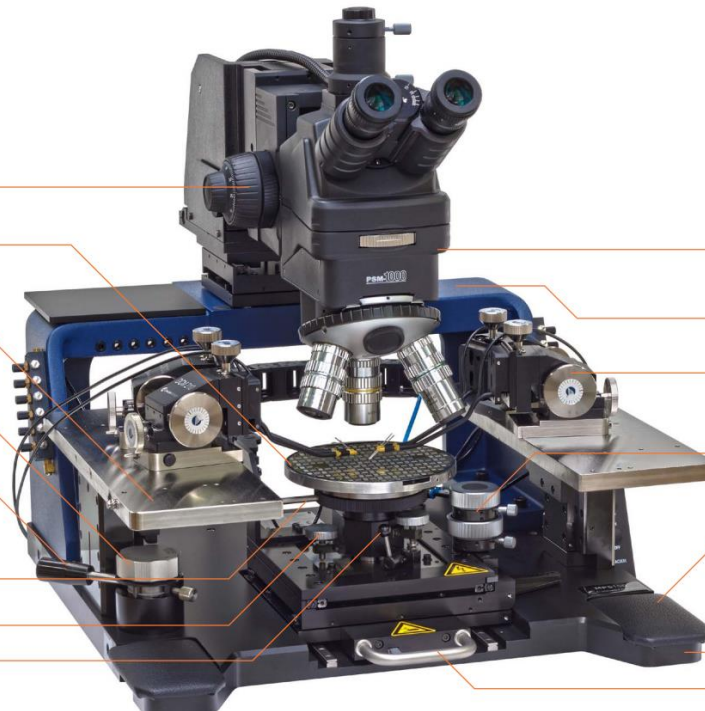
- 360° for easy alignment
- Fine adjustment for accurate probe-to-pad alignment on small pads

Precision chuck Z movement

- 10 mm range for precise wafer height adjustment

Load stroke up to 3 mm

- Chuck stroke for convenient and safe wafer loading



Variety of optics options

- eVue™ unique digital microscopes for high-magnification with large FOV
- Stereo and high resolution, camera ready
- Laser capability

Microscope mounting solutions

- Solid bridge for maximum microscope stability and low drift
- Alternate boom stand for stereo microscope

Positioners and probe cards

- Supports all Cascade Microtech positioners with positioning capability down to submicron levels
- Simultaneous use of probe card and positioners
- Dedicated probe arms for accurate I-V, pulsed I-V, C-V, RF, mmW, HW and HC measurements

Chuck X/Y movement

- Precise X/Y positioning with $\pm 5 \mu\text{m}$ resolution
- Coax knobs for convenient single-handed operation
- Independent axis locks for easy linear navigation
- Individual axis friction adjustment for precision control

Compact base with arm rest

- Small 490 mm x 490 mm footprint
- Convenient operation

Vibration-isolation solution

- Ensured contact and minimized pad damage

Chuck stage with 90 mm roll out

- Quick, risk-free and convenient wafer loading

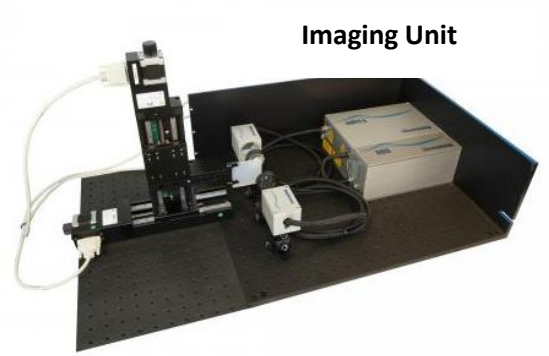
d. Menlo Systems TERA OSCAT Tera Hertz Spectrometer



Reflection Guide



Imaging Unit



Technical Specifications

TERA OSCAT	
Scanning mode	step and rapid
Total scanning range	up to 4 ns (pulse-to-pulse, virtually unlimited)
Rapid scanning range	up to 40 ps
Rapid scanning rate	>200 waveforms / s
THz Specifications	
THz bandwidth	>3 THz in step mode, >1 THz in rapid mode
Dynamic range	>60 dB in step mode, >35 dB in rapid mode
Laser Specifications	
Wavelength	1560 nm +/- 20 nm
Repetition rate	250 MHz +/- 1 MHz
Pulse width	<90 fs directly from laser, <120 fs after OSCAT delay line
Dimensions / Weight	
Optical unit	450 x 560 x 200 mm ³ / 34 kg