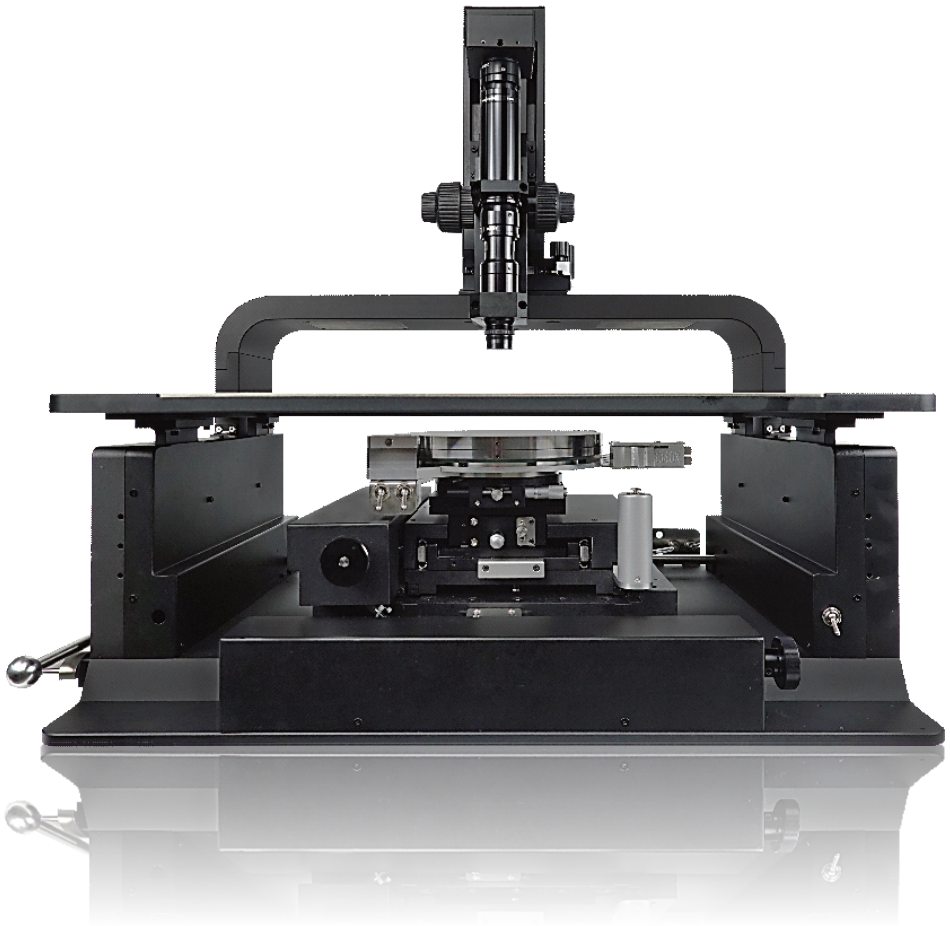
XMPS-208
8-INCH MANUAL PROBE STATION

At a Glance

XMPS-208 is an 8-inch manual probe station designed to streamline chip level characterization, enabling DC to THz measurements with a complete low-noise I-V/C-V testing solution and professional I-V, C-V, and RF test capability.

Its professional three-axis upgrade architecture enables I-V leakage measurements down to the fA level, while the 8-inch (200 mm) multi-hole adsorptive chuck improves compatibility and contact stability for thin-wafer testing.

A high-quality microscope with a high-resolution CCD provides direct visibility of the probing area, and the system supports upgrades such as high/low temperature aging environments and modular expansions including load-pull, terahertz, irradiation, and 1/f noise systems.



XMPS-208 Features & Specifications

Measurement Capability

- DC to THz measurement ready
- I-V / C-V / RF on one platform
- Optimized RF path for THz extraction

High-Precision Mechanics

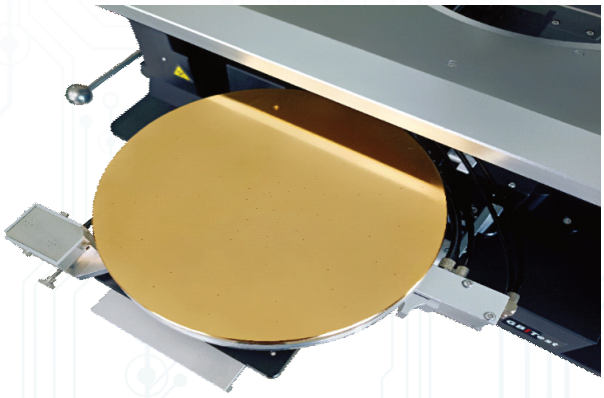
- Probing resolution: < 2 μm
- X/Y travel: 210 mm × 210 mm
- X/Y accuracy: ≤ 2.0 μm

Low-Noise & Expandable

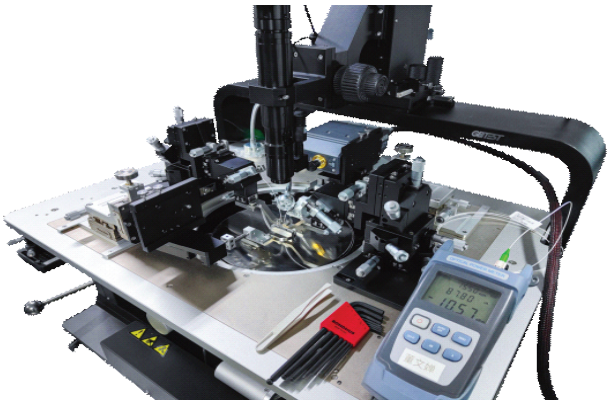
- fA leakage (3-axis upgrade)
- 8" vacuum chuck, flatness ≤10 μm
- Load-Pull / Irradiation / 1/f noise

Easy Operation

- One-hand chuck move & lift
- Integrated vacuum switch
- Fast chuck switching: 8" / 6" / 4" / 4mm



8-inch Vacuum Chuck



THz Silicon Optical Chip Test System

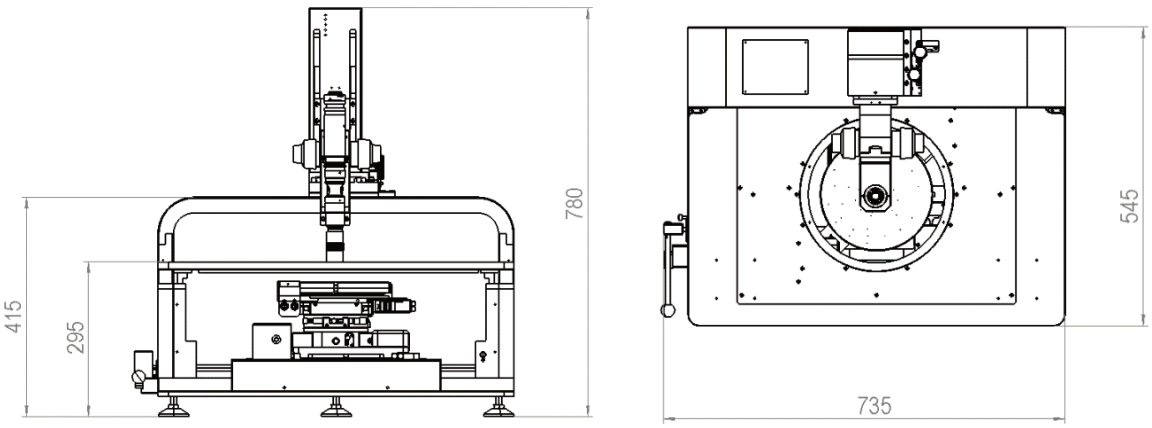
mmWave Test System

Load-Pull Test System

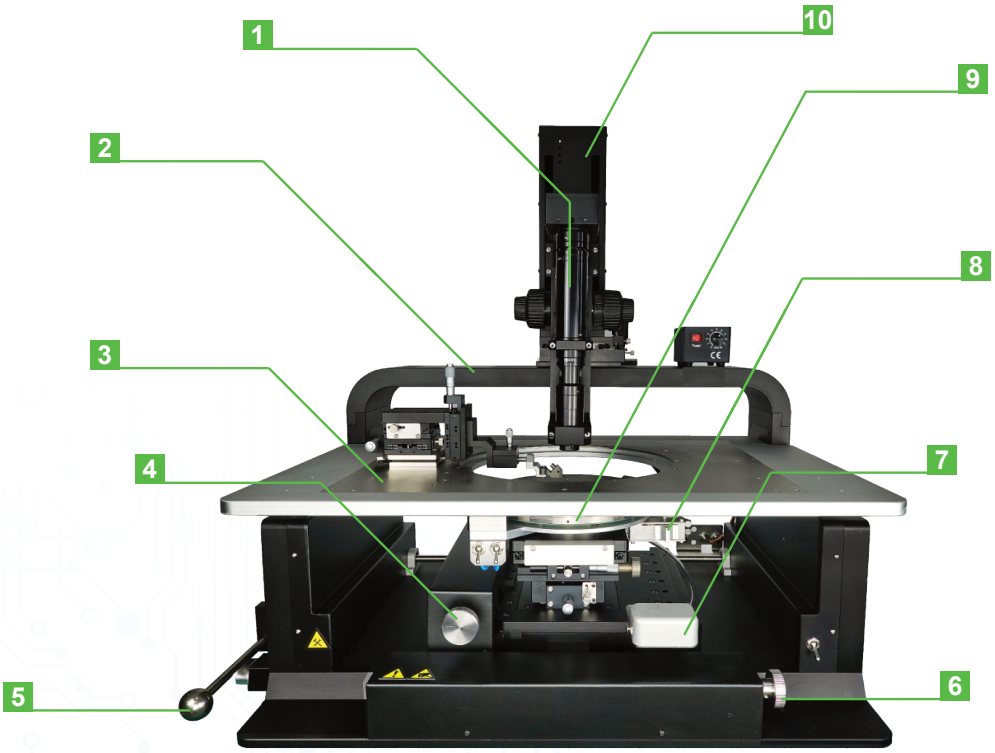
XMPS-208 Specifications

Category	Item	Specification
Measurement	Frequency domain capability	DC to THz measurements
	Supported tests	I-V / C-V / RF
	Leakage performance	I-V leakage accuracy reaches fA level
Probing & Motion	Probing resolution	High-resolution probing system: <2 μm
	XY quick movement module	X/Y Travel: 210 mm × 210 mm
	X-axis full-stroke displacement module	Travel ≥210 mm Accuracy ≤2.0 μm
	Y-axis full-stroke displacement module	Travel ≥210 mm Accuracy ≤2.0 μm
Chuck	Chuck type & size	8-inch (200 mm) multi-hole adsorptive chuck
	Chuck flatness	Flatness ≤10 μm
	Adsorption quick switch	Quick switch between 8-inch / 6-inch / 4-inch / 4 mm area adsorption
Optics	Microscope	400X continuous zoom APO objectives HD camera
	Microscope stand	Stable microscope stand Reliable support
	Microscope lift module	Z-axis travel ≥100 mm Adjustment precision ≤0.5 μm
Operation	Damping lever	Chuck can be pulled out by more than 80%
Platform	Surface treatment	Industrial-grade stable matte surface
Expandability	System expansion	Load-pull / terahertz / irradiation / 1/f noise systems

Physical Dimensions (mm)



XMPS-208 Component Overview



No	Component	Description
1	Manual continuous zoom microscope	Continuous zoom for clear inspection, alignment, and probing.
2	Stable microscope stand	Rigid stand for stable focus and repeatable positioning.
3	Industrial-grade stable matte surface	Matte, anti-glare surface for stable, durable operation.
4	High-precision Y-axis full-stroke displacement module	Precision Y travel for accurate positioning across full stroke.
5	Unidirectional damping lever	Damped control for smooth motion and reduced overshoot.
6	X-axis full-stroke displacement module	Precision X travel for fast, accurate positioning.
7	Chuck quick movement module	Rapid coarse movement for loading and initial alignment.
8	Quick switch for adsorption	One-touch vacuum hold/release for quick loading.
9	8-inch Chuck	8-inch vacuum chuck for secure, flat wafer holding.
10	Pneumatic microscope lift module	Pneumatic lift for smooth height adjustment and clearance.