

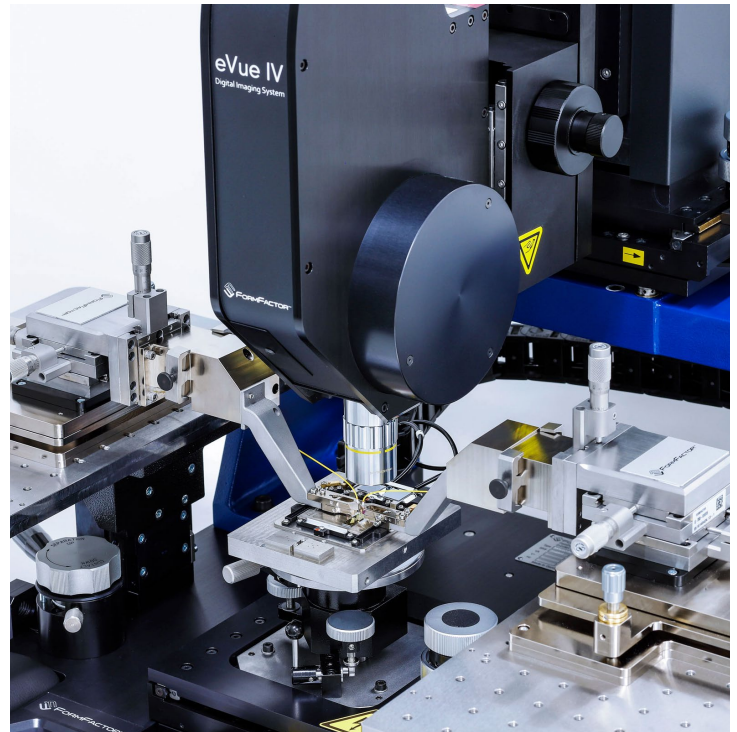
MPS150-SiPh

Manual Solution for Surface Coupling and Horizontal Edge Coupling

➤ Overview

FormFactor introduces a cost-effective silicon photonics measurement solution to support fundamental research in emerging applications. The system incorporates FormFactor's years of experience in developing automated photonics measurement systems, now customized to meet the specific needs of universities and other entry-level users.

The MPS150-SiPh enables precise alignment of optical fibers, allowing for the efficient coupling of light into and out of a device without the need for physical contact. Leveraging its intuitive design, the MPS150-SiPh is an ideal solution for users with less experience in photonics, providing them with the opportunity to explore the field and achieve the highest level of test accuracy.



➤ Features / Benefits

Retro-Mirror Technology

- Unique DUT holder allows high precision horizontal viewing
- CalVue and DieVue enables users to adjust optical probes for achieving optimal measurement performance
- Allows surface coupling and horizontal edge coupling for single fibers and fiber arrays

Tip-tilt Base Positioner

- Manual or automated adjustment of the incident angle in 6 degrees of freedom
- Leverages standard fiber holders

Optical Performance

- System can be equipped with FormFactor's revolutionary eVue digital imaging system or high-performance SlimVue microscope
- The eVue's revolutionary design provides the perfect balance between optical resolution, digital zoom and live motion video
- The system enables to navigate, observe and measure devices faster and smarter than ever before
- Spectrum software allows to measure z-displacement

➤ Mechanical Performance

Chuck Stage

Travel	155 mm x 155 mm (6 in. x 6 in.)
Resolution	5 μm
Planarity over 150 mm (6 inch)	< 10 μm
Load stroke, Y axis	90 mm
Z height adjustment range	10 mm
Z contact / separation / load stroke	0-3 mm adjustable
Theta travel (standard)	360°
Theta travel (fine)	$\pm 8^\circ$
Theta resolution	7.5×10^{-3} gradient

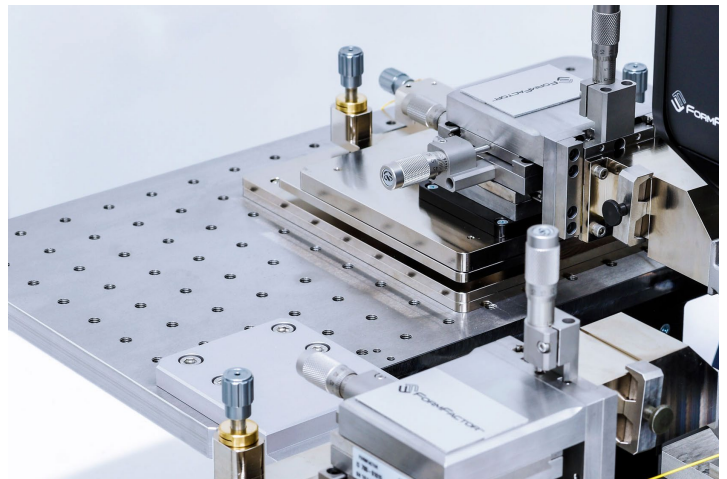
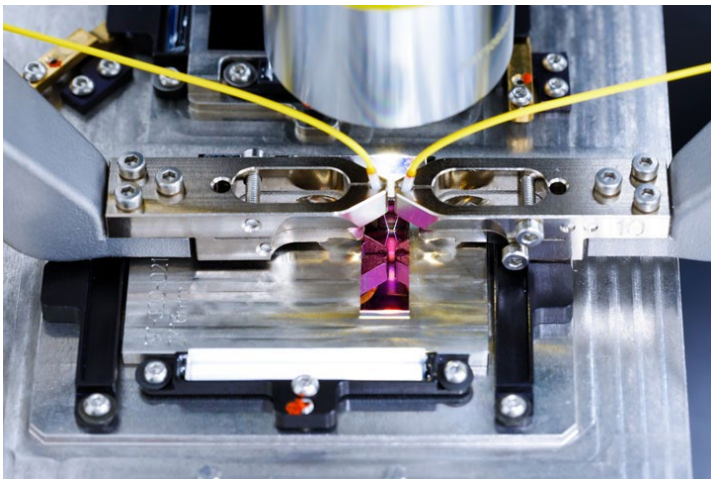
Manual Microscope Stage (On Bridge)

Travel range	50 mm x 50 mm (2 in. x 2 in.) / 150 mm x 100 mm (6 in. x 4 in)
Resolution	$\leq 5 \mu\text{m}$ (0.2 mils)
Scope lift	Manual, tilt-back or linear pneumatic

➤ Platen System

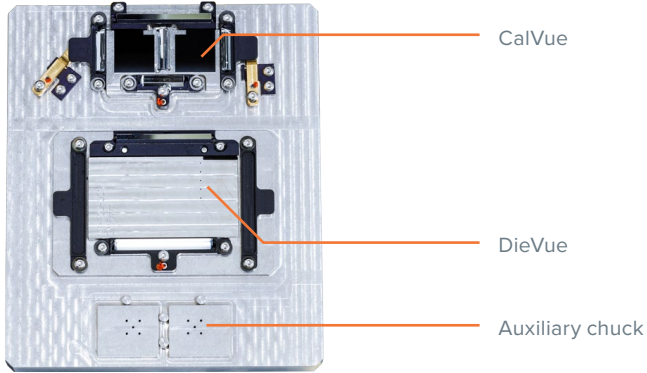
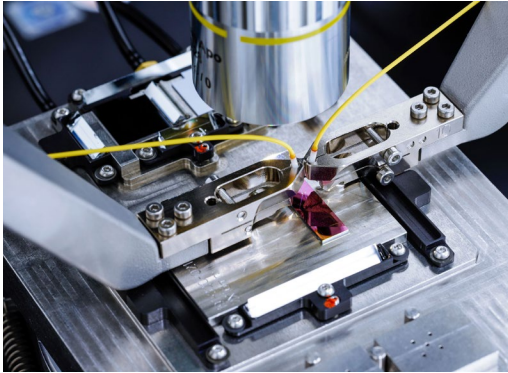
Platen

Platen space (typical)	Optical breadboard platen for up to two SPP404 or SPP504 positioners
Threads	M6
Spacing	25 mm
Z-Height adjustment range	Maximum 40 mm (depending on configuration)
Minimum platen-to-chuck height	16 mm (universal platen)
Separation lift	200 μm
Separation repeatability	< 1 μm
Vertical rigidity / force	5 μm / 10 N (0.2 mils / 2.2 lb.)
Accessory mounting	Accessories are screwed tightly onto the platen



> DUT Holder

Material	Stainless steel
Vacuum hole actuation	3x vacuum switch unit
CalVue	Calibration for Z-Displacement and optical positioning
DieVue	Singulated die test Up to 25 x 25 mm die Vacuum secured Customizable die holder Vertical and edge coupling
Auxiliary chuck	19 x 15.8 mm Vacuum controlled
Planarity	10 μ m



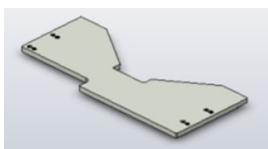
> Motion and Positioning

Alignment	Manual
Number of active axes	6
Active axes	X, Y, Z, θ X, θ Y, θ Z
Travel range X, Y, Z	12.5 mm, 12.5 mm, 12.5 mm
Minimum incremental motion	100 TPI screws for rotational axes Rotation XY – 0,15° per revolution Rotation Z – 0,27° per revolution
Platen extension option	Provides the capability to add a third 6-axes positioner in the south

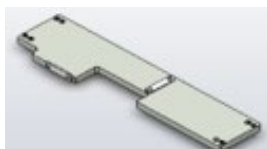


> Mixed Applications

Platen extensions can be configured to perform photonics and/or electrical measurements



Positioner bridge for DC applications



RF positioner bridge north



RF positioner platform south

➤ Reconfigurable Fiber Arm

The specially developed reconfigurable fiber arm guarantees perfected alignment with Z-Displacement and Light Guide Technology.

Uniquely developed features

- Flexibility for engineering and volume environments
- Configurable between single fibers and fiber arrays
- Supports a wide range of incident angles

➤ Regulatory Compliance

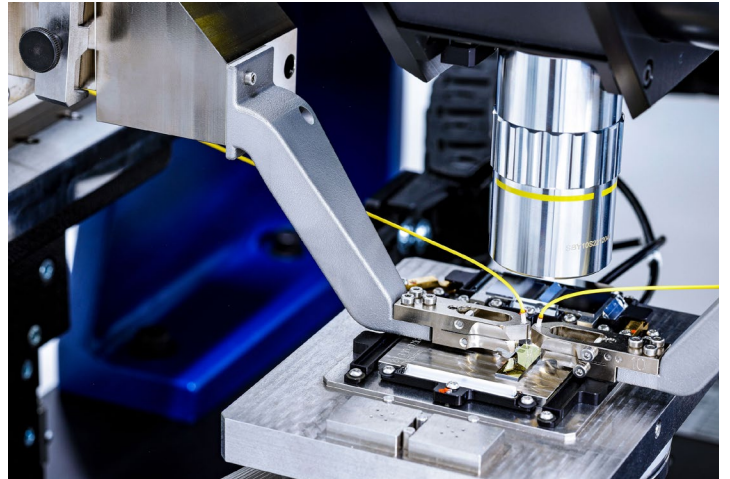
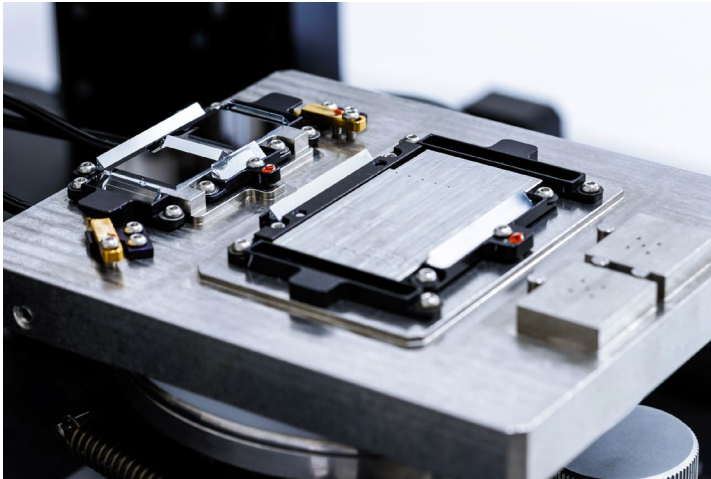
Certification	CE, cNRTLus, CB
---------------	-----------------

➤ Warranty

Warranty*	Fifteen months from date of delivery or twelve months from date of installation
-----------	---

Service contracts	Single and multi-year programs available to suit your needs
-------------------	---

* See FormFactor's Terms and Conditions of Sale for more details.



© Copyright 2023 FormFactor, Inc. All rights reserved.
FormFactor and the FormFactor logo are trademarks of FormFactor, Inc. All other trademarks are the property of their respective owners.

All information is subject to change without notice.

Corporate Headquarters
7005 Southfront Road
Livermore, CA 94551
Phone: 925-290-4000
www.formfactor.com

MPS150-SIPH-DS-0623