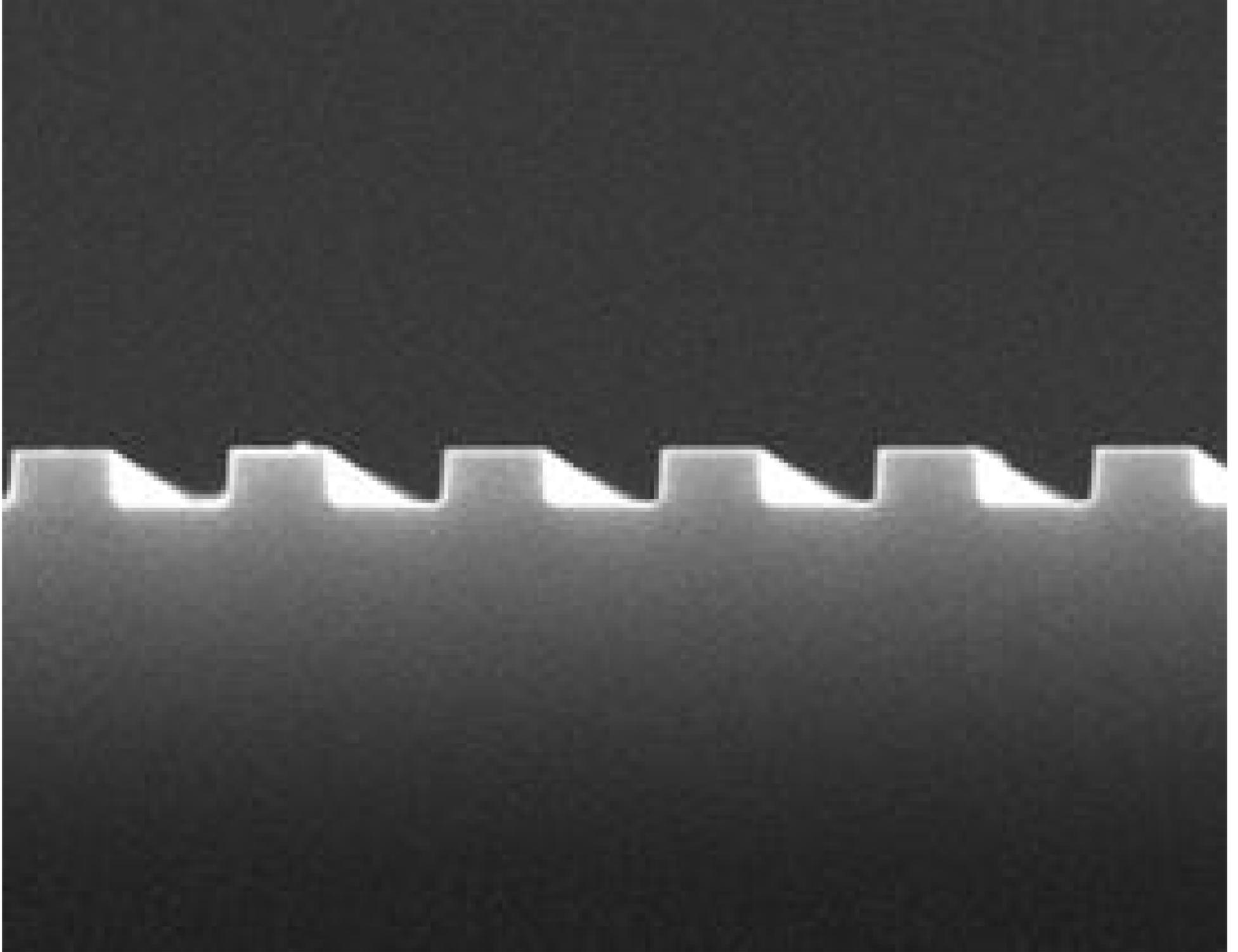


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Coherent® LightSmyth™ 139nm, 50nm Groove Depth, 12.5mm Sq. Linear Silicon Nanostamp

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Stock #16-857 [CONTACT US](#)

1 [-](#) [+](#) **\$1,197⁰⁰**

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Volume Pricing	
Qty 1-9	\$1,197.00 each
Qty 10-24	\$1,077.30 each
Need More?	Request Quote

Product Downloads

General

1304117 **Model Number:**

Nanopatterned Silicon Stamp **Type:**

Physical & Mechanical Properties

Period (nm):

139 ±6.95	Groove Depth (nm):
50 ±7.5	
	Line Width (nm):
70 ±7	
	Dimensions (mm):
12.50 x 12.50	
	Clear Aperture CA (mm):
11.50 x 11.50	
	Construction:
RIE Grating	
	Length (mm):
12.50	
	Thickness (mm):
0.68 ±0.05	
	Width (mm):
12.50	

Optical Properties

	Coating:
Uncoated	
	Substrate: <input type="checkbox"/>
Single Crystal Silicon	
	Surface Quality:
60-40 (within CA)	

Regulatory Compliance

View	Certificate of Conformance:
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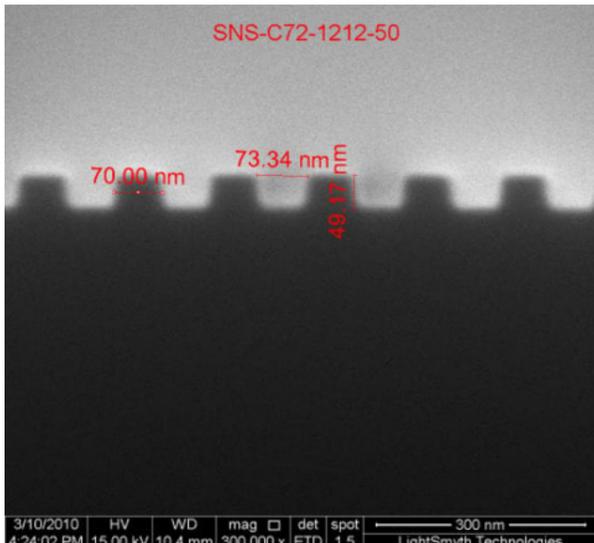
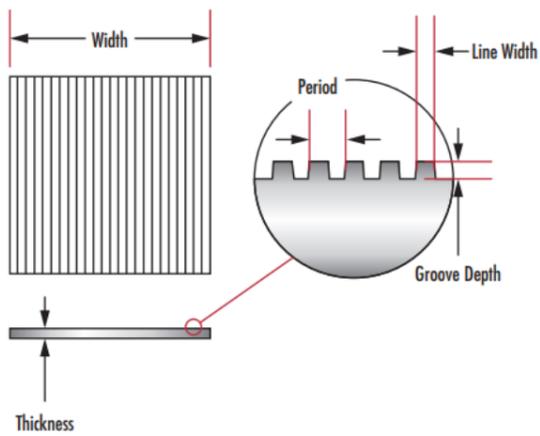
Product Details

- Nanoscale-Textured Grooved Surfaces
- Variable Groove Period and Groove Depth
- Ideal for Nanophotonics Research Applications

Coherent® LightSmyth™ Nanopattern Silicon Stamps consist of nanoscale-textured surfaces patterned on single-crystal silicon substrates. Through reactive ion etching, linear grooves with a trapezoidal cross-section are etched into the substrate surface, resembling conventional gratings. The etching process enables different period and depth specifications for these grooves, as well as more complex patterns such as lattices. Coherent® LightSmyth™ Nanopattern Silicon Stamps are ideal for nanophotonics research applications in the fields of optics and photonics, biology, chemistry, nanoimprinting, and microfluidics.

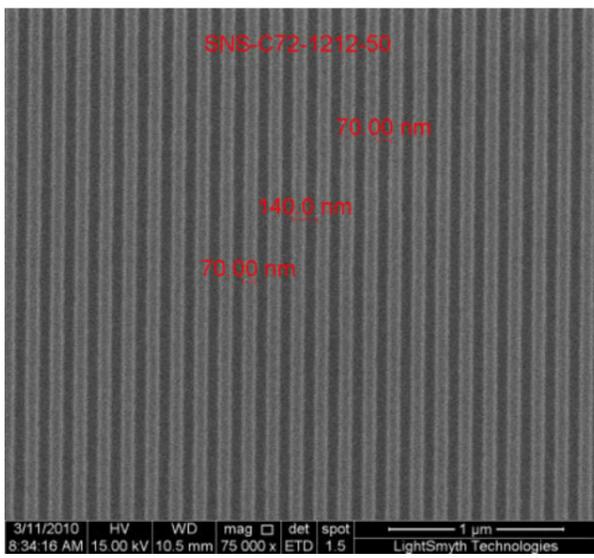
Note: II-VI Incorporated is now Coherent Corp.

Technical Information



3/10/2010 HV WD mag □ det spot 300 nm
4:24:02 PM 15.00 kV 10.4 mm 300 000 x ETD 1.5 LightSmyth Technologies

SEM Image of 139nm, 50nm Groove Depth Linear Silicon Nanostamps (Cross Section)



SEM Image of 139nm, 50nm Groove Depth Linear Silicon Nanostamps (Top Down)

Special Handling

These optics require special handling to avoid damage and ensure long-term performance. Proper handling, cleaning, and storage are essential to maintain optical quality. Explore our [Optics Cleaning Resources](#) for step-by-step guides and best practices. For personalized assistance, [Email us](#) or [Chat](#) with our technical support team.



Component Handling Tools

Custom

Edmund Optics offers comprehensive custom manufacturing services for optical and imaging components tailored to your specific application requirements. Whether in the prototyping phase or preparing for full-scale production, we provide flexible solutions to meet your needs. Our experienced engineers are here to assist—from concept to completion.

Our capabilities include:

- Custom dimensions, materials, coatings, and more
- High-precision surface quality and flatness
- Tight tolerances and complex geometries
- Scalable production—from prototype to volume

Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).
