



Nanopatterned Silicon Stamps

PRODUCT OVERVIEW

II-VI Nanopatterned 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. II-VI Nanopatterned Silicon Stamps are ideal for nanophotonics research applications in the fields of optics and photonics, biology, chemistry, nanoimprinting, and microfluidics.

Product Key

SNS - C11.7 - 1212 - 200 - P

Silicon nano stamp	Lines/mm	Groove depth	Premium grade
Rounded width x height, mm			

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Specifications

Part Number	Period	Groove Depth	Line width	Width x Height	Clear aperture	Thickness
SNS-C11.7-1212-200-P	855 nm	200 nm	425 nm	12.5 x 12.5 mm	11.5 x 11.5 mm	0.675 mm
SNS-C11.7-2525-200-P	855 nm	200 nm	425 nm	25.0 x 25.0 mm	24.0 x 24.0 mm	0.675 mm
SNS-C72-1212-50-P	139 nm	50 nm	50 nm	12.5 x 12.5 mm	11.5 x 11.5 mm	0.830 mm
SNS-C72-2525-50-P	139 nm	50 nm	50 nm	25.0 x 25.0 mm	24.0 x 24.0 mm	0.830 mm

	Period *	Groove Depth	Line width	Width x Height	Clear aperture	Thickness
Tolerances	0.001 lines/mm	±10%	±10%	± 0.2 mm	N/A	± 0.05 mm

* variation over 10 mm

Substrate material: Single crystal silicon
Front side: DUV lithographic patterning and Reactive Ion Etch into the substrate.
Back side: fine grind (not polished)
Sidewall angle: 87° typical
Surface quality in clear aperture: 60/40 Scratch/Dig per MIL-PRF-13830B

