

Type:
SuperSharp SSE
 High Density Carbon Tip



Type: **SSE - SuperSharp Enhanced**

SuperSharp, long lifetime probe for very fine features. High resolution imaging with long lifetime and imaging stability.

2 nm tip radius, high resolution probe with excellent lifetime and reliability. The **nanotools® SSE - SuperSharp Enhanced** is designed for non-contact / high frequency mode. It delivers outstanding resolution and image stability in critical AFM applications even on hard, tip eating samples like ceramics, silicon oxide/nitride, polysilicon to name a few.

EBD Material

Unlike other high resolution probes, here the supersharp part is made of HIGH-DENSITY, DIAMOND LIKE CARBON (**HDC/DLC**). The tips show superior properties, such as high sharpness, hydrophobic surface properties, high stiffness / elastic modulus (8x of that of silicon), low thermal mass as well as abrasion resistance. Our HDC dissipates static charge.

This leads to probes offering the extreme durability of diamond together with high resolution imaging capability. Applying our patented **EBD** (electron beam deposition) technique we ensure a stiff and rigid high aspect ratio probe of superior symmetry and nanometer precision.

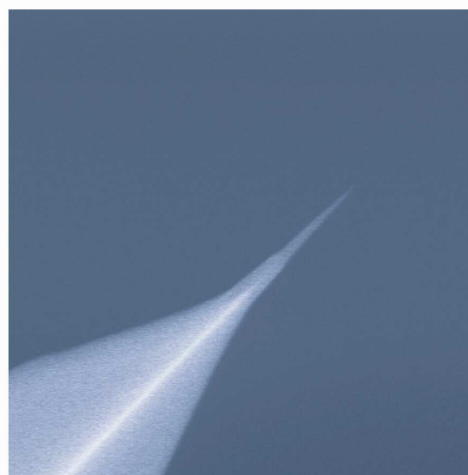
Technical Data

Tip dimensions	Shape:	conical
		rotation-symmetric
	Tip radius:	<5nm, typically 2nm

Cantilever	Pointprobe NCHR/TESPA
	l: 125µm w: 30µm t: 4µm
	k: 42N/m f: 330kHz
	Pyramid Height: 15 µm (10-15 µm)
	Tip Set Back: 15 µm (5-25 µm)

Coating*	Tipside: none
	Backside: Al

*Aluminum reflective coating on the detector side of the cantilever, increasing the laser signal by a factor of about 2.5. Suitable for highly reflective samples and machine vision applications.



First in Quality

A 100% quality check by SEM for every tip, high scan speeds, flexibility in combination with stiffness, 13 deg tilt compensation and optimized cost per scan are key parameters. The **nanotools® SSE - SuperSharp Enhanced** is used by leading fabs worldwide for several AFM in-line monitoring tasks.

Datasheet for every tip with precise tip dimensions provided.

nanotools is the first probe manufacturer being quality certified to DIN EN ISO 9001.

For more information please contact: info@nano-tools.com
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