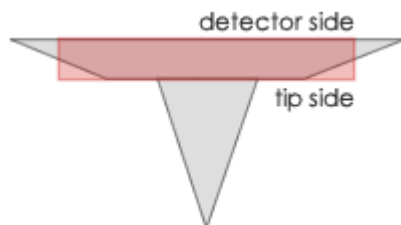


Cantilever Data	Value	Range*
<b>Resonance Frequency</b>	<b>130 kHz</b>	110 - 150 kHz
<b>Force Constant</b>	<b>15 N/m</b>	9 - 25 N/m
<b>Length</b>	<b>225 <math>\mu\text{m}</math></b>	220 - 230 $\mu\text{m}$
<b>Mean Width</b>	<b>33 <math>\mu\text{m}</math></b>	27.5 - 37.5 $\mu\text{m}$
<b>Thickness</b>	<b>5 <math>\mu\text{m}</math></b>	4.5 - 5.5 $\mu\text{m}$

NanoWorld® Pointprobe® SEIHR probes are designed for owners of a Seiko Instruments microscope using the non-contact mode. All SPM and AFM probes of the Pointprobe® series are made from monolithic silicon which is highly doped to dissipate static charge. They are chemically inert and offer a high mechanical Q-factor for high sensitivity. The AFM tip is shaped like a polygon based pyramid with a typical height of 10 - 15  $\mu\text{m}$ .

Additionally, this AFM probe offers typical AFM tip radius of curvature of less than 8 nm.



A trapezoidal cross section of the AFM cantilever and therefore 30% wider (e.g. NCH) AFM cantilever detector side result in easier and faster laser adjustment. Additionally, because there is simply more space to place and reflect the laser beam, a higher SUM signal is reached.

Tip shape: Standard

Coating: Reflective Aluminum

#### **Aluminum Reflex Coating**

The aluminum reflex coating consists of a 30 nm thick aluminum layer deposited on the detector side of the AFM cantilever which enhances the reflectance of the laser beam by a factor of 2.5. Furthermore it prevents light from interfering within the AFM cantilever.

<b>Order Code</b>	<b>Quantity</b>	<b>Data Sheet</b>
<b>SEIHR-10</b>	<b>10</b>	yes
<b>SEIHR-20</b>	<b>20</b>	yes
<b>SEIHR-50</b>	<b>50</b>	no
<b>SEIHR-W</b>	<b>380</b>	yes