Zyvex NanoEffector® Probes

Nanoscale Probes for Zyvex Nanomanipulator Systems

Features and Benefits

There are two major challenges with probing at the nanoscale: probing small features (50 nm contact) and probing small geometries (four 50 nm contacts within 100 nm of each other). Zyvex's NanoEffector Probes are designed to overcome both of these challenges. Their tip radius is better than 50 nm and allows for probing of extremely small features. The probes also have a high aspect ratio (length to diameter) which allows up to 8 probe tips within a 500 nm workspace. NanoEffector Probes are the most versatile and reliable probes on the market.

Applications

- Electrical characterization of nanostrucutres for R&D
- Electrical characterization of integrated circuits for failure analysis
- Micro- and nanoassembly
- Sample preparation and positioning
- Basic nanomanipulation
- Surface science experiments
- Application notes are available at www.zyvex.com.

Technical Specifications

• Material	Polycrystalline Tungsten Wire
• Length	14mm
• Shank diameter	0.25 mm
• Effective tip radius	Better than 50 nm
• Average tip radius	40 nm
• Effective taper angle	Less than 15°
• Average taper angle	8°
• Tungsten purity	99.9%

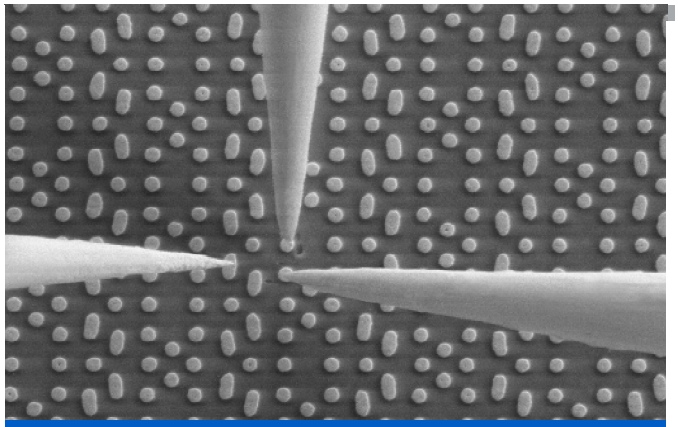
Note: Probes undergo a rigorous batch-by-batch inspection according to established statistical process control (SPC) standards. We qualify each batch of probes in an SEM for tip radius and taper angle.

Order Lead Time

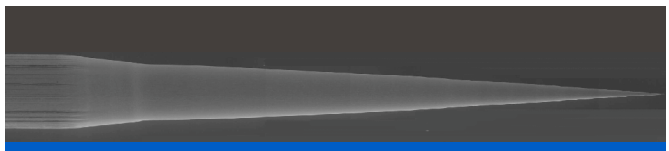
• Up to 100 probes	6 weeks
• More than 100 probes	Call for lead time

Note: There is a minimum order quantity of 20 probes.

To place an order, call us toll-free at **1.877.ZYVEX99 (1.877.998.3999) ext. 271** or direct at **972.792.1671**. For the most up-to-date information, please visit our web site at **www.zyvex.com** or email **sales@zyvex.com.**

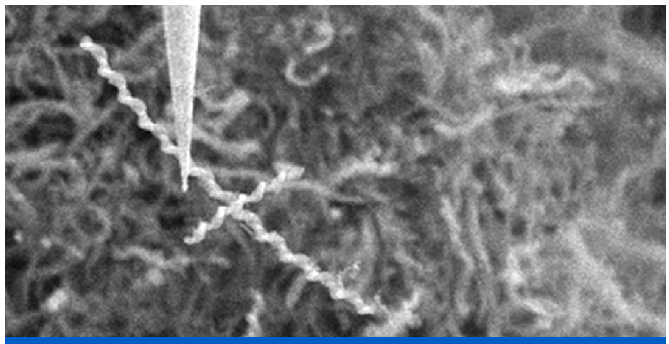


Probing a 65 nm transistor using the Zyvex sProber and NanoEffector TP-25 tungsten probes.



Composite SEM images (taken from the probe shaft to the probe tip). The TP-25's slender taper angle allows for probing small geometries.

NanoEffector Probes used with the Zyvex S100 to perform four point electrical characterization of a germanium wire.



A NanoEffector Probe isolating and removing a coiled carbon nanotube for further characterization.

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www.zyvex.com