# Ultimate precision. For automated AFM systems.

## 10 nm MCNT

Provided with
**TrueDimensions**
Online access to key probe parameters for every individual tip

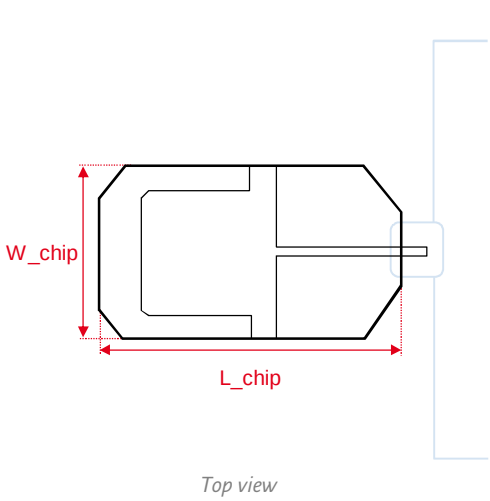
| | MCNT-150™ | | MCNT-100™ | |
|---|---|---|---|---|
| **Part number** | **NT_CNT150_v0010** | | **NT_CNT100_v0010** | |
| **Tip** | | | | |
| Length / l | 150 nm | (140-150 nm) | 100 nm | (±20 nm) |
| Width / d | 10 nm[1] | (±2 nm) | 10 nm[2] | (±2 nm) |
| Half cone angle / Φ | n/a | | n/a | |
| Sharpness (radius) / r | 2 nm | (<5 nm) | 2 nm | (<5 nm) |
| Tilt compensation / θ | 3° | (±0.5°) | 3° | (±0.5°) |
| Total tip height / TH | 15 µm | (10-15 µm) | 15 µm | (10-15 µm) |
| Tip set back / TSB | 15 µm | (±10 µm) | 15 µm | (±10 µm) |
| **Cantilever** | | | | |
| Material | Si | | Si | |
| Shape | NT-RTESPA | | NT-RTESPA | |
| Length / L | 120 µm | (±5 µm) | 120 µm | (±5 µm) |
| Width / W | 30 µm | (±2 µm) | 30 µm | (±2 µm) |
| Thickness / T | 4.4 µm | (±0.5 µm) | 4.4 µm | (±0.5 µm) |
| Force constant* / k | 40 N/m | (±20 N/m) | 40 N/m | (±20 N/m) |
| Resonance frequency* / f | 320 kHz | (±50 kHz) | 320 kHz | (±50 kHz) |
| Tip side coating | none | | none | |
| Back side coating | reflex | | reflex | |
| **Chip** | | | | |
| Length / L_chip | 3400 µm | | 3400 µm | |
| Width / W_chip | 1600 µm | | 1600 µm | |
| Thickness / T_chip | 315 µm | | 315 µm | |

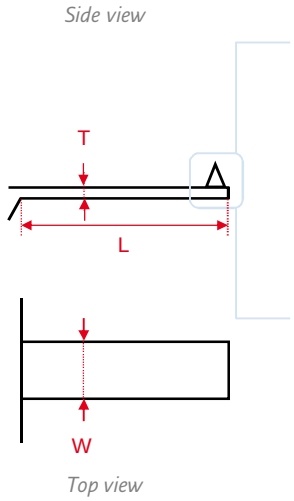
**Also available**

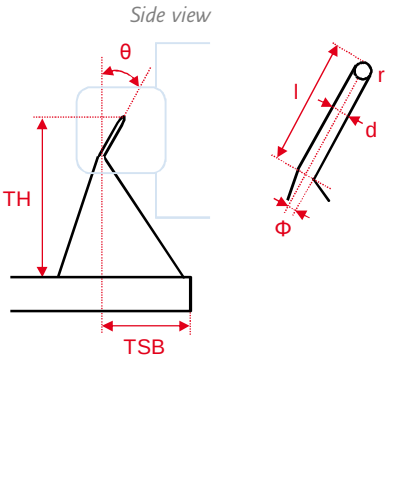
| Type | l | d | θ | Part number |
|---|---|---|---|---|
| MCNT-100™ Park AAFM | 100 nm | 10 nm | 12° | NT_CNT100_v0040 |
| MCNT-150™ Park AAFM | 150 nm | 10 nm | 12° | NT_CNT150_v0030 |
| MCNT-300™ | 300 nm | 18 nm | 3° | NT_CNT300_v0010 |
| MCNT-300™ Park AAFM | 300 nm | 18 nm | 12° | NT_CNT300_v0020 |
| MCNT-400™ | 400 nm | 22 nm | 3° | NT_CNT400_v0010 |
| MCNT-400™ Park AAFM | 400 nm | 22 nm | 12° | NT_CNT400_v0020 |
| MCNT-500™ | 500 nm | 30 nm | 3° | NT_CNT500_v0010 |
| MCNT-500™ Park AAFM | 500 nm | 30 nm | 12° | NT_CNT500_v0020 |

- **Consistent shape**
- **Controlled orientation**
- **Carbon durability**

*[1] measured at 70 nm tip depth, [2] measured at 0 100 nm tip depth*
*n/a: specification not applicable for this product | *Values are calculated from the (measured) cantilever geometry. Actual values of >90% of all probes are guaranteed to be within the specified range.*




Chip | Cantilever | Tip

**For more information, visit**
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