

Green line

Ultimate performance. For research and science.

biosphere™ series

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



Tip Material	HDC/DLC	HDC/DLC	HDC/DLC
Tip radius ^[1] / r	Part number (40 N/m)	Part number (2.8 N/m)	Part number (0.2 N/m)
20 nm (±5 nm)	NT_B20_v0010	NT_B20_v0020	NT_B20_v0030
30 nm (±5 nm)	NT_B30_v0010	NT_B30_v0020	NT_B30_v0030
40 nm (±5 nm)	NT_B40_v0010	NT_B40_v0020	NT_B40_v0030
50 nm (±5 nm)	NT_B50_v0010	NT_B50_v0020	NT_B50_v0030
100 nm (±10 nm)	NT_B100_v0010	NT_B100_v0020	NT_B100_v0030
150 nm (±10 nm)	NT_B150_v0010	NT_B150_v0020	NT_B150_v0030
300 nm (±10 nm)	NT_B300_v0010	NT_B300_v0020	NT_B300_v0030
500 nm (±10 nm)	NT_B500_v0010	NT_B500_v0020	NT_B500_v0030
750 nm (±10 nm)	NT_B750_v0010	NT_B750_v0020	NT_B750_v0030
1000 nm (±10 nm)	NT_B1000_v0010	NT_B1000_v0020	NT_B1000_v0030
1500 nm (±10 nm)	NT_B1500_v0010	NT_B1500_v0020	NT_B1500_v0030
2000 nm (±10 nm)	NT_B2000_v0010	NT_B2000_v0020	NT_B2000_v0030
Cantilever parameter	NCHAu	FMAu	CONTAu
Material	Si	Si	Si
Length / L	125 µm	225 µm	450 µm
Width / W	30 µm	28 µm	50 µm
Thickness / T	4 µm	3 µm	2 µm
Force constant ^[2] / k	40 N/m	2.8 N/m	0.2 N/m
Resonance frequency ^[2] / f	330 kHz	75 kHz	13 kHz
Tip side coating	none	none	none
Back side coating	Gold reflex	Gold reflex	Gold reflex
Total tip height / TH	15 µm	15 µm	15 µm
Tip set back / TSB	15 µm	15 µm	15 µm
Chip parameter			
Length / L_chip	3400 µm	3400 µm	3400 µm
Width / W_chip	1600 µm	1600 µm	1600 µm
Thickness / T_chip	315 µm	315 µm	315 µm
Alignment grooves	yes	yes	yes

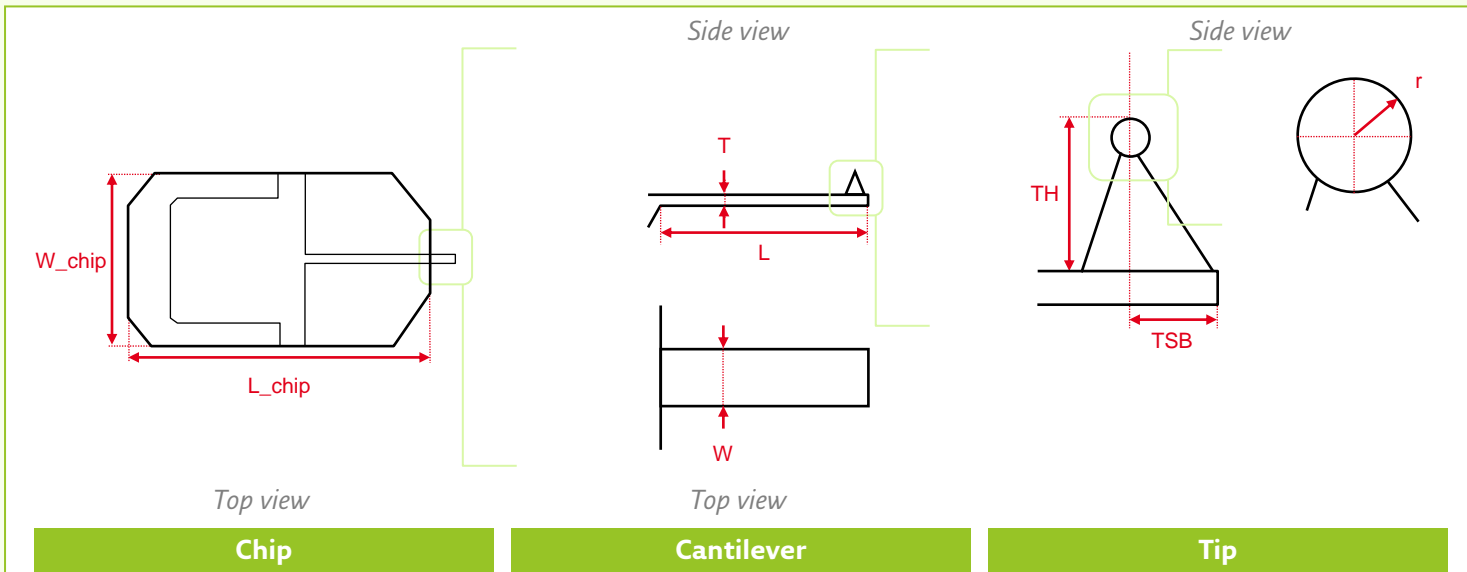
biosphere™
carbon AFM probes



- Controlled tip radius
- Pre-calibrated cantilever
- HDC/DLC hardness
- Chemical resistant
- Hydrophobic
- Gold reflex coating

5 µm radii
upon request

[1] Every sphere measured in Hi-Res SEM using NIST-traceable standards | [2] Resonance frequency f extracted from LDV measurements; cantilever stiffness k derived by Sader method. Delivered with TrueDimensions™: Online access to sphere radius, cantilever stiffness k and frequency for every individual probe via QR code.



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Serving the semiconductor industry
since 1997



ISO 9001 certified quality

2021-03-R003

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Precise | Durable | Consistent