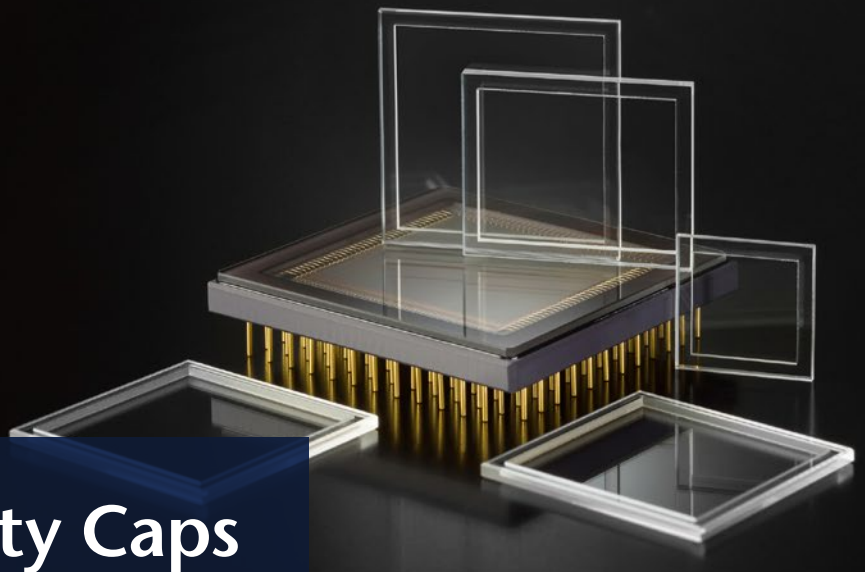


SCHOTT® Cavity Caps

SCHOTT 3D glass package solution for photonic chips

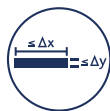


Cavity Cap is SCHOTT's new offering for space-saving packaging of optoelectronic devices. It combines many years of experience in providing flat cover glass for optical sensors, light emitters and MEMS devices, now reliably glue-free bonded to high-precision and versatile FLEXINITY® structured spacer glass.

Suitable for a broad range of applications requiring both a light transmittance window (UV-NIR; in/out) and a cavity, Cavity Cap is ready to impose active and passive (opto)-electronics.



High optical transmittance



Tight geometrical properties



Ready-to-integrate



Broad range of glasses



Wide spectrum of dimensions



Vast layouts



3D



High reliability



Low chipping

Applications:

SCHOTT® Cavity Caps can be used in a wide range of ambitious applications and technologies, reliably shielding sensitive (opto)-electronics or optical devices from environmental influences.

Cavity Caps can be used as a package component for:

- Optical sensors
- Laser diodes and LEDs
- M(O)EMS devices
- Electronic and semiconductor devices

Materials:

- D 263® T eco
- BOROFLOAT® 33
- AF 32® eco
- MEMpax®



Industry | Machine Vision



Automotive | LiDAR



Consumer electronics | AR/VR



Optics | Professional photography

SCHOTT
glass made of ideas

SCHOTT® Cavity Caps

Technical Specifications*

	D 263® Family	MEMpax®	AF 32® eco	BOROFLOAT® 33
CTE (ppm/K)	7.2	3.3	3.2	3.3

Technical Data – Window

Luminous transmittance τ_{VD65} at 0.3 mm	~91.7%
Thickness (h1)	0.1–1.1 mm
AR coating (single-side/double-side)	on demand

Technical Data – Spacer

Spacer height (h2)	0.2–3.3 mm
Opening size (a, b)	variable; min. 0.3 mm
Opening tolerances	< 20 μm (equiv. $\pm 10 \mu\text{m}$)
Dam width (d1, d2)	down to 0.5 mm

Technical Data – Cap

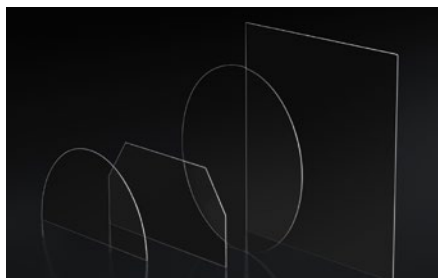
Cap size (L, W)	variable; min. 3 x 3 mm
Cap size tolerance	$\pm 100 \mu\text{m}$
Cap height (h1+h2)	min. 0.3 mm
Chipping (inner edge)	< 10 μm
Edge quality (diced outer edge)	< 100 μm

* Limitations in feature design and demands deviating from these capabilities will be evaluated upon request

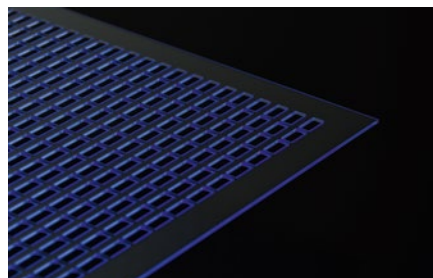
Bonding of window to spacer:

- Wafer level hermetic bonding: high level of hermeticity
- Additive-free: no adhesives or extra materials required

Only one stop away from your sensor packaging



Cut-to-size

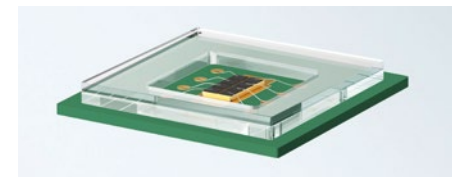


Structured glass FLEXINITY®



Assembled product – SCHOTT® Cavity Cap

Available also
on wafer level.
Coating possible



SCHOTT® Cavity Cap on submount

