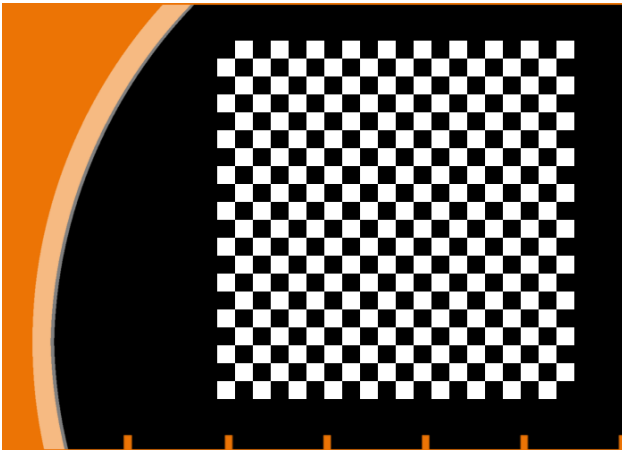


Checkerboard pattern TC-CB50

Checkerboard of $50 \times 50 \mu\text{m}^2$ squares



A checkerboard with a total size of $9.0 \times 9.0 \text{ mm}^2$ out of $50 \times 50 \mu\text{m}^2$ squares. It is particularly suitable for testing of image skew and curvature. The edges are extremely straight and sharp and therefore allow determination of local image quality as well.

(Figure schematically)

Our high-resolution testcharts are made with high-precision e-beam lithography. A quartz substrate with broad spectral transmission (DUV-VIS-NIR), on which a chromium layer of high optical density is applied, serves as a support. The test structures are produced by ablation of the chromium layer, whereby structural sizes down to 100 nm are possible. At the same time, excellent dimensional tolerances and straightness of the structural edges is ensured.

For use with a microscope objective lens there is a version with a 0.17 mm cover glass available.

Substrate	Quartz wafer (fused silica), 10mm x 10mm x 1 mm
Substrate holder	Microscope slide format 75 mm x 25 mm x 1.5 mm, Stainless steel with laser engraving
Patterned layer	Chrome, optical density OD > 8@400nm / 6@550nm / 4.5@750nm / 3.6@1 μm
Pattern	Checkerboard $9.0 \times 9.0 \text{ mm}^2$ of 180x180 squares of $50 \times 50 \mu\text{m}^2$ size
Dimensional tolerance (max. absolute error)	100nm/cm = 10^{-5}
Spectral transmission range	200nm – 2000nm
Cover Glass (optional)	0.17 mm optical thickness