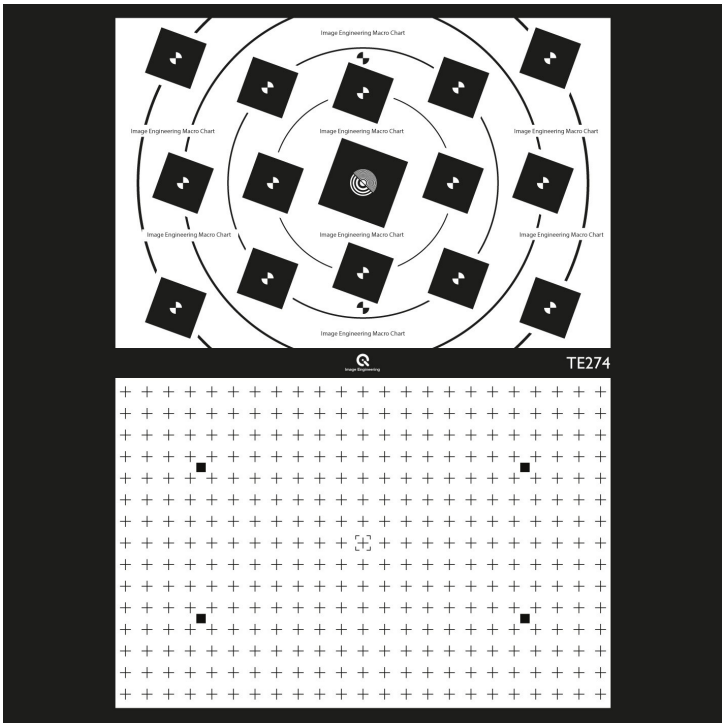
CERTIFICATE

MACRO TEST CHART

REFLECTIVE



The TE274 Macro Test Chart is designed for the analysis of resolution and distortion of macro lenses attached to SLR and system cameras and compact cameras in macro mode. The overall chart dimension is 120mm x 120mm. It is suitable for camera systems up to 3MP.

The TE274 consists of two parts:

- **Slanted edges for resolution measurement**
  The chart contains 15 slanted edge structures, each with two vertical and two horizontal edges and a focussing aid in the center. The slanted edge structure is tilted by 5° and has a modulation of approximately 97%.
  The slanted edges are arranged in a way, to deliver on axis resolution and resolution at 30%, 45%, 60% and 75% of the image height (3:2 aspect ratio).

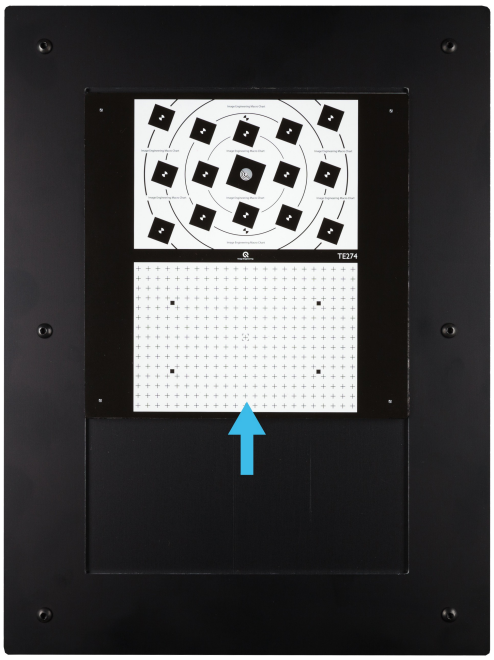
- **Cross chart for distortion measurement**
  The black crosses on the white background are used to determine the lens geometric distortion (LGD) and the chromatic aberration.

For the software based analysis of slanted edge and distortion images, captured of the TE274, you can use the Image Engineering iQ-Analyzer. For instance, it provides the following results:

- edge SFR, MTF10, MTF50, vMTF, edge profile, edge width, overshoot, undershoot
- LDG (line geometric distortion), LCA (longitudinal chromatic aberration), chromatic aberration, TV distortion

Usage of the TE274 with its framing:

Place the chart in its framing on a table below the camera. For starting with the upper part of the chart (slanted edges) slide the chart in the framing to the down-position. Adjust the distance between camera and chart until the slanted edge chart fills the image height.



After taking the images slide the chart in the framing to the upper-position. Now the distortion part is exactly at the position for taking images. No readjustment or refocussing is necessary.