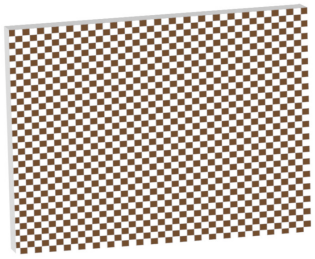
PT064-096 | DATASHEET

OPTO ENGINEERING

Checherboard calibration patter, Chrome-on-glass photomask, active area 105 x 79 mm



Imaging and metrology applications often require to minimize distortion, which can be software-corrected by analyzing the image of a precision pattern whose geometrical features are well known.
For this reason Opto Engineering® offers a full range of patterns optimized for software calibration compatible with most Opto Engineering® telecentric lenses.

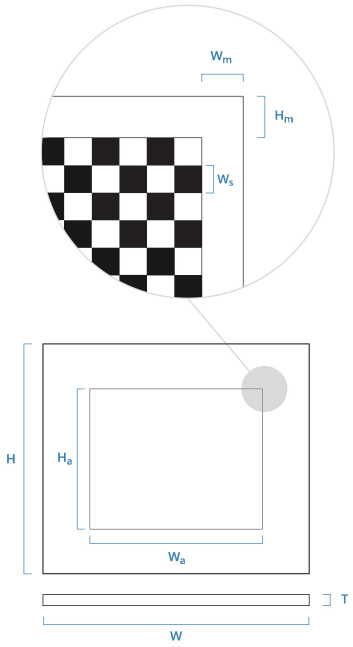
REACH DOSSIER

SPECIFICATIONS

Dimension (W x H)	(mm x mm)	107 x 83
Thickness	(mm)	3
Active area (Wa x Ha)	(mm x mm)	105 x 79
Margins (Wm x Hm)	(mm x mm)	0.7 x 1.9
Square width (Ws)	(mm)	2.2
Photomask type		Chrome-on-glass
Substrate		Soda lime glass
Surface quality (MIL-13830B)		60/40
Class[1]		1
Grade[1]		-
Certificate[2]		
Compatible CMPH		

[1] Class number (2*) for Emulsion-on-glass photomasks differs from usual Chrome-on-glass. Specifications are in the tech info section.
[2] Download CoC Format Pattern facsimile

PATTERN DIMENSION



COMPATIBLE PRODUCTS

Full list of compatible products available *here*.

A wide selection of innovative machine vision components.

DIMENSIONAL TOLERANCE

It's possible to calculate dimensional tolerance of pattern's features is calculated as follows:
Dimensional tolerance = $\pm$ (P + S · D)
P = Positioning error
S = Speed factor
D = Dimension of interest

CHROME-ON-GLASS PHOTOMASK, SIZE UP TO 200 x 200mm

Class	Min Feature dimensions; Min spacing (µm)	Positioning error (µm)	Speed factor (µm/mm)
1	1.4	6.4	0.016
2	0.8	1.6	0.008
3	0.4	0.6	0.004
4	0.2	0.2	0.001

CHROME-ON-GLASS PHOTOMASK, OVER 200 x 200mm

Class	Min Feature dimensions; Min spacing (µm)	Dimensional tolerance (µm)
A	0.5	Total Pitch $\pm$ 2µm
B	1.0	Total Pitch $\pm$ 4µm
C	3.0	Total Pitch $\pm$ 6µm

FILM-ON-GLASS PHOTOMASK

Grade	Min Feature dimensions; Min spacing (µm)	Positioning error (µm)	Speed factor (µm/mm)
1	9.6	10.0	0.005
2	4.8	10.0	0.005
3	2.4	10.0	0.005
4	1.2	10.0	0.005