

TRIMOS TR SCAN
Technology CCML1
Chromatic Confocal Microscopy Line Technology



Technical specifications for CCML1



The chromatic confocal line sensor TRIMOS CCM-L1 offers an incredibly fast 3D measurement of 384.000 points per second with nanometric scale resolution.

A robust and compact design, as well as outstanding dynamic range and an excellent signal to noise ratio, make the TRIMOS CCM-L1 the best measuring tool for all materials – including polished and highly tilted surfaces. With its unrivaled performance/price ratio, TRIMOS CCM-L1 is the best choice for ultrafast 3D inspection.



OPTICAL PROBE	CCM-L1 0.2mm	CCM-L1 1mm	CCM-L1 4mm
Measuring range	200 µm	0.95 mm	3.9 mm
Line length	0.96 mm ± 0.01 mm	1.91 mm ± 0.01 mm	4.78 mm ± 0.02 mm
Lateral pitch (Y)	5 µm	10 µm	25 µm
Working distance ¹⁾	5.3 mm ± 0.2 mm	18.5 mm ± 0.2 mm	41 mm ± 0.2 mm
Spot diameter	2 µm	4 µm	10 µm
Lateral resolution	1 µm	2 µm	5 µm
Axial resolution (Z)	20 nm	80 nm	320 nm
Accuracy ²⁾	± 80 nm	± 300 nm	± 1.2 µm
Numerical aperture	0.7	0.55	0.33
Measurement angle to surface ³⁾	90° +/- 44°	90° +/- 33°	90° +/- 20°
Thickness measuring range ⁴⁾	20 µm - 280 µm	75 µm - 1.35 mm	300 µm - 5.5 mm
Dimension length diameter	70.4 mm 37 mm	93.3 mm 54 mm	120 mm 58 mm

1) bottom of optical probe to middle of measuring range

2) measurement on perpendicular mirror at 20°C

3) decreasing accuracy on the limits

4) refractive index n = 1.5

Trimos S.A.

Av.de Longemalle 5

CH-1020 Renens

T. +41 21 633 01 01

trscan@trimos.ch

www.trimos.ch

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