



■ Overview

The Multispectral Camera MSC 8X8 is an ultra-high resolution imaging light and color measuring device. Its two filter wheels, each with eight filter positions, take the flexibility of color measurement with industrial cameras to a new level. With 64 possible filter combinations, the MSC8x8 can be used for many different light and color measurements, from use as a colorimeter in production testing with the color sensitivity functions of the 2° CIE standard observer to laboratory use as a high-precision multispectral camera.

No. of filter wheels	2
Filters per wheel	8
Possible filter configurations	64
Effective resolution	44.7 MP (8192 x 5460 px)
Acquisition time per filter	From 0.5 seconds up to 60 seconds dependently from exposure time for different illuminations.
Positioning time 1/8 rotation	100 ms
Positioning time 1/2 rotation	200 ms
Accuracy and precision	$\Delta L < 3 \%$, $\Delta x, y < 0.0020$
Measurement range	0.1 cd/m ² ...10.000 cd/m ²

■ Typical application: Color and luminance measurement

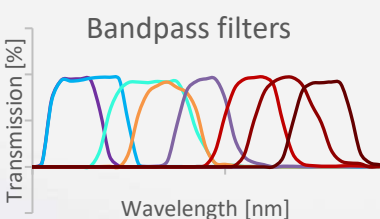
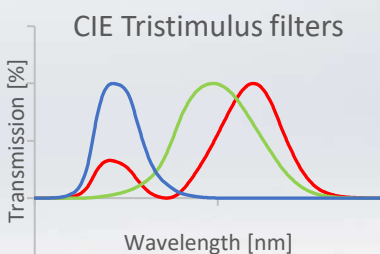
MSC_{8x8} ...

... 45MP resolution with global shutter

... fast, absolute positioning

... rugged housing

... two filter wheels for up to 8 filters each



Device under test

... active cooling

■ Technical specifications

Measurement quantities		
<ul style="list-style-type: none"> • Illuminance distribution • Luminance intensity distribution • Chromaticity coordinates (x, y, Lv) • Dominant wavelength λ • Discrete spectral characteristics (theoretically up to 64 wavelength ranges for incident light and strictly depended on filter configuration) • Correlated color temperature (CCT) • Homogeneity • MURA 		
General specifications		
Dimensions	327 x 212 x 246 mm	
Weight	7.6 kg	
Filter mount	M46 x 0.75	
Camera specifications		
44.7-megapixel CMOS image sensor (global shutter) with 3.2 μm square pixels. 12-bit output format. SNR>58 db.		
Accuracy and precision	Luminance	Color
- for standard illuminant A	$\Delta L < 3 \%$	$\Delta x,y < 0.0020$
Measurement time	Exposure time plus calculations from 0.1 Seconds up to 10 seconds, dependently from required measurement quantity.	