PRODUCT DATASHEET

TCCP5MHR260-F

OPTO ENGINEERING

Ultra compact bi-telecentric lens for matrix detectors up to 4/3", magnification 0.072x

SPECIFICATIONS

Magnification	(×)	0.072
Image rectangle (1)	(mm)	19.82 x 14.88

Object field of view

with IMX174/IMX249 13.3 mm diag w x h 11.35 x 7.13	(mm × mm)	156.9 x 98.6
with IMX255/IMX267 16.1 mm diag w x h 14.19 x 7.51	(mm × mm)	197.1 x 104.3
with IMX253/IMX304 17.6 mm diag w x h 14.16 x 10.37	(mm × mm)	197.2 x 144.4
with KAI-4022/4021 21.5 mm diagonal w x h 15.2 x 15.2	(mm × mm)	211.1 x 211.1
with KAI-08050 22.6 mm diagonal w x h 18.1 x 13.6	(mm × mm)	251.4 x 188.9

Optical specifications

Working distance (2)	(mm)	346.0
wF/# (3)		12
Telecentricity typical (max) (4)	(deg)	< 0.18 (0.22)
Distortion typical (max) (5)	(%)	< 0.9
Residual distortion (6)		< 0.01
Field depth (7)	(mm)	120
CTF @ 50 lp/mm	(%)	> 40

Mechanical specifications

Mount		F
Phase Adjustment (8)		Yes

Dimensions

A (9)	(mm)	480.0
B	(mm)	396.7
C (10)	(mm)	436.4
Mass	(g)	10500

Last update: 2019-11-21

INTERNATIONAL PATENT PENDING

All product specifications and data are subject to change without notice to improve reliability, functionality, design or other. Photos and pictures are for illustration purposes only.

NOTES

1. Since the square shape of the front window the lens forms a rectangular image

2. Working distance: distance between the front end of the mechanics and the object. Set this distance within +/- 5% of the nominal value for maximum resolution and minimum distortion.

3. Working F-number (wF/#): the real F-number of a lens when used as a macro. Lenses with smaller apertures can be supplied on request. Typical (average production) values and maximum (guaranteed) values are listed .

4. Maximum slope of chief rays inside the lens: when converted to millirad, it gives the maximum measurement error for any millimeter of object displacement. Maximum (guaranteed) values are listed.

5. Percent deviation of the real image compared to an ideal, undistorted image. Maximum (guaranteed) values are listed.

6. Residual distortion after calibration with TCLIB Suite software library, using a PTCP calibrations pattern and a fully GenICam® compliant camera. For setup information see related table.

7. At the borders of the field depth the image can be still used for measurement but, to get a perfectly sharp image, only half of the nominal field depth should be considered. Pixel size used for calculation is 3.45 µm.

8. Indicates the availability of an integrated camera phase adjustment feature.

9. Maximum dimension of the clamping flange.

10. Measured from the front end of the mechanics to the camera flange.

COMPATIBLE PRODUCTS

Despite the efforts made to generate an error-free compatibility list, we always recommend to consult the Opto Engineering® technical support department before purchasing a compatible product. Opto Engineering® shall not be liable for any damage or malfunctioning caused by the incorrect selection of a compatible product.

COE HR AS-X series

20MP, 26MP and 29MP area scan cameras for high-speed applications

COE-260-C-10GIGE-100-IR-F	Area scan camera 26.0 MP, CMOS SensorPYTHON 25K, 23mm x 23mm, Color, 10 Gigabit Ethernet, Mount F
COE-260-C-10GIGE-100-IR-I	Area scan camera 26.0 MP, CMOS SensorPYTHON 25K, 23mm x 23mm, Color, 10 Gigabit Ethernet, Mount M58x0.75 FD11.48
COE-260-M-10GIGE-100-IR-F	HR Area Scan camera PYTHON 25K, CMOS, 5120 × 5120, 26 MP, 4.5 pix, APS-H, Gray, 10GigE, 40 fps, F - mount, Glass filter
COE-260-M-10GIGE-100-IR-I	HR Area Scan camera PYTHON 25K, CMOS, 5120 × 5120, 26 MP, 4.5 pix, APS-H, Gray, 10GigE, 40 fps, M58x0.75 - mount, Glass filter