

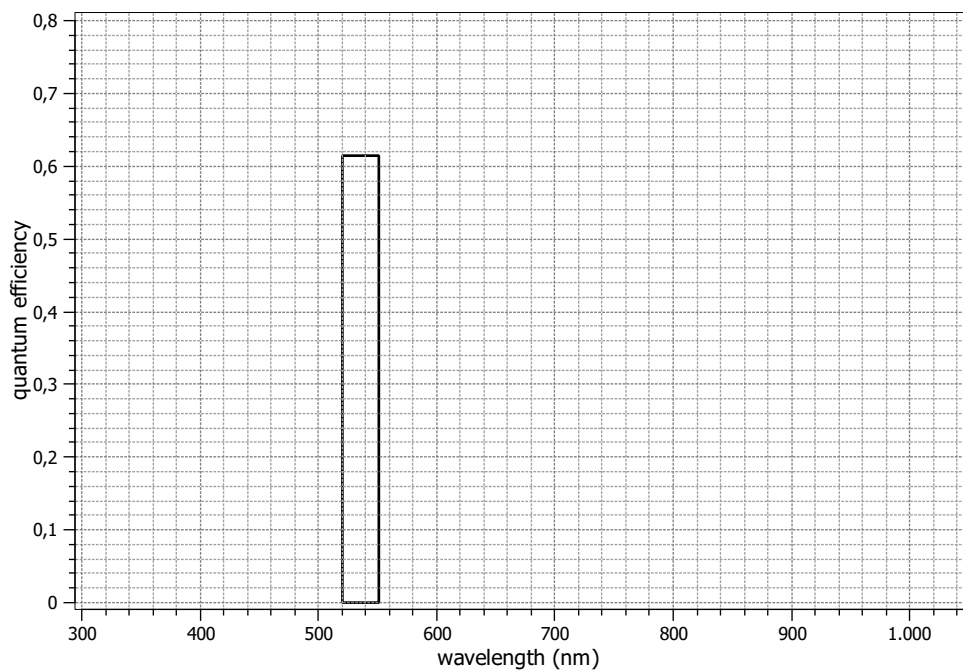
EMVA 1288 Data Sheet m0562

This datasheet describes the specification according to the standard 1288 for “Characterization and Presentation of Specification Data for Image Sensors and Cameras of the European Machine Vision Association (EMVA)” (see www.standard1288.org or the *Zenodo EMVA 1288 community*) release 3.0 with proprietary extensions from AEON. The measurements were performed with the AEON ACC3 Release 5, 06.06.2016, SN 0005(MatrixVision) . The performance parameters and estimated accuracy of the measurements are described in the technical report for the instrument, its calibration in the corresponding specification and calibration report.

Measurements performed by T. Renner, Matrix Vision GmbH

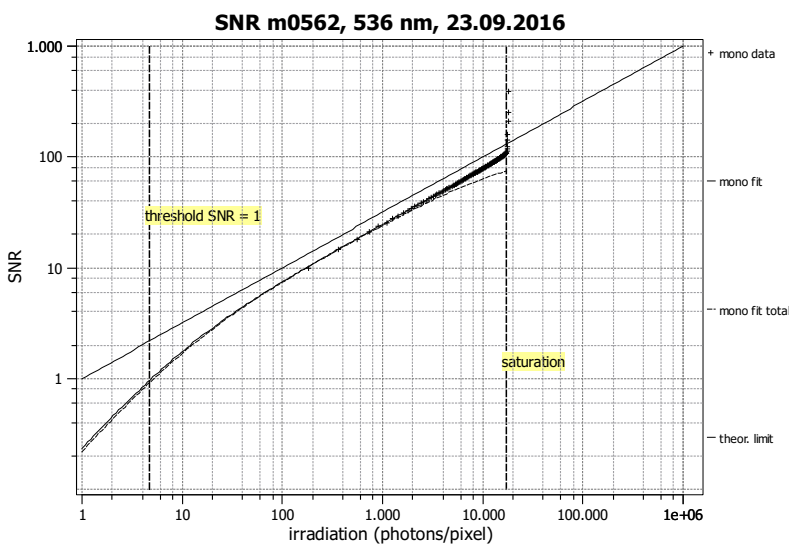
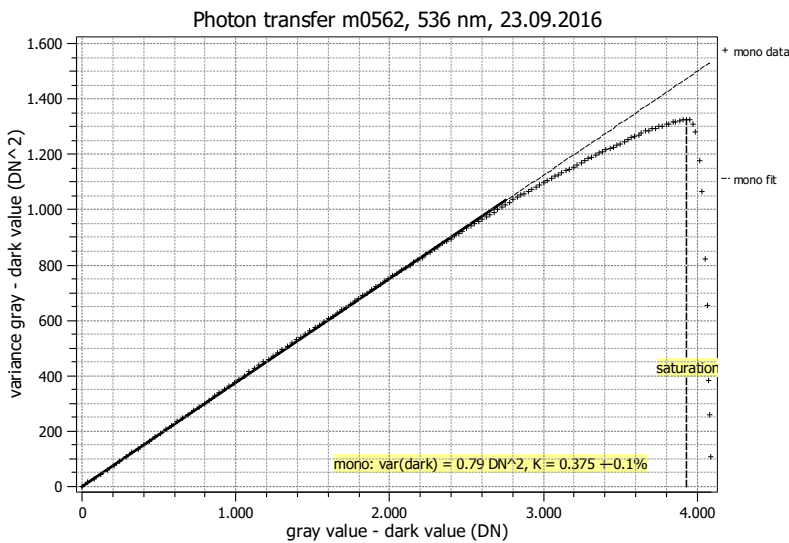
Vendor	MATRIX VISION
Model	mvBlueFOX3-2089G
Serial number	FF000303
Sensor diagonal	16.05 mm
Lens category	C-Mount
Resolution	4112 × 2176, 12 bit
Pixel size	3.45 μm × 3.45 μm
Sensor	IMX255
Sensor type	CMOS
Shutter type	Global
Overlap capabilities	Overlapping
Maximum frame rate	21.0 Hz
Interface type	USB3 Vision

Type of data presented	Single
Operation point 1, (page ??)	
Wavelength centroid	536.0 nm
Wavelength FWHM	31.0 nm
Gain, black-level	0dB, 0.1
Optional data measured	
None	



EMVA 1288 Summary Sheet for Operating Point 1

Type of data	Single	Gain, black-level	0dB, 0.1
Exposure control	By irradiance	Environmental temperature	23.7°C
Exposure time	15.00 ms	Camera body temperature	37.1°C
Frame rate	21.0 Hz	Internal temperature(s)	—
Data transfer mode	Mono12	Wavelength, centr., FWHM	536 nm, 31.0 nm



Quantum efficiency

η 61.4%

Overall system gain

K 0.375 DN/e⁻

$1/K$ 2.669 e⁻/DN

Temporal dark noise & DSNU

$\sigma_{y,dark}$ 0.89 DN

DSNU₁₂₈₈ 0.36 DN

σ_d 2.24 e⁻

DSNU₁₂₈₈ 0.97 e⁻

Signal-to-noise ratio & PRNU

SNR_{max} 103

40.2 dB

6.7 bit

$1/SNR_{max}$ 0.98 %

PRNU₁₂₈₈ 0.92 %

Nonlinearity

LE 0.21%

LE_{min} -0.28%

LE_{max} 0.14%

Sensitivity & saturation

$\mu_{p,min}$ 4.76 p

0.400 p/ μm^2

$\mu_{p,sat}$ 17140 p

1440 p/ μm^2

$\mu_{e,min}$ 2.92 e⁻

0.246 e⁻/ μm^2

$\mu_{e,sat}$ 10519 e⁻

884 e⁻/ μm^2

Dynamic range

DR 3598

71.1 dB

11.8 bit

Dark current

$\mu_{c,mean}$ -0.1 DN/s

$\mu_{c,mean}$ -0.3 e⁻/s

$\mu_{c,var}$ 2.9 e⁻/s