

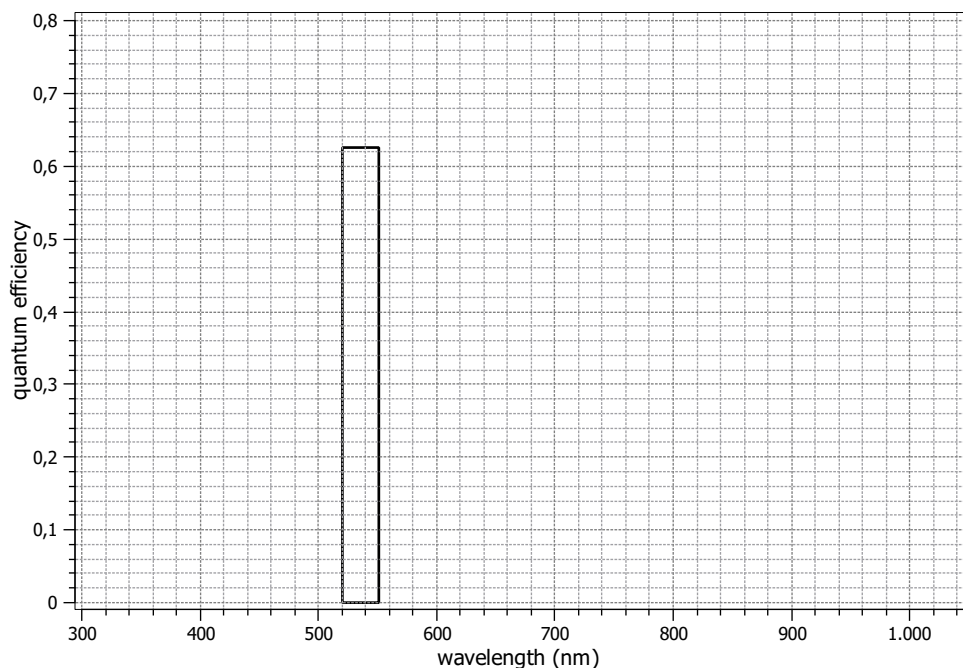
## EMVA 1288 Data Sheet m0634

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](http://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 6, 18.07.2016, 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

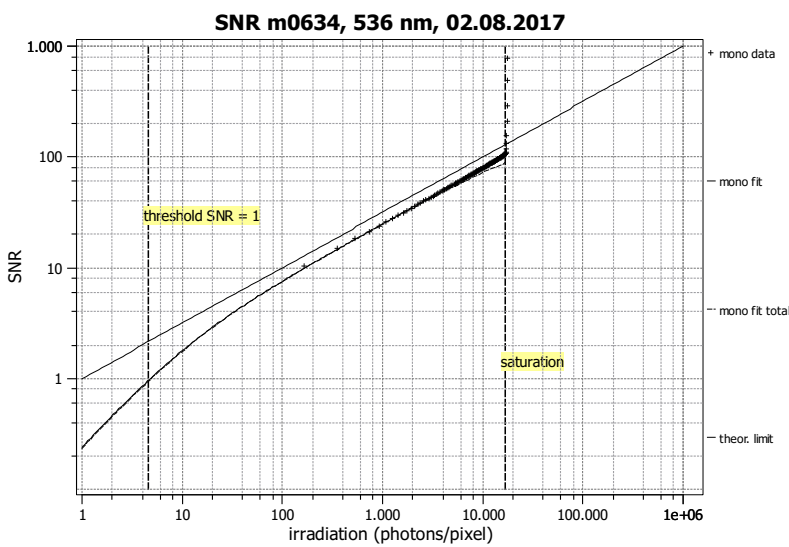
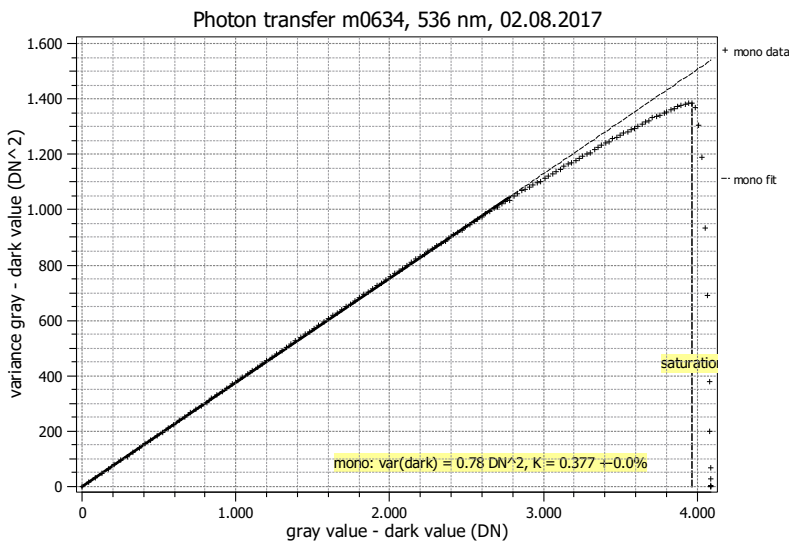
Vendor	MATRIX VISION
Model	mvBlueCOUGAR-X102fG
Serial number	GX017982
Sensor diagonal	6.27 mm
Lens category	C-Mount
Resolution	1456 × 1088, 12 bit
Pixel size	3.45 μm × 3.45 μm
Sensor	IMX273
Sensor type	CMOS
Shutter type	Global
Overlap capabilities	Overlapping
Maximum frame rate	37.6 Hz
Interface type	GigE Vision

Type of data presented	Single
<b>Operation point 1, (page 3)</b>	
Wavelength centroid	536.0 nm
Wavelength FWHM	31.0 nm
Gain, black-level	0dB, 0.1
<b>Optional data measured</b>	
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	26.8°C
Exposure time	15.00 ms	Camera body temperature	39.5°C
Frame rate	37.6 Hz	Internal temperature(s)	—
Data transfer mode	Mono12	Wavelength, centr., FWHM	536 nm, 31.0 nm



### Quantum efficiency

$\eta$  62.5%

### Overall system gain

$K$  0.377 DN/e<sup>-</sup>

$1/K$  2.656 e<sup>-</sup>/DN

### Temporal dark noise & DSNU

$\sigma_{y,dark}$  0.88 DN

DSNU<sub>1288</sub> 0.22 DN

$\sigma_d$  2.22 e<sup>-</sup>

DSNU<sub>1288</sub> 0.58 e<sup>-</sup>

### Signal-to-noise ratio & PRNU

SNR<sub>max</sub> 103

40.2 dB

6.7 bit

$1/SNR_{max}$  0.97 %

PRNU<sub>1288</sub> 0.57 %

### Nonlinearity

LE 0.22%

LE<sub>min</sub> -0.25%

LE<sub>max</sub> 0.18%

### Sensitivity & saturation

$\mu_{p,min}$  4.64 p

0.390 p/ $\mu\text{m}^2$

$\mu_{p,sat}$  16887 p

1419 p/ $\mu\text{m}^2$

$\mu_{e,min}$  2.90 e<sup>-</sup>

0.244 e<sup>-</sup>/ $\mu\text{m}^2$

$\mu_{e,sat}$  10549 e<sup>-</sup>

886 e<sup>-</sup>/ $\mu\text{m}^2$

### Dynamic range

DR 3639

71.2 dB

11.8 bit

### Dark current

$\mu_{c,mean}$  -0.3 DN/s

$\mu_{c,mean}$  -0.8 e<sup>-</sup>/s

$\mu_{c,var}$  7.4 e<sup>-</sup>/s