

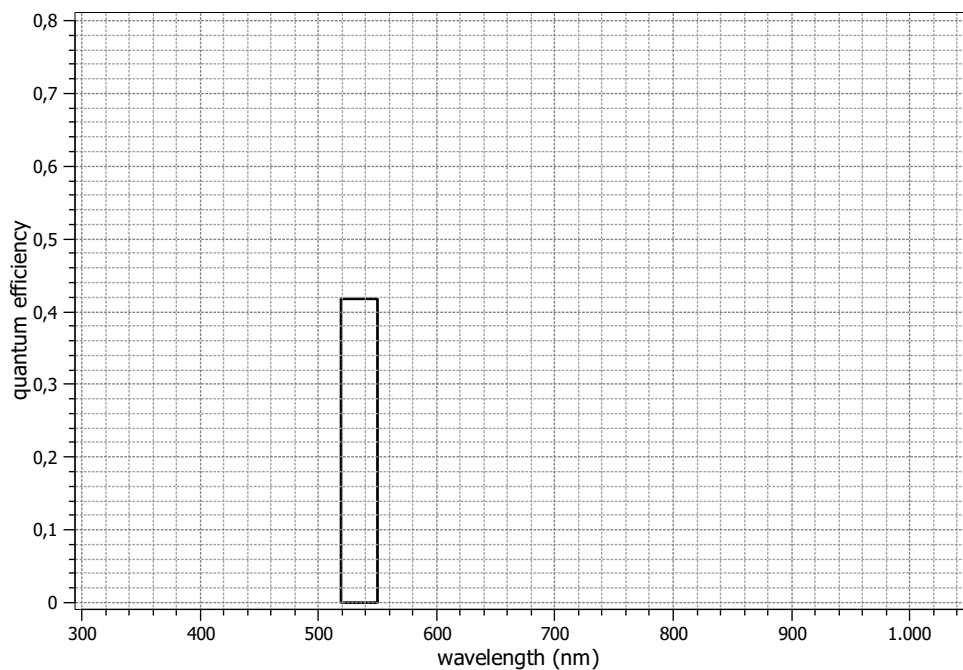
EMVA 1288 Data Sheet m0537

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-RGB Release 3, 12.04.2015, SN 0005(Matrix Vision) . 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

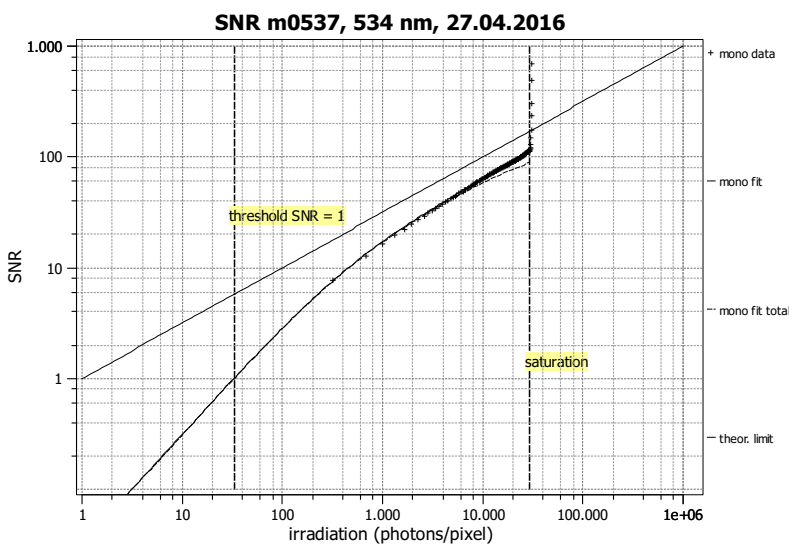
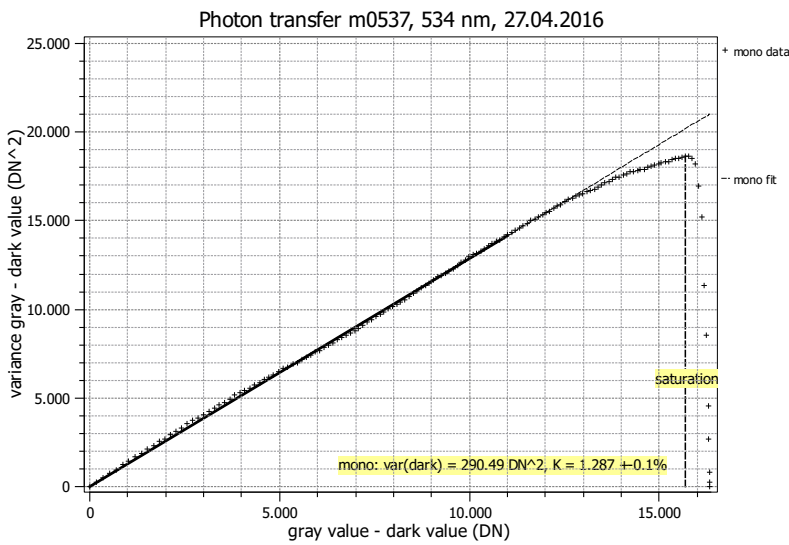
Vendor	MATRIX VISION
Model	mvBlueCOUGAR-X123G
Serial number	GX006421
Sensor diagonal	7.92 mm
Lens category	C-Mount
Resolution	1360 × 1024, 14 bit
Pixel size	4.65 μm × 4.65 μm
Sensor	ICX267
Sensor type	CCD
Readout type	Progressive
Transfer type	Interline
Maximum frame rate	15.2 Hz
Interface type	GigE Vision

Type of data presented	Single
Operation point 1, (page ??)	
Wavelength centroid	534.2 nm
Wavelength FWHM	30.9 nm
Gain, black-level	-3dB, 0.3
Optional data measured	
None	



EMVA 1288 Summary Sheet for Operating Point 1

Type of data	Single	Gain, black-level	-3dB, 0.3
Exposure control	By irradiance	Environmental temperature	26.0°C
Exposure time	14.00 ms	Camera body temperature	39.2°C
Frame rate	15.2 Hz	Internal temperature(s)	—
Data transfer mode	Mono14	Wavelength, centr., FWHM	534 nm, 30.9 nm



Quantum efficiency

η 41.8%

Overall system gain

K 1.287 DN/e⁻
1/ K 0.777 e⁻/DN

Temporal dark noise & DSNU

$\sigma_{y,dark}$ 17.04 DN
DSNU₁₂₈₈ 1.68 DN
 σ_d 13.24 e⁻
DSNU₁₂₈₈ 1.30 e⁻

Signal-to-noise ratio & PRNU

SNR_{max} 111
40.9 dB
6.8 bit
1/SNR_{max} 0.90 %
PRNU₁₂₈₈ 0.67 %

Nonlinearity

LE 0.36%
LE_{min} -0.44%
LE_{max} 0.28%

Sensitivity & saturation

$\mu_{p,min}$ 32.9 p
1.52 p/ μm^2
 $\mu_{p,sat}$ 29298 p
1355 p/ μm^2
 $\mu_{e,min}$ 13.8 e⁻
0.64 e⁻/ μm^2
 $\mu_{e,sat}$ 12257 e⁻
567 e⁻/ μm^2

Dynamic range

DR 891
59.0 dB
9.8 bit

Dark current

$\mu_{c,mean}$ 3.5 DN/s
 $\mu_{c,mean}$ 2.7 e⁻/s
 $\mu_{c,var}$ 2.0 e⁻/s