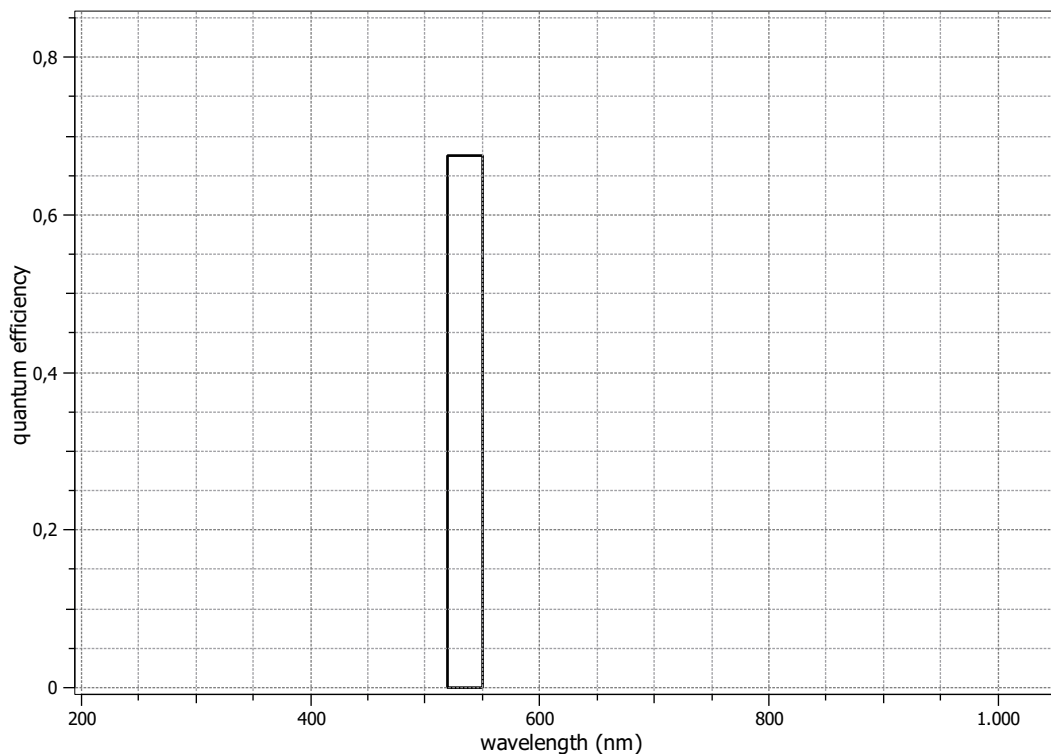


## EMVA 1288 Data Sheet m0828

This datasheet describes the specification according to the standard 1288 release 3.1 for "Characterization and Presentation of Specification Data for Image Sensors and Cameras" issued on December 30, 2016 by the European Machine Vision Association (EMVA), published at [www.standard1288.org](http://www.standard1288.org) and the *zenodo EMVA 1288 community* with proprietary extensions from AEON. The measurements were performed with the AEON ACC3 Release 6, 26.11.2016, SN 0005(MatrixVision.

Measurements performed by T.Renner, Matrix Vision GmbH

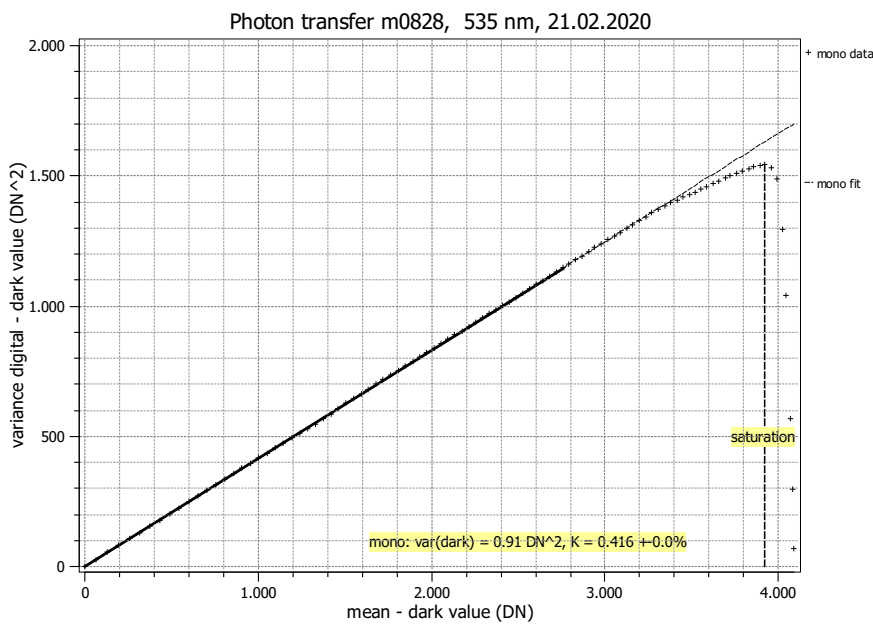
Vendor	MATRIX VI-SION	Type of data presented	Single
Model	mvBlueFOX3-2246G	<b>Operation point 1 (page 3)</b>	
Serial number	FF005035	Wavelength centroid	535.0 nm
Sensor diagonal	19.30 mm	Wavelength FWHM	31.0 nm
Lens category	C-Mount	Gain, black-level	0dB, 0.1
Resolution	5328 × 4608, 12 bit	<b>Optional data measured</b>	
Pixel size (h×v)	2.74 μm × 2.74 μm	None	
Sensor	IMX540		
Sensor type	CMOS		
Shutter type	Global		
Overlap cap.	Overlapping		
Max. frame rate	7.7 Hz		
Interface type	USB3 Vision		



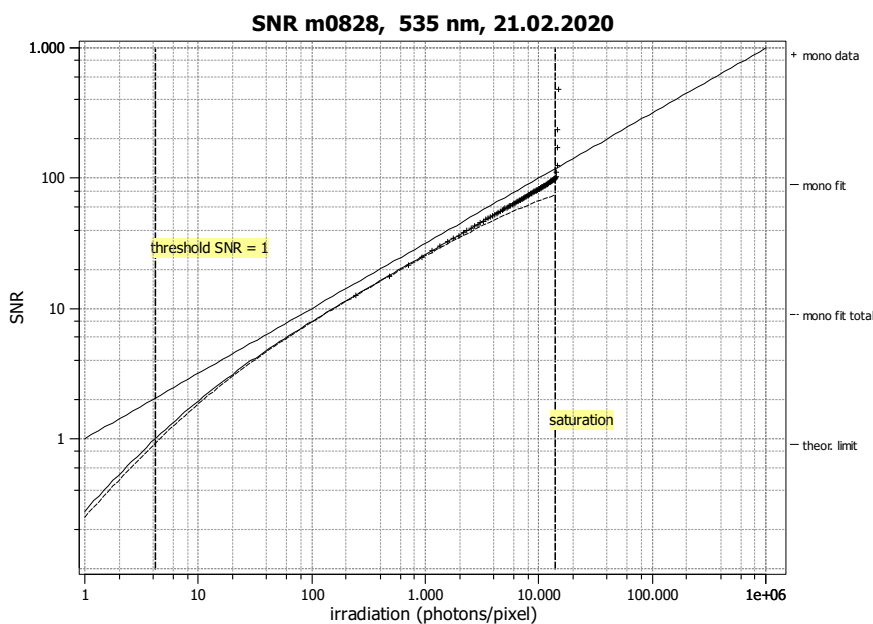
## Summary Sheet for Operation Point 1 at a Wavelength of 535 nm

Type of data	Single	Gain, black-level	0dB, 0.1
Exposure control	By irradiance	Environmental temperature	22.1°C
Exposure time	17.00 ms	Camera body temperature	34.6°C
Frame rate	7.7 Hz	Internal temperature(s)	—
Data transfer mode	Mono12	Wavelength, centr., FWHM	535 nm, 31.0 nm

### Photon Transfer



### Signal-to-Noise Ratio



#### Quantum efficiency

$\eta$  67.5%

#### Overall system gain

$K$  0.416 DN/e<sup>-</sup>

$1/K$  2.405 e<sup>-</sup>/DN

#### Temporal dark noise

$\sigma_d$  2.19 e<sup>-</sup>

$\sigma_{y,\text{dark}}$  0.95 DN

#### Signal-to-noise ratio

SNR<sub>max</sub> 97

39.7 dB

6.6 bit

$1/\text{SNR}_{\text{max}}$  1.03 %

#### Absolute sensitivity threshold

$\mu_{p,\text{min}}$  4.22 p

$\mu_{p,\text{min},\text{area}}$  0.562 p/μm<sup>2</sup>

$\mu_{e,\text{min}}$  2.85 e<sup>-</sup>

$\mu_{e,\text{min},\text{area}}$  0.379 e<sup>-</sup>/μm<sup>2</sup>

#### Saturation capacity

$\mu_{p,\text{sat}}$  13968 p

$\mu_{p,\text{sat},\text{area}}$  1861 p/μm<sup>2</sup>

$\mu_{e,\text{sat}}$  9429 e<sup>-</sup>

$\mu_{e,\text{sat},\text{area}}$  1256 e<sup>-</sup>/μm<sup>2</sup>

#### Dynamic range

DR 3312

70.4 dB

11.7 bit

#### Spatial nonuniformities

DSNU<sub>1288</sub> 1.17 e<sup>-</sup>

0.48 DN

PRNU<sub>1288</sub> 0.87 %

#### Linearity error

LE<sub>min</sub> -0.32%

LE<sub>max</sub> 0.52%

#### Dark current

$\mu_{c,\text{mean}}$  1.2 ± 0.0 e<sup>-</sup>/s

0.49 DN/s

$\mu_{c,\text{var}}$  1.2 ± 0.0 e<sup>-</sup>/s

$T_d$  — °C