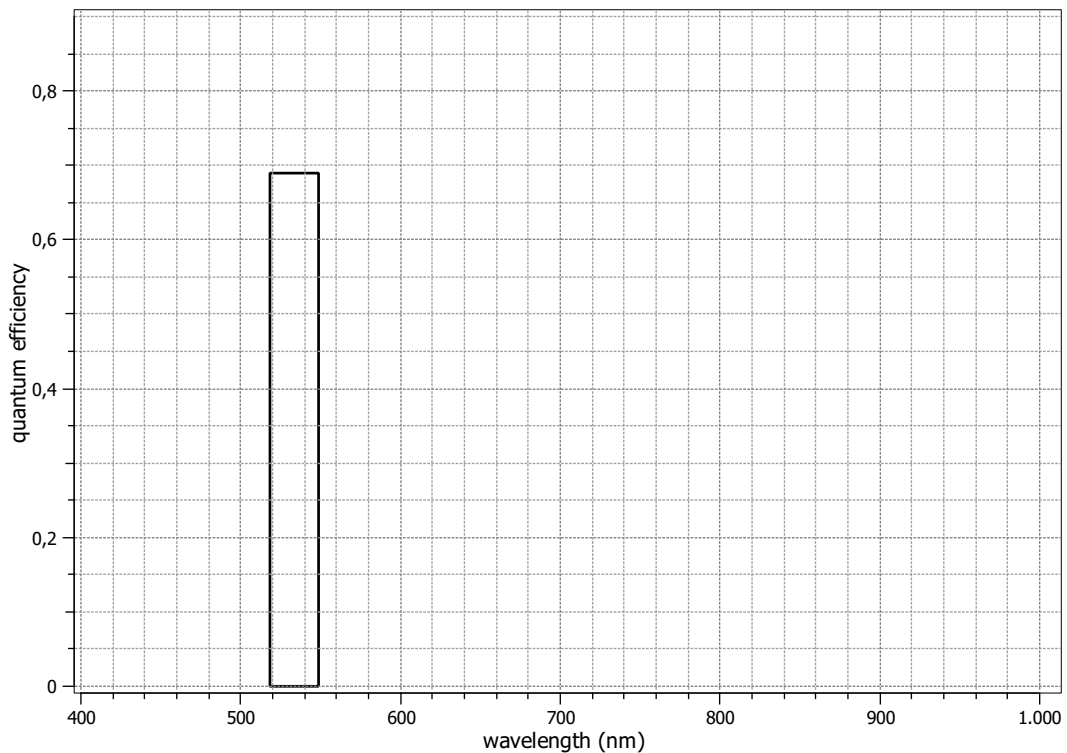


## EMVA 1288 Summary Sheet

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 7, 21.08.2018, SN 0018(AEON).

Measurements performed by Technical and Application Support Center, Baumer Optronic GmbH.

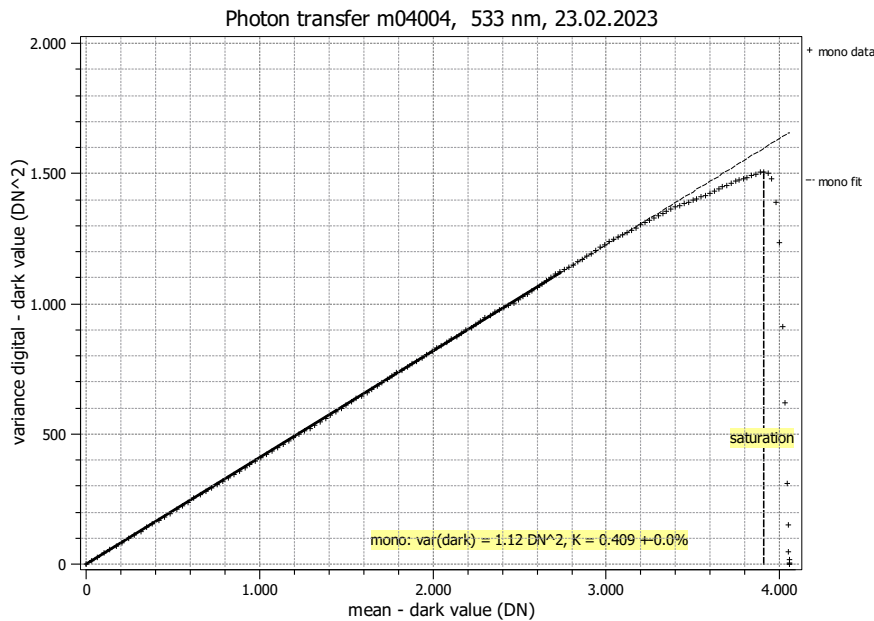
Vendor	Baumer	Type of data presented	Single
Model	VCXG.2-82M	<b>Operation point 1</b>	
Serial number	700009097532	Wavelength centroid	533.3 nm
Sensor diagonal	11.00 mm	Wavelength FWHM	30.3 nm
Lens category	C-Mount	Gain, black-level	1.0 / 40.0
Resolution	2848 × 2832, 12 bit	<b>Optional data measured</b>	
Pixel size (h×v)	2.74 μm × 2.74 μm	None	
Sensor	Sony IMX546		
Sensor type	CMOS		
Shutter type	Global shutter		
Overlap cap.	Overlapped		
Max. frame rate	0.0 Hz		
Interface type	GEV		



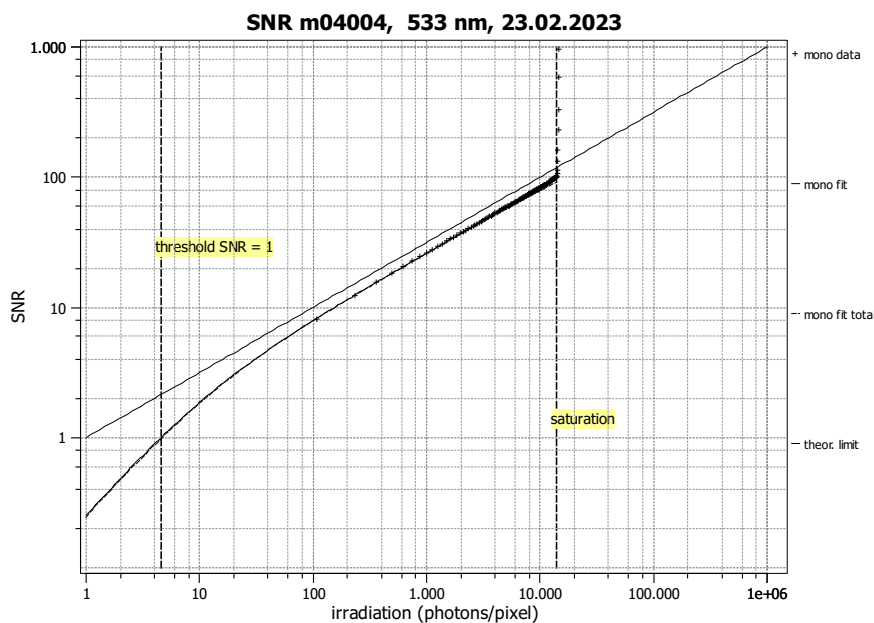
## Summary Sheet for Operation Point 1 at a Wavelength of 533 nm

Type of data	Single	Gain, black-level	1.0 / 40.0
Exposure control	By irradiance	Environmental temperature	22.4 °C
Exposure time	804.00 $\mu$ s	Camera body temperature	33.2 °C
Frame rate	10.0 Hz	Internal temperature(s)	—
Data transfer mode	Mono12	Wavelength, centr., FWHM	533 nm, 30.3 nm

### Photon Transfer



### Signal-to-Noise Ratio



#### Quantum efficiency

$\eta$  68.9%

#### Overall system gain

$K$  0.409 DN/e<sup>-</sup>

$1/K$  2.448 e<sup>-</sup>/DN

#### Temporal dark noise

$\sigma_d$  2.50 e<sup>-</sup>

$\sigma_{y,\text{dark}}$  1.06 DN

#### Signal-to-noise ratio

SNR<sub>max</sub> 98

39.8 dB

6.6 bit

$1/\text{SNR}_{\text{max}}$  1.02 %

#### Absolute sensitivity threshold

$\mu_{p,\text{min}}$  4.56 p

$\mu_{p,\text{min,area}}$  0.608 p/ $\mu\text{m}^2$

$\mu_{e,\text{min}}$  3.14 e<sup>-</sup>

$\mu_{e,\text{min,area}}$  0.418 e<sup>-</sup>/ $\mu\text{m}^2$

#### Saturation capacity

$\mu_{p,\text{sat}}$  13893 p

$\mu_{p,\text{sat,area}}$  1851 p/ $\mu\text{m}^2$

$\mu_{e,\text{sat}}$  9568 e<sup>-</sup>

$\mu_{e,\text{sat,area}}$  1274 e<sup>-</sup>/ $\mu\text{m}^2$

#### Dynamic range

DR 3046

69.7 dB

11.6 bit

#### Spatial nonuniformities

DSNU<sub>1288</sub> 0.65 e<sup>-</sup>

0.27 DN

PRNU<sub>1288</sub> 0.40 %

#### Linearity error

LE<sub>min</sub> -0.19%

LE<sub>max</sub> 0.41%

#### Dark current

$\mu_{c,\text{mean}}$  0  $\pm$  0 e<sup>-</sup>/s

0.1 DN/s

$\mu_{c,\text{var}}$  19  $\pm$  1 e<sup>-</sup>/s

$T_d$  — °C