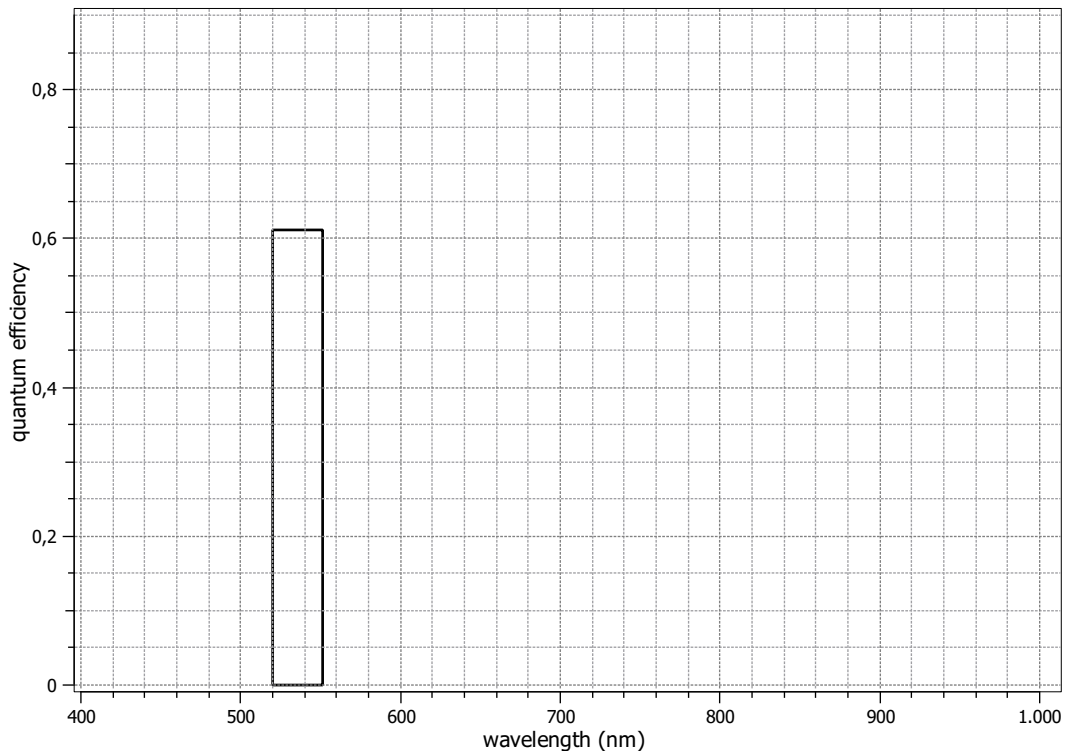


EMVA 1288 Summary Sheet

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 and the *zenodo EMVA 1288 community* with proprietary extensions from AEON. The measurements were performed with the AEON ACC3 RGB Release 7, 21.08.2018, SN 0001(Baumer).

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

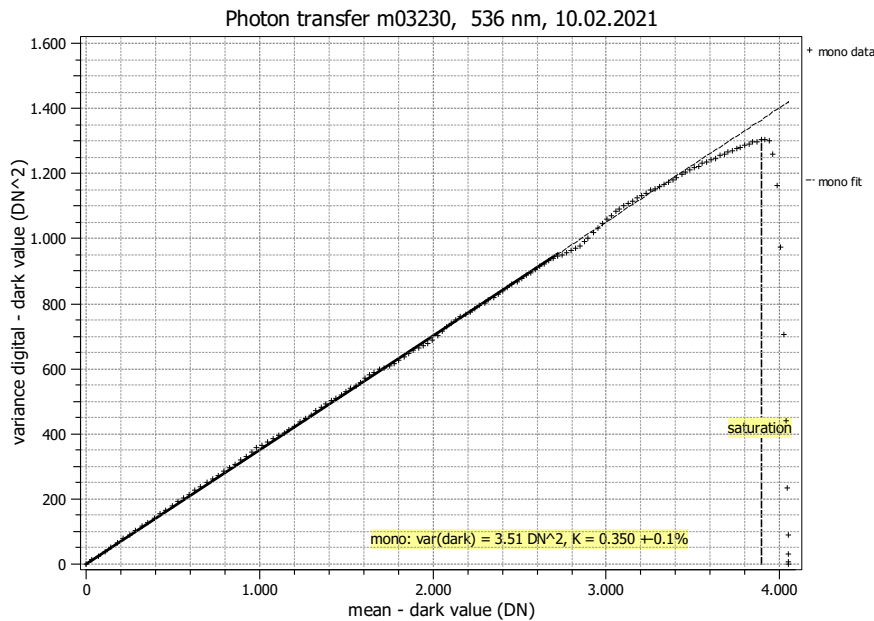
Vendor	Baumer	Type of data presented	Single
Model	VLXT-650M.I	Operation point 1	
Serial number	700006256342	Wavelength centroid	535.7 nm
Sensor diagonal	24.04 mm	Wavelength FWHM	31.9 nm
Lens category	M58 mount	Gain, black-level	1.0 / 41.0
Resolution	5312 × 5312, 12 bit	Optional data measured	
Pixel size (h×v)	3.20 μm × 3.20 μm	None	
Sensor	GPixel GPIXEL_GMAX3265		
Sensor type	CMOS		
Shutter type	Global shutter		
Overlap cap.	Overlapped		
Max. frame rate	0.0 Hz		
Interface type	GEV		



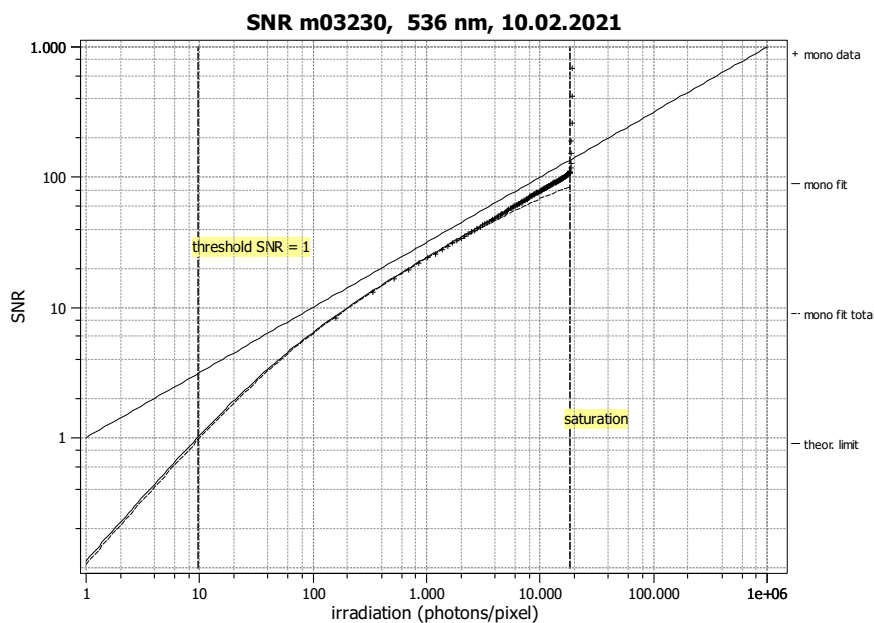
Summary Sheet for Operation Point 1 at a Wavelength of 536 nm

Type of data	Single	Gain, black-level	1.0 / 41.0
Exposure control	By irradiance	Environmental temperature	24.4 °C
Exposure time	1.58 ms	Camera body temperature	41.3 °C
Frame rate	10.0 Hz	Internal temperature(s)	—
Data transfer mode	Mono12	Wavelength, centr., FWHM	536 nm, 31.9 nm

Photon Transfer



Signal-to-Noise Ratio



Quantum efficiency

η 61.1%

Overall system gain

K 0.350 DN/e⁻

$1/K$ 2.853 e⁻/DN

Temporal dark noise

σ_d 5.28 e⁻

$\sigma_{y,\text{dark}}$ 1.87 DN

Signal-to-noise ratio

SNR_{max} 105

40.4 dB

6.7 bit

$1/\text{SNR}_{\text{max}}$ 0.95 %

Absolute sensitivity threshold

$\mu_{p,\text{min}}$ 9.60 p

$\mu_{p,\text{min,area}}$ 0.937 p/ μm^2

$\mu_{e,\text{min}}$ 5.87 e⁻

$\mu_{e,\text{min,area}}$ 0.573 e⁻/ μm^2

Saturation capacity

$\mu_{p,\text{sat}}$ 18126 p

$\mu_{p,\text{sat,area}}$ 1770 p/ μm^2

$\mu_{e,\text{sat}}$ 11083 e⁻

$\mu_{e,\text{sat,area}}$ 1082 e⁻/ μm^2

Dynamic range

DR 1889

65.5 dB

10.9 bit

Spatial nonuniformities

DSNU₁₂₈₈ 1.92 e⁻

0.67 DN

PRNU₁₂₈₈ 0.71 %

Linearity error

LE_{min} -0.40%

LE_{max} 0.83%

Dark current

$\mu_{c,\text{mean}}$ 14 ± 0 e⁻/s

4.9 DN/s

$\mu_{c,\text{var}}$ 14 ± 0 e⁻/s

T_d — °C