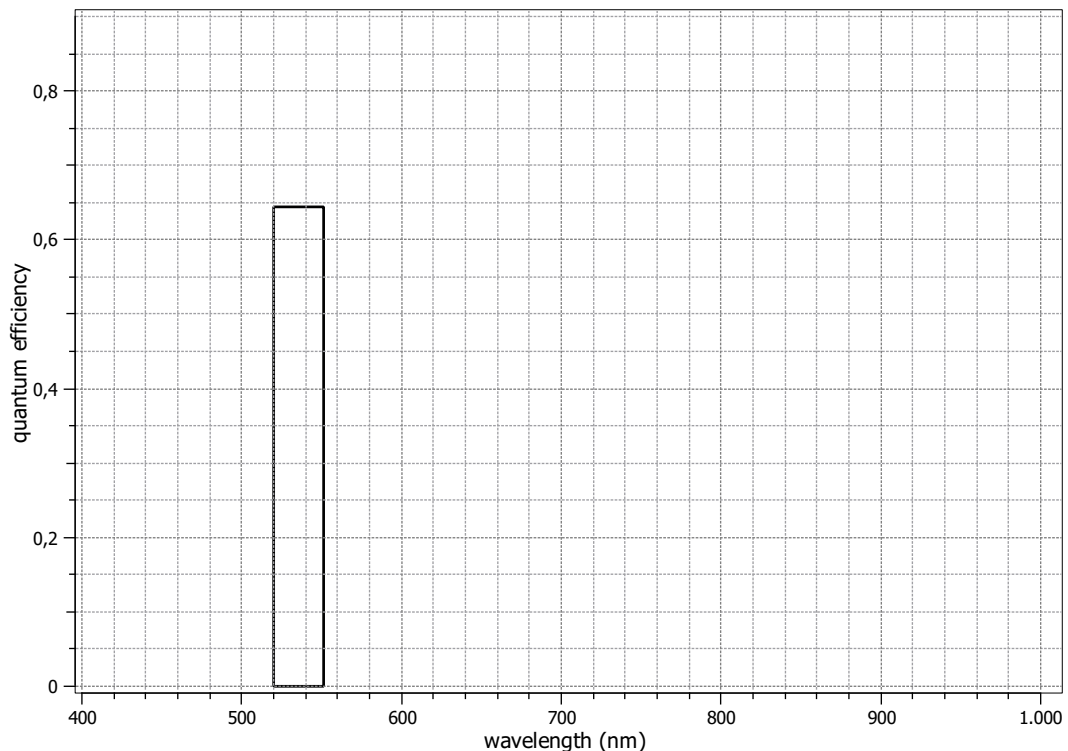


## EMVA 1288 Summary Sheet

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 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-90M.I.JP	<b>Operation point 1</b>	
Serial number	700005971510	Wavelength centroid	535.7 nm
Sensor diagonal	15.98 mm	Wavelength FWHM	31.9 nm
Lens category	C-Mount	Gain, black-level	1.0 / 39.0
Resolution	4096 × 2160, 12 bit	<b>Optional data measured</b>	
Pixel size (h×v)	3.45 μm × 3.45 μm	None	
Sensor	Sony IMX255		
Sensor type	CMOS		
Shutter type	Global shutter		
Overlap cap.	Overlapped		
Max. frame rate	0.0 Hz		
Interface type	GEV		

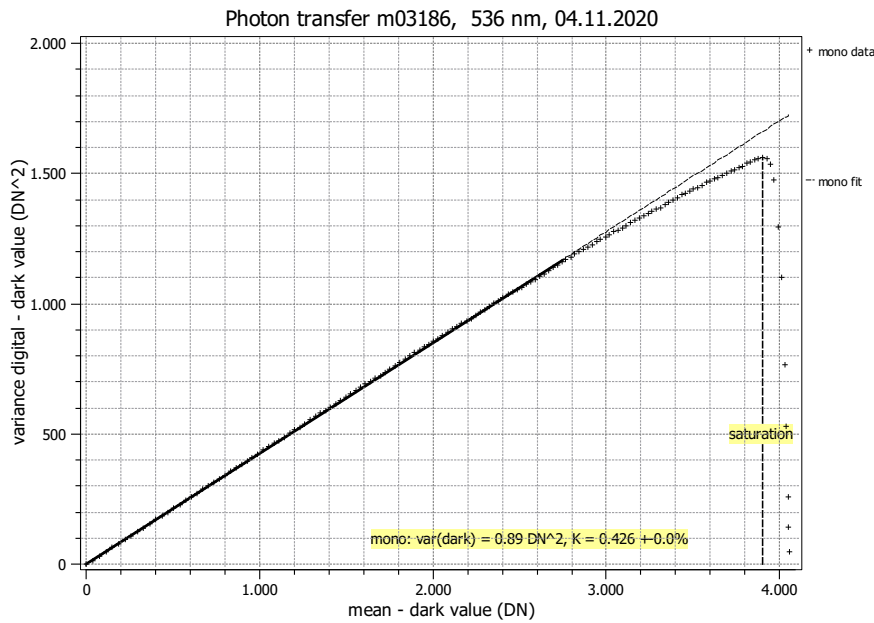




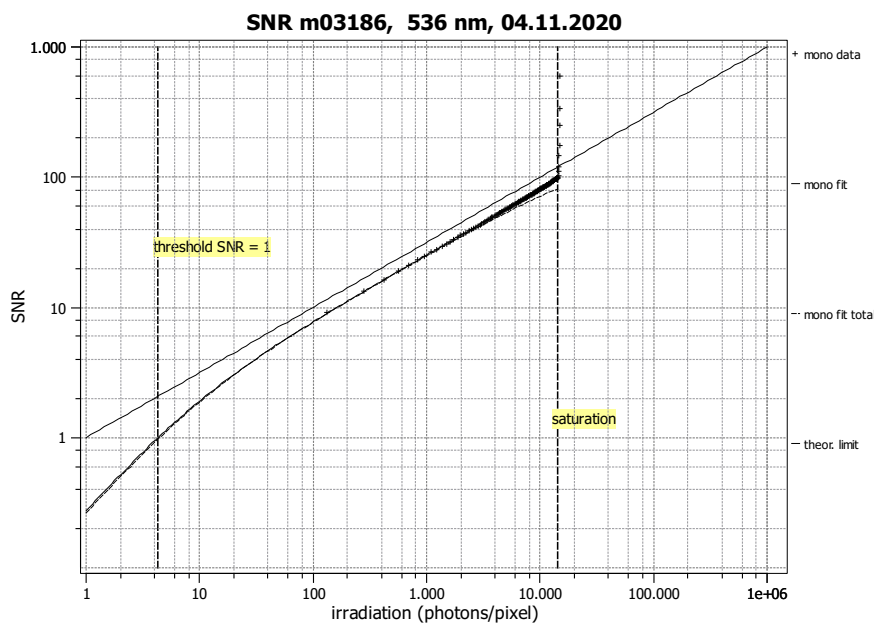
### Summary Sheet for Operation Point 1 at a Wavelength of 536 nm

Type of data	Single	Gain, black-level	1.0 / 39.0
Exposure control	By irradiance	Environmental temperature	23.9°C
Exposure time	796.00 μs	Camera body temperature	36.0°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



<b>Quantum efficiency</b>	$\eta$	64.4%
<b>Overall system gain</b>	$K$	0.426 DN/e <sup>-</sup>
	$1/K$	2.350 e <sup>-</sup> /DN
<b>Temporal dark noise</b>	$\sigma_d$	2.11 e <sup>-</sup>
	$\sigma_{y,\text{dark}}$	0.94 DN
<b>Signal-to-noise ratio</b>	$\text{SNR}_{\text{max}}$	96
		39.6 dB
		6.6 bit
	$1/\text{SNR}_{\text{max}}$	1.04 %
<b>Absolute sensitivity threshold</b>	$\mu_{p,\text{min}}$	4.31 p
	$\mu_{p,\text{min,area}}$	0.362 p/μm <sup>2</sup>
	$\mu_{e,\text{min}}$	2.78 e <sup>-</sup>
	$\mu_{e,\text{min,area}}$	0.233 e <sup>-</sup> /μm <sup>2</sup>
<b>Saturation capacity</b>	$\mu_{p,\text{sat}}$	14236 p
	$\mu_{p,\text{sat,area}}$	1196 p/μm <sup>2</sup>
	$\mu_{e,\text{sat}}$	9165 e <sup>-</sup>
	$\mu_{e,\text{sat,area}}$	770 e <sup>-</sup> /μm <sup>2</sup>
<b>Dynamic range</b>	DR	3302
		70.4 dB
		11.7 bit
<b>Spatial nonuniformities</b>	$\text{DSNU}_{1288}$	0.65 e <sup>-</sup>
		0.28 DN
	$\text{PRNU}_{1288}$	0.64 %
<b>Linearity error</b>	$\text{LE}_{\text{min}}$	-0.46%
	$\text{LE}_{\text{max}}$	1.17%
<b>Dark current</b>	$\mu_{c,\text{mean}}$	-1.14 ± 0.21 e <sup>-</sup> /s
		-0.48 DN/s
	$\mu_{c,\text{var}}$	0.80 ± 0.29 e <sup>-</sup> /s
	$T_d$	— °C