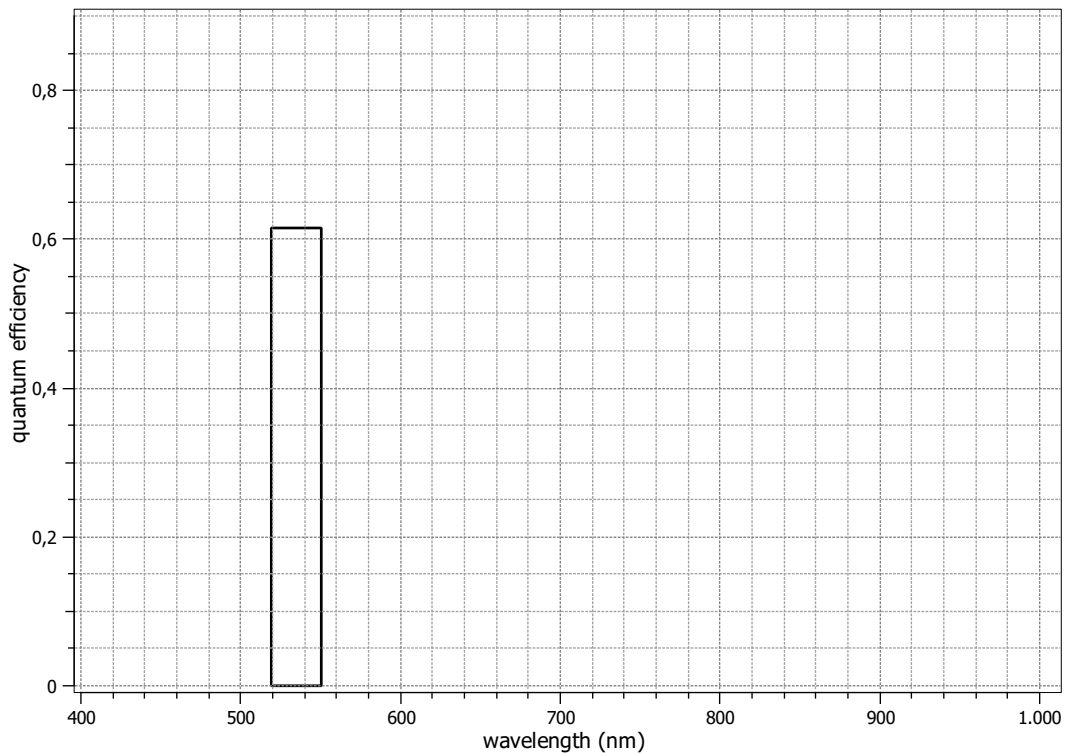


EMVA 1288 Summary Sheet

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.EF	Operation point 1	
Serial number	700007019308	Wavelength centroid	534.9 nm
Sensor diagonal	24.04 mm	Wavelength FWHM	31.8 nm
Lens category	M58 mount	Gain, black-level	1.0 / 40.0
Resolution	5312 × 5312, 12 bit	Optional data measured	None
Pixel size (h×v)	3.20 μm × 3.20 μm		
Sensor	GPixel GPIXEL.GMAX3265		
Sensor type	CMOS		
Shutter type	Global shutter		
Overlap cap.	Overlapped		
Max. frame rate	0.0 Hz		
Interface type	GEV		

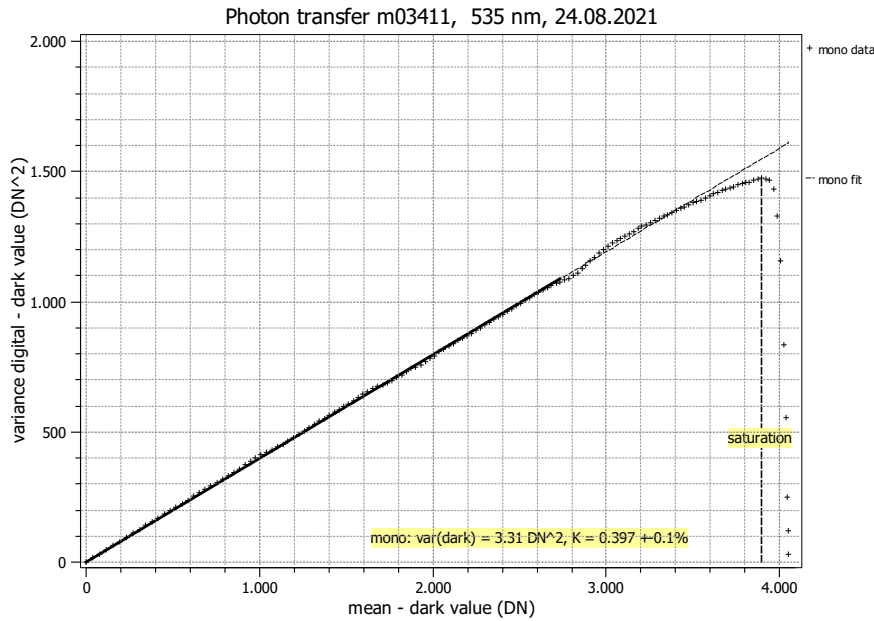




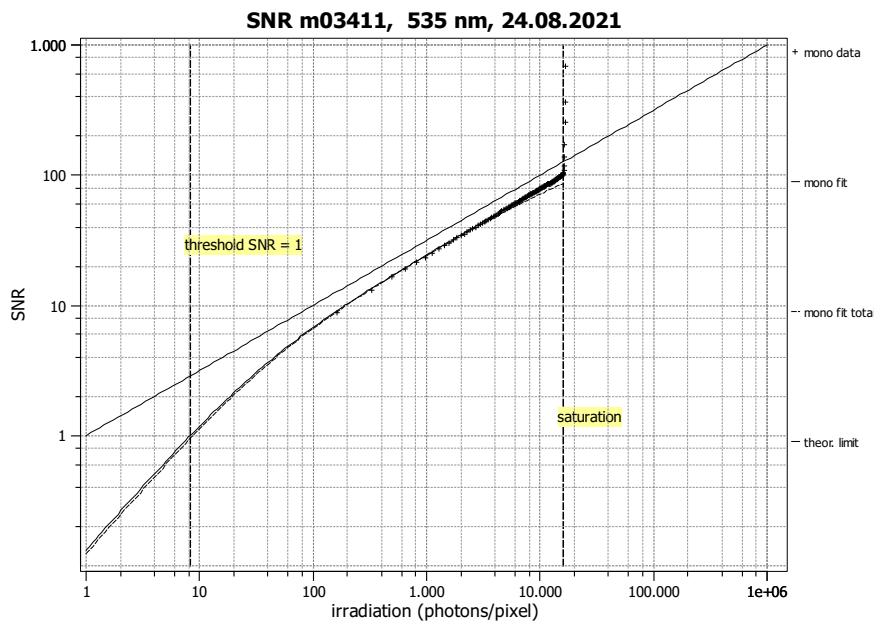
Summary Sheet for Operation Point 1 at a Wavelength of 535 nm

Type of data	Single	Gain, black-level	1.0 / 40.0
Exposure control	By irradiance	Environmental temperature	27.0°C
Exposure time	801.00 μs	Camera body temperature	42.4°C
Frame rate	10.0 Hz	Internal temperature(s)	—
Data transfer mode	Mono12	Wavelength, centr., FWHM	535 nm, 31.8 nm

Photon Transfer



Signal-to-Noise Ratio



Quantum efficiency	η	61.6%
Overall system gain	K	0.397 DN/e ⁻
	1/K	2.516 e ⁻ /DN
Temporal dark noise	σ_d	4.52 e ⁻
	$\sigma_{y, \text{dark}}$	1.82 DN
Signal-to-noise ratio	SNR _{max}	99
		39.9 dB
		6.6 bit
	1/SNR _{max}	1.01 %
Absolute sensitivity threshold	$\mu_{p, \text{min}}$	8.29 p
	$\mu_{p, \text{min, area}}$	0.810 p/μm ²
	$\mu_{e, \text{min}}$	5.11 e ⁻
	$\mu_{e, \text{min, area}}$	0.499 e ⁻ /μm ²
Saturation capacity	$\mu_{p, \text{sat}}$	15868 p
	$\mu_{p, \text{sat, area}}$	1550 p/μm ²
	$\mu_{e, \text{sat}}$	9770 e ⁻
	$\mu_{e, \text{sat, area}}$	954 e ⁻ /μm ²
Dynamic range	DR	1913
		65.6 dB
		10.9 bit
Spatial nonuniformities	DSNU ₁₂₈₈	1.70 e ⁻
		0.68 DN
	PRNU ₁₂₈₈	0.56 %
Linearity error	LE _{min}	-0.37%
	LE _{max}	0.64%
Dark current	$\mu_{c, \text{mean}}$	14 ± 0 e ⁻ /s
		5.7 DN/s
	$\mu_{c, \text{var}}$	14 ± 0 e ⁻ /s
	T_d	— °C