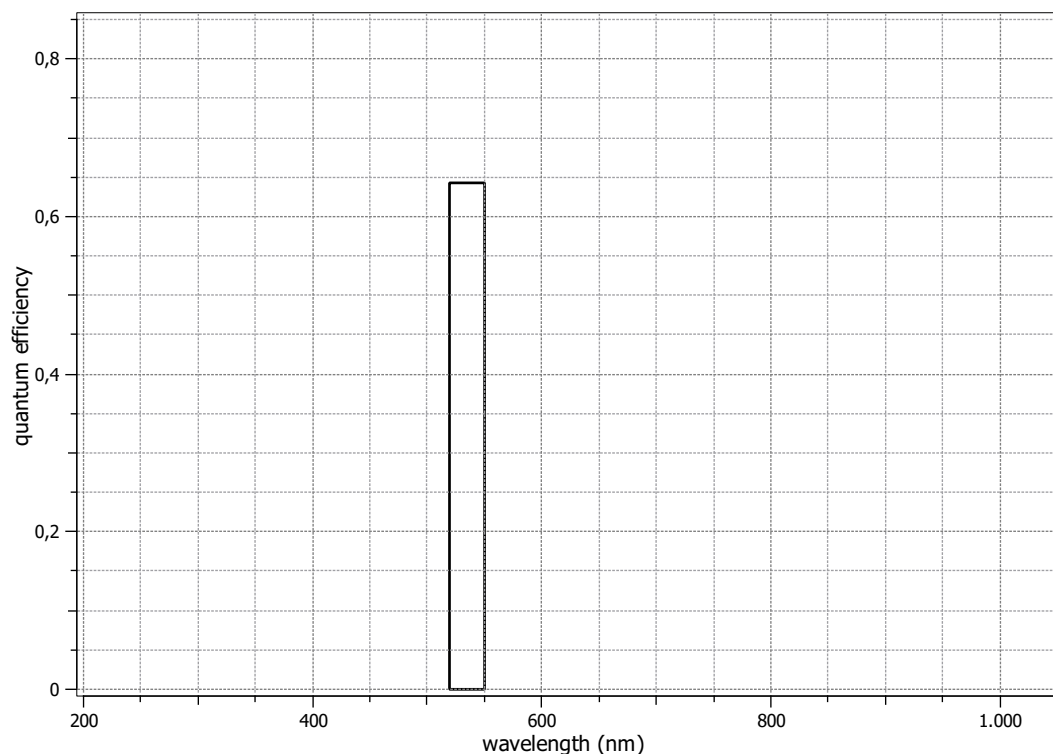


EMVA 1288 Data Sheet m0896

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 Release 6, 26.11.2016, SN 0005(MatrixVision).

Measurements performed by T.Renner, Matrix Vision GmbH

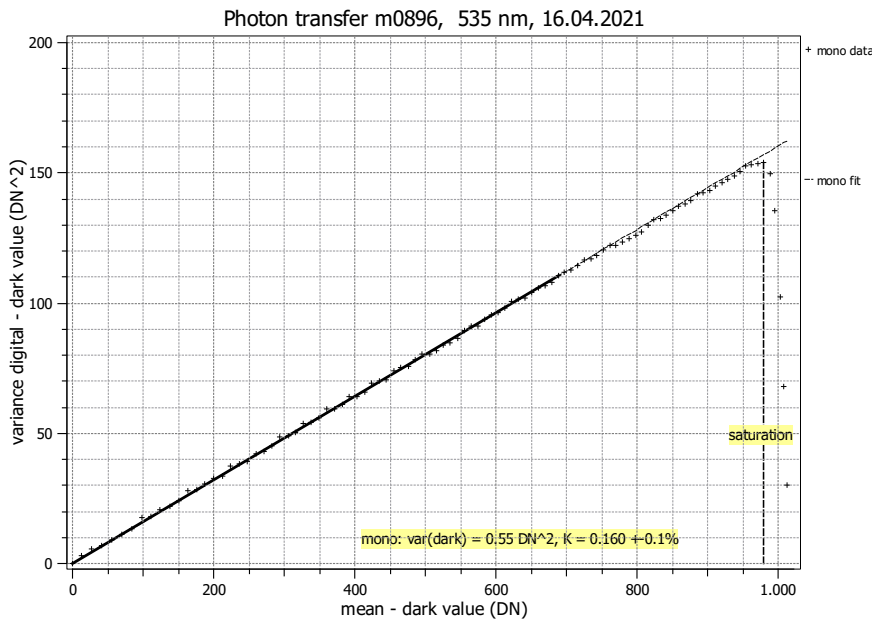
Vendor	MATRIX VISION	VI-	Type of data presented	Single
Model	mvBlueFOX-IGC202vG		Operation point 1 (page 3)	
Serial number	58600001		Wavelength centroid	535.0 nm
Sensor diagonal	6.00 mm		Wavelength FWHM	31.0 nm
Lens category	C-Mount		Gain, black-level	0dB, 0.05
Resolution	1280 × 960, 10 bit		Optional data measured	
Pixel size (h×v)	3.75 μm × 3.75 μm		None	
Sensor	AR0135			
Sensor type	CMOS			
Shutter type	Global			
Overlap cap.	Overlapping			
Max. frame rate	18.0 Hz			
Interface type	mvIMPACT acquire			



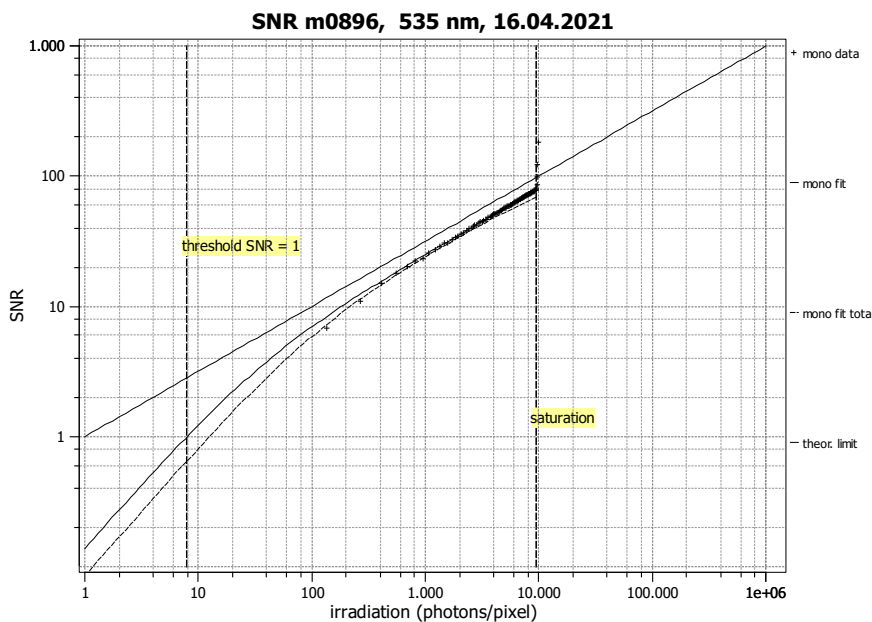
Summary Sheet for Operation Point 1 at a Wavelength of 535 nm

Type of data	Single	Gain, black-level	0dB, 0.05
Exposure control	By irradiance	Environmental temperature	23.1°C
Exposure time	10.00 ms	Camera body temperature	25.9°C
Frame rate	18.0 Hz	Internal temperature(s)	—
Data transfer mode	Mono10	Wavelength, centr., FWHM	535 nm, 31.0 nm

Photon Transfer



Signal-to-Noise Ratio



Quantum efficiency	
η	64.2%
Overall system gain	
K	0.160 DN/e ⁻
$1/K$	6.231 e ⁻ /DN
Temporal dark noise	
σ_d	4.24 e ⁻
$\sigma_{y,\text{dark}}$	0.74 DN
Signal-to-noise ratio	
SNR_{max}	78
	37.8 dB
	6.3 bit
$1/\text{SNR}_{\text{max}}$	1.28 %
Absolute sensitivity threshold	
$\mu_{p,\text{min}}$	7.99 p
$\mu_{p,\text{min},\text{area}}$	0.568 p/ μm^2
$\mu_{e,\text{min}}$	5.13 e ⁻
$\mu_{e,\text{min},\text{area}}$	0.365 e ⁻ / μm^2
Saturation capacity	
$\mu_{p,\text{sat}}$	9485 p
$\mu_{p,\text{sat},\text{area}}$	674 p/ μm^2
$\mu_{e,\text{sat}}$	6092 e ⁻
$\mu_{e,\text{sat},\text{area}}$	433 e ⁻ / μm^2
Dynamic range	
DR	1188
	61.5 dB
	10.2 bit
Spatial nonuniformities	
DSNU_{1288}	5.98 e ⁻
	0.96 DN
PRNU_{1288}	0.69 %
Linearity error	
LE_{min}	-0.18%
LE_{max}	0.24%
Dark current	
$\mu_{c,\text{mean}}$	0.7 ± 1.0 e ⁻ /s
	0.11 DN/s
$\mu_{c,\text{var}}$	2.7 ± 2.0 e ⁻ /s
T_d	— °C