This datasheet describes the specification according to the standard 1288 for Characterization and Presentation of Specification Data for Image Sensors and Cameras of the European Machine Vision Association (EMVA) (see www.standard1288.org). The measurements were performed with an AEON ACC3 RGB Release 3, 20.01.2104, SN 0005(). The performance parameters and estimated accuracy of the measurements are described in the technical report for the instrument, its calibration in the corresponding calibration report.

Vendor | MATRIX VISION
Model  | mvBlueFOX3-2032G
Serial number | FF000178
Sensor diagonal | 8.89 mm
Lens category | C-Mount
Resolution | 2064 × 1544, 12 bit
Pixel size | 3.45 µm × 3.45 µm
Sensor type | CMOS
Shutter type | Global
Overlap capabilities | Overlapping
Maximum frame rate | 55.0 Hz
Interface type | USB3 Vision

Type of data presented | Single
Operation point 1, (page 3)
Wavelength centroid | 534.2 nm
Wavelength FWHM | 30.9 nm
Gain, offset | Gain = 0 dB, Offset = 0.1
Optional data measured | None

Spectral sensitivity m0480, 17.11.2015

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EMVA 1288 Summary Sheet for Operating Point 1

<table>
<thead>
<tr>
<th>Type of data</th>
<th>Single</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure time</td>
<td>13.6 ms</td>
</tr>
<tr>
<td>Frame rate</td>
<td>0.0 Hz</td>
</tr>
<tr>
<td>Data transfer mode</td>
<td>Mono12</td>
</tr>
<tr>
<td>Gain, offset</td>
<td>Gain = 0dB, Offset = 0.1</td>
</tr>
<tr>
<td>Environmental temperature</td>
<td>24.7°C</td>
</tr>
<tr>
<td>Camera temperature</td>
<td>37.9°C</td>
</tr>
<tr>
<td>Wavelength, centr., FWHM</td>
<td>534 nm, 30.9 nm</td>
</tr>
</tbody>
</table>

**Photon transfer m0480, 534nm, 17.11.2015**

- **Gain**
  - \( K \) (DN/e) = 0.369
  - \( 1/K \) (e/DN) = 2.711

- **Dark noise & DSNU**
  - \( \sigma_d \) (DN) = 0.90
  - \( \sigma_0 \) (e) = 2.3
  - DSNU\(_{1288} \) (DN) = 0.50
  - DSNU\(_{1288} \) (e) = 1.36

- **Signal-to-noise ratio & PRNU**
  - \( \text{SNR}_{\text{max}} \) = 104
  - \( \text{SNR}_{\text{max}} \) (dB) = 40.3
  - \( \text{SNR}_{\text{max}} \) (bits) = 6.7
  - \( 1/\text{SNR}_{\text{max}} \) (%) = 0.96
  - PRNU\(_{1288} \) (%) = 0.524

- **Nonlinearity**
  - LE (%) = 0.23

- **Sensitivity & saturation**
  - \( \mu_{p,\text{min}} \) (p) = 4.8
  - \( \mu_{e,\text{min}} \) (e) = 3.0
  - \( \mu_{p,\text{sat}} \) (p) = 17064
  - \( \mu_{e,\text{sat}} \) (e) = 10757

- **Dynamic range**
  - DR = 3585
  - DR (dB) = 71.1
  - DR (bit) = 11.8

- **Dark current**
  - \( \mu_{c,\text{mean}} \) (DN/s) = 4.38
  - \( \mu_{c,\text{mean}} \) (e/s) = 11.86
  - \( \mu_{c,\text{var}} \) (e/s) = 11.99

Quantum efficiency

\[ \eta = 0.630 \]

Gain

\[ K = 0.369 \]

1/K = 2.711

Dark noise & DSNU

\[ \sigma_d = 0.90 \]

\[ \sigma_0 = 2.3 \]

\[ \text{DSNU}_{1288} = 0.50 \]

\[ \text{DSNU}_{1288} = 1.36 \]

Signal-to-noise ratio & PRNU

\[ \text{SNR}_{\text{max}} = 104 \]

\[ \text{SNR}_{\text{max}} (\text{dB}) = 40.3 \]

\[ \text{SNR}_{\text{max}} (\text{bits}) = 6.7 \]

\[ 1/\text{SNR}_{\text{max}} (\%) = 0.96 \]

\[ \text{PRNU}_{1288} (\%) = 0.524 \]

Nonlinearity

\[ \text{LE} (\%) = 0.23 \]

Sensitivity & saturation

\[ \mu_{p,\text{min}} (\text{p}) = 4.8 \]

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Dynamic range

\[ \text{DR} = 3585 \]

\[ \text{DR} (\text{dB}) = 71.1 \]

\[ \text{DR} (\text{bit}) = 11.8 \]

Dark current

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\[ \mu_{c,\text{var}} (\text{e/s}) = 11.99 \]