The IMX662-AAQR/AAQR1 is a diagonal 6.45 mm (Type 1/2.8) CMOS active pixel type solid-state image sensor with a square pixel array and 2.40 M effective pixels. This chip operates with analog 3.3 V, digital 1.1 V, and interface 1.8 V triple power supply, and has low power consumption. High sensitivity, low dark current and no smear are achieved through the adoption of R, G and B primary color mosaic filters. This chip features an electronic shutter with variable charge-integration time.

(Application: Security cameras)
**Device Structure**

- **CMOS image sensor**
- **Image size** Diagonal 6.45 mm (Type 1/2.8) approx. 2.40 M pixels, All pixels
- **Total number of pixels** 2014 (H) × 1196 (V) approx. 2.40 M pixels
- **Number of effective pixels** 1965 (H) × 1113 (V) approx. 2.18 M pixels
- **Number of active pixels** 1937 (H) × 1097 (V) approx. 2.12 M pixels
- **Number of recommended recording pixels** 1920 (H) × 1080 (V) approx. 2.07 M pixels
- **Unit cell size** 2.9 μm (H) × 2.9 μm (V)
- **Optical black** Horizontal (H) direction: Front 0 pixels, rear 0 pixels
  Vertical (V) direction: Front 0 pixels, rear 0 pixels
- **Dummy** Horizontal (H) direction: Front 0 pixels, rear 0 pixels
  Vertical (V) direction: Front 0 pixels, rear 0 pixels
- **Package** 114 pin LGA

**Image Sensor Characteristics**

(Tj = 60 °C)

<table>
<thead>
<tr>
<th>Item</th>
<th>Value</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity (F5.6)</td>
<td>Typ. 18383 Digit/lx/s (IMX662-AAQR) 19556 Digit/lx/s (IMX662-AAQR1)</td>
<td>12 bit converted value</td>
</tr>
<tr>
<td>Saturation signal</td>
<td>Min. 3895 Dight</td>
<td>12 bit converted value</td>
</tr>
</tbody>
</table>

**Basic Drive Mode**

<table>
<thead>
<tr>
<th>Drive mode</th>
<th>Recommended number of recording pixels</th>
<th>Maximum frame rate [frame/s]</th>
<th>Output interface</th>
<th>ADC [bit]</th>
</tr>
</thead>
<tbody>
<tr>
<td>All-pixel</td>
<td>1920 (H) × 1080 (V) approx. 2.07 M pixels</td>
<td>90</td>
<td>CSI-2</td>
<td>10</td>
</tr>
<tr>
<td>Horizontal/Vertical 2/2-line binning</td>
<td>960 (H) × 540 (V) approx. 0.52 M pixels</td>
<td>90</td>
<td>CSI-2</td>
<td>10</td>
</tr>
</tbody>
</table>
Comparison Image under Complex Lighting Environment

IMX662 has a wider dynamic range than conventional type. Also, when shooting a fast-moving target the image taken with Clear HDR does not have chromatic aberration compared to DOL HDR.

Image Sensors for Security Cameras: https://www.sony.net/cis-security/