# EN5MP0816

Fixed focal 5 Megapixel lens, focal length 8 mm, f# 1.6 - 22, C-mount

## Specifications

### Optical specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focal length (mm)</td>
<td>8</td>
</tr>
<tr>
<td>Magnification</td>
<td>0.072</td>
</tr>
<tr>
<td>Image circle Ø (mm)</td>
<td>11</td>
</tr>
<tr>
<td>Max detector size</td>
<td>2/3&quot;</td>
</tr>
<tr>
<td>Max Working distance (mm)</td>
<td>100</td>
</tr>
<tr>
<td>F/#</td>
<td>1.6 - 22</td>
</tr>
<tr>
<td>Back focal length (mm)</td>
<td>12.44</td>
</tr>
<tr>
<td>Angle of view with detector of 2/3&quot; (D x H x V)</td>
<td>66.8 x 55.8 x 43.3</td>
</tr>
<tr>
<td>Angle of view with detector of 1/2&quot; (D x H x V)</td>
<td>51.4 x 42.1 x 32.1</td>
</tr>
<tr>
<td>Field of view with detector of 2/3&quot; (D x H x V)</td>
<td>159.0 x 126.0 x 93.6</td>
</tr>
<tr>
<td>Distortion with detector of 2/3&quot; 3</td>
<td>0.73</td>
</tr>
<tr>
<td>Distortion with detector of 1/2&quot; 4</td>
<td>1.00</td>
</tr>
</tbody>
</table>

### Mechanical specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mount</td>
<td>C</td>
</tr>
<tr>
<td>Length (mm)</td>
<td>58.7</td>
</tr>
<tr>
<td>Diameter (mm)</td>
<td>49.5</td>
</tr>
<tr>
<td>Mass (g)</td>
<td>170</td>
</tr>
<tr>
<td>Filter thread</td>
<td>M40.5x0.5</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-10°C - +50°C</td>
</tr>
<tr>
<td>Iris lock</td>
<td>Manual with locking screw</td>
</tr>
<tr>
<td>Focus lock</td>
<td>Manual with locking screw</td>
</tr>
</tbody>
</table>

### Compatibility

Compatible products: COE-G series, COE-U series, mvBlueCDUGAR series, mvBlueFOX3-2 series

## Notes

1. Angle of view while using detector of 2/3".
2. Angle of view while using detector of 1/2".
3. Max distortion while using detector of 2/3".
4. Max distortion while using detector of 1/2".

## Placement
All product specifications and data are subject to change without notice to improve reliability, functionality, design or other. Photos and pictures are for illustration purposes only.

**COMPATIBLE PRODUCTS**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTPRHP3W-W</td>
<td>LED pattern projector 3W, HP, white</td>
</tr>
<tr>
<td>LTPRHP3W-R</td>
<td>LED pattern projector 3W, HP, red</td>
</tr>
<tr>
<td>LTPRHP3W-G</td>
<td>LED pattern projector 3W, HP, green</td>
</tr>
<tr>
<td>LTPRHP3W-B</td>
<td>LED pattern projector 3W, HP, blue</td>
</tr>
<tr>
<td>LTPRXP-W</td>
<td>High Power LED pattern projector, white</td>
</tr>
<tr>
<td>LTPRXP-R</td>
<td>High Power LED pattern projector, red</td>
</tr>
<tr>
<td>LTPRXP-G</td>
<td>High Power LED pattern projector, green</td>
</tr>
<tr>
<td>LTPRXP-B</td>
<td>High Power LED pattern projector, blue</td>
</tr>
<tr>
<td>LTPRUP-W</td>
<td>90W strobed LED pattern projector white</td>
</tr>
<tr>
<td>LTPRUP-R</td>
<td>90W strobed LED pattern projector red</td>
</tr>
<tr>
<td>LTPRUP-G</td>
<td>90W strobed LED pattern projector green</td>
</tr>
<tr>
<td>LTPRUP-B</td>
<td>90W strobed LED pattern projector blue</td>
</tr>
</tbody>
</table>

**COE-G Series**

GenICam® Poi cameras

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>COE-003-M-POE-010-IR-C</td>
<td>Area Scan camera Python 300, CMOS, Global shutter, 640 x 480, 0.3 MP, 4.8 px, 1/4&quot;, Gray, GigE, POE, C-mount, Glass filter</td>
</tr>
<tr>
<td>COE-004-M-POE-010-IR-C</td>
<td>Area Scan camera Python 300, CMOS, Global shutter, 640 x 480, 0.3 MP, 4.8 px, 1/4&quot;, Gray, 300 fps, GigE, POE, C-mount, Glass filter</td>
</tr>
<tr>
<td>COE-003-C-POE-010-IR-C</td>
<td>Area Scan camera Python 300, CMOS, Global shutter, 640 x 480, 0.3 MP, 4.8 px, 1/4&quot;, Color, 173 fps, GigE, POE, C-mount, Infrared cut filter</td>
</tr>
<tr>
<td>COE-004-C-POE-010-IR-C</td>
<td>Area Scan camera Python 300, CMOS, Global shutter, 640 x 480, 0.3 MP, 4.8 px, 1/4&quot;, Color, 300 fps, GigE, POE, C-mount, Infrared cut filter</td>
</tr>
<tr>
<td>COE-003-M-POE-020-IR-C</td>
<td>Area Scan camera RJ3B4ADD0T, CCD, Global shutter, 640 x 480, 0.3 MP, 7.4 px, 1/3&quot;, Gray, 200 fps, GigE, POE, C-mount, Glass filter</td>
</tr>
<tr>
<td>COE-003-C-POE-020-IR-C</td>
<td>Area Scan camera RJ3B4ADD0T, CCD, Global shutter, 640 x 480, 0.3 MP, 7.4 px, 1/3&quot;, Color, 200 fps, GigE, POE, C-mount, Infrared cut filter</td>
</tr>
<tr>
<td>COE-012-M-POE-020-IR-C</td>
<td>Area Scan camera RJ3B4CASDE, CCD, Global shutter, 1280 x 960, 1.2 MP, 3.75 px, 1/3&quot;, Gray, 30 fps, GigE, POE, C-mount, Glass filter</td>
</tr>
<tr>
<td>COE-012-C-POE-020-IR-C</td>
<td>Area Scan camera RJ3B4CASDE, CCD, Global shutter, 1280 x 960, 1.2 MP, 3.75 px, 1/3&quot;, Color, 30 fps, GigE, POE, C-mount, Infrared cut filter</td>
</tr>
<tr>
<td>COE-016-M-POE-021-IR-C</td>
<td>Area Scan camera IMK273, CMOS, Global shutter, 1440 x 1080, 1.6 MP, 3.45 px, 1/2.9&quot;, Gray, 70 fps, GigE, POE, C-mount, Glass filter</td>
</tr>
<tr>
<td>COE-004-M-POE-021-IR-C</td>
<td>Area Scan camera IMK287, CMOS, Global shutter, 720 x 540, 0.4 MP, 6.9 px, 1/2.9&quot;, Gray, 291 fps, GigE, POE, C-mount, Glass filter</td>
</tr>
<tr>
<td>COE-016-C-POE-021-IR-C</td>
<td>Area Scan camera IMK273, CMOS, Global shutter, 1440 x 1080, 1.6 MP, 3.45 px, 1/2.9&quot;, Color, 70 fps, GigE, POE, C-mount, Infrared cut filter</td>
</tr>
<tr>
<td>COE-004-C-POE-021-IR-C</td>
<td>Area Scan camera IMK287, CMOS, Global shutter, 720 x 540, 0.4 MP, 6.9 px, 1/2.9&quot;, Color, 291 fps, GigE, POE, C-mount, Infrared cut filter</td>
</tr>
<tr>
<td>COE-050-M-POE-023-IR-C</td>
<td>Area Scan camera MT995E81, CMOS, Rolling shutter, 2592 x 1944, 5 MP, 2.2 px, 1/2.5&quot;, Gray, 14 fps, GigE, POE, C-mount, Glass filter</td>
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</table>
| COE-013-M-POE-030-IR-C | Area Scan camera PYTHON 1300, CMOS, Global shutter, 1280 x 1024, 1.3
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>COE-013-C-POE-030-IR-C</td>
<td>Area Scan camera PYTHON 1300, CMOS, Global shutter, 1280 x 1024, 1.3 MP, 4.8 pix, 1/2&quot;, Color, 90 fps, GigE, POE, C - mount, Glass filter</td>
</tr>
<tr>
<td>COE-016-M-POE-031-IR-C-2</td>
<td>Area Scan camera MT9J003, CMOS, Rolling shutter, 3840 x 2748, 10.6 MP, 1.67 pix, 1/2.3&quot;, Gray, 11 fps, GigE, POE, C - mount, Infrared cut filter</td>
</tr>
<tr>
<td>COE-016-C-POE-031-IR-C</td>
<td>Area Scan camera MT9J003, CMOS, Global shutter, 3840 x 2748, 10.6 MP, 1.67 pix, 1/2.3&quot;, Color, 7 fps, GigE, POE, C - mount, Infrared cut filter</td>
</tr>
<tr>
<td>COE-032-M-POE-040-IR-C</td>
<td>Area Scan camera IMX265, CMOS, Global shutter, 2048 x 1536, 3.1 MP, 3.45 pix, 1/1.8&quot;, Gray, 37.5 fps, GigE, POE, C - mount, Glass filter</td>
</tr>
<tr>
<td>COE-032-C-POE-040-IR-C</td>
<td>Area Scan camera IMX265, CMOS, Global shutter, 2048 x 1536, 3.1 MP, 3.45 pix, 1/1.8&quot;, Color, 37.5 fps, GigE, POE, C - mount, Infrared cut filter</td>
</tr>
<tr>
<td>COE-063-M-POE-040-IR-C-B</td>
<td>Area Scan camera IMX178, CMOS, Rolling shutter, 3072 x 2048, 6.3 MP, 2.4 pix, 1/1.8&quot;, Gray, 17 fps, GigE, POE, C - mount, Glass filter</td>
</tr>
<tr>
<td>COE-063-C-POE-040-IR-C</td>
<td>Area Scan camera IMX178, CMOS, Rolling shutter, 3072 x 2048, 6.3 MP, 2.4 pix, 1/1.8&quot;, Color, 17 fps, GigE, POE, C - mount, Infrared cut filter</td>
</tr>
<tr>
<td>COE-122-M-POE-041-IR-C</td>
<td>Area Scan camera IMX226, CMOS, Rolling shutter, 4024 x 3036, 12.2 MP, 1.85 pix, 1/1.7&quot;, Gray, 9.6 fps, GigE, POE, C - mount, Glass filter</td>
</tr>
<tr>
<td>COE-122-C-POE-041-IR-C</td>
<td>Area Scan camera IMX226, CMOS, Rolling shutter, 4024 x 3036, 12.2 MP, 1.85 pix, 1/1.7&quot;, Color, 9.6 fps, GigE, POE, C - mount, Infrared cut filter</td>
</tr>
<tr>
<td>COE-023-M-POE-050-IR-C</td>
<td>Area Scan camera PYTHON 2000, CMOS, Global shutter, 1920 x 1200, 2.3 MP, 4.8 pix, 2/3&quot;, Gray, 51 fps, GigE, POE, C - mount, Glass filter</td>
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<tr>
<td>COE-023-C-POE-050-IR-C</td>
<td>Area Scan camera PYTHON 2000, CMOS, Global shutter, 1920 x 1200, 2.3 MP, 4.8 pix, 2/3&quot;, Color, 51 fps, GigE, POE, C - mount, Infrared cut filter</td>
</tr>
<tr>
<td>COE-050-M-POE-050-IR-C</td>
<td>Area Scan camera IMX264, CMOS, Global shutter, 2448 x 2048, 5 MP, 3.45 pix, 2/3&quot;, Gray, 23.5 fps, GigE, POE, C - mount, Glass filter</td>
</tr>
<tr>
<td>COE-050-C-POE-050-IR-C</td>
<td>Area Scan camera IMX264, CMOS, Global shutter, 2448 x 2048, 5 MP, 3.45 pix, 2/3&quot;, Color, 23.5 fps, GigE, POE, C - mount, Infrared cut filter</td>
</tr>
</tbody>
</table>

**COE-U Series**

USB 3.0 GenICam® cameras

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>COE-003-M-USB-010-IR-C</td>
<td>Area Scan camera PYTHON 300, CMOS, Global shutter, 640 x 480, 0.3 MP, 4.8 pix, 1/4&quot;, Gray, 814 fps, USB 3.0, C - mount, Glass filter</td>
</tr>
<tr>
<td>COE-003-C-USB-010-IR-C</td>
<td>Area Scan camera PYTHON 300, CMOS, Global shutter, 640 x 480, 0.3 MP, 4.8 pix, 1/4&quot;, Color, 814 fps, USB 3.0, C - mount, Infrared cut filter</td>
</tr>
<tr>
<td>COE-0616-M-USB-021-IR-C</td>
<td>Area Scan camera IMX273, CMOS, Global shutter, 1440 x 1080, 1.6 MP, 3.45 pix, 1/2.9&quot;, Gray, 165 fps, USB 3.0, C - mount, Glass filter</td>
</tr>
<tr>
<td>COE-0616-C-USB-021-IR-C</td>
<td>Area Scan camera IMX273, CMOS, Global shutter, 1440 x 1080, 1.6 MP, 3.45 pix, 1/2.9&quot;, Color, 165 fps, USB 3.0, C - mount, Infrared cut filter</td>
</tr>
<tr>
<td>COE-050-M-USB-023-IR-C</td>
<td>Area Scan camera AR0521, CMOS, Rolling shutter, 2592 x 1944, 5 MP, 2.2 pix, 1/2.5&quot;, Gray, 31 fps, USB 3.0, C - mount, Glass filter</td>
</tr>
<tr>
<td>COE-050-C-USB-023-IR-C</td>
<td>Area Scan camera AR0521, CMOS, Rolling shutter, 2592 x 1944, 5 MP, 2.2 pix, 1/2.5&quot;, Color, 31 fps, USB 3.0, C - mount, Infrared cut filter</td>
</tr>
<tr>
<td>COE-013-M-USB-030-IR-C</td>
<td>Area Scan camera PYTHON 1300, CMOS, Global shutter, 1280 x 1024, 1.3 MP, 4.8 pix, 1/2&quot;, Gray, 170 fps, USB 3.0, C - mount, Glass filter</td>
</tr>
<tr>
<td>COE-013-C-USB-030-IR-C</td>
<td>Area Scan camera PYTHON 1300, CMOS, Global shutter, 1280 x 1024, 1.3 MP, 4.8 pix, 1/2&quot;, Color, 90 fps, USB 3.0, C - mount, Infrared cut filter</td>
</tr>
<tr>
<td>COE-063-M-USB-040-IR-C</td>
<td>Area Scan camera IMX178, CMOS, Rolling shutter, 3072 x 2048, 6.3 MP, 2.4 pix, 1/1.8&quot;, Gray, 42 fps, USB 3.0, C - mount, Glass filter</td>
</tr>
<tr>
<td>COE-063-C-USB-040-IR-C</td>
<td>Area Scan camera IMX178, CMOS, Rolling shutter, 3072 x 2048, 6.3 MP, 2.4 pix, 1/1.8&quot;, Color, 42 fps, USB 3.0, C - mount, Infrared cut filter</td>
</tr>
<tr>
<td>COE-050-M-USB-050-IR-C</td>
<td>Area Scan camera IMX264, CMOS, Global shutter, 2448 x 2048, 5 MP, 3.45 pix, 2/3&quot;, Gray, 35 fps, USB 3.0, C - mount, Glass filter</td>
</tr>
<tr>
<td>COE-050-C-USB-050-IR-C</td>
<td>Area Scan camera IMX264, CMOS, Global shutter, 2448 x 2048, 5 MP, 3.45 pix, 2/3&quot;, Color, 35 fps, USB 3.0, C - mount, Infrared cut filter</td>
</tr>
</tbody>
</table>

**mvBlueFOX® 2 series**

USB3 vision camera with Sony Pregius sensors

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RT-mvBF3-2004</td>
<td>USB3 vision camera with sony pregius cmos sensor imx287</td>
</tr>
<tr>
<td>RT-mvBF3-2016</td>
<td>USB3 vision camera with sony pregius cmos sensor imx273</td>
</tr>
<tr>
<td>RT-mvBF3-2032a</td>
<td>USB3 Vision camera with Sony Pregius CMOS sensor IMX265</td>
</tr>
<tr>
<td>RT-mvBF3-2032</td>
<td>USB3 Vision camera with Sony Pregius CMOS sensor IMX252</td>
</tr>
<tr>
<td>RT-mvBF3-2064</td>
<td>USB3 vision camera with sony pregius cmos sensor imx178</td>
</tr>
<tr>
<td>RT-mvBF3-2051a</td>
<td>USB3 Vision camera with Sony Pregius CMOS sensor IMX264</td>
</tr>
<tr>
<td>RT-mvBF3-2051</td>
<td>USB3 Vision camera with Sony Pregius CMOS sensor IMX250</td>
</tr>
<tr>
<td>RT-mvBF3-2024a</td>
<td>USB3 Vision camera with Sony Pregius CMOS sensor IMX249</td>
</tr>
<tr>
<td>RT-mvBF3-2024</td>
<td>USB3 Vision camera with Sony Pregius CMOS sensor IMX174</td>
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<td>Model</td>
<td>Camera Specifications</td>
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<tr>
<td>RT-mvBF3-2089a</td>
<td>US83 Vision camera with Sony Pregius CMOS sensor IMX267</td>
</tr>
<tr>
<td>RT-mvBF3-2089</td>
<td>US83 Vision camera with Sony Pregius CMOS sensor IMX267</td>
</tr>
<tr>
<td>RT-mvBF3-2124a</td>
<td>US83 Vision camera with Sony Pregius CMOS sensor IMX904</td>
</tr>
<tr>
<td>RT-mvBF3-2124</td>
<td>US83 Vision camera with Sony Pregius CMOS sensor IMX253</td>
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<tr>
<td><strong>mvBlueCOUGAR series</strong></td>
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<tr>
<td>Gige &amp; Dual Gige Vision cameras</td>
<td></td>
</tr>
<tr>
<td>RT-mvBC-X100w</td>
<td>Camera with interface Gige (1GB/s), sensor size 1/3&quot;, mpxel 0.36, resolution 752 x 480, sensor name MT9V034, sensor type CMOS</td>
</tr>
<tr>
<td>RT-mvBC-X100f</td>
<td>Camera with interface Gige (1GB/s), sensor size 1/2.9&quot;, mpxel 0.4, resolution 728 x 544, sensor name IMX870, sensor type CMOS</td>
</tr>
<tr>
<td>RT-mvBC-X102f</td>
<td>Camera with interface Gige (1GB/s), sensor size 1/2.9&quot;, mpxel 1.58, resolution 1456 x 1088, sensor name IMX273, sensor type CMOS</td>
</tr>
<tr>
<td>RT-mvBC-XD102f</td>
<td>Camera with interface Dual Gige (2GB/s), sensor size 1/2.9&quot;, mpxel 1.58, resolution 1456 x 1088, sensor name IMX273, sensor type CMOS</td>
</tr>
<tr>
<td>RT-mvBC-X105s</td>
<td>Camera with interface Gige (1GB/s), sensor size 1/2.5&quot;, mpxel 5.04, resolution 2592 x 1944, sensor name MT9P031, sensor type CMOS</td>
</tr>
<tr>
<td>RT-mvBC-X1010</td>
<td>Camera with interface Gige (1GB/s), sensor size 1/2.3&quot;, mpxel 10.66, resolution 3856 x 2764, sensor name MT9003, sensor type CMOS</td>
</tr>
<tr>
<td>RT-mvBC-X104i</td>
<td>Camera with interface Gige (1GB/s), sensor size 1/1.6&quot;, mpxel 3.19, resolution 2064 x 1544, sensor name IMX265, sensor type CMOS</td>
</tr>
<tr>
<td>RT-mvBC-XD104h</td>
<td>Camera with interface Dual Gige (2GB/s), sensor size 1/1.8&quot;, mpxel 3.19, resolution 2064 x 1544, sensor name IMX252, sensor type CMOS</td>
</tr>
<tr>
<td>RT-mvBC-X105m</td>
<td>Camera with interface Gige (1GB/s), sensor size 2/3&quot;, mpxel 5.07, resolution 2464 x 2056, sensor name IMX264, sensor type CMOS</td>
</tr>
<tr>
<td>RT-mvBC-XD105a</td>
<td>Camera with interface Dual Gige (2GB/s), sensor size 2/3&quot;, mpxel 5.01, resolution 2464 x 2048, sensor name IMX250, sensor type CMOS</td>
</tr>
<tr>
<td>RT-mvBC-X104f</td>
<td>Camera with interface Gige (1GB/s), sensor size 1/1.2&quot;, mpxel 2.35, resolution 1936 x 1216, sensor name IMX249, sensor type CMOS</td>
</tr>
<tr>
<td>RT-mvBC-XD104d</td>
<td>Camera with interface Dual Gige (2GB/s), sensor size 1/1.2&quot;, mpxel 2.35, resolution 1936 x 1214, sensor name IMX174, sensor type CMOS</td>
</tr>
<tr>
<td>RT-mvBC-X109b</td>
<td>Camera with interface Gige (1GB/s), sensor size 1&quot;, mpxel 8.95, resolution 4112 x 2176, sensor name IMX267, sensor type CMOS</td>
</tr>
<tr>
<td>RT-mvBC-XD109b</td>
<td>Camera with interface Dual Gige (2GB/s), sensor size 1&quot;, mpxel 8.95, resolution 4112 x 2176, sensor name IMX267, sensor type CMOS</td>
</tr>
<tr>
<td>RT-mvBC-X1012b</td>
<td>Camera with interface Gige (1GB/s), sensor size 1.1&quot;, mpxel 12.37, resolution 4112 x 3008, sensor name IMX904, sensor type CMOS</td>
</tr>
<tr>
<td>RT-mvBC-XD107</td>
<td>Camera with interface Dual Gige (2GB/s), sensor size 1.1&quot;, mpxel 7.1, resolution 3216 x 2208, sensor name IMX420, sensor type CMOS</td>
</tr>
<tr>
<td>RT-mvBC-XD1012b</td>
<td>Camera with interface Dual Gige (2GB/s), sensor size 1.1&quot;, mpxel 12.37, resolution 4112 x 3008, sensor name IMX904, sensor type CMOS</td>
</tr>
<tr>
<td><strong>Accessories</strong></td>
<td></td>
</tr>
<tr>
<td>RT-mvBC-X102ec</td>
<td>CMOS camera Gige, 1280 x 1024 color, 1/1.8&quot;, 60 Hz, IR cut, C-mount, I/O</td>
</tr>
<tr>
<td>RT-mvBF3-2032ac-1112</td>
<td>CMOS camera USB3, 2048 x 1544 colour, 1/1.8&quot;, 55 Hz, IR cut, C-mount, with I/O</td>
</tr>
<tr>
<td>RT-mvBC-X104iC</td>
<td>CMOS camera Gige, 2048 x 1544 color, 1/1.8&quot;, 37 Hz, IR cut, C-mount, I/O</td>
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<tr>
<td>RT-mvBF3-2051ac-1112</td>
<td>CMOS camera USB3, 2464 x 2056 color 2/3&quot;, 35.6 Hz, IR cut, C-mount, with I/O</td>
</tr>
<tr>
<td>RT-mvBC-X105bc</td>
<td>CMOS camera Gige, 2464 x 2056 Colour sensor, 2/3&quot;, 23.5 Hz, IR cut, C-mount, I/O</td>
</tr>
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