

# EN2MP5018

Fixed focal 2 Megapixel lens, focal length 50 mm, f# 1.8 - C, C-mount

## SPECIFICATIONS

### Optical specifications

|  |      |                     |
|--|------|---------------------|
| Focal length   | (mm) | 50                  |
| Magnification  |      | 0.109               |
| Image circle Ø                                       | (mm) | 11                  |
| Max detector size                                    |      | 2/3"                |
| Minimum working distance                             | (mm) | 500                 |
| F/#  |      | 1.8 - C             |
| Back focal length                                    | (mm) | 12.94               |
| Angle of view with detector of 2/3"<br>(D x H x V) 1 | (°)  | 12.5 x 9.1 x 7.5    |
| Angle of view with detector of 1/2"<br>(D x H x V) 2 | (°)  | 10.0 x 7.3 x 5.5    |
| Field of view with detector of 2/3"<br>(D x H x V)   | (mm) | 101.4 x 81.0 x 60.6 |
| Distortion with detector of 2/3" 3                   | (%)  | 0.22                |
| Distortion with detector of 1/2" 4                   | (%)  | 0.10                |

### Mechanical specifications

|                       |      |                           |
|-----------------------|------|---------------------------|
| Mount                 |      | C                         |
| Length                | (mm) | 45.5                      |
| Diameter              | (mm) | 40.1                      |
| Mass                  | (g)  | 98                        |
| Filter thread         |      | M30.5 x 0.5               |
| Operating temperature |      | -10°C - +50°C             |
| Iris lock screws      |      | Manual with locking screw |
| Focus lock screws     |      | Manual with locking screw |

Last update: 2021-09-27

## 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".

## COMPATIBLE PRODUCTS

Despite the efforts made to generate an error-free compatibility list, we always recommend to consult the Opto Engineering® technical support department before purchasing a compatible product. Opto Engineering® shall not be liable for any damage or malfunctioning caused by the incorrect selection of a compatible product.



LTPR series

LED patterns projectors

|            |   |
|------------|---|
| LTPRHP3W-W | LED pattern projector 3W, HP, white     |
| LTPRHP3W-R | LED pattern projector 3W, HP, red       |
| LTPRHP3W-G | LED pattern projector 3W, HP, green     |
| LTPRHP3W-B | LED pattern projector 3W, HP, blue      |
| LTPRXP-W   | High Power LED pattern projector, white |
| LTPRXP-R   | High Power LED pattern projector, red   |



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.

|          |   |
|----------|---|
| LTPRXP-G | High Power LED pattern projector, green |
| LTPRXP-B | High Power LED pattern projector, blue  |
| LTPRUP-W | 90W strobed LED pattern projector white |
| LTPRUP-R | 90W strobed LED pattern projector red   |
| LTPRUP-G | 90W strobed LED pattern projector green |
| LTPRUP-B | 90W strobed LED pattern projector blue  |



#### COE-G series

GenICam® PoE C-mount cameras

|                          |  |
|--------------------------|--|
| COE-004-M-POE-021-IR-C   | Area Scan camera IMX287, CMOS, Global shutter, 720 x 540, 0.4 MP, 6.9 pix, 1/2.9", mono, 313 fps, GigE, POE, C - mount, Glass filter             |
| COE-004-C-POE-021-IR-C   | Area Scan camera IMX287, CMOS, Global shutter, 720 x 540, 0.4 MP, 6.9 pix, 1/2.9", color, 313 fps, GigE, POE, C - mount, Infrared cut filter     |
| COE-013-M-POE-030-IR-C   | Area Scan camera PYTHON 1300, CMOS, Global shutter, 1280 x 1024, 1.3 MP, 4.8 pix, 1/2", mono, 90 fps, GigE, POE, C - mount, Glass filter         |
| COE-013-C-POE-030-IR-C   | Area Scan camera PYTHON 1300, CMOS, Global shutter, 1280 x 1024, 1.3 MP, 4.8 pix, 1/2", color, 90 fps, GigE, POE, C - mount, Infrared cut filter |
| COE-023-M-POE-050-IR-C   | Area Scan camera PYTHON 2000, CMOS, Global shutter, 1920 x 1200, 2.3 MP, 4.8 pix, 2/3", mono, 51 fps, GigE, POE, C - mount, Glass filter         |
| COE-023-C-POE-050-IR-C   | Area Scan camera PYTHON 2000, CMOS, Global shutter, 1920 x 1200, 2.3 MP, 4.8 pix, 2/3", color, 51 fps, GigE, POE, C - mount, Infrared cut filter |
| COE-032-M-POE-040-IR-C   | Area Scan camera IMX265, CMOS, Global shutter, 2048 x 1536, 3.1 MP, 3.45 pix, 1/1.8", mono, 37.5 fps, GigE, POE, C - mount, Glass filter         |
| COE-032-C-POE-040-IR-C   | Area Scan camera IMX265, CMOS, Global shutter, 2048 x 1536, 3.1 MP, 3.45 pix, 1/1.8", color, 37.5 fps, GigE, POE, C - mount, Infrared cut filter |
| COE-050-M-POE-023-IR-C   | Area Scan camera MT9P031, CMOS, Rolling shutter, 2592 x 1944, 5 MP, 2.2 pix, 1/2.5", mono, 14 fps, GigE, POE, C - mount, Glass filter            |
| COE-050-M-POE-050-IR-C   | Area Scan camera IMX264, CMOS, Global shutter, 2448 x 2048, 5 MP, 3.45 pix, 2/3", mono, 23.5 fps, GigE, POE, C - mount, Glass filter             |
| COE-050-C-POE-050-IR-C   | Area Scan camera IMX264, CMOS, Global shutter, 2448 x 2048, 5 MP, 3.45 pix, 2/3", color, 23.5 fps, GigE, POE, C - mount, Infrared cut filter     |
| COE-106-M-POE-031-IR-C-2 | Area Scan camera MT9J003, CMOS, Rolling shutter, 3840 x 2748, 10.6 MP, 1.67 pix, 1/2.3", mono, 11 fps, GigE, POE, C - mount, Glass filter        |
| COE-106-C-POE-031-IR-C   | Area Scan camera MT9J003, CMOS, Global shutter, 3840 x 2748, 10.6 MP, 1.67 pix, 1/2.3", color, 7 fps, GigE, POE, C - mount, Infrared cut filter  |



#### mvBlueCOUGAR series

GigE / Dual GigE cameras with Smart Features

|                |  |
|----------------|--|
| RT-mvBC-X100w  | Camera with interface GigE (1GB/s), sensor size 1/3", mpixel 0.36, resolution 752 x 480, sensor name MT9V034, sensor type CMOS         |
| RT-mvBC-X100f  | Camera with interface GigE (1GB/s), sensor size 1/2.9", mpixel 0.4, resolution 728 x 544, sensor name IMX287, sensor type CMOS         |
| RT-mvBC-X102f  | Camera with interface GigE (1GB/s), sensor size 1/2.9", mpixel 1.58, resolution 1456 x 1088, sensor name IMX273, sensor type CMOS      |
| RT-mvBC-XD102f | Camera with interface Dual GigE (2GB/s), sensor size 1/2.9", mpixel 1.58, resolution 1456 x 1088, sensor name IMX273, sensor type CMOS |
| RT-mvBC-X104f  | Camera with interface GigE (1GB/s), sensor size 1/1.2", mpixel 2.35, resolution 1936 x 1216, sensor name IMX249, sensor type CMOS      |
| RT-mvBC-XD104d | Camera with interface Dual GigE (2GB/s), sensor size 1/1.2", mpixel 2.35, resolution 1936 x 1214, sensor name IMX174, sensor type CMOS |
| RT-mvBC-X104i  | Camera with interface GigE (1GB/s), sensor size 1/1.8", mpixel 3.19, resolution 2064 x 1544, sensor name IMX265, sensor type CMOS      |
| RT-mvBC-XD104h | Camera with interface Dual GigE (2GB/s), sensor size 1/1.8", mpixel 3.19, resolution 2064 x 1544, sensor name IMX252, sensor type CMOS |
| RT-mvBC-X105   | Camera with interface GigE (1GB/s), sensor size 1/2.5", mpixel 5.04, resolution 2592 x 1944, sensor name MT9P031, sensor type CMOS     |
| RT-mvBC-X105b  | Camera with interface GigE (1GB/s), sensor size 2/3", mpixel 5.07, resolution 2464 x 2056, sensor name IMX264, sensor type CMOS        |
| RT-mvBC-XD105a | Camera with interface Dual GigE (2GB/s), sensor size 2/3", mpixel 5.01, resolution 2448 x 2048, sensor name IMX250, sensor type CMOS   |
| RT-mvBC-XD107  | Camera with interface Dual GigE (2GB/s), sensor size 1.1", mpixel 7.1, resolution 3216 x 2208, sensor name IMX420, sensor type CMOS    |
| RT-mvBC-X109b  | Camera with interface GigE (1GB/s), sensor size 1", mpixel 8.95, resolution 4112 x 2176, sensor name IMX267, sensor type CMOS          |
| RT-mvBC-XD109b | Camera with interface Dual GigE (2GB/s), sensor size 1", mpixel 8.95, resolution 4112 x 2176, sensor name IMX267, sensor type CMOS     |

|                                 |   |
|---------------------------------|---|
| <a href="#">RT-mvBC-X1010</a>   | Camera with interface GigE (1GB/s), sensor size 1/2.3", mpixel 10.66, resolution 3856 x 2764, sensor name MT9J003, sensor type CMOS   |
| <a href="#">RT-mvBC-X1012b</a>  | Camera with interface GigE (1GB/s), sensor size 1.1", mpixel 12.37, resolution 4112 x 3008, sensor name IMX304, sensor type CMOS      |
| <a href="#">RT-mvBC-XD1012b</a> | Camera with interface Dual GigE (2GB/s), sensor size 1.1", mpixel 12.37, resolution 4112 x 3008, sensor name IMX304, sensor type CMOS |



#### COE-U series

GeniCam® C-mount USB3 cameras

|  |  |
|--|--|
| <a href="#">COE-013-M-USB-030-IR-C</a> | Area Scan camera PYTHON 1300, CMOS, Global shutter, 1280 x 1024, 1.3 MP, 4.8 pix, 1/2", mono, 210 fps, USB 3.0, C - mount, Glass filter        |
| <a href="#">COE-013-C-USB-030-IR-C</a> | Area Scan camera PYTHON 1300, CMOS, Global shutter, 1280 x 1024, 1.3 MP, 4.8 pix, 1/2", color, 90 fps, USB 3.0, C - mount, Infrared cut filter |
| <a href="#">COE-050-M-USB-050-IR-C</a> | Area Scan camera IMX264, CMOS, Global shutter, 2448 x 2048, 5 MP, 3.45 pix, 2/3", mono, 35 fps, USB 3.0, C - mount, Glass filter               |
| <a href="#">COE-050-C-USB-050-IR-C</a> | Area Scan camera IMX264, CMOS, Global shutter, 2448 x 2048, 5 MP, 3.45 pix, 2/3", color, 35 fps, USB 3.0, C - mount, Infrared cut filter       |
| <a href="#">COE-050-C-USB-023-IR-C</a> | Area Scan camera AR0521, CMOS, Rolling shutter, 2592 x 1944, 5 MP, 2.2 pix, 1/2.5", color, 31 fps, USB 3.0, C - mount, Infrared cut filter     |
| <a href="#">COE-003-M-USB-010-IR-C</a> | Area Scan camera PYTHON 300, CMOS, Global shutter, 640 x 480, 0.3 MP, 4.8 pix, 1/4", Gray, 814 fps, USB 3.0, C - mount, Glass filter           |
| <a href="#">COE-003-C-USB-010-IR-C</a> | Area Scan camera PYTHON 300, CMOS, Global shutter, 640 x 480, 0.3 MP, 4.8 pix, 1/4", Color, 814 fps, USB 3.0, C - mount, Infrared cut filter   |
| <a href="#">COE-016-M-USB-021-IR-C</a> | Area Scan camera IMX273, CMOS, Global shutter, 1440 x 1080, 1.6 MP, 3.45 pix, 1/2.9", Gray, 165 fps, USB 3.0, C - mount, Glass filter          |
| <a href="#">COE-016-C-USB-021-IR-C</a> | Area Scan camera IMX273, CMOS, Global shutter, 1440 x 1080, 1.6 MP, 3.45 pix, 1/2.9", Color, 165 fps, USB 3.0, C - mount, Infrared cut filter  |



#### mvBlueFOX3-2 series

USB3 cameras with Smart Features

|                                |   |
|--------------------------------|---|
| <a href="#">RT-mvBF3-2004</a>  | USB3 vision camera with Sony Pregius CMOS sensor IMX287 |
| <a href="#">RT-mvBF3-2016</a>  | USB3 vision camera with Sony Pregius CMOS sensor IMX273 |
| <a href="#">RT-mvBF3-2024a</a> | USB3 Vision camera with Sony Pregius CMOS sensor IMX249 |
| <a href="#">RT-mvBF3-2024</a>  | USB3 Vision camera with Sony Pregius CMOS sensor IMX174 |
| <a href="#">RT-mvBF3-2032a</a> | USB3 Vision camera with Sony Pregius CMOS sensor IMX265 |
| <a href="#">RT-mvBF3-2032</a>  | USB3 Vision camera with Sony Pregius CMOS sensor IMX252 |
| <a href="#">RT-mvBF3-2051a</a> | USB3 Vision camera with Sony Pregius CMOS sensor IMX264 |
| <a href="#">RT-mvBF3-2051</a>  | USB3 Vision camera with Sony Pregius CMOS sensor IMX250 |
| <a href="#">RT-mvBF3-2064</a>  | USB3 vision camera with Sony Pregius CMOS sensor IMX178 |
| <a href="#">RT-mvBF3-2089a</a> | USB3 Vision camera with Sony Pregius CMOS sensor IMX267 |
| <a href="#">RT-mvBF3-2089</a>  | USB3 Vision camera with Sony Pregius CMOS sensor IMX255 |
| <a href="#">RT-mvBF3-2124a</a> | USB3 Vision camera with Sony Pregius CMOS sensor IMX304 |
| <a href="#">RT-mvBF3-2124</a>  | USB3 Vision camera with Sony Pregius CMOS sensor IMX253 |