Industry High Speed Camera

2023 V1
For customized projects please Contact us:
sales@simtrum.cn

Industry High Speed Camera

This industry high speed camera series features a vairety of resolution up to 9K and pixel size up to 5.5*5.5µm. Our products have applied to PCB AOI inspection, semiconductor inspection, solarcell inspection and life science.

Camera With Resolution Between 1-3K

Feature

STS2M8SXGV-409M
STS7MSXGV-171M

- High sensitivity and low noise
- Global shutter CMOS
- ROI/LUT/binning functions
- Rich exposure control modes (STS2M8SXGV-409M only)
- Defect pixel corection/flat field correction
- Analog gain/digital gain/offset control
- Scanning directioncon figurable
- 10GigE interface
- Temperature monitor(STS7MSXGV-171M only)

STS2M8SXGV-409M
STS7MSXGV-171M

STS2MCL-340MC
STS4MCL-180M/C

- Global shutter CMOS
- ROI/sub-sampling/flip
- High sensitivity and low noise
- Rich exposure control modes
- Camera link base/medium/full
- Strobe control output
- Automatic pixel correction(STS2MCL-340M/C only)
- Analog gain/digital gain/offset control
  (STS4MCL-180M/C only)

STS2MCL-340MC

STS4MCL-180M/C

STS5M3CXP-105M

- Global shutter CMOS
- High sensitivity and low noise
- Defect pixel corection
- ROI / FFC
- Defect Pixel Corection
- Rich exposure control modes
- Temperature monitor
- Analog gain/digital gain/offset control

STS5M3CXP-105M

STS5MCL-156M

- Global shutter CMOS
- Temperature monitor
- High sensitivity and ow noise
- Defect Pixel Correction
- ROI/LUT/binning/sub-sampling
- Rich exposure control modes
- GUI-based IKTool camera configuration
 management tool

STS5MCL-156M

Application

- PCB AOI inspection
- Semiconductor inspection
- Solar cell inspection
- Life science

Spectral response
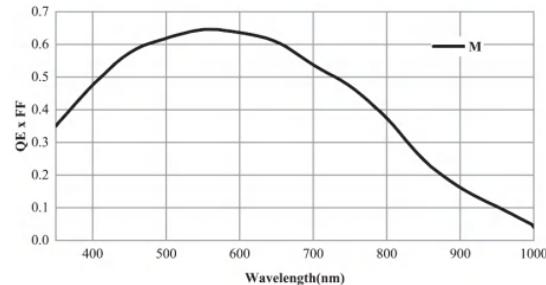
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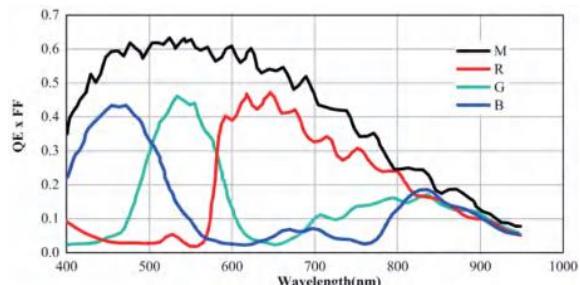
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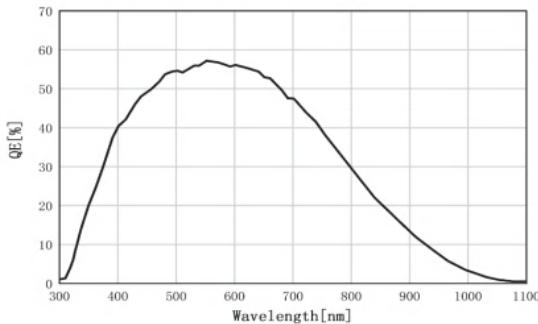
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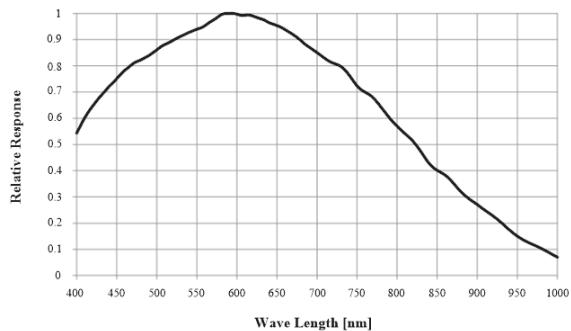
STS2M8SXGV-409M
STS7MSXGV-171M

Drawings

STS2M8SXGV-409M
STS7MSXGV-171M

STS2MCL-340MC

STS5M3CXP-105M

STS5MCL-156M
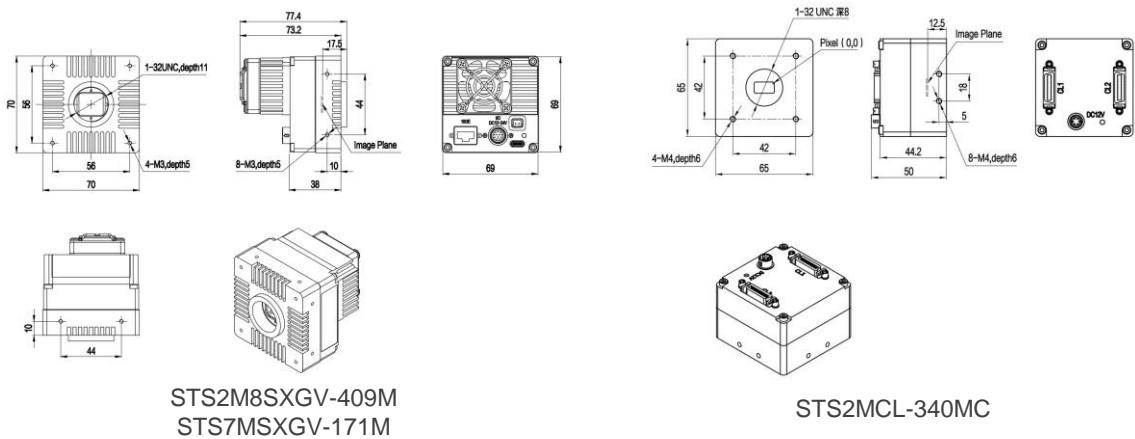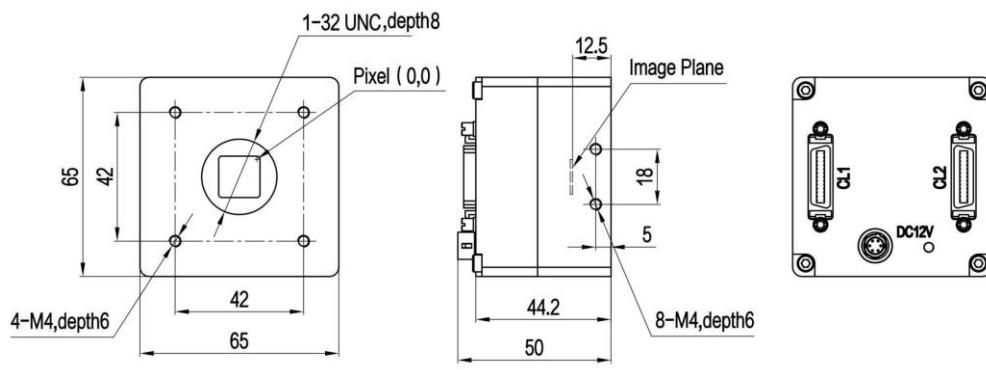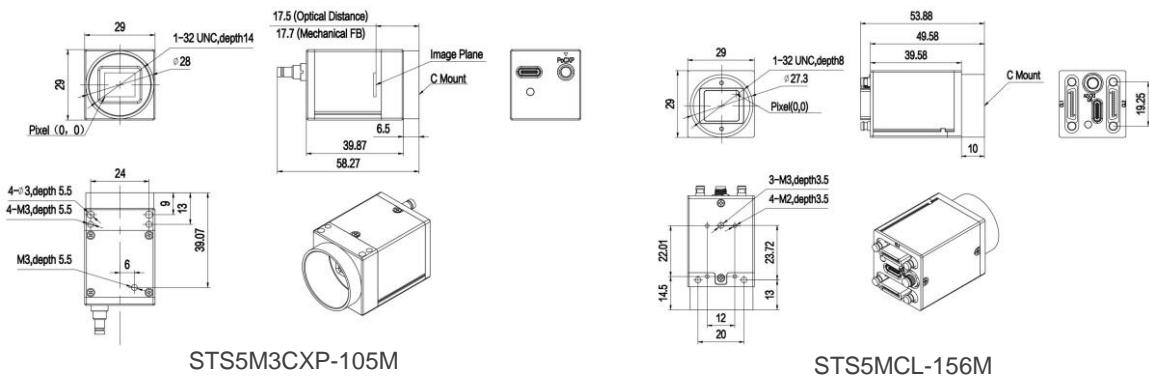
STS4MCL-180M/C

Camera With Resolution Between 4-6K

STS25MCXP-85M
STS12MCXP-172M/C

- Global Shutter CMOS
- Analog gain/digital gain/offset control
- High sensitivity and low noise
- CoaXPress interface
- Support CoaXPress1.1.1
- Temperature monitor
- Defect Pixel Correction/FFC/ROI
- Rich exposure control modes
  (STS25MCXP-85M only)
- Auto White Balance
  (STS12MCXP-172M/C only)

STS25MCXP-85M

STS12MCXP-172M/C

STS25MCXP-42M
STS31MSCXP-35M/C

- Global Shutter CMO
- High sensitivity and low noise
- Analog gain/digital gain/offset control
- Defect pixel correction
- Rich exposure control modes
- Automatic white balance/ROI/LUT/FFC
- Temperature monitor
- Binning(STS31MSCXP-35M/C only)

STS25MCXP-42M

STS31MSCXP-35M/C

STS21MCXP12-230M

- Global Shutter CMOS
- High sensitivity and low noise
- Defect pixel corection/ROI
- Rich exposure control modes
- Temperature monitor
- Scanning direction configurable

STS21MCXP12-230M

STS25MCXP12-150M

- Global Shutter CMOS
- High sensitivity and low noise
- ROI/Auto white balance
- Defect pixel correction/FFC
- Analog Gain/Digital Gain/Offset Control
- Support CoaXPress 2.0 protocol
- Temperature monitor

STS25MCXP12-150M

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Application

- PCB AOI inspection
- Semiconductor inspection
- Solar cell inspection
- Life science

## Spectral response
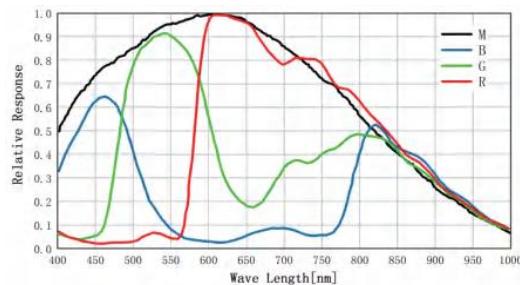
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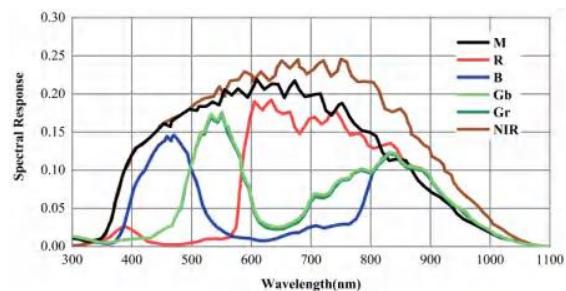
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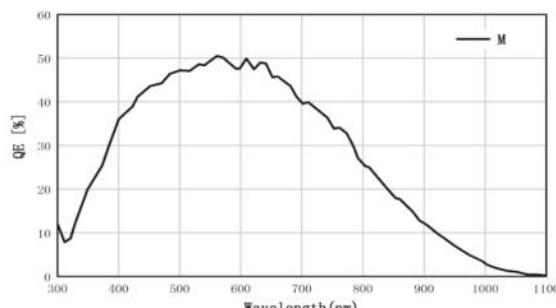
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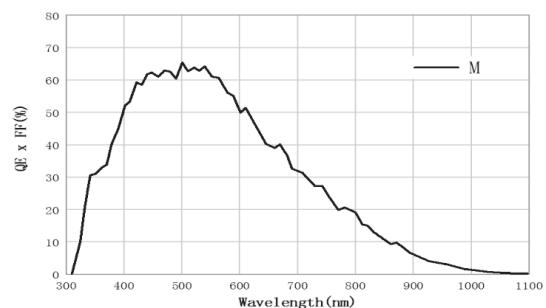
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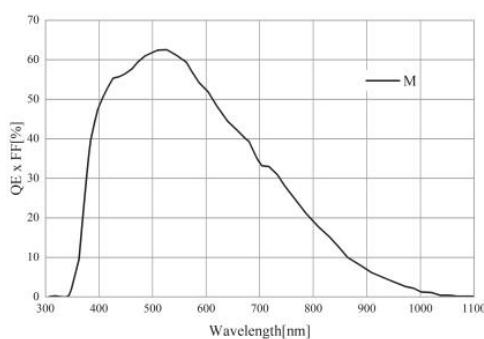
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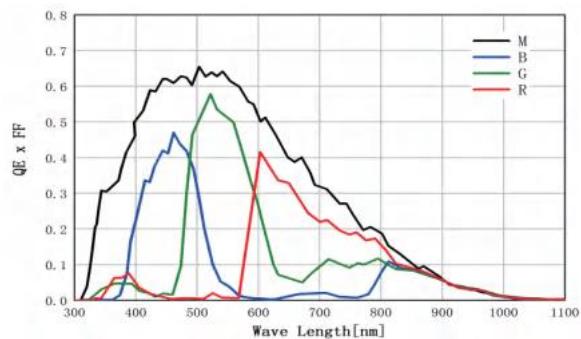
STS25MCXP12-150M/C

Drawings
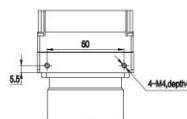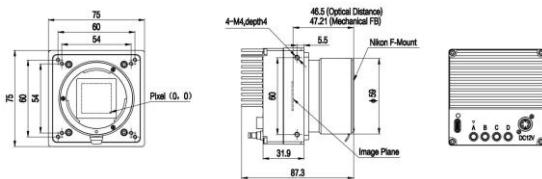
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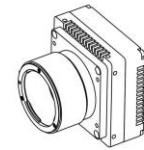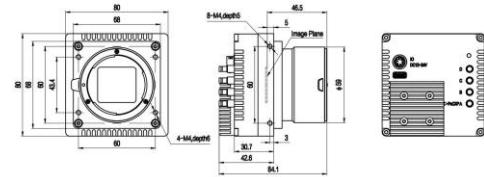
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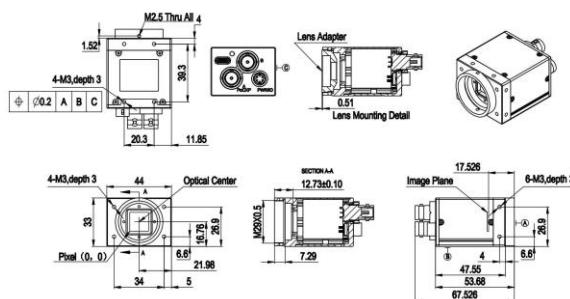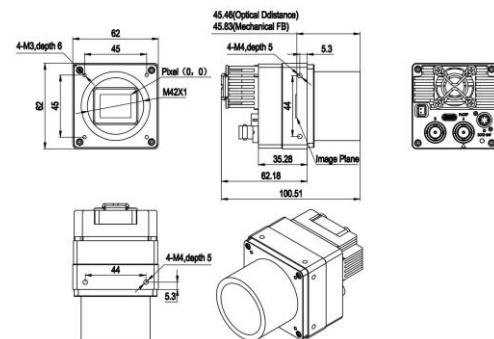
STS25MCXP-42M

STS31MSCXP-35M/C
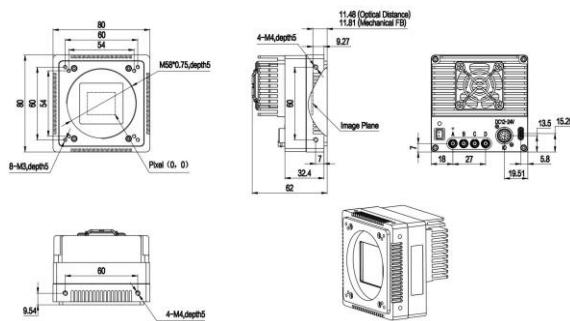
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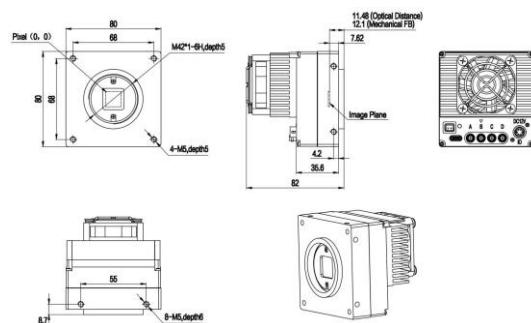
STS25MCXP12-150M/C

Camera With 9K Resolution

Feature

STS65MCXP-31M/C
STS65MCXP-71M/C

- Global Shutter CMOS
- High sensitivity and low noise
- ROI/Auto White Balance
- Analog gain/digital gain/offset control
- Defect Pixel Correction/Flat Field Correction
- Temperature monitor
- Support CoaXPress1.1.1
  (STS65MCXP-31M/C only)
- Support CoaXPress 2.0 protocol
  (STS65MCXP-71M/C only)

STS65MCXP-31M/C

STS65MCXP-71M/C

Application

- PCB AOI inspection
- Semiconductor inspection
- Solar cell inspection
- Life science

Spectral response
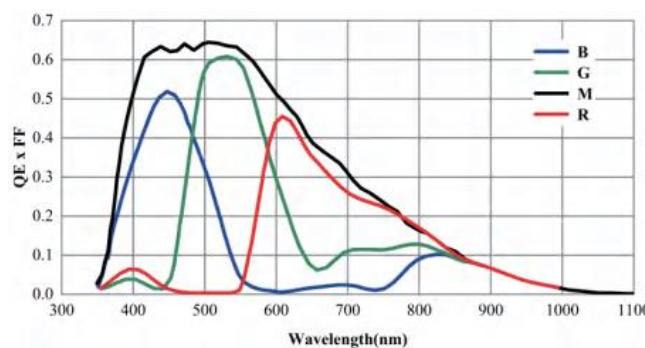
Drawings
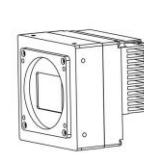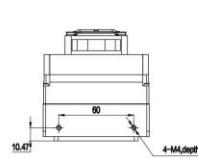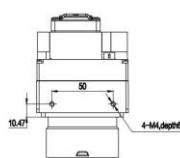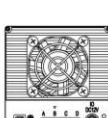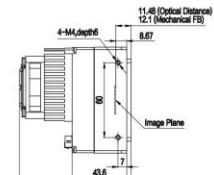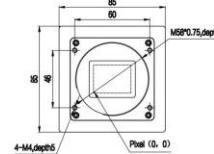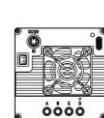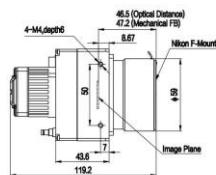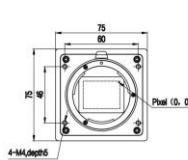
STS65MCXP-31M/C

STS65MCXP-71M/C

Specifications

| Model	STS2M8SXGV-409M	STS2MCL-340M/C	STS4MCL-180M/C	STS5M3CXP-105M	STS5MCL-156M	STS7MSXGV-171M	STS12MCXP-172M/C	STS21MCXP12-230M	STS25MCXP-42M	STS25MCXP-85M	STS25MCXP12-150M/C	STS31MSCXP-35M/C	STS65MCXP-31M/C	STS65MCXP-71M/C
Sensor	Global shutter CMOS													
Image Mode	Mono	Color/Mono	Color/Mono	Mono	Mono	Mono	Color/Mono	Mono	Mono	Mono	Color/Mono	Color/Mono	Color/Mono	Color/Mono
Optical Size(mm)	10.94	12.75	15.93	15.86	16.39	7.55	28.16	29.5	18.1	32.58	18.1	27.88	37.36	37.36
Resolution	1936*1472	2048*1088	2048*2048	2592*2048	2560*2048	3216*2208	4096*3072	5120*4096	5120*5120	5120*5120	5120*5120	6464*4852	9344*7000	9344*7000
Pixel Size(μm)	4.5*4.5	5.5*5.5	5.5*5.5	4.8*4.8	5*5	4.5*4.5	5.5*5.5	4.5*4.5	2.5*2.5	4.5*4.5	2.5*2.5	3.45*3.45	3.2*3.2	3.2*3.2
Max Frame Rate	409 fps	335fps@10Tap 280fps@8Tap 140fps@4Tap 71fps@2Tap	180fps@10Tap 150fps@8Tap 75fps@4Tap 38fps@2Tap	105fps@8bit 87fps@10bit	156 fps	171 fps	181 fps	231.05fps@8bit 179.60fps@10bit 152.44fps@12bit	41.79fps@8bit 37.01fps@10bit 30.48fps@12bit	85fps@8bit 70fps@10bit	Two-channel 92.1fps@8bit 73.84fps@10bit Four-rchannel: 150.06fps@8bit 143.12fps@10bit	35.85fps@8bit 30.57fps@10bit 25.52fps@12bit	31.59fps (4channels) 18.58fps (2 channels)	71.04fps@8bit 58.13fps@10bit
Bit Depth	8/10/12 bit	8/10 bit	8/10 bit	8/10 bit	8/10/12 bit	8/10/12 bit	8/10 bit	8/10/12 bit	8/10/12 bit	8/10 bit	8/10 bit	8/10/12 bit	8/10/12 bit	8/10 bit
Dynamic Range	≥72 dB	≥60 dB	≥60 dB	≥61.4 dB	≥54 dB	≥72 dB	≥54 dB	≥65.7 dB	≥64 dB	≥59 dB	≥57.2 dB	≥71 dB	≥62 dB	≥62 dB
Data Rate	1165 MB/s(8bit)	830 MB/s	830 MB/s	550 MB/s	818 MB/s	1214 MB/s(8bit)	2846 MB/s	4795 MB/s	1199 MB/s	2225 MB/s	4690MB/s	1200 MB/s	2000MB/s(8bit)(4 channels), 1400MB/s(8bit)(2 channels)	4750MB/s
Trigger Mode	Free run/external trigge													
Trigger Source	Software trigger /external IO	External IO/camera link CC		External IO/CXP trigger	Software trigger/ Camera Link CC/External IO	Software trigger /external IO	External IO/CXP trigger							
Exposure Control	Program/Pulse Width													
ExposureTime	2μs-10s	12μs-50s (Step:lus)	24μs-50s (Step:lμs)	5μs-10s (Step:lus)	2μs-10s (Step:lμs)	2μs-10s	28μs-50s (Step:4us)	1μs-10s (Step:lμs)	8ps-10s (Step: lμs)	2μs-10s (Step:lus)	8μs-100s (Step:lus)	5us-10s (Step:5-6us)	14μs-10s (Step:lμs)	14us-10s (Step:4μs)
Analog Gain	0-24dB	1-3.2x	1-3.2x	1/1.8x	1/2/4x	0-24dB	1/2/3/4x	1/2/4x	0.6/0.8/1.0/1.2/ 1.4/1.6/1.8/2.0	1/1.26/1.87 /3.17x	1/1.5/2/2.5x	0-24dB	0-12dB	0-6dB
Digital Gain	0.004-8.00x	0.01-8.00x	0.01-8.00x	0.01-8.00x	0.06-8.00x	0.004-8.000x	0.01-8.00x	0.1-8.0x	0.1-8.0x	0.004-8.000x	0.1-8.0x	0.004-8.000x	0.1-8.0x	0.1-8.0x
Data Interface	10 GigE Vision	Camera Link	Camera Link	CoaXPress	Camera Link	10 GigE Vision	CoaXPress	CoaXPress12	CoaXPress	CoaXPress	CoaXPress12	CoaXPress BNCx2	CoaXPress	CoaXPress12
Lens Interface	C Mount	CS Mount	CS Mount	C Mount	C Mount	C Mount	M42*1/F Mount	M58 * 0.75 / F Mount	C Mount/ M29*0.45	F Mount	M42/M58/C Mount	M42*1	M58 * 0.75 / F Mount	M58/F Mount
Power Interface	HR10A-10R-12PB(71(Male)	Hirose HR10A-7R-6PB(Male)		M54-pin		HR10A-10R-12PB(71(Male)	Hirose HR10A-7R-6PB(Male)	HR10A-10R-12PB(71(Male)	Hirose HR10A-7R-6PB(Male)					Hirose HR10A(6-pin)
Power Supply	DC12-24V(±10%)2.5A	DC12V±10% 0.5A	DC12V±10% 0.5A	PoCXP supply	DC12-24V(±10%)1A	DC12-24V(±10%)2.5A	DC12-24V(±10%)2A or PoCXP supply	DC12-24V(±10%)3A	DC12-24V(±10%)0.5A or PoCXP supply	DC12-24V1.5A or PCXP supply	DC12V±10% 3A	DC12-24V(±10%)2A or PoCXP supply	DC12V±10% 3.5A	DC12V±10% 3.5A
Power Consumption	16.0 W	2.5 W	3.0 W	3.4 W	4.2 W	16.0 W	13W(DC supply)or 15W(PoCXP supply)	17.0 W	3.1W(DC supply)or 3.3W(PoCXP supply)	9.5W(DC supply)or 10.0W(PoCXP supply)	20.4 W	12.6 w	25W(4-channels);20W(2-channels)	25.0 W
Dimensions (W*H*D)(mm)	70.0x70.0x76.8 (Without adapter)	65.0x65.0x50.0	65.0x65.0x50.0	29x29x51.77 (without adapter)	29.x29x43.88 (Without adapter)	70.0x70.0x73.2 (Without adapter)	80.0x80.0x42.6 (Without adapter)	80.0x80.0x77.6 (Without adapter)	44.x33x67.53	75.x 75.x87.3	80.0x80.0x82.8 (Without adapter)	62x62x62.18 (Without adapter)	75x75x84.2	85x 85x 89.2
Operating Temperature	0-65℃	0-55℃	0-55℃	0-50℃	0-50℃	0-65℃	0-50℃	0-65℃	0-50℃	0-50℃	0-50℃	0-65℃	0-50℃	
Storage Temperature	-20-75℃													

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