

Camera Products Overview

	有効画素数	fps	マウント	I/F	製品名
0.3M	640 x 480	122.3	NF・M10.5	Camera Link	ID03M-CLL
0.3M	640 x 480	480	C	Camera Link	ID03M-CL
1.2M	1284 x 962	54	M12・M10.5	USB3.0 Camera Link	ID1M-UCL
1.2M x 2	2568 x 962	54	M12・M10.5	USB3.0 Camera Link	ID1Mx2-UCL
2M	2048 x 1088	280	C	Camera Link	ID2M-CL
2M	2048 x 1088	280	C	Camera Link	ID2M-CLIR
2M	2048 x 1088	340	C	Camera Link	ID2M-CLD
2M	2048 x 1088	340	C	Camera Link	ID2M-CLDIR
3M	2064 x 1544	56.6	C	Camera Link	ID3M-CL
4M	2048 x 2048	150	C	Camera Link	ID4M-CL
4M	2048 x 2048	150	C	Camera Link	ID4M-CLIR
4M	2048 x 2048	280	C	Camera Link	ID4M-CLD
4M	2048 x 2048	280	C	Camera Link	ID4M-CLDIR
4M	2048 x 2048	54.2	M42	Camera Link	ID4MUV-CL
4M	2048 x 2048	52	M42	Camera Link	ID4MUVG-CL
4M	2048 x 2048	57.1	M42	Opt-C:Link	ID4MUV-OPT
4M	2048 x 2048	52	M42	Opt-C:Link	ID4MUVG-OPT
5M	2464 x 2056	35.6	C	Camera Link	ID5M-CL
5M	2464 x 2056	35.7	C	Opt-C:Link	ID5M-OPT
12M	4096 x 3072	42	M42	Camera Link	ID12M-CL
12M	4096 x 3072	93.6	M42	Opt-C:Link	ID12M-OPT
48M	7920 x 6004	12.8	M58	Camera Link	ID50M-CL
48M	7920 x 6004	25	M58	Opt-C:Link	ID50M-OPT

The specification is subject to change without any prior notice.



Camera Products

iDule iDule Corporation

4F T.NK Bldg, 2-17-2, Gyotoku-Ekimae,
Ichikawa-shi, Chiba-ken, Zip 272-0133, Japan
TEL : 047-306-7155 ULR : www.idule.jp

Mar.2019

◆ Corporate Overview

Company Name : iDule Corporation

Address : 4F T.NK Bldg, 2-17-2, Gyotoku-ekimae,
Ichikawa-shi, Chiba-ken, Zip 272-0133, JAPAN

Foundation : August, 1 st, 2012

Capital : 31 Million Yen

President : Hisao Kawamura

● The Standard Product Line-up

We offer cameras from VGA to 50M pixel with the de facto standard Camera Link™ I/F in the machine vision industry.

Also, there are a series of cameras with Optical I/F specification as high credible high-speed transmission required for higher speed image sensor and are compact Global Shutter cameras optimized for embedded vision systems.

● Custom Development / Professional Service

iDule provides customization of our standard products and new design services per customer requirement. Please contact us.

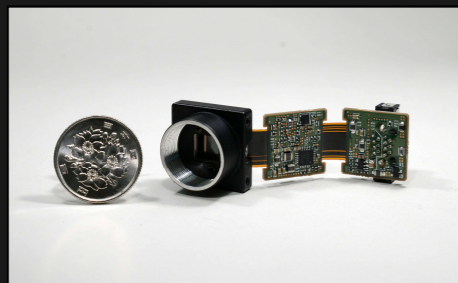
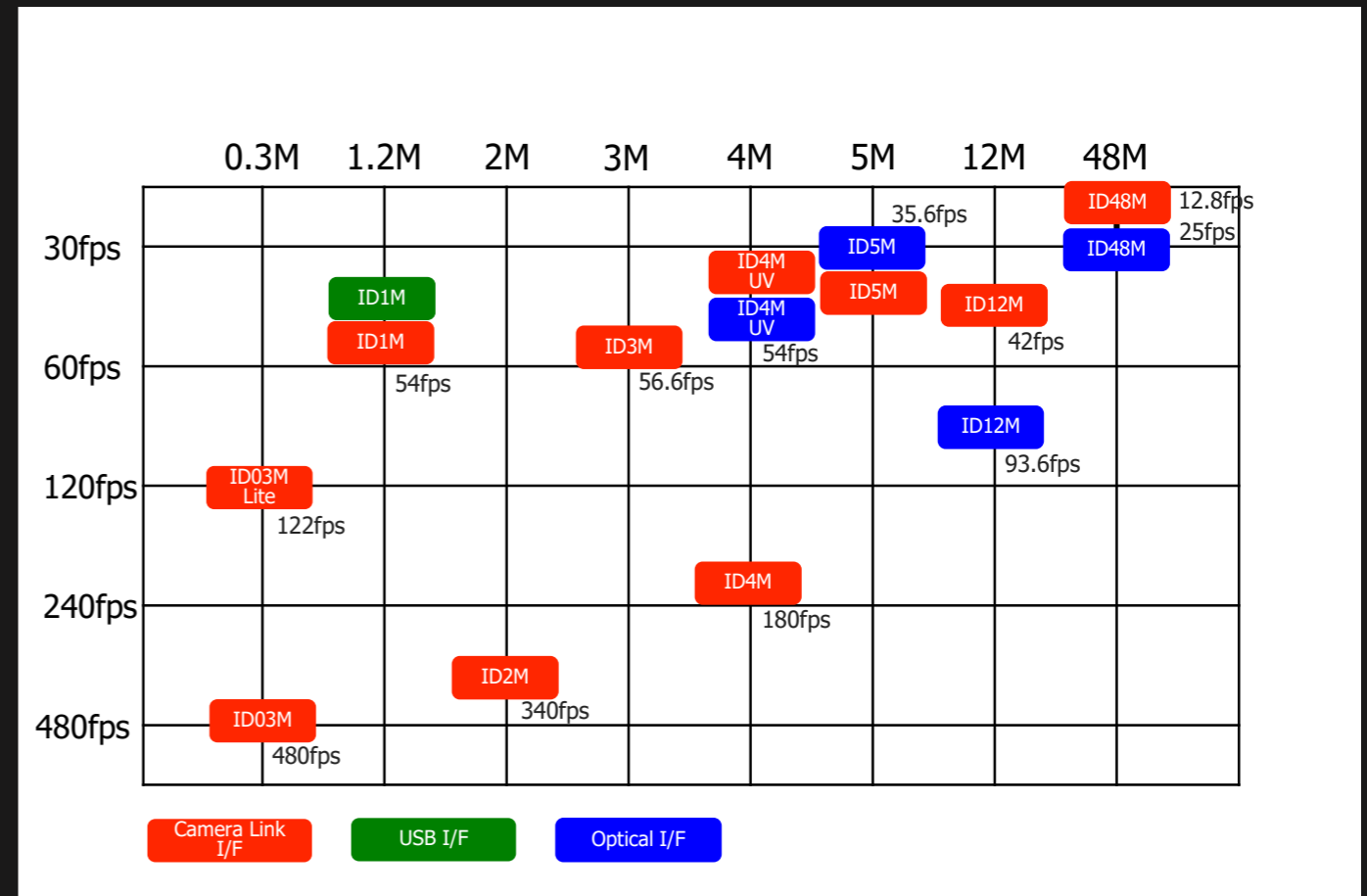


Photo:Down-sized by using rigid flexible board



Photo:Compact design by head-detaching

Line-up of cameras



The specification is subject to change without any prior notice.

Lens mount



1/3 1.2M
M12

1/3 VGA
NF
mount

2/3 5M
C mount

APS-like 12M
M42 mount

Over35mm
48M
M58 mount

◆ VGA

Our VGA camera, with AMS(CMOSIS) high-speed VGA sensor, has multiple product choices from board-type to PoCL type. You can select a suitable type according to your requirements such as camera installation space, required frame rate.



ID03M-CLL



ID03M-CL

◆ 2Mega Pixel / 4Mega Pixel

The ID2M series are 2 Mega pixel and the ID4M series are 4 Mega pixel in resolution. They use AMS(CMOSIS) high-speed CMOS sensor with Camera Link™ I/F. They are ideal for inspection applications that require a high-speed frame rate.



ID4M-CL



ID4M-CL

Model Name	AMS(CMOSIS) VGA PoCL-Lite ID03MB/C-CLL (Mono/Color)	AMS(CMOSIS) VGA ID03MB/C-CL (Mono/Color)
Output I/F	PoCL-Lite	Camera Link Base
Image Sensor (pixel size)	AMS(CMOSIS) Global Shutter : CMV300 (7.4μm x 7.4μm)	
Image Circle	1/3 inch Φ6.003mm	
Image Output	Effective Pixel 640(H) x 484(V)	
Pixel Clock	40MHz	80MHz
Output Format	Mono / Raw color 10bit	Mono / Raw color 8/10bit
Frame Rate	@122.34fps	Base 2Tap @480fps
Gain	0 ~ +18dB	0 ~ +12dB
Shutter Speed	Off ~ 1/10,000s	Off ~ 1/40,000s
Partial Scan	ROI: 8 area	
Trigger Mode	Fixed shutter trigger mode, pulse width shutter trigger mode	
Signal Output Connector	SDR14pin	SDR26pin
Lens Mount	NF Mount, M10.5	C Mount
External Trigger Inputs	PoCL-Lite	Hirose 12pin or PoCL
Power Voltage / Consumption	DC12V max. 1.5W	DC12V max. 2.5W
Size(mm) / Weight	21.5(H) x 21.5(W) x 21.5(D) 19g	29(H) x 29(W) x 43(D) 60g
Remarks		

The specification is subject to change without any prior notice.

Model Name	AMS(CMOSIS) 2M ID2MB/C-CL (Mono/Color) ID2MB/C-CLD(10TAP Mono/Color)	AMS(CMOSIS) 4M ID4MB-CL (Mono/Color) ID4MB-CLD(10TAP Mono/Color)
Output I/F	Camera Link Base ~ Full / Deca	
Image Sensor (pixel size)	AMS(CMOSIS) Global Shutter : CMV2000 (5.5μm x 5.5μm)	AMS(CMOSIS) Global Shutter : CMV4000 (5.5μm x 5.5μm)
Image Circle	2/3 inch Φ12.755mm	1 inch Φ15.930mm
Image Output	Effective Pixel 2,048(H) x 1,088(V)	Effective Pixel 2,048(H) x 2,048(V)
Pixel Clock	80MHz	
Output Format	Mono / Raw color 8/10bit	
Frame Rate	Base 2Tap @ 70fps / Medium 4Tap @140fps / Full 8Tap @280fps /	Base 2Tap @ 38fps / Medium 4Tap @ 75fps / Full 8Tap @150fps / 10Tap @180fps
Gain	0 ~ +12dB	
Shutter Speed	Off ~ 1/50,000s	
Partial Scan	ROI: 8 area (min 1line)	
Trigger Mode	Fixed shutter trigger mode, pulse width shutter trigger mode	
Signal Output Connector	SDR26pin	
Lens Mount	C Mount	
External Trigger Inputs	PoCL	
Power Voltage / Consumption	DC12V max. 2.5W	
Size(mm) / Weight	29(H) x 29(W) x 43(D) 75g	
Remarks	※ NIR Model	

The specification is subject to change without any prior notice.

◆ 3Mega Pixel / 5Mega Pixel

Pregius

The ID3M series are a series of cameras with the Camera Link™ I/F. The ID3M uses 3 Million (3M pixel) SONY Pregius sensor and the ID5M uses that of 5M pixel. The video output is with the 12bit resolution output format.



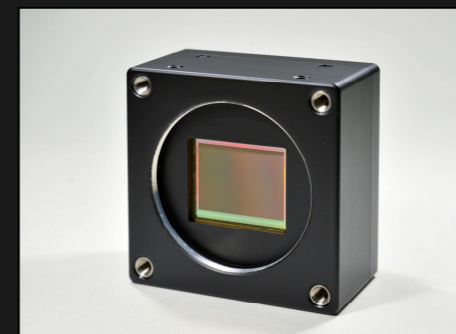
ID5M-CL



ID5M-CL

◆ 12Mega Pixel / 48Mega Pixel

The ID12M series are a series of cameras of 12 Mega Pixel and the ID50M series are of 50 Mega Pixel with AMS(CMOSIS) high-speed CMOS sensor and the Camera Link™ I/F.



ID12M-CL



ID50M-CL

Model Name	SONY 3M ID3MB/C-CL (Mono/Color)	SONY 5M ID5MB/C-CL (Mono/Color)
Output I/F	Camera Link Base	
Image Sensor (pixel size)	SONY Global Shutter IMX265 (3.45μm x 3.45μm)	SONY Global Shutter IMX264 (3.45μm x 3.45μm)
Image Circle	1/1.8 inch Φ8.910mm	2/3 inch Φ11.090mm
Image Output	Effective Pixel 2,064(H) x 1,544(V)	Effective Pixel 2,464(H) x 2,056(V)
Pixel Clock	2Tap : 85MHz / 3Tap : 66MHz(8bit only)	
Output Format	Mono / Raw Color 8/10/12bit	
Frame Rate	Base 2Tap @51.7fps Base 3Tap @56.6fps	Base 2Tap @32.8fps Base 3Tap @35.6fps
Gain	0 ~ +12dB	
Shutter Speed	Off ~ 1/40,000s	Off ~ 1/37,000s
Partial Scan	ROI : 1 area	
Trigger Mode	Fixed shutter trigger mode, pulse width shutter trigger mode	
Signal Output Connector	SDR26pin	
Lens Mount	C Mount	
External Trigger Inputs	Hirose 12pin or PoCL	
Power Voltage / Consumption	DC12V max. 1.8W	
Size(mm) / Weight	29(H) x 29(D) x 29(W) 50g	
Remarks		

The specification is subject to change without any prior notice.

Model Name	AMS(CMOSIS) 12M ID12MB/C-CL(Mono/Color)	AMS(CMOSIS) 48M ID50MB/C-CL(Mono/Color)
Output I/F	Camera Link Base ~ Full	Camera Link Full
Image Sensor (pixel size)	AMS(CMOSIS) Global Shutter CMV12000 (5.5μm x 5.5μm)	AMS(CMOSIS) Global Shutter CMV50000 (4.6μm x 4.6μm)
Image Circle	APS-like Φ28.160mm	6.4 x 27.6mm Φ45.717mm
Image Output	Effective Pixel 4,096(H) x 3,072(V)	Effective Pixel 7,920(H) x 6,004(V)
Pixel Clock	68MHz	80.5MHz
Output Format	Mono / Raw Color 8/10bit	
Frame Rate	Base 2Tap @ 11fps / Medium 4Tap @22fps Full 8Tap @42fps	Full 8Tap @12.8fps
Gain	0 ~ +12dB	
Shutter Speed	Off ~ 1/17,000s	Off ~ 1/6,300s
Partial Scan	ROI:32 area	ROI:1 area
Trigger Mode	Fixed shutter trigger mode, pulse width shutter trigger mode	
Signal Output Connector	SDR26pin	
Lens Mount	M42 P1.0 Mount (F Mount Adaptor)	M58 P0.75 Mount(F Mount Adaptor)
External Trigger Inputs	Hirose 12pin or PoCL	
Power Voltage / Consumption	DC12V max. 4.5W	DC12V max. 7.0W
Size(mm) / Weight	55(H) x 55(D) x 30(W) 120g	85(H) x 85(D) x 60(W) 500g
Remarks		

The specification is subject to change without any prior notice.

◆ 1.2Mega Pixel

ID1M series are head-detached compact GS cameras with 1.2M pixel AR135 resolution and M12/M10.5 lens mount. The two types of camera output, USB3.0 and the Camera Link™ I/F, are supported. You may let CCU (Camera Control Unit) host two camera heads synchronized as single frame. This feature is convenient for multi-camera synchronized image capture. A capture board with Base 4ch enables synchronized capture from maximum 8 units of camera.



ID1M-UCL(Normal)



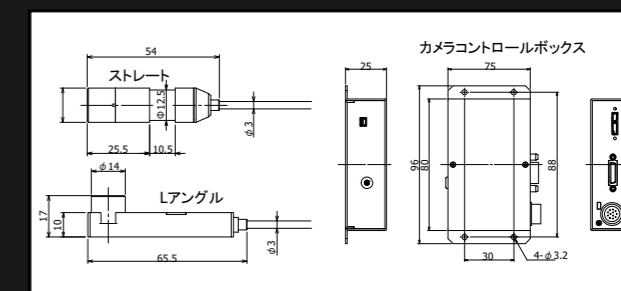
ID1M-L-UCL(L-Angle)



ID1M-UCL



ID1Mx2-UCL



Model Name	ONSEMI 1.2M	
	ID1MB/C-UCL (Mono/Color)	ID1MB/C-L-UCL (Mono/Color) L-Angle
Output I/F	USB3.0	Camera Link Base
Image Sensor (pixel size)	Onsemi Global Shutter AR0135 (3.75μm x 3.75μm)	
Image Circle	1/3 inch Φ6.0mm	
Image Output	Effective Pixel 1,284(H) x 962(V)	
Pixel Clock	74.25MHz	
Output Format	Raw 8/10/12bit, YUV 8bit	Raw 8/10/12bit, RGB24bit
Frame Rate	@54fps	
Gain	0 ~ +12dB	
Shutter Speed	Off ~ 1/54,000s	
Partial Scan	ROI : 1 area	
Trigger Mode	Fixed Trigger Shutter Mode	
Signal Output Connector	USB3.0 Micro B	SDR26pin
Lens Mount	M12 Mount *Option : M10.5 Mount	
External Trigger Inputs	Hirose 12pin or USB3.0	Hirose 12pin or PoCL
Power Voltage / Consumption	DC12V max. 2.4W	
CHU Size(mm) / Weight	Normal : Φ14mm L:54mm / L-Angle:10(H) x 14(D) x 65.5(W) 7g	
CCU Size(mm) / Weight	25(H) x 50(D) x 96(W) 110g	
	Camera Head Cable : 2m(Normal) ※Option : 3m	
Remarks		

The specification is subject to change without any prior notice.

Model Name	ONSEMI 1.2M 2Head	
	ID1MB/Cx2-UCL (Mono/Color)	ID1MB/C-Lx2-UCL (Mono/Color) L-Angle
Output I/F	USB3.0	Camera Link Base
Image Sensor (pixel size)	Onsemi Global Shutter AR0135 (3.75μm x 3.75μm)	
Image Circle	1/3 inch Φ6.0mm	
Image Output	Effective Pixel 2,568(H) x 962(V)	
Pixel Clock	74.25MHz	
Output Format	Raw 8/10/12bit, YUV 8bit	Raw 8/10/12bit, RGB24bit
Frame Rate	@54fps	
Gain	0 ~ +12dB	
Shutter Speed	Off ~ 1/54,000s	
Partial Scan	ROI : 1 area	
Trigger Mode	Fixed Trigger Shutter Mode	
Signal Output Connector	USB3.0 Micro B	SDR26pin
Lens Mount	M12 Mount *Option : M10.5 Mount	
External Trigger Inputs	Hirose 12pin or USB3.0	Hirose 12pin or PoCL
Power Voltage / Consumption	DC12V max. 3.3W	
CHU Size(mm) / Weight	Normal : Φ14mm L:54mm / L-Angle:10(H) x 14(D) x 65.5(W) 7g x2head	
CCU Size(mm) / Weight	25(H) x 50(D) x 96(W) 110g	
	Camera Head Cable : 2m(Normal) ※Option :3m	
Remarks		

The specification is subject to change without any prior notice.

◆ 5Mega Pixel

Pregius

The ID5M OPT series are optical interface Opt-C:Link cameras using SONY Pregius 5M pixel CMOS sensor. By using the optical interface, stable operation with no image dropout is possible even during long distance transmission and high speed capture.



ID5M-OPT



ID5M-OPT

◆ 12Mega Pixel / 48Mega Pixel

The ID12M and ID50M series are a series of high-speed cameras with AMS(CMOSIS) 12M pixel and 48M pixel CMOS sensor. By introducing an optical interface, you can implement a long-distance transmission and stable operation at high-speed capturing.



ID12M-OPT



ID50M-OPT

Model Name	SONY 5M ID5MB/C-OPT (Mono/Color)
Output I/F	Opt-C:Link 6.25G 1Lane
Image Sensor (pixel size)	SONY Global Shutter IMX264 (3.45μm x 3.45μm)
Image Circle	2/3 inch Φ11.090mm
Image Output	Effective Pixel 2,464(H) x 2,056(V)
Pixel Clock	61.875MHz
Output Format	Mono / Raw Color 8bit
Frame Rate	@35.7fps
Gain	0 ~ +12dB
Shutter Speed	Off ~ 1/75,000s
Partial Scan	ROI : 1 area
Trigger Mode	Fixed shutter trigger mode, pulse width shutter trigger mode
Signal Output Connector	LC-Duplex Multi Cable(Max 150m)
Lens Mount	C Mount
External Trigger Inputs	Hirose 6pin / Opt-C:Link
Power Voltage / Consumption	DC12V max. 4.5W
Size(mm) / Weight	29(H) x 29(D) x 46.5(W) 55g
Remarks	

The specification is subject to change without any prior notice.

Model Name	AMS(CMOSIS) 12M ID12MB/C-OPT(Mono/Color)	AMS(CMOSIS) 48M ID50MB/C-OPT(Mono/Color)
Output I/F	Opt-C:Link 6.25G 2Lane	
Image Sensor (pixel size)	AMS(CMOSIS) Global Shutter CMV12000 (5.5μm x 5.5μm)	AMS(CMOSIS) Global Shutter CMV50000 (4.6μm x 4.6μm)
Image Circle	APS-like Φ28.160mm	6.4 x 27.6mm Φ45.717mm
Image Output	Effective Pixel 4,096(H) x 3,072(V)	Effective Pixel 7,920(H) x 6,004(V)
Pixel Clock	75MHz	78.4MHz
Output Format	Mono / Raw Color 8bit	
Frame Rate	@93.6fps	@25fps
Gain	0 ~ +12dB	
Shutter Speed	Off ~ 1/36,000s	Off ~ 1/12,000s
Partial Scan	ROI:32 area (min 2line)	ROI:1 area (min 1line)
Trigger Mode	Fixed shutter trigger mode, pulse width shutter trigger mode	
Signal Output Connector	LC-Duplex Multi Cable(Max 150m)	
Lens Mount	M42 P1.0 Mount *Option : F Mount	M58 P0.75 Mount *Option : F Mount
External Trigger Inputs	Hirose 12pin / Opt-C:Link	
Power Voltage / Consumption	DC12V max. 7.5W	DC12V max. 8.0W
Size(mm) / Weight	70(H) x 70(D) x 38(W) 335g	85(H) x 85(D) x 60(W) 500g
Remarks		

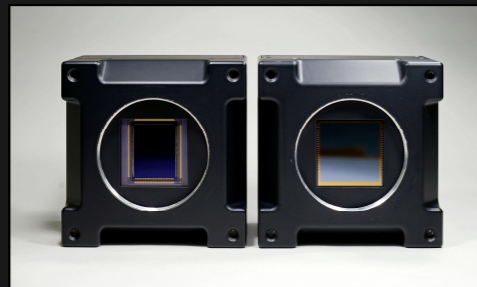
The specification is subject to change without any prior notice.

DUV(Deep Ultra Violet)

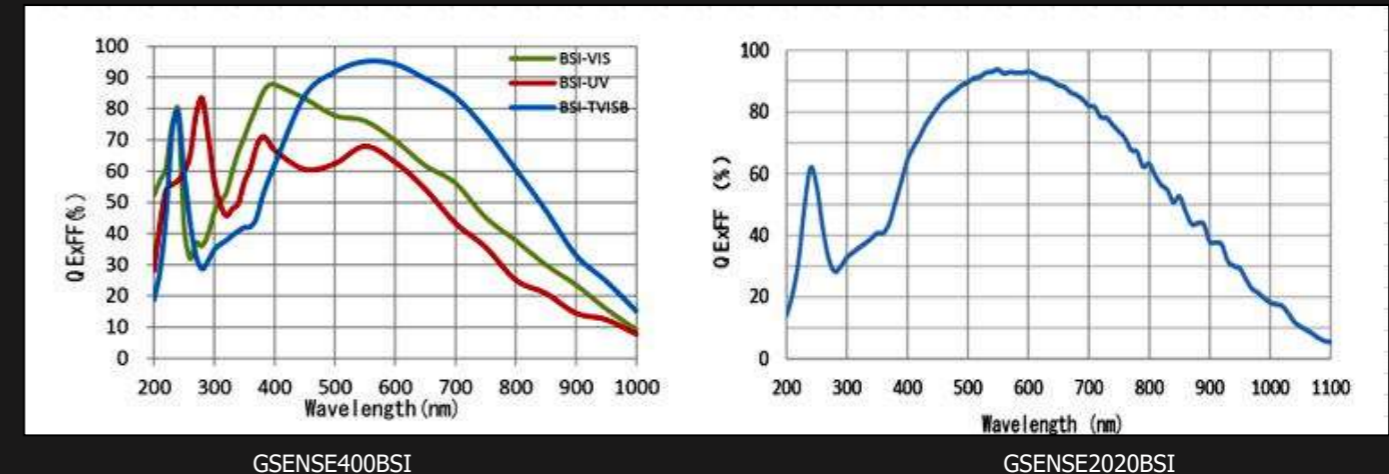


◆ 4Mega Pixel UV High Sensitivity

The ID4M UV series are high sensitivity cameras with 4M pixel (11μm,6.5μm) SCMOS sensor. They are ideally high sensitive cameras for a dedicated image processing that requires a sensitivity to ultra violet spectra. A user can choose the most suitable sensor for their purpose among the three sensors; VIS, UV and TVISB.



ID4MUVG-CL ID4MUV-CL



GSENSE400BSI

GSENSE2020BSI

Model Name	Gpixel 4M UV ID4MUV-CL, ID4MVIS-CL ID4MTVISB-CL	Gpixel 4M UV ID4MUVG-CL
Output I/F	Camera Link Base ~ Medium	
Image Sensor (pixel size)	Gpixel Rolling Shutter GSENSE400BSI (11μm x 11μm)	Gpixel Rolling Shutter GSENSE2020BSI (6.5μm x 6.5μm)
Image Circle	Φ31.859mm	Φ18.826mm
Image Output	Effective Pixel 2,048(H) x 2,048(V)	
Pixel Clock	60MHz	52MHz
Output Format	8/10/12bit	8/10/12bit
Frame Rate	Base 2Tap @27.1fps Medium 4Tap @54.2fps	Base 2Tap @22.7fps Medium 4Tap @45.3fps
Gain	0 ~ +24dB	
Shutter Speed	Off ~ 1/32,000s	Off ~ 1/130,000s
Partial Scan	ROI : 1 area	
Trigger Mode	Fixed shutter trigger mode, pulse width shutter trigger mode	
Signal Output Connector	SDR26pin	
Lens Mount	M42 P1.0 Mount *Option : F Mount	
External Trigger Inputs	Hirose 12pin / Camera Link	
Power Voltage / Consumption	DC12V max. 3.6W	DC12V max. 5.0W
Size(mm) / Weight	70(H) x 70(D) x 44(W) 290g	
Remarks		

The specification is subject to change without any prior notice.

Model Name	Gpixel 4M ID4MUV-OPT, ID4MVIS-OPT ID4MTVISB-OPT	Gpixel 4M ID4MUVG-OPT
Output I/F	Opt-C:Link 6.25G 1Lane	
Image Sensor (pixel size)	Gpixel Rolling Shutter GSENSE400BSI (11μm x 11μm)	Gpixel Rolling Shutter GSENSE2020BSI (6.5μm x 6.5μm)
Image Circle	Φ31.859mm	Φ18.826mm
Image Output	Effective Pixel 2,048(H) x 2,048(V)	
Pixel Clock	60MHz	52MHz
Output Format	8bit (※1)	8bit (※1)
Frame Rate	@ 57.1fps	@ 45.3fps
Gain	0 ~ +24dB	
Shutter Speed	Off ~ 1/34,000s	Off ~ 1/130,000s
Partial Scan	ROI:1 area	
Trigger Mode	Fixed shutter trigger mode, pulse width shutter trigger mode	
Signal Output Connector	LC-Duplex Multi Cable (Max 150m)	
Lens Mount	M42 P1.0 Mount *Option : F Mount	
External Trigger Inputs	Hirose 12pin / Opt-C:Link	
Power Voltage / Consumption	DC12V max. 3.6W	DC12V max. 5.0W
Size(mm) / Weight	70(H) x 70(D) x 44(W) 290g	
Remarks	※1. 12 bit output compatible. However, the frame rate is halved.	

The specification is subject to change without any prior notice.

Product to be developed



◆ 25Mega Pixel / 43Mega Pixel / 65Mega Pixel

◆ 25Mega Pixel / 65Mega Pixel

We are planning to develop Camera Link™ I/F camera equipped with GPIXEL's high resolution and high speed CMOS sensor.

We are planning to develop Opt-C:Link I/F camera equipped with GPIXEL's high resolution and high speed CMOS sensor.

Model Name	Gpixel 25M ID25MB/C-CL (Mono/Color)	Gpixel 43M ID43MB/C-CL (Mono/Color)	Gpixel 65M ID65MB/C-CL (Mono/Color)
Output I/F	Camera Link Base · Full		
Image Sensor (pixel size)	Gpixel Global Shutter GMAX0505 (2.5μm x 2.5μm)	Gpixel Global Shutter GMAX0806 (2.8μm x 2.8μm)	Gpixel Global Shutter GMAX3265 (3.2μm x 3.2μm)
Image Circle	Φ18.102mm 【 Φ11.250mm】	Φ26.885mm	Φ37.919mm
Image Output	Effective Pixel 5,120(H) x 5,120(V) 【Effective Pixel 4,500(H) x 4,500(V)】	Effective Pixel 7,915(H) x 5,436(V)	Effective Pixel 9,344(H) x 7,000(V)
Pixel Clock	80MHz	76.8MHz	80MHz
Output Format	Mono / Raw Color 8/10bit		
Frame Rate	Base 2Tap @ 5.75fps, Full 8Tap @23fps	Base 2Tap @ 6.5fps, Full 8Tap @13.0fps	Base 2Tap @ 2.4fps, Full 8Tap @9.5fps
Gain	0 ~ +12dB		
Shutter Speed	Off ~ TBD	Off ~ TBD	Off ~ TBD
Partial Scan	ROI: 1 area		
Trigger Mode	Fixed shutter trigger mode, pulse width shutter trigger mode		
Signal Output Connector	SDR26pin		
Lens Mount	M42 P1.0 Mount 【 C Mount】	M42 P1.0 Mount *Option : F Mount	
External Trigger Inputs	Hirose 12pin or PoCL		
Power Voltage / Consumption	DC12V max. TBD W		
Size(mm) / Weight	TBD		
Remarks	【 】 : 20M ROI		

The specification is subject to change without any prior notice.

Model Name	Gpixel 25M ID25MB/C-OPT(Mono/Color)	Gpixel 65M ID65MB/C-OPT(Mono/Color)
Output I/F	Opt-C:Link 6.25G 2Lane	
Image Sensor (pixel size)	Gpixel Global Shutter GMAX0505 (2.5μm x 2.5μm)	Gpixel Global Shutter GMAX3265 (2.8μm x 2.8μm)
Image Circle	Φ18.102mm Φ11.250mm	Φ32.691mm
Image Output	Effective Pixel 5,120(H) x 5,120(V) 【 Effective Pixel 4,500(H) x 4,500(V)】	Effective Pixel 9,344(H) x 7,000(V)
Pixel Clock	80MHz	70MHz
Output Format	Mono / Raw Color 8bit	
Frame Rate	@45.9fps	@16.7fps
Gain	0 ~ +12dB	
Shutter Speed	Off ~ TBD	Off ~ TBD
Partial Scan	ROI: 1 area	
Trigger Mode	Fixed shutter trigger mode, pulse width shutter trigger mode	
Signal Output Connector	LC-Duplex Multi Cable (Max 150m)	
Lens Mount	M42 P1.0 Mount *Option : F Mount 【 C Mount】	M42 P1.0 Mount *Option : F Mount
External Trigger Inputs	Hirose 12pin / Opt-C:Link	
Power Voltage / Consumption	DC12V max. TBD W	
Size(mm) / Weight	70(H) x 70(D) x 60(W) TBD g	
Remarks	【 】 : 20M ROI	

The specification is subject to change without any prior notice.