

# USB3.0 Cameras



## Key Features

Camera Standard  
 - GenICam, USB3Vision  
 Plug & Play  
 Max Cable length : 5meter

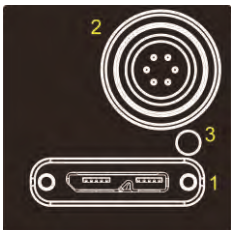
## Pin map

6pin Connector

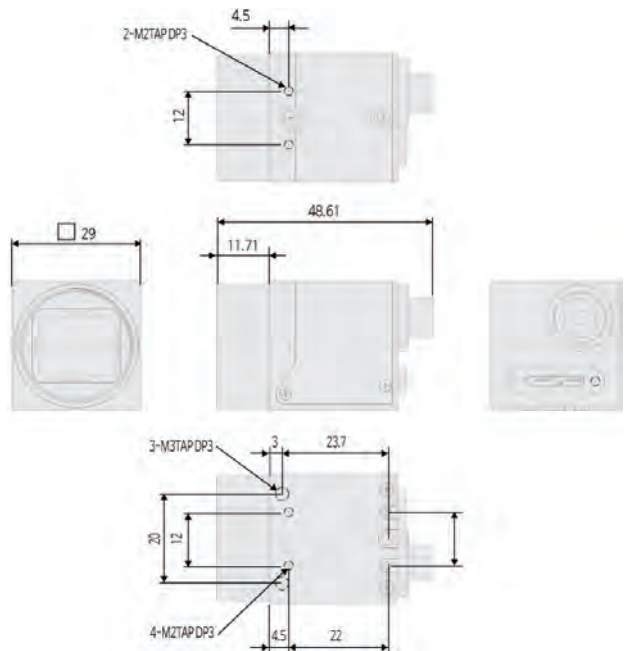
Pin	Name	IN/OUT	Remark
1	Power	IN	5V ~ 13.2V Input Range
2	Trigger	IN	Opto-Isolated Trigger Input+(2.5V~24V)
3	GPIO1	IN/OUT	General Purpose I/O 1
4	GPIO2	IN/OUT	General Purpose I/O 2
5	Trigger	IN	Opto-Isolated Trigger Input-
6	GND	IN	

## Back Panel

Pin	Name	Remark
1	USB3.1 Gen.1 Connector	Type Micro-B
2	Power & I/O Connector	6Pin Circular
3	LED Indicator	LED



## Dimension (Unit : mm)



## Download (File name)

ex) SDK download:

CREVIS Site ▶ Search window ▶

SDK : MCamU\_Basic.zip

Model	MU-A040M-523	MU-A040K-523
Sensor	Sony CMOS Pregius IMX287	
Sensor size	1/2.9"	
Pixel size (μm)	6.9 x 6.9	
Resolution	728 x 544	
Frame Rate (Max.)	523fps	
Color / Mono	Mono Chrome	Color
Scanning method	Full / ROI(Horizontal+Vertical) / Reverse(X,Y,All)	
Synchronization	Internal (Freerun), External, Software trigger via PC	
Trigger mode	Fixed shutter, Pulse width shutter	
Shutter	Global	
Shutter speed	1us ~ 3sec (Exposure Offset : 별도)	
Gain	Analog : 0dB ~ 27.6dB (1x ~ 24x) Digital : 0dB ~ 18dB (1x ~ 8x)	
Black level	Analog : 0 ~ 255 (8bit) / Digital : 0 ~ 4095 (12bit)	
Gamma / LUT	Gamma Correction, Adjustable LUT (12bit to 12bit)	
Auto white balance	Off / Once / Continuous (Only Color Models)	
Auto gain / exposure	Off / Once / Continuous	
Interface	USB3.1 Gen. 1 (USB3 Vision Standard 1.1)	
Pixel Data Format	Mono8/10/12	Mono8/10/12, BayerRG8/10/12, RGB8, BGR8
SNR	35dB	
Function control	GainAuto, ExposureAuto, BalanceWhiteAuto, Acquisition Frame Rate(Adjustable), Line Debouncer, Defective Pixel Correction, Shading Correction(FFC), Color Transformation Control, Noise Reduction	
Lens mount	C mount	
Power requirements	DC 5V ~ 13.2V ± 10% or USB3 Bus	
Consumption	DC	< 3.3W
	USB	< 3.3W (Max.)
Weight	< 44g	
Dimension	29 x 29 x 29 mm (without mount)	
Temperature	0°C ~ 40°C (Operating) / -20°C ~ 60°C (Storage)-(with <20~80% RH)	
Vibration / Shock	98m/s <sup>2</sup> (10G) / 196m/s <sup>2</sup> (20.0G)	
Standard compliancy	CE (EN61326-1:2013년); Class A)	
Conformity	RoHS, WEEE	
Warranty	3 years	

Model	MU-A160M-226	MU-A160K-226
Sensor	Sony CMOS Pregius IMX273	
Sensor size	1/2.9"	
Pixel size (μm)	3.45 x 3.45	
Resolution	1456 x 1088	
Frame Rate (Max.)	226fps	
Color / Mono	Mono Chrome	Color
Scanning method	Full / ROI(Horizontal+Vertical) / Reverse(X,Y,All) / Decimation(X,Y,All) / Binning (Only Mono Model)	
Synchronization	Internal (Freerun), External, Software trigger via PC	
Trigger mode	Fixed shutter, Pulse width shutter	
Shutter	Global	
Shutter speed	1us ~ 3sec (Exposure Offset : 별도)	
Gain	Analog : 0dB ~ 27.6dB (1x ~ 24x) Digital : 0dB ~ 18dB (1x ~ 8x)	
Black level	Analog : 0 ~ 255 (8bit) / Digital : 0 ~ 4095 (12bit)	
Gamma / LUT	Gamma Correction, Adjustable LUT (12bit to 12bit)	
Auto white balance	Off / Once / Continuous (Only Color Models)	
Auto gain / exposure	Off / Once / Continuous	
Interface	USB3.1 Gen. 1 (USB3 Vision Standard 1.1)	
Pixel Data Format	Mono8/10/12	Mono8/10/12, BayerRG8/10/12, RGB8, BGR8
SNR	38dB	
Function control	GainAuto, ExposureAuto, BalanceWhiteAuto, Acquisition Frame Rate(Adjustable), Line Debouncer, Defective Pixel Correction, Shading Correction(FFC), Color Transformation Control, Noise Reduction	
Lens mount	C mount	
Power requirements	DC 5V ~ 13.2V ± 10% or USB3 Bus	
Consumption	DC	< 3.2W
	USB	< 3.7W (Max.)
Weight	< 44g	
Dimension	29 x 29 x 29 mm (without mount)	
Temperature	0°C ~ 40°C (Operating) / -20°C ~ 60°C (Storage)-(with <20~80% RH)	
Vibration / Shock	98m/s <sup>2</sup> (10G) / 196m/s <sup>2</sup> (20.0G)	
Standard compliancy	CE (EN61326-1:2013년); Class A)	
Conformity	RoHS, WEEE	
Warranty	3 years	

Model	MU-A320M-118	MU-A320K-118
Sensor	Sony CMOS Pregius IMX252	
Sensor size	1/1.8"	
Pixel size ( $\mu\text{m}$ )	3.45 x 3.45	
Resolution	2064 x 1544	
Frame Rate (Max.)	118fps	
Color / Mono	Mono Chrome	Color
Scanning method	Full / ROI(Horizontal+Vertical) / Reverse(X,Y,All) / Decimation(X,Y,All) / Binning (Only Mono Model)	
Synchronization	Internal (Freerun), External, Software trigger via PC	
Trigger mode	Fixed shutter, Pulse width shutter	
Shutter	Global	
Shutter speed	1us ~ 3sec (Exposure Offset : 별도)	
Gain	Analog : 0dB ~ 27.6dB (1x ~ 24x) Digital : 0dB ~ 18dB (1x ~ 8x)	
Black level	Analog : 0 ~ 255 (8bit) / Digital : 0 ~ 4095 (12bit)	
Gamma / LUT	Gamma Correction, Adjustable LUT (12bit to 12bit)	
Auto white balance	Off / Once / Continuous (Only Color Models)	
Auto gain / exposure	Off / Once / Continuous	
Interface	USB3.1 Gen. 1 (USB3 Vision Standard 1.1)	
Pixel Data Format	Mono8/10/12	Mono8/10/12, BayerRG8/10/12, RGB8, BGR8
SNR	36dB	
Function control	GainAuto, ExposureAuto, BalanceWhiteAuto, Acquisition Frame Rate(Adjustable), Line Debouncer, Defective Pixel Correction, Shading Correction(FFC), Color Transformation Control, Noise Reduction	
Lens mount	C mount	
Power requirements	DC 5V ~ 13.2V $\pm$ 10% or USB3 Bus	
Consumption	DC	< 4.0W
	USB	< 4.7W (Max.)
Weight	< 44g	
Dimension	29 x 29 x 29 mm (without mount)	
Temperature	0°C ~ 40°C (Operating) / -20°C ~ 60°C (Storage)-(with <20~80% RH)	
Vibration / Shock	98m/s <sup>2</sup> (10G) / 196m/s <sup>2</sup> (20.0G)	
Standard compliancy	CE (EN61326-1:2013년); Class A)	
Conformity	RoHS, WEEE	
Warranty	3 years	

Model	MU-A320M-55	MU-A320K-55
Sensor	Sony CMOS Pregius IMX265	
Sensor size	1/1.8"	
Pixel size ( $\mu\text{m}$ )	3.45 x 3.45	
Resolution	2064 x 1544	
Frame Rate (Max.)	55fps	
Color / Mono	Mono Chrome	Color
Scanning method	Full / ROI(Horizontal+Vertical) / Reverse(X,Y,All) / Decimation(X,Y,All)	
Synchronization	Internal (Freerun), External, Software trigger via PC	
Trigger mode	Fixed shutter, Pulse width shutter	
Shutter	Global	
Shutter speed	1us ~ 3sec (Exposure Offset : 별도)	
Gain	Analog : 0dB ~ 27.6dB (1x ~ 24x) Digital : 0dB ~ 18dB (1x ~ 8x)	
Black level	Analog : 0 ~ 255 (8bit) / Digital : 0 ~ 4095 (12bit)	
Gamma / LUT	Gamma Correction, Adjustable LUT (12bit to 12bit)	
Auto white balance	Off / Once / Continuous (Only Color Models)	
Auto gain / exposure	Off / Once / Continuous	
Interface	USB3.1 Gen. 1 (USB3 Vision Standard 1.1)	
Pixel Data Format	Mono8/10/12	Mono8/10/12, BayerRG8/10/12, RGB8, BGR8
SNR	39dB	
Function control	GainAuto, ExposureAuto, BalanceWhiteAuto, Acquisition Frame Rate(Adjustable), Line Debouncer, Defective Pixel Correction, Shading Correction(FFC), Color Transformation Control, Noise Reduction	
Lens mount	C mount	
Power requirements	DC 5V ~ 13.2V $\pm$ 10% or USB3 Bus	
Consumption	DC	< 3.1W
	USB	< 3.4W (Max.)
Weight	< 44g	
Dimension	29 x 29 x 29 mm (without mount)	
Temperature	0°C ~ 40°C (Operating) / -20°C ~ 60°C (Storage)-(with <20~80% RH)	
Vibration / Shock	98m/s <sup>2</sup> (10G) / 196m/s <sup>2</sup> (20.0G)	
Standard compliancy	CE (EN61326-1:2013년); Class A)	
Conformity	RoHS, WEEE	
Warranty	3 years	

Model	MU-A500M-35	MU-A500K-35
Sensor	Sony CMOS Pregius IMX264	
Sensor size	2/3"	
Pixel size ( $\mu\text{m}$ )	3.45 x 3.45	
Resolution	2464 x 2056	
Frame Rate (Max.)	35fps	
Color / Mono	Mono Chrome	Color
Scanning method	Full / ROI(Horizontal+Vertical) / Reverse(X,Y,All) / Decimation(X,Y,All)	
Synchronization	Internal (Freerun), External, Software trigger via PC	
Trigger mode	Fixed shutter, Pulse width shutter	
Shutter	Global	
Shutter speed	1us ~ 3sec (Exposure Offset : 별도)	
Gain	Analog : 0dB ~ 27.6dB (1x ~ 24x) Digital : 0dB ~ 18dB (1x ~ 8x)	
Black level	Analog : 0 ~ 255 (8bit) / Digital : 0 ~ 4095 (12bit)	
Gamma / LUT	Gamma Correction, Adjustable LUT (12bit to 12bit)	
Auto white balance	Off / Once / Continuous (Only Color Models)	
Auto gain / exposure	Off / Once / Continuous	
Interface	USB3.1 Gen. 1 (USB3 Vision Standard 1.1)	
Pixel Data Format	Mono8/10/12	Mono8/10/12, BayerRG8/10/12, RGB8, BGR8
SNR	38dB	
Function control	GainAuto, ExposureAuto, BalanceWhiteAuto, Acquisition Frame Rate(Adjustable), Line Debouncer, Defective Pixel Correction, Shading Correction(FFC), Color Transformation Control, Noise Reduction	
Lens mount	C mount	
Power requirements	DC 5V ~ 13.2V $\pm$ 10% or USB3 Bus	
Consumption	DC	< 3.2W
	USB	< 3.4W (Max.)
Weight	< 44g	
Dimension	29 x 29 x 29 mm (without mount)	
Temperature	0°C ~ 40°C (Operating) / -20°C ~ 60°C (Storage)-(with <20~80% RH)	
Vibration / Shock	98m/s <sup>2</sup> (10G) / 196m/s <sup>2</sup> (20.0G)	
Standard compliancy	CE (EN61326-1:2013년); Class A)	
Conformity	RoHS, WEEE	
Warranty	3 years	

Model	MU-A121M-23	MU-A121K-23
Sensor	Sony CMOS Pregius IMX304	
Sensor size	1.1"	
Pixel size ( $\mu\text{m}$ )	3.45 x 3.45	
Resolution	4112 x 3008	
Frame Rate (Max.)	23fps	
Color / Mono	Mono Chrome	Color
Scanning method	Full / ROI(Horizontal+Vertical) / Reverse(X,Y,All) / Decimation(X,Y,All)	
Synchronization	Internal (Freerun), External, Software trigger via PC	
Trigger mode	Fixed shutter, Pulse width shutter	
Shutter	Global	
Shutter speed	1us ~ 3sec (Exposure Offset : 별도)	
Gain	Analog : 0dB ~ 27.6dB (1x ~ 24x) Digital : 0dB ~ 18dB (1x ~ 8x)	
Black level	Analog : 0 ~ 255 (8bit) / Digital : 0 ~ 4095 (12bit)	
Gamma / LUT	Gamma Correction, Adjustable LUT (12bit to 12bit)	
Auto white balance	Off / Once / Continuous (Only Color Models)	
Auto gain / exposure	Off / Once / Continuous	
Interface	USB3.1 Gen. 1 (USB3 Vision Standard 1.1)	
Pixel Data Format	Mono8/10/12	Mono8/10/12, BayerRG8/10/12, RGB8, BGR8
SNR	38dB	
Function control	GainAuto, ExposureAuto, BalanceWhiteAuto, Acquisition Frame Rate(Adjustable), Line Debouncer, Defective Pixel Correction, Shading Correction(FFC), Color Transformation Control, Noise Reduction	
Lens mount	C mount	
Power requirements	DC 5V ~ 13.2V $\pm$ 10% or USB3 Bus	
Consumption	DC	< 3.6W
	USB	< 3.9W (Max.)
Weight	< 44g	
Dimension	29 x 29 x 29 mm (without mount)	
Temperature	0°C ~ 40°C (Operating) / -20°C ~ 60°C (Storage)-(with <20~80% RH)	
Vibration / Shock	98m/s <sup>2</sup> (10G) / 196m/s <sup>2</sup> (20.0G)	
Standard compliancy	CE (EN61326-1:2013년); Class A)	
Conformity	RoHS, WEEE	
Warranty	3 years	

Model	MU-A121R-31	MU-A121L-31
Sensor	Sony CMOS Starvis IMX226	
Sensor size	1/1.7"	
Pixel size ( $\mu\text{m}$ )	1.85 x 1.85	
Resolution	4072 x 3046	
Frame Rate (Max.)	30fps	
Color / Mono	Mono Chrome	Color
Scanning method	Full / ROI(Horizontal+Vertical) / Reverse(X,Y,All)	
Synchronization	Internal (Freerun), External, Software trigger via PC	
Trigger mode	Fixed shutter, Pulse width shutter	
Shutter	Rolling, Global Reset	
Shutter speed	99us ~ 3sec	
Gain	Analog : 0dB ~ 27.6dB (1x ~ 22.5x) Digital : 0dB ~ 18dB (1x ~ 8x)	
Black level	Analog : 0 ~ 255 (8bit) / Digital : 0 ~ 4095 (12bit)	
Gamma / LUT	Gamma Correction, Adjustable LUT (12bit to 12bit)	
Auto white balance	Off / Once / Continuous (Only Color Models)	
Auto gain / exposure	Off / Once / Continuous	
Interface	USB3.1 Gen. 1 (USB3 Vision Standard 1.1)	
Pixel Data Format	Mono8/10/12	Mono8/10/12, BayerRG8/10/12, RGB8, BGR8
SNR	36dB	
Function control	GainAuto, ExposureAuto, BalanceWhiteAuto, Acquisition Frame Rate(Adjustable), Line Debouncer, Defective Pixel Correction, Shading Correction(FFC), Color Transformation Control, Noise Reduction	
Lens mount	C mount	
Power requirements	DC 5V ~ 13.2V $\pm$ 10% or USB3 Bus	
Consumption	DC	< 3.6W
	USB	< 3.8W (Max.)
Weight	< 44g	
Dimension	29 x 29 x 29 mm (without mount)	
Temperature	0°C ~ 40°C (Operating) / -20°C ~ 60°C (Storage)-(with <20~80% RH)	
Vibration / Shock	98m/s <sup>2</sup> (10G) / 196m/s <sup>2</sup> (20.0G)	
Standard compliancy	CE (EN61326-1:2013년); Class A	
Conformity	RoHS, WEEE	
Warranty	3 years	



Model	MU-A201R-18	
Sensor	Sony CMOS Starvis IMX183	
Sensor size	1.0"	
Pixel size (μm)	2.4 x 2.4	
Resolution	5496 x 3672	
Frame Rate (Max.)	18fps	
Color / Mono	Mono Chrome	
Scanning method	Full / ROI(Horizontal+Vertical) / Reverse(X,Y,All)	
Synchronization	Internal (Freerun), External, Software trigger via PC	
Trigger mode	Fixed shutter, Pulse width shutter	
Shutter	Rolling, Global Reset	
Shutter speed	141us ~ 3sec	
Gain	Analog : 0dB ~ 27.6dB (1x ~ 22.5x) Digital : 0dB ~ 18dB (1x ~ 8x)	
Black level	Analog : 0 ~ 255 (8bit) / Digital : 0 ~ 4095 (12bit)	
Gamma / LUT	Gamma Correction, Adjustable LUT (12bit to 12bit)	
Auto white balance	Off / Once / Continuous	
Auto gain / exposure	Off / Once / Continuous	
Interface	USB3.1 Gen. 1 (USB3 Vision Standard 1.1)	
Pixel Data Format	Mono8/10/12	
SNR	41dB	
Function control	GainAuto, ExposureAuto, BalanceWhiteAuto, Acquisition Frame Rate(Adjustable), Line Debouncer, Defective Pixel Correction, Shading Correction(FFC), Color Transformation Control, Noise Reduction	
Lens mount	C mount	
Power requirements	DC 5V ~ 13.2V ± 10% or USB3 Bus	
Consumption	DC	< 4.0W
	USB	< 4.0W (Max.)
Weight	< 44g	
Dimension	29 x 29 x 29 mm (without mount)	
Temperature	0°C ~ 40°C (Operating) / -20°C ~ 60°C (Storage)-(with <20~80% RH)	
Vibration / Shock	98m/s <sup>2</sup> (10G) / 196m/s <sup>2</sup> (20.0G)	
Standard compliancy	CE (EN61326-1:2013년); Class A	
Conformity	RoHS, WEEE	
Warranty	3 years	

Model	MU-A201L-18	
Sensor	Sony CMOS Starvis IMX183	
Sensor size	1.0"	
Pixel size ( $\mu\text{m}$ )	2.4 x 2.4	
Resolution	5496 x 3672	
Frame Rate (Max.)	18fps	
Color / Mono	Color	
Scanning method	Full / ROI(Horizontal+Vertical) / Reverse(X,Y,All)	
Synchronization	Internal (Freerun), External, Software trigger via PC	
Trigger mode	Fixed shutter, Pulse width shutter	
Shutter	Rolling, Global Reset	
Shutter speed	141us ~ 3sec	
Gain	Analog : 0dB ~ 27.6dB (1x ~ 22.5x) Digital : 0dB ~ 18dB (1x ~ 8x)	
Black level	Analog : 0 ~ 255 (8bit) / Digital : 0 ~ 4095 (12bit)	
Gamma / LUT	Gamma Correction, Adjustable LUT (12bit to 12bit)	
Auto white balance	Off / Once / Continuous	
Auto gain / exposure	Off / Once / Continuous	
Interface	USB3.1 Gen. 1 (USB3 Vision Standard 1.1)	
Pixel Data Format	Mono8/10/12, BayerRG8/10/12, RGB8, BGR8	
SNR	41dB	
Function control	GainAuto, ExposureAuto, BalanceWhiteAuto, Acquisition Frame Rate(Adjustable), Line Debouncer, Defective Pixel Correction, Shading Correction(FFC), Color Transformation Control, Noise Reduction	
Lens mount	C mount	
Power requirements	DC 5V ~ 13.2V $\pm$ 10% or USB3 Bus	
Consumption	DC	< 4.0W
	USB	< 4.0W (Max.)
Weight	< 44g	
Dimension	29 x 29 x 29 mm (without mount)	
Temperature	0°C ~ 40°C (Operating) / -20°C ~ 60°C (Storage)-(with <20~80% RH)	
Vibration / Shock	98m/s <sup>2</sup> (10G) / 196m/s <sup>2</sup> (20.0G)	
Standard compliancy	CE (EN61326-1:2013년); Class A)	
Conformity	RoHS, WEEE	
Warranty	3 years	