

USB3.0 Series

USB



Description

USB3.0 Compact CMOS Camera

Features

Sony CMOS [Pregius] adopted cameras are lined up
 High resolution-high speed CMOS sensors adopted
 Compact, robust and easy to attach

Product Line-up

Model	monochrome	STC-MBS43U3V	STC-MBE132U3V	STC-MBS163U3V	STC-MBCM200U3V	STC-MBS231U3V	STC-MBS241U3V
	Color	STC-MCS43U3V	STC-MCE132U3V	STC-MCS163U3V	STC-MCCM200U3V	STC-MCS231U3V	STC-MCS241U3V
	NIR				STC-MBCM200U3V-NIR		
Resolution		0.4M	1.3M	1.6M	2M	2.3M	2.3M
Frame Rate		527.1fps	60fps	238.0fps	167fps	41.6fps	163fps
Effective Pixels		720 × 540	1280 × 1024	1440 × 1080	2048 × 1088	1920 × 1200	1920 × 1200
Sensor Size		1/2.9	1/1.8	1/2.9	2/3	1/1.2	1/1.2
Cell Size(HxV, μm)		6.9 × 6.9	5.3 × 5.3	3.45 × 3.45	5.5 × 5.5	5.86 × 5.86	5.86 × 5.86
Sensor		IMX287	EV76C560	IMX273	CMV2000	IMX249	IMX174
Lens Mount		C	CS	C	C	C	C
General Specifications		USB3Vision Available	USB3Vision Available	USB3Vision Available	USB3Vision Available	USB3Vision Available	USB3Vision Available

Model	monochrome	STC-MBS312U3V	STC-MBS322U3V	STC-MBCM401U3V	STC-MBS500U3V	STC-MBS510U3V	STC-MBA5MUSB3
	Color	STC-MCS312U3V	STC-MCS322U3V	STC-MCCM401U3V	STC-MCS500U3V	STC-MCS510U3V	STC-MCA5MUSB3
	NIR			STC-MBCM401U3V-NIR			
Resolution		3.2M	3.2M	4M	5M	5M	5M
Frame Rate		56fps	121fps	89fps	35.8fps	75.7fps	14fps
Effective Pixels		2048 × 1536	2048 × 1536	2048 × 2048	2448 × 2048	2448 × 2048	2592 × 1944
Sensor Size		1/1.8	1/1.8	1	2/3	2/3	1/2.5
Cell Size(HxV, μm)		3.45 × 3.45	3.45 × 3.45	5.5 × 5.5	3.45 × 3.45	3.45 × 3.45	2.2 × 2.2
Sensor		IMX265	IMX252	CMV4000	IMX264	IMX250	MT9P031
Lens Mount		C	C	C	C	C	CS
General Specifications		USB3Vision Available	USB3Vision Available	USB3Vision Available	USB3Vision Available	USB3Vision Available	Rolling Shutter, USB3.0Vision not available

Model	monochrome	STC-MBS881U3V	STC-MBS891U3V	STC-MBS122BU3V	STC-MBS123BU3V
	Color	STC-MCS881U3V	STC-MCS891U3V	STC-MCS122BU3V	STC-MCS123BU3V
	NIR				
Resolution		8.9M	8.9M	12M	12M
Frame Rate		32.2fps	42.3fps	23.4fps	30.5fps
Effective Pixels		4096 × 2160	4096 × 2160	4096 × 3000	4096 × 3000
Sensor Size		1	1	1.1	1.1
Cell Size(HxV, μm)		3.45 × 3.45	3.45 × 3.45	3.45 × 3.45	3.45 × 3.45
Sensor		IMX267	IMX255	IMX304	IMX253
Lens Mount		C	C	C	C
General Specifications		USB3Vision Available	USB3Vision Available	USB3Vision Available	USB3Vision Available

* 8.9M, 12M cameras may not have sufficient supply power with USB bus supply only depending on PC spec. We recommend you to use external power.

Accessories

Screw Lock USB3.0 Cables

Model	Applicable Model	Specification
NU3MBASU3S-2m	All USB3.0 Cameras	2m,USB3.0 MicroB,wish camera-side fastening screws
NU3MBASU3S-3.5m	All USB3.0 Cameras	3.5m,USB3.0 MicroB,wish camera-side fastening screws
NU3MBASU3B-2m	All USB3.0 Cameras	2m,USB3.0 MicroB,wish camera-side fastening screws,robot cables
NU3MBASU3B-3.5m	All USB3.0 Cameras	3.5m,USB3.0 MicroB,wish camera-side fastening screws,robot cables

*Please make sure that USB 3.0 cables operate correctly under your environment beforehand

CS to C-Mount Conversion Adapter

Item No.	Applicable Model	Specification
CS-C-R	CS Mount Series	

Tripod Mount

Item No.	Relevant Cameras	Specification
TP-JVA	Except for STC-MCE/MBE132U3V, STC-MBA/MCA5MUSB	

External Connector Specification

External Connector	USB: USB3.0 MicroB type, I/O signals: HR10A-7R-6PB(Hirose) or equivalent
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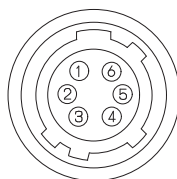
- ▶ This connector is for the output signal, not for the power of the camera. The camera power is supplied in +5V from the USB cable

It does not affect the voltage for the input signal

Pin Assignment

Pin No.	Signal Name	I/O	Signal Voltage	
			Low	High
1	GND for I/O signal	-	0V	
2	Output 2(IO3)	OUT	0.8V or lower	+3.3 - +24V
3	Output 1(IO2)	OUT	0.8V or lower	+3.3 - +24V
4	Input 2(IO1)	IN	0.7V or lower	+2.5 - +5V
5	Input 1(IO0)	IN	0.7V or lower	+2.5 - +5V
6	Power supply for output signal (IO_VCC)	-	+3.3 to +24 Vdc	

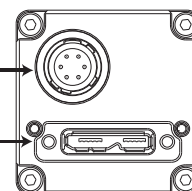
*Example shown for reference



[Rear view]

I/O signal connector

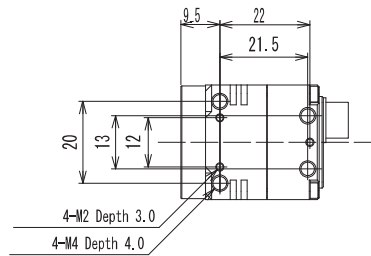
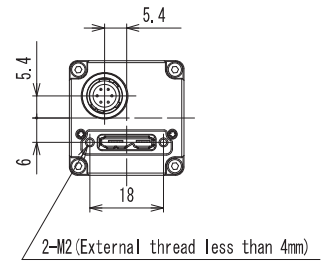
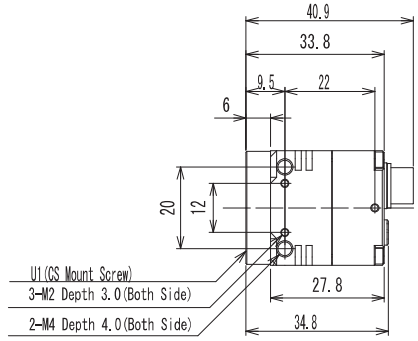
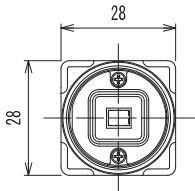
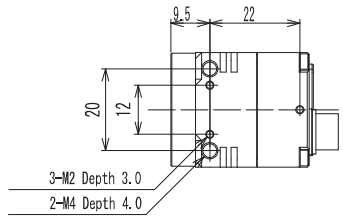
USB3.0 microB connector



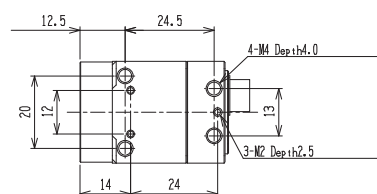
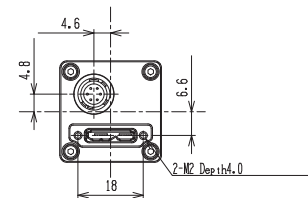
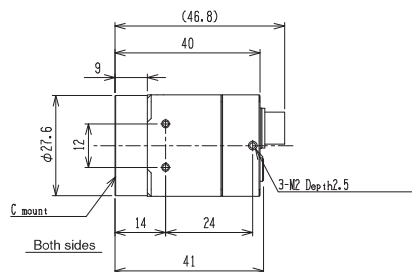
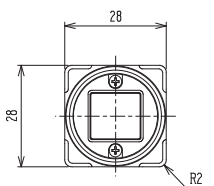
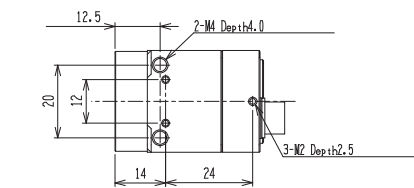
*Please use HR10A-7P-6S (Hirose) or equivalent for the cable

Drawing dimension

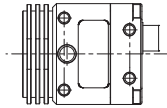
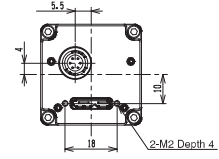
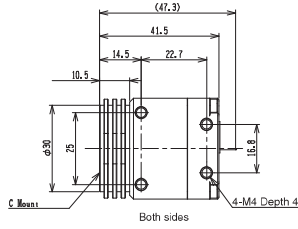
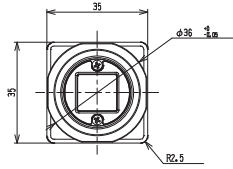
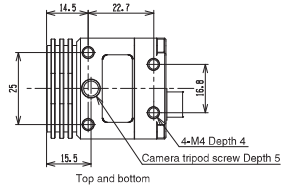
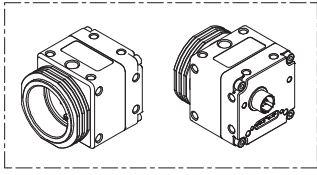
STC-MBE/MCE132U3V
STC-MBA/MCA5MUSB3



STC-MBS/MCS43U3V
STC-MBS/MCS163U3V
STC-MBCM/MCCM200U3V
STC-MBCM/MCCM401U3V
STC-MBS/MCS241U3V
STC-MBS/MCS231U3V
STC-MBS/MCS312U3V
STC-MBS/MCS322U3V
STC-MBS/MCS500U3V
STC-MBS/MCS510U3V



STC-MBS/MCS881U3V
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USB