

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 |
|--------------------|--|

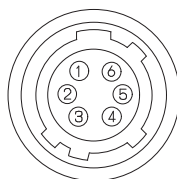
- ▶ This connector is for the output signal, not for the power of the camera. The camera power is supplied in +5V from the USB cable

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 | |

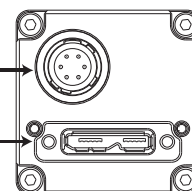
*Example shown for reference



[Rear view]

I/O signal connector

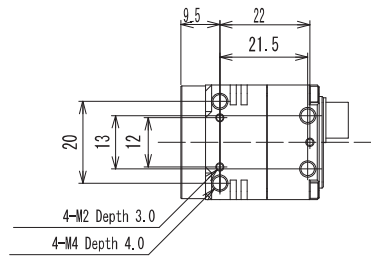
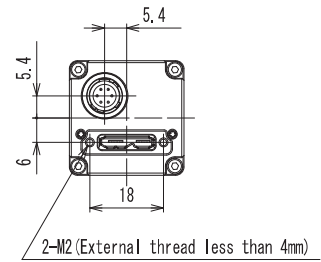
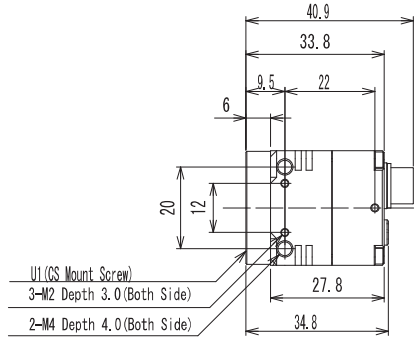
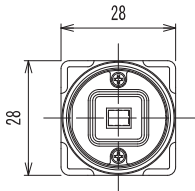
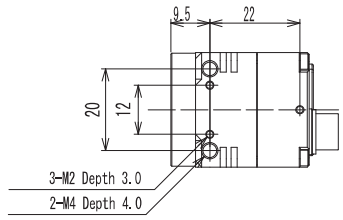
USB3.0 microB connector



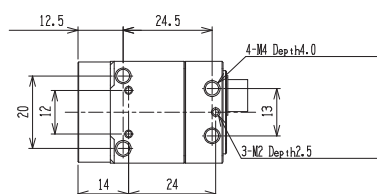
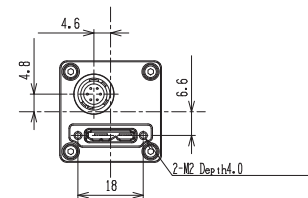
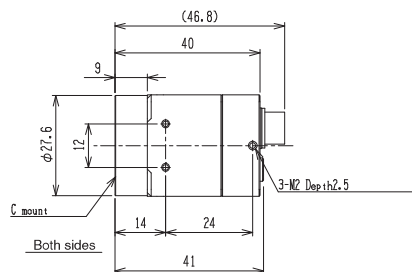
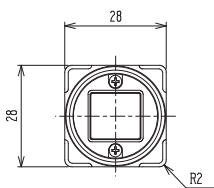
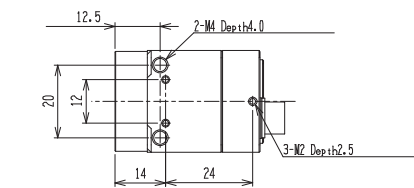
*Please use HR10A-7P-6S (Hirose) or equivalent for the cable

Drawing dimension

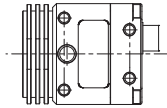
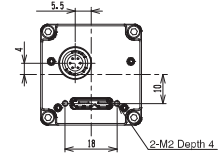
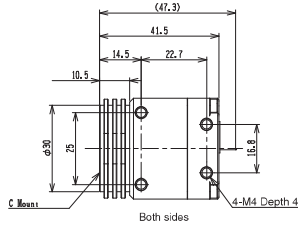
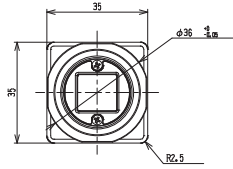
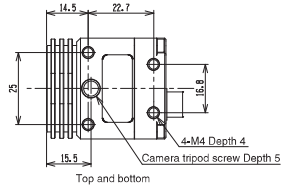
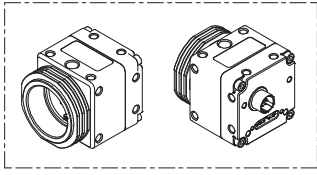
STC-MBE/MCE132U3V
STC-MBA/MCA5MUSB3



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



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