

4 Specifications

4.1 Electronic Specifications

4.1.1 STC-MBS891U3V / STC-MCS891U3V

Model Number		STC-MBS891U3V	STC-MCS891U3V
Image Sensor		1" 8.9M Progressive Monochrome CMOS (SONY: IMX255)	1" 8.9M Progressive Color CMOS (SONY: IMX255)
Shutter Type		Global	
Active Picture Elements		4,096 (H) x 2,160 (V)	
Cell Size		3.45 (H) x 3.45 (V) μ m	
Sync System		External trigger (Hardware / Software) / Free run	
Maximum Frame Rate (Full Scan)	8bits output	41.9 fps	
	10bits output	21.0 fps	
	10bits Packed output	31.9 fps	
	12bits output	21.0 fps	
	12bits Packed output	28.2 fps	
ADC bits width		10bits / 12bits	
Image Format		8bits / 10bis / 12bits (supported 10bits Packed / 12bits Packed)	
Noise Level	8bits output	Less than 3 digits (Gain 0 dB)	
	10bits / 10bits Packed output	Less than 12 digits (Gain 0 dB)	
	12bits / 12bits Packed output	Less than 48 digits (Gain 0 dB)	
Sensitivity (*1)		430 Lux	960 Lux
Exposure time	8bits output	2 μ seconds to 16.777 seconds (Default: 23,386.9 μseconds)	
	10bits output	2 μ seconds to 16.777 seconds (Default: 46,559.7 μseconds)	
	10bits Packed output	2 μ seconds to 16.777 seconds (Default: 30,559.7 μseconds)	
	12bits output	2 μ seconds to 16.777 seconds (Default: 46,530.6 μseconds)	
	12bits Packed output	2 μ seconds to 16.777 seconds (Default: 34,923.3 μseconds)	
Gain	Analog Gain	0 to 19.2 dB (Default: 0 dB)	
	Digital Gain	x1 to x2 (Default: x1)	
Black Level	8bits output	0 to 31 digits	
	10bits / 10bits Packed output	0 to 127 digits	
	12bits / 12bits Packed output	0 to 511 digits	
White Balance Gain		N/A	0 (Black level) to x3.99 (Default: x1)
ROI		Size: Horizontal: 64 to 4,096 pixels, Vertical: 32 to 2,160 lines (Default: 4,096 x 2,160) Adjustable steps for size: 16 pixels in horizontal direction (64 pixels on Packed) / 4 lines in vertical direction Adjustable steps for offset: 4 pixels in horizontal direction / 4 lines in vertical direction	
Multi ROI		16 Regions (horizontal 4 regions x vertical 4 regions) (Default: One region)	
Gamma		Gamma table = 0.1 to 4.0 (Default: 1.0)	
Binning		Horizontal: x2 / Off , Vertical: x2 / Off (select individually) (Horizontal: Average, Vertical: Addition) (*2)	N/A
Decimation		Horizontal: x2 / Off , Vertical: x2 / Off (select individually)	

Default: **Bold**

Model Number		STC-MBS891U3V	STC-MCS891U3V
Image Flip		Horizontal / Vertical / Horizontal and Vertical / Off	
Pixel Defect Correction		Up to 256 points	
Auto Image Control	Auto Exposure	Support	Support
	Auto Gain	Support	Support
	Auto White Balance	N/A	Support
Operational Mode		Edge preset trigger / Pulse width trigger / Start Stop trigger / Free run	
User Setting Storage		Support	
Communication		Via USB3.0 bus	
Interface		USB3.0 Super speed (USB3.0 micro B)	
Protocol		USB3 Vision® 1.0.1, GenICam Standard Version (SFNC 2.2, PFNC 2.0) compliant and Sentech's original protocol (on Standard SDK / Trigger SDK)	
Input / Output		Three GPIOs, One camera hardware reset	
Power	Input Voltage	+5 V (typ.) (This conforms to the USB standard) / +8.0 to +24 V External power (via 6 pin connector) * Recommend with external power (*4)	
	Consumption (*3)	Maximum: 5.7 W, Typical: 4.7 W	

Default: **Bold**