

Industry High Resolution Cooled Camera



2023 V1

For customized projects please Contact us:

sales@simtrum.cn

Industry High Resolution Cooled Camera

This industry high resolution cooled camera series features a wide variety of resolution up to 40K. Our products have been applied to high precision machinery measurements, flat panel display inspection, semiconductor inspection, scientific experiment and other industrial inspection.

Camera With Resolution Between 8-9K

Feature

STTS46MGV-5M

- Rolling shutter CMOS
- High sensitivity and low noise
- Rich exposure control modes (external trigger/free-run)
- Defect pixel correction /FFC/ROI
- Analog gain/digital gain/offset control
- Compatible with gige vision 1.1 protocol
- Electronic refrigeration (20°C below environment temperature)



STTS46MGV-5M

STTS65MU30-5M/C

- Global shutter CMOS
- High sensitivity and low noise
- Defect pixel correction /FFC
- Analog gain / digital gain / offset control
- Manual /automatic white balance
- Support macOS 10.14.6 or later
- Electronic refrigeration (20°C below environment temperature)



STTS65MU30-5M/C

STTS61M2CL-13M/C

- LUT
- Strobe output
- Rolling shutter CMOS
- Defect pixel correction
- High sensitivity and low noise
- Analog gain/digital gain/offset control
- Real-time temperature monitoring
- Electronic refrigeration (20°C below environment temperature)

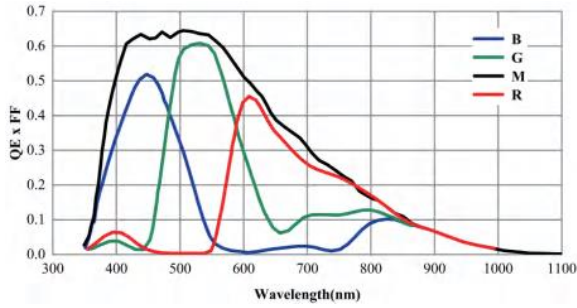


STTS61M2CL-13M/C

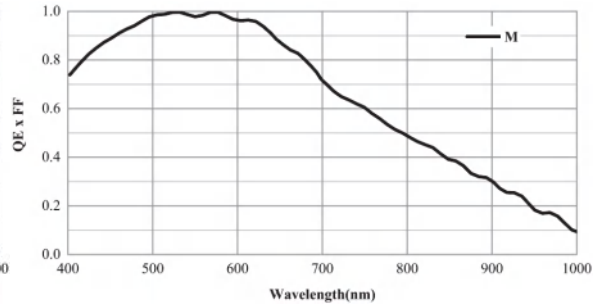
Application

- High precision machinery measurements
- Flat panel display inspection
- Semiconductor inspection
- Electronic inspection
- Astronomical observation
- Scientific experiment

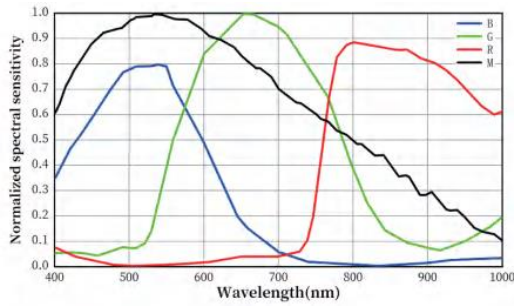
Spectral response



STTS65MU30-5M/C

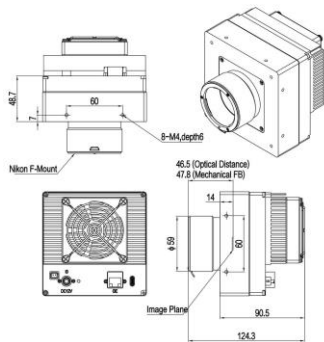


STTS46MGV-5M

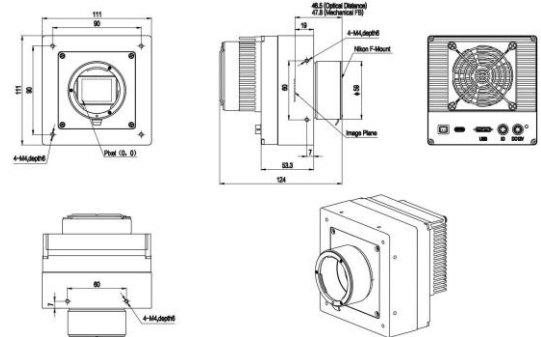


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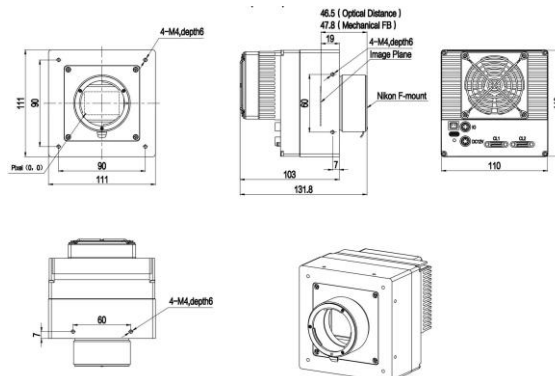
Drawings



STTS46MGV-5M



STTS65MU30-5M/C



STTS61M2CL-13M/C

Camera With Resolution between 10-11k

Feature

STTS71MCL-4M

- Strobe output
- LUT
- Gain/offset control
- Rolling shutter CMOS
- Dark image correcton
- High sensitivity and low noise
- Electronic refrigeration(25°C below environment temperature)



STTS71MCL-4M

STTS101M2CL-8M/C

- LUT
- Camera link interface
- Gain/offset control
- Rolling shutter CMOS
- Dark image correction
- High sensitivity and low noise
- Electronic refrigeration(20°C below environment temperature)



STTS101M2CL-8M/C

STTS101M2CXP-8M/C

- Rolling shutter CMOS
- ROI/auto white balance
- High sensitivity and low noise
- Rich exposure control modes
- Defect pixel correction/FFC
- Analog gain/digital gain/offset control
- Electronic refrigeration(20°C below environment temperature)

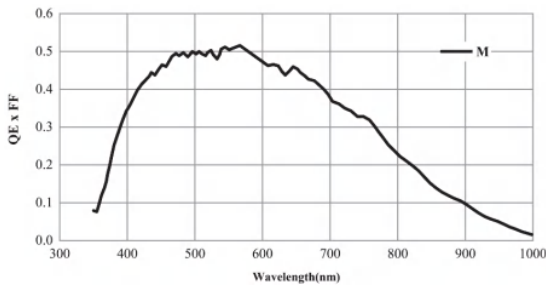


STTS101M2CXP-8M/C

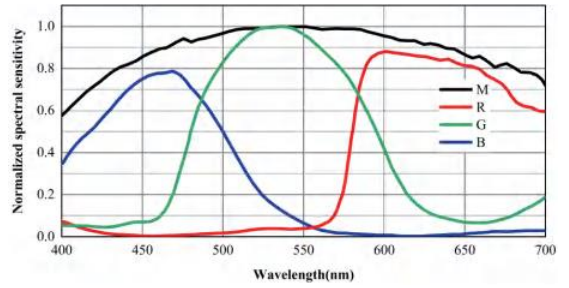
Application

- High precision machinery measurements
- Flat panel display inspection
- Semiconductor inspection
- Electronic inspection
- Astronomical observation
- Scientific experiment

Spectral response

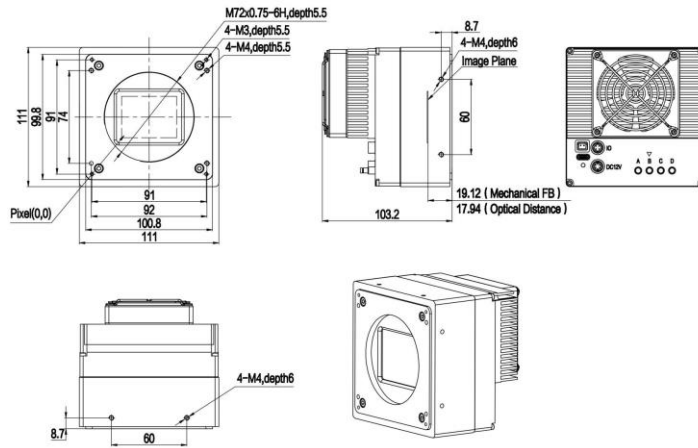


STTS71MCL-4M

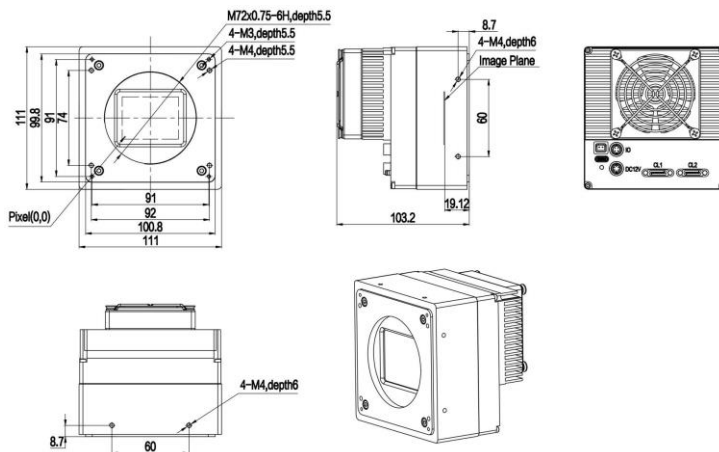


STTS101M2CL-8M/C
STTS101M2CXP-8M/C

Drawings



STTS101M2CXP-8M/C



STTS101M2CL-8M/C

Camera With Resolution Between 13-14K

Feature

STTS127MSCXP10-22M/C

- Rolling shutter CMOS
- ROI/auto white balance
- High sensitivity and low noise
- Defect pixel correction/FFC
- Analog gain/digital gain/offset control
- Compatible with CoaXPress 2.0
- Electronic refrigeration(12°C below environment temperature)



STTS127MSCXP10-22M/C

STTS151M2CXP-6M/C

- Rolling shutter CMOS
- ROI/auto white balance
- Defect pixel correction/FFC
- Rich exposure control modes
- High sensitivity and low noise
- Compatible coaxpress .1.1 protocol
- Electronic refrigeration(20°C below environment temperature)
- Analog gain/digital gain/offset control



STTS151M2CXP-6M/C

STTS151M2CL-5M/C

- LUT/FFC
- Rolling shutter CMOS
- Strobe signal output
- Gain/offset control
- Temperature monitor
- Dark image correction
- Electronic refrigeration(20°C below environment temperature)

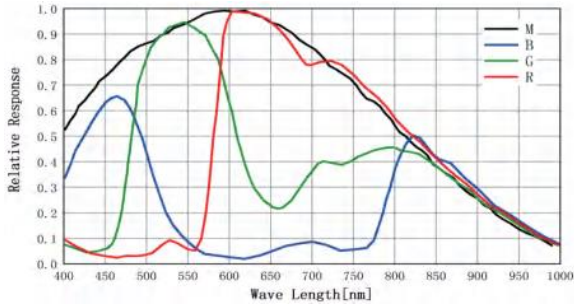


STTS151M2CL-5M/C

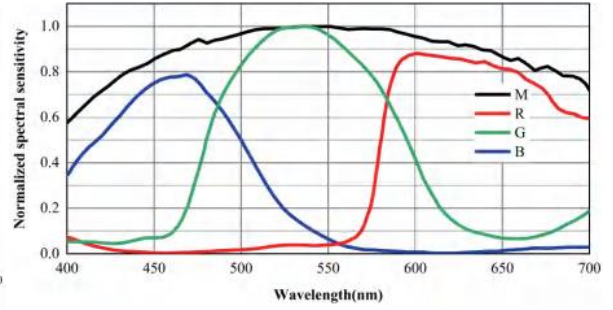
Application

- High precision machinery measurements
- Flat panel display inspection
- Semiconductor inspection
- Electronic inspection
- Astronomical observation
- Scientific experiment

Spectral response

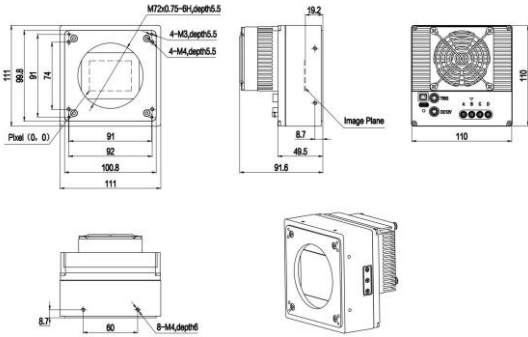


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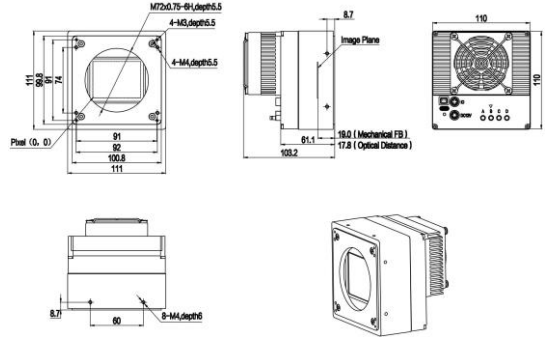


STTS151M2CXP-6M/C
STTS151M2CL-5M/C

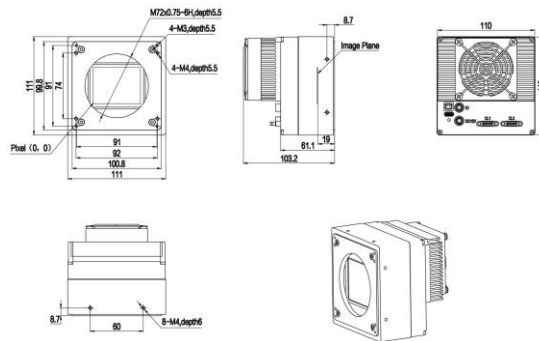
Drawings



STTS127MSCXP10-22M/C



STTS151M2CXP-6M/C



STTS151M2CL-5M/C

Camera With 40K Resolution

Feature

STTS604MCXP-6M/C

- Rolling shutter CMOS
- ROI/auto white balance
- Defect pixel correction/FFC
- High sensitivity and low noise
- Compatible coaxpress .1.1 protocol
- Electronic refrigeration(20°C below environment temperature)
- Analog gain/digital gain/offset control
- Pixel shift available: distance and direct setting

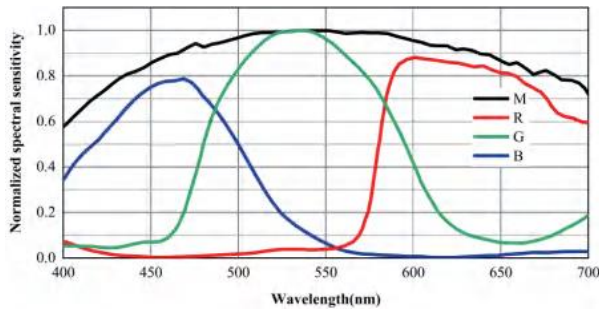


STTS604MCXP-6M/C

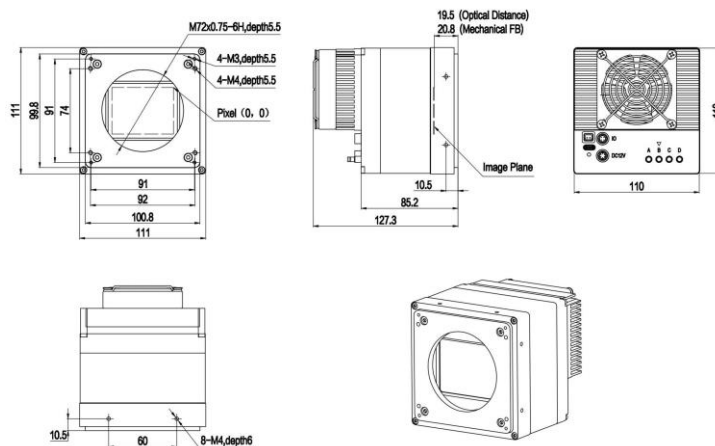
Application

- High precision machinery measurements
- Flat panel display inspection
- Semiconductor inspection
- Electronic inspection
- Astronomical observation
- Scientific experiment

Spectral response



Drawings



Specifications

Model	STTS46MGV-5M	STTS65MU30-5M/C	STTS61M2CL-13M/C	STTS71MCL-4M	STTS101M2CP-8M/C	STTS101M2CL-8M/C	STTS127M5CXP10-22M/C	STTS151M2CL-5M/C	STTS151M2CP-8M/C	STTS604MCP-8M/C
Sensor	Rolling shutter CMOS									
Image Mode	Mono	Color/Mono	Color/Mono	Mono	Color/Mono	Color/Mono	Color/Mono	Color/Mono	Color/Mono	Color/Mono
Super Resolution Mode	/	/	/	/	/	/	/	/	/	4x/9x/real color
Optical Size	22.91 mm	37.36 mm	43.24 mm	38.01 mm	54.78 mm	54.78 mm	56.85 mm	66.69 mm	66.69 mm	66.69 mm
Resolution	8192*5556	9344 * 7000	9568 *6380	10000*7096	11648 *8742	11656*8742	13440 * 9536	14192*10640	8bit:14192*10640, 10/12bit:14144*10640	42576 * 31920 (1359M,maximum resolution)
Pixel Size	2.315µm*2.315µm	3.2µm * 3.2µm	3.76µm * 3.76µm	3.1µm*3.1µm	3.76µm* 3.76µm	3.76µm* 3.76µm	3.45µm*3.45µm	3.76µm* 3.76µm	3.76µm * 3.76µm	3.76µm* 3.76µm
Max Frame Rate	2.3fps(5fps with SAccel™)	5 fps	13.06 fps	4.2 fps	8.5fps@8/10bit, 7.83fps@12bit	7.86 fps	22.14fps@8bit, 19.82fps@10bit, 12.98fps@12bit	5.28 fps	6.02fps@8/10bit, 5.20fps@12bit	1.5fps@4x resolution
Bit Depth	8 bit	8/12 bit	8/10/12 bit	8/10/12 bit	8/10/12 bit	8/10/12 bit	8/10/12 bit	8/10/12 bit	8/10/12 bit	8/10/12 bit
Dynamic Range	≥53.5 dB	≥66 dB	≥75.8 dB	≥57.4 dB	≥76 dB	≥76 dB	≥71 dB	≥78 dB	≥76 dB	≥76 dB
Data Rate	110 MB/s	350 MB/s	830 MB/s	447 MB/s (8bit)	1190 MB/s	800 MB/s	2837 MB/s(8 bit)	797 MB/s	1170 MB/s	1120 MB/s
Trigger Mode	Free run/external trigger									
Trigger Source	External IO	Software trigger/ external IO	Camera link CC/ external IO	Camera link CC/ external IO	CXP trigger/ external IO	Camera link CC/ external IO	CXP trigger/ external IO	Camera link CC/ external IO	CXP trigger/ external IO	CXP trigger/ external IO
Exposure Control	Program (pulse Width)									
Exposure Time	1406µs-10s	22µs - 10s (Step: 1µs)	120µs-60s (Step:4tap/60µs,8tap/30s, 10tap/23.75µs)	95µs-8.34s(Step:1µs)	8/10bit:54µs- 60s(Step:27µs), 12bit:29µs-6s(Step:29µs)	73µs-60s (Step:4tap:72µs, 8tap:36µs,10tap:29µs)	8bit:225.163µs- 60s(Step:4.453µs), 10bit: 250.643µs-60s (Step:4.973µs), 12bit:350.150µs- 60s (Step:7.627µs)	88µs- 60s(Step:4tap/88µs,8tap/ 44µs,10tap/36µs)	8/10bit:93µs- 300s(Step:31µs);12bit:72 µs-300s(Step:36µs)	8/10bit:93µs- 60s(Step:31µs);12bit:72 µs-60s(Step:36µs)
Analog Gain	0-12dB	0-12dB	0-18dB	0-12dB	0-18dB	0-18dB	0-36dB	0-18dB	0-18dB	0-18dB
Digital Gain	0.01-8.00x	0.01-8.00x	0.01-8.00x	0.01-8.00x	0.01-8.00x	0.01-8.00x	0.004-8.000x	0.01-8.00x	0.01-8.00x	0.01-8.00x
Lens Interface	F mount/EF mount	M58 / F mount	F mount	F mount	M72 * 0.75	M72*0.75	M72* 0.75	M72 * 0.75	M72* 0.75	M72* 0.75
Data Interface	GigE Vision	USB3.0	Camera Link	Camera Link	CoaXPress	Camera Link	CoaXPress10	Camera Link	CoaXPress	CoaXPress
Power Interface	Hirose HR10A-7R-6P(B)(Male)									
Power Supply	DC12V±10% 3A	DC12V±10% 5A	DC12V±10% 5A	DC12V±10% 4A	DC12V±10% 5A	DC12V±10% 5A	DC12V±10% 5A	DC12V±10% 5A	DC12V±10% 5A	DC12V±10% 5A
Power Consumption	TEC on:27.1W; TEC off:10.9W	50.0 W	50.0 W	33.0 W	50.0 W	50.0 W	TEC on:48.0W;TEC off:23.0W	50.0 W	50.0 W	TEC on:50.0W;TEC off:17.0W
Cooling Mode	Electronic refrigeration(STTS71MCL-4M :25°C below environment temperature, STTS127M5CXP10-22M/C:12°C below environment temperature,Others:20°C below environment temperature)/fan refrigeration									
Dimensions (W*H*D)(mm)	111x111x90.5	111x111 x124	111x111x103	105x105x81 (without adapter)	111x111x103.2	111x111x104.9	111x111x91.6	111x111x103.2	111x111x103.2	111x111x127.3
Operating Temperature	0-50°C									
Storage Temperature	-20-75°C									