GigaSens HS 2.0 10GigE HS 2-500

A best-in-class 2.0 MP global-shutter sensor on 10 GigE Vision.
536 fps at full HD, straight into the host - no frame grabber.

536 fps	10 GigE	4/3" LUX19HS	225,000 fps	100 m
1920 X 1080, FULL RES	GIGE VISION, SFP+ FIBER OR COPPER	GLOBAL SHUTTER 10 µm PIXELS	MAXIMUM, 128 X 4	CAT6A CABLE RUNS

WHY THE HS 2.0 10GIGE

- **Best-in-class 2.0 MP sensor.** The 4/3" Luxima LUX19HS with 10 µm pixels is 3x larger and 3x more sensitive than 2/3" sensors (20 V/lux*s at 550 nm), for clean images at short exposures.
- **Full HD at 536 fps.** Global shutter at 1920 x 1080 with 8-bit pixels. Smaller regions of interest run faster: 3,570 fps at 640 x 480, 18,177 fps at 128 x 128, up to 225,000 fps.
- **No frame grabber.** 10 GigE Vision over SFP+, copper or fiber. CAT6a runs to 100 m on low-cost Ethernet cabling, switches and network interfaces, saving over $2,500 against a frame-grabber setup.
- **Standard control.** GigE Vision and GenICam compliant, so standard acquisition software finds and configures the camera.
- **Trigger and I/O built in.** Trigger in and strobe out, three general-purpose I/O lines, and triggering up to 300 kHz.

FRAME RATES (8-BIT, 10 GIGE)

Region of interest	Frame rate	Region of interest	Frame rate
1920 x 1080	536 fps	**128 x 128**	18,177 fps
1280 x 1024	852 fps	**1920 x 16**	26,400 fps
1024 x 768	1,421 fps	**1920 x 8**	41,400 fps
640 x 480	3,570 fps	**128 x 8**	170,578 fps
		Maximum (128 x 4)	225,000 fps

Maximum streaming rates on standard firmware. The host network interface and PCIe bandwidth must keep up with the data rate.

Need processing in the camera? The GigaSens CV 2.0 10GigE pairs the same sensor with a user-programmable FPGA and on-board DRAM - program it yourself with the GigaSens HDK, or let Concurrent EDA build it for you.

GigaSens

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SPECIFICATIONS

Resolution	2 Mpix, 1920 x 1080
Sensor	Luxima LUX19HS, CMOS global shutter
Sensor format	4/3", 19.20 x 10.80 mm active area
Pixel size	10 x 10 µm
Sensitivity (mono)	20 V/lux*s @ 550 nm
Pixel data width	8 bit
Dynamic range	60 dB
Shutter time	2 µs - 1 s, 1 µs steps
Frame rate (8 bit)	**536 fps** (full frame)
Interface	10 GigE Vision (SFP+), fiber or copper
Max. trigger frequency	300 kHz
I/O	Trigger in / strobe out; 3 GPIO
Mount	C-Mount / F-Mount
Dimensions	80 x 80 x 53 mm (W x H x L, without mount)
Weight	450 g (C-Mount)
Power	13 W, 12 - 24 VDC
Body temperature	+5 °C to +50 °C
Shock / vibration	70 g / 7 grms
Conformity	GenICam / CE / RoHS

MODELS AND ACCESSORIES

Part no.	Description
HS2-M-500-10G	Monochrome camera
HS2-C-500-10G	Color camera
XIO-PS	Power supply with data I/O
X-PS	Power supply

TYPICAL APPLICATIONS

- Biomechanics, sports and motion analysis
- Machine vision inspection and process monitoring
- Food and beverage production lines
- Scientific research and entertainment effects