hr51CCX

HR CoaXPress

The interface standard CoaXPress was developed to meet the need for higher bandwidth generated by recently launched sensors. In particular the latest high resolution CMOS sensors from Sony and ON Semi are capable of extremely high frame rates. CoaXPress therefore is the first choice for applications where speed is of prime importance.

Technical Highlights

> ROI, LUT, binning, offset, gamma
> Lens shading correction
> Integrated multi channel LED strobe controller
> CoaXPress (4 x 6.25 Gbit/s)
> Industrial TTL-24V I/O Interface with SafeTrigger, programmable logic, sequencer and timers, RS232
> Power over CXP

HR Series hr51CCX

Resolution [MP]	51 MP
Resolution (h x v)	8416 x 6032 px
Frame rate (max.)	30 fps
Chroma	color
Interface	4 CXP-6 Connections

Sensor

Sensor	GMAX4651
Manufacturer	Gpixel
Sensor type	Area CMOS
Shutter type	global shutter
Sensor size (h x v)	38.71 x 27.75 mm
Optical diagonal	47.63 mm
Sensor format	35mm Full Frame
Pixel size (h x v)	4.6 x 4.6 μm

Camera

Exposure modes	MANUAL;AUTO
Trigger modes	INTERNAL;SOFTWARE;EXTERNAL
Exposure time (min)	80 μs
Exposure time (max)	1 sec
Pixel format / max	bayer8, bayer12 / 12 bit
Gain modes	manual, auto
S/N ratio (max)	42.6 dB (dep. on environment)
Dynamic range (max)	65 dB (dep. on environment)
Internal memory	512 MB SDRAM, 160 MB Flash

Feature Set

Manual white balance	yes
Automatic white balance	yes
AOI	yes
LUT	yes
Offset	yes
Binning	yes
Image flip	yes
Sequencer	yes

Housing

Lens mount	M58x0.75
Dimensions (w x h x d)	70 x 70 x 75.9 mm
Weight	380 g
Ambient temperature	-10 to 45 °C
Ambient humidity	10 to 90 % (non-condensing)
Protection class	IP30

I/O-Interfaces

Input up to 24V	2 x
Input OPTO	1 x
Output open drain	4 x
I/O RS-232	1 x

Dimensions [mm]

front

back

cross section

right side

top

bottom

3D
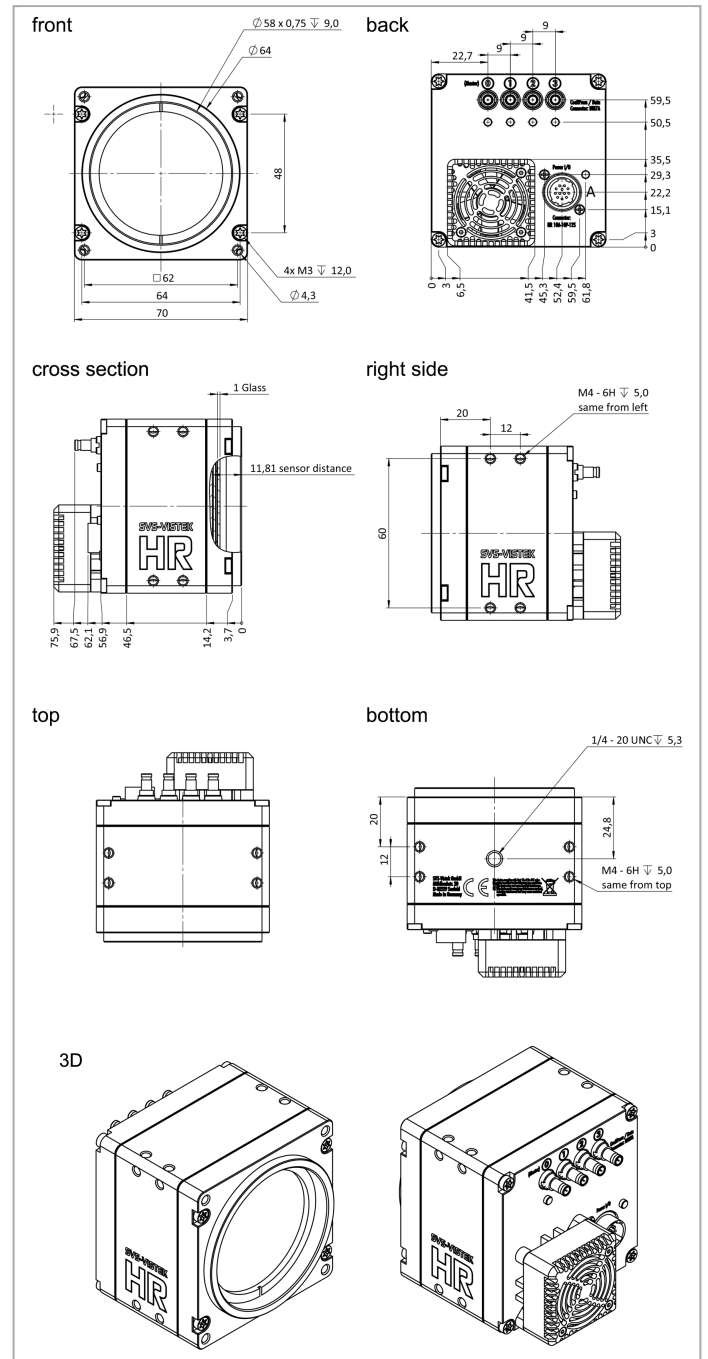
Pinout Mating Connector

Hirose 12 Pin

1	VIN−	(GND)	7	OUT 1	(open drain)
2	VIN+	(10 V to 25 V DC)	8	OUT 2	(open drain)
3	IN 4	(RXD RS232)	9	IN 3 +	(opto In+)
4	OUT 4	(TXD RS232)	10	IN 3 −	(opto In −)
5	IN 1	(0 - 24V)	11	OUT 3	(open drain)
6	IN 2	(0 - 24V)	12	OUT 0	(open drain)

Spectral Response *

Power supply	10 to 25 V (DC)
Power consumption	13 W (dep. on operating mode)

Color
(not excluded: lens- and light source characteristics)
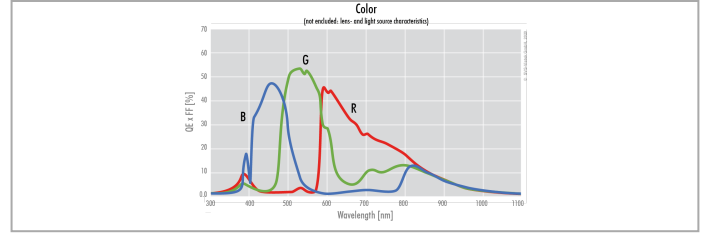
* Sensor data — excludes camera cover- or IR-cut filter characteristics