KAYA INSTRUMENTS

Iron SDI 462

Iron SDI

Small Form Factor, Ruggedized Camera

Innovative Approach

The ***Iron SDI 462*** is an ultra-thin, low-cost, low-power rolling shutter CMOS camera with an SDI interface which supports high quality video at rates up to 60 fps.

Intelligent Design

Our camera incorporates high sensitivity Sony rolling shutter sensor with a 2.9µm pixel size. With an extremely compact outline the ***Iron*** can be fitted into tight spaces. Superior sensor performance allows very low light vision capabilities.

Applications:

- Perimeter vision
- Low light surveillance
- Special Effects
- Virtual Reality
- 3D

Key Features:

- Maximal frame rate of up to 60 fps
- Up to 2.2W power at full rate
- Full image processing feature set
- Up to HD-SDI interface
- PAL/NTSC output
- M12 lens mount
- Rugged industrial grade
- Full built-in self-test (BIT)
- Full built-in voltage testing
- Customization as per user requirements
- Board level and packaged camera options
- Miniature MCX connector for SDI output

Specifications

Feature	Description
Pixel Size	2.9 µm x 2.9 µm
Optical format	1/2.8
Sensor	Sony IMX 462 Rolling shutter sensor
Video Output	1080/30p, 1080/25p, 720/50p , 720/60p, NTSC, PAL over MCX connector
Output Interface	Single-Link HD-SDI
Output Format	10-bit 4:2:2(Y'Cb'Cr')
Electronic Shutter	Rolling shutter
Monochrome / Color	Color
Dynamic Range	> 72dB
Signal-to-Noise Ratio (SNR max)	> 42 dB
Shortest Exposure	10 µs
Exposure Control	Automatic Exposure/Gain, manual Exposure/Gain
Image Enhancement	▪ Defect pixel correction ▪ Auto/Manual black level ▪ Image flip ▪ Defog ▪ Color correction matrix ▪ Operational Time Counter ▪ Auto/Manual White balance ▪ LUT ▪ RGB offsets, saturation control
Camera Configuration	RS232 direct ASCII protocol
Synchronization	Optional Tri-level sync input

Mechanical & Electrical

Feature	Description
Dimensions (including lens mount)	43.5 mm x 44 mm x 34.82 mm (Height x Width x Depth)
Lens Mount	M12
Weight (without lens)	~50g
Power Input	5-28V
Power Consumption	1.77W @ 12V DC, 60°C ambient temperature, SDI and Analog outputs are active 2.2W @ 24V DC, 80°C ambient temperature, SDI and Analog outputs are active
Operating Temperature	-40°C to 80°C, 20-85% humidity (non-condensing)
Storage Temperature	-40°C to 85°C, 20-85% humidity (non-condensing)

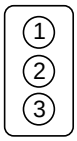
Iron SDI Supported Video Modes

Mode	Video Standard	Supported Resolution	Supported FPS
HD-SDI	ST 292 (ST 274)	720p 10-bit 4:2:2/RAW	50,60
		1080p 10-bit 4:2:2/RAW	25, 30
CVBS video output	PAL		25
	NTSC		30

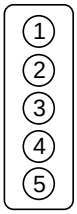
* KAYA Instruments reserves the right to update the data sheet from time to time without prior notice.

General Purpose Input Output

The Iron SDI 462 uses 2 GPIO connectors. Connector pin-outs and manufacture's PN are as listed:



1. Video Out
2. GND
3. VCC



1. GND
2. RS232 TX
3. RS232 RX
4. Tri Level Sync
5. Strobe Out

Product Name	Product Part Number
Molex 3P PicoBlade PCB Header	0533980367
Molex 5P PicoBlade PCB Header	533980567

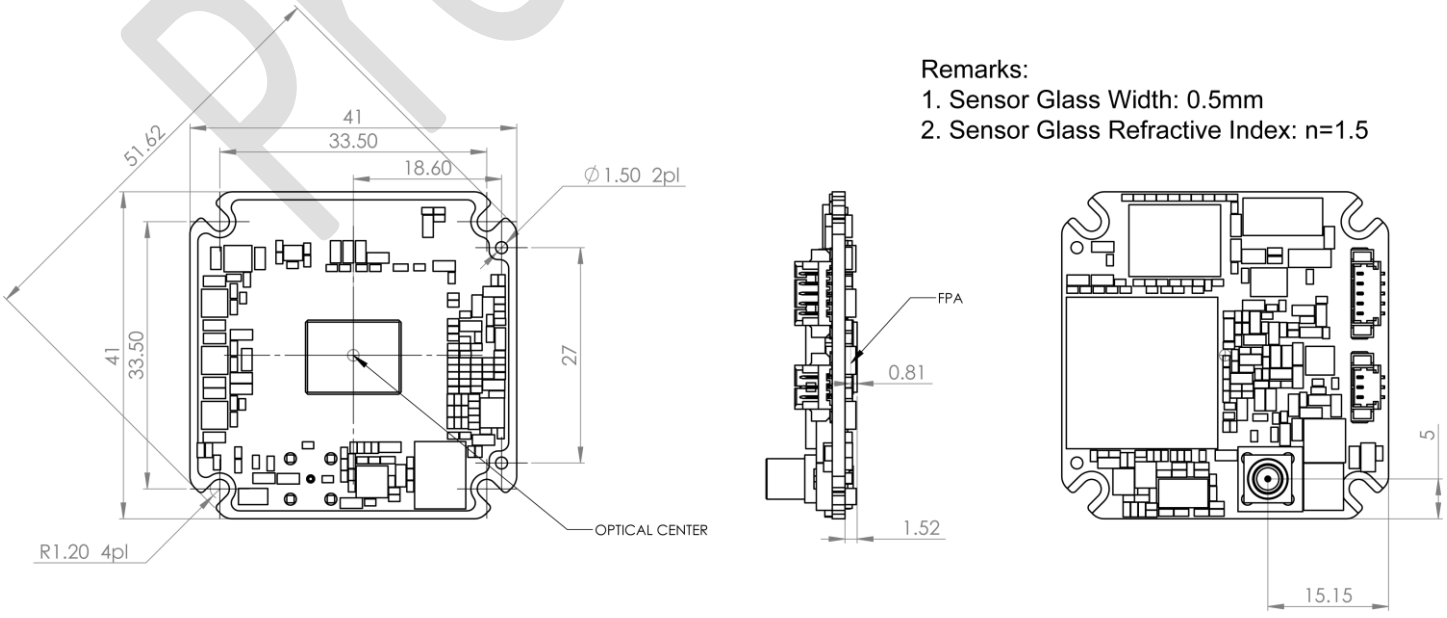
Ordering Information

The Iron SDI 462 is available in two different configurations, with the PN listed under the following product number:

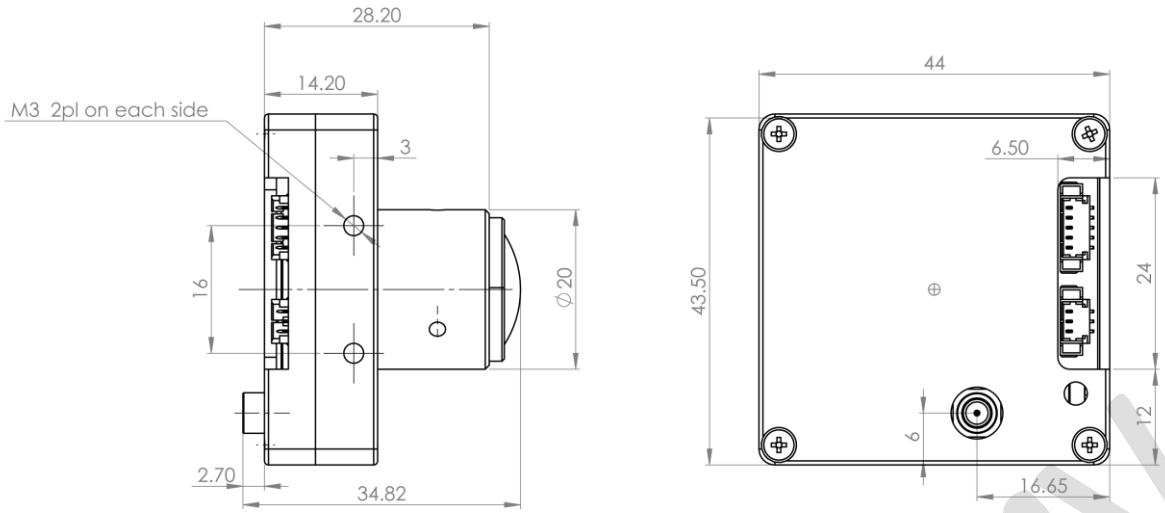
Please contact a sales representative over at **info@skyblue.de** for a full list of peripherals including cables and frame grabbers.

Mechanical Drawings

Open frame Camera:



Enclosed camera:



Contact Us

Please feel free to contact our team with any question or further inquiry at **info@skyblue.de** – we will be happy to provide assistance and consultation.

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