Iron

Small Form Factor Ruggedized Camera

Innovative Approach

Iron is high speed low-cost low-power global shutter CMOS camera with CoaXPress 12G, SDI 12G or Fiber interfaces which supports 3.19 MP high quality video at rates up to 216.2 fps.

Intelligent Design

Camera incorporates Sony Pregius IMX252 global shutter sensor with 3.45µm pixel size. With compact outline and low power design this camera can be fitted into tight spaces. Superior sensor performance allows very low light vision capabilities.

Key Features:

- 3.19 Megapixel up to 216.2 fps
- Monochrome and Color models
- Up to 3W power at full rate
- Full image processing feature set
- Pan/Tilt alignment of the sensor
- 6.25 Gbps CoaXPress 1.2
- 12 Gbps CoaXPress 2.0
- 10 Gbps fiber optic interface
- 12 Gbps SDI
- C mount / CS mount
- Full EMVA1288 report
- Full built-in self-test (BIT)
- Full built-in voltage testing
- Customization as per user requirements

Applications:

- Perimeter vision
- Military/Defense systems
- 3D
- Low light surveillance
- Special Effects
- VR

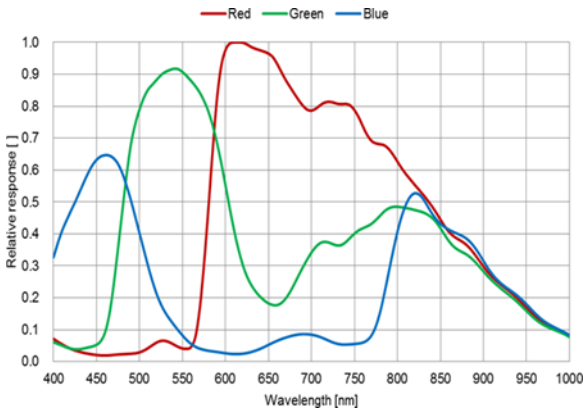
Datasheet | **Iron**

Technical Data (More detailed specifications are available on request)

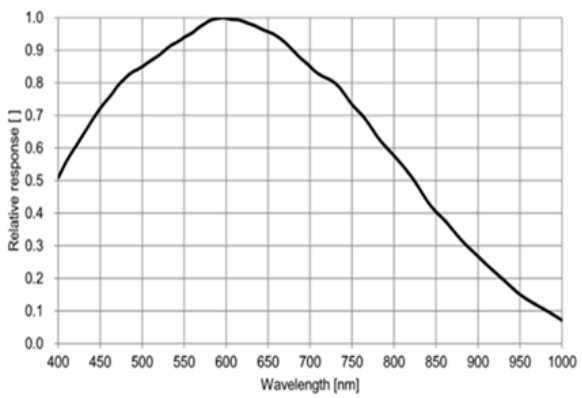
Pixel size	3.45 µm
Resolution	2048 (H) x 1536 (V)
Sensor size	8.9 mm
Sensor	Sony Pregius IMX252
Video output	CoaXPress up to 12 Gbps, SDI 12G, Fiber 10Gbps
Frame rate	216.2 fps @8bit resolution 191.5 fps @10bit resolution 118.5 fps @ 12bit resolution
Sensor positioning	Full pan/tilt calibration for optical axes
Dimensions (open-frame)	41x41x24 mm (including lens mount)
Dimensions (closed-frame)	43x43x24 mm (including lens mount)
Electronic shutter	Global shutter
Interface Connector	Micro-BNC
Temporal Noise	2.2 e- @25C
Full Well Charge	9829 e-
Dynamic range	70.8dB at 520 nm
Signal-to-Noise Ratio (SNR max)	40.23 dB at 520 nm
Quantum Efficiency (QE) X FF	63% @525nm
Shortest Exposure	10us
Image acquisition	Continuous / Triggered
Output resolution	8, 10 or 12 bit
Monochrome/ color	Monochrome / Color
Power input	PoCXP full support (7-28V with external power option)
Weight (without lens)	~50g
Power consumption	<3W @ 24V DC
Operating temperature	-30 C to 70 C
Lens mount	C-mount, CS-mount
Shock/Vibration	MIL 810
Ingress protection	IP67 (with protective lens tube)
On camera processing	Defect pixel correction
	White balance
	ROI
	Image flip
	Frame counter
	Flat field / Fixed patter noise correction
	LUT
	Gain (Analog / Digital)
	Auto black level

Absolute Quantum Efficiency

Color Spectral Response Sony IMX 252



Mono Spectral Response Sony IMX 252



Compatibility

Supported vision standard

CoaXPress

10GiGE VISION GEN TL

GEN<i>CAM TRANSPORT LAYER

Supported operating systems

Windows Linux

Supported vision libraries

HALCON a product of MVTec

LabVIEW

Compatible with most popular machine vision libraries

KAYA Instrument strives to create and maintain compatibility and interfaces for the most common and advanced vision image processing libraries and applications. Major support is available for **MVTec Halcon, National Instruments LabVIEW** and **MathWorksMATLAB**. Please check our KAYA website for an up-to-date list of other supported libraries and software package.

Contact

Get in touch with our teams at **info@kayainstruments.com**.

We will be glad to assist and consult you regarding our products.
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