



Iron 305

# 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 10G interfaces which supports 4K (8.85 MP) high quality video at rates up to 63.7 fps.

### Intelligent Design

Camera incorporates Sony Pregius IMX305 global shutter sensor with  $3.45\mu\text{m}$  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:

- 8.85 Megapixel up to 63.7 fps
- 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:

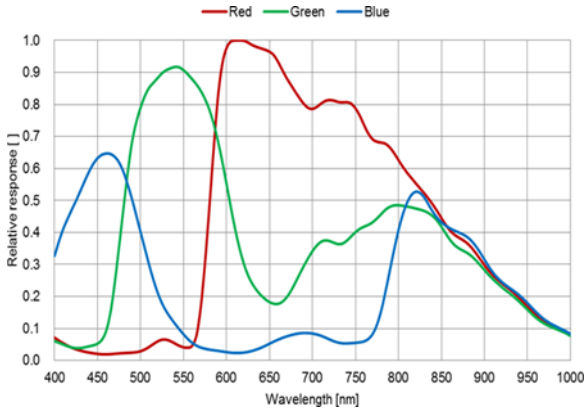
- Perimeter vision
- Military/Defense systems
- 3D
- Low light surveillance
- Special Effects
- VR

**Technical Data** (More detailed specifications are available on request)

<b>Pixel size</b>	3.45 µm
<b>Resolution</b>	4096 (H) x 2160 (V)
<b>Sensor size</b>	16.1 mm
<b>Sensor</b>	Sony Pregius IMX305
<b>Video output</b>	CoaXPress up to 12 Gbps, SDI 12G, Fiber 10Gbps
<b>Frame rate</b>	63.7 fps @ 12bit resolution
<b>Sensor positioning</b>	Full pan/tilt calibration for optical axes
<b>Dimensions (open-frame)</b>	41x41x24 mm (including lens mount)
<b>Dimensions (closed-frame)</b>	43x43x24 mm (including lens mount)
<b>Electronic shutter</b>	Global shutter
<b>Interface Connector</b>	Micro-BNC
<b>Temporal Noise</b>	2 e <sup>-</sup> @25C
<b>Full Well Charge</b>	10555 e
<b>Dynamic range</b>	71dB
<b>Signal-to-Noise Ratio (SNR max)</b>	40.23 dB
<b>Quantum Efficiency (QE) X FF</b>	72% @525nm
<b>Shortest Exposure</b>	10us
<b>Image acquisition</b>	Continuous / Triggered
<b>Output resolution</b>	8, 10 or 12 bit
<b>Monochrome/ color</b>	Color
<b>Power input</b>	PoCXP full support (7-28V with external power option)
<b>Weight (without lens)</b>	<100g
<b>Power consumption</b>	<3W @ 24V DC
<b>Operating temperature</b>	-30 C to 70 C
<b>Lens mount</b>	C-mount, CS-mount
<b>Shock/Vibration</b>	MIL 810
<b>Ingress protection</b>	IP67 (with protective lens tube)
<b>On camera processing</b>	Defect pixel correction
	White balance
	ROI
	Image flip
	Frame counter
	Flat field / Fixed patten noise correction
	LUT
	Gain (Analog / Digital)
Auto black level	

# Absolute Quantum Efficiency

Color Spectral Response Sony IMX 305



## Compatibility

Supported vision standard



Supported operating systems



Supported vision libraries



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.

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