



JetCam 25

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High Quality, POV Camera

Innovative Approach

JetCam 25 is a low-cost, global shutter CMOS camera with a CLHS interface which supports 25 Megapixels (5120x5120) high quality video at rates up to 80fps.

Intelligent Design

The Camera incorporates a 4.5 μm global shutter sensor and a direct lens control (optional) without need of external devices. With compact outline and low power design this camera can be fitted into tight spaces. The 3G SDI output enables connection of local monitor as viewfinder or an installation aid.

Applications:

- Slow Motion
- 3D Applications
- Sports Broadcasting
- Sport analytics
- Special effects

Key Features:

- 25 Megapixel up to 80 fps
 - 40 Gbps fiber optic interface
 - 25 Gbps CoaXPress
 - Up to 10 km cable length
 - 3G SDI output for local monitoring
 - Wide variety of supported lens mounts
 - B4 2/3" mount with integrated lens control*
 - Compatible with KAYA Vision Point™ SDK
 - Compatible with KAYA Komodo™ Frame Grabbers
 - Customization as per user requirements
- * Lens control is optional

Technical Data

| Feature | Description |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pixel Size | 4.5 μm x 4.5 μm |
| Resolution | 5120 (H) x 5120 (V) |
| Optical Format | APS-H |
| Sensor | PYTHON 25K |
| Video Output | CLHS up to 40 Gbps for QSFP+ CLHS up to 20 Gbps for Dual SFP+ CoaXPress up to 25Gbps (optional) 10GiGE up to 10Gbps (optional) |
| Complimentary Video Output | 3G SDI |
| Output Resolution | 8 or 10 bit |
| Max Frame Rate | 80 fps @ full resolution |
| Image Acquisition | Continuous / Triggered |
| Electronic Shutter | Global shutter |
| Monochrome/ Color | Monochrome / Color |
| Responsivity | 5.8 V/Lux's @ 550nm |
| Conversion Gain | 0.085 LSB10/e-, 130 V/e- |
| Parasitic Light Sensitivity (PLS) | < 1/5000 |
| Pixel FPN | < 0.9 LSB10 |
| MTF | 68% @ 535 nm – X-dir & Y-dir |
| Temporal Noise | < 14 e- (Non-Zero ROT, 1x gain) |
| Full Well Charge | 8000 e- |
| Dynamic Range | 54.63 dB @ 520 nm |
| Signal-to-Noise Ratio (SNR Max) | 39.28 dB @ 520 nm |
| Quantum Efficiency (QE) X FF | 43% @ 520 nm |
| Dark signal | 3.9 e-/s, 0.33 LSB10/s @ 20°C |
| PSNL | 91 LSB10/s, 1100 e-/s (30ms time intervals) @ 20°C |
| PRNU | < 4.9% |
| Shortest Exposure | 1 μs |
| Programmable I/O | 2x RS232 (RS485 optional) |
| Windowing | 32 Randomly programmable windows. Normal, sub-sampled and binned readout modes |
| On Camera Processing | <ul style="list-style-type: none"> ▪ Defect pixel correction ▪ ROI ▪ Frame counter ▪ LUT ▪ Auto black level ▪ Auto/Manual White balance ▪ Image flip ▪ Flat field correction ▪ Gain (Analog/Digital) ▪ Nonvolatile storage |
| Lens Control (Optional) | <ul style="list-style-type: none"> ▪ Fujinon lens control ▪ Custom lens control through RS232/RS485 ▪ Birger lens control |

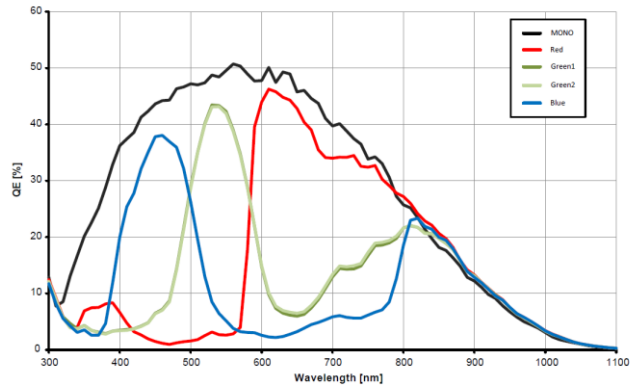
Mechanical & Electrical

| Feature | Description |
|-----------------------------------|-----------------------------------------------------------------|
| Dimensions (including lens mount) | 61.8 mm x 62.4 mm x 157 mm (Height x Width x Depth) |
| Lens Mount | F-Mount, B4, C-mount, Canon EF-mount, Birger EF-mount, PL mount |
| Weight (without Lens) | ~1260g |
| Power Input | 12 VDC (optional 24 VDC) |
| Power Consumption | < 18W |
| Operating Temperature | -10 °C to 50 °C, 10-90% humidity (non-condensing) |
| Storage Temperature | -10 °C to 55 °C, 10-90% humidity (non-condensing) |

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

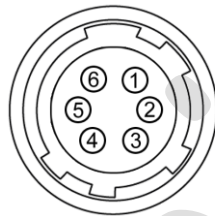
Quantum Efficiency

Quantum Efficiency, Mono & Color



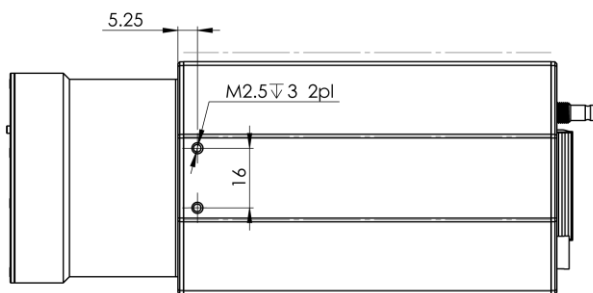
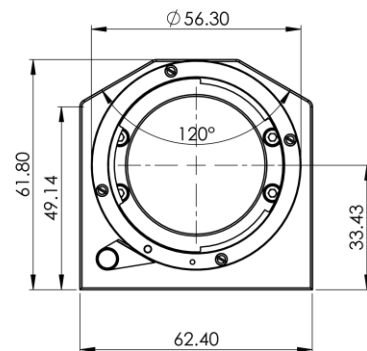
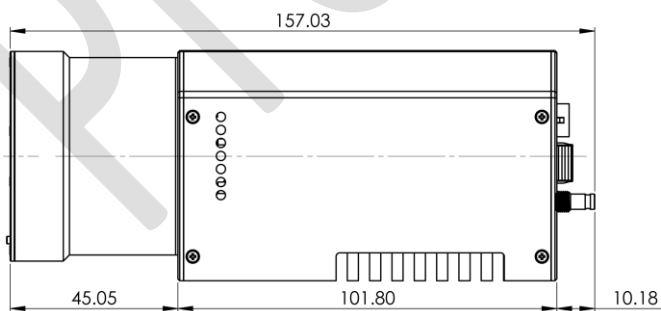
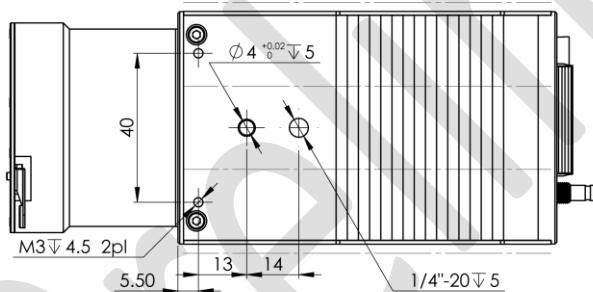
General Purpose Input Output

GPIO Pinout – 6 Pin Connector

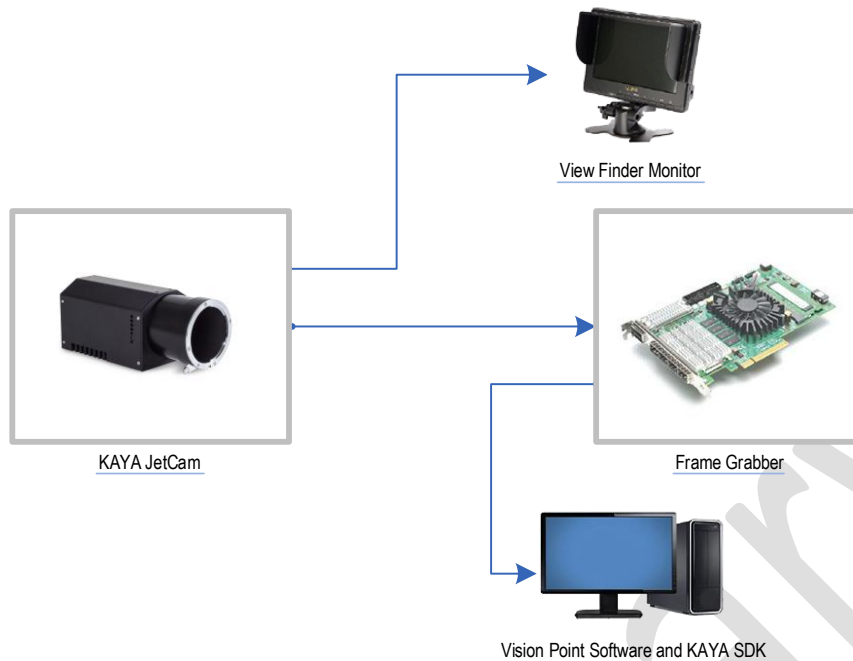


- 1. Ground
- 2. RS232 TX1
- 3. R232 RX1
- 4. R232 TX2
- 5. RS232 RX2
- 6. 12V (Output)

Mechanical Drawings



KAYA High Speed Camera Workflow



Compatibility

KAYA Instruments creates and maintains 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 **MathWorks' MATLAB**.

❖ Supported vision standards:



❖ Supported vision libraries:



❖ Supported operating systems:



Please check our website for an up-to-date list of other supported libraries and software package

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