

Datasheet Zinc3265 PCIe

Zinc3265 PCIe

65.4 Megapixel, Global shutter, Small, Rugged, Low Power with Large Feature Set

KAYA Instruments is a global leader in commercial, industrial and rugged cameras and imaging system solutions, providing high-performance products for over 15 years. Founded in 2008 by industry experts, KAYA designs, manufactures and supports both COTS and custom products for high-performance imaging needs.

KAYA cameras leverage cutting-edge technology to provide exceptional image quality in the smallest form factors. Our advanced camera lineup features built-in image pre-processing, enhancement, and correction, all while maintaining industry-leading power efficiency. Designed for reliability, our SWaP-C (Size, Weight, Power, and Cost) optimized cameras offer the highest durability, operating in extreme environments with the widest temperature ranges, superior shock and vibration resistance, and extended MTBF. KAYA cameras are the ultimate choice for high-performance imaging systems across commercial, industrial, medical, defense, aerospace, and scientific applications.

Key Features:

- 65.4 Megapixel up to 50.0 fps
- Monochrome and Color sensor variation
- Up to 15 W power at full rate
- Full image processing feature set
- PCI Express Gen 3 standard compliant
- Gen<i>i</i>Cam compliant
- Up to 4 PCI Express links
- F, M42, EF or Active EF lens mounts available
- Commercial and Industrial grade options
- Full EMVA1288 report
- Full built-in self-test (BIT)
- Full built-in voltage testing
- Customization as per user requirements

Applications:

- Flat Panel Inspection
- PCB Inspection
- Security & Surveillance
- UAV
- Machine Vision
- Robotics
- Microscopy & Medical Imaging
- Space

TECHNICAL DATA

General	
Pixel Size	3.2 μm x 3.2 μm
Resolution	9344 (H) x 7000 (V)
Sensor Size	37.4 mm diagonal
Sensor Format	2.3"
Sensor	Gpixel GMAX3265
Sensor Type	CMOS
Output Interface	PCI Express Gen 3
Supported Interface rates	Gen 1, Gen 2 or Gen 3
Interface Connector	Samtec
Number of Connectors	4
Output Resolution	8, 10 or 12 bit
Maximum Frame Rate	High Speed Version <ul style="list-style-type: none"> • 50 fps @8 bit resolution • 40 fps @10 bit resolution Normal Speed Version <ul style="list-style-type: none"> • 31 fps @8 bit resolution • 31 fps @10 bit resolution • 31 fps @12 bit resolution
Tap Geometry	1X-1Y
Image Acquisition	Continuous / Triggered
Camera Control	Gen<i>Cam
Electronic Shutter	Global
Monochrome / Color	Monochrome or Color
Temporal Noise	<2.3 e- at 25°C
Full Well Charge	10900 e-
Dynamic Range	>65 dB at 520 nm
Signal-to-Noise Ratio (SNR max)	38.1 dB at 520 nm
Quantum Efficiency (QE)	>65.3% at 520 nm
Shortest Exposure	13.35 μs
IR Filter (optional)	<ul style="list-style-type: none"> • UV cut below 400 nm • IR cut above 700 nm
Exposure control	Automatic/Manual
Gain control	Automatic/Manual
Color Control	<ul style="list-style-type: none"> • RGB offsets • Auto / Manual White balance • LUT
Image enhancement	<ul style="list-style-type: none"> • Defect pixel correction • Gain (Analog / Digital) • Auto / Manual black level • Binning • Auto Exposure / Gain • Flat field / Fixed pattern noise correction

Additional on camera processing	<ul style="list-style-type: none"> • ROI • Image flip • Frame counter • Operational Time Counter • Binning
Power Input	• External 10 V - 28 V input
Power Consumption	<15 W at 24 V DC
Configuration software	Gen<i>Cam Standard software
Synchronization	Protocol/External I/O Trigger
Exposure Strobe output	Yes

Mechanical	
Dimensions (including lens mount)	62 mm x 62 mm x 44.4 mm (2.4" x 2.4" x 1.7")
Weight (without lens)	450 g (15.9 oz)
Lens Mount	F, M42, EF or Active EF
Sensor Alignment	Active
Ingress Protection	Optional IP67 (with protective lens tube)

Environmental Conditions	
Operating ambient air temperature	Commercial : 0°C to +50°C (32°F to +122°F) Industrial : -40.0°C to +70°C (-40°F to +158°F)
Operating ambient air humidity	10% to 90% RH non-condensing
Storage ambient air temperature	Commercial : 0°C to +55°C (32°F to +131°F) Industrial : -40.0°C to +75°C (-40°F to +167°F)
Storage ambient air humidity	10% to 90% RH non-condensing
Operational Shock	Tested per MIL-STD-810G Method 516.6, 3-axis Shock 75G
Operational Vibration	Tested per MIL-STD-810G Method 514.6, 3-axis Vibration Category 20
MTBF	1,600,000 hrs @ 50C (Telecordia)

Certifications	
Electromagnetic - EMC standards	<ul style="list-style-type: none"> • The European Council EMC Directive 2004/108/EC • The Unites States FCC rule 47 CFR 15
EMC - Emission	<ul style="list-style-type: none"> • EN 55022:2010 Class B • FCC 47 Part 15 Class B
EMC - Immunity	<ul style="list-style-type: none"> • EN 55024:2010 Class B • EN 61000-4-3 • EN 61000-4-4 • EN 61000-4-6
Flammability	PCB compliant with UL 94 V-0
RoHS	Compliant with the European Union Directive 2011/65/EU (RoHS2)
REACH	Compliant with the European Union Regulation No 1907/2006

WEEE

Must be disposed of separately from normal household waste and must be recycled according to local regulations

Zinc3265HSM-SF

Speed
– Normal Speed HS – High Speed

Color options
M – Monochrome I – Mono with IR Filter N – Color w/o IR Filter C – Color

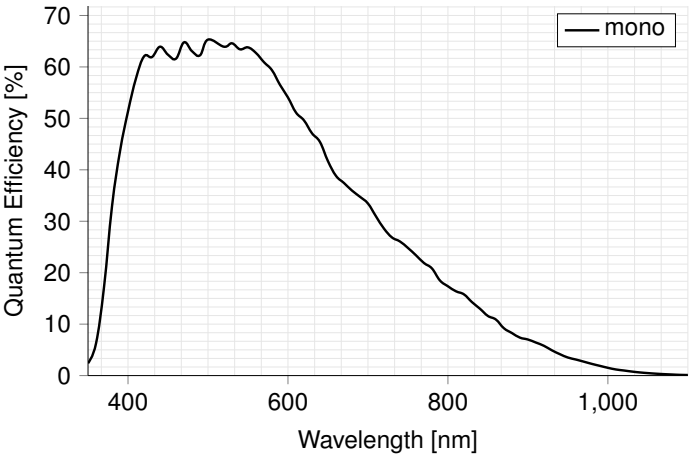
Grade
S – Commercial R – Industrial

Lens mount
F – Nikon F-Mount M – M42-Mount E – Canon EOS-Mount B – Active Canon Mount

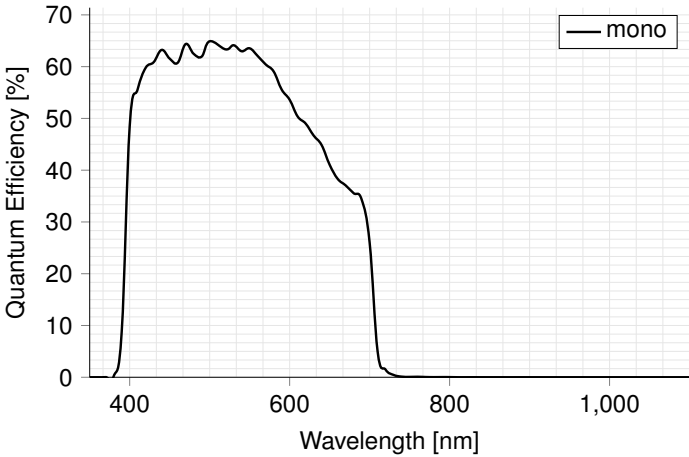
Accessories	
Optional accessories	<ul style="list-style-type: none">• KY-PWR-12 12V power supply• Samtec HLCD-20-06.00-TD-TH-2 PCIe Cable
Accessories Included	-

SPECTRAL RESPONSE

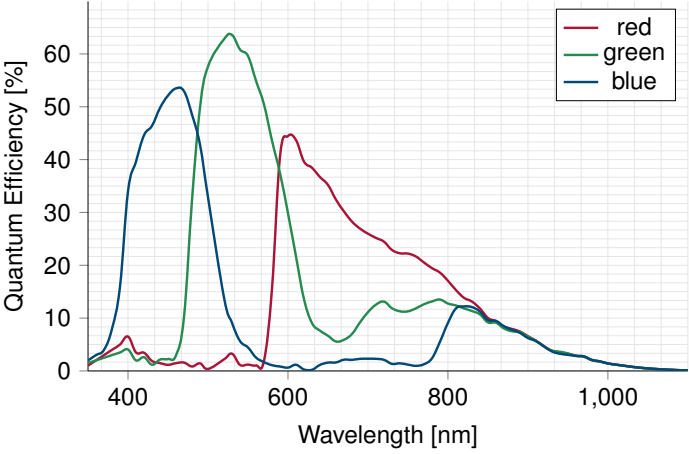
Monochrome



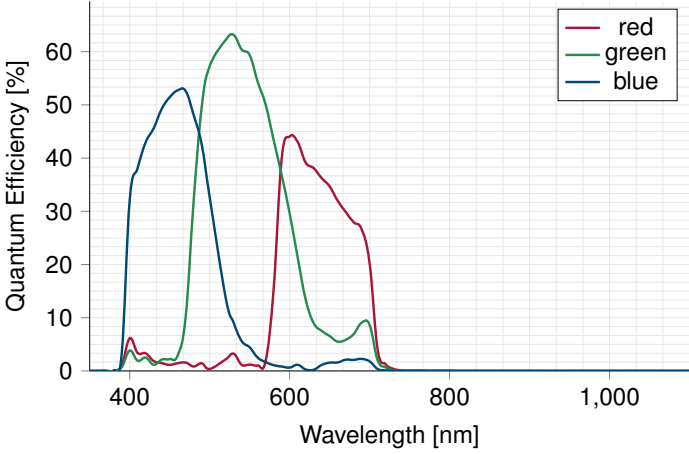
Monochrome with IR Cut Filter



Color



Color with IR Cut Filter



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.

KAYA Instruments est distribué par TECHWAY S.A.S. - www.techway.com - info@techway.com - +33 1 64 53 37 90

KAYA Instruments

Please feel free to contact our sales team for pricing, availability, documentation or customization at our e-mails – we will be happy to provide assistance and consultation.

Sales Inquiries: info@kayainstruments.com

Technical Support: support@kayainstruments.com

www.KAYAIstruments.com

KAYA Instruments, Inc.
2255 Glades Rd.
Suite 324A
Boca Raton, FL 33431
USA

+1 561 698-2899

KAYA Instruments, Ltd.
20 HaMesila St.
Nesher 3688520
Israel

+972 72 272-3500



© 2025 KAYA Instruments, Inc. All rights reserved. KAYA Instruments, the KAYA Instruments Komodo logo, JetCam logo, Predator, Iron and combinations thereof are trademarks of KAYA Instruments, Inc. in the United States and/or other jurisdictions. Microsoft Windows is a registered trademark of Microsoft Corporation. Other names are for informational purposes only and may be trademarks of their respective owners. KAYA Instruments is not liable for harm or damage incurred by information contained in this document.