

Allied Vision Alvium 1800 U-052c, 1/1.7" 0.5MP, USB 3.1 Color Camera (Board Level)

#23-165



Allied Vision Alvium USB 3.1 Cameras

Allied Vision Alvium USB 3.1 Cameras feature a lightweight compact form factor with ALVIUM® System on Chip (SoC) technology, offering a comprehensive image processing library for advanced onboard image correction and preprocessing functions to relieve host computer and processor workload. In addition to smart camera operations, the unique SoC design also allows for low power consumption and ease of integration, making them ideal for next generation machine vision, robotics and embedded vision applications. The cameras feature a variety of popular Sony Pregius and On Semi CMOS sensors with high image quality, fast frame rate and USB3 Vision interface standard. The actively aligned lens mount minimizes inconsistency and variation. Allied Vision Alvium USB 3.1 Cameras feature a USB port on the back panel and are available in a variety of monochrome, color, and NIR configurations, including C-Mount, CS-Mount, and S-Mount. Full housing versions are best suited for prototyping, development and end user uses. Partial housing and board level configurations have exposed image sensor PCB without heat sinks to reduce space and facilitate system integration making them ideal for OEM embedded design.

Note: Board level versions do not have a lens mount.

General

Type:	Color Camera
Manufacturer:	Allied Vision
Camera Family:	Alvium
Model Number:	1800 U-052c

Physical & Mechanical Properties

Dimensions (mm):	13 x 26 x 26 (includes connectors and lens mount)
Weight (g):	50
Housing:	Board Level

Sensor

Image Buffer:	256KB
Imaging Sensor:	Sony IMX426
Type of Sensor:	Progressive Scan CMOS
Type of Shutter:	Global
Camera Sensor Format:	1/1.7"
Resolution (MegaPixels):	0.52
Pixels (H x V):	816 x 624
Pixel Size, H x V (µm):	9 x 9
Sensing Area, H x V (mm):	7.3 × 5.6
Frame Rate (fps):	691.00
Pixel Depth:	8/10/12 bit
Exposure Time:	21µs - 10s
Machine Vision Standard:	USB3 Vision v1.0, GenICam

Electrical

Power Consumption (W):	4.00
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Hardware & Interface Connectivity

Video Output:	USB 3.1 Gen 1
Connector:	USB 3.1 Gen 1, Micro-B
Power Supply:	Power over USB or via GPIO
GPIOs:	4 Programmable TTL GPIOs
Synchronization:	Hardware Trigger (GPIO) or Software Trigger
Interface Port Orientation:	Back Panel
GPIO Connector Type:	7-pin JST

Threading & Mounting

Mounting Threads:	¼-20 and M6 with Tripod Mount Adapter #14-156
Mount:	N/A

Environmental & Durability Factors

Operating Temperature (°C):	-20 to +85 (mainboard temperature)
Storage Temperature (°C):	-20 to +85



May 31, 2025

To Whom It May Concern,

This document certifies that the product stated below has been reviewed as requested by Edmund Optics:

Stock No.	Description
23-165	Allied Vision Alvium 1800 U-052c, 1/1.7" 0.5MP, USB 3.1 Color Camera (Board Level)

This item is EU RoHS (2015/863/EU) compliant without the use of exemptions.

This certification means that:

- EO's suppliers have confirmed the material composition of this product.
- EO has implemented rigorous procedures to document this compliance.
- The information provided may, or may not, be based upon actual test data, or on information from our Vendors, Raw Material Suppliers or Subcontractors.



Jay Budd, Director of Corporate Compliance
May 31, 2025

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May 31, 2025

Stock No.	Description
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Edmund Optics certifies that all articles included in this shipment are in compliance with the terms and conditions of this order. The company also certifies that the articles included in this shipment are in accordance to all agreed upon specifications and quality assurance provisions. Please call 1-800-363-1992 should any questions arise from this shipment.



Jeff Harvey- EVP of Operations



May 31, 2025

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This item does not contain any of the substances listed on the Reach SVHC list as of 23 January 2024 in quantities exceeding 0.1% weight by weight.

Please note the following:

- Entry 11 of Annex V of the REACH regulation EC 1907/2006 as amended by regulation 987/2008, exempts "non-hazardous" glass components from registration.
- Items considered to be packing materials and which do not form part of, or are not required for the operation of, the product, are not considered to be within scope of this declaration.
- EO does not routinely analyze products for substances not purposely added or specified within the design specifications, drawings and assembly procedures.

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