

# Allied Vision Alvium 1800 U-511c, 1/1.8" 5.1MP S-Mount, Right Angle USB 3.1 Color Camera

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**Note:** This item requires accessories for use | [Learn More](#)

**Spectrum:** Color

## General

**Type:** Color Camera

**Model Number:** 1800 U-511c

**Manufacturer:** Allied Vision

**Camera Series:** Alvium Right Angle

## Physical & Mechanical Properties

**Dimensions (mm):** 33 x 32 x 29 (includes connectors and lens mount)

**Weight (g):** 70

**Housing:** Full

## Sensor

**Image Buffer:** 256KB

**Sensor Format:** 1/1.8"

**Resolution (Megapixels):** 5.10

**Frame Rate (fps):** 66.00

**Pixels (H x V):** 2,464 x 2,064

**Pixel Size, H x V (µm):** 2.74 x 2.74

**Sensing Area, H x V (mm):** 6.8 x 5.7

**Imaging Sensor:** Sony IMX547

**Type of Sensor:** Progressive Scan CMOS

**Shutter Type:** Global

**Pixel Depth:** 8/10/12 Bit

**Exposure Time:** 164µs - 10s @ 450 MBps  
163µs - 10s @ 200 MBps

<b>Dynamic Range (dB):</b>	Not Specified	<b>Machine Vision Standard:</b>	USB3 Vision v1.0, GenICam
<b>Electrical</b>			
<b>Power Consumption (W):</b>	3.2		
<b>Hardware &amp; Interface Connectivity</b>			
<b>Interface:</b>	USB 3.1 Gen 1	<b>Connector:</b>	USB 3.1 Gen 1, Micro-B
<b>Power Supply:</b>	Power over USB or via GPIO	<b>GPIOs:</b>	4 Programmable TTL GPIOs
<b>Synchronization:</b>	Hardware Trigger (GPIO) or Software Trigger	<b>Interface Port Orientation:</b>	Back Panel (Right Angle)
<b>GPIO Connector Type:</b>	7-pin JST		
<b>Threading &amp; Mounting</b>			
<b>Mount:</b>	S-Mount (M12 x 0.5)	<b>Mounting Threads:</b>	¼-20 and M6 with Tripod Mount Adapter <a href="#">#14-156</a>
<b>Environmental &amp; Durability Factors</b>			
<b>Operating Temperature (°C):</b>	+5 to +65	<b>Storage Temperature (°C):</b>	-10 to +70
<b>Regulatory Compliance</b>			
<b>RoHS 2015:</b>	<a href="#">Compliant</a>	<b>Certificate of Conformance:</b>	<a href="#">View</a>
<b>Reach 240:</b>	<a href="#">Compliant</a>		

## Product Details

Sony IMX547

- Right Angle USB Port Orientation
- Compact, Low Cost, High Performance Design for Machine Vision and Embedded Applications
- ALVIUM® System on Chip (SoC) Technology with Onboard Imaging Preprocessing
- [Allied Vision Alvium USB 3.1 Cameras](#) Also Available

Allied Vision Alvium Right Angle USB 3.1 Cameras feature ALVIUM® System on Chip (SoC) technology and a right-angle USB port in a lightweight compact form factor, offering a comprehensive image processing library for advanced onboard image correction, preprocessing functions to relieve host computer and processor workload, and allow for easy system integration. 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 Right Angle USB 3.1 Cameras feature a 90° right angle USB port 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.

## Accessories

**Note:** Compatible accessories for individual stock numbers may vary. If unsure about which accessories work with your products, please contact us [here](#).

	Title	Compare	Stock Number	Price	Buy
<a href="#">MORE+</a>	5mm Spacer to convert CS-Mount Cameras to C-Mount		#03-618	£23.20 <a href="#">Request Quote</a>	20+ In Stock <input type="text" value="1"/>
<a href="#">MORE+</a>	C-Mount to M12 Adapter for UCI Lens		#12-879	£38.40 <a href="#">Request Quote</a>	20+ In Stock <input type="text" value="1"/>
<a href="#">MORE+</a>	C-Mount to M12 Lens Adapter		#53-675	£26.20 <a href="#">Request Quote</a>	20+ In Stock <input type="text" value="1"/>
<a href="#">MORE+</a>	C-Mount to M12 Lens Adapter w/Oring		#59-241	£37.40 <a href="#">Request Quote</a>	3 In Stock <input type="text" value="1"/>
<a href="#">MORE+</a>	M6 and ¼-20 Mounting Plate for Alvium		#14-156	£14.00 <a href="#">Request Quote</a>	20+ In Stock <input type="text" value="1"/>
<a href="#">MORE+</a>	JST 7-pin Cable without Screw Lock, 0.4m Length		#14-154	£10.00 <a href="#">Request Quote</a>	<a href="#">CONTACT US</a> <input type="text" value="1"/>
<a href="#">MORE+</a>	JST 7-pin Cable with Screw Lock, 5m Length		#14-155	£23.00 <a href="#">Request Quote</a>	20+ In Stock <input type="text" value="1"/>
<a href="#">MORE+</a>	AVT Type-A to Micro-B, USB 3.0 Locking Cable, 3m		#14-903	£33.00 <a href="#">Request Quote</a>	20+ In Stock <input type="text" value="1"/>
<a href="#">MORE+</a>	Type-A to Micro-B, USB 3.0 Locking Cable, 8m		#34-212	£74.00 <a href="#">Request Quote</a>	17 In Stock <input type="text" value="1"/>

## Related Products



Allied Vision Alvium USB 3.0 Cameras



HP Series Fixed Focal Length Lenses



C Series Fixed Focal Length Lenses



Blue Series M12 Lenses

## Imaging Lens Selector



- Factory Automation
- Telecentric
- M12

- Custom Sensor
- Camera Model

Camera Model:

Number of Horizontal Pixels:

Number of Vertical Pixels:

Pixel Size (µm):

3 2.74

Working Distance (mm):

4

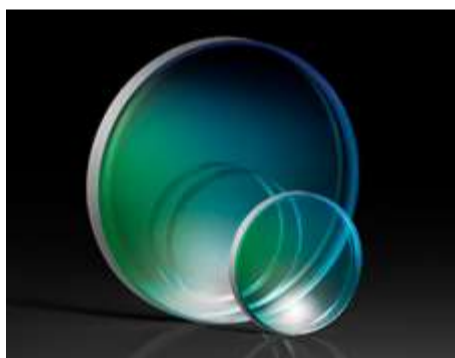
Horizontal Field of View (mm):

5



**Disclaimer: Values represent theoretical values from lens design software. Actual lens performance varies due to manufacturing tolerances.**

### Frequently Purchased Together



#47-615 - 450nm 25.0mm Diameter, OD 2.0 Longpass Filter  
£120.00

Qty



#53-984 - 4" x 4" Cloth Cleaning Wipes  
£29.00

Qty



#54-717 - 6" Sq., Photo-Clear Cleaning Cloths  
£10.60

Qty



#57-727 - Purosol Optical Cleaner 4 oz. Spray Bottle  
£22.60

Qty

## Resources

#### Media Type

- Application Note
- Video
- Published Article
- FAQ
- Glossary
- Technical Tool

APPLICATION NOTE

Sensor Performance and Limitations

APPLICATION NOTE

Imaging Electronics 101: Basics of Digital...

APPLICATION NOTE

Imaging Electronics 101: Camera Resolution fo...

APPLICATION NOTE

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VIDEO

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