

BarrelEye

CAMERA
SERIES



Stereo imaging payload for AUVs and ROVs

Features

- ▶ Ideal for both stereo and tunnel-imaging applications
- ▶ Geo-referenced digital still-image capture
- ▶ Field-adjustable camera offset with positions from 0° to 180°
- ▶ Onboard CPU and solid-state data storage
- ▶ Dome and flat viewport options
- ▶ Customizable for realtime machine vision tasks
- ▶ Rated to 300m
- ▶ Supports up to four DragonFish Strobes (120,000 lumens)

Technical specifications on reverse.

Arctic Rays specializes in deep-sea lighting and imaging systems and other custom solutions specifically for use on AUVs, ROVs, manned submersibles and other offshore and underwater structures.

Think deep.

arcticrays.com • 1.321.610.4635



ARCTIC RAYS
SUBSEA TECHNOLOGIES

BarrelEye

Technical Specifications

PARAMETER	SPECIFICATION
Model Number	AR 209
OPTICAL	
Camera Sensor	12.3 mp (4,096 x 3,000), 1.1 inch format, back-illuminated color CMOS with global shutter
Camera Optics	6.5 mm f/2.5 fixed-focal-length lens, -1.5% distortion max for tunnel imaging Other lens options available.
Angle of View	95 (H) x 77 (V) x 107 (D) per camera
Intraocular distance	127 mm (5 inch)
Max Rep Rate	2 Hz @ full resolution (simultaneous stereo capture)
Signal to Noise	40.4 dB (6.7 bits)
Dynamic Range	71.3 dB (11.9 bits)
Still-Image Modes	Raw, Grayscale, RGB, YUV
Video Modes	720 p HD @ 60 fps; 1080 p FHD @ 30 fps; 4K UHD @ 10 fps
Still-Image Formats	TIFF, JPEG, PNG, BMP
Video Formats	MJPEG, H.264
INTERFACE	
Control	RS 232, ethernet, TTL trigger
Data Download	Gigabit ethernet
Connector	Subconn DBH13M
Onboard Storage	1 TB solid-state drive (SSD)
ELECTRICAL	
Voltage	18–75 VDC or 9–36 VDC
Power	55 w maximum (not including lighting)
ENVIRONMENTAL	
Depth Rating	300 m (984 ft) standard
Temperatures	0°C to 40°C operating; -10°C to 60°C storage
MECHANICAL	
Dimensions	5.5 in (140 mm) diameter x 8.5 in (216 mm) length
Weight	3.6 kg in air; 700 g in seawater
Housing Materials	6061-T6 AHC black aluminum, BK7 glass viewports, Delrin bezels, 316-SS fasteners

