

BarrelEye

PAYLOAD
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.

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ARCTIC RAYS
SUBSEA TECHNOLOGIES

BarrelEye

Technical Specifications

PARAMETER	SPECIFICATION
Model Number	AR 209
OPTICAL	
Imaging Type	Dual camera; stills only (video optional)
Camera Sensor	Sony IMX304, 12.3 MP, 1.1 in. format, back-illuminated color CMOS with global shutter
Camera Lenses	6.5 mm f/2.5 rectilinear, low distortion (-1.51%)
Focus	Manual
Iris	Manual
Still Image Resolution	4,096 x 3,000 (12.3 MP)
Still Image Rep Rate	2 Hz max, full-res standard
Angle of View	107°D x 95°H x 77°V per camera (dome port)
Field of View	Tunnel imaging: 185° w x 188% altitude (along track) max
Imaging Altitude	2–8 m recommended
LIGHTING	
Integrated Lighting	Support for 4x external strobes
ELECTRICAL	
Onboard CPU	Intel Core-i3
Onboard Storage	1 TB SSD
Voltage	18–42 VDC
Power	15 W, not including lighting
INTERFACE	
Connector	Subconn DBH13M (PWR/CTL/DATA), MCBH4F (lighting)
Control	RS232 serial standard; ethernet, TTL trigger optional
Data Download	Gigabit ethernet
MECHANICAL	
Weight	3.6 kg in air; 900g in seawater
Materials	6061-T6 aluminum (AHC black); BK7 glass dome ports; acetal (Delrin) bezels; 316SS fasteners; other materials optional
ENVIRONMENTAL	
Depth Rating	300 m (984 ft) standard
Temperatures	0°C to 45°C operating; -10°C to 60°C storage

