

UNDERWATER VISION SOLUTIONS

EAGLE IP™

OT
AQ





WORLD CLASS MARINE TECHNOLOGY



OTAQ Offshore are a manufacturer of underwater technology products for offshore industries around the world including subsea oil and gas, renewable energy, ROV operations, commercial diving and oceanographic research.

With decades of industry experience, our engineering and commercial teams support our global customers from our base in Aberdeen, Scotland.

OTAQ are proud to be fully ISO 9001:2015 accredited through DNV GL.

CAPTURING ALL THE DETAIL



Eagle IP 1080p Fixed Focus & Zoom cameras

The Eagle IP range enables operators to capture high quality underwater HD video, transmit it to the topside for viewing and recording and then onward transmission in a variety of protocols. The Eagle IP range consists of a range of underwater cameras, integration hubs, cabling options and topside monitoring and recording solutions.

Underwater Cameras

Our Eagle IP 1080p cameras are a powerful combination of full colour HD 1080p and low light capability (0.001 Lux).

With 18 x Optical Zoom and Fixed Focus options, the units perform as well in bright ambient conditions as they do in low light environments. With a wide depth offering (300m to 6000m) and variety of housing materials, they are suitable for a range of harsh environments and applications. The units come with their own GUI, are ONVIF compliant, utilise the H.264 compression standard and are RTSP compatible.

Typical applications

- Commercial ROVs and AUVs of all sizes
- Robotic non-intrusive inspection
- Monitoring platforms
- Landers
- Marine renewables inspection
- Touchdown monitoring
- Oceanographic research

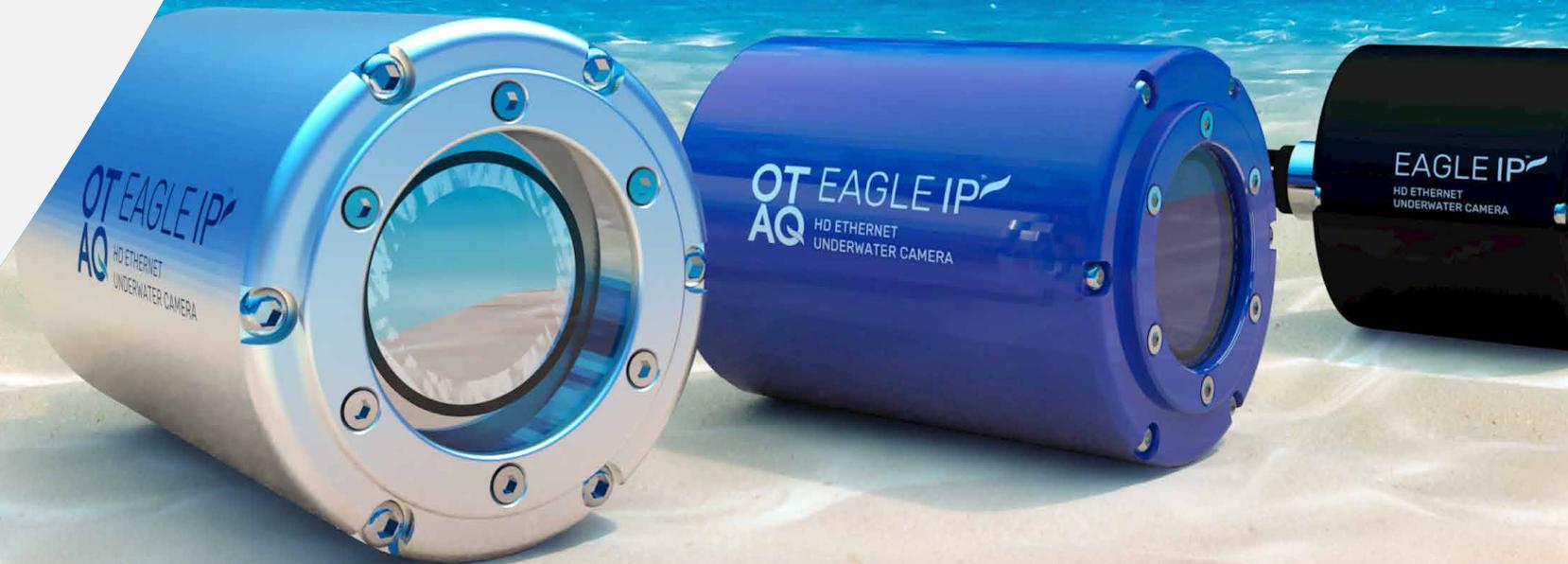


To view footage captured by
Eagle IP 1080p cameras [click here](#)



*What a great Camera! I like the zoom
& focus (easy shifting near/far).
Great image! Latency is currently
better then our other IP cam.
GUI was easy to setup.*

Tom Knox
Project Technical Consultant,
Centre for Ocean Ventures
& Entrepreneurship



A FULL FIELD OF VISION

Eagle IP 180° & 360° Field Of View 4K IP Cameras

These camera's come with a highly innovative live video feed 'orbital' viewing capability. The Eagle IP 180° and 360° fixed focus colour cameras are ideal for situational awareness, operation monitoring, general inspection and confined ingress.

Removing the need for a mechanical pan & tilt, the operator adjusts their angle of view in the live video stream, digitally zooming in on a target of interest in real-time or when playing back recorded footage. Enabling 'single pass' image capture of the submerged environment, work site or targets of interest, the Eagle IP 180° / 360° sees everything all the time.

Typical applications

- Diver / work site situational awareness
- Robotic non-intrusive inspection
- Confined ingress
- ROVs / AUVs of all sizes
- Fixed installations
- Target removal/recovery
- Landers
- Nuclear



Eagle IP 180° & 360° 4K cameras



To view footage captured by Eagle IP 180° and 360° cameras [click here](#)

To view and operate the Eagle 360° camera, 'grip and drag' the footage with your cursor or use the direction pad in the top left of the screen to manipulate your field of view with the Eagle 360°'s orbital live viewing capability.

Q-LINK ETHERNET EXTENDER



Q-Link with Eagle IP 1080p & 360° cameras

The Q-Link Ethernet Extender enables the conversion and transmission of IP ethernet camera feeds and other ethernet based devices over a single shielded twisted pair or coax cable.

With 2 to 4 channels available, the unit can be used to deploy a combination of Eagle IP cameras and a forward-looking sonar over a single shielded twisted pair for example. With transmission distances of up to 1000m (tether & IP device dependent) the unit comes with a dedicated topside converter or connects to our Eagle IP Vision topside.

CASE STUDY 1

Seaeye Tiger Trial

- 930m total transmission distance
- 660m Umbilical, 240m Tether & 30m deck cable
- Winch Slip Ring Focal Model 176
- TMS Slip Ring Focal Model 180
- 250VDC power supply, thrusters & lights on full

Results

- 1 x OTAQ Eagle IP camera operated at 1080p @ 25 fps
Result: No degradation of image at topside, full control of camera zoom and focus function
 - 2 x OTAQ Eagle IP cameras operated at 720p @ 18 fps
Result: No degradation of image at topside, both cameras in sync
- Full case study available upon request

CASE STUDY 2

1080p IP Camera & IP Multibeam Sonar

Successfully transmitted data from an Eagle IP 1080p camera feed and an IP multibeam sonar simultaneously over 300m of Single Twisted Pair.

Results

Both feeds were displayed on the same laptop (different GUIs) with no issues.

The Q-Link is an ideal integrated solution for the OTAQ Eagle IP range of underwater cameras.

Applications include

- Any ROVs with no fibre optic link
- Monitoring platforms
- Landers
- Marine renewables inspection
- Touchdown monitoring
- Oceanographic research



Balltec has been using OTAQs Eagle IP Cameras and Q-Links on multiple offshore wind farm projects along with decommissioning offshore platforms across the globe. Under extreme conditions, the camera resolution gives great visuals top side to our operators, ensuring a smooth operation when connecting Balltec's LiftLOK tools into the mating Receptacles / Jackets.

Delivery dates are always maintained, prices are very good and OTAQ are always on hand with technical support as and when required. Balltec looks forward to working with OTAQ in the future and wishes them well.

**David Robinson,
Project Manager Balltec Ltd**

CASE STUDY 2 SCHEMATIC



Q-HUB ETHERNET EXPANDER

The Q-Hub Ethernet Expander enables operators to access the wasted capacity in their Gigabyte (GBE) and 10/100 Ethernet channels in their Fibre Optic multiplexers.

The Q-Hub is an underwater 10/100/1000Mbps ethernet switch that connects six 10/100/1000 channels to a single GBE or 10/100 channel. Independent power switching to the six channels is controlled from the surface GUI software. Perfect for the integration of ethernet devices to ROVs and tooling skids, the compact size enables mounting to a variety of vehicles or monitoring platforms, landers and towed systems.

CASE STUDY 3

Five IP Cameras & Multibeam Sonar

The following 6 devices were connected to the Q-Hub, then transmitted via a single Gigabit Ethernet Fibre Optic Multiplexer channel to the topside de-mux:

- 2 x Eagle IP 1080p Zoom Camera
- 2 x Eagle IP 1080p Fixed Focus Camera
- 1 x Eagle IP 180 FOV IP 4K Camera
- 1 x IP Multibeam Sonar



Q-Hub with Eagle IP 1080p, 180° & 360° cameras

Results

No additional IP related latency or image quality issues were witnessed.

The Q-Hub is an ideal integration solution for the OTAQ Eagle IP range of underwater cameras.

Applications include

- Subsea inspection
- Subsea survey
- Tooling skids
- Structural monitoring
- Marine renewables inspection
- Oceanographic & scientific research
- Aquaculture installations

CASE STUDY 3 SCHEMATIC



“URS trialled and subsequently purchased two 180 degree IP cameras and Q-Hub from OTAQ. These were proven on a decom project and added significant benefit to the positioning and functionality of the UTROV tooling. The cameras proved a valuable aid to the UTROV operators in positioning the tool and interpreting the subsea environment being experienced. URS have seen lasting value in this equipment which now bolsters their rental fleet.”

Craig Roberts
Operations Manager
Utility ROV Services

Via single
GBE Channel
on Fibre Optic
Multiplexer



OTAQ Q-HUB
6 x 10/100/1000
Mbps ethernet
channels with
independent topside
power switching



Multibeam
Sonar



OTAQ
Eagle IP
180°
Camera



OTAQ
Eagle IP
Fixed
Camera



OTAQ
Eagle IP
Fixed
Camera



OTAQ
Eagle IP
Zoom
Camera



OTAQ
Eagle IP
Zoom
Camera



TOPSIDE MONITORING AND RECORDING

Eagle IP Vision

The Eagle IP Vision is a robust portable topside recording system for underwater IP cameras that has been designed for use in harsh environments and is the perfect topside solution to the OTAQ Eagle IP camera range. Eagle Vision allows the operator viewing of up to four IP cameras, with recording and a variety of output protocols for onward image distribution that includes HDMI, network and USB outputs. With Visions network connectivity, your underwater imagery can be viewed live over the internet from anywhere in the world.

The Eagle Vision also acts as a Q-Link topside enabling power and viewing of IP cameras over shielded twisted pairs and coax cables up to 1000m in length.

With up to 60 days video recording capacity, stills capture and a variety of other features, Eagle IP Vision is an ideal partner to the OTAQ Eagle IP range of underwater cameras.

Eagle Connectivity

OTAQ Offshore can supply all cabling requirements to power and control your Eagle IP range of solutions. In conjunction with our sister company, OTAQ Connectors, we have a wealth of experience in harsh environment connectivity, to learn more please follow this link to visit [OTAQ Connectors](#).



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