

AquariCam™

INTERNET-READY UNDERWATER CAMERA SYSTEM



Ocean Presence Technologies (OPT) has created an underwater camera system with the ability to be controlled from wherever Internet is available. The AquariCam has been specially designed for a wide range of applications including aquariums, marine parks, fish ponds and fisheries research.

The aquarium model can be placed at depths of up to 30 feet and 300 feet away from the Internet connection. The Ethernet cable with PoE (Power over Ethernet) is wet-mateable, making underwater connections and camera removal possible. Optional wireless transmitters can extend the range to more than 600 feet.

The AquariCam uses a PTZ (pan-tilt-zoom) camera was originally designed for professional video surveillance and security applications. The camera produces high resolution, low-light, color video and has a high-precision pan-tilt mounting with an 18x optical zoom lens. Multiple viewers can access a single camera making it suitable for classroom applications.

Cameras produce real-time video using an embedded MPEG4 encoder. Individual images can also be captured from the real-time video stream. Still images captured underwater can be sent via email using a JPEG format.

- Full motion MPEG4 & JPEG video
- Pan-tilt zoom remote control
- Built-in Web server & email
- Single power/network PoE cable
- Wireless network options
- Complete & ready to install

The AquariCam has built-in Internet servers which connect to high-speed ethernet networks. It uses standard Internet protocols for command, control and video delivery, and is addressable from wherever Internet is available.

The pan, tilt and an 18x optical zoom can be controlled from a standard web browser from anywhere in the world. The viewing software has a unique feature that allows control of the camera simply by clicking on the panorama image. The camera can be programmed to record selected time intervals and with various camera recording paths.

Once the network connection is established, images and video from the camera can be efficiently streamed over the network. MPEG4 is well suited for streaming images over limited bandwidths. Higher quality JPEG-compressed still images and motion video are also available.

The AquariCam can be used in both marine and freshwater aquariums. The system is easily adapted to work with aquarium visitor kiosk devices to enhance aquarium exhibits. The system includes developer software that makes possible customized graphical user interfaces (GUI).

Multi-camera systems, installation and maintenance contacts are also available. Please contact Robert Aston at robert@oceanpresence.com for more information and pricing.

Ocean Presence Technologies

The network PTZ camera includes a built-in Web and email server and is packaged in a sleek body. It fits efficiently into our compact underwater housing. The system comes equipped with housing, PTZ camera, 100 feet of PoE underwater cable and a waterproof power/network connection box. It is ready to operate out of the box.

Other camera models are available including shallow and deep open water systems and high-definition video cameras (to be released in 2008).



Features & Specifications

- 60% spherical glass dome specially designed to maximize the camera's optics
- Operational depth of 30 feet and up to 300 feet away from Internet connection.
- Built-in Web server connects via 10-100Tbase
- Underwater-mateable Cat5/power connectors allow housing to be removed for maintenance
- Pan angle -170 to +170 degrees, tilt angle -90 to +30 degrees, zoom ratio 18x optical zoom (additional 16x digital zoom)
- MPEG4 video compression for network transmission of streaming video. Selectable MPEG4 and motion JPEG formats.
- Maximum frame rate JPEG 320 x 240 at 30 fps; 640 x 480 at 18 fps and MPEG4 320 x 240 at 30 fps; 640 x 480 at 15 fps.
- Internet Protocol connection with secure network connectivity supporting 10 MPEG4 and 20 JPEG clients.
- Day/night function with 0.7 lux minimum color illumination.
- Power consumption 17 W max.

Accessories:

- Adjustable weight tray (included)
- Sturdy mobile container (included)
- Custom length Kelvar armored PoE cables (additional)
- Optional moisture purge system allows housing to operate in a dry gas (air or N₂) environment
- Wireless and fiber-optic network adapters are available (additional)
- Joystick camera control (additional)
- Video recording and archival software (additional)

AquariCam™ Specifications