OBSCAPE
HQ TIME-LAPSE CAMERA

THE BIG PICTURE!

Take your camera projects up a gear with this 12-megapixel sensor. The Obscape High Quality Camera represents a leap forward in quality, clarity, and definition.

The instrument is ideally suited for long-term visual monitoring of gradually evolving processes, such as beach and river morphology, littering of surface waters or construction works. Its wireless nature and compact housing allows for easy deployment in remote as well as urban environments.

Compared to our existing Time-Lapse Camera models, the incredible High Quality (HQ) Camera module offers a higher resolution (12 megapixels, compared to 5 megapixels) and the ability to record image bursts of up to 10 images at a user-defined framerate. Especially when the time-lapse imagery is used as input for operational computer vision algorithms, the superior image quality of the HQ Camera is to be preferred.

KEY FEATURES

- Up to 12.3MP image quality
- Downward & forward-looking options available
- Completely wireless
- Solar powered

- Image bursts at user-defined framerate
- Real-time data up to 4G
- Multiple mounting options
- Versatile data portal included

FLEXIBLE AND VERSATILE

If coverage of spatial and temporal dynamics is required, traditional Time Lapse Camera systems are usually the right choice. However, they often reach their limits when projects dictate a need for high quality image identification. In this instance the high-resolution technology of the HQ Camera offers a superior solution.

The HQ Camera is a very flexible system which the customer can easily embed into their own AI computer vision software pipelines. In this instance the customer provides their own setup and scripts programming for two-dimensional (2D) digital image correlation (DIC), to combine with the HQ Camera's time-lapse high-speed image capturing of still image time-lapse photography.

The high flexibility of the HQ Camera's powerful controller allows real time high-quality visual features, which can be paired with the customer's identification system and utilised in numerous environmental and industrial areas of applications including pollution control. Empowering the user to reliably achieve accurate real-time recognition.

COMPLETELY WIRELESS

The HQ Time-Lapse Camera is completely wireless. Power is supplied through built-in solar panels, while images are transmitted in real-time using a 4G GSM connection. Therefore, the HQ Camera is easy to install at any desired location within GSM coverage. There is no need to worry about access to mains power or the internet. Its wireless nature makes the camera very suitable for remote monitoring tracking and identification of: *debris pollution, construction site equipment, protected wildlife, port vessel movements, coastal erosion.*

VERSATILE DATA PORTAL

The value of real-time observations strongly depends on the ability to view and analyse them in real-time. Therefore, the HQ Camera comes with a license for the Obscape Data Portal. The real-time images taken by your camera, as well as the data from any other Obscape device you own, are collected into the Data Portal. The Data Portal offers various options for viewing, managing, and downloading your images, including the creation of time-lapse movies. When used with the Data Portal's forwarding option, the customer's image recognition software can be used to perform many machine-based visual tasks, such as labelling the content of images with meta-tags, performing image content search, guiding autonomous operations and incident alert systems.
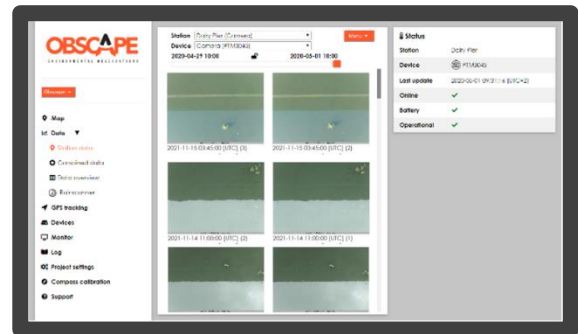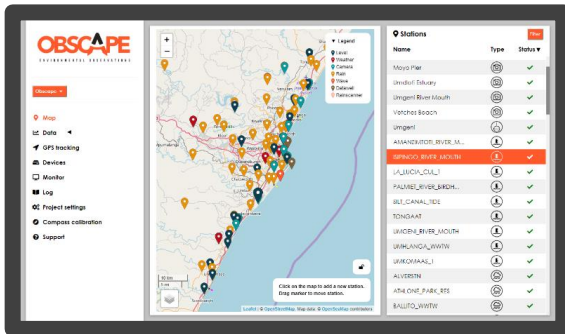
POST-PROCESSING OPTIONS

The HQ Camera can be utilised for post image processing. While High Quality images already offer valuable information when inspected manually, automated image analysis techniques can turn the HQ Camera into your ultimate environmental monitoring tool. The HQ Camera lens and controller can facilitate the customer's object classification programming such as feature detection; therefore, turning the HQ Camera into a smart camera with deep learning software capability.

Object size, shape or colour are all captured in high definition by the reliable HQ Camera. This means that the HQ Camera can be used for image recognition of almost any kind of object in a wide variety of application areas including *for pollution identification on canals, rivers, streams, reservoirs, lakes, estuaries, dams, offshore floating platforms, aquaculture farms and protected marine sanctuaries.*

TECHNICAL SPECIFICATIONS

DATA SPECIFICATIONS

IMAGE RESOLUTION	12.3MP image quality, framerate and burst size: 0.25 to 10 fps, 1 to 10 images
ADDITIONAL PARAMETERS	Battery voltage, GSM signal strength, internal temperature
TIME-LAPSE INTERVAL	10 – 60 minutes (user selectable)
STORAGE	On-board micro SD card

WEB-PORTAL SPECIFICATIONS

IMAGE VIEWER	Clickable thumbnails and time range selector
ONLINE GRAPHS	Battery voltage, GSM signal strength, internal temperature
DOWNLOADS	JPG images (zipped), AVI time-lapse movie
FORWARDERS	JSON API or HTTP post
STATUS NOTIFICATION EMAILS	Online/offline, battery level

PHYSICAL CHARACTERISTICS

HOUSING WIDTH	87 mm
HOUSING DEPTH	87 mm
HOUSING HEIGHT	230 mm
WEIGHT	1,5kg

ELECTRICAL CHARACTERISTICS

SOLAR PANEL CAPACITY	3W
BATTERY	1 single 18650 lithium battery
NOMINAL VOLTAGE	4.2 V

TELEMETRY SPECIFICATIONS

COMMUNICATION MODE	GSM (4G with 2G fallback- region determine prior to order),
REAL-TIME DATA INTERVAL	15 – 60 minutes (user selectable, same as time-lapse interval)
REAL-TIME DATA	Images (user selectable framerate and burst size), GSM signal strength, battery voltage and internal temperature
GSM DATA LOAD	Approx. 800 kB per image (5MP)

PRICING

HQ CAMERA	€1,670 including web-portal license and mounting bracket
GSM COMMUNICATION	Micro SIM card and sufficient data credit to be arranged by user. Camera can also be run in offline mode (images saved to SD card).