



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.



Forward facing option also available

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

Most measurement systems will either collect continuous point measurements (e.g. a pressure sensor) or sporadic spatial measurements (e.g. a GPS survey). The former do not reveal spatial variability, while the latter do not reveal fine-grained temporal variability of the observed environment. Time-Lapse cameras are your ideal partner to fill those gaps and achieve dense coverage of spatial and temporal dynamics, allowing you to keep a close watch on everything that happens in your area of interest.

The operational 10 to 60-minute interval of the HQ Time-Lapse Camera allows for monitoring of processes that gradually evolve on timescales of 10 minutes and up. Examples of such processes include sediment dynamics in rivers, on beaches and in dune areas, construction works, traffic intensity, parking lot occupancy or cloud formation. The ability of the device to collect image bursts at a known framerate yields a whole range of additional applications, such as velocity estimation of cars or water surfaces.

The downward-looking version of the HQ Time-Lapse Camera was developed particularly for monitoring debris/litter on water surfaces when mounted on a bridge deck. Paired with automatic litter detection software, the camera will keep a close watch on pollution rates of the river surface over time.

COMPLETELY WIRELESS

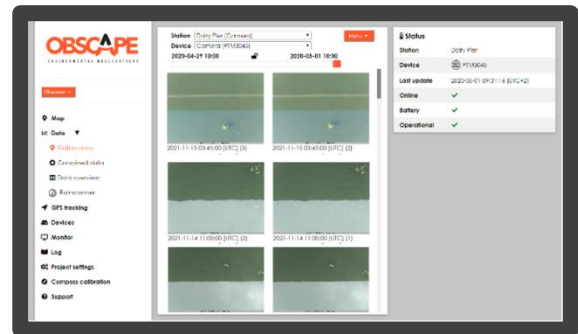
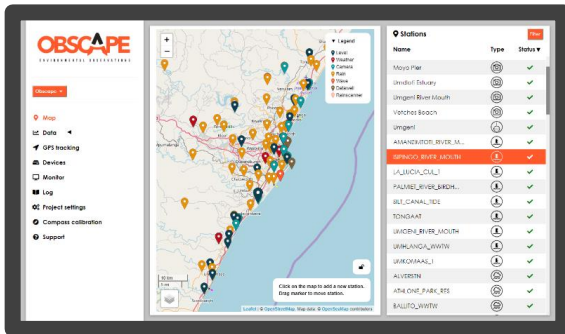
The HQ Time-Lapse Camera is completely wireless. Power is supplied through built-in solar panels, while images are transmitted in real-time using a 4G cellular connection. Therefore, the HQ Camera is easy to install at any desired location within cellular coverage. There is no need to worry about access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

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Obscape B.V. | Reg.: 74971409 | VAT: NL860092550B01
Kluyverweg 1, 2629HS Delft, The Netherlands | info@obscape.com

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 free 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 options, 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.



AI / COMPUTER VISION

Standard time-lapse cameras often reach their limits when projects dictate a need for operational image detection tasks. 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.

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. Object size, shape, colour and texture 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 (highest), 5MP (middle) to 2MP (lowest)
BURST SIZE	1 to 10 images
BURST FRAMERATE	0.25 to 10 fps
ADDITIONAL PARAMETERS	Battery voltage, cellular signal strength, atmospheric pressure, internal temperature, sensor inclination
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, cellular signal strength, internal temperature, atmospheric pressure, sensor inclination
DOWNLOADS	JPG images (zipped), MP4/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	Cellular (4G with 2G fallback- region determine prior to order),
REAL-TIME DATA INTERVAL	10 – 60 minutes (user selectable, same as time-lapse interval)
REAL-TIME DATA	Images (user selectable framerate and burst size), cellular signal strength, battery voltage, internal temperature, atmospheric pressure, sensor inclination.
GSM DATA LOAD	Approx. 1.5MB per image (12.3MP)

PRICING	
HQ CAMERA	€2,000 including Std HQ lens, web-portal license and mounting bracket
LENS	Custom lenses can be integrated if the user wishes to have control over focal length and have superior image quality. Typical cost approx. €210.
CELLULAR 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).

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