





### **Multifocal sensor system**

## PANOMERA®



# VIDEO TECHNOLOGY FOR LARGE AREAS PORTS







#### **UNIQUE PANOMERA® EFFECT**

Due to the Panomera® effect, huge widths, as well as areas with large distances can be displayed with a completely new quality. Panomera® far surpasses the conventional HD 1080p standard, redefining the often heard term "high resolution" — because the "Panomera® effect" begins where HD and megapixel cameras reach their limits.

#### HIGHEST DETAIL RESOLUTION EVEN AT LARGE DISTANCES

Panomera® stands out due to a completely novel lens and sensor concept. With innovative geometric construction principles, Panomera® uses its megapixels such that even objects that are farther away can be displayed with the same resolution as objects in the foreground of the picture.

#### PERMANENT RECORDING OF THE ENTIRE SCENE

Panomera® solves the well-known problem with PTZ cameras whereby the operator has to choose between overview image and detailed view: It does not matter which section of a surveillance area an operator focuses on at any time, because Panomera® always records the entire scene. It is thus possible to later reconstruct any event for use as evidence in court, regardless of where it took place, and to recognise all persons involved.

#### **REAL TIME UP TO 30 FPS**

Panomera® provides image material in real time and at high frame rates of up to 30 fps.

#### **SCALABLE RESOLUTION**

Depending on the area of application, different Panomera® models are available: whether for expansive wide areas, long distance areas or challenging smaller surveillance areas. With Panomera®, the specific quality needed for a particular distance can be individually adjusted: The multifocal sensor system can be adapted to every customer's needs and the resolution can be scaled nearly limitlessly. The system can also be expanded without difficulty at any time

#### **MULTI-USER CAPABILITY**

In contrast to PTZ cameras, with which only one operator can control the camera, with Panomera®, an unlimited number of operators can navigate across the entire scene independently of each other. Although all operators are connected with the same camera, each of the individual users can select their view individually and zoom or pan as they desire.





Permanent overview of the entire scene

#### THE PANOMERA® EFFECT

#### Highest detail resolution at any distance



#### **MULTICAST ENABLED**

Owing to the multicast capability several users can view the images from Panomera® without requiring repeated transmission of the data via network. This reduces the necessary bandwidth significantly.

#### **NO MOVING MECHANICAL PARTS**

In contrast to PTZ cameras, Panomera® has no movable mechanical parts, which means there is no wear, extending the camera's lifetime.

#### **AUTO OBJECT TRACKING OVER VAST DISTANCES**

With one Panomera® system, a huge area can be surveyed from a single location in extraordinary detail. Movements of objects, such as people or vehicles, can so be reconstructed over long distances without any gaps in the recording or camera switching. Of course this is fully automatic thanks to intelligent video analysis.

#### **EASY INSTALLATION AND MAINTENANCE**

Where in the past, numerous camera masts had to be installed, with Panomera® a single installation site is enough. Since fewer camera installation locations are needed, the requirements for the infrastructure (masts, cables, electricity, etc.) are lower, along with expenditures for servicing and maintenance.





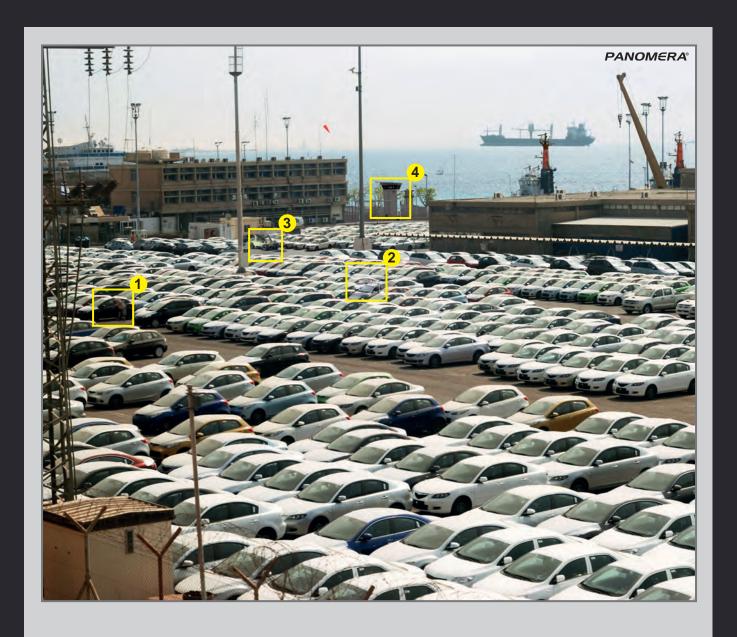
conventional

PANOMERA®

#### **VIDEO SECURITY TECHNOLOGY FOR SHIPPING PORTS**

- Clear documentation of the transfer of risk
- Documentation of damage to containers during unloading and/or loading ships
- · Documentation of damage to goods by straddle carriers
- · Documentation of damage with high frame rate for rapid movements
- Surveillance for new vehicle compounds
- Surveillance of heavy goods vehicle loading docks
- Surveillance of incoming and outgoing heavy goods vehicles at the harbour entrance: surveillance of multiple lanes with a single camera system
- · Overview of third party personnel on the premises
- · Review and optimisation of processes
- Transmission of images or short video sequences to mobile end devices for fast, efficient access by security personnel
- Perimeter protection for fence surveillance

The multifocal sensor system Panomera® stands out due to its completely new lens and sensor concept: The resolution never falls below the specified parameters, not even in the most distant areas of the image. Therefore the Panomera® effect guarantees a uniform resolution over the entire scene. This way, even objects that are farther away can be displayed with the same resolution quality as objects in the foreground of the picture. The Panomera® effect begins where conventional HD and megapixel cameras reach their limits.



Distance ≈ 150 m / 490 ft



Distance ≈ 250 m / 820 ft



Distance  $\approx 450 \text{ m} / 1,475 \text{ ft}$ 



Distance  $\approx 650 \text{ m} / 2,130 \text{ ft}$ 

