

The screenshot displays the LOGIPIX Airside Augmented Reality Software interface. It features a 3D model of an airport tarmac with various vehicles and aircraft. A list of violations is shown on the right, detailing the date, time, violation type, area, object type, speed, and speed limit. A detailed view of a specific violation is shown on the left, including a date, time, area, violation type, object type, and speed.

Date	Time	Violation type	Area	Object type	Speed [Kmph]	Speed limit [Kmph]
10/29/2021	06:32:07	Speed limit	Speeding	Heavy vehicle	13.0	5.0
10/29/2021	06:31:41	Forbidden area	Forbidden	Heavy vehicle	24.0	0.0
10/29/2021	06:31:35	Speed limit	Speeding	Heavy vehicle	20.0	5.0
10/29/2021	06:31:18	Speed limit	Speeding	Heavy vehicle	25.0	5.0
10/29/2021	06:31:17	Forbidden area	Forbidden	Heavy vehicle	18.0	0.0
10/29/2021	06:31:12	Speed limit	Speeding	Heavy vehicle	18.0	5.0
10/29/2021	06:30:44	Forbidden area	Forbidden	Light vehicle	19.0	0.0
10/29/2021	06:30:35	Speed limit	Speeding	Heavy vehicle	17.0	5.0
10/29/2021	06:30:00	Forbidden area	Forbidden	Heavy vehicle	24.0	0.0
10/29/2021	06:22:49	Speed limit	Speeding	Heavy vehicle	13.0	5.0
10/29/2021	06:22:23	Forbidden area	Forbidden	Heavy vehicle	24.0	0.0
10/29/2021	06:22:21	Speed limit	Speeding	Heavy vehicle	24.0	5.0
10/29/2021	06:22:20	Forbidden area	Forbidden	Heavy vehicle	24.0	0.0
10/29/2021	06:22:17	Speed limit	Speeding	Heavy vehicle	19.0	5.0
10/29/2021	06:21:59	Forbidden area	Forbidden	Heavy vehicle	18.0	0.0
10/29/2021	06:21:30	Speed limit	Speeding	Heavy vehicle	14.0	5.0
10/29/2021	06:21:26	Forbidden area	Forbidden	Light vehicle	19.0	0.0
10/29/2021	06:21:21	Forbidden area	Forbidden	Heavy vehicle	15.0	0.0
10/29/2021	06:21:17	Speed limit	Speeding	Heavy vehicle	15.0	5.0
10/29/2021	06:21:14	Forbidden area	Forbidden	Heavy vehicle	14.0	0.0
10/29/2021	06:13:03	Forbidden area	Forbidden	Heavy vehicle	24.0	0.0

Violations Summary:

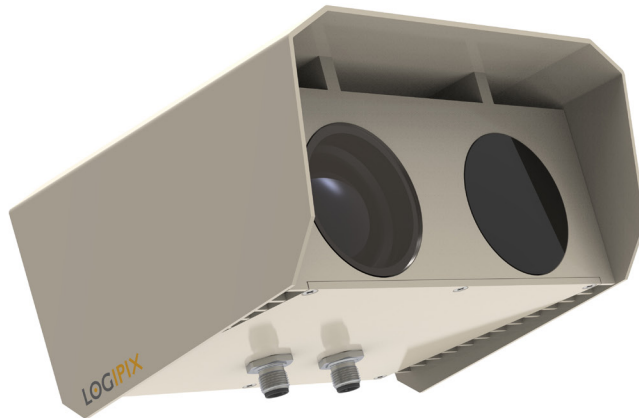
- Date: 10/29/2021
- Time: 06:22:21
- Area: Speeding
- Violation type: Speed limit
- Object Type: Heavy vehicle
- Speed [Kmph]: 24.0

Buttons: Export picture, Print report, Export selected, Export list

## LOGIPIX 21.3 MP DUAL-VISION BULLET CAMERA

DUAL-VISION CAMERA FOR AIRPORT APPLICATIONS

AIRSIDE AUGMENTED REALITY SYSTEM



## LOGIPIX 21.3 MP DUAL-VISION BULLET CAMERA

The 20+1.3 Megapixel Airport Bullet Camera was designed to fulfill special requirements. It can cover vast areas and can operate in different lighting conditions.

Thanks to the 1" sensor, the camera has excellent low-light performance, high sensitivity and a resolution that one finds in professional cameras. The camera produces a 20 FPS video stream at full resolution, therefore any motion in the footage seems continuous. The device uses the visually lossless JPEG2000 wavelet-based compression method, compressing each frame separately. The video stream does not contain predicted frames.

The camera housing contains a thermal sensor producing 1280 x 1024 pixel resolution. The thermal camera efficiently operates under a wide range of weather conditions.

The Camera is encased in a rugged IP67 housing. It provides high-performance images, even in extreme environmental conditions, in temperatures ranging from -20°C to 55°C.

### KEY FEATURES

- 1" size, CMOS image sensor with extra high-sensitivity
- 20 MP Visible image resolution
- 1280x1024 Thermal image resolution
- 20 FPS at full resolution
- Wide Dynamic Range
- Varifocal Field of View
- Wide temperature range, -20 °C to 55 °C
- Synchronized imaging
- JPEG2000 – Wavelet
- 1 GBit Ethernet interface
- Integrated adjustable mounting bracket
- 24 V DC operating voltage
- Automatic self-cleaning system - Optional
- IP67

## SPECIFICATION

## GENERAL INFORMATION

Part number	LPIX21-BGDA3946XX
Description	21.3 MP Dual-Vision bullet camera built in f=170 mm visible light & f=100 mm thermal lens
Field of view	Horizontal: 4°; Vertical: 3°
Video compression	JPEG2000 – Wavelet MPX4 Signal Processor 1" color 20 Megapixel CMOS
Inputs / Outputs	4 programmable IO connections NO, NC / OC 0.5 A/30 V
Ethernet connection	1 Gbit / Low Voltage Power over Ethernet (LPoE)
Network security	1500 bit public-key RSA; User authentication
Configuration	Configuration software via Ethernet
Intelligence	Integrated motion detection Video Content Analysis
Self-cleaning	Wiper and washer - Optional
Approvals	EN 55032:2015/AC:2016, EN 61000-3-2:2014, EN 61000-3-3:2013, EN 50130-4:2011/A1:2015, IEC/EN 60529, IEC 60950-1

## VISIBLE LIGHT SENSOR TECHNICAL SPECIFICATION

Function	ICR
Sensor Resolution	5504 (H) x 3648 (V)
Frame rate	20 fps @ 20 MP
Scanning system	Progressive, no interlaced scanning
Shutter type	Electronic rolling shutter (ERS)
Shutter mode	1/10 – 1/20 000 s, 1/1 s low shutter mode
Sensitivity	0.02 lux F1.4 Day mode or 0.002 lux F1.4 Night mode
Gain control	Fix, auto, blur or noise priority
Backlight compensation	Whole picture or any area selectable
Lens	Multi-megapixel lens, f=170mm, F=4.4, P-Iris, IR

## THERMAL SENSOR TECHNICAL SPECIFICATION

Image sensor	Uncooled a-Si microbolometer
Sensor Resolution	1280 (H) x 1024 (V)
Frame rate	20 fps
Detector pitch	12 µm
Spectral response	8 -14 µm
Thermal sensitivity	NETD < 50 mK
Non-conformity correction	5 point shutterless, self calibration with integrated fast shutter
Automatic Gain and level	User defined, persistent through power cycles
Digital zoom & pan	Region of interest; 1x – 4x
Image Mirroring	Horizontal and Vertical image flip Image contrast enhancement
Image control	Black & White polarity Color tables
Symbology	256 grayscale and 256 colors
Lens	f=100mm, F=1.6

## SPECIFICATION

## ENVIRONMENTAL SPECIFICATION

Operating voltage	24 V DC
Over voltage protection	Yes
Power consumption	7.2 W Visible light + 6.8 W Thermal
Operating temperature	-20 °C to 55 °C (4 °F to +131 °F)
Storage temperature	-20 °C to 55 °C (4 °F to +131 °F)
Humidity	up to 100% RH (condensing)
Protection classification	IP67

## MECHANICAL SPECIFICATION

Dimensions (W x H x L)	110 x 200 x 180 mm (With sunshield. Connectors are not included)
Weight	Max. 3 kg
Material of the housing	Aluminum with corrosion protection coating, Marine grade
Camera window	Hardened coating
Connector	Round connector, aluminum (MIL-DTL-26482 series 1)

## RELATED COMPONENTS

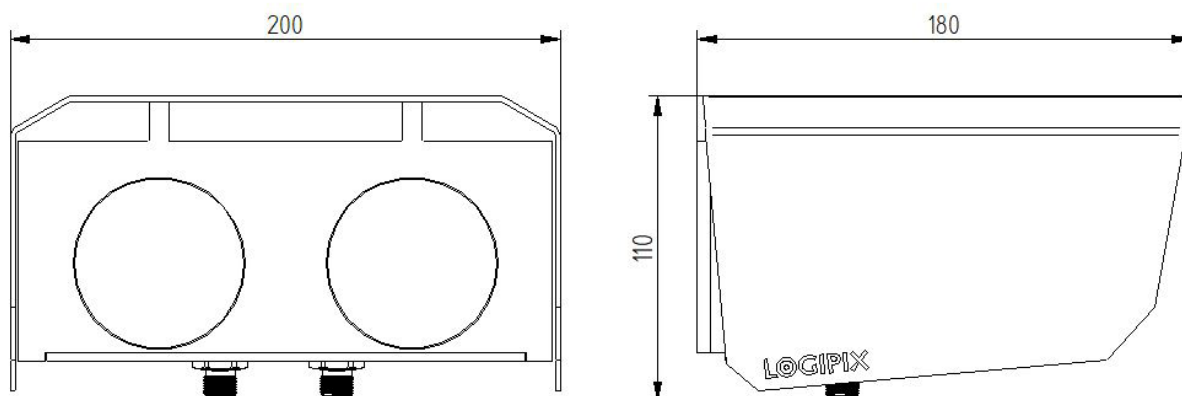
## Logipix NVR

Part number	Description
LNVR4-16-16-I	LNVR 4th gen. 6Ux 405 mmx19" rack, 2x10 GBit SFP+ for cameras and 1x1 Gbit for remote monitoring, 16 hot-swap SATA HDD bay with VCA license
LNVR4-SE-16-I	LNVR 4 <sup>th</sup> Storage Extender 6Ux 350 mmx19" rack, 2x10 GBit SFP+ for NVR, 16 hot-swap SATA HDD bay with Spare function
LNVR4-O-XX	Logipix NVR 4th Outdoor with VCA license

## Logipix SOFTWARE

Part number	Description
LAARS	Logipix Airside Augmented Reality Software
DTVA	Digital Tower Video Extension

## DIMENSIONS (all values are in mm)



## ABOUT US

Logipix Technical Development Ltd. is a privately held company established in 1996 in Budapest, Hungary. Since then, Logipix has grown into an international company that it is today. We are among the most innovative technological companies in the world, developing and manufacturing intelligent video monitoring solutions specifically for large-scale projects and wide areas.

Logipix believes, serving the needs of customers efficiently can only be successful if they receive complete solutions. In order to achieve this, we design and create all the critical components to our solutions, including hardware, software and embedded computer vision. Our entire product range is developed and manufactured in Hungary in accordance with the highest quality requirements.

Our own, specially developed Image Processing Unit, moreover, Logipix Panoramic and Computer Vision Technologies allowed our company to reach new possibilities in video surveillance. Uniquely in the market we provide video analysis on hundreds of megapixel resolution JPEG2000 image streams.

We are proud that we stand among the leading pioneers in this ever-evolving market. We are deeply engaged with the constant research and development to provide complete, intelligent solutions using the latest microelectronic and computer technology available, while considering the various characteristics of different application areas.

## CERTIFICATION

Logipix Ltd. operates an ISO 9001:2015 quality management system that covers software and hardware development, along with the entire manufacturing process.

The primary objective of Logipix Ltd. is to win the satisfaction and confidence of its customers within the framework of market competition. This is achieved via the quality of its services, which also includes compliance with the individual requests of customers, which we regard as legitimate even if not stipulated in the contract. We comply with the requirements of society laid out in laws and regulations, and achieve employee satisfaction via the effective and economic organization of their work.

In order to attain its objectives in quality policy, Logipix Ltd. undertakes the obligation to operate a quality management system developed and documented in compliance with the requirements of the MSZ EN ISO 9001:2015 standard.

## CONTACT DETAILS

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