



LOGIPIX ONE 320 MP

Visible & Thermal Panorama camera

The Logipix Panorama camera produces a hundred of megapixel large images on which every detail is clearly visible in all lighting conditions. The camera provide wide dynamic range images, have an improved low-light performance and extra high sensitivity.

The camera housing contains a multi-sensor thermal array producing 6400 x 1024 pixel resolution. The thermal panoramic camera efficiently operates under a wide range of weather conditions.

From a single viewpoint, the camera efficiently covers large areas providing an ultra-wide panoramic image and detailed zoom functionality. Operators can continuously observe entire monitored areas from one camera image without redundant or hidden areas. Face recognition is possible at a long distance. The camera housing has an integrated automatic self-cleaning system that includes a fluid tank, a powered dispensing system and wipers at every window to ensure the best possible image at all times.

KEY FEATURES

- 1" size, CMOS image sensors with extra high-sensitivity
- 320 MP Visible image resolution
- 6400x1024 Thermal image resolution
- Monitoring vast areas
- Stitched panoramic images with white balance correction
- Synchronized imaging
- 20 FPS at full resolution
- JPEG2000 wavelet-based, visually lossless compression
- 10 Gbps SFP+ socket
- All-metal construction of the camera housing
- Quality glass windows with glass heating
- Automatic self-cleaning system
- Active and passive cooling system
- Wide temperature range, -40 °C to +55 °C

SPECIALLY DEVELOPED FUNCTIONS IN THE LOGIPIX CONTROL CENTER

Precise panoramic image stitching in the software
White balance correction between the stitched camera images
Easy zooming on the panoramic image
Having multiple zoom windows on a single panoramic image
Interactive PTZ control on the panoramic image
Zone violation detection and immediate alarm
Individually compressed frames
Special optical filter and picture enhancement algorithm for foggy, rainy weather conditions
High Dynamic Range (HDR) technology to have visual information in both dark and bright areas in the same image
A user-friendly configuration of the automatic self-cleaning system
Support for Technical Monitoring, Control and Maintenance System (TMCMS)
Automatic object tracking - Optional
Object classification - Optional
Geofencing - Optional

SPECIFICATIONS

TECHNICAL SPECIFICATION

Part number	LPAN4-VT-320040
Description	Multi-megapixel Auto Back Focus IP camera with sixteen pieces of 1" sensor and ICR function for Day/Night switching in weatherproof house with self-cleaning system with Thermal camera extension
Resolution for visible camera	320 Megapixel
Resolution for thermal camera	6400x1024 pixel
Frame rate	20 fps at full resolution
Video compression	JPEG2000 - Wavelet
Compression engine	MPX24 Signal Processor
Image sensor	1" WDR 20.48 Megapixel CMOS
Auto focus	Motorized back focus adjustment
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
Field of View	Horizontal: 40° Vertical: 22°
Inputs/Outputs	1 programmable IO connections
Intelligence	Integrated motion detection Video Content Analysis - Optional
Ethernet connection	10 Gbps SFP+ socket
Network security	1500 bit public-key RSA; User authentication
Cooling system	Passive heatpipe
Heating system	Active automatic – optional
De-icing system	Active - optional
Cooling system	Wiper with washer, fluid pump and internal tank
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 IP66, IEC 60950-1

RESOLUTION SPECIFICATION (INSTALLATION HEIGHT 8M)

Covered area	from 8 m to 5,400 m (12 ppm)	
Face recognition (Automatic identification) distance	360 ppm	81 m
Face recognition (Identification by operator) distance	235 ppm	301 m
Human detection (Automatic identification) distance	23 ppm	3,000 m

THERMAL SENSOR

Image sensor	Uncooled Amorphous Silicon (a-Si) microbolometer
Sensor resolution	6400 x 1024 pixel @ 20 FPS
Detector pitch	12 µm
Spectral response	8 - 14 µm
Thermal sensitivity	NETD < 50 mK
Non-conformity correction	1 point with shutter or through lens

THERMAL PROCESSING

Automatic Gain and level	User defined, persistent through power cycles
Digital zoom & pan	Region of interest; 1x - 4x
Picture inversion	Positive / Negative
Image Mirroring	Horizontal and Vertical image flip
Image control	Image contrast enhancement
	Black & White polarity
	Color tables
Symbology	256 grayscale and 256 colors

ENVIRONMENTAL SPECIFICATION

Operating temperature	-40 °C to +55 °C (-40°F to +131°F)
Storage temperature	-40 °C to +55 °C (-40°F to +131°F)
Humidity	up to 100% RH (condensing)
Protection classification	IP66

APPLICATION AREAS

The 320 MP Panorama camera is the ideal device for the observation of large areas. Therefore it is the core component of many Logipix surveillance solutions.

- **Airport Video Surveillance solution**
All landside and airside areas of airports can be monitored easily with the Panorama camera.
- **Safe and Smart City solution**
Large-scale city squares, parking lots or parks also can be observed with a single panorama camera.
- **Border Control Video Surveillance solution**
Thanks to the Panorama camera even long stretches of borders and wide areas can be covered.
- **Critical Infrastructure Video Surveillance solution**
The Panorama camera is reliable so no crucially important activities or incidents go unnoticed.

ELECTRICAL SPECIFICATION

Power supply	230 V AC
Inrush current	10 A
Current consumption	max. 2 A
Power consumption	170 W + 150 W heating
Over voltage protection	LPIX-TOV-11

MECHANICAL SPECIFICATION

Material	Full metal housing, Aluminum with corrosion protection coating
Camera window	Hardened coating
Connector	Round connector, aluminum (MIL-DTL-26482 series 1)
Weight	65 kg (with cameras and lens)
Dimensions (W × D × H)	973 × 712 × 570 mm (with mounting bracket)
Package gross weight	95.5 kg
Package dimensions (W × D × H)	1020 × 760 × 610 mm

RELATED COMPONENTS
Logipix NVR

Part number	Description
LNVR4-V16T5-16	Logipix NVR 4th for Logipix Panorama and Logipix ONE cameras, 2 port 10Gbit SFP+, 16 HDDs, max. 3 pcs of Logipix Storage Expansion Unit
LNVR4-SE-16	Logipix Expansion Unit, 2 port 10Gbit SFP+, 16 HDDs

Logipix SOFTWARE

Part number	Description
SDB08-CC+	Logipix Control Center Professional
SDB08-CCU	Logipix Control Center Ultimate

DIMENSIONS (all values are in mm)
