## **NOVUS**

## 2 MPX High-Speed Dome IP Camera with Face Recognition, License Plate Recognition and Object Tracking

### NVIP-2SD-4550/18/F





#### **KEY FEATURES**

























- •Resolution: 2 MPX
- •Lens: motorized varifocal, Al and AF function, optical zoom 18x, f=5  $\sim$  90 mm/F1.78  $\sim$  2.86
- •D/N function IR cut filter
- Auto Tracking
- •Video content analysis based on Deep Learning
- •Licence plate recognition (LPR)
- microSD card support
- •WDR with double scan sensor
- •two-way audio
- •Min. Illumination from 0.003 lx (0 lx, IR on)
- •IR LED, range up to 100 m (depends on current optical

#### **COMPLIANCE**



#### **DIMENSIONS**

The camera is dedicated to work with NOVUS 4000 series recorders. Detailed data can be found in the compatibility table available in the DOWNLOADABLE FILES tab.

#### **IMAGE**

Image Sensor	2 MPX CMOS sensor 1/2.8" SmartSens
Number of Effective Pixels	1928 (H) x 1088 (V)
Min. Illumination	0.003 lx/F1.6 - color mode • 0 lx (IR on) - B/W mode
Electronic Shutter	auto/manual: 1/5 s ~ 1/20000 s
Digital Slow Shutter (DSS)	up to 1/5 s
Wide Dynamic Range (WDR)	yes (double scan sensor), 120dB
Digital Noise Reduction (DNR)	2D, 3D
Highlight Compensation (HLC)	yes
Back Light Compensation (BLC)	yes
Reduction of image flicker (Antiflicker)	yes
Digital zoom	16x
LENS	
Optical Zoom	18x
Lens Type	motorized, auto-iris function, f=5 $\sim$ 90 mm/F1.78 $\sim$ F2.86
Auto-focus	zoom trigger, day/night mode trigger, manual trigger
DORI	
DORI (Detection, Observation, Recognition, Identification)	for f = 5mm - D: 69m, O: 27.6m, R: 14m, I: 7m • for f = 90mm - D: 1241m, O: 496.6m, R: 248m, I: 124m
DAY/NIGHT	
Mode	day/night switching: mechanical IR cut filter
Switching Mode	auto, manual, time
Switching Level Adjustment	yes
Visible Light Sensor	yes
NETWORK	
Stream Resolution	1920 x 1080 (Full HD), 1280 x 960, 1280 x 720 (HD), 640 x 480 (VGA), 320 x 240 (QVGA)
Frame Rate	30 fps for each resolution
Multistreaming Mode	number of streams: 3 (main stream, sub stream, third stream)
	11.004 11.004 11.005 11.005 1 MIDEO/O 744

H.264, H.264+, H.265, H.265+, MJPEG/G.711

Number of Simultaneous Connectionsmax. 3 connections, (max. 14 streams in total)



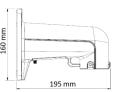
Video/Audio Compression

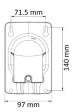
# **NoVus**



160 mm







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	25 Mb/s in total
Network Protocols Support	HTTP, TCP/IP, IPv4/v6, UDP, HTTPS, FTP, DHCP, DNS, DDNS, NTP, RTSP, UPnP, SNMP, PPPoE, SMTP, HTML5, RTMP
ONVIF Protocol Support	Profile G/S/T/M
Camera Configuration	from Edge, Firefox, Chrome, Opera browser • languages: Polish, English, and others
Compatible Software	NOVUS MANAGEMENT SYSTEM VSS, NOVUS MANAGEMENT SYSTEM AC, N Control 4000
Mobile applications	ipGO 4 (iPhone, Android)
PTZ	
Preset Commands	255
Tours	4 (up to 32 presets per tour)
Patterns	4 (max. 512 commands for each pattern)
Tilt/Pan Range	-10° ~ 90°/360° (continuous)
Pan/Tilt Speed	up to 80°/s (proportional to zoom)
Preset Speed	up to 120°/s
VIDEO ANALYTICS	
Functions	auto tracking linked to Video Content Analysis (VCA) functions, tamper, abandoned object, object disappearance, line cross, zone entrance, zone exit, zone violation, multi loiter, pedestrian detection, cross counting, heat map, queue length detection, objects distinguishing, vehicle detection, comparing faces, intrusion detection, smart motion detection with objects distinguishing
OTHER FUNCTIONS	detection, smart motion detection with objects distinguishing
Security	video encryption, IEEE 802.1X support, HTTPS support, MAC/IP
	address filtering, force change of default password
Privacy Zones	6 video mask type: single color
Motion Detection	yes
Audio Detection	yes
Audio Detection Image Processing	yes 180° image rotation, sharpening, mirror effect
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Image Processing	180° image rotation, sharpening, mirror effect
Image Processing Prealarm/Postalarm	180° image rotation, sharpening, mirror effect  up to 6 s/up to 30 s  e-mail with attachment, saving file on FTP server, saving file on SD
Image Processing Prealarm/Postalarm System Reaction to Alarm Events	180° image rotation, sharpening, mirror effect  up to 6 s/up to 30 s  e-mail with attachment, saving file on FTP server, saving file on SD card, alarm output activation, HTTP notification, object tracking  via web browser, using reset button
Image Processing Prealarm/Postalarm System Reaction to Alarm Events Restoring default settings	180° image rotation, sharpening, mirror effect  up to 6 s/up to 30 s  e-mail with attachment, saving file on FTP server, saving file on SD card, alarm output activation, HTTP notification, object tracking  via web browser, using reset button
Image Processing Prealarm/Postalarm System Reaction to Alarm Events Restoring default settings LICENCE PLATE RECOGNITION	180° image rotation, sharpening, mirror effect  up to 6 s/up to 30 s  e-mail with attachment, saving file on FTP server, saving file on SD card, alarm output activation, HTTP notification, object tracking  via web browser, using reset button  (LPR)
Image Processing Prealarm/Postalarm System Reaction to Alarm Events Restoring default settings LICENCE PLATE RECOGNITION Autonomous operation mode	180° image rotation, sharpening, mirror effect  up to 6 s/up to 30 s  e-mail with attachment, saving file on FTP server, saving file on SD card, alarm output activation, HTTP notification, object tracking via web browser, using reset button  (LPR)  yes - recognition function implemented in the camera
Image Processing Prealarm/Postalarm System Reaction to Alarm Events Restoring default settings  LICENCE PLATE RECOGNITION Autonomous operation mode Capacity of License Plate Database	180° image rotation, sharpening, mirror effect  up to 6 s/up to 30 s  e-mail with attachment, saving file on FTP server, saving file on SD card, alarm output activation, HTTP notification, object tracking  via web browser, using reset button  (LPR)  yes - recognition function implemented in the camera  up to 10000 license plates, on all lists.
Image Processing Prealarm/Postalarm System Reaction to Alarm Events Restoring default settings  LICENCE PLATE RECOGNITION Autonomous operation mode Capacity of License Plate Database Types of recognized number plates	180° image rotation, sharpening, mirror effect  up to 6 s/up to 30 s  e-mail with attachment, saving file on FTP server, saving file on SD card, alarm output activation, HTTP notification, object tracking  via web browser, using reset button  (LPR)  yes - recognition function implemented in the camera  up to 10000 license plates, on all lists.  all countries of the European Union
Image Processing Prealarm/Postalarm System Reaction to Alarm Events Restoring default settings  LICENCE PLATE RECOGNITION Autonomous operation mode Capacity of License Plate Database Types of recognized number plates Barrier control Recommended maximum speed of	180° image rotation, sharpening, mirror effect  up to 6 s/up to 30 s  e-mail with attachment, saving file on FTP server, saving file on SD card, alarm output activation, HTTP notification, object tracking via web browser, using reset button  (LPR)  yes - recognition function implemented in the camera up to 10000 license plates, on all lists.  all countries of the European Union yes - built-in relay output
Image Processing Prealarm/Postalarm System Reaction to Alarm Events Restoring default settings  LICENCE PLATE RECOGNITION Autonomous operation mode Capacity of License Plate Database Types of recognized number plates Barrier control Recommended maximum speed of the vehicle	180° image rotation, sharpening, mirror effect  up to 6 s/up to 30 s  e-mail with attachment, saving file on FTP server, saving file on SD card, alarm output activation, HTTP notification, object tracking via web browser, using reset button  (LPR)  yes - recognition function implemented in the camera up to 10000 license plates, on all lists.  all countries of the European Union  yes - built-in relay output  up to 60 km/h
Image Processing Prealarm/Postalarm System Reaction to Alarm Events Restoring default settings  LICENCE PLATE RECOGNITION Autonomous operation mode Capacity of License Plate Database Types of recognized number plates Barrier control Recommended maximum speed of the vehicle Data recorded in the camera base Reactions for the licence plate	180° image rotation, sharpening, mirror effect  up to 6 s/up to 30 s  e-mail with attachment, saving file on FTP server, saving file on SD card, alarm output activation, HTTP notification, object tracking  via web browser, using reset button  (LPR)  yes - recognition function implemented in the camera  up to 10000 license plates, on all lists.  all countries of the European Union  yes - built-in relay output  up to 60 km/h  number of recognised licence plate  e-mail with attachment, saving file on FTP server, alarm output





## 2 MPX High-Speed Dome IP Camera with Face Recognition, License Plate Recognition and Object Tracking NVIP-2SD-4550/18/F

Range	up to 100 m (depends on current optical zoom value)
Smart IR	yes (hardware support)
INTERFACES	
Video Output	BNC, 1.0 Vp-p, 75 Ohm
Audio Input/Output	1/1
Alarm Input/Output	1 (NO/NC)/1 relay type (max. 12VDC/300mA)
Network Interface	1 x Ethernet - RJ-45 interface, 10/100 Mbit/s
Memory Card Slot	microSD - capacity up to 256GB
INSTALLATION PARAMETERS	
Dimensions (mm)	160 (Φ) x 276 (H) with bracket: 160 (W) x 376 (H) x 351 (L)
Weight	2.5 kg with bracket: 3.5 kg
Degree of Protection	IP 66 (details in the user's manual)
Enclosure	plastic, white, In set: outdoor housing (integrated with the camera), wall mount bracket • Enclosure type: 4SD
Power Supply	12 VDC, PoE+ (IEEE 802.3at,Class 4)
Power Consumption	10 W • 19 W (IR illuminator on)
Operating Temperature	-30°C ~ 60°C
Cold start temperature	-35°C
Humidity	max. 90%, relative (non-condensing)

The camera has the ability to autonomously recognize and compare faces, but it can also be part of the face recognition system, working with selected NOVUS 4000 series IP recorders (models with "F" in the name).

