

How to use the OTT netDL 1000 with the IP camera HIKVISION DS-2CD2623G0-IZS



1 Introduction

The OTT netDL 1000 allows for the integration of an IP camera into the measurement network. This document shows, how to integrate an IP camera of type HikVisionDS-2CD2623G0-IZS and what is required for this.

2 Application

The IP camera HikVision DS-2CD2623G0-IZS can be connected to an OTT netDL 1000. The datalogger is now able to retrieve pictures from the camera and to perform the following actions:

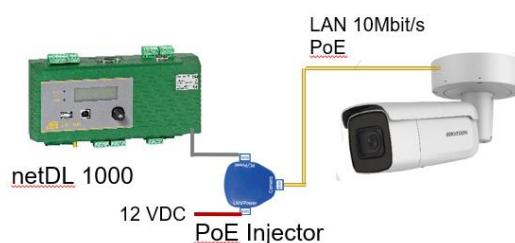
- Retrieve picture at a freely defined time interval and forward it over an IP connection (FTP, http, https)
- Retrieve picture because an event/alarm has occurred and forward it over an IP connection
- Retrieve picture at a freely defined time interval and forward it over an IP connection – while adjusting the time interval to respond to an event or alarm e.g. to shorten the time interval.
- Display image in a web browser
- Display image in Hydras 3 Net
- Request image from camera via OTT netDL – via Hydras 3 Net or „Data Logger Operating Program“

Pictures are useful to get a visual impression of the situation at the measuring site. The OTT netDL 1000 serves as communication module for the IP camera. The way it works is always „Shot and Forward“, that means a picture is retrieved and forwarded immediately. The datalogger does not store any pictures. For this application the use of an OTT netDL 1000 is mandatory.

3 Power supply for camera

- 1) The camera DS-2CD2623G0-IZS is powered by Power over Ethernet (PoE).

Power is supplied via the data cable via PoE (Power over Ethernet). No additional cable is required but a so-called PoE Injector or a PoE capable switch.



2) The camera DS-2CD2623G0-IZS is powered via the 12V DC terminal.

Notes:

The power consumption of the camera is 14,5W/18W max.

If the camera is started via the switch contact, a warm-up time of approx. 30 s must be configured.

The PoE Injector can also be powered via the switch contact of the OTT netDL 1000.

4 LAN connections - IP transmissions

4.1 LAN cable

So-called patch cables (1:1) can be used for all LAN-connections (Cross Over cables will work as well).

Examples:

- DS-2CD2623G0-IZS via PoE Adapter (65.000.036.9.2) to OTT netDL 1000: Patch cable
- DS-2CD2623G0-IZS via PoE Adapter and Switch/Router to OTT netDL 1000: Patch cable

Note: the maximum cable length for Ethernet (CAT5/6) is 100m

4.2 Transmission of pictures via IP

Pictures are always transmitted via IP which is possible with any IP transmission in the OTT netDL 1000.

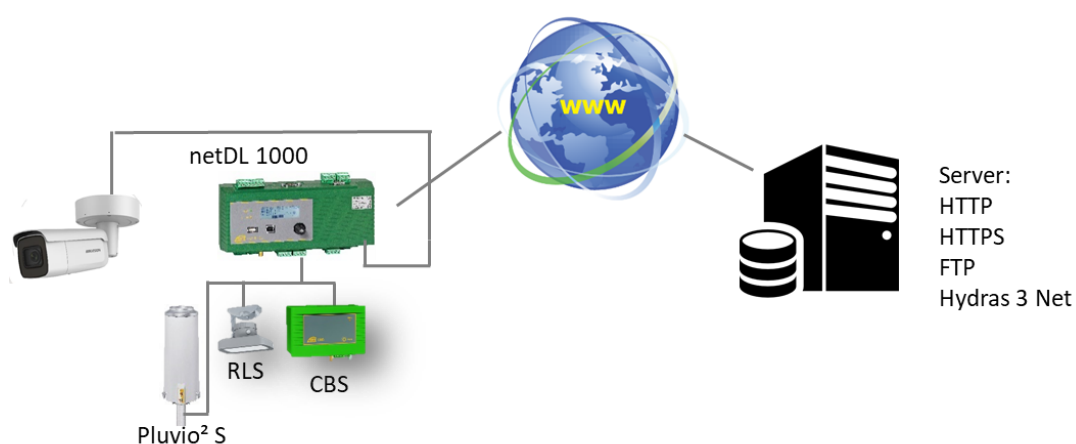
Examples:

- LAN Port of OTT netDL 1000 (10BaseT)
 - Router (ALLIP, DSL, LTE, LAN-network)
 - Satellite e.g. Inmarsat BGAN
 - Etc.
- Modem: GSM/GPRS/3G (internal or external) – 4G (external)

5 Server

Applicable servers are:

- FTP-Server
- HTTP-Server
- HTTPS-Server
- Hydras 3 Net (HTTP/HTTPS)



Notes:

Data transmission is always „Shot & Forward“, pictures are not stored in the datalogger.

Videos are not transmitted, only pictures up to a size of 500k.

6 Components

Components	Article	Comment
DS-2CD2623G0-IZS	9796042995	incl. wall mounting
OTT netDL 1000	5555200190	required
Software Option „External IP device for netDL“	5555230893	required
Masthalterung für 2“ – 4“ Mast	6501005592	
PoE Power Injector with 12V connection cable	6500003692	
Overvoltage protection for Ethernet	9775022595	optional

Link in the OTT netDL:

Script Path

/ISAPI/Streaming/channels/101/picture

Patch cable

Components	Article	Comment
Patch cable 10m	9797016595	CAT 6 Outdoor / UV resistant
Patch cable 1m	9796116595	CAT 6 – S/FTP grey
Patch cable 3m	9797011795	CAT 6 – S/FTP purple
Patch cable 5m	9797011895	CAT 6 – S/FTP purple

7 Example of camera mounted to a mast



8 Other IP camera types

With the OTT netDL, the IP camera feature is based on the function „External IP Device“. This function allows for the connection of external IP devices, e.g. another OTT netDL or other IP cameras.

These camera types have proven to work properly when connected with the OTT netDL 1000d:

- D-Link DCS-6915
- D-Link DCS 7010L
- Mobotix M25 / M26 / M1M
- Axis P1367
- Panasonic WV-SW558
- HikVision DS-2CD2023G0-I

Note:

Experience has shown that unknown cameras should be tested before they are offered or sold.

9 Attachments

9.1

DS-2CD2623G0-IZS 2 MP IR Varifocal Bullet Network Camera



Key Features

- 1/2.8" Progressive Scan CMOS
- 1920 × 1080@30fps
- 2.8 to 12 mm varifocal lens
- Color: 0.01 Lux @ (F1.2, AGC ON), 0.018 Lux @ (F1.6, AGC ON), 0 Lux with IR
- H.265+, H.265, H.264+, H.264
- Three streams
- 120dB WDR
- 2 behavior analyses, and face detection
- BLC/3D DNR/ROI/HLC
- IP67, IK10
- Built-in micro SD/SDHC/SDXC card slot, up to 128 GB
- 3-Axis adjustment

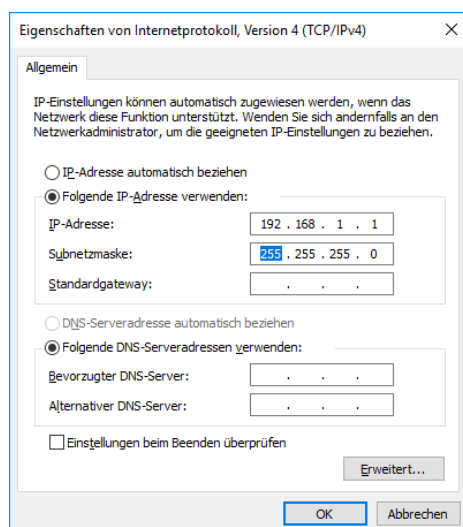
Specifications

Camera	
Image Sensor	1/2.8" Progressive Scan CMOS
Min. Illumination	Color: 0.01 Lux @ (F1.2, AGC ON), 0.018 Lux @ (F1.6, AGC ON), 0 Lux with IR
Shutter Speed	1/3 s to 1/100,000 s
Slow Shutter	Yes
Day & Night	IR Cut Filter
Digital Noise Reduction	3D DNR
WDR	120dB
3-Axis Adjustment	Pan: 0° to 360°, tilt: 0° to 90°, rotate: 0° to 360°
Lens	
Focal length	2.8 to 12 mm
Lens Type	Motorized
Aperture	F1.6
Focus	Auto
FOV	horizontal FOV: 110° to 31° vertical FOV: 58° to 18° diagonal FOV: 136° to 36°
Lens Mount	Φ14
Lens Type	Motorized
IR	
IR Range	Up to 50 m
Wavelength	850nm
Compression Standard	
Video Compression	Main stream: H.265/H.264 Sub-stream: H.265/H.264/MJPEG Third stream: H.265/H.264
H.264 Type	Main Profile/High Profile
H.264+	Main stream supports
H.265 Type	Main Profile
H.265+	Main stream supports
Video Bit Rate	32 Kbps to 16 Mbps
Audio Compression	G.711/G.722.1/G.726/MP2L2/PCM
Audio Bit Rate	64Kbps(G.711)/16Kbps(G.722.1)/16Kbps(G.726)/32-192Kbps(MP2L2)
Smart Feature-set	
Behavior Analysis	Line crossing detection, intrusion detection
Face Detection	Yes
Region of Interest	1 fixed region for main stream and sub-stream
Image	
Max. Resolution	1920 × 1080
Main Stream	50Hz: 25fps (1920 × 1080, 1280 × 960, 1280 × 720) 60Hz: 30fps (1920 × 1080, 1280 × 960, 1280 × 720)
Sub-Stream	50Hz: 25fps (640 × 480, 640 × 360, 320 × 240) 60Hz: 30fps (640 × 480, 640 × 360, 320 × 240)
Third Stream	50Hz: 25fps (1920 × 1080, 1280 × 720, 640 × 360, 352 × 288)

	60Hz: 30fps (1920 × 1080, 1280 × 720, 640 × 360, 352 × 240)
Image Enhancement	BLC/3D DNR/HLC
Image Setting	Rotate mode, saturation, brightness, contrast, sharpness and white balance adjustable by client software or web browser
Target Cropping	No
Day/Night Switch	Day/Night/Auto/Schedule/Triggered by alarm in
Network	
Network Storage	Support Micro SD/SDHC/SDXC card (128G), local storage and NAS (NFS,SMB/CIFS), ANR
Alarm Trigger	Motion detection, video tampering, network disconnected, IP address conflict, illegal login, HDD full, HDD error
Protocols	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP™, SMTP, SNMP, IGMP, 802.1X, QoS, IPv6, Bonjour
General Function	One-key reset, anti-flicker, three streams, heartbeat, mirror, password protection, privacy mask, watermark, IP address filter
Firmware Version	V5.5.80
API	ONVIF (PROFILE S, PROFILE G), ISAPI
Simultaneous Live View	Up to 6 channels
User/Host	Up to 32 users 3 levels: Administrator, Operator and User
Client	iVMS-4200, Hik-Connect, iVMS-5200, iVMS-4500
Web Browser	Plug-in required live view: IE8+, Chrome 41.0-44, Firefox 30.0-51, Safari 8.0-11 Plug-in free live view: Chrome 45.0+, Firefox 52.0+
Interface	
Audio	1 input (line in/mic.in, 3.5 mm), 1 output (line out, 3.5 mm), mono sound
Communication Interface	1 RJ45 10M/100M self-adaptive Ethernet port
Alarm	1 input, 1 output (max. 12 VDC, 30 mA), terminal block
Video Output	1Vp-p composite output(75Ω) (For adjustment only)
On-board storage	Built-in Micro SD/SDHC/SDXC slot, up to 128 GB
SVC	H.264 and H.265 encoding
Reset Button	Yes
Audio	
Environment Noise Filtering	Yes
Audio Sampling Rate	8 kHz/16 kHz/32 kHz/44.1 kHz/48 kHz
General	
Operating Conditions	-30 °C to +60 °C (-22 °F to +140 °F), Humidity 95% or less (non-condensing)
Power Supply	12 VDC ± 25%, terminal block PoE (802.3at, class 4)
Power Consumption and Current	12 VDC, 1.2A, max. 14.5W PoE (802.3at, 42.5V to 57V), 0.43A to 0.3A, max. 18W
Protection Level	IP67, IK10
Material	Metal
Dimensions	Φ 144.13 × 332.73 mm (Φ 5.7" × 13.1")
Weight	Camera: Approx. 1740 g (3.8 lb.) With Package: Approx. 2610 g (5.8 lb.)

9.2 Configuration of the camera

Set the network adapter of the PC to address 192.168.1.1. (only possible as admin user)



Connect IP camera - via POE adapter

In Web Browser, call up the address 192.168.1.64.

Assign username and password

- In Configuration - Image - OSD Settings - Deactivate "Date Display" Date/Time only works if the camera is continuously powered and the SNTP time server in the camera is activated and reachable, otherwise deactivate, date/Time is contained in the file name.

- In Configuration - Image - OSD Settings, --- Station name is included in the file name.

- Configuration > System > Security > Security WEB-Authentication: set to **"Digest/Basic"**

Still image can be retrieved via command:

192.168.1.64/ISAPI/Streaming/channels/101/picture in browser.

Settings at OTT netDL1000:

Enter IP address, user, PW and script path in the OTT netDL configuration under IP-Device.

Address: 192.168.1.64 -ScriptPath: ISAPI/Streaming/channels/101/picture

User: admin

PW: (User-defined)

Set LAN adapter of netDL to 192.168.1.60

Set lag time to min. 40sec

