



# User Manual

Code: SD5A225GB-HNR

IP SPEED DOME CAMERA OUTDOOR **SD5A225GB-HNR** - 1080p 4.8 ... 120 mm DAHUA

## Warning!

Please read the user manual included in this work as it contains important information related with safety of installation and use of the device.

Only persons who read the user manual may use the device.

The user manual must be kept because it may be required in the future. The device is to be used exclusively for purposes specified in this user manual.

The device must be unpacked prior to starting-up. After removing the packaging make sure the device is in working order.

If the product has defects, it should not be used until it is repaired.

The product is intended for use at home and commercial use and may not be used for other than intended use.

The manufacturer is not liable for damages resulting from not adhering to the rules contained in the user manual, therefore, we recommend to follow the aforementioned safety rules for operation and maintenance of the device. In this way you will ensure yourself safety and avoid causing damage to the device.

The manufacturer and the supplier are not liable for losses or damages arising out of the product, including financial or intangible losses, loss of profits, income, data, pleasure from use of the product or other products related with it - indirect, incidental or consequential loss or damage. The above provisions apply whether the loss or damage concerns:

1. Deterioration of quality or the lack of operation of the products or products related with it due to damage as well as the lack of access to the product when it is undergoing repair, which results in stoppage the loss of user's time or a break in business activity;
2. Improper results of operation of the product or products related with it;
3. It applies to losses and damages according to any legal category, including negligence and other losses, termination of a contract, expressed or implied guarantee and strict liability (even if the manufacturer or the supplier was notified about the possibility of occurrence of such damages).

### Safety measures:

Particular attention at designing was directed to quality standards of the device where ensuring safety of operation is the most important factor.

The device must be secured against contact with caustic, staining and viscous fluids.

The device was designed in such a way that it restarts operation when power supply is restored after a break.

**Attention! We recommend using protections to further protect the device from possible overvoltages in installations. Surge protectors are effective protection against accidental pass to the device voltages higher than the rated. Damages caused by pass the voltages higher than specified in manual, are not under warranty.**

Turn off the device before transporting it.

Prior to connecting the device to a power source check whether the supplied voltage is consistent with rated voltage specified in the user manual.

### Proper product disposal:

A marking of a crossed out waste bin indicates that the product may not be disposed together with other household waste in the entire EU. To avoid possible damage to the natural environment of health due to uncontrolled waste disposal, therefore, it should be handed over for recycling, propagating in this way sustainable use of natural resources.

To return a worn-out product, use a collection and disposal system of this type of equipment or contact a seller from whom it was purchased. He will then be recycled in an environmentally-friendly way.

IP camera equipped with very good high resolution sensor. Due to above it is perfect solution for surveillance systems requiring persons or vehicles recognition.

Built-in IR illuminator allows to operate at night conditions, and vari-focal lens with wide range of view angle adjustment enables optimal set the view field of camera to all conditions. The range of IR illumination according to the manufacturer data, depends on outer conditions (visibility - air transparency, environment, wall colors ie. scene reflectance).

Thanks to the "Starlight" technology used, the camera only needs very low lighting to obtain a clear color image. PoE powering possibility, compatible with the 802.3at standard makes the device more universal and easier to install.

For a few models of IP cameras working at  $\geq 1920 \times 1080$  resolution we recommend to use of network with 1Gb/s bandwidth.



|                                  |                                                                                                                                     |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Standard:                        | TCP/IP                                                                                                                              |
| Sensor:                          | 1/2.8 " STARVIS™ CMOS                                                                                                               |
| Matrix size:                     | 2.1 Mpx                                                                                                                             |
| Resolution:                      | 1920 x 1080 - 1080p ,<br>1280 x 960 1.3 Mpx ,<br>1280 x 720 720p                                                                    |
| Lens:                            | 4.8 ... 120 mm                                                                                                                      |
| View angle:                      | <ul style="list-style-type: none"> <li>• 59 ° ... 2.8 ° (manufacturer data)</li> <li>• 56 ° ... 3.4 ° (our tests result)</li> </ul> |
| Optical zoom:                    | x 25                                                                                                                                |
| Digital zoom:                    | x 16                                                                                                                                |
| Range of IR illumination:        | 150 m                                                                                                                               |
| Video output:                    | —                                                                                                                                   |
| Preset rotation speed:           | <ul style="list-style-type: none"> <li>• 400 °/s (horizontal)</li> <li>• 300 °/s (vertical)</li> </ul>                              |
| Rotation speed (manual control): | <ul style="list-style-type: none"> <li>• 0.1 °/s ... 300 °/s (horizontal)</li> <li>• 0.1 °/s ... 200 °/s (vertical)</li> </ul>      |
| Horizontal rotation range:       | 360 ° - continuous                                                                                                                  |



# User Manual

Code: SD5A225GB-HNR

IP SPEED DOME CAMERA OUTDOOR **SD5A225GB-HNR** - 1080p 4.8 ... 120 mm DAHUA

|                                |                                                                                                                                                                                                           |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Vertical rotation range:       | -15 ° ... 90 °                                                                                                                                                                                            |
| RS-485 interface:              | —                                                                                                                                                                                                         |
| Number of presets:             | 300                                                                                                                                                                                                       |
| Horizontal scan:               | ✓                                                                                                                                                                                                         |
| Route settings:                | 8                                                                                                                                                                                                         |
| Image compression method:      | H.265+ / H.265 / H.264+ / H.264 / MJPEG                                                                                                                                                                   |
| Alarm inputs / outputs:        | 2 / 1                                                                                                                                                                                                     |
| Audio:                         | <ul style="list-style-type: none"><li>• External microphone input</li><li>• Audio output</li><li>• Bi-directional audio streaming support</li><li>• Audio detection</li></ul>                             |
| Main stream frame rate:        | 25 fps @ 1080p                                                                                                                                                                                            |
| Network interface:             | 10/100 Base-T (RJ-45)                                                                                                                                                                                     |
| Network protocols:             | HTTP, HTTPS, IPv4/IPv6, RTSP, UDP, SMTP, NTP, DHCP, DNS, DDNS, IEEE 802.1x, QoS, FTP, UPnP, ICMP, SNMP, SNMPv1/v2c/v3(MIB-2), IGMP, ARP, RTCP, RTP, PPPoE, RTMP, TCP                                      |
| WEB Server:                    | Built-in                                                                                                                                                                                                  |
| Max. number of on-line users:  | 20                                                                                                                                                                                                        |
| ONVIF:                         | 21.12                                                                                                                                                                                                     |
| Memory card slot:              | Micro SD memory cards up to 512GB support (possible local recording)                                                                                                                                      |
| Mobile phones support:         | Port no.: 37777 or access by a cloud (P2P) <ul style="list-style-type: none"><li>• Android: Free application <a href="#">DMSS</a></li><li>• iOS (iPhone): Free application <a href="#">DMSS</a></li></ul> |
| Default IP address:            | 192.168.1.108                                                                                                                                                                                             |
| Default admin user / password: | admin / -<br>The administrator password should be set at the first start                                                                                                                                  |
| Web browser access ports:      | 80, 37777                                                                                                                                                                                                 |
| PC client access ports:        | 37777                                                                                                                                                                                                     |
| Mobile client access ports:    | 37777                                                                                                                                                                                                     |
| Port ONVIF:                    | 80                                                                                                                                                                                                        |
| RTSP URL:                      | rtsp://admin:haslo@192.168.1.108:554/cam/realmonitor?channel=1&subtype=0 - Main stream<br>rtsp://admin:haslo@192.168.1.108:554/cam/realmonitor?channel=1&subtype=1 - Sub stream                           |



# User Manual

Code: SD5A225GB-HNR

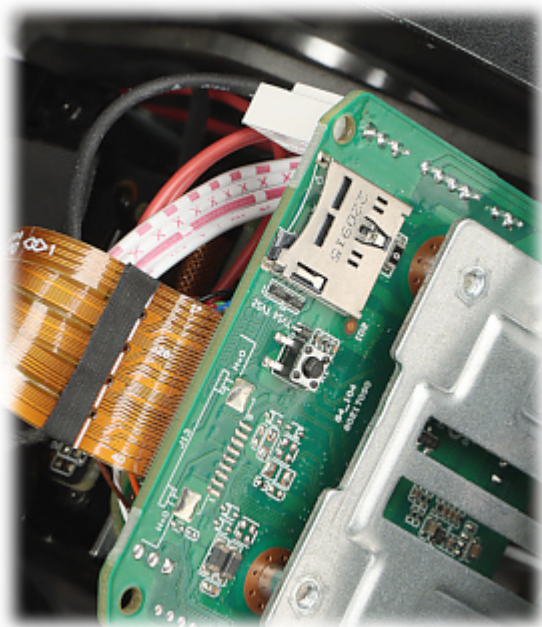
IP SPEED DOME CAMERA OUTDOOR **SD5A225GB-HNR** - 1080p 4.8 ... 120 mm DAHUA

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Main features:         | <ul style="list-style-type: none"><li>• Intelligent Object Tracking</li><li>• WDR - 120 dB - Wide Dynamic Range</li><li>• 2D-DNR, 3D-DNR - Digital Noise Reduction</li><li>• EIS - Electronic Image Stabilization</li><li>• ROI - improve the quality of selected parts of image</li><li>• F-DNR (Defog) - Reduction of image noise caused by precipitation</li><li>• SMD 4.0 - searching for an object classified as: human, motor vehicle - increased detection distance and resistance to false alarms</li><li>• Quick Pick - AI technology enabling, together with the recorder, quick identification of interesting objects (people/vehicles) based on an artificial intelligence algorithm. It allows to extract and compare the colors of clothes and vehicles</li><li>• BLC - Back Light Compensation</li><li>• Motion Detection</li><li>• Privacy zones - max. 24</li><li>• Day/night mode</li><li>• ICR - Movable InfraRed filter</li><li>• AGC - Automatic Gain Control</li><li>• Auto White Balance</li><li>• Sharpness - sharper image outlines</li><li>• IVS analysis : crossing the line (tripwire), intrusion, abandoned/missing object, fast moving, parking detection, detection of people gathering, loitering detection, face detection - advanced face capture features, supports 6 types of facial attributes extraction</li><li>• Filtering of false alarms based on the recognition of persons and vehicles (tripwire, intrusion)</li></ul> |
| Power supply:          | <ul style="list-style-type: none"><li>• PoE (802.3at),</li><li>• 24 V DC / 2.5 A (power adapter included)</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Power consumption:     | max. 22 W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Housing:               | Speed Dome, Metal + Plastic                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Color:                 | White + Black                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Operation temp:        | -40 °C ... 70 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| "Index of Protection": | IP67                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Vandal-proof:          | IK10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Weight:                | 5.32 kg (with bracket)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Dimensions:            | 190 x 415 x 268 mm (with bracket)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Supported languages:   | Polish, English, Czech, Spanish, French, Dutch, German, Portuguese Romanian, Russian Turkish Hungarian, Italian                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Manufacturer / Brand:  | DAHUA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Guarantee:             | <b>5 years</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

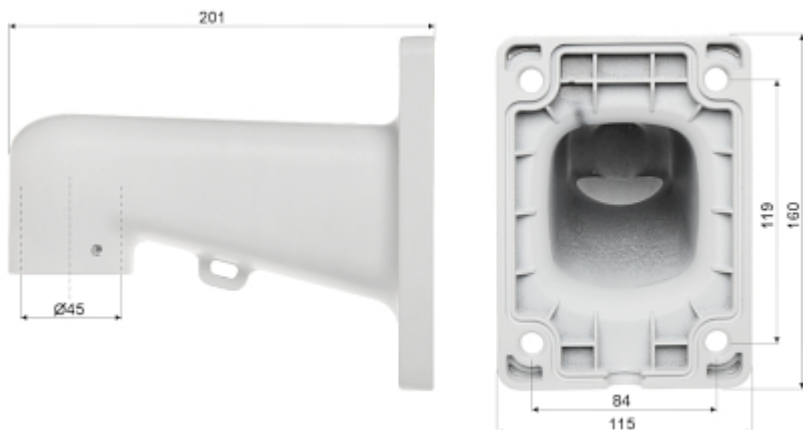
Bottom view:



Micro SD card slot is located inside the camera:



Bracket dimensions:



Connectors:

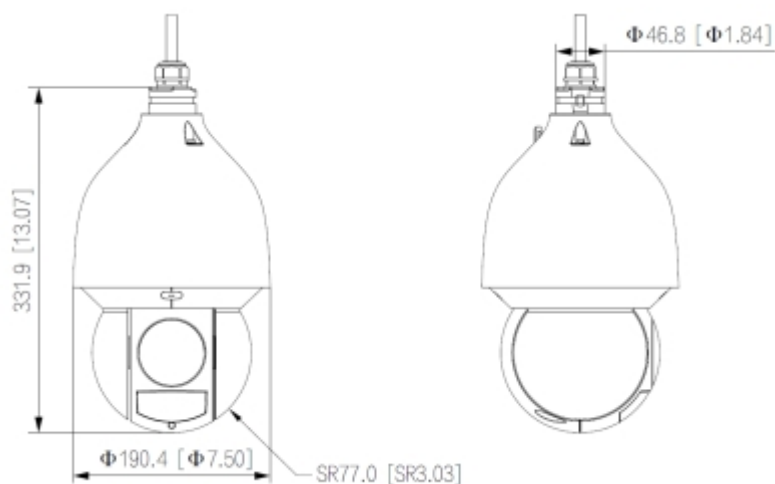


Connectors description:





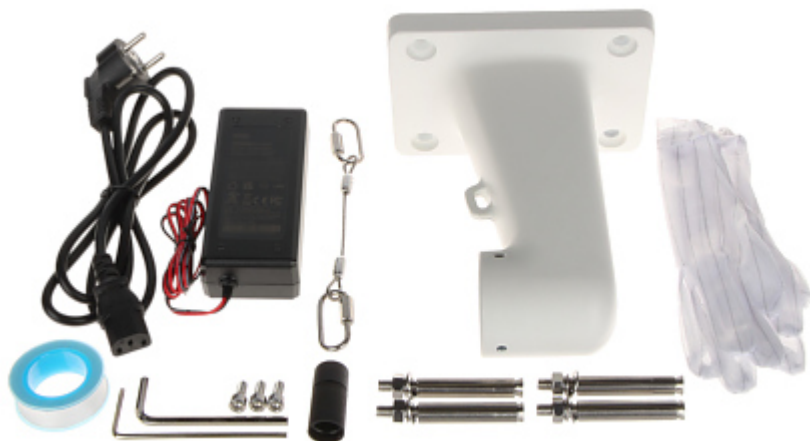
Camera dimensions:



See how to initialize DAHUA cameras:

:

In the kit:







# User Manual

Code: SD5A225GB-HNR

IP SPEED DOME CAMERA OUTDOOR **SD5A225GB-HNR** - 1080p 4.8 ... 120 mm DAHUA

---

## PACKAGE

|                                  |                    |
|----------------------------------|--------------------|
| Dimensions (L x W x H): 0x0x0 mm | Gross Weight: 0 kg |
|----------------------------------|--------------------|