




	<a href="#">IP SPEED DOME CAMERA OUTDOOR SD5A445GB-HNR - 3.7 Mpx 3.96... 177.75 mm DAHUA</a>	<a href="#">IP SPEED DOME CAMERA OUTDOOR TC-H356Q SPEC:30X/IW/E+/A/V3.0 - 5 Mpx 4.7... 141 mm TIANDY</a>	<a href="#">IP SPEED DOME CAMERA OUTDOOR TC-H344S SPEC:25X/I/E+/A/V3.0 - 3.7 Mpx 4.8... 120 mm TIANDY</a>
			
	1815.69 GBP 1815.69 GBP	1897.44 GBP 1897.44 GBP	840.20 GBP 840.20 GBP
Standard	TCP/IP	IP	IP
Matrix size	4 Mpx	...	...
Sensor	1/2.8 " STARVIS™ CMOS	1/2.7 " Progressive Scan CMOS	1/2.7 " Progressive Scan CMOS
Resolution	2560 x 1440 - 3.7 Mpx , 2048 x 1536 - 3 Mpx , 2304 x 1296 - 3 Mpx , 1920 x 1080 - 1080p , 1280 x 960 1.3 Mpx , 1280 x 720 720p	2880 x 1620 - 5 Mpx , 2688 x 1520 - 4 Mpx , 2560 x 1440 - 3.7 Mpx , 2304 x 1296 - 3 Mpx , 1920 x 1080 - 1080p , 1280 x 720 - 720p	2560 x 1440 - 3.7 Mpx , 2304 x 1296 - 3 Mpx , 1920 x 1080 - 1080p , 1280 x 720 - 720p
Lens	3.96 ... 177.75 mm	4.7 ... 141 mm	4.8 ... 120 mm
View angle	<ul style="list-style-type: none"> <li>• 66 ° ... 1.9 ° (manufacturer data)</li> <li>• 59 ° ... 1.9 ° (our tests result)</li> </ul>	<ul style="list-style-type: none"> <li>• 62 ° ... 2.5 ° (manufacturer data)</li> <li>• 59 ° ... 2.9 ° (our tests result)</li> </ul>	58 ° ... 2.8 °
Optical zoom	x 45	x 30	x 25
Digital zoom	x 16	x 16	x 16
White light LED illuminator range	...	30 m	...
Range of IR illumination	150 m	200 m	150 m
Video output	—	—	—
Preset rotation speed	<ul style="list-style-type: none"> <li>• 400 °/s (horizontal)</li> <li>• 300 °/s (vertical)</li> </ul>	<ul style="list-style-type: none"> <li>• 240 °/s (horizontal)</li> <li>• 120 °/s (vertical)</li> </ul>	<ul style="list-style-type: none"> <li>• 240 °/s (horizontal)</li> <li>• 180 °/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>	<ul style="list-style-type: none"> <li>• 0.1 °/s ... 180 °/s (horizontal)</li> <li>• 0.1 °/s ... 120 °/s (vertical)</li> </ul>	<ul style="list-style-type: none"> <li>• 0.1 °/s ... 200 °/s (horizontal)</li> <li>• 0.1 °/s ... 120 °/s (vertical)</li> </ul>
Horizontal rotation range	360 ° - continuous	360 ° - continuous	360 ° - continuous
Vertical rotation range	-15 ° ... 90 °	-16 ° ... 90 °	-16 ° ... 90 °
RS-485 interface	—	—	✓
Number of presets	300	500	500
Horizontal scan	✓	✓	✓
Route settings	8	8	8
Image compression method	H.265+ / H.265 / H.264+ / H.264 / MJPEG	S+265 / H.265 / H.264 / MJPEG	S+265 / H.265 / H.264 / MJPEG
Alarm inputs / outputs	2 / 1	8 / 2	1 / 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>	<ul style="list-style-type: none"> <li>• Audio input</li> <li>• Audio output</li> <li>• Speaker built-in</li> <li>• Compliance with the AAC standard</li> </ul>	<ul style="list-style-type: none"> <li>• Audio input</li> <li>• Audio output</li> </ul>
Wiper	...	✓	...
Main stream frame rate	25 fps @ 4 Mpx	25 fps @ 3.7 Mpx	25 fps @ 3.7
Network interface	10/100 Base-T (RJ-45)	...	10/100 Base-T (RJ-45)
Interface	...	10/100 Base-T (RJ-45)	...
Access from PC	...	Port no.: 3000 or access by a cloud (P2P) - PC: Free application <a href="#">Easy7 Smart Client Express</a>	Port no.: 3000 or access by a cloud (P2P) - PC: Free application <a href="#">Easy7 Smart Client Express</a>

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Network protocols	HTTP, HTTPS, TCP/IP, PPPoE, IPv4/IPv6, RTMP, RTSP, UDP, SMTP, NTP, DHCP, DNS, DDNS, IEEE 802.1x, QoS, FTP, UPnP, ICMP, SNMP, SSL, IGMP, ARP, RTCP, RTP	...	...
WEB Server	Built-in	Built-in	Built-in
Max. number of on-line users	20	4	7
ONVIF	21.12	✓	✓
Memory card slot	Micro SD memory cards up to 512GB support (possible local recording)	Micro SD card support up to 512GB	Micro SD card support up to 512GB
Mobile phones support	Port no.: 37777 or access by a cloud (P2P) • Android: Free application <a href="#">DMSS</a> • iOS (iPhone): Free application <a href="#">DMSS</a>	Port no.: 3000 or access by a cloud (P2P) • Android: Free application <a href="#">EasyLive Plus</a> • iOS (iPhone): Free application <a href="#">EasyLive Plus</a>	Port no.: 3000 or access by a cloud (P2P) • Android: Free application <a href="#">EasyLive Plus</a> • iOS (iPhone): Free application <a href="#">EasyLive Plus</a>
Default IP address	192.168.1.108	DHCP or 192.168.1.2	192.168.1.2
Intelligent image analysis	...	<ul style="list-style-type: none"> <li>• classification of people and vehicles</li> <li>• crossing the line (tripwire)</li> <li>• double crossing the line</li> <li>• intrusion</li> <li>• abandoned/missing object</li> <li>• heat map</li> <li>• detection of loitering in a given area</li> <li>• running</li> <li>• parking detection</li> <li>• people counting</li> <li>• detection of people gathering</li> <li>• protective helmet detection</li> <li>• detection of persons on duty</li> <li>• video tampering</li> <li>• Intelligent Object Tracking</li> </ul>	<ul style="list-style-type: none"> <li>• classification of people and vehicles</li> <li>• crossing the line (tripwire)</li> <li>• double crossing the line</li> <li>• intrusion</li> <li>• abandoned/missing object</li> <li>• illegal parking</li> <li>• people counting</li> <li>• detection of people gathering</li> <li>• heat map</li> <li>• detection of loitering in a given area</li> <li>• running</li> <li>• protective helmet detection</li> <li>• detection of persons on duty</li> <li>• face detection</li> <li>• video tampering</li> <li>• Intelligent Object Tracking</li> </ul>
Default admin user / password	admin / - The administrator password should be set at the first start	admin / - The administrator password should be set at the first start	admin / - The administrator password should be set at the first start
Web browser access ports	80, 37777	80, 443, 3000, 3001, 3002, 23002	80, 443, 3000, 3001, 3002, 23002
PC client access ports	37777	3000, 3001	3000, 3001
Mobile client access ports	37777	3000, 3001	3000, 3001
Port ONVIF	80	80	80
RTSP URL	rtsp://admin:haslo@192.168.1.108:554/cam/realmonitor?channel=1&subtype=0 - Main stream rtsp://admin:haslo@192.168.1.108:554/cam/realmonitor?channel=1&subtype=1 - Sub stream	...	...
Protections	...	Protection against lightning discharges : 6 kV	...
Mechanical protection class	...	—	...

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>• NAS - Network Attached Storage support</li> <li>• BLC/HLC - Back Light / High 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>	<ul style="list-style-type: none"> <li>• Early Warning (EW) - combination of white light warning with audio signals</li> <li>• Built-in laser pointer</li> <li>• WDR - 120 dB - Wide Dynamic Range</li> <li>• AGC - Automatic Gain Control</li> <li>• 2D-DNR, 3D-DNR - Digital Noise Reduction</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>• ANR - Automatic Network Replenishment allows to save image to the card when the network connection with DVR is break (network failure) and next synchronize its</li> <li>• BLC/HLC - Back Light / High Light Compensation</li> <li>• Day/night mode</li> <li>• ICR - Movable InfraRed filter</li> <li>• Motion Detection</li> <li>• Image rotation and mirror</li> <li>• Adaptive adjusting of the IR illuminator power to the lens zoom and outdoor light conditions</li> </ul>	<ul style="list-style-type: none"> <li>• WDR - 120 dB - Wide Dynamic Range</li> <li>• 2D-DNR, 3D-DNR - Digital Noise Reduction</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>• ANR - Automatic Network Replenishment allows to save image to the card when the network connection with DVR is break (network failure) and next synchronize its</li> <li>• NAS - Network Attached Storage support - allows to connect memory resources directly to the computer network</li> <li>• BLC/HLC - Back Light / High Light Compensation</li> <li>• Day/night mode</li> <li>• ICR - Movable InfraRed filter</li> <li>• Motion Detection</li> <li>• Image rotation and mirror</li> <li>• Adaptive adjusting of the IR illuminator power to the lens zoom and outdoor light conditions</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>	<ul style="list-style-type: none"> <li>• PoE (802.3bt),</li> <li>• 24 V DC</li> </ul>	<ul style="list-style-type: none"> <li>• PoE (802.3at),</li> <li>• 12 V DC</li> </ul>
Power consumption	max. 22 W	≤ 42 W	≤ 19.4 W
Housing	Speed Dome, Metal + Plastic	Speed Dome, Aluminum	Speed Dome, Aluminum
Color	White + Black	White + Black	White + Black
Operation temp	-40 °C ... 70 °C	-40 °C ... 70 °C	-30 °C ... 65 °C
"Index of Protection"	IP67	IP66	IP66
Vandal-proof	IK10	...	—
Weight	5.34 kg (with bracket)	5.2 kg	3 kg
Dimensions	190 x 415 x 268 mm (with bracket)	Ø 223 x 372 mm (without bracket)	Ø 161 x 276 mm
Supported languages	Polish, English, Czech, Spanish, French, Dutch, German, Portuguese Romanian, Russian Turkish Hungarian, Italian	Polish, English, Arabic, Spanish, Korean, Turkish, French, Hebrew, Dutch, German, Russian, Thai, Ukrainian, Vietnamese, Italian	Polish, English, Albanian, Arabic, Korean, French, Hebrew, Spanish, Dutch, German, Portuguese, Russian, Thai, Turkish, Ukrainian, Vietnamese, Italian
Manufacturer / Brand	DAHUA	TIANDY	TIANDY
Guarantee	5 years	3 years	3 years