

# Outdoor-ready PTZ with HDTV 720p and 30x optical zoom Network Camera

Camera	
Image sensor	1/2.8" progressive scan CMOS
Lens	4.25–127.5 mm, F1.6–4.2 Horizontal field of view: 63.8°–2.6° (720p) Vertical field of view: 38.0°–1.47° (720p) Autofocus, auto-iris
Day and night	Automatically removable infrared-cut filter
Minimum illumination	Color: 0.1 lux at 30 IRE, F1.6 B/W: 0.002 lux at 30 IRE, F1.6 Color: 0.15 lux at 50 IRE, F1.6 B/W: 0.003 lux at 50 IRE, F1.6
Shutter speed	1/11000 s to 1/3 s with 50 Hz 1/11000 s to 1/3 s with 60 Hz
Pan/Tilt/Zoom	Pan: 360° endless, 0.05°–450°/s Tilt: 220°, 0.05°–450°/s Zoom: 30x optical, 12x digital, total 360x zoom E-flip, 256 preset positions, tour recording (max 10, max duration 16 minutes each), guard tour (max 100), control queue, on-screen directional indicator, orientation aid PTZ, set new pan 0°, adjustable zoom speed, focus recall
System on chip (SoC)	
Model	ARTPEC-7
Memory	1024 MB RAM, 512 MB Flash
Compute capabilities	Machine learning processing unit (MLPU)
Video	
Video compression	H.264 (MPEG-4 Part 10/AVC) Baseline, Main and High Profiles H.265 (MPEG-H Part 2/HEVC) Main Profile Motion JPEG
Resolution	HDTV 720p 1280x720 to 320x180
Frame rate	Up to 50/60 fps (50/60 Hz) in HDTV 720p
Video streaming	Multiple, individually configurable streams in H.264, H.265 and Motion JPEG Axis Zipstream technology in H.264 and H.265 Controllable frame rate and bandwidth VBR/ABR/MBR H.264/H.265
Image settings	Manual shutter time, compression, color, brightness, sharpness, white balance, exposure control, exposure zones, fine tuning of behavior at low light, rotation: 0°, 180°, text and image overlay, polygon privacy masks, electronic image stabilization (EIS), freeze on PTZ, automatic defog, backlight compensation, scene profiles Wide Dynamic Range (WDR): Up to 120 dB depending on scene, highlight compensation
Network	
Security	IP address filtering, HTTPS <sup>a</sup> encryption, IEEE 802.1x (EAP-TLS) <sup>a</sup> network access control, user access log, centralized certificate management, secure keystore (CC EAL4 certified), TPM (FIPS 140-2 certified)
Network protocols	IPv4, IPv6, USGv6, ICMPv4/ICMPv6, HTTP, HTTP/2, HTTPS <sup>a</sup> , TLS <sup>a</sup> , QoS Layer 3 DiffServ, FTP, SFTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP <sup>®</sup> , SNMP v1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, NTS, RTSP, RTP, SRTP/RTSPS, TCP, UDP, IGMPv1/v2/v3, RTCP, ICMP, DHCPv4/v6, ARP, SSH, NTPCIP, LLDP, CDP, MQTT, Syslog, Link-Local address (ZeroConf)
System integration	
Application Programming Interface	Open API for software integration, including VAPIX <sup>®</sup> and AXIS Camera Application Platform; specifications at <a href="https://axis.com">axis.com</a> One-Click Cloud Connection ONVIF <sup>®</sup> Profile G, ONVIF <sup>®</sup> Profile S and ONVIF <sup>®</sup> Profile T, specification at <a href="https://onvif.org">onvif.org</a>
Event conditions	Device status: above operating temperature, above or below operating temperature, below operating temperature, fan failure, IP address removed, network lost, new IP address, shock detected, storage failure, system ready, within operating temperature Edge storage: recording ongoing, storage disruption I/O: digital input, manual trigger, virtual input MQTT subscribe

Event actions	PTZ: PTZ malfunctioning, PTZ movement, PTZ preset position reached, PTZ ready Scheduled and recurring: scheduled event Video: live stream open
	Day/night mode, overlay text, video recording to edge storage, pre- and post-alarm video buffering, send SNMP trap PTZ: PTZ preset, start/stop guard tour File upload via FTP, SFTP, HTTP, HTTPS network share and email Notification via email, HTTP, HTTPS and TCP MQTT publish
Built-in installation aids	Pixel counter, leveling guide
Analytics	
Analytics	Object classes: humans, vehicles Trigger conditions: line crossing, object in area, time in area <sup>BETA</sup> Up to 10 scenarios Metadata visualized with trajectories and color-coded bounding boxes Polygon include/exclude areas Perspective configuration ONVIF Motion Alarm event
Metadata	Object data: Classes: humans, faces, vehicles, license plates Confidence, position Event data: Producer reference, scenarios, trigger conditions

Cybersecurity	
Network security	IEEE 802.1X (EAP-TLS) <sup>a</sup> , HTTPS/HSTS <sup>a</sup> , TLS v1.2/v1.3 <sup>a</sup> , Network Time Security (NTS), X.509 Certificate PKI, IP address filtering

General	
Casing	IP66-, IP67-, NEMA 4X- and IK10-rated Metal casing (aluminum), polycarbonate (PC) clear dome, sunshield (PC/ASA)
Sustainability	PVC free
Power	PoE 60 W SFP midspan: 100–240 V AC, max 66.1 W Camera consumption :typical 14 W, max 51 W
Connectors	RJ45 10BASE-T/100BASE-TX PoE, RJ45 Push-pull Connector (IP66/IP67) included
Storage	Support for SD/SDHC/SDXC card Support for SD card encryption Support for recording to network-attached storage (NAS) For SD card and NAS recommendations see <a href="https://axis.com">axis.com</a>
Operating conditions	With 30 W: -20 °C to 50 °C (-4 °F to 122 °F) With 60 W: -50 °C to 50 °C (-58 °F to 122 °F) Maximum temperature according to NEMA TS 2 (2.2.7): 74 °C (165 °F) Arctic Temperature Control: Start-up as low as -40 °C (-40 °F) Humidity 10–100% RH (condensing)
Storage conditions	-40 °C to 65 °C (-40 °F to 149 °F) Humidity 5–95% RH (non-condensing)