ExCam XF Q1645 Explosion-Protected Network Camera

Zone-certified fixed camera with excellent light sensitivity

ExCam XF Q1645 Explosion-Protected Network Camera is an easy-to-install and easy-to-integrate fixed box camera. It delivers high-resolution video (2 MP) at full frame rate (up to 120 fps) for crystal-clear images. The electronic image stabilization greatly improves video quality where the camera is subject to vibrations. The camera is adapted for explosion-prone applications with ATEX, IECEx, EAC Ex, and IA certifications. With low weight, PoE support for plug-and-play installation, ExCam XF Q1645 offers significant savings. The camera helps detecting unauthorized individuals and monitor employee safety in hazardous areas. Suitable for onshore, offshore, marine, and heavy industrial environments.

> **Certified for ATEX, IECEx, EAC Ex, and IA; Zones 1, 2, 21, and 22; Groups IIC and IIIC**

> **Cost-efficient installation with PoE**

> **HDTV 1080p at 100/120 fps**

> **Unparalleled light sensitivity with 1/2" sensor**

> **Electronic image stabilization (EIS) and low weight**

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Camera

Image sensor	1/2" progressive scan RGB CMOS
Lens	IR corrected i-CS lens Varifocal 3.9–10.0 mm, F1.5 Horizontal field of view: 85°–42° Vertical field of view: 47°–23°
Day and night	Automatically removable infrared-cut filter
Minimum illumination	HDTV 1080p 25/30 fps: Color: 0.03 lux, B/W: 0.01 lux, SNR: 0.03 lux, at 50 IRE F1.5 HDTV 1080p 25/30 fps (WDR off): Color: 0.02 lux, SNR: 0.02 lux, at 50 IRE F1.5
Shutter speed	1/100000 to 2 s
Pan/Tilt/Zoom	Digital PTZ, uploadable PTZ driver (Pelco D pre-installed)

System on chip (SoC)

Model	ARTPEC-6
Memory	1 GB RAM, 512 MB Flash

Video

Video compression	H.264 (MPEG-4 Part 10/AVC), Main, Baseline and High Profile Motion JPEG
Resolution	1920x1080 to 320x180
Frame rate	Up to 100/120 fps (50/60 Hz) in 1920x1080 (no WDR)
Video streaming	Multiple, individually configurable streams in H.264 and Motion JPEG Axis Zipstream technology in H.264 Controllable frame rate and bandwidth VBR/MBR H.264
Image settings	Saturation, contrast, brightness, sharpness, Forensic WDR – 120 dB, white balance, day/night threshold, exposure mode, exposure zones, compression, orientation: auto, 0°, 90°, 180°, 270° including Corridor Format, mirroring of images, text and image overlay, privacy masks, defogging, noise reduction, electronic image stabilization, barrel distortion correction, orientation aid, fine tuning of behavior at low light Scene profiles: forensic, live, traffic overview, backlit entrance

Network

Security	Password protection, IP address filtering, HTTPS[a] encryption, IEEE 802.1X[a] network access control, digest authentication, user access log, centralized certificate management, brute force delay protection
Network protocols	IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTP/2, HTTPS[a], TLS[a], QoS Layer 3 DiffServ, FTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP™, SNMPv1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, NTS, RTSP, RTP, SFTP, TCP, UDP, IGMPv1/v2/v3, RTCP, ICMP, DHCPv4/v6, ARP, SSH, LLDP, CDP, MQTT v3.1.1, Secure syslog (RFC 3164/5424, UDP/TCP/TLS), Link-Local address (ZeroConf)

System integration

Application Programming Interface	Open API for software integration, including VAPIX® and AXIS Camera Application Platform; specifications at *axis.com* One-Click Cloud Connection ONVIF Profile S and ONVIF Profile G, specifications at *onvif.org*
Event triggers	Analytics, external input, edge storage events Detectors: live stream accessed, video motion detection, shock detection Hardware: network, temperature Input Signal: manual trigger, virtual inputs MQTT subscribe PTZ: error, moving, preset reached, ready Storage: disruption, recording System: system ready Time: recurrence, use schedule
Event actions	File upload: FTP, SFTP, HTTP, HTTPS, network share and email, send video clip Notification: email, HTTP, HTTPS and TCP Overlay text, Send SNMP Trap Video recording to edge storage Pre- and post-alarm video buffering External output activation, day/night vision mode, status LED, WDR mode, Defog mode, PTZ control MQTT publish

Data streaming	Event data
Built-in installation aids	Remote focus and zoom with supplied i-CS lens Traffic wizard, pixel counter, levelling assistant

Analytics

Applications	Included AXIS Motion Guard, AXIS Fence Guard, AXIS Loitering Guard AXIS Video Motion Detection, active tampering alarm Supported AXIS Perimeter Defender Support for AXIS Camera Application Platform enabling installation of third-party applications, see *axis.com/acap*

Approvals

EMC	EN 55032 Class A, EN 61000-6-2, EN 61000-3-2, EN 61000-3-3, EN 62479, EN 61000-4-2, EN 61000-4-3, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6, EN 61000-4-8, EN 61000-4-11
Safety	IS 13252
Environment	IEC/EN 60529 IP68, IEC/EN 62262 IK10
Network	NIST SP500-267
Explosion	DIN EN/IEC 60079-0, DIN EN/IEC 60079-1, DIN EN/IEC 60079-7, DIN EN/IEC 60079-31, TR CU 012/2011, GOST R IEC 60079-0, GOST IEC 60079-1, GOST R IEC 60079-7, GOST R IEC 60079-31
Certifications	Camera: **Model key:** T08-VA2.3.K3.BOR2-LL.H-005.A-T **ATEX:** II 2 G Ex db IIC T5 Gb, Ex II 2 D Ex tb IIIC T95°C Db, I M2 Ex db I Mb **Certificate:** TÜV 18 ATEX 8218X **IECEx:** Ex db IIC T5 Gb, Ex tb IIIC T95°C Db, Ex d I Mb **Certificate:** IECEx TUR 18.0023X **IA:** Ex db IIC T5 Gb, Ex tb IIIC T95°C Db, Ex d I Mb **Certificate:** MASC MS/18-3256X **EAC Ex:** 1Ex db IIC T5 Gb, Ex tb IIIC T95°C Db, PB db I Mb **Series:** T08, **Model:** T08-VA2.3. **Certificate:** RU C-DE.AБ61.B.00381/19 **EXTB-3 Junction Box ExCam:** (to be removed if the camera is installed in mines) **Model key:** T12-3M20 **ATEX:** II 2 G Ex eb IIC T5 Gb, II 2 D Ex tb IIIC T95°C Db IP66, –50°C < Tamb < +55°C **Certificate:** PTB 99 ATEX 3103 **IECEx:** Ex e IIC T5 Gb, Ex IIIC T95°C Db IP66, –50°C < Tamb < +55°C **Certificate:** IECEx PTB 06.0026 **EAC Ex:** 1Ex e IIc T5 Gb X, Ex tb IIIC T95°C Db X **Certificate:** RU C-DE.AA71.B.00120 **PESO:** Ex db IIC T6 Gb **Certificate:** A/P/HQ/KA/104/5735

Cybersecurity

Edge security	**Software:** Signed OS, brute force delay protection, digest authentication and OAuth 2.0 RFC6749 OpenID Authorization Code Flow for centralized ADFS account management, password protection
Network security	IEEE 802.1X (EAP-TLS, PEAP-MSCHAPv2), IEEE 802.1AE (MACsec PSK/EAP-TLS), HTTPS/HSTS, TLS v1.2/v1.3, Network Time Security (NTS), X.509 Certificate PKI, host-based firewall
Documentation	*AXIS OS Hardening Guide* *Axis Vulnerability Management Policy* *Axis Security Development Model* AXIS OS Software Bill of Material (SBOM) To download documents, go to *axis.com/support/cybersecurity/resources* To read more about Axis cybersecurity support, go to *axis.com/cybersecurity*

General

Casing	IP68-rated, SS 1.4404 (ASTM 316L) stainless steel casing for maximum corrosion protection. Casing manufactured and certified by Samcon Prozessleittechnik GmbH, www.samcon.eu
Sustainability	PVC free

Power	**Camera:** Power over Ethernet (PoE) IEEE 802.3af/802.3at Type 1 Class 3 Typical 4.5 W, max 9.1 W **Heater:** 24 V DC, max 40 W 24 V DC is required for operating at temperatures below 0 °C (32 °F).	**Included accessories**	Weathershield ExCam XF, Installation Guide, Windows decoder 1-user license, ASKDP03-T Cable ExCam 5 m (16 ft), EXTB-3 Junction Box ExCam, AXIS Surveillance microSDXC Card 128 GB
Connectors	**EXTB-3 Junction Box ExCam:** 10 terminal clamp UT 2.5 2 conductor terminal USLKG 5	**Optional accessories**	Wall Mount ExCam XF, Pole Mount ExCam XF Non-armored cables ExCam, 10, 25, 95 m (33, 82, 312 ft), Armored cables ExCam, 10, 25, 95 m (33, 82, 312 ft) Ex Connection Rail 4-port PoE PS 24, Ex Connection Rail 8-port PoE PS 24 For more accessories, see *axis.com*
Storage	Pre-installed AXIS Surveillance microSDXC Card 128 GB Support for SD card encryption (AES-XTS-Plain64 256bit) Support for recording to network-attached storage (NAS) For SD card and NAS recommendations see *axis.com*	**Video management software**	AXIS Companion, AXIS Camera Station, video management software from Axis Application Development Partners available on *axis.com/vms*
Operating conditions	-60 °C to 60 °C (-76 °F to 140 °F) Humidity 10-100% RH (condensing)	**Languages**	English, German, French, Spanish, Italian, Russian, Simplified Chinese, Japanese, Korean, Portuguese, Traditional Chinese, Dutch, Czech, Swedish, Finnish, Turkish, Thai, Vietnamese
Storage conditions	-40 °C to 65 °C (-40 °F to 149 °F)	**Warranty**	5-year warranty, see *axis.com/warranty*
Dimensions	357 x 113 x 139 mm (14.06 x 4.45 x 5.5 in)		
Weight	10.8 kg (23.8 lb)		

a. *This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit (http://www.openssl.org/), and cryptographic software written by Eric Young (eay@cryptsoft.com).*

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