

F101-A XF P1377 Explosion-Protected Camera

Excellent image quality for hazardous areas

Certified (NEC, ATEX, IECEx) for use in potentially combustible environments, the lightweight camera offers high quality, high resolution images of objects and people. Featuring Axis Lightfinder and Axis Forensic WDR, it delivers true colors and great details in challenging light or near darkness. It includes electronic image stabilization for stable images despite vibration. And, intelligent i-CS lens technology facilitates fast and easy installation with remote zoom. Enhanced security features such as signed firmware and secure boot ensure the integrity and authenticity of the firmware. Furthermore, Axis Zipstream with support for H.264/H.265 significantly lowers bandwidth and storage requirements.

- > 30 fps in 5 MP or up to 180 fps in HDTV 720p
- > Lightfinder and Forensic WDR
- > Zipstream supporting H.264 and H.265
- > Signed firmware and secure boot
- > NEC, ATEX and IECEx



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Camera

Image sensor

1/2.7" progressive scan RGB CMOS

Lens

Varifocal 3.9–10 mm, F1.5

4:3 aspect ratio:

Horizontal field of view: 75°–31°

Vertical field of view: 55°–23°

16:9 aspect ratio:

Horizontal field of view: 75°–31°

Vertical field of view: 41°–17°

Remote zoom, remote focus

Day and night

Automatically removable infrared-cut filter

Minimum illumination

5 MP 25/30 fps with Forensic WDR and Lightfinder:

Color: 0.15 lux, at 50 IRE F1.5

B/W: 0.03 lux, at 50 IRE F1.5

Shutter speed

WDR: 1/33500 s to 1/5 s

No WDR: 1/5000 s to 1/5 s

System on chip (SoC)

Model

ARTPEC-7

Memory

1 GB RAM, 512 MB Flash

Video

Video compression

H.264 (MPEG-4 Part 10/AVC) Baseline, Main and High Profiles

H.265 (MPEG-H Part 2/HEVC)

Motion JPEG

Resolution

2592x1944 (5 MP) to 160x90

2688x1512 (4 MP) to 160x90

1280x720 (HDTV 720p) to 160x90

Frame rate

Capture mode 5 MP: 25/30 fps (50/60 Hz)

Capture mode 4 MP: 25/30 fps (50/60 Hz)

Capture mode HDTV 720p: 180 fps

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

Video streaming indicator

Multi-view streaming

Up to 8 individually cropped out view areas

Image settings

Saturation, contrast, brightness, sharpness, Forensic WDR: Up to 120 dB depending on scene, white balance, day/night threshold, exposure mode, exposure zones, local contrast, tone mapping, compression, rotation: auto, 0°, 90°, 180°, 270° including Corridor Format, mirroring of images, dynamic text and image overlay, privacy masks, defogging, electronic image stabilization, barrel distortion correction, scene profiles: forensic, vivid, traffic overview

Pan/Tilt/Zoom

Digital PTZ

Uploadable PTZ driver (Pelco D pre-installed)

Audio

Audio streaming

Two-way, full duplex

Audio encoding

AAC LC 8/16/32/48 kHz, G.711 PCM 8 kHz,

G.726 ADPCM 8 kHz, Opus 8/16/48 kHz, LPCM 48 kHz

Configurable bit rate

Audio input/output

External microphone input, line input, digital input with ring power, line output, built-in microphone (can be disabled)

Network

Network protocols

IPv4, IPv6 USGv6, ICMPv4/ICMPv6, HTTP, HTTPS¹, HTTP/2, TLS¹, QoS Layer 3 DiffServ, FTP, CIFS/SMB, SMTP, mDNS (Bonjour), UPnP™, SNMP v1/v2c/v3 (MIB-II), DNS/DNSv6, DDNS, NTP, PTP, NTS, RTSP, RTP, SRTP/RTSPS, SFTP, TCP, UDP, IGMP, 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 (ACAP); specifications at axis.com/developer-community.

One-Click Cloud Connection

ONVIF® Profile G, ONVIF® Profile S, and

ONVIF® Profile T, specification at onvif.org

Video management systems

Compatible with AXIS Camera Station Edge, AXIS Camera Station Pro, AXIS Camera Station 5, and video management software from Axis' partners available at axis.com/vms.

Onscreen controls

Electronic image stabilization

Day/night shift

Defogging

Wide dynamic range

Event conditions

Analytics, shock detection, edge storage events, supervised external input, audio level, time scheduled, MQTT subscribe

Event actions

Record video: SD card and network share

Upload of images or video clips: FTP, SFTP, HTTP, HTTPS, network share and email

Pre- and post-alarm video or image buffering for recording or upload

Notification: email, HTTP, HTTPS, TCP and SNMP trap

PTZ: PTZ preset, start/stop guard tour

Overlay text, external output activation, play audio clip, WDR mode, day/night mode

MQTT publish

Data streaming

Event data

Built-in installation aids

Focus assistant, pixel counter, remote back focus, autorotation

Analytics

Applications

Included

AXIS Motion Guard, AXIS Fence Guard, AXIS Loitering Guard

AXIS Video Motion Detection, active tampering alarm, gatekeeper

Supported

AXIS Live Privacy Shield, AXIS Perimeter Defender

Support for AXIS Camera Application Platform enabling installation of third-party applications, see axis.com/acap

Cybersecurity

Edge security

Software: Signed OS, brute force delay protection, digest authentication and OAuth 2.0 RFC6749 Client Credential Flow/OpenID Authorization Code Flow for centralized ADFS account management, password protection, AES-XTS-Plain64 256bit SD card encryption

Hardware: Secure boot

Network security

IEEE 802.1X (EAP-TLS, PEAP-MSCHAPv2)¹, IEEE 802.1AE (MACsec PSK/EAP-TLS), HTTPS/HSTS¹, TLS v1.2/v1.3¹, 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)

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

IP66-rated, powdercoated aluminum chassis

Casing manufactured and certified by Spectrum Camera Solutions, LLC

1. This product includes software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (openssl.org), and cryptographic software written by Eric Young (ey@cryptsoft.com).

Power

Camera: Power over Ethernet (PoE)

IEEE 802.3af/802.3at Type 1 Class 3, max 10.7 W, typical 5.4 W

Heater: 12–24 V DC, max 25 W

12–24 V DC is required for operating at temperatures below 0 °C (32 °F).

Connectors

2 x 3/4" NPT cable entries

RJ45 10BASE-T/100BASE-TX PoE

2-pin terminal block connector for heater

I/O: 4-pin 2.5 mm terminal block for two configurable inputs/outputs (12 V DC output, max. load 50 mA)

3.5 mm mic/line in, 3.5 mm line out

Storage

Pre-installed AXIS Surveillance microSDXC Card 128 GB
Support for SD card encryption (AES-XTS-Plain64 256bit)

Recording to network-attached storage (NAS)

For SD card and NAS recommendations see axis.com

Operating conditions

–50 °C to 60°C (–58 °F to 140 °F)

US Class/Division system: –40 °C to 60°C (–40 °F to 140 °F)

Humidity 10–100% RH (condensing)

Storage conditions

–40 °C to 65 °C (–40 °F to 149 °F)

Humidity 5–95% RH (non-condensing)

Approvals

EMC

EN 55035, EN 61000–6–1, EN 61000–6–2,
EN 55032 Class A, FCC Part 15 Subpart B Class A,
ICES–3(A)/NMB–3(A), VCCI Class A,
RCM AS/NZS CISPR 32 Class A

Safety

EN 62368–1

Environment

ANSI/NEMA 250 4X, ANSI/IEC/EN 60529 IP66,
GOST 14254 IP66

Network

NIST SP500–267

Explosion

FM Class 3600:2018, FM Class 3615:2018,
FM Class 3616:2011,
ANSI/ISA/EN/ABNT NBR/IEC/CAN-CSAC22.2 60079–0,
ANSI/ISA/EN/ABNT NBR/IEC/CAN-CSAC22.2 60079–1,
ANSI/ISA/EN/ABNT NBR/IEC/CAN-CSAC22.2 60079–31,
TP TC 012, GOST 31610.0, GOST IEC 60079–1,
GOST IEC 60079–31

Certifications

USA:

Class I Division 1 Groups BCD T5 Ta= –40°C to 55°C,
Type 4X, IP66

Class II/III Division 1 Groups EFG Ta= –40°C to 55°C,
Type 4X, IP66

Certificate: FM18US0262X

Canada:

Class I Division 1 Groups BCD T5 Ta= –50°C to 55°C,
Type 4X, IP66

Class II/III Division 1 Groups EFG Ta= –50°C to 55°C,
Type 4X, IP66

Class I, Zone 1, AEx/Ex db IIB+H2 T5 Gb Ta = –50°C to 55°C, Type 4X, IP66

Zone 21, AEx/Ex tb IIIC T85°C Db Ta = –50°C to 55°C,
Type 4X, IP66

Certificate: FM18CA0126X

ATEX:

II 2 G Ex db IIB+H2 T5 Gb Ta = –50°C to 55°C, IP66

II 2 D Ex tb IIIC T85°C Db Ta = –50°C to 55°C, IP66

Certificate: FM18ATEX0073X

IECEx:

Ex db IIB+H2 T5 Gb Ta = –50°C to 55°C, IP66

Ex tb IIIC T85°C Db Ta = –50°C to 55°C, IP66

Certificate: IECEx FMG 18.0029X

INMETRO:

Ex db IIB+H2 T5 Gb

Ex tb IIIC T85°C Db IP66

Ta = –50°C to 55°C

Certificate: NCC 20.0084 X

Dimensions

13.85 x 7.20 x 5.97 in (352 x 183 x 152 mm)

Weight

14 lb (6.2 kg)

Included accessories

Installation Guide, Windows® decoder 1-user license,
AXIS Surveillance microSDXC Card 128 GB, 3/4" NPT to
M20x1.5 thread adapter

Optional accessories

EXTB–3 Junction Box ExCam,

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

Languages

English, German, French, Spanish, Italian, Russian,
Simplified Chinese, Japanese, Korean, Portuguese,
Traditional Chinese, Dutch, Czech, Swedish, Finnish,
Turkish, Thai, Vietnamese, Polish

Warranty

5-year warranty, see axis.com/warranty

Sustainability

Substance control

PVC free

Free of hazardous brominated and chlorinated flame retardants (BFR/CFR free)

RoHS in accordance with EU RoHS Directive 2011/65/EU/ and EN 63000:2018

REACH in accordance with (EC) No 1907/2006. For SCIP UUID, see echa.europa.eu

Environmental responsibility

axis.com/environmental-responsibility

Axis Communications is a signatory of the UN Global Compact, read more at unglobalcompact.org