

Datasheet



Camera

TC510

Synology

TC510



AI-Powered Camera for Securing Any Location

The TC510 is a versatile IP66 and IP67-rated 5 MP wide-angle AI camera suitable for both indoor and outdoor use. Boasting a high resolution of 2880×1620 at 30 FPS, a 110° horizontal wide angle view, and night vision capability, the TC510 captures all the details you need. Plus, it features edge AI capabilities for enhanced security and response efficiency.

- **Crisp Video, Night and Day**
5 MP sensor with wide-angle lens, recording at 30 FPS, and high-power IR LED for 30 meters of night vision
- **IP66 & IP67 Weather-resistant**
Fully dust-proof and resistant to low-pressure water jets
- **Edge AI Detection**
Camera-based AI capabilities for enhanced security
- **Flexible Deployment**
A cross-platform design enables on-premises or cloud-based management
- **Security and Compliance**
Suitable for sensitive applications thanks to US NDAA & TAA compliance

Consistent clear footage, 24/7

Highly detailed, wide-angle coverage helps secure large areas, day or night.

- High resolution of 5 MP (2880×1620) 16:9 provides clear and detailed videos
- 110° wide horizontal viewing angle captures large areas at once and reduces the need for multiple cameras
- Large aperture of F1.8 and multi-exposure HDR provide good low-light performance without overexposing lighter areas
- High power infrared LED provides clear night vision up to 30 meters

Flexible deployment options

A cross-platform design enables you to choose between on-premises or cloud-based management.

- **Surveillance Station:** Host video locally on your NAS for complete local control¹
- **Surveillance365:** A cloud-native VSaaS solution for serverless, rapid deployment²
- **BeeStation Plus:** Build your own private monitoring hub and manage cameras through the BeeCamera app
- **Third-Party System:** Connect to other NVR or VMS using the standard ONVIF protocol

Secure and safe, always reliable

From monitoring to recording, protect your footage with our integrated safeguards.

- The camera is NDAA and TAA compliant, meeting US government procurement regulations
- Privacy masks can be permanently embedded into footage or applied to live view to cover sensitive areas
- Long-term firmware support from Synology includes security patches and updates

Notes:

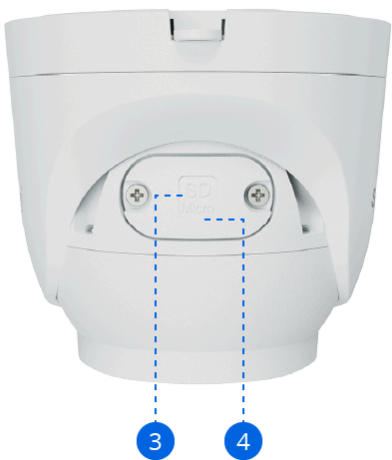
1. When used with Surveillance Station, the camera must be paired with a Surveillance Device License Pack. Please ensure sufficient licenses are available.
2. When used with Surveillance365, a Synology microSD card is recommended to ensure optimal compatibility and performance. For third-party cards, a Class 10 (C10) / UHS-1 (U1) / V10 high-quality microSD card with a minimum write speed of 10MB/s is recommended.

Hardware Overview

Front



Rear



No.	Name	No.	Name
1.	Microphone	3.	MicroSD Slot
2.	Status Indicator	4.	Reset Button

Technical Specifications

Hardware Specifications

Optical

Image Sensor	1/2.7"
IR LED wavelength	850 nm
Max. IR distance	30m (98.4ft) (0.001lux)
Shutter Speed	1/16000 s to 1/30 s
Day & Night	Automatically removable infrared-cut filter

Lens

Lens type	Fixed Focal
Focal Length	2.8 mm
Field of View	110° H, 56° V, 132° D (LDC ON)
DORI	D: 60m, O: 24m, R: 12m, I: 6m
Aperture	F1.8

Video

Max. video resolution	2880×1620 @ 30 FPS
Multi-exposure HDR	v
DNR	• 3DNR • 2DNR

Audio

Microphone	v
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I/O

Ethernet	RJ45 10M/100M Ethernet port X 1
Reset	v
On board storage	MicroSD card slot X 1 Supported file format: exFAT Note: microSD card is not included

Power Supply

IEEE 802.3af Type 1 Class 3 or 12V DC

Note	- Compatible DC power adapter: 12V/1A (Ø2.1mm) - The product does not include a PoE switch or a 12V DC power adapter. Please purchase separately.
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General

Form Factor	Turret
Dimension	Ø97 × 88 mm (Ø3.82 × 3.46")
Weight	387 g (0.85 lbs)

Temperature

Operating Condition	Starting temperature:-30°C to 50°C (-22°F to 122°F) Operating temperature:-30°C to 50°C (-22°F to 122°F) (IR off) Operating temperature:-30°C to 40 °C (-22°F to 104°F) (IR on) Operating humidity:5%~95% (non-condensing)
Storage Condition	Storage temperature:-40°C to 60°C (-40°F to 140°F) Storage humidity:5%~95% (non-condensing)

Certification

Regulatory Compliance	FCC, CB, IC, CE, UKCA, BSMI, VCCI, RCM, KC, JATE
Environment	REACH, ROHS, WEE
Waterproof	IP66, IP67
Vandal	IK10
NDAA Compliant	v
TAA Compliant	v

Warranty

3-year

Packaging Content

- Main Unit X 1
- Installation guide X 1
- Screw pack X 1
- RJ45 cap cover X 1

Software Specifications

Video & Audio	Surveillance Station	Surveillance365
Main Stream	2880×1620 @ 30 FPS 2560×1440 @ 30 FPS 2304×1296 @ 30 FPS 1920×1080 @ 30 FPS 1280×720 @ 30 FPS	2880×1620 @ 30 FPS 1920×1080 @ 30 FPS 1280×720 @ 30 FPS
Maximum Bitrate	8192 kbps	3072 kbps
Sub Stream	1280×720 @ 30 FPS	Not supported
Video Format	- H.264 - H.265	H.264
Bitrate Control	- Maximum bitrate - Variable bitrate	- Maximum Bitrate - Low bandwidth mode
Audio Compression	G.711	G.711
Audio Denoise	v	v
Image Adjustment	- Brightness - Contrast - Sharpness - Saturation - White Balance - Exposure Control - High Dynamic Range (HDR) 3D/2D Noise Reduction 50/60 Hz Flicker Reduction - Day/Night mode - Overlay	- Brightness - Contrast - Sharpness - Saturation - White Balance - Exposure Control - High Dynamic Range (HDR) 3D/2D Noise Reduction 50/60 Hz Flicker Reduction - Day/Night mode - Overlay
Day/Night Mode	- Auto - Day - Night - Schedule	- Auto - Day - Night - Schedule
Video Orientation	- Mirror - Flip - Rotation (0°, 90°, 180°, 270°)	- Mirror - Flip - Rotation (0°, 90°, 180°, 270°)
Privacy Mask	- Removeable/Unremovable mode - Up to 5 zones	- Unremovable mode - Up to 5 zones

Max RTSP Connections	4	Not supported
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Analytics	Surveillance Station	Surveillance365
Event Analytics	• Audio Detection • Tampering Detection • Motion Detection	• Tampering Detection • Audio Detection
People & Vehicle	• People Detection • Vehicle Detection • Crowd Detection • Loitering Detection	• Loitering Detection • Vehicle Detection • People Detection
Counting	People and Vehicle Counting	Not supported
Intrusion	One way or Two way	One way or Two way
Instant Search	• Motion • Vehicle • People	Not supported
Auto Tracking	People	Not supported
QR code detection	v	Not supported
Notes	• Learn more about camera installation for AI functions. • Learn more about QR code scan rule.	Learn more about camera installation for AI functions.

Security	Surveillance Station	Surveillance365
IP Filter	• Auto Block • Allow/Block list	Not supported
Connection Management	v	Not supported
Firmware Update	• Automatically update to the important version • Automatically update to the latest version • Manual upload	• Automatically update to the important version • Automatically update to the latest version
Signed Firmware	v	v
HTTPS	v	v
SRTP	v	Not supported

Storage Management	Surveillance Station	Surveillance365
Storage	MicroSD card & Synology NAS	MicroSD card
SD Card Recording Mode	• Event Analytics • Disconnected with NAS	Continuous
Note	• A Synology microSD card is recommended to ensure optimal compatibility and performance. • For third-party cards, a Class 10 (C10) / UHS-1 (U1) / V10 high-quality microSD card with a minimum write speed of 10 MB/s is recommended.	• A Synology microSD card is recommended to ensure optimal compatibility and performance. • For third-party cards, a Class 10 (C10) / UHS-1 (U1) / V10 high-quality microSD card with a minimum write speed of 10 MB/s is recommended.

Camera Web Interface	Surveillance Station	Surveillance365
Liveview	v	v
Network	• Auto Block • Allow/Block list • Connection Management • Fixed IP/DHCP	• Auto Block • Allow/Block list • Connection Management • Fixed IP/DHCP
System	• Reset • Restart • Manual Firmware Upgrade • DST • Time Zone	• Reset • Restart • Manual Firmware Upgrade • DST • Time Zone
Camera Log Export	v	v
Protocol Support	HTTP, HTTPS, TLS v1.2, TCP/IP, UDP, IPv4, UPnP, RTSP, NTP, DHCP, SSL, RTP, SRTP	HTTP, HTTPS, TLS v1.2, TCP/IP, UDP, IPv4, UPnP, RTSP, NTP, DHCP, SSL, RTP, SRTP
Supported Browsers	Google Chrome	Google Chrome
Supported Language	English, Deutsch, Français, Italiano, Español, Dansk, Norsk, Svenska, Nederlands, Русский, Polski, Magyar, Português do Brasil, Português Europeu, Türkçe, Český, ภาษาไทย, 日本語, 한국어, 繁體中文, 简体中文	English, Deutsch, Français, Italiano, Español, Dansk, Norsk, Svenska, Nederlands, Русский, Polski, Magyar, Português do Brasil, Português Europeu, Türkçe, Český, ภาษาไทย, 日本語, 한국어, 繁體中文, 简体中文

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