



Camera

# TC500



## AI-Powered Camera for Integrated Smart Surveillance

Synology cameras are designed to pair with Surveillance Station,<sup>1</sup> providing unparalleled ease of use thanks to quick and easy setup, batch configuration, and seamless firmware updates. They feature camera-based AI that enhances Surveillance Station deployments with smart capabilities.

The TC500 is a versatile IP67-rated 5 MP wide-angle AI camera suitable for both indoor and outdoor use. Boasting a high resolution of 2880×1620 @ 30 FPS, 110° horizontal wide-angle view, and night vision capability, the TC500 captures all the details you need.

## Highlights

- **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
- **Edge AI Detection and Search**  
On-camera AI powers people and vehicle detection, intrusion detection, and Instant Search
- **No Device License Required**  
Camera requires no Surveillance Station Device License or activation
- **Failover Edge Recording**  
Supports failover recording onto microSD, in case of network failure
- **Security and Compliance**  
Suitable for sensitive applications thanks to HTTPS/SRTP support and US NDAA/TAA compliance

## Capture quality

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

- 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

## Video intelligence

Camera-based AI capabilities empower your surveillance with smart analytics.

- People and Vehicle Detection distinguishes people and vehicles from other moving objects with high accuracy
- Intrusion Detection identifies people and vehicles, and issues alerts when a virtual border is crossed from a designated direction
- Instant Search allows for quick investigations with the ability to search for people, vehicles, and motion in an area in the past
- Pair with Synology DVA models for more intelligent analytics, such as face recognition, license plate recognition, and people counting<sup>2</sup>

## Streamlining and integration

Integration with Surveillance Station streamlines deployment and maintenance.<sup>1</sup>

- Quick and simple single camera or batch installation process through Surveillance Station or the DS cam app speeds up deployment
- No Surveillance Device License purchase or activation required
- Camera settings adjustment and maintenance features are available directly in Surveillance Station or DS cam
- Continuous firmware updates provide new features and security enhancements, and can be applied in batch, with or without internet
- Failover edge storage increases system reliability by automatically switching to microSD recording in case of network failure<sup>3</sup>

## Security and privacy

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

- HTTPS & SRTP support enable encrypted network and video transfer, authentication, and integrity protection
- Storage on Synology devices gives users full ownership over recordings
- Privacy masks can be irreversibly embedded into footage or applied to live view to cover sensitive areas
- View a list of connected devices per camera and maintain security by disconnecting or blocking unrecognized devices
- NDAA and TAA compliance meets US government procurement regulations
- Long-term firmware support from Synology includes security patches and updates

# Hardware Overview

TC500 (Front)



TC500 (Rear)



1 Status indicator

2 Microphone

3 MicroSD Slot

4 Reset Button

# Technical Specifications

## Optical

Lens	2.8 mm (110° H, 56° V, 132° D LDC ON)
Aperture	F1.8
Night vision	30 meters
Shutter speed	1/16000s~1/30s
DORI	D: 60m, O: 24m, R: 12m, I: 6m

## Video

Max. streaming resolution	5 MP (2880×1620) @ 30 FPS
Sub streaming capability	1920×1080 @ 15 FPS or 1280×720 @ 30 FPS
Video compression	H.264, H.265
Image settings	Brightness, contrast, saturation, sharpness, white balance, High Dynamic Range (HDR), 3D/2D noise reduction, exposure control, 50/60 Hz flicker reduction, day/night mode, overlay, privacy mask
Video orientation	Rotation (0°, 90°, 180°, 270°), Flip, Mirror
Event analytics <sup>2</sup>	People & Vehicle Detection (including Crowd Detection and Loitering Detection), Intrusion Detection, Motion Detection, Tampering Detection, Audio Detection
Instant Search	People, Vehicle, Motion
SD Card Event Recording	Event recording can be triggered by the following: <ul style="list-style-type: none"><li>• Disconnection from NAS</li><li>• People &amp; Vehicle Detection, Intrusion Detection, Motion Detection, Audio Detection, Tampering Detection</li></ul>

## Audio

Microphone	Yes
Audio compression	G.711

## General Specifications

Dimensions	Ø97 × 88 mm (Ø3.82 × 3.46")
Weight	387 g (0.85 lbs)
Weather resistance	IP67, IP66
Impact resistance	IK10
Power source	PoE (802.3af) or 12V DC
Power consumption	4.8 W
Ethernet	1 x RJ-45 10/100 Mbps Ethernet port
Edge storage	MicroSD (up to 256 GB <sup>3</sup> )
Operating environment	<ul style="list-style-type: none"><li>• Temperature (IR off): -30°C to 50°C (-22°F to 122°F)</li><li>• Temperature (IR on): -30°C to 40°C (-22°F to 104°F)</li><li>• Relative humidity: 5% to 95% RH (non-condensing)</li></ul>
Storage environment	<ul style="list-style-type: none"><li>• Temperature: -40°C to 60°C (-40°F to 140°F)</li><li>• Relative humidity: 5% to 95% RH (non-condensing)</li></ul>
Security	Connection management, IP filter, HTTPS encryption, SRTP connection, auto block, signed firmware
Interface languages	English, Deutsch, Français, Italiano, Español, Dansk, Norsk, Svensk, Nederlands, Русский, Polski, Magyar, Português do Brasil, Português Europeu, Türkçe, Český, ไทย, 日本語, 한국어, 繁體中文, 简体中文



Scan the QR code to download the detailed Product Specification sheet  
<https://sy.to/tc500pss>



Scan the QR code to download Synology Camera Tool for assistance in batch deployment  
<https://sy.to/camtool>

## Environment and Packaging

<b>Certification</b>	IP67, IP66, IK10, FCC, IC, CE, BSMI, VCCI, RCM, UKCA, KC, JATE
<b>NDAA compliance</b>	Yes
<b>TAA compliance</b>	Yes
<b>Environmental safety</b>	RoHS compliant, WEEE, REACH
<b>Package contents</b>	<ul style="list-style-type: none"><li>• 1 x TC500 main unit</li><li>• 1 x Installation guide</li><li>• 1 x RJ-45 connector cap cover</li><li>• 1 x Screw pack</li></ul>
<b>Warranty</b>	3 years

Note: Specifications are subject to change without notice. Please refer to the model's [specifications page](#) for the most up to date information.

1. Please use Surveillance Station version 9.1.0 or higher, Surveillance Station Client 2.1.0 or higher, and iOS DS cam 5.6.0/Android DS cam 3.7.0 or higher.
2. Face Recognition, License Plate Recognition, and other advanced analytics are available with Synology DVA Series video recorders. [Learn more](#)
3. Feature tested with cards up to 256 GB (formatted in exFAT). Larger cards have not been validated.

**SYNOLOGY INC.**

© 2023, Synology Inc. All rights reserved. Synology, the Synology logo are trademarks or registered trademarks of Synology Inc. Other product and company names mentioned herein may be trademarks of their respective companies. Synology may make changes to specification and product descriptions at any time without notice.

TC500-2023-ENU-REV000

