

TiOC: Full Colour Active Deterrence AI Solution

Full Colour 24/7 Monitoring & Surveillance with Built-in AI



3-in-1 Solution
Powerful **industry-leading** technology



Full Colour Monitoring
Enhanced **24/7** full colour performance



Active Deterrence
Warn off intruders with **enhanced audio** and red/blue light



Deep Learning-based
False alarm rate **<2%** & target search efficiency improved by **98%**



AI Coding
Save disk space with **90%** lower bitrate than H.264

Overview

Currently available in 5MP and 8MP variations, this new **industry-leading TiOC (3-in-1)** solution offers Full Colour, Active Deterrence and AI, all-in-one smart innovative device. With false alarm rates less than **2%**, a significantly improved search function and built-in AI coding delivering a **90%** reduction in disk space, this new addition to Dahua's range can help improve the efficiency and cost of running your CCTV system.

Solution

Video evidence is greatly enhanced by full colour images of any suspect. The combination of Dahua's industry-leading Full Colour technology with powerful AI functions and Active Deterrence warnings will help reduce false alarm rates, improve target search efficiency and generally make your CCTV system more efficient, reducing your operation costs.



3-in-1 Solution – Powerful **industry-leading** technology



Full Colour Monitoring – Enhanced **24/7** full colour performance



Active Deterrence – Warn off intruders with **enhanced uni-directional audio** and red/blue light



Deep Learning-based – False alarm rate **<2%** & target search efficiency improved by **98%**



AI Coding – Save disk space with **90%** lower bitrate than H.264

3-in-1 Solution

Dahua, an **industry-pioneer** of smart surveillance devices, is the first to market with this powerful **3-in-1** solution.

This proactive system features a bright LED light, flashing red/blue light and built-in speakers to warn off intruders, all of which can be remotely triggered before any crime has been committed.

- ✓ **8MP/5MP** resolution
- ✓ Illumination Distance: **40m**
- ✓ **3** different voices built-in by default or full voice customisation
- ✓ **Red & blue lights** emit a strong warning signal



✗ No Colour Detail
After a burglary has occurred, although there is CCTV evidence, there's no colour image of the suspect, making identification more difficult.



✗ Too Many False Alarms
Too many false alarms cause meaningless work for the alarm receiving centre. Sometimes only 50 genuine positives out of 3000 alarms.



✗ Storage Costs Too High
CCTV evidence must be stored for a minimum of 3 months (e.g. for banks, etc.) Hardware, including HDDs and recorders is prohibitively high.

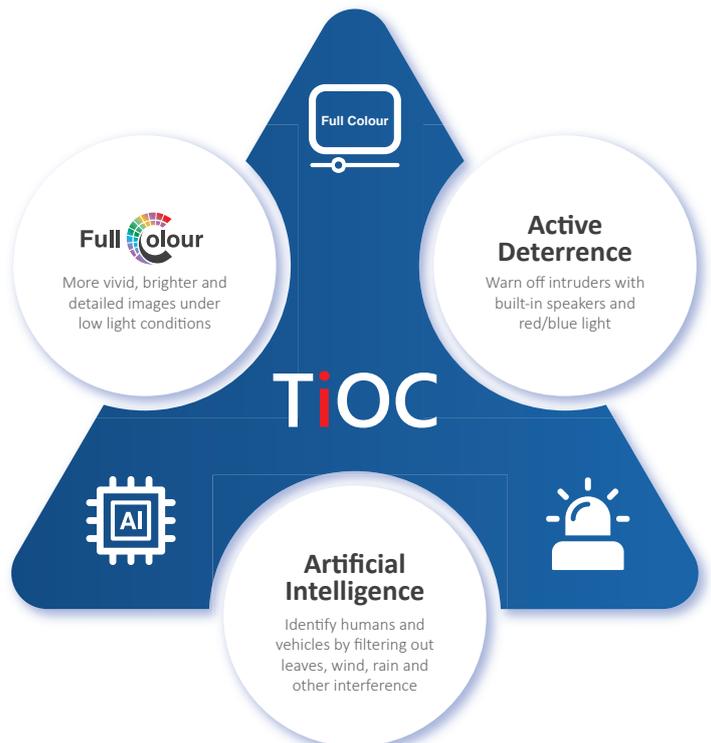


✗ Low-Efficiency Video Search
Large volumes of video data has to be manually examined by the police or control room, taking up a huge amount of time.



✗ Response Time Too Slow
For warehouses with extensive perimeters, stopping intruders from breaking in is difficult even with security guards patrolling or a CCTV system.

Customer Challenges

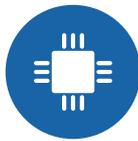


Full Colour Monitoring

24/7 colour monitoring significantly increases the probability of positively identifying a person or a vehicle and collecting vital event evidence. HDCVI TiOC cameras provide full colour reproduction and excellent low light performance for a more vivid and brighter image.



Large Aperture Lens
Max. aperture **F1.2**
1.8 times the amount of light compared with F1.6



High Performance Sensor
30% photosensitive capacity increase



Advanced ISP
Dahua **ISP 4.0** technology



Warm Light
Radiance **40%** below the EU standards

Active Deterrence



Red and Blue Light

- Noticeable even in dense fog and heavy rain.
- More eye-catching in daytime than white light.

Enhanced Speaker

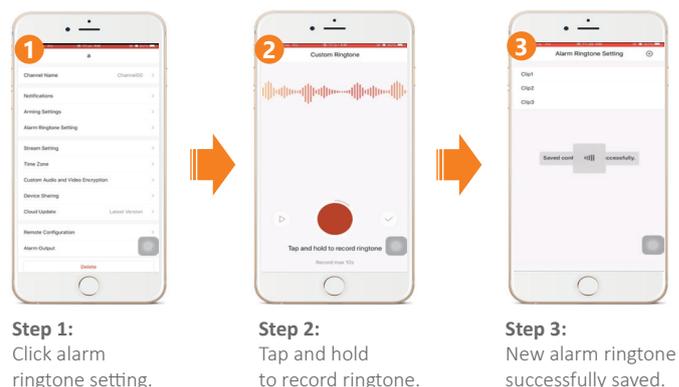
- >110 dB speaker.
- Deeper voice with lower frequency sound.



One-click arming and disarming on DMSS app.



Customised alarm ringtone and warning messages.





AI | Artificial Intelligence



Smart Motion Detection
SMD greatly improves the alarm accuracy by loading a deep-learning algorithm. False alarm rate is the same as daytime, less than **2%**.



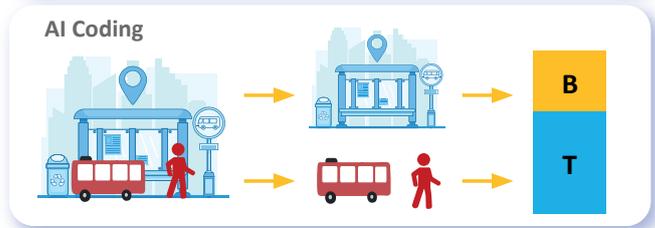
Perimeter Protection
Filters out leaves, light and other interference. False alarm rate is the same as daytime, less than **2%**.



AI Search
Based on human and vehicle classification, target search efficiency improved by **98%**.



AI Coding
AI coding dynamically allocates bit rate, providing clear target images while saving more than **90%** bitrate compared with H.264.



B: Background T: Target

TiOC offers an accurate alarm function by precisely targeting people and vehicles, while filtering out non-target objects such as animals, leaves and car headlights. While keeping false alarm rates to under 2%, its powerful AI algorithms also deliver a quicker, more accurate and longer range motion detection.

