SEE CLEARER.
TRACK SMARTER.

AI VISION. REAL-TIME TRACKING. ANYTIME. ANYWHERE.

AI INTELLIGENT VISION SYSTEM

BUILT FOR *PROFESSIONAL* APPLICATIONS



DD075CCT THREE-LIGHT AI TRACKING MODULE

The DD075CCT integrates one long-focus visible light camera, one short-focus visible light camera, and one long-wave uncooled infrared camera to deliver powerful AI tracking and all-weather mission capabilities.

AI RECOGNITION & TRACKING | TRI-SENSOR FUSION | THERMAL IMAGING | ALL-WEATHER PERFORMANCE | REAL-TIME PROCESSING



SHORT-FOCUS VISIBLE LIGHT CAMERA

- Analog visible light video output
- Ultra-low latency
- Real-time monitoring
- Rapid response



LONG-FOCUS VISIBLE LIGHT CAMERA

- AI-powered recognition, locking, tracking and guidance
- Targets: people, vehicles, windows and more



LONG-WAVE INFRARED CAMERA

- Uncooled infrared imaging
- All-weather, day-and-night mission capability

REAL-TIME TARGET IDENTIFICATION DISTANCE

Vehicle	Human	Multi-Rotor UAV	Fixed-Wing Aircraft (2.5m)
800m	500m	400m	1200m

DYNAMIC TARGET MAX TRACKING SPEED

120 km/h

HIGHEST SUPPORTED RECOGNIZED TARGETS

50 Targets

COMMUNICATION PROTOCOL & FLIGHT CONTROLLER COMPATIBILITY

UART

Compatible with PX4 Autopilot

WIDE APPLICATIONS



PUBLIC SAFETY & LAW ENFORCEMENT



SEARCH & RESCUE & EMERGENCY RESPONSE



BORDER SECURITY & SURVEILLANCE



MARITIME OPERATIONS & COASTAL SURVEILLANCE



INFRASTRUCTURE INSPECTION



INDUSTRIAL MONITORING

HIGH RELIABILITY Rugged design for demanding missions

EASY INTEGRATION Compact size, open interfaces

ALL-WEATHER OPERATION Day & Night Rain, Fog, Smoke

REAL-TIME PROCESSING Onboard AI acceleration for instant response

LIGHTWEIGHT & COMPACT Optimized for UAVs and aircraft

OEM / ODM CUSTOMIZATION AVAILABLE Tailored to your needs

Three-Light Fusion | AI Recognition & Tracking | Low Latency Analog Output | All-Weather & Day-Night | Thermal Imaging Capability | High-Speed Tracking | Multi-Target Recognition | Wide Compatibility & Easy Integration

DD075CCT Technical specification of three-light tracking module

1 Product Introduction

DD075CCT Three-Light AI Tracking Module is equipped with one long-focus visible light CMOS sensor, one short-focus visible light CMOS sensor, and one long-wave uncooled infrared camera. The short-focus visible light camera can output analog visible light video with extremely low latency; the long-focus visible light camera features autonomous recognition, locking, tracking, and guidance capabilities for targets such as people, vehicles, and windows; and the infrared camera provides the capability to perform tasks in all weather and at all times.

2 Application Scenarios

FPV drone vision module, anti-drone visual guidance module, AI tracking module.

3 Technical Indicators Required

Model	DD075CCT
Infrared camera parameters	
Detector response band	8-14 um, long wave
Pixel size	12um
Number of detector pixels	384×288
Optical focal length	10mm
Angle of field	16.9° (H)×12.8° (V) (±5%)
Infrared camera resolution	384×288
Infrared video resolution	384×288@50fps
Telephoto visible light	

Visible Light Sensor	1/3.52" CMOS
Pixel size	2.2μm×2.2μm
Optical focal length	16.26mm
Angle of field	14.8° (H)×8.4° (V) (±5%)
Infrared camera resolution	1920×1080
Infrared video resolution	1920×1080@50fps
Short-focus visible light	
Visible Light Sensor	1/4" CMOS
Pixel size	2.7μm×2.7μm
Optical focal length	1.75mm
Angle of field	113.1° (H)×63.6° (V) (±5%)
Infrared camera resolution	1280×720
Infrared video resolution	1280×720@100fps
Tracker	
Function	1) Equipped with autonomous target recognition； 2) With target detection and tracking prediction capability; 3) Equipped with target positioning capability。
System indicators	
Weight	Camera component part:43±2g; Servo controller + tracker (must be equipped):56±2g.
Coverage	Under the condition that the daytime visibility is not less than 8 km, the target recognition distance of telephoto cameras for adults is more than 600 m,while that of Short-focus cameras for adults is morn than 80 m; Under the condition of low light in urban areas at night, the target recognition distance for adults is more than 100 m.

Target location	CEP 10 Meters
Working temperature	-20℃～+55℃
Storage temperature	-45℃～+60℃
Rain test	It can work under light rain conditions.

4 Power Supply and Power Consumption

Power supply DC10.8V ~ 26.4V@3A;

Stable power consumption is less than 7W.

5 Output Interface

Video: Internet, Analog video;

Control: TTL serial port,Network.

6 Product Images



7 Product Structure

