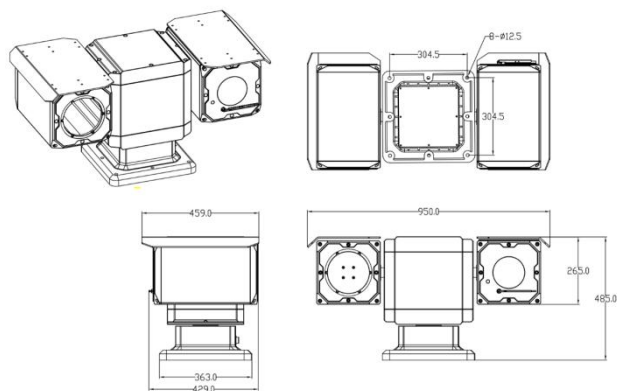


4MP 86X Starlight Thermal & Optical Dual-Spectrum PTZ



- Long-Range Dual-Spectrum Intelligent Heavy-Duty PTZ Camera is equipped with built-in 5T computing power hardware processor and integrates various intelligent algorithms tailored to different application scenarios for optimized performance.
- Its remarkable mechanical and electrical characteristics pay close attention to product details. The system utilizes high-precision harmonic mechanical transmission and is equipped with an electromagnetic brake system, allowing for dynamic power consumption adjustments.
- 640*512, 12μm/30~150mm Uncooled Amorphous Silicon Focal Plane Arrays Detector
- 1/1.8" Progressive Scan 4MP CMOS
- 10~860mm, 86X Optical Zoom, 16X Digital Zoom
- Starlight Technology
- Auto-Induction Wiper
- Ultra long range with Harmonic Drive System
- Positioning Accuracy: Pan 0.003°, Tilt 0.001°
- High Precision Worm-Gear Driving
- IP 67, suitable for Coastal/Marine application

Model No.	CB-86X-TH06K40
Thermal Module	
Detector Type	VOx Uncooled Amorphous Silicon Focal Plane Arrays Detector
Effective Pixels	640(H) * 512(V)
Pixel Pitch	12μm
Spectral Range	8μm~14μm
Sensitivity (NETD)	≤ 50mK@F1.0

Focal Length	30~150mm				
Field of View (H) / (V)	2.9°~2.3°/ 14.7°~11.7°				
Detection Distance	Vehicles: 1.4*4.0m / 33333M, Humans: 1.8*0.5m) / 15000M				
Recognition Distance	Vehicles: 1.4*.0m / 8333M, Humans: 1.8*0.5m) / 3750M				
Identification Distance	Vehicles: 1.4*4.0m / 4167M, Humans: 1.8*0.5m) / 1875M				
Focus Control	Auto / Semiautomatic / Manual				
Digital Zoom	1X~4X, Continuing Zooming 30~150mm (Step 0.1), Zoom in any area				
Digital Detail Enhancement	Yes				
Thermal Image Stabilization	Electronic Image Stabilization (EIS)				
Thermal AGC	Auto / Manual				
Thermal Noise Reduction	2D DNR / 3D DNR				
Image Flip	180°				
Color Palettes	18 (white hot/black hot/fusion/rainbow/golden autumn/midday/iron red/amber/jade/sunset/icefire/painting/pomegranate/emerald /spring/summer/autumn/winter)				
Optical Camera Module					
Digital Video Processor	1/1.8" 4MP CMOS Sensor				
RAM & ROM	1GB RAM / 8GB ROM				
Frame Rate	2560*1440				
Minimum Illumination	Color: 0.0005Lux@F1.2(AGC ON), B/W: 0.0001 Lux@F1.2(AGC ON)				
Shutter Speed	Auto / 1/25s-1~100'000s				
Slow Shutter	Support				
Aperture	DC drive				
Day & Night Switch	Auto, Dual IR-Cut Filter (Day / Night / Auto / Schedule)				
LENS					
Lens Type	10~860mm Motorized 86X Optical Zoom Lens				
Optical Zoom	86X				
Digital Zoom	16X				
Focus Control	Auto / Semi-Auto / Manual				
Iris Control	P-Iris				
Aperture Value	Max. F2.1~F11.2				
F.O.V.					
Field of View (H)	38.4°~0.55° (Wide~Tele)				
Field of View (V)	22.6°~0.31° (Wide~Tele)				
Field of View (D)	43.3°~0.63° (Wide~Tele)				
Minimum Working Distance	1M~10M				
Zoom Speed	Approximately 9s				
DORI					
DORI	Lens (mm)	Detect (m)	Observe (m)	Recognize (m)	Identify (m)
	10mm	89	89	44	35
	860mm	7600	7600	3800	3000
Compression Standard					
Video Compression	H.265 Main Profile / H.264 High Profile / H.264 Main Profile / H.264 Baseline Profile / MJPEG				
Video Bit Rate	32Kbps~16Mbps				

Audio Compression	G.711a / G.711u / G.722.1 / G.726 / MP2L2 / AAC / PCM
Audio Bit Rate	64Kbps(G.711) / 16Kbps(G.722.1) / 16Kbps(G.726) / 32-192Kbps(MP2L2) / 16-64Kbps(AAC)
Image	
Max. Resolution	2564*1440@25/30fps
Main Stream	50/60Hz: 25/30fps(2560*1440/1920*1080/1280*960/1280*720)
Sub Stream	50/60Hz: 25/30fps(704*576/640*480/352*288)
Third Stream	50/60Hz: 25/30fps(704*576)
Image Setting	Saturation, Brightness, Contrast, Sharpness adjustable by Client Soft. Or Browse
Exposure Mode	Auto Exposure / Aperture Priority / Shutter Priority / Manual Exposure
Focus Mode	Auto Focus / One Step / Manual Focus / Semi-Auto Focus
Area Exposure / Focus	Support
Gain Control	Auto / Manual
BLC / White Balance	BLC: On/Off, White Balance: (Auto / Manual / Lock)
Defog	Support
Day/Night Switch	Auto, Manual, Timing, Alarm Trigger
Flip	Normal / Flip Vertical / Flip Horizontal / 180° / 90°Clockwise / 90°Anti-clockwise
HLC	Support
Image Stabilization (EIS)	Support
DNR	3D DNR
WDR	≥ 140dB
S/N Ratio	≥ 60dB
Picture Overlay Switch	Support BMP 24-bit image overlay, customizable area
Region of Interest	Support 3 streams and 4 fixed areas
Privacy Mask	On/Off, (8 Areas, Rectangle)
Network	
Protocols	IPv4/IPv6, HTTP, HTTPS, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTP, TCP/IP, UDP, DHCP, PPPoE,
API	Onvif (Profile S, Profile G), PSIA, CGI
Baud Rate	1200 / 2400 / 4800 / 9600bps (Default:115200bps)
Streaming Method	Unicast / Multicast
Simultaneous	Live View Up to 20 Channels
User/Host	5 Users
Security	Password Protection, Complicated Password, HTTPS Encryption, IP Address Filter, Control Timeout Settings
Video Management Software	IE / Web
WEB	IE10/11, Safari V12.1 above, Firefox V.52 above, Google Chrome V.57 above, Edge V.79+
Mobile Client	iOS, Android
P2P	Support iOS / Android / PC
PTZ	
3D Intellectual	Support
Horizontal Rotation Range	360°
Horizontal Rotation Speed	Pan Speed: Configurable from 0.05° to 150°/s

Tilt Rotation Range	-90~90° (Auto Flip)
Tilt Rotation Speed	Tilt Speed: Configurable from 0.05° to 100°/s
Proportional Zoom	Yes
Motor Drive	Harmonic Gear Drive
Positioning Accuracy	Pan: 0.003°, Tilt: 0.001°
Closed Loop Feedback Control	Support
Remote Upgrade	Support
Remote Reboot	Support
Preset Points	256
Patrol Scan	8 Patrols, up to 32 Presets per patrol
Pattern	4 Patterns, with total recording time not less than 10mins
Scheduled Task	Preset, Pattern Scan, Patrol Scan, Auto Scan
Park Action	Preset, Pattern Scan, Patrol Scan, Auto Scan
3D Positioning	Support
PTZ Status Display	Support
Preset Freezing	Support
Park Time	5~720s available
Dwell Preset	10~120s available
Power-Off Memory	Support
Wiper	Automatic Induction Wiper (Auto / Manual)
Anti-Flash	50Hz / 60Hz
Laser Range Finder Configuration	
LRF Distance	Up to 6KM
LRF Accuracy	1M
Interface	
Ethernet Interface	RJ45*1, 10M/100M self-adaptive
Storage	Support 256G Micro SD / SDHC / SDXC offline local storage, NAS (NFS, SMB / CIFS support)
Alarm	1CH Input, 1CH Output
Audio	1CH Input, 1CH Output
RS-485	RS-485*1
Video Output	1CH Thermal Imaging Video, Network Video, 1CH HD Video, Network Video (via RJ-45)
Alarm	
Snapshot	Remote Timing Snapshot, Mobile View Images Snapshot
Motion Detection	Intelligent Multiple Detection Zones (Max. 4 Zones)
Alarm Linkage	E-mail Alert and Upload Snapshot to FTP, Relay Out, Mobile Phone App
Event	
Basic Event	Motion Detection, Alarm Input and Output
Smart Tracking	Auto Tracking
Alarm Linkage	Upload to FTP, E-mail, Trigger Alarm Output, Trigger Recording
Smart AI	
Smart Detection	Area Intrusion
Perimeter Detection	Support

Smart Event	Line Crossing Detection, Region Entrance Detection, Region Exiting Detection, Unattended Baggage Detection, Object Removal Detection, Intrusion Detection
Fire Detection	Support
Auto Tracking	Vehicle / Non-Vehicle / Human Detection and Auto Tracking
Intelligent Computing Power	5T
General Parameter	
Operating Temp.	Indoor: 0~40°, Outdoor: -40°~+70°
Humidity	≤ 95% Non Condensing
Power	DC48V / 6A
Power Consumption	≤ 72W
Dimension	950(W)*485(H)*459(L)mm
Weight	60KG
Protection Level	IP67, TVS 6000V Lightning Protection, Surge Protection
Mounting	Mast Mounting
Approvals	
Certification	CE / FCC / RoHS
ISO	ISO9001

Note:

Detection Range: In order to distinguish an object from the background, the object must be covered by 1.5 or more pixels.

Recognition Range: In order to classify the object (animal, human, vehicle, etc.), the object must be covered by 6 or more pixels.

Identification Range: In order to identify the object and describe it in details, the object must be covered by 12 or more pixels.

