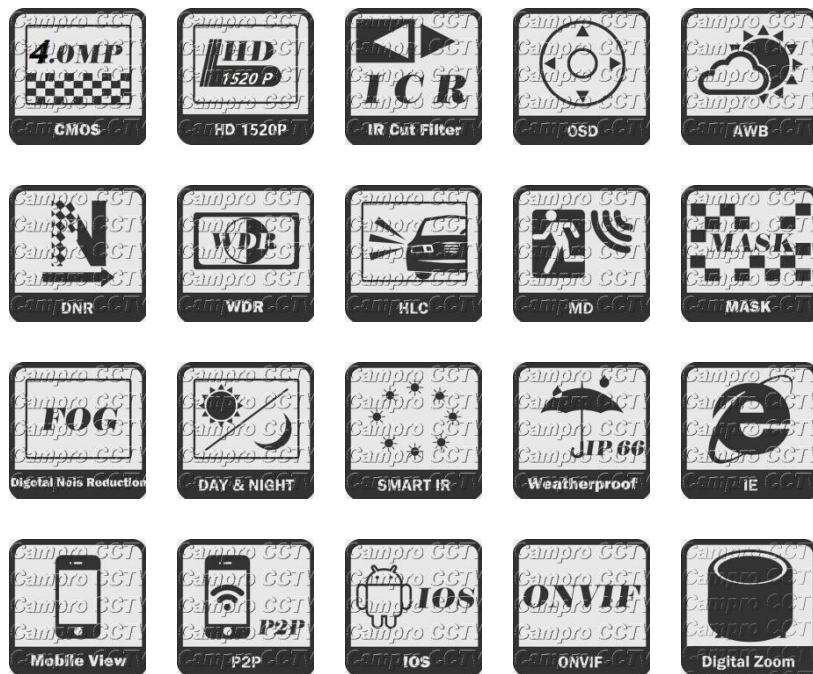
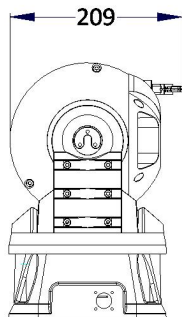
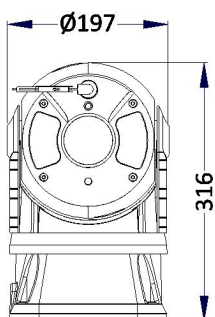


4MP 33X Starlight Thermal & Optical Dual-Spectrum PTZ



- 640*512, 12µm/40mm Uncooled Amorphous Silicon Focal Plane Arrays Detector
- 1/2.8" Progressive Scan 4MP CMOS
- 5.5~180mm, 33X Optical Zoom, 16X Digital Zoom
- Starlight Technology
- Auto-Induction Wiper
- Positioning Accuracy: 0.05°
- IP 67, suitable for Vehicle/Marine application

Model No.	CB-33X-TH4040
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	40mm
Field of View (H) / (V)	12.42° / 9.95°
Min. Focus Distance	46M
Detection Distance	Vehicles: 1.4*4.0m / 8888M, Humans: 1.8*0.5m) / 4000M
Recognition Distance	Vehicles: 1.4*4.0m / 2222M, Humans: 1.8*0.5m) / 1000M
Identification Distance	Vehicles: 1.4*4.0m / 111M, Humans: 1.8*0.5m) / 500M
Focus Control	Auto / Semiautomatic / Manual

Digital Zoom	1X, 2X, 4X
Digital Detail Enhancement	Yes
Thermal Image Stabilization	Electronic Image Stabilization (EIS)
Thermal AGC	Auto / Manual
Thermal Noise Reduction	2D NR / 3D NR
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	1/2.8" 4MP CMOS Sensor
RAM & ROM	1GB RAM / 8GB ROM
Frame Rate	2560*1440
Minimum Illumination	Color: 0.0005Lux@F1.5(AGC ON), B/W: 0.0001 Lux@F1.5(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	5.5~180mm Motorized 33X Optical Zoom Lens
Optical Zoom	33X
Digital Zoom	16X
Focus Control	Auto / Semi-Auto / Manual
Iris Control	Auto Iris
Aperture Value	Max. F1.5~F4.0

F.O.V.

Field of View (H)	58.9°~2.4° (Wide~Tele)
Field of View (V)	33.6°~1.4° (Wide~Tele)
Field of View (D)	67.2°~2.8° (Wide~Tele)
Minimum Working Distance	100mm~1500mm
Zoom Speed	Approximately 3.5s

DORI

DORI	Lens (mm)	Detect (m)	Observe (m)	Recognize (m)	Identify (m)
	5.5mm	43	43	21	17
	180mm	1200	1200	700	560

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	2560*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*488/352*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 / PC Client Software / App
WEB	IE10/11, Safari V12.1 above, Firefox V.52 above, Google Chrome V.57 above, Edge V.79 above
Mobile Client	iOS, Android
P2P	Support iOS / Android / PC
PTZ	
3D Intellectual	Support
Horizontal Rotation Range	0~360° endless
Horizontal Rotation Speed	Pan Speed: Configurable from 0.05° to 80°/s
Tilt Rotation Range	-25~90°
Tilt Rotation Speed	Tilt Speed: Configurable from 0.05° to 80°/s
Preset Points	255
Patrol Scan	6 Patrols, up to 18 Presets per patrol
Pattern	4 Patterns, with total recording time not less than 10mins

A-B Scan	User Programmable
A-B Scan Speed	8 Levels Setting Available (1-8)
3D Positioning	Support
PWR On Action	Memory / Pattern 1 / Tour 1 / 360° Scan / A-B Scan / Preset 1-18 / None
Park Time	5~720s available
Dwell Preset	10~120s available
Power-Off Memory	Support
Anti-Flash	50Hz / 60Hz
Wiper	Automatic Induction Wiper (Auto / Manual)
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
General Parameter	
Operating Temp.	Indoor: 0~40°, Outdoor: -40°~+65°
Humidity	≤ 95% Non Condensing
Power	DC 12V~24V
Power Consumption	≤ 24W
Dimension	197(W)*316(H)mm
Weight	6.5KG
Protection Level	IP67, TVS 4000V Lightning Protection, Surge Protection
Mounting Bracket	Vehicle Mount, Ceiling Mount, Tripod Mount
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.

