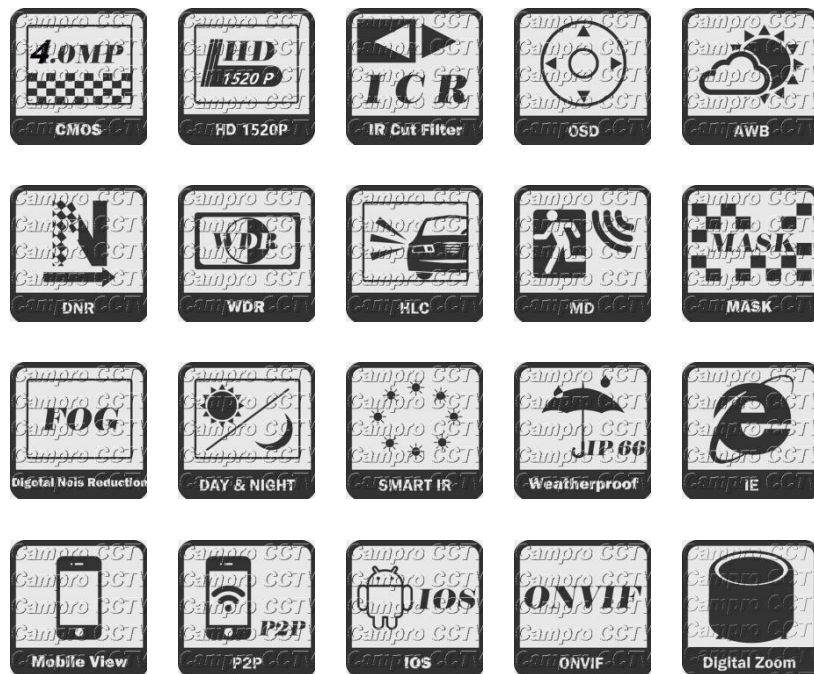
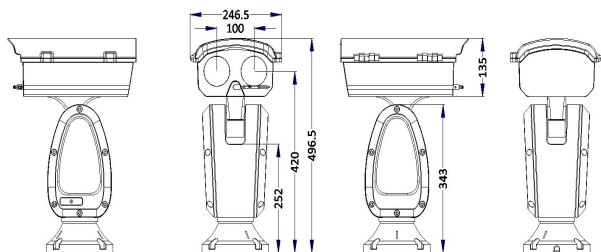


4MP 40X Starlight Thermal & Optical Dual-Spectrum PTZ



- 640*512, 12μm/75mm Uncooled Amorphous Silicon Focal Plane Arrays Detector
- 1/1.8" Progressive Scan 4MP CMOS
- 6.4~256mm, 40X Optical Zoom, 16X Digital Zoom
- Starlight Technology
- Auto-Induction Wiper
- Positioning Accuracy: Pan 0.2°, Tilt 0.05°
- High Precision Worm-Gear Driving
- IP 67, suitable for Vehicle/Marine application

| Model No. | CB-40X-TH7540 |
|-------------------------|--|
| 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 | 75mm |
| Field of View (H) / (V) | 8.3° / 6.6° |
| Min. Focus Distance | 8M |
| Detection Distance | Vehicles: 1.4*4.0m / 16667M, Humans: 1.8*0.5m) / 7500M |
| Recognition Distance | Vehicles: 1.4*4.0m / 4167M, Humans: 1.8*0.5m) / 1875M |
| Identification Distance | Vehicles: 1.4*4.0m / 2083M, Humans: 1.8*0.5m) / 937.5M |
| Focus Control | Auto / Semiautomatic / Manual |

| | |
|-------------------------------|---|
| Digital Zoom | 1X, 2X, 4X |
| Thermal Image Stabilization | Electronic Image Stabilization (EIS) |
| Thermal AGC | Auto / Manual |
| Thermal Brightness & Contrast | Manual / Auto0 / Auto1 |
| Polarity | Black Hot / White Hot |
| Reticle | Reveal / Hidden / Shift |
| NUC | Support |
| Digital Detail Enhancement | Support |
| Digital Filter | Support |
| Thermal Noise Reduction | 3D DNR |
| Image Flip | Right-Left / Up-Down / Diagonal |
| 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 | 2688*1520 |
| Minimum Illumination | Color: 0.0005Lux@F1.4(AGC ON), B/W: 0.0001 Lux@F1.4(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 | 6.4~256mm Motorized 40X Optical Zoom Lens |
| Optical Zoom | 40X |
| Digital Zoom | 16X |
| Focus Control | Auto / Semi-Auto / Manual |
| Iris Control | Auto Iris |
| Aperture Value | Max. F1.35~F4.6 |

F.O.V.

| | |
|--------------------------|------------------------|
| Field of View (H) | 62.2°~2.1° (Wide~Tele) |
| Field of View (V) | 36.3°~1.2° (Wide~Tele) |
| Field of View (D) | 70.8°~2.4° (Wide~Tele) |
| Minimum Working Distance | 100mm~1500mm |
| Zoom Speed | Approximately 4.5s |

DORI

| | Lens (mm) | Detect (m) | Observe (m) | Recognize (m) | Identify (m) |
|------|-----------|------------|-------------|---------------|--------------|
| DORI | 6.5mm | 57 | 57 | 28 | 22 |
| | 240mm | 2280 | 2280 | 1100 | 910 |

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 | 2688*1520@25/30fps |
| Main Stream | 50/60Hz: 25/30fps(2688*1520/1920*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 / 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 90°/s |

| | |
|--------------------------|--|
| Tilt Rotation Range | -82~58° |
| Tilt Rotation Speed | Tilt Speed: Configurable from 0.1° to 9°/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 | N/A |
| 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 |
| Temp. Control | Built in Fan & Heater |
| Power | AC 24V |
| Power Consumption | ≤ 72W |
| Dimension | 246.5(W)*496.5(H)*346(L)mm |
| Weight | 9.5KG |
| Protection Level | IP66, TVS 4000V 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.

