

CK-M Series

Thermal & Optical Bi-spectrum PTZ Camera

SATIR are pleased to announce the release of the CK-M Series, Thermal & Optical Bi-spectrum PTZ Camera built for a wide range of applications. Security is a great field to where this cameras applications can be used.



The thermal resolution of the CK400-M is 400x300 and the CK600-M is 640x512 which increases image resolution at an affordable price . This makes it ideal for distance applications with 40x optical zoom.

Key Features

- Power off self-locking, strong wind resistance.
- Anti-frozen, IP66.
- Temperature measurement range: -20°C to 150C (-4°F to 302°F).
- Supports human, vehicle and, fire point detection.
- Smart events: intrusion, single line crossing, double line crossing, loitering, wrong way, people counting, enter area, leave area.



CK-M Series Specifications

Model	CK400M		CK640M		
Thermal Sensor					
Image Sensor	Uncooled Vox Focal Plane Arrays		Uncooled Focal Plane Arrays		
Resolutions	Sensor is 400×300. Image can be scaled up to 704×576		Sensor is 640×512. Image can be scaled up to 1280×1024		
Pixel Pitch	17µm		12µm		
NETD	≤ 40mK		≤ 35mK		
Spectral Range	8 to 14 um		8 ~ 14 um		
Image Setting	Brightness, Sharpness, Contrast, Mirror, FFC control, 2D/3D DNR		Brightness, Sharpness, Contrast, Mirror, FFC control, 2D/3D DNR		
Pseudo-Colour Setting	White-hot/Black-hot/Rainbow/Ironbow etc. up to 17 modes		White-hot/Black-hot/Rainbow/Ironbow etc. up to 17 modes		
Thermal Lens					
Focus Control	Motorized Focus		White-hot/Black-hot/Rainbow/Ironbow etc. up to 17 modes		
Focal Length	75mm	100mm	75mm	100mm	26 to 105mm
Aperture	F1.0	F1.0	F1.0	F1.0	F1.6
Angle of View	H: 5.1°, V: 3.8°	H: 3.8°, V: 2.3°	H: 6°, V: 5°	H: 4.3°, V: 3.5°	H: 16.8°~ 4.2°, V: 13.4° ~ 3.4°
Detection Distance (Fire: 1x1m)	2,206 m (7,237.5ft)	2,941 m (9,649ft)	3125 m	4167m	Max 4,375 m
Detection Distance (Human: 1.8x0.5m)	2,206 m (7,237.5ft)	2,941 m (9,649ft)	3121 m	4167m	Max 4,369 m
Detection Distance (Vehicle: 4x1.5m)	6,765 m (22,194.9ft)	9,020 m (29,593.2ft)	9583 m	12778 m	Max 10,063 m
Recognition Distance (Human: 1.8x0.5m)	551 m (1,807.7ft)	735 m (2,411.4ft)	780 m	1040 m	Max 1,192 m
Recognition Distance (Vehicle: 4x1.5m)	1691 m (5,547.9ft)	2255 m (7,398.3ft)	2396 m	3194 m	Max 3,659 m
Optical Module					
Image Sensor	1/1.8" CMOS		1/2.8" Sony CMOS		
Max. Resolution	2592 (H)×1520 (V), 4MP		2592 (H)×1520 (V), 4MP		
Shutter Speed	1/5 to 1/20,000s		1/5 ~ 1/20,000s		
Min. Illumination	Colour: 0.001 Lux @ (F1.5, AGC ON), B/W: 0.0001 Lux (F1.5, AGC ON),, 0 Lux with light		Colour: 0.01 Lux @ (F1.2, AGC ON), B/W: 0.001 Lux		
WDR	True WDR		True WDR		
Focal Length	6.8 to 251 mm, 37x optical zoom		4.98 ~ 199.3mm, 40x optical zoom		
Aperture	F1.5 to F4.8		F1.2 ~ F3.5		

Please be aware specifications can vary from time to time

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Angle of View	H: 60.7° to 2.33°, V: 36.8° to 1.38°	H: 59.1° ~ 1.8°, V: 41.6° ~ 1.7°
Digital Zoom	16x	16x
Focus Control	Auto/Manual/Semi-automatic	Auto/Manual/Semi-automatic
Mirror	Support	Support
Defog	Support	Support
Privacy Masking	Support	Support
Illumination Distance	Up to 500m (1,640.4ft)	IR distance up to 500m (1,640.4 ft)
Illuminator Type	Laser	Laser
PTZ		
Pan/Tilt Range	Pan: 0° to 360° endless, Tilt: +90° to -90°	Pan: 0° ~ 360° endless, Tilt: +90° ~ -90°
Pan/Tilt Speed	Pan: 0.01° to 60°/s, Tilt: 0.01° to 30°/s	Pan: 0.01° ~ 60°/s, Tilt: 0.01° ~ 30°/s
Wiper	Support	Support
Preset Accuracy	± 0.1°	± 0.1°
Presets	400	400
Scan	8 scans	8 scans, up to 32 presets per scan
Patrol	12 patrols, up to 32 presets per patrol	12 patrols, up to 32 presets per scan
Track	6 tracks	6 tracks
3D Positioning	Support	Support
Speed Setup	Auto/Manual (0-8)	Auto/Manual (0-8)
Power Off Memory	Support	Support
Idle Motion	The time can be set (1-240 minutes), and functions such as preset positions, patrols, scans, and tracks can be run.	It can activate Preset/ Scan/Tour/Pattern if there is no command in the specified period
Video and Audio		
Main Stream	Thermal: 704×576 @ 25/30fps Optical: 2592×1520, 2304×1296, 1920×1080, 1280×720 @25/30fps	Thermal: 1280×1024, 1280×720, 640×512 @ 25/30fps Optical: 2592×1520, 2560×1440, 2304×1296, 1920×1080, 1280×720 @25/30fps
Sub Stream	Thermal: CIF @ 25/30fps Optical: D1, VGA, CIF @25/30fps	Thermal: D1, CIF @ 25/30fps Optical: D1, VGA, 640×360, CIF, QCIF, QVGA @25/30fps
Bit Rate Control	CBR/VBR	CBR/VBR
Bit Rate	Thermal: 100Kbps to 6Mbps Optical: Main stream: 500Kbps to 16Mbps, Sub stream: 100Kbps to 6Mbps	Thermal: Main stream: 100Kbps~8Mbps Sub stream: 100Kbps~6Mbps Optical: Main stream: 100Kbps~12Mbps, Sub stream: 100Kbps~6Mbps

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CK-M Series Specifications

Region of Interest	Off/On (8 Zone, Rectangle)	Off/On (8 Zone, Rectangle)
Audio Compression	G711: 64kbps, RAW_PCM: 128kbps	G711: 8kbps, RAW_PCM: 16kbps
Smart Function		
Smart Alarm	Motion detection, Disk alarm, I/O alarm, IVS alarm, Temperature detection & alarm	Motion detection, Disk alarm, I/O alarm, IVS alarm, Temperature detection & alarm
Smart Detection	Support human/vehicle detection, fire point detection and smoke & fire detection (ship detection optional)	Support human/vehicle detection and fire point detection (ship detection optional)
Intelligent Analysis	Intrusion, Single line crossing, Double line crossing, Loitering, Wrong-way, Enter area, Leave area (these 7 function support accurate detection of people/vehicles), People counting	Intrusion, Single line crossing, Double line crossing, Loitering, Wrong way, Enter area, Leave area (these 7 function support accurate detection of people/vehicles) , People counting
Temperature Detection		
Temperature Detection	3 temperature measurement rule types, 20 rules in total, 1 full screen, 19 others (spot, areas, line).	3 temperature measurement rule types (point, line, area)
Temperature Alarm	Over temperature alarm, Temperature difference alarm	Over temperature alarm, Temperature difference alarm
Accuracy	±2°C / ±2%	±2°C / ±2%
Response Time	≤ 30ms	≤ 30ms
Temperature Range	-20°C to 150°C (-4°F to 302°F)	-20°C to 150°C (-4°F to 302°F), -20°C to 550°C (-4°F to 1022°F) Customizable
Network		
Protocols	IPv4/IPv6, HTTP, HTTPS, RTSP/RTP/RTCP, TCP/UDP, DHCP, DNS, DDNS, PPPOE, FT, SMTP, 802.1x, SNMP	IPv4/IPv6 ,HTTP,RTSP/RTP/RTCP, TCP/UDP, DHCP, DNS, PPPOE, SMTP, 802.1x
Interoperability	ONVIF, CGI, SDK	ONVIF, CGI, SDK
Max, User Access	10 Users	10 Users
Web Viewer	<IE11, Chrome, Firefox, Microsoft Edge	<IE11, Chrome, Firefox, Microsoft Edge
Web Language	English, Chinese, Polish, Italian, Portuguese, Spanish. Russian, French, Czech, Hungarian	English, Chinese, Polish, Italian, Portuguese, Spanish. Russian, French, Czech, Hungarian

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Interface		
Network Interface	1 Ethernet (10/100 Base-T) RJ-45 Connector	1 Ethernet (10/100 Base-T) RJ-45 Connector
Audio Interface	2ch Audio In, 2ch Audio Out	2ch Audio In, 2ch Audio Out
Alarm Interface	9ch Alarm In, 4ch Alarm Out	9ch Alarm In, 4ch Alarm Out
RS485	Support	Support
BNC Output	Support	Support
Reset Button	Support (Built-in)	Support (Built-in)
SD Card Slot	Built-in, up to 256GB	Built-in, up to 256GB
General		
Power Supply	DC36V	DC36V
Power Consumption	Max 150W	Max 150 W
Working Temperature	-40°C to 60°C (-40°F to 140°F)	-40°C~60°C (-40°F~140°F)
Storage Conditions	0 to 90% RH	0 ~ 90% RH
Certifications	CE /FCC	CE /FCC
Ingress Protection	IP66	IP66
Casing	Metal	Metal
Dimensions	594×350×337mm (23.39×13.78×13.27")	594×350×337mm (23.39×13.78×13.27")
Net Weight	≤ 26.6Kg (58.6lb)	≤ 23Kg

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