















The Camera series is based on the latest sixth-generation uncooled infrared technology, it is designed for day and night monitoring, intelligent analysis, and active defense. It is composed of thermal imaging module, high-definition visible light module, intelligent analysis module, laser lighting/ranging module, PTZ precision transmission device and control mechanism.

The Camera replace the human eye with infrared thermal imaging camera and laser camera, replace the human brain with intelligent algorithms and deep learning, and take countermeasures in real time with sound and light rejection, by integrating detection, analysis, and rejection in one product.

## Product's Highlights:

- 3000 presets for more patrol options and more intelligent functions.
- Up to 100° /s high rotation speed and 33m/s anti-wind design, IP67 protection
- Function of life index recording for thermal camera
- WZ non-uniform image correction technology, good image uniformity and dynamic range.
- support 512 AR intelligent information fusion
- support single scene/multi-scene/panoramic tracking
- One IP address optional: Visible, thermal camera can view, set and control by one IP address



**Auto Track** 



**Intrusion Detection** 



**High Resolution** 



Ranging Scale







Model		KI-TDV430LM20A-SW
	Vehicle (2.3*2.3m)	Detection: 6.3km; Recognition: 1.8km; Identification: 0.9km
Effective Distance (DRI)	Human (1.8*0.6m)	Detection: 2.5km; Recognition: 0.7km; Identification: 0.35km
	Fire Detection	4km (3km for 2*2m Fire)
	IVS Range	2.3km for Vehicle; 0.8m for Human
Thermal Sensor	Sensor	5th generation uncooled FPA sensor
	Effective Pixels	384x288 (640x512 Optional) 50Hz
	Pixel Size	12μm
	NETD	≤45mK
	Spectral Range	7.5∼14 µ m, MWIR
Thermal Lens	Focal length	25~75mm Zoom
	FOV (384*288)	10.6° ×7.9° ∼3.5° ×2.6°
	FOV (640*512)	17.7° ×14.4° ~5.9° ×4.7°
	Angular radian	$0.48{\sim}0.16$ mrad
	Digital Zoom	1~8X continuous zoom (step 0.1)
Visible Camera	Sensor	1/2.8" Star Level CMOS, Integrated ICR Dual Filter D/N Switch
	Resolution	1920(H)x1080(V) (4mp resolution optional)
	Frame Rate	32Kbps~16Mbps,60Hz
	Min. Illumination	0.0005Lux (Color), 0.0001Lux (B/W)
	SD Card	Support
	Optical Lens	8~320mm 40X
Visible Lens	Image Stabilization	Support
	Defog	Support
	Focus Control	Manual/Auto
	Digital Zoom	16X
	Enhance	Stable operational temperature without TEC, starting time less than 4 seconds
	ROI	4X
Image	SDE	Support SDE digital image processing
	Pseudo Color	16 pseudo color and B/W, B/W inverse
	AGC	Support
	Ranging Ruler	Support
Laser	Effective Length	300m
	Angle	3° ∼65°
Enhance	Strong Light Protect	Support  Thermal imaging playity is not affected by temperature
	Temp Correction  Scene mode	Thermal imaging clarity is not affected by temperature.  Support multi-configuration scenarios, adapt to different environment
	Lens Servo	Support lens preset, focal length return and focal length location.
	Azimuth Information	support angle real-time return and positioning; azimuth video overlay real-time display.
	Parameter Setting	OSD Menu Remote Call Operations.
	Diagnostic Functions	Disconnection alarm, support IP conflict alarm, support illegal access alarm (illegal access
	Diagnostic Functions	times, lock time can be set), support SD card abnormal alarm (SD space is insufficient, SD
		card error, no SD card), video masking alarm, anti-sun damage
	Life Index Recording	Working time, shutter times, ambient temperature, core device temperature
Intelligent	Fire Detection	threshold 255 levels, targets 1-16 can be set, hot spot tracking
		support intrusion detection, boundary crossing detection, entering/leaving area detection,
	AI Analysis	motion detection, wandering detection, people gathering, fast moving, target tracking, items

		left behind, items taken; people/vehicle target detection, face detection; and support 16 area settings; support intrusion detection people, vehicle filtering function; support target temperature filtering
	Auto-tracking	Single/multi scene tracking; panoramic tracking; alarm linkage tracking
	AR Fusion	512 AR intelligent information fusion
	Image fusion	Support 18 kinds of double light fusion mode, support picture-in-picture function
PTZ	Patrol	Support 16 cruise routes, each can support 256 preset positions
	Rotation	Pan: 0~360°, tilt: -90~+90°
	Speed	Pan: 0.01~100°/S (max 200°/S), Tilt: 0.01~80°/S
	Day/Night Patrol	1-40 preset for day; 41-80 preset for night
	Preset	3000
	Enhance	Fan/Wiper/Heater attached
	Watch function	preset bit / pattern / cruise / vertical / frame/ panorama / apple skin/ sweep line scan
	Illegal access alarm	Lock time can be set or illegal access.
Safety Control	User management	Three levels of user rights: administrator, operator, and normal user.
	Security Mode	Support IP whitelist and blacklist, MAC whitelist and blacklist.
	Mis-login lockout	User mis-login lockout
Video Audio	The word Decelution	$1920\times1080;\ 1280\times1024;\ 1280\times960;\ 1024\times768;\ 1280\times720;\ 704\times576;\ 640\times512;$
	Thermal Resolution	640×480; 400×300; 384×288; 352×288; 352×240
	Visible Resolution	2592×1520; 2560×1440; 1920×1080; 1280×1024; 1280×960; 1024×768; 1280
		×720; 704×576; 640×512; 640×480; 400×300; 384×288; 352×288; 352×240
	Record Rate	32Kbps∼16Mbps
	Audio encoding	G.711A/ G.711U/G726
	OSD settings	Support OSD display settings for channel name, time, gimbal orientation, field of view, focal
		length, and preset bit name settings
	Ethernet	RS-485 (PELCO D protocol, baud rate 2400bps) ,RS-232 (option) ,RJ45
	Protocol	IPv4/IPv6, HTTP, HTTPS, 802.1x, Qos, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, ICMP, DHCP, PPPoE, ONVIF
Interface	Video Output	PAL/NTSC
	Power	DC24V
	Compression	H.265 / H.264 / MJPEG
Environmental	Operate Temp	-25℃~+55℃
	Storage Temp	-35℃~+75℃
	Humidity	<90%
	Ingress Protect	IP67
	Housing	PTA three-resistance coating, Seawater corrosion resistance, Aviation waterproof plug
	Anti-fog/salty	PH 6.5∼7.2
	Power	60 (Peak); 40W normal work
	Weight	10kg
	Size	312mm×200mm×296mm (L×W×H)
	Mounting	Front / side / wall / hanging / vehicle / tripod pro-rack
	4G	4G module
Optional Function		
	LRF	Up to 1km
	Absorber Platform	Vehicle use shake-absolve platform
	GPS	Accuracy: $<$ 2.5m; Autonomous 50%: $<$ 2m (SBAS)

