VIEWPRO

Focus on the NEW ECOSYSTEM

of unmanned systems

Q2 2026

Model Map

Series		AI Series				
Model		A609	A609R	A609R Pro	A613	A619
Pics						
EO	EO image sensor	1/2.9" CMOS Sensor	1/2.9" CMOS Sensor	1/2" CMOS Sensor	1/2.9" CMOS Sensor	1/2.9" CMOS Sensor
	Optical zoom	6mm	6mm	4.5mm	6mm	6mm
	Total pixel	2MP	2MP	48MP	2MP	2MP
	Min illumination	/	/	/	/	/
IR	IR thermal imager	640×512, 9.1mm	640×512, 9.1mm	640×512, 9mm	640×512, 13mm	640×512, 19mm
	Pixel size	12μm	12μm	12μm	12μm	12μm
	NETD	≤40mK (@25°C)	≤40mK (@25°C)	≤25mK (300K)	≤50mK (@25°C)	≤50mK (@25°C)
LRF	Laser rangefinder	/	5~1200m	5~1200m	/	/
Overall	Object tracking	Yes, AI	Yes, AI	Yes, AI	Yes, AI	Yes, AI
	N.W	192g	232g	257g	238g	493g
	Dimension	52*69*96.2mm	62*78*106.2mm	62*78*116.2mm	62*81*106.2mm	86*118.2*143.2mm
	Page No.	P.05	P.06	P.07	P.07	P.07

AI Series				
A650	AT1575-6	AT50	AT9-50	AT19
				
1/2.9" CMOS Sensor	1/2.9" CMOS Sensor	/	/	/
6mm	6mm	/	/	/
2MP	5MP	/	/	/
/	/	/	/	/
640×512, 50mm	640×512, 15~75mm	640×512, 50mm	640×512, 9.1mm + 50mm	640×512, 19mm
12μm	12μm	12μm	12μm	12μm
≤35mK (@25°C)	≤40mK (@25°C)	≤50mK (@25°C)	≤40mK@25°C,F #1.0	≤50mK (@25°C)
/	/	/	/	/
Yes, AI	Yes, AI	Yes, AI	Yes, AI	Yes, AI
693g	1171g	686g	727g	441g
100.8*135.5*168.6mm	130*134*204.8mm	100.8*136.3*163.6mm	102*111.9*168.2mm	86*118.2*143.2mm
P.08	P.09	P.09	P.32	P.09

AI Series

H4T-25	H4T-19	H4TS-19	H3TS	A10TR Pro
				
1/2" CMOS Sensor	1/2" CMOS Sensor	1/2" CMOS Sensor	1/2" CMOS Sensor	1/2.8" CMOS Sensor
10x, 24.29mm prime lens	10x, 24.29mm prime lens	2.6x	2.6x	10x, f=4.7~47mm
48MP	48MP	48MP	48MP	5.13MP
Color 0.1 lux	Color 0.1 lux	/	/	Color 0.02 lux
640*512, 25mm	640*512, 19mm	640*512, 19mm	640*512, 9mm	640×512, 19mm
12μm	12μm	12μm	12μm	12μm
≤50mK@25°C, F#1.0	≤50mK@25°C, F#1.0	≤50mK@25°C, F#1.0	≤25mK(f /1.0 300K)	≤50mK (@25°C)
5~1200m	5~1200m	5~1200m	5~1200m	5~1500m
Yes, AI	Yes, AI	Yes, AI	Yes, AI	Yes, AI
435g	420g	399g	298g	651g
102.5*97.5*124.9mm	102.5*97.5*124.9mm	96.9*106.1*136.2mm	86.5*81.3*124.7mm	100*114.7*174.2mm
P.10	P.12	P.12	P.12	P.13

AI Series

A10T Pro	A10 Pro	A20KTR	A20KT-35	A20KT-19
				
1/2.8" CMOS Sensor	1/2.8" CMOS Sensor	1/2.5" "Exmor R" CMOS Sensor	1/2.5" "Exmor R" CMOS Sensor	1/2.5" "Exmor R" CMOS Sensor
10x, f=4.7~47mm	10x, f=4.7~47mm	20x 4K	20x 4K	20x 4K
5.13MP	5.13MP	8.51MP	8.51MP	8.51MP
Color 0.02 lux	Color 0.02 lux	Color 0.06 lux	Color 0.06 lux	Color 0.06 lux
640×512, 19mm	/	640×512, 35mm	640×512, 35mm	640×512, 19mm
12μm	/	12μm	12μm	12μm
≤50mK (@25°C)	/	≤50mK@F1.0 @25°C	≤50mK@F1.0 @25°C	≤50mK@F1.0 @25°C
/	/	50~3000m	/	/
Yes, AI	Yes, AI	Yes, AI	Yes, AI	Yes, AI
569g	500g	1011g	1035g	987g
96*121.5*157.7mm	96*121.5*157.7mm	130*161*201.8mm	130*161*201.8mm	130*161*201.8mm
P.14	P.14	P.15	P.16	P.16

AI Series

A20KTR-50HD	A20KTR-24HD	A30TR-1575	A30TR-50M	A30T-50
				
1/2.5" CMOS Sensor	1/2.5" CMOS Sensor	1/1.8" STARVIS CMOS Sensor	1/2.8" STARVIS2 CMOS Sensor	1/2.8" STARVIS2 CMOS Sensor
20x	20x	30x	30x	30x
8.51MP	8.51MP	4.17MP	2.13MP	2.13MP
/	/	Color 0.009 lux	Color 0.009 lux	Color 0.009 lux
1280*1024, 50mm	1280*1024, 24mm	640×512, **5x optical zoom** 15-75mm	640×512, 50mm	640×512, 50mm
12μm	12μm	12μm	12μm	12μm
≤35mK (@25°C)	≤50mK (@25°C)	≤40mK@25°C,F #1.0	≤40mK (@25°C)	≤50mK (@25°C)
20~3000m	20~3000m	50~10000m	50~5000m	/
Yes, AI	Yes, AI	Yes, AI	Yes, AI	Yes, AI
1410g	1032g	2293g	1343g	1208g
135*150.1*218.2mm	130*161*201.8mm	175*200*248.4mm	138*145.8*218.2mm	128*139.5*214.2mm
P.28	P.28	P.17	P.18	P.18

AI Series

Mini H30T	A40TR-35	A40TR Pro	A40T Pro	A40 Pro
				
1/1.8" STARVIS CMOS Sensor	1/2.8" CMOS Sensor	1/2.8" CMOS Sensor	1/2.8" CMOS Sensor	1/2.8" CMOS Sensor
30x enhanced	40x	40x	40x	40x
4.17MP	2.13MP	2.13MP	2.13MP	2.13MP
Color 0.009 lux	Color 0.01 lux	Color 0.01 lux	Color 0.01 lux	Color 0.01 lux
640×512, 19mm	640×512, 35mm	640×512, 19mm	640×512, 19mm	/
12μm	12μm	12μm	12μm	/
≤50mK (@25°C)	≤50mK (@25°C)	≤50mK (@25°C)	≤50mK (@25°C)	/
5~1500m	50~3000m	50~3000m	/	/
Yes, AI	Yes, AI	Yes, AI	Yes, AI	Yes, AI
970g	1034g	990g	941g	882g
129.5*174*195.5mm	130*136*209.7mm	125*134.5*204.7mm	118*134.5*193.8mm	118*134.5*193.8mm
P.19	P.20	P.21	P.22	P.23

AI Series		
A40 Pro (Anti-Fog/Anti-Icing)	**UA40T-35**	**UAT50**
		
1/2.8" CMOS Sensor	1/2.8" CMOS Sensor	/
40x	40x	/
2.13MP	2.13MP	/
Color 0.01 lux	Color 0.01 lux	/
/	640*512, 35mm	640*512, 50mm
/	12μm	12μm
/	≤50mK@F1.0 @25℃	≤35mK@F1.0 @25℃
/	/	/
Yes, AI	Yes, AI	Yes, AI
952g	1076g	555g
118*138.5*139.8mm	140*136*213.2mm	100.8*100.5*161.9mm
P.22	P.23	P.34

Series		1280*1024 HD IR Thermal Gimbal Camera Series		
Model		**Q40TIRM-HD**	**U30TIRM-HD**	**Q30TIRM-15100**
Pics				
EO	EO image sensor	1/2.8" CMOS Sensor	1/2.8" STARVIS2 CMOS Sensor	1/1.8" STARVIS CMOS Sensor
	Optical zoom	40x, F=4.25~170mm	30x, F=4.3~129mm	30x, f=6.5~162.5mm
	Total pixel	2.13MP	2.13MP	4.17MP
	Min illumination	Color 0.01 lux	Color 0.009 lux	Color 0.009 lux
IR	IR thermal imager	1280*1024,50mm	1280*1024, 50mm	1280X1024, 15~100mm, **7x optical zoom**
	Pixel size	12μm	12μm	12μm
	NETD	≤40mK (@25℃)	≤40mK (@25℃)	≤40mK (@25℃)
LRF	Laser rangefinder	50~5000m	50~5000m	50~10000m
Overall	Object tracking	Yes	Yes	Yes
	N.W	1512g	1474g	5737g
	Dimension	145*146.9*228.2mm	155*143.5*228.2mm	236*266.7*325.5mm
	Page No.	P.25	P.27	P.27

1280*1024 HD IR Thermal Gimbal Camera Series			
Q30TIR Pro	**QIR50T Pro**	**A20KTR-50HD**	**A20KTR-24HD**
			
1/2.8" STARVIS2 CMOS Sensor	/	1/2.5" CMOS Sensor	1/2.5" CMOS Sensor
30x, F=4.3~129mm	/	20x	20x
2.13MP	/	8.51MP	8.51MP
Color 0.009 lux	/	/	/
1280*1024,50mm	1280*1024,50mm	1280*1024, 50mm	1280*1024, 24mm
12μm	12μm	12μm	12μm
≤40mK (@25°C)	≤40mK (@25°C)	≤35mK (@25°C)	≤50mK (@25°C)
/	/	20~3000m	20~3000m
Yes	Yes	Yes, AI	Yes, AI
1282g	943g	1410g	1032g
120*140.9*212.2mm	112*136*181.3mm	135*150.1*218.2mm	130*161*201.8mm
P.27	P.35	P.28	P.28

Series		Hawkeye Series（Micro Prime Lens）			
Model		**U2 Pro**	**A609**	**A609R**	**A609R Pro**
Pics					
EO	EO image sensor	CMOS	1/2.9" CMOS Sensor	1/2.9" CMOS Sensor	1/2" CMOS Sensor
	Focus length	3.2mm + 16mm	6mm	6mm	4.5mm
	Resolution	3840*2160	1920x1080	1920x1080	1920x1080
IR	IR thermal imager	/	640×512, 9.1mm	640×512, 9.1mm	640×512, 9mm
	Pixel size	/	12μm	12μm	12μm
	NETD	/	≤50mK (@25°C)	≤40mK (@25°C)	≤40mK (@25°C)
LRF	Laser rangefinder	/	/	5~1200m	5~1200m
Overall	Object tracking	Yes	Yes, AI	Yes, AI	Yes, AI
	Output	IP	IP	IP	IP
	N.W	114g	192g	232g	257g
	Dimension	33*44.7*80.2mm	52*69*96.2mm	62*78*106.2mm	62*78*116.2mm
	Page No.	P.29	P.05	P.06	P.07

Hawkeye Series（Micro Prime Lens）			
A613	**U818M**	**U818**	**Q818**
			
1/2.9" CMOS Sensor	CMOS	CMOS	CMOS
6mm	8mm	8mm	8mm
1920x1080	1920x1080	1920x1080	1920*1080
640×512, 13mm	640×512, 18mm	640×512, 18mm	640×512, 18mm
12μm	12μm	12μm	12μm
≤50mK (@25°C)	≤50mK (@25°C)	≤50mK (@25°C)	≤50mK (@25°C)
/	5~1200m	/	/
Yes, AI	Yes	Yes	Yes
IP	IP	IP	IP
238g	319g	256g	345g
62*81*106.2mm	88.2*62.9*107.2mm	62.1*67*84.2mm	68.1*92.3*112.9mm
P.07	P.30	P.31	P.31

Series		**T Series - Laser Rangefinder Series**		
Model		**U30TIRM-HD**	**Q40TIRM-HD**	**Q30TIRM-15100**
Pics				
EO	EO image sensor	1/2.8" STARVIS2 CMOS Sensor	1/2.8" CMOS Sensor	1/1.8" STARVIS CMOS Sensor
	Optical zoom	30x, F=4.3~129mm	40x, F=4.25~170mm	30x, f=6.5~162.5mm
	Total pixel	2.13MP	2.13MP	4.17MP
	Min illumination	Color 0.009 lux	Color 0.01 lux	Color 0.009 lux
IR	IR thermal imager	**1280*1024**, 50mm	**1280*1024**,50mm	**1280*1024**, 15~100mm, 7x optical zoom
	Pixel size	12μm	12μm	12μm
	NETD	≤40mK (@25°C)	≤40mK (@25°C)	≤40mK (@25°C)
LRF	Laser rangefinder	50~5000m	50~5000m	50~10000m
Overall	Object tracking	Yes	Yes	Yes
	N.W	1474g	1512g	5737g
	Dimension	155*143.5*228.2mm	145*146.9*228.2mm	236*266.7*325.5mm
	Page No.	P.27	P.25	P.27

Series		T Series - EO + IR Series			
Model		U30TIR-35	Q30TIR Lite	Q30TIR Pro	Q40T-PLUS
Pics					
EO	EO image sensor	1/2.8" STARVIS2 CMOS Sensor	1/2.8" STARVIS2 CMOS Sensor	1/2.8" STARVIS2 CMOS Sensor	1/2.8" CMOS Sensor
	Optical zoom	30x	30x	30x	40x
	Total pixel	2.13MP	2.13MP	2.13MP	2.13MP
	Min illumination	Color 0.009 lux	Color 0.009 lux	Color 0.009 lux	Color 0.002 lux
IR	IR thermal imager	640×512, 35mm	640×512, 24mm	1280×1024, 50mm	/
	Pixel size	12μm	12μm	12μm	/
	NETD	≤50mK (@25°C)	≤50mK (@25°C)	≤40mK (@25°C)	/
Overall	Object tracking	Yes	Yes	Yes	Yes
	N.W	934g	860g	1282g	1004g
	Dimension	127×130×201.9mm	111.6*129.8*184.2mm	120*140.9*212.2mm	118*147.5*191.5mm
	Page No.	P.36	P.38	P.27	P.438

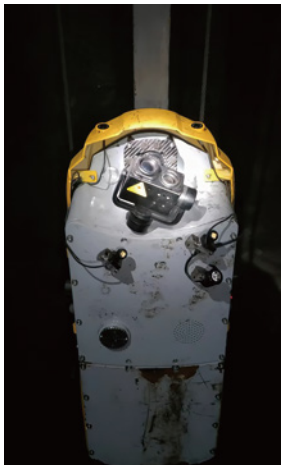
Series		IR Thermal Only Series		
Model		AT19	AT50	UAT50
Pics				
IR	Focus Length	19mm	50mm	50mm
	Resolution	640*512	640*512	640*512
	Pixel pitch	12μm	12μm	12μm
	NETD	≤50mK (@25°C)	≤50mK (@25°C)	≤35mK (@25°C)
	FOV(Horizontal/Vertical)	22.9° / 18.4°	8.8° / 7°	8.8° / 7°
	Detective Distance（Man: 1.8x0.5m）	792m	2083m	2083m
	Recognize Distance	198m	521m	521m
	Identify Distance	99m	260m	260m
	Detective Distance（Car: 4.2x1.8m）	2428m	6389m	6389m
	Recognize Distance	607m	1597m	1597m
	Identify Distance	303m	799m	799m
Overall	Object tracking	Yes, AI	Yes, AI	Yes
	Working mode	Uncooled LWIR	Uncooled LWIR	Uncooled LWIR
	N.W(w/o damping system)	441g	686g	555g
	Meas.	86*118.2*143.2mm	100.8*136.3*163.6mm	100.8*100.5*161.9mm
	Page No.	P.09	P.09	P.34

IR Thermal Only Series			
QIR50T Pro	**AT9-50**	**QIR1575T**	**QIR25250T**
			
50mm	9.1mm + 50mm	15~75mm, **5x optical zoom**	25~250mm, **10x optical zoom**
1280*1024	640*512	640*512	640*512
12μm	12μm	12μm	15μm
≤40mK (@25°C)	≤40mK (@25°C)，≤50mK (@25°C)	≤40mK (@25°C)	≤35mK
17.5° / 14°	48.3° / 38.6°	28.7°~5.86° / 23.1°~4.69°	21.73°/ 17.5°
2083m	2083m	3125m	833~8333m
521m	521m	781m	208~2083m
260m	260m	391m	104~1042m
6389m	6389m	9583m	2556~25556m
1597m	1597m	2396m	639~6389m
799m	799m	1198m	319~3194m
Yes	Yes，AI	Yes	Yes
Uncooled LWIR	Uncooled LWIR	Uncooled LWIR	**Cooled MWIR**
943g	727g	1216g	2471g
112*136*181.3mm	102*111.9*168.2mm	130*160*200.8mm	165*188.2*238.4mm
P.34	P.32	P.33	P.33

Series		**Single EO Series**		
Model		**Q10F**	**Q10N Pro**	**Q30T Pro**
Pics				
EO	EO image sensor	1/3" CMOS	1/2.7" CMOS Sensor	1/2.8" STARVIS2 CMOS Sensor
	Optical zoom	10x	10x	30x
	Total pixel	4MP	5MP	2.13MP
	Min illumination	Color 0.05 lux	Color 0.002 lux	Color 0.009 lux
Overall	Power	14.8V~25.2V (2.9W, Max.8W)	11.1V~25.2V (2.4W, Max.7.2W)	14.8V~25.2V (8.8W, Max.20W)
	Object tracking	/	/	Yes
	N.W	378 g	355g	811g
	Dimension	86.2*108*136.7mm	91.6*111.4*139.2mm	104.9*128.2*180mm
	Page No.	P.39	P.39	P.40

Single EO Series	
U30T	**Z36T Cube**
	
1/2.8" STARVIS2 CMOS Sensor	1/2" CMOS Sensor**(Starlight)**
30x	36x
2.13MP	2.13MP
Color 0.009 lux	Color 0.01 lux
14.8V~25.2V (8.3W, Max.16W)	16V (9.3W, Max.18.4W)
Yes	Yes
717g	842g
115.8*103.5*145.2mm	105.3*187.6*176.7mm
P.40	P.40



More Contents

COMPANY PROFILE

Established in 2010, We are a Hi-tech manufacturer specialized in R&D and manufacturing of cutting-edge zoom gimbal cameras for industrial and commercial robots: Unmanned systems solutions.

With the strong R&D team, we focus on research and innovation in image processing, optical zoom algorithm object tracking, AI object tracking and camera stabilizing solutions based on direct drive brushless motors.

Extensive product range with comprehensive professional functions enlarge the applications of our gimbal cameras on Unmanned systems with different autopilots in various domains, such as infrastructure, public safety, construction and energy etc. Meanwhile, OEM&ODM service is one of our important advantages, which brings us challenge and new progress.

The seamless docking with DJI Matrice series drones since 2018 has significantly enhanced the market position and competitive edge of our gimbal camera solutions.In the rapidly developing field of unmanned systems, we devote to constant improvement and enhancing of the main and additional features of our products.

To enhance productivity and security for humans with robot vision devices is our long-term vision. Welcome to join us!

HONOR AND QUALIFICATION











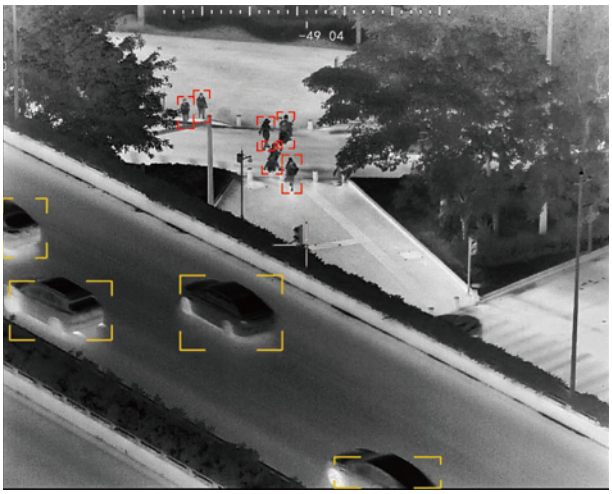








AI Object Tracking Series



The automatic object identification technology uses computer vision to replace manual decision-making, and combines deep learning technology to extract and classify the targets in the field of view. Efficiently identify object of interest, enhance the autonomy and intelligence level of unmanned systems, weaken or even get rid of the dependence on operators. It reduces the operator's burden, shortens the reaction time of the entire system, improves the anti-interference capability, and provides accurate and reliable information for the next reconnaissance on the object. It supports the development of artificial intelligence vision applications, the rapid deployment of algorithms, and the unlimited expansion of applications. Support AI target customization.

A609

Micro Prime Lens EO+IR Dual Sensors AI Object Tracking Gimbal Camera

Overall Specifications

N.W.	192g
Product meas.	52*69*96.2mm
Input voltage	14.8V~25.2V
Dynamic current	450~1000mA @ 16V
Power consumption	Average 7.2W, Max 16W
Working environment temp.	-20°C ~ +50°C
IP rate	IP4X
Output	IP (RTSP/UDP 720p/ 1080p 30fps H264/H265)
Storage	TF card (Up to 256G,class 10, FAT32)
Picture in TF Card	JPG(1920*1080)
Video in TF Card	MP4(1080P@30fps)
Control method	S.BUS or TTL(either one, default is TTL) / TCP / UDP

Gimbal Spec

Mechanical Range	Pitch/Tilt: -60°(Up)~120°(Down), Roll: ±60°, Yaw/Pan: ±150°
Controllable Range	Pitch/Tilt: -45°~115°, Yaw/Pan: ±140°
Vibration angle	Pitch/Roll/Yaw: ±0.02°
One-key to center	√

EO Camera Spec

Imager Sensor	1/2.9" CMOS Sensor
Image pixel	2MP
Picture quality	Full HD 1080 (1920*1080)
Lens	Focus Length 6mm
Angle of View (D,H,V)	FOV: D 60° H 50° V 28°

IR Thermal Imager Spec

Focus Length	9.1mm
Horizontal FOV	48.7°
Vertical FOV	38.6°
Diagonal FOV	62.4°
Detective Distance (Man: 1.8x0.5m)	379 meters
Recognize Distance (Man: 1.8x0.5m)	95 meters
Identification Distance (Man: 1.8x0.5m)	47 meters
Detective Distance (Car: 4.2x1.8m)	1163 meters
Recognize Distance (Car: 4.2x1.8m)	291 meters
Identification Distance (Car: 4.2x1.8m)	145 meters
Working mode	Uncooled VOx long wave (8μm~14μm) thermal imager
Detector pixel	640*512
Pixel size	12μm
Digital zoom	1x~8x
Focusing method	Athermal prime lens
NETD	≤40mK (@25°C,@F1.0)
Color palette	White hot, Black hot, Iron red
Radiometric function (Optional)	Support full-screen temperature data output
	Optional range(-20°C~+150°C +100°C~+550°C) ±2°C or ±2% of the reading (whichever is greater).

EO / IR Camera Object Tracking

Update rate of deviation pixel	30Hz
Output delay of deviation pixel	<30ms
Minimum object contrast	5%
SNR	4
Minimum object size	16*16 pixel
Maximum object size	256*256 pixel
Tracking speed	±48 pixel/frame
Object memory time	100 frames

EO/IR Camera AI Performance

Targets type	Car and human
Simultaneous detection quantity	≥ 10 targets
Min contrast ratio	5%
Min target size	5×5 pixel
Car detection rate	≥85%
False alarm rate	≤10%

A609R

Micro Prime Lens EO+IR+LRF Triple-sensor AI Object Tracking Gimbal Camera

EO Imager sensor
1/2.9" CMOS Sensor, 6mm Prime lens, 2MP

IR Thermal imager
640x512, 9.1mm focus length, 12μm

Laser range
5~1200m

Object Tracking
√

Output
IP

Power
14.8V~25.2V(8.5W, Max.16W)

N.W.
232g

Dimension
62*78*106.2mm

A609R Pro

Mini 48MP Wide Angle EO+IR AI Object Tracking Gimbal Camera

- EO Imager sensor: **1/2 " CMOS Sensor, 4.5mm Prime lens, 48MP**
- IR Thermal imager: **640x512, 9mm focus length, 12μm**
- Laser range: **5~1200m**
- Object Tracking: **√**
- Output: **IP**
- Power: **14.8V~25.2V**
- **257g**
- Dimension: **62*78*116.2mm**

A613

Prime Lens EO+IR Dual Sensors AI Object Tracking Gimbal Camera

- EO Imager sensor: **1/2.9" CMOS Sensor, 2MP**
- Prime lens: **6mm Prime lens, FOV 50°×28°**
- IR Thermal imager: **640x512, 13mm focus length, 12μm**
- Object Tracking: **√**
- Output: **IP**
- Power: **14.8V~25.2V(7.2W, Max.12W)**
- N.W.: **238g**
- Dimension: **62*81*106.2mm**

A619

Prime Lens EO+IR Dual Sensors AI Object Tracking Gimbal Camera

- EO Imager sensor: **1/2.9" CMOS Sensor, 2MP**
- EO Lens: **6mm Prime lens, FOV 50°×28°**
- IR Thermal imager: **640x512, 19mm focus length, 12μm**
- Object Tracking: **√**
- Output: **IP**
- Power: **14.8V~25.2V(7.8W, Max.14.4W)**
- N.W.: **493g**
- Dimension: **86*118.2*143.2mm**

A650

Dual Sensors EO+IR 50mm Thermal AI Object Tracking Gimbal Camera

Overall Specifications

N.W.	693g
Product meas.	100.8*135.5*168.6mm
Input Voltage	14.8V~25.2V
Dynamic current	550~1000mA @ 16V
Power consumption	Average 8.8W, Max 16W
Working environment temp.	-20°C~+50°C
IP rate	IP4X
Output	IP (RTSP/UDP 720p/ 1080p@25fps H264/H265)
Storage	TF card (Up to 256G,class 10, FAT32)
Picture in TF Card	JPG(1920*1080)
Video in TF Card	MP4(1080P@30fps)
Control method	PWM / S.BUS / UART (TTL) / TCP / UDP

IR Thermal Imager Spec

Focus Length	50mm
Horizontal FOV	8.8°
Vertical FOV	7.0°
Diagonal FOV	11.2°
Detective Distance (Man: 1.8x0.5m)	2083 meters
Recognize Distance (Man: 1.8x0.5m)	521 meters
Identification Distance (Man: 1.8x0.5m)	260 meters
Detective Distance (Car: 4.2x1.8m)	6389 meters
Recognize Distance (Car: 4.2x1.8m)	1597 meters
Identification Distance (Car: 4.2x1.8m)	799 meters
Working mode	Uncooled VOx long wave (8μm~14μm) thermal imager
Detector pixel	640*512
Pixel size	12μm
Digital zoom	1x~8x
Focusing method	Athermal prime lens
NETD	≤35mK (@25°C,@F1.0)
Color palette	White hot, Black hot, Iron red

Gimbal Spec

Mechanical Range	Pitch/Tilt: -90°(Up)~150°(Down), Roll: ±70°, Yaw/Pan: ±360°
Controllable Range	Pitch/Tilt: -45°~120°, Yaw/Pan: ±360°
Vibration angle	Pitch/Roll/Yaw: ±0.02°
One-key to center	√

EO Camera Spec

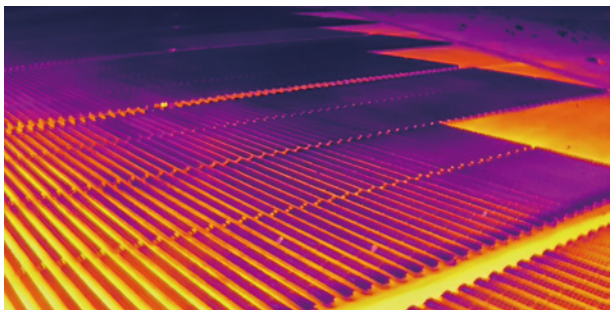
Imager Sensor	1/2.9" CMOS Sensor
Image pixel	2MP
Picture quality	Full HD 1080 (1920*1080)
Lens	Focus Length 6mm
Angle of View (D,H,V)	FOV：D 60°　H 50°　V 28°

EO/IR Camera AI Performance

Targets type	Car and human
Simultaneous detection quantity	≥ 10 targets
Min contrast ratio	5%
Min target size	5×5 pixel
Car detection rate	≥85%
False alarm rate	≤10%

EO / IR Camera Object Tracking

Update rate of deviation pixel	30Hz
Output delay of deviation pixel	<30ms
Minimum object contrast	5%
SNR	4
Minimum object size	32×32 pixels (@1080P resolution); size is positively correlated with resolution.
Maximum object size	No limitation.
Tracking speed	Horizontal: tracking object width (pixels) × 2 (pixels/frame)
	Vertical: tracking object height (pixels) × 2 (pixels/frame)
Object memory time	4s



AT1575-6

Dual Sensors 5x Optical Zoom IR AI Object Tracking Gimbal Camera

- EO Imager sensor: **1/2.9" CMOS Sensor, 5MP**
- EO Lens: **6mm Prime lens, FOV 55°×30°**
- IR Thermal imager: **640x512, 15~75mm focus length, 5x optical zoom, 12μm**
- Object Tracking: **√**
- Output: **1080p micro HDMI / IP**
- Power: **14.8V~25.2V**
- N.W.: **1171g**
- Dimension: **130*134*204.8mm**

AT50

50mm Single IR Thermal AI Object Tracking Gimbal Camera

- IR Thermal imager: **640*512, 50mm focus length, 12μm**
- Object Tracking: **√**
- Output: **1080p micro HDMI / IP**
- Power: **14.8V~25.2V(5.6W, Max.16W)**
- N.W.: **686g**
- Dimension: **100.8*136.3*163.6mm**

AT19

19mm Single IR Thermal AI Object Tracking Gimbal Camera

- IR Thermal imager: **640*512, 19mm focus length, 12μm**
- Object Tracking: **√**
- Output: **1080p micro HDMI / IP**
- Power: **14.8V~25.2V(7.6W, Max.20W)**
- N.W.: **441g**
- Dimension: **86*118.2*143.2mm**

H4T-25

10x EO+IR+LRF Wide-Angle Quad-sensor AI Object Tracking Gimbal Camera

Overall Specifications

N.W.	413g
Product meas.	103.9*96.4*125.9mm
Input Voltage	14.8V~25.2V
Dynamic current	1250~1650mA @ 16V
Power consumption	Average 20W, Max 26.4W
Working environment temp.	-20°C~+50°C
IP rate	IP4X
EO camera zoom capability	10x optical zoom, hybrid zoom 160x
Output	IP (RTSP/UDP 720p/ 1080p@25fps H264/H265)
Storage	TF card 1 (top slot)(Up to 256G, class 10, FAT32 format)
	TF card 2 (camera slot) (storage capacity within 512G, read and write speed A2 V30)
Picture in TF Card	TF card 1 (top slot): EO 1920*1080, IR 640*512
	TF card 2 (camera slot): wide-angle camera 4000*3000, zoom camera 4000*3000
Video in TF Card	TF card 1 (top slot): 1920×1080 @ 25 fps
	TF card 2 (camera slot): Wide-angle camera 4K@30fps, Zoom camera 4K@30fps
Control method	S.BUS or TTL(either one, default is TTL) / TCP / UDP

Gimbal Spec

Mechanical Range	Pitch/Tilt: -65°(Up)~135°(Down), Roll angle:±50°, Yaw/Pan: ±150°
Controllable Range	Pitch/Tilt: -45°~125°, Yaw/Pan: ±140°
Vibration angle	Pitch/Roll/Yaw: ±0.02°
One-key to center	√

Wide angle EO Camera Spec

Imager Sensor	1/2" CMOS Sensor (H:6.4mm, V:4.8mm, D:8.0mm)
Pixel size	0.80 μm (H) ×0.80 μm (V)
Resolution	48MP(8000*6000)
EFL	4.49mm
Equivalent focal length	24.29mm
Aperture	F2.8
Field of View	D:84° H:70.2° V:54.9°
Min illumination	Color 0.1 lux
Optical distortion	2.50%

Optical Zoom EO Camera Spec

Imager Sensor	1/2 inch CMOS (H:6.4mm, V:4.8mm, D:8.0mm)
Pixel size	0.80 μm (H) ×0.80 μm (V)
Resolution	48MP(8000*6000)
EFL	15.3~49.7mm±5%
Equivalent focal length	82.77-268.88mm, Aperture F3.7(W)~F4.6(T)
Field of View	D: 28.3°(W)~8.9°(T) H: 23.2°(W)~7.2°(T) V: 17.6°(W)~5.4°(T)
Min illumination	Color 5 lux
Optical distortion	1.6%(Wide)~1.4% (Tele), @∅8mm

Laser Rangefinder

Range	5~1200 m
Accuracy	±1m
Light Beam	905nm pulse laser
Divergent Angle	~6 mrad
Laser pulse frequency	1~4Hz
Eye safety level	0.5~0.9W
Working power	≤2W
Rangefinder	Measure the distance between the object at the center of screen and the laser rangefinder

IR Thermal Imager Spec

Focus Length	25mm
Aperture	F1.2
Vertical FOV	17.5°
Diagonal FOV	14°
Detective Distance (Man: 1.8x0.5m)	1042 meters
Recognize Distance (Man: 1.8x0.5m)	260 meters
Verified Distance (Man: 1.8x0.5m)	130 meters
Detective Distance (Car: 4.2x1.8m)	3194 meters
Recognize Distance (Car: 4.2x1.8m)	799 meters
Verified Distance (Car: 4.2x1.8m)	399 meters
Working mode	Uncooled VOx long wave (8μm~14μm) thermal imager
Detector pixel	640*512
Pixel size	12μm
Focusing method	Athermal prime lens
NETD	≤50mK@25°C, F#1.0
Color palette	White hot, Black hot, Iron red
Digital zoom	1x~8x
Radiometric function (Optional)	Thermometry range optional: -20°C~+150°C, +100°C~+650°C
	Thermometry accuracy: ±3 +3% of reading (whichever is greater) @ ambient temperature -20°C~60°C

EO/IR Camera Object Tracking

Update rate of deviation pixel	30Hz
Output delay of deviation pixel	<30ms
Minimum object contrast	5%
Minimum signal-to-noise ratio	4
Minimum object size	16*16 pixel
Maximum object size	256*256 pixel
Tracking speed (Car)	±48 pixel/frame
Object memory time	100 frames

EO/IR Camera AI Performance

Targets type	Car and human
Simultaneous detection quantity	≥ 10 targets
Min contrast ratio	5%
Min target size	5×5 pixel
Car detection rate	≥85%
False alarm rate	≤10%

H4TS-19

2.6x 48MP Quad Sensors EO+IR+LRF Wide-Angle AI Object Tracking Gimbal Camera

New

8K

EO Imager sensor
1/2" CMOS Sensor, 48MP

IR Thermal imager
640*512, 19mm focus length, 12μm

Laser range
5~1200m

Object Tracking
√

Output
IP

Power
14.8V~25.2V

N.W.
399g

Dimension
96.9*106.1*136.2mm

H3TS

2.6x 48MP Triple Sensors EO+IR+LRF AI Object Tracking Gimbal Camera

New

8K

EO Imager sensor
1/2" CMOS Sensor, 48MP

IR Thermal imager
640*512, 9mm focus length, 12μm

Laser range
5~1200m

Object Tracking
√

Output
IP

Power
14.8V~25.2V

N.W.
298g

Dimension
86.5*81.3*124.7mm

A10TR Pro

10x EO+IR AI Object Tracking and LRF Gimbal Camera

Overall Specifications

N.W.	651g
Product meas.	100*114.7*174.2mm
Input voltage	14.8V~25.2V
Dynamic current	620mA~1250mA @ 16V
Power consumption	Average 9.9W, Max 20W
Working environment temp.	-20°C ~ +60°C
IP Rating	IP4X
Output	micro HDMI(1080P 30fps/60fps) / IP (RTSP/UDP 720p/1080p 30fps)
Storage	TF card (Up to 256G,class 10, FAT32)
Picture in TF Card	JPG(1920*1080)
Video in TF Card	MP4(1080P@30fps)
Control method	PWM / S.BUS / UART (TTL) / TCP / UDP

Gimbal Spec

Mechanical Range	Pitch/Tilt: ±125°, Roll: ±40°, Yaw/Pan: ±300° / ±360°*N (IP output version)
Controllable Range	Pitch/Tilt: -45°(Up)~120°(Down), Yaw/Pan: ±290° / ±360°*N (IP output version)
Vibration angle	Pitch/Roll/Yaw: ±0.02°
One-key to center	√

EO Camera Spec

Imager Sensor	1/2.8" CMOS Sensor
Total pixel	5.13MP
Picture quality	Full HD 1080 (1920*1080)
Optical zoom	10x, f = 4.7mm ~ 47mm, F1.7~F3.1
Angle of View (D, H, V)	D: 69.9°(Wide end) ~ 8.7° (Tele end)
	H: 58.3°(Wide end) ~ 7.1° (Tele end)
	V: 44.7°(Wide end) ~ 5.4° (Tele end)
Min target distance	0.1 / 1.5 / 3.0 / 5.0 / 10.0 m
Min illumination	Color(1/30s, 72.0dB): 0.02 lux , BW(1/30s, 72.0dB): 0.005lux
	Color DSS(1/1s, 72.0dB): 0.002 lux , BW DSS(1/1s, 72.0dB): 0.0005 lux
White balance	Auto / One Push / Manual / Indoor / Outdoor
Shutter speed	1/1sec ~ 1/100,000 sec
Focus	Auto / One Push / Manual
Exposure	Auto / Manual / Priority Mode (Shutter priority & aperture priority)
Backlight compensation	Yes
Auto ICR	Yes
Image stabilization	Yes
Defog	Yes

IR Thermal Imager Spec

Focus Length	19mm
Coating Film	DLC
Horizontal FOV	22.9°
Vertical FOV	18.4°
Diagonal FOV	29.0°
Detective Distance (Man: 1.8x0.5m)	792 meters
Recognize Distance (Man: 1.8x0.5m)	198 meters
Verified Distance (Man: 1.8x0.5m)	99 meters
Detective Distance (Car: 4.2x1.8m)	2428 meters
Recognize Distance (Car: 4.2x1.8m)	607 meters
Verified Distance (Car: 4.2x1.8m)	303 meters
Working mode	Uncooled VOx long wave (8μm~14μm) thermal imager
Detector pixel	640*512
Pixel pitch	12μm
Focusing method	Athermal prime lens
NETD	≤50mK@F.0 @25°C
Color palette	White hot, Black hot, Iron red
Digital zoom	1x ~ 8x
Radiometric function(optional)	Thermometry range optional: -20°C~+150°C, 0°C~+550°C
	Thermometry accuracy: ±3°C or +3%(take larger value)@23°C ±3°C, Thermometry range 5m

Laser Rangefinder

Range	5~1500m
Resolution	1:<400±1 2:>400±0.4%
Light Beam	905nm pulse laser
Divergent Angle	3~10 mrad
Measuring Respond Time	1:<0.06s/m(≤100) 2:<0.28s/m(≥100~600)
	3:<0.85s/m(≥600~1000) 4:<1s/m(≥1000~1500)
Power	0.5~0.9W
Rangefinder	Measure the distance between the object at the center of screen and the laser rangefinder

AI Performance

Targets type	Car and human
Simultaneous detection quantity	≥ 10 targets
Min contrast ratio	5%
Min target size	5×5 pixel
Car detection rate	≥85%
False alarm rate	≤10%

EO/IR Camera Object Tracking

Update rate of deviation pixel	30Hz
Output delay of deviation pixel	<30ms
Minimum object contrast	5%
SNR	4
Minimum object size	16*16 pixel
Maximum object size	256*256 pixel
Tracking speed	±48 pixel/frame
Object memory time	100 frames

A10T Pro

10x EO+IR Dual Sensors AI Object Tracking Gimbal Camera

EO Imager sensor
1/2.8" CMOS Sensor, 5.13MP

EO Lens
10x optical zoom, f=4.7~47mm

IR Thermal imager
640*512, 19mm focus length, 12μm

Object Tracking
√

Output
1080p micro HDMI / IP

Power
14.8V~25.2V(11.2W, Max.20W)

N.W.
569g

Dimension
96*121.5*157.7mm

A10 Pro

10x EO AI Object Tracking Gimbal Camera

EO Imager sensor
1/2.8" CMOS Sensor, 10x optical zoom, 5.13MP

Object Tracking
√

Output
1080p micro HDMI / IP

Power
14.8V~25.2V(8.3W, Max.20W)

N.W.
500g

Dimension
96*121.5*157.7mm

A20KTR

4K 20x EO Triple Sensors AI Object Tracking and LRF Gimbal Camera

Overall Specifications

N.W.	1011g
Product meas.	130*161*201.8mm
Input voltage	14.8V~25.2V
Dynamic current	950~1500mA @ 16V
Power consumption	Average 15.2W, Max 24W
Working environment temp.	-20°C~ +50°C
IP rate	IP4X
Output	Micro HDMI(1080P 30fps/60fps) / IP (RTSP/UDP 4K/1080P/720P 30fps H264/H265)
Storage	TF card (Up to 256G,class 10, FAT32)
Picture in TF Card	JPG(4K:3840*2160)
Video in TF Card	MP4(4K@30fps)
Control method	PWM / S.BUS / UART (TTL) / TCP / UDP

Gimbal Spec

Mechanical Range	Pitch/Tilt: -125°(Up)~115°(Down), Roll: ±70°, Yaw/Pan: ±300° / ±360°*N (IP output version)
Controllable Range	Pitch/Tilt: -45°~110°, Yaw/Pan: ±290° / ±360°*N (IP output version)
Vibration angle	Pitch/Roll/Yaw: ±0.02°
One-key to center	√

EO Camera Spec

Imager Sensor	1/2.5" "Exmor R" CMOS Sensor
Total pixel	8.51MP
Optical zoom	20x, F2.0 to F3.8,f = 4.4 mm (Wide), 88.4 mm(Tele), up to 30x with Super Resolution
Digital zoom	12x (240x with optical zoom)
Min. working distance	80 mm (Wide end), 800 mm (Tele end)
Angle of view	H: 70.2°(Wide end) ~ 4.1°(Tele end)
	V: 43.1°(Wide end) ~ 2.3°(Tele end)
Focus	Auto/Manual
S/N ratio	50dB
Recommended illumination	100 to 100000 lux
Min illumination	1.6 lux (1/30 sec, 50%, ICR off, High Sensitivity mode Off)
	0.4 lux (1/30 sec, 50%, ICR Off, High Sensitivity mode On)
	0.21 lux (50%, ICR off, Slow Shutter 1/4s, High sensitivity off)
	0.06 lux (50%, ICR off, Slow shutter 1/4s, High sensitivity on)
Gain	Auto
White balance	Auto/Manual
Electronic shutter speed	1/1 to 1/10000 sec
Back light compensation	On/Off
Noise reduction	On/Off
Image stabilization	On/Off
Defog	On/Off

IR Thermal Imager Spec

Focus Length	35mm
Horizontal FOV	12.5°
Vertical FOV	10.0°
Diagonal FOV	16.0°
Detective Distance (Man: 1.8x0.5m)	1458 meters
Recognize Distance (Man: 1.8x0.5m)	365 meters
Verified Distance (Man: 1.8x0.5m)	182 meters
Detective Distance (Car: 4.2x1.8m)	4472 meters
Recognize Distance (Car: 4.2x1.8m)	1118 meters
Verified Distance (Car: 4.2x1.8m)	559 meters
Working mode	Uncooled VOx long wave (8μm~14μm) thermal imager
Detector pixel	640*512
Pixel pitch	12μm
Focusing method	Athermal prime lens
NETD	≤50mK@F1.0 @25°C
Color palette	White hot, Black hot, Iron red
Digital zoom	1x ~ 8x
Radiometric function(optional)	Thermometry range optional: -20°C~+150°C, 0°C~+550°C
	Thermometry accuracy: ±3°C or +3%(take larger value)@23°C ±3°C, Thermometry range 5m

Laser Rangefinder

Range	20~3000m
Frequency	1~10Hz
Accuracy	±1m
Light Beam	1535±5nm pulse laser
Divergent Angle	~0.5 mrad
Rangefinder	Measure the distance between the object at the center of screen and the laser rangefinder

EO / IR Camera Object Tracking

Update rate of deviation pixel	30Hz
Output delay of deviation pixel	<30ms
Minimum object contrast	5%
SNR	4
Minimum object size	32*32 pixel (at 4K resolution). The target size is positively correlated with the resolution.
Maximum object size	Unrestricted
Tracking speed	Horizontal: Tracking target width in pixel * 2 (pixel/frame)
	Vertical: Tracking target height in pixel * 2 (pixel/frame)
Object memory time	2s

EO Camera AI Performance

Targets type	Car and human
Simultaneous detection quantity	≥ 10 targets
Min contrast ratio	5%
Min target size	40*20 pixel (at 4K resolution). The recognized target size is positively correlated with the resolution.
Car detection rate	≥85%
False alarm rate	≤10%

A20KT-35

4K 20x EO+IR Dual Sensors AI Object Tracking Gimbal Camera

EO Imager sensor
1/2.5" "Exmor R" CMOS Sensor, 8.51MP

EO Lens
20x optical zoom, f=4.4~88.4mm

IR Thermal imager
640*512, 35mm focus length, 12μm

Object Tracking
√

Output
1080p micro HDMI / IP (4K)

Power
14.8V~25.2V(16W, Max.24W)

N.W.
1035g

Dimension
130*161*201.8mm

A20KT-19

4K 20x EO+IR Dual Sensors AI Object Tracking Gimbal Camera

EO Imager sensor
1/2.5" "Exmor R" CMOS Sensor, 8.51MP

EO Lens
20x optical zoom, f=4.4~88.4mm

IR Thermal imager
640*512, 19mm focus length, 12μm

Object Tracking
√

Output
1080p micro HDMI / IP (4K)

Power
14.8V~25.2V(16W, Max.24W)

N.W.
987g

Dimension
130*161*201.8mm

A30TR-1575

30x EO + 5X IR AI Object Tracking and LRF Gimbal Camera (Starlight level)

Overall Specifications

N.W.	2293g
Product meas.	175*200*248.4mm
Input voltage	14.8V~25.2V
Dynamic current	1200~1700mA @ 16V
Power consumption	Average 19.2W, Max 27.2W
Working environment temp.	-20°C ~ +50°C
IP Rating	IP4X
Output	Micro HDMI(1080P 30fps/60fps) / IP (RTSP/UDP 720p/1080p 30fps H264)
Storage	TF card (Up to 256G,class 10, FAT32)
Picture storage format in TF car	JPG(1920*1080)
Video in TF Card	MP4(1080P 30fps)
Control method	PWM / S.BUS / UART (TTL) / TCP / UDP

EO Camera Spec

Imager Sensor	1/1.8" STARVIS CMOS Sensor
Picture quality	4.17MP
Lens optical zoom	30x, f=6.5~162.5mm, F1.6 to F4.8
Digital zoom	12x (max. 432x with StableZoom)
Min object distance	100 mm (Wide end), 1200 mm (Tele end)
Horizontal viewing angle	58.1°(wide end) ~ 2.3°(tele end)
Image S/N	50 dB (Weight On)
Min illumination	In the case of ICR-Off (Typical value) 0.009 lx (1/30 sec, 50%, High Sensitivity mode On) 0.09 lx (1/30 sec, 50%, High Sensitivity mode Off) 0.0012 lx (1/4 sec, 1/3 sec, 50%, High Sensitivity mode On) 0.012 lx (1/4 sec, 1/3 sec, 50%, High Sensitivity mode Off)
	In the case of ICR-On 0.00008 lx (1/30 sec, 50%, High Sensitivity mode On) 0.00063 lx (1/30 sec, 50%, High Sensitivity mode Off) 0.000005 lx (1/4 sec, 1/3 sec, 30%, High Sensitivity mode On)"
High Sensitivity mode On/Off	Off
Recommended illumination	100 lx to 100,000 lx
White balance	Auto
Wide Dynamic Range Mode	On
Shutter speed	1/1 sec to 1/10000 sec
Backlight compensation On/Off	Off
Image Stabilizer On/Off/Hold	Off
ICR On/Off	Off
Noise Reduction	On/Off
Defog	On/Off

Gimbal Spec

Mechanical Range	Pitch/Tilt: -60°(Up)~105°(Down), Roll: ±60°, Yaw/Pan: ±300° / ±360°*N (IP output version)
Controllable Range	Pitch/Tilt: -45°~100°, Yaw/Pan: ±290° / ±360°*N (IP output version)
Vibration angle	Pitch/Roll/Yaw: ±0.02°
One-key to center	√

IR Thermal Imager Spec

Focus Length	15~75mm
optical zoom	1x ~ 5x
Horizontal FOV	28.7°~5.86°
Vertical FOV	23.1°~4.69°
Detective Distance (Man: 1.8x0.5m)	625~3125 meters
Recognize Distance (Man: 1.8x0.5m)	156~781 meters
Verified Distance (Man: 1.8x0.5m)	78~391 meters
Detective Distance (Car: 4.2x1.8m)	1917~9583 meters
Recognize Distance (Car: 4.2x1.8m)	479~2396 meters
Verified Distance (Car: 4.2x1.8m)	240~1198 meters
Working mode	Uncooled VOx long wave (8μm~14μm) thermal imager
Detector pixel	640*512
Pixel pitch	12μm
Focusing method	Athermal prime lens
NETD	≤40mK@25°C, F #1.0
Color palette	White hot, Black hot, Iron red
Digital zoom	1x ~ 8x

Laser Rangefinder

Range	10km for big target (eg. building) ≥6km for car (2.3m×2.3m) ≥2.5km for people (1.75m×0.75m)
	(Based on typical value: LOS visibility: ≥10km Diffuse reflection rate: ≥0.3 Humility: ≤80%)"
Accuracy	≤2m (RMS)
Light Beam	1535±5nm pulse laser
Divergent Angle	≤0.5mrad
Laser pulse frequency	1~10Hz
Min measuring range	≤30m
Rangefinder	Measure the distance between the object at the center of screen and the laser rangefinder

EO / IR Camera Object Tracking

Update rate of deviation pixel	30Hz
Output delay of deviation pixel	<30ms
Minimum object contrast	5%
SNR	4
Minimum object size	16*16 pixel
Maximum object size	256*256 pixel
Tracking speed	±48 pixel/frame
Object memory time	100 frames

EO Camera AI Performance

Targets type	Car and human
Simultaneous detection quantity	≥ 10 targets
Min contrast ratio	5%
Min target size	5×5 pixel
Car detection rate	≥85%
False alarm rate	≤10%

A30TR-50M

30x EO+IR AI Object Tracking, Object GPS Coordinate Calculation and LRF Gimbal Camera

EO Imager sensor
1/2.8" STARVIS2 CMOS Sensor, 30x optical zoom, 2.13MP

IR Thermal imager
640*512, 50mm focus length, 12μm

Laser range
50~5000m

Object Tracking
√

Output
1080p micro HDMI / IP

Power
14.8V~25.2V(11.2W, Max.24W)

N.W.
1343g

Dimension
138*144.8*218.2mm

A30T-50

30x AI Object Tracking EO+IR Dual Sensors Gimbal Camera

EO Imager sensor
1/2.8" STARVIS2 CMOS Sensor, 2.13MP

EO Lens
30x optical zoom, f=4.3~129mm

IR Thermal imager
640*512, 50mm focus length, 12μm

Object Tracking
√

Output
1080p micro HDMI / IP

Power
14.8V~25.2V(16W, Max.24W)

N.W.
1208g

Dimension
128*139.5*214.2mm

Mini H30T

30x EO+IR+LRF Triple-sensor AI Object Tracking Gimbal Camera (Starlight level)

Overall Specifications

N.W.	970g
Product meas.	129.5*174*195.5mm
Input Voltage	14.8V~25.2V
Dynamic current	850~1500mA @ 16V
Power consumption	Average 13.6W, Max 24W
Working environment temp.	-20°C ~ +50°C
IP rate	IP4X
Output	Micro HDMI(1080P 30fps/60fps) / IP (RTSP/UDP 720p/1080p 30fps H264/H265)
Storage	TF card (Up to 256G, class 10, FAT32 format)
Picture in TF Card	JPG(1920*1080)
Video in TF Card	MP4(1080P@30fps)
Control method	PWM / TTL / S.BUS / TCP / UDP

EO Camera Spec

Imager Sensor	1/1.8" STARVIS CMOS Sensor
Picture quality	4.17MP
Lens optical zoom	30x, f=6.5~162.5mm, F1.6 to F4.8
Digital zoom	12x (max. 432x with StableZoom)
Min object distance	100 mm (Wide end), 1200 mm (Tele end)
Horizontal viewing angle	58.1°(wide end) ~ 2.3°(tele end)
Image S/N	50 dB (Weight On)
Min illumination	In the case of ICR-Off (Typical value) 0.009 lx (1/30 sec, 50%, High Sensitivity mode On) 0.09 lx (1/30 sec, 50%, High Sensitivity mode Off) 0.0012 lx (1/4 sec, 1/3 sec, 50%, High Sensitivity mode On) 0.012 lx (1/4 sec, 1/3 sec, 50%, High Sensitivity mode Off)
	In the case of ICR-On 0.00008 lx (1/30 sec, 50%, High Sensitivity mode On) 0.00063 lx (1/30 sec, 50%, High Sensitivity mode Off) 0.000005 lx (1/4 sec, 1/3 sec, 30%, High Sensitivity mode On)
Recommended illumination	100 lx to 100,000 lx
Gain	Auto/Manual (0 to 50.0 dB (0 to 28 step) Max. Gain Limit (10.7 to 50.0 dB (6 to 28 step)
White balance	Auto, ATW, Indoor, Outdoor, One Push WB, Manual WB, Outdoor Auto, Sodium Vapor Lamp (Fix/Auto/Outdoor Auto)
Wide Dynamic Range Mode	On/Off
Shutter speed	1/1 sec to 1/10000 sec (22 steps)
Backlight compensation On/Off	Off
Image Stabilizer On/Off/Hold	Off
ICR On/Off	Off
Noise Reduction	On/Off
Defog	On/Off (low, mid, high)

Gimbal Spec

Mechanical Range	Pitch/Tilt:-40°(Up)~100°(Down), Roll: ±70°, Yaw/Pan: ±300° / ±360°*N (IP output version)
Controllable Range	Pitch/Tilt: -35°~95°, Yaw/Pan: ±290° / ±360°*N (IP output version)
Vibration angle	Pitch/Roll/Yaw: ±0.02°
One-key to center	√

IR Thermal Imager Spec

Focus Length	19mm
Coating Film	DLC
Horizontal FOV	22.9°
Vertical FOV	18.4°
Diagonal FOV	29.0°
Detective Distance (Man: 1.8x0.5m)	792 meters
Recognize Distance (Man: 1.8x0.5m)	198 meters
Identification Distance (Man: 1.8x0.5m)	99 meters
Detective Distance (Car: 4.2x1.8m)	2428 meters
Recognize Distance (Car: 4.2x1.8m)	607 meters
Identification Distance (Car: 4.2x1.8m)	303 meters
Working mode	Uncooled VOx long wave (8μm~14μm) thermal imager
Detector pixel	640*512
Pixel size	12μm
Focusing method	Athermal prime lens
NETD	≤50mK@F1.0 @25°C
Color palette	White hot, Black hot, Iron red
Digital zoom	1x ~ 8x
Radiometric function(optional)	Thermometry range optional: -20°C~+150°C, 0°C~+550°C
	Thermometry accuracy: ±3°C or +3%(take larger value)@23°C±3°C, Thermometry range 5m

Laser Rangefinder

Range	5~1500 meters
Accuracy	1m: <400±1 2m: >400±0.4%
Light Beam	905nm pulse laser
Divergent Angle	12 mrad
Laser pulse frequency	0.1~1Hz
Rangefinder	Measure the distance between the object at the center of screen and the laser rangefinder

EO/IR Camera Object Tracking

Update rate of deviation pixel	30Hz
Output delay of deviation pixel	<30ms
Minimum object contrast	5%
SNR	4
Minimum object size	16*16 pixel
Maximum object size	256*256 pixel
Tracking speed	±48 pixel/frame
Object memory time	100 frames

EO Camera AI Performance

TOPS	1T
Targets type	Car and human
Simultaneous detection quantity	≥ 10 targets
Min contrast ratio	5%
Min target size	5×5 pixel
Car detection rate	≥85%
False alarm rate	≤10%

A40TR-35

40x EO+IR AI Object Tracking, Object GPS Coordinate Calculation and LRF Gimbal Camera

EO Imager sensor
1/2.8" CMOS Sensor, 40x optical zoom, 2.13MP

IR Thermal imager
640*512, 35mm focus length, 12μm

Laser range
50~3000m

Object Tracking
√

Output
1080p micro HDMI / IP

Power
14.8V~25.2V(11.2W, Max 24W)

N.W.
1034g

Dimension
130*136*209.7mm

A40TR Pro

40x EO+IR AI Object Tracking and LRF Gimbal Camera

Overall Specifications

N.W.	990g
Product meas.	125*134.5*204.7mm
Input voltage	14.8V~25.2V
Dynamic current	700~1500mA @ 16V
Power consumption	Average 11.2W, Max 24W
Working environment temp.	-20°C ~ +50°C
IP rate	P4X
Output	Micro HDMI(1080P 30fps/60fps) / IP (RTSP/UDP 720p/1080p 30fps H264/H265)
Storage	TF card (Up to 256G,class 10, FAT32)
Picture in TF Card	JPG(1920*1080)
Video in TF Card	MP4(1080P@30fps)
Control method	PWM / S.BUS / UART (TTL) / TCP / UDP

Gimbal Spec

Mechanical Range	Pitch/Tilt:-60°(Up)~130°(Down), Roll: ±40°, Yaw/Pan: ±300° / ±360°*N (IP output version)
Controllable Range	Pitch/Tilt: -45°~125°, Yaw/Pan: ±290° / ±360°*N (IP output version)
Vibration angle	Pitch/Roll/Yaw: ±0.02°
One-key to center	√

IR Thermal Imager Spec

Focus Length	19mm
Horizontal FOV	22.9°
Vertical FOV	18.4°
Diagonal FOV	29.0°
Detective Distance (Man: 1.8x0.5m)	792 meters
Recognize Distance (Man: 1.8x0.5m)	198 meters
Verified Distance (Man: 1.8x0.5m)	99 meters
Detective Distance (Car: 4.2x1.8m)	2428 meters
Recognize Distance (Car: 4.2x1.8m)	607 meters
Verified Distance (Car: 4.2x1.8m)	303 meters
Working mode	Uncooled VOx long wave (8μm~14μm) thermal imager
Detector pixel	640*512
Pixel pitch	12μm
Focusing method	Athermal prime lens
NETD	≤50mK@F1.0 @25°C
Color palette	White hot, Black hot, Iron red
Digital zoom	1x ~ 8x
Radiometric function(optional)	Thermometry range optional: -20°C~+150°C, 0°C~+550°C
	Thermometry accuracy: ±3°Cor +3%(take larger value)@23°C ±3°C, Thermometry range 5m

EO Camera Spec

Imager Sensor	1/2.8" CMOS Sensor
Picture quality	Full HD 1080 (1920*1080)
Effective pixel	2.13MP
Photo storage format	JPG(1920*1080 / 1280*720)
Video storage format	MP4 (1080P/720P 25fps/30fps)
Lens optical zoom	40x, F=4.25~170mm
Digital zoom	x32
Min object distance	0.1 / 1.5 / 3.0 / 5.0 / 10.0 m
Field of View (D, H, V)	Wide: 73.80° / 66.35° / 39.98°
	Tele: 2.16° / 1.90° / 1.11°
AF Mode	Auto / One Push / Manual
Iris	Close ~ F1.6
Shutter speed	1/1 ~ 1/30,000 sec
Sync system	Internal
S/N ratio	more than 50dB
Min illumination	Color(1/30s, 79.5dB) : 0.01 lux , BW(1/30s, 79.5dB) : 0.002 lux
	Color DSS(1/1s, 79.5dB) : 0.001 lux , BW DSS(1/1s, 79.5dB) : 0.0002 lux
Exposure control	Auto / Iris. Priority / Shut. Priority / Manual
Gain Control(AGC)	0 ~ 10 steps
White balance	Auto / One Push / Manual / Indoor / Outdoor
Back Light	Off / BLC / HLC / WDR
Defog	Off / Manual / Auto

Laser Rangefinder

Range	for car ≥ 3000m; for human ≥ 2000m
Minimum range	15m
Frequency	1~10Hz
Accuracy	±1m
Light Beam	1535±5nm pulse laser
Divergent Angle	~0.6 mrad
Rangefinder	Measure the distance between the object at the center of screen and the laser rangefinder

EO Camera AI Performance

Targets type	Car and human
Simultaneous detection quantity	≥ 10 targets
Min contrast ratio	5%
Min target size	5×5 pixel
Car detection rate	≥85%
False alarm rate	≤10%

EO/IR Camera Object Tracking

Update rate of deviation pixel	30Hz
Output delay of deviation pixel	<30ms
Minimum object contrast	5%
SNR	4
Minimum object size	16*16 pixel
Maximum object size	256*256 pixel
Tracking speed	±48 pixel/frame
Object memory time	100 frames

A40T Pro

40x EO+IR Dual Sensors AI Object Tracking Gimbal Camera

EO Imager sensor
1/2.8" CMOS Sensor, 2.13MP

EO Lens
40x optical zoom, f=4.25~170mm

IR Thermal imager
640*512, 19mm focus length, 12μm

Object Tracking
√

Output
1080p micro HDMI / IP

Power
14.8V~25.2V(9.6W, Max.20W)

N.W.
941g

Dimension
118*134.5*193.8mm

A40 Pro (Anti-Fog/Anti-Icing)

40x EO AI Object Tracking Gimbal Camera

EO Imager sensor
1/2.8" CMOS Sensor, 40x optical zoom, 2.13MP

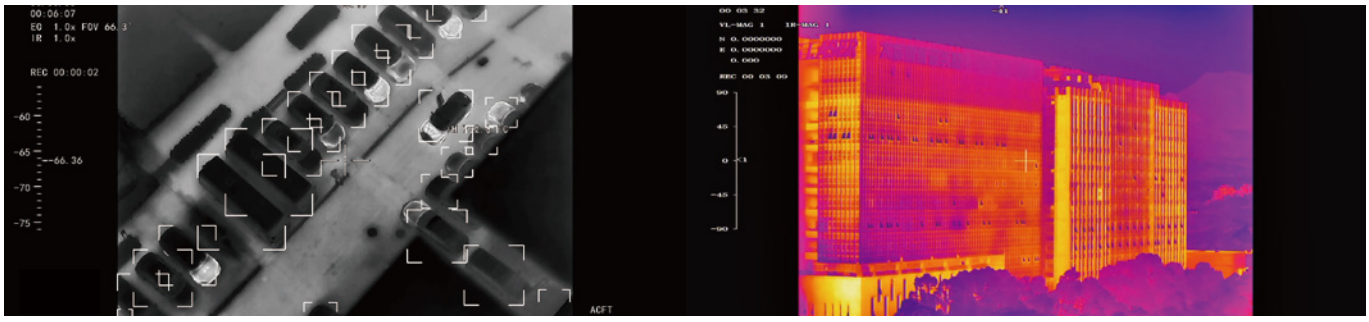
Object Tracking
√

Output
1080p micro HDMI / IP

Power
14.8V~25.2V(12W, Max 32W)

N.W.
952g

Dimension
118*138.5*139.8mm



A40 Pro

40x EO AI Object Tracking Gimbal Camera

EO Imager sensor
1/2.8" CMOS Sensor, 40x optical zoom, 2.13MP

Power
14.8V~25.2V(8.8W, Max 20W)

Object Tracking
√

N.W.
883g

Output
1080p micro HDMI / IP

Dimension
118*134.5*193.8mm

UA40T-35

40x AI Object Tracking EO+IR Dual Sensors Gimbal Camera

Overall Specifications

N.W.	1076g
Product meas.	140*136*213.2mm
IInput voltage	14.8V~25.2V
Dynamic current	1000~1500mA @ 16V
Power consumption	Average 16W, Max 24W
Output	Micro HDMI(1080P 30fps/60fps) / Ethernet: IP (RTSP/UDP 720p/1080p 30fps H264/H265)
Control method	PWM / S.BUS / UART (TTL) / TCP / UDP
IP Rating	IP4X
Working environment temp.	-20°C ~ +50°C
Local-storage	TF card (Up to 256G,class 10, FAT32)
Picture storage format in TF card	JPG(1920*1080)
Video storage format in TF card	MP4(1080P@30fps)

Gimbal Spec

Mechanical Range	Pitch/Tilt:-40°(Up)~130°(Down), Yaw/Pan: ±300° / ±360°*N (IP output version)
Controllable Range	Pitch/Tilt: -30°(Up)~125°(Down), Yaw/Pan: ±290° / ±360°*N (IP output version)
Vibration angle	Pitch/Roll/Yaw: ±0.02°
One-key to center	√

EO Camera Spec

Imager Sensor	1/2.8" CMOS Sensor
Picture quality	Full HD 1080 (1920*1080)
Effective pixel	2.13MP
Lens optical zoom	40x, F=4.25~170mm
Digital zoom	X32
Min object distance	0.1 / 1.5 / 3.0 / 5.0 / 10.0 m
Angle of View (D, H, V)	Wide: 73.80° / 66.35° / 39.98° Tele: 2.16° / 1.90° / 1.11°
AF Mode	Auto / Manual
Iris	Close ~ F1.6
Shutter speed	1/1 ~ 1/30,000 sec
Sync system	Internal
S/N ratio	more than 50dB
Min illumination	Color(1/30s, 79.5dB) : 0.01 lux , BW(1/30s, 79.5dB) : 0.002 lux Color DSS(1/1s, 79.5dB) : 0.001 lux , BW DSS(1/1s, 79.5dB) : 0.0002 lux
Exposure control	Auto / Iris. Priority / Shut. Priority / Manual
Gain Control(AGC)	0 ~ 10 steps
White balance	Auto / Manual / Indoor / Outdoor
Back Light	Off / BLC / HLC / WDR
Defog	Off / Manual / Auto

IR Thermal Imager Spec

Focus Length	35mm
Horizontal FOV	12.5°
Vertical FOV	10.0°
Diagonal FOV	16.0°
Detective Distance (Man: 1.8x0.5m)	1458 meters
Recognize Distance (Man: 1.8x0.5m)	365 meters
Verified Distance (Man: 1.8x0.5m)	182 meters
Detective Distance (Car: 4.2x1.8m)	4472 meters
Recognize Distance (Car: 4.2x1.8m)	1118 meters
Verified Distance (Car: 4.2x1.8m)	559 meters
Working mode	Uncooled VOx long wave (8μm~14μm) thermal imager
Detector pixel	640*512
Pixel pitch	12μm
Focusing method	Athermal prime lens
NETD	≤50mK@25°C,F#1.0
Color palette	White hot, Black hot, Iron red
Digital zoom	1x ~ 8x
Radiometric function (optional)	Thermometry measuring mode: point anywhere measurement, selected box measurement
	Thermometry range optional: -20°C~+150°C, +100°C~+550°C
	Thermometry accuracy: ±3°C or +3% of reading (whichever is greater) @ ambient temperature -20°C~60°C

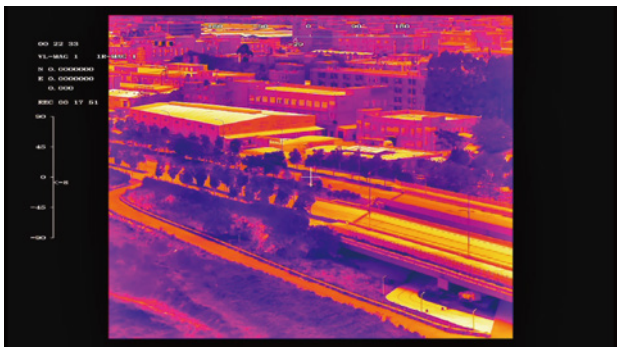
EO/IR Camera Object Tracking

Update rate of deviation pixel	30Hz
Output delay of deviation pixel	<30ms
Minimum object contrast	5%
SNR	4
Minimum object size	16*16 pixel
Maximum object size	256*256 pixel
Tracking speed	±48 pixel/frame
Object memory time	100 frames

EO Camera AI Performance

TOPS	6T
Targets type	Car and human
Simultaneous detection quantity	≥ 10 targets
Min contrast ratio	5%
Min target size	5×5 pixel
Car detection rate	≥85%
False alarm rate	≤10%

1280 High-Definition IR Thermal Gimbal Camera Series



1280*1024 High-Definition uncooled long-wave infrared detection thermal image sensor features of longer detection distance, digital zoom coaxiality, more accurate and stable performance. The invisible objects by the naked eye can be able to be transformed into visual images through infrared thermal imaging technology. It is mainly used in detection, inspection, search and rescue, and other applications in the unvisual environment of at night or dark environments, fires, smoke, etc.

Q40TIRM-HD

50mm High-Definition IR Thermal Object Tracking Gimbal Camera (1280*1024)

Overall Specifications

N.W.	1512g
Product meas.	145*149.4*228.2mm
Input voltage	14.8V~25.2V
Dynamic current	800~1500mA @16V
Power consumption	Average 12.8W, Max 24W
Working environment temp.	-20°C ~ +50°C
IP rate	IP4X
Output	IP (RTSP/UDP 720p/1080p 25fps /30fps H264/H265) / SDI (1080P 30fps)
Storage	TF card (Up to 512G,class 10, FAT32 format)
Picture in TF Card	JPG(1920*1080)
Video in TF Card	MP4(1080P@30fps)
Control method	PWM / S.BUS / UART (TTL) / TCP / UDP

Gimbal Spec

Mechanical Range	Pitch/Tilt: -60°(Up)~130°(Down), Roll: ±70°, Yaw/Pan: ±360°*N
Controllable Range	Pitch/Tilt: -45°~125°, Yaw/Pan: ±360°*N
Vibration angle	Pitch/Roll/Yaw: ±0.02°
One-key to center	√

EO Camera Spec

Imager Sensor	1/2.8" CMOS Sensor
Picture quality	Full HD 1080 (1920*1080)
Effective pixel	2.13MP
Lens optical zoom	40x, F=4.25~170mm
Digital zoom	Off / MAX x2 ~ x32
Min object distance	0.1 / 1.5 / 3.0 / 5.0 / 10.0 m
Angle of View (D, H, V)	Wide: 73.80° / 66.35° / 39.98°
	Tele: 2.16° / 1.90° / 1.11°
AF Mode	Auto / One Push / Manual
Iris	Close ~ F1.6
Shutter speed	1/1 ~ 1/30,000 sec
Sync system	Internal
S/N ratio	more than 50dB
Min illumination	Color(1/30s, 79.5dB) : 0.01 lux, BW(1/30s, 79.5dB) : 0.002 lux
	Color DSS(1/1s, 79.5dB) : 0.001 lux, BW DSS(1/1s, 79.5dB) : 0.0002 lux
Exposure control	Auto / Iris. Priority / Shut. Priority / Manual
Gain Control(AGC)	0 ~ 10 steps
White balance	Auto / One Push / Manual / Indoor / Outdoor
Back Light	Off / BLC / HLC / WDR
Defog	Off / Manual / Auto

IR Thermal Imager Spec

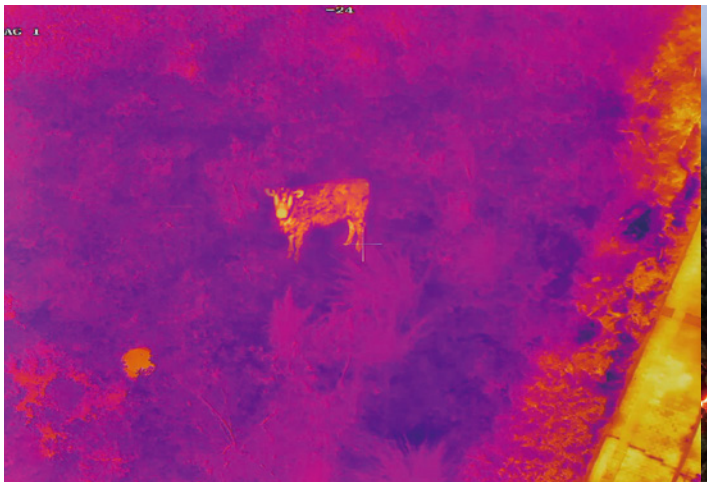
Focus Length	50mm
Horizontal FOV	17.5°
Vertical FOV	14.0°
Detective Distance (Man: 1.8x0.5m)	2083 meters
Recognize Distance (Man: 1.8x0.5m)	521 meters
Verified Distance (Man: 1.8x0.5m)	260 meters
Detective Distance (Car: 4.2x1.8m)	6389 meters
Recognize Distance (Car: 4.2x1.8m)	1597 meters
Verified Distance (Car: 4.2x1.8m)	799 meters
Working mode	Uncooled long wave (8μm~14μm) thermal imager
Detector pixel	1280*1024
Pixel pitch	12μm
Focusing method	Athermal prime lens
NETD	≤40mK@25°C,F #1.0
MRTD	≤400mK@25°C,F #1.0
Shutter	Bistable Shutter
Color palette	White hot, Black hot, Iron red
Digital zoom	1x ~ 4x
Thermometry type	Not supported

Camera Object Tracking

Update rate of deviation pixel	50Hz
Output delay of deviation pixel	5ms
Minimum object contrast	5%
SNR	4
Minimum object size	32*32 pixel
Maximum object size	128*128 pixel
Tracking speed	±48 pixel/frame
Object memory time	100 frames (4s)

Laser Rangefinder

Measure ability	≥5km for big target (eg. building) ≥3km for car (2.3m×2.3m) ≥1.5km for people (1.75m×0.75m) (Based on typical value: LOS visibility: ≥8km Diffuse reflection rate: ≥0.3 Humility: ≤80%)
Accuracy (Typical value)	≤ ±1m (RMS)
Wave length	1535nm pulse laser
Divergent Angle	≤ 0.5mrad
Measurement frequency	1~10HZ
Min measuring range	≤20m
Rangefinder	Measure the distance between the object at the center of screen and the laser rangefinder



U30TIRM-HD

30x EO Triple Sensors 1280*1024 High-Definition IR Thermal 5KM LRF Object Tracking Gimbal Camera

EO Imager sensor
1/2.8" STARVIS2 CMOS Sensor, 30x optical zoom, 2.13MP

IR Thermal imager
1280*1024, 50mm focus length, 12μm

Laser range
50~5000m

Object Tracking
√

Output
IP / SDI

Power
14.8V~25.2V(13.6W, Max.24W)

N.W.
1474g

Dimension
155*143.5*228.2mm

Q30TIRM-15100

30x EO Triple Sensors 1280*1024 High-Definition IR Thermal 10KM LRF Object Tracking Gimbal Camera (7X IR)

EO Imager sensor
1/1.8" STARVIS CMOS Sensor, 30x optical zoom, 4.17MP

IR Thermal imager
1280*1024, 15~100mm, 7x optical zoom, 12μm

Laser range
50~10000m

Object Tracking
√

Output
IP / SDI

Power
14.8V~25.2V(16W, Max.32W)

N.W.
5737g

Dimension
236*266.7*325.5mm

Q30TIR Pro

30x EO/IR Dual Sensors High-Definition IR Thermal Object Tracking Gimbal Camera (IR 1280*1024)

EO Imager sensor
1/2.8" STARVIS2 CMOS Sensor, 2.13MP

EO Lens
30x optical zoom, f=4.3~129mm

IR Thermal imager
1280*1024, 50mm focus length, 12μm

Object Tracking
√

Output
IP / SDI

Power
14.8V~25.2V(13W, Max.20W)

N.W.
1303g

Dimension
120*140.9*212.2mm

A20KTR-50HD

20x EO+IR+LRF Triple Sensors High-Definition
1280*1024 Thermal Object Tracking Gimbal Camera

New

4K

EO Imager sensor
1/2.5" "Exmor R" CMOS, 20x optical zoom, 8.51MP

IR Thermal imager
1280*1024, 50mm focus length, 12μm

Laser range
20~3000m

Object Tracking
√

Output
1080p micro HDMI / IP

Power
14.8V~25.2V

N.W.
1410g

Dimension
135*150.1*218.2mm

A20KTR-24HD

20x EO+IR+LRF Triple Sensors High-Definition
1280*1024 Thermal Object Tracking Gimbal Camera

New

4K

EO Imager sensor
1/2.5" "Exmor R" CMOS, 20x optical zoom, 8.51MP

IR Thermal imager
1280*1024, 24mm focus length, 12μm

Laser range
20~3000m

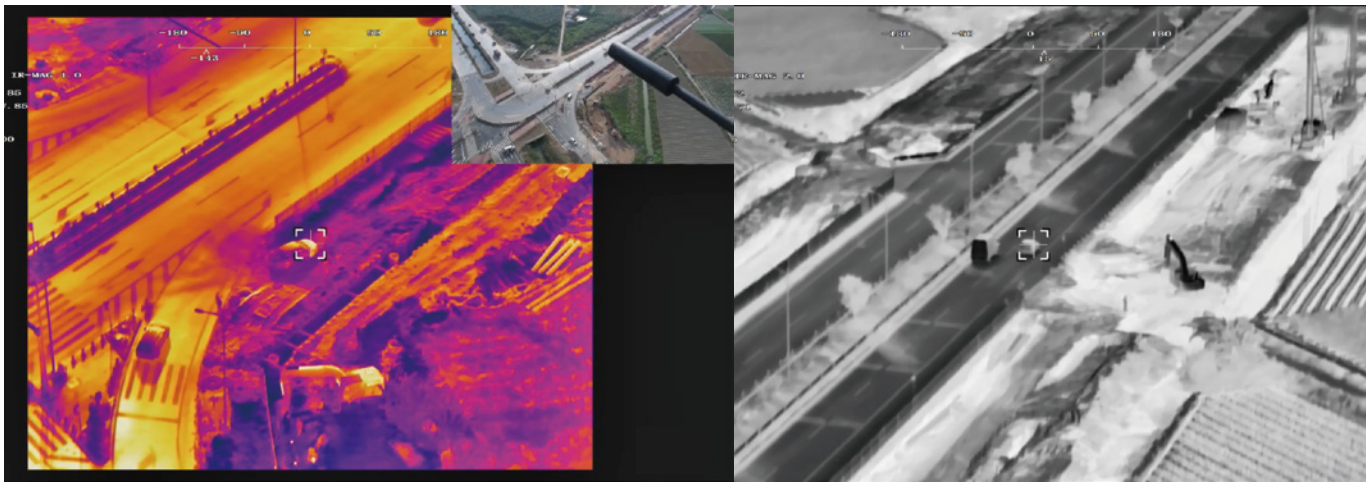
Object Tracking
√

Output
1080p micro HDMI / IP

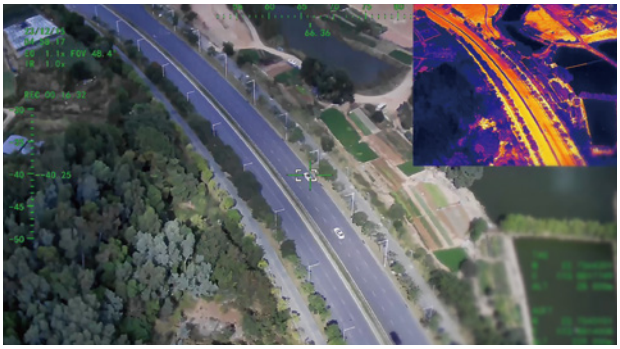
Power
14.8V~25.2V(14.2W, Max.24W)

N.W.
1032g

Dimension
130*161*201.8mm



Hawkeye Series



New generation of micro prime lens systems focus on the micro unmanned systems applications, combined the IR thermal sensor and high definition visual camera with advanced stabilization and intelligence technology, the micro camera system is easy to realize powerful insights that save time, money and lives.

U2 Pro

Micro Prime Lens Dual EO Sensors Object Tracking Gimbal Camera

Overall Specifications

N.W.	98g
Product meas.	33*44.7*80.2mm
Working voltage	12~25.2V
Dynamic current	490~900mA @ 12V
Power consumption	Average 5.88W, Max 10.80W
Working environment temp.	-20°C ~ +50°C
IP rate	IP4X
Output	IP (RTSP 720p/1080p 25fps/30fps H264/H265)
Control method	TTL / TCP

Gimbal Spec

Mechanical Range	Pitch/Tilt: -35°(Up)~115°(Down), Yaw/Pan: ±125°
Controllable Range	Pitch/Tilt: -30°~110°, Yaw/Pan: ±120°
Vibration angle	Pitch/Yaw: ±0.02°
One-key to center	√

EO Camera Spec 1

Resolution	3840*2160 @30fps
Focus Length	3.2mm
Angle of View	83°*53°
Digital zoom	1~5x

EO Camera Spec 2

Resolution	3840*2160 @30fps
Focus Length	16mm
Angle of View	20°*11°
Digital zoom	1~8x (Hybrid Zoom: 5*8=40x)

EO Camera Object Tracking

Minimum object contrast	5%
Minimum object size	16*16 pixel
Maximum object size	128*128 pixel
Tracking speed（Man）	±32 pixel/frame
Tracking speed (Car)	±48 pixel/frame
Object memory time	100 frames

U818M

Micro Prime Lens EO/IR with LRF Triple Sensors
Object Tracking Gimbal Camera

Overall Specifications

N.W.	319g
Product meas.	88.2*62.9*107.2mm
Input voltage	12V~25.2V
Dynamic current	540~900mA @ 16V
Power consumption	Average 8.6W, Max 14.4W
Working environment temp.	-20°C ~ +45°C
IP rate	IP4X
Output	IP (RTSP/UDP 720p/1080p 25fps/30fps H264/H265)
Storage	TF card (Up to 512G,class 10, FAT32 format)
Picture in TF Card	JPG(1920*1080)
Video in TF Card	MP4(1080P@30fps)
Control method	S.BUS or TTL(either one, default is TTL) / TCP / UDP

IR Thermal Imager Spec

Focus Length	18mm
Horizontal FOV	24°
Vertical FOV	18.1°
Working mode	Uncooled VOx long wave (8μm~14μm) thermal imager
Detector pixel	640*512
Pixel size	12μm
Focusing method	Athermal prime lens
NETD	≤50mK@F1.0 @25°C
Color palette	White hot, black hot, Iron red
Digital zoom	1x ~ 8x
Detective Distance (Car: 4.2x1.8m)	1000m
Recognize Distance (Car: 4.2x1.8m)	500m
Recognize Distance (Man: 1.8x0.5m)	250m

Gimbal Spec

Mechanical Range	Pitch/Tilt: -55°(Up)~125°(Down), Yaw/Pan: ±360°*N
Controllable Range	Pitch/Tilt: -45°~120°, Yaw/Pan: ±360°*N
Vibration angle	Pitch/Roll/Yaw: ±0.02°
One-key to center	√

EO / IR Camera Object Tracking

Update rate of deviation pixel	60Hz
Minimum object contrast	5%
Minimum object size	16*16 pixel
Maximum object size	128*128 pixel
Tracking speed	±48 pixel/frame
Object memory time	100 frames

EO Camera Spec

Imager Sensor	CMOS Sensor
Resolution	1920*1080
Focus Length	8mm
Field of View (H, V)	38.3°*22.1°
Digital zoom	1x ~ 8x
Detective Distance (Car: 4.2x1.8m)	2000m
Recognize Distance (Car: 4.2x1.8m)	1000m
Recognize Distance (Man: 1.8x0.5m)	400m

Laser Rangefinder

Range	5~1200m
Resolution	1m
Light Beam	905nm pulse laser
Divergent Angle	~6 mrad
Laser pulse frequency	1~4Hz
Rangefinder	Target distance measuring

U818

2-axis Micro Prime Lens EO/IR Dual Sensors Object Tracking Gimbal Camera

EO Imager sensor
CMOS Sensor

EO Lens
8mm Prime lens, FOV 38.3°×22.1°

IR Thermal imager
640x512, 18mm focus length, 12μm

Object Tracking
√

Output
IP

Power
12V(7.2W, Max.10.8W)

N.W.
256g

Dimension
64*68.1*104.3mm

Q818

3-axis Micro Prime Lens EO/IR Dual Sensors Object Tracking Gimbal Camera

EO Imager sensor
CMOS Sensor

EO Lens
8mm Prime lens, FOV 38.3°*22.1°

IR Thermal imager
640x512, 18mm focus length, 12μm

Object Tracking
√

Output
IP

Power
12V~25.2V(7.2W, Max.12W)

N.W.
345g

Dimension
68.1*92.3*112.9mm

IR Thermal Only Gimbal Camera Series

Designed for professional aerial missions, this series provides clear, stabilized infrared imaging for inspection, surveillance, and search & rescue operations. Equipped with fixed-focus or optical zoom IR lenses, and supporting cooled MWIR sensors, it ensures long-range detection, smooth imaging, and reliable performance in demanding flight environments.

AT9-50

5.5x Dual IR Thermal Sensors AI Object Tracking Gimbal Camera

Overall Specifications

N.W.	718.3g
Product meas.	105*114.5*171.2mm
IInput voltage	14.8V~25.2V
Dynamic current	1000~1500mA @ 16V
Power consumption	Average 8W, Max 16W
Working environment temp.	-20°C ~ +50°C
Output	Micro HDMI(1080P 30fps/60fps) / IP (RTSP/UDP 720p/1080p 30fps H264/H265)
Storage	TF card (Up to 256G, class 10, FAT32 format)
Picture in TF Card	JPG(1920*1080)
Video in TF Card	MP4(1080P 30fps)
Control method	PWM / S.BUS / UART (TTL) / TCP / UDP

Gimbal Spec

Mechanical Range	Pitch/Tilt: -110°(Up)~130°(Down), Roll: ±40°, Yaw/Pan: ±300° / ±360°*N (IP output version)
Controllable Range	Pitch/Tilt: -45°~125°, Yaw/Pan: ±290° / ±360°*N (IP output version)
Vibration angle	Pitch/Roll/Yaw: ±0.02°
One-key to center	√

IR Thermal Imager 1 Spec

Focus Length	50mm
Aperture	F1.0
Horizontal FOV	8.7°
Vertical FOV	7.0°
Detective Distance (Man: 1.8x0.5m)	2083 meters
Recognize Distance (Man: 1.8x0.5m)	521 meters
Verified Distance (Man: 1.8x0.5m)	260 meters
Detective Distance (Car: 4.2x1.8m)	6389 meters
Recognize Distance (Car: 4.2x1.8m)	1597 meters
Verified Distance (Car: 4.2x1.8m)	799 meters
Working mode	Uncooled VOx long wave (8μm~14μm) thermal imager
Detector pixel	640*512
Pixel pitch	12μm
Focusing method	Athermal prime lens
NETD	≤50mK@F1.0 @25°C
Color palette	White hot, Black hot, Iron red
Digital zoom	1x ~ 8x

IR Thermal Imager 2 Spec

Focus Length	9.1mm
Aperture	F1.0
Horizontal FOV	48.3°
Vertical FOV	38.6°
Detective Distance (Man: 1.8x0.5m)	379 meters
Recognize Distance (Man: 1.8x0.5m)	95 meters
Verified Distance (Man: 1.8x0.5m)	47 meters
Detective Distance (Car: 4.2x1.8m)	1163 meters
Recognize Distance (Car: 4.2x1.8m)	291 meters
Verified Distance (Car: 4.2x1.8m)	145 meters
Working mode	Uncooled VOx long wave (8μm~14μm) thermal imager
Detector pixel	640*512
Pixel pitch	12μm
Focusing method	Athermal prime lens
NETD	≤40mK@F1.0 @25°C
Color palette	White hot, Black hot, Iron red

IR Camera Object Tracking

Update rate of deviation pixel	30Hz
Output delay of deviation pixel	<30ms
Minimum object contrast	5%
SNR	4
Minimum object size	16*16 pixel
Maximum object size	256*256 pixel
Tracking speed	±48 pixel/frame
Object memory time	100 frames (4s)

IR Camera AI Performance

Targets type	Car and human
Simultaneous detection quantity	≥ 10 targets
Min contrast ratio	5%
Min target size	5×5 pixel
Car detection rate	≥85%
False alarm rate	≤10%

QIR1575T

15~75mm High-Definition IR Thermal Object Tracking Gimbal Camera

IR Thermal imager
640*512, 15~75mm focus length, 12μm

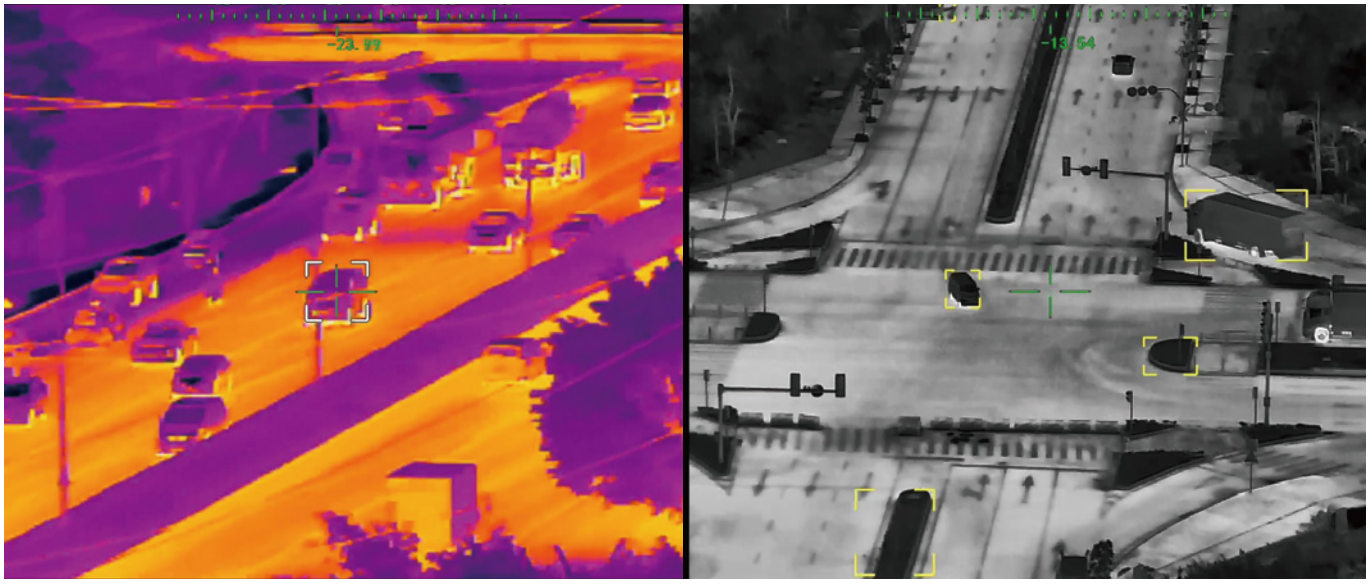
Object Tracking
√

Output
1080 Micro HDMI / IP

Power
14.8V~25.2V(7.68W, Max.16W)

N.W.
1216g

Dimension
130*160*200.8mm



QIR25250T

10x Optcial Zoom Cooled MWIR IR Thermal Object Tracking Gimbal Camera

IR Thermal imager
640*512, 25-250mm focus length (Cooled MWIR)

Power
14.8V~25.2V(9.6W, Max.16W)

Object Tracking
√

N.W.
2471g

Output
1080 Micro HDMI / IP

Dimension
165*188.2*238.4mm

UAT50

50mm IR Thermal Object Tracking Gimbal Camera

IR Thermal imager
640*512, 50mm focus length, 12μm

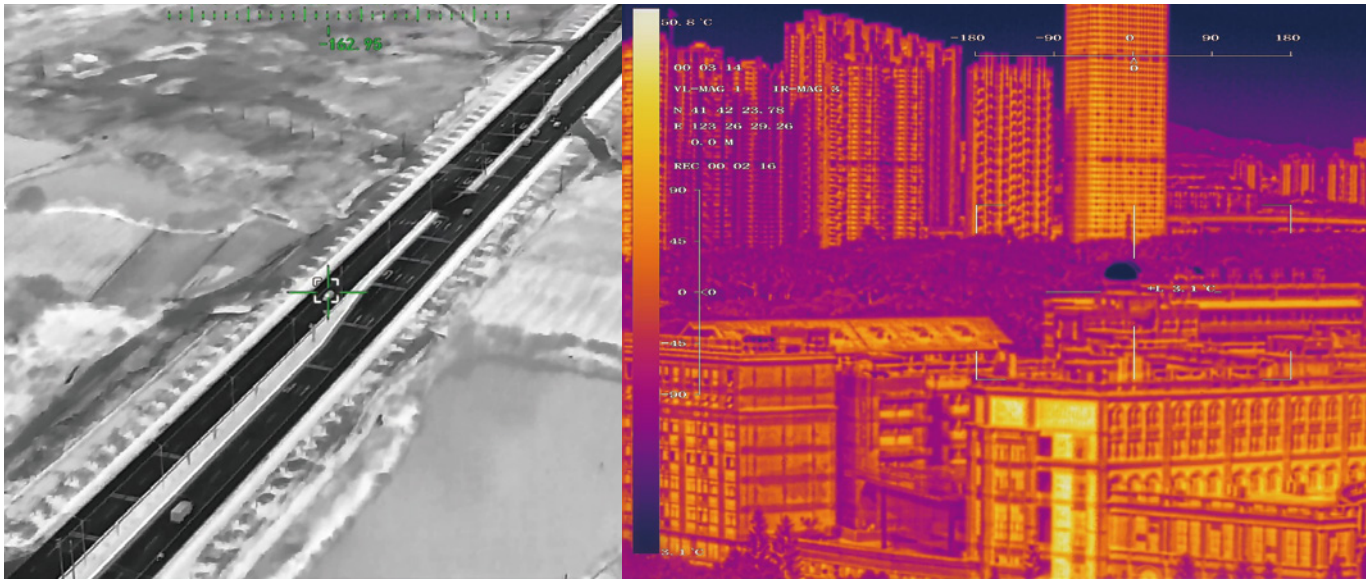
Power
14.8V~25.2V(5.6W, Max.16W)

Object Tracking
√

N.W.
555g

Output
1080 Micro HDMI / IP

Dimension
100.8*100.5*161.9mm



QIR50T Pro

50mm High-Definition IR Thermal Object Tracking Gimbal Camera (1280*1024)

Overall Specifications

N.W.	943g
Product meas.	112*136*181.3mm
Input voltage	14.8V~25.2V
Dynamic current	500~1250mA @ 16V
Power consumption	Average 8W, Max 20W
Working environment temp.	-20°C ~ +50°C
IP rate	IP4X
Output	IP (RTSP/UDP 720p/1080p 25fps /30fps H264/H265) / SDI (1080P 30fps)
Storage	TF card (Up to 512G,class 10, FAT32 format)
Picture in TF Card	JPG(1920*1080)
Video in TF Card	MP4(1080P@30fps)
Control method	PWM / S.BUS / UART (TTL) / TCP / UDP

Gimbal Spec

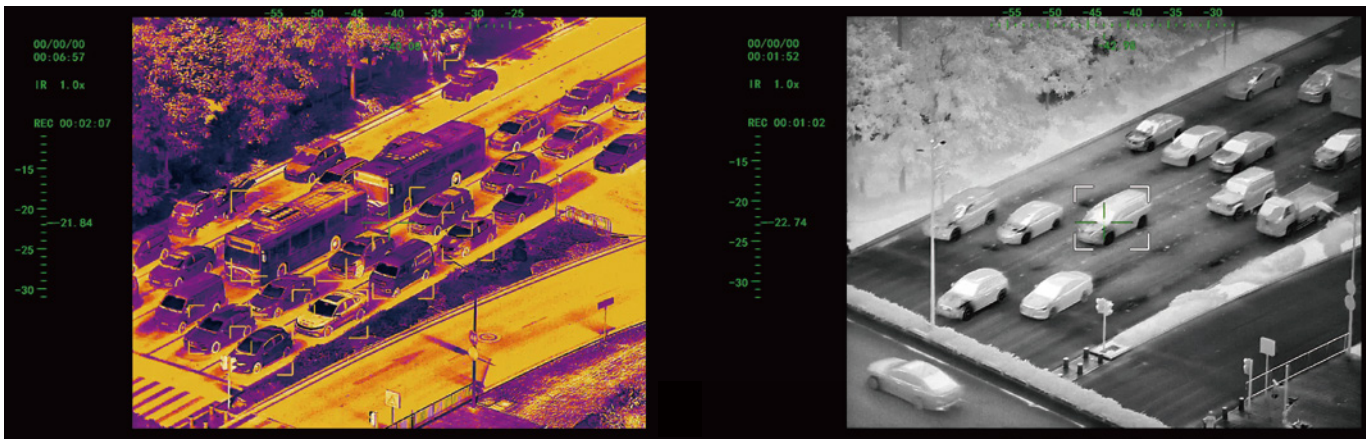
Mechanical Range	Pitch/Tilt:-55°(Up)~125°(Down), Roll: ±70°, Yaw/Pan: ±360°*N
Controllable Range	Pitch/Tilt: -45°~120°, Yaw/Pan: ±360°*N
Vibration angle	Pitch/Roll/Yaw: ±0.02°
One-key to center	√

IR Thermal Object Tracking

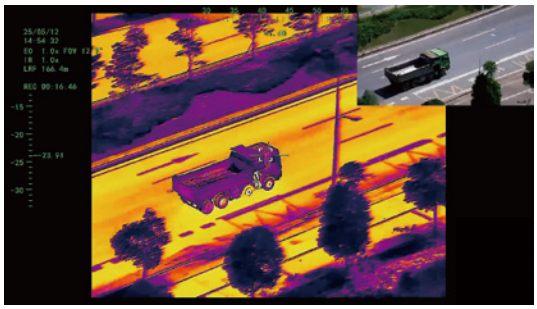
Update rate of deviation pixel	50Hz
Output delay of deviation pixel	5ms
Minimum object size	32*32 pixel
Maximum object size	128*128 pixel
Tracking speed	±48 pixel/frame
Object memory time	100 frames (4s)

IR Thermal Imager Spec

Focus Length	50mm
Horizontal FOV	17.5°
Vertical FOV	14.0°
Detective Distance (Man: 1.8x0.5m)	2083 meters
Recognize Distance (Man: 1.8x0.5m)	521 meters
Verified Distance (Man: 1.8x0.5m)	260 meters
Detective Distance (Car: 4.2x1.8m)	6389 meters
Recognize Distance (Car: 4.2x1.8m)	1597 meters
Verified Distance (Car: 4.2x1.8m)	799 meters
Working mode	Uncooled long wave (8μm~14μm) thermal imager
Detector pixel	1280*1024
Pixel pitch	12μm
Focusing method	Athermal prime lens
NETD	≤40mK@25°C,F #1.0
MRTD	≤400mK@25°C,F #1.0
Shutter	Bistable Shutter
Color palette	White hot, Black hot, Iron red
Digital zoom	1x ~ 4x
Thermometry type	Not supported



T Series Dual-Sensor Object Tracking Series



Integrated high-precision uncooled long wave IR thermal image sensor, EO + IR dual-sensor gimbal cameras can record and transmit IR thermal image and visible images at the same time. See the unseen. IR Thermal sensors reveal details invisible to the naked eye by making subtle differences in temperature visible. This new view on the world can reveal the damage of equipment or buildings, fire spark in forest and more.Thermometry function even increases the IR thermal inspection standard to a higher level.

U30TIR-35

30x EO + IR Dual-Sensor Object Tracking Gimbal Camera

Overall Specifications

N.W.	934g
Product meas.	127*130*201.9mm
IInput voltage	14.8V~25.2V
Dynamic current	650~1250mA @ 16V
Power consumption	Average 10.4W, Max 20W
Working environment temp.	-20°C ~ +50°C
IP rate	IP4X
Output	Micro HDMI(1080P 60fps) / IP (RTSP /UDP 720p/1080p 25fps/30fps H264/ H265)
Storage	TF card (Up to 512G,class 10, FAT32 format)
Picture in TF Card	JPG(1920*1080)
Video in TF Card	MP4(1080P@30fps)
Control method	PWM / S.BUS / UART (TTL) / TCP / UDP

Gimbal Spec

Mechanical Range	Pitch/Tilt: -45°(Up)~120°(Down), Roll: ±40°, Yaw/Pan: ±300° / ±360°*N (IP output version)
Controllable Range	Pitch/Tilt: -30°~115°, Yaw/Pan: ±290° / ±360°*N (IP output version)
Vibration angle	Pitch/Roll/Yaw: ±0.02°
One-key to center	√

EO Camera Spec

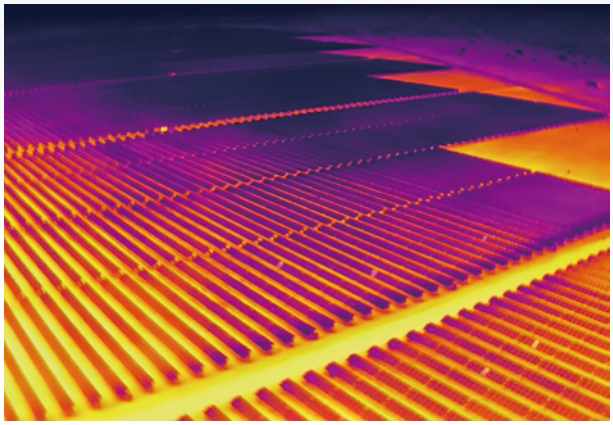
Imager Sensor	1/2.8" Type STARVIS2 CMOS Sensor
Picture quality	Full HD 1080 (1920*1080)
Effective pixel	2.13MP
Lens optical zoom	30x, F=4.3~129mm
Digital zoom	12x (360x with optical zoom)
Min object distance	10mm(wide end) to 1200mm(tele end)
Horizontal viewing angle	64.0°(wide end) ~ 2.4°(tele end)
Sync system	Internal
S/N ratio	more than 50dB
Min illumination	Color 0.009 lux (1/30 sec, 50%, High Sensitivity mode On)
	Color 0.09 lux (1/30 sec, 50%, High Sensitivity mode Off)
Exposure control	Auto, Manual, Priority mode(shutter priority & iris priority), EV compensation, Slow AE
Gain	Auto/Manual 0dB to 50.0dB(0 to 28 steps)
	Max.Gain Limit 10.7 dB to 50.0dB (6 to 28 steps)
White balance	Auto, ATW, Indoor, Outdoor, One Push WB, Manual WB, Outdoor Auto, Sodium Vapor Lamp (Fix/Auto/Outdoor Auto)
Shutter speed	1/1s to 1/10,000s, 22 steps
Backlight compensation	Yes
Defog	Yes

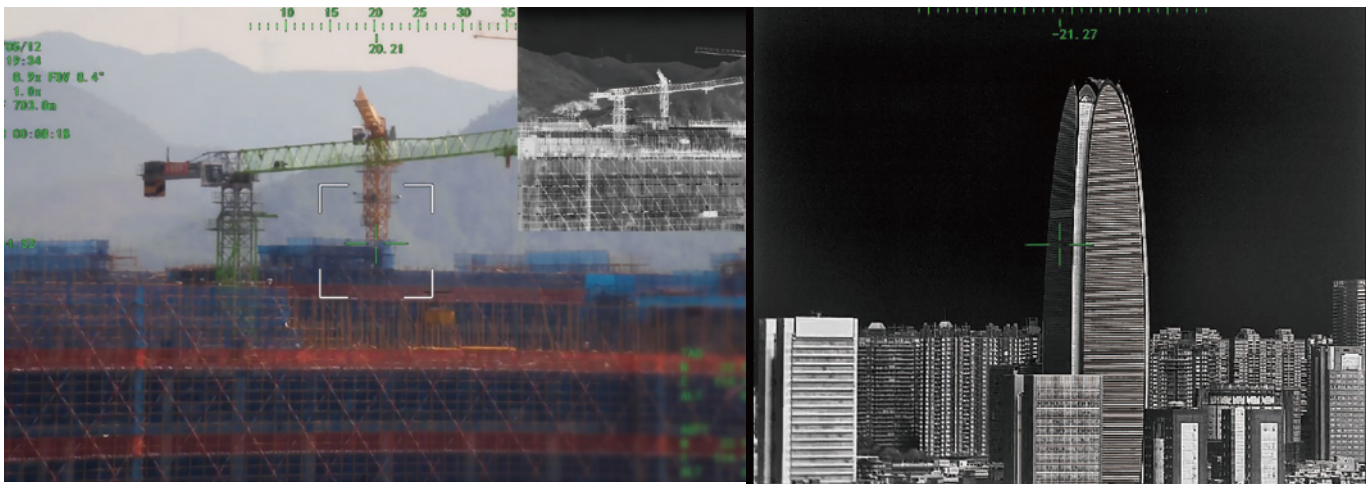
IR Thermal Imager Spec

Focus Length	35mm
Horizontal FOV	12.5°
Vertical FOV	10.0°
Diagonal FOV	16.0°
Detective Distance (Man: 1.8x0.5m)	1458 meters
Recognize Distance (Man: 1.8x0.5m)	365 meters
Identification Distance (Man: 1.8x0.5m)	182 meters
Detective Distance (Car: 4.2x1.8m)	4472 meters
Recognize Distance (Car: 4.2x1.8m)	1118 meters
Identification Distance (Car: 4.2x1.8m)	559 meters
Working mode	Uncooled long wave (8μm~14μm) thermal imager
Detector pixel	640*512
Pixel pitch	12μm
Focusing method	Athermal prime lens
NETD	≤50mK@F1.0 @25°C
Color palette	White hot, Black hot, Iron red
Digital zoom	1x ~ 8x
Radiometric function(optional)	Thermometry range optional: -20°C~+150°C, 0°C~+550°C
	Thermometry accuracy: ±3°C or +3%(take larger value)@23°C±3°C, Thermometry range 5m

EO/IR Camera Object Tracking

Update rate of deviation pixel	50Hz
Output delay of deviation pixel	5ms
Minimum object contrast	5%
SNR	4
Minimum object size	32*32 pixel
Maximum object size	128*128 pixel
Tracking speed	±48 pixel/frame
Object memory time	100 frames (4s)





Q30TIR Lite

30x EO + IR Dual-Sensor Object Tracking Gimbal Camera

EO Imager sensor
1/2.8" Type STARVIS2 CMOS Sensor, 2.13MP

EO Lens
30x optical zoom, f=4.3~129mm

IR Thermal imager
640*512, 24mm focus length, 12μm

Object Tracking
√

Output
Micro HDMI / IP

Power
14.8V~25.2V(9.9W, Max.20W)

N.W.
860g

Dimension
111.6*129.8*184.2mm

Q40T-PLUS

40x Optical Zoom Dual EO Sensors Object Tracking Gimbal Camera

EO Imager sensor
1/2.8" CMOS Sensor

EO Lens
40x optical zoom, 2.13MP

EO Lens
8mm Prime lens, FOV 45°×30°

Object Tracking
√

Output
1080p Micro HDMI / IP

Power
14.8V~25.2V(9.6W, Max.20W)

N.W.
1004g

Dimension
118*147.5*191.5mm

Single EO Sensor Series

Build-in normalization, cross-correlation and tracking algorithm, combining with object missing recapture algorithm, object tracking gimbal cameras achieve stable tracking of a target. Mainly used for law enforcement, security protection, inspection and also be helpful for zooming a target without losing it.

Q10F

10x Optical Zoom HDMI Output Gimbal Camera

EO Imager sensor
1/3" CMOS Sensor, 10x optical zoom, 4MP

Power
14.8V~25.2V(2.9W, Max.8W)

Object Tracking
√

N.W.
378g

Output
1080 Micro HDMI / Analog

Dimension
86.2*108*136.7mm

Q10N Pro

10x Optical Zoom IP Output Gimbal Camera

EO Imager sensor
1/2.7" CMOS Sensor, 10x optical zoom, 5MP

Power
11.1V~25.2V(2.4W, Max.7.2W)

Object Tracking
√

N.W.
355g

Output
IP

Dimension
88.7*108.7*139.2mm

Q30T Pro

30x Optical Zoom Object Tracking Gimbal Camera

EO Imager sensor
1/2.8" STARVIS2 CMOS Sensor, 30x optical zoom, 2.13MP

Object Tracking
√

Output
1080 Micro HDMI / IP / SDI

Power
14.8V~25.2V(8.8W, Max.20W)

N.W.
811g

Dimension
104.9*128.2*180mm

U30T

30x Optical Zoom Object Tracking Gimbal Camera

EO Imager sensor
1/2.8" STARVIS2 CMOS Sensor, 30x optical zoom, 2.13MP

Object Tracking
√

Output
1080 Micro HDMI / IP / SDI

Power
14.8V~25.2V(8.3W, Max.16W)

N.W.
717g

Dimension
108*115.8*170.3mm

Z36T Cube

36x Optical Zoom Starlight Level Night Vision
Object Tracking Gimbal Camera (Starlight level)

EO Imager sensor
1/2" CMOS Sensor, 36x optical zoom, 2.13MP

Object Tracking
√

Output
1080 Micro HDMI / IP / SDI

Power
14.8V~25.2V(9.3W, Max.18.4W)

N.W.
842g

Dimension
106.6*182.1*185mm

Specialized Payload and Gimble Series

This series provides more convenient lighting and communication support for applications such as emergency rescue, industrial inspection, and public safety.

L4 Pro

3-axis stabilized gimbal searchlight

LED Power: 0–128 W (adjustable)	Roll: ± 70°, heading: ± 120°
Light throughput: 13500lm (128W Power)	Power：22.2V~25.2V（1W，Max.144W）
Luminous Efficacy: 113 lm/W (128 W)	Dimensions: 134*141.1*185.3mm
Illumination Coverage: 1230 m² (128W, 150m distance)	Weight: 790g

M120 Pro

4G Loudspeaker

Power: 25W	Speaker mode: Real-time / Recording / Audio file upload /Text to voice
Maximum sound pressure: 124dB@1m	Audio format: MP3/WAV/M4A/FLAC/AAC
Operating Temperature: -10°C~+40°C	Dimensions: 142.7*95.2*201.6mm(L*W*H)
Effective broadcast distance: 500m	Weight: 691g

Z6K Pro

SONY ILCE Gimbal

Support Sony ILCE a6000	Control method: UART / PWM / PPM / S.BUS
HDMI signal is routed internally from thebottom to the top of the gimbal	Dimensions: 152.5*151.1*164.3mm
Gimbal function: supply power, photo shoot, record, zoom, etc	Weight: 550g

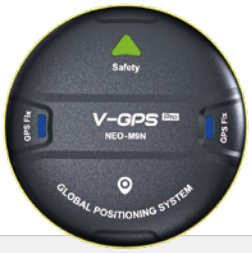
Accessories Series

This series is designed for high-precision task execution, providing reliable data support for inspection, monitoring, and search & rescue operations.

Equipped with high-performance flight control systems and multi-sensor modules, it enables precise positioning, stable navigation, and efficient data transmission. It ensures stable performance across various complex environments, supporting demanding industry applications.

V-GPS Pro

The V-GPS Pro features a high-performance STM32F3 processor and a UBLOX M9N multi-constellation GNSS receiver, delivering high-precision and reliable positioning services.



Technical Specifications			
Main Processor	STM32F3	Operating Bands	GPS: L1 C/A / GLONASS: L1OF / BeiDou: B1I / Galileo: E1B/C
Sensor	Compass: RM3100 / Barometer: MS5611	Horizontal Accuracy	2.0 m (up to 0.7 m)
RGB	Supported	Velocity Accuracy	0.05 m/s
Buzzer	Passive	Max Satellite Count	32+
Safety Switch	Physical Button	Acquisition Time	Cold Start: 24 s /Reacquisition：2s / Hot Start: 2 s
Safety Switch Indicator	Supported	Sensitivity	Tracking: -167 dBm / Cold Start: -148 dBm / Hot Start: -159 dBm / Reacquisition: -160 dBm
Termination Resistor	Software Configurable		
Concurrent GNSS	4 (GPS + GLONASS + BeiDou + Galileo)	GNSS Receiver	UBLOX M9N
Supported FC	ArduPilot, PX4	Communication Protocol	UAVCAN
		Firmware Upgrade	Supported

G1

The G1 tracking gimbal is used as a linked antenna system for synchronized data and image transmission.

Technical Specifications			
Weight	3.2 kg	DC Voltage	12V~26V
Yaw Speed	≤ 360°/s	Operating Temperature	-20°~60°
Pitch Speed	≤ 65°/s	Average Power	≤ 15W
Yaw Range	360°	MAVLINK Version	PX4 / APM Compatible
Pitch Range	-15° ~ 160°	Power Method	Universal Aviation Battery

MX15 GCS

The MX15 is equipped with a high-performance processor and an embedded Android 13 system. It supports dual-band 2.4GHz/5.8GHz communication, delivering low latency, long-range transmission, and strong anti-interference capability.

Technical Specifications			
Display	7-inch Industrial Touchscreen	Battery Life	8 hours
Resolution	1920 × 1200	Battery Capacity	10000 mAh (typical)
Memory	8 GB	Antenna	Dual antennas (2.4GHz / 5.8GHz)
Storage	64 GB	Operating Frequency	2.4GHz / 5.8GHz
Touch Panel	Capacitive Touchscreen	RF Power	23 dBm @ CE / FCC
Network Port	RJ45	Control Distance	15 km
External Interfaces	USB, RJ45, TF Card, Type-C	Auxiliary Controls	Joysticks ×2, triple-position switches ×2, rotary knobs ×2, buttons ×11
Serial Port	2*usart	Channels	16
Charging Port	Type-C	OS	Android 13
Protection Level	IP54	Dimensions	291*174.5*80mm
Operating Temperature	-20°C ~ 40°C	Weight	1644g

V7 PRO

The V7 Pro is a high-performance autopilot designed for unmanned systems.

Processor		Sensor	
Chip	STM32H743	Accelerometer	ADIS16470 / ICM-42688-P / ICM-42688-P
Weight	100 g	Gyroscope	ADIS16470 / ICM-42688-P / ICM-42688-P
Supported Types	Various types of unmanned systems	Compass	RM3100
Firmware	ArduPilot 4.5.7 beta and above	Barometer	MS5611 ×2
Interface			
UART	6	GPS Port	2
I2C	4	ADC	2
PWM Output	14	RS232	1
RCIN	1 (PPM/SBUS/DSM)	DEBUG	1
RSSI	1	JTAG	1
SBUS Output	1	USB	1
CAN	2	USB Expansion	1
Power Input	2 (POWER1: ADC voltage/current sensing input / POWER2: CAN power input)	SD Card Slot	1

V7 PRO GPS

Integrated GPS based on the V7 Pro platform, featuring simplified installation and an external antenna design for enhanced anti-interference performance, fast satellite acquisition, and accurate, reliable positioning.

Processor			
Chip	STM32H743		
Sensor			
Accelerometer	ADIS16470/ICM-42688-P/ICM-42688-P	Barometer	MS5611*2
Gyroscope	ADIS16470/ICM-42688-P/ICM-42688-P	GPS	Ublox M9N
Compass	RM3100		
Interface			
UART Serial	5	ADC	2
I2C	3	RS232	1
PWM Output	14	DEBUG	1
RC Input	1	JTAG	1
RSSI Input	1	USB Port	1
SBUS Output	1	USB Expansion Port	1
CAN Port	2	SD Card Slot	1
Power Input	2 (POWER1: ADC voltage/current sensing input / POWER2: CAN power input)	GPS Antenna Port	MMCX
GPS Port	2		
Overall parameters			
Main Power Voltage	4.5V~5.4V	Humidity	5%~95% (Non-condensing)
USB Voltage	4.5V~5.4V	Dimensions	39.6*45.4*88.1mm
Servo Input	0~9.9V	Weight	103g
Operating Temperature	-20~85℃		

Tiny V7

A lightweight and compact autopilot for unmanned systems.

Hardware parameters		Operating environment and physical parameters	
Processor	STM32H743	ESC Power Input	4.5V~26V
Accelerometer	ICM45686 / BMI088	Operating Temperature	-20°C~+85°C
Gyroscope	ICM45686 / BMI088	Dimensions	59* 46*16.3mm
Compass	IST8310	Weight	32g
Barometer	ICP-20100		
UART Port	5		
PWM Output	12		

V7

The V7 is an advanced autopilot system suitable for unmanned systems.

Sensor		Processor	
Main Processor	STM32H753	Accelerometer	BMI088 / ICM-42688-P
Co-Processor	STM32F103	Gyroscope	BMI088 / ICM-42688-P
		Barometer	ICP-20100 ×2
		Compass	RM3100
Interface			
UART	7	Safety Switch	1
I2C	3	Safety Indicator	1
PWM Output	16	Buzzer	1
RC Input	2 (PPM + SBUS)	Ethernet	1
CAN	2	SPI	1
USB	1	SBUS Output	1
SD Card Slot	1	USB	1
ADC	2	USB Expansion	1
SMBUS Power Monitor	2	FMU DEBUG	1
Servo voltage detection	1	IO DEBUG	1
Overall parameters			
Main Power Voltage	4.5V~5.4V	Humidity	5%~95% (non-condensing)
USB Voltage	4.5V~5.4V	Dimensions	44.6*45.1*90.2mm
Servo Input	0~9.9V	Weight	117g
Operating Temperature	-20~85℃		

V-H7

The V-H7 high-precision navigation module provides real-time output of attitude, position, and velocity data.

Processor			
Main Processor		STM32H743	
Module parameters		**GPS parameters**	
Sensor	ICM-42688-P	GPS Accuracy	Horizontal: 1.5 m / Vertical: 2.5 m
Compass	IST8310	Heading Accuracy	0.1° / 1 m baseline
Barometer	ICP-20100	Velocity Accuracy	0.03 m/s
GPS	UM982		
Overall parameters			
Operating Voltage	5V~26V	Dimensions	56*15*49mm
Operating Temperature	-20~85℃	Weight	50g
Humidity	5%~95% (non-condensing)		

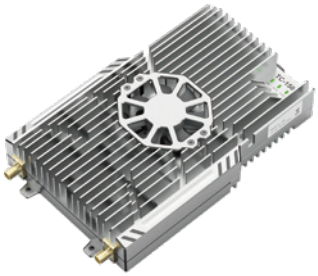
V-ASP-L10D

This module is built on an ultra-low-power STM32L431 MCU and integrates a high-precision DLVR airspeed sensor and barometer.

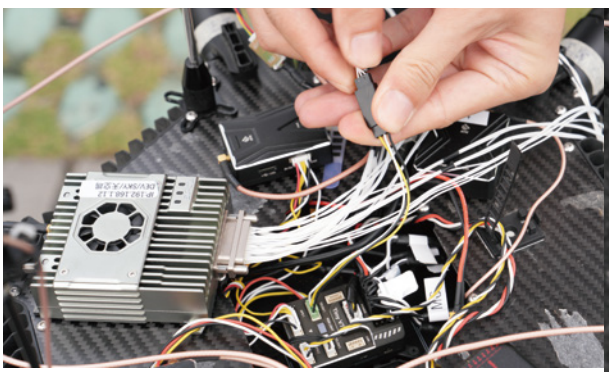
Module Parameters		Overall Parameters	
Processor	STM32L431	Operating Voltage	4.5~5.3
Differential Pressure Sensor	DLVR-L10D	Current	100mA
Barometer Sensor	ICP-20100	Operating Temperature	-20~85℃
Airspeed Range	0~230km/h(0~10inH2O)	Dimensions	44.8*17*34.8mm
Altitude Range	-940m~9300m,(30kpa~110kpa)	Weight	20g
Accuracy	1%		
Protocol	DroneCAN		

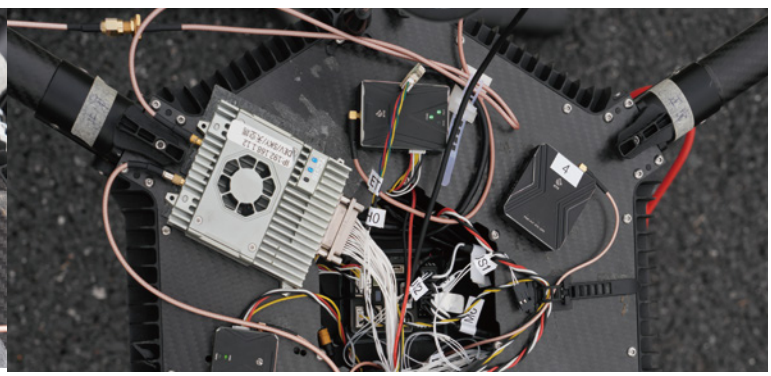
TC-150

The TC-150 is a wireless broadband integrated video and data transmission module, It adopts key technologies such as OFDM and TDD, and supports multiple bandwidth allocations (1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 20 MHz, and CA 40 MHz).



Item	Specification	Item	Specification
Transmission Distance	Up to 150 km (LOS)	Interface	Ethernet ×2 / TTL ×2 / SBUS ×2 (Reusable output 232*2/422*1)
Frequency	1.4 GHz	Bandwidth	Uplink & Downlink ≤30 Mbps @20MHz
Latency	In-board ≤ 20 ms, Air Interface ≤ 200 ms	Networking	Point-to-point / Star / Mesh
RF Channel	2T2R	Startup Time	≤30 ms
Receiver Sensitivity	20MHz: -99 dBm / 10MHz: -103 dBm	Configuration	Web UI
Channel Bandwidth	1.25 / 2.5 / 5 / 10 / 20 MHz	Encryption	ZUC / SNOW3G / AES128
Modulation	QPSK / 16QAM / 64QAM	Transmission Mode	Unicast / Group / Broadcast
Power Control	Dynamic	Frequency Hopping	Supported
Operating Voltage	24V	Peak Current	6.5A
Peak Power	150W	Temperature	-20°C ~ +55°C / Storage: -40°C ~ +85°C





TC-50

The TC-50 is a wireless broadband integrated video and data transmission module, designed for unmanned systems and video surveillance applications.

Specification			
Frequency	1.4 GHz	Anti-Interference	Supported
Modulation	QPSK / 16QAM / 64QAM	Power	2W
Transmission Distance	50 km	Max Power Consumption	18W
Interface	UART ×1 / Ethernet ×1 (100M) / USB ×1 (for Image Transmission firmware upgrade)	Dimensions	92.7*88*23.5mm
		Weight	153g
Antenna	Dual antenna		

TC-30

The TC-30 is a wireless broadband integrated video and data transmission module, Integrating OFDM and MIMO, it features flexible bandwidth allocation and a flat architecture to deliver low latency, high throughput, and robust anti-interference.

Specification			
Frequency	1.4 GHz	Anti-Interference	Supported
Modulation	QPSK / 16QAM / 64QAM	Power	2W
Transmission Distance	30 km	Max Power Consumption	18W
Interface	UART ×1 / Ethernet ×1 (100M) / USB ×1 (for Image Transmission firmware upgrade)	Dimensions	92.7*88*23.5mm
		Weight	153g
Antenna	Dual antenna		

TC-15

The TC-15 is a wireless broadband integrated video and data transmission module, It supports multiple bandwidth allocations (1.4 MHz, 3 MHz, 5 MHz, 10 MHz, and 20 MHz).

Specification			
Frequency	2.4GHz / 5.8GHz	Antenna	Dual antenna (2.4GHz / 5.8GHz)
Power Supply	8V ~ 22V	Baud Rate	115200
Current	12V / 300 mA	Bandwidth	Single-node bandwidth: up to 20 Mbps (one-way)
Output	Mavlink / S.bus	Operating Temperature	-20°C ~ 40°C
Network Port	2	Dimensions	70.5*68.5*25mm
Power	4W	Weight	137g

VP900

This data transmission module is based on the Microhard P900 RF core module. It integrates long-range wireless communication, wide input voltage support, and frequency hopping anti-interference technology, making it widely applicable for command, control, and telemetry data links in various unmanned systems.

Data Link Parameters			
Frequency	902-928 MHz	Error Detection	32-bit CRC, ARQ
Protocol	Transparent	Range	60 km
Link Method	Frequency Hopping	Sensitivity (@BER10-4)	-110 dBm @ 115.2 kbps -108 dBm @ 172.8 kbps -107 dBm @ 230.4 kbps"
FEC	Hamming BCH Golay Reed-Solomon	Transmit Power	100mW - 1W (20-30dBm)
		Serial Baud Rate	230.4 kbps Asynchronous

Overall parameters	
Input Voltage	7~60V/4.6~16V
Dynamic Current	1000mA~1200mA @ 5V
Operating Temp	-40℃ ~ +85℃
Dimensions	42.8*76.4*15.6mm

VUM982

VUM982 is a high-performance module supporting centimeter-level positioning and heading, suitable for various unmanned systems and multi-platform applications.

Sensor		General Parameters	
Satellite Receiver Type	UM982	Input Voltage	4.5 V ~ 5.5 V
Electronic Compass	IST8310	Operating Temperature	-20℃ ~ +85℃
		Dimensions	37.8*42.8*13.5mm
RTK Parameters			
Channels	1408 channels, based on NebulasIV	Velocity Accuracy	0.03 m/s
Constellations Supported	4（BDS、GPS、GLONASS、Galileo）	Navigation Update Rate (Max)	5 Hz (default), up to 20 Hz
Supported Frequency Bands	BDS:B1I、B2I、B3I GPS:L1C/A、L2P/L2C、L5 GLONASS:G1、G2 Galileo: E1、E5a、E5b QZSS:L1C/A、L2C、L5	Satellite Acquisition	Cold start < 30 s Aided start < 5 s
		Dual Antenna Heading Accuracy	0.1° / 1 m baseline
Positioning Accuracy	GPS: Horizontal 1.5 m / Vertical 2.5 mD	RTK base station / rover switching	Supported
	GPS: Horizontal 0.4 m + 1 ppm / Vertical 0.8 m + 1 ppm	Working Voltage	4.5 V – 6 V
	RTK: Horizontal 0.8 cm + 1 ppm / Vertical 1.5 cm + 1 ppm	Operating Temperature	-20°C ~ +85°C

V-RID

The V-RID Remote Identification Module complies with GB 46750-2025, prEN 4709-002, and ASTM F3411-22a standards. It supports broadcast-based identification (Bluetooth / Wi-Fi), enabling real-time reporting of unmanned equipment identity, position, speed, and other data.

Module Parameters	
Processor	Xtensa 32-bit LX7 dual-core processor
Broadcast Mode	2.4 GHz Wi-Fi / Bluetooth@5
Transmit Power	20 dBm
Antenna Interface	MMCX female connector
Compliance Standards	GB 46750-2025 / prEN 4709-002 / ASTM F3411-22a
Protocols	DroneCAN, MAVLink
Overall Parameters	
Input Voltage	4.5V~5.5V
Operating Current	150mA @ 5V
Operating Temperature	-40°C~+85°C
Dimensions	36.8*37.8*11.5mm

VADS-B

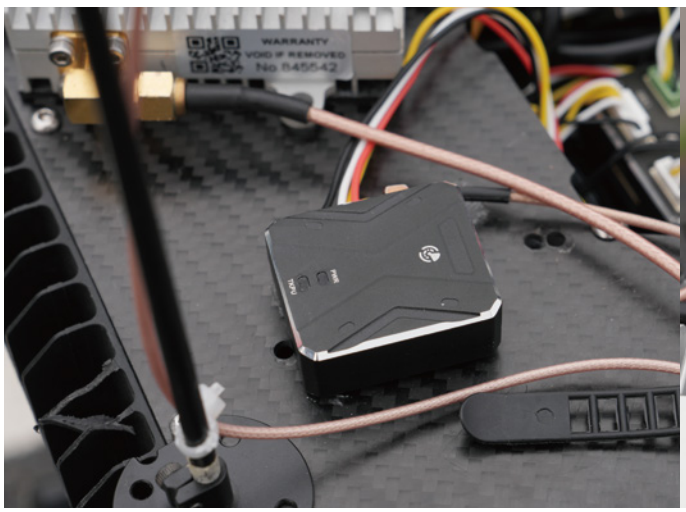
This module is designed specifically for open-source flight control systems. It receives 1090 MHz ADS-B signals and decodes data from commercial and general aviation aircraft. It provides situational awareness of surrounding airspace and works with the flight controller to enable automatic avoidance, ensuring safe operations in integrated airspace.

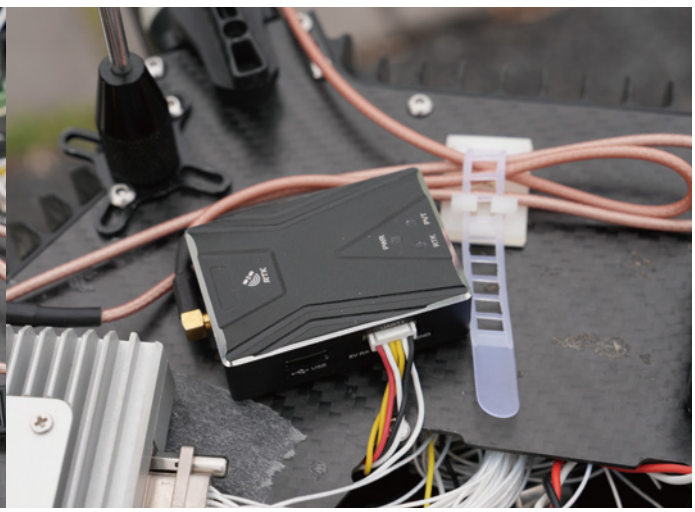
Module Parameters		Overall Parameters	
Frequency	1090MHz	Input Voltage	4.2V~5.5V
Sensitivity	-80dBm	Dynamic Current	80mA @ 5V
Protocols	CSV、RAW、Mavlink、ASTERIX、GDL90	Operating Temp	-40℃ ~ +70℃
Range	150km (1dBi Antenna)	Dimensions	28*32*11.4mm
Max Targets	100	Weight	14.9g

VF9P

The VF9P is a high-performance module supporting centimeter-level positioning and heading, with integrated RTK rover and base station capabilities. When two modules are used together, dual-antenna heading can be achieved.

Sensor			
GNSS Receiver Type	ZED-F9P		
Electronic Compass	RM3100		
RTK Parameters			
Constellations Supported	4(BDS、GPS、GLONASS、Galileo）	Velocity Accuracy	0.05 m/s
Supported Frequencies	GPS-L1C/A(1575.42MHz） GPS - L2C（1227.6MHz） GLONASS - L1OF（1602MHz) GLONASS- L2OF(1246MHz）; GALILEO - E1B/C（1575.42MHz） GALILEO- E5b(1207.14MHz）; BeiDou - B1I（1561.098MHz) BeiDou - B2I(1204.14MHz); QZSS - L1C/A(1575.42MHz) QZSS - L2C(1227.6MHz）	Convergence Time	RTK<60s
		Satellite Acquisition	Cold start < 24 s Hot start < 1 s
		Sensitivity	Tracking & Navigation: -167 dBm Cold Start: -148 dBm Hot Start: -157 dBm Reacquisition: -160 dBm
		Anti-Jamming	Active CW detection and band-pass filtering
Navigation Update Rate (Max)	RTK 20Hz; RAW 25Hz; PVT 25Hz;	Security	Advanced anti-spoofing algorithms
		Heading Accuracy (Dual Antenna)	0.3°
Positioning Accuracy	RTK: 0.01 m + 1 ppm CEP Single Point: 1.5 m CEP SBAS: 1.0 m CEP	RTK Base/Rover Switching	Supported
		Data Protocols	NMEA, UBX binary, RTCM 3.x
Overall Parameters			
Input Voltage	4.5 V – 5.5 V		
Operating Temperature	-20°C ~ +85°C		
Dimensions	32*47*14.8mm		





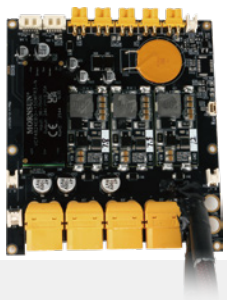
V-PMU

This power module is specifically designed for flight control systems. It integrates high-voltage step-down conversion with high-precision current and voltage measurement. It is widely applicable to unmanned systems, robotics, and industrial automation power management applications.

Overall Parameters			
Input Voltage	7~60V(2S~12S)	Voltage Accuracy	±0.1V
Maximum Current	60A（120s）	Output	5.3V/4A (Max 5 A)
Continuous Current	40A	Dimensions	25*32mm
Current Accuracy	±0.2A		

PBmain

This power management board is designed for highly integrated small-to-medium unmanned systems. It supports 12S battery input with up to 250 A current capability. It provides four high-current 50 V outputs (XT90 connectors) and integrated step-down outputs of 24 V / 12 V / 7.5 V / 5 V, all with over-voltage protection.



PBmain (Power Management Board)			
Processor	STM32F303	Communication Interfaces	Serial Port, CAN
Input	55V/200A	Voltage & Current Telemetry	DroneCAN, ADC
Output	4 × 55 V / 120 A 1 × 55 V / 3.75 A 1 × 24 V / 4 A 1 × 12 V / 3 A 1 × 7.8 V / 3 A 3 × 5.3 V / 5 A 3 × navigation light outputs (12 V / 0.2 A)	Dimensions	120*140*22mm
Current Sensing Method	Hall-effect sensing		

Tianjie K4

The Tianjie K4 is a four-hook payload dropping device designed for unmanned system applications. It features four independent hooks, enabling precise multi-point and sequential payload delivery.

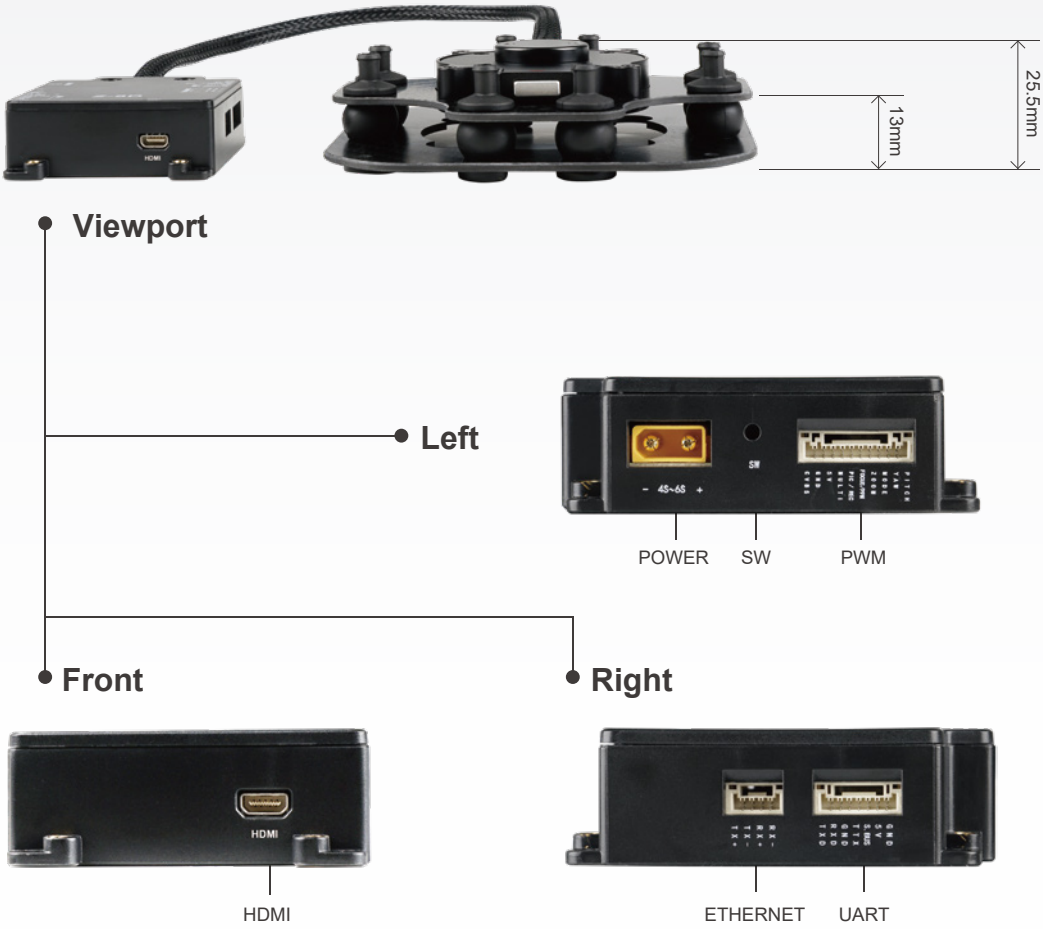
Overall Parameters			
Number of Hooks	4	Control Methods	TCP/USART/SBUS/PWM/DJI PSDK
Total Payload Capacity	20 kg (5 kg × 4)	Camera	1080P
Power Supply	12–36 V	Dimensions	62*62*67mm
Power Consumption (Release)	8 W (per hook)	Weight	260g
Power Consumption（Standby）	1.5 W		

Viewport

Plug and Play Quick Setup
and Release

- Compatible with full range of our cameras
- Net weight: 140 grams
- Quick release board size: 100*100*25.5mm
- Control box size: 48.4*56.2*14.2mm

Viewport Overview

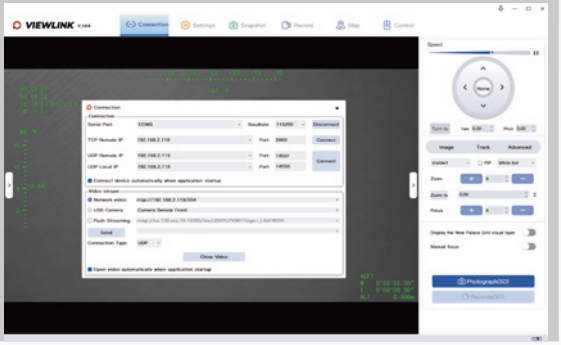


Viewlink Overview

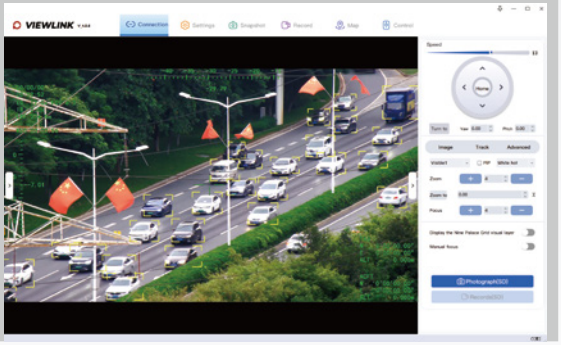
Viewlink is a professional and user-friendly gimbal control software, engineered for precision and ease of use. It supports IP (RTSP/UDP/RTMP) and USB connections. Its built-in video player is intelligently optimized based on the user's computer configuration, providing an ultimate viewing experience with smooth and delicate visuals. Additionally, it supports multi-stream pulling, virtual nine-grid lines for balanced visuals. It can connect to Ethernet TCP/UDP or serial port TTL for gimbal control, enabling features such as gimbal firmware upgrades, encoder settings, 3D map visualization, flight path recording, live streaming, joystick configuration, OSD settings, remote control settings, file saving, extended commands, and general settings etc.

Windows

Device Connection



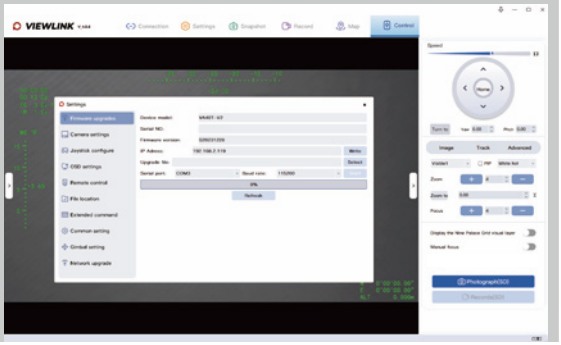
Camera Settings



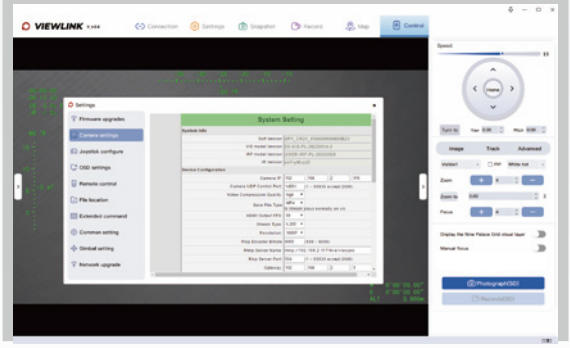
Location

Location Settings

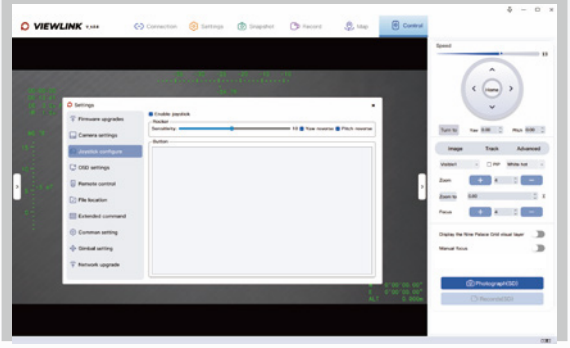
Firmware Upgrade



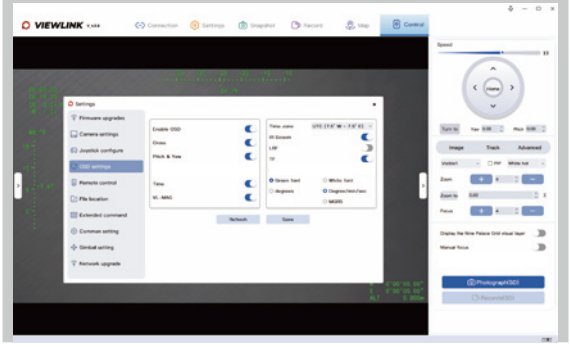
Encoder Settings



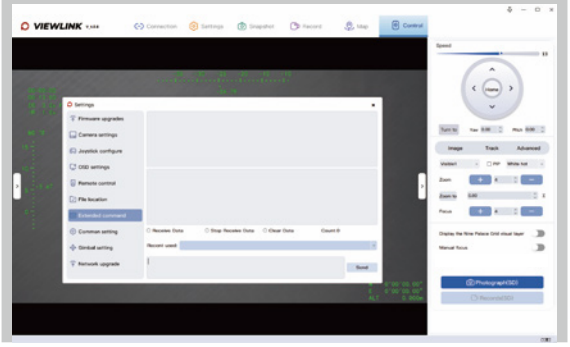
Joystick Settings



ODS Configuration

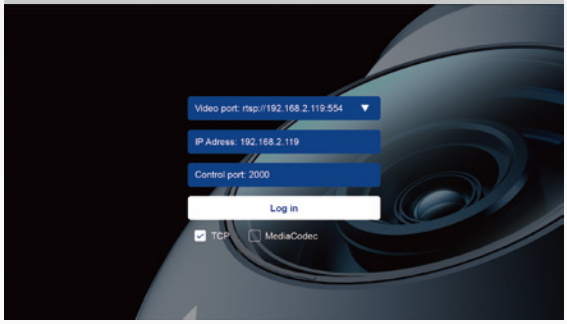


Extended Commands



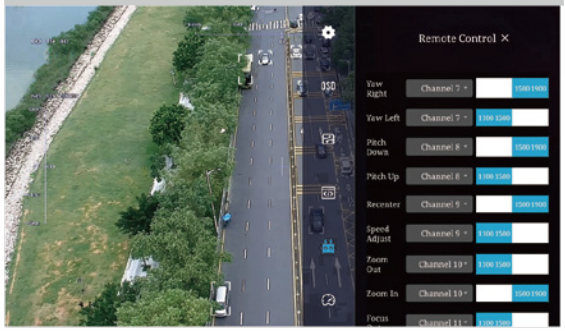
Android

Log in

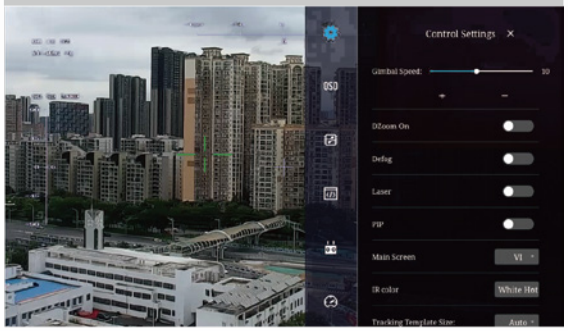


Device Info

Remote Control



Control Settings



Main interface

Main interface

VStation Overview

VStation is an Android terminal APP designed for drones. Through the careful design and Technical implementation, it brings the unprecedented smooth experience to the users, and the features as below.

1. Support the image preview and control of Viewpro gimbal camera.

2. Amap, Google map Optional.

3. Add voice broadcast which can broadcast the status of aircraft in real time.

4. Compatible with a variety of image transmission access.

5. Task type, parameter list, etc.

6. Compatible with APM flight control and firmware (lower version may not support).

7. Support multiple unmanned systems..

8. Support flight data (speed, battery level display, signal strength).

9. Support calibration (accelerometer calibration, gyroscope calibration, magnetic compass calibration).

10. Support flight control settings (fail-safe, receiver type, voltage, current, voice broadcast).

11. Support parameter setting (basic parameter and advanced parameter setting).

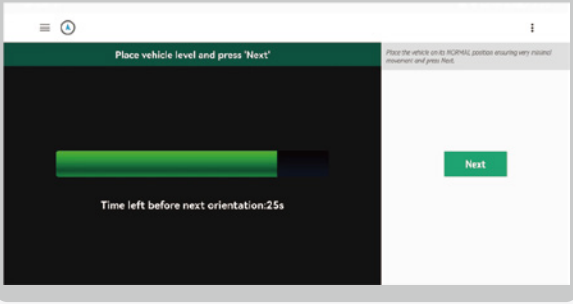
12. With EKF status displayed, the health status of the flight controller can be clearly known. The version of flight controller version must be above AC3.3.

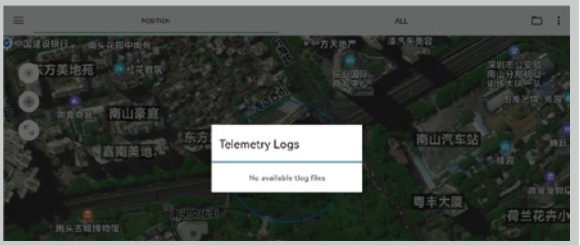
13. The flight status can be displayed.

14. Route planning, the aircraft can fly autonomously under the guidance.

15. Log record, the flight data of the aircraft can be collected and saved in the mobile phone as a file, the user can review the log of the aircraft after the flight.

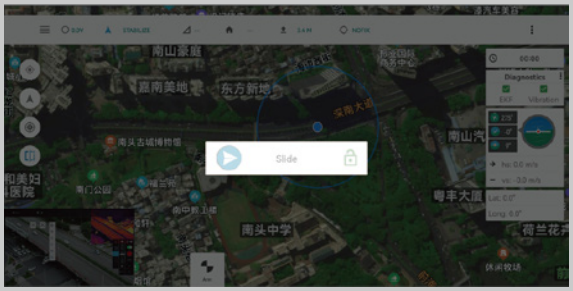

南山豪庭
南美地
东方新地
海岸时代公寓
深南大道
南山汽车站
粤丰大厦
荷兰花卉
USB


Place vehicle level and press 'Next'
Time left before next orientation:25s
Next

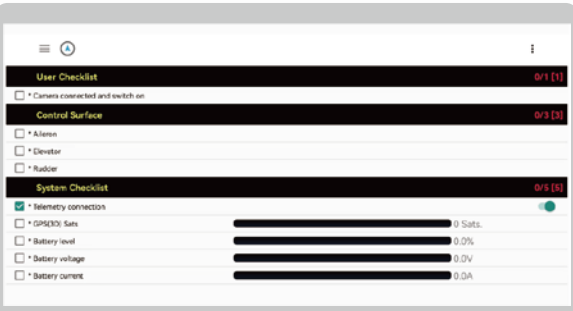

Telemetry Logs
No available blog files

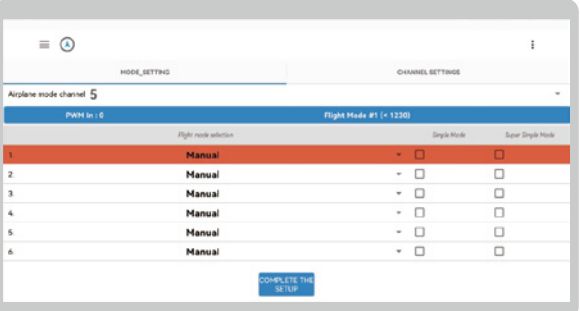

Vehicle Data
Editor
Vehicle History
Parameters
Checklist
Accelerometer Calibration
Compass Calibration
Flight Mode

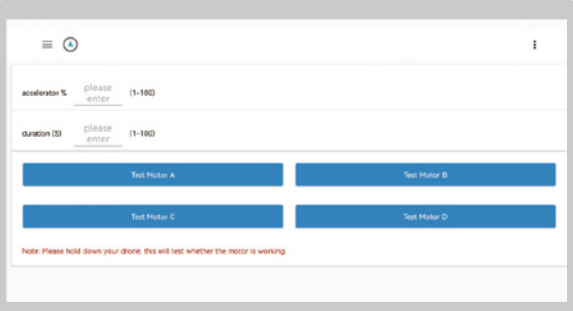

8
WAYPOINT
Altitude
Delay before next waypoint
南头中学
Distance: 4.3 km, Flight Time: 14:13


Slide
南头中学


ACRO_BAL_PITCH
Acro Balance Pitch
ACRO_BAL_ROLL
Acro Balance Roll
ACRO_RP_EXPO
Acro Roll/Pitch Expo
ACRO_RP_P
Acro Roll and Pitch P gain
ACRO_THR_MID
Acro Thr Mid
You have unsaved changes
UPLOAD


User Checklist
Control Surface
Aileron
Elevator
Rudder
System Checklist
Telemetry connection
Battery level
Battery voltage
Battery current


MODE_SETTING
CHANNEL SETTINGS
Airplane mode channel 5
Manual
COMPLETE THE SETUP


accelerator %
duration (S)
Test Motor A
Test Motor B
Test Motor C
Test Motor D

Emergency Rescue

(Recommended gimbal payloads: H4T-25, A10TR Pro, MiniH30T, A20KTR, A40TR Pro, M120PRO, L4 PRO)

- **Visible Light Camera:** High-definition zoom enables long-distance situational assessment of disaster conditions, supports visual command and control, and contributes to precise and efficient rescue operations.
- **Thermal Imaging:** Real-time monitoring of risk points or trapped persons, early warning, and assistance in inspection, unaffected by darkness.
- **Laser Rangefinder:** Precisely determines dynamic coordinates of individuals and rapidly maps disaster locations.
- **Searchlight:** Provides lighting support at rescue sites or illuminates evacuation routes for affected personnel.
- **Loudspeaker:** Offers long-distance reassurance and evacuation guidance for trapped individuals.

Public Safety

(Recommended gimbal payloads: H4T-25, A10TR Pro, MiniH30T, A20KTR, A40TR Pro, M120PRO, L4 PRO)

- **Visible Light Camera:** High-definition zoom combined with AI-based human and vehicle tracking enables acquisition of on-site information from a safe distance. It effectively supplements areas not covered by fixed surveillance cameras.
- **Thermal Imaging:** Assists in nighttime search or tracking of suspicious individuals, provides intuitive assessment of crowd density, enables real-time evacuation guidance, and gives early warnings of potential stampede risks or fire hazards.
- **Laser Rangefinder:** Precisely determines dynamic coordinates of individuals and locks onto suspicious persons or criminals.
- **Searchlight:** Provides continuous illumination of localized areas, preventing congestion and stampedes caused by darkness and panic.
- **Loudspeaker:** Enables ground-level guidance and coordination, allowing timely broadcast instructions.

Industrial Inspection

(Recommended gimbal payloads: A20KTR, A30TR-50M, Q30TIR Pro, Q40TIRM-HD, L4 PRO)

- **Visible Light Camera:** High-definition zoom can detect subtle defects that are difficult to observe with the naked eye. It captures high-resolution imagery of key structural areas and enables efficient observation and evidence collection of target locations.
- **Thermal Imaging:** Allows multi-angle, full-range imaging of heat-generating components, precisely locating hidden abnormal heat sources.
- **Searchlight:** Provides mobile, wide-area aerial illumination for nighttime inspection and emergency repair, improving repair efficiency.

VIEWPRO

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Online Store