

Model No.	A20KTR
PICS	

Hardware Parameter

Working voltage	16V
Input voltage	4S ~ 6S (14.8V~25.2V)
Output voltage	5V (connect with PWM)
Dynamic current	950~1500mA @ 16V
Power consumption	Average 15.2W, Max 24W
Working environment temp.	-20°C ~ +50°C
Output	micro HDMI(1080P 30fps/60fps) / IP (RTSP/UDP 4K/1080P/720P 30fps H264/H265)
Local-storage	SD card (Up to 256G,class 10, FAT32)
Picture storage format in TF card	JPG(4K:3840*2160)
Video storage format in TF card	MP4(4K 30fps)
Control method	PWM / TTL / S.BUS / TCP / UDP

Gimbal Spec

Mechanical Range	Pitch/Tilt: -125°~115°, 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	SONY 1/2.5" "Exmor R" CMOS
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
Coating Film	DLC
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, pseudo color
Digital zoom	1x ~ 8x

Thermometry range optional: -20°C~+150°C, 0°C~+550°C

Radiometric function(optional) 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	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
Simultaneous detection quantity	≥ 10 targets
Min contrast ratio	5%
Min target size	5×5 pixel
Car detection rate	≥85%
False alarm rate	≤10%

IR 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

Location Resolving	Latitude and longitude of target
Rangefinder	Measure the distance between the object at the center of screen and the laser rangefinder
Features	
OSD	Display the gimbal's yaw and pitch angle, magnification, ranging value, card recording duration, aircraft GPS and altitude, target ranging point GPS and altitude, date and time
Geotagging	Display time and GPS coordinate in picture exif
Card reading online	HTTP read pictures or videos
KL V (UDP)	Card recording or Viewlink video playback
ArduPilot / PX4	Support(Mavlink protocol) Optional: Support Ardupilot Follow me feature
Video stitching	EO+IR /IR+EO /EO /IR
Dual video stream output (optional)	Support(EO and IR two stream output, notes: unable to record once the dual video stream output activated)
Packing Information	
N.W.	1145±10g(Viewport version with Viewport)
Product meas.	161*130*205.7mm / 161*130*211.4mm(Viewport version with Viewport)
Accessories	1pc gimbal camera device, screws, USB to TTL cable / High quality box with foam
G.W.	2872g
Package meas.	350*300*250mm