VC05V

3-axis Dual-visible Light Miniature Electro-optical Pod

VC05V, miniature 3-axis dual-visible light inertial stabilization pod, equipped with a tens of millions of visible light CMOS sensors and a star-level visible light CMOS sensor, with two large and small field of view angles, capable of real-time output of 1080P high-definition visible light video can realize target observation in weak light at night. It is small in size, light in weight, easy to carry, and can be mounted on a micro unmanned aerial vehicle. With the functions of target detection, locking and tracking, it provides professional and reliable capability support for industrial application tasks such as patrol inspection, security

Features

◆ Ultra-small size, ultra-lightweight

Dual visible light and high integration of servo system, mini size and weight, suitable for small aircraft;

◆ The double visible light combination has a wider application range

Wide field of view search and narrow field of view observation, which is more efficient and can be used at night;

◆ All-round target tracking, stable and reliable

Excellent inertial stabilization platform technology, visible light dual-channel target tracking;

◆ Adapt to various harsh environment

Alloy components, industrial-grade devices, and adapt to various harsh industrial application environments.

Application

—Miniature UAV, unmanned vehicles, unmanned boat and other unmanned observation equipment.

—Police law enforcement,Power inspection,Security inspection,Rescue search,Fire fighting

Technical Parameters

Wide-angle Visible Light	
Pixel	13 million
Pixel Size	1.12μm
Lens Focal Length	3.5mm（±5%)
FOV	70.4°×39.6°（±5%、1080P)
Video Resolution	1920×1080, 1080×720
Photo Resolution	4208×3120 , 1920×1080

Starlight Visible Light	
Pixel	2 million
Lens Focal Length	10.3mm（±5%)
FOV	30.9°×17.4°（±5%)
Video Resolution	1920×1080
Photo Resolution	1920×1080

PTZ	
Image Stabilization Accuracy	0.02°（disturbance 0.5°@ 1 Hz）
Azimuth Angle	- 90°～+ 90°
Pitch Angle	- 120°～+ 90°
Roll Angle	- 30°～+ 30°

System Parameters	
Dimensions	Pod : 44mm x 46mm x 60mm Control board : 52mm × 52mm × 15mm Control box (built-in control board): 58mm × 55mm × 2 4.5 mm
Weight	Recommended Configuration: Pod+ Control board (built-in): 5 5 g + 25g ; Optional Configuration: Pod+ Control box (external): 5 5 g + 60 g.
Power and Consumption	DC 9 V ～DC 15 V@ 3 A; stable power consumption ≤ 9W

Interface	
Control Interface	TTL serial port
Video Output	USB 2.0/ Network /HDMI
Storage	SD card

Operating Ambient	
Operating Temperature	- 20 ℃～+5 5 ℃
Degree of Protection	Able to work normally in light rain conditions

VC07D

3-axis Double Sensor Micro Electro-optical Pod

VC07D,miniature 3-axis dual-senso inertial stabilization pod, which integrates a 640× 512 high-resolution infrared camera,a 13 million pixels full-HD visible light camera and a gyro stabilization platform.Ultra small size and weight, easy to carry, It has great advantages in scenarios where dual light is required. It can be mounted on a miniature unmanned aerial vehicle to realize visible light and infrared real-time video transmission and close observation, and the ability to work around the clock. It provides professional and reliable capability support for industrial application tasks such as patrol inspection, security and search & rescue.

Features

◆Ultra-small size, ultra-light weight
 Infrared, visible light and servo system are highly integrated, mini size and weight, suitable for small aircraft;
◆ Night observation is also perfect
 Professional and high-sensitivity infrared thermal imaging, nighttime targets can also be observed accurately;
◆ All-round target tracking, stable and reliable
 Excellent inertial stabilization platform technology, visible light and infrared dual-channel target tracking;
◆ Adapt to various harsh environment
 Alloy components, industrial-grade devices, and adapt to various harsh industrial application environments.

Application

— Miniature UAV, unmanned vehicles, unmanned boats and
  other unmanned observation equipment.
— Police law enforcement, Power inspection, Security inspection, Rescue &search, Fire fighting.

Technical Parameters

Thermal Infrared Imager	
Pixel Size	1 2 μm
Detector Pixels	384 × 288 / 640 × 512
Optical Focal Length	9.1 mm (±5%)
Optical F#	1 .0
Field of View	384 : 29.0 ° × 21.7 ° / 640 : 48.3 ° × 38.6 ° (±5%)
Video Frame Rate	2 5 Hz
Visible Light	
Number of Pixels	4K （3840*2160）
Pixel Size	1.12 μm
Lens Focal Length	3.5 mm (±5%)
Field of View	70.4 ° × 39.6 ° (±5%, 1080P)
Video Resolution	1920×1080
Photo Resolution	1920×1080, 3840*2160
PTZ	
Image Stabilization Accuracy	≤0.0 2 ° (disturbance 0.5 ° @ 1 Hz)
Azimuth Angle	- 90 ° ～+ 90 °
Pitch Angle	- 45 ° ～+ 45 °
Roll Angle	- 90 ° ～+ 3 0° (frame design - 120 ° ～+ 90 °)
System Parameters	
Dimensions	Pod: 52 mm (length) × 58mm (width) × 63.5 mm (height); Control board : 52mm × 52mm × 15mm Control box (built-in control board): 59mm × 56mm × 2 5.5 mm
Weight	Recommended Configuration: Pod+ Control board (built-in): 7 8 g + 25g ; Optional Configuration: Pod+ Control box (external): 70 g + 60 g.
Power and Consumption	DC 9 V ～DC 15 V@ 3 A; stable power consumption ≤ 1 2 W
Interface	
Control	UartTTL, UDP, SBUS
Video Output	LAN, HDMI
Storage	SD card
Operating Ambient	
Operating Temperature	- 20 ℃～+55℃ (-40℃～+55℃ Optional)
Rain Test	Able to work normally in light rain conditions

VC50F

2-axis Four-sensor Electro-Optical Pod

VC50F,small 2-axis four-sensor inertial stabilization pod, which integrates a 640× 512 high-resolution infrared camera,a 1080 P high-definition long and short focus two visible light cameras, a 1.5 Km laser rangefinder and a gyro stabilization platform ,seamless switching between day and night work, providing professional and reliable capability support for UAV to complete tasks such as area observation, target detection, tracking inspection, security and search & rescue. It can collect images from a long distance and locate points of interest.

Features

◆ Small size, lightweight
  Infrared, visible light and servo system are highly integrated, small in size and light in weight, suitable for small aircraft;
◆ Accurate target detection at night
  Professional and high-sensitivity infrared thermal imaging, nighttime targets can also be observed accurately;
◆ All-round target tracking, stable and reliable
  Excellent inertial stabilization platform technology, visible light and infrared dual-channel target tracking;
◆ Adapt to various harsh environment
  Alloy components, industrial-grade devices, and adapt to various harsh industrial application environments.

Application

— Miniature UAV, unmanned vehicles, unmanned boats and
  other unmanned observation equipment.
— Police law enforcement, Power inspection, Security inspection,
  Rescue & search, Fire fighting.

Technical Parameters

Thermal Infrared Imager	
Pixel Size	1 2 μm
Detector Pixels	640 × 512
Optical Focal Length	35 mm (±5%)
Optical F#	1 .1
Field of View	12.5 ° ×1 0.0 °

Visible Light	
Resolution	1920 *1 080
Pixel Size	2.9 μm
Lens Focal Length	8 mm/ 25 mm (±5%)
Field of View	3 9.8 ° ×2 2.4 ° / 12.7 ° ×7.1 ° (±5%)

PTZ	
Image Stabilization Accuracy	≤0.0 2 ° (disturbance 0.5 ° @ 1 Hz)
Azimuth Angle	- 90 ° ~+ 90 °
Pitch Angle	- 120 ° ~+ 90 °
Maximum Search Angular Velocity	Azimuth 60 ° /s, pitch 30 ° /s
Maximum Tracking Angular Velocity	Azimuth 40 ° /s, pitch 30 ° /s
Angular Position Accuracy	≤2mrad

Laser Ranging	
Wavelength	905nm
Maximum Range	≥1. 5 km
Ranging Accuracy	±1m

System Indicators	
Size	95mm × 95mm × 120mm
Weight	480g
Power and Consumption	DC 15 V ~ DC 28 V; stable power consumption ≤ 2 5 W

Interface	
Control Interface	TTL serial port
Video Interface	USB 2.0/ Network/HDMI
Storage	SD card

Operating Ambient	
Operating Temperature	- 20 ℃~+55℃
Shock	Not less than 40 g in the vertical direction, not less than 30g in the horizontal and vertical axis ;
Vibration	Not less than 2g (1 5 Hz~5 00 Hz~1 5 Hz)
Rain Test	Able to work normally in light rain conditions

VC100T

3-axis Positioning Electro-optical Pod

VC100T,3-axis three-sensor target positioning pod integrates a 10x optical zoom visible light camera, a 640×512 high-resolution infrared camera , a semiconductor laser range finder with a maximum range of 1.2 km, and a three-axis high-stable precision platform frame,can seamlessly switch between day and night work, providing professional and reliable capability support for industry-level drones to complete tasks such as patrol inspection, security and search&rescue . It can collect images from a long distance and locate points of interest.1080P full HD video can output visible light and infrared video in real time .

Features

◆ Able to detect targets freely from far to near
  Choose an excellent 10 times visible light camera, the image is stable and clear;

◆Accurate target detection at night, temperature detection perfectly
  Professional and high-sensitivity infrared thermal imaging, nighttime targets can
  also be observed accurately , and the temperature detection is intuitive and accurate;

◆Omni-directional target positioning, stable and reliable
  Excellent high-precision inertial stabilization platform technology, 360 ° continuous
  unobstructed, accurate ranging and positioning;

◆ Military-grade environmental adaptability
  Military-grade alloy components and industrial-grade devices are suitable for
  various harsh industrial application environments;

◆Small in size, light in weight, and powerful in function
  Precise optical-mechanical-electrical integration design, smaller, lighter, and
  more powerful in the same level of products;

◆Rich interfaces, strong compatibility, quick disassembly
  Products with quick disassembly function,communication support RS422,TTL, video
  support 422 synchronous interface, network port.

Application

— Police law enforcement, Power inspection, Security inspection,
   Rescue &search, Fire fighting.

Technical Parameters

Thermal Infrared Imager	
Detector Type	Uncooled focal plane
Detector Resolution	640×512
Lens Focal Length	25mm
Field of View	17.5 ° x 14 ° (± 5%)
Pseudo Color	6 types
Digital Zoom	1 ～ 4 X
Visible Light	
Resolution	1920×1080
Lens Focal Length	5.1mm ～ 51mm
Horizontal Field of View	54° ×31° ～4.9° ×4.0° (±5%)
Optical Zoom	10 X
Laser Rangefinder	
Wavelength	905nm
Maximum Range	≥1. 2 km
Ranging Accuracy	≤2m
Servo platform	
Azimuth Angle	360 ° ×n
Pitch Angle	-115° ～ + 90 ° (upward is positive)
Roll Angle	- 4 0° ～+ 4 0°
Image Stabilization Accuracy	≤0.1mrad （1σ）
Frame Angle Accuracy	≤ 0.3 ° （1σ）
System Parameters	
Supply Voltage	DC + 20V ～ + 36V
Power	Stable power consumption: ≤ 3 0 W
Weight	≤810g
Dimensions	131mm × 115mm × 200mm
Interface	
Quick Release Interface	yes
Control Interface	RS422/TTL/ Network
Video Interface	Synchronous 422 / Network
Storage Interface	TF card / 128G
Operating Ambient	
Operating Temperature	-20° C～ + 60 ° C (-40° C optional)
Storage Temperature	-40 ° C～+60 ° C
Rainproof	Can fly in light and moderate rain

VC130D

3-axis Double Sensor Electro-optical Pod

VC130D,3-axis dual-sensor pod integrates a 30x optical zoom 1080P full HD visible light camera, a 640×512 high-resolution infrared camera , and a 3-axis high-stable precision platform frame,seamlessly switching between day and night work,providing professional and reliable capability support for industry-level UAV to complete tasks such as patrol inspection,security,search & rescue,can collect images from a long distance.

Features

◆ Able to detect targets freely from far to near
  Choose an excellent 30 times visible light camera, the image is stable and clear;
◆ Accurate target detection at night, temperature detection perfectly
  Professional and high-sensitivity infrared thermal imaging, nighttime targets can also be observed accurately,and the temperature detection is intuitive and accurate;
◆ Omni-directional target tracking, stable and reliable
  Excellent high-precision inertial stabilization platform, 360 ° continuous unobstructed, visible light and infrared dual-channel target tracking;
◆ Military-grade environmental adaptability
  Military-grade alloy components and industrial-grade devices are suitable for various harsh industrial application environments;
◆ Small in size, light in weight, and powerful in function
  Precise optical-mechanical-electrical integration design, smaller, lighter, and more powerful in the same level of products;
◆ Rich interfaces, strong compatibility
  Communication supports RS422, RS232, PWM, S.BUS, video supports HDMI, SDI, synchronous 422, network .

Application

— Police law enforcement, Power inspection, Security inspection, Rescue & search, Fire fighting.

Technical Parameters

Thermal Infrared Imager	
Detector Type	Uncooled focal plane
Detector Resolution	640×512
Lens Focal Length	35mm
Field of View	12°×10° (±5%)/17.7°×14.2° (temperature measurement version)
Pseudo Color	6 types
Digital Zoom	1 to 4 times infinite magnification/ ×2, ×4 (temperature measurement version)
Temperature Range	-20 ℃~150 ℃ or -20 ℃~550 ℃ (temperature measurement version)
Temperature Measurement Accuracy	± 2K or 2% (temperature measurement version)
Image Storage	Full temperature data (temperature measurement version)
Video Storage	Full temperature data (temperature measurement version)
Visible Light	
Resolution	1920×1080
Lens Focal Length	4.3mm～129mm
Horizontal Field of View	63.7°～2.3°
Zoom	Optical zoom: 30X; hybrid zoom 60X
Servo Platform	
Azimuth Angle	360°×n
Pitch Angle	-115°～+90° (upward is positive)
Roll Angle	-40°～+40°
Image Stabilization Accuracy	≤0.1mrad (1σ)
Frame Angle Accuracy	≤0.3° (1σ)
System Parameters	
Image Tracking	Track selected targets automatically
Supply Voltage	DC + 20 V～+32 V
Power	Stable power consumption: ≤30 W
Weight	≤1Kg (1.2 Kg for temperature measurement version)
Dimensions	≤131mm × 157mm × 211mm
Interface	
Control Interface	RS422/RS232/PWM/S.BUS
Video Interface	HDMI/SDI/Synchronous 422/Network
Storage Interface	TF card 32G (maximum support 128G) Temperature measurement version dual card: 1 channel video, 1 channel temperature data
Operating Ambient	
Operating Temperature	-20°C～+55°C (-40°C optional)
Storage Temperature	-40℃～+60℃
Degree of Protection	Flyable in light rain

VC130T

3-axis Three-sensor Target Location Electro-optical Pod

VC130T,3-axis three-sensor target positioning pod integrates a 30x optical zoom visible light camera, a 640×512 high-resolution infrared camera , a semiconductor laser range finder with a maximum range of 1.2 km , and a three-axis platform frame with high stable accuracy,seamless switching between day and night work, providing professional and reliable capability support for industry-level UAV to complete tasks such as patrol inspection, security, and search & rescue.It can collect images from a long distance and locate points of interest.1080P full HD video can output visible light and infrared video in real time.

Features

◆ Able to detect targets freely from far to near

Choose an excellent 30 times visible light camera, the image is stable and clear; ◆ Accurate target detection at night, temperature detection perfectly

Professional and high-sensitivity infrared thermal imaging, nighttime targets can also be observed accurately,and the temperature detection is intuitive and accurate;

◆ Omni-directional target tracking, stable and reliable

Excellent high-precision inertial stabilization platform, 360 ° continuous unobstructed, visible light and infrared dual-channel target tracking;

◆ Military-grade environmental adaptability　Military-grade alloy components and industrial-grade devices are suitable for

various harsh industrial application environments;

◆ Small in size, light in weight, and powerful in function

Precise optical-mechanical-electrical integration design, smaller, lighter, and more powerful in the same level of products;

◆ Rich interfaces, strong compatibility

Communication supports RS422, RS232, S.BUS, video supports HDMI, SDI, synchronous 422, Network.

Application

— Police law enforcement, Power inspection, Security inspection, Rescue & search, Fire fighting.

Technical Parameters

Thermal Infrared Imager	
Detector Type	Uncooled focal plane
Detector Resolution	640× 512
Lens Focal Length	35mm
Field of View	1 2°×1 0° (±5%) / 1 7 . 7°×1 4.2° (temperature measurement version)
Pseudo Color	6 types
Digital Zoom	1 to 4 X infinite magnification/ ×2, ×4 (temperature measurement version)
Temperature Range	-20 ℃～150 ℃ or -20 ℃～550 ℃ (temperature measurement version)
Temperature Measurement Accuracy	±2K or 2% (temperature measurement version)
Image Storage	Full temperature data (temperature measurement version)
Video Storage	Full temperature data (temperature measurement version)
Visible Light	
Resolution	1920×1080
Lens Focal Length	4.3mm～129mm
Horizontal Field of View	63.7°～2.3°
Zoom	Optical zoom: 30X; hybrid zoom 60X
Laser Rangefinder	
Wavelength	905nm
Maximum Range	≥1. 2 km
Ranging Accuracy	≤2m
Servo Platform	
Azimuth Angle	360 °×n
Pitch Angle	- 115 °～+90° (upward is positive)
Roll Angle	- 40 °～+4 0°
Image Stabilization Accuracy	≤0.1mrad （1σ）
Frame Angle Accuracy	≤0.3 ° （1σ）
System Parameters	
Supply Voltage	+20 V～+3 2 V
Power	Stable power consumption: ≤30 W
Weight	≤1. 2 Kg
Dimensions	≤131mm × 155mm × 211mm
Positioning Accuracy	≤30m (300m)
Interface	
Control Interface	RS422/RS232/S.BUS
Video Interface	HDMI/SDI/synchronous 422/Network
Storage Interface	TF card 32G (maximum support 128G) Temperature measurement version dual card: 1 channel video, 1 channel temperature data
Operating Ambient	
Operating Temperature	-20° C～＋50 ° C (-40° C optional)
Storage Temperature	-40℃～＋60℃
Degree of Protection	Can fly in light and moderate rain

VC140D

2-axis Double Sensor Electro-optical Pod

VC140D, 2-axis dual-sensor pod integrates a 30x optical zoom visible light camera, a 640×512 high-resolution dual-field infrared camera,and a high-precision gyro stabilization platform, seamlessly switching between day and night work .It provides professional and reliable capability support for industry application tasks such as patrol inspection, security and search & rescue.

Features

◆ Able to detect targets freely from far to near
Choose an excellent 30 times visible light camera, the image is stable and clear;

◆ Accurate target detection at night
Professional and high-sensitivity infrared thermal imaging, nighttime targets can also be observed accurately;

◆ Omni-directional target tracking, stable and reliable
Excellent high-precision inertial stabilization platform, 360 ° continuous unobstructed, visible light and infrared dual-channel target tracking;

◆ Military-grade environmental adaptability
Military-grade alloy components and industrial-grade devices are suitable for various harsh industrial application environments;

◆ Small in size, light in weight, and powerful in function
Precise optical-mechanical-electrical integration design, smaller, lighter, and more powerful in the same level of products;

Application

— UAV, helicopter, vehicle, ship and other platforms.
— Police law enforcement, Power inspection, Security inspection, Rescue & search, Fire fighting.

Technical Parameters

Thermal Infrared Imager	
Detector Type	Uncooled focal plane
Detector Resolution	640×512
Pixel Size	12μm
Working Waveband	8μm～14μm
Lens Focal Length	50mm fixed-focus
Field of View	8.5°×7° (error≤5%)
Visible Light	
Resolution	1920×1080
Focal Length	4.3～129mm
Field of View	63.7°～2.3°
Optical Zoom	30X
Zoom Mode	Auto focus
Servo Platform	
Azimuth Angle	360°×n
Pitch Angle	-120°～+90° (horizontal is 0°, downward is negative, upward is positive)
Image Stabilization Accuracy	≤0.1mrad(1σ)
Maximum Angular Velocity	Azimuth≥60°/s Pitch≥60°/s
Maximum Angular Acceleration	Azimuth≥100°/s² Pitch≥100°/s²
System Parameters	
Track	Track selected targets automatically
Supply Voltage	28VDC±3V
Power	Stable power consumption: ≤20W
Weight	≤2.0 kg
Dimensions (mm)	≤153mm×141mm×232mm
Interface	
Control Interface	RS422/RS232
Video Output Interface	HDMI/SDI/Network
Installation Interface	For details, see: Mechanical interface
Operating Ambient	
Operating Temperature	-20°C～+55°C (-40°C optional)
Storage Temperature	-40℃～+60℃
Degree of Protection	Light rain-proof

VC140T

2-axis Three Sensor Electro-optical Pod

VC140T,two-axis three-sensor target positioning pod integrates a 30x optical zoom visible light camera, a 640×512 high-resolution infrared camera , a semiconductor laser rangefinder with a maximum range of 3 km, and a high-precision gyro stabilization platform. It seamlessly switching between day and night work, providing professional and reliable capability support for industrial application tasks such as patrol inspection, security and search & rescue . It can collect images from a long distance and locate points of interest ,1080P full HD video can output visible light and infrared video in real time .

Features

◆ Able to detect targets freely from far to near
 Choose an excellent 30 times visible light camera, the image is stable and clear;
◆ Accurate target detection at night
 Professional and high-sensitivity infrared thermal imaging, nighttime targets can also be observed accurately;
◆ Omni-directional target tracking, stable and reliable
 Excellent high-precision inertial stabilization platform, 360 ° continuous unobstructed, visible light and infrared dual-channel target tracking;
◆ Military-grade environmental adaptability
 Military-grade alloy components and industrial-grade devices are suitable for various harsh industrial application environments;
◆ Small in size, light in weight, and powerful in function
 Precise optical-mechanical-electrical integration design, smaller, lighter, and more powerful in the same level of products;

Application

— Police law enforcement, Power inspection, Security inspection,
— Police law enforcement, Power inspection, Security inspection,
   Rescue & search, Fire fighting.

Technical Parameters

Thermal Infrared Imager	
Detector Type	Uncooled focal plane
Detector Resolution	640×512
Pixel Size	12 μm
Working Waveband	8μm ～ 14μm
Lens Focal Length	35mm fixed focus
Field of View	12°×10° (error ≤5%)
Zoom Mode	1~4 zoom
Visible Light	
Resolution	1920×1080
Focal Length	4.3～129mm
Field of View	63.2°～2.3°
Optical Zoom	30 X
Zoom Mode	Auto focus
Laser Rangefinder	
Waveband	1540nm
Range	3Km (visibility ≥ 15Km)
Minimum Range	≤20m
Ranging Accuracy	≤ 1m
Ranging Frequency	1～ 10Hz adjustable
Servo Platform	
Azimuth Angle	360°×n
Pitch Angle	-120°～+90°
Stable Accuracy	≤0. 05 mrad (1σ)
Maximum Angular Velocity	Azimuth≥60°/s Pitch≥60°/s
Maximum Angular Acceleration	Azimuth ≥ 50 °/s² Pitch ≥ 50 °/s²
Angular Position Accuracy	≤0.2 ° (1σ)
System Parameters	
Track	Optional
Supply Voltage	2 0～3 2 VDC
Power	Stable power consumption: ≤ 30 W
Weight	≤ 2.2kg
Dimensions	Pod: ≤155mm×140mm× 232 mm Tracking box: ≤ 108 mm×110mm×37mm
Interface	
Control Interface	RS422/Network
Video Output Interface	HDMI/ SDI/ Network
Operating Ambient	
Operating Temperature	-20° C～+ 55 ° C (-40° C optional)
Storage Temperature	- 40℃～+ 60 ℃
Degree of Protection	Light rain-proof

VC190T

2-axis Three-sensor Target Positioning Electro-optical Pod

VC190T,2-axis three-sensor target positioning pod integrates a 30x optical zoom visible light camera, a 640×512 high-resolution dual-field infrared camera,a laser range finder with a maximum range of 6 km, and a high-precision gyro stabilization platform,seamless switching between day and night work, providing professional and reliable capability support for industrial application tasks such as patrol inspection, security and search & rescue .

Features

◆ Able to detect targets freely from far to near

Choose an excellent 30 times visible light camera, the image is stable and clear; ◆ Continuous zoom infrared thermal imaging

Professional high-sensitivity infrared thermal imaging, continuous zooming takes into account wide-area search and long-distance observation;

◆ Omni-directional target tracking, stable and reliable

Excellent high-precision inertial stabilization platform, 360 ° continuous unobstructed, visible light and infrared dual-channel target tracking;

◆ Military-grade environmental adaptability   Military-grade alloy components and industrial-grade devices are suitable for

various harsh industrial application environments;

◆ Highly integrated, powerful function

Precise optical-mechanical-electrical integration design, smaller, lighter and more powerful in the same level of products

Application

— UAV, vehicles, ships and other platforms.

— Police law enforcement, Power inspection, Security inspection,
    Rescue & search, Fire fighting

Technical Parameters

Thermal Infrared Imager	
Detector Type	Uncooled focal plane
Detector Resolution	640×512
Pixel Size	12 μm
Working Waveband	8μm ～ 14μm
Lens Focal Length	25mm～75mm continuous zoom (F#1.2)
Field of View	17.5°×14° /5.5°×4.5° (error ≤5%)
Visible Light	
Resolution	1920×1080
Focal Length	4.3～129mm
Field of View	63.2°～2.3°
Optical Zoom	30X
Zoom Mode	Auto focus
Laser Rangefinder	
Waveband	1540nm
Operation Range	≥ 6Km (visibility≥15Km)
Minimum Range	100m
Ranging Accuracy	≤ 2m
Ranging Frequency	≥ 5Hz
Servo Platform	
Azimuth angle	360°×n
Pitch angle	-120°～ +90°
Image Stabilization Accuracy	≤ 0.05mrad
Maximum angular velocity	Azimuth ≥60°/s Pitch ≥60°/s
Maximum angular acceleration	Azimuth ≥ 100°/s² Pitch ≥100°/s²
Angular position accuracy	≤ 0.3mrad (1σ)
System Parameters	
Supply Voltage	28VDC±3V
Power	Stable power consumption: ≤ 30W
Weight	≤ 5.5 kg
Dimensions	≤ 221mm×234mm×292mm
Interface	
Control Interface	RS422/RS232
Video Output Interface	SDI/Network
Operating Ambient	
Operating Temperature	-20°C～+ 55 °C (- 40°C optional)
Storage Temperature	- 40°C～+ 60 °C
Degree of Protection	Light rain-proof

VC220T

2-axis Three-sensor Electro-optical Pod

The VC220T electro-optical pod consists of an uncooled dual-field infrared thermal imager, a 30x continuous zoom visible light camera, a laser range finder, a two-axis servo stabilized platform, and an image tracker. It has the characteristics of light weight, high stability and precision, and high integration. It can be applied to medium and large UAVs to complete tasks such as day and night reconnaissance, surveillance, and target positioning of target areas.

The electro-optical pod uses an uncooled dual-field infrared thermal imager and a visible light camera to detect, identify and track ground targets around the clock, and outputs infrared and visible light videos in real time for mission personnel to view.

Features:

- With self-inspection and fault reporting function;
- Capable of detecting infrared and visible light bands, and can output infrared images and visible light images;
- Visible light has optical zoom, auto focus, manual focus and low illumination functions;
- Infrared has dual field of view, electronic zoom and palette switching functions;
- With laser ranging function;
- Possess the ability to move in two degrees of freedom in azimuth and pitch;
- It has multiple working modes such as automatic search/manual search/follow-up/tracking;
- In the manual search mode, it has the function of receiving commands from the control station and completing the pod operation;
- It has the ability to isolate carrier disturbance and stabilize the line of sight;
- It has the function of locking/unlocking the target, and the output image of the pod after locking the target is an image with a tracking frame;
- It has the function of automatic target tracking, can automatically track the target, and has the ability to resist natural interference;
- With memory tracking function, after the target is lost for a short time, it can be captured again in a short time;
- Possess the function of adjusting the size of the wave gate;
- With tracking point switching function;
- According to the laser ranging, the azimuth and pitch angle of the pod and the attitude information of the UAV, the target coordinates can be solved;
- It can communicate with the control station two-way through 100M network/RS422, and output infrared images, visible light images, system working status, camera working status, optical axis position and other information;
- Equipped with HD-SDI/100M network multi-channel video output interface;
- With photo and video function;

Application:

Adaptive platform: UAV/vehicle-mounted/shipborne

Police law enforcement/electricity patrol/security patrol/rescue and search/fire fighting

Technical Parameters

Thermal Infrared Imager	
Detector Type	Uncooled focal plane
Detector Resolution	640×512
Pixel Size	12μm
Working Waveband	8μm ~ 14μm
Focal Length	25mm/88mm dual FOV
FOV	17.5°×14° ~ 5°×4°(error ≤5%)
False Color	8 types
Digital Zoom	1 ~ 4X

Visible Light	
Resolution	1920×1080
Response Band	0.4μm ~ 0.9μm
Pixel Size	2.8μm
Optical Zoom	30 times
Hybrid Zoom	60 times
Focal Length	4.3mm ~ 129mm
Field of View	63.7°×35.8° ~ 2.3°×1.3°(±5%)
Zoom Mode	Auto focus, manual focus

Laser Rangefinder	
Wavelength	1535nm
Maximum Ranging Distance	≥6km (under the condition of visibility ≥15Km)
Minimum Ranging Distance	≤20m
Ranging Accuracy	≤2m
Ranging Frequency	1 ~ 10Hz adjustable

Servo Platform	
Azimuth Angle	360°×n (360° continuous rotation)
Pitch Angle	-120° ~ +90° (upward is positive)
Frame Angle Accuracy	≤0.06° (1σ)
Stable Aaccuracy	≤0.05mrad (1σ)
Angular Position Accuracy	≤1mrad (1σ)
Maximum Turning Speed	Azimuth≥60°/s, pitch≥60°/s
Maximum Turning Acceleration	Azimuth≥100°/s², pitch≥100°/s²

System Indicators	
Image Tracking	Automatic tracking of selected targets (optional)
Supply Voltage	19V ~ 36VDC
Power	Stable power consumption: ≤30W
Weight	≤6.2Kg
Volume	≤221mm×234mm×292mm

Interface	
Control Interface	RS422/100M network
Video Interface	HD-SDI/100M Ethernet
Storage Interface	≤128G memory card (Mini SD card)
Image Format	jpg format
Video Format	avi format

Environmental Adaptability	
Operating Temperature	-20℃ ~ +60℃ (-40℃ optional)
Storage Temperature	-45℃ ~ + 65℃
Vibration Condition	The acceleration is 2g; 30min each in the vertical, horizontal and longitudinal directions.
Shock Condition	Peak acceleration 20g, duration 11ms
Degree of Protection	Can fly in light and moderate rain

VC230T

2-axis Three-sensor Target Positioning Electro-optical Pod

VC230T,2-axis three-sensor target positioning pod integrates a 30x optical zoom visible light camera, a 640×512 high-resolution dual-field infrared camera,a laser range finder with a maximum range of 8 km, and a high-precision gyro stabilization platform,seamless switching between day and night work, providing professional and reliable capability support for industrial application tasks such as patrol inspection, security and search & rescue .

Features

◆ Able to detect targets freely from far to near

Choose an excellent 30 times visible light camera, the image is stable and clear;

◆ Wide-angle and telephoto dual-field infrared thermal imaging

Professional high-sensitivity dual-field infrared thermal imaging, taking into account wide-area search and long-distance observation;

◆ Omni-directional target tracking, stable and reliable

Excellent high-precision inertial stabilization platform, 360 ° continuous unobstructed, visible light and infrared dual-channel target tracking;

◆ Military-grade environmental adaptability

Military-grade alloy components and industrial-grade devices are suitable for various harsh industrial application environments;

◆ Highly integrated, powerful function

Precise optical-mechanical-electrical integration design, smaller, lighter and more powerful in the same level of products.

Application

— UAV, helicopter, vehicle, ship and other platforms.

— Police law enforcement, Security inspections, Rescue&search, Fire fighting

Technical Parameters

Thermal Infrared Imager	
Detector Type	Uncooled focal plane
Detector Resolution	640×512
Pixel Size	12 μm
Working Waveband	8μm ～ 14μm
NETD	≤50mK
Lens Focal Length	2 5 mm/ 100 mm dual field of view
Field of View	17°×14°/5.1°×4.1° (error ≤5%)
Visible Light	
Resolution	1920×1080
Focal Length	4.3～129mm
Field of View	63.7°～2.3°
Optical Zoom	30X
Zoom Mode	Auto focus
Laser Rangefinder	
Working Waveband	1540nm
Maximum Range	≥8.0Km (visibility ≥15Km)
Ranging Accuracy	±2m
Repeat Frequency	≤5Hz
Servo Platform	
Azimuth Angle	360°×n
Pitch Angle	-155°～+65°
Image Stabilization Accuracy	≤0. 05 mrad
Maximum Angular Velocity	Azimuth ≥ 60°/s ,Pitch≥60°/s
Maximum Angular Acceleration	Azimuth ≥ 100°/s², Pitch≥100°/s²
Angle Measurement Accuracy	≤ 0.3mrad (1σ)
System Parameters	
Track	Track selected targets automatically
Supply Voltage	28VDC±3V
Power	Stable power consumption: ≤30W
Weight	≤8.5 kg
Dimensions	≤230mm×226mm×315mm
Interface	
Control Interface	RS422/RS232
Video Output Interface	SDI/Network
Storage	1 channel 32G TF card (maximum support 128G)
Operating Ambient	
Operating Temperature	-20°C～＋55 °C (- 40°C optional)
Storage Temperature	-40℃～＋60 ℃
Degree of Protection	Light rain-proof

VC260T

2-axis Three-sensor Target Positioning Electro-optical Pod

VC260T, 2-axis three-sensor target positioning pod integrates a 30x optical zoom visible light camera, a 640×512 high-resolution dual-field infrared camera, a laser rangefinder with a maximum range of 5 km, high-precision inertial navigation and high-precision gyro stabilization platform,high-precision pod can locate the tracking target accurately, seamlessly switch between day and night work , providing professional and reliable capability support for industrial application tasks such as patrol inspection, security and search & rescue.

Features

◆ Able to detect targets freely from far to near
  Choose an excellent 30 times visible light camera, the image is stable and clear;
◆ Wide-angle and telephoto dual-field infrared thermal imaging
  Professional high-sensitivity dual-field infrared thermal imaging, taking into account wide-area search and long-distance observation;
◆ Omni-directional target tracking, stable and reliable
  Excellent high-precision inertial stabilization platform, 360 ° continuous unobstructed, visible light and infrared dual-channel target tracking;
◆ Military-grade environmental adaptability
  Military-grade alloy components and industrial-grade devices are suitable for various harsh industrial application environments;
◆ Highly integrated, powerful function
  Precise optical-mechanical-electrical integration design, smaller, lighter and more powerful in the same level of products.

Application

— UAV, helicopter, vehicle, ship and other platforms.
— Police law enforcement, Security inspections, Rescue&search, Fire fighting

Technical Parameters

Thermal Infrared Imager	
Detector Type	Uncooled focal plane
Detector Resolution	640×512
Pixel Size	12 μm
Working Waveband	8μm～14μm
NETD	≤50mK
Lens Focal Length	2 5 mm/ 100 mm dual field of view
Field of View	17°×14° /5.1°×4.1° (error ≤5%)

Visible Light	
Resolution	1920×1080
Focal Length	4.3～129mm
Field of View	63.7°～2.3°
Optical Zoom	30X
Zoom Mode	Auto focus

Laser Rangefinder	
Working Waveband	1.55um
Maximum Range	≥ 5Km
Ranging Accuracy	≤ 100m
Repeat Frequency	≤ 5Hz

Servo Platform	
Azimuth Angle	360°×n
Pitch Angle	-85°～+180° (vertically downward is 0°)
Image Stabilization Accuracy	≤0.1mrad (1σ)
Maximum Angular Velocity	Azimuth ≥60°/s Pitch ≥60°/s
Maximum Angular Acceleration	Azimuth ≥100°/s² Pitch ≥100°/s²
Angular Position Accuracy	≤ 1 mrad (1σ)

Integrated Navigation Device Indicators (optional)	
Navigation Mode	GPS/Beidou dual mode
Horizontal Position Accuracy	≤ 3m
Height Position Accuracy	≤ 8m
Horizontal Attitude Accuracy	≤ 0.15°
Course Attitude Accuracy	≤ 0.2°

System Parameters	
Track	Track selected targets automatically
Supply Voltage	28VDC±3V
Power	Stable power consumption: ≤ 100W Peak power consumption: ≤ 250W
Weight	≤ 18.5 kg (excluding inertial navigation)
Dimensions	261mm×261mm×431mm

Interface	
Control Interface	RS422
Video Output Interface	SDI/Network

Operating Ambient	
Operating Temperature	-20°C～+ 55 °C (-40°C optional)
Storage Temperature	-40℃～+ 60 ℃
Degree of Protection	Light rain-proof

VC280T

2-axis Three-sensor Target Positioning Electro-optical Pod

VC280T, 2-axis three-sensor target positioning pod integrates a 30x optical zoom visible light camera, a 640×512 high-resolution continuous zoom cooling infrared thermal imaging camera , a maximum range of 5km and a high-precision laser rangefinder, and a high-precision gyro stabilization platform can locate the tracking target accurately, seamlessly switch between day and night work , and quickly search large areas, providing professional and reliable capability support for industrial application tasks such as patrol inspection, security and search & rescue

Features

◆ Able to detect targets freely from far to near
  Choose an excellent 30 times visible light camera, the image is stable and clear;
◆ Continuous zoom cooling type infrared thermal imaging
  Professional high-sensitivity cooling type continuous zoom infrared thermal imaging, taking into account wide-area search and ultra-long-distance observation;
◆ Omni-directional target tracking and positioning, stable and reliable
  Excellent high-precision inertial stabilization platform technology, 360 ° continuous unobstructed, visible light and infrared dual-channel target tracking, accurate ranging and positioning;
◆ Military-grade environmental adaptability
  Military-grade alloy components and industrial-grade devices are suitable for various harsh industrial application environments;
◆ Highly integrated, powerful function
  Precise optical-mechanical-electrical integration design, smaller, lighter and more powerful in the same level of products

Application

— Various platforms such as large drones, helicopters, vehicles, and ships.
— Police law enforcement, Security inspections, Rescue &search, Fire fighting.

Technical Parameters

Thermal Infrared Imager	
Detector Type	Cooled focal plane
Detector Resolution	640×512
Pixel Size	15μm
Waveband	3～5μm
Lens	30mm～300mm continuous zoom
Frame Rate	≥50Hz
Field of View	18.3°×14.6°～1.83°×1.46° (5% error)
Visible Light	
Resolution	1920×1080
Focal Length	4.3～129mm
Horizontal Field of View	63.7°～2.3°
Optical Zoom	30X
Zoom Mode	Auto focus
Laser Rangefinder	
Wavelength	1540nm
Maximum Range	≥8.0Km (visibility ≥15Km)
Ranging Accuracy	±2m
Repetition Rate	≤5Hz
Servo Platform	
Azimuth Angle	360°×n
Pitch Angle	-80°～+50°
Maximum Angular Velocity	Azimuth≥60°/s Pitch≥60°/s
Maximum Angular Acceleration	Azimuth≥100°/s² Pitch≥100°/s²
Image Stabilization Accuracy	≤0.05 mrad (1σ)
Angle Measurement Accuracy	≤0.3 mrad (1σ)
System Indicators	
Supply Voltage	+28VDC±4V
Power Consumption	Stable power consumption: ≤100W Peak power consumption: ≤300W
Weight	≤25 kg
Dimensions	281mm×281mm×401mm
Control Interface	RS422
Video Interface	2-channel SDI, Network
Operating Ambient	
Operating Temperature	-40℃～+60℃
Storage Temperature	-45℃～+65℃

VC130S

3-axis Single Visible Light(30x) Electro-Optical Pod

VC130S is 3-axis single light pod，Integrated with a 30X optical zoom visible camera and a platform frame with high stable accuracy, can excellently complete inspection, security , search and rescue and other industrial application tasks, remote image acquisition, 1080P full HD video can be real-time output visible video.

Product Features

➢ Rich OSD information, real-time display of the running status, more secure, reliable, and convenient operation；

➢ 30 X optical multiplication, remote image acquisition, more secure;

➢ 1080p image compression storage, with 32G capacity memory card, so that the image collection ability is stronger；

➢ Using military grade alloy materials, with high integration structure design, more reliable industrial grade chip, can also stable operation in the harsh environment, environmental adaptability is stronger；

➢ Compared with large cameras of the same level, it is small in size, light in weight, rich in functions, easy to carry, high in safety, and the difficulty of operation is greatly reduced；

➢ High precision IMU design ensures image stability as well as higher working reliability to ensure reliable image acquisition at critical moments；

➢ It provides three modes: lock nose direction, weak follow nose direction and lens vertical down. Three modes can be switched at will, using more easily;

➢ Built-in tracking function

Fields of Application

public security / fire / petrochemical / forest fire prevention and other projects.

Technical parameter

Visible Light Camera	
Resolution	1920*1080
Focal Length	4.3mm-129mm
Horizontal Field	63.7° ~ 2.3°
Optical Zoom	30 times
Penetrate Fog Function	yes
Image Storage	The photo format is.jpg
Video Storage	Video Compression Format.avi
Servo Platform	
Orientation Angle	360°×n
Pitch Angle	-120° ~ +90°
Roll Angle	-60° ~ +60°
System Parameter	
Power on prepare time	≤30s
Power Supply	+20VDC ~ +36V
Power	to be confirmed
Weight	≤1KG
Volume	≤131mm×155mm×208mm
Interface	
Control Interface	RS422/RS232/S.BUS/TCP/TTL
Video Output Interface	HDMI/SDI/network
Memory Interface	Mini SD卡/32G
Environmental Suitability	
Working Temperature	-20℃ ~ ＋50℃（-40℃ optional）
Storage Temperature	-40℃ ~ ＋60℃
Protection Grade	Can fly in small, moderate rain

VC10N

3-axis 10X Singal Sensor Pod

VC10N is an excellent 3-axis zoom gimbal developed for model aircraft enthusiasts. The gimbal camera is equipped with a 10x optical zoom lens, adopts 1/3 CMOS sensor, has 4 million effective pixels and supports 9x digital zoom. The gimbal adopts high-precision encoder FOC control scheme, which has the characteristics of high stability, small size, light weight and low power consumption. Network IP output mode. Integrated gimbal special servo drive module, can be widely used in leisure, entertainment, professional aerial photography and other aircraft model sports.

Features

■ 10 times visible light optical zoom, 9 x digital zoom, TF card recording& take pictures ;

■ Network IP output, 2 k RTSP streaming video storage;

■ Three-axis stabilization pod PTZ, network IP, SBUS, serial ports command control, extensible PWM control;

■ Ground station software display and control integration;

Application

Adaptation platform: small UAV/unmanned vehicle/unmanned boat

Police law enforcement/electricity patrol/security patrol/rescue and search/fire fighting

Technical Parameters

Operating Features	
Roll Angle	-65° ~ +65°
Pitch Angle	-65° ~ +135°
Yaw Angle	600 degree rotating
Angle jitter in pitch and roll direction	±0.02°
Camera Parameters	
CMOS Size	1/3 inch, 4 million pixels CMOS sensor
Optical Zoom	10X optical zoom lens , f=4.9 to 49mm
Digital Zoom	9X digital zoom
Focus Time	Real time quick focus function , focus time ＜1s
Field of View	D : WIDE 66. 6° ±5% TELE 7. 2° ±5% H : WIDE 54° ±5% TELE 4. 9° ±5% V : WIDE 31° ±5%TELE4° ±5%
Support Mode	2K video storage network IP RTSP stream
Power Supply	
Voltage	3S ~ 6S
Power	Dynamic 4.2W
Physical Characteristics	
Dimensions	78.5mm×111.4mm×121mm
Weight	375±10g
Interface	
Control Interface	S.BUS / TCP/TTL serial port/PWM
Video Output Interface	network
Environment Condition	
Working Temperature	-10℃ ~ ＋45℃/ 20% to 80% RH
Storage Temperature	-20℃ ~ ＋60℃/ 20% to 95% RH

VC10S4K

3-axis 10X Singal Sensor Pod

VC10S4K is an integrated 10X optical zoom, 4K network output, high-precision professional 3-axis stabilization gimbal system, the gimble adopts high-precision encoder FOC control scheme, with the characteristics of high stability, small size, light weight, low power consumption, COMS SENSOR effective pixel 8 million, the system supports: 4K and 1080P local TF video recording and photographing, ground station software control and real-time video display, optical zoom, integrated optical zoom, video recording and photographing, stabilization gimbal and control. It can be widely used in public security emergency, fire fighting, power patrol, military reconnaissance, field search and other fields.

Features

- 10x visible light optical zoom, TF Card 4K video recording, photographing

- Network IP output, 4K 30fps RTSP stream.

- Three-axis stabilized pod PTZ, network IP, SBUS and serial port command control

- Integration of ground station software display and control

Application

Adaptation platform: small UAV/unmanned vehicle/unmanned boat

Police law enforcement/electricity patrol/security patrol/rescue and search/fire fighting

Technical Parameters

Operating Features	
Roll Angle	-45~+45°
Pitch Angle	-100~+45°
Yaw Angle	-240°~+240°
Angle jitter in pitch and roll direction	±0.02°
Camera Parameters	
CMOS Size	1/3 inch 800MP CMOS SENSOR
Optical Zoom	Optical zoom lens, f=4.9 to 49mm
Focus Time	Real time fast focusing function, focusing time<1S
Field of View	D : WIDE 66. 6° ±5% TELE 7. 2° ±5% H : WIDE 54° ±5% TELE 4. 9° ±5% V : WIDE 31° ±5%TELE4° ±5%
Support Mode	4K 30fps network IP RTSP code stream 4K TF video recording
Power Supply	
Voltage	3S（DC12V）or 6S;
Power	Dynamic 4.2W
Physical Characteristics	
Dimensions	77mm×105mm×147mm
Weight	406±10g
Interface	
Control Interface	S.BUS / TCP/TTL serial port
Video Output Interface	network
Environment Condition	
Working Temperature	-10℃ ~ ＋45℃/ 20% to 80% RH
Storage Temperature	-20℃ ~ ＋60℃/ 20% to 95% RH

VC360pro

3-axis 10X Dual Light Micro Gimbal Camera

Features

- Extreme light and small, weight ≤410g

- Support course full Angle range (360°) rotation

- Visible light 10x optical zoom

- Quick disassembly structure for easy installation

- With tracking and identification function

- AI multi-target recognition

Application

Adaptation platform: small UAV/unmanned vehicle/unmanned boat

Police law enforcement/electricity patrol/security patrol/rescue and search/fire fighting

Technical Parameters

System Description	
System Type	Gyrostabilization
Weight	≤410g
System Feature	
Platform Type	Triaxial
Course	n×360° infinite place
Roll Angle	-50° ~ +50°
Pitch Angle	-110° ~ +110°
Maximum Angular Velocity	≥100°/s
Max Angular Acceleration	≥90°/s²
Angular Position Accuracy	≤0.3°
Visible Light Imaging	
Resolution	1920×1080 @60fps /2.9um
FOV	61.3°X36.9°~6.8°X3.9°(4.7mm~47mm)
Infrared Thermal Imaging	
Resolution	640×512@60fps /12um
FOV(Focal Length)	18°×13°(24mm)
Tracking Module	
Tracking Velocity	±48 Pixel/frame
Frame Rate	60Hz
External System Interface	
Control Interface	RS232/network TCP
Video Output	Network
Power	
Power Interface	14~28V
Power Consumption	Av≤15W, Max≤20W
Environment Conditions	
Working Temperature	-20℃ ~ +50℃
Storage Temperature	-40℃ ~ +60℃

VC10Tpro

3-axis 10X Quick Disassembly Visible Light Micro Electro-optical Pod

Features

■ Quick disassembly structure design, easy to quicky replace payload by one hand

■ Extreme light and small, weight ≤ 380 g

■ Supports course rotation in full angle range (360°)

■ Visible light 10X optical zoom

■ With tracking recognition function

■ AI multi-target recognition

Application

Adaptation platform: small UAV/unmanned vehicle/unmanned boat

Police law enforcement/electricity patrol/security patrol/rescue and search/fire fighting

Technical Parameters

System Features	
Platform Type	Triaxial
Course	nx360° infinite
Pitch	-90° ~ +90°
Roll	-50° ~ +50°
Max Angular Velocity	≥100°/s
Max Angular Acceleration	≥90°/s²
Angular position accuracy	≤ 0.1°
System Description	
System type	Gyrostabilization
Weight	≤ 380g
Visible Light Imaging	
Resolution	1920X 1080 @60fps
FOV	61.3 ° X36.9 ° ~6.8 ° X3.9 ° (4.7mm~47mm)
Tracking Module	
Tracking Velocity	± 48 Pixel/frame
Frame Rate	60Hz
System External Interface	
Control Interface	RS232/Network TCP
Video Output	Network
Power supply	
Power Interface	11 ~ 16V
Consumption	Av ≤10W, Max ≤16W
Environmental Conditions	
Working Temperature	-20℃ ~ + 60℃
Storage Temperature	-40℃ ~ + 60℃

VC-mini4K

3-axis Ultra HD Mini Visible Light Gimbal Camera

VC-mini4K is a 3-axis , lightweight and elegant gimbal camera, carrying a 4K 1/1.7-inch Sony starlight night vision sensor, powerful AI identify, smart tracking feature based on neural network professing unit, and supports max 6X digital zoom,and it supports CVBS (AV) output for analog FPV. VC-mini4K can be widely used for enterprise drones, UGV, USV, robotics, RC hobby planes and FPV drones.

Features

- 6X digital zoom
- Upside down mode
- 4K ultra HD photo & video recording
- Starlight night vision camera
- AI smart identify and tracking(under development)
- 1/1.7 inch SONY CMOS quick disassembly structure design, easy to quicky replace payload by one hand

Application

Adaptation platform: small UAV/unmanned vehicle/unmanned boat

Police law enforcement/electricity patrol/security patrol/rescue and search/fire fighting

Technical Parameters

Overall	
Video Output Port	Ethernet, HDMI, CVBS (AV)
Control Signal Input Port	S.Bus / UART / UDP
Control Signal Output Port	S.Bus
Working Voltage	11V ~ 25.2 V
Power Consumption	Summit 12 W
Working Temperature	-10 ℃~ 50 ℃
Dimension	55*55*70 mm
Weight	Approx. 95 g
Gimbal	
Angular Vibration Range	±0.01°
Controllable Pitch Angle	-135° ~ +45°
Controllable Yaw Angle	-160° ~ +160°
Controllable Roll Angle	-30° ~ +30°
Camera	
Lens	6X Digital
Focal Length	21 mm
Image Sensor	Sony 1/1.7-inch, 8 MP effective resolution
Aperture	F2.8
FOV	93°
TF Recording Resolution:	4K (4096 x 2160) @ 25 fps 2K (2560 x 1440) @ 30 fps 1080p (1920 x 1080) @ 30 fps 720p (1280 x 720) @ 30 fps
Supported File System	FAT32 (exFAT will be supported later by firmware update)
Photography File Format	JPG
Video File Format	MP4
Supported MicroSD Cards	MicroSD Class10, max 128 GB
White Balance	Auto

VC-10ZR

3-axis Single Sensor Electro-optical Pod

 VC-10ZR is equipped with a CMOS sensor with 4 million effective pixels. It supports high dynamic HDR to accurately capture the highlights and shadow details in dynamic scenes. It is not afraid of weak light and backlight. The maximum video resolution can reach 2560 * 1440 Using class10 high-speed memory card, 2K video files can be recorded to record exquisite picture details for users.It supports 30x hybrid zoom, the scene is clearly presented, and the field of vision can be up to 100 meters away. The algorithm is accurate, and the viewpoint is automatically focused, making it easy to produce beautiful pictures.VC-10ZR PTZ camera uses industrial three-axis stabilization technology and high-precision FOC control algorithm to greatly reduce the picture jitter, ensure that the picture of aircraft and other loads is always in a stable state during large-scale maneuvering, and ensure that the camera can continuously output stable and clear video pictures in long focus state.

■ 10X Optical Zoom/ 3X Digital Zoom / 30x hybrid zoom
■ 4 million CMOS 2K card record
■ Three axis stabilized PTZ, high precision FOC control
■ HDR high dynamic starlight night vision camera

Application

Adaptation platform: small UAV/unmanned vehicle/unmanned boat

Police law enforcement/electricity patrol/security patrol/rescue and search/fire fighting

Technical Parameters

Parameter	
Video Output Signal Port	IP
Control Signal Input Interface	S.Bus/PPM/UART/UDP
Operating Voltage Range	11V-25.2V
Working Environment Temperature	-10℃ to 50℃
Power Consumption	5W
Size	121mm*101mm*78mm
Weight	381g
Protection Class	IP53
Angle Jitter	+0.01°

Camera Parameters

Lens	10x optical zoom + 3x digital zoom
Focal Length of Lens	5.15±5%~47.38±5%mm
Aperture	f1.8-2.5
Minimum Focusing Distance	20cm
FOV	79.5° diagonal and 71.5° horizontal
Image Sensor	1/2.7" valid pixel 400W
TF Card Video Resolution	2560*1440 @ 30 fps
Video Storage	12Mbps
Supports File System	FAT32
Photo Mode	Single Shot