

# Two-axis Tri-mode Light-weight Gimbal System

P-I2V-D-G12



Integrating a daylight camera with 30X optical zoom, an 8mm prim lens starlight HD camera and a 640\*480 uncooled thermal camera, the Tri-mode Light-weight Gimbal System improves its correcting capability in target detection and recognition in complex environment by video fusion between thermal camera and the low-illumination HD camera. With two-axis two-frame structure and electronic stabilization, the gimbal achieves high stabilization performance and 360° rolling that are suitable for wide range of applications including monitoring, surveillance, anti-terrorism, pipeline inspection etc. carried by fixed-wing, VTOL, single-rotor and multi-rotor UAVs and other systems.

## **Features**

- 30X zoom camera + Starlight camera(night vision) + Thermal camera integrated
- Visible light and infrared video fusion method to make scene description more complete and accurate.
- A 30X optical zoom visual camera and a 50mm lens thermal camera can be used to observe targets from a long distance away.
- Low-illumination imaging (night vision)
- Small in size, light in weight
- Auto target tracking
- Temperature measurement (optional)
- Video Recording and Storage

## Applications

- Surveillance & Security
- Powerline inspection
- Investigation monitoring
- Pipeline inspection
- Disaster relief and rescue
- Forest fire prevention
- Border defense & control
- Intelligent transportation

## Parameters

<b>Control</b>	Azimuth		360°×N
	Pitch range		-90°~30°
	Interface		RS232、RS422、Ethernet
<b>Visible light camera</b>	30X zoom camera	Imager	1/2.8 Type ExmorR CMOS Sensor
		Pixels	1920×1080
		Angle of view (H)	63.7°(wide end) ~ 2.3°(tele end)
		Focal length range	f=4.3mm~129mm
	Starlight Camera	Pixels	1920×1080
		Focal length	8mm
		Angle of view	38.4°×22.2°
<b>thermal camera</b>	Working system		Un-cooled long wave (8μm~14μm)
	Detector pixels		640*480
	Pixel size		17μm
	Focusing		Athermalizing
	Emissivity correction		Emissivity 0.01~1 adjustable
	NETD		≤50Mk(@25°C)
	MRTD		≤550Mk(@Characteristic frequency)
	Lens		50mm
	Angle of view		14.4°×9.2°
	Image enhancement		Automatically adjusts image brightness and contrast
	Color palette		Black hot, white hot, pseudo color
	Automatic non-uniformity correction function		Yes

	Digital zoom	2X,4X
	Time synchronization function	Yes
	Temperature measurement mode	Temperature bar (pseudo display) HT LT field center temperature
	Range of TM	0°C~120°C
<b>Tracking</b>	Data frequency	30Hz、60Hz
	Minimum target contrast	5%
	Minimum target size	16*16 pixels
	Maximum target size	128*128 pixels
	Tracking velocity	48 pixels/frame
<b>Video and Electric features</b>	Video output interface	NET: UDP/RTSP/ONVIF SDI、SPI, RS422
	Video format	1080p30 / 720p30
	Picture in Picture function(PIP)	Yes
	Working voltage	11-16V
	Working current	Quiescent current: 800mA Dynamic current: 1000mA
	Power consumption	Average≤12W, Max≤20W
<b>Environmental adaptability</b>	Working temperature	-10°C~50°C
	Storage temperature	-20°C~50°C
<b>Others</b>	Size of device	176.8mm×122.38mm×134mm
	Weight	1.2kg

## Size & Profile

