Z-8RC_Ver3.0.0

Laser Night Vision Ranging Pod

Synopsis

The Z-8RC equips with a high-accuracy 3-axis pod and a 20.35M pixels 1500x hybrid zoom camera, which presents scene hundreds of meters away. Combined with the laser lighting module and starlight level night vision function, the Z-8RC can provide a clear image even in complete dark environments. Thanks to the laser range finder, the Z-8RC can provide the location of a target and the distance to it that improves working efficiency.
The Z-8RC can be mounted tool-lessly onto unmanned aerial vehicles with its quick-release port. It is able to be applied on multiple industries such as firefighting, forest police, public security, search & rescue and environment protection.

Characteristics

- Carries a 20.35M pixels 1500x hybrid zoom (20x optical zoom) camera, an 1800m laser range finder and 2 laser lighting modules.
- 3-axis mechanical stabilized structure which is able to spin continually around its yaw axis.
- With the Dual-IMU complementary algorithms with IMU temperature control and carrier AHRS fusion, the Z-8RC provides a stabilization accuracy at ±0.01°.
- Image supports shooting point coordinate EXIF save.
- Support remote screen projection and docking command platform.
- Can be mounted tool-lessly onto unmanned aerial vehicles with its quick-release port.

Specifications

Item		Parameters	
General	Dimensions	150 x 144 x 172mm	
	Weight	890g	
	Operating Voltage	20~53V	
	Power	18.4W (AVG, ranging & lighting off) 36W (Stall, ranging & lighting on)	
	Protection Rating	IP43	
Gimbal	Angular Vibration Range	±0.01°	
	Maximum Controllable Speed	Pitch: ±200° /s, Yaw: ±200° /s	
	Controllable Range	Pitch: -120° ~ +60°, Yaw: ±360° constantly	
Zoom Camera	Image Sensor	1/2.3″ CMOS; Effective Pixels: 20.35M	
	Lens	Focal Length: 4.1~81.6mm HFOV: 70.2° ~ 4° VFOV: 43.3° ~ 2.3° DFOV: 78° ~ 4.6°	
	Optical Zoom Rate	20x	
	Equivalent Digital Zoom Rate	75x	
	Aperture	F2~F16	
	Electronic Shutter Speed	1/2~1/2000s	
	Object Detective Distance	EN62676-4:2015	Person[1]: 1930.7m Vehicle[2]: 3129.6m
		Johnson Criteria	Person: 22054.1m Vehicle: 67632.4m
	Object Identification Distance	EN62676-4:2015	Person: 386.1m Vehicle: 625.9m
		Johnson Criteria	Person: 5513.5m Vehicle: 16908.1m
	Object Verified distance	EN62676-4:2015	Person: 193.1m Vehicle: 313.0m
		Johnson Criteria	Person: 2756.8m Vehicle: 8454.1m

[1] Person: 1.8 x 0.5m

[2] Vehicle: 4.2 x 1.8m

Item		Parameters
Laser Range Finder	Wavelength	905nm
	Measuring Range	5-1800m (ϕ12m vertical surface with 20% reflectivity)
	Measuring Accuracy	±0.3m(< 300m) / ±1.0m(> 300m)
	Beam Angle	2.5mrad
	Measuring Method	Pulse
	Max Laser Power	< 1mW
	Laser Safety	Class 1M (IEC 60825-1: 2014)
Laser Lighting Module	Wavelength	850±10nm
	Laser Power	0.8W x2
	Beam Angle	8° + 30°
	Effective Illumination Distance	≤200m
	Laser Safety	Class 3B (IEC 60825-1:2014)
Image & Video	Output Video Resolution	1080P@25fps
	Store Video Resolution	4K@25fps
	Image Resolution	6016 x 3384
	Stream Encode Format	H.264, H.264H
	Stream Network Protocol	RTSP, UDP, GB/T28181
	Supported SD Card	Supports a SDXC card with a capacity of up to 128GB
Environment	Operating Temperature	-20℃ ~ 60℃
	Storage Temperature	-20℃ ~ 70℃
	Operating Humidity	≤85%RH (Non-condensing)