

EXSS-170

Gimbal System with IR Uncooled Imager and Daylight Camera with 30x Optical Zoom

Characteristics

Gimbal system	2 axis gimbal with high bandwidth direct torque drive
Daylight video camera *	PANASONIC GP-MH330
Daylight camera field of view	horizontal – 65.1° to 2.3°vertical – 38.4° to 1.4°
Minimum illumination	0.4 lx (color), 0.03 lx (B/W)
Infrared imager core *	TC 640, uncooled module with shutter
Infrared imager lens	50 mm athermalized lens
Infrared imager field of view	18° x 14°
Pan/Tilt range	Unlimited – slip ring on both axes
Maximum slew rate	Up to 300 °/sec
Feedback position resolution *	0.072° or 1.25 mRad
De-stabilization	Less than 50 uRad (1 σ)
Control interface	1x RS232, 1x auxiliary RS232, up to 3x GPIO with 3.3V levels for external devices control, like video switching, gimbal deployment mechanics control, etc.
Video output	Daylight camera – 1x component Y Pb Pr up to 1080i or ITU472-3 (PAL) Infrared imager – 1x ITU472-3 (PAL) Both signals (daylight and IR) are available at the same time on the external connector (i.e. no video switching inside gimbal)
Weight	3.5 kg
Working voltage	24-30 V
Power	Less than 20 W
Control interface	RS232, 115200 bps, 8N1, proprietary binary protocol
External connector *	PC10TB, or customized

*This can be customized according customer specification.

Description

EXSS-170 is a gyro stabilized gimbal system, containing FULL HD daylight camera with 30x optical zoom, and infrared imager with 640*480 resolutions. 2 axis gyro stabilized gimbal is specially developed for applications on different kind of unmanned aerial vehicles, with fixed or rotary wing. All control electronics, required for gimbal operation, is fit inside the unit shell. Platform is controlled by high bandwidth, purpose built coreless direct torque motors, with gearless drive, which allow to achieve very low de-stabilization, required for embedded optical sensors operation, enabling good and stable image quality even at maximum optical zoom value.

