

# EXSS-90

Small gimbal system with FULL HD daylight camera with 10x optical zoom

## Characteristics

Gimbal system	2 axis gimbal with high bandwidth direct torque drive
Daylight video camera *	SONY H11
Daylight camera field of view	horizontal – 50° to 5.4°
Minimum illumination	12 lx (color), 1.0 lx (B/W, ICR On)
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 250 uRad (1 $\sigma$ )
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)
Weight	0.89 kg
Working voltage	16-30 V
Power	Less than 15 W
Control interface	RS232, 115200 bps, 8N1, proprietary binary protocol
External connector *	PC10TB, or customized

\*This can be customized according customer specification.

## Description

EXSS-90 is a small and light weight gyro stabilized gimbal system, containing FULL HD daylight camera with 10x optical zoom. 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 low de-stabilization, required for embedded optical sensor operation, enabling good and stable image quality even at maximum optical zoom value.

