

Stab Series Ceos

2-axis Gyrostabilized platform for single payload

Stab Ceos is a two-axis platform designed to carry single payload on-the-move and in harsh environments. Used for situational awareness, security and surveillance applications, Ceos light-weight platform guarantees sharp images and/or videos by providing reliable stabilization to the most modern medium-weight integrated optical sensors packages.



FEATURES

- Up to 15kg class payload
- Single compact payload capability
- Brakes
- Rugged design
- ITAR FREE
- No export restrictions

Used for situational awareness, security and surveillance applications, Ceos light-weight platform guarantees sharp images and/or videos by providing reliable stabilization to the most modern medium-weight integrated optical sensors packages.

Ceos is a ruggedized, accurate, stabilized platform capable of handling On-The-Move up to 15kg of optronics pack or other payloads. Use of gear motor ensure a rugged design with reduced maintenance. Use of controller and servo drive designed and manufactured by our company allows used of RS422 communication protocol.

Ceos includes a slip ring as a standard that allows nx360° pan rotation.

Several modes are available (position, rate, gyro-position, gyro-rate, gyro-route). Ceos is designed for continuous operation in harsh environments (rain, dust, sand, vibrations, shocks, climatics...). Several configurations available to custom your product (color, electrical wiring, environments).

TECHNICAL SPECIFICATIONS

Performances

Motorized axis	2
Pan axis range	nx360 °
Tilt axis range	> -90 ° to < +90 °
Tilt axis gyrostab. range	> -70 ° to < +70 °
Pan rate	< 0,01 °/s to > 60 °/s
Tilt rate	< 0,01 °/s to > 60 °/s
Pan acceleration	< 0,01 °/s ² to > 60 °/s ²
Tilt acceleration	< 0,01 °/s ² to > 60 °/s ²
Line of sight gyrostab (with APG 25 profile and balanced payload)	< 1 mrad rms
Position accuracy	Pan: 0,05 °; Tilt: 0,01 °

Physical

Construction	Aluminium
Coating and painting	Epoxy/polyamide
Weight	< 13 kg
Overall dimensions (without arm)	Length 320 mm Height 385 mm Width 165 mm No Intrusion

Payload

Max Weight (with payload counterweights)	On-The-Move applications	15 kg balanced
	Static applications (building, mast, tripod)	30 kg balanced
CoG / balanced point max	0,11 < J < 0,22 kg.m ²	
Tilt Payload Inertia	0,04 < J < 0,08 kg.m ²	
CoG / balanced point max	cm range	
Modal behavior	> 300 Hz for first mode of rotation around each axis	

Electrical

Input voltage	20-33 VDC
Pan tilt peak power req	< 100 W
Connectors to host	D38999
Connectors to payload	D38999
Connectors to payload	RS422

Environmental

Operating temperature	-32 °C to +65 °C
Storage temperature	-40 °C to +71 °C
Low pressure	270 hPa
Vibrations	1,5 g rms 3 axis
Shocks	10 g, 11 ms ^{1/2} sinus
Rain	10 cm/h
Water/dust	IP67
Salt Fog	+35 °C, 5 % NaCl 48 h
EMC	CE102, CS114, CS115, CS116 RE101, RS 103

CONFIGURATIONS

CEOS – A – B – C – D

A Environment

Materials and finishing are reinforced to sustain maritime application

- A = L for land application (Aluminum with Nickel plating type)
- A = N for naval application (Bronze type)

B Slip-ring

A capsule slipring is used to allow unlimited rotation in Azimuth axis

- B = 0 Custom
- B = 1 Standard 43 lines (type 2A)

C Painting color

- C = 0: Custom
- C = 1: Sand PIR 32X2 (NORMDEF 0001)
- C = 2: Green NATO PIR 24X5 (NORMDEF 0001)
- C = 3: Green dark PIR 34X3 (NORMDEF 0001)
- C = 4: Grey/blue mid-clear 2625 (NORMDEF 0001)
- C = 5: Brown land PIR 30X4 (NORMDEF 0001)
- C = 6: Black 3603 (NORMDEF 0001)
- C = 7: White UV NATO 36X0 (NORMDEF 0001)

D Accessories

- D = 0: no arm (protective cover)
- D = 1: standard arm
- D = 2: custom arm

Packaging

Wooden packing case,
Reusable transportation case (Pelicase type) upon request

Ceos documentation

00206667: Mechanical ICD (without arm)

00206968: Mechanical ICD (with arm)

00023747: Electrical ICD

DIN00099: Communication protocol

TBD : Qualification data package