High-Performance 3DOF Pointing & Positioning for Small Satellites

Why Fly COBRA?
- Low SWaP-C
- High Precision
- High Payload Capacity
- Hemispherical Workspace
- Continuous Pointing
- Flight Qualified

COBRA-UHPX
22 mm BLDC Motor
100:1 Harmonic Drive
12-bit Magnetic Encoder
(491 g w/ launch locks)
165 mm diameter
40 mm (excl. launch locks)
85.5 mm (excl. launch locks)
Full Hemisphere
≤ ± 237 arc-sec (0.066°)
≤ 3 arc-sec (0.00083°)
Up to 180°/s
Load dependent
None
500 g in 1G
-40°C to +85°C
-35°C to +70°C
1X FD04 Frangibolt (Qual Pending)

COBRA-HPX
12 mm Stepper Motor
377:1 Zero Backlash Spur
12-bit Absolute Mag. Encoder
184 g (276 g w/ launch locks)
113 mm diameter
29.2 mm (excl. launch locks)
73.5 mm (excl. launch locks)
Full Hemisphere
≤ ± 234 arc-sec (0.065°)
≤ 276 arc-sec (0.077°)
Up to 30°/s
2.4 W
10.5 mm
1200 g in zero-G
-40°C to +85°C
-35°C to +70°C
3X FC2 Frangibolts (Qualified)

Specifications
Actuator
Gearhead
Sensor
Mass
Stowed Footprint
Stowed Height
Deployed Height
Pointing Workspace
Closed-Loop Repeatability
Closed-Loop Resolution
Slew Rates
Power Consumption
Thru Hole Diameter
Payload Capacity
Non-Operating Temperature
Operating Temperature
Launch Lock Option

Flight Units Available Now

Tethers Unlimited, Inc.
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Flight Heritage!