

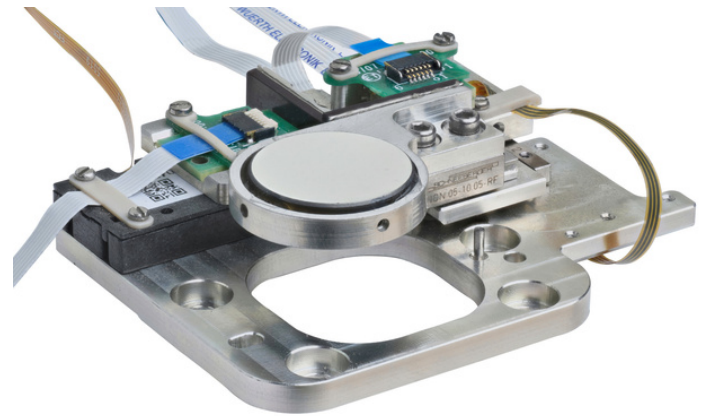
LSS

LENS STEERING & STABILIZATION

ORDERING INFORMATION

Part Number Module: S13513000

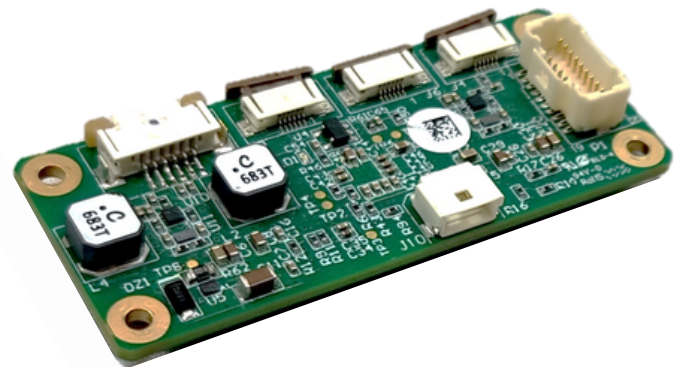
Part Number Electronics: XCD2-EM1-EM4X



Product description

Nanomotion's LSS module characterized by higher mechanical power density, fast response, and operate as a direct drive. As the response time of piezo is orders of magnitude faster than a dc motor, typically in hundreds of microseconds, it facilitates exceptional steering and stabilization of electro-optical devices.

The fast response coupled with unique SWaP advantages makes Nanomotion's LSS module ideal for responding to external disturbances ($<10\mu\text{m}$ @10Hz, 0.18mm amp) and maintaining position location.



LSS

LENS STEERING & STABILIZATION

TECHNICAL SPECIFICATIONS

MECHANICAL

Module Weight: <30gr
(Based on a lens weight of 3.25 g)
Board Weight: <20gr
Physical Envelope: see DRW
Optical Alignment: 1.5μRad

DYNAMIC

Speed: ≥ 24mm/sec
Acceleration: ≥ 1m/sec²
Travel per axis: ±2.4mm
Resolution: < 0.48μm
Latency: < 0.5ms

ENVIRONMENTAL

Operating Temperature: -35°C to 75°C
Storage Temperature: -35°C to 75°C
Rugged Handling: 100g, 10ms
Vibration: 3g RMS
Thermal Shock Resistance: 20°C/minute
Low outgassing

ELECTRICAL

Input Voltage: 5V±3%
Communication Protocol: SPI (1KHz)
External Power Consumption: 0.75W@STBY,
3W@max

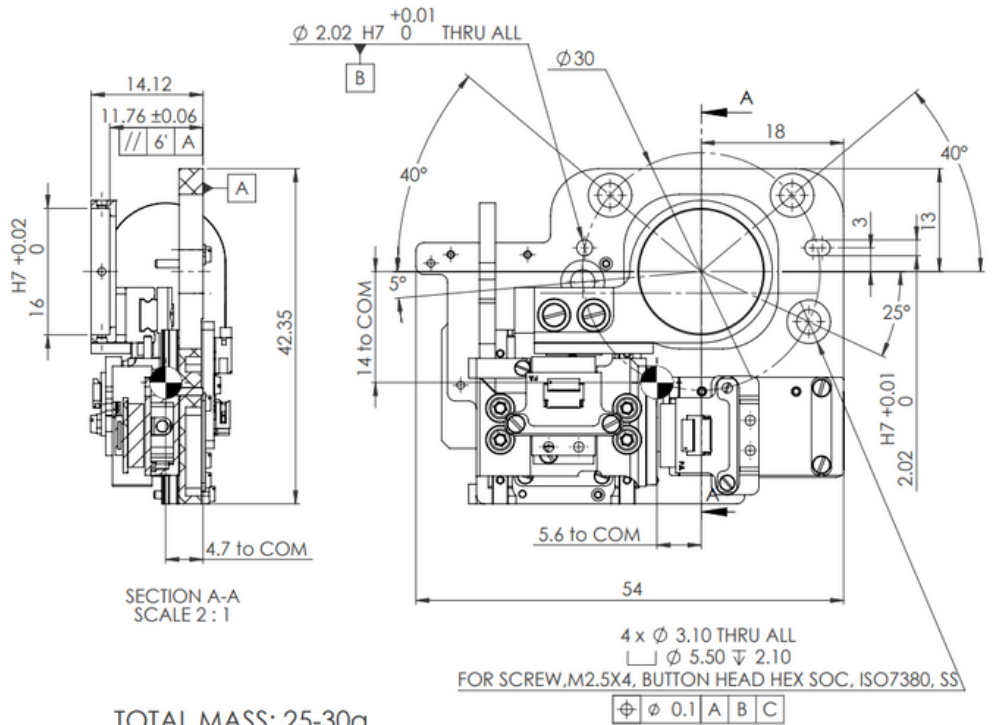
Nanomotion Ltd.
Worldwide Headquarters

Mordot HaCarmel Industrial Park
Yokneam 20692 Israel
t: +972 73 2498000
f: +972 73 2498099
e: nano@nanomotion.com

Nanomotion Inc.
U.S. Headquarters

1 Comac Loop, Suite 14B2
Ronkonkoma, New York 11779 t:
(800) 821-6266
t: (631) 585-3000
f: (631) 585-1947
e: nanoUS@nanomotion.com

Module



Electronics

