

The MICA20CS proof-mass (see Fig. 1 & Fig. 2) aims at generating inertial forces on a mechanical structure in order to cancel parasitic micro-vibrations. This active proof-mass configuration is based on a MICA20CS with frictionless flexure bearings and a counter-mass, tunable according to the user operational requirements. Optional force sensor can be provided on the back side of the MICA20CS.

Considering use with CLAu10 drive electronic inertial force up to 25 N can be generated at 40 Hz, and more than 20 N from 30 Hz to almost 100 Hz.

Cedrat Technologies' flexure bearing design included in MICA20CS actuators provide ultra-long fatigue lifetime.

Fixed coil and magnet heat sinking design provide continuous non-stop operation at low temperature stabilised condition.

Eu Project MC-SUITE (680478) has funded a part of this development.



Fig. 1: View of the MICA20CS in proof-mass configuration (MICA20CS actuator + counter-mass + back position sensor)



Fig. 2: View of the CLAu10

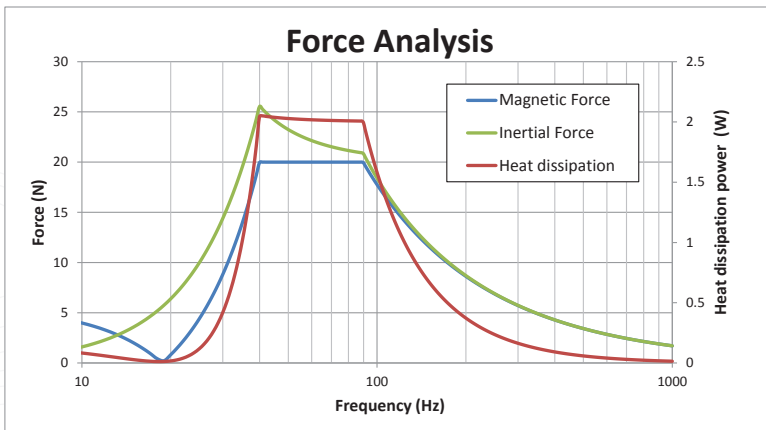


Fig. 4: Force and heat dissipation vs frequency

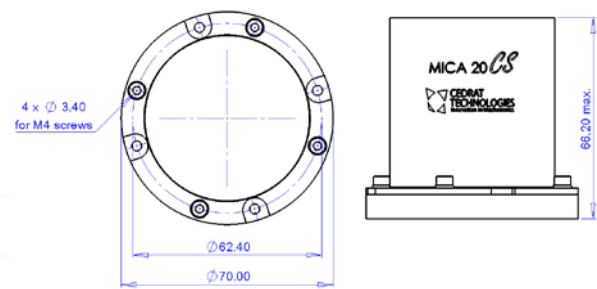


Fig. 3: View of the mechanical interfaces of the MICA20CS proof-mass (MICA20CS actuator + counter-mass + back position sensor)