



TERMA STAR TRACKER

Dynamic Optical Ground Support Equipment

THE T1/T3 DOGSE

Terma has developed a miniaturized Dynamic Optical Ground Support Equipment ideally suited for both open- and closed-loop star tracker tests.

The DOGSE features a high-resolution μ -OLED display. The star scene generation software is running on a Raspberry Pi connected via RS232 or Bluetooth to a PC configured with a user friendly MMI.

The dynamic OGSE can easily be adopted to fit any baffle, providing repeatable and stable mounting required for closed loop testing.

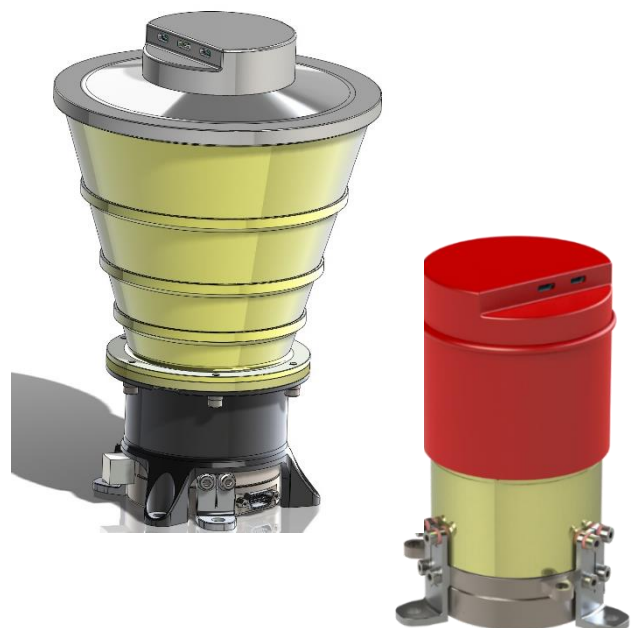
FEATURES

- Highly compact and very low mass
- Easy to install and simple to use
- Can be used directly with any Terma star trackers
- Can be used directly with most star trackers
- Simulation of bright objects in FOV (Moon, planets, etc.)
- Injection of high rate transient radiation events

SALES OPTIONS

- The DOGSE can be ordered to fit any baffle

Interested parties are invited to contact the lead engineer, Peter Davidsen, pd@terma.com or the commercial contact, Hans Henrik Bonde, hbb@terma.com





Dynamic Optical Ground Support Equipment

DOGSE	
Display	OLED micro-display, 60 Hz
Hardware platform	Raspberry Pi
Control software	In-house developed real-time image simulator. Linux operating system.
Control interface – open loop	In-house developed (Java client) software running on standard PC. Bluetooth or RS232 interface to Raspberry Pi computer
Control interface – closed loop	Up to 100 Hz quaternion and rate input to Raspberry Pi computer via RS232 interface
Star catalogue	Instrumental corrected Hipparcos catalogue
Star brightness	Default down to magnitude 7
Star position accuracy and PSF	2 arcsec, 3x3 pixels (73 arcsec per pixel)
Field-of-view (standard version)	20 deg full cone
Slew rate (dynamics)	> 10 deg/s
Dynamic spot shape generation	Integrated 240 Hz sub-frames
Radiation simulation	>50.000 false star projections per second. User defined streak length distribution.
Non-Stellar objects in FoV	Moon and Planets
Power supply (included)	Standard Raspberry Pi 5.1V dc, 110/230 V AC/DC-adapter
Cable harness length (display to Raspberry Pi)	> 2 m