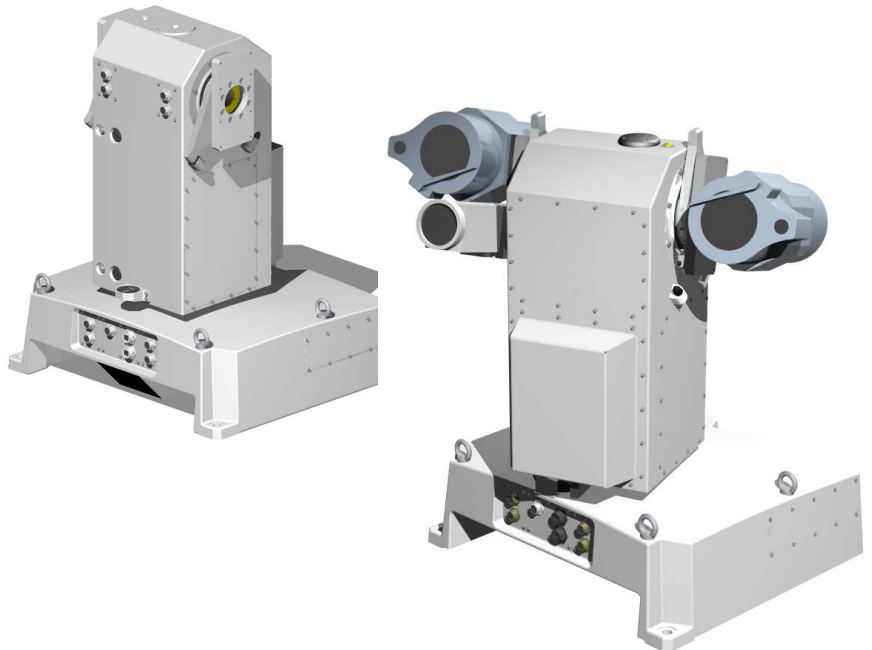


## Two Axis Universal Sensor Platform USP-T33 for outboard mounted payloads

### Features

- Auto target tracking built-in
- Star calibration built-in
- Sealed for deployment in harsh sea coast environment
- GPS timing reference
- Real time platform control unit

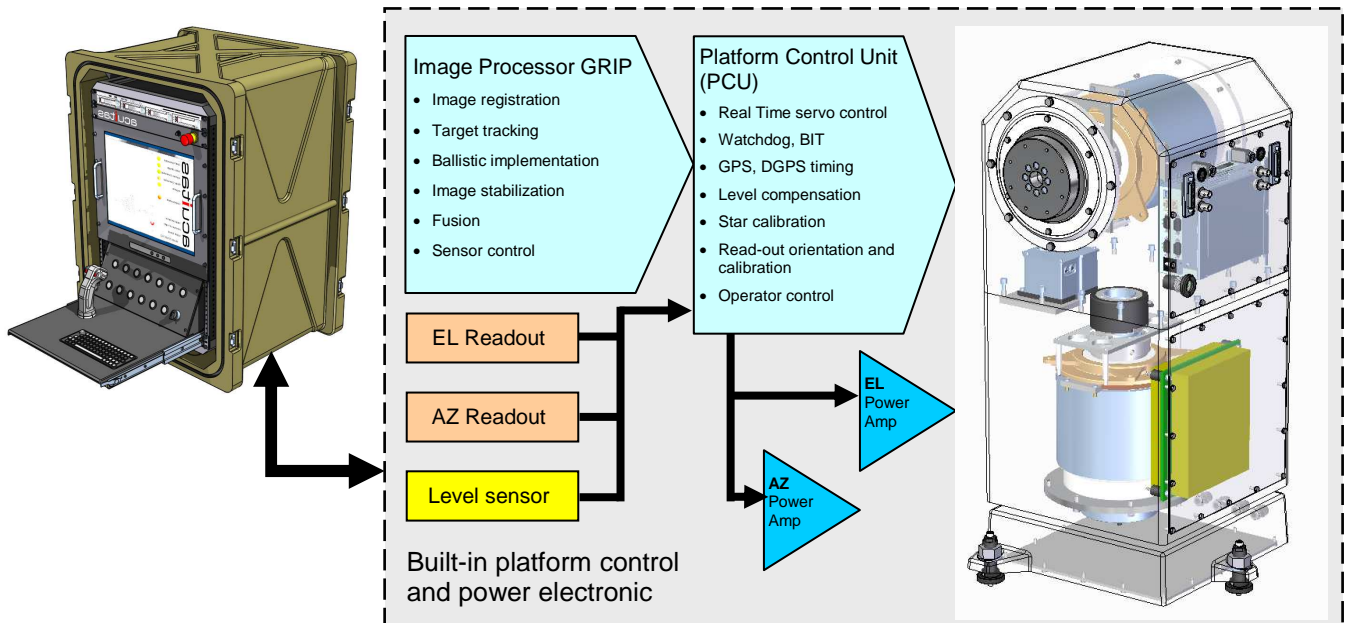


### Description

The USP-T33 universal sensor platform has the elevation shaft protruding for the mounting of the payloads on both sides. Outboard mounting allows long sensors without angular restriction.

The tracking mount has direct drive brushless servo motors. Position is measured by direct mounted high resolution absolute encoder. The vertical alignment of the azimuth axis is monitored. Measured leveling deviations from the azimuth axis vertical position are used to calibrate and correct the angular axes position readout.

The built-in servo control system is based on the amplifier/controller assembly, the real time platform control unit PCU and the image and data processing computer GRIP.



# Two Axis Universal Sensor Platform USP-T33

Image processor GRIP, Video Target Tracker Processor



The GRIP Video Processor hosts the hardware based video tracker, which processes video image sequences from sensors keeping the camera pointing at the designated target. The two primary processing functions are:

1. Detecting and locating objects of interest
2. Controlling the platform in azimuth and elevation position, rate and acceleration.

The Video Processor/tracker has analog and digital video and other interfaces. The active tracking sensor can be selected by the operator. The monitor shows all relevant status information and has overlaid annotation.

## Specification Summary

USP-T33; EL/AZ tracking mount supports electro-optical sensors, thermal imagers, Laser instruments

Mount Performance,	Azimuth	Elevation
Payload nominal, balanced	80kg	
Angular freedom (deg)	±185deg	-30deg to +210deg
Rate @ cont. torque	±100 deg/s	±100 deg/s
Acceleration, loaded	120 deg/s <sup>2</sup>	120 deg/s <sup>2</sup>
Nominal torque	36Nm	36Nm
Readout resolution	<1µrad	<1µrad
Readout accuracy	better 15µrad	better 25µrad
Power	5000 Watt	

### Optional Equipment or Features

- Trailer mounted for deployment in the field with hoist for unloading and integrated operator shelter
- Separate trailer for USP-T33 and operator container with data processing and data storage hardware.
- Inertial stabilized Line-of-Sight for installation on moving platform
- Air conditioned shelter with remote opening for permanent installation
- Integration of several systems for trajectory calculation and recording

