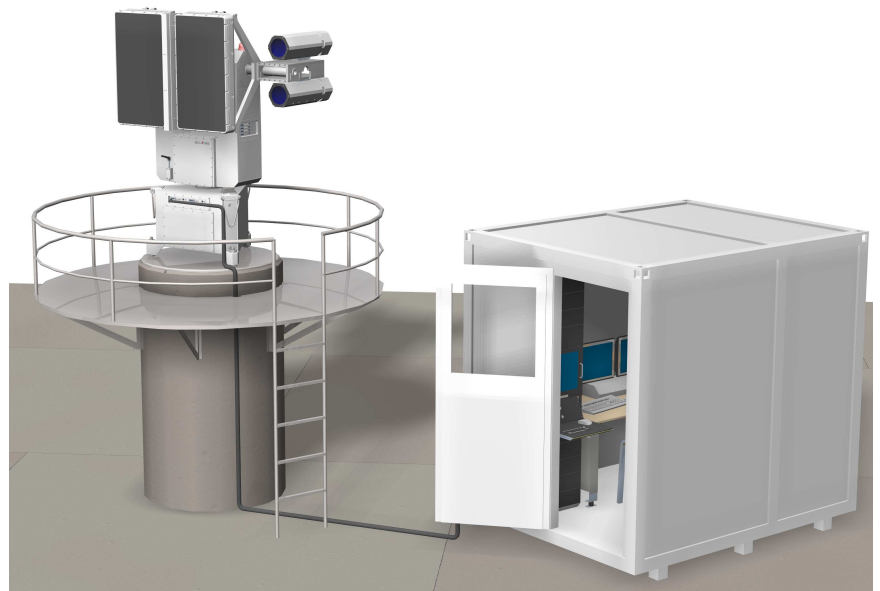


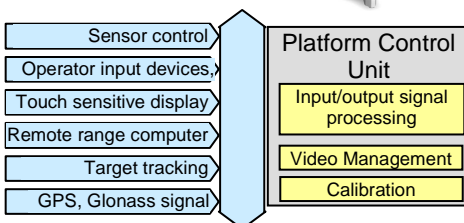
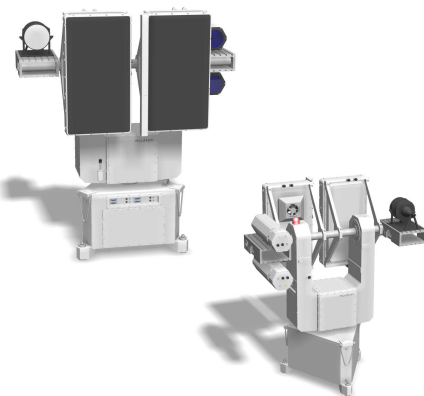
# Universal Sensor Platform System USP-U42 with optical sensors and inboard Doppler Radar

## Features

- Built-in controller/amplifier
- Integrated Platform Control Unit with fast serial interface (Ethernet, RS422) and interfacing with joystick and touch sensitive monitor
- Electronic level monitoring
- Carries High resolution TV camera with zoom lens; Thermal imager with zoom lens and Doppler Radar antenna and receiver
- Space for customer furnished sensor
- Sealed; designed to operate in harsh environment



## Description



Acuitas' Universal Sensor Platform USP-U42 supports an high resolution cameras with zoom lens, thermal imagers with zoom lens and the air cooled radar antenna and receiver. The design follows the proven modular concepts. Standardization improves serviceability and reliability. The pedestal is driven by brushless direct drive torquers. High resolution optical encoder measures the output shaft position accurately. Elevation axis has limited angular freedom. The azimuth axis has a rotary joint and slip rings for continuous rotation in the outer axis.

The base features three-point leveling adjustments. Concentric hold bolts assure stress free anchoring of the instrument. The leveling condition is electronically monitored and measured. Deviations are incorporated into the elevation axis position readout.

Platform control electronics and amplifiers are incorporated in the pedestal. It reduces the required cabling and simplifies the interface requirements. The Platform Control Unit (PCU) organizes monitors, manages and controls the various inputs and outputs mandatory for the operation of the tracking system. Defined by the mission task the PCU interfaces with the sensors, correlates the time stamped data transfer, supervise the communication pedestal, operator and range organization.

The local control elements and operator interface is located in a shelter in the proximity of the tracking pedestal.

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## Specification Summary

### Payload nominal

2 x 100 kg nominal (2 x 140 kg peak), balanced around the elevation axis,

### Performance

	<u>Azimuth</u>	<u>Elevation</u>
Angular freedom (deg)	unlimited	-30deg to +85deg
Position resolution	1 arcsec	1 arcsec
Position repeatability	±3 arcsec	±3 arcsec
Position accuracy	±8 arcsec	±8 arcsec
Rate @ cont. torque	±100 deg/s	±100 deg/s
Acceleration, loaded	100 deg/s <sup>2</sup>	100 deg/s <sup>2</sup>
Torque continuous	80 Nm	80 Nm
Wobble (sec)	<±5	<±10
Perpendicularity	better than ±15 arcsec	

### Environment

Operating Temperature -20°C to +50°C  
 Humidity Mount: Splash-proof  
 Altitude up to 4'000 m above sea level

### Command

RS422, at a baud rate of 115200, via a compatible input device or host computer.

### Supply

230VAC 50Hz, fused 16A slow blow

## Outline Dimensions

