

# ASELFIR-500

ELECTRO-OPTICAL RECONNAISSANCE, SURVEILLANCE  
AND TARGETING SYSTEM

COMMON APERTURE WITH PRIMARY MIRROR OF DIAMETER 220 MM

COMPACT AND LIGHT-WEIGHT SYSTEM

SINGLE-LRU SYSTEM

SUPERIOR RANGE PERFORMANCE

HIGH RESOLUTION IR CAMERA

TRUE FULL HIGH DEFINITION HD DAY TV CAMERA

HIGH RESOLUTION SWIR NIR CAMERA

LASER TARGET DESIGNATION

INTERNAL BORESIGHT SYSTEM (IBS)

HIGH PRECISION 4 AXIS MECHANICAL + 2 AXIS OPTICAL STABILIZATION

OPERATION IN VERY LOW TEMPERATURES IN HIGH ALTITUDES

INNOVATIVE ARTIFICIAL INTELLIGENCE-BASED IMAGE PROCESSING ALGORITHMS

IN THERMAL AND DAY TV CHANNELS





# ASELFLIR-500

## ELECTRO-OPTICAL RECONNAISSANCE, SURVEILLANCE AND TARGETING SYSTEM

ASELFLIR-500 is a high performance electro-optical reconnaissance, surveillance and targeting system developed for fixed-wing and rotary-wing aerial platforms including Unmanned Aerial Vehicles (UAV), Helicopters and Airplanes.

ASELFLIR-500 system includes 3-5 micrometer High Resolution Infrared Camera, High Resolution Day TV Camera, High Resolution SWIR Camera, Laser Target Designator, Laser Range Finder, Laser Spot Tracker and Laser Pointing units.

### Main Features

- Common Aperture with Diameter of 220 mm
  - Very Large Aperture for Narrow FOVs and Very Narrow FOVs of HD IR, HD Day TV and HD-SWIR Cameras
  - Larger Aperture Means Lighter and Therefore Better Image Quality and Better Range
- Compact and Light-weight system
- Artificial Intelligence Based image Processing Solutions for Thermal and Day TV Channels
- Single-LRU System
- Superior Range Performance
- High Performance HD IR Camera
- True Full High Definition (4096x2880 sensor resolution) HD Day TV Camera 1920x1080p Video Output Without Digital Upscaling
- High Definition SWIR Camera
- Common FOVs for HD IR, HD Day TV and HD SWIR cameras
- Laser Range Finder and Target Designator
- Laser Pointer
- Laser Spot Tracker
- Internal Boresight Unit
- All-Digital Video Pipeline
- Advanced Image Processing
- Multi Target Tracking
- Simultaneous Target Tracking on IR, Day TV and SWIR Videos
- Accurate Target Geo-Location
- Determination of Coarse and Speed of Moving Target
- Inertial Measurement Unit (IMU)
- Accurate Stabilization
- Automatic Alignment with Platform
- Operation in Very Low Temperatures in High Altitudes

### Technical Specifications

<b>Primary Mirror Diameter</b>	220 mm
<b>HD IR Camera</b>	Sensor Resolution: 1280x1024 Field of Views (Horizontal): 0.86° - 1.3° - 4.3° - 8.6° - 15° - 25° Wavelength: 3-5 μm (MWIR)
<b>HD Day TV Camera</b>	Sensor Resolution: 4096x2880 Field of Views (Horizontal): 0.5° - 0.9° and continuous zoom in between 3.2° - 30°
<b>HD SWIR Camera</b>	Sensor Resolution: 1280x1024 Field of Views (Horizontal): 0.66° - 1.1°
<b>Field of Regard (FOR)</b>	Azimuth: 360° continuous Elevation: +95° to - 110°
<b>Laser Range Finder and Target Designator</b>	Wavelength: 1064 nm Range: Up to 35 km Coding: STANAG 3733 (Edition 3)
<b>Laser Pointer</b>	Wavelength: 808 nm Laser Pointer Wavelength: NIR/SWIR (Compatible with NVGs)
<b>Communication Interface</b>	RS-422, MIL-STD-1553B
<b>Video Interface</b>	4x SMPTE-292M HD-SDI (1920x1080p) 2x PAL
<b>Power Interface</b>	28 VDC
<b>Size</b>	Width: 480 mm Height: 520 mm (Forward position)
<b>Weight</b>	52 kg ±5%
<b>Temperature</b>	Operating: -40°C to +52°C Storage: -55°C to +70°C

Specifications are subject to change without any notice. | All tolerances are within ±10%.

