

# CATS- COMMON APERTURE TARGETING SYSTEM- Electro-Optical Reconnaissance, Surveillance and Targeting System

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 / **CATS- COMMON APERTURE TARGETING SYSTEM- Electro-Optical Reconnaissance, Surveillance and Targeting System**

CATS is a high performance electro-optical reconnaissance, surveillance and targeting system designed for fixed-wing and rotary-wing airborne platforms, including Unmanned Air Systems (UASs), helicopters and aircrafts.

## Applications

Targeting  
 Reconnaissance and Surveillance  
 Long Range Surveillance

## Main Features

Common Aperture with Diameter of 220mm

Very Large Aperture for Narrow FOVs and

Very Narrow FOVs of IR, HDTV and LL-NIR

Cameras

Larger Aperture Means More Light and

Therefore Better Image Quality and Better

Range

Compact and Light-Weight System

Single-LRU System

Superior Range Performance

High Performance IR Camera

True Full High Definition (1920x1080) HDTV

Camera

No Digital Zooming Applied for

1920x1080p Video Output

2.25 Times More Sensor Pixels Used Than

High Definition (1280x720p) HDTV Cameras

Low Light (LL-NIR) Camera

Common FOVs for IR, HDTV and LL-NIR Cameras

Laser Range Finder and Target Designator

Laser Pointer and Illuminator

Internal Boresight Unit

All-Digital Video Pipeline

Advanced Image Processing

Multi Target Tracking

Simultaneous Target Tracking on IR, HDTV

and LL-NIR 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

Sensor Resolutions IR: 640x512

TV: 1920x1080

LL-NIR: 640x480

#### Fields of View (FOVs)

(Horizontal)

IR: 0.5° - 0.9° - 3.2° - 30°

TV: 0.5° - 0.9° - 3.2° - 30°

LL-NIR: 0.5°

#### Field of Regard (FOR)

Azimuth: 360° continuous

Elevation: +10° to -105°

Laser Range Finder and Target Designator

Range: up to 25 km

Wavelength: 1064 nm

Repetition rate: up to 20 Hz

Laser Pointer and Illuminator

Laser Pointer:

Wavelength: NIR

Laser Illuminator:

Wavelength: NIR

Communication Interface RS-422, MIL-STD-1553B

Video Interface

4x SMPTE-292M HD-SDI

2x PAL

Power Interface 28 VDC

Size

Sensor Ball Diameter: ≤ 415 mm

Width: ≤ 437 mm

Height: ≤ 520 mm

Weight 61kg

Temperature

Operational: -54°C to +50°C

Storage: -55°C to +70°C

Note: All tolerances are within ±10%. Specifications may change without prior notice.

## Other Products

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