



# **TASE 310 / 350 / 400 Series Payloads**

Versatility for any Mission



**UTC Aerospace Systems**

# TASE Stabilized Payloads

## More Technology, More Products, More Solutions

### TASE350

Daylight HD / LWIR Night Imaging

#### Payload Performance

Payload Stabilization: 2-axis, < 75  $\mu$ RAD jitter

#### Long Wave IR Camera

Dual field of view lens

HFOV: 15.5° - 6.2°

Resolution: 640 x 480

Video Out: NTSC or PAL

#### Daylight Camera

31x continuous optical zoom

HFOV: 55.7° - 1.94°

Video Out: NTSC or PAL

#### HD Daylight Camera (optional)

30x continuous optical zoom

Resolution: 1280 x 720

HFOV: 39.7° - 1.4°

Video Output:

- SD: NTSC or PAL

- HD-SDI: 720P 30Hz

#### Laser Rangefinder (optional)

Class I Eye-safe

1550 nm

4km range

#### Laser Illuminator (optional)

Class IIIb laser<sup>1</sup>

850 nm (NVG band)

150 mW max

#### Electrical

VIN: 10 - 30 Volts

Power: 25W (average) 100W (max)

#### Mechanical

Size: 178 x 178 x 267 mm (7 x 7 x 10.5 inches)

Turret Diameter: 178 mm (7 inches)

Weight: 3.2 kg (7.25 lbs)



Day NIIRS 7.1 @ 4242 ft

Night NIIRS 6.2 @ 4242 ft

### TASE400

Advanced Day / Night Imaging

#### Payload Performance

Payload Stabilization: 2-axis, < 75  $\mu$ RAD jitter

#### Mid Wave IR Camera

10x optical zoom with continuous digital zoom up to 4x

MWIR: 3 to 5  $\mu$ m

Resolution: 640 x 480

HFOV: 22° - 2.2° continuous

#### Daylight Camera

31x continuous optical zoom

HFOV: 55.7° - 1.94°

Video Out: NTSC or PAL

#### Laser Rangefinder (optional)

Class I Eye-safe

1550 nm

4km range

#### Laser Illuminator (optional)

Class IIIb laser<sup>1</sup>

850 nm (NVG band)

150 mW max

#### Electrical

VIN: 10 - 30 Volts

Power: 40W (average) 125W (max)

#### Mechanical

Size: 178 x 178 x 260 mm (7 x 7 x 10 inches)

Turret Diameter: 178 mm (7 inches)

Weight: 3.4 kg (7.5 lbs)



Day NIIRS 7.1 @ 4242 ft

Night NIIRS 7.1 @ 4242 ft

### TASE400HD

Daylight HD with Night Imaging

#### Payload Performance

Payload Stabilization: 2-axis, < 75  $\mu$ RAD jitter

#### Mid Wave IR Camera

10x optical zoom with continuous digital zoom up to 4x

MWIR: 3 to 5  $\mu$ m

Resolution: 640 x 480

HFOV: 22° - 2.2° continuous

#### HD Daylight Camera

30x Optical Zoom

Resolution: 1280 x 720

HFOV: 39.7° - 1.4°

Video Out:

- SD: NTSC or PAL

- HD-SDI: 720P 30Hz

#### Laser Illuminator (optional)

Class IIIb laser<sup>1</sup>

850 nm (NVG band)

150 mW max

#### Electrical

VIN: 10 - 30 Volts

Power: 40W (average) 125W (max)

#### Mechanical

Size: 178 x 178 x 267 mm (7 x 7 x 10.5 inches)

Turret Diameter: 178 mm (7 inches)

Weight: 3.5 kg (7.75 lbs)



Day NIIRS 7.0 @ 4242 ft

Night NIIRS 7.1 @ 4242 ft

### TASE400LRS

Long Range Day / Night Imaging

#### Payload Performance

Payload Stabilization: 2-axis, < 75  $\mu$ RAD jitter

#### Mid Wave IR Camera

10x optical zoom with continuous digital zoom up to 4x

MWIR: 3 to 5  $\mu$ m

Resolution: 640 x 480

HFOV: 22° - 2.2° continuous

#### Daylight Camera

36x continuous optical zoom

HFOV: 55.7° - 1.94°

Video Out: NTSC or PAL

#### Spotter Camera

53x fixed zoom

HFOV: 1.06° (SD) / 2.1° (HD)

Video Out: HD-SDI

#### Laser Illuminator (optional)

Class IIIb laser<sup>1</sup>

850 nm (NVG band)

150 mW max

#### Electrical

VIN: 10 - 30 Volts

Power: 40W (average) 125W (max)

#### Mechanical

Size: 178 x 178 x 267 mm (7 x 7 x 10.5 inches)

Turret Diameter: 178 mm (7 inches)

Weight: 3.5 kg (7.75 lbs)



Day NIIRS 7.6 @ 4242 ft

Night NIIRS 7.1 @ 4242 ft



## TASE400DXR

Extended Range Daylight Imaging

### Payload Performance

Payload Stabilization: 2-axis, < 75  $\mu$ RAD jitter

With optical stabilizing element

### Daylight Camera 1

31x continuous optical zoom

HFOV: 55.7° - 1.94°

Video Out: NTSC or PAL

### Daylight Camera 2

164x fixed zoom

HFOV: 0.34° (SD) / 0.69° (HD)

Video Out: HD-SDI

### Electrical

VIN: 10 - 30 Volts

Power: 50W (average) 125W (max)

### Mechanical

Size: 178 x 178 x 267 mm (7 x 7 x 10.5 inches)

Turret Diameter: 178 mm (7 inches)

Weight: 3.5 kg (7.75 lbs)



Day NIIRS 9 @ 4242 ft

## TASE400D

Long Range Daylight Imaging

### Payload Performance

Payload Stabilization: 2-axis, < 75  $\mu$ RAD jitter

### Daylight Camera 1

31x continuous optical zoom

HFOV: 55.7° - 1.94°

Video Out: NTSC or PAL

### Daylight Camera 2

1.6x optical zoom element

HFOV: 7.2° - 1.2°

Video Out: NTSC or PAL

### Electrical

VIN: 10 - 30 Volts

Power: 30W (average) 125W (max)

### Mechanical

Size: 178 x 178 x 260 mm (7 x 7 x 10 inches)

Turret Diameter: 178 mm (7 inches)

Weight: 2.7 kg (6.08 lbs)



Day NIIRS 7.6 @ 4242 ft

## TASE310

High Definition Daylight Imaging

### Payload Performance

Payload Stabilization: 2-axis, < 75  $\mu$ RAD jitter

### HD Daylight Camera

30x continuous optical zoom

Resolution: 1280 x 720

HFOV: 39.7° - 1.4°

Video Out:

- SD: NTSC or PAL

- HD-SDI: 720P 30Hz

### Electrical

VIN: 10 - 30 Volts

Power: 20W (average) 125W (max)

### Mechanical

Size: 178 x 178 x 267 mm (7 x 7 x 10.5 inches)

Turret Diameter: 178 mm (7 inches)

Weight: 3 kg (6.5 lbs)



Day NIIRS 7.1 @ 4242 ft

## TASE400E

Custom Stabilized Platform

### Payload Performance

Payload Stabilization: 2-axis, < 75  $\mu$ RAD jitter

### Control Interface

Control Interface: RS-232

Video Out: SD: NTSC or PAL

### Electrical

VIN: 10 - 30 Volts

### Mechanical

Size: 178 x 178 x 267 mm (7 x 7 x 10.5 inches)

Turret Diameter: 178 mm (7 inches)

### Payload

Custom configurations available for power / com / video



Day / Night NIIRS ratings are payload dependent

## Cloud Cap Technology Advanced Imaging Capability

The TASE series of stabilized camera payloads are small, light-weight, and robust with features previously only available on larger, more expensive turrets.

Thermal (with Longwave and Midwave) imagery is ideal for night surveillance.

TASE camera payloads provide unmatched image quality over similar camera systems in this class.

Applications include reconnaissance and surveillance (law enforcement and aerial firefighting), aerial surveying, infrastructure inspection (pipeline and utility), mapping, surface vehicles and atmospheric sciences.

## Industry Leading Size Weight and Power(SWaP)

Less weight and minimal power requirements translate into increased useful load, endurance and mission performance.

All cameras are available in NTSC or Pal video output formats

Control Interface: RS-232, CAN, Ethernet (with adaptor)

Rotation Limits: 360° continuous pan, +45° / -85° tilt

Slew Rate: 150°/sec

Operating Temperature Range: -20°C to +60°C

## Advanced Command and Control Software

ViewPoint is an advanced user interface software application that displays video and command/control for TASE payloads.

Key features include: video recording and playback with associated payload metadata, real-time display of video and metadata for operational awareness, camera control via joystick, keyboard, and/or touchscreen.

### Real Time Image Mosaic

The increased information provided by mosaicing displayed in real-time on the payload interface provides an increased advantage to the payload operator, showing path history and a wider situational awareness FOV when zooming in on an object.

**Object Tracking** The TASE payload autonomously tracks selected objects such as people, cars, trucks or other objects moving in the scene based on image match within a user adjustable target box.

**PathTrack** autonomously points the payload toward pre-loaded GPS coordinates along a path. Path-Track auto-detects aircraft heading and picks up the path for tracking.

**Geo-Stamp** allows the operator to designate areas of interest by simply pressing a key or touching the screen. The incident is tagged on a map, a still image is taken, and the location is logged in a separate incident folder. This feature is invaluable when a still-image of an object/feature is needed for later reference. The captured still-image can also be overlaid on Google Earth and used for a variety of different purposes.

**Video On Map** Live video geo-located and terrain warped over moving map. This feature greatly enhances the operator's ability to identify the exact location of the object or feature the camera is pointed at.

### TASE Payload Key Features

Onboard GPS/INS - no external IMU needed for geo-pointing

Fiber Optic Gyro (FOG) stabilization

Common operator interface across TASE family

Environmentally sealed

Onboard image processing capable of target tracking, scene steering and electronic image stabilization

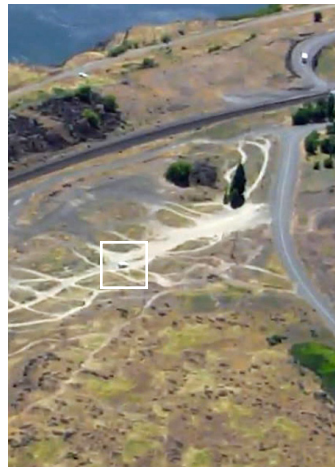
Laser illuminator, laser rangefinder options (selected payloads only)

**ViewPoint interactive map displays location and payload sensor footprint on ground. Satellite, streets and maps, or any user supplied map supported.**

### Plugins

**VideoSim Plugin** provides training, demonstration, testing and development support.

**Antenna Plugin** Provides an integrated solution to either Piccolo Command Center (PCC) or the payload user interface (ViewPoint) for control of a third party positioner



## Advanced Day / Night Imaging



## High Definition Daylight Imaging



## Extended and Long Range Imaging



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Due to our continued efforts in product improvement, all product specifications are subject to change without notice.

### For additional information:

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