

## Long Range Stabilized Auto Tracking System

# TBX-30 *EO/IR Gyro Stabilized Gimbal Camera*

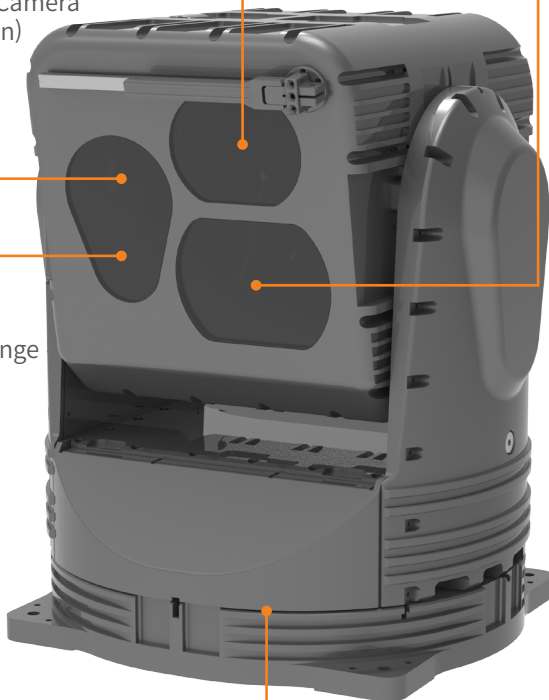


Full HD  
Color Camera

Cooled  
Thermal Camera

SWIR Camera  
(Option)

Laser Range  
Finder



- Azimuth : N x 360°
- Tilt : +75~-30°
- Gyro Stabilizer(2x, 4x Option)
- Auto Tracking Feature
- MIL-STD-810, MIL-STD-461
- GPS & Digital Compass(Optional)

The TBX-30 series is equipped with a high-performance Cooled thermal imaging zoom camera or Uncooled thermal imaging zoom camera and Full HD/4K color zoom camera. It is an automatic video tracking camera with high performance 2-axis gyro motion stabilization, and 4-axis gyro motion stabilization is available as an option. It is a high-tech rugged day&night camera system which has proven performance and durability mounted on small/medium sized patrol boats and unmanned surface boats. It is also possible to support the automatic orientation function by interworking with systems such as RADAR, LIDAR or AIS mounted on a ship.

### MAIN FEATURE

- Long Range Day/Night Surveillance
- Heavy Duty Pan / Tilt System
- 2 or 4 Axis High Precision Stabilization System
- Color/LRF/Thermal Alignment System
- BIT and Warning System
- Multi Streaming System
- Fog Enhancement Feature
- User security System
- Target Automatic Video Tracking
- Radar Interlocking

#### Cooled Thermal Camera

- High Resolution : 1280x1024 Pixels
- Continuous Zoom/Auto Focus

#### Full HD Color Camera

- Focus32x Optical Zoom, 16x Digital Zoom

## APPLICATION



[ Coast Guard Ship ]



[ Navy Ship ]



[ USV ]



[ Coastline Surveillance ]

## SPECIFICATON

### Cooled Thermal Camera

Sensor Type	Cooled InSb, 1280x1024
Pixel Pitch	10μm
Wave Length	3μm ~ 5μm (MWIR)
Lens Focal Length (HFOV)	33 to 420mm (20.0° ~ 1.7°)
F Number	F/#4.0
Digital Zoom	x8 Digital Zoom
NETD	<25mK typical (without lens)
Video Output	HDMI (Option : HD-SDI, Camera Link)
Frame Rate	30Hz
Focus System	Auto Focus
Color Variation(Palette)	WhiteHot / Rainbow / Twilight / TwilightShifted / Turbo / Iron /Plasma
Image Processing	AGC, Adaptive HEQ, LAE, DDE, DNR, Gamma, Sharpness, Auto Integral Time
Detection Range Human Target	13.8km
Detection Range Vehicle Target	20.6km
Recognition Range Human Target	4.3km
Recognition Range Vehicle Target	8.9km

### Day/Night Color Camera

Sensor Type	1/2.5 inch CMOS
Image Resolution	4K UHD / 1920(H) x 1080P(V)
Focal length	15.2 ~ 500.0mm, Auto Focus32x Optical Zoom, 16x Digital Zoom
FOV	H 25.6°(Wide) ~ 0.81°(Tele)

### SWIR Camera (Option)

Spectral Range	700 to 1700nm
Resolution	1280 x 1024
Lens	40 to 400mm
Frame Rate	60 Hz (30 fps)

### LRF (Option)

Laser wavelength	1.5 um, eyesafe
Detection Range	32km for Max Range
Accuracy	1 ~ 1.5m

### Controller (Option)

Joystick	PTZ control
Display	LED Display
Buttons	Stabilization Mode Select, Tracking Engagement
Interface	RADAR, GPS, Ethernet, RS232/RS422

### Gimbal

Dimensions	Ø520 x 650 mm
Weight	≤80Kg
Pan/Tilt Range	Pan : 360° continuous, Tilt : -45° ~ +60°
Max Speed	Pan : 60°/s, Tilt : 30°/s
Stabilization	4 Axis Gyro Stabilization System (2 Axis Stabilization -Option)
Power Requirement	12-34 VDC, 500 W or less
Operating Temp.	-30°C to +55°C
Environmental Rating	MIL-STD-810, MIL-STD-461

### Video Auto Tracking

#### Color



[ Human Tracking ]



[ Fast Move Object ]

#### Theraml

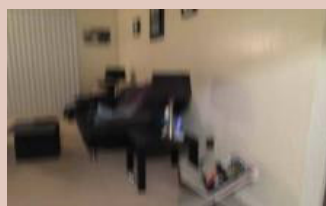


[ Human Tracking ]



[ Boat Tracking ]

### SWIR & Onboard Processor



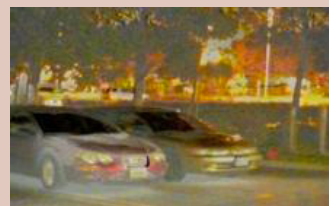
[ Digital Image Stabilizer ]



[ Anti Fog ]



[ On Screen Display ]



[ Video Fusion ]