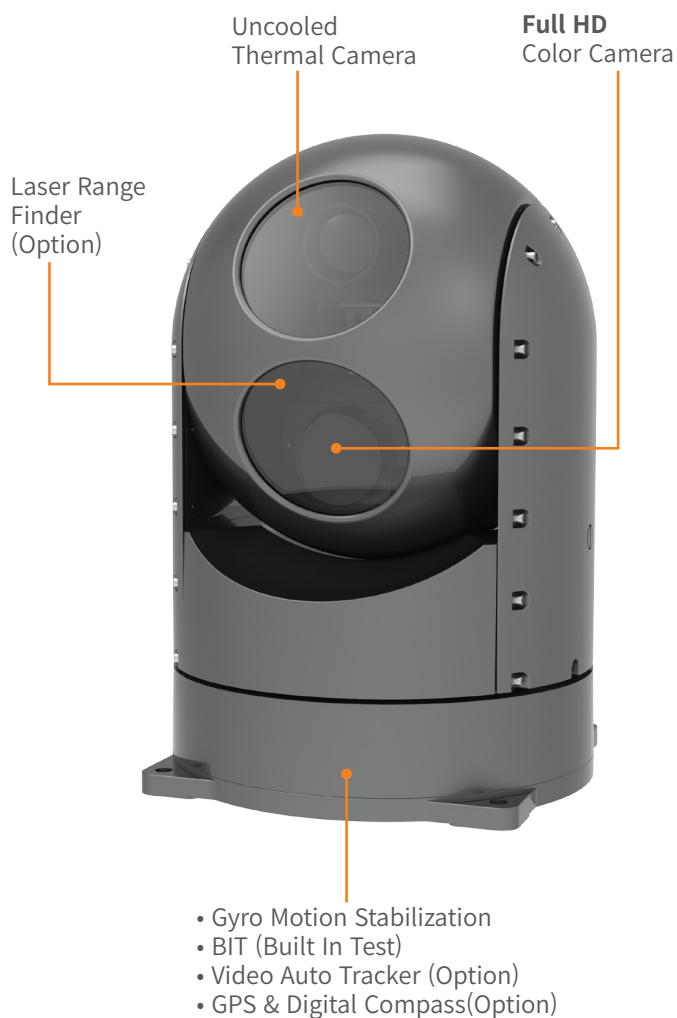


Marinized Gimbal Camera

TBX-10 *EO/IR Gyro Stabilized Gimbal Camera*



The TBX-10 series is equipped with a high-performance 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, which can equip fixed FOV 25mm focal length typical or 18mm/35mm 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

- Dual Camera Monitoring
- Marine Environment Proven
- Full HD Color Zoom Camera
- High Quality Thermal Camera
- High Performance Gyro Stabilization
- Auto Tracker / Detector(Option)
- Image Stabilization(Option)
- IPx6 Harsh Environment

Uncooled Thermal Camera

- High Resolution : 640×480 Pixels
- Various Lens Selectable / Digital Zoom

HD Color Camera

- 32x Motor Zoom Camera
- Autofocus

APPLICATION



[Ship]



[Coast Guard]



[UAV]

SPECIFICATON

Uncooled Thermal Camera*

Sensor Type	Uncooled, 640x480
Pixel Pitch	12 or 17μm
Wave Length	8μm ~ 14μm (LWIR)
Lens Focal Length (HFOV)	25mm(18°) Typical 18mm(24°) / 35mm(12.5°) Selectable
F Number	f/1.0
Digital Zoom	2x & 4x Digital Zoom
NETD	≤ 50 mK
Video Format	NTSC/PAL
Frame Rate	60 Hz (30 fps)
Focus System	Motorized Focus
Color Variation(Palette)	10 colors(Grey,Iron, Rain/Half Grey/Yellow/ MidGrey/Fire/BlueRed)
Image Processing	AGC, Level&Span, NUC, Mirror, Flip, Invert, Image Filter on Screen Menu
Detection Range** Human Target NATO Target	820m 2.2km
Recognition Range** Human Target NATO Target	210m 580m

Day/Night Color Camera

Sensor Type	1/2.8 inch CMOS
Image Resolution	1920(H) x 1080P(V), 1280 X 1024, 1280 X 960, 1280 X 720P
Focal length	4.3 ~ 129mm, 30x Optical Zoom, 12x Digital Zoom
FOV	H 61.5°(Wide) ~ 2.3°(Tele)

Gimbal

Dimensions	Ø190mm x 270mm
Weight	≤5Kg
Pan/Tilt Range	Pan : 360° continuous, Tilt : -30° ~ +90°
Max Speed	Pan : 60°/s, Tilt : 30°/s
Stabilization	2 Axis Gyro Stabilization System
Power Requirement	12-34 VDC, 100 W or less
Operating Temp.	-30°C to +55°C
Environmental Rating	IP66

LRF (Options)

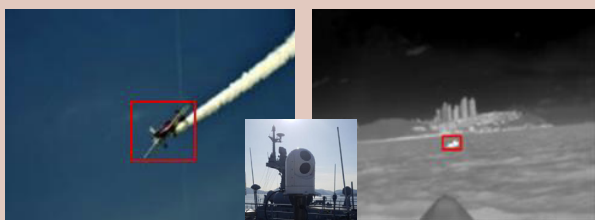
Laser wavelength	1.5 um, eyesafe
Detection Range	2km for 2.3x2.3m Nato Target
Measurement Rate	1,10 Selectable
Accuracy	1 ~ 1.5m

Controller (Options)

Controller Type	Panel Mount Controller
Display	10.2" Touch LED
Interface	RADAR, GPS, Ethernet, RS232/RS422
Features	Built-In-Test, Stabilization SelectReal-Time Monitoring, Network Control

* Thermal Camera may be replaceable with various focal length
 ** Range depends on whether condition 50% probability

Video Auto Tracking

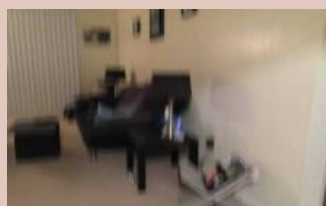


[Auto Tracking Feature for UAV and Boat]



[Mounted on UAV]

Onboard Video Processor



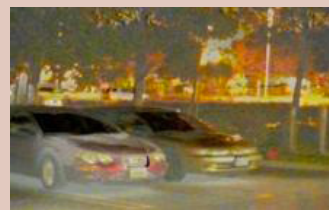
[Digital Image Stabilizer]



[Anti Fog]



[On Screen Display]



[Video Fusion]