ZX-SL350U1 Vehicle-mounted Triple Light Opto-electronic Turntable

It adopts a two-axis, two-frame high-pre It adopts a two-axis, two-frame high-pre cision servo-stabilized platform. It is equipped with payloads such as a HD color visible light camera, IR thermal imager, laser rangefinder, and automatic target recognition and video tracker. It can be installed on vehicles to perform tasks including search, reconnaissance, identification and surveillance.

Main Functions

- Capable of observing, tracking and identifying both stationary and moving targets day and night
- Features mobile reconnaissance and surveillance capability
- Provides target positioning functionality in both stationary and moving states
- Equipped with automatic moving target detection
- Includes target recognition function that automatically identifies typical targets (vehicles, person-nel, helicopters, drones, boats) within video range, including target type and quantity
- image enhancement
- Supports multi-touch and joystick operation
- Provides photo/video capture functions for reconnaissance footage and network-encoded video, including recording, transmission and playback
- Maintains normal operation when vehicle tilt angle does not exceed 15°
- Features self-check, online monitoring and fault alert functions

System Technical Specifications

Optical Equipment Performance	
TV Camera	
Under clear visibility (≥10km) for targets with equivalent dimensions	Vehicle (2.3m∗4.6m): Recognition range ≥10km
	Personnel (1.7m∗0.5m): Recognition range ≥4km
IR Thermal Imager	
Under clear visibility (≥8km), relative humidity ≤60%, and 3°C target-background tempera-ture difference	Vehicle (2.3m∗4.6m): Recognition range ≥2km
	Personnel (1.7m∗0.5m): Recognition range ≥1km

Laser Rangefinder	
Under clear visibility (≥10km) for vehicle (2.3m∗4.6m)	Minimum range: ≤100m
	Maximum range: ≥10km
	Range accuracy: ±5m
Servo System	
Operational Range	Azimuth: n∗360°
	Elevation: -25° to +50°
Rotation Speed	Azimuth/Elevation: 0.05°/s to 60°/s
Angle Measurement Accuracy	Azimuth/Pitch: ≤1mrad (1σ)
Line of Sight Stabilization	Under 0.5Hz vehicle oscillation with ±5° amplitude: ≤0.3mrad (1σ)
Reconnaissance Control Terminal	
Processor	Domestic multi-core processor with ≥4 cores, single-core frequency ≥2.0GHz
OS & Database	Supports domestic OS (Kylin V10), database (DM V7.6) and office software (WPS V10.1+)
Memory	≥16GB
Storage	≥1TB nominal capacity
Display	Sunlight-readable, ≥15-inch screen
	Resolution: ≥1920∗1080
	Viewing angles: Horizontal/Vertical ≥150
Network Video Codec	≥1080p@30Hz
Network	100M/1000M adaptive
Target Measurement Accuracy (4km observation)	
Stationary mode (vehicle tilt ≤15°)	Horizontal error: ≤13m (CEP)
	Elevation error: ≤10m (PE)
Mobile mode (≤15km/h on flat unpaved roads)	Horizontal error: ≤36m (CEP)
	Elevation error: ≤20m (PE)
Power Requirements	
Operating voltage	DC 20-33V
Rated power consumption	≤70W
Peak power consumption	≤170W