

## ZX-GD190 Cooled Triple-Light EO Pod

### Main Functions

- Capable of outputting both infrared and visible light video images.
- Supports switching between infrared and visible light video output.
- Infrared mode offers polarity switching (black-hot/white-hot) and image enhancement.
- Equipped with electronic zoom functionality.
- Features frame angle electric locking.
- Supports angular position follow-up tracking.
- Isolates disturbances in azimuth and pitch frames from the missile body.
- Real-time output of pod frame angles and inertial line-of-sight angular velocity of targets.
- Capable of video compression and storage.
- Supports multi-target recognition.
- Detection range for typical 3m×6m targets: ≥10 km; recognition: ≥6 km.
- Detection range for typical 5m×15m target: ≥18 km; recognition: ≥15 km.



- Features target acquisition, tracking, and reacquisition after target loss.
- Supports target positioning.
- Provides scene-matching navigation (military maps).
- Capable of damage assessment.

### Technical Specifications

#### Infrared Thermal Imager

|                 |                   |
|-----------------|-------------------|
| Detector type   | MCT               |
| Wavelength      | 3–5 μm            |
| Resolution      | 640×512           |
| FOV             | 2°×1.6° ~ 30°×24° |
| Electronic zoom | 2×, 4×            |

#### Visible Light Camera

|                  |            |
|------------------|------------|
| Sensor type      | Color CMOS |
| Image resolution | 1920×1080  |

|   |   |
|---|---|
| Optical zoom  | 30×   |
| Focal length  | 4.3 mm–129 mm                                   |
| Frame rate  | 30 fps  |
| Electronic zoom   | 2×, 4×  |
| <b>Laser Rangefinder</b>  |   |
| Wavelength  | 1535 nm   |
| Range   | 8 km  |
| Repetition rate   | 1 Hz–10 Hz                                      |
| <b>Servo Stabilization Loop</b>                                 |   |
| Isolation of stabilization loop                                 | ≤3% (typical disturbance: 2.5°/2 Hz)            |
| Gyro zero-drift compensation upon startup and temperature-drift |   |
| Optical axis drift speed  | ≤6°/min   |
| <b>Frame Angle Range</b>  |   |
| Azimuth   | n * 360°  |
| Pitch   | -110° ~ +15°                                    |
| Zero-position error   | Azimuth: ≤0.3°                                  |
|   | Pitch: ≤0.3°                                    |
| Stabilization accuracy  | 100 μrad  |
| Tracking accuracy   | 100 μrad  |
| <b>Power Supply &amp; Consumption</b>                           |   |
| System power supply   | 28V ±0.5V                                       |
| Rated power consumption   | ≤18W  |
| Peak power consumption  | ≤50W  |
| <b>External Electrical Interfaces</b>                           |   |
| Communication   | RS422   |
| Video   | Network, SDI                                    |
| <b>Weight</b>   |   |
| Total weight  | ≤5 kg   |
| <b>Dimensions</b>   |   |
| Size  | ≤∅110 mm (spherical diameter) * 145 mm (height) |