

GIMBAL-AI PRODUCT PORTFOLIO / 2026

# INTELLIGENT EO/IR SYSTEMS

Airborne pods, AI tracking, counter-UAV turrets and precision seekers — one optical stack from detection to guidance.

AIRBORNE PODS

AI TRACKING

TURRETS

SEEKERS



THE OPTICAL STACK

# One line of sight. Four decisions.

The portfolio is organised around what the system must do next: detect a target, understand it, hold a stable track, or guide a munition. Each product can stand alone; together they cover the full airborne and ground mission chain.

HiTS designs and manufactures the GIMBAL-AI range of stabilized EO/IR systems.

18

MODEL NAMES & FORMATS

6

TOPS ONBOARD AI

≤35

MS TRACKING LATENCY

5

KM LASER RANGING

01 / DETECT

## Find the signal

Stabilized visible, thermal and laser sensors acquire targets across day, night and low-contrast conditions.

PT130 · PT95B · PD240 · PF400

02 / DECIDE

## Classify fast

Onboard AI recognises people, vehicles, boats, UAVs and buildings, then proposes a track in milliseconds.

TK5340 · GIMBAL-AI algorithms

03 / TRACK

## Hold the line

Two- and three-axis stabilization keeps the target centred through vibration, wind and airframe motion.

PV40 · PV40DYT · PD70 · PD80B

04 / GUIDE

## Close the loop

Compact IR and TV seekers provide terminal homing for guided munitions and air-defence interceptors.

DYT40 · DYT70 · DYT78 · DYT93

2026 PORTFOLIO

# The complete range

Fourteen documented product profiles, one project-specific fire-control platform, and three additional seeker formats available for configuration.

FOUNDATION

|    |                        |                                 |
|----|------------------------|---------------------------------|
| 02 | Portfolio architecture | Detect · decide · track · guide |
|----|------------------------|---------------------------------|

AIRBORNE & AI

|    |         |                           |
|----|---------|---------------------------|
| 05 | TK5340  | AI tracking module        |
| 07 | PV40DYT | High-speed rocket pod     |
| 09 | PT130   | Long-range tri-sensor pod |
| 11 | PD80B   | Loitering munition pod    |

COUNTER-UAV & GROUND

|    |       |                         |
|----|-------|-------------------------|
| 12 | PF400 | Tri-sensor C-UAV turret |
| 14 | PD240 | Long-range EO/IR turret |

PRECISION SEEKERS

|    |               |                          |
|----|---------------|--------------------------|
| 15 | DYT40         | Visible-light seeker     |
| 17 | DYT78         | Dual-sensor 78 mm seeker |
| 19 | Seeker family | DYT140 · DYT152 · DYT180 |

INTEGRATION

|    |                    |                           |
|----|--------------------|---------------------------|
| 20 | Rifle fire-control | Project-specific platform |
| 22 | Contact            | Engineering & quotations  |

|    |              |                        |
|----|--------------|------------------------|
| 03 | Model matrix | Compare the full range |
|----|--------------|------------------------|

|    |       |                            |
|----|-------|----------------------------|
| 06 | PV40  | FPV counter-UAV pod        |
| 08 | PT95B | Tri-sensor tracking pod    |
| 10 | PD70  | Compact dual-sensor gimbal |

|    |       |                               |
|----|-------|-------------------------------|
| 13 | PD230 | 60× EO/IR surveillance turret |
|----|-------|-------------------------------|

|    |       |                       |
|----|-------|-----------------------|
| 16 | DYT70 | Air-defence IR seeker |
| 18 | DYT93 | IR / visible seeker   |

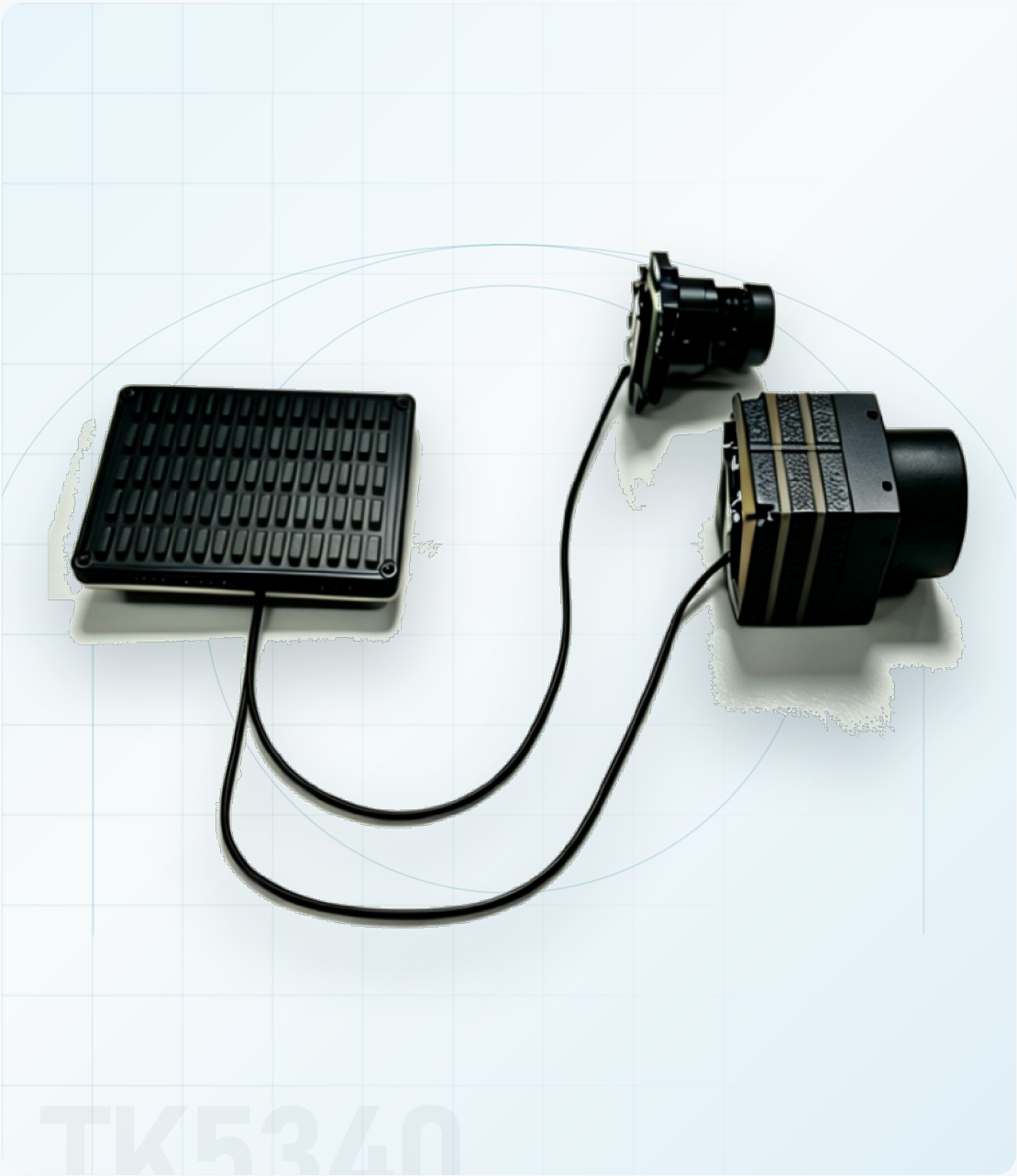
|    |                        |                         |
|----|------------------------|-------------------------|
| 21 | Mission configurations | C-UAS · loitering · ISR |
|----|------------------------|-------------------------|

# Compare the range

17 MODEL NAMES · 4 MISSION CLASSES

| MODEL   | CLASS        | STABILIZATION | SENSOR LOAD        | KEY REACH             | PRIMARY USE               |
|---------|--------------|---------------|--------------------|-----------------------|---------------------------|
| TK5340  | AI CORE      | —             | 2× MIPI + DVP      | 4.2 km class          | FPV / industrial UAV      |
| PV40    | AIRBORNE POD | 2-axis        | Visible            | 0.5 km person         | FPV intercept             |
| PV40DYT | AIRBORNE POD | 2-axis        | Visible            | 0.3 km UAV            | High-speed rocket UAV     |
| PD70    | AIRBORNE POD | 3-axis        | IR + 4K            | 6× digital            | Compact day / night ISR   |
| PD80B   | AIRBORNE POD | 2-axis        | IR + wide VIS      | 2 km UAV IR           | Loitering munition        |
| PT95B   | AIRBORNE POD | 3-axis        | IR + 4K + LRF      | 1.5 km LRF            | Tactical ISR              |
| PT130   | AIRBORNE POD | 3-axis        | IR + 2K + LRF      | 2 km LRF              | Long-range ISR            |
| PF400   | COUNTER-UAV  | 2-axis        | TV + IR + 5 km LRF | 7.3 km TV UAV         | Fixed-site C-UAS          |
| PD230   | COUNTER-UAV  | 2-axis        | TV + IR            | 7 km TV · 3 km IR UAV | Wide-area surveillance    |
| PD240   | COUNTER-UAV  | 2-axis        | TV + IR            | 7 km TV UAV           | Wide-area surveillance    |
| DYT40   | SEEKER       | 2-axis        | Visible            | 2 km vehicle          | Guided munition           |
| DYT70   | SEEKER       | 2-axis        | Infrared           | 2 km UAV              | Air defence               |
| DYT78   | SEEKER       | 2-axis        | IR + visible       | 1.5 km                | Compact munition          |
| DYT93   | SEEKER       | 2-axis        | IR + visible       | 2 km TV               | Anti-tank / ground attack |
| DYT140  | SEEKER       | 2-axis family | On request         | On request            | Program-specific          |
| DYT152  | SEEKER       | 2-axis family | On request         | On request            | Program-specific          |
| DYT180  | SEEKER       | 2-axis family | On request         | On request            | Program-specific          |

Ranges are supplier-stated detection or operational ranges and vary with target size, contrast and atmosphere. DYT140 / DYT152 / DYT180 are configurable formats; specifications are quoted per project.



AI TRACKING MODULE

# TK5340

Low-latency recognition for FPV and industrial UAVs

A compact AI processing module that turns visible and infrared video into stable target tracks. It supports manual target selection, automatic recognition, multi-target tracking and tracking through occlusion.

|                  |                                |
|------------------|--------------------------------|
| AI COMPUTE       | RK3576 · 6 TOPS NPU            |
| TRACKING LATENCY | ≤ 35 ms                        |
| VIDEO INPUTS     | 2× MIPI visible + DVP infrared |
| SUPPLY           | 12–60 V · 6S / 12S packs       |
| BOARD SIZE       | 53 × 40 × 10 mm                |
| TARGET CLASSES   | Person · vehicle · boat · UAV  |

- FPV INTERCEPT
- GROUND RECONNAISSANCE
- SENSOR FUSION
- OEM INTEGRATION

Visible focal lengths 8 / 16 / 25 / 35 mm; IR focal lengths 9.1 / 19 / 25 / 35 mm.



COUNTER-UAV MICRO POD

# PV40

## A 190 g stabilized eye for FPV interceptors

PV40 is a two-axis, gyro-stabilized visible-light micro pod. Its integrated camera, low-latency link and AI tracking are packaged for small interceptors where mass and response time decide the mission.

|               |                             |
|---------------|-----------------------------|
| CONFIGURATION | Single visible light        |
| WEIGHT        | ≤ 190 g incl. damper        |
| DIMENSIONS    | 88.8 × 42 × 48 mm           |
| SENSOR        | 1920 × 1080 @ 60 Hz · 16 mm |
| DETECTION     | Person 0.5 km · UAV 0.3 km  |
| SUPPLY        | 12–24 V · ≤ 15 W            |

- FPV COUNTER-UAV
- AIRBORNE INTERCEPT
- LOW-SWAP
- AI TRACKING

Two-axis range: heading ±40°, pitch ±60°. Tracking rate 20°/s at 50 Hz.



HIGH-SPEED ROCKET UAV POD

# PV40DYT

## Stabilized vision at 200 m/s

PV40DYT adapts the PV40 optical core for high-speed rocket airframes. The compact two-axis pod combines HD imaging, low-latency transmission and autonomous multi-target tracking for terminal intercept.

|                  |                             |
|------------------|-----------------------------|
| CONFIGURATION    | Single visible light        |
| WEIGHT           | ≤ 220 g incl. damper        |
| DIMENSIONS       | Ø 88 × 94.4 mm              |
| SENSOR           | 1920 × 1080 @ 60 Hz · 16 mm |
| MAX FLIGHT SPEED | 200 m/s                     |
| SUPPLY           | 12–60 V · ≤ 15 W            |

- HIGH-SPEED INTERCEPTOR
- TERMINAL TRACKING
- ROCKET UAV
- AI LOCK-ON

Heading ±60°, pitch –90° to +50°. Designed to maintain tracking through aggressive airframe motion.



TRI-SENSOR TRACKING POD

# PT95B

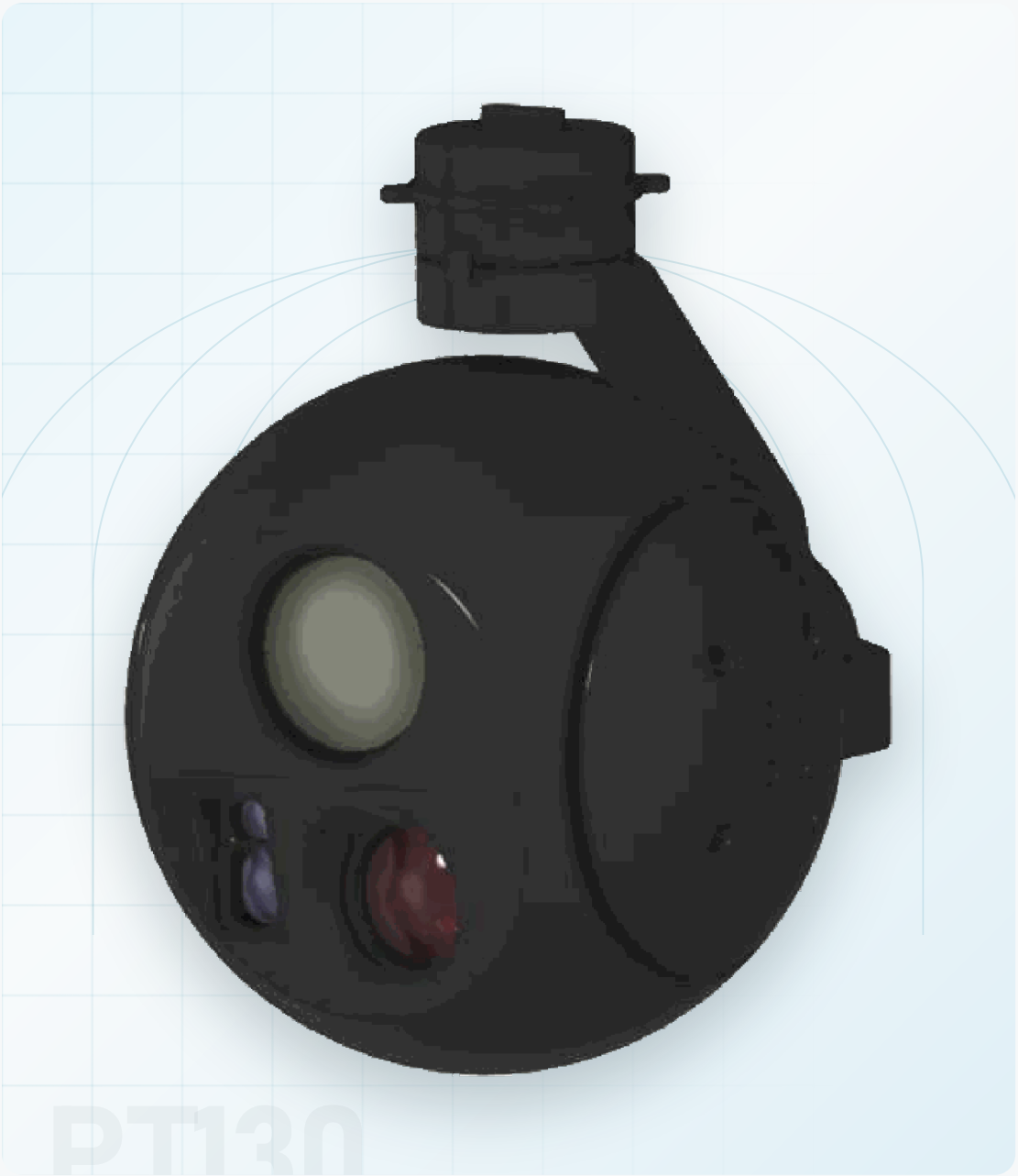
4K daylight, thermal vision and 1.5 km ranging

A three-axis stabilized pod combining a 4K visible camera, a 640 × 512 thermal imager and a 1.5 km laser rangefinder. It is built for compact airborne ISR where several sensors must share one line of sight.

|               |                        |
|---------------|------------------------|
| CONFIGURATION | IR + 4K TV + laser     |
| WEIGHT        | ≤ 700 g                |
| THERMAL       | 640 × 512 · 19 mm      |
| VISIBLE       | 3840 × 2560 · 10× zoom |
| LASER RANGE   | 5-1500 m · 905 nm      |
| SUPPLY        | 12-26 V · ≤ 15 W       |

- TACTICAL ISR
- TARGET LOCATION
- DAY / NIGHT
- AIRBORNE MAPPING

Visible detection: person 0.8 km, vehicle 2.5 km. IR: person 0.3 km, vehicle 1.0 km.



LONG-RANGE TRI-SENSOR POD

# PT130

30× zoom, thermal imaging and 2 km ranging

PT130 extends the tri-sensor concept to longer-range observation. A 30× optical zoom camera, 640 × 512 thermal channel and 2 km laser rangefinder sit inside a three-axis stabilized 1.1 kg pod.

|               |                               |
|---------------|-------------------------------|
| CONFIGURATION | IR + 2K TV + laser            |
| WEIGHT        | ≤ 1100 g · 1200 g with damper |
| DIMENSIONS    | Ø 130 × 185 mm                |
| THERMAL       | 640 × 512 · 25 / 35 mm        |
| VISIBLE       | 1920 × 1080 · 30× zoom        |
| LASER RANGE   | 5–2000 m · 905 nm             |

- LONG-RANGE ISR
- PERSISTENT SURVEILLANCE
- TARGET LOCATION
- AIRBORNE INTEGRATION

Visible detection up to 2.5 km for vehicles; IR detection up to 1.0 km. Mechanical interface customizable.



COMPACT DUAL-SENSOR GIMBAL

# PD70

A 250 g three-axis gimbal with thermal and 4K

PD70 pairs a 640 × 512 thermal core with a 4K visible camera in a compact three-axis gimbal. The 250 g package is intended for small UAVs that need stabilized day/night awareness without a large payload bay.

|               |                          |
|---------------|--------------------------|
| CONFIGURATION | IR + 4K TV               |
| WEIGHT        | ≤ 250 g                  |
| DIMENSIONS    | 76 × 80.3 × 118.3 mm     |
| THERMAL       | 640 × 512 · 19 mm        |
| VISIBLE       | 3840 × 2560 · 6× digital |
| SUPPLY        | 12–26 V · ≤ 15 W         |

- SMALL UAV
- DAY / NIGHT ISR
- MAPPING
- AI TARGET CUEING

Three-axis stabilization; heading ±100°, pitch –100° to +35°, roll ±45°. Tracking rate 10°/s.



LOITERING MUNITION TRACKING POD

# PD80B

A 285 g terminal tracker for loitering munitions

PD80B combines a 25 mm thermal channel with a 16 mm wide-field visible camera. The two-axis pod is optimized for close-range terminal tracking of vehicles, personnel and structures.

|                |                            |
|----------------|----------------------------|
| CONFIGURATION  | IR + wide VIS              |
| WEIGHT         | ≤ 285 g                    |
| THERMAL        | 640 × 512 · 25 mm          |
| VISIBLE        | 2 MP · 16 mm fixed         |
| TRACKING RANGE | Vehicle 1 km · UAV 2 km IR |
| STABILIZATION  | Two-axis                   |

- LOITERING MUNITION
- TERMINAL GUIDANCE
- BUILDING TRACKING
- LOW-SWAP

Turbojet UAV (2 × 2 m): IR 2 km, visible 1 km. Vehicle (2.3 × 2.3 m): IR and visible 1 km.



TRI-SENSOR C-UAV TURRET

# PF400

A fixed-site counter-UAV eye with a 3-second panoramic scan

PF400 combines a 30× zoom visible channel, 75 mm thermal imager, 5 km laser rangefinder and a fast steering mirror. The mirror completes a 360° scan in three seconds for rapid detection and lock-on.

|               |                                     |
|---------------|-------------------------------------|
| CONFIGURATION | TV + IR + 5 km laser                |
| WEIGHT        | 20 kg                               |
| DIMENSIONS    | Ø 430 × 435 mm                      |
| VISIBLE       | 2560 × 1440 · 30× zoom              |
| THERMAL       | 640 × 512 · 75 mm                   |
| SLEW          | 360° continuous · pitch –50° to 90° |

- FIXED-SITE C-UAS
- 360° SURVEILLANCE
- RAPID LOCK-ON
- ALL-WEATHER

Visible UAV detection up to 7.3 km; IR UAV detection up to 1.5 km. AI compute 6 TOPS; IP66 housing.

PF400



60× EO/IR SURVEILLANCE TURRET

# PD230

A 60× optical turret with a 75 mm thermal channel

PD230 is a 20 kg two-axis EO/IR turret for wide-area observation. It combines a 60× visible zoom camera with a 75 mm uncooled thermal imager for day/night target detection, identification and tracking.

|               |                             |
|---------------|-----------------------------|
| CONFIGURATION | TV + IR                     |
| WEIGHT        | 20 kg                       |
| DIMENSIONS    | Ø 300 × 405 mm              |
| VISIBLE       | 2560 × 1440 · 60× zoom      |
| THERMAL       | 640 × 512 · 75 mm           |
| DETECTION     | TV 10/18/7 km · IR 1/4/3 km |

- AIRSPACE MONITORING
- WIDE-AREA SURVEILLANCE
- TARGET IDENTIFICATION
- 24/7 OPERATION

Two-axis stabilization. Target classes: UAV, person, vehicle and boat. Pan and tilt travel are not specified in the supplier PD230 table.



LONG-RANGE EO/IR TURRET

# PD240

60× optical reach for wide-area surveillance

A two-axis EO/IR turret for persistent surveillance and target identification. The 60× visible zoom and 75 mm thermal channel deliver long-range day/night observation from a 20 kg pedestal.

|               |                                    |
|---------------|------------------------------------|
| CONFIGURATION | TV + IR                            |
| WEIGHT        | 20 kg                              |
| DIMENSIONS    | Ø 300 × 405 mm                     |
| VISIBLE       | 2560 × 1440 · 60× zoom             |
| THERMAL       | 640 × 512 · 75 mm                  |
| SLEW          | 360° continuous · pitch -75° to 0° |

- BORDER SURVEILLANCE
- AIRSPACE MONITORING
- TARGET IDENTIFICATION
- 24/7 OPERATION

Visible detection: person 10 km, vehicle 18 km, UAV 7 km. IR: person 1 km, vehicle 4 km, UAV 1.5 km.

PD240



VISIBLE-LIGHT SEEKER

# DYT40

A 200 g optical seeker for guided munitions

DYT40 is a two-axis stabilized visible-light seeker built around a 25 mm fixed-focus, 2 MP camera. Its small envelope and low mass suit surface-to-air and ground-attack missile applications.

|                   |                         |
|-------------------|-------------------------|
| CONFIGURATION     | Visible light           |
| WEIGHT            | ≤ 200 g                 |
| DIMENSIONS        | Ø 40 × 120 mm           |
| SENSOR            | 1920 × 1080 · 25 mm     |
| OPERATIONAL RANGE | 2 km vehicle · 1 km UAV |
| TRACKING RATE     | ≥ 10°/s                 |

- GUIDED MUNITION
- TERMINAL HOMING
- LOW-COST SEEKER
- AI RECOGNITION

Two-axis range: heading ±12°, pitch –15° to +10°. Withstands ≥100 g launch shock.



AIR-DEFENCE INFRARED SEEKER

# DYT70

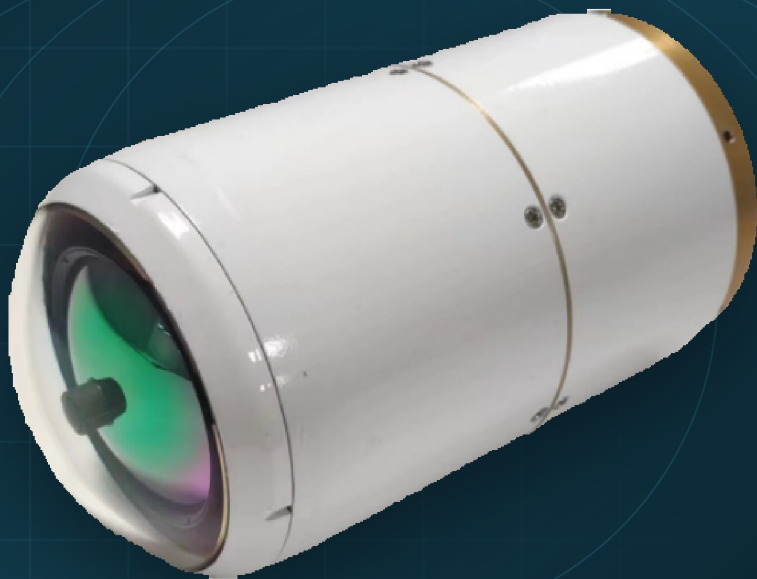
Infrared guidance for Mach 2 air-defence intercept

DYT70 is a thermal seeker for low-altitude air defence. It is designed for Shahed-class targets at up to 2 km and supports high-speed rocket interceptors and small air-defence missiles.

|                  |                           |
|------------------|---------------------------|
| CONFIGURATION    | Uncooled infrared         |
| WEIGHT           | ≤ 600 g                   |
| DIMENSIONS       | Ø 70 × 130 mm             |
| THERMAL          | 640 × 512 @ 50 Hz · 35 mm |
| TARGET RANGE     | UAV 2 km · 1 × 1 m        |
| MAX FLIGHT SPEED | Mach 2                    |

- AIR DEFENCE
- COUNTER-UAV
- HIGH-SPEED INTERCEPT
- AI TRACKING

6 TOPS onboard compute. Tracking rate 30°/s; heading and pitch ±20°; launch shock ≥100 g.



DUAL-SENSOR 78 MM SEEKER

# DYT78

A compact IR / TV seeker for 78 mm envelopes

DYT78 packages infrared and visible imaging into a 78 mm seeker envelope. It is intended for compact guided munitions that need day/night target acquisition and autonomous tracking.

|                   |                    |
|-------------------|--------------------|
| CONFIGURATION     | IR + visible       |
| WEIGHT            | ≤ 700 g            |
| DIMENSIONS        | Ø 78 × 140 mm      |
| THERMAL           | 45 mm focal length |
| VISIBLE           | 35 mm focal length |
| OPERATIONAL RANGE | 1.5 km             |

- COMPACT MUNITION
- DUAL-SENSOR HOMING
- AI RECOGNITION
- PROGRAM-SPECIFIC

Detailed stabilization, interface and environmental specifications are available on request.

DYT78



IR / VISIBLE SEEKER

# DYT93

## Dual-sensor guidance in a 680 g seeker

DYT93 pairs a 45 mm thermal imager with a 36 mm visible camera. The two-axis seeker is designed for anti-tank and ground-attack munitions requiring target confirmation before impact.

|                   |                     |
|-------------------|---------------------|
| CONFIGURATION     | IR + visible        |
| WEIGHT            | ≤ 680 g             |
| DIMENSIONS        | Ø 93 × 123 mm       |
| THERMAL           | 640 × 512 · 45 mm   |
| VISIBLE           | 1920 × 1080 · 36 mm |
| OPERATIONAL RANGE | IR 1.5 km · TV 2 km |

- ANTI-TANK
- GROUND ATTACK
- DUAL-SENSOR
- LAUNCH SHOCK

Tracking rate ≥20°/s; heading ±20°, pitch ±30°. Withstands ≥100 g launch shock.

PRECISION SEEKERS

# Seven formats. One guidance logic.

The DYT family scales visible, infrared and dual-sensor guidance from 40 mm to 180 mm envelopes. Every format uses two-axis stabilization, AI-assisted recognition and autonomous tracking.

| MODEL  | ENVELOPE     | OPTICAL MIX         | RANGE      | MASS       |
|--------|--------------|---------------------|------------|------------|
| DYT40  | Ø40 × 120 mm | Visible · 25 mm     | 2 km       | ≤200 g     |
| DYT70  | Ø70 × 130 mm | Infrared · 35 mm    | 2 km UAV   | ≤600 g     |
| DYT78  | Ø78 × 140 mm | IR 45 mm + TV 35 mm | 1.5 km     | ≤700 g     |
| DYT93  | Ø93 × 123 mm | IR 45 mm + TV 36 mm | 2 km TV    | ≤680 g     |
| DYT140 | On request   | Configurable        | On request | On request |
| DYT152 | On request   | Configurable        | On request | On request |
| DYT180 | On request   | Configurable        | On request | On request |



## From 40 mm to 180 mm.

Visible-only formats minimize cost and mass. Infrared formats add night and low-visibility capability. Dual-sensor seekers combine target confirmation with terminal tracking.

### 6

TOPS AI · TARGET RECOGNITION

Optical configuration, electrical interface, field of view and environmental limits can be adapted to the airframe and launch environment.

DYT140, DYT152 and DYT180 are available as project-specific configurations. Contact engineering for drawings and qualification data.

## PROJECT-SPECIFIC PLATFORM

# Intelligent rifle fire-control turret

A compact EO sight and motorized fire-control mount for man-portable engagement. The platform is configured per programme rather than sold as a fixed catalogue SKU.



## Compact sight. Stabilized control.

The turret combines an optical sight with a motorized mount in a rifle-mounted form factor. It is intended for integration with a host weapon, display and power system.

- 01 Integrated EO sight and motorized fire-control mount
- 02 Compact, man-portable architecture
- 03 Interface and optical configuration defined per programme
- 04 Engineering support from concept to qualification

**Project configuration.** Dimensions, sensor choice, stabilization performance, power and data interfaces are quoted after requirement review. Product image shows a supplier platform study.

## BUILD THE CHAIN

# Three ways to close the loop

Products are designed to combine. A typical mission chain pairs acquisition, a stable tracking payload and a guidance or response layer.



## 01 / COUNTER-UAV

## High-speed intercept

PV40DYT holds a visible track on a small UAV from a rocket airframe; TK5340 adds classification and lock-on; DYT70 provides terminal IR guidance.

PV40DYT

TK5340

DYT70



## 02 / LOITERING MUNITION

## Terminal tracking

PD80B supplies a 285 g thermal / visible tracking head; DYT93 or DYT78 provide dual-sensor terminal guidance in the munition envelope.

PD80B

DYT93

DYT78



## 03 / TACTICAL ISR

## Long-range observation

PT130 delivers 30× daylight, thermal imaging and 2 km ranging; TK5340 can add onboard recognition, while PF400 or PD240 extend fixed-site coverage.

PT130

TK5340

PF400

**HiTS** GIMBAL-AI

# SEE FURTHER. ACT FASTER.

For product data, integration drawings, qualification evidence and quotations, contact the HiTS / GIMBAL-AI engineering team. Custom optical configurations, interfaces and environmental qualification are available across the range.

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