



SEEK UAV

SEEK UAV THERMALVISION MODULES

combat-proven thermal imaging solutions for fpv, isr
and interceptor systems

PRODUCT OVERVIEW

SEEK UAV Thermal Imaging Modules are a family of high-performance uncooled infrared solutions designed for FPV drones, ISR platforms, interceptor systems and dual-use security applications.

The product line includes thermal imaging modules with resolutions of 256×192, 384×288 and 640×512 pixels, as well as the SEEK UAV 640 DUO dual-channel electro-optical system, which combines a 640×512 thermal imaging sensor and a high-sensitivity visible-light camera within a compact platform.

Designed and manufactured in Ukraine, SEEK UAV products deliver reliable thermal awareness, low-latency performance and flexible integration capabilities for modern unmanned and security systems. Combat-proven and continuously improved through ongoing R&D, SEEK UAV solutions support defense, border protection, critical infrastructure security and advanced OEM integration applications.

KEY FEATURES

HIGH-RESOLUTION THERMAL IMAGING

Available resolutions:
256 × 192 | 384 × 288 | 640 × 512
For reconnaissance, target detection, navigation and security applications.

COMBAT-PROVEN TECHNOLOGY

Validated in real operational environments and continuously improved through battlefield-driven development and feedback.

ULTRA-LOW LATENCY

Optimized for FPV operations and real-time situational awareness.

COMPACT AND LIGHTWEIGHT DESIGN

Designed for weight-sensitive UAV platforms and rapid integration into airborne systems.

FLEXIBLE INTEGRATION OPTIONS

Interfaces include:
USB 2.0, MIPI, UART, I2C, BT656, DVP
Enabling integration into FPV drones, ISR platforms, interceptor drones and custom OEM solutions.

ADVANCED IMAGE PROCESSING

- Proprietary image enhancement algorithms
- Digital shutterless calibration
- Adjustable image parameters
- Automatic and manual calibration options

Parameter	Seek UAV 256	Seek UAV 384	Seek UAV 640	Seek UAV 640 DUO
Detector Type	Uncooled VOxiInfrared Focal Plane Detector			VOx + Sony IMX291 1/2.8" (Visible)
Resolution	256 × 192	384 × 288	640 × 512	640×512 (Thermal) + 1945×1109 (Optical)
Frame Rate	25 / 50 Hz	30 / 60 Hz	30 / 60 Hz	30/60 Hz (Thermal) + 1080p@30fps (Optical)
Pixel Pitch	12 μm (Thermal Channel)			
Spectral Range	8 ~ 14 μm (Thermal Channel)			
NETD	≤ 40mK @ 25°C, F#1.0, 25Hz			
Thermal Time Constant	< 12ms			
Image Adjustment				
NUC (Non-Uniformity Correction)	Shutter Correction / Digital (Shatterless Algorithm)			
Digital Zoom	1.0× ~ 8.0× (Step 0.1)			
Electrical & Communication Parameters				
Digital Video	DVP / BT656 / USB2.0 / MIPI			DVP/BT656/USB2.0/ MIPI + USB 2.0 UVC
Interfaces	UART / I2C / USB2.0			
Power Supply	5V			
Power Consumption (USB)	< 0.35W	< 0.42W	< 0.7W	< 1.5W (Peak for Dual Channels)
Physical Properties				
Weight (without lens)	< 7g		< 8.6g	< 18.5g (Dual-Channel Assembly)
Dimentions	21 × 21 × 10.3 mm			Combined Dual-Channel Block
Environmental Conditions				
Operating Temperature	-40°C ~ +80°C			

APPLICATIONS

- FPV Strike Drones
- Reconnaissance UAVs
- Interceptor Drones
- Maritime Unmanned Systems
- Border Surveillance
- Security Monitoring
- Critical Infrastructure Protection
- Defense Technologies
- Dual-Use Security Systems
- OEM Thermal Integration

MANUFACTURING

Developed and manufactured by SEEK UAV / Thermal Vision Technologies.

- Founded in 2019
- Production based in Ukraine
- Combat-validated technology
- Scalable manufacturing capacity
- Continuous R&D and product improvement
- Partner of the Brave1 defense innovation ecosystem