

TU 3.0 Series

Thermal Imaging Scope

Travel Light, Perform Strong

**APEX
VISION**

outdoor

Introduction

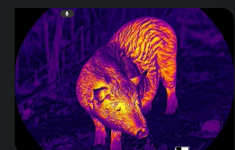
The TU 3.0 Series redefines precision optics through advanced thermal imaging, modular architecture, and AI-driven performance. Spanning a full range from lightweight, compact models to dual-spectrum and integrated rangefinding solutions, it addresses the varied needs of hunters, law enforcement, and professional users. Standard features include AI-enhanced imaging, a 3.0 shutterless architecture, ergonomic controls, IP68-rated protection, and dual-band Wi-Fi—ensuring stable and reliable operation even in extreme conditions.

Features

- o **APEXVISION:** Next-gen infrared imaging system for ultra-clarity & precision
- o **Exceptional Imaging:** NETD < 15mK infrared detector paired with Hyper-light 2.0 Scenario-Optimized Algorithm
- o **Shutterless Design*:** Innovative 3.0 shutterless design ensures smooth, uninterrupted visuals.
- o **Seamless Control:** Centrally positioned focus wheel & zoom lever, ergonomically designed for effortless operation.
- o **Rugged Design:** IP68-rated, shock resistance up to 6000J.
- o **Wi-Fi Upgrade:** Supports 2.4G/5G dual-band, enabling more efficient data transmission.
- o **Powerful APP:** Connect mobile APP for OTA firmware upgrade and ballistic calculation.

Applications

- o Night Hunting
- o Law Enforcement
- o Search & Rescue
- o Personal security



*Note: The shutter module has been retained to ensure high image quality during startup and under significant temperature variations.

Specifications

Product model	TU435S	TU635S	TU650S
Sensor			
Core technology	Equipped with full ApexVision S1 system architecture: Detector ApexCore S1 + Platform Nexus 1.0 + Algorithm Hyper-Light 2.0		
Type	Uncooled VOx Infrared Detector, 8 to 14μm		
Resolution	400×300@12μm	640×512@12μm	
NETD	15mK		
Frame rate	50 Hz		50Hz
Lens			
Objective lens	35mm, F0.9		50mm, F0.9
Field of view	7.4°×4.4°	11.8°×7.1°	8.8°×7.0°
FOV m@100m	13×8	21×12	15×12
Magnification	4.4x-17.6x	2.8x-22.4x	3.7x-29.6x
Detection range	1800m/1950yd		2600m/2800yd
Focus	Manual		
Display			
Display type	0.49" AMOLED 1920×1080		1.03" AMOLED 2560×2560
Color palettes	White Hot, Black Hot, Red Hot, Green Hot, Iron Red, Blue Hot, Sepia		
Eyepiece	Eye relief: 48mm; Diopter -5 to +5; Zoom: 14x		Eye relief: 60mm; Diopter -5 to +5; Zoom: 7.8x
Hardware			
Wi-Fi	2.4G, 5G		
Interface	USB-C (Charge/USB2.0)		
Tube diameter	Standard 30 mm		
Others	Microphone, Bluetooth		
System			
Recording function	Photo/Video (Audio recording included)		
Memory capacity	128 GB		256 GB
Power			
Battery type	18500 ×1 Battery (Built-in) and 18650 ×1 Battery (External)		18650 ×2 Battery (Built-in) and 18650 ×1 Battery (External)
Operating time	8 hours		14 hours
Environmental			
Operating temp.	-20°C to 50°C / -4°F to +122°F		
Shock	6000J		
Encapsulation	IP68		
Physical			
Weight (g/oz)	738/26.03	745/26.28	921/32.49
Size (mm/in)	374×89×76/14.72 ×3.50× 2.99		421×89×80/16.57×3.50×3.15
Standard	Device, Eye Mask, Quick-Release Scope Mount, Carry Bag, Lint-Free Cloth, Battery Charger, 18650 Battery ×2, 5V 2A Adapter (US, UK, Australia, and Europe), USB-A to USB-C Cable, Quick Start Guide, Warranty Card		
Optional	Bluetooth Remote Control, 18650 Battery		