

APEX
VISION

TB 2.0 Series

Thermal Imaging Attachment

Precision in Silence, Clarity without lag

outdoor

Introduction

The TB 2.0 Series is a front-mounted thermal attachment designed for seamless integration with standard optics, offering a quick upgrade to thermal capability. Balancing lightweight design with professional-grade performance, it delivers sharp, stable imaging in a compact form. App connectivity enables OTA firmware upgrades and ballistic calculations, adapting to diverse use cases. The TB650P model further enhances functionality with built-in laser rangefinding for accurate long-range targeting.

Features

- **APEXVISION:** Next-gen infrared imaging system for ultra-clarity & precision
- **Shutterless Design*:** Innovative 3.0 shutterless design ensures smooth, uninterrupted visuals.
- **Top-Tier Clarity:** Powered by Hyper-light 2.0 algorithm and high-sensitivity detectors
- **Standard 18650:** Replaceable, rechargeable battery with low-power design for extended runtime
- **Ultra-Precise:** 1.22cm@100m per-click adjustment, compatible with 15x daylight optics
- **LRF in Lens:** Integrated laser rangefinder in the lens elevates ranging accuracy (for TB650LS/TB1260LS)

Applications

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



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

Specifications



Product model	TB650S	TB650LS	TBI260LS
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	640×512@12μm		1280×1024@12μm
NETD	15mK		
Frame rate	50Hz		
Lens			
Objective lens	50mm, F0.9		60mm, F1.0
Field of view	8.8°×6.6°		14.6°×11.0°
FOV m@100m	15×11		25×19
Magnification	1x		
Detection range	2600m/2800yd		3200m/3500yd
Focus	Manual		
Display			
Display type	0.39" AMOLED 1920×1080		0.5" AMOLED 1600×1200
Color palettes	White Hot, Black Hot, Red Hot, Green Hot, Iron Red, Blue Hot, Sepia		
Eyepiece	Eye relief: 20mm		
Hardware			
Laser rangefinder	/	1200m/1300yd	
Wi-Fi	2.4G, 5G		
Interface	USB-C (Power supply/USB2.0)		
Others	Microphone, Bluetooth		
System			
Recording function	Photo/Video (Audio recording included)		
Memory capacity	64 GB		
Power			
Battery type	Single, Replaceable 18650 Battery		Replaceable 18650 ×2 Battery
Operating time	5 hours		6 hours
Environmental			
Operating temp.	-20°C to 50°C / -4°F to +122°F		
Shock	6000J		
Encapsulation	IP68		
Physical			
Weight (g/oz)	490/17.28	485/17.11	740/26.10
Size (mm/in)	144×86×79/5.67×3.39×3.11	139×86×79/5.47×3.39×3.11	162×97×102/6.38×3.82×4.02
Standard	Device, Carry Bag, Lint-Free Cloth, Battery Charger, 18650 Battery ×2, USB-A to USB-C Cable, Quick Start Guide, Warranty Card		
Optional	Bluetooth Remote Control, 18650 Battery, Adapter Ring, Clip-on Ring Mount, Quick-Release Scope Mount		

Adapter Ring	
A	Weights 70g, compatible with 38/40/42/44/46mm
B	Weights 80g, compatible with 48/50/52/54mm
C	Weights 90g, compatible with 56/58/60/62/64mm