

APEX
VISION

TU Muo 3.0 Series

Multispectral Thermal Imaging Scope

Brilliance in Thermal & Optical

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

- **APEXVISION:** Next-gen infrared imaging system for ultra-clarity & precision
- **Exceptional Imaging:** NETD < 15mK infrared detector paired with Hyper-light 2.0 Scenario-Optimized Algorithm
- **Dual Sights:** Integrated thermal and night vision for all-day, all-weather targeting.
- **Comfortable Viewing:** QHD 2560×2560 AMOLED display for clear, smooth visuals.
- **Shutterless Design*:** Innovative 3.0 shutterless design ensures smooth, uninterrupted visuals.
- **Seamless Control:** Centrally positioned focus wheel & zoom lever, ergonomically designed for effortless operation.
- **Laser Range:** Pinpoint target locations with accuracy, up to 1500m.
- **Rugged Design:** IP68-rated, shock resistance up to 6000J.

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	TU650MS	TU1260MS
Sensor		
Core technology	Equipped with full ApexVision S1 system architecture: Detector ApexCore S1 + Platform Nexus 1.0 + Algorithm Hyper-Light 2.0	
Type	Thermal: Uncooled VOx Infrared Detector, 8 to 14μm; Digital: CMOS	
Resolution	Thermal: 640×512@12μm (NETD 15mK); Digital: 1920×1080@2.9μm	Thermal: 1280×1024@12μm (NETD 15mK); Digital: 1920×1080@2.9μm
Frame rate	50 Hz	50Hz
Lens		
Objective lens	Thermal: 50mm, F0.9; Digital: 35mm, F4.0	Thermal: 60mm, F1.0; Digital: 35mm, F4.0
Field of view	Thermal: 8.8°×7.0°; Digital: 6.4°×5.1°	Thermal: 14.6°×11.7°; Digital: 6.4°×5.1°
FOV m@100m	Thermal: 15×12; Digital: 11×9	Thermal: 25×20; Digital: 11×9
Magnification	Thermal: 3.7x~29.6x; Digital: 5.1x~81.6x	Thermal: 2.3x~36.8x; Digital: 5.1x~81.6x
Detection range	Thermal: 2600m/2800yd; Digital: 330m/360yd	Thermal: 3200m/3500yd; Digital: 330m/360yd
Focus	Manual	
Display		
Display type	1.03" AMOLED 2560×2560	
Color palettes	IR: White Hot, Black Hot, Red Hot, Green Hot, Iron Red, Blue Hot, Sepia; Visible: Day, Night, Low-light	
Eyepiece	Eye relief: 60mm; Diopter -5 to +5; Zoom: 7.8x	
Hardware		
Laser rangefinder	1500m/1630yd	
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	256 GB	
Power		
Battery type	18650 ×2 Battery (Built-in) and 18650 ×1 Battery (External)	
Operating time	12 hours	9 hours
Environmental		
Operating temp.	-20°C to 50°C / -4°F to +122°F	
Shock	6000J	
Encapsulation	IP68	
Physical		
Weight (g/oz)	1013/35.73	1145/40.39
Size (mm/in)	457×90×84/17.99×3.54×3.30	450×90×91/17.72×3.54×3.58
Standard	Device, Quick-Release Scope Mount, Carry Bag, Lint-Free Cloth, IR Illuminator, IR Illuminator Bracket, Battery Charger, 18650 Battery ×2, 5V 2A Adapter, USB-A to USB-C Cable, Quick Start Guide, Warranty Card	
Optional	Bluetooth Remote Control, 18650 Battery	

* Product performance is based on testing in a controlled laboratory environment. Your test results may vary due to several external and environmental factors.
All specifications are subject to the actual product. The manufacturer reserves the right to modify technical specifications without notice or liability to you.