



Guide Sensmart TU Gen2 Thermal Imaging Scope Instructions

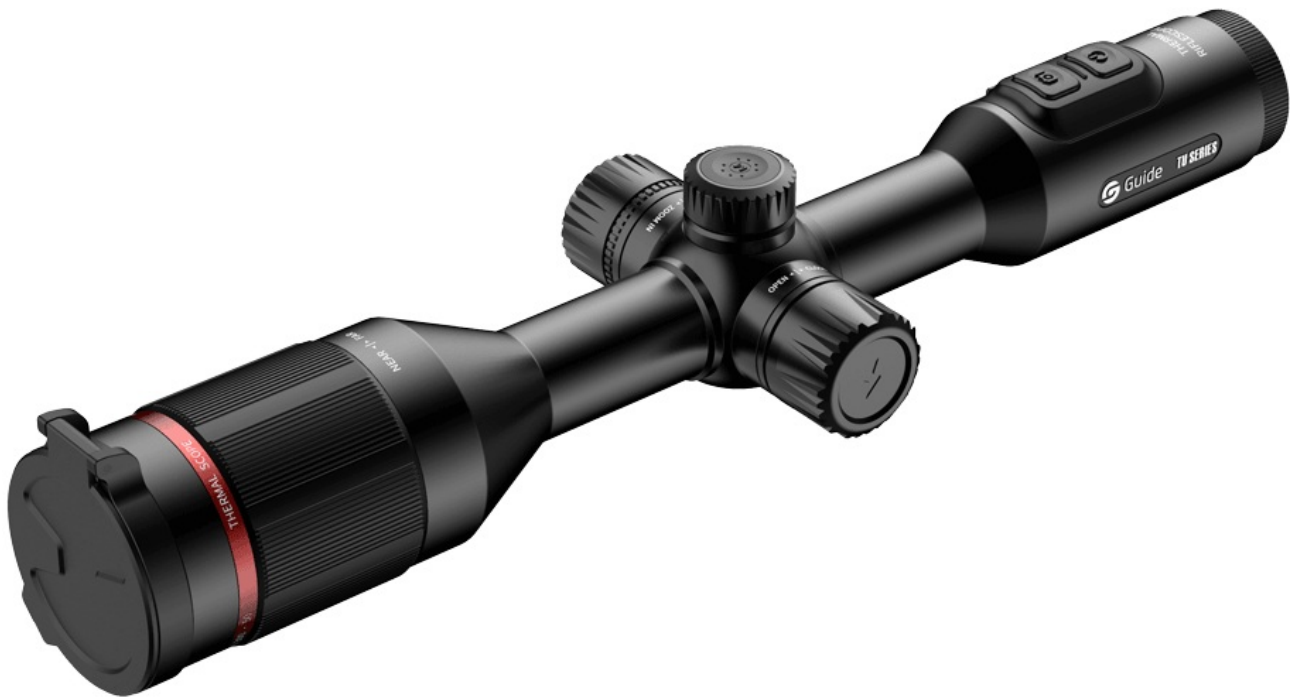
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Guide Sensmart TU Gen2 Thermal Imaging



Product Usage Instructions

- **Powering On/Off:**

- To power on the device, press and hold the power button for a few seconds. To power off, repeat the same step.

- **Adjusting Magnification:**

- Use the magnification control buttons to adjust the zoom level from 1x to 4x for standard models and up to 8x for optional models.

- **Recording Photo/Video:**

- To capture photos or videos, press the dedicated recording button. Images and videos will be saved to the internal storage or external SD card if available.

- **Connectivity:**

- You can connect the device to a computer or external display using the USB Type-C or micro HDMI port for data transfer or live viewing.

- **Firmware Upgrade:**

- Ensure the device is connected to the app and follow the on-screen instructions to upgrade firmware over-the-air.

FAQs

- **Q: How do I change the color mode of thermal images?**

- **A:** Use the menu settings to select from various color modes such as White Hot, Black Hot, Red Hot, Green Hot, etc.

- **Q: What is the range of the device?**

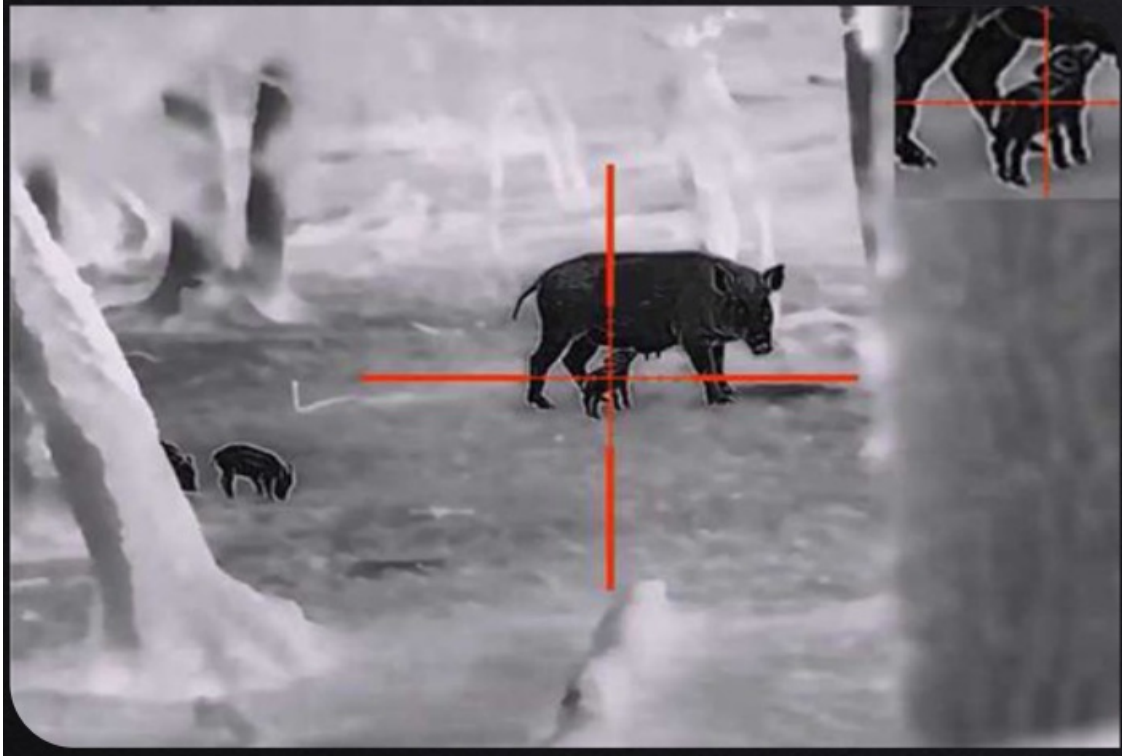
- **A:** The range varies from 1000m to 2000m depending on the model.

- **Q: Can I use an external battery with this device?**

- **A:** Yes, the device supports a customized external battery in addition to the built-in battery for extended usage.

Introduction

- The TU Gen2 Series is equipped with a high-sensitivity thermal sensor of 12μm and a 1440×1080 HD AMOLED display.
- Paired with the robust PureIR image algorithm, it provides users with a more vivid and detailed visual experience.
- The product has undergone meticulous optimization in its detailed design, elevating user-friendly operation.
- Furthermore, the battery life has seen a substantial extension, resulting in a 20% increase in duration.



Features and Benefits

- HD AMOLED display for higher image quality and reduced visual fatigue
- The PureIR algorithm for high-sensitivity thermal images
- Super long battery life of up to 12 hours
- OTA firmware upgrade by connecting to the APP
- Photo and video recording to keep the best moments
- IP67 encapsulation, resistant to 800G shock
- User-friendly improved left-hand operation experience and optimized opening direction of USB cover

Applications

- Night hunting
- Law enforcement
- Search & Rescue
- Personal security

Specifications

Product model	TU431	TU451	TU631	TU651
Sensor				
Type	Uncooled VOx Infrared Detector, 8 to 14μm			
Resolution	400×300, 12μm		640×480, 12μm	
NEED	≤30mK			
Frame rate	50 Hz			
Lens				
Focal length	35 mm, F1.0	50 mm, F1.0	35 mm, F1.0	50 mm, F1.0
Field of angle	7.8°×5.9°	5.5°×4.1°	12.5°×9.4°	8.8°×6.6°
Optical zoom	2.65x	3.78x	1.65x	2.36x
Digital zoom	1x ~ 4x		1x ~ 8x	
Focus	Manual			
Display				
Display type	0.39” AMOLED			
Resolution	1440×1080			
Eyepiece	Exit pupil distance≥48 mm; Diopter ± 4; Zoom: 14x			
Video output	Digital video			
Range Performance				
Detection range	1000 m	1400 m		2000 m
Functions				
Scene modes	Enhanced, Highlight, and Natural			
Color palettes	White Hot, Black Hot, adjustable Red Hot, Green Hot, Iron Red, Blue Hot			
Recording function	Photo/Video			


WIFI	2.4G
Supported Application	TargetIR
Firmware OTA	Upgrade device firmware via app connection
Others	PIP, Hot spot tracking, Rough ranging
Power	
Battery type	Single 18650 battery (built-in) and customized battery (external)
Operating time	≥12 hours
Interface	
USB	USB Type-C
Video interface	Micro HDMI
Mechanical interface	Picatinny
Tube diameter	Standard 30 mm
System	
Language settings	English / Russian / German / French / Italian / Spanish / Japanese / Korean / Polish
Memory capacity	128GB
Environmental	
Operating temperature	-30°C to 50°C
Storage temperature	-40°C to 70°C
Humidity	10 % to 95 % non-condensing
Shock	800 G at 1 ms half-sine pulse (as per IEC60068-2-27)
Encapsulation	IP67
Certification	FCC, CE, RoHS, EAC, un38.3

Physical	
Weight	≤990g (without eye mask and battery)
Size	≤377×107×69 mm (without eye mask)
Standard	The device, lens cap, eye mask, 5V2A adapter (US, Britain, Australia, and Europe), Desktop c harger, customized battery×2, Extended clip×2. USB Type-C cable, micro HDMI cable, Quick start guide
Optional	Bluetooth remote control, Customized battery, Extended bracket

Technical parameters are subject to change without notice. For the latest information, please visit our website: www.guideir.com.

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Documents / Resources

	<p>Guide Sensmart TU Gen2 Thermal Imaging Scope [pdf] Instructions TU Gen2 Thermal Imaging Scope, TU Gen2, Thermal Imaging Scope, Imaging Scope, Scope</p>
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References

- [User Manual](#)

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