TU Ursa Major Series

Thermal Imaging Riflescope

TU420	TU430	TU450
TU620	TU630	TU650

Introduce

Guide TU thermal imaging riflescope retains the appearance of a traditional daylight scope and perfectly integrates latest premium thermal imaging technology. The design of this scope accommodates long-term operating habits of hunters. TU series adopts high-sensitivity thermal detector with three different lens options of 25mm,35mm,50mm, and its 10 sets of zero calibration configuration make it convenient to switch between different instruments.
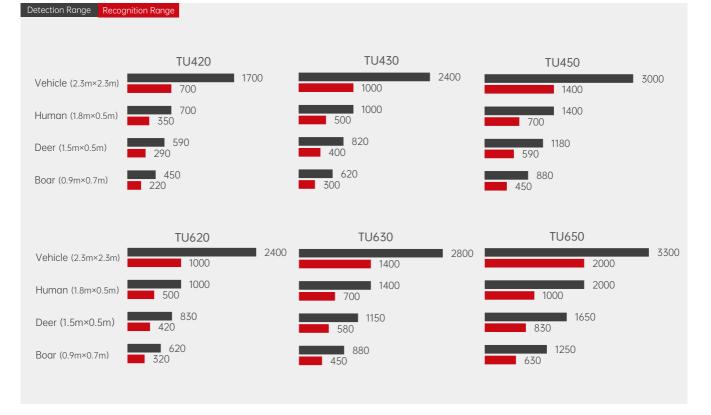
Features and Benefits

o HD OLED display, with 1x~8x smooth zoom, provides a comfortable visual experience

o 10 sets of zero calibration configurations can be saved, no need to recalibrate for different instruments

o The reticle density can be zoomed in synchronously with the image to ensure the aiming accuracy

o 10 kinds of reticles, 6 kinds of reticle colors, 10 grades of reticle brightness, for your selection

o Support photo and video, record wonderful moments at any time, easy to share

o Remote control by WIFI or Bluetooth, for diversified usage

o Rugged and durable, IP67 rating, working temperature -30℃~50℃, no fear of severe weather

o 10hrs super long duration time, changing battery without turn off, ensuring full day operations

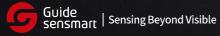o Mounts on Standard 30 mm Scope Rings

Application

o Outdoor Observing   o Law Enforcement

Specifications

Model	TU420	TU430	TU450	TU620	TU630	TU650
Infrared detector						
Detector type	VOx					
Detector resolution and pitch	400×300, 17 μm			640×480, 12 μm		
Spectral range	8 to 14 μm					
NETD	≤30mk @ F1 25℃					
Lens						
Focal length	25 mm; F1.1	35 mm; F1.2	50 mm; F1.2	25 mm; F1.0	35 mm; F1.0	50 mm; F1.0
Focus	Manual					
Field of angle	15.49°×11.65°	11.1°×8.33°	7.78°×5.84°	17.46°×13.14°	12.52°×9.41°	8.78°×6.59°
Frame rate						
Output frame frequency	50 Hz					
Zoom						
Optical zoom	1.6x	2.3x	3.2x	1.4x	2.0x	2.8x
Digital zoom	1 – 4x			1 – 8x		
Power						
Battery type	Single 18650 battery (built-in) and customized battery (external)					
Battery life	≥ 5 hours					
Interface						
USB	Type C, supporting power delivery, charging, and reading data from memory card					
Video interface	micro HDMI					
External expansion	External Display and Bluetooth remote control					
Mechanical interface	Picatinny					
Display						
Display type	0.39'' OLED					
Resolution	1024×768					
Eyepiece	Exit pupil distance ≥ 48 mm Exit pupil diameter ≥ 8 mm Diopter ± 4					
Eyepiece zoom	14x					
Video output	Digital video					
Button						
Button functions	Power / Menu / Zoom / Photo / Video					
Functions						
Smooth zoom	Available					
Screen brightness adjustment	10 levels					
Detector brightness adjustment	10 levels					
Detector contrast adjustment	10 levels					
Image enhancement	Available					
Scene modes	Enhanced, Highlight and Natural					
Ultra power saving mode	Available					
Image capturing	Available					
Video recording	Available					
WIFI	Transmission of real-time video via WIFI for remote control in the 2.4G frequency band and within 15 meters					
Color palettes	White Hot, Black Hot, adjustable Red Hot , Green Hot, Iron Red, Blue Hot					
Hot spot tracking	Available					
Compensation modes	Shutter and scene compensation					
Zero calibration	50 m / 100 m / 200 m / 300 m / 500 m					
Line type	10 types					
Line brightness	10 levels					
Line color	Black / white / yellow / green / red / blue					
Rough ranging	Available					
Automatic shutdown	Closed, 15, 30 or 60 mins					
Auto sleep	Closed, 5, 10, or 15 mins					
Language settings	Chinese / English / Russian / German / French					
System						
Time setting	Available					
Watermark settings	Closed, setting of date or date and time					
PIP	Upper left, Upper middle, Upper right, Closed, PIP with division line					
Restore to default	Available					
Start up	18 s					
Memory capacity	16GB					
Environmental						
Operating temperature range	-30 ℃ to 50 ℃					
Storage temperature range	-45℃ to 70℃					
Humidity	10 % to 95 % non-condensing					
Shock	500 G at 1 ms half sine pulse (as per IEC60068-2-27)					
Vibration	10 Hz - 150 Hz - 10 Hz 0.15 mm (as per IEC60068-2-6)					
Encapsulation	IP67					
Certification	IP67, IP67, FCC, CE, RoHS, EAC, un38.3					
Physical						
Weight	≤930g	≤940g	≤950 g	≤980 g		≤990 g
Size (L×W×H)	367×107×69 mm		377×107×69 mm	367×107×69 mm		377×107×69 mm
Standard	Type C cable, lens cap, 5V2A adapter (China, US, Britain, Australia and Europe), customized battery, customized battery charger (desktop charger), Micro HDMI cable, eye mask, two Picatinny rail clips, quick start guide					
Optional	Bluetooth remote control, customized battery					

Specifications

Detection Range | **Recognition Range**

TU420

	Detection	Recognition
Vehicle (2.3m×2.3m)	1700	700
Human (1.8m×0.5m)	700	350
Deer (1.5m×0.5m)	590	290
Boar (0.9m×0.7m)	450	220

TU430

	Detection	Recognition
Vehicle (2.3m×2.3m)	2400	1000
Human (1.8m×0.5m)	1000	500
Deer (1.5m×0.5m)	820	400
Boar (0.9m×0.7m)	620	300

TU450

	Detection	Recognition
Vehicle (2.3m×2.3m)	3000	1400
Human (1.8m×0.5m)	1400	700
Deer (1.5m×0.5m)	1180	590
Boar (0.9m×0.7m)	880	450

TU620

	Detection	Recognition
Vehicle (2.3m×2.3m)	2400	1000
Human (1.8m×0.5m)	1000	500
Deer (1.5m×0.5m)	830	420
Boar (0.9m×0.7m)	620	320

TU630

	Detection	Recognition
Vehicle (2.3m×2.3m)	2800	1400
Human (1.8m×0.5m)	1400	700
Deer (1.5m×0.5m)	1150	580
Boar (0.9m×0.7m)	880	450

TU650

	Detection	Recognition
Vehicle (2.3m×2.3m)	3300	2000
Human (1.8m×0.5m)	2000	1000
Deer (1.5m×0.5m)	1650	830
Boar (0.9m×0.7m)	1250	630