TN Series
Handheld Thermal Imaging Binoculars

Fearless the darkness, All in your eyes

Introduction

TN Normae Series follows classic binocular design, greatly reducing the fatigue feeling of long-time observation. It adopts high-sensitivity VOx uncooled IR detector, bring you high quality imaging and immersive observation experience with full color AMOLED 1024×768 high-definition display. A variety of functions to meet all your needs, such as taking photos, videos, WIFI, laser ranging, GPS, compass, etc.

Features and Benefits

o   IR resolution up to 640 × 480, Superior image quality

o   Quick location, laser ranger finder with 1000m/1500m accuracy

o   Full color AMOLED 1024×768 high-definition display, easy observation

o   Adjustable interpupillary distance between 60mm~70mm

o   Well-designed PIP mode, highlighting the target

o   Realize live image and remote control via WIFI connection

Applications

o   Night hunting

o   Law enforcement

o   Search & Rescue

o   Personal security

Specifications

Product model	TN430	TN450	TN630	TN650
Sensor				
Type	Uncooled VOx Infrared Detector, 8 to 14 µm			
Resolution	400×300, 17 µm		640×480, 12 µm	
NETD	≤30mK			
Frame rate	50Hz			
Lens				
Focal length	35 mm, F1.2	50 mm, F1.2	35 mm, F1.2	50 mm, F1.2
Field of view	11.1°×8.33°	7.78°×5.84°	12.52°×9.41°	8.78°×6.59°
Optical zoom	2.3x	3.2x	2.0x	2.8x
Digital zoom	1 ~ 4x		1 ~ 8x	
Focus	Manual			
Display				
Display type	0.39'' AMOLED×2			
Resolution	1024×768			
Eyepiece	Exit pupil distance≥16 mm; Diopter: -6 to +6; Interpupillary distance adjustment: 60mm to 70mm; Zoom: 13.8x			
Video output	Digital video			
Range Performance				
Detection range	1000 m	1400 m		2000 m
Hardware				
Laser rangefinder	Max. measuring range: 1000m		Max. measuring range: 1500m	
Others	GPS, Compass, Gyroscope, Bluetooth			
Functions				
Scene modes	Enhanced, Highlight and Natural			
Color palettes	Black Hot, White Hot, Adjustable Red Hot, Iron Red, Blue Hot, Green Hot			
Recording function	Photo/Video			
WIFI	2.4 G			
Supported Application	TargetIR			
Others	PIP, Hot spot tracking			
Power				
Battery type	2 replaceable 18650 batteries			
Operating time	≥ 5.5 hours			
Interface				
USB	USB Type-C			
Video interface	micro HDMI			
Mechanical interface	UNC ¼"-20 (Tripod mounting, L-bracket is required), Mechanical expansion interface			
System				
Language settings	Chinese / English / Russian / German / French			
Memory capacity	16 GB			
Environmental				
Operating temperature	-30 °C to 50 °C			
Storage temperature	-40 °C to 60 °C			
Humidity	10 % to 95 % non-condensing			
Shock	30 G at 11 ms half sine pulse (as per IEC60068-2-27)			
Drop	1 m			
Encapsulation	IP66			
Certification	IP66, FCC, CE, RoHS, EAC, un38.3			
Physical				
Weight	≤860 g	≤880 g	≤860 g	≤880 g
Size	162×146×70 mm			
Standard	Power adapter (in compliance with FCC, CE, EAC, and ROHS), Type C cable, Micro HDMI cable, lens cap, shoulder strap, 2 detachable eye masks, carry bag, 2 replaceable 18650 batteries (UN38.3), Battery charger, quick start guide			
Optional	Extended bracket, Bluetooth remote control			