





## GENERAL

- High range performance
- Advance image processing algorithms
- Low power consumption
- Fast start up time
- Long operation hours without changing battery
- Ergonomic Design
- Easy battery replacement
- Video and photo recording feature
- Compact size
- Low weight
- Robust mechanical construction
- Design suitable for use with different lens sets
- Plug-on (clip-on) and product options suitable for direct use (optional)
- Possibility of control with a remote control unit
- Automatically positioning the target in accordance with the data received from the ballistic tables and the measured distance with the smart residual feature.
- Possibility of updating software in the field

# NEZiH

## Smart Thermal Sight

## APPLICATION

NEZiH Smart Thermal Weapon Sight (NTSD-AK) has a robust, lightweight, modular and low power consumption structure with superior thermal imaging technology to give users equally good shooting ability both day and night.



## SPECIFICATIONS

### Detectors

Detector Type	Uncooled microbolometer
Detector Material	ASi
Detector Pitch	17 $\mu\text{m}$ x 17 $\mu\text{m}$   12 $\mu\text{m}$ x 12 $\mu\text{m}$
Spectral Band	8 $\mu\text{m}$ to 14 $\mu\text{m}$
Resolution	640 (Horizontal) x 480 (Vertical)
Sensitivity (f#1.0, 300 K)	< 60 mK (for 12 $\mu\text{m}$ x 12 $\mu\text{m}$ )   < 50 mK (for 17 $\mu\text{m}$ x 17 $\mu\text{m}$ and 12 $\mu\text{m}$ x 12 $\mu\text{m}$ )   < 30 mK (for 17 $\mu\text{m}$ x 17 $\mu\text{m}$ )
Pixel Operability	> 99.0 %

### Laser Range Finder

Wavelength	905 nm
Class	Eye Safe Class 1
Distance Capacity	@800m 1m x 1m

### Optical Interface

Effective Focal Length (EFL)	75 mm ( $\pm 5\%$ ) manual focus   60 mm ( $\pm 5\%$ )   35 mm ( $\pm 5\%$ )
FOV (Horizontal)	8.2° ( $\pm 5\%$ ) (for EFL: 75 mm)(for 17 $\mu\text{m}$ x 17 $\mu\text{m}$ )   5.8° ( $\pm 5\%$ ) (for EFL: 75 mm)(for 12 $\mu\text{m}$ x 12 $\mu\text{m}$ )   10.7° ( $\pm 5\%$ ) (for EFL: 60 mm)(for 17 $\mu\text{m}$ x 17 $\mu\text{m}$ )   7.6° ( $\pm 5\%$ ) (for EFL: 60 mm)(for 12 $\mu\text{m}$ x 12 $\mu\text{m}$ )   17.7° ( $\pm 5\%$ ) (for EFL: 35 mm)(for 12 $\mu\text{m}$ x 12 $\mu\text{m}$ )   12.5° ( $\pm 5\%$ ) (for EFL: 35 mm)(for 12 $\mu\text{m}$ x 12 $\mu\text{m}$ )
f/#	1.2 ( $\pm 5\%$ ) (for EFL: 75 mm)   1.25 ( $\pm 5\%$ ) (for EFL: 60 mm)   1.2 ( $\pm 5\%$ ) (for EFL: 35 mm)
Focus Type	Manual focus (for EFL: 75 mm)   Fixed focus, Athermalized (for EFL: 60 mm and 35 mm)
Focus Range	5m to infinity (for EFL: 75 mm)   2 m to infinity (for EFL: 60 mm)   1 m to infinity (for EFL: 35 mm)

### Mechanical Interface

Dimensions	90 mm x 86 mm x 172 mm ( $\pm 10\%$ ) (Optics with EFL: 60 mm)
Weight (without accessories)	960 gr ( $\pm 10\%$ ) (Optics with EFL: 60 mm)

### Imaging Performance

Frame Rate	25 Hz [CCIR (PAL)] (Configurable up to 60 Hz.)
Time-to-image	< 5 sec
Digital Zoom	X1, X2, X3, X4
Digital Zoom Continuous	From X1 to X4 with 0.02 steps
Noise Cancelation	Adaptive Temporal and Spatial Noise Cancelation
Detail Enhancement	Edge Aware Adaptive Digital Detail Enhancement
Image Enhancement	Plateau-based Adaptive Histogram Equalization / Linear / Manual
Color Palette	Up to 8 different palettes
Live Calibration	With Shutter (periodic or externally controllable)

### Interfaces

Communication	RS-232
Power	Operation with two 18650 type battery
Power Input Voltage	6 V to 17 V
Operation time with one battery set	>6 hours
Maximum Power Consumption	< 1 W
Display	800 X 600 Colored Oled Display
Analog Video Output	CCIR (PAL)
Diopter Adjustments	-6 / +2

### Environmental Conditions

Operating Temperature	[-20°C,+50°C]
Storage Temperature	[-20°C, +60°C]

### Standard Accessories

Two rechargeable 18650 type lithium ion batteries  
 User and Operation Manual  
 Battery charger (for charging two batteries at the same time)  
 Piccating mounting adapter (for mounting NTSD-AK to gun)  
 Lightproof eye protection rubber or bellows  
 Front lens protection cover  
 Lens cleaning kit  
 Protection cover  
 Land carrying bag

### Optional Accessories

Solar panel battery charger (two batteries can be charged at the same time)  
 Piccating rail (for mounting additional device on the device)  
 Shipping bag  
 Reflex sight

Specifications are subject to change without notice.

