



NTG8000CZ Cooled Thermal Binocular



NTG8000CZ Hand-held cooled multifunctional Thermal Imager is a handheld observation equipment with various functions and uses. It consists of infrared thermal imaging , visible light camera, laser ranging , digital compass , Beidou GPS, etc. It is mainly used to search and observe the fixed or moving targets in day and night, and find the range to the target. At the same it can display the location of the targets. Cooled thermal sensor can see through the water steam in the sea, so it can be used in coast guard by sea police or Navy.



Video Link: <https://youtu.be/1-5BLdzGhmY>

Feature:

Cooled 640X512 IR sensor;
 Visible light CMOS camera;
 GPS for location;
 LRF for distance;
 Light weight and compact, comfort for handheld observation;
 Strong Defog ability to meet the marine application;

Application:

Border defense;
 Coast guard;
 Day and night surveillance;

Specification:**A.Thermal sensor**

Ir sensor	Cooled
Spectrum range	3 μm ~5 μm
Pitch	15 μm
Resolution	640X512
Starting time	$\leq 8\text{min}@25\text{ }^{\circ}\text{C}$
Focus length:	40~200mm(continuous zoom)
F#	4.0
Focus	Motorized
FOV	$2.8^{\circ} \times 2.2^{\circ} \sim 13.8^{\circ} \times 11.0^{\circ}$
Frame rate	25Hz
NETD:	$\leq 20\text{mK}$
Magnification	8X

B. CMOS visible light camera

Resolution:	2592 \times 1944
Color Image Pixel	2.7 μm
Focus Length	4.5mm~ 148.5mm
Focus	Motorized
FOV	$2.0^{\circ} \times 1.6^{\circ}$
Defog	Color / black and white

C. Laser range finder

Wave length:	1,535 nm
Range	80m~8Km (visibility 8km, medium vehicle side as the target)
Accuracy:	$\pm 1\text{m}$
Repeated frequency	$\geq 0.5\text{Hz}$
Precision	$\geq 98\%$

D. E-compass

Azimuth:	0 ° ~360°
Pitch angle:	-90° ~90 °
Roll scale	-180° ~180 °
Repeat frequency	$\geq 0.5\text{Hz}$
Repeated	0.05 ° (RMS)

E. Beidou GPS

Frequency:	1559~1577MHz RF
Wave ratio:	≤ 1.5
Antenna gain	15~30dB
Accuracy	2.5m CEP

F. Storage

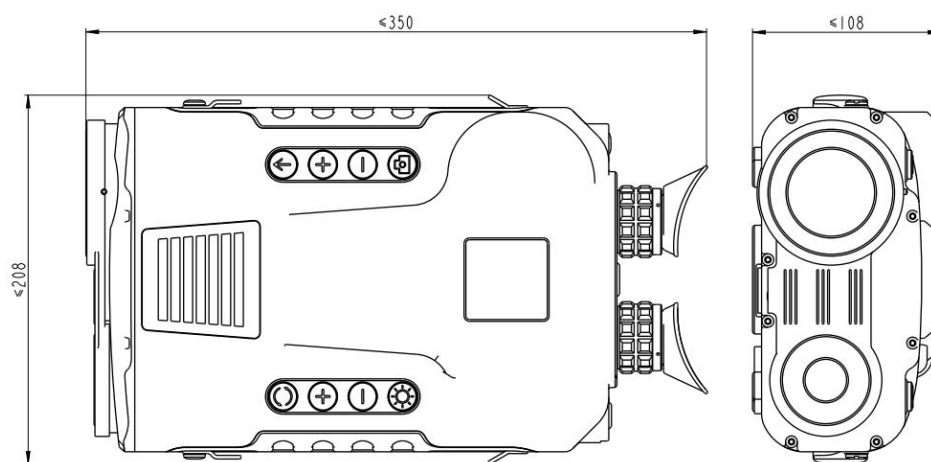
Storage :	64GB
Video Format:	AVI
Image format	BMP
Video time	$\geq 4\text{h}$
Picture	≥ 1000 original pictures

G. OLED and battery

Resolution of OLED :	1280×1024
Dioptor adjustment	$\pm 4^\circ$
Battery	8 pieces of 18650
Working time	$\geq 4\text{h}$ in normal temperature

H. Physical and interface

Weight :	3kg
Weight of whole package	$\leq 6\text{Kg}$
Water proof	Ip67
Working temperature	-40 °C ~+55 °C
Storage temperature	-55 °C ~+70 °C
Video	PAL
Data	USB
Communication	RS232
Shock proof	Yes
MTBF	≥ 500 hours
MNBF	MNBF: $\geq 1\ 000$
Dimension	$\leq 108\text{mm} \times 208\text{mm} \times 350\text{mm}$



Distance:

Detection Vehicle $\approx 2,3 \times 2,3$ m	10KM
Recognition Vehicle $\approx 2,3 \times 2,3$ m	7.2KM
Identification Vehicle $\approx 2,3 \times 2,3$ m	3.6KM
Detection human $\approx 1,70 \times 0,8$ m	8.6KM
Recognition human $\approx 1,70 \times 0,8$ m	3.4km
Identification human $\approx 1,70 \times 0,8$ m	2KM