

CNGEIR



Nanjing Cngeir Technology Co.,Ltd.

Company Profile

Nanjing Cngeir Technology Co., Ltd. (referred to as "Nanjing Cngeir") is an excellent provider of infrared optoelectronics products for the entire industry chain. It was formerly the Nanjing "718" Factory of the former Ministry of Metallurgical Industry. It was established in May 1960. In 2012, it completed a major asset reorganization and was transformed into a private enterprise. The company's factory is located in Lishui Economic Development Zone, Nanjing City. The factory covers an area of 120,000 m² and currently has more than 300 employees. As Nanjing, Located in the center of China, it has multiple sales services in Europe, the United States, Japan, South Korea and other places. team, the actual total investment amount exceeds 350 million yuan.

Nanjing Cngeir specializes in R&D, design, production and sales of products with germanium as the core and other infrared optical materials, infrared lenses, infrared optical lenses, optical dome covers, modules, observation and night vision equipment and other products. The company's related products are widely used in military equipment, equipment testing, security, industry, electric power, vehicle, medical, consumer and other fields.

Nanjing Cngeir now has more than 300 sets of advanced manufacturing and testing equipment, more than 100 advanced patented technologies with independent intellectual property rights, and with a technical and R&D team composed of multiple doctors, masters and dozens of related professional engineering and technical personnel. Relying on its nearly 60 years of experience in the infrared industry, advanced technology and complete management systems, as well as its full industry chain production capabilities, the company has provided advanced and high-end infrared optoelectronics "full series" industry integration for the customers in domestic and abroad.



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01 Observations

▶ Handheld Thermal Monocular



▶ Introduction

CGOB series is a monocular handheld infrared telescope. it has the advantages of small dimensions, lightweight, high performance, low power consumption and wide use. using no block, no tec working mode, continuous image without delay. with a variety of hand-adjusted lenses, to meet the needs of domestic and foreign applications.

▶ Features

- Using 384×288/640×512 high performance vanadium oxide uncooled focal plane detector.
- 5 image modes supported:Black hot,white hot,false color,green hot,red hot.
- Adopt advanced non-blocking technology.
- Support digital magnification, picture in picture, menu call, photo/video, data export and other functions.
- Support video image wi-fi transmission display.
- Support 18650 battery power supply, support type-c charging.
- Support function key operation.
- Support outdoor mode, red dot mode.
- Support simultaneous display of OLED and CVBS.
- Support manual cross cursor to remove bad points.

▶ Application



Military And Police
Equipment



Emergency Rescue



Hunting



Night Observation

Specifications ◀

Item No	CGOB-384-19/25/35	CGOB-640-25/35
Detector type	Uncooled vanadium oxide detector	
Pixels	12 μ m	
Resolution	384 \times 288	640 \times 512
Correction mode	No gear correction	
Frame rate	50fps	
NETD	\leq 35mk	
Objective lens	19mm、25mm、35mm	25mm、35mm
Display	1024 \times 768	
Eyepiece diopter	-5 \sim +5	
Eye relief	20mm	
Input power	18650 \times 1 battery powered (typical DC3.7V)	
Power dissipation	\leq 2.2W	
Standby time	\geq 5h	
Battery charging/Data export / CVBS video output	TYPE-C	
Dot screen driver	18650 \times 1 battery powered (typical DC3.7V)	
Digital zoom	1 \times 、2 \times 、4 \times	
Storage	Built-in on-board EMMC chip high-speed storage (32GB)	
Video output	WiFi	
Key operation	Supports multiple function keys	
Function definition	Support digital magnification, picture in picture, menu call, outdoor mode, photo/video and other function definitions	
Weight	<700g	
Operating temperature	-25 $^{\circ}$ C \sim +55 $^{\circ}$ C	
Storage temperature	-40 $^{\circ}$ C \sim +60 $^{\circ}$ C	

▶ Handheld Thermal Binocular



▶ Introduction

CGTC series is a multi-functional binocular handheld infrared telescope. combining advanced thermal imaging technology with digital multispectral capabilities, it is equipped with a precise laser rangefinder, GPS/Beidou satellite dual positioning module and high-sensitivity electronic compass. the series is designed to provide superior observation performance at night or in no light conditions, allowing clear observation at multiple wavelengths to ensure accurate target acquisition.

▶ Features



● Quick response



● Wifi transmission



● Actual noise reduction



● Electronic Compass



● Multinomial pseudo-color



● Picture in picture



● Hot point Track



● Partition display



● Image fusion



● Laser ranging

▶ Application

This product is suitable for public security, armed police, customs and fire departments to search, observe, track and locate the target day and night in the process of law enforcement, and real-time video or photo as a basis.

Specifications ◀

Item No	CGTC-640-55	
Specification	Infrared	Visible Light
Resolution, Pixels	640×512 /12μm	2592×1944/2.0μm
Optical specification		
Objective lens	55mm F1.0	25mm F1.8
Field of view	7.94° × 6.37°	11.8° × 8.9°
Frame rate, HZ	25HZ	30HZ
Identification range (Human)	650m	900m
Recognition range(Human)	1300m	1800m
Detection range(Human)	5200m	7100m
Eyepiece diopter	-5~+5	
Laser detection		
Wavelength	1535nm	
Max measuring range	Human/2300m	Car/5000m
Measuring accuracy	±0.5m~±2m	
Positioning specifications		
Positioning	GPS & BeiDou Dual Positioning	
Horizontal positioning accuracy	2.5m	
Electronic compass	√	
Device information		
Display	0.39" OLED 1024x768	
NETD	≤ 50mk@300K	
Observation mode	Binocular	
Eye Relief	30mm	
Standby time	≥ 6h	
Waterproof	IP67	
Memory	64G	
Transmission	WiFi	
Power source	Four 18650 Batteries	
Interface	Type -C / HDMI	
Weight	≤ 1350g	
Dimensions	229×190×82mm	
Operating temperature	-25° ~+55°	
Storage temperature	-55° ~+70°	

▶ Handheld Laser Rangefinder



▶ Introduction

CGLT series handheld laser rangefinder is a lightweight handheld rangefinder that can be used at night to locate distant targets. It has the advantages of small size, light weight, low power consumption, clear image, high sensitivity, high frame rate, HZ, good fitting, high reliability, and all-weather passive night vision function and strong smoke penetration performance.

▶ Features

- Small size and light weight.
- Long laser ranging distance .
- Remote target location can be located.
- Applicable night observation.
- Suitable for remote observation and positioning.
- Meets military environmental standard requirements MIL-STD-810H.

▶ Application



Military And Police
Equipment



Emergency Rescue



Ship Pilotage



Night Observation

Specifications ◀

Item No	CGLT-1980-75
HDR camera	
Detection range	Human identification distance is not less than 3km the side recognition distance of medium-sized car is not less than 5km the identification distance of medium helicopter is not less than 6km
Resolution	≥1980 × 1080
Field of view	≥6.0° × 3.3° or 8.3°*6.7°~4.2°*3.3°continuous zooming
Focal length	75mm electric focusing lens
Camera grade	Starlight level; light passing through fog
Focus mode	Athermalization
Laser range finder	
Detection zone	The maximum range for a typical ground target (2.3mx2.3m standard target reflectance ≥3) is not less than 6km
Laser wavelength	1535 ± 5nm, eye-safe
Ranging mode	Single ranging, continuous ranging
Minimum range	≤50m
Positioning specifications	
Positioning	BDS/GNSS with ceramic antenna
Electronic compass	Attitude sensor xy0.2 degrees z1 degrees
Device information	
Display	OLED 1024x768
Boot up time	>30s
Standby time	≥ 6h
Waterproof	IP67
Power source	Non-polar battery, 18650 low temperature battery
Interface	RS232,PAL,USD
Weight	≤ 1100g (battery not included)
Dimensions	150×120×750(mm) or 195×108×75(mm)
Operating temperature	-40° ~+60°
Storage temperature	-55° ~+75°

02 / Optical Sights

▶ Lightweight infrared scope



▶ Introduction

CGMQ series is a lightweight and versatile infrared scope. The use of advanced fileless film technology, with high sensitivity, high refresh rate, high stability characteristics, can be 24 hours a day full scene imaging investigation, used in reconnaissance observation, outdoor hunting, outdoor exploration, security anti-theft, maritime operations, the execution of special tasks and other occasions.

▶ Features

- No block technology.
- Quick start.
- Multiple image modes.
- 8 hours long standby time.

▶ Application



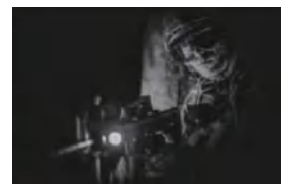
Military And Police
Equipment



Anti-terrorism



Hunting



Night observation

Specifications ◀

Item No	CGMQ-384-35/50	CGMQ-640-35/50
Resolution, Pixels		
Detector	Uncooled detector	
Resolution	384x288	640×512
Pixels	12μm	
Wavelength	8~14μm	8~14μm
Parameter of lens		
NETD	≤35mk	
Focal length	35mm、50mm	35mm、50mm
Aperture	F1.0	
Field of view(35mm)	7.5°x5.7°(±5%)	12.5°x10.0°(±5%)
Display		
Frame rate, HZ	50HZ	
OLED	0.39inch	
Resolution	1024x768	
Digital zoom	x1、x2、x4	
Image		
Polarity display	Black Hot, White Hot, Red Hot, False Color, Sky, Stroke	
Display type	Monocular display, adjustable by eyepiece diopter	
Power source		
Battery type	Two 18650 Li-Ion batteries	
Standby time	≥8h(Room temp)	
Operating distance (35mm)		
Identification range	Human(1.7x0.5m)1200m, Car(2.3x2.3m)1800m	Human(1.7x0.5m)1500m, Car(2.3x2.3m)2200m
Recognition range	Human(1.7x0.5m)500m, Car(2.3x2.3m)800m	Human(1.7x0.5m)800m, Car(2.3x2.3m)1100m
Interface		
Data export/CVBS output	TYPE-C	
Storage	Built-in on-board emmc chip high-speed storage (32GB)	
Video output	WiFi	
Environmental adaptation		
Operating temperature	Temp. Range -40°C~60°C	
Storage temperature	Temp. Range -45°C~65°C	
Waterproof	IP67	
Physical/mechanical properties		
Weight(including battery)	≤600g(Including battery)	≤650g(Including battery)
Dimensions	176mm(L)× 80mm(W)× 72mm(Height with support)	
Impact	500G(1200G Optional)	

▶ Digitized Scope



▶ Introduction

CGMD digital gun scope can be adapted to a variety of automatic rifles, supporting 7.62mm, 5.8mm, 5.56mm, 5.45mm bullets, providing standard picatinny rails and dovetails, the product is mainly used for observation and aiming of a single living target within 500m at night, day and night image acquisition and transmission, etc.

▶ Features

- High-quality image enhancement algorithms: digital filtering, noise reduction, digital detail enhancement and other image algorithms provide high-quality low-light images.
- 12um sensor: provides a smaller and lighter low-light sight.
- Single knob: it provides simple and fast menu operation, reduces the burden of user memory, and has good ergonomics.
- Multiple types and ammunition types are available: AK, M16, and G3 series are available; it supports 7.62mm, 5.8mm, 5.56mm, and 5.45mm bullets, and can be expanded by the host computer.
- Anti-vibration and impact-resistant: it can withstand 300g, 0.8ms impact strength, and the life of the gun meets more than 10,000 rounds of live ammunition.

▶ Application



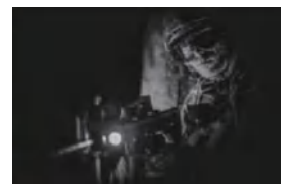
Military And Police
Equipment



Anti-terrorism



Hunting



Night observation

Specifications ◀

Item No	CGMD-1920-78
Detector	
Detector resolution	1920×1200
Pixels	12μm
Wavelength	360~1100nm,850nm/940nm near-infrared enhancement
Optical performance	
Sensitivity	99000mv/Lux.s
Focal length	78mm
Field of view	≥8°×6°
Focusing	Manual focusing, 10m~+∞
Display	Colored OLED
Visibility adjustment	-5~+3 Diopter
Image display	
Magnify	2 Times, Picture-in-picture
Brightness	1 to 100 Adjustable
Contrast	1 to 100 Adjustable
Power supply	
Battery	It can be recharged with one 18650 lithium battery
Continuous working hours	≥8h
Interface	
Firearm interface	Picatinny
Electrical interfaces	PAL analog video, RS232 serial port
Environmental adaptability	
Storage temperature	-50°C~+60°C
Operating temperature	-40°C~+50°C
Vibration	In the packaging state of the whole machine, the frequency is 5HZ~200HZ~5HZ, the acceleration is 2g, and the three mutually perpendicular directions are scanned once each, and the scanning time is 15min
Impact	Half sine wave, acceleration 300g, duration 0.8ms, forward and reverse impact in the direction of the optical axis 10 times
Humidity	(95±3%@+35°C)、Rain (1.77mm/min, time 30min) according to the relevant provisions of GJB595.7-88
Ingress protection	The product design meets the requirements of waterproof, anti-corrosion, anti-salt spray, anti-sand and dust, and anti-low pressure
Reliability	
Service life	≥10000 Shots
Mean Time Between Failure	≥500h
Button Life Test	Switch, key trouble-free operation times≥3000 times
Battery reverse protection	There is no distinction between positive and negative electrodes, and both positive and negative can be loaded
Physical properties	
Dimension	254mm×106mm×84mm
Weight	≤700g

▶ White Light Optical Sights



Item No	CGLS-3-18X50	CGLS-5-30X56	CGLS-2.5-15X50
Minimum magnification	3	5	2.5
Highest magnification	18	30	15
Target diameter	50mm	56mm	50mm
Field of view (feet @ 100 yards)	35ft-6.1ft	20.9ft-3.5ft	44.8ft-6.9ft
Exit pupil diameter	11.8mm-3mm	13mm-2mm	11mm-4mm
Coating	Multi-Coated	Multi-Coated	Multi-Coated
Length	373mm	380mm	355mm
Exit pupil distance	4"	4"	4"
Waterproofing	Yes	Yes	Yes
Body diameter	30mm	30mm	30mm
Visibility adjusts the distance	±2	±2	±2
Movement range, width (left, Right)	>35	>30	>40
Movement range, height (up, down)	>35	>30	>40
Click values	1/4"	1/4"	1/4"

White light Optical Sights ◀



Item No	CGLS-1-10X24
Magnification x Ø objective	1-10X24 Zoom
Reticle	Glowing dots
Visibility at 100 m/yards	36.9 m – 121.2 ft (1x) • 3.5 m – 11.5 ft (10x)
Weight in grams / ounce	544.3gr – 19.2 ounce
Length mm/in	245.43 mm – 10.45"
Eyes relief mm/in	95mm – 3.7" (1x) • 90mm – 3.5" (10x)
Exit pupil mm	1 at 24X • 4.10 at 2X
Click value M@100M in@100yards	1/2 M.O.A. (14mm)
Adjust the range M@100M in@100yards	2.7m – 110"
Installation length mm/in	169.5 mm – 6.6"

03/ Night Vision Headgear

▶ Head Mounted Night Vision Monocular



▶ Introduction

CGYN monocular low-light night vision device is based on the latest optoelectric technology research and development of 50 degrees field of view of new products, the night vision device adopts high-performance second-and-a-half/third-generation image intensifier, with large field of view, small size, light weight, clear imaging, simple operation, cost-effective, built-in infrared auxiliary light source and automatic anti-glare protection system, strong practicability.

▶ Features

- It adopts a high-performance second-and-a-half-generation or third-generation image intensifier.
- Built-in infrared auxiliary light source and automatic anti-glare protection system.
- Support a variety of working modes.
- Objective lens replacement is supported.
- Support multi-stage tandem extenders mounting.
- Ip67 protection.

▶ Application

It can be applied to military observation, border and coastal defense reconnaissance, public security surveillance, evidence collection, customs anti-smuggling, etc., and is an ideal equipment for public security departments, armed police forces, special police forces, and guard patrols in an unlit environment at night.

Specifications ◀

Item No	CGYN-02-25	CGYN-03-25
Image intensifier grade	Two and a half generations	Three generations (P43 green phosphorus/P45 white phosphorus)
Magnification	1X	
Resolution	60-64	68-72
Signal-to-noise ratio (DB)	23-27	27-35
Optical sensitivity (μ A/lumens)	800-950	950-1100
Time Between Failures (Hours)	10,000	
Field of view (degrees)	50+/-2°	
Observation distance (m)	180-220	250-300
Eyepiece diopter	-5~+5	
Lens system	25mmF1.2	
Optical coating	Multi-layer composite broadband ultra-vacuum ion anti-reflection coating	
Objective adjustment range (m)	0.25-- ∞	
Automatic anti-glare	High sensitivity, ultra-fast, wide band detection	
Flip detection	All solid state non-contact automatic gesture recognition	
Dimension (mm) (without blindfold)	115x69x54	
Product material	All-aviation aluminum alloy + PEEK composite material	
Weight(g)	\leq 260	
Supply voltage (volts)	2.6-4.2V	
Battery type (volts)	1 lithium battery	
Continuous working time (Hours)	80(IR off) 40(IR on)	
Operating temperature range (°C)	-45/+55	
Relative humidity	5%-98%	
Dust proof and waterproof rating	IP65 (IP67 Optional)	

▶ Head Mounted Night Vision Goggles



▶ Introduction

CGYD binocular monocular head-mounted night vision device is a new product developed based on the latest opto-electronic technology, the instrument adopts a high-performance second-and-a-half/third-generation image intensifier, with excellent performance, small size, light weight, all-metal shell, adjustable eye spacing, clear imaging, simple operation, can be equipped with night vision image output, cost-effective, by replacing the objective lens (or connecting the extender) can change the magnification, etc.

▶ Features

- It adopts a high-performance second-and-a-half-generation or third-generation image intensifier.
- Built-in infrared auxiliary light source and automatic anti-glare protection system.
- Support a variety of working modes.
- Objective lens replacement is supported.
- Supports multi-stage tandem extenders mounting.
- IP67 protection.

▶ Application

It can be applied to military observation, border and coastal defense reconnaissance, public security surveillance, evidence collection, customs anti-smuggling, etc., and is an ideal equipment for public security departments, armed police forces, special police forces, and guard patrols in an unlit environment at night.

Specifications ◀

Item No	CGYD-02-25	CGYD-03-25
Image intensifier grade	Two and a half generations	Three generations (P43 green phosphorus/P45 white phosphorus)
Magnification	1X/3X	
Resolution	60-64	68-70
Signal-to-noise ratio (DB)	23-27	27-35
Optical sensitivity (μA/lumens)	850-950	950-1100
Cathode surface type	S25	
Time Between Failures (Hours)	10,000	
Field of view (degrees)	42+/-3	
Observation distance (m)	180-220	250-300
Eye spacing range	59-71mm	
Eyepiece diopter	-5~+5	
Lens system	25mmF1.2	
Optical coating	Multilayer composite broadband ultra-vacuum ion anti-reflection coating	
Objective Adjustment Range (m)	0.25--∞	
Automatic anti-glare	High sensitivity, ultra-fast, wideband detection	
Auxiliary light source wavelength	850nm	
Night vision image (optional)	800 line Video	
Flip detection	All-solid-state non-contact automatic gesture recognition	
Dimensions (mm) (without blindfold)	130x125x56	
Product material	All-aviation aluminum alloy	
Weight (g)	386	
Supply voltage (volts)	2.4-3.2V	
Battery type (volts)	AA x 2	
Continuous working time (Hours)	60(IR off) 35 (IR on)	
Operating Temperature Range (°C)	-45/+55	
Relative humidity	5%-98%	
Dust proof and waterproof rating	IP65 (IP67 Optional)	

▶ Head Mounted Night Vision Binocular



▶ Introduction

CGYS head-mounted night vision binocular device is a night vision device with good performance, small size and light weight, which is mainly used for SWAT to observe and search for surrounding targets in the night and equipped with weapons to achieve rapid fire and other anti-terrorist operations, and can also be used for users to operate weapons and maintenance instruments and equipment, read documents, maps and various night anti-terrorism training tasks in the night environment. Night vision devices can also be removed from the helmet for handheld binocular observation.

▶ Features

- Adopt domestic high-performance third-generation image intensifier (optional green phosphorus tube or white phosphorus tube).
- It has the function of anti-glare protection.
- Supports the scope change function, which can meet the needs of people with different vision.
- Support a variety of working modes.
- Ergonomic design, non-slip and lightweight body, Perfect in workmanship and durable
- IP67 protection.

▶ Application

It can be applied to military observation, border and coastal defense reconnaissance, public security surveillance, evidence collection, customs anti-smuggling, etc., and is an ideal equipment for public security departments, armed police forces, SWAT, and guard patrols in an unlit environment at night.

Specifications ◀

Item No	CGYS-03-26
Image intensifier grade	High-performance third-generation low-light image intensifier (P43 green phosphorus/P45 white phosphorus)
Magnification	1×
Resolution	68-72 lp/mm
Signal-to-noise ratio (DB)	27-35
Optical sensitivity (μA/lumens)	950-1100
Image color	P43/p45
Objective	26mmF1.2
Field of view (degrees)	50°±2°
Objective adjustment range (m)	0.25--∞
Eyepiece diopter	+5/-5
Exit pupil diameter	≥12mm
Exit pupil distance	≥22mm
Optical coating	Multilayer composite broadband ultra-vacuum ion anti-reflection coating
Observation distance (m)	Human(1000m): 800m, Car(1200m):1000m
Automatic anti-glare	High sensitivity, ultra-fast, wideband detection
Flip detection	All-solid-state non-contact automatic gesture recognition
Night vision goggles (mm)	142x110x55
Connecting bracket (mm)	85x70x55
Product material	All-aviation aluminum alloy + PEEK conforming material
Night vision goggles main unit weight (g)	≤500g
Weight of connecting bracket (g)	≤200g
Supply voltage (volts)	2.0-4.2V
Battery type (volts)	AA x 2
Continuous working time (Hours)	Host>18h , and the external battery compartment >60h
Time between failures (Hours)	10000
Operating temperature range (°C)	-45/+55
Storage temperature range	Storage temperature -55°C to 70°C
Relative humidity	5%-98%
Dustproof and waterproof rating	IP65 (IP67 Optional)

CNGEIR

Infrared Optoelectronics Whole Industry Chain Products Supplier

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