



Almanarh Holding Company

Defense technologies and artificial intelligence

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Global Strategic Partnership in Defense, Security, and Advanced Technology Solutions



المنارة القابضة
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Almanarh Holding Company is a strategic partner and official representative of GAS O2 Kapital, a leading provider of advanced defense and security products and solutions. Through this trusted partnership, Almanarh Holding Company showcases and delivers the latest defense systems, armament solutions, civil defense equipment, security technologies, and unmanned aerial systems to meet the needs of government, military, and security sectors across targeted markets

This partnership is focused on providing advanced, high-quality solutions supported by the latest global innovations in defense and security, while ensuring reliable technologies that enhance operational efficiency and support strategic projects and critical infrastructure. Almanarh Holding Company is also committed to expanding access to these solutions by building strong relationships and effective cooperation networks that align with the rapidly evolving defense and security industries

Through this collaboration, Almanarh Holding Company combines investment expertise with international partnerships to create an integrated platform that provides access to cutting-edge defense and security technologies, strengthening its ability to support partners and clients with advanced strategic solutions that meet the highest global standards

Armored Vehicle



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Tianqi 4x4 Heavy-duty Armored Vehicle



المناصرة القابضة
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Main Parameters

Total Combat Weight	12,000kg
Effective Load	2,000kg
Kerb Weight	10,000kg
Overall Dimensions (Without Turret)	6990mm x 2496mm x 2600mm
Approach/Departure Angle	32°/36°
Seating Capacity	1+1+10 1 driver, 1 co-driver, 10 soldiers
Drive Form	Full-time driven by 4 wheels
Seats	Five point safety belt, Anti-mine seat
Tyre	4+1; YK-395/85R20; with inner support
A/C	Roof Mounted, integral Air Conditioner; 8KW
Rear View System	7" LCD on dashboard, infra-red camera at rear end



Maneuverability

Max. Speed	115km/h
Endurance	600km
Fording Depth	1100mm
Gradient	60%
Side Slope	35%
Vertical Obstacle	400mm
Min. Ground Clearance	400mm



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Chassis

Engine	Cummins isde6.7-330 1200Nm @1400-1700rpm, 243kw@2500rpm
Transmission	Automatic Transmission, 6 Forwards & 1 Reverse
Steering	Hydraulic Power Steering
Brake	Pneumatic Brake with ABS
Suspension	Double Wishbone Independent Suspension; Coil Spring
Electrics	24V system; Negative grounded; Battery 2 x180Ah

Protection Capacity

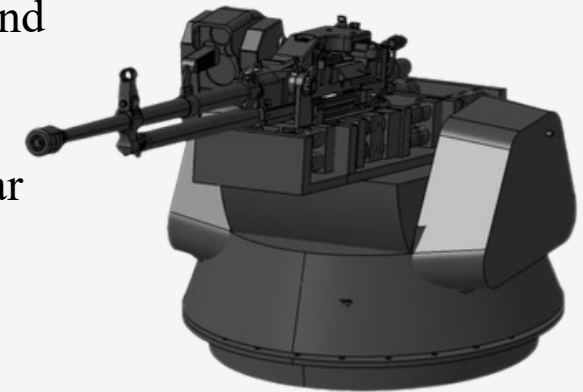


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Ballistic Protection	Front	Can resist 12.7mm ball ammunition at 100m
	Side and Rear	Can resist 7.62mm ball ammunition within 100m
	All Sides	B6, B7, European Standard: CEN1063
Anti-Mine Performance		Can resist attacks from 8Kg TNT equivalent anti tank landmines 12.7mm MG and 35mm grenade remoted controlled weapon station
Weapon Module		Can resist attacks from 8Kg TNT equivalent anti tank landmines
Lightning Protection Seat	Electric Winch	
	Anti-RPG	Grid Structure (Optional)
	Central Tyre Inflation System	Optional
	Communication System	VRC-2000A ultra-short wave fixed-frequency; 50W power amplifier. Truck mountable; Center-fed antennnt: Intercom model XCT-1, One unit
	Observation Device	Low-light night vision driving device
	Night Vision Helmet	With night vision device; to identify person within 100m and vehicle within 150m in the absence of moon-light & star-light

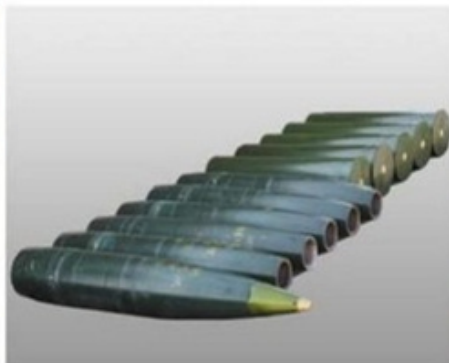
Automatic Weapon Station

1. The gun rack is installed on the roof and can adjust the firing angle 360 °, and the pitch angle can be adjusted from 15 ° to 75 °
2. The gun mount comes with a built-in camera to assist in aiming
3. The rotation, pitch, and firing of the gun rack are operated through the in-car controller
4. The gun rack can be switched to carry weapons according to needs, such as machine guns and grenade launchers
5. The firearm installation platform is equipped with an axial shock absorber to reduce the impact of recoil on the moving mechanism
6. Both pitch and rotation are driven by dual servo motors, with high safety redundancy and shooting accuracy
7. Equipped with auxiliary sights according to customer needs (optional ordinary visible light/high magnification visible light/infrared/laser ranging)
8. Using aluminum alloy structural components and sheet metal casing, effectively reducing system weight
9. Operate the rotation and pitch of the launch platform inside the vehicle, and control the launch





**Tiansheng Supporting
Vehicle Loaded with
105mm
Rapid Fire Artillery**



Main Parameters



Total Combat Weight	12,000kg
Effective Load	1,500kg
Kerb Weight	10,500kg
Overall Dimensions (Without Turret)	6800mm x 2480mm x 2580mm
Approach/Departure Angle	27.5°/30.8°
Seating Capacity	1 driver, 1 commander, 3 operators ,12 soldiers
Drive Mode	Full-time driven by 4 wheels
Tyre	Anti-Blast Tires, Off-Road Tire Treads

Maneuverability

Max. Cruising Speed on Road	105km/h
Fuel Autonomy Range	1500km
Fording Depth	1100mm
Gradient	60%
Side Slope	35%
Vertical Obstacle	400mm
Min. Ground Clearance	400mm





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Chassis

Engine	Deutz TBD226B, Euro II; 6-Cylinder in line; 240HP/2, 500rpm: 860Nm/1400-1700rpm
Clutch	Dry Single Plate, 430mm; Diaphragm Pressure Plate; Hydraulic Operation with Pneumatic Booster
Transmission	Twin Counter shaft; 9 Forwards+1 Reverse
Steering	Hydraulic Power Steering
Brake	Pneumatic Brake with ABS
Electrics	24V system; Negative grounded; Battery 2 x 180Ah



Accessories

Accessories	889F Radio; IR510 Handheld communication terminal
	Multi-Functional Ammunition Box
	Water Tank 25L
	Fuel Tank 25L
	Shovels and Pickaxes for Sapper
	Axes for Sapper
	Trailer Bar



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6 × 6 Infantry Combat
Vehicle

Drive Form	6×6
Total Combat Weight	16.5t
Overall Dimensions	Including Weapon System: 6850×2800×2870 Excluding Weapon System: 6850×2800×2120
Wheelbase	3200+1400mm
Track Width	2440mm
Approach Angle	45°
Departure Angle	40°
Max. Speed	105km/h
Max. Gradeability	36°
Vertical Obstacles	550mm
Min. Turning Radius	10500mm
Wading Depth	1200mm
Weapon	30mm Automatic Gun +7.62mm Parallel Machine Gun
Firing Field	Left and Right: 360° Elevation Range: -5°~+60°





**Tianqi Light-duty
Personnel Carrier**



Main Characteristics



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1. Full time four-wheel drive system with strong off-road performance;
2. 6-speed manual transmission, with a maximum speed of 125km/h;
3. Adopting a dual wishbone independent suspension system and a disconnected axle;
4. Can be equipped with mechanical weapon station systems, GPS/Beidou navigation, radio stations, etc;
5. The whole vehicle adopts a molded interior, with a humanized design, simple and elegant design, and a majestic appearance.

Detailed Parameters		
Structural Style	Driving Type	Full time, 4 wheels
	Passenger	10
	Suspension Type	Double wishbone independent suspension
Weight Parameter	Kurb Weight	5000kg
	Max. Load Weight	1300kg
	Max. Traction Weight	2300kg
	Max. Weight	6300kg
Size Parameter	Overall Dimension (L×W×H)	5800×2400×2000mm
	Wheelbase	4000mm
	Front Suspension	795mm
	Rear suspension	1020mm

Maneuvering Performance			
Engine	ISDE 200-43	Horizontal Trench	800mm
Transmission	6 gear, manual	Max. Endurance	700km
Min. Ground Clearance	410mm	Vertical Obstacle Crossing	500mm
Max. Wading Depth	1100mm	Approach Angle	56°
Max. Speed	125km/h	Departure Angle	46°
Min. Speed	3km/h	Ramp Angle	30°
Max. Gradeability	60%	Static Rollover Angle	45°
Max. Driving Side Slope	45%	Max. Turning Diameter	≥15m
Operation Temperature	-41°C—+46 °C	Storage Temperature	-45°C—+65°C
Altitude Adaptation	When the altitude is ≥3000, the engine power decreases by ≥10%, it can work at the altitude of 5000m.		

Main Performance		
Bullet-proof Capacity	Protection Level	It can defend Type 53 7.62mm armor-piercing bullets at 100 meters in the front. The back, side and bottom of the vehicle are 5mm bullet-proof steel plates, which can prevent Type 53 7.62mm steel core bullets at 100m, conforming to European standards of B5.
	Explosion-proof Capacity	Defend grenade fragment
Noise	Noise near the driver's ear while driving at a constant speed of 60km/h	≤82
Main Configuration	Basic Configuration	6-speed manual transmission, MT spiral spring independent suspension system (double wishbone), central inflation and deflation system, ABS/TCS system, internal support bulletproof tires, bulletproof glass
	Optional Configuration	Front electric winch, mechanical weapon station, infrared night vision imager, GPS/Beidou navigation, radio, glass riot screen, air heater, liquid heater, air conditioning, etc



Type 79 Heavy Tank

Overall Layout

The front left side of the Type 79 tank body is the cab, which is equipped with control device, observation device, detection instrument, etc. The middle of the hull is the battle chamber, and the top is equipped with a turret. The turret is made of armored steel and has a crew of 3. The commander is on the left side of the gun. The gun commander is on the left side of the gun, in front of the car commander, and the loader is on the right side of the gun. The turret is low and streamlined. There is less space inside the turret. The vehicle uses ergonomics to arrange fire control components reasonably, which is easy to operate. The battle room was equipped with a rotary base plate, and the turret seat and steering gear were also improved. The middle part of the car body is equipped with a bomb rack and a filter tank with three prevention devices. The rear of the car body is the power transmission chamber, and the engine is horizontally positioned.

Overall Layout



In terms of appearance, the difference between the Type 79 tank and the Type 59 tank is that the Type 79 tank is equipped with side skirts on both sides of the body and has tread holes to facilitate the boarding of the crew. The Type 59 has none of this. The Type 59 tank has two camouflage lights and headlights, and the Type 79 tank has two camouflage lights and headlights on each side of the front, and a laser range finder on the top of the turret.

Protection System

The body of Type 79 tank is welded with steel plate. The Angle between the upper plate and the horizontal plane is 30° , and the Angle between the lower plate and the horizontal plane is 35° . In order to enhance the side protection, the Type 79 tank is equipped with rubber shielding skirt plates on both sides of the body, which effectively improves the ability to defend the side of the tank from individual rockets, and can also effectively prevent or weaken the attack of armor-breaker shells.

Protection System

Fire extinguishing device and three protection device are the main special protection system in the car. The Type 79 tank is equipped with a triple protection system with a tank filter and a pressurized fan, which includes automatic control of the airtight combat crew room, collective protection against overpressure by filtering ventilation, and personal protective equipment for the crew. It can protect the shock wave, hot air flow, air radioactive contamination, chemical agents and biological warfare agents, etc., improve the tank's protection ability through the atomic explosion area and biochemical agent contamination area, protect the crew from harm, and improve the combat effectiveness of the crew. Therefore, the Type 79 tank is China's first battle tank equipped with semi-automatic, overpressure and collective protection systems.

Protection System



In addition, the Type 79 tank is equipped with a thermal smokescreen system. The exterior surface of the tank is coated with three-color camouflage paint, which improves the camouflage and concealment ability of the tank.

Protection System

The Type 79 tank is also equipped with an automatic fire suppression device in the battle room. When the bullet penetrates the armor, the optical detector of the device can detect the light emitted by the metal jet within 10 mm, and can extinguish the fire and suppress the explosion within 60 to 80 milliseconds. The system has high sensitivity, can prevent false alarm, but also has the function of manual operation, within two hours after the power off, the emergency switch can still start the system normally. The system is distributed in the turret, and the experiment proves that it has good explosion suppression function, which can effectively restrain the "secondary killing effect" in the crew room to the vehicle and the crew, so as to improve the survivability of the tank. In addition, the Type 79 tank also uses the method of injecting diesel fuel into the engine exhaust pipe to create a thick hot smoke to achieve the purpose of stealth, which is extremely effective.

Artillery System

The Type 79 tank is equipped with a 105 mm wire-bore tank gun and a 12.7 mm anti-aircraft machine gun mounted on the turret top loader window seat, which can attack low-flying enemy aircraft. A 7.62 mm parallel machine gun was mounted on the right side of the gun. A 7.62mm heading machine gun is mounted on the right side of the pilot, which can hit enemy ground targets at close range. The biggest difference from the Type 59 and Type 69-I tanks is in the artillery. The muzzle of the 69-II was placed at the muzzle, while the muzzle of the Type 79 was moved to a position behind the middle of the barrel.

Artillery System

The thermal sheath of the main gun of the Type 79 tank is composed of thin aluminum plate, silicone rubber belt and clamp, which can effectively reduce the projectile dispersion caused by the bending of the barrel by sunlight and improve the shooting accuracy of the gun. In order to improve the accuracy of the gun calibration, the gun is also equipped with a 105mm muzzle calibration mirror. The gun not only has high shooting accuracy, but also has great power, long life of barrel and convenient replacement of barrel. The fin-stabilized shells, armor-piercing, armor-breaking and armor-breaking shells used can be applied to different targets. Among them, tungsten alloy shell core decapitated armor-piercing shells can penetrate uniform or composite armor with large thickness at conventional distances.

Artillery System

The fire control system of the Type 79 tank is a simple fire control system of the TSFCS type with a digital ballistic computer (Marconi Fire control system FCS) and the system reaction time is not more than 10 seconds. This fire control system can be used to shoot accurately at moving targets with short stops during the day or night. The night vision equipment performance of the Type 79 tank has been greatly improved, it replaced the active infrared night vision equipment of the Type 69 tank with the second generation of passive low-light night vision equipment, such as the gun commander equipped with low-light night vision scope, the commander equipped with low-light night vision viewer and the driver equipped with low-light night vision.

Basic Parameter		Weapons Equipment	
Crew	4 people	Main Gun	One 105mm rifled gun (44 rounds)
Length	9.22m (Gun forward)		
Width	3.27m (Without skirt board)		
Height	2.4m (Till the turret top)		
Full Battle Weight	37500kg		
Max Speed	50km/h	Anti-aircraft Machine Gun	One 12.7mm High-flat dual-purpose Machine Gun (300 rounds)
Max Travel	580-600km		
Max Climb	32°		
Max Side Slope	60°		
Trench Crossing Width	2.7m	Auxiliary Machine Gun	One 7.62 mm parallel machine gun and One 7.62 mm heading machine gun (2,250 rounds in total)
Wall Crossing Height	0.8m		
Fording Depth	1.4m		
Diving Width	5m		



Type 85-II
Main Battle Tank

Protection System

The Type 85-II main battle tank adopted the welded turret structure for the first time. Streamline is better. Strong protection. The 85-II tank was the first to adopt an advanced welded turret structure. Except the front part of the turret is cast, the rest of the structure is welded steel armor plate, which not only greatly improves its bulletproof appearance, but also provides convenient conditions for the installation of composite armor. In terms of appearance, the turret of the 85-II tank is about 100 mm lower than the turret of the prototype 80 tank, which further reduces the front projection area of the turret and improves the protection ability of the tank. Both sides of the turret are equipped with fence shielding, which enhances the ability to resist armor breaking shells. The rear of the turret is added to the tail compartment, which not only enhances the balance ability of the turret, but also provides new space for ammunition and three defense systems.

Power System

The 85-II main battle tank has been installed with a new power device, with a total combat weight of 42.5 tons and an engine power of 735 kilowatts (1000 horsepower), and its unit power has been increased from 14.1 kilowatts/ton of the domestic Type 80 tank to 17.3 kilowatts/ton. This indicator of the 85-II main battle tank is close to that of the German Leopard 2 tank (20 kW/T) and the American M1A1 tank (19.6 kW/t), and is higher than the British Challenger (14.4 kW/t) and the Russian T-90 (14.1 kW/t), with a maximum road speed of 65 km/h. The transmission part of the 85-II main battle tank has also been greatly improved, and the hydraulic control and planetary gear box have been adopted to further improve the capability. The driver can choose automatic control, semi-automatic control or manual control according to different needs. The Chinese 85-II main battle tank uses an integrated power plant, which is easy to maintain on the battlefield and can be disassembled and assembled in 40 minutes.

Special Device

The Type 85-II main battle tank has abolished the heating system. The original tank heating system is an important part to ensure the normal starting of the tank under low temperature conditions. In view of the characteristics of China's vast territory and complex climatic conditions, Chinese tanks are equipped with heating systems to meet the needs of use in China's whole land (in fact, the southern armored mechanized forces located in tropical and subtropical areas have little or no use for heating systems. Of course, considering the needs of trans-regional mobile operations, the heating system is still an indispensable and important system. However, the 85-II tank is a foreign trade tank. After seriously studying the combat environment of the exporting country, the researchers believe that the country belongs to the subtropical grassland and desert climate, and does not need the heating system, so the heating system of the tank is canceled in the design, and the steering control hydraulic system components are installed in its position.

Special Device

The periscope is equipped with a high pressure air purge device. In order to ensure that the driver's periscope is clean when the tank is driving under dusty, muddy ground and rainy conditions, the 85-II tank is also equipped with the driver's periscope high pressure air purge device.



Basic Parameter	
Crew	3 people
Weapon Equipment	125mm artillery×1
	7.62mm Machine gun (parallel)×1
	12.7mm Anti-aircraft Machine Gun×1
	Smoke bomb launcher2×6
Length (Gun forward)	10.28m
Vehicle Length	7.3m
Width	3.45m
Height (To the turret top)	2.3m
Ground clearance	0.48m
Full Battle Weight	41,000kg
Engine	V12 Ultrahigh supercharging diesel engine
Max highway speed limit	57.25km/h



Basic Parameter	
Max Highway Travel	500km
Fuel Capacity	1000L
Fording Depth	1.4m
Vertical Wall Climb Height	0.8m
Trench Crossing Width	2.7m
Gradient	60°
Side Slope	40°
Armor Type	Steel/multi-layer compliance
Three Defense Device	Installed
Night Vision Equipment	Installed





Type 89 Tracked Armored
Vehicle

Basic Parameter	
Engine power	320 hp
Top speed	65km/h (Highway) 6km/h (Onthe Water)
Max Travel	500km
Max gradient	32°
Weapon System	12.7mm Machine Gun
Power System	BF8L413F Four-stroke turbocharged V8 air-cooled diesel engine, Power 320马力, Unit power 21.8 hp/ton
Max Speed	65km/h, on the water 6km/h
Track	There are 5 pairs of load wheel, 3 pairs of belt wheel, cylinder type hydraulic shock absorber, driving wheel front
Protection System	All closed steel armor, truss structure





WMZ551B Wheeled Armored
Transfer Vehicles

Basic Parameter	
Dimension	6.8×2.86×2.87m
Power	Deutz BF8L413FC Four-stroke air-cooled diesel engine 360 hp
Driving Mode	6×6 driving
Top Speed	100km/h
Water Speed	8.5km/h
Vertical Obstacle Crossing	0.55m
Max Climb	30°
Crew	2+10名
Weapon	12.7mm High-flat dual-purpose machine gun×1, 500 rounds Smoke bomb launcher 4×2





Type ZTZ99A
Main Battle Tank

Basic Parameter	
Crew	3 people
Full Weight	52t
Engine HP	1500 hp
Engine	150HBmodified model
Max Highway Speed	80km/h
Max off-road Speed	60km/h
Combat Radius	600km
Main Gun Caliber	125mmSmoothbore Gun



Weapon and Ammunition



Type CS/LS3 9MM Submachine Gun

Caliber	9X19
Muzzle Velocity	400m/s
Effective Range	200m
Overall Length	225mm
Full Weight	2.54kg
Theoretical Firing Rate	800rds/min



Type CS/LS2 9MM Submachine Gun

Caliber	9X19
Firing Mode	Semi-automatic
Automatic Effective Range	150m
Overall Length	500mm, no silencer
Full Weight	2.3kg, no silencer and no ammunition
Magazine Capacity	30rds
Life	» 8000rds



Type CS/LS7 9MM Submachine Gun

Caliber	9X19mm
Firing Mode	Semi-automatic
Effective Range	200m
Overall Length	500mm, no silencer
Full Weight	2.8kg, with an empty magazine
Magazine Capacity	30 rds
Life	≥8000rds



Type 97 Sniper Rifle

Caliber	5.56mm
Cartridge Type	Type 5.56mm NATO Cartridge
Effective Range	600m
Overall Length	920mm
Full Weight	3.8kg
Magazine Capacity	10rds



Type CS/LR13 Bolt-action Sniper Rifle

Caliber	12.7x99mm
Overall Length	≤1150mm
Full Weight	13kg
Magazine Capacity	5 Rounds
Life	≥3,000 Rounds
Firing Mode	Bolt-action
Accuracy	1000 meters for infantry targets, and 1500 meters for armored vehicle targets



Type CS/LR19 Sniper Rifle

Caliber	7.62x54mm
Overall Length	1280mm
Full Weight	5.6kg (With an empty magazine and daylight sight)
Magazine Capacity	10 Rounds
Effective Range	800m
Accuracy (100 meters away, using an optical sight)	≤3.5cm



Type 85 (SVD) Sniper Rifle

Caliber	7.62x54mm
Overall Length	1220mm
Full Weight	4.4kg (With an empty magazine and daylight sight)
Magazine Capacity	10 Rounds
Effective Range	800m
Accuracy (100 meters away, using an optical sight)	≤3.5cm



Type CS/LR12 Semi-automatic Sniper Rifle

Caliber	12.7x108mm
Overall Length	1450mm
Full Weight	14.9kg (with sight)
Magazine Capacity	5 Rounds
Effective Range	1000 meters for infantry targets, and 1500 meters for armored vehicle targets
Life	≥3000 Rounds



M88

Caliber	12.7x99mm
Overall Length	1.29m, Barrel Length: 737mm
Full Weight	10.9kg
Type	Anti-material Rifle
Optical Sight	10x Sight or Leupold 4.5-14x50
Firing Mode	Bolt-action



Type QFC 14.5MM Anti-material Sniper Rifle

Muzzle Velocity	1000m/s
Overall Length	1.6m, Barrel Length: 1.2m
Full Weight	19kg
Type	Bolt-action, able to penetrate 25mm armor vehicle within 150 meters
Effective Range	4000m
Life	1000 Rounds



Type T97NSR-A Semi-automatic Rifle

Muzzle Velocity	$\geq 920\text{m/s}$
Overall Length	$\leq 760\text{mm}$
Full Weight	$\leq 3.5\text{kg}$
Ammunition	5.56×45mm Type SS109/ M193 Rifle Cartridge
Firing Mode	Single firing/Automatic firing/Triple firing
Life	$\geq 10,000$ Times



Type 56-1 Assault Rifle

Effective Range	400m (Single firing) 300m (Automatic firing)
Overall Length	878 mm with unfolding stock 645 mm with folding stock
Full Weight	3.8kg
Ammunition	7.62×39mm Rifle Cartridge, API, APIT
Magazine Capacity	30 Rounds×4
Muzzle Velocity	710m/s



Type 56-2 Assault Rifle

Effective Range	400m (Single Firing) 300m (Automatic Firing)
Overall Length	878 mm with unfolding stock 645 mm with folding stock 3.8kg
Full Weight	7.62×39mm Rifle Cartridge, API, APIT
Ammunition	30 Rounds×4
Magazine Capacity	710m/s
Muzzle Velocity	



Type CS/LR11 7.62MM Automatic Rifle

Caliber	7.62x39mm
Overall Length	943mm with unfolding stock 700mm with folding stock
Full Weight	3.9kg
Muzzle Velocity	≥690m/s
Magazine Capacity	30 Rounds
Accuracy at 100m away	R≤50



Type CQ-B 5.56MM Automatic Rifle

Effective Range	460m
Overall Length	1003mm
Full Weight	3.8kg
Magazine Capacity	30 Rounds
Muzzle Velocity	900m/s
Accuracy at 100m away	≤13.3cm



Type CQ-A Automatic Rifle

Effective Range	460m
Overall Length	787-883 mm (with adjustable stock)
Full Weight	3.3kg
Magazine Capacity	30 Rounds x2
Muzzle Velocity	884m/s
Accuracy at 100m away	≤13.9cm



Type CQ-D 5.56MM Automatic Rifle

Effective Range	460m
Overall Length	87-883mm
Full Weight	3.5kg
Magazine Capacity	30 Rounds
Firing Rate	700-900 rds/min
Dispersion Accuracy	$\leq\phi 13.9\text{cm}$



Type M305 7.62MM Single Shot Rifle

Effective Range	460m
Overall Length	$\leq 1122\text{mm}$, Barrel Length 559mm
Full Weight	$\leq 4.4\text{kg}$
Magazine Capacity	5 Rounds
Muzzle Velocity	$\geq 835\text{m/s}$
Life	≥ 6000 Rounds



Type 81 Automatic Rifle

Effective Range	400m
Overall Length	955mm without bayonet; 1105mm with bayonet
Full Weight	3.8kg
Magazine Capacity	30 Rounds x4
Muzzle Velocity	720m/s
Firing Mode	Single/Automatic Shot



Type 56 Assault Rifle

Effective Range	400m (Single Shot) 300m (Automatic Shot)
Overall Length	1100mm with extended bayonet 874mm with retractile bayonet
Full Weight	3.8kg (with an empty magazine)
Magazine Capacity	30 Rounds x4
Muzzle Velocity	710m/s
Ammunition	7.62× 39mm Rifle Cartridge, API, APIT



Type 97 Automatic Short Rifle

Effective Range	400m
Overall Length	955mm without bayonet; 1105mm with bayonet
Full Weight	3.8kg
Magazine Capacity	30 Rounds x4
Muzzle Velocity	720m/s
Firing Mode	Single /Automatic Shot



Type 97A Automatic Rifle

Effective Range	400m
Overall Length	≤760mm
Full Weight	3.6kg (with an empty magazine)
Magazine Capacity	30 Rounds x4
Muzzle Velocity	920m/s
Firing Mode	Single/Automatic/ Triple Shot



Type CS/LR28 7.62MM Semi-automatic Rifle

Effective Range	400m
Overall Length	≤1116mm
Full Weight	≤4.7kg (with an empty magazine)
Magazine Capacity	30 Rounds
Theoretical Firing Rate	≤475mm
Life	≥6000 Rounds



Type M14 7.62MM Automatic Rifle

Effective Range	460m
Overall Length	≤1122mm
Full Weight	≤4.5kg
Magazine Capacity	20 Rounds
Muzzle Velocity	≥835m/s
Life	≥6000 Rounds



Type 313B 7.62*39MM Hunting Rifle

Effective Range	400m
Overall Length	$\leq 995\text{mm}$
Full Weight	$\leq 4.5\text{kg}$ (with an empty magazine)
Magazine Capacity	5 Rounds
Muzzle Velocity	$\geq 720\text{m/s}$
Life	≥ 10000 Rounds



Type M334 7.62MM Rifle

Effective Range	400m
Overall Length	$\leq 1135\text{mm}$
Full Weight	$\leq 4\text{kg}$
Magazine Capacity	5 Rounds
Muzzle Velocity	$\geq 840\text{m/s}$



Type CS/LR27 5.56MM Semi-automatic Rifle

Effective Range	400m
Overall Length	≤1116mm
Full Weight	≤4.7kg (with an empty magazine)
Magazine Capacity	5 Rounds
Muzzle Velocity	≥884m/s
Life	≥6000 Rounds



NAR556 Series

Effective Range	400m
Overall Length	≤838mm
Full Weight	3.28kg (with an empty magazine)
Magazine Capacity	30 Rounds
Muzzle Velocity	≥850m/s
Life	≥10, 000 Rounds



NAR739 Series

Effective Range	400m
Overall Length	≤838mm
Full Weight	3.51kg (with an empty magazine)
Magazine Capacity	30 Rounds
Muzzle Velocity	≥850m/s
Life	≥10, 000 Rounds



NAR751 Series

Effective Range	400m
Overall Length	≤838mm
Full Weight	3.51kg (with an empty magazine)
Magazine Capacity	30 Rounds
Muzzle Velocity	≥850m/s
Life	≥10, 000 Rounds



Type NP22 9x19MM Pistol

Overall Length	196mm
Weight	0.885kg
Magazine Capacity	15 Rounds x2
Cartridge	Parabellum 9mm pistol cartridge
Feeding Mode	Fed by double-column and double-feeding magazine



Type NP34 9x19MM Pistol

Overall Length	180mm
Weight	≤0.83kg (with an empty magazine)
Magazine Capacity	13 Rounds x2
Cartridge	Parabellum 9mm pistol cartridge
Feeding Mode	Fed by double-column and double-feeding magazine



Type CF98A Pistol

Overall Length	196mm
Weight	≤0.78kg
Magazine Capacity	15 Rounds x2
Muzzle Velocity	≥340m/s
Effective Range	50m



Type QSZ92G Pistol

Overall Length	Overall Length: 190mm Barrel Length: 111mm
Weight	0.76kg
Magazine Capacity	15+1 Rounds/20+1 Rounds
Cartridge Type	Parabellum 9mm pistol cartridge
Effective Range	50m



Type CS/LP8 Revolver

Caliber	9mm
Overall Length	230mm
Full Weight	0.8kg
Magazine Capacity	6 Rounds
Muzzle Velocity	200m/s
Effective Range	50mm



Type CS/LP5 Pistol

Overall Length	165mm
Full Weight	≤0.7kg
Magazine Capacity	7 Rounds x2
Muzzle Velocity	≥320m/s
Effective Range	50mm

左轮手枪CS/LP8手枪



Type Q1801 Gauge-12 Semi-automatic Shotgun

Caliber	Gauge 12
Overall Length	Overall Length: 1080mm Barrel Length: 524mm
Full Weight	4.1kg
Magazine Capacity	Magazine with 5 or 10 rounds
Automatic Mode/ Blocking Mode	Pneumatic Type/Machine Gun Rotary Locking
Standard Module	Integral Stock



Type Q1801-2 Gauge-12 Semi-automatic Shotgun

Caliber	Gauge 12
Overall Length	Overall Length: 1080mm Barrel Length: 524mm
Full Weight	4.1kg
Magazine Capacity	Magazine with 5 or 10 rounds
Automatic Mode/ Blocking Mode	Pneumatic Type/Machine Gun Rotary Locking
Standard Module	Stock with cheekpiece and Integrated Mini-grip



Type Q1801-3 Gauge-12 Semi-automatic Shotgun

Caliber	Gauge 12
Overall Length	Overall Length: 995mm Barrel Length: 524mm
Full Weight	4.0kg
Magazine Capacity	Magazine with 5 or 10 rounds
Automatic Mode Blocking Mode	Pneumatic Type/Machine Gun Rotary Locking
Standard Module	Individual Small Grip and Integral Stock



Type EM123A 12GA Shotgun

Caliber	Gauge 12
Overall Length	905-985mm Barrel Length 355mm
Full Weight	≤4.3kg
Magazine Capacity	5 Rounds
Firing Mode	Semi-automatic



Type EM124 12GA Shotgun

Caliber	Gauge 12
Overall Length	760-845mm, Barrel Length: 280mm
Full Weight	≤3kg
Magazine Capacity	5 Rounds
Firing Mode	Manual



Type EM121B 12GA Shotgun

Caliber	Gauge 12
Overall Length	905-985mm, Barrel Length: 355mm
Full Weight	≤4.3kg
Magazine Capacity	5 Rounds
Firing Mode	Manual



Type EM125B 12GA Shotgun

Caliber	Gauge 12
Overall Length	Overall Length: 930mm Barrel Length: 520mm
Full Weight	3.1kg
Firing Mode	Single Shot
Automatic Mode/ Blocking Mode	Pump Action/Latches between swings of the ferrule
Standard Module	Folding Stock



Type ESLD12-1J5 Pump-action Shotgun

Caliber	Gauge 12
Overall Length	Overall Length: 930mm Barrel Length: 520mm
Full Weight	3.1kg
Firing Mode	Single Shot
Automatic Mode/ Blocking Mode	Pump Action/Latches between swings of the ferrule
Standard Module	Folding Stock



Type SLD12-1J6 Pump-action Shotgun

Caliber	Gauge 12
Overall Length	Overall Length: 890mm Barrel Length: 420mm
Full Weight	3kg
Firing Mode	Single Shot
Automatic Mode/ Blocking Mode	Pump Action/Latches between swings of the ferrule
Standard Module	Short Grip



Type SLD12-1J7 Pump-action Shotgun

Caliber	Gauge 12
Overall Length	Overall Length: 1075mm Barrel Length: 520mm
Full Weight	3.1kg
Firing Mode	Single Shot
Automatic Mode/ Blocking Mode	Pump Action/Latches between swings of the ferrule
Standard Module	Front Grip



Type SL12-1D2 Single-barreled Single-Shot Shotgun

Caliber	Gauge 12
Overall Length	Overall Length: 1100mm Barrel Length: 720mm
Full Weight	2.45kg
Firing Mode	Single Shot
Automatic Mode/ Blocking Mode	Manual/Barrel Swing Locking



Type 97 Shotgun (LA-K12)

Caliber	18.4mm
Overall Length	780mm
Full Weight	3.6kg
Firing Rate	190m/s
Firing Range	120m



Type CS/LM12 Rotary Barrel Machine Gun

Caliber	7.62×51mm
Firing Rate	2500 Rounds/Min. or 6000 Rounds/min
Muzzle Velocity	845m/s
Overall Length	1300mm
Full Weight	90kg (with a full magazine)
Magazine Capacity	1000 rds
Life	≥60000rds



Type CS/LM9 14.5MM Single-barreled Shipborne Machine Gun

Caliber	14.5mm
Muzzle Velocity	≥980m/s
Effective Range	2000m
Overall Length	≤1800mm
Full Weight	≤166.5kg
Magazine Capacity	70rds
Life	≥4000rds



Type C S/LM5 Rotary Barrel Machine Gun

Caliber	12.7× 108mm
Barrel	3
Firing Rate	1000rds/min (Low speed) 2000rds/min (High speed)
Effective Range	1500m
Automatic Mode/ Blocking Mode	Manual/Barrel Swing Locking



Type CS/LM2B 14.5MM Double-barreled Anti-aircraft Machine Gun

Caliber	14.5mm
Muzzle Velocity	≥980m/s
Effective Range	2000m
Overall Length	≤3720mm
Full Weight	≤550kg



Type CS/LM2 14.5MM Single-barreled Anti-aircraft Machine Gun

Caliber	14.5mm
Overall Length	≤2900mm
Full Weight	≤110kg
Muzzle Velocity	≥980m/s
Effective Range	2000m



Type CS/LM7 5.56MM General Machine Gun

Caliber	5.56mm
Overall Length	≤1300mm
Full Weight	≤12kg
Muzzle Velocity	≥930m/s
Effective Range	1000m



Type CS/LM2A 14.5MM Single-barreled Anti-aircraft Machine Gun

Caliber	14.5mm
Overall Length	$\leq 2400\text{mm}$
Full Weight	$\leq 100\text{kg}$
Muzzle Velocity	$\geq 980\text{m/s}$
Effective Range	2000m



Type CS/LM12 7.62MM Rotary Barrel Machine Gun

Caliber	7.62mm
Overall Length	$\leq 870\text{mm}$
Full Weight	$\leq 123\text{kg}$
Muzzle Velocity	$\geq 800\text{m/s}$
Effective Range	1000m



Type W85 12.7× 108MM Machine Gun

Caliber	12.7× 108mm
Overall Length	1995mm
Full Weight	39kg
Effective Range	1600m (Horizontal) 1500m (Anti-aircraft)
Life	7000 Rounds



Type 81 7.62MM Light Machine Gun

Caliber	7.62mm
Overall Length	1024mm
Full Weight	≤5.15kg
Muzzle Velocity	≥735m/s
Effective Range	600m



New Type QJY 14.5MM Double-barreled Shipborne Machine Gun

Caliber	14.5mm
Overall Length	≤2690mm
Full Weight	≤580kg
Muzzle Velocity	≥980m/s
Effective Range	2000m



Type 67-2 (PKM) 7.62MM Heavy Machine Gun (Type 1980)

Caliber	7.62mm
Overall Length	≤1250mm
Full Weight	≤15.6kg
Muzzle Velocity	≥815m/s
Effective Range	1000m



**Type CS/LM4 General Machine Gun
Type 56M Light Machine Gun (RPK)**

Caliber	7.62× 39mm
Overall Length	1035mm
Full Weight	4.25kg
Muzzle Velocity	735m/s
Effective Range	600m



**Type 86 7.62MM Vehicle-mounted
Machine Gun**

Caliber	7.62× 54mm
Overall Length	1097mm
Full Weight	11.6kg
Muzzle Velocity	830±20m/s
Effective Range	1000m



Type VN3 14.5 Vehicle-mounted Machine Gun

Caliber	14.5mm
Overall Length	≤2030mm
Full Weight	≤100kg
Muzzle Velocity	≥980m/s
Life	≥4000rds



7.62× 51MM General Machine Gun

Caliber	7.62mm
Overall Length	1150mm
Full Weight	≤8.5kg (light) ≤14.0kg (heavy)
Muzzle Velocity	≥830m/s
Life	Gun Life: 25000rds Single-barreled Life: 12500rds



DSHK Large-caliber Machine Gun

Caliber	12.7mm
Full Weight	140kg
Muzzle Velocity	850-870m/s
Firing Rate in Battle/ Theoretical Firing Rate	125rds/min; 600rds/min
Max. Firing Range	Anti-aircraft firing: 2400m Flat firing: 3500m



Type W88 12.7MM Vehicle-Mounted Machine Gun

Caliber	12.7X108mm
Overall Length	1502mm
Full Weight	54kg
Muzzle Velocity	800m/s
Effective Range	1500m



Type CS/LM3 0.50 inch Anti-aircraft Machine Gun

Caliber	12.7mm
Length	Overall Length: 1640mm, Barrel Length: 1003mm
Weight	Full Weight: 26.5kg, Gun Body Weight: 17kg, Tripod Weight: 9.5kg
Muzzle Velocity	825m/s
Effective Range	1500m
Cartridge	Type 54 12.7 mm cartridge, Type 84 stripped armored-piercing bullet, Type 89 APIT, Type 89 armour-piercing explosive incendiary bullet, 12.7 mm BMG



Type CL/LM1 General Machine Gun

Caliber	7.62X51mm
Length	Overall Length: 1,100mm (Vehicle Mounted) 1325mm(Light Machine Gun) 1360mm(Heavy Machine Gun)
Weight	Full Weight: 11kg (Vehicle Mounted) 12.5kg (Light Machine Gun) 22.5kg(Heavy Machine Gun)
Muzzle Velocity	840m/s
Effective Range	1200m



Type 97 9L7i式轻机枪 Chinese Gun

Caliber	.56mm
Length	Overall length: 870mm; Barrel length: 600mm
Weight	4.9kg
Theoretical firing rate	650 rds/min
Fighting rate	150 rds/min
Magazine capacity	300 rds/80 rds
Effective range	600m



125MM HEAT-FS

Bullet Length	680mm
Bullet Weight	19kg
Charge Weight	1.62-1.85kg
Muzzle Velocity	905 rds/min
Vertical Target Accuracy	0.21 mil
Chamber Pressure	30 MPa
Diameter (Unfolded Empennage)	343mm



Type LG3 40MM Grenade Launcher

Caliber	40mm
Weight	39kg
Firing Range	2200m
Max. Killing Radius	9.8m
Elevation Firing Area/Direction Firing Area	-10°~ 42° 180 to the left and right respectively



Type LG4 40MM Grenade Launcher

Length	Overall Length: 780mm Barrel Length: 300mm
Weight	5.85kg
Muzzle Velocity	76m/s
Firing Rate in Battle	24rds/min
Effective Range	400m



Type LG5 40MM Sniper Grenade Launcher

Max. Firing Range	2200m
Accurate Firing Range	800-1000m
Overall Combat Weight	15kg (light mode) 25kg (heavy mode)
Drum Magazine Capacity	4、 6、 15rds New integrated computer automatic sight
Aiming Mode	



Type 04 35MM Automatic Grenade Launcher

Weight	Empty Ammunition Can Weight: 4.2kg Full Ammunition Can Weight: 12kg
Muzzle Velocity	190m/s
Max. Firing Range	750m
Theoretical Firing Rate	350-400rds/min
Effective Range	600m (with an mechanical sight) 1200m (with an optical sight)



Type 40MM RPG-7 Launcher

Basic Cartridge	300m
Type I	300m
Type II	200m
Type III	290m
Wind Deflection Reduction Armor-piercing Cartridge	400m
Steel Ball Anti-Personnel Cartridge	1700m
Anti-personnel Armor-piercing Cartridge	1800m
Incendiary Anti-personnel Cartridge	1500m
Flare	600-1500m



Type PF89 80MM Individual Rocket Launcher

Caliber	80mm
Overall Length	900mm
Overall Weight	3.7kg
Cartridge Weight	1.84kg
Warhead Charge Weight	0.6kg
Tube Weight	1.86kg
Muzzle Velocity	173m/s
Flat Firing Range	230m
Scale Range	400m
Vertical Target Dispersion at 200 meters away	0.35× 0.35m
Armor Piercing Power	180mm/65



Type 78B 82MM Recoilless Artillery

Length	1445mm
Weight	34.1kg (without projectiles)
Muzzle Velocity	252m/s
Effective Range	High explosive shell 500m
Max. Firing Range	2000m



Type Rpo-a 93MM Rocket Launcher

Rocket Launcher Length	920mm
Combat Full Weight of Rocket Launcher	12kg
Muzzle Velocity	120m/s
Cartridge Length	724mm
Effective Range Max. Firing Range	600m/1000m



Type PP93 60MM Mortar

Caliber	60.75mm
Weight	Full Mortar Weight: 22.4kg Mortar Body Weight: 9.4kg; Carriage Weight: 5.8kg; Sight Weight: 0.48kg; Grenade Weight: 2.18kg
Effective Killing Radius	17.8m
Max. Muzzle Velocity	329m/s
Max. Firing Range	5564m
Max. Firing Rate	20rds/min



Type AM160MM Light Mortar

Caliber	60.75mm
Weight	Full Weight 12.5kg Full Weight of Grenade:1.326kg
Muzzle Velocity	134m/s
Killing Area	Radius: 15m
Min. Firing Range Max. Firing Range	200m/1490m



Type w87 82MM Mortar

Caliber	82mm
Weight	Full Weight 39.7kg; Mortar Body Weight 15.5kg Carriage Weight 8.7kg Mortar Body Weight 15.5kg Full Weight of Grenade 4.2kg
Muzzle Velocity	265m/s
Firing Rate	30rds/min
Min. Firing Range Max. Firing Range	120m/4660m



Type W86 120MM Mortar

Caliber	120mm
Weight	Full Weight under Combat Condition 206kg Full Weight under Marching Condition 291kg; Carriage Weight 27kg; Pedestal Weight 91kg; Full Weight of Grenade 13.8kg
Muzzle Velocity	341m/s
Firing Rate	20rds/min
Min. Firing Range Max. Firing Range	400m/7700m



Type ZU-23 23MM Double-barreled Anti-aircraft Gun

Caliber	23mm
Muzzle Velocity	970m/s
Firing Rate	1600-2000rds/min
Max. Effective Firing Height	1500m
Max. Effective Curve Firing Distance	2500m
Max. Effective Flat Firing Distance	2000m



Type PF98 120MM Anti-Tank Rocket Launcher

Caliber	120mm
Length	1191mm
Weight	6.28kg
Firing Rate	4-6rds/min
Effective Range	400m
Max. Firing Range	Armor-piercing Thickness: 800mm can effectively destroy modern battle tanks



9x19MM Cartridge

Warhead Diameter	9.02mm
Neck Diameter	9.65mm
Case Bottom Diameter	9.93mm
Rim Diameter	9.96mm
Case Length	19.15mm
Overall Length	29.69mm



5.56x39MM Cartridge

Length	56mm
Case Length	38.3mm
Cartridge Weight	15.9-18g
Bullet Weight	7.75-8.5g
Velocity	710-725m/s
Max. Chamber Pressure	275MPa



5.56x45MM Cartridge

Overall Length	57.4mm
Case Length	44.7mm
Bullet Length	19.3mm
Weight	Full Weight: 11.79g Bullet Weight: 3.63g
Chamber Pressure	52000psi
Muzzle Velocity	997m/s



7.62x51MM Cartridge

Overall Length	71.1mm
Case Length	51.18mm
Bullet Length	32.5mm
Weight	Full Weight: 25.47g Bullet Weight: 9.75g
Chamber Pressure	50000psi
Muzzle Velocity	838m/s



7.62x54MM Cartridge

Overall Length	77mm
Case Length	53.6mm
Cartridge Weigh	24-26g
Bullet Weight	9.75g
Max. Chamber Pressure	390MPa
Muzzle Velocity	835m/s



7.62x54MM Cartridge for Sniper

Bullet Diameter	7.9mm
Rim Diameter	14.48mm
Case Length	53.72mm
Overall Length	77.16mm
Muzzle Velocity	850m/s



12.7x99MM Cartridge

Bullet Diameter	13.0mm
Neck Diameter	14.2mm
Shoulder Diameter	18.8mm
Case Bottom Diameter	20.4mm
Case Length	99mm
Overall Length	138mm



12.7x108MM Cartridge

Overall Length	147mm
Case Length	108mm
Cartridge Weight	130-137g
Bullet Weight	59.2g
Max. Chamber Pressure	360MPa
Muzzle Velocity	770-785m/s



14.5x114MM Cartridge

Overall Length	156mm
Case Length	114mm
Cartridge Weight	192g
Bullet Weight	63-64.8g
Max. Chamber Pressure	324MPa
Muzzle Velocity	980-995m/s



23x115MM Aviation Cartridge

Cartridge Diameter	23mm
Case Length	115mm
Overall Length	197mm
Weight	Case Weight: 331g Bullet Weight: 190g Charge Weight: 18.4g
Armor-piercing Thickness at 200 meters away	10mm
Muzzle Velocity	700m/s



30× 165MM High Explosive Tracer Cartridge

Full Weight	830g
Bullet Weight	385g
Charge Weight	11.5g
Muzzle Velocity	960m/s
Tracer Period	10-14s



30× 165MM Armor Piercing Discarding Sabot

Full Weight	765g
Bullet Weight	304g
Muzzle Velocity	1120m/s
Armor-piercing Capacity	25mm RHA 60° (1500m)



30× 165MM Anti-aircraft Shell

Type	HEI High-explosive Incendiary Cartridge
Full Weight	837g
Bullet Weight	389g
Charge Weight	49g
Muzzle Velocity	960m/s
Flat Firing Distance	3900-5300m



30×165MM Anti-aircraft Hollowed-Cap Tracer Armor-piercing Ammunition

Full Weight	858g
Bullet Weight	400g
Muzzle Velocity	970m/s
Tracer Period	3.5s
Armor-piercing Capacity	20mm RHA 60° (700m)



30MM Grenade

Length (Max)	132mm
Weight	0.35kg Charge Weight 0.032kg
Muzzle Velocity	185m/s
Caliber	30mm
Max. Effective Range	1700m
Shelf Life	10 years



Type AGL HEI DFN87 35MM Grenade

Overall Length	120mm
Muzzle Velocity	$\geq 190\text{m/s}$
Safe Distance	$\geq 8\text{ m}$
Combustion Temperature	$\geq 1200^{\circ}\text{C}$ (Sustained Period $\geq 60\text{s}$)
Safe Defence Distance	$\leq 30\text{m}$
Life	15 years



Type AGL DFN87 Incendiary 35MM Grenade

Overall Length	120mm
Muzzle Velocity	$\geq 190\text{m/s}$
Safe Distance	$\geq 8\text{m}$
Combustion Temperature	$\geq 1200^{\circ}\text{C}$ (Sustained Period $\geq 60\text{s}$)
Safe Defence Distance	$\leq 30\text{m}$
Life	15 years



Type AGL HE DFS87 Grenade

Overall Length	120mm
Muzzle Velocity	$\geq 190\text{m/s}$
Full Weight	270g
Effective Lethal Radius	$\geq 7\text{m}$
Max. Range	$\geq 1500\text{m}$
Life	15 years



35MM Tear Bomb

Cartridge Diameter	35mm
Overall Length	≤114mm
Full Weight	≤145g
Charge Weight	≥60g
Safe Radius	≤0.5m



Type AGL HE BGL3 40x53MM Grenade

Overall Length	112mm
Muzzle Velocity	≥240m/s
Max. Firing Range	≥2200m
Full Weight	340g
Max. Chamber Pressure	83MPa
Life	15 years



Type BGL3A 40x53MM Air-burst High Explosive Grenade

Overall Length	112mm
Muzzle Velocity	$\geq 240\text{m/s}$
Full Weight	340g
Effective Lethal Radius	$\geq 8\text{m}$
Max. Air-burst Area	$\geq 800\text{m}$
Life	15 years



Type AGL HEDP BGJ40X53MM Delay Grenade

Overall Length	112mm
Muzzle Velocity	$\geq 240\text{m/s}$
Full Weight	340g
Effective Lethal Radius	27m
Penetration rate	Penetration rate for 76mm armor plate: $\geq 85\%$
Life	15 years



Type BGH1 40x53MM High Explosive Grenade

Overall Length	98mm
Muzzle Velocity	76m/s
Max. Range	≥400m
Full Weight	228g
Max. Chamber Pressure	21MPa
Life	15 years



Type AR406 40x46MM High Explosive Hand Grenade

Overall Length	103mm
Bullet Weight	220g
Explosive Weight	203g
Muzzle Velocity	760m/s
Max. Firing Range	400m



Type pp93 60MM Mortar Projectile

Caliber	60mm
Max. Firing Range	5564m
Full Weight	2.18kg
Muzzle Velocity	329m/s
Life	15 years



60MM Mortar Projectile

Overall Length	294mm
Muzzle Velocity	158.4m/s
Full Weight	1.47kg
Explosive Weight	190g



Type 63 60MM Mortar Projectile

Overall Length	294mm
Max Firing Range	429m
Min. Firing Range	70m
Muzzle Velocity	140m/s
Full Weight	1.33kg
Effective Lethal Radius	10.2m



81MM Mortar Projectile

Overall Length	338mm
Full Weight	3.24kg
Explosive Weight	585g
Muzzle Velocity	254m/s



82MM Mortar Projectile

Overall Length	329mm
Muzzle Velocity	211m/s
Full Weight	3.23kg
Explosive Weight	463g



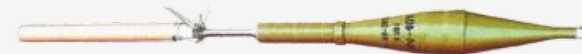
Type 87 82MM Mortar Projectile

Weight	4.2kg
Min. Firing Range	120m



120MM Mortar Projectile

Overall Length	710.95mm
Full Weight	13.65kg
Explosive Weight	2.99kg
Muzzle Velocity	318m/s



40MM RPG Rocket Projectile

Caliber	Caliber 40mm Bullet Caliber 85mm
Overall Length	950mm
Weight	Full Weight 3.19kg Bullet Weight 900g
Muzzle Velocity	100-150m/s
Max. Firing Range	920m Armor-piercing Capacity 260mm



Propellant-Connected 40MM Anti-tank Rocket Projectile (Type BKJ2)

Bullet Caliber	96mm
Overall Length	1080mm
Weight	3kg
Muzzle Velocity	108m/s
Effective Range	300m
Penetrating Power	180mm/65°



HEI 40MM Rocket Projectile

Bullet Caliber	70mm
Overall Length	820-830mm
Weight	269kg
Muzzle Velocity	95m/s
Max. Firing Range	1600m
Lethal Radius	15m°



Type OG-7 Anti-personnel High Explosive Fragmentation Grenade

Caliber	40mm
Full Weight	1.76kg
Hand Grenade Weight	1.38kg
Muzzle Velocity	152m/s
Max. Firing Range	1000m
Lethal Radius	≥22m



80MM Rocket Projectile for Type PF89 Individual Rocket Launcher

Caliber	80mm
Overall Length	900mm
Weight	Full Weight 3.7kg Projectile Weight 1.85kg
Muzzle Velocity	174m/s
Effective Range	230m
Configuration	6 rounds/box Box Weight: 40kg



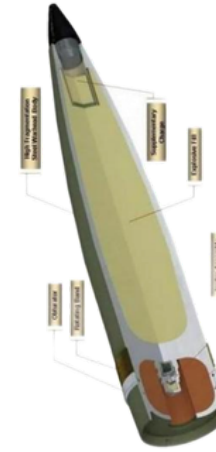
122MM Rocket Projectile	
Length	Overall Length 2764mm Caliber 122mm
Weight	Full Weight 61kg Warhead Weight 18.3kg Explosive Weight 6.39kg
Firing Range	Min. Firing Range 15km Max. Firing Range 30km
Intensive Lethal Radius	28.2m
Specification	2 rounds/box Box Weight: 185kg
Applicable Weapon	Type PHL81 122mm rocket gun Type PHZ89122mm rocket gun

T55 100MM Tank Gun Cartridge	
Caliber	100mm
Case Weight	16.74kg
Weight	Full Weight 3.7kg, Bullet Weight 1.85kg
Muzzle Velocity	900m/s
Armored Penetrating Power	300mm
Max. Range	1000m



Type 83 122MM Grenade

Bullet Weight	33.4kg
Min. Firing Range	3750m
Max. Firing Range	15600m
Muzzle Velocity	618m/s
Flat Firing Distance	1000m



122MM Base-Bleed Projectile

Weight	Full Weight 21.76kg with charge of 3.67kg
Min. Firing Range	3750m
Max. Firing Range	22km
Muzzle Velocity	618m/s
Lethal Radius	15-30m



TNT

Chemical Formula	C ₇ H ₅ N ₃ O ₆
Molecular Weight	227.13
Melting Point	80.35
Boiling Point	240°C (explosive)
Relative Density	1.654
Vapour Pressure	0.046mmHg (82°C)
Solubility	Insoluble in water, alcohol, aether, soluble in chloroform, benzene, toluene, acetone.



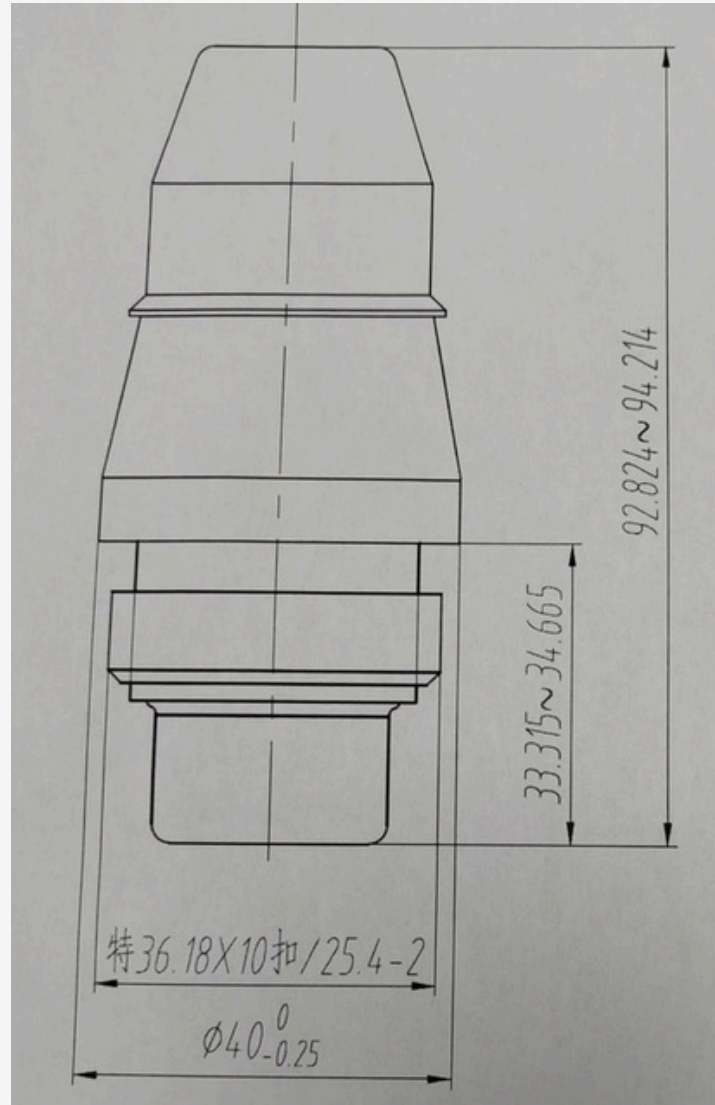
Hexogen

Density	1.89/cm ³
Melting Point	205°C
Boiling Point	747°C
Flash Point	405.6°C
Index of Refraction	1.668
Vapor Pressure	2.66E-21mmHg at 25°C
Deflagration Point	230°C
Detonation Velocity	8750m/s
Detonation Gas Volume	910L/kg
Heat Detonation	6025kJ/kg
Solubility	Insoluble in water soluble in acetone



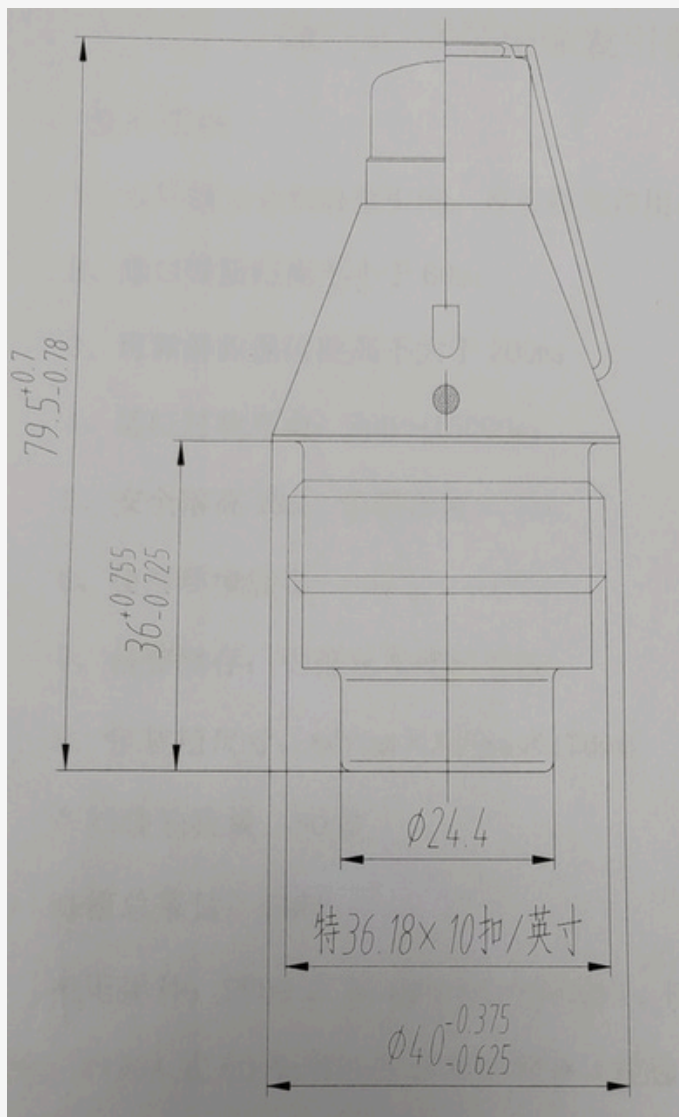
Single-Base Propellant (Disc-shaped)

No.	Properties	Unit	Amount
1	Appearance	--	Disc-shaped
2	Diameter	mm	2.5±0.3
3	Thickness	mm	0.4±0.15
4	Diphenylamine	%	1-2
5	Graphite	%	Max. 0.4
6	Potassium Nitrate	%	Max. 0.5
7	Moisture & Volatile	%	0.4-1.3
8	Heat of explosion	Cal/gr	Max. 1050
9	Stability at 134.5°C	Min	Min. 40
10	Ash	%	Max. 0.1



DRP11C Type Mechanical Trigger Fuse (Dual Environmental Force)





Fuse	Dual Environmental Force Fully Insured Fuses, Instantaneous Trigger
Muzzle Safety Distance	$\geq 60\text{m}$
Reliable Release Distance	$\leq 200\text{m}$
Adaptation Overload Coefficient	500-15000g
Safe Height	12m
Non-destructive Height	1.5m
Operating Temperature	-40°C—+50°C
Packaging Storage	Fuse single shot sealed package
Packing Box Size	648mm×325mm×176mm
Quantity Per Carton	50
Total Weight Per Box	17kg
Ammunition Type	PP89 60 mortar anti-personnel grenade, PP93 60 mortar anti-personnel grenade, WW90A 60mm mortar anti-personnel grenade (light and long range)











MP-5F Type Mechanical Trigger Fuse (Single Ambient Force)





Fuse	Fully Insured, Isolated Detonator Type Fuse, Instantaneous Trigger
Muzzle Safety Distance	≥30m
Reliable Release Distance	≤260m
Adaptation Overload Coefficient	500-15000g
Safe Height	12m
Non-destructive Height	1.5m
Operating Temperature	-40°C—+50°C
Packing Method	Single-shot black box
Packaging Storage	Normal Storage 15 years
Packing Box Size	648mm×325mm×176mm
Quantity Per Carton	50
Total Weight Per Box	15kg
Ammunition Type	PP89 60mm mortar anti-personnel grenade, PP63 60mm mortar anti-personnel grenade, PP93 60mm mortar anti-personnel grenade, PP53 82mm mortar anti-personnel grenade





Rangefinder





1		1800B	0m-1800m (Accuracy: $\pm 0.2\text{m}$)	No blind spots Vibration reminder With Bluetooth
2		2000B	0m-2000m (Accuracy: $\pm 0.2\text{m}$)	No blind spots Vibration reminder With Bluetooth
3		2200B	0m-2200m (Accuracy: $\pm 0.2\text{m}$)	No blind spots Vibration reminder With Bluetooth
4		360AS	0m-2000m (Accuracy: $\pm 0.2\text{m}$)	No blind spots Azimuth measurement, and the span between any two points in space





5		600LH	4m-600m (Accuracy: $\pm 0.3\text{m}$)	Range, height and angle measurement
6		800LH	4m-800m (Accuracy: $\pm 0.3\text{m}$)	Range, height and angle measurement
7		1000LH	4m-1000m (Accuracy: $\pm 0.3\text{m}$)	Range, height and angle measurement
8		1200LH	4m—1200m (Accuracy: $\pm 0.3\text{m}$)	Range, height and angle measurement





9		1200LH	4m—1200m (Accuracy: $\pm 0.3\text{m}$)	Range, height and angle measurement
10		1500LH	4m—1500m (Accuracy: $\pm 0.3\text{m}$)	Range, height and angle measurement
11		1800LH	4m—1800m (Accuracy: $\pm 0.3\text{m}$)	Range, height and angle measurement
12		2000LH	4m—2000m (Accuracy: $\pm 0.3\text{m}$)	Range, height and angle measurement





13		600LHB	4m-600m (Accuracy: $\pm 0.3\text{m}$)	With bluetooth and tripod interface
14		800LHB	4m-800m (Accuracy: $\pm 0.3\text{m}$)	With bluetooth and tripod interface
15		1000LHB	4m-1000m (Accuracy: $\pm 0.3\text{m}$)	With bluetooth and tripod interface
16		1200LHB	4m-1200m (Accuracy: $\pm 0.3\text{m}$)	With bluetooth and tripod interface




17		1500LHB	4m-1500m (Accuracy: ±0.3m)	With bluetooth and tripod interface
18		600L	4m-600m (Accuracy: 0.3m)	Range and velocity measurement
19		800L	4m-800m (Accuracy: 0.3m)	Range and velocity measurement
20		1000L	4m-1000m (Accuracy: 0.3m)	Range and velocity measurement

21		1200L	4m-1200m (Accuracy: 0.3m)	Range and velocity measurement
22		1500L	4m-1500m (Accuracy: 0.3m)	Range and velocity measurement
23		1800L	4m-1800m (Accuracy: 0.3m)	Range and velocity measurement
24		2000L	4m-2000m (Accuracy: 0.3m)	Range and velocity measurement







25		Binocular 4000CI	30m-4000m (Accuracy: ±0.5m)	Equipped with RS232 serial port, capable of carrying Bluetooth and PDA, computer connection for data transmission
26		Binocular 5000CI	30m-5000m (Accuracy: ±0.5m)	Equipped with RS232 serial port, capable of carrying Bluetooth and PDA, computer connection for data transmission
27		Binocular 6000CI	30m-6000m (Accuracy: ±0.5m)	Equipped with RS232 serial port, capable of carrying Bluetooth and PDA, computer connection for data transmission
28		Binocular 10000CI	30m-10000m (Accuracy: ±0.5m)	Equipped with RS232 serial port, capable of carrying Bluetooth and PDA, computer connection for data transmission

29		Binocular 4000CI with Azimuth Angle	30m-4000m A(accuracy: ±0.5m)	With azimuth angle、RS232 serial port Can be equipped with Bluetooth and PDA computer connection for data transmission
30		Binocular 5000CI with Azimuth Angle	30m-5000m A(accuracy: ±0.5m)	With azimuth angle、RS232 serial port Can be equipped with Bluetooth and PDA computer connection for data transmission
31		Binocular 6000CI with Azimuth Angle	30m-6000m A(accuracy: ±0.5m)	With azimuth angle、RS232 serial port Can be equipped with Bluetooth and PDA computer connection for data transmission
32		Binocular 10000CI with Azimuth Angle	30m-10000m A(accuracy: ±0.5m)	With azimuth angle、RS232 serial port Can be equipped with Bluetooth and PDA computer connection for data transmission







33		Binocular 12000CI Height and Azimuth Angle Measurement	100m-12000m (Accuracy: $\pm 2m$)	Range, height and angle measurement, with azimuth (electronic compass), RS232 serial port, can be equipped with Bluetooth and PDA, and computer connection for data transmission
34		Binocular 15000CI Height andAzimuth Angle Measurement	100m-15000m (Accuracy: $\pm 2m$)	Range, height and angle measurement, with azimuth (electronic compass), RS232 serial port, can be equipped with Bluetooth and PDA, and computer connection for data transmission
35		Binocular 20000CI Height and Azimuth Angle Measurement	100m-20000m (Accuracy: $\pm 2m$)	Range, height and angle measurement, with azimuth (electronic compass), RS232 serial port, can be equipped with Bluetooth and PDA, and computer connection for data transmission
36		1200ARC	5m-1200m (Accuracy: $\pm 1m$)	Binocular ranging telescope

37		1500ARC	5m-1500m (Accuracy: ± 1 m)	Binocular ranging telescope
38		1800ARC	5m-1800m (Accuracy: ± 1 m)	Binocular ranging telescope
39		360AS Digital measurement and control system	0m-2000m, reflective targets up to 2500 meters	Dedicated to electricity, with powerful functions

Telescope

Name	Tianyan 8x40	Tianyan 8x42	Tianyan 10x42	Tianyan 10x50	Tianyan 10-22x50	Tianyan 20x80
Picture						
Magnification	8x	8x	10x	10x	10-22x	20x
Objective Lens	40mm	42mm	42mm	50mm	50mm	80mm
Eyepiece Aperture	25mm			24.5mm	18mm	16mm
Focus Mode	Central Focusing	Central Focusing	Central Focusing	Central Focusing	Central Focusing	
Exit Pupil		5.2mm	4mm	5mm	15.5-12.5mm	4mm
Distance		17.2mm	15.2mm	16mm	5-2.3mm	12mm
Diopter		±5°	±5°	±5°	±5°	±5°
Dimension	140×180	127×53×150	127×53×150	145×185×60	195×184×65	340×100×240
Weight	740g	580.7g	580.7g	913g	949g	2400g

Name	Traveler 10x25	Traveler 8x32	Black Eagle 8x42	Black Eagle 10x42
Picture				
Magnification	10x	8x	8x	10x
Objective Lens	25mm	32mm	42mm	42mm
Eyepiece Aperture	18mm	20mm		
Focus Mode	Central Focusing	Central Focusing	Central Focusing	Central Focusing
Exit Pupil	2.5mm	4mm	5.2mm	4.2mm
Exit Pupil Distance	15mm	16.5mm	17.8mm	14.3mm
Diopter	±5°	±5°	±3°	±5°
Dimension	118×120×430	130×130×55	136×126×52	136×126×52
Weight	362g	493g	690g	690g

Name	Jimu 8x42	Jimu 10x42	Jimu 10x50	Jimu 12x50	Jimu 16x50	Jimu 10-30×50
Picture						
Magnification	8x	10x	10x	12x	16x	10x-30x
Objective Lens	22.5mm	42mm	50±1mm	50±1mm	50±1mm	50mm
Eye-piece Aperture		22.5mm	23.5±1mm	23.5±1mm	23.5±1mm	20mm
Focus Mode	Central Focusing	Central Focusing	Central Focusing	Central Focusing	Central Focusing	
Exit Pupil	5.25mm	4.2mm	5mm±10%	3.1mm±10%	3.1mm±10%	5.2mm
Exit pupil Distance	21mm	15mm	18mm	18mm	18mm	22mm
Transmittance	66%	69%				±5°
Dimension	156×126×57	156×126×57	196×66×183	196×66×183	196×66×183	
Weight	692g	687g	969g	969g	969g	


Name	Scout 7510	Scout 7515	Scout 8510	Scout 8310	Scout 8310C	Scout 25x100
Picture						
Magnification	7x	7x	10x	8x	8x	25x
Objective Lens	50mm	50mm	50mm	50mm	30mm	100mm
Eyepiece Aperture						24mm
Field of View	7.5°	7.5°	7.5°	8°	8°	
Exit Pupil						20mm
Exit pupil Distance	23mm	23mm	23mm	18mm	18mm	
Dimension	200×103×150	200×103×150	200×123×150	165×75×115	165×75×115	388×246×115
Weight	1085g	1360g	1355g	570g	575g	3700g



Night Vision Device

Name	CS-55	CS-65	CS-70	CS-80	DN400
Picture					
Magnification	3	6	4.4	4	6
Field of View	17°	6.8°	9.3°	12.5°	9°
Observation Distance	150m		>400m	450m	400m
Recognition Distance	100m				
Exit Pupil		5mm	5mm	7mm	
Dimension	180×85×105	303×85×84	284×89×81	272×72×82	318×98×112
Weight	1300g			970g	1700g
Continuous Working Hours	20-40h	60h			60h
Figure of Merit			≥1150	≥1250	≥1250

Thermal Imaging Camera

Name	RH-3	RH-6
Picture		
Detector Resolution	384×288	640×512
Display Screen	1024×768 High Definition OLED	1024×768 High Definition OLED
Magnification	1x	1x
Field of View	16.3°×12.3°	16.3°×12.3°
Exit Pupil	12mm	12mm
Objective Lens Focal Length	16mm F/1.0	26.7mm F/1.1
Exit Pupil Distance	25mm	25mm
Recognition Distance	Target 1.7×0.5m: 370m Target 2.3×2.3m: 510m	Target 1.7×0.5m: 6200m Target 2.3×2.3m: 850m
Detection Distance	Target 1.7×0.5m: 730m Target 2.3×2.3m: 1500m	Target 1.7×0.5m: 1200m Target 2.3×2.3m: 2550m
Battery Type	CR123A (3V) CR123 (3.7V) 18650 (4.2V)	CR123A (3V) CR123 (3.7V) 18650 (4.2V)
Endurance (20°C)	CR123A (3V) >3h	CR123A (3V) >2.5h
	CR123 (3.7V) >2h	CR123 (3.7V) >1.5h
	18650 (4.2V) >5h	18650 (4.2V) >4.5h
Operation Temperature	-10~60°C	-10~60°C
Weight	<200g	<220g

Name	RE45 (with the function of video recording)	RE45
Picture		
Infrared Thermal Imaging Channel	Vanadium oxide detector, 8um~14um, 17um, 384×288 <50mK@f/1.0 30Hz	Vanadium oxide detector, 8um~14um, 17um, 384×288, <50mK@f/1.0, 30Hz
Field of View	19°×° 14	19°×14°
Infrared Resolution	384×288	384×288
Lens	21mm Infrared, 25mm Visible light	21mm Infrared, 25mm Visible light
Display Mode	Single infrared, single low light, fused infrared, fused pseudocolor, fused focus (Picture in Picture)	Single infrared, single low light, fused infrared, fused pseudocolor, fused focus (Picture in Picture)
Low Light Imaging Channel	0.4um~1.2um, 2048×2048,<0.0001Lux 30Hz	0.4um~1.2um, 2048×2048, <0.0001Lux, 30Hz
Image Mode	Single infrared, single low light, fused infrared, fused pseudocolor, fused focus (Picture in Picture)	Single infrared, single low light, fused infrared, fused pseudocolor, fused focus (Picture in Picture)
Optical Zoom	4x optical zoom	4x optical zoom
Endurance of Battery	≥6h	≥6h
Fusion Imaging (1.8×0.5m for figure)	Detection ≥4000m	Detection ≥4000m
	Identify ≥1500m	Identify ≥1500m
Weight	≤500g	≤500g
Dimension	175×88×50mm	175×88×50mm

Name	RE480	RE550
Picture		
Detector	Uncooled vanadium oxide or amorphous silicon	Uncooled focal plane micro thermal type
Pixel Number	640×480	
Pixel Size	17um×17um	
Corresponding Band	7.5~13.5um	8 - 14 μm
Field of View	5.03°×3.83°	10.8°×8.3° 5.4°×4.1°(extend)
Resolution	0.26mrad	384×288
Focal Length	75mm	
Eyepiece Resolution	binocularOLED, 1024×768	
Electron Doubling	1-8 continuous doubling	2-4x
Polarity Transformation	Black heat/White heat/False color	Black heat/White heat
Working Hours	6 hours of continuous work	>5 hours
Correcting Feature	Auto/Manual	
Protection Level	IP66	IP67
Dimension	220×165×85	210×195×85
Weight (including Battery)	1.1kg	≤1.4kg

Bullet-proof Vest

Schematic Diagram of the Whole Bullet-proof Vest and Bullet-proof Insert Plate:



The complete bullet-proof vest includes:

1 multifunctional vest, 4 alumina ceramic bullet-proof insert plates (2 front and rear bullet-proof insert plates and 2 side bullet proof insert plates. If side bullet-proof insert plates are not required, then there are only 2 bullet-proof insert plates)

Specifications:

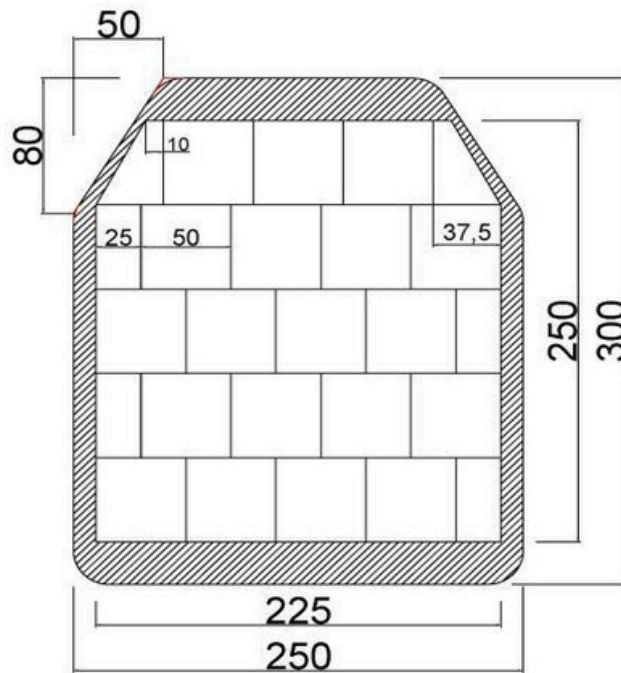
Vest Size: 60 x 55 x 20

(The vest itself is not bullet-proof and needs to be inserted with a bulletproof plug or a bulletproof chip to be bulletproof)

Size: Free Size

Material of Bulletproof Vest: 600D Oxford cloth + nylon + encrypted webbing

Color: Customizable colors and camouflage can be made according to customer requirements



Bullet-proof Insert Plate

The bulletproof insert plate is produced using new patented technology and has passed the testing of the Chinese Ministry of Public Security GA293-2012 and the Chinese military standard GJB5115-2004.

1. Protection Level: Complies with Level 5 bullet-proof standard
2. According to the test results, it has 100% defense capability against 7.62x39mm bullets within 15-20 meters, and 80% defense capability against 7.62x54mm bullets within 15-20 meters.

3. Material: 2.5mm bullet-proof steel plate+10mm alumina ceramic plate+2.5mm bullet-proof steel plate
4. Weight: 4.4kg
5. Size: 250× 300mm
6. Shape: Single, rectangular rounded corners/top large chamfer



Bullet-proof Side Plate

1. Protection Level: Complies with Level 4 bullet-proof standard

2. Material: 2.5mm bullet-proof steel plate + 10mm alumina ceramic plate

3. Size: Width: 15cm, Height: 22cm

4. Weight: 1.7kg

5. According to the test results, it has 100% defense capability against 7.62x39mm bullets within 15-20 meters.

Bullet-proof Helmet



Bulletproof Helmet (model: FDK2F-02-L) It is produced using new patented technology and has passed the testing of the Ministry of Public Security GA293-2012, Chinese military standard GJB5115-2004, US NIJ0101.01, and European STANAG2920 standards; The helmet body is made of high modulus and high strength polyethylene fiber UD cloth (PE UD cloth) composite special adhesive and molded under high temperature and high pressure conditions; The surface is sprayed with military polyurea elastomer coating, which has waterproof, anti magnetic, UV aging resistance, and chemical corrosion resistance properties. According to user requirements, you can spray various colors such as military green, black, desert yellow, UN blue, etc.

Name	Model	Bullet-proof Level	Standard	Overall Weight	Dimension	Notes
Bullet-proof Helmet	FDK2 F-02-L	Level 2	GA 293-2012	1.25±0.05	L: 28× 25× 17cm	BFS≤25mm
		IIIA	NIJ0106.01			9mm .44
		V50≥690	GJB5115-2004			

Knee and Elbow Pads



Knee and Elbow Pads

Shell connection buckle, anti slip safety buckle, hard shell adjustable strap with elastic woven tape containing cushioning material.

Tactical outdoor knee pads are specially designed to withstand external pressure on the knees and elbows, with built-in traction and a flat surface that can effectively protect joints from damage even when subjected to strong external impacts.

Goggles



Size: 8.5-20cm

Lens: Black, yellow when exposed to light

Auxiliary Frame Color: Choose one of three colors: black, ACU, and sand.

Impact Protection: protects the eyes from the impact of debris

Usage: Military enthusiast collection, wilderness survival, outdoor cycling.

Breathability: The full performance ventilation design reduces the generation of barriers, and there are ventilation holes on the top and side of the eyes to ensure smooth air circulation and filter out small sand particles.

Field of View: wide, improving combat capabilities.

Durability: Advanced scratch resistant mirror surface, suitable for harsh climates, resistant to various chemical agents, including repellents.

Permeability: Lightweight and comfortable, designed specifically for combat and mission execution. The flexible frame material and strap provide a comfortable facial experience.

Adjustable: The mirror strap can be adjusted according to personal needs to ensure comfortable storage.

Lens Switching: Anti harmful external thread, can quickly switch lenses according to different threads.

Noise-cancelling Headphones

Component	Parameter
Built-in Speaker	Diameter: 30mm
	Impedance: 32ohm
	Rated Power: 0.1w
	Frequency Response: Full frequency
Pick-up	Output Sound Pressure: -38db
	Active Noise Reduction: 82db
	Noise Reduction Rate: 22db
	Power Supply: 2 No. 7 batteries
	Working Voltage: 2.4-3.3v
	Type: Omnidirectional type
Wire	Diameter: 4.5mm
	Temperature Resistance: -20°C~60°C
	Material: Thermoplastic polyurethane rubber



Dimension:

105 (L) * 136 (W) * 122 (H) /mm (Folding);

105 (L) * 136 (W) * 254 (H) /mm (Unfolded).

Gas Mask



MF15C gas mask is a filtered single eye window personal respiratory protective equipment that can effectively protect the wearer's face, eyes, and respiratory tract from the harm of toxins, biological warfare agents, and radioactive dust. Can be used by personnel in different fields such as industry, agriculture, healthcare, and scientific research. It can also be used by the military, police, and civil defense.

The MF15C gas mask mainly consists of a mask, a gas filter, and other components. The face mask is mainly composed of a natural rubber cover body (using injection molding technology with a frosted surface), lenses, communicators, secondary communicators, and headbands. The mask sealing frame has a reverse folding edge, which is comfortable to wear and has good air tightness, and can meet the wearing needs of over 95% of adult citizens. The mesh headband can be adjusted freely, with suitable elasticity. The main speaker of the mask has minimal sound loss, and the secondary speaker installed on the right cheek of the mask can match the communication equipment. The filter canister is filled with high-quality activated carbon or activated carbon catalyst, which can protect different types of toxins with low resistance and light weight.

Technical Specifications:

1. Antivirus Time: same as the performance of the selected tank
2. Expiratory Resistance: $\leq 100\text{Pa}$ (30L/min)
3. Field of View: Total: $\geq 75\%$, Binocular: $\geq 60\%$, Lower: $\geq 40^\circ$
4. Mask Leakage Rate: $\leq 0.05\%$
5. Storage Period: 5 years

LaserFiber

Smart Defense Solutions

Monitoring Equipment

Individual Patrol Radio Station

30 km

Sensing Optical Fiber

Radio Relay

30 km

Sensing Optical Fiber

Cross Border Positioning

Route Analysis

Scale Identification

Type Identification

Ultra Long Range

High Sensitivity

Corrosion Resistance

Low Power Consumption

Optical Fiber Coupler

Desert Soil Defense

Distributed Monitoring

Emergency Communication

less than 50000 km/year
temperature (-55°C~85°C)

Optical Fiber Lidar
Local Key Defense

Application Of Border Defense

1. Low False Alarm Rate (less than 2%)
2. Missing Alarm Rate 0%
3. Ultra Low Power Consumption (less than 20 watts/km)
4. Monitoring Function (0.40kHz audio)
5. Identification of Friend or Enemy and Intrusion Pattern Recognition
6. Surface Array Fiber Laser Scanning Radar With a Range Radius of 10km
7. Fault Recovery Time MITTR (less than 1 second)
8. Optical Fiber Cable Breakage Alarm (less than 0.01 seconds)
9. Low Maintenance Cost (less than 50000/30 km/year)
10. Operation temperature (-55°C~85°C)

Optical Fiber Sensing Technology Defense Solution

Application of Border Defense

Monitoring Equipment



Communication Hub

20 km

Official Mansion and Important Areas



UAV Linkage
Video Linkage
Sound and Light Linkage



Prison Control Area



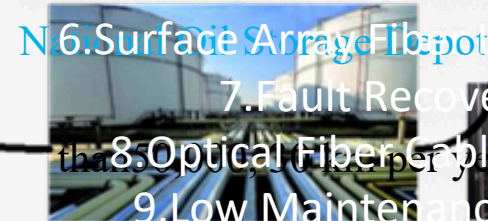
Power Facilities



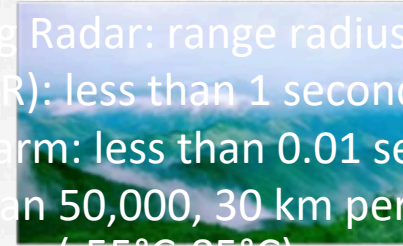
Sensing Optical Fiber

- Optical Fiber Cable Deployment
- Cross Border Positioning
- Route Analysis
- Scale Identification
- Type Identification
- Ultra Long Range
- High Sensitivity
- Corrosion Resistance
- Low Power Consumption

Wall and Fence Soil Layout



Fluorescent Park



Forest Fire



1. Low False Alarm Rate: less than 1%
2. Missing Alarm Rate: 0%
3. Ultra Low Power Consumption: less than 20 watts/km
4. Monitoring Function: 040kHz audio
5. Identification of Friend or Enemy and Intrusion Pattern Recognition
6. Surface Array Fiber Laser Scanning Radar: range radius of 10m
7. Fault Recovery Time (MTTR): less than 1 second
8. Optical Fiber Cable Breakage Alarm: less than 0.01 seconds
9. Low Maintenance Cost: less than 50,000, 30 km per year
10. Operation Temperature (-55°C-85°C)

1. Low False Alarm Rate: less than 1%
2. Missing Alarm Rate: 0%
3. Ultra Low Power Consumption: less than 20 watts/km
4. Monitoring Function: 040kHz audio
5. Identification of Friend or Enemy and Intrusion Pattern Recognition
6. Surface Array Fiber Laser Scanning Radar: range radius of 10m
7. Fault Recovery Time (MTTR): less than 1 second
8. Optical Fiber Cable Breakage Alarm: less than 0.01 seconds
9. Low Maintenance Cost: less than 50,000, 30 km per year
10. Operation Temperature (-55°C-85°C)

Smart Border Defense ONE-LINE Solution

Monitoring Equipment



Sensing Optical Fiber



Fiber Grating



Sensing Optical Fiber



Optical Fiber Coupler



Optical Fiber Coupler

Tail Fiber (detection range greater than 50 km)



- Cross Border Positioning
- Route Analysis
- Scale Identification
- Type Identification
- Ultra Long Range
- High Sensitivity
- Corrosion Resistance
- Low Power Consumption



Application of Border Defense



Monitoring
Host and Servers

Portable
Instrument host



Combination
Host and Server



Weak Grating Enhanced
DAS Sensing System



Rayleigh DAS
Sensing System



Cabinet Supporting
Main Demodulator



System Equipment and Software

Channel Detection

- Island security defense
- Offshore warning identification
- Route target detection
- Target direction positioning
- Target depth localization
- Target scale identification
- Target movement direction
- Underwater terrain detection



Underwater Laying



Target Detection



Optical Fiber DAS
Detection System

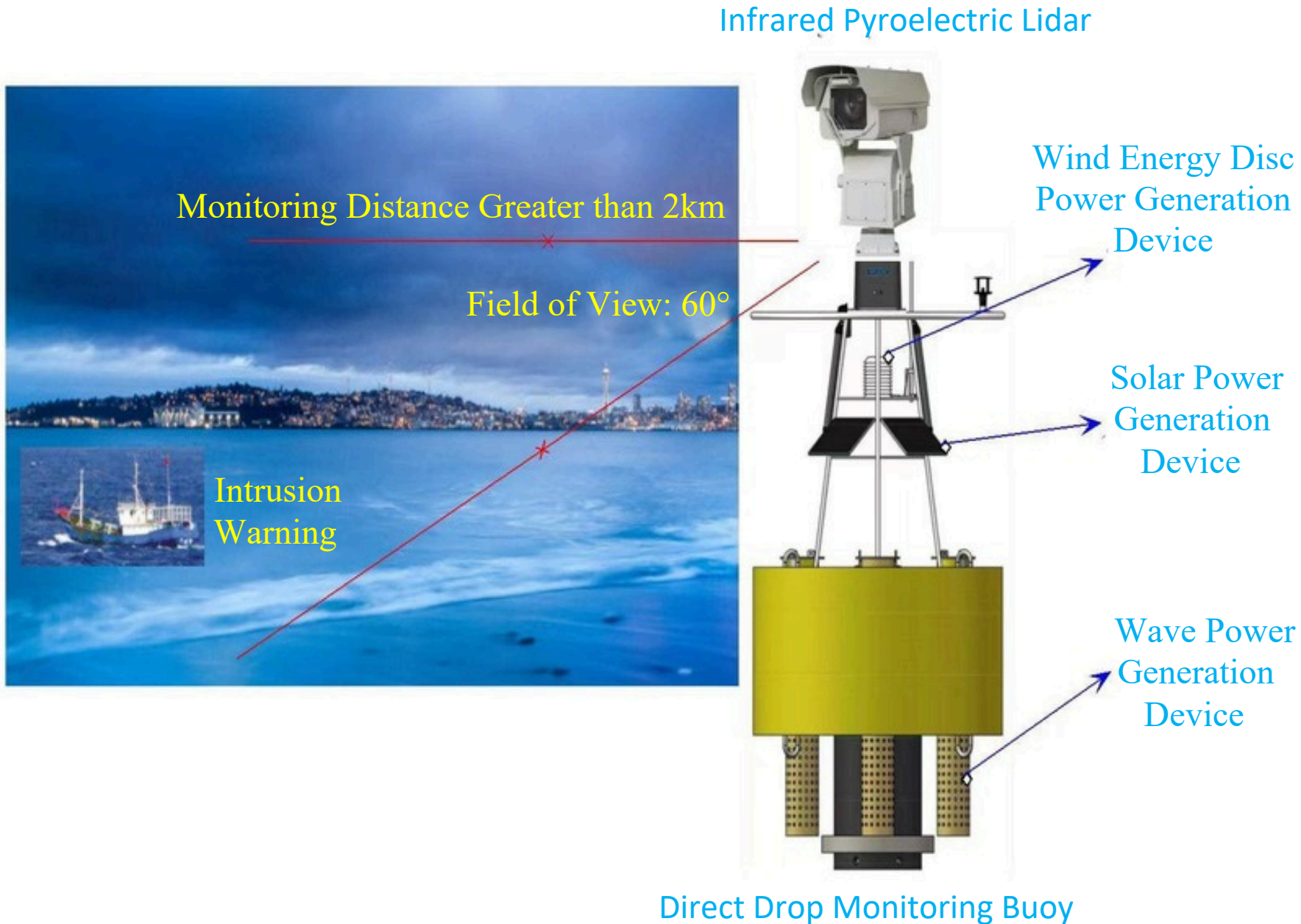


Optical Fiber acoustic radar brain side sonar

Ship Side Sonar Array Defense



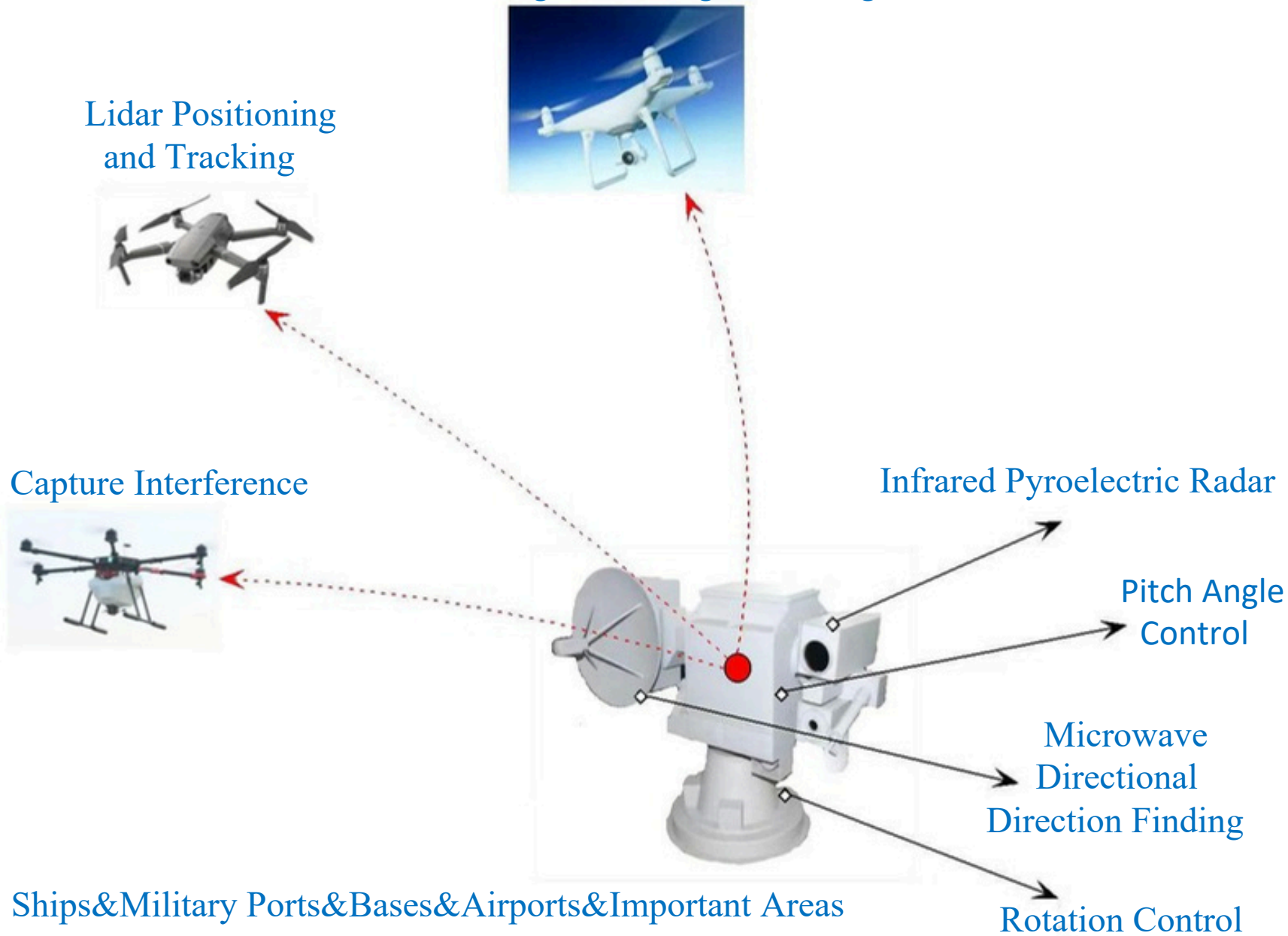
Mini Optical Fiber Sonar Buoy



Ocean Exploration and Defense



Multi Target Tracking and Recognition



Lidar Integrated System For Detection, Strike and Capture

- (1) Microwave signal detection and orientation (detection range: 10Km)
- (2) EO/IR infrared Lidar (detection range: 5Km)
- (3) Positioning (nighttime visual range: 4Km and daytime visual range: 7Km)
- (4) Action range (8Km with UAV)

Unmanned Platform Detection, Interference,
Reconnaissance and Identification



Military Ship Defense Identification



Military Port Defense
Detection and Early Warning



Defense of Oil Depot
Ammunition Depot
Ordnance Depot
Personnel
and Command Post



Defense Warning and Identification
of Important Bases



Water Purifier

Portable Manual Water Purifier for Squad (Seawater Desalination)



Technical Indicators:

- (1) This equipment adopts a field oriented and integrated design, suitable for temporary camp water supply support, and can perform reverse osmosis level treatment on source water such as brackish water and surface water above Class III near the camp.
- (2) The water production capacity of a single equipment reaches 15-20 liters per hour, The water quality of the production meets the military wartime drinking water standard of GJB651-1989.
- (3) The device adopts human manual way to provide power for the equipment, modular design, to meet the emergency water supply security needs under the conditions of no power supply environment in the field.
- (4) The parts of the device adopts quick connection mode, unfolding and storing time of 2-3min, which is convenient for the site to quickly unfold the operation or transfer.
- (5) Equipped with on-site water quality rapid monitoring components, it can quickly detect the water quality indicators of source water and product water.

Serial No.	Item	Unit	Value	Serial No.	Item	Unit	Value
1	Water Production	L/h	15-20	5	Inlet Suction	M	2
2	Desalination Rate	%	≥98.5	6	Working Temperature	°C	5-30
3	Recovery Rate	%	≥30	7	Net Weight	Kg	10
4	Working Pressure	MPa.	1.5-6.5	8	Production GJB651-1989 Military War Water Quality Drinking Water Standards		

Military Portable Electric Reverse Osmosis Water Purifier



Serial No.	Item	Unit	Value	Serial No.	Item	Unit	Value
1	Water Production	L/h	≥15	5	Inlet Suction	M	2
2	Desalination Rate	%	≥98.5	6	Working Temperature	°C	5-30
3	Recovery Rate	%	≥50	7	Adapted Power	AC:220V 500W	
4	Working Pressure	MPa.	1-1.5	8	Applicable Water Source	Inland surface water of Class III or above	

Technical Indicators:

- (1) This equipment adopts a field oriented and integrated design, suitable for temporary camp water supply support, and can perform reverse osmosis level treatment on source water such as brackish water and surface water above Class III near the camp.
- (2) The water production capacity of a single equipment reaches 70 liters per hour, with a supply of 50-100 people per hour, which can meet the outdoor water supply needs of company level units. The water quality of the production meets the military wartime drinking water standard of GJB651-1989.
- (3) In the wild, manual labor or 220V generator power supply can be used to provide power for the equipment, with a rated power of 500W.
- (4) Each component of the equipment adopts a fast connection method, which is convenient for quick on-site operation or transfer.
- (5) The outer box of the equipment uses high-strength military aviation shock absorbers, which can be transported through high-strength maneuvering methods.
- (6) Equipped with on-site water quality rapid monitoring components, it can quickly detect the water quality indicators of source water and product water.
- (7) Equipped with water intake and storage accessories, it can ensure safe operation in the field.

Military Portable Manual and Electric Dual Purpose Reverse Osmosis Water Purifier



Technical Indicators:

- (1) This equipment adopts a field oriented and integrated design, suitable for temporary camp water supply support, and can perform reverse osmosis level treatment on source water such as brackish water and surface water above Class III near the camp.
- (2) The water production capacity of a single equipment reaches 60-70 liters per hour, with a supply of 50-100 people per hour, which can meet the outdoor water supply needs of company level units. The water quality of the production meets the military wartime drinking water standard of GJB651-1989.
- (3) In the wild, manual labor or 220V generator power supply can be used to provide power for the equipment, with a rated power of 200-800W.
- (4) Each component of the equipment adopts a fast connection method, which is convenient for quick on-site operation or transfer.
- (5) The outer box of the equipment uses high-strength military aviation shock absorbers, which can be transported through high-strength maneuvering methods.
- (6) Equipped with on-site water quality rapid monitoring components, it can quickly detect the water quality indicators of source water and product water.
- (7) Equipped with water intake and storage accessories, it can ensure safe operation in the field.

Serial No.	Item	Unit	Value	Serial No.	Item	Unit	Value
1	Water Production	L/h	60 by hand 80 by electricity	5	Inlet Suction	M	2
2	Desalination Rate	%	≥98.5	6	Working Temperature	°C	5-30
3	Recovery Rate	%	≥50	7	Adapted Power	AC: 220V500W	
4	Working Pressure	MPa.	1-1.5	8	Applicable Water Source	Inland surface water of Class III or above	
9	Production Water Quality	GJB651-1989 Military War Drinking Water Standards					

Beidou System

Multi-Mode and Multi-Frequency Integrated Beidou User Machine



The multi-mode and multi-frequency integrated BeiDou user machine can receive B1A, B3Q, B3A, and B3AE signals broadcasted by BeiDou-2 and BeiDou-3 navigation satellites under the RNSS system, as well as S1I, S1Q, and S2C signals under the RDSS system_ d. S2C_ p. S2A signal, global short message B2b signal, and SBAS enhanced service signal broadcasted by Beidou-3 satellite. Support single frequency positioning, dual frequency positioning, SBAS positioning, timing, timing and other functions under the RNSS system; Support functions such as message communication, location reporting, emergency search and rescue, broadcasting reception and processing, and command under the RDSS system; Support global message communication, global emergency search and rescue, global positioning reporting and other functions. The device has the ability to resist narrowband interference at B3 and S frequency points. It has the ability to resist humidity, heat, impact, vibration, falling, rain, sand and dust, salt mist, and other factors. It provides navigation positioning, short message communication, speed measurement, timing, command and other functions for various weapon platforms under complex and harsh electromagnetic, natural, and battlefield conditions. It also provides military command and control, as well as battlefield situational awareness and action tracking capabilities, To provide information system support based on Beidou satellite for commanders to control the battlefield situation and command their subordinate combat forces to complete combat tasks.

Product features:

1. Support navigation message conversion and decryption function;
2. Supporting the Beidou-2 and Beidou-3 navigation satellite systems;
3. Equipped with online key addition function;
4. Support 2-in-1 authorization chip;
5. Support timing function;
6. Support regional short message communication and global short message communication;
7. Equipped with narrowband anti-interference function.

Multi-mode and Multi-frequency Integrated Beidou User Machine

Basic Attributes

	Appearance Color	GY05
	Structural Style	Integrated
	Overall Weight	≤5Kg
	External Dimensions	Host: φ150mm×150mm
	Installation Method	Mechanical
Interface	Serial port	RS232 serial port: serial port 1, serial port 2; Baud rate: 115200bps;
	CAN	2
	Difference 1PPS	1
	Timing	1
	Ether Net	1
Functional Configuration	Satellite System Compatibility	B1A, B3Q, B3A, and B3AE signals under the RNSS system, and S1I, S1Q, and S2C signals under the RDSS system_ d. S2C_p. S2A signal, global short message B2b signal, and SBAS enhanced service signal;
	Confidentiality Module Type	Two in one authorized chip
	Self Destructive Function	Support
Power Supply	Input Voltage	Direct-current+20V~+32V
	Consumption	≤30W
Work Environment	Operation Temperature	-43°C~+70°C
	Storage Temperature	-55°C~+70°C
	Vibrate	Comply with the relevant provisions of A.2.3.10 "Class 20- Ground Vehicles - Ground Movement" in GJB150.16A-2009.
	Impact	Meet the relevant regulations of GJB150.18A-2009 and the impact requirements for ground equipment.
	Rain	Meets the requirements of procedure I of GJB150.8A-2009.
	Damp-heat	Complies with relevant regulations of GJB150.9A-2009.
	Drop	Complies with the provisions of procedure IV of GJB150.18A-2009.
	Immersion	Complies with the provisions of Procedure I and Procedure II of GJB150.14A-2009.
	Dust	Complies with the provisions of Procedure I and Procedure II of GJB150.12A-2009.
	Low Air Pressure	According to the regulations of GJB150.2A-2009, the pressure is 57 kPa.
	Fungus Proofing	Complies with the regulations of GJB150.10A-2009.
	Salt Spray Proofing	Complies with the regulations of GJB150.11A-2009.

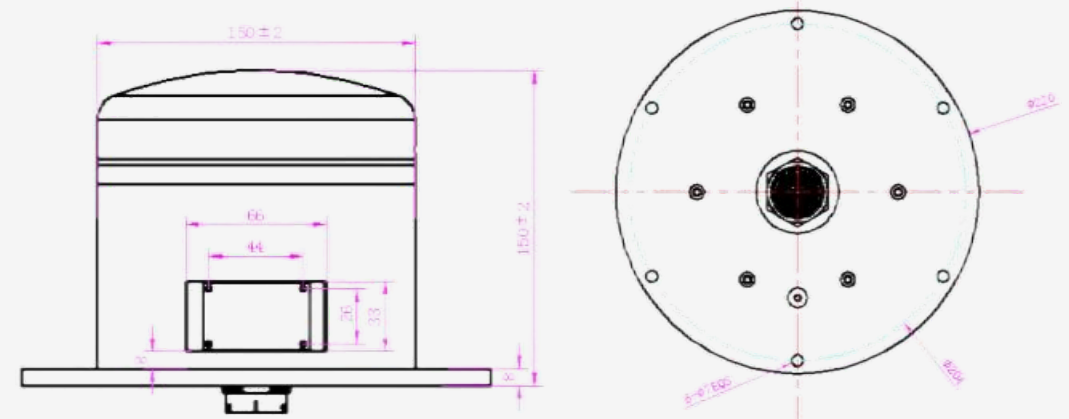


图1 主机外形尺寸图

Multi-mode and Multi-frequency Integrated Beidou User Machine

Major Indicator	Measured Value
Number of RNSS Receiving Channels	The number of RNSS channels shall not be less than 80, among which the number of military code signal receiving channels shall not be less than 60, and it can track no less than 16 satellites simultaneously.
Number of RDSS Receiving Channels	14
RNSS Positioning Accuracy (PDOP ≤ 4)	Horizontal ≤ 8 meters, elevation ≤ 9 meters (95%)
RNSS Speed Measurement Accuracy (PDOP ≤ 4)	≤ 0.2 meters per second (95%)
Capture Sensitivity (B3A)	≤ -134dBm (antenna pitch ≥ 30 °); ≤ -138dBm (antenna pitch=90 °)
First Positioning Time of RNSS Cold Start	≤ 90 seconds (95%, military code direct capture, time uncertainty ± 1 second)
First Positioning Time of RNSS Hot Start	≤ 10 seconds (95%, military code direct capture, time uncertainty ± 1 millisecond)
RNSS Recapture Time	≤ 3 seconds (95%)
RNSS Positioning Output Frequency	1Hz
Timing Accuracy	≤ 50ns
Regional Short Message Transmission EIRP (S2A)	3dBW~14dBW (antenna: azimuth 0 °~360 °, elevation 10 °~90 °)
Capture Sensitivity (S2A, dedicated 24kbps information frame, error rate 10-5)	≤ -118.8dBm (antenna elevation angle ≥ 30 °); ≤ -123.8dBm (antenna elevation angle=90 °)
Global Short Message Transmission EIRP (B2b)	≥ 5dBW (antenna: azimuth 0 °~360 °, elevation 10 °~90 °)
Capture Sensitivity (B2b, Error Rate 10-5)	≤ -128dBm (antenna elevation angle ≥ 30 °); ≤ -133dBm (antenna elevation angle=90 °)
First Capture Time of Regional Short Message (S2A)	≤ 60 seconds (95%, military code direct capture, time uncertainty ± 1 second)
Regional Short Message Recapture Time (S2A)	≤ 3 seconds (95%, under normal operating conditions, the satellite signal is briefly interrupted for 30 seconds, from signal recovery to output demodulation information that meets the error rate requirements)
Maximum Length of a Single Regional Short Message (S2A)	1000 Chinese characters
Maximum Length of a Single Global Short Message (B2b)	40 Chinese characters
Narrowband Anti-interference	S2A: 60dB; B3:70dB

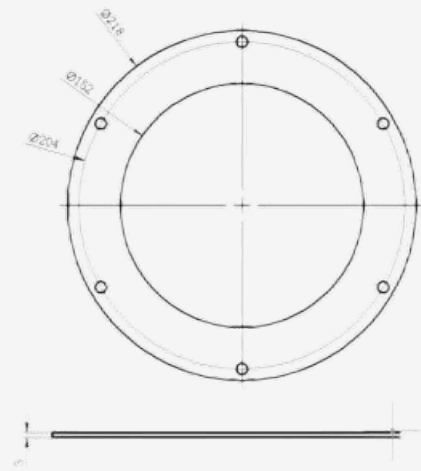


图 2 法兰密封垫外形尺寸图

Beidou-3 Command User Machine

The Beidou-3 Command User Machine is an emergency terminal developed to address the shortage of trial equipment in the military after the completion of the Beidou system. It focuses on achieving the functions of Beidou-3 short message communication, command scheduling, and situation display.

The Beidou-3 command type user computer consists of a host, antenna, portable laptop (optional), supporting cables, and installation accessories, which can support the installation requirements of typical military and branch application scenarios through optional accessories.



Host



Antenna

Basic Functions:

- 1) Equipped with power on self-test and alarm functions. The self inspection content includes the antenna, 2-in-1 chip, and the working status of the host.
- 2) Equipped with Beidou-3 RNSS positioning function.
- 3) Capable of short message service in the Beidou-3 area.
- 4) Equipped with the global short message service function of Beidou-3.
- 5) Equipped with firmware program online upgrade function.
- 6) Equipped with two in one chip parameter injection and update function.

Beidou-3 Command User Machine



Host



Antenna

RNSS Positioning Performance:

- 1) Received signal type: B3I、 B3Q、 B3A。
- 2) Simultaneously tracking the number of satellites: 12 Beidou-2 system satellites and 12 Beidou-3 system satellites.
- 3) Receiving sensitivity (azimuth $0^{\circ}\sim 360^{\circ}$, elevation $10^{\circ}\sim 90^{\circ}$, including 10°): $\leq -133\text{dBm}$ 。
- 4) Received power range: can adapt to B3AE signal power enhancement, and the input signal power of the antenna interface is $-133\text{dBm}\sim -110\text{dBm}$ 时, The positioning accuracy meets the requirements.
- 5) Positioning accuracy (key service areas, 95%): horizontal $\leq 6\text{m}$, elevation $\leq 8\text{m}$.
- 6) First positioning time (key service areas, 95%): cold start $\leq 90\text{s}$, hot start $\leq 20\text{s}$.
- 7) Recapture time: The BeiDou satellite signal has a short-term interruption of 30 seconds, and the recapture time does not exceed 3 seconds.

Beidou-3 Command User Machine

RDSS Receiving and transmitting performance:



Host



Antenna

- 1) Received signal type: S1I、 S1Q/S2C_d、 S2C_p、 S2A。
- 2) Receiving sensitivity (azimuth angle $0^{\circ}\sim 360^{\circ}$, elevation angle $60^{\circ}\sim 90^{\circ}$, antenna interface level, error rate $\leq 1e-5$): Smooth transition signal ≤ -157.6 dBW; RDSS message branch of Beidou-3 (dedicated section 24kbps) ≤ -153.8 dBW.
- 3) RDSS first capture time: civilian code ≤ 7 s, military code direct capture ≤ 60 s.
- 4) Recapture time: The BeiDou satellite signal has a short-term interruption of 30 seconds, and the recapture time does not exceed 1 second.
- 5) Number of beams received simultaneously: ≥ 14 .
- 6) Equipment bidirectional zero value: $1\text{ms} \pm 5\text{ns}$.
- 7) Beidou RDSS positioning accuracy (95%): horizontal $\leq 20\text{m}$, elevation $\leq 20\text{m}$.
- 8) The positioning accuracy of Beidou Generalized RDSS (95%): horizontal $\leq 10\text{m}$, elevation $\leq 10\text{m}$.
- 9) Transmission signal types: Lf1, Lf2, Lf3 (default) inbound signal.
- 10) The range of EIRP values for transmission power is adjustable from 0dBW to 10dBW.
- 11) The maximum length of a single message supported for sending Beidou-3 is 14000 bits (1000 Chinese characters).
- 12) Number of subordinate users: 500 users.

Beidou-3 Command User Machine

Global Short Message Communication Reception and Transmission

Performance:

- 1) Received signal type: B2b₀.
- 2) Receiving sensitivity (azimuth angle 0°~360°, elevation angle 60°~90°, antenna interface level, error rate $\leq 1e-5$): $\leq -157.8\text{dBW}$.
- 3) Transmission signal type: Lf4 inbound signal.
- 4) Emission power EIRP value: azimuth angle from 0° to 360°, all elevation angles above 20° (including 20°), adjustable from 5dBW to 10dBW.
- 5) The maximum length of a single message supported for sending is 560 bits (40 Chinese characters).



Host



Antenna

Dynamics:

Speed: $\leq 515\text{m/s}$, acceleration: $\leq 4g$.

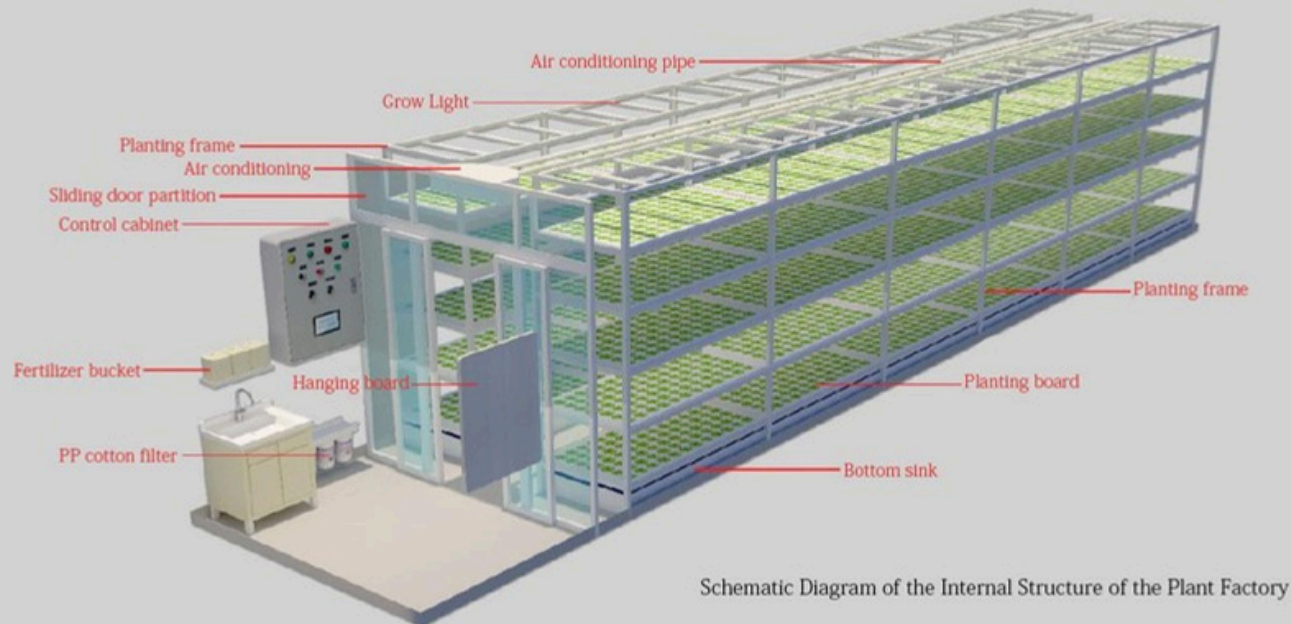
Anti-jamming performance:

Can eliminate narrowband interference signals not less than -63dBm (RNSS signal level -133dBm, RDSS signal level -123.8dBm).

Mobile Plant Factory

Product Introduction

The mobile plant factory is a closed planting system that can achieve automatic control of the planting environment. It is equipped with a complete automated environmental monitoring system, which can monitor temperature, humidity, carbon dioxide concentration and other data inside and outside the container, and achieve automatic closed-loop control of light sources, carbon dioxide, air conditioning, fans, and water pumps. Enable growers to achieve stable vegetable production throughout the year.



Schematic Diagram of the Internal Structure of the Plant Factory

Product Characteristics

1. Strong adaptability, unaffected by temperature, humidity, altitude, and adverse weather conditions;
2. Modular design, high-strength box, convenient transportation;
3. Adopting an automatic water and fertilizer circulation system to save manpower and achieve intelligent production;
4. High strength, simple appearance, convenient maintenance, and low maintenance cost;
5. Artificial light source, only suitable for plant growth spectrum, does not require sunlight;
7. Using environmentally friendly and energy-saving materials to achieve efficient and stable production;
8. The container is clean and sealed, capable of producing organic vegetables with zero pesticide residues, without the need for insecticides, ensuring food safety;
9. Different growth modes can be used according to different planting varieties to achieve simplified agricultural production;
10. Detachable planting frame, freely arranged and designed from low to high according to plant size



11. Multiple plant factories are stacked for use, with one used for seedling cultivation and the others for planting and assembly line operations;
12. Combining small seeders and automatic packaging machines to improve efficiency and form large-scale farms;
13. Customized designs can be made according to customer needs and purposes, such as grass, sprouts, seedlings, and Chinese herbal medicine cultivation, as well as special purposes such as practical use in primary and secondary schools, border checkpoints, and ocean freight ships.

Product Instruction

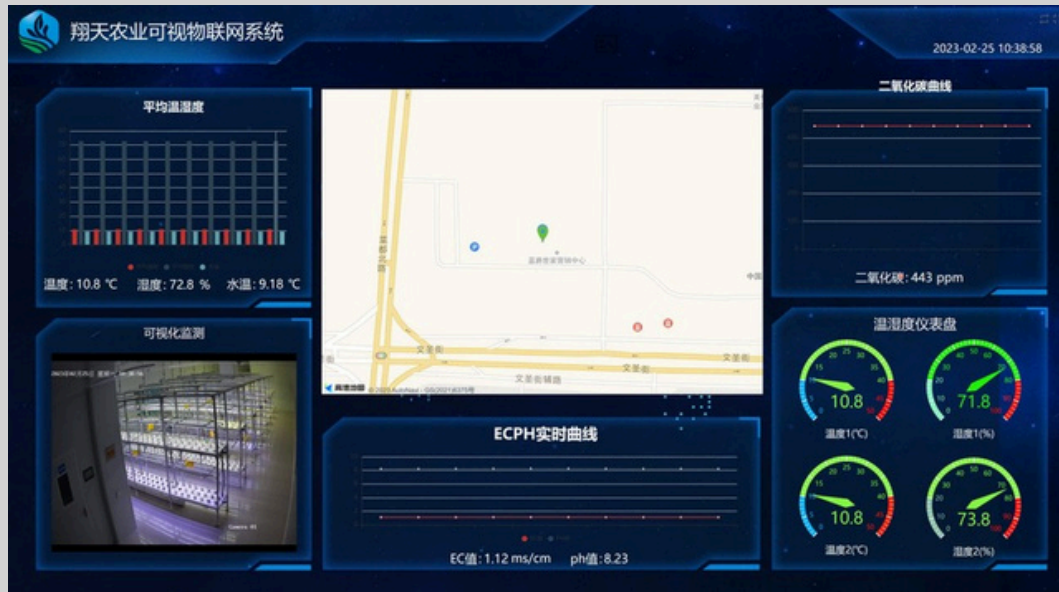
Container System

1. The complete control and cultivation system of the plant factory can be consolidated into a container or a fully enclosed small loop similar to a container. The plant factory combines safe, efficient, and precise production with container mobility, flexibility, and sealing, making transportation convenient. Once transported to the destination, it is connected to water and electricity and immediately begins operation.

2. Adopting the most commonly used 40 foot HC standard steel refrigerated container, it has high strength, aesthetics, durability, and is easy to repair. Compliant with ISO standards, suitable for sea and inland transportation.



Product Instruction



Control System

1. Independent research and development: The control system adopts the comprehensive control system developed by our company, adopts the current international advanced automation control technology, combines the company's years of planting experience, and develops a control system suitable for plant growth based on the characteristics of the product itself.

2. Can only be controlled: The control system can monitor and automatically control environmental factors such as temperature, humidity, ventilation, light cycle, light intensity, CO2 concentration, nutrient solution EC and pH values, liquid level, liquid temperature, etc. in the plant factory in real time.

3. Easy to use: The human-machine operation interface is simple and friendly, with reliable operation. At the same time, it complements the operation, maintenance, and management of plant factories, and fully automated control can achieve unmanned operation.

Product Instruction

Air Conditioning System

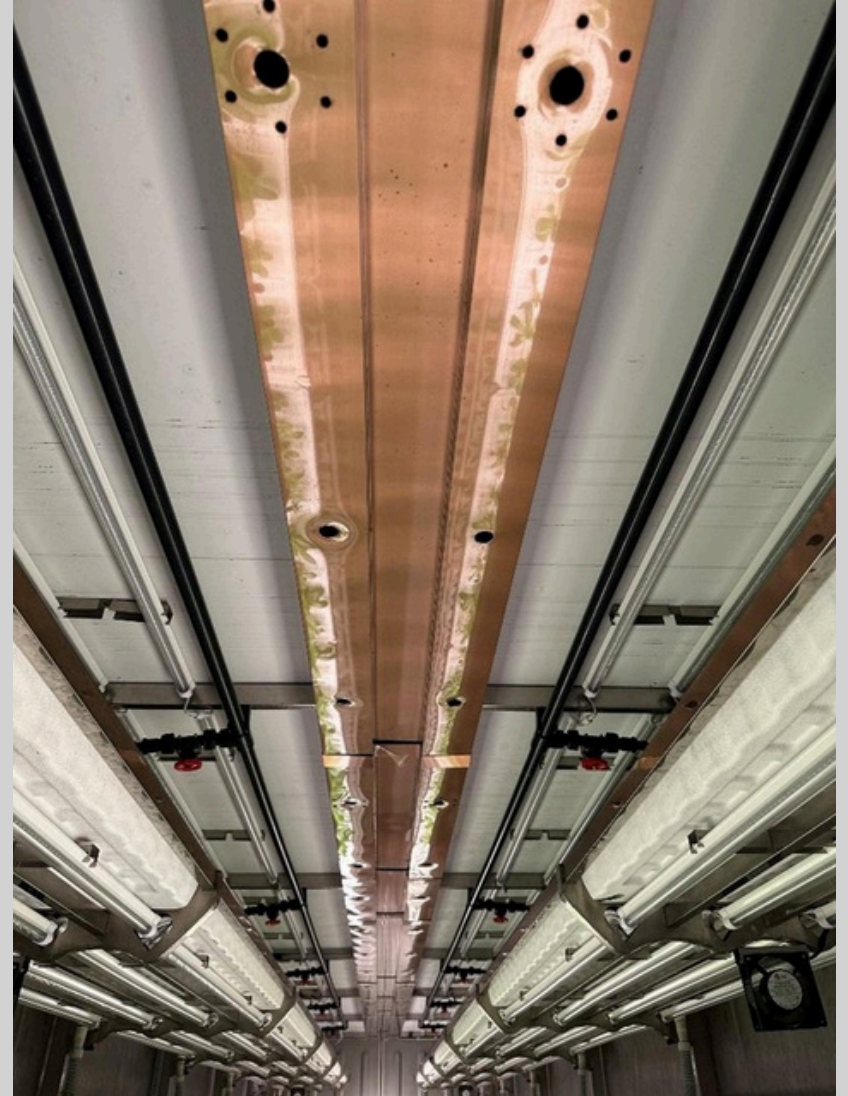
Equipped with a 3P duct airconditioner, the air duct is connected to the indoor circulating air duct through the main control system, which can maintain a temperature of 24-26 °C during the day and 16-18 °C at night to simulate the temperature difference in nature, which is conducive to the healthy growth of crops.



Product Instruction

Air Circulation System

The air circulation system includes an intake fan, an exhaust fan, a top circulation fan, and a breeze system. The air circulation system can combine indoor and outdoor temperature, humidity, and carbon dioxide data to intelligently regulate indoor climate and carbon dioxide, thereby saving energy consumption. A breeze system can simulate the gentle breeze of nature, promote the healthy growth of crops, and facilitate indoor air circulation.



Product Instruction



Water Circulation System

Water circulation system: There are two 10M long water tanks located below the growth rack, with a total storage capacity of 2600KG. There is one circulating water pump inside the water tank, which can be equipped with pipeline type UV disinfection lamps, oxygen filling devices, and other equipment.

Product Instruction



Planting System

The planting tray adopts a planting tray+floating board planting method. The growth room has a total of 10 layers of planting trays, each with independent water supply switches and drainage pipes. Each tray has a diameter of 1600mm and 760mm, and all trays can plant up to 5800 lettuce at the same time. The planting frame adopts a patented column free design, which has the advantages of simple structure, stability, and strong customization and scalability.

Technical Parameter

Name	Specifications (Depending on different configurations)
Max. Power Consumption	9000W (less than tht actually)
Container Specification	40 feet (inner chamber dimensions: W: 2.3m * H: 2.6m * L: 11.9m)
Planting Frame	304 Stainless Steel Bracket
Planting Trough	1600*760*80MM
Planting Board	1600*760*2MM*98 Holes
Grow Light	LED 24V,22W/m
Supply and Return Water	PVC
Water Tank	Food-grade 304 Stainless Steel
Water Pump	AC220V、 15000L/H、 Lift 8m

Technical Parameter

Name	Specifications (depending on different configurations)
Fertilizer Distribution Channel	Medical grade peristaltic pump
Fertilizer Bucket	10L
Control Cabinet	Integrated
Controller	Integrated Embedded Logic Programming Controller
Touch Screen	Industrial Grade 10-inch
Carbon Dioxide (optional)	10L Steel cylinder
Breeze System	220V, 40W, 5.3m ³ /h, simulated natural breeze
Fan	220V, 30W, 204m ³ /h
Air Conditioner	Hot and cold type, cooling capacity 7200W, heating capacity 7900W

Camouflage Product

Camouflage Net

Ultra-light Camouflage Net

The ultra-light camouflage net developed by the company adopts the digital camouflage pattern design of small spots, which is compounded by three-dimensional cut flower mesh and high-strength skeleton mesh. The ultra-light camouflage net contains three models of vegetation, desert and snow, which can be used on both sides to adapt to the camouflage and protection needs of various regions and seasons, and it can be designed according to the customer's requirements of optical, infrared and radar camouflage performance. The main features include advanced camouflage performance, excellent mechanical and physical properties, environmental resistance, light weight and convenient operation. During the 13th Five-Year Plan period, 8.5 million square meters (170,000 pieces) have been produced and delivered to the troops, and during the 14th Five-Year Plan period, it ranked first in the centralized bidding of the training network, and the troops ordered 217,000 pieces of the products, and this type of products of the company accounted for more than 70% of the orders from the troops, which meets the troops' needs in the daily training, exercises, battles and other tasks.



Camouflage Net

Ultra-light Camouflage Net

Optical camouflage index: color difference with standard color $\leq 3L^*a^*b^*$; visible brightness contrast ≤ 0.1 ; near-infrared brightness contrast ≤ 0.2 ; camouflage pattern can be designed according to users' needs.

Infrared camouflage indicators: with infrared camouflage segmentation effect, emissivity difference ≥ 0.1 , can effectively shield the target thermal characteristics, reduce the probability of infrared detection.

Mechanical performance indicators: camouflage net decorative fabric tear strength $\geq 90\text{N}$; breaking strength $\geq 1200\text{N}$; side rope breaking strength $\geq 4000\text{N}$; color fastness to dry friction ≥ 3 levels.

Environmental indicators: sunlight fastness ≥ 4 ; salt spray resistance ≤ 2 ; high and low temperature aging performance ≤ 2 .

Performance index: surface density $\leq 250\text{g/m}^2$; quick and easy to set up and withdraw, small volume, light weight, can be used for camouflage of military equipment or engineering facilities.

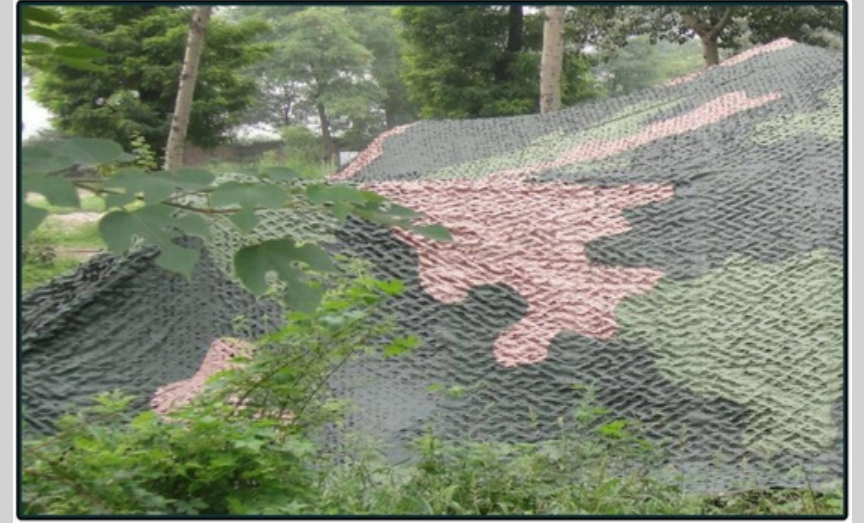


Camouflage Net

Anti-Multiband Reconnaissance Camouflage Net

It can effectively counter optical, infrared, radar and hyperspectral imaging reconnaissance, effectively reduce the probability of being detected and guided attacks, and improve the survivability of the equipment on the battlefield. Adapt to different backgrounds such as forest, Gobi, grassland, snow and other compatible camouflage.

The product has the advantages of light weight, wide protection band, easy to use, etc., of which the performance of wide-band radar protection, thermal infrared shielding performance is at the leading level. It is applied in the field of new model XX-16, XX-21, XX-26, XX-51, XX-1000 and position camouflage of the Rocket Force.



Camouflage Net

Anti-Multiband Reconnaissance

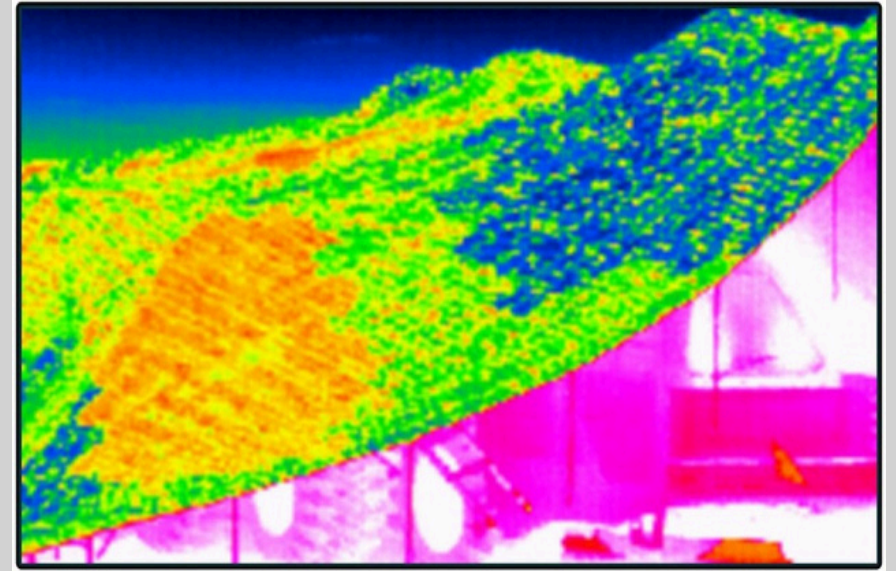
Camouflage Net

Optical camouflage index: color difference with standard color ≤ 3 Lab; visible light; Brightness contrast ≤ 0.1 ; Near infrared brightness contrast ≤ 0.2 ; camouflage pattern Camouflage pattern can be designed according to users' needs.

Infrared camouflage index: emissivity 0.50~0.96, emissivity difference between camouflage patches is more than 0.1 emissivity difference between camouflage patches is more than 0.1, with infrared camouflage segmentation effect.

The radiation temperature difference between the target and the background after camouflage is within $\pm 4^{\circ}\text{C}$ dB; 8 GHz~18 GHz, RCS attenuation value >15 dB; 18 GHz~40 GHz, RCS attenuation value >10 dB. GHz~40 GHz, RCS attenuation value >20 dB.

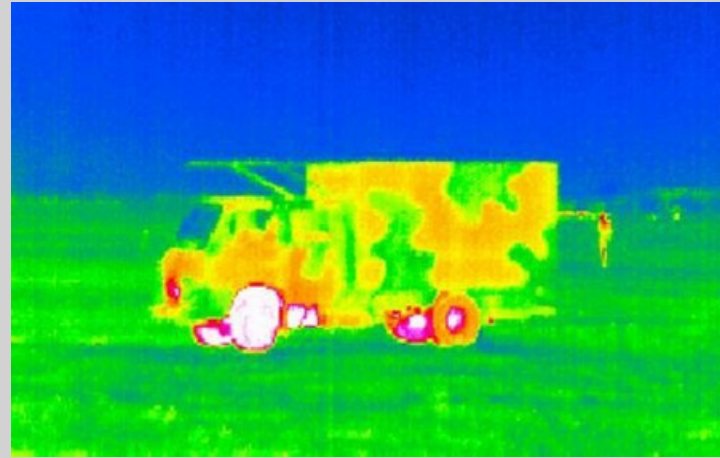
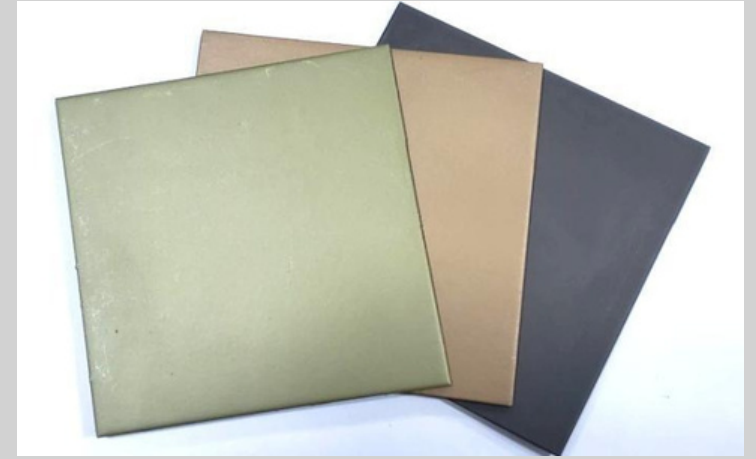
Hyperspectral index: "same spectrum and same color" with background; green patches meet the requirements of GJB7928 or GJB1411A spectral channel requirements.



Camouflage Stealth Paint

Camouflage Paint

On the basis of traditional optical camouflage performance, infrared camouflage performance has been added, which can be adapted to different backgrounds such as forest, Gobi, grassland, snow, etc., effectively counteracting optical, infrared and hyperspectral imaging reconnaissance, eliminating the differences in the characteristics of the target and the background, effectively reducing the probability of being detected and guided attacks, and enhancing the equipment survivability on the battlefield.



Self-righting Davit-Launched Inflatable Life Raft



Main Parameters:

Capacities (per)		15	20	25	30
Specification of container /mm	A Pack	φ790X1390		φ855X1500	φ850X1870
	B Pack	φ700X1275		Φ790X1390	φ855X1500
Total Weight ≤kg	A Pack	175	211	266	337
	B Pack	125	165	215	250

Davit-Launched Inflatable Life Raft



Main Parameters:

Capacities (per)		15	20	25	30
Specification of container /mm	A Pack	φ700X1275	φ790X1390		φ850X1870
	B Pack	φ700X1275			φ855X1500
TotalWeight ≤kg	A Pack	153	180	211	337
	B Pack	121	146	159	250

Crawler Inspection Robot



I.Characteristics:

1.Multi-functional Compatibility: the chassis adopts modular structure, which is convenient for overhaul and maintenance; explosion-proof (optional), waterproof design, suitable for a variety of complex and explosive environments; all-terrain tracked chassis; high-definition wireless mapping system to realize remote real-time video monitoring;

redundant back-up wireless communication technology, with a long communication distance and strong anti-jamming; strong obstacle-crossing ability, capable of large-angle slope climbing and obstacle-crossing; strong mobility, fast and adjustable speed; equipped with integrated navigation system to realize autonomous navigation; efficient and reliable power drive system; convenient access to the integrated management and control cloud platform. It is equipped with integrated navigation system, realizing autonomous navigation and autonomous obstacle avoidance; the power drive system is efficient and reliable; it is convenient to access the integrated management and control cloud platform.

2. High Flexibility: support indoor and outdoor cross-area flow; strong barrier-crossing ability, terrain adaptability, and in-situ turning; good movement ability, maneuverability and adaptability to complex ground, easier to control.

3.Diversified Scene Adaptation: a variety of load capacity models can be selected to adapt to the operational requirements of various scenes; indoor and outdoor GPS and multi-line LIDAR fusion, adapting to a variety of working environments; can be equipped with robotic arms, vision sensors, etc. to achieve precise target acquisition.

4. Flexible program can be expanded: the tactical unmanned transport vehicle has the ability to deal with multi-tasking, for the addition of payload systems for different task requirements, reserved for multiple interfaces, but also can be retrofitted with a weapon system to achieve remote control shooting, for the penetration of the enemy to provide strong support for the realization of customized military unmanned vehicles.

Chassis Technical Parameter

Chassis Dimension	800x595x350MM(Appearance Dimension)
Drive Type	Independent left and right hand drive, Track differential steering
Kerb Weight	50KG
Material	2mm Stainless Steel
Surface Treatment	Electrostatic Baking Paint
Speed	1:30 Load 100kg, Max. speed: 2.5km/h 1:10 Load 60kg, Max. speed: 2.5km/h
Left and Right Motor Parameters	24V300W*2 DC brushless motor with incremental encoder
Rubber Track	87mm thickened high quality rubber tracks with embedded Kevlar fibers

Shock Absorbing Design	8 sets of independent suspension damping
Minimum Turning Radius	0M(Spin in Place)
Endurance	4-5 hours; if you need longer life can increase the battery capacity protection level: IP66
Power Supply System	24V60Ah lithium battery with charger with overcharge and overdischarge protection
Charging Method	AC220V independent aviation plug charger
Control System	Handheld ground station + STM32 main control board + high-power brushless motor driver *2, model remote control chassis forward and backward, left and right to move the rotation in place, etc.
Communication Interface	TTL serial/CAN interface (communication protocol provided)

Bench Camera



I.Characteristics:

- 1.Adopt 4pcs dot matrix infrared lamps to irradiate the near distance. Adopt 4 OSRAM to irradiate the long distance.
Infrared distance: 100M
- 2.Supports laser distance measurement.
- 3.Heat dissipation with all-metal heat sink module. With heat sink. Make the heat dissipation effect reach the best.
- 4.The lens adopts acrylic double glass technology. No reflection and lens without dust.
- 5.Automatic adjustment of infrared lamp far and near distance technology. Completely eliminate the phenomenon of infrared lamp flashlight;
- 6.Built-in video infrared synchronization technology.
Day/night automatic switching, IR lamp manual adjustment
- 7.Ball machine inside and outside the full metal die-casting structure. The waterproof level reaches the protection standard of IP66;

8.Built-in fan circulation system and low and high temperature thermostat system.

9.Built-in Level 3/3000V, lightning, surge and anti-surge protection with all-weather shroud;

10.220 preset points linkage and three groups of pattern cruising, each group can cruise 16 preset points. Intelligent variable speed, 0.5°/S-100°/S smooth horizontal variable speed, 0.5°/S-100°/S vertical variable speed, 360° continuous rotation. Preset point accuracy: 0.1%;

11.Horizontal scanning Two-point scanning Watchdog position function;

12. Power failure memory function. After power failure, the ball machine can automatically return to the power failure state of the ball machine

13. DC 12V power supply. Power: 20W.

14. Embedded RTOS design, dual-core 32-bit DSP, pure hard compression, watchdog, 128MFLASH, 128MDDR2.

15.H.264 video encoding, high compression ratio Highprofile4.0 level, AVI format, support for dual stream, stream 0.1M~6Mbps adjustable;

16. Support H.264 video encoding, high compression ratio Highprofile4.0 level, AVI format, support for dual stream, stream 0.1M~6Mbps adjustable.

17. Network dome title, date and time, code stream information, azimuth angle, zoom magnification display;

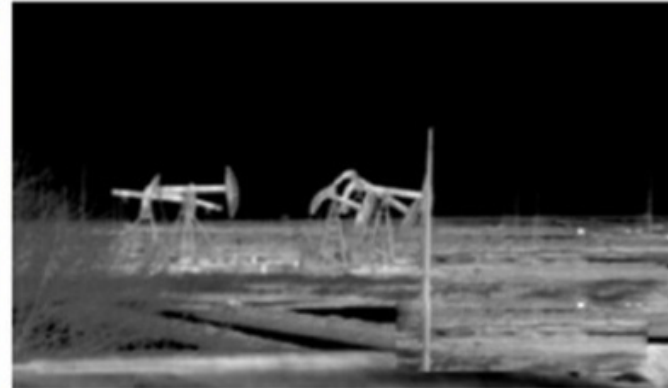
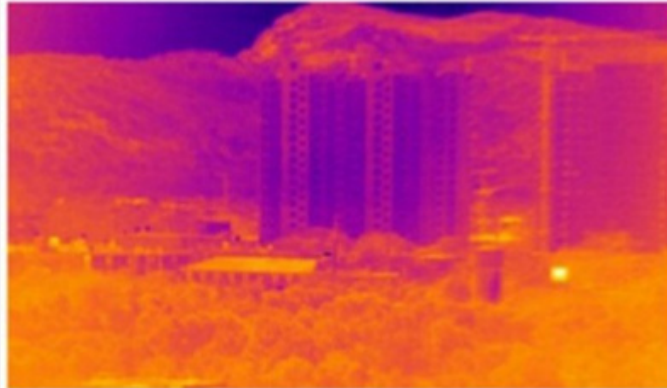
18. Support a variety of network protocols: TCP/IP, UDP, RTSP, HTTP, DDNS, FTP, NTP, PPPOE, SMTP and so on;

19.Support ONVIF protocol

20.Embedded WebServer, supports IE video browsing, parameter configuration, upgrading, and user rights management;

21.Protection level IP66, fully enclosed dustproof, waterproof, secondary lightning protection design, 3000V anti-surge protection;

Bench Camera



Crawler robot monitoring and inspection total solution



In addition to the network and ports, it can realize the data chain 5-15 kilometers overall data transmission, solving the problem of manipulation and use in the absence of network environment, and colleagues are compatible with multi-load upgrading and development, and can save and upgrade the performance of the product and load at a later stage.

Unmanned Aerial Vehicle

Ziqing-1



Main Parameters:

Max. Range	3500km
Cruise Time	35h
Loading Equipment	Camera device, SAR radar, communication equipment
Usage	Conventional investigation, precise strike to the ground
Material	Synthetics
Have Stealth Function or Not	Yes
Operational Radius	2000km (Light load)
Ammunition Carrying Capacity	345kg
Flight Altitude	7-8km
Flight Speed	250km/h
Flight Duration	40h
Investigation Equipment	Optoelectronic monitoring system Synthetic aperture radar
Airborne Weapons	8 weapon racks, 2 sets of air to ground bombing racks for FT-5 light precision guided bombs

Ziqing-2



Main Parameters:

Overall Length	3930mm
Height	1775.5mm
Wingspan	8000mm
Max. Load	55kg (effective load & fuel)
Max. Safe Take-off Weight	162kg
Cruise Time	27 m/s
Service Ceiling	5000 m
Operational Temperature	-20°C-50°C
Wind-resistance Level	Take-off: Level 5 Flight: Level 6
Endurance	45kg: 1h; 30kg: 5h

Ziqing-3



Main Parameters:

Overall Length	2.95m
Wind-resistance Level	Level 6
Wingspan	6.93m
Max. Flight Altitude	5000m
Max. Load	40Kg
Cruise Time	35m/s
Fail Speed	21m/s
Fuel Tank Capacity	Engine (40L)
Endurance	4h
Max. Take-off Weight	180kg
Aircraft Mode	Fully autonomous flight

Tianhao-82-9-2



Main Parameters

Matching Ammunition	82mm mortar shell
Ammunition Quantity	9
Flight Time with Ammunition	≥20min
Combat Radius with Ammunition	5-10Km
Rotor Type	4 Rotors
Dimension	2000*2000*400mm (L×W×H)
Max. Take-off Weight	80Kg
Standard Load	30Kg
Max. Load	35Kg
Max. Climbing Speed	5m/s (Manual mode)
Max. Descent Speed	4m/s (Manual mode)
Cruise Time	15m/s
Max. Horizontal Speed	18m/s
Max. Take-off Altitude	3500m
Max. Flight Time	70min
Max. Flight Time with Standard Load (30Kg)	30min
Max. Control Radius	15Km
Wind-resistance Level	Level 6
Max. Rotation Angular Velocity	130 °/s
Satellite Navigation System	GPS+BeiDou
Working Frequency	2.400-2.483GHz
Hovering Accuracy	≤0.5m

Tianhao-1-95



Main Parameters:

Fuselage Dimension	1800mm x1800mm x800mm
Folding Dimension	800 mm x800 mm x800mm
Wheelbase	1760mm
Material	Aircraft aluminum alloy, carbon fiber
Fuselage Weight	16KG
Max. Take-off Weight	46kg (near sea level)
Max. Load	18kg
Max. Climbing Speed	5m/s
Max. Descent Speed	5m/s
Max. Wind-resistance Level	Level 7
Max. Flight Altitude	5000m
Max. Flight Speed	20m/s (wind-free environment)
Flight Time with Empty Load	70min
Max. Control Range	10 km (Open and unobstructed, no EMI)
Max. Climbing Speed	1000 m
Hovering Accuracy	Vertical: $\pm 0.5m$ (when GPS position is working normally) Horizontal: $\pm 0.1m$ (when GPS position is working normally)
Satellite Navigation System	GPS/GLONASS , BDSS/GLONASS
Camera	HD 4K 10/30X
Power System	Integrated FOC Power System
Working Temperature	-10°C-50°C
Water-proof Level	Moderate rain The fuselage can be washed with water

Equipped Device



Characteristics:

1. High security, with one-key lock; no dumb fire, prevent static electricity false trigger.
2. Continuous launch, high stability, long guiding distance, can be reused.
3. The secondary vibration damping has a low impact on the equipment.

Main Applications

Dimension	300mm*200mm*200mm
Controller Net Weight	3KG
Material	Aviation aluminum (Special Hardening tTreatment), Stainless Steel Material
Excitation Method	Continuous rotation automatic firing
Mounting Method	Quick release 4-point positioning, quick release mounting
Launching Method	Electronic signal excitation
Linkage Method	Dual linkage of heading and pitching
Sighting Distance	300m
Distance Measurement	10-500 m
Recoil Strength	5kg
Power Supply Mode	Onboard Power
Working Voltage	DC 12-28V
Control Method	Independent remote control PWM signal control auto start/stop
Control Distance	5km
Vibration Damping Method	Features a secondary rebound damping system
Servo Method	360 Dual Direction High Torque Servo
Applicable Machines	UAV ground robot
Protection Function	Overload and overcurrent automatic protection
Compatible Cartridge Types	Observation display of distance measurement information, cross cursor information, and position interpretation

Tianhao-500 UAV (with Heavy Load of 220kg)



I. Brief Introduction

Tianhao-500 UAV adopts the layout of longitudinal rotors, which has the advantage of providing better stability, maneuverability and control accuracy. Due to the rotors are designed longitudinally along the fuselage, the length of the fuselage can be reduced, which improves maneuverability and control accuracy, and can be more flexible in space.

II. Characteristics:

- Ø Large Load Capacity: When the engine reserve power is greater than 20%, it can easily cope with various sudden weather changes and extreme working conditions with the load of 200kg.
- Ø Response to Harsh Environments: The core system adopts redundant design with working temperature ranging from -25 to 55 Celsius degree, which can resist salt spray corrosion.
- Ø Environmental Perception: Equipped with a 5-directional millimeter wave radar and a 4-directional visual system to fully perceive the surrounding environment.
- Ø High Reliability: no less than 300 hours of trouble-free working time, differential navigation system, frequency hopping encrypted communication
- Ø Improved Emergency Mechanism: The UAV is equipped with a variety of sensors, capable to real-time data sampling analyze voltage, fuel, temperature, communication links, engine conditions, surrounding environment, etc. When data is abnormal, they can be used for warning or automatic activation of corresponding emergency procedures, greatly ensuring flight safety. Flight speed, altitude, and range can be restricted through ground station software.
- Ø 211 Solution: 2 people, 1 machine, and 1 vehicle as one work unit. Dedicated transportation and operation vehicle, equipped with 2 tons of purified water, 120L of fuel, and a water and oil filling system, capable of completing chemical filling within 60 seconds. It can simultaneously meet the requirements of two UAVs for transfer transportation, water and oil supply.

- ∅ Cloud Supervision: The UAV has a remote monitoring module, realizing its real-time flight trajectories and dynamic states access to big data cloud online platforms.
- ∅ Night Work Ability: Equipped with 5-directional millimeter wave radar and night light compensation system.

III. Main Applications

1. Fire extinguishing with mounted water belt. The principle is to connect the water belt to the UAV and raise the water pressure on the water belt through the water pump, and then spray the water stream to the fire scene through the outlet of the water belt to realize the purpose of extinguishing the fire.
2. Transportation of materials and transfer of personnel, such as rubber boat mounted transfer, transfer of the injured, delivery of rescue materials and medicines.



IV. Main Parameters

External Dimension	4000*1300*1900mm
Empty aircraft weight	340kg
Rated Load	220kg
Max. take-off weight	650kg
Cruising speed	140km/h
Practical altitude	≤5500M
Wind-resistance Level	Level7
Fuel tank capacity	80 Liters
Propeller diameter	4.8m
Engine power	141HP
Fuel	98# Fuel
Engine Type	((4-stroke water-cooled aircraft engine))
Fuel consumption	18-26L/h
Max. airborne period	4h (light load)
Function	Route flight/fully automatic takeoff and landing/remote control takeover from another location
Mode	Manual/semi-automatic/AB point/fully autonomous
Emergency	Communication interruption: automatic return or return after task completion
Positioning mode	Beidou/GPS/GLONASS
Positioning difference	RTK/PPK
Navigation mode	Dual antenna directional/electronic compass
Communication radio station	900MHz frequency hopping
Remote communication	433MHz-5.8GHz frequency hopping
Scalable Task Module	Optoelectronic pod/communication relay/aerial throwing mechanism/modular mission load (≤ 100KG)
Material	Aviation aluminum alloy/carbon fiber composite material/titanium alloy
Structure	Vertical Helicopter Layout

Tianhao-T-610



I. Brief Introduction:

Tianhao-T-610 can carry HD gimbal camera and various load equipment. UAVs can play a significant role in certain specific target areas or certain target areas where personnel dispatch is not possible due to certain reasons. Generally speaking, small UAVs are powered by electricity, which makes them less noisy and less likely to wake up the target mission.

They are relatively small and can fly at high altitude, making them more stealthy. When the UAV carries a high-definition gimbal camera and a variety of load equipment, it can carry out different kinds of tasks. It not only saves personnel power, but also helps to grasp the real-time situation of the relevant area in time and protects personnel safety.

II. Characteristics:

- Ø Long endurance: the UAV's single unloaded flight time can reach more than 45min.
- Ø High single load capacity: the single load capacity of UAV can reach up to 13Kg.
- Ø High adaptability: it can be adapted with 10x/20x/30x/46x visible lens and 10x/30x dual-light lens.
- Ø Strong adaptability: it can be matched with shouting device, searchlight, thrower, police light, 38mm transmitter, catch net transmitter, water collector, spreader and other mounted parts.

III. Application Field

Security, surveying and mapping, agriculture, justice, firefighting, transportation, emergency rescue, environmental protection, electric power inspection

IV.Main Parameters

Remote Control	
Screen Size	5.5 inch
Full Brightness	1000cd/m ²
Channel's Number	16ch
Endurance	10 h
Remote Control Distance	5Km
Antenna Type	Directional and omni-directional high gain antennas
Operating Frequency	5.8G
Image Transfer Resolution	1080p
Fail Safe	Supported
Latency of Image Transmission	180ms
System Configuration	安卓 9.0 2G RAM 16GROM
Fast Charging Protocol	PD 30W
Remote Control Weight	850g

UAV	
Wheelbase	1300mm
Unfolded Size	1400mm*1400mm*700mm
Folding Mode	Umbrella Folding
MaxLoad	13Kg
Wind-resistance Level	Level 6
MaxLevel Flight Speed	15 m/s
Positioning Method	GPS/GLONASS/BEIDOU/GALILEO/SBAS/QZSS
GPS Accuracy	1m
Max Rising Speed	5 m/s
MaxDescending Speed	3.5 m/s
Ceiling	5000 m
Battery Voltage	44.4V
Battery Capacity	22000mAh
Battery Weight	5.4Kg
Battery Size	165mm*105mm*240mm
Battery Configuration	Equipment Status Display
Propeller Size	23 inch
Mounted Pole Distance	150mm
Unloaded Flight Time	45min
5Kg Loaded Flight Time	25min
Intelligent Flight	Fail Safe/Low Battery Safe/Directed Flight/Route Planning

Tianhao-T-620



I. Brief Introduction

Tianhao-T-620 can carry HD gimbal camera and various load equipment. UAVs can play a significant role in certain specific target areas or certain target areas where personnel dispatch is not possible due to certain reasons. Generally speaking, small UAVs are powered by electricity, which makes them less noisy and less likely to wake up the target mission.

They are relatively small and can fly at high altitude, making them more stealthy. When the UAV carries a high-definition gimbal camera and a variety of load equipment, it can carry out different kinds of tasks. It not only saves personnel power, but also helps to grasp the real-time situation of the relevant area in time and protects personnel safety.

II. Characteristics

- ∅ Long endurance: the UAV's single unloaded flight time can reach more than 30 min.
- ∅ High single load capacity: the single load capacity of UAV can reach up to 20Kg.
- ∅ High adaptability: it can be adapted with 10x/20x/30x/46x visible lens and 10x/30x dual-light lens.
- ∅ Strong adaptability: it can be matched with shouting device, searchlight, thrower, police light, 38mm transmitter, catch net transmitter, water collector, spreader and other mounted parts.

III. Application Field

Security, surveying and mapping, agriculture, justice, firefighting, transportation, emergency rescue, environmental protection, electric power inspection

IV.Main Parameters

Remote Controller	
Screen Size	5.5 inch
Full Brightness	1000cd/m ²
Channel's Number	16ch
Endurance	10 h
Remote Control Distance	5Km
Antenna Type	Directional and Omni-directional High Gain Antennas
Operating Frequency	5.8G
Image Transmission Resolution	1080p
Fail Safe	Support
Latencyof Image Transmission	180ms
System Configuration	安卓 9.0 2G RAM 16GROM
Fast Charging Protocol	PD 30W
Remote ControllerWeight	850g

UAV	
Unfolded Size	1750mm*1940mm*760mm
Folding Size	1000mm*900mm*760mm
Propeller Size	34inch
Wheelbase	1800mm
Overall Weight(Without Battery)	15.5Kg
MaximumTake-off Weight	44.2Kg (Full load)
Load Weight	20Kg
Hovering Time with Empty Load	30min
Hovering Time with Full Load	12min
Flight Speed	0-15m/s
Remote Control Frequency	5.8GHz
Image Transmission Frequency	5.8GHz
Image Transmission Power	200mw
Image Transmission Distance	5Km (open environment, no interference and signal blocking)
FPV Camera	1080P HD webcam
Flight Mode	Manual Remote Control, Auto Flight
Flight Pattern	GPS mode, Attitude mode
ProtectiveFunction	Fail-safe protection, Low voltage protection, Auto-return

Tianhao-T-410



I. Brief Introduction

Tianhao-T-410 can carry HD gimbal camera and various load equipment. UAVs can play a significant role in certain specific target areas or certain target areas where personnel dispatch is not possible due to certain reasons. Generally speaking, small UAVs are powered by electricity, which makes them less noisy and less likely to wake up the target mission.

They are relatively small and can fly at high altitude, making them more stealthy. When the UAV carries a high-definition gimbal camera and a variety of load equipment, it can carry out different kinds of tasks. It not only saves personnel power, but also helps to grasp the real-time situation of the relevant area in time and protects personnel safety.

II. Characteristics

- ∅ Long endurance: the UAV's single unloaded flight time can reach more than 30min.
- ∅ High single load capacity: the single load capacity of UAV can reach up to 20Kg.
- ∅ High adaptability: it can be adapted with 10x/20x/30x/46x visible lens and 10x/30x dual-light lens.
- ∅ Strong adaptability: it can be matched with shouting device, searchlight, thrower, police light, 38mm transmitter, catch net transmitter, water collector, spreader and other mounted parts.

III. Application Field

Security, surveying and mapping, agriculture, justice, firefighting, transportation, emergency rescue, environmental protection, electric power inspection

IV.Main Parameters

Remote Controller	
Screen Size	5.5 inch
Full Brightness	1000cd/m ²
Channel's Number	16ch
Endurance	10 h
Remote Control Distance	5Km
Antenna Type	Directional and omni-directional high gain antennas
Operating Frequency	5.8G
Image Transmission Resolution	1080p
Fail Safe	Supported
Latency of Image Transmission	180ms
System Configuration	安卓 9.0 2G RAM 16GROM
Fast Charging Protocol	PD 30W
Remote ControllerWeight	850g

UAV	
Wheelbase	1100mm
Dimension	1200mm*1200mm*700mm
Max. Load	10Kg
Max.Level Flight Speed	15m/s
Wind-resistance Level	Level 6
Positioning Method	GPS/GLONASS/BEIDOU/GALILEO/SBAS/QZSS
GPS Accuracy	1m
Battery Voltage	44.4V
Battery Capacity	22000mAh
Battery Weight	5.4Kg
Battery Size	165mm*105mm*240mm
Battery Configuration	Equipment Status Display
Propeller Size	23 inch
Mounted Pole Distance	150mm
Flight Timewith Empty Load	55min (Altitude:100m) 30min (with a load of 5Kg)
Intelligent Flight	Fail Safe/Low Battery Safe/Directed Flight/ Route Planning

Tianhao-B-30

Sensitive UAV



I. Characteristics:

Single person can carry 5 UAVs and a kit (including remote control and PFV glasses, equipped with a backpack, easy to carry).

Ø Support a variety of takeoff Methods, such as hand-thrown takeoff, launcher takeoff, airdrop, which can meet a variety of scenarios.

Ø The two-in-one design of reconnaissance and strike can change the mounts according to different mission requirements.

Ø The gimballed rack can mount many kinds of modules, such as thermal imager.

Ø Support AES 256 encrypted mesh data link. (Optional)

II. Main Parameters

Max. Take-off Weight	650g
Payload Weight	160g
Flight Speed	8-15m/s
Hang Time	15 min
Flight Range	7km
Climbing Speed	3m/s
Execute Automated Task	Yes
Dimension	29.6*7*7cm

Tianhao-F-40

Ejection-type UAV



Ø The total weight of the machine (including the transmitter) is only 3.9kg, which can be carried by a single soldier.



I. Characteristics

Ø The total weight of the machine (including the transmitter) is only 3.9Kg, which can be carried by a single soldier.

- Ø Support rapid deployment, one-key ejection and takeoff.
- Ø A variety of mission mounting options, such as visible light, thermal imaging and so on.
- Ø Support pneumatic or airbag launch to meet the needs of different scenarios.
- Ø Pure electric drive, low noise, low heat signal, not easy to bedetected and recognized.
- Ø Anti-jamming long-distance AES 256 encrypted data chain..

II. Main Parameters

Takeoff Weight	1700g
Max. Load	500g
Cruising Speed	26m/s
Impact Velocity	39m/s
Endurance	21 min
Flight Range	30km
Climb Speed	3.5m/s
Fuselage Length	55cm

Tianhao-H-05

Miniature Reconnaissance UAV



ØSilence: Adopting ultra miniature brushless motor direct drive, innovative noise reduction design, noise level is less than 50dB at 3 meters away, senseless in urban environments. The total weight of the machine (including transmitter) is only 3.9KG, and it can be carried by a single soldier.

I.Characteristics

ØSilence: Adopting ultra miniature brushless motor direct drive, innovative noise reduction design, noise level is less than 50dB at 3 meters away, senseless in urban environments. The total weight of the machine (including transmitter) is only 3.9KG, and it can be carried by a single soldier.

ØConcealment: Button-level front-view visual reflective surface, matte coating, easy to blend into the background at a distance of 10 meters.

ØIntelligent: six major functions of outdoor autonomous cruise, intelligent obstacle avoidance, pointing flight, fixed-point hovering, one-key return, multi-mode recording and shooting.

ØMobility: supports pocket-sized carry, all-terrain take-off and landing, and handheld take-off and landing, plug and play in seconds.

ØPassage: with a minimum of 20cm diameter space passage ability

ØUltra-vision range: three-in-one supermicro-link; good performance in an electromagnetic environment through the vision of the alleged 9KG, and it can be carried by a single soldier. The distance of more than 2.5 kilometers; closed space around the ability to shoot more than 3 brick walls

II.Application Field:

AI Recognition, Forensics, Surveillance, Street Fighting



III.Main Parameters:

Fuselage Weight	50g
Battery Weight	20g
Battery Power	3W.h
Fuselage Length	165mm
Remote Control Distance	2.5km
Flight Speed	10m/s
Endurance	20min
Noise Level	50dB(Distance: 3m)
Camera Resolution	1080*720P
Image Transmission	640*380P
Wind-resistance Level	Level 3
Remote Control Signal Strength	Can penetrate three brick walls
Box Dimension	0.34m*0.26m*0.13m
Box Weight	1.35kg
Battery Specification	55mm*25mm*15mm
Total Weight	2.3Kg



Tianhao-C5



Main Parameters

Rotor Type	6 Rotors
Fuselage Material	Toray 3K Carbon Fiber
Empty Chassis Weight	5.5kg
Protection Grade	IP65级 Level IP65
Fuselage Wheelbase	1600mm
Drive Mode	Electric Drive
Folding Size	640×980×588mm
Endurance (Empty)	70min
Endurance(Load)	35 min (Loaded 8kg)
Positioning Method	GPS/GLONASS/BDS
Night Flight System	With Night Flight Lights
Awareness System	With Geographic Awareness System
Control Radius	15km
Safety Protection	One-key take-off and landing, Anti-electromagnetic interference, Low battery warning, Low battery return, Lost return, Broken paddle protection.
Ground Station Function	Real-time information of UAV (flight height, latitude and longitude coordinates, flight speed) can be realized.
Take-off and Landing and Emergency Protection Function	Return landing support manual, Automatic landing, With parachute safety landing system
Remote Identification System	Remote Tracking and Target Detection.
Flight Mode	Low-speed Flight Mode, Flight Speed <5m/s
Maximum Take-off Weight	15-20kg
Fail Speed Protection	with a link recovery or flight termination system

Tianhao-4-70



Main Applications

4-axis Boom Spread Length	2m
Take-off Weight	150kg
Load Weight	70kg
Total Motor Power	45KW
Lithium Battery Voltage	135V
Storage Capacity	9400WH
Battery Weight	31kg
Load Endurance	20Min

Tianyi-3



Main Applications

Max. Flight Speed	570km/h
Min Flight Speed	400km/h
Max. Flight Time	50min
Load	10kg
control radius	60km
Take off Mode	Rocket Boost

The bombing range of 10 kilograms of TNT with 30,000 controlled fragments is more than 200 meters.

Tianyi-3

Enhanced Version



Main Applications:

Max. Flight Speed	800km/h
Min Flight Speed	300-400km/h
Max. Flight Time	50min
Load	15kg
Control radius	100km (LOS) 2000km SATCOM)
Take off Mode	Rocket Assist

The bombing range of 15 kilograms of TNT with 30,000 controlled fragments is more than 300 meters.

Tianyi-3-1



Main Applications:

Max. Flight Speed	800km/h
Min Flight Speed	300-400km/h
Max. Flight Time	50min
Load	35kg
Control radius	100km (LOS) 2000km (SATCOM)
Take off Mode	Rocket Assist

Tianyi-4



Main Applications

Wingspan	1700mm
Overall Length	1250mm
Empty Weight	10kg
Max. take off Weight	15kg
Max. Mission Load	5kg
Endurance	≥50min
Flight Speed	108-130km
Control Mode	Pre-programmed Route Control
Guidance Mode	Fixed-coordinate Guidance
Initial Velocity of Launch	35m/s
Launch Tube Diameter	180mm
Launch Tube Length	1300mm
Launch System Weight	30kg (DC Compressor Air Source)

Tianyi-5



Main Applications

Span	1.2m
Length	1.1m
Take-off Weight	1.5kg
Effective Load	1kg
Endurance	40min
Speed	60-80km/h
Control Radius	30km
Flight Mode	Automatic and Manual return to way points
Take-off Mode	Catapult
Landing Mode	Taxiing Landing
Positioning	GPS、DBS

Tianyi-6



Main Applications

Load	15kg
Take-off Weight	75kg
Endurance	50min
Max. Flight Speed	700km/h
Operating Radius	50km
Recovery Mode	None
Fuel Type	Aviation Kerosene
Take-off Mode	Rocket Assist
Flight Altitude	10000m
Cruise Range	>450KM

Tian Yi-7-1



I. Application Fields :

1. Simulate the attack of enemy aircraft or missiles during military exercises or weapons trial fire.
2. Provide hypothetical targets and shooting opportunities for various types of artillery or missile systems during military exercises or training.
3. Can simulate enemy cruise missiles flying at ultra-low altitudes and effectively cooperate with ground and shipborne anti-aircraft artillery for shooting and tactical exercises.
4. Can install and carry various drag target testing devices, and can assess and evaluate the shooting accuracy of various air defense firepower.

II. Features:

Lowcost, large load capacity, ultra-long communication distance, low maintenance cost, full autonomous flight, strong environmental adaptability, excellent aerodynamic shape, fast flight speed, long endurance, reusable fuselage (parachute retrieval) and can customize cabin structure flexibly according to the customer's equipment.

III.Main Applications

Max. Flight Speed	300km/h
Flight Altitude	20 (Relative Altitude) -6000m (Altitude)
Max. Take-off Weight	65kg
Endurance	100 min
Control Distance	≥100km
Max. Load	15kg
Fuselage Length	2.8m
Wingspan	2.85m
Wind Resistance Level	Level 7
Launching Mode	Rocket-assisted Launching
Recovery Mode	Parachute
Control and Guidance Mode	Remote Control, Programmed Control, Fully Automatic Flights
Working Temperature	-40°C~+55°C

IV.Introduction to subsystems

1.Fuselage of Target Aircraft

The aerodynamic shape of the Tianyi-7-1 target aircraft is a conventional fixed-wing UAV layout that simulates conventional flight targets. The ailerons are designed on the wings to control the transverse roll movement of the target aircraft. The tail is v-shaped and the elevator is on the tail to control the longitudinal movement of the target aircraft. The gasoline engine is mounted in the nose position to facilitate the launch and recovery of the target aircraft.

2.Aircraft Engine:

2.1 Brief Introduction:

The Tianyi-7-1 target aircraft is powered by gasoline engine, which is totally mature, characterized by high stability, low energy consumption and strong power, and can be adapted to various environments.

Racing UAV



I.Characteristics:

- 1.Small size, Light weight, Fast speed
- 2.Easy to carry, Not easy to reflect
- 3.Can penetrate in the building

II.Main Applications

Max. Speed	180km/h (Manual Mode)
Endurance	3-10min (Depends on Speed and Load)
Radio Range	≤5km (Sighting Condition)
Weight	900g
Load	≤1kg
Load Type	Smoke shell、 Grenade、 Flashbomb Viewing Screen/
Image Receiver	FPV Glasses
Charging Time	15min
Flight Control Function	Manual Mode: Automatic Take-off/Landing, Loiter(GPSMode)
Locate Mode	GPS, BDS, GLONASS

Gliding Missile



I.Characteristics:

- Ø Low cost/consumable, convenient for large-scale application
- Ø Precise strike, which can cover the regional battlefield evenly with either a single or multiple missiles, eliminating viable forces
- Ø Multi carrier platform for portable use, with good scalability
- Ø The carrier aircraft has a high flying altitude and is not easily intercepted by individual air defense weapons, resulting in strong battlefield survival ability

II.Main Parameters

Tactics and Techniques Index	FX3-81/82A
Total Weight	5.7Kg
Flight Speed	120- 160Km/h
Guidance Method	GPS/Beidou/GLONASS Guided by satellite Target distance 2-10 meters/4 meters on average
Proximity Fuse	Proximity Bombing Rate $\geq 90.3\%$ Working Temperature:-40~+55°C
Max.Attack Distance	Up to 10km (Drop at the altitude of 2.7km)
Warhead	81/82 Mortar Shells
Hit Accuracy	$\leq 10m$
Wind-resistance Level	Level 6
Combat Modes	Enter target coordinates/on a digital map. When you select a target, it can glide in and attack automatically
Launching Method	High altitude drop gliding
Target Type	Area positions or targets requiring extensive artillery coverage

Patrol Missile



I.Characteristics:

- ∅ Small in weight and size, allowing individual soldiers to carry out tasks
- ∅ Integrated design for storage, transportation, and transportation, making it easy to carry and use
- ∅ Barrel launch takeoff, independent of runway, fast response speed
- ∅ Accurate strike with low collateral damage
- ∅ Long stagnation time Low physical characteristics and high battlefield survival rate
- ∅ Multiple flight modes for easy use and operation
- ∅ Multi platform portable use with good scalability

II.Main Parameters

BTI	
Take-off Weight	5kg
Whole System Weight	≤ 10kg (Cruise Missile, Launcher)
Launch Tube Size	123mm*123mm*900mm
Flight Speed	80 -150km/h
Ceiling	2000m
Max. Loiter Time	55min
Combat Radius	15km
Reconnaissance Guidance Equipment	Frame type infrared/day light reconnaissance guidance equipment
Warhead	0.8kg multifunctional warhead Effective killing radius: 15m; Armor piercing power: Vertical 70mm homogeneous steel armor
Strike Accuracy	CEP: 1m
Wind-resistance Level	Level 6
Control Terminal	Individual/Reinforced ground station system
Launching Method	Gas Ejection
Target Type	Personnel & Light Armor

Autel UAV



I. Main Parameters

1. Aircraft:

Type	Visible-Light	Double-Light
Product	EVO II Pro V2	EVO II Dual 640T Professional Version V2
Weight (Includes Paddles and Batteries, No Expansion Spreader Accessories)	1191 g	1110g

Wheel	397 mm	427mm
Dimension (Length) Widen High)	508*634*111mm (Include Paddles) 258*368*111mm (No Paddles)	508*634*111mm (Include Paddles) 258*368*111mm (No Paddles)
Flying Time (No Wind)	40 min	42 min (No Industry Accessories)
Hovering Time (No Wind)	35 min	38min(Night Light) 29min(Search Lights) 34min(Shouting Device) 36min(RTK Module)
Max. Horizontal Flight Speed (No Wind near Sea Level)	20m/s (Berserk Mode)	20 m/s (Berserk Mode)
Max. Ascent Speed	8 m/s (Berserk Mode)	8 m/s (Berserk Mode)
Max. Descent Speed	4 m/s (Berserk Mode)	4 m/s (Berserk Mode)
Max. Endurance	25 km	/
Max. Take-off Altitude	7000 m	7000 m
Max. Tiltable Angle	33° (Berserk Mode)	/
Max. Rotational Angular Speed	120°/s	/
Working Environmental Temperature	-10°C-40°C	-10°C- 40°C

Max. Wind Resistance Level	Level 8	Level 8
IP Protect Level	/	/
Working Frequency	No Japan : 2.400 GHz - 2.4835 GHz; 5.725 - 5.850 GHz Japan: 2.400 GHz - 2.4835 GHz; 5.650- 5.755 GHz	2.400 GHz - 2.4835 GHz; 5.725GHz -5.850 GHz
Transmission Power	2.4GFCC/ ISCED: ≤27dBm SRRC/CE/MIC/RCM: ≤20dBm 5.8G (No Japan) ; 5.7G (Japan) FCC/ISED/SRRC/MIC: ≤27dBm CE/ RCM: ≤14dBm	/
Hovering Accuracy	Vertical: ±0.02 m (when visual localization is working properly) ±0.2 m (When GPS is working normally) Horizontal: ±0.02 m (when visual localization is working properly) ; ±0.5 m (When GPS is working normally)	When equipped with an RTK module and RTK is working properly: Vertical: ±0.1 m; Horizontal: ±0.1 m Without RTK module: Vertical: ±0.1 m (when visual localization is working properly) ; ±0.5 m (When GNSS is working normally) Horizontal: ±0.3 m (when visual localization is working properly) ; ±1.5 m (When GNSS is working normally)
Satellite Positioning Module	GPS+GLONASS+GALILEI	GPS+GLONASS+GALILEI

2.Pan-tilt:

Type	Visible-Light	Double-Light
Product	EVO II Pro V2	EVO II Dual 640T Professional Version V2
Stabilization System	Three-axis Stabilization	Three-axis Stabilization
Mechanical Range	Pitch : -135° to +45° Heading : -100° to +100°.	Pitch : -135° to +45° Heading : -100° to +100°.
Controlled Rotation Range	Pitch : -90° to +30° Heading : -90° to +90°.	Pitch : -90° to +30° Heading : -90° to +90°.
Max. Control Speed (Tilt)	300°/s	300°/s
Amount of Angular Jitter	±0.005°	±0.005°

3.Double-Light Camera & Visible-Light Camera:

Type	Visible-Light	Double-Light	
Product	EVO II Pro V2	EVO II Dual 640T Professional Version V2	
Sensor Type	/	1 / 2-inch CMOS; 48 effective megapixels	
Viewing Angle		79°	
Aperture		f/1,8	
Focus Range		0.5m ~ ∞	
Equivalent Focal Length		25.6mm	
ISO Range		Video: 100-6400 Photo: 100-3200	
zoom		1 - 16x (max. 4x lossless zoom))	
Electronic shutter		/	
Photo Mode		/	Single and continuous shot : 3/5 frames Auto Bracketing (AEB): 3/5 frames (at 0.7EV bias) Timing: : JPG: 2s/5s/7s/10s/20s/30s/60s DNG: 5s/7s/10s/20s/30s/60sPure Night Shot: Supported (in 4K JPEG format) Long Exposure: Max. 8 seconds,HDR Imaging: Supported (in 4K JPEG format)

Photo Resolution	/	8000x6000 (4:3) 7680x4320 (16:9) 4000*3000 (4:3) 3840*2160 (16:9)
Photo Format		JPG (Default) ; DNG
Video Resolution		8K 7680*4320 p25/p246K 5760*3240 p30/p25/p244K 3840*2160p60/p50/p48/p30/p25/p242.7K 2720*1528p120/p60/p50/p48/p30/p25/p24 1080P 1920*1080p120/p60/p50/p48/p30/p25/p24
Video Format		MP4 / MOV Format (MPEG-4AVC/H.264, HEVC/H.265)
Video Max. Bitrate		120Mbps
Support Format		FAT32/exFAT

4. Double-Light Camera-Infrared:

Type	Visible-Light	Double-Light
Product	EVO II Pro V2	EVO II Dual 640T Professional Version V2
Sensor Type	/	VanadiumOxideUncooledInfraredFocal Plane Detector
Viewing Angle		H33°V26°
Sensor Resolution		640x512
Pixel Size		12μm
Focal Length		13mm
Wavelength Range		8 - 14μm
Accurate Temperature Measurement Distance		2-20 m
Temperature Measurement Accuracy		±3°C or ±3% of reading (whichever is greater) @Environmental Temperature -20°C ~ 60
Temperature Measurement Range		High Gain Mode:-20° to +150° Low Gain Mode:0° to +550°
Zoom		1 - 16 Times
Photo Format		Single and Continuous Shot : 3/5 frames , Default 3 frames Timing: JPG: 2s/5s/7s/10s/20s/30s/60s
Photo Resolution		Infrared Mode: 640*512 Picture-in-Picture Mode : 1920*1080, 1280*720

Photo Format	/	TIFF+JPG(with irg file)
Video Resolution		640x512@30fps
Video Format		MOV / MP4 (Support H.264/H.265)

5. Laser Rangefinder:

Type	Visible-Light	Double-Light
Product	EVO II Pro V2	EVO II Dual 640T Professional Version V2
Wavelength Range	/	/
Measurement Range		
Measurement Accuracy		

Anti-UAV Equipment

Skyfend



I. Characteristics:

1. Full-band Omni-directional Detection and Warning

Omni-directional drone detection, early warning of intruding drones in the built-in drone bank, supports customized coverage of the full frequency band from 400M-6GHz, with a Maxdetection distance of 2km. when a drone appears within the detection radius, detection and warning will be realized within 4 seconds.

2. Full-band Wireless Intelligent Strike

Capable of striking unmanned aerial vehicle flight control/image transmission frequency bands, capable of striking GNSS frequency bands, with strike frequencies covering 400MHz~6GHz. Tongtian Hunt will automatically configure the strike frequency band for flight control/image transmission based on the detected drone model, without the need for users to manually configure it. When the attack on the drone is successful, the communication between the drone and the pilot is interrupted, and passive return or forced landing occurs.

3. UAV Direction Finding

Measurable drone target direction (horizontal angle, pitch angle) to assist in striking and aiming.

4. Touch Screen Interaction

The 3.5inch touch screen provides a series of direction finding guidance operations to help users quickly complete drone direction finding; Combined with other detection products, the C2 software can provide a more intuitive view of the status of the attacked drone and feedback on completing the attack.

UAV Control Platform



UAV Control Platform



Radio Monitoring Platform

II. Main Parameters

External Dimension	778 mmx337mmx113mm (L x W x T)
Weight	6.5 kg
Interaction Mode	Physical Buttons/Trigger/Screen (Display/Touch Screen)/Audible Alert (beep)/Vibration Alert
Color	Star Gray
Signal Type	Strike UAV Flight Control, Mapping Signal/Strike GNSS Signal
Signal Interference	Coverage of global satellite positioning signal types, such as: GPS, GLONASS, Beidou, GALILEI
Frequency Range	400 MHz~6GHz
Strike Range	Horizontal angle $\pm 15^\circ$, Pitch angle $\pm 7^\circ$.
Strike Power	20W@400MHz~2GHz/20W@2GHz~4GHz/40W@4GHz~6GHz
Strike Distance:	3 km
Strike State Battery Life	1h
Frequency band adaptation	Support
Signal Type	UAV Signal
Frequency Range	400 MHz~6GHz
Detect Signal Direction	Omni-directional
Detection distance	2km
Detection Status Battery Life	8h
UAV Direction Finding (Horizontal/Pitch angle)	Support
Angular Accuracy	Horizontal Direction Finding Accuracy: 10° /Tilt Direction Finding Accuracy: 10°
UAV Type Recognition	Support
System Networking	Products can be networked with C2 systems and radars to form system-level intelligent solutions

Anti-UAV Equipment

I.Characteristics:

1. High integration: set detection and early warning, target pointing, jamming prevention and control functions in one, a device into its own system, closed-loop management and control
2. Fast detection: 360° omni-directional second detection, sound and light alarm immediately after discovery;
3. Accurate identification: can accurately identify different drones of the same brand, model and frequency band.
4. Whitelisting: with the ability of whitelisting (enemy identification), when detecting the whitelisted drone models, it will not trigger the alarm.
5. Pointing: After detecting a drone, it can quickly determine the direction of drone intrusion and turn on the jamming module to implement over-the-horizon directional strikes.
6. Wide application: miniaturized design, single soldier can realize drone detection and countermeasures, widely used in all kinds of low-altitude security scenarios.



Anti-UAV Equipment

II、 Technical Parameter:

Information Show	Support LED display, mobile terminal APP
Supports Frequency Bands	Detection 2.4GHz, 5.8G Interference 1.5GHz, 2.4GHz, 5.8GHz, 900M
Detection Distance	≥1.5km
Direction Finding Accuracy	More Than 30°
Interference Distance	≥1km
Operating time	≥4h
Demension	760mm×373mm×100mm (L×W×H)
Weight	≤ 5kg (with Battery)



Fixed Drone Detection Equipment

I.Characteristics:

1. Passive detection technology: passive detection technology, does not emit signals, zero interference, high concealment
2. All models can be detected and recognized: DJI, Xiaomi, Dahua, Corbett, Daotong and many other manufacturers of many types of drones, as well as homemade planes, traversing planes.
3. Low false alarm rate: average false alarm rate <1 time/day
4. Accurate positioning: Average positioning error ≤ 20 m.
5. High refresh rate: the refresh cycle of detection results is ≤ 1 s, fast tracking speed.
6. Support ADS-B: Support real-time civil aviation airliner information reception, no interference with navigation.
7. Black and white list: can effectively distinguish between cooperative and non-cooperative UAV targets.



Based on TDOA spectrum detection and positioning technology, a single device can independently discover and identify UAVs; multiple (3 or more) devices can be networked to realize real-time accurate positioning of UAVs.

Fixed Drone Detection Equipment

II、 Technical Parameter:

Working Mode	Radio detection、 TDOA
Working Objects	UAV mapping, Flight control signaling
Frequency Band	100MHz – 6GHz
Detection Radius	1.5km-2.5km (Depending on the environment and model there will be some differences)
Number of Detections	≥20 (Together)
Positioning Accuracy	≤20m



Fixed Drone Detection Equipment

I.Characteristics:

1. Fixed/full-band countermeasures: It can simultaneously or independently suppress 900MHz, 1.5GHz, 2.4GHz, 5.8GHz and other frequency bands commonly used by UAVs, and can also expand other frequency bands as needed.
2. Detecting and striking linkage: it can be linked with detecting equipment to continuously and automatically track and strike the target.
3. Low secondary interference: short launch time, centralized directional launch, low secondary interference.
4. Fast response: disposal response time <4 seconds

Based on the principle of radio jamming and blocking, it carries out directional and precise strikes on drones, effectively cuts off the communication and accusation links of drones, and forces drones to return to their flights or force them to land, so as to safeguard low-altitude security in the defense area.

Fixed Drone Detection Equipment

II、 Technical Parameter:

Working Mode	Radio Interference Suppression
Working Objects	UAV mapping, Flight control links, Navigation signals
Frequency Band	900MHz、 1.5GHz、 2.4GHz、 5.8GHz
Working Distance	1.5km-3km (Depending on the environment and model there will be some differences)
Coverage Angle	Azimuth 0°- 360° Pitch -30°- 60°
Working Temperature	-20°C- 55°C



Portable Drone Detection

Equipment

I.Characteristics:

1. Compact and lightweight: small size, light weight, easy to carry around
2. Low false alarm rate: average false alarm rate <math>< 1</math> time/day
3. Passive detection: no active signal emission, no electromagnetic interference
4. Real-time screen display: real-time screen display of drone identity information
5. Recognize multiple models: can recognize DJI series, WiFi, traversing machine and other models.



The device receives UAV signals passively, and realizes the detection and identification of suspicious sources based on spectrum sensing and deep learning technology; when the source is determined to be a UAV, the device can warn through sound, light and vibration, prompting the duty personnel to take measures quickly.

Portable Drone Detection Equipment

II、 Technical Parameter:

Working Mode	Radio Detection
Frequency Band	1.1GHz, 1.2GHz, 1.4GHz, 2.4GHz, 5.8GHz bands commonly used by drones
Working Distance	0.7km-1.2km (Depending on the environment and model there will be some differences)
Dimension	L*W*H: 240mm*66mm*48mm (without Antenna)
Weight	750g
Working Temperature	-20°C- 55°C



Portable Drone Detection Equipment

I.Characteristics:

1. Fixed frequency band countermeasures: It can simultaneously or independently suppress 900MHz, 1.5GHz, 2.4GHz, 5.8GHz and other frequency bands commonly used by UAVs, and can also expand other frequency bands as needed.
2. Detection and combat linkage: it can cooperate with portable UAV detection equipment to form a portable "detection and combat integrated" system, realizing the function of disposal upon discovery.
3. Low secondary interference: Directional and centralized launching, low secondary interference to surrounding facilities.
4. Fast response speed: disposal response time <2 seconds



By transmitting specific frequency band electromagnetic wave to the drone interference countermeasures, thus blocking the drone's flight control link, and quickly realize the target's expulsion; it can be used independently, and can also be used with portable drone detection products to form the "detection and fight" defense capability.

Portable drone detection equipment

II、 Technical Parameter:

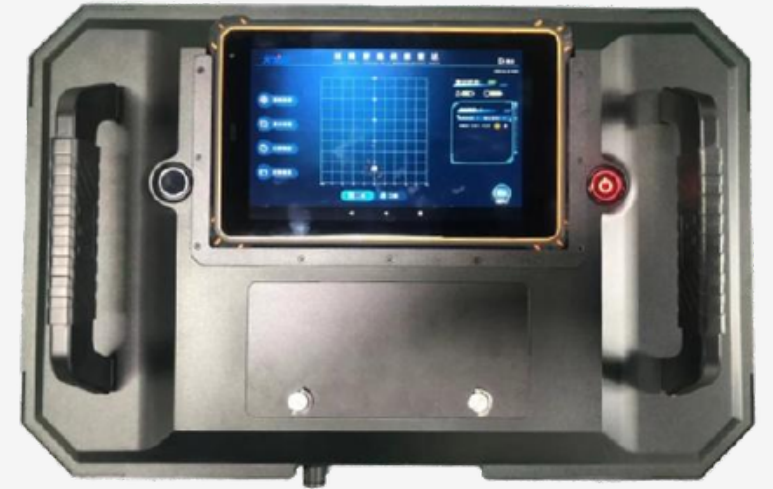
Working Mode	Radio Interference Suppression
Working Objects	UAV mapping, Flight control links, Navigation signals
Frequency Band	900MHz、 1.5GHz、 2.4GHz、 5.8GHz
Working Distance	(Depending on the environment and model there will be some differences) 0-7km
Dimension	L*W*H: 760mm*230mm*80mm
Working Temperature	-20°C- 55°C



Portable 3D Wall-penetrating Radar

I.Characteristics:

1. Adopting sparse two-dimensional array antenna configuration and high-resolution imaging technology, with high image quality and strong target resolution capability;
2. Based on the FM continuous wave signal system and micro-Doppler focusing algorithm, it can penetrate a variety of wall materials, with high detection sensitivity, long detection distance and short response time;
3. Adopting multi-resolution neighborhood correlation and adaptive filtering method, with strong multi-target tracking capability and continuous and stable trajectory;
4. Original ultra-lightweight antenna form, integrated radar design, small size, light weight, easy to carry;
5. Adopting detachable high-definition display plate, which can be operated randomly or remotely, and is flexible and convenient to use;
6. Information processing and other key modules use localized components, safe and reliable.



Penetration Capability	Can penetrate solid concrete brick masonry and other non-metallic walls in GB50203-2011
Detection Distance	≥ 30 meters (moving target) / 20 meters (stationary target)
Angle Coverage	≥120°(Azimuth) x 60°(Pitch)
Response Time	≤5 seconds (moving target) / 10 seconds (stationary target)
Positioning Error	±0.5m - Number of Targets ≥5
Detection Probability	≥90%
Attitude Recognition	Standing / Sitting / Lying (Stationary Target)
Power Consumption	≤15W
Duration	≥4 hours
Weight	≤6kg (with display and control plate)
Overall Dimension	≤0.5×0.4×0.1m
Working Temperature	-40 ~ 65°C
Protection Level	IP65
Communication Mode	Encrypted WiFi
Display and Control Terminal	HongMeng 7.9" Tablet PC

II、 Technical Parameter:

UAV Controller

38mm Smoke Grenade Launcher



Main Applications:

External dimension	220mm×135mm×260mm
Packing Box Size Net	473mm×348mm×185mm
Weight	3kg
Material	POM, Aviation Aluminum, Carbon Fiber, Stainless Steel
Installation Method	Quick Release Installation
Emission Method	Electronic Signal Excitation
Caliber	38 mm (suitable for: Recoil force 1-2kg, range 80m)
Loading Capacity	8 Pieces
Power Supply Mode	Onboard Power Supply
Working Voltage	DC 12-28V
Control Mode	Independent PWM
Control Distance	800m
Control Angle	Pitch Axis 360 degrees
Expansion Channel	Can support various model expansion functions

UAV Controller

82mm Mortar Projectile Thrower

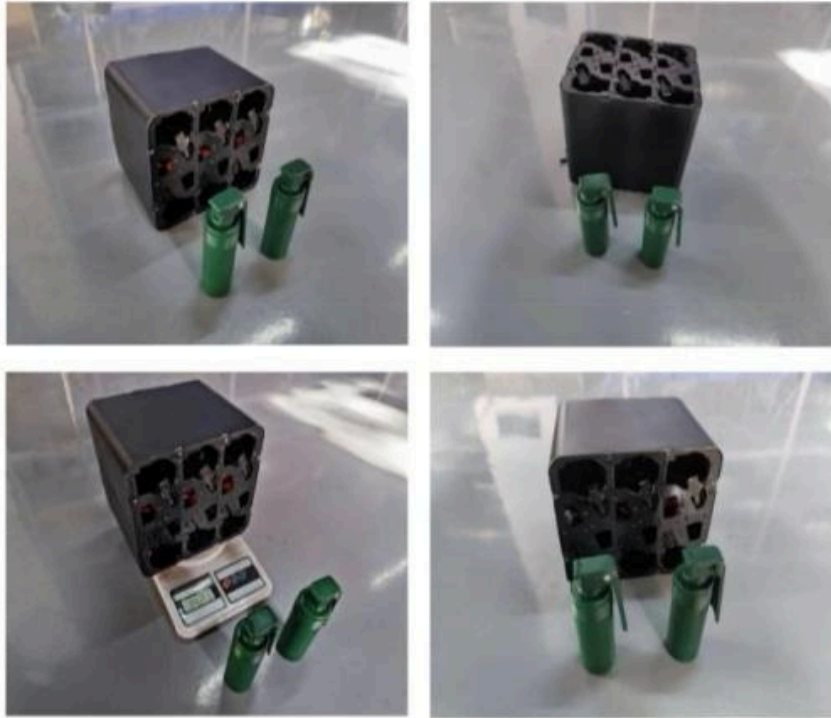


Main Applications:

External dimension	400mm×300mm×290mm
Compatible Cartridge	82mm
Net Weight	3kg
Material	Aviation Aluminum, Carbon Fiber, Stainless Steel
Installation Method	Material Automatic Locking with Locking Tongue Upward Impact
Launch Method	Automatic Single Shot Throwing 82mm
Caliber	82mm (suitable for 82mm mortar shells)
Loading Capacity	4-6 Pieces
Power Supply Mode	Onboard Power Supply
Working Voltage	DC 12-60V
Control Mode	SBUS signal 9-14 Channels; Or Independent 6-way PWM
Control Throwing Accuracy	1-3m
Control Angle	Pitch Axis 360 degrees
Expansion Channel	Can support various model expansion functions
Aiming Function	With one click down aiming and cross cursor indication

UAV Controller

40mm Grenade Thrower



Main Applications:

External dimension	330mm×300×290mm
Compatible Cartridge	48mm
Net Weight	2.5kg
Material	Aviation Aluminum, Carbon Fiber, Stainless Steel
Installation Method	Material Automatic Locking with Locking Tongue Upward Impact
Launch Method	Automatic Single Shot Throwing
Caliber	48mm (suitable for 48mm mortar shells)
Loading Capacity	4-6 Pieces
Power Supply Mode	Onboard Power Supply
Working Voltage	DC 12-60V
Control Mode	SBUS signal 9-14 Channels; Or Independent 6-way PWM
Control Throwing Accuracy	<2m
Throwing Method	One click throwing and independent throwing
Expansion Channel	Can support various model expansion functions
Aiming Function	With one click down aiming and cross cursor indication

ALMANARH
HOLDING CO.



شركة
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thank you

We look forward to hearing from you



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