

# MRTECH

Ready For Tomorrow

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## MRT-GDS200 Series UAVs

*Industrial Flagship, New Level Application*



720° Obstacle Avoidance



IP43 Ingress Protection Level



45min Flight Time



AI Smart Recognition

# MRT-GDS200

Series UAVs

The powerful power system design, more comprehensive industry application load, ultra-long battery life; equipped with the industry's leading octa-core chip, total computing power of 21T, with powerful visual intelligence AI recognition ability, can achieve cloud-edge-end collaborative work; streamlined body design, compact and portable, with powerful performance.

45min

Flight Time

7000m

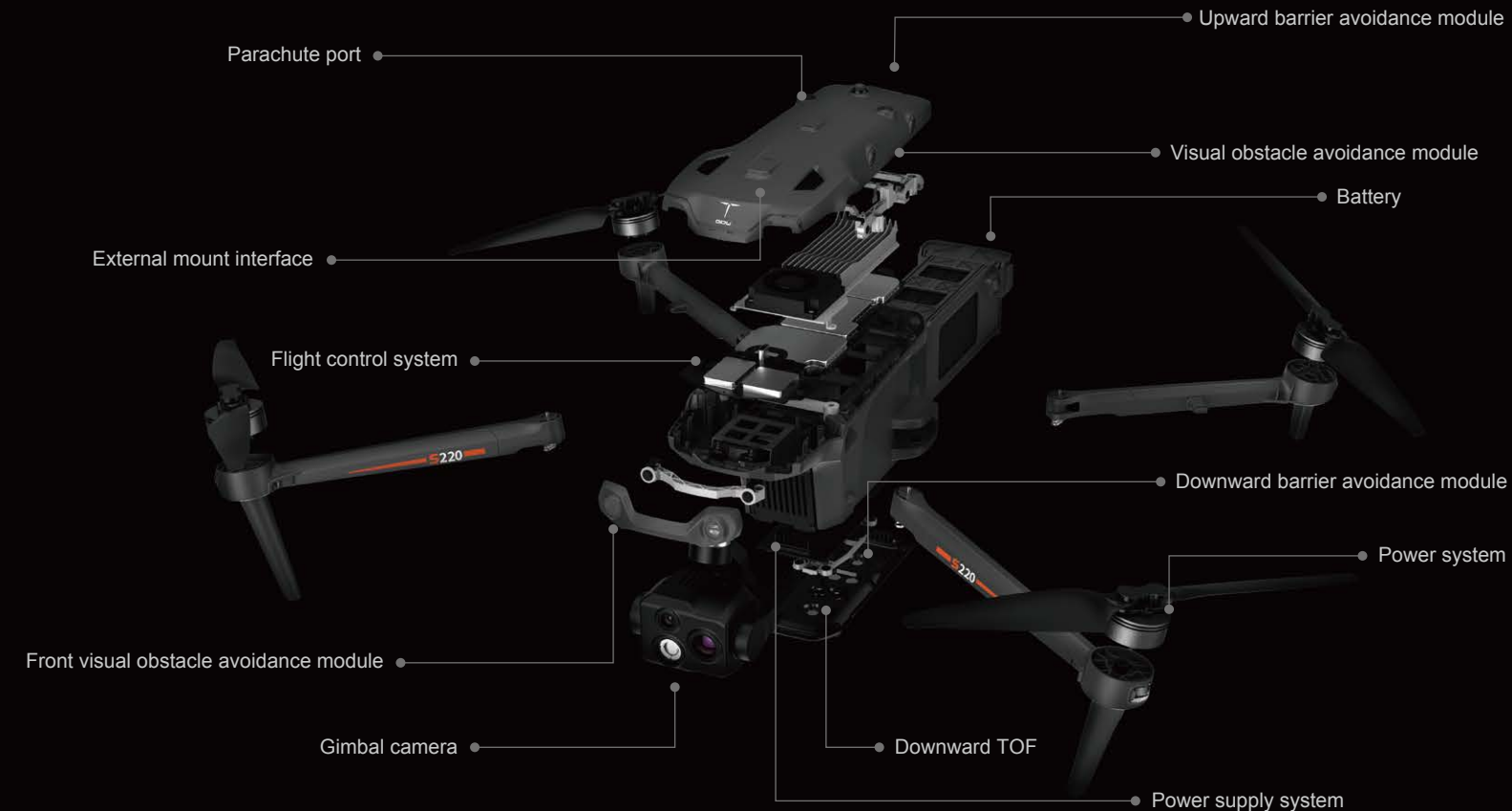
Max Take-off Altitude

15km

Image Transmission Range

486mm

Diagonal Distance



MRTECH

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## Satellite Communication, Connect at Ease

It has the capability of direct satellite communication, which can realize message communication in the area without the coverage of ground communication network, break the limitation of traditional communication methods, solve the emergency communication problem in the scenario without network, and provide a strong communication guarantee for sea navigation, field exploration, disaster rescue and so on.

SOS

Asking for help...

View file

Call off



Highly reliable



Extremely safe



Ultra compatible



| S200 Series UAVs



## 5G Signal, 4K Live Streaming

5G link can achieve ultra-clear live streaming. Across the data link restrictions, it can also ensure that business is not interrupted, the status is visible, and the equipment is controllable in the interference environment, providing a new solution for traffic dredging, security inspection, emergency rescue, traffic logistics and other scenarios.



| S200 Series UAVs



## Visual Aid for Safe Return

It can accurately detect obstacles within the target range, and can automatically return to home when the positioning signal is weakened or lost. Excellent obstacle avoidance capabilities bring a reliable flight experience, and can flexibly cope with complex environments and various operating scenarios.



## Visual Navigation for Indoor Inspection

The UAV is based on indoor autonomous inspection technology and has the ability to fly autonomous routes in indoor scenarios without GNSS signals such as substations and warehouses. It is expected to achieve fully automatic and intelligent unattended inspections with the combination of Docking Station.



S220

## Ultra-HD Trio Camera for an Unobstructed View

*Clear pixels/High zoom/Sensitive perception*

5

MP

Wide Angle Camera

10<sub>x</sub>

Optical Zoom

Telephoto Camera

160<sub>x</sub>

Max Hybrid Zoom

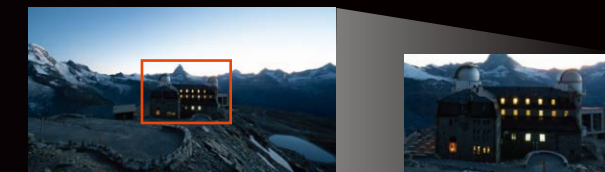
Telephoto Camera

Person recognition range reaches 2KM, vehicle recognition range reaches 6KM, vehicle recognition range reaches 300 meters, PDAF focusing time is less than 60 milliseconds, and the focus is extremely fast and clear during the zoom process. It has a three-axis mechanical gimbal and EIS electronic anti-shake, and the picture is stable and does not drift.



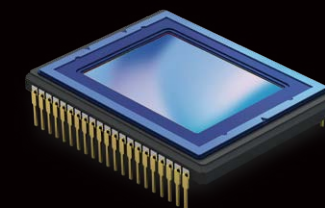
### 250mm Telephoto Camera

Supports 10x optical zoom and 160x max hybrid zoom, enabling clear shooting of targets at different distances, greatly improving work efficiency



Wide angle

160X Zoom



### High Pixel Wide Angle Camera

50MP,

Delicate and clear imaging,

More details can be seen at a glance



### Thermal Camera

32x digital zoom, flagship infrared sensing capability, can quickly lock targets even during night patrols



S220 PRO  
1K Thermal Camera,  
Portable & Powerful

Small size but premium performance, 1280\*1024 HD infrared camera, better image quality and accuracy; it can greatly improve inspection efficiency; equipped with the industry's lightest 1K quad-sensor camera, it can monitor wide-angle, zoom, and infrared images at the same time, and perform point positioning within 1.5km range.

Wide-angle camera

1/0.98-inch COMS  
50MP  
24mm equivalent focal length

Thermal camera

1280\*1024  
14mm focal length lens  
32x digital zoom

Precise Laser Ranging

Range: 10~1500m

Zoom camera

10x optical zoom  
160x max hybrid zoom



50MP  
Wide-angle Camera

48MP  
Zoom Camera

10x  
Optical Zoom

160x  
Max Hybrid Zoom

1280\*1024  
Thermal Resolution



## 100T Edge Computing Power

21T on-board computing power + 100T edge computing power can be customized and flexibly expanded AI scene recognition algorithms; the distributed AI platform supports cloud-edge-device collaboration.

## AI Recognition System

Multi-sensor intelligent linkage can realize real-time automatic target recognition, image following and edge recognition, achieving efficient operation and accurate data collection at the same time.

Auto recognition  
Auto follow

# Multiple Loads, Widely Applicable

It has multiple loads such as dual-sensor, trio-sensor, quadra-sensor cameras, megaphones, searchlights, AI boxes, etc. to meet the complex operation requirements of multi-task scenarios.



# Open Payloads Ecosphere

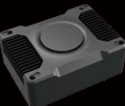
The S200 series supports connection to third-party control platforms and other external devices to achieve integrated control of software and hardware, thereby continuously optimizing collaborative work processes, reducing development costs, and using drones as carriers to obtain more sensory information.



## A-RTK-S200 Module

The RTK module can be combined with network RTK or customized network RTK services to provide high-precision centimeter-level positioning functions.

RTK position accuracy: RTK(fix)  
Horizontal: 1 cm + 1 ppm  
Vertical: 1.5 cm + 1 ppm  
System and frequency support  
GPS: L1C/A L2C/L2P    BDS: B1I B2I  
GLO: G1 G2    GAL: E1 E5b    QZSS: L1 L2



## A-AI01 Airborne AI Box

The AI box is equipped with 100Tops computing power and a built-in algorithm market, and can freely configure AI application algorithms for various scenarios.

Weight: 140g  
AI computing power: 100T computing power  
Protection level: IP55  
Compatible with mainstream AI frameworks: Supports adaptation of industry-leading machine learning frameworks such as Caffe, TensorFlow, PyTorch, PaddlePaddle, etc., provides SDK interface, supports users to update algorithm models



## ABD-200 BD Positioning Module

It can be combined with network RTK or customized network RTK services to provide high-precision centimeter-level positioning functions.

Position accuracy: fix  
Horizontal: 1 cm + 1 ppm  
Vertical: 1.5 cm + 1 ppm  
System and frequency support  
BDS B1I, B2I, B3I, B1C, B2a, B2b



## TTX-01 5G module

The 5G module is an airborne network terminal that is free from the control distance limit of the remote control, real-time air access, network remote control and real-time transmission, and synchronous acquisition and processing of real-time information in the cloud.

5G network: supports SA and NSA  
4G network: supports LTE TDD and FDD  
Transmission rate NR SA: Max 2.5Gbps DL/900Mbps UL  
NR NSA: Max 2.5Gbps DL/500Mbps UL  
LTE: Max 1.5Gbps DL/200Mbps UL  
Video transmission delay ≤300ms transmission rate



## ADB-200 Satellite Message Module

It innovatively combines satellite communication functions to ensure information transmission and reception in areas without signals.

Signal receiving  
Frequency range: 2491.75±8.16 MHz  
Static power consumption: ≤0.7W  
Transmitting power consumption: ≤15W



## THH-220 Megaphone

The megaphone can realize tasks such as real-time audio play, recording and playback, audio file playback, warning lights, etc. in different environments.

Playback sound pressure: 107dB@1m  
Audio format: Supports mp3, wav, flac, acc  
Broadcast distance: 150m  
Code stream: Support audio code stream ≥16Kbps



## AUWB-200 UWB Module

It measures the absolute distance between micro base stations by accurately measuring the propagation time of wireless pulses in space, and calculates the position in real time, achieving 10cm-level positioning accuracy.

Position accuracy  
Horizontal: 10cm + 1 ppm  
Vertical: 15 cm + 1 ppm  
Transmission distance: 100m  
Frequency range: 3GHz~8GHz



## TTZ-220 Searchlight

The searchlight can realize basic functions such as turning on and off lights, flashing lights, warning lights, flashing lights, etc. in different environments. It effectively meets the application scenarios of small drones such as night inspections, direction indication, search and rescue, etc.

Illuminance of lighting center (30W ultra-bright mode)		
50m	75m	100m
20Lux	10Lux	3Lux
Lighting area		
50m	75m	100m
80m²	200m²	380m²



## MRT-GD Flight II

The Flight II is a companion app for S200 series UAVs. It integrates industry application functions and is simple and efficient to operate. You can use the flight planning function to set routes, control drones to operate autonomously, simplify work processes, and improve work efficiency.

## MRT-GD UVER Smart Management Platform

UVER intelligent management and control platform integrates information aggregation, information processing and synchronization functions. When used with the Flight II, data can be uploaded to the cloud, data interoperability can be achieved, and aircraft capabilities can be expanded.



Cloud  
deployment



Date  
synchronization



Open  
registration



One-stop operation  
and maintenance monitoring



## Unmanned Duty, Efficient Flight Inspection

The S200 series drones are integrated with K02 and K03 Auto Docking Station. They have super adaptability for battery replacement/charging, and cloud control is always on standby, effectively empowering the drones to fly autonomously.



Integrated  
design



Cloud  
control



Power  
change/charge



Auto  
flight



Multiple Application, Empower Low-altitude Economy



SPECS



S200	
Diagonal Distance	486mm
Weight	1750g
Max take-off weight	2300g
Max flight time	45min
Max ascent speed	8m/s
Max descent speed	6m/s
Max wind speed	12m/s
Max take-off altitude	7000m
Communication distance	15km (FCC) 8km (CE/SRRC/MIC)
Wide-angle visible light lens	1/1.49inch CMOS, Effective pixel: 50MP
Telephoto visible light lens	1/2inch CMOS, Effective pixel: 48MP, Optical zoom: 10X, Max hybrid zoom: 160X
IP Level	IP43
Hovering accuracy (RTK)	Vertical: 1.5 cm + 1ppm Horizontal: 1 cm + 1ppm



S220	
Diagonal Distance	486mm
Weight	1750g
Max take-off weight	2300g
Max flight time	45min
Max ascent speed	8m/s
Max descent speed	6m/s
Max wind speed	12m/s
Max take-off altitude	7000m
Communication distance	15km (FCC) 8km (CE/SRRC/MIC)
Wide-angle visible light lens	1/1.49inch CMOS, Effective pixel: 50MP
Telephoto visible light lens	1/2inch CMOS, Effective pixel: 48MP Optical zoom: 10X, Max hybrid zoom: 160X
Thermal lens	640×512@30fps
IP Level	IP43
Hovering accuracy (RTK)	Vertical: 1.5 cm + 1ppm Horizontal: 1 cm + 1ppm



S220 PRO	
Diagonal Distance	486mm
Weight	1860g
Max take-off weight	2300g
Max flight time	41min
Max ascent speed	8m/s
Max descent speed	6m/s
Max wind speed	12m/s
Max take-off altitude	7000m
Communication distance	15km (FCC) 8km (CE/SRRC/MIC)
Camera	Wide, tele, thermal camera&laser ranging camera
Wide-angle visible light lens	1/0.98inch CMOS, Effective pixel: 50MP
Telephoto visible light lens	1/2inch CMOS, Effective pixel: 48MP Optical zoom: 10X, Max hybrid zoom: 160X
Thermal lens	1280×1024@30fps
Laser ranging	10-1500m
IP Level	IP43
Hovering accuracy (RTK)	Vertical: 1.5 cm + 1ppm Horizontal: 1 cm + 1ppm