

# About Us

## TEAM

*Quality, customer service, and innovation define HY Tech - a leader in UAS technology since 2013.*

*We provide expert consulting and integrated solutions, and with our MIT-branded drones, we excel in design, testing, manufacturing, and maintenance throughout the entire UAS lifecycle. In 2024, we achieved ISO9001 and ISO27001 international certifications, ensuring the highest standards of product quality and information security*

*Our business includes UAS application services, system integration, and component development, focusing on specialized small drones for various applications like aerial photography, surveying, inspection and logistics. We were the first to introduce Taiwan's smart drone battery and portable ground control station, pioneering advancements in the field.*

*HY Tech continues to innovate in both military and commercial drone sectors, enhance our supply chain, set up assembly lines, and expand our service range to meet the growing demands of the drone industry.*

## PROFILE



### QUALITY

ISO 9001  
ISO 27001  
ERP System



### CERTIFICATION

CAA TC : 11  
Mid-Level Cyber Security : 9  
MAS : SkyGroundControl



### DRONE SERVICES

Integrated Solutions  
Aerial Photography  
Infrastructure Ins



### DRONE COMPONENTS

Smart Battery : **SkyPower**  
Integrated Controllers : **SkyLink 3**  
Micro Gimbal Camera : **SkyCam**

### MIDIUM DRONE



Rescue : **SkyPro 2**  
Logistics : **SkyGiant 2**  
Long-Range : **SkyVTOL 2**

### SMALL DRONE



Surveillance : **SkyMini**  
Inspection : **SkyMini A+**  
Photogrammetry : **SkyStar 3**



### Integrated Solutions

MIT Drone with integration of design production, and services

### UAV Subsystem

Customized smart batteries, protabal controllers, gimbal-cameras, different funtion modules

### UAV Photogrammetry

Ground resolution  $\leq$  2cm  
Over 10,000 ha achievements

### Inspection & Monitoring

Equiepped with multispectral camera  
Supported by UWB technology

# System Integration and Component R&D



## SKYGIANT 2

Heavy-Lift Multirotor UAV

Multi-mission Payloads 10 kg Max Flight Time 50 min



ISR AI UAV

IP55 Water & Dust Test (TAF)  
Multi-mission Payloads 500 g

## SKYMINI A+

Range 20 km  
MTOW 4 kg



## SKYMINI

Lightweight Miniature UAV

MTOW 2 kg Max Flight Time 30 min  
Max Flight Distance 15 km  
Wind Speed Resistance Level 7

## SKYSTAR 3 Efficient Surveying UAV



Wind Speed Resistance Level 7  
Max Flight Time 30 min  
GNSS/RTK/PPK  
High Positioning Accuracy



## Long-Range eVTOL SKYVTOL 2

Multi-mission Payloads 5 kg  
Max Flight Time 180 min  
Range 200 km  
MTOW 24.9 kg

## SKYVTOL 2SE Compact Long-Range eVTOL

Multi-mission Payloads 2 kg  
Max Flight Time 160 min  
Range 200 km  
MTOW 14 kg



## Smart Aerial Solution SKYPRO 2

Wind Speed Resistance Level 7  
Max Flight Time 50 min  
Range 23 km  
MTOW 14 kg

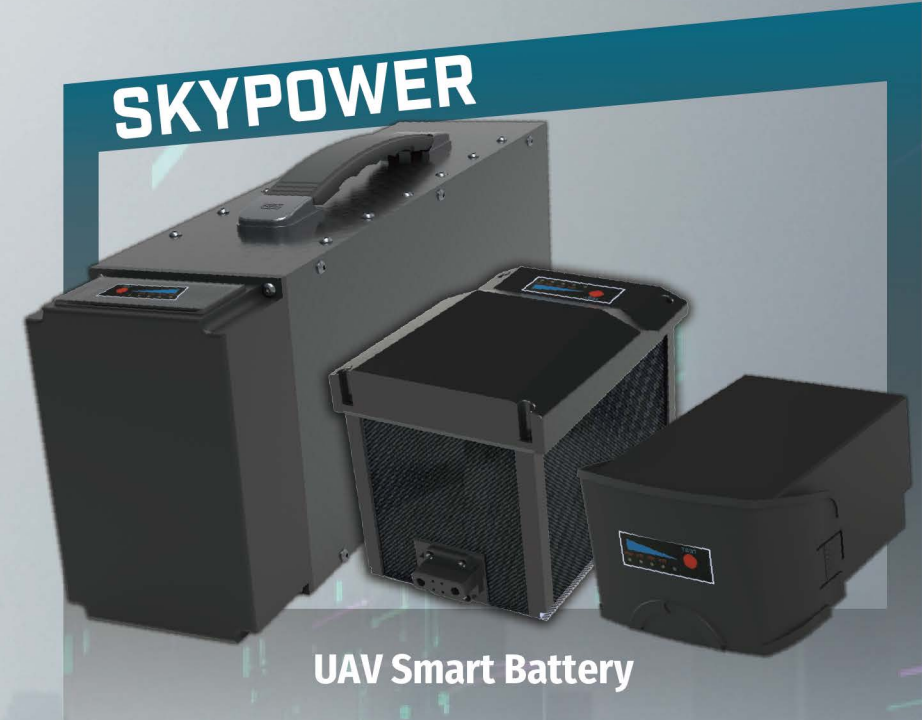


# System Integration and Component R&D



CM-D5824Q  
Communication Module

SkyAI RB5 V2  
UAV AI Edge-Computer



UWB-Hybrid  
Drone UWB -  
Positioning & Communication

MM-A1  
IP to HDMI Decoder

**SKYLINK**  
UAV Portable Ground Control Station



**SKYLINK 3A**  
Android





## Lightweight Miniature UAV

# SKYMINI

**Level 7** (13.9-17.1 m/s) Wind Speed Resistance  
**Cybersecurity** TTC Intermediate Level  
**MTOW < 2kg** Lightweight Functional UAV

## Agility & Insight

## Accreditation

Type Certificate : CAA / Cybersecurity : TTC Intermediate Level / Wireless Communication : NCC

SMART INSPECTION | REMOTE MONITORING | PUBLIC SAFETY | SEARCH AND RESCUE

### Protection

Wind resistance up to level 7, and IP55 protection are adaptable to various environments.

### Portable

Foldable propellers and tool-free deployable arms, paired with an integrated hard-shell carrying case, allow for grab-and-go convenience—making field operations more efficient.

### Smart

Exclusively developed smart battery with protection against overheating and short circuits. Fast charging to over 90% capacity in just 50 minutes.

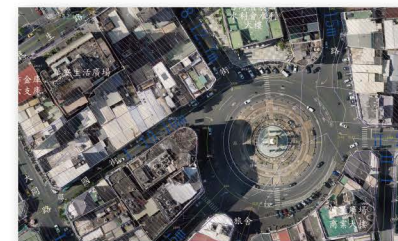
### Safety

Provides with one-click return, low battery auto-return, and signal loss return functions, enhancing operational efficiency and safety.

### Autonomous

Equipped with ground station APP that supports automatic route planning and features AI recognition for effortless mission completion.

## APPLICATIONS



Surveying



Search and Rescue



Environmental Monitoring

## SPECIFICATION

<b>Model</b>	SkyMini	<b>Wheelbase</b>	580mm
<b>Configuration</b>	4 axles 4 propellers	<b>Remote Control Range</b>	7km
<b>Payload Option</b>	EO/IR	<b>Folded</b>	340 x 220 x 173mm
<b>Smart Battery</b>	10000mAh	<b>Unfolded</b>	445 x 440 x 150mm
<b>MTOW</b>	1.99kg (CAA I2 \ Ia2)	<b>Max Ascent Speed</b>	6m/s
<b>Hovering Time</b>	35 min (No Payload)/32min(EO Payload)	<b>Max Descent Speed</b>	3m/s
<b>Flight Speed</b>	22m/s (72km/hr)	<b>Max Flight Distance</b>	15km
<b>Ceiling Altitude</b>	5000m(Simulated data)/3000m (FieldTest data)		
<b>Anti-wind</b>	Beaufort Wind Scale 7 (13.9-17.1m/s)		

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ISR AI UAV

# SKYMINI A+

**Cybersecurity** TTC Intermediate Level

**500g Capacity** High Payload

**IP55** Water & Dust Test (TAF)

**Instant Reaction,  
Maximum Safety**

# SKYMINI A+

## Accreditation

Type Certificate : CAA / Cybersecurity : TTC Intermediate Level / Wireless Communication : NCC

Mountain Search & Rescue | Post-Disaster Inspection | Water Rescue Operations | Industrial Site Patrol

### Multi-Mission

Compact design with high payload capacity supports advanced sensors like tri-spectral cameras and LiDAR.

### AI Control

Integrates with onboard AI computers for real-time processing, smart control, and scalable performance.

### Protection

Wind resistance up to level 6, and IP55 protection are adaptable to various environments.

### Smart

Exclusively developed smart battery with protection against overheating and short circuits. Fast charging to over 90% capacity in just 50 minutes.

### Portable

Foldable propellers and tool-free deployable arms, paired with an integrated hard-shell carrying case, allow for grab-and-go convenience-making field operations more efficient.

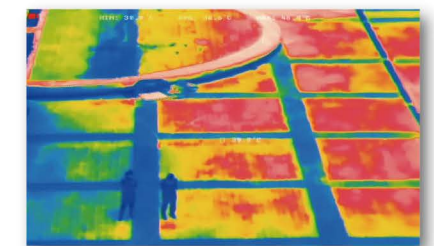
## APPLICATIONS



Traffic Monitoring



Search and Rescue



Environmental Monitoring

## SPECIFICATION

Model	SkyMini A+	Wheelbase	580mm
Configuration	4 axles 4 propellers	Remote Control Range	7km
Payload Option	EO/IR	Folded	375 x 220 x 180mm
Smart Battery	15000mAh	Unfolded	700 x 650 x 200mm
MTOW	4kg (CAA Ia)	Max Ascent Speed	6m/s
Hovering Time	45 min (No Payload)/30min(500g Payload)	Max Descent Speed	3m/s
Flight Speed	20m/s (72km/hr)	Max Flight Distance	20km
Ceiling Altitude	5000m(Simulated data)/3000m((FieldTest data)		
Anti-wind	Beaufort Wind Scale 6 (10.8-13.8m/s)		

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# SKYSTAR 3

## Accreditation

Type Certificate : CAA / Cybersecurity : TTC Intermediate Level / Wireless Communication : NCC

SMART INSPECTION | MONITORING | SURVEYING | UBRAN PLANNING

### Autonomous

Equipped with ground station APP that supports automatic route planning and features AI recognition for effortless mission completion.

### Safety

Provides with one-click return, low battery auto-return, and signal loss return functions, enhancing operational efficiency and safety.

### Positioning

High-precision navigation and data collection, RTK enhances accuracy and efficiency for applications.

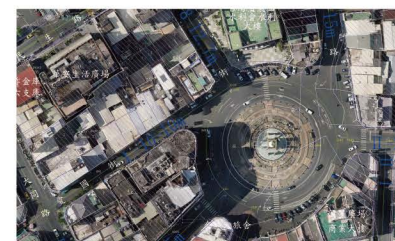
### Protection

Wind resistance up to level 7 and six-direction obstacle avoidance make it adaptable to various environments.

### Smart

Exclusively developed smart battery with protection against overheating and short circuits. Fast charging to over 90% capacity in just 50 minutes.

## APPLICATIONS



Cadastral Survey



Earthwork Calculation



3D Modeling

## SPECIFICATION

Model	SkyStar 3
Configuration	4 axes 4 propellers
Payload Option	Three-axis gimbal camera / Oblique photography camera Multispectral camera
Smart Battery	6S4P 20000mAh
MTOW	8kg (CAA I - la)
Hovering Time	40 min (No Payload) / 30 min (1 kg Payload)
Flight Speed	20m/s (72km/hr)
Ceiling Altitude	5000m(Simulated data)/3000m (FieldTest data)
Anti-wind	Beaufort Wind Scale 7 (13.9-17.1 m/s)

Wheelbase	680mm
Payload	2kg
Remote Control Range	5km
Folded	485 x 380 x 437mm
Unfolded	945 x 945 x 437mm
Max Ascent Speed	5m/s
Max Descent Speed	3m/s
Max Flight Distance	20km

GNSS/RTK/PPK

High Positioning Accuracy

TTC

Cybersecurity Accreditation

>30 min

Max Flight Time

The Low-altitude Economy  
Surveying & Reconstructing 3D World from Sky



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INNOVATION . INTEGRATION . PASSION

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**Smart Aerial Solution**

# SKYPRO 2

**TTC** Cybersecurity Accreditation

**Level 7** (13.9-17.1 m/s) Wind Speed Resistance

**50 MIN** Max Flight Time

**FLY EVERYWHERE**

**MASTER ANYTHING**

# SKYPRO 2

## Accreditation

Type Certificate : CAA / Cybersecurity : TTC Intermediate Level / Wireless Communication : NCC

**RESCUE | MONITORING | SURVEYING | ENVIRONMENT**

### Safety First

Dual-battery, six-axis redundancy ensures safe return even if one power source fails. Military-grade tested for reliable takeoff and landing.

### Mission-Ready

Supports EO/IR, and LiDAR sensors with a modular design for quick-swap capabilities—built for versatility.

### Extended Flight

Up to 50 minutes of airtime with quick-swap batteries to reduce downtime and expand mission range.

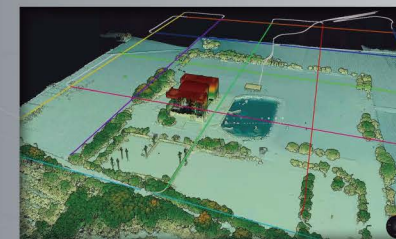
### Dual RTK

Millimeter positioning with dual RTK, ensuring accurate navigation even near buildings or interference zones.

### Ultra Stable

High-torque system with wind-resistance algorithms enables stable hover in Level 7 winds—mountains and coasts, handled with ease.

## APPLICATIONS



LiDar Point Cloud



Maritime Rescue



Oblique Photography

## SPECIFICATION

<b>Model</b>	SkyPro 2	<b>Wheelbase</b>	990 mm
<b>Configuration</b>	6 axles 6 propellers	<b>Payload</b>	5 kg
<b>Payload Option</b>	Full-side Camera / LiDAR / oblique cameras	<b>Remote Control Range</b>	5 km
<b>Smart Battery</b>	20,000mAh, dual batteries	<b>Folded</b>	520 x 500x 466 mm
<b>MTOW</b>	14 kg	<b>Unfolded</b>	1250 x 1450 x 466 mm
<b>Hovering Time</b>	50 min (No Payload) / 30 min (2 kg Payload)	<b>Max Ascent Speed</b>	5 m/s
<b>Flight Speed</b>	20 m/s (72 km/hr)	<b>Max Descent Speed</b>	3 m/s
<b>Ceiling Altitude</b>	5000m(Simulated data)3000m(FieldTest data)	<b>Max Flight Distance</b>	23 km
<b>Anti-wind</b>	Beaufort Wind Scale 7 (13.9-17.1 m/s)		

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# SKYVTOL 2SE



Compact Long-Range eVTOL

# SKYVTOL 2SE

**>160min** Max Flight Time  
**>150km** Range  
**>2kg** Multi-mission Payloads

*Intelligent Mapping,  
Visionary Exploration*

## Accreditation

Type Certificate : CAA / Cybersecurity : TTC Intermediate Level / Wireless Communication : NCC

Geospatial Mapping | Smart Agriculture & Forestry | Disaster Prevention & Inspection | Water Resource Survey

### Compact & Deployable

Lightweight, quick-release design fits easily into a small case. Single-operator ready for fast, mobile deployment.

### Extended Flight Mission

Up to 160 minutes of airtime and 150 km range—ideal for long-range surveillance, patrol, and search-and-rescue missions.

### Stable in Strong Winds

Engineered to withstand Level 7 winds for reliable, all-weather performance, keeping missions on track in tough conditions.

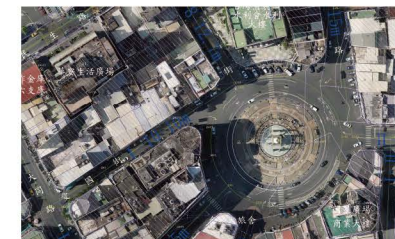
### Versatile Payload Options

Supports a wide range of high-end sensors, including full-frame cameras, airborne LiDAR, and dual-axis tri-spectral cameras—built for multi-mission versatility.

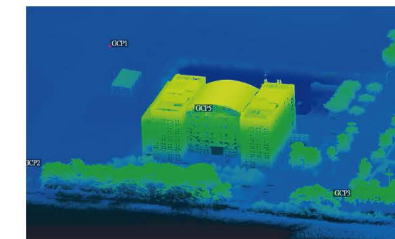
### Long-Range Control

Standard 10 km control range with auto return-to-home and fail-safe flight systems, ensuring safe, stable operations at a distance.

## APPLICATIONS



Surveying



Research Study



Disaster Inspection

## SPECIFICATION

Max. Flight Time	160 min	Length	1400 mm
Max. Flight Distance	150 km	Width	2500mm(wingspan)
Battery	12S 15000 mAh*2	Height	425 mm
Power System	Electric power system(4+1) Push-back motor	Flight Speed	120km/hr
MTOW	14 Kg	Cruising speed	80km/hr
Weight(w/o payload)	7 Kg	Ceiling Altitude	4000m
Payload Weight	2 Kg	Anti-wind	Beaufort Wind Scale 6 (10.8~13.8m/s)
Operational Range	Remote control> 10km(Standard)/60km(Option)		
Payload Option	<div style="display: flex; justify-content: space-between;"> <div style="border: 1px solid gray; padding: 2px;">Surveying Full-frame Camera, Oblique Camera, LiDAR</div> <div style="border: 1px solid gray; padding: 2px;">Inspection Tri-sensor Cameras</div> </div>		

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Long-Range eVTOL  
**SKYVTOL 2**

**Cybersecurity** TTC Intermediate Level

**>180min** Max Flight Time

**>200km** Range

**>5kg** Multi-mission Payloads

**Distance Master, Load Carrier.**

# SKYVTOL 2

## Accreditation

Type Certificate : CAA / Cybersecurity : TTC Intermediate Level / Wireless Communication : NCC

Logistics | Security | Border Patrol | Urban Planning

**Multi Mission Always Connected Precision Payloads Extended Endurance Anywhere Anytime**

Modular payloads support enables one platform for recon, mapping, logistics, and inspection.

Stay connected without the internet -- ideal for remote operations and critical missions.

Equipped with full-frame, LiDAR, or tri-sensor cameras for mapping and detection of both scientific research or tactical missions.

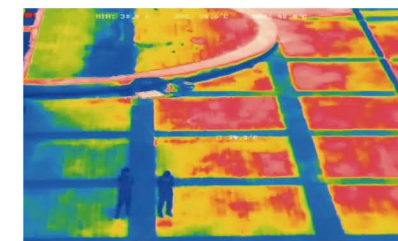
Up to 180 minutes of flight and 200 km range for long-haul patrol, survey, and transportation.

High anti-wind and long-range control for stable performance in tough environment conditions.

## APPLICATIONS



Logistics



Inspection



Communication

## SPECIFICATION

Max. Flight Time	180 min	Length	1900 mm
Max. Flight Distance	200 Km	Width	3500 mm
Battery	12S 25000mAh*2	Height	660 mm
Power System	Electric power system(4+1) Push-back motor	Flight Speed	120km/hr
MTOW	24.9 Kg	Cruising speed	80km/hr
Weight(w/o payload)	14 Kg	Ceiling Altitude	4000m
Payload Weight	5 Kg	Anti-wind	Beaufort Wind Scale 6
Operational Range	Remote control> 60 km, 4G/ 5G transmission, satellite transmission		
Payloads(Optional)	Logistics Airdrop System	Inspection Tri-sensor Cameras	Surveying Full-frame Camera, Oblique Camera, LiDAR
			Communication Repeater



# Rugged. Responsive. Ready for the mission.

- 16 Control channels
- Full HD (1080P) Low-Latency Video Feed
- SynLink: Real-Time Control & HD Visuals



Windows / Android

# SKYLINK 3

## UAV Portable Ground Control Station

SkyLink 3 GCS delivers precise 16-channel control and real-time 1080P visuals in a single secure link—with just 100ms latency. Built for the field, it runs on Windows or Android, features a sunlight-readable 6.6" HD+ touchscreen, and weighs just 1.2kg. With 8-hour battery life, dual-band 7km range, and both wired and wireless output, SkyLink 3 is built for mission-critical performance—anytime, anywhere.

## SkyLink 3A



Size (L*W*H)	185*240*80 mm
Weight	1.214 kg
Operation System	Android
Screen Specs	6.6 inches, 1080x2340 (Full HD+), Touchscreen
Screen Brightness	1000 nit
Power Consumption	20 W (Connected to the Air side)
Duration	8 hrs
Battery Capacity	3500 mAh
Charging mode	Dedicated charging device (DC5.5*2.1mm Connector, 25.2V 2A)
Frequency	2.4 GHz/5.8 GHz
Max. Distance	7 km
Resolution	1080 P@30fps
Latency	100 ms
Video Output	WiFi/HDMI
Operating Temperature	-10~55°C

## SkyLink 3W



Size (L*W*H)	335mm*208mm*80mm
Weight	3.042 kg
Operation System	Windows
Screen Specs	10.1" 1920*1200 IPS touch Screen
Screen Brightness	1000 nit
Power Consumption	40 W
Duration	8 hrs
Battery Capacity	7000 mAh
Charging mode	Dedicated charging device (DC5.5*2.1mm Connector, 25.2V 2A)
Frequency	2.4 GHz/5.8 GHz
Max. Distance	7 km
Resolution	1080 P@30fps
Latency	100 ms
Video Output	WiFi
Operating Temperature	-10~55°C ☒



Whether it's intelligent transportation, industrial applications, or unmanned systems, our cutting-edge modules empower you to master the future!



### AI Onboard Computer

Harness the power of heterogeneous computing with up to 15 TOPS of AI performance. Make lightning-fast decisions and push past the limits of what's possible.



### Advanced Communication Module

Stay connected anywhere with long-range wireless transmission, frequency-hopping technology, and multi-interface support. Connectivity without compromise.



### High-Performance Imaging Module

Experience ultra-low latency HD streaming, real-time HDMI output, and compact design optimized for high-efficiency visual processing.

## Smart Connectivity. Visionary Imaging. AI-Powered Possibilities.

Your UAV system demands more-faster performance, greater agility, and smarter solutions.

# UAV AI EDGE-COMPUTER

## SkyAI RB5 V2

- Multiple Heterogeneous Computing Units
- Various I/O Interfaces
- High-Performance AI Processors
- Wireless Communication Interfaces

Core Spec.	
Processor	8-Core Kryo 585 (1x 2.84 GHz·3x 2.42 GHz·4x 1.8 GHz)
GPU	Adreno 650 with support for OpenGL ES 3.2·Vulkan 1.1·OpenCL 2.0·DirectX 12 FL 12_1
DSP	Hexagon 698 with built-in HVX, Hexagon Tensor Accelerator (HTA), Scalar Accelerator
AI Performance	5th generation Qualcomm AI engine with up to 15 TOPS of AI computing power
Image and Visual Processing	
ISP	Qualcomm Spectra 480 with 2 billion pixels per second processing support
Camera Support	Supports up to 7 simultaneous lenses, up to 200 MP single-lens resolution
Video Codecs	8K@30fps, 4K@120fps recording Supports H.265, H.264, VP8, VP9 and other formats
EVA engine	Hardware acceleration module designed for computer vision tasks
AI and Machine Learning	
AI engine	5th Generation Qualcomm AI Engine with Hexagon Tensor Accelerator for High Performance AI Inference
Application Scenarios	Suitable for real-time localization and map construction (SLAM), object detection and classification, autonomous navigation and path planning, etc.
Connectivity and Scalability	
Wireless connection	Wi-Fi 6 (802.11ax) Bluetooth 5.1 4G / 5G connection module support (via M.2 B-Key interface)
I/O Expansion	PCIe Gen3: 2x PCIe x2, 1x PCIe x1 USB: 2x USB 3.1 Gen2, 1x USB 2.0 MIPI-CSI: up to 6 4-lane interfaces MIPI-DSI, HDMI, DisplayPort (via USB-C) I2C, SPI, UART, PWM, GPIO, etc.
Memory & Storage	
Memory	8GB LPDDR5 (PoP design)
Storage	128GB UFS 3.1 with high-speed data access support☑
Operating System and Development Support	
Operating Systems	Ubuntu 20.04 (Linux Kernel 5.4.2) Robot Operating System (ROS / ROS 2)
developmental software	Supports OpenCV, OpenCL, OpenGL and other frameworks Compatible with PX4 Flight Control☑
Industrial-Grade Design	
Operating Temperature Range	-20°C to 60°C
Storage Temperature Range	-40°C to 85°C
sizes	45mm x 45mm, Ideal for embedded applications☑



# IP TO HDMI DECODER

## HY Tech MM-A1

MM-A1 – Real-Time Streaming. Tactical-Grade Compactness.

Built for live missions, StreamCore™ delivers sub-100ms low-latency video in a 65×30 mm form factor. It supports multi-source input, multi-protocol output, and 1080p HDMI, with intuitive web setup-no software needed. Perfect for UAVs, robotics, and embedded systems where size, speed, and reliability matter most.

### Multi-Source Input Support

Compatible with RTSP, RTMP, UDP, and HTTP for flexible video stream ingestion. ☒

### Ultra-Low Latency (<100ms)

End-to-end video delay under 100ms -- ideal for live, time-sensitive applications.

### Multi-Protocol Output

Streams over HTTP-FLV, WS-FLV, RTMP, HLS, HTTP-TS, and RTSP -- switchable and mission-adaptable.

### Intuitive Web-Based UI

Built-in web interface allows quick configuration with no extra software.

### 1080p HDMI Output

Mini HDMI delivers real-time Full HD video with crystal clarity.

### Compact Integration Size

Only 65 × 30 mm -- perfect for space-constrained systems and embedded platforms.

#### SPECIFICATION

Video Source Protocol	RTSP, RTMP, UDP, HTTP
Streaming Protocol	HTTP-FLV, WS-FLV, RTMP, HLS (requires activation), HTTP-TS, RTSP
HDMI Output	mini HDMI up to 1080p
Video Delay	< 100ms (depending on network quality)
Encoding Format	H.264 / H.265 (depending on source)
Power Input	DC 12V (GH1.25 4Pin)
Network Interface	Ethernet (GH1.25 4Pin)
HDMI	mini HDMI
Dimension	65 × 30 mm
Operation Mode	Web UI
Operating Temperature	-10°C ~ 60°C (recommended operating range)
Interface Diagram	▪ GH1.25-4P: Power input (DC 12V) ◀ GH1.25-4P: Ethernet ▶ mini HDMI: Video output

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# COMMUNICATION MODULE

## HY Tech CM-D5824Q

CM-D5824Q is a compact, high-integration wireless core designed for unmanned systems. Offering long-range, high-bandwidth transmission with smart frequency hopping and multi-interface support, it's made for demanding missions where signal reliability is non-negotiable.

### 10km Wireless Range with Wi-Fi 6

Dual-band 2.4/5GHz transmission with intelligent frequency hopping for maximum stability in the field.

### Wide-Range Voltage, Field-Stable Power

Accepts 7–17V DC with built-in voltage regulation for harsh or variable power environments.

### Mission-Ready Hotspot Mode

GCS-enabled AP mode for instant on-site device pairing and data exchange.

### Ultra-Compact for Tight Spaces

Streamlined 72×60mm footprint for easy integration into size-restricted platforms.

### Flexible Multi-Port I/O

Equipped with 2 Ethernet, 1 USB, and 2 TTL UART ports, plus USB-LAN switching for seamless integration.

### Standardized Connectors

Uses GH1.25 headers throughout for simplified wiring and reliable field setup.

#### SPECIFICATION

Wi-Fi Standard	IEEE 802.11 a/b/g/n/ac/ax (Wi-Fi 6), 4T4R MIMO
Band Support	2.4GHz: 2412 ~ 2462 MHz 5GHz: 5180 ~ 5240 MHz, 5745 ~ 5825 MHz
Max. Distance	Over 10 km (depending on environmental conditions)
Ethernet	2 Ethernet
USB Interface	1 USB
UART	2 3.3V TTL UARTs
Power Input	DC 7-17V wide range voltage
Size	72mm × 60mm
Interface Type	GH1.25 Series Connectors
Operating Temperature	-20°C ~ +70°C



- MIT high capacity power cell
- Battery management system
- 500 times charge-discharge cycles test
- Easy maintenance with self-discharge



# SKYPOWER

## UAV Smart Battery

# SKYPOWER

## Customized Smart Energy Pack

- IEC 62133-2 Certified cells
- Auto-Equilibrium
- Short Protection
- Health Monitoring

### Type of Power Cell

Rechargeable Cell	P50B(21700)	P45B(21700)
Typical/Minimum Capacity	5000mAh/4850mAh	4500mAh/4300mAh
Nominal/Charge/Discharge Voltage	3.6V/4.2V/2.5V	3.6V/4.2V/2.5V
Discharge Current(Continuous)	50A	45A
Charge Current(Standard/Maximum)	5A/15A	4.5A/13.5A
Temperature(Charge/Discharge)	0°C to 60°C -40°C to 60°C	0°C to 60°C -40°C to 60°C
Retention -3C/+1C (500 times)	80%	82%

### Delivery Power Battery Packs

Model	B4S-M100S	B6S-M200S	B6S-M300S	B14S-M270S
Drone Model	HYTech SkyMini	ST-230E, SkyPro 2	GCS	ST-230E, SkyGiant 2
Capacity	4S 10000mAh	6S 20000mAh	6S 30000mAh	14S 27000mAh
Nominal/Charge/Discharge Voltage	14.4V/16.8V/11.2V	21.6V/25.2V/16.8V	21.6V/24V/16.8V	50.4V/58.8V/39.2V
Discharge Current (Stand / Continuous / Instant (<10sec))	30A/50A/70A	60A/100A/140A	90A/150A/210A	80A/135A/190A
Charge Current (Standard/Maximum)	5A/15A	10A/30A	15A/45A	14A/40A
Temperature (Charge/Discharge)	0°C to 60°C -40°C to 60°C	0°C to 60°C -40°C to 60°C	0°C to 60°C -40°C to 60°C	0°C to 60°C -40°C to 60°C
BMS Function	Over charge Over Discharge Balancing	Over charge Over Discharge Balancing	Over charge Over Discharge Balancing	Over charge Over Discharge Balancing



Seamless indoor-outdoor Navigation with centimeter-level accuracy and mission-critical data reliability



# UWB-HYBRID

Drone UWB - Positioning & Communication

# UWB-HYBRID

Drone UWB - Positioning & Communication

- Universal Navigation Continuity
- Multi-Sensor Fusion
- Concurrent Positioning & Communication
- Industrial-Grade Interference Immunity

## Application Scenarios

Autonomous Warehouse Inspection	Infrastructure Surveying	UAV Swarm Formations	Tactical Indoor Patrols
Precision navigation through narrow aisles and high-density racking.	Stable flight in GNSS-shadowed areas such as bridges, tunnels, and dam faces.	Real-time inter-node distance sensing and high-speed synchronization.	BVLOS (Beyond Visual Line of Sight) control and positioning in complex indoor structures.

## Hardware Specifications

Component	Core Sensors & Hardware	Primary Functions
Tag Module (Airborne)	<ol style="list-style-type: none"> <li>1. UWB Transceiver</li> <li>2. Independent 6-Axis IMU</li> <li>3. Multi-GNSS Module</li> </ol>	<ul style="list-style-type: none"> <li>- Indoor/Outdoor fused positioning</li> <li>- Redundant attitude estimation</li> <li>- High-frequency telemetry backhaul</li> </ul>
Anchor Module (Ground)	<ol style="list-style-type: none"> <li>1. High-Gain UWB Antenna</li> <li>2. Industrial Processing Unit</li> </ol>	<ul style="list-style-type: none"> <li>- Static spatial reference points</li> <li>- Multi-node clock synchronization</li> <li>- Data relay &amp; GCS communication</li> </ul>

## Technical Performance (KPIs)

Positioning Accuracy	(Outdoor)Static 1-3 cm; Dynamic < 10cm. (Indoor)Horizontal 10cm; Vertical 30cm
Operating Band	6.5 GHz (UWB Channels 5).
Update Rate	Up to 100 Hz positioning frequency
Throughput	Up to 6.8 Mbps data rate
SWaP Optimized	Ultra-lightweight design (approx. 25g for Tag) with low power consumption for extended flight endurance.



In a world defined by speed and precision, your advantage lies in every pixel, every scan, every second.

Our next-generation payload solutions deliver elite imaging and sensing power across aerial mapping, industrial inspection, security, and beyond.



Precision Payloads. Tactical Vision.  
Infinite Possibilities.

See beyond. Act faster. Own the future.

## 2-returns Photogrammetry LiDAR(with Camera)

- Vertical accuracy  $\pm 3\text{cm}$  (@50m, for altitude 50-80m)
- Flight time (with HYTech SkyPro 2) up to 33 minutes
- LiDAR support range 0.5-120m, accuracy  $\pm 1\text{cm}$ , 32 channels, dual echoes

- Point cloud output: up to 1280k echoes/second (dual echo)
- GPS-Aided INS: Position accuracy 1cm + 1ppm (RTK), velocity accuracy  $< 0.03\text{ m/s}$
- Supports four major global satellite systems, IMU update rate up to 2000Hz



**STONEX XFLY 120 LiDAR**

Size	20.8 × 14.2 × 17cm
Weight	1.7 kg (with camera)/1.3 kg (without camera)
Lens Recording Resolution	24 Megapixel Sony APSC camera with trigger support every 2 seconds
Photo Format	JPEG/RAW
Focal length	16mm, viewing angle 70° (Sony E-Mount)
Scanning Angle	Vertical Scanning Angle: -16° to +15° (Total Vertical Viewing Angle 31°)
FOV (Horizontal)	LiDAR for 360° horizontal field of view
Sensor Type	Hesai XT-32 (LiDAR) + GPS/GLONASS/BEIDOU/GALILEO satellite navigation combined with INS/IMU module
SD Card Speed Requirement	No SD card, 256GB USB storage built-in

## 3-returns Photogrammetry LiDAR(with Camera)

- Vertical accuracy  $\pm 3\text{cm}$  (@50m, for altitude 50-120m)
- Flight time (with HYTech SkyPro 2) up to 35 minutes
- LiDAR support range 0.5-300m, accuracy  $\pm 1\text{cm}$ , 32 channels, 3 echoes

- Point cloud output: up to 1920k echoes/second (triple echo)
- GPS-Aided INS: Position accuracy 1cm + 1ppm (RTK), velocity accuracy  $< 0.03\text{ m/s}$
- Supports the four major global satellite systems, IMU update rate up to 2000Hz.C74



**STONEX XFLY 300 LiDAR**

Size	20.8 × 14.8 × 15.2cm
Weight	1.23 kg (with camera)/0.87 kg (without camera)
Lens Recording Resolution	24 Megapixel Sony APSC camera with trigger support every 2 seconds
Photo Format	JPEG/RAW
Focal length	16mm, viewing angle 70° (Sony E-Mount)
Scanning Angle	Vertical Scanning Angle: -20.8° to +19.5° (Total Vertical Viewing Angle 40.3°)
FOV (Horizontal)	360° horizontal field of view
Sensor Type	Hesai XT-32 (LiDAR) + GPS/GLONASS/BEIDOU/GALILEO satellite navigation combined with INS/IMU module
SD Card Speed Requirement	No SD card, 256GB USB storage built-in



# 1" Gimbal Camera SkyCam S2000

Take full control with manual settings like shutter speed and ISO—tailored for your mission's unique conditions. Built-in geotagging embeds exact location data for precise mapping. Encrypted photo storage ensures your sensitive data stays secure—perfect for critical and confidential operations. Capture tilt-adjusted images, full-color photos, and HD video—all while in flight.



Size	72 x 96 x 106 mm
Weight	210 g
Lens Recording Resolution	20Megapixel 4K, 60fps Recording
Photo Format	MP4, JPG
Focal length	8mm/8x digital zoom
Head Angle	Tilt: -90°+20°, Yaw: ±45°, Roll: ±180 °
Maximum Head Speed	180 °/s
Operating Temperature	-20°C to +50 °C
Sensor Type	CMOS 1-inch
Supported SD Card Capacity	256 GB
SD Card Speed Requirement	Recommended for U3 level or above

# EO/IR Gimbal Camera SkyCam FH640R

Infrared and visible-light imaging in one stream for round-the-clock clarity  
64MP visible camera supporting crisp 4K@30fps video  
Thermal sensing from -40°C to 500°C for industrial and tactical use  
Pitch ±120°, Yaw ±175°, Roll ±40° for maximum operational flexibility



Size	78*75*101mm
Weight	220g (Infrared and visible lens in one)
Infrared Thermal Lens Update Rate	9fps · 30fps
Recording Format	MP4 · JPEG
Focal length	8mm/8x digital zoom
Temperature range	-40 °C to 140 °C (high gain) to 500 °C (low gain)
Visible Lens Recording Resolution	64 Megapixels
Photo Format	4K · 30fps
Head Angle	Pitch: ±120°/Yaw: ±175°/Roll: ±40 °
Working Temperature	-10 °~50 °

# Full Gimbal Camera SkyCam S6100

Designed for aerial mapping, this 61MP gimbal camera delivers ultra-high-resolution images with centimeter accuracy. A stable 3-axis gimbal offers smooth control and supports Pixhawk, MAVLink, and Gremsy protocols. Supports ISO, white balance, color modes, shutter speed, and more — all customizable to your needs. Features like automated line capture, interval shooting, and remote trigger streamline your workflow. Lightweight and modular, with real-time wireless video—easy to integrate for faster, smarter missions.



Size	128 × 181 × 153 mm
Weight	640 g
Lens Recording Resolution	61Megapixel (9552 x 6368) · 4K 30fps
Photo Format	JPEG, RAW
Focal length	40mm
Head Angle	Pitch: -130° to +45°, Yaw: ±320°, Roll: ±55 °
Operating Temperature	-20 °C to +50 °C
Sensor Type	Sony IMX455 · Full-frame CMOS · 61MP
Supported SD Card Capacity	512GB
SD Card Speed Requirement	Recommendation UHS-I U3 or UHS-II

## Payload Spec Comparison

Model	SkyCam S2000	SkyCam S6100	SkyCam FH640R	XFLY 120 LiDAR	XFLY 300 LiDAR
Key Feature	Compact 1" sensor gimbal camera with shutter/ISO control, EXIF tagging, ideal for mapping and real-time imaging missions.	61MP full-frame mapping camera with auto trigger and orthophoto modeling support	Dual-spectrum vision (64MP + thermal) for all-weather aerial surveillance	2-return LiDAR with camera for efficient point cloud mapping	3-return LiDAR for high-precision terrain modeling through vegetation
Resolution	20MP	61MP	64MP + 紅外640×512	24MP	24MP
Photo Format	JPG	JPG / RAW	JPG	JPG / RAW	JPG / RAW
Video Format	4K 60fps (MP4)	4K 30fps	4K 30fps (MP4)	-	-
Weight (g)	210	640	220	1700(含相機)	1230(含相機)
Size (mm)	72×96×106	128×181×153	78×75×101	20.8×14.2×17	20.8×14.8×15.2

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**Hsuan Yuan Tech. Co., Ltd.**  
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