



ALTA X
WORLD'S TOUGHEST DRONE

BUILT TO FLY. MADE WITH CARE.



FREEFLY

At Freefly we have been focused on building the world's most efficient professional drone and filming ecosystem for the last decade. We went from a garage startup to powering the majority of film and TV productions in under 5 years. While our early focus was film and video, we realized along the way our drones could do so much more. Our customers rely on us to produce tools that allow them to substantially outperform the marketplace. One of the metrics we are most proud of at Freefly is creating 10x more revenue for our customers than we have captured.

ALTA X

ALTA X is designed to satisfy the needs of professional and industrial partners. We designed the ALTA X from the ground up to achieve the perfect blend of efficiency, agility, and reliability while keeping the pilot workflow simple and fast. ALTA X builds on the experience and lessons we learned bringing ALTA 6 and 8 to the world.

*“Finally a drone without compromise.
The ALTA X delivers boatloads of power with
the same responsiveness as previous platforms.”*



PAT WEIR
PEACEMAKER FILMWORKS

ALTA X | SPECIFICATIONS

WHY FREEFLY?

- Open PX4 flight stack:
Modify and adapt ALTA X for your use case.
- Dedicated US based engineering, operations, and support team.
- Designed and assembled in United States.
- Training program for your team (At Freefly or on-site).
- Robust testing and validation methodology (We break things so you won't have to).
- Open & communicative team (We share CAD, test specs, engineering documents, wiki to help you integrate and succeed more quickly).
- In depth documentation (Wiki, Knowledgebase, Tutorial videos).
- Customization - Our Engineering team is here to help you realize your integration or customization. We know how to get you in the air quickly and efficiently.
- Partners - Freefly is a pioneer in the drone industry. We have established partnerships with the best companies in the industry to help create a robust ecosystem that can tackle any problem.

KEY FEATURES

- 35lb Max payload.
- Quick release mounting system on top or bottom of aircraft.
- Adjustable Vibration Isolation available.
- Long Range Data link.
- Extensive accessory ecosystem.
- 33 Inch blades with ActiveBlade technology (1/5th the normal level of vibration).
- Flies on just 2 batteries.
- 50 Minute flight time with no payload, 22 minute flight with 20lb payload.
- Folds to half its size with one finger folding.
- Most Efficient Workflow - We spend years figuring out how to make our drones more fun to use than any other drone.
- Expandable - ALTA X features power and data expansion ports to help you integrate just about anything.

POWERPLANT

| | |
|------------------------------------|---------------|
| NUMBER OF MOTORS | 4 |
| MOTOR MAX CONTINUOUS POWER | 17,760W |
| MOTOR MAX INSTANTANEOUS PEAK POWER | 23,088W (<3s) |
| EQUIVALENT KV | 115rpm/V |

WEIGHT

| | |
|------------------------------|--------|
| MAXIMUM GROSS TAKEOFF WEIGHT | 34.9kg |
| MAXIMUM PAYLOAD | 15.9kg |
| EMPTY WEIGHT | 10.4kg |

PROPELLERS

| | |
|-----------------------|-------------------------------|
| MATERIAL | Carbon Fiber Reinforced Nylon |
| PROPELLER ORIENTATION | 2×CW & 2×CCW Props |
| PROPELLER TYPE | Folding - 840×230mm (33×9in) |

ENVIRONMENTAL

| | |
|-----------------------|---|
| OPERATION TEMPERATURE | -20C to +50C |
| OPERATING CEILING | Weight Dependent (SEE PERFORMANCE SPEC) |
| INGRESS PROTECTION | Tested to IP43 Equivalent |

ALTA X | SPECIFICATIONS

(CONTINUED)

FLIGHT CONTROLLER

| | |
|--|--|
| AUTOPILOT NAME | Custom PX4 Flight Control Stack |
| FLIGHT MODES | Manual, Altitude, Position, Mission, Loiter, Orbit, Return |
| SUPPORTED INPUTS | MAVlink SDK |
| SUPPORTED RADIOS | Futaba, Spektrum, PX4, Compatible SBUS & PPM Receivers |
| SUPPORTED RADIO CONTROLLER TELEMETRY SYSTEMS | Voltage feed provided for Futaba RX Telemetry |
| MINIMUM RADIO CONTROLLER CHANNELS REQUIRED | 5 ; Roll, Pitch, Yaw, Throttle, Mode |
| SUPPORTED GNSS | GPS / Glonass / Beidou / Galileo |

BATTERY

| | |
|--|---|
| CELLS | 12s |
| NOMINAL BATTERY VOLTAGE | 44.4V |
| PEAK BATTERY VOLTAGE | 50.4V |
| BATTERY CONNECTORS | XT-90 Anti Spark |
| REQUIRED MINIMUM BATTERY DISCHARGE RATING (PER PACK) | 260a Peak Per Battery (ASSUMES 2 BATTERIES) 20C FOR A 16A-HR PACK |

LIGHTING AND INDICATION

| | |
|---------------------------------|--|
| ORIENTATION LIGHTS | Boom Tip Mounted LEDs |
| ORIENTATION LIGHT COLOR OPTIONS | User Controlled in Software; Red, Orange, Yellow, Green, Cyan, Blue, Purple, White and Off |
| FPV ABILITY | Yes, installed as an option |

THRUST TO WEIGHT RATIO

| FLIGHT TIME (MIN) | PAYLOAD (LBS) | PAYLOAD (KG) | TOTAL WEIGHT (LBS) | THRUST TO WEIGHT RATIO |
|-------------------|---------------|--------------|--------------------|------------------------|
| 50 | 0 | 0 | 43.28 | 3.5 |
| 41.7 | 5 | 2.3 | 48.28 | 3.1 |
| 33.3 | 10 | 4.5 | 53.28 | 2.8 |
| 26.6 | 15 | 6.8 | 58.28 | 2.6 |
| 22 | 20 | 9.1 | 63.28 | 2.4 |
| 18 | 25 | 11.3 | 68.28 | 2.2 |
| 12.5 | 30 | 13.6 | 73.28 | 2.0 |
| 10.75 | 35 | 15.9 | 78.28 | 1.9 |

ALTA X | SPECIFICATIONS

(CONTINUED)

FLIGHT TIME VS PAYLOAD

