PUMA™ VTOL KIT

AV AeroVironment™

AeroVironment's Puma™ VTOL (vertical takeoff and landing) Kit is designed for plug-and-play integration into Puma 2 AE and Puma 3 AE small unmanned aircraft systems (SUAS). The VTOL Kit expands the operational capabilities of the combat-proven Puma systems in urban environments as no runway or large open space is required for launch and recovery, allowing operators to launch anywhere, anytime.

The VTOL Kit is available as an add-on option for new Puma 3 AE system orders and as a retrofit kit for fielded systems. Existing Puma 2 AE and Puma 3 AE customers can upgrade with minimal modifications to the aircraft's airframe and simple software upgrades. This removable kit will allow operators to transition between fixed-wing and VTOL within minutes to suit varying mission needs with a single aircraft.

DISTINCTIONS

»» LAUNCH AND RECOVERY
Vertical Takeoff and Landing (VTOL)

»» COMPATIBILITY
Puma™ 2 AE & Puma™ 3 AE

»» SETUP TIME
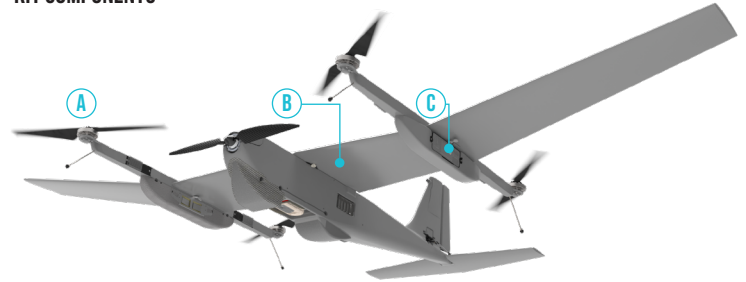Under 5 min

SPECIFICATIONS

TOTAL PAYLOAD CAPACITY	Mantis i45 or Mantis i45 N (2 lb) Up to 2 lb of additional payload*
ENDURANCE	1.5 hr with PS2500 battery 1.2 hr with Puma™ Smart Battery
OPERATING ALTITUDE	Launch & recovery 7K ft Density Altitude (DA) Max. flight altitude 10K ft DA
WEIGHT	VTOL Kit: 7 lb (3.2 kg)
MAX WIND RESISTANCE	15 kts Launch and Recovery 15+ kts Flight
ENVIRONMENTAL RATING	All-weather (no water landing)

*Upgraded Puma motor required to carry   secondary payload in universal Transit Bay

PATH TO UPGRADE

· Puma™ avionics software update required (fully backwards compatible)

· INS/GPS software update required (fully backwards compatible)

· Upgraded Puma™ motor recommended

· Crysalis™ GCS or Tomahawk GCS required

(Fewer upgrades may be required depending on current hardware configuration.)

KIT COMPONENTS

A	VTOL boom assemblies (2)		Avionics module (1) – *Not shown*	
B	Pre-wired center wing (1)		Fastening hardware (1) – *Not shown*	
C	Batteries, removable & rechargable (1 per boom)			

KEY FEATURES

» *Automated one-button launch & recovery in confined environments*

» *Highly reliable automated takeoff & landing with or without GPS***

» *Single-case packout maintaining a minimal logistical footprint*

» *Maintains Puma™ all-weather rating (excludes water landing)*

» *Available as an add-on or retrofit kit*

**Landing precision may vary in the absence of GPS

LANDING ACCURACY
Circular Error Probability (CEP)

6 ft RADIUS (CEP50)

12 ft RADIUS (CEP95)

AeroVironment™