



Vireo™ Unmanned Aerial System

UTC Aerospace Systems designs, develops and produces the Vireo™ and Optio™ families of unmanned aerial systems (UAS) used for airborne imaging. The systems are designed as a low-cost tool to deliver actionable data to law enforcement, government agencies, agriculture producers and first responders. The UAS carries a variety of imaging

payloads for day or night use, and sends imagery in real time through an open architecture datalink to a ground station where the data is used to assist in decision making. The electrically powered system weighs approximately three pounds (1.4 kg), is launched by hand and remains airborne for one hour.



High resolution live video and still imagery.

Zoom in for more detail.

Benefits & Features

<360>

Swappable EO and IR continuous 360° stabilized gimbal payload modules

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Full autonomous hand launch and precision landing

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IP-based communications with Ethernet bridge for simplified C4ISR integration

+ 4586

STANAG 4586-compliant aircraft, payload and data link control

+ 4609

STANAG 4609-compliant H.264 digital video with KLV metadata; DVR



UTC Aerospace Systems

Vireo™ Unmanned Aerial System

Performance Specifications

Gross Takeoff Weight	3.1 lbs. / 1.4 kg
Wingspan	38 in. / 96 cm
Cruise Speed	25 knots
Dash Speed	45 knots
Endurance	1.0 hour typical
Payload Capacity	0.45 lbs.
Range	10 km
Landing Accuracy	30 m CEP / 95%
Durability	> 75 flights MTBR

Imagers

Night	LWIR: 640 x 480 SWIR (option): 640 x 480
Daylight	SD color/B&W EO: 640 x 480 HD color EO (option): 720p HD video, 3840 x 2744 (10 MP)
Agricultural	Multi-spectral, NVDI, 3.2 Mpix, geo-registered
Aerial Mapping	10 Mpix color, geo-registered

Gimbal System

Gimbal	2 axis pan / tilt
Azimuth	Continuous 360°
Elevation	0° to -90°
Pointing Accuracy	< 5°



Ground control station

Gimbal Interface

Control	Ethernet or RS-232 Integrated Motor Controller
Video Out	NTSC (H.264 video plus KLV metadata via external video compression module)

Gimbal Mechanical

Size	7.3 in. W x 4.0 in. H x 2.7 in. D 58.4 mm W x 101.6 mm H x 68.6 mm D
Turret Diameter	2.7 in. / 68.6 mm
Weight	0.33 lbs. / 150 g

Ground Control Station

Open Architecture	Easy integration STANAG 4586 C2 STANAG 4609 payload products Service-oriented architecture compatible with OSD UCS core architecture Supports rapid integration of third party solutions
Intuitive UI	Tablet-style, gesture-based interface; 1-2 touches to do most tasks
Hardware	Rugged COTS solutions



Gimbal system

For additional information:

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