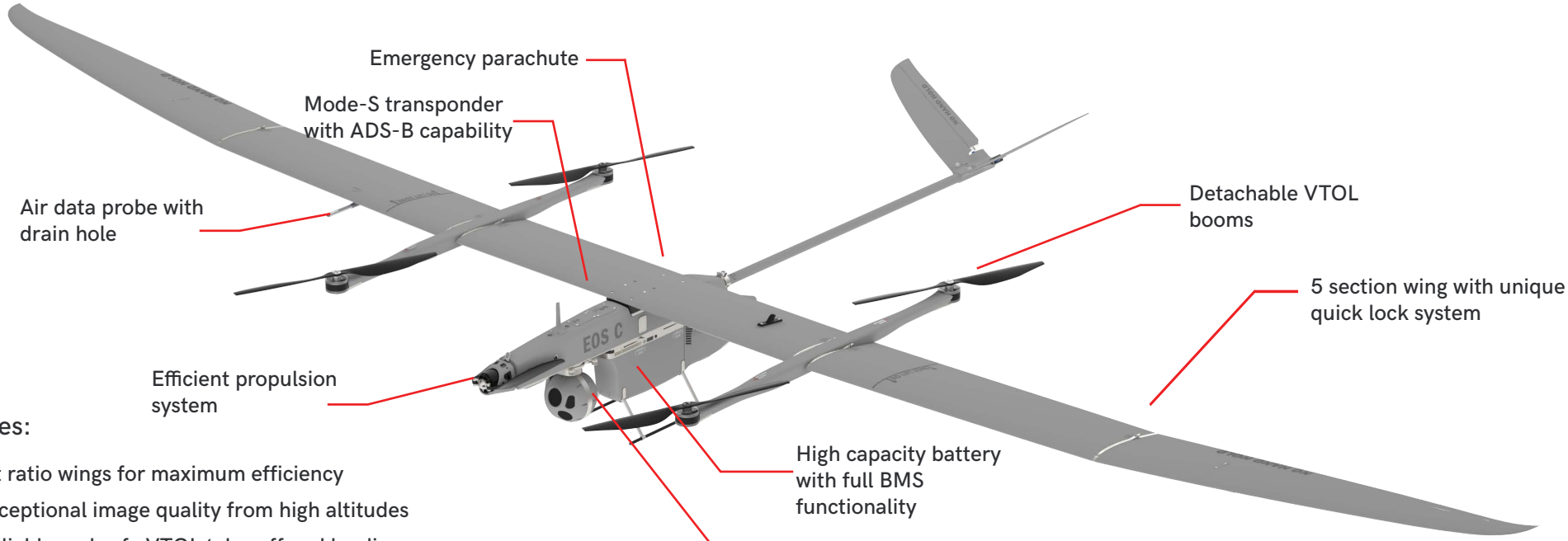
# EOS C VTOL

THREOD SYSTEMS

EOS C is a highly capable electric VTOL mini-UAV with best in class flight performance and many unique features




## Key features:

- High aspect ratio wings for maximum efficiency
- Provides exceptional image quality from high altitudes
- Efficient, reliable and safe VTOL take-off and landing transitions
- High wind penetration capability
- Extremely quiet operation (inaudible even at low altitudes)
- Excellent zoom capability down to 0.7° FOV
- MESH network radio with full Interoperability
- Large variety of ground equipment available for UAS solution


# EOS C Specifications

## Standard EOS C VTOL set consists of:

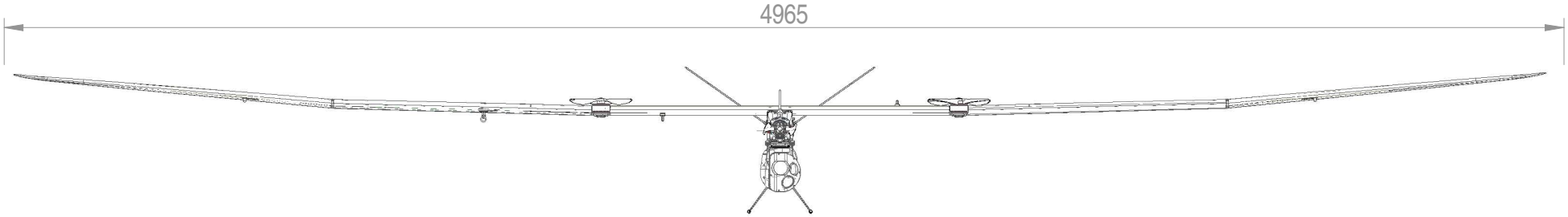
| | |
|---|---|
| - EOS C UAV | 1x Unmanned Aerial Vehicle |
| - Shark gimbal | 1x FullHD high performance payload |
| - HGCS | 1x Handheld Ground Control Station |
| - GDT50 | 1x 2-in-1 Ground Data Terminal |
| - GSE | 1x chargers, tools, equipment |

EOS C VTOL is a complex, yet simple to use system with capability usually found on bigger platforms. Using multiple subcomponents and subsystems that are individually configurable enables Threod the unique ability to customise the system composition, ground control station types and packaging as per customer requirements.

| **Physical** | |
|---|---|
| Wingspan | 5 m / 16.2 ft |
| Overall length | 1.8 m / 5.9 ft |
| Overall height | 0.45 m / 1.5 ft |
| Gross weight | VTOL 14.2 kg / 31.3 lb |
| Payload capacity | 1.1 kg standard payload |
| **Operational** | |
| Deployment | Vertical Take-off and Landing |
| Take-off/landing area size | Typical landing drift no wind: 1 m<br>Typical landing drift strong wind: 3 m<br>Recommended landing area size: 8x8 m |
| Instrumentation | GPS/GLONASS/GALILEO navigation<br>Barometer & Radar altimeter<br>Inertial Navigation System<br>Foldable pitot tube with drainage |
| Power | Rechargeable Lithium Battery with intelligent battery management system |
| **Performance** | |
| Endurance | Over 2 hrs, at 500m AGL, with maxed options and active 1 kg payload |
| Maximum Distance | 120 km / 74 miles 1 flight coverage |
| Communications Range | 50km with RLOS |
| Cruise speed | Typical 18 m/s \| 35 knots |
| Maximum speed | 30 m/s \| 58 knots |
| Service Ceiling | 4 500 m / 15 000 ft |
| Max Take-off altitude | 3 500 m / 11 000 ft |
| Environmental capability | -20 to +50 °C<br>10 mm/h precipitation<br>16m/s headwind |
| **Propulsion system** | |
| Front motor | Electric BLDC, with telemetry |
| Lift motors | 4x Electric BLDC, with telemetry |
| **Flight Control System** | |
| Autopilot | Flight stabilization and navigation<br>Geo-fencing<br>Adaptive flight control algorithms |
| Safety | Automatic fail-safe procedures<br>Automatic Return-to-Home<br>All systems monitored<br>All servos with feedback |
| **Payload** | |
| Default | Full-HD Shark Gimbal with EO, IR, LRF |
| Optional | Photogrammetric and other payloads |

| | |
|---|---|
| Video format | MPEG-TS H.264/H.265 with KLV metadata, STANAG 4609 compliant |
| **Airspace Safety Compliance** | |
| Identification | Mode-S/ADS-B transponder |
| Emergency | Emergency parachute system<br>GSM Locator Beacon |
| Visibility | LED Navigation lights,<br>Aft LED anti-collision strobe,<br>IR identification strobe |
| **Communication** | |
| Frequency | 2.2-2.5 GHz |
| Bandwidth | 5/10/20MHz |
| Datalink type | 2X2 MIMO MANET/MESH |
| Encryption | AES256 |
| Maximum Range | 50 km |
| **Ground Control Station** | |
| Type | Handheld, 10.1" touchscreen |
| Chassis | Modular with configurable buttons and joysticks, HDMI, Ethernet and USB connectivity |
| Functionality | Geo-referenced video imagery<br>Targeting Software<br>Report creation<br>Fully featured software with integrated video display |
| **Ground Data Terminal** | |
| Type | Directional auto tracking |
| Gain | 19 dBi |
| Polarization | Dual Polarized/ Dual Slant |
| Power | BB-2590 294 Wh Battery with AC input |
| **Support equipment** | |
| Transportation cases | |
| Battery chargers for portable, mobile and stationary locations | |
| Stands, tools, accessories for field maintenance | |
| Weather station, GPS | |
| Built-in Simulator for training purposes | |

*Note!: Contact Threod Systems for shelter or vehicle-based GCS options and various payload and subsystem options.*



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