BROCHURE

DeltaQuad Evo **Tactical Edition**

DeltaQuad Evo Tactical Edition VTOL UAV is an innovative aerial solution designed for security and defense applications.

It features cutting-edge technology and advanced features that make it ideal for a range of missions, including inspection, surveillance, and reconnaissance.

Maximum versatility and customization
The DeltaQuad Evo Tactical edition comes with a range of options for electronic warfare anti-jamming and military standard radio systems. These options allow for maximum versatility and customization, ensuring that the DeltaQuad Evo can meet the specific needs of any security and defense operation. The following product sheet provides a comprehensive overview of the various configurations.

DeltaQuad Evo
Editions

Tactical

Evo Tactical edition is designed for tactical use with a wide range of anti-interference systems. It is equipped with MANET Interference Avoidance enabled S-BAND radio with up to 80 km range, a 4 array CPRA Anti-Jamming GPS, and a stealth switch system that allows full autonomous navigation without any radio emissions. The Advanced Data Safety software (ADS) prevents data disclosure of critical data even with physical access to the vehicle.

Government

Evo Government edition has been specifically designed for governmental agencies. The product is intended for deployment in environments where interference with radio or satellite navigation is not anticipated. Its key features include an S-BAND radio system with up to 80 km range, toughbook ground control, and ATAK compatibility, which enhance the effectiveness of government operations.

Stealth

Evo Stealth Edition VTOL UAV is a state-of-the-art unmanned aerial vehicle designed for covert applications. It is specifically designed for "Deploy & Forget" missions equipped with the Aerial Payload Deployment System (APDS).

Enterprise

Evo Enterprise edition is designed for civilian and semi-government use. It operates based on the DeltaQuad Controller on the world-wide license free 2.4Ghz band and offers radio options up to 30 km range.

Product comparison

	Evo **Enterprise** DQEVO-ENT	Evo **Government** DQEVO-GOV	Evo **Tactical** DQEVO-TAC	Evo **Stealth** DQEVO-STH
Max. flight time	272 min	255 min	246 min	255 min
Max. flight range	270 km/ 168 mi	254 km/ 158 mi	246 km/ 153 mi	254 km/ 158 mi
Max. radio range	30 km	80 km	80 km	30 km
Ground control	DeltaQuad controller	Panasonic Toughbook	Panasonic Toughbook	DeltaQuad controller
Radio options	DQ 2.4 GHz	Silvus 2.2-2.5 GHz	Silvus-IA 2.2-2.5 GHz	DQ 2.4 GHz
GNSS system	L1/L2 GPS	L1/L2 GPS	Anti-Jamming L1 GPS	Anti-Jamming L1 GPS
ATAK compatible	-	✓	✓	✓
ADS Software	-	-	✓	✓
Stealth switch	-	-	✓	✓
Interference Avoidance	-	-	✓	N/A
Inertial Navigation	Return home	Return home	Resume mission	Resume mission

Evo Tactical
Airborne options

Evo Tactical **includes**

SKU: DQEVO-MIL-1

- DeltaQuad Evo Tactical edition
- 4 batteries
- Dual battery charger
- Ruggedized transport case
- Auxiliary battery mount
- Auterion Tactical Stack Avionics
- Silvus StreamCaster 4240 4W S-BAND Air unit
- Stealth switch
- Silvus Interference Avoidance license
- 4 array CPRA anti-jamming GPS

Auterion
Tactical Stack Avionics

DeltaQuad Evo Tactical Edition is outfitted with the Auterion Tactical Stack Avionics, purposefully built for tactical use. The software offers a range of advanced features such as:

GPS denied inertial navigation

Auterion Tactical Mission Control can sustain flight in GPS-denied environments. With the added capabilities of the Anti-Jamming GPS, the vehicle can maintain its course during periods of GPS loss under extreme jamming conditions. This allows the vehicle to operate in environments under extreme EW effects.

Advanced data safety features

The Enhanced Data Safety Features provided by Auterion Tactical Mission Control prevent the mission, objective, source and destination from being disclosed. Even if a third party physically breaches the system, the data remains protected from disclosure.

Stealth switch

Through Auterion Tactical Mission Control, the stealth switch enables the planning of missions with predefined stealth operation sections. During such sections, the vehicle will disable all radio emissions to evade detection. It will execute the stealth phase autonomously and then reconnect with the operator at a designated point in the mission.

ATAK/Cursor on target integration

By leveraging the standardized Team Awareness protocol, the Auterion Tactical Mission Control is seamlessly integrated into ATAK-based systems.

Interference avoidance

Silvus MANET Interference avoidance provides Spectrum Dominance through advanced frequency hopping. This allows the system to maintain communication and video links near EW data link jamming systems.

Evo Tactical
Key platform specifications

Physical

Wingspan	269 cm
Length	75 cm
Empty weight	6.8 kg
Max takeoff weight	10 kg
Payload bay	1× 20×20×11 cm or 2× 10×20×11 cm
Payload capacity	3 kg (single battery) 1 kg (dual battery)
Airframe material	Fiberglass, Carbon, Kevlar and composite

Performance

Cruise speed	15.5 - 18 m/s
Max speed	24 m/s
Max flight time	246 min
Max flight path	246 km/ 153 mi
Service ceiling	4.000 m/ 13.000 ft
Operating temperature	-20 to +45 °C
Max wind	14 m/s
Max precipitation	7 mm per hour
Ingress Protection	IP54

Performance calculator

Maximum flight time and range vary with conditions and payload configuration. For a better estimate of performance please use the **DeltaQuad Evo Performance Calculator.**

Options
Transmission, control, and payload

Thanks to Evo's modular design, we can offer you multiple transmission, control, and payload options tailored to your specific needs.

The Evo offers a transmission and control system that includes three essential components: a radio modem, an antenna, and a ground controller. These components enable the operator to communicate with the drone, control its movements, receive video feeds, and monitor its status.

TRANSMISSION

Radio

Silvus
StreamCaster

SKU: DQEVO-DDL-SSC-MIL-1

- S-BAND 2.2 - 2.5 Ghz
- 2 × 2 MIMO
- Silvus MANET Interference Avoidance License
- DES56/AES256 encrypted
- Rugged Handheld
- Bandwidth 20/10/5 Mhz
- Output power 4 Watt

Antenna options

Silvus
Tripod mounted sector antenna

SKU: DQEVO-SV-SPA1

- Up to 40km ISR range extension
- 120 degree Horizontal Field of View
- 12 degree Vertical Field of View
- 12 dBi 2.2 - 2.5 Ghz

Requires DQEVO-DDL-SSC-MIL-1 for standard operation

Optimum Solutions
Automatic tracking pedestal

SKU: DQEVO-OS-PT-10

- Up to 80KM ISR range extension
- Rugged transport cases
- GPS Based automatic vehicle tracking

Requires DQEVO-DDL-SSC-MIL-1 for standard operation

CONTROL

Ground control options

DeltaQuad **Toughbook GCS**

SKU: DQEVO-GCS1-TB

The DeltaQuadToughbook GCS is a MIL-STD ruggedized touch-screen laptop, complete with a manual override handheld joystick. The device is constructed using the Panasonic TOUGHBOOK FZ-55 Touch with a magnesium chassis, flexible configurations, and a universal bay. The handheld controller enables manual override and precision landing.

Auterion Tactical Mission Control comes pre-installed.

Auterion **Skynav**

SKU: DQEVO-GCS2-SN

Auterion Skynav is a lightweight hand-held device that simplifies the management of autonomous flights, live video streaming, and data collection. The user-friendly design minimizes controls and data necessary for mission planning and execution. Skynav's robust, IP65 rating and water-resistant build makes it a perfect choice for any mission.

Auterion Tactical Mission Control comes pre-installed.

PAYLOAD

Sensor and device options

The DeltaQuad Evo is fitted with two payload slots, capable of accommodating either two single-slot payloads or a dual-slot payload. The single-slot payloads can be paired with an auxiliary power system to extend flight endurance. The platform features a standardized mounting system that facilitates future expansion. Individual payloads can be procured and are compatible with all DeltaQuad Evo variants.

Please contact us for an overview of all payload systems currently in the development and testing stage.

single slot dual slot

Nextvision **Raptor 360**

SKU: DQEVO-PL-NVR1

- RGB 80x zoom (40x optical, 2x digital)
- Thermal 1280×720
- Object tracking and following
- Trip-2 Camera Computer

DeltaQuad **Aerial payload deployment system**

SKU: DQEVO-PL-APDS1

- Mission controlled payload deployment
- Payload capacity 2500 gr
- Max payload dimension 200×180×90 mm

Evo Tactical
Field deployment kits

The subsequent kits are accessible for uniformed field deployment.

These kits are operationally complete, with all the necessary parts for immediate deployment. Each kit contains two airborne units, one payload selection, and one ground control unit. Both airborne units can be operated via the ground control unit, but not concurrently.

Tactical Kit 1

DQEVO-FDK-TAC-1

40KM OPERATIONAL RANGE

DeltaQuad EVO-TAC Field Deployment Kit 1

DeltaQuad
Evo

Nextvision
Raptor 360 ISR payload

DeltaQuad
Aerial payload deployment system

DeltaQuad
Toughbook GCS

Silvus
StreamCaster

Silvus
Tripod Mounted sector antenna

Tactical Kit 2

DQEVO-FDK-TAC-2

80KM OPERATIONAL RANGE

DeltaQuad EVO-TAC Field Deployment Kit 2

DeltaQuad
Evo

Nextvision
Raptor 360 ISR payload

DeltaQuad
Aerial payload deployment system

DeltaQuad
Toughbook CGS

Silvus
StreamCaster

Automatic
tracking pedestal

Evo Tactical
Expansion kits

The Field Deployement Kits can be augmented with the following solutions.

Redundant Payload Kit

SKU: DQEVO-RPK-1

- Nextvision Raptor ISR payload
- Aerial Payload Deployment System

The Redundant Payload Kit furnishes an alternate set of payloads for the Field Deployment Kit. Suppose the primary vehicle, including its payload, can not be recovered due to combat-related losses. In that case, this kit facilitates the rapid deployment of a secondary vehicle equipped with the necessary payloads.

ATAK Field Kit

SKU: DQEVO-AFK-MIL-1

- Silvus Body Worn Radio
- Silvus MANET-IA License
- Tactical ATAK tablet
- ATAK paired and configured

The ATAK Field Kit leverages Mesh Networking technology to allow for precision targeting, situational awareness, navigation, and information sharing. The Silvus Body Worn Radio, included in the kit, can communicate with both the UAV and the operator when in range of either the UAV or the ground station. This means that tactical information can be transmitted directly from Auterion Tactical Mission Control, and real-time video from the UAV can be shared, providing enhanced situational awareness for front-line personnel.

Man Carry Field Kit

SKU: DQEVO-MCFK-MIL-1

- EVO-MIL Backpack
- Auterion Skynav
- Silvus Body Worn Radio
- Silvus MANET-IA License
- Hand-off capable with main GCS
- ATAK capable

The Man Carry Field Kit equips the DeltaQuad Evo with a tactical backpack, an Auterion Skynav controller, and a Silvus Body Worn Radio. This configuration enables the UAV to be carried, launched, and operated by a foot-mobile operator. The kit also facilitates mid-flight handover, allowing a field operator to assume control of the UAV and payload and transfer control back to the primary operator as necessary.

Onsite **installation and training**

SKU: DQEVO-OST-1

- Flight training
- Ground control setup
- Payload operation
- ATAK operation
- Handoff operation
- Maintenance training

Onsite training is offered as an optional enhancement to your operational capabilities, though not required. Our instructional program and materials will be tailored to meet your specific needs, and a certified trainer will deliver the training at your facility if requested. The training covers all aspects of setup, handling, and maintenance of the equipment, providing a comprehensive learning experience. However, for basic operation, online training is usually sufficient and readily accessible. The choice between onsite and online training is yours to make, and either option will support your operational readiness.

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