# AVEM

Unmanned Aerial System for photogrammetry and monitoring on large areas and linear networks infrastructures







The resolution of the embedded imaging sensor, operating in the visible or near infrared spectrum.



The AVEM is approved for Beyond-Line-Of-Sight flights and covers very large areas.



This best in-class flight time available on the AVEM allows to efficiently cover hundreds of hectares.



The AVEM hourly productivity, at 150 meters and with a GSD of 1,9 centimeters.

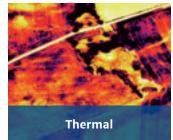
#### **Technical specifications**

Approvals	BLOS Certified	Wind resistance	40 km/h
Autonomy	3hoo	Radio range	15 km
Wingspan	2.14 M	Maximum altitude	3500 m
Maximum weight	2000 g (in France)	Installation Time	< 10 mn
Payload	< 500 g	On-axis precision	+/- 2 m and +/- 2°
Take-off	Launched by hand	Distance travelled	195 km/flight
Guidance	Automatic	Covered area 150 m	400 ha/hr
Cruising speed	65 km/h	Landing surface	Min 5x20 m

#### Embedded sensor options









# **MISSION PLANNING**

### GROUND STATION AND FLIGHT MONITORING





With a hard case, you can safely and easily carry your ground station around the world.

**Running on rechargeable batterie**, the ground station is designed to be very easy to use.

**The control interface** has been developed following aeronautical codes and guarantees absolute safety.

**After a short training**, the pilot will be comfortable with the interface, ready to operate the AVEM in all conditions.

#### Sensor specifications

Standard sensor	SONY RX1R II
Spectrum	R-G-B/NIR-G-B
Focal	Carl Zeiss 35 mm
Definition	42,4 MPx full frame
Resolution	From o.8 cm / px
Accuracy after post-treatment	x,y : +/- 3cm ; z : +/- 6cm

#### **Imaging characteristics**

Flight Altitude	Definition	Productivity*
80 m	1 CM	2 km² / h
120 M	1.5 CM	3 km² / h
150 m	1.9 cm	4 km² / h
500 m	6.4 cm	14 km² / h

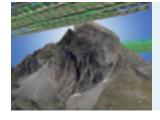
\* With standard 45% lateral overlap

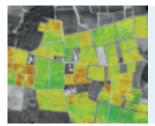
## IMAGING PRODUCTS



#### **ORTHOPHOTOPLAN**

- Between 1 and 3 cm definition
- Productivity up to 4 km<sup>2</sup>/h
- Excellent precision: embedded PPK





#### AGRICULTURE IMAGERY

- Multispectral sensor
- NDVI
- NDRE
- Up to 5km<sup>2</sup>/h



#### **3D MODELING**

- Excellent precision: embedded PPK
- Crossed flight plan
- 2.5 km<sup>2</sup>/h productivity

#### NETWORK MONITORING

- Up to 100km per day
- 2-pass flight allowing 3d
- reconstruction
- Thermal inspection

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