



# AVES

# AVES-T

## POWERFUL KEY FEATURES

- Hot swappable batteries for up to 1 hour; lasts for days on generator/mains
- Free Flight Mode available for 35 min
- Payload up to 5 Kg – custom payload integrable
- Standard payload comes with High capable EO camera with 30X and IR camera with 4X zoom with Object Target Tracking
- High Portability and Easy Deployment
- 360 degree obstacle avoidance
- Built in SIM card for remote 4G flight

## MULTIPURPOSE APPLICATIONS

- Surveillance and Security
- Investigation Monitoring
- Public Event Safety
- Border Defense and Control
- Powerline Inspection
- Intelligence Gathering

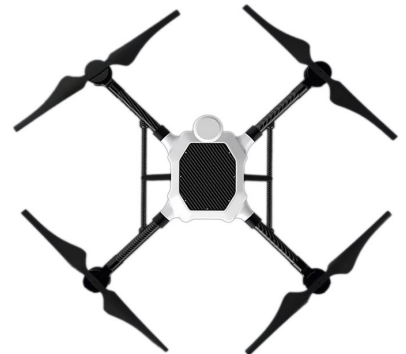


# AVES-T

## AVES MARK IV SPECIFICATIONS

Key Parameters	Specifications
Dimension	1000 x 1000 x 440mm
Dimensions(Folded)	400 x 430 x 440mm
Maximum Payload	5kg
Maximum Flight Ceiling	3200m
Maximum Take-off Weight	9.5kg
Maximum Flight Time	35 Minutes
Maximum Distance	20km
Maximum Thrust	27kg
Maximum Speed	50km/h
Maximum Wind Endurance	15m/s
Motor kV	340kV
Motor Stator Diameter	62mm
Motor Stator Length	15mm
Operating Voltage	22.2V (Nominal)
Propeller Diameter	22 Inches
Propeller Pitch	11°

\*wind speeds, environmental conditions and customized solutions will affect final results



## GROUND CONTROL SYSTEM (GCS)

Specifications
Intel® Core™ i5-8365U vPro™ processor
Windows 10 Pro
14" Full HD Active Matrix LCD, 1.000cd/m <sup>2</sup>
Lightweight and slim design (approx. 2.13kg/2.22kg and 32.8mm)
8GB RAM and 256GB as standard
2x USB 3.1, 1x USB 3.1 type C PD, 1x HDMI, 1x LAN and micro SDCX
Front and Rear Expansion Slot
Toughbook Universal Bay
Long battery life of up to 19 hours (MobileMark2014)
Delicate GPS and LTE optional
Operating temperature of -10 °C to +50 °C
IP53*
Withstands drops from a height of 91cm
Robust honeycomb style magnesium casing with carry handle
Shock and vibration protected for vehicle docking
3-year standard warranty



\*Designed for MIL-STD810H.  
Test by independent third-party lab

## EOIR SYSTEM

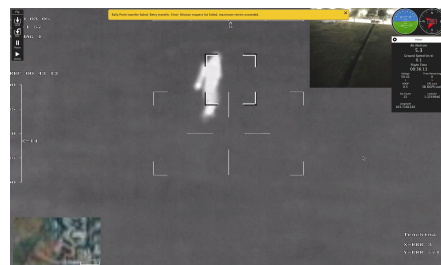
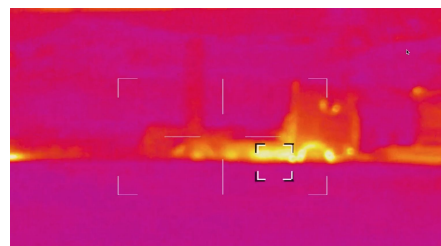
Payload Specifications	
Model	Long Distance Tri-axis Dual-Light Gimbal
Thermal Features	
Thermal Sensor	640 x 480 (LWIR 8-14μm)
Thermal Sensitivity	50mK
Thermal Digital Zoom	2x and 4x
Day Camera Features	
Visual Sensor	1920 x 1080 1/2.8" CMOS Sensor 2.13Mp
Optical Zoom	30x Optical Zoom
Visual Digital Zoom	12x
Minimal Illumination	0.011x
View Angle/Focal length	
Focus and Exposure Time	Autofocus with automatic or manual exposure time control
Memory	External slot for Micro SD card
Camera Functions	Black hot, White hot, Pseudo Colour
Weight	<780g
Dimensions (L x W x H)	164.2 x 162.5 x 146.5 (mm)



## OBJECT TRACKING

Parameters	Specifications
Update Rate of Deviation Pixel	50Hz
Output Delay of Deviation Pixel	<15ms
Minimum Object Contrast	5%
SNR	4
Minimum Object Size	16*16 Pixel
Maximum Object Size	160*160 Pixel
Tracking Speed	±32 pixel/frame
Detective Distance (Man:1.8 x 0.5 m )	1471 metres
Recognize Distance (Man:1.8 x 0.5 m )	368 metres
Verified Distance (Man:1.8 x 0.5 m )	184 metres
Detective Distance (Car:4.2 x 1.8m)	4510 metres
Recognize Distance (Car:4.2 x 1.8m)	1127 metres
Verified Distance (Car:4.2 x 1.8m)	564 metres

\*in visible light and thermal imager





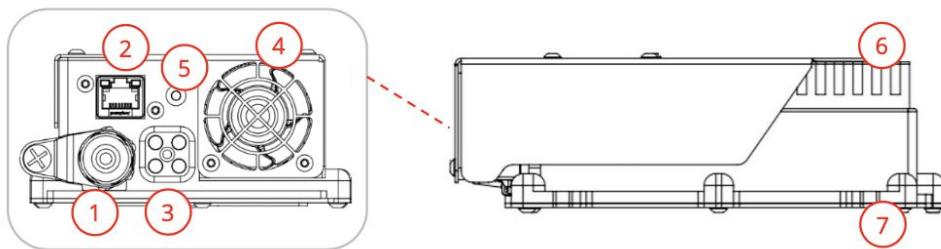
## RC CONTROL,TELEMETRY,DATA LINK AND VIDEO FEED

The AVES-T video transmission system is based on a 2.4 GHZ modulated upon LTE frequencies. This provides for the long range of up to some 10 Km range. The onboard screen also allows a myriad of control options for live imagery, autopilot configuration among others.

Herelink Remote Controller Specifications	
Operating Frequency	2.4GHz ISM
Range	20km
Live Video Resolution	720p30Fps, 1080p30/60fps
Latency	110ms



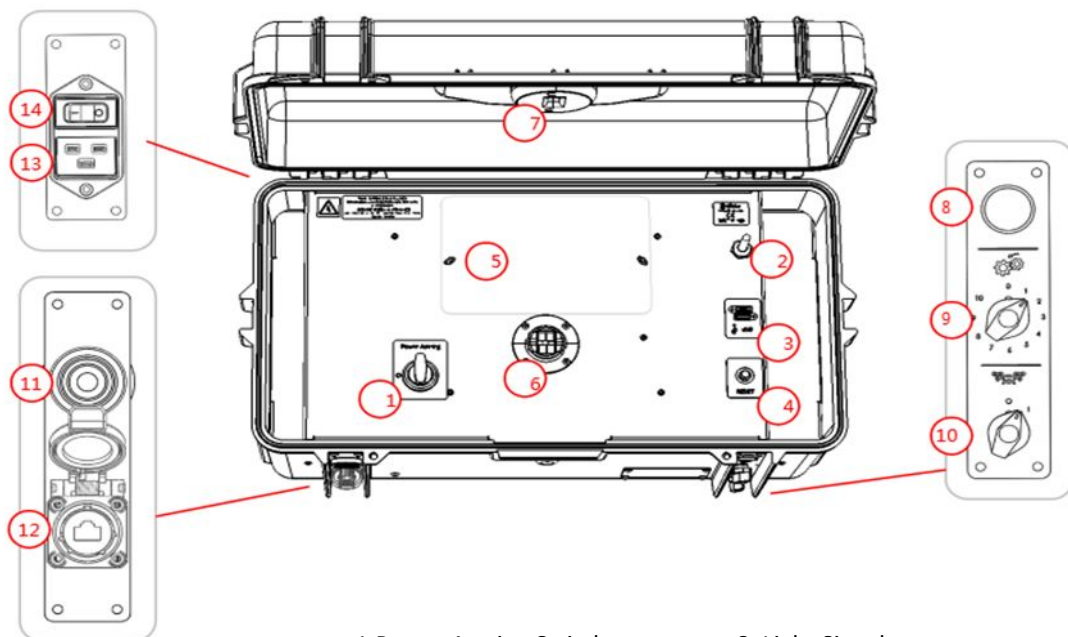
## AIR MODULE



1. Micro-tether Connector
2. Ethernet Port
3. Drone Connector
4. Air Vent
5. Air Module LED
6. Metallic Cooling Plate
7. Fixing Inserts

Key Parameters	Specifications
Dimension	168 x109 x 54 mm
Weight	700g
Output Voltage	6S / 24 V (±2 V) or 12S / 48 V (±3 V)
Safety Battery Cable Dimension	15cm
Safety Battery Cable Connector	XT90 Male (to be connected to XT90 female with anti-spark)
Drone Cable Dimensions	15cm
Drone Cable Connectors	AS150 RED Female, XT150 Black Female
Recommended Cabling min section	6 mm <sup>2</sup> (1200W to 1500W drone power consumption) 10 mm <sup>2</sup> (1800W drone power consumption)

## AVES-T UNIT



- |                                 |                              |
|---------------------------------|------------------------------|
| 1. Power Arming Switch          | 8. Light Signal              |
| 2. Wi-Fi Antenna                | 9. Micro-tether Tension Knob |
| 3. USB Port                     | 10. Drone Power Switch       |
| 4. Winch Reset Button           | 11. Buzzer                   |
| 5. Winch Plastic Cover          | 12. Ethernet Port            |
| 6. Micro-tether Internal Output | 13. Power Input              |
| 7. Micro-tether External Output | 14. External Power Switch    |

## T-UNIT SPECIFICATIONS

Key Parameters	Specifications
Dimension Closed	680 x 380 x 360 (mm) / 28 x 15 x14 (in)
Weight	26kg / 57lbs
Power Source Requirements	220-250 VAC , 50-60Hz , 3kW min
Power Supply Cable	Type E
Built-in Protection	Fuse
Micro-Tether Management	10 presets, smart pre-programmed laws and reset function
Wi-fi Connectivity	Protocol 802.11 b/g/n, Frequency 2.4G-2.5G (2400M-2483.5M) Encryption WEP/TKIP/AES, Security WPA/WPA2
Carriage	3 folding handles,1 telescopic handle, rollers
Data Option – Data Speed	80Mb/s minimum (up to 200Mb/s, depends on the packet size)
Data Option – Data Connectors	Ethernet RJ45 (Air Module and Safe-T)
Developer Option – Remote Controls	Power, Torque, pre-programmed laws, alarms
Developer Option – Remote Telemetry	Power consumption, tether unwound, tether speed, temperature, flight duration



# AVES-T

## QUICK-RESPONSE SETUP



Aves - T



Remote Controller



Battery



Tether  
System