

TV1 Lite

Introducing our Most Affordable, Professional Grade LiDAR Sensor

Get the TrueView 1 Lite along with a full year of processing, complete with comprehensive support and maintenance. After the first year, simply continue your annual renewal to keep your software access, updates, and dedicated support.



LiDAR Sensor

- **Sensor:** HESAI XT32
 - 905 nm Class 1 eye safe
- **Range:** Max 120 m, typical 80 m a 20%
- **Accuracy:** +/-1 cm and precision 0.5 cm typical 1 sigma
- **Number of Lasers:** 32 channels spread over 31° (-16, +15)
- **Total Pulse Rate:** 640,000 pts per second for single return, up to 1,280,000 points/sec 2 returns
- **Rotation Speeds:** 5–20 Hz
- **Beam Spot Size:**
 - In deg: 0.087 * 0.131
 - At 80 m: 12 cm by 18 cm
- **Returns:** 2

Platform

- | | |
|---|---|
| <ul style="list-style-type: none"> • Size: <ul style="list-style-type: none"> • Length: 198 mm • Width: 106 mm • Height: 121 mm • Weight: <ul style="list-style-type: none"> • 1.4 kg for payload | <ul style="list-style-type: none"> • Power Consumption: 38 W • Operating Voltage: 12–34 V • Operating Temperature: -15°C–50°C |
|---|---|

Applications

- **Densely Vegetated Topography**
- **Coal Pile Inventory**
- **Vertical Structures**

System

- **Control:** WIFI + button control
- **Storage:**
 - 128 GB internal storage + 16 GB external

Navigation Solution

- **Post-Processing:**
 - Single Base
- **Performance (PPK):**
 - 0.03–0.05 RMSE
 - Typical heading: 0.08°, Pitch & roll: 0.025

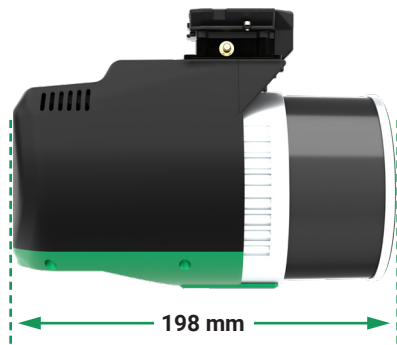
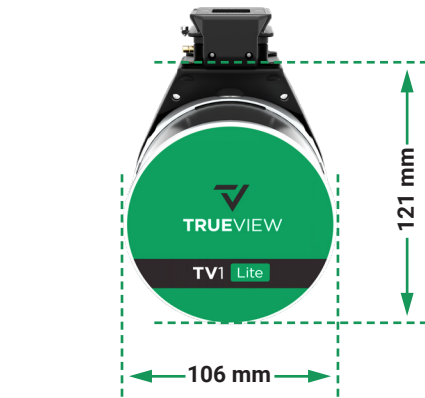
Camera

- **Type:** 1 FLIR, 5 MP, Global Shutter
- **FOV:** 80° FOV configuration

Processing Modules

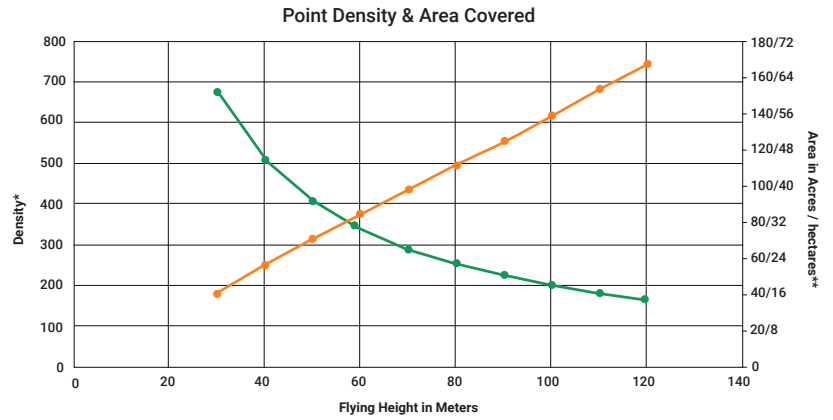
- **Comes with TV1 Lite Annual Processing**
- **Optional add ons available:**
 - LP360 Drone
 - Strip Adjustment
 - Cloud Collaborate
 - Automatic AI Ground Classification
 - Photo
 - 3D Accuracy
 - Business Intelligence
 - Unlimited Project
 - Photogrammetry with Agisoft

Payload Specifications



(TV1 Lite with SmartDovetail adapter shown)

Performance Data



● Area in Acres / hectares ● Point Density *pts/m2 for 5m/s, 20% overlap, 80deg FOV
 ** Area covered for 40 min flight

Accuracy/Precision

Precision Observed on One Strip:

Typical 10 mm, less than 10 mm (1 sigma) observed at 80 m on concrete

Global Accuracy

Typical 3 cm RMSE, better than 5 cm 3D RMSE – depending on GNSS conditions, accuracy of control points and coordinate system

Features



Quick Connect to Drone

The TV1 Lite allows easy integration with various drone platforms via PLI, DJI Skyport, or SmartDovetail adapters.

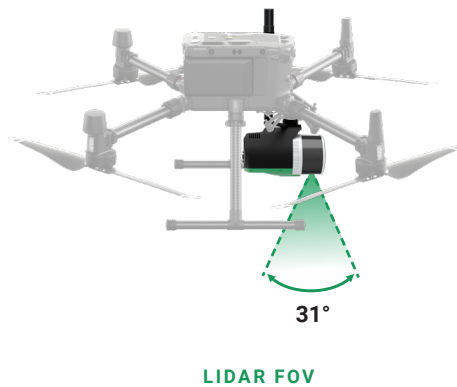
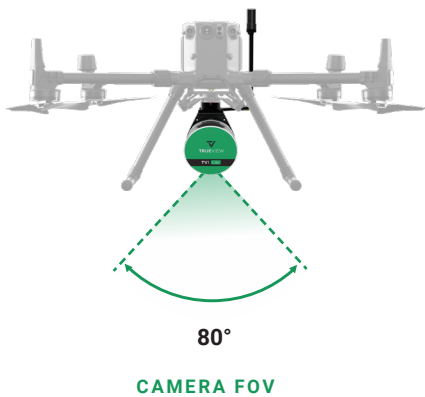


Calibrated Mapping Camera

Providing true colorization and pictures for photogrammetry over 80°

TV1 Lite Field of View (FOV)

31° FOV in track allow to cover vertical surfaces in the direction of the flight



Compatible Brands

skyfront



WISPR



HARRIS AERIAL

