

# BVT516

Efficient. Resilient. Innovative.

BVT516 (VTOne), an AI-Powered VTOL Class 3 Quadcopter Fixed Wing, powered by a high-capacity battery and controlled by a state-of-the-art flight controller that can be commanded either by a wireless local radio control or by a remote-control application (ZigBee, 4G, 5G).

## Technical specifications

|                                                     |                                                 |
|-----------------------------------------------------|-------------------------------------------------|
| Class (EU Reg. 2019/945)                            | 3                                               |
| Type                                                | VTOL Hybrid STL                                 |
| Dimensions (length x width x height)                | 1200 x 3000 x 500 mm                            |
| Tare                                                | 13.5 kg                                         |
| Maximum takeoff weight                              | 15.5 kg                                         |
| Payload weight                                      | 2 kg                                            |
| Maximum linear speed                                | 20 km/h (quad); 120 km/h (wing)                 |
| Maximum angular speed                               | 180 ° / s                                       |
| Maximum descent speed                               | 10 km/h                                         |
| Max ascent speed                                    | 14.5 km/h                                       |
| Maximum supported wind speed                        | 40 km/h                                         |
| Autonomy                                            | 150 min                                         |
| Quick payload changeover                            | ✓                                               |
| On-board Computer (AI + SDK + ROS)                  | (Ubuntu 20.04)                                  |
| Battery Type                                        | 12S Li-Ion                                      |
| Nominal battery voltage                             | 44.4 V                                          |
| Max battery current                                 | 310 A                                           |
| Battery capacity                                    | 16000 mAh                                       |
| Battery weight                                      | 3,6 kg                                          |
| Output voltages (for integration of other payloads) | 48V, 12V, 5V, 3.3V                              |
| SSD                                                 | 256/512 GB                                      |
| Interfaces for peripherals                          | USB 3.0 / MIPI CSI / Ethernet / SPI / I2C / CAN |
| Radio Link 1                                        | 2.4 GHz                                         |
| Radio Link 2                                        | 433 MHz                                         |
| Radio Distance                                      | 12 km (EU)  16 km (US)                          |
| RTK base station band                               | 2.4 GHz (ZigBee)                                |
| ZigBee                                              | ✓                                               |

|                                          |                                                                                        |
|------------------------------------------|----------------------------------------------------------------------------------------|
| LoRA                                     | Add-on                                                                                 |
| WiFi                                     | ✓                                                                                      |
| Bluetooth                                | ✓                                                                                      |
| 3G                                       | ✓                                                                                      |
| 4G                                       | ✓                                                                                      |
| 5G                                       | Add-on                                                                                 |
| Satcoms                                  | ✗                                                                                      |
| Ground station connection capability     | ✓                                                                                      |
| Cloud control capability (cloud)         | ✓                                                                                      |
| Dual Stream                              | ✓                                                                                      |
| Automatic missions                       | ✓                                                                                      |
| GNSS constellations                      | GPS L1/L2, GLONASS, QZSS, Beidou, GALILEO                                              |
| Position accuracy                        | 5 cm                                                                                   |
| Position accuracy (without RTK)          | 20 cm                                                                                  |
| Operating Temperature                    | -10°C/+40°C                                                                            |
| Storage temperature                      | -10°C/+60°C                                                                            |
| Relative humidity supported in operation | <95%,                                                                                  |
| Development Norms                        | NATO (AEP 83, AEP 89)                                                                  |
| UAV directive                            | Reg. 2019/945/EU<br>Reg. 2019/947/EU                                                   |
| Radio                                    | 2014/53/EU ; EN301 893:2015 ;<br>EN300 328:2015 ; EN300 440;<br>EN303 413; EN300 220-1 |
| EMC                                      | 2014/30/EU EN301 489-1<br>EN301489-3<br>EN301 489-17                                   |
| Waste (WEEE)                             | 2012/19/EU                                                                             |
| Battery                                  | 2006/66/EC                                                                             |
| RoHS                                     | 2011/65/CE EN62321                                                                     |
| Label                                    | ANSI/CTA-2063                                                                          |