

## Specification January 2026

| Category                                | Technical Parameter       | Description / Unit of Measure                                  |
|-----------------------------------------|---------------------------|----------------------------------------------------------------|
| <b>1. General Characteristics</b>       | Model / Designation       | <b>ZA-5k</b> - Zeppelin shaped Aerostat                        |
|                                         | Purpose                   | Multi-Sensor Scientific - Surveillance Platform                |
|                                         | Construction Type         | The internal pressure maintains the envelope's rigidity        |
| <b>2. Geometric Dimensions</b>          | length                    | 12 x 2.5 m                                                     |
|                                         | Helium Volume             | App 45 m3                                                      |
|                                         | Fin span                  | X stabilizers configuration up to 10% of the side profile area |
| <b>3. Masses and Payload</b>            | Gross lift                | App 22 kg                                                      |
|                                         | Empty System Weight       | App 15 kg                                                      |
|                                         | Maximum Payload Capacity  | 5 kg                                                           |
| <b>4. Operational Performance</b>       | Max Operating Altitude    | 100 – 150 m                                                    |
|                                         | Max Wind Speed Limit      | 20 km/h                                                        |
|                                         | Operating Temp. Range     | -10 to 60 °C                                                   |
|                                         | Daily Helium Leakage      | Up to 1% per day on total volume                               |
| <b>5. Materials &amp; Craftsmanship</b> | Envelope Material         | 125 microns TPU White                                          |
|                                         | Seam Technology           | Ultrasonic Welding (0.3 mm seam)                               |
|                                         | Fin System                | Composite stabilizers                                          |
|                                         | Valve System              | Scoprega 2 stage valve at the back                             |
|                                         |                           |                                                                |
| <b>6. Tether &amp; Power System</b>     | Tether Line               | 100 m 6 mm Polyester (200 kg BS)                               |
|                                         | Tether Power System (TPS) | No                                                             |
| <b>7. Logistics &amp; Preparation</b>   | Setup / Inflation Time    | Up to 2 hour                                                   |
|                                         | Packaging Dimensions      | 1.5 x 1.5 x 1 m                                                |

