

## **Technical Specifications for the Ground Control Station and Long Range Antenna**

**Application:** Integrated ground control station and long range antenna to allow communication with unmanned aerial vehicles for long ranges

### **Ground control station**

Dimensions: Must be less than 1000 x 500 x 200 mm

Weight: Must be less than 20 kg

Electronics compartment dimensions: Must be greater than 200 x 250 x 75 mm

Case: Must be rugged, with carry handles and side handles, with wheels

Battery: Must last for 2 hours continuous operations

Minimum Connections: 2 Serial RS-232, 5 USB, 2 Ethernet, 1 composite video, 1 VGA, 1 microphone in, 1 audio out, HDMI slot

Display: Must contain FullHD touchscreen display and option for external VGA input

### **Long range Tracking Antenna:**

Tripod: Must be tripod mountable

Communication range: Greater than 100 km range

Compatibility: Must be compatible with all standard autopilot systems with simple plug and play

Frequency range: Must be capable of operating at 2.4 GHz with a channel bandwidth of 8 MHz

Link rate: Minimum of 6 Mbps

Encryption: Minimum of 128 bit AES

Weight: Less than 35 kg with tripod

Azimuth rotation: 360 degrees continuous

Elevation rotation: -3 degree to + 75 degrees

Operating temperature: 0 deg C to 50 deg C

### **Additional Requirements:**

1. Vendors should provide continuous technical support and maintenance of equipment.
2. Vendors have to provide warranty for a minimum of one year
3. Vendors must have sufficient experience in supplying equipment in reputed organizations for research purposes. They must provide references like Purchase order Copies of end users whom we can contact for their experience with the supplied machine. Performance Certificate and experience details of the end users will also be used as a criterion for the selection of bids that meet technical requirements.
4. Vendors must provide detailed documentation for the equipment.
5. Vendors may be called to visit and give presentation/demonstration on the equipment after opening the technical bid. They need to provide the approximate date for this presentation in the bid. The time period for this presentation will be intimated at a later date
6. Vendors must provide training to our technical staff for using the equipment.
7. All the expenses for installation, training and post sales technical support will be borne by the vendor.