

Technical Specifications for Datalink System

Application: Complete integrated broadband digital datalink system, including air & ground modules and software, for operation on an unmanned aerial vehicle

Number of video channels: two or more, with real-time HD video streams. Typically, one would be for an on-board camera, and one for autopilot telemetry & control.

Video: Two micro HDMI input ports support up to 1080p@60 fps video input with a latency of 20 ms or lesser

Range for telemetry and control: 20 km or more

Radio Frequency: Around 2.4 GHz

Encryption: AES-256

Size (air and ground module): less than 100 x 100 x 50 mm each

Weight (air and ground module): less than 80 g each

Power air module: 5V DC

Antenna for air module: 5dBi

Antenna for ground module: 8dBi

Air module: USB, UART, I2C and SPI interfaces to connect payload and tightly integrate it with flight controller and / or ground control station.

Ground module: (i) micro USB connector to interact with laptops, smartphones, tablets, desktop computers, (ii) active cooling system to withstand high ambient temperatures and harsh environments.

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