**Handheld GPS data logger: 250 units.**

**General**

The data logger should continuously record its exact route, halt time, speed, direction and other valuable information, all of which can be quickly downloaded and viewed on computer.

Specifications:

1. Frequency of data logging: 1 second or less but logging interval

 should be modifiable as per user needs (e.g. 1sec, 3sec, 5sec etc.).

2. Minimum 60000 track points storage (prefer 100000 or more points)

3. Must output: latitude, longitude, timestamp, date, speed. Output of

 heading and altitude are also desirable.

4. SIRF IV or MTK II chipset or higher level chipset with high tracking

 sensitivity: -159 dBm or higher

5. Should be usable for recording in standalone manner (without

 computer / laptop/ car charger during the trip)

6.                  Tracker Dimension: smaller than 95 mm x 70 mm x 23 mm

7.                  Weight < 65 gm

8.                  Battery with Life: 24 or more hours of continuous use

9. Should be powered by easily available rechargeable AAA batteries or

 rechargable Li-ion batteries with USB charging facilities.

10. USB / mini-USB interface for downloading data

11. Software for data logging and mapping to be included

12. Log data should be exportable to mapping software such as Google

 Earth, trackmaker etc.

13. Supporting accessories and cables for charging and downloading to be

 included.

14. Memory should be non-volatile (if the device completely loses power at

 any time, all data collected on the device remains on the device)

15.            Cold/Hot Start: not more than 45/2 seconds typical (lower values preferred)

16. Accuracy:

 a. position accuracy: not more than 5-10 m RMS error

 b. velocity: < 0.5 m/s RMS error

17.               Operating Temperature: 0 to 65oC, Humidity 95% non-condensing

18.               Output format: NMEA 0183 or simple text of .csv

19. Preferable to have a motion sensor or sleep mode (to preserve

 battery, devices go into a ‘sleep’ mode when it has not moved for 15

 minutes and ‘wake up’ when moved.

20. At least 1 year warranty and technical support during the warranty

 period. In case the performance of any equipment fails to meet the

 contract specifications, then the vendor shall replace the

 equipment free of cost during the warranty period, within 15 days of

 reporting.

21. Support A-GPS function or SBAS (WAAS, EGNOS) or

 GLONASS support is desirable.

22. Vendor must have supplied at least 200 GPS units (with same

 or similar specifications) in the last 3 years and should provide

 documented evidence of the same

23. Relevant literature including datasheet and full specifications of the

 product should be included with the technical quotation.

24. Vendors may be asked to provide a sample for testing prior to

 placement of purchase order. Samples, if called for, should be supplied

 free of cost on returnable basis and collected back at suppliers

 expenses.

25. Quantities mentioned are approximate only. The vendor should quote

 per unit price. IIT Madras reserves the right to modify the order

 quantity depending on project requirements or not place the order at

 all.

26. The rate quoted for all the items by the bidder shall be valid during the

 one year warranty period for the placement of repeat order.