

**DIRECTORATE OF GEOLOGY, ODISHA**

**TENDER DOCUMENT**

**WITH TERMS & CONDITIONS FOR SUPPLY OF  
DIFFERENTIAL GLOBAL POSITIONING SYSTEM  
(DGPS) with RTK and all accessories**

**FOR THE YEAR 2015-2016**

DATE OF COMMENCEMENT OF SALE OF THE TENDER DOCUMENT : 15.10.2015.  
LAST DATE / TIME FOR SALE OF TENDER : 04.11.2015.  
LAST DATE / TIME FOR SUBMISSION OF TENDER : 05.11.2015/ 5.00 PM  
DATE / TIME FOR OPENING OF TENDER DOCUMENTS : 06.11.2015/ 11.30 AM

RECEIPT OF BID DOCUMENTS }  
ADDRESS FOR COMMUNICATION }:  
PLACE OF OPENING OF TENDER }

Directorate of Geology, Bhu-Bigyan Bhawan  
Bhubaneswar, ODISHA – 751001  
Tel : 0674-2392374 / Fax : 0674-2391776  
Email : [directorgeology\\_odisha@yahoo.in](mailto:directorgeology_odisha@yahoo.in)



**CHAPTER - I**  
**(INSTRUCTIONS TO THE BIDDERS)**

- 1.1 The Director of Geology, Odisha, Bhu-Bigyan Bhawan, Bhubaneswar invites sealed tenders on behalf of the Governor of Odisha for purchase of **Differential Global Positioning System (DGPS) with RTK & all accessories, during the year 2015-2016**, from reputed manufacturers or their authorized Distributors/ C&F Agents/ reputed Dealers/ Suppliers/ EPM rate contract holders in conformity with terms and conditions as laid down in tender documents. In case of imported articles direct importers are also eligible to participate in the tender process, subject to fulfillment of the conditions mentioned in Para – 3.1.5 below.
- 1.2 Sealed tenders for supply of above items (Details at Chapter-III) should reach before the Director of Geology, Odisha, Bhu-Bigyan Bhawan, Bhubaneswar – 751001, latest by **5 P.M. on 05.11.2015**, through **Regd. Post/ Speed Post/ Courier Service** only. Tenders received after the aforesaid time and date will not be considered and will be returned unopened.
- 1.3 The sealed tenders submitted by the Bidder will be opened by the purchase committee of Directorate of Geology, Bhu-Bigyan Bhawan, Bhubaneswar on **06.11.2015 at 11.30 A.M.**
- 1.4 The Bidders or their duly authorized representatives are allowed to be present during opening of the tenders if they so like. Absence of the bidder or his authorized representative at the time of opening of the tender will not restrict the authority from opening the tender or carrying on the subsequent tendering process.
- 1.5 In the event of the designated date being declared as a holiday for Govt. of Odisha the due date of submission of bids and opening of bids will be the next working day at the appointed place and time.
2. Two covers i.e. **Cover “A” - Technical Bid**, containing documents/ information as stated in Para-3.1.1 to 3.1.13 & **Cover “B” - Price Bid**, containing documents as stated in Para- 3.2.1, “Super-scribed” separately as **“Cover A - Technical Bid”** & **“Cover B - Price Bid”** respectively) should be separately sealed and put inside a **third sealed** cover. The third sealed cover should be super scribed as **“Tender for the supply of Differential Global Positioning System (DGPS) with RTK & all accessories, during the year “2015-2016”** and is to be submitted to the **DIRECTOR OF GEOLOGY, ODISHA, DIRECTORATE OF GEOLOGY, BHU-BIGYAN BHAWAN, BHUBANESWAR - 751001.**



### 3 COVER & DOCUMENTS:

#### 3.1 Cover "A" - Technical bid

The following documents with an Index & Page No. in "Annexure – VII" should be furnished in the sealed cover (Cover A - Technical bid).

#### **MANDATORY DOCUMENTS**

- 3.1.1 Original Money Receipt of purchase of tender documents/ Non-refundable Crossed Bank Draft of Rs 525/- (Basic price of tender document Rs. 500/- + VAT @ 5% Rs. 25/-) drawn in favour of Director of Geology, Odisha, Bhubaneswar. (In case the tender document is downloaded from web-site)
- 3.1.2 Earnest Money Deposit as per Para 5.1.
- 3.1.3 The declaration Form in Annexure-I, signed by the Bidder, supported with the "Authorisation to transact Business" (if the Bidder is other than the Proprietor) must be attached.
- 3.1.4 Photo copy of up-to date VAT Clearance in Form VAT- 612, duly attested by a Gazetted Officer/ Notary with seal. (Applicable to firms from within the State of Odisha and not applicable for Foreign Companies)
- 3.1.5 The participant bidders must be registered under Odisha VAT Act or CST Act. **The foreign companies/ bidders from outside the state may participate in the tender without having any VAT clearance certificate subject to the condition that they should submit undertaking in the form of an Affidavit indicating therein that they are not registered under the Odisha VAT Act, as they have not started any business in the State and they have no liability under the Act; but before award of the contract, the bidder shall have to produce the VAT clearance certificate in form VAT-612. (Annexure IV). However they must furnish documentary evidence in support of their VAT/ CST registration outside the State of Odisha. (Not applicable for firms of Odisha)**
- 3.1.6 Attested photocopy of the up-to-date manufacturing license/ Import License, if it is imported/ Authorized Dealership Certificate/ Registration Certificate under Industries Department/ EPM Rate Contract document for the quoted products must be attached.
- 3.1.7 **Affidavit to provide after Sales Service with-in the State of Odisha beyond the warranty period**, for each items participating in the tender showing the detail Name, Address, Telephone No., Fax, E-mail of the Manufacturer/ Director or Proprietor of the firm/ Importer and its Distributor/ Dealer/ Supplier along with Repairing & Service centers in the state of Odisha, must be enclosed. ( Annexure- V)

#### **OPTIONAL DOCUMENT**

- 3.1.8 Declaration on Current Market Rate as per Para-7.8 & 8.1 must be enclosed. (Annexure-VI)
- 3.1.9 Abstract of the items for which the bidder is participating in the tender, supported with technical specifications/ literature/ Samples if any for each item in conformity to the Para 4.2. (Annexure-III)



- 3.1.10 A copy of the Terms & Conditions of the tender document (Page-1 to 11) and Chapter IV, showing the schedule of Requirement and Technical specifications of items to be procured be signed by the bidder at the bottom of each page with his Office seal duly affixed should be returned along with the tender.
- 3.1.11 Market Standing Certificate (Manufacturing/ Import) for last three years i.e. 2012-2013, 2013-2014, and 2014-2015 (Annexure - II)
- 3.1.12 The manufacturer may submit copy of the relevant up-to-date B.I.S./ I.S.O. Certificate/ CE (duly attested by Gazetted Officer/ Notary with seal) product wise along with the tender.
- 3.1.13 If required, the Bidder will have to arrange for a Presentation/ Demonstration before the Technical evaluation committee constituted by the Director of Geology/ Purchase Committee, in Bhubaneswar at Bidder's cost, either directly or through authorized Indian Agent/ Dealer/ Distributor as the case may be, on the date opening of the technical bid or any date fixed for the same, to verify whether the Instrument meets the technical specification, given in Chapter- IV.

### **3.2 Cover- "B" (Price Bid)**

- 3.2.1 The tender format prescribed in Chapter- V, duly filled in for each items, in conformity with Chapter – III & IV, (in duplicate) should include all the taxes, incidental charges (As stated in 7.4 & 10.8) and any additional charges if any for the extended warranty as per Para-8.4, excluding VAT, Entry Tax and Service Tax, if any . But in-case of outside state dealer/ bidder, CST will be reflected in the tender format stated above for each item.
- 3.2.2 The cover "A" containing the Technical Bids would be opened first for evaluation. After evaluation of the technical bids, the cover "B" containing the Price Bids of the qualified bidders only will be opened.

### **4. SAMPLES:**

- 4.1 After evaluation of relevant documents only successful / qualified bidders may be asked for producing samples, if required, by Director of Geology. In such cases the date will be fixed by the Director of Geology and intimated to the concerned bidders and a copy shall be put in the Notice Board at the Directorate of Geology, Odisha "Bhu-Bigyan" Bhawan, Bhubaneswar.
- 4.2 The samples submitted should be tagged individually with a label in the format as given in the bottom of Annexure-III and the total list of items so submitted should be mentioned in Annexure-III and be furnished with the samples. The particulars on the tag should be written in indelible ink and securely fastened.





## 5. EARNEST MONEY DEPOSIT:

5.1 The Earnest Money Deposit (EMD) referred to at Para 3.1.2 is of Rs.50,000.00 (**Rupees fifty thousand**) only which must be paid in the form of Demand Draft drawn in favor of Director of Geology, Odisha, payable at any Nationalized Bank/ Scheduled Bank located in Bhubaneswar only. **This must be enclosed with the tender document (In Cover- A, Technical Bid).** EMD in any other form other than Demand Draft will not be accepted.

The Bidders claiming exemption of EMD must have to enclose relevant document in support of such exemption.

5.2 The EMD of the unsuccessful bidders will be returned back after publication of the approved list.

5.3 The EMD of the successful bidders will be returned back only after fulfillment of conditions as laid down in Para-11.2.

## 6. PERFORMANCE SECURITY AND BILLING PROCEDURE:

6.1 The successful Bidders shall be required to pay a Security Deposit **within 15 days of getting purchase order in shape of Bank Guarantee** in favour of Directorate of Geology, Odisha, Bhubaneswar equal to 10% of the contract value of the materials subjected to a minimum of Rs.5,000/- (Rupees Five thousand) only. This performance security should be in the form of an **unconditional Bank Guarantee valid for four years** beyond the date of delivery of material.

6.2 The Performance Security Money (Bank Guarantee) will be returned back to the issuing bank after expiry of **four years** from the date of completion of supply / installation and quality testing or after the expiry of the normal warranty period, whichever is later.



## CHAPTER - II

### **(CONDITIONS OF CONTRACT)**

#### **7. TENDER CONDITIONS:**

- 7.1 The details of the materials required with technical specification are shown in Chapter III and IV of the document. The quantity mentioned is only the probable requirement and may be increased or decreased as per the decision of the Director of Geology, Odisha, Bhubaneswar. **The materials supplied by manufacturers/ authorized agents/ dealers of the manufacturers will have preference over others.**
- 7.2 Tenders should be typewritten/ computerized and every correction in the tender **should invariably be signed with date by the bidder/ authorized person to transact business** before submission, failing which the bidder will not be eligible for further consideration. **Correction done with correcting fluid should also be duly signed.**
- 7.3 The bidders should quote the rates in the format prescribed in **Chapter-V, in duplicate**, duly filled in for each items in conformity to **Chapter - III & IV.**
- 7.4 Rates quoted should be **inclusive of excise duty, customs duty (in case of imported goods), transportation charges and incidental charges, if any, and must be quoted against each items, on Freight On Delivery (Door Delivery) basis. The VAT, CST & the Entry Tax, Service Tax etc. (if applicable) must be mentioned separately for each item.** No tender for the supply of materials with conditions like **"AT CURRENT MARKET RATES"** shall be accepted and no tender, in which the rate is quoted for a unit other than the one asked for, shall be considered.
- 7.5 The bidder **has to deliver the materials at the Directorate of Geology, Odisha, Bhu-Bigyan Bhawan, Bhubaneswar. The insurance, transport charges/ courier charges, installation charges and training, if any, will be borne by the supplier.**
- 7.6 The rate per unit packaging shall not vary with the quantum of order placed or destination point.
- 7.7 The rates should be quoted in **Indian Rupees** only and should be mentioned both in words and figures against each item. The bidder shall not quote his own rates for any item other than the item specified in this list. **Price quoted in any other currency will be rejected.**



- 7.8 The price quoted by the bidders shall not in any case, exceed the controlled price, if any, fixed by Central/ State Government and the Maximum Retail Price (MRP).
- 7.9 To ensure sustained supply without any interruption, the Director of Geology, Odisha, Bhubaneswar reserves the right to split orders for supplying the requirements among more than one tenderer after due recommendation of the purchase committee.
- 7.10 Approved list of materials with terms and conditions and the quoted price of the tenders shall remain valid for a period of 12 months from the date of publication of approved list. The rates quoted and accepted will be binding on the bidder for one year and on no account any increase in the price will be entertained till the completion of the tender process.
- 7.11 No bidder shall be allowed at any time on any ground whatsoever to claim revision of or modification in the rates quoted by him. Clerical error, typographical error etc. committed by the bidders in the tender forms shall not be considered after opening the tenders. Conditions such as **“SUBJECT TO AVAILABILITY” “SUPPLIES WILL BE MADE AS AND WHEN SUPPLIES ARE RECEIVED”** etc. will not be considered under any circumstance and the tenders of those who have given such conditions shall be treated as incomplete and for that reason, shall be summarily rejected.
- 7.12 If at any time during the period of contract, the price of tendered items is reduced or brought down by any law or Act of the Central/ State Government/ the bidder shall be morally and statutorily bound to inform the Director of Geology, Odisha, Bhubaneswar immediately about such reduction in the contracted price. The Director of Geology, Odisha is empowered to unilaterally effect such reduction as is necessary in rates in case the bidder fails to notify or fails to agree for such reduction of rates.
- 7.13 If any information or document furnished by the bidder along with the tender papers are found to be misleading or incorrect at any stage, the tenders of the relevant items in the approved list shall be cancelled and steps will be taken to black list the said firm for three years and legal actions will be taken against the firm as per law.
- 7.14 If the manufacturing license and other relevant documents/ certificates which are required to be furnished along with the tender are written in language other than English, Hindi and Odiya, the tendering firm shall furnish English version of such documents/ certificates duly attested by a Gazetted Officer/ Notary Public with his seal and signature.



## 8. GENERAL CONDITIONS:

- 8.1 The bidder should submit/ furnish a certificate along with the tender to the effect that price quoted by him/ them is not more than the open market price or MRP/Controlled price and it is not more than the current rates of DGS&D/ EPM. (**Annexure – VI**)
- 8.2 The successful bidder shall impart adequate training to personnel to be nominated by Director of Geology, Odisha, at his/ their factory/ workshop inside/ outside India/ at the site of installation, as the case may be, at the supplier's cost.
- 8.3 All the items supplied must be covered with **a minimum guarantee/ warranty period of 1 (one) year and three years extended warranty period for the items mentioned in Para-8.4.** Any material, if found to be not in working condition, broken or rusted within the warranty period from the date of supply due to manufacturing defect, the same will be returned back to the supplier for replacement. If the supplier fails to replace the defective items, action as per Clause 12.2 will be taken against the supplier.
- 8.4 The successful bidder has to give **three years extended warranty period/ AMC in addition to Para 8.3 above for item code A001 (DGPS).** The bidder has to execute a contract bond to that effect before his final payment made as per Para-11.2.

## 9. QUALITY TESTING

- 9.1 Each items supplied will be chosen at the point of supply/ distribution/ storage points for testing. The samples will be sent to competent authority or tested at the point of supply by a committee selected by Director of Geology, Odisha. If the material as per report is found to be not of standard quality in the test, the Director of Geology will ask the supplier to replace the full stock. The expenditure towards packing, forwarding and testing fees will be borne by the supplier.
- 9.2 The supplies will be deemed to be completed only on receipt of the quality certificates from the laboratories/ by the committee followed by necessary stock entry. If the supplied articles do not confirm to standard quality, the bidder will be required to replace the entire quantity of the items declared **NSQ (Not of Standard Quality)** and take back the available stock (unused) within a period of 30 days of the issue of the letter from the Director of Geology, Odisha. The Director of Geology, Odisha has the right to destroy such sub-standard goods, if the bidder does not take back the balance goods within 30 days of issue of the letter.





9.3 If the supplier does not replace the '**Not of Standard Quality**' stock, it will be derecognized for that product and no further supplies will be accepted from him or order placed to him. The bidder shall also not be eligible to participate in any tender/ quotation process of Director of Geology, Odisha for supply of any kind materials for a period 3 years. Any amount (price) received by the firm for that product (**Not of Standard Quality**) must be returned to the Director within 15 days from the date of issue of the order failing which the amount so received will be adjusted from any other dues payable to the Supplier concerned or from the EMD and security money deposited by the firm as the case may be.

9.4 The bidder should clearly understand that the decision of the Director of Geology, Odisha or any officer authorized by him as to the quality of the supplied items shall be final and binding.

**10. ACCEPTANCE OF TENDER AND SUPPLY CONDITIONS:**

10.1 The Director of Geology, Odisha reserves the right to reject or accept any of the tenders for the supply of all/ any of the articles tendered for in the tender without assigning any reason thereof.

10.2 The Director of Geology, Odisha will be at liberty to terminate, without assigning any reasons thereof the contract either wholly or partly. The bidders will not be entitled to any compensation whatsoever in such termination.

10.3 Purchase Order shall be sent to the approved supplier by Regd. Post with A.D./ Courier Service/ Speed Post. **The supply should be completed within 30 days from the date of issue of purchase order**, by the Director of Geology, Odisha unless otherwise specified in the order. If no supply is received within 30 days of issue of the purchase orders or any approved period of extension for supply, by the Director of Geology, Odisha, such orders would stand cancelled automatically without further notice. Penalties thereof shall also apply to the bidder as specified in Clause No. 12.1. The EMD/ Security deposit in such cases will be forfeited.

10.4 If the approved Supplier fails to execute the supply within the stipulated time, the Director of Geology, Odisha is empowered to make emergency purchases and claim the difference from the approved suppliers in addition to other penal clause.



- 10.5 Items having ISI mark and ISO Certificate with C.E. Certificate will be preferred to other items. Similarly preference will be given to those filing Market Standing Certificate
- 10.6 The Director of Geology, Odisha or his authorized representative(s) has the right to inspect the factories of those companies who have quoted for the tender, before accepting the rate quoted by them or before releasing any order(s) or at any point of time during the validity period of tender and has also the right to reject the tender or terminate/ cancel the orders issued based on facts brought out during such inspections.
- 10.7 **Selection of item will be done taking into consideration the quality, past performance as well as the price of the product.**
- 10.8 **The basic rates of each item will be by adding the excise duty + transportation + custom duty + insurance + installation charge & incidental (warranty period) to the unit cost of each item and will be compared for evaluation. The VAT, Entry Tax and Service Tax if any, will be excluded at the time of evaluation. However in-case of outside state dealer/ bidder, basic price of goods will be inclusive of CST.**
11. **TERMS AND PAYMENT:**
- 11.1 **No advance towards cost of materials will be made to the tenderer. No payment will be made to the Supplier/ Bidder if he has not deposited the unconditional performance security/ Bank Guarantee for 4 years as mentioned in Para-6.1 and if applicable the contract bond for the extended Warranty period of 3 years as per Para-8.4.**
- 11.2 Total bill amount including VAT shall be released after receipt of all documents required under Para-11.1 and delivery of material(s), followed by satisfactory quality testing certificate furnished by a committee to be nominated by Director of Geology, Odisha in accordance with Para 9.1 & 9.2 above, installation and training, if any, and necessary stock entry certificate furnished by the persons concerned.
- 11.3 No claims shall be made against the Director of Geology, Odisha, Bhubaneswar in respect of interest on earnest money deposit or security deposit.



## 12. PENALTIES:

- 12.1 If the successful bidder fails to execute the agreement and/or withdraws his tender after acceptance of his tender, owing to any other reasons or he is unable to undertake the contract, his contract will be cancelled and the earnest money deposit by him along with his tender shall stand forfeited and he will also be liable for all damages sustained by the Director of Geology, Odisha, Bhubaneswar by reasons of such breach, such as failure to supply/ delayed supply including the liability to pay any difference between the prices accepted by him and those ultimately paid for the procurement of the articles concerned. Such damages shall be assessed by the Director of Geology, Odisha, Bhubaneswar, whose decision shall be final and binding in the matter.
- 12.2 If any articles or things supplied by the bidder have been partially or wholly used or consumed after supply and are subsequently found to be in bad order, inferior in quality or description or are otherwise faulty or unfit for consumption/ use and rusted and if the supplier fails to replace the defective items within the time frame to be fixed by the Director of Geology, then the contract price or prices of such articles on full will be recovered from the bidder, if any payment had already been made to him. The bidder will not be entitled for any further payment for that item and no further order will be given to him for next three years. For infringement of the stipulations of the contract or for other justifiable reasons, the contract may be terminated by the Director of Geology, Odisha, Bhubaneswar and the bidder shall be liable for all losses sustained by the Director of Geology, Odisha, Bhubaneswar in consequence of the termination which may be recovered from the security deposit made by the bidder or other money due or become due to him.
- 12.3 Supply of sub-standard items or non-performance of tender terms and conditions will disqualify a firm to participate in the tender for the next three years.
- 12.4 In the event of any dispute arising out of the tender, such disputes would be subject to the jurisdiction of the Civil Court, Bhubaneswar or High Court, Odisha only.



*Adamb*  
25/10/15  
Director of Geology, Odisha

**CHAPTER III**  
**SCHEDULE OF REQUIREMENTS FOR PROCUREMENT**  
**DURING F/Y- 2015-16**

**PROSPECTING STORE IMPLEMENTS (CAMP EQUIPMENT)**

Sl. No.	Item	Tentative Qnty. for Purchase during 2015-16.
1	2	3
1	Differential Global Positioning System (DGPS) with RTK and all accessories	1



Directorate of Geology, Odisha

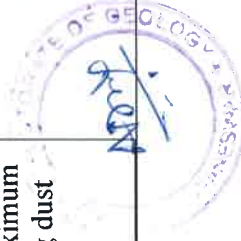
**CHAPTER – IV**  
**SPECIFICATIONS AND TECHNICAL DETAILS OF**  
**Differential Global Positioning System (DGPS) with RTK and all accessories**

Sl. No.	Item Code	Name of the Item	Strength/ Size/ Specification	Approximate tender quantity																								
1	A 001	Differential Global Positioning System (DGPS) with RTK and all accessories	<table><tr><td colspan="3">Technical specifications for Differential Global Positioning System (DGPS) with RTK and all accessories</td></tr><tr><td colspan="3">Specification for DGPS Machine with One Base and One Rover with separate Antenna. DGPS should be capable of integrating with Electronic Total station</td></tr><tr><td colspan="3">1. RECEIVER</td></tr><tr><td>a</td><td>Type</td><td>Multi-frequency GNSS receiver capable of receiving GPS L1, L2 and L5 GLONASS L1 and L2</td></tr><tr><td>b</td><td>No of Channels</td><td>450 Channels or more</td></tr><tr><td>c</td><td>Maximum simultaneous tracked satellites</td><td>Able to track 50 or more satellites simultaneously on two frequencies</td></tr><tr><td>d</td><td>Satellite Signals to be tracked</td><td>GPS: L1,L2,L2C, L5 GLONASS: L1, L2 Galileo: E1, E5a, E5b and AltBOC BeiDou: B1,B2 WAAS, EGNOS, GAGAN and MSAS L-band</td></tr><tr><td>e</td><td>GNSS Measurements</td><td>Fully independent code and phase measurements of all frequencies with phase tracking precision of 0.5 mm. L-band correction system.</td></tr></table>	Technical specifications for Differential Global Positioning System (DGPS) with RTK and all accessories			Specification for DGPS Machine with One Base and One Rover with separate Antenna. DGPS should be capable of integrating with Electronic Total station			1. RECEIVER			a	Type	Multi-frequency GNSS receiver capable of receiving GPS L1, L2 and L5 GLONASS L1 and L2	b	No of Channels	450 Channels or more	c	Maximum simultaneous tracked satellites	Able to track 50 or more satellites simultaneously on two frequencies	d	Satellite Signals to be tracked	GPS: L1,L2,L2C, L5 GLONASS: L1, L2 Galileo: E1, E5a, E5b and AltBOC BeiDou: B1,B2 WAAS, EGNOS, GAGAN and MSAS L-band	e	GNSS Measurements	Fully independent code and phase measurements of all frequencies with phase tracking precision of 0.5 mm. L-band correction system.	1
Technical specifications for Differential Global Positioning System (DGPS) with RTK and all accessories																												
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d	Satellite Signals to be tracked	GPS: L1,L2,L2C, L5 GLONASS: L1, L2 Galileo: E1, E5a, E5b and AltBOC BeiDou: B1,B2 WAAS, EGNOS, GAGAN and MSAS L-band																										
e	GNSS Measurements	Fully independent code and phase measurements of all frequencies with phase tracking precision of 0.5 mm. L-band correction system.																										





		Receiver Technology	Fast acquisition. Strong signal. Low noise carrier phase measurement with <0.5 mm precision. Excellent tracking, even to low satellites and in adverse conditions. Interference resistant. Should have inbuilt integrity monitoring for continuously determining the ambiguities in back ground. Should have inbuilt multipath mitigation.	
	Display		Receiver should be having display facilities to see following facilities <ul style="list-style-type: none"> <li>• switch between Rover and Base mode</li> <li>• positioning functionality</li> <li>• Full status</li> <li>• Indicator &amp; configuration</li> </ul>	
	LED status indicators		Bluetooth, Position, Logging.	
	Communication Ports		3 x serial RS232 Lemo 1 1 x USB / RS232 Lemo 1 x 5pin Lemo external power 1 1 x Bluetooth port 1 x PPS output 1 1 x Event input	
	Power Consumption		Power consumption should be 3.2 W or less	
	Weight		Light weight receiver not more than 2 kg	
		Environmental Specification for Receiver		
	Operational		-40 °C to +60 °C or better	
	Storage Temperature		-50 °C to +80 °C	
	Humidity		100%	
	Environmental protection		Equipment should be well protected against blowing rain, waterproof to temporary submersion into water (maximum depth of 1m). Dust-tight, protection against blowing dust (IP68 protected)	



Specification for Receiver Accuracy		
a	Static Long	
	Horizontal	3 mm + 0.1 ppm or better 3.5 mm + 0.4 ppm or better
b	Static and Rapid Static Phase	
	Horizontal	4 mm + 0.5 ppm or better
	Vertical	5 mm + 0.5 ppm or better
c		Kinematic (phase) in moving mode after initialisation
	Horizontal	<10 mm + 1 ppm
	Vertical	15 mm + 1 ppm
d	Accuracy Real Time Kinematic Phase moving mode after initialisation	
	Horizontal	<10 mm + 1 ppm
	Vertical	15 mm + 1 ppm
Performance Specifications of Receiver		
a	Reliability of Initialisation	Better than 99.99%
b	Time for OTF Initialisation	4 sec or less.
c	OTF/RTK Range	Up to 60 km under normal conditions
d	Position Update Rate	0.05 sec (20 Hz)
e	Position Latency	0.02 sec or less
f	Data Recording rate	Up to 20 Hz
g	Navigation	Full navigation information in position and stakeout displays, position, course, speed, bearing and distance to waypoint
h	Logging	All the receivers should have capability to log the RINEX data directly into receiver onboard without any external converter.



<b>d</b>	Environmental protection	Equipment should be well protected against blowing rain, waterproof to temporary submersion into water (maximum depth of 1m), Dust-tight, protection against blowing dust (IP68 protected)
<b>e</b>	Drops	Withstands 1 m drop onto hard surfaces
<b>3. DISPLAY CONTROLLER</b>		
<b>Identical controllers for both base and rover</b>		
<b>Hardware Specifications for Controller</b>		
<b>a</b>	Display	640 x 480 pixel (VGA) colour TFT with Led backlight and touch screen
<b>b</b>	Keyboard	Should have Alphanumeric Hard keypad with touch sensitive TFT.
<b>c</b>	Graphical Display	Controller should be capable of creating complete Points, Lines and Polygons in the field which will be displayed graphically on the screen.
<b>d</b>	Weight	Lightweight controller with weight less than 800 grams
<b>e</b>	Ports	1 USB 2.0, 1 Lemo RS232 Port/DB9 connector, SD, CF.
<b>f</b>	Uses	Controller must be compatible with both GPS and Total Station.
<b>g</b>	Upgrade	Should be possible to upgrade controller to a GIS data collector with Internal Antenna
<b>h</b>	Internal Memory	Removable SD card 16 GB or more
<b>Coordinate System on Controller</b>		
<b>a</b>	Ellipsoids	All common ellipsoids. User-definable ellipsoids
<b>b</b>	Map projections	Mercator Transverse Mercator User definable UTM and country specific Oblique Mercator



		Lambert (1 and 2 standard parallels) Soldner Cassini Polar Stereographic Double Stereographic	
c	Geoid model	Upload of geoid model to system	
d	Transformation in receiver	Classical 7-parameter 3-D Helmert One step and two step (direct WGS 84 to grid). The transformation approach should also allow the determining of transformation with only one common for a small survey field. The residuals should also be distributed on board.	
<b>On Board Software on Controller</b>			
a	Graphics	Graphical representation of points, lines and areas Application result plots	
b	Icons	Icons indicating the current status of measure modes, settings, battery etc. It should be possible to configure or see status of the iconed devices by touching on the screen.	
c	Function Keys	Direct function keys for quick and easy operation.	
d	Configuration sets	Ability to store and transfer all instrument and application configuration settings for different operators, survey tasks etc.	
e	Free Coding	Recording codes with optional attributes in between of measurements Manual code entry or selection from a user defined code list	
f	Thematic Coding	Coding points, lines and areas with optional attributes when measuring Manual code entry or selection from a user defined code list	
g	Quick Coding	Recording a measurement with a point code or free code by entering a numerical quick code from user defined code list	





h	Averaging	Averaging of multiple points within user defined averaging limit	
	i	On Board Programmes	Surveying, Staking, COGO, Area, Two Point Distance, Automatic Recording Points with user defined time or distance, Hidden Point Measurements.
	j	On Board Applications	Controller should have software to work in both GPS and TPS mode. Should support Survey data collection, Job creation, Graphical Stake out, Map screen with Zoom In and out, Pan and Zoom Window icons, should be possible to attach a CAD dxf file to the survey data
<b>Environmental Specifications for Controller</b>			
a	Temperature Operation	-30 to 60° C	
b	Temperature Storage	-40 to 80° C	
c	Humidity	100%	
d	Drop	1.2 m	
<b>4. POST PROCESSING SOFTWARE</b>			
a	Description	The software should be a combined software capable of handling the GPS, TPS and Digital Level Data	
b	Import	Capable of Importing the RAW Data logged from DGPS and RINEX data with maps created in the field to be downloaded. Also should be capable of downloading data from Total Stations and Digital Levels.	
c	Export	Capable of Exporting the data in RINEX format as well as capable of transferring the Maps directly to CAD with the code lists enabling the symbol to be attached without manual editing.	
d	Reporting	Software should be capable of generating HTML style reports directly for the surveyed data	
e	Processing Options	Capable of Processing the Raw static data of GPS and GLONASS for both manually and automatically	



<b>f</b>	Datum Transformation	Capable of transferring the data from one datum to another for given set of common points with or without the knowledge of datum's	
<b>g</b>	Adjustment	Capable of performing 3D adjustments for the surveyed area of GPS networks.	
<b>h</b>	COGO Calculations	Software should be capable of computing the coordinates of unknown points using reference points and coordinate geometry	
<b>i</b>	Image Referencing	The software should have an image referencing module and the surveyed data should be imported directly on this back ground Raster Image.	
<b>Complete DGPS System with Accessories</b>			
<b>a</b>	Static Survey Kit	Receiver Kit for performing the static survey with suitable Tripod arrangement for base and rover units.	
<b>b</b>	RTK Survey Kit	Rover back Pack and Pole holder kit for RTK Survey.	
<b>d</b>	Office Software	GNSS Data processing software with all options	
<b>e</b>	Rechargeable Batteries	6 Nos.	
<b>f</b>	External batteries with charger	2 Nos	
<b>g</b>	Cables	1.8 m (2 nos) and 10 m (2 nos)	
<b>h</b>	Training	On sight training (glacier terrain) for Installation, data collection, data processing and post processing of data using software.	
<b>i</b>	Cover (water-proof)	For Tripod, receiver and antenna box	



**CHAPTER-V**  
**MODEL TENDER FORMAT (PRICE SCHEDULE)**

Sl. No.	Item Code	Name of the item	Strength/ size & specification	Basic price per each unit, which includes excise duty, customs duty, insurance, transportation if any (Para-10.8) packing, forwarding warranty & maintenance for 1 (one) year & EXCLUDES VAT & Entry tax and service tax, if any for each item (Rs.)	VAT/ CST & Entry tax, if any, (Rs.)	Total Unit Price (Rs.) (5 + 6)	Tendered quantity	Total value (Rs.) (7 X 8)	Remarks
1	2	3	4	5	6	7	8	9	10

Place :

Date :

Note: 1. Sl. No. should be as per numbering in the tender document.

2. Copy of manufacturing license of each item quoted must be attached.



Signature of the Bidder:

Name:

Address:

## ANNEXURE – I

### DECLARATION FORM

I/We .....having  
my/ our..... Office at.....  
do declare that I/We carefully read the terms and conditions as laid down in the Tender  
document of the Directorate of Geology, Odisha for the supply of materials for the tender  
period of one year. I will abide by all conditions set forth in the tender paper for the year  
2015-2016.

I/We further declare that I/We possess valid manufacturing license/Distributor  
license

Bearing No..... Valid up to .....

I/We ..... do hereby  
declare that I will supply the materials as per the specifications mentioned against each  
item of the tender document.

I promise **1 (one) year warranty and extended warranty period of 3 years if  
applicable as per Para-8.4** on the items to be supplied by me against any manufacturing  
defect/ rusting/ break down. I shall replace the item without any extra cost from the  
purchaser failing which the cost of the materials will be recovered from my performance  
security deposit and EMD.

Signature of the Bidder :

Date :

Name & Address of the Firm



**ANNEXURE – II**

**MARKET STANDING CERTIFICATE  
(PROFORMA FOR PERFORMANCE STATEMENT)**

(For period of last three years i.e. 2012-13, 2013-14 & 2015-16)

As per Para: 3.1.11

Name of the Firm/ Supplier:

Order placed by (Full address of purchaser)	Order No. & Date	Description & quantity of order	Value of order	Date of completion of delivery as per contract actual	Remarks indicating reasons for late delivery, if any	Was the supply of materials (Attach a certificate from the purchaser/consignee) satisfactory?
1	2	3	4	5	6	7

Signature \_\_\_\_\_





**ANNEXURE – III**

As per Para: 3.1.9 & 4.2

**PROFORMA FOR SUBMISSION OF MATERIALS**

Name of the Bidder \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

Sl. No.	Item Code	Name of the item	Specification of the items bided for/ Document in support of Specification desired in the tender document	Quantity submitted
1	2	3	4	5

Place:

Date :

Signature of the Bidder:

Official Seal:

**DIRECTORATE OF GEOLOGY, ODISHA  
BHU-BIGYAN BHAWAN, BHUBANESWAR  
Tender 2015-2016**

Item No.:

No. of pieces submitted:

Name of the Tender:

Date:



**ANNEXURE – IV**

As per Para- 3.1.5

**AFFIDAVIT**

I/ We ..... having  
my/ our.....Office at.....  
do declare that I/ We carefully read the terms and conditions as laid down in the Tender  
documents of the Director of Geology, Odisha for the supply of materials for the tender  
period of one year. I shall abide by all conditions set forth in the tender paper for the year  
2015-2016.

I further declare that the firm is not registered under the Odisha VAT Act as we  
have not started any business in the state of Odisha. I continue to say that we do not have  
any liability under the Act. I/ we do undertake that in the event of being selected for supply  
of any item, I/we will produce the VAT clearance certificate in form VAT-612 before award  
of the final contract.

Signature of the Bidder:

Date:

Name & Address of the Firm:



**ANNEXURE – V**  
(In shape of Affidavit)

As per Para: 3.1.7

**DETAILS OF MANUFACTURING UNIT/ DISTRIBUTOR/ REPAIRING UNIT**

Name of the Item & Code No in tender	Address of the Manufacturer/ Importer with Phone No., Fax No., E-mail address, Date of Inception, License No & date etc.	Address of the Distributor/ Dealer in Odisha, with Phone No., Fax No., E-mail address, Date of Inception, License No & date etc	Address of the Repairing/ Service Centre/ Branch in Odisha, with Phone No., Fax No., E-mail address, Date of Inception, License No & date etc
1	2	3	4

I/ We hereby declare that the after sales services/ repairing shall be provided by us, beyond the warranty period for the items, for which there is no authorized service Centre in Odisha, as per the terms and condition.



Signature of the Bidder

Date:

Official Seal:

**DECLARATION FOR CURRENT MARKET RATES**

I/We ..... declare that the price quoted by me/ my firm in the tender is not more than the open market price or MRP/ Controlled price and it is not more than the current rates of DGS&D/ EPM.

Signature of the Bidder:

Date:

Name & Address of the Firm:



**ANNEXURE – VII**  
**DOCUMENTS SUBMITTED**

As per Para: 3

**MANDATORY DOCUMENTS**

- 1 Original money receipt for purchase of Tender Paper/ Crossed B.D. for downloaded document.
- 2 Earnest Money Deposit
- 3 Attested photo copy of up-to-date VAT Clearance Certificate in form VAT-612
- 4 Declaration form (Annexure-I) signed by the bidder, supported with the "Authorisation to transact Business" (if the Bidder is other than the Proprieter)
- 5 Affidavit of foreign companies/ bidders from outside the state. Annexure- IV.
- 6 Attested photo copy of VAT/CST registration outside the state of Odisha. (For foreign companies)
- 7 Attested photo copy of manufacturing license/ EPM rate contract/ Authorized dealership certificate for each and every product quoted.
- 9 Details of Manufacturing Unit/ Distributor/ Repairing Unit. Annexure – V

**OPTIONAL DOCUMENTS**

- 10 Declaration for current market rate. (Annexure-VI)
- 11 Abstract of the items for which bidding is made. Annexure-III.
- 12 Attested photocopy of Import license (if any)
- 13 Copy of Terms & Conditions of Tender (page: 1 to 11) and schedules (Annexure-III) duly signed by the bidder in each page.
- 14 Market Standing Certificate, Annexure-II.
- 15 Attested photo copy of up-to-date B.I.S./ I.S.O /CE Certificate .
- 16 Service Tax Registration Certificate, if any

Page No		Yes		No	
Page No		Yes		No	
Page No		Yes		No	
Page No		Yes		No	
Page No		Yes		No	
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Page No		Yes		No	
Page No		Yes		No	
Page No		Yes		No	

Signature of the Bidder

