

SPECIAL CONDITIONS OF TENDER

(FOR PROCUREMENT OF UNATTENDED AXLE BOX LEVEL ACCELERATION MEASUREMENT SYSTEMS - Specification No. TM/IM/434, Rev 4)

1. Major and Minor parameters:

- i. Tenderers may please note that no deviation against “Major” Parameters of technical specifications shall be acceptable. However, deviations against “Minor” parameters of technical specification may be considered subject to acceptability by IR. The “Minor” Parameters of technical specification are Clause No. 4.5, 4.6, 4.7, 7.1, 7.2, 7.3. Rests of the clauses of Technical Specification are “Major” parameters.
- ii. Any deviation in Minor parameter should be accompanied with justification for the same and its impact on functional requirement of the system and its prescribed accuracies.
- iii. In case, the deviation in minor clause of technical specification proposed by the bidder is not acceptable, original conditions as per technical specifications of RDSO shall be binding on the bidder.

2. Inspection Clause:

Pre-dispatch Inspection (may be done via online mode, if required) shall be carried out prior to dispatch at manufacturer/ firm's premises by authorized officials of Indian Railways as per Lab Validation procedure submitted by the supplier and approved by Railways.

The Lab Validation procedure shall be submitted by the firm, within 02 months from the award of work, for approval by Indian Railways.

While Lab Validation Test shall be an integral part of Pre-dispatch inspection, Site Acceptance Test shall be a part of Acceptance Test at the time of commissioning.

In addition to above in case of remote inspection (via online mode), the firm will provide WTC (work test certificate). The Inspection Certificate will be issued on the basis of finding of the above remote inspection and WTC.”

3. Delivery Period

3.1 Delivery is required at SSE/P.Way/SC Railway/Secunderabad

Delivery of two (02) systems to SSE/P.Way/SC Railway/Secunderabad including design, manufacture and lab validation tests shall be completed within 04 four months by the firm from the date of issue of purchase order.

3.2 Installation and Commissioning

3.2.1 All the works related to installation and commissioning of systems at the base stations (as decided by SC Railway) including carrying of systems to the base station shall be the responsibility of the firm. The network connectivity from intermediate processing station to CRIS server (TMS) will also be provided by CRIS with no charges to the firm.

CRIS shall provide an ethernet connectivity to intermediate processing station for connecting CRIS server (TMS) through parameter security devices.

Intermediate processing station would be provided by Railways at a centralized location. The UABAMS supplied under this contract are to be linked to this Intermediate processing station.

VPN connectivity to maximum two engineers of firm shall be provided for configuring the intermediate processing station.

However, cost of network requirement for data transfer from UABAMS systems to intermediate processing station shall be borne by the firm.

3.2.2 The timeline for installation and field validation tests along with testing facilities for processing of data and generation of exception reports in processing stations is indicated in Para 4.0 below.

3.2.3 Any loss to the system or part thereof by any means of damage, theft or accident etc. during installation and commissioning shall be made good by the service provider without any extra cost. If required the service provider may get the system insured for the duration of installation and commissioning. Any certificate if required from IR shall be provided for this.

3.2.4 All the activities during installation and commissioning of the systems shall be done as per instructions of South Central Railway.

3.2.5 The responsibility of data processing at intermediate processing station and its successful transfer to CRIS server (TMS) lies with the firm.

3.2.6 The acceptance of these systems shall be certified by concerned Engineering Directorate of RDSO.

4.0 Delivery and Installation & Commissioning Schedule - Based on above, the delivery and Installation & commissioning schedule is summarized as under –

Delivery Period for supply at SSE/P.Way/SC Railway/Secunderabad	Delivery period for Installation & Commissioning
A) Submission of design - Within 01 month of order. B) Approval of design – Within 01 month from submission of design. C) Supply of 02 systems –Within 02 months from approval of design by SC Railway/Secunderabad.	Installation - Installation of UABAMS systems at SSE/P.Way/SC Railway/Secunderabad along with linking to intermediate processing station at CRIS premises – Within 15 days of Supply. Commissioning – Within 45 days after completion of installation. Subject to intimation by SC Railway as per note below.

Note: 1. Date for reckoning for start of installation and commissioning period will be from 10 days after intimation by SC Railway/Secunderabad for availability of systems and coaches.

2. Supply and commissioning of UABAMS and linking of these UABAMS to the Railways Intermediate processing station provided at CRIS is to be done by the firm.

4.1 The firm has to install the two UABAMS supplied under this contract either on one Vandhe Bharat rake or separate rakes as decided by the SC Railway.

5. Warranty of UABAMS:-

5.1. The firm shall ensure that systems supplied including all parts, components etc. used are free from defects and faults in design, material and workmanship and shall be of the highest quality and in conformity with the contract specifications.

5.2. The warranty of the systems shall be for 24 months from the date of acceptance i.e. from the date of issue of the commissioning certificate by SC Railway, Secunderabad, except in respect of complaints which are lodged before the expiry of the 24 months. The warranty period shall be extended by the duration of system breakdown.

5.3. The firm, on its own, shall supply and keep sufficient spare parts required to maintain and keep the systems operational during the warranty period to minimize system downtime. The list of such spare parts shall be provided along with the offer.

5.4. The firm shall be required to supply and install free of cost all the equipment, components, PCB cards, ICs, cables, transducers, connectors and spares which may fail, malfunction, become defective or required for uninterrupted working of UABAMS during the currency of Warranty Period and required consumables. The firm shall also keep adequate stock of such components, spares, LRU's (Least Replaceable Units) which are critical and may require repairs/replacement from time to time for ensuring uninterrupted working of the Systems during the Warranty Period. List of such components, spares, LRU's, proposed to be stored by the firm during the warranty period shall also be furnished along with their minimum number required by the tenderer in his offer.

5.5. Instrumentation systems shall require removal after about 18 months for overhauling the coaches of the revenue trains. Within the commissioning and warranty period one or more such removal and reinstallations shall take place. The firm shall be fully responsible for removal, keeping the system in a safe place as provided by Railway or shall installed on suitable different coaches, no extra payment shall be done for this activity. This will in no way affect the warranty liability of the firm for the system. No separate payment for mounting and dismounting of the system shall be made to the firm.

5.6. For any accidental damages, loss or theft during warranty, firm shall supply spares as per the rates mentioned in the list of spares as required under item no NS 4 of tender schedule . If any item is not mentioned in the list of spares, and the same is required in case of accidental damage it has to be provided by the firm free of cost.

5.7. The occurrence of any type of failure in the system must be remotely identified by the firm during the movement of train from originating station to terminating station and shall be rectified at the base station which will be decided by the SC Railway. The working time available at base stations for rectification of any defect shall be around 6 hrs.

5.8. The UABAMS shall be functional for monitoring before the start of trains from the originating station for each and every day of the month. The firm shall provide at its own expense, the services of competent Technical staff/ Engineers during operation and maintenance and whenever required the systems shall be attended to by the service engineer as per provisions of para 5.7.

5.9. The **maximum downtime (on the firm's account) during warranty** of the each system shall be not more than 240 hours in a quarter. The breakdown period will start from intimation of fault by the SC railway (through email/ meessages/ sms). The breakdown period shall start immediately if the train is standing at the base station and if the train in running condition the breakdown period shall start when the train reaches at base station.

The breakdown shall include;

- a. System off to System on i.e. no alerts or reports generated by the said system(s) or by the intermediate server.
- b. Faulty results (varying more than 20% than the results of previous runs for more than 20% of the recorded track) on stretches of similar speed (within speed variation +/- 10 kmph).

5.10. In case of any dispute the decision of SC Railway shall be Final.

5.11. **Penalty during warranty** - The firm must identify and take corrective measures for attending the breakdown and make the whole system functional For every additional hour of the breakdown the penalty of Rs 0.5% of system cost - per week or part thereof (on hourly pro rata basis) shall be applicable for all the systems affected by the breakdown.

5.12. **Maximum penalty** to be levied on account of warranty failure will be 10% (Ten Percent) of the value of all the systems calculated during whole of warranty period and after that if there is any delay on the part of supplier, the consignee shall be entitled for encashment of Warranty Guarantee bonds. The decision of the consignee regarding performance of the contractor shall be final and binding in this regard.

6. Maintenance Activities during Warranty period.

6.1. The following clause outline basis for requirements of Maintenance - (A) Testing Schedule:

- i. The UABAMS will monitor IR track as per the prescribed daily running schedule of concerned revenue trains.
- ii. Monthly recording will be in the range of 40,000-50,000 kilometers.

(B) Maintenance of UABAMS system:

i. All required periodic or corrective maintenance of the UABAMS shall be done by the supplier during the period when the vehicle is available at the base station.

ii. Periodic Maintenance of UABAMS fitted coaches (IOH and POH) will be arranged by IR officials as per schedule. Any repair in coaches will also be done by IR officials.

iii. The firm shall be responsible for dismounting and remounting of the equipment on the nominated coaches during IOH and POH. The system shall be handed over to nominated IR personnel for safekeeping during the IOH and POH or shall be installed on suitable different coaches, no extra payment shall be done for this activity.

7. Scope of work for data processing at intermediate processing station of UABAMS during warranty and post warranty:

7.1 The firm has to develop standard Digital Signatures for various types of track abnormalities and in consultation with SC Railway/RDSO based on the recordings done during the run.

7.2 The intermediate processing station provided by Railways is designed to receive data of all running systems.

7.3 The scope of work for data processing at the processing station of UABAMS during the warranty period of 24 months and five year post-warranty period shall be covered as per clause no 5 & 6 and any other relevant clauses, if any, of technical specification for UABAMS.

8. COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT (AMC):

8.1. The firm is required to quote rates for Comprehensive Annual Maintenance of UABAMS, for a period of 5 (five) years, beyond warranty period of 24 months. The scope of comprehensive maintenance contract (AMC) will include complete cost of personnel, consumables and spares required for maintenance of system.

Comprehensive maintenance contract will include minimum two preventive maintenance in a year and break-down maintenance, as and when required, to maintain and keep the system operational during 05 year period of contract and to ensure the system performance as described in Para 5.6 & 5.8.

8.2. However, firm will attach a comprehensive list of spare parts, which are required to maintain and keep the system operational during currency of COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT and shall keep the inventory of such parts to keep the down time of system within the specified period.

8.3. The expected monitoring by each UABAMS is 40,000-50,000 Kms on a monthly basis.

The firm while submitting a list of mandatory spares as per Para 8.2 shall also indicate their description, part number, equivalent international part number and quantity of each mandatory spares required for five years of COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT and fixed & firm price for five years.

8.4. The firm shall plan the list of mandatory spares very meticulously. In case any spares, other than the list of mandatory spares given by the firm for quoted quantity vide Para 8.2 above is required, then it shall be the responsibility of the firm to arrange and replace the same. No separate payment for these spares will be made.

8.5. The firm shall submit a list of works along with periodicity to be done in preventive maintenance in detail along with the Techno-commercial Bid. The same shall be done during the time when the vehicle is available at the base station.

8.6. The occurrence of any type of failure in the system must be remotely identified by the firm during the movement of train from originating station to terminating station and shall be rectified at the base station which will be decided by IR. The firm shall provide at his own expense the services of competent engineers during the COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT period as and when required. The system shall be rectified and commissioned for operation at the earliest. The working time available at base stations for rectification of any defects shall be around 6 hrs.

8.7. The UABAMS shall be functional for monitoring before the start of trains from originating station for each and every day in a month.

8.8 The maximum downtime (on the firm's account) of the system shall be not more than 240 hours in a quarter. On exceeding of downtime of 240 hrs in a quarter the penalty of Rs. 10,000/- per 24 hrs or part thereof shall be levied on the firm. The breakdown shall include;

- a. System off to System on i.e. no alerts or reports generated by the said system(s) or by the Intermediate server.
- b. Faulty results (varying more than 20% than the results of previous runs for more than 20% of the recorded track) on stretches of similar speed (within speed variation +/- 10 kmph).

8.9 In case of any dispute the decision of SC Railway shall be Final.

9.0 Payment Terms for supply of system:-

The standard payment terms subject to recoveries, if any, under liquidated damages clause in 'General Conditions of Contract' and 'IRS Conditions of Contracts' will be as under:

9.1 For Bulk/ Regular order.

- i) 80% payment on proof of inspection and receipt of system at SSE/P.Way/SCR/SC against Equivalent Bank Guarantee valid till satisfactory commissioning and completion of proving test of the systems at its ultimate destination. This BG shall be returned after successful commissioning and issuance of Proving Test Certificate & submission of Warranty BG as mentioned in Clause (16.7).

Following documents will be required (Whichever applicable).

- a) Signed certified commercial invoice showing the description, quantity and price of stores shipped together with the number, weight and volume of such packages shipped.

- b) Certificate that the amounts claimed are correct in terms of the contract.

- c) Inspection Certificate issued by the Inspecting Officer.

- d) Dispatch memo.

- ii) Balance 20% payment within 90 days of satisfactory commissioning of the systems and completion of proving test in which the performance of the equipment would have been demonstrated by the supplier after its commissioning at ultimate destination AND submission of warranty BG as detailed in 18.7.

- iii) Payment for supply and commissioning of processing station shall be similar to first lot of the UABAMS system.

9.2 For Bulk/Regular order on ToT (Transfer of Technology),

- (i) For payment against NS1 purposes, the firm has to provide a certificate by statutory auditor or cost accountant or practicing chartered accountant, having details of the percentage of local content before dispatch of the system.

- (ii) 80% payment on proof of inspection and dispatch documents as specified, to be made within 30 days of receipt of specified documents against Equivalent Bank Guarantee, balance 20% payment to be done against equivalent BG after successful final commissioning and completion of proving test in which the performance of the equipment would have been demonstrated by the supplier after its commissioning at ultimate destination.

BG should be valid till supply of the last lot, which will be released only after firm submitting statutory auditor or cost accountant or practicing chartered accountant certificate about prescribed local content in the last lot is achieved.

Firms may quote higher percentage of local content for systems in different stages and same will be binding to them, if their offer is accepted.

The BG's will be returned after due compliance of warranty BG as detailed in 16.7.

(iii) If the firm fails to meet the minimum local content as per contract conditions at any stage, the systems will not be procured by SC Railway and the firm will not have any claim in this regard. Firm's PG & BGs will be forfeited and the contract will be terminated.

(iv) To cater for such eventuality that a firm fails in its commitment for local content in different lots leading to cancellation of contract and forfeiture of PG, the payments for initial lots will be done against corresponding BGs till supply of the last lot. In case of cancellation of contract, these BGs will be forfeited over and above other penalties prescribed in the event of cancellation of contract on account of supplier. System supplied earlier will be returned to the supplier and supplier will have no claim of any sort in this regard.

(v) Local content means the part of the value addition in India for item detail NS1 of tender document.

(vi) In this regard provision made in GoI, Ministry of Commerce and Industry and/or Ministry of Railway's latest guidelines on Make In India policy for meaning of local content, verification of local content and other associated issues will be applicable.

9.3 Option for Payment through LC for supply, is available to the tenderer. The bidder, at the time of bidding itself, shall exercise an option, in favour of taking payment due against the said tender, through LC arrangement. The option so exercised, shall be an integral part of the bidders offer.

9.4 Payment Terms for Operation under warranty and Operation and Maintenance for 05 years (post warranty):

A. Payment of Operation and Maintenance Charges including spares as mentioned in tender schedule will be made on submission of invoice on quarterly basis subject to a certificate from Supervisor/In charge and JS/SS scale officer/In charge regarding satisfactory recording of the system during last 03 months and subject to deductions for down time of the system beyond specified period, if any.

B. All recoveries due from the contractor shall ordinarily be made by deduction from the next payment due to the contractor.

C. UABAMS system shall require removal from the coach for intermediate overhauling (IOH) and periodic overhauling (POH) of the coach of the Train at 18 months and 36 months respectively. The firm shall be fully responsible for removal, storage of the system in safe place as provided by Railways or shall be installed on suitable different coaches as and when required during period of Operation and Maintenance contract. This will in no way affect the liability of the firm for operation and maintenance of the system. No separate payment for mounting and dismounting of system for IOH/ POH and installation of different coach will be made to the firm.

Further no payment for operation shall be made to the firm during the entire period of IOH and POH including duration of mounting/ dismounting when the system is not working if the system is not mounted on alternate coach.

10.0 Spare Parts

10.1 Spare Parts during COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT.

10.1.1 The tenderer shall attach a list and cost of spare parts required for maintenance of the systems, with their offer.

10.1.2 The payment of NS4 of the schedule shall be made based on the list of spares provided as;

(i) For Item no NS4 (Material/ spares) the rate quoted in the schedule by the tenderer must cover all the anticipated spares. A detailed and exhaustive list of spares for the UABAMS system along with quantities (their anticipated consumption) and unit rates (including installation, testing and commissioning cost) must be submitted based on which rates of item no NS 4 have been arrived at. During operation and maintenance of systems variation in quantity of spares in this list shall be allowed as per actual field requirement, keeping the total amount under this item unchanged.

(ii) Payments shall be done against supply of spares and its acceptance by accepting authority (SC Railway) as per actual field requirement for maintenance of the UABAMS system, subject to total payment under this item not exceeding the accepted amount for the item in the contract.

In the event of requirement of additional spares over and above the quoted amount, the same shall be supplied by the contractor free of cost.

The firm must maintain an inventory of spares at his end so that there is no delay in attention to system.

(iii) The detailed list submitted for item no NS4 must include expected service life in Indian conditions.

(iv) If during the operation and comprehensive maintenance period post warranty, any spare is required which is not covered by the firm in the above said list of spares, the same shall be arranged by the firm and no extra payments shall be done.

(v) Detail Break up of Item No. NS 4 if any, relating to sub-components shall be uploaded as a separate document in the financial Bid of the offer.

(vi) During the entire period of Maintenance period post warranty for any accidental damages whether attributable or not attributable to the firm, firm shall supply and replace the spares as per the rates mentioned in the list of spares submitted for item no. NS 4 above. If any item is not mentioned in the spare part list and the same is required, it has to be provided and replaced (installed, tested and commissioned) by the firm free of cost in such case.

10.2 Spare Parts after COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT

10.3 The manufacturer shall also ensure availability of all such required spare parts for atleast ten years/ Life of the system after commissioning.

10.4 The firm shall ensure availability of all consumable stores in local market or through agent for 10 years/ Life of the system after commissioning. For the parts from the open market (Third party spares), imported or indigenous, the sources and details shall be provided.

10.5 An undertaking in regard to availability of spares (as required in 10.1 and 10.2 above) must be given along with the offer.

11. All the activities during operations and COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT period (02 years of warranty and 05 years under COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT including spares) shall be done as per instructions of SC Railway, Secunderabad/ IR as the same will require liaison with Zonal Railways detailed instructions in this regard shall be given to the service provider.

12. Training – Firm shall impart one-week training in India, to 06 Railway officials (including CRIS) for system hardware/software, troubleshooting, data analysis and operation of system.

13. Additional information for Tenderers:-

i. The Lay out drawing of coach and bogie in reference to Para 2.1 of specification is attached with specification.

ii. The website address/ URL as per Para 2.4 of specification can be reached www.indianrailways.gov.in
→ Corporate Overview → Directorates → Civil Engineering → IRSOD 2022.

14. JV Conditions:-

Additional Conditions for Joint Venture (JV) are as per Annexure-I 'Conditions for Joint Venture' attached with the tender document. It is clarified that consortiums are not allowed to bid.

15. Relaxation of norms for prior experience/turnover for Startups and Micro & Small Enterprises- Available at Note iii) point 4 of the eligibility criteria of work.

16 Performance Guarantee Bond:

16.1. After a letter of acceptance is issued by the Purchaser, the Contractor shall furnish a Performance Guarantee Bond in the prescribed proforma from a Nationalized Bank/Scheduled Bank in India within 21 days from the receipt of the Letter of Acceptance of the Tender by the Contractor or the execution of the contract, whichever is earlier, for an amount equivalent to 10 % (Ten Percent) of the total value of the contract. In the event of successful tenderer(s) failing to deposit /submit Performance Guarantee Bond in acceptable form as per “Annexure-V of General Instructions to Tenderer And general Conditions for Electronic Tenders” within the prescribed period as aforesaid, the EMD submitted by such successful tenderer(s) shall be automatically adjusted towards Performance Guarantee Bond in view of the fact that in most of the cases, EMD amount would be adequate to meet the Performance Guarantee Bond amount. In case where available EMD amount is less than required Performance Guarantee Bond and the successful tenderer does not deposit the balance Performance Guarantee Bond amount within stipulated time, then EMD shall be forfeited and case be dealt with as that of withdrawal of offer by the tenderer as per extant instructions.

Delay in submission of Performance Guarantee Bond can be condoned by competent authority as per extant rule on case to case basis depending on the merit of the case. On the successful commissioning of the last system supplied and issuing of commissioning certificate the Performance Guarantee Bond will be returned to the Contractor without any interest subject to fulfillment of conditions laid down in 16.6.

16.2 Bank Guarantees (BGs) to be submitted by the supplier/contractors should be sent directly to the concerned authorities by the issuing Bank under Registered Post AD.

16.3 The Performance Guarantee Bond shall remain in full force and effect during the period that would be taken for satisfactory commissioning of the systems at consignee's work and shall be valid till for a minimum period of six months beyond the commissioning of the last system provided that before the expiry of the date of validity of the Performance Guarantee Bond, the contractor on being called upon by the Purchaser from time to time, shall obtain from the guarantor Bank, extension of time for validity thereof for a period of six months, on each occasion. The extension or extensions aforesaid, executed on non-judicial stamp paper of appropriate value must reach the Purchaser at least thirty days before the date of expiry of the Performance Guarantee Bond on each occasion.

16.4 As and when an amendment is issued to the contract, the contractor shall, within fifteen days of the receipt of such an amendment furnish to the Purchaser an amendment to the Performance guarantee Bond rendering the same if applicable valid for the contract as amended.

16.5 This Performance Guarantee Bond and/or any amendment thereto shall be executed on a stamped paper of requisite money value in accordance with the laws of the country in which the same is/are executed by the party competent to do so. The Performance Guarantee Bonds executed in India shall also be got endorsed by the Collector under Section 32 of the Indian Stamp Act, 1989 for adequacy of the Stamp Duty by the contractor.

16.6 The Performance Guarantee Bond submitted after issue of LOA, will be returned to successful supplier within 60 days after successful completion of the contract for of the last system supplied and issuing of completion certificate.

16.7 The firm shall have to submit fresh Bank Guarantee towards Warranty Obligation for an amount of 10% of the total value of each system supplied for warranty period i.e. two years plus

90 days since successful commissioning of the said system. This Warranty BG shall be returned to the firm after successful discharge of warranty obligations for concerned individual system.

17. For the purpose of downtime calculation, penalty and payments Quarter means quarter as per Annual calendar i.e. January to March, April to June, July to September and October to December. The first and last quarter for any system may be shorter than three months, but the down time allowed shall be proportionate to the days available in the quarter.

18. After IOH/ POH of coaches and major repair activity the repeatability test shall be carried out as per para 10 (e) of technical specification. No separate payment shall be made for this activity.