

**GENERAL TECHNICAL SPECIFICATION SHEET**

PRODUCT:- All in one Industrial PC

**Note:** The All-in-One Industrial Computer/Workstation shall be supplied as a complete assembled unit from a single Reputed OEM (Original Equipment Manufacturer). All major components including processor, motherboard, display unit, memory, storage device, power supply, keyboard, mouse, operating system and associated accessories shall be OEM-manufactured, OEM-integrated, OEM-warranted and technical support and supplied as a single integrated unit. Systems assembled from components by third parties or local assemblers shall not be acceptable. The complete system shall bear the OEM's identification and serial number and shall be supported by the OEM's standard warranty and after-sales service. The bidder shall furnish OEM authorization, product datasheets and warranty commitments as on demand of Railway. The decision of Railway Administration for the standardisation & make over the matter will be final.

**Technical Specification**

All-in-One Industrial PC / Workstation for Data Acquisition System (DAS), Continuous Monitoring & Fault Analysis system.

**1. Application**

The Industrial PC / Work station shall be used for Data Acquisition System (DAS), continuous monitoring, diagnostics, fault recording, event logging, and report generation in Railway substations, SCADA systems, power supply monitoring systems or other railway applications.

**2. Hardware Specification**

- **Type:** All-in-One Industrial PC / Workstation
- **Processor:** Intel Core i7 Processor (12th Generation or higher) or equivalent
- **Memory (RAM):** Minimum 16 GB DDR4/DDR5
- **Storage:** Minimum 512 GB SSD
- **Display Size:** 21.5" to 24" Full HD LED Display
- **Display Resolution:** 1920 × 1080 pixels minimum
- **Graphics:** Integrated Intel UHD Graphics or equivalent
- **Network Interface:** Dual Gigabit Ethernet Ports
- **USB Ports:** Minimum 4 Nos. USB 3.0 Ports
- **Communication Ports:** HDMI/Display Port and Serial Communication Interface (RS-232/RS-485 through converter if required)
- **Audio:** Integrated Audio System
- **Keyboard & Mouse:** USB Type, reputed Make
- **Power Supply:** 230 VAC ±10%, 50 Hz
- **Operating Temperature:** 0°C to 50°C minimum
- **Humidity:** Up to 95% Non-Condensing

### 3. Software Specification

- Licensed Windows 11 Professional 64-bit Operating System or latest compatible version.
- Compatible with DAS, SCADA, Continuous Monitoring and Fault Analysis Software.
- Support for data acquisition, real-time monitoring, alarm handling, event logging, historical data storage, and report generation.
- Support for industrial communication protocols such as Modbus TCP/IP, OPC, Ethernet/IP, and IEC standards where applicable.

### 4. Functional Requirements

- Continuous 24x7 operation.
- Real-time process monitoring and data visualization.
- Historical data storage and retrieval.
- Fault/event recording and analysis.
- Trend display and report generation.
- Alarm annunciation and event management.
- Network connectivity with existing DAS/SCADA systems.
- Remote diagnostics and maintenance capability

### 5. Scope of Work

- Supply of reputed make All-in-One PC/Workstation complete with accessories.
- Installation at designated control room/operator workstation.
- Configuration of operating system and application software.
- Integration with existing DAS and monitoring systems.
- Communication testing with field devices and network.
- Functional testing, Site Acceptance Testing (SAT), and commissioning.
- Submission of OEM datasheets, manuals, warranty certificates, and test reports.
- Training of operating personnel.

**Equipment supply, Installation, Testing & Commissioning of reputed Make All-in-One Industrial PC / Workstation for Data Acquisition System (DAS), Continuous Monitoring and Fault Analysis System complete with Intel Core i7 Processor, 16 GB RAM, 512 GB SSD, 21.5" Full HD Display, Licensed Windows Professional OS, networking, accessories, software configuration, testing and commissioning, complete in all respects as per OEM authorization and support availability in India with applicable to Railway as per site requirement.**

Warranty:

Minimum 36 months comprehensive warranty from date of commissioning and acceptance by Railways.

During the period of warranty, it shall be the responsibility of the eligible bidder to provide trouble-free operation/ repair/ replacement of the electrical equipment at the bidder's cost.

Antivirus:	Quick Heal Total Security for single system for 3 Year with Latest Version.
Test Report:	Agree to provide all relevant documents Test Report/supporting document /reports etc. ( from authorized government designated agency) to the buyer by the firm at the time of bidding or on demand.
Inspection:	<ol style="list-style-type: none"> <li>1. Supply items ( likes P&amp;M items, Luminaries and any special items included in LOA having bid value more than Rs. 5,00,000/- should be inspected / tested by RITES (as per Railway Board's Circular) with firm cost at manufacturer's premises / site as decided by Railway.</li> <li>2. Material supplied should be as per the description, scope and specification in the tender document. Contractor will intimate in advance for readiness of materials for inspection.</li> <li>3. Manufacturers test certificates for the different test carried out should be submitted by the contractor.</li> </ol> <p><b>The decision of Railway Administration for inspection of supply items by RITES / Consignee by firm own cost over the matter will be final.</b></p>

The description of schedule item indicative in nature. However, entire job & maintenance may be in line of relevant RDSO's or IS or PCEE/ER's specification & design, **Electrical General Service Manual ,Volume-I (Power Supply) & latest** or OEM Standardisation or equivalent international standard for detail technical specification and all other clauses, terms & conditions for design, manufacture, testing, supply, installation and commissioning followed by statutory rules and common prudence and shall confirm to the rules & regulations of Railways.**The decision of Railway Administration over the standardisation & make for execution of the work will be final.**

The eligible contractor must furnish the detail of material which is proposed to be supplied or used inevitably got approved from Sr.DEE(G)/ASN or Sr.SE/Elect/G- the Supervision-in-charge of the work or authorized representative of Sr. SE/Elect/G before commencement of work. Decision of Railway administration over the standardization & make of all the material for the items of work schedule will be final.

**PUBLIC PROCUREMENT POLICY (MAKE IN INDIA):**Bidder must follow Public Procurement Policy (Make in India) Order 2017, dated 15/06/2017, issued by Department of Industrial Promotion and Policy, Ministry of Commerce, circulated vide Railway Board letter no. 2015/RS(G)/779/5 dated 03/08/2017 and 27/12/2017.The definition and calculation of local content in accordance with the Make in India policy as approved by PCEE/ER is 50% of Minimum Local Content (MLC).

These technical details / general specifications are indicative only. In case of any ambiguity in the General specification or Technical Details it may be collected from Sr. DEE (G)/Asansol's office if required. All items pertaining to Electrical should confirm to relevant IS or equivalent international standard. Any deviation must be got approved by Sr.DEE/G/ASN.

Any typographical error shall not be construed to be benefit of the Contractor. In all cases the interpretation and decision of Sr.DEE/G/ASN shall be final and binding upon the contractor.

The issues not covered under these tender documents shall be governed by General Conditions of Contract April-2022, or its time to time latest amendments if any Railway Board Circular or its latest amendments & Letters issued in Zonal PHOD.

**Sr. Divisional Electrical Engineer(Gen.)  
Eastern Railway/ Asansol Division**