Material Code: SP4000280500

Description: Industrial Process Monitoring Workstation

Specification:

Sl. No.	Description	Technical Requirements	Vendor Confirmation
1	Processor	Intel Core i7-13700 2.1GHz base frequency, 30MB Cache, 16 Cores, 65W	
2	Chipset	Intel W680	
3	Memory	32 GB(2x16GB) DDR5-4800 NECC UDIMM	
4	Memory Slots	4 DIMM Slots, DDR5 4800MT/s, ECC with support up to 128GB	
5	BIOS	BIOS should include tools for enhanced security features like self-healing and regular checks.	
6	Graphics	NVIDIA T1000 4GB 4mDP PCIe x16 Graphics with support up to NVIDIA RTX A5000 24GB card.	
7	Graphic Cable Adapter	miniDP-to-DP Adapter Cable	
8	Storage	a. Primary: 256GB PCIe-4x4 2280 Value M.2 SSD with additional support for 2 SSD drives. b. Storage: 500GB 7200RPM SATA 3.5in HDD with additional support for 3 SATA HDDs.	
9	Optical Drive	9.5mm Super Multi DVDRW	
10	Keyboard & Mouse	a. Minimum 104 keys USB keyboard b. USB optical scroll mouse c. Make of keyboard and mouse shall be same as the workstation	
11	Audio	HD Integrated audio with internal speaker	
12	Communications	a. Integrated Intel I129LM Gbe Controller with Intel VPro and Intel AMT 16.0 support b. Additional 1Gbe LAN port in Flex I/O Port mentioned in **14.q**	
13	Bays/Slot	**Drive Bays:** a. 2 x Internal 3.5" bays b. 1 x External 5.25" bay c. 1 x Internal 2.5" bay (for SSD only) d. 1 x dedicated 9.5mm slim optical disk drive bay **PCIe Slots:** e. 1 x PCIe Express Gen5 slot, x16 mechanical/x16 electrical, full height, full length. f. 1 x PCIe Express Gen3 slot, x4 mechanical/x1 electrical, full height, full length, open-ended. g. 1 x PCIe Express Gen3 slot, x16 mechanical/x4 electrical, full height, full length. h. 1 x PCIe Express Gen3 slot, x4 mechanical/x4 electrical, full height, full length, open-ended. **M.2 Slots:** i. 1 x M.2 2280 storage (PCIe Gen4 x4) j. 1 x M.2 2280 storage (PCIe Gen4 x4)	

		k. 1 x M.2 2280 storage (PCIe Gen4 x4) l. 1 x M.2 2230 WLAN (PCIe Gen3 x1+Inlet CNVi)	
14	Ports	**Front I/O:** a. 2 x Type-A SuperSpeed USB 10Gbps (one with charging support up to 5V/2.1A) b. 2 x Type-A SuperSpeed USB 10Gbps c. 1 x Type-C SuperSpeed USB 20Gbps (charging support up to 5V/3A) d. Optional 1 x SD card reader e. 1 x Universal audio jack **Internal I/O:** f. 1 x Hi-Speed USB 480Mbps header (for SD card reader) g. 1 x Serial port header h. 1 x Serial and PS/2 header **Rear I/O:** i. 2 x DisplayPort 1.4 j. 1 x Audio Line out k. 1 x Audio Line in l. 1 x RJ-45 (Ethernet) m. 3 x Hi-Speed USB 480Mbps n. 2 x Type-A SuperSpeed USB 10Gbps o. 1 x Type-A SuperSpeed USB 5Gbps p. 1 x Serial port (optional) q. 1 x Flex I/O port – **Refer to 12.b**	
15	Operating system	Windows 11 PRO 64 bit	
16	Power Supply	Min 350W	
17	Form factor	Features a compact tower form factor with a tool-free design for easy upgrades and maintenance.	
18	Display	Screen Size: 23.8", Resolution: 1920 x 1080 pixels, Height adjustable, Low blue light and TCO 9.0 Certified.	
19	Additional Software Requirements	a. Pre-boot hardware diagnostics system. b. Windows hardware diagnostics system. c. Support Assistant for Automated system updates, system optimization, diagnostics and troubleshooting of system. d. Tools for performance analysis, system optimization and driver management. e. NVIDIA nTune - Automatic System Performance Tuning and Monitoring Software & Resource Monitoring with GPU utilization. f. IOLO System Mechanic - Offline Diagnostics and Asset Discovery Software.	
20	Security Management	a. Full volume encryption, secure erase capabilities and secure authentication features. b. Kensington lock slot. c. TPM 2.0 Certifies & Platform Certificate d. Secure BIOS Management and Auto Recovery tools e. Advanced security features for continuous process protection, secure browsing, and BIOS integrity.	

		f. Optional BIOS-controlled electro-mechanical internal chassis lock for the system.	
21	Dust Filter	The OEM should supply serviceable dust filter integrated into the workstation to prevent failures due to dust.	
22	Manageability	Model specific drivers should be available on the OEM website for download	
23	Certifications	Certified for Windows and Linux, EPEAT Gold India, Energy Star, WEEE, Leading ISVs, and ISO 9001,14001, 20001, 27001 standards.	
24	Malicious Code Certificate	The bidder must submit a bid-specific Malicious Code Certificate from the OEM on OEM letterhead, certifying that the hardware and software offered do not contain embedded malicious code, along with bid number.	
25	Warranty	a. 3 years' onsite parts and labour warranty for system b. The OEM's website should allow warranty status checks using the product's serial number.	
26	OEM Authorization Letter	Bid specific MAF with bid number, name and signature shall be submitted during participation.	
27	OEM - Global Presence & Market Leader	OEM should have global presence & Top 3 WS OEM certified by IDC & Gartner.	
28	Vendor Status	The hardware vendor must be reputable, globally present and ISO certified.	
29	Local Content	Local content must be provided on OEM letterhead with bid number.	
30	Make in India	Minimum of 20%.	
31	Delivery Compliance	a. DMR Required – Ensure that the required DMR (Document of Materials Required) is included b. Preloaded OS – The operating system should be preloaded from the OEM factory. The part number will be cross-checked on the OEM website. c. COC Verification – A Certificate of Conformity(COC) is required with the product part number and serial number, which will be verified on the OEM website. d. Product Brochure – The product brochure with the same specifications should be available on the OEM website before the tender release date. e. Same OEM Components – The keyboard, mouse, CPU, and monitor should all be from the same OEM. Stickers are not allowed.	

Material Code: SP4000280501

Description: Industrial Process Communication Switch

Specification:

Sl. No.	Description	Technical Requirements	Vendor Confirmation
1	Make	D-Link	
2	Ports	5 Gigabit Ethernet ports	
3	Switching capacity	10Gbps	
4	MAC Address Table Size	4000 entries	
5	Jubmo Frame Support	Up to 9720 bytes	
6	Energy Efficiency	Supports IEEE 802.3az Energy Efficient Ethernet(EEE)	
7	QoS	Quality of Service for prioritizing network traffic	
8	Fanless Design	Silent Operation	
9	Power Consumption	Maximum 3.9W	
10	Operating Temperature	0 to 40˚ C	
11	Compliance	NDAA compliant, RoHS compliant	

Note to Vendor:

1. *Technical compliance for the specification shall be filled in the above format and shall be attached at the time of offer.*
2. *Any deviations shall be mentioned against the requirement.*