

## REQUEST FOR QUOTATION



BHARAT HEAVY ELECTRICALS LIMITED  
Electronics Division  
PB No. 2606, Mysore Road Bangalore - 560026  
INDIA

RFQ NUMBER:  
SAKMRCH009

Due Date/Day: [REDACTED]  
Time : [REDACTED]  
Tender Box : Reception Area  
Opening Venue:  
NEW ENGG. BLDG

MMI:PU:RF:003

(address for communication) :

(for all correspondence)

Purchase Executive : Santosh Kumar  
Phone : 8004939865  
Fax :  
E-mail: kumar.santosh@bhel.in

SI No.	Description	Qty	Unit	Delivery qty	Delivery Date
1	DA0659454661 16-port KVM-over-IP switch * HSN/SAC : Doc No.- PS4042583 Rev - 04  Matrix KVM switch with IP access as per PSPEC PS4042583 Rev04	24	NO	24	[REDACTED]
2	DA0659454670 User console station * HSN/SAC : Doc No.- PS4042583 Rev - 04  User Station (KVM Over-IP Receiver) as per Pspec: PS4042583 Rev04. Cables and connectors required to interface user station with Matrix KVM switch are included	96	ST	96	[REDACTED]
3	DA0659454688 Computer Interface module * HSN/SAC : Doc No.- PS4042583 Rev - 04  Computer Interface module (CPU End) for Matrix KVM switch as per PSPEC PS4042583 Rev04 (Scope of supply: Item-2) Cables and connectors for Module to KVM Matrix connection are included	384	ST	384	[REDACTED]

Total Number of Items - 3

- 1.
- 2.

TWO PART BID - SUBMIT TECHNICAL AND PRICE BID IN SEPARATE SEALED COVERS

**NOTES:**

1. This RFQ is governed by:
    - a) INSTRUCTIONS TO BIDDERS/SELLERS and GENERAL CONDITIONS OF CONTRACT FOR PURCHASE available at <http://edn.bhel.com> (RFQ-PO Terms & Conditions)
    - b) Any other specific Terms and Conditions mentioned.
  2. Bidders / Representatives who would like to be present during opening of offers are required to furnish authorization letter for the same.
- \* The HSN/SAC no mentioned against the line items in the RFQ are indicative only.

For and On behalf of BHEL.

Santosh Kumar  
Control Equipment

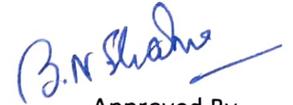
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**Pre-Qualification Criteria (Minimum Eligibility Criteria) to participate in Open tender for MATRIX KVM WITH IP ACCESS**

The bidders intending to participate shall meet the following criteria and such of those bidders shall be pre-qualified for this tender.

Sl.No	Criteria	Documentary Evidence	Vendor compliance/ remarks
1.	<p><b>Upload Manufacturer authorization:</b> The bidder should be Original Equipment Manufacturer OEM or authorized partner of OEM; Wherever Authorized Distributors are submitting the bid, Manufacturers Authorization Form (MAF) to be furnished. <b>BHEL APPROVED MAKES ARE ATEN, RARITON, AVOCENT, ROSE, BLACKBOX</b></p> <p><i>Note : If vendor is quoting any Makes other than above, clause-4 to be complied.</i></p>	Manufacturer Authorization Form (MAF)	MAKE TO BE SPECIFIED
2.	<p><b>Malicious Code Certificate:</b> The seller should upload following certificate in the bid: - (a) This is to certify that the Hardware and the Software being offered, as part of the contract, does not contain Embedded Malicious code that would activate procedures to: - (i) Inhibit the desires and designed function of the equipment. (ii) Cause physical damage to the user or equipment during the exploitation. (iii) Tap information resident or transient in the equipment/network. (b) The firm will be considered to be in breach of the procurement contract, in case physical damage, loss of information or infringements related to copyright and Intellectual Property Right (IPRs) are caused due to activation of any such malicious code in embedded software.</p>	Certificate from OEM / Seller	
3.	<p><b>Sales and Post sales Service:</b></p>	An authorization letter shall be provided by the Reseller / System Integrator for the following: Sales and post sales service by the reseller / system integrators.	
4.	<p><b>Registration/Empanelment Requirement:</b> Contract Shall be awarded to only such sellers/OEM, whose "Make" of "<b>MATRIX KVM WITH IP ACCESS</b>" is registered/empaneled/approved/enlisted with M/s NTPC or BHEL on the date of bid opening. Prospective bidders (If not already registered), are advised their product to get registered with said</p>		

<p>registration authority through BHEL before bid opening date. (It is certified that the registration is granted by the registering agency as per Rule 150 of GFR following fair transparent and reasonable procedure). Sub vendor Approval Format enclosed. Requested to fill the same for registration.</p>		
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Approved By  
HoD (CE-Engg-HMI)

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# PURCHASE SPECIFICATION MATRIX KVM WITH IP ACCESS

PS/404/2583

REV No. : 05

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## Purchase Specification of MATRIX KEYBOARD, VIDEO AND MONITOR (KVM) SWITCH with IP access SOLUTION for Station C&I package

- DA0659454670 User console station
- DA0659454688 Computer Interface module
- DA0659454661 16-port KVM-over-IP switch

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TITLE	Dept Code	DRN.	NAME	SIGN	Date
<b>PURCHASE SPECIFICATION KVM SWITCH SOLUTION</b>	404	PRPD.	HN		28/06/22
		CHKD.	ATA		28/06/22
		APPD.	BNS		28/06/22



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**PURCHASE SPECIFICATION  
MATRIX KVM WITH IP ACCESS**

PS/404/2583

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**REVISION HISTORY SHEET**

REV NO.	DATE	NATURE OF CHANGE	PREPARED BY	REVIEWED BY
00	22.04.2015	FIRST ISSUE	MS	VSS
01	24.08.2015	SPECIFICATIONS UPDATED.	MS	RKA
02	01.08.2017	MINOR	AS	K PAL
03	16.04.2021	MINOR	HN/AS	BNS
04	28.06.2022	MAJOR	HN/ATA	BNS
05	14.05.2023	MAJOR-RE-ARRANGED BOM	HN/SN	BNS

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# PURCHASE SPECIFICATION MATRIX KVM WITH IP ACCESS

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SL. NO.	DESCRIPTION	VENDOR CONFIRMATION (YES / NO)
1.	<p><b>DA0659454661: 16-port KVM-over-IP switch</b> (Consisting of Matrix switcher with power adapter, original license software required for KVM solution, 19" Rack Mounted Kit, Network switch, if any)</p> <p><b>REQUIREMENT</b></p> <p>A Matrix KVM switch with IP access for accessing multiple Servers, Workstations via multiple user consoles placed in the Programmer room in server rack. User consoles shall also be located in the same room. These switches will be used for Keyboard, Video and Mouse multiplexing.</p> <p><b>Features:</b></p> <ul style="list-style-type: none"> <li>Computer Connections: Direct 16 Numbers</li> <li>Console Connections: 4 Numbers</li> <li>Port Selection: GUI, Hotkeys</li> <li>Auto Scan mode and LED indication for each port</li> <li>Input: 100-240V AC (Redundant, from independent sources)</li> </ul> <ol style="list-style-type: none"> <li>a. The offered solution should be reliable, high security access and support flexible expansion.</li> <li>b. KVM switches should offer high quality video sessions, real time control of servers and workstations and <b>must be flicker free.</b></li> <li>c. Server, Workstation selection via GUI or intuitive hot key combination</li> <li>d. Port level access control – users can access the authorized ports</li> <li>e. Session Management – a Kill session function provides administrators with the ability to force user logouts</li> <li>f. User’s display automatically adjusts to resolution differences on the remote computer</li> <li>g. Feature of Automatic Signal &amp; Skew Compensation for optimum video resolution for required distance</li> <li>h. KVM switch should support Windows Server 2022/Windows Server 2019 and Windows 10 IoT Enterprise operating system</li> <li>i. Solution must be 19" Rack Mountable</li> <li>j. Security: Password/ Multiple user profiles. Allowing/disallowing access of particular machines to a user profile.</li> </ol> <p><b>Make:</b> Aten, Raritan, Avocent, Rose, Blackbox</p>	



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## PURCHASE SPECIFICATION MATRIX KVM WITH IP ACCESS

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Note: If any Network switch is required to achieve the above mentioned connections, same will be included in BoM.

<b>2</b>		<p><b>DA0659454688: Computer Interface module</b> (Access module for Server with DP port with required cables and connectors)</p> <p><b>REQUIREMENT</b> Computer Interface module is required to connect KVM Matrix switch with Servers /workstation with DP port. Each Server/ Work-station has USB keyboard and mouse. The Approximate distance between the KVM switch and the Server/Workstation CPUs is 15 meters.</p>	
<b>3</b>		<p><b>DA0659454670: User console station</b> (Consisting of User console station, Power adapter suitable for Indian type sockets, power, console, &amp; data cables (Excluding UTP Cat-6 cable) for KVM solution, any other item to meet connectivity requirement.)</p> <p><b>REQUIREMENT</b> Console stations for connectivity with TFT/LED monitors each having 1 no. DP connector, monitor capable of displaying resolution of 1920x1080 at 60Hz, USB keyboard and mouse. The Approximate distance between the KVM switch and the User Console is 30 meters.</p> <p><b>The display in the Consoles should be flicker free and support resolution of 1920x1080 at 60Hz.</b></p> <p>If KVM console switch is provided with HDMI, suitable DP to HDMI connector and cable to be supplied. VGA port at KVM console station is not acceptable.</p> <p>The look and feel while operation through the KVM switch should be the same as without the switch.</p>	
<b>4</b>	<b>Scope of Supply</b>	<p>a. <b>DA0659454661: 16-port KVM-over-IP switch</b> as per Clause-1</p> <p>b. <b>DA0659454688: Computer Interface module:</b> as per Clause-2</p> <p>c. <b>DA0659454670: User console station</b> as per Clause-3</p>	
<b>5</b>	<b>Scope of Technical Services</b>	<p>Vendor should depute Engineer at BHEL/EDN Bangalore for configuration &amp; demonstration of KVM solution Features. Vendor to provide detailed installation manual detailing the connectors, their connectivity from</p>	



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## PURCHASE SPECIFICATION MATRIX KVM WITH IP ACCESS

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		Servers/Workstations to Keyboard/Video/Mouse connected on User consoles via Matrix Swtch.	
<b>6</b>	<b>General</b>	Documents to be provided along with offer a. Authorization letter from respective OEM b. Bill of Material including part numbers c. Data sheets of all the offered items d. Connection diagram, showing all the parts numbers connected e. Proof for technical compliance for all the items in the form of data sheet/manuals, Test Certificates with serial numbers shall be provided	
<b>7</b>	<b>Warranty</b>	3 Year Comprehensive on Site. Site will be located within India	

**NOTE-1: KVM SWITCH & KVM CONSOLE SHALL BE OF SAME MAKE.**  
**NOTE-2: The offered solution as a whole should work seamlessly meeting all specification requirement.**

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