



An ISO 9001
Company

Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirapalli – 620014, TAMIL NADU, INDIA

CAPITAL EQUIPMENT / MATERIALS MANAGEMENT

ENQUIRY	Phone: +91 431 257 76 53
NOTICE INVITING TENDER	Email : skaruna@bheltry.co.in
	spsy@bheltry.co.in
	Web : www.bhel.com

TWO PART BID Tender to be submitted in two Parts	Enquiry Number: 2741700006	Enquiry Date: 22.11.2017	Due date for submission of quotation: 14.12.2017
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You are requested to quote the Enquiry number date and due date in all your correspondence. This is only a request for quotation and not an order.

Please note that under any circumstances both delayed offer and late offers will not be considered. Hence vendors are requested to ensure that the offer should reach physically on or before 14.00 Hrs(IST) on the Date of tender opening. Tenders received after 14.00Hrs (IST) will not be considered for evaluation.

Item	Description	Quantity	(Indigenous Vendors) Matl. Will be Delivered to
10	Handheld Digital Oscilloscope 4 Channel, 200 MHz as per the technical specification & commercial conditions applicable(To be downloaded from web site www.bhel.com or http://tenders.gov.in)	1 No	FOR, BHEL, Stores, PPPU, Tirumayam

Important points to be taken care during submission of offer

- 1) Material shall be delivered to (By Indigenous vendors): As stated above.
- 2) By Foreign Vendors: CFR Chennai Seaport / Airport
- 3) Delivery required 3 months from the date of purchase order.
- 4) Erection & Commissioning period required 1 Week from the date of intimation by BHEL to vendor for deputation of their Engineers for E&C.
- 5) EMD for this Tender will be (INR): NIL
- 6) Compliance Forms. TRY/IMP/04 & TRY/IND/04A to be filled and enclosed along with the offer failing which, the offer will not be considered for evaluation.
- 7) All updates, amendments, corrigenda, etc., (if any), for each tender will be posted only on the above websites from time to time, as and when required, until each tender is opened. There will be no publication of such updates, amendments, corrigenda, etc., through newspapers or any other media.

BHEL's General guidelines / instructions (refer MM / CE / GENL / GENL / 001 - EMD) including bank guarantee formats and list of consortium banks, commercial terms check-list can be downloaded from BHEL web site <http://www.bhel.com> or from the Government tender website <http://tenders.gov.in> (public sector units > Bharat Heavy Electricals Limited page) under Enquiry reference .

Tenders should be submitted before 14.00Hrs (IST) on the due date
Tenders will be opened online at 14:30 hours on the due date
Tenders would be opened in presence of the tenderers who have submitted their offers and who may like to be present.

Yours faithfully,
For **BHARAT HEAVY ELECTRICALS LIMITED**

DGM / Capital Equipment / MM

S.PARTHASARATHY
MANAGER
CAPITAL EQUIPMENT / MM
BHEL, TRICHY-620014.

Part - A
Pre-Qualification Criteria for
Portable Digital Oscilloscope, 4 CHANNEL 200 MHZ

S.No	BHEL Specification	Vendor's Offer
1.0	QUALIFYING CRITERIA	
1.1	Makes: Rohde & Schwarz, Tektronix, Fluke or other equivalent makes acceptable to BHEL.	
1.2	The BIDDER / VENDOR shall be OEM or an authorised dealer of the above makes. In case of authoriser dealers, vendor shall submit a valid authorization certificate/letter from the OEM.	
1.3	Vendor shall quote only active models in the market. Year of launch of the model quoted in this enquiry shall be indicated. Vendor/OEM should ensure spares and service support for the supplied model for a minimum period of 10 years from date of supply.	
1.4	Vendor should furnish at least one PO copy/ performance certificate for supply of Handheld Oscilloscope in the last 5 years, mentioning the complete details like Name, postal address, contact person phone number & email address of the customer/ company.	
1.5	BHEL reserves the right to verify the information provided by the Vendor. In case the information provided by vendor is found to be false/incorrect, the offer shall be rejected.	

Part B: Technical Specification for Portable Digital Oscilloscope			
Sl. No.	Specification	Details	Vendor's Offer. Deviations, if any.
1.0	No. of Inputs	4 Channel, completely isolated	
2.0	Bandwidth	200 MHz across all channels or better	
3.0	Max. Sample Rate	1.2 GSa/s simultaneously on all channels. Vendor to specify.	
4.0	Time Base Range	2 ns/div to 4 s/div. Vendor to specify.	
5.0	Trigger type	Edge, Pulse Width	
6.0	Scope Measurement	Cursor and Automatic Measurements	
7.0	Waveform	FFT analysis	
8.0	Record length	10000 Points per channel.	
9.0	Display	Color LCD/TFT Display with backlight	
10.0	Power Supply	AC 230V $\pm 10\%$, 50 Hz	
11.0	Battery Power	Minimum 2 hour operation	
12.0	Memory	Thro external USB stick. The recorded data should be easily transferred to memory stick and accessible via software	
13.0	Safety	CATIII 1000V/ CATIV 600V	
14.0	IP	Suitable for handheld use in dusty environment. Vendor to specify.	
15.0	Display	Hi-Def 6" or higher	
16.0	Display Resolution	Vendor to specify	
17.0	Serial Communication Protocols	USB. Vendor to specify others, if any	
18.0	Connectivity	USB. Vendor to specify others, if any	
19.0	Input Coupling	AC, DC	
20.0	Input Sensitivity Range	2 mV/div to 100 V/div. Vendor to specify	
21.0	Max. Input Voltage	Vendor to specify	
22.0	Display Modes	Vendor to specify.	
23.0	Automatic Measurements	Voltage - P2P, max, min, amplitude, average, top, overshoot, AC/DC RMS	
		Time - period, freq, duty cycle, rise time, fall time, max-min times	
		Count - positive/negative pulse, rising/falling edge	
24.0	Probes	Standard probes for 4 channels to be provided. Vendor to provide details.	
25.0	Power Consumption	Vendor to specify	
26.0	Electromagnetic Compatibility	EN 61326 or equivalent	
27.0	Environmental Characteristics	Vibration, Shock resistance as per IEC 60068 or equivalent	
28.0	Dimensions	Vendor to specify	
29.0	Weight	Less than 3 kg. Vendor to specify.	
30.0	Type	Handheld type	
31.0	Carrying Case	Soft carrying case for safe storage/movement of the scope to be provided.	
32.0	Storage	Internal Memory and Built-in-Front Panel USB Flash Memory Port	
		Internal memory storage size - vendor to specify	
		Memory sticks of 2 GB minimum capacity - 1 no. to be provided	
33.0	Software and Data Retrieval	All requisite software compatible to 64-bit Windows to be provided. Valid licenses to be provided for all applicable software. Software should be supplied standard and should support downloading data to a PC for Post Analysis.	

34.0	Warranty	2 years for equipment and all accessories. Vendor to confirm	
35.0	Documentation	Product Catalogue and CD-ROM with user's guide, service guide, manuals to be provided.	
36.0	Make and Model	Vendor to specify.	
37.0	Commissioning	Detailed product demonstration to be carried at BHEL, PPPU - Thirumayam after supply.	