

**Bharat Heavy Electricals Limited**

(A Government of India Undertaking)

Electronics Division

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Tender document for the supply of DIGITAL OSCILLOSCOPE

R F Q Number : TRSM900003

Tender Qty : FOUR Numbers

Tender Due Date and Time : 16.01.2008 13.00 Hrs

Tender Opening Date and Time : 16.01.2008 13.30 Hrs

Place of opening of Tender : SA – MM Conference hall

Scope:

Supply, installation and commissioning of 300MHz Dual Channel Oscilloscope with Deep Memory

1. Two part Bid - Tender shall be submitted in two parts :

- a. Part I – Techno commercial bid without prices.
- b. Part II – Price bid

2. Earnest Money Deposit : EMD of Rs 25,000/- (rupees twenty five thousand only) shall be submitted in the form of DD along with the bid. EMD in the form of DD / Pay order only is acceptable & any other form is not acceptable and the bid is liable for rejection. EMD amount doesn't carry any interest. The same will be converted as Security Deposit for the successful bidders and for unsuccessful bidders the same will be refunded after finalization of the order. For successful bidders EMD will be refunded after submission of PBG.

3. Delivery Period: Equipment shall be delivered, within 4 months from the date of placement of technically & commercially clear purchase order.

4.0 Warrantee period : Equipment shall have a comprehensive warrantee of three years and accordingly PBG shall be for three years from date of acceptance.

5. Terms and conditions:

1. All the Bidders shall meet the **pre-qualification criteria** and Comply with **Technical Specification** mentioned in this specific tender.
2. Indian Bidders are required to comply with the **general terms and conditions** as per SA – 01 (Annexure –I)
3. Foreign Bidders are required to comply with the **general terms and conditions** as per SA – 02. (Annexure –II)



REF: 384/SKP/FR3/PQ01
Pre Qualification Criteria

01. The vendor shall be an Original Equipment Manufacturer (OEM). Only the OEM or their authorized dealers in India along with an authorization letter can submit offers. An authorized Representative/Dealer in India, cannot quote for the same equipment from more than one OEM.
02. The offer shall be only for Standard Catalog Items from the manufacturer and not custom-made one. All the specifications should be supported by Standard Catalogs and Data Sheets of the manufacturer.
03. Offer shall be for a new equipment and not for any refurbished / used equipment. All the parts used in the machine shall also be new and not used / refurbished ones. A declaration to the above effect to be furnished.
04. Foreign OEM shall have Authorized Indian dealer(s) / representative(s) for After-sales service and support. The authorization letter for the dealer/ representative shall be provided.
05. The vendor should have already supplied and installed 3 nos. of similar machines in India during the past 5 years and these must be operating satisfactorily for at least past one year. The details of the customers with contact details, machines installed, date of installations etc. to be provided.
06. The vendor or their authorized service representatives shall have trained engineers in India for commissioning & service for the offered equipment and shall be in a position to provide prompt after sales service and spares support for our installations.
07. The vendor shall be in a position to undertake AMC or provide service support for the equipment supplied, after the expiry of the warranty/ guarantee period either directly or through a service representative.
08. If required by BHEL, the vendor shall arrange for a demonstration of the machine or a similar system operating in India.
09. The vendor shall furnish a comprehensive warranty for at least 12 months from the date of commissioning.

NOTE:

1. Pre qualification will be carried out based on the details furnished by the vendor / feedback from their customers / inspection of the company / product if required by BHEL and at its sole discretion.
2. The Pre qualification criteria are mandatory requirements and the technical bids will be evaluated only when the Pre Qualification criteria are met.



REF: SAT-SKP-SCP-02	
Specification for Oscilloscope 300MHz, Dual Channel, with Deep Memory	
01. Functional Specification:	
Bandwidth(-3dB)	300MHz
Sample Rate	2 GSa/s, each channel, simultaneous
Record Length	8 Mpts
Channels	2 Channels
Rise Time	<2ns
Trigger Types	Edge, pulse width, pattern, Video,
Connectivity	USB, LAN, XGA video output
Probe Compensator Output (std probe shipped w/ scope)	Frequency : app. 1 to 2 kHz; Amplitude : app. 2.5V to 5 V
Vertical resolution	8 bits
Input impedance	1 M Ω , 50 Ω
Vertical Range	2mV/div to 5V/div at 1M Ω
DC vertical gain accuracy	\pm 2.0% full scale
Maximum Input	Max I/P Voltage @ 1M Ω : 250 VRMS with peaks \leq \pm 400 V
BW limit	Selectable
Display	Screen 6" or larger, Color, Resolution - XGA; Adjustable Intensity, Persistence.
Acquisition Modes	Normal, Averaging, Peak Detect
Measurement features	Automatic Measurements: Voltage: Peak-to-peak, maximum, minimum, average, amplitude, Vrms, overshoot, preshoot. Time: Frequency, period, +width, -width, duty cycle, rise time, fall time, delay, phase.
Waveform math	Basic Math, Integrate, Differentiate, FFT. FFT Window: Rectangular, Hanning
Trigger System	Trigger Modes – Auto, Normal, and Single. Trigger Coupling – DC, HF/LF reject (50kHz), noise reject.
02. General Specifications:	
Operating temperature:	0 deg C to 50 deg C
Operating Humidity:	90% RH max., at 40 deg C
Power:	230V \pm 10%, 50 Hz \pm 3Hz
03. Supply, Terms & Conditions	
Standard Accessories:	-500 MHz, 10x Passive Probe per Channel -Front Cover -power cord(suitable for Indian Power) -All other standard accessories that go with the Model offered must be indicated.
Manual :	Operation Manual to be supplied with the equipment