

# **P G DEPARTMENT OF ELECTRONICS UNIVERSITY OF JAMMU, JAMMU**

NO.: PGD/ELE/999

DATED: 26-02-2021

## **NOTICE INVITING TENDERS FOR THE PURCHASE OF SUPPLY OF ULTRASONIC ANALYZER AND ACCESSORIES**

Offers (rates, terms, detailed literature, and specifications) are invited from manufacturers/authorized distributors/dealers, etc., for supply of the following instrument having the required specifications or better:

### **TECHNICAL SPECIFICATIONS FOR ULTRASONIC ANALYZER AND ACCESSORIES**

- Support master-slave paralleling
- Bidirectional energy transfer, with equivalent Source, Sink capabilities
- DC power electricity regenerative to local grid
- Support control loop priority mode setting, with difference loop speed, to match with the needs of high speed voltage setup or current no overshoot application
- Support output resistance setting function
- Support Battery charge-discharge function
- Battery simulation function.
- Support signal generator function, import list file via U disc interface
- Support LIST sequence file, built-in DIN 40839 and ISO-16750-2/ISO21848 standard automotive power network voltage curves
- Support PV solar panel I-V curve simulation
- Built-in EN50530, Sandia, NB / T32004, CGC/GF004, CGC/GF035 test program, and generate reports
- Protections: support OVP,  $\pm$ OCP,  $\pm$ OPP, OTP, power down protection, anti-islanding protection
- Support local mode and Remote Sense compensation, support Sense reverse or open circuit protection
- Built-in USB/CAN/LAN/digital IO interfaces.
- Fuel cell simulation software : FC polarization curve (4096 points can be edited)  
Support .csv file import Data storage and export
- Graphical software operation interface, real-time display the output voltage, current and power

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**Equipment should have following specifications:**

<b>Specification with value</b>	
No of microphones	Min 64 Array of digital MEMS microphones
Frequency band	Up to 52 kHz
Sound pressure sensitivity	Should detect a 0.005 CFM leak at 100PSI from up to 10mt
Operation distance range	0.5 to > 40 meters
Field of View	≥ 60° diagonal
Minimum Frame Rate	Min 12.5 FPS
Built-in digital camera Field of View	≥60° ± 5 °
Focus	Fixed lens
Display	Min 7" LCD with backlight, under-sunlight readable
Display Resolution	Min 1280 x 800
Touch screen	Capacitive Touch
Acoustic Image	Required
Image storage capacity	Minimum Internal memory with the capacity for 500 picture files and 20 video files
Image format	Blended visual and .JPG or .PNG
Video format	Blended visual and .MP4
Video length	Min 30 seconds
Digital export	USB-C for data transfer
Software	Leak quantification report generation
Acoustic Measurements Measurement range	29.3 dB to 119.6 dB SPL (±2 dB) at 2 kHz 21.9 dB to 112.3 db SPL (±2 dB) at 19 kHz 36.6 db to 126.9 dB SPL (±2 dB) at 52 kHz
Auto max/min dB gain	Auto or manual, user selectable
Frequency band selection	User selectable through user-made presets or manual entry
Battery	Field-replaceable and rechargeable Li-ion batteries with charge level indicators
Battery life	Min 6 hours battery backup
Battery charging time	Min 3 hours
Battery charging system	Required external dual-bay charger
General Specifications	
Standard palettes	Grayscale, Ironbow, Blue Red
Operating Temperature	0 °C to 40 °C (32 °F to 104 °F)
Storage Temperature	-20 °C to 70 °C (-4 °F to 158 °F) Without batteries
Relative humidity	10 % to 95 % non-condensing
Main unit rating	IP40
Sensor head rating	IP51
Warranty	:2 year
Safety Standard	
General Safety	IEC 61010-1
Electromagnetic Compatibility	IEC 61326-1: Portable Electromagnetic Environment IEC 61326-2-2. CISPR 11: Group 1, Class A

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## Accessories to be Included:

AC power supply and battery pack charger bay, two rugged lithium-ion smart battery packs with charge level indicator, USB cable, rugged hard carrying case and adjustable hand strap and neck strap.

## Guarantee

The equipment shall be guaranteed for trouble free performance and against any defects in material; workmanship; design and for any abnormal behavior for period of not less than 18 months from the date of supply.

## Training

The successful tenderer shall carry out the testing, commissioning, and demonstration of the equipment in the premises of consignee. Also, the tenderer shall impart the training to the staff for minimum of six persons on the equipment in connection with operation and maintenance. The Training shall be imparted by expertise.

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## Terms and Conditions:

1. Tenders addressed to, “**Head, Department of Electronics, Baba Saheb Ambdekar Road, New University Campus, University of Jammu, Jammu 180006**”, should be submitted online only (<https://www.jktenders.gov.in>).
2. Delivery of goods should be FOR Department of ELECTRONICS, University of Jammu, Jammu.
3. General Sale tax/custom duty/excise/entry tax or any other tax, if any, should be clearly mentioned. Rates should be inclusive of custom clearance, insurance etc. It may kindly be noted that University of Jammu will not bear any cost/expenditure arising out of loss during transportation, etc. Cost of equipment should include transportation charges and insurance charges upto FOR destination. University of Jammu is exempted from Custom Duty under DSIR registration. DSIR certificate shall be provided by the University of Jammu.
4. Firm shall be required to submit complete information/brochure/catalogue along with the offer.
5. Firm should submit an authorization certificate from principal firm for sale and service.
6. Concession to educational institutions, if any, should be clearly mentioned.
7. Products conforming to particular standards (ISO, ISI etc.) should be clearly mentioned.
8. In case any item is your proprietary product or if you are sole manufacturer/distributor of requisite item, a certificate to this effect should be enclosed.
9. It is at discretion of the competent authority to reject one/all tenders/part of tender without assigning any reason, thereof.
10. In case seller fails to complete in full, all deliveries of product in accordance with supply order; the seller shall be responsible for the liquidity damages. Thereafter, the buyer will have right to terminate supply order in the case of such delay beyond period mentioned by seller in the offer and buyer will have total discretion to buy product from the market/other supplier at the lowest rate.
11. An undertaking should be submitted by your concern that rates quoted in this offer are lowest/at par with rates quoted to other Govt./Semi-Govt. institutions in the country and your concern/firm has not sold this product to any other organization in India at the price lower than the price quoted in this offer.
12. A user list of the institutions/organizations where the quoted equipment has been installed and working successfully must be provided.
13. Debarment of the bidding firms shall be governed by Rule No. 151 of GFR 2017; Ministry of Finance, GOI, as mentioned below:
  - (i) A bidder shall be debarred if he has been convicted of an offence—
    - (a) under the Prevention of Corruption Act, 1988; or
    - (b) the Indian Penal Code or any other law for the time being in force, for causing any loss of life or property or causing a threat to public health as part of execution of a public procurement contract.

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- (ii) A bidder debarred under sub-section (i) or any successor of the bidder shall not be eligible to participate in a procurement process of any procuring entity for a period not exceeding three years commencing from the date of debarment. Department of Commerce (DGS&D) will maintain such list which will also be displayed on the website of DGS&D as well as Central Public Procurement Portal.
  - (iii) A procuring entity may debar a bidder or any of its successors, from participating in any procurement process undertaken by it, for a period not exceeding two years, if it determines that the bidder has breached the code of integrity. The Ministry/Department will maintain such list which will also be displayed on their website.
  - (iv) The bidder shall not be debarred unless such bidder has been given a reasonable opportunity to represent against such debarment.
14. All the pages of soft copy of the offer should be endorsed along with the stamp/seal of the firm.
  15. It may kindly be noted that in case a firm quotes NIL charges/consideration, the bid shall be treated as unresponsive and will not be considered.
  16. Firm shall be required to submit the EMD/Bid security amounting to 2% quoted value in the form of bank guarantee/CDR from any of the commercial banks which should remain valid for the period of forty-five (45) days beyond the final date of validity period.
  17. Firms which are exempted to submit the EMD/Bid security shall be required to submit certificate issued by the concerned Ministry/Department.
  18. Successful bidders shall be required to submit performance security amounting to 10% of the quoted price pledged to **the Head, Department of Electronics, University of Jammu, Jammu** in the form of bank guarantee from any of the commercial banks which should remain valid for sixty (60) days beyond the date of completion of all contractual obligations of the suppliers including warranty obligations.
  19. Financial bids of only technically qualified tenderers shall be opened. If the Technical Bids are not in order or are deficient in some respect, the commercial bids in respect of such tenders shall not be opened.
  20. Item must be quoted along with the warranty as specified in technical specifications.