



REQUEST FOR QUOTATION (RFQ)

Department: College of Engineering
Requisition No.: 194645774

Deliver Completed Bid to:
Tennessee Tech University
Purchasing and Contracts Office
Derryberry Hall, Suite 301
Box 5144, 1 William L. Jones Dr.
Cookeville, TN 38505-0001
Ph: (931) 372-3492 / Fax: (931) 372-3727

Date: 11/26/2024
RFQ Coordinator: Peni Austin
Phone: 931-372-3566
Email: paustin@tntech.edu

Bids must be received in the Purchasing and Contracts Office by 3:00 p.m. Central Time on 12/17/2024.

Bid is subject to the attached RFQ – Standard Terms and Conditions. By submittal of a bid, bidder certifies its agreement to these terms and conditions.

Special Bid Instructions:

1. Indicate any cash/time discounts offered: _____
2. Bidders not already registered as a vendor with the University must complete the online supplier registration: <https://www.tbr.edu/purchasing/how-do-business-tbr>
3. To view a bid tabulation after intent to award, please visit this link: <https://www.tntech.edu/purchasing/bidawards.php> Results are listed according to fiscal year then by date of bid opening.
4. Bid may be electronically signed and may be submitted electronically. Please email directly to the RFQ coordinator listed above.

Please bid to provide any or all of the following to Tennessee Tech University.

Please include in your bid price all shipping, handling, freight or other fees required to make delivery FOB Cookeville, TN.

Item 1 – Benchtop Oscilloscope (Qty 58)

SPECIFICATIONS:

Please mark an "X" to the left of the specification if your product meets that specification. If it does not meet the specification, please leave line blank and note to the right what specifications your product does meet.

- Channels: 4
- 100 MHz Bandwidth
- 1 GSa/s Real-Time Sampling Rate (Total of 2 A-D converters)
- 14 MPts Waveform Memory
- 500 uV/div Sensitivity
- Maximum waveform capture rate: 100,000 frames / second (Standard mode), 400,000 frames / sec (Sequence mode)
- Serial bus decode & trigger: standard
- Digital trigger provides low jitter
- Intensity-Graded display / Color-Temperature display mode



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- Video triggering / HDTV
- Cursors * Measurement functions
- USB and LAN interfaces
- 7" (diagonal) display
- Sequence trigger mode
- History function
- Secure erase feature
- Optional MSO capability
- Bode Plot function
- Optional Wi-Fi dongle
- Web-based browser remote control interface
- Search and Navigate keys

Item 2 – Benchtop Programmable DC Power Supply (Qty 56)

- Channel Output - CH1: Voltage 0 to 32 V, Current 0 to 3.2 A; CH2: Voltage 0 to 32 V, Current 0 to 3.2 A; CH3: Voltage 2.5/3.3/5.0 V, Current 3.2 A
- Display - 4.3" color TFT-LCD 4 digit voltage display, 3 digit current display
- Resolution – 10mV, 10mA
- Setting Accuracy - Voltage: \pm (0.5% of reading + 2 digits), Current \pm (0.5% of reading + 2 digits)
- Readback Accuracy - Voltage: \pm (0.5% of reading + 2 digits), Current: \pm (0.5% of reading + 2 digits)
- 120V compatible design to US power grid
- Intelligent temperature-controlled fan effectively reduces fan noise
- Clear graphical interface, with waveform display function
- Five internal groups of system parameter save/recall, supports data storage space expansion
- Free PC software. Supports remote programming and includes a LabView driver

Item 3 – Benchtop Function Generator (Qty 56)

- Max output frequency: 80 MHz
- Max sampling rate: 1.2 GSa/s
- Vertical resolution: 16 bit
- Waveform memory: 8 pts~8 Mpts
- Channels: 2
- Dual-channel, 120MHz maximum bandwidth, 20Vpp maximum output amplitude, high fidelity output with 80dB dynamic range
- High-performance sampling system with 1.2GSa/s sampling rate and 16-bit vertical resolution. No detail in your waveforms will be lost



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- ___ Innovative TrueArb technology, based on a point-by-point architecture, supports any 8pts~8Mpts Arb waveform with a sampling rate in range of $1\mu\text{Sa/s}$ ~ 75MSa/s
- ___ Innovative EasyPulse technology, capable of generating lower jitter Square or Pulse waveforms, brings a wide range and extremely high precision in pulse width and rise/fall times adjustment
- ___ Plenty of analog and digital modulation types: AM, DSB-AM, FM, PM, FSK, ASK and PWM
- ___ Sweep and Burst function
- ___ High precision Frequency Counter
- ___ Standard interfaces: USB Device, USB Host, LAN (VXI-11, support U Disk storage and software, upgrading GPIB port is optional)
- ___ 4.3" touch screen display for easier operation

Item 4 – Benchtop Digital Multimeter (Qty 60)

- ___ Real $6\frac{1}{2}$ digits readings resolution (2,200,000 counts)
- ___ 1 Gb Nand flash size, Mass storage configuration files and data files
- ___ True-RMS AC Voltage and AC Current measuring
- ___ Standard interfaces: USB Device, USB Host, LAN (Optional Accessories: USB-GPIB Adapter)
- ___ Optional Scanner for multipoint measurements (-SC part number)
- ___ DC Voltage Accuracy in a year – 0.0035% of reading + 0.0006%% of range
- ___ DC Voltage Measurement Range – 200mV – 1000V
- ___ AC Voltage Measurement Range – 200mV – 750V
- ___ DC Current Measurement Range – 200uA – 10A
- ___ Math Function: Max, Min, Average, Standard Deviation, dBm/dB, Relative Measurement, Pass/Fail Histogram, Trend Chart, Bar Meter, etc.

RFQ – STANDARD TERMS AND CONDITIONS

1. Bidder must carefully review the RFQ and any attachments, exhibits, addenda or amendments. Bidder's failure to examine any drawings, specifications, or instructions will be at bidder's risk.
2. Bidder shall take into consideration any and all amendments and/or addenda, and bid shall reflect any changes made to the RFQ by the University. In the event of extensive changes to an RFQ, the University may cancel the RFQ and reissue it using a revised RFQ.
3. The University considers any oral communication unofficial and non-binding with regard to the RFQ.
4. Bidder must submit bid according to specific instructions, if any, contained in the RFQ, which supersede those contained in the RFQ - Standard Terms and Conditions, if different.
5. Bidder's submittal of a bid constitutes an offer to the University.
6. Bid must contain the bidder's most favorable terms and pricing.
7. Upon the University's request, the individual signing a bid must furnish satisfactory proof authority to bind the bidder in a contract.
8. Bidder is responsible for costs to prepare, submit and/or present its bid, including samples if requested. Bidder may request samples be returned at bidder's expense. The University is not responsible for and may dispose of any samples not claimed within 10 calendar days following contract award. The University may retain any sample.
9. Unless otherwise instructed, bidder may deliver a bid electronically via facsimile or email.
10. The University will not consider a late bid for an award. A "late bid" is any bid that is not actually delivered to and received by the Purchasing and Contracts Office on or before the date and hour specified in the RFQ.
11. At the University's option, bidder may be bound by bid errors or omissions. Bidder may withdraw or amend a bid before submission deadline. After bid submission deadline, the University will permit a bidder to withdraw a bid only where the enforcement of the bid would impose unconscionable hardship on the bidder. In case of error in a price extension, the unit price will govern.
12. The University reserves the right, at its sole discretion, to reject any and all bids, to cancel the RFQ in its entirety, or to waive any bid informality, in accordance with applicable laws and regulations.
13. The University may reject a bid as a non-responsive counteroffer if it restricts the University's rights or does not comply with the University's terms and conditions
14. The University may request bid clarification from bidders as needed.
15. The University shall reject a bid if it was not arrived at independently without collusion, consultation, communication or agreement with any other bidder as to any matter related to prices. Regardless of time of detection, the University shall consider any of the foregoing prohibited actions to be grounds for rejection of bid and/or purchase order cancellation.
16. The Purchasing and Contracts Office may conduct public bid openings, as appropriate. Public bid openings are for informational purposes only. No award will be made at the bid opening.
17. All materials submitted by a bidder are subject to public inspection according to Tennessee law. The University will not honor a bidder's request to prevent disclosure beyond that allowed by law.
18. If an RFQ is re-advertised, the original bids shall remain closed to public inspection until evaluation of the responses to the re-advertisement is completed.
19. The University may not consider prompt pay discounts of less than 20 days in bid evaluation.
20. Prior to award, the University may require the successful bidder to provide information to demonstrate financial stability.
21. Bid prices shall include delivery of all items F.O.B. destination to the location specified in the bid. The University is not responsible for items until accepted at its location.
22. Unless otherwise specified in the RFQ, bidder must bid only new and unused goods.
23. Unless specified in the RFQ, the University will not consider alternate bids.
24. Bidder shall post any bond(s) required by the RFQ and shall itemize the cost of bond(s) separately in the bid.
25. Bidder agrees to abide by all applicable state and federal statutes, including but not limited to non-discrimination, and regulations and University policies. The laws of the State of Tennessee, without regard to its choice of law principles, shall govern this RFQ.
26. Unless otherwise limited by the bidder, the University shall have sixty (60) days to accept a bid.
27. If the RFQ requests and bidder so indicates on the bid, the contract terms and pricing may be extended to other state entities.
28. An RFQ reference to a particular manufacturer, brand or make in does not restrict the bidder to that item, unless specifically stated in the RFQ. The University will consider comparable products of other manufacturers if bidder provides proof of compatibility.
29. Bidder must notify the Purchasing and Contracts Office in writing at least three business days prior to the bid submittal deadline whenever bidder perceives that specifications are not fair and open.
30. Bidder must furnish with the bid such specifications, catalog pages, brochures or other data as will provide an adequate basis for determining the quality and functional capabilities of the product offered. The University may reject a bid if bidder fails to provide this data.
31. The University is exempt from federal excise and state sales taxes on purchases of tangible personal property. Vendors making improvements or additions to, or performing repair work on real property for the University are responsible for payment of sales or use tax on tangible personal property used in connection with the contract or furnished to vendors by the University for use under the contract. Bidders are responsible for determining the applicability of taxes.
32. Prior to contract award, if required by law, successful bidder must register with or be exempted by the Tennessee Dept. of Revenue for the collection of Tennessee sales/use tax.
33. By submitting a bid, bidder attests that no conflict of interest exists that prevents bidder from doing business with the State of Tennessee.
34. Bidder may not require any other written terms or conditions, nor impose any other terms and conditions in subsequent documents, such as invoices, warranty agreements, license agreements, etc. Should a bidder propose terms which conflict with Tennessee law and policies, the University may render the bid non-responsive and reject it.
35. Bid protest procedures are available at:
36. By submitting a bid, bidder attests in writing that it will not knowingly utilize the services of illegal immigrants and/or the services of any subcontractor that does so in delivery of the goods/services to the University. If the bidder is discovered to have breached this attestation, the bidder shall be prohibited from supplying goods/services to any state entity for a period of one year from the date of discovery of the breach.
37. The requirements of TCA §12-12-101 et seq. addressing contracting with persons with investment activities in Iran shall be a material provision of this RFQ and any contract resulting from it. Bidder agrees, under penalty of perjury, that to the best of its knowledge that it is not on the list created pursuant to TCA § 12-12-106.
38. The University shall not:
 - i. reimburse a vendor for travel expenses in amounts exceeding the maximums contained in University travel policies;
 - ii. indemnify or hold harmless another entity;
 - iii. pay vendor's attorney fees in the event of legal action;
 - iv. consent to jurisdiction in courts outside Tennessee.
39. A vendor shall not:
 - i. disclaim or limit its liability for damages or warranty;
 - ii. limit the amount of damages recoverable by the University;
 - iii. limit the time permitted for the University to bring legal action;
 - iv. assess penalties or liquidated damages against the University.
40. Upon receipt of goods, the University shall have a reasonable period in which to inspect and accept or reject goods without liability. The University will reject items that are not equivalent and return them to the vendor, at vendor's expense
41. In case of vendor default, the University may procure the articles or services from other source(s) and hold the defaulting vendor responsible for any excess cost.
42. Should the original awarded vendor default, the University may award to the second lowest responsive, responsible bidder.
43. The University's PO – Standard Terms and Conditions shall apply to any purchase order or contract awarded as a result of this RFQ.