



COMSATS University Islamabad, Lahore Campus
Defence Road, Off Raiwind Road, Lahore

Tender No. CUI-LHR-TN-13-19-1295

Case # 2865

Single Stage Two Envelop Procedure

Title of Tender: **Lab Equipment for Dr. Asim Ali Khan Department of Electrical & Computer Engineering, CUI-Lahore Campus**

TERMS AND CONDITIONS

- 1. All pages of bidding documents are mandatory to be signed / stamped, meaning thereby bidder agrees to our terms & conditions mentioned herein, failing which the bid may be rejected.*
- 2. Any addition, deletion or modification of any clause of the procurement terms & conditions/BoQs of CUI-Lahore Campus by any vendor will not be acceptable and may lead to rejection of the bid.*
- 3. Only registered Suppliers, who are on Active Taxpayers List (ATL) of FBR, are eligible to participate in tender.*
- 4. The contract will be executed and handed over in satisfactory conditions up to the entire satisfaction of COMSATS University Islamabad, Lahore Campus.*
- 5. Documents along with Pay Order / Demand Draft amounting to **Rs. 500/-** as a tender documents fee (Non-Refundable) shall be submitted in favor of COMSATS University Islamabad (CUI), Lahore Campus to the address given below. No bid will be accepted without tender documents' fee.*
- 6. Part / Advance payments is not allowed.*
- 7. **The exact completion/installation/ delivery time from the date of the purchase / work order will be 30 days. The handing over / completion time for this contract is of critical importance.***
- 8. Your bid proposal should be inclusive of freight and all other taxes and to be delivered at COMSATS University Islamabad (CUI), Lahore Campus's premises.*
- 9. After opening of bids, COMSATS University Islamabad (CUI), Lahore Campus will examine the bids for completeness as per tender document.*
- 10. Purchase order (s) will be awarded to the lowest or technically recommended bidder (s) on the basis of item wise / subtotal wise / grand total wise according to the nature of BoQs.*
- 11. The bid should be submitted in a sealed envelope up to **October 02, 2019** on or before **1400hrs** and will be opened on the same date **at 1430hrs** in the presence of available bidders.*
- 12. COMSATS University Islamabad, Lahore Campus, will follow the PPRA rule of **single stage two envelope procedure**;*
 - i. The bid shall comprise a single package containing **two separate envelopes**. Each envelope shall contain separately the **financial proposal** and the **technical proposal**;*

- ii. The envelopes shall be marked as **“FINANCIAL PROPOSAL”** and **“TECHNICAL PROPOSAL”** in bold and legible letters to avoid confusion;
 - iii. Initially, only the envelope marked **“TECHNICAL PROPOSAL”** shall be opened;
 - iv. The envelope marked as **“FINANCIAL PROPOSAL”** shall be retained in the custody of the procuring agency without being opened;
 - v. The procuring agency shall evaluate the technical proposal in a manner prescribed in advance, without reference to the price and reject any proposal which does not conform to the specified requirements;
 - vi. During the technical evaluation no **amendments** in the technical proposal shall be permitted;
 - vii. The financial proposals of bids shall be opened publicly at a time, date and venue announced and communicated to the bidders in advance;
 - viii. After the evaluation and approval of the technical proposal the procuring agency, shall at a time within the bid validity period, publicly open the financial proposals of the technically accepted bids only. The financial proposal of bids found technically nonresponsive shall be returned un-opened to the respective bidders;
 - ix. and
 - x. The bid found to be the lowest evaluated bid shall be accepted.
13. The envelope should be marked as under;
Secretary, Purchase Committee
COMSATS University Islamabad (CUI), Lahore Campus
 Defence Road, Off Raiwind Road, Lahore.
 Tel: 042-111-001-007, Ext: 875
- The envelope shall also bear the word **“CONFIDENTIAL”** and following identification quotation of **“Lab Equipment for Dr. Asim Ali Khan, Department of Electrical & Computer Engineering, CUI-Lahore Campus”**.
14. The bid form (BoQs) must be duly filled in, stamped and signed by the authorized representative of the bidder.
- 15. If the vendor fails to deliver the goods / services to COMSATS University Islamabad (CUI), Lahore Campus in time then the penalty will be charged as under:-**
- a. 1% per day of the invoice price for 5 working days.
 - b. 2% per day of the invoice price for further 5 working days.
 - c. If the vendor fails to deliver the goods / services during the extended period then the purchase / work order may be cancelled, earnest money and payment may be forfeited.
16. If the delivered goods / services are not according to the required quality standards / specifications, the same shall be liable to be rejected after inspection. The vendor would be required to supply as per requirements mentioned in our BoQs, otherwise the purchase / work order will be cancelled after due date with confiscation of earnest money.
17. Deduction of Income Tax and any other tax will be deducted at source according to Government prevailing rules.

18. Payment will be made on submission of Invoice in the name of “COMSATS University Islamabad (CUI), Lahore Campus” with a copy of delivery challan (s) after the complete order has been supplied, inspected and accepted which includes delivery / installation, and COMSATS acceptance / inspection thereof.
19. All prices should be quoted on F.O.R (Pak Rupees) inclusive of all applicable taxes.
20. All prices should be valid for at least **90 days**. Withdrawal or any modification of the original offer within the validity period shall entitle CUI, Lahore Campus to forfeit the earnest money in favor of the CUI, Lahore Campus and / or put a ban on such vendor participation in tenders / works.
21. It is the sole responsibility of the agent / supplier / manufacturer to comply with the applicable laws, be national or international.
22. In case of any dispute or grievance, the matter shall be addressed as per PPRA rules.
23. The CUI, Lahore Campus reserves the right to modify the quantities of goods / services at any time before the award of purchase / work order.
24. **05% of the total value of the Invoice will be retained as security by COMSATS University Islamabad (CUI), Lahore Campus, and will be released after warranty period i.e. (10 Months) Sr.# 2, 3 & 5 as mentioned in BoQs which will be counted from the date of delivery / installation / completion of work / supply.**
25. **The bidder is required to furnish in form of Bank deposit/ CDR/ Pay order equivalent to 2% of the total Bid price as Earnest Money crossed in favor of “COMSATS University Islamabad (CUI), Lahore Campus”.**
26. COMSATS University Islamabad (CUI), Lahore Campus reserves the rights to reject the bid if;
 - i. Received without earnest money
 - ii. Received later than the date and time fixed for tender submission
 - iii. The tender is unsigned/ unstamped
 - iv. The offer is ambiguous
 - v. The offer is conditional
 - vi. The offer is from a firm, which is black listed by any Govt. Office.
 - vii. The offer is received by telephone/telex/fax/telegram.
 - viii. Any unsigned / ambiguous erasing, cutting / overwriting etc. is made.
27. The bidder should furnish a certificate as worded below in token of acceptance of all the terms and conditions of the tender otherwise the tender will not be considered under any circumstances.
28. The undersigned affirm that the terms and conditions as contained in this document have been read and accepted and that in the event of selection of my/our rate the agreement in the prescribed form will be entered into:
 - **Company / Vendor Name:**.....
 - **Postal Address:**.....
 - **Tel. / Mobile:**.....**Email:**.....
 - **NTN# :**.....**GST#:**.....
 - **Signature:**

- Please also attach the Certificate supporting being Active Taxpayer as per requirement of FBR.

Technical Portion (Please mention the quoted model/ brand in technical portion with no mention of price otherwise the bid will be rejected)

BoQs for Lab Equipment for Dr. Asim Ali Khan, Department of Electrical & Computer Engineering, CUI-Lahore Campus

No change in the BoQs (Specs & Qty.) of CUI-Lahore Campus, as detailed below, is allowed. Any additional information may be mentioned in the blank columns (i.e. model / brand or Price). Any modification in CUI-Lahore Campus BoQ may lead to rejection of bid (fully or partially).			Please mention the quoted Model / Brand with meeting the all specifications mentioned in BoQs	
Sr.#	Item Name & Specification	Qty		
1	Voltage Controlled Oscillator* Model No. ZX95-1480-S+ or equivalent Connector Type: SMA Wide Band 670 to 1480 MHz. Tuning Voltage Range: 0V to 12.5 V Typical Output Power: 5 dBm	01	No.	
2	Low Noise Amplifier* Model No. ZX60-2522MA-S+ or equivalent Connector Type: SMA 50Ω High Isolation 0.5 to 2.5 GHz Input Power: 10 dBm (continuous operation) 25 dBm (5 min. max) Output Power: 20 dBm at 1 dB compression Gain: 22-24 dB at 5V Noise Figure: 2.5 dB at 5V 10 months warranty	02	Nos.	
3	Mixer* Model No. ZX05-C24MH-S+ or equivalent Connector Type: SMA LO Power: + 13 dBm RF/ LO Frequency Range: 300 to 2400 MHz IF Frequency Range: DC- 700 MHz Max RF power: 200 mW Conversion Loss: 6 dB L-R Isolation: ~ 40 dB 10 months warranty	01	No.	
4	Precision Fixed Attenuator * Model No. BW-S4W2+ or equivalent Connector Type: SMA Female-SMA Male Attenuation: 4 dB 50Ω, 2W, 4dB, DC to 18000 MHz	01	No.	

5	Low Noise Amplifier* Model No. ZRL-1150LN+ or equivalent Connector Type: SMA 50Ω, 650 to 1400 MHz Input Power: 10 dBm (continuous operation) Output Power: 25 dBm at 1 dB compression Gain: 34 dB at 12V Noise Figure: 1 dB at 12V 10 months warranty	01	No.	
6	Phase Shifter* Model No. SPHSA-152+ or equivalent Surface Mount 50Ω, 360° Voltage Variable, 800 to 1500 MHz Control Voltage: 0-15 V Typical Insertion Loss: 2.8 dB	02	Nos.	
7	Microcontroller based ADC* Model No. PIC18F4450 or equivalent Resolution: 10 Bits Data Rate: 100 KSPS Package Type: 40 pin PDIP	03	Nos.	
Note: 1. The vendor for Sr. No 1 to 7 should preferably be a company working in RF Engineering Industry Sector and must have experience in developing, assembling and testing RF systems including DC bias circuitry and other related components and able to provide technical support after the delivery of all above mentioned items for at least 02 months. 2. Relevant Purchase / Work order must be attached with bid / proposal.				
Purchase Order shall be issued on Sub Total Basis for Sr. # 1 to 7				
8	Splitter Model No. ZAPD-20-S+ or equivalent Connector Type: SMA 50ohm, 2way Power Splitter Frequency Range: 700 to 2000 MHz Total Loss Per Port: 3.2 dB Max Input Power: 10 W High Isolation, 30 dB typ. Phase Unbalance, 1 deg. typ.	01	No.	
9	SMA Barrels Model No. SM-SM50+ or equivalent Adapter SMA- Male to SMA-Male 50Ω, DC to 18 GHz Insertion Loss: 0.05 dB Typ.	05	Nos.	

10	Coaxial Cable Model No. 086-12SM+ or equivalent Connector Type: SMA 50Ω, 12inch, DC to 18 GHz Return Loss: 40 dB at 1 GHz Insertion Loss: 0.2 dB at 1GHz	02	Nos.	
11	Coaxial Cable Local Model: RG 58 or equivalent Connector Type: SMA 50 Ω, 5 feet long For feeding Helical antennas	02	Nos.	
12	Precision Fixed Attenuator Model No. BW-S8W2+ or equivalent Connector Type: SMA Female-SMA Male Attenuation: 8 dB 50Ω, 2W, 8dB, DC to 18000 MHz	01	No.	
13	Precision Fixed Attenuator Model No. BW-S2W2+ or equivalent Connector Type: SMA Female-SMA Male Attenuation: 2 dB 50Ω, 2W, 2dB, DC to 18000 MHz	02	Nos.	
14	Pomona 5698 RF Connector Kit Maxi Universal Adapter Kit (30) Adapters and cable 5749 or equivalent	01	No.	
15	RF Torque Wrench set for SMA (3.5 mm, 2.92 mm 2.4mm and 1.85mm) Model: HTW-516-05 - Torque Value: 5.0 ± 0.02 NM or equivalent Or similar.	01	No.	
16	MPLAB PICKit 4 In-Circuit Debugger Part No. PG164140 or equivalent Kit Contents: MPLAB PICKit 4 In-Circuit Debugger/Programmer USB to micro-B USB cable Warranty card 2 MPLAB PICKit 4 stickers	01	No.	
17	Explorer 8 Development Kit Part No. DM160228 or equivalent Kit Contents: Explorer 8 development Board Pre-programmed DSTEMP Micro USB cable	01	No.	
18	PICDEM FS USB Demo Board (PIC18F45K50) or equivalent Part No. DM163025-1 or equivalent	01	No.	

19	Standalone ADC Chip Model No. MCP33131-05 or equivalent Resolution: 16 Bits Max sampling rate: 500 KSPS Input Channel: Single Interface: SPI Package: 10 pin MSOP	03	Nos.	
20	ADM00873-BNDL - 1 Msps SAR ADC Evaluation Kit Part No. ADM00873-BNDL or equivalent The kit comes with: <ul style="list-style-type: none"> • 1 x MCP331x1x-xx 1 MSPS SAR ADC Evaluation Board (ADM00873) with 9V Power Supply • 1x Pre-programmed PIC32 Curiosity Board (DM320104-Bundle) • 1x USB cable for DM320104 	01	No.	

Financial Portion (Price and Brand/Model to be mention only in Financial Proposal in a separate sealed envelope)

Vendors are required to provide both unit and total price of each item and calculations must be made carefully to avoid mistakes. However, in case, total price does not match with the unit price and quantity due to calculation error or typo error, any of the following can be opted

1. The bid may be rejected on the reason of ambiguity (OR)
2. Unit price will be considered as final and total price of the respective item will be calculated by multiplying it with the quantity required. Sub-totals and grand total will also be corrected accordingly.

No change in the BoQs (Specs & Qty.) of CUI-Lahore Campus, as detailed below, is allowed. Any additional information may be mentioned in the blank columns (i.e. model / brand or Price). Any modification in CUI-Lahore Campus BoQ may lead to rejection of bid (fully or partially).

Prices should be quoted inclusive of all applicable taxes

Sr.#	Item Name & Specification	Qty		Quoted Model / Brand / Make	Unit Price (Rs)	Total Price (Rs)
1	Voltage Controlled Oscillator* Model No. ZX95-1480-S+ or equivalent Connector Type: SMA Wide Band 670 to 1480 MHz. Tuning Voltage Range: 0V to 12.5 V Typical Output Power: 5 dBm	01	No.			

2	<p>Low Noise Amplifier* Model No. ZX60-2522MA-S+ or equivalent Connector Type: SMA 50Ω High Isolation 0.5 to 2.5 GHz Input Power: 10 dBm (continuous operation) 25 dBm (5 min. max) Output Power: 20 dBm at 1 dB compression Gain: 22-24 dB at 5V Noise Figure: 2.5 dB at 5V 10 months warranty</p>	02	Nos.			
3	<p>Mixer* Model No. ZX05-C24MH-S+ or equivalent Connector Type: SMA LO Power: + 13 dBm RF/ LO Frequency Range: 300 to 2400 MHz IF Frequency Range: DC- 700 MHz Max RF power: 200 mW Conversion Loss: 6 dB L-R Isolation: ~ 40 dB 10 months warranty</p>	01	No.			
4	<p>Precision Fixed Attenuator * Model No. BW-S4W2+ or equivalent Connector Type: SMA Female-SMA Male Attenuation: 4 dB 50Ω, 2W, 4dB, DC to 18000 MHz</p>	01	No.			
5	<p>Low Noise Amplifier* Model No. ZRL-1150LN+ or equivalent Connector Type: SMA 50Ω, 650 to 1400 MHz Input Power: 10 dBm (continuous operation) Output Power: 25 dBm at 1 dB compression Gain: 34 dB at 12V Noise Figure: 1 dB at 12V 10 months warranty</p>	01	No.			
6	<p>Phase Shifter* Model No. SPHSA-152+ or equivalent Surface Mount 50Ω, 360° Voltage Variable, 800 to 1500 MHz Control Voltage: 0-15 V Typical Insertion Loss: 2.8 dB</p>	02	Nos.			

7	Microcontroller based ADC* Model No. PIC18F4450 or equivalent Resolution: 10 Bits Data Rate: 100 KSPS Package Type: 40 pin PDIP	03	Nos.			
<p>Note:</p> <p>1. The vendor for Sr. No 1 to 7 should preferably be a company working in RF Engineering Industry Sector and must have experience in developing, assembling and testing RF systems including DC bias circuitry and other related components and able to provide technical support after the delivery of all above mentioned items for at least 02 months.</p> <p>2. Relevant Purchase / Work order must be attached with bid / proposal.</p>						
Sub Total Amount (Rs.) for Sr. # 1 to 7						
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11	Coaxial Cable Local Model: RG 58 or equivalent Connector Type: SMA 50 Ω, 5 feet long For feeding Helical antennas	02	Nos.			
12	Precision Fixed Attenuator Model No. BW-S8W2+ or equivalent Connector Type: SMA Female-SMA Male Attenuation: 8 dB 50Ω, 2W, 8dB, DC to 18000 MHz	01	No.			

13	Precision Fixed Attenuator Model No. BW-S2W2+ or equivalent Connector Type: SMA Female-SMA Male Attenuation: 2 dB 50Ω, 2W, 2dB, DC to 18000 MHz	02	Nos.			
14	Pomona 5698 RF Connector Kit Maxi Universal Adapter Kit (30) Adapters and cable 5749 or equivalent	01	No.			
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17	Explorer 8 Development Kit Part No. DM160228 or equivalent Kit Contents: Explorer 8 development Board Pre-programmed DSTEMP Micro USB cable	01	No.			
18	PICDEM FS USB Demo Board (PIC18F45K50) or equivalent Part No. DM163025-1 or equivalent	01	No.			
19	Standalone ADC Chip Model No. MCP33131-05 or equivalent Resolution: 16 Bits Max sampling rate: 500 KSPS Input Channel: Single Interface: SPI Package: 10 pin MSOP	03	Nos.			

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Special Terms and conditions:

- **Please submit the technical and financial bid (s) on our prescribed BoQs and clearly mention the quoted model / brands, with complete terms and conditions signed, stamped with both bids, otherwise your bid (s) may be rejected.**
- **In Addition to filling of the attached BoQs, supporting literature of the quoted model must be attached for verification & technical evaluation of the required specification by the technical committee. In case of any clash is found between the quoted model and the literature model. So the item/bid may be rejected.**
- **Purchase / work order (s) will be awarded on Sub Total Basis for Sr. # 1 to 7 and on item wise basis for Sr. # 8 to 20 as mentioned in BoQs.**
- **Kindly attach the Tender fee with Technical Bid and Bid money / CDR with Financial Bid.**
- **Multiple rates of an item may also lead to the rejection of bid / item.**