

# Tender Covering Form

**Directorate of Procurement (Navy)**  
Through Bahira Gate, Near SNIDS Centre,  
Naval Residential Complex E-8  
ISLAMABAD  
Contact: Reception: 051-9262311  
Bahria Gate: 0331-5540649  
Section: 051-9262304  
Email: [dpn@paknavy.gov.pk](mailto:dpn@paknavy.gov.pk)  
[Adpn31pre@paknavy.gov.pk](mailto:Adpn31pre@paknavy.gov.pk)

**P- 31/PRE Section (Contact: 0519262304, 05120062059, Email: adpn31pre@paknavy.gov.pk)**

Tender No & Date \_\_\_\_\_  
Tender Description \_\_\_\_\_  
IT Opening Date \_\_\_\_\_  
Firm Name \_\_\_\_\_  
Postal Address \_\_\_\_\_  
Email Address for Correspondence \_\_\_\_\_  
Contact Person Name \_\_\_\_\_  
Contact Number (Landline \_\_\_\_\_) (Mobile \_\_\_\_\_)

**Documents to be Attached with Quotation:** Firm is to submit its proposal in a sealed envelope which shall contain 03 x Sealed Envelops as per details given below:

<b>Sealed Envelop 1 – Technical Offer in Duplicate</b>			
This envelope must contain 02 x sets of Technical Offer (01 x Original + 01 x Copy). Each Set must contain following documents as per this order and Supplier is to mark tick <input checked="" type="checkbox"/> against each to ensure that these documents have been attached:			
S No	Document	Original Set	Copy Set
1.	Bank Challan		
2.	Principal Authorization Letter (where applicable)		
3.	Principal Invoice (Muted–without Price) (where applicable)		
4.	DP -1 Form of IT (with compliance remarks)		
5.	DP – 2 Form of IT with compliance remarks against each clause.		
6.	Technical Offer / Specs		
7.	Annexes of IT		
8.	DP-3 form of IT (dully filled & signed)		
9.	DGDP Registration Letter (If firm is registered with DGDP)		
10.	Income tax Filling Proof.		
11.	Sales Tax registration Proof.		
12.	CEO Name & CNIC No.		
13.	Imported with OEM CoC (Certificate of Conformance) compatible to preferred makes given in <b>of Annex A. OEM to be clearly mentioned</b> ).		
14.	<b>Country of Origin</b> (Must be mentioned)		
<b>Sealed Envelop 2 – Earnest Money:</b> This Envelop must contain Earnest Money only.			
<b>Sealed Envelop 3 – Commercial Offer:</b> This Envelop must contain following documents:			
1.	Firm's Commercial Offer	01 x Original	
2.	Principal Invoice (where applicable)	01 x Original	
3.	Dully filled DP-2 Form of IT	01 x Original	

**Firm's Declaration:** It is certified that we have submitted tender in compliance with above instructions and we understand that our offer is liable to rejection if tender is not prepared / packed as per above instructions.

**Firm's Authorized Signatures** \_\_\_\_\_

**DIRECTORATE PROCUREMENT (NAVY)****Directorate of Procurement (Navy)**

Through Bahira Gate  
Near SNIDS Centre,  
Naval Residential Complex E-8  
ISLAMABAD

Contact: Reception: 051-9262311  
Bahria Gate: 0331-5540649  
Section: 051-9262304

Email: [dpn@paknavy.gov.pk](mailto:dpn@paknavy.gov.pk)  
[Adpn31pre@paknavy.gov.pk](mailto:Adpn31pre@paknavy.gov.pk)

M/s \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Date \_\_\_\_\_

**INVITATION TO TENDER AND GENERAL INSTRUCTIONS**

Dear Sir / Madam,

1. DP (Navy) invites you to tender for the supply of stores/equipment/ services as per details given in attached Schedule to Tender (Form DP-2).

2. **Caution:** This tender and subsequent contract agreement awarded to the successful bidder is governed by the rules / conditions as laid down in PPRA Rules-2004 and DPP&I-35 (Revised 2019) covering general terms & conditions of contracts laid down by MoDP / DGDP. As a potential bidder, it is incumbent upon you and your firm to first acquaint yourself with PPRA Rules 2004 ([www.ppra.org.pk](http://www.ppra.org.pk)) and DPP&I-35 (Revised 2019) (print copy may be obtained from DGDP Registration Cell on Phone No. 051-9270967 before participating in the tender. If your firm / company possesses requisite technical as well financial capability, you must be registered or willing to register with DGDP to qualify for award of contract, which shall be made after security clearance and provision of required registration documents mentioned in Para 15 of this DP-1.

Understood  
agreed

Understood  
not agreed

3. **Conditions Governing Contracts.** The 'Contract' made as result of this I/T (Invitation to Tender) i.a.w PPRA Rules 2004 shall mean the agreement entered into between the parties i.e. the 'Purchaser' and the 'Seller' on Directorate General Defence Purchase (DGDP) contract Form "DP-19" in accordance with the law of contract Act, 1872 and those contained in Defence Purchase Procedure & Instructions and DP-35 (Revised 2019) and other special conditions that may be added to given contract for the supply of Defence Stores / Services specified herein.

Understood  
agreed

Understood  
not agreed

4. **Delivery of Tender.** The tender documents covering technical and commercial offers are to be furnished as under:-

a. **Commercial Offer.** The commercial offer will be in single copy and indicate prices quoted in figures as well as in words in the currency mentioned in IT. It should be clearly marked in fact on a separate sealed envelope “**Commercial Offer**”, tender number and date of opening. Taxes, duties, freight/transportation, insurance charges FATs, local training Foreign training, installation commissioning, services Taxes are to be indicated separately. Total price of the items quoted against the tender is to be clearly mentioned. **In case of more than one option offered by the firm**, DP(N) reserves the right to accept lowest technically accepted option if more than one options were accepted in Technical Scrutiny Report.

Understood  
d agreed

Understood  
d not  
agreed

b. **Technical Offer: (Where Applicable).** Should contain all relevant specifications in DUPLICATE (or as specified in IT) along with essential literature/brochure, drawings and compliance metrics in a separate sealed envelope and clearly marked “Technical Offer” without prices, with tender number and date of opening. Technical offer shall be opened first; half an hour after the date and time for receipt of tender mentioned in DP-2. Firms are to confirm/comply with IT technical specification in the following format:

Understood  
agreed

Understood  
not ag

<b>S.No</b>	<b>Technical requirement as per IT</b>	<b>Firm's endorsement (Comply/ Partially Comply/ Non Comply)</b>	<b>Basis of C, PC of NC i.e. Refer to page or brochure</b>	<b>In case of non availability of enclosed proof from brochure/ Literature, quote/ attach additional documents/ data/undertaking as proof of compliance</b>

(Legend: C = Fully Comply, PC = Partially Comply, NC = Not Comply)  
(Firms must clearly identify where their offer does not meet or deviates from IT Specs)

c. **Special Instructions.** Tender documents and its conditions may please be read point by point and understood properly before quoting. All tender conditions should be responded clearly. **In case of any deviation** due to non-acceptance of tender conditions(s), **the same should be highlighted alongwith your offered conditions. Tender may however be liable to be rejected.**

Understood  
agreed

Understood  
not agreed

d. Firms shall submit their offers in two separate envelopes (i.e. one copy of commercial offer and **two copies** of the technical offers as asked in the IT) and envelopes clearly marked “Technical proposal”, “Commercial proposal” in bold. The commercial offer will include rates of items/services called for and the technical offer will not indicate the rates. Both types of offers are to be enclosed in separate covers and each envelope shall be properly sealed bearing of the bidder. Each cover shall indicate type of offer, number and date of IT and IT opening date. Thereafter both the envelopes (technical and commercial offer) shall be placed in one envelope (second cover) duly sealed and signed. This cover should bear the address of the procurement agency indicating, issuance date of IT and No, with its opening date. This should be further placed in another cover (third cover), addressed and indicated in the tender documents, without any indication that there is a tender within it.

e. **FORM DP-1, DP-2, DP-3 and Questionnaires.** Form DP-1, DP-2 (alongwith annexes), DP-3 and Questionnaires duly filled in are to be submitted with the **technical** offer duly stamped/signed by the authorized signatory/ person. It is pertinent to mention that all these are essential requirement for participation in the tender.

Understood  
agreed

Underst  
not agre

f. The tender duly sealed will be addressed to the following:-

**Directorate of Procurement (Navy)**

Through Bahira Gate  
Near SNIDS Centre,  
Naval Residential Complex E-8  
ISLAMABAD

Contact: Reception: 051-9262311  
Bahria Gate: 0331-5540649  
Section: 051-9262304

Email: [dpn@paknavy.gov.pk](mailto:dpn@paknavy.gov.pk)  
[Adpn31pre@paknavy.gov.pk](mailto:Adpn31pre@paknavy.gov.pk)

5. **Date and Time For Receipt of Tender.** Tender must reach this office by the date and time specified in the Schedule to Tender (Form DP-2) attached. This Directorate will not accept any excuse of delay occurring in post. **Tenders received after the appointed/ fixed time will NOT be entertained.** The appointed time will, however, fall on next working day in case of closed/forced holiday. Only legitimate/registered representatives of firm will be allowed to attend tender opening. In case your firm has sent tender documents by registered post or courier service, you may confirm their receipt at DP (Navy) on Phone No 051-9262311 well before the opening date / time.

Understood  
agreed

Understoo  
not agreed

6. **Tender Opening.** Tenders will be opened as mentioned in the schedule to tender. Commercial offers will be opened at later stage if Technical Offer is found acceptable on examination by technical authorities of Service HQ. Date and time for opening of Commercial offer shall be intimated later. Only legitimate / registered representative of firm will be allowed to attend tender opening. Tenders received after date & time specified in DP-2 would be rejected without exception and returned unopened i.a.w Rule **28 of PPRA-2004.**

Understood  
agreed

Understoo  
not agreed

7. **Validity of Offer.**

a. The validity period of quotations must be indicated and should invariably be 120 days from the date of opening of **Commercial/ Financial Proposal** or 30th June whichever is later. Firm undertakes to extend validity of offer if required by equal number of original bid period (i.e. 120 days as per original offer) i.a.w PPRA Rule-26.

Understood  
agreed

Understoo  
not agreed

b. The quoting firm will certify that in case of an additional requirement of the contract items (s) in any qty(s) within a period of 12 months from the date of signing the contract, these will also be supplied at the ongoing contract rates with discount.

Understood  
agreed

Underst  
not agre

8. **Part Bid.** Firm may quote for the whole or any portion, or to state in the tender that the rate quoted, shall apply only if the entire quantity/range of

stores is taken from the firm. The Director Procurement reserves the right of accepting the whole or any part of the tender or portion of the quantity offered, and firm shall supply these at the rate quoted.

9. **Quoting of Rates.** Only one rate will be quoted for entire quantity, item wise. In case quoted rates are deliberately kept hidden or lumped together to trick other competitors for winning contract as lowest bidder, DP(N) reserves the right to reject such offers on-spot besides confiscating firm's Earnest Money / Bid Security and take appropriate disciplinary action. Conversion rate of FE/LC components will be considered w.e.f. opening of commercial offer as per PPRA Rule-30(2).

Understood  
agreed

Understood  
not agreed

10. **Return of I/T.** ITs are to be handled as per following guidelines:

Understood  
agreed

Understood  
not agreed

a. For registered firm(s), case will be referred to DGDP for necessary administrative action if firms registered / indexed for tendered items/stores do not quote / participate.

b. It is a standard practice to invite all firm(s) including those un-registered with DGDP who gave their preliminary budgetary/ technical proposals to end users / indentors. If your firm has been invited to participate in the tender, you must either participate in tender. In case of your inability to do so, you must inform DP (Navy) by a formal letter/email.

Understood  
d agreed

Understood  
not agreed

11. **Withdrawal of Offer.** Firms shall not withdraw their commercial offers before signing of the contract and within validity period of their offers. In case the firm withdraws its offer within validity period and before signing of the contract, Earnest Money of the firm shall be confiscated and disciplinary action may also be initiated for embargo up to 01 year.

Understood  
agreed

Understood  
not agreed

12. **Provision of Documents in case of Contract.** In case any firm wins a contract, it will deposit following documents before award of contract:

Understood  
agreed

Understood  
not agreed

- a. Proof of firm's financial capability.
- b. Foreign Seller has to provide its Registration Number issued by respective Department of Commerce authorizing export of subject stores.
- c. Principal/Agency Agreement.
- d. Registration with DGDP (Provisional Registration is mandatory)

13. **Treasury Challan.**

a. Offers by registered firms must be accompanied with a Challan form of Rs.200/- (obtainable from State Bank of Pakistan/Government Treasury) and debit able to Major Head C02501-20, Main Head-12, Sub Head 'A' Miscellaneous (Code Head 1/845/30). **Each offer will be covered by one Challan.**

Attached

Not  
Attached

b. Firms, un-registered / un-indexed with DGDP (Registration Section) are) to participate in the tender by submitting Challan Form of Rs **300** in favour of CMA (DP).

14. **Earnest Money/Tender Bond:-** Please ensure Earnest Money is contained in a separate envelop (not inside Technical or commercial offer). Offer is liable to be rejected in case Earnest Money is packed inside commercial or

Attached

Not  
Attached

Technical offer. Your tender must be accompanied by a **Call Deposit Receipt (CDR) in favor of CMA (DP)**, Rawalpindi for the following amounts:-

- a. **Submitting improper Earnest Money.** Earnest Money/Bid Security furnished with tender is strictly in conformity of tender/IT conditions (Clause 14 of DP-1 and clause 10 of DP-2) on the subject. We have no objection on confiscation of Earnest Money/Bid security and rejection of our offer in case amount of Earnest Money/Bid Security is improper/insufficient in violation of IT condition.
- b. **Rates for Contract.** The rate of earnest money and its maximum ceil for different categories OF FIRMS would be as under:-
- (i) **Registered/Indexed/Pre-Qualified Firms.** 2% of the quoted value subject to maximum ceiling of Rs. 0.500 Million.
- (ii) **Registered/Pre-Qualified but Un-indexed Firms.** 3% of the quoted value subject to maximum ceiling of Rs. 0.750 Million.
- (iii) **Unregistered/not Pre-Qualified/Un-indexed Firms.** 5% of the quoted value subject to maximum ceiling of Rs. 1.000 Million.
- c. **Return of Earnest Money**
- (i) Earnest money to the **unsuccessful bidders** will be returned on finalization of the contract.
- (ii) Earnest money of the firm/firms with whom contract is concluded will be returned on submission of Bank Guarantee and its acceptance by CMA (DP).

**15. Documents for provisional registration:** In case your firm wins a contract on Earnest Money (EM) , it will deposit following documents to DGDP (Registration Section) before the award of contract for provisional registration:-

Understood  
agreed

Understood  
Not agreed



S No	Local Supplier	Foreign Supplier
a.	Three filled copies of SVA-8121 of each member of management.	Three filled copies of SVA-8121-D of each member of management.
b.	Three filled copies of SVA-8121-A	Three filled copies of SVA-8121.
c.	Three photocopies of NIC for each member of management.	Three photocopy of Resident Card or equivalent identification Card for each member of management.
d.	Three PP size photographs for each member of management.	Three PP size Photographs for each member of management.
e.	Challan Form	Challan Form
f.	Bank Statement for last one year.	Financial standing/audit balance sheet
g.	Photocopy of NTN	Photocopy of passport
h.	Foreign Principal Agency Agreement in case of local agent.	Agency Agreement in case of Trading House/ Company/ Exporter /Stockiest etc.

16. **Inspection Authority.** CINS, Joint Inspection will be carried out by INS, Consignee & Specialist User or a team nominated by Pakistan Navy. CINS inspection shall be as prescribed in DPP & I-35 (Revised 2019) or as per terms of the contract.

Understood  
agreed

Underst  
not agree

17. **Condition of Stores.** Brand new stores will be accepted on Firm's Warranty/Guarantee Form DPL-15 enclosed with contract.

Understood  
agreed

Underst  
not agree

18. **Documents Required.** Following documents are required to be submitted along with the quote:

Understood  
agreed

Underst  
not agree

a. OEM/Authorized Dealer/Agent Certificate along with **OEM Dealership Evidence.**

b. The firm/supplier shall provide correct and valid e-mail and Fax No to CINS and DP(N). Supplier/contracting firm shall either provide OEM Conformance Certificate to CINS or is to be e-mailed to CINS under intimation to DP (Navy). Hard copy of COC must follow in any case through courier. On receipt, CINS shall approach the OEM for verification of Conformance Certificates issued by OEM. Companies/firms rendering false OEM Conforming Certificates will be blacklisted.

c. Original quotation/Principal/OEM proforma invoice.

d. In case of bulk proforma invoice, a certificate that prices indicated in the bulk proforma invoice have not been decreased since the date of bulk proforma invoice from the manufacturers/suppliers.

e. Submit breakup of cost of stores/services on the following lines:

(i) Imported material with break down item wise along-with import duties.

(ii) Variable business overheads like taxes and duties imposed by the federal/provincial government as applicable:-

(1) General Sales Tax

(2) Income Tax

(3) Custom Duty. PCT code along with photocopy of the related page is to be attached where applicable.

(4) Any other tax/duty.

(iii) Fixed overhead charges like labour, electricity etc.

(iv) Agent commission/profit, if any.

(v) Any other expenditure/cost/service/remuneration as asked for in the tender.

19. **Rejection of Stores/Services.** The stores/services offered as a result of contract concluded against this tender may be rejected as follows:

a. 1<sup>st</sup> rejection on Govt. expense

b. 2<sup>nd</sup> rejection on supplier expense

c. 3<sup>rd</sup> rejection contract cancellation will be initiated.

Understood  
agreed

Underst  
agreed

20. **Security Deposit/Bank Guarantee.** To ensure timely and correct supply of stores the firm will furnish an unconditional Bank Guarantee (BG in the currency in which contract is concluded) from a schedule Bank of Pakistan for an amount upto 10

Understood  
agreed

Underst  
not agree

% of the contract value (excluding Taxes, duties/freight handling charges) on a Judicial Stamp Paper (All pages) of the value of (Rs 100.00) as per prescribed format or in shape of CSD/Bank draft. The Bank Guarantee shall be endorsed in favour of CMA (DP) Rawalpindi who is the Accounts Officer specified

in the contract. The CMA (DP) Rawalpindi has the like power of seeking encashment of the Bank Guarantee as if the same has been demanded by the purchaser himself. The Bank Guarantee shall be produced by the supplier within 30 days from the date of issue of the contract and remain valid for upto 60 days after completion of warranty period and remain in force till one year ahead of the delivery date given in the contract. If delivery period is extended, the supplier shall arrange the extension of Bank Guarantee within 30 days after the original delivery period to keep its validity always one year ahead of the extended delivery period. The BG form can be obtained from DP(N) on e-mail address given on page 1. Format of BG is enclosed at Annex B.

21. **Integrity Pact.** There shall be “zero tolerance” against bribes, gifts, commission and inducement of any kind or their promises thereof by Supplier / Firm to any Government official / staff whether to solicit any undue benefit, favour or otherwise. Following provisions must be clearly read & understood for strict compliance:

Understood  
agreed

Understood  
not agreed

a. Integrity Pact shall be applicable to all tenders / contracts irrespective of their financial value. However, a written Integrity Pact shall be signed for contracts exceeding Rs 10 Million between the procuring agency and the supplier / contractor i.a.w Rule-7 of PPRA-2004. The form is available at [www.ppra.org.pk](http://www.ppra.org.pk) or can be requested at [dpnavy@paknavy.gov.pk](mailto:dpnavy@paknavy.gov.pk)

b. If a Supplier / Contractor is found involved in any unbusiness-like / unethical activity, same would be considered a serious breach of the Integrity Pact. DP (Navy) shall take severe disciplinary action against that person(s) and the firm / company, which may include, but not limited to, **PERMANENT BLACKLISTING** of firm / company through DGDP and legal action against the individual (s) involved as per Pakistan’s Code of Criminal Procedure.

c. It is strictly forbidden to socialize, call or meet any official / staff of DP (Navy) in private or during off hours. If any official / staff from Purchaser side asks for any undue favour or gratification directly or indirectly, the matter is to be immediately brought to the personal notice of Director Procurement (Navy) on Tel: 051-9271468 or through a personal meeting in office. Privacy of firms and their Reps sharing such information will be guaranteed without any prejudice to their normal business activities.

22. **Correspondence.** All correspondence will be addressed to the Purchaser i.e. DP (Navy). Correspondence with regard to payment or issue of delivery receipt may be addressed to CMA Rawalpindi & Consignee respectively with copy endorsed to the DP (Navy).

Understood  
agreed

Understood  
not agreed

23. **Pre-shipment Inspection.** PN may send a team of officers including DP(N) member for the inspection of major equipment’s and machinery items at OEM premises as per terms of contract. If not already provided for and mentioned in the I.T, firm(s) must clarify the place, number of persons, duration and whether expenses on such visits would be borne by the Purchaser or Contractor. **In case contractor is responsible for bearing such expenses, detailed breakdown of the same should be given separately in the commercial offer.**

Understood  
agreed

Understood  
not agreed



24. **Amendment to Contract.** Contract may be amended/modified to include fresh clause (s) modify the existing clauses with the mutual agreement by the supplier and the purchaser; such modification shall form an integral part of the contract.

Understood  
agreed

Understood  
not agreed

25. **Discrepancy.** The consignee will render a discrepancy report to all concerned within 60 days after receipt of stores for discrepancies found in the consignment. The quantities found short are to be made good by the supplier, free of cost.

Understood  
agreed

Understood  
not agreed

26. **Force Majeure.**

a. The supplier will not be held responsible for any delay occurring in supply of equipment due to event of Force Majeure such as acts of God, War, Civil commotion, Strike, Lockouts, Act of Foreign Government and its agencies and disturbance directly affecting the supplier over which events or circumstances the supplier has no control. In such an event the supplier shall inform the purchaser within 15 days of the happening and within the same timeframe about the discontinuation of such circumstances/happening in writing. Non-availability of raw material for the manufacture of stores, or of export permit for the contracted stores from the country of its origin, shall not constitute Force Majeure.

Understood  
agreed

Understood  
not agreed

b. The Supplier shall provide the Purchaser with all the necessary proof of the occurrence of the events and its effect on the contract performance within 30 days from the start to force majeure event.

c. The Purchaser shall be entitled to conduct investigation into the cause of delay reported by the Supplier.

d. Where the delay was due to genuine force majeure event it shall extend the delivery for a period of equal to the period in which such force majeure remains operative.

e. Such extension in delivery period, due to force majeure, shall not entitle the Suppliers to claim any extra from the Purchaser.

27. **Arbitration.** Parties shall make their attempt to settle all disputes arising under this contract through friendly discussions in good faith. In the event that either party shall perceive such friendly discussion to be making insufficient progress towards settlement of dispute (s) at any time, then such party may be written notice to the other party refer the dispute (s) to final and binding arbitration as provided below:

Understood  
agreed

Understood  
not agreed

a. The dispute will be referred for adjudication to two arbitrators one to be nominated by each party, who before entering upon the reference shall appoint an umpire by mutual agreement, and if they do not agree a judge of the Superior court shall be requested to appoint the umpire. The arbitration proceedings shall be held in Pakistan and under Pakistani Law.

b. The venue of the arbitration shall be the place from which the contract is issued or such other places as the Purchaser at his discretion may determine.

c. The arbitration award shall be firm and final.

d. In course of arbitration the contract shall be continuously be executed except that part which is under arbitration

e. All proceedings under this clause shall be conducted in English language and in writing

28. **Court of Jurisdiction.** In case of any dispute only court of jurisdiction Rawalpindi, Pakistan shall have jurisdiction to decide the matter. Understood  
agreed  Understood  
not agreed

29. **Liquidated Damages (LD).** Liquidated Damages upto 2% per month are liable to be imposed on the suppliers by the purchaser in accordance with DP-35, if the stores supplied after the expiry of the delivery date without any valid reasons. Total value of LD shall not exceed 10% of the contract value. Understood  
agreed  Understood  
not agreed

30. **Risk Purchase.** In the event of failure on the part of supplier to comply with the contractual obligations the contract will be cancelled at the Risk and Expense (RE) of the supplier in accordance with DP-35. Understood  
agreed  Understood  
not agreed

31. **Compensation Breach of Contract.** If the contractor fails to supply the contracted stores or contract is cancelled either on RE or without RE or contract become ineffective due to default of supplier / seller or stores / equipment declared defective and caused loss to the Government, contractor shall be liable to pay to the Government compensation for loss or inconvenience resulting for his default or from the rescission of his contract when such default or rescission take place such compensation will be in excess to the RE amount, if imposed by the competent authority. Compensation amount in terms of money will be decided by the purchase officer and will be deposited by contractor / seller in Government treasury in the currency of contract. Understood  
agreed  Understood  
not agreed

32. **Gratuities/Commission/Gifts.** No commission, rebate, bonus, fee or compensation in any form shall be paid to any local or foreign agent, consultant representative, sales promoter or any intermediary by the Manufacturer/Supplier except the agent commission payable as per the agent commission policy of the government and as amended from time to time and given in the contract. Any breach of such clause(s) of the contract by Manufacturer/Supplier and/or their sole nominated representative may result in cancellation of the contract blacklisting of the Manufacturer/Supplier financial penalties and all or any other punitive measure which the purchaser may consider appropriate. Understood  
agreed  Understood  
not agreed

33. **Termination of Contract.**  
a. If at any time during the currency of the contract the Purchaser decides to terminate the contract for any reason whatsoever (other than for reasons of Non-Delivery) he shall have right to do so by giving the Supplier a registered notice to that effect. In that event the Purchaser will accept delivery at the contract price and terms of such stores/goods/services which are in the actual process of manufacture that is completed and ready for delivery within thirty days after receipt by the Supplier of such notice. Understood  
agreed  Understood  
not agreed

b. In the case of remainder of the undelivered stores/goods/services the Purchaser may elect either:

(i) To have any part thereof completed and take the delivery thereof at the contract price or.

(ii) To cancel the remaining quantity and pay to the Supplier for the articles or sub-components or raw materials purchased by the Supplier and are in the actual process of manufacture at the price to be determined by the Purchaser. In such a case materials in the process of manufacture shall be delivered by the Supplier to the Purchaser.

(iii) No payment shall however be made for any materials not yet in the actual process of manufacture on the date notice of cancellation is received.

c. Should the Supplier fail to deliver goods/services in time as per quality terms of contract or fail to render Bank Guarantee within the stipulated time period or any breach of the contract the Purchaser reserves the right to terminate/cancel the contract fully or any part thereof at the risk and expense (RE) of the Supplier.

34. **Rights Reserved.** Directorate of Procurement (Navy), Rawalpindi reserves full rights to accept or reject any or all offers including the lowest. Grounds for such rejections may be communicated to the bidder upon written request, but justification for grounds is not required as per PPRA Rule 33 (1).

Understood  
agreed

Underst  
not agre

35. **Application of Official Secrets Act, 1923.** All the matters connected with this enquiry and subsequent actions arising there from come within the scope of the Official Secrets Act, 1923. You are, therefore, requested to ensure complete secrecy regarding documents and stores concerned with the enquiry and to limit the number of your employees having access to this information.

Understood  
agreed

Underst  
not agre

36. **Acknowledgment.** Firms will send acknowledgement slips within 07 days from the date of downloading of IT from the PPRA Website i.e. [WWW.PPRA.ORG.PK](http://WWW.PPRA.ORG.PK)

Understood  
agreed

Understoc  
not agreed

37. **Disqualification.** Offers are liable to be rejected if:-

- a. Received later than appointed/fixed date and time.
- b. Offers are found conditional or incomplete in any respect.
- c. There is any deviation from the General /Special/Technical Instructions contained in this tender.
- d. Forms DP-1, DP-2 (along with Annexes), and DP-3 duly signed, are NOT received with the **technical** offer.
- e. Taxes and duties, freight/transportation and insurance charges NOT indicated separately as per required price breakdown mentioned at Para 17.
- f. Treasury challan is NOT attached with the technical offer.
- g. Multiple rates are quoted against one item.
- h. Manufacturer's relevant brochures and technical details on major equipment assemblies are not attached in support of specifications.
- j. Subject to restriction of export license.
- k. Offers (commercial/technical) containing non-initialed/ unauthenticated amendments/corrections/overwriting.

Understood  
agreed

Understood  
not agreed

l. If the authorization letter/ agency/ dealership/ distribution agreement is not attached or if the validity of the same is expired.

- m. The commercial offer against FOB/CIF/C&F tender is quoted in local currency and vice versa.
- n. Principals invoice in duplicate clearly indicating whether prices quoted are inclusive or exclusive of the agent commission is not enclosed.
- p. Earnest money is not provided.
- q. Earnest Money is not provided with the technical offer (or as specified).
- r. If validity of offer is not quoted as required in IT or made subject to confirmation later.
- s. Offer made through Fax/E-mail/Cable/Telex.
- t. If offer is found to be based on cartel action in connivance with other sources/ participants of the tender.
- u. If OEM and principal name and complete address is not mentioned.
- v. Original Principal Invoice is not attached with offer.

38. **Appeals by Supplier/Firm.** Any aggrieved Supplier/Firm against the decision of DP (N) or CINS or any other problematic area towards the execution of the contract may prefer an Appeal to Standing Appeal Committee (SAC) comprising PN Officers and military finance rep at Naval headquarters, Islamabad. The detail and timeline for preferring appeals is given below:

Understood  
agreed

Understood  
not agreed

S.No.	Category of Appeal	Limitation Period
a.	Appeals for liquidated damages	Within 30 days of decision
b.	Appeals for reinstatement of contracts	Within 30 days of decision
c.	Appeals for risk & expense amount	Within 30 days of decision
d.	Appeals for rejection of stores	Within 30 days of decision
e.	Appeals in all other Cases	Within 30 days of decision

39. **Limitation.** Any appeal received after the lapse of timelines given in para 38 above shall not be entertained.

Understood  
agreed

Understood  
not agreed

40. **SECRECY / NON DISCLOSURE AGREEMENT (NDA)**

The supplier shall undertake as per attached Annex C that any information about the sale/purchase of stores under this contract shall not be communicated to any person other than the manufacturer of the stores, or to any press or Agency not authorized by DP(N) to receive it.

Understood  
agreed

Understood  
not agreed

Any breach of it shall be punishable under the Official Secrets Act, 1923 in addition to termination of the contract at the risk of the supplier.

41. **For Firms not Registered with DGDP.**

Firms not registered with DGDP undertake to apply for registration with DGDP prior signing of Contract. Details can be found on DGDP website [www.dgdp.gov.pk](http://www.dgdp.gov.pk). These firms can participate in tender iaw paras 12 and 14 above and provision of documentary proof regarding financial status of the firm alongwith NTN and GST registration copies.

Understood  
agreed

Understood  
not agreed

42. Firms which are not registered with DGDP should initiate provisional registration in accordance with Para 41. Besides, ground check by Field Security (FS) Team will be made for security clearance related to participation in the tender

Understood  
agreed

Understood  
not agreed

after technical opening. Firms undertake to provide following documents for ground check by FS Team:

- a. NTN

- b. Income Tax Return
- c. Sales Tax Return
- d. Sales Tax Certificate
- e. Chamber of Commerce Industry Certificate
- f. Professional Tax Certificate (Excise & Taxation)
- g. Office/Home/Ware House Property documents
- h. Utility Bills (Phone/Electricity)
- j. Firm Vehicle/Personal Vehicle
- k. CEO Visiting Card/NIC Copy, 03Xspecimen signature of CEO
- l. DGDP Registration letter
- m. Firm Bank Statement

- n. Non Black List Certificate
- p. 2 X Witness + CNIC and Mobile Numbers
- q. Police Verification
- r. Agency Agreement
- s. OEM Certificate
- t. ISO Certificate
- u. Stock List with value
- v. Company Profile/Broachers
- w. Employees List
- x. Firm Categories
- y. Sole Proprietor Certificate
- z. Partnership Deed
- aa. Pvt Limited
- ab. Memorandum of Articles
- ac. Form 29 and Form A
- ad. Incorporation Certificate

43. We solemnly undertake that all IT clauses marked as "Understood & Agreed" shall not be changed / withdrawn after tender opening. The IT provisions accepted shall form the baseline for subsequent contract negotiations.

Understood  
agreed

Underst  
not agre



44. The above terms and conditions are confirmed in total for acceptance.

45. Format of DPL-15 (DP2 form) and PBG are enclosed as Annex A & B.

Sincerely yours,

\_\_\_\_\_  
(To be Signed by Officer Concerned)

Rank: \_\_\_\_\_

NAME: \_\_\_\_\_

**DPL-15 (WARRANTY / GUARANTEE)**

FIRM'S NAME: M/s \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

1. We hereby guarantee that the articles supplied under the terms of this contract are produced new in accordance with approved drawings/specification and in all respect in accordance with the terms of the contract, and the materials used whether or not of our manufacture are in accordance with the latest appropriate standard specifications, as also in accordance with the terms of complete of good workmanship throughout and that we shall replace FOR/DDP Karachi free of cost every article or part thereof use or in use shall be found defective or not within the limits and tolerance of specifications requirement or in any way not in accordance with the terms of the contract.

2. In case of our failure to replace the defective stores free of cost within a reasonable period, we shall refund the relevant cost FOR/DPP Karachi (As the case may be in currency in with received).

3. This warranty shall remain valid for **01 Year** after the acceptance of stores by the end user

The signature must be the same as that on the tender/contract, or if otherwise must be shown to be the signature of a person capable of giving a guarantee on behalf of the contractor



SIGNATURE\_\_\_\_\_

DATE\_\_\_\_\_

PLACE\_\_\_\_\_

**BANK GUARANTEE FOR PERFORMANCE ON  
JUDICIAL STAMP PAPER OF RS. 100/- OR  
AS SUITABLE TO THE AMOUNT OF BG**

- (i) Contract No. \_\_\_\_\_ dated \_\_\_\_\_  
(ii) Name of Firm/Contractor \_\_\_\_\_  
(iii) Address of Firm/Contractor \_\_\_\_\_  
(iv) Name of Guarantor \_\_\_\_\_  
(v) Address of Guarantor \_\_\_\_\_  
(vi) Amount of Guarantee Rs. \_\_\_\_\_  
( \_\_\_\_\_ )  
(in words)  
(vii) Date of expire of Guarantee \_\_\_\_\_

**To: The President of Islamic Republic of Pakistan through the  
Controller of Military Accounts (Defence Purchase) Rawalpindi.**

Sir,

1. Whereas your good self have entered into Contract No. \_\_\_\_\_  
\_\_\_\_\_ dated \_\_\_\_\_  
with Messer's \_\_\_\_\_

\_\_\_\_\_  
(Full Name and Address)

hereinafter referred to as our customer and that one of the conditions of the  
Contract is the submission of unconditional Bank Guarantee by our customer  
to your good self for a sum of Rs. \_\_\_\_\_ Rupees/FE (as  
applicable) \_\_\_\_\_

2. In compliance with this stipulation of the contract, we hereby agree and  
undertake as under: -

a. To pay to you unconditionally on demand and/or without any reference  
to our Customer and amount not exceeding the sum or Rs.  
\_\_\_\_\_ Rupees or FE (as applicable)  
\_\_\_\_\_ as would be mentioned in your written

Demand Notice.

b. To keep this Guarantee in force till \_\_\_\_\_.

c. That the validity of this Bank Guarantee shall be kept one clear year  
ahead of the original/extended delivery period or the warrantee of the stores  
which so ever is later in duration on receipt of information from our Customer  
i.e. M/s \_\_\_\_\_ or from your office. Claim, if any must be  
duly received by us on or before this day. Our liability under this Bank  
Guarantee shall cease on the closing of banking hours on the last date of the  
validity of this Bank Guarantee. Claim received thereafter shall not be  
entertained by whether you suffer a loss or not. On receipt of payment under  
this guarantee, this document i.e. Bank Guarantee must be clearly cancelled,  
discharged and returned to us.

d. That we shall inform your office regarding termination of the validity of this Bank Guarantee one clear month before the actual expiry date of this Guarantee.

e. That with the consent of our customer you may amend/alter any term/clause of the contract or add/delete any term/clause to/from this contract without making any reference to us. We do not reserve any right to receive any such amendment/alternation or addition/deletion provided such like actions do not increase our monetary liability under this Bank Guarantee which shall be limited only to Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_).

f. That the Bank Guarantee herein before given shall not be affected by any change in the constitution of the Bank or Customer/Seller or Vendor.

g. That this an unconditional Bank Guarantee, which shall be encashed on sight on presentation without any reference to our Customer/Seller or Vendor.

**Guarantor**

Dated: \_\_\_\_\_

(Bank Seal and Signatures)



**AFFIDAVIT/UNDERTAKING**  
**(WORTH RS, 100/- ON JUDICIAL STAMP PAPER)**

Mr \_\_\_\_\_ Authorized signatory/  
Partner/MD of M/s \_\_\_\_\_, do hereby solemnly affirm to DGP  
(Army), DP (Navy), DP (Air) and Directorate General Defence Purchase, Ministry of  
Defence Production, Rawalpindi that our firm M/s \_\_\_\_\_ has  
applied for registration with Director General Defence Purchase (DGDP) duly  
completed all the documents required by registration section on \_\_\_\_\_ (date) i,e  
before signing the contract. I certify that the above mentioned statement is correct. In  
case it is detected on any stage that our firm has not applied for registration with  
Director General Defence Purchase or statement given above is incorrect, our firm  
will be liable for disciplinary action initiated (i,e debarring, the firm do business with  
other Defence Establishment and Govt Agencies). I also accept that any disciplinary  
action taken will not be challenged in any Court of Law.

Station: \_\_\_\_\_ Signature \_\_\_\_\_  
Date: \_\_\_\_\_ Name: \_\_\_\_\_  
Appointment in Firm \_\_\_\_\_

**ATTESTED BY OATH COMMISSIONER WITH STAMP**

**INVITATION TO TENDER FORM**

1. Schedule to Tender No. **2390424/R-2401/310286** dated **28-12-2024**. This tender will be closed for Acceptance at **1030** Hours and will be opened at **1100** Hours on. **31-12-2024** Please drop tender in the Tender Box No **201**.
2. You are requested to please use this Performa for price quotation, fill in the prices, affix your stamp on the same, sign it and forward it in original as your Commercial offer along with the covering letter of your firm. If you do not use this form as price quotations your offer might be rejected.
3. you are requested to please attach DP-1 and DP-3 alongwith your quotation duly signed & stamped. Same are available at [www.ppra.org.pk](http://www.ppra.org.pk).

S NO	DETAIL OF STORES	QTY	UNIT PRICE	TOTAL PRICE
1.	<b>TOOLS / TEST EQUIPMENT FOR INTEGRATION / INTERFACING LAB</b>  (a) ESD TEST BENCHES  (b) DIGITAL STORAGE OSCILLOSCOPE  (c) SPECTRUM ANALYZER  (d) INDUSTRIAL LOGGING DIGITAL MULTI METER  (e) LOGIC ANZLYZER  (f) DIGITAL DATA ANALYZER (TOOL SUITE)  (g) HIGH VOLTAGE INSULATION TESTER  (h) PROGRAMMABLE INPUT / OUTPUT & DATA ACQUISITION SYSTEM  <b>Note:</b> All items are required as a package partially quotes will be Rejected.  <b><u>Detailed:</u></b>  <b><u>Technical Specification Special</u></b> <b><u>Instructions:</u></b> As per Annex A.  <b><u>General Terms &amp; Conditions:</u></b>  As per Annex B.	06  02  02  04  01  01  01  01		
Above mentioned price includes 18% sale Tax (Please tick Yes or No)		Yes		No
	Grand Total			

**Terms & Conditions**

1. **Terms of Payment.** As per Annex B (Para – 2).
2. **Origin of OEM.** Imported with OEM CoC (Certificate of Conformance) compatible to preferred makes Given in of **Annex A. (Name & Country Of OEM to be clearly mentioned).**

3. **Origin of Stores.** Imported (Actual country (place) of manufacturer to be indicated).
4. **Technical Scrutiny Report.** Required
5. **Delivery Period.** **06 Months**
6. **Currency.** Pak Rupees
7. **Basis for acceptance.** FOR Karachi Basis
8. **Bid validity.** The validity period of quotations must be indicated and should invariably be 120 days from the date of opening of Commercial / Financial Proposal or 30th June whichever is later. Firm undertakes to extend validity of offer if required by equal number of original bid period (i.e. 120 days as per original offer) i.a.w PPRA Rule-26.
9. **Tendering procedure** **Single Stage- Two Envelope** bidding procedure will be followed. PPRA Rule 36 refers.

10. **Earnest Money/Tender Bond:-** Your tender must be accompanied by a **Pay Order/Demand draft/Call Deposit Receipt (CDR)** in favor of CMA (DP) in separate envelope, Rawalpindi for the following amounts:-

**Submitting improper Earnest Money.** Earnest Money/Bid Security furnished with tender is strictly in conformity of tender/IT conditions (Clause 14 of DP-1 and clause 10 of DP-2) on the subject. We have no objection on confiscation of Earnest Money/Bid security and rejection of our offer in case amount of Earnest Money/Bid Security is improper/ insufficient in violation of IT condition.

a. **Rates for Contract.** The rate of earnest money and its maximum ceil for different categories OF FIRMS would be as under:-

(i) **Registered/Indexed/Pre-Qualified Firms.** 2% of the quoted value subject to maximum ceiling of Rs. 0.500 Million.

(ii) **Registered/Pre-Qualified but Un-indexed Firms.** 3% of the quoted value subject to maximum ceiling of Rs. 0.750 Million.

(iii) **Unregistered/not Pre-Qualified/Un-indexed Firms.** 5% of the quoted value subject to maximum ceiling of Rs. 1.000 Million.

b. **Return of Earnest Money**

(i) Earnest money to the unsuccessful bidders will be returned on finalization of the contract.

(ii) Earnest money of the firm/firms with whom contract is concluded will be returned on submission of Bank Guarantee and its acceptance by CMA (DP).

c. Copy of EM must be attached with Technical Offer as proof after hiding the amount with black Bold Market.

11. **Special Note.**

All Participating firms must submit technical offers in duplicate (one for TSR committee and one for DP (Navy) record).

- a. Unregistered (Not registered with Directorate General Defense Purchase) firms must provide the documentary evidence of their financial capability to undertake the project.
- b. Unregistered firms are to submit a certificate along with their Technical offer stating that the firm is not black listed by any government organization and not under disciplinary trial or embargo.
- c. Only registered suppliers on Active Taxpayers List (ATL) of FBR are eligible to participate in the Tender and submit quote.
- d. Release of payments is subject to mandatory submission of Filer Certificate duly issued by FBR showing the name of supplier on Active Taxpayers List (ATL). No payment will be released by CMA (DP) unless latest Filer Certificate duly issued by FBR showing the name of supplier on its Active Taxpayers list is submitted along with payment documents.
- e. In case of Pakistani firms, sales tax, NTN and income tax registration certificates are to be attached with the offer. These certificates are mandatory with the BID, otherwise offer shall be REJECTED.
- f. Company registration certificates are to be attached with offer.
- g. Requisite amount of earnest money (in shape of CDR/Demand Draft/Pay Order in the favor of CMA (DP)) is to be attached **in separate envelop in sealed condition with the Technical offer**. Photocopy of the same shall also be attached with DP-2 as a testimony. **Cheques/crossed cheques shall not be accepted. Technical offers received without earnest money shall not be accepted and will be rejected on spot.**
- h. Duly completed Form DP-1 and DP-3 are to be attached with Technical Offer.
- j. DP-2 Form shall also be submitted with Technical Offer without mentioning of prices. Moreover, compliance or otherwise against each Para/requirement of Annex A & B duly signed & stamped by firm authorized rep is to provide for technical scrutiny.
- k. Price preference is admissible to local manufacturers over foreign vendors as per PPRA Rule 24 and Govt. of Pakistan (Ministry of Commerce) SRO 827 (I)/2001.
- l. The supplier shall undertake as per attached Annex C that any information about the sale/purchase of stores under this contract shall not be communicated to any person other than the manufacturer of the stores, or to any press or Agency not authorized by DP(N) to receive it. any breach of it shall be punishable under the official secrets act, 1923 in addition to termination of the contract at the risk of the supplier.

**Note: In case of failure to comply above instructions, Terms and conditions, offer will liable for rejection.**

**Technical Specifications & Accessories – Electro Static Discharge (ESD) Test Bench**

1. ESD Compliant Work Benches minimum specifications include:

S No	Specification	Details
1.	Recommended Make Model	Any (ESD Compliant)
2.	Quantity Required	<b>06 workbenches</b>
	ESD Standard	IEC 61340-5-1 compliance/ conformance will be required
3.	General	Work benches must be ESD Compliant with Earthing/ Grounding arrangements to be supplied under the scope of work.
5.	Detailed design requirements	<b>Placed at Encl-1 to Appendix I</b>
6.	Test Bench Grounding	Yes – to be provided as per standard compliance
Following installation services are required:		
1.	Earthing Pit	Ground Pit installation near the building (located in Karachi)
2.	Wiring from earth pit to electrical distribution box	Distance from Pit to Lab expected to be 150ft
3.	Earthing of Workbenches in Lab	Distribution of earth/ ground from electrical Distribution Box to work benches (Lab area is approx. 17 ft x 22 ft)

1. ESD Compliant Work Benches are to be supplied with following auxiliary equipment:

S No	Specification	Total Quantity	Details
1.	High Performance PCs (Without GPU) -Equivalent or better specifications may be supplied  - Compatibility of all parts to be ensured  - 01 x year warranty will be required	03	<ul style="list-style-type: none"> <li>• <b>Case:</b> Lian Li LANCOOL 205 Black Tower Chassis</li> <li>• <b>Processor (CPU):</b> Intel Core i9-13th Generation 24 cores, 5.8 GHz or better</li> <li>• <b>Motherboard:</b> Gigabyte Z790 AERO G Creator Motherboard Intel LGA1700 PCIe 5 - DDR5 Support - Rev 1.0</li> <li>• <b>RAM:</b> 64GB DDR-5 or better</li> <li>• <b>Memory:</b> 1 TB SSD or better</li> <li>• <b>Operating System:</b> Licensed windows 10 or better.</li> <li>• Brochure/ Data sheet attached as Encl-2 to Appendix I.</li> </ul>
2.	Display Monitors/ HMI	03	24" Full HD Flat LED, Resolution FHD (1920 x 1080) or better.
3.	Mouse/ Keyboards	03	Make: Logi Tech, Model: MK220 (or equivalent) Connection Type Wireless.
4.	Laptops for field work - Equivalent or	02	<ul style="list-style-type: none"> <li>• <b>Processor:</b> Intel 13th Gen</li> </ul>



	better specifications may be supplied - 01 x year warranty will be required		<p>Core i5 13420H or better</p> <ul style="list-style-type: none"> <li>• <b>RAM:</b> 16 GB DDR-5 or better</li> <li>• <b>Memory:</b> 512 GB SSD or better, Screen Size 40.9 cm (16.1") diagonal, FHD (1920 x 1080) or better</li> <li>• <b>Operating System:</b> Licensed windows 10 or better</li> <li>• Brochure/ Data sheet attached as Encl-3 to Appendix I.</li> </ul>		
5.	LaserJet Printer	02	<ul style="list-style-type: none"> <li>• Make: HP, Model: LaserJet Pro M404N (or equivalent).</li> <li>• Brochure/ Data sheet attached as Encl-4 to Appendix I.</li> </ul>		
6.	Universal Device Programmer	01	<ul style="list-style-type: none"> <li>• Make: BPM, Model: 1710.</li> <li>• Brochure/ Data sheet attached as Encl-5.</li> </ul>		
7.	VI Comparator	01	<ul style="list-style-type: none"> <li>• Make: GSAS, Model: FADOS9F1 (or equivalent).</li> <li>• Brochure/ Data sheet attached as Encl-6 to Appendix I.</li> </ul>		
8.	Variable AC Supply	01	<p>VEVOR 500VA Variable Transformer 110V 60Hz (or equivalent). Brochure/ Data sheet attached as Encl-7 to Appendix I.</p>		
9.	Triple Output DC Power Supply	03	<p>R&amp;S HM-7042-5 (or equivalent). Brochure/ Data sheet attached as Encl-8 to Appendix I.</p>		
10.	Variable voltage 400 Hz AC Power Supply	01	<ul style="list-style-type: none"> <li>• Input 220 V AC 50/60Hz</li> <li>• <b>Output Frequency range:</b> (variable 50 to 400 Hz preferable, or fixed 400 Hz)</li> <li>• <b>Output Voltage:</b> (AC Variable 30 V to 120 V)</li> <li>• <b>Power:</b> Minimum 1kVA</li> <li>• <b>Make/ Model:</b> Any (Brochure/ Data sheet of reference product attached as Encl-9 to Appendix I).</li> </ul>		
11.	UPS for PCs	03	<p>1 K Watt (8-15 Min Backup) <b>Make/ Model:</b> Any</p>		
<b>Essential accessories, services and software required:</b>					
12.	Essential modules, power supply & cables for auxiliary equipment must be included.				
13.	Ground Pit installation near the building (located in Karachi)				
14.	Wiring from earth pit to electrical distribution box in the Lab (Distance: 150ft approx.)				
15.	Distribution of earth/ ground from electrical Distribution Box to work benches (Lab area is approx. 17ft x 22ft)				

## ESD Compliant Work Benches

S No	Specification	Details		
1.	General	Each Work bench should be capable of accommodating 01 x User.  Work benches must be ESD Compliant with Farthing arrangements		
2.	Top Surface area	Width(1.6to1.8m) Depth(0.8to0.9m)		
3.	Work bench frame height	Allen Key/ Hand crank adjustable (670mmto 1100mm)		
4.	Bench frame max load kg	500Kg		
5.	Bench Top Material	Semi-conductive(ESD)		
6.	Colour/Theme	Light Grey		
7.	Back Panels	Adjustable & perforated (with upright vertical profiles & horizontal tubes)		
8.	Shelf	01 per unit for entire horizontal length (for 50kg Load)		
9.	Cabling	Hidden/ Secured with cable covers		
10.	Sliding Door Cabinet	Yes at appropriate place (01 x with each work bench)		
11.	Light	Light rail with white light on Topas shown in picture Illuminance 800-3100l x $\pm 10\%$ (1meter)		
12.	Power Rails/Socket	02 x Power rail sper Unit with 03xSocketseach		
13.	LCD Monitors wire farm	-01 for each unit -Should be Adjustable		
14.	Component Bins	PlasticESD08(2x4arrangement) per unit		
15.	CPU Holder	01perunitundertheframe or fitted to upright tubes. Must be Adjustable to account for different CPU Sizes		
16.	Footrest	-01perUnit -W x Dmm (550x350) -Height (adjustable 90-280 mm) -Tilting(Adjustable 5-30°)		
17.	Printer Platform	01 with each work bench as shown		
18.	Key board Tray	Under the bench top with each Unit		
19.	Earthing box (with cables)	-01 per unit -Resistance1Mohm		
20.	Wrist straps	-Adjustable -02perunit -Resistance1Mohm		



21.	ESD bench top mats	-01perunit		
		-Resistant to heat & solder flux -Compliant with EN61340-5-1standards -Abraded non slip underside -Does not contain PVC -Colour : grey Resistance surface to ground:7.5x10 <sup>5</sup> -10 <sup>7</sup> ohm.		
22.	Chairs	01 x per work bench As shown (Conceptual Reference)		
23.	Drawer Units	<ul style="list-style-type: none"> <li>• 01 with each work bench</li> <li>• Wheel movable</li> <li>• 04x drawers per drawer unit as shown</li> <li>• Load capacity150kg,4swivelcastors (ø100mm), 2 with brakes.</li> <li>• Height800mm</li> <li>• Rubber mats for the drawer bottom</li> </ul>		

**ENCL-2 TO APPENDIX I**

**High Performance PCs (Without GPU)**

S No	Item	Description		
1.	Casing	Lain Li LANCOOL 205 Black Tower		
2.	Processor Specifications	13 <sup>th</sup> Gen Intel core i9-13900ks Processor upto 6.0GHz		
3.	Motherboard Specifications	Gigabyte Z790 AERO G Creator Motherboard intel LGA1700 PCIe 5-DDR5 Support		
4.	RAM	XPG LANCER RGB DDR5 64 GB Desktop Memory (2x32GB) 6000 MHz DRAM AX5U6000C3032G-DCLARBK		

**ENCL-3 TO APPENDIX I**

**Laptop for Field Work**

Brand	HP		
Generation	13thGeneration		
Processor Type	13thGenCorei513420HRaptorLakeProcessor (12MBIntelSmartCache)		
Processor Speed	2.1GHzBoostupto4.6GHz(TotalCores8,#ofPerformance-cores4,#ofEfficient-cores4,TotalThreads12)		
Installed RAM	16GB		
Type of memory	16 GBDDR5-5200 MHzRAM(2x8 GB)		
Hard drive size	512GBPCIe8Gen4NVMe™TLCM.2SSD		
SSD	512GBSSD		
Type of hard drive	512GB PCIe8Gen4NVMe™TLC M.2SSD		
Dedicated graphics	Yes		



Graphics Memory	NVIDIA® GeForce RTX™ 4050 Laptop GPU (6 GB GDDR6 dedicated)		
Type of graphics memory	Discrete		
Graphics processor	Intel® Integrated SoC		
Backlight	LED		
Screen size	40.9cm (16.1") diagonal, FHD (1920x1080), 144Hz, IPS, micro-edge, anti-glare, 250nits, 45% NTSC		
Screen surface	40.9cm (16.1") diagonal, FHD (1920x1080), 144Hz, IPS, micro-edge, anti-glare, 250nits, 45% NTSC		
Screen resolution	1920x1080		
Backlit keyboard	Full-size, 1-zone White backlit, shadow black keyboard		
Condition	New		
USB	1 USB Type-A 5Gbps signaling rate (HP Sleep and Charge) 1 USB Type-C 5Gbps signaling rate (USB Power Delivery, Display Port™ 1.4, HP Sleep and Charge) 2 USB Type-A 5Gbps signaling rate		
HDMI	1 HDMI 2.1		
Camera	HP True Vision FHD camera		
Operating System (Primary)	Genuine Windows 11 Home		
Warranty	Local/International		

**ENCL-4 TO APPENDIX I**

**LaserJet Printer**

S NO	ITEM	DESCRIPTION		
1	Model	HP Laser Jet Pro M404dn (W1A53A)		
2	Print resolution	: HP FastRes1200, Hp ProRes1200, Economode		
3	Print speed	Up to 38 ppm		
4	Connectivity	1 Hi Speed USB 2.0; 1 host USB at rear side; Gigabit Ethernet 10/100/1000 Base-T network		



Universal Device Programmer

S NO	ITEM	DESCRIPTION		
1	Model	<b>BPM Micro systems 1710 or equivalent</b>		
2	Power	90-250VAC 47-63Hz, 12KVA, IEC intel Connector for worldwide use		
3	Dimension	11.75"(298mm)x8.65"(220mm)x4.68(119mm)		
4	Weight	7.22 lbs, 13.28 kg		
5	Software	BP Win		
6	File type	Including, but not limited to binary Intel, JEDEC, Motorola, POF, ran, Straight hex, Tekhex, Extended Tekhex, ASCII hex, Formatted Binary (DIO), AFM, OMF, LOF, STAPL		
7	Device Command	Blank, checksum, compare, program test, verify, erase, secure		
8	Features	Job Master data editor, revision history session logging, device and algorithm information		
9	Hardware	Calibration annual, may be verified on-site with optional socket module		
10	Pin Drivers	240 -pins standard		
		<b>Analog slew rate .3 to 25v/ps</b>		
		<b>VPP RANGE 0.25V in 25mv steps</b>		
		<b>IPP RANGE 0.70mA continuous 250mApeak</b>		
		<b>VCC RANGE 0.12v</b>		
		<b>VERY LOW VOLTAGE to 1.5 v(vdd)</b>		
		<b>RISE TIME 800ps</b>		
		<b>OVER SHOOT none</b>		
		<b>CLOCKS continuous variable 1MHz to 30 MHz</b>		
		<b>INDEPENDENCE pin drivers and waveform generators are fully independent and concurrent</b>		

COMPARATORFADO

**Features**

1. **Dual channel fault detection by V-I tester**  
Identify faults by directly comparing the voltage-current characteristics of a functional circuit board and a faulty one, all without powering the circuit board.
2. **Fault Detection by Comparison with Stored Signatures**  
Signatures of a functioning board can be saved and used at a later time as a reference for troubleshooting a faulty board.
3. **Equivalent Circuit Diagram\*\*\***  
Display of an equivalent circuit that corresponds to the characteristic of the probe point.
4. **Display Values of Resistor, Capacitor and Diode\*\*\***  
Display the measured values of resistance, capacitors and diode threshold voltages corresponding at the contacted node. Can also be used for components identification (out of the circuit).
5. **Dual-Channel Digital Basic PC Oscilloscope**  
If the situation calls for, the device can be used as basic oscilloscope.
6. **0.2 to 25kHz Square Wave Generator**  
Channel 2 is used as a square wave generator. Channel 1 can be used as an oscilloscope.
7. **Analog Voltage Output**  
Channel 2 is used as Analog DC output. Channel 1 can be used as an oscilloscope.
8. **Variable DC Power Supply for Creating V-I Graph\*\*\*\***  
The output voltage is adjustable from 0V to 16V with an output current 0mA to 1000 mA, to feed the power to circuit board and observe the graph of DC Voltage-Current.
9. **Non Touch IR Temperature Sensor\*\*\*\***  
To detect above room temperature to 120°C and draw a temperature map of the circuit board at location of IR probe.

Variable AC Power Supply

S NO	ITEM	DESCRIPTION		
1	Model	VEVOR 500 VA, 110V AC		
2	Rate output Capacity	0.5 KVA		
3	Phase No	1		
4	Output Voltage	0 -130 V (Adjustable)		
5	Rate Output Current	5A		
6	Temperature Rise	<60° C		
7	Dielectric Strength	1500 V/min		
8	Frequency	>90%		
9	Insulation Resistance	> 5M ohm		



Triple Output DC Power Supply

Model: R&amp;S®HM7042-5 TRIPLE POWER SUPPLY

Key specifications	
Total power output	155.5 W
Number of outputs	3
Voltage output CH1, CH3	0 V to 32 V
Voltage output CH2	0 V to 5.5 V
Current output CH1, CH3	0 A to 2 A
Current output CH2	0 A to 5 A
Display resolution CH1, CH3	10 mV/1 mA
Display resolution CH2	10 mV/10 mA

Key features

High-performance, inexpensive laboratory power supply	
Floating, overload and short-circuit proof outputs	
Separate voltage and current displays for each output	
Protection of sensitive loads by current limit or electronic fuse	
Pushbutton to activate/ deactivate all outputs	
Low residual ripple, high output power, excellent regulation	
Parallel operation for higher current and serial operation for higher voltage	
Temperature-controlled fan	

Variable Voltage AC Power Supply (400HZ)DESCRIPTION

Place of Origins	Guangdong, China or equivalent
Brand Name	XINOUHUA or equivalent
Model Number	PA62001A or equivalent
Output type	Single
Output Frequency	50-400 Hz
Output Current	8.4/ 4.2 A
Color	Others
Size	430*570*240
Protection	Short circuit protection
Warranty	12 Months
Certificate	CE/ROHS
Operating Humidity	10-90%
Working temperature	0-45 C
Load Regulation	≤0.5%
Frequency stabilization rate	≤0.01%
Application	Laboratory
Product Name	AC Power supply



**Technical Specifications & Accessories – Digital Storage Oscilloscope**

1. Minimum specifications include:

S No	Specification	Details		
1.	Recommended Make/ Model	<ul style="list-style-type: none"> <li>• Make: RIGOL, Model: MSO-5354 (or equivalent)</li> <li>• Brochure/ Data sheet attached as Encl-1 to Appendix II.</li> </ul>		
2.	Mandatory accessories with each MSO	<ol style="list-style-type: none"> <li>1. 01 x MSO5000-BND (Application Bundle including all the serial protocol analysis software, Power Analysis, and Wave form Generator options)</li> <li>2. 01 x PLA2216 (16 Channel Digital Logic Probe for the MSO5000)</li> <li>3. 01 x Carry Case</li> <li>4. 01 x PVP2350 (350 MHz Passive Probe with 1 x 10x selector. Wide bandwidth in 1x mode up to 35 MHz.)</li> </ol>		
3.	Quantity	02(MSO with a set of accessories each)		
4.	Band Width	350 MHz		
5.	Channel	4 Channels Analog, 16 Digital		
6.	Sample Rate	8GSa/s		
7.	Max. Memory Depth	200Mpts		
8.	Waveform Capture Rate	1,500,000wfms/s (Ultra Acquire Mode)		

2. Essential accessories required (standard supplied with each MSO):

- AC Power Cable
- Test Probes
- User Manual/ CD

**Digital Storage Oscilloscope**

**Overview - Digital Oscilloscope MSO5354**

<p>350MHz BW, 4 Channel+ 16 digital Channel, 8GSa/s, up to 200 Mpts,500.000 wfms/s, touch display 1024x600 pixel, MSO Upgradable with purchase of logic probe PLA2216</p> <p>MSO5000 option bundle including: MSO5000-COMP, MSO5000- EMBD, MSO5000-AUTO, MSO5000-FLEX, MSO5000-AUDIO, MSO5000-AERO, MSO5000-PWR, MSO5000-AWG.</p> <ul style="list-style-type: none"> <li>• Analog bandwidth: 350 MHz</li> <li>• 4 analog channels. standard 16 digital channels(LA probe required)</li> <li>• Up to 8 GSa/s real-time sample rate</li> <li>• Up to 200 Mpts memory depth (option)</li> <li>• High waveform capture rate (over 500,000 wfms/s)</li> <li>• Auto measurement of 41 waveform parameters; full-memory hardware measurement function</li> <li>• A variety of serial protocol triggers and decodes</li> <li>• Up to 450,000 frames of hardware real-time and ceaseless waveforms recording and playback functions</li> </ul>		



<ul style="list-style-type: none"> <li>• Independent search, navigation keys, and event table</li> </ul>		
<ul style="list-style-type: none"> <li>• Built-in advanced power analysis software (option)</li> </ul>		
<ul style="list-style-type: none"> <li>• Integrates 7 independent instruments into 1, including a digital oscilloscope, a logic analyzer, a spectrum analyzer, an arbitrary waveform generator, a digital voltmeter, a frequency counter and totalizer, and a protocol analyzer</li> </ul>		
<ul style="list-style-type: none"> <li>• 9-inch capacitive multi-touch screen, 256-level intensity grading display, with color persistence</li> </ul>		
<ul style="list-style-type: none"> <li>• Multiple interfaces available: USB HOST&amp;DEVICE, LAN(LXI), HDMI, TRIG OUT, and USB-GPIB</li> </ul>		
<ul style="list-style-type: none"> <li>• Web Control remote command</li> </ul>		



**Technical Specifications & Accessories – Spectrum Analyzer**

1. Minimum specifications include:

S No	Specification	Details
1.	Recommended Make/ Model	<ul style="list-style-type: none"> <li>• Make: UNI-T, Model: 3030D (or equivalent)</li> <li>• Brochure/ Data sheet attached as Encl-1 to Appendix III.</li> </ul>
2.	Quantity	02
3.	Range	Upto 3.0 GHz
4.	Resolution	1 Hz
5.	DC Gain Accuracy	±3%

2. Essential accessories required:

- AC Power Cable  
a. Connection Probes  
b. User Manual / CD

**Spectrum Analyzer**

Specifications	
Model	UT3030 or equivalent
Range	9 kHz~3GHz
Resolution	1Hz
Resolution Bandwidth (RBW)	
Range (<10Hz as an option)	1Hz~500kHz, 1 MHz, 3 MHz
Phase Noise (fc=500Mhz)	
Range	-90dBc/Hz
Resolution	-100dBc/Hz
Accuracy	-115dBc/Hz
Amplitude	
Max input level	Average continuous power: +27dBm
Max DC input voltage	50Vdc
Attenuator input range	0~39dBm, 3dB step
1 dB compression	+7dBm
Tracking Source	
Frequency range	-
Input/Output	
RF input	N type, female (50Ω)
Interfaces	USB host, USB device, LAN
AM/FM demodulation	A headset jack available
Reference input/output	10MHz, BNC female, input: 0dBm~+10dBm; output: 0dBm±2dB)
External trigger input	BNC female, 5V TTL level(±10V, Max 100mA)
Internal data storage	128MB
General Characteristics	
Power	100~240V AC, 50/60Hz: Max consumption: 30 W
Display	8.4-inch TFT LCD, SVGA (800 x 600)
Product Color	White and grey
Product net weight	6.5kg
Product size	390mm x 182mm x 230mm
Standard accessories	N/SMA convertor, N/BNC convertor, antenna, RF cable, power cord
Standard individual packing	Carton box, English manual
Standard quantity per carton	1pcs
Standard carton measurement	480mm x 380mm x 285mm
Standard carton gross weight	9.3kg
Optional accessory	USB-GPIB



**Technical Specifications & Accessories – Industrial Logging Digital Multimeter**

1. Minimum specifications include:

S No	Specification	Details
1.	Recommended Make/ Model	<ul style="list-style-type: none"> <li>• Make: FLUKE, Model: 289</li> <li>• Brochure/ Data sheet attached as Encl-1 to Appendix IV.</li> </ul>
2.	Quantity	04

2. Essential accessories required:

- a. Batteries (spares to cover 2 years operation)
- b. Connection Probes
- c. User Manual
- d. Software

**Industrial Logging Digital Multi Meter**

**Model: Fluke 289**

Function	RangeandResolution	BasicAccuracy
DC volts AC volts	50.000mV,500.00mV,5.0000V,50.000V, 500.00V,1000.0V	0.025% 0.4%(true - rms)
DCcurre ntAC current	500.00µA,5000.0µA,50.000mA,400.00mA, 5.0000A,10.000A	0.15% 0.7%(true - rms)
Temperature (excludingprob e)	-200.0°Cto1350.0°C(-328.0°Fto2462.0°F)	1.0%
Resistance	50.000 □,500.00 □,5.0000 k□,50.000 k□, 500.00k□,5.0000M□,50.00M□,500.0M□	0.05%
Capacitance	1.000nF,10.00nF100.0nF,1.000µF,10.00µF, 100.0µF,1000µF,10.00mF,100mF	1.0%
Frequency	99.999Hz,999.99Hz,9.9999kHz,99.999kHz, 999.99kHz	.005%

Additional Features	Fluke289
Multipleonscreendisplays	Yes
True-rmsac band width	100kHz
dBV/dBm	Yes
DCmVresolution	1µV
Megohmrange	upto500M□
Conductance	50.00nS
Continuitybeeper	Yes
Battery/fuseaccess	Battery/fuse
Elapsetimeclock	Yes
Timeofdayclock	Yes
Min-max-avg	Yes
Dutycycle	Yes
Pulsewidth	Yes
Isolatedopticalinterface	Yes
Auto/touchhold	Yes
Readingmemory	Yes
LogtoPC	Yes
Batterytype:	6AAalkalinebatteries,NEDA15AIECLR6
Batteryife:	100hoursminimum,200 hoursinloggingmode





**Technical Specifications & Accessories – Logic Analyzer**

1. Minimum specifications include:

S No	Specification	Details		
1.	Recommended Make/ Model	<ul style="list-style-type: none"> <li>• Make: Saleae, Model: Logic Pro 16(or equivalent)</li> <li>• Brochure/ Data sheet attached as Encl-1 to Appendix V.</li> </ul>		
2.	Quantity	01		
	Essential accessories and software required:			
	a.	Power Cable with adapter		
	b.	User's manual / CD		
	c.	PC Communication cable		
	d.	Connection Probes/ break out board		

**Logic Analyzer - Saleae Logic PRO 16**

**Overview**

The Saleae Logic Pro 16 USB Logic Analyzer is a 16 channel logic analyzer with each input dual purposed for analog data recording. The device connects to a PC over USB and uses the Saleae Logic Software to record and view digital and analog signals.

**FEATURES**

Powerful, Easy-to-use Software  
 Deep Sample Buffers  
 Highly Portable, USB Attached  
 24 Included Protocol Analyzers  
 Automation API Custom Protocol Decoder Plugin API  
 Edge and Pulse Width Triggering  
 Protocol Result Filter and Search  
 Measurements, Bookmarks and Timing Markers  
 Four Data Export Formats: CSV, Binary, VCD and MATLAB  
 Cross Platform Windows, Linux, and OSX

**APPLICATIONS**

Firmware Debugging  
 FPGA Debugging  
 Functional Verification  
 Performance Profiling  
 Reverse Engineering  
 Protocol Decoding  
 Data Logging

**KEY SPECIFICATIONS**

Sixteen Digital Channels  
 500 MSPS Digital Sampling (max)  
 100 MHz Max Digital Bandwidth  
 Sixteen Analog Channels  
 50 MSPS Analog Sampling (max)  
 5 MHz Analog Bandwidth  
 Recording Length Limited by Available RAM and Density of Recorded Data  
 RGB LED, Customizable 24 bit Color  
 USB 3.0 Super Speed



**Technical Specifications & Accessories – Digital Data Analyzer (Tool Suite)**

1. Minimum specifications include:

S No	Specification	Quantity	Details
1.	JTAG/ SWD ARM Microcontroller Debugger	1	<ul style="list-style-type: none"> <li>• Make/ Model: Black Magic Probe V2.3</li> <li>• Brochure/ Data sheet attached as Encl-1 to Appendix VI.</li> </ul>
2.	Bus Blaster for MIPS kit Open OCDS	1	<ul style="list-style-type: none"> <li>• Make/ Model: Bus Blaster V4</li> <li>• Brochure/ Data sheet attached as Encl-2 to Appendix VI.</li> </ul>
3.	J trace cortex-A/R/M	1	<ul style="list-style-type: none"> <li>• Make: Segger, Model: J-Trace Pro Cortex (8.2).</li> <li>• Brochure/ Data sheet attached as Encl-3 to Appendix VI.</li> </ul>
4.	Bus Pirate v3.6a	1	<ul style="list-style-type: none"> <li>• Make/ Model: Bus Pirate V3.6a</li> <li>• Brochure/ Data sheet attached as Encl-4 to Appendix VI.</li> </ul>
5.	Hardware Debugger JTA Gulator	1	<ul style="list-style-type: none"> <li>• Make/ Model: Parallax JTA Gulator 32115</li> <li>• Brochure/ Data sheet attached as Encl-5 to Appendix VI.</li> </ul>
6.	PCB Probe Kit	2	<ul style="list-style-type: none"> <li>• PC Bite kit with 4x SP10 probes &amp; test wires (or equivalent)</li> <li>• Brochure/ Data sheet attached as Encl-6 to Appendix VI.</li> </ul>
Essential accessories and software required:			
a. JTAG, serial cables			
b. Connection Probes			
c. Multi Pin adapter Kit			
d. Serial/ USB converters			
e. Breakout Boards and accessories			

**ENCL-1 TO APPENDIX VI**

**JTAG/ SWD ARM Microcontroller Debugger**

The Black Magic Probe is a modern, in-application debugging tool for embedded microprocessors. It allows you see what is going on 'inside' an application running on an embedded microprocessor while it executes. It is able to control and examine the state of the target microprocessor using a JTAG or Serial Wire Debugging (SWD) port and on-chip debug logic provided by the microprocessor. The probe connects to a host computer using a standard USB interface. The user is able to control exactly what happens using the GNU source level debugging software, GDB.

STM32 F0		
Atmel SAMD20/21		
Nordic nRF51		
NXP LPC8xx, LPC11xx, LPC15xx, LPC43xx		
TI LM3S, TM4C		
Free scale KL25, KL27, KL02		
Xilinx Zynq-7000		
Broadcom BCM2836 (Raspberry Pi 2)		
SiLabs EFM32 and EZR32		
Comes with 1 x Black Magic Probe, a 0.05" pitch SWD/JTAG ribbon cable & a 0.1" pin header serial cable		



**ENCL-2 TO APPENDIX VI**

**Bus Blaster V4 for MIPS KIT**

<p>The Bus Blaster is used to program and debug devices with a JTAG interface like ARM processors, CPLDs, flash memory, and more. A FT2232H USB chip gives us two high-speed JTAG interfaces. The 16 pins of the primary interface are connected to a Cool Runner-II CPLD. The CPLD is a programmable buffer that translates between the FT2232H at 3.3volts, and a 1.5volt to 3.3volt target. Based on <u>ET2232H</u> with high-speed USB 2.0.</p>		
Buffered interface works with 3.3volt to 1.5volt targets		
Reprogrammable buffer is compatible with multiple debugger types		
Compatible with 'tagkey', 'KT-link' programmer settings in <u>Open OCD</u> , or <u>JTAG &amp; more</u>		
Should support Serial Wire Debug when available		
Mini-CPLD development board: self programmable, extra CPLD pins to header		

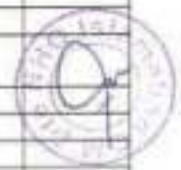
**ENCL-3 TO APPENDIX VI**

**J TRACE CORTEX-A/R/M (SEGGER 8.20 J-TRACE PRO)**

<p>SEGGER's J-Trace PRO can capture complete traces over long periods — thereby enabling the recording of infrequent, hard-to-reproduce bugs. This is particularly helpful when the program flow 'runs off the rails' &amp; stops in a fault state. It also supports extended trace features, such as <b>Live Code Coverage</b> (so engineers have visibility over which parts of the application code have been executed) &amp; <b>Live Code Profiling</b> (providing visibility as to which instructions have been executed and how often, so hotspots can be addressed and optimization opportunities identified). The J-Trace PRO Cortex-A/R/M provides support for <b>Cortex-A/R/M-based microcontrollers</b>. The Super Speed USB 3.0 interface of J-Trace PRO enables continuous streaming trace via USB with the full trace clock. Streaming in real time allows for data capture over long periods of time because there is no limit set on the amount of trace data. This gives you all the insight you need to develop and optimize your code.</p>		
Streaming trace probe with Super Speed USB3.0 interface and Gigabit Ethernet		
Download speed up to 4 MB/s		
Unlimited breakpoints in flash memory ( <b>Flash Breakpoints</b> )		
Use with <b>Ozone</b> and <b>J-Flash</b>		
Real-time streaming at full System Clock		
Fine-tune applications with <b>Live Code Profiling</b>		
Instruction-level code coverage to satisfy regulatory requirements		
Unlimited trace to isolate & identify hidden code defects		
Supports Cortex-A/R/M targets		
Full <b>J-Link</b> debug functionality		

**Key features**

Specification	Value		
Supported OS	Microsoft Windows / Linux / macOS		
Electromagnetic Compatibility	EN 55022, EN 55024		
Operating Temperature	55 C ~ + 60 C		
Ethernet Interface	Gigabit		
USB Interface	3.0		
Max. trace clock frequency	150 MHz		
Power supply	USB-powered (max. 400mA)		



**Bus Pirate V3.6A**

It is a universal bus interface that communicates to electronics from a PC serial terminal. Eliminates a ton of early prototyping effort with new or unknown chips. This board provides 1-Wire, I2C, SPI, JTAG, asynchronous serial (UART), MIDI, PC keyboard, HD44780 LCDs & generic 2 & 3-wire libraries for custom protocols.

USB interface, USB powered		
5-volt tolerant pins-0-5volt measurement probe		
1Hz-40MHz frequency measurement		
1kHz-4MHz pulse-width modulator, frequency generator		
On-board multi-voltage pull-up resistors		
On-board 3.3volt and 5volt power supply with software reset		
Macros for common operations		
Bus traffic sniffers (SPI, I2C)		
Transparent USB to serial bridge mode		
10Hz-1MHz low-speed logic analyzer		
Custom support in AVRDUDE, Flashrom, Open OCD		
AVR STK500 v2 programmer clone		
Scriptable from Perl, Python, etc.		
A boot loader for easy USB firmware updates		
Uses DP6037 standard PCB layout		
Open source (CC 0/Public Domain)		

**Hardware Debugger - JTAGulator # 32115****Overview:**

Designed by [Grand Idea Studio](#), JTAGulator is an open-source hardware hacking tool that assists in identifying OCD connections from test points, vias, or component pads on a target device. On-chip debug (OCD) interfaces can provide chip-level control of a target device and are a primary vector used by engineers, researchers, and hackers to extract program code or data, modify memory contents, or affect device operation on-the-fly. Depending on the complexity of the target device, manually locating available OCD connections can be a difficult and time consuming task, sometimes requiring physical destruction or modification of the device.

Detection of JTAG/IEEE 1149.1, ARM SWD, and UART/asynchronous serial		
Direct connection to <a href="#">sigrok</a> & Open OCD		
24 channels with input protection circuitry		
Adjustable target I/O voltage for level translation: 1.4V to 3.3V		
USB interface (FTDI FT232) for menu-based control from host computer (Windows, macOS, Linux)		



**Bus Pirate V3.6A**

It is a universal bus interface that communicates to electronics from a PC serial terminal. Eliminates a ton of early prototyping effort with new or unknown chips. This board provides 1-Wire, I2C, SPI, JTAG, asynchronous serial (UART), MIDI, PC keyboard, HD44780 LCDs & generic 2 & 3-wire libraries for custom protocols.		
USB interface, USB powered		
5-volt tolerant pins-0-6volt measurement probe		
1Hz-40MHz frequency measurement		
1kHz-4MHz pulse-width modulator, frequency generator		
On-board multi-voltage pull-up resistors		
On-board 3.3volt and 5volt power supply with software reset		
Macros for common operations		
Bus traffic sniffers (SPI, I2C)		
Transparent USB to serial bridge mode		
10Hz-1MHz low-speed logic analyzer		
Custom support in AVRDUDE, Flashrom, Open OCD		
AVR STK500 v2 programmer clone		
Scriptable from Perl, Python, etc.		
A boot loader for easy USB firmware updates		
Uses DP6037 standard PCB layout		
Open source (CC 0/Public Domain)		

**Hardware Debugger – JTAGulator # 32115****Overview:**

Designed by Grand Idea Studio, JTAGulator is an open-source hardware hacking tool that assists in identifying OCD connections from test points, visa, or component pads on a target device. On-chip debug (OCD) interfaces can provide chip-level control of a target device and are a primary vector used by engineers, researchers, and hackers to extract program code or data, modify memory contents, or affect device operation on-the-fly. Depending on the complexity of the target device, manually locating available OCD connections can be a difficult and time consuming task, sometimes requiring physical destruction or modification of the device.		
Detection of JTAG/IEEE 1149.1, ARM SWD, and UART/asynchronous serial		
Direct connection to <u>sigrok</u> & Open OCD		
24 channels with input protection circuitry		
Adjustable target I/O voltage for level translation: 1.4V to 3.3V		
USB interface (FTDI FT232) for menu-based control from host computer (Windows, macOS, Linux)		



**Technical Specifications & Accessories – High Voltage Insulation Tester**

1. Minimum specifications include:

S No	Specification	Details		
1.	Recommended Make/ Model	<ul style="list-style-type: none"><li>• Make : KYORITSU, Model: KEW 3128 (or equivalent)</li><li>• Brochure/ Data sheet attached as Encl-1 to Appendix-VII.</li></ul>		
2.	Quantity	01		
3.	Rated Voltage	Up to 12000V (selectable)		
4.	Accuracy	At least + 2% of reading		
5.	Battery	Built-in rechargeable b		
6.	Internal memory	Store upto 43,000 data (max)		
7.	User Interface	Digital		

2. Essential accessories and software required:

- a. Connection Probes/ Test Probes/ Power Cord & communication cables to be provided.
- b. Calibration Certificate to be provided
- c. Calibration Method to be provided
- d. User Manual / CD



**IGH Voltage Insulation Tester**

**●KEW 3128 Specification**

Insulation resistance						
Rated voltage	500V	1000V	2500V	5000V	10000V	12000V
Max measurement value	500GΩ	1TΩ	2.5TΩ	5TΩ	36TΩ	
Accuracy	0-500GΩ ±5%rdgs3dgt *Accuracy is not guaranteed with setting of 250V or less	0-1000GΩ ±5%rdgs3dgt	0-2500GΩ ±5%rdgs3dgt	0-5000GΩ ±5%rdgs3dgt	0-1TΩ ±5%rdgs3dgt	
	50G-6000GΩ ±20%rdg *Accuracy is not guaranteed with setting of 250V or less	100G-1TΩ ±20%rdg	250G-2.5TΩ ±20%rdg	500G-5TΩ ±20%rdg	1T-10TΩ ±20%rdg 10T-36TΩ Values are displayed, but accuracy isn't guaranteed	
Short circuit current	Max 5.0mA					
Load resistor to output rated voltage	0.5MΩ or more	1MΩ or more	2.5MΩ or more	5MΩ or more	20MΩ or more	24MΩ or more
Output voltage						
Rated voltage	500V	1000V	2500V	5000V	10000V	12000V
Monitor accuracy	±10%±20V	±10%±20V	±10%±20V	±10%±20V	±10%±20V	±10%±20V
Output accuracy	0-±20%	0-±10%	0-±10%	0-±10%	-5-±5%	-5-±5%
Selectable range	50-800V (in steps of 5V)	610-1200V (in steps of 10V)	1225-3000V (in steps of 25V)	3050-8000V (in steps of 50V)	6100-10000V (in steps of 100V)	10100-12000V (in steps of 100V)
Voltage measurement						
Measuring range	DCV: ±30-±800V, ACV: 30-800V(50/60Hz)					
Accuracy	±2%rdgs3dgt					
Current measurement						
Measuring range	5.0nA-2.40mA (Depending on the insulation resistance)					
Capacitance measurement						
Measuring range	5.0nF-50.0μF				5.0nF-1.0μF (display range: 5.0nF-50.0μF)	
Accuracy	±5%rdgs3dgt					
General						
Withstand voltage	AC5770V : between line terminal and enclosure / 5sec (50/60Hz) AC2880V : between the measuring terminal and enclosure / 5sec (50/60Hz) AC2320V : between the power connector and enclosure / 5sec (50/60Hz)					
Operating temperature & humidity range	-10°C-50°C / Relative humidity 85% or less (when operating with an external power supply, no condensation) 0°C-40°C / Relative humidity 85% or less (when operating with battery, no condensation)					
Storage temperature & humidity range	-20°C-50°C / Relative humidity 75% or less (no condensation)					
Applicable standards	IEC 61010-1 CAT.IV 600V Pollution degree 2, IEC 61010-031, IEC 61326, IEC 60529(IP54) with the lid closed					
Power source	Rechargeable Lead storage battery (12V) Charging time: approx. 8 hours / AC Power supply (100V-240V, 50/60Hz) *Continuous measuring time: approx. 4 hours a load of 100MΩ at the insulation resistance 12000V Range.					
Dimension	330(L) x 410(W) x 150(D)mm *Instrument and Hard case					
Weight	9kg approx. (including battery) *Instrument and Hard case					
Accessories	7226(Line probe), 7227(Line probe with alligator clip), 7224(Earth cord), 7225(Guard cord), 7170(Main cord), 8029(Extension prod) E212-USB-W(USB adaptor with KIW Windows software), Instruction manual, Calibration Certificate					



**Technical Specifications & Accessories – Programmable IO & Data Acquisition**

1. Minimum specifications include:

S No	Specification	Details
1.	Required Make/ Model	<p>Make: National Instruments Model: cRIO-9047</p> <p><b>Note:</b> Equivalent/ cost effective options (replacing full system or any individual module (s)) will be acceptable only if:</p> <ul style="list-style-type: none"> <li>- full range of Digital/ Analog Input/ Output functionality is provided as per recommended configuration/ module functionality</li> <li>- Controller is FPGA based for real-time operation</li> <li>- The system is compatible with Lab view software</li> </ul>
2.	Configuration (Controller & Modules)	Required configuration is appended below

Integrated Controller and Chassis			
Part Number	Model	Description	Quantity
785621-01	NI cRIO-9047	cRIO-9047, 1.6 GHz Quad-Core, 70T FPGA, RT, 8-Slot, XT	1
<b>Modules</b>			
782580-01	NI 9381	NI 9381, 0-5V, 8-Ch AI, 8-Ch AO, 4-Ch LVTTTL DIO, C Series Module	1
781503-01	NI 9923 Front-mount D-SUB to screw terminals	NI 9923 Front-mount terminal block for 37-pin D-Sub Modules	1
783730-01	NI 9201 with Spring Terminals	NI 9201 Spring Term, +/-10 V, 12-Bit, 500 kS/s, 8-Ch AI Module	1
783787-01	NI 9981 Strain relief, operator protection (qty 1)	NI 9981, Strain Relief and Operator Protection (qty 1)	1
783731-01	NI 9203 with Spring Terminals	NI 9203 Spring Term, +/-20 mA, 16-Bit, 200 kS/s, 8-Ch AI Module	1
783787-01	NI 9981 Strain relief, operator protection (qty 1)	NI 9981, Strain Relief and Operator Protection (qty 1)	1
785190-01	NI 9264	NI 9264 Spring, 16-Ch voltage, +/-10V, 16-bit, 25kS/s/ch AO module	1
785080-01	NI 9940 Extra Strain relief, operator protection (qty 1)	NI 9940 Back shell for 36-pos Spring Terminal Connector (qty 1)	1
785046-01	NI 9266 with Screw Terminals	NI 9266 Screw Terminal, 8 ch, 0 to 20mA, 16-bit, 24 kS/s/ch AO C Series module	1
784819-01	NI 9928 Extra Strain relief, operator protection (qty 1)	NI 9928, Back shell for 18-Position Screw Terminal (Qty 1)	1
779005-01	NI 9411	NI 9411 6-Ch $\pm$ 5-24 V, 1 MHz, Diff./SE DI Module	1
141856-01	DB15F-DB15M, 15-PIN Female to Male Dsub I/O cable, 1M	DB15F-DB15M, 15-Pin Female to Male DSUB I/O Cable, 1M	1





783734-01	NI 9421 with Spring Terminals	NI 9421 Spring Term, 24 V, 100 $\mu$ s, 8-Ch Sinking DI Module	1		
783787-01	NI 9981 Strain relief, operator protection (qty 1)	NI 9981, Strain Relief and Operator Protection (qty 1)	1		
779891-02	NI 9870 4-Port RS232 Serial Module	NI 9870 4-Port RS232 Serial Module (Module Only)	1		
198303-01	PC-MF4-Y C Series Microfit Power Y-Adapter Male to 2-Female (0.2m)	PC-MF4-Y C Series Microfit Power Y-Adapter Male to 2-Female, .2m	1		
198159-01	PC-MF4-PT Power Cable C-Series Microfit Female to Pigtail (0.35m)	PC-MF4-PT CSERIES Microfit Power Cable female to Pigtail, .35m	1		
<b>System Accessories</b>					
782698-01	PS-10, 5Amp, 24VDC, 100-120/200-240 VAC	NI PS-10 Desktop Power Supply 24 VDC, 5A, 100-120/200-240 VAC	1		
<b>Services</b>					
SRV-CR6626421	Standard Services		1		
<b>Software</b>					
784503-35WM	Lab View Base Development System, Windows, All Languages, Subscription License, With Media	Lab View Base Development System, Windows, All Languages, Subscription License, With Media, Include 1 Year SSP	1		

2. **Important Note:** Accessories not mentioned above but which are essential for operation/ verification of the system including cables, modules, power supply, adapters and software's must be supplied.



S No	General Requirements/ Conditions	Firm's (Complied/ Partially Complied/ Complied)	Reply not
Note	<b>Guidelines for firm for submitting Technical Proposals for Technical Evaluation.</b> Firm is required to clearly mention <b>complied/ Partially Complied/ Not Complied</b> remarks against each Clause and qualify same through mentioning references in respective Clause form the attached firm's technical proposal/ brochures.		
1.	<b>DELIVERY SCHEDULE</b> The equipment/ stores/ accessories/ tools are to be delivered within 06 months from the date of signing of contract on for basis Karachi.		
2.	<b>PAYMENT TERMS:</b> a. As per DDP&I-35 (Revised 2019) or as decided by DP (N). b. 60% payment on completion of following: (1) Delivery at Pakistan alongwith tools/ stores. (2) Joint inspection (3) Provision of documents. (4) Satisfactory conduct of operator & maintainer training of PN Team prior delivery of stores. c. 40% payment on completion of following: (1) Successful completion of installation/ integration/ interfacing/ STW/ commissioning of platform/ equipment/ machinery at purchaser site complying all specifications/ acceptance criteria and issuance of acceptance certificate by end user. (2) Issuance of CRV by consignee.		
3.	<b>WARRANTY/ GUARANTEE:</b> a. Supplier is to guarantee that product is as per specs of the contract. b. Complete equipment including accessories/ software is to be warranted by the supplier for a period of 01 year, for all defects from the date of final acceptance by PN. c. The supplier is to guarantee that all the items supplied under the terms of this contract are of the latest version, OEM certified & brand new. Stores not procured directly from OEM or his authorized dealer/ agent/ stockist will not be acceptable. d. The supplier is to guarantee that materials used, whether or not of his manufacture, conform to the international quality standards for such equipment.		



	<p>e. Post-delivery, the supplier will replace DDP at consignee's warehouse without any additional cost within 30 days every article or part thereof which before use or in use shall be found defective or not within the limits &amp; tolerances of specifications, or in any way not in accordance with the terms of the contract at the time of Joint Inspection.</p> <p>f. In case of supplier failure to replace the defective stores without any additional cost within 30 days he will refund relevant cost DDP at consignee's warehouse in the currency in which received along with a reasonable compensation as claimed by PN.</p>	
4.	<p><b><u>PERFORMANCE BANK GUARANTEE.</u></b> To ensure timely &amp; correct supply of stores, the firm will furnish an unconditional performance Bank Guarantee. Within 30 days of signing of the contract from a scheduled bank of Pakistan for an amount equal to 10% of the total FCA (Final Contract Amount) value of the contract (on a Judicial Stamp Paper) of appropriate value as per prescribed format. It shall remain in force till 60 days beyond completion of warranty period.</p>	
5.	<p><b><u>LOGISTIC SUPPORT:</u></b></p> <p>a. Manufacturer/ OEM/ supplier to certify that the spares will be available to support the supplied equipment for at least 10 years.</p> <p>b. Three years spares to be included in the offered package.</p> <p>c. OEM is to provide all updates to the components data library of system upgraded by the OEM from time to time.</p> <p>d. Manufacturer/ OEM/ supplier to provide calibration equipment &amp; procedures with scope of supply.</p>	
6.	<p><b><u>DOCUMENTATION:</u></b></p> <p>a. Two Sets of following original documents are to provided by the firm for each system:</p> <ol style="list-style-type: none"> <li>(1) Work shop manual</li> <li>(2) Parts catalogue</li> <li>(3) Operating manual</li> <li>(4) System electric/ electronic circuit drawings</li> </ol> <p>b. Firm will provide brochure of the equipment against IT for study by PN, at the time of TSR. Photocopies of documentation will not be accepted.</p> <p>c. The OEM's original brochure of the equipment containing all technical details is to be provided by the supplier alongwith technical offer.</p>	
7.	<p><b><u>TRAINING (OPERATOR/ MAINTAINER):</u></b></p> <p>a. OJT at suitable site offered by supplier/ OEM for 05 x working days' prior delivery of stores, so that trained personnel are capable of:</p> <ol style="list-style-type: none"> <li>(1) Operating equipment to its full capabilities, while ensuring all safety aspects of equipment.</li> <li>(2) Carryout all types of maintenance routines.</li> <li>(3) Carryout fault diagnosis &amp; rectification.</li> </ol>	



	<p>(4) Be able to set to work, trial &amp; commission the equipment after routine maintenance and repair.</p> <p>b. Provision of computer based training CDs/ DVDs where approachable.</p> <p>c. Training charges (if any) to be mentioned in the quotation by supplier.</p>	
8.	<p><b><u>ADDITIONAL INSTRUCTIONS</u></b></p> <p><b><u>Certification Requirement:</u></b></p> <p>a. Supplier/ OEM will confirm through OEM certificate at the time of supply/ delivery of the equipment at NSD that equipment being supplied is proven equipment.</p> <p>b. Supplier through certificate is to confirm that he will provide import documents at the time of delivery of stores.</p> <p>c. Supplier certificate for conformance of 100% contract specification, (any deviation to be clearly indicated in the offer) will be provided at the time of delivery of stores.</p> <p>d. Calibration certificate traceable to international standards is to be provided by the OEM which is valid at the time of delivery.</p> <p>e. Supplier is to provide following documentation at the time of inspection:</p> <p>(1) Firm's Warranty/ Guarantee on form "DPL-15" for functionality/ serviceability of the item(s).</p> <p>(2) OEM's "Certificate of Conformity" indicating following:</p> <p>(a) Pattern/ Part number of equipment.</p> <p>(b) Description of equipment along with quantity.</p> <p>(c) Date/ Period of manufacture.</p> <p>(d) Conformance to standards/ specifications quoted in I.T.</p> <p>(e) List of Serial No or Batch numbers or Lot number as embossed/ engraved on the stores.</p> <p>(3) OEM Test Certificate.</p> <p>f. OEM's "Certificate of Conformity" originating from "Principle" who is neither the OEM nor the OEM's authorized dealer/ agent/ stockist will not be acceptable.</p> <p>g. <b><u>Accessories</u></b>. Details of the accessories being offered are to be intimated in the technical offer and prices of these accessories are to be mentioned separately commercial offer.</p> <p>h. <b><u>Provision of brochure</u></b>. The OEM Brochure of the equipment containing all technical details &amp; drawings is to be provided by the supplier along with technical offer.</p>	



j. **Provision of Spares/ Consumables.** Supplier is to provide OEM recommended parts including consumables required for scheduled maintenance /operation for 01 year operation of the equipment (List to be provided with the technical proposal for vetting).

k. **Certificate of Conformance by OEM.** Firm/ Supplier shall provide correct and valid e-mail and fax No. to CINS & DP (N). Supplier/ contracting firm shall either provide OEM Conformance certificate to CINS or is to be e-mailed to CINS under intimation to DP (N). Hard copy of COC must follow in any case through courier. On receipt, CINS shall approach the OEM for verification of Conformance Certificate issued by the OEM. Companies/ firms rendering false OEM conformance Certificates will be black listed.

l. **Technical Rejection.** In case of non-compliance to any of the clause of Annex A to IT, offer is subject to technical rejection.

m. **Additional Purchase.** OEM/ supplier is to provide an undertaking that in case purchaser wishes to buy additional quantity/ number of stores within next 12 months after the completion date of the contract, the supplier will provide the equipment at the same cost. The supplier may however sell stores at a lower cost.

n. **Obtaining of Licenses.** It is the responsibility of the supplier to obtain licenses/ permits etc (if any) in the seller's country. Failure to obtain the same shall not constitute grounds for Force Majeure.

p. **Packing.** Packing of equipment should be of international quality standards to be worthy of air, sea, rail and road transportation.

q. **Joint Inspection Committee.** A joint inspection committee comprising reps from CINS, R&D Wing (NRDI) & NSD will carry out joint inspection of delivered equipment/ stores at NSD within 15 days of receipt of stores. Para 3 e above also refers.

r. **Origin of Supply.** Supplier in his " Offer/ Quotation" is to specifically mention country of origin for the stores which will be subsequently endorsed in the "Contract". Origin of the equipment should be important (other than India & Israel) with OEM CoC.

s. **Discontinuation of Production.** In case of discontinuation of production of any component part as result of obsolescence or development of upgraded version, the seller is to inform the buyer at least one (01) year in advance. The seller will ensure the provision of such components/ parts as demanded by the buyer prior discontinuation of the production and shall also provide alternate for such components/ parts in case the original is not available.

t. **Integrity Pact.** Procurement shall be subject to an integrity pact, as specified by regulation with approval of the Federal Government, between the procuring agency & the suppliers or contractors.

u. **Arbitration.** As per contract document of DP(N).



	<p>v. <b>Discrepancy.</b> The consignee will render a discrepancy report to all concerned within 30 days after receipt of stores for discrepancies found in the consignment. The quantities found short are to be made good by the supplier, without any additional cost on DDP basis Karachi (Pakistan) within 30 days.</p> <p>w. <b>Penalty.</b> The Seller before making the shipment will carry out complete test of the equipment at its facilities to ensure that the same has been manufactured as per specifications. In case the equipment does not pass the test/ trials, the buyer has the right to out rightly reject the equipment or impose penalty at the rate of 10-15% of the value of the relevant equipment/ item.</p> <p>x. The penalty shall not absolve the Seller to undertake the repairs in Pakistan or on board at his cost and expense including freight charges. This shall be in addition to the penalties and obligations covered in the contract like warranty/ guarantee obligations on Form DPL-15.</p> <p>y. <b>Updates &amp; Current Information.</b> Suppler in his "Offer/ Quotation" is to provide latest updates and current information about technical specifications/ details. If pattern number, part number or quality standards of a particular item has been superseded by a new one after conclusion of the contracts, the supplier will be required to produce a documentary proof to this effect origination from the relevant OEM. If replaced part affects fittings &amp; functioning of other associated part as well then detail of those parts are also to be provided.</p>	
9.	<p><b>SOURCE OF SUPPLY.</b> In case the equipment is being sourced through OEM's Authorized Dealer/ Agent/ Stockist a documentary proof to this effect comprising OEM's Dealership Certificate in respect of Dealer/ Agent/ Stockist is to be provided by the supplier with following endorsements:</p> <ol style="list-style-type: none"> <li>(1) Certificate reference number with date.</li> <li>(2) Name of the authorized dealer/ agent/ stockist.</li> <li>(3) Last date/ duration/ period for validity of dealership.</li> </ol>	
10.	<p><b>PRICE VARIATION.</b> Prices offered will be firm &amp; final.</p>	
11.	<p><b>RISK PURCHASE.</b> In the event of failure on the part of supplier to comply with the contractual obligations the contract will be cancelled at the Risk &amp; Expense of the supplier in accordance with DPP&amp;I-35.</p>	
12.	<p><b>LIQUIDATED DAMAGES.</b> Liquidated Damages upto 2% per month are liable to be imposed on the suppliers by the purchaser in accordance with DPP&amp;I-35, if the stores/ services supplied after the expiry of the delivery date without any valid reasons. Total value of LD shall not exceed 10% of the contract value.</p>	
13.	<p><b>FORCE MAJEURE.</b> The supplier will not be held responsible for any delay occurring in supply of equipment due to event of Force Majeure such as acts of God, War, Civil commotion, Strike, Lockouts, Act of Foreign Government and its agencies and disturbance directly affecting the supplier over which events or circumstances the supplier has no control. In such an event the supplier shall inform the purchaser within 15 days of the happening and within the same timeframe about the discontinuation of such circumstances/ happening in writing. Non-</p>	



	availability of raw material for the manufacture of stores, or of export permit for the contracted stores from the country of its origin, shall not constitute Force Majeure.	
14.	<p><b><u>TERMINATION:</u></b></p> <p>a. If at any time during the currency of the contract the Purchaser decides to terminate the contract for any reason whatsoever (other than for reasons of non-Delivery) the shall have right to do so by giving the Supplier a registered notice to that effect. In that event the purchaser will accept delivery at the contract price and terms of such stores/ goods/ services which are in the actual process of manufacturer that is completed and ready for delivery within thirty days after receipt by the supplier of such notice.</p> <p>b. In the case reminder of the undelivered stores/ goods/ services the purchaser may elect either:</p> <p>(1) To have any part thereof completed and take the delivery thereof at the contract price or.</p> <p>(2) To cancel the remaining quantity and pay to the Supplier for the articles or sub-components or raw materials purchased by the supplier and are in the actual process of manufacturer at the price to be determined by the Purchaser. In such a case materials in the process of manufacture shall be delivered by the supplier to the Purchaser.</p> <p>(3) No payment shall however be made for any materials not yet in the actual process of manufacture on the date notice of cancellation is received.</p> <p>c. Should the Supplier fail to deliver stores/ goods/ services in time as per quality terms of contract or fail to render Bank Guarantee within the stipulated time period or any breach of the contract the purchaser reserves the right to terminate/ cancel the contract fully or any part thereof at the risk &amp; expense (RE) of the supplier.</p>	
15.	<p><b><u>ACCEPTANCE/INSPECTION CRITERIA:</u></b></p> <p>a. The equipment will not be acceptable in case of the following:</p> <p>(1) Equipment specifications are not as per Annex 'A'.</p> <p>(2) List of Spares/Consumables required for maintenance / operation for 01 year at Para 8j of Annex 'B' are not provided.</p> <p>(3) Documentation at Para 6(a to c) of Annex 'B' not provided.</p> <p>(4) Training is not conducted as per Para 7a of Annex 'B'.</p> <p>(5) Para 8(a to f) "Certification Requirement" at Annex 'B' are not met.</p> <p>(6) Confirmation of performances &amp; functions is not same as given in the contract and relevant documentation/ manuals.</p> <p>b. The final acceptance certificate will be signed by PN within 01 week only after successful completion of all acceptance trials to the entire satisfaction of PN.</p>	



	<p>c. Firm is to obtain clearance from OEM regarding availability of original documentation as per PN requirement. Later on after contract conclusion no relaxation in this regard will be entertained.</p>																			
16.	<p><b><u>COMMISSIONING/TRIALS:</u></b></p> <p>a. Commissioning and STW of the system/ equipment is to be arranged within 30 days of supply of equipment by the supplier through OEM or their authorized rep(s) at R&amp;D Wing (NRDI).</p> <p>b. Set to Work/ Commissioning trials to be carried out by contractor on site. Any defect/ damage of the equipment during commissioning trials to be replaced by the supplier without any additional cost.</p> <p>c. Commissioning charges (if any) to be mentioned in the quotation by supplier.</p>																			
17.	<p><b><u>PRICE OF ALL DELIVERABLES:</u></b></p> <p>a. The supplier should mentioned the price of all deliverables (i.e. equipments, spares, documentation, services, tools/ test equipment, training, installation, test/ trials/ commissioning etc where applicable) separately in financial quote. The same are to be subsequently incorporated in the contracted.</p> <p>b. In his quotation the supplier should separately mention the price as per following format:</p> <table border="1"> <thead> <tr> <th><u>S No</u></th> <th><u>Description</u></th> </tr> </thead> <tbody> <tr> <td>(1)</td> <td>Complete equipment</td> </tr> <tr> <td>(2)</td> <td>Mandatory accessories</td> </tr> <tr> <td>(3)</td> <td>Operator manual</td> </tr> <tr> <td>(4)</td> <td>Maintenance manual</td> </tr> <tr> <td>(5)</td> <td>Depot list</td> </tr> <tr> <td>(6)</td> <td>Training</td> </tr> <tr> <td>(7)</td> <td>Spares</td> </tr> <tr> <td>(8)</td> <td>STW/ Commissioning</td> </tr> </tbody> </table> <p>c. DP (N) is requested to ensure that commercial offer clearly indicates above listed prices.</p>	<u>S No</u>	<u>Description</u>	(1)	Complete equipment	(2)	Mandatory accessories	(3)	Operator manual	(4)	Maintenance manual	(5)	Depot list	(6)	Training	(7)	Spares	(8)	STW/ Commissioning	
<u>S No</u>	<u>Description</u>																			
(1)	Complete equipment																			
(2)	Mandatory accessories																			
(3)	Operator manual																			
(4)	Maintenance manual																			
(5)	Depot list																			
(6)	Training																			
(7)	Spares																			
(8)	STW/ Commissioning																			
18.	<p><b><u>TSR.</u></b> Technical scrutiny of quotations forwarded by the bidders will be carried out by a committee comprising 02 or more officers nominated by NHQs.</p>																			





INTEGRITY PACT

DECLARATION OF FEES, COMMISSION AND BROKERAGE ETC PAYABLE BY THE  
SUPPLIERS OF GOODS, SERVICES & WORKS IN CONTRACT

Contract No. \_\_\_\_\_ DATE \_\_\_\_\_

Contract Value \_\_\_\_\_ (Specify Value in Currency)

Contract Title \_\_\_\_\_ for Pakistan Navy

M/s \_\_\_\_\_ hereby declares that it has not obtained or induced the procurement of any contract, right, interest, privilege or other obligation or benefit from Government of Pakistan or any administrative subdivision or agency thereof or any other entity owned or controlled by it (Govt of Pakistan) through any corrupt business practice.

Without limiting the generality of the foregoing, M/s \_\_\_\_\_ represents and warrants that it has fully declared the brokerage, commission, fees etc, paid or payable to anyone and not given or agreed to give and shall not give or agree to give the anyone within or outside Pakistan either directly or indirectly through any neutral or juridical person, including its affiliate, agent, associate, broker, consultant, director, promoter, shareholder, sponsor or subsidiary, any commission, gratification, bribe, finder's fee or kickback, whether described as consultation fee or otherwise, with the object of obtaining or inducing the procurement of a contract, right, interest, privilege or other obligation or benefit in whatsoever form, from the Govt of Pakistan, except that which has been expressly declared pursuant hereto.

M/s \_\_\_\_\_ certifies that it has made and shall make full disclosure of all agreements and arrangements with all persons in respect of or related to the transaction with Govt of Pakistan and has not taken any action or shall not take any action to circumvent the above declaration, representation or warranty.

M/s \_\_\_\_\_ accepts full responsibility and strict liability for making any false declaration, not making full disclosure, misrepresenting facts or taking any action likely to defeat the purpose of this declaration, representation and warranty. It agrees that any contract, right, interest, privilege or other obligation or benefit obtained or procured as aforesaid shall, without prejudice to any other rights and remedies available to Govt of Pakistan under any law, contract or other instrument, be avoidable at the option of Govt of Pakistan.

Notwithstanding any rights and remedies exercised by Govt of Pakistan in this regards, [the Supplier] agrees to indemnify Govt of Pakistan for any loss or damage incurred by it on account of its corrupt business practices and further pay compensation to Govt of Pakistan in an amount equivalent to ten times the sum of any commission, gratification, bribe, finder's fee or kickback given by M/s \_\_\_\_\_ as aforesaid for the purpose of obtaining or inducing the procurement of any contract, right, interest, privilege or other obligation or benefit in whatsoever form, from Govt of Pakistan.

\_\_\_\_\_  
[The Purchaser]



\_\_\_\_\_  
[The Supplier]

CONFIDENTIAL

**UNDERTAKING/ NON- DISCLOSURE CERTIFICATE**

1. I \_\_\_\_\_  
(Name & Appointment)

on behalf of \_\_\_\_\_  
(Name for Firm/ Contractor)

\_\_\_\_\_  
(With address and Telephone number)

2. Do hereby submit an undertaking to abide by the provision of Official Secrets Act 1923 and conditions hereinafter contained. Breach of these provisions on my part or any employee of the firm, in addition to any other penalty under law, will render immediate ceasing of further interaction and meetings.

Sig \_\_\_\_\_  
Status/ Appointment \_\_\_\_\_  
Place \_\_\_\_\_  
Date \_\_\_\_\_

1. Signature of Witness \_\_\_\_\_  
Name (in block capital) \_\_\_\_\_  
CNIC No \_\_\_\_\_  
(Please attach photocopy)  
Address \_\_\_\_\_

Seal & Date

2. Signature of Witness \_\_\_\_\_  
Name (in block capital) \_\_\_\_\_  
CNIC No \_\_\_\_\_  
(Please attach photocopy)  
Address \_\_\_\_\_

Seal & Date

CONFIDENTIAL



Ed by

TENDER No.....

NAME OF THE FIRM.....  
DGDP REGISTRATION No.....  
ADDRESS.....  
TELEPHONE No. ....  
OFFICIAL E-MAIL.....  
FAX NO .....  
MOBILE NO .....

To:

**Directorate of Procurement (Navy)**

Through Bahira Gate  
Near SNIDS Centre,  
Naval Residential Complex E-8  
ISLAMABAD

Contact: Reception: 051-9262311  
Bahria Gate: 0331-5540649  
Section: 051-9262304

Email: [dpn@paknavy.gov.pk](mailto:dpn@paknavy.gov.pk)  
[Adpn31pre@paknavy.gov.pk](mailto:Adpn31pre@paknavy.gov.pk)

DEAR SIR

DATE \_\_\_\_\_

1. I/WE HEREBY OFFER TO SUPPLY TO THE DIRECTOR OF PROCUREMENT (NAVY) THE STORES DETAILED IN SCHEDULE TO THE TENDER INQUIRY OR SUCH PORTION THEREOF AS YOU MAY SPECIFY IN THE ACCEPTANCE OF TENDER AT THE PRICES OFFERED AGAINST THE SAID SCHEDULE AND FURTHER AGREE THAT THIS OFFER WILL REMAIN VALID UP TO **120 DAYS** AND WILL NOT BE WITHDRAWN OR ALTERED IN TERMS OF RATES QUOTED AND THE CONDITIONS ALREADY STATED THEREIN OR ON BEFORE THIS DATE. I/WE SHALL BE BOUND BY A COMMUNICATION OF ACCEPTANCE TO BE DISPATCHED WITHIN THE PRESCRIBED TIME.

2. I/WE HAVE UNDERSTOOD THE INSTRUCTIONS TO TENDERS AND GENERAL CONDITIONS GOVERNING CONTRACT IN FORM No. DP-35 (REVISED 2019 ) INCLUDED IN THE PAMPHLET ENTITLED, GOVERNMENT OF PAKISTAN, MINISTRY OF DEFENCE (DIRECTORATE GENERAL DEFENCE PURCHASE) "GENERAL CONDITIONS GOVERNING CONTRACTS" AND HAVE THOROUGHLY EXAMINED THE SPECIFICATIONS/DRAWINGS AND/ OR PATTERNS QUOTED IN THE SCHEDULE HERETO AND AM/ARE FULLY AWARE OF THE NATURE OF THE STORES REQUIRED AND MY/OUR OFFER IS TO SUPPLY STORES STRICTLY IN ACCORDANCE WITH THE REQUIREMENTS.

3. THE FOLLOWING PAGES HAVE BEEN ADDED TO AND FORM PART OF THIS TENDER:

- A. ....
- B. ....
- C. ....

YOURS FAITHFULLY,

.....  
(SIGNATURE OF TENDERER)

.....  
(CAPACITY IN WHICH SIGNING)

ADDRESS:.....

DATE.....

SIGNATURE OF WITNESS.....

ADDRESS.....

\*INDIVIDUAL SIGNING TENDER AND/OR OTHER DOCUMENTS CONNECTED WITH A CONTRACT MUST SPECIFY:-

- (a) WHETHER SIGNING AS "SOLE PROPRIETOR" OF THE FIRM OR HIS ATTORNEY.
- (b) WHETHER SIGNING AS A "REGISTERED ACTIVE PARTNER" OF THE FIRM OR HIS ATTORNEY.
- (c) WHETHER SIGNING FOR THE FIRM "PER PROCURATION".
- (d) IN THE CASE OF COMPANIES AND FIRMS REGISTERED UNDER THE ACT, 1913 AS AMENDED UP-TO-DATE AND UNDER THE PARTNERSHIP ACT 1932, THE CAPACITY IN WHICH SIGNING E.G., THE DIRECTOR, SECRETARY, MANAGER, PARTNER, ETC. OR THEIR ATTORNEY AND PRODUCE COPY OF DOCUMENT EMPOWERING HIM SO TO SIGN, IF CALLED UPON TO DO SO.
- (e) Principal's Proforma invoice (in original)
- (f) Earnest money
- (g) Treasury Challan Form for tender Fees as applicable

**IMPORTANT**

Each column must be filled in with BLOCK CAPITAL LETTERS, incompleation shall render disqualification.

1. Name: \_\_\_\_\_

2. Father's Name: \_\_\_\_\_

3. Address (Residential: \_\_\_\_\_

\_\_\_\_\_

4. Designation in Firm: \_\_\_\_\_

5. CNIC: \_\_\_\_\_  
(Attach Copy of CNIC)

6. NTN: \_\_\_\_\_  
(Attach Copy of NTN)

7. Firm's Address: \_\_\_\_\_

\_\_\_\_\_

8. Date of Establishment of Firm: \_\_\_\_\_

9. Firm's Registration Certificate with FBR/Chamber of Commerce/Registrar of Companies.  
(Attach Copy of relevant CERTIFICATE)

10. In case PARTNERSHIP (Attach particulars at serial 1, 2,3,4,5 and 6 of each partner).

(Kindly fill in the above form and forward it under your own letter head with contact details)