

**Public Procurement Regulatory Authority
(Cabinet Division)
FBC Building, Sector G-5/2, Islamabad**

PUBLISHING OF TENDERS ON PPRA WEBSITE

1. APF intends to acquire Indigenous Development against the under mentioned tenders on "FOR" Kamra basis in local currency.

S NO	TENDER NO	DESCRIPTION OF STORES	LINE ITEMS
(a)	APF/1920/181/LOG(PC-238/24)	Indigenous Development of HVPC Board Qty 02 (Prototype)	01

2. Complete details of the required item and our terms & conditions are enclosed. The same may please be published on the respective website at the earliest as the tender opening date has been fixed as **14 November, 2024**. Advance payment of tender uploading fee (**i.e. Rs 15000.00/-**) has been deposited in PPRA account. Copy of deposit slip has also been enclosed as advised.

3. Your co-operation in this regard will be highly appreciated.



(MUHAMMAD ZAHID ABBAS)

Squadron Leader

For Managing Director

APF PAC Kamra

Tel Ext: 051-90996289

Encl: (As stated)

TERMS AND CONDITION OF THE TENDERS

1. **Avionics Production Factory PAC Kamra intends to acquire Indigenous Development** against the under mentioned tender on “FOR” Kamra basis in local currency.

S NO	TENDER NO	DESCRIPTION OF STORES	LINE ITEMS	REMARKS
(a)	APF/1920/181/LOG(PC-238/24)	Indigenous Development of HVPC Board Qty 02 (Prototype)	01	<ul style="list-style-type: none">• Detail / Technical Specifications and Terms & are attached.• Separate quotations against tender are Compulsory.

2. Sealed tenders are invited from sales tax registered firms for procurement of the said stores / items.

3. Delivery of Tender

(a) **Technical Offer:** It should be without prices and contain all relevant essential literatures / brochures. Tender number and date of opening should be clearly marked on the face of envelope of technical offer. The offer must be accompanied with following documents.

(i) **Challan form No. F-32A of Rs 200.00, obtained from SBP / Govt Treasury under “C02501-20 Main Head 12 SUB Head ‘A’ Misc (Code Head- 1/845/30), CMA (ISOs) Rawalpindi” on behalf of Managing Director APF PAC Kamra.**

(ii) **Earnest money of @ Rs 100,000.00 in shape of Bank Draft / Pay order in the favor of CMA (ISOs) Rawalpindi (Compulsory for all bidders).**

(b) **Commercial Offer:** It should indicate prices of quoted items and confirmation to the terms and condition of our tender inquiry. The words “Commercial offer with prices” be marked on its envelope.

Both the envelopes of **Technical and Commercial** offers should be enclosed in one cover properly sealed and bear the following address of this office with tender number and opening date.

Managing Director,
Avionics Production Factory,
Pakistan Aeronautical Complex,
Kamra –Distt. Attock

4. Pattern of Quoted Prices

The quoted prices are to be inclusive of all taxes levied by the Government and these should be in accordance with the current local market / international prices. However, GST must be mentioned separately otherwise it will be considered as included in the quoted price.

5. Validity of offer

The quotation must be valid for 90 days.

6. Opening of Tender

The quotations must be in original and are to reach at this factory as early as possible, but not later than **14 November, 2024 at 1130 hrs.** All quotations are to be dropped in the tender box placed at the Factory Guard Room. No quotation will be accepted in photocopy, through fax and after due date and time. Technical offers will be opened on **14 November, 2024 at 1200 hrs** in the presence of available representatives. Whereas date for opening of commercial offers will be communicated to the respective firms whose technical offers will be accepted. We reserve the right to reject all bids or proposals against this tender at any time prior to the acceptance of a bid on technical grounds. **The technical offers contrary to the terms & conditions of tender notice will not be considered.**

7. **Delivery Period**

Stores are required within minimum possible delivery period. Offer with minimum delivery period are likely to be preferred. However, the delivery period should be factual so that deliveries of stores and payment can be disbursed within CFY. Delivery period should be clearly mentioned in quotations. No extension will be subsequently granted except under extreme un-avoidable circumstances.

8. **Country of Manufacture**

Country / place of manufacture of store are to be provided along with Technical / Commercial offer.

9. **Acceptance of Stores**

The ordered stores will be accepted as per "**Terms and Conditions**" mentioned at the end of this IT.

(a) In case of rejection of stores , the supplier will be responsible to replace the rejected store within delivery period.

(b) If accepted store found defective within warranty period from the date of acceptance / commissioning / installation ,the supplier will ensure free of cost replacement / serviceability of the same within one month.

10. **Release of Payment**

Payment will be released by CMA (ISOs) Rawalpindi on submission of proper bill / sales tax invoice, copies of GST registration / professional tax certificates, sales tax return and **10% performance bank guarantee** (valid for 12 months).

11. **Disqualification**

Offers are liable to be rejected due to following discrepancies.

- (a) There is a deviation from any instruction.
- (b) Offers are found conditional or incomplete in any respect.
- (c) Multiple rates are quoted against one item or overwriting / erasing in prices.
- (d) Treasury challan of Rs 200.00 is not provided.
- (e) Earnest Money (as applicable) is not provided.
- (f) Past poor performance of the firm.

Yours faithfully,



(MUHAMMAD ZAHID ABBAS)

Squadron Leader

For Managing Director

APF PAC Kamra

Tel Ext: 051-90996289

SPECIAL NOTE:-

- 1. **Store to be delivered at APF on "FOR" Kamra basis.**
- 2. **Supplier is responsible for warranty / guarantee of item for 1 year.**
- 3. **Prices and Part Catalogue be provided free of cost.**
- 4. **Items should be current year's production.**
- 5. **All technical publication (wherever applicable) to be provided free of cost. Technical data sheets / specifications of all items are necessary.**
- 6. **Store will be inspected by concerned user / quality control APF.**
- 7. **Earnest Money will be forfeited in case of non-acceptance of P.O / Contract.**

TECHNICAL SPECIFICATION FOR INDIGENOUS DEVELOPMENT OF HVPS PC BOARD Qty -02 (Prototype)

EQUIPMENT	SPECIFICATION
015-00271-0001 I/L 015-00271-0002 HVPS Pc Board	<p>INPUT SIGNAL OF HVPS</p> <ul style="list-style-type: none"> ▪ PWR GND ▪ DEF/FOCUS ▪ 27VDC ▪ HV Enable (5V GND) ▪ MODE ▪ 27VDC ▪ 12VDC ▪ PWR GND <p>OUTPUT VOLTAGES OF HVPS</p> <ul style="list-style-type: none"> ▪ 800V ▪ 3500V ▪ 16KV ▪ RCV Voltage <p>HVPS CIRCUIT</p> <ul style="list-style-type: none"> ▪ On/OFF Switch circuit <p>When HV Enable input line is low or grounded HVPS will be ON and vice versa.</p> <ul style="list-style-type: none"> ▪ DEF/Focus level detector circuit <p>To determine which mode of operation is needed for painting and object on CRT.</p> <ul style="list-style-type: none"> ▪ Pulse width modulator circuit <p>To generate and controls the drive signals.</p> <ul style="list-style-type: none"> ▪ Defocus circuit <p>Forcing CRT G3 voltage to drop by 800V causing the CRT to defocus or defuse the object being drawn.</p> <ul style="list-style-type: none"> ▪ Focus circuit <p>To controls the sharpness of objects painted on the CRT and has two mode of operation focus mode and defocus mode.</p> <ul style="list-style-type: none"> ▪ Voltage multiplier circuit

Fly back transformer supplies the source voltage for multiplier circuit. First leg of multiplier circuit has approximately 5.3KVDC output, second leg has approximately 10.7KVDC output and output of the third leg is 16KVDC.

- Convergence circuit

Electron beam convergence for the CRT is controlled by this circuit. This circuit establish a reference input voltage. This circuit contains three major section Convergence Adjustment, Convergence feedback and optical coupler.

- Grid G2 voltage source

A tap on th high voltage transformer provide the source voltage for the grid G2 voltage. The source voltage is half wave rectified. Temperature compensation and voltage regulation circuit establish a temperature and regulation characteristic of G2 voltage.

HVPS OUTPUT CABLE LENGTH

- Cable length of RCV signal will be 6".
- Cable length of G2 signal will be 6".

BID EVALUATION CRITERIA / TERMS & CONDITIONS

1. HVPS shall be delivered at APF on FOR Kamra Basis.
2. HVPS is not locally available and is required to be developed.
3. HVPS shall be of current year's production.
4. HVPS operation shall be same as that of existing HVPS.
5. HVPS shall be developed according to the requirements provided by APF.
6. HVPS will be inspected by concerned User / Quality Control APF.
7. Payment for each HVPS will be released after successful testing and acceptance at APF.
8. Following system documentation in English language both in hard copies (01 set) and Soft form (Windows compatible) on 02 CDs shall be provided on free of cost (FoC) basis:
 - (a) Schematic Diagram
 - (b) Block Diagram
 - (c) Parts catalogue.
9. Supplier shall provide warranty / guarantee of HVPS for 01 year after acceptance by APF, ground trial and flight trial on Aircraft.
10. HVPS shall be delivered to APF complete in all respect within 03 months of contract signing date.
11. Supplier must have relevant working experience on development of High Voltage / Extra High-Tension power supply modules of Airborne Avionics systems (LVPS, HVPS, EHT).
12. Supplier must have completed projects of HVPS development in field of Avionics systems. Relevant supporting documents (Projects scope & completion detail) are to be shared with APF. In addition, Vendor / firm shall also share details of on-going projects.

13. Supplier must have relevant equipment, tools, testers, work benches and infrastructure (building & labs etc) required for development of HVPS. Vendor / firm shall provide record of stated items (items inventory list, company's address, pictures of facilities).
14. Supplier must have qualified administrative / managerial team. Vendor / firm will have to provide attested qualification documents of stated team and employment record of last 02 years.
15. Provisioning of HV cable sleeve and necessary accessories during installation / removal of HVPS in NHA will be responsibility of supplier.
16. Subsequent to successful development of HVPS, vendor / firm will be furnished complete schematic / block diagram in soft and hard copy to APF.