

TENDER SPECIFICATION OF HAND HELD JAMMER

1. **Name of the Equipment.** Hand Held Jammer.
2. **Purpose.** To bring the drones down or send them back to their launch point by disrupting electronic signals used by the target drones for communication or GNSS positioning.
3. **Quantity** : 05 (Five) Complete sets.
4. **Type** : Portable/Hand held.
5. **Brand** : To be mentioned.
6. **Model** : To be mentioned
7. **Manufacturing Country** : USA, UK, EU, Canada, Switzerland and Turkey (Country to be mentioned).
8. **Country of Origin** : USA, UK, EU Canada, Switzerland and Turkey (Country to be mentioned).
9. **Original Equipment Manufacturer (OEM)** : Name and Full address with e-mail of OEM to be mentioned.
10. **Supplier/ Principal/ Bidder** : Name and full address with e-mail of Supplier/ Principal/Bidder to be mentioned.
11. **Local agent** : Name & Full address with e-mail of supplier/ local agent is to be mentioned
12. **Year of Manufacturing** : 2024 or later.
13. **Qualification of Bidder.** Manufacturer of Hand Held Jammer or their authorized distributor/ agent can submit offer through their authorized local agent enlisted in DGDP. In case of offer from authorized distributor/ agent, one additional certificate is to be submitted with the offer stating that the warranty, after sales support and training will be provided under the full responsibility of OEM. All authorization certificates and relevant certificate from OEM are to be submitted with the offer.
14. **Additional Features Offered by Bidder.** The bidder may suggest and offer additional features for the offered Jammer. In this case, Bidder is to explain the detailed advantage of that/ those features of the offered Jammer.
15. **Scope of Supply.**
 - a. 05 x complete sets of Hand Held Jammer with Accessories.
 - b. Software, Documentation and Certificates.
 - c. 01 x Test Drone.
 - d. Factory Acceptance Test (FAT).
 - e. Local Training.
 - f. Test, Trial and Acceptance.
16. **General Features.** The Jammers should have following features (but not limited to):
 - a. Field programmable with integrated port for software updates.
 - b. Disrupts C2 link of controlling drones to descend or return to origin.
 - c. Deny GNSS position data being received by the drone.
 - d. Compact and Lightweight.
17. **Environmental Condition.**
 - a. Ambient Operating Temperature : 5⁰ C to + 50⁰ C.
 - b. Storage Temperature : To be mentioned.

c. Relative Humidity : Up to 95 % (Non condensing).

18. **Technical Specification.** The technical specification of the system is given below:

Ser	Description	Required Parameter
1.	Jamming Frequency	(a) Command, Communication and Control radio frequencies (including satellite links) between drone and controller (minimum 400 MHz to 6 GHz or better). (b) GNSS bands: GPS, GLONAS Galileo, BeiDou
2.	Directional Coverage Range	Not less than 1000m : To be mentioned
3.	Angle of Coverage for Vertical and Horizontal	30-45 Degree or more : To be mentioned
4.	Jammer Technology	To be mentioned
5.	Jammer Power	To be mentioned (per module and total power)
6.	Number of Directional Antenna	All bands are to be Integrated: To be mentioned
7.	Mode of Operation	Individual or All bands selection : To be mentioned
8.	Built in Test	Should be available : To be mentioned
9.	Parameter to be displayed (Not limited to)	a. Display start up : To be mentioned b. Built in test : To be mentioned c. Battery level : To be mentioned d. Temperature : To be mentioned e. Jammer Ops display direction of aiming with build-in digital compass : To be mentioned
10.	Ingress Protection	IP65 or better : To be mentioned
11.	Battery	Changeable & rechargeable Li-IoN battery. Capacity to be mentioned
12.	Standby Battery Time	48 hours or better : To be mentioned
13.	Weight	To be mentioned
14.	Dimensions	To be mentioned
15.	Accessories for each Handheld Jammer	a. 02 Sets of appropriate Rechargeable Battery : To be mentioned b. 01 x ruggedized transport case with appropriate carrying bag : To be mentioned c. 01 x Battery charger/ charger adapter : To be mentioned d. One Radio frequency Spectrum Analyzer : To be mentioned
16.	Test Drone	a. Brand: To be mentioned b. Model: To be mentioned c. Country of origin: Chinese/ Western origin d. Country of Manufacturer: To be mentioned e. Command Centre RF control frequency range : Covers 2.400 to 2.483 GHz and 5.725 to 5.850 GHz f. GNSS operating frequency range: Compatible to GPS, Galileo and BeiDou g. Accessories: Hard case, batteries and others necessary accessories

19. **Original Software & Backup Software.** Bidder shall provide all necessary original software (lifetime license version), Calibration Software along with backup software to BN and step by step procedure for installation. In case of software crash, BN personnel should be able to install the back-up



software to restore the whole system using step by step procedure. Bidder shall provide backup copy of software in CDs/DVDs/portable drive along with instruction and password for installation during delivery.

20. **Standard Accessories.** Standard accessories which are essential to install and operate the Handheld Jammer (whether those are mentioned in the specification or not) also to be supplied. The price of standard accessories is to be included in FOB value. However, item wise price list of such standard accessories is to be provided with the offer for reference or future procurement.

21. **Optional Items.** Price of the following optional items/ accessories is to be quoted separately. Buyer may select the optional items/ accessories as required from the list for procurement:

Ser	Name of Item	Price	Remarks
1.	Appropriate Rechargeable Battery for each Jammer		
2.	Hand Case		
3.	Battery charger/ charger adapter		

22. **Documents.** 01 (One) set of following documents and manuals in English are to be provided with each Jammer at the time of delivery at free of cost:

- a. Operating Manual including configuration, setup and operation (step by step procedure with illustration) and description of all operation modes and menus with explanations.
- b. Technical Manual.
- c. Calibration and Test procedure.
- d. Parts Catalogue including Parts Identification List (PIL) and spare parts list.

23. **Brochures/ Booklet.** 01 (One) set of original Brochures/ Booklets in English having details technical information about the quoted of Jammer is to be provided along with the quotation for evaluation/ assessment.

24. **Condition for Acceptance of Quotation.** The quotation has to be supported with required with documents (booklets, Catalogues, Brochures etc) with details about offered Jammer. If detailed information regarding specifications, manufacturer's manuals and catalogue for the quoted model of the Jammer, spare parts, accessories, scope of supply, etc are not provided the quotation will not be accepted.

25. **Factory Acceptance Test (FAT).** Following FAT is to be carryout in OEM premises for the offered Jammer:

- a. FAT will be carried out by 03 BN members for duration of 04 working days in OEM premises at the buyer's expense. Both way air fare, accommodation and food for the FAT team will be borne by BN. All types of movement/ transportation (air/sea/road) of the team within the manufacturer's country, reception and arrangement for entry into the country/ concerned area for the FAT are to be arranged by the supplier. The item-wise cost in this respect is to be quoted in the offer. The supplier should inform the buyer about the date of FAT (schedule) and FAT criteria at least 08 (Eight) weeks prior to the date of FAT. Moreover, FAT procedure shall be forwarded to the buyer 8 (Eight) weeks prior to the date of commencement of the FAT to the concerned directorate for approval of BN.
- b. On return from the country of manufacturer, the FAT team will submit the report to concerned Directorate at Naval Headquarters. Naval Headquarters will, in turn, forward final decision along with FAT report, basing on which DGDP will render clearance for shipment of stores to the supplier concerned. The supplier will not make shipment of any item of the contract without clearance from DGDP.
- c. The prime objective of FAT will be to check the capability of the system as the technical specification mentioned in the offer. Therefore, the capabilities of the quoted system which will be tested during FAT are to be separately mentioned in the offer. The FAT will be carried out at manufacture's factory premises. In this regard, the FAT protocol is to be submitted for approval by BN well in advance.
- d. During FAT, various tests for checking performance are to be carried out and recorded. Substantially, the RF and GNSS frequency bands targeted by the proposed Jammer must be

individually tested at frequencies that adhere to article 18 (1) during the FAT. After FAT, a joint test report will be prepared and signed by both the seller and buyer's representative.

26. **Local Training.** A group of operators/ technicians (about 10 (Ten) BN personnel) has to be trained locally in Bangladesh for 05 (Five) working days by the Manufacturer/ Supplier's engineer/ representative on completion of installation and Test/ Trial of the offered equipment. The details of training contents/ syllabus are to be provided with the offer. Cost of air fare, accommodation, food and internal transportation (including to and from work site and hotel) of the Manufacturer/ Supplier's engineer/ representative will be borne by Bidder. The cost of local training is to be quoted within the main price and showing separately for future reference.

27. **Training Contents.** The objective of the training should include flowing but not limited to:

- a. BN personnel should have comprehensive knowledge on system overview, operation and its features and limitations.
- b. Maintainer should know which level of maintenance they can do, what kind of tools and skill needs to be used to carry out maintenance works as per OEM recommended maintenance system/schedule.
- c. All BN personal should be completely aware of all hardware/ software including all kinds documentations related to the system.
- d. There should be a standard operating procedure for a small ready response team to address problems.
- e. BN maintainer group will be able to un-install, install, set to work, configure and minimum the whole system including all software used in the system.
- f. BN maintainer group will be able to do alignment, calibration, testing, tuning and software-based system check etc of the offered Jammer.
- g. Lectures and training should focus on the following:
 - (1) System Overview and system configuration.
 - (2) System operation covering all functions.
 - (3) Details about System architecture.
 - (4) Operational flow chart.
 - (5) Hardware and software and their function, troubleshooting, backup software, system restoration (if crashed) etc.
 - (6) Familiarization of manuals, publications and document which are to be provided.
 - (7) Signal/ Power flow diagram.
 - (8) Working principle with step by step procedure.
 - (9) Repair and maintenance.
 - (10) Fault finding and understanding error message.

28. **Test, Trial and Acceptance.** The test shall be carried out using the test drone (Considering RF control and GNSS frequency disruption) which will be supplied as per scope of supply. The bidder shall carry out test and trial of the Jammer at any suitable BN premises as decided by the purchaser. Test and trial of the jammers shall be carried out in presence of OEM and purchaser's representatives. After a satisfactory test and trial acceptance certificate will be signed jointly by the OEM representative and purchaser's representative.

29. **Technical Support.** Technical support is to be provided to solve any maintenance and operational problem arising with the item for a considerable period (To be mentioned). An assurance by the Bidder stating agreement in this respect is to be submitted with the offer.

30. **Delivery.**

a. The supplied items are to be delivered within **09 (Nine)** months after signing the contract to the following consignee:

The Commanding Officer Naval Stores Depot New Mooring, Chattogram, Bangladesh	or	Officer In Charge Naval Stores Sub Depot Dhaka Naval Unit Khilkhet Namapara, Dhaka-1229, Bangladesh
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b. In case of CFR, the supplier will carry the items from Chattogram sea port/ air port as applicable) to NSD Chattogram/ NSSD Dhaka (as applicable) at the cost and risk of supplier.

31. **Port of Shipment.** To be mentioned. Port of Shipment is from country of manufacturer, or country of origin.

32. **Source of Supply.** To be mentioned. Source of Supply is from country of manufacturer, or country of origin.

33. **Source of Raw Material.** To be mentioned (if any).

34. **Guarantee of Supply of Spares.** The supplier is to give guarantee of continued supply of spares for at least 05 (Five) years at a reasonable price.

35. **Warranty.**

a. 12 (Twelve) months manufacturer's warranty for trouble free operation is to be provided for the item from the date of acceptance by the buyer. If any component of the supplied items becomes defective during the warranty period, the warranty shall be extended automatically (for relevant component) for the period of the subject component remains defective.

b. For warranty repair/ replacement, the supplier will collect the defective item from NSD, Chittagong/ NSSD, Dhaka (as applicable) and re-supply the same to collecting place after warranty repair or for replacement within 90 (ninety) days from the date of defect at no cost to the purchaser.

36. **Certificates.** Following certificates and reports are to be provided in English for the offered Jammer during delivery:

- a. Type approval certificates of classification society.
- b. Quality assurance certificates for the Jammer in regard to its manufacturer and performance is to be provided.
- c. Factory Test Certificates.
- d. Certificate of genuine product and brand new item.
- e. Guarantee and warranty certificates.

37 **Validity.** The offer shall remain valid till 30 June 2025.

38. **Price.** Price of the each item of the total offer is to be shown separately (e.g. price of the main equipment, additional accessories, Installation, local training, warranty/ guarantee etc) and then grand total of the foreign currency to be shown on the original offer submitted by the bidder. Moreover, if the item is imported against this tender, price to be quoted without import duties.

39. **Terms of Payment.** Letter of Credit will be opened for full amount of contract price in favor of the supplier for the complete scope of supply with the following terms of payment:

- a. 70% of CFR value will be released after shipment of all items and on submission of necessary documents as per DGDP rules.
- b. 25% of CFR value will be released after successful test and trial jointly carried out by the buyer's representative and supplier's representative and final acceptance of the Jammer by the purchaser.
- c. The remaining 5% of CFR value will be released after successful completion of warranty period.

d. 100% cost of FAT, local training, test/trial and acceptance will be released after satisfactory completion of each service upon submission of job completion certificate from purchaser.

40. **Compliance Statement.** A clear and complete compliance statement of the tender supported by the product catalogue and Brochure with necessary specification and drawing/ diagram is to be submitted for evaluation of the quotation. Incomplete compliance statement will attribute to cancellation of the offer. If any clause of this specification does not commensurate with offered item practically, the deviation has to be spelt out clearly.

